# FOREST TER GROUP HOME 217 SE FOREST TER LAKE CITY, FL 32025

### **DESIGN CRITERIA MATERIAL NOTES** WET PIPE SPRINKLER LAYOUT TO BE PER NFPA 13D (2016 EDITION), FLORIDA 1. ONLY UL LISTED SPRINKLER HEADS SHALL BE INSTALLED THROUGHOUT THE SYSTEMS. STATUTES, AND THE AUTHORITY HAVING JURISDICTION (AHJ). 2. ALL THREADED PIPING 1 1/2" & SMALLER SHALL BE ANSI SCH 40, RESIDENTIAL HAZARD: A DENSITY OF 0.05 GPM PER SQUARE FOOT FOR ASTM A-135 BLACK STEEL. ALLSPRINKLERS WITHIN A COMPARTMENT, UP TO A MAXIMUM OF TWO 3. ALL THREADED FITTINGS 1 1/2" & SMALLER SHALL BE ASMEB16.3 SPRINKLERS, THAT REQUIRE THE GREATEST HYDRAULIC DEMAND WITH MAXIMUM **DUCTILE IRON** SPACING BETWEEN HEADS & BRANCH LINES TO BE IN ACCORDANCE WITH THE 4. ALL THREADED PIPES & FITTINGS SHALL HAVE THREADS CUT TO SPRINKLER HEAD'S LISTING. ANSI/ASME B1.20.1 PIPE THREAD, GENREAL PURPOSE. 5. ALL 1 1/2"-4" GROOVED PIPING SHALL BE ANSI SCH 10, ASTM A-135 **BLACK STEEL** 6. ALL 1 1'2"-4" TEES, ELBOWS, REDUCERS & CAPS SHALL BE MALLABLE IRON ASTM A-47, OR DCTILE IRON ASTM A-536. FINISH TO BE FACTORY 7. THE COMPONENTS OF HANGER ASSEMBLIES THAT ARE DIRECTLY ATTACHED TO THE PIPE OR TO THE BUILDING SHALL BE UL LISTED FOR FIRE PROTECTION USE. 8. ALL WELDED OUTLETS SHALL BE ANSI B16.1 FORGED STEEL PER NFPA AND UL LISTED FOR WORKING PRESSURES TO 300 PSI. 9. ALL CPVC SPRINKLERS PIPES & FITTINGS SHALL BE TYCO BLAZEMASTER (SEE TABLE FOR WEIGHTS, DIMENSIONS, ETC) **GENERAL NOTES INSTALLATION NOTES** 1. THE SYSTEM LAYOUT AND INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 1. COORDINATE THE EXACT LOCATION OF SPRINKLERS & PIPE ROUTING 13 (2016 EDITION), FLORIDA STATUTES & THE AUTHORITY HAVING JURISDICTION WITH ELECTRICAL, MECHANICAL & ARCHITECTURAL PLANS. 2. NO FABRICATION OR INSTALLATION SHALL BEGIN UNTIL ALL 2. OBTAIN & ADHERE TO ALL PERMITS, LICENSES, AND ALL GOVERNMENT SUBMITTALS HAVE BEEN APPROVED & ALL PERMITS HAVE BEEN REQUIREMENTS PRIOR TO FABRICATION & INSTALLATION OBTAINED. 3. NOT ALL PIPING, VALVES & APPURTENANCES ARE SHOWN ON PLANS. REFER TO PIPING & RISER DIAGRAMS. DETAILS & SPECIFICATIONS FOR ADDITIONAL 4. INSPECTORS TEST CONNECTIONS SHALL BE PROVIDED FOR THE SYSTEM SO THAT THE WATER FLOW SWITCH MAY BE TESTED. CONNECTIONS SHALL HAVE A MINIMUM OF 1/2" OUTLET AND DRAIN VALVE IN AN ACCESSIBLE LOCATION PIPED TO AN APPROVED LOCATION. 5. ALL VALVES ON THE FIRE PROTECTION SYSTEM TO BE ELECTRICALLY SUPERVISED. TYPE & EXACT LOCATION OF FLOW & SUPERVISORY SWITCHES 6. PROVIDE A PERMANENTLY ATTACHED NAME TAG STATING THE REQUIRED DESIGN CRITERIA FOR EACH HYDRAULICALLY DESIGNED SYSTEM 7. ALL SPRINKLER HEADS INSTALLED IN CEILINGS SHALL BE LOCATED A MINIMUM

