

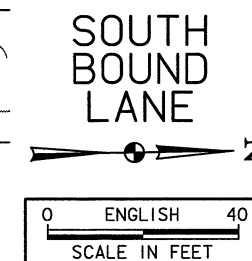
GEOTECHNICAL DESIGN

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

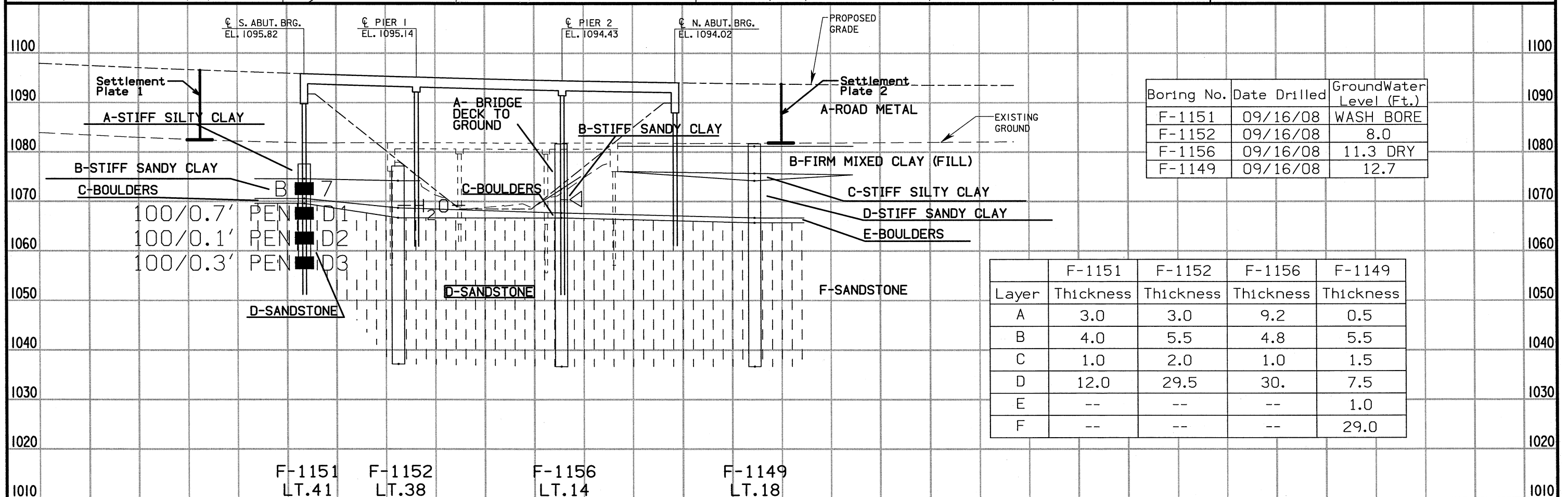
Robert L. Stanley 4-13-09
Signature Robert L. Stanley Date
Printed or Typed Name
My license renewal date is December 31, 2010
Pages or sheets covered by this seal: SPS.1 - SPS.3

WATER	SOILS BOOK NO. N.A.	SHELBY	DENS. CORE
SAMPLE	BLOW	SELECT SAND	SANDY SOIL
PLUGGED	UNSUITABLE	SELECT SOIL	
MOISTURE	ROCK		
SHALE			

LOCATION
US 169 OVER INDIAN CREEK
T-91N R-29W
SECTION 23
CORINTH TOWNSHIP
HUMBOLDT COUNTY
BRIDGE MAINT. NO. 4670.45169

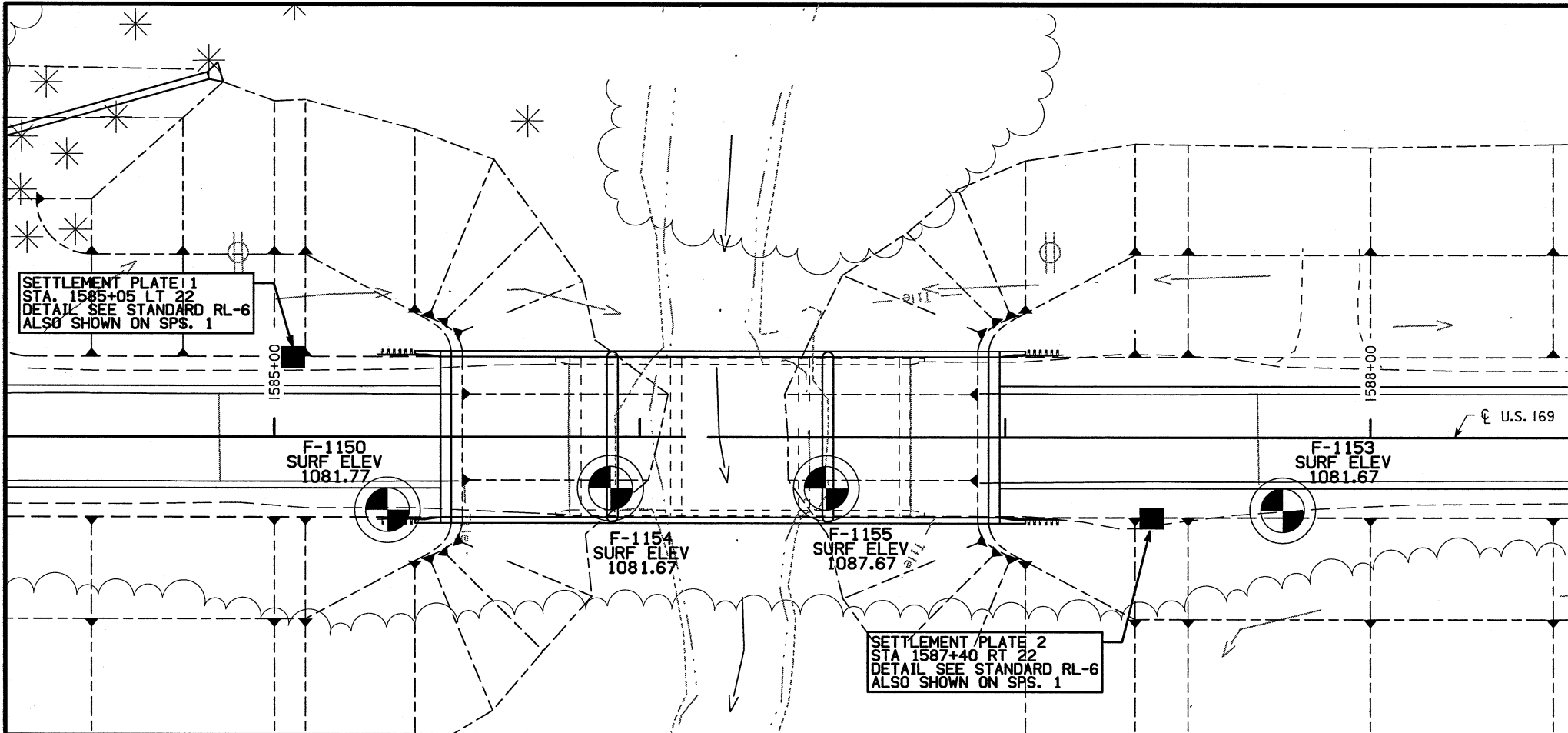


DESIGN FOR 0° SKEW
**150'-0 X 44'-0 CONTINUOUS CONCRETE
SLAB BRIDGE**
45'-6 END SPANS 59'-0 INTERIOR SPAN
SOIL PROFILE SHEET
STATION 1586+22.00
HUMBOLDT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 1 OF 3 FILE NO. 30037 DESIGN NO. 209



Boring No.	Date Drilled	GroundWater Level (Ft.)
F-1151	09/16/08	WASH BORE
F-1152	09/16/08	8.0
F-1156	09/16/08	11.3 DRY
F-1149	09/16/08	12.7

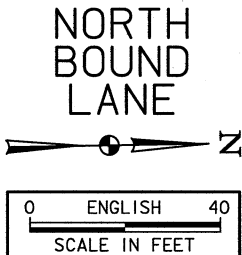
	F-1151	F-1152	F-1156	F-1149
Layer	Thickness	Thickness	Thickness	Thickness
A	3.0	3.0	9.2	0.5
B	4.0	5.5	4.8	5.5
C	1.0	2.0	1.0	1.5
D	12.0	29.5	30.	7.5
E	--	--	--	1.0
F	--	--	--	29.0



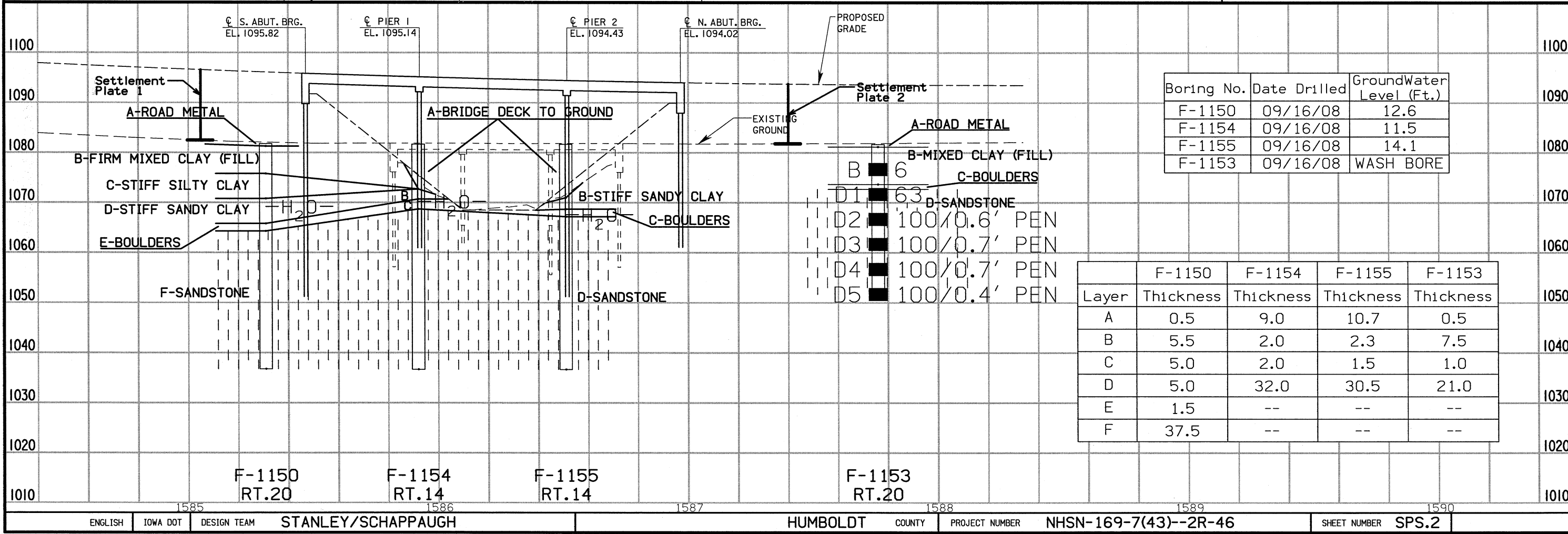
THIS SHEET IS INCLUDED TO SHOW SOIL INFORMATION. DETAILS AND NOTES SHOWN ELSEWHERE IN THESE PLANS SHALL BE USED FOR STRUCTURE CONSTRUCTION.

WATER	SOILS BOOK NO. N.A.	DENS. CORE
SAMPLE	SHELBY	SELECT SAND
PLUGGED	BLOW	SANDY SOIL
MOISTURE	UNSUITABLE	SELECT SOIL
SHALE	ROCK	

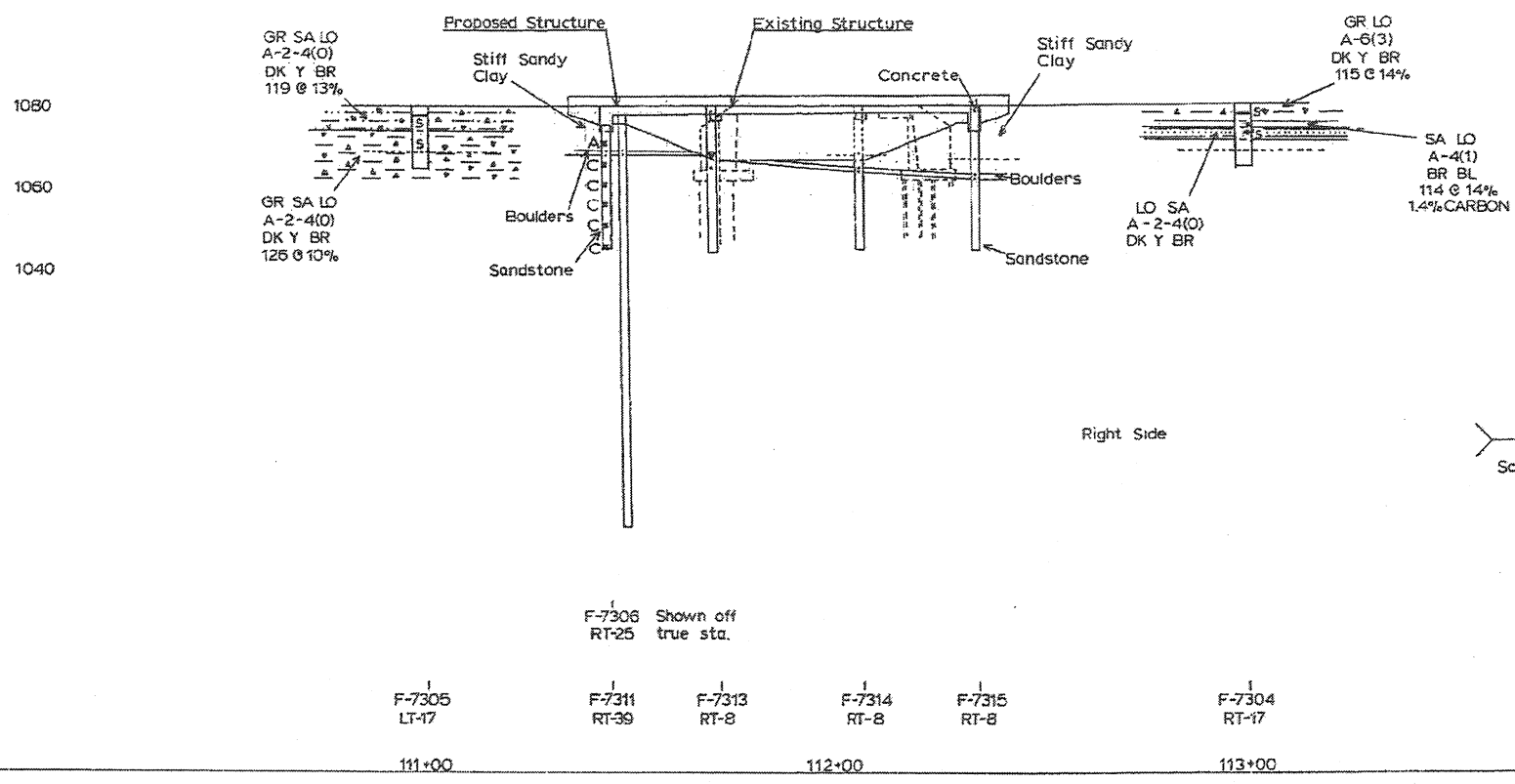
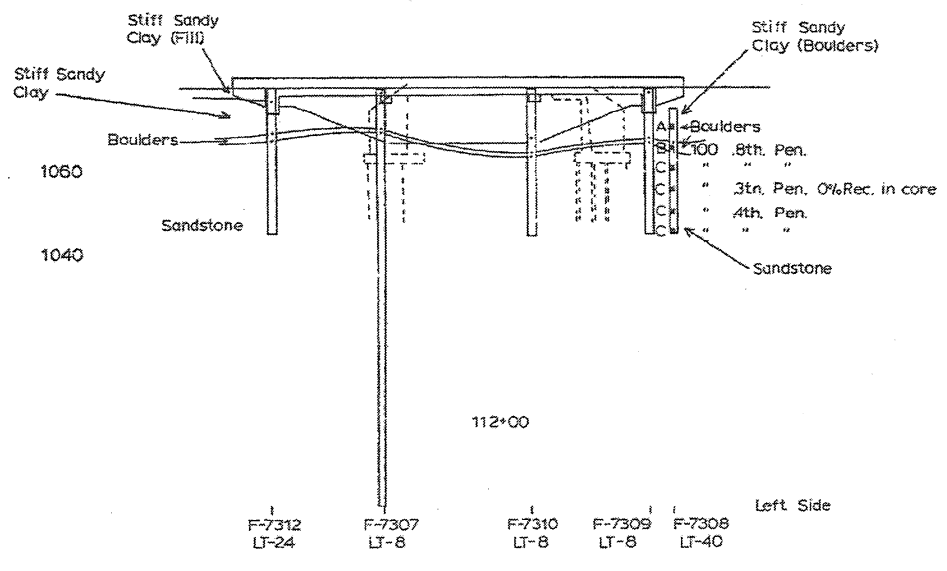
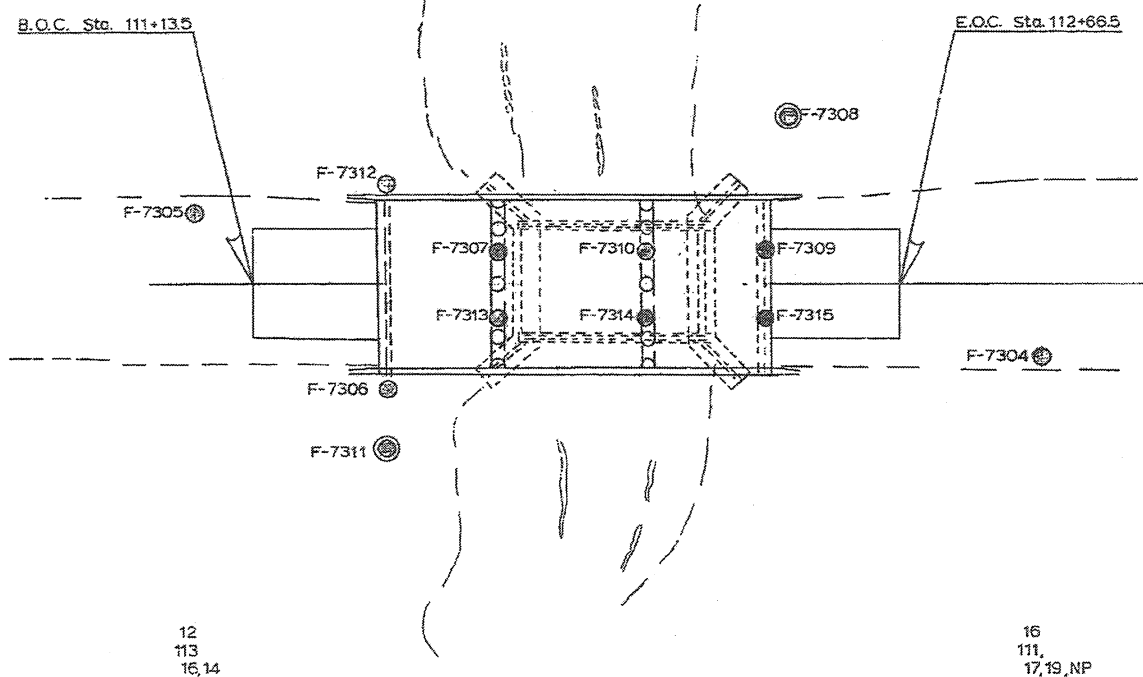
LOCATION
US 169 OVER INDIAN CREEK
T-9IN R-29W
SECTION 23
CORINTH TOWNSHIP
HUMBOLDT COUNTY
BRIDGE MAINT. NO. 4670.4SI69



DESIGN FOR 0° SKEW
150'-0 X 44'-0 CONTINUOUS CONCRETE SLAB BRIDGE
45'-6 END SPANS 59'-0 INTERIOR SPAN
SOIL PROFILE SHEET
STATION 1586+22.00
HUMBOLDT COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 2 OF 3 FILE NO. 30037 DESIGN NO. 209



1981 SOILS BORING INFORMATION
DO NOT SCALE



WASH BORE DATA

TYPE	STATION	DATE	NO.	DEPTH	BLOWS/FT	% REC
ST	112+41	LT-40	F-7308-A	40-50	0	Boulders
"	"	"	"	90-98	100	.8ths Pen.
"	"	"	"	140-148	100	"
"	"	"	"	190-193	100	.3ths
"	"	"	"	240-244	100	.4ths
"	"	"	"	290-294	100	"
ST	111+45	RT-39	F-7311-A	40-50	12	"
"	"	"	"	90-98	100	.8ths Pen.
"	"	"	"	140-144	100	.4ths Pen.
"	"	"	"	190-195	100	.5ths Pen.
"	"	"	"	240-244	100	.4ths Pen.
"	"	"	"	290-295	100	.5ths Pen.

ROAD: U.S. 169
SOIL SURVEY
INDIAN CREEK BRIDGE

DATE: JULY 15, 1981

GRAY SANDY LOAM	GRAY SANDY LOAM
SILTY CLAY LOAM	GRAVELLY SAND
SILTY CLAY	GRAVELLY LOAM
SANDY LOAM	SANDY LOAM
CLAY LOAM	LOAMY SAND
CLAY	LOAM
SILT	SAND
WATER	

DATE: 7/15/81
BY: L. HARTMAN
CHECKED: J. E. HARTMAN
NO. 1

DATE: 7/15/81
BY: L. HARTMAN
CHECKED: J. E. HARTMAN
NO. 1