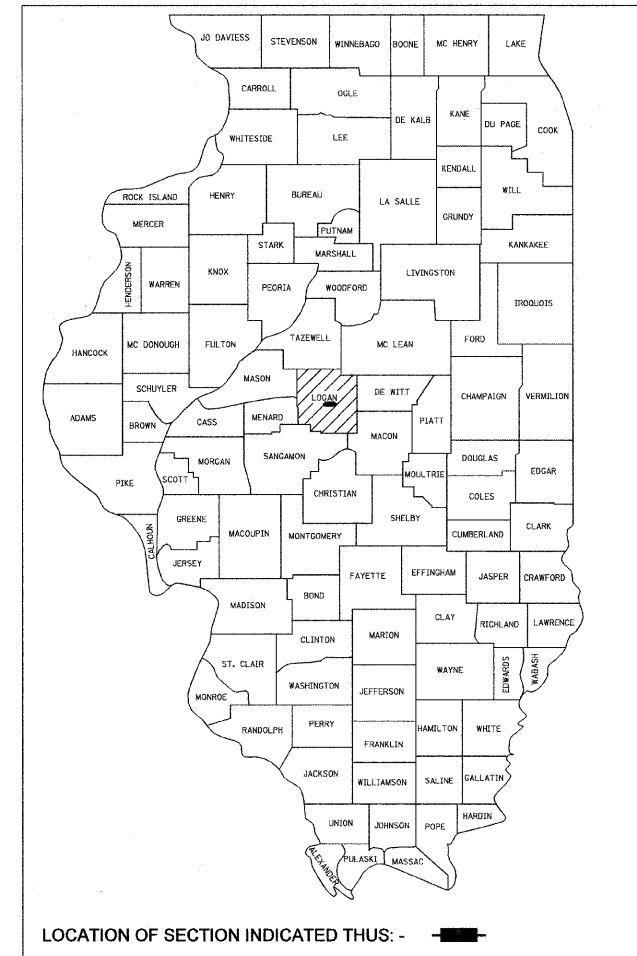


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 12	07-00118-00-BR	LOGAN	12	1
STA. 18+50		STA. 21+50		
FED. ROAD DIST.		ILLINOIS	FED. AID PROJECT	

COUNTY HIGHWAY C.H. 63E
SECTION 07-00118-00-BR
LOGAN COUNTY
PROJECT NO. BROS-107(37)
JOB NO. C-96-230-08



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUMMARY OF QUANTITIES AND TYPICAL SECTIONS
3	PLAN AND PROFILE
4	SHOULDER AND GUARDRAIL DETAILS
5-9	CROSS SECTIONS
10	GENERAL PLAN & ELEVATION
11	CULVERT LAYOUT
12	CULVERT DETAILS

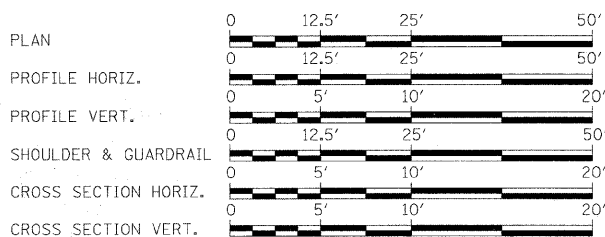
HIGHWAY STANDARDS (See Special Provisions)

280001-04	TEMPORARY EROSION CONTROL SYSTEMS
515001-03	NAME PLATE FOR BRIDGES
630101-08	STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES
631011-05	TRAFFIC BARRIER TERMINAL, TYPE 2
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
701901-01	TRAFFIC CONTROL DEVICES
BLR 21-8	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 23-3	TRAFFIC BARRIER TERMINAL, TYPE 1
BLR 26-1	STEEL PLATE BEAM GUARDRAIL (27 1/2" HEIGHT)

UTILITIES

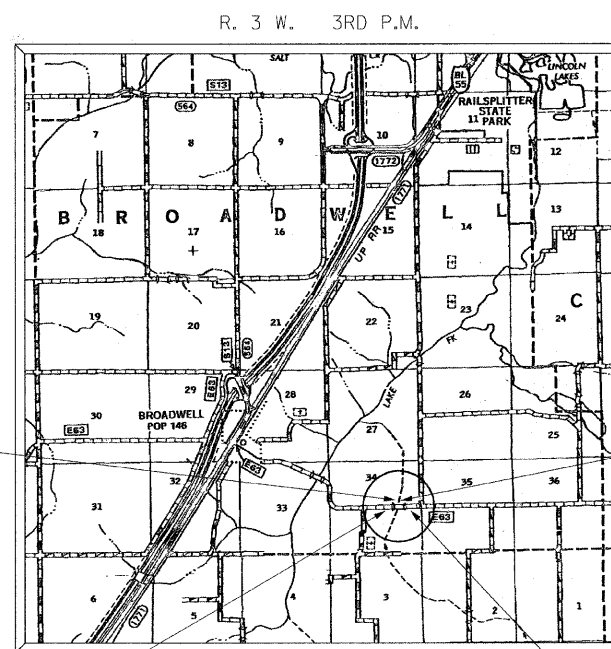
AMEREN -CILCO	309-693-4839
VERIZON NORTH, INC.	309-827-1617
MENARD ELECTRIC COOP	217-632-7746

TOLL FREE JOINT UTILITY LOCATING
INFORMATION FOR EXCAVATORS (J.U.L.I.E.)
TELEPHONE NUMBER 1-800-892-0123



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.

CONTRACT NO. 93473



EXISTING STRUCTURE:
STA. 20+00
TRIPLE 9'x4.5' BOX CULVERT
36' LONG ON 16° SKEW, L.A.
S.N. 054-3908

PROPOSED STRUCTURE:
STA 20+00
TRIPLE 9'x6' BOX CULVERT
46' LONG ON 15° SKEW, L.A.
SN 054-3921

IMPROVEMENT BEGINS
STA 18+50.00

IMPROVEMENT ENDS
STA 21+50.00

LOCATION MAP

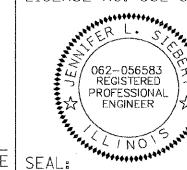


TOTAL AND NET LENGTH OF PROJECT = 300.00 FT = 0.058 MI
STRUCTURE LENGTH (BK.-BK. ABUT.) = 30.7'

ROADWAY CLASSIFICATION: MINOR COLLECTOR
ADT: 275
DESIGN SPEED: 40 MPH
DESIGN GUIDELINES: RURAL

JENNIFER L. SIEBERT
REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS NO. 062-056583
LICENSE EXPIRES NOVEMBER 30, 2009
7-1-08
DATE

LICENSE NO. 062-056583



PLANS PREPARED BY:

PSBA

POEPPING, STONE, BACH & ASSOCIATES, INC.
100 SOUTH 54TH STREET QUINCY, ILLINOIS 62306
PH: (217) 223-4605 FAX: (217) 223-1546
E-MAIL: PSBA@PSBA.COM WWW.PSBA.COM

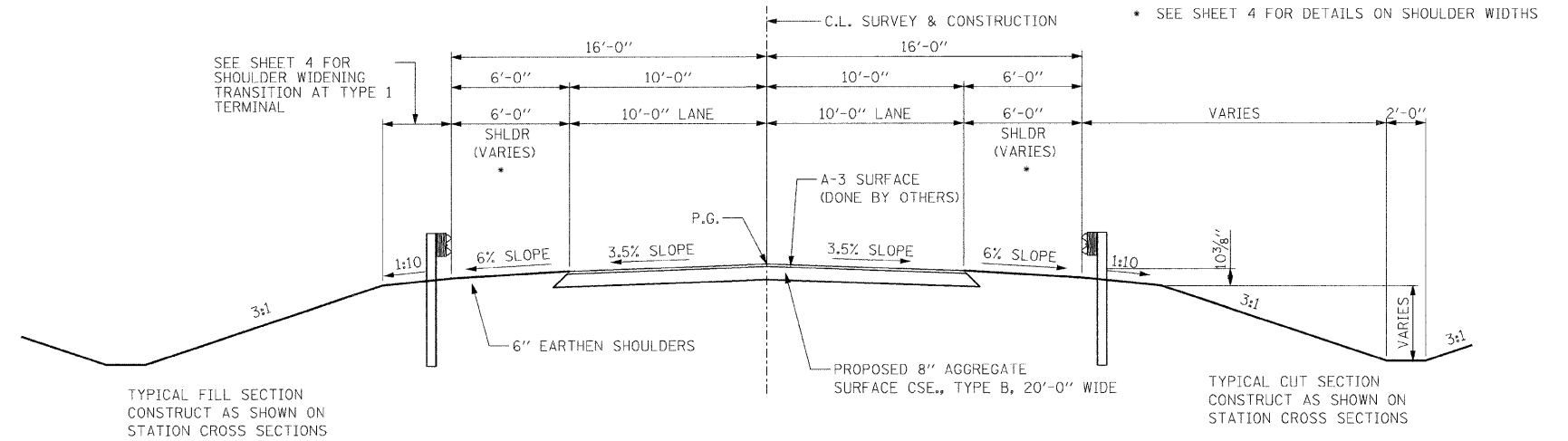
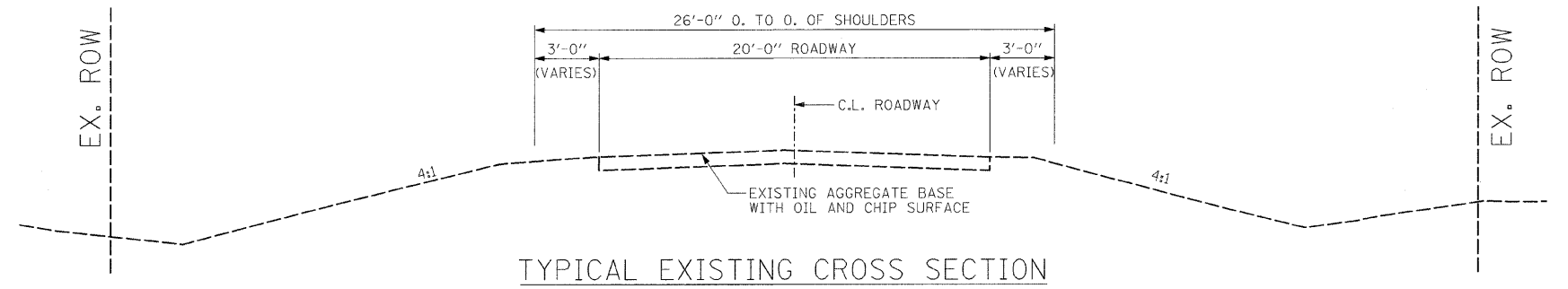
PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

SUMMARY OF QUANTITIES

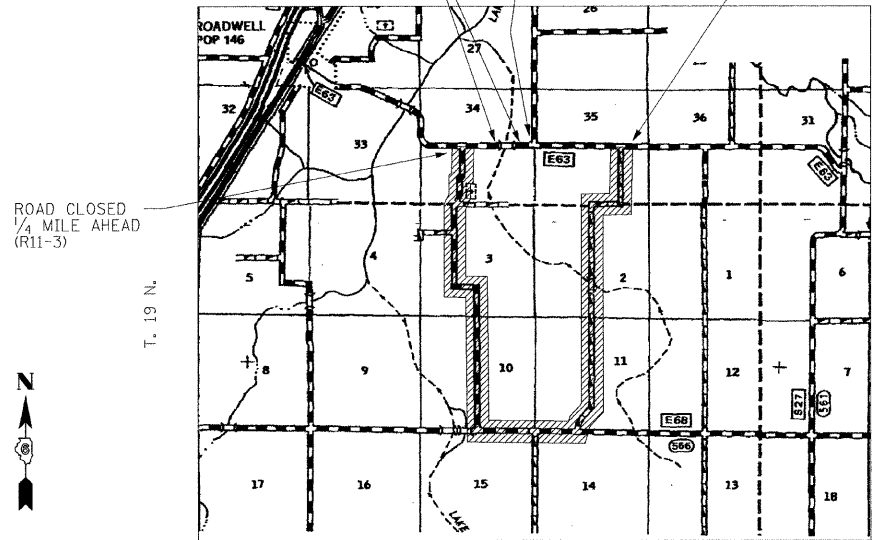
RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 12	07-00118-00-BR	LOGAN	12	2
STA. 18+50		STA. 21+50		
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT		

CODE NO.	ITEM	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU. YD.	310
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	28
28000300	TEMPORARY DITCH CHECKS	EACH	4
28000400	PERIMETER EROSION BARRIER	FOOT	50
* 28100825	STONE DUMPED RIPRAP, CLASS B3	TON	56
28200200	FILTER FABRIC	SQ. YD.	167
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	320
* 50100200	REMOVAL OF EXISTING STRUCTURES	L. SUM	1
50200100	STRUCTURE EXCAVATION	CU. YD.	71
50800105	REINFORCEMENT BARS	POUND	19840
51500100	NAME PLATES	EACH	1
54003000	CONCRETE BOX CULVERTS	CU. YD.	143.9
Δ * 63000025	STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES	FOOT	75
Δ * 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2
67100100	MOBILIZATION	L. SUM	1
* 70101700	TRAFFIC CONTROL AND PROTECTION	L. SUM	1
Δ 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	2
Δ LR631020	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	2
* X0324118	GRANULAR CULVERT BACKFILL	CU. YD.	170

* SEE SPECIAL PROVISIONS
 Δ SPECIALTY ITEMS
 CONSTRUCTION TYPE CODE: X028-2A



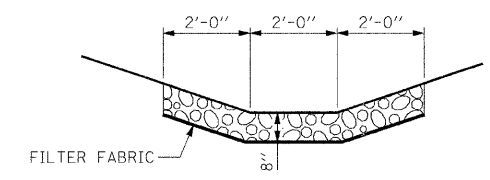
BARRICADES AND SIGNS SHALL BE INSTALLED AT BOTH END OF CULVERT AS PER STANDARD BLR 21, CONDITION 1
 ROAD CLOSED 1/4 MILE AHEAD (R11-3)
 ROAD CLOSED 1 MILE AHEAD (R11-3)



SIGNING FOR ROAD CLOSURE AND DETOUR

GENERAL NOTES

THE NOTED APPLICATION RATES ARE FOR QUANTITY CALCULATIONS ONLY. THE APPLICATION RATE TO BE APPLIED WILL BE DETERMINED BY THE ENGINEER AT THE TIME OF PLACEMENT.
 SEEDING WILL BE DONE BY OTHERS.
 THE JOINT DETAIL AT THE BEGINNING AND END OF IMPROVEMENT TO BE CONSTRUCTED AS DIRECTED BY THE ENGINEER.
 WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
 ALL EROSION PROTECTION TO BE PLACED AS DIRECTED BY THE ENGINEER.
 WHERE THE 36"Ø PIPE IS REMOVED, THE REMAINING VOID SHALL BE FILLED WITH SOME OF THE REMAINING WASTE FROM EARTHWORK.



RIPRAP LINED DITCH DETAIL

STONE DUMPED RIPRAP, CLASS B3 FOR SLOPES, SEE CROSS SECTIONS

APPLICATION RATES USED IN QUANTITY CALCULATIONS

STONE RIPRAP 1.5 TON / CU. YD.
 AGGREGATE BASE 2.05 TON / CU. YD.

