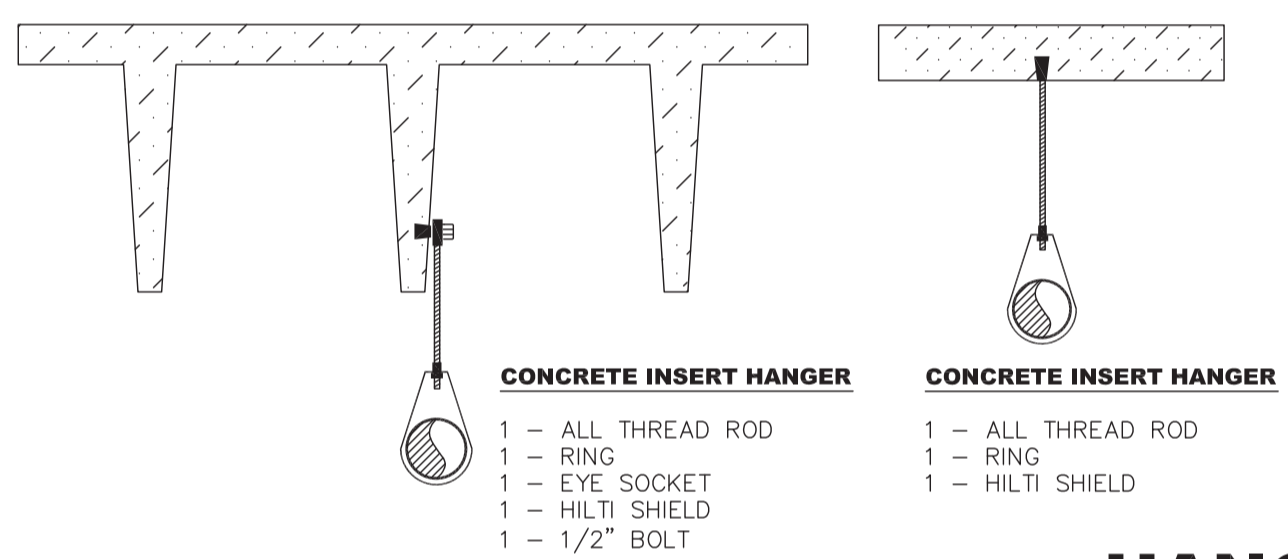
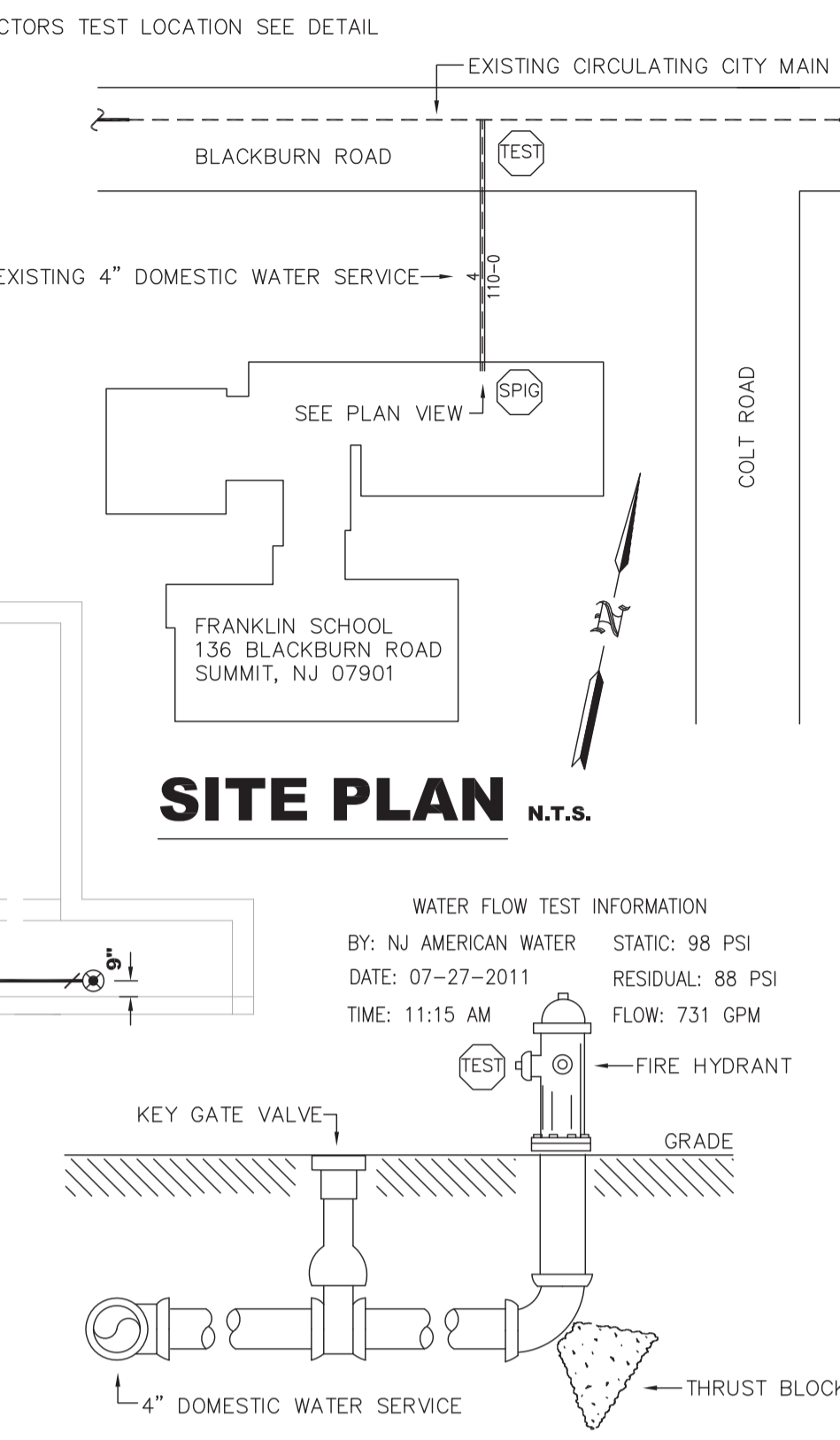


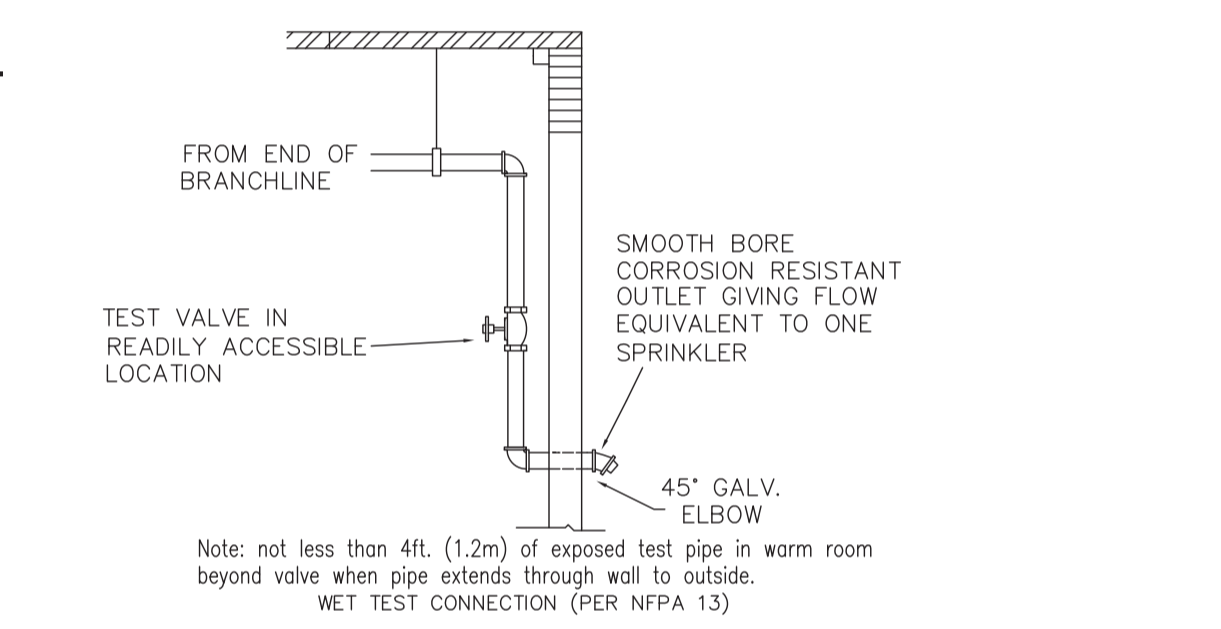
**DESIGN DATA: CALCULATION #7**  
**AREA: TEACHERS ROOM - STORAGE**  
**HAZARD: ORDINARY GROUP 1**  
**OCCUPANCY: INSTITUTIONAL**  
**DENSITY: .15 GPM/FT. 986 SQ. FT.**  
**AREA REDUCED BY 40% AS PER NFPA #13**  
**FOR QUICK RESPONSE SPRINKLERS**  
**NO. SPRINKLERS CALCULATED: 10**  
**MAX AREA PER SPRINKLER: 130 SQ. FT.**  
**HOSE ALLOWANCE: 250 GPM**  
**TOTAL WATER REQUIRED: 468.099 GPM**  
**TOTAL PRESSURE REQUIRED: 66.098 PSI**  
**SAFETY FACTOR: 27.518 PSI**



**HANGER DETAILS N.T.S.**



**EXISTING FIRE HYDRANT DETAIL N.T.S.**



**WET INSPECTORS TEST DETAIL N.T.S.**

**PARTIAL BASEMENT FIRE SPRINKLER PLAN**

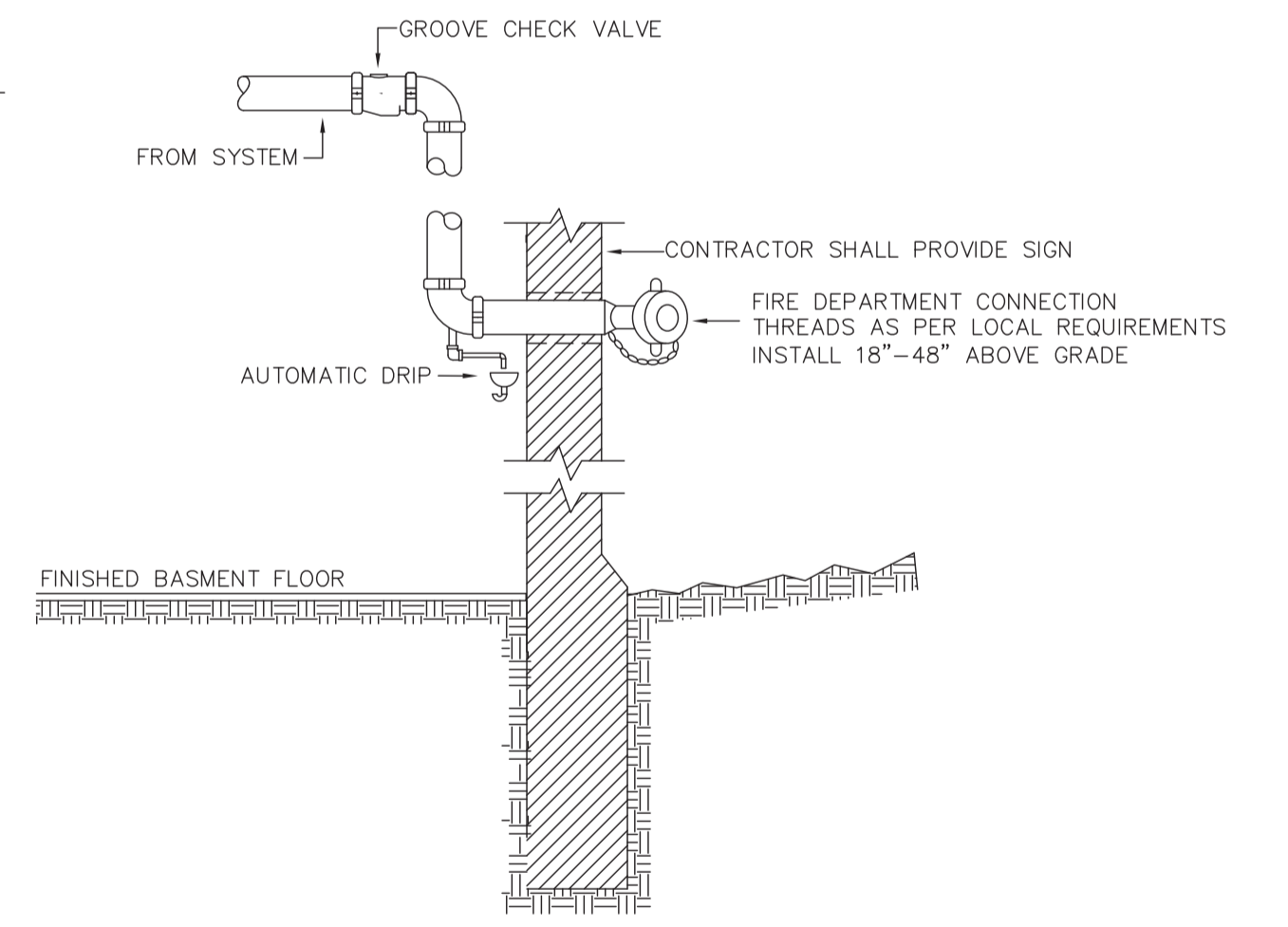
SCALE 1/8"=1'-0"  
 \* ORDINARY HAZARD GROUP 1 OCCUPANCY UNLESS OTHERWISE NOTED \*

**SCOPE OF WORK**  
 CONTRACTOR SHALL INSTALL A NEW WET PIPE LIMITED AREA FIRE SPRINKLER SYSTEM CONNECTING TO THE EXISTING DOMESTIC WATER SERVICE IN EXISTING BASEMENT OF NON-COMBUSTIBLE OBSTRUCTED & UNOBSTRUCTED CONCRETE TEE CONSTRUCTION.

**FIRE SPRINKLER NOTES**  
 SYSTEM DESIGNED AS PER NFPA #13 2002 EDITION  
 79 TOTAL SPRINKLER HEADS W/ DEFLECTORS @ 1"-12" FROM BOTTOM OF CEILING/ DECK & PARALLEL 9,366 SQ. FT. TOTAL AREA PROTECTED ON WET SYSTEM

**CONTRACTOR SHALL:**  
 PROVIDE REQUIRED SIGNS & FLUSHING CONNECTIONS.  
 CONTRACTORS MATERIAL AND TEST CERTIFICATES FOR ABOVE GROUND AND UNDERGROUND  
 PIPE SHALL BE SUBMITTED TO THE FIRE MARSHALL PRIOR TO APPROVAL OF THE INSTALLATION.

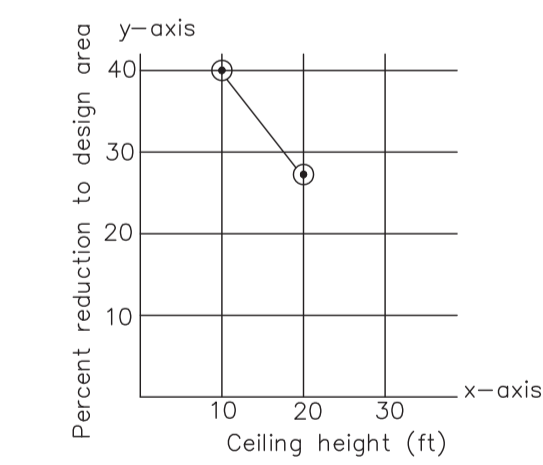
**PIPE MATERIAL**  
 1"-1 1/2" SCH. 40 THREADED BLACK STEEL W/ THREADED CAST IRON FITTINGS  
 2 1/2" SCH. 10 GROOVED BLACK STEEL W/ GROOVED FITTINGS W/ WELDED OUTLETS  
 ALL DIMENSIONS & ELEVATIONS ARE CENTERLINE OF PIPE & STEEL UNLESS NOTED OTHERWISE



**FIRE DEPARTMENT CONNECTION DETAIL N.T.S.**

NFPA 13-2002 EDITION 11.2.3.2.3.1 Where listed quick-response sprinklers, including extended coverage quick-response sprinklers, are used throughout a system or portion of a system having the same hydraulic design basis, the system area of operation shall be permitted to be reduced without revising the density as indicated in Figure 11.2.3.2.3.1 when all of the following conditions are satisfied:

- (1) Wet pipe system
- (2) Light hazard or ordinary hazard occupancy
- (3) 20-ft (6.1-m) maximum ceiling height
- (4) There are no unprotected ceiling pockets as allowed by 8.6.7 and 8.8.7 exceeding 32 ft squared



Note:  $y = -3x/2 + 55$   
 For ceiling height  $\geq 10$  ft and  $< 20$  ft,  $y = 40$   
 For ceiling height  $\geq 20$ ,  $y = 0$   
 For SI units, 1 ft = 0.31 m.

FIGURE 11.2.3.2.3.1 Design Area Reduction for Quick-Response Sprinklers.

