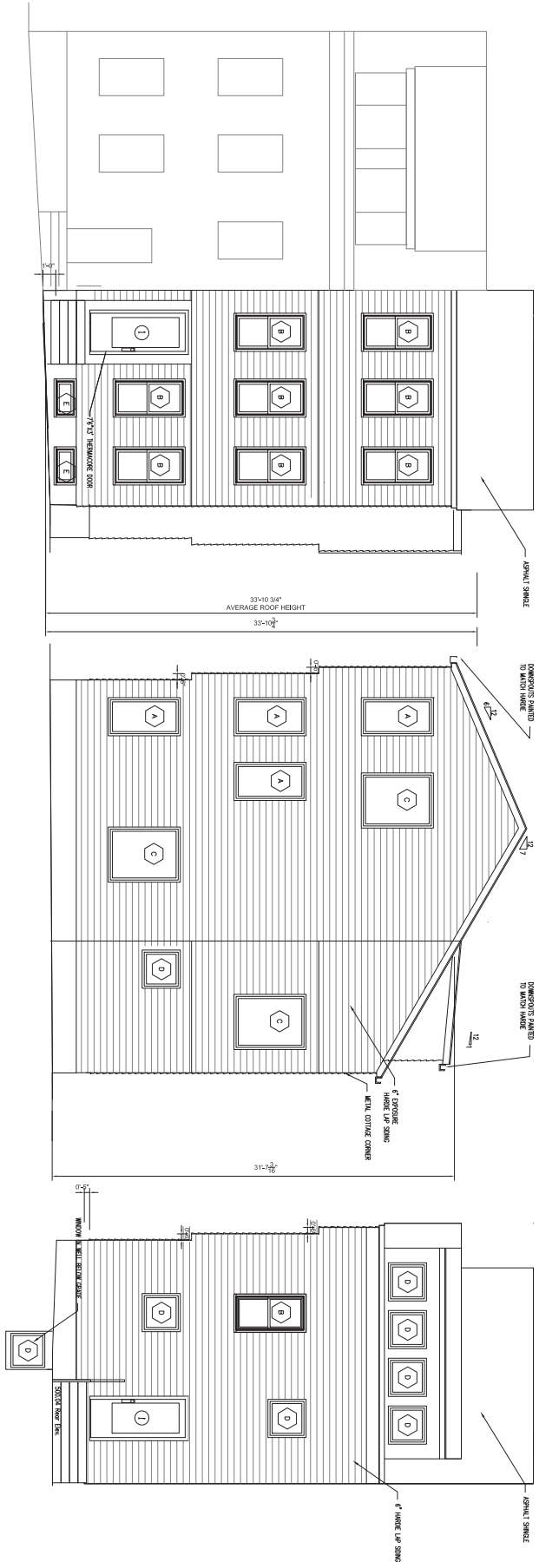


Stamped By: _____
 Drawn By: _____
 Checked By: _____
 Date: 12/19/22
 Project: 1 Zoning Amendment, 56312/3
 2 Permit Submission, 12292/4
 Drawing Title: FLOOR PLANS PROPOSED
 Print No.: 2203
 FR Name: _____

Sheet No. **A-100**
 Scale: 1/4" = 1'-0"

9
ARMORY ST.
 CHARLESTOWN, MA



Scaled By: _____
 Drawn By: _____
 Checked By: _____
 Date: 12/19/22
 Project: _____
 1. Zoning Amendment: S031723
 2. Permit Submission#: 122924
 Project No.: _____
 Drawing Title: _____
 File Name: 2203

**ELEVATIONS
 & SECTIONS**

Sheet No. **A-101**
 Scale: 1/4"=1'-0"

