

NEW O'REILLY AUTO PARTS STORE

STROH RD, PARKER, CO #2

GENERAL FIRE PROTECTION NOTES

- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST ACCEPTED EDITIONS OF NFPA-13 INCLUDING ALL ASSOCIATED APPENDICES. INSTALLATION SHALL ALSO CONFORM TO ALL AUTHORITIES HAVING JURISDICTION (AHJ's) INCLUDING LOCAL AND STATE FIRE MARSHAL REQUIREMENTS.
- THE ELECTRONIC AUTOCAD AND PDF FORMAT FILES OF THE CONSTRUCTION DOCUMENTS ARE AVAILABLE TO THE INSTALLING FIRE PROTECTION CONTRACTOR AT NO COST. THE AUTOSPRINK FORMAT FILES ARE ALSO AVAILABLE AT A FIXED FEE. THIS SET IS MADE SOLELY AVAILABLE FOR THE FABRICATION PORTION OF THE PROJECT. CONTACT EJ ENGINEERING GROUP, INC. IN WRITING TO REQUEST. FP CONTRACTOR SHALL PROVIDE PROOF THAT PROJECT IS UNDER CONTRACT FOR INSTALLATION. THE DETAILS, DRAWINGS AND OTHER DATA INCLUDED IN THE CONSTRUCTION SET OF DOCUMENTS ARE FOR INFORMATION PURPOSES ONLY AND ARE SPECIFIC TO THIS PROJECT. ALL DRAWINGS, CONCEPTS, DETAIL INFORMATION AND DATA CONTAINED HEREIN SHALL REMAIN THE SOLE PROPERTY OF EJ ENGINEERING GROUP, INC. AND SHALL NOT BE UTILIZED FOR ANY OTHER PROJECT OR PURPOSE WITHOUT THE EXPRESSED WRITTEN CONSENT OF EJ ENGINEERING GROUP, INC.
- THE INTENT OF THIS SET OF ENGINEERED CONSTRUCTION DOCUMENTS IS TO MEET THE LOCAL AUTHORITY HAVING JURISDICTION REQUIREMENTS FOR A PROFESSIONALLY DESIGNED AUTOMATIC FIRE SPRINKLER SYSTEM. THE INSTALLING CONTRACTOR SHALL SUBMIT 'PRODUCT DATA' SUBMITTALS AS REQUIRED IN THE PROJECT MANUAL FOR THE INSTALLATION RECORD. THE INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND/OR OBTAINING ALL PERMITS ASSOCIATED WITH THIS SET OF DOCUMENTS.
- ALL WIRING OF ELECTRIC INITIATION DEVICES (HORN-STROBES, WATER SUPPLY AND TAMPER DEVICES) SHALL BE BY THE ELECTRICAL AND/OR ALARM CONTRACTOR.
- THE PIPING HEREIN HAS BEEN DESIGNED TO MEET UNDERWRITERS LABORATORIES (U.L.) CORROSION RESISTANCE RATIO (CRR) MINIMUM OF 1.00. REFER TO PIPING PLANS, HYDRAULIC CALCULATIONS AND SPECIFICATIONS FOR SPECIFIC PIPE WEIGHTS AND WALL THICKNESS ASSOCIATED WITH THIS SPECIFIC PROJECT. THE UTILIZATION OF A CRR LESS THAN 1.00 IS NOT ACCEPTABLE UNDER ANY CIRCUMSTANCES. THE USE OF SUCH PIPING SUBJECTS THE CONTRACTOR TO POTENTIAL REMOVAL AND REPLACEMENT OF ALL PIPING AT HIS/HER COST.
- A MINIMUM SAFETY FACTOR HAS BEEN INCLUDED IN THE WATER SUPPLY FOR THIS PROJECT. ADDITIONAL SAFETY FACTORS, AS REQUIRED BY LOCAL AHJ HAVE ALSO BEEN IMPLEMENTED. EJ ENGINEERING GROUP, INC. IS NOT RESPONSIBLE FOR ADDITIONAL CHANGES IN WATER SUPPLY (GPM OR PRESSURE) THAT MAY ADVERSELY AFFECT THIS AUTOMATIC FIRE SPRINKLER SYSTEM IN THE FUTURE.
- THE FIRE PROTECTION CONTRACTOR IS FULLY RESPONSIBLE FOR THE FIELD FIT OF ALL SPRINKLERS AND PIPING. THE ACCURACY OF SCALED CONSTRUCTION DOCUMENTS IS NOT ASCERTAINABLE. ALL POSSIBLE ATTEMPTS HAVE BEEN MADE TO INCLUDE SLOPED PIPE LENGTHS AND TO MINIMIZE VARIATIONS. THEREFORE, THE FP CONTRACTOR IS RESPONSIBLE FOR THE ACCURACY OF FIELD CUT AND PRE-FABRICATED PIPING.
- THE FP CONTRACTOR IS RESPONSIBLE FOR GENERAL WORKMANSHIP, DIMENSIONING, COORDINATION WITH OTHER TRADES AND THE ACCEPTANCE OF THE FIELD INSPECTIONS. THE COORDINATION OF FIELD INSTALLED PIPING AND SPRINKLERS TO STRUCTURAL COMPONENTS, DUCTWORK, EQUIPMENT, CEILING, LIGHTS, ETC., IS THE RESPONSIBILITY OF THIS LICENSED CONTRACTOR.
- FIELD VERIFY ALL CONDITIONS PRIOR TO THE INSTALLATION OF ANY PIPING. FIELD ADJUSTMENTS MAY BE MADE TO THESE DOCUMENTS AS REQUIRED FOR FIELD ACCEPTANCE BY THE AHJ.
- THE FIRE PROTECTION CONTRACTOR SHALL VERIFY THE SPRINKLER SPACING TO THE STRUCTURAL MEMBERS, ROOF DECK AND ALL OBSTRUCTIONS. PROVIDE ADDITIONAL, OR RESPACE, SPRINKLERS WHERE REQUIRED TO AVOID SUCH UNFORESEEN OBSTRUCTIONS TO SPRINKLER DISCHARGE PATTERNS.
- THE FIRE PROTECTION CONTRACTOR SHALL SUBMIT, IN A TIMELY MANNER, REQUEST FOR INFORMATION (RFI) FORMS FOR ALL CHANGES NOT ASSOCIATED WITH MINOR FIELD ADJUSTMENTS. PRIOR TO MAKING THE CHANGE IN THE FIELD. CHANGES MADE TO THE APPROVED CONSTRUCTION DOCUMENTS WITHOUT AN ASSOCIATED RFI ARE NOT ACCEPTABLE AND SHALL BE CONSIDERED TO BE THE SOLE RESPONSIBILITY OF THE FIRE PROTECTION AND GENERAL CONTRACTOR. RFIs ARE NOT ACCEPTED ONCE THE CHANGE HAS BEEN MADE IN THE FIELD; THIS INCLUDES PRODUCT AND LABOR COSTS. ALL RFIs ARE TO BE SUBMITTED BY THE GC IN WRITING TO THE ARCHITECT.
- INSTALL PIPING SYSTEM ON APPROVED HANGERS PER AHJ & NFPA. C-CLAMPS WITH RETAINING STRAPS SHALL BE PROVIDED.
- FUTURE IMPROVEMENTS OR RENOVATIONS TO THIS AUTOMATIC FIRE SPRINKLER SYSTEM SHALL OCCUR UNDER A SEPARATE PERMIT.
- THE UTILITY CONTRACTOR SHALL FLUSH ALL UNDERGROUND MAINS PRIOR TO CONNECTION TO OVERHEAD SYSTEM PIPING.
- PROVIDE SLEEVES AT ALL PIPING PENETRATIONS THROUGH MASONRY AND/OR FIRE RATED WALLS, FLOORS OR CEILINGS. PACK WITH SEALANT COMMENSURATE WITH THE WALL CONSTRUCTION AND APPROVAL OF ALL AUTHORITIES HAVING JURISDICTION.
- BACKFLOW DEVICES, WHEN UTILIZED FOR THIS PROJECT, SHALL BE INSTALLED PER LOCAL AHJ APPROVAL LIST. PRIOR TO REQUEST FOR FINAL INSPECTION, EACH BACKFLOW ASSEMBLY DEVICE SHALL BE TESTED AND APPROVED BY A CERTIFIED TECHNICIAN LICENSED TO PERFORM SUCH WORK IN THIS PARTICULAR MUNICIPALITY.
- THIS FP CONTRACTOR SHALL PROVIDE THE OWNER WITH A COPY OF NFPA-25 & NFPA-20 AND A DETAILED DESCRIPTION OF THE MAINTENANCE REQUIRED FOR THIS PROJECT. SUCH A MAINTENANCE SUMMARY SHALL BE PROVIDED, AS IT WOULD APPEAR IN AN INDUSTRY STANDARD MAINTENANCE CONTRACT. IN ADDITION, AS A MINIMUM, TWO (2) SETS OF THE APPROVED 'RECORD DRAWINGS' AND ASSOCIATED EQUIPMENT SUBMITTALS SHALL BE PROVIDED TO THE OWNER.
- THIS FP CONTRACTOR SHALL INSTALL A SYSTEM DESIGN PLACARD FOR EACH FIRE RISER AND ASSOCIATED REMOTE AREA OF OPERATION AS INDICATED ON THE APPROVED CONSTRUCTION DOCUMENTS. SYSTEM DEMAND AT THE BASE OF THE RISER IN PSI AND GPM SHALL BE PROVIDED WITH THE AREA OF OPERATION SQUARE FOOTAGE AND NUMBER OF OPERATING SPRINKLERS. EACH DESIGN PLACARD SHALL BE PERMANENTLY EMBOSSED SUCH THAT DATA MAY BE AVAILABLE FOR FUTURE USE. THE UTILIZATION OF PERMANENT MARKING PENS IS NOT APPROPRIATE OR ACCEPTABLE.
- THIS FP CONTRACTOR SHALL PROVIDE A SPARE SPRINKLER CABINET, IN AN APPROVED LOCATION, WITH ASSOCIATED SPARE SPRINKLERS, AS REQUIRED BY NFPA-13. INCLUDE TWO (2) SETS OF SPRINKLER WRENCHES FOR EACH SPRINKLER TYPE AS REQUIRED.
- THIS FP CONTRACTOR SHALL BE LICENSED TO PERFORM THIS PARTICULAR TYPE OF WORK WITH THE STATE REGISTRAR OF CONTRACTORS AND WITH LOCAL AND STATE AUTHORITIES HAVING JURISDICTION. IN ADDITION, CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH ALL PLAN REVIEW AND AHJ FIELD INSPECTIONS AS NECESSARY FOR A COMPLETELY APPROVED WORKING SYSTEM.
- WHERE REQUIRED, THIS AUTOMATIC FIRE SPRINKLER SYSTEM SHALL BE MONITORED BY A UL OR FM LISTED CENTRAL STATION SYSTEM. ALL SYSTEMS OVER 100 SPRINKLERS SHALL BE MONITORED FOR TAMPER, TROUBLE AND FLOW.
- ALL CONTROL VALVES SHALL BE CHAIN-LOCKED AND SECURED INCLUDING MAIN DRAIN ANGLE VALVES. ALL EXTERIOR FIRE RISERS SHALL BE LOCATED IN A SECURED AREA TO PREVENT DAMAGE DUE TO VANDALISM.
- COMBUSTIBLE CONTENTS SHALL NOT BE MOVED INTO THE BUILDING WITHOUT THE APPROVAL OF THE AUTHORITIES HAVING JURISDICTION. IN ADDITION, THIS FP CONTRACTOR SHALL ENSURE THAT TEMPORARY INTERIOR FIRE PROTECTION IS IN PLACE PER AUTHORITY HAVING JURISDICTION. THIS INCLUDES PROVISIONS FOR TEMPORARY FIRE DEPARTMENT WATER SUPPLIES, HOSE CONNECTIONS, ETC.
- THE GENERAL CONTRACTOR SHALL PROVIDE A FIRE DEPARTMENT LOCK BOX FOR ALL NEW CONSTRUCTION AS DELINEATED ON THE ARCHITECTURAL DOCUMENTS. DEVICES SHALL BE SIMILAR OR EQUIVALENT TO 'KNOX MANUFACTURING'.
- THE USE OF MECHANICAL (CUT-IN) TEES OR SIMILAR TYPE OF CONNECTIONS ARE NOT ALLOWED FOR NEW CONSTRUCTION PROJECTS. FP CONTRACTOR SHALL UTILIZE JOINING/CONNECTION METHODS SUCH AS WELDED-OUTLETS.

