

STRUCTURE GEOTECHNICAL REPORT

Proposed Retaining Wall

S.N. 043-7009

IL Route 84/U.S. Route 20
FAP Route 301
Section 29R-1
Jo Daviess County

PTB 155 - Item 029
IDOT Job No. P92-088-92
Contract No. 64880

Prepared By: Michael T. Haley, P.E., S.E.
Lin Engineering, Ltd.
3261 S. Meadowbrook Rd.
Suite 500
Springfield, IL 62711
(217) 679-2928
mhaley@lineng.com



Michael T. Haley
6-10-20

Date Prepared: 03/20/2015
Date Revised: 06/10/2020

Prepared For: Vincent P. Tabor, P.E., S.E.
Lin Engineering, Ltd.
3261 S. Meadowbrook Rd.
Suite 500
Springfield, IL 62711
(217) 679-2928
vtabor@lineng.com

Exhibits: A) Location Map
B) Boring Locations
C) Boring Logs
D) Rock Depth Probes
E) Subsurface Data Profile
F) Slope Stability Output
G) Approved TSL

Project Description and Proposed Structure Information

The geotechnical study summarized in this report was performed for the proposed structure number 043-7009 along IL Route 84/U.S. Route 20 from station 1200+39 to station 1202+53 in Jo Daviess County, Illinois. The proposed alignment will be used for all stations in the narrative, but the borings and rock depth probes have existing alignment stationing. The retaining wall is part of the reconstruction project for IL Route 84/U.S. Route 20. The purpose of this report is to investigate the subsurface conditions and present design and construction recommendations for the proposed structure. On the USGS Galena quadrangle map, the project site lies in Section 24, Range 1W, Township 28N, in the 4th Principal Meridian. A *Location Map* is presented in Exhibit A.

The proposed structure is located approximately 0.1 miles west of the Galena River. The retaining wall ranges from 51 to 69 feet right of the centerline of IL Route 84/U.S. Route 20. The wall will be 213'-0" in length and is expected to run between stations 1200+39.87 and 1202+52.98. The proposed wall will retain an existing slope to be able to accommodate the expansion of the parking lot along IL Route 84/U.S. Route 20. The estimated maximum retained height for the structure is 10.6 feet with an average retained height of 6.2 feet. The slope of the back slope varies from flat to 1:2 (V:H). The proposed structure design will follow the LRFD design specifications. In order to construct the retaining wall, lane closure or shoulder closure may be required if the parking lot cannot provide the necessary required work area for construction. A type B concrete gutter will be provided behind the wall to ensure proper drainage for the proposed structure.

The project also requires SGR's to be prepared for S.N. 043-7010 and S.N. 043-7011.

Existing Information

Lin Engineering conducted a field visit to investigate the existing wall. The retaining wall is located from station 1200+88 to 1202+05 along existing IL Route 84/U.S. Route 20. The existing structure is retaining soil to provide space for the existing parking lot. The estimated maximum retained height for the existing structure is 5.5 feet with an average retained height of 4.2 feet. The wall is composed of a combination of concrete masonry units and historic stone blocks. No additional information was provided for the existing retaining wall. Stationing increases from south to north.

Site Investigation, Subsurface Exploration and Generalized Subsurface Conditions

This site is located in a historic district in Galena, IL. The combination of residential, commercial, and historic structures in the immediate vicinity may reduce design options in order to limit noise levels and vibrations. Utilities in the vicinity of the proposed retaining wall include, but are not limited to, an underground storm sewer ranging approximately 19 to 33 feet southwest of the proposed wall which runs parallel to IL Route 84/U.S. Route 20; an underground sanitary sewer ranging approximately 22 to 37 feet southwest of the proposed wall which runs parallel to IL Route 84/U.S. Route 20; a manhole whose center is approximately 4.25 feet from the proposed wall and an underground sanitary sewer heading southwest from the manhole which connects with the previously mentioned underground sanitary sewer; a tile heads to the northwest and runs through the proposed wall and connects to the previously mentioned manhole. The

subsurface investigation consisted of 5 borings (B-1 thru B-5) drilled by IDOT District 2 personnel in March of 2007 along with an additional subsurface investigation in July of 2015 which consisted of extending Boring B-2 and rock depth probing at four other locations. The borings were drilled east of the centerline of IL Route 84/U.S. Route 20 at offset distances ranging from 44 feet to 75 feet. When Boring B-2 was extended, a rock core was taken.

Beginning at the ground surface, standard penetration tests (SPT) were conducted every 2.5 feet according to AASHTO T 206 using a hollow stem auger drill. The borings consisted of mainly cohesive soils. Boring B-1 encountered a sand layer directly below the ground surface to a depth of 2.5 feet. Boring B-2 encountered sand 6.5 feet below the ground surface until the end of boring at 9 feet. Boring B-2 encountered very dense concrete 2.5 feet below the ground surface to a depth for 4 feet. The thin sand layers had an average blow count of 4 blows per foot. The cohesive soils had blow counts ranging from 1 to 13 blows per foot, a Q_u value ranging from 0.5 to 1.5 tsf, and a moisture content ranging from 12 to 36%. The rock line elevation was unable to be identified from the March 2007 borings due to termination of the original borings before reaching rock. However, IDOT performed additional borings and rock depth probing at various locations which indicated a shallow rock depth. Borings were terminated at depths ranging from 6 to 21 feet below the ground surface. For the development of the TSL, it is recommended to assume that the rock elevation and station are as shown in Table 1 and linear interpolation is recommended for the stations in between.

Station	Elevation
1200+34.82	607.8
1201+66.70	609.5
1202+47.62	617.1

Table 1

According to the boring logs provided, no groundwater was encountered at the time the drilling took place or 24 hours after completion.

Further descriptions of the soil conditions encountered in the borings are presented in the *Boring Logs* attached in Exhibit C and the *Subsurface Data Profile* in Exhibit E. The *Rock Depth Probes* can be found in Exhibit D. Rock depth probe and boring locations can be found in Exhibit B.

Geotechnical Evaluations

Settlement. Primary settlement analysis was performed for concrete cantilever and MSE wall types for various boring locations. The estimated settlements were found to be negligible due to the similar existing and proposed embankment heights. The analysis was done assuming preliminary footing elevations, a 9 foot wide footing, and 120 pcf back fill for concrete cantilever wall. If the actual dimensions vary from those assumed for this analysis, settlements shall be checked using actual values.

Slope Stability. Preliminary stability analyses using Bishop's Method were performed using temporary excavation 1:1 (V:H) slope model at multiple locations along the wall using different borings. According to the IDOT Geotechnical Manual, the required factor of safety is 1.7 for cut slopes. Slope stability checks were performed at various boring

locations and the minimum factor of safety was found to be over 1.7 at all boring locations. No slope stability issues are expected for the proposed retaining wall. *Slope Stability Output* is presented in Exhibit F.

Liquefaction. Per the IDOT AGMU Memo and Design Guide 10.1 (LRFD Liquefaction Analysis), a liquefaction analysis is not required for Seismic Performance Zone 1.

Retaining Wall Evaluations and Design Recommendations

The maximum retained height is to be approximately 10.6 feet (from bottom-of-wall grade to top-of-wall grade). The soil retained will be a cut area for an expanded parking lot. Feasible wall types include a T-type cantilever wall supported by a spread footing, a soldier pile wall, and a mechanically stabilized earth (MSE) wall. The following provides a general discussion of soil conditions as they relate to the retaining wall construction. Considering the soil conditions, wall heights, fill situation and that there are existing structures behind the proposed wall, it is expected that the soldier pile wall will be the most appropriate option for construction. However, economic, construction and scheduling factors should be evaluated for the decision of retaining wall design.

T-type Concrete Cantilever. A conventional reinforced concrete retaining wall supported on a spread footing appears to be a feasible option for the proposed wall. Preliminary analysis showed that the soil below the footing provided adequate bearing resistance with minimum bearing capacity being approximately 6.6 ksf. Additionally no settlement concerns are expected for this wall type. However, a cantilever T-type wall will require a temporary soil retention system to accommodate the construction of the wall due to the slope stability factor of safety being less than 1.7 for a cut slope. The need for a temporary soil retention system will result in increased costs. The bottom of the footings would need to be placed at a minimum depth of 4 feet below final lowest adjacent grade for the frost protection or bear on rock. Rock ranges from depths of 0 to 8.8 feet below the proposed ground line at the front face of wall and the wall is 213'-0" feet in length. The footing could bear on rock or soil as long as there is adequate bearing pressure in the soil beneath the footing. The footing should be sized to provide sufficient weight to resist sliding and overturning.

Lateral loads on the wall may be resisted by the frictional resistance between the footings and supporting soil. A Geocomposite Wall Drain should be placed over the entire length of the back face of the wall and either connected to a perforated drain pipe in accordance with IDOT Bridge Manual or weep holes should be added and spaced at 8 foot centers.

Mechanically Stabilized Earth (MSE) Wall. The MSE wall does not appear to be a viable option. The close proximity of another proposed retaining wall at the north end of the wall and the nearby existing retaining walls could interfere with the soil reinforcement. Due to the cut situation, an MSE wall will require a temporary soil retention system to accommodate the construction of the wall. This will result in increased costs.

Soldier Pile Wall. A soldier pile wall appears to be the most suitable option because of the cut situation. The soil parameters shown in Table 2 are recommended for the design of the soldier pile wall. The parameters were determined based on the soil conditions encountered in the soil borings. The design of the soldier pile wall should disregard the top 3 feet of soil in front of the wall to account for excavation required for concrete facing

and drainage system. The drainage behind the wall should be designed in accordance with 2012 IDOT Bridge Manual. A Geotechnical Design Memorandum will be required in the design phase if the soldier pile wall option is chosen. If the soldier pile option is chosen, drilled soldier piles are recommended due to the close proximity of historical structures and potentially shallow rock depth.

Soil Type	Moist Unit Weight (pcf)	Cohesion Cu (psf)	Friction Angle, ϕ (deg)	Estimated Soil Modulus k (pci)	Estimated Soil Strain Parameter, E50
Loose Sandy Loam	119	-	29.4	25	-
Medium Loam	116	630	27.2	100	0.01
Medium Sandy Loam	105	-	24.6	90	-
Medium Silty Clay Loam	116	680	26.2	100	0.01
Medium Silty Loam	116	660	29.5	100	0.01
Stiff Silty Clay	123	1150	30.3	500	0.007
Stiff Silty Clay Loam	126	1500	29.9	500	0.007
Weathered Very Dense Limestone	144	-	44.0	-	-

Table 2

Construction Considerations

Excavation. If excavation for the proposed improvements is in excess of 4 feet, temporary soil retention system will be required due to the slope stability factor of safety of less than 1.7. Movement of adjacent soils near the edge of and into excavation areas should be prevented. All excavations should be performed in accordance with the latest Occupational Safety and Health Administration (OSHA) requirements. If precipitation or perched water is allowed to enter the excavated area, it should be immediately removed via sump-pump. Any soil allowed to soften in standing water should be removed and replaced with structural fill material.