PREPARED FOR:
 THE GEORGE COMPANY
 50 FRANKLIN STREET
 BOSTON, MA 02110

REFERENCES:
 OWNER OF RECORD:
 KENDRICK LLC
 50 FRANKLIN STREET
 BOSTON, MA

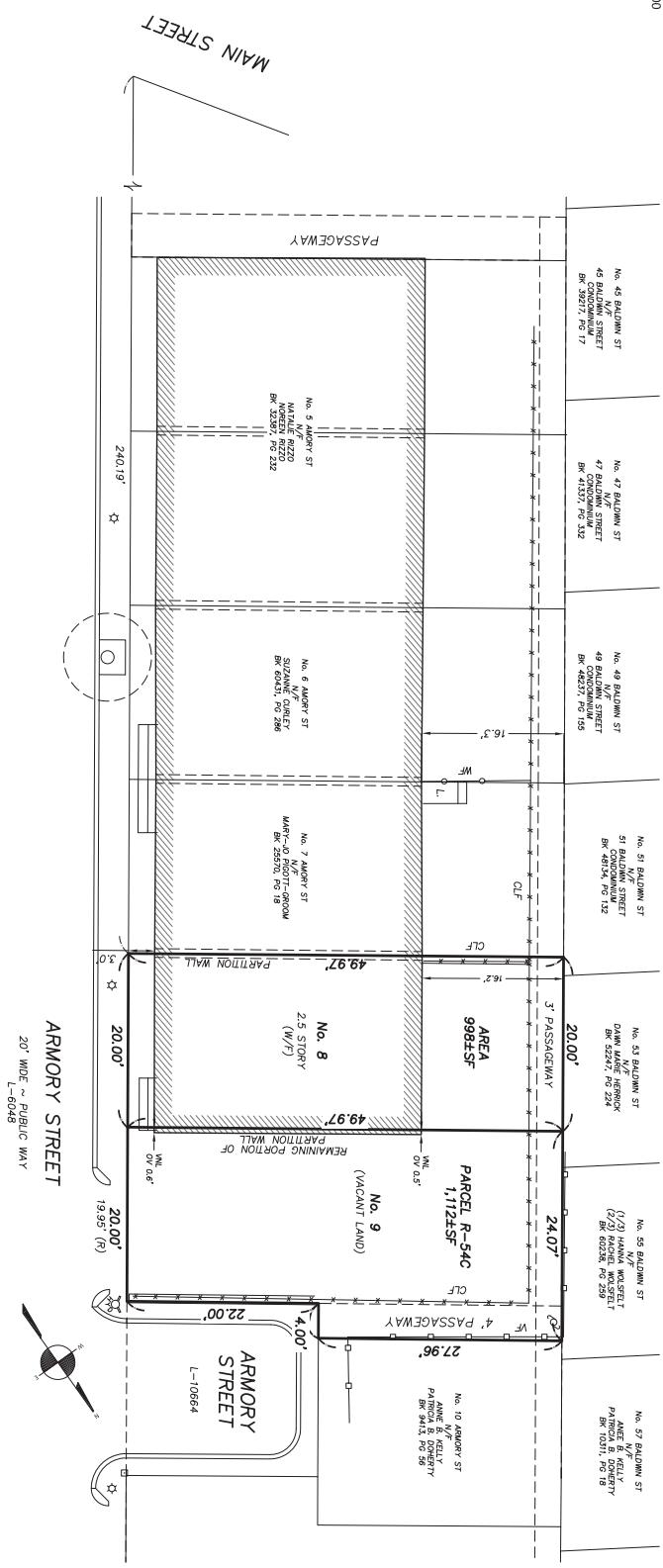
DEED: BK 88346; PG 18
 BK 8413; PG 36
 BK 8240; PG 37
 PLAN: 4906-B
 LIC: 4906-B

CITY OF BOSTON ENGINEERING RECORDS
 FB 1144, PGS 76-81, 142-143
 L-6048 ARMORY STREET
 L-10664 ARMORY STREET
 L-10667 BALDWIN STREET
 UNITS SHEET 5-2

NOTES:
 PARCEL ID: 0201159000
 0201158000

CERTIFIED PLOT PLAN

LOCATED AT
8 & 9 ARMORY STREET
CHARLESTOWN, MA



I CERTIFY THAT THIS PLAN WAS MADE FROM AN INSTRUMENT SURVEY ON THE GROUND ON THE DATE OF AUGUST 5, 2022 AND ALL STRUCTURES ARE LOCATED AS SHOWN HEREON.

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) MAPS, THE MAJOR IMPROVEMENTS ON THIS PROPERTY FALL WITHIN AN AREA DESIGNATED AS ZONE 1. COMMUNITY PANEL: 2502SC00141 EFFECTIVE DATE: 09/16/2016



