03-09-2018 LETTING ITEM 008

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	1
	ILLINOIS	CONTRACT NO. 62A95		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

FAP ROUTE 330 (US ROUTE 45/52)
OVER UNNAMED DITCH
(1.4 MILES SOUTH OF US ROUTE 52)
SECTION: 2015–038B
PROJECT: NHPP–D31K(490)
CULVERT REPLACEMENT
WILL COUNTY
C–91–356–15

D–91–356–15

LOCATION OF SECTION INDICATED THUS: –

FOR INDEX OF SHEETS AND HIGHWAY STANDARDS, SEE SHEET NO. 2

THIS PROJECT IS LOCATED WITHIN UNINCORPORATED WILL COUNTY.

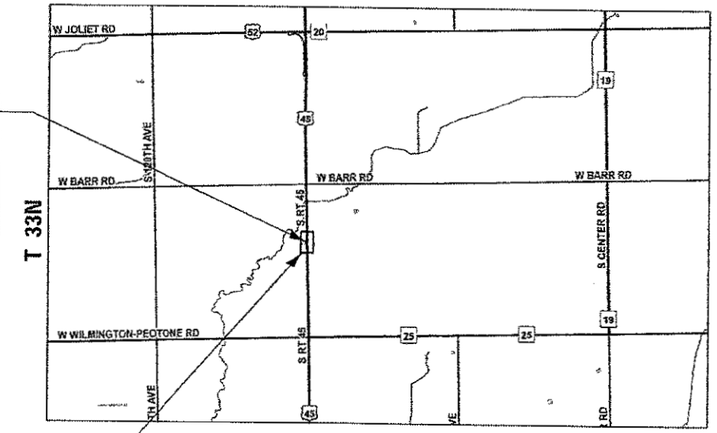
TRAFFIC DATA

US ROUTE 45 /52:
FUNCTIONAL CLASSIFICATION:
OTHER PRINCIPAL ARTERIAL
ADT (2015) = 6,350
P.V. = 91% S.U. = 3% M.U. = 6%
POSTED SPEED LIMIT = 55 MPH
DESIGN SPEED LIMIT = 60 MPH

JANICE K. PANG
062-060897
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS

DATE SIGNED : 12/8/2017
EXPIRES : 11/30/2019

R 12E

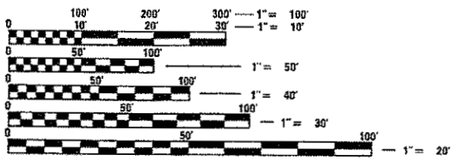


EXISTING SN
099–0527
PROPOSED SN
099–0916

PROJECT LOCATION
STA. 13+90 TO STA. 26+27

N

LOCATION MAP
(NOT TO SCALE)



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

PEOTONE TOWNSHIP

GROSS LENGTH = 1,237 FT. = 0.234 MILE
NET LENGTH = 1,237 FT. = 0.234 MILE
BEGIN IMPROVEMENTS STA 13+90
END IMPROVEMENTS STA. 26+27

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
SERVICE | SOLUTIONS | COMMITMENT™

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED ~~December~~ 12 20 17

Anthony J. Quigley /MB
REGIONAL ENGINEER

Feb 2 20 18
on behalf of
ENGINEER OF DESIGN AND ENVIRONMENT

Feb 2 20 18
DIRECTOR OF PROGRAM DEVELOPMENT

2

PROJECT MANAGER: FAWAD AQUEEL, P.E. (847) 705–4247
PROJECT ENGINEER: RAGHAD ADEIS–DAHHAN, P.E. (847) 705–4237

CONTRACT NO. 62A95

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

DISTRICT ONE DETAILS

HIGHWAY STANDARDS

GENERAL NOTES

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOURS NOTIFICATION REQUIRED)
2. NO CONSTRUCTION SHALL BEGIN UNTIL ALL PROPER TEMPORARY SIGNS AND BARRICADES HAVE BEEN INSTALLED.
3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND WILL COUNTY.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S OWN EXPENSE.
5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
7. THE THICKNESS OF THE HMA MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.
8. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
9. PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES.
10. WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1½ INCHES WHERE THE POSTED SPEED IS 45 MPH OR LESS. WITH WRITTEN APPROVAL FROM THE RESIDENT ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM OF 1V:3H.
11. BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT) IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
12. THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR MAINTENANCE OF ALL SOIL EROSION AND SEDIMENT CONTROL (ESC) DURING CONSTRUCTION.
13. THE CONTRACTOR SHALL CHECK ALL ESC MEASURES WEEKLY AND AFTER EACH RAINFALL. 0.5 INCHES OR GREATER IN A 24 HOUR PERIOD, OR EQUIVALENT SNOWFALL. ADDITIONALLY DURING WINTER MONTHS, ALL MEASURES SHOULD BE CHECKED BY THE CONTRACTOR AFTER EACH SIGNIFICANT SNOW MELT.
14. ALL ESC MEASURES WILL BE MAINTAINED IN ACCORDANCE WITH THE IDOT EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONSTRUCTION INSPECTION.
15. SILT FENCE SHOULD ONLY BE USED AS PERIMETER EROSION BARRIER (PEB) IN AREAS WHERE THE WORK AREA IS HIGHER THAN THE PERIMETER. THE USE OF SILT FENCE AT THE TOP OF THE SLOPE/ELEVATIONS HIGHER THAN THE WORK AREA SHOULD ALWAYS BE AVOIDED.
16. WHERE NEW WORK MEETS EXISTING FEATURES TO REMAIN, FIELD CHECK ALL DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
17. SHORT TERM PAVEMENT MARKING SHALL BE USED TO OUTLINE TRAVEL LANES FOR THE TACK COAT APPLICATION AND EACH RESURFACING LIFT.
18. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL AREAS AFFECTED BY EQUIPMENT OR LABORERS TO EXISTING CONDITIONS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL NEW WORK UNTIL COMPLETION OF THIS CONTRACT.
19. DURING CONSTRUCTION OPERATIONS, IF ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, THE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL UTILITY STRUCTURES SHALL BE FREE FROM DUST AND DEBRIS. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OF UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.
20. ALL EXCESS MATERIAL (BROKEN CONCRETE, CULVERT PIPE, WASTE ROADWAY EXCAVATION, SURPLUS MATERIAL FROM SEWER TRENCHES, ETC.) SHALL BE LEGALLY DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SELECT DUMP SITES AND OBTAIN PERMISSION AND ALL NECESSARY PERMITS TO USE SUCH DUMP SITES.
21. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
22. THE ENGINEER SHALL CONTACT ERIC CAMPOS, IDOT'S AREA TRAFFIC FIELD ENGINEER FOR WILL COUNTY, VIA EMAIL AT ERIC.CAMPOS@ILLINOIS.GOV AND/OR AT (815) 485-6475, A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
23. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
24. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.
25. ROW IS BASED ON CENTER OF ROADWAY. A DETAILED ROW SURVEY WAS NOT PERFORMED. ROW SHOULD BE VERIFIED BEFORE START OF CONSTRUCTION.
26. THE SUBGRADE STABILITY SHALL BE VERIFIED BY PROOF ROLLING WITH A FULLY LOADED TANDEM-AXLE TRUCK.
27. PIPE UNDERDRAINS SHALL BE INSTALLED ACCORDING TO SECTION 601 OF THE SSRBC AND STANDARD 601001-05. TOP OF PIPE UNDERDRAINS SHALL BE PLACED MINIMUM 6" BELOW THE AGGREGATE SUBGRADE IMPROVEMENT LAYER. THE COST OF MAKING PIPE UNDERDRAIN CONNECTIONS TO DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF THE PIPE UNDERDRAINS.

SUMMARY OF EARTHWORK

LOCATION	CONSTRUCTION STAGE	EARTH EXCAVATION 20200100 (CU YD)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (15%)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE(-)
US ROUTE 45	STAGE I	321	241	323	-82
	STAGE II	320	240	310	-70
	FINAL	724	542	0	542
		1365			152

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CONSULTING ENGINEERS
184-001397

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PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	2
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

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URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE NHPP FUNDS 80% FED 20% STATE ROADWAY 0005	CONSTRUCTION TYPE CODE NHPP FUNDS 80% FED 20% STATE STRUCTURAL 0004
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	34	34	
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	36	36	
20200100	EARTH EXCAVATION	CU YD	1365	1365	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	430	430	
20400800	FURNISHED EXCAVATION	CU YD	152	152	
20700220	POROUS GRANULAR EMBANKMENT	CU YD	195	25	170
21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	3872	3872	
25000210	SEEDING, CLASS 2A	ACRE	0.7	0.7	
25000310	SEEDING, CLASS 4	ACRE	0.1	0.1	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	72	72	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	72	72	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	72	72	
25100630	EROSION CONTROL BLANKET	SQ YD	3872	3872	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	400	400	

✳ = SPECIALTY ITEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
SUMMARY OF QUANTITIES

SCALE: | SHEET 1 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	3
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY (URBAN)	CONSTRUCTION TYPE CODE: NHPP FUNDS 80% FED 20% STATE ROADWAY 0005	CONSTRUCTION TYPE CODE: NHPP FUNDS 80% FED 20% STATE STRUCTURAL 0004
28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	3872	3872	
28000305	TEMPORARY DITCH CHECKS	FOOT	40	40	
28000400	PERIMETER EROSION BARRIER	FOOT	2273	2273	
28100127	STONE RIPRAP, CLASS B4	SQ YD	36		36
28200200	FILTER FABRIC	SQ YD	36		36
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	50	50	
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	2848	2848	
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	1409	1409	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1343	1343	
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	126	126	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	24	24	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	251	251	
44000100	PAVEMENT REMOVAL	SQ YD	1418	1418	
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	2984	2984	

* = SPECIALTY ITEMS

			URBAN	CONSTRUCTION TYPE CODE	
				NHPP FUNDS	
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	80% FED 20% STATE ROADWAY 0005	80% FED 20% STATE STRUCTURAL 0004
44004250	PAVED SHOULDER REMOVAL	SQ YD	2487	2487	
44201809	CLASS D PATCHES, TYPE IV, 13 INCH	SQ YD	112	112	
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	2534	2534	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	160		160
50800105	REINFORCEMENT BARS	POUND	13870		13870
50800515	BAR SPLICERS	EACH	46		46
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	570		570
54003000	CONCRETE BOX CULVERTS	CU YD	73		73
60100060	CONCRETE HEADWALLS FOR PIPE UNDERDRAINS	EACH	4	4	
60108100	PIPE UNDERDRAINS, 4" (SPECIAL)	FOOT	87	87	
60108204	PIPE UNDERDRAINS, TYPE 2, 4"	FOOT	2238	2238	
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	570	570	
* 66900450	SPECIAL WASTE PLANS AND REPORTS	LSUM	1	1	

* = SPECIALTY ITEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
SUMMARY OF QUANTITIES

SCALE: | SHEET 3 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	5
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY (URBAN)	CONSTRUCTION TYPE CODE NHPP FUNDS 80% FED 20% STATE ROADWAY 0005	CONSTRUCTION TYPE CODE NHPP FUNDS 80% FED 20% STATE STRUCTURAL 0004
*	66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1	
*	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6	
	67100100	MOBILIZATION	L SUM	1	1	
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	446	446	
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	148	148	
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	5568	5568	
	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	398	398	
	70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	9130	9130	
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	1209	1209	
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1209	1209	
	70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4	4	
	70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4	4	
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	2784	2784	
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	199	199	

* = SPECIALTY ITEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
SUMMARY OF QUANTITIES

SCALE: | SHEET 4 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	6
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE NHPP FUNDS 80% FED 20% STATE ROADWAY 0005	CONSTRUCTION TYPE CODE NHPP FUNDS 80% FED 20% STATE STRUCTURAL 0004
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	16	16	
*	78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	98	98	
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	16	16	
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4	
	Z0054400	ROCK FILL	CU YD	160		160
	Z0062456	TEMPORARY PAVEMENT	SQ YD	1306	1306	
	~~Z0076600~~	~~TRAINEES~~	~~HOUR~~			
	X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	919	919	
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
	X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	28	28	
	X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	5249	5249	

* = SPECIALTY ITEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
SUMMARY OF QUANTITIES

SCALE: | SHEET 5 OF 5 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	7
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	ILLINOIS FED. AID PROJECT			

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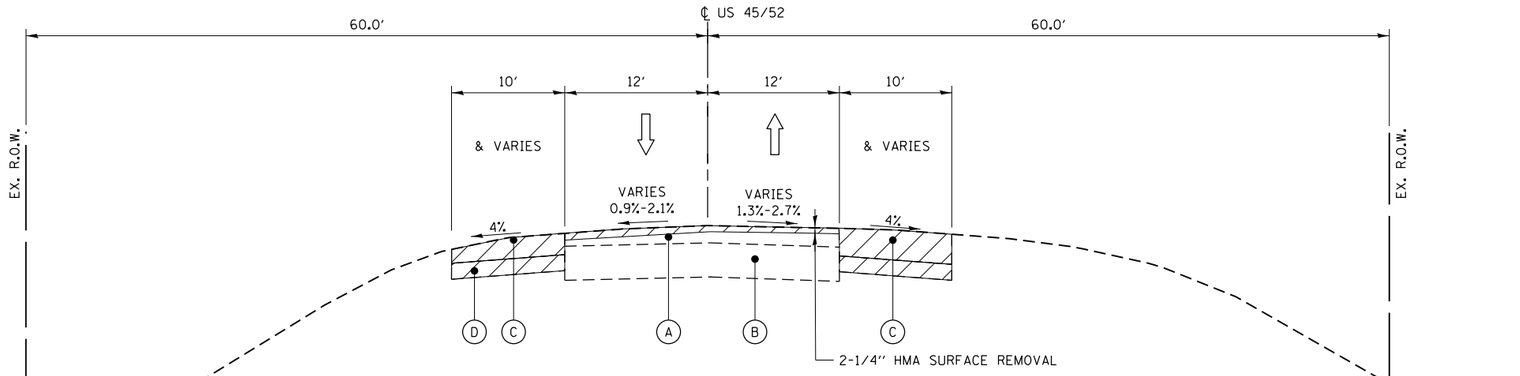


EXISTING TYPICAL SECTION

U.S. RTE. 45/U.S. RTE. 52

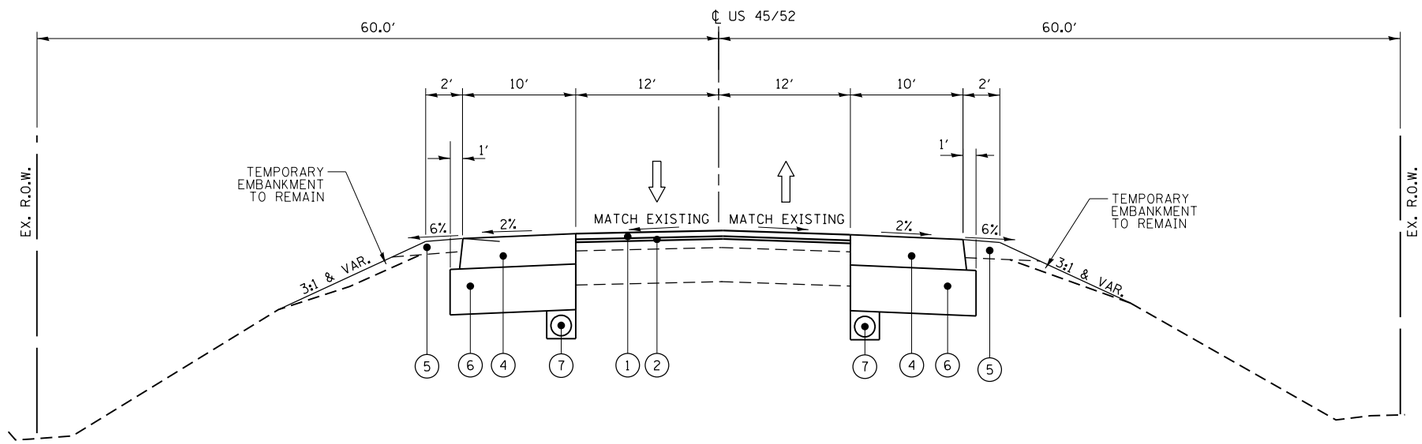
STA. 14+29 TO STA. 19+79
STA. 20+11 TO STA. 25+48

EXISTING LEGEND

- (A) BITUMINOUS CONCRETE PAVEMENT, 4 1/4″
- (B) BITUMINOUS AGGREGATE MIXTURE BASE COURSE, 8″
- (C) BITUMINOUS AGGREGATE MIXTURE SHOULDER, 6″
- (D) SUB-BASE GRANULAR MATERIAL, 4″
- (E) EXISTING PAVEMENT MARKING
- REMOVAL ITEMS

PROPOSED LEGEND

- (1) HOT-MIX ASPHALT SURFACE COURSE, MIX ″D″, N70, 1-1/2″
- (2) LEVELING BINDER (MACHINE METHOD), N70, 3/4″
- (3) CLASS D PATCH, TYPE IV, 13″
- (4) HOT-MIX ASPHALT SHOULDER, 8″
  - HMA SURFACE COURSE, MIX ″D″, N70, 2″
  - HMA BASE COURSE 6″
- (5) TOPSOIL, 6″
- (6) AGGREGATE SUBGRADE IMPROVEMENT, 12″
- (7) PIPE UNDERDRAIN, TYPE II, 4″
- (8) SUBBASE GRANULAR MATERIAL, TYPE B, 4″



PROPOSED TYPICAL SECTION

U.S. RTE. 45/U.S. RTE. 52

STA. 14+29 TO STA. 19+79
STA. 20+11 TO STA. 25+48

NOTE:
PROPOSED SHOULDER TO BE CONSTRUCTED AS PART OF TEMPORARY PAVEMENT OPERATION AND REMAIN AFTER THE TEMPORARY PAVEMENT HAS BEEN REMOVED.

MIXTURES TABLE

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		QUALITY MANAGEMENT PROGRAM (QMP)
MIXTURE TYPE	AIR VOIDS @NDES	
PAVEMENT RECONSTRUCTION		
CLASS D PATCH (HMA BINDER IL-19mm)	4% @ 70 GYR.	QC/QA
PAVEMENT RESURFACING		
HMA SURFACE COURSE, MIX ″D″, N70, (IL-9.5mm), 1 1/2″	4% @ 70 GYR.	QC/QA
LEVELING BINDER (MACHINE METHOD), N70, (IL-9.5mm), 3/4″	4% @ 70 GYR.	QC/QA
TEMPORARY PAVEMENT AND HMA SHOULDER 8″		
HMA SURFACE COURSE, MIX ″D″, N70, (IL-9.5mm), 2″	4% @ 70 GYR.	QC/QA
HMA SHOULDER (HMA BINDER IL-19mm), 6″	4% @ 70 GYR.	QC/QA
QMP DESIGNATIONS: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA); QUALITY CONTROL FOR PERFORMANCE (QCP); PAY FOR PERFORMANCE (PFP)		

NOTES:

1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
2. THE ″AC TYPE″ FOR POLYMERIZED HMA MIXES SHALL BE ″SBS/SBR PG 76-22″ AND FOR NON -POLYMERIZED HMA THE ″AC TYPE″ SHALL BE ″PG 64-22″ UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.
3. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.
4. QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.

