

**Wang Engineering**  
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 Lombard, IL 60148  
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**BORING LOG 3RW6-B-2**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW6, Cook Co., IL

Datum: NGVD  
 Elevation: 707.80 ft  
 North: 1814344.60 ft  
 East: 1115206.05 ft  
 Station: 336+46.01  
 Offset: 83.50 LT

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION  | Depth (ft) | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION   | Depth (ft) | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) |
|------------------------|--|------------|------------|-------------------------|----------|----------------------|------------------------|---|------------|------------|-------------------------|----------|----------------------|
| 707.63                 | 3-inch thick, black SILTY CLAY LOAM<br>--TOPSOIL--<br>Hard, brown CLAY LOAM, little gravel   | 0-4.50     | 1          | 3 4 4                   | 4.50     | 16                   | 707.63                 | 3-inch thick, black SILTY CLAY LOAM<br>--TOPSOIL--<br>Hard, brown CLAY LOAM, trace gravel | 0-4.50     | 11         | 3 4 4                   | 1.23     | 16                   |
| 704.9                  | --FILL--<br>Hard, brown SILTY CLAY, trace gravel   | 4.50-7.0   | 2          | 3 3 7                   | 4.10     | 18                   | 704.9                  | --FILL--<br>Stiff to hard, brown and gray CLAY to SILTY CLAY, trace gravel                | 4.50-7.0   | 12         | 3 3 7                   | 2.79     | 15                   |
|                        |  | 7.0-11.0   | 3          | 3 8 11                  | 7.46     | 18                   |                        |   | 7.0-11.0   |            |                         |          |                      |
|                        |  | 11.0-15.0  | 4          | 4 8 11                  | 5.82     | 19                   |                        |   | 11.0-15.0  |            |                         |          |                      |
|                        |  | 15.0-19.0  | 5          | 3 3 8                   | 6.56     | 19                   |                        |   | 15.0-19.0  |            |                         |          |                      |
| 695.4                  | Wet SAND   | 19.0-20.0  | 6          | 3 3 3                   | 2.87     | 16                   | 695.4                  | Wet SAND  | 19.0-20.0  | 6          | 3 3 3                   | 1.07     | 13                   |
| 684.8                  | Stiff to very stiff, gray SILTY LOAM, trace gravel   | 20.0-25.0  | 7          | 2 4 5                   | 1.23     | 16                   | 684.8                  | Stiff to very stiff, gray SILTY LOAM, trace gravel  | 20.0-25.0  | 7          | 2 4 5                   | 1.72     | 14                   |
|                        | --L <sub>c</sub> (%)=23, P <sub>c</sub> (%)=14--<br>--%Gravel=6.5--<br>--%Sand=21.7--<br>--%Silt=53.4--<br>--%Clay=18.3--<br>--A-4 (4)-- |            |            |                         |          |                      |                        |   |            |            |                         |          |                      |
| 687.3                  | Very stiff, gray SILTY CLAY, trace gravel  | 25.0-30.0  | 8          | 3 6 9                   | 2.62     | 14                   | 687.3                  | Very stiff, gray SILTY CLAY, trace gravel   | 25.0-30.0  | 8          | 3 6 9                   | 3.20     | 17                   |
| 684.8                  | Stiff to very stiff, gray SILTY LOAM, trace gravel   | 30.0-35.0  | 9          | 3 6 9                   | 2.62     | 18                   | 684.8                  | Very stiff, gray SILTY LOAM, trace gravel   | 30.0-35.0  | 9          | 3 6 9                   | NA       |                      |
|                        |  | 35.0-40.0  | 10         | 4 9 10                  | 2.79     | 15                   |                        |   | 35.0-40.0  | 10         | 3 6 9                   | 2.50     | 12                   |

**GENERAL NOTES**

Begin Drilling: 09-15-2011 Complete Drilling: 09-15-2011  
 Drilling Contractor: WTS Drill Rig: B-57 TMR  
 Driller: R&P Logger: F. Bozga Checked by: C. Marin  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling: 12.50 ft  
 At Completion of Drilling: 17.00 ft  
 Time After Drilling: NA  
 Depth to Water: NA

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**BORING LOG 3RW6-B-3**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW6, Cook Co., IL

Datum: NGVD  
 Elevation: 710.80 ft  
 North: 1814421.52 ft  
 East: 1115207.29 ft  
 Station: 336+21.88  
 Offset: 80.03 LT

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION   | Depth (ft) | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION   | Depth (ft) | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) |
|------------------------|---|------------|------------|-------------------------|----------|----------------------|------------------------|---|------------|------------|-------------------------|----------|----------------------|
| 707.63                 | 3-inch thick, black SILTY CLAY LOAM<br>--TOPSOIL--<br>Hard, brown CLAY LOAM, trace gravel   | 0-4.50     | 1          | 3 6 6                   | 4.50     | 16                   | 707.63                 | 3-inch thick, black SILTY CLAY LOAM<br>--TOPSOIL--<br>Hard, brown CLAY LOAM, trace gravel | 0-4.50     | 11         | 3 6 6                   | 2.13     | 11                   |
|                        | --FILL--<br>Stiff to hard, brown and gray CLAY to SILTY CLAY, trace gravel  | 4.50-10.0  | 2          | 4 9 10                  | 6.31     | 19                   |                        | --FILL--<br>Stiff to hard, brown and gray CLAY to SILTY CLAY, trace gravel                | 4.50-10.0  | 12         | 4 9 10                  | 2.05     | 12                   |
|                        | --L <sub>c</sub> (%)=35, P <sub>c</sub> (%)=17--<br>--%Gravel=1.6--<br>--%Sand=13.6--<br>--%Silt=48.9--<br>--%Clay=35.9--<br>--A-6 (14)-- |            |            |                         |          |                      |                        |   |            |            |                         |          |                      |
|                        |   | 10.0-15.0  | 3          | 4 7 11                  | 5.74     | 18                   |                        |   | 10.0-15.0  |            |                         |          |                      |
|                        |   | 15.0-20.0  | 4          | 4 7 11                  | 5.33     | 17                   |                        |   | 15.0-20.0  |            |                         |          |                      |
|                        |   | 20.0-25.0  | 5          | 4 7 11                  | 3.61     | 16                   |                        |   | 20.0-25.0  |            |                         |          |                      |
|                        |   | 25.0-30.0  | 6          | 3 4 4                   | 1.07     | 13                   |                        |   | 25.0-30.0  |            |                         |          |                      |
|                        |   | 30.0-35.0  | 7          | 3 3 3                   | 1.72     | 14                   |                        |   | 30.0-35.0  |            |                         |          |                      |
|                        |   | 35.0-40.0  | 8          | 4 8 2                   | 3.20     | 17                   |                        |   | 35.0-40.0  |            |                         |          |                      |
| 688.8                  | Very stiff, gray SILTY LOAM, trace gravel   | 40.0-45.0  | 9          | 3 3 3                   | NA       |                      | 688.8                  | Very stiff, gray SILTY LOAM, trace gravel   | 40.0-45.0  | 9          | 3 3 3                   | NA       |                      |
|                        |   | 45.0-50.0  | 10         | 3 6 9                   | 2.50     | 12                   |                        |   | 45.0-50.0  | 10         | 3 6 9                   | 2.50     | 12                   |

**GENERAL NOTES**

Begin Drilling: 09-15-2011 Complete Drilling: 09-15-2011  
 Drilling Contractor: WTS Drill Rig: B-57 TMR  
 Driller: R&P Logger: F. Bozga Checked by: C. Marin  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling: DRY  
 At Completion of Drilling: DRY  
 Time After Drilling: NA  
 Depth to Water: NA

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**BORING LOG 3RW6-B-4**

WEI Job No.: 201-40-01  
 Client: McDonough Associates Inc.  
 Project: US 45, Segment 3  
 Location: RW6, Cook Co., IL

