03-04-2016 LETTING ITEM 109

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	1
	ILLINOIS	CONTRACT NO. 72D08		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP ROUTE 777 (IL 185)
SECTION 10B–2, 405B–1
PROJECT ACF-0777(018)
BRIDGE REPLACEMENT
MONTGOMERY COUNTY
C–96–109–09

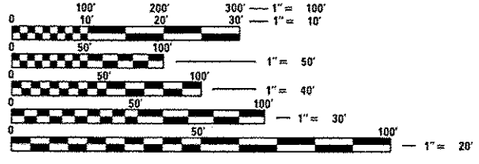
INDEX OF SHEETS
SEE SHEET NO. 2

HIGHWAY STANDARDS
SEE SHEET NO. 2

FUNCTIONAL CLASSIFICATION:
MINOR ARTERIAL (NON–URBAN)
DESIGN SPEED = 60 MPH
POSTED SPEED = 55 MPH

MCDAVID BRANCH
ADT: 3,000 (2013); 2,982 (2032)
PV 90.16% SU = 6.17% MU = 3.67%

BAYOU CREEK
ADT: 1,850 (2013); 2,183 (2032)
PV 89.18% SU = 5.41% MU = 5.41%



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

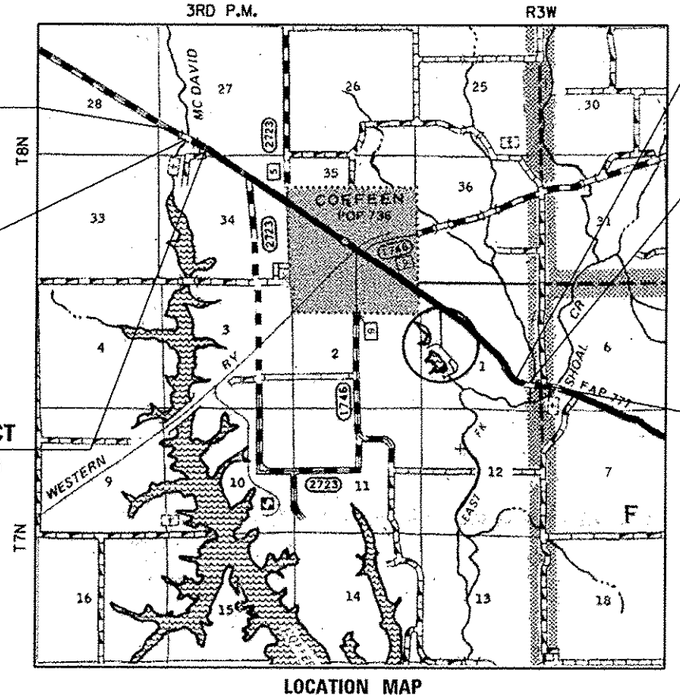
TEAM LEADER: GARY TURNER (217) 524–7940
PROJECT ENGINEER: KEITH DONOVAN (217) 782–4761

CONTRACT NO. 72D08

BEGIN PROJECT
STA. 307 + 05

BRIDGE REPLACEMENT
OVER MCDAVID BRANCH
STA. 310 + 30.70
EXIST SN 068–0026
PROP SN 068–0512

END PROJECT
STA. 314 + 00



LOCATION MAP
NOT TO SCALE
GROSS LENGTH = 2,020 FT. = 0.383 MILE
NET LENGTH = 2,020 FT. = 0.383 MILE

BEGIN PROJECT
STA. 485 + 60

BRIDGE REPLACEMENT
OVER BAYOU CREEK
STA. 492 + 70.00
EXIST SN 068–0027
PROP SN 068–0513

END PROJECT
STA. 497 + 30

design firm no. 184001036
whks
engineers + planners + land surveyors

LICENSED PROFESSIONAL ENGINEER
CORY W. CHAMBERLAIN
062-055298
STATE OF ILLINOIS
10-13-2015
Expires: 11/30/2015

D–96–109–09

LOCATION OF SECTION INDICATED THUS: –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED October 16 2015
Roger L. Driskell for
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
Jan 29 2016
Maureen M. Addis P.E. by
acting ENGINEER OF DESIGN AND ENVIRONMENT
Jan 29 2016
Omer Osman P.E. by
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS & PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
406201-01	MAILBOX TURNOUT
420401-11	BRIDGE APPROACH PAVEMENT CONNECTOR
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-03	NAME PLATE FOR BRIDGES
542401-01	METAL END SECTION FOR PIPE CULVERTS
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
610001-06	SHOULDER INLET WITH CURB
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-13	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
666001-01	RIGHT OF WAY MARKERS
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-03	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS >= 45 MPH
701311-03	LANE CLOSURE, 2L, 2W MOVING OPERATIONS - DAY ONLY
701321-14	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS >= 45 MPH
701901-04	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS AND MARKERS)
780001-05	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

DISTRICT SIX

EXAMINED September 29th 20 15

OPERATIONS ENGINEER

EXAMINED October 1 20 15

PROJECT IMPLEMENTATION ENGINEER

EXAMINED October 7 20 15

PROGRAM DEVELOPMENT ENGINEER

design firm no. 184001035 whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED -	REVISED
FILE NAME = 0672088-SHT-INDEX-STA	CHECKED -	REVISED
PLOT SCALE = 10.0000 ' / IN.	DRAWN -	REVISED
PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS AND HIGHWAY STANDARDS

SCALE: NTS | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	2
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES

1. THE CONTRACTOR SHALL PROTECT UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATION. THE J.U.L.I.E. NUMBER IS 1-800-892-0123.

   ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, BY CONTACTING THE UTILITY COMPANY DIRECTLY.

   IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR HAS TAKEN THE FOREGOING INTO CONSIDERATION IN SUBMITTING HIS BID, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY DELAYS OR INCONVENIENCES CAUSED BY THE SAME.

   THE INFORMATION AND DATA SHOWN OR INDICATED ON THESE IMPROVEMENT PLANS WITH RESPECT TO EXISTING UNDERGROUND FACILITIES AND UTILITIES AT OR CONTIGUOUS TO THE SITE IS BASED ON INFORMATION AND DATA FURNISHED BY THE OWNERS OF SUCH FACILITIES AND UTILITIES OR BY OTHERS. FIELD MARKINGS OF FACILITIES IN CRITICAL AREAS MAY BE OBTAINED BY PROVIDING A MINIMUM OF 96 HOURS ADVANCE NOTICE TO THE RESIDENT ENGINEER SO THAT UTILITIES CAN BE GIVEN NOTICE. NO GUARANTEE IS IMPLIED AS TO THE ACCURACY OR COMPLETENESS OF ANY SUCH INFORMATION OR DATA; AND CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR (I) REVIEWING AND CHECKING ALL SUCH INFORMATION AND DATA, (II) VERIFYING IF ANY CONFLICTS EXIST WITH THE PROPOSED WORKED AND UNDERGROUND FACILITIES AND UTILITIES SHOWN OR INDICATED ON THE IMPROVEMENT PLANS; (III) COORDINATION OF THE WORK WITH THE OWNERS OF SUCH UNDERGROUND FACILITIES AND UTILITIES DURING THE CONSTRUCTION, AND (IV) THE SAFETY AND PROTECTION OF ALL SUCH UNDERGROUND FACILITIES AND UTILITIES AND REPAIR OF ANY DAMAGE THERE TO RESULTING FROM THE WORK AT HIS EXPENSE.

2. IN ADDITION TO FIELD SURVEYS AND AERIAL SURVEYS, PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION DUE TO A CHANGE IN THE SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE AGREED UNIT PRICE BID FOR THE WORK.

3. ALL STATION AND OFFSET REFERENCES ARE TO THE ROADWAY CENTERLINE FOR IL185 OVER BAYOU CREEK UNLESS OTHERWISE NOTED. ALL STATION AND OFFSET REFERENCES ARE TO THE BASELINE OF CONSTRUCTION FOR IL185 OVER MCDAVID CREEK UNLESS OTHERWISE NOTED. THE STATE PLANE COORDINATE SYSTEM HAS BEEN USED FOR THE HORIZONTAL CONTROL.

4. ALL ELEVATIONS SHOWN ON THE PLANS ARE BASED ON NAVD 88.

5. ANY REFERENCE WITHIN THESE PLANS TO A STANDARD SHALL BE INTERPRETED TO MEAN THE LATEST STANDARDS OF THE DEPARTMENT AS SHOWN IN THE PLANS.

6. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS BITUMINOUS LIFTS.

7. IF SO DIRECTED BY THE ENGINEER, DITCHES ADJACENT TO EMBANKMENTS SHALL BE CONSTRUCTED PRIOR TO STARTING THE CONSTRUCTION OF THE EMBANKMENT FILL.

8. GRADING SHALL BE DONE BY HAND AROUND LIGHT POLES, UTILITY POLES, SIGN POSTS, SHRUBS, TREES OR OTHER NATURAL OR MAN-MADE OBJECTS WHERE SHALLOW FILLS OR CUTS ARE ADJACENT TO THE ITEMS. IT IS THE INTENT THAT THE LIMITS OF CONSTRUCTION BE SUCH AS TO PRESERVE IN THE ORIGINAL STATE AS MUCH AREA OF TEMPORARY EASEMENTS AS POSSIBLE. THE DECISION AS TO ITEMS TO REMAIN IN PLACE SHALL BE DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR EARTH EXCAVATION, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

9. SEEDING SHALL BE DONE ON ALL AREAS THAT ARE DISTURBED BY CONSTRUCTION OPERATIONS AS DIRECTED BY THE ENGINEER. SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET OR IN AN UNTILLABLE CONDITION. SEEDING SHALL BE PAID FOR ONLY WITHIN THE PROPOSED RIGHT-OF-WAY OR EASEMENT LIMITS. ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED RIGHT-OF-WAY OR EASEMENT LIMITS SHALL BE SEEDED, AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

10. FACTORS USED FOR ESTIMATING PLAN QUANTITIES OR USAGE ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

HMA BINDER COURSE	112 LBS/SQ YD-IN
HMA SURFACE COURSE	112 LBS/SQ YD-IN
HMA SHOULDERS	112 LBS/SQ YD-IN
INCIDENTAL HMA SURFACING	112 LBS/SQ YD-IN
BITUMINOUS MATERIALS (RESIDUAL RATE):	
ON PAVEMENT	0.05 LBS/SQ FT
BETWEEN HMA LIFTS (FOG COAT)	0.025 LBS/SQ FT
ON AGGREGATE SURFACE	0.25 LBS/SQ FT
AGGREGATE (PRIME COAT)	3 LBS/SQ YD
AGGREGATE ITEMS EXCEPT RIPRAP	2.05 TONS/CU YD
SEEDING FERTILIZER RATIO (NIT:PHOS:POT)	90:90:90 LBS/ACRE
AGRICULTURAL GROUND LIMESTONE	2 TONS/ACRE
MULCH RATE	2 TONS/ACRE

11. THE QUANTITY OF SHORT TERM PAVEMENT MARKING SHOWN IN THE PLANS IS BASED ON ONE APPLICATION EACH FOR THE BINDER COURSE AND SURFACE COURSE.

12. ACCESS TO ALL ENTRANCES SHALL BE MAINTAINED AT ALL TIMES. QUANTITIES FOR AGGREGATE FOR TEMPORARY ACCESS HAVE BEEN ESTIMATED FOR THIS WORK. THESE QUANTITIES SHALL BE USED AS DIRECTED BY THE ENGINEER FOR MAINTAINING ACCESS.

13. THE DISTRICT BUREAU OF OPERATIONS SHALL BE CONTACTED AT LEAST 21 DAYS PRIOR TO IMPLEMENTING ANY TRAFFIC CONTROL.

14. THE DISTRICT BUREAU OF OPERATIONS SHALL BE CONTACTED AT LEAST 14 DAYS PRIOR TO PLACING ANY FINAL AND TEMPORARY PAVEMENT MARKINGS. THE BUREAU OF OPERATIONS WILL APPROVE THE MARKINGS AND ALSO DETERMINE THE ACTUAL LIMITS TO BE STRIPED AS "NO PASSING ZONES."

15. ONLY THOSE TREES WITHIN THE CONSTRUCTION LIMITS OR CLEAR ZONE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES, PLANTS, AND WETLANDS FROM DAMAGE. ALL TREES AND STUMPS INDICATED ON THE PLANS FOR REMOVAL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

16. WHERE PROPOSED CONSTRUCTION ABUTS EXISTING APPURTENANCES, A FULL DEPTH SAW CUT ACCORDING TO SECTION 440 SHALL BE MADE TO ACHIEVE A NEAT JOINT. SAW CUTS WILL NOT BE MEASURED FOR PAYMENT. SAW CUTS FOR REMOVAL ITEMS AND HMA SURFACE REMOVAL SHALL BE CONSIDERED INCLUDED IN THE ITEM BEING REMOVED OR CONSTRUCTED.

17. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

18. ALL OPENINGS IN PRECAST STRUCTURES, INCLUDING BOX CULVERTS, SHALL BE PRECAST TO THE PROPER SIZE. THIS INCLUDES OPENINGS FOR PIPE STRUCTURES, MANHOLE OPENINGS AND OPENINGS FOR PIPE UNDERDRAINS. COSTS FOR THESE OPENINGS AND THE CONNECTIONS SHALL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS FOR THE STRUCTURES INVOLVED.

19. WHERE SECTION OR SUB-SECTION MARKERS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED AGENT OR LAND SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTION OR SUBSECTION MONUMENT DAMAGED BY HIS OPERATIONS.

20. EXISTING RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE REMOVED PRIOR TO MILLING HMA SURFACES. RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED WITH THE BITUMINOUS SURFACE REMOVAL.

21. THE THICKNESS OF HOT-MIX ASPHALT 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 HOT-MIX ASPHALT IS PLACED.

22. THE CONTRACTOR WILL BE REQUIRED TO REPAIR AREAS THAT ARE DAMAGED DUE TO THE CONTRACTOR'S OPERATIONS DURING THE EXECUTION OF THIS CONTRACT OR AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE MEASURED FOR PAYMENT AND WILL BE AT THE EXPENSE OF THE CONTRACTOR.

23. EXISTING ROAD SIGNS THAT CONFLICT WITH CONSTRUCTION SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER. AFTER THE CONSTRUCTION IS COMPLETED, THE CONTRACTOR WILL UNCOVER OR REPLACE THE SIGNS AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT.

24. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

25. THE REPLACEMENT OF DAMAGED TEMPORARY PAVEMENT MARKING FOR ANY OF THE TRAFFIC CONTROL STANDARDS WILL NOT BE PAID FOR SEPARATELY. THE REPLACEMENT COST SHALL BE CONSIDERED INCLUDED IN THE COST OF THE TRAFFIC CONTROL STANDARD.

26. BARRIER WALL AND GUARDRAIL REFLECTORS SHALL BE INSTALLED PRIOR TO SWITCHING STAGE TRAFFIC. VERTICAL PANELS SHOWN ON STANDARD 701321 AND AS SHOWN WILL STILL BE REQUIRED FOR STAGE II TRAFFIC.

27. THE CONTRACTOR SHALL TRIM EXISTING SURFACE AND BASE TO A FIRM, NEAR VERTICAL PLANE BEFORE CONSTRUCTING THE HMA WIDENING. COST INCLUDED WITH HMA WIDENING.

28. QUANTITIES SHOWN IN THE PLANS FOR BRIDGE DECK GROOVING AND PROTECTIVE COAT INCLUDE THE BRIDGE AND THE BRIDGE APPROACH SLABS.

29. EXCAVATING AND CONSTRUCTING THE BENCH CUTS AS SHOWN ON THE DISTRICT 6 STANDARD (SLOPE STEPS DETAIL) WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED WITH THE CONTRACT UNIT PRICE, CUBIC YARD, FOR EARTH EXCAVATION.

30. AGGREGATE DITCH CHECKS SHALL BE OPTION 1 AS INDICATED ON SHEET 41 OR AS DIRECTED BY THE ENGINEER. THE AGGREGATE DITCH CHECKS SHALL BE LEVELED OUT AND BECOME PART OF THE RIPRAP DITCH LINING AS DIRECTED BY THE ENGINEER. COST INCLUDED WITH AGGREGATE DITCH CHECKS.

31. PAVED DITCH REMOVAL SHALL INCLUDE BOTH CONCRETE OR RIPRAP DITCH LINING.

MIXTURE REQUIREMENTS

MIXTURE USE(S):	SURFACE COURSE	BINDER COURSE	HMA SHOULDER (SURFACE LIFT)	HMA SHOULDER (LOWER LIFTS)	INCIDENTAL HMA SURFACING	BASE COURSE WIDENING
PG:	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS:	4.0% @ N=50	4.0% @ N=50	4.0% @ N=50	4.0% @ N=50	4.0% @ N=50	4.0% @ N=50
MIXTURE COMPOSITION:	IL 9.5	IL 19.0	IL 9.5	IL 19.0	IL 9.5	IL 19.0
FRICTION AGGREGATE:	MIXTURE C	N.A.	MIXTURE C	N.A.	MIXTURE C	N.A
QUALITY MANAGEMENT:	QC/QA	QC/QA	QC/QA	QC/QA	QC/QA	QC/QA

COMMITMENTS

THE RESIDENT ENGINEER SHALL CONTACT STUDIES AND PLANS CONCERNING ANY MAJOR PLAN CHANGES TO ENSURE NO PREVIOUS COMMITMENTS (NOT LISTED) WERE MADE AFFECTING THE DESIGN AND TO ALLOW IMPROVEMENTS IN THE DESIGN OF FUTURE PROJECTS.

THERE ARE NO COMMITMENTS AT THIS TIME.

UTILITY COMPANIES

AMEREN ILLINOIS
1915 OLD BUS LINE ROAD
P.O. BOX 579
HILLSBORO, IL 62049
ATTN: DEBORAH LEWEY

FRONTIER COMMUNICATIONS
225 NORTH BROAD ROAD
CARLINVILLE, IL 62626
ATTN: GREG KING

CITY OF COFFEEN
107 LOCUST STREET
COFFEEN, IL 62017
ATTN: JOHN HORSTMANN

MJM ELECTRIC
264 NORTH EAST ST.
P.O. BOX 80
CARLINVILLE, IL 62626

design firm no. 184001036 — whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED -	REVISED
FILE NAME = D672008-SHT-GENERAL NOTES.dgn	CHECKED -	REVISED
PLOT SCALE = 10.0000 ' / IN.	DRAWN -	REVISED
PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND COMMITMENTS

SCALE: NTS | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	108-2, 405B-1	MONTGOMERY	121	3
		CONTRACT NO. 72008		
		ILLINOIS FED. AID PROJECT		

	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: FEDERAL FUNDS, 80% FEDERAL /20% STATE — RDWY 0004 6-00392-0000 MCDAVID	RDWY 0004 6-00635-0000 BAYOU	BRIDGE 0011 6-00392-0000 MCDAVID	BRIDGE 0011 6-00635-0000 BAYOU
20100500	TREE REMOVAL, ACRES	ACRE	0.4	0.3	0.1		
20200100	EARTH EXCAVATION	CU YD	1,532	660	872		
20300100	CHANNEL EXCAVATION	CU YD	1,065	379	686		
20400800	FURNISHED EXCAVATION	CU YD	1,079	0	1079		
20800150	TRENCH BACKFILL	CU YD	22	0	22		
25000200	SEEDING, CLASS 2	ACRE	2.1	0.6	1.5		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	306	91	215		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	306	91	215		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	306	91	215		
25000700	AGRICULTURAL GROUND LIMESTONE	TON	7.0	2.0	5.0		
25003200	INTERSEEDING, CLASS 2	ACRE	1.3	0.4	0.9		
25100115	MULCH, METHOD 2	ACRE	0.7	0.1	0.6		
25100630	EROSION CONTROL BLANKET	SQ YD	7,170	2,412	4,758		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	615	156	459		

	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: FEDERAL FUNDS: 80% FEDERAL /20% STATE: RDWY 000H 6-00392-0000 MCDAVID	RDWY 000H 6-00635-0000 BAYOU	BRIDGE 0011 6-00392-0000 MCDAVID	BRIDGE 0011 6-00635-0000 BAYOU
28000315	AGGREGATE DITCH CHECKS	TON	152	64	88		
28000400	PERIMETER EROSION BARRIER	FOOT	2,573	1,120	1,453		
28000500	INLET AND PIPE PROTECTION	EACH	3	0	3		
28100107	STONE RIPRAP, CLASS A4	SQ YD	3,920	1,568	2,352		
28100109	STONE RIPRAP, CLASS A5	SQ YD	1,770			955	815
28200200	FILTER FABRIC	SQ YD	5,690	1,568	2,352	955	815
35100700	AGGREGATE BASE COURSE, TYPE A, 8"	SQ YD	122	0	122		
35650500	BASE COURSE WIDENING 10"	SQ YD	1,428	709	719		
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	188	55	133		
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	34	0	34		
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	4,929	1,342	3,587		
40600990	TEMPORARY RAMP	SQ YD	438	180	258		
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	59	18	41		
40603080	HMA BINDER COURSE, IL-19.0, N50	TON	615	72	543		

	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE FEDERAL FUNDS 80% FEDERAL /20% STATE RDWY 0004 6-00392-0000 MCDAVID	 6-00635-0000 BAYOU	 BRIDGE 0011 6-00392-0000 MCDAVID	 6-00635-0000 BAYOU
40603310	HMA SURFACE COURSE, MIX "C", N50	TON	395	137	258		
40800050	INCIDENTAL HMA SURFACING	TON	35	10	25		
42001430	BRIDGE APPROACH CONNECTOR PAVEMENT (FLEXIBLE)	SQ YD	166	87	79		
44000100	PAVEMENT REMOVAL	SQ YD	600	276	324		
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	122	0	122		
44004000	PAVED DITCH REMOVAL	FOOT	430	0	430		
44004250	PAVED SHOULDER REMOVAL	SQ YD	734	469	265		
48101200	AGGREGATE SHOULDERS, TYPE B	TON	386	222	164		
48102100	AGGREGATE WEDGE SHOULDERS, TYPE B	TON	66	11	55		
48203100	HOT-MIX ASPHALT SHOULDERS	TON	359	133	226		
50100300	REMOVAL OF EXISTING STRUCTURE NO. 1	EACH	1			1	
50100400	REMOVAL OF EXISTING STRUCTURE NO. 2	EACH	1				1
50100500	REMOVAL OF EXISTING STRUCTURES NO. 3	EACH	1	1			
50100600	REMOVAL OF EXISTING STRUCTURES NO. 4	EACH	1	1			

				CONSTRUCTION CODE			
				FEDERAL FUNDS			
				80% FEDERAL /20% STATE			
				RDWY		BRIDGE	
				0004		0011	
	ITEM	UNIT	TOTAL QUANTITY	6-00392-0000	6-00635-0000	6-00392-0000	6-00635-0000
				MCDAVID	BAYOU	MCDAVID	BAYOU
50105220	PIPE CULVERT REMOVAL	FOOT	211	80	131		
50200100	STRUCTURE EXCAVATION	CU YD	501			266	235
50300100	FLOOR DRAINS	EACH	5				5
50300225	CONCRETE STRUCTURES	CU YD	135.0			69.0	66.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	470.3			241.1	229.2
50300260	BRIDGE DECK GROOVING	SQ YD	984			509	475
50300300	PROTECTIVE COAT	SQ YD	1,235			631	604
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1			0.45	0.55
50500505	STUD SHEAR CONNECTORS	EACH	2,970			1,404	1,566
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	122,730			63,700	59,030
50800515	BAR SPLICERS	EACH	1,011			507	504
51200959	FURNISHING METAL SHELL PILES 14" X 0.312"	FOOT	695			695	
51201600	FURNISHING STEEL PILES HP12X53	FOOT	400				400
51202305	DRIVING PILES	FOOT	1,095			695	400

	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE FEDERAL FUNDS 80% FEDERAL /20% STATE			
				RDWY		BRIDGE	
				0004		0011	
				6-00392-0000	6-00635-0000	6-00392-0000	6-00635-0000
				MCDAVID	BAYOU	MCDAVID	BAYOU
51203200	TEST PILE METAL SHELLS	EACH	2			2	
51203600	TEST PILE STEEL HP12X53	EACH	2				2
51204650	PILE SHOES	EACH	18			6	12
51500100	NAME PLATES	EACH	2			1	1
52100520	ANCHOR BOLTS, 1"	EACH	48			24	24
54215547	METAL END SECTIONS 12"	EACH	3	2	1		
54215550	METAL END SECTIONS 15"	EACH	2	0	2		
54215559	METAL END SECTIONS 24"	EACH	2	2	0		
54215565	METAL END SECTIONS 30"	EACH	2	0	2		
54215571	METAL END SECTIONS 36"	EACH	2	0	2		
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	77	0	77		
542D0229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	48	48	0		
542D0235	PIPE CULVERTS, CLASS D, TYPE 1 30"	FOOT	66	0	66		
542D0241	PIPE CULVERTS, CLASS D, TYPE 1 36"	FOOT	50	0	50		

	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: FEDERAL FUNDS: 80% FEDERAL /20% STATE: RDWY 0004 6-00392-0000 MCDAVID	RDWY 0004 6-00635-0000 BAYOU	BRIDGE 0011 6-00392-0000 MCDAVID	BRIDGE 0011 6-00635-0000 BAYOU
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	142			74	68
60100945	PIPE DRAINS 12"	FOOT	30	20	10		
61000335	TYPE G INLET BOX, STANDARD 610001	EACH	3	2	1		
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6-FOOT POSTS	FOOT	612.5	337.5	275.0		
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	8	4	4		
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	7	4	3		
63200310	GUARDRAIL REMOVAL	FOOT	1,863	1,020	843		
66201120	CONCRETE SHOULDER CURB	FOOT	45	30	15		
66600105	FURNISHING AND ERECTING ROW MARKERS	EACH	8	4	4		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8	4	4		
67100100	MOBILIZATION	L SUM	1	0.5	0.5		
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	2	1	1		
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	0.5	0.5		
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	0.5	0.5		

* SPECIALTY ITEM

	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE FEDERAL FUNDS 80% FEDERAL /20% STATE RDWY 0004 6-00392-0000 MCDAVID	 6-00635-0000 BAYOU	 BRIDGE 0011 6-00392-0000 MCDAVID	 6-00635-0000 BAYOU
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	0.5	0.5		
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	LSUM	1	0	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	5	5		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2	1	1		
70106700	TEMPORARY RUMBLE STRIPS	EACH	24	12	12		
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	32	16	16		
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	6,920	2,720	4,200		
70300230	TEMPORARY PAVEMENT MARKING - LINE 5"	FOOT	4,994	2,420	2,574		
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	100	48	52		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	7,908	3,108	4,800		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	875	475	400		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	825	425	400		
70500100	TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	612.5	337.5	275.0		
70500665	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	8	4	4		

		ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE FEDERAL FUNDS 80% FEDERAL /20% STATE RDWY 0004 6-00392-0000 MCDAVID	 6-00635-0000 BAYOU	 BRIDGE 0011 6-00392-0000 MCDAVID	 6-00635-0000 BAYOU
	70600260	IMPACT ATTENUATORS TEMPORARY (FULLY REDIRECTIVE, NARROW) TEST LEVEL 3	EACH	6	2	4		
	70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE) TEST LEVEL 3	EACH	6	2	4		
*	78001120	PAINT PAVEMENT MARKING - LINE 5"	FOOT	7,626	2,526	5,100		
*	78100100	RAISED REFLECTIVE PAVEMENT MARKERS	EACH	24	9	15		
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	23	11	12		
*	78200530	BARRIER WALL MARKERS, TYPE C	EACH	8	4	4		
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	7	4	3		
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	3,053	1,053	2,000		
	Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	46			26	20
	Z0004552	APPROACH SLAB REMOVAL	SQ YD	296	149	147		
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	0.5	0.5		
	Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	334			168	166
ø	Z0076600	TRAINEES	HOUR	1000			500	500
	Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	1,073			538	535
ø	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1000			500	500
	X0322584	REVETMENT MAT REMOVAL	SQ YD	61	61	0		

* SPECIALTY ITEM
ø 0042

design firm no. 184001036 whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED -		REVISED
FILE NAME = D672008-SHT-500.dgn	CHECKED -		REVISED
PLOT SCALE = 10.0000 ' / IN.	DRAWN -		REVISED
PLOT DATE = 10/15/2015	CHECKED -		REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

NTS | SHEET NO. 8 OF 9 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 4058-1	MONTGOMERY	121	11
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

		ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE FEDERAL FUNDS 80% FEDERAL /20% STATE RDWY 0004 6-00392-0000 MCDAVID	 6-00635-0000 BAYOU	 BRIDGE 0011 6-00392-0000 MCDAVID	 6-00635-0000 BAYOU
	X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VAR DEPTH	SQ YD	2,431	1,455	976		
□	X5420630	PIPE CULVERTS TO BE CLEANED 30"	FOOT	29	29	0		
	X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	251			131	120
*	X6330725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	87.5		87.5		
*	X7050167	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	EACH	6	4	2		
	X7200201	WIDTH RESTRICTION SIGNING	L SUM	1	0.5	0.5		

□ NON-PART. (100% STATE)

* SPECIALTY ITEM

EROSION CONTROL SCHEDULE

LOCATION					28000315 AGGREGATE DITCH CHECKS	28000400 PERIMETER EROSION BARRIER	28000500 INLET AND PIPE PROTECTION
					TON	FOOT	EACH
MCDAVID BRANCH							
308+25.00	RT				4		
308+75.00	RT				4		
309+50.00	RT				4		
309+80.00	RT				4		
311+00.00	RT				4		
311+75.00	RT				4		
312+25.00	RT				4		
308+25.00	LT				4		
308+65.00	LT				4		
309+00.00	LT				4		
309+50.00	LT				4		
309+75.00	LT				4		
311+00.00	LT				4		
311+50.00	LT				4		
312+00.00	LT				4		
312+35.00	LT				4		
307+06.00	RT	TO	307+50.00	RT		44	
308+23.00	RT	TO	310+08.00	RT		185	
310+40.00	RT	TO	313+14.00	RT		274	
307+06.00	LT	TO	307+86.00	LT		80	
307+50.00	LT	TO	310+46.00	LT		296	
310+73.00	LT	TO	313+04.00	LT		241	
TOTAL					**64**	**1,120**	**0**

TRAFFIC CONTROL SCHEDULE

LOCATION					70400100 TEMPORARY CONCRETE BARRIER	70400200 RELOCATE TEMPORARY CONCRETE BARRIER	70600260 IMPACT ATTENUATORS TEMPORARY (FULLY REDIRECTIVE, NARROW) TEST LEVEL 3	70600332 IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE) TEST LEVEL 3
					FOOT	FOOT	EACH	EACH
MCDAVID								
STAGE I								
307+63.00		TO	312+37.20		475		2	
STAGE II								
308+12.80		TO	312+37.20			425		2
TOTAL					**475**	**425**	**2**	**2**
BAYOU								
STAGE I								
490+80.50		TO	495+79.50		400		4	
STAGE II								
490+72.00		TO	495+77.00			400		4
TOTAL					**400**	**400**	**4**	**4**

PAVING SCHEDULE

LOCATION					35650500 BASE COURSE WIDENING 10"	40600275 BITUMINOUS MATERIALS (PRIME COAT)	40600990 TEMPORARY RAMP	40600625 LEVELING BINDER (MACHINE METHOD), N50	40603080 HMA BINDER COURSE, IL-19.0, N50	40603310 HMA SURFACE COURSE, MIX "C", N50	42001430 BRIDGE APPROACH CONNECTOR PAVEMENT (FLEXIBLE)	48101200 AGGREGATE SHOULDERS, TYPE B	48102100 AGGREGATE WEDGE SHOULDERS, TYPE B	48203100 HOT-MIX ASPHALT SHOULDERS
					SQ YD	POUND	SQ YD	TON	TON	TON	SQ YD	TON	TON	TON
MCDAVID BRANCH														
307+05.00		TO	307+40.00			63				10.6				4
307+05.00	LT	TO	308+01.00	LT									8	
307+40.00		TO	307+90.00			135		6						
307+40.00		TO	309+57.70							52.8				38
307+90.00		TO	308+25.00			126		8						6
308+25.00		TO	309+57.70			478	120		72					46
309+57.70		TO	309+63.70								24			
310+97.70		TO	311+12.70								63			
311+12.70		TO	311+55.00			114	60	5		10.3				10
311+55.00		TO	311+75.00			36				5.3				4
311+75.00		TO	312+00.00			45				7.6				4
312+00.00		TO	312+35.00			63				9.9				
312+35.00		TO	313+23.00			158								
312+35.00		TO	314+00.00							40.0				
312+60.00	RT	TO	312+91.00	RT									3	
313+23.00		TO	314+00.00			123								
312+00.00	RT	TO	312+35.00	RT										6
312+35.00	RT	TO	312+91.00	RT										4
313+23.00	RT	TO	313+70.00	RT										1
313+70.00	RT	TO	314+00.00	RT										1
312+35.00	LT	TO	313+01.00	LT										4
313+33.00	LT	TO	313+47.00	LT										2
313+47.00	LT	TO	313+70.00	LT										2
313+70.00	LT	TO	314+00.00	LT										1
PRESTAGE														
307+05.00	LT	TO	307+22.70	LT	8									
307+22.70	LT	TO	309+90.00	LT	149									
310+72.00	LT	TO	312+98.00	LT	126									
STAGE I														
307+05.00	RT	TO	307+37.00	RT	17									
307+05.00	RT	TO	309+65.00	RT								52		
307+37.00	RT	TO	309+63.70	RT	177									
308+01.00	LT	TO	308+25.00	LT								2		
308+25.00	LT	TO	309+65.00	LT								28		
311+11.50	RT	TO	312+36.00	RT								25		
311+12.70	RT	TO	312+86.80	RT	136									
312+36.00	RT	TO	312+60.00	RT								2		
311+11.50	LT	TO	313+06.00	LT								39		
STAGE II														
307+05.00	RT	TO	309+65.00	RT								39		
307+22.70	LT	TO	307+37.00	LT	2									
307+37.00	LT	TO	309+63.70	LT	51									
308+01.00	LT	TO	308+25.00	LT								2		
308+25.00	LT	TO	309+65.00	LT								21		
311+11.50	RT	TO	312+36.00	RT								5		
312+36.00	RT	TO	312+60.00	RT								0.4		
311+11.50	LT	TO	313+06.00	LT								7		
311+12.70	LT	TO	313+02.00	LT	43									
TOTAL					**709**	**1342**	**180**	**18**	**72**	**137**	**87**	**222**	**11**	**133**

PAVING SCHEDULE

LOCATION					35650500 BASE COURSE WIDENING 10"	40600275 BITUMINOUS MATERIALS (PRIME COAT)	40600990 TEMPORARY RAMP	40600625 LEVELING BINDER (MACHINE METHOD), N50	40603080 HMA BINDER COURSE, IL-19.0, N50	40603310 HMA SURFACE COURSE, MIX "C", N50	42001430 BRIDGE APPROACH CONNECTOR PAVEMENT (FLEXIBLE)	48101200 AGGREGATE SHOULDERS, TYPE B	48102100 AGGREGATE WEDGE SHOULDERS, TYPE B	48203100 HOT-MIX ASPHALT SHOULDERS
					SQ YD	POUND	SQ YD	TON	TON	TON	SQ YD	TON	TON	TON
BAYOU CREEK														
485+60.00		TO	485+85.00			40				7.0				2
485+60.00	RT	TO	486+33.00	RT									6	
486+73.00	RT	TO	488+83.00	RT									16	
485+60.00	LT	TO	488+15.50	LT									20	
488+45.50	LT	TO	490+16.00	LT									13	
485+85.00		TO	486+10.00			60		3		5.6				4
486+10.00		TO	486+25.00			48		4		3.4				2
486+25.00		TO	491+93.31			2273	172		471	127.3				130
491+93.31		TO	491+99.31								23			
493+42.00		TO	493+57.00								56			
493+55.69		TO	494+51.80			365	86		72	21.5				
494+51.80		TO	495+60.00			411		26		24.2				26
495+60.00		TO	496+30.37			201		9		15.8				12
496+30.37		TO	497+30.00			189				27.9				18
488+83.00	RT	TO	489+07.00	RT								2		
489+07.00	RT	TO	492+11.00	RT								61		
490+16.00	LT	TO	490+40.00	LT								2		
490+40.00	LT	TO	492+19.00	LT								36		
493+22.00	RT	TO	493+86.21	RT								13		
493+86.21	RT	TO	494+06.00	RT								11		
493+31.00	LT	TO	493+66.28	LT								7		
493+66.28	LT	TO	494+07.75	LT								33		
493+55.69	RT	TO	494+95.00	RT										17
494+95.00	RT	TO	495+51.80	RT										9
493+55.69	LT	TO	493+69.00	LT										3
PRESTAGE														
485+60.00	LT	TO	485+75.00	LT	3									
485+75.00	LT	TO	485+91.00	LT	10									
485+91.00	LT	TO	486+11.00	LT	20									
486+11.00	LT	TO	486+34.00	LT	20									
486+34.00	LT	TO	492+50.00	LT	377									
493+81.00	LT	TO	494+03.00	LT	8									
494+27.00	LT	TO	494+45.00	LT	8									
STAGE I														
485+60.00	RT	TO	492+00.00	RT	271									
493+87.00	RT	TO	494+01.00	RT	2									
E. 18TH STREET														
10+13.00		TO	10+50.00							13.3				
10+30.00		TO	10+42.00											3
10+50.00		TO	10+80.00							5.9				
10+50.00		TO	10+80.00							5.9				
TOTAL					**719**	**3587**	**258**	**41**	**543**	**258**	**79**	**164**	**55**	**226**

EROSION CONTROL SCHEDULE

LOCATION					28000315 AGGREGATE DITCH CHECKS	28000400 PERIMETER EROSION BARRIER	28000500 INLET AND PIPE PROTECTION
					TON	FOOT	EACH
BAYOU CREEK							
486+28.00	RT						1
487+17.00	RT				4		
487+42.00	RT				4		
487+67.00	RT				4		
487+92.00	RT				4		
488+67.00	RT				4		
489+42.00	RT				4		
490+17.00	RT				4		
491+15.00	RT				4		
493+50.00	RT				4		
494+49.00	RT						1
495+00.00	RT				4		
485+80.00	LT				4		
486+00.00	LT				4		
486+20.00	LT				4		
486+40.00	LT				4		
486+70.00	LT				4		
487+00.00	LT				4		
487+30.00	LT				4		
487+60.00	LT				4		
488+05.00	LT						1
488+85.00	LT				4		
489+70.00	LT				4		
490+45.00	LT				4		
491+50.00	LT				4		
486+59.00	RT	TO	491+91.00	RT		532	
491+91.00	RT	TO	494+05.00	RT		214	
494+20.00	RT	TO	494+44.00	RT		24	
484+50.00	LT	TO	488+22.00	LT		372	
488+39.00	LT	TO	490+28.00	LT		189	
493+51.00	LT	TO	494+07.00	LT		78	
494+27.00	LT	TO	494+71.00	LT		44	
TOTAL					**88**	**1,453**	**3**

ENTRANCE, MAILBOX TURNOUT, AND SIDEROAD SCHEDULE

LOCATION		35100700 AGGREGATE BASE COURSE, TYPE A, 8"	40200800 AGGREGATE SURFACE COURSE, TYPE B	40201000 AGGREGATE FOR TEMPORARY ACCESS	40800050 INCIDENTAL HMA SURFACING
		SQ YD	TON	TON	TON
MCDAVID BRANCH					
313+10.00	RT		17		4
313+30.00	LT		38		6
TOTAL		**0**	**55**	**0**	**10**
BAYOU CREEK					
486+52.00	RT	122			17
488+31.00	LT		55	34	8
494+15.85	RT		78		
TOTAL		**122**	**133**	**34**	**25**

REMOVAL SCHEDULE

LOCATION					44000100 PAVEMENT REMOVAL	X4401198 HOT-MIX ASPHALT SURFACE REMOVAL, VAR DEPTH	44000200 DRIVEWAY PAVEMENT REMOVAL	44004000 PAVED DITCH REMOVAL	44004250 PAVED SHOULDER REMOVAL	Z0004552 APPROACH SLAB REMOVAL	X0322584 REVETMENT MAT REMOVAL	50100500 REMOVAL OF EXISTING STRUCTURES NO. 3	50100600 REMOVAL OF EXISTING STRUCTURES NO. 4
					SQ YD	SQ YD	SQ YD	FOOT	SQ YD	SQ YD	SQ YD	EACH	EACH
MCDAVID BRANCH													
307+05.00	RT	TO	310+10.00	RT					102				
307+05.00	LT	TO	310+10.00	LT					114				
307+05.00		TO	307+90.00			323							
307+86.00	RT	TO	308+28.00	RT							42		
309+54.00	RT											1	
309+54.00	LT												1
309+57.70		TO	310+10.00		128								
309+89.90		TO	310+10.00							74			
310+51.70		TO	310+72.40							74			
310+52.00		TO	311+12.70		148								
310+52.00	RT	TO	314+00.00	RT					121				
310+52.00	LT	TO	314+00.00	LT					133				
311+12.70		TO	314+00.00			1,132							
313+10.00	RT												
313+30.00	LT												
313+33.00	LT	TO	313+50.00	LT							19		
TOTAL					**276**	**1,455**	**0**	**0**	**469**	**149**	**61**	**1**	**1**
BAYOU CREEK													
485+60.00	LT	TO	488+16.00	LT				256					
485+60.00	LT	TO	492+50.00	LT					100				
487+00.00	RT	TO	492+50.00	RT					127				
485+60.00		TO	486+10.00			186							
486+53.00	RT						122						
486+73.00	RT	TO	488+47.00	RT				174					
488+31.00	LT												
491+93.31		TO	492+50.00		151								
492+27.60		TO	492+49.50							73			
492+92.10		TO	493+14.70							73			
492+91.00	RT	TO	493+38.00	RT					16				
492+91.00		TO	493+55.69		173								
492+91.00	LT	TO	493+59.00	LT					23				
494+15.85	RT												
495+60.00		TO	497+30.00			718							
E. 18TH STREET													
10+50.00		TO	10+80.00			72							
TOTAL					**324**	**976**	**122**	**430**	**265**	**147**	**0**	**0**	**0**

ROW MARKER SCHEDULE

LOCATION			66600105 FURNISHING AND ERECTING ROW
			EACH
MCDAVID BRANCH			
307+88.42	54.11	RT	1
310+00.00	70.00	RT	1
311+00.00	70.00	RT	1
313+03.05	53.21	RT	1
TOTAL			**4**
BAYOU CREEK			
489+00.00	65.00	RT	1
490+00.00	70.00	RT	1
491+95.83	70.00	RT	1
492+25.00	66.21	RT	1
TOTAL			**4**

TREE REMOVAL SCHEDULE

LOCATION	OFFSET	20100500 TREE REMOVAL, ACRES
		ACRE
MCDAVID BRANCH		
STA. 307+05.00 TO STA. 310+10.00	RT	0.12
STA. 310+50.00 TO STA. 312+48.00	RT	0.18
TOTALS		**0.3**
BAYOU CREEK		
STA. 490+25.00 TO STA. 492+75.00	LT	0.08
STA. 491+85.00 TO STA. 492+40.00	RT	0.02
STA. 492+90.00 TO STA. 493+45.00	RT	0.02
TOTALS		**0.1**

PAVEMENT MARKING SCHEDULE

					70300100 SHORT-TERM PAVEMENT MARKING	70300230 TEMPORARY PAVEMENT MARKING - LINE 5"	70300280 TEMPORARY PAVEMENT MARKING - LINE 24"	70301000 WORK ZONE PAVEMENT MARKING REMOVAL	78001120 PAINT PAVEMENT MARKING - LINE 5"		78100100 RAISED REFLECTIVE PAVEMENT MARKERS	78300100 PAVEMENT MARKING REMOVAL
									WHITE	YELLOW		
					FOOT	FOOT	FOOT	SQ FT	FOOT	FOOT	EACH	SQ FT
MCDAVID FINAL												
306+40.00	RT	TO	314+17.00	RT	777			777	777			324
306+40.00	CL	TO	314+17.00	CL	1166			1554		972		405
306+40.00	LT	TO	314+17.00	LT	777			777	777			324
307+05.00	CL	TO	314+00.00	CL							9	
STAGE I												
306+50.00	RT	TO	307+75.00	LT		125						
307+75.00	LT	TO	312+00.00	LT		425						
312+00.00	LT	TO	312+57.00	CL		57						
312+57.00	CL	TO	313+57.00	LT		100						
307+37.60	LT	TO	307+75.00	LT		37						
307+75.00	LT	TO	312+00.00	LT		425						
312+00.00	LT	TO	312+57.00	CL		57						
306+40.00	RT						12					
314+17.00	LT						12					
STAGE II												
307+00.00	LT	TO	308+00.00	CL		100						
308+00.00	CL	TO	308+50.00	RT		50						
308+50.00	RT	TO	312+00.00	RT		350						
312+00.00	RT	TO	314+07.00	LT		207						
307+85.00	RT	TO	308+50.00	RT		65						
308+50.00	RT	TO	312+00.00	RT		350						
312+00.00	RT	TO	312+71.50	RT		72						
306+40.00	RT						12					
314+17.00	LT						12					
TOTAL					**2720**	**2420**	**48**	**3108**	**1554**	**972**	**9**	**1,053**
BAYOU FINAL												
485+60.00	RT	TO	497+60.00	RT	1200			1200	1200			500
485+60.00	CL	TO	497+60.00	CL	1800			2400		2700		1,000
485+60.00	LT	TO	497+60.00	LT	1200			1200	1200			500
485+60.00	CL	TO	497+30.00	CL							15	
STAGE I												
489+06.00	RT	TO	491+18.00	LT		212						
491+18.00	LT	TO	495+43.50	LT		426						
495+43.50	LT	TO	496+00.00	CL		57						
496+00.00	CL	TO	497+00.00	LT		100						
490+86.00	LT	TO	491+18.00	LT		32						
491+18.00	LT	TO	495+43.50	LT		426						
495+43.50	LT	TO	495+81.80	CL		38						
488+96.00	RT						13					
497+60.00	LT						13					
STAGE II												
489+56.00	LT	TO	490+56.00	CL		100						
490+56.00	CL	TO	491+10.00	RT		54						
491+10.00	RT	TO	495+40.00	RT		430						
495+40.00	RT	TO	497+50.00	LT		210						
490+80.00	RT	TO	491+10.00	RT		30						
491+10.00	RT	TO	495+40.00	RT		430						
495+40.00	RT	TO	495+70.00	RT		30						
488+96.00	RT						13					
497+60.00	LT						13					
TOTAL					**4200**	**2574**	**52**	**4800**	**2400**	**2700**	**15**	**2,000**

SEEDING SCHEDULE

LOCATION					25000200 SEEDING, CLASS 2	25003200 INTERSEEDING, CLASS 2	25000400 NITROGEN FERTILIZER NUTRIENT	25000500 PHOSPHORUS FERTILIZER NUTRIENT	25000600 POTASSIUM FERTILIZER NUTRIENT	25100115 MULCH, METHOD 2	25000700 AGRICULTURAL GROUND LIMESTONE	25100630 EROSION CONTROL BLANKET	28000250 TEMPORARY EROSION CONTROL SEEDING
					ACRE	ACRE	POUND	POUND	POUND	ACRE	TON	SQ YD	POUND
MCDAVID BRANCH													
307+05.00	RT	TO	310+15.00	RT	0.15	0.10						713	
307+05.00	LT	TO	310+45.00	LT	0.13	0.11						521	
310+40.00	RT	TO	313+04.00	RT	0.15	0.12						701	
310+85.00	LT	TO	313+06.00	LT	0.10	0.08						477	
307+05.00	LT	TO	308+35.00	LT						0.1			
307+05.00		TO	314+00.00				91	91	91		2		
307+05.00	RT	TO	314+00.00	RT									88
307+05.00	LT	TO	314+00.00	LT									68
TOTAL					**0.6**	**0.4**	**91**	**91**	**91**	**0.1**	**2**	**2,412**	**156**
BAYOU CREEK													
485+60.00	RT	TO	492+36.00	RT	0.62	0.10						1,922	
485+60.00	LT	TO	492+91.00	LT	0.53	0.19						1,705	
492+82.00	RT	TO	497+30.00	RT	0.31	0.10						942	
493+11.00	LT	TO	497+30.00	LT	0.07	0.49						189	
485+60.00		TO	490+50.00							0.4			
491+15.85		TO	497+30.00							0.2			
485+60.00		TO	497+30.00				215	215	215		5		
485+60.00	RT	TO	497+30.00	RT									278
485+60.00	LT	TO	497+30.00	LT									181
TOTAL					**1.5**	**0.9**	**215**	**215**	**215**	**0.6**	**5**	**4,758**	**459**

DRAINAGE SCHEDULE

LOCATION		20800150 TRENCH BACKFILL	50105220 PIPE CULVERT REMOVAL	54215547 METAL END SECTIONS 12"	54215550 METAL END SECTIONS 15"	54215559 METAL END SECTIONS 24"	54215565 METAL END SECTIONS 30"	54215571 METAL END SECTIONS 36"	60100945 PIPE DRAINS 12"	542D0220 PIPE CULVERTS, CLASS D, TYPE 1 15"	542D0229 PIPE CULVERTS, CLASS D, TYPE 1 24"	542D0235 PIPE CULVERTS, CLASS D, TYPE 1 30"	542D0241 PIPE CULVERTS, CLASS D, TYPE 1 36"	61000335 TYPE G INLET BOX, STANDARD 610001	X5420630 PIPE CULVERTS TO BE CLEANED
		CU YD	FOOT	EACH	EACH	EACH	EACH	EACH	FOOT	FOOT	FOOT	FOOT	FOOT	EACH	FOOT
MCDAVID BRANCH															
309+89.00	RT		14												
310+72.00	LT		13												
310+74.00	LT		20												
311+05.00	RT			1					10					1	
311+05.00	LT			1					10					1	
312+91.00	RT					1									
313+10.00	RT														29
313+16.00	LT		33								48				
313+39.00	LT					1									
TOTAL			**80**	**2**	**0**	**2**	**0**	**0**	**20**	**0**	**48**	**0**	**0**	**2**	**29**
BAYOU CREEK															
486+28.00	RT						1								
486+45.00	RT		45												
486+53.00	LT	22										66			
486+92.00	RT						1								
488+05.00	LT							1							
488+31.00	LT		34										50		
488+56.00	LT							1							
493+54.00	LT			1					10					1	
493+71.00	RT				1										
494+14.00	RT		52							77					
494+48.00	RT				1										
TOTAL		**22**	**131**	**1**	**2**	**0**	**2**	**2**	**10**	**77**	**0**	**66**	**50**	**1**	**0**

GUARDRAIL SCHEDULE

LOCATION					63000001 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6-FOOT POSTS	70500100 TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A	63200310 GUARDRAIL REMOVAL	63100167 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	X7050167 TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	63100085 TRAFFIC BARRIER TERMINAL, TYPE 6	70500665 TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6	78200410 GUARDRAIL MARKERS, TYPE A	78200530 BARRIER WALL MARKERS, TYPE C	78201000 TERMINAL MARKER - DIRECT APPLIED
					FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	EACH
MCDAVID BRANCH														
307+60.55	RT	TO	308+10.55	RT				1	1					1
307+60.55	RT	TO	312+25.85	RT								6		
307+69.70	RT	TO	309+89.70	RT			220.0							
308+10.55	RT	TO	309+35.55	RT	125.0	125.0								
309+35.55	RT	TO	309+81.20	RT						1	1			
309+77.70	RT	TO	310+83.70	RT									2	
310+72.00	RT	TO	312+80.00	RT			208.0							
310+80.20	RT	TO	311+25.85	RT						1	1			
311+25.85	RT	TO	311+75.85	RT	50.0	50.0								
311+75.85	RT	TO	312+25.85	RT				1	1					1
307+19.00	LT	TO	309+89.70	LT			271.0							
308+35.55	LT	TO	312+88.35	LT								5		
308+35.55	LT	TO	308+85.55	LT				1	1					1
308+85.55	LT	TO	309+35.55	LT	50.0	50.0								
309+35.55	LT	TO	309+81.20	LT						1	1			
309+77.70	LT	TO	310+83.70	LT									2	
310+72.00	LT	TO	313+93.00	LT			321.0							
310+80.20	LT	TO	311+25.85	LT						1	1			
311+25.85	LT	TO	312+38.35	LT	112.5	112.5								
312+38.35	LT	TO	312+88.35	LT				1	1					1
TOTAL					**337.5**	**337.5**	**1,020.0**	**4**	**4**	**4**	**4**	**11**	**4**	**4**

EARTHWORK SCHEDULE

LOCATION	20200100 EARTH EXCAVATION	20300100 CHANNEL EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT (FILL)	20400800 EARTHWORK BALANCE WASTE(+) AND SHORTAGE (-) FURNISHED EXCAVATION
	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)
MCDAVID BRANCH					
PRESTAGE					
STA. 307+50.00 TO STA. 309+93.70	32		24	0	24
STA. 310+67.70 TO STA. 314+00.00	16		12	0	12
STAGE I					
STA. 307+50.00 TO STA. 309+93.70	207		156	31	125
STA. 310+67.70 TO STA. 314+00.00	145		109	160	-51
STAGE II					
STA. 307+50.00 TO STA. 309+93.70	103		78	91	-13
STA. 310+67.70 TO STA. 314+00.00	157		118	129	-11
STAGE III					
STA. 307+50.00 TO STA. 309+93.70	0		0	10	-10
STA. 310+67.70 TO STA. 314+00.00	0		0	0	0
CHANNEL EXCAVATION					
STA. 309+93.70 TO STA. 310+67.70		379			
TOTAL	**660**	**379**	**497**	**421**	**76**
BAYOU CREEK					
PRESTAGE					
STA. 485+60.00 TO STA. 492+28.27	27		21	4	17
STA. 493+11.73 TO STA. 497+30.00	0		0	0	0
STAGE I					
STA. 485+60.00 TO STA. 492+28.27	323		243	506	-263
STA. 493+11.73 TO STA. 497+30.00	86		65	292	-227
STAGE II					
STA. 485+60.00 TO STA. 492+28.27	303		228	493	-265
STA. 493+11.73 TO STA. 497+30.00	99		75	74	1
STAGE III					
STA. 485+60.00 TO STA. 492+28.27	11		9	417	-408
STA. 493+11.73 TO STA. 497+30.00	23		18	28	-10
CHANNEL EXCAVATION					
STA. 492+28.27 TO STA. 493+11.73		686			
TOTAL	**872**	**686**	**659**	**1,814**	**-1,155**

SHRINKAGE FACTOR FOR EARTH EXCAVATION = 25%
CHANNEL EXCAVATION ASSUMED AS UNSUITABLE MATERIAL FOR EARTHWORK SCHEDULE AND QUANTITIES

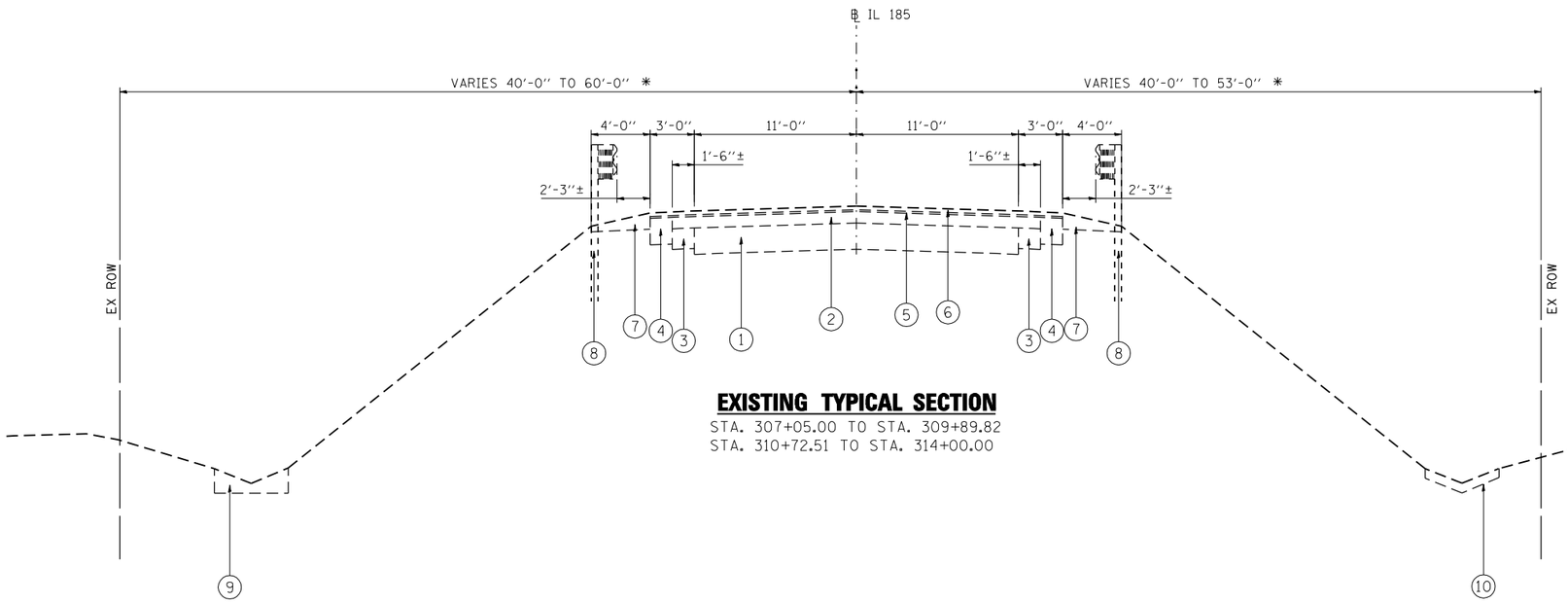
RIPRAP SCHEDULE

LOCATION	OFFSET	28100107 STONE RIPRAP, CLASS A4	28200200 FILTER FABRIC
		SQ YD	SQ YD
MCDAVID BRANCH			
STA. 307+50 TO STA. 310+00	RT	408	408
STA. 310+40 TO STA. 312+95	RT	416	416
STA. 307+85 TO STA. 310+00	LT	350	350
STA. 311+00 TO STA. 312+90	LT	310	310
STA. 311+05	RT	46	46
STA. 311+05	LT	39	39
TOTAL		**1,568**	**1,568**
BAYOU CREEK			
STA. 485+60 TO STA. 488+10	LT	408	408
STA. 486+82 TO STA. 492+30	RT	893	893
STA. 488+44 TO STA. 492+30	LT	629	629
STA. 493+00 TO STA. 493+75	RT	122	122
STA. 493+54	LT	40	40
STA. 494+41 TO STA. 496+00	RT	259	259
TOTAL		**2,352**	**2,352**

SEE BRIDGE PLANS FOR DETAIL OF STONE RIPRAP, CLASS A5.