FILE NAME = R07013.PLAN.dgn	USER NAME = default	DESIGNED - JLS	REVISED -
		DRAWN - JLS	REVISED -
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	PLOT DATE = 7/1/2008	DATE - JUN 2008	REVISED -

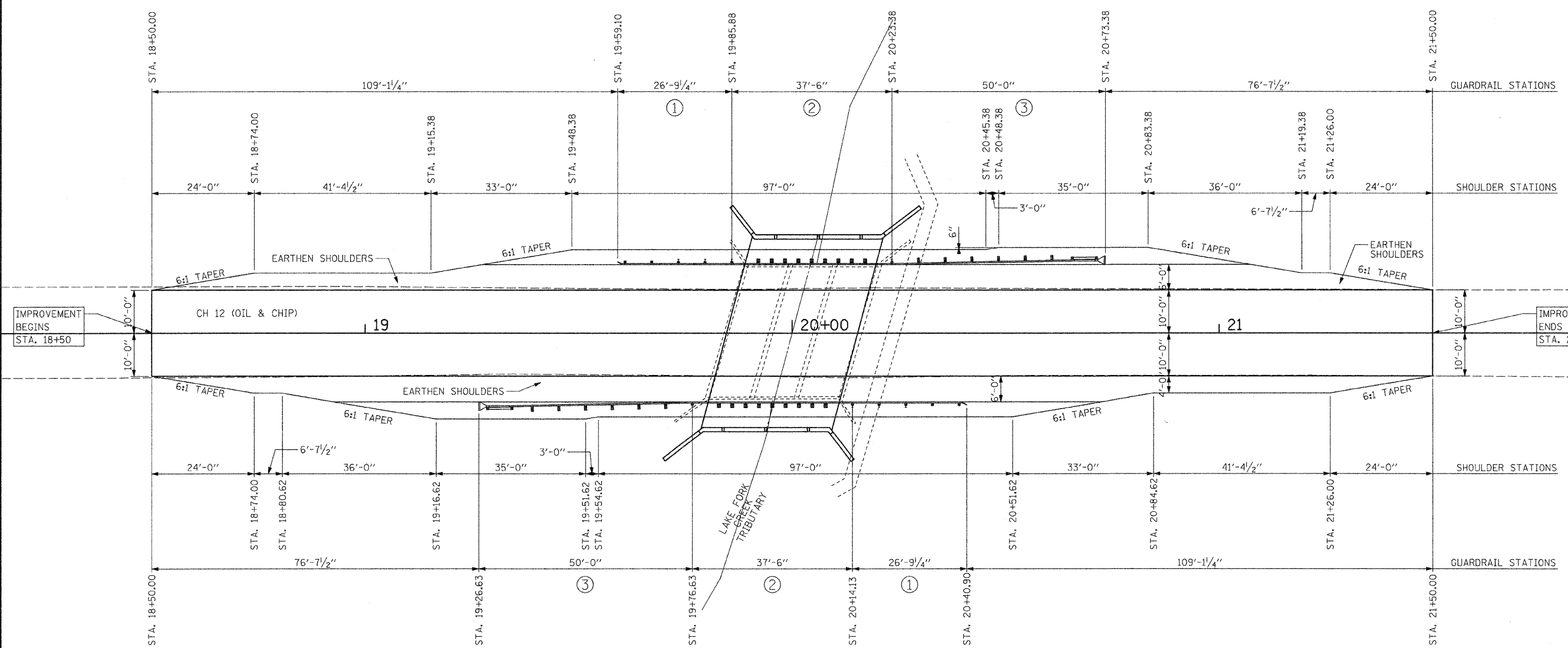
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES & TYPICAL SECTIONS

SCALE: SHEET NO. 1 OF 1 SHEETS STA. 15+00 TO STA. 25+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00118-00-BR	LOGAN	12	2
CONTRACT NO.				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 12	07-00118-00-BR	LOGAN	12	4
STA. 18+50		STA. 21+50		
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT		



IMPROVEMENT BEGINS
STA. 18+50

IMPROVEMENT ENDS
STA. 21+50

LEGEND

NOTE: ALL DIMENSIONS REFER TO FRONT FACE OF PROPOSED RAILING.

- ① TRAFFIC BARRIER TERMINAL, TYPE 2
- ② STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES
- ③ TRAFFIC BARRIER TERMINAL, TYPE 1

TRAFFIC BARRIER TERMINAL, TYPE 2

16.0' LT. STA. 19+59.10 TO 16.0' LT. STA. 19+85.88 = 1 EACH
 16.0' RT. STA. 20+14.13 TO 16.0' RT. STA. 20+40.90 = 1 EACH
 TOTAL = 2 EACH

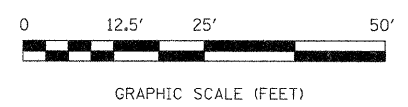
SHOULDER AND GUARDRAIL DETAIL

STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES

16.0' LT. STA. 19+85.88 TO 16.0' LT. STA. 20+23.38 = 37.5 FOOT
 16.0' RT. STA. 19+76.63 TO 16.0' RT. STA. 20+14.13 = 37.5 FOOT
 TOTAL = 75 FOOT

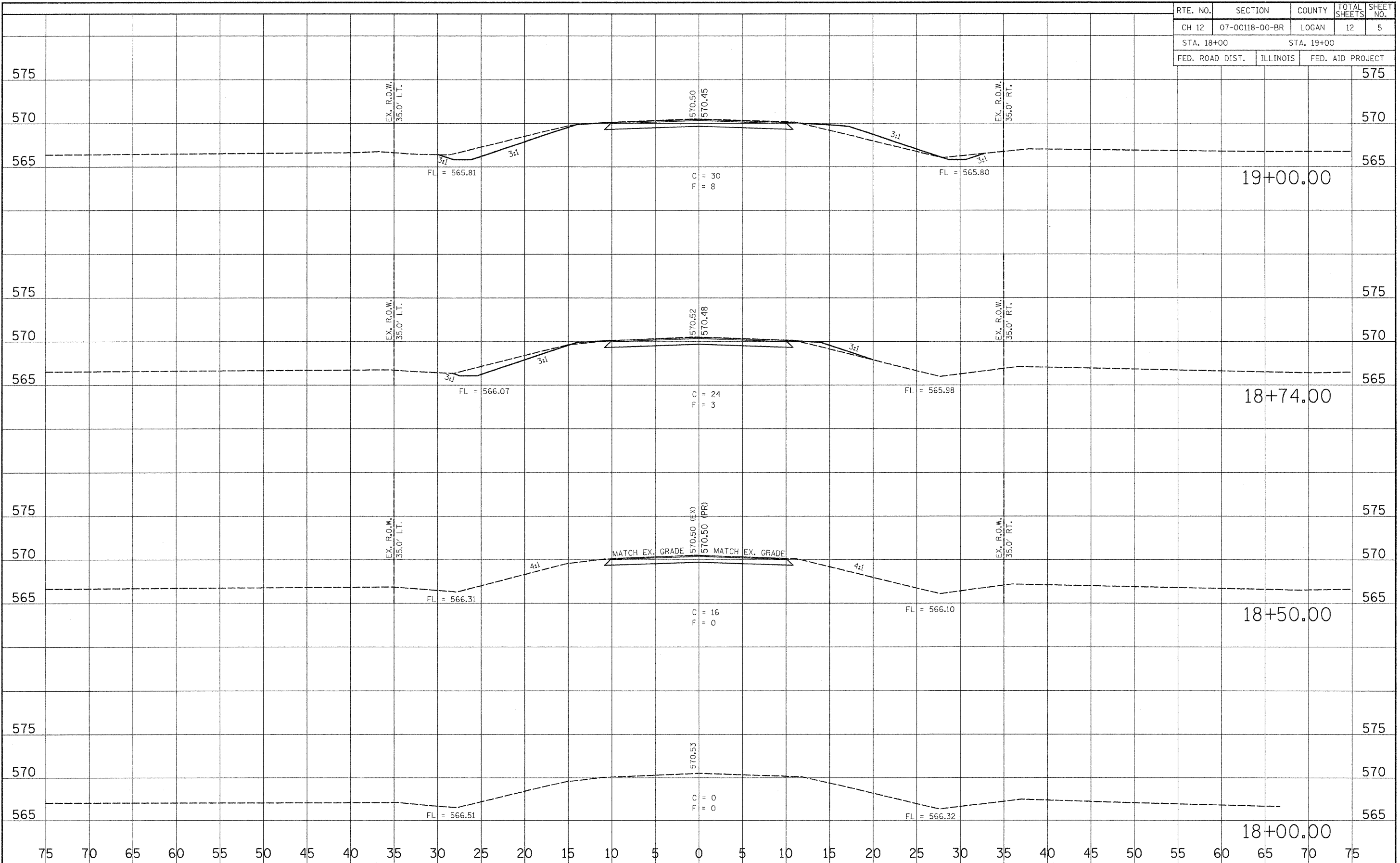
TRAFFIC BARRIER TERMINAL, TYPE 1

16.0' RT. STA. 20+23.38 TO 16.0' RT. STA. 20+73.38 = 1 EACH
 16.0' LT. STA. 19+26.63 TO 16.0' LT. STA. 19+76.63 = 1 EACH
 TOTAL = 2 EACH



