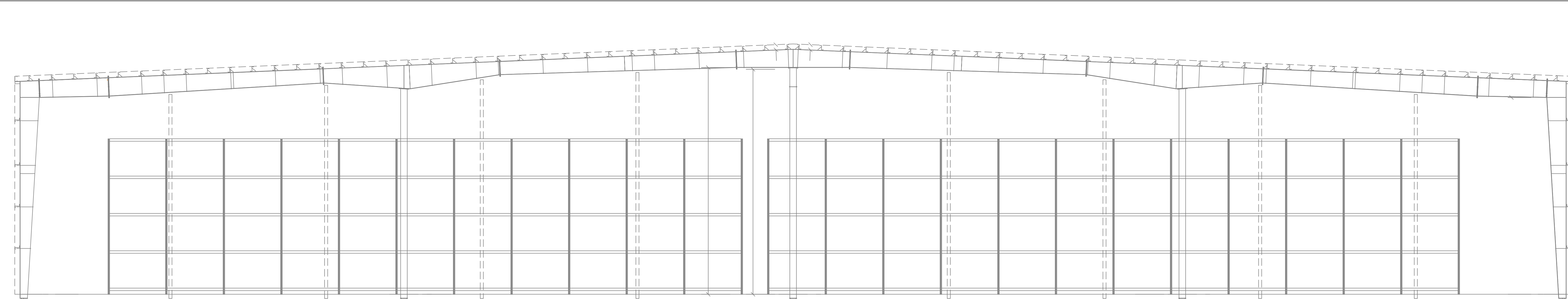
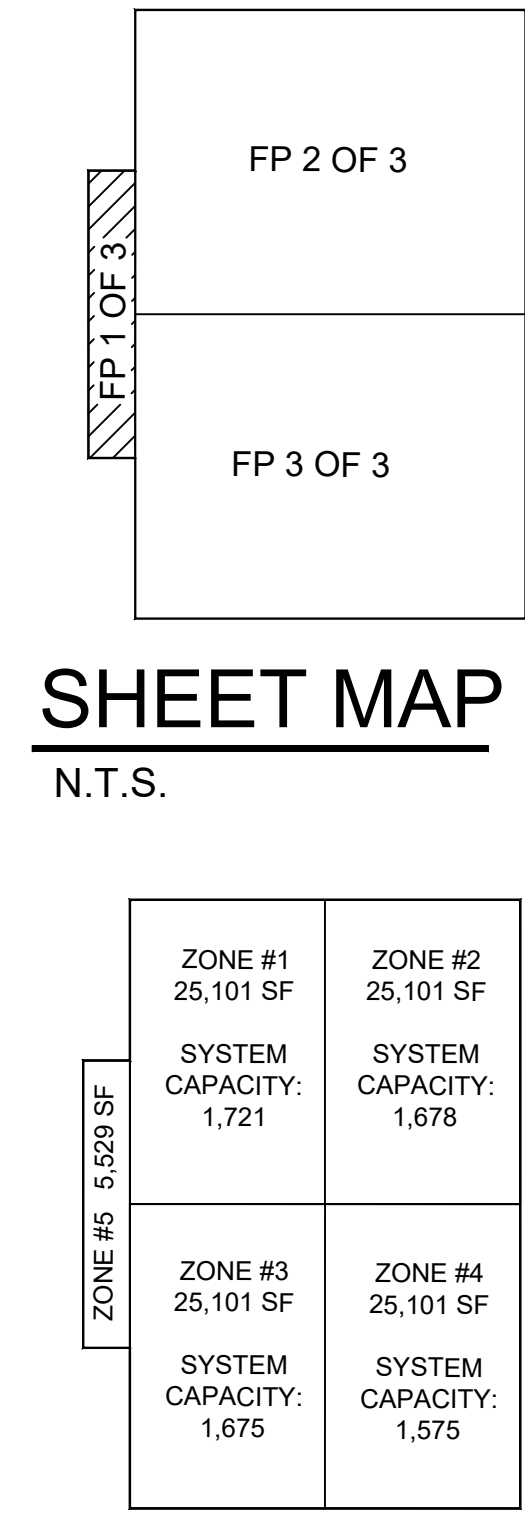


ZONE 5 FP PLAN
SCALE: 1/8" = 1'-0"



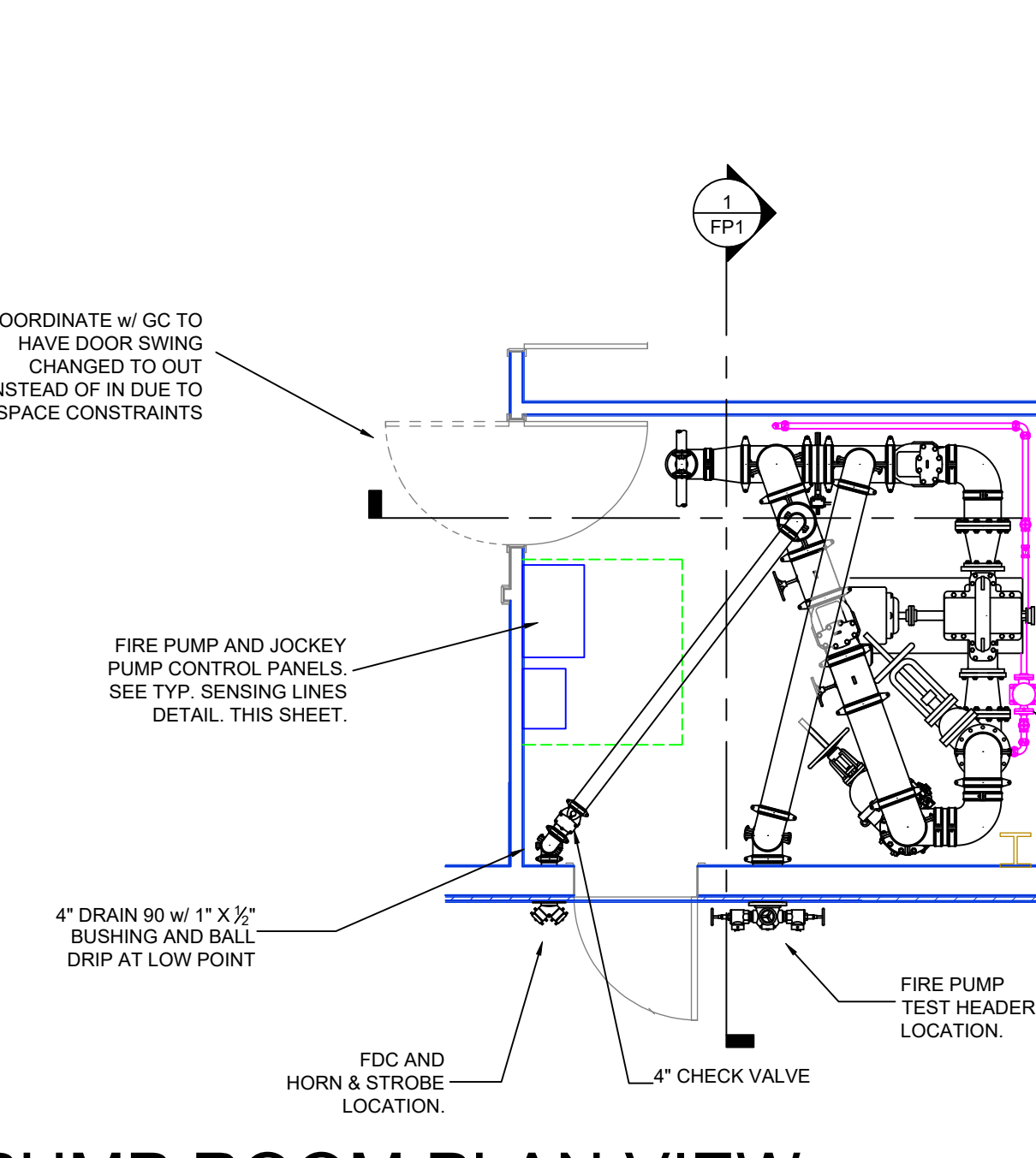
A BUILDING SECTION
SCALE: 1/8" = 1'-0"



