

**SCOPE OF WORK**

START AT FLANGE INSIDE OF FIRE RISER ROOM AND PROVIDE NEW AUTOMATIC WET-PIPE FIRE PROTECTION SPRINKLER SYSTEM THROUGHOUT EACH NEW BUILDING.

**BUILDING DATA**

NFPA STANDARD: NFPA 13-2019, NFPA 13R-2019  
 OCCUPANCY GROUP: R-2 (RESIDENTIAL), B (BUSINESS)  
 NO. OF STORIES: 3  
 PEAK BUILDING HEIGHT: 42'-2"  
 CONSTRUCTION TYPE: V-B

**GENERAL NOTES**

- ALL SPRINKLER PIPING DESIGN, INSTALLATION, AND TESTING SHALL COMPLY WITH NFPA 13 AND NFPA 13R.
- PIPING SHALL BE SEISMICALLY BRACED.
- ALL EQUIPMENT SHALL BE UL LISTED AND/OR FM APPROVED FOR THIS INTENDED APPLICATION.
- FIRE PROTECTION DESIGNER SHALL COORDINATE LOCATION OF ALL SPRINKLERS AND PIPING WITH STRUCTURAL ELEMENTS, MECHANICAL, PLUMBING, ELECTRICAL EQUIPMENT, AND CEILING CONFIGURATION.
- ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 70 AND NFPA 72.
- SPRINKLERS SHALL BE CENTERED IN CEILING TILES THROUGHOUT ALL FINISHED SPACES WHERE APPLICABLE.
- ALL PIPING SUBJECT TO TEMPERATURES BELOW 40 F SHALL BE DRY-TYPE OR HAVE OTHER ADEQUATE MEANS OF FREEZE PROTECTION. DRY-TYPE SYSTEMS SHOULD HAVE A DESIGN AREA INCREASE OF 30%.
- ALL LOW POINTS IN DRY SYSTEMS SHALL HAVE A DRUM DRIP.
- TAMPER SWITCHES SHALL BE INSTALLED ON ALL VALVES REQUIRED TO BE SUPERVISED.
- WATER FLOW SWITCHES IN DRY SYSTEMS SHALL BE OF THE PRESSURE-TYPE.
- FDC CONNECTION TO BE 4" STORZ TYPE.
- SYSTEM DESIGN PRESSURE SHALL BE 175 PSIG.

**LIGHT HAZARD DESIGN CRITERIA**

AREAS: COMMON AREAS, OFFICES  
 SYSTEM TYPE: WET  
 DESIGN DENSITY: 0.10 GPM/SQ. FT.  
 DESIGN AREA: 1,500 SQ. FT.  
 HOSE STREAM ALLOWANCE: 100 GPM

**ORDINARY HAZARD GROUP 1 CRITERIA**

AREAS: MECHANICAL ROOMS, STORAGE  
 SYSTEM TYPE: WET  
 DESIGN DENSITY: 0.15 GPM/SQ. FT.  
 DESIGN AREA: 1,500 SQ. FT.  
 HOSE STREAM ALLOWANCE: 100 GPM

**RESIDENTIAL DESIGN CRITERIA**

RESIDENTIAL AREAS  
 SYSTEM TYPE: WET  
 DESIGN DENSITY: 0.05 GPM/SQ. FT.  
 HOSE STREAM ALLOWANCE: 100 GPM

**MATERIAL REQUIREMENTS**

- ALL PIPING AND COMPONENTS SHALL BE RATED FOR A PRESSURE THAT EXCEEDS THE DESIGN PRESSURE OF THE SYSTEM.
- ALL PIPING SHALL BE SCH 40 OR SCHEDULE 10 BLACK STEEL ASTM A53, A135, OR A795 WITH MIC COATING UNLESS ALLOWED BY NFPA 13R 5.2.2.
- CPVC PIPING IN ACCORDANCE WITH NFPA 13R IS ALLOWED FOR RESIDENTIAL AND LIGHT HAZARD OCCUPANCIES.
- ALL SYSTEM COMPONENTS, PIPE, AND FITTINGS SHALL BE NEW AND UL LISTED OR FM APPROVED.