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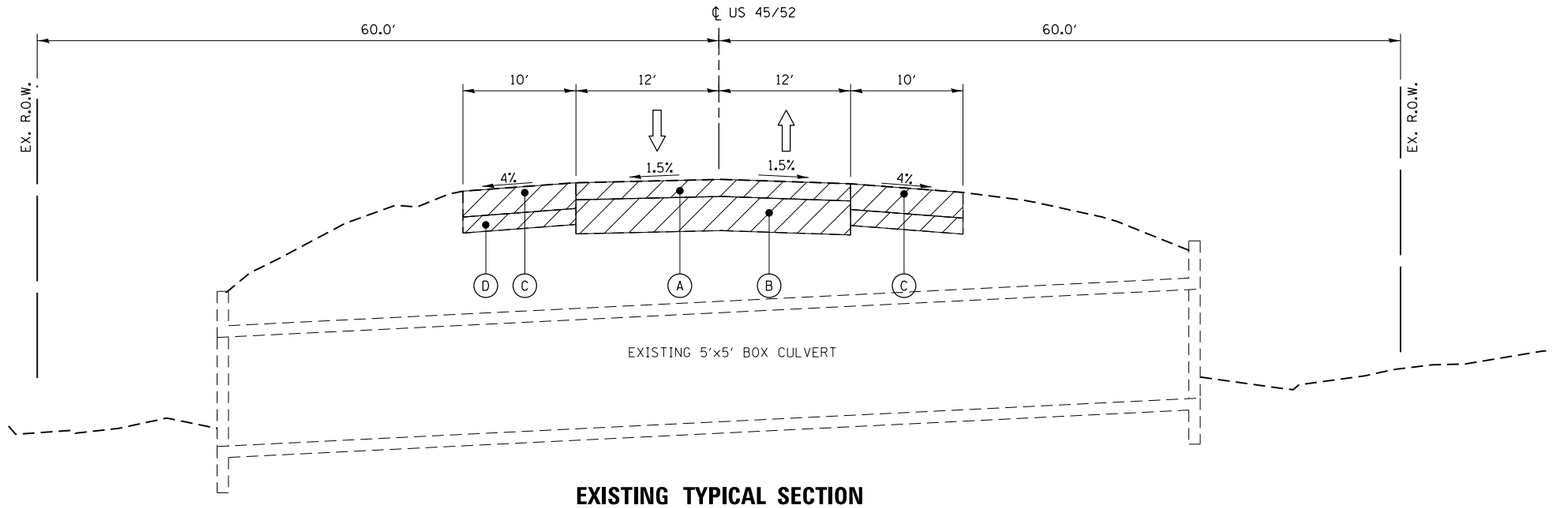
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
TYPICAL SECTIONS

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	8
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			



EXISTING TYPICAL SECTION

U.S. RTE. 45/U.S. RTE. 52

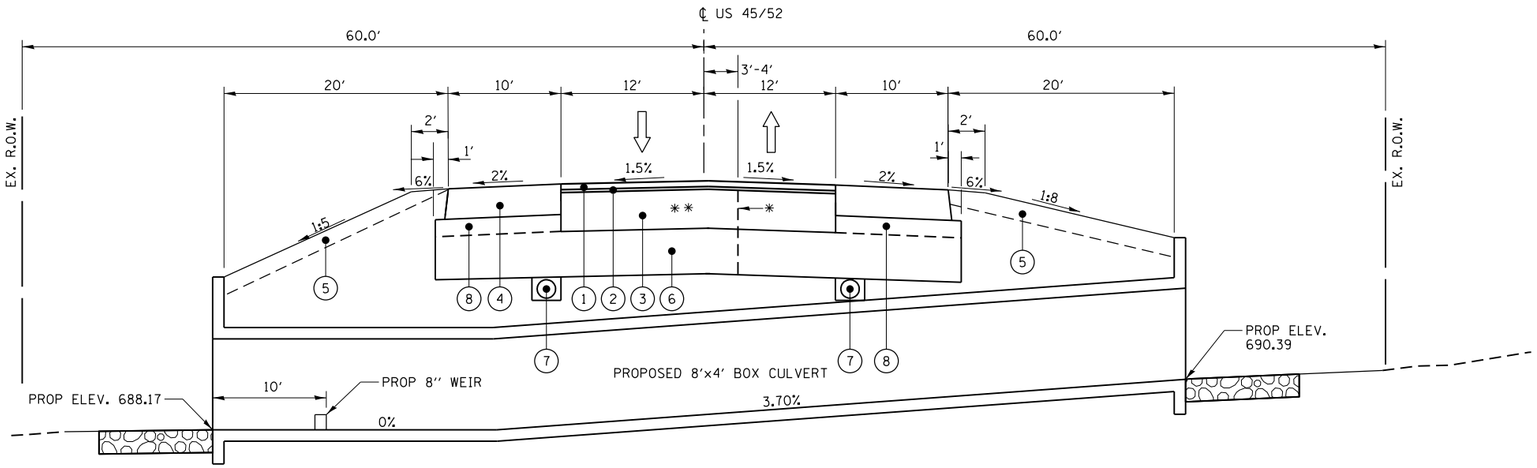
STA. 19+79 TO STA. 20+11
(LOOKING NORTH)

EXISTING LEGEND

- (A) BITUMINOUS CONCRETE PAVEMENT, 4 1/4''
- (B) BITUMINOUS AGGREGATE MIXTURE BASE COURSE, 8''
- (C) BITUMINOUS AGGREGATE MIXTURE SHOULDER, 6''
- (D) SUB-BASE GRANULAR MATERIAL, 4''
- (E) EXISTING PAVEMENT MARKING
- REMOVAL ITEMS

PROPOSED LEGEND

- (1) HOT-MIX ASPHALT SURFACE COURSE, MIX ''D'', N70, 1-1/2''
- (2) LEVELING BINDER (MACHINE METHOD), N70, 3/4''
- (3) CLASS D, PATCH TYPE IV, 13''
- (4) HOT-MIX ASPHALT SHOULDER, 8''
  - HMA SURFACE COURSE, MIX ''D'', N70, 2''
  - HMA BASE COURSE 6''
- (5) TOPSOIL, 6''
- (6) AGGREGATE SUBGRADE IMPROVEMENT, 12''
- (7) PIPE UNDERDRAIN, TYPE II, 4''
- (8) SUBBASE GRANULAR MATERIAL, TYPE B, 4''



PROPOSED TYPICAL SECTION

U.S. RTE. 45/U.S. RTE. 52

STA. 19+79 TO STA. 20+11
(LOOKING NORTH)

NOTE:
* APPROXIMATE LIMIT OF PAVEMENT IMPROVMENT BASED ON MAINTENANCE OF TRAFFIC.

** CLASS D, PATCH TYPE IV, 13'' OVER CULVERT INCLUDES THE REQUIRED THICKNESS OF THE PROPOSED LEVELING BINDER AND HOT-MIX ASPHALT SURFACE COURSE. SEE MAINTENACE OF TRAFFIC SHEETS FOR DETAILS.

$PLTSRVL$

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FILE NAME = D162A95-sht-typicol.dgn
$SYSPRINTER_NAME$

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - JKP	REVISED -
	DRAWN - JKP	REVISED -
PLOT SCALE = 13.3342 ' / in.	CHECKED - SRK	REVISED -
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -

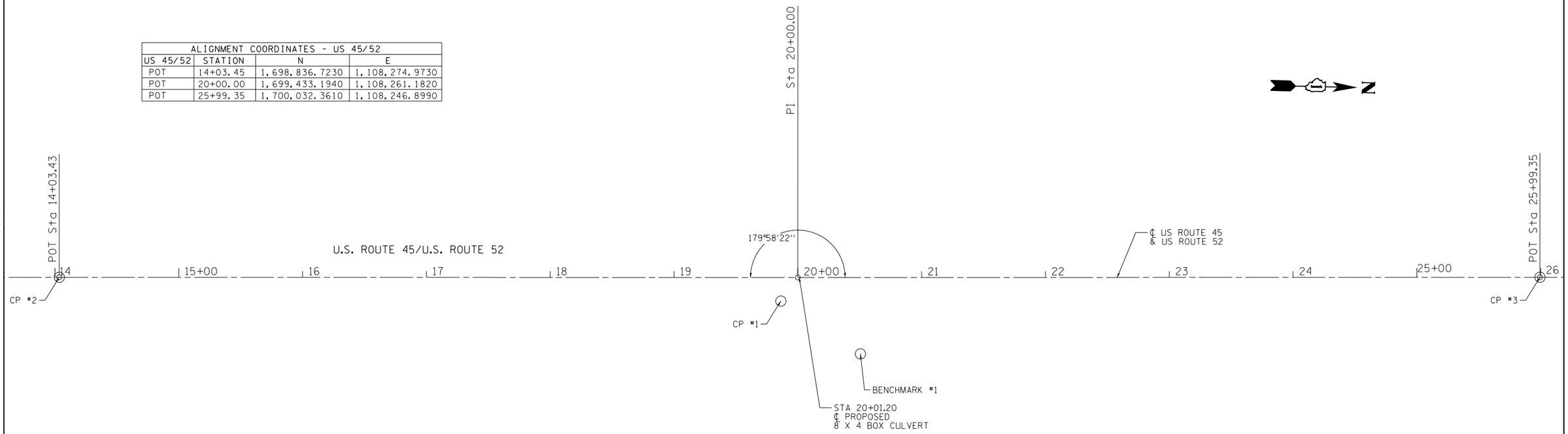
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

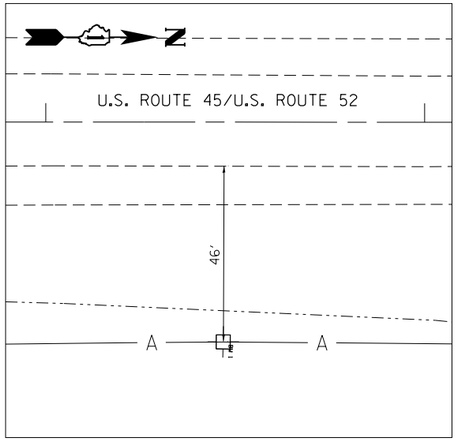
U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
TYPICAL SECTIONS

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	9
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

ALIGNMENT COORDINATES - US 45/52			
US 45/52	STATION	N	E
POT	14+03.45	1,698,836.7230	1,108,274.9730
POT	20+00.00	1,699,433.1940	1,108,261.1820
POT	25+99.35	1,700,032.3610	1,108,246.8990

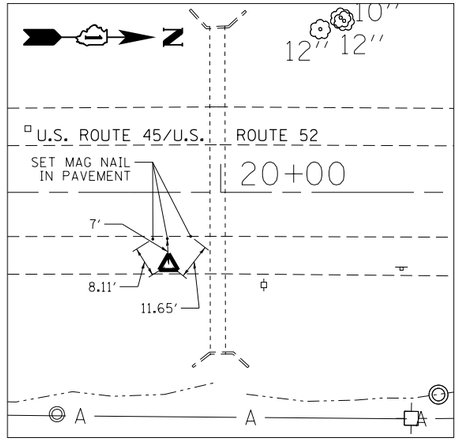




BENCHMARK #1

RAILROAD SPIKE ON WEST SID OF POWER POLE
EAST OF EAST DITCH LINE

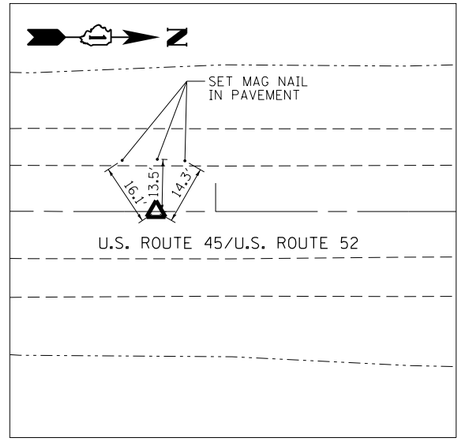
18+47.38, 57.91 RT
N 1699282.0707
E 1108322.4799
EL. 695.594



CONTROL POINT #1

SET PK NAIL IN EAST SHOULDER
7' EAST OF EDGE OF PAVEMENT

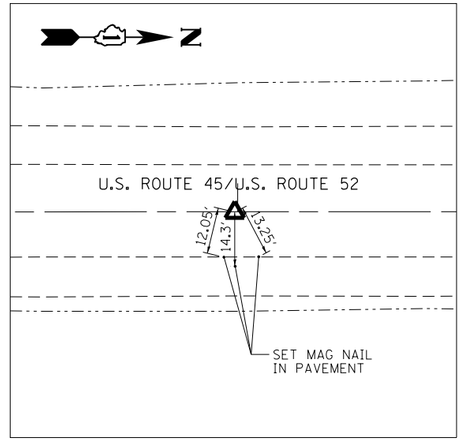
19+86.29, 19.07 RT
N 1699420.0393
E 1108280.4070
EL. 698.676



CONTROL POINT #2

SET PK NAIL IN CENTERLINE OF ROAD

14+03.45
N 1698836.7230
E 1108274.9730
EL. 704.483



CONTROL POINT #3

SET PK NAIL IN CENTERLINE OF ROAD

25+99.35
N 1700032.3610
E 1108246.8990
EL. 695.981

CHASTAIN & ASSOCIATES LLC CONSULTING ENGINEERS 184-001397	USER NAME = jpang	DESIGNED - JKP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH ALIGNMENT, TIES, AND BENCHMARKS
		DRAWN - JKP	REVISED -		
	PLOT SCALE = 80.0000 ' / in.	CHECKED - SRK	REVISED -		SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.
	PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	10
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

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FILE NAME = D1624A95_sht-ATB.dgn
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BORING LOCATIONS

NOTE:
CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF FIELD AND DRAIN TILE LOCATIONS WITHIN THE PROJECT LIMITS.

AGGREGATE SUBGRADE IMPROVEMENT (CU YD) HAS BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSTABLE AND/OR UNSUITABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH ASI WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC OR DYNAMIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.04 OF THE SSRBC AND IDOT SUBGRADE STABILITY MANUAL. IF UNSTABLE AND/OR UNSUITABLE SOILS ARE NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.

ANY AGGREGATE SUBGRADE IMPROVEMENT CONTAMINATED AND/OR DAMAGED BY THE CONTRACTOR'S VEHICLES AND/OR EQUIPMENT IS TO BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER AT CONTRACTOR EXPENSE.

PROJECT BEGINS STA. 13+90

PROJECT ENDS STA. 26+27

PROPOSED 10' HMA SHOULDERS
HOT MIX ASPHALT SHOULDER, 8"
AGGREGATE SUBGRADE IMPROVEMENT, 12"

STA 20+01.20
PROPOSED 86 FT 8x4
CAST-IN-PLACE BROKEN
SLOPE BOX CULVERT
S.N. 099-0916
US INV.=690.39
DS INV.=688.16

EXISTING ROADSIDE DITCH (TYP)

PROPOSED PIPE UNDERDRAIN HEADWALL STA. 19+88

TREE REMOVAL

EXISTING WATER OF THE U.S.

EXISTING WETLAND

TREE REMOVAL

EXIST. R.O.W.

EXIST. R.O.W.

+29 | 10' | 12' | 12' | 10' | +48

120' | 60' | 60'

F.E.

F.E.

15+00

20+00

25+00

EXIST. R.O.W.

EXIST. R.O.W.

HMA PAVEMENT RESURFACING LIMITS STA. 14+29

HMA SURFACE REMOVAL - BUTT JOINT, 4.5' (TYP)

U.S. ROUTE 45/U.S. ROUTE 52
CONSTRUCTION LIMIT

EXISTING WATER OF THE U.S.

EXISTING DRAIN TILE TO REMAIN

EXISTING WETLAND

EXISTING DRAIN TILE TO REMAIN

PROPOSED PIPE UNDERDRAIN HEADWALL STA. 25+46

HMA PAVEMENT RESURFACING LIMIT STA. 25+48

HMA SURFACE REMOVAL - BUTT JOINT, 4.5' (TYP)

PROPOSED PIPE UNDERDRAINS, 4"

PROPOSED 24' x 42' PAVEMENT RECONSTRUCTION
CLASS D PATCH, TYPE IV, 13"
AGGREGATE SUBGRADE IMPROVEMENT, 12"
STA. 19+79 TO STA. 20+11

EXISTING
S.N. 099-0527
5X5 CULVERT
TO BE REMOVED

PROPOSED HMA PAVEMENT RESURFACING
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
LEVELING BINDER (MACHINE METHOD), N70, 3/4"

N

50' 0 50' 100'
SCALE: 1" = 50'

720 715 710 705 700 695 690 685 680

+90.00 704.32

+50.00 EL 699.47

100.00' V.C.

VPI STA. 20+00.00
ELEVATION 699.09

+50.00 EL 698.96

+27.00 696.49

PROPOSED ℄ PROFILE

EXISTING ℄ PROFILE

-0.76%

-0.26%

PROPOSED 8' X 4'
BROKEN SLOPE CULVERT
S.N. 099-0916

704.34 704.34 | 704.34 704.34 | 703.21 703.21 | 702.12 702.12 | 700.98 700.98 | 699.85 699.85 | 699.47 699.47 | 699.09 699.15 | 699.96 698.96 | 698.82 698.82 | 698.64 698.64 | 698.28 698.28 | 697.73 697.73 | 696.59 696.59

13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO., BY, DATE — $PLTDRVL$

PROFILE — SURVEYED, PLOTTED, CROSSES CHECKED, BM. NOTED, STRUCTURE NO(ATNS CHKD — $PENTBLS$

FILE NAME = D162A95-sht-plnpr-f.dgn
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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - JKP	REVISED -
	DRAWN - JKP	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - SRK	REVISED -
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
ROADWAY PLAN AND PROFILE

SCALE: 1"=50' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	11

CONTRACT NO. 62A95

ILLINOIS FED. AID PROJECT

MAINTENANCE OF TRAFFIC GENERAL NOTES:

1. THE TRAFFIC CONTROL DEPICTED HEREIN IS THE MINIMUM REQUIREMENT. ADDITIONAL TRAFFIC CONTROL DEVICES AS SPECIFIED IN THE HIGHWAY STANDARDS AS SHOWN IN THE INDEX OF SHEETS AND THE SPECIAL PROVISIONS SHALL BE PLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. ALL TRAFFIC CONTROL DEVICES SHALL BE CONSIDERED INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, (SPECIAL) UNLESS OTHERWISE INDICATED WITHIN THESE GENERAL NOTES, PLANS OR SPECIAL PROVISIONS.

2. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE ALL SIGNS AND SIGN SUPPORTS REQUIRED FOR MAINTENANCE OF TRAFFIC.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING LABOR, SIGNS AND TRAFFIC CONTROL DEVICES NECESSARY FOR THE MAINTENANCE OF TRAFFIC UNLESS NOTED OTHERWISE IN THE SPECIAL PROVISIONS.

4. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING THE WORK.

5. IN ADVANCE OF ALL STAGE CHANGES ON US 45, THE CONTRACTOR SHALL PLACE ONE (1) PORTABLE CHANGEABLE MESSAGE SIGN AT EACH END OF THE PROJECT ALONG US 45 AS DIRECTED AT A LOCATION DESIGNATED BY THE ENGINEER TO INFORM MOTORISTS OF THE UPCOMING STAGE CHANGE ON US 45. THE MESSAGE SHALL BE APPROVED BY THE ENGINEER.

6. WORK ZONE SPEED LIMIT SHALL BE 45 MPH ON US 45.

7. DRUMS OR TYPE II BARRICADES EQUIPPED WITH BI-DIRECTIONAL STEADY BURN LIGHT SHALL BE PROVIDED AS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER.

8. ALL "ROAD CONSTRUCTION AHEAD" AND " SPEED LIMIT AHEAD" SIGNS, AND TYPE III BARRICADES SHALL BE EQUIPPED WITH MONO-DIRECTIONAL TYPE A AMBER FLASHING LIGHTS.

