

SECTION 5.03
REMOVAL OF AND ALTERATIONS TO
EXISTING BRIDGES

5.03.01--Description: This work shall include the removal and satisfactory disposal of all bridges or parts of bridges, including superstructure, substructure and approaches, the removal of which is necessary to the final completion of the work. When stated in the special provisions or on the plans, the bridge may be required to be removed before permanent construction is started; or it may be required to be kept open for the use of traffic during the construction of the new work and to be removed after its final completion.

It shall also include alterations or additions to or strengthening of existing bridges which are not to be removed when such work is included in the requirement of the plans and special provisions.

All work shall be done in accordance with the requirements of the plans or as ordered and in conformity with these specifications.

5.03.02--Materials: The materials required for this work shall be as shown on the plans or as ordered. All materials shall conform to the requirements of these specifications or the special provisions for the material in question; or if not so specified, they shall be of a quality satisfactory to the Engineer.

5.03.03--Construction Methods : Existing bridges which are to be removed by the Contractor shall be taken down and disposed of by such methods as he may propose, subject to the approval of the Engineer. Care shall be taken that the removal does not result in injury to any permanent construction or to adjoining property. Any material designated to remain the property of the Department shall be carefully removed and stored at a point adjacent to the site to be designated by the Engineer. When so required by the Engineer, the several parts shall be match-marked as directed to facilitate re-erection. Any suitable concrete, masonry or similar material removed shall be placed in approach embankments or used for slope or foundation protection if the Engineer so directs. All material not designated for definite use shall be disposed of by the Contractor.

When an existing structure is to be used by traffic during the construction of the new work, the Contractor shall relocate and strengthen it, if so required by the plans and special provisions. Temporary approaches shall be built if required, and the structure and approaches shall be repaired and renewed as necessary to keep them in a safe and satisfactory condition for the use of traffic at all times until the new structure is completed and open to traffic. The Contractor shall prepare and submit to the Engineer for approval plans for falsework or for changes in an existing structure necessary for maintaining traffic. Approval of the Contractor's plans shall not be considered as relieving the Contractor of any responsibility. Such requirements of Article 5.02.03 as are pertinent shall apply equally to this construction.

The Contractor shall take all precautions and do such work as may be necessary to prevent damage to the structure or approaches due to his construction operations. When no longer required for traffic, the structures shall be removed, as specified above, and the approaches graded in accordance with the requirements of the plans or as ordered.

All existing piers, abutments or other portions of structures that constitute obstructions to stream channels shall be removed down to the bed of the stream, unless otherwise specified on the plans. Any portions of existing structures within the highway limits but not in any stream channel shall be removed to a depth of 300 mm below the surface of the surrounding ground unless otherwise shown on the plans or directed by the Engineer.

When an existing structure is to be altered, added to or strengthened as part of the permanent construction, the work shall be done in conformity with the plans, special provisions and these specifications for the kind of material or work involved. In widening or altering an existing concrete structure, concrete shall not be removed by methods that are likely to cause damage to the concrete or reinforcement that are to remain in place in the completed structure. All reinforcement intended to be reused shall be cleaned and straightened or bent to the required dimensions.

5.03.04--Method of Measurement: Measurements necessary to determine the quantities for payment under any of the requirements specified above shall be made in accordance with the requirements of these specifications for the items involved unless otherwise stated on the plans or in the special provisions.

5.03.05--Basis of Payment: Payment for the above-described work shall be made as follows:

When a superstructure is to be removed, whether the total structure is to be removed or just the superstructure, the work will be paid for at the contract lump sum price for "Removal of Superstructure", at the location designated, complete including disposal of material and all materials, equipment, tools and labor incidental thereto. In the absence of the item "Removal of Superstructure", the work will be paid as extra work.

Payment for removing piers, abutments and substructures generally shall be at the contract unit price per cubic meter for "Removal of Existing Masonry", or in the absence of this item, as extra work.

Where existing bridges are to be strengthened as shown on the plans, maintained for the use of traffic during construction, either in their original position or relocated, such work shall be paid for at the contract lump sum price for "Maintaining Existing Bridge" at the location designated. This price shall include alteration and maintenance of the structure and all materials, tools, equipment and labor incidental thereto. The removal of substructures will be included in the excavation items as specified above. The construction and maintenance and later removal of the approaches will be paid for as extra work, unless the work is covered by contract items.

When existing structures are to be altered, added to or strengthened as part of the permanent construction, the work to be done will be paid for in accordance with the provisions of these specifications for the character of work or material involved; or where not covered herein, the basis of payment shall be as described in the special provisions.

Pay Item	Pay Unit
Removal of Superstructure	L.S.
Maintaining Existing Bridge	L.S.