FIELD:	JH, GCC
DRAFT:	RAP, SAP
CHECK:	GCC
DATE:	12/20/23
JOB #:	22-00600



PREPARED FOR:
THE GEORGE COMPANY
50 FRANKLIN STREET
BOSTON, MA 02110

REFERENCES:
OWNER OF RECORD:
KENDRICK LLC
50 FRANKLIN STREET
BOSTON, MA

DEED: BK 88346; PG 18
BK 8413; PG 36
BK 8240; PG 37
PLAN: 4306-B
LCC: 4306-B

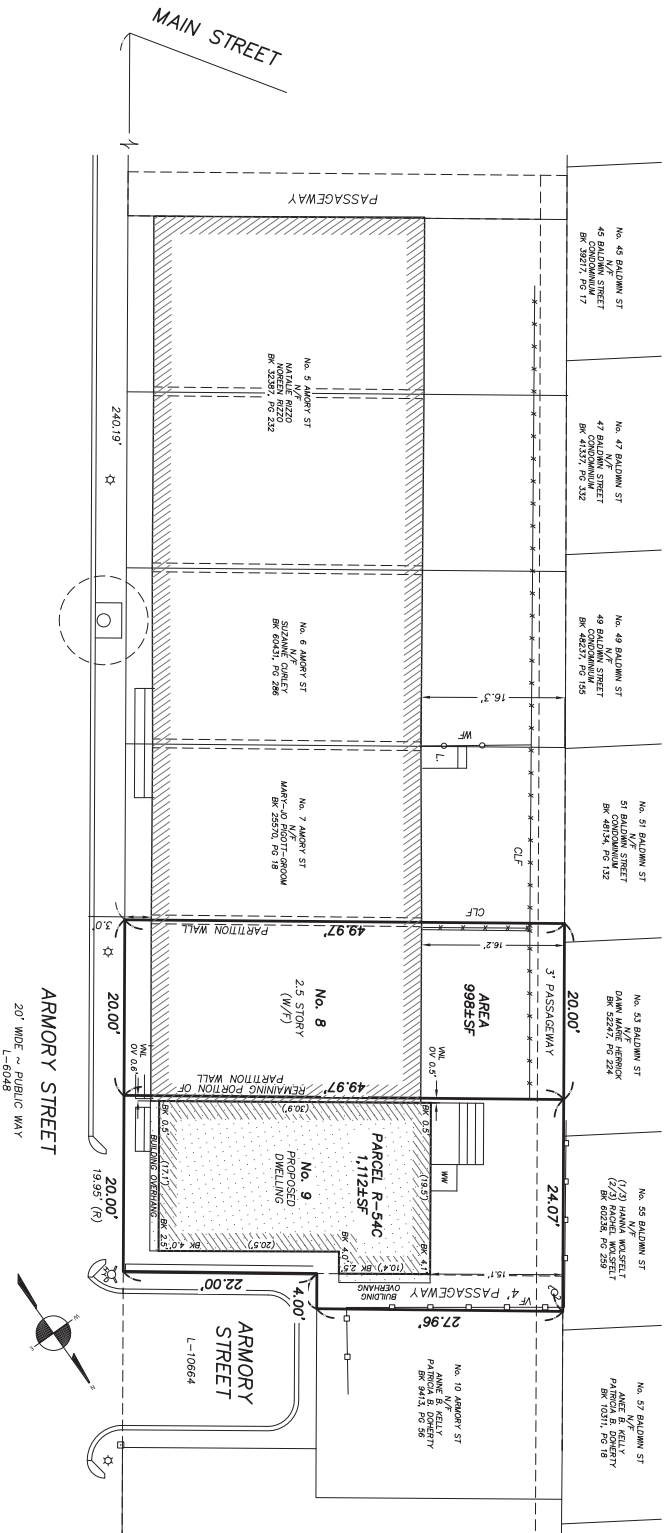
CITY OF BOSTON ENGINEERING RECORDS
FB 1144, PGS 76-81, 142-143
L-6048 ARMORY STREET
L-10664 ARMORY STREET
L-10667 BALDWIN STREET
UNITS SHEET 5-2

NOTES:
PARCEL ID: 0201159000
0201158000

CERTIFIED PLOT PLAN

LOCATED AT
8 & 9 ARMORY STREET
CHARLESTOWN, MA

SCALE: 1.0 INCH = 10.0 FEET



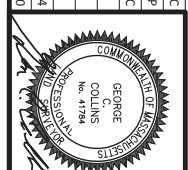
I CERTIFY THAT THIS PLAN WAS MADE FROM AN INSTRUMENT SURVEY ON THE GROUND ON THE DATE OF AUGUST 5, 2022 AND ALL STRUCTURES ARE LOCATED AS SHOWN HEREON.

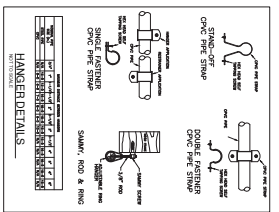
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) MAPS, THE MAJOR IMPROVEMENTS ON THIS PROPERTY FALL WITHIN AN AREA DESIGNATED AS ZONE 1.

COMMUNITY PANEL: 25025C00141
EFFECTIVE DATE: 03/16/2016



FIELD:	JH, GCC
DRAFT:	RAP, SAP
CHECK:	GCC
DATE:	01/12/24
JOB #:	22-00600





HYDRAULIC SYSTEM

THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED SPRINKLER SYSTEM

NO. OF SPRINKLERS	20
LOCATION	2ND FLOOR
BASIS OF DESIGN	28
DESIGN AREA OF PROTECTION	2,200 SQ. FT.
HOSE STREAMS	3
1. NOSE	3
2. OUTSIDE	0
SAFETY MARGIN	1.5
SYSTEM DEMAND	242
RESERVOIR HEAD	214

