

ABBREVIATIONS		FIRE PROTECTION LEGEND		GENERAL NOTES		FIRE PROTECTION GENERAL NOTES	
(E)	EXISTING ITEM	(F)	FIRE MAN	1.	THE WORK TO BE DONE UNDER THESE SPECIFICATIONS AND THE DRAWINGS CONSISTS OF PROVIDING ALL EQUIPMENT, MATERIALS, LABOR AND SERVICES AND PERFORMING ALL OPERATIONS TO COMPLETE THE CONSTRUCTION WORK FOR THIS PROJECT. ANY WORK NOT SPECIFICALLY COVERED BY THESE SPECIFICATIONS OR INDICATED ON THE CONTRACT DRAWINGS, BUT NECESSARY TO COMPLETE OR PERFECT ANY PART OF THIS INSTALLATION IN A SUBSTANTIAL MANNER, SHALL BE PROVIDED WITHOUT EXTRA COST TO THE OWNER.	1.	THE CONTRACT DRAWINGS ARE PERFORMANCE IN NATURE AND REQUIRE DELEGATED FIRE PROTECTION DESIGN SERVICE AS REQUIRED BY NFPA. ALL PIPING, SPECIALTIES AND ACCESSORIES NOT SHOWN SHALL BE PROVIDED AS REQUIRED FOR A COMPLETE AND FUNCTIONAL, FIRE PROTECTION SYSTEM. CONTRACTOR SHALL SUBMIT SPRINKLER SYSTEM DRAWINGS IDENTIFIED AS "WORKING DRAWINGS" AND PREPARED IN CONFORMANCE WITH NFPA CODES. SUBMIT ENGINEERED HYDRAULIC CALCULATIONS AND PIPING DIAGRAMS, INCLUDING FLOW TEST DATA, IN CONFORMANCE WITH NFPA STANDARDS. INSURANCE UNDERWRITER AND THE LOCAL AUTHORITY HAVING JURISDICTION, WORKING DRAWINGS AND CALCULATIONS SHALL HAVE STAMPED APPROVALS FROM THE FIRE PROTECTION CONTRACTOR'S PROFESSIONAL ENGINEER OR NICET CERTIFIED DESIGNER, THE INSURANCE UNDERWRITER AND THE LOCAL AUTHORITY HAVING JURISDICTION PRIOR TO SUBMISSION TO THE ARCHITECT OR ENGINEER.
(ER)	EXISTING ITEM TO BE DEMOLISHED	(DR)	EXISTING FIRE MAN	2.	THE WORK SHALL CONFORM TO THE MORE STRINGENT OF ALL APPLICABLE CODES & REGULATIONS, UL (AND FM) GUIDELINES, (LEED REQUIREMENTS), MANUFACTURER'S LITERATURE AND RECOMMENDATIONS, (BUILDING OPERATORS' REQUIREMENTS), AND TO THE REQUIREMENTS OF FEDERAL, STATE AND LOCAL REGULATORY AGENCIES AND AUTHORITIES HAVING JURISDICTION.	2.	SEE ALL DRAWINGS AND SPECIFICATIONS FOR STANDPIPE AND SPRINKLER SYSTEM HYDRAULIC DESIGN CRITERIA. HYDRAULIC CALCULATION NODE POINTS FOR THE MOST DEMANDING SPRINKLER PROTECTION AREAS) AND FIRE DEPARTMENT HOSE VALVE CONNECTIONS ARE INDICATED ON THE PLANS FOR SYSTEM DESIGN INFORMATION ONLY. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE HYDRAULIC CALCULATIONS FOR EACH TYPE OF OCCUPANCY FOR EACH SPRINKLER ZONE AND SHALL PROVIDE HYDRAULIC CALCULATIONS FOR THE MOST REMOTE OR HYDRAULICALLY DEMANDING FIRE DEPARTMENT HOSE CONNECTION BASED ON THE MAXIMUM SYSTEM DEMAND AS REQUIRED PER APPLICABLE NFPA STANDARDS. WORKING DRAWINGS AND HYDRAULIC CALCULATIONS SHALL BE SUBMITTED AND APPROVED BY ALL PARTIES OUTLINED HEREIN PRIOR TO PROCUREMENT OF FIRE PROTECTION EQUIPMENT, FABRICATION AND INSTALLATION OF ANY FIRE PROTECTION SYSTEM.
(N)	NEW ITEM	(DR)	DRAIN PIPING	3.	THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INDICATE THE EXTENT, GENERAL CHARACTER, LOCATION AND ARRANGEMENT OF THE WORK UNDER THIS CONTRACT. EXACT LOCATIONS OF ALL COMPONENTS ARE TO BE DETERMINED IN THE FIELD AND BY THE ACTUAL BUILDING CONDITIONS. WHEN JOB CONDITIONS REQUIRE MINOR CHANGES OR ADJUSTMENTS IN THE INDICATED LOCATIONS OR ARRANGEMENT OF THE WORK, SUCH CHANGES SHALL BE PROVIDED WITHOUT EXTRA COST. THE CONTRACTOR SHALL RE-INSTALL EQUIPMENT THAT HAS INADEQUATE OR INSUFF ACCESSIBILITY.	3.	CONTRACTOR SHALL PROVIDE FIRE WATER SERVICE RESTRAINTS AND THRUST BLOCKS AS REQUIRED.
(RL)	EXISTING ITEM TO BE RELOCATED	(SP)	SPRINKLER PIPING	4.	INSTALLATION OF WORK SHALL PROVIDE REASONABLE ACCESSIBILITY FOR OPERATION, INSPECTION AND MAINTENANCE OF EQUIPMENT AND ACCESSORIES. PROVIDE CLEARANCES REQUIRED BY MANUFACTURERS AND APPLICABLE CODES. ALL CEILING MOUNTED EQUIPMENT SHALL BE INSTALLED IN SUCH A MANNER THAT LIGHTS, PIPING, AND DUCTWORK DO NOT BLOCK ACCESS TO EQUIPMENT AND RELATED ACCESSORIES.	4.	STANDPIPE SYSTEMS SHALL BE DESIGNED AND INSTALLED IN STRICT ACCORDANCE WITH NFPA-14. ALL APPLICABLE CODES AND THE AUTHORITY HAVING JURISDICTION, FIRE DEPARTMENT HOSE CONNECTION PATTERNS SHALL MEET THE REQUIREMENTS OF THE LOCAL FIRE MARSHALL AND THE AUTHORITY HAVING JURISDICTION.
A	COMPRESSED AIR	(E) SP	EXISTING SPRINKLER PIPING	5.	THE TERM "FURNISH" SHALL MEAN TO OBTAIN AND SUPPLY TO THE JOB SITE. THE TERM "INSTALL" SHALL MEAN TO FIX IN POSITION AND CONNECT FOR USE. THE TERM "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL. THE TERM "MECHANICAL WORK", "ELECTRICAL WORK", "PLUMBING WORK", ETC., SHALL MEAN ALL LABOR, MATERIAL, EQUIPMENT, SCAFFOLDING, RIGGING, TOOLS, SUPERVISION, SERVICES AND OTHER INCIDENTALS NECESSARY FOR COMPLETE AND OPERABLE INSTALLATION.	5.	ALL DEDICATED WATER SUPPLY WORK ON SITE, INSIDE OF THE PROPERTY LINE, INCLUDING CONNECTION TO THE UTILITY IF APPLICABLE, SERVING THE FIRE PROTECTION SYSTEM (PIPE, FITTINGS, HYDRANTS, ETC.) SHALL BE INSTALLED UNDER THIS CONTRACT.
AF	ABOVE FINISHED FLOOR	(E) PA	EXISTING PREACTION SPRINKLER PIPING	6.	THE CM/DC SHALL MAKE SETS OF THE BID DOCUMENTS CONSISTING OF COMPLETE SETS OF DRAWINGS AND SPECIFICATIONS, AND ISSUE THEM TO EACH OF THE PRIME AND SUB CONTRACTORS. EVERY PRIME AND SUB CONTRACTOR ON EACH BIDDING TEAM SHALL RECEIVE COMPLETE SETS OF DRAWINGS AND SPECIFICATIONS. THESE ARE NOTES AND CROSS REFERENCES FOR VARIOUS TRADE CONTRACTORS IN MULTIPLE TRADE OR DISCIPLINE DRAWINGS AND SPECIFICATIONS. THIS, EACH CONTRACTOR IS TO RECEIVE COMPLETE SETS OF THE BID DOCUMENTS. IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN THESE DRAWINGS FROM CM/DC. EACH CONTRACTOR IS RESPONSIBLE FOR THEIR WORK, AS NOTED ON THE OTHER DISCIPLINE DOCUMENTS. BIDDERS ARE RESPONSIBLE FOR ALL COSTS FOR EACH SET OF BID DOCUMENTS REQUESTED.	6.	ALL EXPOSED PIPING AND PIPING ABOVE THE CEILINGS SHALL BE INSTALLED AS CLOSE AS PRACTICAL TO THE UNDERSIDE OF STRUCTURAL MEMBERS OR TO WITHIN ONE FOOT OF THE FLOOR / ROOF DECK ABOVE WHEREVER POSSIBLE.
AFG	ABOVE FINISHED GRADE	(D)	EXISTING DRY SPRINKLER PIPING	7.	CONTRACTOR IS RESPONSIBLE FOR PROVIDING A FULL COORDINATION EFFORT IN ORDER TO CREATE A FINALIZED COORDINATED LAYOUT OF ALL EQUIPMENT, SYSTEMS, DUCTWORK, PIPING AND ALL OTHER ITEMS WITHIN THEIR RESPECTIVE SCOPE. THE CONTRACTORS COORDINATION EFFORT SHALL INCLUDE COORDINATED INFORMATION FROM ALL OTHER TRADE CONTRACTORS INVOLVED IN THE PROJECT SCOPE IN ORDER TO PROVIDE COORDINATION BETWEEN TRADES AND ALL EXISTING CONDITIONS. ALL ERRORS MADE AS A RESULT OF A LACK OF COORDINATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND CORRECTED AT NO ADDITIONAL COST TO THE PROJECT. MINOR RELOCATIONS AND SHIFTS OF EQUIPMENT, DUCTWORK, AND PIPING WHICH DO NOT CHANGE THE DESIGN INTENT INDICATED ON THE CONTRACT DOCUMENTS, REQUIRED TO ACCOMMODATE FIELD CONDITIONS ARE AT THE CONTRACTORS DISCRETION AND DO NOT REQUIRE ENGINEER APPROVAL.	7.	PROVIDE 2" DRAIN FROM EACH SPRINKLER ZONE CONTROL VALVE ASSEMBLY AND EXTEND TO 2" OR 3" DRAIN RISER, AS APPLICABLE, DISCHARGING TO EXTERIOR GRADE. AN APPROVED DRAINAGE SPECIALTY SIZED TO ACCOMMODATE THE ANTICIPATED DEMAND (AS SHOWN ON THE DRAWINGS).