9. ALL EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLAN SHALL BE COVERED OR REMOVED IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.

10. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ALL EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THE DESIGNATED TRAFFIC CONTROL PLAN.

11. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, SPECIAL PROVISIONS, APPLICABLE STATE STANDARDS, AND AS DIRECTED BY THE ENGINEER. ANY CHANGES TO THE MAINTENANCE OF TRAFFIC SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO IMPLEMENTING ANY CHANGES.

12. TRAFFIC CONDITIONS, ACCIDENTS, AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY OR REMOVE LANE CLOSURES OR CHANNELIZATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL PROMPTLY RESPOND AT THE TIME OF NOTIFICATION BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC CONTROL DEVICES.

13. THE ENGINEER SHALL BE INFORMED A MINIMUM OF 48 HOURS IN ADVANCE OF ANY PROPOSED CHANGE TO THE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN.

14. ALL TEMPORARY PAVEMENT MARKINGS SHOWING DETERIORATION AFTER SEVEN (7) DAYS OF SERVICE SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. ALL MARKINGS THAT REQUIRE REPLACEMENT PRIOR TO SEVEN (7) DAYS OF SERVICE SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.

15. WHEN THEY ARE NO LONGER NECESSARY, ALL TRAFFIC CONTROL DEVICES SHALL IMMEDIATELY BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC. W21-1 WORKER AND W20-7 FLAGGER SIGNS SHALL BE REMOVED OR COVERED WHEN NOT APPLICABLE FOR GREATER THAN ONE HOUR. WHEN A SIGN IS COVERED, ITS POST SHALL HAVE A REFLECTIVE 3" X 6" DELINEATOR INSTALLED. THE COST OF THE DELINEATOR IS INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

16. TEMPORARY CONCRETE BARRIERS AND TEMPORARY IMPACT ATTENUATORS SHALL BE PLACED AS SHOWN IN THE PLANS. FURNISHING, INSTALLING AND RELOCATING TEMPORARY CONCRETE BARRIER AND TEMPORARY IMPACT ATTENUATORS SHALL BE IN ACCORDANCE WITH IDOT SPECIAL PROVISIONS, IDOT HIGHWAY STANDARDS, STANDARD SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER.

17. IMMEDIATELY AFTER THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL RESTORE ALL PERMANENT PAVEMENT MARKINGS, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES THAT WERE COVERED, REMOVED, DAMAGED OR OTHERWISE AFFECTED BY CONSTRUCTION.

18. THE CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY DRAINAGE AND EROSION CONTROL PROTECTION DURING ALL STAGES OF CONSTRUCTION.

19. ACCESS TO ALL PRIVATE AND COMMERCIAL DRIVEWAYS AND ENTRANCES ARE TO BE MAINTAINED DURING CONSTRUCTION.

20. MAINTENANCE OF TRAFFIC WIDTH RESTRICTION REQUIREMENT - THE CONTRACTOR SHALL NOTIFY THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR, IN WRITING, WHEN THE CONTRACTOR RECEIVES AN AWARD LETTER FOR THE CONTRACT. THE LETTER SHALL STATE THE ANTICIPATED START DATE OF LANE WIDTH RESTRICTIONS. THE TWENTY-ONE (21) DAY NOTICE WILL START FROM THE AWARD DATE. NO WIDTH RESTRICTIONS WILL BE ALLOWED UNTIL TWENTY-ONE (21) DAYS AFTER RECEIVING NOTICE FROM THE CONTRACTOR. THE CONTRACTOR MAY ELECT TO PROVIDE THE ANTICIPATED START DATE OF LANE WIDTH RESTRICTIONS AT PRECONSTRUCTION MEETING AS LONG AS THERE IS A MINIMUM OF TWENTY-ONE (21) DAYS ADVANCED NOTICE.

SUGGESTED SEQUENCE OF CONSTRUCTION & MAINTENANCE OF TRAFFIC

THE FOLLOWING SEQUENCE OF CONSTRUCTION AND MAINTENANCE OF TRAFFIC IS SUGGESTED. VARIATIONS MAY BE MADE WITH THE APPROVAL OF THE ENGINEER.

FOR EACH STAGE OF CONSTRUCTION, PROVIDE TRAFFIC CONTROL AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS. COORDINATE INSTALLATION OF TEMPORARY PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES WITH THE EXISTING TRAFFIC PATTERNS AT THE PROJECT LIMITS.

SEQUENCE OF CONSTRUCTION:

PRE-STAGE

1. INSTALL PORTABLE CHANGEABLE MESSAGE SIGNS AS DIRECTED BY THE ENGINEER.

2. INSTALL EROSION CONTROL DEVICES PER THE EROSION CONTROL PLANS.

STAGE I

1. REMOVE AND REPLACE EXISTING SHOULDER AND INSTALL TEMPORARY PAVEMENT ALONG THE SOUTHBOUND LANE OF US 45 FOR STAGE I TRAFFIC LANES. UTILIZING DAYTIME LANE CLOSURES. THIS WORK SHALL BE COMPLETED WITHIN A DURATION OF TWO WEEKS.

2. INSTALL ADVANCED SIGNAGE AND STAGE I TRAFFIC CONTROL ON US 45 ACCORDING TO THE PLANS. SHIFT TRAFFIC WEST TO STAGE 1 TRAFFIC LANES

3. INSTALL TEMPORARY SOIL RETENTION SYSTEM. REMOVE THE STAGE 1 PORTION OF THE EXISTING CULVERT AS INDICATED IN THE PLANS AND INSTALL THE STAGE 1 PORTION OF THE PROPOSED CAST-IN-PLACE CULVERT.

4. CONSTRUCT THE US 45 MAINLINE PAVEMENT OVER THE COMPLETED PORTION OF THE CULVERT. REMOVE TEMPORARY SOIL RETENTION SYSTEM.

5. REMOVE AND REPLACE EXISTING SHOULDER AND INSTALL TEMPORARY PAVEMENT ALONG THE NORTHBOUND LANE OF US 45 FOR STAGE II TRAFFIC LANES.

6. MAINTAIN ALL EROSION CONTROL DEVICES.

STAGE II

1. INSTALL STAGE II TRAFFIC CONTROL ON US 45.

2. SHIFT TRAFFIC EAST TO STAGE II TRAFFIC LANES.

3. REMOVE STAGE I TRAFFIC CONTROL DEVICES.

4. INSTALL TEMPORARY SOIL RETENTION SYSTEM. REMOVE THE REMAINING PORTION OF THE EXISTING CULVERT AS INDICATED IN THE PLANS AND INSTALL THE STAGE 2 PORTION OF THE PROPOSED CAST-IN-PLACE PIPE CULVERT.

5. CONSTRUCT THE US 45 MAINLINE PAVEMENT OVER THE COMPLETED PORTION OF THE CULVERT.

6. REPLACE THE SHOULDER PAVEMENT REMOVED FOR THE CULVERT WORK. REMOVE TEMPORARY SOIL RETENTION SYSTEM.

7. SAWCUT (FULL DEPTH) THE WEST SHOULDER EDGE OF PAVEMENT AND REMOVE THE TEMPORARY PAVEMENT.

8. RESHAPE, COMPACT AND GRADE THE ROAD EMBANKMENT OUTSIDE THE SHOULDER.

9. REMOVE STAGE 2 TRAFFIC CONTROL DEVICES.

10. SHIFT TRAFFIC TO CENTER OF US 45.

STAGE III

1. SAWCUT (FULL DEPTH) THE EAST SHOULDER EDGE OF PAVEMENT AND REMOVE THE TEMPORARY PAVEMENT.

2. RESHAPE, COMPACT AND GRADE THE ROAD EMBANKMENT OUTSIDE THE SHOULDER.

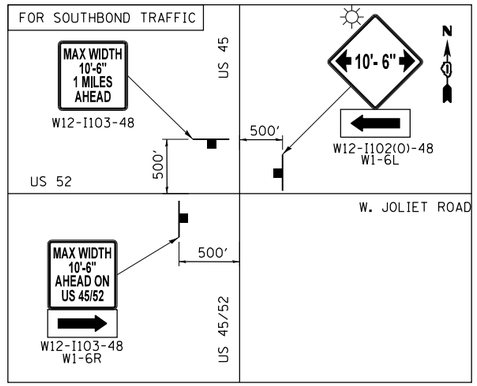
3. COMPLETE ALL UNFINISHED LANDSCAPING.

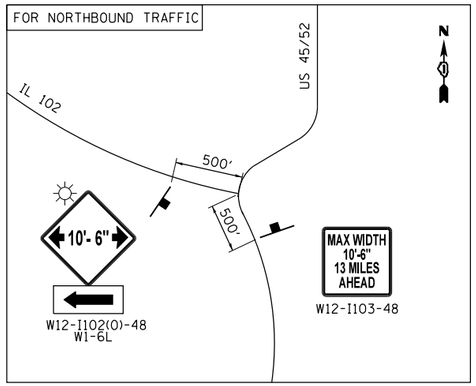
4. MILL EXISTING PAVEMENT AND PLACE HMA LEVELING BINDER AND HMA SURFACE COURSE OVER THE THROUGH LANE PAVEMENT UTILIZING HIGHWAY STANDARD 701201.

5. INSTALL PERMANENT PAVEMENT MARKINGS AND SIGNAGE ON IL ROUTE 45 UTILIZING HIGHWAY STANDARD 701306.

6. REMOVE TEMPORARY EROSION CONTROL DEVICES.

ADVANCED SIGNAGE AT INTERSECTIONS





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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - JKP	REVISED -
	DRAWN - JKP	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - SRK	REVISED -
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

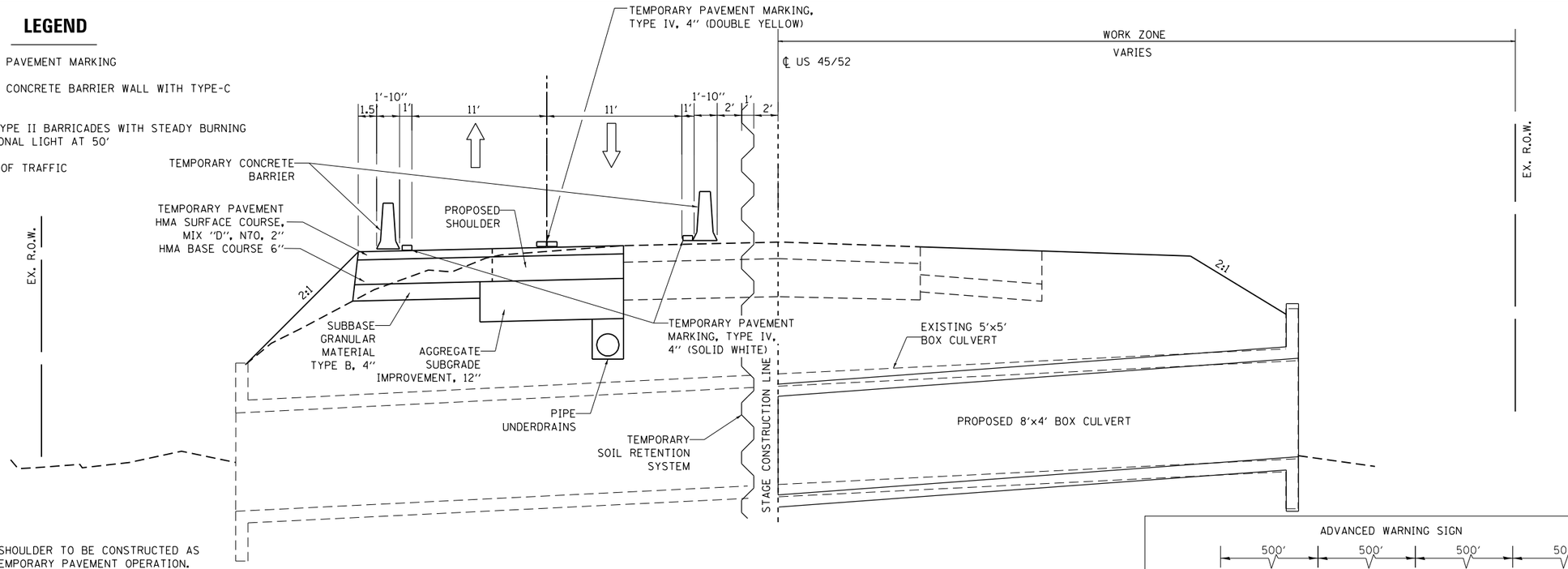
U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
MAINTENANCE OF TRAFFIC GENERAL NOTES

SCALE: | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	12
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

LEGEND

- TEMPORARY PAVEMENT MARKING
- TEMPORARY CONCRETE BARRIER WALL WITH TYPE-C MARKERS
- DRUM OR TYPE II BARRICADES WITH STEADY BURNING BI-DIRECTIONAL LIGHT AT 50'
- DIRECTION OF TRAFFIC



NOTES:

1. PROPOSED SHOULDER TO BE CONSTRUCTED AS PART OF TEMPORARY PAVEMENT OPERATION.
2. PCC TEMPORARY PAVEMENT IS NOT ALLOWED FOR THIS PROJECT.
3. ALL TEMPORARY PAVEMENT SHALL BE INSTALLED OVER 4" SUBBASE GRANULAR MATERIAL.

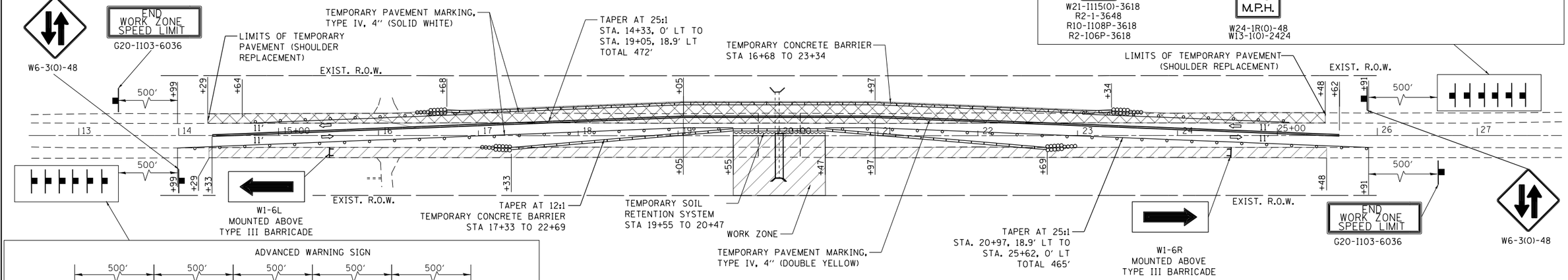
STAGE 1 TYPICAL SECTION

ADVANCED WARNING SIGN

500' 500' 500' 500' 500'

- W21-1115(0)-3618, R2-1-3648, R10-1108P-3618, R2-1O6P-3618 (WORK ZONE / SPEED LIMIT 45 / PHOTO ENFORCED / $ 375 FINE MINIMUM)
- W3-5(0)-48 (SPEED LIMIT 45)
- W24-1R(0)-48, W13-1(0)-2424 (40 M.P.H.)
- W12-1102(0)-48 (10'-6")
- W20-1103(0)-48 (ROAD CONSTRUCTION AHEAD)

CHANGEABLE MESSAGE SIGN "ROAD CONSTRUCTION AHEAD EXPECT DELAYS"



ADVANCED WARNING SIGN

500' 500' 500' 500' 500'

CHANGEABLE MESSAGE SIGN "ROAD CONSTRUCTION AHEAD EXPECT DELAYS"

- W20-1103(0)-48 (ROAD CONSTRUCTION AHEAD)
- W12-1102(0)-48 (10'-6")
- W24-1L(0)-48, W13-1(0)-2424 (40 M.P.H.)
- W3-5(0)-48 (SPEED LIMIT 45)
- W21-1115(0)-3618, R2-1-3648, R10-1108P-3618, R2-1O6P-3618 (WORK ZONE / SPEED LIMIT 45 / PHOTO ENFORCED / $ 375 FINE MINIMUM)

N

50' 0 50' 100'

SCALE: 1" = 50'

LEGEND

- TEMPORARY PAVEMENT
- WORK ZONE
- TEMPORARY CONCRETE BARRIER
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE WITH 2 MONO-DIRECTIONAL TYPE A FLASHERS
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- DRUM OR TYPE II BARRICADE WITH STEADY BURNING BIDIRECTIONAL LIGHT AT 50' C-C SPACING IN TANGENT, 2 20' C-C SPACING TAPERS

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - JKP		REVISED -
	DRAWN - JKP		REVISED -
PLOT SCALE = 100.000 ' / in.	CHECKED - SRK		REVISED -
PLOT DATE = 12/13/2017	DATE - 12/13/2017		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
STAGE 1 PLAN AND SECTION

SCALE: | SHEET 2 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	13
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

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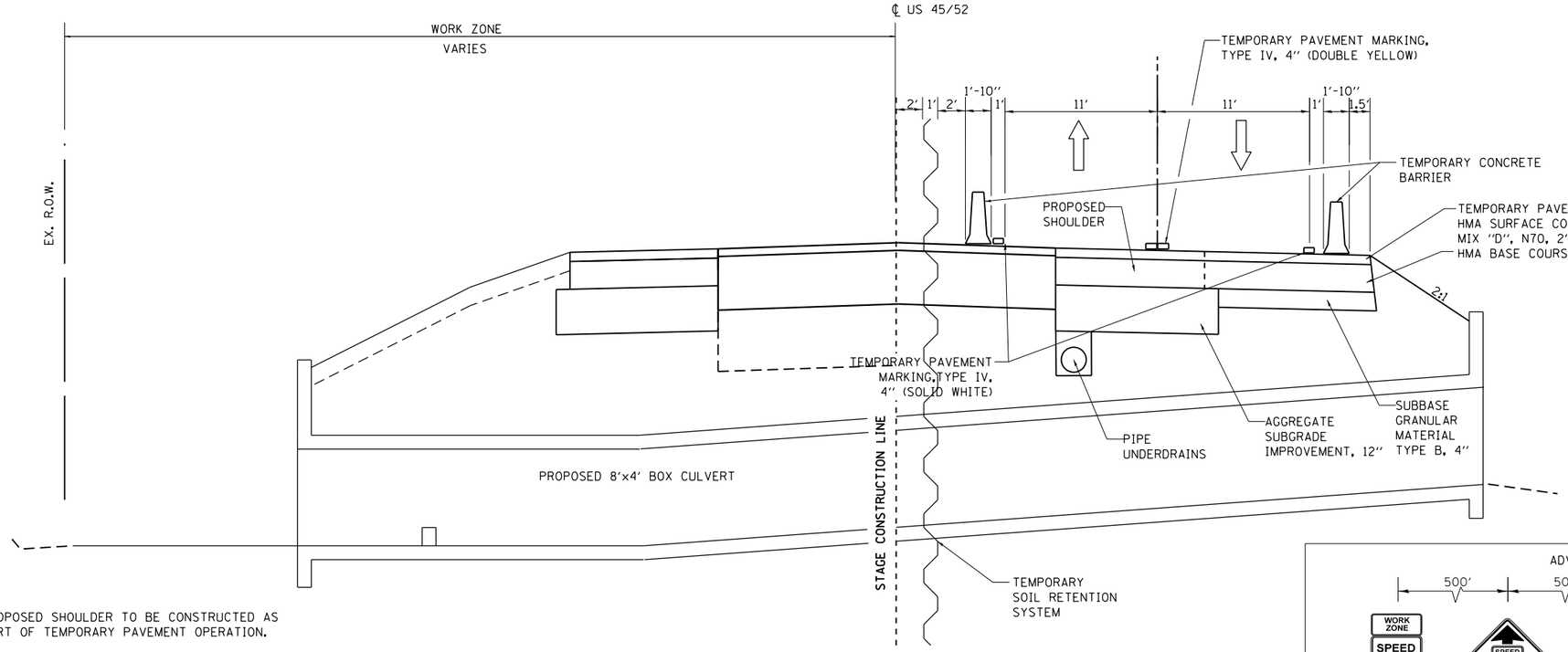


LEGEND

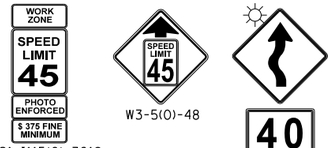
- TEMPORARY PAVEMENT MARKING
- TEMPORARY CONCRETE BARRIER WALL WITH TYPE-C MARKERS
- DRUM OR TYPE II BARRICADES WITH STEADY BURNING BI-DIRECTIONAL LIGHT AT 50'
- DIRECTION OF TRAFFIC

NOTES:

1. PROPOSED SHOULDER TO BE CONSTRUCTED AS PART OF TEMPORARY PAVEMENT OPERATION.
2. PCC TEMPORARY PAVEMENT IS NOT ALLOWED FOR THIS PROJECT.
3. ALL TEMPORARY PAVEMENT SHALL BE INSTALLED OVER 4" SUBBASE GRANULAR MATERIAL.

