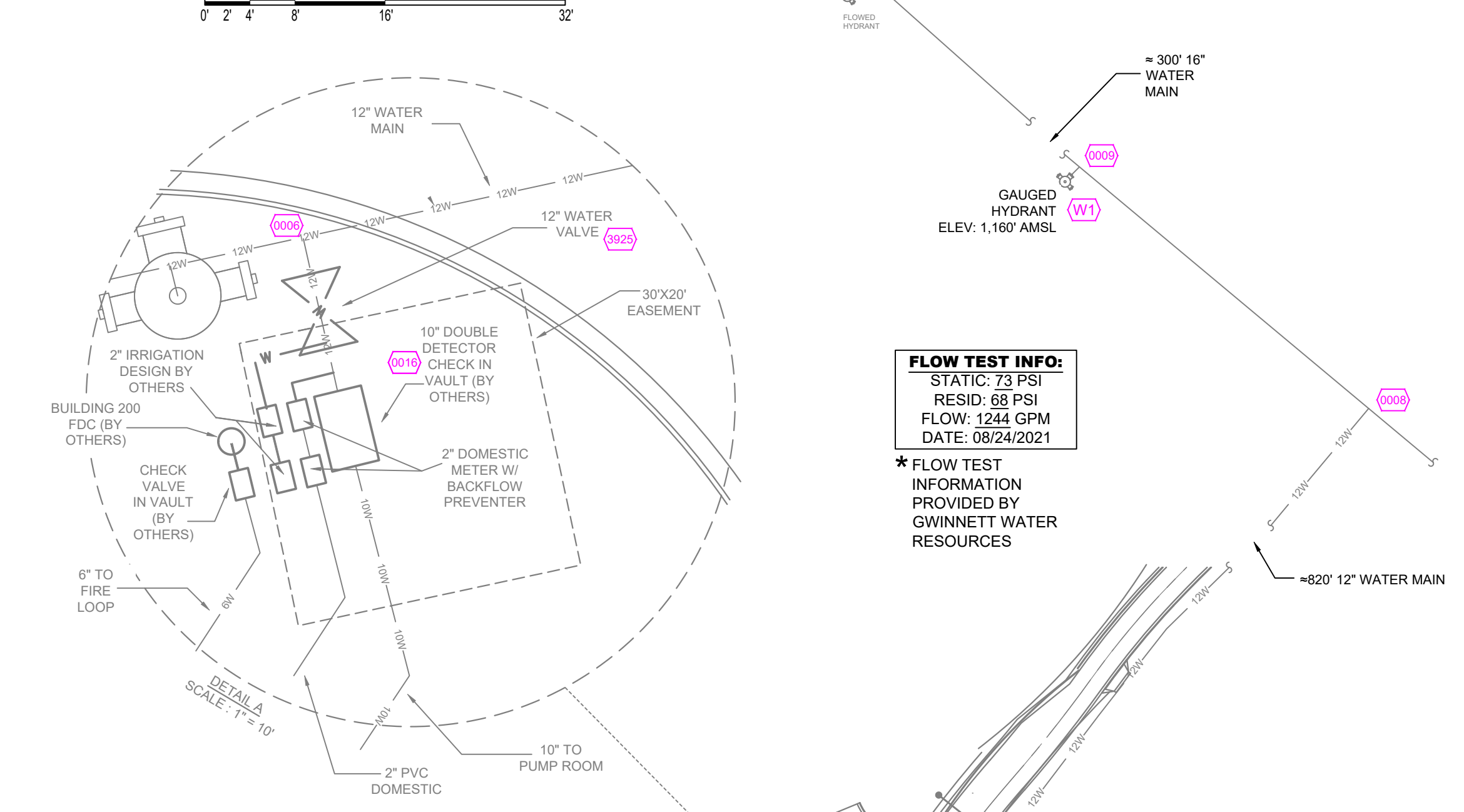


### A BUILDING SECTION

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

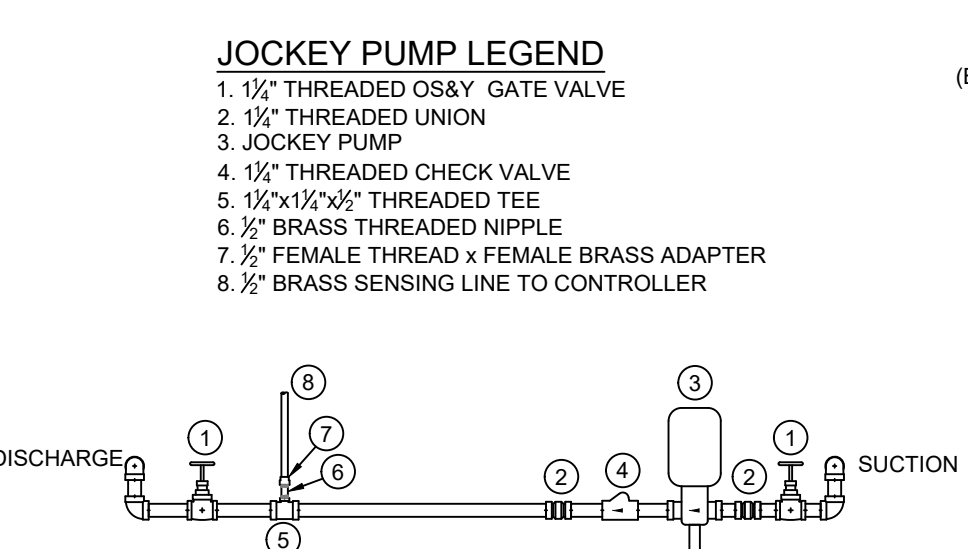


**FLOW TEST INFO:**  
 STATIC 73 PSI  
 RESID: 58 PSI  
 FLOW: 1244 GPM  
 DATE: 08/24/2021

\* FLOW TEST INFORMATION PROVIDED BY GWINNETT WATER RESOURCES

### SENSING LINE DETAIL

N.T.S.



### JOCKEY PUMP DETAIL

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



### B PUMP ROOM PLAN VIEW

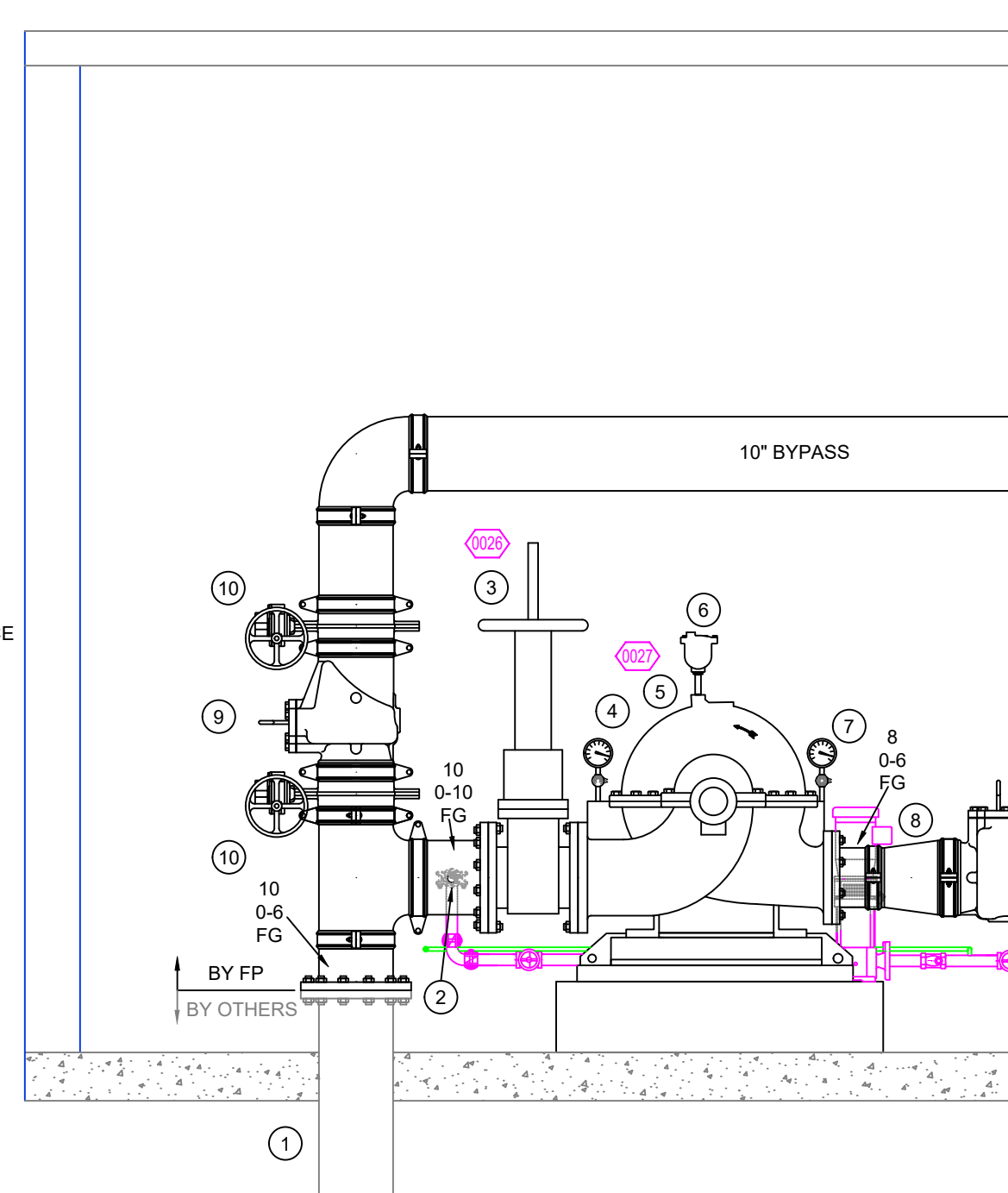
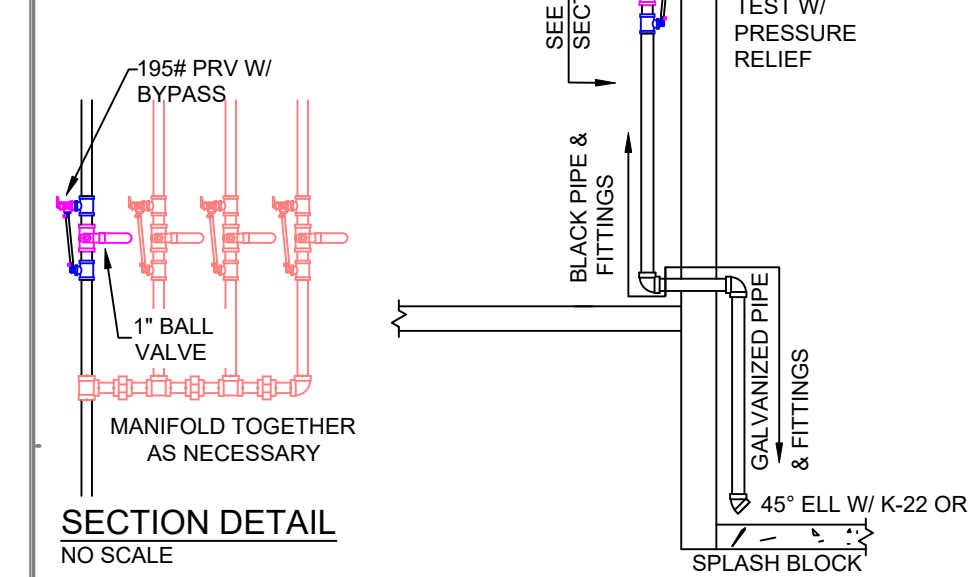
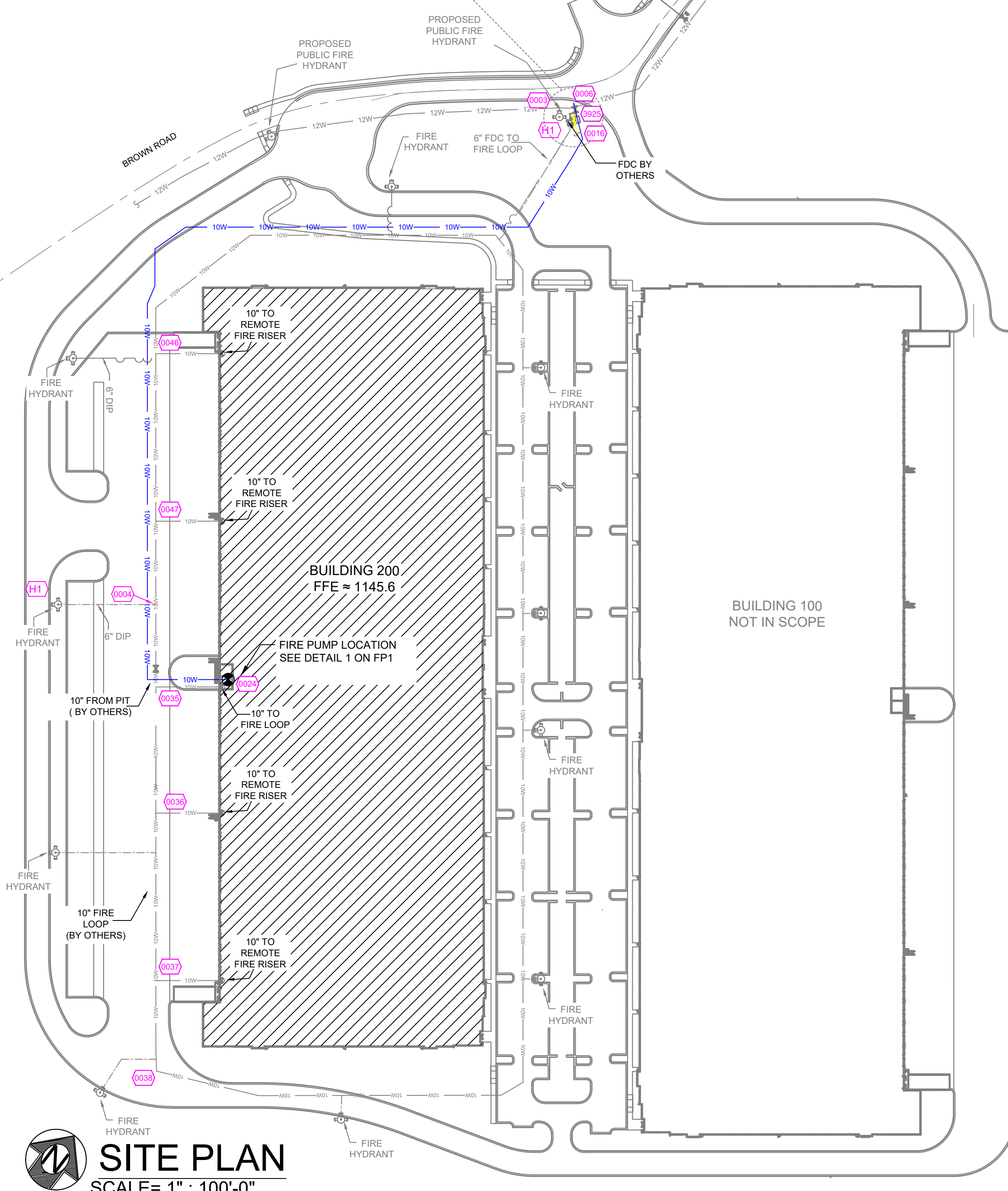
SCALE= 1/4" : 1'-0"