SCOPE OF PROJECT

HAZARD: STORAGE OF 'SHELF, RACK, AND BACK-TO-BACK SHELF STORAGE OF CLASS I-IV COMMODITIES (AUTOMOTIVE PARTS) UP TO 12-FT MAX., WHICH MAY INCLUDE CARTONED AND EXPOSED UNEXPANDED OR EXPANDED GROUP A PLASTICS STORED UP TO 5-FT HIGH MAX. REFERENCED CODES INCLUDE NFPA-13 (2019 ED.); SECTION 4.3.1.7.1, TABLE 4.3.1.7.1 AND FIGURE 19.3.3.1.1, AS WELL AS 2021 IFC W/ LOCAL FIRE CODE AMENDMENTS).

DENSITY/AREA OF APPLICATION PER TABLE 4.3.1.7.1 & FIGURE 19.3.3.1.1 - .20 GPM/SF OVER A 1,500 SF REMOTE AREA.

SPRINKLERS - K-5.6 SPRINKLERS OVERHEAD (INTERMEDIATE TEMP.) (SEE SPKR SCHEDULE ON FP2.0)
 COVERAGE PER SPRINKLER - 130 MAX.
 HOSE STREAM ALLOWANCE - 0 INSIDE
 HOSE STREAM ALLOWANCE - 250 OUTSIDE

FIRE SPRINKLER SYSTEM HAS BEEN CALCULATED AT .20 GPM/SF WITH AN OPERATING AREA OF 1,020 SF (ACTUAL 1,063 SF). (SEE FP2.0 AND HYD. CALC FOR QUICK RESPONSE SPRINKLER REDUCTION APPLIED HEREIN).

OCCUPANCY CLASSIFICATION AND ACTUAL STORAGE ARRANGEMENT MINIMUM REQUIREMENTS:
 PER 4.3.1.7.1 CLASS I-IV COMMODITIES BACK-TO-BACK SHELF STORAGE UP TO 12-FT = .20 GPM/SF

FOR THE STORAGE OF GROUP A PLASTICS STORED 5 FT OR LESS IN HEIGHT, THE SPRINKLER DESIGN CRITERIA FOR MISCELLANEOUS AND LOW-PILED STORAGE SHALL BE USED PER TABLE 4.3.1.7.1.

GROUP A PLASTICS SHALL BE PLACED ON LOWEST STORAGE LEVEL MAX. HT. 5-FT AFF = .20 GPM/SF PER TABLE 4.3.1.7.1. (GROUP A PLASTICS ARE CARTONED, UNEXPANDED AND EXPANDED, SOLID-PILED, BIN BOX, SHELF AND BACK-TO-BACK SHELF).

CLASS I-IV COMMODITIES CONSIST OF MAINLY AUTOMOTIVE PARTS. THESE COMMODITIES CAN BE PLACED THROUGHOUT THE RACKS, WITH A MAXIMUM STORAGE HEIGHT OF 12-FT.

GROUP A PLASTICS CONSIST OF CARTONED & EXPOSED, UNEXPANDED & EXPANDED. THESE COMMODITIES SHALL BE PLACED ON LOWEST RACK LEVEL, WITH A MAXIMUM STORAGE HEIGHT OF 5-FT.

STORAGE OF ORDINARY COMMODITIES (CLASS I-IV) MAY BE STORED ABOVE GROUP A PLASTICS IF APPROVED BY LOCAL AUTHORITY HAVING JURISDICTION (AHJ) IN WRITING (FP CONTRACTOR TO VERIFY DURING BIDDING AND PRIOR TO PERMITTING). PROPER SIGNS SHALL BE PROVIDED TO IDENTIFY THE MAXIMUM STORAGE HEIGHT FOR GROUP A PLASTICS AND TO ENSURE ONLY STORAGE OF ORDINARY COMMODITIES (CLASS I-IV) OCCURS ABOVE.

NFPA-30 (2012 ED.) MANDATES "STORAGE OF LIQUIDS IN CONTAINERS - MERCANTILE OCCUPANCIES". ORDINARY HAZARD GROUP 2 FOR STORAGE HEIGHTS NOT EXCEEDING 12-FT SHALL PROTECT UP TO:
 —MAXIMUM AVAILABLE QUANTITY OF 120 GALLONS OF CLASS IA LIQUIDS AND 7,500 GALLONS IN A SINGLE CONTROL AREA OF CLASS IB, IC, II AND IIIA (ANY COMBINATION) WITH NO LIMITS ON CLASS IIIB LIQUIDS.
 —MAXIMUM STORAGE DENSITY OF 4 GALLONS PER SQUARE FOOT OF CLASS IB, IC, II AND IIIA (ANY COMBINATION) IN STORAGE AND DISPLAY AREAS AND ADJACENT AISLES WITH NO LIMITS ON CLASS IIIB LIQUIDS.

FLAMMABLE AND COMBUSTIBLE LIQUIDS (HIGH HAZARD COMMODITIES) SHALL BE MAINTAINED UNDER THE MAXIMUM ALLOWED QUANTITIES (MAQ) PER NFPA-30 AND NFPA-30B. ADDITIONALLY, PER THE INTERNATIONAL FIRE CODE, THESE COMMODITIES SHALL BE MAINTAINED NO HIGHER THAN 6-FT AFF THROUGHOUT STORE.

COMMODITY STORAGE TYPES INCLUDE, BUT ARE NOT LIMITED TO:
 BATTERIES (CARS AND SIMILAR) - CLASS II
 BATTERIES (TRUCKS) - GROUP A PLASTICS/HIGH HAZARD
 RAGS - CLASS III OR IV
 SHOCK ABSORBERS - CLASS III OR IV
 STORAGE IN PLASTIC CONTAINERS- HIGH HAZ.
 ELECTRIC MOTORS - CLASS I
 HYDRAULIC FLUIDS IN PLASTIC - HIGH HAZARD
 GENERAL PARTS - CLASS I
 DASHBOARDS - CLASS IV
 SOAPS, DETERGENTS, & BLEACHES - CLASS III
 LEVEL 3 AEROSOLS - HIGH HAZARD

NO HIGH-PILED COMBUSTIBLE STORAGE PROPOSED, AS THE STORAGE OF GROUP A PLASTICS AND OTHER HIGH HAZARD COMMODITIES SHALL NOT BE GREATER THAN 6-FT IN HEIGHT.

PROPOSED RACK FIXTURES:
 PER NFPA-13 SECTION 3.3.188, SHELF STORAGE CONSISTS OF FIXTURES UP TO AND INCLUDING 30 IN. DEEP AND SEPARATED BY AISLES AT LEAST 30 IN. WIDE, WITH SHELVES USUALLY 2-FT APART VERTICALLY (VARIES).

PER NFPA-13 SECTION 3.3.12, BACK-TO-BACK SHELF STORAGE CONSISTS OF FIXTURES UP TO AND INCLUDING 60 IN. DEEP AND SEPARATED BY AISLES AT LEAST 30 IN., WITH SHELVES USUALLY 2-FT APART VERTICALLY (VARIES), AND A MAXIMUM STORAGE HEIGHT OF 15-FT.

SHELF AND BACK-TO-BACK SHELF STORAGE DOES NOT REQUIRE LONGITUDINAL FLUE SPACES BASED ON THE FIXTURE CONSTRUCTION. AISLES SHALL BE A MINIMUM OF 30-INCHES WIDE PER NFPA-13 SECTION 3.3.188.

PER NFPA-13 SECTION 3.3.140, OPEN RACKS THAT HAVE FIXED IN PLACE SHELVLING, HAVING WIRE MESH OR GRATING UP TO 50-PERCENT OPEN, AND A SHELF AREA UP TO 20 SF WITH MINIMUM TRANSVERSE FLUE SPACES.

PER NFPA-13 SECTION 3.3.56, DOUBLE-ROW RACKS LESS THAN OR EQUAL TO 12-FT (SINGLE-ROW RACK UP TO 6-FT PLACED BACK-TO-BACK) WITH A MINIMUM AISLE OF 3.5-FT WIDE.

SYSTEM SHALL BE WET PIPE THROUGHOUT. HVAC ENGINEER HAS PROVIDED SUFFICIENT HEATING THROUGHOUT ALL INTERIOR PROJECT AREAS TO MAINTAIN A MINIMUM 40-DEGREES FAHR. AMBIENT TEMPERATURE 24/7.

HYDRAULIC REFERENCE POINTS ARE NUMBERED TO CORRESPOND WITH ATTACHED HYDRAULIC CALCULATIONS.