XCEL FIRE PROTECTION
(603) 890-3831

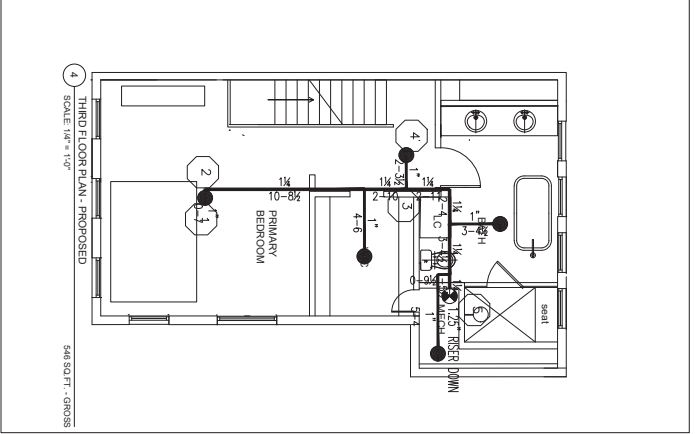
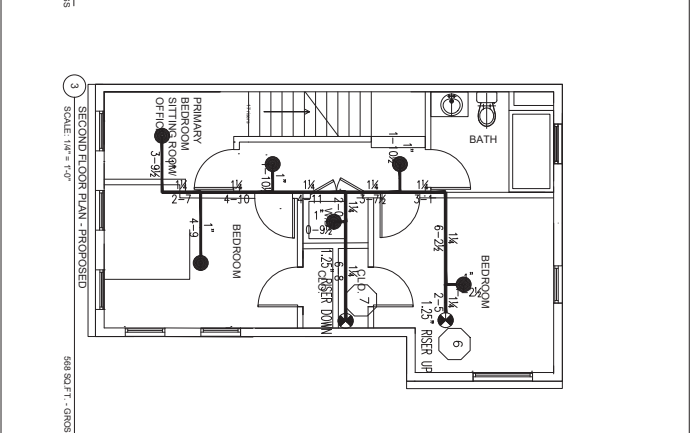
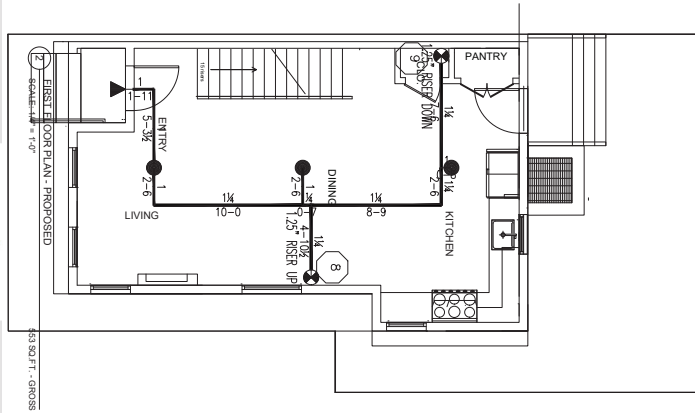
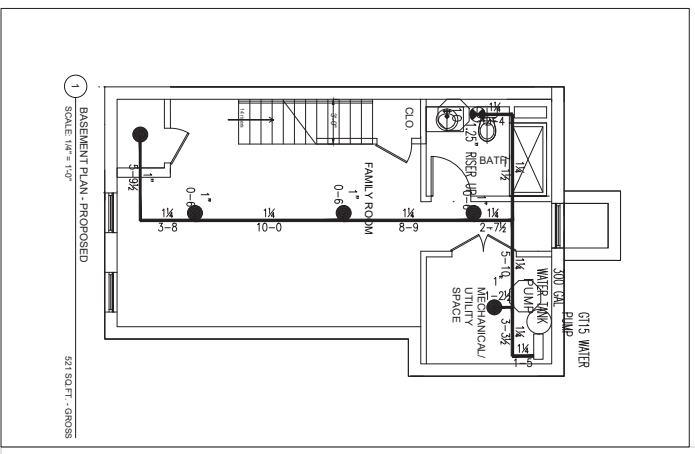
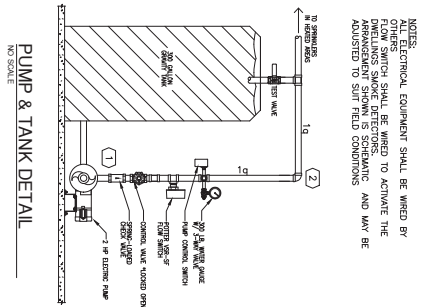
GENERAL NOTES

THE SYSTEM AS SHOWN HAS BEEN DESIGNED AND SHALL BE INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES.