ADVANCED WARNING SIGN

500' 500' 500' 500' 500'



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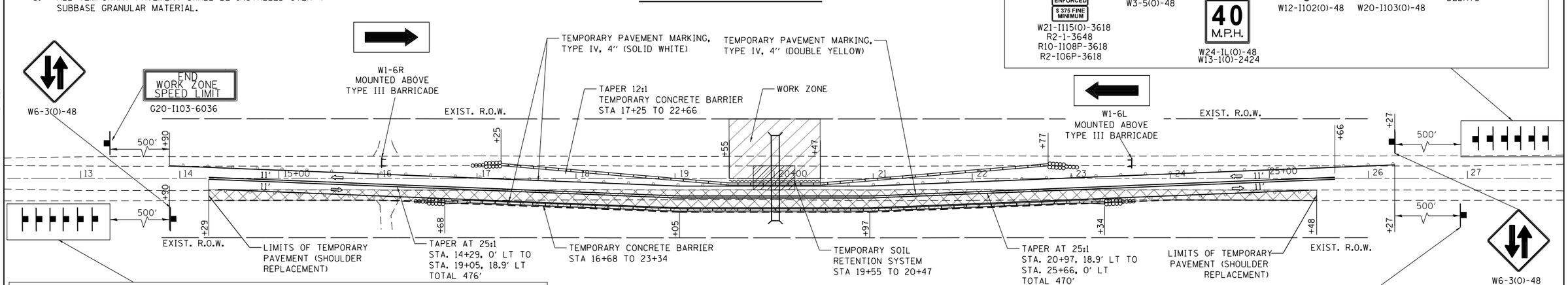
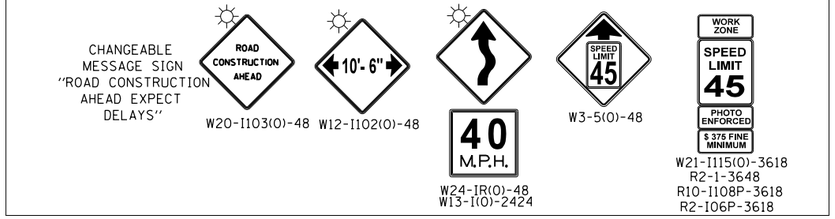
CHANGEABLE MESSAGE SIGN "ROAD CONSTRUCTION AHEAD EXPECT DELAYS"

STAGE 2 TYPICAL SECTION



ADVANCED WARNING SIGN

500' 500' 500' 500' 500'



CHANGEABLE MESSAGE SIGN "ROAD CONSTRUCTION AHEAD EXPECT DELAYS"

W20-I103(0)-48 W12-I102(0)-48 W24-IR(0)-48 W13-I(0)-2424 W3-5(0)-48 W21-I115(0)-3618 R2-1-3648 R10-I108P-3618 R2-I06P-3618

50' 0 50' 100'
SCALE: 1" = 50'

LEGEND

- TEMPORARY PAVEMENT
- WORK ZONE
- TEMPORARY CONCRETE BARRIER
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE WITH 2 MONO-DIRECTIONAL TYPE A FLASHERS
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- DRUM OR TYPE II BARRICADE WITH STEADY BURNING BIDIRECTIONAL LIGHT AT 50' C-C SPACING IN TANGENT, 2 20' C-C SPACING TAPERS

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - JKP	REVISED -
	DRAWN - JKP	REVISED -
PLOT SCALE = 100.000 ' / in.	CHECKED - SRK	REVISED -
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
STAGE 2 PLAN AND SECTION

SCALE: | SHEET 3 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	14
		CONTRACT NO. 62A95		
		ILLINOIS FED. AID PROJECT		

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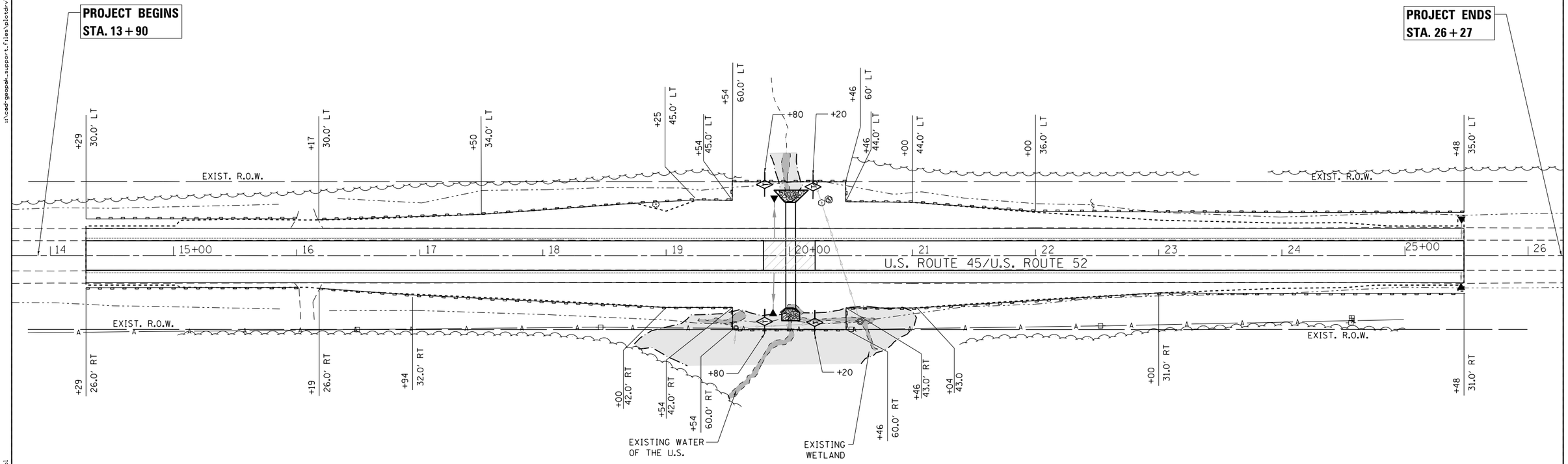


EROSION CONTROL NOTES

1. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROLONG FINAL GRADING AND SHAPING SO THAT THE ENTIRE PROJECT CAN BE PERMANENTLY SEEDED AT ONE TIME.

2. EROSION CONTROL ITEMS ARE CONSIDERED TO BE A HIGH PRIORITY ON THIS CONTRACT. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE RESIDENT ENGINEER.

3. THIS PROJECT REQUIRES A US ARMY CORPS OF ENGINEERS (USACE) 404 PERMIT THAT WILL BE SECURED BY THE DEPARTMENT. ALL CONDITIONS OF THE 404 PERMIT, FOUND IN THE SPECIAL PROVISIONS, MUST BE FOLLOWED. AS A CONDITION OF THIS PERMIT, THE CONTRACTOR WILL NEED TO SUBMIT AN IN-STREAM WORK PLAN (INCLUDING WORK WITHIN WETLANDS) TO THE DEPARTMENT FOR APPROVAL. GUIDELINES ON ACCEPTABLE IN-STREAM WORK TECHNIQUES (INCLUDING WORK WITHIN WETLANDS) CAN BE FOUND ON THE USACE WEBSITE. THE USACE DEFINES AND DETERMINES IN-STREAM WORK. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT AN IN-STREAM WORK PLAN (INCLUDING WORK WITHIN WETLANDS) WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

EROSION CONTROL LEGEND

- TEMPORARY DITCH CHECK
- PERIMETER EROSION BARRIER
- WETLANDS
- WATER OF THE U.S.

N

0 40 80 100

SCALE IN FEET

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

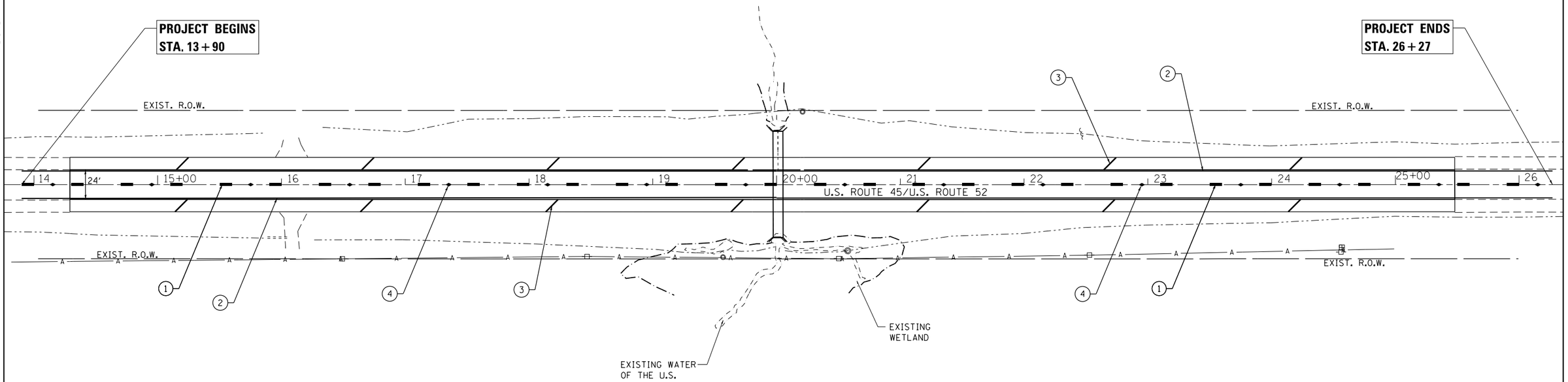
USER NAME = dwozniarski	DESIGNED - JKP	REVISED -
	DRAWN - JKP	REVISED -
PLOT SCALE = 80.000 ' / in.	CHECKED - SRK	REVISED -
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 40' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	15
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			



PAVEMENT MARKING LEGEND

(1) THERMOPLASTIC PAVEMENT MARKING - LINE 4"
(YELLOW SKIP DASH, 10' LINE, 30' SPACES)
STA. 13+90 TO STA. 26+27

(2) THERMOPLASTIC PAVEMENT MARKING - LINE 4"
(SOLID WHITE)
STA. 13+90 TO STA. 26+27

(3) THERMOPLASTIC PAVEMENT MARKING - LINE 12"
(WHITE DIAGONALS, 150' C-C)
STA. 13+90 TO STA. 26+27

(4) RAISED REFLECTIVE PAVEMENT MARKER
(TWO-WAY AMBER MARKER, 80' O.C.)
STA. 13+90 TO STA. 26+27

ALL PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING : IDOT DISTRICT 1 DETAILS TC-11 AND TC-13.

N

0 40 80 100
SCALE IN FEET

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - JKP	REVISED -
	DRAWN - JKP	REVISED -
PLOT SCALE = 80.000 ' / in.	CHECKED - SRK	REVISED -
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
PAVEMENT MARKING PLAN

SCALE: 1" = 40' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	16
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

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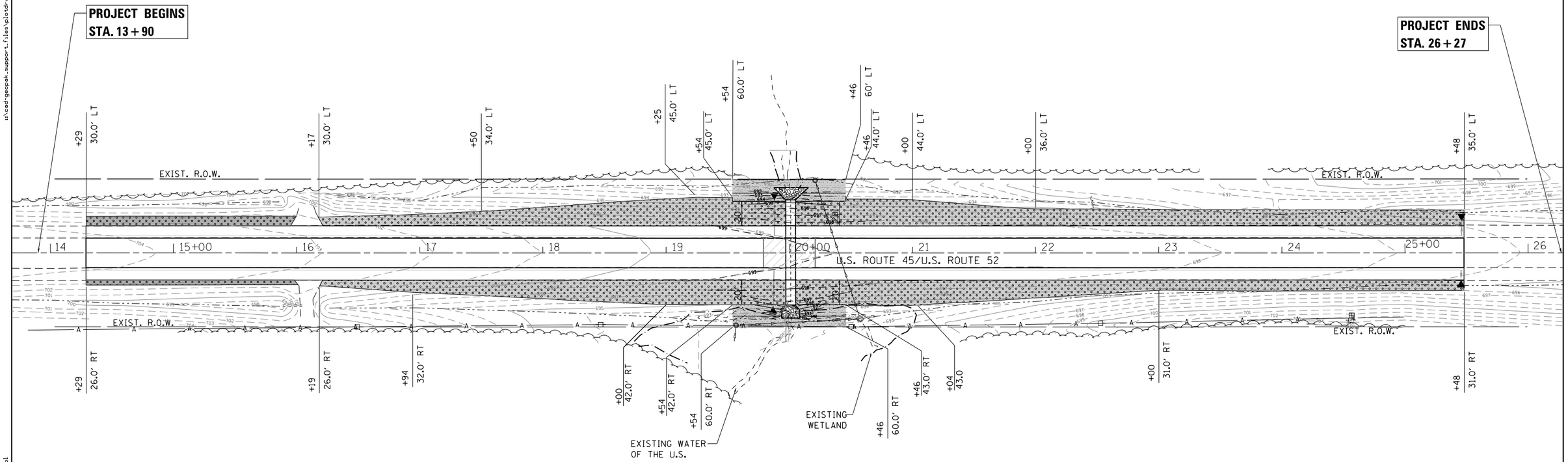


RESTORATION LEGEND

SEEDING, CLASS 2A W/ EROSION CONTROL BLANKET

SEEDING, CLASS 4 W/ EROSION CONTROL BLANKET

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = dwozniarski	DESIGNED - JKP	REVISED -
	DRAWN - JKP	REVISED -
PLOT SCALE = 80.000 ' / in.	CHECKED - SRK	REVISED -
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
GRADING AND RESTORATION PLAN

SCALE: 1" = 40' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

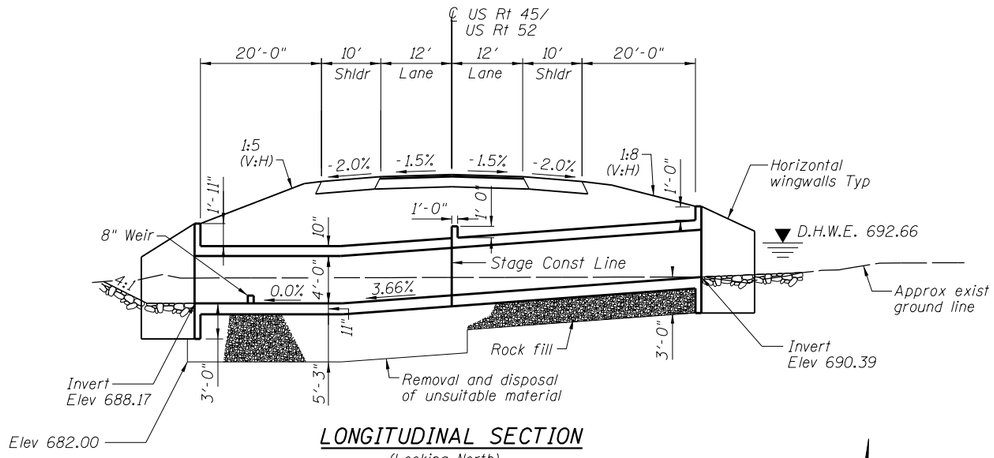
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	17
		CONTRACT NO. 62A95		
	ILLINOIS	FED. AID PROJECT		

Existing Structure (099-0527):
Originally built in 1967 as an 86' long single cell 5'x5" CIP concrete box culvert with a 0° skew.

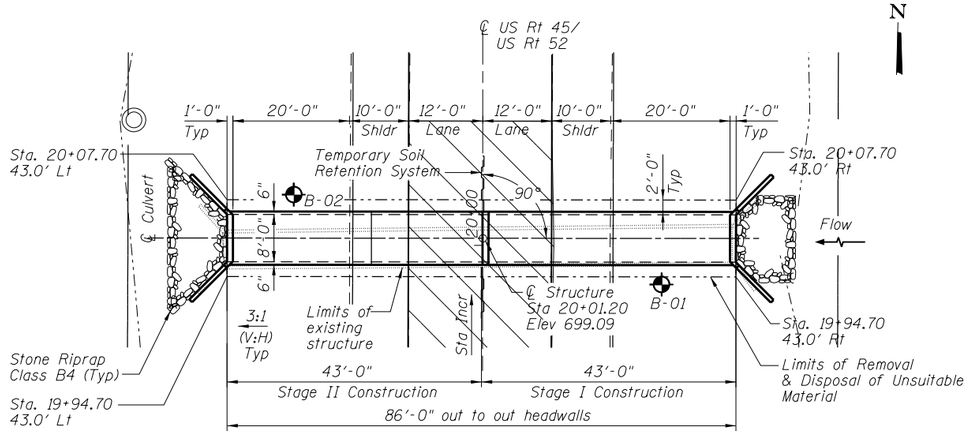
No salvage.

Traffic Control:
Two lanes of traffic shall be maintained utilizing Stage Construction.

Benchmark:
Railroad Spike in power pole
East of East ditch line. Elev. 693.83



LONGITUDINAL SECTION
(Looking North)

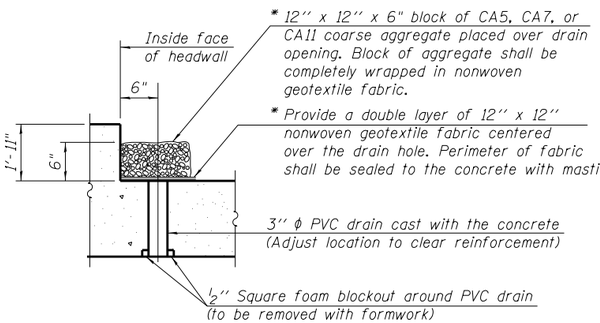


PLAN

GENERAL NOTES

1. Precast alternate is not allowed.
2. All excavation required for construction of the culvert as shown in these plans and in accordance with the standard specifications shall be included in the cost for Concrete Box Culverts.
3. The Contractor shall be responsible to divert the stream during construction to keep construction area free of water. The method of water diversion shall be subject to the approval of the Engineer and the cost shall be included in the cost for Concrete Box Culverts.
4. Layout of the slope protection system may be varied to suit ground conditions in the field and as directed by the Engineer
5. The limits and quantities of soil removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.
6. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

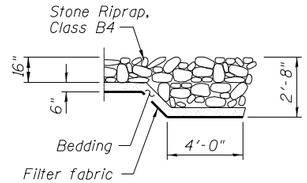
* Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.