THE INTERIOR HOSE RACK REQUIREMENT (NFPA-13) HAS BEEN OMITTED ON THESE DOCUMENTS AS MOP UP OPERATION IS INCIDENTAL TO POTENTIAL NEGATIVE ASPECTS ASSOCIATED WITH EMPLOYEE UTILIZATION OF INTERIOR HOSE. INSIDE HOSE MAY BE UTILIZED FOR EMPLOYEE FIRE RESPONSE IN LIEU OF IMMEDIATE EVACUATION AND 911 PHONE CALL INITIATION. NFPA REQUIREMENT IS FOR MOP-UP OPERATIONS ONLY. UTILIZATION OF INTERIOR HOSE BY UNQUALIFIED USERS MAY SPREAD CONFLAGRATION.

REFER TO ATTACHED 8-1/2" X 11" HYD. CALCULATIONS, MATERIAL CUT SHEETS, AND FLOW TEST DATA FOR ADDITIONAL INFORMATION.

OWNER HAS BEEN ALERTED TO MAX STORAGE HEIGHT OF 12-FT ALLOWING 18-INCHES BELOW SPKR DEFLECTORS PER NFPA-13 SECTION 9.5.5.2. OWNER SHALL NOT PLACE ANY HORIZONTAL OBSTRUCTIONS TO SPKR. DISCHARGE BELOW SPRINKLERS. ACTUAL STORAGE HEIGHT THROUGHOUT STORE IS PROPOSED TO BE UNDER 12-FT UTILIZING 10-FT RACKING.

PROVIDE CAPPED & THREADED 3/4" OUTLET ON DROPS TO ANY NEW SIDEWALL SPRINKLER(S) FOR DRAINAGE OF TRAPPED WATER.

OUTDOOR DISPLAY OF PRODUCT SHALL BE IN ACCORDANCE WITH THE LOCAL FIRE MARSHAL ONLY WHERE SPECIFICALLY APPROVED.

PROTECTION OF STEEL BUILDING COLUMNS WITHIN ANY STORAGE IS NOT REQUIRED DUE TO MAX STORAGE HEIGHT NOT EXCEEDING 15-FT PER NFPA-13; SECTION 20.15.

FIRE ALARM SYSTEM IS NOT INCLUDED ON THESE CONSTRUCTION DOCUMENTS. REFER TO FIRE ALARM DRAWINGS VIA SEPARATE SUBMITTAL FOR ADDITIONAL INFORMATION.

NEW 2-WAY WALL MOUNTED FDC. DCA BACKFLOW ASSEMBLY LOCATED VERTICAL ON THE FIRE RISER. REFER TO FP1.1 FOR ADDITIONAL INFORMATION.

NFPA-13 & UL LISTING FOR FIRE SPRINKLERS UTILIZED HEREIN MANDATE A MAXIMUM ROOF SLOPE OF 2 IN 12 (16.7%). THE ROOF SLOPE FOR THIS PROJECT IS CONSIDERED FLAT.

FIRE PROTECTION SYMBOLS & ABBREVIATIONS

	AUTOMATIC SPRINKLER RISER
	AUTOMATIC SPRINKLER(S)
	FIRE DEPARTMENT CONNECTION
	NATIONAL STANDARD THREAD FOR F.D.C.
	RISER NIPPLE
	HYDRAULICALLY MOST REMOTE AREA OF SPRINKLER OPERATION
	BACKFLOW ASSEMBLY
	NODE NUMBER - HYDRAULIC CALCULATION REFERENCE POINT
	PIPE SEGMENT SIZE & LENGTH
	MEASURED IN FEET AND INCHES
	FULLY AUTOMATICALLY SPRINKLERED SPACE
	PARTIALLY AUTOMATICALLY SPRINKLERED SPACE
	NON-SPRINKLERED SPACE
	SPRINKLER PIPE
	PIPE HANGER ON PIPE IT SUPPORTS
	EXISTING SPRINKLER PIPE
	PRESSURE GAUGE (0-300 PSI)
	SPARE SPRINKLER CABINET W/ STOCK OF SPRINKLERS AND WRENCHES PER NFPA-13
	HORN-STROBE - WIRING BY ELECT./ALARM CONTRACTOR - VERIFY REQUIRED VOLTAGE. PROVIDED BY FP SUB.
	2-WAY FIRE DEPARTMENT CONNECTION
	CODE APPROVED PIPE SLEEVE WITH CAULKING COMMENSURATE WITH CONSTRUCTION
	2-WAY SWAY BRACE
	4-WAY SWAY BRACE
	RISER CLAMP ATTACHED TO WALL

NOTE: REFER TO THE ARCHITECTURAL STANDARD SYMBOLS AND ABBREVIATIONS FOR ADDITIONAL ITEMS NOT SHOWN HERE. NOT ALL SYMBOLS MAY BE USED.

SHEET INDEX

- FP1.0 FIRE PROTECTION COVER SHEET
- FP1.1 FIRE LINE REFERENCE PLAN
- FP2.0 FIRE PROTECTION PIPING PLAN
- FP3.0 FIRE PROTECTION SECTION & DETAILS

SPRINKLER COUNT

TOTAL NUMBER OF SPRINKLERS
 THIS PROJECT: 76 SPRINKLERS.
 SEE FIRE PROTECTION SHEETS
 FOR SPECIFIC PER-SHEET TOTALS.

NOTE:
 USE OF FOREIGN-MADE PIPING, FITTINGS, COUPLINGS OR WELDED OUTLETS SHALL NOT BE ALLOWED! IF DISCOVERED SUCH PRODUCT SHALL BE REMOVED AT CONTRACTOR'S EXPENSE AND COSTS ASSOCIATED WITH PROJECT DELAYS SHALL ALSO BE THE RESPONSIBILITY OF THE FP AND GENERAL CONTRACTORS. NEGOTIATIONS FOR ADDITIONAL WARRANTIES OR CREDITS SHALL NOT BE CONSIDERED. MUST COMPLY WITH THE BUY AMERICAN ACT.

GENERAL IDENTIFICATION NOTE:
 PROVIDE METAL EMBOSSED DESIGN PLACARDS, IDENTIFICATION SIGNS AND PIPE LABELS ON ALL SYSTEM EQUIPMENT AND PIPING.

PROJECT TEAM

AUTHORITY HAVING JURISDICTION (AHJ):
 TOWN OF PARKER
 FIRE LIFE SAFETY
 303.805.3169

ARCHITECT:
 TIMOTHY M. GUILLOT ARCHITECT
 1736 E. SUNSHINE, SUITE 417
 SPRINGFIELD, MO 65804
 417.862.0558

MEP ENGINEER:
 SMITH-GOTH ENGINEERS, INC.
 3855 S. JEFFERSON AVE.
 SPRINGFIELD, MO 65807
 417.882.2200

CIVIL ENGINEER:
 TAIT & ASSOCIATES
 320 NORTH LINCOLN AVENUE
 LOVELAND, CO 80537
 970.613.1447

PROJECT DATA

NAME:
 O'REILLY AUTO PARTS STORE

ADDRESS:
 STROH RD
 PARKER, CO #2

OWNER:
 O'REILLY AUTOMOTIVE, INC.
 233 SOUTH PATTERSON AVENUE
 SPRINGFIELD, MO 65802-2298

USE:
 M (MERCANTILE) WITH BACK AREA STORAGE

TYPE OF CONSTRUCTION:
 II-B, FULLY SPRINKLERED

BUILDING HEIGHT:
 SINGLE STORY

BUILDING AREA:
 ±7,456 SF

EJ #25102

JOHN L. ECHEVERRI, SET, CFPS DATE: 05.02.2025

THESE CONSTRUCTION DOCUMENTS AND ASSOCIATED HYDRAULIC CALCULATIONS (WHERE SUBMITTED) HAVE BEEN PREPARED BY:
 JOHN L. ECHEVERRI, SET, CFPS
 NICET CERTIFICATION NUMBER 78493
 LEVEL IV AUTOMATIC SPRINKLER SYSTEMS
 LEVEL III SPECIAL HAZARDS
 NFPA CERTIFICATION NUMBER 1915
 CERTIFIED FIRE PROTECTION SPECIALIST
 THIS ENGINEERED SYSTEM IS THE SOLE PROPERTY OF EJ ENGINEERING, INC.

COMM # 4884
 DATE: 05-02-25

REVISION DATE:



EJ Engineering Group, Inc – Fire Protection Consulting Engineers
 EJ Construction Group, LLC – Licensed FP Contractors - ROC271705 AZ C-16
 EJ Flow Test, LLC – Water Supply and Flow Testing Professionals
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PROJECT:
NEW O'REILLY AUTO PARTS STORE
STROH RD
PARKER, CO #2
FP COVER SHEET

O'Reilly AUTO PARTS
 CORPORATE OFFICES
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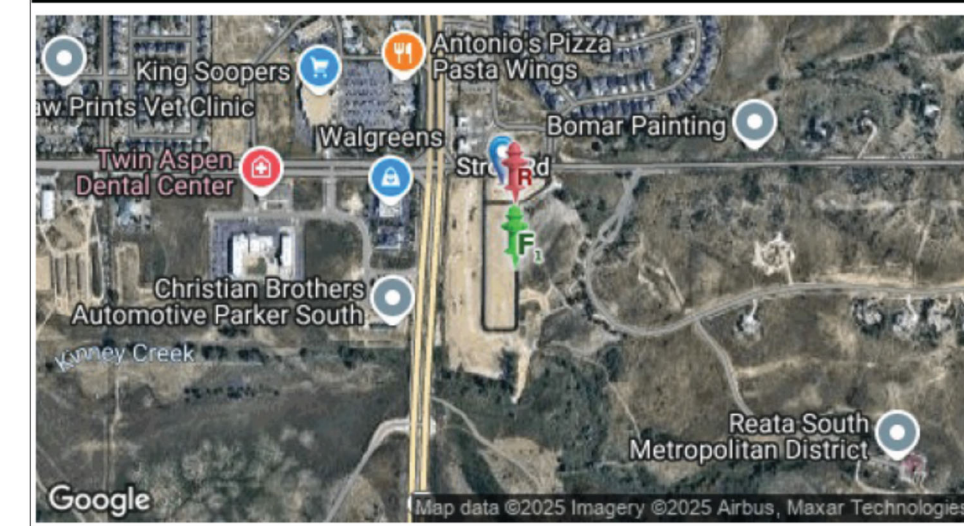
FP1.0

E·J Flow Test Summary

Project Name: EJE 25102 - PK2
Project Address: S Parker Rd & Stroth Rd, Parker, CO 80134
Date of Flow Test: 2025-03-11
Time of Flow Test: 1:30 PM
Data Reliable Until: 2026-03-11
Conducted By: Nathan H. & Joseph M. (Arapahoe FP) 303.366.4905
Witnessed By: Alex D. (Parker Water & Sanitation) 720.842.4234
City Forces Contacted: Parker Fire (303.805.3169) & Parker Water & Sanitation) 720.842.4234