OF 4" AWAY FROM ANY WALLS, CEILING HEIGHT CHANGES, OR ANY OTHER

8. PROVIDE SPRINKLERS BELOW EXPOSED DUCTWORK, CATWALKS &

9. PROVIDE ADDITIONAL OFFSETS OR FITTINGS REQUIRED FOR PROPER

PROPER CLEARANCES. VERIFY STRUCTURAL, MECHANICAL, ELECTRICAL

INSTALLATIONS TO AVOID OBSTRUCTIONS OR INTERFERENCE WITH FIRE

PROTECTION SHOP DRAWINGS & SUBMITTALS HAVE BEEN APPROVED.

TWO HOURS AT 200 PSI IN ACCORDANCE WITH NFPA 13 & NFPA 24.

INSTALLATION, COORDINATION WITH OTHER TRADES, AND/OR TO MAINTAIN

10. FIRE STOP ALL PENETRATIONS OF SMOKE & FIRE WALLS. FIRE STOPPING

11. SPRINKLER HEADS ARE TO BE COORDINATED WITH ALL DIFFUSERS, LIGHTING

13. THE ENTIRE SYSTEM SHALL BE FLUSHED & HYDROSTATICALLY TESTED FOR

14. FIRE SPRINKLER SYSTEM SHALL BE DESIGNED FOR A MAXIMUM WORKING

15. A SUPPLY OF SPARE SPRINKLERS OF EACH TYPE & TEMPERATURE RATING

SPRINKLER HEAD USED IN THE BUILDING INCLUDING A SPECIAL WRENCH FOR

17. ALL CONTROL, DRAIN & TEST CONNECTION VALVES SHALL BE PROVIDED WITH

18. IF SYSTEM PRESSURE EXCEEDS 100 PSI, ALL ARMOVERS LONGER THAN ONE

PERMANENTLY MARKED WEATHERPROOF OR RIGID PLASTIC IDENTIFICATION SIGNS. THE SIGNS SHALL BE SECURED WITH CORROSION RESISTANT WIRE

19. SPRINKLERS SHALL NOT BE REQUIRED IN ATTICS, WITH OR WITHOUT

VERTICAL INTERSECTING STRUCTURAL SURFACE.

MEZZANINES WIDER THAN 48".

WILL AT NO TIME EXCEED 100-DEG F.

CHAIN, OR OTHER APPROVED MEANS.

FOOT SHALL HAVE A HANGER.

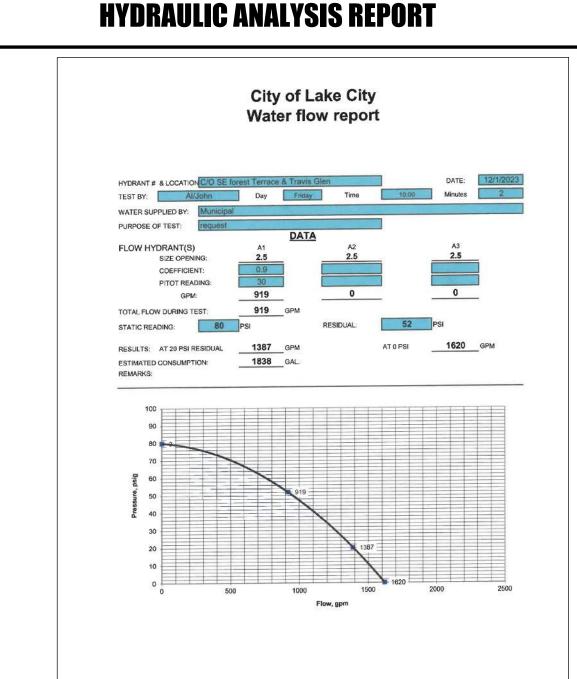
CAN BE DRAINED TO MEET NFPA 13 REQUIREMENTS.