**WATER SUPPLY DATA**

FLOW TEST PERFORMED BY JACKSON PETTIGREW OF BROWNSVILLE ENERGY AUTHORITY. CONTRACTOR TO REQUEST LOCATION OF STATIC AND RESIDUAL HYDRANTS FOR HYDRAULIC CALCULATIONS.  
 TEST DATE: 3-17-2025

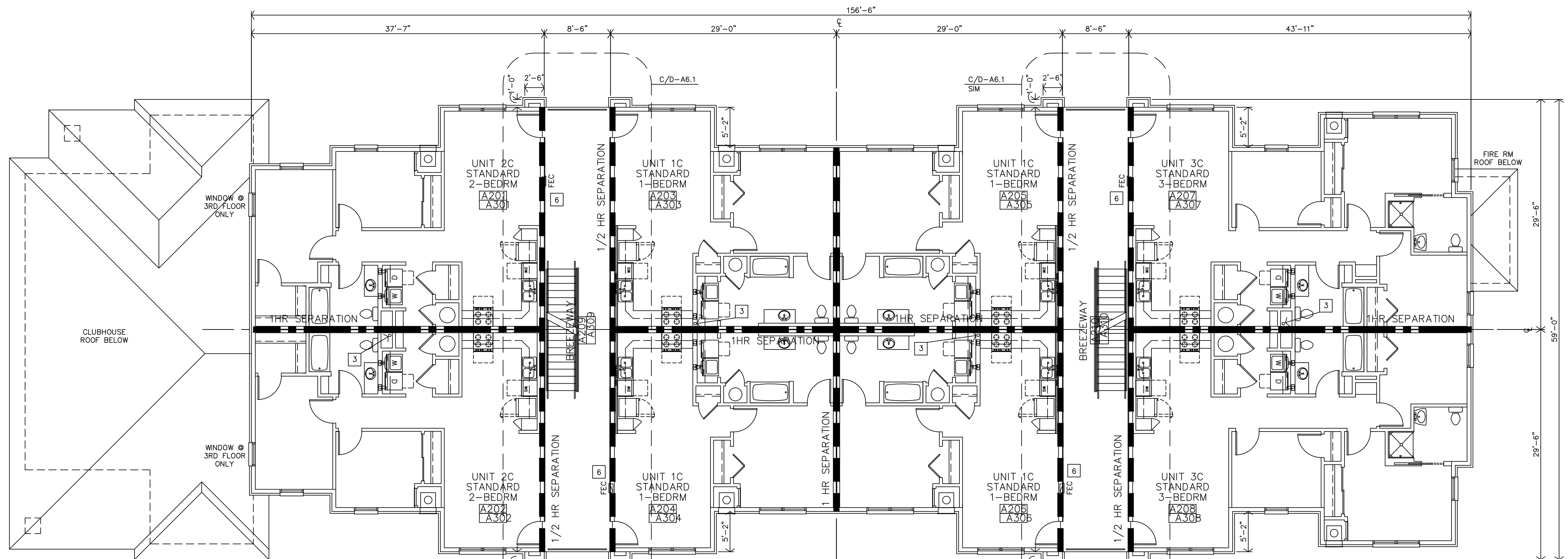
- STATIC: 68 PSI
- RESIDUAL: 52 PSI
- FLOW: 1,000 GPM

