



**SPECIAL PROVISIONS
FOR
RAIN GARDEN TURRET**

**STORY County
STP-U-0155(688)--70-85**

**Effective Date
January 21, 2015**

THE STANDARD SPECIFICATIONS, SERIES 2012, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

PART 1 -- GENERAL**1.1 SUMMARY**

A. Section Includes:

1. All labor, materials, equipment, and supervision required to furnish and install the Rain Guardian Inlet Structure complete as shown on the plan sheets.
2. The material and work specified in this section includes: Rain Guardian Inlet Structure with Two-Piece heavy duty grate

1.2 SUBMITTALS

- A. All Submittals to be made according to Iowa DOT Article 1105.03 of the Standard Specifications.
- B. Catalog Cuts Rain Guardian Inlet Structure
- C. Gradation and soil classification reports for structure bedding and backfill materials.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Follow the aggregate storage requirements in Iowa DOT Article 2301.02, C of the Standard Specifications

1.4 MEASUREMENT AND PAYMENT

- A. Measurement: Each Rain Guardian Inlet Structure will be counted
- B. Payment: Payment will be made per each at the unit price.
- C. Includes: Unit price includes, but not limited to, Rain Guardian Turret Structure, Two-Piece Heavy duty grate, excavation, furnishing subbase material, placing subbase and backfill material, compaction, and any adjustments.

1.5 QUALITY ASSURANCE

- A. Codes and Standards: Perform work in accordance with applicable requirements of the Iowa DOT Standard Specifications for Highway and Bridge Construction, Series 2012, and all local and state codes and ordinances.

PART 2 -- PRODUCTS**2.1 RAIN GUARDIAN TURRET**

- A. Steel Reinforced, cold joint secured monolithic concrete structure. Manufactured and designed to ASTM C858

2.2 CASTINGS

- A. Two-Piece heavy duty grate
 1. Min load rating 1,400 pounds per square foot

2.3 EXCAVATION AND BACKFILL MATERIAL

- A. Excavate according to Iowa DOT Section 2552 of the Standard Specifications

- B. Subbase material shall be 6 inch depth Modified Subbase per Iowa DOT Section 4123 of the Standard Specifications

PART 3 -- EXECUTION

3.1 GENERAL REQUIREMENTS FOR INSTALLATION

A. Subgrade Preparation

1. Prepare subgrade to accurate elevation required to place structure subbase material.
2. Compact to 95% of maximum Standard Proctor Density and hand grade to accurate elevation required to place structure subbase, or install stabilization material as directed by the Engineer.
3. Engineered soil used for the rain garden basin is not suitable for use as structure subgrade material.

B. Subbase:

1. Install 6 inch thick pad of Modified Subbase material a minimum of 12 inches outside footprint of the structure.
2. Compact to 95% of maximum Standard Proctor Density and hand grade to accurate elevation required to place structure at specified elevations per construction documents.

C. Installation of Rain Guardian Inlet Structure

1. Place structure on prepared subbase using the preformed three-point recessed lifting pockets.
2. Rotate inlet and adjust height to provided elevations.

D. Top Section:

1. Install two-piece heavy duty grate matching the basin diameter

E. Backfill and Compaction

1. Place suitable backfill material simultaneously on all sides of walls and structures so the fill is kept at approximately the same elevation at all times
2. Compact the 3 feet closest to all walls using pneumatic or hand tampers only. Ensure proper and uniform compaction of backfill around structure.

3.2 CLEANING, INSPECTING, TESTING

- A. Clean all structures by removing sheeting, bracing, shoring, forms, soil sediment, concrete waste, and other debris.
- B. Do not discharge sediment or debris to drainage channels, existing storm sewer, or existing sanitary sewer system.