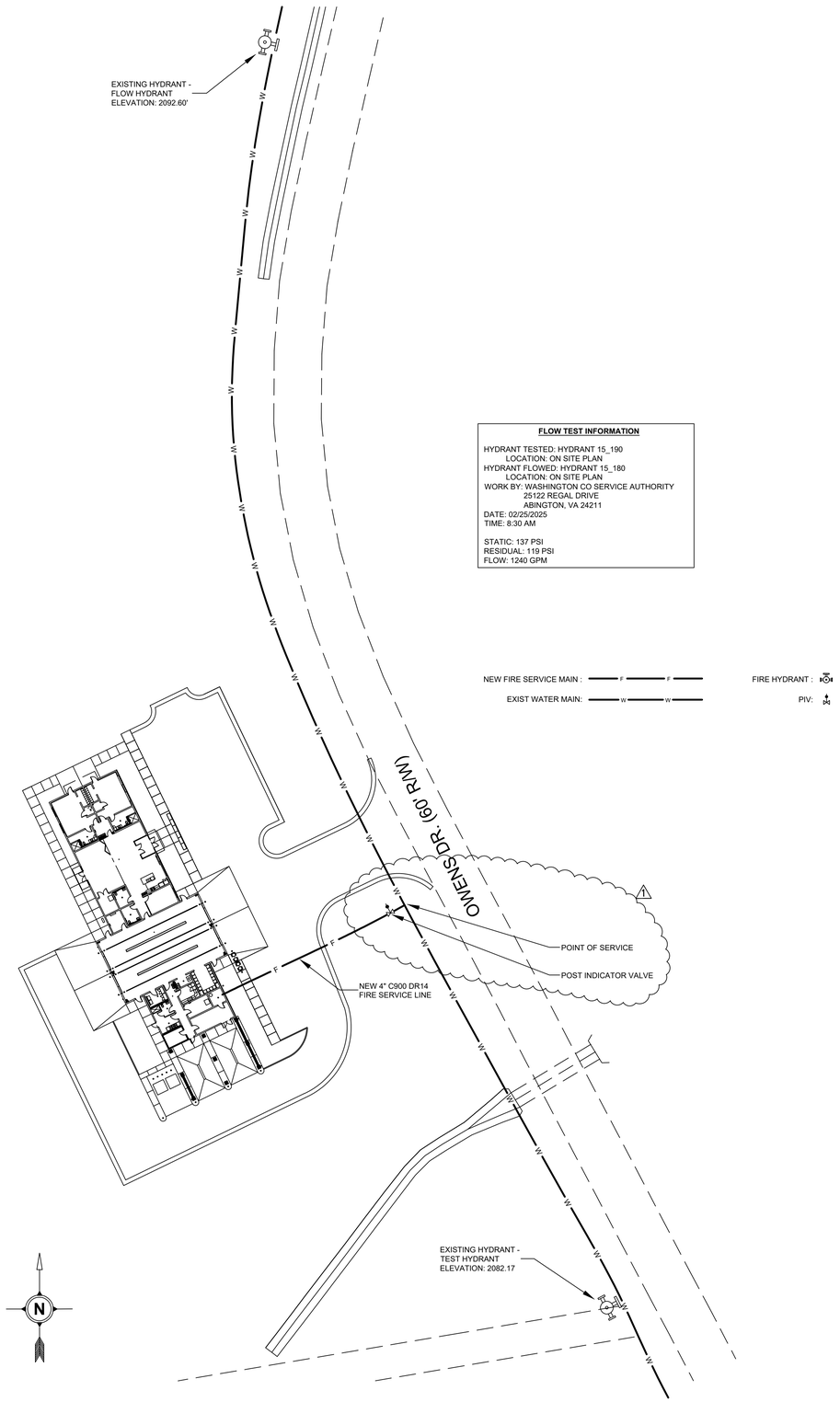

FLOW TEST INFORMATION

HYDRANT TESTED: HYDRANT 15_190
LOCATION: ON SITE PLAN
HYDRANT FLOWED: HYDRANT 15_180
LOCATION: ON SITE PLAN
WORK BY: WASHINGTON CO SERVICE AUTHORITY
25122 REGAL DRIVE
ABINGTON, VA 24211
DATE: 02/25/2025
TIME: 8:30 AM

