# 18 - GEOTECHNICAL

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DESIGNED BY:

STV 100 years

STV INCORPORATED
80 FERRY BLVD.
STRATFORD, CT 06615

STATE OF CONNECTICUT
JAMES E. SHERWONIT
#12175
LICENSED PROFESSIONAL ENGINEER

James Sherwonit
2014.01.29
11:32:29-05'00'

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
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Plotted Date: 1/29/2014

DESIGNER/DRAFTER: MN

CHECKED BY: JFP

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA..CGR..CPS..0170-2296..079...06..GDI...01.dgn

SIGNATURE/
BLOCK:

PROJECT TITLE:
NEW HAVEN - HARTFORD
SPRINGFIELD
RAIL CORRIDOR

TOWN: MERIDEN

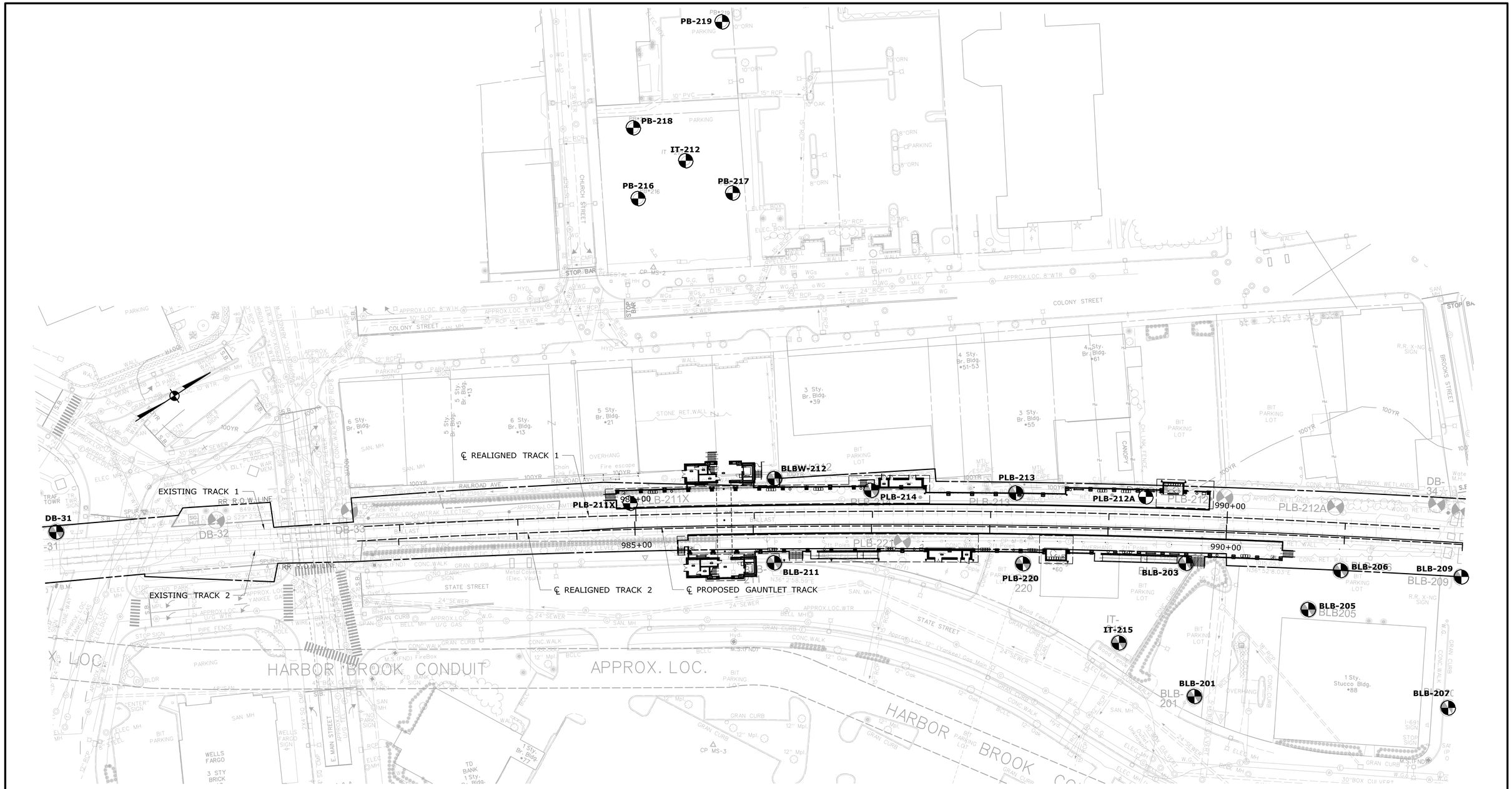
DRAWING TITLE: DRAWING INDEX

PROJECT NO. 170-3155

DRAWING NO. GDI-01

SHEET NO.

Connecticut Department of Transportation
QA/QC Format Check




| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
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Plotted Date: 1/29/2014

DESIGNER/DRAFTER: **MN**

CHECKED BY: **JFP**

SCALE IN FEET
0 40 80
SCALE 1"=40'

**STATE OF CONNECTICUT**
**DEPARTMENT OF TRANSPORTATION**

Filename: ...\FA_CGR_CPS_0170-2296_079_-06_GDP_-01.dgn

SIGNATURE/BLOCK:

STATE OF CONNECTICUT
TREES SHERBURNE
#12175
LICENSED PROFESSIONAL ENGINEER

STV Incorporated
80 Ferry Boulevard
Stratford, CT 06615

PROJECT TITLE:
**NEW HAVEN - HARTFORD SPRINGFIELD RAIL CORRIDOR**

TOWN: **MERIDEN**

DRAWING TITLE:
**MERIDEN STATION BORING LOCATIONS**

PROJECT NO. **170-3155**

DRAWING NO. **GDP-01**

SHEET NO. **03.18.002**

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: DB-31 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 980+101 / N/A |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 756576.02 |
| Start Date: 01/29/2013 | Route No.: | Easting: 985596.51 |
| Finish Date: 01/29/2013 | Bridge No.: | Surface Elevation: 126.7 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ 3' after 0 hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | FILL | Ballast & Subballast - not sampled | 126.7 |
| 5 | S-1 | 4 5 3 4 | 24 | 0 | | Silty SAND, Gravelly | No recovery | 121.7 |
| 10 | S-2 | 3 3 1 WR | 24 | 8 | | | Brown m-f SAND, and Silt, trace f Gravel, wet, loose | 116.7 |
| 15 | S-3 | 6 5 8 12 | 24 | 7 | | | Brown m-f SAND, and Silt, some f Gravel, wet, medium dense | 111.7 |
| 20 | S-4 | 3 11 9 7 | 24 | 2 | | | Brown f SAND, and Silt, trace f Gravel, wet, medium dense | 106.7 |
| 25 | S-5 | 7 9 8 8 | 24 | 13 | | | Red-brown f SAND, some Silt, wet, medium dense | 101.7 |
| 30 | S-6 | 30 50/4" | 10 | 4 | | | Red-brown f SAND, and Silt, wet, very dense, w/ rock fragments. End of Boring @ 30.3 ft | 96.7 |
| | S-7 | 100/4" | 4 | 4 | | | | |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 30.3 ft Rock: 0 ft | NOTES: Dietrich D50 Safety hammer used. | Sheet 1 of 1 |
| No. of Samples: 7 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: IT-212 |
| Inspector: Sam Junno | Meriden | Stat./Offset: 985+49 |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757193.22 |
| Start Date: 08/13/13 | Route No.: | Easting: 985624.42 |
| Finish Date: 08/13/13 | Bridge No.: | Surface Elevation: 137.9 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 lb Fall: 18" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | S-1 | 10 19 17 31 | 24 | 5 | | FILL | Brown m-f SAND, little Silt, trace m Gravel, w/organics, dense | 137.9 |
| | S-2 | 25 14 15 11 | 24 | 12 | | | Brown m-f SAND, little(+) Silt, little f Gravel, w/pavement & bricks, medium dense | |
| 5 | S-3 | 9 11 11 14 | 24 | | | | Brown c-f SAND, some(-) Silt, little(+) f Gravel, w/pcs pavement, medium dense | 132.9 |
| | | | | | | | End of Boring @ 6.0 ft. | |
| 10 | | | | | | | | 127.9 |
| 15 | | | | | | | Infiltration test performed at 6-ft depth. Hole filled with water, then wait 30 minutes. Hole filled again and wait another 30 minutes. | 122.9 |
| 20 | | | | | | | | 117.9 |
| 25 | | | | | | | | 112.9 |
| 30 | | | | | | | | 107.9 |