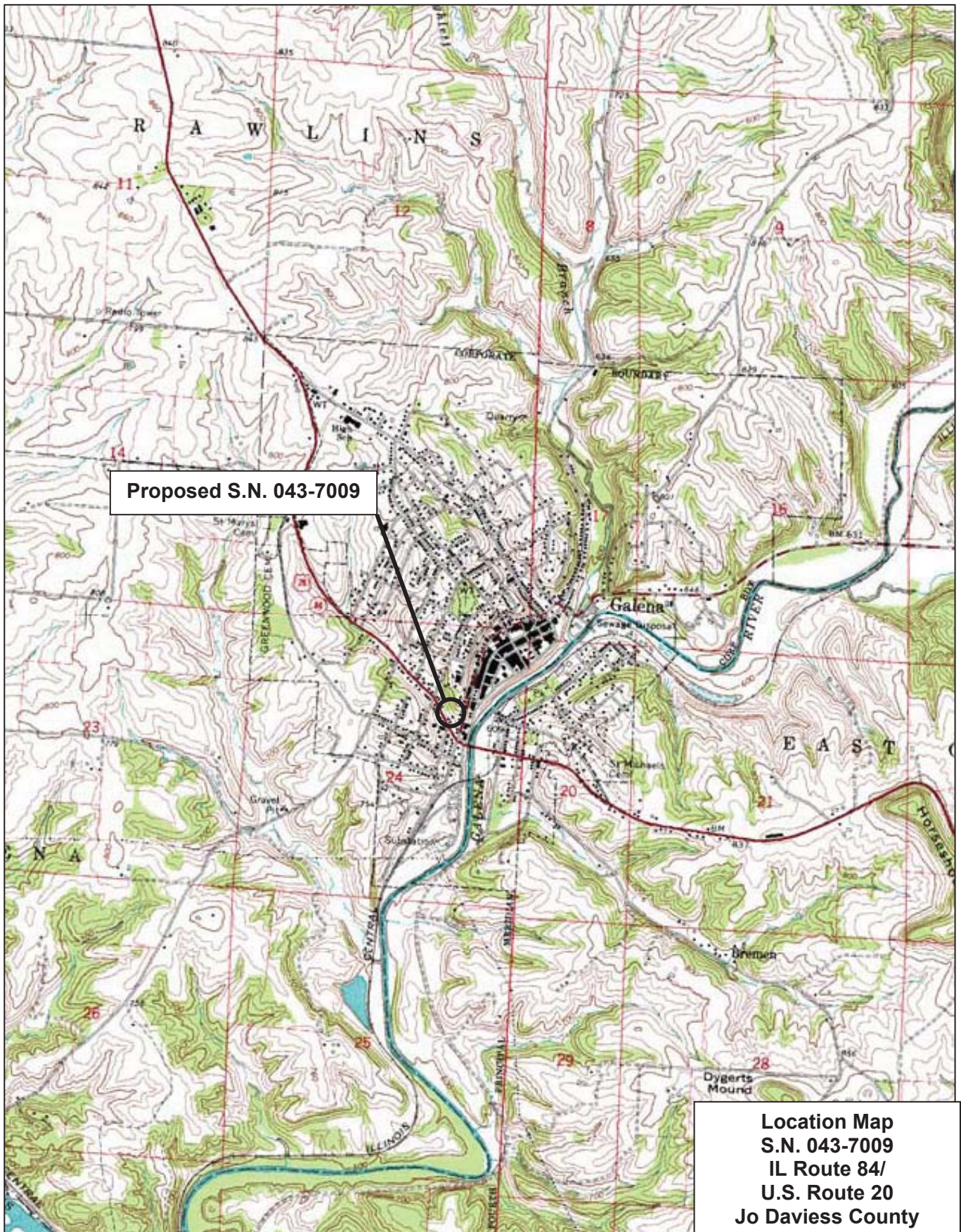
Backfill. If backfill materials are required, they must be pre-approved by the Resident Engineer. To backfill the retaining walls, we recommend Porous Granular Embankment in accordance with the IDOT Standard Specifications Section 207. Back fill material should be placed and compacted in accordance with the specification.

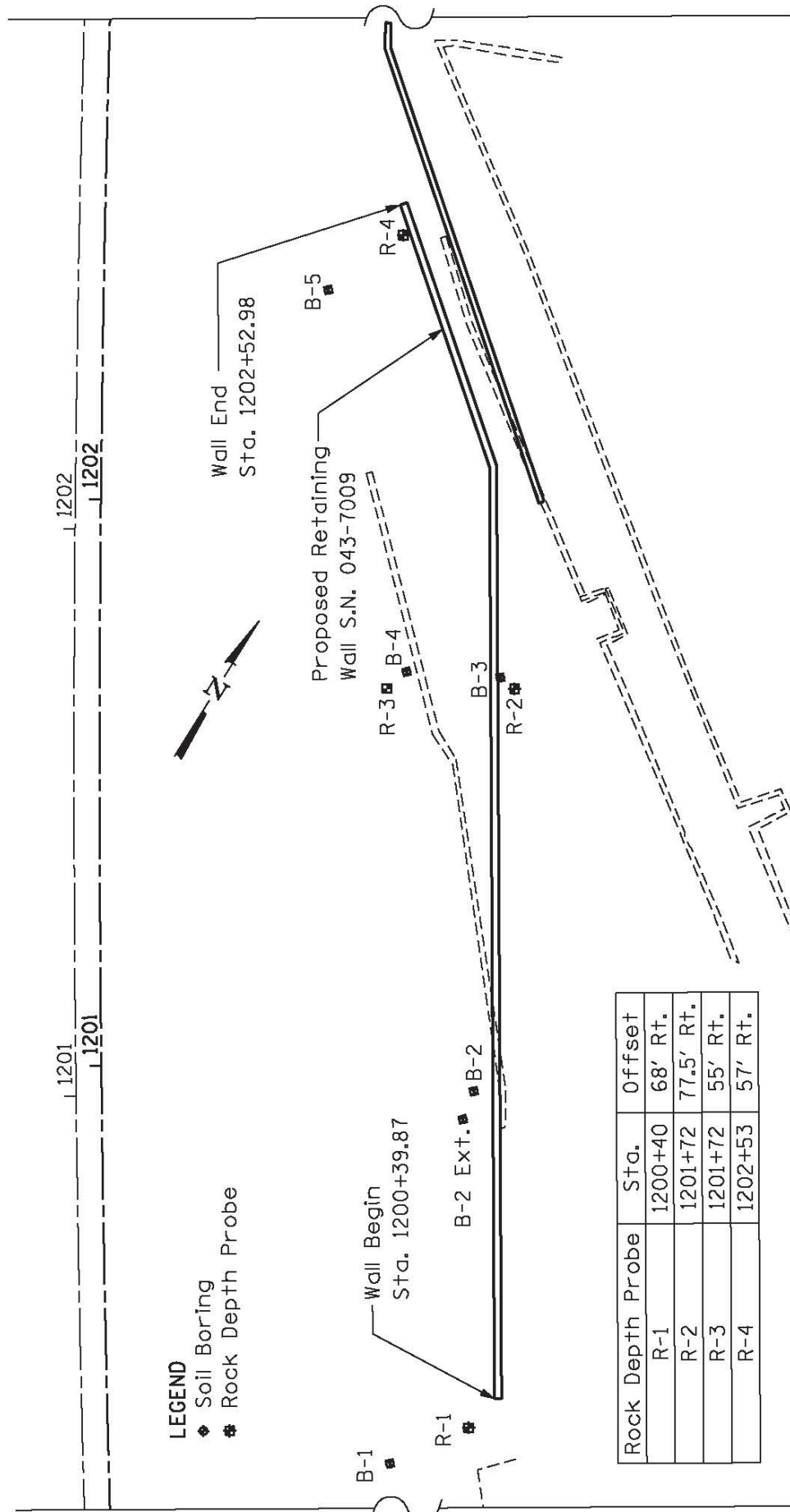
Ground Improvement. No ground improvement is anticipated at this location.

Limitations

The recommendations provided herein are for the exclusive use of IDOT and Lin Engineering, Ltd. They are specific only to the project described, and are based on subsurface information obtained at boring locations within the retaining wall area, our

understanding of the project as described herein, and geotechnical engineering practice consistent with the standard of care. No other warranty is expressed or implied. Lin Engineering, Ltd. should be contacted if conditions encountered during construction are not consistent with those described.





Rock Depth Probe	Sta.	Offset
R-1	1200+40	68' Rt.
R-2	1201+72	77.5' Rt.
R-3	1201+72	55' Rt.
R-4	1202+53	57' Rt.



Illinois Department of Transportation

Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Page 1 of 1

Date 3/22/07

ROUTE FA 301 DESCRIPTION P92-088-92 Retaining Wall, IL 84 in Galena LOGGED BY J. Strating
 SECTION 29X-T LOCATION W. Galena Twp. - 13 NW, SEC., TWP. 28N, RNG. 1W
 COUNTY JoDaviess DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. Station	DEPTH H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev.
					ft
BORING NO. <u>B-1</u> Station <u>1200+34</u> Offset <u>54.00ft Rt CL</u> Ground Surface Elev. <u>614.00</u> ft					Stream Bed Elev. _____ ft
					Groundwater Elev.:
					First Encounter _____ ft
					Upon Completion _____ ft
					After _____ Hrs. _____ ft
MEDIUM brown SANDY LOAM				21.0	
	611.50	2			
MEDIUM brown LOAM		3	0.8	36.0	
	610.00	4	P		
	-5				
MEDIUM brown SILTY LOAM		2			
		3	0.5	27.0	
	607.50	4	P		
End of Boring					
	-10				
	-15				
	-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation

Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

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Date 3/22/07

ROUTE FA 301 DESCRIPTION P92-088-92 Retaining Wall, IL 84 in Galena LOGGED BY J. Strating
SECTION 29X-T LOCATION W. Galena Twp. - 13 NW, SEC., TWP. 28N, RNG. 1W
COUNTY JoDaviess DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.	D	B	U	M	Surface Water Elev.
Station	E	L	C	O	Stream Bed Elev.
BORING NO.	P	O	S	I	Groundwater Elev.:
Station	T	W	Qu	S	First Encounter
Offset	H	S	(tsf)	T	Upon Completion
Ground Surface Elev.	(ft)	(/6")	(%)		After Hrs.
MEDIUM brown LOAM			0.8 P	13.0	
614.10					
VERY DENSE Concrete		3			
612.60		100/5'			
-5					
MEDIUM brown LOAM		6			
610.10		4 5	0.5 P	14.0	
LOOSE brown SANDY LOAM		3			
607.60		3			
End of Boring		3			
-10					
-15					
-20					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation

Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Date 3/22/07

ROUTE FA 301 DESCRIPTION P92-088-92 Retaining Wall, IL 84 in Galena LOGGED BY J. Straling
SECTION 29X-T LOCATION W. Galena Twp. - 13 NW, SEC. , TWP. 28N, RNG. 1W
COUNTY JoDavless DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. Station	BORING NO. Station	Offset ft	Ground Surface Elev. ft	D E P T H ft	B L O W S (/6")	U C S Qu (tsf)	M O I S T %	Elevations	
								Surface Water Elev. ft	Stream Bed Elev. ft
	B-3	1201+74	624.20						
		75.00ft Rt CL						Groundwater Elev.:	
								First Encounter	
								Upon Completion	
								After Hrs.	
MEDIUM dark brown SILTY CLAY LOAM						0.5 P	18.0		
			621.70						
MEDIUM brown SILTY CLAY LOAM						0.5 P	21.0		
			620.20						
			-5						
MEDIUM brown SILTY CLAY LOAM						0.6 P	17.0		
			617.70						
			-10						
MEDIUM brown SILTY CLAY LOAM						0.8 P	17.0		
			615.20						
			-15						
MEDIUM brown SILTY CLAY LOAM						0.9 P	17.0		
			612.70						
End of Boring									
			-20						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation

Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

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Date 3/22/07

ROUTE FA 301 DESCRIPTION P92-088-92 Retaining Wall, IL 84 in Galena LOGGED BY J. Strating
SECTION 29X-T LOCATION W. Galena Twp. - 13 NW, SEC., TWP. 28N, RNG. 1W
COUNTY JoDaviess DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. _____
Station _____
BORING NO. B-4
Station 1201+75
Offset 58.50ft Rt CL
Ground Surface Elev. 613.80 ft

D	B	U	M
E	L	C	O
P	O	S	I
T	W	Qu	S
H	S		T
(ft)	(/16")	(tsf)	(%)

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft
Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

MEDIUM brown LOAM	611.30			0.5 P	12.0	
MEDIUM tan/brown SILTY CLAY LOAM with weathered LIMESTONE fragments	609.80	7	8	0.8 P	17.0	
MEDIUM brown SILTY CLAY LOAM with weathered LIMESTONE fragments	607.30	5	4	0.8 P	28.0	
STIFF tan/gray SILTY CLAY	604.80	2	3	1.3 P	28.0	
MEDIUM gray SILTY LOAM	602.30	2	3	1.0 P	28.0	
MEDIUM tan/brown SILTY LOAM	599.80	2	3	0.5 P	32.0	
End of Boring						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

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Date 3/23/07

ROUTE FA 301 DESCRIPTION P92-088-92 Retaining Wall, IL 84 in Galena LOGGED BY J. Strating
SECTION 29X-T LOCATION W. Galena Twp. - 13 NW, SEC., TWP. 28N, RNG. 1W
COUNTY JoDaviess DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev.
					(ft)
BORING NO. <u>B-5</u> Station <u>1202+43</u> Offset <u>44.00ft Rt CL</u> Ground Surface Elev. <u>615.60</u> ft					Stream Bed Elev. _____ ft
					Groundwater Elev.:
					First Encounter _____ ft
					Upon Completion _____ ft
					After _____ Hrs. _____ ft
MEDIUM brown SILTY CLAY LOAM			0.5 P	19.0	
613.10		7			
STIFF tan/brown SILTY CLAY LOAM		3	1.5	28.0	
611.60		4	P		
-5					
STIFF tan/gray SILTY CLAY		3			
609.10		4	1.0	33.0	
End of Boring		5	P		
	-10				
	-15				
	-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



Soil Survey Data

Project: _____ Logged By: Wally Garza
 Route: US 20
 Section: 29R-1
 County: Jo Daviess

Date: 7/29/15		Sta.: 1200+40 Elev. 613.8			Offset: 68' Rt	
Depth	Sample No.	Soil Type	Water	Can No.	Qu	Description of Soil Layer (Color, Moisture, Strength, Etc.)
1						
2						1 st Encounter – 607.8
3						
4						Auger Refusal @ 607.8
5						
6						
7						
8						
9						
10						

Date: 7/30/15 B-3		Sta.: 1201+72 Elev. 624.5			Offset: 77.5' Rt	
Depth	Sample No.	Soil Type	Water	Can No.	Qu	Description of Soil Layer (Color, Moisture, Strength, Etc.)
1						
2						1 st Encounter @ 609.5
3						
4						Auger Refusal @ 603.5
5						
6						
7						
8						
9						
10						

Date: 7/30/15 B-4		Sta.: 1201+72			Offset: 55' Rt	
Depth	Sample No.	Soil Type	Water	Can No.	Qu	Description of Soil Layer (Color, Moisture, Strength, Etc.)
1						
2						1 st Encounter @ 612.5
3						
4						Auger Refusal @ 612.5
5						
6						
7						
8						
9						
10						

Qu: 0-.25 Very Soft; .25-.5 Soft; .5-1.0 Medium; 1.0-2.0 Stiff; 2.0-4.0 Very Stiff; >4.0 Hard jt9-1-15-1



Soil Survey Data

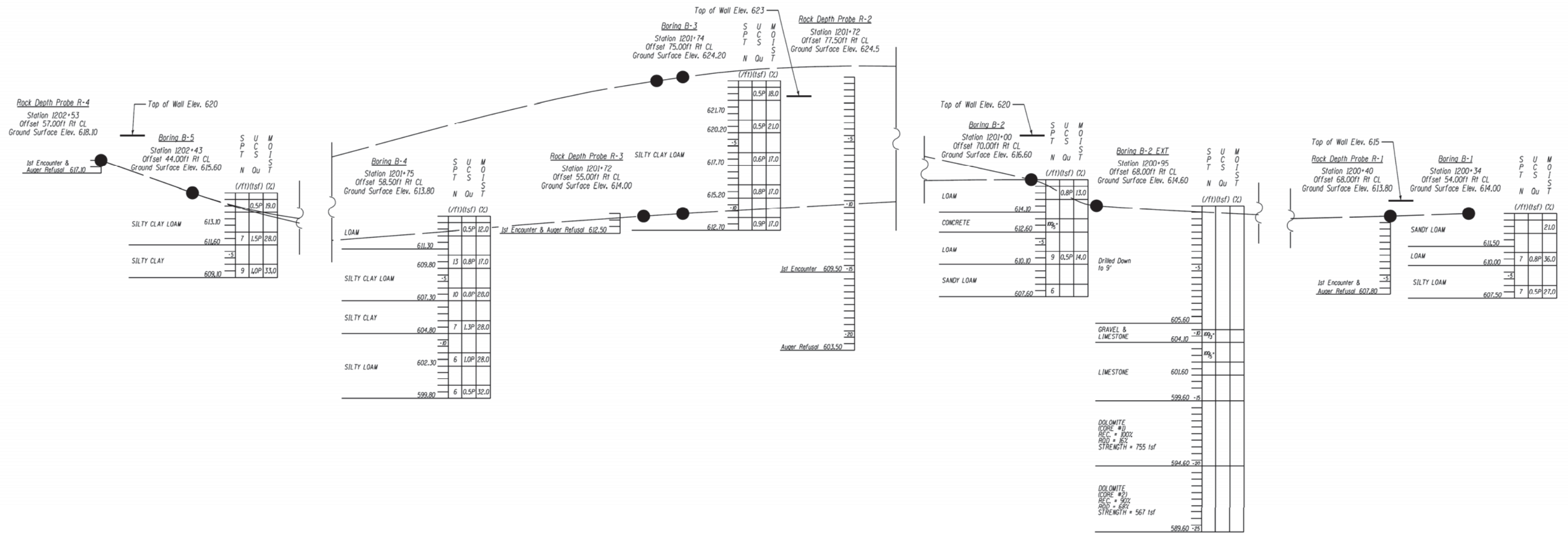
Project: _____ Logged By: Wally Garza
 Route: US 20
 Section: 29R-1
 County: Jo Daviess