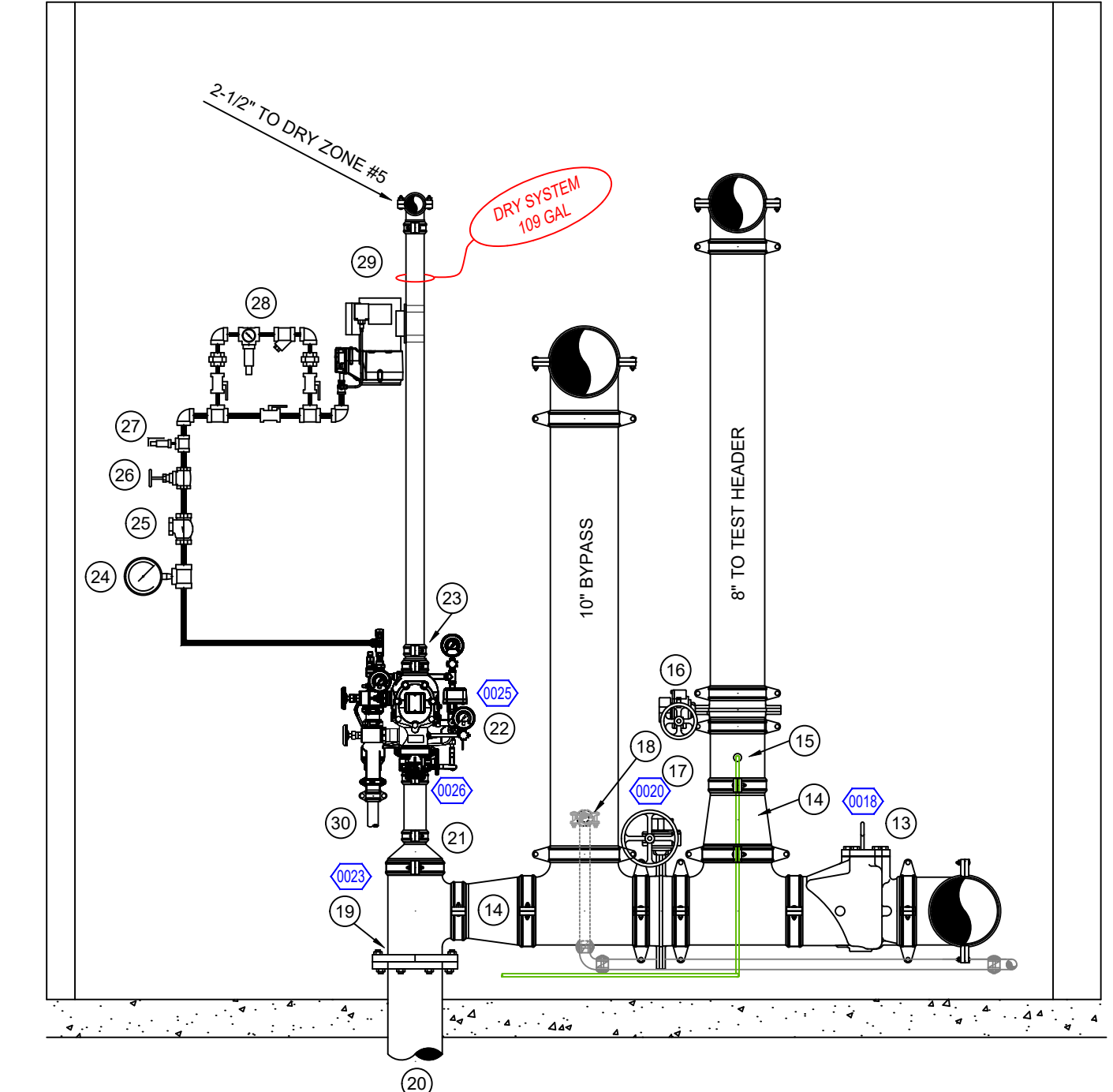
ZONE MAP
N.T.S.

SPRINKLER HEAD LEGEND

SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SIN	MFG	MODEL#	ESCU/TIC/CHN
11		PENDENT	CHROME	200	5.60	1/2"	TY323	TYCO	TY-FRB	SEMI-RECESSED
11		SIDEWALL	BRASS	200	5.60	1/2"	TY3331	TYCO	TY-FRB	HEAD GUARD
34		UPRIGHT	BRASS	200	5.60	1/2"	TY313	TYCO	TY-FRB	NONE
3		SPRIG	BRASS	200	5.60	1/2"	TY313	TYCO	TY-FRB	NONE
1068		UPRIGHT	BRASS	212	25.20	1"	V4603	VICTAULIC	LP-46	NONE
2		SIDEWALL	BRASS	200	8.00	3/4"	TY4332	TYCO	TY-FRB	HEAD GUARD
	1129	PROJECT TOTAL								