DRAIN DETAIL

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)

INDEX OF SHEETS



RIPRAP FLANK DETAIL

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications
7th Edition with 2016 Interims

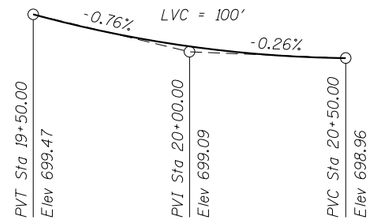
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.



PROFILE GRADE - US RT 45/US RT 52

TOTAL BILL OF MATERIAL

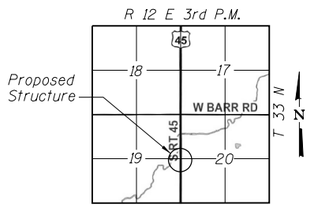
Item	Unit	Quantity
Removal of Existing Structures	Each	1
Concrete Box Culverts	Cu Yd	73.0
Reinforcement Bars	Pound	13,870
Bar Splicers	Each	46
Temporary Soil Retention System	Sq Ft	570
Porous Granular Embankment	Cu Yd	170
Rock Fill	Cu Yd	160
Removal and Disposal of Unsuitable Material	Cu Yd	160

WATERWAY INFORMATION

Drainage Area = 0.2 sq mi Low Grade Elev. 699.10 @ Sta. 14+30.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	70	9.7	15.4	692.32	0.07	0.02	693.07	692.34
Design	50	113	11.3	18.2	692.66	1.52	0.48	694.18	693.14
Base	100	130	11.9	19.0	692.77	1.82	0.66	694.59	693.43
Max. Calc.	500	165	13.2	21.2	693.04	2.38	0.97	695.42	694.01

10 year velocity through existing structure = 13.4 ft/s
10 year velocity through proposed structure = 3.7 ft/s



LOCATION SKETCH

LICENSED STRUCTURAL ENGINEER
JEREMY BUENING
081-006696
STATE OF ILLINOIS

10/11/2017

Jeremy Buening, P.E., S.E. Date
License Expires 11/30/18

GENERAL PLAN AND ELEVATION
FAP ROUTE 330 (US 45/US 52) OVER UNNAMED DITCH
SECTION 2015-038B
WILL COUNTY
STA 20+01.20
STRUCTURE NO. 099-0916

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - JMB	REVISED -
	DRAWN - RLK	REVISED -
PLOT SCALE = 25.60 ' / in.	CHECKED - SRK	REVISED -
PLOT DATE = 12/14/2017	DATE - 12/13/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
GENERAL PLAN AND ELEVATION

SCALE: | SHEET 1 OF 6 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	18
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

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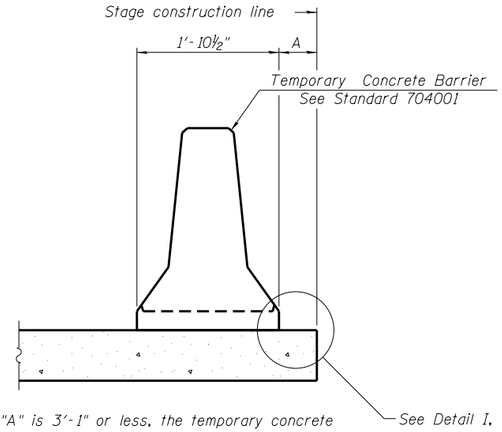
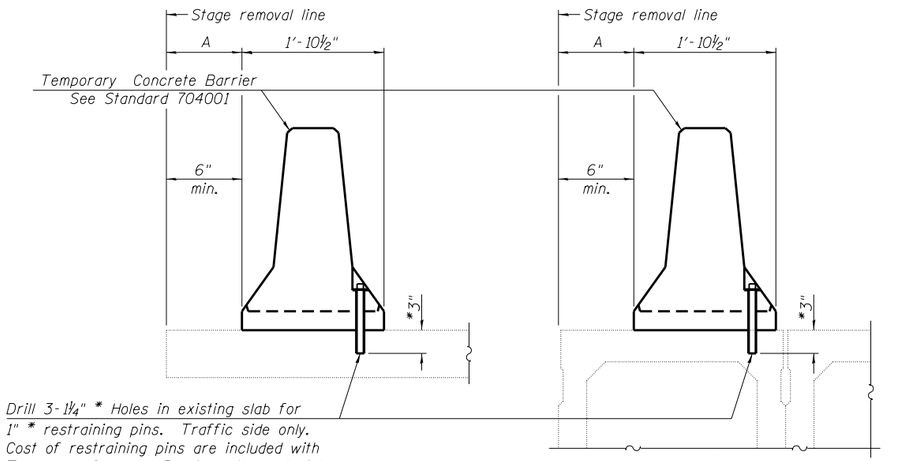


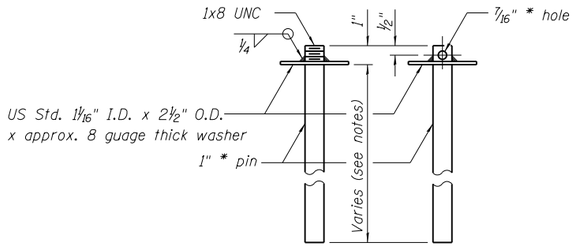
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



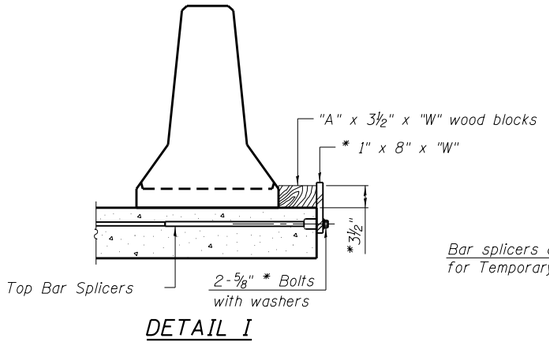
EXISTING SLAB

EXISTING DECK BEAM

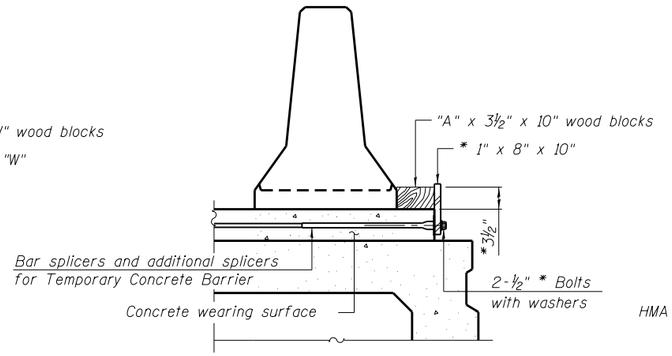


RESTRAINING PIN

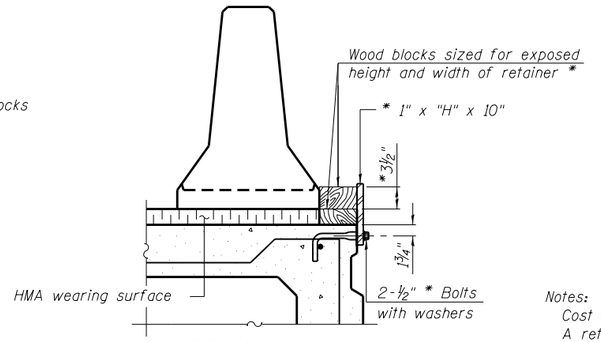
SECTIONS THRU SLAB OR DECK BEAM



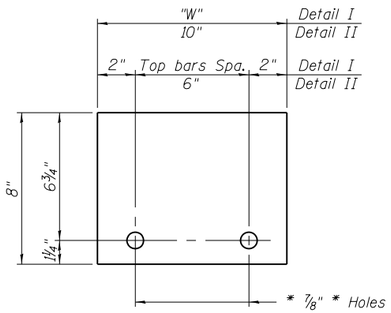
DETAIL I



DETAIL II

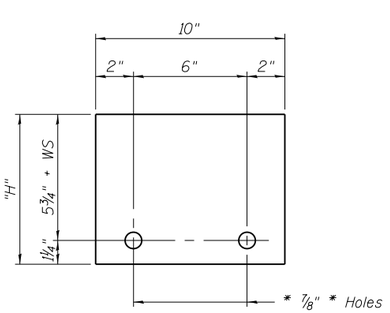


DETAIL III



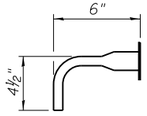
STEEL RETAINER * 1" x 8" x "W"

(Detail I and II)



STEEL RETAINER * 1" x "H" x 10"

(Detail III)



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate * of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27

2-17-2017

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - JMB	REVISED -
	DRAWN - RLK	REVISED -
PLOT SCALE = 2:0.0000 '' / in.	CHECKED - SRK	REVISED -
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

SCALE: | SHEET 2 OF 6 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	19
		CONTRACT NO. 62A95		
		ILLINOIS FED. AID PROJECT		

$PLTSRVL$

$PENTBLS$

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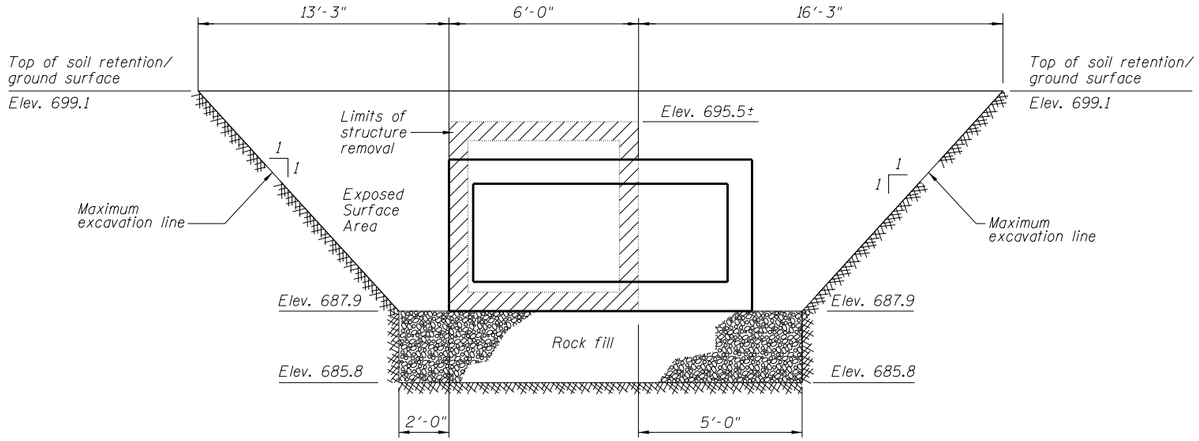
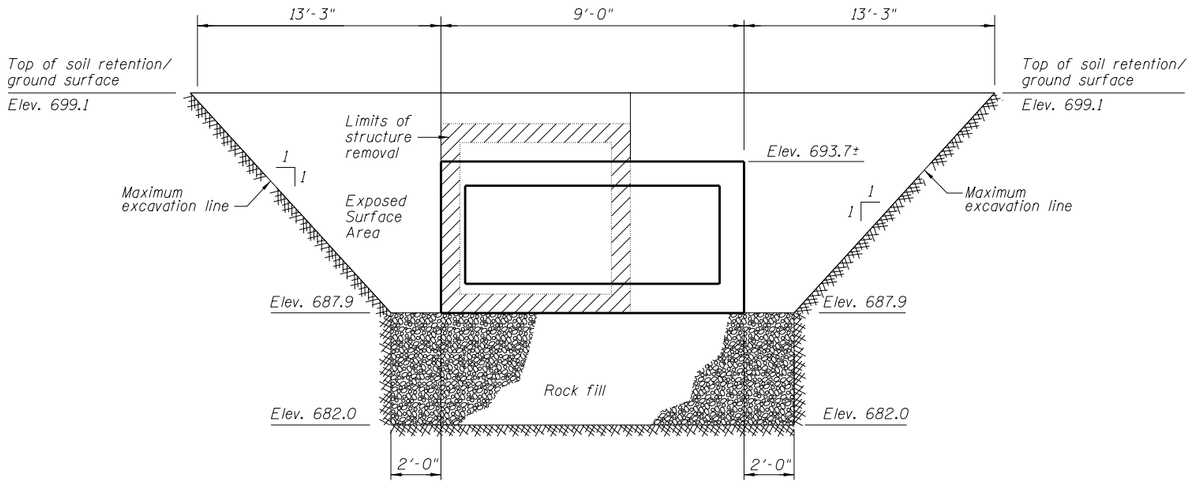


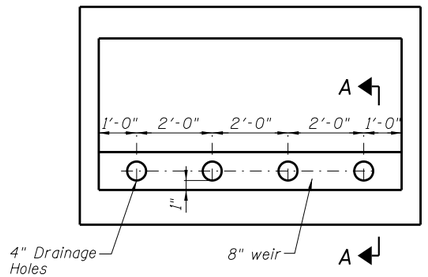
STAGE I - TEMPORARY SOIL RETENTION DETAIL

(Looking Upstation)

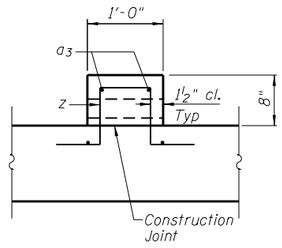


STAGE II - TEMPORARY SOIL RETENTION DETAIL

(Looking Upstation)



WEIR DETAIL



Note:
Space z bars to avoid drainage holes.

SECTION A-A

Notes:

For quantity of Temporary Concrete Barrier and related traffic control, See Roadway plans.

Staging dimensions measured at Rt angles to IL Rt 45/52.

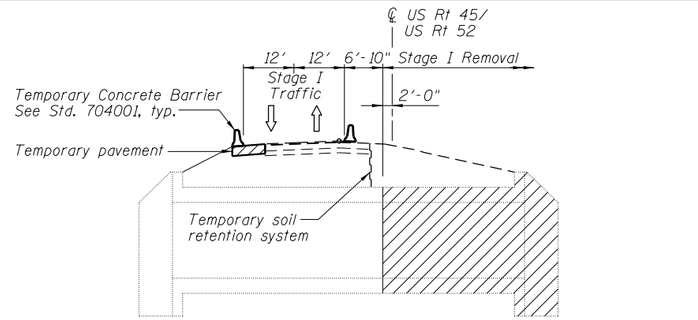
Hatched area indicates removal of existing structure.

See Sheet 4 of 6 for quantities and bar details for weir.

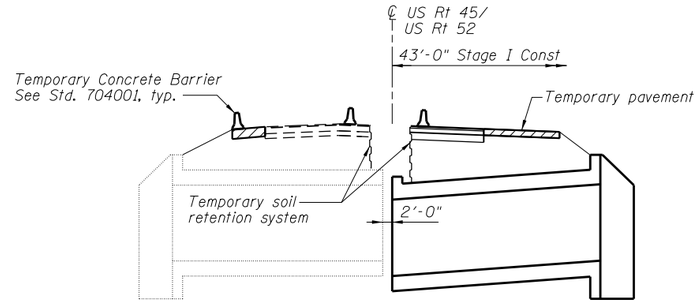
For pay item limits for Porous Granular Embankment, see Detail of Excavation and Backfill for Box Culverts on Sheet 5 of 6.

BILL OF MATERIAL

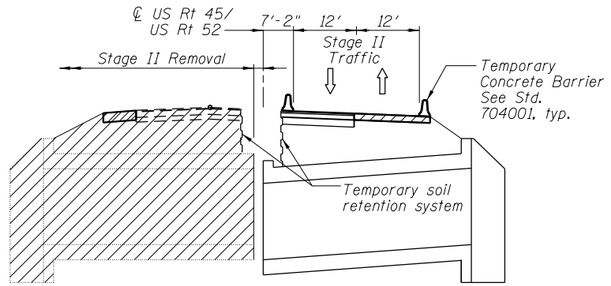
Item	Unit	Quantity
Temporary Soil Retention System	Sq. Ft.	570



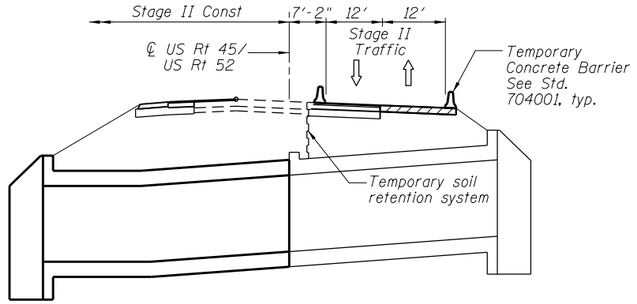
STAGE I REMOVAL



STAGE I CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION

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184-001397

USER NAME = jpang	DESIGNED - JMB	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 4.00 ' / in.	CHECKED - SRK	REVISED -	
PLOT DATE = 12/14/2017	DATE - 12/13/2017	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
CONSTRUCTION STAGING DETAILS

SCALE: | SHEET 3 OF 6 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	20
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

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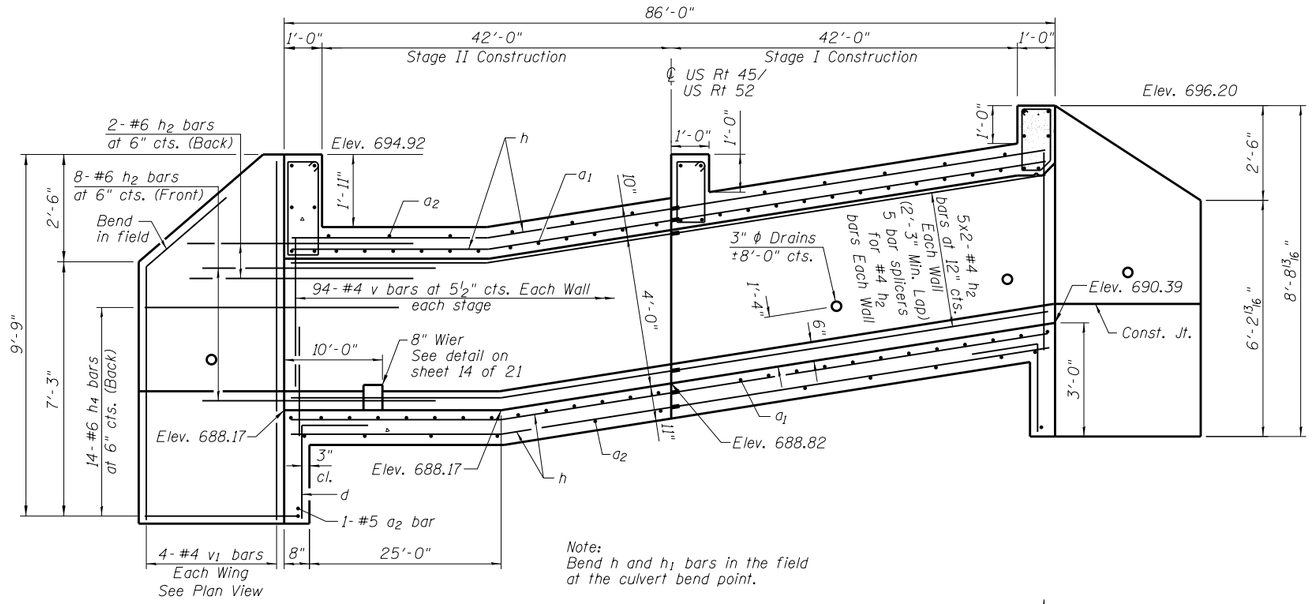
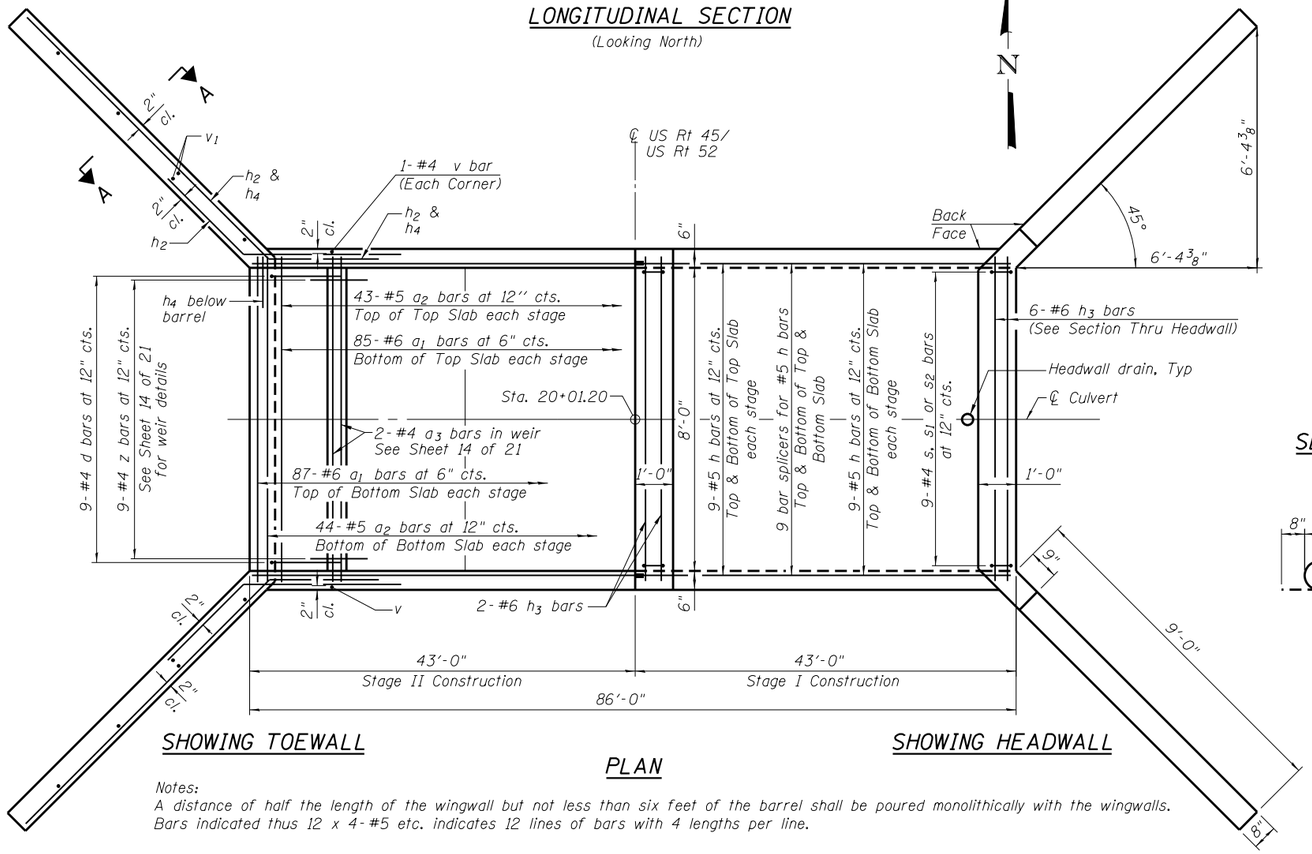


Note:
Bend h and h_1 bars in the field at the culvert bend point.

LONGITUDINAL SECTION

(Looking North)

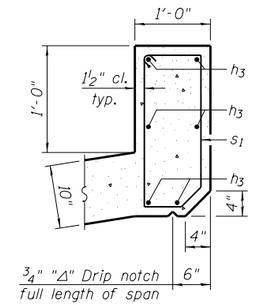


SHOWING TOEWALL

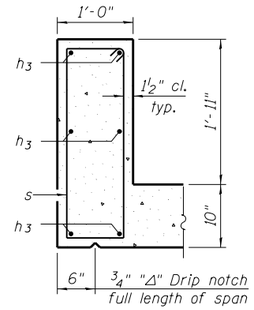
PLAN

SHOWING HEADWALL

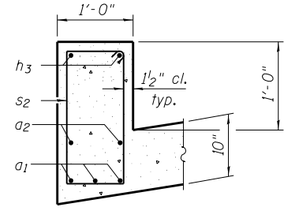
Notes:
A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.



UPSTREAM

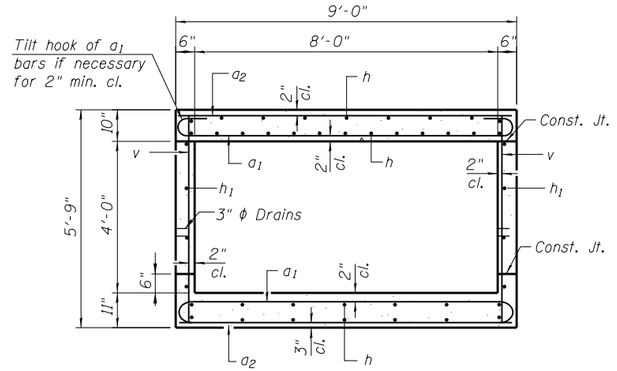


DOWNSTREAM



STAGE LINE

SECTION THRU HEADWALL

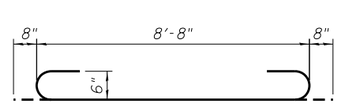


SECTION THRU BARREL

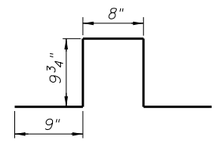
SECTION A-A

BILL OF MATERIAL

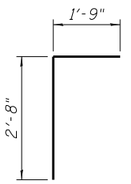
Bar	No.	Size	Length	Shape
a_1	344	#6	10'-0"	
a_2	176	#5	8'-8"	
a_3	2	#4	7'-8"	
d	18	#4	4'-5"	
h	72	#5	42'-6"	
h_1	40	#4	22'-6"	
h_2	40	#6	8'-0"	
h_3	14	#6	8'-8"	
h_4	56	#6	12'-0"	
s	9	#4	7'-3"	
s_1	9	#4	5'-3"	
s_2	9	#4	5'-5"	
v	380	#4	5'-4"	
v_1	16	#4	9'-5"	
z	9	#4	3'-10"	
Concrete Box Culverts			Cu. Yd.	73.0
Reinforcement Bars			Pound	13,870
Bar Splicers			Each	46



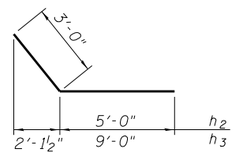
BAR a_1



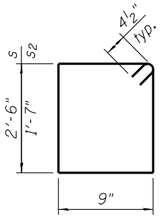
BAR z



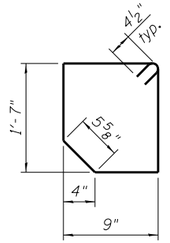
BAR d



BARS h_2 & h_3



BAR s & s_2



BAR s_1

TSA-SB-HC-ZS

10-15-2016

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USER NAME = jpang	DESIGNED - JMB	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 4.00 ' / in.	CHECKED - SRK	REVISED -	
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
CULVERT PLAN

SCALE: | SHEET 4 OF 6 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	21
		CONTRACT NO. 62A95		
		ILLINOIS FED. AID PROJECT		

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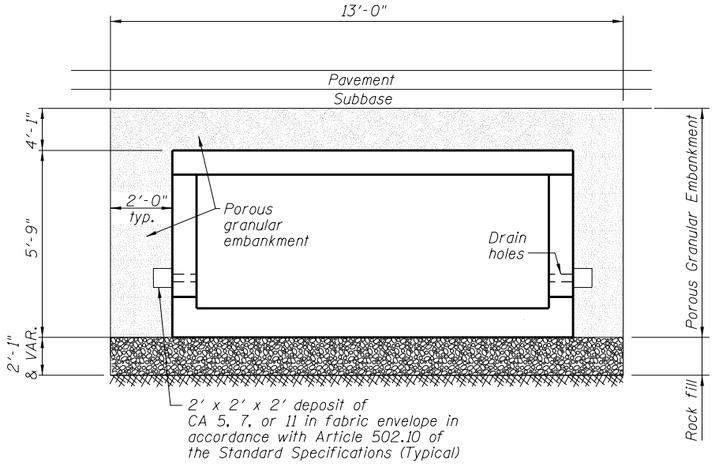
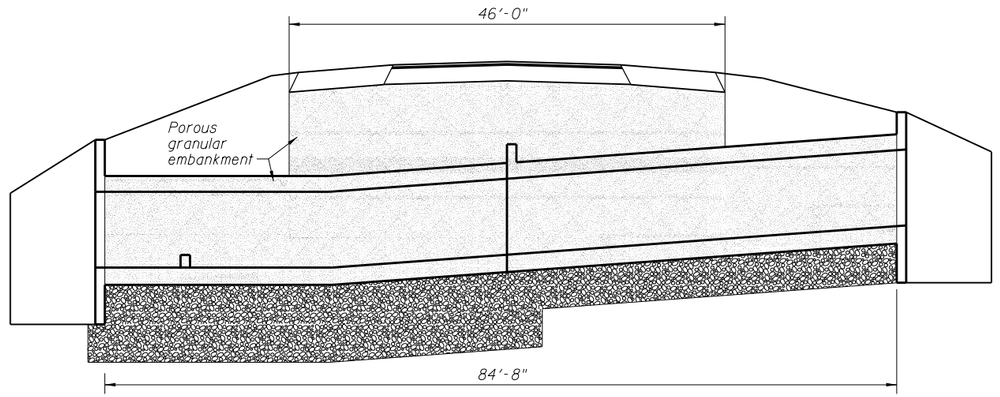


SECTION THRU BARREL



LONGITUDINAL SECTION

Notes:

1. Except as specified in this detail, the placement and compaction of backfill shall be in accordance with Article 502.10 of the Standard Specifications.
2. Porous granular embankment shall be placed in accordance with Section 207 of the Standard Specifications.
3. Rock fill shall be according to the Special Provisions.

DETAIL OF EXCAVATION AND BACKFILL FOR BOX CULVERTS

$PLTSRVL$

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CONSULTING ENGINEERS
184-001397

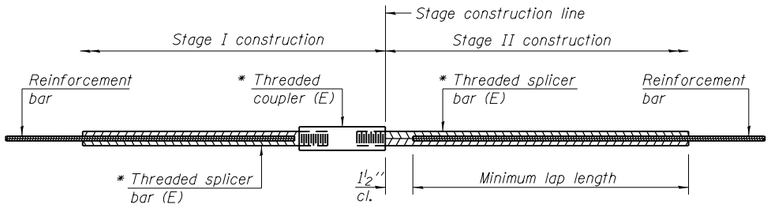
USER NAME = jpang	DESIGNED - JMB	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 4.00 ' / in.	CHECKED - SRK	REVISED -	
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
CONCRETE BOX CULVERT DETAILS

SCALE: | SHEET 5 OF 6 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	22
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

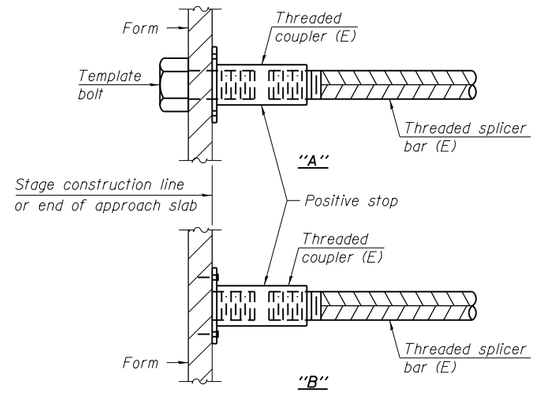


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1½" + thread length

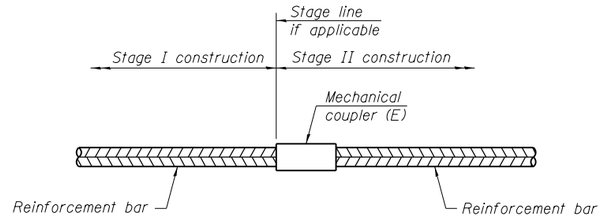
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Top Slab	#5	18	1'-8"
Bottom Slab	#5	18	1'-8"
Walls	#4	10	1'-4"



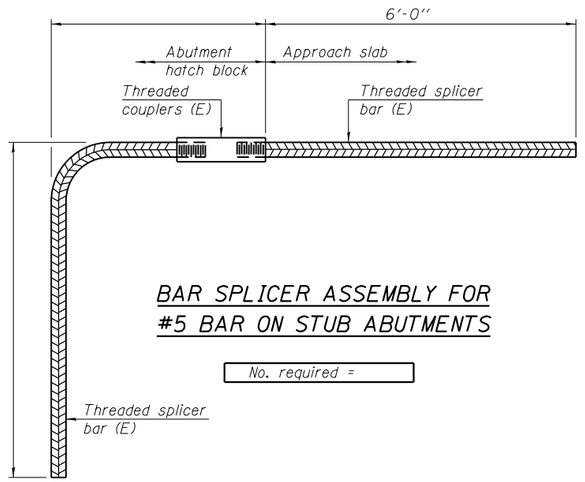
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

2-17-2017

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - JMB	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 4.00 ' / in.	CHECKED - SRK	REVISED -	
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS

SCALE: | SHEET 6 OF 6 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	23
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

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rubino ENGINEERING INC.

SOIL BORING LOG

Date 7/26/17

ROUTE FAP Route 330 (US Route 45/52) DESCRIPTION Proposed U.S. Route 45/52 Culvert Replacement LOGGED BY J.W.

SECTION 2015-038B LOCATION STA. 13+90 to STA. 26+27

COUNTY Will County DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 099-0916
Station N/A

BORING NO. B-01
Station 19+89.74
Offset 29.45RT
Ground Surface Elev. 697.92 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter 21 ft ▼
Upon Completion 20 ft ▽
After N/A Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
UNDOCUMENTED FILL: Black, brown and gray silty clay, trace sand and gravel (A-7-6)			
	4 3 4		25
	2 2 2		29
	1 2 2		35
	2 2 3		39
686.92			
Soft to medium stiff, brown and gray, CLAY, trace sand and gravel (A-7-6)	2 2 3	0.8 B	28
	0 1 1	0.4 B	29
680.92	6 5 5	1.3 B	17
Stiff, gray, CLAY, trace sand and gravel (A-6)			
	3 5 6	2.1 B	19
Stiff, gray, CLAY, trace sand and gravel (A-6) *(continued)*			
	3 4 6	2.1 B	19
	2 5 6	1.7 B	17
	3 3 7	1.0 B	21
	3 4 7	1.1 B	22
667.92			
End of boring at approximately 30 feet below existing grade			

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)

rubino ENGINEERING INC.

SOIL BORING LOG

Page 1 of 1

Date 7/26/17

ROUTE FAP Route 330 (US Route 45/52) DESCRIPTION Proposed U.S. Route 45/52 Culvert Replacement LOGGED BY J.W.

SECTION 2015-038B LOCATION STA. 13+90 to STA. 26+27

COUNTY Will County DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 099-0916
Station N/A

BORING NO. B-02
Station 20+06.54
Offset 28.45LT
Ground Surface Elev. 697.88 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter 20 ft ▼
Upon Completion 20 ft ▽
After N/A Hrs. N/A ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
UNDOCUMENTED FILL: Black, brown and gray silty clay, trace sand and gravel (A-7-6)			
	2 2 3		22
	3 3 7		24
691.88			
UNDOCUMENTED FILL: Black, brown and gray sand, trace gravel and fines (A-3)	1 2 1		
689.38			
UNDOCUMENTED FILL: Black, brown and gray silty clay, trace sand and gravel (A-7-6)	0 0 2		34
	8 6 5		32
684.38			
Soft to stiff , brown and gray, CLAY, trace sand and gravel (A-7-6)	0 1 2	0.7 B	31
680.88	4 5 8	5.4 B	19
Stiff to very stiff, gray, CLAY, trace sand and gravel (A-6)			
	5 6 9	4.1 B	23
Stiff to very stiff, gray, CLAY, trace sand and gravel (A-6) *(continued)*			
	3 3 6	2.7 B	17
	5 8 12	5.4 B	17
	3 4 6	1.3 B	21
	3 4 7	1.0 B	20
667.88			
End of boring at approximately 30 feet below existing grade			

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)

$PLTDRVL$

$PENTBLS$

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CONSULTING ENGINEERS
184-001397

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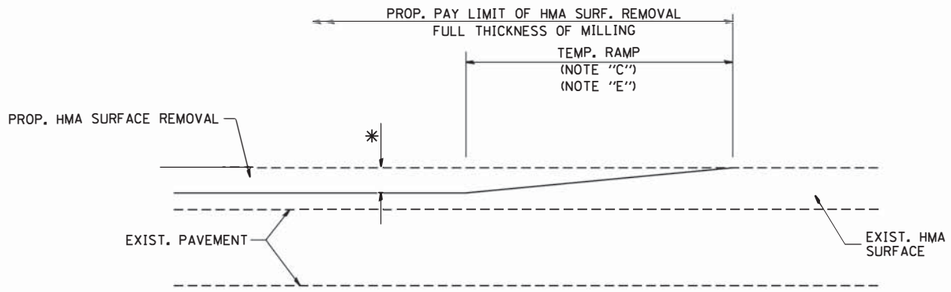
	DRAWN - JKP	REVISED -
PLOT SCALE = 80.000 ' / in.	CHECKED - SRK	REVISED -
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
SOIL BORING LOGS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

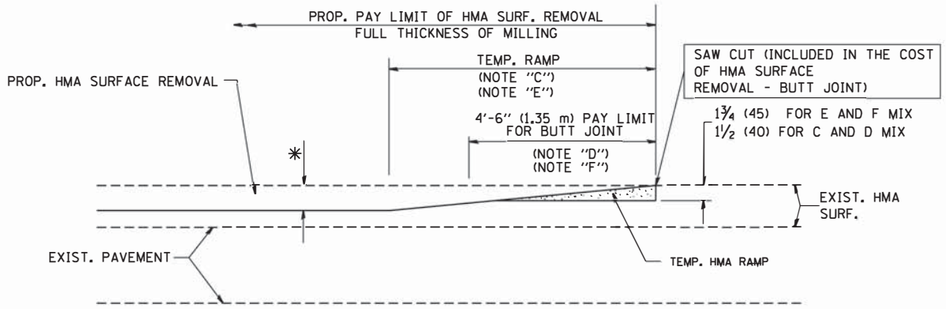
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	24
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