GUARDRAIL SCHEDULE

LOCATION					63000001 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6-FOOT POSTS	70500100 TEMPORARY STEEL PLATE BEAM GUARDRAIL,	X6330725 STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	63200310 GUARDRAIL REMOVAL	63100167 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	X7050167 TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	63100045 TRAFFIC BARRIER TERMINAL, TYPE 6	70500665 TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6	78200410 GUARDRAIL MARKERS, TYPE A	78200530 BARRIER WALL MARKERS, TYPE C	78201000 TERMINAL MARKER - DIRECT APPLIED
					FOOT	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	EACH
BAYOU CREEK															
489+16.87	RT	TO	489+66.87	RT					1	1					1
489+16.87	RT		494+04.21	RT									6		
489+41.00	RT	TO	492+27.70	RT				287.0							
489+66.87	RT	TO	491+66.87	RT	200.0	200.0									
491+66.87	RT	TO	492+12.52	RT							1	1			
492+10.00	RT	TO	493+22.00	RT										2	
493+14.70	RT	TO	493+88.00	RT				74.0							
493+18.91	RT	TO	493+64.56	RT							1	1			
493+64.56	RT	TO	494+04.21	RT			50.0								
494+14.21	RT							41.0							
490+48.70	LT	TO	492+27.70	LT				179.0							
490+50.44	LT	TO	491+00.44	LT					1	1					1
490+50.44	LT		494+04.50	LT									6		
491+00.44	LT	TO	491+75.44	LT	75.0	75.0									
491+75.44	LT	TO	492+21.09	LT							1	1			
492+18.00	LT	TO	493+30.50	LT										2	
493+14.70	LT	TO	493+78.00	LT				64.0							
493+27.48	LT	TO	493+73.09	LT							1	1			
493+73.09	LT	TO	493+99.68	LT			37.5								
493+99.68	LT	TO	494+02.92	LT					1						1
494+01.59	LT	TO	494+01.85	LT											
494+15.85	LT							56.0							
494+40.00	LT	TO	495+82.00	LT				142.0							
TOTAL					**275.0**	**275.0**	**87.5**	**843.0**	**3**	**2**	**4**	**4**	**12**	**4**	**3**



EXISTING TYPICAL SECTION

STA. 307+05.00 TO STA. 309+89.82
STA. 310+72.51 TO STA. 314+00.00

LEGEND

1. EXISTING 7'' AGGREGATE BASE COURSE
2. EXISTING 4'' HMA BINDER COURSE
3. EXISTING 6'' HMA BASE COURSE WIDENING
4. EXISTING 8'' HMA SHOULDER
5. EXISTING LEVELING BINDER ¾''
6. EXISTING HMA SURFACE COURSE
7. EXISTING AGGREGATE SHOULDER
8. EXISTING GUARDRAIL
9. EXISTING TYPE A GUTTER
10. EXISTING REVETMENT MAT
11. HMA SURFACE COURSE, MIX ''C'', N50
12. HMA BINDER COURSE, IL-19.0, N50 OR LEVELING BINDER (MACHINE METHOD), N50
13. HMA SURFACE REMOVAL, VARIABLE DEPTH
14. HMA SHOULDERS
15. AGGREGATE SHOULDERS, TYPE B
16. STONE RIPRAP, CLASS A4
17. GUARDRAIL
18. BASE COURSE WIDENING 10''

TO BE REMOVED

* EXISTING AND PROPOSED ROW IS MEASURED TO BASELINE OF IL 185.

design firm no. 184001036
whks engineers + planners + land surveyors

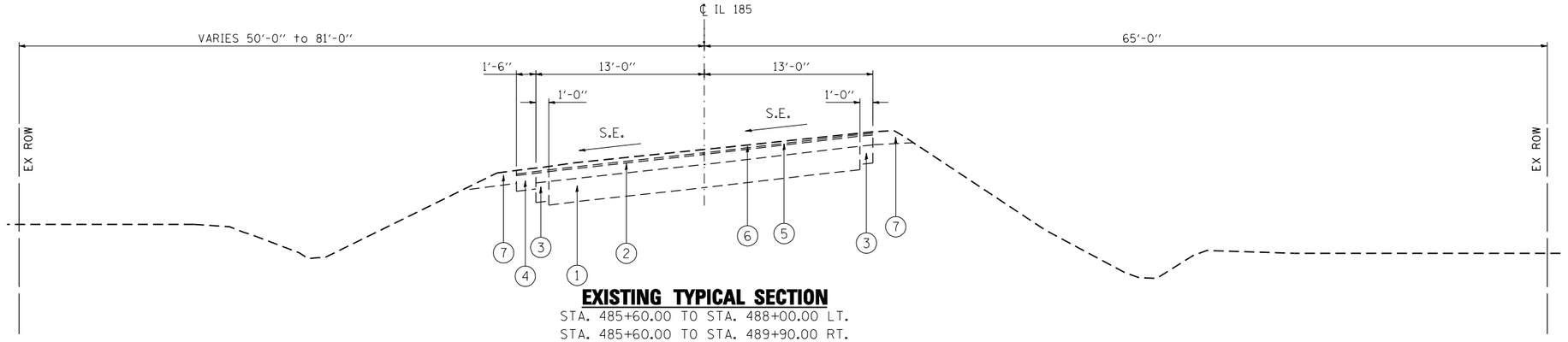
USER NAME = gjameson	DESIGNED -	REVISED
FILE NAME = D672D08-SN0680026-SHT-TYP.DGN	CHECKED -	REVISED
PLOT SCALE = 10.0000 ' / IN.	DRAWN -	REVISED
PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS
IL 185 OVER MCDAVID BRANCH

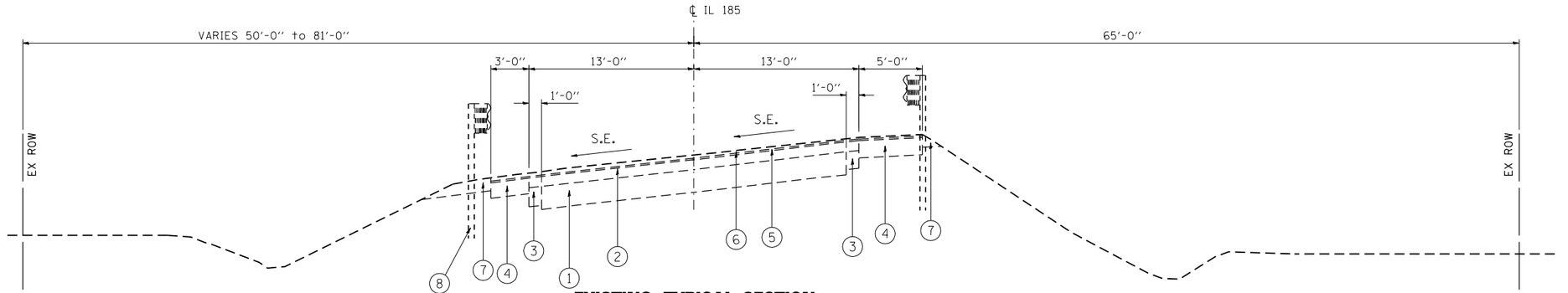
SCALE: 1'' = 10' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	19
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



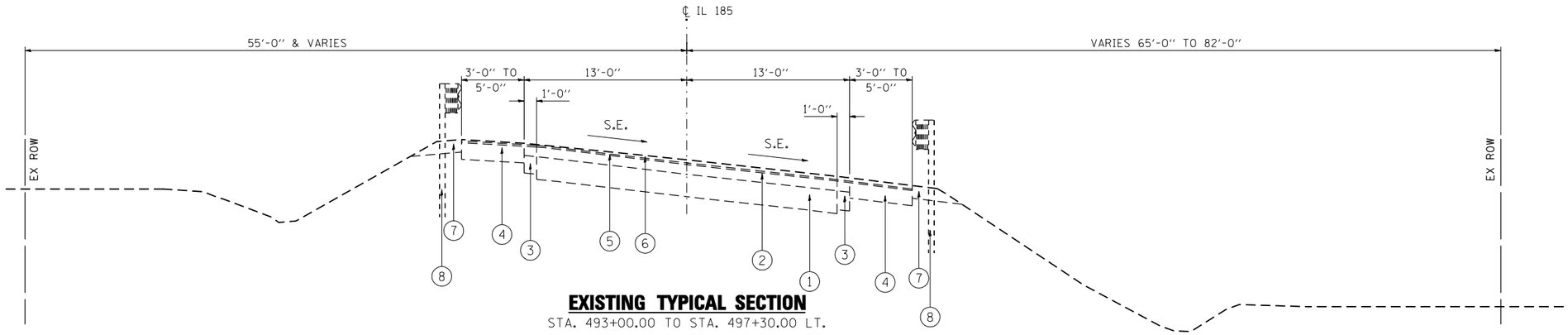
EXISTING TYPICAL SECTION

STA. 485+60.00 TO STA. 488+00.00 LT.
STA. 485+60.00 TO STA. 489+90.00 RT.



EXISTING TYPICAL SECTION

STA. 488+00.00 TO STA. 492+49.00 LT.
STA. 489+90.00 TO STA. 492+49.00 RT.



EXISTING TYPICAL SECTION

STA. 493+00.00 TO STA. 497+30.00 LT.
STA. 493+00.00 TO STA. 497+30.00 RT.

LEGEND

1. EXISTING 7″ AGGREGATE BASE COURSE
2. EXISTING 4″ HMA BINDER COURSE
3. EXISTING 6″ HMA BASE COURSE WIDENING
4. EXISTING 8″ HMA SHOULDER
5. EXISTING LEVELING BINDER ¾″
6. EXISTING HMA SURFACE COURSE
7. EXISTING AGGREGATE SHOULDER
8. EXISTING GUARDRAIL
9. EXISTING TYPE A GUTTER
10. EXISTING REVETMENT MAT
11. HMA SURFACE COURSE, MIX ″C″, N50
12. HMA BINDER COURSE, IL-19.0, N50 OR LEVELING BINDER (MACHINE METHOD), N50
13. HMA SURFACE REMOVAL, VARIABLE DEPTH
14. HMA SHOULDERS
15. AGGREGATE SHOULDERS, TYPE B
16. STONE RIPRAP, CLASS A4
17. GUARDRAIL
18. BASE COURSE WIDENING 10″
- TO BE REMOVED

design firm no. 184001036
whks engineers + planners + land surveyors

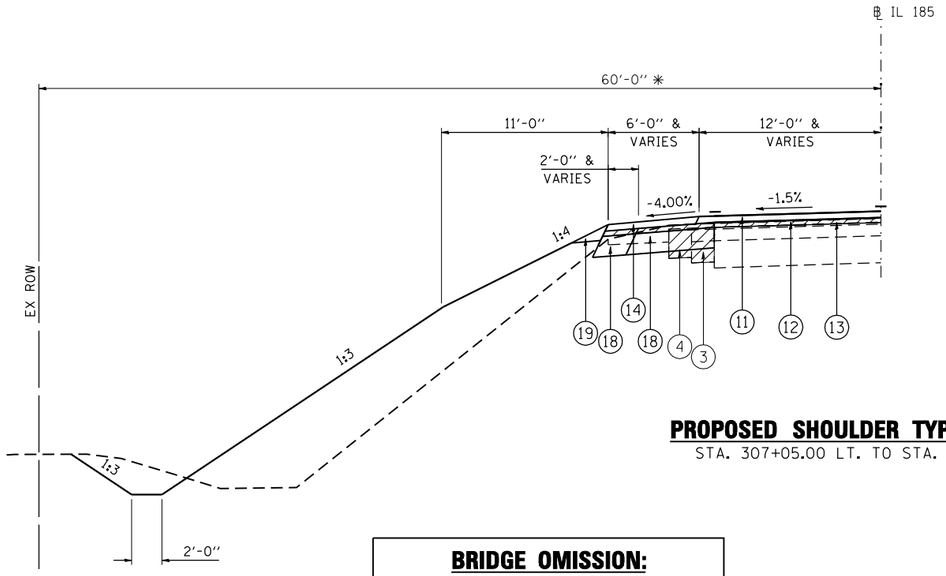
USER NAME = gjameson	DESIGNED -	REVISED
FILE NAME = D672D08-SN0680027-SHT-TYPICAL.dgn	CHECKED -	REVISED
PLOT SCALE = 10.0000 ′ / IN.	DRAWN -	REVISED
PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS
IL 185 OVER BAYOU CREEK

SCALE: 1″ = 10′ | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	20
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

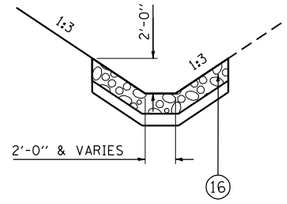


PROPOSED SHOULDER TYPICAL SECTION

STA. 307+05.00 LT. TO STA. 308+01.00 LT.

BRIDGE OMISSION:

STA. 309+93.70 TO STA. 310+67.70

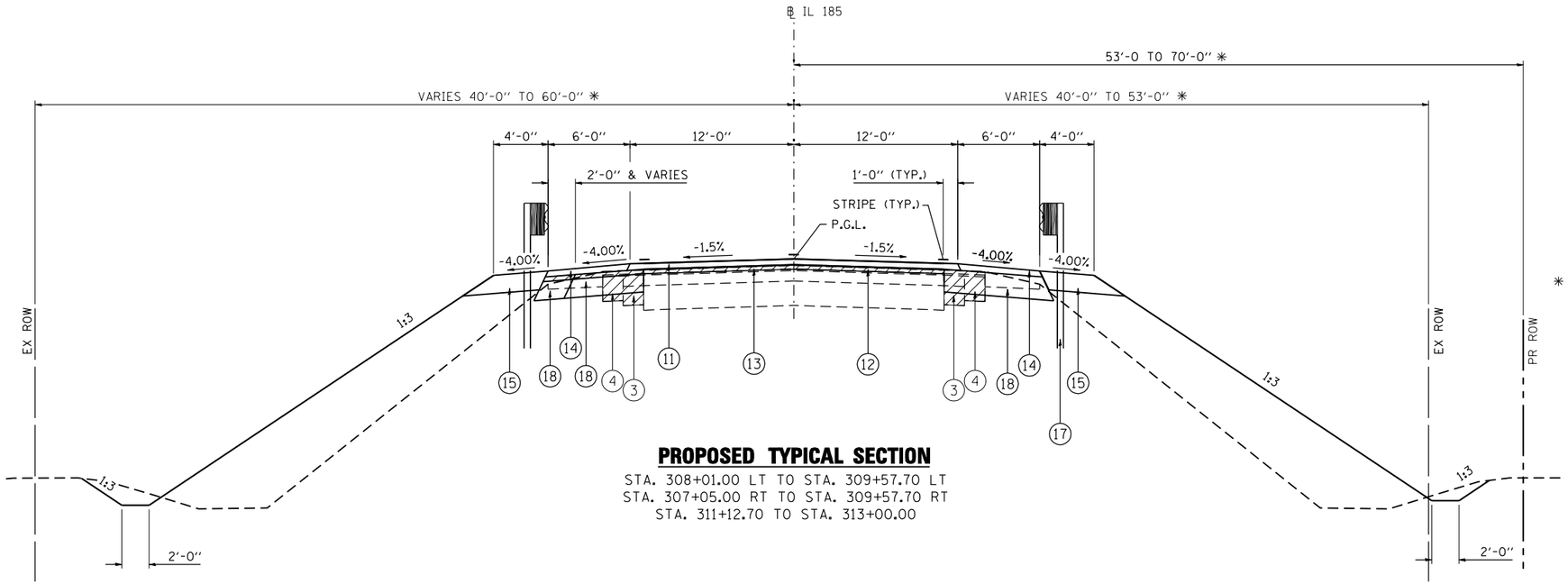


TYPICAL STONE RIPRAP DITCH

LEGEND

1. EXISTING 7" AGGREGATE BASE COURSE
2. EXISTING 4" HMA BINDER COURSE
3. EXISTING 6" HMA BASE COURSE WIDENING
4. EXISTING 8" HMA SHOULDER
5. EXISTING LEVELING BINDER ¾"
6. EXISTING HMA SURFACE COURSE
7. EXISTING AGGREGATE SHOULDER
8. EXISTING GUARDRAIL
9. EXISTING TYPE A GUTTER
10. EXISTING REVETMENT MAT
11. HMA SURFACE COURSE, MIX "C", N50
12. HMA BINDER COURSE, IL-19.0, N50 OR LEVELING BINDER (MACHINE METHOD), N50
13. HMA SURFACE REMOVAL, VARIABLE DEPTH
14. HMA SHOULDERS
15. AGGREGATE SHOULDERS, TYPE B
16. STONE RIPRAP, CLASS A4
17. GUARDRAIL
18. BASE COURSE WIDENING 10"
19. AGGREGATE WEDGE SHOULDERS, TYPE B

TO BE REMOVED



PROPOSED TYPICAL SECTION

STA. 308+01.00 LT TO STA. 309+57.70 LT
STA. 307+05.00 RT TO STA. 309+57.70 RT
STA. 311+12.70 TO STA. 313+00.00

* EXISTING AND PROPOSED ROW IS MEASURED TO BASELINE OF IL 185.

design firm no. 184001036 — whks engineers + planners + land surveyors

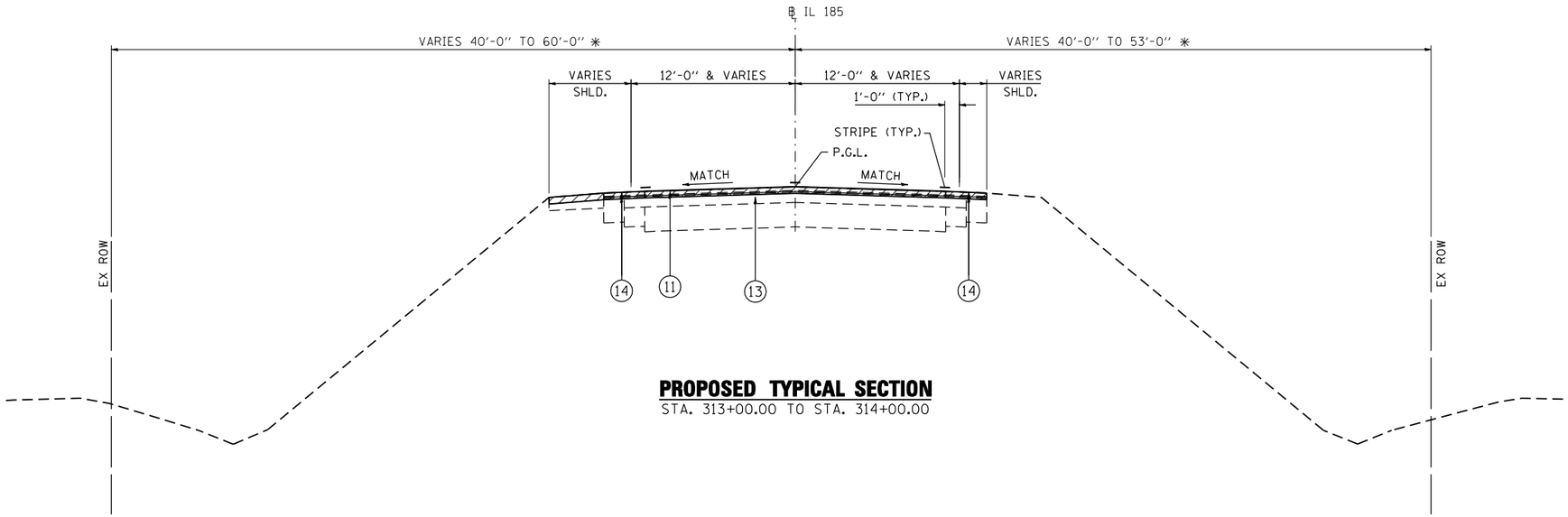
USER NAME = gjameson	DESIGNED -	REVISED
FILE NAME = D672D08-SN0680026-SHT-TYPICAL-	CHECKED -	REVISED
PLOT SCALE = 10.0000 ' / IN.	DRAWN -	REVISED
PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS
IL 185 OVER MCDAVID BRANCH

SCALE: 1" = 10' | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	21
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		



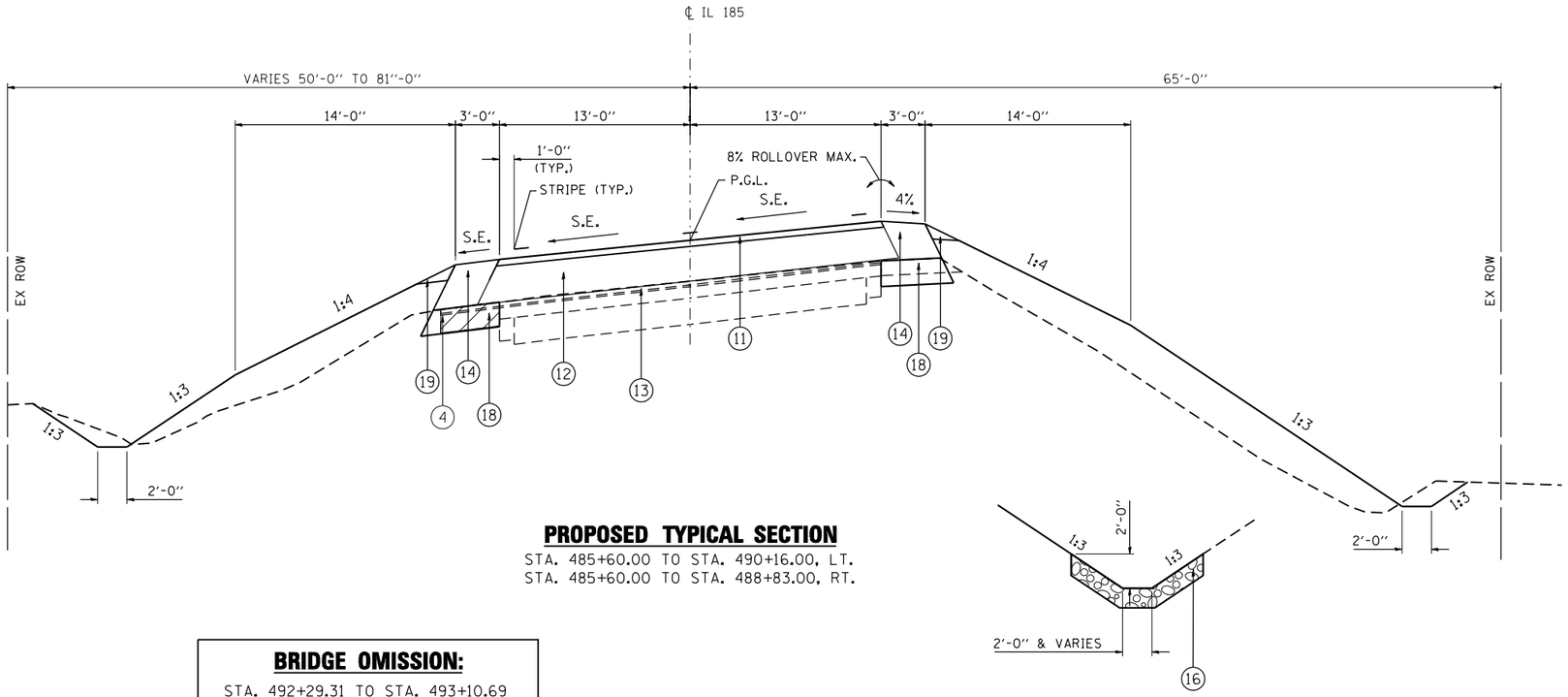
PROPOSED TYPICAL SECTION
STA. 313+00.00 TO STA. 314+00.00

LEGEND

1. EXISTING 7" AGGREGATE BASE COURSE
2. EXISTING 4" HMA BINDER COURSE
3. EXISTING 6" HMA BASE COURSE WIDENING
4. EXISTING 8" HMA SHOULDER
5. EXISTING LEVELING BINDER ¾"
6. EXISTING HMA SURFACE COURSE
7. EXISTING AGGREGATE SHOULDER
8. EXISTING GUARDRAIL
9. EXISTING TYPE A GUTTER
10. EXISTING REVETMENT MAT
11. HMA SURFACE COURSE, MIX "C", N50
12. HMA BINDER COURSE, IL-19.0, N50 OR LEVELING BINDER (MACHINE METHOD), N50
13. HMA SURFACE REMOVAL, VARIABLE DEPTH
14. HMA SHOULDERS
15. AGGREGATE SHOULDERS, TYPE B
16. STONE RIPRAP, CLASS A4
17. GUARDRAIL
18. BASE COURSE WIDENING 10"
19. AGGREGATE WEDGE SHOULDERS, TYPE B

TO BE REMOVED

* EXISTING AND PROPOSED ROW IS MEASURED TO BASELINE OF IL 185.



PROPOSED TYPICAL SECTION

STA. 485+60.00 TO STA. 490+16.00, LT.
STA. 485+60.00 TO STA. 488+83.00, RT.

BRIDGE OMISSION:

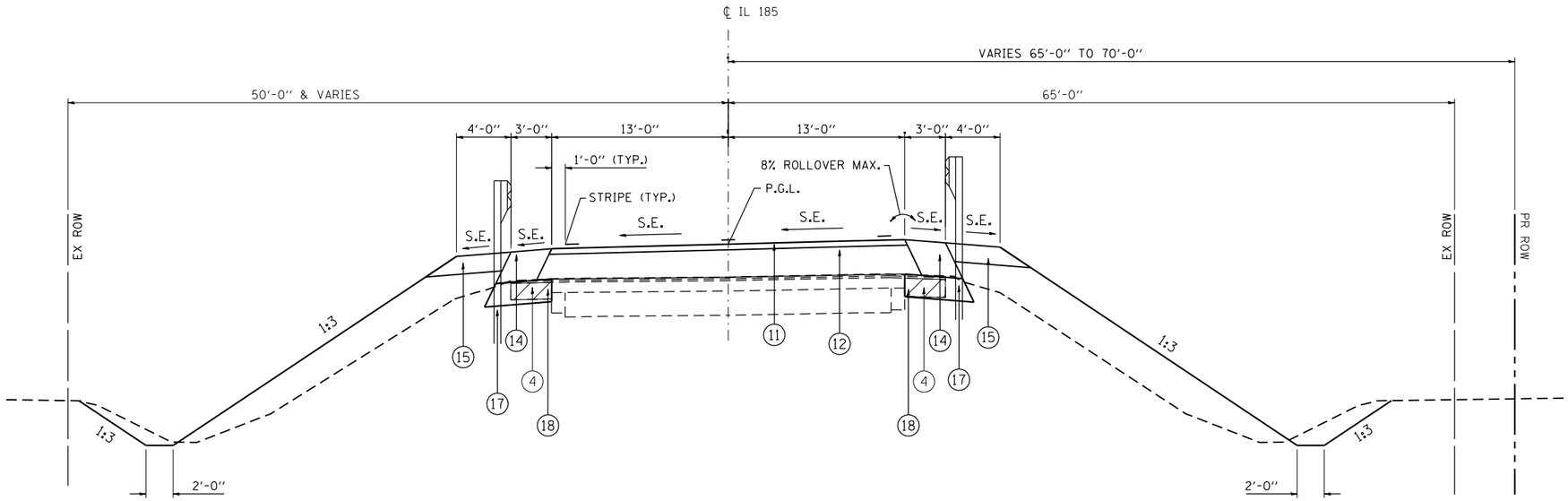
STA. 492+29.31 TO STA. 493+10.69

TYPICAL STONE RIPRAP DITCH

LEGEND

1. EXISTING 7'' AGGREGATE BASE COURSE
2. EXISTING 4'' HMA BINDER COURSE
3. EXISTING 6'' HMA BASE COURSE WIDENING
4. EXISTING 8'' HMA SHOULDER
5. EXISTING LEVELING BINDER ¾''
6. EXISTING HMA SURFACE COURSE
7. EXISTING AGGREGATE SHOULDER
8. EXISTING GUARDRAIL
9. EXISTING TYPE A GUTTER
10. EXISTING REVETMENT MAT
11. HMA SURFACE COURSE, MIX ''C'', N50
12. HMA BINDER COURSE, IL-19.0, N50 OR LEVELING BINDER (MACHINE METHOD), N50
13. HMA SURFACE REMOVAL, VARIABLE DEPTH
14. HMA SHOULDERS
15. AGGREGATE SHOULDERS, TYPE B
16. STONE RIPRAP, CLASS A4
17. GUARDRAIL
18. BASE COURSE WIDENING 10''
19. AGGREGATE WEDGE SHOULDERS, TYPE B

TO BE REMOVED



PROPOSED TYPICAL SECTION

STA. 490+40.00 TO STA. 491+93.31, LT.
STA. 489+07.00 TO STA. 491+93.31, RT.

design firm no. 184001036 — whks engineers + planners + land surveyors

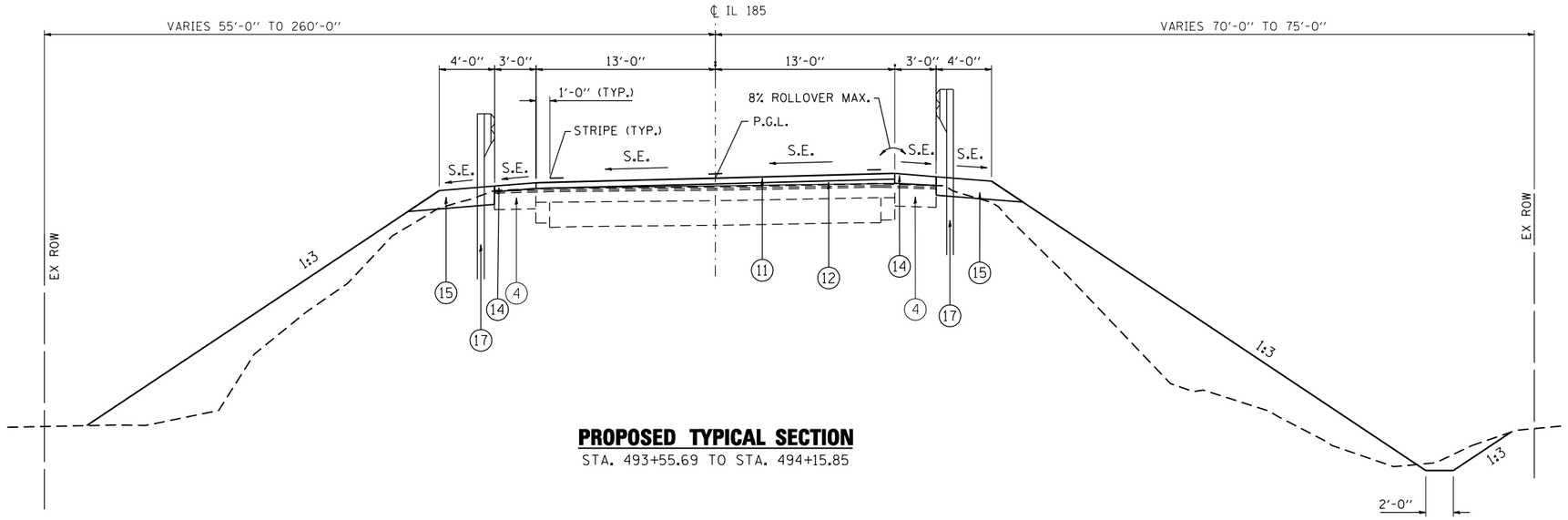
USER NAME = gjameson	DESIGNED -	REVISED
FILE NAME = D672D08-SN0680027-SHT-Cross Section	CHECKED -	REVISED
PLOT SCALE = 10.0000 ' / IN.	DRAWN -	REVISED
PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS
IL 185 OVER BAYOU CREEK

SCALE: 1'' = 10' | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	23
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		



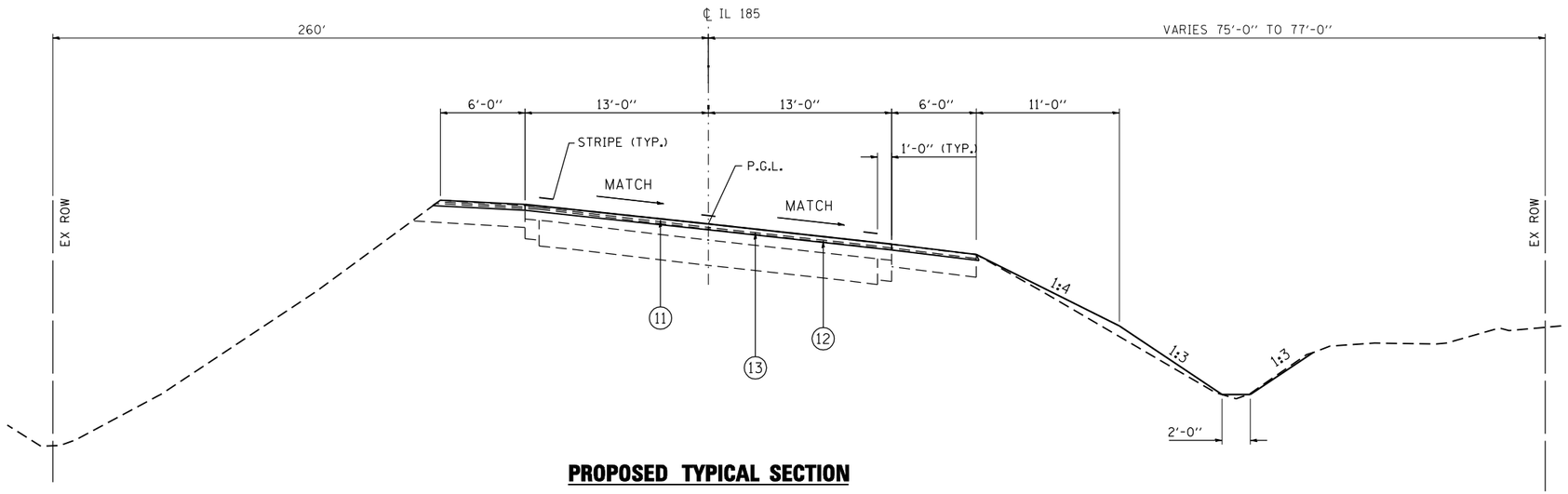
PROPOSED TYPICAL SECTION

STA. 493+55.69 TO STA. 494+15.85

LEGEND

1. EXISTING 7" AGGREGATE BASE COURSE
2. EXISTING 4" HMA BINDER COURSE
3. EXISTING 6" HMA BASE COURSE WIDENING
4. EXISTING 8" HMA SHOULDER
5. EXISTING LEVELING BINDER ¾"
6. EXISTING HMA SURFACE COURSE
7. EXISTING AGGREGATE SHOULDER
8. EXISTING GUARDRAIL
9. EXISTING TYPE A GUTTER
10. EXISTING REVETMENT MAT
11. HMA SURFACE COURSE, MIX "C", N50
12. HMA BINDER COURSE, IL-19.0, N50 OR LEVELING BINDER (MACHINE METHOD), N50
13. HMA SURFACE REMOVAL, VARIABLE DEPTH
14. HMA SHOULDERS
15. AGGREGATE SHOULDERS, TYPE B
16. STONE RIPRAP, CLASS A4
17. GUARDRAIL
18. BASE COURSE WIDENING 10"
19. AGGREGATE WEDGE SHOULDERS, TYPE B

TO BE REMOVED



PROPOSED TYPICAL SECTION

STA. 494+15.85 TO STA. 497+30.00

design firm no. 184001036 — whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED -	REVISED
FILE NAME = D672D08-SN0680027-SHT-TYPICAL.dgn	CHECKED -	REVISED
PLOT SCALE = 10.0000 ' / IN.	DRAWN -	REVISED
PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS
IL 185 OVER BAYOU CREEK

SCALE: 1" = 10' | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	24
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		

BENCHMARK BM-71

STA. 303+10, 57' LT.
COTTON PICKER SPINDLE IN
SOUTH SIDE OF POWER POLE
ELEV. 630.43 (NAVD 88 DATUM)

BENCHMARK BM-72

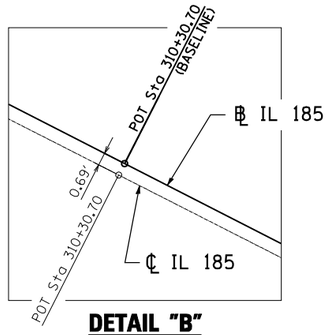
STA. 313+17, 60' LT.
COTTON PICKER SPINDLE IN
SOUTH SIDE OF POWER POLE
ELEV. 601.39 (NAVD 88 DATUM)

BENCHMARK TJM100

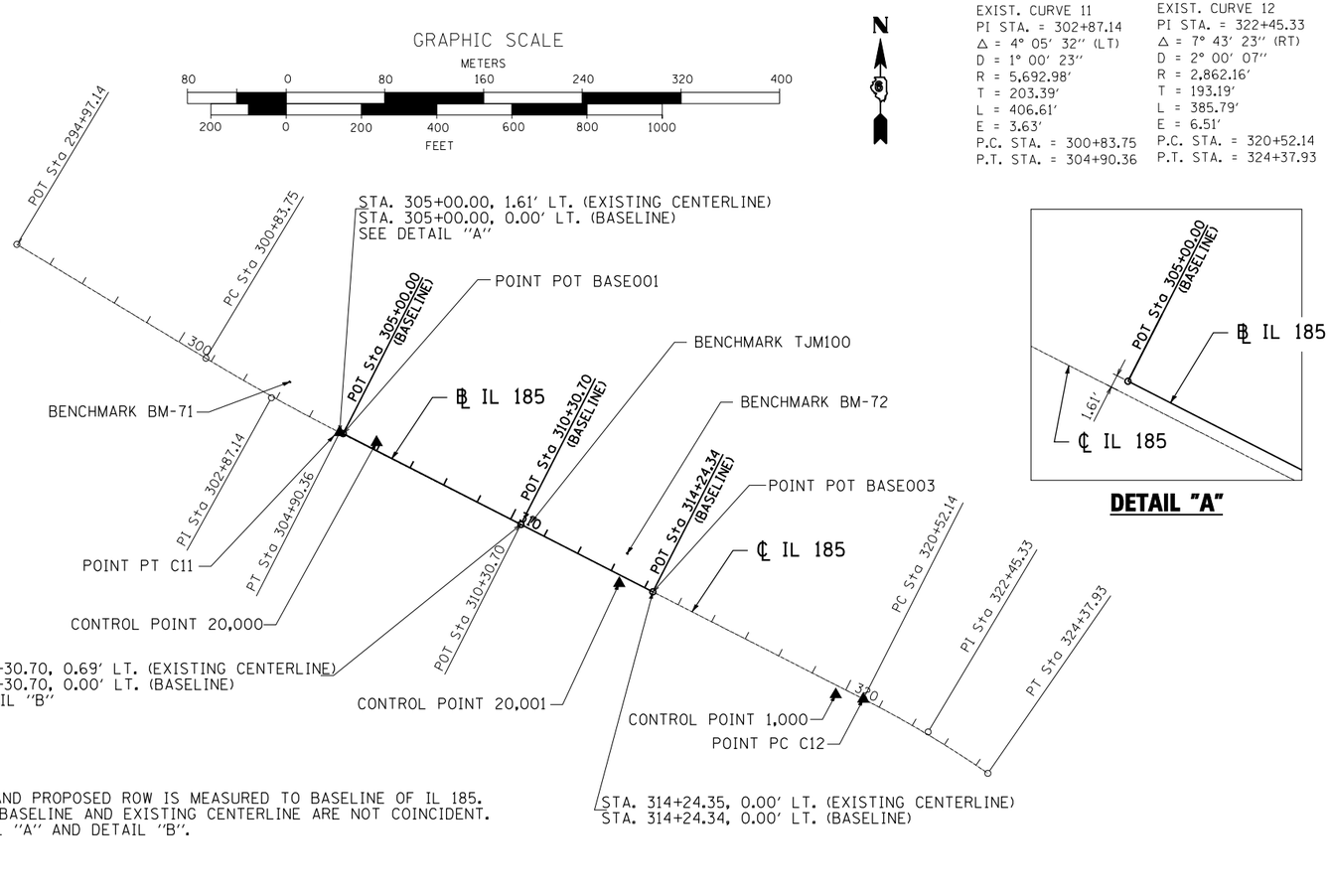
STA. 310+52.11, 16.5' LT.
CHISELED "□" IN CONCRETE
APPROACH SLAB AT N.E.
CORNER OF BRIDGE SN 068-0026
ELEV. 604.18 (NAVD 88 DATUM)

ALIGNMENT COORDINATES CENTERLINE IL 185			
POINT	STA.	N	E
POINT PT C11	304+90.36	888,102.614	2,509,376.310
POINT POT 20009	310+30.70	887,857.580	2,509,857.896
POINT PC C12	320+52.14	887,394.378	2,510,768.268

ALIGNMENT COORDINATES BASELINE IL 185			
POINT	STA.	N	E
PT POT BASE001	305+00.00	888,099.678	2,509,385.634
PT POT BASE002	310+30.70	887,858.191	2,509,858.209
PT POT BASE003	314+24.35	887,679.069	2,510,208.739

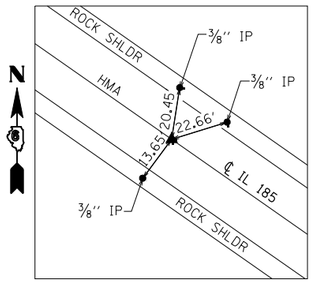


DETAIL "B"



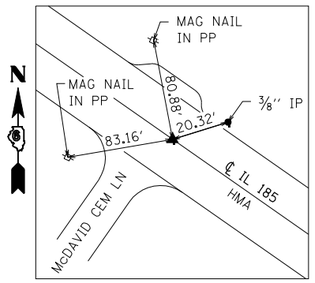
DETAIL "A"

EXISTING AND PROPOSED ROW IS MEASURED TO BASELINE OF IL 185.
PROPOSED BASELINE AND EXISTING CENTERLINE ARE NOT COINCIDENT.
SEE DETAIL "A" AND DETAIL "B".



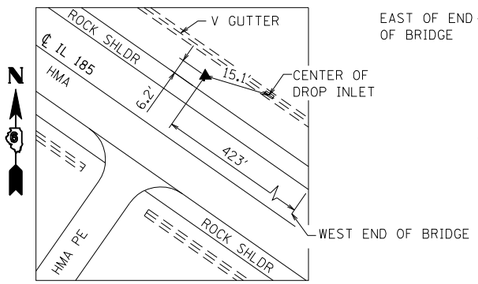
POINT PT C11

PK NAIL IN CHSLD "X"
STA. 304+90.36, 0.00' RT
N 888,102.614
E 2,509,376.310



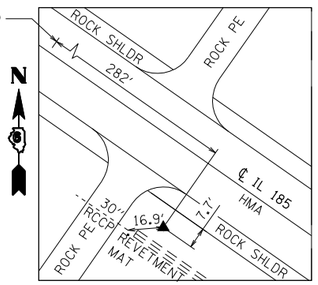
POINT PC C12

PK NAIL IN HMA
STA. 320+52.14, 0.00' RT
N 887,394.378
E 2,510,768.268



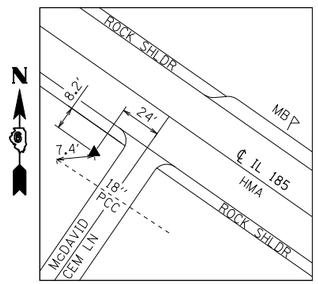
CONTROL POINT 20,000

4 REBAR W. IDOT CAP
STA. 305+89.74, 21.09' LT
N 888,076.346
E 2,509,474.453



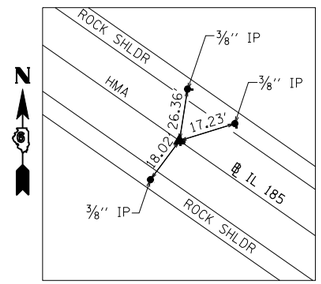
CONTROL POINT 20,001

4 REBAR W. IDOT CAP
STA. 313+34.48, 20.22' RT
N 887,701.802
E 2,510,119.477



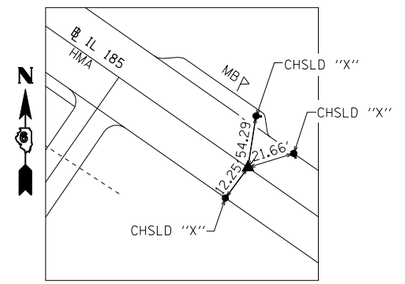
CONTROL POINT 1,000

4 REBAR W. IDOT CAP
STA. 319+81.63, 23.05' RT
N 887,405.809
E 2,510,694.979



POINT POT BASE001

SET PK N&BC W/CHSLD "X"
STA. 305+00.00, 1.61' LT. OF EXIST. ℄
N 888,099.678
E 2,509,385.634



POINT POT BASE003

SET PK N&BC W/CHSLD "X"
STA. 314+24.35, 0.00' RT. OF EXIST. ℄
N 887,679.069
E 2,510,208.739

design firm no. 184001036	whks engineers + planners + land surveyors		
USER NAME = gjameson	DESIGNED -	REVISED	
FILE NAME = D672D08-SHT-ATB.dgn	CHECKED -	REVISED	
PLOT SCALE = 400.0000 ' / IN.	DRAWN -	REVISED	
PLOT DATE = 10/15/2015	CHECKED -	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES AND BENCHMARKS
IL 185 OVER MCDAVID BRANCH

SCALE: 1" = 200' | SHEET NO. 1 OF 1 SHEETS | STA. 307+05.00 TO STA. 314+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	25
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		

BENCHMARK BM 88

STA. 480+98, 59' LT.
COTTON PICKER SPINDLE IN
NORTH SIDE OF POWER POLE
ELEV. 607.07 (NAVD 88 DATUM)

BENCHMARK BM 89

STA. 492+95, 17' LT.
CHSLD "□" ON NE WINGWALL
SN 068-0027
ELEV. 558.70 (NAVD 88 DATUM)

BENCHMARK ZP-1

STA. 501+25, 20' LT.
CHSLD "□" ON NE WINGWALL
SN 068-0505
ELEV. 562.11 (NAVD 88 DATUM)

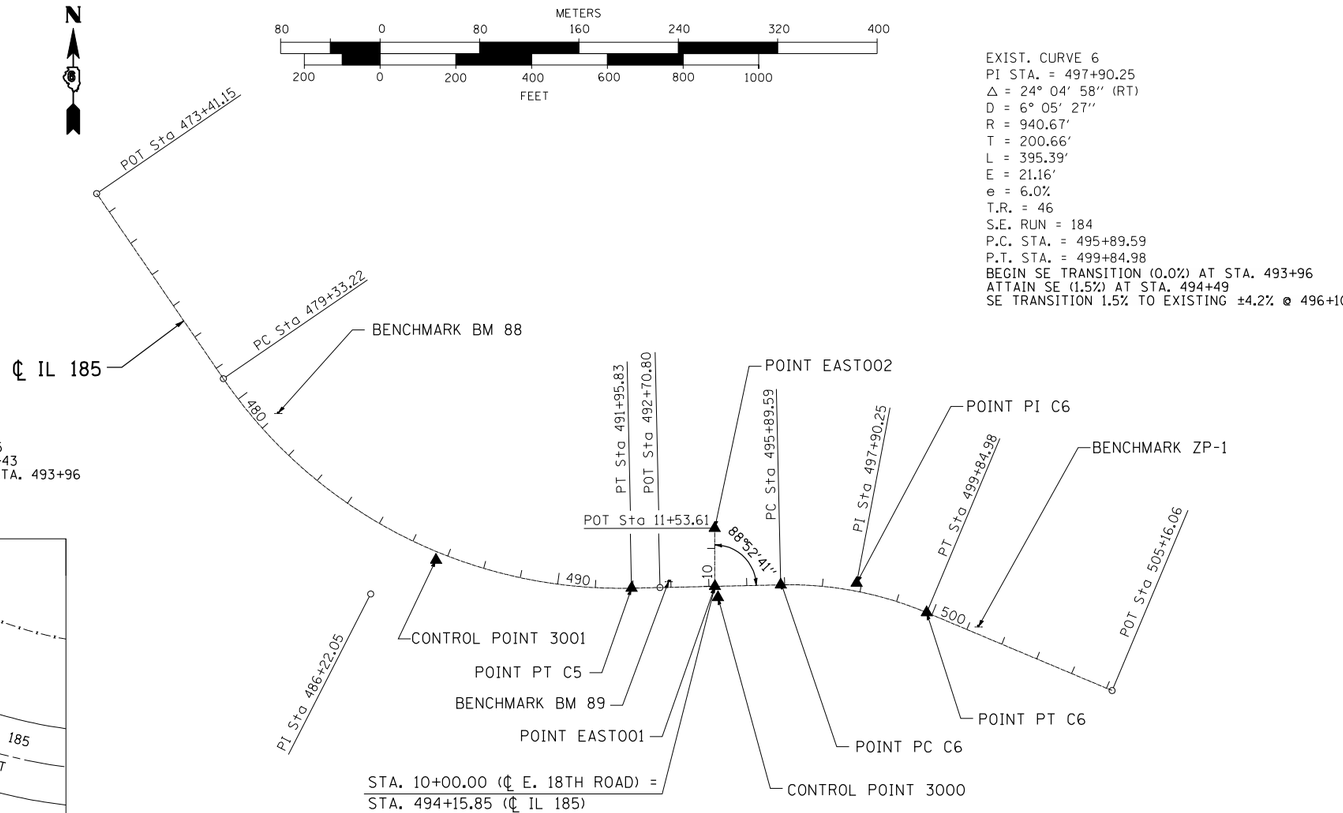
ALIGNMENT COORDINATES IL 185			
POINT	STA.	N	E
PT C5	491+95.83	877,658.762	2,524,692.361
PC C6	495+89.59	877,667.536	2,525,086.025
PI C6	497+90.25	877,672.007	2,525,286.631
PT C6	499+84.98	877,594.230	2,525,471.600

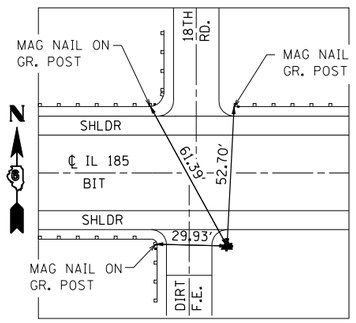
ALIGNMENT COORDINATES EAST 18TH ROAD			
POINT	STA.	N	E
EAST001	10+00.00	877,663.665	2,524,912.320
EAST002	11+53.61	877,817.279	2,524,911.905

