



March 1, 2005

TO: Steve Fuchs/Jeff Petterson, 4-4776
 FROM: Mel Hitzke, 4-7440
 SUBJECT: SR 5 OL 3451
 Grand Mound to Maytown Widening
 Infiltration Test Report



As requested the Olympic Region Materials has completed the soils analysis for this project located in Thurston County. A total of nineteen (19) test pits were excavated throughout the project limits. The soil descriptions for the first 6 inches of each excavation predominantly consisted of: grass, sod, moss and roots. The soil classifications, infiltration rates and water table elevations at the time of the excavation are as follows:

• Test Pit #1 Sta. ⁷⁵⁶⁺⁰⁰~~756~~+00 850' Lt. Elev. 191.52
 From 3" to 3'0" the soils consist of moist, brown, slightly sandy, silty, GRAVEL. 3' to 6', wet, brownish gray, sandy GRAVEL, with scattered cobbles. 6' to 8', wet, gray, sandy, GRAVEL. Water at 4'0".

3" to 3'0"	1.3 inches/hour
3'0" to 6'0"	9.0 inches/hour
6'0" to 8'0"	5.0 inches/hour

• Test Pit #2 Sta. ^{758+00 625'}~~756~~+00 450' Lt. Elev. 198.34
 From 3" to 8'0" moist, brown, slightly sandy, silty, GRAVEL. 8'0" to 10'0", wet, gray, sandy, GRAVEL. Water at 8'0".

3" to 8'0"	1.3 inches/hour
8'0" to 10'0"	5.0 inches/hour

• Test Pit #3 Sta. ^{755+00 450'}~~758~~+00 625' Lt. Elev. 197.95
 From 3" to 3'0", moist, brown, slightly sandy, silty, GRAVEL. 3'0" to 8'6", moist, light gray, slightly sandy, SILTY, gravel. 8'6" to 10'0", wet, gray, sandy, GRAVEL. Water at 8'6".

3" to 3'0"	1.3 inches/hour
3'0" to 8'6"	0.2 inches/hour
8'6" to 10'0"	5.0 inches/hour

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- Test Pit #4 Sta. 748+00 200' Lt. Elev. 194.01

From 4" to 1'0", moist, orangish brown, silty, sandy, Gravel. 1'0" to 4'6", moist, orange to gray SILT with pieces of ACP approx. 4" X 12" X 12" and scattered gravels. 4'6" to 7'0", moist, orange silt with gravel and scattered cobbles. 7'0" to 10'0", wet, light brown, sandy, silty, GRAVEL with scattered cobbles. Water at 7'0".

1'0" to 4'6"	(minimal to non-existent)
4'6" to 7'0"	0.2 inches/hour
7'0" to 10'0"	0.2 inches/hour

The soils and debris excavated from test pits TP-4-05 & TP-5-05 (Maytown I/C, SW quadrant) indicate this area was used as a disposal site for unsuitable material from previous construction. The extent and depth of the disposed material is not accurately defined at this time.

- Test Pit #5 Sta. 745+00 300' Lt. Elev. 192.72

From 2" to 8'0", moist, orange to gray SILT, with gravel and pieces of wood. 8'0" to 11'6", moist to wet, brownish gray, SILTY, sandy, gravel. Water at 10'6".

2" to 8'0"	(minimal to non-existent)
8'0" to 11'6"	0.2 inches/hour

- Test Pit #6 Sta. 622+00 80' Lt. Elev. 247.41

From 4" to 2'0", moist, dark brown, gravelly SILT with cobbles and pieces of wood. 2'0" to 9'0", moist to wet, orange to light brown, SILT with scattered gravels. Water seeping on sides of excavation at 2'6".

4" to 2'0"	0.2 inches/hour
2'0" to 9'0"	(minimal to non-existent)

- Test Pit #7 Sta. 508+50 85' Lt. Elev. 197.17

From 4" to 1'0", moist, dark brown, SILT with gravel. 1'0" to 8'0", moist, gray, sandy, GRAVEL, with cobbles and boulders. No water encountered.

1'0" to 8'0"	7.6 inches/hour
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- Test Pit #8 Sta. 467+00 95' Lt. Elev. 197.90

From 2" to 1'0", moist, light brown, silty, sandy gravel. 1'0" to 8'0", moist, orange to gray, slightly silty, SANDY, GRAVEL with cobbles. No water encountered.

1'0" to 8'0"	9.0 inches/hour
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- Test Pit # 9 Sta. 376+00 130 Lt. Elev. 173.24
From 2" to 8'0", moist, gray to brown, silty, SANDY, GRAVEL. No water encountered.