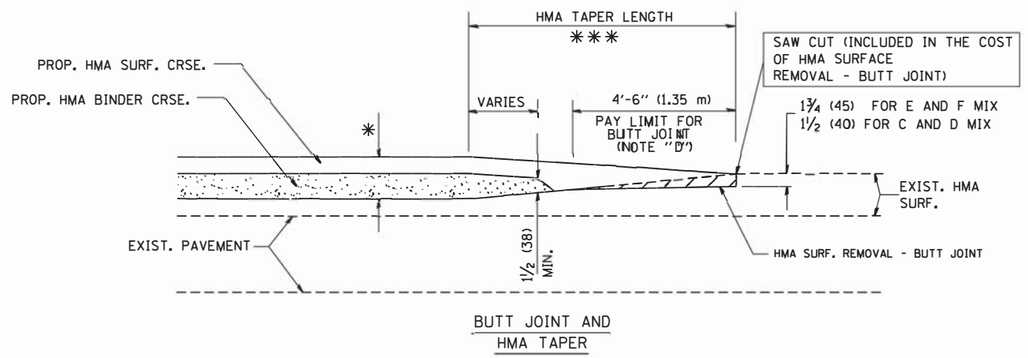


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

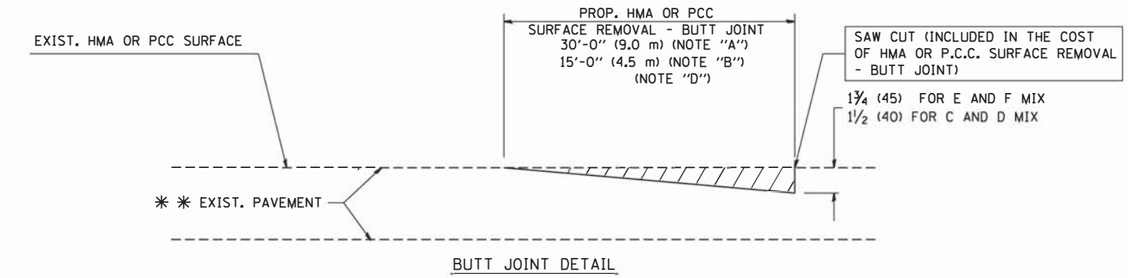
OPTION 2

TYPICAL TEMPORARY RAMP

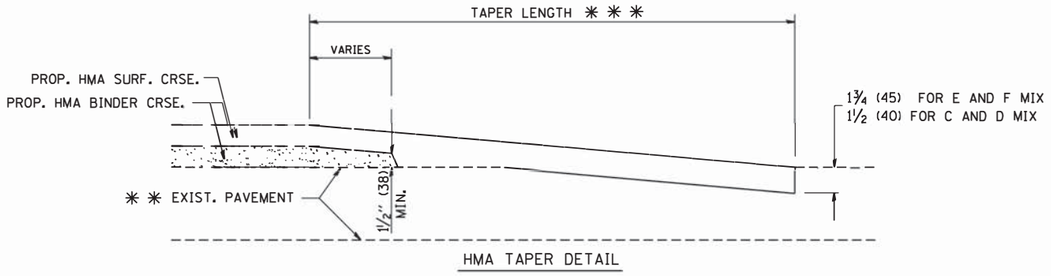


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

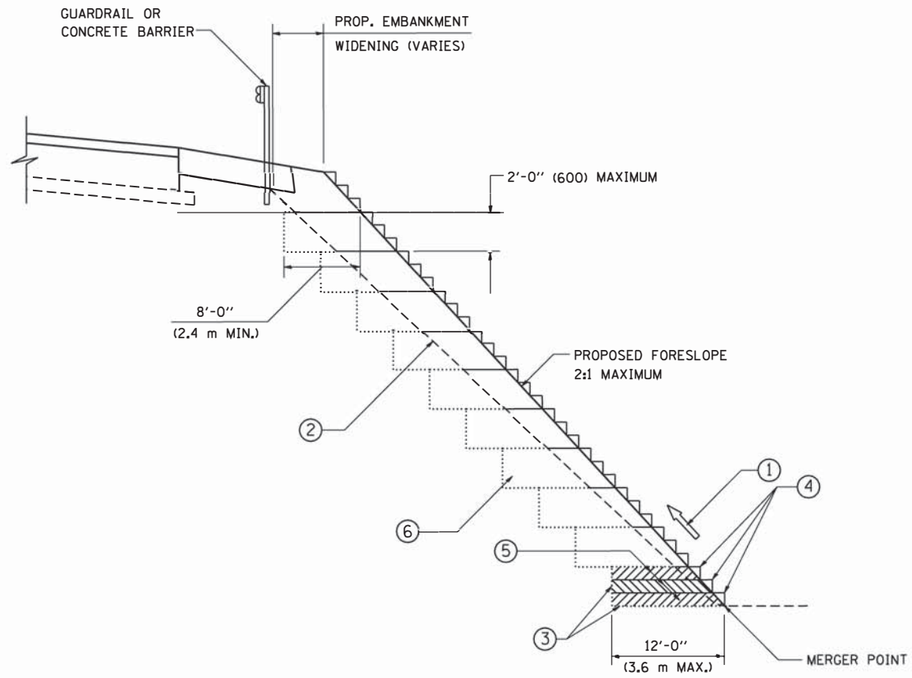
FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	25
	BD400-05 BD32	CONTRACT NO. 62A95		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TYPICAL BENCHING DETAIL FOR EMBANKMENT

NOTES:

1. CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
2. EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
3. BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
4. TRIM TO FINAL SLOPE.
5. EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
6. EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
7. SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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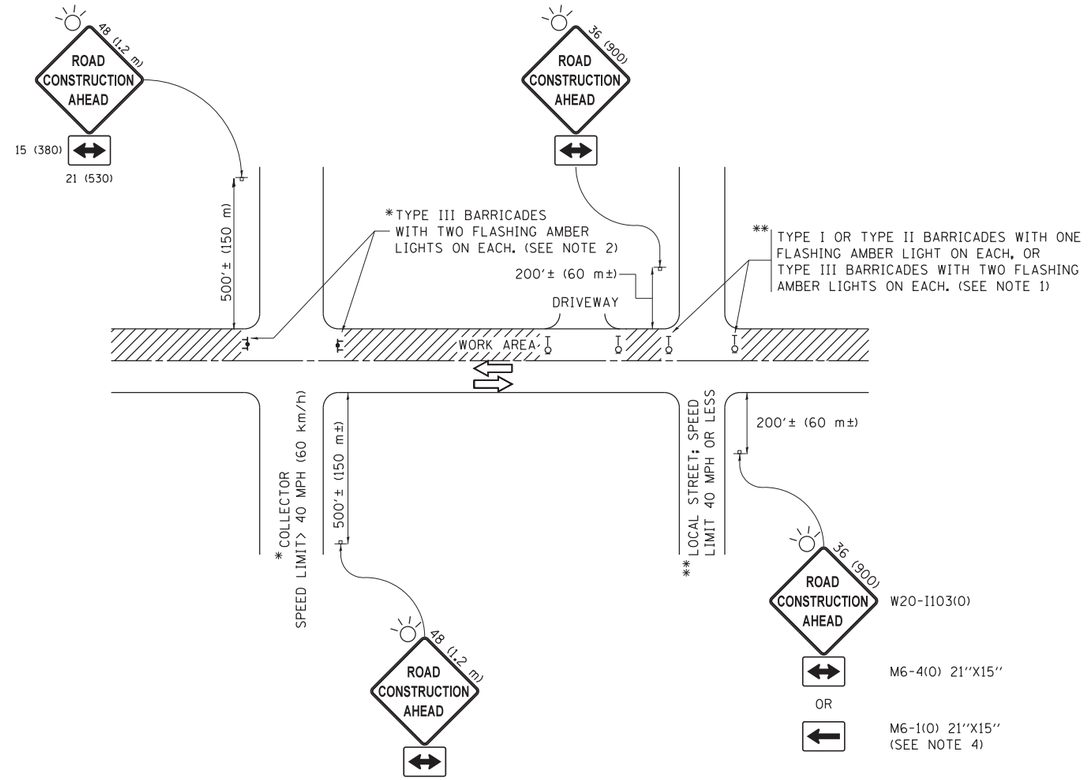
		DRAWN - CADD	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - S.E.B.	REVISED -
	PLOT DATE = 1/4/2008	DATE - 06-16-04	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BENCHING DETAIL
FOR EMBANKMENT WIDENING

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	26
	BD-51	CONTRACT NO. 62A95		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE ''ROAD CONSTRUCTION AHEAD'' SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE ''ROAD CONSTRUCTION AHEAD'' SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

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			REVISED -T. RAMMACHER 01-06-00
	PLOT SCALE = 50.000 '/ in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13
Default	PLOT DATE = 9/15/2016	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	27
	TC-10	CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

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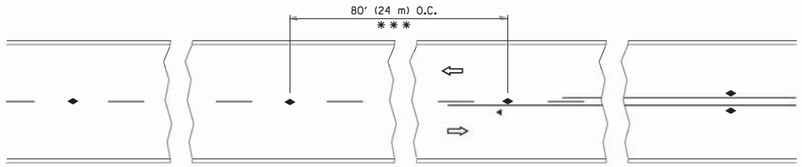
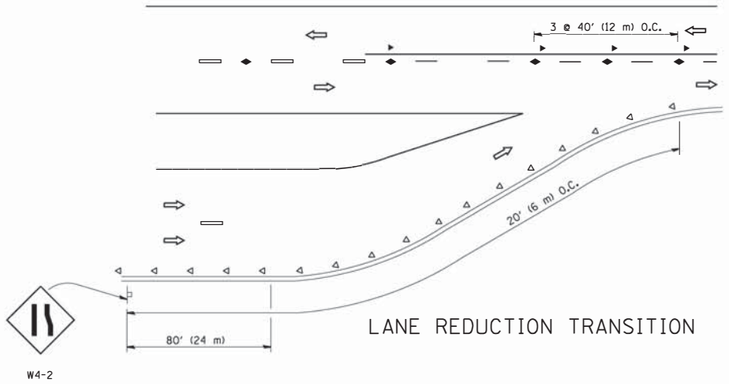
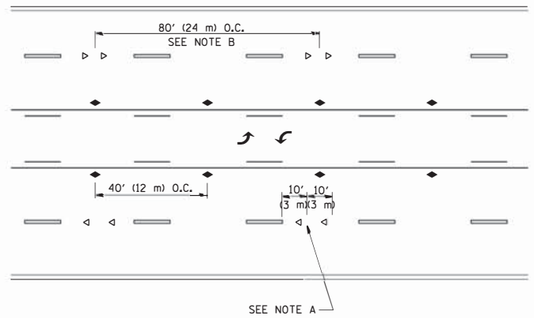


* * * REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

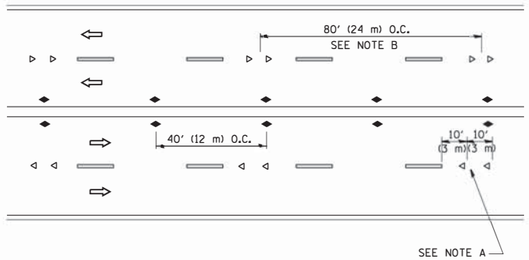
TWO-LANE/TWO-WAY



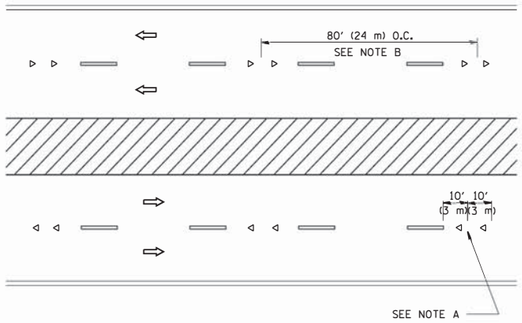
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

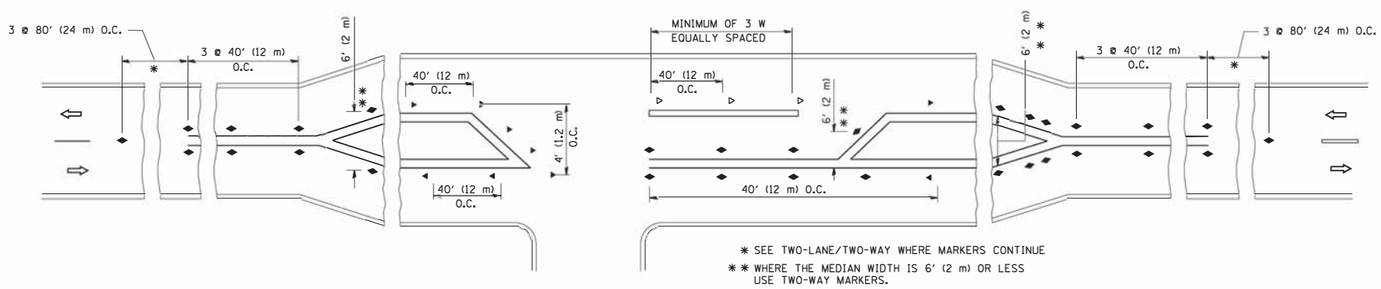
LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



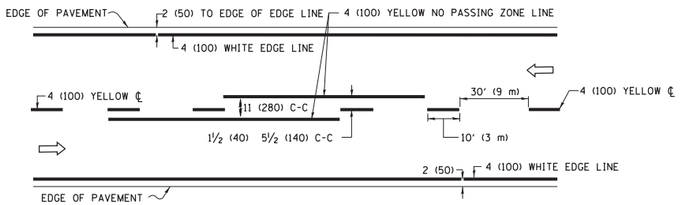
* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

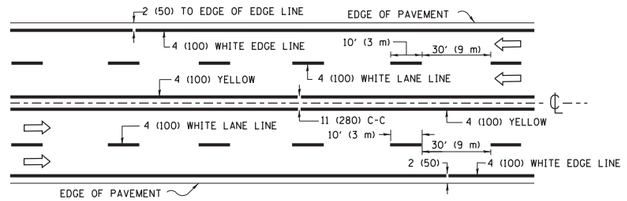
LEFT TURN

All dimensions are in inches (millimeters) unless otherwise shown.

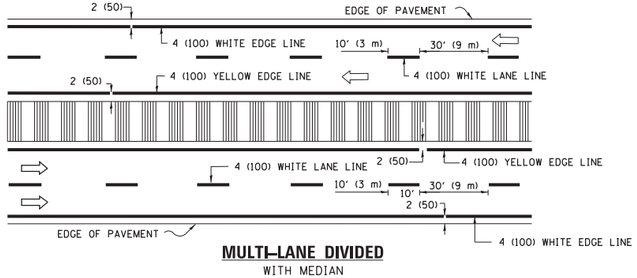
FILE NAME = c:\pw_work\pwidot\leysa\d0108315\tc11.dgn	USER NAME = leysa	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - T. RAMMACHER 03-12-99			330	2015-038B	WILL	34	28
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00				TC-11	CONTRACT NO. 62A95		
	PLOT DATE = 3/2/2011	DATE -	REVISED - C. JUCIUS 09-09-09		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



2–LANE ROADWAY

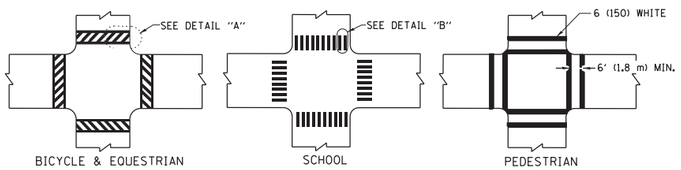


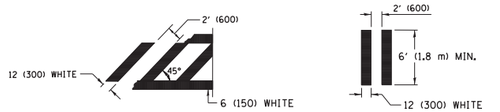
MULTI–LANE UNDIVIDED



MULTI–LANE DIVIDED
WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

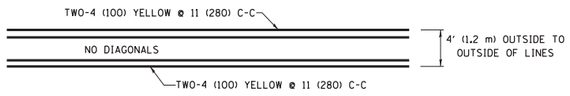




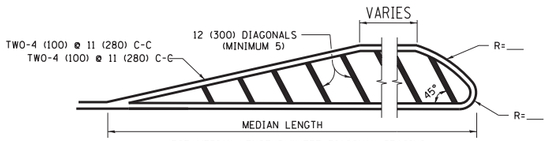
DETAIL "A" **DETAIL "B"**

TYPICAL CROSSWALK MARKING

✳ MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



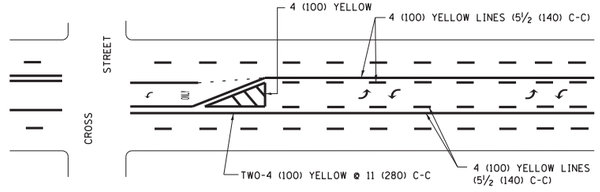
4' (1.2 m) WIDE MEDIANS ONLY



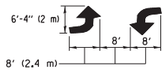
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

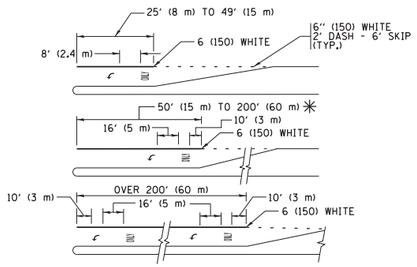


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO–WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

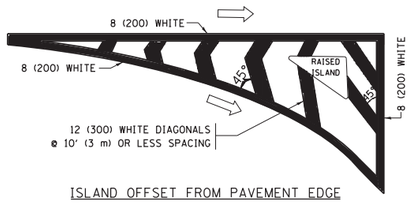


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

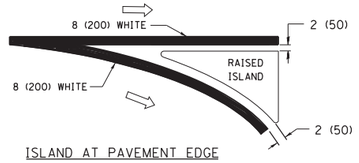
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

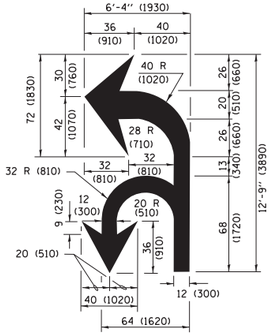


ISLAND OFFSET FROM PAVEMENT EDGE

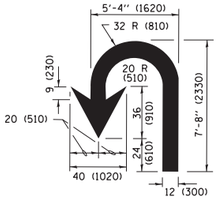


ISLAND AT PAVEMENT EDGE

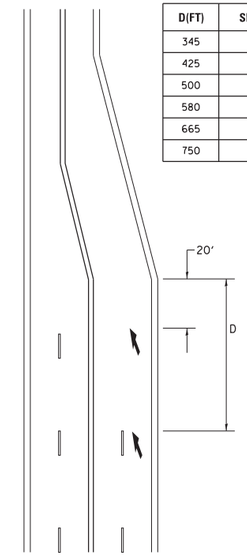
TYPICAL ISLAND MARKING



COMBINATION LEFT AND U–TURN



U–TURN



LANE REDUCTION TRANSITION

✳ LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 ⊠ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 ⊠ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 ⊠ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 ⊠ 6 (150) 12 (300) ⊠ 45° 12 (300) ⊠ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 ⊠ 4 (100) WITH 12 (300) DIAGONALS ⊠ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS ⊠ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) ⊠ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = W:\diststd\22x34\tc13.dgn	USER NAME = leysa	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
		DRAWN -	REVISED - C. JUCIUS 07-01-13
Default	PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED - C. JUCIUS 12-21-15
	PLOT DATE = 6/23/2017	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