STORAGE, IN ACCORDANCE WITH NFPA 13D SECTION 8.3.5

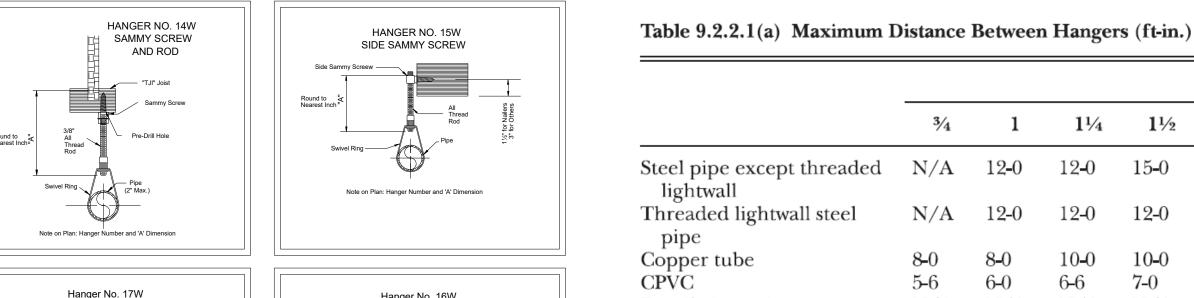
## DRAWING LEGEND

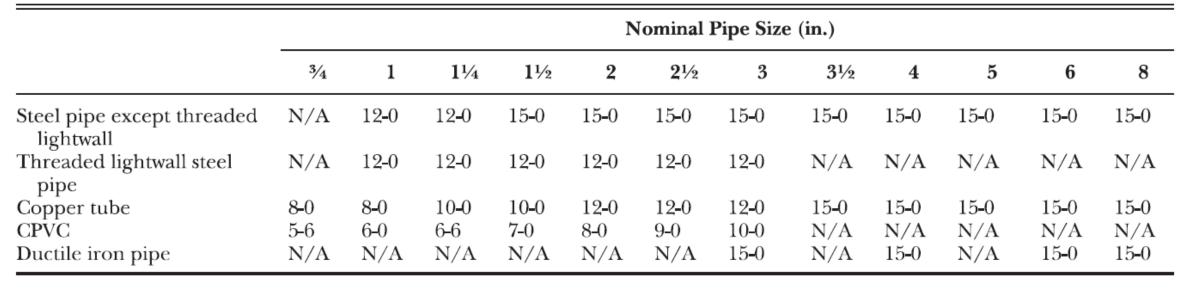
4 — DIAMETER 5'-0 5'-0 — SEGMENT LENGTH 10'-0 — TOTAL LENGTH	SCH 10 FIRE SPRINKLER MAIN PIPING
1½ — DIAMETER  10'-0 — TOTAL LENGTH	SCH 40 FIRE SPRINKLER BRANCH LINE PIPING
1 — DIAMETER  10'-0 — TOTAL LENGTH	SCH 40 FIRE SPRINKLER ARM OVER PIPING
1 — DIAMETER 10'-0 — TOTAL LENGTH	TYCO BLAZRMASTER FIRE SPRINKLER PIPING
10'-0	INSTALL DIMENSION
* NO. O. F.F. C.	PIPE ELEVATION AFF
128	HYDRAULIC NODE
DETAIL SHEET	SECTION DETAIL