EXIST. CURVE 5
PI STA. = 486+22.05
Δ = 56° 52' 53" (LT)
D = 4° 30' 18"
R = 1,271.81'
T = 688.83'
L = 1,262.61'
E = 174.56'
e = 5.0%
T.R. = 53
S.E. RUN = 177
P.C. STA. = 479+33.22
P.T. STA. = 491+95.83
END FULL SE AT STA. 490+81
ATTAIN 1.5% SE AT STA. 492+05
MAINTAIN 1.5% SE TO STA. 493+43
END SE TRANSITION (0.0%) AT STA. 493+96

GRAPHIC SCALE
METERS
80 0 80 160 240 320 400
200 0 200 400 600 800 1000
FEET

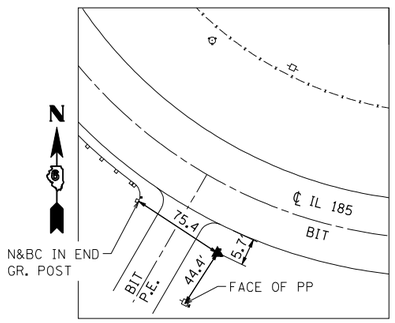
EXIST. CURVE 6
PI STA. = 497+90.25
Δ = 24° 04' 58" (RT)
D = 6° 05' 27"
R = 940.67'
T = 200.66'
L = 395.39'
E = 21.16'
e = 6.0%
T.R. = 46
S.E. RUN = 184
P.C. STA. = 495+89.59
P.T. STA. = 499+84.98
BEGIN SE TRANSITION (0.0%) AT STA. 493+96
ATTAIN SE (1.5%) AT STA. 494+49
SE TRANSITION 1.5% TO EXISTING ±4.2% @ 496+10





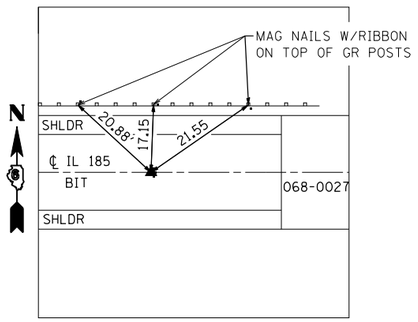
CONTROL POINT 3000

#4 REBAR W/CAP FLUSH
STA. 494+23.29, 29.77' RT
N 877,634.063
E 2,524,920.422



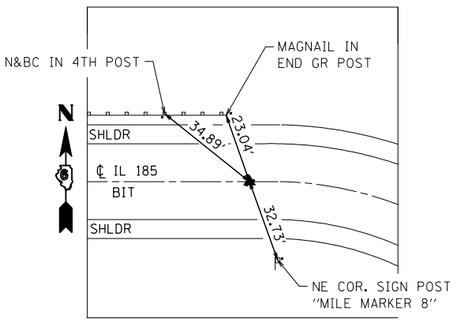
CONTROL POINT 3001

#4 REBAR W/CAP FLUSH
STA. 486+75.16, 21.29' RT
N 877,732.847
E 2,524,175.857



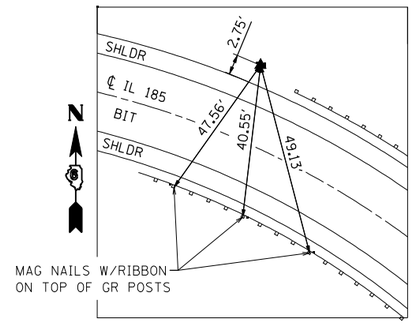
POINT PT C5

MAG NAIL W/CHSLD. "X"
STA. 491+95.83, 0.00' RT
N 877,658.762
E 2,524,692.361



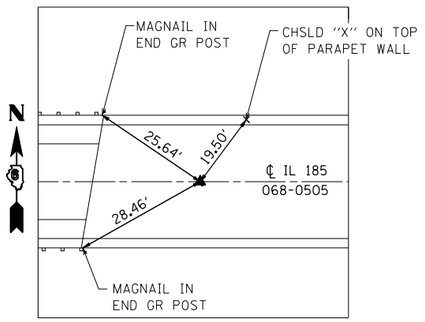
POINT PC C6

PK NAIL W/CHSLD. "X"
STA. 495+89.59, 0.00' RT
N 877,667.536
E 2,525,086.025



POINT PI C6

#5 REBAR W/CAP
STA. 497+90.25, 21.16' LT
N 877,672.007
E 2,525,286.631

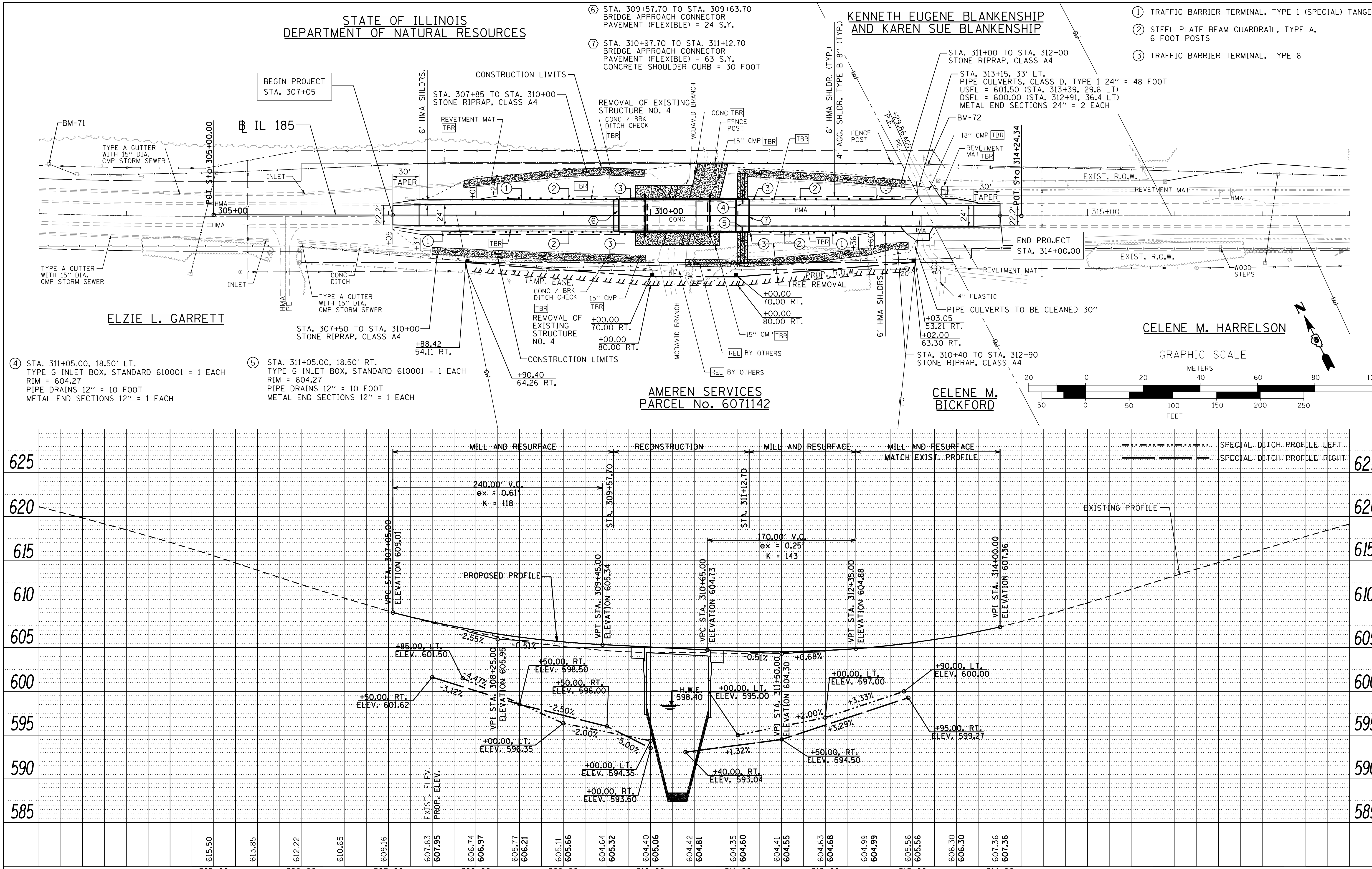


POINT PT C6

STAR DRILL W/ CHSLD. "X"
STA. 499+84.98, 0.00' RT
N 877,594.230
E 2,525,471.600

design firm no. 184001036 — whks engineers + planners + land surveyors	USER NAME = gjameson	DESIGNED -	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ALIGNMENT, TIES AND BENCHMARKS IL RTE 185 OVER BAYOU CREEK
	FILE NAME = D672D08-SHT-ATB.dgn	CHECKED -	REVISED		SCALE: 1" = 200' | SHEET NO. 1 OF 1 SHEETS | STA. 485+60 TO STA. 497+30
	PLOT SCALE = 400.0000 ' / IN.	DRAWN -	REVISED		
	PLOT DATE = 10/15/2015	CHECKED -	REVISED		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	26
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		



STATE OF ILLINOIS
DEPARTMENT OF NATURAL RESOURCES
6 STA. 309+57.70 TO STA. 309+63.70
BRIDGE APPROACH CONNECTOR
PAVEMENT (FLEXIBLE) = 24 S.Y.
7 STA. 310+97.70 TO STA. 311+12.70
BRIDGE APPROACH CONNECTOR
PAVEMENT (FLEXIBLE) = 63 S.Y.
CONCRETE SHOULDER CURB = 30 FOOT
KENNETH EUGENE BLANKENSHIP
AND KAREN SUE BLANKENSHIP
1 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
2 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
3 TRAFFIC BARRIER TERMINAL, TYPE 6
BEGIN PROJECT
STA. 307+05
CONSTRUCTION LIMITS
STA. 307+85 TO STA. 310+00
STONE RIPRAP, CLASS A4
REMOVAL OF EXISTING
STRUCTURE NO. 4
STA. 311+00 TO STA. 312+00
STONE RIPRAP, CLASS A4
STA. 313+15, 33' LT.
PIPE CULVERTS, CLASS D, TYPE 1 24" = 48 FOOT
USFL = 601.50 (STA. 313+39, 29.6 LT)
DSFL = 600.00 (STA. 312+91, 36.4 LT)
METAL END SECTIONS 24" = 2 EACH
BM-71
BM-72
IL 185
POI Sta 305+00.00
POT Sta 314+24.34
TYPE A GUTTER
WITH 15" DIA.
CMP STORM SEWER
INLET
REVETMENT MAT
CONC / BRK
DITCH CHECK
MCDAVID BRANCH
FENCE POST
15" CMP
18" CMP
6' HMA SHLDRS.
4' AGG. SHLDR. TYPE B 8" (TYP.)
6' HMA SHLDR. (TYP.)
30' TAPER
EXIST. R.O.W.
HMA
CONC
305+00
310+00
315+00
END PROJECT
STA. 314+00.00
WOOD STEPS
PROP. R.O.W.
TREE REMOVAL
TEMP. EASE.
4" PLASTIC
PIPE CULVERTS TO BE CLEANED 30"
ELZIE L. GARRETT
CELENE M. HARRELSON
STA. 307+50 TO STA. 310+00
STONE RIPRAP, CLASS A4
STA. 310+40 TO STA. 312+90
STONE RIPRAP, CLASS A4
REL BY OTHERS
4 STA. 311+05.00, 18.50' LT.
TYPE G INLET BOX, STANDARD 610001 = 1 EACH
RIM = 604.27
PIPE DRAINS 12" = 10 FOOT
METAL END SECTIONS 12" = 1 EACH
5 STA. 311+05.00, 18.50' RT.
TYPE G INLET BOX, STANDARD 610001 = 1 EACH
RIM = 604.27
PIPE DRAINS 12" = 10 FOOT
METAL END SECTIONS 12" = 1 EACH
AMEREN SERVICES
PARCEL No. 6071142
CELENE M.
BICKFORD
GRAPHIC SCALE
METERS
FEET
MILL AND RESURFACE
RECONSTRUCTION
MATCH EXIST. PROFILE
SPECIAL DITCH PROFILE LEFT
SPECIAL DITCH PROFILE RIGHT
240.00' V.C.
ex = 0.61'
K = 118
170.00' V.C.
ex = 0.25'
K = 143
VPC STA. 307+05.00
ELEVATION 609.01
VPT STA. 309+45.00
ELEVATION 605.34
STA. 309+51.70
STA. 311+12.70
VPC STA. 310+65.00
ELEVATION 604.73
VPT STA. 312+35.00
ELEVATION 604.88
VPI STA. 314+00.00
ELEVATION 607.36
VPI STA. 308+25.00
ELEVATION 605.95
VPI STA. 311+50.00
ELEVATION 604.30
PROPOSED PROFILE
EXISTING PROFILE
H.W.E.
598.40
-2.55%
-0.51%
+0.68%
-3.12%
-4.47%
-2.50%
-2.00%
-5.00%
+1.32%
+2.00%
+3.33%
+3.29%
+85.00 LT. ELEV. 601.50
+50.00 RT. ELEV. 601.62
+50.00 RT. ELEV. 598.50
+50.00 RT. ELEV. 596.00
+00.00 LT. ELEV. 596.35
+00.00 LT. ELEV. 594.35
+00.00 RT. ELEV. 593.50
+00.00 LT. ELEV. 595.00
+40.00 RT. ELEV. 593.04
+00.00 LT. ELEV. 597.00
+50.00 RT. ELEV. 594.50
+90.00 LT. ELEV. 600.00
+95.00 RT. ELEV. 599.27
EXIST. ELEV.
PROP. ELEV.
625
620
615
610
605
600
595
590
585
305+00
306+00
307+00
308+00
309+00
310+00
311+00
312+00
313+00
314+00

design firm no. 184001036

whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED -	REVISED	
FILE NAME = D672D08-SN0680026-SHT-PLANPROFILE.dgn	CHECKED -	REVISED	
PLOT SCALE = 100.0000 ' / IN.	DRAWN -	REVISED	
PLOT DATE = 10/15/2015	CHECKED -	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
IL 185 OVER MCDAVID BRANCH

SCALE: 1" = 50' | SHEET NO. 1 OF 1 SHEETS | STA. 307+05.00 TO STA. 314+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	27
		CONTRACT NO. 72D08		
		ILLINOIS FED. AID PROJECT		

EXIST. CURVE 5
PI STA. = 486+22.05
Δ = 56° 52′ 53″ (LT)
D = 4° 30′ 18″
R = 1,271.81′
T = 688.83′
L = 1,262.61′
E = 174.56′
e = 5.0%
T.R. = 53
S.E. RUN = 177
P.C. STA. = 479+33.22
P.T. STA. = 491+95.83
END FULL SE AT STA. 490+81
ATTAIN 1.5% SE AT STA. 492+05
MAINTAIN 1.5% SE TO STA. 493+43
END SE TRANSITION (0.0%) AT STA. 493+96

EXIST. CURVE 6
PI STA. = 497+90.25
Δ = 24° 04′ 58″ (RT)
D = 6° 05′ 27″
R = 940.67′
T = 200.66′
L = 395.39′
E = 21.16′
e = 6.0%
T.R. = 46
S.E. RUN = 184
P.C. STA. = 495+89.59
P.T. STA. = 499+84.98
BEGIN SE TRANSITION (0.0%) AT STA. 493+96
ATTAIN SE (1.5%) AT STA. 494+49
SE TRANSITION 1.5% TO EXISTING ±4.2% @ 496+10

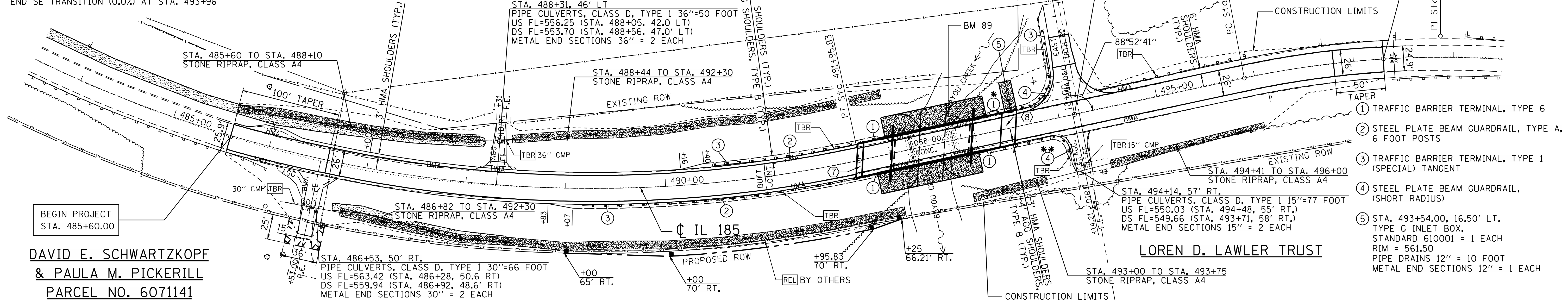
GRAPHIC SCALE
METERS 20 0 20 40 60 80 100
FEET 50 0 50 100 150 200 250

* BEND END OF RAIL TO MATCH RADIUS AS SHOWN IN INTERSECTION DETAIL

** PLACE END SECTION AT END OF SPBGR, COST INCLUDED WITH STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)

⑦ STA. 491+93.31 TO STA. 491+99.31
BRIDGE APPROACH CONNECTOR
PAVEMENT (FLEXIBLE) = 25 SQ YD

⑧ STA. 493+40.69 TO STA. 493+55.69
BRIDGE APPROACH CONNECTOR
PAVEMENT (FLEXIBLE) = 33 SQ YD
CONCRETE SHOULDER CURB = 15 FOOT



PATRICK & LORA ECK
EXISTING ROW
℄ EAST 18TH ROAD
END PROJECT STA. 497+30.00
POT Sta 11+53.61
STA. 10+00.00 (E 18TH RD.)= STA. 494+15.85 (IL RTE 185)
STA. 488+31, 46′ LT
PIPE CULVERTS, CLASS D, TYPE 1 36″=50 FOOT
US FL=556.25 (STA. 488+05, 42.0 LT)
DS FL=553.70 (STA. 488+56, 47.0′ LT)
METAL END SECTIONS 36″ = 2 EACH
STA. 485+60 TO STA. 488+10
STONE RIPRAP, CLASS A4
STA. 488+44 TO STA. 492+30
STONE RIPRAP, CLASS A4
CONSTRUCTION LIMITS
BM 89
100′ TAPER
HMA SHOULDERS (TYP.)
AGG SHOULDERS, TYPE B (TYP.)
BAYOU CREEK
TBR
88°52′41″
495+00
TAPER
50′
26′
24.9′
490+00
485+00
℄ IL 185
BEGIN PROJECT STA. 485+60.00
DAVID E. SCHWARTZKOPF & PAULA M. PICKERILL PARCEL NO. 6071141
STA. 486+82 TO STA. 492+30
STONE RIPRAP, CLASS A4
STA. 486+53, 50′ RT.
PIPE CULVERTS, CLASS D, TYPE 1 30″=66 FOOT
US FL=563.42 (STA. 486+28, 50.6 RT)
DS FL=559.94 (STA. 486+92, 48.6′ RT)
METAL END SECTIONS 30″ = 2 EACH
30″ CMP
36″ CMP
15″ CMP
PROPOSED ROW
+00 65′ RT.
+00 70′ RT.
REL BY OTHERS
+95.83 70′ RT.
+25 66.21′ RT.
CONSTRUCTION LIMITS
STA. 494+41 TO STA. 496+00
STONE RIPRAP, CLASS A4
STA. 494+14, 57′ RT.
PIPE CULVERTS, CLASS D, TYPE 1 15″=77 FOOT
US FL=550.03 (STA. 494+48, 55′ RT.)
DS FL=549.66 (STA. 493+71, 58′ RT.)
METAL END SECTIONS 15″ = 2 EACH
LOREN D. LAWLER TRUST
STA. 493+00 TO STA. 493+75
STONE RIPRAP, CLASS A4
068-0027

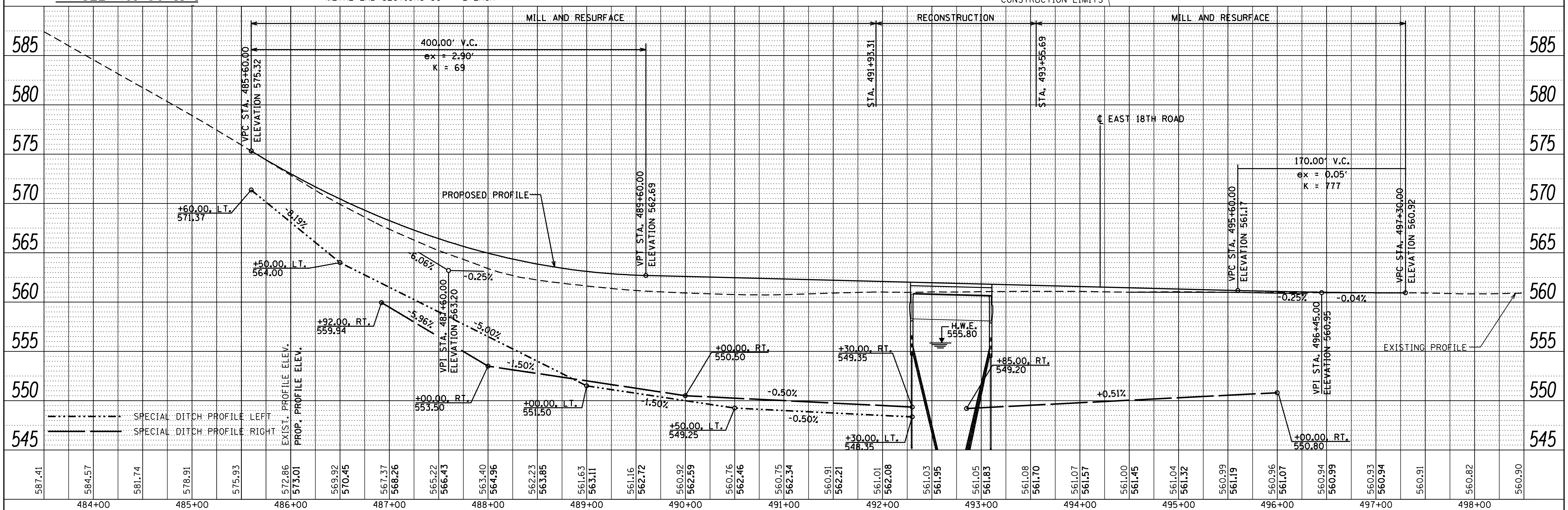
① TRAFFIC BARRIER TERMINAL, TYPE 6

② STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS

③ TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

④ STEEL PLATE BEAM GUARDRAIL, (SHORT RADIUS)

⑤ STA. 493+54.00, 16.50′ LT.
TYPE G INLET BOX, STANDARD 610001 = 1 EACH
RIM = 561.50
PIPE DRAINS 12″ = 10 FOOT
METAL END SECTIONS 12″ = 1 EACH



MILL AND RESURFACE
RECONSTRUCTION
MILL AND RESURFACE
400.00′ V.C.
ex = 2.90′
K = 69
VPC STA. 485+60.00 ELEVATION 575.32
STA. 491+93.31
STA. 493+55.69
℄ EAST 18TH ROAD
170.00′ V.C.
ex = 0.05′
K = 777
VPI STA. 489+60.00 ELEVATION 562.69
VPC STA. 495+60.00 ELEVATION 561.17
VPC STA. 497+30.00 ELEVATION 560.92
PROPOSED PROFILE
+60.00, LT. 571.37
-8.19%
+50.00, LT. 564.00
6.06%
-0.25%
VPI STA. 487+60.00 ELEVATION 563.20
+92.00, RT. 559.94
-5.96%
-5.00%
-1.50%
1.50%
+00.00, RT. 553.50
+00.00, LT. 551.50
+00.00, RT. 550.50
-0.50%
+50.00, LT. 549.25
-0.50%
+30.00, RT. 549.35
+30.00, LT. 548.35
H.W.E. 555.80
+85.00, RT. 549.20
+0.51%
-0.25%
-0.04%
VPI STA. 496+45.00 ELEVATION 560.95
+00.00, RT. 550.80
EXISTING PROFILE
SPECIAL DITCH PROFILE LEFT
SPECIAL DITCH PROFILE RIGHT
EXIST. PROFILE ELEV.
PROP. PROFILE ELEV.
585 580 575 570 565 560 555 550 545
587.41 584.57 581.74 578.91 575.93 572.86 573.01 569.92 570.45 567.37 568.26 565.22 566.43 563.40 564.96 562.23 563.85 561.63 563.11 561.16 562.72 560.92 562.59 560.76 562.46 560.75 562.34 560.91 562.21 561.01 562.08 561.03 561.95 561.05 561.83 561.08 561.70 561.07 561.57 561.00 561.45 561.04 561.32 560.99 561.19 560.96 561.07 560.94 560.99 560.93 560.94 560.91 560.82 560.90
484+00 485+00 486+00 487+00 488+00 489+00 490+00 491+00 492+00 493+00 494+00 495+00 496+00 497+00 498+00

PLAN — SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.T. OF WAY CHECKED / CADD FILE NAME / NOTE BOOK / NO. / BY / DATE

PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTAT'NS CHK'D / NOTE BOOK / NO. / BY / DATE

design firm no. 184001036
whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED -	REVISED
FILE NAME = D672D08-SN0680027-PLNP1.dgn	CHECKED -	REVISED
PLOT SCALE = 100.0000 ′ / IN.	DRAWN -	REVISED
PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
IL RTE 185 OVER BAYOU CREEK

SCALE: 1″ = 50′ | SHEET NO. 1 OF 1 SHEETS | STA. 485+60 TO STA. 497+30

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	28

CONTRACT NO. 72D08
ILLINOIS FED. AID PROJECT

SUGGESTED SEQUENCE OF CONSTRUCTION

PRE-STAGE CONSTRUCTION:
1. TRAFFIC REMAINS ON EXISTING PAVEMENT.
2. REMOVE THE EXISTING HMA SHOULDERS/WIDENING ALONG THE NORTH SIDE OF IL 185 AS SHOWN IN THE PLANS.
3. CONSTRUCT THE WIDENING ALONG THE NORTH SIDE OF IL 185. USE HIGHWAY STANDARD 701326.
4. INSTALL WIDTH RESTRICTION SIGNING.
5. INSTALL SIGNS AND TEMPORARY BRIDGE TRAFFIC SIGNAL LOOP DETECTORS. USE HIGHWAY STANDARD 701201 OR OTHER APPLICABLE STANDARDS.

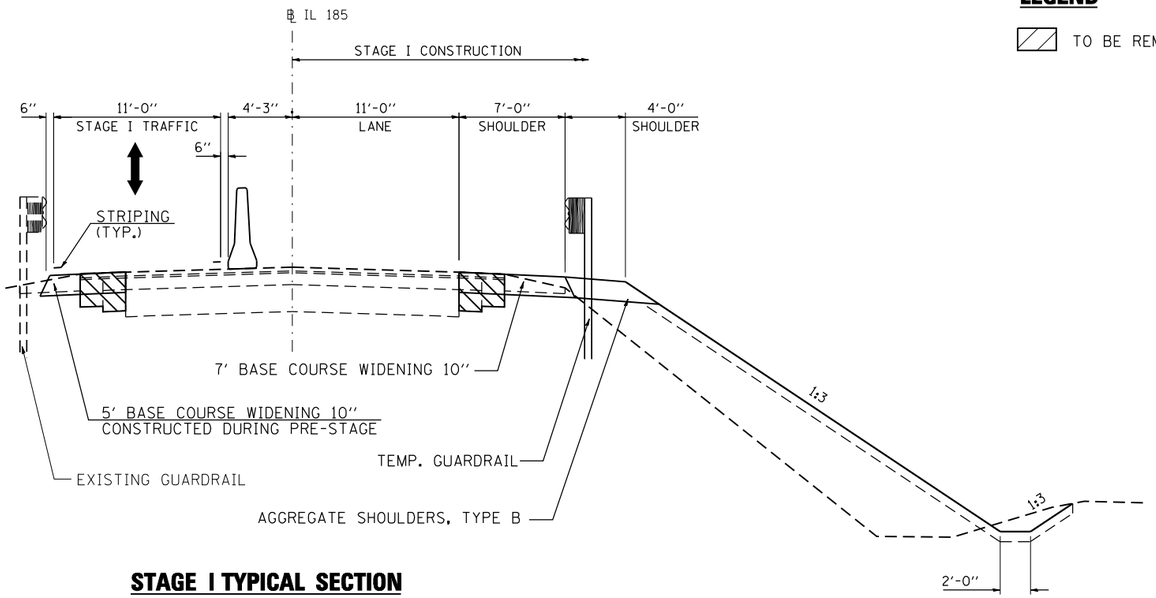
STAGE I CONSTRUCTION:
1. REMOVE CONFLICTING STRIPING AND INSTALL TEMPORARY CONCRETE BARRIERS, TEMPORARY IMPACT ATTENUATORS, TEMPORARY STRIPING AND TEMPORARY BRIDGE TRAFFIC SIGNALS AS SHOWN ON THE PLANS. INSTALL OTHER TRAFFIC CONTROL AND PROTECTION USING HIGHWAY STANDARD 701321.
2. SHIFT TRAFFIC TO STAGE I LANE.
3. REMOVE THE SOUTH HALF OF EXISTING BRIDGE.
4. REMOVE EXISTING GUARDRAIL AND SHOULDERS/WIDENING ALONG THE SOUTH SIDE OF IL 185.
5. CONSTRUCT SOUTH HALF OF PROPOSED BRIDGE, CONNECTOR PAVEMENT AND EARTHWORK.
6. CONSTRUCT WIDENING, TEMPORARY RAMPS, AGGREGATE SHOULDERS AND TEMPORARY GUARDRAIL ALONG THE SOUTH SIDE OF IL 185.

GENERAL STAGING NOTES

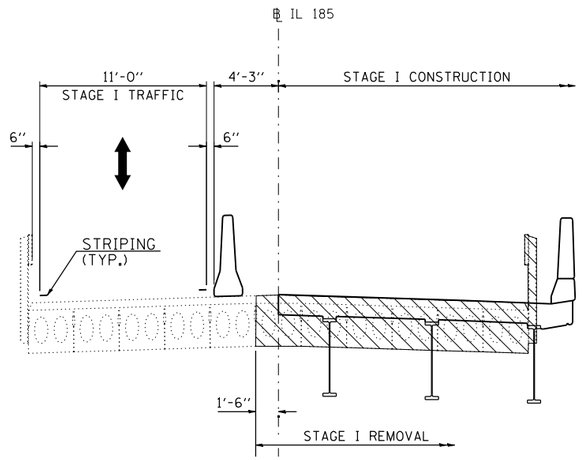
1. REFER TO THE PLAN AND PROFILE SHEETS AND BRIDGE PLANS FOR DRAINAGE ITEMS AND IN-STREAM WORK.
2. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ENTRANCES AT ALL TIMES DURING CONSTRUCTION.
3. THE TRAFFIC CONTROL PLANS SHALL BE USED IN CONJUNCTION WITH APPLICABLE HIGHWAY STANDARDS.
4. VERTICAL PANELS, DRUMS WITH STEADY BURNING LIGHTS, TYPE III BARRICADES, SIGNS, MICROWAVE DETECTOR SYSTEMS, DETECTOR LOOPS AND TYPE C BI-DIRECTIONAL REFLECTORS SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701321. TEMPORARY PAVEMENT MARKINGS, TEMPORARY BRIDGE TRAFFIC SIGNALS, CHANGEABLE MESSAGE SIGNS AND TEMPORARY RUMBLE STRIPS SHALL BE PAID FOR SEPARATELY.
5. THE CONTRACTOR SHALL PROVIDE AND ERECT LANE WIDTH RESTRICTION SIGNING. THESE SIGNS SHALL BE PLACED AS DIRECTED BY THE ENGINEER BEFORE IMPLEMENTING ANY STAGE I TRAFFIC CONTROL. SEE SPECIAL PROVISIONS.
6. THE CONTRACTOR SHALL NOTIFY THE DISTRICT 6 TRAFFIC SECTION OF THE BUREAU OF OPERATIONS, PH: (217) 785-7314, AT LEAST 21 DAYS PRIOR TO IMPLEMENTING STAGE I TRAFFIC AND WHEN A SWITCH IN STAGING IS MADE.
7. THE CONTRACTOR SHALL NOTIFY THE DISTRICT 6 TRAFFIC SECTION OF THE BUREAU OF OPERATIONS AT LEAST THREE (3) DAYS PRIOR TO ACTIVATING THE TEMPORARY TRAFFIC SIGNALS. SEE SPECIAL PROVISIONS FOR TEMPORARY BRIDGE TRAFFIC SIGNALS.
8. UNLESS OTHERWISE INDICATED, TEMPORARY BRIDGE TRAFFIC SIGNALS, STOP BARS, TEMPORARY RUMBLE STRIPS, DETECTOR LOOPS AND ADVANCE SIGN LOCATIONS TO REMAIN IN PLACE THROUGHOUT THE DURATION OF STAGES I AND II AS PER HIGHWAY STANDARD 701321.
9. ALL TEMPORARY TRAFFIC SIGNALS REQUIRED FOR BRIDGE AND ENTRANCES FOR BOTH STAGES OF CONSTRUCTION WILL BE MEASURED AS 1 UNIT.
10. THE INTENT OF THE TEMPORARY GUARDRAIL AND TERMINALS SECTIONS IS TO ALLOW FOR SAFE PLACEMENT (CORRECT ELEVATION AND OFFSET) DURING TEMPORARY OR STAGE CONDITIONS. THE COST FOR SUPPLYING THE TEMPORARY GUARDRAIL AND TERMINAL SECTIONS AND ADJUSTING TO PERMANENT CONDITIONS SHALL BE CONSIDERED IN THE TEMPORARY PAY ITEMS INCLUDED IN THE CONTRACT. THIS WORK SHALL INCLUDE ANY EXTRA MATERIAL, CORING OR FILLING HOLES FOR POST INSTALLATION, LABOR AND MATERIALS FOR ALL ADJUSTMENTS AND ANY ADDITIONAL WORK NECESSARY TO PROVIDE SAFE GUARDRAIL CONDITIONS FOR TEMPORARY AND PERMANENT CONDITIONS. ADJUSTMENTS MAY BE MADE BY THE DIRECTION OF THE ENGINEER.

LEGEND

TO BE REMOVED



STAGE I TYPICAL SECTION
(LOOKING EAST)



STAGE I BRIDGE TYPICAL
(LOOKING EAST)

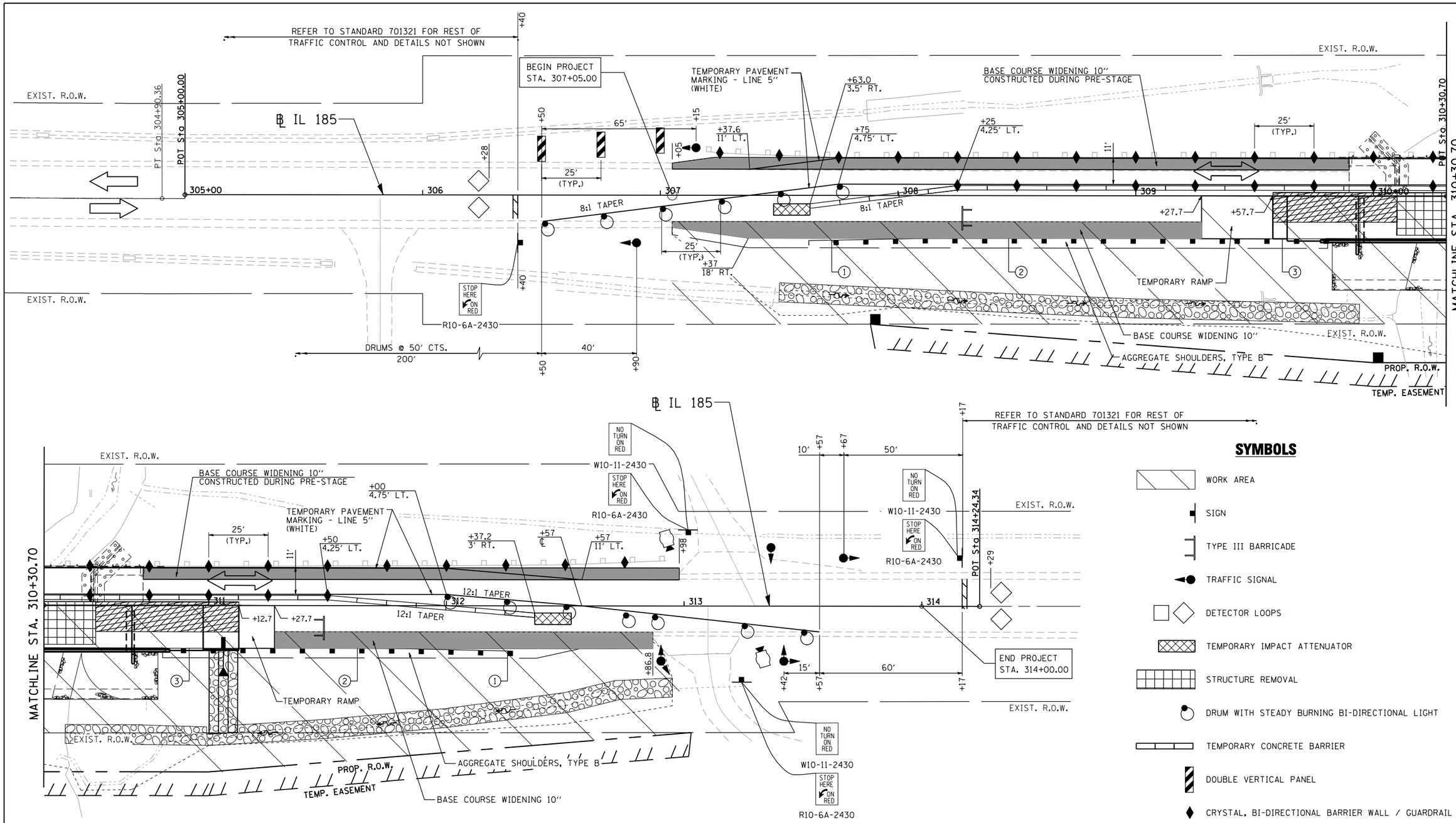
design firm no. 184001036 — whks engineers + planners + land surveyors	USER NAME = gjameson	DESIGNED -	REVISED
	FILE NAME = D672D08-SN0680026-SHT-TCTS1.dgn	CHECKED -	REVISED
	PLOT SCALE = 10.0000 ' / IN.	DRAWN -	REVISED
	PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL TYPICAL SECTIONS – STAGE I
IL 185 OVER MCDAVID BRANCH

SCALE: 1'' = 10' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	29
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		



SYMBOLS

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- TEMPORARY IMPACT ATTENUATOR
- STRUCTURE REMOVAL
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TEMPORARY CONCRETE BARRIER
- DOUBLE VERTICAL PANEL
- CRYSTAL, BI-DIRECTIONAL BARRIER WALL / GUARDRAIL MARKER
- BASE COURSE WIDENING 10"
- PAVEMENT REMOVAL
- TEMPORARY PAVEMENT MARKING-LINE 24" (WHITE)
- MICROWAVE DETECTOR SYSTEM

(1) TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

(2) TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS

(3) TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6

NOTE:
DETECTOR AND SIGNALS SHOULD BE PROVIDED FOR ALL PRIVATE ENTRANCES SHOWN AND THE PHASING AS DIRECTED BY DISTRICT 6 BUREAU OF OPERATIONS.

design firm no. 184001036
whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED -	REVISED
FILE NAME = D672D08-SN0680026-SHT-SHEET.dgn	CHECKED -	REVISED
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PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN – STAGE I
IL 185 OVER MCDAVID BRANCH

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. 307+05 TO STA. 314+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	30
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

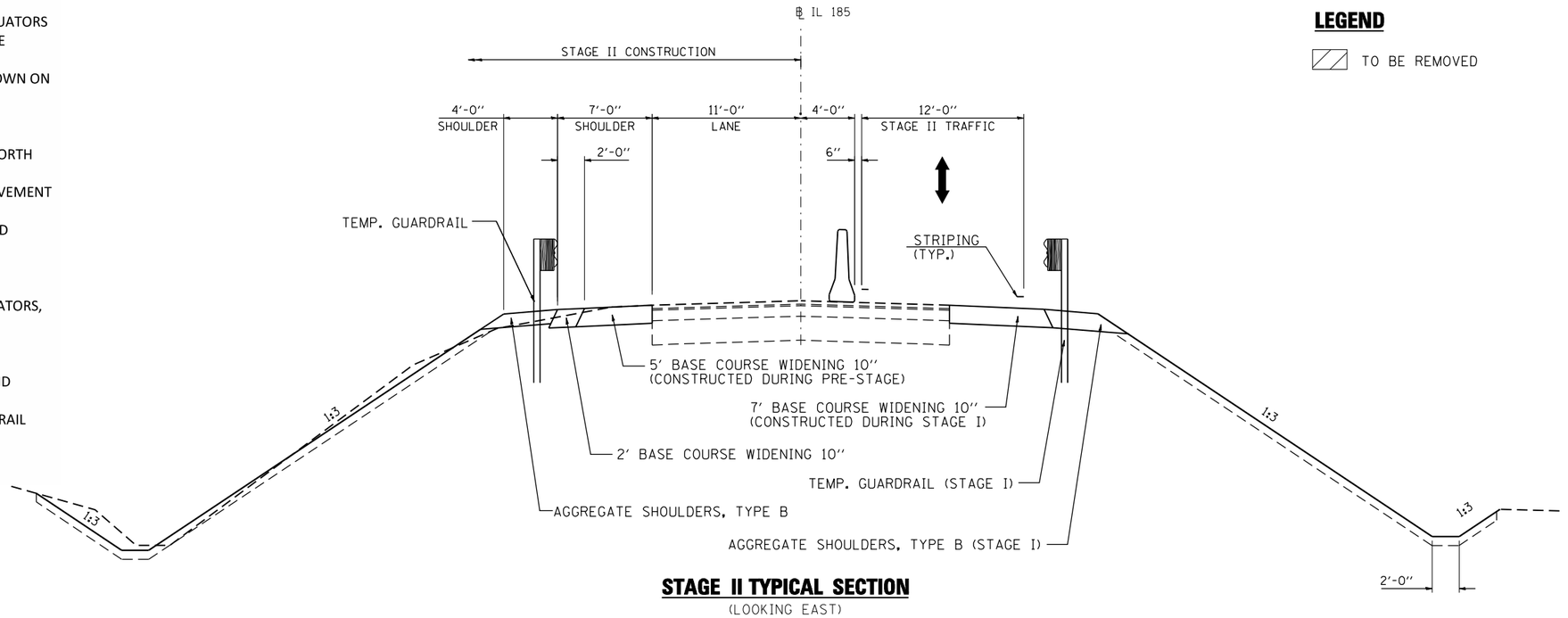
SUGGESTED SEQUENCE OF CONSTRUCTION

STAGE II CONSTRUCTION:

1. RELOCATE TEMPORARY CONCRETE BARRIERS, TEMPORARY IMPACT ATTENUATORS AND TEMPORARY BRIDGE TRAFFIC SIGNALS AS SHOWN ON THE PLANS. USE HIGHWAY STANDARD 701321.
2. REMOVE CONFLICTING STRIPING AND PLACE TEMPORARY STRIPING AS SHOWN ON THE PLANS.
3. SHIFT TRAFFIC TO STAGE II LANE.
4. REMOVE THE NORTH HALF OF THE EXISTING BRIDGE.
5. REMOVE EXISTING GUARDRAIL AND SHOULDERS/WIDENING ALONG THE NORTH SIDE OF IL 185.
6. CONSTRUCT THE NORTH HALF OF THE PROPOSED BRIDGE, CONNECTOR PAVEMENT EARTHWORK.
7. CONSTRUCT WIDENING, TEMPORARY RAMPS, AGGREGATE SHOULDERS AND TEMPORARY GUARDRAIL ALONG THE NORTH SIDE OF IL 185.

STAGE III CONSTRUCTION:

1. REMOVE TEMPORARY CONCRETE BARRIERS, TEMPORARY IMPACT ATTENUATORS, TEMPORARY TRAFFIC SIGNALS AND WIDTH RESTRICTION SIGNING.
2. REMOVE CONFLICTING STRIPING AND PLACE TEMPORARY STRIPING.
3. SHIFT TRAFFIC TO THE EXISTING LANES.
4. REMOVE TEMPORARY RAMPS, MILL AND CONSTRUCT THE HMA BINDER AND SURFACE COURSES USING HIGHWAY STANDARD 701306.
5. CONSTRUCT HMA AND AGGREGATE SHOULDERS AND PERMANENT GUARDRAIL USING HIGHWAY STANDARD 701326.
6. FINISH EARTHWORK AND GRADING AND SEED DISTURBED AREAS.
7. PLACE FINAL STRIPING AND CLEANUP.

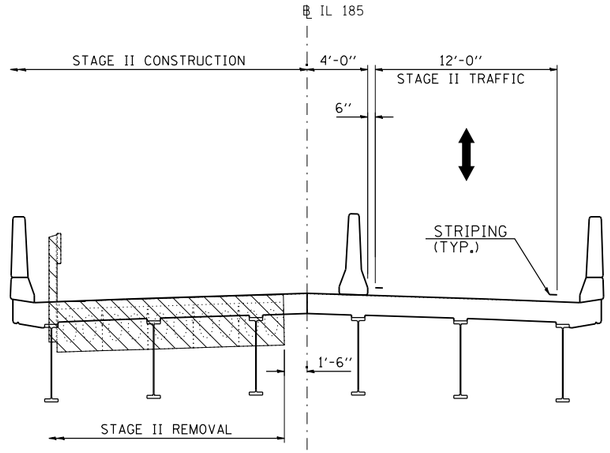


LEGEND

TO BE REMOVED

STAGE II TYPICAL SECTION

(LOOKING EAST)



STAGE II BRIDGE TYPICAL

(LOOKING EAST)

design firm no. 184001036 — whks engineers + planners + land surveyors	USER NAME = gjameson	DESIGNED -	REVISED
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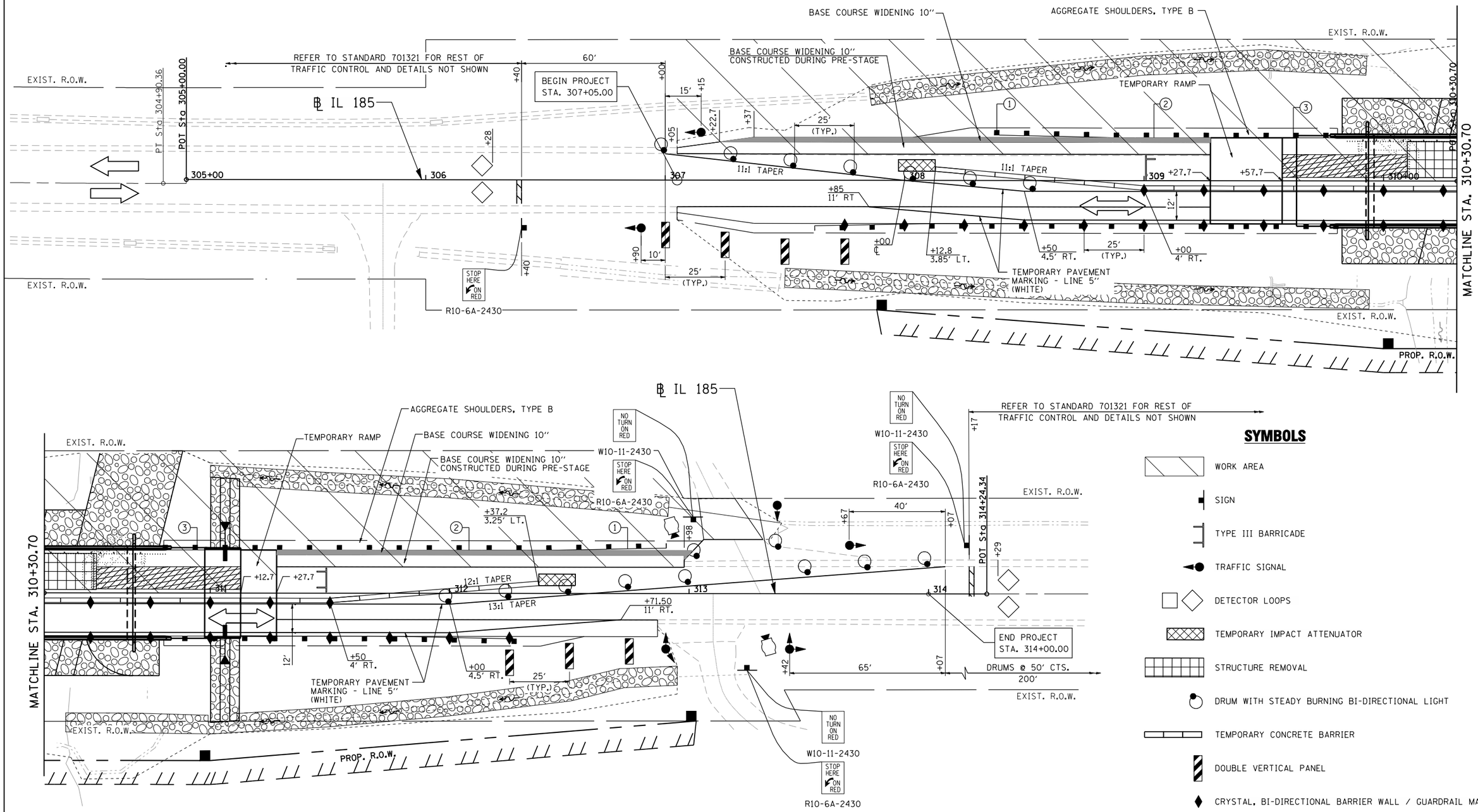
	PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL TYPICAL SECTIONS – STAGE II
IL 185 OVER MCDAVID BRANCH

SCALE: 1" = 10' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	31
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		



SYMBOLS

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- TEMPORARY IMPACT ATTENUATOR
- STRUCTURE REMOVAL
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TEMPORARY CONCRETE BARRIER
- DOUBLE VERTICAL PANEL
- CRYSTAL, BI-DIRECTIONAL BARRIER WALL / GUARDRAIL MARKER
- BASE COURSE WIDENING 10"
- PAVEMENT REMOVAL
- TEMPORARY PAVEMENT MARKING-LINE 24" (WHITE)
- MICROWAVE DETECTOR SYSTEM

(1) TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

(2) TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS

(3) TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6

NOTE:
DETECTOR AND SIGNALS SHOULD BE PROVIDED FOR ALL PRIVATE ENTRANCES SHOWN AND THE PHASING AS DIRECTED BY DISTRICT 6 BUREAU OF OPERATIONS.

design firm no. 184001036
whks engineers + planners + land surveyors

USER NAME = g.jameson	DESIGNED -	REVISED
FILE NAME = D672D08-SN0680026-SHT-SHEET.dgn	CHECKED -	REVISED
PLOT SCALE = 40.0000 ' / IN.	DRAWN -	REVISED
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN – STAGE II
IL 185 OVER MCDAVID BRANCH

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. 307+05 TO STA. 314+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	32
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

SUGGESTED SEQUENCE OF CONSTRUCTION

PRE-STAGE CONSTRUCTION:

1. TRAFFIC REMAINS ON EXISTING PAVEMENT.
2. REMOVE THE EXISTING GUARDRAIL (NW ONLY), HMA SHOULDERS/WIDENING ALONG THE NORTH SIDE OF IL 185 AS SHOWN IN THE PLANS.
3. CONSTRUCT THE WIDENING ALONG THE NORTH SIDE OF IL 185. USE HIGHWAY STANDARD 701326.
4. INSTALL TEMPORARY GUARDRAIL (NW ONLY).
5. INSTALL WIDTH RESTRICTION SIGNING.
6. INSTALL SIGNS AND TEMPORARY BRIDGE TRAFFIC SIGNAL LOOP DETECTORS. USE HIGHWAY STANDARD 701201 OR OTHER APPLICABLE STANDARDS.

STAGE I CONSTRUCTION:

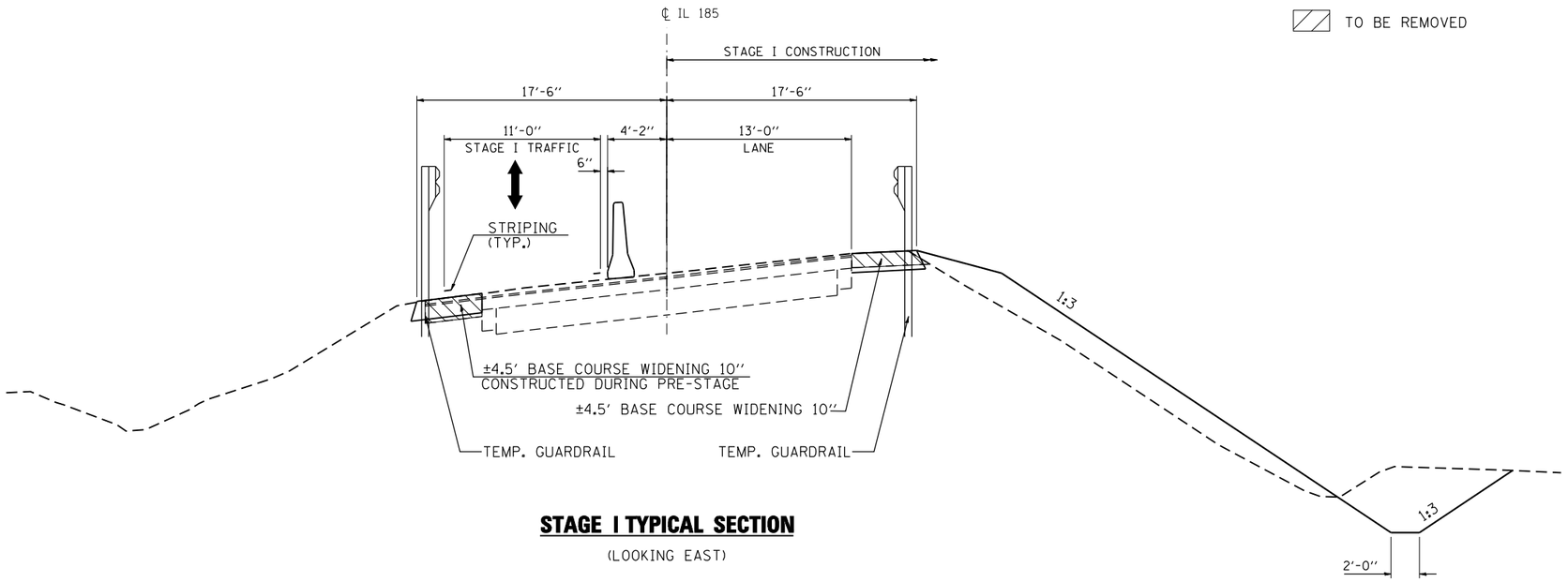
1. REMOVE CONFLICTING STRIPING AND INSTALL TEMPORARY CONCRETE BARRIERS, TEMPORARY IMPACT ATTENUATORS, TEMPORARY STRIPING AND TEMPORARY BRIDGE TRAFFIC SIGNALS AS SHOWN ON THE PLANS. INSTALL OTHER TRAFFIC CONTROL AND PROTECTION USING HIGHWAY STANDARD 701321.
2. SHIFT TRAFFIC TO STAGE I LANE.
3. REMOVE THE SOUTH HALF OF EXISTING BRIDGE.
4. REMOVE EXISTING GUARDRAIL, SHOULDERS/WIDENING AND PIPE CULVERTS ALONG THE SOUTH SIDE OF IL 185.
5. CONSTRUCT SOUTH HALF OF PROPOSED BRIDGE, CONNECTOR PAVEMENT AND EARTHWORK.
6. CONSTRUCT WIDENING, TEMPORARY RAMPS, AGGREGATE SHOULDERS, PIPE CULVERTS AND TEMPORARY GUARDRAIL ALONG THE SOUTH SIDE OF IL 185.