| Time | Depth |
|---|---|
| 0 sec | 0 " |
| 30 sec | 35 " |
| 1 min | 55" |
| 2 min | 72" |
| 3 min | Empty |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 6 ft Rock: 0 ft | NOTES: CME-75 Safety hammer used. | Sheet 1 of 1 |
| No. of Samples: 3 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: PLB-211 |
| Inspector: Sam Junno | Meriden | Stat./Offset: /10' LT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757493.25 |
| Start Date: 02/25/2013 | Route No.: | Easting: 986169.65 |
| Finish Date: 02/25/2013 | Bridge No.: | Surface Elevation: 126.6 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | BALLAST | 0 ft to 4 ft - Railroad Ballast | 126.6 |
| 5 | S-1 | 1 2 2 5 | 24 | 11 | | Silty SAND, Gravelly | Brown f-c SAND and Silt, some f Gravel, loose, wet | 121.6 |
| | S-2 | 3 3 3 3 | 24 | 2 | | | Brown fine SAND, trace fine Gravel, loose, wet | |
| | S-3 | 2 2 3 3 | 24 | 18 | | | Dark brown fine SAND and Silt, some fine Gravel, loose, wet | |
| 10 | S-4 | 11 17 14 15 | 24 | 6 | | | Black f-m SAND and Silt, dense, wet | 116.6 |
| 15 | S-5 | 4 6 6 7 | 24 | 18 | | Silty fine SAND | Red-brown fine SAND, trace Silt, medium dense, wet | 111.6 |
| 20 | S-6 | 3 5 8 9 | 24 | 20 | | | Red-brown fine SAND and Silt, medium dense, wet | 106.6 |
| 25 | S-7 | 3 6 3 4 | 24 | 24 | | | Red-brown fine SAND, trace Silt, medium dense, wet | 101.6 |
| 30 | S-8 | 10 5 4 11 | 24 | 22 | | | SAME | 96.6 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 57.6 ft Rock: 0 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 1 of 2 |
| No. of Samples: 13 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: PLB-211 |
| Inspector: Sam Junno | Meriden | Stat./Offset: /10' LT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757493.25 |
| Start Date: 02/25/2013 | Route No.: | Easting: 986169.65 |
| Finish Date: 02/25/2013 | Bridge No.: | Surface Elevation: 126.6 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | 96.6 |
| 35 | S-9 | 5 6 10 5 | 24 | 20 | | Silty fine SAND | Red-brown fine SAND and Silt, medium dense, wet | 91.6 |
| 40 | S-10 | 6 7 5 4 | 24 | 24 | | | Red-brown fine SAND, trace Silt, medium dense, wet | 86.6 |
| 45 | S-11 | 6 7 6 4 | 24 | 21 | | | Red-brown fine SAND and Silt, medium dense, wet | 81.6 |
| 50 | | | | | | | | 76.6 |
| 55 | S-12 | 10 28 24 15 | 24 | 1 | | | Red-brown fine SAND and Silt, very dense, wet, w/ pcs. weathered rock | 71.6 |
| | | | | | | | Roller bit to 57 ft. | |
| | S-13 | 39 100/1" | 7 | 4 | | | Red-brown f-m SAND and Silt, some f Gravel, very dense, wet, w/ pcs. weathered rock | |
| 60 | | | | | | | End of Boring @ 57.6 ft | 66.6 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 57.6 ft Rock: 0 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 2 of 2 |
| No. of Samples: 13 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Jason Stokes | **Connecticut DOT Boring Report** | Hole No.: PB-216 |
| Inspector: Frank Morelli | Meriden | Stat./Offset: 987+40 |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757142.05 |
| Start Date: 04/08/2013 | Route No.: | Easting: 985629.24 |
| Finish Date: 04/08/2013 | Bridge No.: | Surface Elevation: 136.9 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | S-1 | 8 17 17 17 | 24 | 13 | | FILL | Red-brown medium SAND, dense, dry | 136.9 |
| | S-2 | 10 7 10 11 | 24 | 22 | | | Red-brown m-f SAND, medium dense, dry | |
| 5 | S-3 | 5 6 4 3 | 24 | 7 | | | Red-brown m-f SAND, trace f Gravel, loose, dry, w/pcs wood | 131.9 |
| | | | | | | | End of Boring @ 6.0 ft | |
| 10 | | | | | | | | 126.9 |
| 15 | | | | | | | | 121.9 |
| 20 | | | | | | | | 116.9 |
| 25 | | | | | | | | 111.9 |
| 30 | | | | | | | | 106.9 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 6 ft Rock: 0 ft | NOTES: CME-75 Safety hammer used. | Sheet 1 of 1 |
| No. of Samples: 3 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Jason Stokes | **Connecticut DOT Boring Report** | Hole No.: PB-217 |
| Inspector: Frank Morelli | Meriden | Stat./Offset: 987+40 |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757211.50 |
| Start Date: 04/08/2013 | Route No.: | Easting: 985668.95 |
| Finish Date: 04/08/2013 | Bridge No.: | Surface Elevation: 137.0 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | S-1 | 5 12 10 11 | 24 | 14 | | FILL | Brown f SAND, medium dense, dry | 137.0 |
| | S-2 | 8 6 5 6 | 24 | 5 | | | Brown f SAND, trace f Gravel, medium dense, dry | |
| 5 | S-3 | 5 4 3 5 | 24 | 14 | | | Brown f SAND, trace f Gravel, loose, dry | 132.0 |
| | | | | | | | End of Boring @ 6.0 ft | |
| 10 | | | | | | | | 127.0 |
| 15 | | | | | | | | 122.0 |
| 20 | | | | | | | | 117.0 |
| 25 | | | | | | | | 112.0 |
| 30 | | | | | | | | 107.0 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 6 ft Rock: 0 ft | NOTES: CME-75 Safety hammer used. | Sheet 1 of 1 |
| No. of Samples: 3 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Jason Stokes | **Connecticut DOT Boring Report** | Hole No.: PB-218 |
| Inspector: Frank Morelli | Meriden | Stat./Offset: 988+20 |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757171.34 |
| Start Date: 04/08/2013 | Route No.: | Easting: 985576.88 |
| Finish Date: 04/08/2013 | Bridge No.: | Surface Elevation: 138.2 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | S-1 | 4 17 12 3 | 24 | 14 | | FILL | Reb-brown f SAND, trace f Gravel, medium dense, dry | 138.2 |
| | S-2 | 6 5 5 4 | 24 | 8 | | | Red-brown f SAND, trace f Gravel, medium dense, dry | |
| 5 | S-3 | 42 46 64 14 | 24 | 14 | | | Brown m-f SAND, some f Gravel, very dense, dry | 133.2 |
| | | | | | | | End of Boring @ 6.0 ft | |
| 10 | | | | | | | | 128.2 |
| 15 | | | | | | | | 123.2 |
| 20 | | | | | | | | 118.2 |
| 25 | | | | | | | | 113.2 |
| 30 | | | | | | | | 108.2 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 6 ft Rock: 0 ft | NOTES: CME-75 Safety hammer used. | Sheet 1 of 1 |
| No. of Samples: 3 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Jason Stokes | **Connecticut DOT Boring Report** | Hole No.: PB-219 |
| Inspector: Frank Morelli | Meriden | Stat./Offset: 988+20 |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757283.12 |
| Start Date: 04/09/2013 | Route No.: | Easting: 985542.87 |
| Finish Date: 04/09/2013 | Bridge No.: | Surface Elevation: 138.5 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | S-1 | 15 12 20 20 | 24 | 12 | | FILL | Brown-black c(-)-m-f SAND, trace f Gravel, dense, dry | 138.5 |
| | S-2 | 17 9 29 100 | 24 | 14 | | | Red-brown m-f SAND, trace f Gravel, trace Silt, very dense, dry, w/pcs brick | |
| | | | | | | | End of Boring @ 46.0 ft due to spoon refusal | |
| 5 | | | | | | | | 133.5 |
| 10 | | | | | | | | 128.5 |
| 15 | | | | | | | | 123.5 |
| 20 | | | | | | | | 118.5 |
| 25 | | | | | | | | 113.5 |
| 30 | | | | | | | | 108.5 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 4 ft Rock: 0 ft | NOTES: CME-75 Safety hammer used. | Sheet 1 of 1 |
| No. of Samples: 2 | | SM-001-M REV. 1/02 |

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
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Plotted Date: 1/29/2014

DESIGNER/DRAFTER: **MN**

CHECKED BY: **JFP**

**STATE OF CONNECTICUT**
**DEPARTMENT OF TRANSPORTATION**

Filename: ...\FA..CGR..CPS..0170-2296..079...06..GDB...01.dgn

SIGNATURE/BLOCK:

STV Incorporated
80 Ferry Boulevard
Stratford, CT 06615

PROJECT TITLE:

**NEW HAVEN - HARTFORD SPRINGFIELD RAIL CORRIDOR**

TOWN: **MERIDEN**

DRAWING TITLE: **MERIDEN STATION BORING LOGS**

PROJECT NO. **170-3155**

DRAWING NO. **GDB-01**

SHEET NO. **03.18.003**

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-211 |
| Inspector: Sam Junno | Meriden | Stat./Offset: 988+46/46.5' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757070.01 |
| Start Date: 03/05/2013 | Route No.: | Easting: 985950.00 |
| Finish Date: 03/06/2013 | Bridge No.: | Surface Elevation: 127.5 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | 127.5 |
| | S-1 | 13 14 11 13 | 24 | 6 | | | Dark Brown fine SAND and fine Gravel, medium dense, dry | |
| 5 | S-2 | 13 21 17 14 | 24 | 4 | | | Dark brown f-c SAND and f-c Gravel, with red brick, dense, wet | 122.5 |
| | S-3 | 23 19 20 47 | 24 | 5 | | | Dark Brown f-m SAND and f-m Gravel, trace Silt, medium dense, wet | |
| | S-4 | 7 9 4 2 | 24 | 3 | | Silty fine SAND, Gravelly | Dark Brown, fine SAND and Silt, medium dense, wet | |
| 10 | S-5 | 5 4 9 11 | 24 | 13 | | | Dark Brown f-c SAND and f-m Gravel, some Silt, medium dense, wet | 117.5 |
| 15 | S-6 | 6 6 14 11 | 24 | 12 | | | SAME | 112.5 |
| 20 | S-7 | 9 13 15 22 | 24 | 1 | | | Red-brown fine SAND and Silt, medium dense, wet, w pc coarse Gravel stuck in spoon tip | 107.5 |
| 25 | S-8 | 9 8 8 6 | 24 | 20 | | Silty fine SAND | Red-brown fine SAND, some Silt, medium dense, wet | 102.5 |
| 30 | S-9 | 8 7 7 3 | 24 | 16 | | | Red-brown fine SAND, trace Silt, medium dense, wet | 97.5 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 80 ft Rock: 9.75 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 1 of 3 |
| No. of Samples: 19 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-211 |
| Inspector: Sam Junno | Meriden | Stat./Offset: 988+46/46.5' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757070.01 |
| Start Date: 03/05/2013 | Route No.: | Easting: 985950.00 |
| Finish Date: 03/06/2013 | Bridge No.: | Surface Elevation: 127.5 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | 97.5 |
| 35 | S-10 | 5 5 4 7 | 24 | 24 | | | Red-brown fine SAND, some Silt, loose, wet | 92.5 |
| 40 | S-11 | 5 5 4 6 | 24 | 24 | | | SAME | 87.5 |
| 45 | S-12 | 9 4 6 5 | 24 | 24 | | Silty fine SAND | Red-brown fine SAND, trace Silt, medium dense, wet | 82.5 |
| 50 | S-13 | 7 5 7 7 | 24 | 24 | | | SAME | 77.5 |
| 55 | S-14 | 8 4 10 12 | 24 | 24 | | | SAME | 72.5 |
| 60 | S-15 | 8 10 11 13 | 24 | 24 | | | SAME | 67.5 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 80 ft Rock: 9.75 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 2 of 3 |
| No. of Samples: 19 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-211 |
| Inspector: Sam Junno | Meriden | Stat./Offset: 988+46/46.5' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757070.01 |
| Start Date: 03/05/2013 | Route No.: | Easting: 985950.00 |
| Finish Date: 03/06/2013 | Bridge No.: | Surface Elevation: 127.5 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 60 | | | | | | | | 67.5 |
| 65 | S-16 | 7 8 13 10 | 24 | | | | Red-brown fine SAND, trace Silt, medium dense, wet | 62.5 |
| 70 | S-17 | 3 21 44 52 | 24 | | | Silty fine SAND | Red-brown fine SAND and Silt, trace f Gravel, very dense, wet | 57.5 |
| 75 | S-18 | 100/2" | 2 | | | | Red-brown fine SAND and Silt, very dense, wet, (weathered rock) | 52.5 |
| 80 | | | | | | | Hit rock at 79 ft, roller bit to 80 ft. | 47.5 |
| | C-1 | | 54 | 47 | 72 | | Red-brown fine grained SANDSTONE, moderately fractured, slightly weathered. | |
| 85 | S-19 | 100/3" | 3 | 3 | | SANDSTONE | Red-Brown weathered rock, very dense, wet | 42.5 |
| | C-2 | | 60 | 49 | 70 | | Red-brown fine grained SANDSTONE, moderately fractured (mostly at 90 degrees), slightly weathered. | |
| 90 | | | | | | | End of Boring @ 89.75 ft | 37.5 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 80 ft Rock: 9.75 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 3 of 3 |
| No. of Samples: 19 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLBW-212 |
| Inspector: Sam Junno | Meriden | Stat./Offset: 988+47/21' LT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757109.16 |
| Start Date: 02/26/2013 | Route No.: | Easting: 985890.47 |
| Finish Date: 02/26/2013 | Bridge No.: | Surface Elevation: 127.6 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" & 3" | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | BALLAST | 0 ft to 4 ft - Railroad Ballast and Sand in wash. | 127.6 |
| 5 | S-1 | 3 2 1 5 | 24 | 4 | | | Brown f-m SAND and f-m Gravel, some Silt, loose, wet | 122.6 |
| | S-2 | 2 2 3 3 | 24 | 13 | | | Same | |
| | S-3 | 2 2 2 4 | 24 | 8 | | Silty SAND, Gravelly | Brown and Black f SAND and Silt, trace f Gravel, loose, wet | |
| 10 | S-4 | 4 6 3 7 | 24 | 12 | | | Brown and Black f SAND and Silt, some f Gravel, loose, wet | 117.6 |
| 15 | S-5 | 6 10 11 9 | 24 | 15 | | | Red-brown fine SAND, some Silt, medium dense, wet | 112.6 |
| 20 | S-6 | 5 7 6 6 | 24 | 11 | | Silty fine SAND | SAME | 107.6 |
| 25 | S-7 | 5 6 5 4 | 24 | 24 | | | SAME | 102.6 |
| 30 | S-8 | 8 12 11 11 | 24 | 18 | | | Red-brown fine SAND, trace Silt, medium dense, wet | 97.6 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 65 ft Rock: 10 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 1 of 3 |
| No. of Samples: 15 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLBW-212 |
| Inspector: Sam Junno | Meriden | Stat./Offset: 988+47/21' LT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757109.16 |
| Start Date: 02/26/2013 | Route No.: | Easting: 985890.47 |
| Finish Date: 02/26/2013 | Bridge No.: | Surface Elevation: 127.6 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" & 3" | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | 97.6 |
| 35 | S-9 | 9 12 19 13 | 24 | 21 | | | Red-brown fine SAND, some Silt, dense, wet | 92.6 |
| 40 | S-10 | 7 8 8 6 | 24 | 23 | | | Red-brown fine SAND, trace Silt, medium dense, wet | 87.6 |
| 45 | S-11 | 8 9 13 12 | 24 | 22 | | Silty fine SAND | SAME | 82.6 |
| 50 | S-12 | 7 11 17 12 | 24 | 17 | | | Red-brown fine SAND, some Silt, medium dense, wet | 77.6 |
| 55 | S-13 | 8 5 11 11 | 24 | 23 | | | Red-brown fine SAND, trace Silt, medium dense, wet | 72.6 |
| 60 | S-14 | 5 22 29 50/2" | 20 | 12 | | | Red-brown f-m SAND, and Silt, some f-m Gravel, very dense, wet | 67.6 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 65 ft Rock: 10 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 2 of 3 |
| No. of Samples: 15 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLBW-212 |
| Inspector: Sam Junno | Meriden | Stat./Offset: 988+47/21' LT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757109.16 |
| Start Date: 02/26/2013 | Route No.: | Easting: 985890.47 |
| Finish Date: 02/26/2013 | Bridge No.: | Surface Elevation: 127.6 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" & 3" | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 60 | | | | | | Silty fine SAND | | 67.6 |
| 65 | S-15 | 100/1" | 1 | 1 | | | Red-brown f-m SAND and Silt, some f-m Gravel, trace weathered rock, very dense, wet | 62.6 |
| | C-1 | | 60 | 60 | 97 | SANDSTONE | Red-brown fine grained SANDSTONE, sound, slightly weathered | |
| 70 | C-2 | | 60 | 60 | 84 | | Red-brown fine grained SANDSTONE, moderately fractured at 90 degrees, slightly weathered | 57.6 |
| 75 | | | | | | | End of Boring at 75.0 ft | 52.6 |
| 80 | | | | | | | | 47.5 |
| 85 | | | | | | | | 42.5 |
| 90 | | | | | | | | 37.5 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 65 ft Rock: 10 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 3 of 3 |
| No. of Samples: 15 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: PLB-214 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 989+29/18' LT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757172.12 |
| Start Date: 01/08/2013 | Route No.: | Easting: 985943.51 |
| Finish Date: 01/08/2013 | Bridge No.: | Surface Elevation: 127.6 |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | 127.6 |
| | S-1 | 7 14 8 6 | 24 | 12 | | | Dark brown fine to medium SAND, and fine Gravel, some Silt, medium dense, dry | |
| | S-2 | 4 5 7 6 | 24 | 7 | | Gravelly SAND | Dark brown fine to medium SAND, some fine Gravel, trace Silt, medium dense, dry | |
| 5 | S-3 | 10 8 9 12 | 24 | 16 | | | SAME | 122.6 |
| | S-4 | 17 9 2 3 | 24 | 7 | | | Dark gray fine SAND, and Silt, some fine Gravel, medium dense, moist | |
| | S-5 | 2 1 3 5 | 24 | 21 | | | Gray fine SAND, and Silt, loose, wet | |
| 10 | S-6 | 6 11 19 15 | 24 | 17 | | | Gray fine SAND, and Silt, some fine Gravel, dense, moist, trace ash | 117.6 |
| 15 | ST-1 | PUSH | 24 | 6 | | | 18" wash in top of tube discarded | 112.6 |
| | S-7 | 9 11 12 16 | 24 | 21 | | | Red-brown fine SAND, and Silt, medium dense, wet | |
| 20 | S-8 | 8 9 12 8 | 24 | 17 | | fine SAND and Silt | SAME | 107.6 |
| 25 | S-9 | 9 9 9 7 | 24 | 17 | | | Red-brown fine SAND, some Silt, medium dense, wet | 102.6 |
| 30 | S-10 | 4 7 9 5 | 24 | 15 | | | SAME | 97.5 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| *Total Penetration in* Earth: 51 ft Rock: 0 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 1 of 2 |
| No. of Samples: 14 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: PLB-214 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 989+29/18' LT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757172.12 |
| Start Date: 01/08/2013 | Route No.: | Easting: 985943.51 |
| Finish Date: 01/08/2013 | Bridge No.: | Surface Elevation: 127.6 |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | 97.6 |
| 35 | S-11 | 7 9 6 6 | 24 | 12 | | | Red-brown fine SAND, some Silt, medium dense, wet | 92.6 |
| 40 | S-12 | 10 11 9 9 | 24 | 17 | | fine SAND and Silt | Red-brown fine SAND, and Silt, medium dense, wet | 87.6 |
| 45 | S-13 | 7 6 10 8 | 24 | 15 | | | SAME | 82.6 |
| 50 | S-14 | 11 12 15 14 | 24 | 11 | | | Red-brown fine SAND, trace Silt, medium dense, wet | 77.6 |
| | | | | | | | End of Hole at 51 ft. | |
| 55 | | | | | | | | 72.6 |
| 60 | | | | | | | | 67.6 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| *Total Penetration in* Earth: 51 ft Rock: 0 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 2 of 2 |
| No. of Samples: 14 | | SM-001-M REV. 1/02 |

