

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
389A	D-7 Bridge Appr. 2009-1	SHELBY	14	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 74337		

D-97-054-08

PLANS FOR PROPOSED IMPROVEMENT

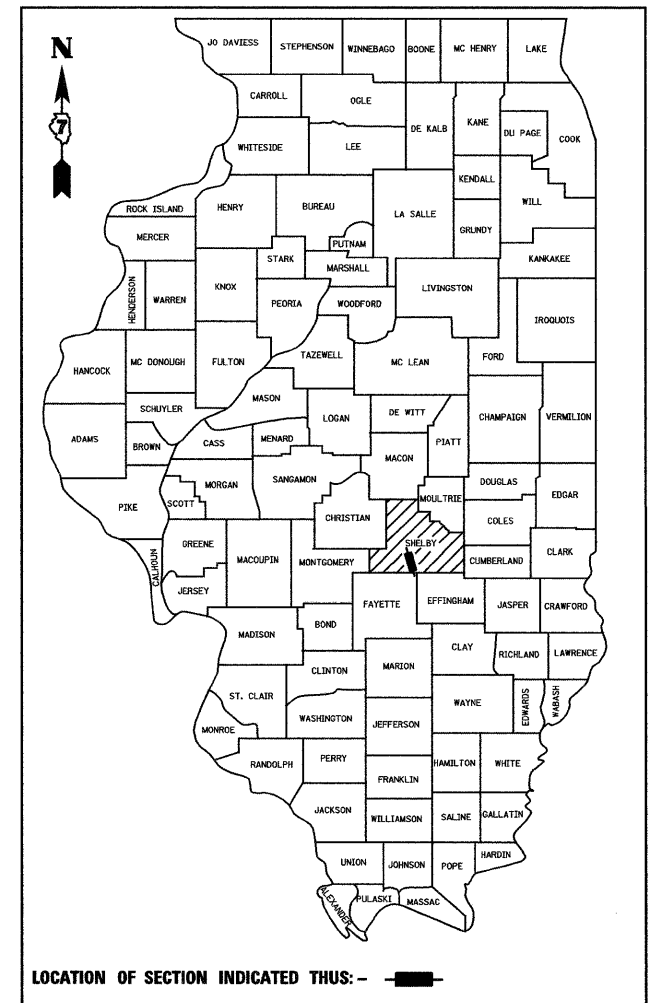
T.R. 389A (THOMPSON MILL ROAD)
SECTION D-7 BRIDGE APPROACH 2009-1
PROJECT : ACNHCB-0173(165)
SHELBY COUNTY
THOMPSON MILL COVERED BRIDGE
STRUCTURE NO. 087-0019
C-97-104-08
REPLACE APPROACH SPANS

INDEX OF SHEETS

- 1 COVER SHEET
- 2 SUMMARY OF QUANTITIES & GENERAL NOTES
- 3-14 STRUCTURE PLANS

HIGHWAY STANDARDS

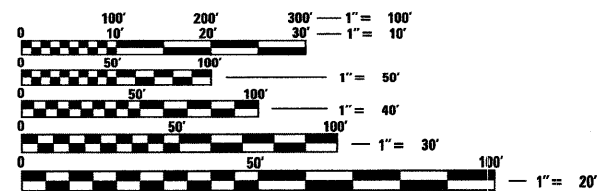
- 280001-04 TEMPORARY EROSION CONTROL SYSTEMS
- 701801-04 LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
- 701901-01 TRAFFIC CONTROL DEVICES



James Paul Diggers
JAMES PAUL DIGGERS, P.E.
 DATE 02/04/09
 LICENSE EXPIRES 11/30/09

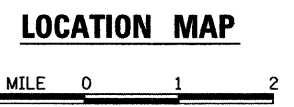
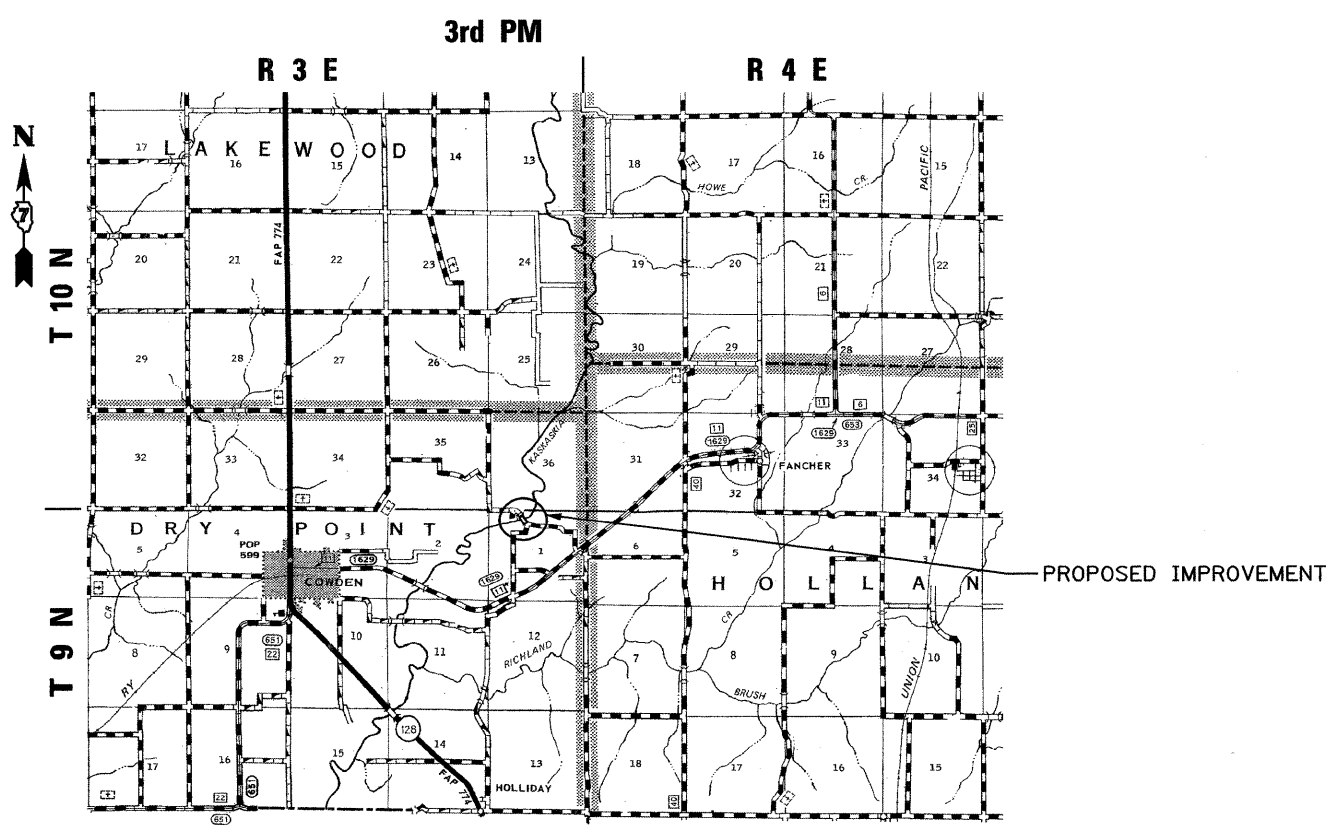
PLANS PREPARED BY:

JOHNSON, DEPP & QUISENBERRY
 CONSULTING ENGINEERS
 6450 South Sixth Street Road, Suite B Springfield, Illinois 62712
 Phone: (217) 529-4534 Fax: (217) 529-8278



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123
 OR 811



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED February 11 20 09

Roger L. Sunkell
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 27, 20 09
Charles J. Ingersoll
 ENGINEER OF DESIGN AND ENVIRONMENT

March 27, 20 09
Christie M. Reed
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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PROJECT ENGINEER: THOMAS RONAN (217)342-8320
SQUAD LEADER: JENNIFER WENTHE (217)342-8361
CONTRACT NO. 74337

02/03/2009 14:58:39 ..:BD774337-sht-cover.dgn

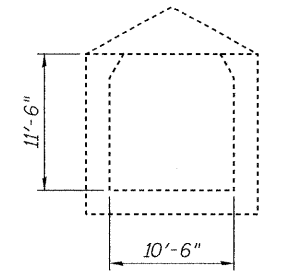
Benchmark: TBM #2, Railroad spike in timber pile at northwest corner of North Abutment, S.N. 087-0019, Elev. 522.31

EXISTING STRUCTURE: S.N. 087-0019, Covered span originally constructed in 1868, wood truss with 103 foot span, 14'-6" out-out width, concrete piers. Approach spans use steel beams with wood deck, timber pile bent piers and abutments.

Existing approach spans shall be removed and replaced.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



END ELEVATION
COVERED BRIDGE

GENERAL NOTES

Treated timber shall be according to Sections 507 and 1007 of the Standard Specifications. Wood members shall be visually graded No. 2 Southern Pine or No. 2 Douglas Fir-Larch, or approved equivalent. Members shall be surfaced on all sides (S4S), except the 3"x10" members shall be rough-sawn. Member thickness and width shown on the plans are actual (not nominal) dimensions.

Treated timber piles shall be according to Sections 512 and 1007.08 of the Standard Specifications, except the piles shall have a nominal diameter as specified on the plans (10"). The tops of all piles shall be protected with galvanized flashing according to Article 512.13.

Hardware shall be according to Sections 507.07 and 1006.17 of the Standard Specifications. Holes for all hardware shall be predrilled to avoid splitting. Wood screws (except lag screws) shall have a flat-countersunk head, and shall be "rolled thread" with a constant root diameter to simplify predrilling (not "cut thread" with a tapered diameter).

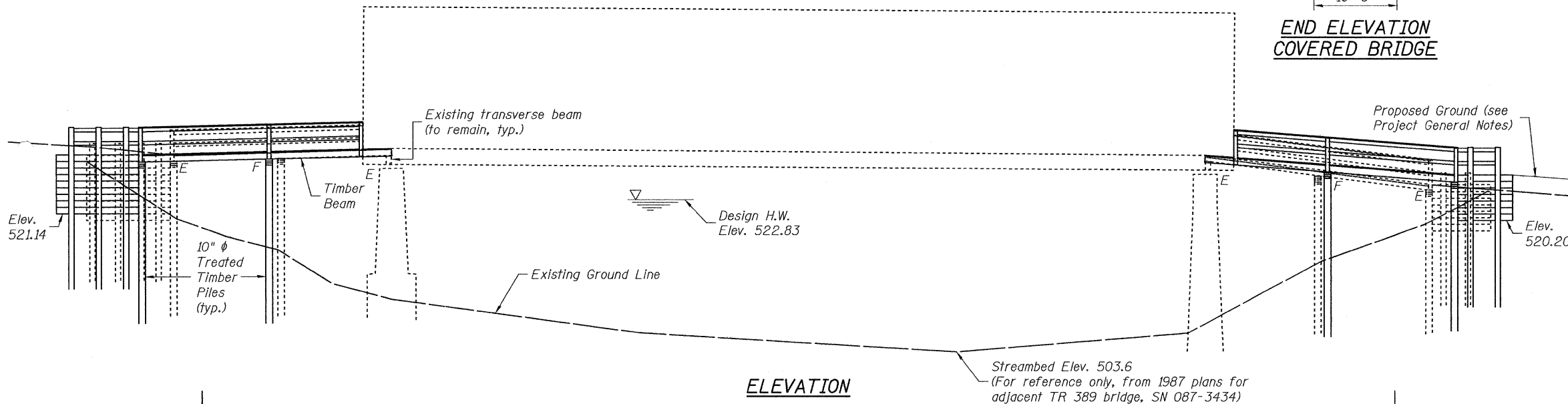
Tapered shims shall be made of a composite material, with a minimum thickness of about 1/16", as supplied by Nelson Shim Company or Glazlock Shims Inc., or approved equivalent. Multiple shims may be necessary to obtain desired slope and/or width.

The existing electrical and water lines on and adjacent to the structure shall be located and maintained or adjusted during construction. See Special Provisions.

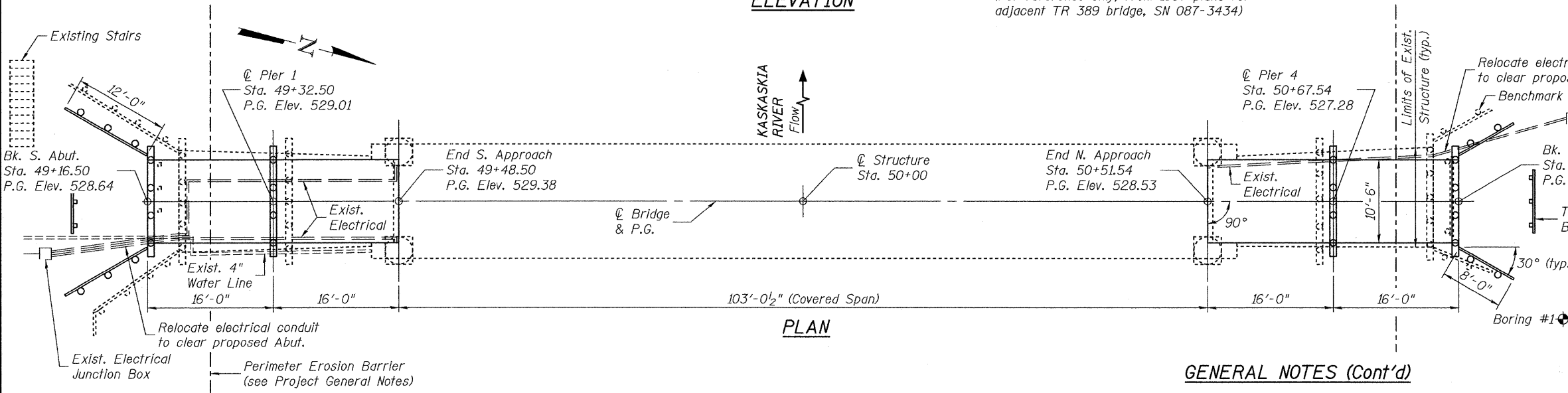
The Contractor shall submit a demolition plan to the Engineer for approval, detailing the proposed methods of demolition and the amount, location(s) and type(s) of equipment to be used.

The existing historic covered bridge shall be protected during construction, and shall not be used for construction equipment, or material storage, without approval of the Engineer.

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.



ELEVATION



PLAN

INDEX OF SHEETS

Sheet No.	Description
1	General Plan/Elev, General Notes & Bill of Mat'l
2-3	Superstructure
4	South Abutment
5	North Abutment
6	Geotextile Retaining Wall
7	Piers 1 & 4
8-12	Soil Borings

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal Of Existing Structures	Each	1	--	1
Structure Excavation	Cu Yd	--	123	123
Treated Timber	F.B.M.	3229	2067	5296
Hardware	Pound	116	66	182
Furnishing Treated Piles 20.1 To 38 Feet	Foot	--	616	616
Driving Piles	Foot	--	616	616
Test Pile Timber	Each	--	4	4
Pile Shoes	Each	--	26	26
Adjusting Water Service Lines	Foot	32	14	46
Relocate Existing Electrical System	L Sum	1	--	1
Geotextile Retaining Wall	Sq Ft	--	327	327

GENERAL NOTES (Cont'd)

Considering the relatively soft soils indicated by the boring at the north abutment, the Contractor shall keep heavy construction equipment (crane, dump truck, etc.) a minimum of 15 feet from the excavation limits at both abutments.

LOADING

Pedestrian (85 psf)

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

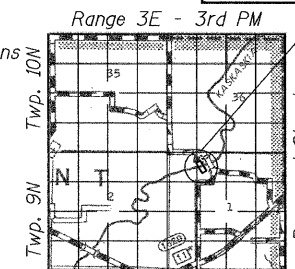
DESIGN STRESSES

FIELD UNITS

Per AASHTO Table 8.4.1.1.4-1
For Southern Pine, No. 2:
F_{bo} = 1,050 psi (10" wide)
For Douglas Fir-Larch, No. 2:
F_{bo} = 900 psi (10" wide)

SEISMIC DATA

Not Applicable



LOCATION SKETCH

GENERAL PLAN & ELEVATION
THOMPSON MILL COVERED BRIDGE OVER
KASKASKIA RIVER
STRUCTURE NO. 087-0019

SHEET	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1 OF 12	389A	D-7 Bridge Appr. 2009-1	SHELBY	14	3
		STA. 50+00	CONTRACT NO. 74337		
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Relph E. Anderson (TSO)
ENGINEER OF BRIDGES AND STRUCTURES

DESIGN SCOUR ELEVATION TABLE

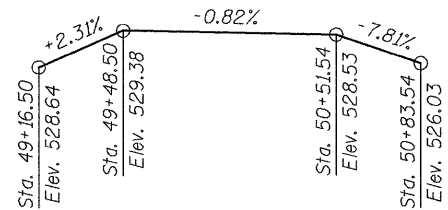
Design Scour Elevation (ft.)	S. Abut.	Pier 1	Pier 4	N. Abut.
	521.1	513.0	512.0	520.2

WATERWAY INFORMATION**

** For Reference only, Info from 1987 plans for TR 389 bridge (SN 087-3434), located approx. 150' upstream.

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	15	10558	1952	2231	522.83	0	0.12	522.83	522.95
Base	100	13313	2048	2342	523.47	0	0.38	523.47	523.85
Max. Calc.	500	15574	2122	2430	523.97	0.16	0.62	524.13	524.59

PROFILE GRADE



Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois



Signed: David Depp
Date: 2-10-2009
Lic. Expires: 11-30-2010

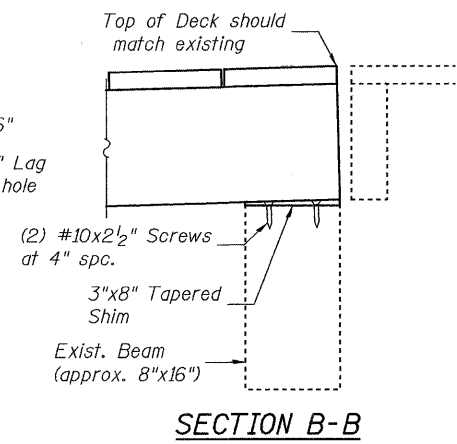
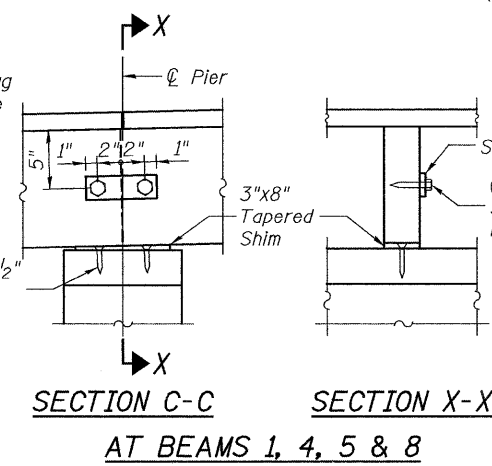
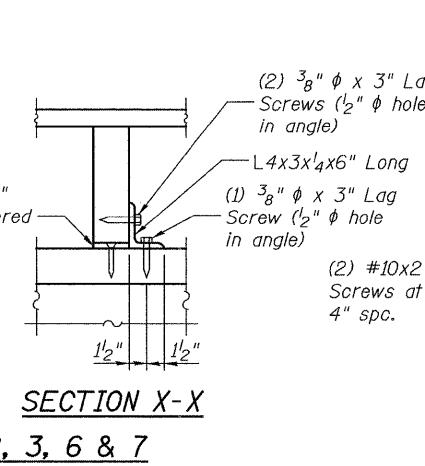
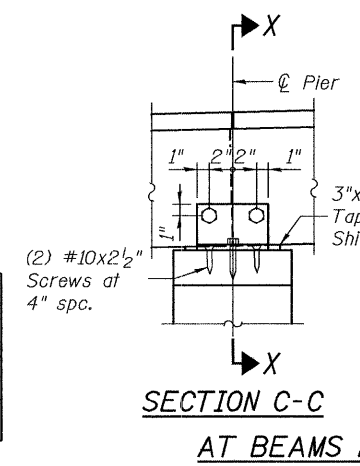
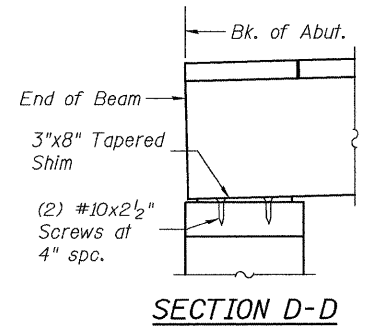
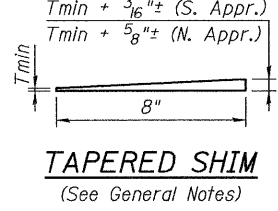
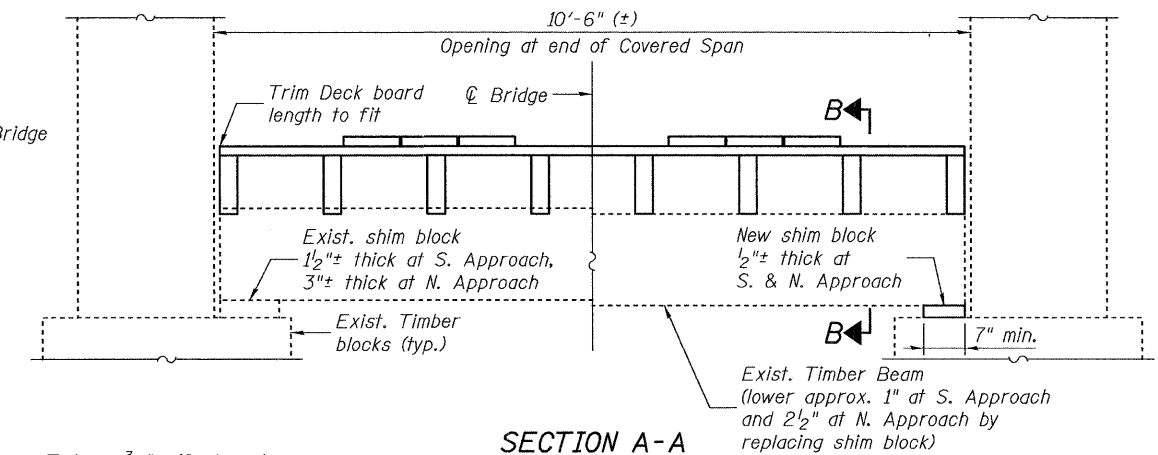
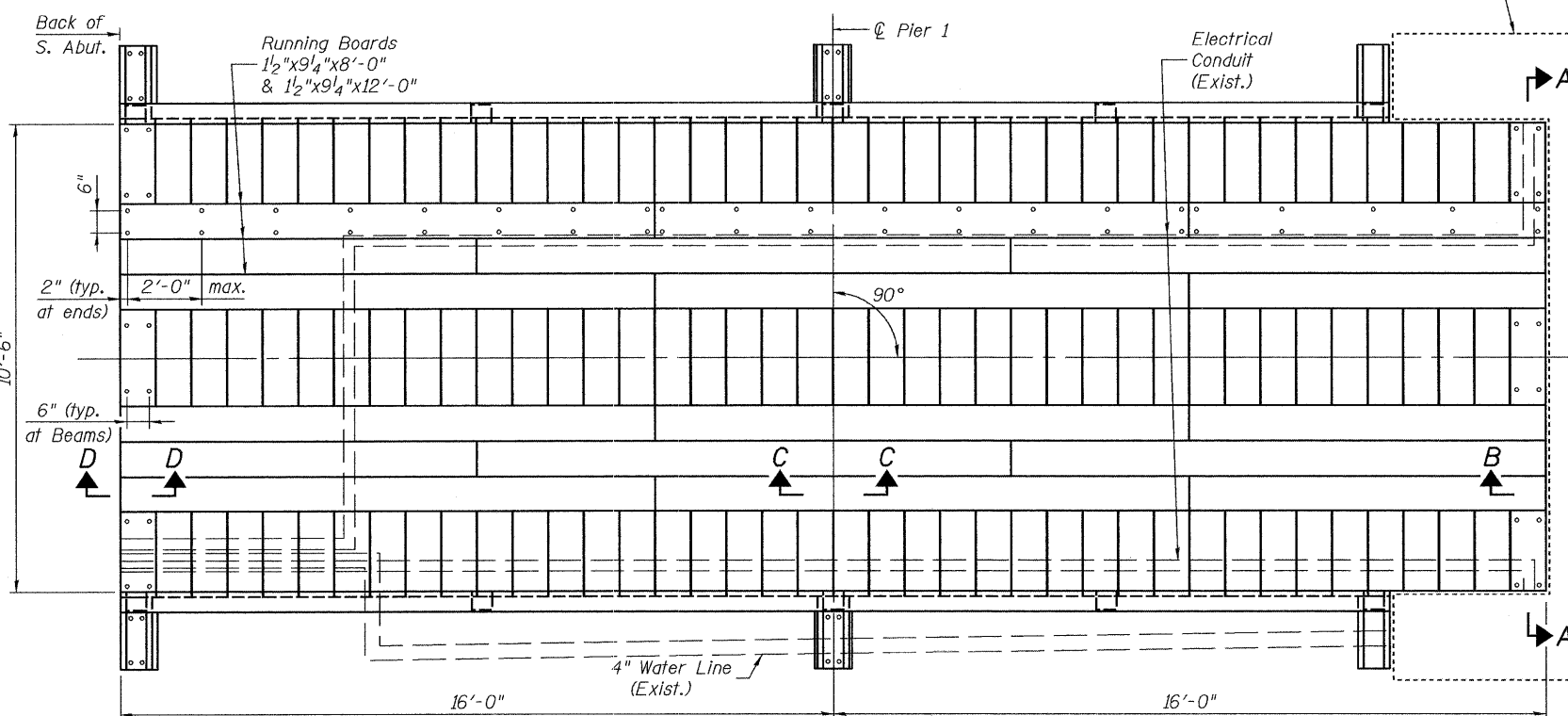
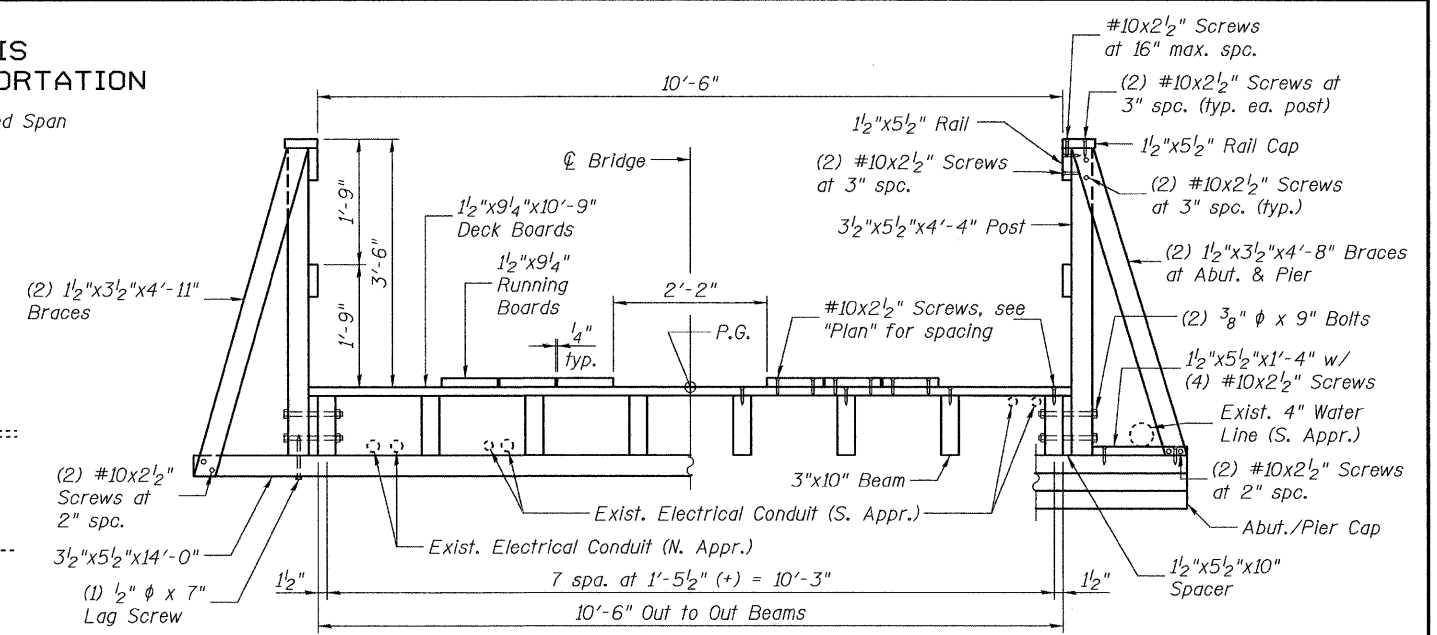
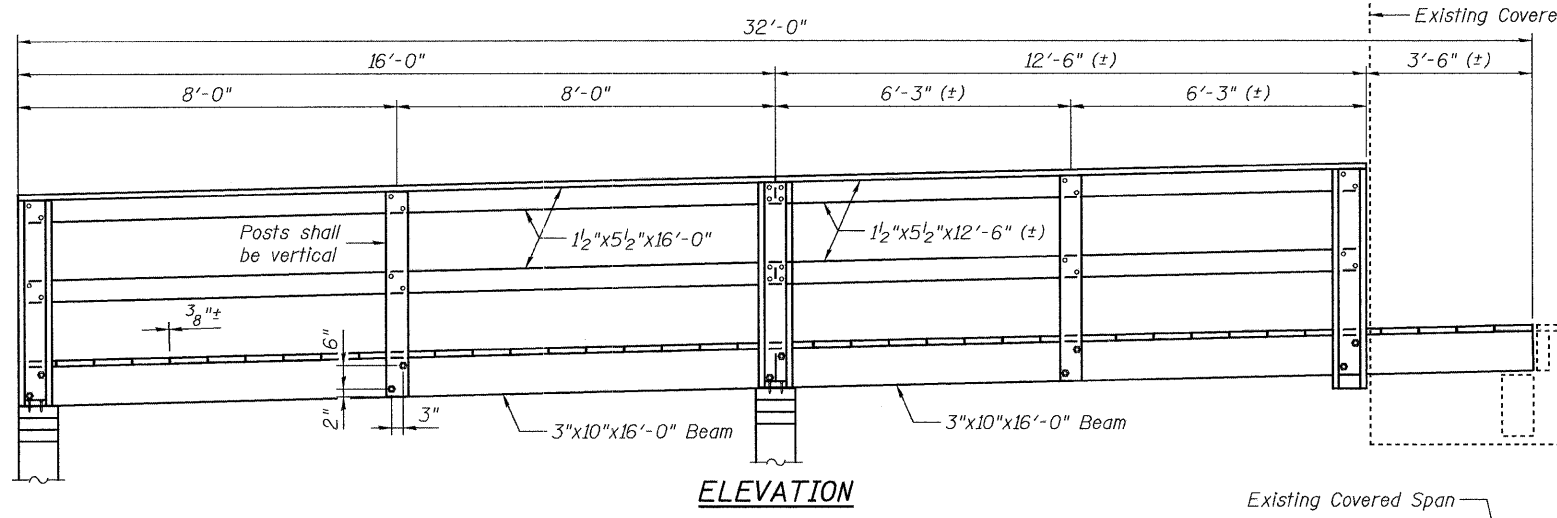
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BILL OF MATERIAL