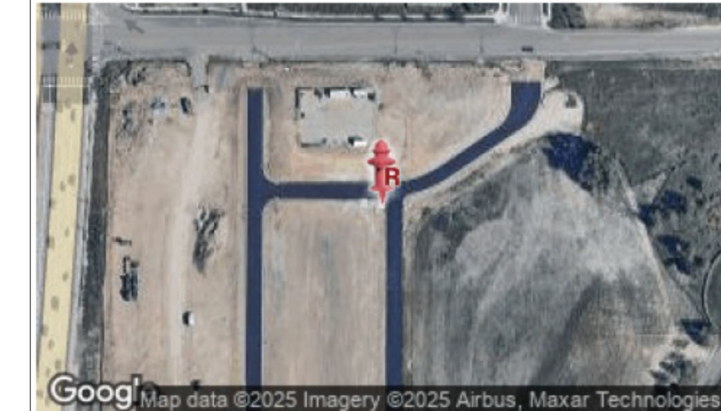
Raw Flow Test Data		Data with a 10 % Safety Factor	
Static Pressure:	60.0 PSI	Static Pressure:	54.0 PSI
Residual Pressure:	45.0 PSI	Residual Pressure:	39.0 PSI
Flowing GPM:	1,783	Flowing GPM:	1,783
GPM @ 20 PSI:	3,029	GPM @ 20 PSI:	2,774

Hydrant F₁
 Pilot Pressure (1): 25 PSI
 Coefficient of Discharge (1): 0.9
 Hydrant Orifice Diameter (1): 4 inches
 Additional Coefficient 0.83 on orifice #1



Project Site
 Static-Residual Hydrant
 Flow Hydrant
 Distance Between F₁ and R
 407 ft (measured linearly)
 Static-Residual Elevation
 5988 ft (above sea level)
 Flow Hydrant (F₁) Elevation
 5984 ft (above sea level)
 Elevation & distance values are approximate

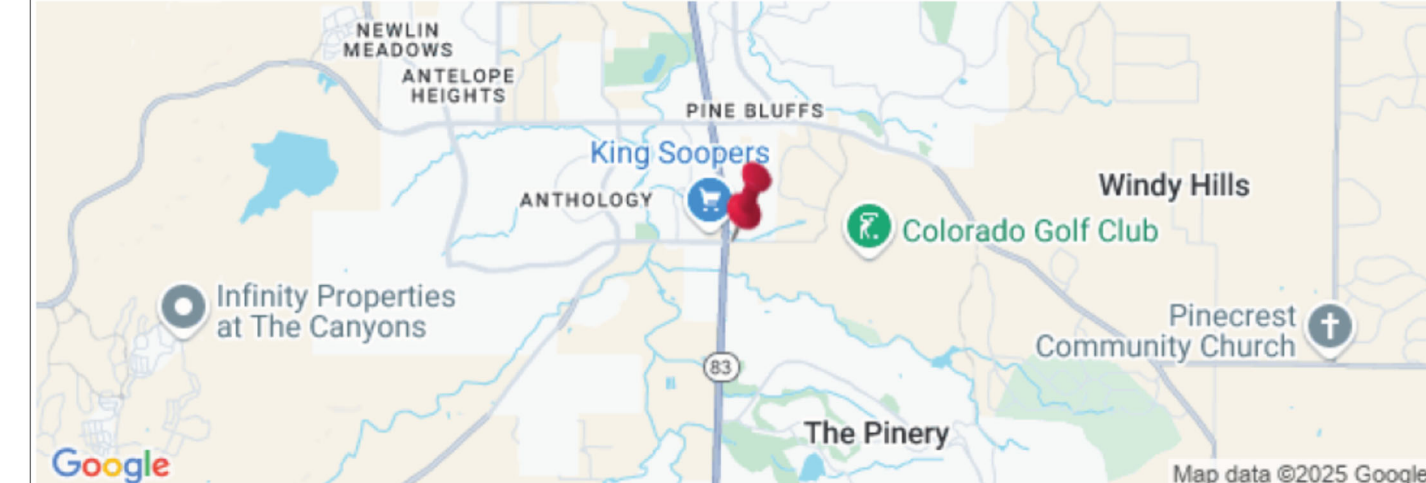
Static-Residual Hydrant



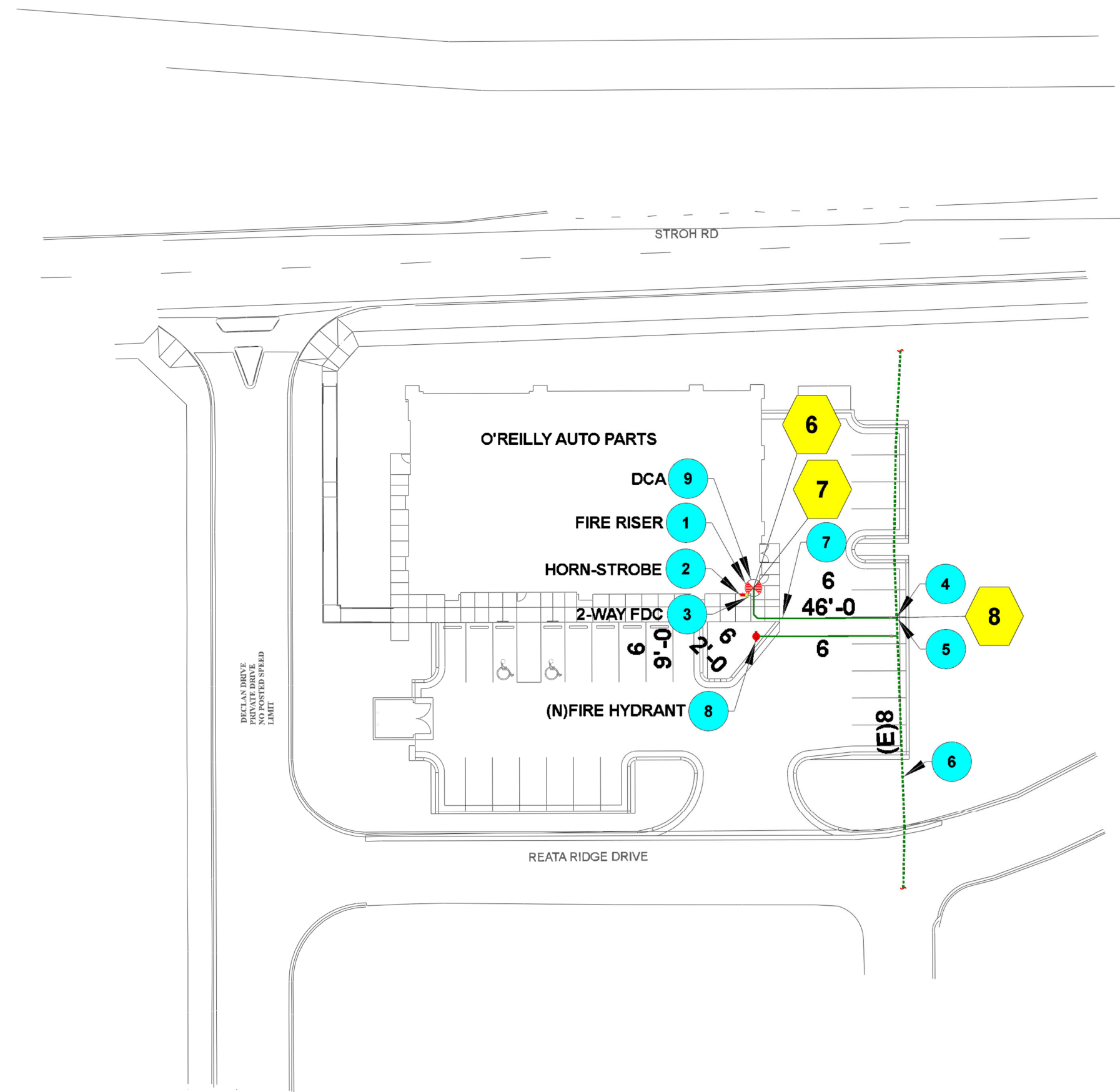
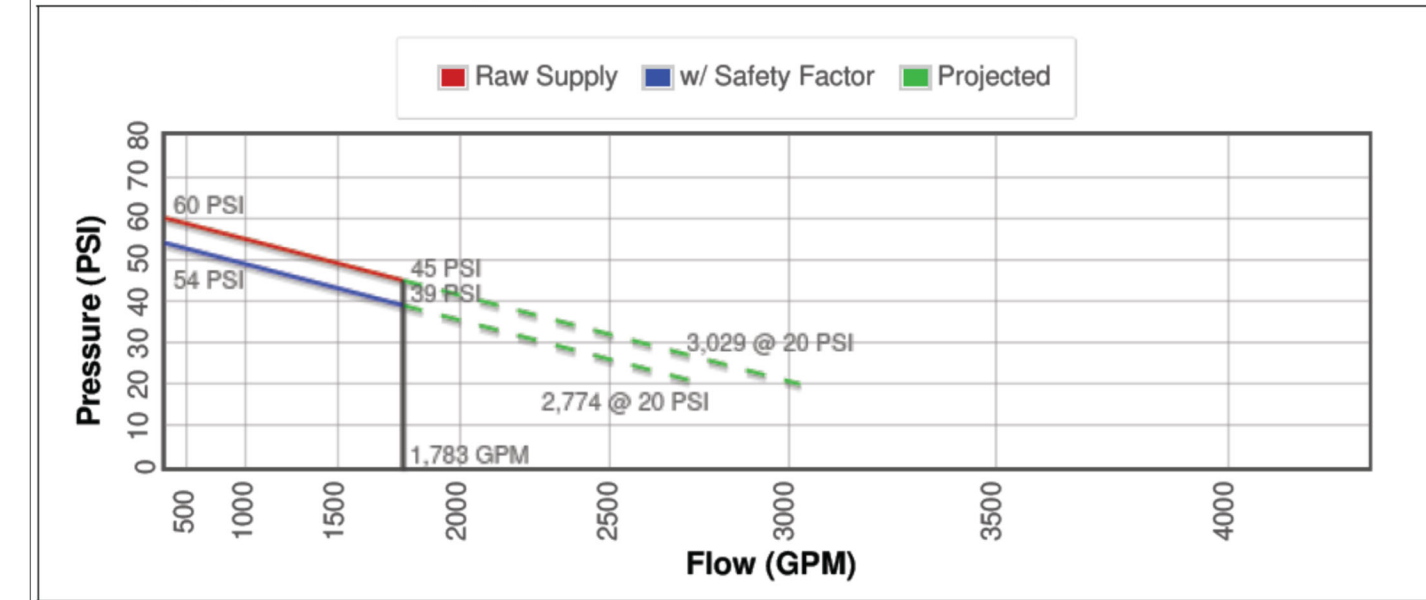
Flow Hydrant (only hydrant F1 shown for clarity)



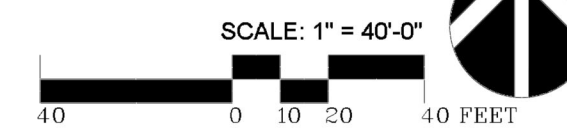
Approximate Project Site



Water Supply Curve N^{1.85} Graph

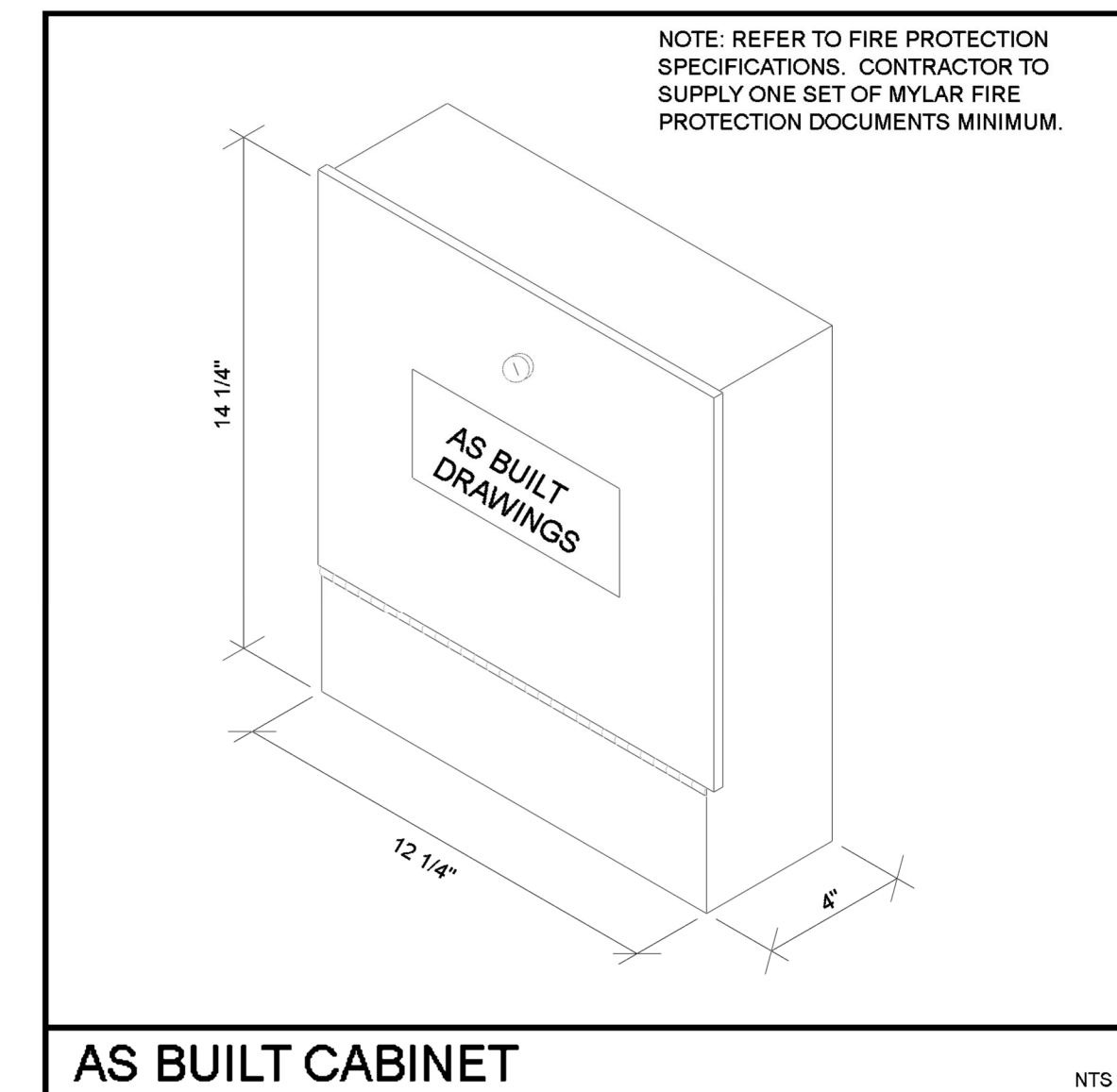


FIRE LINE REFERENCE PLAN



The above plan shall be considered a fire-line reference plan. Refer to approved civil engineering construction documents for all site-related fire line routing and work. This plan has been created for use by the Fire Department to ascertain friction loss distances, pipe sizing, fire department connection relationships to fire hydrant(s), etc. Work under this Fire Protection Contract is limited to 5'-0" beyond the building maximum. As the termination point may also be located at the flange connection to the fire riser, this Fire Protection Contractor shall coordinate the final termination point with the General Contractor in the pre-bid phase of the construction. The hydraulic calculations have taken into account the smallest available underground pipe diameter and conservative HWC (140); although it is quite possible that a code-approved plastic underground fire-line with a larger inside pipe diameter and higher HWC (150) was utilized. In addition, the hydraulic calculations and system design may include additional fittings, lengths, etc. to create yet additional safety margins not specifically noted herein.

- ### SITE PLAN KEYNOTES
- 1 FIRE RISER, REFER TO FIRE RISER DETAIL FOR ADDITIONAL INFORMATION. REFER TO FP2.0 AND HYDRAULIC CALCULATIONS FOR SIZING.
 - 2 EXTERIOR HORN-STROBE (WIRED BY ELECT. CONTR.) COORDINATE FINAL LOCATION W/ AHJ. FP CONTR. TO PROVIDE.
 - 3 WALL MOUNTED 2-WAY FIRE DEPT. CONNECTION WITH 4-INCH CHECK VALVE & 1/2" AUTO. DRIP VALVE. SEE SHEET C3.1 FOR ADD'L INFO. THREADS PER LOCAL FD. COORDINATE AFF HEIGHT WITH AHJ.
 - 4 THRUST BLOCK (PER NFPA) (TYP) REFER TO SHEET C3.1.
 - 5 NEW TAPPING SLEEVE & VALVE BY UTILITY CONTR. REFER TO SHEET C3.1.
 - 6 EXISTING WATER MAIN. REFER TO SHEET C3.1.
 - 7 6-INCH FIRE LINE, MIN. BURY DEPTH PER SHEET C3.1. HYDRAULIC CALCULATIONS ACCOUNT FOR AN INSIDE PIPE DIA. OF 5.86-INCHES. ANY MATERIAL UTILIZED WITH A SMALLER INSIDE PIPE DIAMETER SHALL BE REVIEWED BY E.O.R VIA RFI.
 - 8 FIRE HYDRANT, REFER TO SHEET C3.1 FOR ADD'L INFO.
 - 9 FRICTION LOSS HAS BEEN INCLUDED FOR A 4-INCH AMES COLT SERIES C200 DOUBLE CHECK ASSEMBLY (DCA) LOCATED VERTICAL ON THE FIRE RISER. SEE HYD. CALCS & REFER TO SHEET C3.1 FOR ADD'L INFO.



EJE #25102

 JOHN L. ECHEVERRI, SET, CFPS DATE: 05.02.2025
 THESE CONSTRUCTION DOCUMENTS AND ASSOCIATED HYDRAULIC CALCULATIONS (WHERE SUBMITTED) HAVE BEEN PREPARED BY:
 JOHN L. ECHEVERRI, SET, CFPS
 NICET CERTIFICATION NUMBER 78493
 LEVEL IV AUTOMATIC SPRINKLER SYSTEMS
 LEVEL III SPECIAL HAZARDS
 NFPA CERTIFICATION NUMBER 1915
 CERTIFIED FIRE PROTECTION SPECIALIST
 THIS ENGINEERED SYSTEM IS THE SOLE PROPERTY OF E.J. ENGINEERING, INC.



E.J. Engineering Group, Inc. – Fire Protection Consulting Engineers
 E.J. Construction Group, LLC – Licensed FP Contractors - ROC271705 AZ C-16
 E.J. Flow Test, LLC – Water Supply and Flow Testing Professionals
 21505 N. 78th Ave. • Suite 130 • Peoria, AZ 85382 • 623.362.1400 • www.ejengineering.com

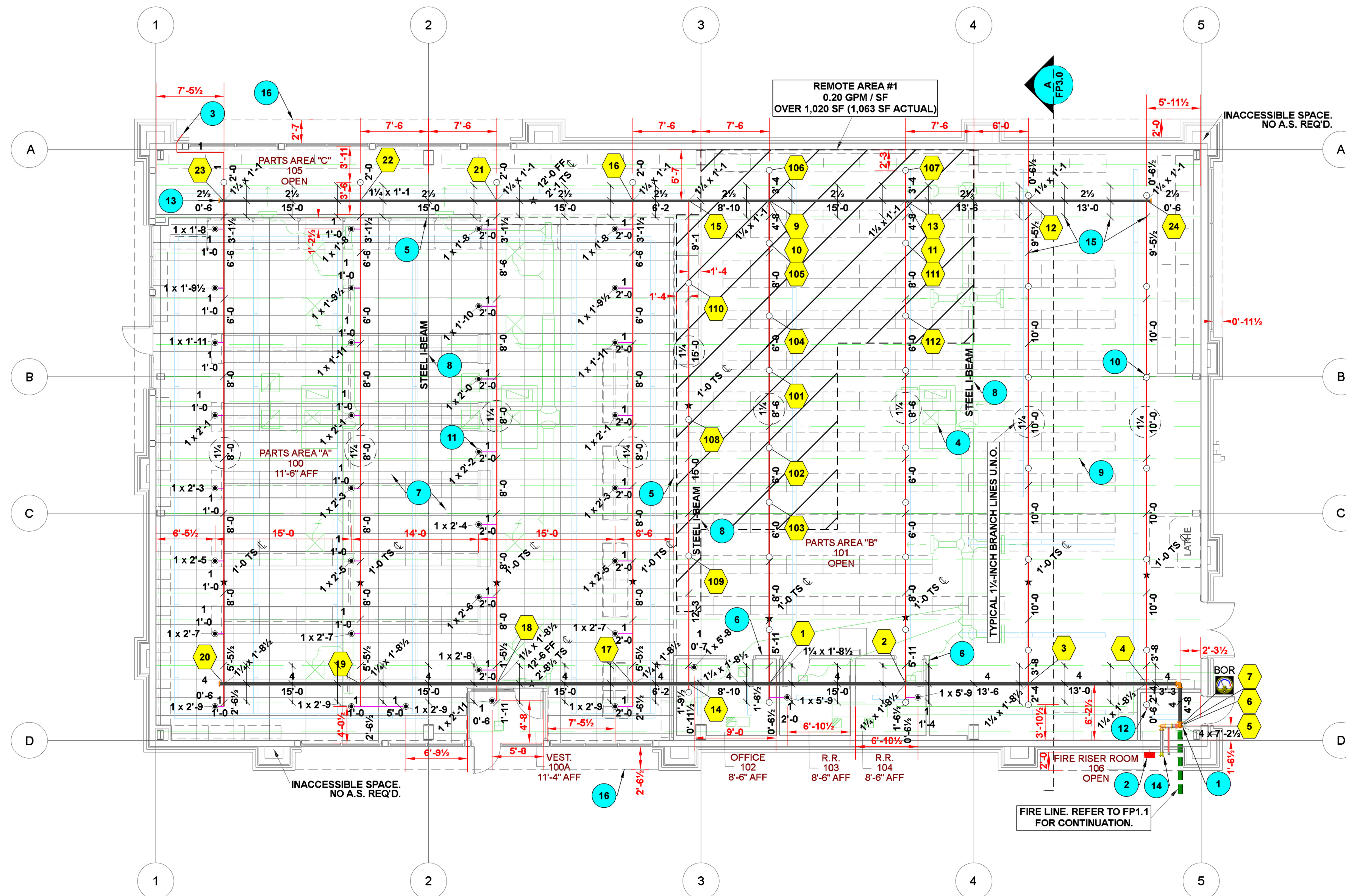
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PROJECT:
NEW O'REILLY AUTO PARTS STORE
STROTH RD
PARKER, CO #2
FIRE LINE REFERENCE PLAN