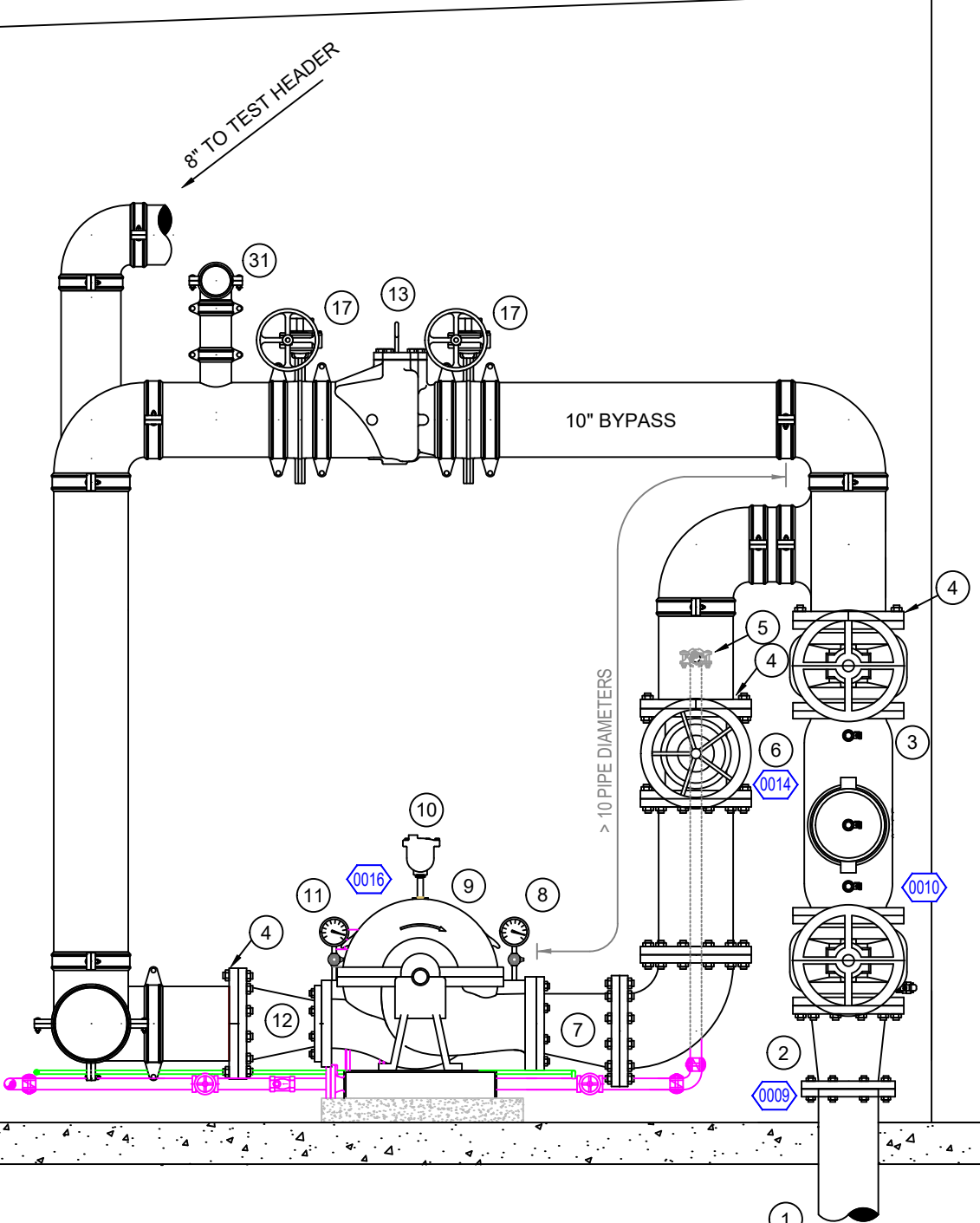


B PUMP ROOM PLAN VIEW
SCALE: 1/4" = 1'-0"



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

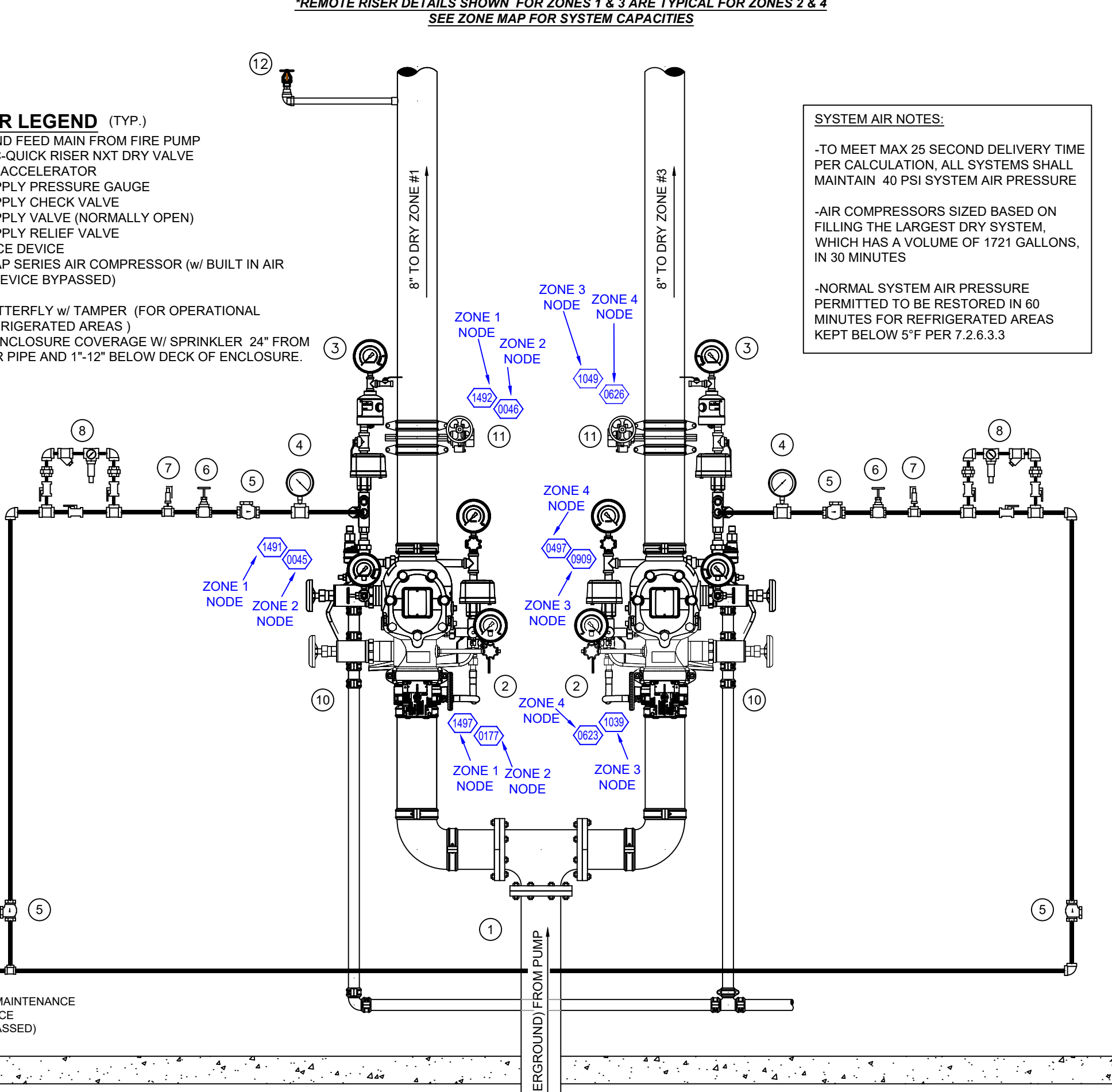
- FIRE PUMP AND ZONE 5 RISER LEGEND**
- 8" UNDERGROUND SERVICE (BY OTHERS)
 - 8" X 10" FLANGED CONCENTRIC INCREASER
 - 10" BACKFLOW PREVENTER w/ SUPERVISED OSBY VALVES
 - 10" GROOVE FLANGE ADAPTER
 - 10" TO JOCKEY PUMP SUCTION
 - 10" SUPERVISED GATE VALVE
 - 10" X 8" ECCENTRIC REDUCER
 - SUCTION GAUGE
 - 2000 GPM @ 85 PSI HORIZONTAL SPLIT CASE FIRE PUMP
 - AIR RELEASE VALVE
 - DISCHARGE GAUGE
 - 10" GROOVED CHECK VALVE
 - 8" X 10" FLANGED INCREASER
 - 10" GROOVED CHECK VALVE
 - 10" X 10" GROOVED CONCENTRIC REDUCER
 - 1" X 1/2" BUSHING FOR FIRE PUMP SENSING LINE
 - 10" SUPERVISED BUTTERFLY VALVE (NORMALLY CLOSED)
 - 10" SUPERVISED BUTTERFLY VALVE (NORMALLY OPEN)
 - 10" FROM JOCKEY PUMP DISCHARGE
 - 8" GROOVE FLANGE ADAPTER
 - 8" UNDERGROUND TO REMOTE RISERS
 - 8" X 3" GROOVED CONCENTRIC REDUCER
 - 3" VICTAULIC VIC-QUICK RISER NKT DRY VALVE
 - 3" X 2 1/2" GROOVED CONCENTRIC REDUCER
 - SYSTEM AIR SUPPLY PRESSURE GAUGE
 - SYSTEM AIR SUPPLY CHECK VALVE
 - SYSTEM AIR SUPPLY RELIEF VALVE (NORMALLY OPEN)
 - SYSTEM AIR SUPPLY RELIEF VALVE
 - AIR MAINTENANCE DEVICE
 - MOUNTED AIR COMPRESSOR
 - 1/2" DRAIN PIPE
 - 4" TO FDC