Item	Unit	Total
Treated Timber	F.B.M.	1615
Hardware	Pound	58

SUPERSTRUCTURE - SOUTH APPROACH
THOMPSON MILL COVERED BRIDGE OVER
KASKASKIA RIVER
STRUCTURE NO. 087-0019

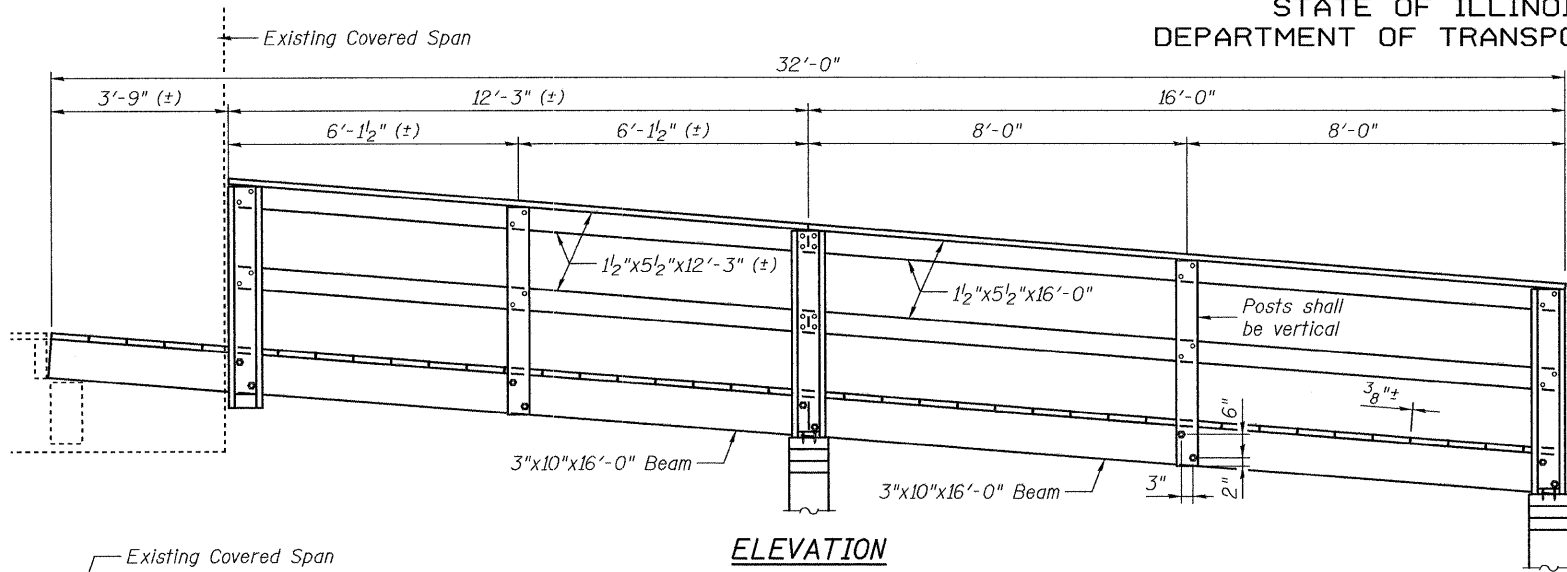
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		STA. 50+00	CONTRACT NO.	74337	
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

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Springfield, Illinois

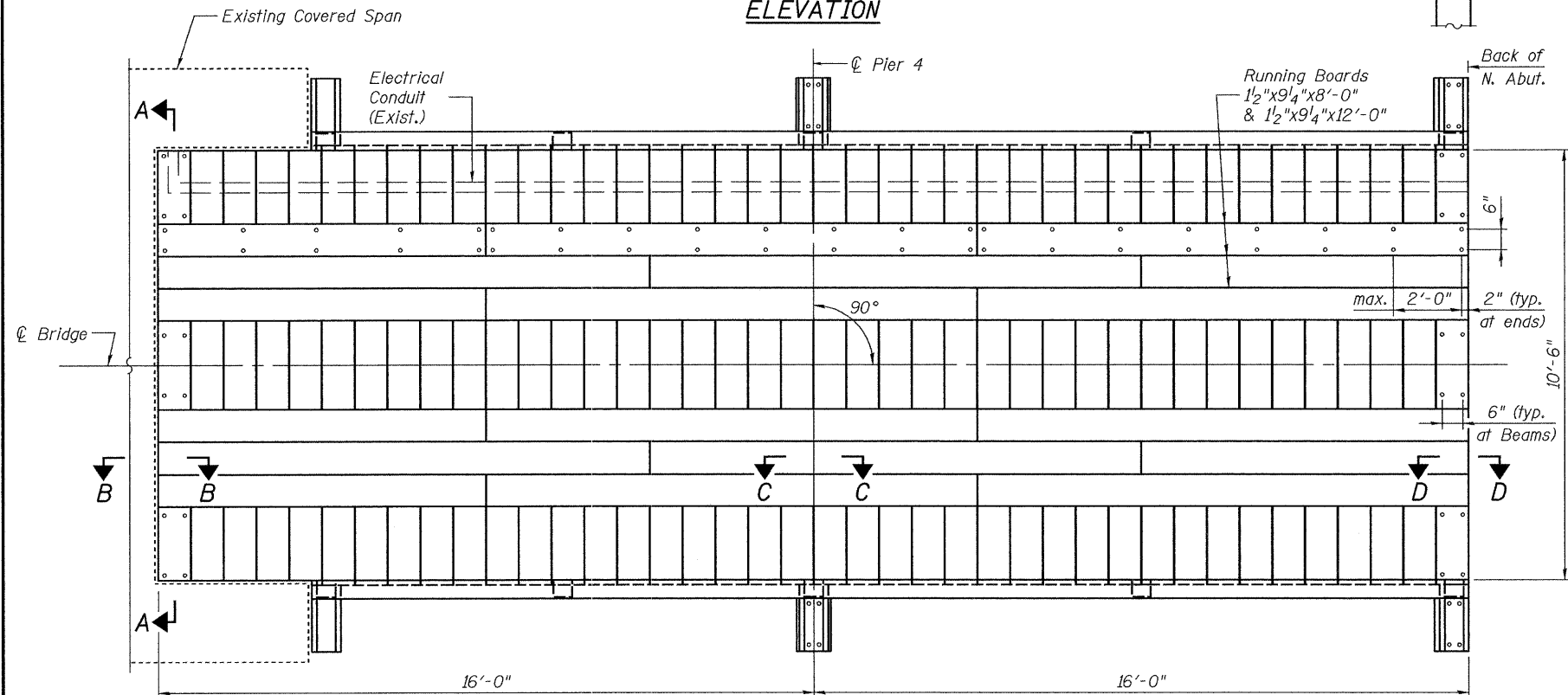
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION



PLAN-NORTH APPROACH

NOTE:
For additional Details and Sections,
see sheet 2 of 12.

BILL OF MATERIAL

Item	Unit	Total
Treated Timber	F.B.M.	1614
Hardware	Pound	58

SUPERSTRUCTURE - NORTH APPROACH
THOMPSON MILL COVERED BRIDGE OVER
KASKASKIA RIVER
STRUCTURE NO. 087-0019

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: JDQ	DRAWN: SJS/PTR
CHECKED: DCD	CHECKED: DCD

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FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

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PILE DATA (PILE BENT)