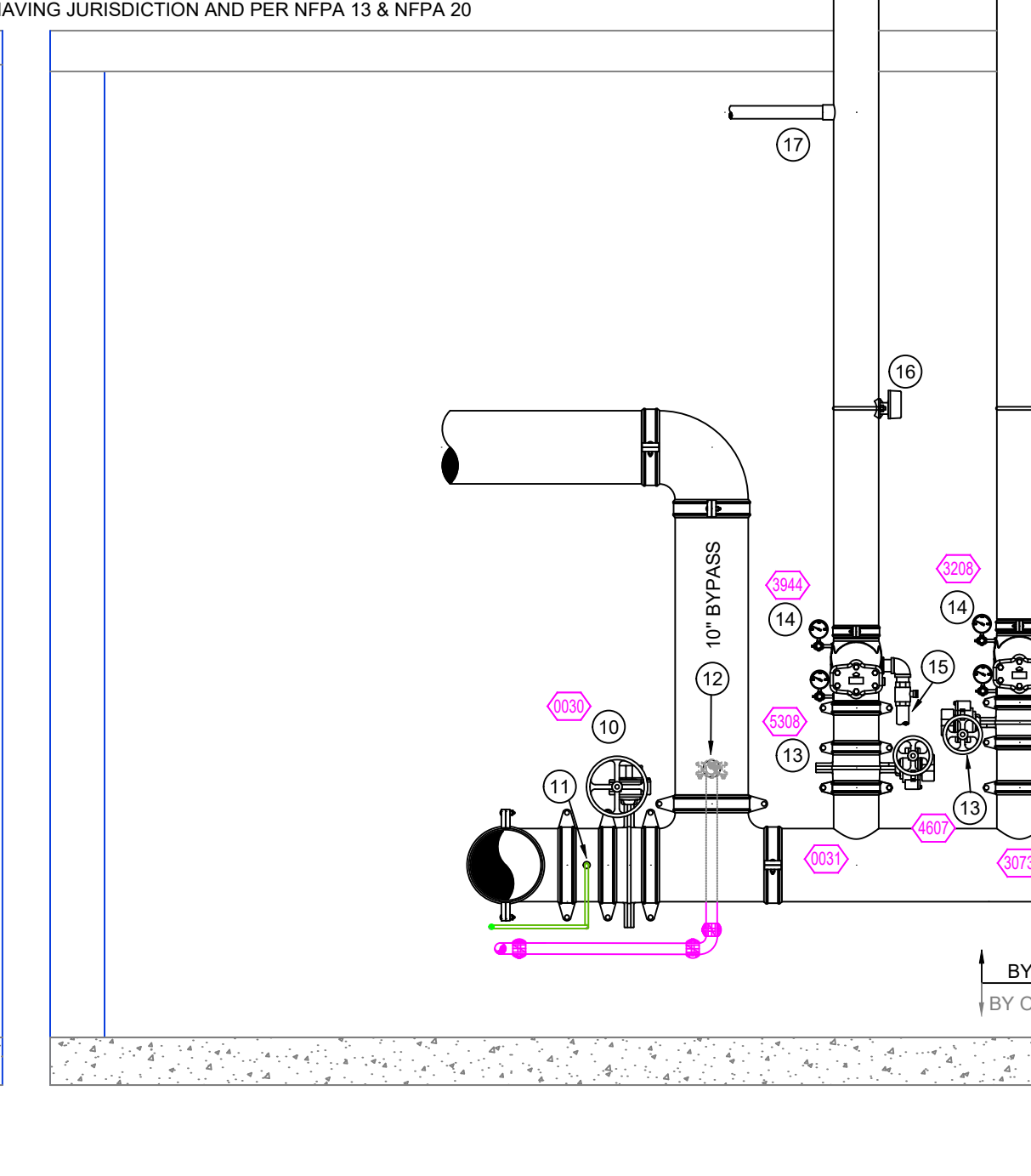
### GENERAL NOTES

- INTERNATIONAL BUILDING CODE (2018)
  - OCCUPANCY: S-1
  - TYPE OF CONSTRUCTION: II-B
  - SPRINKLER AREAS (APPROXIMATE - SEE ARCHITECTURAL PLANS FOR ACTUAL)
    - TOTAL AREA = 293,635 S.F.
    - ZONE 1 ESFR = 36,128 S.F.
    - ZONE 2 ESFR = 36,463 S.F.
    - ZONE 3 ESFR = 37,592 S.F.
    - ZONE 4 ESFR = 36,578 S.F.
    - ZONE 5 ESFR = 36,787 S.F.
    - ZONE 6 ESFR = 37,283 S.F.
    - ZONE 7 ESFR = 36,464 S.F.
    - ZONE 8 ESFR = 36,340 S.F.
- INSTALLATION STANDARDS:
  - SPRINKLER SYSTEM DESIGNED AND INSTALLED PER NFPA-13 (2019)
  - FIRE PUMP DESIGNED AND INSTALLED PER NFPA-20 (2019)
- SPRINKLER PIPE TYPES:
  - 1" THROUGH 1 1/2" BRANCH LINES TO BE BLK SCHEDULE 40 PIPING WITH THREADED FITTINGS
  - 2" THROUGH 4" MAINS & BRANCH LINES TO BE BLK LIGHTWALL PIPING WITH GROOVED FITTINGS
  - 6" THROUGH 8" MAINS TO BE BLK SCHEDULE 10 PIPING WITH GROOVED FITTINGS
- DESIGN CRITERIA:
  - STORAGE DESIGN CRITERIA:
    - OCCUPANCY: STORAGE WAREHOUSE. SYSTEM DESIGNED AS PER NFPA 13, 2019 TABLE 23.6.1 FOR FUTURE RACK AND/OR SOLID PILE STORAGE OCCUPANCY. MAXIMUM ROOF HEIGHT OF 40'-0". MAXIMUM STORAGE HEIGHT OF 40'-0" (MUST MAINTAIN 36" BETWEEN STORAGE & SPRINKLERS) FOR UP TO EXPOSED, NONEXPANDED PLASTIC COMMODITIES. SYSTEMS HYDRAULICALLY CALCULATED TO PROVIDE MINIMUM END HEAD PRESSURE OF 40 PSI OVER THE MOST DEMANDING 4 HEADS ON 3 LINES (12 FLOWING HEADS) WITH K-16.8 ESFR SPRINKLERS. 250 GPM RESERVED FOR INSIDE AND OUTSIDE HOSE FLOWS.
    - OCCUPANCY: STORAGE WAREHOUSE. SYSTEM DESIGNED AS PER NFPA 13, 2019 TABLE 23.6.1 FOR FUTURE RACK AND/OR SOLID PILE STORAGE OCCUPANCY. MAXIMUM ROOF HEIGHT OF 40'-0". MAXIMUM STORAGE HEIGHT OF 35'-0" (MUST MAINTAIN 36" BETWEEN STORAGE & SPRINKLERS) FOR UP TO EXPOSED, NONEXPANDED PLASTIC COMMODITIES. SYSTEMS HYDRAULICALLY CALCULATED TO PROVIDE MINIMUM END HEAD PRESSURE OF 52 PSI OVER THE MOST DEMANDING 4 HEADS ON 3 LINES (12 FLOWING HEADS) WITH K-16.8 ESFR SPRINKLERS. 250 GPM RESERVED FOR HOSE FLOWS.
  - OCCUPANCY: FIRE PUMP & ELECTRICAL ROOMS. DESIGNED AS PER NFPA 13, 2019 PLANS & SPECIFICATIONS FOR ORDINARY HAZARD OCCUPANCY. MAXIMUM SPRINKLER HEAD SPACING IS 130 SQ FT.
  - OCCUPANCY: OFFICE SPACES DESIGNED AS PER NFPA 13, 2019 PLANS & SPECIFICATIONS FOR LIGHT HAZARD OCCUPANCY U.N.O. MAXIMUM SPRINKLER HEAD SPACING IS 225 SQ FT. OR 20'X20' FOR EXTENDED COVERAGE SPRINKLER AREAS. 130SF FOR ORDINARY HAZARD GROUP 1 AREAS AS NOTED.
- STORAGE RESTRICTIONS:
  - NO STORAGE OF CARTONED EXPANDED OR EXPOSED EXPANDED GROUP A PLASTICS IN RACKS OR SOLID PILES
  - NO OPEN-TOP CONTAINERS
  - NO TIRE OR ROLLED PAPER STORAGE
- NOTES:
  - ALL MATERIAL TO BE NEW AND MEET U.L. STANDARDS
  - HANGERS TO BE INSTALLED IN ACCORDANCE WITH NFPA 13 - SEE PLAN FOR HANGING REQ.
- 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:
  - ALL AREAS OF THE BUILDING TO BE INSTALLED AND COVERED IN ACCORDANCE WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PER NFPA 13 & NFPA 20