FILE NAME = R07013.PLAN.dgn	USER NAME = default	DESIGNED - JLS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHOULDER AND GUARDRAIL DETAILS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - JLS	REVISED -			07-00118-00-BR	LOGAN	12	4		
		CHECKED - DJK	REVISED -			CONTRACT NO.					
		DATE - JUN 2008	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
SCALE: SHEET NO. 1 OF 1 SHEETS STA. 18+50 TO STA. 21+50											

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 12	07-00118-00-BR	LOGAN	12	5
STA. 18+00		STA. 19+00		
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT		



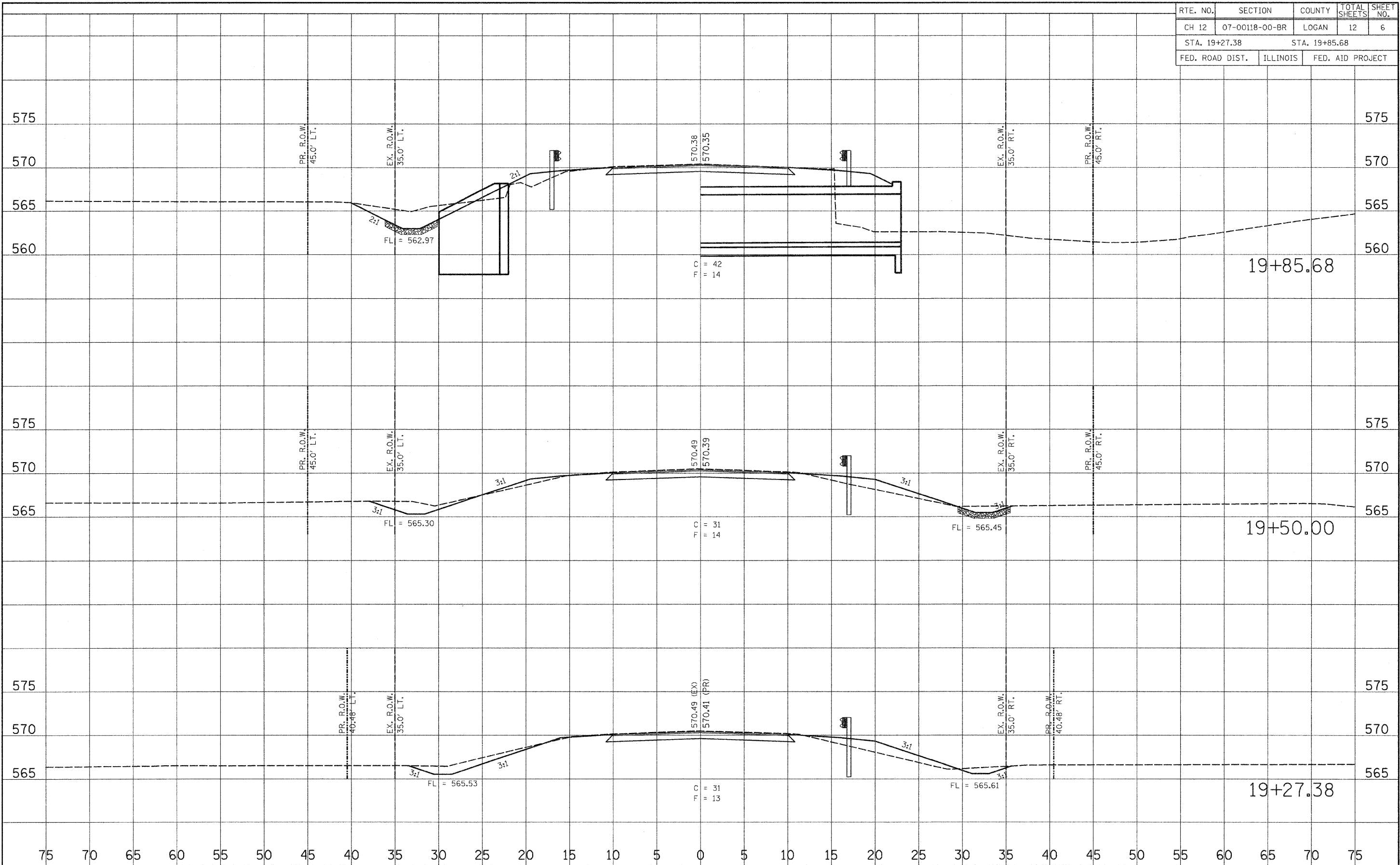
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		CHECKED - DJK	REVISED -
		DATE - JUN 2008	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS	
SCALE:	SHEET NO. 1 OF 5 SHEETS STA. 18+00 TO STA. 19+00

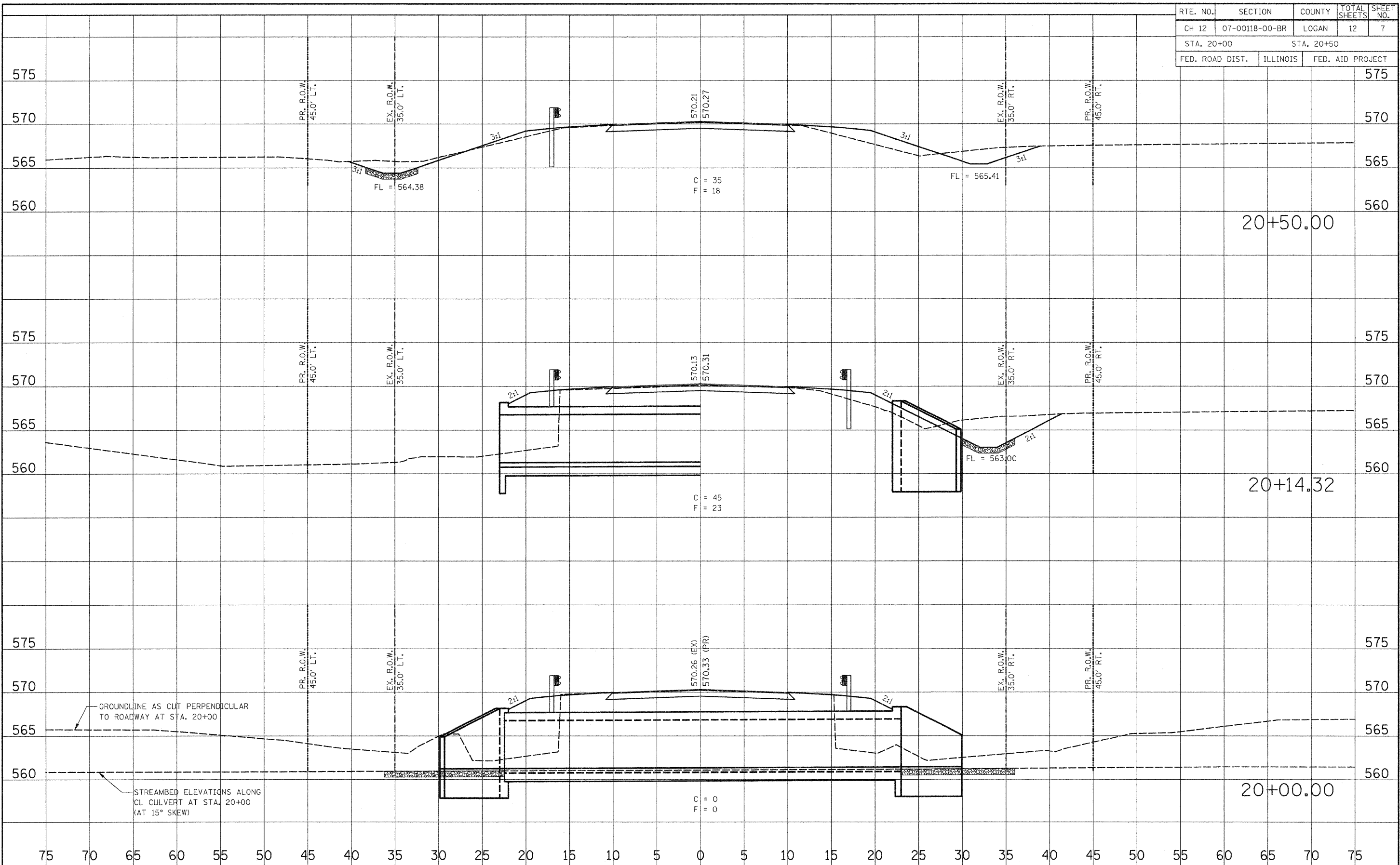
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	07-00118-00-BR	LOGAN	12	5
CONTRACT NO.				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 12	07-00118-00-BR	LOGAN	12	6
STA. 19+27.38		STA. 19+85.68		
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT		



