

**WEST NAVARRE INTERMEDIATE SCHOOL**  
**5 CLASSROOM ADDITION**

**SECTION 15155 - SANITARY WASTE PIPING SPECIALTIES**

**PART 1 - GENERAL**

**1.1 SUMMARY**

**A. SECTION INCLUDES:**

1. CLEANOUTS.
2. FLOOR DRAINS.
3. ROOF FLASHING ASSEMBLIES.
4. MISCELLANEOUS SANITARY DRAINAGE PIPING SPECIALTIES.
5. FLASHING MATERIALS.

**1.2 ACTION SUBMITTALS**

**A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.**

**1.3 QUALITY ASSURANCE**

**A. DRAINAGE PIPING SPECIALTIES SHALL BEAR LABEL, STAMP, OR OTHER MARKINGS OF SPECIFIED TESTING AGENCY.**

**PART 2 - PRODUCTS**

**2.1 CLEANOUTS**

**A. EXPOSED CAST-IRON CLEANOUTS:**

1. BASIS-OF-DESIGN PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCT INDICATED ON DRAWINGS OR COMPARABLE PRODUCT BY ONE OF THE FOLLOWING:
  - A. JOSAM COMPANY; JOSAM DIV.
  - B. SIOUX CHIEF MANUFACTURING COMPANY, INC.
  - C. SMITH, JAY R. MFG. CO.; DIVISION OF SMITH INDUSTRIES, INC.
  - D. WATTS DRAINAGE PRODUCTS INC.
  - E. ZURN PLUMBING PRODUCTS GROUP.
2. STANDARD: ASME A112.36.2M FOR CAST IRON FOR CLEANOUT TEST TEE.
3. SIZE: SAME AS CONNECTED DRAINAGE PIPING
4. BODY MATERIAL: HUB-AND-SPIGOT, CAST-IRON SOIL PIPE T-BRANCH OR HUBLESS, CAST-IRON SOIL PIPE TEST TEE, AS REQUIRED TO MATCH CONNECTED PIPING.
5. CLOSURE: COUNTERSUNK, BRASS PLUG.
6. CLOSURE PLUG SIZE: SAME AS OR NOT MORE THAN ONE SIZE SMALLER THAN CLEANOUT SIZE.

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**B. CAST-IRON FLOOR CLEANOUTS:**

1. BASIS-OF-DESIGN PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCT INDICATED ON DRAWINGS OR COMPARABLE PRODUCT BY ONE OF THE FOLLOWING:
  - A. JOSAM COMPANY; JOSAM DIV.
  - B. SIOUX CHIEF MANUFACTURING COMPANY, INC.
  - C. SMITH, JAY R. MFG. CO.; DIVISION OF SMITH INDUSTRIES, INC.
  - D. WATTS DRAINAGE PRODUCTS INC.
  - E. ZURN PLUMBING PRODUCTS GROUP.
2. STANDARD: ASME A112.36.2M FOR ADJUSTABLE HOUSING CLEANOUT.
3. SIZE: SAME AS CONNECTED BRANCH.
4. TYPE: ADJUSTABLE HOUSING.
5. BODY OR FERRULE: CAST IRON.
6. CLAMPING DEVICE: NOT REQUIRED.
7. OUTLET CONNECTION: INSIDE CAULK.
8. CLOSURE: BRASS PLUG WITH STRAIGHT THREADS AND GASKET.
9. ADJUSTABLE HOUSING MATERIAL: CAST IRON WITH THREADS.
10. FRAME AND COVER MATERIAL AND FINISH: NICKEL-BRONZE, COPPER ALLOY.
11. FRAME AND COVER SHAPE: ROUND.
12. TOP LOADING CLASSIFICATION: MEDIUM DUTY.
13. RISER: ASTM A 74, SERVICE CLASS, CAST-IRON DRAINAGE PIPE FITTING AND RISER TO CLEANOUT.

