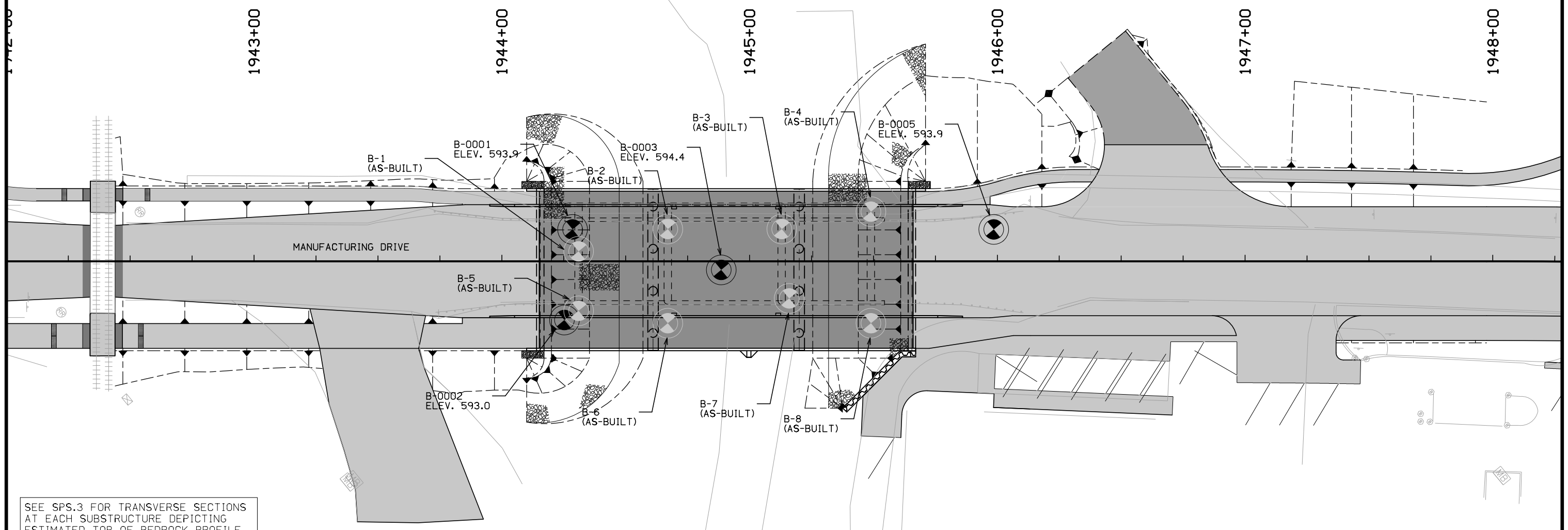


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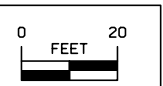
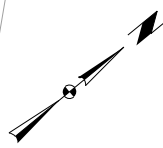
**LOCATION**

MANUFACTURING DRIVE  
OVER HART'S MILL CREEK  
T-8IN R-6E  
SECTION 15  
CLINTON TOWNSHIP  
CLINTON COUNTY  
CITY OF CLINTON  
FHWA NO. 002111  
LATITUDE 41.822604°  
LONGITUDE -90.240646°



SEE SPS.3 FOR TRANSVERSE SECTIONS AT EACH SUBSTRUCTURE DEPICTING ESTIMATED TOP OF BEDROCK PROFILE.

BORING NO.	BEDROCK ELEV.	STATION	NOTE
B-1	536.6	1944+31	
B-2	541.4	1944+67	
B-3	558.3	1945+13	
B-4	552.6	1945+49	BROKEN LIMESTONE AT 562.2
B-5	541.3	1944+31	
B-6	557.4	1944+67	
B-7	562.9	1945+16	
B-8	561.7	1945+49	
B-001	539.0	1943+83	WEATHERED SANDSTONE AT 544.5
B-002	540.3	1944+29	NO ROCK CORING
B-003	555.7	1944+89	
B-005	564.9	1945+98	WEATHERED SANDSTONE AT 559.4



DESIGN FOR 0° SKEW  
**150'-0 X 44'-0 CONTINUOUS CONC. SLAB**  
**BRIDGE WITH 12'-0½ PATH & 5'-0½ WALK**  
 45'-6 END SPANS 59'-0 INTERIOR SPAN  
**SOIL PROFILE SHEET**  
 STATION 1944+90.57 SEPTEMBER 2021  
**CLINTON COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION  
 DESIGN SHEET NO. 1 OF 5 FILE NO. -- DESIGN NO. --

CUT MOISTURE  
CUT DENSITY (lb/ft<sup>3</sup>)  
PLASTIC LIMIT

10,16,25,27,25,27,17,16,17,22  
---,---,---,20,---,14,---,---

18,20,29,29,15,31,23,20,21,18,21  
---,24,---,---,14,---,---

48,15,21,17,22,20  
---,---,---,14,---,---

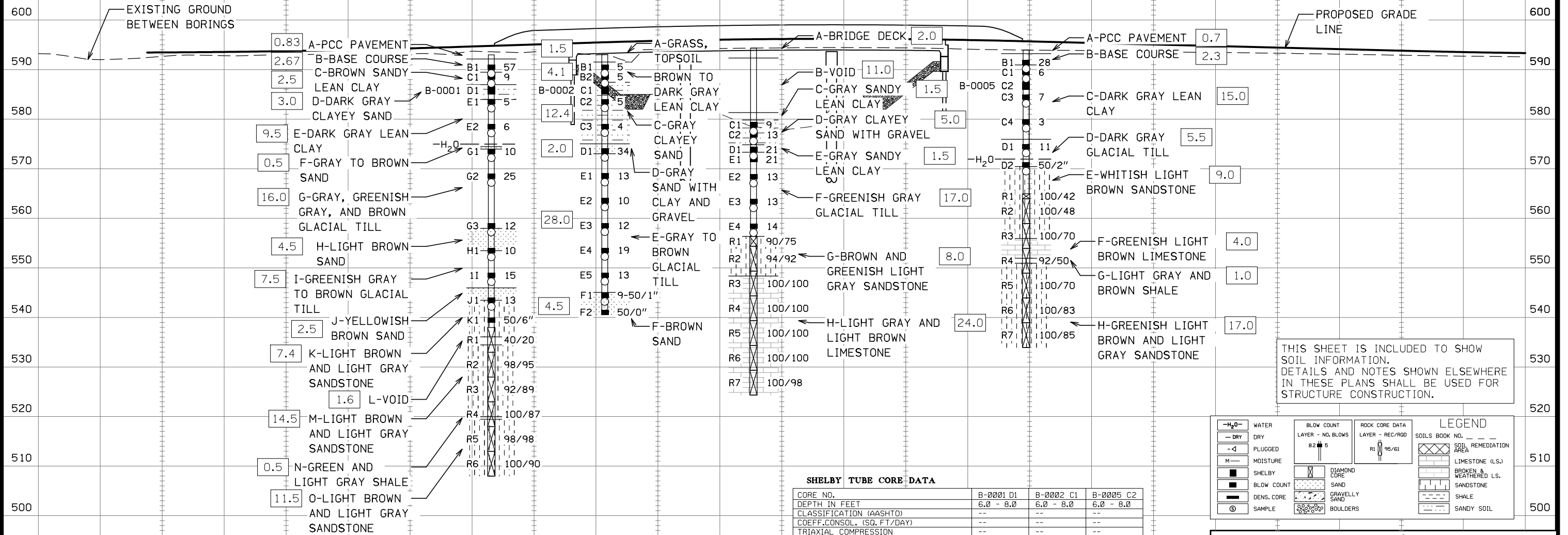
10,32,30,33,17,18  
---,---,14,---,---

ROCK CORE COMPRESSIVE STRENGTH TESTING REPORT

Sample Number	Elevation	Material Description	Unit Load (psi)	Moisture (%)	Dry Density (PCF)
B-0001 R1	538.94	LT BR/LT GR SLIGHTLY-HIGHLY WEATHERED SANDSTONE	8,600	0.3	155
B-0001 R2	530.74	LT BR/LT GR SLIGHTLY-HIGHLY WEATHERED SANDSTONE	3,658	0.4	161
B-0001 R3	526.44	LT BR/LT GR SLIGHTLY-HIGHLY WEATHERED SANDSTONE	4,084	0.5	157
B-0001 R4	521.94	LT BR/LT GR SLIGHTLY-HIGHLY WEATHERED SANDSTONE	4,784	0.3	154
B-0001 R5	516.94	LT BR/LT GR SLIGHTLY-HIGHLY WEATHERED SANDSTONE	7,411	0.3	151
B-0001 R6	511.64	LT BR/LT GR SLIGHTLY-HIGHLY WEATHERED SANDSTONE	2,634	0.2	146
B-0003 R1	555.25	BR/GRN LT GR SLIGHTLY-HIGHLY WEATHERED SANDSTONE	6,174	0.4	162
B-0003 R2	551.35	BR/GRN LT GR SLIGHTLY-HIGHLY WEATHERED SANDSTONE	4,576	0.3	159
B-0003 R3	546.05	LT GR/LT BR WEATHERED TO FRESH LIMESTONE	4,342	0.3	158
B-0003 R4	540.65	LT GR/LT BR WEATHERED TO FRESH LIMESTONE	5,187	0.3	159

ROCK CORE COMPRESSIVE STRENGTH TESTING REPORT

Sample Number	Elevation	Material Description	Unit Load (psi)	Moisture (%)	Dry Density (PCF)
B-0003 R5	537.35	LT GR/LT BR WEATHERED TO FRESH LIMESTONE	5,125	0.2	153
B-0003 R6	532.85	LT GR/LT BR WEATHERED TO FRESH LIMESTONE	3,274	0.3	161
B-0003 R7	526.05	LT GR/LT BR WEATHERED TO FRESH LIMESTONE	2,042	0.3	144
B-0005 R2	561.93	WH LT BR MODERATELY-HIGHLY WEATHERED SANDSTONE	2,208	0.2	146
B-0005 R3	556.93	WH LT BR MODERATELY-HIGHLY WEATHERED SANDSTONE	2,434	0.4	150
B-0005 R4	551.03	GRN LT BR/LT GR SLIGHTLY-HIGHLY WEATHERED SANDSTONE	1,490	0.4	147
B-0005 R5	546.63	GRN LT BR/LT GR SLIGHTLY-HIGHLY WEATHERED SANDSTONE	3,422	0.2	156
B-0005 R6	541.53	GRN LT BR/LT GR SLIGHTLY-HIGHLY WEATHERED SANDSTONE	6,430	0.3	158
B-0005 R7	537.03	GRN LT BR/LT GR SLIGHTLY-HIGHLY WEATHERED SANDSTONE	6,573	0.3	161



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Boring No.	Date Drilled	Groundwater Level (Ft.)
B-0001	3/2/2021	18
B-0002	3/1/2021	Not Encountered
B-0003	2/26/2021	Not Encountered
B-0005	3/1/2021	22

BORING B-0001 PROFILE OFFSET FOR CLARITY.

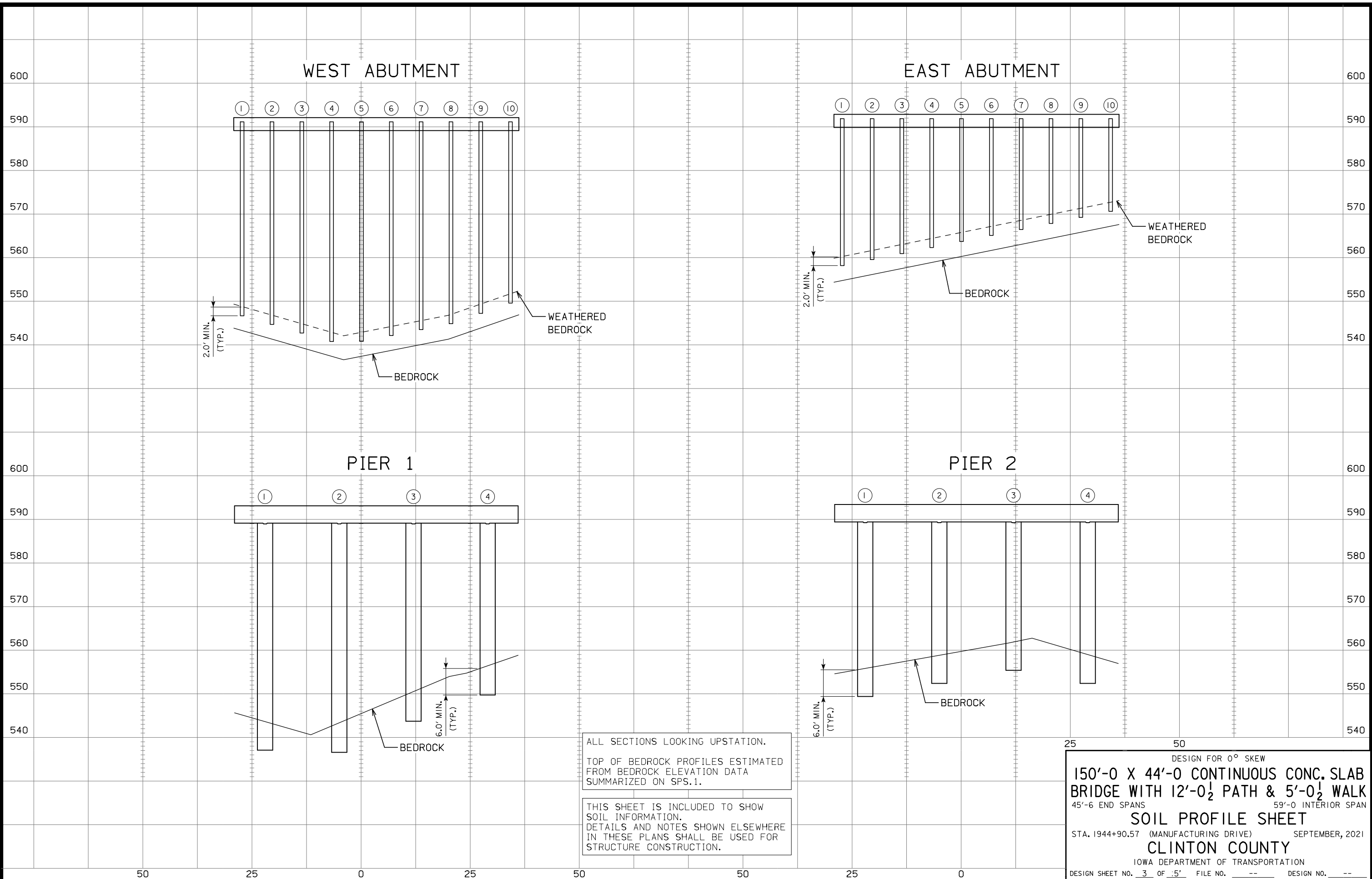
B-0001  
12.9' LT

B-0002  
23.7' RT

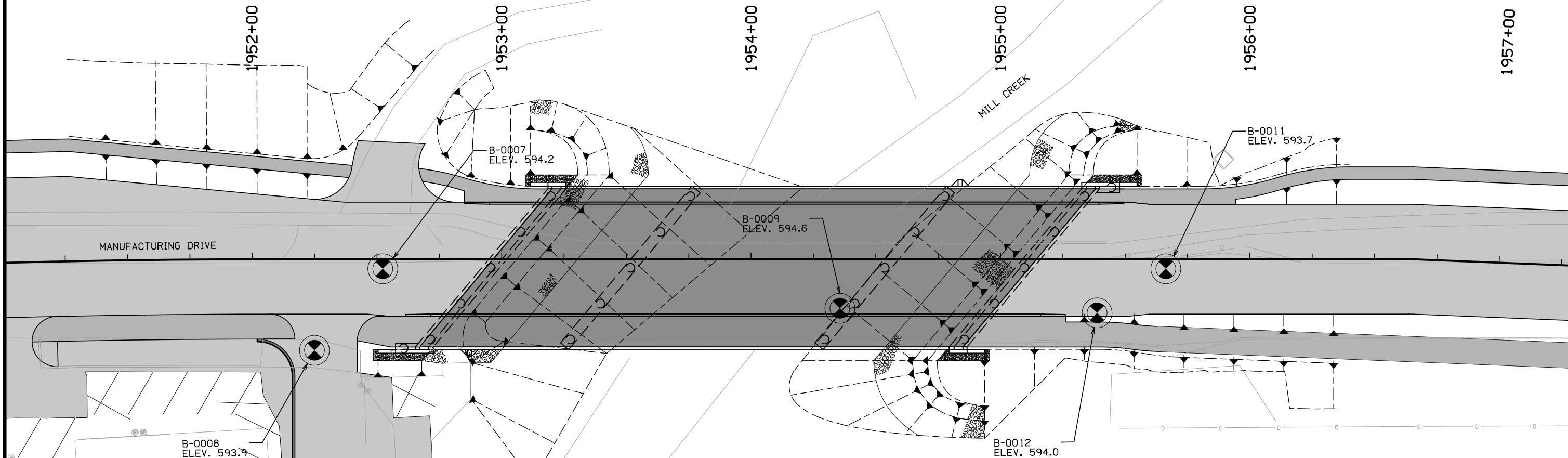
B-0003  
3.5' RT

B-0005  
12.9' LT

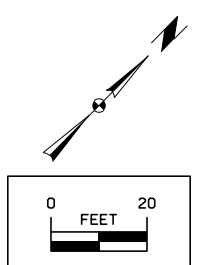
DESIGN FOR 0° SKEW  
**150'-0 X 44'-0 CONTINUOUS CONC. SLAB BRIDGE WITH 12'-0½ PATH & 5'-0½ WALK**  
 45'-6 END SPANS 59'-0 INTERIOR SPAN  
**SOIL PROFILE SHEET**  
 STA. 1944+90.57 (MANUFACTURING DRIVE) SEPTEMBER, 2021  
**CLINTON COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION  
 DESIGN SHEET NO. 2 OF 5 FILE NO. -- DESIGN NO. --



THIS SHEET IS INCLUDED TO SHOW SOIL INFORMATION. DETAILS AND NOTES SHOWN ELSEWHERE IN THESE PLANS SHALL BE USED FOR STRUCTURE CONSTRUCTION.



**LOCATION**  
 MANUFACTURING DRIVE  
 OVER MILL CREEK  
 T-8IN R-6E  
 SECTION 14/15  
 CLINTON TOWNSHIP  
 CLINTON COUNTY  
 CITY OF CLINTON  
 FHWA NO. 002101  
 LATITUDE 41.824356°  
 LONGITUDE -90.238284°



DESIGN FOR 40° SKEW L.A.  
**214'-0 X 44'-0 PRETENSIONED PRESTRESSED  
 CONC. BEAM BRIDGE WITH 12'-0½ PATH & 5'-0½ WALK**  
 56'-0 END SPANS 102'-0 INTERIOR SPAN  
**SOIL PROFILE SHEET**  
 STA. 1954+05.56 (MANUFACTURING DRIVE) SEPTEMBER, 2021  
**CLINTON COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION  
 DESIGN SHEET NO. 4 OF 5 FILE NO. -- DESIGN NO. --