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

REMOTE RISER LEGEND (TYP.)

- 8" UNDERGROUND FEED MAIN FROM FIRE PUMP
- 8" VICTAULIC VIC-QUICK RISER NKT DRY VALVE
- SERIES 746 DRY ACCELERATOR
- SYSTEM AIR SUPPLY PRESSURE GAUGE
- SYSTEM AIR SUPPLY CHECK VALVE
- SYSTEM AIR SUPPLY VALVE (NORMALLY OPEN)
- SYSTEM AIR SUPPLY RELIEF VALVE
- AIR MAINTENANCE DEVICE
- GENERAL AIR DAP SERIES AIR COMPRESSOR (W/ BUILT IN AIR MAINTENANCE DEVICE BYPASSED)
- 2" DRAIN PIPE
- 8" GROOVED BUTTERFLY W/ TAMPER (FOR OPERATIONAL TESTING OF REFRIGERATED AREAS)
- 1" OUTLET FOR ENCLOSURE COVERAGE W/ SPRINKLER 24" FROM SIDE OF 8" RISER PIPE AND 1'-1/2" BELOW DECK OF ENCLOSURE.



3 REMOTE RISER DETAIL
SCALE: 1/2" = 1'-0"

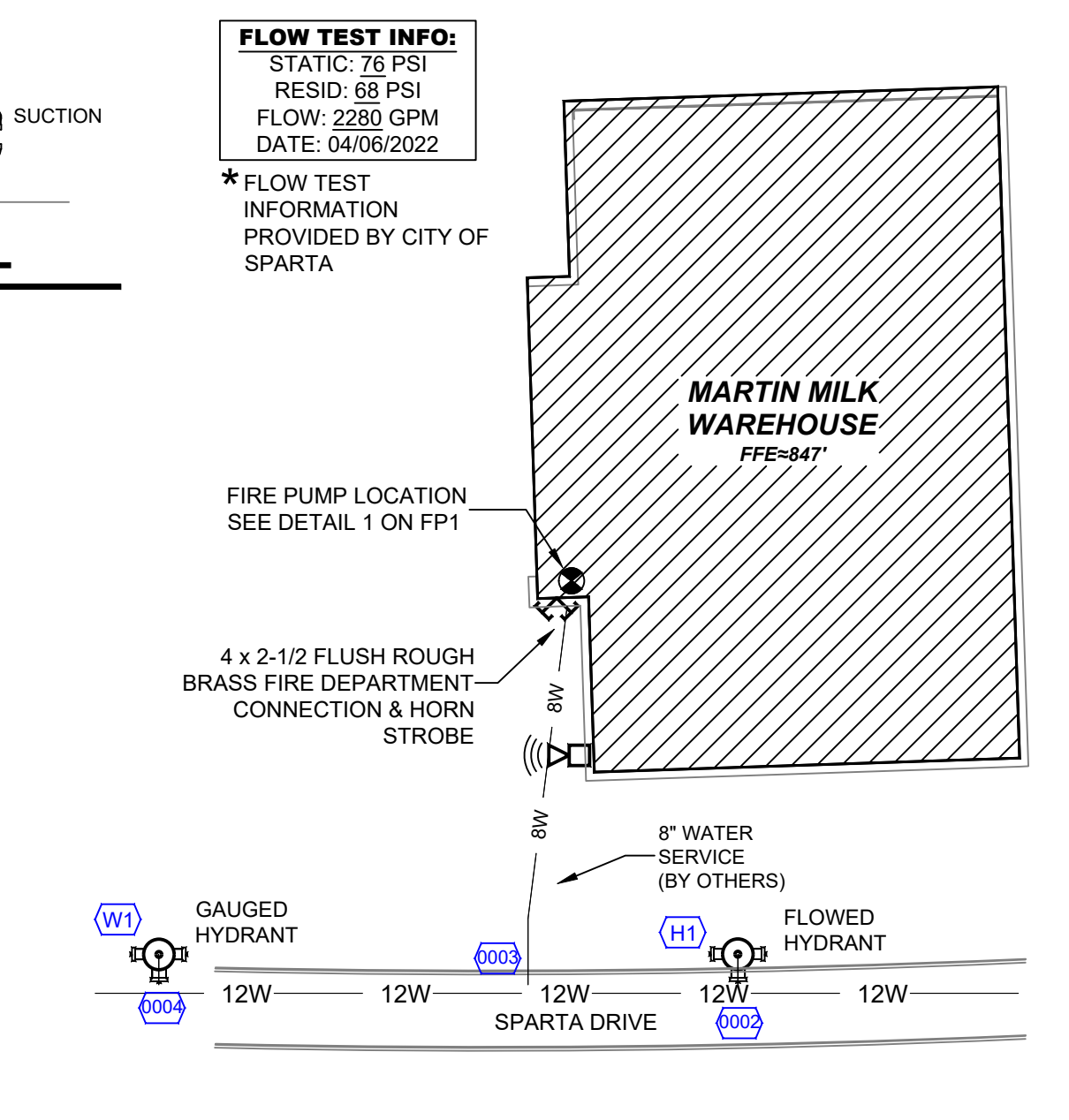
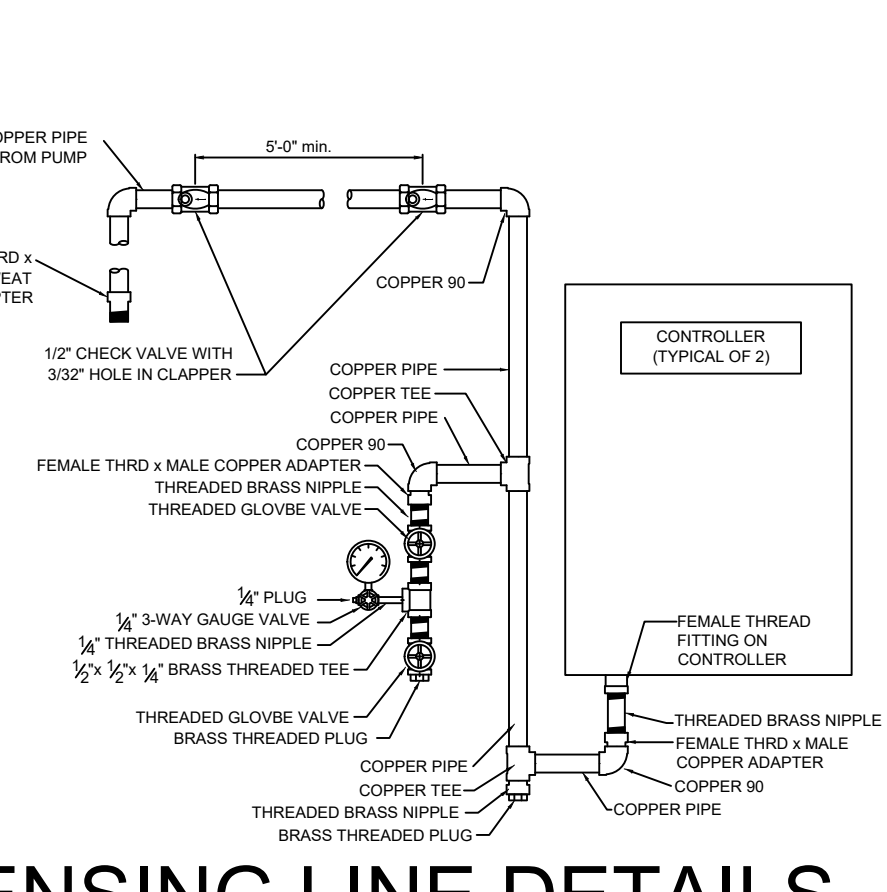
GENERAL NOTES

