

## **Section 4 - Railroads**

### **4.1 Design Criteria**

- A. Railroad bridges shall be designed in accordance with the *AREMA Manual for Railway Engineering*.
- B. All rail-carrying bridges and structures shall be designed for the AREMA E-80 loading with diesel impact instead of the AREMA E-72 loading.

### **4.2 Vertical Underclearances**

Vertical underclearances shall conform to the table shown in Subsection 3.2 of this Manual.

### **4.3 Lateral Clearances**

Lateral clearances shall conform to Guide Sheet Plate 3.14-1.

### **4.4 Protective Shield**

A protective shield is required during the construction of spans over electrified tracks. Details shall be shown on plans and shall be subject to the approval of the appropriate Railroad Company. See Guide Sheet Plate 3.14-2.

### **4.5 Railroad Utility Agreement Plans**

Procedures to be followed by the Design units concerning Bridge sketches, preliminary plans, agreements and final plans shall conform to Department guidelines.