

ITEM 911 COMPACTED BACKFILL**911.01 Description****911.02 Materials****911.03 General****911.04 Method of Measurement****911.05 Basis of Payment**

911.01 Description. This work consists of compacting native or excavated material as trench backfill where shown on the plans or ordered by the Engineer and as specified in this section.

911.02 Materials. Use suitable material native to the project or a granular material meeting the requirements of Section 912.02 and as approved by the Engineer.

911.03 General. If excavated material is unsuitable for compacted backfill or if it is impracticable to use the excavated material to meet the requirements of this item, provide suitable backfill material elsewhere and dispose of the unsuitable material at no additional cost to the City.

Ensure backfilling conforms in every respect with the provisions of 901.17 and the compaction requirements of Section 912.03, as determined by the results of tests ordered by the Engineer. Spread soil, granular material, or other approved material in successive level layers of a depth not more than 8 inches (203 mm) in thickness (loose measurement), unless otherwise specified and/or authorized in writing by the Engineer.

911.04 Method of Measurement. The Engineer will calculate the number of cubic yards of compacted backfill for payment on the following basis:

Volume in cubic yards (cubic meters) equals $W \times L \times D$ divided by 27 (0) where W is the specified trench width in feet (meters), L is the length of trench in feet (meters) as specified or ordered compacted and D is the distance in feet (meters) from 1) the top of the bedding or encasement on 6 through 27 inch (152-686 mm) pipe or 2) the top of the outside barrel of the pipe or encasement on 30 inch (762 mm) and larger pipe to a point 1 foot (0.3 m) below the existing ground elevation. These definitions for the D measurement may vary as indicated in the plans or as specified or as ordered by the Engineer. The Engineer will measure the length of trench along the centerline of the sewer in place without deduction for manholes or other structures built in the open trench. The City will not pay extra for compacted backfill in the extra excavation widths necessary at manholes and other structures along the centerline of the work. At existing manholes or structures, where the work connects, the Engineer will measure this item from the centerline of the existing manhole or structure. At terminal manholes or structures, constructed as part of the work, the Engineer will measure for this item through the manhole or structure to a point 1 foot (0.3 m) beyond the manhole or structure base. Where building manholes or structures over existing sewers, as part of the work, the Engineer will measure compacted backfill along the centerline of the sewer between two points 1 foot (0.3 m) beyond and on either side of the manhole or structure base. Where sewer trenches intersect, at different elevations or at a manhole or structure constructed as part of the work, the Engineer will deduct from the above measurement a length equal to the specified width of trench for the lesser diameter pipe for the length of the intersection.

The City will not pay for the following:

1. Substitution of granular or any other material for backfill material.
2. Procurement of suitable backfill material elsewhere.
3. Work necessitated or material placed outside of the payment limits described above, which is necessary to secure the required compaction within the length of trench specified or ordered, due to unauthorized excavation.

911.05 Basis of Payment. The City will pay the computed number of cubic yards (cubic meters) of compacted backfill measured at the contract unit price per cubic yard (cubic meter).

The City will pay under:

Item	Unit	Description
911	Cubic Yard (Cubic Meter)	Compacted Backfill