ZONE	AREA (SF)	SPRINKLERS
ZONE #1	36,128 SF	405 SPRINKLERS
ZONE #2	36,463 SF	384 SPRINKLERS
ZONE #3	37,592 SF	384 SPRINKLERS
ZONE #4	36,578 SF	384 SPRINKLERS
ZONE #5	36,787 SF	388 SPRINKLERS
ZONE #6	37,283 SF	384 SPRINKLERS
ZONE #7	36,464 SF	384 SPRINKLERS
ZONE #8	36,340 SF	422 SPRINKLERS



1 PUMP ROOM SECTION  
SCALE= 1/2" : 1'-0"



2 PUMP ROOM SECTION  
SCALE= 1/2" : 1'-0"

- FIRE PUMP AND ZONES 4&5 RISER LEGEND**
- 1" UNDERGROUND SERVICE (BY OTHERS) (FLUSHING & TESTING OF THE UNDERGROUND SHALL BE COMPLETED PRIOR TO THE SPRINKLER SYSTEM HOOKUP. UNDERGROUND PAPERS ARE TO BE SUPPLIED TO THE "FP" CONTRACTOR BY THE G.C.)
  - 1 1/2" TO JOCKEY PUMP SUCTION
  - 10" SUPERVISED GATE VALVE
  - SUCTION GAUGE
  - 2000 GPM @ 77 PSI HORIZONTAL SPLIT CASE FIRE PUMP
  - AIR RELEASE VALVE
  - DISCHARGE GAUGE
  - 8" x 10" GROOVED INCREASER
  - 10" GROOVED CHECK VALVE
  - 10" SUPERVISED BUTTERFLY VALVE (NORMALLY OPEN)
  - 1" x 1/2" BUSHING FOR FIRE PUMP SENSING LINE
  - 1/2" FROM JOCKEY PUMP DISCHARGE
  - 6" SUPERVISED BUTTERFLY VALVE (NORMALLY OPEN)
  - 6" RISER CHECK VALVE
  - 2" DRAIN (TO OUTSIDE. TIE IN DRAINS FOR ONE WALL PENETRATION)
  - FLOW SWITCH
  - 1/2" THREADED OUTLET TO FEED SPRINKLER COVERAGE OF PUMP AND ELECTRIC ROOMS
  - TO 10" UNDERGROUND FEED LOOP (BY OTHERS)
  - PUMP TEST HEADER

### SITE PLAN

SCALE= 1" : 100'-0"

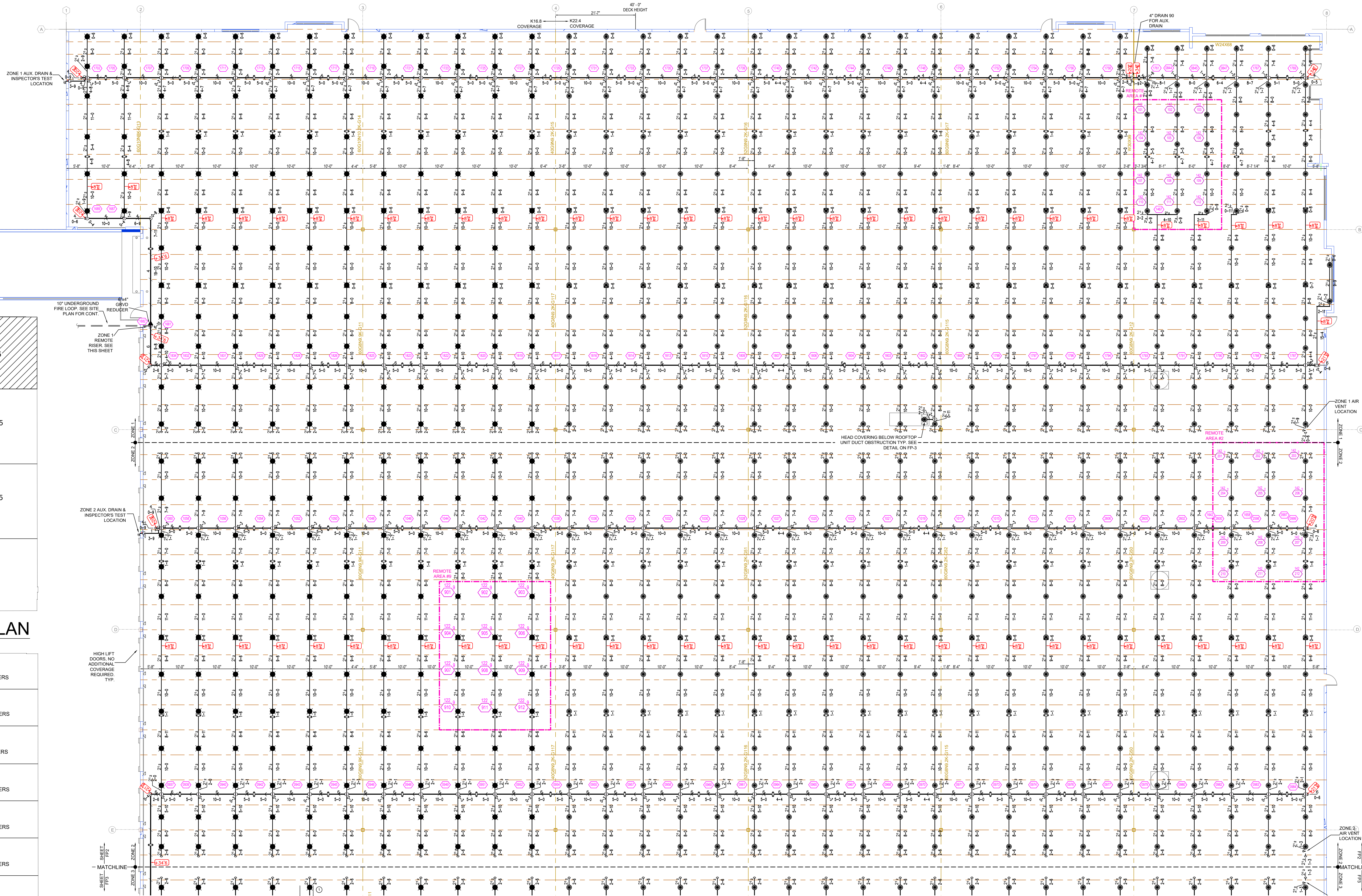


SPRINKLER SYMBOLS										REVISIONS			PROJECT		DATE				
SYMBOL	QTY	POSITION	FINISH	TEMP	TC	INPT	ESN	RFC	MODEL	ESD/CHECHON	NOTES	NO.	DATE	BY	DESCRIPTION	AREA	SCALE	SHEET NO.	CONTRACT NO.
●	1079	PEND	BRASS	212	16.80	34"	RA1914	RELIABLE	JL17	NONE/EXPOSED		1							
●	2034	PEND	BRASS	212	22.40	1"	RA1011	RELIABLE	HL22	NONE/EXPOSED		2							
●	10	DPEND	WHITE	200	9.80	12"	RA1425	RELIABLE	F11R56	NONE/EXPOSED		3							
●	10	DPEND	WHITE	200	9.80	12"	RA1414	RELIABLE	F11R56	RECESSED		4							
●	8	DPEND	WHITE	200	11.20	34"	RA7216	RELIABLE	J112	RECESSED		5							
SHEET TOTAL										3138									
JOB TOTAL																			

**BUILDING 200**  
 2323 BROWN RD  
 BUFORD, GA 30519

DETAILS AND GENERAL NOTES

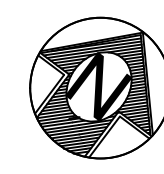
DATE: 07/12/2022  
 DRAWN BY: AMM  
 APPROVAL: Fire Marshal  
 SCALE: AS NOTED  
 SHEET NO.: 1 of 5  
 CONTRACT NO.: 16135-22



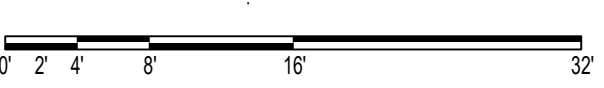
**KEY PLAN**

ZONE #1	36,123 SF	405 SPRINKLERS
ZONE #2	36,463 SF	384 SPRINKLERS
ZONE #3	37,592 SF	384 SPRINKLERS
ZONE #4	36,578 SF	384 SPRINKLERS
ZONE #5	36,787 SF	388 SPRINKLERS
ZONE #6	37,283 SF	384 SPRINKLERS
ZONE #7	36,464 SF	384 SPRINKLERS
ZONE #8	36,340 SF	422 SPRINKLERS