**2.2 FLOOR DRAINS**

**A. CAST-IRON FLOOR DRAINS:**

1. BASIS-OF-DESIGN PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCT INDICATED ON DRAWINGS OR COMPARABLE PRODUCT BY ONE OF THE FOLLOWING:
  - A. JOSAM COMPANY; JOSAM DIV.
  - B. SIOUX CHIEF MANUFACTURING COMPANY, INC.
  - C. SMITH, JAY R. MFG. CO.; DIVISION OF SMITH INDUSTRIES, INC.
  - D. WATTS DRAINAGE PRODUCTS INC.
  - E. ZURN PLUMBING PRODUCTS GROUP.
2. STANDARD: ASME A112.6.3.
3. PATTERN: FLOOR DRAIN.
4. BODY MATERIAL: GRAY IRON.
5. OUTLET: BOTTOM.
6. TOP OR STRAINER MATERIAL: NICKEL BRONZE.
7. TOP OF BODY AND STRAINER FINISH: NICKEL BRONZE.
8. TOP SHAPE: ROUND.
9. TOP LOADING CLASSIFICATION: LIGHT DUTY.
10. TRAP PATTERN: DEEP-SEAL P-TRAP.

**2.3 ROOF FLASHING ASSEMBLIES**

**A. ROOF FLASHING ASSEMBLIES:**

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1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
    - A. ACORN ENGINEERING COMPANY; ELMDOR/STONEMAN DIV.
    - B. THALER METAL INDUSTRIES LTD.
  2. DESCRIPTION: MANUFACTURED ASSEMBLY MADE OF 4.0-LB/SQ. FT., 0.0625-INCH-THICK, LEAD FLASHING COLLAR AND SKIRT EXTENDING AT LEAST 6 INCHES FROM PIPE, WITH GALVANIZED-STEEL BOOT REINFORCEMENT AND COUNTERFLASHING FITTING.
    - A. OPEN-TOP VENT CAP: WITHOUT CAP.
- 2.4 MISCELLANEOUS SANITARY DRAINAGE PIPING SPECIALTIES
- A. FLOOR-DRAIN, TRAP-SEAL PRIMER FITTINGS:
    1. DESCRIPTION: CAST IRON, WITH THREADED INLET AND THREADED OR SPIGOT OUTLET, AND TRAP-SEAL PRIMER VALVE CONNECTION.
    2. SIZE: SAME AS FLOOR DRAIN OUTLET WITH NPS 1/2 SIDE INLET.
  - B. SLEEVE FLASHING DEVICE:
    1. DESCRIPTION: MANUFACTURED, CAST-IRON FITTING, WITH CLAMPING DEVICE, THAT FORMS SLEEVE FOR PIPE FLOOR PENETRATIONS OF FLOOR MEMBRANE. INCLUDE GALVANIZED-STEEL PIPE EXTENSION IN TOP OF FITTING THAT WILL EXTEND 1 INCH ABOVE FINISHED FLOOR AND GALVANIZED-STEEL PIPE EXTENSION IN BOTTOM OF FITTING THAT WILL EXTEND THROUGH FLOOR SLAB.
    2. SIZE: AS REQUIRED FOR CLOSE FIT TO RISER OR STACK PIPING.
- 2.5 FLASHING MATERIALS
- A. LEAD SHEET: ASTM B 749, TYPE L51121, COPPER BEARING, WITH THE FOLLOWING MINIMUM WEIGHTS AND THICKNESSES, UNLESS OTHERWISE INDICATED:
    1. GENERAL USE: 4.0-LB/SQ. FT., 0.0625-INCH THICKNESS.
    2. VENT PIPE FLASHING: 3.0-LB/SQ. FT., 0.0469-INCH THICKNESS.
    3. BURNING: 6-LB/SQ. FT., 0.0938-INCH THICKNESS.
  - B. FASTENERS: METAL COMPATIBLE WITH MATERIAL AND SUBSTRATE BEING FASTENED.
  - C. METAL ACCESSORIES: SHEET METAL STRIPS, CLAMPS, ANCHORING DEVICES, AND SIMILAR ACCESSORY UNITS REQUIRED FOR INSTALLATION; MATCHING OR COMPATIBLE WITH MATERIAL BEING INSTALLED.
  - D. SOLDER: ASTM B 32, LEAD-FREE ALLOY.
  - E. BITUMINOUS COATING: SSPC-PAINT 12, SOLVENT-TYPE, BITUMINOUS MASTIC.