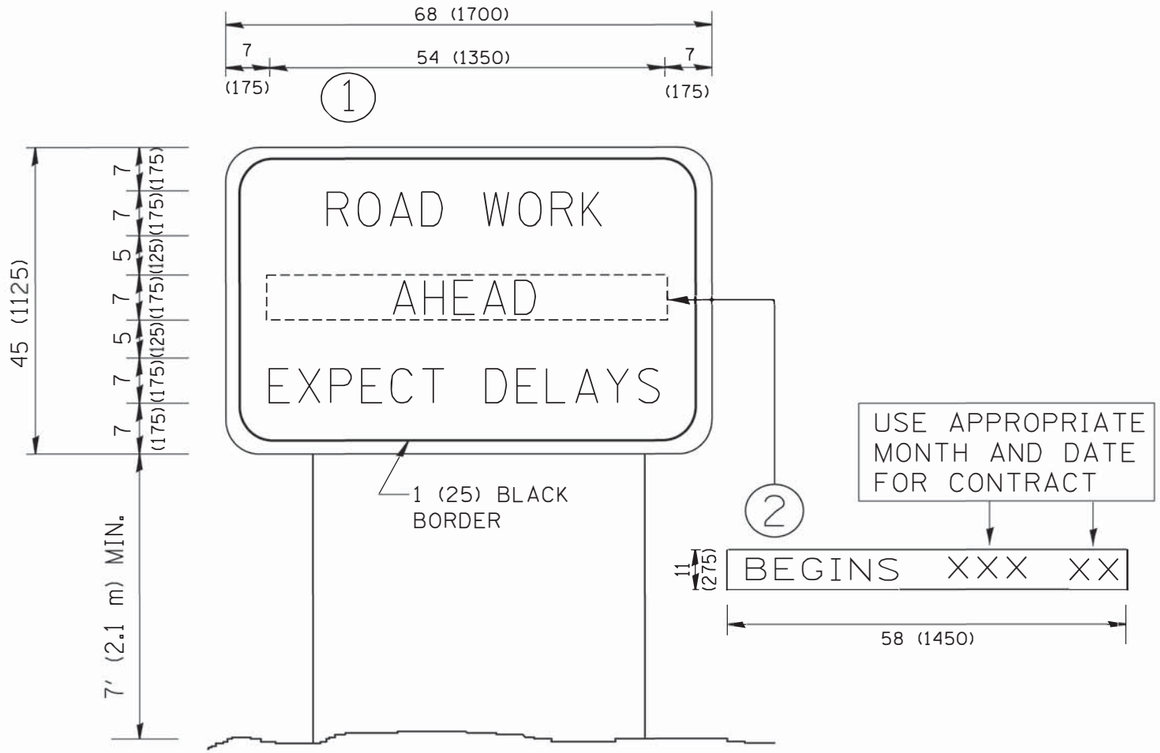
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	29
	TC-13	CONTRACT NO. 62A95		
		ILLINOIS FED. AID PROJECT		

tc13.dgn 6/23/2017 9:41:34 AM User:leysa



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE ''ROAD CONSTRUCTION AHEAD'' SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR ''TEMPORARY INFORMATION SIGNING'' FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

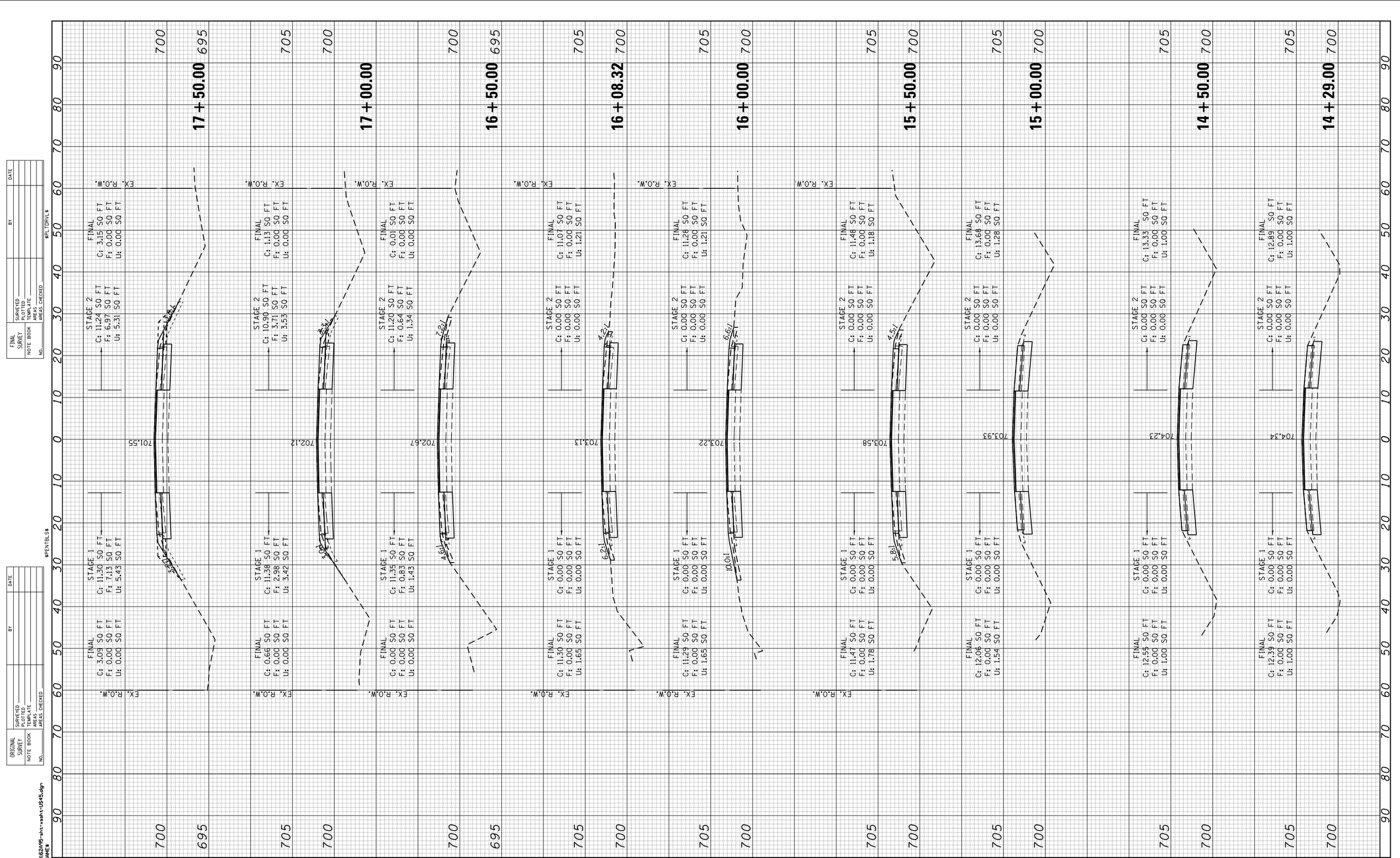
FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	30
	TC-22	CONTRACT NO. 62A95		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY | SURVEYED | BY | DATE
NOTE BOOK | PLOTTED | | |
NO. | TEMPLATE | | |
| AXES | | |
| AREAS CHECKED | | |

PL_TORVL

ORIGINAL SURVEY | SURVEYED | BY | DATE
NOTE BOOK | PLOTTED | | |
NO. | TEMPLATE | | |
| AXES | | |
| AREAS CHECKED | | |

$PENTBL$$

FILE NAME = D1620A95-sht-xsht-US45.dgn
$SYSPRINTER_NAME$

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

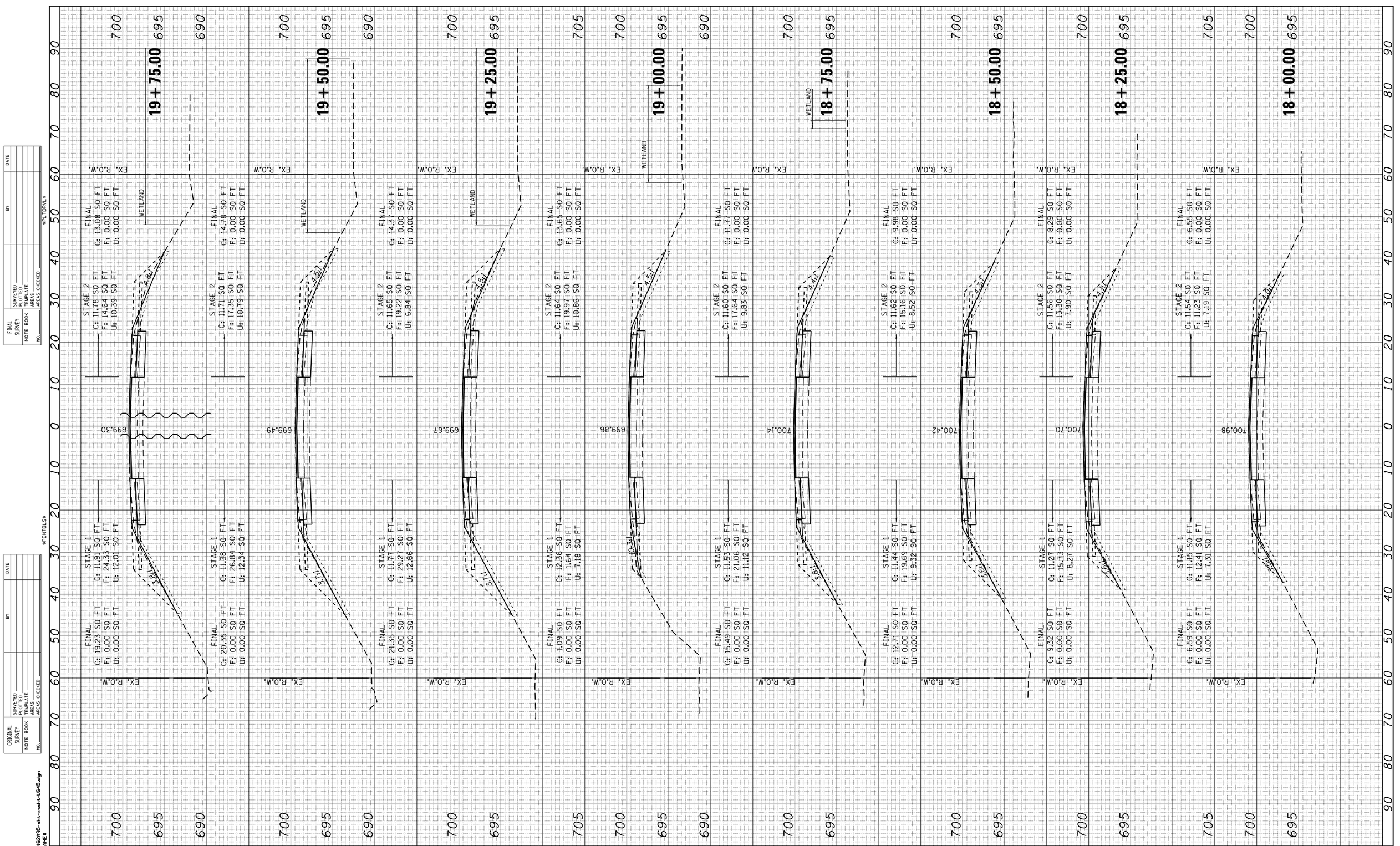
USER NAME = jpang	DESIGNED - JKP	REVISED -	
	DRAWN - JKP	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - SRK	REVISED -	
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
CROSS SECTIONS

SCALE: 1:10H/1:5V | SHEET 1 OF 4 SHEETS | STA. 15+05.26 | TO STA.18+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	31
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			



FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	HATCHES		
NO.	AREAS CHECKED		

$PLTDRVL$

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	HATCHES		
NO.	AREAS CHECKED		

$PENBLS$

FILE NAME = D162A95-sht-xsht-US45.dgn
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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - JKP	REVISED -	
	DRAWN - JKP	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - SRK	REVISED -	
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
CROSS SECTIONS

SCALE: 1:10H/1:5V | SHEET 2 OF 4 SHEETS | STA. 18+50.00 TO STA. 20+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	32
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

PL_TORVL

$PENTBL$

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

FILE NAME = D1620A95-sht-xsht-US45.dgn
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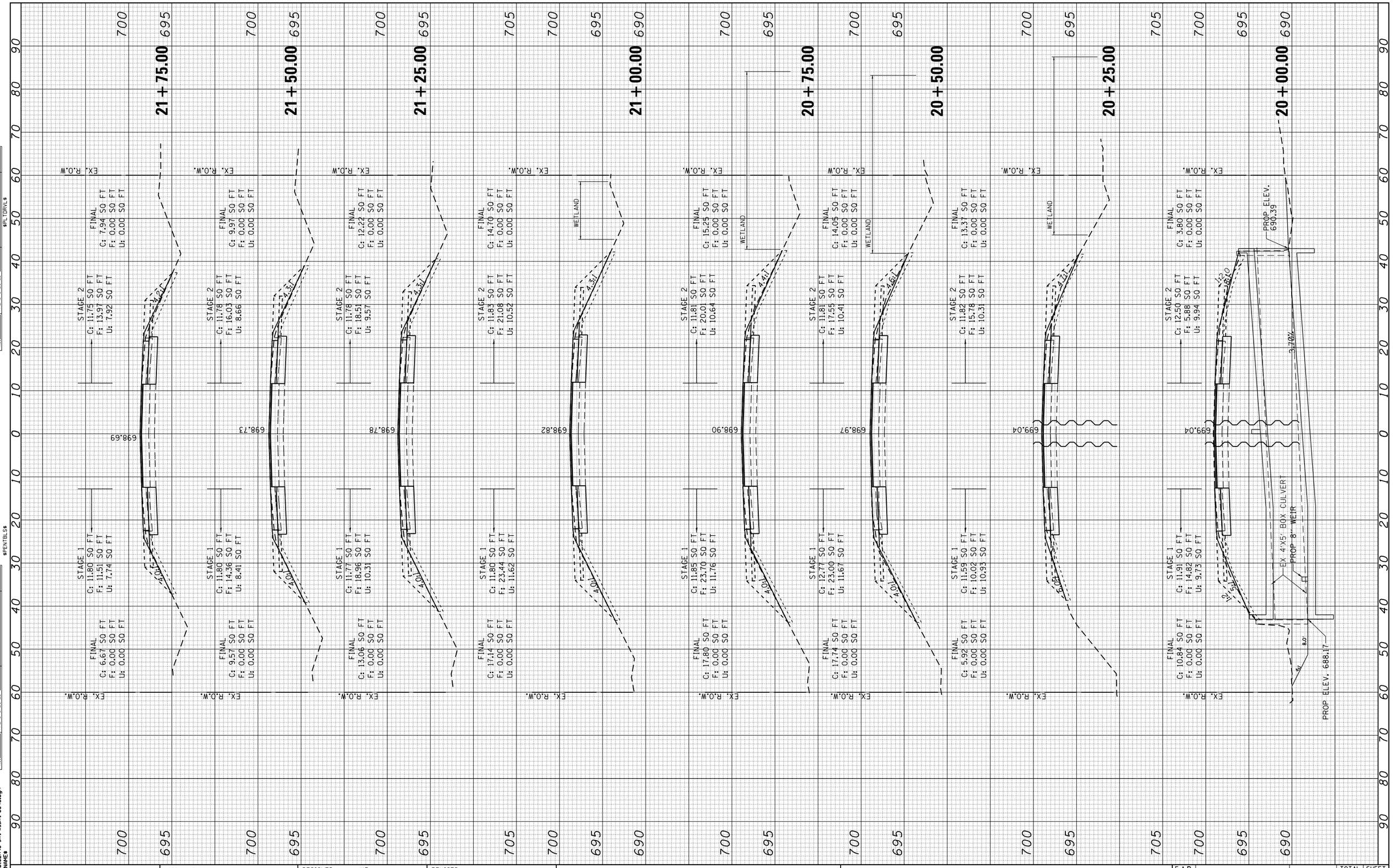


CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

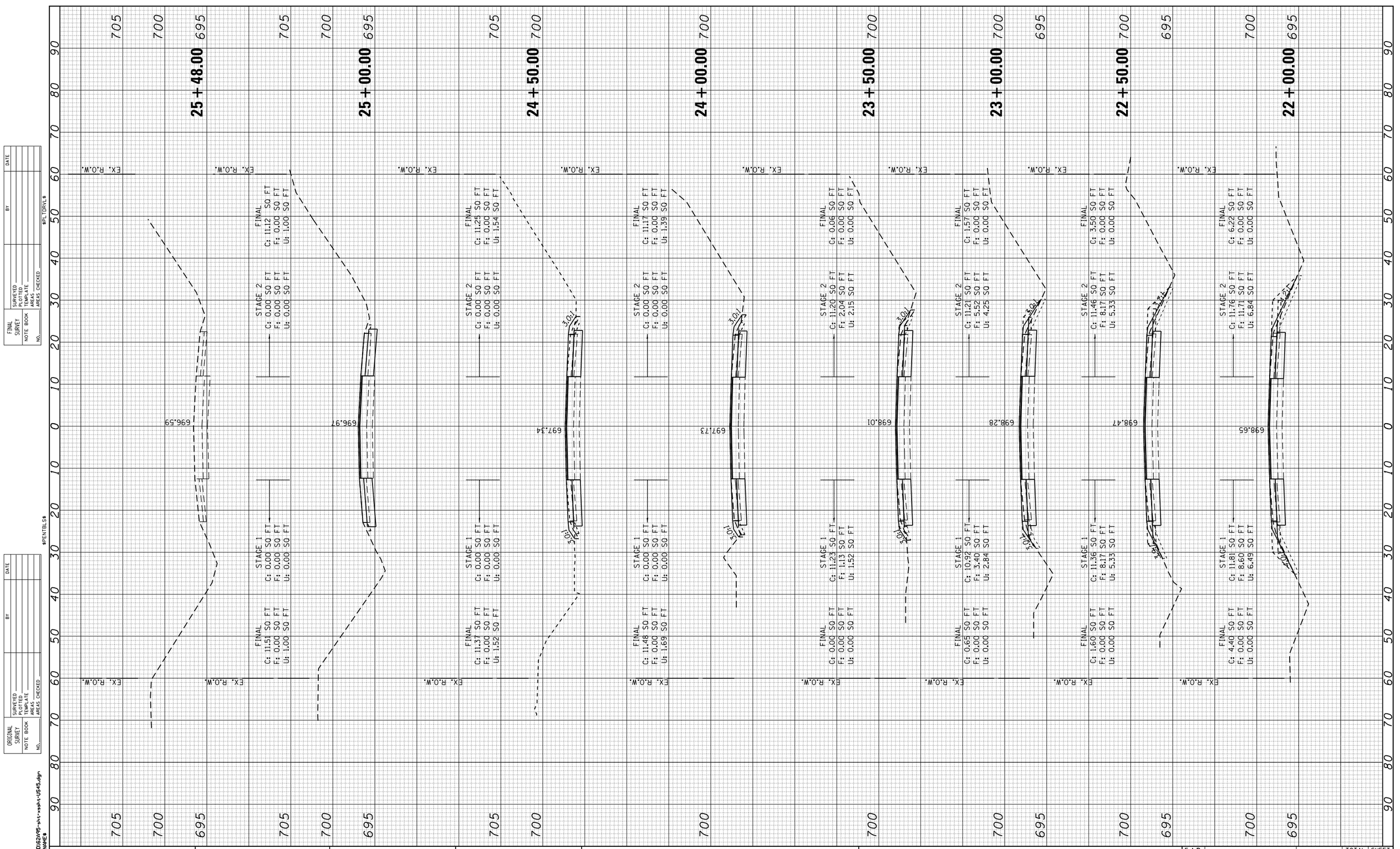
USER NAME = jpang	DESIGNED - JKP	REVISED -
	DRAWN - JKP	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED - SRK	REVISED -
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
CROSS SECTIONS

SCALE: 1:10H/1:5V | SHEET 3 OF 4 SHEETS | STA. 20+25.00 | TO STA. 22+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	33
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			



FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
NOTE BOOK		
NO.	AREAS CHECKED	

PL_TORVL

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
NOTE BOOK		
NO.	AREAS CHECKED	

$PENTBL$$

FILE NAME = D1620A95-sht-xsht-US45.dgn
$SYSPRINTER_NAME$

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - JKP	REVISED -
	DRAWN - JKP	REVISED -
PLOT SCALE = 20.0000 ' / in.	CHECKED - SRK	REVISED -
PLOT DATE = 12/13/2017	DATE - 12/13/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 45/U.S. ROUTE 52 OVER UNNAMED DITCH
CROSS SECTIONS

SCALE: 1:10H/1:5V | SHEET 4 OF 4 SHEETS | STA. 22+50.00 | TO STA. 24+94.84

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2015-038B	WILL	34	34
		CONTRACT NO. 62A95		
	ILLINOIS FED. AID PROJECT			