- INTERNATIONAL BUILDING CODE (2015)
 - OCCUPANCY: S2 STORAGE
 - TYPE OF CONSTRUCTION: IIB
 - SPRINKLERED AREAS (APPROXIMATE - SEE ARCHITECTURAL PLANS FOR ACTUAL) REFRIGERATED DRY WAREHOUSE = 96,755 S.F. LOADING DOCK/OFFICE AREA = 5,332 S.F. - SEE ZONE MAP FOR AREAS OF SP PER ZONE.
- INSTALLATION STANDARDS: SPRINKLER SYSTEM DESIGNED AND INSTALLED PER NFPA-13 (2013), NFPA-20 (2013)
- SPRINKLER PIPE TYPES:
 - BRANCH LINES TO BE BLK BULL MOOSE EDDYTHREAD PIPING WITH THREADED FITTINGS.
 - 1 1/2" THROUGH 4" MAIN & BRANCH LINES TO BE BLK BULL MOOSE EDDY FLOW PIPING WITH GROOVED ENDS AND FITTINGS. OUTLETS TO BE WELDED.
 - 6" THROUGH 8" MAINS TO BE BLK SCHEDULE 10 STEEL WITH GROOVED ENDS AND FITTINGS. OUTLETS TO BE WELDED.
- SCOPE OF WORK:
 - INSTALL A NEW FIRE SPRINKLER SYSTEM FOR THE ENTIRE FACILITY PER NFPA 13 & NFPA 20 AS SHOWN ON THESE PLANS
 - THE LOADING DOCK / OFFICE PORTION OF THE FACILITY IS PROTECTED BY A DRY SYSTEM DESIGNED TO APPROPRIATE HAZARDS PER NFPA 13
 - OFFICE, TOILETS, LOBBY, CONFERENCE, BREAK AND FIRE PUMP ROOMS DESIGNED TO LIGHT HAZARD
 - IT AND MECH ROOMS DESIGNED TO ORDINARY HAZARD GROUP 1
 - 2.2 REFRIGERATED WAREHOUSE PORTIONS OF FACILITY ARE PROTECTED BY FOUR (4) NEW DRY SYSTEMS DESIGNED PER THE VICTAULIC FIRELOCK LP-46 LOW PRESSURE STORAGE SPRINKLER DATA SHEET, WHICH IS BASED ON FACTORY MUTUAL (FM) TESTING.
 - LP-46 UPRIGHT 1/4603 FOR FREEZER DRY-REACTON SYSTEMS CLASS I/II COMMODITY STORAGE OPEN FRAME RACK WITHOUT NEED OF IN RACK SPRINKLERS. UP TO 40 FT HIGH CEILING AND UP TO 35 FT HIGH STORAGE.
 - NUMBER OF SPRINKLERS (24) BASED UPON WATER DELIVERY OF 25 SECONDS OR LESS WITH 10' X 10' SPACING AND 4'-11" THERMAL ELEMENT TO CEILING DISTANCE.
 - DISCHARGE PRESSURE: 15 PSI
 - OUTSIDE HOSE ALLOWANCE: 500 GPM
 - SEE SPRINKLER HEAD DATA SHEET 44-62 FOR MORE INFORMATION.
 - SYSTEM WILL BE SUPPLIED BY A 2000 GPM @ 85 PSI FIRE PUMP INSTALLED PER NFPA 20. SEE PLANS FOR PIPING AND VALVES.
- HANGERS:
 - HANGERS TO BE INSTALLED IN ACCORDANCE WITH NFPA 13 (2013) - SEE PLAN FOR HANGING REQ.
 - DRY SYSTEM PIPE SLOPE INSTALLATION: SPRINKLER MAINS TO BE 1/4" PER 10 FEET AND 1/2" PER 10 FEET IN REFRIGERATED AREAS SPRINKLER BRANCH LINES TO BE 1/2" PER 10 FEET
- SYMBOLS USED ON DRAWINGS:
 - PIPE ELEVATION A.F.F.
 - ROOM HAZARD CLASSIFICATION (ALL ROOMS ARE CONSIDERED LIGHT HAZARD UNLESS NOTED)
 - HYDRAULIC CALCULATION JUNCTION POINT
 - CEILING HEIGHT

JOCKEY PUMP LEGEND

- 1/2" THREADED GLOBE VALVE
- 1/2" THREADED UNION
- JOCKEY PUMP
- 1/2" THREADED CHECK VALVE
- 1/2" X 1/2" THREADED TEE
- 3/4" BRASS THREADED NIPPLE
- 7/8" FEMALE THREAD X FEMALE COPPER ADAPTER
- 8" COPPER SENSING LINE TO CONTROLLER

JOCKEY PUMP DETAIL
SCALE: 1/2" = 1'-0"



SITE PLAN
1" = 100'

NO.	REVISIONS	BY	DATE

GENERAL NOTES

- SYSTEM DESIGNED PER NFPA-13 (2013)
- ALL SYSTEM MATERIAL AND INSTALLATION PER NFPA-13
- ALL HANGER COMPONENTS, LOCATION AND INSTALLATION METHODS PER NFPA-13 (2013)
- PIPE SPECIFICATIONS: 1" EDDYTHREAD 1 1/2" - 4" EDDY FLOW 8" - 8" 5/10 PIPE
- FITTING SPECIFICATIONS: SCREWED - DUCTILE IRON; GROOVED - DUCTILE IRON
- SYMBOL (H) INDICATES HYD CAL POINT
- FINISHED DROP CEILING ALL 9'-0" UNLESS NOTED WITH SYMBOL

SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SIN	MFG	MODEL#	ESCU/TIC/CHN
11		PENDENT	CHROME	200	5.60	1/2"	TY323	TYCO	TY-FRB	SEMI-RECESSED
8		SIDEWALL	BRASS	200	5.60	1/2"	TY3331	TYCO	TY-FRB	HEAD GUARD
34		UPRIGHT	BRASS	200	5.60	1/2"	TY313	TYCO	TY-FRB	NONE
3		SPRIG	BRASS	200	5.60	1/2"	TY313	TYCO	TY-FRB	NONE
56		PROJECT TOTAL								

SYSTEM AIR NOTES:

- TO MEET MAX 25 SECOND DELIVERY TIME PER CALCULATION, ALL SYSTEMS SHALL MAINTAIN 40 PSI SYSTEM AIR PRESSURE
- AIR COMPRESSORS SIZED BASED ON FILLING THE LARGEST DRY SYSTEM, WHICH HAS A VOLUME OF 1721 GALLONS, IN 30 MINUTES
- NORMAL SYSTEM AIR PRESSURE PERMITTED TO BE RESTORED IN 60 MINUTES FOR REFRIGERATED AREAS KEPT BELOW 5' PER 7.2.6.3.3

PROPERTY

DR: AMM CHKD: BOB C.

PROJECT:

ADDRESS:

AREA:

DATE: 05-23-2022

CAD FILE: 80291-22

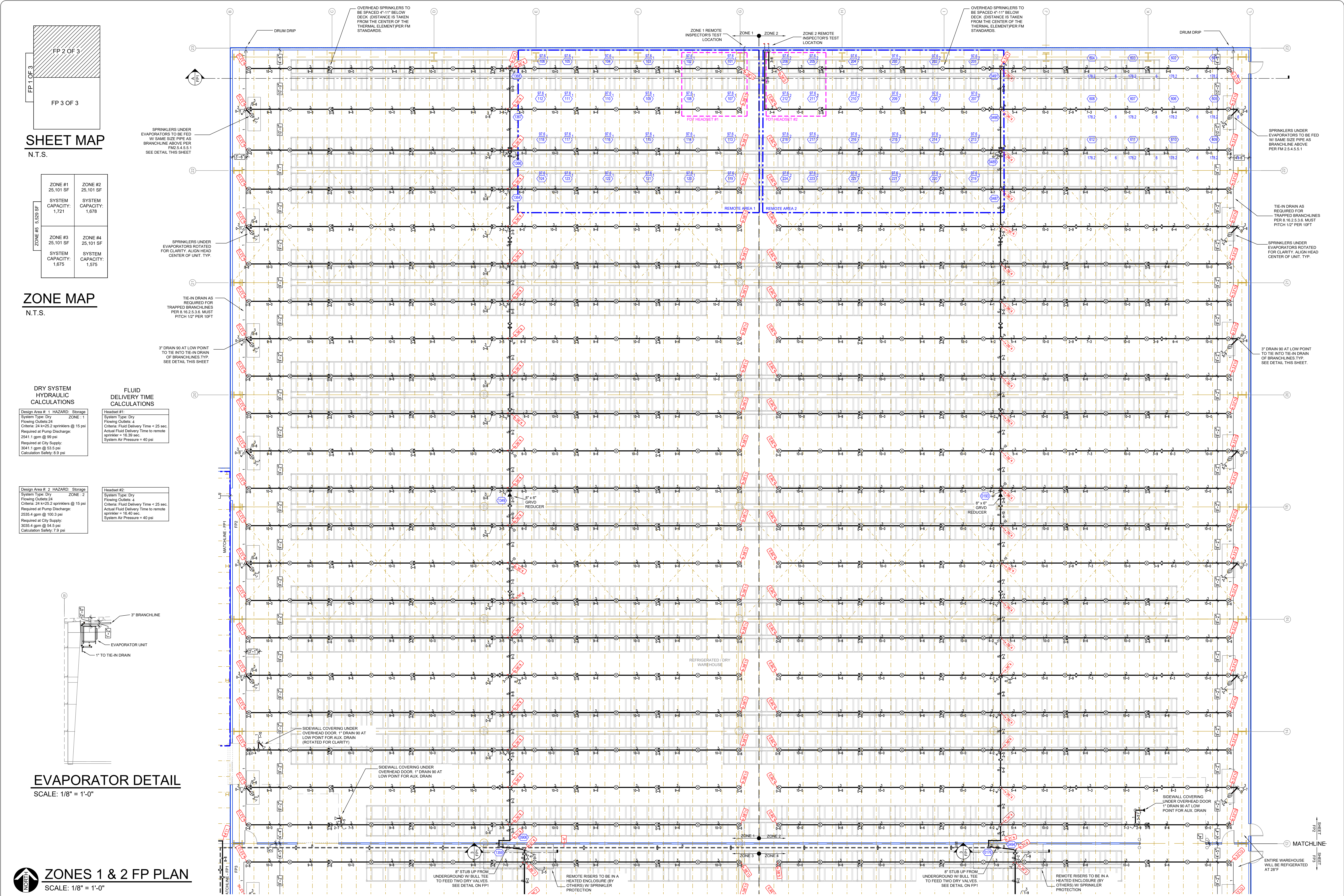
AREA: ZONE 5

MARTIN MILK WAREHOUSE (II)
SPARTA DR, SPARTAN, WI 54656
TITLE PAGE / ZONE 5

SHEET/DRAWING NO. **FP1 OF 3**

PROJECT **80291-22**

REV.



SHEET MAP
N.T.S.

ZONES 1 & 2 SF	ZONE #1 25,101 SF SYSTEM CAPACITY: 1,721	ZONE #2 25,101 SF SYSTEM CAPACITY: 1,678
	ZONE #3 25,101 SF SYSTEM CAPACITY: 1,675	ZONE #4 25,101 SF SYSTEM CAPACITY: 1,575

ZONE MAP
N.T.S.