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**PART 3 - EXECUTION**

**3.1 INSTALLATION**

- A. INSTALL CLEANOUTS IN ABOVEGROUND PIPING AND BUILDING DRAIN PIPING ACCORDING TO THE FOLLOWING, UNLESS OTHERWISE INDICATED:
  - 1. SIZE SAME AS DRAINAGE PIPING UP TO NPS 4. USE NPS 4 FOR LARGER DRAINAGE PIPING UNLESS LARGER CLEANOUT IS INDICATED.
  - 2. LOCATE AT EACH CHANGE IN DIRECTION OF PIPING GREATER THAN 45 DEGREES.
  - 3. LOCATE AT MINIMUM INTERVALS OF 50 FEET FOR PIPING NPS 4 AND SMALLER AND 100 FEET FOR LARGER PIPING.
  - 4. LOCATE AT BASE OF EACH VERTICAL SOIL AND WASTE STACK.
- B. FOR FLOOR CLEANOUTS FOR PIPING BELOW FLOORS, INSTALL CLEANOUT DECK PLATES WITH TOP FLUSH WITH FINISHED FLOOR.
- C. FOR CLEANOUTS LOCATED IN CONCEALED PIPING, INSTALL CLEANOUT WALL ACCESS COVERS, OF TYPES INDICATED, WITH FRAME AND COVER FLUSH WITH FINISHED WALL.
- D. INSTALL FLOOR DRAINS AT LOW POINTS OF SURFACE AREAS TO BE DRAINED. SET GRATES OF DRAINS FLUSH WITH FINISHED FLOOR, UNLESS OTHERWISE INDICATED.
  - 1. POSITION FLOOR DRAINS FOR EASY ACCESS AND MAINTENANCE.
  - 2. SET FLOOR DRAINS BELOW ELEVATION OF SURROUNDING FINISHED FLOOR TO ALLOW FLOOR DRAINAGE. SET WITH GRATES DEPRESSED ACCORDING TO THE FOLLOWING DRAINAGE AREA RADII:
    - A. RADIUS, 30 INCHES OR LESS: EQUIVALENT TO 1 PERCENT SLOPE, BUT NOT LESS THAN 1/4-INCH TOTAL DEPRESSION.
    - B. RADIUS, 30 TO 60 INCHES: EQUIVALENT TO 1 PERCENT SLOPE.
    - C. RADIUS, 60 INCHES OR LARGER: EQUIVALENT TO 1 PERCENT SLOPE, BUT NOT GREATER THAN 1-INCH TOTAL DEPRESSION.
  - 3. INSTALL FLOOR-DRAIN FLASHING COLLAR OR FLANGE SO NO LEAKAGE OCCURS BETWEEN DRAIN AND ADJOINING FLOORING. MAINTAIN INTEGRITY OF WATERPROOF MEMBRANES WHERE PENETRATED.
  - 4. INSTALL INDIVIDUAL TRAPS FOR FLOOR DRAINS CONNECTED TO SANITARY BUILDING DRAIN, UNLESS OTHERWISE INDICATED.
- E. INSTALL ROOF FLASHING ASSEMBLIES ON SANITARY STACK VENTS AND VENT STACKS THAT EXTEND THROUGH ROOF.
- F. INSTALL FLOOR-DRAIN, TRAP-SEAL PRIMER FITTINGS ON INLET TO FLOOR DRAINS THAT REQUIRE TRAP-SEAL PRIMER CONNECTION.
  - 1. EXCEPTION: FITTING MAY BE OMITTED IF TRAP HAS TRAP-SEAL PRIMER CONNECTION.
  - 2. SIZE: SAME AS FLOOR DRAIN INLET.
- G. INSTALL SLEEVE FLASHING DEVICE WITH EACH RISER AND STACK PASSING THROUGH FLOORS WITH WATERPROOF MEMBRANE.

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- H. INSTALL TRAPS ON PLUMBING SPECIALTY DRAIN OUTLETS. OMIT TRAPS ON INDIRECT WASTES UNLESS TRAP IS INDICATED.

