

**ADDENDUM #1**

**SECTION 01150**

**MEASUREMENT AND PAYMENT**



**1. GENERAL**

Payments will be made on the basis of the unit prices and the lump sum prices in the Quantities Sheet. Payment will be made only for materials installed.

The prices tendered shall be full compensation for all products, labour, equipment and materials including supplying, handling, hauling, storage, placing, installing, cleaning, testing, placing into service and restoration of existing features necessary to complete the Work.

The method of measurement of quantities and the basis for payment will be in accordance with this section. All measurements will be done using generally accepted field survey methods. Area and volume determinations, including irregular sections will be completed by standard formula. Stationing interval for calculations shall be approximately 15 m.

The Contractor shall be responsible for and pay any under-strength penalties assessed by the Owner.

**2. MEASUREMENT AND PAYMENT**

**2.1 Storm Culverts**

**.1 Culverts**

Supply and install storm culverts complete: including excavation, bedding, laying, class 2 backfilling, and all incidental work and materials for which separate payment is not specified elsewhere.

Measurement:

Storm culverts will be measured horizontally along centreline of pipe from centre to centre of inverts for each pipe size supplied and installed, with no allowance for slope or depth.

Payment:

Payment will be per lineal metre of each size of main supplied and installed.

**2.2 Surface Works**

**.1 Local Road Construction**

**.a Excavation/Embankment**

Supply all labour and equipment necessary to excavate, load, haul, stockpile, place and compact the excavated material, and all subsidiary and incidental items required to bring subgrade to cross-section lines and grades as shown on the drawings or as staked by the Engineer.

Measurement:

Quantities will be based on initial cross-sections taken at 30 metre intervals of the fill area, and on finished grades indicated on the Drawings. Volumes will be computed by the average end area method.

Payment:

Payment will be per cubic metre of material excavated and disposed of.

.b Subgrade Preparation

Supply all labour, equipment and material to prepare subgrade in accordance with Section 2130 - Specification for Subgrade Preparation and Compaction - Non Granular.

Measurement:

Subgrade preparation will be measured in square metres of subgrade prepared. Width will be from edge of pavement to edge of pavement. Work beyond the limits authorized by the Engineer will not be measured for payment.

Payment:

Payment will be per square metre of subgrade prepared.

.c Subdrainage Sand

Supply all labour, equipment and material required to place the specified thickness of subdrainage sand to obtain the required lines, grades, elevations, cross-sections, depths, density and moisture content.

Measurement:

Subdrainage sand will be measured in square metres for respective thickness itemized in the Schedule of Prices. Width will be from edge of pavement to edge of pavement. Work beyond the limits authorized by the Engineer will not be measured for payment.

Payment:

Payment will be per square metre of each thickness of subdrainage sand placed and compacted.

.d Granular Sub-base

Supply all labour, equipment and material required to place and compact the specified thickness of granular sub-base to obtain the required lines, grades, elevations, cross-sections, depths, density and moisture content.

Measurement:

Granular sub-base will be measured in square metres for respective thickness itemized in the Schedule of Prices. Width will be from edge of pavement to edge of pavement. Work beyond the limits authorized by the Engineer will not be measured for payment.

Payment:

Payment will be per square metre of each thickness of granular sub-base placed and compacted.

.e Granular Base Course

Supply all labour, equipment and material required to place and compact the

specified thickness of granular base course to obtain the required lines, grades, elevations, cross-sections, depths, density and moisture content. Placement of base course shall include the application of prime coat.

Measurement:

Granular Base Course will be measured in square metres for respective thickness itemized in the Schedule of Prices. Width will be from face of gutter to face of gutter for areas with concrete curb and gutter and from edge of pavement to edge of pavement for all other areas. There will be no separate measurement for application of prime coat. Work beyond the limits authorized by the Engineer will not be measured for payment.

Payment:

Payment will be per square metre of each thickness of granular base course placed and compacted.

.f Asphaltic Concrete

Supply all labour, equipment and material required to place and compact asphaltic surface course to obtain the required lines, grades, elevations, depths and density. Placement of asphaltic surface shall include application of tack and cure coats, and seal coat if required all as specified.

Measurement:

Asphaltic surface course will be measured in square metres for respective thickness itemized in the Schedule of Prices Width will be from face of gutter to face of gutter for areas with concrete curb and gutter and from edge of pavement to edge of pavement for all other areas. There will be no separate measurement for the application of tack, cure or seal coats. Work beyond the limits authorized by the Engineer will not be measured for payment.

Payment:

Payment will be per square metre of each thickness of Asphaltic Surface Course placed.