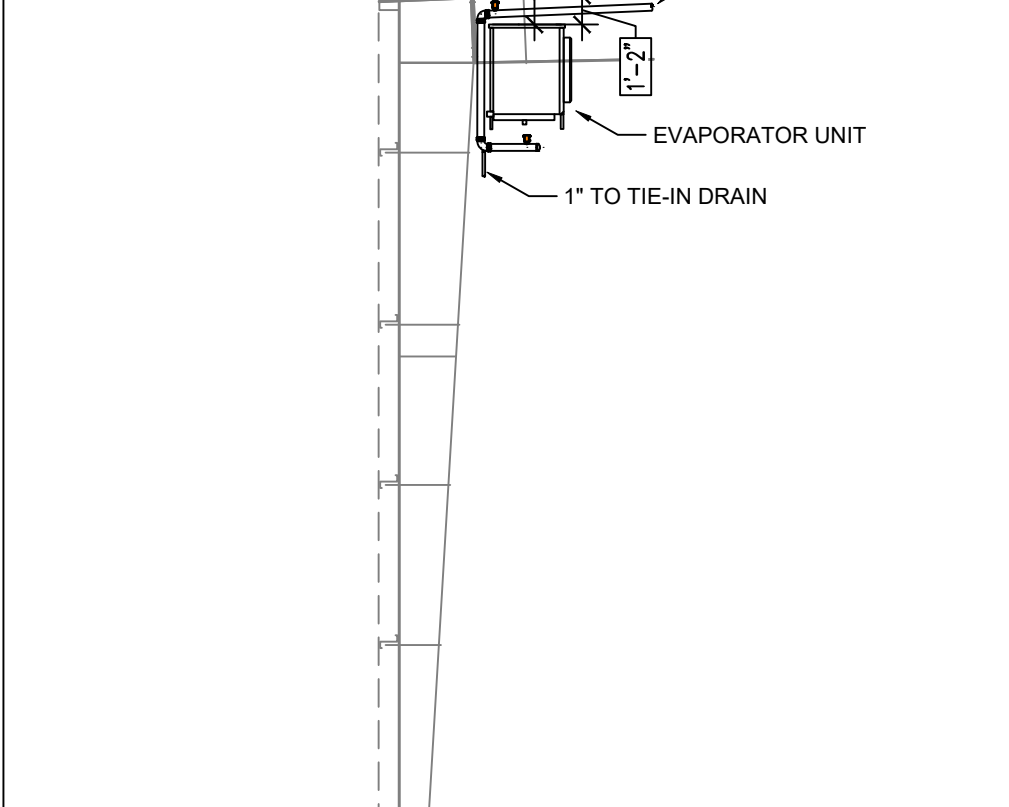
DRY SYSTEM HYDRAULIC CALCULATIONS

Design Area # 1 HAZARD, Storage
System Type: Dry
Flowing Outlets: 24
Criteria: 24 k=25.2 sprinklers @ 15 psi
Required at Pump Discharge:
2541.1 gpm @ 99 psi
Required at City Supply:
3041.1 gpm @ 53.5 psi
Calculation Safety: 8.9 psi

FLUID DELIVERY TIME CALCULATIONS

Headset #1:
System Type: Dry
Flowing Outlets: 4
Criteria: Fluid Delivery Time < 25 sec.
Actual Fluid Delivery Time to remote
sprinkler = 16.39 sec.
System Air Pressure = 40 psi

EVAPORATOR DETAIL
SCALE: 1/8" = 1'-0"



ZONES 1 & 2 FP PLAN
SCALE: 1/8" = 1'-0"

NO.	REVISIONS	BY	DATE

GENERAL NOTES	
1	SYSTEM DESIGNED PER NFPA-13 (2013)
2	ALL SYSTEM MATERIAL AND INSTALLATION PER NFPA-13
3	ALL HANGER COMPONENTS, LOCATION AND INSTALLATION METHODS PER NFPA-13 (2013)
4	PIPE SPECIFICATIONS: 1" EDDY THREAD 1 1/2" - 4" EDDY FLOW 5" - 8" S10 PIPE
5	FITTING SPECIFICATIONS: SCREWED - DUCTILE IRON; GROOVED - DUCTILE IRON
6	SYMBOL (C) INDICATES HYD CALC POINT
7	FINISHED DROP CEILINGS ALL 9'-0" UNLESS NOTED WITH SYMBOL

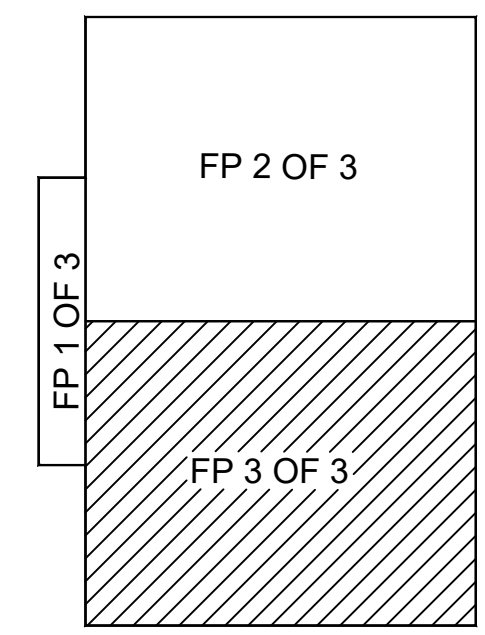
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543		UPRIGHT	BRASS	212	25.20	1"	V4603	VICTAULIC	LP-46	NONE	
1		SIDEWALL	BRASS	200	5.00	1/2"	TY3331	TYCO	TY-FRB	HEAD GUARD	
1		SIDEWALL	BRASS	200	6.00	3/4"	TY4332	TYCO	TY-FRB	HEAD GUARD	
548		PAGE TOTAL									

AREA: ZONE 1 & 2
DR: AMM
CHKD: BOB C.
SCALE: SEE PLAN
DATE: 07-19-2022
CAD FILE: 80291-22

PROPERTY
PROJECT:
ADDRESS:
AREA:

MARTIN MILK WAREHOUSE (II)
SPARTA DR, SPARTAN, WI 54656
ZONE 1 & ZONE 2

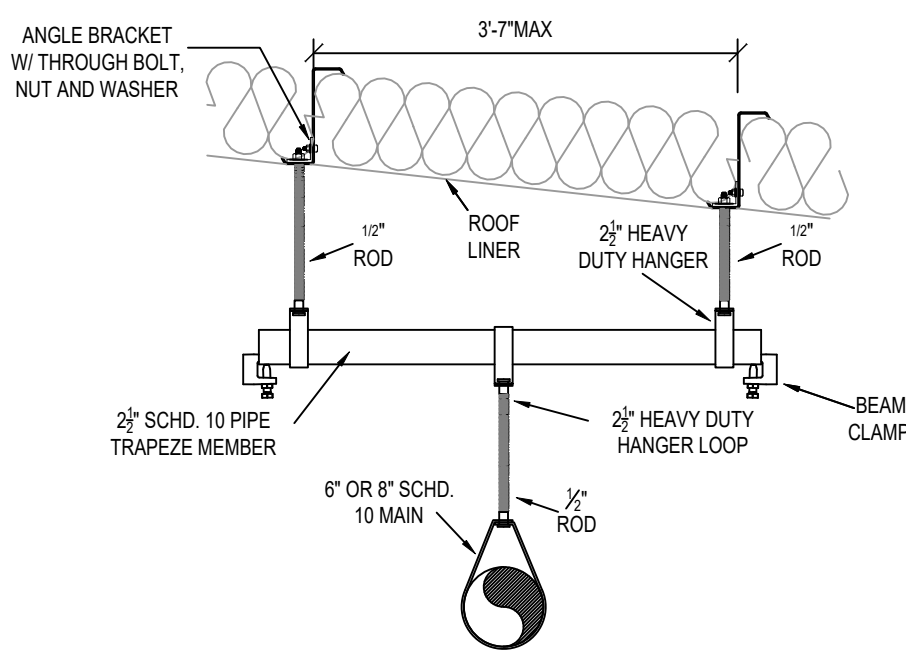
SHEET/DRAWING No:
FP 2 OF 3
PROJECT: 80291-22
REV:



SHEET MAP

ZONE #1 25,101 SF SYSTEM CAPACITY: 1,721	ZONE #2 25,101 SF SYSTEM CAPACITY: 1,678
ZONE #3 25,101 SF SYSTEM CAPACITY: 1,675	ZONE #4 25,101 SF SYSTEM CAPACITY: 1,575