GENERAL STAGING NOTES

1. REFER TO THE PLAN AND PROFILE SHEETS AND BRIDGE PLANS FOR DRAINAGE ITEMS AND IN-STREAM WORK.
2. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ENTRANCES AT ALL TIMES DURING CONSTRUCTION.
3. THE TRAFFIC CONTROL PLANS SHALL BE USED IN CONJUNCTION WITH APPLICABLE HIGHWAY STANDARDS.
4. VERTICAL PANELS, DRUMS WITH STEADY BURNING LIGHTS, TYPE III BARRICADES, SIGNS, MICROWAVE DETECTOR SYSTEMS, DETECTOR LOOPS AND TYPE C BI-DIRECTIONAL REFLECTORS SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION, STANDARD 701321. TEMPORARY PAVEMENT MARKINGS, TEMPORARY BRIDGE TRAFFIC SIGNALS, CHANGEABLE MESSAGE SIGNS AND TEMPORARY RUMBLE STRIPS SHALL BE PAID FOR SEPARATELY.
5. THE CONTRACTOR SHALL PROVIDE AND ERECT LANE WIDTH RESTRICTION SIGNING. THESE SIGNS SHALL BE PLACED AS DIRECTED BY THE ENGINEER BEFORE IMPLEMENTING ANY STAGE I TRAFFIC CONTROL. SEE SPECIAL PROVISIONS.
6. THE CONTRACTOR SHALL NOTIFY THE DISTRICT 6 TRAFFIC SECTION OF THE BUREAU OF OPERATIONS, PH: (217) 785-7314, AT LEAST 21 DAYS PRIOR TO IMPLEMENTING STAGE I TRAFFIC AND WHEN A SWITCH IN STAGING IS MADE.
7. THE CONTRACTOR SHALL NOTIFY THE DISTRICT 6 TRAFFIC SECTION OF THE BUREAU OF OPERATIONS AT LEAST THREE (3) DAYS PRIOR TO ACTIVATING THE TEMPORARY TRAFFIC SIGNALS. SEE SPECIAL PROVISIONS FOR TEMPORARY BRIDGE TRAFFIC SIGNALS.
8. UNLESS OTHERWISE INDICATED, TEMPORARY BRIDGE TRAFFIC SIGNALS, STOP BARS, TEMPORARY RUMBLE STRIPS, DETECTOR LOOPS AND ADVANCE SIGN LOCATIONS TO REMAIN IN PLACE THROUGHOUT THE DURATION OF STAGES I AND II AS PER HIGHWAY STANDARD 701321.
9. ALL TEMPORARY TRAFFIC SIGNALS REQUIRED FOR BRIDGE AND ENTRANCES FOR BOTH STAGES OF CONSTRUCTION WILL BE MEASURED AS 1 UNIT.
10. THE INTENT OF THE TEMPORARY GUARDRAIL AND TERMINALS SECTIONS IS TO ALLOW FOR SAFE PLACEMENT (CORRECT ELEVATION AND OFFSET) DURING TEMPORARY OR STAGE CONDITIONS. THE COST FOR SUPPLYING THE TEMPORARY GUARDRAIL AND TERMINAL SECTIONS AND ADJUSTING TO PERMANENT CONDITIONS SHALL BE CONSIDERED IN THE TEMPORARY PAY ITEMS INCLUDED IN THE CONTRACT. THIS WORK SHALL INCLUDE ANY EXTRA MATERIAL, CORING OR FILLING HOLES FOR POST INSTALLATION, LABOR AND MATERIALS FOR ALL ADJUSTMENTS AND ANY ADDITIONAL WORK NECESSARY TO PROVIDE SAFE GUARDRAIL CONDITIONS FOR TEMPORARY AND PERMANENT CONDITIONS. ADJUSTMENTS MAY BE MADE BY THE DIRECTION OF THE ENGINEER.

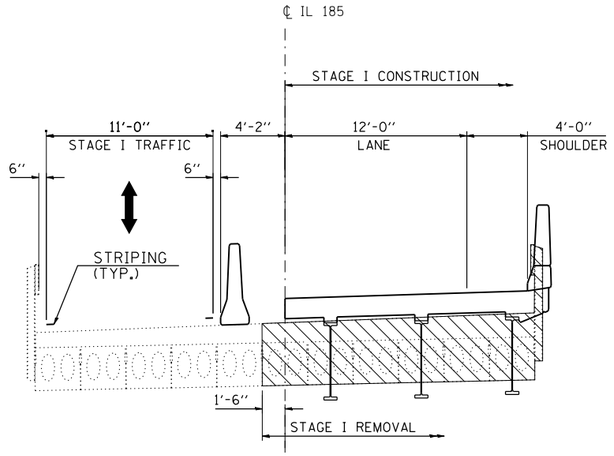
LEGEND

▨ TO BE REMOVED



STAGE I TYPICAL SECTION

(LOOKING EAST)

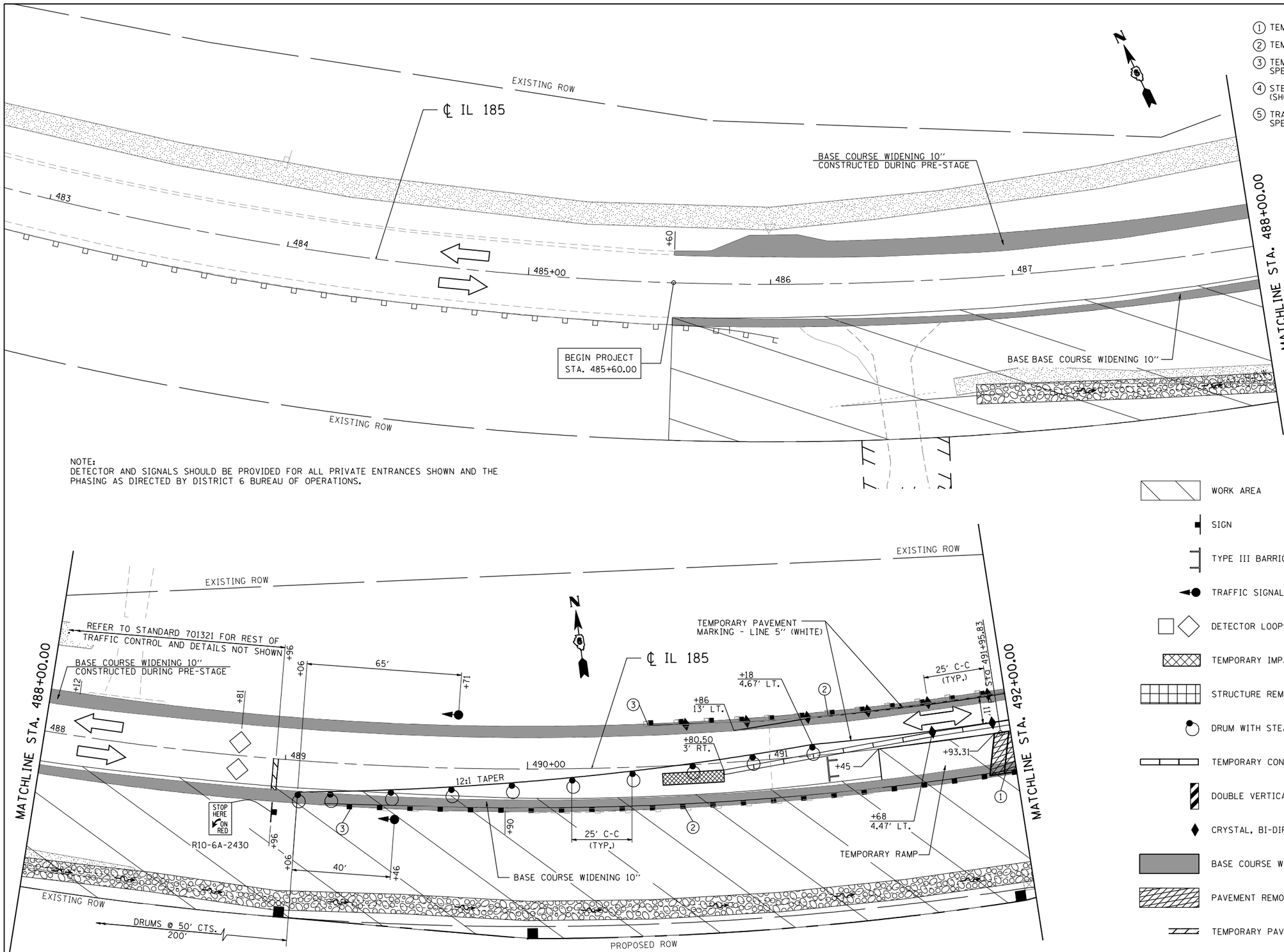


STAGE I TYPICAL SECTION

(LOOKING EAST)

design firm no. 184001036 whks engineers + planners + land surveyors	USER NAME = gjameson	DESIGNED -	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL TYPICAL SECTIONS – STAGE I IL 185 OVER BAYOU CREEK
	FILE NAME = D672D08-SN0680027-SHT-CONTROL.dgn	CHECKED -	REVISED		SCALE: 1″ = 10′ | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.
	PLOT SCALE = 10.0000 ′ / IN.	DRAWN -	REVISED		
	PLOT DATE = 10/15/2015	CHECKED -	REVISED		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	33
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



1. TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6
2. TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A
3. TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
4. STEEL PLATE BEAM GUARDRAIL, (SHORT RADIUS) WITH END SECTION
5. TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)

SYMBOLS

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- TEMPORARY IMPACT ATTENUATOR
- STRUCTURE REMOVAL
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TEMPORARY CONCRETE BARRIER
- DOUBLE VERTICAL PANEL
- CRYSTAL, BI-DIRECTIONAL BARRIER WALL / GUARDRAIL MARKER
- BASE COURSE WIDENING 10"
- PAVEMENT REMOVAL
- TEMPORARY PAVEMENT MARKING-LINE 24" (WHITE)

design firm no. 184001036
whks
engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED -	REVISED
FILE NAME = D672D08-SN0680027-SHT-SHEET.dgn	CHECKED -	REVISED
PLOT SCALE = 40.0000 ' / IN.	DRAWN -	REVISED
PLOT DATE = 10/15/2015	CHECKED -	REVISED

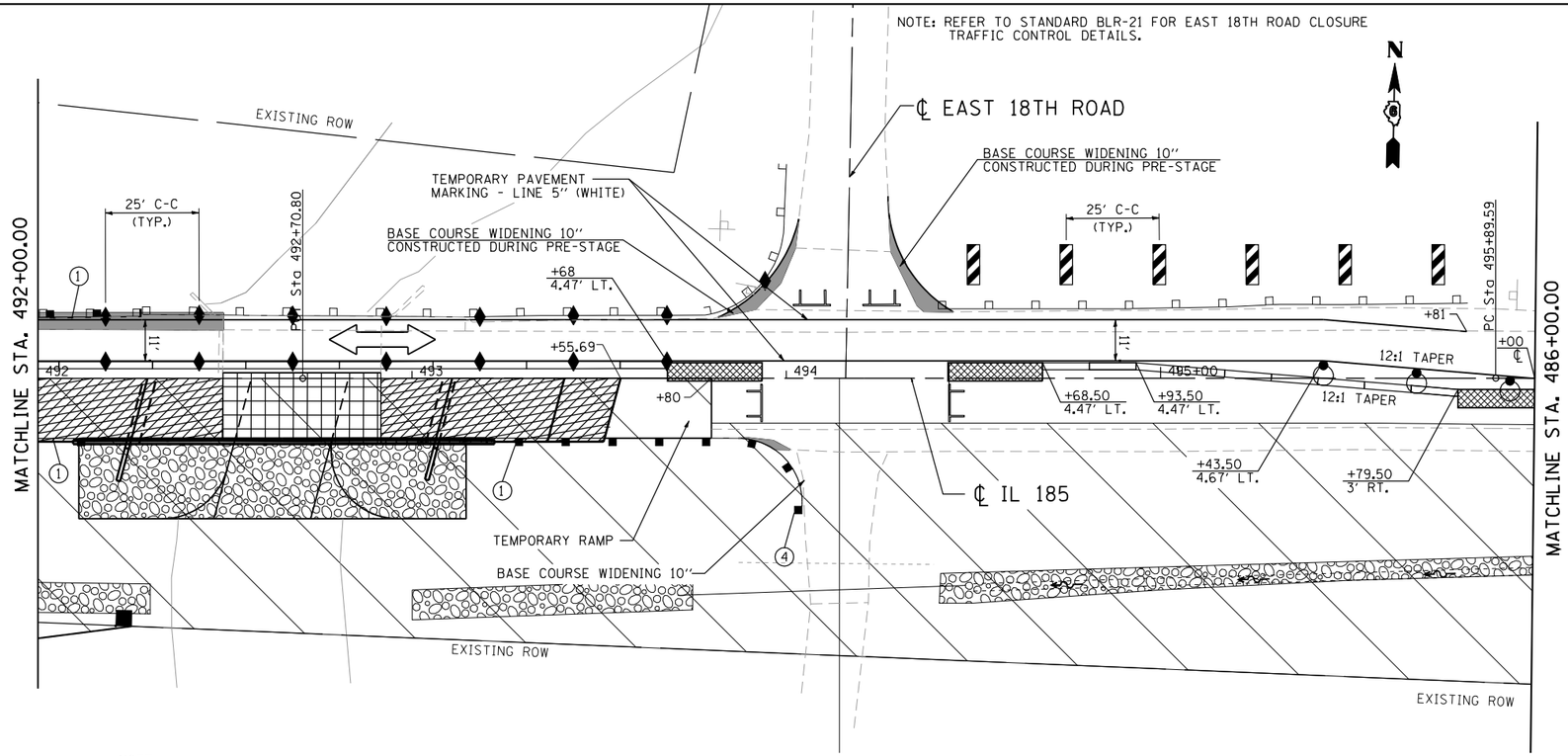
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN – STAGE I
IL 185 OVER BAYOU CREEK

SCALE: 1" = 20' | SHEET NO. 1 OF 2 SHEETS | STA. 485+60.00 TO STA. 492+00.00

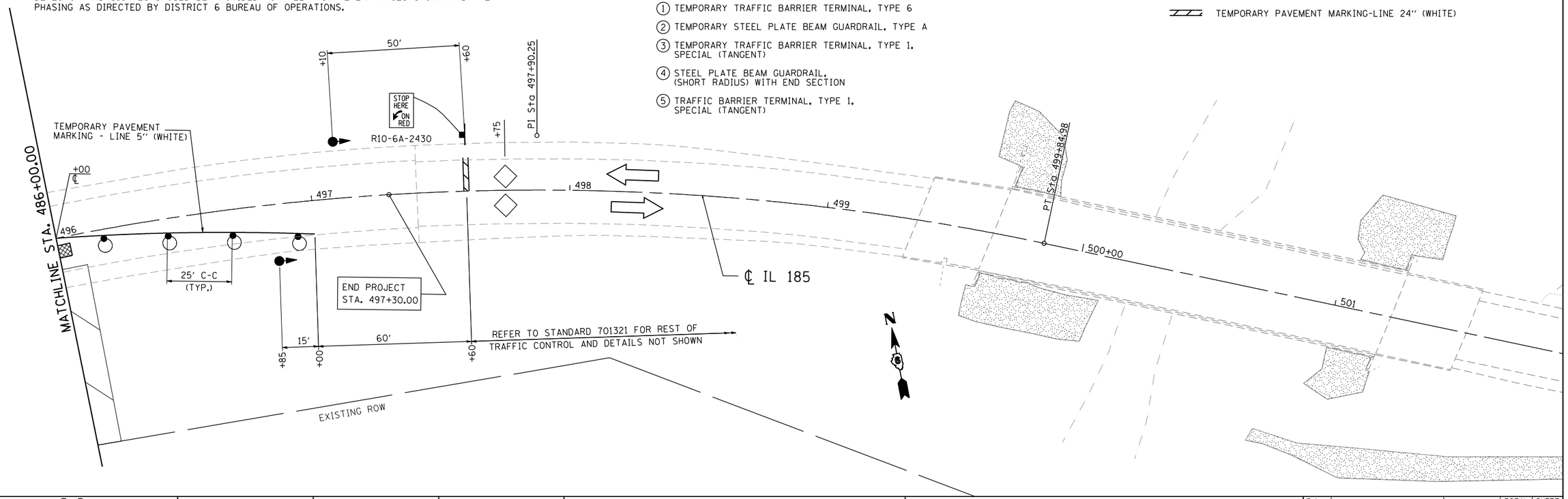
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	34
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

NOTE: REFER TO STANDARD BLR-21 FOR EAST 18TH ROAD CLOSURE TRAFFIC CONTROL DETAILS.



NOTE:
DETECTOR AND SIGNALS SHOULD BE PROVIDED FOR ALL PRIVATE ENTRANCES SHOWN AND THE PHASING AS DIRECTED BY DISTRICT 6 BUREAU OF OPERATIONS.

1. TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6
2. TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A
3. TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
4. STEEL PLATE BEAM GUARDRAIL, (SHORT RADIUS) WITH END SECTION
5. TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)



SYMBOLS

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- TEMPORARY IMPACT ATTENUATOR
- STRUCTURE REMOVAL
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TEMPORARY CONCRETE BARRIER
- DOUBLE VERTICAL PANEL
- CRYSTAL, BI-DIRECTIONAL BARRIER WALL / GUARDRAIL MARKER
- BASE COURSE WIDENING 10"
- PAVEMENT REMOVAL
- TEMPORARY PAVEMENT MARKING-LINE 24" (WHITE)

design firm no. 184001036
whks
engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED -	REVISED
FILE NAME = D672D08-SN0680027-SHT-TCP1.dgn	CHECKED -	REVISED
PLOT SCALE = 40.0000 ' / IN.	DRAWN -	REVISED
PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN – STAGE I
IL 185 OVER BAYOU CREEK

SCALE: 1" = 20' | SHEET NO. 2 OF 2 SHEETS | STA. 492+00.00 TO STA. 479+30.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	35
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

SUGGESTED SEQUENCE OF CONSTRUCTION

STAGE II CONSTRUCTION:

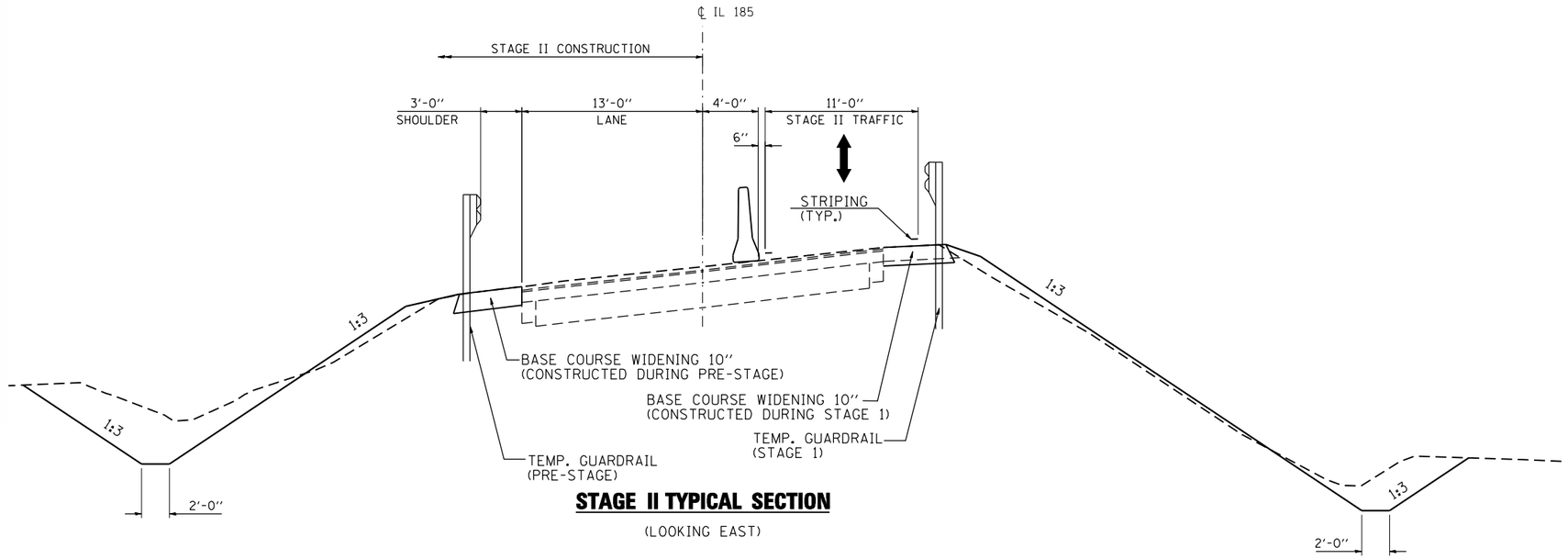
1. RELOCATE TEMPORARY CONCRETE BARRIERS, TEMPORARY IMPACT ATTENUATORS AND TEMPORARY BRIDGE TRAFFIC SIGNALS AS SHOWN ON THE PLANS. USE HIGHWAY STANDARD 701321.
2. REMOVE CONFLICTING STRIPING AND PLACE TEMPORARY STRIPING AS SHOWN ON THE PLANS.
3. SHIFT TRAFFIC TO STAGE II LANE.
4. REMOVE THE NORTH HALF OF THE EXISTING BRIDGE.
5. REMOVE EXISTING PIPE CULVERTS ALONG THE NORTH SIDE OF IL 185.
6. CONSTRUCT THE NORTH HALF OF THE PROPOSED BRIDGE, CONNECTOR PAVEMENT AND EARTHWORK.
7. CONSTRUCT WIDENING, TEMPORARY RAMPS, AGGREGATE SHOULDERS, PIPE CULVERTS AND INSTALL OR ADJUST TEMPORARY GUARDRAIL ALONG THE NORTH SIDE OF IL 185.

STAGE III CONSTRUCTION:

1. REMOVE TEMPORARY CONCRETE BARRIERS, TEMPORARY IMPACT ATTENUATORS, TEMPORARY TRAFFIC SIGNALS AND WIDTH RESTRICTION SIGNING.
2. REMOVE CONFLICTING STRIPING AND PLACE TEMPORARY STRIPING.
3. SHIFT TRAFFIC TO THE EXISTING LANES.
4. REMOVE TEMPORARY RAMPS, MILL AND CONSTRUCT THE HMA BINDER AND SURFACE COURSES USING HIGHWAY STANDARD 701306.
5. CONSTRUCT HMA AND AGGREGATE SHOULDERS AND PERMANENT GUARDRAIL USING HIGHWAY STANDARD 701326.
6. FINISH EARTHWORK AND GRADING AND SEED DISTURBED AREAS.
7. PLACE FINAL STRIPING AND CLEANUP.

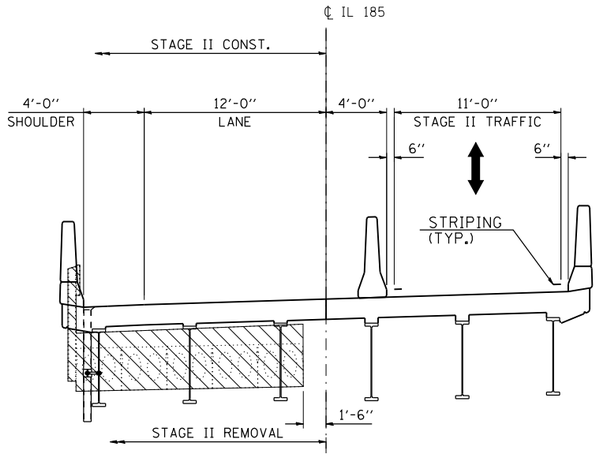
LEGEND

TO BE REMOVED



STAGE II TYPICAL SECTION

(LOOKING EAST)



STAGE II TYPICAL SECTION

(LOOKING EAST)

design firm no. 184001036 — whks engineers + planners + land surveyors	USER NAME = gjameson	DESIGNED -	REVISED
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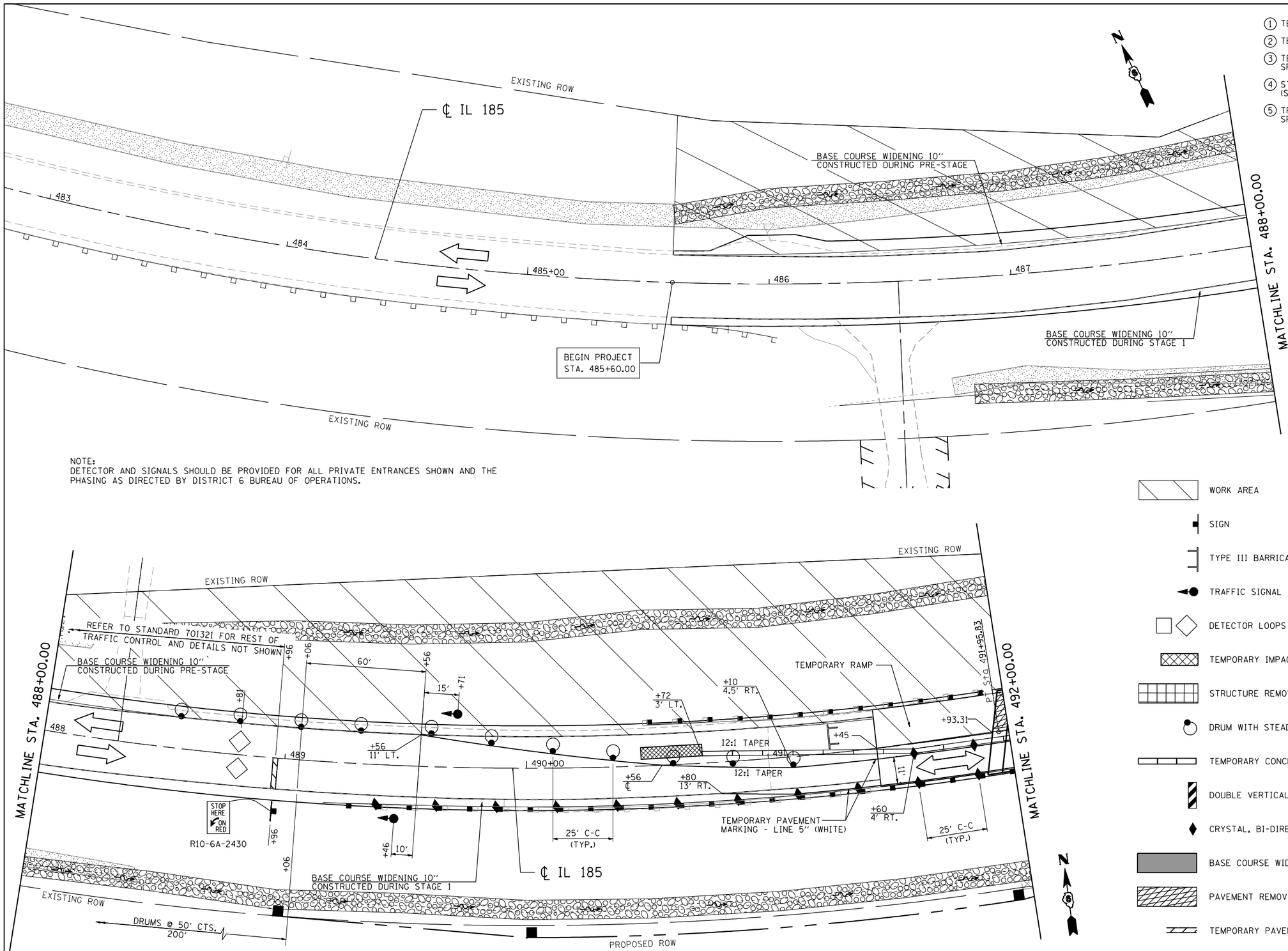
	PLOT SCALE = 10.0000 ' / IN.	DRAWN -	REVISED
	PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL TYPICAL SECTIONS – STAGE II
IL 185 OVER BAYOU CREEK

SCALE: 1" = 10' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	36
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



1. TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6
2. TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A
3. TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
4. STEEL PLATE BEAM GUARDRAIL, (SHORT RADIUS)
5. TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)

SYMBOLS

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- TEMPORARY IMPACT ATTENUATOR
- STRUCTURE REMOVAL
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TEMPORARY CONCRETE BARRIER
- DOUBLE VERTICAL PANEL
- CRYSTAL, BI-DIRECTIONAL BARRIER WALL / GUARDRAIL MARKER
- BASE COURSE WIDENING 10"
- PAVEMENT REMOVAL
- TEMPORARY PAVEMENT MARKING-LINE 24" (WHITE)

design firm no. 184001036
whks
engineers + planners + land surveyors

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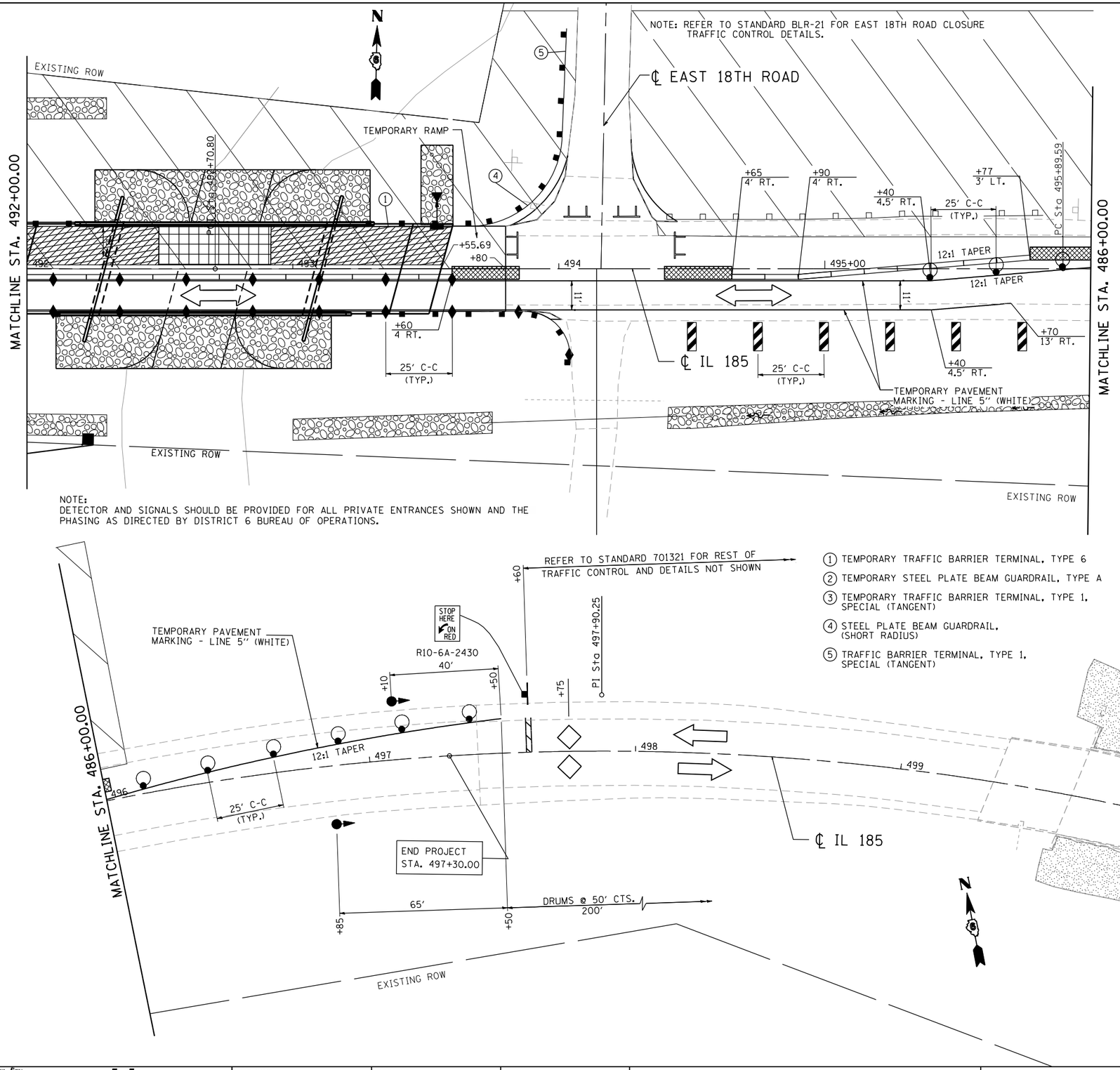
FILE NAME = D672D08-SN0680027-SHT-STAGE2.dgn	CHECKED -	REVISED
PLOT SCALE = 40.0000 ' / IN.	DRAWN -	REVISED
PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN – STAGE II
IL 185 OVER BAYOU CREEK

SCALE: 1" = 20' | SHEET NO. 1 OF 2 SHEETS | STA. 485+60.00 TO STA. 492+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	37
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



1. TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6
2. TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A
3. TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
4. STEEL PLATE BEAM GUARDRAIL, (SHORT RADIUS)
5. TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)

SYMBOLS

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- TEMPORARY IMPACT ATTENUATOR
- STRUCTURE REMOVAL
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TEMPORARY CONCRETE BARRIER
- DOUBLE VERTICAL PANEL
- CRYSTAL, BI-DIRECTIONAL BARRIER WALL / GUARDRAIL MARKER
- BASE COURSE WIDENING 10"
- PAVEMENT REMOVAL
- TEMPORARY PAVEMENT MARKING-LINE 24" (WHITE)

design firm no. 184001036

whks engineers + planners + land surveyors

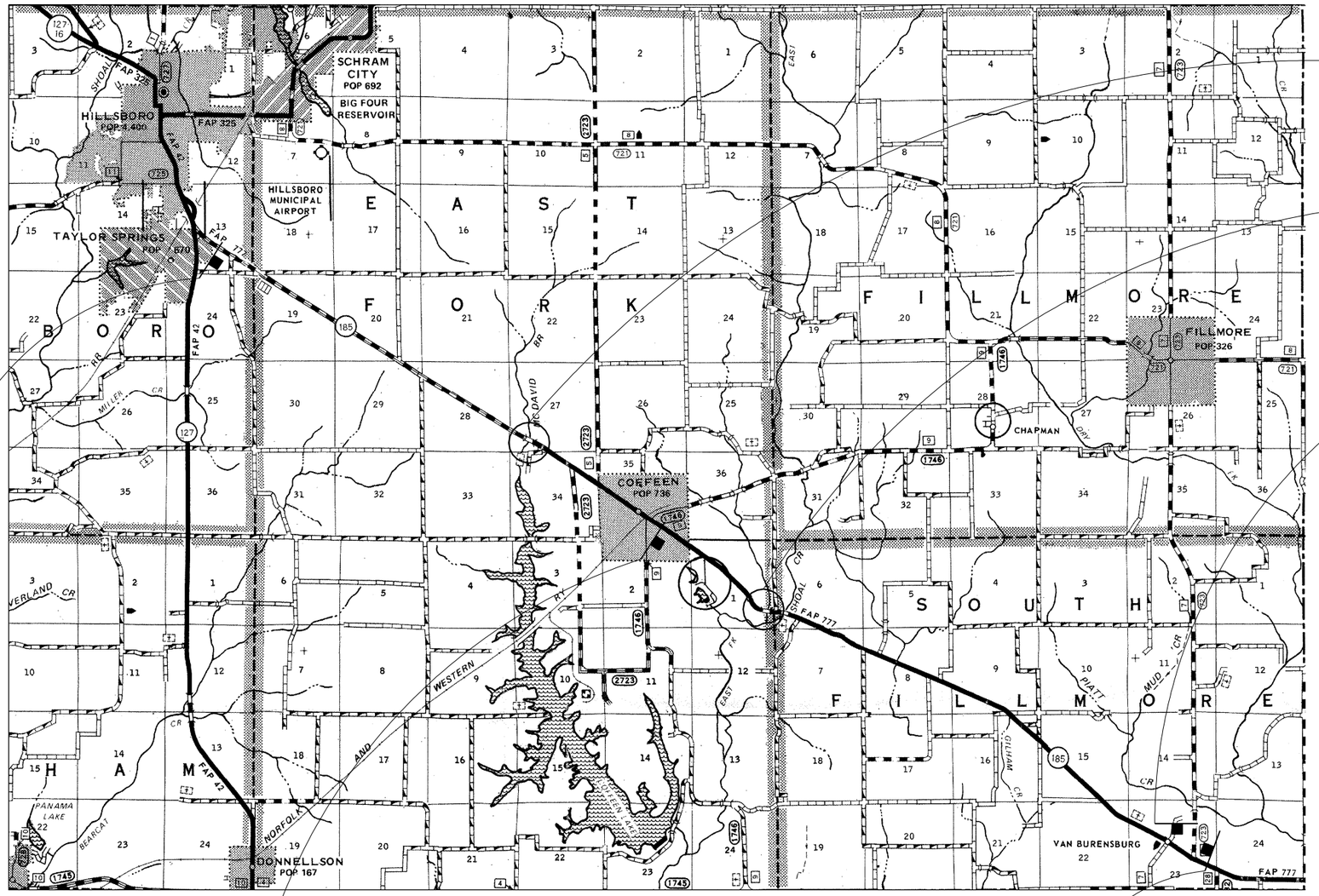
USER NAME = gjameson	DESIGNED -	REVISED	
FILE NAME = D672D08-SN0680027-SHT-SHEET2.dgn	CHECKED -	REVISED	
PLOT SCALE = 40.0000 ' / IN.	DRAWN -	REVISED	
PLOT DATE = 10/15/2015	CHECKED -	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN – STAGE II
IL 185 OVER BAYOU CREEK

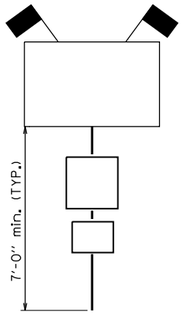
SCALE: 1" = 20' | SHEET NO. 2 OF 2 SHEETS | STA. 492+00.00 TO STA. 479+30.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	38
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

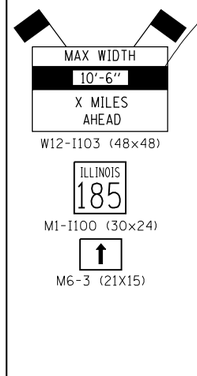


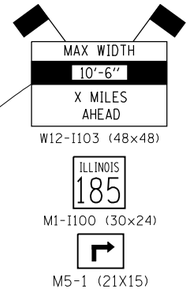
PROJECT LOCATION
IL 185 OVER McDAVID BRANCH

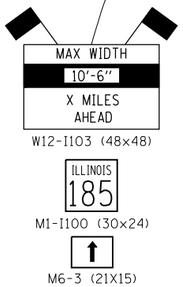
PROJECT LOCATION
IL 185 OVER BAYOU CREEK

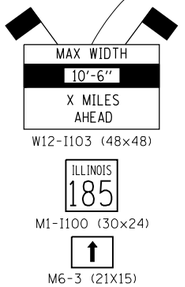


SIGN DETAIL









GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. ALL SIGNS SHALL BE POST MOUNTED. THE CONTRACTOR SHALL FURNISH THE POST AND ERECT THE SIGNS AT THE LOCATIONS DIRECTED BY THE ENGINEER.
3. THE WIDTH SHOWN ON THE W12-I103 SIGN SHALL BE 10'-6" FOR STAGE I, AND STAGE II, OR AS DIRECTED BY THE ENGINEER. ACTUAL WIDTHS TO BE VERIFIED BY ENGINEER AND ADJUSTED FOR STAGE CONSTRUCTION.
4. THE ENGINEER WILL DETERMINE THE "X" MILES AHEAD TO BE PLACED ON EACH SIGN BASED ON LOCATION.
5. THE ABOVE NOTED WORK, INCLUDING SIGNS, POST, HARDWARE AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, LUMP SUM FOR WIDTH RESTRICTION SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED.

design firm no. 184001036
whks
engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED -	REVISED
FILE NAME = D672D08-SN0680026-SHT-WIDTH-RESTRICTION-DETAIL.dgn	CHECKED -	REVISED
PLOT SCALE = 100.0000 ' / IN.	DRAWN -	REVISED
PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIDTH RESTRICTION SIGNING DETAIL

SCALE: NTS | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	39
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

STORM WATER POLLUTION PREVENTION PLAN

	Route: FAP 777	Marked: IL 185	
	Section: 10B-2, 405B-1	Project No.:	
McDavid Branch	County: Montgomery	Contract No.: 72D08	
Starting Station: Sta. 307+05	(Longitude: 888,099.6781	Latitude: 2,509,385.6341)	
Ending Station: Sta. 314+00	(Longitude: 887,690.1471	Latitude: 2,510,187.0605)	
Bayou Creek			
Starting Station: Sta. 485+60	(Longitude: 877,800.7960	Latitude: 2,524,079.3696)	
Ending Station: Sta. 497+30	(Longitude: 887,660.1767	Latitude: 2,525,226.1059)	

This plan has been prepared to comply with the provision of the NPDES Permit Number ILR10 __________ issued by the Illinois Environmental Protection Agency for storm water discharges from construction site activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gathered and evaluated the information submitted. Based on my inquire of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

[signature] 10/16/15
(Signature) (Date)

Region 4 Engineer
(Title)

Note: The above boxed in area will be filled out by IDOT - Construction after the award of the contract to obtain the required NPDES permit.

The following plan was established and included in these plans to direct the Contractor in the placement of temporary erosion control systems and to provide a storm water pollution prevention plan for compliance under NPDES. The Contractor shall abide to all requirements within this plan as part of the contract.

The purpose of this plan is to prevent / minimize siltation within the construction zone and to eliminate sediments from entering and leaving the construction zone by utilizing proper temporary erosion control systems and providing ground cover within a reasonable time.

Certain items, as shown in this plan and referenced by the legend, shall be placed by the Contractor at the beginning of construction. Other items shall be placed by the Contractor as directed by the Engineer on a case by case situation resulting from the Contractor's sequence of activities, time of the year, and expected weather conditions.

The Contractor shall place permanent erosion control systems and seeding within a reasonable amount of time; therefore, reducing the amount of area being open to the possibility of erosion and reducing the amount of temporary erosion control systems and temporary seeding. The Resident Engineer will determine if temporary erosion control systems shown in the plan can be deleted, the size of the proposed ditch checks, the proper method of installation, and if any additional temporary erosion control systems shall be added which are not included in this plan. The Contractor shall perform all work as directed by the Engineer and as shown in special details and in Standard 280001 of the plans.

All disturbed areas having high potential for erosion, as determined by the Engineer, shall be temporarily seeded or permanently seeded by October 1st of each construction year and shall not be reopened until after the winter shutdown period.

SITE DESCRIPTION

Description of Construction Activity:

1. The proposed project consists of the removal and replacement of the bridge carrying IL 185 over McDavid Branch, approximately 0.5 miles east of Coffeen and the bridge carrying IL 185 over Bayou Creek approximately 1.0 miles west of Coffeen in Montgomery County. The project will be constructed on the existing alignment and will include reconstruction and resurfacing of approximately 0.38 miles of IL 185.
2. Additional construction activities consist of HMA base course widening, HMA resurfacing, HMA and aggregate shoulders, ditch grading, embankment, topsoil placement, channel grading and other miscellaneous work to complete improvements to the proposed roadways.

Description of Intended Sequence of Major Construction Activities Which Will Disturb Earth and Lead to Possible Erosion for Major Portions of the Construction Site:

1. Tree removal will be completed to clear approximately 0.2 acres of wooded land.
2. Excavation will be completed along the entire length of the project to grade out for proposed roadway ditches and waterways.
3. Embankment will be completed in fill areas to raise the existing ground elevation to meet the proposed roadway foreslopes and backslopes.
4. Drainage structures will be installed before and/or during the construction of the excavation and embankment to allow proper drainage along IL 185.
5. Placement, maintenance, removal and proper clean-up of temporary erosion control items, such as erosion control fence, temporary ditch checks and temporary seeding.
6. Placement of permanent erosion control items, such as riprap ditch lining, erosion control blanket, mulch method II and seeding.
7. Final grading, paving and other miscellaneous items.

Area of Construction Site:

McDavid Branch

The total drainage area entering and including the construction site, at McDavid Branch, is estimated to be approximately 4.8 square miles in which 0.8 acres will be disturbed by excavation, grading or other activities.

Bayou Creek

The total drainage area entering and including the construction site, at Bayou Creek, is estimated to be approximately 5.54 square miles, in which 1.7 acres will be disturbed by excavation, grading or other activities.

Other Reports, Studies and Plans which Aid in the Development of this Storm Water Pollution Prevention Plan as Referenced Documents:

1. Estimated run-off coefficients are contained in the project drainage study which were utilized for proposed placement of the temporary erosion control systems.
2. Information on the soils within the site was obtained from field reviews which were utilized for proposed placement of the temporary erosion control systems.
3. Site maps indicating drainage patterns and approximate slopes were contained in the project design report, USGS drainage maps, project drainage study and project plan documents were all utilized for proposed placement of the temporary erosion control systems.

Drainage Tributaries Receiving Water from this Construction Site:

The receiving waters are McDavid Branch and Bayou Creek. McDavid Branch flows into Coffeen Lake and into the East Fork Shoal Creek. Bayou Creek flows into the East Fork Shoal Creek, then through Shoal Creek and the Kaskaskia River and eventually into the Mississippi River.

CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROLS

Description of Stabilization Practices at the Beginning of Construction:

1. The area between the existing and proposed right-of-way/temporary easement boundaries and limits of the project will be improved and managed for the purposes of controlling erosion within the area, reducing water flow by temporary diversion and minimizing siltation into the construction zone, and establishing vegetative cover which will become permanent vegetation and act as an erosion barrier. Work at the beginning of construction will consist of the following:

   (a) Areas of existing vegetation (woods and grasslands) outside the proposed construction slope limits shall be identified for preserving and shall be protected from mowing, brush cutting, tree removal and other activities which would be detrimental to their maintenance and development.

   (b) Dead, diseased, or unsuitable vegetation within the site shall be removed as directed by the Engineer, along with required tree removal.

   (c) As soon as reasonable access is available (such as trees cleared) to all locations where water drains away from the project, sediment basins, riprap ditch checks, temporary ditch checks, and/or erosion control fence shall be installed as called out in this plan and directed by the Engineer.

   (d) Bare and sparsely vegetated ground in highly erodable areas as determined by the Engineer shall be temporarily seeded at the beginning of construction where no construction activities are immediately expected as stated in the special provision "Temporary Erosion and Sediment Control".

   (e) Immediately after tree removal is completed in certain areas which are highly erodable areas as determined by the Engineer, the areas shall be temporarily seeded where no construction activities are immediately expected as stated in the special provision "Temporary Erosion and Sediment Control".

   (f) At locations where a significant amount of water drains into the construction zone from outside areas (adjacent landowners), erosion control fence, temporary ditch checks, or riprap ditch checks will be utilized to locally divert water, reduce flow rates, and collect outside siltation inside the right-of-way line. Erosion control items will not be allowed to be installed to cause flooding to upstream private property which could cause crop damages or other undesireable conditions.

2. Establishment of these temporary erosion control measures will have additional benefits to the project. Desirable grass seed will become established in these areas and will spread seeds onto the construction site until permanent seeding/mowing and overseeding can be complete.

3. A third benefit of these filter areas is that they will begin to provide a screen and buffer. They will help protect the construction site from winds and excess sun and mitigate construction noise and dust.

Description of Stabilization Practices During Construction:

1. During roadway construction, areas outside the construction slope limits as outlined previous herein shall be protected from damaging effects of construction. The Contractor shall not use this area for staging (except as designated on the plans or directed by the Engineer), parking of vehicles or construction equipment, storage of materials, or other construction related activities.
   (a) Within the construction zone, critical areas which have high flows of water as determined by the Engineer shall remain undisturbed until full scale construction is underway to prevent unnecessary soil erosion.
   (b) Top soil and earth stockpiles shall be temporarily seeded if they are to remain unused for more than fourteen days.
   (c) As the Contractor constructs a portion of roadway in a fill section, he/she shall follow the following steps as directed by the Engineer:

   i. Place temporary erosion control systems at locations where water leaves and enters the construction zone
   ii. Temporary seed highly erodable areas outside the construction slope limits
   iii. Construct roadside ditches and provide temporary erosion control systems
   iv. Temporary divert water around proposed culvert locations
   v. Build necessary embankment at culvert locations and then excavate and place culvert
   vi. Continue building up the embankment to the proposed grade while at the same time place permanent erosion control such as riprap ditch lining and conduct final shaping to the slopes

   (d) The Contractor shall immediately follow major earth moving operations with final grading equipment. After the major earth spread operation has moved to a new location, final grading shall be completed within fourteen days. If grading is not completed within fourteen days, all major earth moving operations will be stopped, as directed by the Engineer, until disturbed areas are final graded and seeded.

   (e) Excavated areas and embankments shall be permanently seeded when final graded. If not, they shall be temporarily seeded as stated in the special provision "Temporary Erosion and Sediment Control".

   (f) Construction equipment shall be stored and fueled only at designated locations. All necessary measures shall be taken to contain any fuel or pollution run-off in compliance with EPA water quality regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site.

   (g) Qualified Personnel shall inspect the project at least every seven days and within 24 hours of the end of a storm that is 0.5 inch or greater as noted in BDE 2342.

   (h) Sediment collected during construction by the various temporary erosion control systems shall be disposed of on the site on a regular basis as directed by the Engineer.

   (i) The temporary erosion control systems shall be removed as directed by the Engineer after use is no longer needed or no longer functioning. The costs of this removal shall be included in the unit bid price for the various temporary erosion control pay items. No additional additional compensation will be allowed.

Description of Structural Practices After Final Grading:

1. Temporary erosion control systems shall be left in place with proper maintenance until permanent erosion control is in place and working properly and all proposed turf areas seeded and established with a proper stand.

2. Once permanent erosion control systems as proposed in the plans are functional and established, temporary items shall be removed, cleaned up, and disturbed turf reseeded. Temporary riprap ditch checks will be allowed to remain in place where approved by the Engineer.

Maintenance after Construction:

1. Construction is complete after acceptance is received at the final inspection.

2. Areas will be inspected on a regular basis by IDOT District 6 Bureau of Operations.

3. Maintenance crews will perform regular mowings to aid in keeping weeds down and establishing a good roadside seed stand.

4. Maintenance crews will also aid in any ditch lining maintenance or in any drainage problems.

5. All maintenance will be conducted at times when weather conditions will not cause site damage.

DOCUMENTATION

1. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, date(s) of the inspection, major observations relating to the implementation of this storm water pollution prevention plan, and actions taken in accordance with Section 4.b. shall be made and retained as part of the plan for at least three years after the date of inspection. The report shall be signed in accordance with part VI.G of the general permit.

2. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer or Resident Technician shall complete and file an "Incident of Noncompliance (ION)" report for the identified violation. The Resident Engineer or Resident Technician shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI.G. of the general permit. The report of noncompliance shall be mailed to the following address:

   Illinois Environmental Protection Agency
   Division of Water Pollution Control
   2200 Churchill Road, P.O. Box 19276
   Springfield, IL 62794-9276
   Attn: Compliance Assurance Section

CONTRACTOR CERTIFICATION STATEMENT

This certification statement is part of the Storm Water Pollution Plan for the project described below in accordance with NPDES Permit No. ILR10_____, issued by the Illinois Environmental Protection Agency on _____.

Route: _____ Marked: _____

Section: _____ Project No.: _____

County: _____ Contract No.: _____

I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

In addition, I have read and understand all of the information and requirements stated in the SWPPP for the above mentioned project; I have received copies of all appropriate maintenance procedures; and, I have provided all documentation required to be in compliance with the Permit ILR10 and SWPPP and will provide timely updates to these documents as necessary.

Signature_____ Date_____

Title_____

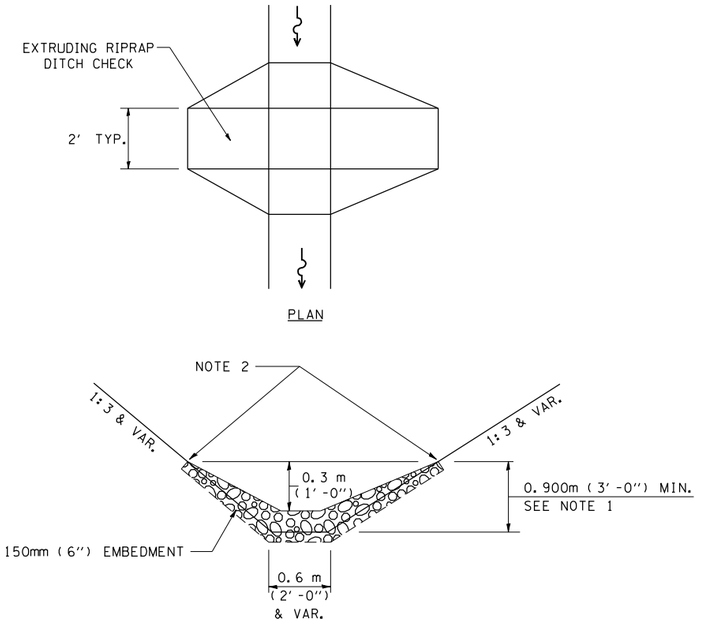
Name of Firm_____ ☐ Contractor

Street Address_____ ☐ Subcontractor

City, State, Zip_____

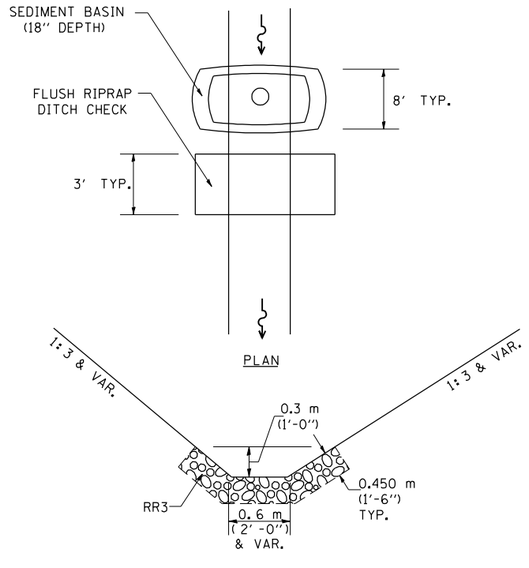
Phone Number_____

Note: The above boxed in area shall be filled out by the Contractor after the award of the contract to obtain the required NPDES Permit from IEPA. This is a requirement for this contract.