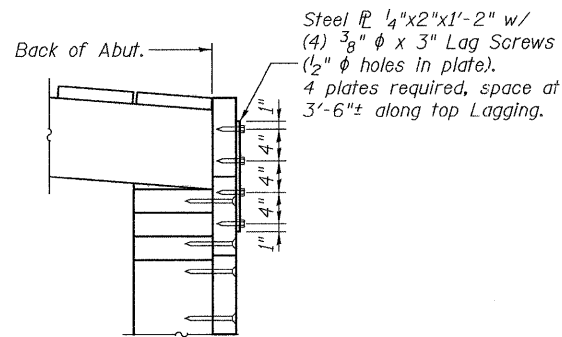
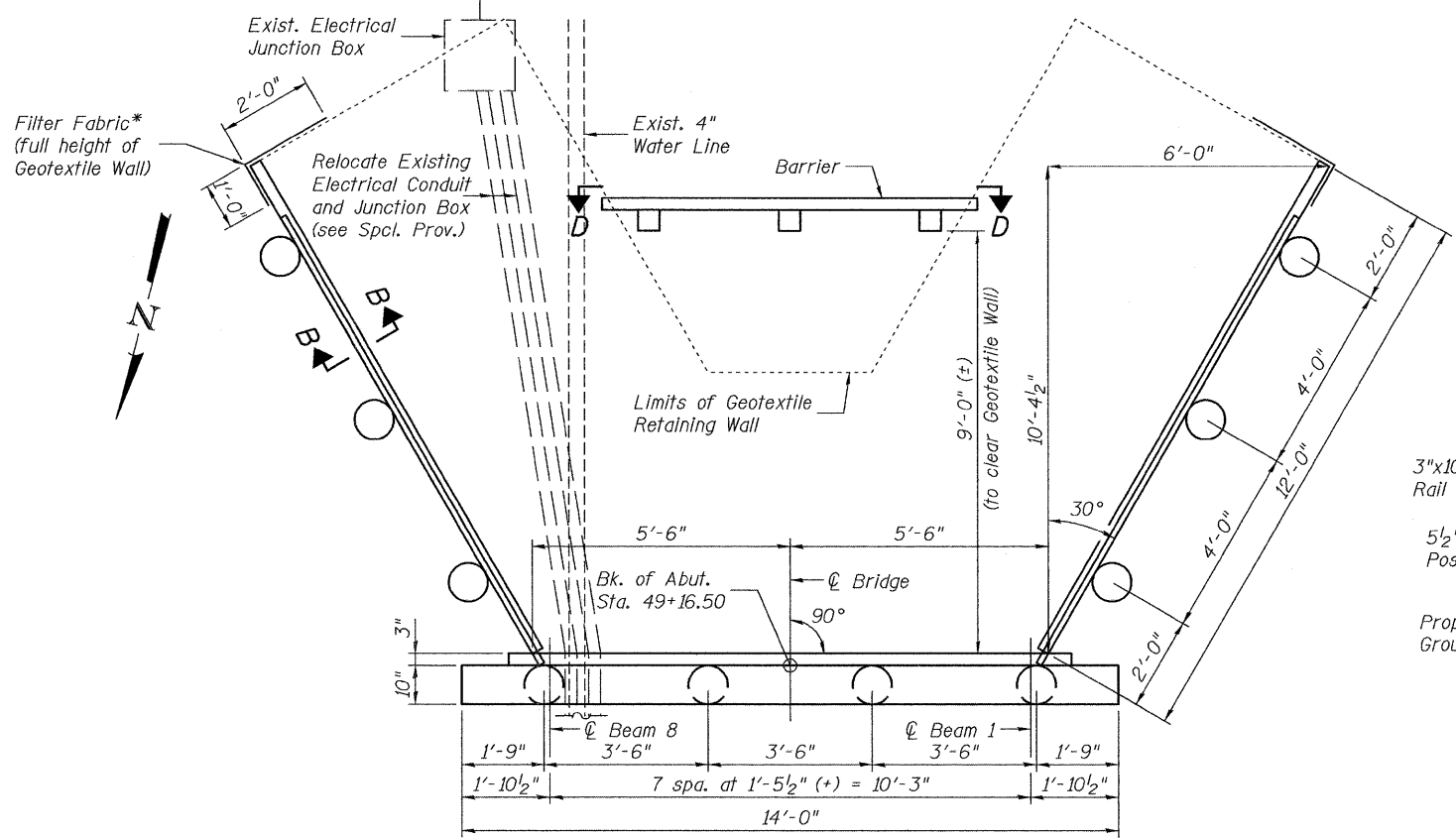
Type: Timber - 10" dia. Treated, with Pile Shoes
 Nominal Required Bearing: 106 kips
 Factored Resistance Available: 53 kips
 Est. Length: 25'
 No. Production Piles: 3
 No. Test Piles: 1

PILE DATA (WINGWALLS)

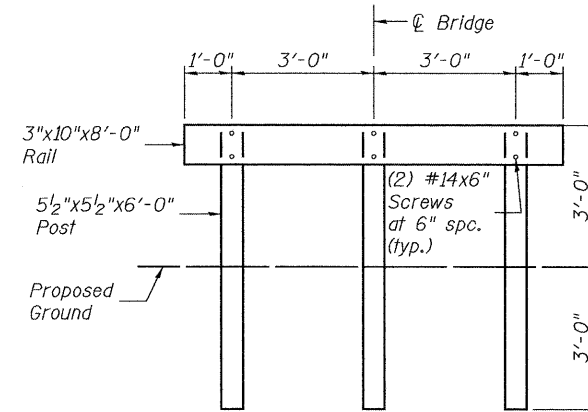
Type: Timber - 10" dia. Treated, with Pile Shoes
 Nominal Required Bearing: NA
 Factored Resistance Available: NA
 Min. Pile Tip Elevation: 506.1 (see Note **)
 Est. Length: 26'
 No. Production Piles: 6
 No. Test Piles: None

** Wingwall piles shall be driven to the Min. Tip Elevation shown. However if the piles reach the shale/rock layer above this elevation, then pile driving may stop when a Nominal Bearing of 106 kips is obtained.

STATE OF ILLINOIS
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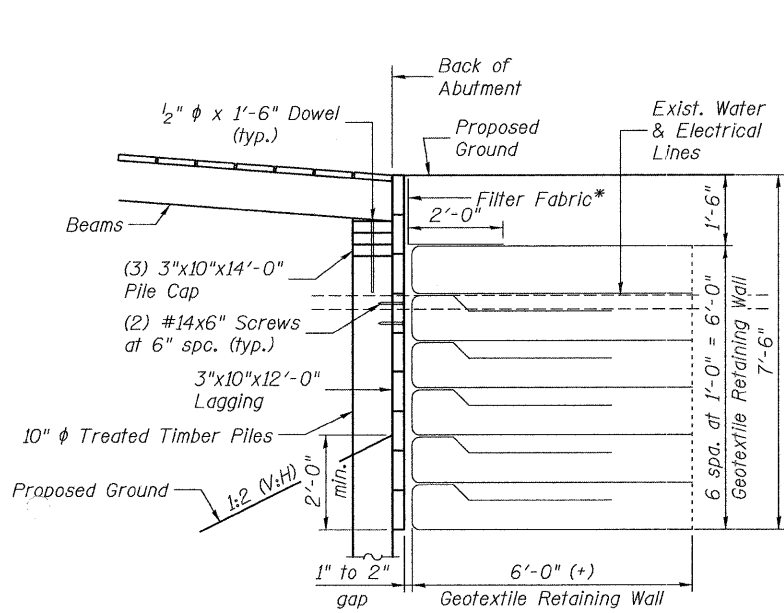


SECTION C-C

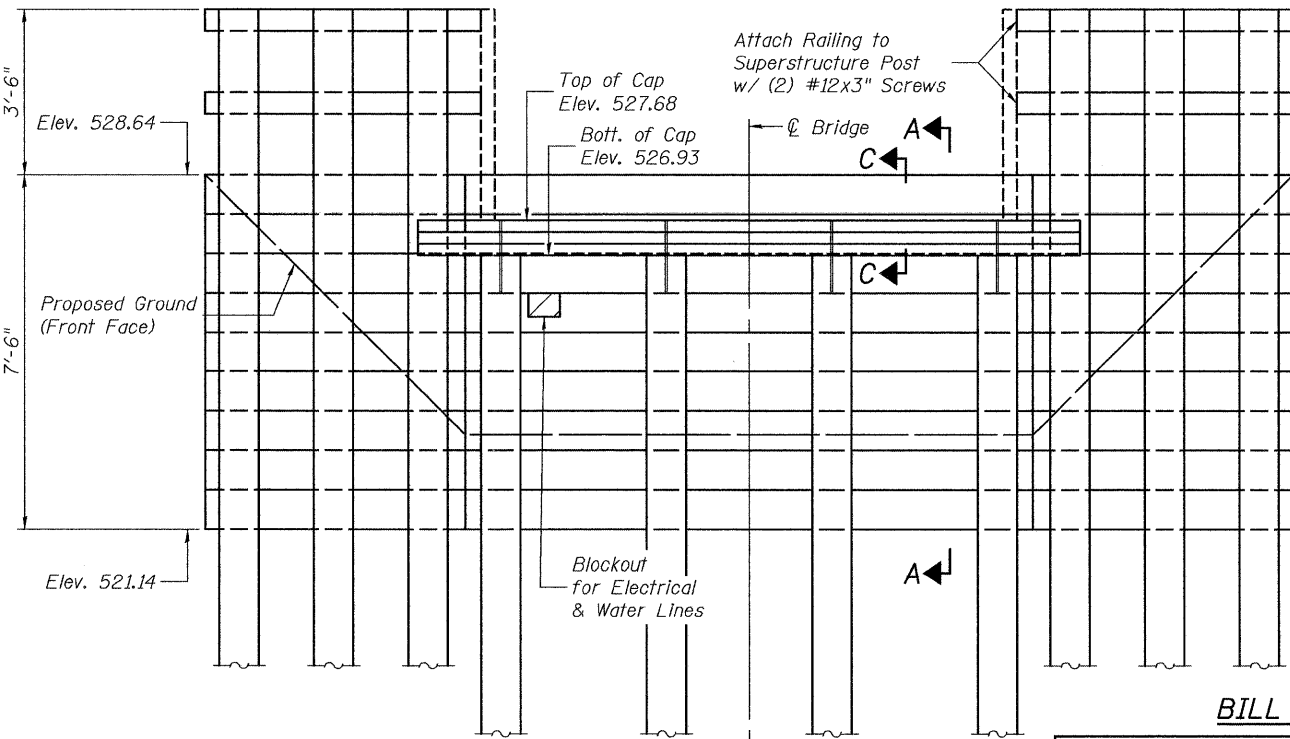


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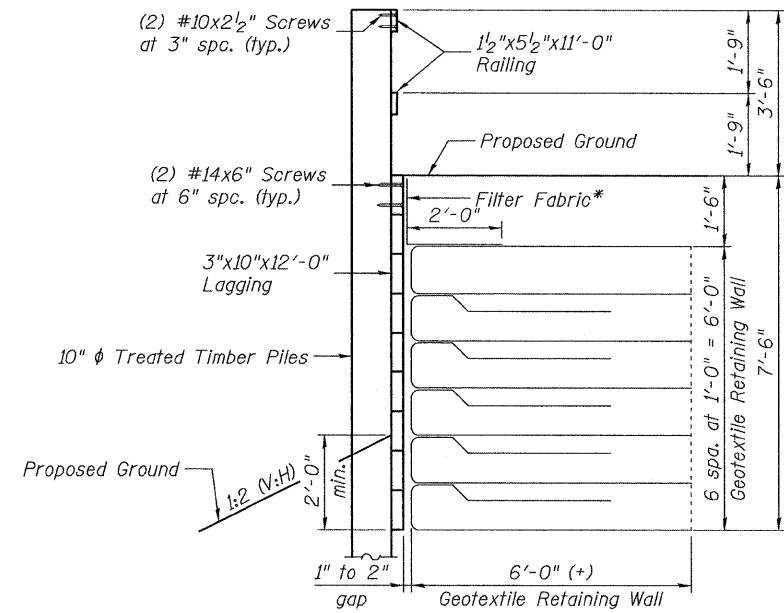
PLAN



SECTION A-A



ELEVATION - SOUTH ABUTMENT
 (Facing South)



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Treated Timber	F.B.M.	1014
Hardware	Pound	30
Furnishing Treated Piles 20.1 to 38 Feet	Foot	231
Driving Piles	Foot	231
Test Pile Timber	Each	1
Pile Shoes	Each	10
Geotextile Retaining Wall	Sq Ft	210
Structure Excavation	Cu Yd	86

* Filter Fabric shall be provided for soil backfill as shown, cost included with Geotextile Retaining Wall.

For Geotextile Retaining Wall construction details, see sheet 6 of 12.

JD Johnson, Depp & Quisenberry
 CONSULTING ENGINEERS
 Springfield, Illinois

DESIGNED: JDQ	DRAWN: SJS/PTR
CHECKED: DCD	CHECKED: DCD

SOUTH ABUTMENT
 THOMPSON MILL COVERED BRIDGE OVER
 KASKASKIA RIVER
 STRUCTURE NO. 087-0019

SHEET 4 OF 12	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389A	D-7 Bridge Appr. 2009-1	SHELBY	14	6
	STA. 50+00		CONTRACT NO. 74337		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

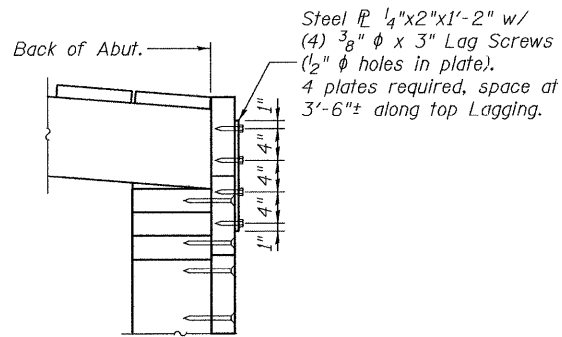
PILE DATA (PILE BENT)

Type: Timber - 10" dia. Treated, with Pile Shoes
Nominal Required Bearing: 106 kips
Factored Resistance Available: 53 kips
Est. Length: 35'
No. Production Piles: 3
No. Test Piles: 1

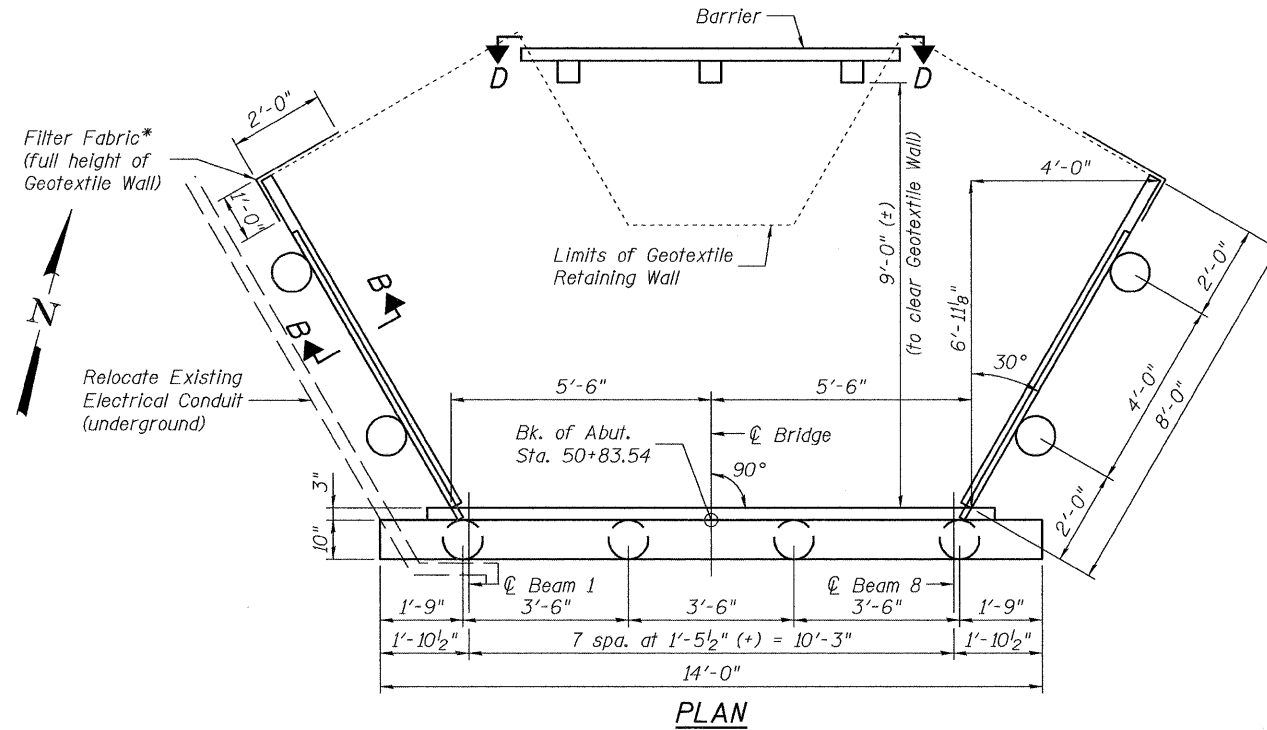
PILE DATA (WINGWALLS)