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 1/29/2014

DESIGNER/DRAFTER: **MN**
CHECKED BY: **JFP**

**STATE OF CONNECTICUT**
**DEPARTMENT OF TRANSPORTATION**

Filename: ...\FA..CGR..CPS..0170-2296..079...06..GDB...02.dgn

SIGNATURE/BLOCK:

STV Incorporated
80 Ferry Boulevard
Stratford, CT 06615

PROJECT TITLE:
**NEW HAVEN - HARTFORD SPRINGFIELD RAIL CORRIDOR**

TOWN: **MERIDEN**

DRAWING TITLE: **MERIDEN STATION BORING LOGS**

PROJECT NO. **170-3155**
DRAWING NO. **GDB-02**
SHEET NO. **03.18.004**

## Connecticut DOT Boring Report — Hole No.: PLB-213 (Sheet 1 of 3)

Driler: Chris Knight | Inspector: Sam Junno | Engineer: STV Incorporated | Meriden
Project No.: 52550 NRRA | Route No.: | Bridge No.:
Stat./Offset: 990+50.88/16' LT | Northing: 757273.45 | Easting: 986012.34 | Surface Elevation: 127.5 ft
Start Date: 01/07/2013 | Finish Date: 01/07/2013
Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor
Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type:
Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30"
Groundwater Observations @ after hours, @ after hours, @ after hours

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | 127.5 |
| | S-1 | 4 9 10 5 | 24 | 3 | | | Dark brown fine to medium SAND, trace fine Gravel, medium dense. Dry | |
| | S-2 | 7 8 8 5 | 24 | 5 | | | Red-brown fine SAND, some Silt, medium dense, dry | |
| 5 | S-3 | 1 3 8 9 | 24 | 8 | | | Red-brown fine SAND, some Silt, trace fine Gravel, medium dense, wet | 122.5 |
| | S-4 | 18 24 15 12 | 24 | 14 | | | Red-brown, fine SAND and Silt, dense, wet | |
| | S-5 | 7 5 7 5 | 24 | 24 | | | Red-brown, fine SAND, trace Silt, medium dense, wet | |
| 10 | | | | | | | | 117.5 |
| | S-6 | 6 9 24 25 | 24 | 3 | | | Red-brown, fine SAND and Silt, dense, wet | |
| 15 | S-7 | 6 9 11 9 | 24 | 20 | | fine SAND and Silt | Red-brown, fine SAND, trace Silt, medium dense, wet | 112.5 |
| 20 | S-8 | 9 10 10 9 | 24 | 8 | | | SAME | 107.5 |
| 25 | S-9 | 8 7 8 8 | 24 | 15 | | | SAME | 102.5 |
| 30 | S-10 | 5 7 6 6 | 24 | 15 | | | SAME | 97.5 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
*Total Penetration in* Earth: 75.25 ft Rock: 0 ft | No. of Samples: 19
NOTES: Dietrich D-50 Safety hammer used.
Sheet 1 of 3 — SM-001-M REV. 1/02

## Connecticut DOT Boring Report — Hole No.: PLB-213 (Sheet 2 of 3)

Driler: Chris Knight | Inspector: Sam Junno | Engineer: STV Incorporated | Meriden
Project No.: 52550 NRRA | Route No.: | Bridge No.:
Stat./Offset: 990+50.88/16' LT | Northing: 757273.45 | Easting: 986012.34 | Surface Elevation: 127.5 ft
Start Date: 01/07/2013 | Finish Date: 01/07/2013
Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor
Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type:
Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30"
Groundwater Observations @ after hours, @ after hours, @ after hours

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | 97.5 |
| 35 | S-11 | 5 8 10 12 | 24 | 20 | | | Red-brown, fine SAND, trace Silt, medium dense, wet | 92.5 |
| 40 | S-12 | 5 9 8 7 | 24 | 20 | | | SAME | 87.5 |
| 45 | S-13 | 9 14 11 8 | 24 | 21 | | fine SAND and Silt | SAME | 82.5 |
| 50 | S-14 | 8 15 19 14 | 24 | 12 | | | Red-brown, fine SAND, and Silt, dense, wet | 77.5 |
| 55 | S-15 | 20 27 23 21 | 24 | 12 | | | SAME | 72.5 |
| 60 | S-16 | 11 15 11 14 | 24 | 13 | | | Red-brown, fine SAND, and Silt, medium dense, wet | 67.5 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
*Total Penetration in* Earth: 75.25 ft Rock: 0 ft | No. of Samples: 19
NOTES: Dietrich D-50 Safety hammer used.
Sheet 2 of 3 — SM-001-M REV. 1/02

## Connecticut DOT Boring Report — Hole No.: PLB-213 (Sheet 3 of 3)

Driler: Chris Knight | Inspector: Sam Junno | Engineer: STV Incorporated | Meriden
Project No.: 52550 NRRA | Route No.: | Bridge No.:
Stat./Offset: 990+50.88/16' LT | Northing: 757273.45 | Easting: 986012.34 | Surface Elevation: 127.5 ft
Start Date: 01/07/2013 | Finish Date: 01/07/2013
Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor
Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type:
Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30"
Groundwater Observations @ after hours, @ after hours, @ after hours

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 60 | | | | | | | | 67.5 |
| 65 | S-17 | 10 9 13 11 | 24 | 20 | | | Red-brown, fine SAND, and Silt, medium dense, wet | 62.5 |
| | | | | | | fine SAND and Silt | | |
| 70 | S-18 | 15 21 17 12 | 24 | 16 | | | Red-brown, fine SAND, trace Silt, dense, wet | 57.5 |
| 75 | S-19 | 52 33 100/3" | 15 | 10 | | | Red-brown f-m SAND, and Silt, some fine Gravel, very dense, wet, with trace weathered rock | 52.5 |
| | | | | | | | End of Hole at 75.23 ft | |
| 80 | | | | | | | | 47.5 |
| 85 | | | | | | | | 42.5 |
| 90 | | | | | | | | 37.5 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
*Total Penetration in* Earth: 75.25 ft Rock: 0 ft | No. of Samples: 19
NOTES: Dietrich D-50 Safety hammer used.
Sheet 3 of 3 — SM-001-M REV. 1/02

## Connecticut DOT Boring Report — Hole No.: PLB-220 (Sheet 1 of 3)

Driler: Chris Knight | Inspector: Sam Junno | Engineer: STV Incorporated | Meriden
Project No.: 52550 NRRA | Route No.: | Bridge No.:
Stat./Offset: 990+58/40' RT | Northing: 757245.60 | Easting: 986065.53 | Surface Elevation: 128.3 ft
Start Date: 02/28/2013 | Finish Date: 03/01/2013
Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor
Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type:
Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30"
Groundwater Observations @ after hours, @ after hours, @ after hours

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | 128.3 |
| | S-1 | 13 23 38 23 | 24 | 14 | | | Black m-c SAND and f-m Gravel, very dense, wet | |
| | S-2 | 25 19 34 28 | 24 | 16 | | | Dark brown m-c SAND / Black f-m SAND and Silt, some f-m Gravel, very dense, dry | |
| 5 | S-3 | 10 15 14 11 | 24 | 18 | | | Dark brown f-m SAND and Silt, medium dense, wet | 123.3 |
| | S-4 | 7 5 5 4 | 24 | 15 | | Silty SAND, Gravelly | Brown f-m SAND, some f Gravel, medium dense, wet | |
| | S-5 | 4 6 6 4 | 24 | 14 | | | Brown f-m SAND and f-m Gravel, some Silt, medium dense, wet | |
| 10 | | | | | | | | 118.3 |
| | S-6 | 5 6 4 6 | 24 | 12 | | | SAME | |
| 15 | S-7 | 2 22 15 25 | 24 | 15 | | | Dark brown fine SAND and Silt, trace fine Gravel, dense, wet | 113.3 |
| 20 | S-8 | 12 8 6 6 | 24 | 13 | | | Red-brown fine SAND, some Silt, medium dense, wet | 108.3 |
| 25 | S-9 | 4 5 9 8 | 24 | 18 | | Silty fine SAND | SAME | 103.3 |
| 30 | S-10 | 2 2 3 3 | 24 | 20 | | | Red-brown fine SAND, trace Silt, loose, wet | 98.3 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
*Total Penetration in* Earth: 86 ft Rock: 0 ft | No. of Samples: 21
NOTES: Dietrich D-50 Safety hammer used.
Sheet 1 of 3 — SM-001-M REV. 1/02

## Connecticut DOT Boring Report — Hole No.: PLB-220 (Sheet 2 of 3)

Driler: Chris Knight | Inspector: Sam Junno | Engineer: STV Incorporated | Meriden
Project No.: 52550 NRRA | Route No.: | Bridge No.:
Stat./Offset: 990+58/40' RT | Northing: 757245.60 | Easting: 986065.53 | Surface Elevation: 128.3 ft
Start Date: 02/28/2013 | Finish Date: 03/01/2013
Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor
Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type:
Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30"
Groundwater Observations @ after hours, @ after hours, @ after hours

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | 98.3 |
| 35 | S-11 | 4 4 8 11 | 24 | 20 | | | Red-brown fine SAND and Silt, medium dense, wet | 93.3 |
| 40 | S-12 | 4 4 6 8 | 24 | 22 | | | SAME | 88.3 |
| 45 | S-13 | 5 4 6 9 | 24 | 19 | | fine SAND and Silt | SAME | 83.3 |
| 50 | S-14 | 8 10 7 10 | 24 | 21 | | | SAME | 78.3 |
| 55 | S-15 | 8 10 18 17 | 24 | 24 | | | SAME | 73.3 |
| 60 | S-16 | 5 9 14 11 | 24 | 24 | | | Red-brown fine SAND, trace Silt, medium dense, wet | 68.3 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
*Total Penetration in* Earth: 86 ft Rock: 0 ft | No. of Samples: 21
NOTES: Dietrich D-50 Safety hammer used.
Sheet 2 of 3 — SM-001-M REV. 1/02