FILE NAME = R07013.PLAN.dgn	USER NAME = default	DESIGNED - JLS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 2.0833' / IN.	DRAWN - JLS	REVISED -			07-00118-00-BR	LOGAN	12	6		
	PLOT DATE = 6/30/2008	CHECKED - DJK	REVISED -			CONTRACT NO.					
		DATE - JUN 2008	REVISED -			SCALE:	SHEET NO. 2 OF 5 SHEETS	STA. 19+27.38 TO STA. 19+85.68	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 12	07-00118-00-BR	LOGAN	12	7
STA. 20+00		STA. 20+50		
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT		



GROUNDLINE AS CUT PERPENDICULAR TO ROADWAY AT STA. 20+00

STREAMBED ELEVATIONS ALONG CL CULVERT AT STA. 20+00 (AT 15° SKEW)

FILE NAME = R07013_PLA.dgn	USER NAME = default	DESIGNED - JLS	REVISED -
		DRAWN - JLS	REVISED -
		CHECKED - DJK	REVISED -
		DATE - JUN 2008	REVISED -

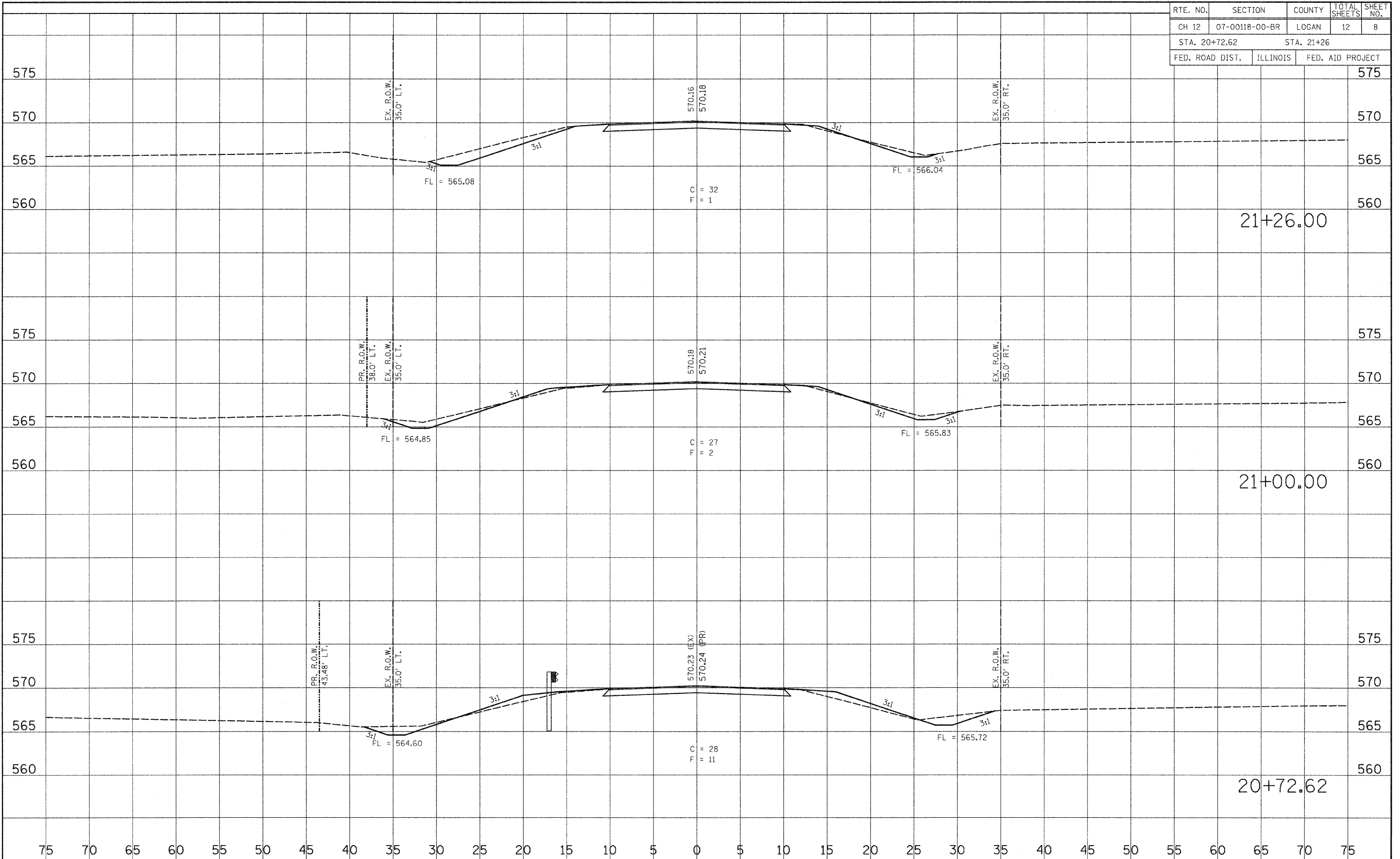
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

SCALE: SHEET NO. 3 OF 5 SHEETS STA. 20+00 TO STA. 20+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00118-00-BR	LOGAN	12	7
CONTRACT NO.				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

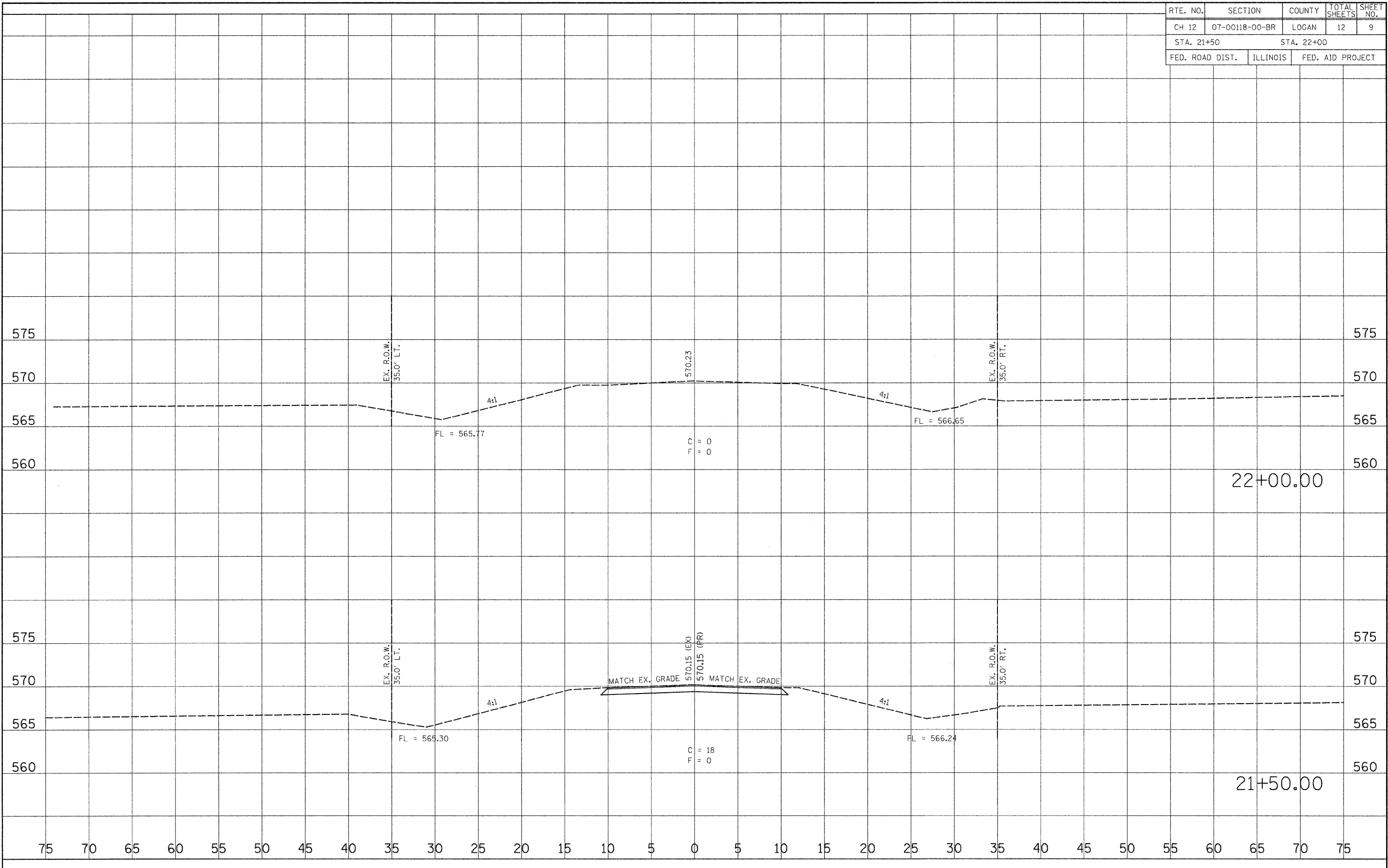
RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 12	07-00118-00-BR	LOGAN	12	8
STA. 20+72.62		STA. 21+26		
FED. ROAD DIST.		ILLINOIS	FED. AID PROJECT	



FILE NAME = R07013.PLAN.dgn	USER NAME = default	DESIGNED - JLS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - JLS	REVISED -			07-00118-00-BR	LOGAN	12	8	
		CHECKED - DJK	REVISED -			CONTRACT NO.				
		DATE - JUN 2008	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SCALE: SHEET NO. 4 OF 5 SHEETS STA. 20+72.62 TO STA. 21+26

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 12	07-00118-00-BR	LOGAN	12	9
STA. 21+50		STA. 22+00		
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT		



FILE NAME = R07013_PLA.dgn	USER NAME = default	DESIGNED - JLS	REVISIED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - JLS	REVISIED -				07-00118-00-BR	LOGAN	12	9	
		CHECKED - DJK	REVISIED -			CONTRACT NO.					
		DATE - JUN 2008	REVISIED -			SCALE:	SHEET NO. 5 OF 5 SHEETS	STA. 21+50	TO STA. 22+00	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT

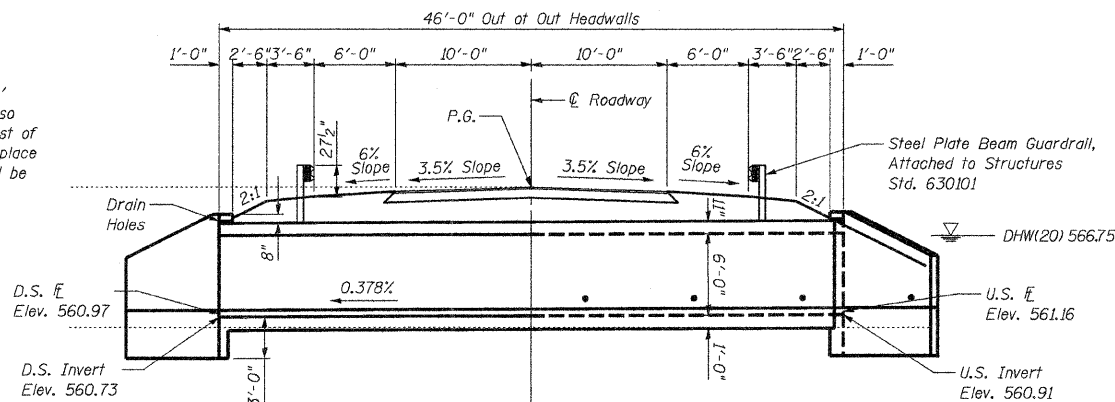
RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 12	07-00118-00-BR	LOGAN	12	10
STA. 20+00		STA.		
FED. ROAD DIST.		ILLINOIS	FED. AID PROJECT	

Benchmark - BM#1 (CP100) - Top of 5/8" Rebar
Sta. 20+39.09, 16.25' Lt.
Elev. 569.51

Existing Structure - 054-3908 - Built in 1937 under Section 70-0. Triple 9' x 4.5' Concrete Box Culvert with Concrete Headwalls and Wingwalls. Also part of the existing structure is a 36" Plastic Pipe, located East of the culvert. The contractor shall remove both structures and replace them with a 9' x 6' triple barrel box culvert. The structure will be closed to traffic during construction.

Salvage - All Salvagable Materials to Become The Property of the Contractor

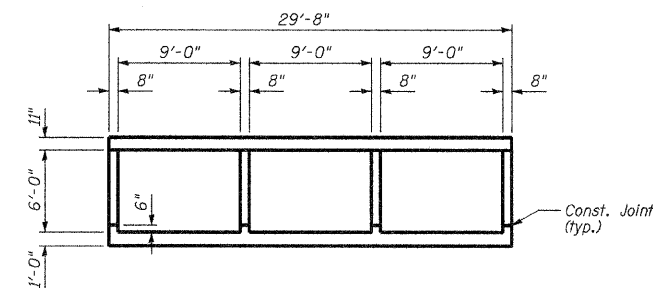
Estimated Removal Quantities - 86 Cu. Yd. Concrete



LONGITUDINAL SECTION

INDEX OF SHEETS

- General Plan & Elevation
- Culvert Layout
- Culvert Details



SECTION THRU BARREL

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	D.S. Invert	U.S. Invert
	557.73	557.91

TRIBUTARY TO LAKE FORK CREEK
BUILT 20__ BY
LOGAN COUNTY
SECTION 07-00118-00-BR
PROJECT BROS-107 (37)
STATION 20+00
STR. NO. 054-3921 LOADING HS-20

LETTERING FOR NAME PLATE

Locate Name Plate on South Face of Culvert
Near West End above Opening (See Std. CN)

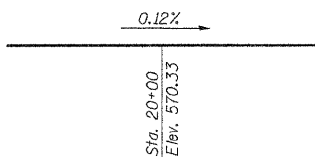
DESIGN SPECIFICATIONS

2002 AASHTO - 17th Ed.

LOADING HS 20-44 & ALT.

