

EXISTING INFORMATION WAS BASED ON FIRE SPRINKLER SHOP DRAWINGS DONE BY OTHERS

FIRE PROTECTION GENERAL NOTES FOUND ON SHEET FP200

FIRE PROTECTION SYMBOLS LEGEND FOUND ON SHEET M500

GENERAL DESIGN NOTES:

- AS PART OF BASE BID, GYMNASIUM SHALL BE A STAND ALONE STRUCTURE WITH NO CORRIDORS CONNECTING IT TO THE EXISTING BUILDING. EXISTING FIRE SPRINKLER ENTRY SHALL BE RELOCATED TO EXISTING MECHANICAL 151 WITH THE MAIN EXTENDED TO RECONNECT TO THE EXISTING SYSTEM AS SHOWN. SIZE NEW MAIN AND RISER TO PROTECT THE ENTIRE GYMNASIUM AND CONNECTING CORRIDORS AS SHOWN ON DRAWING SHEET FP100.
- AS PART OF BASE BID, ADD SPRINKLER PROTECTION TO EXISTING MECHANICAL 151 AND PORTION OF CORRIDOR AS SHOWN. NEW GYM WILL NOT RECEIVE SPRINKLERS AS PART OF THE BASE BID; HOWEVER, THE SYSTEM SHALL BE SIZED FOR THE FUTURE SPRINKLER EXPANSION AT THE POINT WHEN THE CONNECTING CORRIDORS ARE CONSTRUCTED. EXISTING SPRINKLERED AREA OF THE BUILDING IS APPROXIMATELY 8,415 GSF AND SHALL BE SERVED OFF OF NEW RISER ENTRANCE.
- EXISTING AREA TO BE SPRINKLERED AS PART OF BASE BID IS APPROXIMATELY ?? GSF.

SUPPLEMENTAL SYMBOLS LEGEND – FIRE

- EXISTING UNSPRINKLERED BUILDING. NO WORK IN THIS AREA UNDER THIS CONTRACT.
- EXISTING SPRINKLERED BUILDING. WORK IN THIS AREA SHALL BE AS NOTED ON THE DRAWINGS.
- NEW BUILDING ADDITION.

FIRE PROTECTION KEYNOTES: (C)

