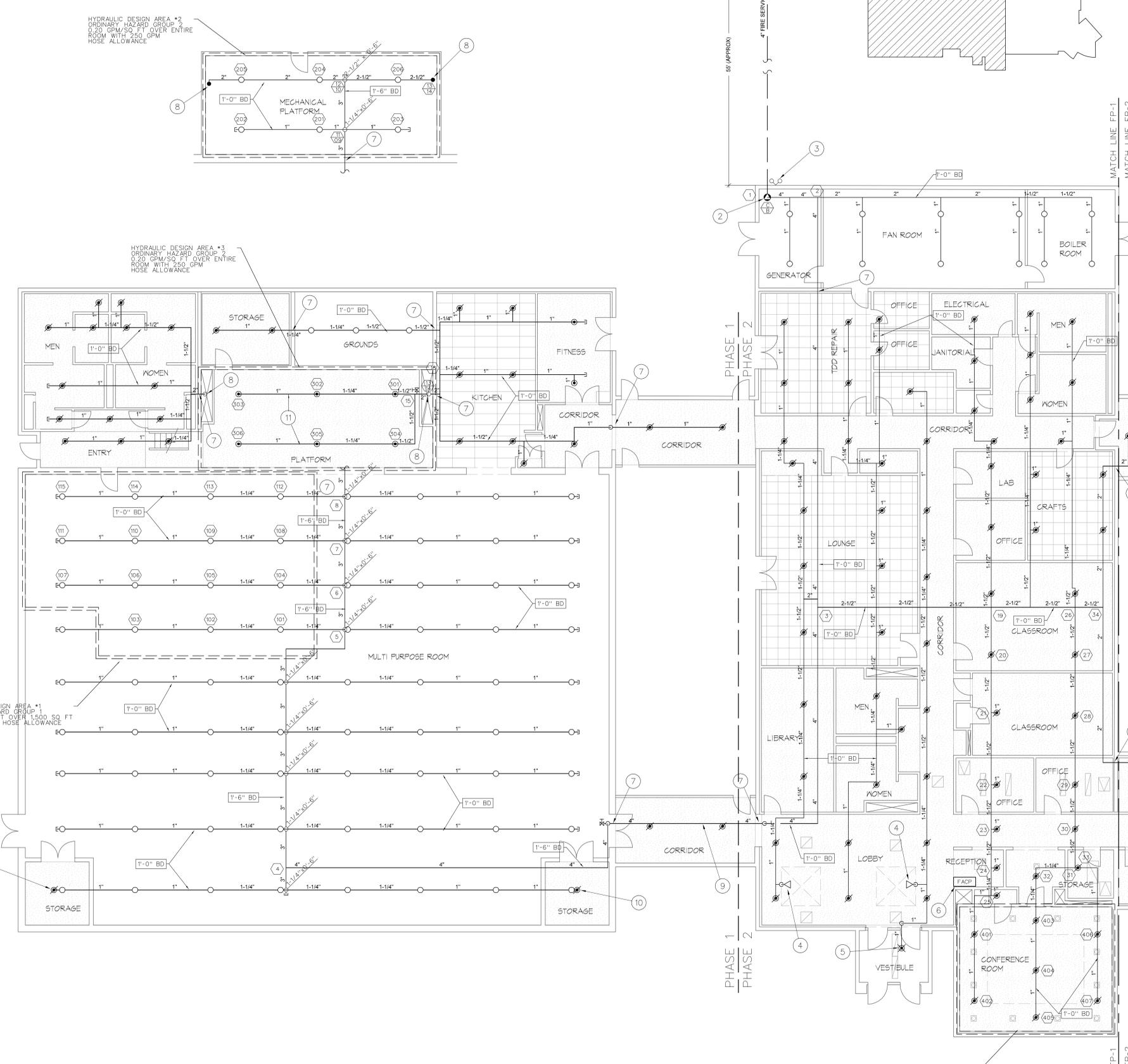


- ### 3 FIRE SPRINKLER KEY NOTES
- INSTALL NEW 6" UNDERGROUND FIRE SERVICE TO SUPPLY NEW FIRE SPRINKLER SYSTEM IN BUILDING. PIPE JOINT MATERIALS, THRUST RESTRAINT, DEPTH OF BURY, INSTALLATION, TESTING AND BACK FILL SHALL BE IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF NFPA 13, NFPA 24, THE INTERNATIONAL PLUMBING CODE AND LOCAL WATER PURVEYOR REQUIREMENTS. CONTRACTOR SHALL PREPARE SHOP DRAWINGS FOR SUBMITTAL AND OBTAIN ALL REQUIRED INSTALLATION PERMITS AND INSPECTIONS. RESTORE ALL GRADE SURFACES (ASPHALT PAVING, CONCRETE, GRASS LANDSCAPING ETC.) TO ORIGINAL CONDITION AFTER INSTALLATION AND TESTING OF WATER SERVICE.
 - FIRE SPRINKLER RISER. SEE DETAIL 2 ON SHEET FP-3. DO NOT CONNECT ABOVE GROUND PIPING TO UNDERGROUND PIPING UNTIL UNDERGROUND PIPING HAS BEEN FLUSHED AND PRESSURE TESTED IN ACCORDANCE WITH NFPA 13 AND NFPA 24.
 - INSTALL 2-WAY WALL MOUNTED FIRE DEPARTMENT CONNECTION (FDC). SEE DETAIL 2 ON SHEET FP-3. MOUNT FDC 36" ABOVE FINISHED EXTERIOR GRADE. INSTALL EXHIBITION TO COVER WALL PENETRATION.
 - INSTALL SIDE DISCHARGE FIRE SPRINKLERS TO PROTECT SKYLIGHTS IN ACCORDANCE WITH NFPA 13 8.6.7. INSTALL DEFLECTOR OF SIDE DISCHARGE SPRINKLER WITHIN 6" OF TOP OF SKYLIGHT. 1" PIPING TO SPRINKLER MAY BE INSTALLED EXPOSED, BUT SHALL BE TIGHT TO SIDE OF SKYLIGHT OPENING AND SHALL BE PAINTED TO MATCH THE WALL SURFACE.
 - INSTALL DRY PENDENT TYPE FIRE SPRINKLERS IN VESTIBULES. SPRINKLERS SHALL BE SUPPLIED BY PIPING INSTALLED IN CONCEALED SPACE ABOVE VESTIBULE CEILING. PROTECT PIPING FROM FREEZING AS REQUIRED BY NFPA 13.
 - CONNECT NEW FIRE SPRINKLER WATER FLOW AND VALVE SUPERVISORY SWITCHES TO EXISTING FIRE ALARM SYSTEM FOR BUILDING. PROGRAM ACTIVATION OF WATER FLOW SWITCH AS A FIRE ALARM SIGNAL. PROGRAM ACTIVATION OF VALVE SUPERVISORY SWITCH AS A SUPERVISORY SIGNAL. ALL WORK SHALL BE PERFORMED BY STATE LICENSED FIRE ALARM CONTRACTOR WHO IS AN AUTHORIZED REPRESENTATIVE OF THE FIRE ALARM CONTROL PANEL MANUFACTURER. PREPARE AS REQUIRED SHOP DRAWINGS AND OBTAIN ALL REQUIRED PERMITS FOR THE FIRE ALARM SYSTEM MODIFICATION.
 - CORE DRILL EXISTING MASONRY WALLS AS REQUIRED FOR THE INSTALLATION OF NEW FIRE SPRINKLER PIPING. LOCATION AND REQUIRED NUMBER OF CORE DRILLS INDICATED ON DRAWINGS IS APPROXIMATE AND SHOULD BE VERIFIED BY CONTRACTOR. PROVIDE ANNULAR CLEAR SPACE AROUND PIPING AS REQUIRED BY NFPA 13 9.3.4. INSTALL FLEXIBLE COUPLING ON PIPING ON BOTH SIDES OF WALL IN ACCORDANCE WITH NFPA 13 9.3.2 WHERE PIPING IS 2-1/2" OR GREATER IN NOMINAL DIAMETER. SEAL ALL PENETRATIONS OF FIRE RATED WALLS WITH FIRE RESISTIVE CAULKING.
 - INSTALL PIPING DROPS TO SUPPLY FIRE SPRINKLERS PROTECTING PORTIONS OF BUILDING BELOW LOW ROOF AREAS EAST OF MULTIPURPOSE ROOM IN EXISTING RETURN AIR SHIFTS. COORDINATE EXACT LOCATION OF DROPS WITH EXISTING EQUIPMENT IN SHIFTS.
 - INSTALL FIRE SPRINKLER MAIN FOR FIRE SPRINKLERS IN MULTIPURPOSE ROOM CONCEALED ABOVE EXISTING CORRIDOR CEILING. REMOVE AND REPLACE CEILING OR INSTALL NEW ACCESS PANELS AS REQUIRED TO FACILITATE INSTALLATION OF THE PIPING. COORDINATE WITH EXISTING EQUIPMENT SYSTEMS ABOVE CEILING AND IDENTIFY LOCATION OR OFFSET PIPING AS REQUIRED.
 - EXISTING CONVENTIONAL ZONED RELEASING PANEL FOR AFF MONITOR SYSTEM TO BE REMOVED. REMOVE EXISTING BATTERIES, BATTERY CABINETS, BATTERIES, CABINET INITIATING DEVICE CIRCUITS, NOTIFICATION APPLIANCE CIRCUITS, SOLID STATE RELAYS AND ALL OTHER UNDESIRABLE EQUIPMENT. EXISTING MOUNTING FRAME, 120 VAC POWER SUPPLY AND CIRCUITS FOR INTERCONNECTION WITH BUILDING FIRE ALARM SYSTEM WILL BE REUSED AND MAY REMAIN.
 - FIRE SPRINKLER PIPING FOR PLATFORM AREA MAY BE INSTALLED EXPOSED BELOW CEILING. PIPING SHALL BE INSTALLED TIGHT TO CEILING AND PAINTED TO MATCH COLOR OF CEILING.