Sprinkler Head Schedule

Symbol	Count	Thread	K-Factor	Description	Note
●	19	1/2"	4.9	RA0616 7/16 FR 165 BZ CC	ON DROP
▲	1	1/2"	5.6	SIDE1	ON DROP

20 = Total Number of Heads This Floor



XCEL FIRE PROTECTION
11 A INDUSTRIAL WAY
SALEM, NH 03079
TEL: (603) 890-3831 FAX: (603) 890-3831
EMAIL: design@xcelfire.com

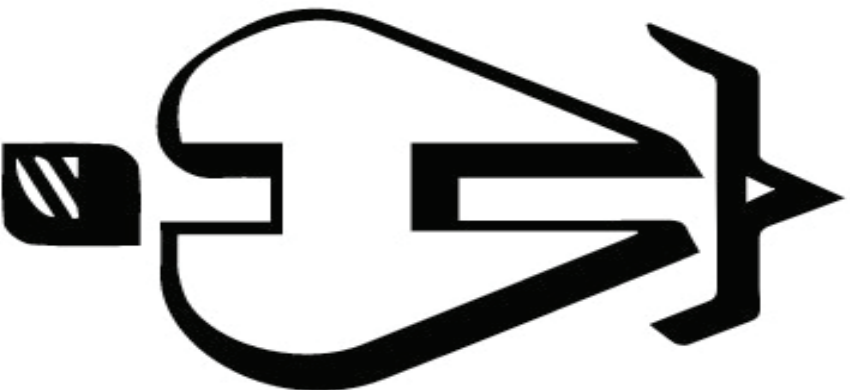


- General Notes**
- All fire protection shall be installed in accordance with the latest edition of NFPA 13.
 - All fire protection shall be installed in accordance with the latest edition of NFPA 13.
 - All fire protection shall be installed in accordance with the latest edition of NFPA 13.
 - All fire protection shall be installed in accordance with the latest edition of NFPA 13.
 - All fire protection shall be installed in accordance with the latest edition of NFPA 13.

Symbol	Description	Total This Sheet	Number of Sprinklers	Notes
●	RA0616 7/16 FR 165 BZ CC	19	19	
▲	SIDE1	1	1	

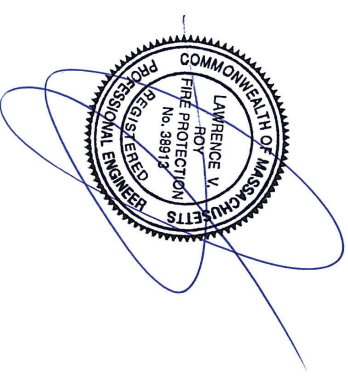
Job: 9 Armory Street, Charlestown, MA 02129
Contractor: The Geogres Company

SHEET 1 OF 1



Hydraulic Calculations by HydracALC

XCEL FIRE PROTECTION
11 INDUSTRIAL AVE
A1
SALEM, NH, 03079
603-890-3331



Job Name : 9 Armory Street
Drawing : 1
Location : 9 Armory Street Charlestown MA
Remote Area : 1
Contract : 2024-011
Data File : 9 Armory Calc REV 01-11-24.WXF

HYDRAULIC CALCULATIONS
for

JOB NAME 9 Armory Street
Location 9 Armory Street Charlestown MA
Drawing # 1
Contract # 2024-011
Date 01/11/24

DESIGN

Remote area # 1
Remote area location 3rd Floor
Occupancy classification Residential
Density .05 - Gpm/SqFt
Area of application 2 Heads/Wet - SqFt
Coverage/sprinkler 256 - SqFt
Type of sprinkler calculated
Sprinklers calculated 2
In-rack demand - GPM
Hose streams 0 - GPM
Total water required (including hose streams) 25.9925 - GPM @ 27.6298 - Psi
Type of system Wet
Volume of system (dry or pre-action) - Gal

WATER SUPPLY INFORMATION

Test date NA
Location NA
Source of info Water Pump Specifications

CONTRACTOR INFO XCEL FIRE PROTECTION

Address 11 INDUSTRIAL AVE / A1 / SALEM, NH, 03079
Phone # 603-890-3331
Name of designer TJM
Authority having jurisdiction
NOTES:

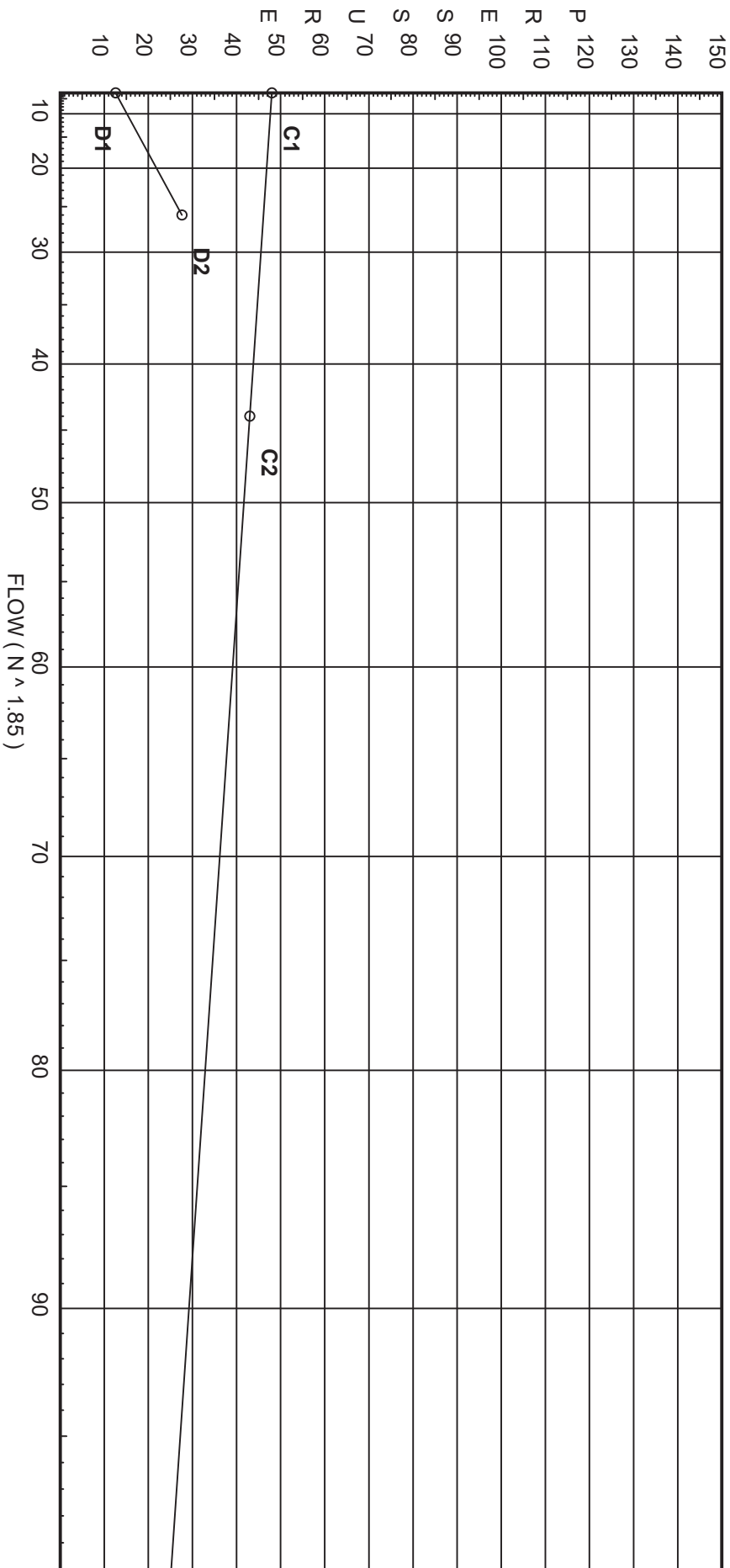
text1(35) - invisible

Water Supply Curve

XCEL FIRE PROTECTION
9 Armory Street

City Water Supply:
 C1 - Static Pressure : 48
 C2 - Residual Pressure: 43
 C2 - Residual Flow : 44

Demand:
 D1 - Elevation : 12.560
 D2 - System Flow : 25.992
 D2 - System Pressure : 27.630
 Hose (Demand) :
 D3 - System Demand : 25.992
 Safety Margin : 18.482



Fittings Used Summary

XCEL FIRE PROTECTION
9 Armory Street

Fitting Legend Abbrev.	Name	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8	10	12	14	16	18	20	24
E	NFPA 13 90° Standard Elbow	1	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61
T	NFPA 13 90° Flow thru Tee	3	4	5	6	8	10	12	15	17	20	25	30	35	50	60	71	81	91	101	121

Units Summary

Diameter Units	Inches
Length Units	Feet
Flow Units	US Gallons per Minute
Pressure Units	Pounds per Square Inch

Note: Fitting Legend provides equivalent pipe lengths for fittings types of various diameters. Equivalent lengths shown are standard for actual diameters of Sched 40 pipe and CFactors of 120 except as noted with *. The fittings marked with a * show equivalent lengths values supplied by manufacturers based on specific pipe diameters and CFactors and they require no adjustment. All values for fittings not marked with a * will be adjusted in the calculation for CFactors of other than 120 and diameters other than Sched 40 per NFPA.