**ZONE MAP**



**FIRE SPRINKLER PLAN ZONE 1 & 2**  
SCALE= 3/32" = 1'-0"



**ZONE 4 REMOTE RISER LEGEND**

1. BY UNDERGROUND SERVICE (BY OTHERS)
2. BY UNDERGROUND SERVICE (BY OTHERS)
3. (PLUMBING & TESTING OF THE UNDERGROUND SHALL BE COMPLETED PRIOR TO THE SPRINKLER SYSTEM HOORUP. UNDERGROUND PIPING ARE TO BE SUPPLIED TO THE "FP CONTRACTOR" BY THE "C.C.")
4. 8" SUPERVISED BUTTERFLY VALVE (NORMALLY OPEN)
5. RISER CHECK VALVE
6. DRAIN TO OUTSIDE
7. FLOW SWITCH

**ZONES 2 & 3 RISER LEGEND**

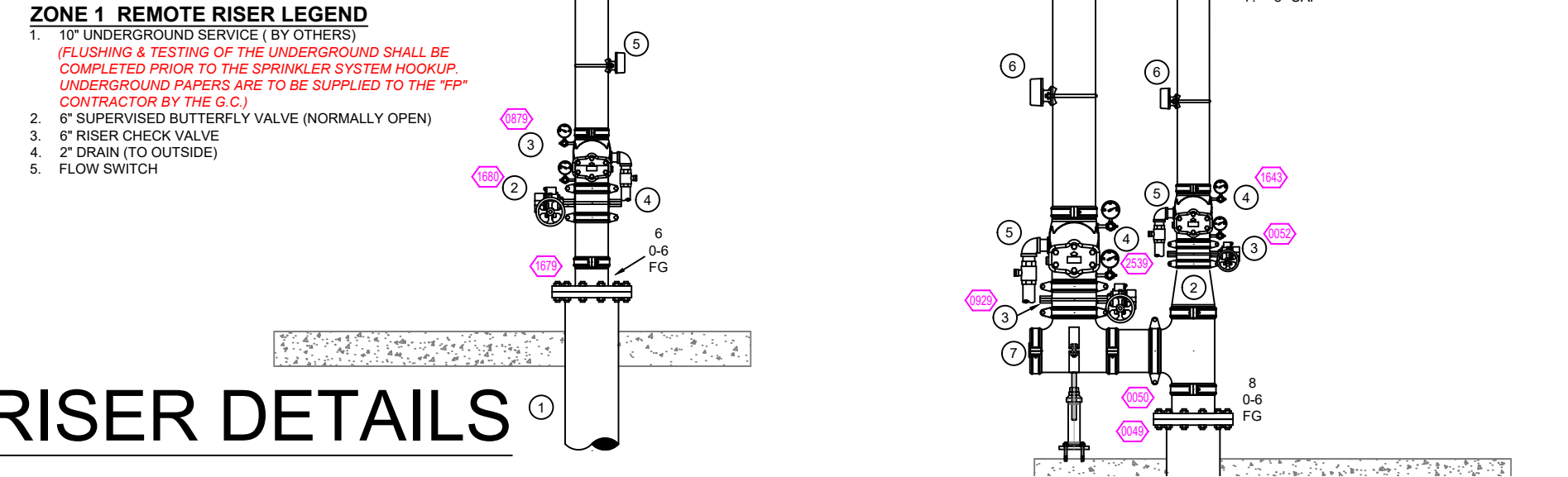
1. BY UNDERGROUND SERVICE (BY OTHERS)
2. BY UNDERGROUND SERVICE (BY OTHERS)
3. (PLUMBING & TESTING OF THE UNDERGROUND SHALL BE COMPLETED PRIOR TO THE SPRINKLER SYSTEM HOORUP. UNDERGROUND PIPING ARE TO BE SUPPLIED TO THE "FP CONTRACTOR" BY THE "C.C.")
4. 8" SUPERVISED BUTTERFLY VALVE (NORMALLY OPEN)
5. RISER CHECK VALVE
6. DRAIN TO OUTSIDE. THE IN DRAINS FOR ONE WALL RESTRICTION
7. FLOW SWITCH
8. 6" COP

Design Area # 1 HAZARD: Storage  
System Type: WET ZONE: 1  
Flowing Outlets: 12  
Criteria: 12 k=16.8 sprinklers @ 40 psi  
Required at Pump Discharge:  
1998 gpm @ 104.7 psi  
Required at City Supply:  
1998 gpm @ 48.2 psi  
Calculation Safety: 13.7 psi  
NOTE:  
GRID PEAKED PER 27.2.4.5

Design Area # 2 HAZARD: Storage  
System Type: WET ZONE: 2  
Flowing Outlets: 12  
Criteria: 12 k=16.8 sprinklers @ 52 psi  
Required at Pump Discharge:  
2013.9 gpm @ 103.7 psi  
Required at City Supply:  
2013.9 gpm @ 47.7 psi  
Calculation Safety: 13.1 psi  
NOTE:  
GRID PEAKED PER 27.2.4.5

Design Area # 9 HAZARD: Storage  
System Type: WET ZONE: 2  
Flowing Outlets: 12  
Criteria: 12 k=16.8 sprinklers @ 52 psi  
Required at Pump Discharge:  
1718.6 gpm @ 81.3 psi  
Required at City Supply:  
1718.6 gpm @ 27 psi  
Calculation Safety: 36.9 psi  
NOTE:  
GRID PEAKED PER 27.2.4.5

**AIR RELEASE VALVE DETAIL**

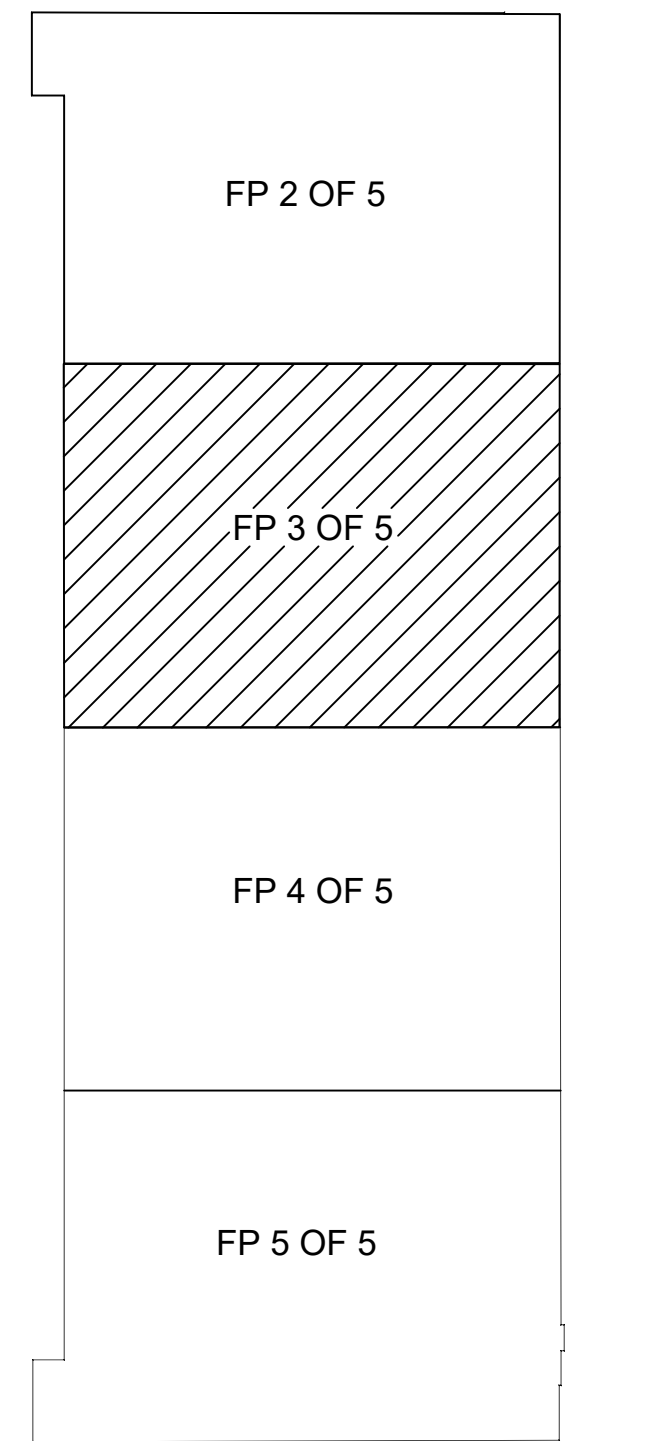
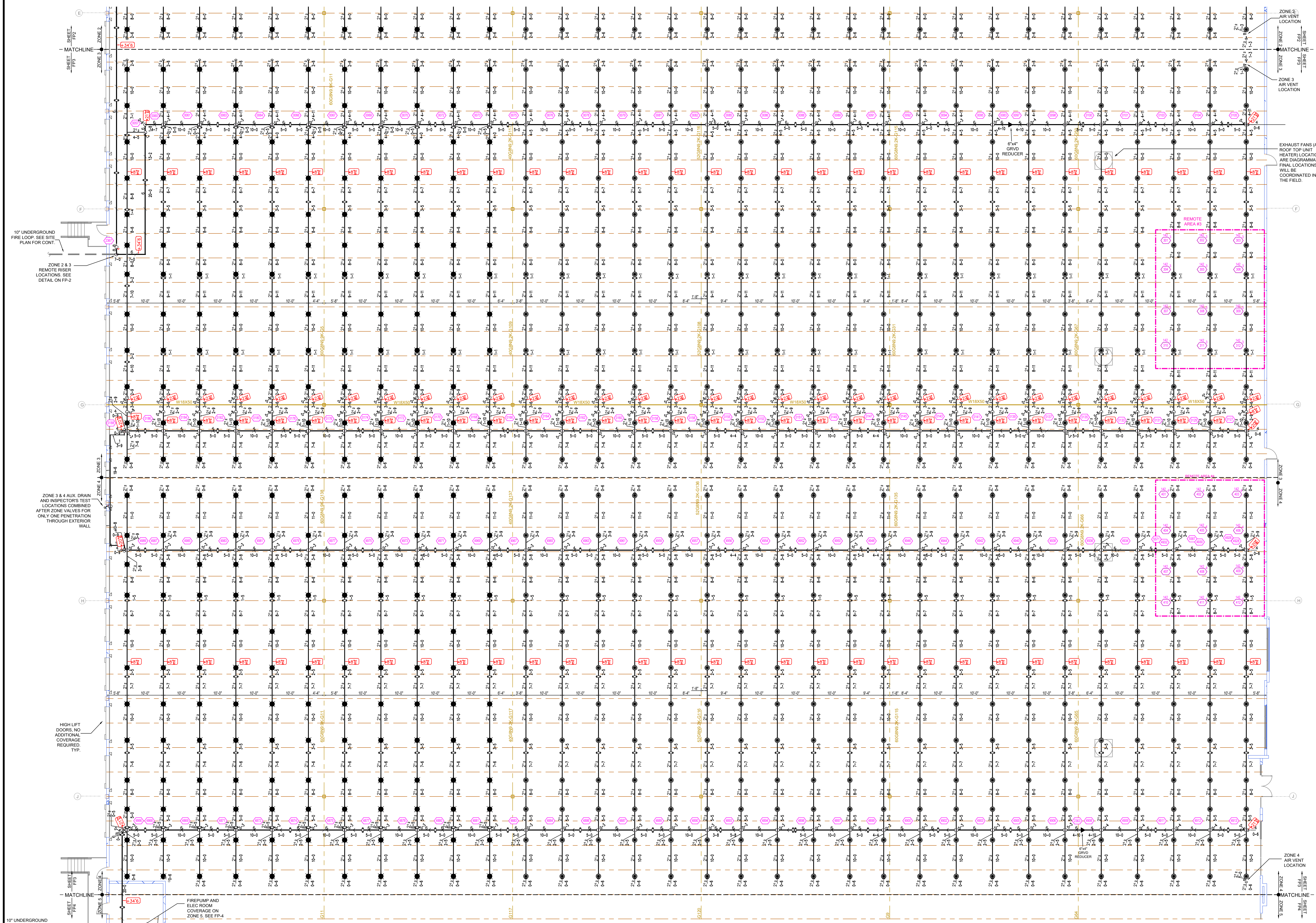