**SEISMIC DESIGN CRITERIA**

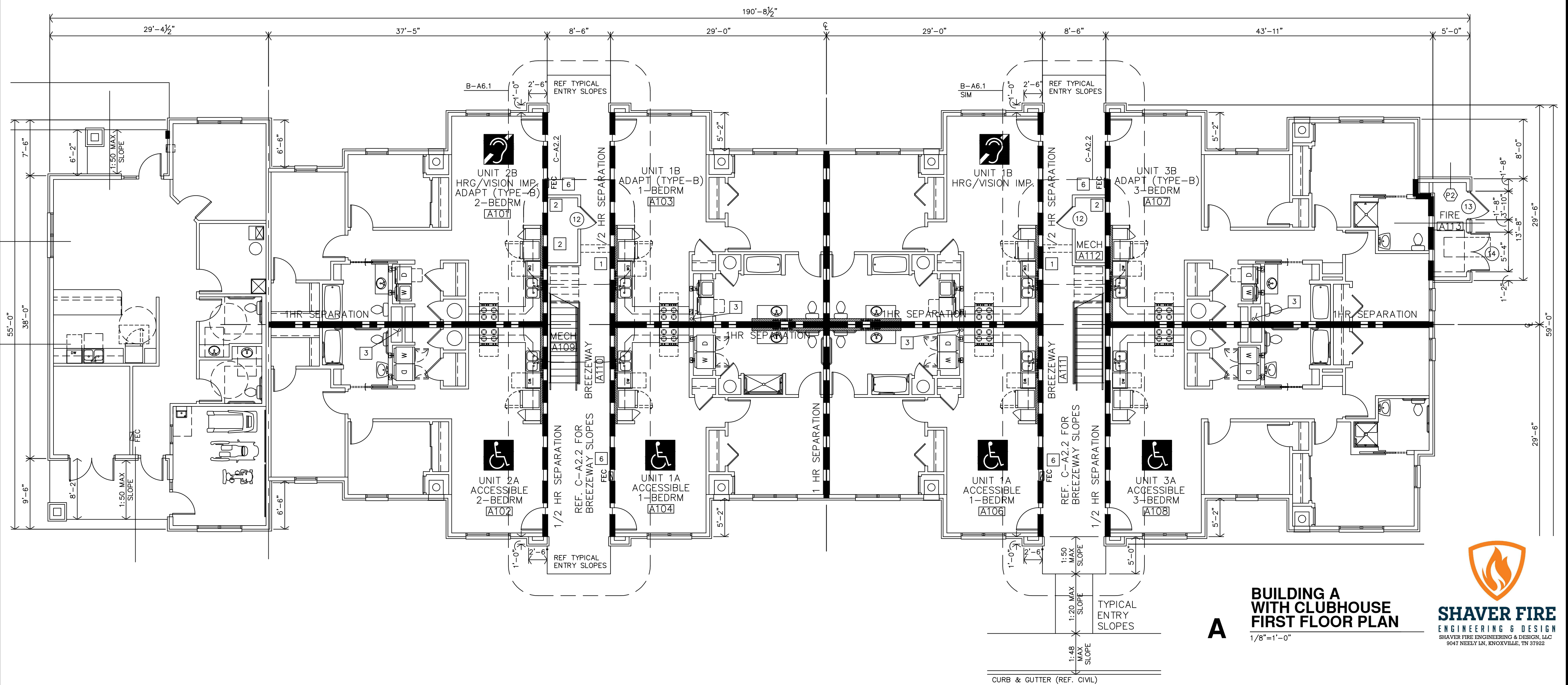
THE PROJECT IS LOCATED IN A SEISMIC ZONE AND FIRE PROTECTION SYSTEM SHALL BE DESIGNED TO WITHSTAND DAMAGE AGAINST EARTHQUAKES IN ACCORDANCE WITH NFPA 13.

SEISMIC DESIGN PARAMETERS:

- S<sub>s</sub> = 0.902
- S<sub>1</sub> = 0.318g
- S<sub>ds</sub> = 0.685g
- S<sub>f1</sub> = 0.34
- Design Category: D



**BUILDING A  
 SECOND FLOOR PLAN  
 THIRD FLOOR PLAN (SIM)**  
 1/8"=1'-0"



**BUILDING A  
 WITH CLUBHOUSE  
 FIRST FLOOR PLAN**  
 1/8"=1'-0"



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## LIGHT HAZARD DESIGN CRITERIA

AREAS: COMMON AREAS, OFFICES  
 SYSTEM TYPE: WET  
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## ORDINARY HAZARD GROUP 1 CRITERIA

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 DESIGN DENSITY: 0.05 GPM/SQ. FT.  
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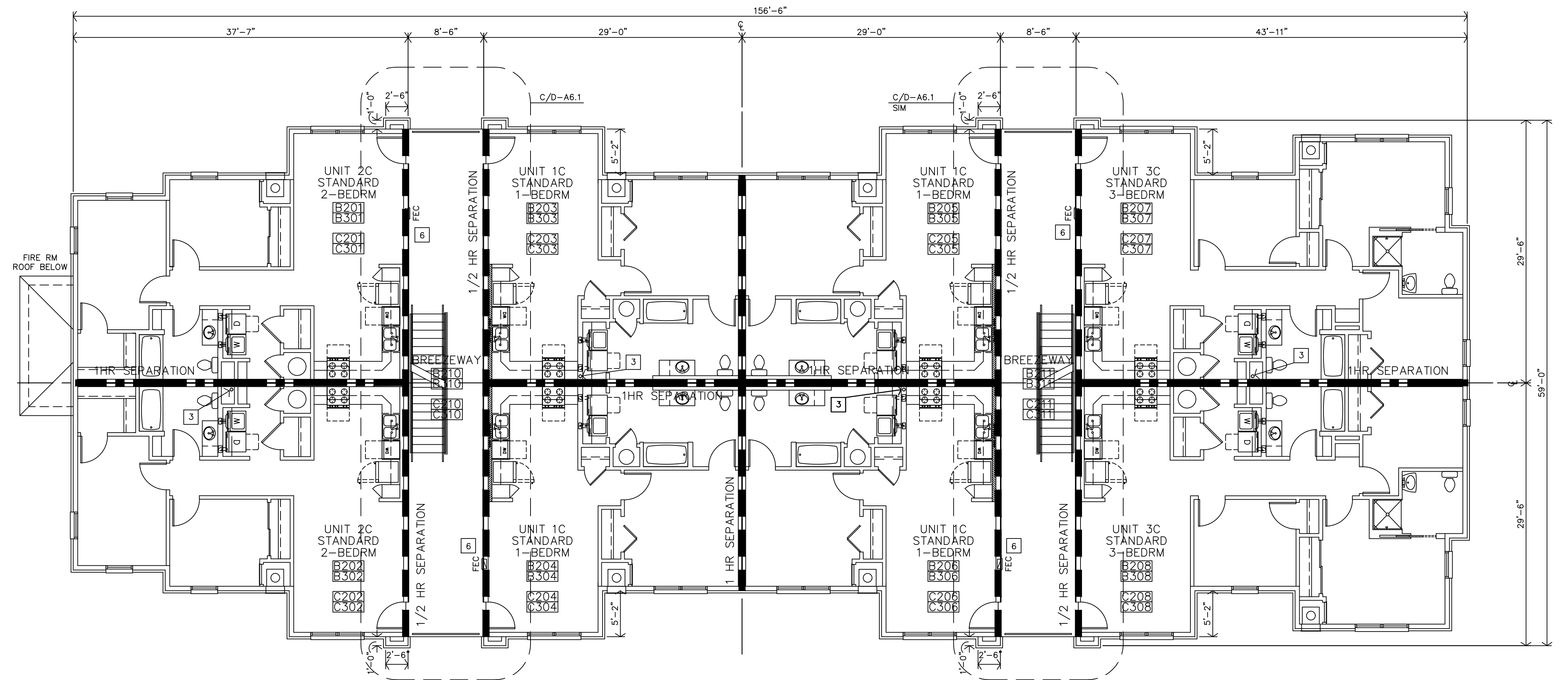