OPTION 1

(EXTRUDING DITCH CHECK)
RECOMMENDED FOR AREAS
W/ RIPRAP DITCH LINING



OPTION 2

(FLUSH DITCH CHECK)
RECOMMENDED FOR AREAS
W/O RIPRAP DITCH LINING

STONE DUMPED RIPRAP DITCH CHECK

OPTIONS 1 & 2 OR
AS DIRECTED BY THE ENGINEER

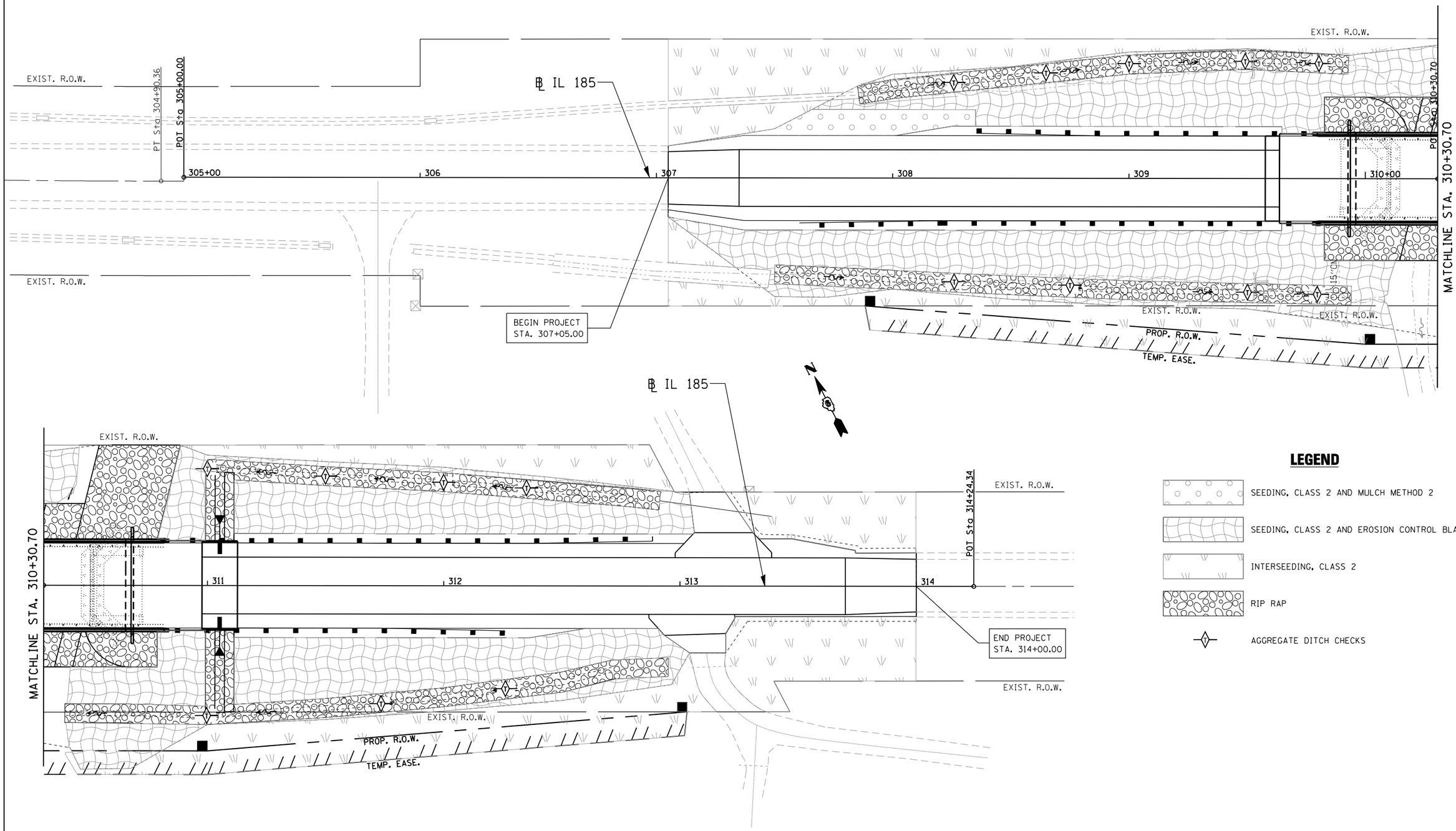
NOTE 1: RIPRAP SHALL EXTEND FAR ENOUGH UP THE SLOPES TO ALLOW 0.3m (1') OVERTOPPING TO AVOID ERODING AROUND THE EDGES OF THE RIPRAP.

NOTE 2: ENDS SHALL BE TIED INTO SLOPES.

LEGEND FOR STORM WATER POLLUTION PREVENTION PLAN

ITEM	SYMBOL
AGGREGATE DITCH CHECKS	
INLET PIPE PROTECTION	
PERIMETER EROSION BARRIER	
SEDIMENT BASINS EARTH EXCAVATION FOR EROSION CONTROL AGGREGATE (EROSION CONTROL)	
PRESERVE EXISTING TREES, WOODLANDS, AND UNDERSTORY (OUTSIDE CONSTRUCTION LIMITS)	
ITEM PLACED AT BEGINNING OF CONSTRUCTION (Requirement)	* ITEM *
ITEM PLACED AS DIRECTED BY ENGINEER (When required by situation)	ITEM
DIRECTION OF OVERLAND FLOW	

GENERAL NOTES:
All items shall be constructed as shown on this sheet, on Standard 280001, and as directed by the Engineer.



LEGEND

- SEEDING, CLASS 2 AND MULCH METHOD 2
- SEEDING, CLASS 2 AND EROSION CONTROL BLANKET
- INTERSEEDING, CLASS 2
- RIP RAP
- AGGREGATE DITCH CHECKS

design firm no. 184001036

whks engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED -	REVISED
FILE NAME = D672D08-SHT-EROSION-20.dgn	CHECKED -	REVISED
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PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN
IL 185 OVER MCDAVID BRANCH

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. 307+05 TO STA. 314+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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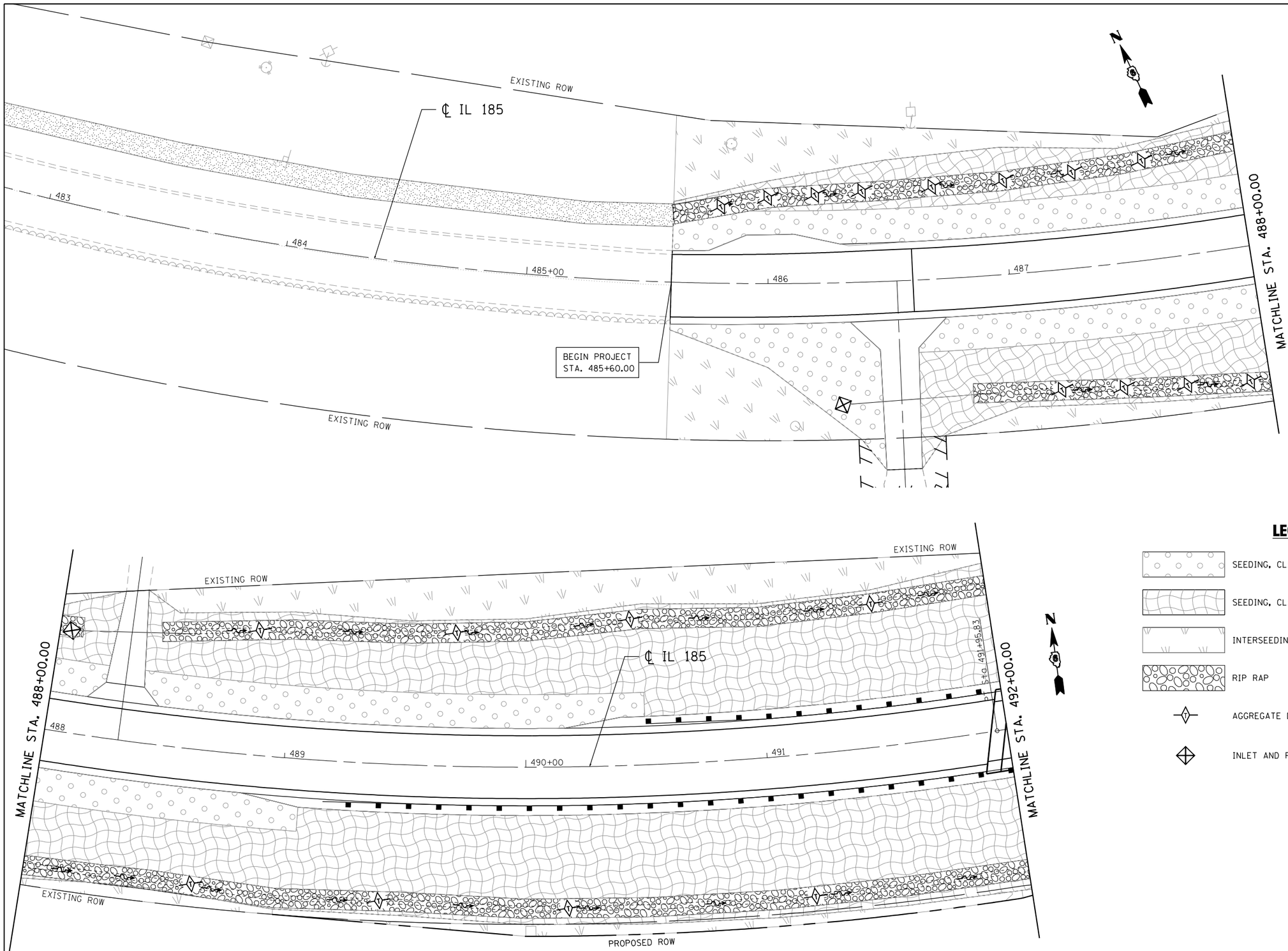
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



LEGEND

- SEEDING, CLASS 2 AND MULCH METHOD 2
- SEEDING, CLASS 2 AND EROSION CONTROL BLANKET
- INTERSEEDING, CLASS 2
- RIP RAP
- AGGREGATE DITCH CHECKS
- INLET AND PIPE PROTECTION

design firm no. 184001036 — whks engineers + planners + land surveyors

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLANS
IL RTE 185 OVER BAYOU CREEK

SCALE: 1" = 20' | SHEET NO. 1 OF 2 SHEETS | STA. 485+60.00 TO STA. 492+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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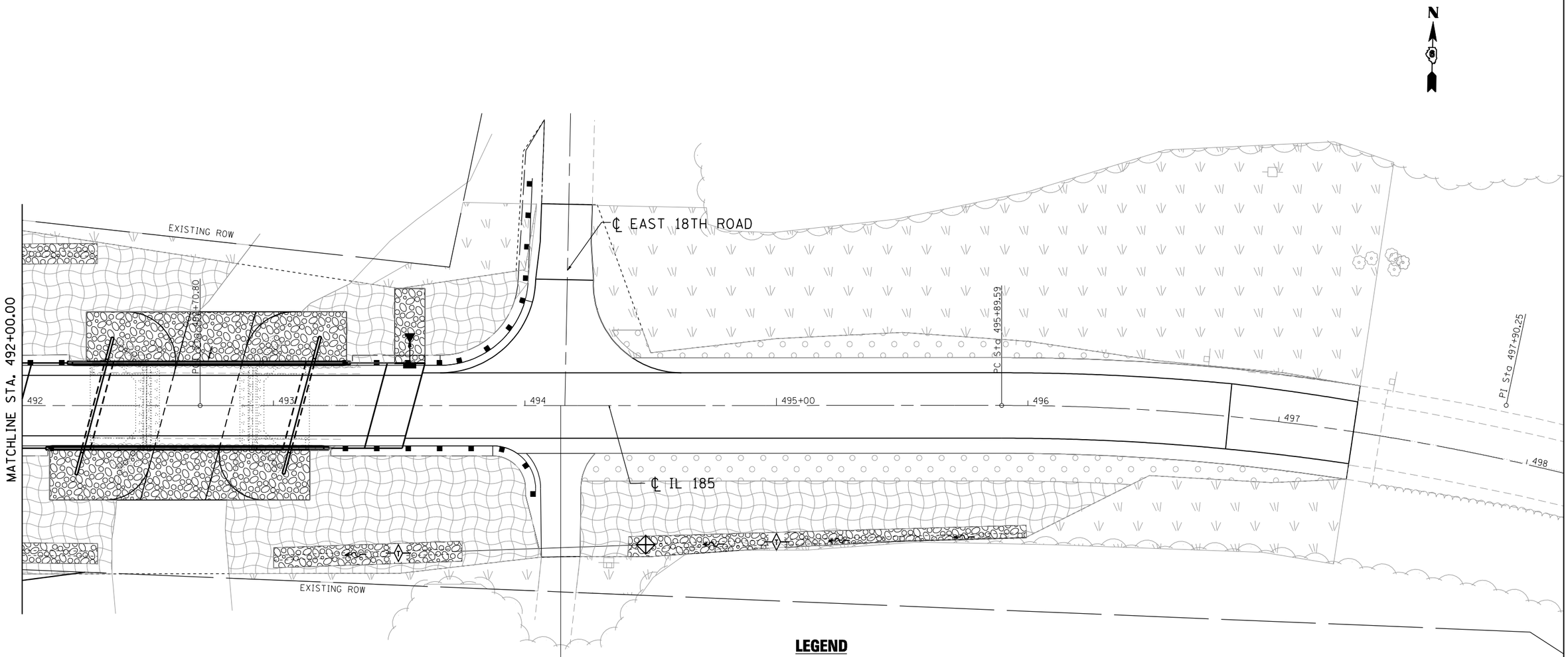
	ILLINOIS FED. AID PROJECT			



LEGEND

- SEEDING, CLASS 2 AND MULCH METHOD 2
- SEEDING, CLASS 2 AND EROSION CONTROL BLANKET
- INTERSEEDING, CLASS 2
- RIP RAP
- AGGREGATE DITCH CHECKS
- INLET AND PIPE PROTECTION

design firm no. 184001036
whks
engineers + planners + land surveyors

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PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLANS
IL RTE 185 OVER BAYOU CREEK

SCALE: 1" = 20' | SHEET NO. 2 OF 2 SHEETS | STA. 492+00.00 TO STA. 479+30.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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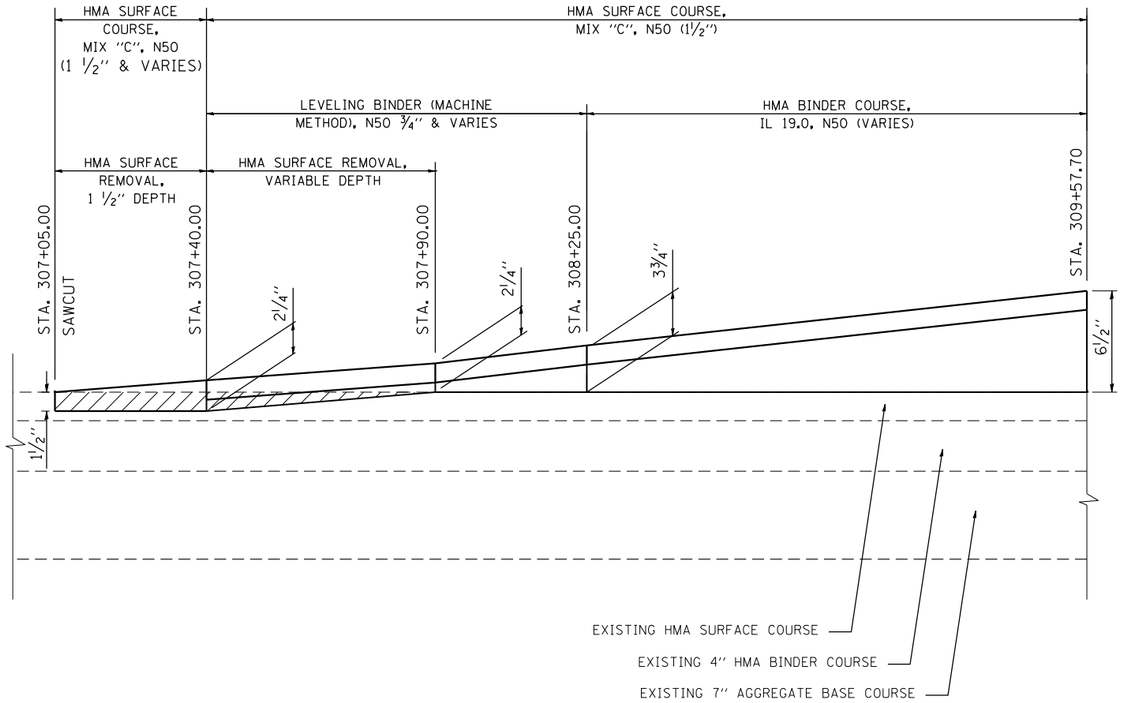
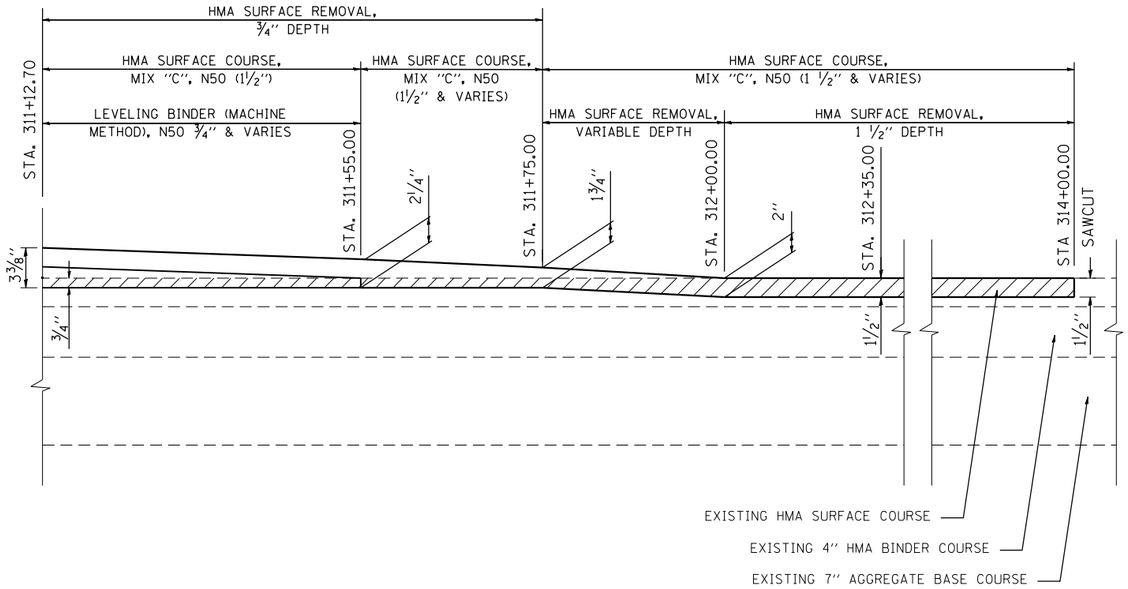
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



PAVEMENT DETAIL

STA. 307+05.00 TO STA. 309+57.70



PAVEMENT DETAIL

STA. 311+12.70 TO STA. 314+00.00

design firm no. 184001036 whks engineers + planners + land surveyors	USER NAME = gjameson	DESIGNED -	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT DETAILS IL 185 OVER MCDAVID BRANCH	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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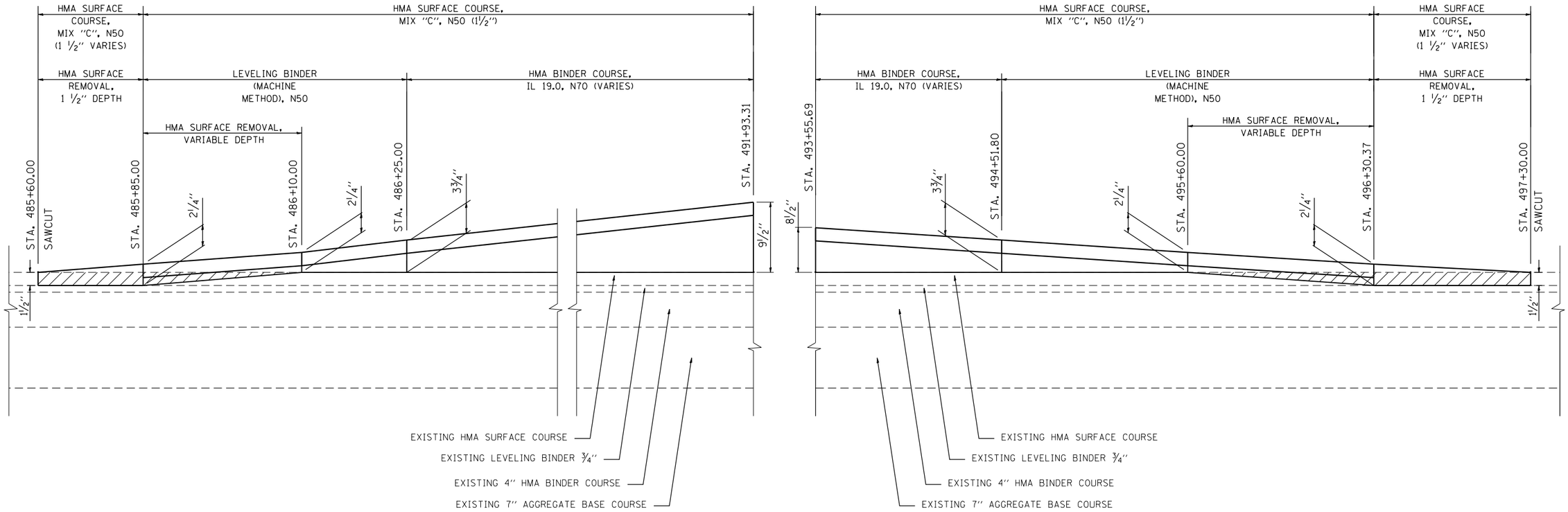
	PLOT DATE = 10/15/2015	CHECKED -	REVISED		SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT		



PAVEMENT DETAIL

STA. 485+60.00 TO STA. 491+93.31

PAVEMENT DETAIL

STA. 493+55.69 TO STA. 497+30.00

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PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT DETAILS
IL RTE 185 OVER BAYOU CREEK

SCALE: NTS | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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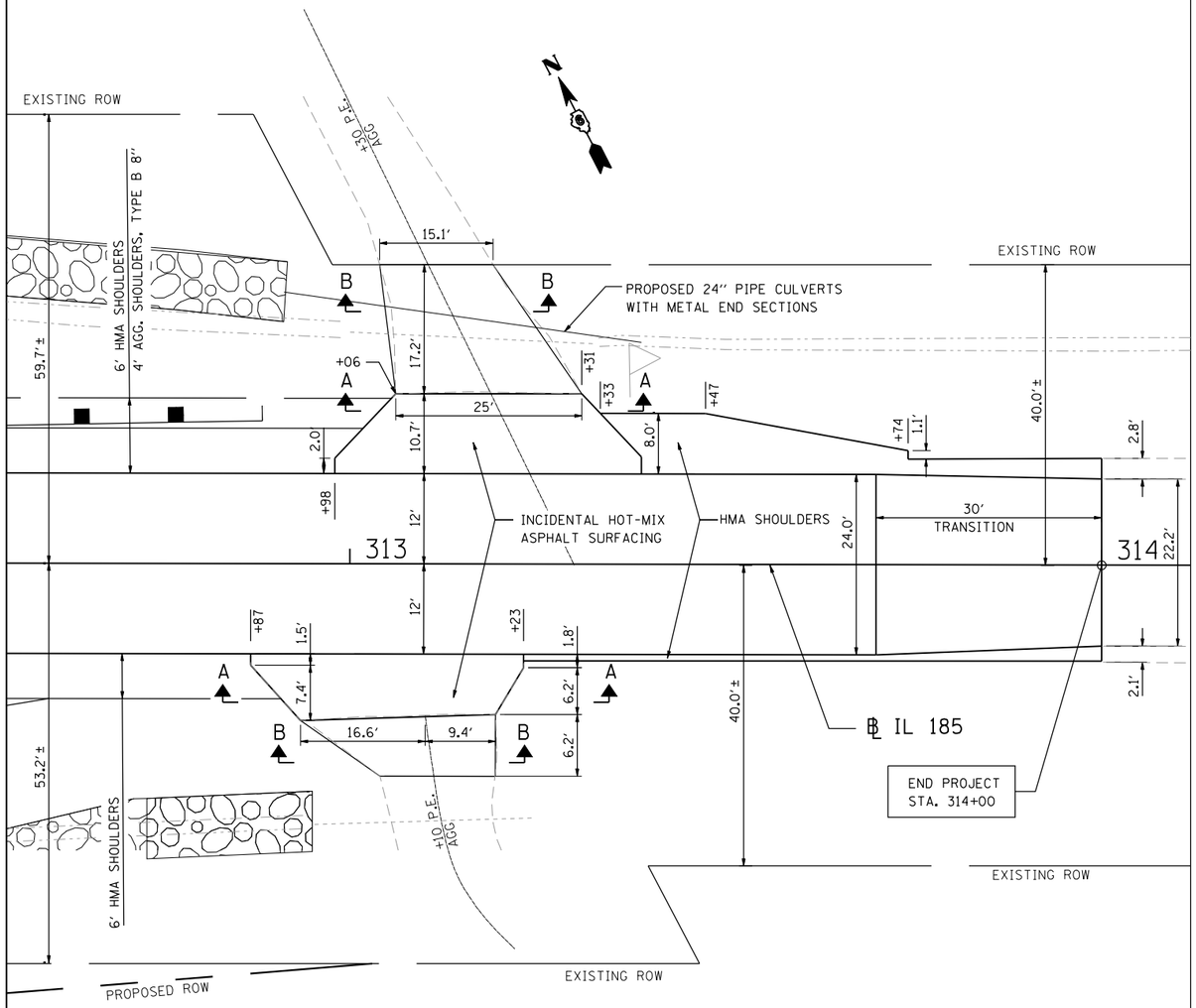
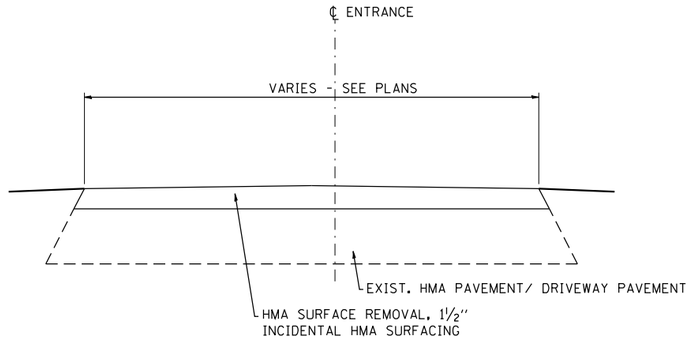
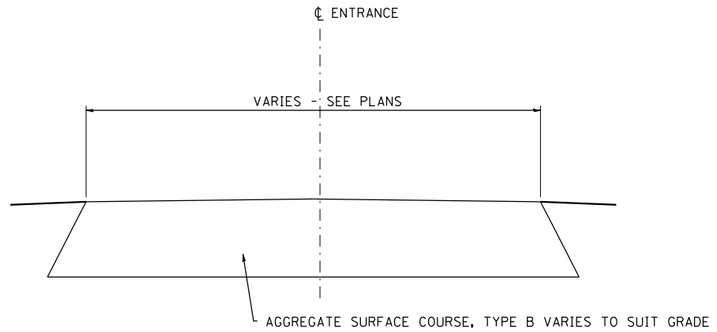
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



ENTRANCE DETAIL "A"
STA. 313+10.00 RT.
STA. 313+30.00 LT.



TYPICAL SECTION THRU ENTRANCE
SECTION A – A



TYPICAL SECTION THRU ENTRANCE
SECTION B – B

NOTES:

THE RESIDENT ENGINEER WILL DETERMINE THE EXACT LAYOUT FOR ALL ENTRANCES, AND MAILBOX TURNOUTS ON THIS PROJECT.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE TON FOR INCIDENTAL BITUMINOUS SURFACING WHICH SHALL INCLUDE ALL MATERIALS, EQUIPMENT, AND LABOR INVOLVED.

ANY WORK THE ENGINEER REQUIRES WHICH IS NOT COVERED BY A PAY ITEM CONTAINED IN THE PLANS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109:04 OF THE STANDARD SPECIFICATIONS.

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PLOT DATE = 10/15/2015		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ENTRANCE DETAILS
IL 185 OVER MCDAVID BRANCH

SCALE: 1" = 10' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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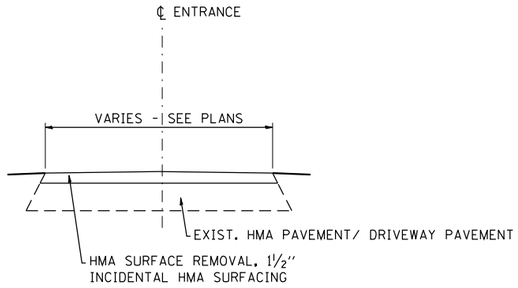
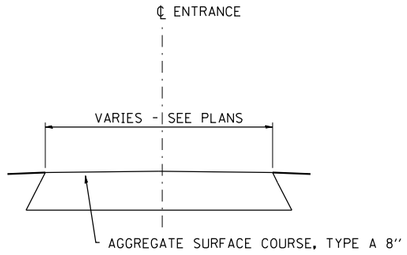
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



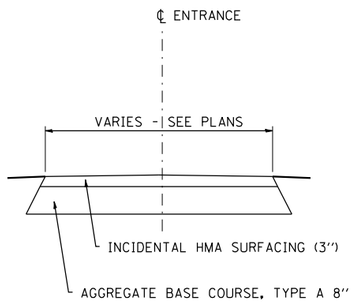
TYPICAL SECTION THRU ENTRANCE

SECTION A – A



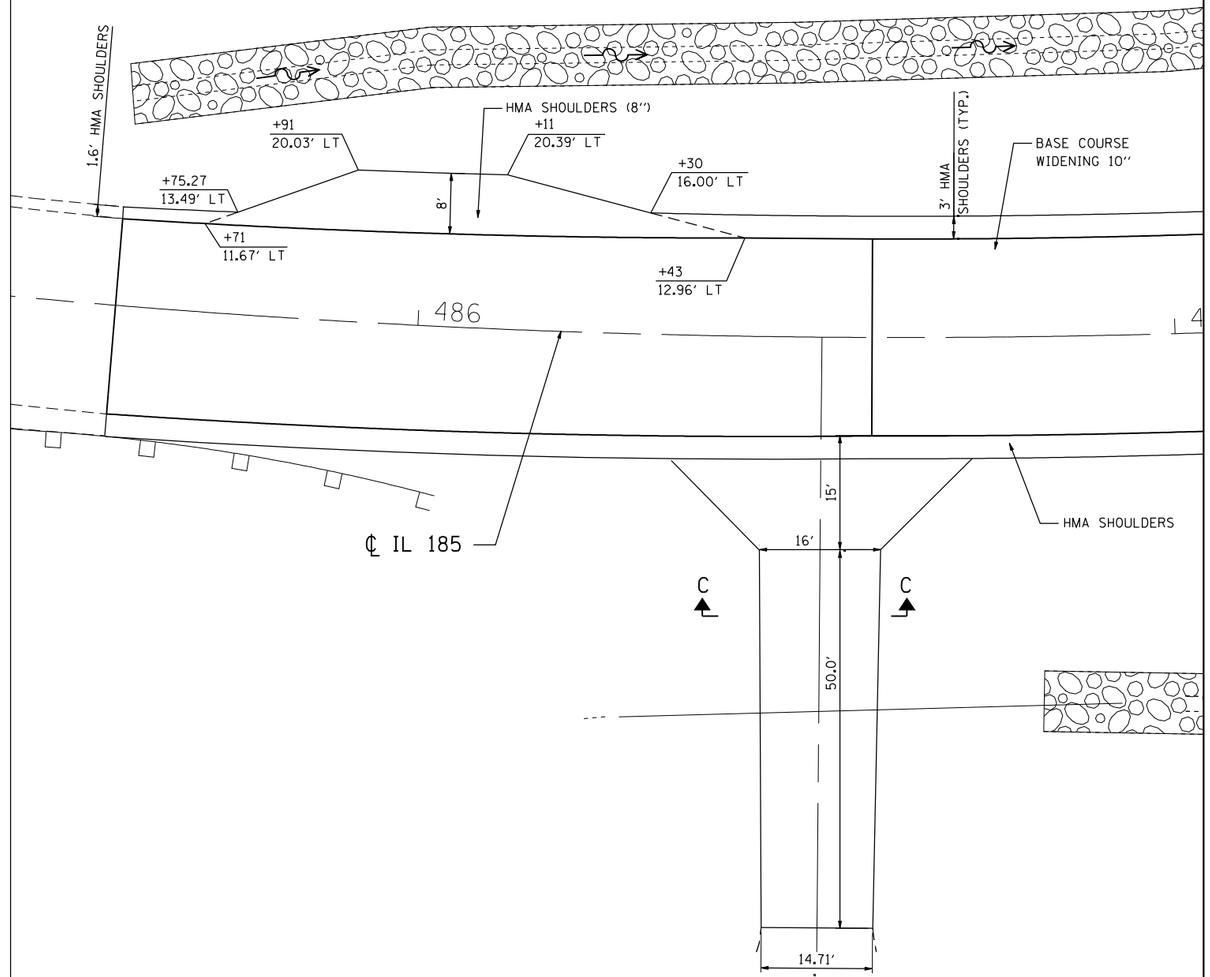
TYPICAL SECTION THRU ENTRANCE

SECTION B – B



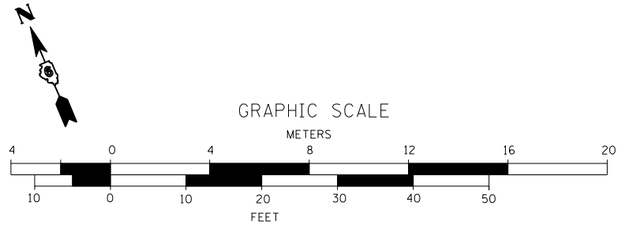
TYPICAL SECTION THRU ENTRANCE

SECTION C – C



ENTRANCE DETAIL "B"

STA. 486+52 RT.



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	PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ENTRANCE DETAILS TYPICAL ENTRANCE SECTIONS
IL RTE 185 OVER BAYOU CREEK

SCALE: 1" = 10' | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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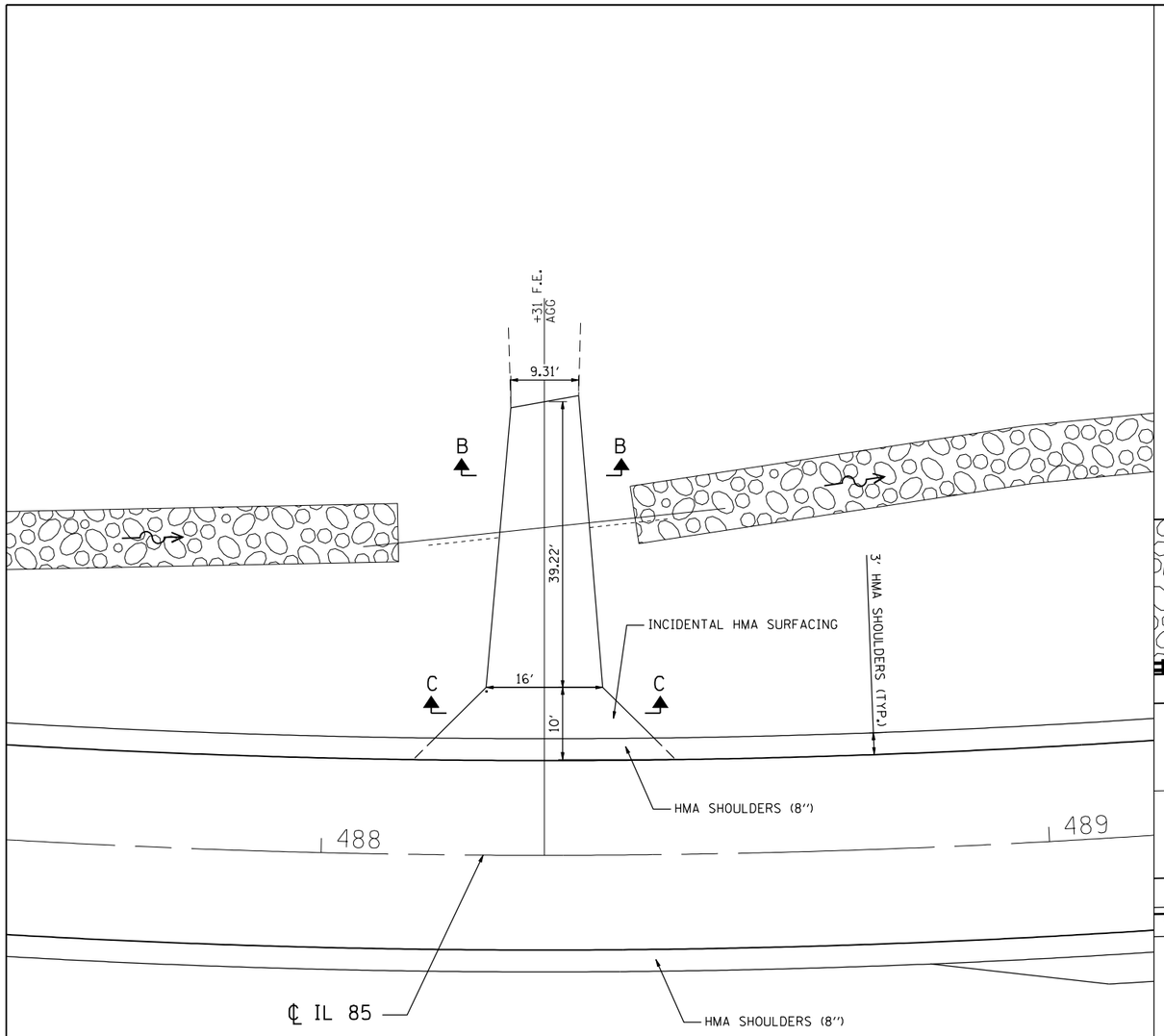
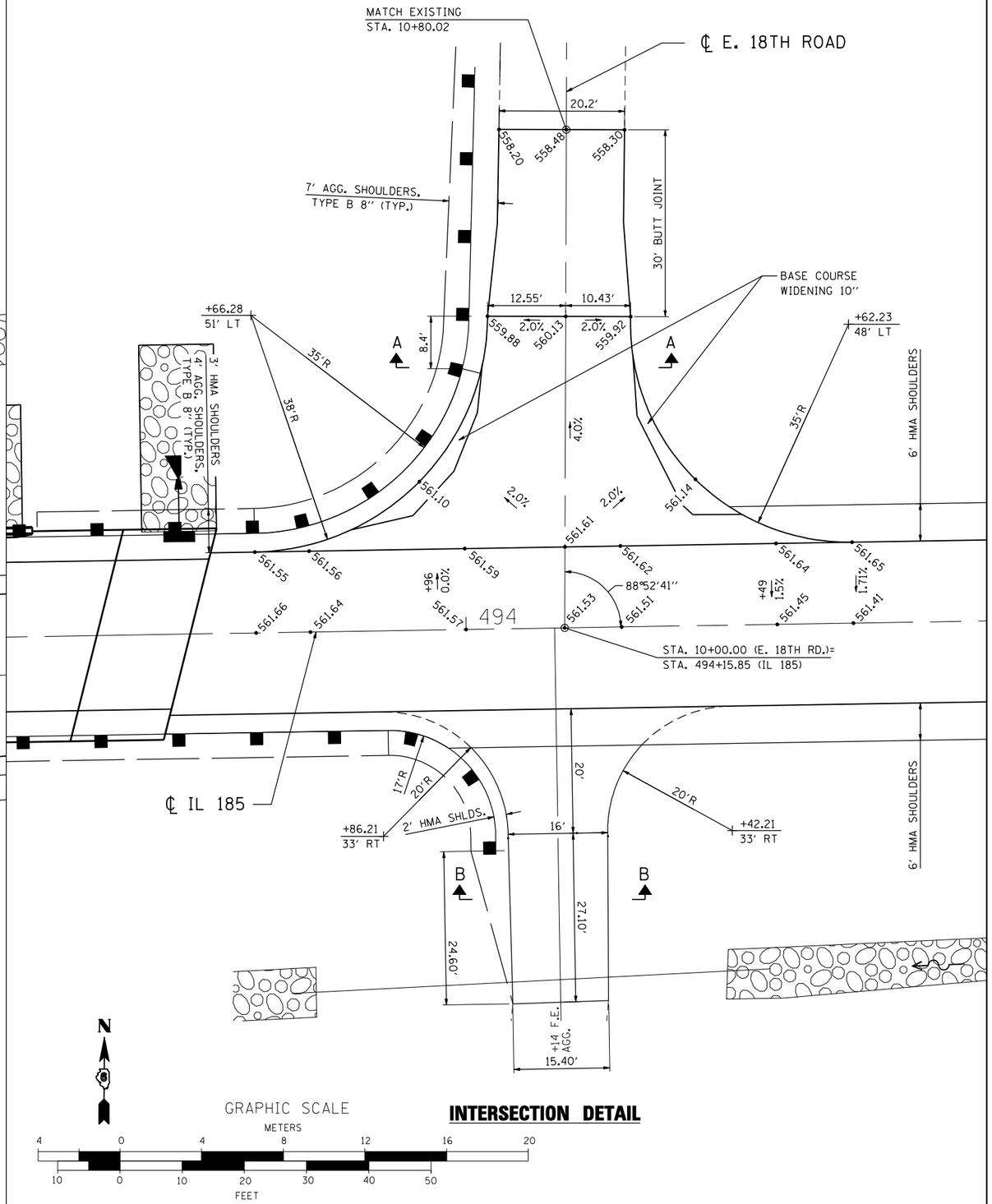
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		

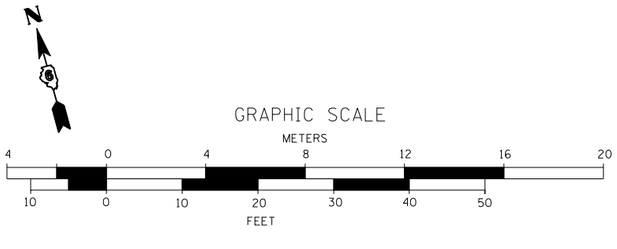


ENTRANCE DETAIL "C"

STA. 488 + 31 LT.



INTERSECTION DETAIL



NOTES:

SEE SHEET 50 FOR SECTIONS A-A, B-B, AND C-C.

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PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ENTRANCE AND INTERSECTION DETAILS
IL RTE 185 OVER BAYOU CREEK

SCALE: 1″ = 10′ | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	51
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

NOTES

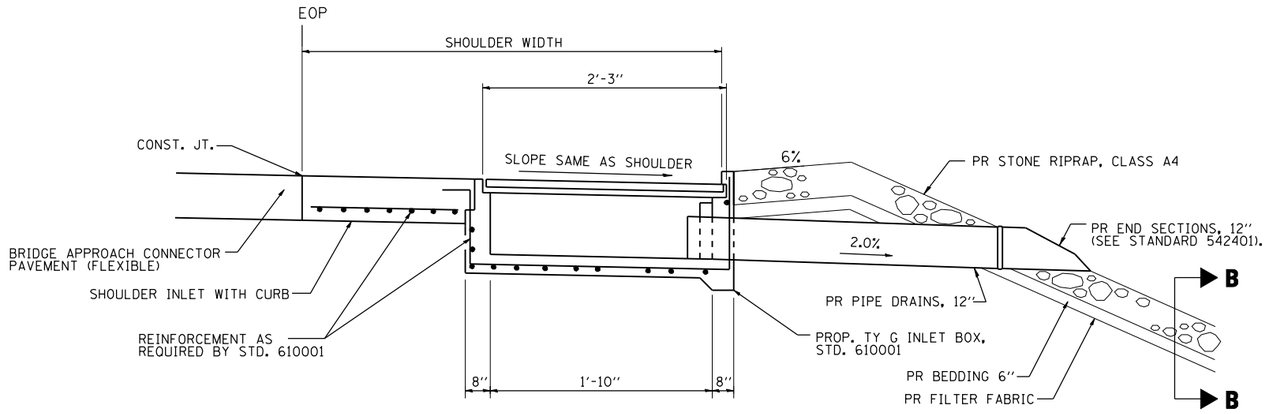
CONSTRUCTION SHALL BE ACCORDING TO STANDARDS 610001 AND 420401 EXCEPT AS MODIFIED.

INLET SHALL BE PLACED SUCH THAT THE OUTLET PIPE WILL MISS THE POST OF THE PROPOSED TYPE 6 TRAFFIC BARRIER TERMINAL. MINOR ADJUSTMENTS TO THE LENGTH AND QUANTITY OF THE CONNECTOR PAVEMENT MAY BE REQUIRED.

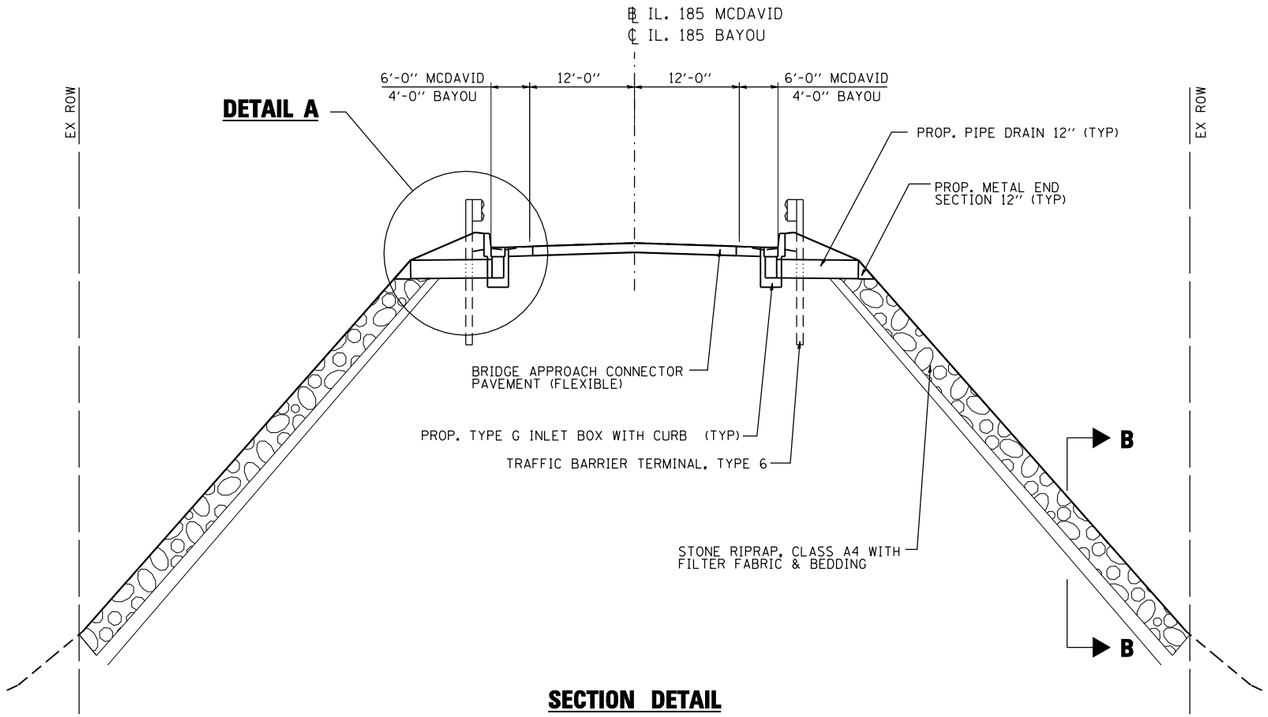
THE ANCHOR BOLTS REQUIRED TO TIE THE PIPE DRAIN TO THE CONCRETE COLLAR ACCORDING TO STD. 610001 SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TYPE G INLET BOX, STD 610001 AND NO ADDITIONAL COMPENSATION WILL BE MADE.

THE REINFORCING AND TIE BARS REQUIRED ACCORDING TO STD. 610001 SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TYPE G INLET BOX, STD 610001 AND NO ADDITIONAL COMPENSATION WILL BE MADE.

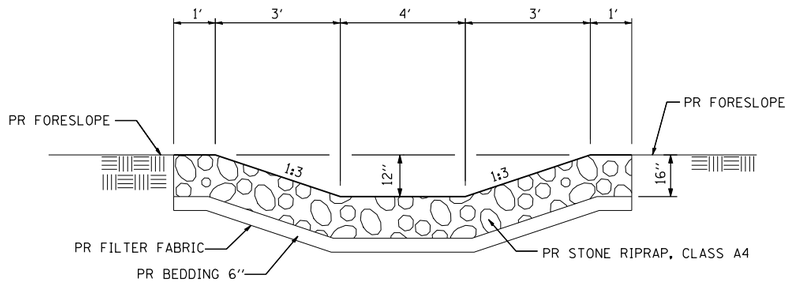
EXCAVATION REQUIRED TO CONSTRUCT THE RIPRAP SWALE AS SHOWN SHALL BE CONSIDERED AS INCLUDED IN THE COST OF RIPRAP, CLASS A4.



DETAIL A



SECTION DETAIL



SECTION B–B

design firm no. 184001036 — whks engineers + planners + land surveyors	USER NAME = gjameson	DESIGNED -	REVISED
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	PLOT SCALE = 10.0000 ' / IN.	DRAWN -	REVISED
	PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

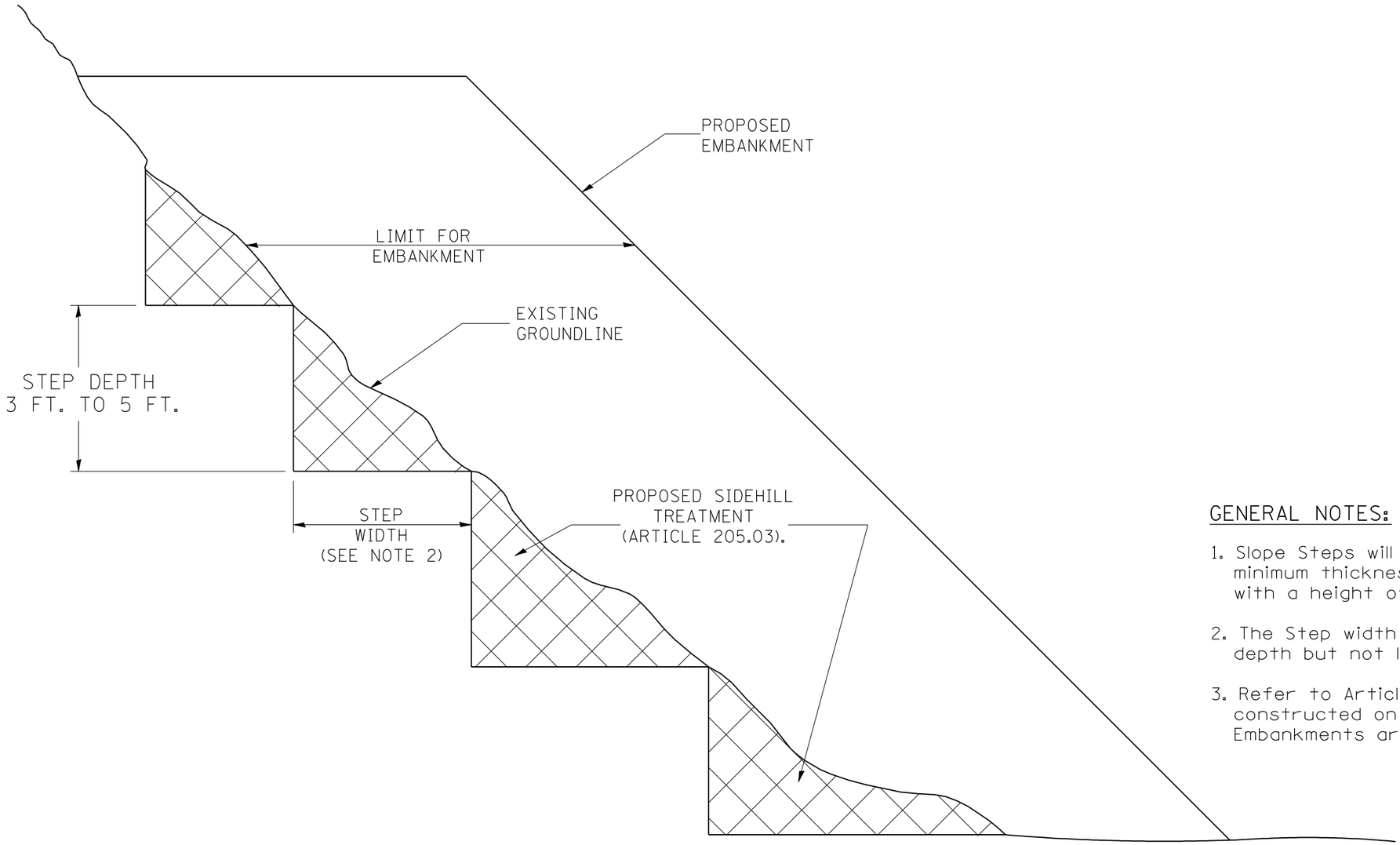
TYPE G INLET BOX DETAILS

SCALE: 1" = 10' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	52
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

SLOPE STEPS DETAIL

TYPICAL CROSS-SECTION EMBANKMENT CONSTRUCTION ON SIDEHILL



GENERAL NOTES:

1. Slope Steps will be required for all 12 (300) minimum thickness "silver fills" and on a fills with a height of 10' (3.0 m).