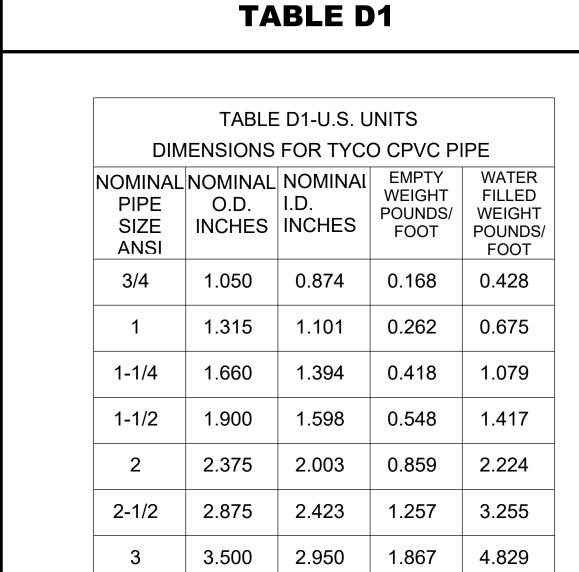
**HYDRANT FLOW MAP** 

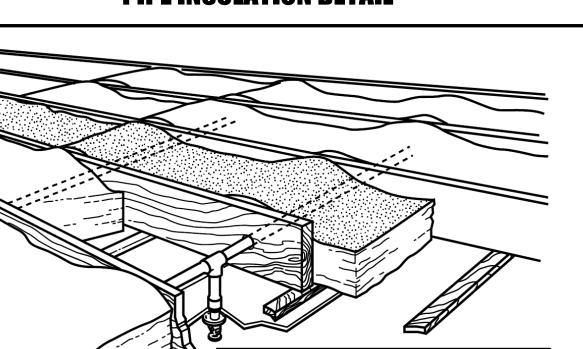


## HANGER DETAILS

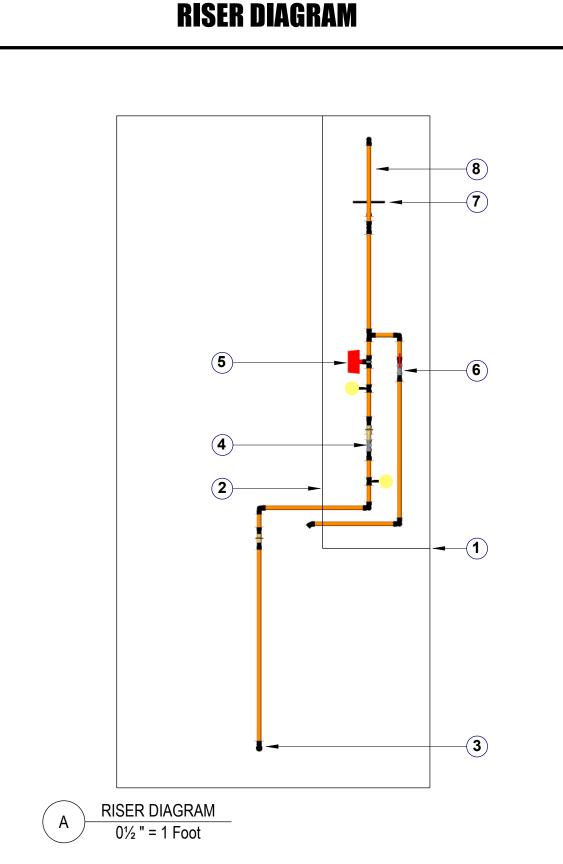








insulation be installed tight against the joists. In unheated areas, any spaces or voids between the insulation and the joists cause the water in the fire sprinkler piping to freeze.

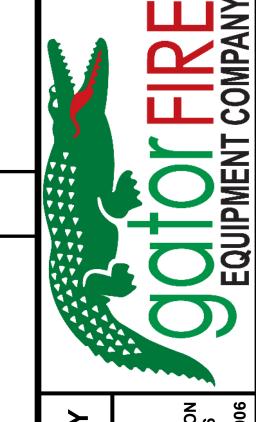


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1	FINISHED F	LOOR

- **2** EXTERIOR WALL
- (3) 11/4" UNDERGROUND CPVC SUPPLY

**RISER DIAGRAM LEGEND** 

- (4) 1" CHECK VALVE
- (5) WATERFLOW SWITCH
- **6** INSPECTORS TEST & DRAIN PIPED TO **EXTERIOR**
- **UPRIGHT SPRINKLER**
- **8** SUPPLY TO SPRINKLER SYSTEM

