

| | | |
|-------------|-------|---------|
| FHWA REGION | STATE | PROJECT |
| 5 | OHIO | |

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|---|
| 2 |
| 2 |

LAKE COUNTY
LAK-86-2.23

LOG OF BORING

BORING NO. 101
STATION 9+62, 2.0' LT.
SURFACE ELEV. 634.6

DATE STARTED: 1/6/82
DATE COMPLETED: 1/6/82

| ELEV. | DEPTH | SAMPLES/ CORES | | | CONSIST./ REL. DENSITY | DESCRIPTION | LAB TESTS | | | | | | | | |
|-------|-------|----------------|--------|----------|------------------------|---|-------------|--------|--------|--------|------|----|------|--|----|
| | | BLOWS PER FT. | REC. % | R.S.D. % | | | % Agg. C.S. | % F.S. | % SILT | % CLAY | LL | PI | W.C. | | |
| 634.0 | 1 | | | | | BITUMINOUS SURFACE | | | | | | | | | |
| | 2 | | | | | CINDERS & GRAVEL - GRAY | | | | | | | | | |
| 631.9 | 3 | 5/3/2 | | | Firm to Stiff | | | | | | | | | | 14 |
| | 4 | | | | | | | | | | | | | | |
| | 5 | | | | | | | | | | | | | | |
| | 6 | 2/3/2 | | | Firm to Stiff | | | | | | | | | | |
| | 7 | | | | | | | | | | | | | | |
| | 8 | | | | | | | | | | | | | | |
| | 9 | 3/3/4 | | | Firm to Stiff | CLAY - Silty, sandy, brown with little gray. Some subangular gravel and fragments to 1/2" (Embankment fill) | 32.6 | 9.6 | 10.0 | | 47.8 | | | | 13 |
| | 10 | | | | | | | | | | | | | | |
| | 11 | | | | | | | | | | | | | | |
| | 12 | | | | | | | | | | | | | | |
| | 13 | | | | | | | | | | | | | | |
| | 14 | 2/1/2 | | | Medium Soft | (Boulder 16.5' to 17.5'?) | | | | | | | | | |
| | 15 | | | | | | | | | | | | | | |
| | 16 | | | | | | | | | | | | | | |
| | 17 | | | | | | | | | | | | | | |
| | 18 | | | | | | | | | | | | | | |
| 615.6 | 19 | 2/1/2 | | | Very Loose | SAND & GRAVEL - Coarse to fine sand and partially rounded gravel to 1/2". Some silt and clay. Dark gray. Slight organic odor. | 61.7 | 10.8 | 8.2 | | 13.3 | | | | 14 |
| 612.6 | 21 | | | | | | | | | | | | | | |
| 610.9 | 23 | 50/0.2 | | | | WEATHERED SHALE - Decomposed gray clay shale. | | | | | | | | | 12 |
| | 24 | | | | | | | | | | | | | | |
| | 25 | | | | | | | | | | | | | | |
| | 26 | | | | | | | | | | | | | | |
| | 27 | | | | | | | | | | | | | | |
| | 28 | | | | | | | | | | | | | | |
| | 29 | | | | | | | | | | | | | | |
| | 30 | | | | | (Augered in shale to 30' Hard drilling in low gear) | | | | | | | | | |
| | 31 | | | | | | | | | | | | | | |
| | 32 | | | | | SHALE - Medium hard silty, slightly sandy, gray. Horizontal bedding 1/4" to over 2". Trace vertical to 70° fractures. | | | | | | | | | |
| | 33 | | 100% | 50% | | | | | | | | | | | |
| | 34 | | | | | | | | | | | | | | |
| | 35 | | | | | | | | | | | | | | |
| | 36 | | | | | | | | | | | | | | |
| | 37 | | | | | | | | | | | | | | |
| | 38 | | 88% | 84% | | | | | | | | | | | |
| | 39 | | | | | | | | | | | | | | |
| 594.6 | 40 | | | | | Some weathering at 39.4' | | | | | | | | | |

Bottom of Boring
Note: Stream water level at El. 616.7 (Eq. Depth 17.9')