ZONE MAP



TRAPEZE HANGER DETAIL

DRY SYSTEM HYDRAULIC CALCULATIONS

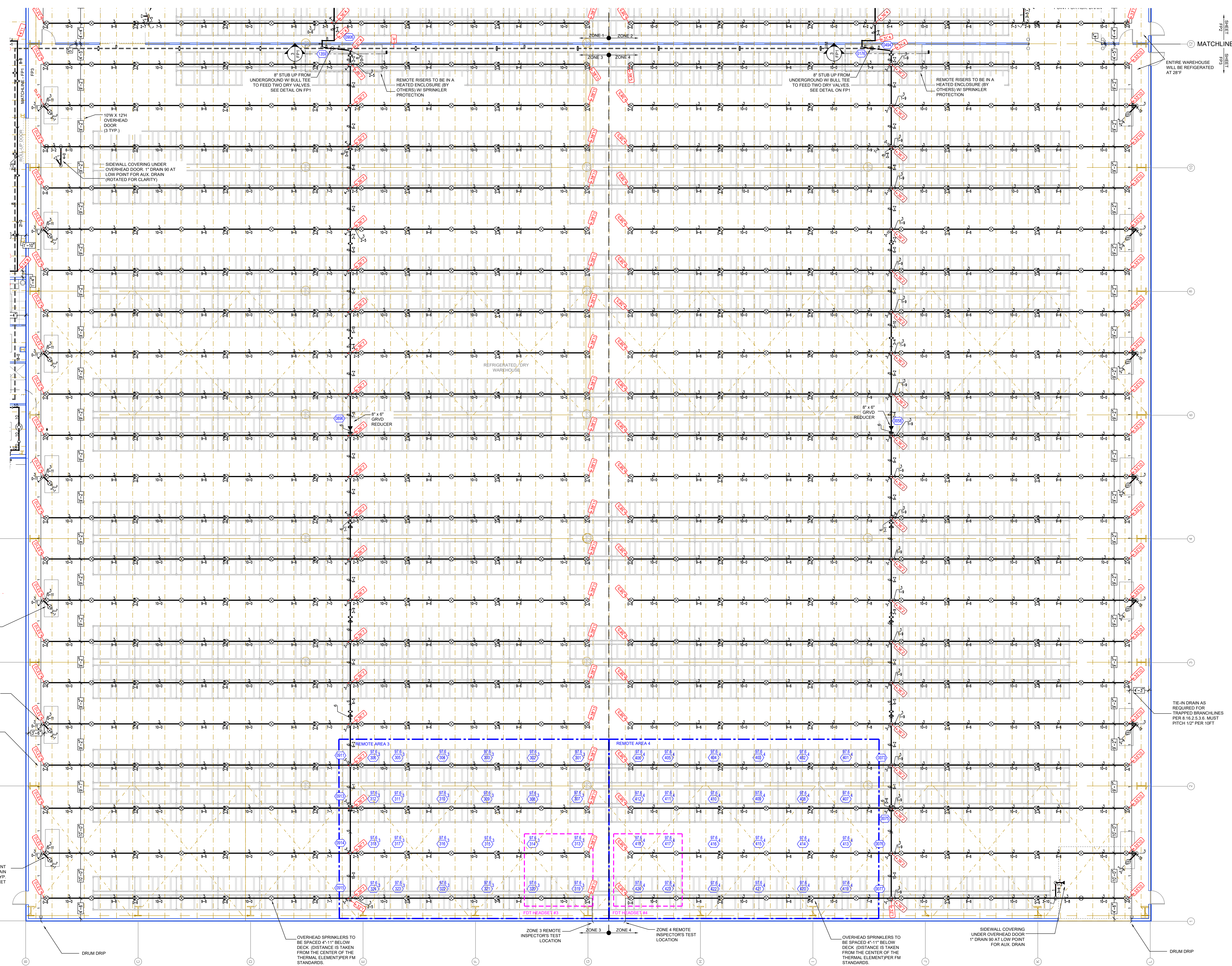
Design Area # 3 HAZARD: Storage
System Type: Dry ZONE 3
Flowing Outlets: 24
Criteria: 24 x 2.5-2.5 sprinklers @ 15 psi
Required at Pump Discharge:
2540.7 gpm @ 96.1 psi
Required at City Supply:
3040.7 gpm @ 50.9 psi
Calculation Safety: 11.8 psi

Design Area # 4 HAZARD: Storage
System Type: Dry ZONE 4
Flowing Outlets: 24
Criteria: 24 x 2.5-2.5 sprinklers @ 15 psi
Required at Pump Discharge:
2534.9 gpm @ 100.1 psi
Required at City Supply:
3034.9 gpm @ 64.3 psi
Calculation Safety: 8.1 psi

FLUID DELIVERY TIME CALCULATIONS

Headset #3
System Type: Dry
Flowing Outlets: 4
Criteria: Fluid Delivery Time < 25 sec.
Actual Fluid Delivery Time to remote
sprinkler = 15.89 sec.
System Air Pressure = 40 psi

Headset #4
System Type: Dry
Flowing Outlets: 4
Criteria: Fluid Delivery Time < 25 sec.
Actual Fluid Delivery Time to remote
sprinkler = 16.11 sec.
System Air Pressure = 40 psi



ZONES 3 & 4 FP PLAN
SCALE: 1/8" = 1'-0"

NO.	REVISIONS	BY	DATE

GENERAL NOTES

- 1 SYSTEM DESIGNED PER NFPA-13 (2013)
- 2 ALL SYSTEM MATERIAL AND INSTALLATION PER NFPA-13
- 3 ALL HANGER COMPONENTS, LOCATION AND INSTALLATION METHODS PER NFPA-13 (2013)
- 4 PIPE SPECIFICATIONS: 1" EDDY FLOW 4" 8" EDDY FLOW 8" 8" EDDY FLOW
- 5 FITTING SPECIFICATIONS: SCREWED - DUCTILE IRON; GROOVED - DUCTILE IRON
- 6 SYMBOL (C) INDICATES HYD CALC POINT
- 7 FINISHED DROP CEILINGS ALL 9'-0" UNLESS NOTED WITH SYMBOL

SYM	QTY	POSITION	FINISH	TEMP	K	NPT	SIN	MFG	MODEL#	ESCUTCHEON	
⊗	525	UPRIGHT	BRASS	212	25	20	1"	V4603	VICTAULIC	LP-40	NONE
◁	1	SIDEWALL	BRASS	200	5.60	1/2"	TY3331	TYCO	TY-FRB	HEAD GUARD	
◁	1	SIDEWALL	BRASS	200	8.00	3/4"	TY4332	TYCO	TY-FRB	HEAD GUARD	
527	PAGE TOTAL										

AREA: ZONE 3 & 4
DR: AMM
SCALE: SEE PLAN
DATE: 07-19-2022
CAD FILE: 80291-22

PROPERTY
PROJECT:
ADDRESS:
AREA:

MARTIN MILK WAREHOUSE (II)
SPARTA DR, SPARTAN, WI 54656
ZONE 3 & 4

SHEET/DRAWING No.
FP3 OF 3
PROJECT
80291-22