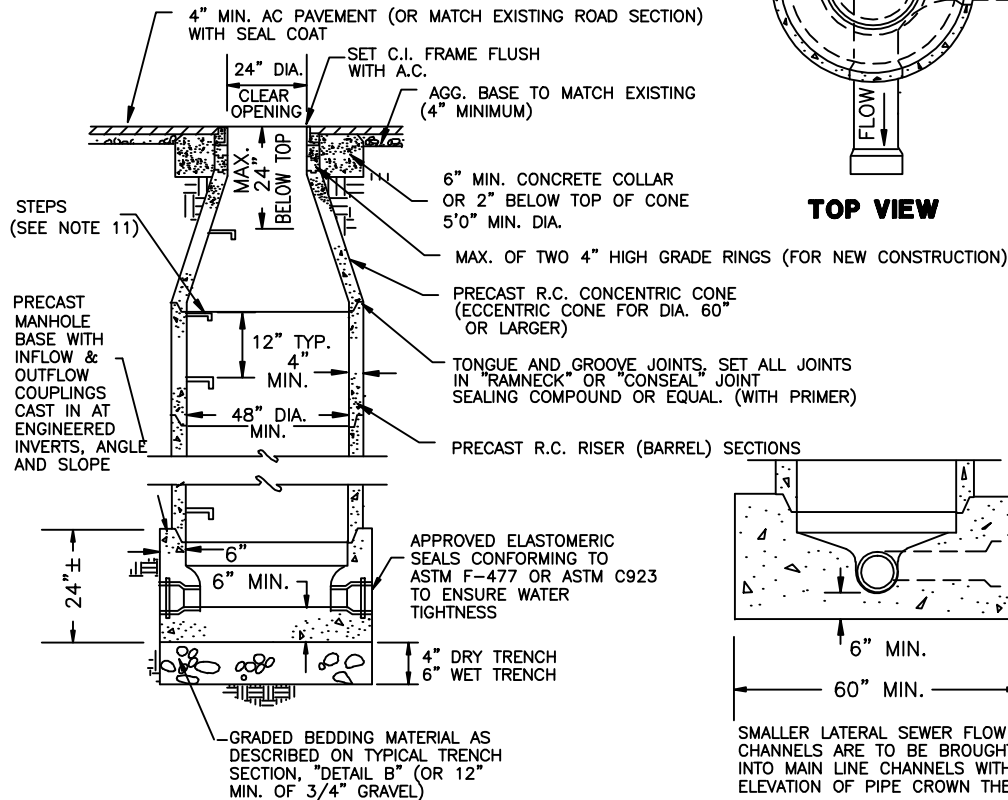
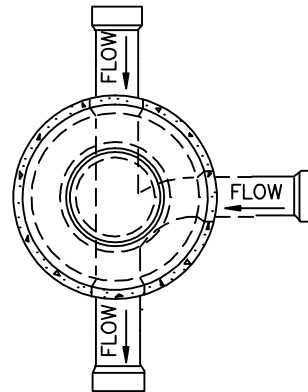