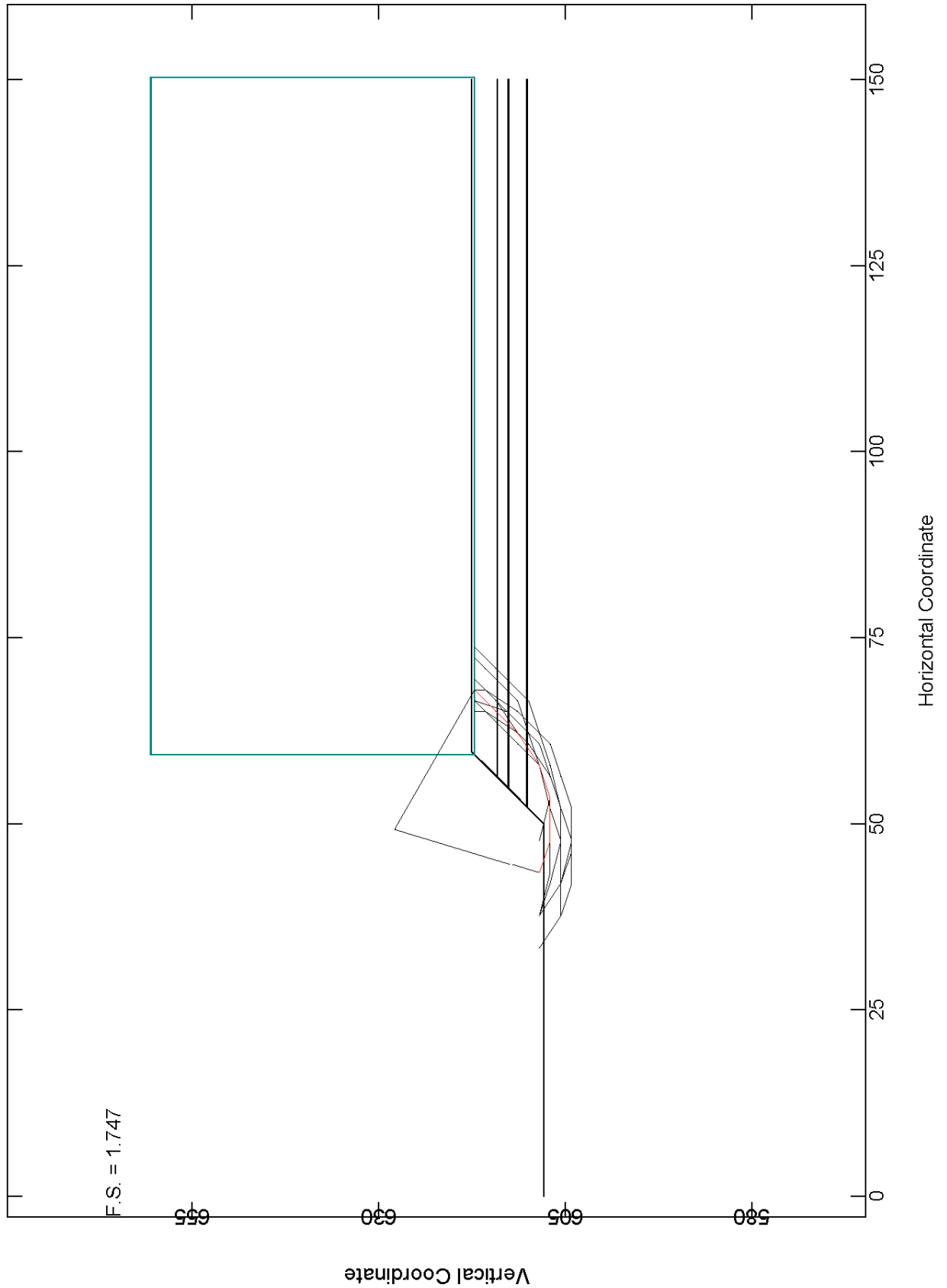
Date: 7/30/15		Sta.: 1202+53 (@1202+50) Elev. 618.1			Offset: 57' Rt	
Depth	Sample No.	Soil Type	Water	Can No.	Qu	Description of Soil Layer (Color, Moisture, Strength, Etc.)
1						
2						1 st Encounter – 617.1
3						
4						Auger Refusal @ 617.1
5						
6						
7						
8						
9						
10						