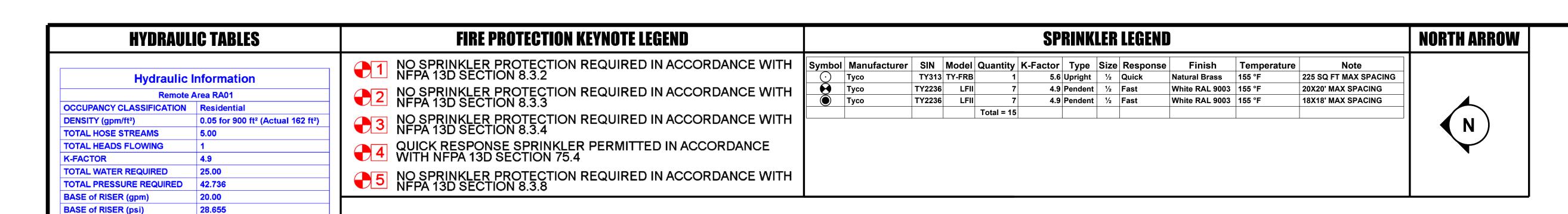


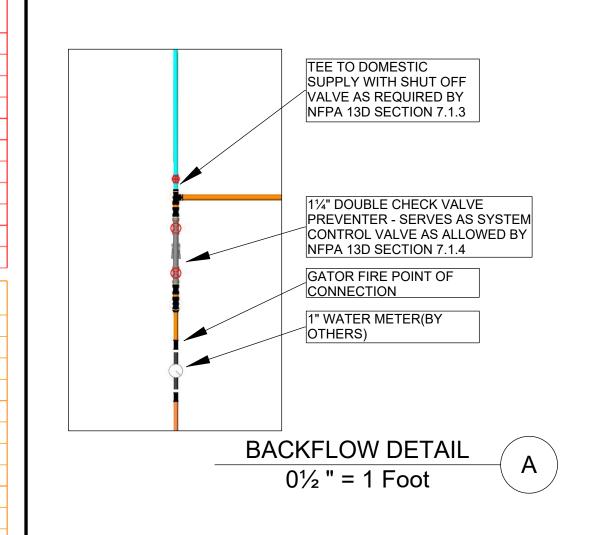
GATOR

DRAWN BY:

COLUMBIA COUNTY **FS100** 

**PIPE INSULATION DETAIL** 





SAFETY MARGIN (psi)

DENSITY (gpm/ft²)

K-FACTOR

TOTAL HOSE STREAMS

TOTAL HEADS FLOWING

TOTAL WATER REQUIRED

BASE of RISER (gpm)

SAFETY MARGIN (psi)

BASE of RISER (psi)

DENSITY (gpm/ft²)

BASE of RISER (gpm)

BASE of RISER (psi)
SAFETY MARGIN (psi)

K-FACTOR

TOTAL HOSE STREAMS

TOTAL HEADS FLOWING

TOTAL WATER REQUIRED

+37.229 (46.6%)

0.05 for 900 ft<sup>2</sup> (Actual 250 ft<sup>2</sup>)

0.05 for 900 ft<sup>2</sup> (Actual 301 ft<sup>2</sup>)

**Hydraulic Information** 

Remote Area RA02

5.00

4.9

33.388

Hydraulic Information

Remote Area RA03

5.00

4.9

39.47

34.47

+15.905 (19.9%)

+17.806 (22.3%)