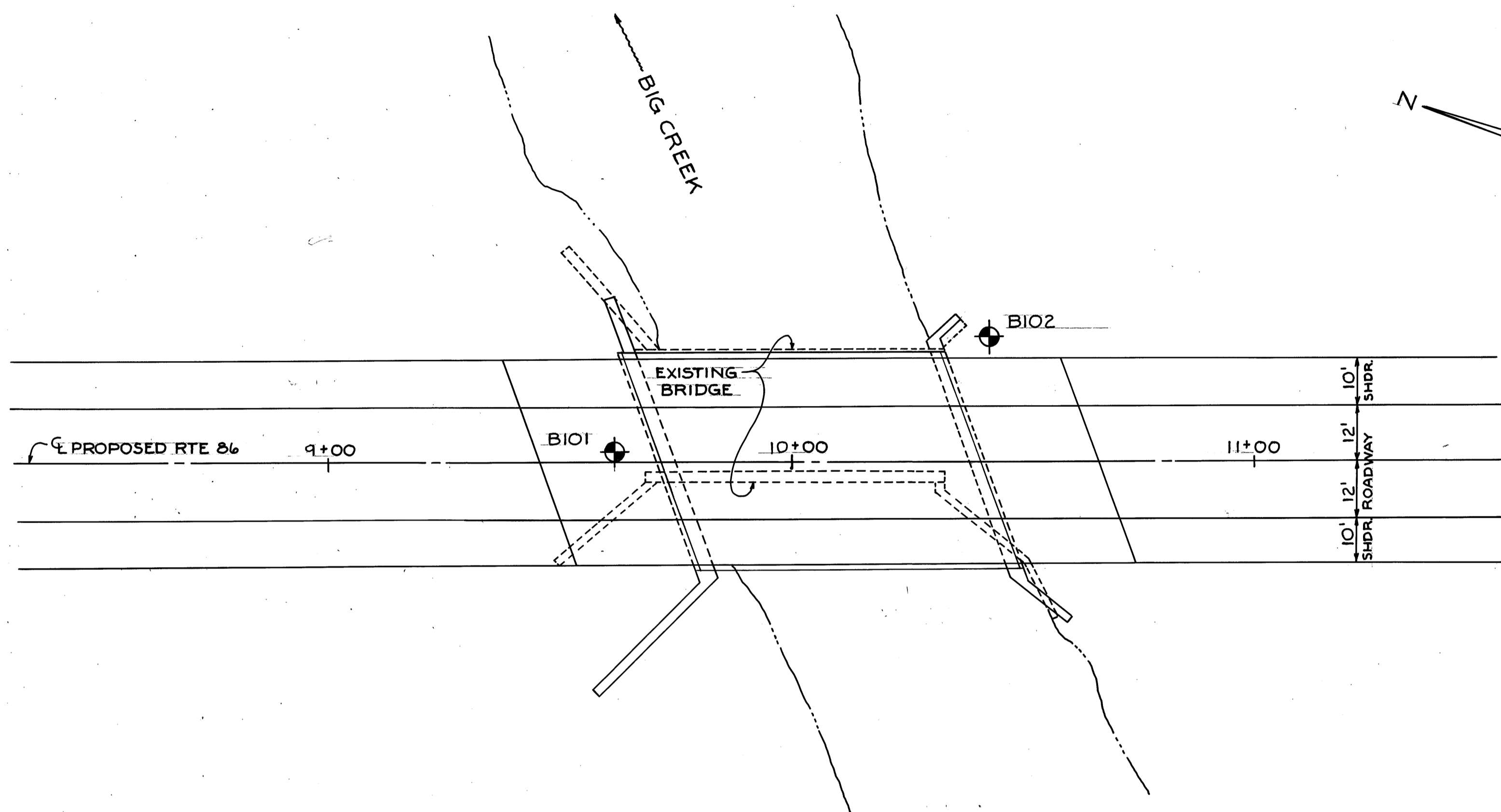
LOG OF BORING

BORING NO. 102
STA 10+43, 2.1' LT.
SURFACE ELEV. 637.6

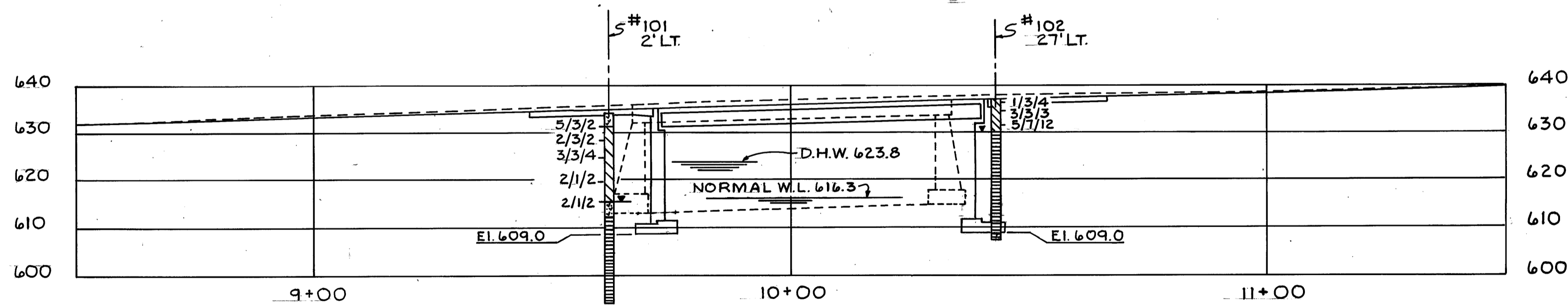
DATE STARTED: 1/5/82
DATE COMPLETED: 1/6/82

| ELEV. | DEPTH | SAMPLES/ CORES | | | CONSIST./ REL. DENSITY | DESCRIPTION | LAB TESTS | | | | | | | | |
|-------|-------|----------------|--------|----------|------------------------|---|-------------|--------|--------|--------|------|----|------|--|----|
| | | BLOWS PER FT. | REC. % | R.S.D. % | | | % Agg. C.S. | % F.S. | % SILT | % CLAY | LL | PI | W.C. | | |
| 636.6 | 1 | 1/3/4 | | | Loose | TOP SOIL - Dark brown, sandy silt with fragments and organic material. | 42.5 | 15.9 | 25.2 | | 14.4 | | | | 19 |
| | 2 | | | | | | | | | | | | | | |
| | 3 | 3/3/3 | | | Firm | CLAY - Silty, sandy, brown. Some partially rounded gravel to 1" | | | | | | | | | |
| | 4 | | | | | | | | | | | | | | |
| | 5 | | | | | | | | | | | | | | |
| | 6 | 5/7/12 | | | Very Stiff | | 75.6 | 8.2 | 4.1 | | 12.1 | | | | 5 |
| 628.8 | 7 | 50/0.3 | | | | WEATHERED SHALE - Decomposed with some gray sandy clay | | | | | | | | | |
| | 8 | | | | | | | | | | | | | | |
| | 9 | | | | | | | | | | | | | | |
| | 10 | | | | | | | | | | | | | | |
| | 11 | | | | | | | | | | | | | | |
| | 12 | | 100% | 98% | | | | | | | | | | | |
