

PROPOSED HIGHWAY PLANS

FAI 39 ROUTE (I-39)
SECTION (103-1HB-3)BP
PROJECT: NHPP-N5R4(572)
TYPE of IMPROVEMENT - CLEANING AND PAINTING
LEE COUNTY

P.L.E. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
37	103-1HB-3BP	LEE	7-	1
ILLINOIS CONTRACT NO. 64M52				

* 7 + 6(A-F) = 13 TOTAL SHEETS

D-92-063-17



LOCATION OF SECTION INDICATED THUS: - [Symbol] -

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR STATE STANDARDS, SEE SHEET NO. 2

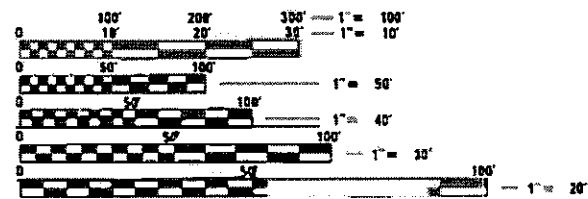
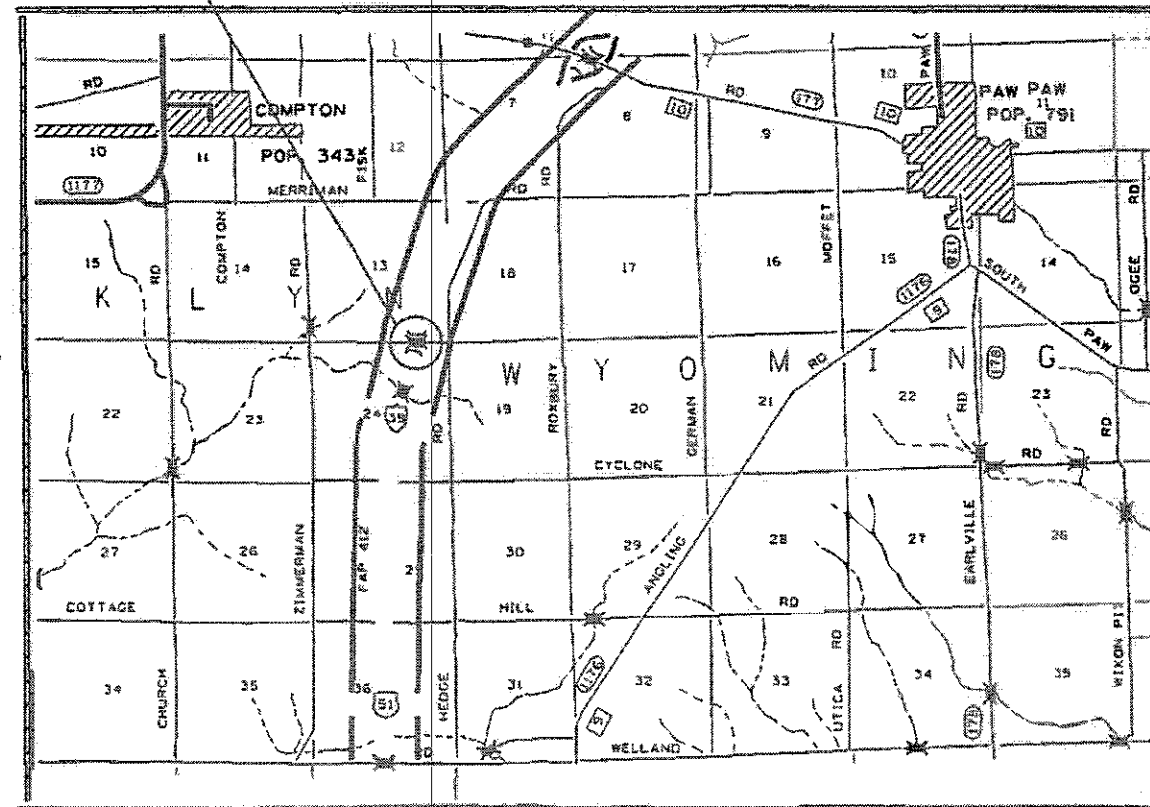
SN 052-0058

C-92-076-17

R.1E.

BROOKLYN TOWNSHIP, SECTIONS 13 & 24

T.37N.



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

PROJECT ENGINEER: DAVE DOSS (815) 284-5416
PROJECT MANAGER: MAHMOUD ETEMADI (815) 284-5393

CONTRACT NO. 64M52

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED 1-25-2018

[Signature]
REGIONAL ENGINEER

Mar 23 2018

[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

Mar 23 2018

[Signature]
DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS / STATE STANDARDS / GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 SCHEDULE OF QUANTITIES
- 5 STAGING TYPICAL
- 6-7 TRAFFIC CONTROL PLAN FOR SN 052-0058
- 7A-7F EXISTING PLANS SN 052-0058

STATE STANDARDS

- 701101-05 OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701400-09 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-11 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701402-12 LANE CLOSURE, FREEWAY/EXPRESSWAY WITH BARRIER
- 701426-09 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS, FOR SPEEDS > 45 MPH
- 701901-07 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 720011-01 METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)

GENERAL NOTES

A MINIMUM OF 2 AIR MONITORS WILL BE REQUIRED TO MONITOR ABRASIVE BLASTING OPERATIONS, SEE SPECIAL PROVISION FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES".

THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS. SEEDING CLASS 2A SHALL BE USED. THIS WORK WILL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LUMP SUM FOR CLEANING AND PAINTING STEEL BRIDGE NO. 1.

FERTILIZER SHALL BE APPLIED TO ALL DISTURBED AREAS AND INCORPORATED INTO THE SEEDBED PRIOR TO SEEDING OR PLACEMENT OF SOD AT THE RATE SPECIFIED IN SECTIONS 250 AND 252 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST OF CLEANING AND PAINTING STEEL BRIDGE NO. 1.

MULCH METHOD II SHALL BE APPLIED OVER ALL SEEDED AREAS. THIS SHALL BE INCLUDED IN THE COST OF THE CLEANING AND PAINTING STEEL BRIDGE NO. 1.

ALL BORROW/WASTE/USE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTHMOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.

TEMPORARY IMPACT ATTENUATORS WILL BE MEASURED AS EACH FOR EACH ATTENUATOR SUPPLIED ON THE JOB AS SPECIFIED IN THE PLANS, AND SHALL INCLUDE THE COST OF RENTING/OWNING THE ATTENUATOR FOR THE TIME REQUIRED ON THE JOB PLUS HAULING TO AND FROM THE PROJECT SITE, AS WELL AS ONE PLACEMENT AND REMOVAL FROM THE ROADWAY. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR IMPACT ATTENUATORS, TEMPORARY OF THE TYPE SPECIFIED.

RELOCATE TEMPORARY IMPACT ATTENUATOR WILL BE PAID FOR AS EACH AND WILL BE PAID FOR EACH TIME THE ATTENUATOR IS REQUIRED BY STAGING TO BE PICKED UP AND MOVED TO A DIFFERENT LOCATION ON THE PROJECT, WHETHER IT IS TO ANOTHER LOCATION ON THE ROADWAY OR TO A STORAGE/STAGING LOCATION FOR THE PROJECT. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR IMPACT ATTENUATORS, RELOCATE OF THE TYPE SPECIFIED.

THIS WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 704 OF THE STANDARD SPECIFICATIONS. TEMPORARY CONCRETE BARRIER WILL BE MEASURED IN FEET ALONG THE CENTERLINE OF THE BARRIER AND SHALL INCLUDE THE COST OF RENTING/OWNING THE BARRIER FOR THE TIME REQUIRED ON THE JOB PLUS HAULING TO AND FROM THE PROJECT SITE, AS WELL AS ONE PLACEMENT AND REMOVAL FROM THE ROADWAY IN ACCORDANCE WITH SECTION 704 OF THE STANDARD AND SPECIFICATION. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR TEMPORARY CONCRETE BARRIER.

RELOCATE TEMPORARY CONCRETE BARRIER WILL BE PAID FOR IN FEET ALONG THE CENTERLINE OF THE BARRIER, AND WILL BE PAID FOR EACH TIME THE BARRIER IS REQUIRED BY STAGING TO BE PICKED UP AND MOVED TO A DIFFERENT LOCATION ON THE PROJECT, WHETHER IT IS TO ANOTHER LOCATION ON THE ROADWAY OR TO A STORAGE/STAGING LOCATION FOR THE PROJECT. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR RELOCATE TEMPORARY CONCRETE BARRIER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123.

THE SSPC QP1 & QP2 CONTRACT CERTIFICATIONS WILL BE REQUIRED FOR THIS CONTRACT.