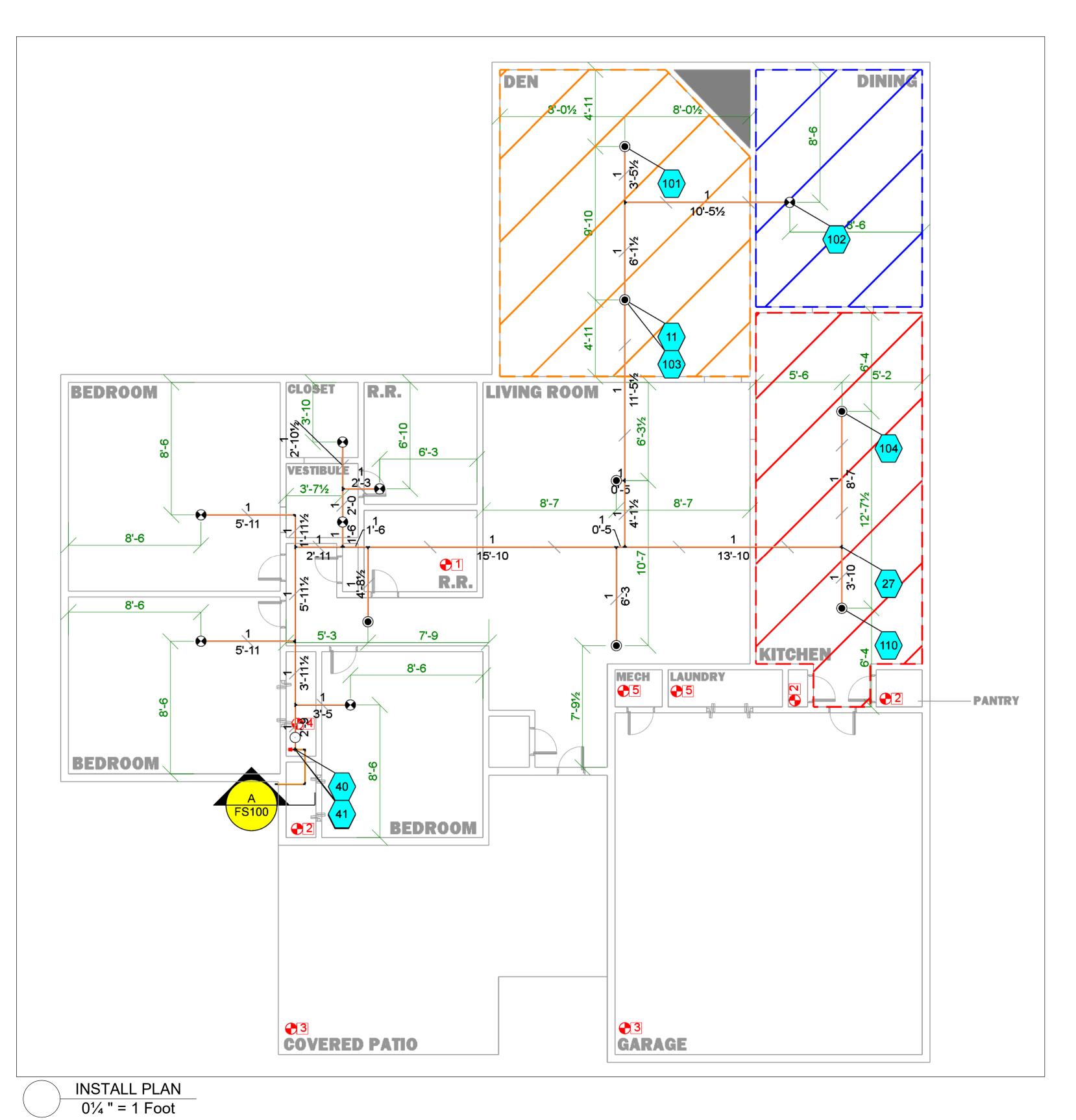
OCCUPANCY CLASSIFICATION Residential

TOTAL PRESSURE REQUIRED 62.112

OCCUPANCY CLASSIFICATION Residential

TOTAL PRESSURE REQUIRED 64.012





COMPANY

EQUIPMEN

DRAWN BY:

SCALE (UNO):

12/11/2023

20231009

**AS NOTED** 

**COLUMBIA COUNTY** 

**FS200**