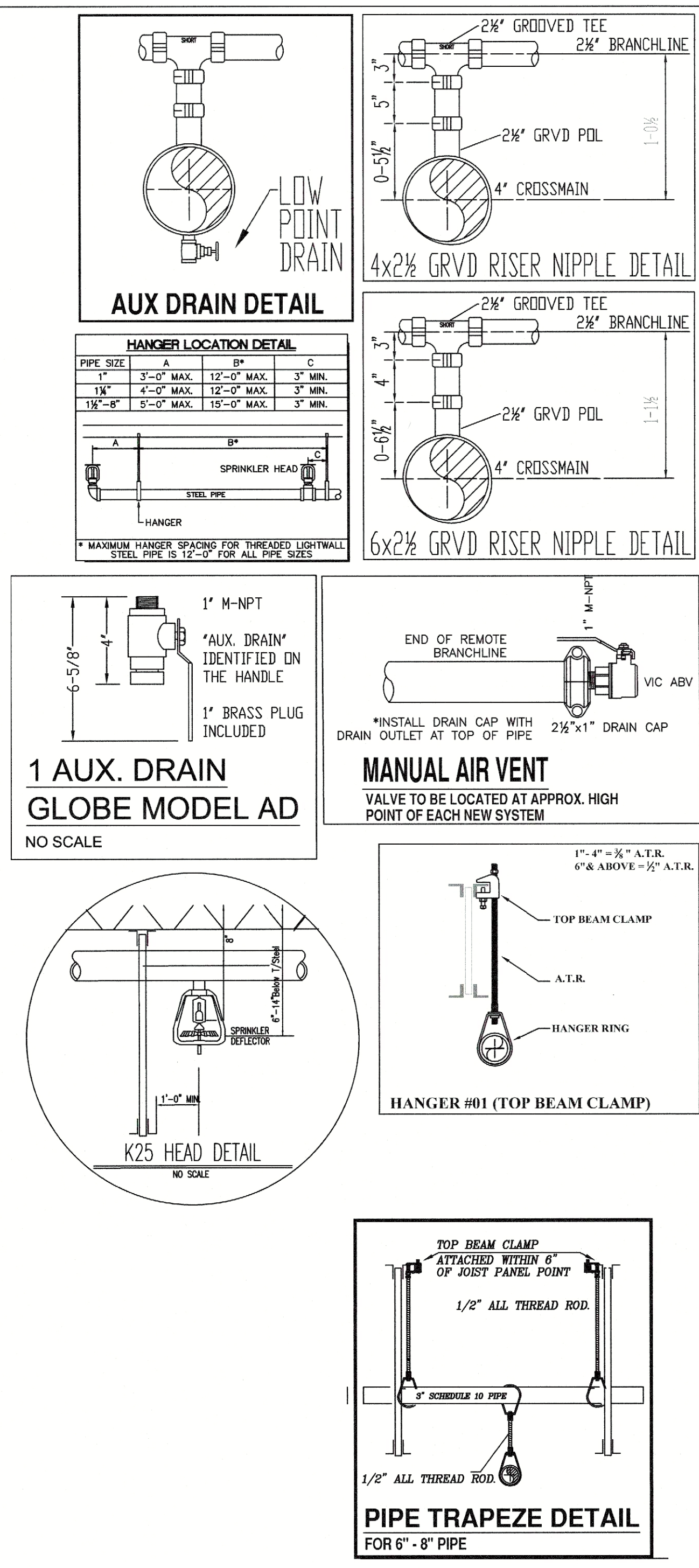
