

All the following suggestions will hold true whether the flexible pipe is used for storm sewer, detention, retention, or undercrossing applications.

MAG Specifications 601

Proposed Updates

- Revisit maximum trench width for flexible pipe (Table 601-1)
- Revisit minimum compaction densities for flexible pipe (Table 601-2)

MAG Specifications 621

Outdated Information

- Remove bituminous coated pipe. It is no longer practiced or available in AZ. No manufacturer that supplies AZ has molten asphalt beds anymore which are required to meet AASHTO M 190 to hot dip the pipe. It is impossible for a contractor to meet this spec
- Remove Type IA and IIA as they have been discontinued by manufacturers supplying CMP to AZ. Type IA and IIA are obsolete to Type IR and IIR which are functionally equivalent at a lower cost
- Riveted pipe is no longer available. It has been discontinued by manufacturers supplying CMP to AZ because it is obsolete
- Remove pipe elongation because this installation method is no longer used for CMP because quality fill and proper compaction with round pipe is required. This keeps keep the pipe round with minimal deflection

Proposed Updates

- This spec only references galvanized CMP which is 1 of the 3 available CMP coating (material types). We are proposing to reference aluminized type 2 (2nd available CMP material type) which is governed by the same AASHTO M-36 spec which is currently in MAG spec 621. AASHTO M-36 applies to galvanized and aluminized type 2
- All CMP requires coating inside and outside of the pipe per AASTHO specs M-36 and M-245
- All CMP requires a band connection with the coating (material) matching the coating (material) of the pipe (galvanized, aluminized type 2, or polymer pre-coated)
- Remove reference to MAG spec 771 for galvanized pipe touch ups (1 of the 3 available material types). AASHTO M 36 (already in MAG spec 621) provides the same touch up information for galvanized pipe and includes aluminized type 2 CMP (2nd available CMP material type).

New Information

- We are also proposing to add polymer pre-coated CMP (3rd available CMP material type) per AASHTO M 245 to cover all available CMP options available to AZ marketplace. Each of the 3 types is selected based on soil corrosivity
- AAHSTO M-245 will cover polymer pre-coated pipe touch ups (3rd available CMP material type)

- Add reference to concrete paved inverts as an applicable pipe type for these specs to accommodate Scottsdale regulations
- Add Type IR and IIR which are functionally equivalent to Type IA and IIA at a lower cost
- Add Type III which is perforated pipe for infiltration systems. This is a growing application in AZ
- Gaskets should be required for storm drain applications because it makes the pipe more leak resistant
- Add maximum pipe deflection limit to indicate poor workmanship

MAG Specifications 760

Outdated Information

- Remove bituminous coated pipe as it is no longer practiced or available in AZ. No manufacturer that supplies AZ has molten asphalt beds anymore which are required to meet AASHTO M 190 to hot dip the pipe. It is impossible for a contractor to meet this spec
- Remove Type IA and IIA as they have been discontinued by manufacturers supplying CMP to AZ because they are obsolete to Type IR and IIR which are functionally equivalent at a lower cost

Proposed Updates

- This spec only references galvanized CMP which is 1 of the 3 available CMP coating (material types). We are proposing to reference aluminized type 2 (2nd available CMP material type) which is governed by the same AASHTO M-36 spec which is currently in MAG spec 621. AASHTO M-36 applies to galvanized and aluminized type 2
- Arch-pipe is the CMP equivalent to true elliptical pipe. The shape is not a perfect ellipse
- Remove spiral ribbed pipe proprietary corrugation profile and replace it with performance-based specifications of AASHTO M-36 Type IR and IIR and AASHTO M-245 Type IR and IIR to be inclusive of other corrugation profiles and material (coating) types available to AZ
- All CMP requires a band connection with the coating (material) matching the coating (material) of the pipe (galvanized, aluminized type 2, or polymer pre-coated)
- Required bands 3 gages lighter than the pipe gage specified but no less than 18 per AASHTO Bridge Design Section 12. The bands are not structural. They simply hold the pieces of pipe together
- Update pipe diameters to be inclusive of diameters larger than 96in. Pipe of >96in is frequently installed for projects in AZ

New Information

- We are also proposing to add polymer pre-coated CMP (3rd available CMP material type) per AASHTO M 245 to cover all available CMP options available to AZ marketplace.

MAG Specifications 771

Proposed Updates

- Remove galvanized CMP pipe touch ups (1 of the 3 available material types). AASHTO M 36 (already in MAG spec 621) provides the same touch up information for galvanized pipe and includes aluminized type 2 pipe (2nd available CMP material type)