SUPPLY ANALYSIS

<i>Node at Source</i>	<i>Static Pressure</i>	<i>Residual Pressure</i>	<i>Flow</i>	<i>Available Pressure</i>	<i>Total Demand</i>	<i>Required Pressure</i>
PUMP	48.0	43	44.0	46.112	25.99	27.63

NODE ANALYSIS

<i>Node Tag</i>	<i>Elevation</i>	<i>Node Type</i>	<i>Pressure at Node</i>	<i>Discharge at Node</i>	<i>Notes</i>
1	33.0	4.9	7.07	13.03	0.05 256
2	33.0		7.2		
4	33.0	4.9	7.0	12.96	0.05 256
3	33.0		7.36		
5	33.0		8.38		
6	22.0		13.69		
7	22.0		15.53		
8	22.0		16.25		
9	22.0		17.75		
10	11.0		23.23		
PUMP	4.0		27.63		

Final Calculations : Hazen-Williams

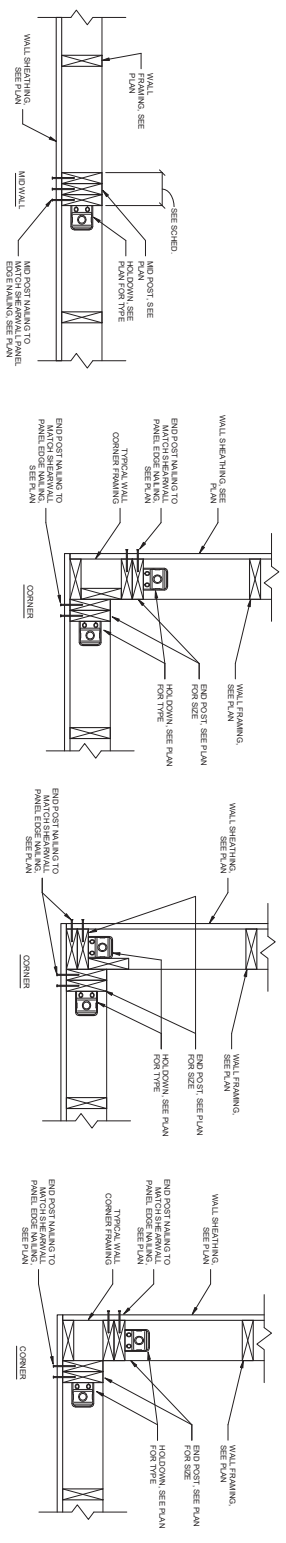
XCEL FIRE PROTECTION
9 Armory Street

Node1 to Node2	Elev1	K	Qa	Nom	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact	Pt Pe Pf	*****	Notes	*****
1 to 2	33 33	4.90	13.03	1	E	3.825	0.550 3.825 4.375	150	7.069 0.0		Vel = 4.39	
2 to 3	33 33		0.0	1.25	E	4.762	11.100 4.761 15.861	150	7.204 0.0		Vel = 2.74	
3			0.0 13.03						7.359		K Factor = 4.80	
4 to 3	33 33	4.90	12.96	1	T	9.563	2.200 9.562 11.762	150	7.000 0.0		Vel = 4.37	
3 to 5	33 33		12.96	1.101				0.0305	0.359			
3			13.03	1.25	2E	9.523	10.000	150	7.359			
5 to 6	33 22		25.99	1.394	T	9.523	19.046 29.046	0.0350	0.0		Vel = 5.46	
5			0.0	1.25	E	4.762	11.000	150	8.376			
6 to 7	22 22		25.99	1.394			4.761 15.761	0.0350	4.764 0.552		Vel = 5.46	
6			0.0	1.25	4E	19.046	24.000	150	13.692			
7 to 8	22 22		25.99	1.394	T	9.523	28.570 52.570	0.0350	0.0		Vel = 5.46	
7			0.0	1.25	2E	9.523	11.000	150	15.533			
8 to 9	22 22		25.99	1.394			9.523 20.523	0.0350	0.718		Vel = 5.46	
8			0.0	1.25	2E	9.523	23.700	150	16.251			
9 to 10	22 11		25.99	1.394	T	9.523	19.046 42.746	0.0350	0.0		Vel = 5.46	
9			0.0	1.25	2E	9.523	11.000	150	17.748			
10 to PUMP	11 4		25.99	1.394			9.523 20.523	0.0350	4.764 0.719		Vel = 5.46	
10			0.0	1.25	2E	9.523	20.000	150	23.231			
PUMP			25.99	1.394	T	9.523	19.046	0.0350	3.032		Vel = 5.46	
PUMP			0.0				39.046	0.0350	1.367			
PUMP			25.99						27.630		K Factor = 4.94	