SYM	QTY	POSITION	FINISH	TEMP	K	NET	ESN	REF.	MODEL#	ESCUTCHION	NOTES
●	276	PEND	BRASS	212	16.80	34"	RA1014	RELIABLE	JL17	NONE/EXPOSED	
●	513	PEND	BRASS	212	22.40	1"	RA1011	RELIABLE	H22	NONE/EXPOSED	
789 SHEET TOTAL											
3135 JOB TOTAL											

NO.	DATE	BY	DESCRIPTION

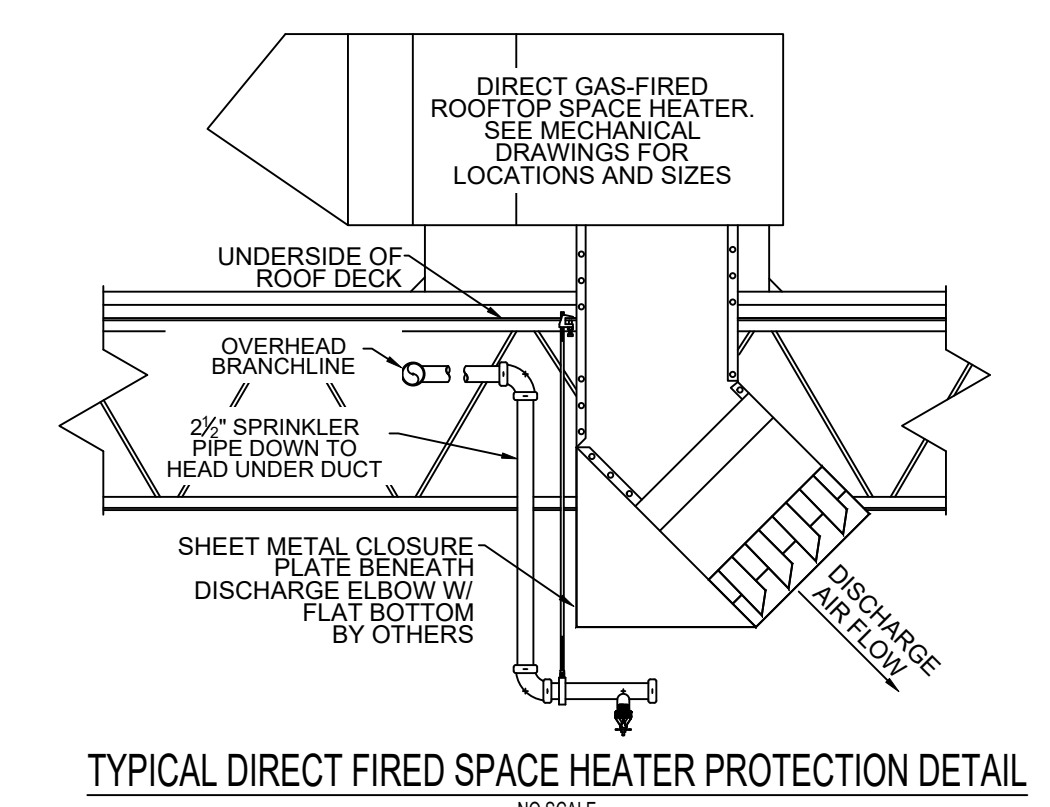
PROJECT: BUILDING 200  
2323 BROWN RD  
BUPFORD, GA 30519

DATE: 07/12/2022  
DRAWN BY: AMM  
APPROVAL: Fire Marshal  
SCALE: 3/32"=1'-0"  
SHEET NO.: 2 of 5  
CONTRACT NO.: 16135-22



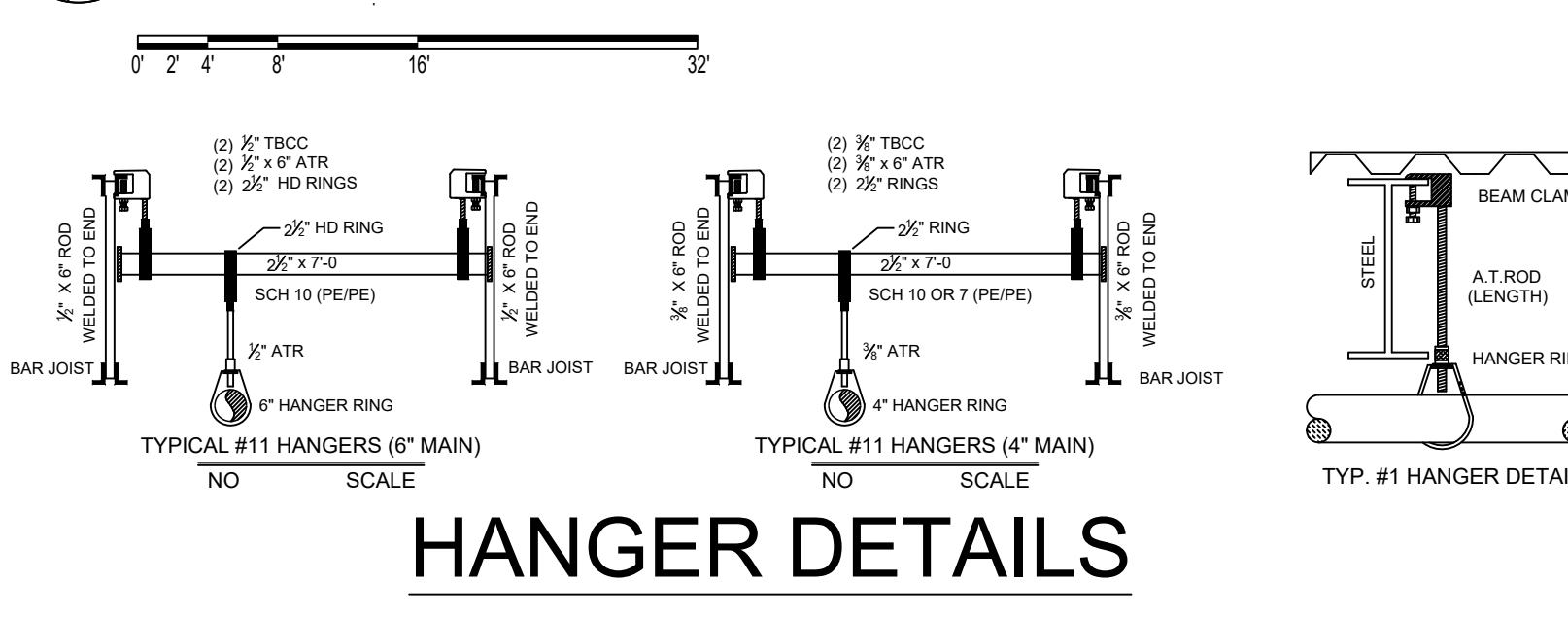
### ZONE MAP

ZONE #1	36,128 SF	405 SPRINKLERS
ZONE #2	36,463 SF	384 SPRINKLERS
ZONE #3	37,592 SF	384 SPRINKLERS
ZONE #4	36,578 SF	384 SPRINKLERS
ZONE #5	36,787 SF	388 SPRINKLERS
ZONE #6	37,283 SF	384 SPRINKLERS
ZONE #7	36,464 SF	384 SPRINKLERS
ZONE #8	36,340 SF	422 SPRINKLERS



## FIRE SPRINKLER PLAN ZONE 3 & 4

SCALE = 3/32" = 1'-0"



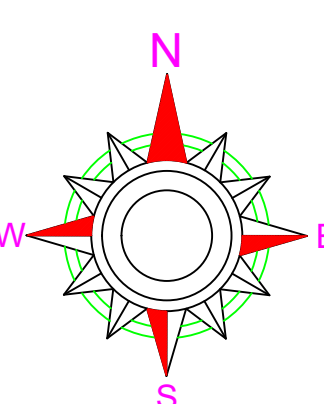
Design Area #. 3 HAZARD: Storage  
 System Type: WET ZONE 3  
 Flowing Outlets: 12  
 Criteria: 12 k=22.4 sprinklers @ 40 psi  
 Required at Pump Discharge:  
 1995.5 gpm @ 116.6 psi  
 Required at City Supply:  
 1995.5 gpm @ 49.1 psi  
 Calculation Safety: 12.2 psi  
 NOTE: GRID PEAKED PER 27.2.4.5

Design Area #. 4 HAZARD: Storage  
 System Type: WET ZONE 4  
 Flowing Outlets: 12  
 Criteria: 12 k=22.4 sprinklers @ 40 psi  
 Required at Pump Discharge:  
 2007.4 gpm @ 104.2 psi  
 Required at City Supply:  
 2007.4 gpm @ 48 psi  
 Calculation Safety: 12.9 psi  
 NOTE: GRID PEAKED PER 27.2.4.5

### NFPA 13 STEEL PIPE HANGER SPACING

(EXCEPT LIGHT WALL THRU PIPING)

NOMINAL SIZE inches	MAX SPACING feet
1"	12'-0"
1-1/4"	12'-0"
1-1/2"	15'-0"
2"	15'-0"
2-1/2"	15'-0"
3"	15'-0"
4" & LARGER	15'-0"