2. The Step width shall be twice the Step depth but not less than 6 feet.

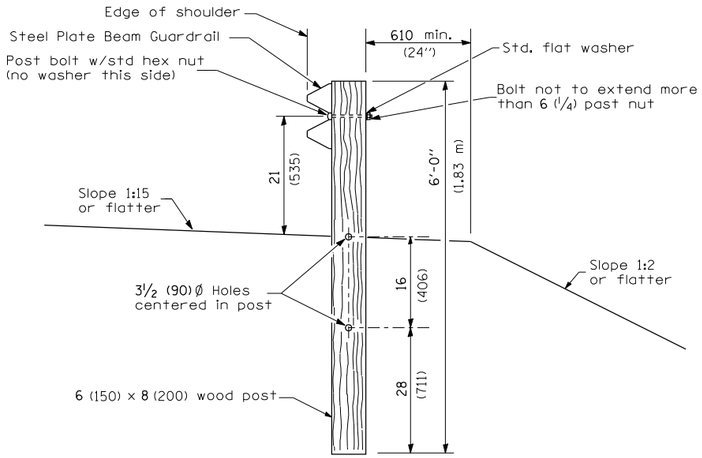
3. Refer to Article 205.03 for Embankment to be constructed on Hillside or Slopes, or if existing Embankments are to be widened.

REPLACEMENT MATERIAL:

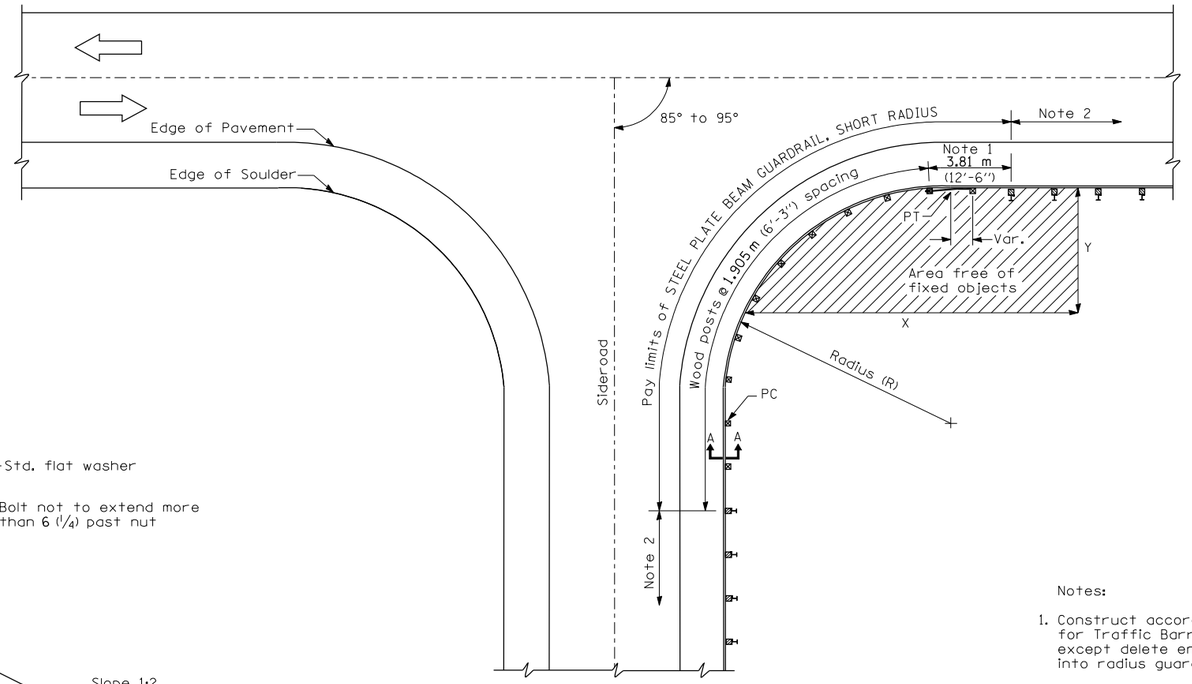
STANDARD EMBANKMENT (IN ACCORDANCE WITH 205 OF THE STANDARD SPECIFACATION).

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

design firm no. 184001036 whks engineers + planners + land surveyors	USER NAME = gjameson	DESIGNED -	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SLOPE STEPS DETAIL			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FILE NAME = D672D08-SN2680026-SHT-Design	CHECKED -	REVISED					777	10B-2, 405B-1	MONTGOMERY	121	53
	PLOT SCALE = 40.000 ' / IN.	DRAWN -	REVISED							CONTRACT NO. 72D08		
	PLOT DATE = 10/15/2015	CHECKED -	REVISED		SCALE: NTS	SHEET NO. 1 OF 3 SHEETS	STA. TO STA.		ILLINOIS	FED. AID PROJECT		



SECTION A-A



PLAN

INSTALLATION CHARACTERISTICS PER DESIGN RADIUS (R)			
R	NO. OF WOOD POSTS	X	Y
8'-6" (2.59)	5 (Note 3)	25' (7.6 m)	15' (4.6)
17'-0" (5.18)	6	30' (9.1 m)	15' (4.6)
25'-6" (7.77)	8	40' (12.2 m)	20' (6.1)
35'-0" (10.67)	11	50' (15.2 m)	20' (6.1)

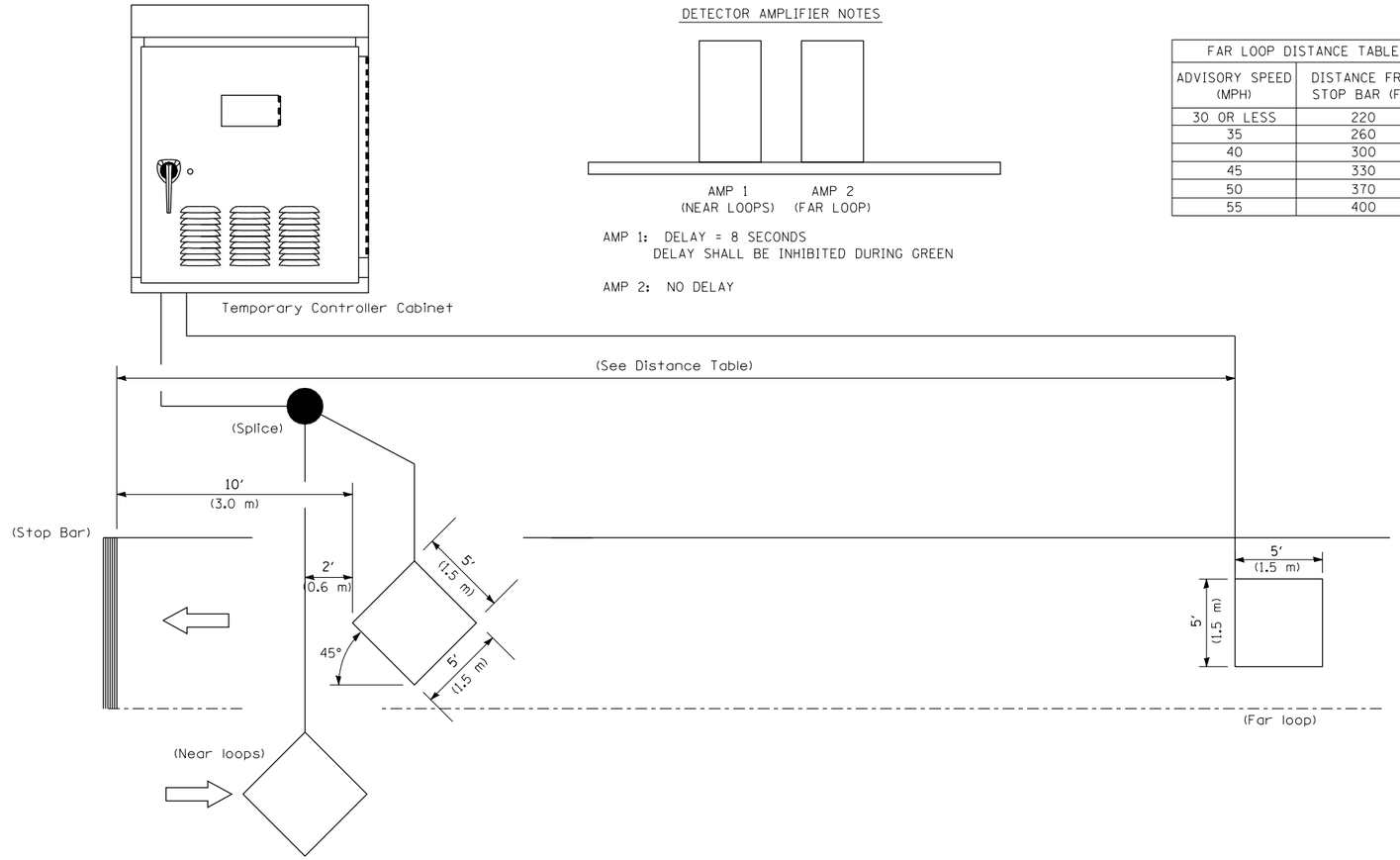
Notes:

1. Construct according to Standard 631011 for Traffic Barrier Terminal Type 2, except delete end section and splice into radius guardrail.
2. Steel Plate Beam Guardrail Type A, Type B, or Traffic Barrier Terminal as specified.
3. For the 8'-6" (2.59 m) radius, the rail is not bolted to the post located at the midpoint of the curve.

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

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



DETECTOR AMPLIFIER NOTES

AMP 1: DELAY = 8 SECONDS
DELAY SHALL BE INHIBITED DURING GREEN

AMP 2: NO DELAY

FAR LOOP DISTANCE TABLE	
ADVISORY SPEED (MPH)	DISTANCE FROM STOP BAR (FT.)
30 OR LESS	220
35	260
40	300
45	330
50	370
55	400

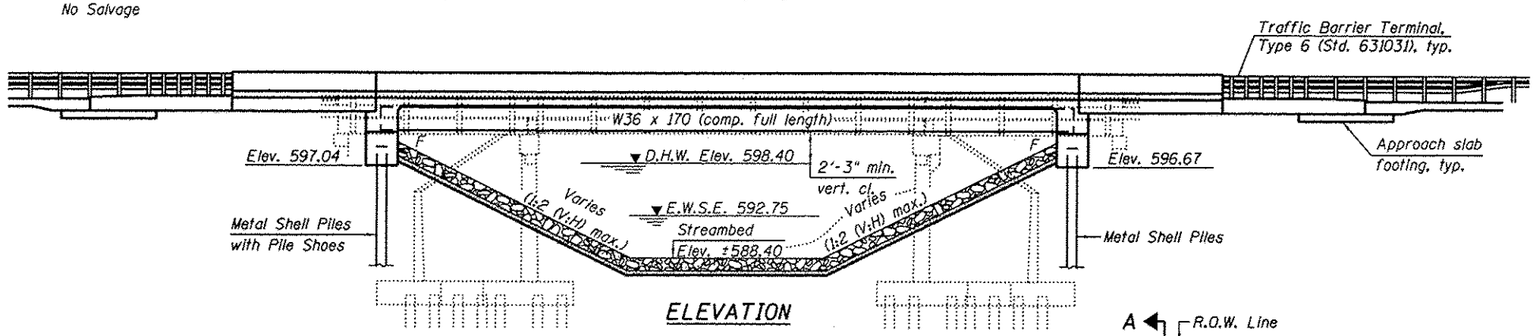
NOTE: All loops centered in lane.

INDUCTION LOOP DETECTOR

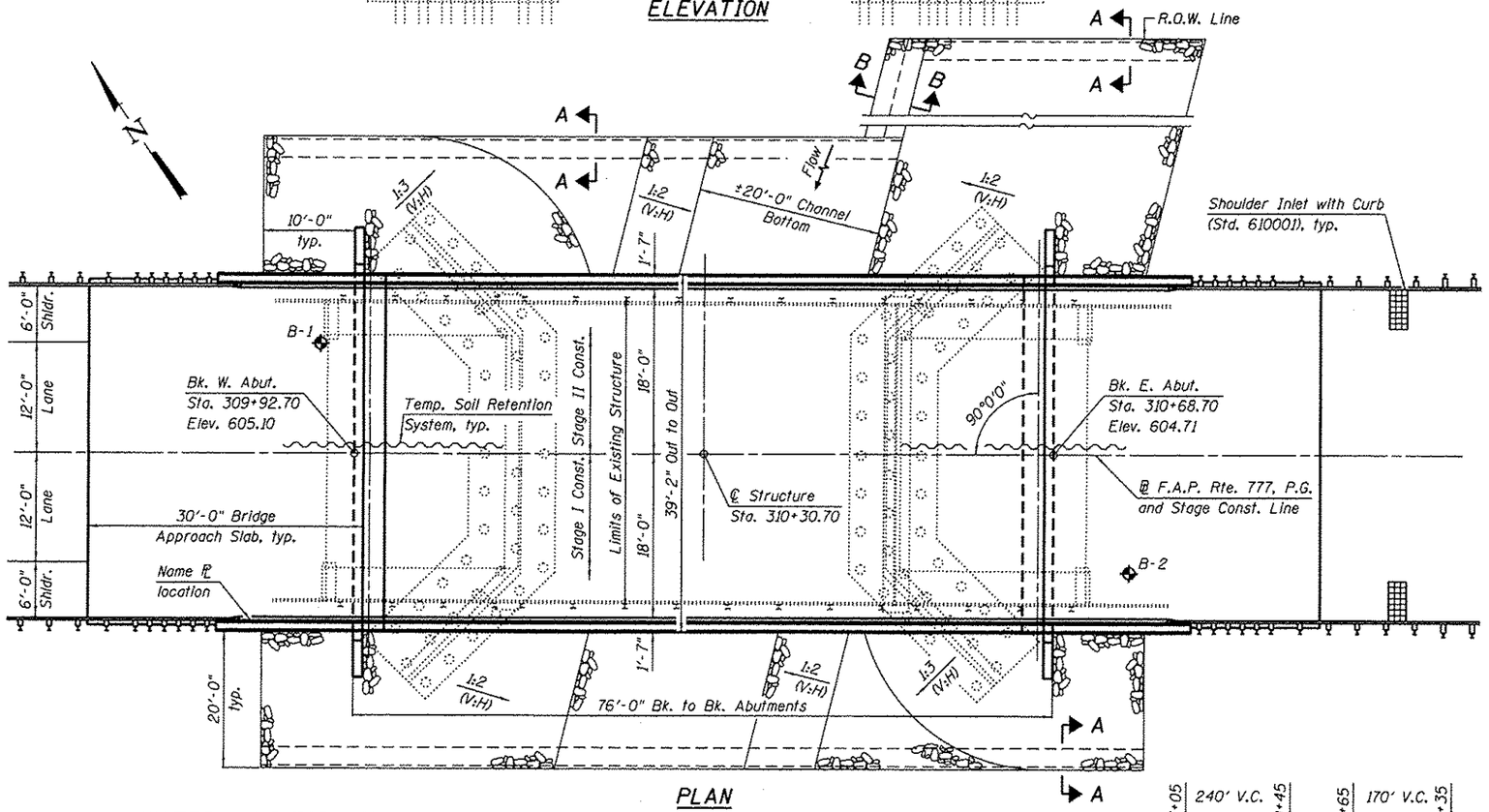
Bench Mark: Chiseled "□" in the north end of east concrete approach slab set in N.E. corner of bridge S.N. 068-0026. Elev. 604.176.

Existing Structure: S.N. 068-0026 was originally built in 1930 as SA RT9, Section 1-A.M.F.T. and reconstructed in 1982 as F.A. Route 777, Section 405 BR at Station 310+30.70. The existing structure consists of single span PPC deck beams on closed abutments. 43'-0" bk. to bk. of abutments and 33'-0" out to out of deck. The structure is to be removed and replaced. Traffic to be maintained utilizing stage construction.

No Salvage



ELEVATION



PLAN

WATERWAY INFORMATION TABLE

Drainage Area = 4.8 sq. mi.

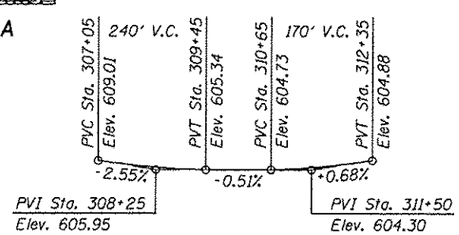
Exist. Low Grade Elev. = 604.35 ℄ Sta. 311+00
Prop. Low Grade Elev. = 604.40 ℄ Sta. 311+00

Flood	Freq.	Q	Opening Sq. Ft.		Nat.	Head - Ft.		Headwater El.	
	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
	10	1540	220	280	597.30	0.7	0.4	598.00	597.70
Design	50	2510	265	340	598.40	1.4	0.7	599.80	599.10
Base	100	2950	280	370	598.80	1.8	0.9	600.60	599.80
Max. Calc.	500	4050	320	420	599.80	4.5	2.3	604.30	602.10

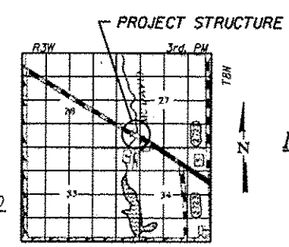
10 Yr. velocities = Exist. = 7.1 fps / Prop. = 5.5 fps

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevations (ft.)		Item
W. Abut.	E. Abut.	113
597.04	596.67	8



PROFILE GRADE
(Along ℄ of roadway)



LOCATION SKETCH

INDEX OF SHEETS

LOADING HL-93

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

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications, 6th Edition with 2013 Interim Revisions

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50W)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 3
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.305g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.694g
Soil Site Class = E

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

STATION 310+30.70
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 777 - SEC. 405B-1
LOADING HL-93
STRUCTURE NO. 068-0512

NAME PLATE
See Std. 515001

LICENSED STRUCTURAL ENGINEER
CORY W. CHAMBERLAIN
081-005882
STATE OF ILLINOIS
10-13-2015
Cory W. Chamberlain
Expires: 11/30/2016

GENERAL PLAN AND ELEVATION
ILLINOIS ROUTE 185 OVER McDAVID BRANCH
F.A.P. RTE. 777 - SEC. 405B-1
MONTGOMERY COUNTY
STATION 310+30.70
STRUCTURE NO. 068-0512

design firm no. 184001036 whks engineers • planners • land surveyors

USER NAME = $OPERATOR$	DESIGNED - BRD	REVISED
FILE NAME = 0688512-72008.dgn	CHECKED - TJZ	REVISED
PLOT SCALE = 8\2 '\ / in.	DRAWN - DLH	REVISED
PLOT DATE = 10/14/2015	CHECKED - BRD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	405B-1	MONTGOMERY	120	56

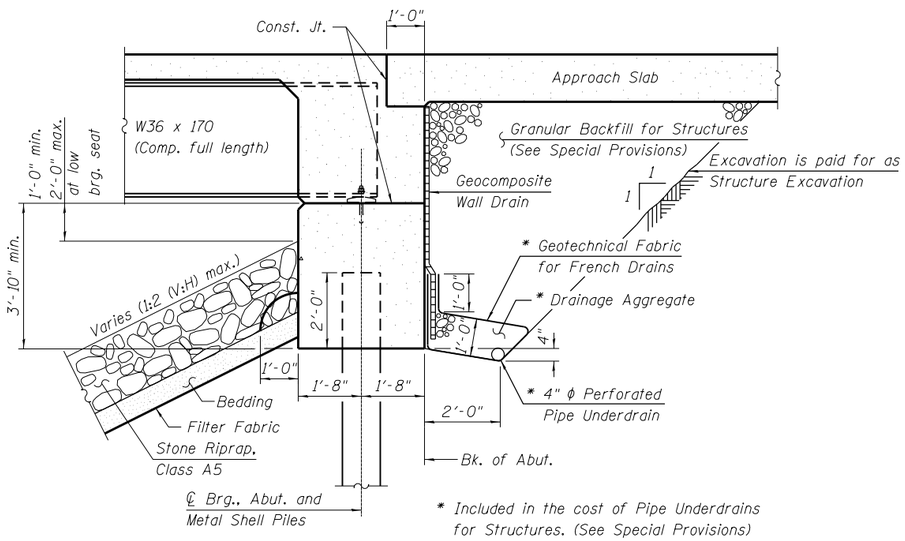
CONTRACT NO. 72D08
ILLINOIS FED. AID PROJECT

GENERAL NOTES

1. Fasteners shall be ASTM A325 Type 3. Bolts $^{3}/_{4}$" ϕ, holes $^{13}/_{16}$" ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel = 84,310 lbs.
3. All structural steel shall be AASHTO M 270 Grade 50W.
4. No field welding is permitted except as specified in the contract documents.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete diaphragm plus 1'-6". Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
7. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
8. The structure is referenced to a Baseline of Construction.
9. Slipforming of the parapet is not allowed.

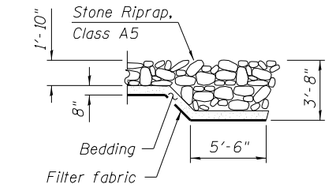
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Sq. Yd.		955	955
Filter Fabric	Sq. Yd.		955	955
Removal of Existing Structures No. 1	Each	1		1
Structure Excavation	Cu. Yd.		266	266
Concrete Structures	Cu. Yd.		69.0	69.0
Concrete Superstructure	Cu. Yd.	241.1		241.1
Bridge Deck Grooving	Sq. Yd.	509		509
Protective Coat	Sq. Yd.	631		631
Furnishing and Erecting Structural Steel	L. Sum	0.45		0.45
Stud Shear Connectors	Each	1,404		1,404
Reinforcement Bars, Epoxy Coated	Pound	51,560	12,140	63,700
Bar Splicers	Each	399	108	507
Furnishing Metal Pile Shells 14"x0.312"	Foot		695	695
Driving Piles	Foot		695	695
Test Pile Metal Shells	Each		2	2
Pile Shoes	Each		6	6
Name Plates	Each	1		1
Anchor Bolts, 1"	Each		24	24
Geocomposite Wall Drain	Sq. Yd.		74	74
Granular Backfill for Structures	Cu. Yd.		131	131
Asbestos Bearing Pad Removal	Each		26	26
Pipe Underdrains for Structures 4"	Foot		168	168
Temporary Soil Retention System	Sq. Ft.		538	538

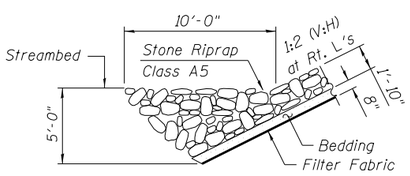


SECTION THRU INTEGRAL ABUTMENT

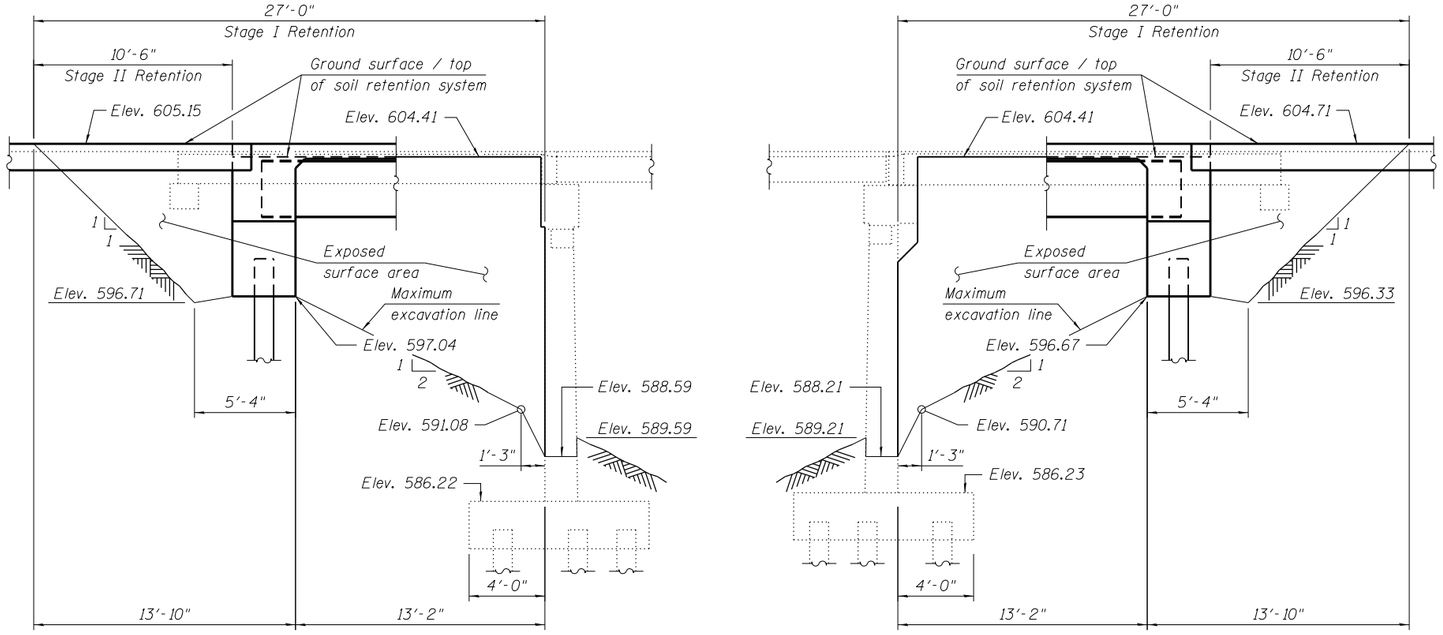
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



SECTION A-A



SECTION B-B



TEMPORARY SOIL RETENTION SYSTEM

(Looking North)

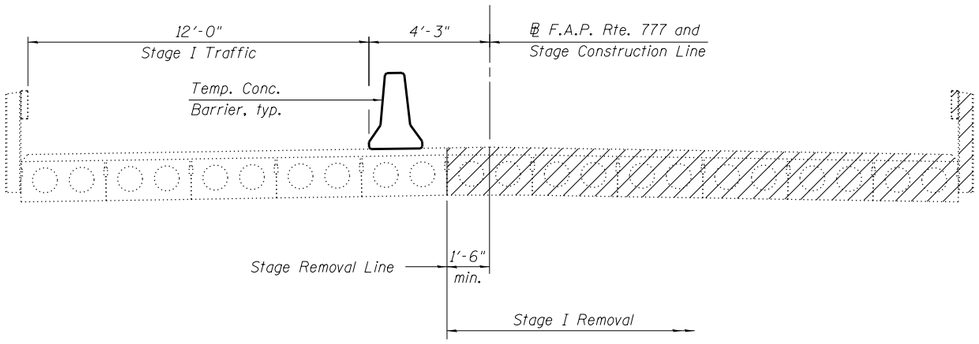
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

design firm no. 184001036 — whks engineers + planners + land surveyors	USER NAME = dheberling	DESIGNED - BRD	REVISED
	FILE NAME = 0680512-72D08.dgn	CHECKED - TJZ	REVISED
	PLOT SCALE = 0.2 '' / in.	DRAWN - DLH	REVISED
	PLOT DATE = 10/15/2015	CHECKED - BRD	REVISED

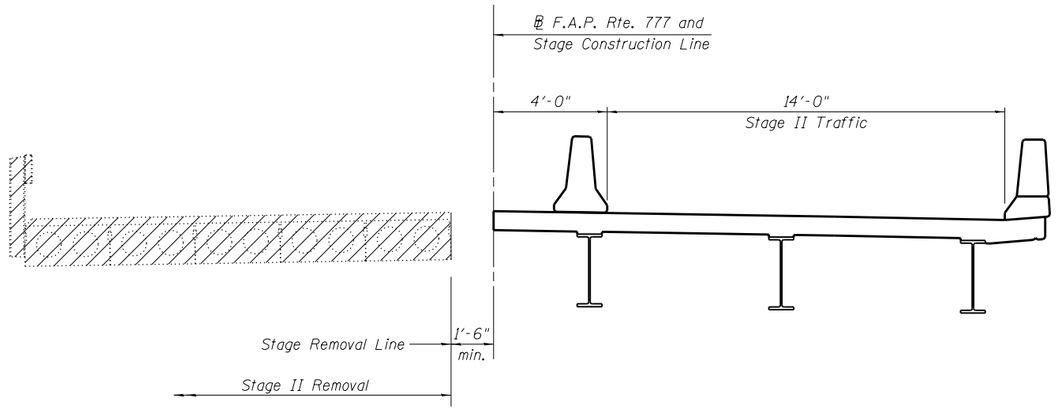
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 068-0512
SHEET NO. 2 OF 21 SHEETS

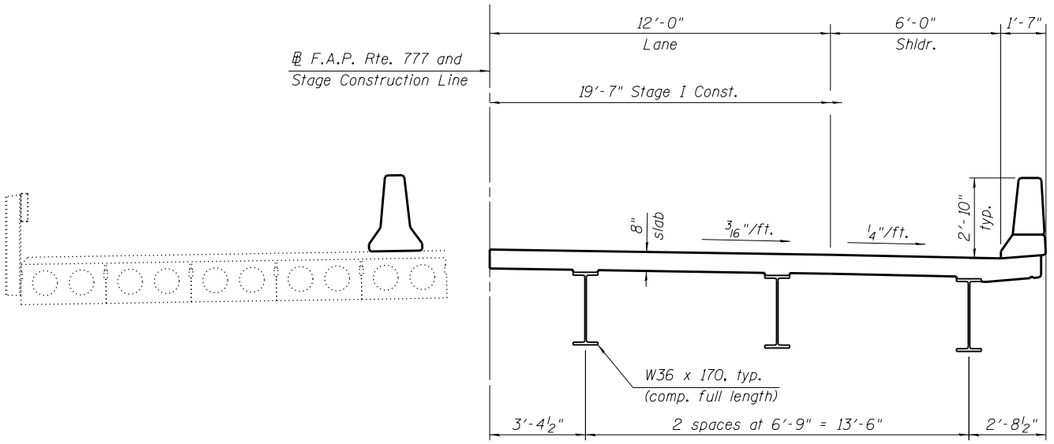
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	405B-1	MONTGOMERY	121	57
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



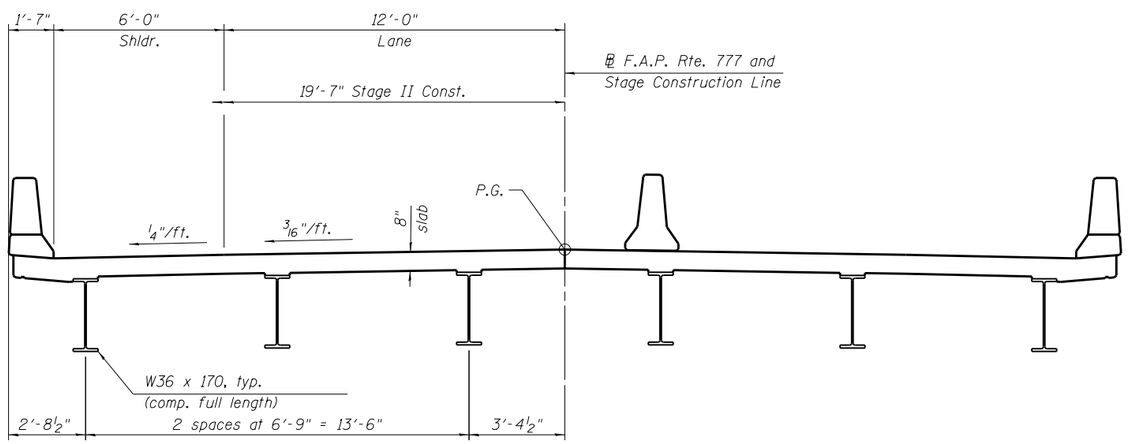
STAGE I REMOVAL
(Looking East)



STAGE II REMOVAL
(Looking East)



STAGE I CONSTRUCTION
(Looking East)



STAGE II CONSTRUCTION
(Looking East)

Notes:

1. *Hatched area indicates Removal of Existing Structures.*
2. *For details of Temporary Concrete Barrier, see sheet 4 of 21.*
3. *See roadway plans for quantity of Temporary Concrete Barrier.*

design firm no. 184001036 — whks engineers + planners + land surveyors

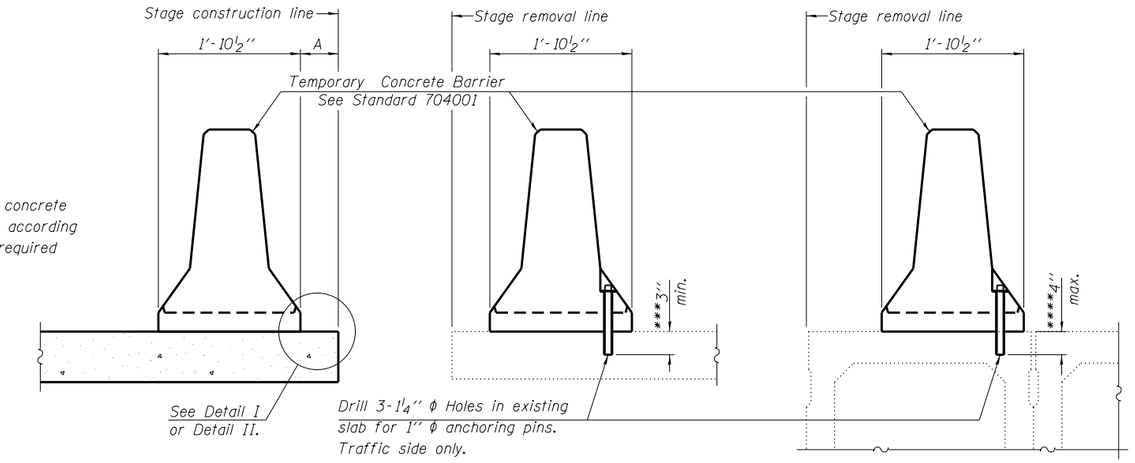
USER NAME = dheberling	DESIGNED - BRD	REVISED
FILE NAME = 0680512-72D08.dgn	CHECKED - TJZ	REVISED
PLOT SCALE = 02 '-' / in.	DRAWN - DLH	REVISED
PLOT DATE = 10/15/2015	CHECKED - BRD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 068-0512
SHEET NO. 3 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	405B-1	MONTGOMERY	121	58
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		

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



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1'' x 7' 'x ''W'' steel PL to the top layer of couplers with 2-⅝'' ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1'' x 7'' x ''W'' steel PL to the concrete slab or concrete wearing surface with 2-⅝'' ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

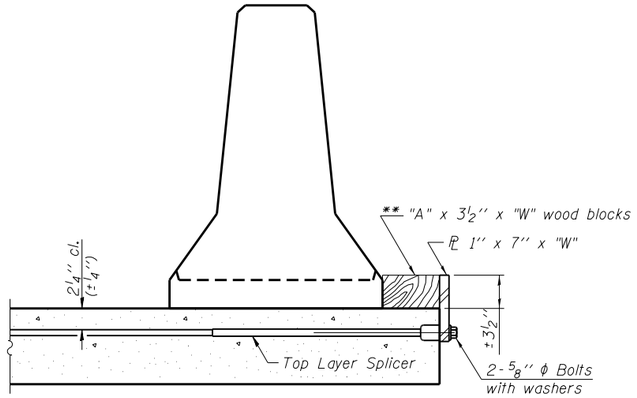
Cost of retainer assembly is included with Temporary Concrete Barrier.

The 1'' x 7'' x ''W'' plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

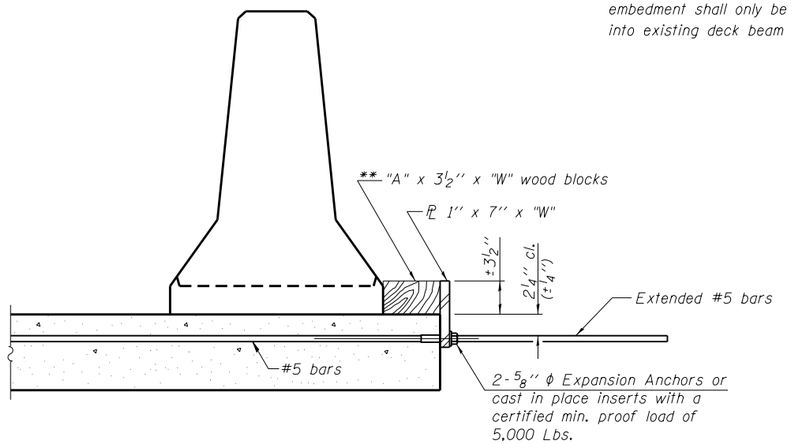
SECTIONS THRU SLAB OR DECK BEAM

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

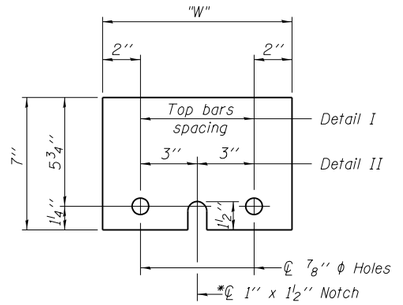
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1'' x 7'' x ''W''

* Required only with Detail II

RETAINER ASSEMBLY

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

R-27

1-12-15

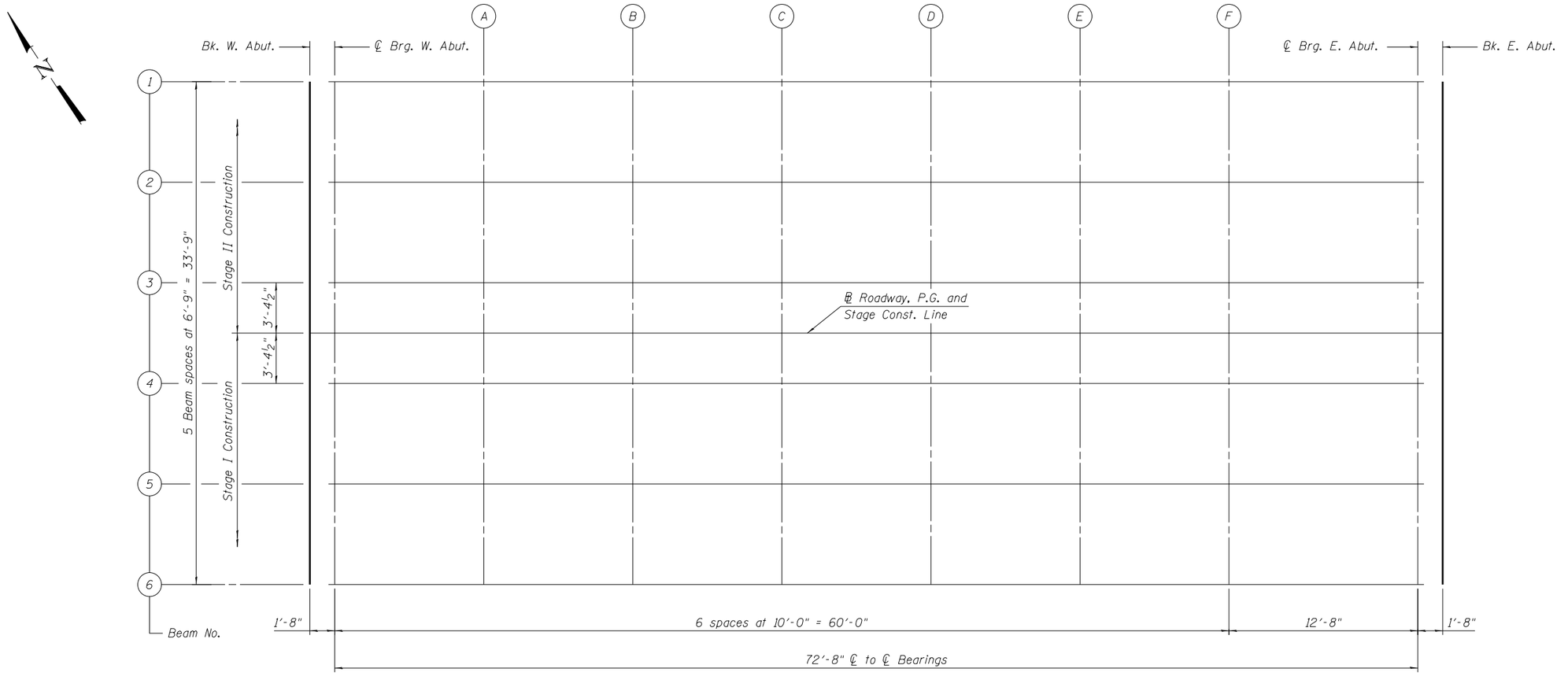
design firm no. 184001036 — whks engineers + planners + land surveyors

USER NAME = dheberling	DESIGNED - BRD	REVISED
FILE NAME = 0680512-72D08.dgn	CHECKED - TJZ	REVISED
PLOT SCALE = 02 '' / in.	DRAWN - DLH	REVISED
PLOT DATE = 10/15/2015	CHECKED - BRD	REVISED

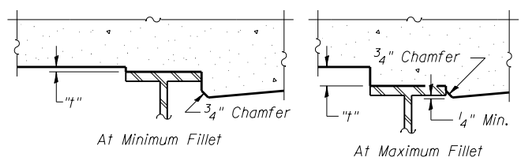
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 068-0512
SHEET NO. 4 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	405B-1	MONTGOMERY	121	59
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		

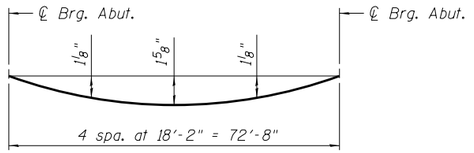


PLAN



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 6 of 21, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet 6 of 21.

Note:
Work this sheet with sheet 6 of 21.

design firm no. 184001036 whks engineers + planners + land surveyors	USER NAME = dheberling	DESIGNED - BRD	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF SLAB LOCATION PLAN STRUCTURE NO. 068-0512	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FILE NAME = 068D512-72D08.dgn	CHECKED - TJZ	REVISED			777	405B-1	MONTGOMERY	121	60
	PLOT SCALE = Ø2 '' / in.	DRAWN - DLH	REVISED					CONTRACT NO. 72D08		
	PLOT DATE = 10/15/2015	CHECKED - BRD	REVISED		SHEET NO. 5 OF 21 SHEETS			ILLINOIS FED. AID PROJECT		

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	309+92.70	-16.88	604.81	604.81
℄ Brg. W. Abut.	309+94.37	-16.88	604.80	604.80
A	310+04.37	-16.88	604.75	604.80
B	310+14.37	-16.88	604.70	604.80
C	310+24.37	-16.88	604.65	604.77
D	310+34.37	-16.88	604.60	604.73
E	310+44.37	-16.88	604.55	604.66
F	310+54.37	-16.88	604.49	604.56
℄ Brg. E. Abut.	310+67.03	-16.88	604.43	604.43
Bk. E. Abut.	310+68.70	-16.88	604.42	604.42

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	309+92.70	-10.13	604.94	604.94
℄ Brg. W. Abut.	309+94.37	-10.13	604.93	604.93
A	310+04.37	-10.13	604.88	604.94
B	310+14.37	-10.13	604.83	604.93
C	310+24.37	-10.13	604.78	604.91
D	310+34.37	-10.13	604.73	604.86
E	310+44.37	-10.13	604.68	604.79
F	310+54.37	-10.13	604.63	604.69
℄ Brg. E. Abut.	310+67.03	-10.13	604.56	604.56
Bk. E. Abut.	310+68.70	-10.13	604.55	604.55

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	309+92.70	-3.38	605.04	605.04
℄ Brg. W. Abut.	309+94.37	-3.38	605.04	605.04
A	310+04.37	-3.38	604.99	605.04
B	310+14.37	-3.38	604.93	605.04
C	310+24.37	-3.38	604.88	605.01
D	310+34.37	-3.38	604.83	604.96
E	310+44.37	-3.38	604.78	604.89
F	310+54.37	-3.38	604.73	604.80
℄ Brg. E. Abut.	310+67.03	-3.38	604.67	604.67
Bk. E. Abut.	310+68.70	-3.38	604.66	604.66

℄ ROADWAY, P.G. AND STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	309+92.70	0.00	605.10	605.10
℄ Brg. W. Abut.	309+94.37	0.00	605.09	605.09
A	310+04.37	0.00	605.04	605.09
B	310+14.37	0.00	604.99	605.09
C	310+24.37	0.00	604.94	605.06
D	310+34.37	0.00	604.89	605.02
E	310+44.37	0.00	604.83	604.94
F	310+54.37	0.00	604.78	604.85
℄ Brg. E. Abut.	310+67.03	0.00	604.72	604.72
Bk. E. Abut.	310+68.70	0.00	604.71	604.71

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	309+92.70	3.38	605.04	605.04
℄ Brg. W. Abut.	309+94.37	3.38	605.04	605.04
A	310+04.37	3.38	604.99	605.04
B	310+14.37	3.38	604.93	605.04
C	310+24.37	3.38	604.88	605.01
D	310+34.37	3.38	604.83	604.96
E	310+44.37	3.38	604.78	604.89
F	310+54.37	3.38	604.73	604.80
℄ Brg. E. Abut.	310+67.03	3.38	604.67	604.67
Bk. E. Abut.	310+68.70	3.38	604.66	604.66

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	309+92.70	10.13	604.94	604.94
℄ Brg. W. Abut.	309+94.37	10.13	604.93	604.93
A	310+04.37	10.13	604.88	604.94
B	310+14.37	10.13	604.83	604.93
C	310+24.37	10.13	604.78	604.91
D	310+34.37	10.13	604.73	604.86
E	310+44.37	10.13	604.68	604.79
F	310+54.37	10.13	604.63	604.69
℄ Brg. E. Abut.	310+67.03	10.13	604.56	604.56
Bk. E. Abut.	310+68.70	10.13	604.55	604.55

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	309+92.70	16.88	604.81	604.81
℄ Brg. W. Abut.	309+94.37	16.88	604.80	604.80
A	310+04.37	16.88	604.75	604.80
B	310+14.37	16.88	604.70	604.80
C	310+24.37	16.88	604.65	604.77
D	310+34.37	16.88	604.60	604.73
E	310+44.37	16.88	604.55	604.66
F	310+54.37	16.88	604.49	604.56
℄ Brg. E. Abut.	310+67.03	16.88	604.43	604.43
Bk. E. Abut.	310+68.70	16.88	604.42	604.42

Note:
Work this sheet with sheet 5 of 21.

NORTH EDGE OF SHOULDER

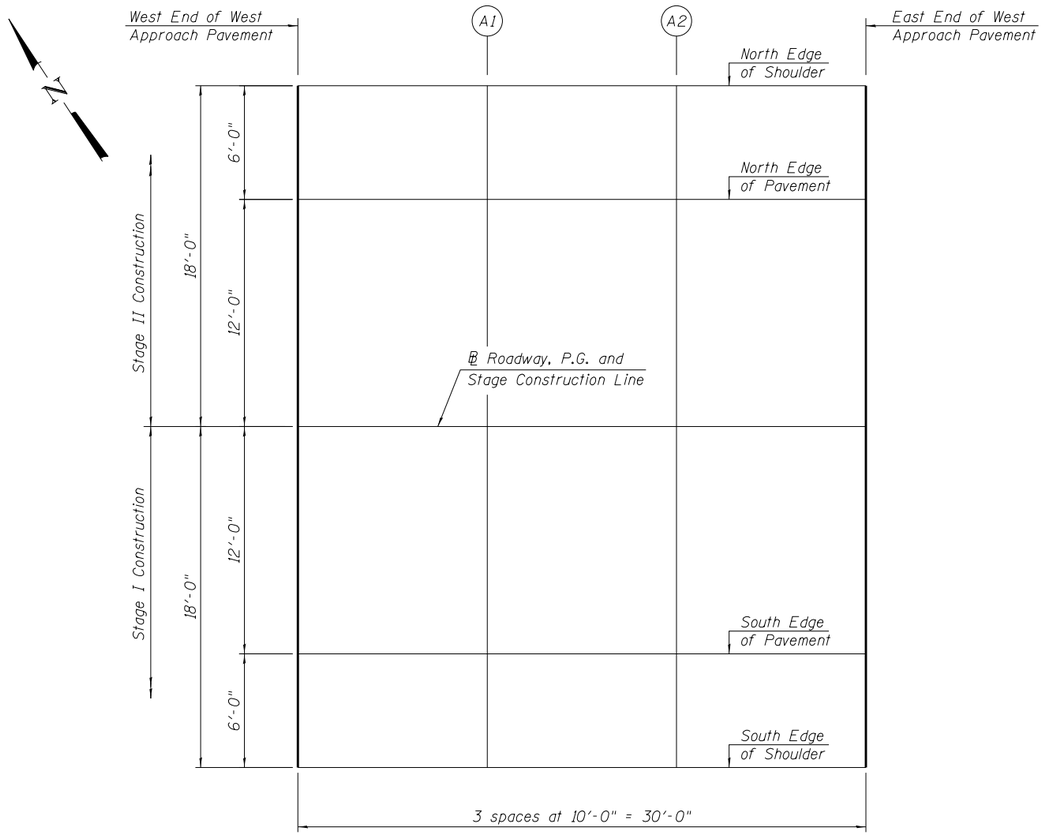
Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	309+63.70	-18.00	604.93
A1	309+73.70	-18.00	604.88
A2	309+83.70	-18.00	604.83
E. End W. Appr. Pav't.	309+93.70	-18.00	604.78

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	309+63.70	-12.00	605.06
A1	309+73.70	-12.00	605.01
A2	309+83.70	-12.00	604.96
E. End W. Appr. Pav't.	309+93.70	-12.00	604.90

℄ ROADWAY, PROFILE GRADE AND STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	309+63.70	0.00	605.24
A1	309+73.70	0.00	605.19
A2	309+83.70	0.00	605.14
E. End W. Appr. Pav't.	309+93.70	0.00	605.09



PLAN

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	309+63.70	12.00	605.06
A1	309+73.70	12.00	605.01
A2	309+83.70	12.00	604.96
E. End W. Appr. Pav't.	309+93.70	12.00	604.90

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	309+63.70	18.00	604.93
A1	309+73.70	18.00	604.88
A2	309+83.70	18.00	604.83
E. End W. Appr. Pav't.	309+93.70	18.00	604.78

NORTH EDGE OF SHOULDER

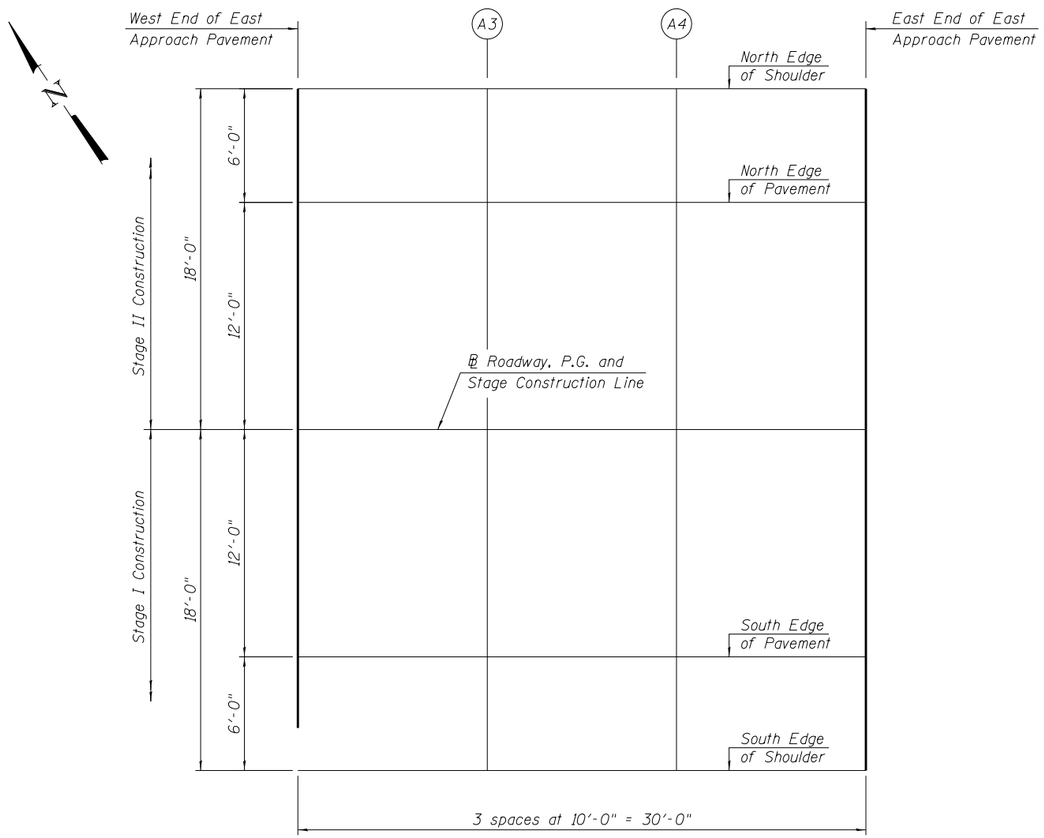
Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	310+67.70	-18.00	604.40
A3	310+77.70	-18.00	604.36
A4	310+87.70	-18.00	604.32
E. End E. Appr. Pav't.	310+97.70	-18.00	604.29

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	310+67.70	-12.00	604.53
A3	310+77.70	-12.00	604.48
A4	310+87.70	-12.00	604.45
E. End E. Appr. Pav't.	310+97.70	-12.00	604.41

℄ ROADWAY, PROFILE GRADE AND STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	310+67.70	0.00	604.72
A3	310+77.70	0.00	604.67
A4	310+87.70	0.00	604.63
E. End E. Appr. Pav't.	310+97.70	0.00	604.60



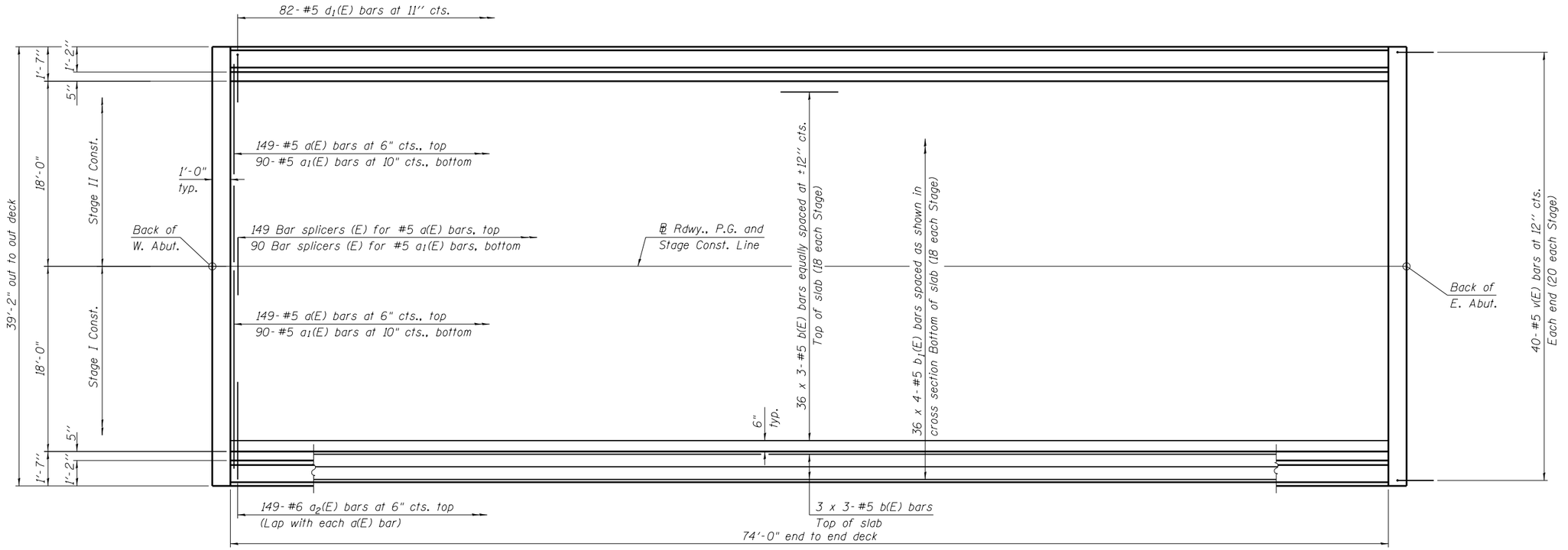
PLAN

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	310+67.70	12.00	604.53
A3	310+77.70	12.00	604.48
A4	310+87.70	12.00	604.45
E. End E. Appr. Pav't.	310+97.70	12.00	604.41

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	310+67.70	18.00	604.40
A3	310+77.70	18.00	604.36
A4	310+87.70	18.00	604.32
E. End E. Appr. Pav't.	310+97.70	18.00	604.29



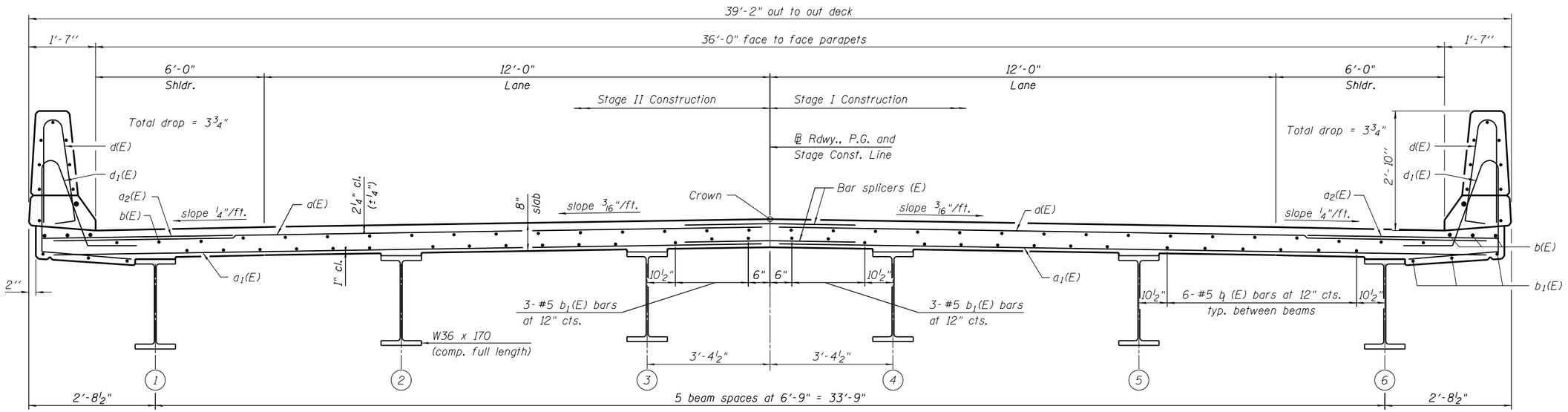
PLAN

MINIMUM BAR LAP

#5 bar = 2'-7"

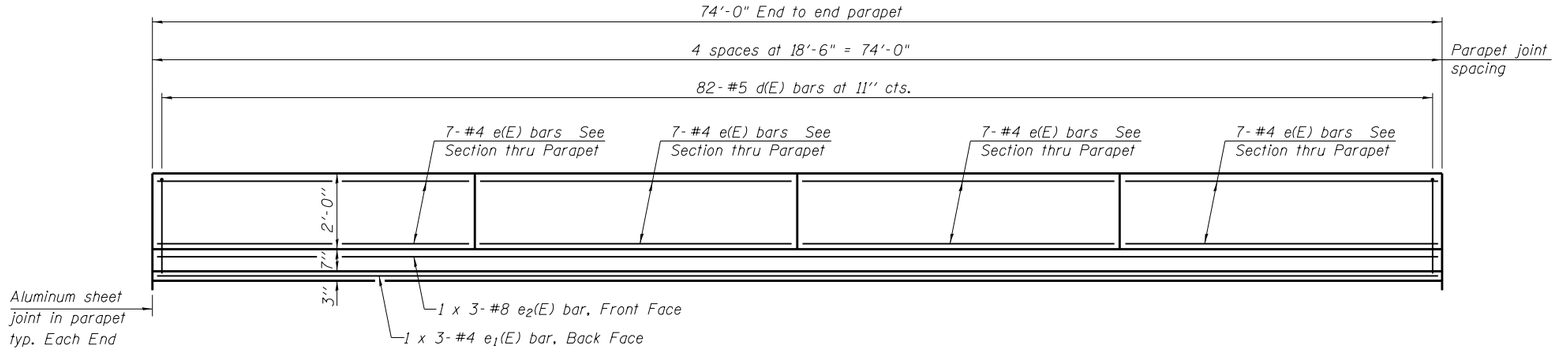
Notes:

1. See sheet 10 of 21 for superstructure details and Bill of Material.
2. Bars indicated thus 36 x 3-#5 etc. indicates 36 lines of bars with 3 lengths per line.
3. See sheet 10 of 21 for parapet reinforcement.
4. See sheet 18 of 21 for bar splicer details.