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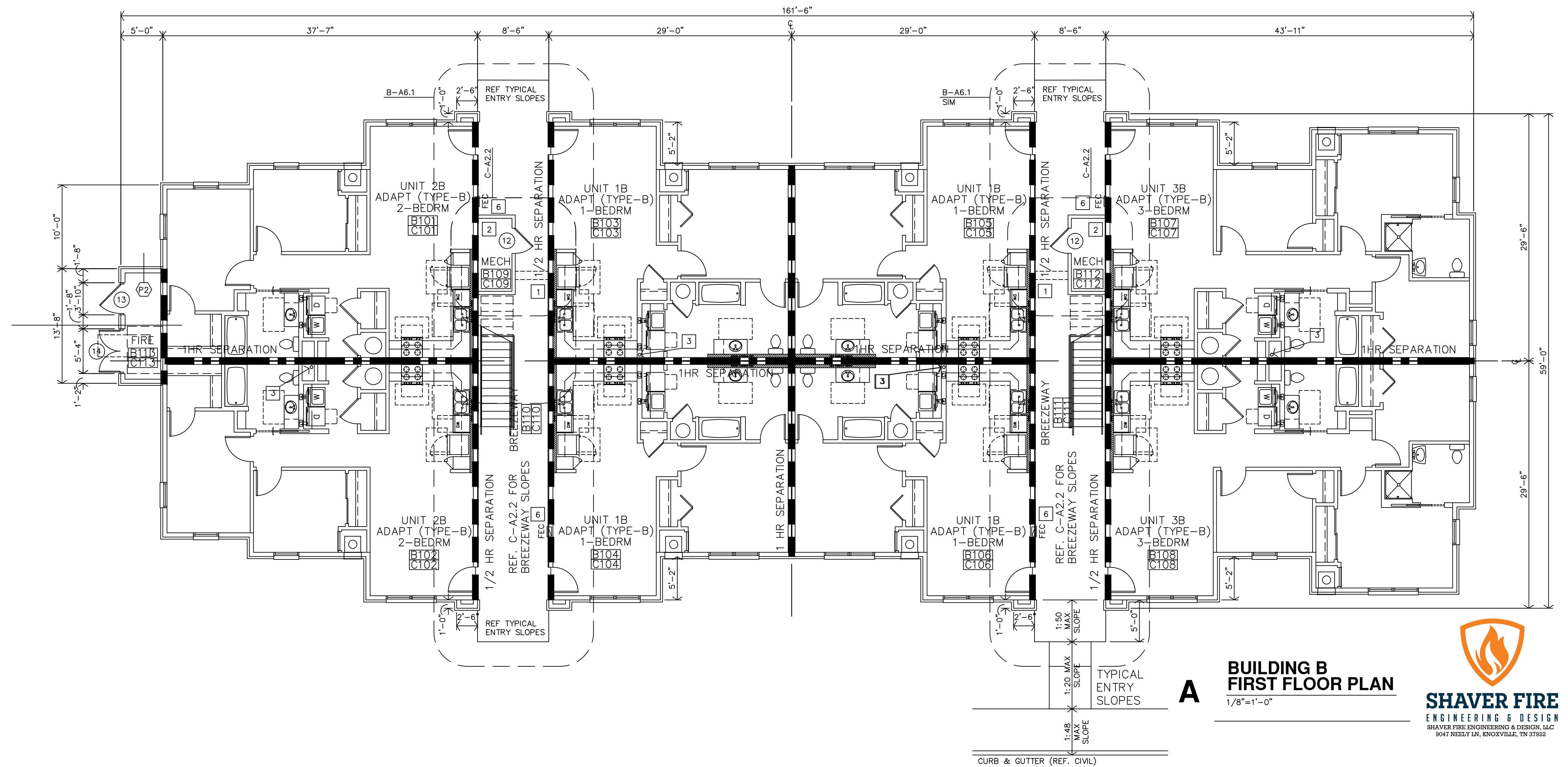
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- FLOW: 1,000 GPM