<b>GENERAL NOTES</b> 1. ALL PIPE LOCATIONS ARE TO BE FIELD MEASURED PRIOR TO FABRICATION AND INSTALLATION BY FIRE SPRINKLER CONTRACTOR. 2. ALL DIMENSIONS SHOWN ARE CENTER TO CENTER. 3. HIGH TEMPERATURE HEADS ARE TO BE INSTALLED WHERE REQUIRED. 4. ALL PIPE AND HANGERS ARE TO BE INSTALLED AS PER NFPA #13. 5. HANGERS ARE TO BE U.L. LISTED AND FM APPROVED. 6. SEE PLAN VIEW FOR COMPLETE GENERAL NOTES		<b>NOTES TO THE OWNER</b> 1. THE FIRE SPRINKLER SYSTEM MUST BE MAINTAINED AND TESTED REGULARLY BY YOU OR YOUR AGENTS ARE IN ACCORDANCE WITH NFPA. 2. YOU SHALL MAINTAIN SUFFICIENT HEAT THROUGHOUT THE PREMISES TO PREVENT THE FIRE SPRINKLER SYSTEM FROM FREEZING. 3. YOU SHALL INFORM TENANTS OF PROPER CARE NECESSARY TO MAINTAIN THE SYSTEM. 4. IF THE CONSTRUCTION OR OCCUPANCY IS ALTERED IN ANY WAY, THE FIRE SPRINKLER SYSTEM WILL HAVE TO BE UPDATED ACCORDINGLY		<b>ABBREVIATIONS</b> DESCRIPTION SYMBOL UOS-UNDERSIDE OF SLAB RN-RISER NIPLLE [10'-0"] TOS-TOP OF STEEL SP-SPRIG [12"] BTS-BELOW TOP OF STEEL CL-CENTERLINE TOS AFF-AFTER FINISH FLOOR OC-ON CENTER o TOR-TOP OF RISER NIC-NOT IN CONTRACT BOR-BOTTOM OF RISER SLV-SLEEVE WATER FLOW TEST INFORMATION BY: N.J. AMERICAN WATER STATIC: 98 PSI DATE: 07-27-2011 RESIDUAL: 88 PSI TIME: 11:15 AM FLOW: 731 GPM		<b>SYMBOL LEGEND</b> DESCRIPTION SYMBOL PIPE ELEVATION AFF [10'-0"] ELEVATION BELOW TOP OF STEEL [12"] ELEVATION TOP OF STEEL RISE UP / DOWN RISER / STANDPIPE NEW PIPE EXISTING PIPE HYDRAULIC REFERENCE POINT DENOTES HANGER LOCATION SWAY BRACE FIRE DEPT CONNECTION ELECTRIC BELL FLOW SWITCH FIRE HYDRANT CEILING HEIGHT ROOM NAME		<b>NUMBER OF SPRINKLERS</b> TOTAL THIS SHEET 79 TOTAL THIS JOB 79 DESCRIPTION TEMP FINISH SPRK ID# K-FACT NPT QTY VICTAULIC V27 RECESSED PENDENT QUICK RESPONSE 200' CHROME V2708 5.6 1/2" 20 VICTAULIC V27 PENDENT W/CAGE QUICK RESPONSE 200' CHROME V2708 5.6 1/2" 37 VICTAULIC V27 QUICK RESPONSE UPRIGHT 200' BRASS V2704 5.6 1/2" 18 VICTAULIC V27 QUICK RESPONSE UPRIGHT 1" SPRIG 200' BRASS V2704 5.6 1/2" 4		<b>DRAWING TITLE</b> PARTIAL BASEMENT FIRE SPRINKLER PLAN CONTRACT NO: FS11-0045 DRAWN BY: P.J.H. SCALE: 1/8"=1'-0" DATE: 08-02-2011 <b>REVISION:</b> # DATE DESCRIPTION	
<b>PROJECT:</b> <b>FRANKLIN SCHOOL</b> <b>136 BLACKBURN ROAD</b> <b>SUMMIT, NJ 07901</b>		<b>CONTRACTOR:</b> <b>PJH FIRE SPRINKLER DESIGN, L.L.C.</b> 36 GINGER COURT, BUILDING 5, SUITE 36 EATONTOWN, NJ 07724-1869 TELEPHONE: 732-440-4657 FACSIMILE: 732-440-4658 WWW.PJHFIRESPRINKLERDESIGN.COM		<b>CONTRACTOR:</b> FRANKLIN SCHOOL 136 BLACKBURN ROAD SUMMIT, NJ 07901		<b>CONTRACTOR:</b> FRANKLIN SCHOOL 136 BLACKBURN ROAD SUMMIT, NJ 07901		<b>CONTRACTOR:</b> FRANKLIN SCHOOL 136 BLACKBURN ROAD SUMMIT, NJ 07901			