- ### 4 FIRE SPRINKLER SYSTEM GENERAL NOTES
- GENERAL SCOPE OF WORK: FURNISH ALL MATERIALS, EQUIPMENT AND SUPPLIES AND PERFORM ALL WORK AND OPERATIONS WITH THE APPLICABLE REQUIREMENTS OF THE FIRE SPRINKLER SYSTEM TO PROVIDE FIRE PROTECTION OF ALL AREAS OF THE EXISTING CENTER FOR THE DEAF IN TAYLORSVILLE, UT. THE SYSTEM DESIGN SHALL MEET THE REQUIREMENTS OF NFPA 13 AND THE REQUIREMENTS OF NFPA 24 IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. WORK INCLUDES:
 - A. UNDERGROUND FIRE SERVICE
 - B. FIRE SPRINKLERS, PIPING, SUPPORTS AND BRACES
 - C. FIRE ALARM SYSTEMS AND NOTIFICATION EQUIPMENT
 - D. CEILING REMOVAL AND REPAIR
 - E. INSTALLATION OF NEW CEILING ACCESS PANELS
 - THE DESIGN OF THE FIRE SPRINKLER SYSTEM CONTAINED ON THESE DRAWINGS IS CONCEPTUAL IN NATURE. THE LOCATIONS SHOWN ON THESE DRAWINGS FOR SPRINKLERS, PIPING AND OTHER FIRE PROTECTION EQUIPMENT ARE APPROXIMATE AND MUST BE ADJUSTED WHERE REQUIRED TO MATCH ACTUAL BUILDING CONDITIONS. THE FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE TO DEVELOP THE FINAL DESIGN FOR THE FIRE SPRINKLER SYSTEM, PREPARE SHOP DRAWINGS, HYDRAULIC CALCULATIONS AND OBTAIN APPROVAL FROM AUTHORITY HAVING JURISDICTION.
 - THE FIRE SPRINKLER SYSTEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE FOLLOWING CODES AND STANDARDS:
 - A. INTERNATIONAL BUILDING CODE (IBC) - 2006 EDITION
 - B. INTERNATIONAL FIRE CODE (IFC) - 2006 EDITION
 - C. INTERNATIONAL PLUMBING CODE (IPC) - 2006 EDITION
 - D. NFPA 13 INSTALLATION OF FIRE SPRINKLER SYSTEMS (2007)
 - E. NFPA 24 INSTALLATION OF PRIVATE FIRE SERVICE MAINS (2007)
 - F. NFPA 72 NATIONAL FIRE ALARM CODE (2007)
 - G. STATE OF UTAH FIRE MARSHAL REQUIREMENTS
 - H. STATE OF UTAH DFCM REQUIREMENTS
 - QUALITY ASSURANCE: ALL EQUIPMENT, MATERIAL AND DEVICES USED FOR THE FIRE SPRINKLER SYSTEM INSTALLATION SHALL BE UL LISTED AND/OR FM APPROVED FOR USE IN FIRE PROTECTION SYSTEMS.
 - SUBMITTALS: CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS, MATERIAL DATA SHEETS AND CALCULATIONS FOR FIRE SPRINKLER SYSTEM TO ALL AUTHORITIES HAVING JURISDICTION FOR REVIEW/APPROVAL PRIOR TO ORDERING OR INSTALLING ANY EQUIPMENT. SUBMITTALS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF REFERENCED CODES AND STANDARDS.
 - WATER SUPPLY AVAILABLE FOR FIRE SPRINKLER SYSTEM ACCORDING TO WATER FLOW TEST CONDUCTED AT PROJECT SITE BY PCTI 26, 2006. PROVIDE A MINIMUM 10% PRESSURE MARGIN IN HYDRAULIC CALCULATIONS.
 - STATIC PRESSURE: 88 PSI
 - RESIDUAL PRESSURE: 82 PSI
 - FLOW: 950 GPM
 - FIRE SPRINKLER DESIGN DENSITIES:
 - A. MECHANICAL, BOILER, STORAGE ROOMS, PLATFORM AND SIMILAR AREAS - ORDINARY HAZARD GROUP 2 @ 0.20 GPM/SQ FT OVER 1,500 SQ FT OR LARGEST AREA WITH 250 GPM HOSE ALLOWANCE.
 - B. MULTIPURPOSE ROOM, ELECTRICAL ROOM, KITCHEN AND SIMILAR AREAS - ORDINARY HAZARD GROUP 1 @ 0.15 GPM/SQ FT OVER 1,500 SQ FT OR LARGEST AREA WITH 250 GPM HOSE ALLOWANCE.
 - C. ALL OTHER AREAS - LIGHT HAZARD 0.10 GPM/SQ FT OVER 1,500 SQ FT WITH 100 GPM HOSE ALLOWANCE.
 - SIZE OF REMOTE AREAS MAY BE REDUCED PER NFPA 13 WHERE QUICK RESPONSE SPRINKLERS ARE INSTALLED.
 - SPRINKLER SPACING:
 - A. ORDINARY HAZARD: 130 SQ FT MAXIMUM, 15' MAXIMUM AND 6' MINIMUM BETWEEN SPRINKLERS.
 - B. LIGHT HAZARD: 225 SQ FT MAXIMUM, 15' MAXIMUM AND 6' MINIMUM BETWEEN SPRINKLERS.
 - OFF-PREMISE SUPERVISION SHALL BE PROVIDED FOR ALL FIRE SPRINKLER SYSTEM CONTROL VALVES AND FLOW SWITCHES. CONNECT TO EXISTING FIRE ALARM SYSTEM IN BUILDING.
 - INSTALL PIPING CONCEALED ABOVE CEILINGS WHERE CEILINGS ARE PROVIDED. WHERE NO CEILING IS PROVIDED PIPING MAY BE EXPOSED. INSTALL PIPING WITHIN TRUSS SPACE AND APPROXIMATELY 1'-0" BELOW ROOF DECK TO AVOID CONFLICTS WITH EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT INSTALLED ABOVE CEILINGS BUT BELOW TRUSSES. OFFSET PIPING AS REQUIRED TO AVOID CONFLICTS WITH EXISTING BUILDING ELEMENTS.
 - FIRE SPRINKLER PIPING SHALL BE STEEL PIPE CONFORMING TO ANSI/ASTM A53, ASTM A135 OR A 795 2-1/2" AND LARGER (NOMINAL) PIPING SHALL BE SCHEDULE 10, 2" AND SMALLER (NOMINAL) PIPING SHALL BE ALLIED PIPE OR APPROVED EQUAL. ALL PIPING SHALL HAVE A COR (U.L. CORROSION RESISTANCE RATIO) EQUAL TO OR GREATER THAN 1.0.
 - FITTINGS: PROVIDE CAST IRON FITTINGS FOR THREADED PIPE. PROVIDE RUBBER GASKETED FITTINGS FOR ROLL GROOVED SCHEDULE 10 MAINS. PROVIDE WELDED OUTLETS FOR BRANCH LINE ATTACHMENTS TO MAINS. PLAIN END FITTINGS ARE NOT ACCEPTABLE.
 - HANGERS: 1-1/4" AND SMALLER PIPE: MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM 12'-0" BETWEEN HANGERS. 1-1/2" AND LARGER: MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM 15'-0" BETWEEN HANGERS.
 - SEISMIC BRACING SHALL BE PROVIDED FOR ALL NEW CROSS MAIN PIPING AS REQUIRED BY NFPA 13. RIGID COUPLINGS SHALL BE USED ON ALL CROSS MAINS.
 - PIPING SHALL BE INSTALLED IN AREAS WHERE TEMPERATURE IS RELIABLY MAINTAINED ABOVE 40F. IN AREAS WHERE PIPING IS NOT RELIABLY MAINTAINED ABOVE 40F, FILL PIPING WITH AN ANTI-FREEZE SOLUTION AND ISOLATE FROM WATER FILLED PIPING.
 - INSTALL NEW CEILING ACCESS PANELS OR REMOVE AND REPLACE EXISTING CEILINGS AS REQUIRED TO FACILITATE THE INSTALLATION OF NEW FIRE SPRINKLER PIPING. NEW ACCESS PANELS SHALL MATCH TYPE AND SIZE OF EXISTING AND SHALL MAINTAIN EXISTING FIRE RATING OF CEILING. PATCH AND PAINT ACCESS PANELS AND NEW CEILINGS TO MATCH EXISTING.
 - BUILDING WILL CONTINUE NORMAL OPERATIONS DURING INSTALLATION OF THE FIRE SPRINKLER SYSTEM. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE WORK AT LEAST 7 DAYS IN ADVANCE AND SUBMIT SCHEDULE TO BUILDING COORDINATOR FOR REVIEW AND APPROVAL. WORK SHALL BE COMPLETED IN PHASES AS INDICATED ON DRAWINGS AND AS DETERMINED WITH ALL SIGNIFICANT OPERATIONS IN ANY PHASE BEING COMPLETED BEFORE MOVING ON TO THE NEXT PHASE. REFER TO SPECIFICATION SECTIONS 017300 AND 211313 FOR ADDITIONAL EXECUTION REQUIREMENTS.
 - PHASE 1: MULTIPURPOSE ROOM AND ADJACENT RESTROOM/PLATFORM AREAS.
 - PHASE 2: CENTRAL PORTION OF BUILDING INCLUDING WEST OFFICE WING.
 - PHASE 3: CENTRAL HALL, CLASSROOM AREAS AND EAST OFFICE WING.
 - EXPOSED PIPING AND FITTINGS IN PLATFORM AND MULTIPURPOSE ROOMS SHALL BE PAINTED TO MATCH SURROUNDINGS.