**B**  
**BUILDING B**  
**THIRD FLOOR PLAN**  
**THIRD FLOOR PLAN (SIM)**  
 1/8"=1'-0"

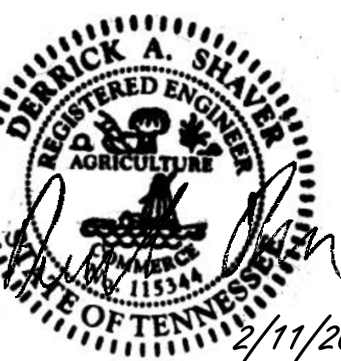


**A**  
**BUILDING B**  
**FIRST FLOOR PLAN**  
 1/8"=1'-0"



**THE RESERVES AT COBALT CIRCLE**  
 NEW APARTMENTS  
 BROWNSVILLE,  
 TENNESSEE

**JGR**  
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 jgr@jgrarchitects.com



REVISION: 0

DATE: 2/11/26  
 JOB: 24-3446  
 SHEET NO.:  
 FP DESIGN INTENT  
 BLDG B

**DS.2**

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**SCOPE OF WORK**

START AT FLANGE INSIDE OF FIRE RISER ROOM AND PROVIDE NEW AUTOMATIC WET-PIPE FIRE PROTECTION SPRINKLER SYSTEM THROUGHOUT EACH NEW BUILDING.