MODEL: D:\civ\... FILE NAME: p:\ILLI@BID\INTEG_illinois.gov\FWD\DOT\documents\DOT_Offices\District_2\Projects\Operations\Bridg... Section\Lee\052-0058\64M52\CADD\64M52-chn-cover.dgn

USER NAME = dssdd	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = 100.0000' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = Jan-19-2018 10:56:26 AM	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES	
SCALE: _____	SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(101-1HB-3)BP	LEE	7	2
CONTRACT NO. 64M52				
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

90% NHPP
10% STATE

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	LEE COUNTY <i>0047</i>
67100100	MOBILIZATION	L SUM	1	1
70100207	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402	EACH	2	2
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1
70107004	PAVEMENT MARKING BLACKOUT TAPE, 4"	FOOT	4600	4600
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	9160	9160
70400100	TEMPORARY CONCRETE BARRIER	FOOT	462.5	462.5
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	837.5	837.5
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	3	3
X5067501	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 1	L SUM	1	1
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	4588	4588
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	1
Z001050/	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1

B

MODEL: Default
FILE NAME: p:\work\0446\BID\NTECS\Illinois.gov\FWIDOT\Documents\DOT_Offices\Barricade_Section\Lee052-005866.ms2\CAD\064M52-shr-cover.dgn

USER NAME = dssidd PLOT SCALE = 100.0000' / in. PLOT DATE = Jan-25-2018 11:17:07 AM	DESIGNED - _____ DRAWN - _____ CHECKED - _____ DATE - _____	REVISED - _____ REVISED - _____ REVISED - _____ REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____	F.A.I. RTE. 39 SECTION (101-1HB-3)BP COUNTY LEE TOTAL SHEETS 7 SHEET NO. 3 CONTRACT NO. 64M52 ILLINOIS FED. AID PROJECT
---	--	--	---	---	---

SCHEDULE OF QUANTITIES

70107004	PAVEMENT MARKING BLACKOUT TAPE, 4"		
	<u>LOCATION</u>	<u>COMMENTS</u>	<u>FOOT</u>
	STAGE I		
	500'	EDGE LINE/RT	500
	130'	SKIP DASH/DOUBLE WIDE (13 DASHES)	260
	520'	EDGE LINE/LT	520
	STAGE II		
	500'	EDGE LINE/LT	500
	520'	EDGE LINE/RT	520
	STAGE III		
	500'	EDGE LINE/LT	500
	130'	SKIP DASH/DOUBLE WIDE (13 DASHES)	260
	520'	EDGE LINE/RT	520
	STAGE IV		
	500'	EDGE LINE/RT	500
	520'	EDGE LINE/LT	520
		TOTAL	4600

X7030005	TEMPORARY PAVEMENT MARKING REMOVAL		
	<u>LOCATION</u>	<u>COMMENTS</u>	<u>SQ FT</u>
	STAGE I		
	1280'	BLACKOUT TAPE, 4"	427
	2540'	MARKING TAPE, TYPE III, 4"	847
	STAGE II		
	1020'	BLACKOUT TAPE, 4"	340
	2040'	MARKING TAPE, TYPE III, 4"	680
	STAGE III		
	1280'	BLACKOUT TAPE, 4"	427
	2540'	MARKING TAPE, TYPE III, 4"	847
	STAGE IV		
	1020'	BLACKOUT TAPE, 4"	340
	2040'	MARKING TAPE, TYPE III, 4"	680
		TOTAL	4588

70300520	PAVEMENT MARKING TAPE, TYPE III 4"		
	<u>LOCATION</u>	<u>COMMENTS</u>	<u>FOOT</u>
	STAGE I		
	1000'	TAPER	1000
	500'	CENTERLINE	500
	70'	TAPER x2	140
	380'	TANGENT x2	760
	70'	TAPER x2	140
	STAGE II		
	1000'	TAPER	1000
	70'	TAPER x2	140
	380'	TANGENT x2	760
	70'	TAPER x2	140
	STAGE III		
	1000'	TAPER	1000
	500'	CENTERLINE	500
	70'	TAPER x2	140
	380'	TANGENT x2	760
	70'	TAPER x2	140
	STAGE IV		
	1000'	TAPER	1000
	70'	TAPER x2	140
	380'	TANGENT x2	760
	70'	TAPER x2	140
		TOTAL	9160

MODEL: Default
 FILE: \\nas0101\B&E\BID\NTEC\Illinois\gov\PI\DOT\Documents\1\DOT - Offices\District 2\Projects\Operations\Bids\Bids - Section\Lee\052-005\064M52\CADD\64M52-shc-cover.dgn

USER NAME = drossdd	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = 100,0000' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = Jan-19-2018 10:56:44 AM	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

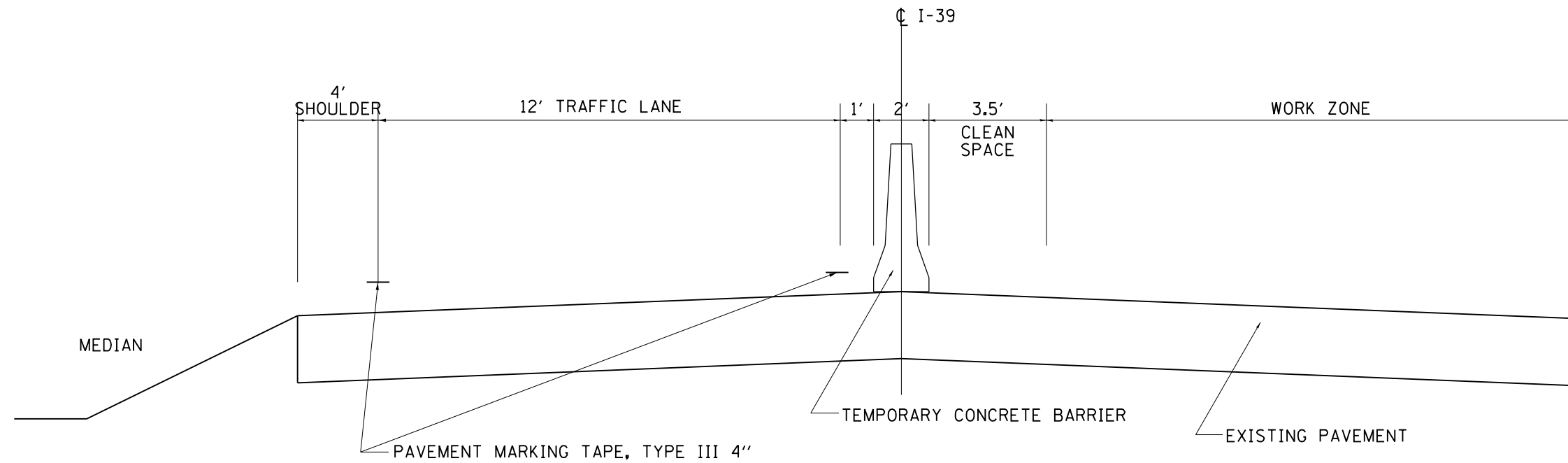
SCHEDULE OF QUANTITIES

SCALE: _____ SHEET ____ OF ____ SHEETS STA. _____ TO STA. _____

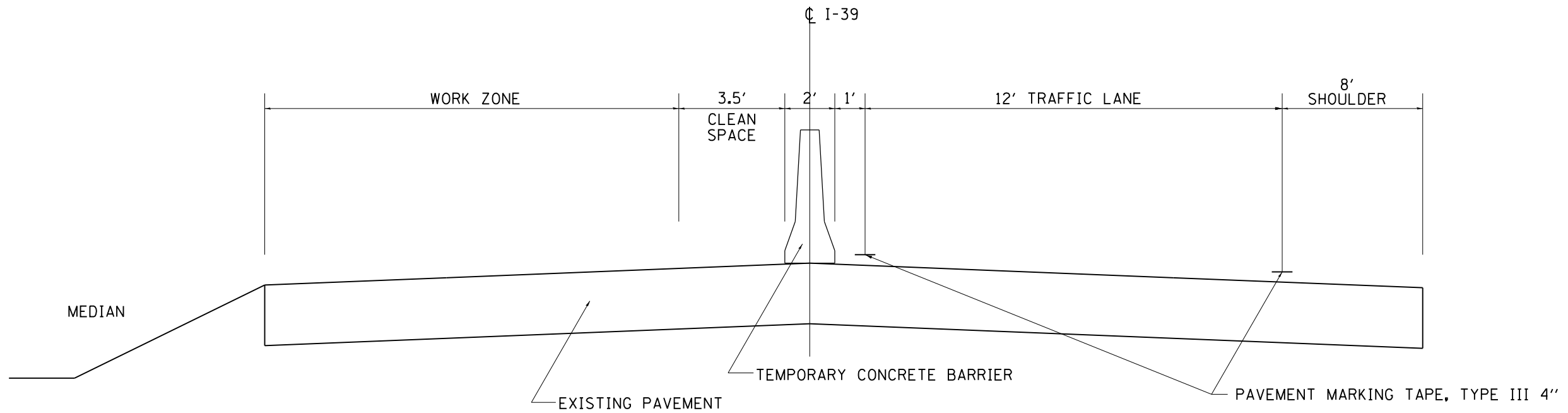
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(101-1HB-3)BP	LEE	7	4
CONTRACT NO. 64M52				
ILLINOIS		FED. AID PROJECT		

STAGING TYPICALS

STAGES I & IV SN 052-0058 SHADY OAKS RD OVER I-39



STAGES II & III SN 052-0058 SHADY OAKS RD OVER I-39



MODEL: Default
 FILE: \\nas01.cba.eidnet.ecs.illinois.gov\pww\DOT\Documents\DOT_Offices\District 2\Projects\Operations\Bldg - Section\Lee052-0058\64M52-CADD\64M52-shc-cover.dgn

USER NAME = dossed	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = 100,0000' / in.	CHECKED - _____	REVISED - _____
PLOT DATE = Jan-19-2018 10:56:52 AM	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