## Connecticut DOT Boring Report — Hole No.: PLB-220 (Sheet 3 of 3)

Driler: Chris Knight | Inspector: Sam Junno | Engineer: STV Incorporated | Meriden
Project No.: 52550 NRRA | Route No.: | Bridge No.:
Stat./Offset: 990+58/40' RT | Northing: 757245.60 | Easting: 986065.53 | Surface Elevation: 128.3 ft
Start Date: 02/28/2013 | Finish Date: 03/01/2013
Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor
Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type:
Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30"
Groundwater Observations @ after hours, @ after hours, @ after hours

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 60 | | | | | | | | 68.3 |
| 65 | S-17 | 5 5 14 13 | 24 | 24 | | fine SAND and Silt | Red-brown fine SAND and Silt, medium dense, wet | 63.3 |
| 70 | S-18 | 7 9 11 19 | 24 | 24 | | | Red-brown fine SAND, trace Silt, medium dense, wet | 58.3 |
| 75 | S-19 | 11 20 15 14 | 24 | 22 | | | Red-brown f-m SAND and f-m Gravel, some Silt, dense, wet | 53.3 |
| 80 | S-20 | 9 11 18 24 | 24 | 20 | | Silty fine SAND, Gravelly | Red-brown fine SAND and Silt, some fine Gravel, medium dense, wet | 48.3 |
| 85 | S-21 | 21 34 28 41 | 24 | 16 | | | Red-brown f-m SAND and Silt, some fine Gravel, very dense, wet | 43.3 |
| | | | | | | | End of Boring @ 86 ft | |
| 90 | | | | | | | | 38.3 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
*Total Penetration in* Earth: 86 ft Rock: 0 ft | No. of Samples: 21
NOTES: Dietrich D-50 Safety hammer used.
Sheet 3 of 3 — SM-001-M REV. 1/02

## Connecticut DOT Boring Report — Hole No.: IT-215 (Sheet 1 of 1)

Driler: Chris Knight | Inspector: Robert Smoko | Engineer: STV Incorporated | Meriden
Project No.: 52550 NRRA | Route No.: | Bridge No.:
Stat./Offset: 991+38/111.5' RT | Northing: 757277.00 | Easting: 986166.01 | Surface Elevation: 125.8 ft
Start Date: 02/04/2013 | Finish Date: 02/04/2013
Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor
Casing Size/Type: 4" | Sampler Type/Size: SPT/24" | Core Barrel Type:
Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30"
Groundwater Observations @ after hours, @ after hours, @ after hours

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | 125.8 |
| | S-1 | 13 23 16 12 | 24 | 15 | | | Brown f-m SAND, some Silt, trace fine Gravel / Dk brown f-m SAND and f-m Gravel, dense, dry, w/ random fill material and red brick pcs | |
| | S-2 | 16 5 1 1 | 24 | 9 | | | Brown fine SAND, loose, dry, w/ random fill material and red brick pcs | |
| 5 | S-3 | 8 4 4 4 | 24 | 14 | | | Dark brown f-m SAND and Silt, some m Gravel, loose, moist, w/ random fill material | 120.8 |
| | | | | | | | End of Boring @ 6.0 ft | |
| 10 | | | | | | | | 115.8 |
| 15 | | | | | | | | 110.8 |
| 20 | | | | | | | | 105.8 |
| 25 | | | | | | | | 100.8 |
| 30 | | | | | | | | 95.8 |

Variable Head Infiltration Test Data
(conducted on 03/07/2013)

| Time (minutes) | Depth to Water |
|---|---|
| 0.5 | 1'-8" |
| 1 | 2'-4.5" |
| 2 | 3'-3" |
| 3 | 3'-8" |
| 4 | 3'-11" |
| 5 | 4'-4" |
| 8 | 4'-4" |
| 10 | 4'-6" |
| 15 | 4'-10" |
| 30 | 4'-11" |

Notes:
4" Casing: 1-ft stick up/tip @ 5' bgs
Boring depth extended to 7'
2' sand below casing
Pre-soak for one-half hour.

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%
Total Penetration in Earth: 6 ft Rock: 0 ft | No. of Samples: 3
NOTES: Dietrich D-50 Safety hammer used.
Sheet 1 of 1 — SM-001-M REV. 1/02

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 1/29/2014

DESIGNER/DRAFTER: MN
CHECKED BY: JFP

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FA..CGR..CPS..0170-2296..079...06..GDB...03.dgn

SIGNATURE/BLOCK:
STV Incorporated
80 Ferry Boulevard
Stratford, CT 06615

PROJECT TITLE: NEW HAVEN - HARTFORD SPRINGFIELD RAIL CORRIDOR

TOWN: MERIDEN

DRAWING TITLE: MERIDEN STATION BORING LOGS

PROJECT NO. 170-3155
DRAWING NO. GDB-03
SHEET NO. 03.18.005

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: PLB-212 A |
| Inspector: Sam Junno | Meriden | Stat./Offset: 991+81/16' LT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757363.52 |
| Start Date: 02/28/2013 | Route No.: | Easting: 986075.03 |
| Finish Date: 02/28/2013 | Bridge No.: | Surface Elevation: 128.0 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | BALLAST | 0 ft to 4 ft - Railroad Ballast and Sand in wash. | 128 |
| 5 | S-1 | 4 2 2 1 | 24 | 3 | | Silty SAND, Gravelly | Brown f-m SAND and f-m Gravel, trace Silt, loose, wet | 123 |
| | S-2 | 2 4 3 2 | 24 | 5 | | | SAME | |
| | S-3 | 5 9 10 9 | 24 | 12 | | | Brown f-m SAND and Silt, some f Gravel, medium dense, wet | |
| 10 | S-4 | 6 10 11 12 | 24 | 20 | | | Brown fine SAND, some Silt, medium dense, wet | 118 |
| 15 | S-5 | 4 5 5 4 | 24 | 20 | | Silty fine SAND | Red-brown fine SAND, trace Silt, medium dense, wet | 113 |
| 20 | S-6 | 10 22 24 14 | 24 | 0 | | | No recovery. Pc. coarse Gravel stuck in tip of spoon. | 108 |
| | S-7 | 7 8 17 10 | | 18 | | | Red-brown fine SAND, some Silt, medium dense, wet | |
| 25 | S-8 | 9 14 10 8 | 24 | 21 | | | SAME | 103 |
| 30 | S-9 | 7 9 11 11 | 24 | 16 | | | Red-brown fine SAND and Silt, medium dense, wet | 98 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 66 ft Rock: 0 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 1 of 3 |
| No. of Samples: 16 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: PLB-212A |
| Inspector: Sam Junno | Meriden | Stat./Offset: 991+81/16' LT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757363.52 |
| Start Date: 02/28/2013 | Route No.: | Easting: 986075.03 |
| Finish Date: 02/28/2013 | Bridge No.: | Surface Elevation: 128.0 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | 98 |
| 35 | S-10 | 5 7 9 10 | 24 | 24 | | | Red-brown fine SAND and Silt, medium dense, wet | 93 |
| 40 | S-11 | 4 4 10 9 | 24 | 23 | | | Red-brown fine SAND, trace Silt, medium dense, wet | 88 |
| 45 | S-12 | 4 13 13 12 | 24 | 20 | | Silty fine SAND | Red-brown fine SAND, some Silt, medium dense, wet | 83 |
| 50 | S-13 | 10 15 20 15 | 24 | 21 | | | SAME | 78 |
| 55 | S-14 | 10 14 22 15 | 24 | 19 | | | SAME | 73 |
| 60 | S-15 | 8 17 20 25 | 20 | 20 | | | Red-brown fine SAND, trace Silt, dense, wet | 68 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 66 ft Rock: 0 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 2 of 3 |
| No. of Samples: 16 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: PLB-212 A |
| Inspector: Sam Junno | Meriden | Stat./Offset: 991+81/16' LT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757363.52 |
| Start Date: 02/28/2013 | Route No.: | Easting: 986075.03 |
| Finish Date: 02/28/2013 | Bridge No.: | Surface Elevation: 128.0 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 60 | | | | | | Silty fine SAND | | 68 |
| 65 | S-16 | 11 16 17 24 | 24 | 20 | | | Red-brown f-m(-) SAND, some Silt, dense, wet | 63 |
| | | | | | | | End of Boring @ 66.0 ft | |
| 70 | | | | | | | | 58 |
| 75 | | | | | | | | 53 |
| 80 | | | | | | | | 48 |
| 85 | | | | | | | | 43 |
| 90 | | | | | | | | 38 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 66 ft Rock: 0 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 3 of 3 |
| No. of Samples: 16 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-203 |
| Inspector: Frank Morelli | Meriden | Stat./Offset: 991+95/40' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757361.17 |
| Start Date: 01/10/2013 | Route No.: | Easting: 986140.69 |
| Finish Date: 01/11/2013 | Bridge No.: | Surface Elevation: 129.0 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | 129 |
| | S-1 | 20 17 12 13 | 24 | 6 | | Gravelly SAND | Brown fine SAND and fine to medium Gravel, medium dense, dry | |
| | S-2 | 27 33 24 16 | 24 | 6 | | | Black fine SAND and fine to medium Gravel, verey dense, dry | |
| 5 | S-3 | 26 15 8 6 | 24 | 8 | | | Red-brown fine SAND, some fine Gravel, medium desne, dry | 124 |
| | S-4 | 8 5 4 5 | 24 | 6 | | | SAME | |
| | S-5 | 3 1 7 3 | 24 | 5 | | SAND and Silt | Red-brown fine SAND and Silt, some fine Gravel, loose, wet | |
| 10 | S-6 | 2 3 11 18 | 24 | 10 | | | SAME | 119 |
| 15 | S-7 | 14 16 17 12 | 24 | 7 | | | Red-brown fine to medium SAND and Silt, some fine Gravel, medium desne, wet | 114 |
| 20 | S-8 | 13 10 8 10 | 24 | 4 | | | Red-brown fine SAND, medium dense, wet | 109 |
| 25 | S-9 | 9 11 14 10 | 24 | 13 | | | Red-brown fine SAND and Silt, medium dense, wet | 104 |
| 30 | S-10 | 7 9 7 6 | 24 | | | | SAME | 99 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 87 ft Rock: 1 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 1 of 3 |
| No. of Samples: 21 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-203 |
| Inspector: Frank Morelli | Meriden | Stat./Offset: 991+98/40' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757361.17 |
| Start Date: 01/10/2013 | Route No.: | Easting: 986140.69 |
| Finish Date: 01/11/2013 | Bridge No.: | Surface Elevation: 129.0 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | 99 |
| 35 | S-11 | 12 12 14 20 | 24 | 17 | | | Red-brown fine SAND and Silt, medium dense, wet | 94 |
| 40 | S-12 | 12 7 7 20 | 24 | 14 | | | SAME | 89 |
| 45 | S-13 | 12 12 11 18 | 24 | 18 | | fine SAND and Silt | SAME | 84 |
| 50 | S-14 | 11 9 7 8 | 24 | 7 | | | Red-brown fine SAND, medium dense, wet | 79 |
| 55 | S-15 | 17 24 24 26 | 24 | 17 | | | Red-brown fine SAND and Silt, very dense, wet | 74 |
| 60 | S-16 | 18 19 21 17 | 24 | 16 | | | SAME | 69 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 87 ft Rock: 1 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 2 of 3 |
| No. of Samples: 21 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-203 |
| Inspector: Frank Morelli | Meriden | Stat./Offset: 991+98/40' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757361.17 |
| Start Date: 01/10/2013 | Route No.: | Easting: 986140.69 |
| Finish Date: 01/11/2013 | Bridge No.: | Surface Elevation: 129.0 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 60 | | | | | | | | 69 |
| 65 | S-17 | 20 30 24 30 | 24 | 17 | | fine SAND and Silt | Red-brown fine SAND and Silt, very dense, wet | 64 |
| 70 | S-18 | 27 30 28 30 | 24 | 14 | | | SAME | 59 |
| 75 | S-19 | 27 29 29 23 | 24 | 13 | | | SAME | 54 |
| 80 | S-20 | 10 11 10 8 | 24 | 5 | | Gravelly SAND | Red-brown fine to coarse SAND, and fine Gravel, some Silt, medium dense, wet | 49 |
| 85 | S-21 | 9 9 12 13 | 24 | 7 | | | SAME | 44 |
| | | | | | | | Roller bit to 87 ft, hit bedrock. | |
| | | | | | | | Roller bit to 88 ft. | |
| | | | | | | | End Hole at 88 ft. | |
| 90 | | | | | | | | 39 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 87 ft Rock: 1 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 3 of 3 |
| No. of Samples: 21 | | SM-001-M REV. 1/02 |