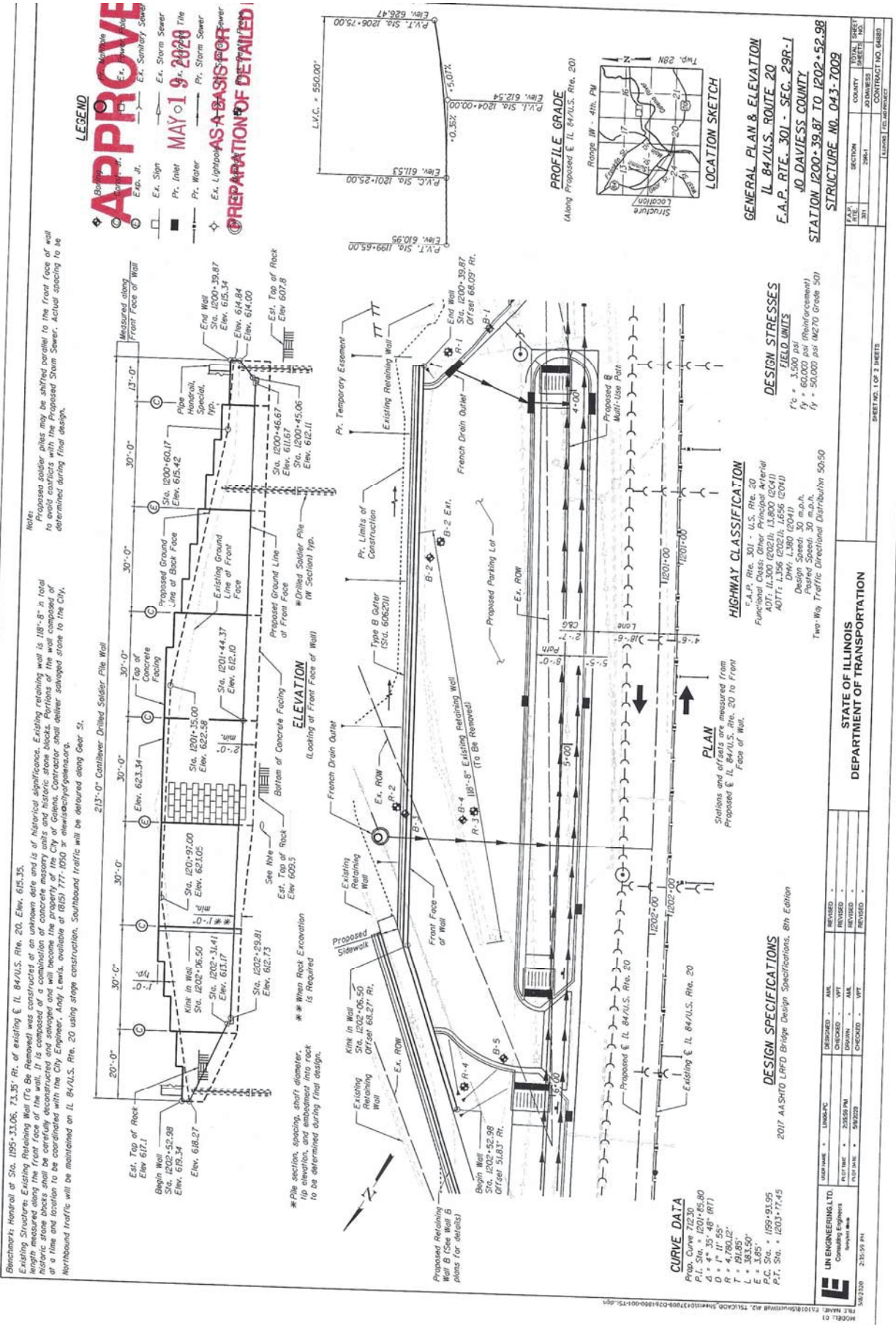
Date: 7/30/15		Sta.: 1217+17 (@1217+05) Elev. 660.9			Offset: 35' Lt of CL	
Depth	Sample No.	Soil Type	Water	Can No.	Qu	Description of Soil Layer (Color, Moisture, Strength, Etc.)
1						
2						
3						1 st Encounter @ 658.4
4						
5						Auger Refusal @ 649.9
6						
7						
8						
9						
10						

Date: 7/29/15		Sta.: 1217+63 (@ 1217+67) Elev. 669.9			Offset: 41' Lt of CL	
Depth	Sample No.	Soil Type	Water	Can No.	Qu	Description of Soil Layer (Color, Moisture, Strength, Etc.)
1						
2						
3						1 st Encounter @ 668.9
4						
5						Auger Refusal @ 665.4
6						
7						
8						
9						
10						

Qu: 0-.25 Very Soft; .25-.5 Soft; .5-1.0 Medium; 1.0-2.0 Stiff; 2.0-4.0 Very Stiff; >4.0 Hard jt9-1-15-1







APPROVE
 MAY 09 2020
 REPARATION OF DETAILED

DESIGN STRESSES
 FIELD UNITS
 f_c = 3,500 psi
 f_y = 60,000 psi (Reinforcement)
 f_y = 50,000 psi (M270 Grade 50)