CUT MOISTURE  
CUT DENSITY (lb/ft³)  
PLASTIC LIMIT

10,13,26,16  
---

18,32,31,33,19  
---

17,23  
---

7,5,34,33  
---,23,22

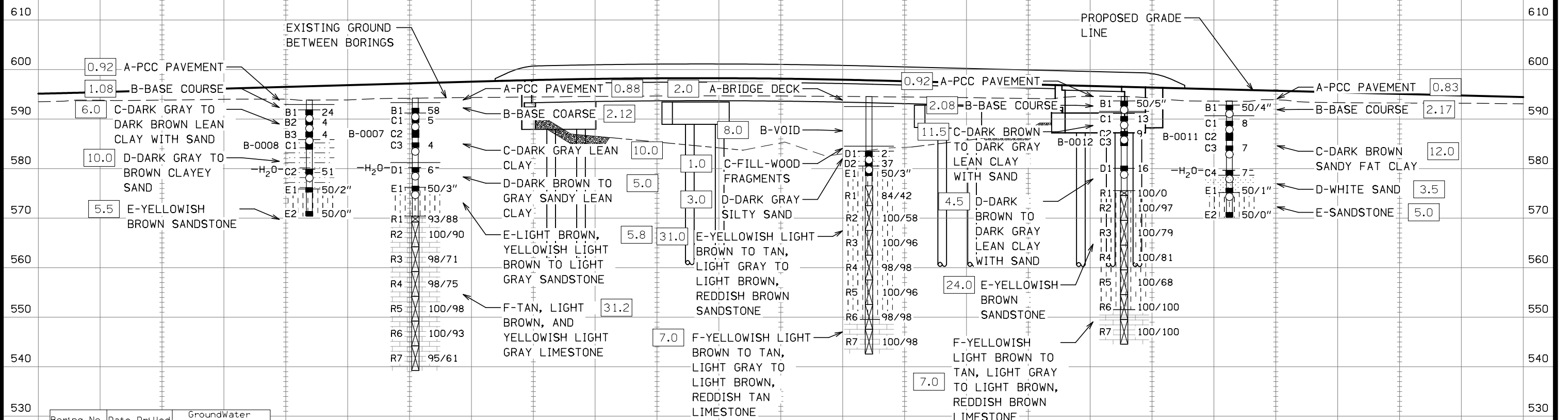
10,27,27,32,16  
---,25,21,--

ROCK CORE COMPRESSIVE STRENGTH TESTING REPORT

ROCK CORE COMPRESSIVE STRENGTH TESTING REPORT

Sample Number	Elevation	Material Description	Unit Load (psi)	Moisture (%)	Dry Density (PCF)
B-0007 R2	565.25	TAN, LT BR, YLW LT GR SLIGHTLY WEATHERED-FRESH LIMESTONE	3,061	0.1	147
B-0007 R3	562.65	TAN, LT BR, YLW LT GR SLIGHTLY WEATHERED-FRESH LIMESTONE	1,637	0.1	136
B-0007 R4	557.45	TAN, LT BR, YLW LT GR SLIGHTLY WEATHERED-FRESH LIMESTONE	2,264	0.3	146
B-0007 R5	551.75	TAN, LT BR, YLW LT GR SLIGHTLY WEATHERED-FRESH LIMESTONE	1,526	0.3	141
B-0007 R6	547.25	TAN, LT BR, YLW LT GR SLIGHTLY WEATHERED-FRESH LIMESTONE	11,721	0.3	150
B-0007 R7	542.05	TAN, LT BR, YLW LT GR SLIGHTLY WEATHERED-FRESH LIMESTONE	5,745	0.2	154
B-0009 R2	567.29	YLW LT BR/TAN, LT GR/LT BR, RED BR MODERATELY-HIGHLY WEATHERED SANDSTONE	1,137	0.2	138
B-0009 R3	565.09	YLW LT BR/TAN, LT GR/LT BR, RED BR MODERATELY-HIGHLY WEATHERED SANDSTONE	1,801	0.2	147
B-0009 R4	558.39	YLW LT BR/TAN, LT GR/LT BR, RED BR MODERATELY-HIGHLY WEATHERED SANDSTONE	6,154	0.3	151
B-0009 R5	553.09	YLW LT BR/TAN, LT GR/LT BR, RED BR MODERATELY-HIGHLY WEATHERED SANDSTONE	3,012	0.3	150