Datum: NGVD  
 Elevation: 712.20 ft  
 North: 1814476.53 ft  
 East: 1115222.90 ft  
 Station: 336+76.41  
 Offset: 62.83 LT

| Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION  | Depth (ft) | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) | Profile Elevation (ft) | SOIL AND ROCK DESCRIPTION  | Depth (ft) | Sample No. | SPT Values (blows/6 in) | Qu (tsf) | Moisture Content (%) |
|------------------------|--|------------|------------|-------------------------|----------|----------------------|------------------------|--|------------|------------|-------------------------|----------|----------------------|
| 686.7                  | 21.85-inch thick, black SILTY LOAM<br>--TOPSOIL--<br>Hard, brown SILTY CLAY, little gravel | 0-4.50     | 1          | 4 5 8                   | 4.50     | 16                   | 686.7                  | 21.85-inch thick, black SILTY LOAM<br>--TOPSOIL--<br>Hard, brown SILTY CLAY, little gravel | 0-4.50     | 11         | 4 5 8                   | 4.11     | 16                   |
|                        | --FILL--<br>Stiff to hard, brown to gray SILTY CLAY to SILTY CLAY LOAM, trace gravel       | 4.50-9.0   | 2          | 4 4 9                   | 4.50     | 19                   |                        | --FILL--<br>Stiff to hard, brown to gray SILTY CLAY to SILTY CLAY LOAM, trace gravel       | 4.50-9.0   | 12         | 4 4 9                   | 13.20    | 18                   |
|                        |  | 9.0-13.0   | 3          | 4 8 10                  | 4.51     | 18                   |                        |  | 9.0-13.0   |            |                         |          |                      |
|                        |  | 13.0-17.0  | 4          | 4 8 10                  | 6.07     | 17                   |                        |  | 13.0-17.0  |            |                         |          |                      |
|                        |  | 17.0-21.0  | 5          | 4 7 9                   | 4.43     | 17                   |                        |  | 17.0-21.0  |            |                         |          |                      |
|                        |  | 21.0-25.0  | 6          | 3 3 5                   | 1.64     | 16                   |                        |  | 21.0-25.0  |            |                         |          |                      |
|                        |  | 25.0-29.0  | 7          | 4 6 7                   | 2.46     | 14                   |                        |  | 25.0-29.0  |            |                         |          |                      |
|                        |  | 29.0-33.0  | 8          | 3 4 6                   | 1.39     | 15                   |                        |  | 29.0-33.0  |            |                         |          |                      |
|                        |  | 33.0-37.0  | 9          | 3 3 3                   | 3.28     | 16                   |                        |  | 33.0-37.0  |            |                         |          |                      |
|                        |  | 37.0-41.0  | 10         | 3 4 6                   | 1.39     | 13                   |                        |  | 37.0-41.0  |            |                         |          |                      |

**GENERAL NOTES**

Begin Drilling: 09-14-2011 Complete Drilling: 09-14-2011  
 Drilling Contractor: WTS Drill Rig: B-57 TMR  
 Driller: R&P Logger: F. Bozga Checked by: C. Marin  
 Drilling Method: 3.25" IDA HSA; Boring backfilled upon completion

**WATER LEVEL DATA**

While Drilling: DRY  
 At Completion of Drilling: DRY  
 Time After Drilling: NA  
 Depth to Water: NA

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998



FILE NAME = D:\60M62-SHT-Boring06.dgn  
 USER NAME = Anthony.Plutz  
 PLOT SCALE = 0:2.00 '1" = 1"  
 PLOT DATE = 3/13/2013

DESIGNED - WEI  
 CHECKED - JCE  
 DRAWN - JDK  
 CHECKED - JCE

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

RETAINING WALL  
 SOIL BORING LOGS

SHEET NO. 16 OF 18 SHEETS

Note:  
 For retaining wall key plan see sheet 1.  
 For typical wall details see sheet 2.  
 See individual wall sheets for boring locations.

|                    |         |        |                           |           |
|--------------------|---------|--------|---------------------------|-----------|
| F.A.P. RTE.        | SECTION | COUNTY | TOTAL SHEETS              | SHEET NO. |
| 330                | 103R-5  | COOK   | 778                       | 391       |
| CONTRACT NO. 60M62 |         |        | ILLINOIS FED. AID PROJECT |           |