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 1/29/2014

DESIGNER/DRAFTER: **MN**
CHECKED BY: **JFP**

**STATE OF CONNECTICUT**
**DEPARTMENT OF TRANSPORTATION**

Filename: ...\FA..CGR..CPS..0170-2296..079...06..GDB...04.dgn

SIGNATURE/BLOCK:

STV Incorporated
80 Ferry Boulevard
Stratford, CT 06615

PROJECT TITLE:
**NEW HAVEN - HARTFORD SPRINGFIELD RAIL CORRIDOR**

TOWN: **MERIDEN**

DRAWING TITLE: **MERIDEN STATION BORING LOGS**

PROJECT NO. **170-3155**
DRAWING NO. **GDB-04**
SHEET NO. **03.18.006**

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-201 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 992+08.40/152' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757305.65 |
| Start Date: 02/07/2013 | Route No.: | Easting: 986238.87 |
| Finish Date: 02/07/2013 | Bridge No.: | Surface Elevation: 126.0 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | S-1 | 50/4" | 4 | 7 | | | Brown fine SAND and fine Gravel, with red brick and concrete, very dense, dry | 126 |
| | | | | | | | Roller bit thru possible obstruction. | |
| 5 | S-2 | 6 5 4 9 | 24 | 6 | | Silty SAND, Gravelly | Dark brown f-m SAND and f-m Gravel, with ash, loose, wet. Red-brn f SAND and Silt at bottom | 121 |
| | S-3 | 8 7 3 3 | 24 | 6 | | | Dark brown fine SAND and fine Gravel, some Silt, loose, wet | |
| | S-4 | 7 3 1 3 | 24 | 6 | | | Brown fine SAND, some Silt, loose, wet | |
| 10 | S-5 | 7 6 11 7 | 24 | 10 | | | Brown fine SAND and Silt, some fine Gravel, medium dense, wet | 116 |
| 15 | S-6 | 8 8 8 8 | 24 | 12 | | Silty fine SAND | Red-brown fine SAND, trace Silt, medium dense, wet | 111 |
| 20 | S-7 | 5 6 9 7 | 24 | 19 | | | Red-brown fine SAND, some Silt, medium dense, wet | 106 |
| 25 | S-8 | 8 9 12 9 | 24 | 18 | | | SAME | 101 |
| 30 | S-9 | 9 11 9 7 | 24 | 15 | | | Red-brown fine SAND, trace Silt, medium dense, wet | 96 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 75 ft Rock: 0 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 1 of 3 |
| No. of Samples: 18 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-201 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 992+08.40/152' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757305.65 |
| Start Date: 02/07/2013 | Route No.: | Easting: 986238.87 |
| Finish Date: 02/07/2013 | Bridge No.: | Surface Elevation: 126.0 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | 96 |
| 35 | S-10 | 6 11 12 9 | 24 | 14 | | | Red-brown fine SAND, trace Silt, medium dense, wet | 91 |
| 40 | S-11 | 9 14 9 6 | 24 | 18 | | | Red-brown fine SAND, some Silt, medium dense, wet | 86 |
| 45 | S-12 | 11 4 8 6 | 24 | 21 | | Silty fine SAND | SAME | 81 |
| 50 | S-13 | 8 7 11 9 | 24 | 20 | | | SAME | 76 |
| 55 | S-14 | 9 11 14 13 | 24 | 16 | | | SAME | 71 |
| 60 | S-15 | 15 18 20 16 | 24 | 19 | | fine SAND and Silt | Red-brown fine SAND and Silt, dense, wet | 66 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 75 ft Rock: 0 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 2 of 3 |
| No. of Samples: 18 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-201 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 992+08.40/152' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757305.65 |
| Start Date: 02/07/2013 | Route No.: | Easting: 986238.87 |
| Finish Date: 02/07/2013 | Bridge No.: | Surface Elevation: 126.0 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 60 | | | | | | | | 66 |
| 65 | S-16 | 14 15 17 23 | 24 | 13 | | | Red-brown fine SAND and Silt, dense, wet | 61 |
| | | | | | | fine SAND and Silt | | |
| 70 | S-17 | 10 13 18 22 | 24 | 17 | | | SAME | 56 |
| 75 | S-18 | 23 37 50/0" | 18 | 12 | | | Red-brown fine SAND and Silt, some fine Gravel, trace weathered rock | 51 |
| | | | | | | | End Hole at 75 ft. | |
| 80 | | | | | | | | 46 |
| 85 | | | | | | | | 41 |
| 90 | | | | | | | | 36 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 75 ft Rock: 0 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 3 of 3 |
| No. of Samples: 18 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-205 |
| Inspector: Sam Junno | Meriden | Stat./Offset: 993+28/74' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757426.42 |
| Start Date: 11/20/2012 | Route No.: | Easting: 986229.92 |
| Finish Date: 11/21/2012 | Bridge No.: | Surface Elevation: 126.7 |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" & 3" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | S-1 | 11 13 7 7 | 24 | 7 | | | Dark brown fine SAND and fine Gravel, trace Silt, medium dense, dry | 126.7 |
| | S-2 | 8 5 5 3 | 24 | 8 | | | Dark brown fine SAND and fine Gravel, loose, wet | |
| 5 | S-3 | 4 4 2 3 | 24 | 6 | | Gravelly SAND | SAME | 121.7 |
| | S-4 | 2 2 1 3 | 24 | 9 | | | SAME | |
| | S-5 | 100/8" | 8 | 3 | | | Dark brown fine SAND and fine Gravel, very dense, wet. Roller bit to 10 ft. | |
| 10 | S-6 | 22 15 13 16 | 24 | 19 | | | Red brown fine SAND and Silt, medium dense, wet | 116.7 |
| 15 | S-7 | 10 14 12 11 | 24 | 24 | | | SAME | 111.7 |
| 20 | S-8 | 9 12 9 8 | 24 | 24 | | SAND and Silt | SAME | 106.7 |
| 25 | S-9 | 11 12 11 10 | 24 | 24 | | | SAME | 101.7 |
| 30 | S-10 | 4 6 14 14 | 24 | 20 | | | SAME | 96.7 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 77 ft Rock: 17 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 1 of 4 |
| No. of Samples: 19 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-205 |
| Inspector: Sam Junno | Meriden | Stat./Offset: 993+28/74' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757426.42 |
| Start Date: 11/20/2012 | Route No.: | Easting: 986229.92 |
| Finish Date: 11/21/2012 | Bridge No.: | Surface Elevation: 126.7 |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" & 3" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | 96.7 |
| 35 | S-11 | 3 2 4 10 | 24 | 22 | | | Red-brown fine SAND and Silt, loose, wet | 91.7 |
| 40 | S-12 | 8 12 4 4 | 24 | 17 | | | Red-brown fine SAND and Silt, medium dense, wet | 86.7 |
| 45 | S-13 | 6 4 4 6 | 24 | 22 | | fine SAND and Silt | Red-brown fine SAND and Silt, loose, wet | 81.7 |
| 50 | S-14 | 7 9 5 6 | 24 | 24 | | | SAME | 76.7 |
| 55 | S-15 | 9 12 15 14 | 24 | 0 | | | No recovery | 71.7 |
| 60 | S-16 | 9 17 14 7 | 24 | 24 | | | Red-brown fine SAND and Silt, ense, wet+10 | 66.7 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 77 ft Rock: 17 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 2 of 4 |
| No. of Samples: 19 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-205 |
| Inspector: Sam Junno | Meriden | Stat./Offset: 993+28/74' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757426.42 |
| Start Date: 11/20/2012 | Route No.: | Easting: 986229.92 |
| Finish Date: 11/21/2012 | Bridge No.: | Surface Elevation: 126.7 |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" & 3" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 60 | | | | | | | | 66.7 |
| 65 | S-17 | 8 15 16 14 | 24 | 19 | | | Red-brown fine SAND and Silt, dense, wet | 61.7 |
| | | | | | | fine SAND and Silt | | |
| 70 | S-18 | 8 13 9 11 | 24 | 24 | | | Red-brown fine SAND and Silt, medium dense, wet | 56.7 |
| 75 | S-19 | 5 9 15 18 | 24 | 24 | | | SAME | 51.7 |
| | | | | | | | Roller bit to 77 ft - hit bedrock. | |
| 80 | C-1 | | 60 | 12 | 20 | possible TILL | 0' to 1' - Hard Bluestone<br>2' to 5' - coarse Gravel and Sandstone cobbles. | 46.7 |
| 85 | | | | | | | Roller bit to 89 ft. | 41.7 |
| 90 | | | | | | | See next page. | 36.7 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 77 ft Rock: 17 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 3 of 4 |
| No. of Samples: 19 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-205 |
| Inspector: Sam Junno | Meriden | Stat./Offset: 993+28/74' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757426.42 |
| Start Date: 11/20/2012 | Route No.: | Easting: 986229.92 |
| Finish Date: 11/21/2012 | Bridge No.: | Surface Elevation: 126.7 |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" & 3" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 90 | C-2 | | 60 | 41 | 68 | Sandstone | Brown-red fine grained SANDSTONE, closely fractured with fractures from 0 to 90 deg., slightly weathered | 36.7 |
| 95 | | | | | | | End of Hole at 94 ft. | 31.7 |
| 100 | | | | | | | | 26.7 |
| 105 | | | | | | | | 21.7 |
| 110 | | | | | | | | 16.7 |
| 115 | | | | | | | | 11.7 |
| 120 | | | | | | | | 6.7 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 77 ft Rock: 17 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 4 of 4 |
| No. of Samples: 19 | | SM-001-M REV. 1/02 |