CROSS SECTION

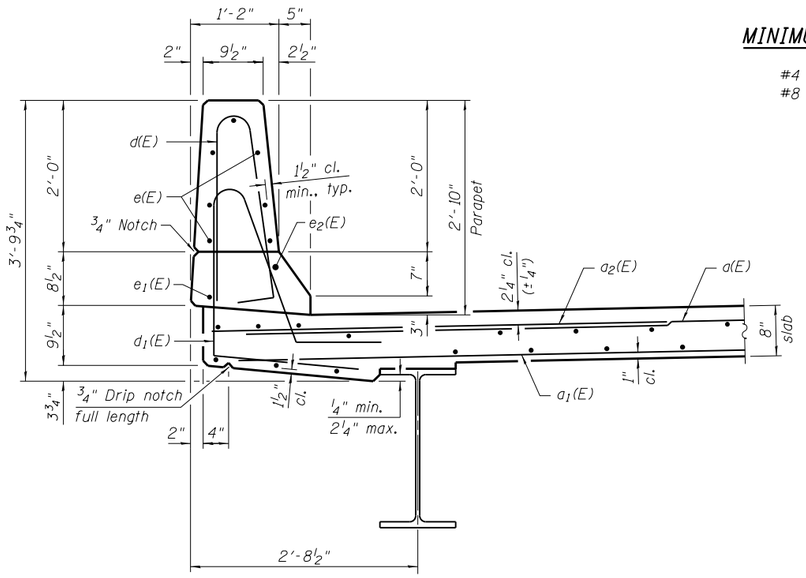
(Looking East)



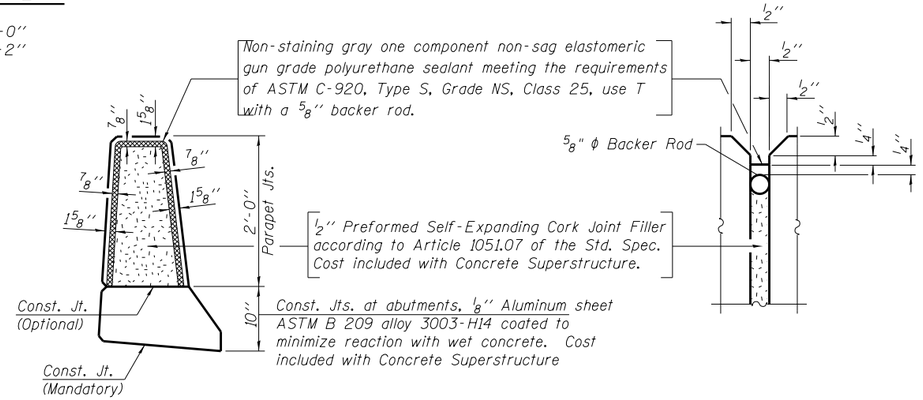
INSIDE ELEVATION OF PARAPET

MINIMUM BAR LAP

(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"



SECTION THRU PARAPET

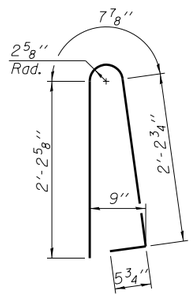


PARAPET JOINT DETAILS

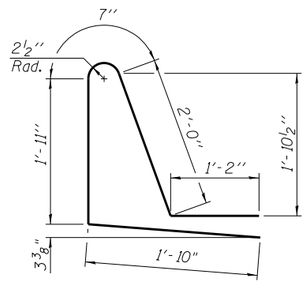
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	298	#5	19'-1"	
a_1(E)	180	#5	18'-9"	
a_2(E)	298	#6	6'-6"	
b(E)	126	#5	26'-4"	
b_1(E)	144	#5	20'-5"	
d(E)	164	#5	5'-7"	
d_1(E)	164	#5	7'-6"	
e(E)	56	#4	18'-2"	
e_1(E)	6	#4	25'-11"	
e_2(E)	6	#8	28'-0"	
m(E)	20	#6	19'-3"	
m_1(E)	32	#6	6'-4"	
m_2(E)	16	#6	2'-4"	
m_4(E)	36	#5	4'-0"	
s(E)	84	#5	7'-10"	
s_1(E)	84	#5	10'-2"	
v(E)	80	#5	3'-1"	
Concrete Superstructure			Cu. Yd.	121.5
Reinforcement Bars, Epoxy Coated			Pound	25,290
Bar Splicers			Each	257

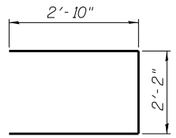
Bars indicated thus 1 x 3-#8 etc. indicates 1 line of bars with 3 lengths per line.



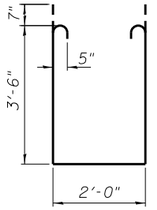
BAR d(E)



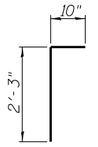
BAR d_1(E)



BAR s(E)



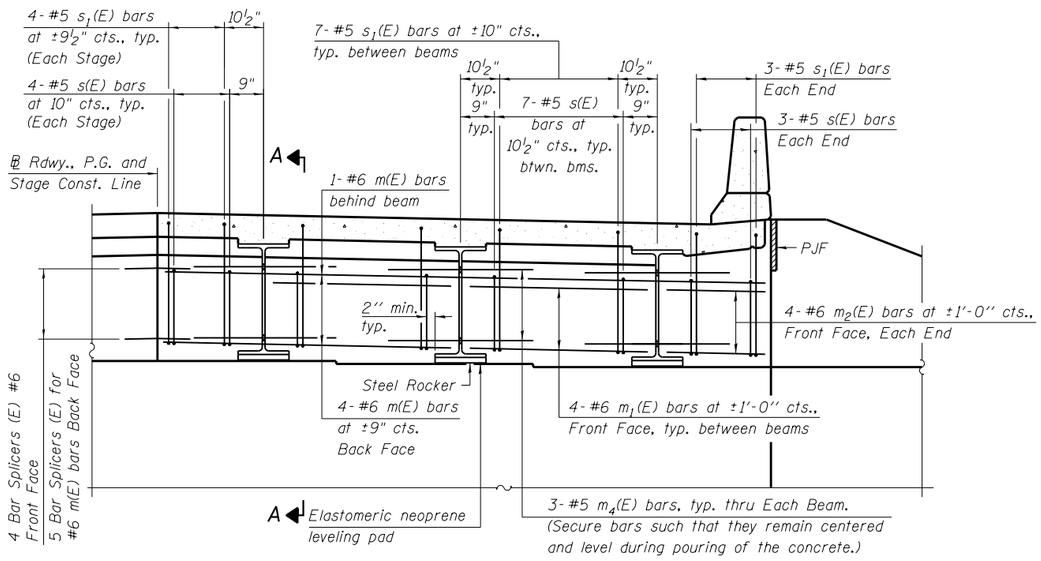
BAR s_1(E)



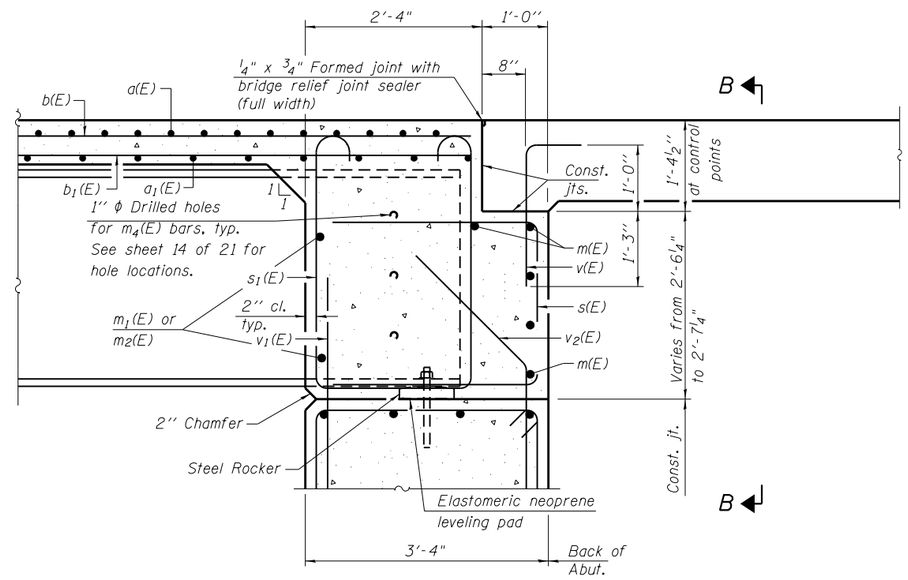
BAR v(E)

design firm no. 184001036 — whks engineers + planners + land surveyors	USER NAME = dheberling	DESIGNED - BRD	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	FILE NAME = 0680512-72D08.dgn	CHECKED - TJZ	REVISED	SUPERSTRUCTURE DETAILS STRUCTURE NO. 068-0512
	PLOT SCALE = 0.2 '/ in.	DRAWN - DLH	REVISED	SHEET NO. 10 OF 21 SHEETS
	PLOT DATE = 10/15/2015	CHECKED - BRD	REVISED	

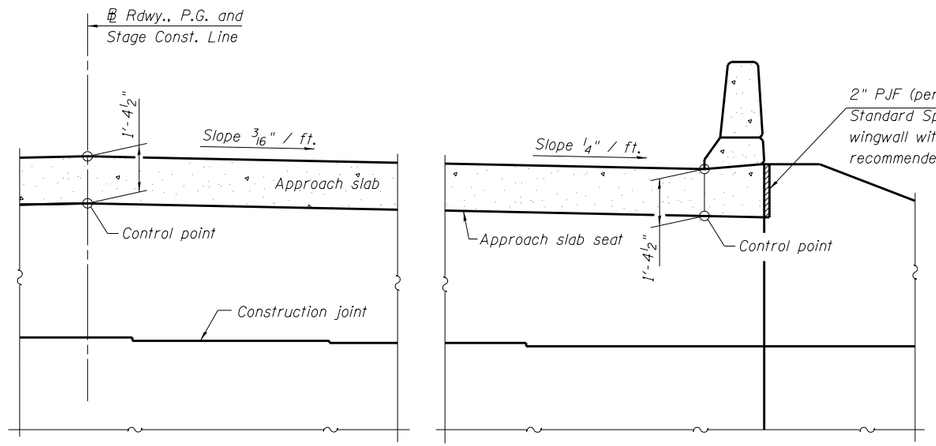
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	405B-1	MONTGOMERY	121	65
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



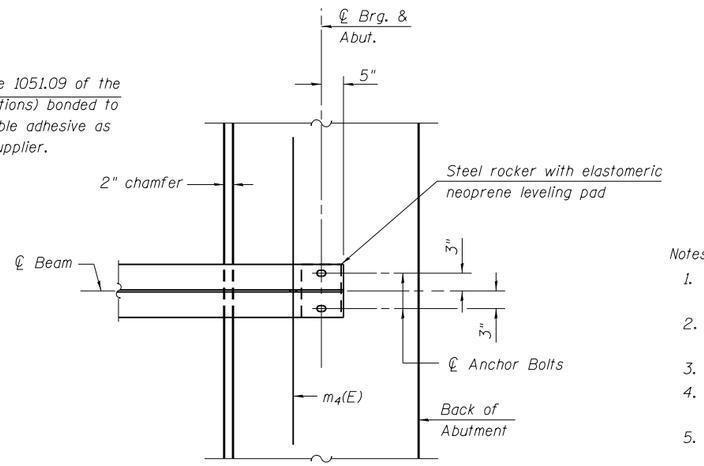
DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A



SECTION B-B



PARTIAL PLAN AT ABUTMENT

(Showing bottom flange of beam)

TOP OF CORBEL ELEVATIONS

Abutment	Location	Corbel Elevation
West Abutment	Inside face of north parapet	603.40
	Centerline roadway	603.71
	Inside face of south parapet	603.40
East Abutment	Inside face of north parapet	603.02
	Centerline roadway	603.34
	Inside face of south parapet	603.02

Notes:

1. Reinforcement bars in diaphragm are billed with superstructure on sheet 10 of 21.
2. Concrete in diaphragm is included with Concrete Superstructure on sheet 10 of 21.
3. For details of bars s(E), s_1(E) and v(E) see sheet 10 of 21.
4. The approach slab seat shall have a constant slope determined from the control points shown.
5. For bearing details see sheet 15 of 21.

DSI-2440-0 8-31-12

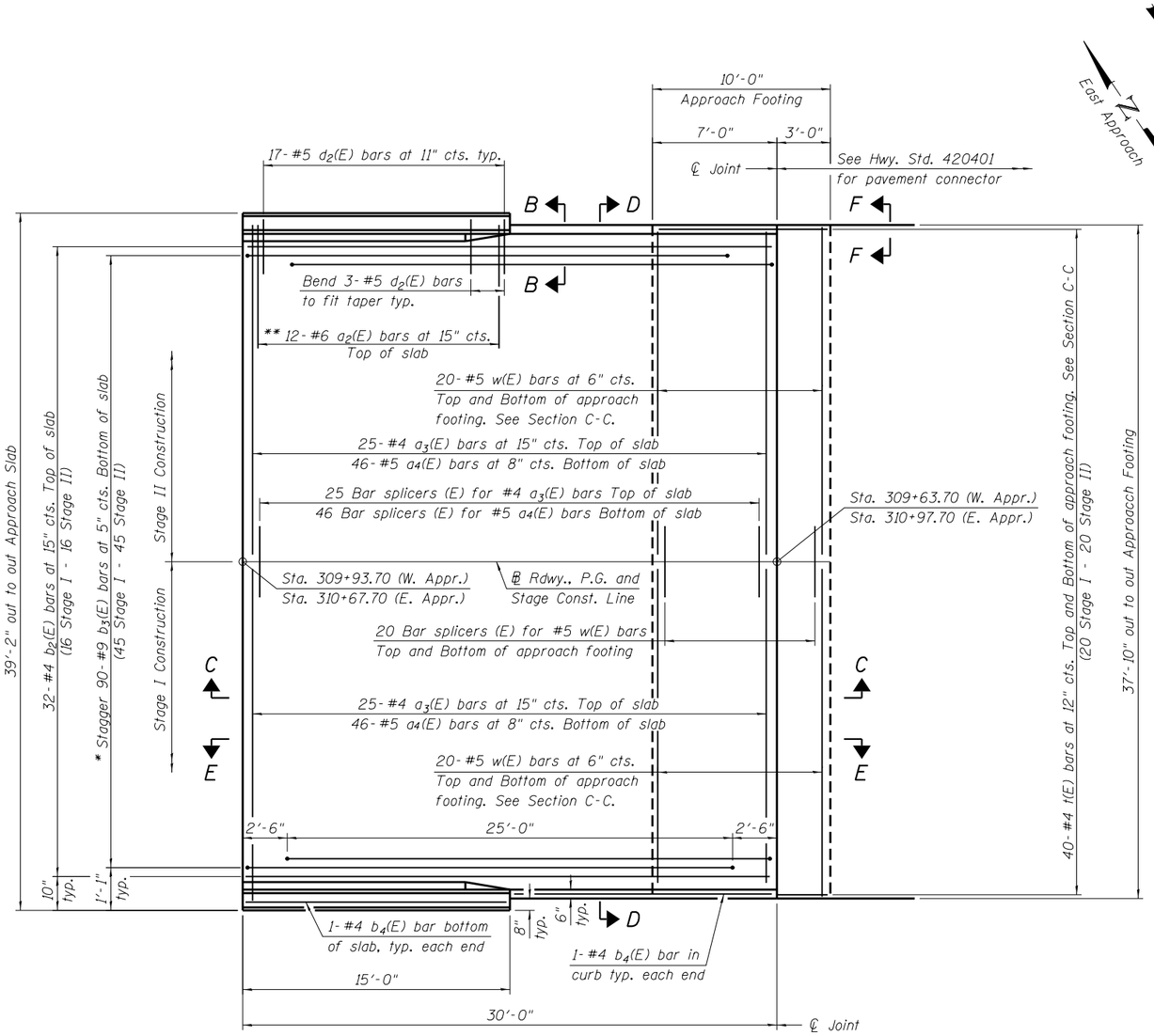
design firm no. 184001036 whks engineers • planners • land surveyors

USER NAME = dheberling	DESIGNED - BRD	REVISED	
FILE NAME = 068D512-72D08.dgn	CHECKED - TJZ	REVISED	
PLOT SCALE = 02 '-' / in.	DRAWN - DLH	REVISED	
PLOT DATE = 10/15/2015	CHECKED - BRD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTEGRAL ABUTMENT DIAPHRAGM DETAILS
STRUCTURE NO. 068-0512
SHEET NO. 11 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	405B-1	MONTGOMERY	121	66
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



PLAN

(East Approach shown West Approach similar.)

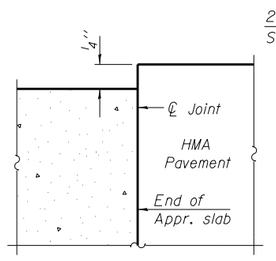
* Tilt #9 $b_3(E)$ bars as required to maintain clearance.

** Space between $a_3(E)$ bars, typ. each parapet.

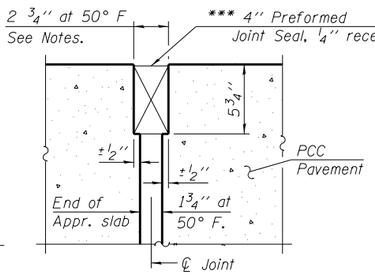
Notes:

1. See sheet 13 of 21 for Sections C-C & D-D and View E-E.
2. $a_3(E)$ and $a_4(E)$ bar spacings measured along ℄ Rdwy.
3. The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be $1\frac{1}{2}$'' for installation purposes.

*** Cost included with Concrete Superstructure.

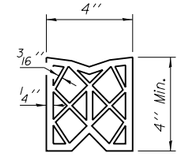


FLEXIBLE PAVEMENT

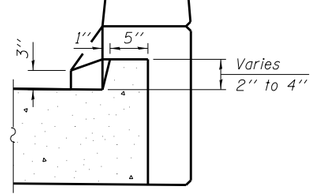


RIGID PAVEMENT

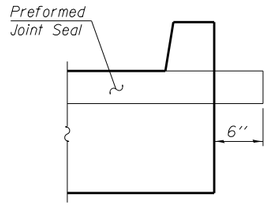
DETAIL A



PREFORMED
JOINT SEAL



VIEW B-B



VIEW F-F

design firm no. 184001036 — whks engineers • planners • land surveyors

USER NAME = dheberling	DESIGNED - BRD	REVISED	
FILE NAME = 0680512-72D08.dgn	CHECKED - TJZ	REVISED	
PLOT SCALE = 02 '' / in.	DRAWN - DLH	REVISED	
PLOT DATE = 10/15/2015	CHECKED - BRD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 068-0512
SHEET NO. 12 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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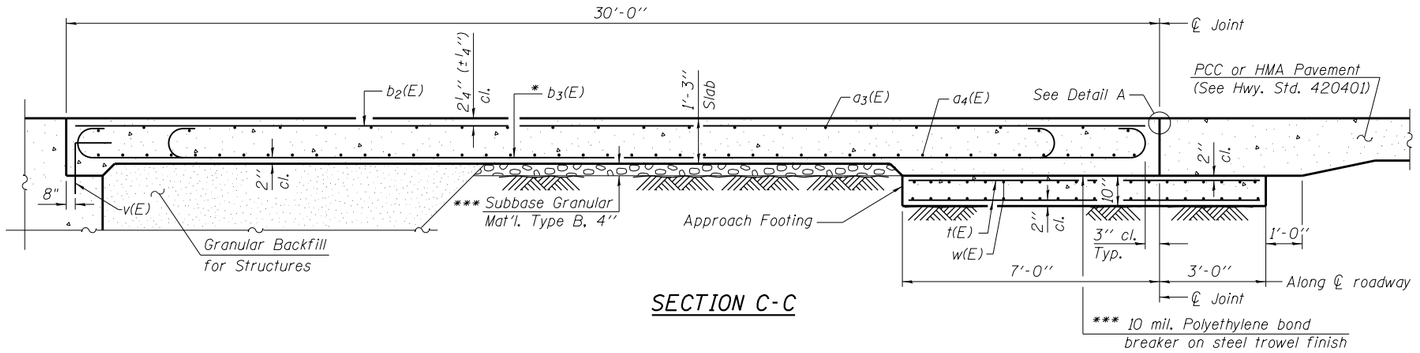
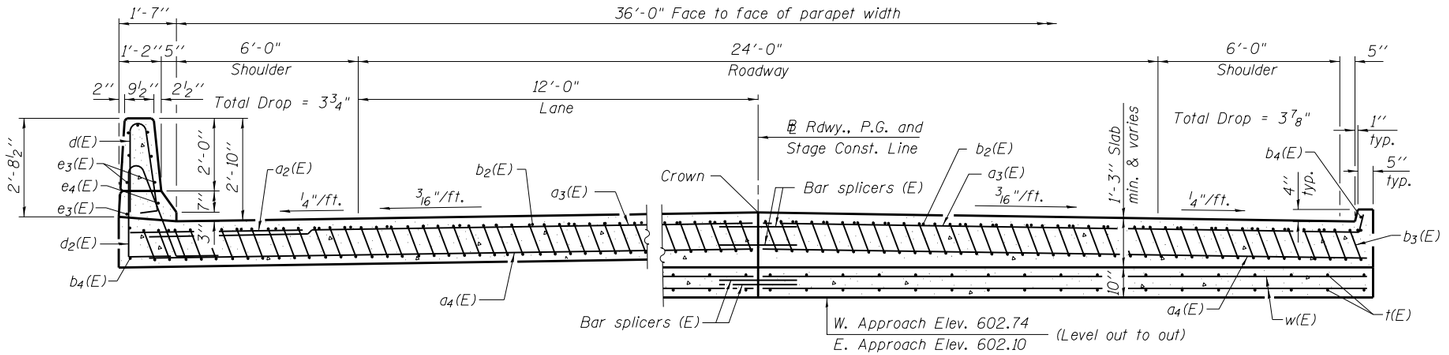
		CONTRACT NO. 72D08		
		ILLINOIS FED. AID PROJECT		



SECTION C-C

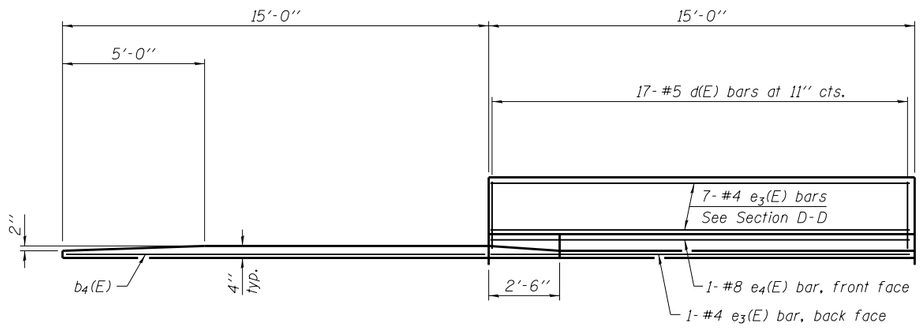


NEAR ABUTMENT

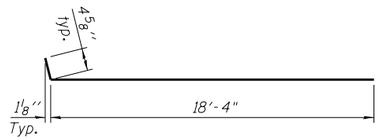
SECTION D-D

(See Plan for dimensions not shown)

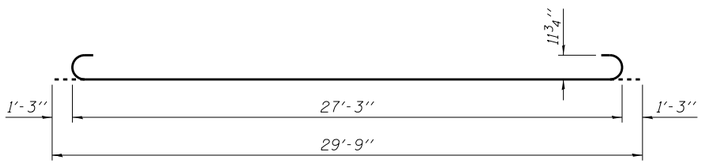
AT APPROACH FOOTING



VIEW E-E



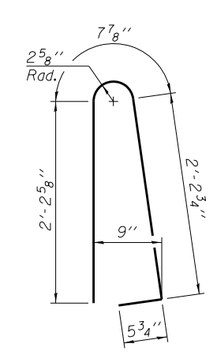
BAR a_3(E)



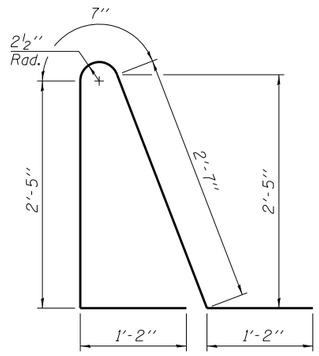
BAR b_3(E)

Notes:

1. See sheet 12 of 21 for Detail A and View B-B.
2. Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
3. Approach footing concrete shall be paid for as Concrete Structures.
4. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
5. For v(E) bar details, see sheet 10 of 21.
6. For bar splicer details, see sheet 18 of 21.
7. Cost of excavation for approach footing included with Concrete Structures.
8. For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 21.
9. For additional parapet details, see sheet 10 of 21.



BAR d(E)



BAR d_2(E)

* Tilt #9 b_3(E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_2(E)	48	#6	6'-6"	——
a_3(E)	100	#4	18'-9"	——
a_4(E)	184	#5	18'-7"	——
b_2(E)	64	#4	29'-8"	——
b_3(E)	180	#9	29'-9"	——
b_4(E)	8	#4	14'-8"	——
d(E)	68	#5	5'-7"	
d_2(E)	68	#5	7'-11"	
e_3(E)	32	#4	14'-8"	——
e_4(E)	4	#8	14'-8"	——
t(E)	160	#4	9'-8"	——
w(E)	160	#5	18'-7"	——
Concrete Structures			Cu. Yd.	23.4
Concrete Superstructure			Cu. Yd.	119.6
Reinforcement Bars, Epoxy Coated			Pound	30,410
Bar Splicers			Each	222

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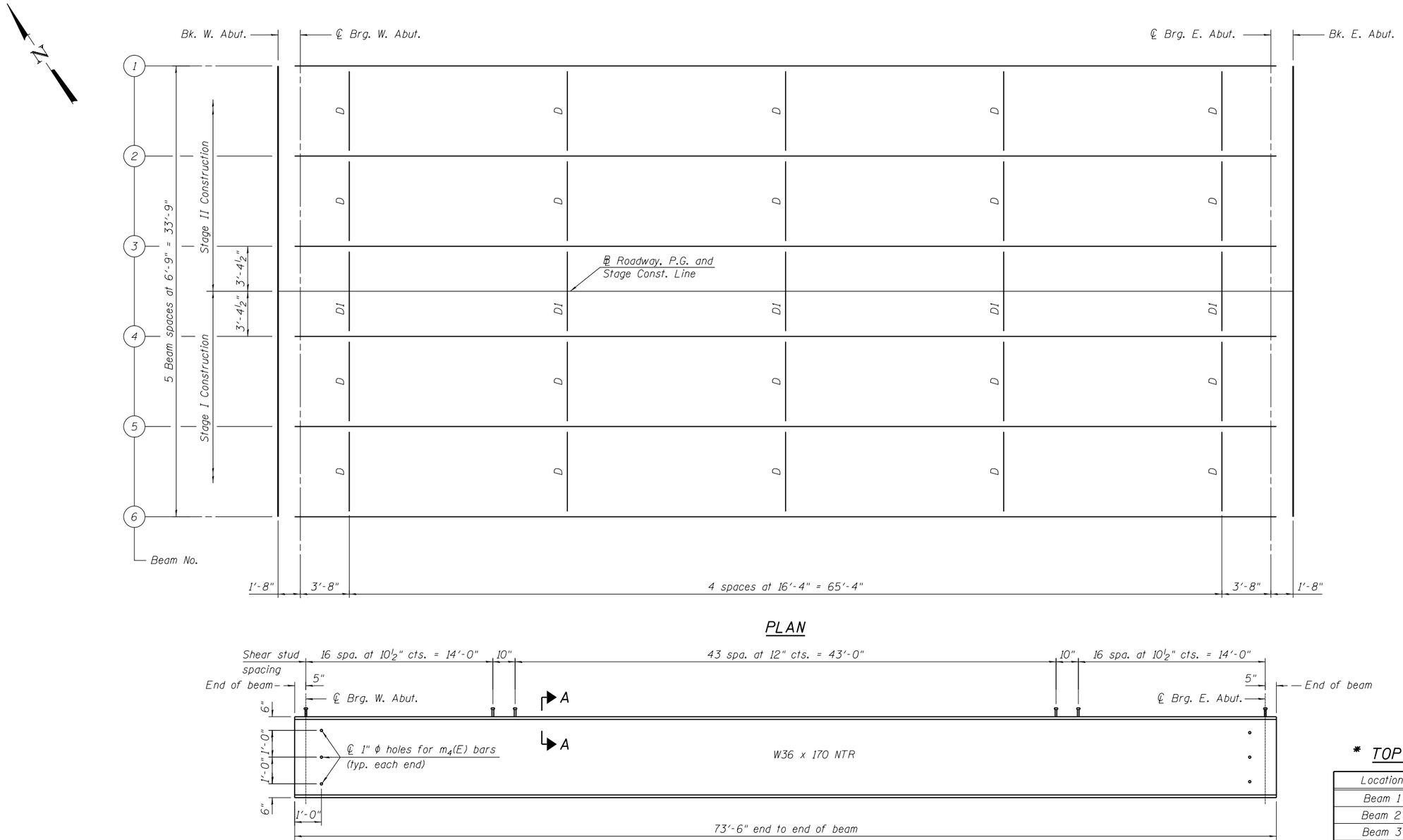
DEPARTMENT OF TRANSPORTATION

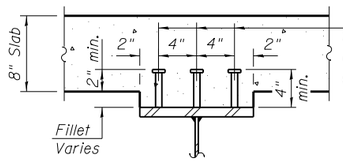
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 068-0512
SHEET NO. 13 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	405B-1	MONTGOMERY	121	68
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



PLAN

BEAM ELEVATION



¾" ϕ Granular or solid flux filled headed studs, automatically end welded to flange. (1,404 Required)

SECTION A-A

* TOP OF BEAM ELEVATIONS

Location	℄ Brg. W. Abut.	℄ Brg. E. Abut.
Beam 1	604.08	603.71
Beam 2	604.21	603.84
Beam 3	604.32	603.95
Beam 4	604.32	603.95
Beam 5	604.21	603.84
Beam 6	604.08	603.71

* For Fabrication Only.

Notes:

1. All structural steel shown shall be AASHTO M270, Grade 50W.
2. See Sheet 15 of 21 for Interior Diaphragm Details.
3. See Sheet 15 of 21 for Anchor Bolt Placement.
4. Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
5. All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted.

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PLOT DATE = 10/15/2015	CHECKED - BRD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NO. 068-0512
SHEET NO. 14 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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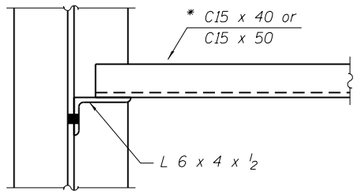
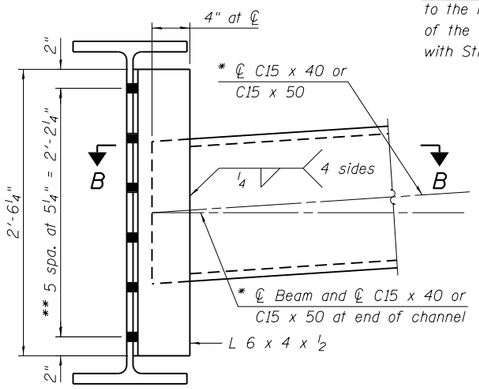
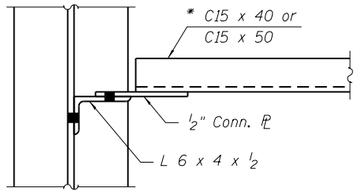
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



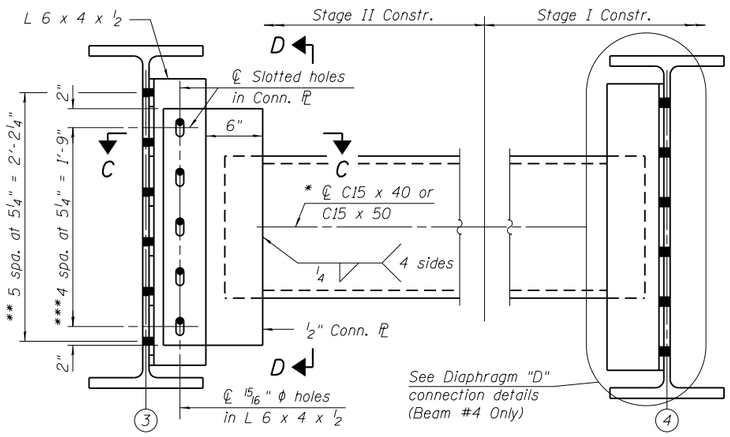
SECTION B-B



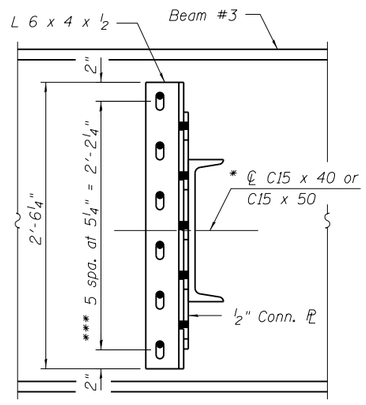
INTERIOR DIAPHRAGM "D" DETAILS



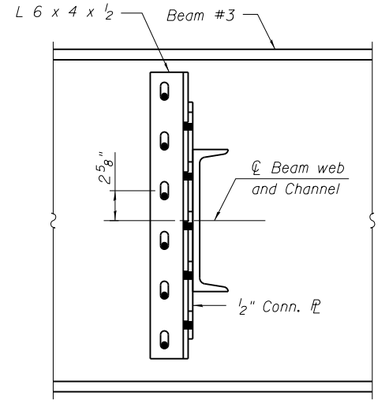
SECTION C-C



INITIAL BOLT ERECTION POSITION



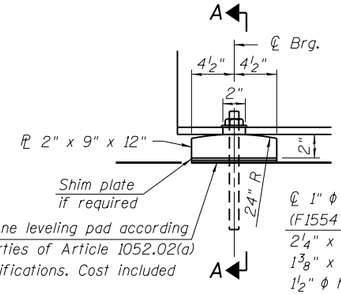
INITIAL BOLT ERECTION POSITION



FINAL BOLT ERECTION POSITION
AFTER STAGE II DECK POUR

SECTION D-D

INTERIOR DIAPHRAGM "D1" DETAILS



ELEVATION AT ABUTMENT

SECTION A-A

FIXED BEARING

Notes:

1. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
2. Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
3. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
4. The bearing plates, diaphragms, and connecting angles shall conform to the requirements of AASHTO M 270 Grade 50W.
5. Two hardened washers required for each set of oversized and slotted holes.

* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.

** 3/4" ϕ HS bolts, 15/16" ϕ holes.

*** 3/4" ϕ H.S. bolts, on the south side of Beam 3 provide 13/16" x 1 7/8" vertical slotted holes in the L 6 x 4 x 1/2 at the web and in the connection PL. Bolts in slotted holes shall be finger tightened until Stage II pour is completed. Position slots so bolts move from one end with no concrete load to the opposite end under the deck load. The slotted holes in the L 6 x 4 x 1/2 and connection PL shall be positioned as shown to allow the bolts to move to the final erection position under deck load. The holes shall be positioned to allow maximum bolt displacement without laterally stressing the beams.

INTERIOR BEAM MOMENT TABLE		0.5 Span
I_s	(in^4)	10500
$I_c(n)$	(in^4)	28043
$I_c(3n)$	(in^4)	20053
$I_c(cr)$	(in^4)	
S_s	(in^3)	581
$S_c(n)$	(in^3)	868
$S_c(3n)$	(in^3)	774
$S_c(cr)$	(in^3)	
DC1	(k/')	0.91
M_{DC1}	('k)	597
DC2	(k/')	0.15
M_{DC2}	('k)	99
DW	(k/')	0.30
M_{DW}	('k)	198
M_{L+IM}	('k)	1059
M_u (Strength I)	('k)	3021
$\phi_f M_n$	('k)	4273
f_s DC1	(ksi)	12.30
f_s DC2	(ksi)	1.50
f_s DW	(ksi)	3.10
f_s (L+IM)	(ksi)	14.64
f_s (Service II)	(ksi)	35.98
$0.95R_hF_{yf}$	(ksi)	47.5
f_s (Total)(Strength I)	(ksi)	
$\phi_f F_n$	(ksi)	
V_f	(k)	23.2

INTERIOR BEAM REACTION TABLE		Abut.
R_{DC1}	(k)	33.71
R_{DC2}	(k)	5.45
R_{DW}	(k)	10.90
R_{L+IM}	(k)	77.37
R_{Total}	(k)	127.42

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{L+IM} / S_c(cr)$ as applicable.

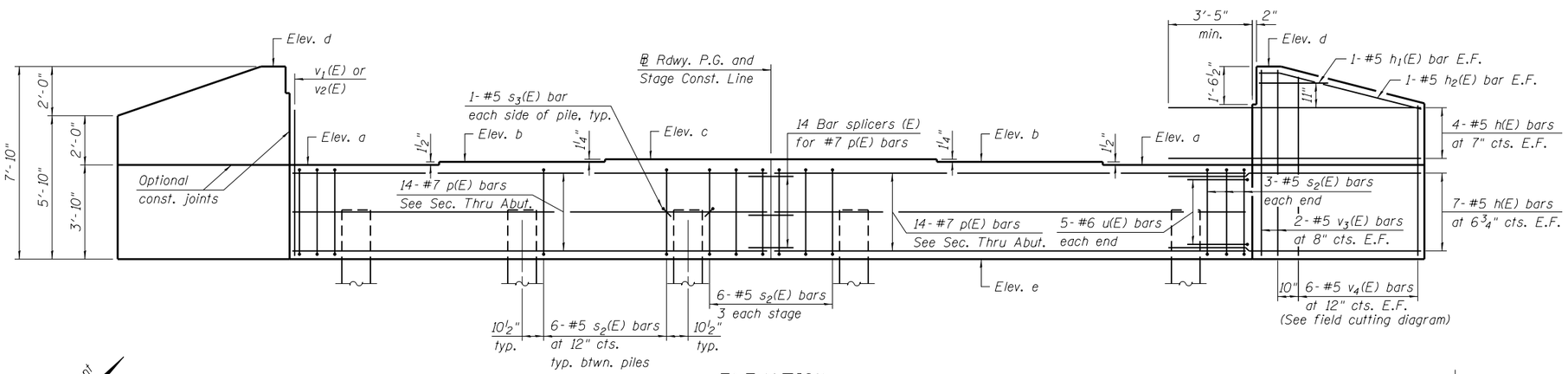
f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(L+IM)$

$0.95R_hF_yf$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

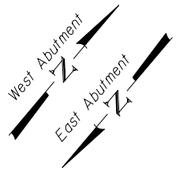
f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\ (f_{sDC1} + f_{sDC2}) + 1.5\ f_{sDW} + 1.75\ f_s(L+IM)$

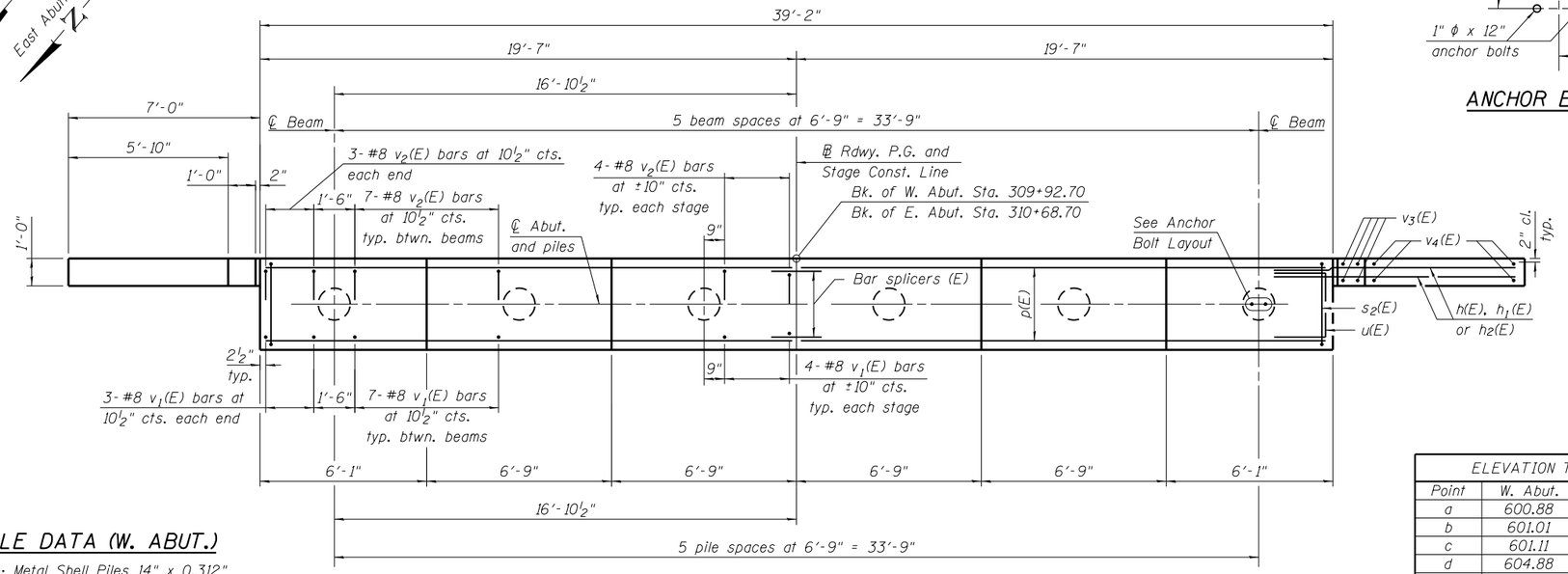
$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_f: Maximum factored shear range in span computed according to Article 6.10.10.

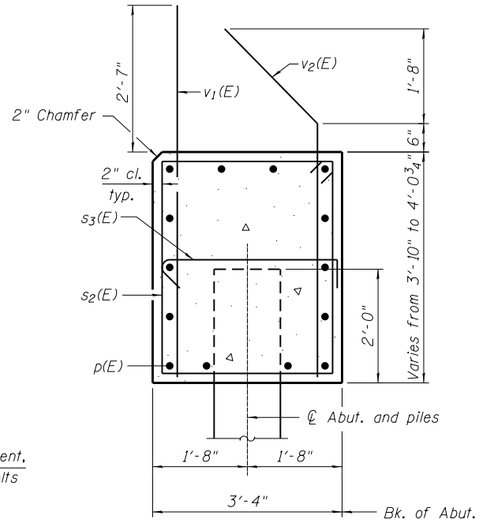


ELEVATION

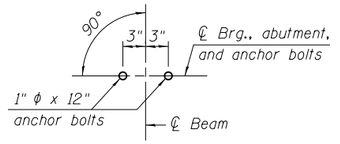




PLAN



SECTION THRU ABUTMENT



ANCHOR BOLT LAYOUT

TWO ABUTMENTS BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h(E)	88	#5	10'-3"	
h_1(E)	8	#5	3'-9"	
h_2(E)	8	#5	6'-9"	
p(E)	56	#7	19'-3"	
s_2(E)	72	#5	13'-11"	
s_3(E)	24	#5	4'-0"	
u(E)	20	#6	10'-6"	
v_1(E)	84	#8	6'-3"	
v_2(E)	84	#8	6'-6"	
v_3(E)	16	#5	7'-6"	
v_4(E)	24	#5	12'-10"	
Structure Excavation		Cu. Yd.	266	
Concrete Structures		Cu. Yd.	45.6	
Reinforcement Bars, Epoxy Coated		Pound	8,000	
Bar Splicers		Each	28	
Furnishing Metal Shell Piles 14" x 0.312"		Foot	695	
Driving Piles		Foot	695	
Test Pile Metal Shells		Each	2	
Pile Shoes		Each	6	

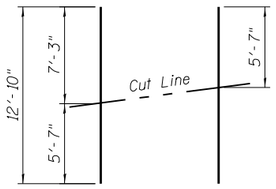
ELEVATION TABLE		
Point	W. Abut.	E. Abut.
a	600.88	600.51
b	601.01	600.64
c	601.11	600.74
d	604.88	604.51
e	597.04	596.67

PILE DATA (W. ABUT.)

Type: Metal Shell Piles 14" x 0.312"
Nominal Required Bearing: 513k
Factored Resistance Available: 282k
Est. Length: 72 ft.
No. Production Piles: 5
No. Test Piles: 1
Pile Shoes: 6

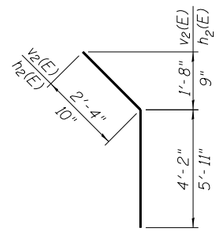
PILE DATA (E. ABUT.)

Type: Metal Shell Piles 14" x 0.312"
Nominal Required Bearing: 513k
Factored Resistance Available: 282k
Est. Length: 67 ft.
No. Production Piles: 5
No. Test Piles: 1

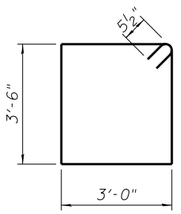


FIELD CUTTING DIAGRAM

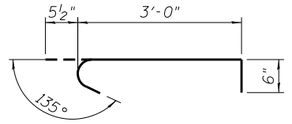
Order v_4(E) full length. Cut as shown and use remainder of bars in opposite face.



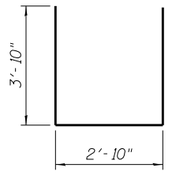
BAR v_2(E) & h_2(E)



BAR s_2(E)



BAR s_3(E)



BAR u(E)

Notes:

1. For details of piles see sheet 17 of 21.
2. For bar splicer details see sheet 18 of 21.
3. Space reinforcement in the cap to miss anchor bolts.
4. Pour steps monolithically with cap.

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PLOT SCALE = 8.2 '/ / in.	DRAWN - DLH		REVISED
PLOT DATE = 10/15/2015	CHECKED - BRD		REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENTS
STRUCTURE NO. 068-0512
SHEET NO. 16 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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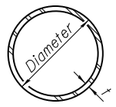
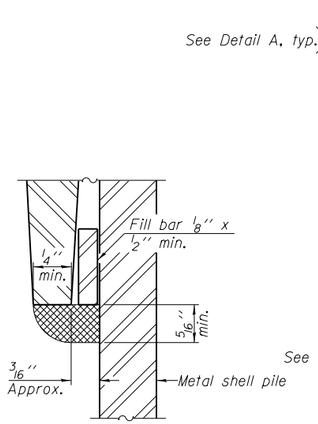
		CONTRACT NO. 72D08		
		ILLINOIS	FED. AID PROJECT	

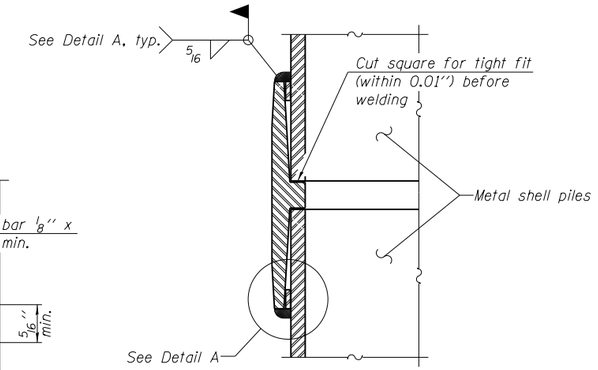


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume ($yd.^3$ /ft.)
PP12	0.179″	22.60	0.0274
PP12	0.250″	31.37	0.0267
PP14	0.250″	36.71	0.0368
PP14	0.312″	45.61	0.0361

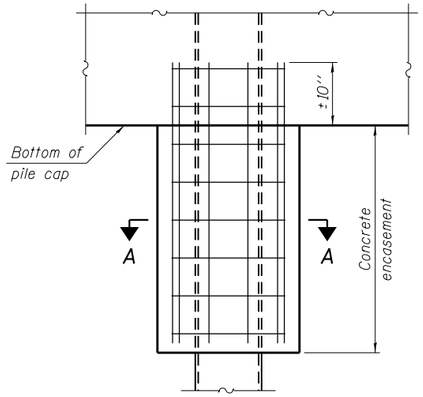


DETAIL A

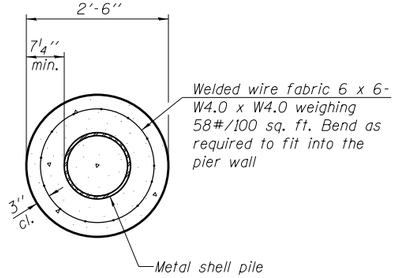


Notes:
The 1/8″ x 1/2″ min. fill bar may be constructed of 2 bars with a 1/8″ max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



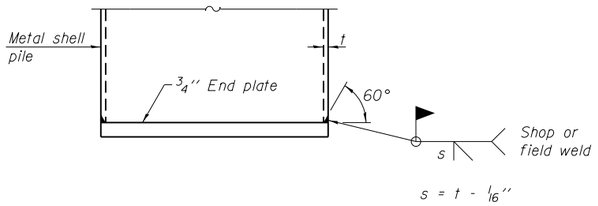
ELEVATION



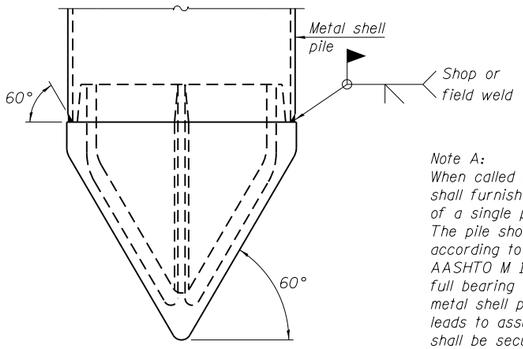
SECTION A-A

Note:
Forms for encasement may be omitted when soil conditions permit.