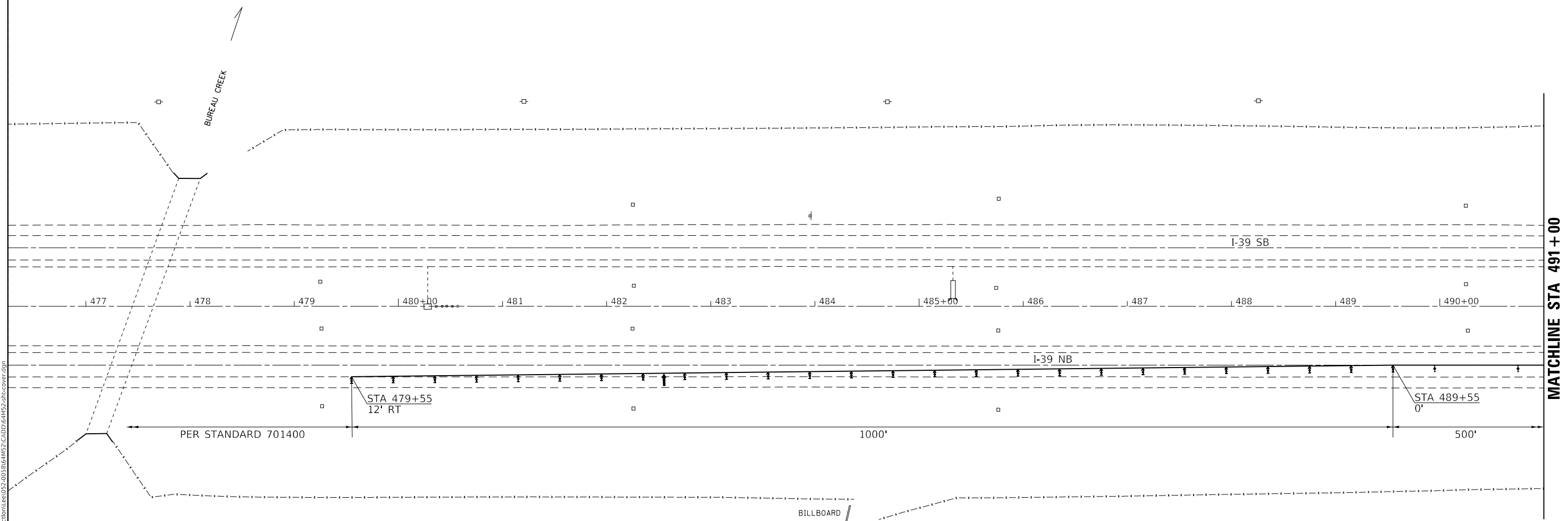
STAGING TYPICALS

SCALE: _____ SHEET ____ OF ____ SHEETS STA. _____ TO STA. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(101-1HB-3)BP	LEE	7	5
CONTRACT NO. 64M52				
ILLINOIS FED. AID PROJECT				

TRAFFIC CONTROL PLAN

SN 052-0058



MATCHLINE STA 491+00

SYMBOLS

- Arrow board
- Work area
- Sign
- Direction indicator barricade with steady burn monodirectional light
- Type II barricade or drum with steady burn monodirectional light
- Temporary concrete barrier
- Monodirectional barrier wall/guardrail marker
- Impact attenuator
- Drums with steady burning monodirectional light

NOTES

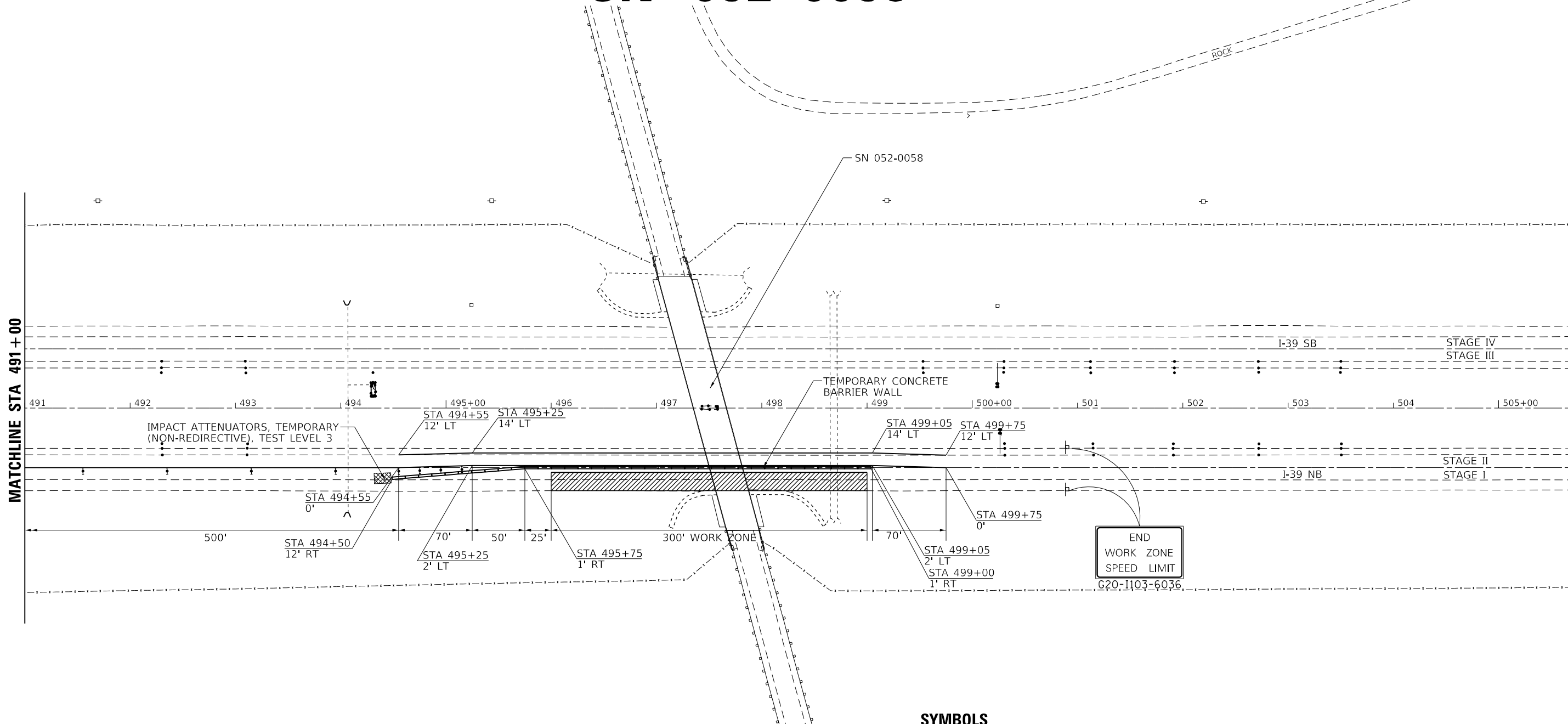
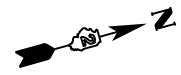
- ① ReflectORIZED temporary pavement marking shall be placed throughout the taper and along-side the work area. The edge line shall be white for right lane closure and yellow for left lane closures.
- ② Vertical panels at 7.6 m (25') centers with steady burning monodirectional lights.

MODEL: Default
FILE: \\nas0101\B&E\BID\NTEC\Illinois\gov\PIWDOT\Documents\11001 - Offices\District 2\Projects\Operations\Bldg - Section\052-0058\64M52-01-00-00.dwg

	USER NAME = drossdd	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL PLAN FOR SN 052-0058			F.A.I. RTE. 39	SECTION (101-1HB-3)BP	COUNTY LEE	TOTAL SHEETS 7	SHEET NO. 6
	PLOT SCALE = 100,0000' / in.	CHECKED - _____	REVISED - _____		SCALE: _____ SHEET ____ OF ____ SHEETS STA. _____ TO STA. _____			CONTRACT NO. 64M52				
	PLOT DATE = Jan-19-2018 10:57:01 AM	DATE - _____	REVISED - _____		ILLINOIS FED. AID PROJECT							

TRAFFIC CONTROL PLAN

SN 052-0058



END
WORK ZONE
SPEED LIMIT
G20-1103-6036

SYMBOLS

- Arrow board
- Work area
- Sign
- Direction indicator barricade with steady burn monodirectional light
- Type II barricade or drum with steady burn monodirectional light
- Temporary concrete barrier
- Monodirectional barrier wall/guardrail marker
- Impact attenuator
- Drums with steady burning monodirectional light

NOTES

- ① Reflectorized temporary pavement marking shall be placed throughout the taper and along-side the work area. The edge line shall be white for right lane closure and yellow for left lane closures.
- ② Vertical panels at 7.6 m (25') centers with steady burning monodirectional lights.

MODEL: Default
 FILE: \\nas01\proj\1108\B&E\BID\ITEC\Illinois\proj\RW\DOT\Documents\1108\DOT_Offices\Director\2\Projects\Operations\B&E\Stage_Section\Lee\052-0058\64M52-CADD\64M52-shc-cover.dwg

USER NAME = drossdd	DESIGNED - _____	REVISED - _____
DRAWN - _____	REVISOR - _____	REVISOR - _____
PLOT SCALE = 100,0000' / in.	CHECKED - _____	REVISOR - _____
PLOT DATE = Jan-19-2018 10:57:11 AM	DATE - _____	REVISOR - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
FOR SN 052-0058

SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(101-1HB-3)BP	LEE	7	7
CONTRACT NO. 64M52				
ILLINOIS FED. AID PROJECT				

Branch Mark: #S-O-2 Top R.R. Spike in R.R. Sta. 61+83.00 18' Rt. Elev. 924.83

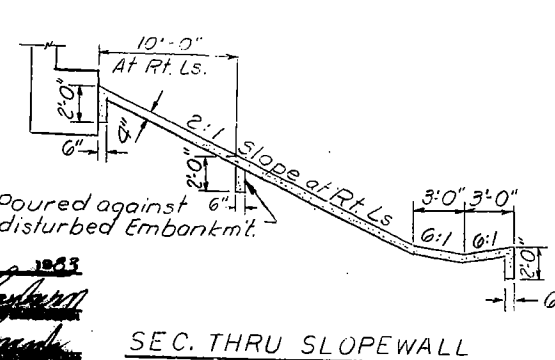
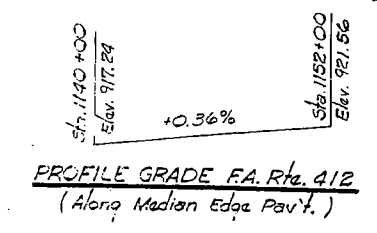
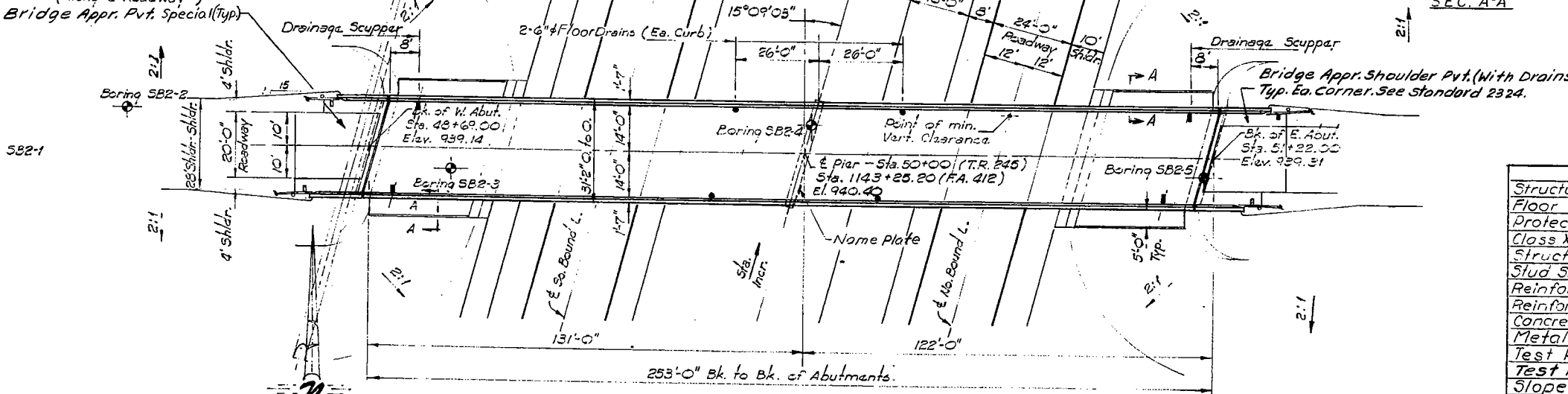
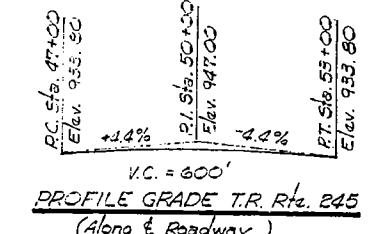
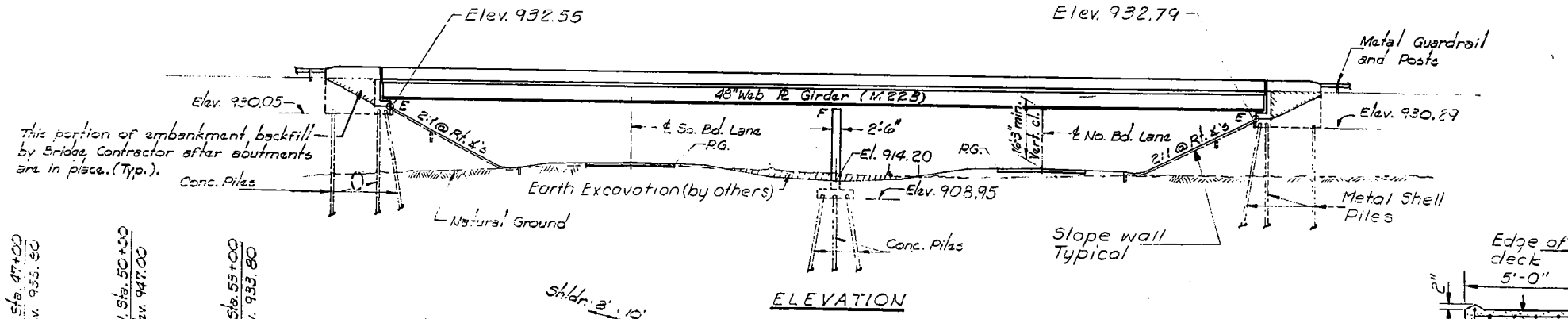
No Existing Structure

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
103-1	HB-3	LEE	47	17
SHEET NO. / 15 SHEETS				

GENERAL NOTES

- SEE PROPOSAL FOR BORING DATA.
- FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 7/8" DIA., OPEN HOLES 15/16" DIA., UNLESS OTHERWISE NOTED.
- CALCULATED WEIGHT OF AASHTO M 183 STRUCTURAL STEEL = 16,280 LBS. CALCULATED WEIGHT OF AASHTO M 223 STRUCTURAL STEEL = 210,050 LBS.
- THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL EXCEPT WHERE OTHERWISE NOTED.
- ALL CONTACT SURFACES OF JOINTS FOR THE DIAPHRAGMS SHALL BE FREE OF PAINT OR LACQUER.
- FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
- ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS OVER SUPPORTS.
- THE STRUCTURAL STEEL BEARING PLATES OF THE ELASTOMERIC BEARING ASSEMBLY SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 222.
- THE MAIN LOAD CARRYING MEMBER COMPONENTS SUBJECT TO TENSILE STRESS SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS ZONE 2. THESE COMPONENTS ARE THE TENSION FLANGES, WEBS AND ALL SPLICE PLATE MATERIAL OF THE STEEL GIRDERS.
- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 31 OR M 53 GRADE 60.
- SLOPE WALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC, 6" X 6" - W4.0 X W4.0, WEIGHING 38 LBS. PER 100 SQ. FT.
- THE EMBANKMENT CONFIGURATION SHOWN SHALL BE THE MINIMUM EMBANKMENT THAT MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE ABUTMENTS.
- BEARING SEAT SURFACES SHALL BE CONSTRUCTED OR ADJUSTED TO THE DESIGNATED ELEVATIONS WITHIN A TOLERANCE OF 1/8 INCH. ADJUSTMENT SHALL BE MADE EITHER BY GRINDING THE SURFACE OR BY SHIMMING THE BEARING. TWO 1/8" ADJUSTING SHIMS, OF THE DIMENSIONS OF THE BOTTOM BEARING PLATE, SHALL BE PROVIDED FOR EACH BEARING IN ADDITION TO ALL OTHER PLATES OR SHIMS. FOR TYPE I ELASTOMERIC BEARINGS, SHIMS OF THE DIMENSIONS OF THE TOP PLATE SHALL BE PROVIDED AND PLACED AS DETAILED.
- CONCRETE PILES AT ABUTMENTS SHALL BE DRIVEN IN HOLES PRECURED THROUGH THE EMBANKMENT IN ACCORDANCE WITH ARTICLE 513.09(C) OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL DRIVE TWO (2) TEST PILES IN PERMANENT LOCATIONS. ONE (1) METAL SHELL PILE AT THE EAST ABUTMENT AND ONE (1) CONCRETE PILE AT THE WEST ABUTMENT, AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.



*Str. No. to be supplied by District.

STATION 1143+25.20
BUILT 198 BY
STATE OF ILLINOIS
F.A. RTE. 412 SEC. 103-1HB-3
F.A. PROJ. PD-412(25)
LOADING HS20
* STR. NO.

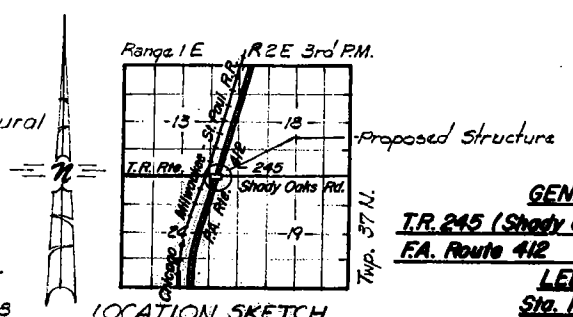
NAME PLATE
See Std 2113

DESIGN STRESSES
fc = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M223 Gr.50) Structural
fy = 36,000 psi (M183) Steel

LOADING HS 20-44
Allow 25#/sq. ft. for future wearing surface.
Design Specifications: 1977 AASHTO; 1978 thru 1991 Interim Specifications.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Structure Excavation	Cu. Yd.		180	180
Floor Drains	Each	4		4
Protective Coat	Sq. Yd.	986	22	1008
Class X Concrete	Cu. Yd.	242.5	143.0	385.5
Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	1908		1908
Reinforcement Bars	Pound	25170	15700	40870
Reinforcement Bars (Epoxy Coated)	Pound	37450		37450
Concrete Piles	Lin. Ft.		1212	1212
Metal Pile Shells 12"	Lin. Ft.		780	780
Test Pile Concrete	Each		1	1
Test Pile Metal Shells	Each		1	1
Slope Wall 4 inch	Sq. Yd.		394	394
Elastomeric Bearing Assembly, Type I	Each	8		8
Name Plates	Each		1	1
Drainage Scuppers	Each	4		4
Neoprene Expansion Joint (2")	Lin. Ft.	62		62



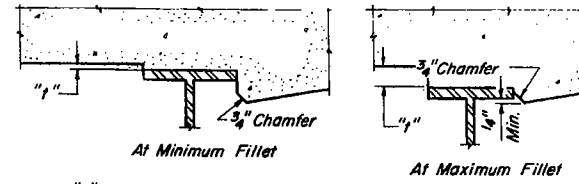
GENERAL PLAN
T.R. 245 (Shady Oaks Road) Over F.A. 412
F.A. Route 412 Section 103-1HB-3
LEE COUNTY
Sta. 1143+25.20

DESIGNED M. J. Ryman
CHECKED James Polaris
DRAWN JMS F.M.
CHECKED JAR

February 2, 1983
EXAMINED James Polaris
APPROVED

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

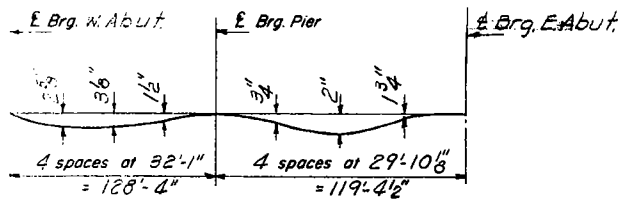


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
412	103-1 IHB-3	LEE	47	18
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SHEET NO. 18
15 SHEETS

To determine "y": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted For Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "y" above top flange of girders.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)
Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.