- EXISTING WET PIPE SPRINKLER RISER. REMOVE RISER AND ALL ASSOCIATED DEVICES AND PORTION OF MAIN SHOWN HATCHED. REMOVE WATER ENTRY PIPING TO BELOW FLOOR AND CAP. PATCH FLOOR TO MATCH EXISTING. CONNECT REMAINING SPRINKLER PIPING TO NEW SPRINKLER PIPING AS SHOWN AND RE-CALCULATE REMOTE DESIGN AREA. PROVIDE UPDATED DESIGN PLACARD AT RISER. REFER TO DETAIL 2/FP200.
- REMOVE EXISTING FIRE DEPARTMENT CONNECTION (FDC) AND INSPECTORS TEST AND DRAIN AS SHOWN. RELOCATE DEVICES TO NEW LOCATION ON NORTH WALL OF MECHANICAL 151. PROVIDE NEW DEVICES AT NEW WATER ENTRY IF EXISTING DEVICES ARE NOT SIZED APPROPRIATELY IN ACCORDANCE WITH NFPA 13 TO MEET THE NEW REQUIREMENTS OF THE NEW SPRINKLER SYSTEM.
- PROVIDE AND INSTALL A NEW FIRE SPRINKLER RISER ASSEMBLY ADJACENT TO EXISTING STAIRS OF MECHANICAL 151. SPRINKLER RISER SHALL BE SIZED TO PROVIDE SPRINKLERS TO THE REMAINDER OF THE EXISTING FACILITY, THE NEW GYMNASIUM, AND THE FUTURE CONNECTING CORRIDORS. FOR SIZING PURPOSES OF THE NEW RISER AND SPRINKLER MAIN ONLY, ASSUME EXISTING WATER PRESSURES HAVE STATIC AND RESIDUAL PRESSURES 20 PSI LARGER THAN CURRENTLY EXISTS. PROVIDE PLACARD DATA FOR THE EXISTING REMOTE DESIGN AREA USING ACTUAL EXISTING WATER SUPPLY DATA. SEE DETAIL 1 ON THIS SHEET FOR NEW RISER REQUIREMENTS.
- FIRE DEPARTMENT CONNECTION (FDC) INSTALLED WITH CENTER AT 3'-0" ABOVE FINISHED GRADE (A.F.G.). INSTALL SYSTEM MAIN DRAIN CENTERED BELOW FDC AT 1'-0" A.F.G. INSTALL COMBINATION BELL/STROBE/SIGN CENTERED ABOVE FDC AS HIGH ON WALL AS IS POSSIBLE.
- SEE SHEET ME100A FOR CONTINUATION OF 6" FIRE MAIN PIPING.
- PROVIDE SPRINKLERS IN THIS ROOM. SPRINKLERS SHALL BE DESIGNED FOR ORDINARY HAZARD GROUP 2 OCCUPANCY WITH A DESIGN DENSITY OF 0.20 GPM/SF OVER THE EXTENT OF THE ROOM. SPRINKLERS SHALL BE UPRIGHT STYLE AND SHALL HAVE A MINIMUM TEMPERATURE RATING OF 200°F - 225°F. PROVIDE HIGHER TEMPERATURES, AS NECESSARY TO BE IN ACCORDANCE WITH NFPA 13 DESIGN GUIDELINES. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS OF THIS ROOM. PROVIDE SPRINKLER PROTECTION BELOW ANY EXISTING DUCTWORK FOUND TO BE 48" OR LARGER IN WIDTH, AS REQUIRED BY NFPA 13.
- PROVIDE SPRINKLER PROTECTION FOR PORTION OF CORRIDOR SHOWN WITH BOLD POLYLINE OUTLINE. SPRINKLERS SHALL BE RECESSED PENDENT STYLE WITH A WHITE FACTORY FINISH. FIELD VERIFY EXISTING CONDITIONS. IF CEILING MOUNTED UNIT HEATERS ARE LOCATED WITHIN 7' OF THE PROPOSED SPRINKLER INSTALLED LOCATIONS, SPRINKLERS SHALL CARRY HIGHER RATINGS, AS REQUIRED BY NFPA 13. AREA SHALL BE DESIGN FOR LIGHT HAZARD OCCUPANCY WITH A DESIGN DENSITY OF 0.10 GPM/SF OVER EXTENT OF AREA.
- CONNECT NEW BRANCH MAIN TO EXISTING 3" SPRINKLER MAIN. TRANSITION PIPE SIZING, AS NECESSARY, USING EITHER A CONCENTRIC REDUCER OR A REDUCING ELBOW. FIELD VERIFY EXACT LOCATION AND ELEVATION PRIOR TO SUBMITTAL OF SHOP DRAWINGS.
- CORRIDOR WALLS NOT TO BE CONSTRUCTED AS PART OF BASE BID.
- NEW GYMNASIUM SHALL BE AN UNSPRINKLERED STAND ALONE STRUCTURE AS PART OF BASE BID.
- PUMP ROOM NOT TO BE CONSTRUCTED AS PART OF BASE BID.
- CONTRACTOR MAY BRING WATER IN UNDER NORTH WALL IF EXISTING CONDITIONS PERMIT. COORDINATE WATER ENTRY WITH EXISTING SITE CONDITIONS AND DETERMINE BEST LOCATION.

EXISTING HYDRAULIC DESIGN AREA DESIGN IS 0.10 GPM/SQ FT OVER 900 SQ/FT 120.78 GPM @ 23.18 PSI REQUIRE AT THE BASE OF THE RISER. EXISTING SPRINKLERS ARE VCTALUIC V38 OR CONCEALED PEND K=5.6.