2" to 8'0" 9.0 inches/hour

- Test Pit #10 Sta. 349+00 120' Lt. Elev. 175.47
From 3" to 6'0", moist, brown, slightly sandy, SILTY GRAVEL. 6' to 11', moist to wet, brown, slightly silty, sandy, well graded GRAVEL. No water encountered.

3" to 6'0" 0.2 inches/hour
6'0" to 11'0" 1.3 inches/hour

- Test Pit #11 Sta. 339+00 120' Lt. Elev. 174.68
From 4" to 1'0", moist, light brown to gray, sandy, GRAVEL. 1'0" to 4'0", moist, brownish gray, slightly, sandy, SILTY GRAVEL. 4'0" to 11'0", moist to wet, light brown, slightly silty, sandy, GRAVEL with scattered cobbles. No water encountered.

4" to 1'0" 9.0 inches/hour
1'0" to 4'0" 1.3 inches/hour
4'0" to 11'0" 9.0 inches/hour

- Test Pit #12 Sta. 312+00 100' Lt. Elev. 168.36
From 4" to 2'0", moist, dark brown to black, SILT with scattered gravels. 2'0" to 4'6", moist, light brown, slightly silty, sandy, GRAVEL with cobbles. 4'6" to 8'0", moist to wet, gray, sandy GRAVEL with cobbles and boulders. Water at 7'0".

4" to 2'0" 0.4 inches/hour
2'0" to 4'6" 9.0 inches/hour
4'6" to 8'0" 9.0 inches/hour

- Test Pit #13 Sta. 311+50 100' Rt. Elev. 165.85
From 8" to 2'0", moist, dark brown to black, SILT with gravels. 2'0" to 5'0", moist to wet, gray, slightly silty, sandy GRAVEL with cobbles. Water at 5'0"

8" to 2'0" 0.4 inches/hour
2'0" to 5'0" 9.0 inches/hour

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- Test Pit #14 Sta. 326+00 100' Rt. Elev. 168.30

From 3" to 2'6", moist, dark brown to black, SILT with gravels. 2'6" to 4'0", moist, light brown, slightly silty, sandy, GRAVEL, with cobbles. 4'0" to 7'0", moist to wet, gray, slightly silty, sandy, GRAVEL with cobbles. Water at 6'6".

3" to 2'6"	0.4 inches/hour
2'6" to 4'0"	9.0 inches/hour
4'0" to 7'0"	9.0 inches/hour

- Test Pit #15 Sta. 389+00 125' Rt. Elev. 177.62

From 2' to 2'6", moist, dark brown to black, SILT with gravels. 2'6" to 9'0", moist, orangish brown, slightly silty, SANDY GRAVEL with scattered cobbles. 9'0" to 14'0", wet, gray, sandy, silty, GRAVEL with cobbles. No water encountered.

2" to 2'6"	0.4 inches/hour
2'6" to 9'0"	9.0 inches/hour
9'0" to 14'0"	1.3 inches/hour

- Test Pit #16 Sta. 391+00 300' Rt. Elev. 176.94

From 6" to 3'0", moist, gray, sandy GRAVEL, with cobbles. 3'0" to 11'0", moist to wet, gray, gravelly SAND. 11'0" to 15'0", wet, light brown to gray, silty, GRAVEL with some sand. No water encountered.

6" to 3'0"	7.6 inches/hour
3'0" to 11'0"	9.0 inches/hour
11'0" to 14'0"	0.4 inches/hour

- Test Pit #17 Sta. 430+00 70' Rt. Elev. 186.44

From 3" to 1'6", moist, dark brown to black, SILT with gravel and cobbles. 1'6" to 7'0", moist, orangish brown to gray, sandy GRAVEL with cobbles. No water encountered.

1'6" to 7'0"	7.6 inches/hour
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- Test Pit #18 Sta. 604+50 70' Rt. Elev. 232.67

From 3" to 3'0", moist to wet, orange to gray, SANDY GRAVEL. 3'0" to 7'0", wet, soft, orange SILT. Water at 3'0".

3" to 3'0"	7.6 inches/hour
3'0" to 7'0"	(minimal to non-existent)

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- Test Pit #19 Sta. 689+00 80' Rt. Elev. 295.60
From 3" to 1'0", moist, dark brown, SILT with gravels and cobbles. 1'0" to 6'0", moist to wet, soft, orange, SILT. Water seeping in excavation at 1'0".

3" to 1'0" (minimal to non-existent)

1'0" to 6'0" (minimal to non-existent)

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