AP	ABOVE PIPE	(D)	EXISTING DRY SPRINKLER PIPING	8.	CONTRACTOR SHALL ARRANGE AND OBTAIN ALL PERMITS, INSPECTIONS AND APPROVALS, AND PAY ALL RELATED FEES.	8.	FINAL LOCATION OF EXTERIOR FIRE DEPARTMENT CONNECTIONS SHALL BE APPROVED BY THE LOCAL FIRE MARSHALL PRIOR TO INSTALLATION.
BL	BELOW RAISED FLOOR	(D)	EXISTING DRY SPRINKLER PIPING	9.	THE DRAWINGS INDICATE APPROXIMATE LOCATIONS BASED UPON INFORMATION OBTAINED WITHOUT REMOVING CEILING TILES OR WALLS. THEREFORE, THE CONTRACTOR SHALL INCLUDE IN THEIR BID CONTINGENCY COSTS TO ADDRESS CONFLICTS BETWEEN CONDITIONS AND EXISTING CONDITIONS. ANY CHANGES AND/OR MODIFICATIONS MUST BE REVIEWED AND APPROVED BY THE ENGINEER AND/OR OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.	9.	PROVIDE ALL NEW SPRINKLER SYSTEM COMPONENTS, REFURBISHING, TESTING, CERTIFICATION, AND ANY OTHER WORK REQUIRED TO ENSURE A COMPLETELY APPROVED AND OPERATIONAL SYSTEM. CONTRACTOR SHALL EXTEND FROM EXISTING PIPING OF ADEQUATE SIZE OR MAKE NEW PIPING CUT-INS AS REQUIRED TO SUIT NEW SPRINKLER LOCATIONS.
BPF	BACKFLOW PREVENTER	(D)	EXISTING DRY SPRINKLER PIPING	10.	FOR ANY DISCREPANCY BETWEEN DRAWINGS AND/OR SPECIFICATIONS, THE CONTRACTOR SHALL BASE THEIR BID UPON THE MOST STRINGENT REQUIREMENT (QUALITY, QUANTITY, SIZE, ETC.). THE CONTRACTOR SHALL IDENTIFY DISCREPANCIES AS PART OF THEIR BID.	10.	FIELD COORDINATE ALL FIRE PROTECTION PIPING AND EQUIPMENT LOCATIONS AND/OR MODIFICATIONS WITH THE GENERAL, ELECTRICAL, AND MECHANICAL CONTRACTORS PRIOR TO COMMENCEMENT OF WORK TO ELIMINATE FIELD CONFLICTS. FINAL SPRINKLER LOCATIONS SHALL BE COORDINATED WITH LIGHTS, TEXTURES, DUCTWORK, DIFFUSERS, PIPING, EQUIPMENT, ETC.
BLDG	BUILDING	(D)	EXISTING DRY SPRINKLER PIPING	11.	PRIOR TO DEMOLITION, THE CONTRACTOR SHALL LOG ALL EXISTING EQUIPMENT AND TRACE ELECTRICAL, FIRE ALARM, AND CONTROL CIRCUITS THAT SERVE SUCH EQUIPMENT.	11.	THE FIRE PROTECTION CONTRACTOR SHALL CONFIRM LIGHTING TO BE INSTALLED FOR COORDINATION OF LOCATIONS, SIZE, AND MOUNTING HEIGHTS. THE CONTRACTOR SHALL COORDINATE FINAL SPRINKLER HEAD LOCATIONS PER NFPA 13 OBSTRUCTION REQUIREMENTS AND COORDINATE WITH THE ELECTRICAL CONTRACTOR TO ENSURE ALL AREAS ARE COVERED IN ACCORDANCE WITH NFPA STANDARDS.
BOP	BOTTOM OF PIPE	(D)	EXISTING DRY SPRINKLER PIPING	12.	ALL SERVICES TO EXISTING BUILDINGS SHALL BE MAINTAINED DURING CONSTRUCTION UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL COORDINATE ALL SYSTEM SHUT DOWNS AND TINGING WITH OWNER.	12.	COORDINATE ALL LOCATIONS AND MOUNTING HEIGHTS OF FIRE PROTECTION DEVICES AND APPURTENANCES WITH THE LOCAL AUTHORITY HAVING JURISDICTION, APPLICABLE ADA REQUIREMENTS AND ALL TRADE CONTRACTORS.
CA	CLEAN AGENT	(D)	EXISTING DRY SPRINKLER PIPING	13.	THE CONTRACTOR SHALL EFFECTIVELY PROTECT ALL MATERIALS AND EQUIPMENT FROM ENVIRONMENTAL AND PHYSICAL DAMAGE UNTIL FINAL ACCEPTANCE. CLOSE AND PROTECT ALL OPENINGS DURING CONSTRUCTION. PROVIDE NEW MATERIALS AND EQUIPMENT TO REPLACE ITEMS DAMAGED.	13.	HYDRAULIC CALCULATIONS SHALL DICTATE THE ADEQUATE SIZES OF PIPING. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EXISTING PIPING (BRANCHES, MAINS, ETC.) WITH NEW PIPING OF LARGER DIAMETER, IF NECESSARY, TO BRING THE SYSTEM TO FULL COMPLIANCE WITH THE HYDRAULIC CALCULATIONS.
CBV	CURB BOX & VALVE	(D)	EXISTING DRY SPRINKLER PIPING	14.	EXISTING EQUIPMENT THAT INTERFERES WITH NEW ARRANGEMENTS SHALL BE REMOVED, REINSTALLED, RELOCATED, REROUTED, EXTENDED OR ABANDONED AS REQUIRED TO SUIT THE NEW ARRANGEMENT.	14.	AS APPLICABLE, FIRE PROTECTION SPRINKLER AND OR STANDPIPE SYSTEM HYDRAULIC CALCULATIONS SHALL BE SUBMITTED AND APPROVED BY THE OWNER'S UNDERWRITER, AUTHORITIES HAVING JURISDICTION AND THE ENGINEER PRIOR TO REVIEW AND APPROVAL OF A FIRE PUMP SHOP DRAWING SUBMISSION.
CP	CAST IRON PIPE	(D)	EXISTING DRY SPRINKLER PIPING	15.	WHERE BEAMS ARE INDICATED TO BE PENETRATED WITH DUCTWORK AND/OR PIPING, CAREFULLY COORDINATE SIZES AND LOCATIONS OF THE ELEMENTS BEFORE FABRICATION. COORDINATE WITH FINAL LOCATION OF BEAM PENETRATIONS AND SHEAR WALL PENETRATIONS.	15.	CONTRACTOR SHALL COORDINATE THE EXISTING SPRINKLER SYSTEM SHUTDOWN WITH BUILDING MANAGEMENT/OWNER PRIOR TO COMMENCEMENT OF WORK. WORK SHALL BE DONE AT SUCH A TIME, AND IN SUCH A MANNER, AS WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF THE BUILDING ACTIVITIES. WORK SHALL NOT INTERFERE WITH THE QUIET ENJOYMENT OF THE BUILDINGS BY OTHER TENANTS WHERE FIRE PROTECTION SYSTEM SHUTDOWN PERIODS CANNOT BE OF DURATION TO ACCOMMODATE THE NEW WORK DURING THE DAY TIME. THE CONTRACTOR SHALL PROVIDE FIRE WATCH IF EXISTING FIRE PROTECTION SYSTEM WILL BE SHUT DOWN OVER NIGHT. COORDINATE FIRE WATCH, IF REQUIRED, WITH BUILDING OWNER.
CLO	CEILING	(D)	EXISTING DRY SPRINKLER PIPING	16.	CONTRACTOR SHALL COORDINATE LOCATION OF ALL WALL, FLOOR AND ROOF OPENINGS WITH STRUCTURAL AND OTHER TRADES.	16.	CONTRACTOR SHALL VERIFY CONCEALED SPACES ARE PROTECTED IN ACCORDANCE WITH N.F.P.A. 13 AND ANY LOCAL CODE REQUIREMENTS.
CONN	CONNECT	(D)	EXISTING DRY SPRINKLER PIPING	17.	PROVIDE CUTTING AND PATCHING AS REQUIRED AND WHERE NECESSARY TO ACCOMMODATE NEW WORK AND THE REPAIR OF EXISTING WORK.	17.	ADDITIONAL SPRINKLER HEADS SHALL BE PROVIDED UNDER ALL DUCTS AND ALL OTHER OBSTRUCTIONS THAT ARE 4" IF AND GREATER IN WIDTH IN ACCORDANCE WITH NFPA 13. COORDINATE FINAL SPRINKLER HEAD LOCATIONS AND REQUIREMENTS WITH THE MECHANICAL, AND ARCHITECTURAL DRAWINGS.
CONT	CONTINUATION	(D)	EXISTING DRY SPRINKLER PIPING	18.	WHEN WORK INVOLVES CONTACT WITH MATERIALS CONTAINING ASBESTOS, PCB, OR OTHER TOXIC MATERIALS, NOTIFY OWNER, WHO WILL ESTABLISH PROCEDURES FOR REMEDIATION AND REMOVAL.	18.	ADDITIONAL SPRINKLER HEADS SHALL BE PROVIDED AT THE LOWEST LANDING AND TOP OF ALL STARTTOWERS IN ACCORDANCE WITH NFPA 13.
D	DETECTION DEVICE (SHOWN IN SYMBOL)	(D)	EXISTING DRY SPRINKLER PIPING	19.	CONTRACTOR SHALL SCHEDULE THE WORK UNDER THIS CONTRACT WITH WORK OF OTHER TRADES AS NOT TO DELAY THE OVERALL PROGRESS OF THE PROJECT.	19.	SPRINKLER SHALL BE LOCATED IN THE CENTER OF CEILING TILES UNLESS SPECIFICALLY NOTED OTHERWISE.