.2 Asphalt Patching

Supply all labour, equipment and material required to place and compact asphaltic patching to obtain the required lines, grades, elevations, depths and density. Placement of asphaltic surface shall include application of tack and cure coats, and seal coat if required all as specified.

Measurement:

Asphaltic patching will be measured in square metres for respective thickness itemized in the Schedule of Prices. There will be no separate measurement for the application of tack, cure or seal coats. Work beyond the limits authorized by the Engineer will not be measured for payment.

Payment:

Payment will be per square metre of each thickness of asphaltic patching placed.

.3 Curb Cuts

Supply all labour and equipment required to complete curb cuts to specifications outlined on design drawings.

Measurement:

Measurement will be per complete curb cut as identified on the drawings.

Payment:

Payment will be per complete curb cut identified on the drawings.

.4 Ditch Excavations

Supply all labour and equipment necessary to excavate, load, haul and dispose of the excavated material, and all subsidiary and incidental items required to bring ditch bottom grade to cross-section lines and grades as shown on the drawings or as staked by the Engineer.

Measurement:

Quantities will be based on initial cross-sections taken at 30 metre intervals of the cut area, and on finished grades indicated on the Drawings. Volumes will be computed by the average end area method.

Payment:

Payment will be per cubic metre of material excavated and disposed of at designated on-site stockpile location.

.5 Pond Excavations

Supply all labour and equipment necessary to excavate, load, haul and dispose of the excavated material, and all subsidiary and incidental items required to bring pond bottom grade to cross-section lines and grades as shown on the drawings or as staked by the Engineer.

Measurement:

Quantities will be based on initial cross-sections taken at 30 metre intervals of the cut area, and on finished grades indicated on the Drawings. Volumes will be computed by the average end area method.

Payment:

Payment will be per cubic metre of material excavated and disposed of at designated on-site stockpile location.

.6 Fill for Low Spots

Supply all labour, equipment and material necessary to haul, place and compact the fill material, and all subsidiary and incidental items required to bring ditch bottom grade to cross-section lines and grades as shown on the drawings or as staked by the Engineer. Material for "Fill for Low Spots" shall be taken from material removed during "Ditch Excavation".

Measurement:

Quantities will be based on initial cross-sections taken at 30 metre intervals of the fill area, and on finished grades indicated on the Drawings. Volumes will be computed by the average end area method.

Payment:

Payment will be per cubic metre of material placed and compacted.

.7 Topsoil Removal and Replacement

Supply all labour, equipment and material necessary to strip, haul, stockpile, and re-place top soil material, and all subsidiary and incidental items required to bring top soil grade to cross-section lines and grades as shown on the drawings or as staked by the Engineer.

Measurement:

Quantities will be based on initial cross-sections taken at 30 metre intervals of the fill area, and on finished grades indicated on the Drawings. Volumes will be computed by the average end area method.

Payment:

Payment will be per cubic metre of material placed and compacted.

.8 Coarse Grass Seeding

Supply all labour, equipment and material necessary to haul, and place coarse grass seeding in accordance with City of Regina Standard Construction Specification - Section 02930.

Measurement:

Quantities will be based on area of ground cover to be seeded as defined by design drawings.

Payment:

Payment will be per square metre of material placed.

.9 Rip-Rap

Supply all labour, equipment and material necessary to haul, and place rip-rap materials, and all subsidiary and incidental items required to construct rip-rap inlets and outlets to design specifications outlined in design drawings.

Measurement:

Quantities will be per cubic metre of material supplied and installed.

Payment:

Payment will be per cubic metre of material supplied and installed.

.10 Sediment Control

Supply all labour, equipment and material necessary to construct temporary sediment control measures at location(s) shown on design drawings. Work under this section shall include monitoring and cleaning sediment traps as needed to ensure they remain in working order during construction. Sediment Control shall also include any efforts necessary to manage stormwater flows through and around the sediment control system to the existing detention pond outlet.

Measurement:

Lump sum measurement per sediment control structure installed during construction and removed upon completion of the project.

Payment:

Payment will be a lump sum amount per sediment control structure installed during construction and removed upon completion of the project.

.11 Clean Sediment Trap

Supply all labour, equipment and material necessary to clean existing sediment trap located downstream of detention pond outlet at the end of construction.

Measurement:

Cleaning of sediment trap will be measured as a lump sum per sediment trap cleaned.

Payment:

Payment will be a lump sum amount for cleaning of the existing downstream sediment trap.

.12 Lower Existing Gasline

Supply all labour, equipment and material necessary to excavate, lower and backfill the existing gasline to design specifications outlined on design drawings.

Measurement:

Lump sum measurement per gasline to be lowered.

Payment:

Payment will be a lump sum amount per gasline lowered.

END OF SECTION