| | 13 | | | | | | | | | | | | | | |
| | 14 | | | | | | | | | | | | | | |
| | 15 | | | | | SHALE - Medium hard, silty gray. Thin horizontal bedding 1/32" to 1/8". Trace secondary structure (jointing and fractures) vertical to 70°. | | | | | | | | | |
| | 16 | | | | | | | | | | | | | | |
| | 17 | | 96% | 92% | | | | | | | | | | | |
| | 18 | | | | | | | | | | | | | | |
| | 19 | | | | | | | | | | | | | | |
| | 20 | | | | | Trace of weathering at 18.0' to 18.5' and 25.8'. | | | | | | | | | |
| | 21 | | | | | | | | | | | | | | |
| | 22 | | 100% | 90% | | | | | | | | | | | |
| | 23 | | | | | | | | | | | | | | |
| | 24 | | | | | | | | | | | | | | |
| | 25 | | | | | Slightly sandy below 24' | | | | | | | | | |
| | 26 | | | | | | | | | | | | | | |
| | 27 | | 100% | 72% | | | | | | | | | | | |
| | 28 | | | | | | | | | | | | | | |
| | 29 | | | | | | | | | | | | | | |
| 607.6 | 30 | | | | | | | | | | | | | | |

Bottom of Boring
Note: Stream water level at El. 617.7 (Eq. Depth 20.9')



PLAN



PROFILE

CAPITOL ENGINEERING ASSOCIATES
CONSULTING CIVIL ENGINEERS
PAINESVILLE, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. LAK-86-0229
OVER BIG CREEK
LAKE COUNTY STA 9+72.88 TO STA 10+40.12

DESIGNED: EWB DRAWN: DPR TRACED: TAP CHECKED: TAP REVIEWED DATE: NGE 3/18/82 REVISIONS: