

1.0 GENERAL

1.1 DEFINITIONS

.1 "Topsoil" is the soil material identified (or described) as A, L, F, H and O in the Canadian System of Soil Classification.

.1 The layer of soil moved in cultivation.

.2 The A horizon.

.3 The Ah horizon.

.4 Presumably fertile soil material used to topdress roadbanks, gardens, and lawns.

The uppermost part of the soil, ordinarily moved in tillage, or its equivalent in uncultivated soils, and normally ranging in depth from [50 mm to 450 mm] [].

.2 "Subsoil" is the soil material identified (or described) as B and C in the Canadian System of Soil Classification or as the soil material found beneath the topsoil but above the bedrock. Subsoil is technically, the B horizon; broadly, the part of the profile below plough depth.

In exceptional cases, subsoil may be up to [1500 mm] [] in depth. In some soils there is no "B" horizon.

.3 "Unsuitable Organic Soils" are soils that contain organic materials and are not suitable for use as earthwork materials or as Topsoil and Subsoil. These soils would include soils that contain too much organic matter for earthwork materials, are contaminated, or do not meet the requirements of Soil Quality Criteria Relative to Disturbance and Reclamation.

1.2 REFERENCES

.1 Provide Topsoil and Subsoil stripping in accordance with the following standards (latest revision) except where specified otherwise.

.2 Canadian Soil Survey Committee, 1998, Agriculture and Agri-Food Canada Publication 1646

.1 Canadian System of Soil Classification

.3 Soil Quality Criteria Working Group, Soil Reclamation Subcommittee, Alberta Soils Advisory Committee, Alberta Agriculture, March 1987 – Reprinted November 1993, Conservation and Development Branch, Alberta Agriculture

.1 Soil Quality Criteria Relative to Disturbance and Reclamation

.4 Alberta Transportation

.1 Pre-Disturbance Assessment Procedures for Borrow Excavations for Road Construction.

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1.3 SUBMITTALS

- .1 Provide the following submittals.
- .2 A stripping plan at least 15 days prior to commencing stripping operations that indicates the limits of stripping in each area; the schedule for such work; and, the methods and procedures that will be used for stripping and handling stripped materials; and for preventing wind and water erosion.

1.4 PRE-DISTURBANCE ASSESSMENT BY THE MINISTER

- .1 The Minister has completed a pre-disturbance assessment of the on-Site areas except those areas that will be covered by the Permanent Work. The pre-disturbance assessment was undertaken in accordance with Alberta Transportation's Pre-Disturbance Assessment Procedures for Borrow Excavations for Road Construction document. A copy of the assessment report is included in the Contract Information Documents.

1.5 PRE-DISTURBANCE ASSESSMENT BY THE CONTRACTOR

- .1 Where Contractor provided Borrow Areas are proposed, conduct pre-disturbance assessments of each borrow area as specified in [Section 2315 – Excavation] [Section 02316 – Canal Excavation].

2.0 PRODUCTS – NOT USED

3.0 EXECUTION

3.1 PREPARATION

- .1 Locate and protect utility lines, survey reference points, instrumentation, culverts, and all other existing facilities before commencing stripping operations.

3.2 STRIPPING

- .1 Do not strip any area without prior authorization of the Minister.
- .2 Do not disturb grassed or natural areas and do not drive on undisturbed areas except for performance of the stripping operation. Stay on: temporary access and haul roads, and detours; and construction facilities, lay down and parking areas.
- .3 Strip Topsoil and Subsoil in an unfrozen condition.
- .4 Strip Topsoil from the areas where [Common Excavation, Structure Excavation, and Borrow Area Excavation] and fill placement are required.
- .5 Strip Topsoil from [temporary access and haul roads; detours; construction facilities; lay down; parking and site office areas; and stockpile areas including Topsoil stockpiles]; and any other areas as required by the Minister.
- .6 Within [borrow areas] [], strip Subsoil after the Topsoil has been removed.

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- .7 Strip Topsoil and Subsoil to the depths specified in the Contract Documents [or as established by the Minister].
- .8 Strip Topsoil and Subsoil separately to prevent admixing.
- .9 Sequence, stagger, and conduct stripping and excavation operations so that undesirable materials do not become mixed with Topsoil or Subsoil.
- .10 Use equipment with precise depth control when stripping shallow or variable depths of material.
- .11 Suspend stripping operations during rain, snow, wet ground conditions, high winds, or other conditions that may result in contamination or loss of material.
- .12 Drain surface water away from the stripped areas to prevent ponding and infiltration in fill placement areas.

3.3 REMOVAL OF UNSUITABLE ORGANIC SOILS

- .1 Excavate Unsuitable Organic Soil in accordance with Section [002315 - Excavation] [002316 – Canal Excavation]. The Minister will determine the extent of Unsuitable Organic Soil.
- .2 Dispose of Unsuitable Organic Soil at [waste disposal area [nos.] [Waste Fill zones] [or at locations established by the Minister], and bury under a minimum cover of 1 m of mineral soil.

3.4 STOCKPILING

- .1 Stockpile Topsoil from [Common Excavation, Structure Excavation, and Borrow Area Excavation], and fill placement areas [adjacent to the stripped area and within the Site Limits as authorized by the Minister] [at locations specified in the Contract Documents] [or as established by the Minister].
- .2 Stockpile Topsoil from [temporary access and haul roads; detours; construction facilities, lay down, parking, and site office areas, and stockpile areas except for Topsoil stockpiles] adjacent to the stripped area and within the Site Limits as authorized by the Minister.
- .3 Stockpile Subsoil from [Borrow Area Excavation] and [] areas [adjacent to the stripped area and within the Site Limits as authorized by the Minister] [at locations specified in the Contract Documents] [or as established by the Minister].
- .4 Separately stockpile Topsoil and Subsoil.
- .5 Maintain a minimum separation of 3 m between stockpiles of differing materials.
- .6 Provide erosion control measures as indicated in the ECO Plan in Section 001392 – Environmental Management to prevent soil loss from the Topsoil and Subsoil stockpiles due to wind or water erosion. Where Topsoil is to be stockpiled for periods exceeding 1 growing season, protect the stockpile from erosion by providing a cover crop or other measures as authorized by the Minister.

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- .7 Do not interfere with drainage courses with stockpiled material. Keep stockpiles a minimum distance of [30] m from a river, stream, lake, reservoir or other surface bodies of water.
- .8 Do not stockpile material at slopes steeper than [3H:1V].
- .9 Maintain stockpiles in a condition meeting the above requirements.

END OF SECTION