



SPECIFICATION for CONCRETE FACED BIN-WALL TYPE 2 w/ ALUMINIZED STEEL TYPE 2

- Scope:** This specification covers the concrete faced bin type retaining walls shown on the plans.
- Material:** The components to be supplied as Aluminized Steel Type 2 materials shall be the Stringers, Spacers, Stringer Closures, and Grade Plates, and shall conform to the applicable requirements of ASTM A 929. Stringer Stiffeners shall be pre-galvanized steel which also conforms to the ASTM A 929 specification. Vertical Connectors shall be made from steel that conforms to ASTM A 36 and shall be hot-dip galvanized per ASTM A 123 except coating weight shall be 2 oz. per square foot coating total both sides. Fasteners are to be 5/8" diameter conforming to ASTM A 307.
- Concrete Panels:** The face panels shall be precast reinforced concrete per AASHTO Class A with $f'c = 4,500$ psi and reinforcing steel per ASTM A 615, Grade 40.
- Manufacture:** The metal bin-wall components shall be manufactured to provide overlapping, bolted Stringers and Spacers. "T" shaped Vertical Connectors shall allow for connection of the Stringers and Spacers at the corners. All components shall be in accordance with the details shown on the plans. The various members of the wall shall be constructed of metal of the gage shown on the plans, but not less than 16 gage. They shall be fabricated so that units of the same nominal size and thickness (gage) are fully interchangeable.
- Assembly:** Assembly shall be in conformance with the manufacturer's recommendations and the project plans and specifications. The recommended bolt torque is 95-110 ft-lbs.
- Bin Fill:** Bin fill material shall be well-graded, clean granular materials having a maximum particle size of 2 inches and having no more than 10% (by weight) passing the #100 sieve. Bin fill shall be placed in 8 inch thick maximum loose lifts and shall be compacted to 95% standard Proctor density. Compaction by saturation is not permitted.
- Back Fill:** Wall backfill material shall be placed in 8 inch thick maximum loose lifts and shall be compacted to a minimum 90% standard Proctor density. The material shall be free draining and shall be in accordance with the plans and specifications. Backfilling behind the bins should not lead the bin filling process. Soil slopes behind the wall shall be benched as necessary in order to allow for safe and efficient backfill placement and compaction.

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