### SPRINKLER SYMBOLS

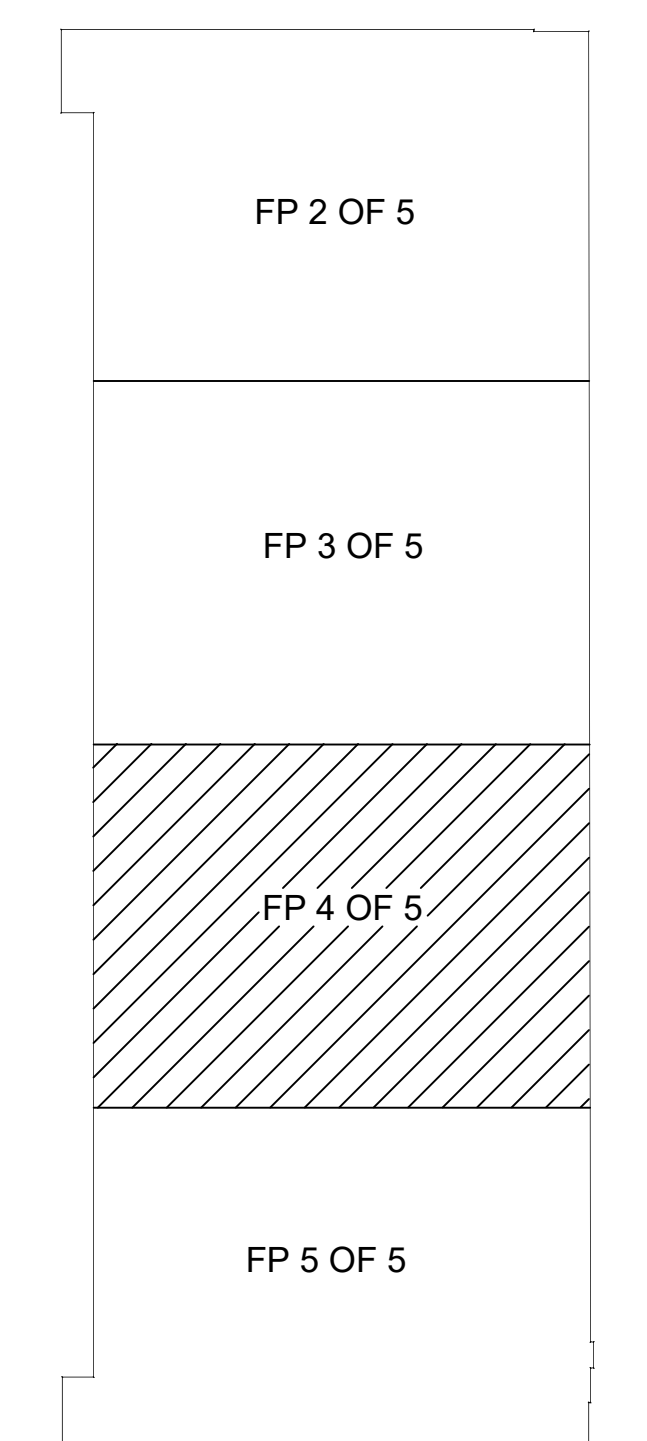
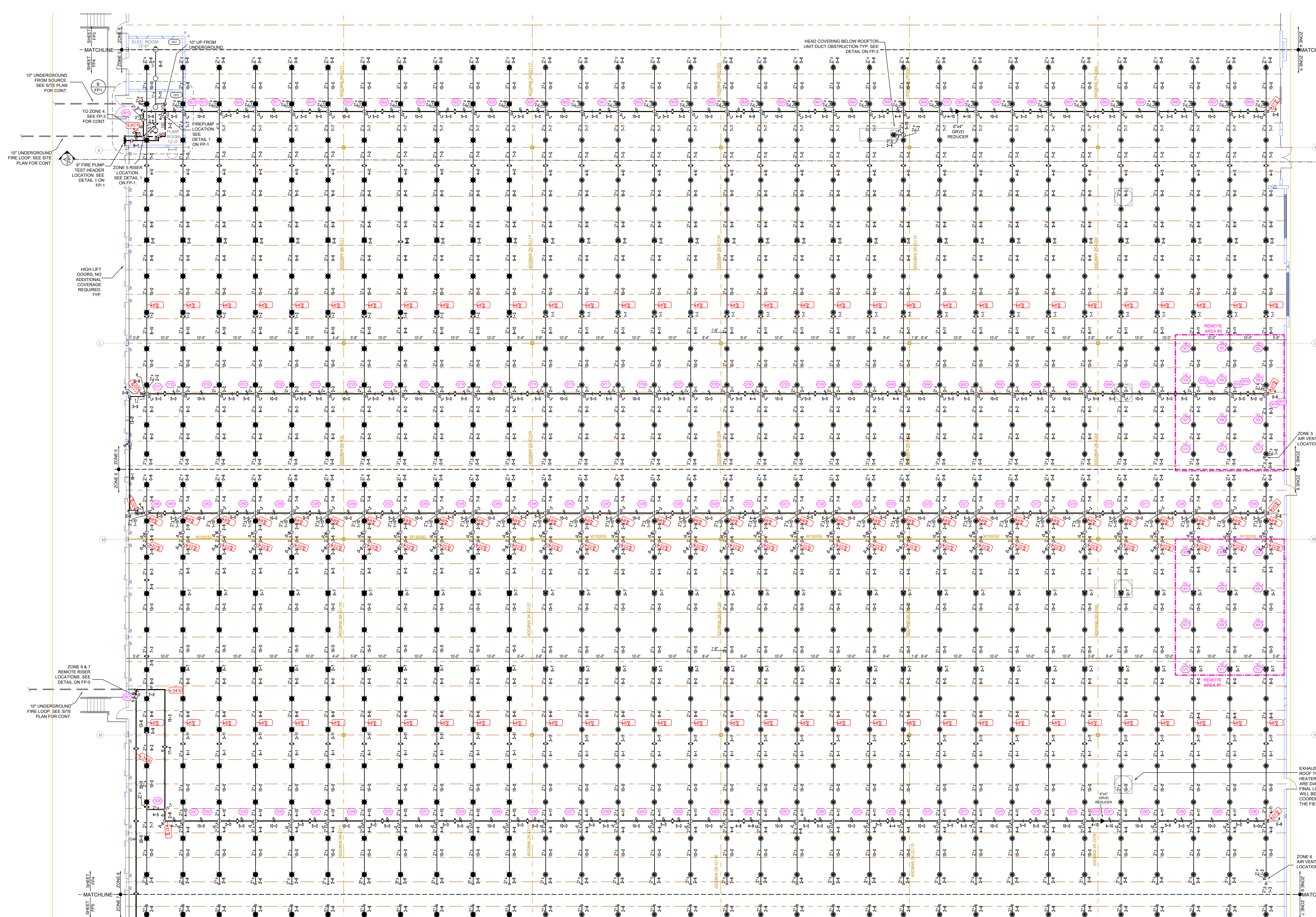
SYA	CNT	POSITION	FINISH	TEMP	K =	TEST	ESN	RFC	MODEL#	ESCUTCHION	NOTES
●	264	PEND	BRASS	212	16.80	34"	RA1014	RELIABLE	JL17	NONE-EXPOSED	
●	504	PEND	BRASS	212	22.40	1"	RA1011	RELIABLE	HL22	NONE-EXPOSED	

### REVISIONS

NO.	DATE	BY	DESCRIPTION

PROJECT: BUILDING 200  
 2323 BROWN RD  
 BUFORD, GA 30519

DATE: 07/12/2022  
 DRAWN BY: AUM  
 APPROVAL: Fire Marshal  
 SCALE: 3/32"=1'-0"  
 SHEET NO.: 3 of 5  
 CONTRACT NO.: 16135-22



**KEY PLAN**

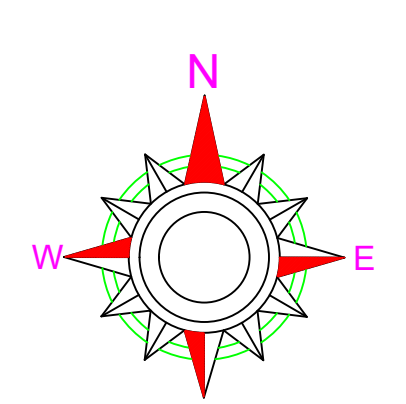
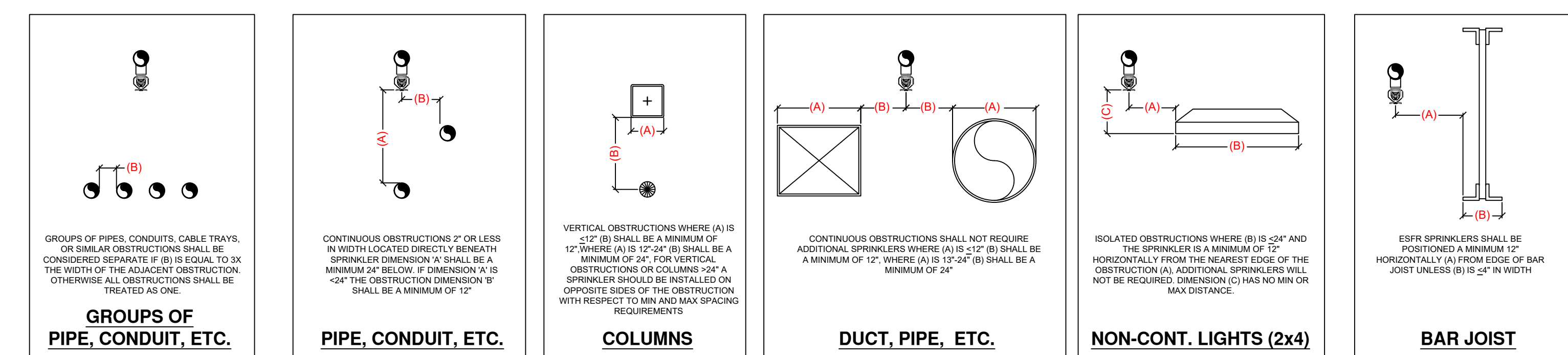
<b>ZONE #1</b> 36,128 SF 405 SPRINKLERS
<b>ZONE #2</b> 38,463 SF 384 SPRINKLERS
<b>ZONE #3</b> 37,592 SF 384 SPRINKLERS
<b>ZONE #4</b> 36,578 SF 384 SPRINKLERS
<b>ZONE #5</b> 36,787 SF 388 SPRINKLERS
<b>ZONE #6</b> 37,263 SF 384 SPRINKLERS
<b>ZONE #7</b> 36,464 SF 384 SPRINKLERS
<b>ZONE #8</b> 36,340 SF 422 SPRINKLERS

**ZONE MAP**

Design Area # : 5 HAZARD: Storage  
System Type: WET ZONE : 5  
Flowing Outlets: 12  
Criteria: 12 k=22.4 sprinklers @ 40 psi  
Required at Pump Discharge:  
2012.5 gpm @ 104.8 psi  
Required at City Supply:  
2012.5 gpm @ 48.8 psi  
Calculation Safety: 12 psi  
NOTE:  
GRID PEAKED PER 27.2 & 5

Design Area # : 6 HAZARD: Storage  
System Type: WET ZONE : 6  
Flowing Outlets: 12  
Criteria: 12 k=22.4 sprinklers @ 40 psi  
Required at Pump Discharge:  
1966.2 gpm @ 105 psi  
Required at City Supply:  
1966.2 gpm @ 47.6 psi  
Calculation Safety: 13.8 psi  
NOTE:  
GRID PEAKED PER 27.2 & 5