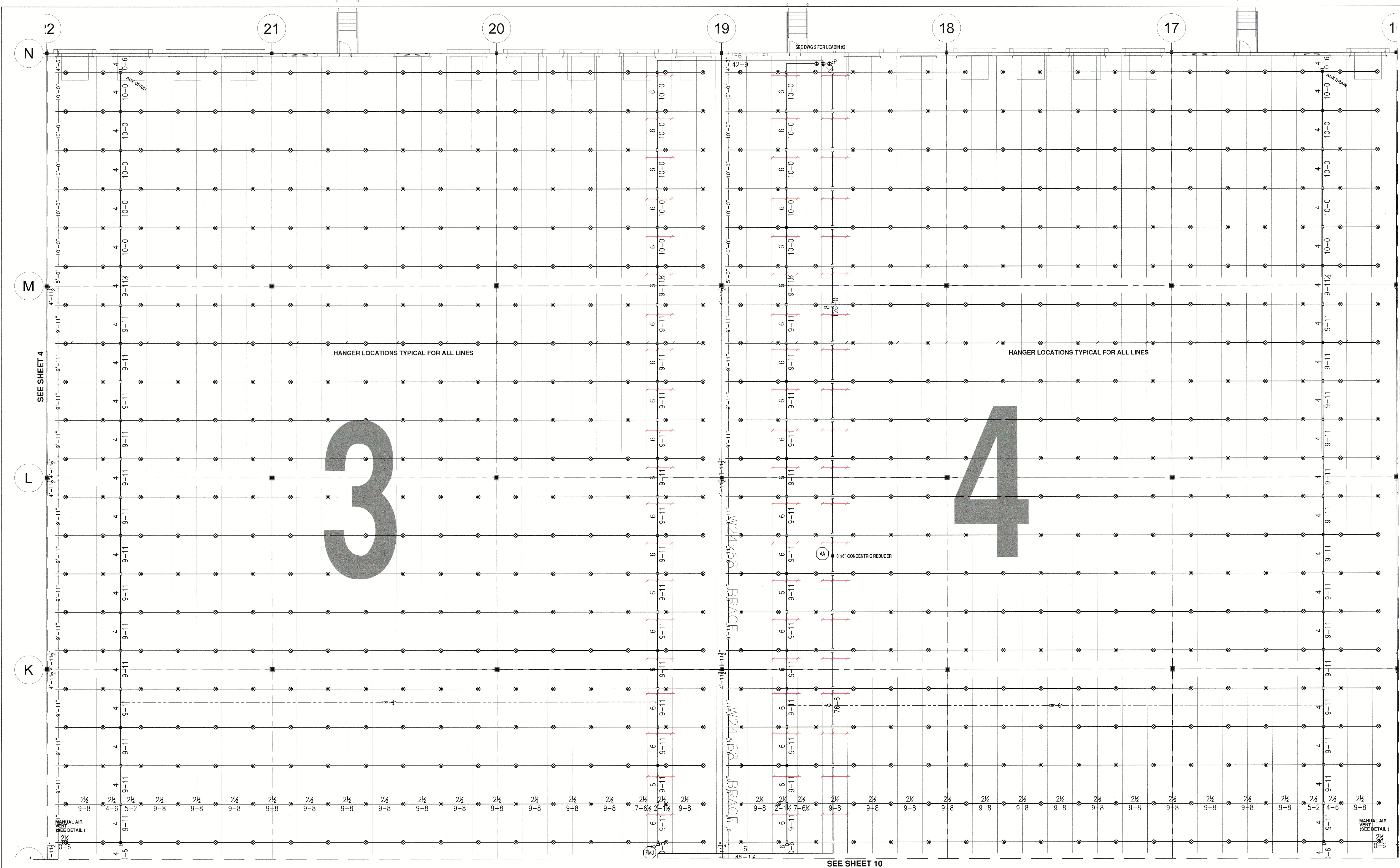