Sample Number	Elevation	Material Description	Unit Load (psi)	Moisture (%)	Dry Density (PCF)
B-0009 R6	548.49	YLW LT BR/TAN, LT GR/LT BR, RED BR MODERATELY-HIGHLY WEATHERED SANDSTONE	4,203	0.2	150
B-0012 R2	572.34	YLW BR MODERATELY-HIGHLY WEATHERED SANDSTONE	2,348	0.4	138
B-0012 R3	567.04	YLW BR MODERATELY-HIGHLY WEATHERED SANDSTONE	2,579	0.1	136
B-0012 R4	561.54	YLW BR MODERATELY-HIGHLY WEATHERED SANDSTONE	1,734	0.1	138
B-0012 R5	557.94	YLW BR MODERATELY-HIGHLY WEATHERED SANDSTONE	4,153	0.2	150
B-0012 R6	552.54	YLW BR MODERATELY-HIGHLY WEATHERED SANDSTONE	1,598	0.6	142
B-0012 R7	546.74	YLW LT BR/TAN, LT GR/LT BR, RED BR SLIGHTLY-MODERATELY WEATHERED SANDSTONE	10,630	0.3	152



Boring No.	Date Drilled	Groundwater Level (Ft.)
B-0007	2/22/2021	14
B-0008	2/22/2021	14
B-0009	2/25/2021	Not Encountered
B-0011	2/23/2021	14
B-0012	2/23/2021	Not Encountered

SHELBY TUBE CORE DATA

CORE NO.	B-0007 C2	B-0008 C1	B-0011 C2	B-0012 C3
DEPTH IN FEET	6.0 - 8.0	8.0 - 10.0	6.0 - 8.0	8.0 - 10.0
CLASSIFICATION (AASHTO)	--	--	--	--
COEFF. CONSOL. (SQ. FT/DAY)	--	--	--	--
TRIAXIAL COMPRESSION	--	--	--	--
COHESION - PSF	--	--	--	--
FRICTION COEFF.	--	--	--	--
MOISTURE CONTENT %	26.9	20.0	33.6	27.3
DRY DENSITY - PCF	92.8	95.6	81.5	92.4
CU-CONSOLIDATED UNDRAINED				
UU-UNCONSOLIDATED UNDRAINED				
UC-UNCONFINED COMPRESSION (c=1/2 Qu)				

**LEGEND**

WATER: -H<sub>2</sub>O-  
DRY: -DRY-  
PLUGGED: -P-  
MOISTURE: M-  
SHELBY: [Symbol]  
BLOW COUNT: [Symbol]  
DENS. CORE: [Symbol]  
SAMPLE: [Symbol]

BLOW COUNT: LAYER - NO. BLOWS  
LAYER - REC/ROD  
ROCK CORE DATA: LAYER - REC/ROD  
SOILS BOOK NO. ---  
SOIL REMEDIATION AREA: [Symbol]  
LIMESTONE (L.S.): [Symbol]  
BROKEN & WEATHERED L.S.: [Symbol]  
SANDSTONE: [Symbol]  
SHALE: [Symbol]  
SANDY SOIL: [Symbol]

DIAMOND CORE: [Symbol]  
SAND: [Symbol]  
GRAVELLY SAND: [Symbol]  
BOULDERS: [Symbol]

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DESIGN FOR 40° SKEW L.A.  
**214'-0 X 44'-0 PRETENSIONED PRESTRESSED CONC. BEAM BRIDGE WITH 12'-0½ PATH & 5'-0½ WALK**  
 56'-0 END SPANS 102'-0 INTERIOR SPAN  
**SOIL PROFILE SHEET**  
 STA. 1954+05.56 (MANUFACTURING DRIVE) SEPTEMBER, 2021  
**CLINTON COUNTY**  
 IOWA DEPARTMENT OF TRANSPORTATION  
 DESIGN SHEET NO. 5 OF 5 FILE NO. -- DESIGN NO. --

BORING B-0008 AND B-0011 PROFILES OFFSET FOR CLARITY.

B-0008 36.5' RT  
B-0007 3.8' RT

B-0009 19.7' RT

B-0012 21.5' RT  
B-0011 3.8' RT