O'Reilly AUTO PARTS
 CORPORATE OFFICES
 253 SOUTH PATTERSON
 SUITE 100
 (417) 862-2474 TELEPHONE

COMM # 4884
 DATE: 05-02-25

REVISION
 DATE:



FIRE PROTECTION PIPING PLAN

SCALE: 1/8" = 1'-0"
0 2 4 8 FEET

Sprinkler Legend										
Symbol	Manufacturer	SIN	Model	K-Factor	Type	Size	Response	Finish	Temperature	Quantity
○	Viking	VK300	Microfast	5.6	Upright	1/2"	Quick	Brass	200°F	40
●	Viking	VK302	Microfast	5.6	Pendent	1/2"	Quick	Chrome	200°F	36
Total = 76										

NOTE: VERIFY ALL SPRINKLER QUANTITIES PRIOR TO COMMENCEMENT OF WORK. VERIFY SPRINKLER SPACING TO STRUCTURAL MEMBERS, ROOFLINE AND OTHER OBSTRUCTIONS. PROVIDE ADDITIONAL SPRINKLERS, OR RE-SPACE SPRINKLERS, WHERE REQUIRED TO AVOID SUCH UNFORESEEN OBSTRUCTIONS TO SPRINKLER DISCHARGE PATTERN PER NFPA-13. PROVIDE STANDARD ESCUTCHEONS AS REQUIRED TO AVOID OBSTRUCTIONS SUCH AS SURFACE MOUNTED LIGHTS PER NFPA-13.

ALL THREADED PIPING, DROPS AND ARMOVERS TO BE SCHEDULE 40 OR EQUIV.
ALL GROOVED PIPING AND MAINS TO BE SCHEDULE 10 OR EQUIV.

- #### FIRE PROTECTION KEYNOTES
- 4-INCH FIRE RISER. REFER TO FIRE RISER DETAIL AND HYDRAULIC CALCULATIONS FOR ADDITIONAL INFORMATION.
 - OUTSIDE HORN-STROBE (WIRED BY ELECTRICAL CONTRACTOR SUITABLE FOR EXTERIOR CONDITIONS). COORDINATE WITH ELECTRICAL PLANS.
 - GRID SYSTEM 1-INCH INSPECTOR'S TEST AND/OR AUXILIARY DRAIN. LOCATE ON MOST REMOTE PORTION OF SYSTEM. PROVIDE WITH 1/2-INCH ORIFICE TERMINATING OUTSIDE BUILDING 6-INCHES ABOVE FINISHED GRADE.
 - FP CONTR. TO COORDINATE A.S. WITH FINAL HVAC EQUIPMENT LOCATIONS. ADJUST TO AVOID ANY CONFLICTS. ENSURE SPRINKLERS ARE POSITIONED AT LEAST 3X (TIMES) AWAY FROM DUCTS TO AVOID OBSTRUCTION.
 - FULL HEIGHT WALL. SPACE A.S. TO THIS VERTICAL OBSTRUCTION AS INDICATED HEREIN.
 - PARTIAL-HEIGHT WALL. NOT A VERTICAL OBSTRUCTION. SPACE A.S. AS INDICATED HEREIN.
 - NON-COMBUSTIBLE SPACE ABOVE CEILINGS, NO A.S. REQUIRED PER NFPA-13 (TYP).
 - STRUCTURAL STEEL BEAM AT GRIDLINES 2, 3, & 4. ROUTE MAIN BELOW BOTTOM OF BEAM. REFER TO STRUCTURAL PLANS FOR ADDITIONAL INFORMATION.
 - Z-PURLIN CONSTRUCTION. BRANCH LINES SHALL HANG FROM Z-PURLINS UTILIZING CODE-APPROVED Z-PURLIN HANGERS (TYP).
 - QUICK RESPONSE UPRIGHT SPRINKLER. LOCATE WITHIN 12" OF INSULATION (BOTTOM OF Z-PURLINS). FP SUB TO MAINTAIN DEFLECTOR LOCATION TO AVOID OBSTRUCTIONS FROM CHAIN HUNG LIGHT FIXTURES (TYP).
 - QUICK RESPONSE PENDENT SPRINKLER. REFER TO SPRINKLER SCHEDULE FOR ADDITIONAL INFORMATION (TYP). FIELD COORDINATE PENDENT AND LIGHT FIXTURE LOCATIONS.
 - 1/2" CONNECTION FOR AUTOMATIC AIR RELEASE VALVE BY FP CONTRACTOR.
 - PROVIDE MAIN AUX. DRAIN. ROUTE TO OUTSIDE.
 - WALL MOUNTED 2-WAY FDC.
 - FP CONTRACTOR TO PROVIDE PIPE HANGERS AS SPECIFIED ON THE MAXIMUM HANGER SPACING TABLE & DETAILS ON FP3.0 PER MB MANUFACTURE AND NFPA-13 (TYP).
 - NON-COMBUSTIBLE OVERHANG. NO STORAGE BELOW. PEDESTRIAN USE ONLY. NO A.S. REQUIRED PER NFPA-13 (TYP).

HYDRAULIC CALCULATION DESIGN DATA

TOTAL SYSTEM AREA	±7,456 SF
OCCUPANCY DESC.	AUTO PARTS STORE
OCCUPANCY CLASS	CLASS I-IV STORAGE AT 12 FT MAX. HEIGHT & SOME GROUP A PLASTICS AT 5 FT OR LESS.
DENSITY	20 GPM / SF
AREA OF APPLICATION	*1,020 SF (ACTUAL) 1,063 SF
COVERAGE PER SPRINKLER	130 SF MAX. ALLOWED
SPECIAL SPRINKLERS	N/A
IN-RACK SPRINKLER DEMAND	N/A
HOSE STREAM ALLOWANCE:	INSIDE 0 OUTSIDE 250

SYSTEM DEMAND

DEMAND AT B.O.R. REQ'D	335.8 GPM @ 46.9 PSI
DEMAND AT SOURCE REQ'D	585.8 GPM @ 49.9 PSI
AVAILABLE AT SOURCE	585.8 GPM @ 52.1 PSI
SAFETY FACTOR:	4.2 %

(SEE HYDRAULIC CALCULATIONS AND FLOW TEST SUMMARY FOR ADDITIONAL 10% SAFETY FACTOR)

SYSTEM NO. 1 R.A. NO. 1

* NOTE: HYDRAULIC CALCULATIONS TAKE INTO ACCOUNT A QUICK RESPONSE SPRINKLER REMOTE AREA REDUCTION AS ALLOWED BY NFPA-13 SECTION 11.2.3.2.3.1 AND FIGURE 11.2.3.2.3. A ROOF HEIGHT OF 15'-4" AFF HAS BEEN UTILIZED TO APPLY A REDUCTION OF 32.0%. REMOTE AREA REDUCED TO 1,020 SF MINIMUM. ACTUAL CALCULATED IS 1,063 SF.

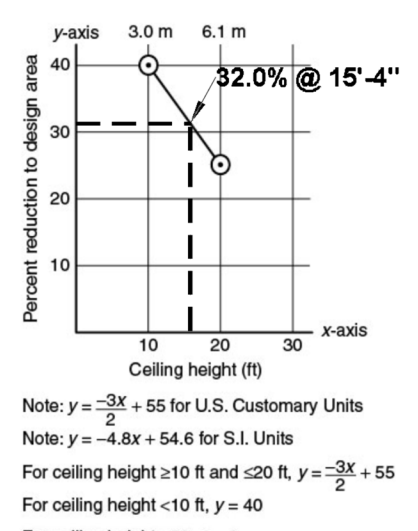
REMOTE AREA CALCULATION

MINIMUM NUMBER OF SPRINKLERS TO CALCULATE WITHIN REMOTE AREA:

REMOTE AREA
= AREA PER SPRINKLER
= 1063
130 (MAX.) = 8.18, CALC. 9
ACTUAL CALC'D = 12

MINIMUM DISCHARGE AT ANY SPRINKLER WITHIN REMOTE AREA

= (GPM/SQ FT)(AREA PER SPKRL)
= (20) (130)
= 26.0 GPM, CALC. 26.0
ACTUAL CALC'D = 26 (MIN.)