1 FIRE SPRINKLER PLAN - NORTH
 1/8" = 1'-0"
 HYDRAULIC DESIGN AREA #1
 LIGHT HAZARD @ 0.10 GPM/SQ FT OVER 1,500 SQ FT WITH 250 GPM HOSE ALLOWANCE

HYDRAULIC DESIGN AREA #2
 ORDINARY HAZARD GROUP 2
 0.20 GPM/SQ FT OVER ENTIRE ROOM WITH 250 GPM HOSE ALLOWANCE

HYDRAULIC DESIGN AREA #3
 ORDINARY HAZARD GROUP 2
 0.20 GPM/SQ FT OVER ENTIRE ROOM WITH 250 GPM HOSE ALLOWANCE

HYDRAULIC DESIGN AREA #4
 LIGHT HAZARD @ 0.10 GPM/SQ FT OVER ENTIRE ROOM WITH 100 GPM HOSE ALLOWANCE

DATE: 03/01/10

104480
 DWG ISSUE: BID SET

PROFESSIONAL CONSULTANTS
rci
 100 South 600 East, Suite 202
 Provo, Utah 84601-1401 • FAX: (801) 734-6261
 Fire Protection Engineers
 Since 1989

DRAWN BY: ABH
 CHECKED BY: GTJ

REVISIONS:

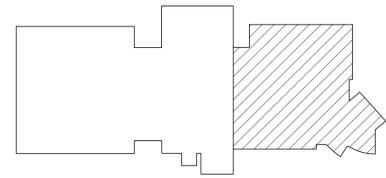
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 REVISION DATE: XXXXXX