PIPE SIZES FOR SYSTEM 3&4 BASED ON SYSTEM 1 CALCULATION

**SYSTEMS 3&4**  
SCALE = 3/32" = 1'-0"  
TOP OF STEEL HIGH POINT = 49'-8 1/2" @ COL. G  
TOP OF STEEL LOW POINT = 41'-7" @ COL. A&N  
ALL 2 1/2" LINES TO BE 8" FROM TOP OF STEEL UNLESS NOTED OTHERWISE  
ALL 4" MAINS TO BE 1'-8 1/2" FROM TOP OF STEEL UNLESS NOTED OTHERWISE  
ALL 6" MAINS TO BE 1'-9 1/2" FROM TOP OF STEEL UNLESS NOTED OTHERWISE  
ALL BAY DOORS ARE VERTICAL LIFT AND DO NOT REQUIRE ADDITIONAL HEADS

| 1                                          | 2                                          | 3                                          | 4                                          | 5                                          | 6                                          | 7                                          | 8                                          | 9                                          |
|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. |
| 10                                         | 11                                         | 12                                         | 13                                         | 14                                         | 15                                         | 16                                         | 17                                         | 18                                         |
| 6x4x1/2 GRD K25 HEADS - 360 34,492 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 360 34,492 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 360 34,492 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 360 34,492 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 360 34,492 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 360 34,492 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 360 34,492 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 360 34,492 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 360 34,492 SQ. FT. |
| 19                                         | 20                                         | 21                                         | 22                                         | 23                                         | 24                                         | 25                                         | 26                                         | 27                                         |
| 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. | 6x4x1/2 GRD K25 HEADS - 378 36,279 SQ. FT. |

**KEY PLAN**  
NOT TO SCALE

HYDROSTATIC TEST TO BE CONDUCTED AT 225 PSI

| STANDARD DRAWING SYMBOLS                           | TYPICAL HANGER ASSEMBLIES BY NUMBER |
|----------------------------------------------------|-------------------------------------|
| 1 DENOTES CENTERLINE OF PIPE ABOVE FINISH FLOOR    | 01 TOP BEAM CLAMP (TBC)             |
| 2 DENOTES CENTERLINE OF PIPE BELOW TOP OF STEEL    | 02 SAMMY CST-20 STRAIGHT WOOD       |
| 3 DENOTES CENTERLINE OF PIPE BELOW BOTTOM OF JOIST | 03 INVERTED TOP BEAM CLAMP          |
| 4 DENOTES CENTERLINE OF PIPE BELOW BOTTOM OF BEAM  | 04 INVERTED WIDE MOUTH TBC          |
| 5 DENOTES CENTERLINE OF PIPE BELOW THE CEILING     | 05 TBC w/ CLIPS RING                |
| 6 DENOTES HANGER                                   | 06 SAMMY SWB-516 SIDE STEEL         |
| 7 DENOTES HANGER ROD LENGTH                        | 07 TBC w/ 6" RETAINING STRAP        |
| 8 DENOTES CEILING HEIGHT                           | 08 FIRE HYDRANT                     |
| 9 DENOTES CEILING HEIGHT                           | 09 TBC w/ 1/2" RETAINING STRAP      |
| 10 DENOTES CEILING HEIGHT                          | 10 RING RING                        |
| 11 DENOTES CEILING HEIGHT                          | 11 RING RING                        |
| 12 DENOTES CEILING HEIGHT                          | 12 RING RING                        |
| 13 DENOTES CEILING HEIGHT                          | 13 RING RING                        |
| 14 DENOTES CEILING HEIGHT                          | 14 RING RING                        |
| 15 DENOTES CEILING HEIGHT                          | 15 RING RING                        |
| 16 DENOTES CEILING HEIGHT                          | 16 RING RING                        |
| 17 DENOTES CEILING HEIGHT                          | 17 RING RING                        |
| 18 DENOTES CEILING HEIGHT                          | 18 RING RING                        |