GIRDER #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	4972.395	-12.500	938.997	938.997
CL. BRG. W. ABUT.	4875.051	-12.500	939.047	939.047
A	4885.051	-12.500	939.223	939.292
B	4895.051	-12.500	939.384	939.522
C	4905.051	-12.500	939.531	939.737
D	4915.051	-12.500	939.663	939.894
E	4925.051	-12.500	939.780	940.024
F	4935.051	-12.500	939.882	940.140
G	4945.051	-12.500	939.970	940.207
H	4955.051	-12.500	940.044	940.236
I	4965.051	-12.500	940.102	940.251
J	4975.051	-12.500	940.144	940.253
K	4985.051	-12.500	940.173	940.244
L	4995.051	-12.500	940.190	940.221
CL. BRG. PIER	5002.385	-12.500	940.191	940.191
M	5013.385	-12.500	940.179	940.198
N	5023.385	-12.500	940.152	940.191
O	5033.385	-12.500	940.110	940.169
P	5043.385	-12.500	940.054	940.148
Q	5053.385	-12.500	939.983	940.113
R	5063.385	-12.500	939.897	940.061
S	5073.385	-12.500	939.797	939.995
T	5083.385	-12.500	939.682	939.912
U	5093.385	-12.500	939.552	939.818
V	5103.385	-12.500	939.408	939.704
W	5113.385	-12.500	939.249	939.566
CL. BRG. E. ABUT.	5122.760	-12.500	939.087	939.087
BK. E. ABUT.	5125.385	-12.500	939.039	939.039

NORTH LONG. BONDED CONST. JT.

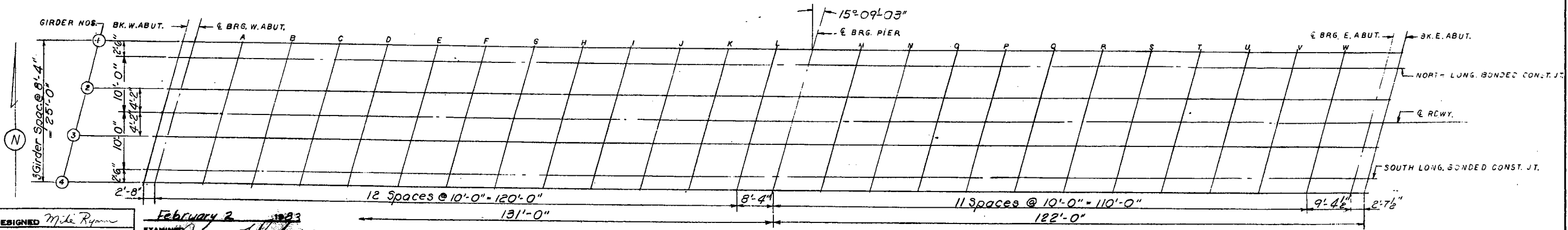
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	4871.708	-10.000	939.037	939.037
CL. BRG. W. ABUT.	4874.374	-10.000	939.086	939.086
A	4884.374	-10.000	939.263	939.332
B	4894.374	-10.000	939.426	939.563
C	4904.374	-10.000	939.573	939.780
D	4914.374	-10.000	939.704	939.937
E	4924.374	-10.000	939.824	940.068
F	4934.374	-10.000	939.928	940.185
G	4944.374	-10.000	940.017	940.254
H	4954.374	-10.000	940.091	940.284
I	4964.374	-10.000	940.151	940.299
J	4974.374	-10.000	940.196	940.302
K	4984.374	-10.000	940.228	940.292
L	4994.374	-10.000	940.241	940.273
CL. BRG. PIER	5002.708	-10.000	940.243	940.243
M	5012.708	-10.000	940.232	940.252
N	5022.708	-10.000	940.206	940.245
O	5032.708	-10.000	940.165	940.223
P	5042.708	-10.000	940.110	940.205
Q	5052.708	-10.000	940.040	940.170
R	5062.708	-10.000	939.955	940.119
S	5072.708	-10.000	939.856	940.015
T	5082.708	-10.000	939.742	939.895
U	5092.708	-10.000	939.613	939.740
V	5102.708	-10.000	939.470	939.566
W	5112.708	-10.000	939.312	939.359
CL. BRG. E. ABUT.	5122.083	-10.000	939.151	939.151
BK. E. ABUT.	5124.708	-10.000	939.103	939.103

GIRDER #2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	4870.128	-4.167	939.098	939.098
CL. BRG. W. ABUT.	4872.795	-4.167	939.148	939.148
A	4882.795	-4.167	939.327	939.396
B	4892.795	-4.167	939.492	939.630
C	4902.795	-4.167	939.642	939.849
D	4912.795	-4.167	939.777	940.009
E	4922.795	-4.167	939.898	940.142
F	4932.795	-4.167	940.004	940.261
G	4942.795	-4.167	940.095	940.332
H	4952.795	-4.167	940.171	940.364
I	4962.795	-4.167	940.233	940.382
J	4972.795	-4.167	940.281	940.387
K	4982.795	-4.167	940.313	940.382
L	4992.795	-4.167	940.331	940.362
CL. BRG. PIER	5001.128	-4.167	940.335	940.335
M	5011.128	-4.167	940.326	940.346
N	5021.128	-4.167	940.302	940.342
O	5031.128	-4.167	940.264	940.323
P	5041.128	-4.167	940.211	940.306
Q	5051.128	-4.167	940.143	940.272
R	5061.128	-4.167	940.061	940.225
S	5071.128	-4.167	939.964	940.122
T	5081.128	-4.167	939.852	940.006
U	5091.128	-4.167	939.726	939.872
V	5101.128	-4.167	939.585	939.681
W	5111.128	-4.167	939.429	939.476
CL. BRG. E. ABUT.	5120.503	-4.167	939.270	939.270
BK. E. ABUT.	5123.128	-4.167	939.223	939.223

P.G. & C. RDWY.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	4869.000	0.0	939.142	939.142
CL. BRG. W. ABUT.	4871.667	0.0	939.192	939.192
A	4881.667	0.0	939.373	939.442
B	4891.667	0.0	939.539	939.677
C	4901.667	0.0	939.691	939.898
D	4911.667	0.0	939.828	940.059
E	4921.667	0.0	939.950	940.194
F	4931.667	0.0	940.058	940.315
G	4941.667	0.0	940.150	940.387
H	4951.667	0.0	940.229	940.421
I	4961.667	0.0	940.292	940.441
J	4971.667	0.0	940.341	940.448
K	4981.667	0.0	940.375	940.444
L	4991.667	0.0	940.395	940.426
CL. BRG. PIER	5000.000	0.0	940.400	940.400
M	5010.000	0.0	940.393	940.412
N	5020.000	0.0	940.371	940.410
O	5030.000	0.0	940.323	940.393
P	5040.000	0.0	940.283	940.377
Q	5050.000	0.0	940.217	940.347
R	5060.000	0.0	940.136	940.300
S	5070.000	0.0	940.041	940.199
T	5080.000	0.0	939.931	940.084
U	5090.000	0.0	939.806	939.952
V	5100.000	0.0	939.667	939.763
W	5110.000	0.0	939.513	939.559
CL. BRG. E. ABUT.	5115.375	0.0	939.355	939.355
BK. E. ABUT.	5122.000	0.0	939.309	939.309



PLAN

DESIGNED: Mike Ryan
CHECKED: [Signature]
DRAWN: F.M.
CHECKED: [Signature]

February 2, 1983
EXAMINED: [Signature]
APPROVED: [Signature]