TAYLORSVILLE DEAF CENTER
 TAYLORSVILLE, UTAH

FIRE SPRINKLER SYSTEM RETROFIT
 DFCM PROJECT #09215230

FP-1

4 KEY PLAN
NO SCALE

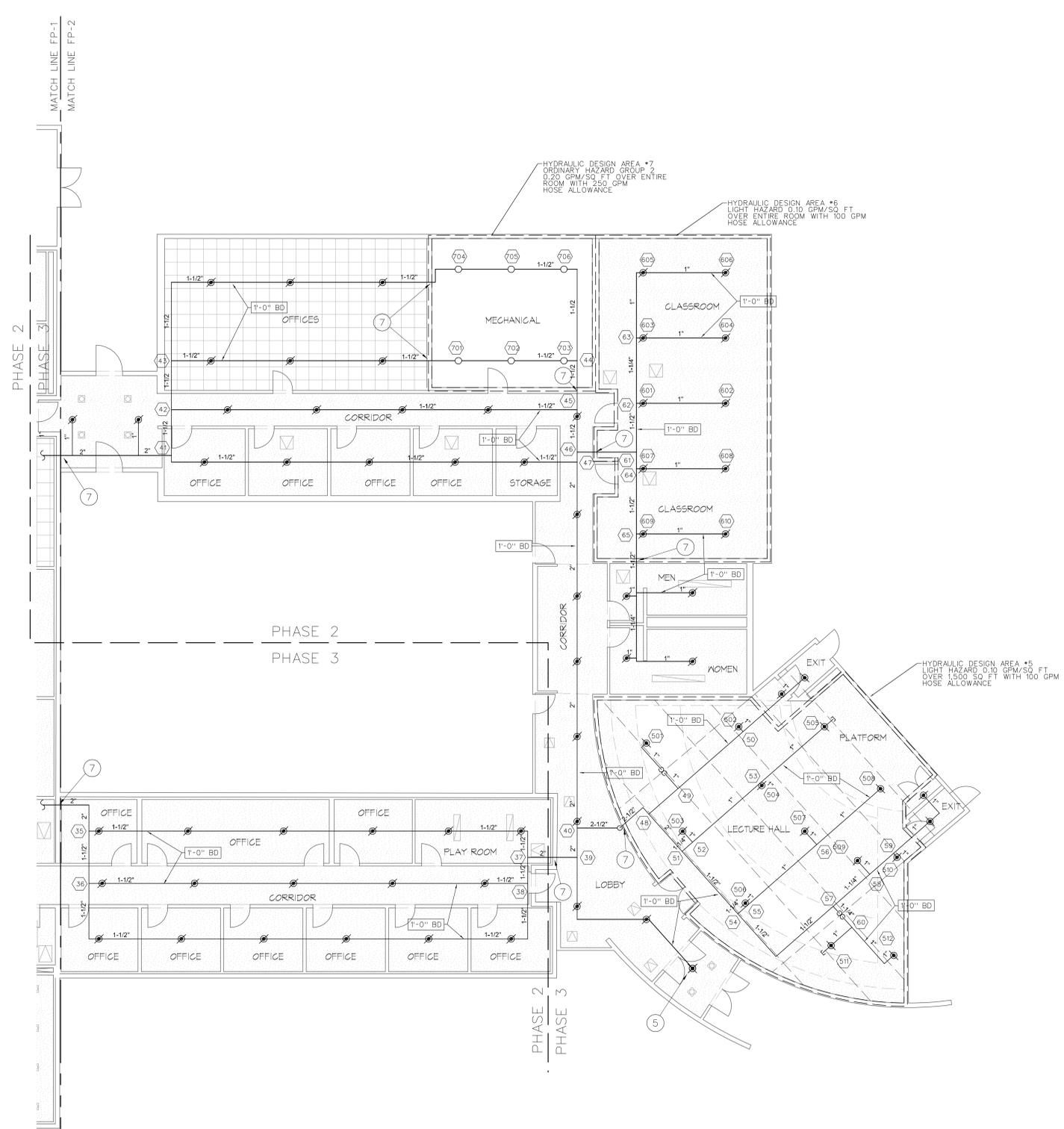


3 FIRE SPRINKLER KEY NOTES

- INSTALL NEW 6" UNDERGROUND FIRE SERVICE TO SUPPLY NEW FIRE SPRINKLER SYSTEM IN BUILDING. PIPE/Joint MATERIALS, THRUST RESTRAINT, DEPTH OF BURY, INSTALLATION, TESTING AND BACK FILL SHALL BE IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF NFPA 13, NFPA 24, THE INTERNATIONAL PLUMBING CODE, AND LOCAL WATER PURVEYOR REQUIREMENTS. CONTRACTOR SHALL PREPARE SHOP DRAWINGS FOR SUBMITTAL AND OBTAIN ALL REQUIRED INSTALLATION PERMITS AND INSPECTIONS. RESTORE ALL GRADES SURFACES (ASPHALT PAVING, CONCRETE, GRASS LANDSCAPING ETC.) TO ORIGINAL CONDITION AFTER INSTALLATION AND TESTING OF WATER SERVICE.
- FIRE SPRINKLER RISER. SEE DETAIL 2 ON SHEET FP-3. DO NOT CONNECT ABOVEGROUND PIPING TO UNDERGROUND PIPING UNTIL UNDERGROUND PIPING HAS BEEN FLUSHED AND PRESSURE TESTED IN ACCORDANCE WITH NFPA 13 AND NFPA 24.
- INSTALL 2-WAY WALL MOUNTED FIRE DEPARTMENT CONNECTION (FDC). SEE DETAIL 2 ON SHEET FP-3. MOUNT FDC 36" ABOVE FINISHED EXTERIOR GRADE. INSTALL ESCUTCHEON TO COVER WALL PENETRATION.
- INSTALL SIDE DISCHARGE FIRE SPRINKLERS TO PROTECT SKYLIGHTS IN ACCORDANCE WITH NFPA 13 8.6.7. INSTALL DEFLECTOR OF SIDE DISCHARGE SPRINKLER WITHIN 6" OF TOP OF SKYLIGHT. 1" PIPING TO SPRINKLER MAY BE INSTALLED EXPOSED BUT SHALL BE TIGHT TO SIDE OF SKYLIGHT OPENING AND SHALL BE PAINTED TO MATCH THE WALL SURFACE.
- INSTALL DRY PENDENT TYPE FIRE SPRINKLERS IN VESTIBULES. SPRINKLERS SHALL BE SUPPLIED BY PIPING INSTALLED IN CONCEALED SPACE ABOVE VESTIBULE CEILING. PROTECT PIPING FROM FREEZING AS REQUIRED BY NFPA 13.
- CONNECT NEW FIRE SPRINKLER WATER FLOW AND VALVE SUPERVISORY SWITCHES TO EXISTING FIRE ALARM SYSTEM FOR BUILDING. PROGRAM ACTIVATION OF WATER FLOW SWITCH AS A FIRE ALARM SIGNAL. PROGRAM ACTIVATION OF VALVE SUPERVISORY SWITCH AS A SUPERVISORY SIGNAL. WORK SHALL BE PERFORMED BY STATE LICENSED FIRE ALARM CONTRACTOR WHO IS AN AUTHORIZED REPRESENTATIVE OF THE FIRE ALARM CONTROL PANEL MANUFACTURER. PREPARE AS REQUIRED SHOP DRAWINGS AND OBTAIN ALL REQUIRED PERMITS FOR THE FIRE ALARM SYSTEM MODIFICATION.
- CORE DRILL EXISTING MASONRY WALLS AS REQUIRED FOR THE INSTALLATION OF NEW FIRE SPRINKLER PIPING. LOCATION AND REQUIRED NUMBER OF CORE DRILLS INDICATED ON DRAWINGS IS APPROXIMATE AND SHOULD BE VERIFIED BY CONTRACTOR. PROVIDE ANNUAL CLEAR SPACE AROUND PIPING AS REQUIRED BY NFPA 13 9.3.4. INSTALL FLEXIBLE COUPLING ON PIPING ON BOTH SIDES OF WALL IN ACCORDANCE WITH NFPA 13 9.3.2 WHERE PIPING IS 2-1/2" OR GREATER IN NOMINAL DIAMETER. SEAL ALL PENETRATIONS OF FIRE RATED WALLS WITH FIRE RESISTIVE CAULKING.
- INSTALL PIPING DROPS TO SUPPLY FIRE SPRINKLERS PROTECTING PORTIONS OF BUILDING BELOW LOW ROOF AREAS EAST OF MULTIPURPOSE ROOM IN EXISTING RETURN AIR SHAFTS. COORDINATE EXACT LOCATION OF DROPS WITH EXISTING EQUIPMENT IN SHAFTS.
- INSTALL FIRE SPRINKLER MAIN FOR FIRE SPRINKLERS IN MULTIPURPOSE ROOM CONCEALED ABOVE EXISTING CORRIDOR CEILING. REMOVE AND REPLACE CEILING OR INSTALL NEW ACCESS PANELS AS REQUIRED TO FACILITATE INSTALLATION OF THE PIPING. COORDINATE WITH EXISTING EQUIPMENT SYSTEMS ABOVE CEILING AND ADJUST LOCATION OR OFFSET PIPING AS REQUIRED.
- EXISTING CONVENTIONAL ZONED RELEASING PANEL FOR AFEF MONITOR SYSTEM TO BE DEMOLISHED. REMOVE RELEASING PANEL, MODULES, BATTERIES, CABINET INITIATING DEVICE CIRCUITS, NOTIFICATION APPLIANCE CIRCUITS, SOLENOIDS AND ALL OTHER UNUSED EQUIPMENT. EXISTING MOUNTING FRAME, 120 VAC POWER SUPPLY AND CIRCUITS FOR INTERCONNECTION WITH BUILDING FIRE ALARM SYSTEM WILL BE REUSED AND MAY REMAIN ON DRAWINGS AND SPECIFICATIONS. WORK INCLUDES BUT IS NOT LIMITED TO:
 - UNDERGROUND FIRE SERVICE
 - FIRE SPRINKLERS, PIPING, SUPPORTS AND BRACES
 - FIRE ALARM SYSTEM INTERFACE
 - CEILING REMOVAL AND REPAIR
 - INSTALLATION OF NEW CEILING ACCESS PANELS
- THE DESIGN OF THE FIRE SPRINKLER SYSTEM CONTAINED ON THESE DRAWINGS IS CONCEPTUAL IN NATURE. THE LOCATIONS SHOWN ON THESE DRAWINGS FOR SPRINKLERS, PIPING AND OTHER FIRE PROTECTION EQUIPMENT ARE APPROXIMATE AND MUST BE ADJUSTED WHERE REQUIRED TO MATCH ACTUAL BUILDING CONDITIONS. THE FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE TO DEVELOP THE FINAL DESIGN FOR THE FIRE SPRINKLER SYSTEM, PREPARE SHOP DRAWINGS, HYDRAULIC CALCULATIONS AND OBTAIN APPROVAL FROM AUTHORITY HAVING JURISDICTION.