EJE #25102
05.02.2025
JOHN L. ECHEVERRI, SET, CFPS DATE
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JOHN L. ECHEVERRI, SET, CFPS
NICET CERTIFICATION NUMBER 78493
LEVEL IV AUTOMATIC SPRINKLER SYSTEMS
LEVEL III SPECIAL HAZARDS
NFPA CERTIFICATION NUMBER 1915
CERTIFIED FIRE PROTECTION SPECIALIST
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E-J Engineering Group **E-J Flow Tests** **EJ2 Construction Group**

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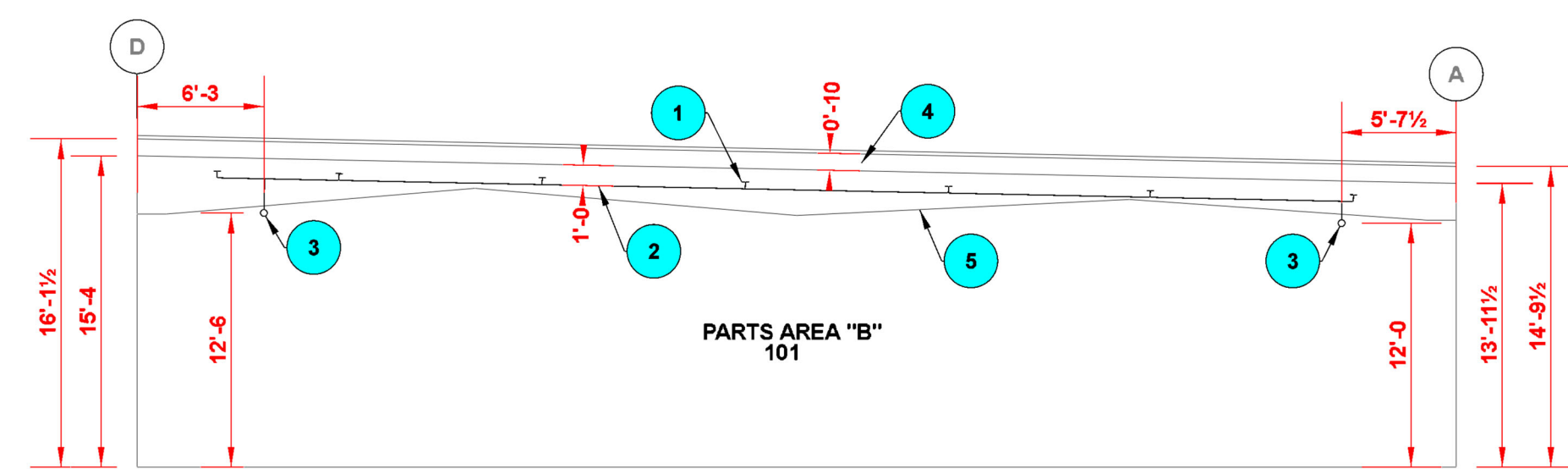
PROJECT: NEW O'REILLY AUTO PARTS STORE
STROH RD
PARKER, CO #2
FP PIPING PLAN

O'Reilly AUTO PARTS
CORPORATE OFFICES
283 SOUTH PATTERSON
MINNEAPOLIS, MN 55402
(417) 862-2474 TELEPHONE

COMM # 4884
DATE: 05-02-25
REVISION
DATE:

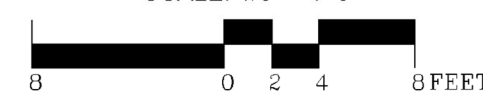
FP2.0

Commodity	Type of Storage	Table 4.3.1.7.1 Discharge Criteria for Miscellaneous Storage Up to 12 ft (3.7 m) in Height				Design Curve Figure 19.3.3.1.1	Note	Inside Hose		Total Combined Inside and Outside Hose		Duration (minutes)
		Storage Height		Maximum Ceiling Height				gpm	L/min	gpm	L/min	
		ft	m	ft	m							
Class I to Class IV												
Class I	Solid-piled, palletized, bin box, shelf, single, double, multiple-row rack, and back-to-back shelf storage	≤12	≤3.7	—	—	OH1	0.50, 100	0.190, 380	250	950	90	
Class II	SHELF STORAGE ONLY	≤10 to ≤12	≤3.0	—	—	OH2	0.50, 100	0.190, 380	250	950	90	
Class III		>10 to ≤12	>3.0 to ≤3.7	—	—	OH2	0.50, 100	0.190, 380	250	950	90	
Class IV	Palletized, bin box, shelf, single, double, multiple-row rack, and back-to-back shelf storage	≤10 to ≤12	≤3.0 to ≤3.7	32	10	OH2	0.50, 100	0.190, 380	250	950	90	
Group A Plastic Storage												
Cartoned	Nonexpanded and expanded	≤5	≤1.5	—	—	EH2	0.50, 100	0.190, 380	250	950	90	
		>5 to ≤10	>1.5 to ≤3.0	15	4.6	EH1	0.50, 100	0.190, 380	500	1900	120	
		>5 to ≤10	>1.5 to ≤3.0	20	6.1	EH2	0.50, 100	0.190, 380	500	1900	120	
		>10 to ≤12	>3.0 to ≤3.7	17	5.2	EH2	0.50, 100	0.190, 380	500	1900	120	
Exposed	Nonexpanded and expanded	>10 to ≤12	>3.0 to ≤3.7	32	10	EH2	0.50, 100	0.190, 380	500	1900	120	
		>10 to ≤12	>3.0 to ≤3.7	32	10	See Chapter 25	+1 level of fire rack	0.50, 100	0.190, 380	250	950	90
		>5 to ≤10	>1.5 to ≤3.0	20	6.1	EH2	0.50, 100	0.190, 380	500	1900	120	
		>5 to ≤10	>1.5 to ≤3.0	15	4.6	EH2	0.50, 100	0.190, 380	500	1900	120	
Nonexpanded	Nonexpanded	>5 to ≤10	>1.5 to ≤3.0	20	6.1	EH2	0.50, 100	0.190, 380	500	1900	120	
		>5 to ≤10	>1.5 to ≤3.0	20	6.1	See Chapter 25	+1 level of fire rack	0.50, 100	0.190, 380	250	950	90
		>10 to ≤12	>3.0 to ≤3.7	17	5.2	EH2	0.50, 100	0.190, 380	500	1900	120	
		>10 to ≤12	>3.0 to ≤3.7	17	5.2	EH2	0.50, 100	0.190, 380	500	1900	120	
Expanded	Nonexpanded and expanded	>10 to ≤12	>3.0 to ≤3.7	17	5.2	EH2	0.50, 100	0.190, 380	500	1900	120	
		>10 to ≤12	>3.0 to ≤3.7	32	10	See Chapter 25	+1 level of fire rack	0.50, 100	0.190, 380	250	950	90



FIRE PROTECTION SECTION

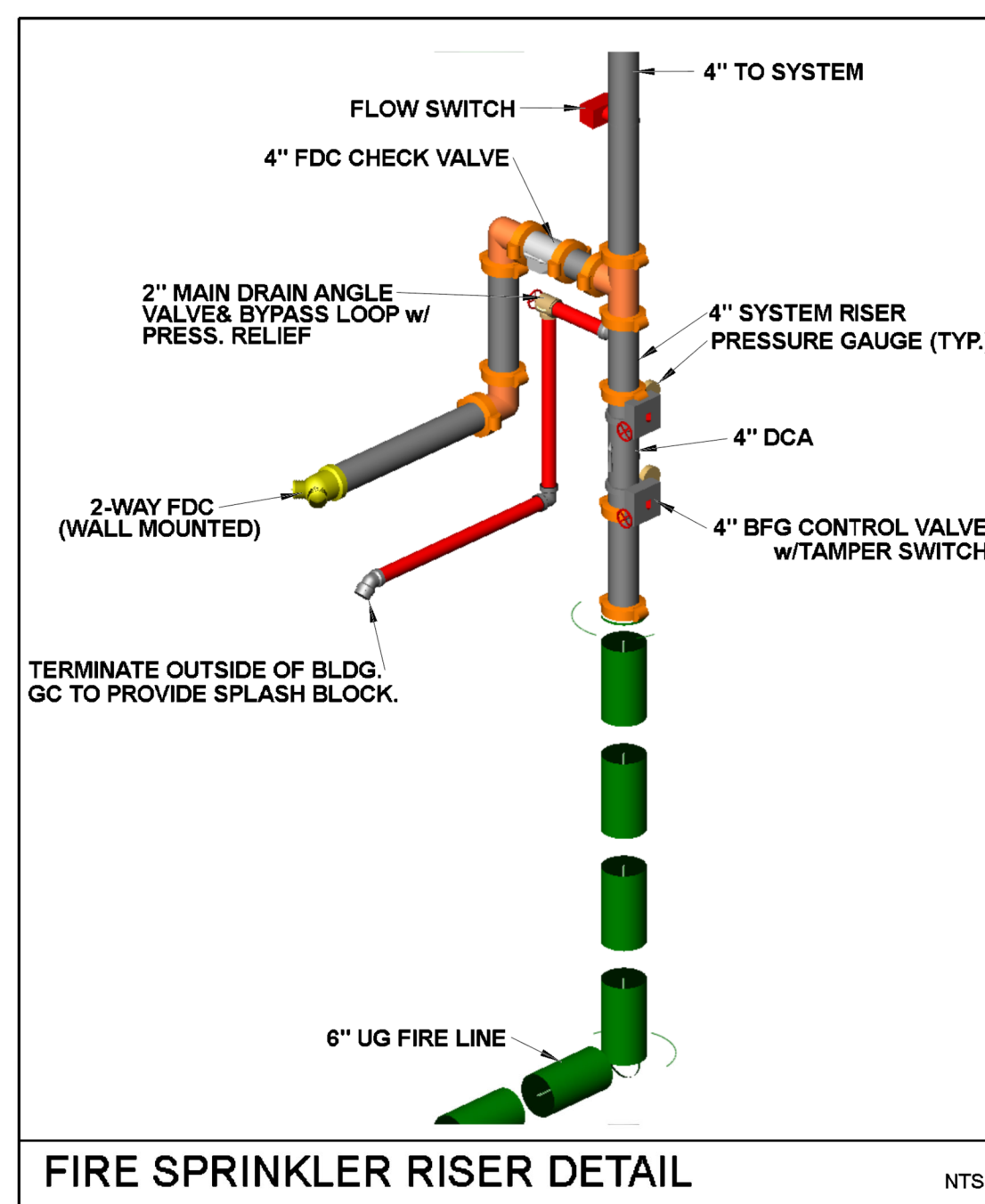
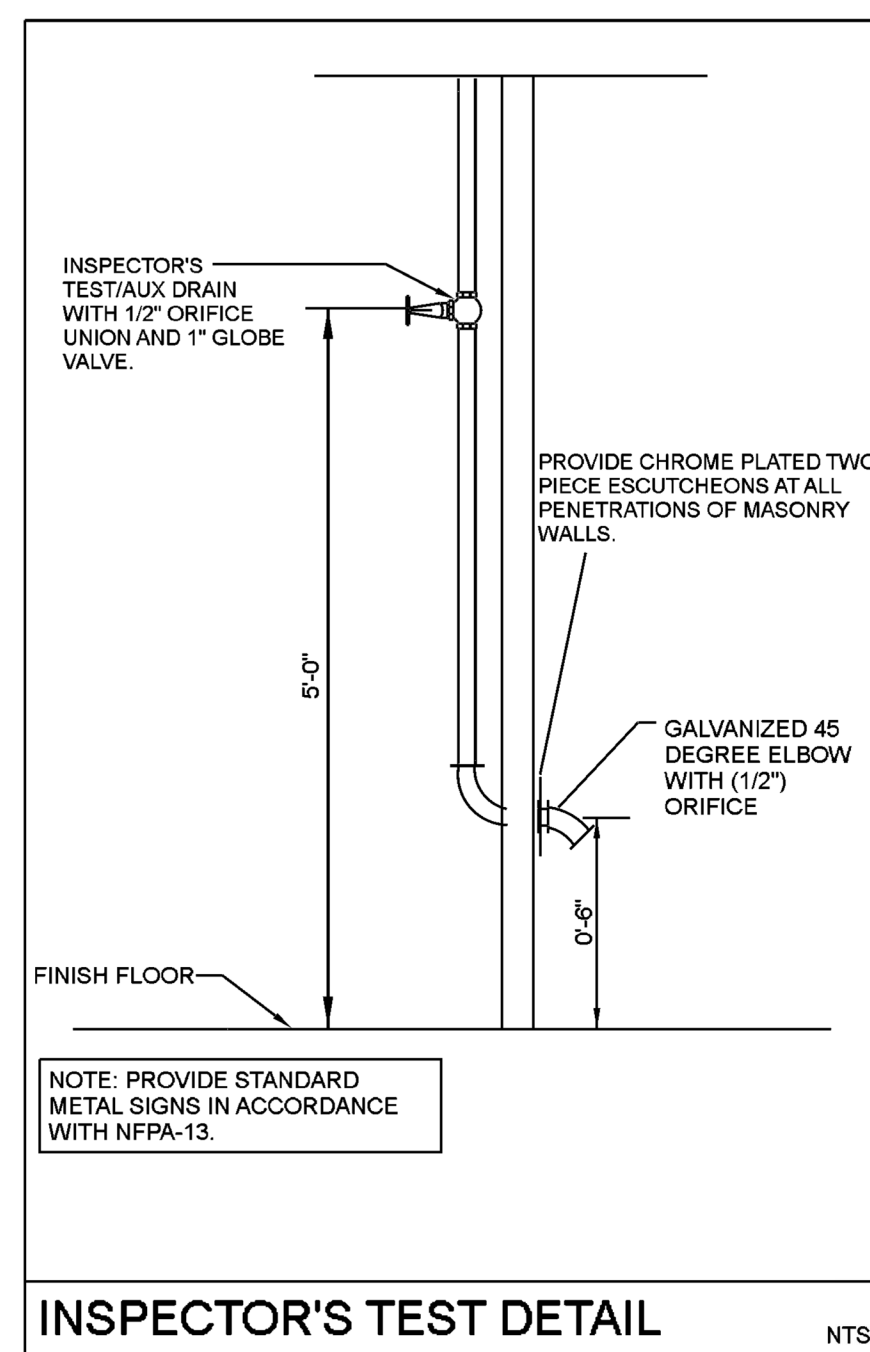
SCALE: 1/8" = 1'-0"