STATIC: 137 PSI
RESIDUAL: 119 PSI
FLOW: 1240 GPM

NEW FIRE SERVICE MAIN : —— F ——— F ——
EXIST WATER MAIN: —— W ——— W ——
FIRE HYDRANT :
PIV:

FIRE PROTECTION SITE PLAN

SCALE: 1" = 40'-0"

FIRE PROTECTION NOTES

1. A TENNESSEE REGISTERED FIRE PROTECTION SPRINKLER CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE AND WORKING WET AUTOMATIC SPRINKLER SYSTEM FROM THE "POINT OF SERVICE" AND COVERING ALL OF THE EXISTING BUILDING, DESIGNED, INSTALLED AND DOCUMENTED PER NFPA 13. THE SPRINKLER HEAD LAYOUT SHOWN ON THESE DRAWINGS ARE GENERALLY DIAGRAMMATIC. SUBMIT SPRINKLER SHOP DRAWINGS SHOWING ALL PIPING, SPRINKLER HEADS AND CALCULATIONS FOR REVIEW & APPROVAL PRIOR TO INSTALLATION. DETAILED DESIGN DRAWINGS AND SHOP DRAWINGS SHALL BE SUBMITTED BY A TENNESSEE REGISTERED FIRE PROTECTION SPRINKLER CONTRACTOR. DRAWING INFORMATION IS GENERALLY A STIPULATION ON THE PLANS APPROVAL. ALL SHOP DRAWINGS INCLUDING DETAIL DESIGNS AND ALL CUT SHEETS FOR ALL MATERIALS MUST BE SUBMITTED TO ENGINEER OF RECORD AND APPROVED PRIOR TO SUBMITTAL TO AHJ.
2. SYSTEM DESIGN PER NFPA 13
REFER TO DRAWINGS FOR DESIGN CRITERIA FOR THIS PROJECT
3. BUILDING(S) SEISMIC DESIGN CATEGORY
SEISMIC DESIGN CATEGORY C
IF BUILDING IS IN SEISMIC DESIGN CATEGORY A OR B NFPA 13 SEISMIC DESIGN CRITERIA DO NOT APPLY PER ASCE 7 11.7 AND ASCE 7 13.1.4. IF BUILDING IS IN SEISMIC DESIGN CATEGORIES C, D, E, OR F CONTRACTOR TO INSTALL SYSTEM USING ALL NFPA 13 SEISMIC DESIGN CRITERIA. SEISMIC DESIGN CRITERIA TO BE INCLUDED IN SHOP DRAWINGS TO BE APPROVED BY ENGINEER OF RECORD.
4. THE FIRE PROTECTION SYSTEM SHALL CONFORM TO ALL REQUIREMENTS OF NFPA 13, 14 AND 20 AS WELL AS ALL LOCAL, COUNTY AND STATE REQUIREMENTS.
5. THE CONTRACTOR SHALL INSTALL ALL FIRE PROTECTION PIPING IN ACCORDANCE WITH ALL APPLICABLE CODES. ANY MINOR ADJUSTMENTS TO MEET THESE REQUIREMENTS SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
6. PRIOR TO BIDDING, THE CONTRACTOR SHALL CONTACT THE LOCAL UTILITY COMPANY FOR THE REQUIREMENTS CONCERNING METERING DEVICES, FIRE ALARM SYSTEM, VALVE PITS, BACKFLOW PREVENTION, ETC. SUBMIT TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO SUBMITTING TO AUTHORITIES HAVING JURISDICTION.
6. THE CONTRACTOR SHALL COMPLETE HYDRAULIC CALCULATIONS TO PROVE MODIFICATIONS TO EXISTING SYSTEM WILL WORK WITH EXISTING FLOW AND PRESSURE. ALLOW A 10% PRESSURE LOSS SAFETY FACTOR ON DEMAND CURVE CALCULATIONS FOR FLUCTUATION OF WATER PRESSURE. THE APPLICABLE HOSE STREAM ALLOWANCE SHALL BE ADDED TO THE SPRINKLER SYSTEM REQUIREMENTS AT THE POINT OF CONNECTION TO THE SYSTEM. SUBMIT CALCULATIONS TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO SUBMISSION TO AUTHORITIES HAVING JURISDICTION. SYSTEM MUST BE DESIGNED TO BE ABLE TO USE AVAILABLE WATER PRESSURE AND FLOW WITH NO PUMPS. IF SYSTEM DESIGN IS NOT POSSIBLE WITH EXISTING CONDITIONS FIRE PROTECTION CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD IMMEDIATELY UPON DISCOVERY.
7. BEFORE AND THROUGHOUT THE ENTIRE PROJECT, THE CONTRACTOR SHALL COORDINATE ALL PHASES OF HIS WORK INCLUDING EXACT LOCATIONS OF ALL PIPING AND SPRINKLER HEADS WITH THE ARCHITECT AND ALL OTHER TRADESMAN.
8. THE CONTRACTOR SHALL FURNISH MORE OR LESS HEADS AS REQUIRED BY NFPA 13. THE CONTRACTOR SHALL COORDINATE CLOSELY WITH OTHER TRADESMEN ON THE LOCATIONS OF SPRINKLER HEADS.
9. THE CONTRACTOR SHALL PROVDE ADDITIONAL SPRINKLER HEADS TO PROTECT UNDER OBSTRUCTIONS OVER 4' IN WIDTH OR RELOCATE HEADS TO MAINTAIN A MINIMUM 3' CLEARANCE BETWEEN SPRINKLER HEADS AND THE TOP OF PILES OF COMBUSTIBLE FIBERS.
10. THE CONTRACTOR SHALL INTSALL SYSTEM TO ALLOW ALL PIPE AND FITTINGS TO BE DRAINED BY METHOD WHERE LEAD-IN TERMINATES AT A POINT LOWER THAN GRADE.
11. THE CONTRACTOR SHALL PROVDE CLEARANCE AROUND ALL PIPING EXTENDING TROUGH WALLS, FLOORS, PLATFORMS, AND FOUNDATIONS, INCLUDING DRAINS, FIRE DEPARTMENT CONNECTIONS, AND OTHER AUXILIARY PIPING UNLESS NFPA 13 EXCEPTIONS ARE MET. DIAMETER OF HOLE TO BE 2" LARGER THAN PIPE FOR PIPES SIZED 1"- 3.5" AND 4" LARGER THAN PIPE FOR PIPE 4" AND LARGER.
12. THE CONTRACTOR SHALL INSTALL ALL GAUGES AND VALVES IN A MANNER THAT LEAVES THEM ACCESSIBLE FOR OPERATION, INSPECTION, AND MAINTENANCE.
13. THE CONTRACTOR SHALL COORDINATE THE WIRING OF THE VARIOUS ZONES, TAMPER AND FLOW SWITCHES WITH THE ELECTRICAL CONTRACTOR.
14. THE CONTRACTOR SHALL COORDINATE ANY DISCREPANCIES IN THE REPRESENTATION OF THESE DRAWINGS AND/OR THE SPECIFICATIONS IMMEDIATELY WITH THE ARCHITECT AND ENGINEER OF RECORD.
15. THE CONTRACTOR SHALL INSTALL FIRE DEPARTMENT CONNECTION PER NFPA 13 - SEE TYPICAL RISER DETAIL.
16. NEW FIRE HYDRANTS MUST BE VERIFIED SO THAT ANY PORTION OF THE BUILDINGS EXTERIOR IS WITHIN 600 FEET HOSE LAY OF A HYDRANT MEASURED ALONG VEHICLE ACCESS ROUTE, (NFPA 24) CHECK WITH LOCAL CODE AUTHORITIES AS SOME JURISDICTIONS REQUIRED CLOSER SPACING. COORDINATE WITH ARCHITECT.
17. UNDERGROUND WATER MAINS AND HYDRANTS, IF NEEDED, ARE TO BE PROVIDED. THEY MUST BE INSTALLED, COMPLETED, AND IN SERVICE PRIOR TO BUILDING OCCUPANCY. (NFPA 24)
18. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION ON A SITE PLAN TO BE APPROVED BY ENGINEER OF RECORD.
    18.1. FROM POINT OF SERVICE TO BUILDING SHOW: ISOLATION VALVE LOCATION AND TYPE, UNDERGROUND PIPING MATERIAL, SIZE AND DEPTH OF BURY, VALVE PIT, TRENCH DETAIL, AND THRUST BLOCK SIZE AND LOCATION.
    18.2. SHOW IF REDUCED PRESSURE BACKFLOW PREVENTER AND METER IS PRESENT DUE TO OTHER AUTHORITIES AND VERIFY THAT IT IS LISTED FOR FIRE PROTECTION SERVICE (NFPA 13 AND NFPA 24).
    18.3. FIRE DEPARTMENT CONNECTION LOCATIONS TO BE ON THE STREET SIDE OF THE BUILDING, UNLESS APPROVED OTHERWISE BY AHJ, FULLY VISIBLE AND RECOGNIZABLE WITHOUT OBSTRUCTING ACCESS TO BUILDING FOR OTHER FIRE APPARATUS. IF EXISTING BUILDING FDC NOT FULLY VISIBLE AN APPROVED SIGN IS TO BE ADDED ON STREET SIDE OF BUILDING. FDC LOCATION TO BE INCLUDED IN SHOP DRAWING TO BE APPROVED BY ENGINEER OF RECORD.
19. ALL PIPE TO BE TESTED AT 200 PSI FOR 2 HOURS.
20. RISER DETAIL SHOWN IS GENERIC AND UNSIZED. SPRINKLER CONTRACTOR RESPONSIBLE FOR CHOOSING CORRECT RISER LAYOUT AND SIZING AS NEEDED FOR HYDRAULIC AND NFPA 13 REQUIREMENTS.
21. NO WET PIPING TO BE LOCATED WITHIN EXTERIOR WALLS. ANY WET PIPING FOR DRY HEADS TO BE LOCATED WITHIN INTERIOR HEATED WALL, EXPOSED PIPING WITHIN INTERIOR, SOFFIT WITHIN HEATED ROOM, OR SUBSTITUTE HEAD FOR DRY FLEX HEAD WITH CONNECTION WITHIN HEATED SPACE.
22. THE CONTRACTOR SHALL CHOOSE PIPE AND FITTINGS THAT MEET NFPA 13 REQUIREMENTS AND ARE LISTED FOR SPRINKLER SERVICE BASED UPON SYSTEM TYPE AND HAZARD CLASSIFICATION. PIPE AND FITTING SELECTION TO BE INCLUDED IN SHOP DRAWINGS TO BE APPROVED BY ENGINEER OF RECORD.
23. SPRINKLER PIPING SHALL BE SUPPORTED AT THE CORRECT HANGAR DISTANCES AND MOUNTING METHODS DEPEDNANT UPON PIPE TYPE, SIZE, AND BUILDING STRUCTURE PER NFPA 13 REQUIREMENTS. PIPE SUPPORT DETAILS AND HANGAR SPACING TO BE INCLUDED IN SHOP DRAWINGS TO BE APPROVED BY ENGINEER OF RECORD.
24. SEPARATE PERMITS ARE REQUIRED FOR UNDERGROUND FIRE SERVICE LINE FROM TAP TO BASE OF RISER AND FOR ABOVEGROUND PORTION OF SYSTEM.

HE HOLSTON ENGINEERING, INC.
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PLOT DATE: 06/03/2026 HE PROJECT # 25-010

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NEW EMS FACILITY FOR
WASHINGTON COUNTY, VIRGINIA
HIGHLANDS BUSINESS PARK
OWENS DRIVE - GLADE SPRING, VA 24340

FIRE PROTECTION
DESIGN INTENT

COMMONWEALTH OF VIRGINIA
NOAH A. LEWIS
Lic. No. 68421
06-03-2026
PROFESSIONAL ENGINEER

DATE: 06-03-2026

NO.	REVISION DATE
1	06-03-2026
2	
3	

SHEET: FP102

DRAWN BY: NAL
CHECKED BY: NAL
PROJECT NO.: TLG-2515

THE LANE GROUP INC.