

SECTION 617 - PLANTING SOIL

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4 **617.01 Description.** This section describes furnishing and placing of planting soil.
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6 **617.02 Materials.**
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8 **(A) Selected Material.** Planting soil may be removed from designated
9 locations within the right-of-way. The Engineer will consider planting soil to
10 be selected material according to Subsection 203.03(B)(1) - Selected
11 Material. Planting soil shall be stockpiled in area designated by the Engineer.
12 Selected material shall be prepared to meet the requirements of Subsection
13 617.02(C)(1) - General. Material unsuitable for planting soil shall be disposed
14 of in accordance with Section 203 – Excavation and Embankment.
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16 **(B) Imported Planting Soil.** Imported planting soil shall be material
17 obtained from sources outside the right-of-way that has been accepted by the
18 Engineer.
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20 **(C) Qualities of Imported Planting Soil.** Imported planting soil shall
21 comprise the following qualities:
22

23 **(1) General.**
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25 **(a) Texture.** Texture of imported planting soil shall be as
26 near as practicable to texture of existing subgrade.
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28 **(b) Nutrients.** Imported planting soil shall contain, or shall
29 be amended to contain, in accordance with the Soil Analysis
30 Report, available nitrogen, phosphorus, potassium, calcium,
31 and magnesium in sufficient quantities to support normal plant
32 growth.
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34 **(2) Physical Properties.**
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36 **(a) Designation.** Imported planting soil shall be sandy
37 loam or loamy sand conforming to Table 617.02-1 - USDA
38 Classification for U.S. Department of Agriculture (USDA)
39 classification for passage through sieves.
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TABLE 617.02-1 - USDA CLASSIFICATION			
Class	Particle Size Range	Maximum Percentage	Minimum Percentage
Coarse Sand	0.020 – 0.079 inch	15	0
Silt plus Clay	<0.002 inch	5	15
Gravel	0.079– 0.512 inch	20	0
Rock	1/2 - 1 inch	10 percent by volume	----
Organic Material	----	15	0

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(b) Chemistry. Imported planting soil shall comply with USDA No. 60 for the following:

1. **Salinity.** Imported planting soil shall have Saturation Extract Conductivity (ECe) less than 7.6 millimhos per inch at 77 degrees F.
2. **Sodium.** Imported planting soil shall have Sodium Absorption Rate (SAR) less than 1.0 part per million.
3. **Boron.** Imported planting soil shall have Saturation Extraction Concentration less than 1.0 part per million.
4. **Reaction.** Imported planting soil shall have pH of saturated paste of 5.5 to 7.5.

Representative samples of selected material and imported planting soil shall be submitted to University of Hawaii Agricultural Extension Service or laboratory acceptable to the Engineer for analysis of required fertilizer. Test results and fertilization schedule shall be presented to the Engineer for review and acceptance before placing planting soil.

65 **617.03 Construction.**

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67 **(A) Pre-Construction.** Eradicate weeds and remove construction debris,
68 litter, and unwanted vegetation from areas designated for planting before
69 doing any soil preparation or grading work. Remove noxious weeds and
70 grasses by roots wherever found at any stage of work. Dispose of weeds
71 and construction debris in accordance with Section 202 – Removal of
72 Structures and Obstructions.

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74 **(B) Soil Preparation.**

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76 **(1) Subgrade.** Do not start soil preparation until the Engineer
77 accepts rough grades and landscape mounds. Allow for thickness of
78 planting soil in determining difference between finished subgrade and
79 finished grade for planting. Verify that subgrade is not compacted.
80 Compacted subgrade shall be corrected by tilling to depth of four
81 inches.

82
83 **(2) Imported Planting Soil.** Notify the Engineer of proposed
84 borrow site for imported planting soil before excavating. If the
85 Engineer accepts material and borrow site, make all arrangements for
86 importing soil and pay all associated costs. Transport imported
87 planting soil directly from source to final location for spreading.

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89 **(3) Soil Placement.** Provide even four-inch layer (after
90 settlement) of planting soil over area to be planted. Where trees are
91 to remain, maintain existing ground elevation around tree trunks. Put
92 planting soil in pits excavated for trees and shrubs.

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94 **(4) Moisture Content.** Do not work soil when air is so moist that
95 excessive compaction occurs, or so dry that dust forms and clods do
96 not break up readily. Apply water if necessary to bring soil to optimal
97 moisture content for tilling and planting.

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99 **(5) Grading and Drainage.** Grade soil to smooth and even finish
100 without abrupt changes or pockets. Verify that surface drainage is
101 adequate. Notify the Engineer of discrepancies, obstructions, and
102 other impediments to proper execution of work.

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104 **617.04 Measurement.** Imported planting soil will be paid on a lump sum basis.
105 Measurement for payment will not apply.

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107 **617.05 Payment.** The Engineer will pay for the accepted imported planting soil
108 on a contract lump sum basis. Payment will be full compensation for work
109 prescribed in this section and contract documents.

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617.05

111 The Engineer will pay for the following pay item when included in proposal
112 schedule:

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Pay Item	Pay Unit
116 Imported Planting Soil	Lump Sum

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118 The Engineer will consider planting soil obtained from within highway right-of-
119 way as selected material. The Engineer will pay this material under Section 203 -
120 Excavation and Embankment.

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122 The Engineer will not consider placing of materials in windrows as stockpiling
123 as specified in Section 203 - Excavation and Embankment.

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END OF SECTION 617