3.2 CONNECTIONS

- A. COMPLY WITH REQUIREMENTS IN SECTION 15150 "SANITARY WASTE AND VENT PIPING" FOR PIPING INSTALLATION REQUIREMENTS. DRAWINGS INDICATE GENERAL ARRANGEMENT OF PIPING, FITTINGS, AND SPECIALTIES.
- B. INSTALL PIPING ADJACENT TO EQUIPMENT TO ALLOW SERVICE AND MAINTENANCE.
- C. GREASE INTERCEPTORS: CONNECT INLET AND OUTLET TO UNIT, AND CONNECT FLOW-CONTROL FITTING AND VENT TO UNIT INLET PIPING. INSTALL VALVE ON OUTLET OF AUTOMATIC DRAWOFF-TYPE UNIT.

3.3 FLASHING INSTALLATION

- A. FABRICATE FLASHING FROM SINGLE PIECE UNLESS LARGE PANS, SUMPS, OR OTHER DRAINAGE SHAPES ARE REQUIRED. JOIN FLASHING ACCORDING TO THE FOLLOWING IF REQUIRED:
  - 1. LEAD SHEETS: BURN JOINTS OF LEAD SHEETS 6.0-LB/SQ. FT., 0.0938-INCH THICKNESS OR THICKER. SOLDER JOINTS OF LEAD SHEETS 4.0-LB/SQ. FT., 0.0625-INCH THICKNESS OR THINNER.
- B. INSTALL SHEET FLASHING ON PIPES, SLEEVES, AND SPECIALTIES PASSING THROUGH OR EMBEDDED IN FLOORS AND ROOFS WITH WATERPROOF MEMBRANE.
  - 1. PIPE FLASHING: SLEEVE TYPE, MATCHING PIPE SIZE, WITH MINIMUM LENGTH OF 10 INCHES, AND SKIRT OR FLANGE EXTENDING AT LEAST 8 INCHES AROUND PIPE.
  - 2. SLEEVE FLASHING: FLAT SHEET, WITH SKIRT OR FLANGE EXTENDING AT LEAST 8 INCHES AROUND SLEEVE.
  - 3. EMBEDDED SPECIALTY FLASHING: FLAT SHEET, WITH SKIRT OR FLANGE EXTENDING AT LEAST 8 INCHES AROUND SPECIALTY.
- C. SET FLASHING ON FLOORS AND ROOFS IN SOLID COATING OF BITUMINOUS CEMENT.
- D. SECURE FLASHING INTO SLEEVE AND SPECIALTY CLAMPING RING OR DEVICE.
- E. EXTEND FLASHING UP VENT PIPE PASSING THROUGH ROOFS AND TURN DOWN INTO PIPE, OR SECURE FLASHING INTO CAST-IRON SLEEVE HAVING CALKING RECESS.

3.4 LABELING AND IDENTIFYING

- A. EQUIPMENT NAMEPLATES AND SIGNS: INSTALL ENGRAVED PLASTIC-LAMINATE EQUIPMENT NAMEPLATE OR SIGN ON OR NEAR EACH GREASE INTERCEPTOR.
- B. DISTINGUISH AMONG MULTIPLE UNITS, INFORM OPERATOR OF OPERATIONAL REQUIREMENTS, INDICATE SAFETY AND EMERGENCY PRECAUTIONS, AND WARN OF HAZARDS AND IMPROPER OPERATIONS, IN ADDITION TO IDENTIFYING UNIT. NAMEPLATES AND SIGNS ARE SPECIFIED IN SECTION 15076 " IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT."

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3.5 PROTECTION

- A. PROTECT DRAINS DURING REMAINDER OF CONSTRUCTION PERIOD TO AVOID CLOGGING WITH DIRT OR DEBRIS AND TO PREVENT DAMAGE FROM TRAFFIC OR CONSTRUCTION WORK.
- B. PLACE PLUGS IN ENDS OF UNCOMPLETED PIPING AT END OF EACH DAY OR WHEN WORK STOPS.

END OF SECTION 15155