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
|---|---|---|---|
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 1/29/2014

DESIGNER/DRAFTER: **MN**
CHECKED BY: **JFP**

**STATE OF CONNECTICUT**
**DEPARTMENT OF TRANSPORTATION**

Filename: ...\FA..CGR..CPS..0170-2296..079...06..GDB...05.dgn

SIGNATURE/BLOCK:

STV Incorporated
80 Ferry Boulevard
Stratford, CT 06615

PROJECT TITLE:
**NEW HAVEN - HARTFORD SPRINGFIELD RAIL CORRIDOR**

TOWN: **MERIDEN**

DRAWING TITLE: **MERIDEN STATION BORING LOGS**

PROJECT NO. **170-3155**
DRAWING NO. **GDB-05**
SHEET NO. **03.18.007**

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-206 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 993+27.6/40' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757467.45 |
| Start Date: 01/03/2013 | Route No.: | Easting: 986217.24 |
| Finish Date: 01/04/2013 | Bridge No.: | Surface Elevation: 127.3 |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" & 3" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | 127.3 |
| | S-1 | 20 16 11 6 | 24 | 12 | | | Black fine SAND, some fine Gravel, medium dense, dry, with coal dust | |
| | S-2 | 8 8 6 7 | 24 | 7 | | | SAME | |
| 5 | S-3 | 8 8 4 3 | 24 | 8 | | | Brown fine to medium SAND and gray Silt, some medium Gravel, medium dense, wet | 122.3 |
| | S-4 | 4 3 3 5 | 24 | 8 | | Gravelly SAND | Red-brown fine SAND and Silt, some fine Gravel, loose, wet | |
| | S-5 | 10 10 15 11 | 24 | 16 | | | Brown fine to medium SAND and Silt, some fine Gravel, trace coarse Gravel, medium dense, wet | |
| 10 | S-6 | 19 20 13 10 | 24 | 21 | | | Brown fine to medium SAND and Silt, some fine Gravel, trace coarse Gravel, dense, wet | 117.3 |
| 15 | S-7 | 9 11 11 8 | 24 | 19 | | | Red-brown fine SAND and Silt, medium dense, wet | 112.3 |
| 20 | S-8 | 6 8 4 6 | 24 | 19 | | fine SAND and Silt | SAME | 107.3 |
| 25 | S-9 | 6 6 7 8 | 24 | 20 | | | SAME | 102.3 |
| 30 | S-10 | 4 3 2 3 | 24 | 19 | | | SAME | 97.3 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 77 ft Rock: 17 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 1 of 3 |
| No. of Samples: 20 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-206 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 993+27.6/40' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757467.45 |
| Start Date: 01/03/2013 | Route No.: | Easting: 986217.24 |
| Finish Date: 01/04/2013 | Bridge No.: | Surface Elevation: 127.3 |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" & 3" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | 97.3 |
| 35 | S-11 | 4 5 2 3 | 24 | 16 | | fine SAND and Silt | Red-brown fine SAND and Silt, medium dense, wet | 92.3 |
| 40 | S-12 | 5 8 9 7 | 24 | 12 | | | SAME | 87.3 |
| 45 | S-13 | 9 7 8 5 | 24 | 15 | | SILT and fine Sand | Gray SILT and fine Sand, stiff, wet | 82.3 |
| 50 | S-14 | 15 12 9 8 | 24 | 14 | | | Red-brown fine SAND and Silt, medium dense, wet | 77.3 |
| 55 | S-15 | 9 7 9 6 | 24 | 20 | | fine SAND and Silt | SAME | 72.3 |
| 60 | S-16 | 10 11 19 6 | 24 | 18 | | | SAME | 67.3 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 77 ft Rock: 17 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 2 of 3 |
| No. of Samples: 20 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-206 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 993+27.6/40' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757467.45 |
| Start Date: 01/03/2013 | Route No.: | Easting: 986217.24 |
| Finish Date: 01/04/2013 | Bridge No.: | Surface Elevation: 127.3 |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" & 3" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 60 | | | | | | | | 67.3 |
| 65 | S-17 | 12 15 14 13 | 24 | 12 | | | Gray fine SAND, some Silt, medium dense, wet | 62.3 |
| 70 | S-18 | 15 12 15 18 | 24 | 15 | | fine SAND and Silt | Red-brown fine SAND and Silt, medium dense, wet | 57.3 |
| 75 | S-19 | 2 2 11 27 | 24 | 10 | | | Red-brown fine SAND, some Silt, medium dense, wet | 52.3 |
| 80 | S-20 | 19 19 16 21 | 24 | 10 | | | Red-brown fine to medium SAND, and fine Gravel, some Silt, dense, wet | 47.3 |
| | | | | | | | End of Hole at 81 ft | |
| 85 | | | | | | | | 42.3 |
| 90 | | | | | | | | 37.3 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 81 ft Rock: 0 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 3 of 3 |
| No. of Samples: 20 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-207 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 994+26 / 150' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757480.04 |
| Start Date: 02/06/2013 | Route No.: | Easting: 986364.21 |
| Finish Date: 02/06/2013 | Bridge No.: | Surface Elevation: 123.8 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | 123.8 |
| | S-1 | 18 30 26 24 | 24 | 4 | | | Dark brown f-m SAND and f-m Gravel, some Silt, very dense, wet | |
| | S-2 | 7 3 2 1 | 24 | 12 | | Silty fine SAND, Gravelly | Brown f SAND and Silt, some f-m(-) Gravel, loose, wet | |
| 5 | S-3 | 1 1 2 2 | 24 | 10 | | | Brown f-m SAND and Silt, loose, wet | 118.8 |
| | S-4 | 4 5 10 9 | 24 | 8 | | | Brown f-m SAND and Silt, some f Gravel, medium dense, wet | |
| | S-5 | 4 2 3 4 | 24 | 19 | | | Red-brown fine SAND, some Silt, loose, wet | |
| 10 | S-6 | 5 5 5 4 | 24 | 16 | | | SAME | 113.8 |
| 15 | S-7 | 3 3 2 4 | 24 | 21 | | | SAME | 108.8 |
| 20 | S-8 | 4 3 3 5 | 24 | 22 | | Silty fine SAND | SAME | 103.8 |
| 25 | S-9 | 3 8 4 4 | 24 | 16 | | | Red-brown fine SAND, some Silt, medium dense, wet | 98.8 |
| 30 | S-10 | 5 6 7 8 | 24 | 14 | | | SAME | 93.8 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 85.5 ft Rock: 0 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 1 of 3 |
| No. of Samples: 21 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-207 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 994+26 / 150' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757480.04 |
| Start Date: 02/06/2013 | Route No.: | Easting: 986364.21 |
| Finish Date: 02/06/2013 | Bridge No.: | Surface Elevation: 123.8 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | 93.8 |
| 35 | S-11 | 9 8 10 11 | 24 | 12 | | | Red-brown fine SAND, some Silt, medium dense, wet | 88.8 |
| 40 | S-12 | 5 11 12 10 | 24 | 16 | | Silty Fine SAND | SAME | 83.8 |
| 45 | S-13 | 7 10 15 9 | 24 | 14 | | | SAME | 78.8 |
| 50 | S-14 | 8 8 8 9 | 24 | 16 | | | SAME | 73.8 |
| 55 | S-15 | 7 12 8 6 | 24 | 18 | | fine SAND and Silt | Red-brown fine SAND and Silt, medium dense, wet | 68.8 |
| 60 | S-16 | 10 15 10 11 | 24 | 12 | | | SAME | 63.8 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 85.5 ft Rock: 0 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 2 of 3 |
| No. of Samples: 21 | | SM-001-M REV. 1/02 |