E-S 8-30-80

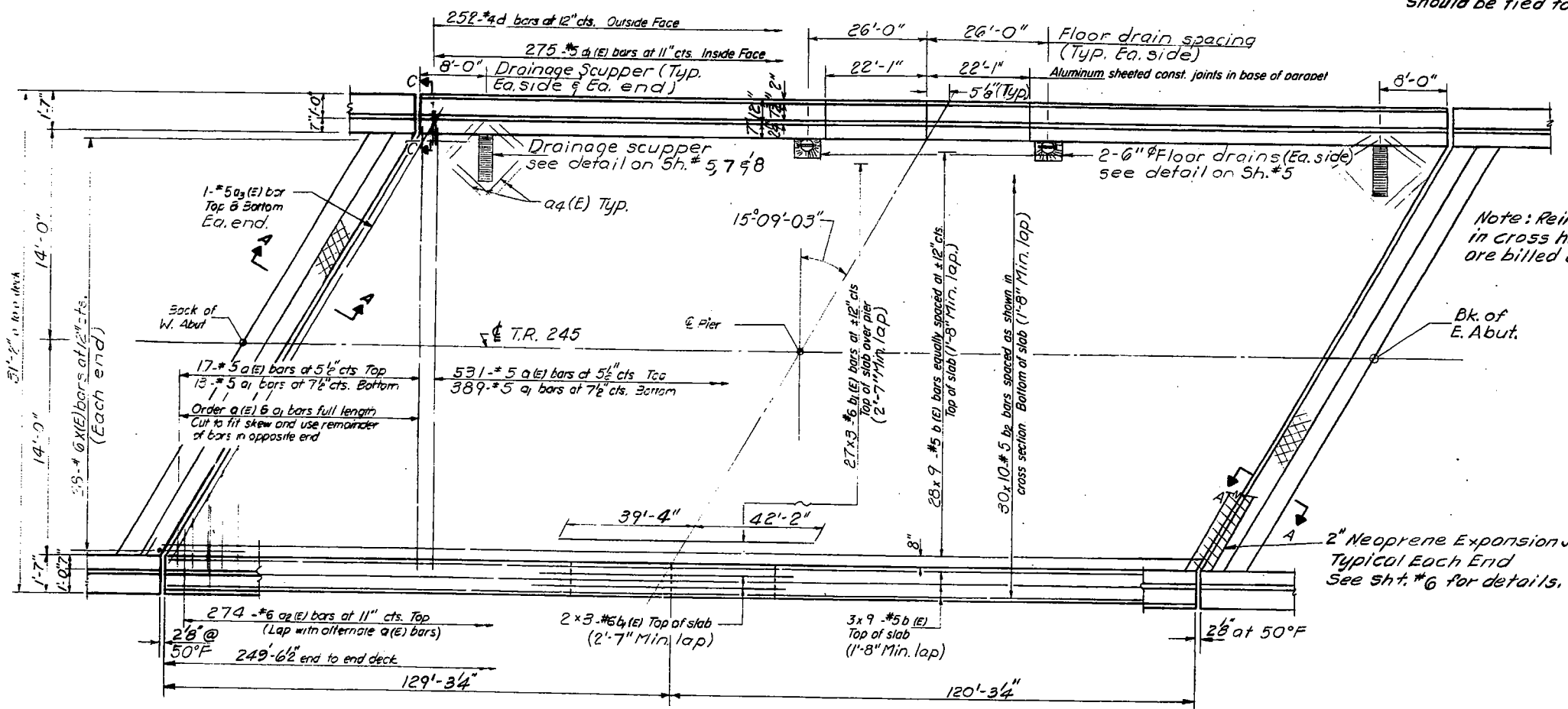
TOP OF SLAB ELEVATIONS
F.A.R.T.E. 412 SEC. 103-IHB-3
LEE COUNTY
STA 1143+25.20

FOR INFORMATION ONLY

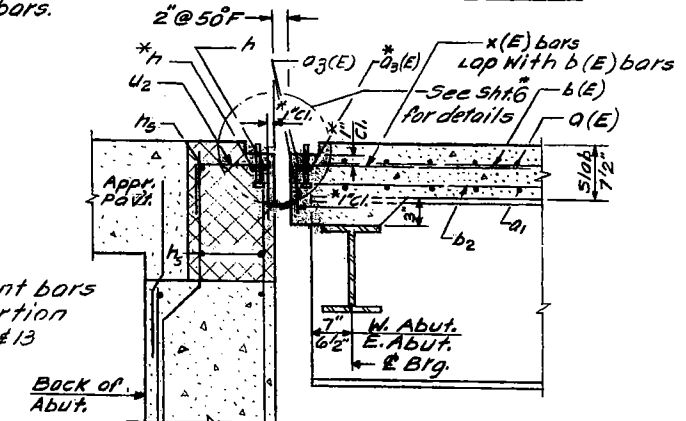
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

* Place $a_3(E)$ & h bars in back of anchor bolts as shown if Reg'd. to maintain 1" Cl. (+0-8"). Anchor bolts should be tied to $a_3(E)$ and h bars.

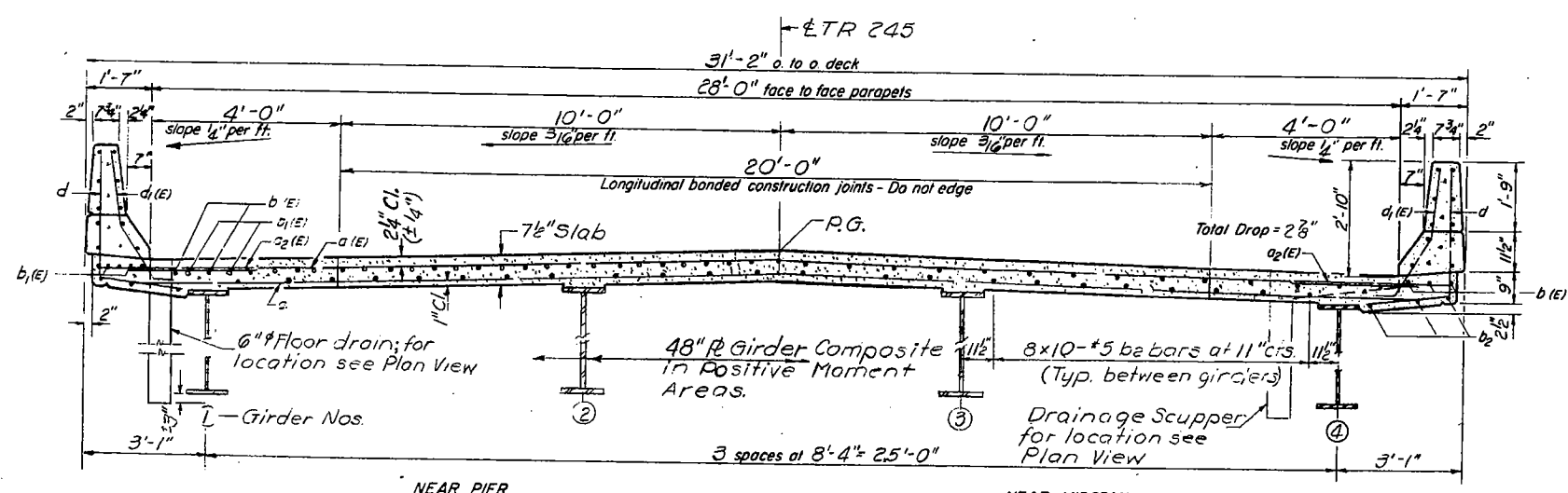
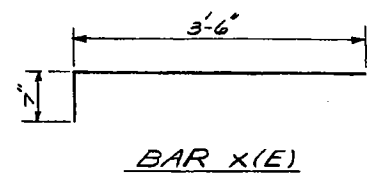
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
412	103-1 HB-3	Lee	47	20	15 SHEETS



PLAN



SECTION A-A



CROSS SECTION
LOOKING EAST

NOTES:
See sheet # 5 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated. See Special Provisions.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

DESIGNED M. J. Reynolds
EXAMINED James J. Korb
CHECKED R. J. [Signature]
DRAWN F.M.
APPROVED [Signature]
DIRECTOR OF HIGHWAYS

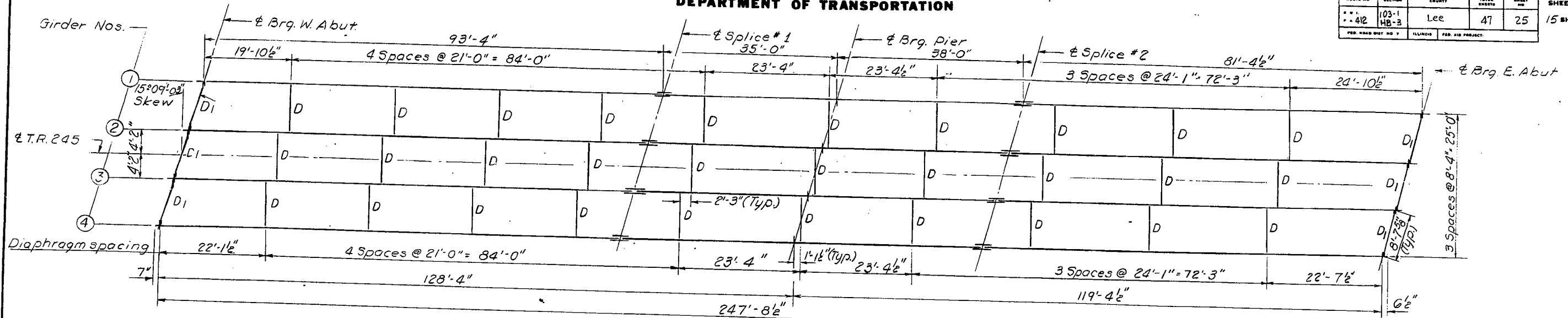
February 2, 1983

SUPERSTRUCTURE
F.A.R.T.E. 412 SEC 103-1HB-3
LEE COUNTY
STA. 1143+25.20

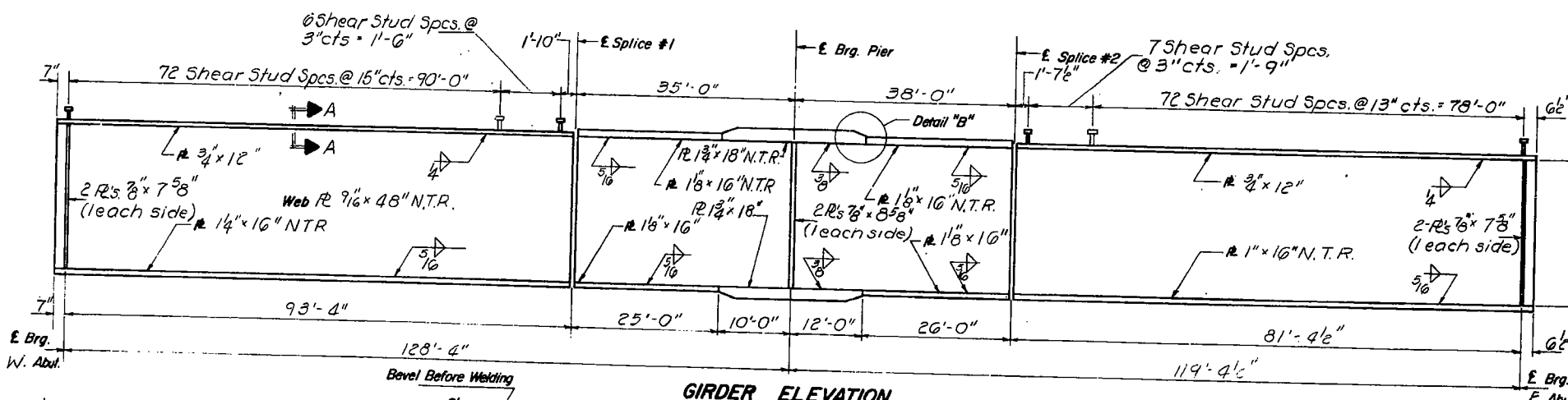
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