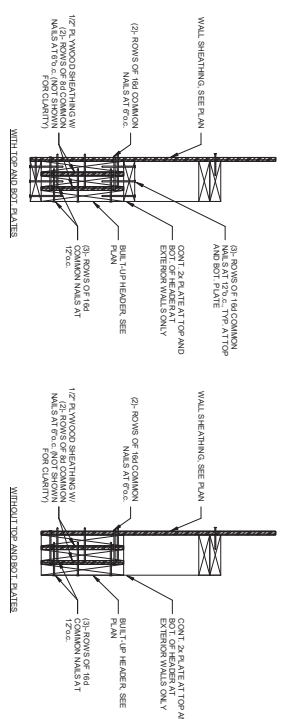


Drawn by	AMG
Checked by	EE
Date	01/18/2024
Revised	
Drawn by	ZOB
Checked by	
Date	
Revised	

394710
SCALE As Indicated
S-302
TYPICAL FRAMING DETAILS



1 TYPICAL END POST AND MID WALL DETAILS
1/2" = 1'-0"

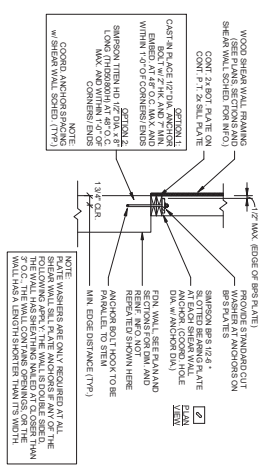
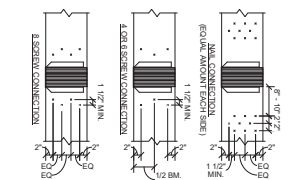


3 TYPICAL BULL-T-UP HEADER DETAIL
1/2" = 1'-0"

2 TYPICAL BULL-T-UP LVL BEAM CONNECTION SCHEDULE
3/4" = 1'-0"

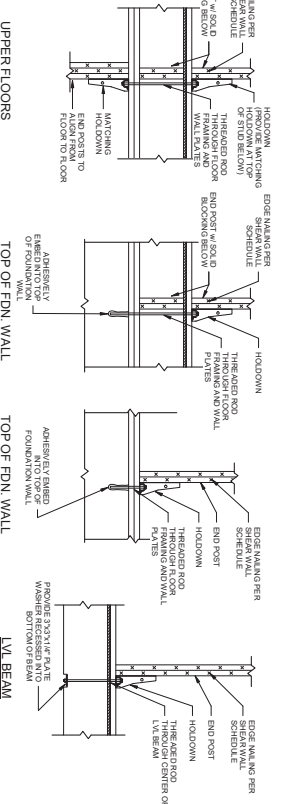
UNIFORM LOAD QUALITY RATED (RESIDENTIAL COMING)	3 1/2" DEEP 2x4	3 1/2" DEEP 2x4	3" DEEP 2x4
TYPE	MAX. JOIST SPAN	MAX. JOIST SPAN	MAX. JOIST SPAN
FASTENER	MAX. JOIST SPAN	MAX. JOIST SPAN	MAX. JOIST SPAN
SPACING	12'-0"	12'-0"	12'-0"
10# (0.125x7) NAIL	24'-0"	24'-0"	24'-0"
3/12 SIMPSON SDS	36'-0"	36'-0"	36'-0"
8" SIMPSON SDS	36'-0"	36'-0"	36'-0"
3.5" SIMPSON SDS	24'-0"	24'-0"	24'-0"
3" SIMPSON SDS	24'-0"	24'-0"	24'-0"
2" SIMPSON SDS	18'-0"	18'-0"	18'-0"
EMERALD	24'-0"	24'-0"	24'-0"
EMERALD	24'-0"	24'-0"	24'-0"

CONCENTRATED LOAD QUALITY RATED (RESIDENTIAL COMING)	1 1/2" DEEP 2x4	1 1/2" DEEP 2x4	3" DEEP 2x4
TYPE	MAX. JOIST SPAN	MAX. JOIST SPAN	MAX. JOIST SPAN
FASTENER	MAX. JOIST SPAN	MAX. JOIST SPAN	MAX. JOIST SPAN
NUMBER OF FASTENERS	5	5	5
10# (0.125x7) NAIL	18'-0"	18'-0"	18'-0"
3 1/2" OR 8" SIMPSON SDS	18'-0"	18'-0"	18'-0"
3" SIMPSON SDS	18'-0"	18'-0"	18'-0"
2" SIMPSON SDS	12'-0"	12'-0"	12'-0"
EMERALD	18'-0"	18'-0"	18'-0"
EMERALD	18'-0"	18'-0"	18'-0"



5 TYPICAL SHEAR WALL ANCHORAGE DETAIL
3/4" = 1'-0"

4 TYPICAL HOLDOWN DETAILS
3/4" = 1'-0"



394710
SCALE As Indicated
S-302
TYPICAL FRAMING DETAILS