**FIRE SPRINKLER PLAN ZONE 5 & 6**  
SCALE = 3/32" = 1'-0"



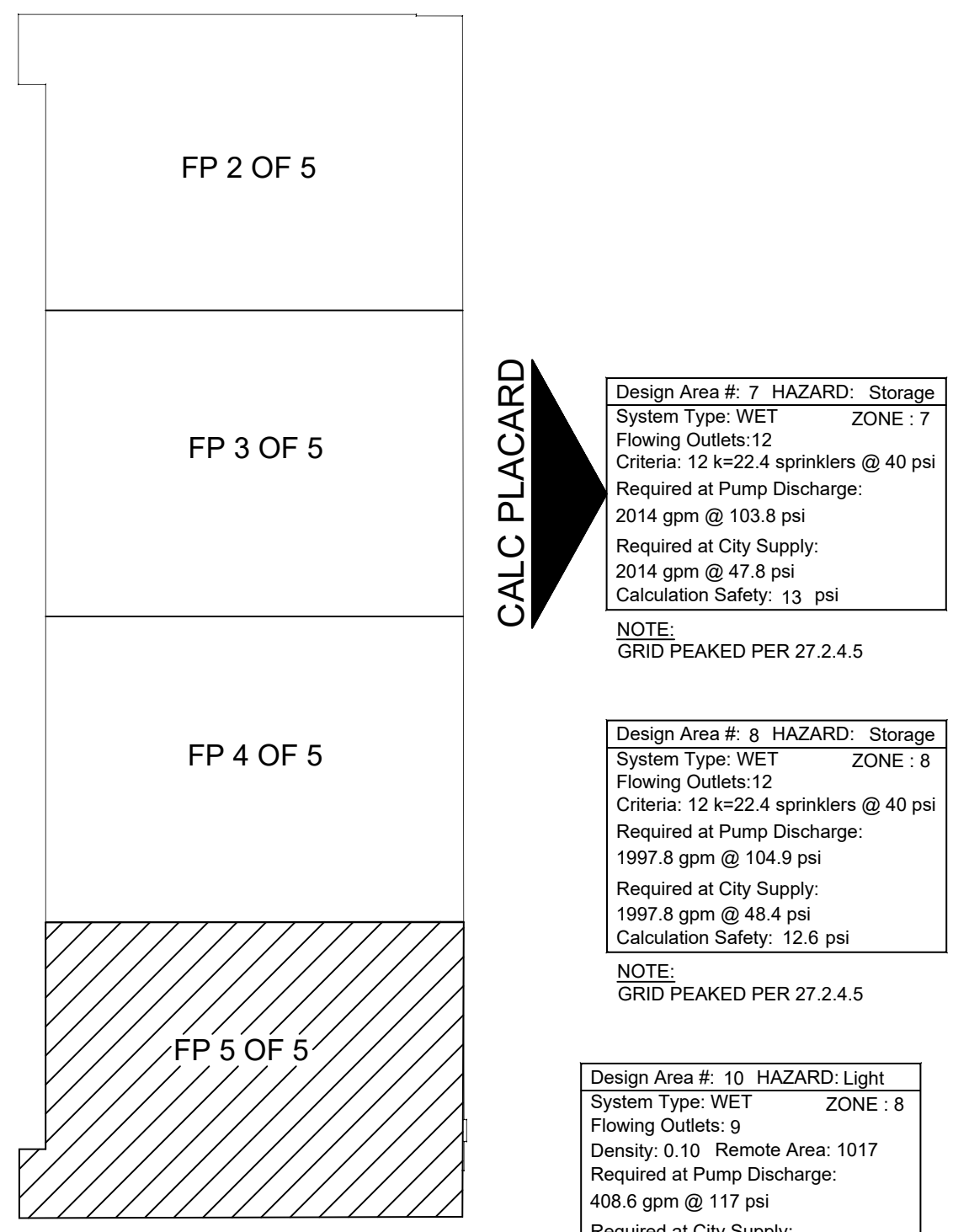
SYMBOL	DESCRIPTION	TEMP	FINISH	NOTES
●	283	PEND	BRASS	212 16.80 3/4"
○	505	PEND	BRASS	212 22.40 1"
○	4	UPR	BRASS	155 5.00 1/2"

NO.	DATE	BY	DESCRIPTION
1			
2			
3			
4			
5			
6			
7			
8			
9			

**BUILDING 200**  
2323 BROWN RD  
BUPORD, GA 30519

ZONES 5 & 6 Fire Protection Piping Plan

DATE: 07/12/2022  
DRAWN BY: AMM  
APPROVAL: Fire Marshal  
SCALE: 3/32"=1'-0"  
SHEET NO: 4 of 5  
CONTRACT NO: 16135-22



**CALC PLACARD**

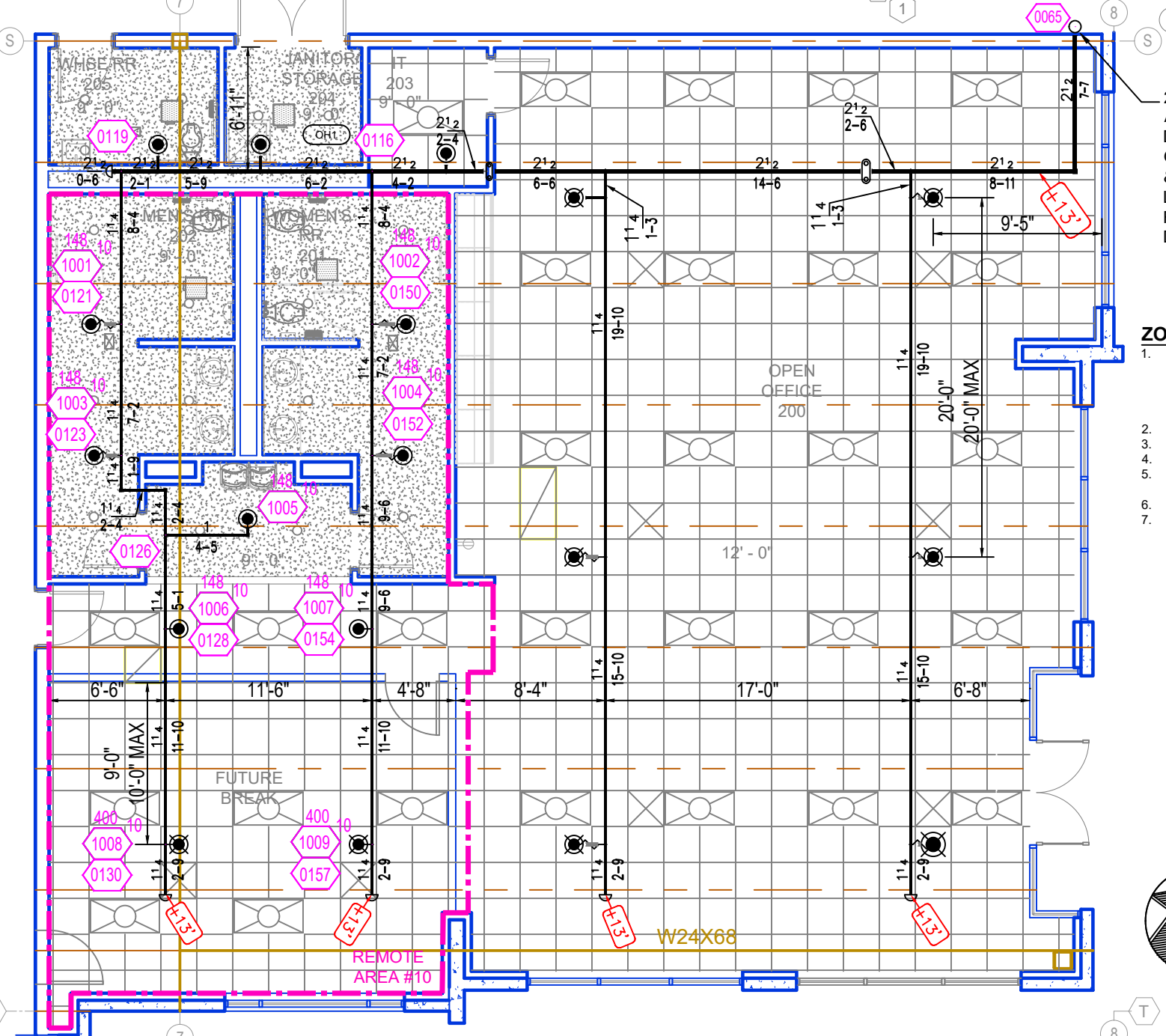
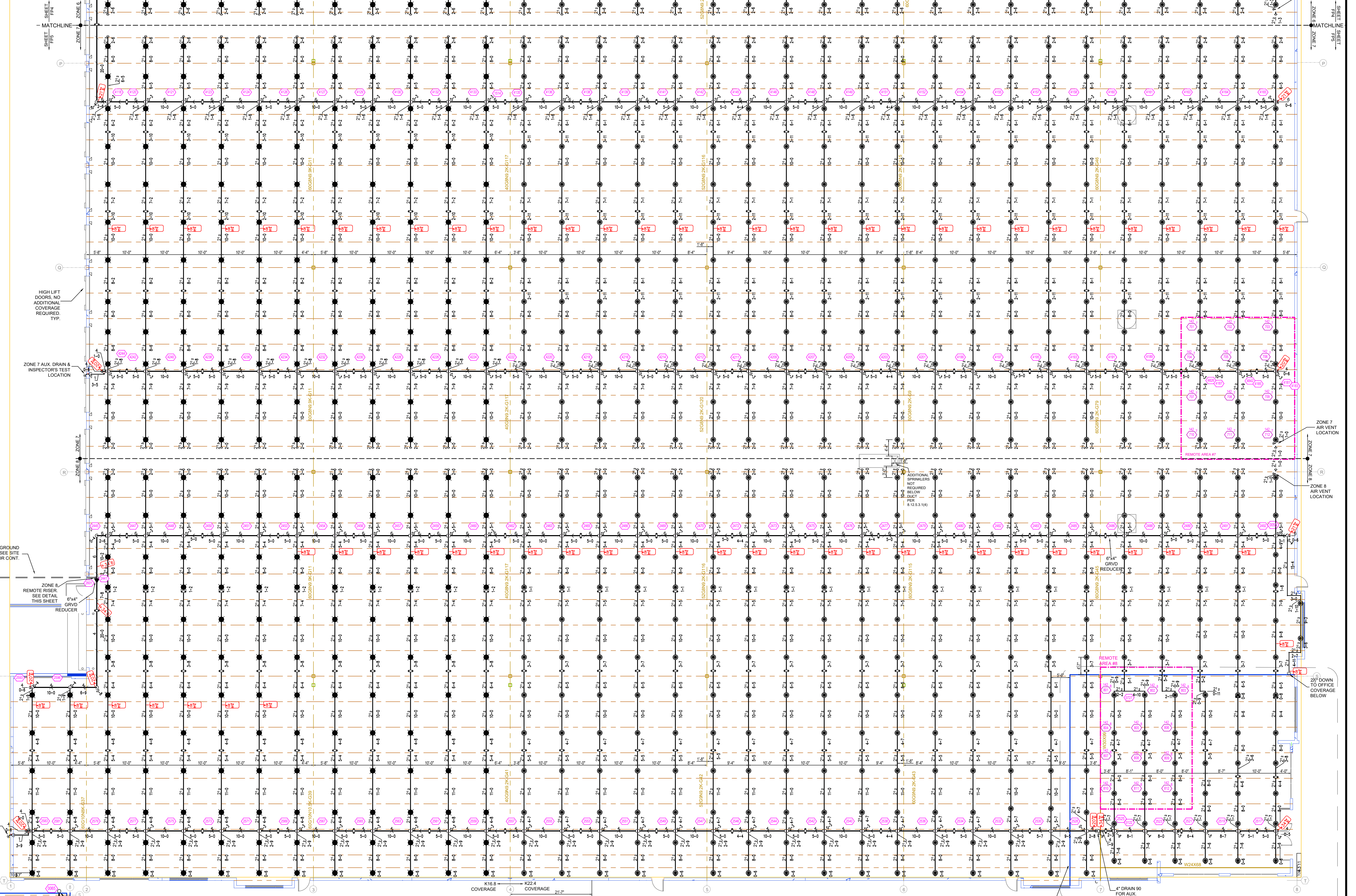
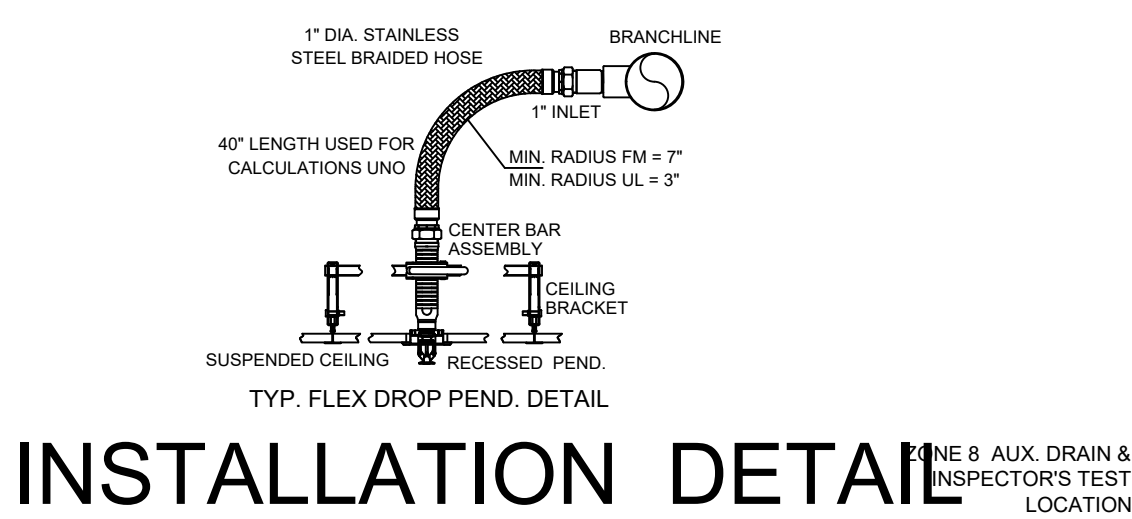
Design Area # 7 HAZARD: Storage  
System Type: WET ZONE: 7  
Flowing Outlets: 12  
Criteria: 12 K-22.4 sprinklers @ 40 psi  
Required at Pump Discharge:  
2014 gpm @ 103.8 psi  
Required at City Supply:  
2014 gpm @ 47.8 psi  
Calculation Safety: 13 psi  
NOTE:  
GRID PEAKED PER 27.2.4.5