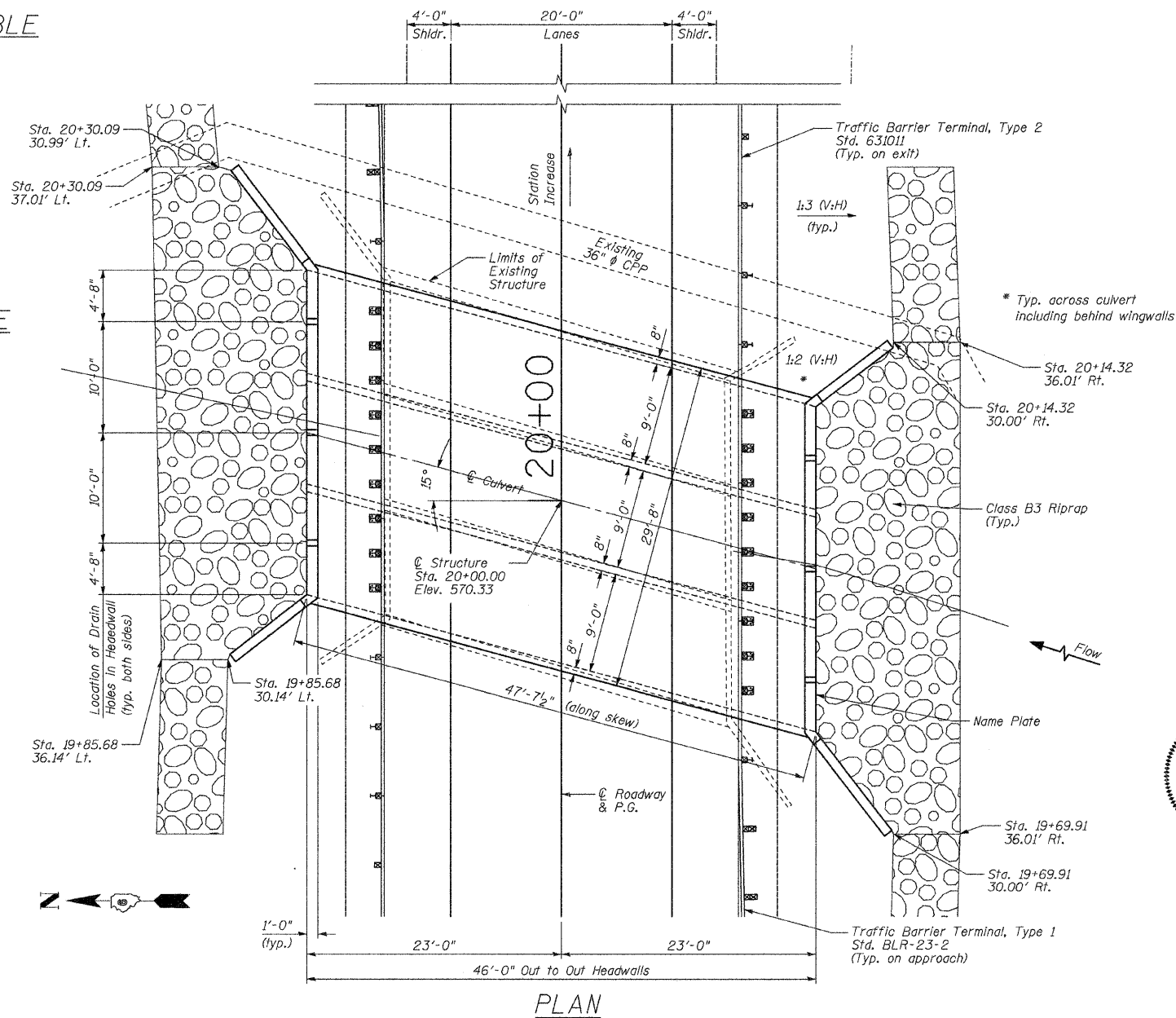
DESIGN STRESSES

$f_y = 60,000$ psi (reinforcement)
 $f'_c = 3,500$ psi

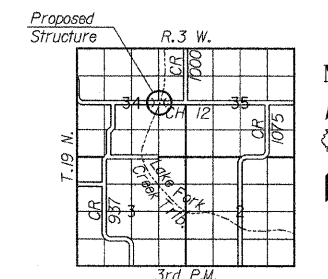


PROFILE GRADE

(Along ϕ Roadway)



PLAN



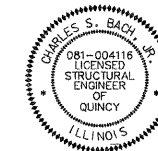
LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 4.57 Sq. Mi.		Low Grade Elevation = 570.134		At Station 20+13.77		
Flood	Freq. Yr.	a CFS	Opening Sq. Ft.	Natural H.W.E.	Head-Ft.	Headwater El.
			Exist. Prop.	Exist. Prop.	Exist. Prop.	Exist. Prop.
Min. Calc.	10	487	83	152	566.53	0.49 0.00 567.02 566.53
Design	20	606	87	162	566.75	0.75 0.04 567.50 566.79
Base	100	889	91	162	567.06	1.66 0.37 568.72 567.43
Overlapping	none					
Max. Calc.	500	1,180	129	162	567.25	2.78 0.90 570.03 568.15

This structure has been designed to be stable for scour conditions in accordance with the FHWA Technical Advisory T-5140.23 "Evaluating Scour At Bridges" and Hydraulic Engineer Circular 18 - "Evaluating Scour At Bridges".

I certify that to the best of my knowledge, information and belief, this bridge is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications For Highway Bridges".
SN054-3908 Sheets 1 thru 3.



Signature: *Charles S. Bach*

Date: 7-1-08

My license renewal date is November 30, 2008

GENERAL PLAN & ELEVATION
CH 12 OVER
LAKE FORK CREEK TRIBUTARY
STATION 20+00.00

FILE NAME = R07013.PLAN.dgn	USER NAME = default	DESIGNED - JLS	REVISED -
		DRAWN - JLS	REVISED -
	PLOT SCALE = 0.0833' / IN.	CHECKED - CSB	REVISED -
	PLOT DATE = 7/1/2008	DATE - JUN 2008	REVISED -

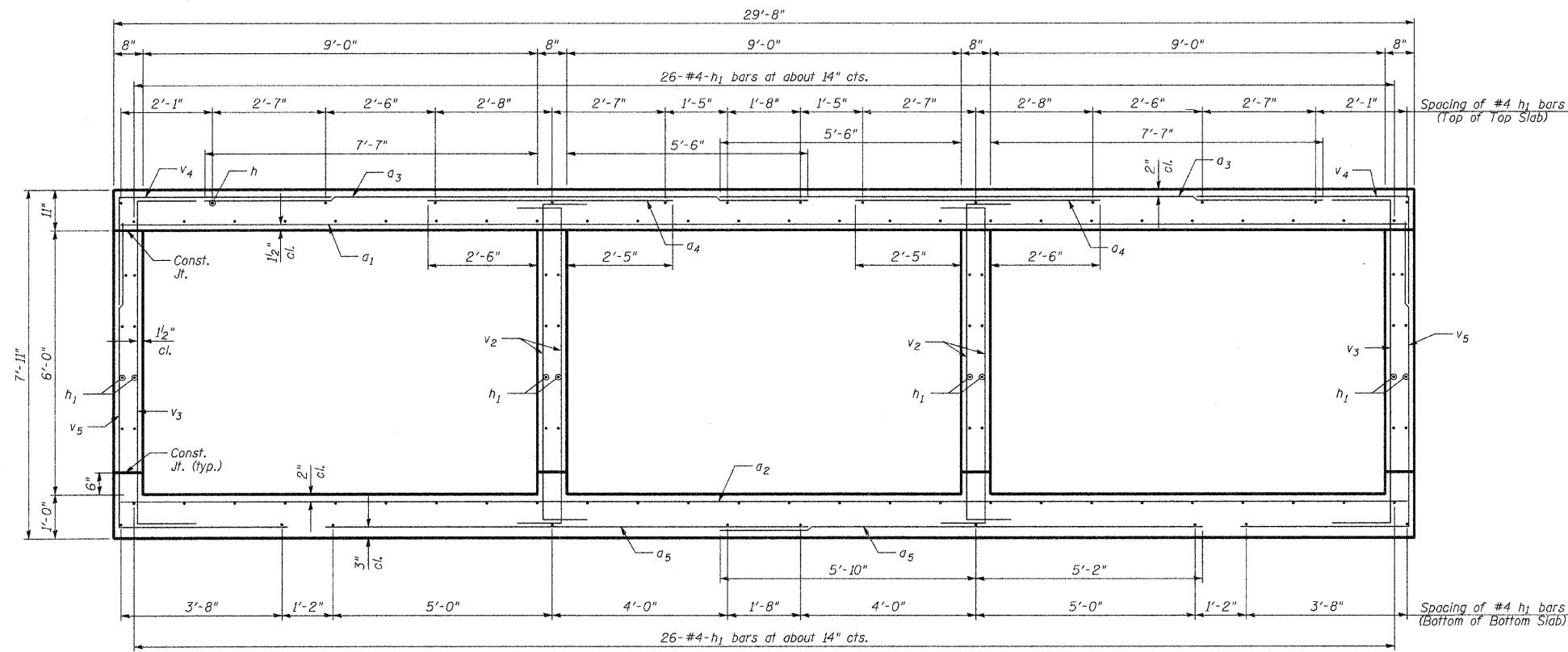
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION

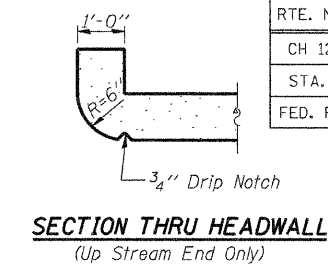
SCALE: SHEET NO. 1 OF 3 SHEETS STA. 20+00 TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	07-00118-00-BR	LOGAN	12	10
SN 054-3921		CONTRACT NO.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

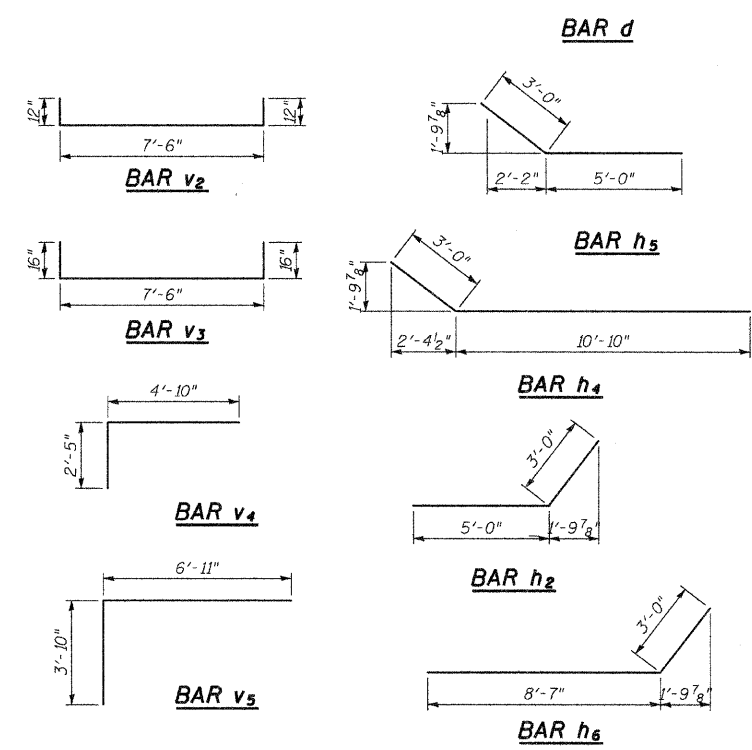
RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 12	07-00118-00-BR	LOGAN	12	12
STA. 20+00		STA.		
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT		



SECTION THRU BARREL

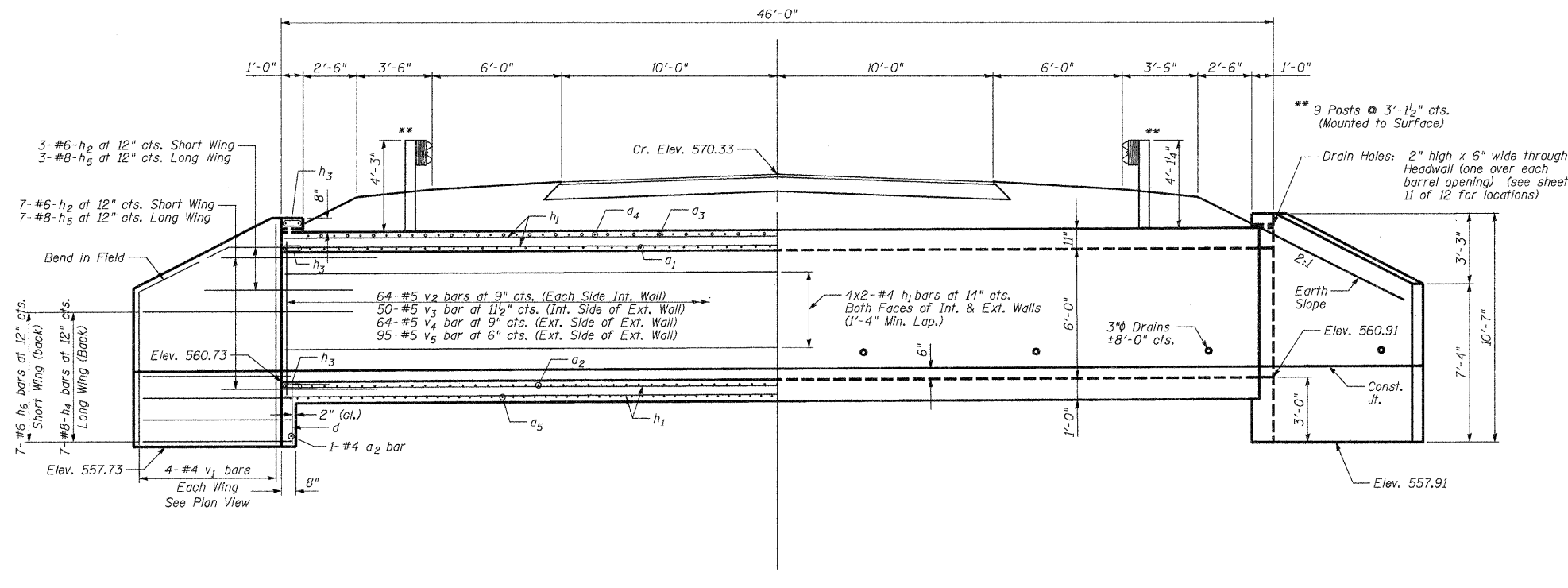


SECTION THRU HEADWALL
(Up Stream End Only)



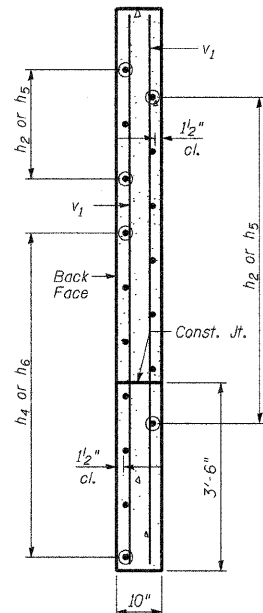
BILL OF MATERIAL

Bar No.	Size	Length	Shape
a1	#5	29'-4"	—
a2	#4	29'-4"	—
a3	#5	13'-9"	—
a4	#5	5'-7"	—
a5	#5	11'-0"	—
d	#4	4'-6"	┌
h1	#4	24'-4"	—
h2	#6	8'-0"	└
h3	#6	29'-10"	—
h4	#8	13'-10"	—
h5	#8	8'-0"	—
h6	#6	11'-7"	—
v	#4	7'-7"	—
v1	#4	10'-2"	—
v2	#5	9'-6"	—
v3	#5	10'-2"	—
v4	#5	7'-3"	—
v5	#5	10'-9"	—
Removal of Existing Structures			L. Sum 1
Structure Excavation			Cu. Yd. 71
Reinforcement Bars			Pound 19,840
Concrete Box Culverts			Cu. Yd. 143.9



HALF LONG. SECTION

HALF ELEVATION



SECTION A-A

Dimensions at Rt. L's to Ⓞ Roadway

CULVERT DETAILS
CH 12 OVER
LAKE FORK CREEK TRIBUTARY
STATION 20+00.00

FILE NAME = R07013.PLAN.dgn	USER NAME = default	DESIGNED - JLS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CULVERT DETAILS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - JLS	REVISED -			07-00118-00-BR	LOGAN	12	12	
		CHECKED - CSB	REVISED -			SN 054-3921		CONTRACT NO.		
		DATE - JUN 2008	REVISED -			ILLINOIS FED. AID PROJECT				
		PLOT SCALE = 0.0833' / IN.		SCALE:		SHEET NO. 3 OF 3 SHEETS		STA. 20+00 TO STA.		
		PLOT DATE = 6/30/2008								