Type: Timber - 10" dia. Treated, with Pile Shoes
Nominal Required Bearing: NA
Factored Resistance Available: NA
Min. Pile Tip Elevation: 505.2 (see Note **)
Est. Length: 25'
No. Production Piles: 4
No. Test Piles: None

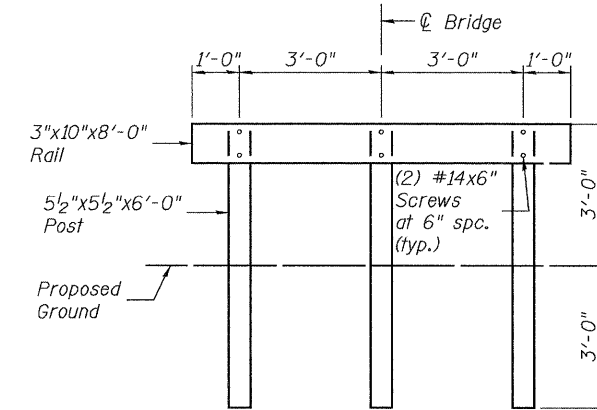
** Wingwall piles shall be driven to the Min. Tip Elevation shown. However if the piles reach the shale/rock layer above this elevation, then pile driving may stop when a Nominal Bearing of 106 kips is obtained.



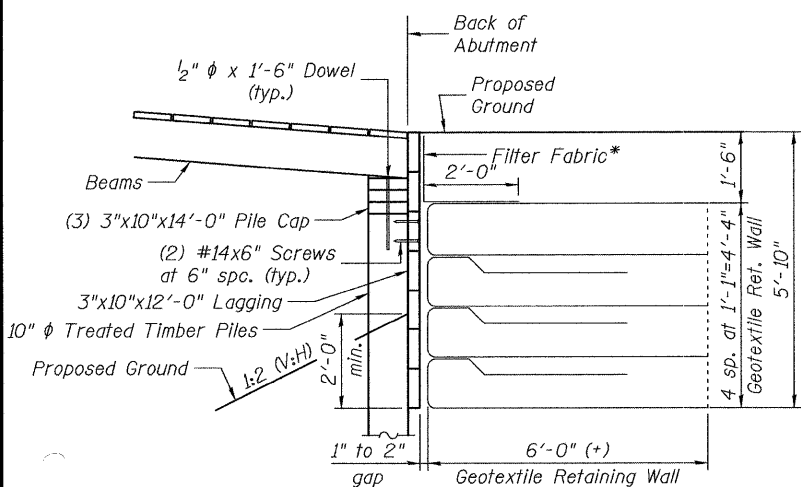
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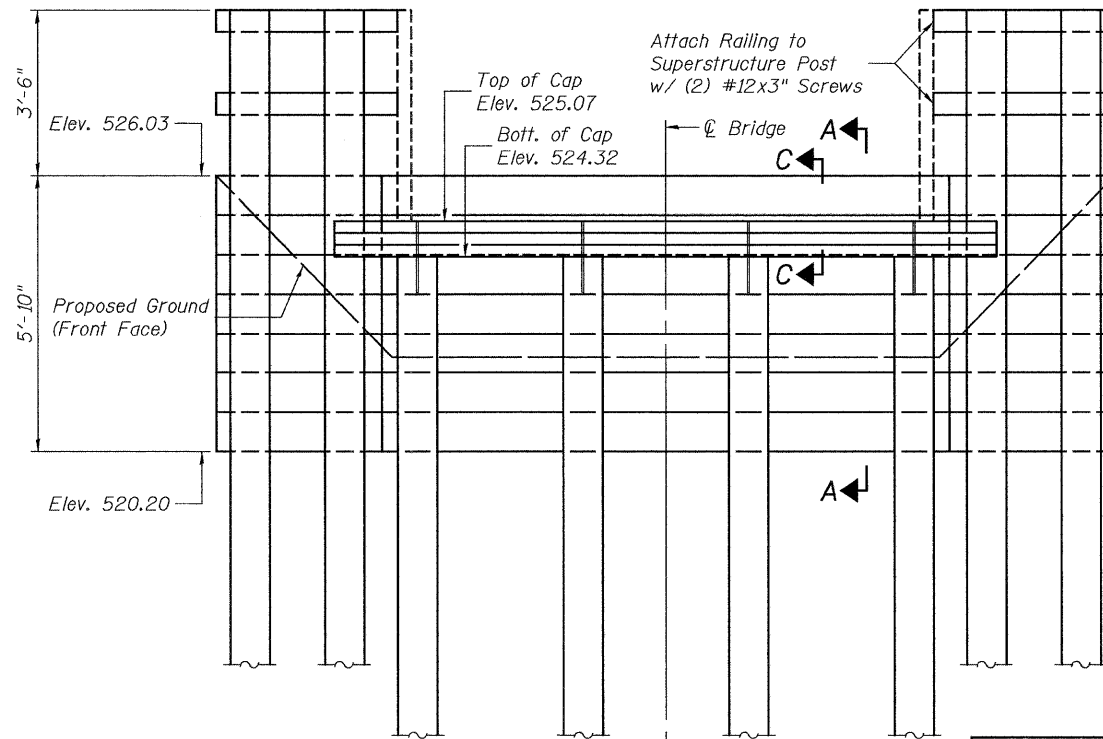
PLAN



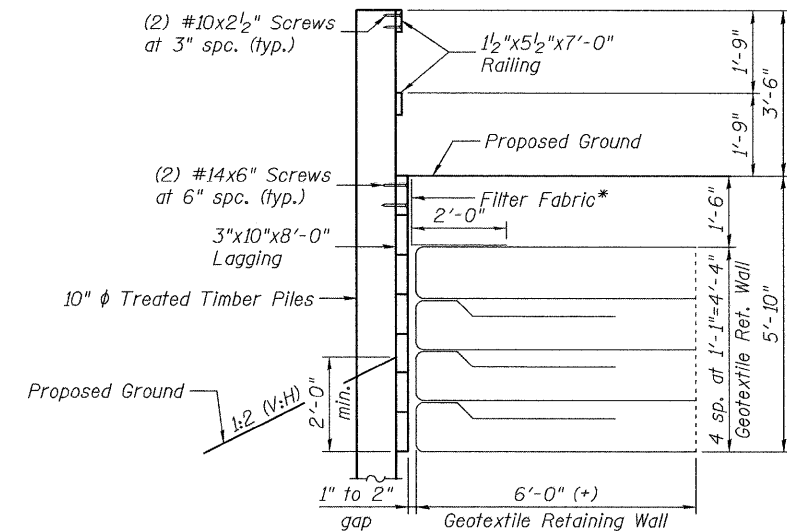
SECTION D-D



SECTION A-A



ELEVATION - NORTH ABUTMENT
(Facing North)



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Treated Timber	F.B.M.	683
Hardware	Pound	24
Furnishing Treated Piles 20.1 to 38 Feet	Foot	205
Driving Piles	Foot	205
Test Pile Timber	Each	1
Pile Shoes	Each	8
Geotextile Retaining Wall	Sq Ft	117
Structure Excavation	Cu Yd	37

* Filter Fabric shall be provided for soil backfill as shown, cost included with Geotextile Retaining Wall.

For Geotextile Retaining Wall construction details, see sheet 6 of 12.

JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

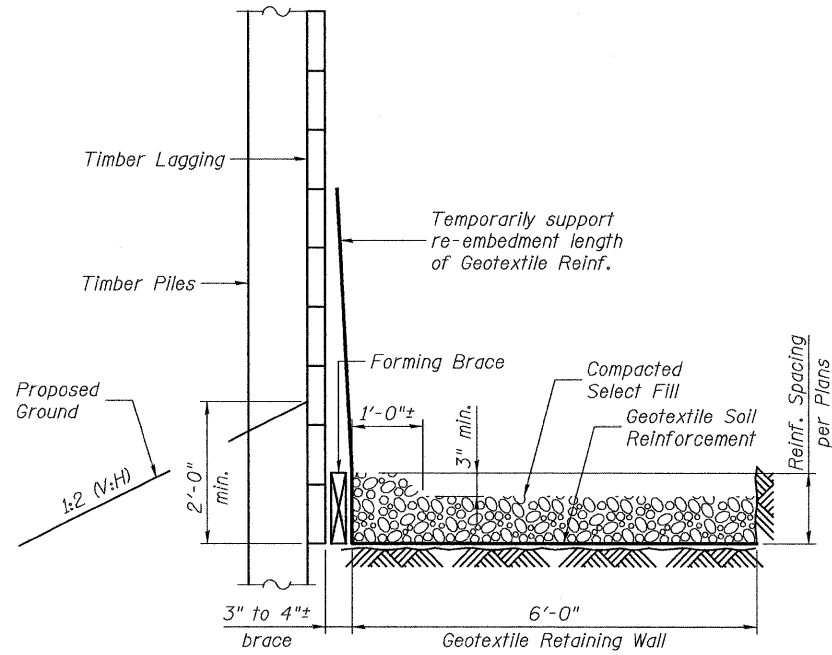
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NORTH ABUTMENT
THOMPSON MILL COVERED BRIDGE OVER
KASKASKIA RIVER
STRUCTURE NO. 087-0019

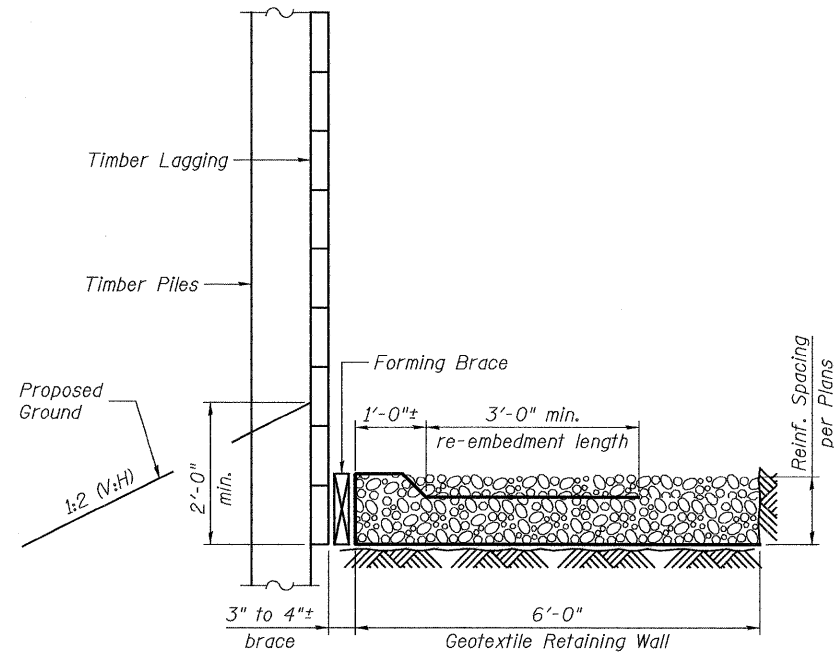
SHEET 5 OF 12	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. 50+00			CONTRACT NO. 74337		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

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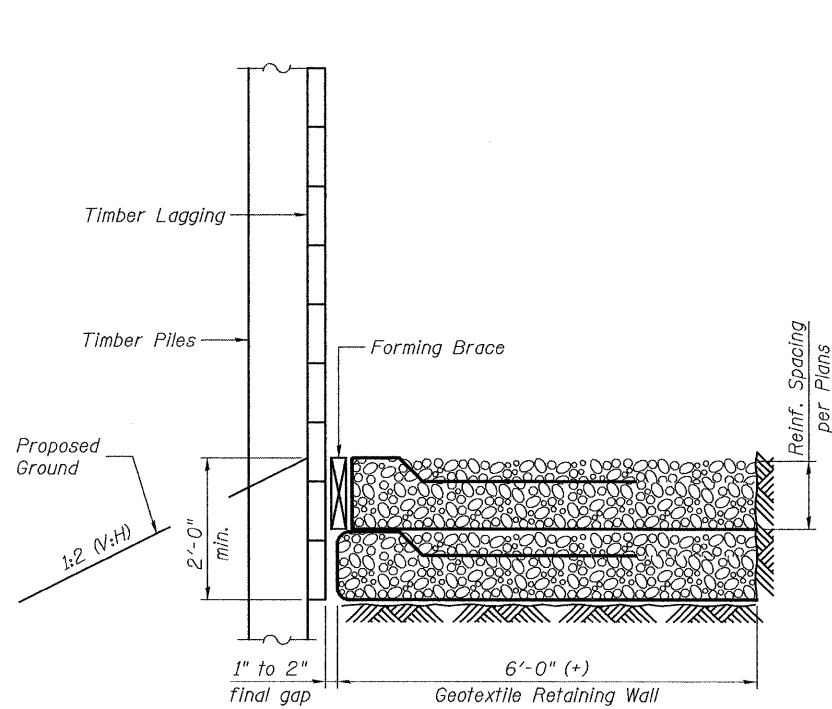
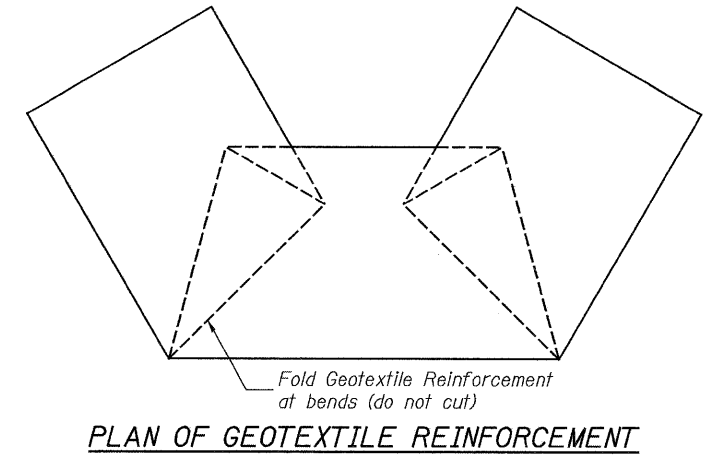
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



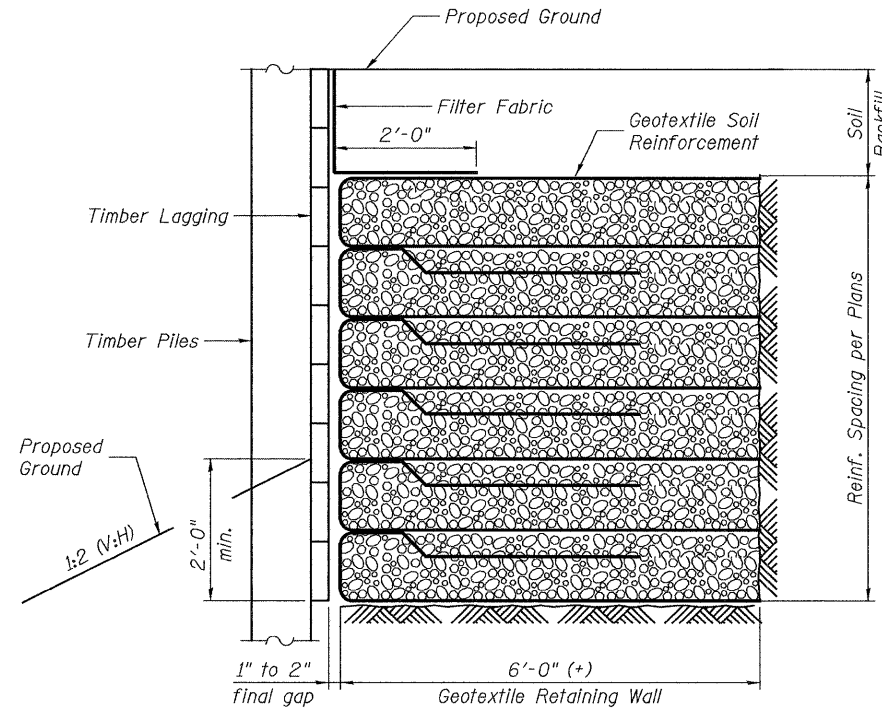
1. Place Forming Brace against timber lagging.
2. Place Geotextile Reinforcement tightly over prepared base. Temporarily support the re-embedment length.
3. Place compacted select fill on reinforcement.



4. Fold re-embedment length tightly over compacted fill.
5. Place compacted select fill over re-embedment length to complete layer.



6. Pull Forming Brace up to begin next layer. Check that a gap of 1-2" remains after bulging/sagging of the previous layer. If necessary, adjust the Forming Brace thickness to ensure this gap for each layer.
7. Repeat previous steps for successive layers.



8. For top layer of reinforced fill, the geotextile reinforcement should be folded over the full width as shown.
9. Place filter fabric and soil backfill to the proposed grade.

Note:
The geotextile soil reinforcement shall have a minimum allowable tensile strength (T min.) of 30 lb./in. as determined by the procedure described in the Special Provision. The computations supporting the determination of (T min.) shall be submitted to the engineer for approval.

GEOTEXTILE WALL CONSTRUCTION SEQUENCE

GEOTEXTILE RETAINING WALL
THOMPSON MILL COVERED BRIDGE OVER
KASKASKIA RIVER
STRUCTURE NO. 087-0019



DESIGNED: JDQ	DRAWN: SJS/PTR
CHECKED: DCD	CHECKED: DCD

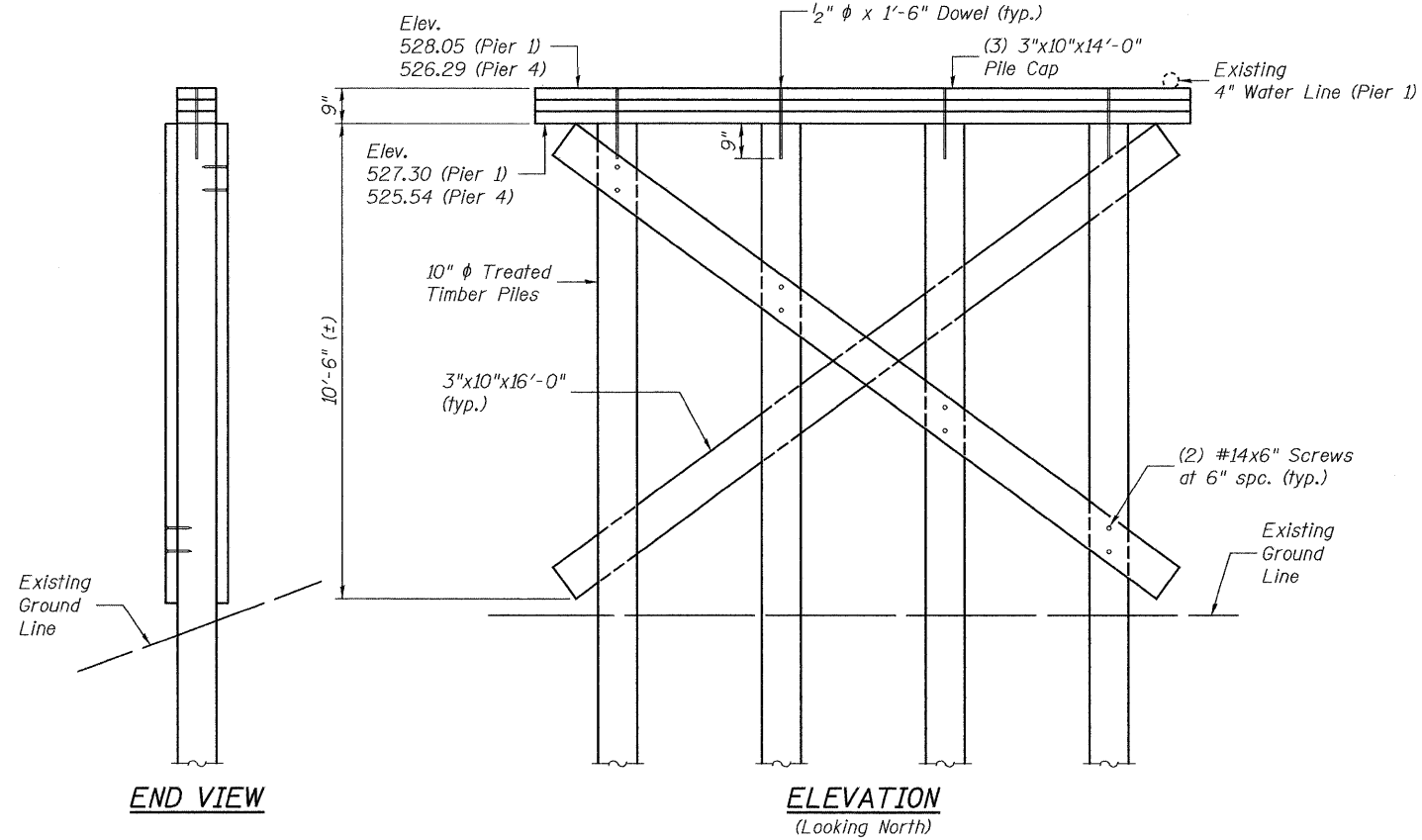
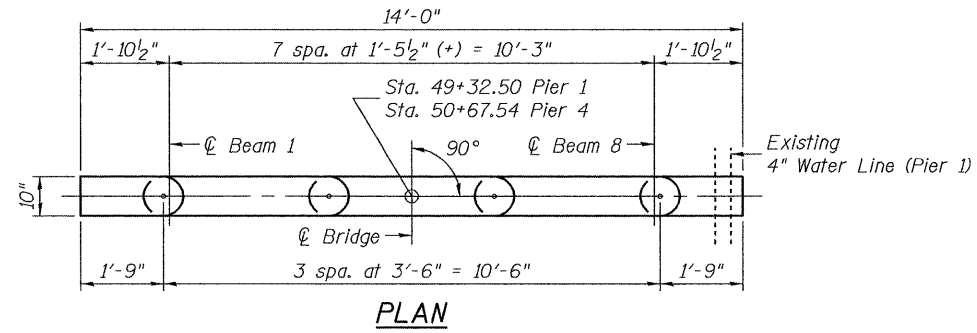
SHEET 6 OF 12	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389A	D-7 Bridge Appr. 2009-1	SHELBY	14	8
	STA. 50+00		CONTRACT NO. 74337		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

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DATE: 02/04/2009 16:38:51

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PILE DATA

Type: Timber - 10" dia. Treated, with Pile Shoes
 Nominal Required Bearing: 106 kips
 Factored Resistance Available: 53 kips
 Est. Length: 25' (Pier 1), 35' (Pier 4)
 No. Production Piles: 3 (each Pier)
 No. Test Piles: 1 (each Pier)



END VIEW

ELEVATION
(Looking North)

BILL OF MATERIAL

Item	Unit	Pier 1	Pier 4
Treated Timber	F.B.M.	185	185
Hardware	Pound	6	6
Furnishing Treated Piles 20.1 to 38 Feet	Foot	75	105
Driving Piles	Foot	75	105
Test Pile Timber	Each	1	1
Pile Shoes	Each	4	4

PIERS 1 & 4
THOMPSON MILL COVERED BRIDGE OVER
KASKASKIA RIVER
STRUCTURE NO. 087-0019

JD Johnson, Depp & Quisenberry
 CONSULTING ENGINEERS
 Springfield, Illinois

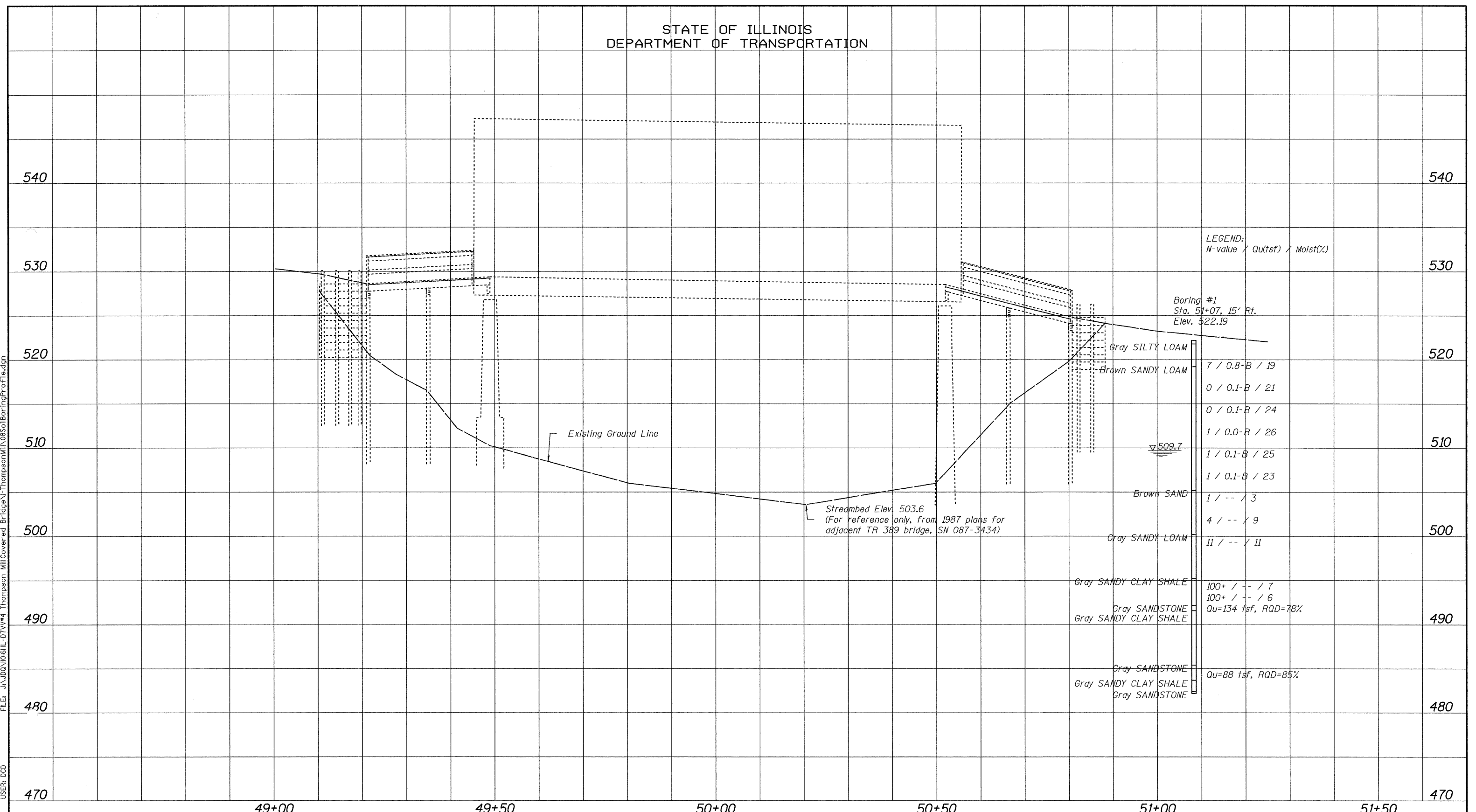
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SHEET 7 OF 12	T.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389A	0-7 Bridge Appr. 2009-1	SHELBY	14	9
	STA. 50+00		CONTRACT NO. 74337		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FILE: J:\JQA\10161IL-D7V\4 Thompson Mill Covered Bridge\10161BoringProfile.dgn
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JD Johnson, Depp & Quisenberry
CONSULTING ENGINEERS
Springfield, Illinois

DESIGNED: JDO	DRAWN: SJS
CHECKED: DCD	CHECKED: DCD

SOIL BORING PROFILE
THOMPSON MILL COVERED BRIDGE OVER
KASKASKIA RIVER
STRUCTURE NO. 087-0019

SHEET 8 OF 12	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389A	D-7 Bridge Appr. 2009-1	SHELBY	14	10
	STA. 50+00		CONTRACT NO. 74337		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SOIL BORING LOG

Page 1 of 2

Date 6/10/08

ROUTE 1725 E DESCRIPTION Thompson Mill Covered Bridge: North Approach Span LOGGED BY E. Sandschafer
SECTION D7 Br Appr 2009-1 LOCATION NW 1/4, SEC. 1, TWP. 9 N, RNG. 3 E, 3 PM
COUNTY Shelby DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. 087-0019 Station 50+00	BORING NO. 1 Station 51+07 Offset 15.00ft East of Centerline Bridge Ground Surface Elev. 522.19 ft	D (ft)	B (/6")	U (tsf)	M (%)	Surface Water Elev.		D (ft)		B (/6")		U (tsf)		M (%)	
						512.36 ft	N/A ft								
1" oil & chip roadway surface on 4" aggregate base.															
Medium, damp, gray, SILTY LOAM.						3									
Very soft, very damp, brown, SANDY LOAM.						4	0.8	19							
Skipped this trip.						0	0.1	21							
Very dense, moist, gray, SANDY CLAY SHALE.						0	0.1	24							
Borehole continued with rock coring.						1	0.0	26							
Very loose, wet, brown, fine grained, SAND w/ black wood fragments. 7% passing #200 sieve.						0	0.1	23							

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)



ROCK CORE LOG

Page 2 of 2

Date 6/10/08

ROUTE 1725 E DESCRIPTION Thompson Mill Covered Bridge: North Approach Span LOGGED BY E. Sandschafer
SECTION D7 Br Appr 2009-1 LOCATION NW 1/4, SEC. 1, TWP. 9 N, RNG. 3 E, 3 PM
COUNTY Shelby CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. 087-0019 Station 50+00	BORING NO. 1 Station 51+07 Offset 15.00ft East of Centerline Bridge Ground Surface Elev. 522.19 ft	D (ft)	C (#)	O (%)	R (%)	Q (min/ft)	T (tsf)	Coring Barrel Type & Size	
								NW, conv dbl bbl, split inner	
Gray, slightly weathered, SANDSTONE. Rock core B1C1 at 30.0' to 30.6' depth = 492.19 to 491.59									
Gray, moderately weathered, SANDY CLAY SHALE.									
Gray w/ thin, black lenses, SANDSTONE. Rock core B1C2 at 38.0' to 38.5' depth = 88.2 tsf.									
Gray, slightly weathered, SANDY CLAY SHALE.									
Gray, slightly weathered, SANDSTONE. Extent of exploration.									
Benchmark: RR Spike in timber pile in NW corner of existing bridge = 522.31 elevation. Provided by Program Development.									
Location of B1 is 27' North of North approach span/wood abutment.									

Color pictures of the cores None
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)



DESIGNED: IDOT DRAWN: PTR
CHECKED: DCD CHECKED: DCD

SOIL BORINGS (1 OF 4)
THOMPSON MILL COVERED BRIDGE OVER
KASKASKIA RIVER
STRUCTURE NO. 087-0019

SHEET 9 OF 12	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389A	D-7 Bridge Appr. 2009-1	SHELBY	14	11
	STA. 50+00		CONTRACT NO. 74337		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

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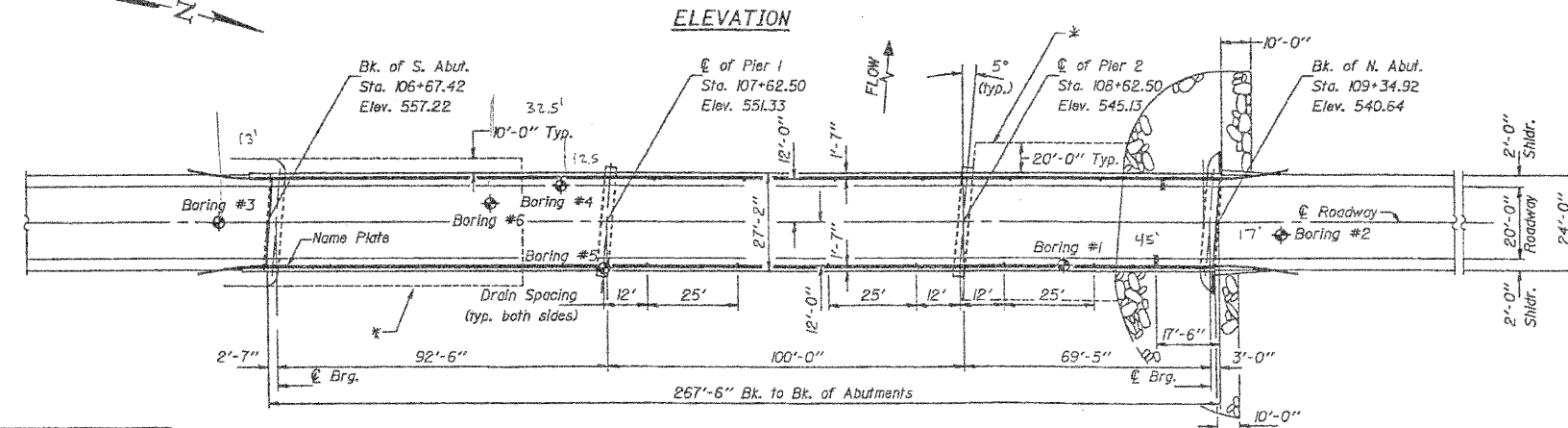
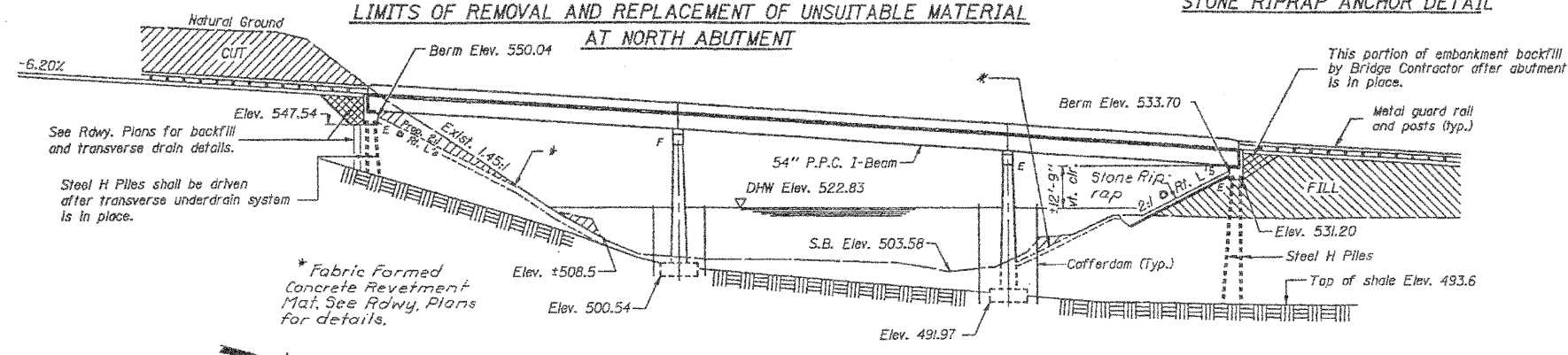
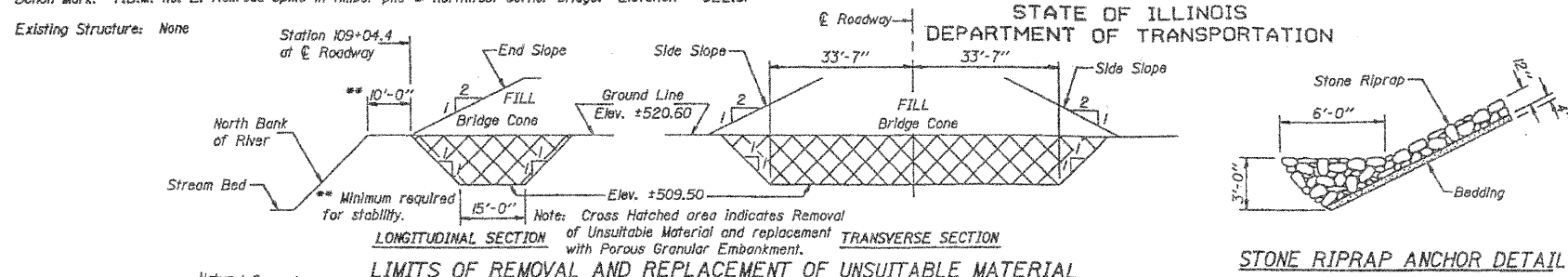
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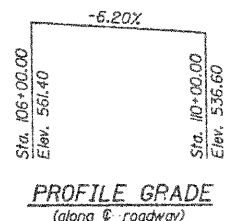
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 389	100BR	SHELBY	20	1

Bench Mark: T.B.M. No. 2; Railroad spike in timber pile Northwest corner bridge. Elevation = 522.31
Existing Structure: None



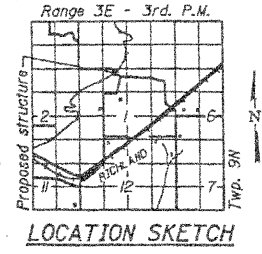
**KASKASKIA RIVER
BUILT BY
ROAD DISTRICT
SHELBY COUNTY - SECTION 100BR
PROJECT NO. 087-3434 (62)
STA. 108+01.17
STR. NO. 087-3434 LOADING HS20
NAME PLATE
See Std. 2113**



WATERWAY INFORMATION
Drainage Area = 1240 sq. ml. Low Grade Elev. 520.39 @ Sta. 117+00.00

Flood	Freq. Yr.	Q	Opening Sq. Ft.	Nat. Head - Ft.	Headwater El.
Design	15	10558	1952	2231	522.83
Base	100	13313	2048	2342	523.47
Overlapping	5	8727	1875	2141	522.31
Max. Calc.	500	15574	2122	2430	523.97

DESIGN SPECIFICATIONS
1983 AASHTO, 1984 and 1985 Interim Specifications.
LOADING HS20-44
Allow 25#/sq. ft. for future wearing surface.
DESIGN STRESSES
FIELD UNITS
f_c = 3,500 psi
f_y = 60,000 psi (Reinf.)
f_y = 36,000 psi AASHTO M-183 (Struct. Steel)
PRECAST PRESTRESSED UNITS
f'_c = See sheets 8, 9 & 10 of 20
f'_{ci} = See sheets 8, 9 & 10 of 20
f_t = 270,000 psi (1/2" # strands)
f_u = 189,000 psi (1/2" # strands)



GENERAL PLAN
TR 389 OVER KASKASKIA RIVER
TR 389 SECTION 100BR
SHELBY COUNTY
STATION 108+01.17
STRUCTURE NO. 087-3434

DESIGNED	SA	ZK
CHECKED	SA	ZK
DRAWN	F.W.	
CHECKED	SA	ZK

3-18-86

January 7 1987
Examined by: [Signature]
Checked by: [Signature]
Approved by: [Signature]



DESIGNED:	IDOT	DRAWN:	PTR
CHECKED:	DCD	CHECKED:	DCD

NOTE:
SOIL BORING INFORMATION ON THIS SHEET IS FOR REFERENCE ONLY, AND IS TAKEN FROM THE 1987 PLANS FOR THE ADJACENT TR 389 BRIDGE, LOCATED ABOUT 150 FEET UPSTREAM FROM THE COVERED BRIDGE.