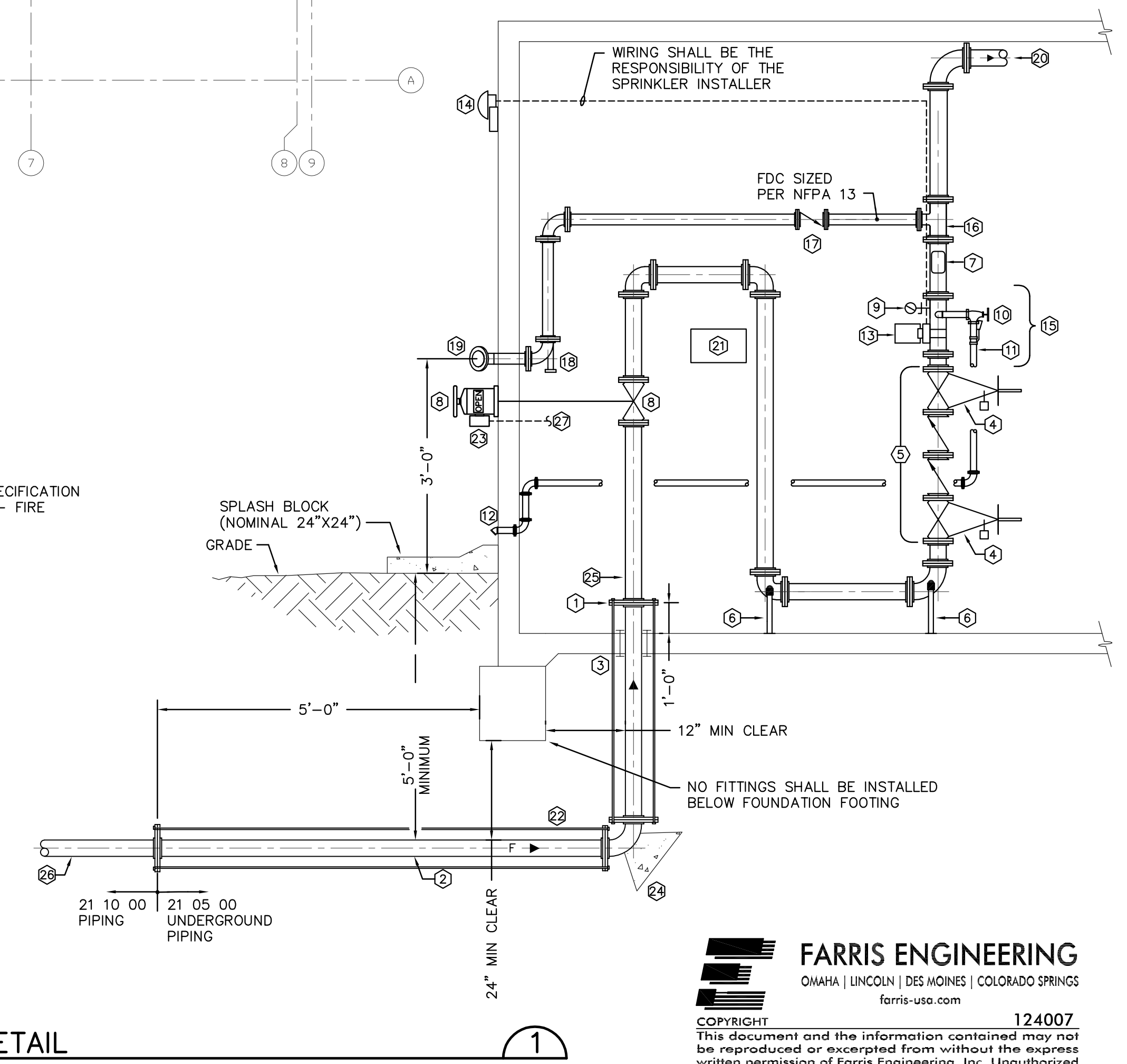
FIRE PROTECTION RENOVATION PLAN – BASE BID

