

# FORM 521



GOVERNMENT OF NEWFOUNDLAND AND LABRADOR  
Department of Transportation and Works  
Highway Design Division

## SECTION 521

### DEMOLITION AND REMOVAL OF SIDEWALKS, CURB AND GUTTER, MANHOLES, CATCH BASINS, DITCH INLETS, FENCES, GUIDE RAILS, AND GUIDE POSTS

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#### 521.01 SCOPE

This specification covers the requirements for demolishing, salvaging, and removing wholly or in part, sidewalks, curb and gutter, manholes, catch basins, ditch inlets, fences, guide rail, and guide posts, together with the backfilling, compaction, and trimming of the resultant trenches, holes, and pits.

#### 521.02 CUTTING

Where a section of sidewalk, or curb and gutter is to be removed either as part of the removal of sidewalk, or curb and gutter, or as a necessary prerequisite prior to the removal of a manhole or catch basin, then the Contractor shall first cut the curb and gutter or sidewalk along lines staked by the Engineer. Cuts shall be carried out and paid for in accordance with Section 511 "Cutting Concrete Slab, and Curb and Gutter".

Where bituminous pavement must be removed prior to removing a manhole or catch basin, the pavement shall be cut and excavated. The work of cutting and excavating the pavement shall be carried out and

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paid for in accordance with Section 510 "Cutting Asphaltic Pavement", and Section 520 "Storage or Disposal of Old Asphaltic Pavement".

### **521.03 DEMOLITION**

Demolition shall be carried out in such a manner and with such equipment so as not to disturb adjacent pavement, utilities, or other works to be left in place and with such care as to leave undamaged, materials designated to be salvaged. The removal of all accompanying posts shall be included in the work of removal of guide rails and fences.

### **521.04 SALVAGE**

Where manholes, catch basins, and ditch inlets are to be demolished, castings, and rivetted gratings shall be carefully removed and stored at a safe storage place on the job prior to their collection by Department forces, or re-installation elsewhere on the job.

Where fences are to be dismantled, the materials including posts and gates shall be neatly piled at the edge of the right of way, or the fences and gates shall become the property of the Contractor and removed from the right of way whichever the Engineer shall direct.

Where guide rail and guide posts are to be removed, the Contractor shall exercise care in removing rails and excavating posts so that they are not damaged and remain suitable for re-use. The guide rail sections, angle pieces, end pieces, nuts, bolts, and washers together with all posts shall be transported to and stored at the nearest Department Depot.

Should any material, designated for salvage, be damaged or lost by the Contractor, then the Contractor shall be charged with the cost of replacement with equivalent new material. Damaged material shall become the property of the Contractor and shall be disposed of.

### **521.05 DISPOSAL OF DEBRIS**

Waste materials shall be removed and disposed of in an approved waste disposal area provided by the Contractor at his own expense.

The Contractor shall be aware of Section 140.04 "Waste Material Disposal".

### **521.06 EXCAVATION**

Where bituminous pavement must be removed prior to carrying out excavation, then such excavation of pavement shall be carried out and paid for in accordance with Section 520 "Storage or Disposal of Old Asphaltic Pavement".

Where sidewalk and/or curb and gutter must be removed prior to excavation of the structure in question, then such removal shall be carried out and additional payment made for the removal, in accordance with this specification.

Excavation required for the removal of the structure shall be performed in such a manner as to leave undisturbed, adjacent structures or other work to be left in place and to save where necessary, for purposes of backfill, the acceptable excavated materials.

### **521.07 BACKFILLING, COMPACTION, AND TRIMMING**

Where concrete is placed in the excavation under another specification, such as concrete plugs in the ends of pipes after a catch basin has been removed, then backfilling shall not take place until the concrete has reached at least the specified strength at 28 days.

The Contractor shall backfill to the required grade using the excavated materials if suitable. Should the excavated material be unsuitable, or should there be insufficient suitable backfill

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material from the excavation, then the Engineer will direct that material from a cut or from a borrow areas will be used to complete the backfilling.

Backfill shall be placed in layers not exceeding 200 mm in thickness loose measurement. Each layer shall then be compacted to the required compaction before a further layer is placed.

Backfill consisting of other material or other material borrow shall be compacted to not less than 95% of the Standard Proctor density (ASTM D698-78).

In rock backfill material where Standard Proctor tests cannot be carried out, compaction shall be continued until a compaction is achieved that is equivalent to that obtained in a fill when there is no visible movement of fill under a vibrating vibratory compactor with vibratory roller of length not less than one decimal five metres.

The backfilled hole or trench shall be levelled and trimmed to provide slightly contours and adequate drainage.

### **521.08 MEASUREMENT FOR PAYMENT**

#### **521.08.01 Measurement for Payment for Removal of Concrete Sidewalk**

Quantities for the removal of concrete sidewalk shall be measured in square metres rounded to one decimal place.

Measurements shall be made before removal and shall be the superficial area calculated as the product of the width of sidewalk times its length.

#### **521.08.02 Measurement for Payment for Removal of Concrete Sidewalk and Abutting Curb and Gutter**

Quantities for the removal of concrete sidewalk and abutting curb and gutter shall be measured in square metres rounded to one decimal place.

Measurements shall be made before removal and shall be the superficial area calculated as the product of the width between the outer edge of the gutter and the outer edge of the sidewalk, times the length of the sidewalk.

#### **521.08.03 Measurement for Payment for Removal of Curb and Gutter**

Measurement for payment shall be the length in metres, rounded to one decimal place, as measured along the exposed face of the curb before excavation.

#### **521.08.04 Measurement for Payment for Removal of Manholes, Catch Basins, and Ditch Inlets**

Measurement for payment will be based on the number of manholes, catch basins, and ditch inlets removed. No distinction being drawn between the type of manhole, catch basin, or ditch inlet.

#### **521.08.05 Measurement for Payment for Removal of Fences**

Measurement for payment for the removal of a fence of a particular type shall be the length in metres, rounded to one decimal place, of the assembled fence together with all accompanying gates.

#### **521.08.06 Measurement for Payment for Removal of Guide Rail**

Measurement for payment for the removal of guide rail shall be the length in metres, rounded to one decimal place, of the assembled guide rail measured end to end along the face of the railing from the extreme tip of one end piece to the extreme tip of the other piece at the opposite end.

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### 521.08.07 Measurement for Payment for Removal of Guide Posts

Measurement for payment will be based on the number of guide posts removed.

### 521.09 BASIS OF PAYMENT

Payment at the contract prices for the tender items covered by this specification shall be full compensation for all labour, materials, and equipment-use to: carry out any necessary other material excavation, dewatering, and necessary cutting of pipe, demolish the structure, salvage where required, haul away and dispose of debris, backfill, compact, and trim the excavation.

Where additional backfill materials are required to complete backfilling, then, these materials shall be paid for in accordance with Section 206 "Grading of Cuts" or Section 207 "Borrow", as the case may be, but the additional requirements for backfilling, compaction, and trimming as stipulated in this specification shall be considered compensated for in the contract price for this specification.

Should the additional backfill materials be hauled in excess of 1 km, additional payment for overhaul will be made in accordance with Section 215 "Overhaul on Excavated Materials".

When it is necessary to cut and remove a section of pavement, sidewalk, or curb and gutter, or similar item in order to remove a manhole or catch basin, then payment will be made for each item cut and removed in accordance with the appropriate specification.