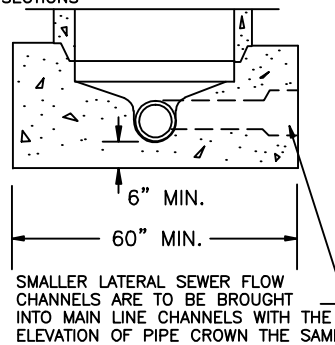
**FIELD COLLAR DETAIL**



**TYPICAL SECTION**



**TOP VIEW**



**SIDE VIEW SECTION**

**STANDARD MANHOLE  
DETAIL A**

**Minden-Gardnerville Sanitation District**

**NOTES:**

1. CONTRACTOR SHALL CONTACT AND COORDINATE WITH M.G.S.D. AND ALL OTHER UTILITIES 48 HOURS PRIOR TO CONSTRUCTION.
2. ALL CONSTRUCTION SHALL CONFORM TO M.G.S.D. STANDARDS AND NO BACKFILLING WILL BE ALLOWED UNTIL INSPECTED AND APPROVED BY M.G.S.D.
3. MANHOLE SHALL BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE SECTIONS CONFORMING TO ASTM DESIGNATION C478.
4. EXCAVATION FOR MANHOLE MUST BE MADE TO A MINIMUM OF ONE FOOT OUTSIDE OF THE MANHOLE WALL TO PROVIDE FOR ADEQUATE WORKSPACE. SPACE OUTSIDE OF THE MANHOLE SHALL BE BACKFILLED WITH ACCEPTABLE MATERIAL IN UNIFORM LAYERS NOT EXCEEDING 8" IN DEPTH. EACH LAYER SHALL BE THOROUGHLY COMPACTED TO THE DENSITY OF THE EARTH IN THE ADJACENT TRENCH SECTIONS. (MIN. 90% IN EXISTING OR PROPOSED STREET OR ALLEY RIGHTS-OF-WAY).
5. CAST IRON FRAME AND COVER SHALL BE 24-INCH DIAMETER (CLEAR OPENING) AND SHALL BE MANUFACTURED FROM GRAY CAST IRON CONFORMING TO ASTM DESIGNATION: A 48, CLASS 30 AND DESIGNED FOR A MINIMUM HS-20 TRAFFIC LOADING. COVERS AND FRAMES SHALL BE MATCH-MARKED IN PAIRS AND SEATING SURFACES MACHINED SO THAT COVER IS NON-ROCKING. COVERS SHALL HAVE ONE PICK HOLE, AND ONE CENTRALLY LOCATED 1" DIG HOLE. COVERS SHALL HAVE NO "THRU" HOLES.
6. ALL BASES MUST BE PRECAST UNLESS OTHERWISE APPROVED BY M.G.S.D.
7. CONCRETE FOR CAST-IN-PLACE MANHOLE BASE, IF APPROVED BY M.G.S.D. FOR USE, SHALL BE A MINIMUM 4000 PSI 28 DAY STRENGTH CLASS AA OR DA CONCRETE.
8. SEWER STUBS FOR FUTURE EXTENSION SHALL BE NO MORE THAN 5 FEET IN LENGTH.
9. THE TOP OF INCOMING LATERAL SEWERS SHALL ENTER THE MANHOLE AT AN ELEVATION EQUAL TO THE TOP OF THE MAIN LINE. EXCEPTIONS ONLY BY PRIOR M.G.S.D. APPROVAL.
10. INVERTS SHALL BE FORMED DIRECTLY IN CONCRETE OF MANHOLE BASE AND SHALL BE SMOOTH AND ACCURATELY SHAPED TO A SEMI-CIRCULAR BOTTOM CONFORMING TO THE INSIDE OF THE ADJACENT SEWER SECTION.
11. STEPS ARE REQUIRED WHERE MANHOLE DEPTH IS 54" (4'- 6") OR GREATER, STEPS SHALL BE ALIGNED VERTICALLY (1" MAX. TOLERANCE) AND HORIZONTALLY (0.5" TOLERANCE) SO AS TO FORM A CONTINUOUS LADDER, AND SHALL CONFORM WITH THE DESIGN REQUIREMENTS OF THE STATE OF NEVADA, OSHA STANDARDS, SECTION 1910.27 (DEPTH IS RIM ELEV. TO TOP OF PIPE).
12. WHERE MANHOLES ARE NOT LOCATED IN STREETS, PLACE TOP OF MANHOLE 6"-12" ABOVE EXISTING GROUND AS REQUIRED BY M.G.S.D., MGS D MAY REQUIRE DIFFERENT STANDARDS IN SPECIAL CIRCUMSTANCES. INSTALL THE CONCRETE COLLAR FROM A POINT 6" OUTSIDE THE TOP OF THE COVER FRAME AND EXTEND A MINIMUM OF 6 INCHES BELOW THE SURROUNDING GROUND OR 2" BELOW THE TOP OF THE CONE, WHICHEVER IS MORE RESTRICTIVE. TAPER THE CONCRETE COLLAR FROM TOP TO BOTTOM AT A 1:1 SLOPE OR FLATTER.
13. ALTERNATIVE METHODS OF RAISING THE LID & FRAME TO GRADE, OTHER THAN CONCRETE GRADE RINGS, SHALL BE APPROVED BY THE DISTRICT ON A CASE BY CASE BASIS PRIOR TO CONSTRUCTION.
14. CONCRETE COLLAR SHALL BE A MINIMUM THICKNESS OF 6" OR SHALL EXTEND 2" BELOW THE TOP OF THE CONE SECTION, WHICHEVER IS MORE RESTRICTIVE.