SCALE: 1/8" INCH = 1 FOOT

12" 0' 5' 10' 15'

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|---|---|---|
| 1 START OF INTERNAL SPRINKLER PIPING (SPEC 21 05 00) | 9 PRESSURE GAUGE (TYP.) | 18 BALL DRIP |
| 2 6" MAIN FIRE WATER SUPPLY TO 5' OUTSIDE BUILDING | 10 MAIN DRAIN VALVE | 19 WALL FLUSH MOUNTED FIRE DEPARTMENT HOSE CONNECTION (FDC), SEE SHEET FP100 FOR LOCATION |
| 3 FLANGE FLOOR SLEEVE MECHANICAL SEAL. SEE DETAIL 5/FP200. | 11 MAIN DRAIN (FLOW TEST LINE). SIZE IN ACCORDANCE WITH NFPA 13 DESIGN GUIDELINES | 20 WET PIPE FIRE SUPPLY |
| 4 SHUTOFF VALVE WITH TAMPER SWITCH CONNECTED TO BUILDING FIRE ALARM SYSTEM | 12 MAIN DRAIN WITH THREADED OUTLET | 21 SPARE SPRINKLER CABINET |
| 5 DOUBLE CHECK VALVE BACKFLOW PREVENTER WITH OS&Y GATE VALVE. PROVIDE WITH SUPERVISORY SWITCH. | 13 VANE-TYPE WATER FLOW INDICATOR WITH FIRE ALARM SWITCH | 22 MINIMUM 3/4" RODS FOR STRAPPING |
| 6 PIPE STAND AND SUPPORT | 14 WEATHERPROOF COMBINATION BELL/STROBE/SIGN OR HORN/STROBE/SIGN DEVICE LIKE SASH SERIES BY POTTER ELECTRIC SIGNAL COMPANY. INSTALL CENTERED ABOVE FDC AS HIGH ON WALL AS POSSIBLE. | 23 TAMPER SWITCH, WIRE TO BUILDING FIRE ALARM PANEL |
| 7 METAL SYSTEM HYDRAULIC DESIGN PLACARD(S) | 15 ITEMS SHALL BE A SINGLE FACTORY MANUFACTURED RISER MANIFOLD ASSEMBLY. SEE DETAIL 4/FP200. | 24 RESTRAIN PIPING IN ACCORDANCE WITH NFPA 24 DESIGN GUIDANCE. METHOD SHOWN IS THE ROD AND THRUST BLOCK. |
| 8 FLUSH WALL MOUNTED PIV. INSTALL WITH CENTER OF POST AT 3'-0" A.F.G. SHOWN LOWER ON DETAIL SO FDC COULD BE CLEARLY OBSERVED. CENTER OPEN/CLOSE IN WINDOW. PROVIDE WALL SLEEVE AND WEATHER-TIGHT MECHANICAL SEAL. | 16 TEE CONNECTION (TYP.) | 25 REDUCE PIPE VIA A CONCENTRIC PIPE REDUCER IF SMALLER PIPE SIZE IS SUPPORTED BY HYDRAULIC CALCULATIONS. |
| | 17 CHECK VALVE | 26 6" SITE FIRE MAIN |

SEE ELECTRICAL SPECIFICATION SECTION 28 31 12 – FIRE ALARM SYSTEM FOR REQUIREMENTS



WET PIPE FIRE SPRINKLER RISER DETAIL

| NO. | DATE | REVISIONS |
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CG ARCHITECTS
308 East Franklin, Suite 101
Lincoln, NE 68501
PHONE: 308.532.0411
FAX: 308.532.1302

CG Architects

TITLE: FIRE PROTECTION RENOVATION PLAN - BASE BID

PROJECT: Muller Public Schools - 2012 Gymnasium Addition
Muller, NE 68822

PROJECT NUMBER: 11-0796

DRAWN BY: DGK

CHECKED BY: DGK

DATE: May 17th, 2012

SHEET NUMBER: FP100A

REVISION NUMBER: 1

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