DP	DUCTILE IRON PIPE	(D)	EXISTING DRY SPRINKLER PIPING	20.	CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS PRIOR TO PURCHASING EQUIPMENT AND PRIOR TO CUTTING OPENINGS.	20.	ALL PIPING PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE PROTECTED WITH UL LISTED FIREPROOFING SYSTEM TO MATCH THE RATING OF THE WALL OR FLOOR.
DN	DOWN	(D)	EXISTING DRY SPRINKLER PIPING	21.	CONTRACTOR SHALL PROVIDE SHOP DRAWINGS PER SPECIFICATIONS PRIOR TO PURCHASING OR INSTALLING EQUIPMENT AND SYSTEMS INDICATED ON CONTRACT DOCUMENTS. PRIOR TO SUBMITTAL, CONTRACTOR SHALL VERIFY THAT ADEQUATE SPACE EXISTS FOR THE SUBMITTED EQUIPMENT. SHOP DRAWINGS MUST BE REVIEWED BY ARCHITECT/ENGINEER.	21.	PROVIDE NEC REQUIRED PIPE CLEARANCE ABOVE OR AROUND ANY ELECTRICAL EQUIPMENT, PANELS, ETC.
DR	DRY PIPE	(D)	EXISTING DRY SPRINKLER PIPING	22.	CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED BY OTHER TRADES DUE TO SUBSTITUTION OF OTHER THAN SCHEDULED EQUIPMENT. WHEN EQUIPMENT FURNISHED IS DIFFERENT THAN INDICATED, THE COST OF ADDITIONAL ELECTRICAL, SERVICE, STRUCTURAL AND RELATED WORK SHALL BE PAID BY THIS CONTRACTOR.	22.	PROVIDE PROTECTIVE SPRINKLER GUARDS ON SPRINKLER HEADS LOCATED BELOW 7'-0" A.F.F. IN MECHANICAL ROOMS, STORAGE ROOMS, PUMP ROOMS, SERVICE AREAS, GYMNASIUMS REGARDLESS OF SPRINKLER HEAD ELEVATION AND WHERE OTHERWISE SUSCEPTIBLE TO DAMAGE.
DSP	DRY STANDPIPE	(D)	EXISTING DRY SPRINKLER PIPING	23.	ALL WORK SHALL BE EXECUTED IN A NEAT AND WORKMANLIKE MANNER AND SHALL BE DONE IN ACCORDANCE WITH GOOD TRADE PRACTICE AND IN CONFORMANCE WITH APPLICABLE MANUFACTURERS' RECOMMENDATIONS.	23.	SPRINKLER PIPING, IN BAR JOIST CONSTRUCTION, SHALL BE SUPPORTED FROM PANEL POINTS OF BAR JOIST. THRUST SUPPORTS SHALL BE ATTACHED TO TOP CHORD ONLY, UNLESS SUFFICIENT CROSS BRACING IS PROVIDED.
DWG	DRAWING	(D)	EXISTING DRY SPRINKLER PIPING	24.	CONTRACTOR SHALL REMOVE ALL TRASH, DEBRIS AND DEMOLITION MATERIAL FROM PREMISES AT THE END OF EACH DAY.	24.	FOR ADDITION OR RELOCATION OF SPRINKLER HEADS IN NEW AND EXISTING CONSTRUCTION, ALL SPRINKLER HEAD RESPONSE CHARACTERISTICS SHALL MATCH EXISTING SPRINKLER HEADS WITHIN THE SCOPE OF WORK INCLUDING SURROUNDING SPACES OUTSIDE OF THE SCOPE OF WORK AS REQUIRED PER NFPA STANDARDS.
EA	EACH	(D)	EXISTING DRY SPRINKLER PIPING	25.	RESTORE ALL SURFACES (WALLS, CEILINGS, FLOORS AND ROOFS) THAT ARE DAMAGED BY THE WORK OF THIS CONTRACT TO THEIR ORIGINAL CONDITION AT NO EXTRA COST TO THE OWNER.		
EC	ELECTRICAL CONTRACTOR	(D)	EXISTING DRY SPRINKLER PIPING	26.	PRIOR TO EQUIPMENT STARTUP, CONTRACTOR SHALL PERFORM THE SPECIFIED STARTUP AND COMMISSIONING PROCEDURES.		
EL	ELEVATION	(D)	EXISTING DRY SPRINKLER PIPING	27.	IN THE ABSENCE OF OTHER SPECIFIC INSTRUCTIONS, ALL WORK AND MATERIALS SUPPLIED SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF THEIR ACCEPTANCE BY THE OWNER.		
EQIP	EQUIPMENT	(D)	EXISTING DRY SPRINKLER PIPING	28.	BALA CONSULTING ENGINEERS, INC. (BALA) WILL PROVIDE CONTRACTOR WITH ELECTRONIC CAD FILES OF THE ENGINEERING DESIGNS FOR THE SOLE USE IN EXISTING SHOP DRAWINGS. BALA'S FILES SHALL NOT BE DIRECTLY COPIED AND ISSUED AS SHOP DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD COORDINATION, DIMENSIONING AND ADHERENCE TO THE SHOP DRAWING REQUIREMENTS AS NOTED IN THE SPECIFICATIONS. SHOULD THE SHOP DRAWINGS SUBMITTED PROVE TO BE A DIRECT COPY OF OUR FILES WITHOUT THE NECESSARY FIELD COORDINATION, DIMENSIONING AND ADHERENCE TO THE SHOP DRAWING REQUIREMENTS AS NOTED IN THE SPECIFICATIONS, THESE SHOP DRAWINGS WILL BE RETAINED AS REJECTED. BALA'S ELECTRONIC FILES ARE SAVED IN VERSIONS (REVIT, AUTOCAD) (2016, 2017, 2018) AND ARE COMPATIBLE WITH ALL VERSIONS AFTER THAT. BALA MAKES NO REPRESENTATION AS TO THE COMPATIBILITY OF THESE FILES WITH THE CONTRACTOR'S HARDWARE OR THEIR SOFTWARE. DATA CONTAINED ON THESE ELECTRONIC FILES ARE PART OF BALA'S "INSTRUMENTS OF SERVICE" AND ARE COPYRIGHTED. CONTRACTORS USE OF FILES IS FOR THE SOLE PURPOSE AS A CONVENIENCE IN THE PREPARATION OF DRAWINGS FOR THE REFERENCED PROJECT. ANY OTHER USE OR REUSE BY CONTRACTOR IS UNLAWFUL.		
FCV	FLOOR CONTROL VALVE	(D)	EXISTING DRY SPRINKLER PIPING				
FD	FLOOR DRAIN	(D)	EXISTING DRY SPRINKLER PIPING				
FDC	FIRE DEPARTMENT CONNECTION	(D)	EXISTING DRY SPRINKLER PIPING				
FH	FIRE HYDRANT	(D)	EXISTING DRY SPRINKLER PIPING				
FHC	FIRE HOSE CABINET	(D)	EXISTING DRY SPRINKLER PIPING				
FHR	FIRE HOSE RACK	(D)	EXISTING DRY SPRINKLER PIPING				
FHV	FIRE HOSE VALVE	(D)	EXISTING DRY SPRINKLER PIPING				
FPC	FIRE PROTECTION CONTRACTOR	(D)	EXISTING DRY SPRINKLER PIPING				
FPTH	FIRE PUMP TEST HEADER	(D)	EXISTING DRY SPRINKLER PIPING				
FS	FLOW SWITCH	(D)	EXISTING DRY SPRINKLER PIPING				
FT	FOOT FEET	(D)	EXISTING DRY SPRINKLER PIPING				
GC	GENERAL CONTRACTOR	(D)	EXISTING DRY SPRINKLER PIPING				
GP	GALVANIZED PIPE	(D)	EXISTING DRY SPRINKLER PIPING				
GPD	GALLONS PER DAY	(D)	EXISTING DRY SPRINKLER PIPING				
GPH	GALLONS PER HOUR	(D)	EXISTING DRY SPRINKLER PIPING				
GPM	GALLONS PER MINUTE	(D)	EXISTING DRY SPRINKLER PIPING				
H	HALON	(D)	EXISTING DRY SPRINKLER PIPING				
LE	INVERT ELEVATION	(D)	EXISTING DRY SPRINKLER PIPING				
LZ	LOW ZONE	(D)	EXISTING DRY SPRINKLER PIPING				
NC	NORMALLY CLOSED	(D)	EXISTING DRY SPRINKLER PIPING				
NO	NOT IN CONTRACT	(D)	EXISTING DRY SPRINKLER PIPING				
NO	NORMALLY OPEN	(D)	EXISTING DRY SPRINKLER PIPING				
NTS	NOT TO SCALE	(D)	EXISTING DRY SPRINKLER PIPING				
PA	PREACTION	(D)	EXISTING DRY SPRINKLER PIPING				
PC	PLUMBING CONTRACTOR	(D)	EXISTING DRY SPRINKLER PIPING				
PG	PRESSURE GAUGE	(D)	EXISTING DRY SPRINKLER PIPING				
PIV	POST INDICATOR VALVE	(D)	EXISTING DRY SPRINKLER PIPING				
PRESS	PRESSURE	(D)	EXISTING DRY SPRINKLER PIPING				
PS	PRESSURE SWITCH	(D)	EXISTING DRY SPRINKLER PIPING				
PSI	POUNDS PER SQUARE INCH	(D)	EXISTING DRY SPRINKLER PIPING				
PSG	POUNDS PER SQUARE INCH GAUGE	(D)	EXISTING DRY SPRINKLER PIPING				
SF	SQUARE FOOT	(D)	EXISTING DRY SPRINKLER PIPING				
SP	SPRINKLER PIPING	(D)	EXISTING DRY SPRINKLER PIPING				
SPR	SPRINKLER	(D)	EXISTING DRY SPRINKLER PIPING				
STDP	STAND PIPE	(D)	EXISTING DRY SPRINKLER PIPING				
TB	THRUST BLOCK	(D)	EXISTING DRY SPRINKLER PIPING				
TDH	TOTAL DYNAMIC HEAD	(D)	EXISTING DRY SPRINKLER PIPING				
TOP	TOP OF PIPE	(D)	EXISTING DRY SPRINKLER PIPING				
TYP	TYPICAL	(D)	EXISTING DRY SPRINKLER PIPING				
VF	VERIFY IN FIELD	(D)	EXISTING DRY SPRINKLER PIPING				
W	WITH	(D)	EXISTING DRY SPRINKLER PIPING				
WO	WITHOUT	(D)	EXISTING DRY SPRINKLER PIPING				
WSP	WET STAND PIPE	(D)	EXISTING DRY SPRINKLER PIPING				