THE ABOVE SECTION(S) IS/ARE FOR REFERENCE ONLY. REFER TO APPROVED ARCHITECTURAL AND STRUCTURAL PLANS FOR EXACT SIZES, LOCATIONS, AND ALL ADDITIONAL INFORMATION THAT IS NOT SHOWN ON THIS PLAN.

FIRE PROTECTION SECTION KEYNOTES

- 1 TYPICAL SPRINKLER. SEE FLOOR PLANS FOR ADD'L INFORMATION.
- 2 TYPICAL BRANCH LINE. SEE FLOOR PLAN FOR ADD'L INFORMATION.
- 3 TYPICAL MAIN. SEE FLOOR PLAN FOR ADD'L INFORMATION.
- 4 10-INCH Z-PURLINS. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION. (TYP)
- 5 STEEL BEAM. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION. (TYP)



- SYSTEM RISER NOTES:**
- FIRE SPRINKLER SYSTEM TO BE MONITORED BY A U.L. OR F.M. LISTED CENTRAL STATION FOR FLOW, TAMPER AND TROUBLE.
 - INSTALL DESIGN PLACARD ON EACH RISER PER NFPA-13.
 - ALL VALVES SHALL BE A MAX. OF 7'-0" A.F.F.
 - WHERE REQUIRED BY A.H.J., PROVIDE MEANS DOWNSTREAM OF ALL BACKFLOW PREVENTION VALVES TO ACCOMMODATE FLOW TESTS AT SYSTEM DEMAND. IF ACCEPTABLE BY A.H.J. FDC CAN BE UTILIZED.
 - PROVIDE SPARE SPRINKLER BOX (QUANT. PER NFPA-13) AND AS-BUILT CABINET.
 - PROVIDE FLEXIBLE COUPLINGS AND BRACING FOR THE FIRE RISER AS REQUIRED IN NFPA-13.

HYDRAULIC DATA

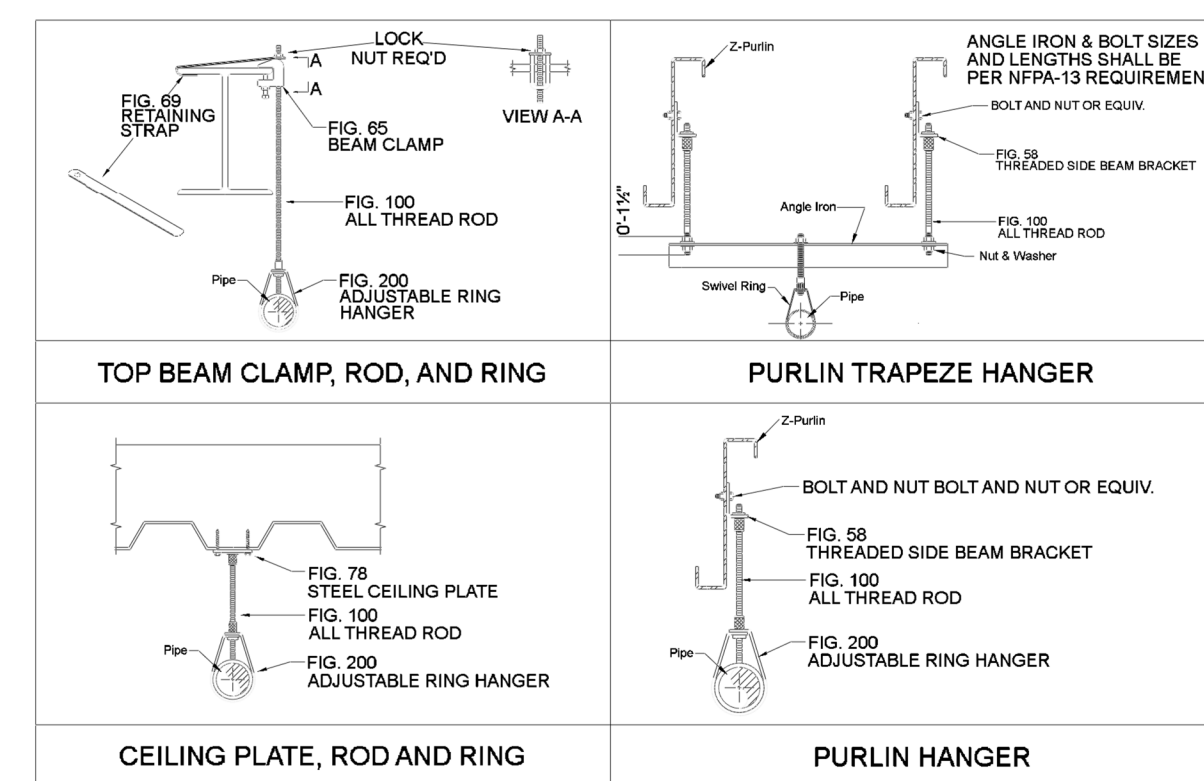
PROJECT INFORMATION
 EJ PROJECT ID: _____ DATE: _____
 PROJECT ADDRESS: _____ SYSTEM SQ FT: _____
 PROJECT CITY/STATE/ZIP: _____ R.A. #: _____
 JURISDICTION (AHJ): _____ ZONE #: _____
 APPLICABLE CODE(S): _____ HAZARD TYPE: _____
 SYSTEM TYPE: _____

DESIGN INFORMATION
 COMMODITY CLASS(ES): _____
 MAX STORAGE HEIGHT: _____
 DENS / AREA or SPKRS/PSI: _____
 AREA PER SPRINKLER (SF): _____
 HOSE STREAM INSIDE: _____
 HOSE STREAM TOTAL: _____

SYSTEM DEMAND
 AVAILABLE AT SOURCE: _____ GPM @ _____ PSI
 REQUIRED AT SOURCE: _____ GPM @ _____ PSI
 REQ'D AT BASE OF RISER: _____ GPM @ _____ PSI
 ADDITIONAL INFO/DATA: _____

WATER SUPPLY DATA
 FLOW TEST LOCATION: _____
 TEST DATE & OTHER INFO: _____
 AVAILABLE WATER SUPPLY (RAW DATA):
 STATIC PSI: _____ RESIDUAL PSI: _____ GPM FLOWING: _____ GPM @ 20PSI;
 AVAILABLE WATER SUPPLY (SAFETY FACTOR DATA):
 STATIC PSI: _____ RESIDUAL PSI: _____ GPM FLOWING: _____ GPM @ 20PSI;
 CONDUCTED BY (FIRM): _____
 WITNESSED BY (FIRM): _____

PIPE INFORMATION - (MFR/SCHEDULE/CRR'S FOR EACH PIPE SIZE)
 THREADED: _____
 GROOVED: _____



MAX. HANGER SPACING

PIPE TYPE	MAXIMUM HANGER SPACING (O.C.)	
	ALL BRANCH LINES	ALL MAINS
SCH 10, 40	10-0	5-0

36" MAX. FOR 1" DIA.
 48" MAX. FOR 1.25" DIA.
 60" MAX. FOR 1.5" DIA. OR LARGER

SUPPORT FROM DIFFERENT PURLINS THAN ADJACENT

TRAPEZE HANGER FROM PURLINS REQUIRED AT MAINS

DISTANCE BETWEEN SHALL NOT EXCEED ABOVE TABLE

BRANCH LINE HANGERS SHALL BE WITHIN 7'-6" MAX. OF MAIN

IF GREATER THAN 36" MAX. FOR 1" DIA.
 IF GREATER THAN 48" MAX. FOR 1.25" DIA.
 IF GREATER THAN 60" FOR 1.5" DIA. OR LARGER THEN EXTEND HERE

EJE #25102

John L. Echeverri 05.02.2025
 JOHN L. ECHEVERRI, SET, CFPS DATE

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 NICET CERTIFICATION NUMBER 78483
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PROJECT:
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STROH RD
PARKER, CO #2
FP SECTION & DETAILS

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FP3.0