SOIL BORINGS (2 OF 4)
THOMPSON MILL COVERED BRIDGE OVER
KASKASKIA RIVER
STRUCTURE NO. 087-0019

SHEET 10 OF 12	T.R. RTE. 389A	SECTION D-7 Bridge Appr., 2009-1	COUNTY SHELBY	TOTAL SHEETS 14	SHEET NO. 12
FED. ROAD DIST. NO. ILLINOIS			FED. AID PROJECT CONTRACT NO. 74337		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Bridge Foundation
Boring Log

W&Sec. 1, T. 9 N., R. 3 E., 3rd PM Sh. 1 of 3 Sh
ECT BRIDGE Thompson Mill Covered Bridge Date May 14, 1985
TE TR 389 replacement structure over Bored By Winschief
Kaskaskia River
100 BR STA Checked By TGB

Elevation	N	Qu t/s.f.	w (%)	Surface Water El.		Elevation	N	Qu t/s.f.	w (%)
				Groundwater El. at Completion	WASH BORED After Hours				
Ground Surface 520.4									
				COARSE SAND	497.4				
				MEDIUM GRAY SAND	494.4	-25	13		
				BROWN SILTY CLAY LOAM-SAND LOAM ALLUVIUM					
513.4				GRAY SHALE BED ROCK		100			11
						100			
				BROWN SAND-SAND LOAM ALLUVIUM					
509.4									
				BROWN SILTY CLAY LOAM-SAND LOAM ALLUVIUM (Free H ₂ O)	506.9	-35	100		
				LIMIT OF BORING					
				FINE-MEDIUM GRAY SAND					
				w/Buried Log					
501.9									
				MEDIUM GRAY SAND					
499.4									
				COARSE GRAY SAND w/fine gravel					

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".
Qu-Unconfined Compressive Strength - t/sf
w - Water Content - percentage of oven dry weight.
Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

-32-



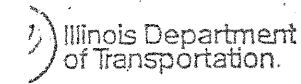
Bridge Foundation
Boring Log

Thompson Mill Covered Bridge Replacement Date May 14, 1985 Sh. 2 of 3 Sh
ECT BRIDGE Bridge Replacement Date May 14, 1985
TE TR 389 Structure over Kaskaskia River Bored By Winschief
100 BR STA Checked By TGB

Elevation	N	Qu t/s.f.	w (%)	Surface Water El.		Elevation	N	Qu t/s.f.	w (%)
				Groundwater El. at Completion	WASH BORED After Hours				
Ground Surface 520.6									
				MEDIUM-COARSE GRAY SAND					
				BROWN SILTY CLAY LOAM ALLUVIUM	493.6	-25	13		
-514.6				GRAY SHALE BED ROCK		100			
						100			
				BROWN SILTY CLAY LOAM-SILT LOAM ALLUVIUM					
509.6									
				FINE BROWN SAND (Free H ₂ O)					
503.6									
				MEDIUM-FINE GRAY SAND					
499.6									
				MEDIUM-COARSE GRAY SAND					

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".
Qu-Unconfined Compressive Strength - t/sf
w - Water Content - percentage of oven dry weight.
Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

NOTE:
SOIL BORING INFORMATION ON THIS SHEET IS FOR REFERENCE ONLY, AND IS TAKEN FROM THE 1987 PLANS FOR THE ADJACENT TR 389 BRIDGE, LOCATED ABOUT 150 FEET UPSTREAM FROM THE COVERED BRIDGE.



Bridge Foundation
Boring Log

Thompson Mill Covered Bridge Replacement Structure over Kaskaskia River Date May 14, 1985 Sh. 3 of 3 Sh
ECT BRIDGE Thompson Mill Covered Bridge Replacement Structure over Kaskaskia River Date May 14, 1985
TE TR 389 Kaskaskia River Bored By Winschief
100 BR STA Checked By TGB

Elevation	N	Qu t/s.f.	w (%)	Surface Water El.		Elevation	N	Qu t/s.f.	w (%)
				Groundwater El. at Completion	DRY After Hours				
Ground Surface 575.0									
				BROWN SILT LOAM					
				BROWN GRAY SANDY CLAY LOAM TILL					
				RED BROWN SILTY CLAY LOAM-CLAY LOAM					
567.5				GRAY SHALE BED ROCK		100			
						100			
				BROWN SANDY CLAY LOAM TILL					
				COARSE BROWN SANDY LOAM-LOAM					
				(Free H ₂ O)					
				GRAY SHALE BED ROCK					
				LIMIT OF BORING					

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".
Qu-Unconfined Compressive Strength - t/sf
w - Water Content - percentage of oven dry weight.
Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

-34-



DESIGNED: IDOT DRAWN: PTR
CHECKED: DCD CHECKED: DCD

SOIL BORINGS (3 OF 4)
THOMPSON MILL COVERED BRIDGE OVER
KASKASKIA RIVER
STRUCTURE NO. 087-0019

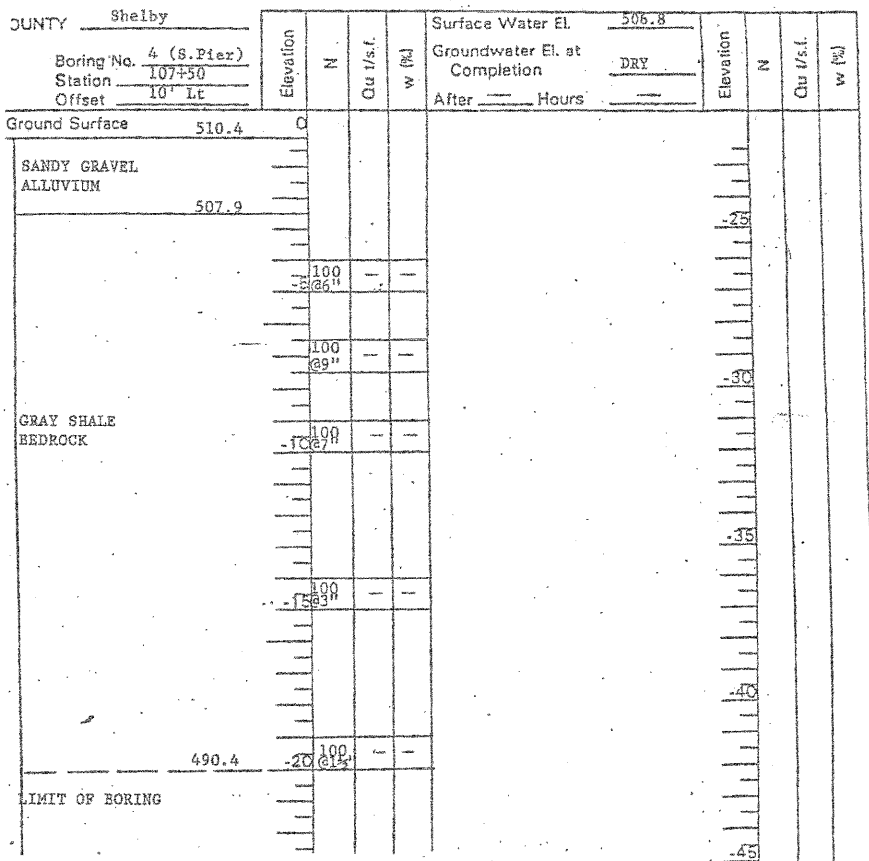
SHEET	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11 OF 12	389A	D-7 Bridge Appr. 2009-1	SHELBY	14	13
		STA. 50+00	CONTRACT NO. 74337		
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Bridge Foundation
Boring Log

PROJECT Kaskaskia River Thompson Mill Covered Date 10/07/85 Sh. 1 of 3 Sh
ROUTE TR 389 Bridge Replacement Bored By Baker
C. 100BR STA. 108+00 Checked By TGB



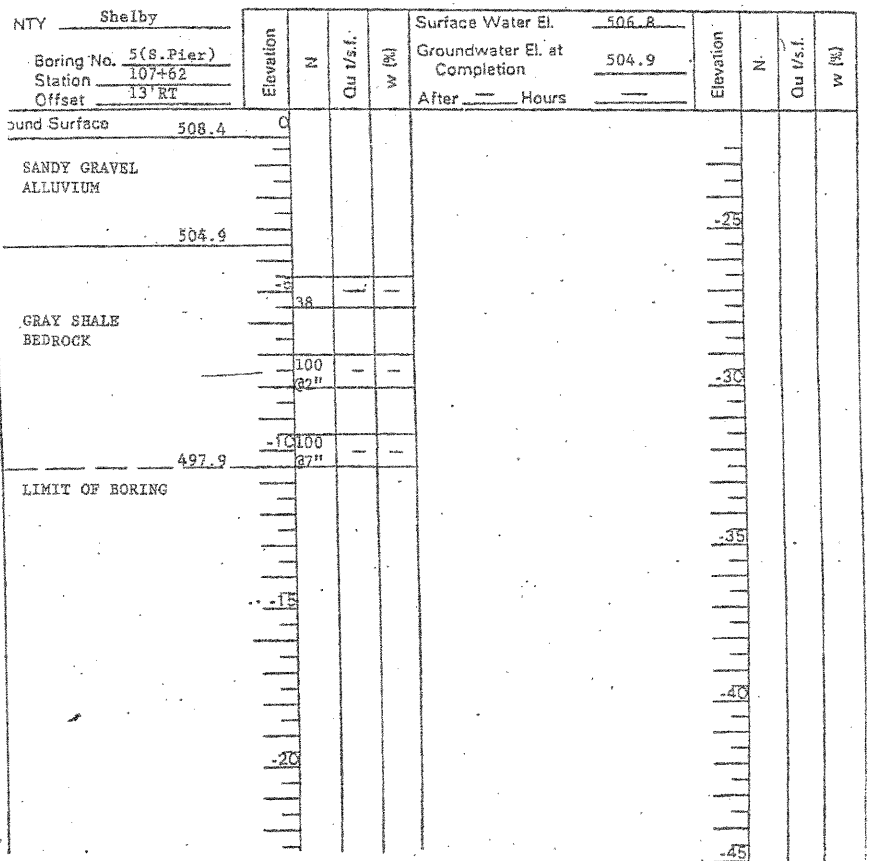
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Qu-Unconfined Compressive Strength - t/sf
w - Water Content - percentage of oven dry weight.
Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

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Bridge Foundation
Boring Log

PROJECT Kaskaskia River Thompson Mill Covered Date 10/07/85 Sh. 2 of 3 Sh
ROUTE TR 389 Bridge Replacement Bored By Baker
C. 100 BR STA. 108+00 Checked By TGB

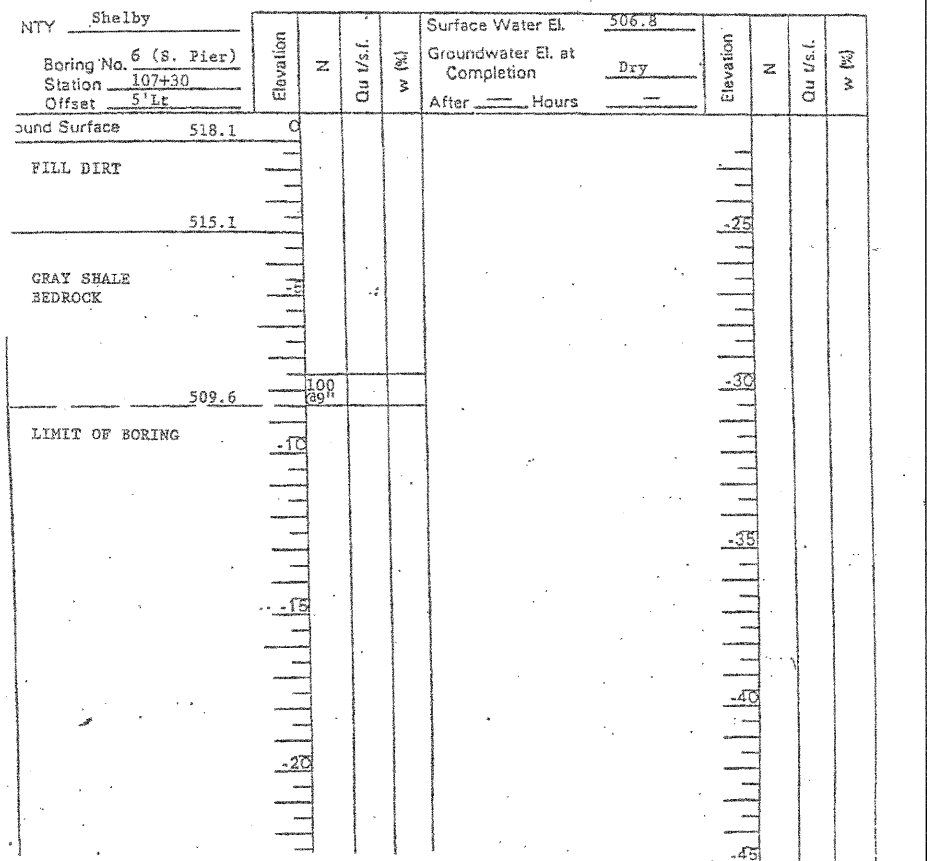


N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".
Qu-Unconfined Compressive Strength - t/sf
w - Water Content - percentage of oven dry weight.
Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer



Bridge Foundation
Boring Log

PROJECT Kaskaskia River Thompson Mill Covered Date 10/07/85 Sh. 3 of 3 Sh
ROUTE TR 389 Bridge Replacement Bored By BAKER
C. 100 BR STA. 108+00 Checked By TGB



N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".
Qu-Unconfined Compressive Strength - t/sf
w - Water Content - percentage of oven dry weight.
Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

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DESIGNED: IDOT DRAWN: PTR
CHECKED: DCD CHECKED: DCD

NOTE:
SOIL BORING INFORMATION ON THIS SHEET IS FOR REFERENCE ONLY, AND IS TAKEN FROM THE 1987 PLANS FOR THE ADJACENT TR 389 BRIDGE, LOCATED ABOUT 150 FEET UPSTREAM FROM THE COVERED BRIDGE.

SOIL BORINGS (4 OF 4)
THOMPSON MILL COVERED BRIDGE OVER
KASKASKIA RIVER
STRUCTURE NO. 087-0019

SHEET 12 OF 12	T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	389A	D-7 Bridge Appr. 2009-1	SHELBY	14	14
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 74337	

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DATE: 02/04/2009 16:39:54