| FIRE PROTECTION SPECIFICATIONS                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. DO NOT SCALE DRAWINGS(S).                                                                                                                         |
| 2. ALL PIPE NOTED AS: GG-GROOVED END TO CENTER, TO PREVENT SPRINKLER PIPE FROM FREEZING.                                                             |
| 3. CONTRACTOR SHALL PROVIDE THE OWNER, INSURANCE CO., & THE PROPER CITY OFFICIALS WITH COPIES OF THE MATERIAL & TEST CERTIFICATES.                   |
| 4. ALL FLOW AND TAMPERS SHALL BE SUPERVISED IN ACCORDANCE WITH NFPA 72. THIS WORK IS TO BE DONE BY OTHERS AND IS NOT PART OF S A COMUNALE CONTRACT.  |
| 5. DESIGN, INSTALLATION & MATERIALS TO BE PER N.F.P.A. #13 2016                                                                                      |
| 6. HANGERS & ATTACHMENTS TO BE U.L. LISTED & SPACING PER N.F.P.A. #13 2016                                                                           |
| 7. ALL NEW PIPING SHALL BE HYDROSTATICALLY TESTED AT 225 PSI FOR 2 HOURS W/ NO VISIBLE SIGN OF LEAKAGE.                                              |
| 8. THE OWNER SHALL PROVIDE A MINIMUM OF 40' F TO PREVENT SPRINKLER PIPE FROM FREEZING.                                                               |
| 9. CONTRACTOR SHALL PROVIDE THE OWNER, INSURANCE CO., & THE PROPER CITY OFFICIALS WITH COPIES OF THE MATERIAL & TEST CERTIFICATES.                   |
| 10. ALL FLOW AND TAMPERS SHALL BE SUPERVISED IN ACCORDANCE WITH NFPA 72. THIS WORK IS TO BE DONE BY OTHERS AND IS NOT PART OF S A COMUNALE CONTRACT. |
| 11. DESIGN, INSTALLATION & MATERIALS TO BE PER N.F.P.A. #13 2016                                                                                     |
| 12. HANGERS & ATTACHMENTS TO BE U.L. LISTED & SPACING PER N.F.P.A. #13 2016                                                                          |
| 13. ALL NEW PIPING SHALL BE HYDROSTATICALLY TESTED AT 225 PSI FOR 2 HOURS W/ NO VISIBLE SIGN OF LEAKAGE.                                             |

| MATERIAL SPECIFICATIONS                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. DO NOT SCALE DRAWINGS(S).                                                                                                                         |
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| 5. DESIGN, INSTALLATION & MATERIALS TO BE PER N.F.P.A. #13 2016                                                                                      |
| 6. HANGERS & ATTACHMENTS TO BE U.L. LISTED & SPACING PER N.F.P.A. #13 2016                                                                           |
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| 11. DESIGN, INSTALLATION & MATERIALS TO BE PER N.F.P.A. #13 2016                                                                                     |
| 12. HANGERS & ATTACHMENTS TO BE U.L. LISTED & SPACING PER N.F.P.A. #13 2016                                                                          |
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| REVISIONS                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------|
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| SPRINKLER LEGEND                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. DO NOT SCALE DRAWINGS(S).                                                                                                                         |
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| 11. DESIGN, INSTALLATION & MATERIALS TO BE PER N.F.P.A. #13 2016                                                                                     |
| 12. HANGERS & ATTACHMENTS TO BE U.L. LISTED & SPACING PER N.F.P.A. #13 2016                                                                          |
| 13. ALL NEW PIPING SHALL BE HYDROSTATICALLY TESTED AT 225 PSI FOR 2 HOURS W/ NO VISIBLE SIGN OF LEAKAGE.                                             |

**S.A. COMUNALE Co. Inc.**  
FIRE PROTECTION CONTRACTORS  
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CLEVELAND: 440-884-9325 COLUMBUS: 614-291-7001 CINCINNATI: 513-874-4268  
PERRIN: 419-334-3841 PHILADELPHIA, PA: 800-848-4688 YOUNGSTOWN: 330-856-4440  
MADISON 740-382-6789 WASHINGTON, DC 410-782-1821 READING, PA: 610-670-3000  
NY154 BROOKFIELD SUFFERN- BUILDING 1  
25 OLD MILL ROAD SUFFERN, NY 20901  
ESFR SYSTEMS 3 AND 4  
DATE: 01.11.24 SCALE: 3/32" = 1'-0" DRAWN: SARAH CAREW JOB NO: 51718093 DWG. NO: 5 OF 18