PIPE LOCATION NOTES	
1	CONCEALED IN CEILING SPACE ABOVE
2	EXPOSED IN STRUCTURE ABOVE
3	CONCEALED IN CEILING SPACE, BELOW FLOOR
4	EXPOSED ON STRUCTURE, FLOOR BELOW
5	BELOW GRADE
6	RACK ON WALL, BELOW COUNTER TOP
7	ABOVE FLOOR
8	RUN THROUGH OR BETWEEN BAR JOIST
9	CONCEALED BELOW RAISED FLOOR

DRA

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MSBA
SCHEMATIC
DESIGN
SUBMITTAL

JUNE 17, 2021

A

B

C

D

Scale: 1/2" = 1'-0"

Job No.: 6520409

Drawn By: DRA

Date: JUNE 17, 2021

FIRE
PROTECTION
COVER SHEET

FP0-0-1

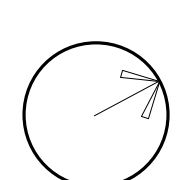
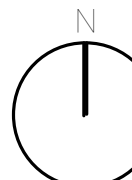
DRAWING LIST - FIRE PROTECTION_BOS

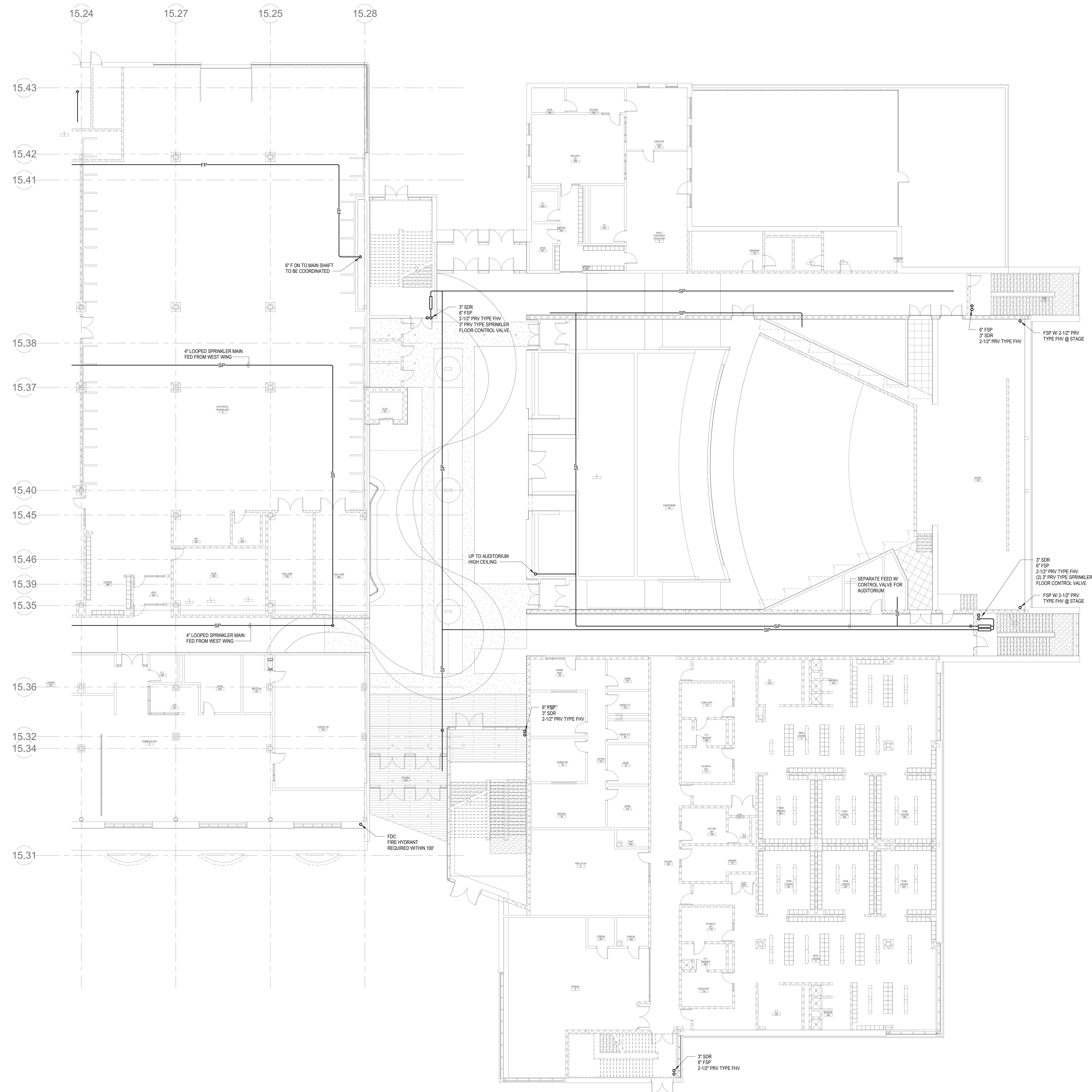
DRAWING NUMBER	DRAWING TITLE	SHEET NUMBER	
		INDEX	TOTAL
FP0-0-1	FIRE PROTECTION COVER SHEET		
FP1-1-0E	FIRE PROTECTION LOWER LEVEL FLOOR PLAN - PLAN EAST		
FP1-1-1E	FIRE PROTECTION FIRST FLOOR PLAN - PLAN EAST		
FP1-1-1W	FIRE PROTECTION FIRST FLOOR PLAN - PLAN WEST		
FP1-1-0E	FIRE PROTECTION SECOND FLOOR PLAN - PLAN EAST		
FP1-1-2W	FIRE PROTECTION SECOND FLOOR PLAN - PLAN WEST		
FP1-1-3E	FIRE PROTECTION THIRD FLOOR PLAN - PLAN EAST		
FP1-1-3W	FIRE PROTECTION THIRD FLOOR PLAN - PLAN WEST		
FP1-1-4E	FIRE PROTECTION FOURTH FLOOR PLAN - PLAN EAST		
FP1-1-4W	FIRE PROTECTION FOURTH FLOOR PLAN - PLAN WEST		
FP1-2-1E	FIRE PROTECTION ROOF PLAN - PLAN EAST		
FP1-2-1W	FIRE PROTECTION ROOF PLAN - PLAN WEST		

KEY PLAN

PROJECT NORTH

MAGNETIC NORTH





2
FP1-1E
FIRE PROTECTION LEVEL 1 EAST
3/32" = 1'-0"



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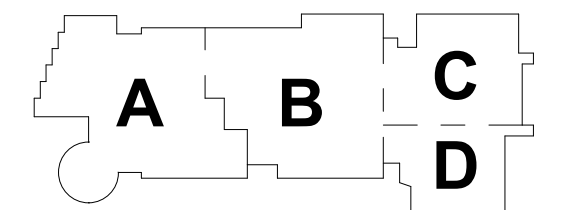
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METRO TECH**

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Wakefield, MA 01880



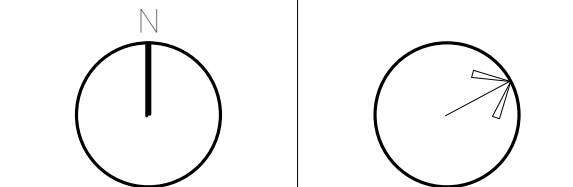
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KEY PLAN

PROJECT NORTH
MAGNETIC NORTH



**FIRE
PROTECTION
FIRST FLOOR
PLAN - PLAN
EAST**

Scale: 3/32" = 1'-0"

Job No.: 6020409

Drawn By: DRA

Date: JUNE 17, 2021

FP1-1-E

FIRE PROTECTION DRAWING NOTES

1. FIRE PUMP WILL NEED TO TAKE SUCTION FROM EXTERIOR UNDERGROUND WATER TANK IF IT IS DETERMINED THAT TOWN WATER SUPPLY CANNOT ADEQUATELY FEED THE PUMP SUCTION. UNDER THIS SCENARIO THE PUMP WILL NEED TO BE LOCATED IN AN EXTERIOR BUILDING STRUCTURE WITH TANK.

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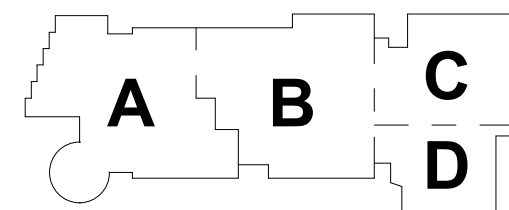
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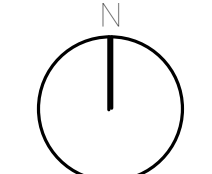
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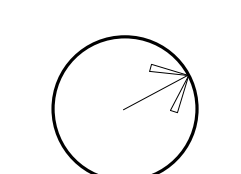


KEY PLAN

PROJECT NORTH



MAGNETIC NORTH



FIRE
PROTECTION
FIRST FLOOR
PLAN - PLAN
WEST

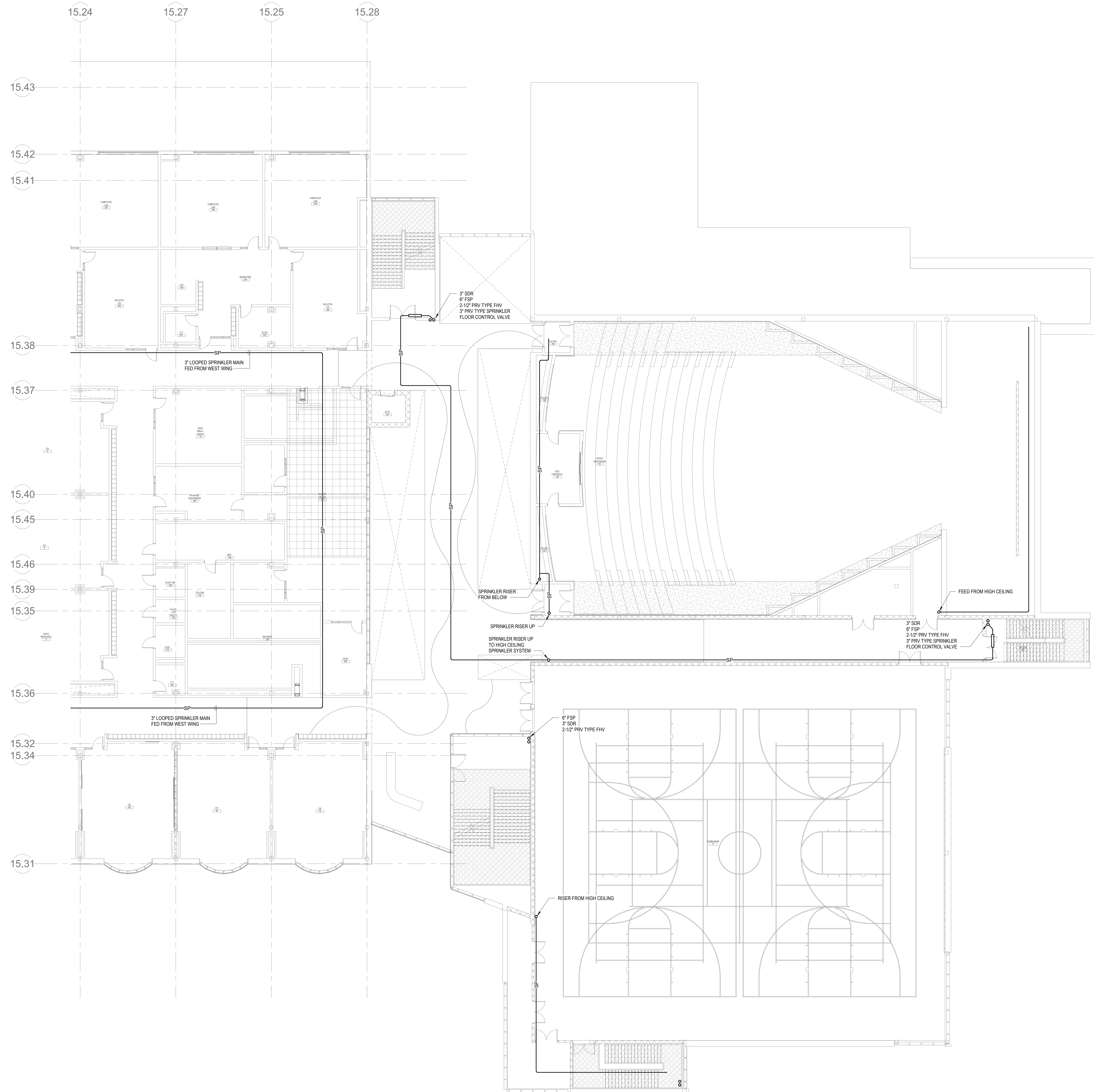
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FP1-1-W

FIRE PROTECTION LEVEL 1 WEST

3/2" = 1'-0"

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FIRE PROTECTION LEVEL 2 EAST
FP1-1-2E 3/2" = 1'-0"

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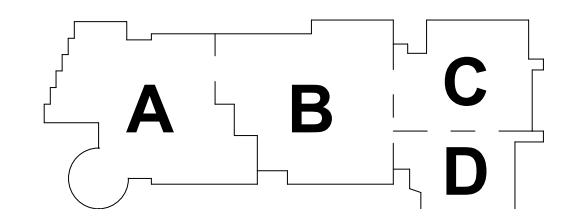
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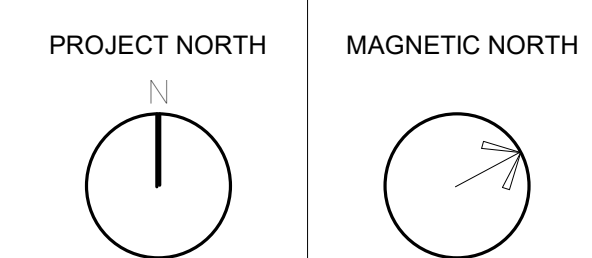
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KEY PLAN



**FIRE
PROTECTION
SECOND FLOOR
PLAN - PLAN
EAST**

Scale: 3/32" = 1'-0"
Job No.: 6520409
Drawn By: DRA
Date: JUNE 17, 2021

FP1-1-2E

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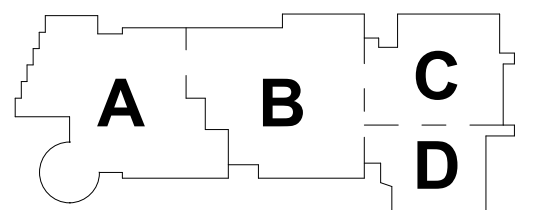
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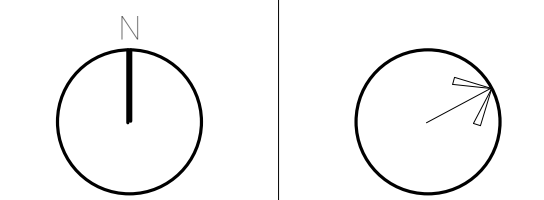
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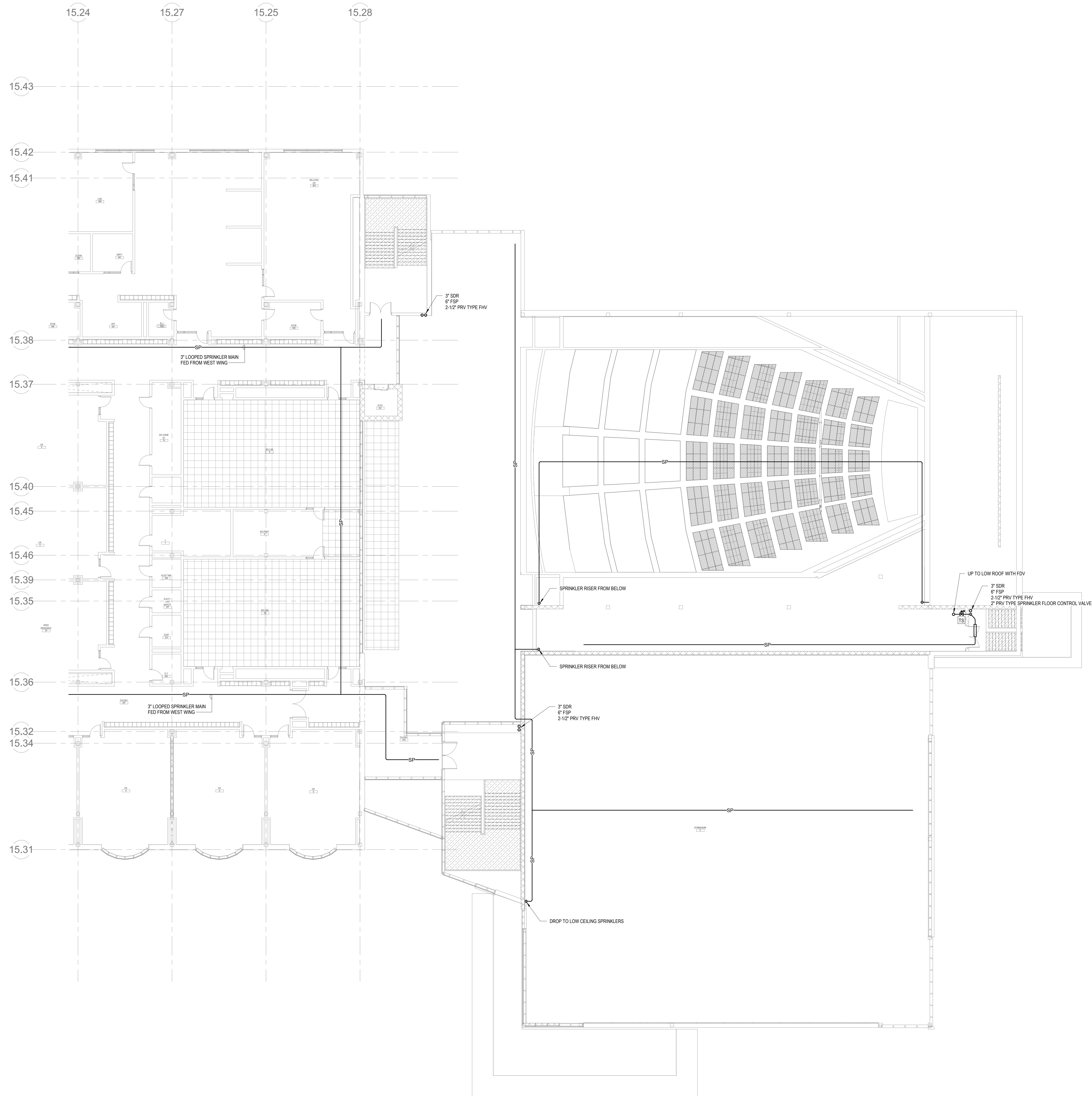
PROJECT NORTH
MAGNETIC NORTH



FIRE
PROTECTION
SECOND FLOOR
PLAN - PLAN
WEST

Scale: 3/32" = 1'-0"
Job No.: 6020409
Drawn By: DRA
Date: JUNE 17, 2021
FP1-1-2W

2 FIRE PROTECTION LEVEL 2 WEST
15-1-2W 3/32" = 1'-0"



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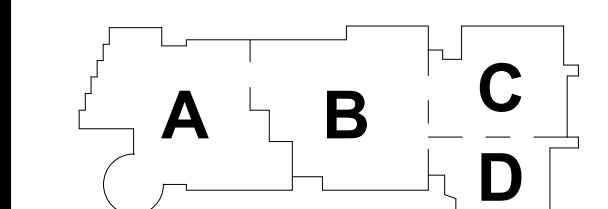
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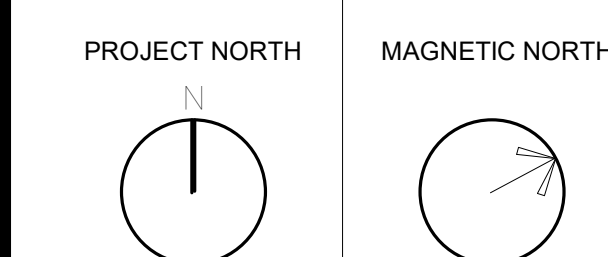
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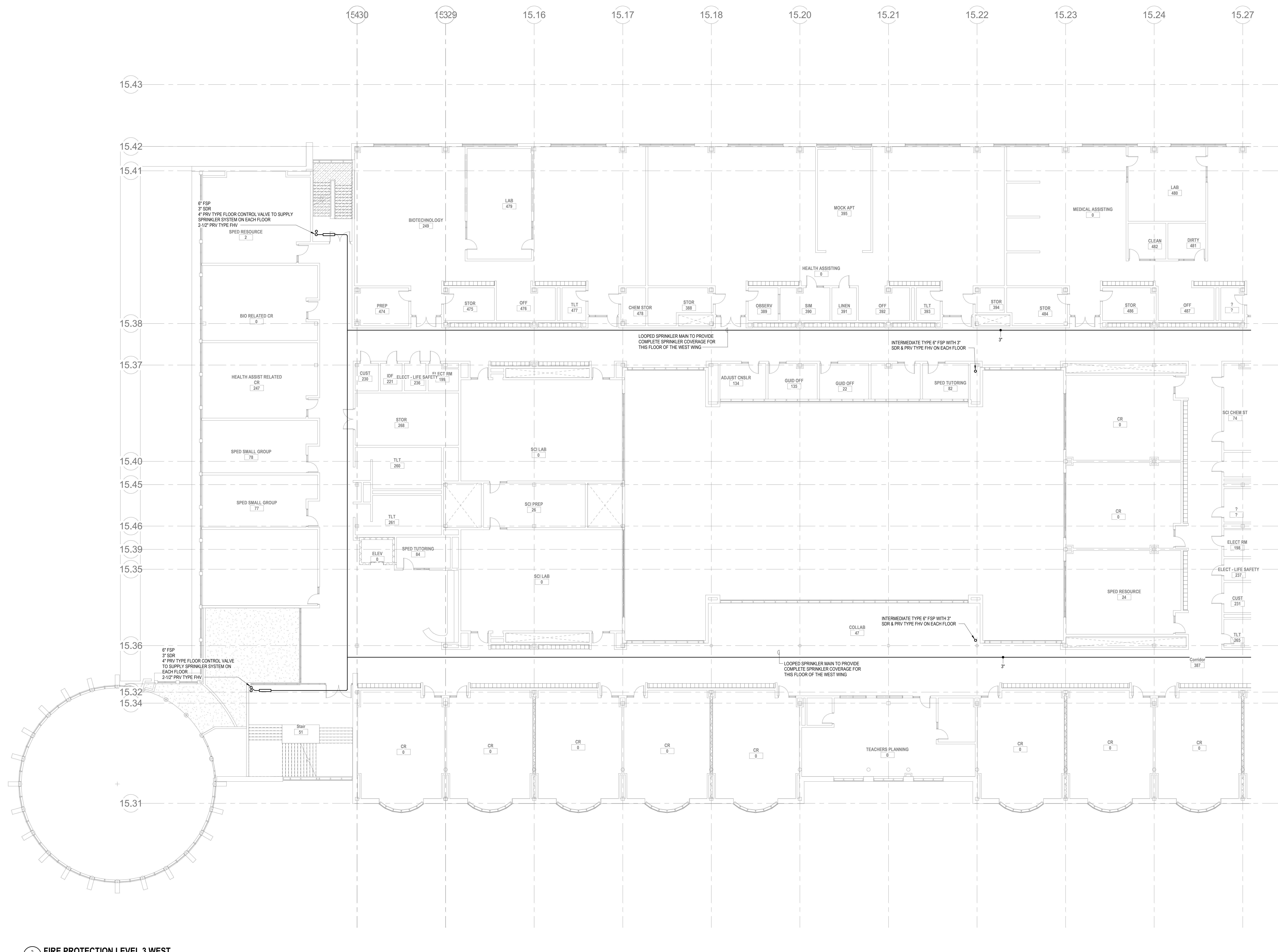
KEY PLAN



**FIRE
PROTECTION
THIRD FLOOR
PLAN - PLAN
WEST**

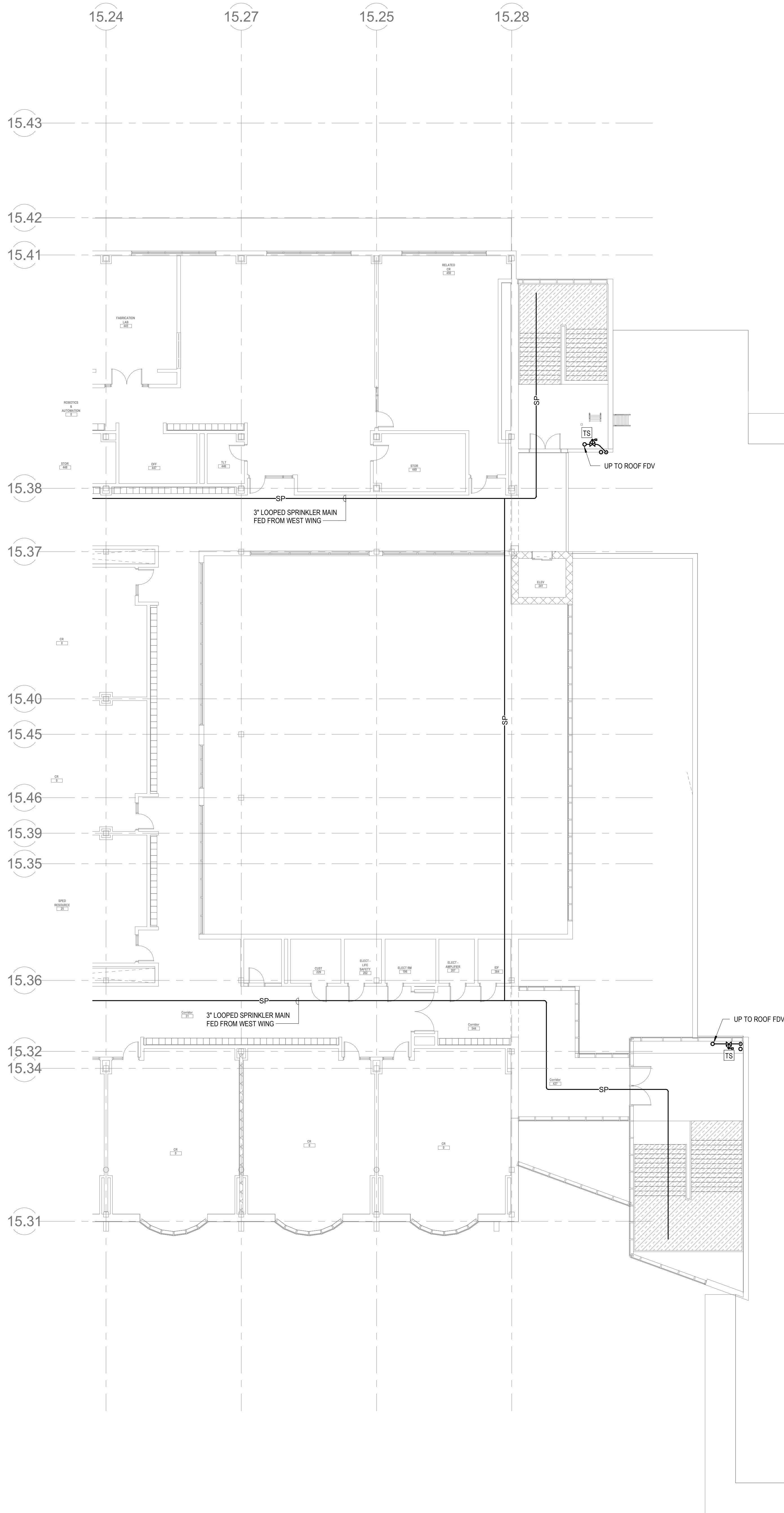
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FP1-1-3W



FIRE PROTECTION LEVEL 3 WEST

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FIRE STANDPIPE OUTLET AT ROOF LEVEL &
CONTROL FROM POST INDICATING VALVE

FIRE PROTECTION LEVEL 4 EAST
FP-1-4E 3/32" = 1'-0"