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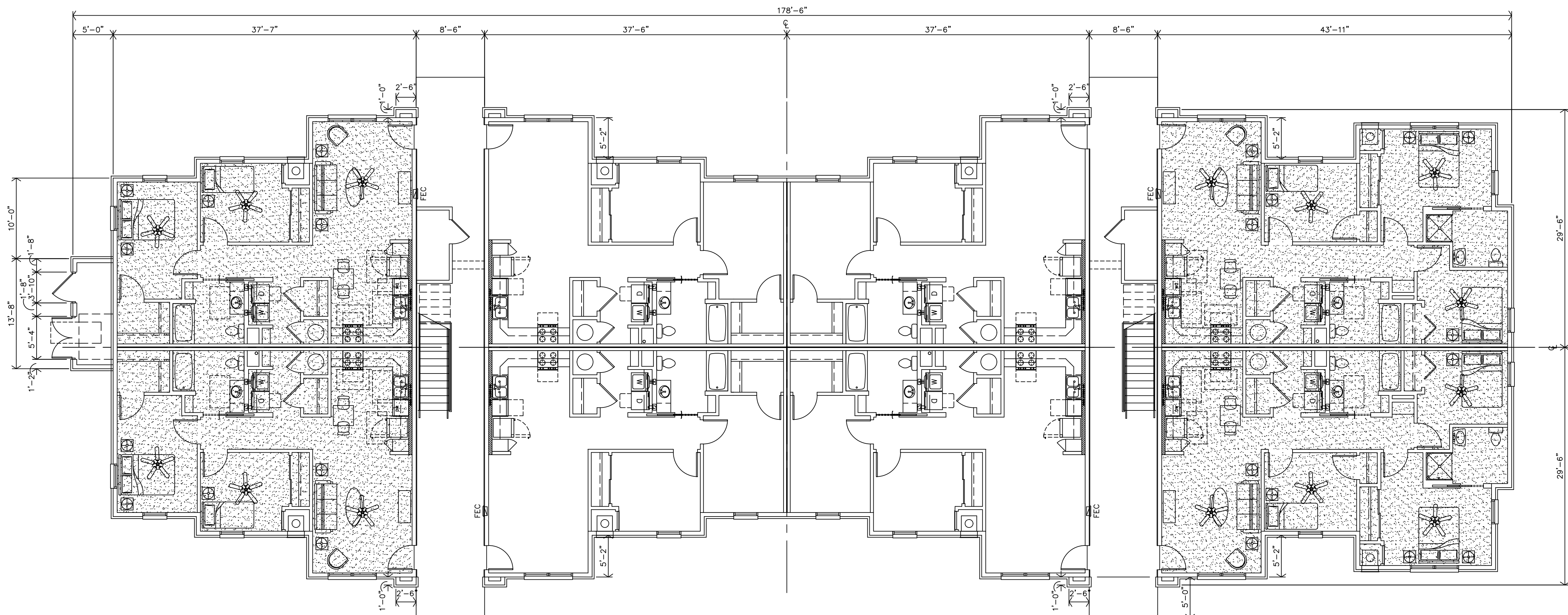
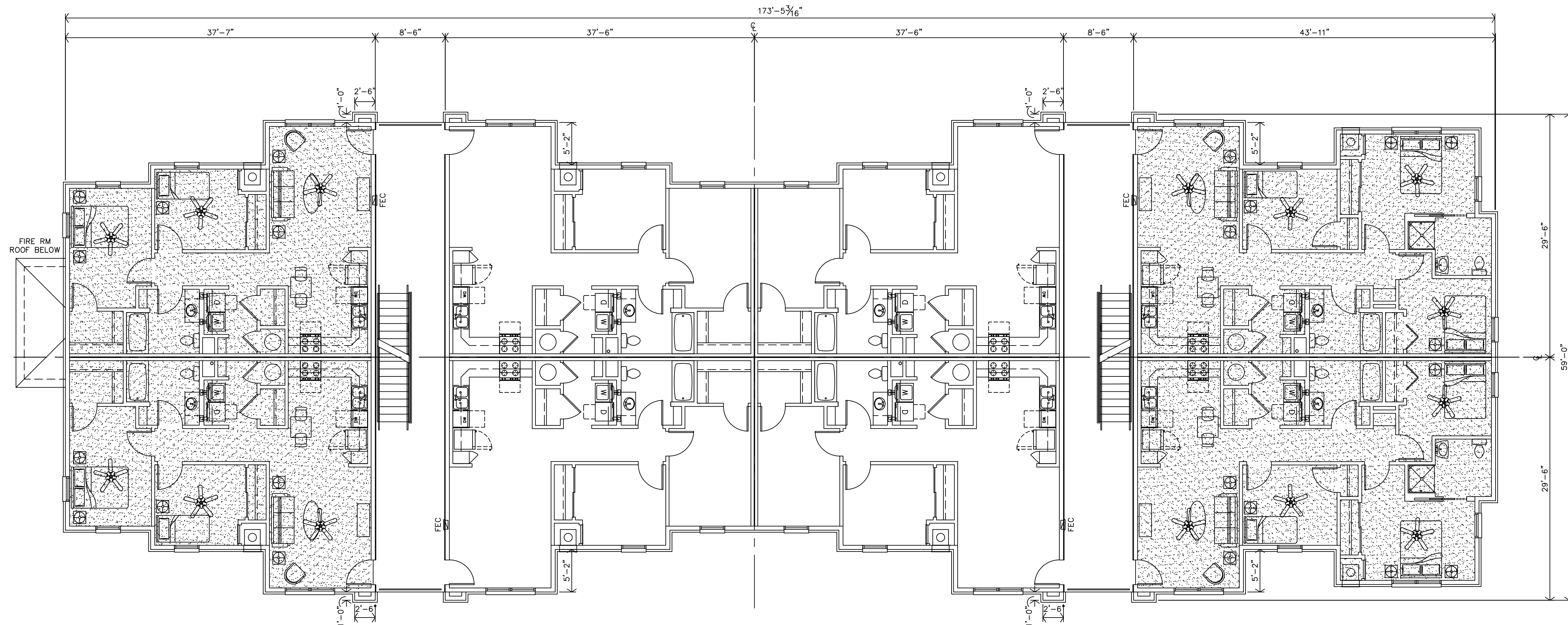
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- S<sub>1</sub> = 0.318g
- S<sub>s</sub> = 0.685g
- S<sub>d1</sub> = 0.34
- Design Category: D



**A BUILDING C FIRST FLOOR PLAN**  
 1/8"=1'-0"

**B BUILDING C SECOND FLOOR PLAN THIRD FLOOR PLAN (SIM)**  
 1/8"=1'-0"



REVISION: 0

DATE: 2/11/26  
 JOB: 24-3446  
 SHEET NO.: FP DESIGN INTENT BLDG C

**DS.3**

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**THE RESERVES AT COBALT CIRCLE**  
 NEW APARTMENTS  
 BROWNSVILLE, TENNESSEE

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