Design Area # 8 HAZARD: Storage  
System Type: WET ZONE: 8  
Flowing Outlets: 12  
Criteria: 12 K-22.4 sprinklers @ 40 psi  
Required at Pump Discharge:  
1997.8 gpm @ 104.9 psi  
Required at City Supply:  
1997.8 gpm @ 48.4 psi  
Calculation Safety: 12.6 psi  
NOTE:  
GRID PEAKED PER 27.2.4.5

Design Area # 10 HAZARD: Light  
System Type: WET ZONE: 8  
Flowing Outlets: 9  
Density: 0.10 Remote Area: 1017  
Required at Pump Discharge:  
408.6 gpm @ 117 psi  
Required at City Supply:  
408.6 gpm @ 31.9 psi  
Calculation Safety: 40.7 psi  
NOTE:  
EXTENDED COVERAGE  
SPRINKLERS CALCULATED AT  
20'X20' MAX SPACING.

**ZONE MAP**

ZONE #1	36,128 SF	405 SPRINKLERS
ZONE #2	36,463 SF	384 SPRINKLERS
ZONE #3	37,592 SF	384 SPRINKLERS
ZONE #4	36,578 SF	384 SPRINKLERS
ZONE #5	36,787 SF	388 SPRINKLERS
ZONE #6	37,283 SF	384 SPRINKLERS
ZONE #7	36,464 SF	384 SPRINKLERS
ZONE #8	36,340 SF	422 SPRINKLERS



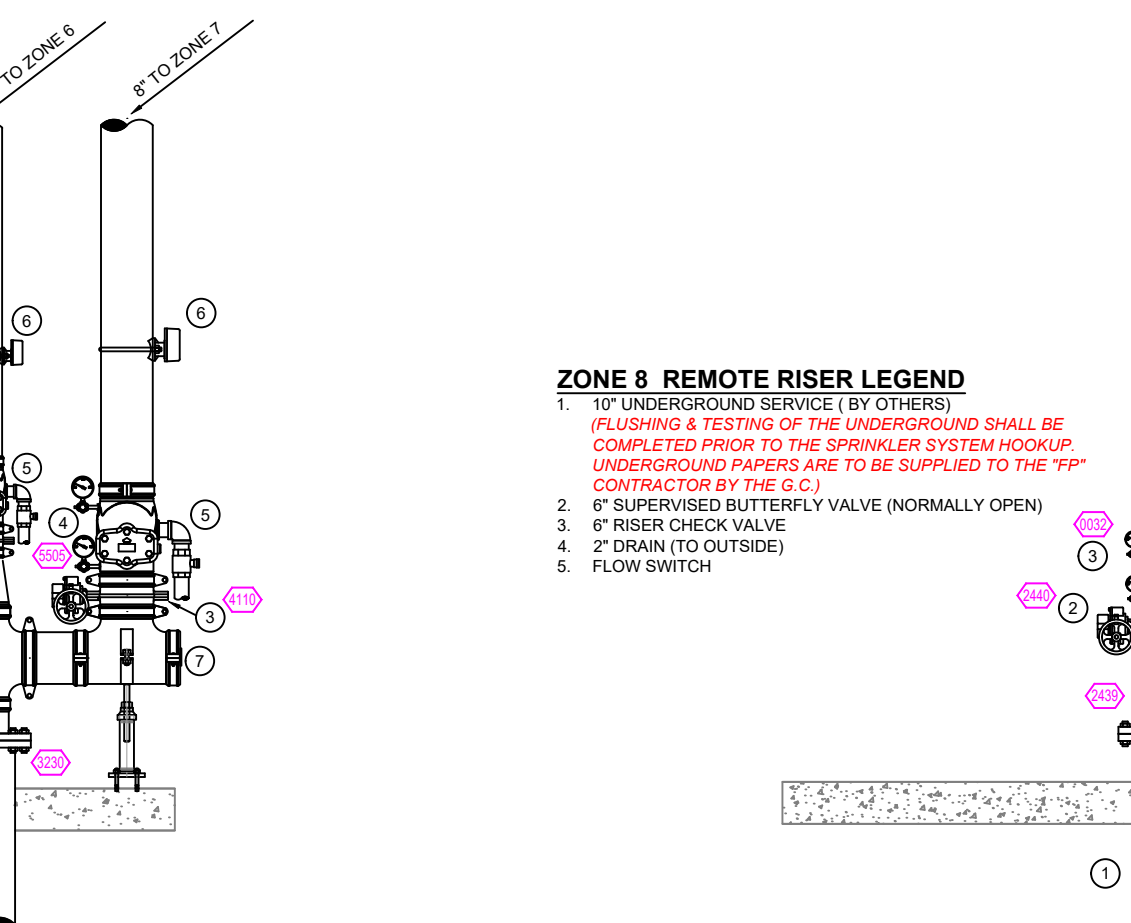
**ZONES 6 & 7 RISER LEGEND**

- 1" UNDERGROUND BRONZE (1" OTHERS)
- PLUMBING & TESTING OF THE UNDERGROUND SHALL BE COMPLETED PRIOR TO THE SPRINKLER SYSTEM HOODING. UNDERGROUND PAPERS ARE TO BE SUPPLIED TO THE "PP" CONTRACTOR BY THE S.C.U.
- 8" X 8" GROoved CONCENTRIC REDUCER
- 6" SUPERVISED BUTTERFLY VALVE (NORMALLY OPEN)
- 8" RISER CHECK VALVE
- 2" DRAIN (TO OUTSIDE) IN DRAINS FOR ONE WALL PENETRATION
- FLOW SWITCH
- 7" CAP

**ZONE 8 REMOTE RISER LEGEND**

- 1" UNDERGROUND BRONZE (1" OTHERS)
- PLUMBING & TESTING OF THE UNDERGROUND SHALL BE COMPLETED PRIOR TO THE SPRINKLER SYSTEM HOODING. UNDERGROUND PAPERS ARE TO BE SUPPLIED TO THE "PP" CONTRACTOR BY THE S.C.U.
- 8" X 8" GROoved CONCENTRIC REDUCER
- 6" SUPERVISED BUTTERFLY VALVE (NORMALLY OPEN)
- 8" RISER CHECK VALVE
- 2" DRAIN (TO OUTSIDE)
- FLOW SWITCH

**REMOTE RISER DETAILS**



**SPRINKLER SYMBOLS**

SYMBOL	CONT.	POSITION	FINISH	TEMP.	K	INP.	BSN	MFG.	MODEL#	ESCUTCHEON	NOTES
●	276	PEND.	BRASS	212	16.80	34"	RA1014	RELIABLE	JL17	NONE-EXPOSED	
●	512	PEND.	BRASS	212	22.40	1"	RA1011	RELIABLE	HL22	NONE-EXPOSED	
○	10	OPEND.	WHITE	200	5.60	12"	RA4114	RELIABLE	F1FR56	RECESSED	
○	18	OPEND.	WHITE	200	11.20	34"	RA2116	RELIABLE	J112	RECESSED	

**REVISIONS**

NO.	DATE	BY	DESCRIPTION
1			
2			
3			
4			
5			
6			
7			
8			
9			

**PROJECT**

**BUILDING 200**  
2323 BROWN RD  
BUPORD, GA 30519

**DATE**  
07/12/2022

**DRAWN BY**  
AMM

**APPROVAL**  
Fire Marshal

**SCALE**  
3/32"=1'-0"

**SHEET NO.**  
5 of 5

**CONTRACT NO.**  
16135-22

**AREA**  
ZONES 7 & 8 Fire Protection Piping Plan & Office Protection Piping Plan