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-207 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 994+26 / 150' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757480.04 |
| Start Date: 02/06/2013 | Route No.: | Easting: 986364.21 |
| Finish Date: 02/06/2013 | Bridge No.: | Surface Elevation: 123.8 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.) | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 60 | | | | | | | | 63.8 |
| 65 | S-17 | 13 16 20 16 | 24 | 12 | | | Red-brown fine SAND and Silt, dense, wet | 58.8 |
| 70 | S-18 | 18 33 31 40 | 24 | 12 | | fine SAND and Silt | Red-brown fine SAND and Silt, very dense, wet | 53.8 |
| 75 | S-19 | 20 30 37 40 | 24 | 12 | | | SAME | 48.8 |
| 80 | S-20 | 33 39 36 46 | 24 | 17 | | | SAME | 43.8 |
| 85 | S-21 | 15 35 80 50/0" | 18 | 14 | | | SAME | 38.8 |
| | | | | | | | End of Boring @ 85.5 ft | |
| 90 | | | | | | | | 33.8 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test
Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

| | | |
|---|---|---|
| Total Penetration in Earth: 85.5 ft Rock: 0 ft | NOTES: Dietrich D-50 Safety hammer used. | Sheet 3 of 3 |
| No. of Samples: 21 | | SM-001-M REV. 1/02 |

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
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THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 1/29/2014

DESIGNER/DRAFTER: **MN**

CHECKED BY: **JFP**

**STATE OF CONNECTICUT**
**DEPARTMENT OF TRANSPORTATION**

Filename: ...\FA..CGR..CPS..0170-2296..079...06..GDB...06.dgn

SIGNATURE/BLOCK:

STV Incorporated
80 Ferry Boulevard
Stratford, CT 06615

PROJECT TITLE:
**NEW HAVEN - HARTFORD SPRINGFIELD RAIL CORRIDOR**

TOWN: **MERIDEN**

DRAWING TITLE: **MERIDEN STATION BORING LOGS**

PROJECT NO. **170-3155**

DRAWING NO. **GDB-06**

SHEET NO. **03.18.008**

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-209 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 994+30 / 39' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757549.83 |
| Start Date: 02/05/2013 | Route No.: | Easting: 986277.55 |
| Finish Date: 02/05/2013 | Bridge No.: | Surface Elevation: 128.4 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.). | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | 128.4 |
| | S-1 | 30 25 15 15 | 24 | 15 | | Silty fine SAND, Gravelly | Dark brown fine SAND and Silt, some fine Gravel, dense, dry | |
| | S-2 | 15 11 8 9 | 24 | 10 | | | Dark brown fine SAND and Silt, some fine Gravel, medium dense, moist | |
| 5 | S-3 | 4 4 8 7 | 24 | 4 | | | Red-brown fine SAND and Silt, some c-m Gravel, medium dense, wet | 123.4 |
| | S-4 | 8 5 11 4 | 24 | 8 | | | Red-brown fine SAND and Silt, some fine Gravel, medium dense, wet | |
| | S-5 | 8 9 20 19 | 24 | 10 | | | Dark Gray fine SAND and Silt, some fine Gravel, medium dense, wet | |
| 10 | S-6 | 6 11 13 16 | 24 | 11 | | | Dark Gray fine SAND and Silt, some c(-) f Gravel, medium dense, wet | 118.4 |
| 15 | S-7 | 9 9 9 11 | 24 | 18 | | fine SAND and Silt | Red-brown fine SAND and Silt, medium dense, wet | 113.4 |
| 20 | S-8 | 9 10 12 9 | 24 | 12 | | | SAME | 108.4 |
| 25 | S-9 | 5 5 6 7 | 24 | 20 | | | SAME | 103.4 |
| 30 | S-10 | 8 5 5 4 | 24 | 12 | | | SAME | 98.4 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test

Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

Total Penetration in Earth: 80.25 ft Rock: 0 ft

NOTES: Dietrich D-50 Safety hammer used.

Sheet 1 of 3

No. of Samples: 20

SM-001-M REV. 1/02

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-209 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 994+30 / 39' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757549.83 |
| Start Date: 02/05/2013 | Route No.: | Easting: 986277.55 |
| Finish Date: 02/05/2013 | Bridge No.: | Surface Elevation: 128.4 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
| Groundwater Observations @ after hours, @ after hours, @ after hours | | |

| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.). | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| 30 | | | | | | | | 98.4 |
| 35 | S-11 | 7 8 10 10 | 24 | 23 | | fine SAND and Silt | Red-brown fine SAND and Silt, medium dense, wet | 93.4 |
| 40 | S-12 | 7 12 12 11 | 24 | 15 | | | SAME | 88.4 |
| 45 | S-13 | 9 10 14 15 | 24 | 17 | | | SAME | 83.4 |
| 50 | S-14 | 9 12 10 11 | 24 | 17 | | | SAME | 78.4 |
| 55 | S-15 | 7 12 14 16 | 24 | 18 | | | SAME | 73.4 |
| 60 | S-16 | 6 11 23 24 | 24 | 19 | | | Red-brown fine SAND and Silt, dense, wet | 68.4 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test

Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

Total Penetration in Earth: 80.25 ft Rock: 0 ft

NOTES: Dietrich D-50 Safety hammer used.

Sheet 2 of 3

No. of Samples: 20

SM-001-M REV. 1/02

| | | |
|---|---|---|
| Driller: Chris Knight | **Connecticut DOT Boring Report** | Hole No.: BLB-209 |
| Inspector: Robert Smoko | Meriden | Stat./Offset: 994+30 / 39' RT |
| Engineer: STV Incorporated | Project No.: 52550 NRRA | Northing: 757549.83 |
| Start Date: 02/05/2013 | Route No.: | Easting: 986277.55 |
| Finish Date: 02/05/2013 | Bridge No.: | Surface Elevation: 128.4 ft |
| Project Description: New Haven-Hartford-Springfield (NHSS) Rail Corridor | | |
| Casing Size/Type: 4" HW | Sampler Type/Size: SPT/24" | Core Barrel Type: |
| Hammer Wt.: 300 Fall: 30" | Hammer Wt.: 140 lb Fall: 30" | |
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| Depth (ft) | Sample Type/No. | Blows on Sampler per 6 inches | Pen. (in.) | Rec (in.). | RQD % | Generalized Strata Description | Material Description and Notes | Elevation (ft) |
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| 65 | S-17 | 16 15 18 30 | 24 | 14 | | fine SAND and Silt | Red-brown fine SAND and Silt, dense, wet | 63.4 |
| 70 | S-18 | 15 17 20 27 | 24 | 17 | | | Red-brown fine SAND, some Silt, dense, wet | 58.4 |
| 75 | S-19 | 13 12 14 14 | 24 | 19 | | | Red-brown fine SAND, some Silt, medium dense, wet | 53.4 |
| 80 | S-20 | 23 89 50/3" | 15 | 18 | | | Red-brown fine SAND and Silt, trace fine Gravel, very dense, wet | 48.4 |
| | | | | | | | End of Boring @ 80.25 ft | |
| 85 | | | | | | | | 43.4 |
| 90 | | | | | | | | 38.4 |

Sample Type: S=Split Spoon C=Core UP = Undisturbed Piston V = Vane Shear Test

Proportions Used: Trace = 1 - 10%, Little = 10 - 20%, Some = 20 - 35%, And = 35 - 50%

Total Penetration in Earth: 80.25 ft Rock: 0 ft

NOTES: Dietrich D-50 Safety hammer used.

Sheet 3 of 3

No. of Samples: 20

SM-001-M REV. 1/02

| REV. | DATE | REVISION DESCRIPTION | SHEET NO. |
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Plotted Date: 1/29/2014

DESIGNER/DRAFTER: **MN**

CHECKED BY: **JFP**

**STATE OF CONNECTICUT**
**DEPARTMENT OF TRANSPORTATION**

Filename: ...\FA..CGR..CPS..0170-2296..079...06..GDB...07.dgn

SIGNATURE/ BLOCK:

STATE OF CONNECTICUT JAMES C. SHERWOOD 12177 LICENSED PROFESSIONAL ENGINEER

STV Incorporated
80 Ferry Boulevard
Stratford, CT 06615

PROJECT TITLE:

**NEW HAVEN - HARTFORD SPRINGFIELD RAIL CORRIDOR**

TOWN: **MERIDEN**

DRAWING TITLE: **MERIDEN STATION BORING LOGS**

PROJECT NO. **170-3155**

DRAWING NO. **GDB-07**

SHEET NO. **03.18.009**