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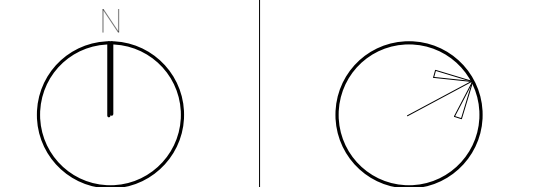
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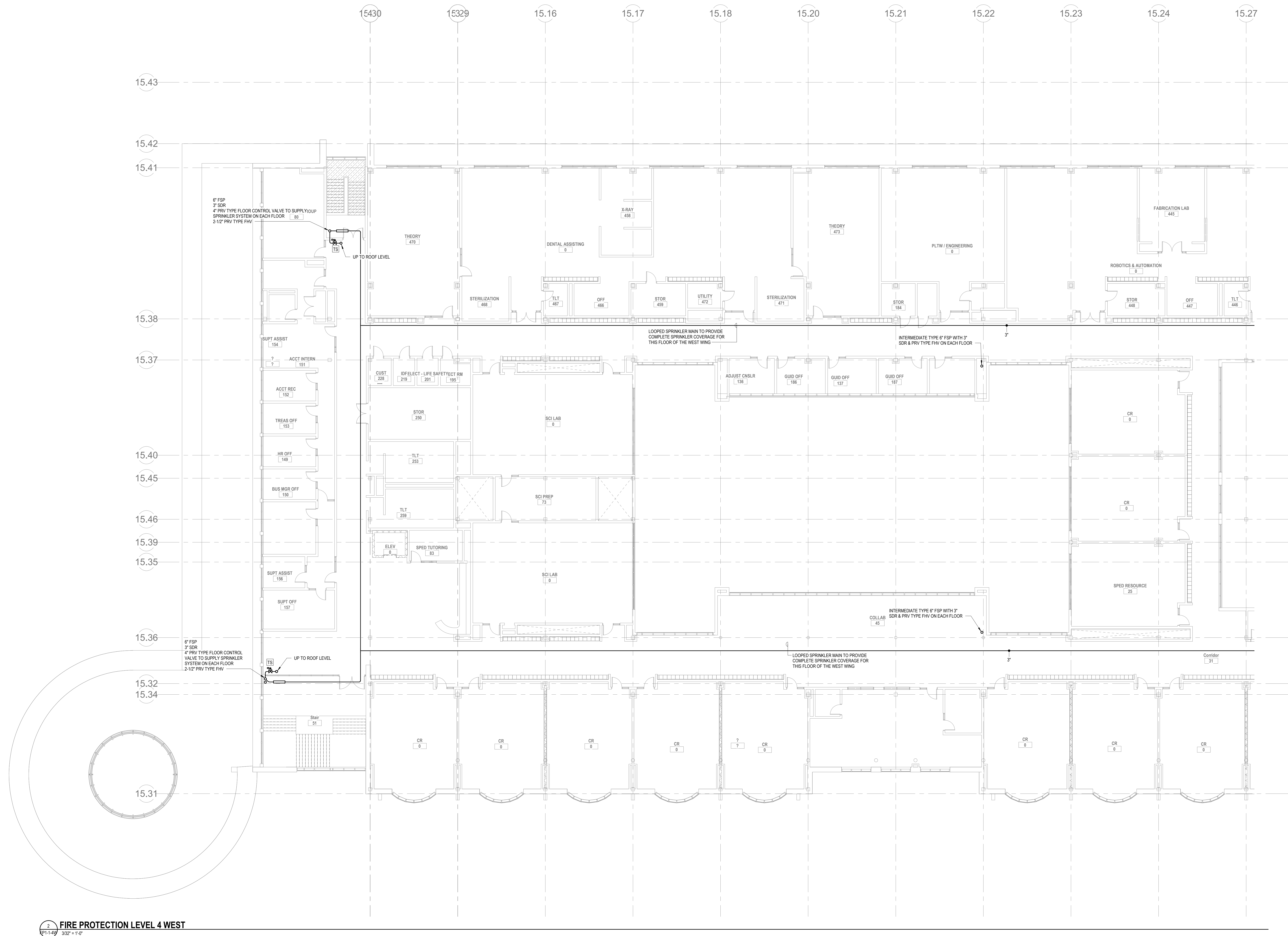
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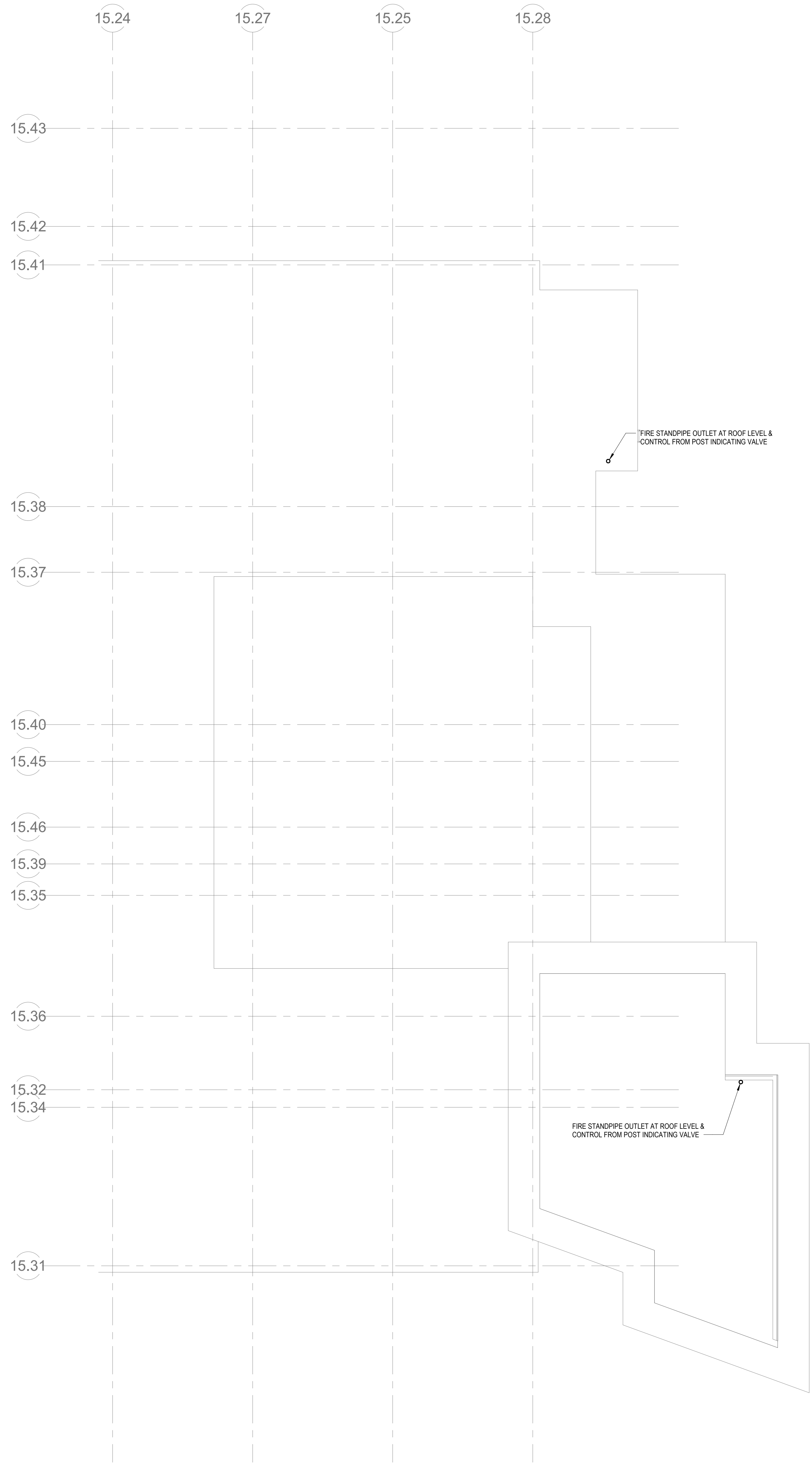


**FIRE
PROTECTION
FOURTH FLOOR
PLAN - PLAN
EAST**

Scale: 3/32" = 1'-0"
Job No.: 6020409
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Date: JUNE 17, 2021

FP1-1-4E





1 FIRE PROTECTION MAIN ROOF EAST
FP1-2-1E 3/32" = 1'-0"

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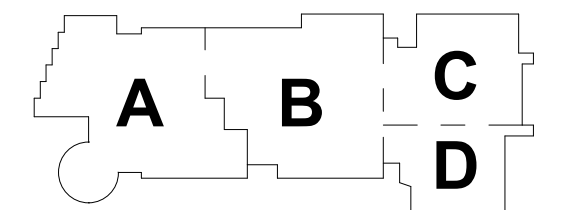
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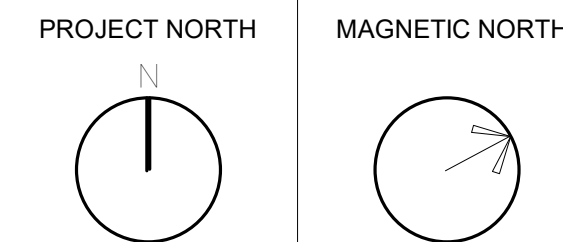
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KEY PLAN



FIRE
PROTECTION
ROOF PLAN -
PLAN EAST

Scale: 3/32" = 1'-0"
Job No.: 6020409
Drawn By: DRA
Date: JUNE 17, 2021

FP1-2-1E



1 FIRE PROTECTION MAIN ROOF WEST
1/2" = 1'-0"



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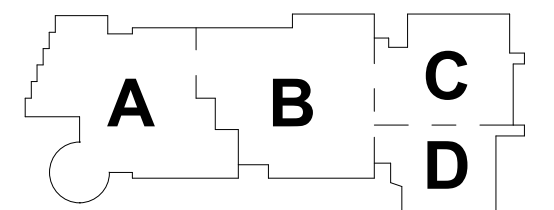
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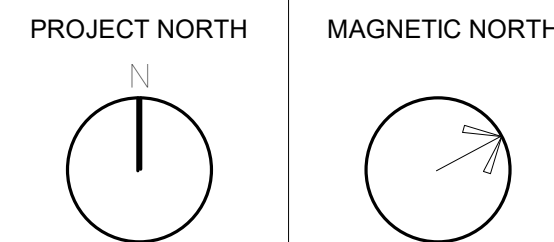


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KEY PLAN



FIRE
PROTECTION
ROOF PLAN -
PLAN WEST

Scale: 3/32" = 1'-0"
Job No.: 6520409
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FP1-2-1W