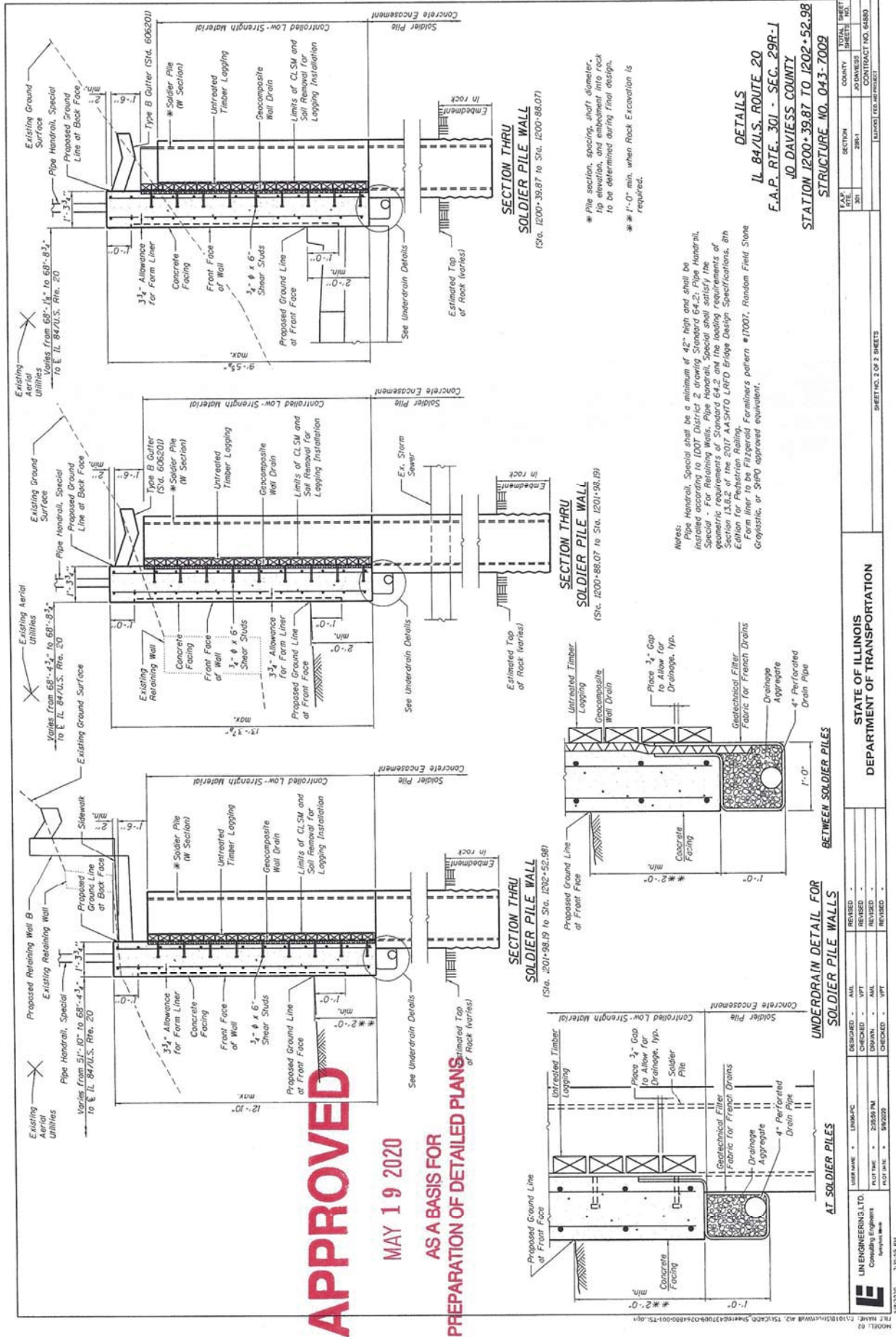
HIGHWAY CLASSIFICATION
 E.A.P. Rte. 301 - U.S. Rte. 20
 Functional Class: Other Principal Arterial
 ADT: 11,300 (2021); 11,800 (2041)
 ADTT: 1,356 (2021); 1,656 (2041)
 DMR: L380 (2041)
 Design Speed: 30 m.p.h.
 Paved Shoulder: 30 m.p.h.
 Two-Way Traffic Directional Distribution: 50/50

CURVE DATA
 Prop. Curve 702.30
 P.I. Sta. = 1201+85.80
 Δ = 4° 35' 48" (RT)
 D = 17' 55"
 T = 61.685'
 L = 363.50'
 E = 3.85'
 P.C. Sta. = 1199+93.95
 P.T. Sta. = 1203+77.45

GENERAL PLAN & ELEVATION
 IL 84/U.S. ROUTE 20
 E.A.P. RTE. 301 - SEC. 29R-1
 JO. DAVIESS COUNTY
 STATION 1200+39.87 TO 1202+52.98
 STRUCTURE NO. 043-7009

STATE OF ILLINOIS	DEPARTMENT OF TRANSPORTATION
DESIGNED - AME	REVISION -
CHECKED - VPT	REVISION -
DRAWN - AME	REVISION -
CHECKED - VPT	REVISION -

Lin Engineering, Ltd.
 Page 19 of 20
 Exhibit G – Approved TSL



APPROVED

MAY 19 2020

AS A BASIS FOR
PREPARATION OF DETAILED PLANS

Notes:
 * Pipe Handrail, Special steel shall be a minimum of 42" high and shall be installed according to I00T District 2, drawing S00000-06-01-01-01-01. For replacement of existing handrail, the specifications of Standard 64.2 and the loading requirements of Section 13.8.2 of the 2017 AASHTO LRFD Bridge Design Specifications, 8th Edition for Pedestrian Rating.
 * Form liner to be Filzgerald Formliners pattern #17007, Random Field Stone Graystone, or S4PD approved equivalent.

DETAILS
 IL 84/U.S. ROUTE 20
 E.A.P. RTE. 301 - SEC. 299-1
 JO. DAVIESS COUNTY
 STATION 1200+39.87 TO 1202+52.88
 STRUCTURE NO. 043-7009

PROJECT NO.	043-7009
CONTRACT NO.	64880
SHEET NO.	2041
TOTAL SHEETS	2041
DATE	2020
DESIGNED BY	UNK/PC
CHECKED BY	VPT
DRAWN BY	ALL
DATE	2/25/20
PROJECT NAME	942009
DATE	2/25/20
PROJECT NO.	043-7009
CONTRACT NO.	64880
SHEET NO.	2041
TOTAL SHEETS	2041
DATE	2020

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

REVISIONS:
 REVISION NO. 1: ALL
 REVISION NO. 2: VPT
 REVISION NO. 3: VPT
 REVISION NO. 4: VPT

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