- THE FIRE SPRINKLER SYSTEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE FOLLOWING CODES AND STANDARDS:
 - INTERNATIONAL BUILDING CODE (IBC) - 2006 EDITION
 - INTERNATIONAL FIRE CODE (IFC) - 2006 EDITION
 - INTERNATIONAL PLUMBING CODE (IPC) - 2006 EDITION
 - NFPA 13 INSTALLATION OF FIRE SPRINKLER SYSTEMS (2007)
 - NFPA 24 INSTALLATION OF PRIVATE FIRE SERVICE MAINS (2007)
 - NFPA 72 NATIONAL FIRE ALARM CODE (2007)
 - STATE OF UTAH FIRE MARSHAL REQUIREMENTS
 - STATE OF UTAH DFCM REQUIREMENTS
- QUALITY ASSURANCE: ALL EQUIPMENT, MATERIAL AND DEVICES USED FOR THE FIRE SPRINKLER SYSTEM INSTALLATION SHALL BE UL LISTED AND/OR FM APPROVED FOR USE IN FIRE PROTECTION SYSTEMS.
- SUBMITTALS: CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS, MATERIAL DATA SHEETS AND CALCULATIONS FOR FIRE SPRINKLER SYSTEM TO ALL AUTHORITIES HAVING JURISDICTION FOR REVIEW/ APPROVAL PRIOR TO ORDERING OR INSTALLING ANY EQUIPMENT. SUBMITTALS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF REFERENCED CODES AND STANDARDS.
- WATER SUPPLY AVAILABLE FOR FIRE SPRINKLER SYSTEM ACCORDING TO WATER FLOW TEST CONDUCTED AT PROJECT SITE BY PCI JULY 26, 2006. PROVIDE A MINIMUM STATIC PRESSURE: 88 PSI
RESIDUAL PRESSURE: 82 PSI
FLOW: 950 GPM
- FIRE SPRINKLER DESIGN DENSITIES:
 - MECHANICAL, BOILER, STORAGE ROOMS, PLATFORM AND SIMILAR AREAS - ORDINARY HAZARD GROUP 2.20 GPM/SQ FT OVER 1,500 SQ FT (OR LARGEST AREA WITH 250 GPM HOSE ALLOWANCE)
 - MULTIPURPOSE ROOM, ELECTRICAL ROOM, KITCHEN AND SIMILAR AREAS - ORDINARY HAZARD GROUP 1.0, 1.15 GPM/SQ FT OVER 1,500 SQ FT (OR LARGEST AREA) WITH 250 GPM HOSE ALLOWANCE
 - ALL OTHER AREAS - LIGHT HAZARD 0.10 GPM/SQ FT OVER 1,500 SQ FT WITH 100 GPM HOSE ALLOWANCE
 - SIZE OF REMOTE AREAS MAY BE REDUCED PER NFPA 13 WHERE QUICK RESPONSE SPRINKLERS ARE INSTALLED.
- SPRINKLER SPACING:
 - ORDINARY HAZARD: 130 SQ FT MAXIMUM, 15' MAXIMUM AND 6' MINIMUM BETWEEN SPRINKLERS
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- OFF-PREMISE SUPERVISION SHALL BE PROVIDED FOR ALL FIRE SPRINKLER SYSTEM CONTROL VALVES AND FLOW SWITCHES. CONNECT TO EXISTING FIRE ALARM SYSTEM IN BUILDING.
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- FIRE SPRINKLER PIPING SHALL BE STEEL PIPE CONFORMING TO ANSI/ASTM A53, ASTM A135 OR A795, 2-1/2" AND LARGER (NOMINAL) PIPING SHALL BE SCHEDULE 10, 7" AND SMALLER (NOMINAL) SHALL BE ALLED DYNATHEAD PIPING OR APPROVED EQUAL. ALL PIPING SHALL HAVE A CORROSION RESISTANT (EPA) EQUAL TO OR GREATER THAN 1.0.
- FITTINGS: PROVIDE CAST IRON FITTINGS FOR THREADED PIPE. PROVIDE RUBBER GASKETED FITTINGS FOR ROLL GROOVED SCHEDULE 10 MAINS. PROVIDE WELDED OUTLETS FOR BRANCH LINE ATTACHMENTS TO MAINS. PLAIN END FITTINGS ARE NOT ACCEPTABLE.
- HANGERS: 1-1/4" AND SMALLER PIPE: MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM 12'-0" BETWEEN HANGERS. 1-1/2" AND LARGER: MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM 15'-0" BETWEEN HANGERS.
- SEISMIC BRACING: BRACING SHALL BE PROVIDED FOR ALL NEW CROSS MAIN PIPING AS REQUIRED BY NFPA 13. BRACING SHALL BE USED ON ALL CROSS MAINS.
- PIPING SHALL BE INSTALLED IN AREAS WHERE TEMPERATURE IS RELIABLY MAINTAINED ABOVE 40F. IN AREAS WHERE PIPING IS NOT RELIABLY MAINTAINED ABOVE 40F, FILL PIPING WITH AN ANTI-FRIZE SOLUTION AND ISOLATE FROM WATER FILLED PIPING.
- INSTALL NEW CEILING ACCESS PANELS OR REMOVE AND REPLACE EXISTING CEILINGS AS REQUIRED TO FACILITATE THE INSTALLATION OF NEW FIRE SPRINKLER PIPING. NEW ACCESS PANELS SHALL MATCH TYPE AND SIZE OF EXISTING AND SHALL MAINTAIN EXISTING FIRE RATING OF CEILING. PATCH AND PAINT ACCESS PANELS AND NEW CEILINGS TO MATCH EXISTING.
- BUILDING WILL CONTINUE NORMAL OPERATIONS DURING INSTALLATION OF THE FIRE SPRINKLER SYSTEM. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE WORK IN ADVANCE AND SUBMIT SCHEDULE TO BUILDING COORDINATOR FOR REVIEW AND APPROVAL. WORK SHALL BE COMPLETED IN PHASES AS INDICATED ON DRAWINGS AND AS DEFINED BELOW WITH ALL SIGNIFICANT OPERATIONS IN ANY PHASE BEING COMPLETED BEFORE MOVING ON TO THE NEXT PHASE. REFER TO SPECIFICATION SECTIONS 017300 AND 211313 FOR ADDITIONAL EXECUTION REQUIREMENTS.
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 - PHASE 3: LECTURE HALL/CLASSROOM AREAS AND EAST OFFICE WING
- EXPOSED PIPING AND FITTINGS IN PLATFORM AND MULTIPURPOSE ROOMS SHALL BE PAINTED TO MATCH SURROUNDINGS.

4 FIRE SPRINKLER SYSTEM GENERAL NOTES

- GENERAL SCOPE OF WORK: FURNISH ALL MATERIALS, EQUIPMENT AND SUPPLIES AND PERFORM ALL WORK AND OPERATIONS TO DESIGN, CONSTRUCT AND MAKE FUNCTIONAL A NEW FIRE SPRINKLER SYSTEM TO SUPPLY FIRE PROTECTION OF ALL PORTIONS OF THE EXISTING CENTER FOR THE DEAF IN TAYLORSVILLE, UT. THE SYSTEM DESIGN SHALL MEET THE REQUIREMENTS OF NFPA 13 2007 EDITION AND BE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. WORK INCLUDES BUT IS NOT LIMITED TO:
 - UNDERGROUND FIRE SERVICE
 - FIRE SPRINKLERS, PIPING, SUPPORTS AND BRACES
 - FIRE ALARM SYSTEM INTERFACE
 - CEILING REMOVAL AND REPAIR
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- THE DESIGN OF THE FIRE SPRINKLER SYSTEM CONTAINED ON THESE DRAWINGS IS CONCEPTUAL IN NATURE. THE LOCATIONS SHOWN ON THESE DRAWINGS FOR SPRINKLERS, PIPING AND OTHER FIRE PROTECTION EQUIPMENT ARE APPROXIMATE AND MUST BE ADJUSTED WHERE REQUIRED TO MATCH ACTUAL BUILDING CONDITIONS. THE FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE TO DEVELOP THE FINAL DESIGN FOR THE FIRE SPRINKLER SYSTEM, PREPARE SHOP DRAWINGS, HYDRAULIC CALCULATIONS AND OBTAIN APPROVAL FROM AUTHORITY HAVING JURISDICTION.
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- QUALITY ASSURANCE: ALL EQUIPMENT, MATERIAL AND DEVICES USED FOR THE FIRE SPRINKLER SYSTEM INSTALLATION SHALL BE UL LISTED AND/OR FM APPROVED FOR USE IN FIRE PROTECTION SYSTEMS.
- SUBMITTALS: CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS, MATERIAL DATA SHEETS AND CALCULATIONS FOR FIRE SPRINKLER SYSTEM TO ALL AUTHORITIES HAVING JURISDICTION FOR REVIEW/ APPROVAL PRIOR TO ORDERING OR INSTALLING ANY EQUIPMENT. SUBMITTALS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS OF REFERENCED CODES AND STANDARDS.
- WATER SUPPLY AVAILABLE FOR FIRE SPRINKLER SYSTEM ACCORDING TO WATER FLOW TEST CONDUCTED AT PROJECT SITE BY PCI JULY 26, 2006. PROVIDE A MINIMUM STATIC PRESSURE: 88 PSI
RESIDUAL PRESSURE: 82 PSI
FLOW: 950 GPM
- FIRE SPRINKLER DESIGN DENSITIES:
 - MECHANICAL, BOILER, STORAGE ROOMS, PLATFORM AND SIMILAR AREAS - ORDINARY HAZARD GROUP 2.20 GPM/SQ FT OVER 1,500 SQ FT (OR LARGEST AREA WITH 250 GPM HOSE ALLOWANCE)
 - MULTIPURPOSE ROOM, ELECTRICAL ROOM, KITCHEN AND SIMILAR AREAS - ORDINARY HAZARD GROUP 1.0, 1.15 GPM/SQ FT OVER 1,500 SQ FT (OR LARGEST AREA) WITH 250 GPM HOSE ALLOWANCE
 - ALL OTHER AREAS - LIGHT HAZARD 0.10 GPM/SQ FT OVER 1,500 SQ FT WITH 100 GPM HOSE ALLOWANCE
 - SIZE OF REMOTE AREAS MAY BE REDUCED PER NFPA 13 WHERE QUICK RESPONSE SPRINKLERS ARE INSTALLED.
- SPRINKLER SPACING:
 - ORDINARY HAZARD: 130 SQ FT MAXIMUM, 15' MAXIMUM AND 6' MINIMUM BETWEEN SPRINKLERS
 - LIGHT HAZARD: 225 SQ FT MAXIMUM, 15' MAXIMUM AND 6' MINIMUM BETWEEN SPRINKLERS
- OFF-PREMISE SUPERVISION SHALL BE PROVIDED FOR ALL FIRE SPRINKLER SYSTEM CONTROL VALVES AND FLOW SWITCHES. CONNECT TO EXISTING FIRE ALARM SYSTEM IN BUILDING.
- INSTALL PIPING CONCEALED ABOVE CEILINGS WHERE CEILINGS ARE PROVIDED. WHERE NO CEILING IS PROVIDED PIPING MAY BE EXPOSED. INSTALL PIPING WITHIN TRUSS SPACE AND APPROXIMATELY 1-0" BELOW ROOF DECK TO AVOID CONFLICTS WITH EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT INSTALLED ABOVE CEILING S BUT BELOW TRUSSES. OFFSET PIPING AS REQUIRED TO AVOID CONFLICTS WITH EXISTING BUILDING ELEMENTS.
- FIRE SPRINKLER PIPING SHALL BE STEEL PIPE CONFORMING TO ANSI/ASTM A53, ASTM A135 OR A795, 2-1/2" AND LARGER (NOMINAL) PIPING SHALL BE SCHEDULE 10, 7" AND SMALLER (NOMINAL) SHALL BE ALLED DYNATHEAD PIPING OR APPROVED EQUAL. ALL PIPING SHALL HAVE A CORROSION RESISTANT (EPA) EQUAL TO OR GREATER THAN 1.0.
- FITTINGS: PROVIDE CAST IRON FITTINGS FOR THREADED PIPE. PROVIDE RUBBER GASKETED FITTINGS FOR ROLL GROOVED SCHEDULE 10 MAINS. PROVIDE WELDED OUTLETS FOR BRANCH LINE ATTACHMENTS TO MAINS. PLAIN END FITTINGS ARE NOT ACCEPTABLE.
- HANGERS: 1-1/4" AND SMALLER PIPE: MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM 12'-0" BETWEEN HANGERS. 1-1/2" AND LARGER: MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM 15'-0" BETWEEN HANGERS.
- SEISMIC BRACING: BRACING SHALL BE PROVIDED FOR ALL NEW CROSS MAIN PIPING AS REQUIRED BY NFPA 13. BRACING SHALL BE USED ON ALL CROSS MAINS.
- PIPING SHALL BE INSTALLED IN AREAS WHERE TEMPERATURE IS RELIABLY MAINTAINED ABOVE 40F. IN AREAS WHERE PIPING IS NOT RELIABLY MAINTAINED ABOVE 40F, FILL PIPING WITH AN ANTI-FRIZE SOLUTION AND ISOLATE FROM WATER FILLED PIPING.
- INSTALL NEW CEILING ACCESS PANELS OR REMOVE AND REPLACE EXISTING CEILINGS AS REQUIRED TO FACILITATE THE INSTALLATION OF NEW FIRE SPRINKLER PIPING. NEW ACCESS PANELS SHALL MATCH TYPE AND SIZE OF EXISTING AND SHALL MAINTAIN EXISTING FIRE RATING OF CEILING. PATCH AND PAINT ACCESS PANELS AND NEW CEILINGS TO MATCH EXISTING.
- BUILDING WILL CONTINUE NORMAL OPERATIONS DURING INSTALLATION OF THE FIRE SPRINKLER SYSTEM. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE WORK IN ADVANCE AND SUBMIT SCHEDULE TO BUILDING COORDINATOR FOR REVIEW AND APPROVAL. WORK SHALL BE COMPLETED IN PHASES AS INDICATED ON DRAWINGS AND AS DEFINED BELOW WITH ALL SIGNIFICANT OPERATIONS IN ANY PHASE BEING COMPLETED BEFORE MOVING ON TO THE NEXT PHASE. REFER TO SPECIFICATION SECTIONS 017300 AND 211313 FOR ADDITIONAL EXECUTION REQUIREMENTS.
 - PHASE 1: MULTIPURPOSE ROOM AND ADJACENT RESTROOM/KITCHEN/PLATFORM AREAS.
 - PHASE 2: CENTRAL PORTION OF BUILDING INCLUDING WEST OFFICE WING
 - PHASE 3: LECTURE HALL/CLASSROOM AREAS AND EAST OFFICE WING
- EXPOSED PIPING AND FITTINGS IN PLATFORM AND MULTIPURPOSE ROOMS SHALL BE PAINTED TO MATCH SURROUNDINGS.