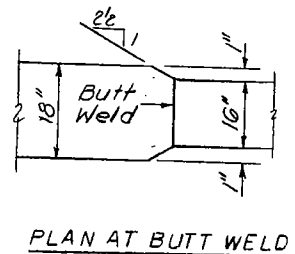
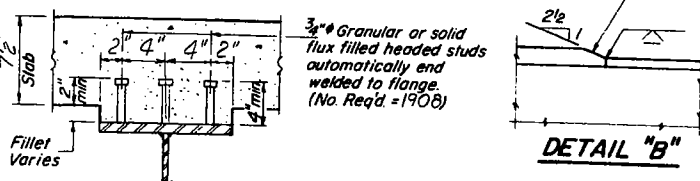
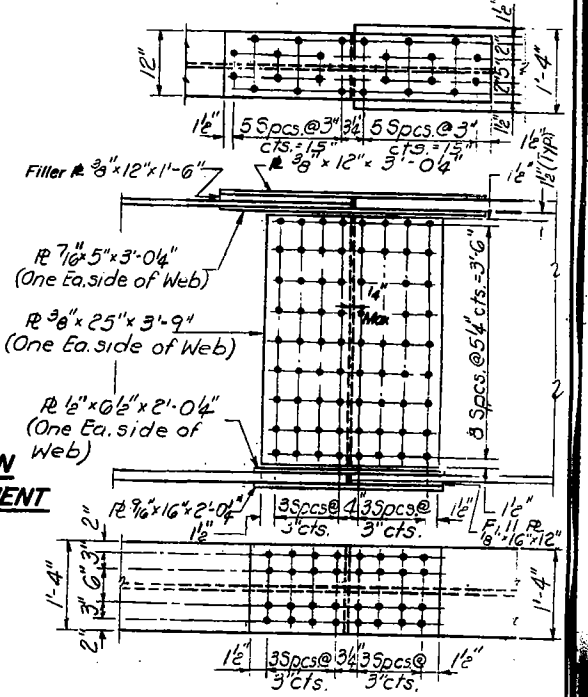
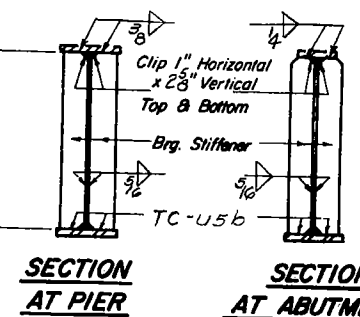
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 9
412	103-1 HB-3	Lee	47	25	15 SHEETS
PER. ROAD DIST. NO. 7		ILLINOIS	PER. SIG. PROJECT		



FRAMING PLAN
See sheet #10 for Diaphragm Details



GIRDER ELEVATION
"NTR" denotes plates to which notch toughness requirements are applicable.
All Structural Steel shall be AASHTO M 223-G+50 except the Diaphragms, Bearing Plates and Angles, shall be AASHTO M 183.



DESIGNED	Mike Ryan	EXAMINED	February 2, 1983
CHECKED	Rivera	PASSED	[Signature]
DRAWN	F.M.	APPROVED	[Signature]
CHECKED	[Signature]		

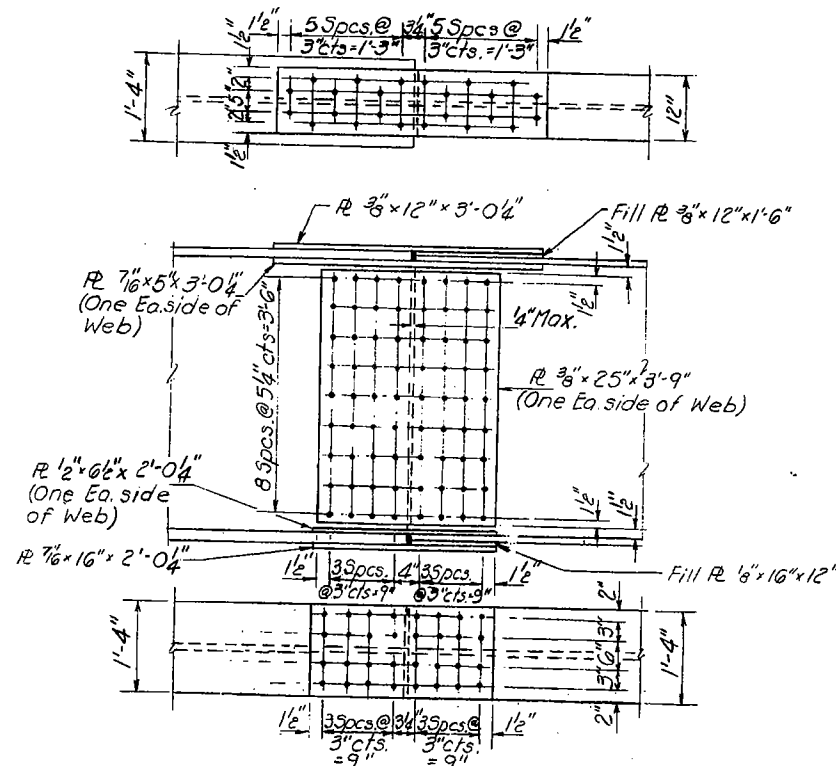
G-1 4-1-79

FOR INFORMATION ONLY

STRUCTURAL STEEL
F.A.R.T.E. 412 SEC. 103-1HB-3
LEE COUNTY
STA. 1143+25.20

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
412	103-1 HB-3	Lee	47	26
SHEET NO. 10 15 SHEETS				



TOP OF WEB ELEVATIONS
For fabrication only

Location	1	2	3	4
E Brg. W. Abut	938.32	938.42	938.58	938.19
E Splice 1	939.50	939.03	939.02	939.46
E Brg. Pier	939.36	939.51	939.51	939.36
E Splice 2	939.39	939.54	939.56	939.42
E Brg. E. Abut	938.36	938.54	938.58	938.48

INTERIOR GIRDER MOMENT TABLE

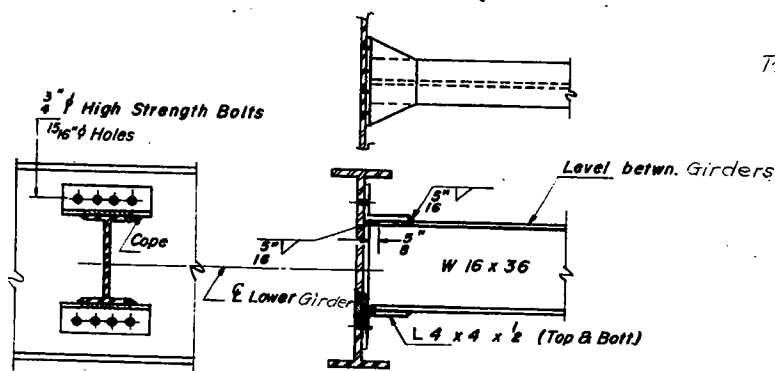
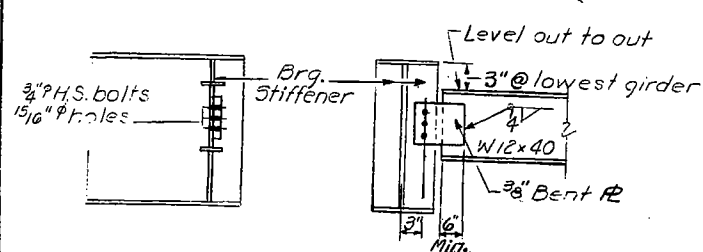
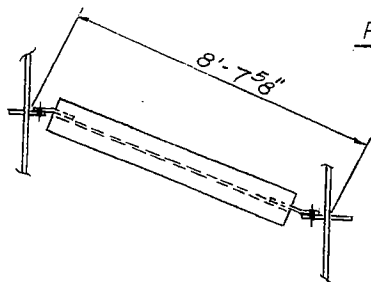
	04 Span 1	Pier	06 Span 2
Is (in ⁴)	21324.8	44177.7	19559.1
Ic (in ⁴)	58540.2		52038.6
Ss (in ³)	1040.8	1715.6	902.2
Sc (in ³)	1470.0		1274.9
R (K/I)	1.034	1.444	1.027
M _p (K)	1448.2	3937.9	1074.2
f _{s non-comp} (ksi)	16.6	27.5	14.3
S _p (K/I)	413		413
M _s (K)	694.0		551.6
M _t (K)	2806.3	2417.0	2557.4
M _{imp} (K)	552.8	485.8	521.7
Total (K)	3359.1	2902.8	3079.1
f _{s comp} (ksi)	33.1		34.2
f _{s Total} (ksi)	49.7	47.8	48.5
VR (K)	65.3		66.0

INTERIOR GIRDER REACTION TABLE

	W. Abut.	Pier	E. Abut.
R _p (K)	69.3	227.8	60.6
R _t (K)	49.8	93.2	49.4
Imp (K)	9.8	18.7	10.1
R Total (K)	128.9	339.7	120.1

Is and Ss are the moment of inertia and section modulus of the steel section used in computing f_s Total.
Ic and Sc are the moment of inertia and section modulus of the composite section used in computing f_s Total.
VR is the maximum $\frac{1}{2}$ Impact shear range in span used to determine shear connector spacing.
The load factor 1.3(D + S_p + S_s ($\frac{1}{2}$ + Imp)) is used in computing moments and stresses

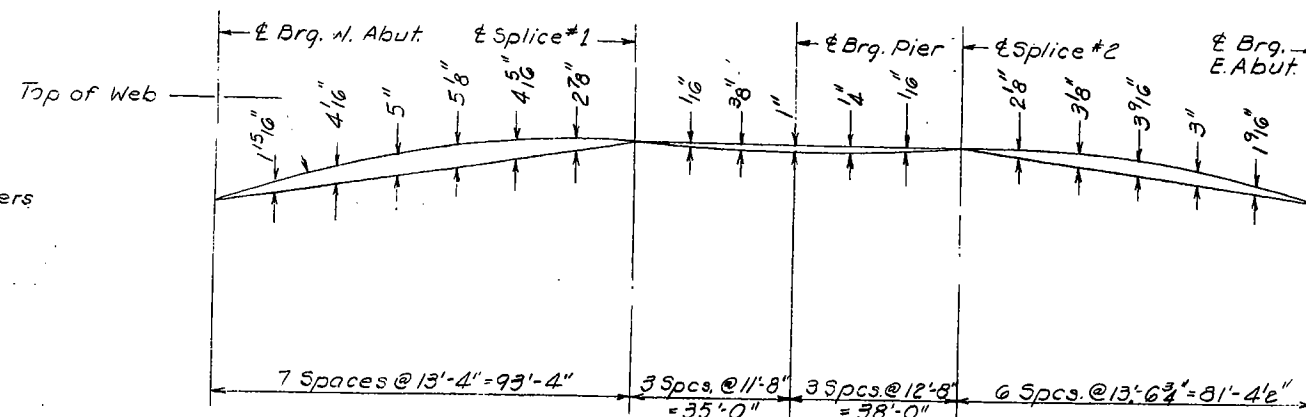
FIELD SPLICE #2 DETAIL
For Splice #1 see sheet #9
Use 7/8" H.S. Bolts throughout.



DIAPHRAGM D1
6 Required

DIAPHRAGM D
30 Required

Note: Two hardened washers shall be required over all 15/16" holes.



CAMBER DIAGRAM

DESIGNED	Mike Ripstein
CHECKED	James J. Harrison
DRAWN	F.M.
CHECKED	DB

EXAMINED	February 2, 1983
PASSED	James J. Harrison
APPROVED	Director of Highways

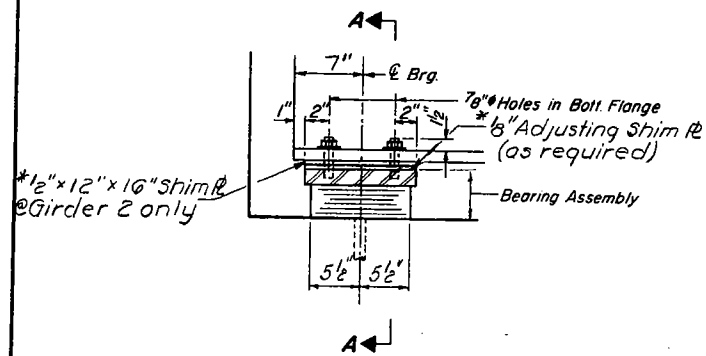
STRUCTURAL STEEL DETAILS
F.A.R.T.E. 412 SEC. 103-1HB-3
LEE COUNTY
STA. 1143+25.20

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

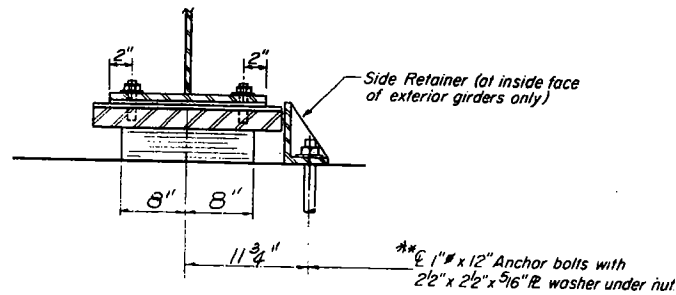
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P. 412	103-1 IHB-3	Lee	47	27
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 11
15 SHEETS

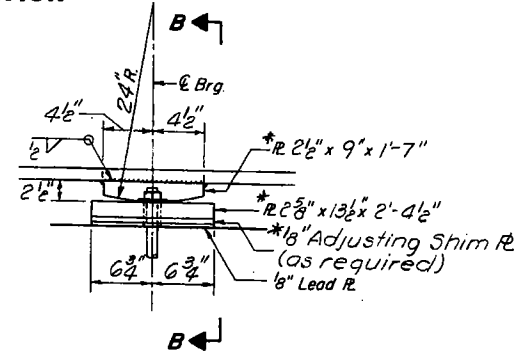


SECTION AT W. ABUT.
(Looking North)

TYPE I ELASTOMERIC EXP. BRG.

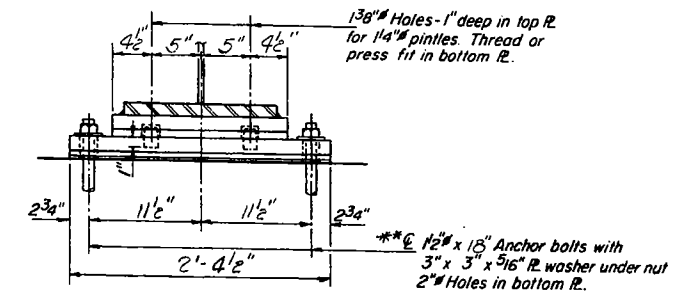


SECTION A-A



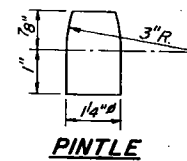
ELEVATION AT PIER

FIXED BEARING

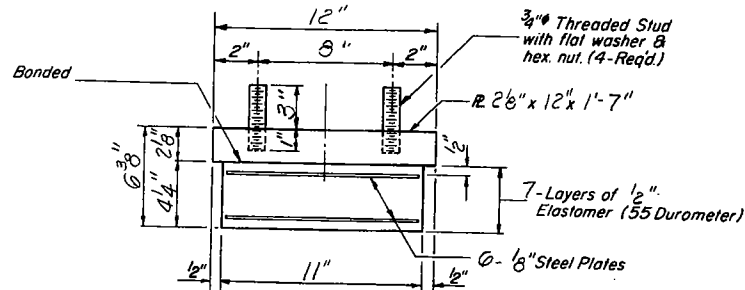


SECTION B-B

** Note: After girders have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place. Anchor bolts at fixed bearings may be built into the masonry.
All steel plates designated with an asterisk shall be AASHTO M-183

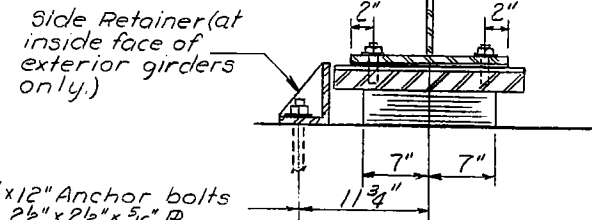


PINTLE

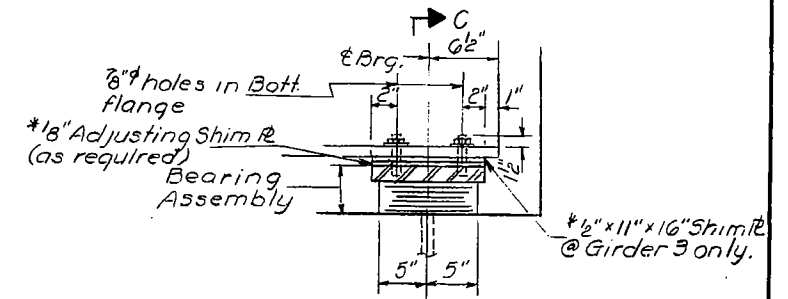


BEARING ASSEMBLY

Note: Shim plates shall not be placed under Bearing Assembly.

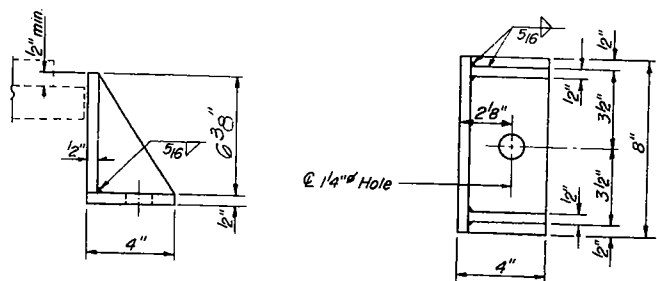


SECTION C-C

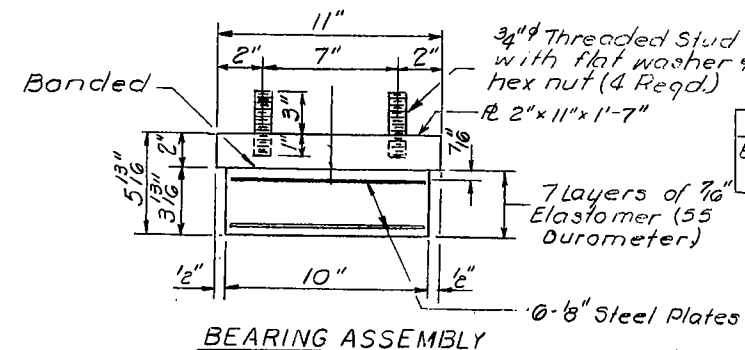


SECTION AT E. ABUT.
(Looking North)

TYPE I ELASTOMERIC EXP. BRG.



*SIDE RETAINER



BEARING ASSEMBLY

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	8

BEARING DETAILS

F.A. RTE. 412 SEC. 103-1HB-3

LEE COUNTY

STA. 1143+25.20

DESIGNED	Mike Rippon
CHECKED	James Bell
DRAWN	F. M.
CHECKED	JP

EXAMINED	February 2, 1983
PASSED	James Bell
APPROVED	Director of Highways

I-2-EI 8-30-80

FOR INFORMATION ONLY