1 FIRE SPRINKLER PLAN - SOUTH
1/8" = 1'-0"



DATE: 03/01/10

JOB NO. 104480
DWG ISSUE: BID SET

DRAWN BY: ABH
CHECKED BY: GTJ

REVISIONS:

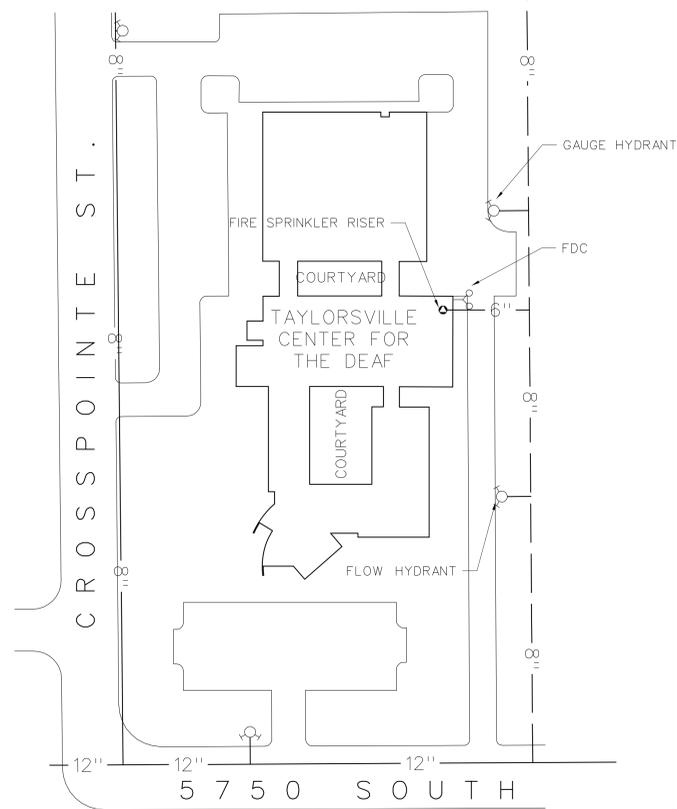
DRAWING DATE: 03/01/10

REVISION DATE: XXXXXX

TAYLORSVILLE DEAF CENTER
TAYLORSVILLE, UTAH

FIRE SPRINKLER SYSTEM RETROFIT
DFCM PROJECT #09215230

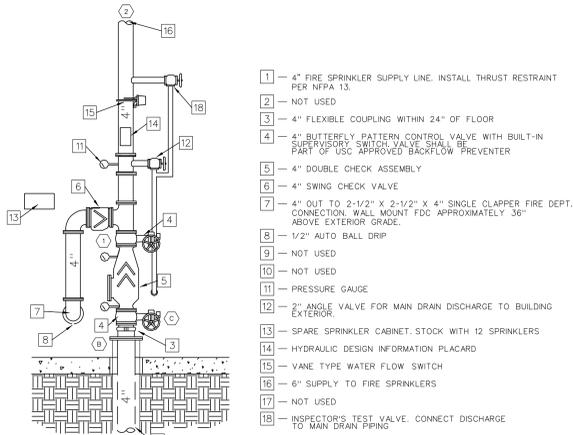
FP-2



1 FIRE PROTECTION SITE PLAN
1" = 50'-0" (APPROX.)

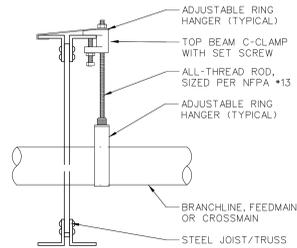
WATER SUPPLY AVAILABLE FROM 8" CIRCULATING WATER LINE AT REAR OF BUILDING:
 STATIC: 88PSI
 RESIDUAL: 82 PSI
 FLOW: 950 GPM
 TEST DATE: 02/03/10
 TEST BY: PROTECTION CONSULTANTS, INC.
 *MINIMUM 10% PRESSURE MARGIN PROVIDED IN HYDRAULIC CALCULATIONS.

3 WATER SUPPLY INFORMATION
NO SCALE

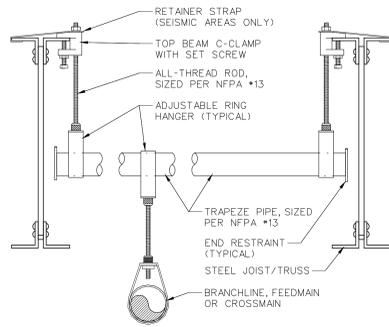


- 1 - 4" FIRE SPRINKLER SUPPLY LINE. INSTALL THRUST RESTRAINT PER NFPA 13.
- 2 - NOT USED.
- 3 - 4" FLEXIBLE COUPLING WITHIN 24" OF FLOOR.
- 4 - 4" BUTTERFLY PATTERN CONTROL VALVE WITH BUILT-IN SUPERVISORY SWITCH VALVE SHALL BE PART OF USC APPROVED BACKFLOW PREVENTER.
- 5 - 4" DOUBLE CHECK ASSEMBLY.
- 6 - 4" SWING CHECK VALVE.
- 7 - 4" OUT TO 2-1/2" X 2-1/2" X 4" SINGLE CLAPPER FIRE DEPT. CONNECTION WALL MOUNT FDC APPROXIMATELY 36" ABOVE EXTERIOR GRADE.
- 8 - 1/2" AUTO BALL DRIP.
- 9 - NOT USED.
- 10 - NOT USED.
- 11 - PRESSURE GAUGE.
- 12 - 2" ANGLE VALVE FOR MAIN DRAIN DISCHARGE TO BUILDING EXTERIOR.
- 13 - SPARE SPRINKLER CABINET. STOCK WITH 12 SPRINKLERS.
- 14 - HYDRAULIC DESIGN INFORMATION PLACARD.
- 15 - VANE TYPE WATER FLOW SWITCH.
- 16 - 6" SUPPLY TO FIRE SPRINKLERS.
- 17 - NOT USED.
- 18 - INSPECTOR'S TEST VALVE. CONNECT DISCHARGE TO MAIN DRAIN PIPING.

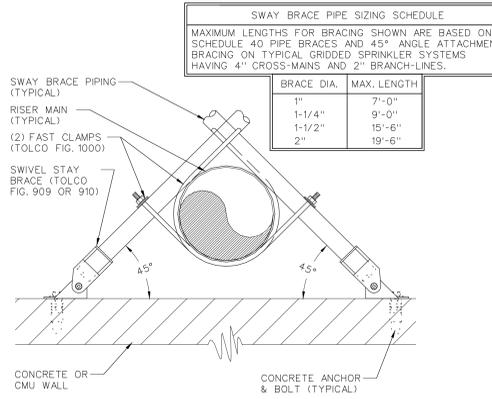
2 FIRE SPRINKLER RISER
NO SCALE



4 TOP CHORD HANGER DETAIL
NO SCALE



5 TRAPEZE HANGER DETAIL
NO SCALE



6 4-WAY RISER BRACE DETAIL
NO SCALE

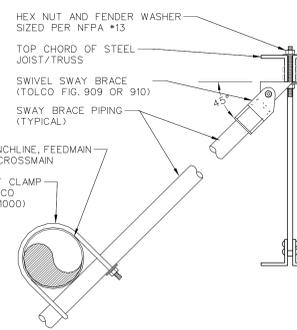
SWAY BRACE PIPE SIZING SCHEDULE

MAXIMUM LENGTHS FOR BRACING SHOWN ARE BASED ON SCHEDULE 40 PIPE BRACES AND 45° ANGLE ATTACHMENT BRACING ON TYPICAL GRIDDED SPRINKLER SYSTEMS HAVING 4" CROSS-MAINS AND 2" BRANCH-LINES.

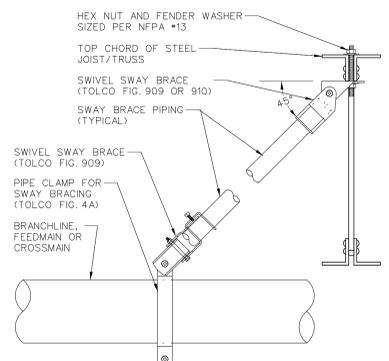
| BRACE DIA. | MAX. LENGTH |
|------------|-------------|
| 1" | 7'-0" |
| 1-1/4" | 9'-0" |
| 1-1/2" | 15'-6" |
| 2" | 19'-6" |

| DESIGN AREA - 1 (MULTIPURPOSE ROOM) | DESIGN AREA - 5 (LECTURE HALL) |
|---|--|
| OCCUPANCY CLASSIFICATION: ORDINARY HAZARD GROUP 2 DENSITY: 0.9 GPM/50 FT. ² AREA OF APPLICATION: 1500 SQ. FT. NUMBER OF HEADS CALCULATED: 15 SOFT. PER HEAD: 100 (MAX.) ORIFICE SIZE: 1/2" SPRINKLER SYSTEM DEMAND: 285.6 GPM AT 48.2 PSIA T.B.O.R. HOSE STREAM REQUIRED: 0 GPM (INSIDE) 250 GPM (OUTSIDE) TOTAL WATER REQUIRED: 285.6 GPM AT 48.2 PSIA T.B.O.R. TOTAL WATER AVAILABLE: 335.6 GPM AT 85.9 PSIA T.P.O.C. | OCCUPANCY CLASSIFICATION: LIGHT HAZARD DENSITY: 0.10 GPM/50 FT. ² AREA OF APPLICATION: 1500 SQ. FT. NUMBER OF HEADS CALCULATED: 12 SOFT. PER HEAD: 225 (MAX.) ORIFICE SIZE: 1/2" SPRINKLER SYSTEM DEMAND: 271.2 GPM AT 62.2 PSIA T.B.O.R. HOSE STREAM REQUIRED: 0 GPM (INSIDE) 100 GPM (OUTSIDE) TOTAL WATER REQUIRED: 271.2 GPM AT 71.0 PSIA T.P.O.C. |
| DESIGN AREA - 2 (MECHANICAL MEZANINE) | DESIGN AREA - 6 (CLASSROOM) |
| OCCUPANCY CLASSIFICATION: ORDINARY HAZARD GROUP 2 DENSITY: 0.20 GPM/50 FT. ² AREA OF APPLICATION: ENTIRE ROOM NUMBER OF HEADS CALCULATED: 6 SOFT. PER HEAD: 100 (MAX.) ORIFICE SIZE: 1/2" SPRINKLER SYSTEM DEMAND: 181.6 GPM AT 53.2 PSIA T.B.O.R. HOSE STREAM REQUIRED: 0 GPM (INSIDE) 250 GPM (OUTSIDE) TOTAL WATER REQUIRED: 181.6 GPM AT 62.2 PSIA T.P.O.C. | OCCUPANCY CLASSIFICATION: LIGHT HAZARD DENSITY: 0.10 GPM/50 FT. ² AREA OF APPLICATION: ENTIRE ROOM NUMBER OF HEADS CALCULATED: 10 SOFT. PER HEAD: 225 (MAX.) ORIFICE SIZE: 1/2" SPRINKLER SYSTEM DEMAND: 171.5 GPM AT 48.6 PSIA T.B.O.R. HOSE STREAM REQUIRED: 0 GPM (INSIDE) 100 GPM (OUTSIDE) TOTAL WATER REQUIRED: 171.5 GPM AT 56.6 PSIA T.P.O.C. |
| DESIGN AREA - 3 (DRILL ROOM) | DESIGN AREA - 7 (MECHANICAL ROOM) |
| OCCUPANCY CLASSIFICATION: ORDINARY HAZARD GROUP 2 DENSITY: 0.20 GPM/50 FT. ² AREA OF APPLICATION: ENTIRE ROOM NUMBER OF HEADS CALCULATED: 6 SOFT. PER HEAD: 100 (MAX.) ORIFICE SIZE: 1/2" SPRINKLER SYSTEM DEMAND: 181.6 GPM AT 53.2 PSIA T.B.O.R. HOSE STREAM REQUIRED: 0 GPM (INSIDE) 250 GPM (OUTSIDE) TOTAL WATER REQUIRED: 181.6 GPM AT 62.2 PSIA T.P.O.C. | OCCUPANCY CLASSIFICATION: ORDINARY HAZARD GROUP 2 DENSITY: 0.20 GPM/50 FT. ² AREA OF APPLICATION: ENTIRE ROOM NUMBER OF HEADS CALCULATED: 6 SOFT. PER HEAD: 100 (MAX.) ORIFICE SIZE: 1/2" SPRINKLER SYSTEM DEMAND: 136.2 GPM AT 31.4 PSIA T.B.O.R. HOSE STREAM REQUIRED: 0 GPM (INSIDE) 250 GPM (OUTSIDE) TOTAL WATER REQUIRED: 136.2 GPM AT 39.4 PSIA T.P.O.C. |
| DESIGN AREA - 4 (CONFERENCE ROOM) | DESIGN AREA - 8 (CORRIDOR) |
| OCCUPANCY CLASSIFICATION: LIGHT HAZARD DENSITY: 0.10 GPM/50 FT. ² AREA OF APPLICATION: ENTIRE ROOM NUMBER OF HEADS CALCULATED: 7 SOFT. PER HEAD: 225 (MAX.) ORIFICE SIZE: 1/2" SPRINKLER SYSTEM DEMAND: 157.8 GPM AT 28.9 PSIA T.B.O.R. HOSE STREAM REQUIRED: 0 GPM (INSIDE) 100 GPM (OUTSIDE) TOTAL WATER REQUIRED: 157.8 GPM AT 36.9 PSIA T.P.O.C. | OCCUPANCY CLASSIFICATION: LIGHT HAZARD DENSITY: 0.10 GPM/50 FT. ² AREA OF APPLICATION: ENTIRE ROOM NUMBER OF HEADS CALCULATED: 6 SOFT. PER HEAD: 100 (MAX.) ORIFICE SIZE: 1/2" SPRINKLER SYSTEM DEMAND: 136.2 GPM AT 31.4 PSIA T.B.O.R. HOSE STREAM REQUIRED: 0 GPM (INSIDE) 250 GPM (OUTSIDE) TOTAL WATER REQUIRED: 136.2 GPM AT 39.4 PSIA T.P.O.C. |

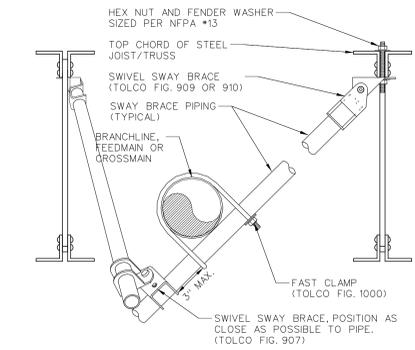
7 HYDRAULIC DESIGN INFORMATION PLACARDS
NO SCALE



8 LATERAL SWAY BRACE DETAIL
NO SCALE



9 LONGITUDINAL SWAY BRACE DETAIL
NO SCALE



10 4-WAY SWAY BRACE DETAIL
NO SCALE

EQUIPMENT LEGEND

| | |
|-------|---|
| ○ | UPRIGHT FIRE SPRINKLER ON BRANCH LINE |
| ⊙ | PENDENT FIRE SPRINKLER WITH RECESSED ESCUTCHEON |
| ⊘ | PENDENT FIRE SPRINKLER WITH 401 TYPE ESCUTCHEON |
| ⊖ | DRY PENDENT FIRE SPRINKLER |
| ▽ | SIDEWALL FIRE SPRINKLER |
| ○ | WET-PIPE FIRE SPRINKLER RISER |
| ○ | 2-WAY FIRE DEPARTMENT CONNECTION |
| — | OVERHEAD PIPING |
| — | UNDERGROUND PIPING |
| | DRAIN LINE |
| — | PIPE RISE OR DROP |
| — | RISER NIPPLE |
| — | PIPE CAP/FLUSHING CONNECTION |
| ⊙ | HYDRAULIC CALCULATION NODE POINT |

10 EQUIPMENT LEGEND
NO SCALE

DATE: 03/01/10

JOB NO: 104480
DWG ISSUE: BID SET

DRAWN BY: ABH
CHECKED BY: GTJ

REVISIONS:

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |

DRAWING DATE: 03/01/10

REVISION DATE: XXXXXX

TAYLORSVILLE DEAF CENTER
TAYLORSVILLE, UTAH

FIRE SPRINKLER SYSTEM RETROFIT
DFCM PROJECT #09215230

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