CONCRETE ENCASEMENT AT PIERS



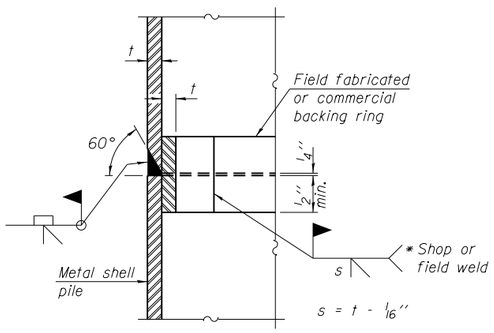
END PLATE ATTACHMENT



Note A:
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

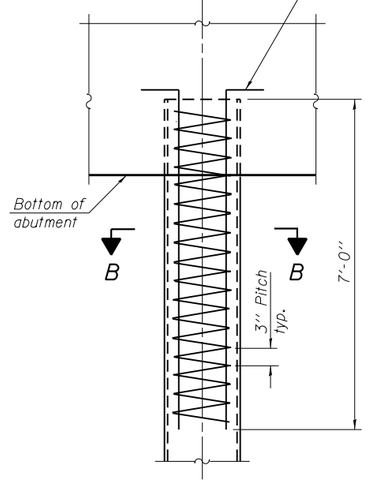
METAL SHELL PILE SHOE ATTACHMENT

(See Note A)



COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



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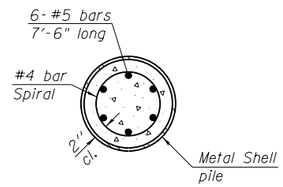


SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

Note:
The metal shell piles shall be according to ASTM A 252 Grade 3.

F-MS 1-27-12

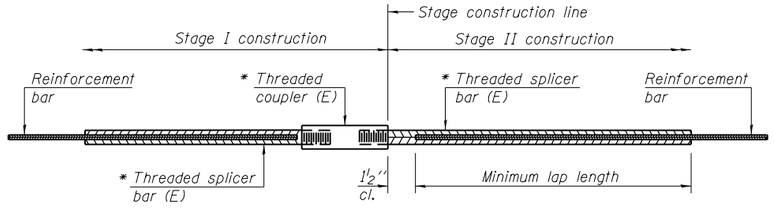
design firm no. 184001036 whks engineers + planners + land surveyors

USER NAME = dheberling	DESIGNED - BRD	REVISED	
FILE NAME = 0680512-72D08.dgn	CHECKED - TJZ	REVISED	
PLOT SCALE = 02 '' / in.	DRAWN - DLH	REVISED	
PLOT DATE = 10/15/2015	CHECKED - BRD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METAL SHELL PILE DETAILS
STRUCTURE NO. 068-0512
SHEET NO. 17 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	405B-1	MONTGOMERY	121	72
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



STANDARD BAR SPLICER ASSEMBLY

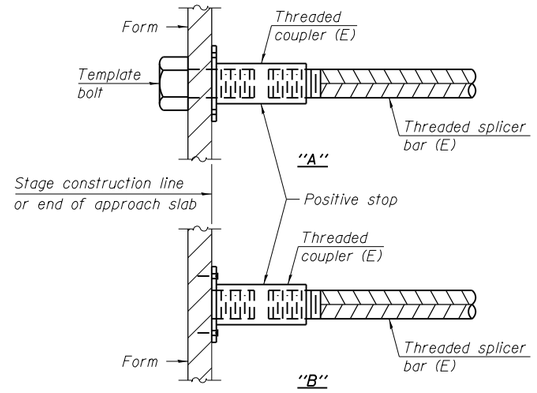
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C

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

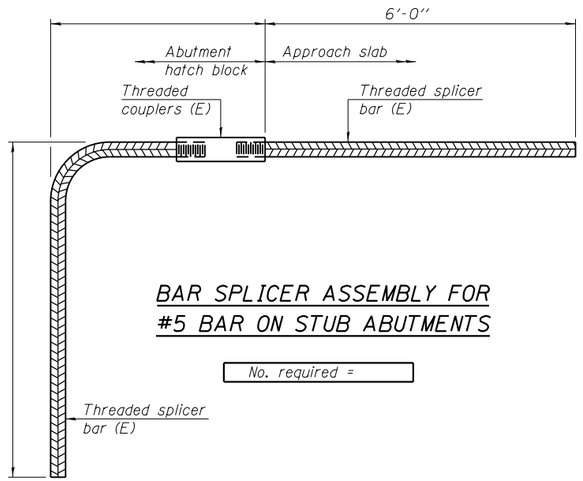
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

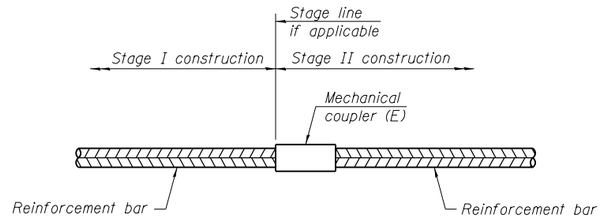
Location	Bar size	No. assemblies required	Table for minimum lap length
Bridge top of deck	#5	149	3
Bridge bottom of deck	#5	90	3
Integral diaphragm - front face	#6	10	3
Integral diaphragm - back face	#6	8	4
Approach top of deck	#4	50	3
Approach bottom of deck	#5	92	3
Approach footing	#5	80	3
Abutment cap	#7	28	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:
1. Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength
2. All reinforcement shall be lapped and tied to the splicer bars.
3. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
4. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 8-31-12

design firm no. 184001036 whks engineers + planners + land surveyors

USER NAME = dheberling	DESIGNED - BRD	REVISED
FILE NAME = 0680512-72D08.dgn	CHECKED - TJZ	REVISED
PLOT SCALE = 02 '' / in.	DRAWN - DLH	REVISED
PLOT DATE = 10/15/2015	CHECKED - BRD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 068-0512
SHEET NO. 18 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	405B-1	MONTGOMERY	121	73
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
District 6

SOIL BORING LOG

Date 2/21/12

ROUTE IL-185 DESCRIPTION over McDavid Branch Creek LOGGED BY M. Tappan

SECTION 405B-1 LOCATION SW 1/4, SEC. 27, TWP. 8N, RNG. 3W, 3 PM

COUNTY Montgomery DRILLING METHOD HSA HAMMER TYPE 140 # AUTO

STRUCT. NO. 068-0026
Station 310+31

BORING NO. 1 W. Abut.
Station 309+89
Offset 12.0ft LT
Ground Surface Elev. 604.2 ft

Surface Water Elev. 590.2 ft
Stream Bed Elev. 589.2 ft

Groundwater Elev.:
▽ First Encounter 591.2 ft
▽ Upon Completion Washed ft
▼ After Plugged Hrs. ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Material
				Brown and Olive Gray Moist SILTY CLAY (Fill)
	1			
	2	.80	21	
	3	B		
599.20 -5				
	2			Olive Brown and Gray Moist CLAY LOAM (Till) (Fill)
	2	1.2	18	
	3	B		
	1			
	2	1.1	17	
	2	B		
-10				
	0			
593.20				
	1	.40	11	Dark Gray Moist LOAM to SILTY CLAY LOAM
	1	B		
591.70				
	1			Gray Dirty Medium SAND ▽
	4			
	6			
-15				
	1			
	2			Brown Medium to Coarse SAND
	5			
586.20				
	4			Brown and Gray Moist SILTY CLAY
	2	.80	12	
	2	B		Washed
-20				

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Material
583.70				Gray Medium SANDY GRAVEL Washed
	0			
	1			
	1			
	2			Gray Dirty Fine SAND Washed
	2			
	6			
-25				
	2			Gray Medium SANDY GRAVEL Washed
	6			
	9			
	3			Washed
	4			
	9			
-30				
	1			
	3			Washed
	4			
-35				
	7			Washed
	10			
	15			
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
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)

File Name S:\SOILS\GINT FILES\MONTGOMERY\068-0026.GPJ Data Template D6TEMPLT.GDT Date Printed 6/26/13
Latitude 39.05.166N Longitude 89.24.915W Datum NAD83 Job Number D-95-109-09

Illinois Department of Transportation
Division of Highways
District 6

SOIL BORING LOG

Date 2/21/12

ROUTE IL-185 DESCRIPTION over McDavid Branch Creek LOGGED BY M. Tappan

SECTION 405B-1 LOCATION SW 1/4, SEC. 27, TWP. 8N, RNG. 3W, 3 PM

COUNTY Montgomery DRILLING METHOD HSA HAMMER TYPE 140 # AUTO

STRUCT. NO. 068-0026
Station 310+31

BORING NO. 1 W. Abut.
Station 309+89
Offset 12.0ft LT
Ground Surface Elev. 604.2 ft

Surface Water Elev. 590.2 ft
Stream Bed Elev. 589.2 ft

Groundwater Elev.:
▽ First Encounter 591.2 ft
▽ Upon Completion Washed ft
▼ After Plugged Hrs. ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Material
				Gray Medium SANDY GRAVEL *(continued)*
561.70				
	8			Grayish Brown Moist CLAY LOAM (Till) Drilled stiff at 42.5' Washed
	15	5.4	14	
	30	B		
-45				
	8			Brown and Gray Moist CLAY LOAM (Till) Washed
	12	4.6	15	
	17	B		
534.70 -50				
553.70				Gray Moist SILTY CLAY (Till)
	0			Washed
	5	4.5	16	
	10	B		
-55				
	10			Washed
	8	5.0	14	
	13	B		
-60				

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Material
				Gray Moist SILTY CLAY (Till) *(continued)*
	1			Washed
	4	2.7	20	
	6	B		
-65				
	2			Washed
	6	3.0		
	8	E		
-70				Boring Completed
-75				Ref. Sta. to Centerline of Ex. Structure = 310+31 Sta. Increase to East
				Ref. Elev. to Chsld Square on NE Approach Slab = 604.2
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
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)

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Latitude 39.05.166N Longitude 89.24.915W Datum NAD83 Job Number D-95-109-09

Illinois Department of Transportation
Division of Highways
District 6

SOIL BORING LOG

Date 2/17/12

ROUTE IL-185 DESCRIPTION over McDavid Branch Creek LOGGED BY M. Tappan

SECTION 405B-1 LOCATION SW 1/4, SEC. 27, TWP. 8N, RNG. 3W, 3 PM

COUNTY Montgomery DRILLING METHOD HSA HAMMER TYPE 140 # AUTO

STRUCT. NO. 068-0026
Station 310+31

BORING NO. 2 E. Abut.
Station 310+77
Offset 13.0ft RT
Ground Surface Elev. 604.3 ft

Surface Water Elev. 590.2 ft
Stream Bed Elev. 589.2 ft

Groundwater Elev.:
▽ First Encounter 586.3 ft
▽ Upon Completion Washed ft
▼ After Plugged Hrs. ft

	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Brown to Black Moist CA-6 with CINDERS (Fill)		1		
		3		
	602.30	3		
Olive Brown and Light Blue Gray Moist CLAY LOAM (Till) (Fill)				
		1		
		1	1.0	17
		2	B	
	599.30 -5			
Gray Very Moist SILTY CLAY (Fill)		1		
		2	.70	22
		2	B	
	596.80			
Gray Dirty Medium SAND to Gray Moist SILTY CLAY LOAM (Fill)		1		
		3	.80	29
		2	P	
	-10			
	593.30	0		
Very Dark Gray Moist SILTY CLAY		1	.60	27
		1	B	
		0		
Gray Moist SILTY CLAY		1	.60	23
		2	B	
	-15			
		0		
Light Olive Brown and Gray Moist SILTY CLAY with Very Wet Seam at 16.5 - 17.5		0	.40	21
		1	B	
	▽ 586.30			
Gray Wet SANDY CLAY LOAM		0		
		0	.20	24
		0	B	
	-20	WOH		

	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Gray Wet SANDY CLAY LOAM (continued)	583.30	0		
Light Brown Dirty Medium SAND with Some Pea GRAVEL		1		
		1		
	580.80	0		
Gray Moist LOAM		0	.60	20
	579.30 -25	4	B	
Brown Medium SAND		1		
		1		
	576.80	1		
Gray Moist LOAM Washed		4		
		4	1.1	8
	574.30 -30	3	S-10	
Tan Medium to Coarse SAND		0		
Washed		1		
		3		
Washed		4		
Tan Fine SAND		12		
		21		
	-35			
Brown Medium to Coarse SAND with Some Medium Pea GRAVEL Washed		6		
		16		
	-40	15		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
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File Name S:\SOILSIGINT FILES\MONTGOMERY\068-0026.GPJ Data Template D6TEMPLT.GDT Date Printed 6/26/13
Latitude 39.05.146N Longitude 89.24.901W Datum NAD83 Job Number D-95-109-09

Illinois Department of Transportation
Division of Highways
District 6

SOIL BORING LOG

Date 2/17/12

ROUTE IL-185 DESCRIPTION over McDavid Branch Creek LOGGED BY M. Tappan

SECTION 405B-1 LOCATION SW 1/4, SEC. 27, TWP. 8N, RNG. 3W, 3 PM

COUNTY Montgomery DRILLING METHOD HSA HAMMER TYPE 140 # AUTO

STRUCT. NO. 068-0026
Station 310+31

BORING NO. 2 E. Abut.
Station 310+77
Offset 13.0ft RT
Ground Surface Elev. 604.3 ft

Surface Water Elev. 590.2 ft
Stream Bed Elev. 589.2 ft

Groundwater Elev.:
▽ First Encounter 586.3 ft
▽ Upon Completion Washed ft
▼ After Plugged Hrs. ft

	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Tan Medium to Coarse SAND (continued)				
	562.30			
Brown and Gray Moist CLAY LOAM (Till) Drilled Stiff at 42' Washed		8		
		14	5.4	15
		15	B	
	-45			
Gray Moist CLAY LOAM (Till) Washed		2		
		7	4.3	17
		10	B	
	-50			
Washed		4		
		5	3.7	15
		10	B	
	-55			
Washed		3		
		4	3.0	22
		7	B	
	-60			

	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
	543.30			
Brown and Olive Gray Moist SILTY CLAY (Till)				
Washed		2		
		5	2.6	23
		8	B	
	-65			
Washed		5		
		9	4.2	13
		13	B	
	-70			
Brown and Olive Gray Moist SILTY CLAY (Till)				
Washed		2		
		5	5.3	17
		10	B	
	-75			
Washed		3		
		8	4.9	17
		11	B	
	-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
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Latitude 39.05.146N Longitude 89.24.901W Datum NAD83 Job Number D-95-109-09

design firm no. 184001036
whks engineers + planners + land surveyors

USER NAME = dheberling	DESIGNED - BRD	REVISED	
FILE NAME = 0680512-72D08.dgn	CHECKED - TJZ	REVISED	
PLOT SCALE = 0.2 '/ in.	DRAWN - DLH	REVISED	
PLOT DATE = 10/15/2015	CHECKED - BRD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 068-0512
SHEET NO. 20 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	405B-1	MONTGOMERY	121	75
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
District 6

SOIL BORING LOG

Date 2/17/12

ROUTE IL-185 DESCRIPTION over McDavid Branch Creek LOGGED BY M. Tappan

SECTION 405B-1 LOCATION SW 1/4, SEC. 27, TWP. 8N, RNG. 3W, 3 PM

COUNTY Montgomery DRILLING METHOD HSA HAMMER TYPE 140 # AUTO

STRUCT. NO. 068-0026
Station 310+31

BORING NO. 2 E. Abut.
Station 310+77
Offset 13.0ft RT
Ground Surface Elev. 604.3 ft

Surface Water Elev. 590.2 ft
Stream Bed Elev. 589.2 ft

Groundwater Elev.:
▽ First Encounter 586.3 ft
▽ Upon Completion Washed ft
▼ After Plugged Hrs. ft

	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Brown and Olive Gray Moist SILTY CLAY (Till) *(continued)*				
522.30				
Gray Moist CLAY LOAM (Till) with 6" SAND LOAM Seam				
Washed		5		
		19	5.1	15
519.80		18	B	
Boring Completed	-85			
Ref. Sta. to Centerline of Ex. Structure = 310+31 Sta. Increase to East				
Ref. Elev. to Chsld Square on NE Approach Slab = 604.2	-90			
	-95			
	-100			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
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File Name S:\SOILS\GINT FILES\MONTGOMERY\068-0026.GPJ Data Template D5TEMP.T.GDT Date Printed 6/29/3
Latitude 39:05:146N Longitude 89:24:301W Datum NAD83 Job Number D-95-109-09

design firm no. 184001036
whks engineers + planners + land surveyors

USER NAME = dheberling	DESIGNED - BRD	REVISED	
FILE NAME = 0680512-72D08.dgn	CHECKED - TJZ	REVISED	
PLOT SCALE = 02 '' / in.	DRAWN - DLH	REVISED	
PLOT DATE = 10/15/2015	CHECKED - BRD	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

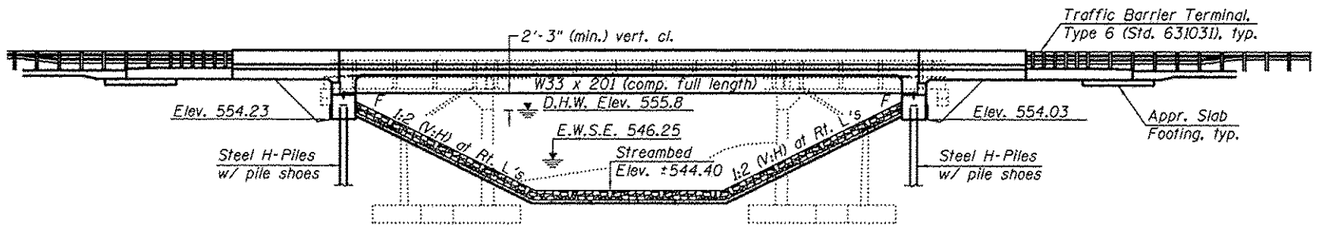
BORING LOGS
STRUCTURE NO. 068-0512
SHEET NO. 21 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	405B-1	MONTGOMERY	121	76
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		

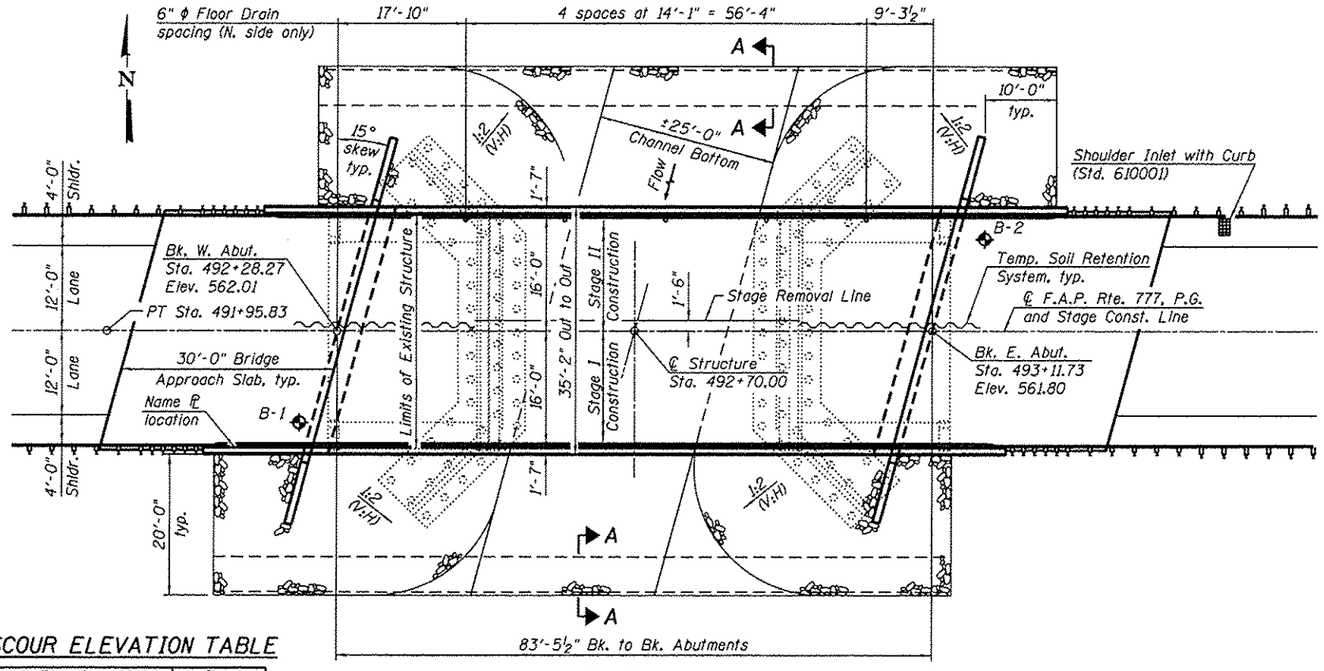
Bench Mark: Chiseled "□" in the wingwall on the Northeast corner of Bridge S.N. 068-0027. Station 492+94.6; offset 16.6 ft Lt.; Elev. 558.7 (NAVD 88).

Existing Structure: The existing Structure No. 068-0027 is a single span precast prestressed concrete deck beam bridge originally built in 1930 and reconstructed in 1980 as Illinois Route 185 over Bayou Creek. The superstructure consists of Eleven PPC Deck Beams (3' wide by 21" deep). The beams are overlaid with a reinforced concrete wearing surface with 7½" average thickness. The superstructure is supported by closed reinforced concrete abutments on untreated timber piles. The structure length is 43' back to back of abutments and 33' out to out of deck. Structure to be removed and replaced utilizing stage construction.

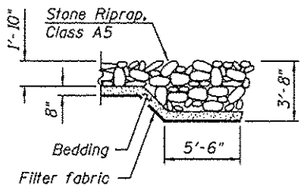
Salvage: None



ELEVATION



PLAN



SECTION A-A

INDEX OF SHEETS

LOADING HL-93

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

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50W)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.232g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.482g
Soil Site Class = D

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

STATION 492+70.00
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 777 - SEC. 10B-2
LOADING HL-93
STRUCTURE NO. 068-0513

NAME PLATE
See Std. 515001

LICENSED STRUCTURAL ENGINEER
CORY W. CHAMBERLAIN
081-005882
STATE OF ILLINOIS

Cory W. Chamberlain 10-13-2015
Expires: 11/30/2016

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevations (ft.)		Item
W. Abut.	E. Abut.	113
554.23	554.03	8

WATERWAY INFORMATION TABLE

Drainage Area = 5.5 sq. mi.
Exist. Overtopping Elev. = 560.75 @ Sta. 491+00
Prop. Low Grade Elev. = 561.80 @ Sta. 492+70

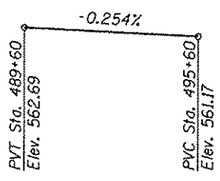
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	1560	350	440	554.6	0.4	0.3	555.0	554.9
Design	50	2560	395	530	555.8	0.8	0.5	556.6	556.3
Base	100	3020	410	560	556.3	1.0	0.6	557.3	556.9
Max. Calc.	500	4150	450	635	557.3	2.7	1.4	560.0	558.7

10 Yr. velocities = Exist. = 4.5 fps / Prop. = 3.6 fps

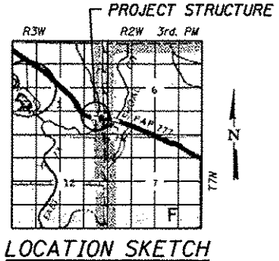
CURVE DATA

T.R. = 53' (PC end only)
S.E. Runoff = 177'
Δ = 56° 52' 53" (LT)
D = 4° 30' 18"
T = 688.83'
L = 1,262.61'
E = 174.56'
R = 1,271.81'
S.E. = 5.0%
P.C. = Sta. 479+33.22
P.T. = Sta. 491+95.83
P.I. = Sta. 486+22.05

See roadway plans for SE transition details.



PROFILE GRADE
Along ℄ Roadway



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
ILLINOIS ROUTE 185 OVER BAYOU CREEK
F.A.P. RTE. 777 - SEC. 10B-2
MONTGOMERY COUNTY
STATION 492+70.00
STRUCTURE NO. 068-0513

design firm no. 184007030 whks engineers + planners + land surveyors

USER NAME =	DESIGNED - TJZ	REVISED
FILE NAME =	CHECKED - BRD	REVISED
PLOT DATE =	DRAWN - DLH	REVISED
PLOT DATE =	CHECKED - TJZ	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 20 SHEETS

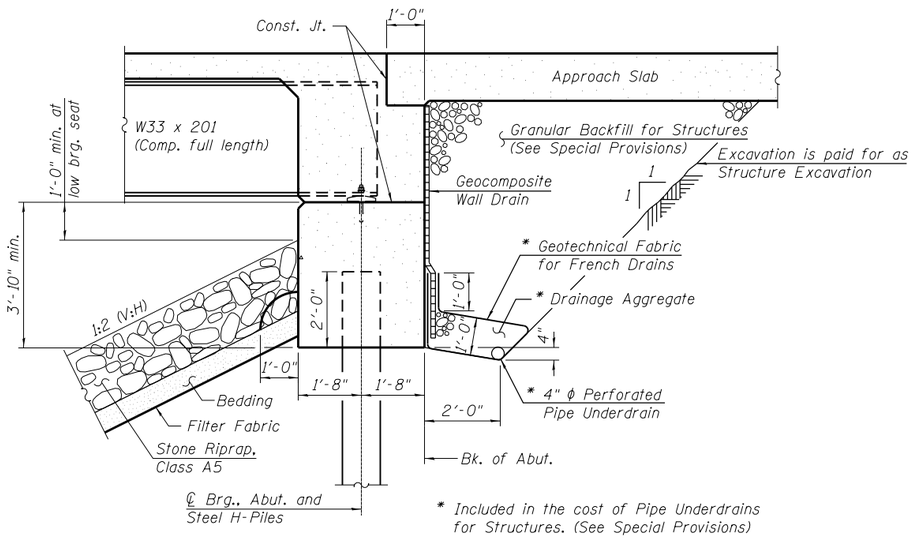
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2	MONTGOMERY	120	77
		CONTRACT NO. 72D08		
		ILLINOIS FED. AID PROJECT		

GENERAL NOTES

1. Fasteners shall be ASTM A325 Type 3, bolts. Bolts $^{3}/_{4}$" ϕ, holes $^{13}/_{16}$" ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel = 103,870 lbs.
3. All structural steel shall be AASHTO M 270 Grade 50W.
4. No field welding is permitted except as specified in the contract documents.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete diaphragm plus 1'-6". Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
7. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
8. Slipforming of the parapet is not allowed.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Sq. Yd.		815	815
Filter Fabric	Sq. Yd.		815	815
Removal of Existing Structures No. 2	Each			1
Structure Excavation	Cu. Yd.		235	235
Floor Drains	Each	5		5
Concrete Structures	Cu. Yd.		66.0	66.0
Concrete Superstructure	Cu. Yd.	229.2		229.2
Bridge Deck Grooving	Sq. Yd.	475		475
Protective Coat	Sq. Yd.	604		604
Furnishing and Erecting Structural Steel	L. Sum	0.55		0.55
Stud Shear Connectors	Each	1,566		1,566
Reinforcement Bars, Epoxy Coated	Pound	47,390	11,640	59,030
Bar Splicers	Each	396	108	504
Furnishing Steel Piles HP 12x53	Foot		400	400
Driving Piles	Foot		400	400
Test Pile Steel HP 12x53	Each		2	2
Pile Shoes	Each		12	12
Name Plates	Each	1		1
Anchor Bolts, 1"	Each		24	24
Geocomposite Wall Drain	Sq. Yd.		68	68
Granular Backfill for Structures	Cu. Yd.		120	120
Asbestos Bearing Pad Removal	Each		20	20
Pipe Underdrains for Structures 4"	Foot	166		166
Temporary Soil Retention System	Sq. Ft.		535	535

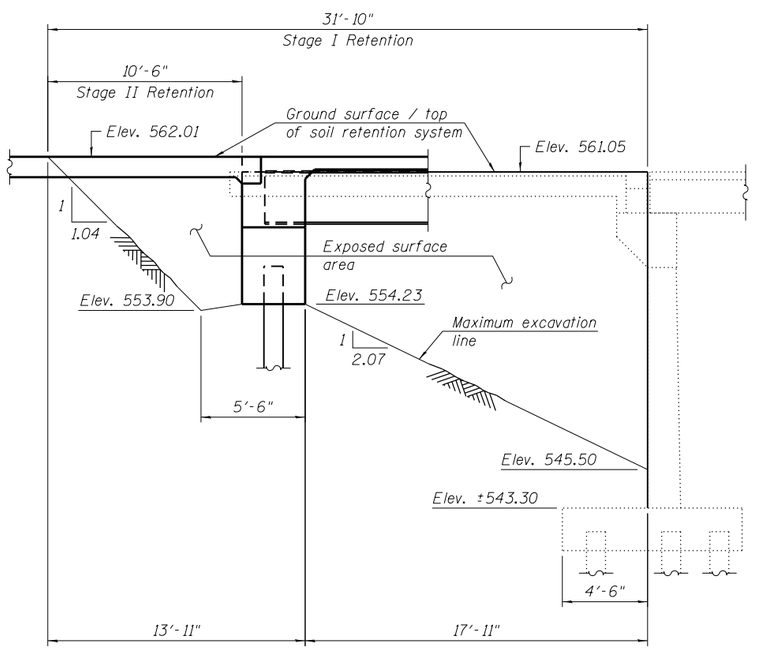


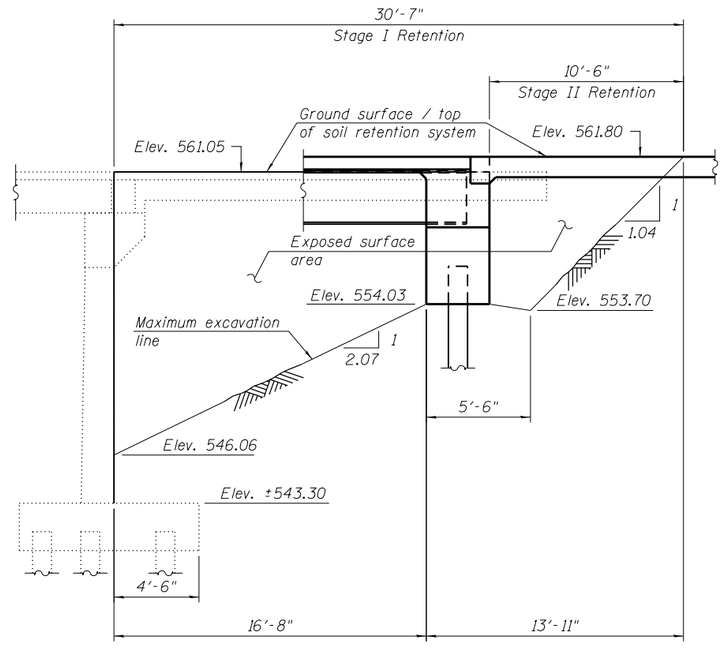
* Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

SECTION THRU INTEGRAL ABUTMENT

(Horiz. dimensions are at Rt. L's.)

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

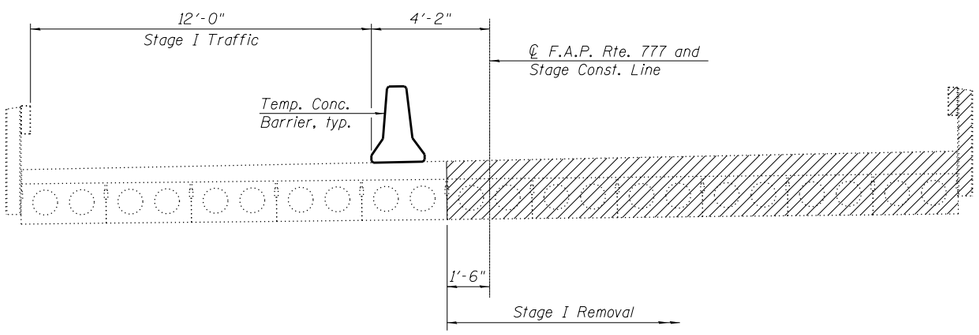




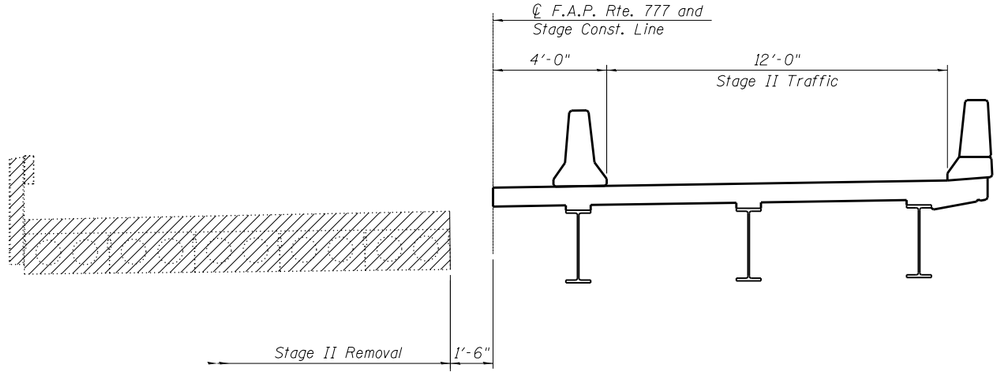
TEMPORARY SOIL RETENTION SYSTEM

(Looking North, Dimensions shown along Stage Const. Line.)

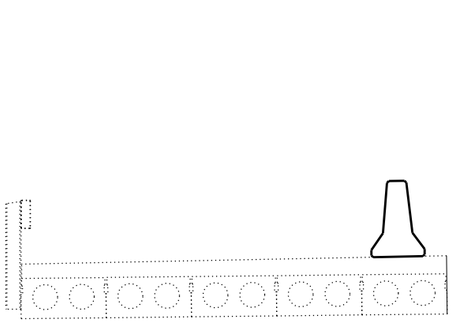
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

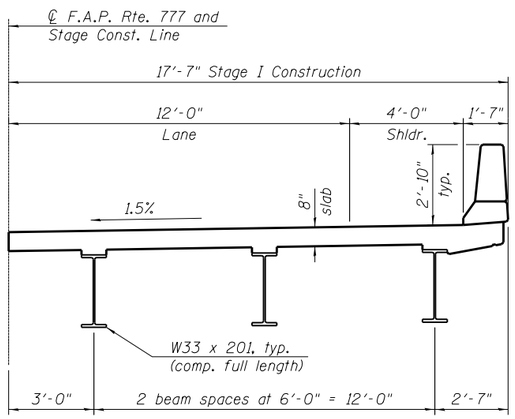


STAGE I REMOVAL
(Looking East)

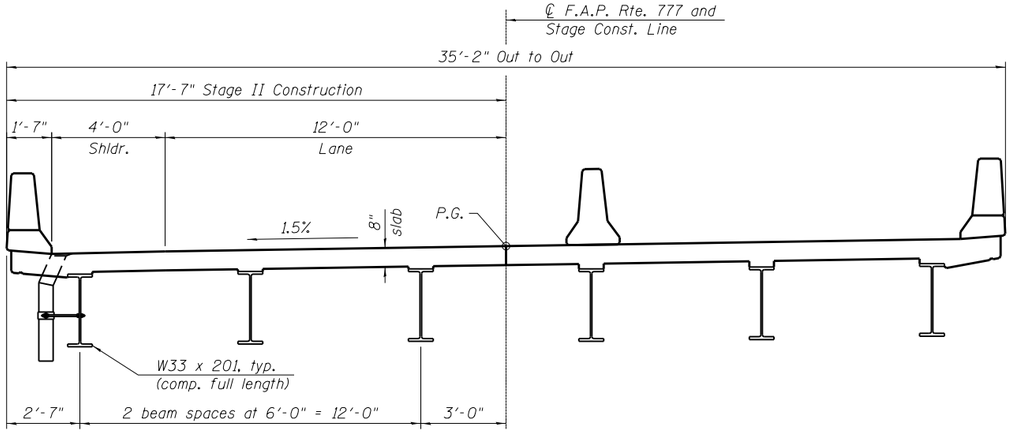


STAGE II REMOVAL
(Looking East)





STAGE I CONSTRUCTION
(Looking East)

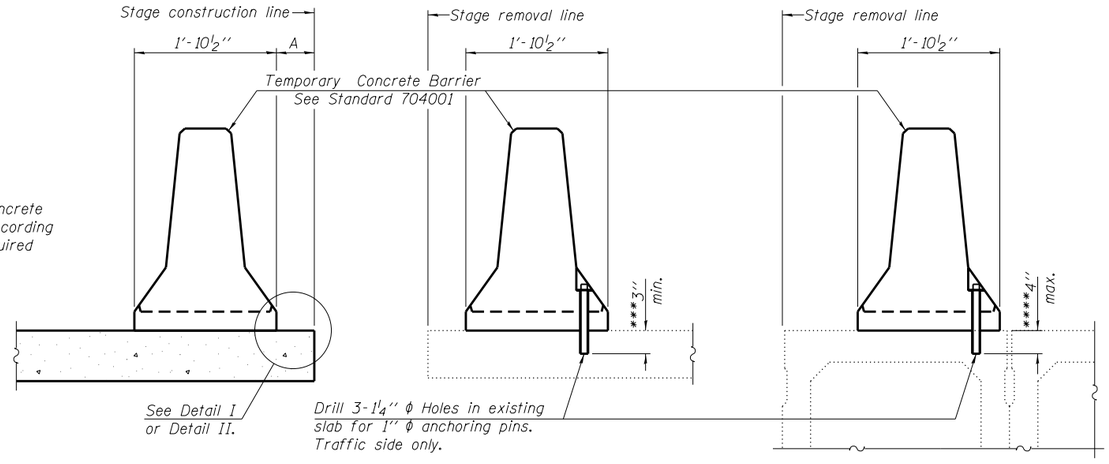


STAGE II CONSTRUCTION
(Looking East)

Notes:

1. Hatched area indicates Removal of Existing Structures.
2. For details of Temporary Concrete Barrier, see sheet 4 of 20.
3. See roadway plans for quantity of Temporary Concrete Barrier.

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



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1'' x 7' 'x ''W'' steel PL to the top layer of couplers with 2-⅝'' ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1'' x 7'' x ''W'' steel PL to the concrete slab or concrete wearing surface with 2-⅝'' ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

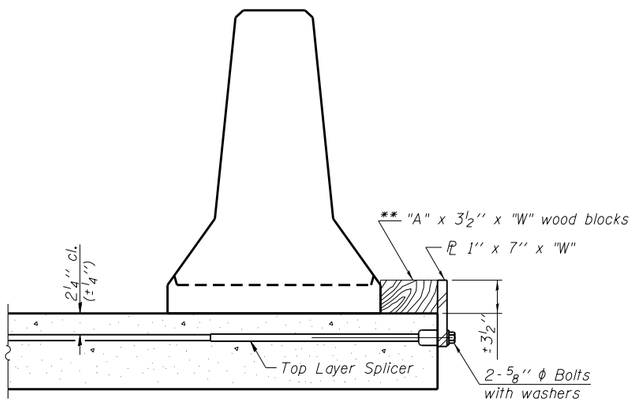
Cost of retainer assembly is included with Temporary Concrete Barrier.

The 1'' x 7'' x ''W'' plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

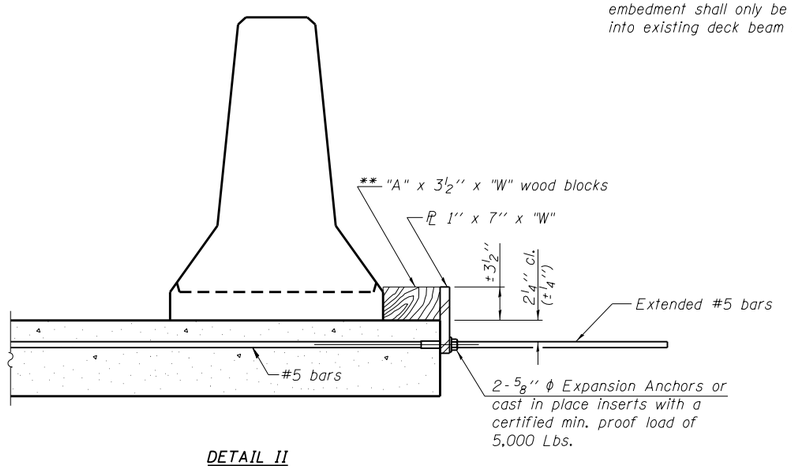
SECTIONS THRU SLAB OR DECK BEAM

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

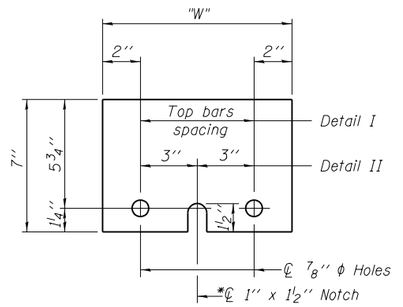
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1'' x 7'' x ''W''

* Required only with Detail II

RETAINER ASSEMBLY

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

R-27

1-12-15

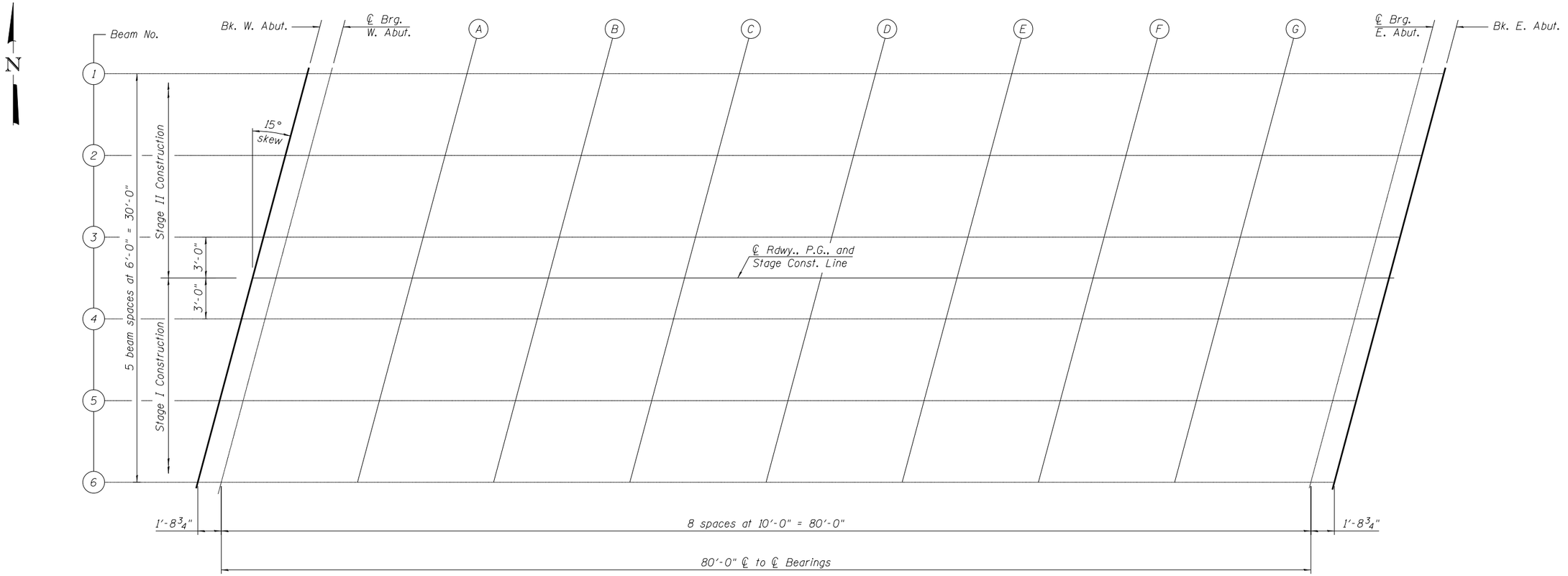
design firm no. 184001036
whks
engineers + planners + land surveyors

USER NAME =	DESIGNED - TJZ	REVISED
FILE NAME =	CHECKED - BRD	REVISED
PLOT SCALE =	DRAWN - DLH	REVISED
PLOT DATE =	CHECKED - TJZ	REVISED

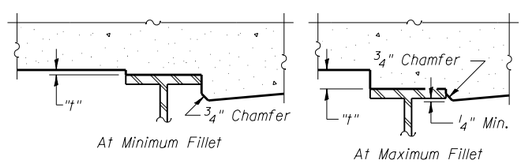
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 068-0513
SHEET NO. 4 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2	MONTGOMERY	121	80
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

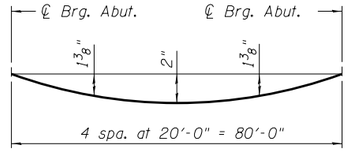


PLAN



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 6 of 20, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet 6 of 20.

Note:
Work this sheet with sheet 6 of 20.

design firm no. 184001036
whks
engineers + planners + land surveyors

USER NAME =	DESIGNED - TJZ	REVISED
FILE NAME =	CHECKED - BRD	REVISED
PLOT SCALE =	DRAWN - DLH	REVISED
PLOT DATE =	CHECKED - TJZ	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB LOCATION PLAN
STRUCTURE NO. 068-0513
SHEET NO. 5 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2	MONTGOMERY	121	81
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	492+32.29	-15.00	561.78	561.78
℄ Brg. W. Abut.	492+34.01	-15.00	561.77	561.77
A	492+44.01	-15.00	561.75	561.81
B	492+54.01	-15.00	561.72	561.83
C	492+64.01	-15.00	561.69	561.84
D	492+74.01	-15.00	561.67	561.83
E	492+84.01	-15.00	561.64	561.79
F	492+94.01	-15.00	561.62	561.73
G	493+04.01	-15.00	561.59	561.66
℄ Brg. E. Abut.	493+14.01	-15.00	561.57	561.57
Bk. E. Abut.	493+15.75	-15.00	561.56	561.56

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	492+30.68	-9.00	561.87	561.87
℄ Brg. W. Abut.	492+32.41	-9.00	561.86	561.86
A	492+42.41	-9.00	561.84	561.90
B	492+52.41	-9.00	561.81	561.93
C	492+62.41	-9.00	561.79	561.94
D	492+72.41	-9.00	561.76	561.93
E	492+82.41	-9.00	561.74	561.89
F	492+92.41	-9.00	561.71	561.83
G	493+02.41	-9.00	561.69	561.75
℄ Brg. E. Abut.	493+12.41	-9.00	561.66	561.66
Bk. E. Abut.	493+14.14	-9.00	561.66	561.66

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	492+29.07	-3.00	561.96	561.96
℄ Brg. W. Abut.	492+30.80	-3.00	561.96	561.96
A	492+40.80	-3.00	561.93	562.00
B	492+50.80	-3.00	561.91	562.02
C	492+60.80	-3.00	561.88	562.03
D	492+70.80	-3.00	561.86	562.02
E	492+80.80	-3.00	561.83	561.98
F	492+90.80	-3.00	561.81	561.92
G	493+00.80	-3.00	561.78	561.84
℄ Brg. E. Abut.	493+10.80	-3.00	561.76	561.76
Bk. E. Abut.	493+12.53	-3.00	561.75	561.75

℄ ROADWAY, P.G., AND STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	492+28.27	0.00	562.01	562.01
℄ Brg. W. Abut.	492+30.00	0.00	562.01	562.01
A	492+40.00	0.00	561.98	562.04
B	492+50.00	0.00	561.96	562.07
C	492+60.00	0.00	561.93	562.08
D	492+70.00	0.00	561.90	562.07
E	492+80.00	0.00	561.88	562.03
F	492+90.00	0.00	561.85	561.97
G	493+00.00	0.00	561.83	561.89
℄ Brg. E. Abut.	493+10.00	0.00	561.80	561.80
Bk. E. Abut.	493+11.73	0.00	561.80	561.80

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	492+27.47	3.00	562.06	562.06
℄ Brg. W. Abut.	492+29.19	3.00	562.05	562.05
A	492+39.19	3.00	562.03	562.09
B	492+49.19	3.00	562.00	562.12
C	492+59.19	3.00	561.98	562.13
D	492+69.19	3.00	561.95	562.11
E	492+79.19	3.00	561.93	562.08
F	492+89.19	3.00	561.90	562.02
G	492+99.19	3.00	561.88	561.94
℄ Brg. E. Abut.	493+09.19	3.00	561.85	561.85
Bk. E. Abut.	493+10.92	3.00	561.85	561.85

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	492+25.86	9.00	562.15	562.15
℄ Brg. W. Abut.	492+27.58	9.00	562.15	562.15
A	492+37.58	9.00	562.12	562.18
B	492+47.58	9.00	562.10	562.21
C	492+57.58	9.00	562.07	562.22
D	492+67.58	9.00	562.05	562.21
E	492+77.58	9.00	562.02	562.17
F	492+87.58	9.00	562.00	562.11
G	492+97.58	9.00	561.97	562.03
℄ Brg. E. Abut.	493+07.58	9.00	561.94	561.94
Bk. E. Abut.	493+09.31	9.00	561.94	561.94

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	492+24.25	15.00	562.25	562.25
℄ Brg. W. Abut.	492+25.98	15.00	562.24	562.24
A	492+35.98	15.00	562.22	562.28
B	492+45.98	15.00	562.19	562.31
C	492+55.98	15.00	562.17	562.31
D	492+65.98	15.00	562.14	562.30
E	492+75.98	15.00	562.11	562.26
F	492+85.98	15.00	562.09	562.20
G	492+95.98	15.00	562.06	562.13
℄ Brg. E. Abut.	493+05.98	15.00	562.04	562.04
Bk. E. Abut.	493+07.71	15.00	562.03	562.03

Note:
Work this sheet with sheet 5 of 20.

NORTH EDGE OF SHOULDER

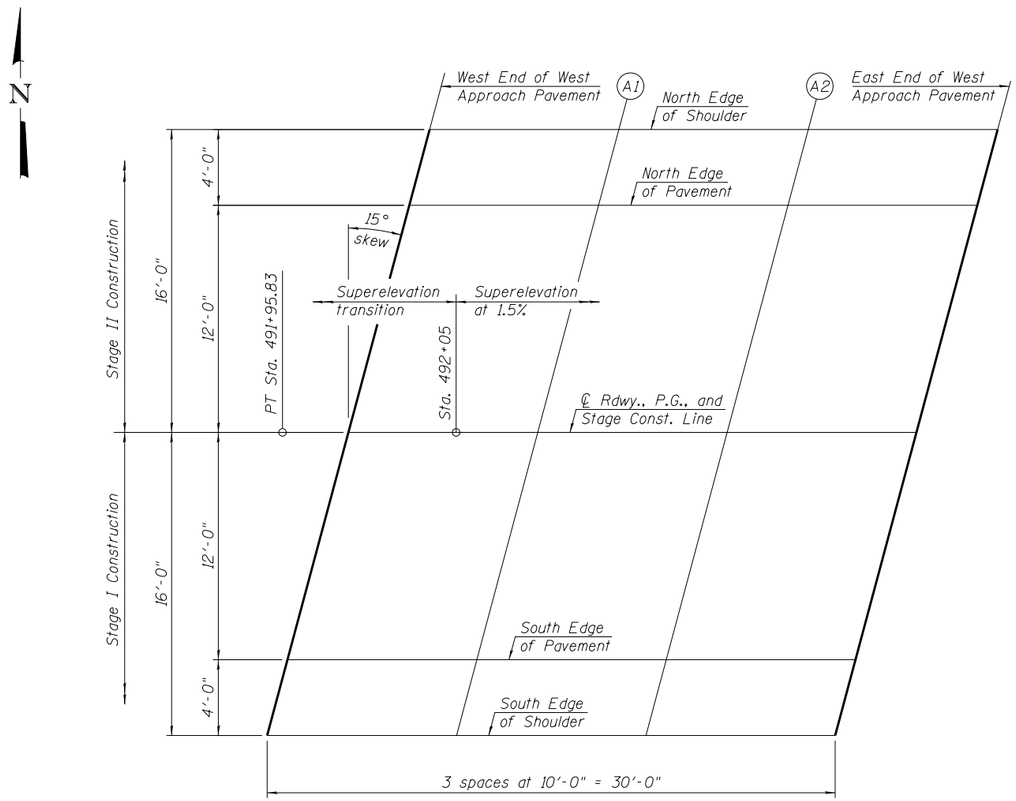
Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	492+03.59	-16.00	561.83
A1	492+13.59	-16.00	561.81
A2	492+23.59	-16.00	561.78
E. End W. Appr. Pav't.	492+33.59	-16.00	561.76

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	492+02.52	-12.00	561.90
A1	492+12.52	-12.00	561.87
A2	492+22.52	-12.00	561.84
E. End W. Appr. Pav't.	492+32.52	-12.00	561.82

℄ ROADWAY, P.G., AND STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	491+99.31	0.00	562.08
A1	492+09.31	0.00	562.06
A2	492+19.31	0.00	562.03
E. End W. Appr. Pav't.	492+29.31	0.00	562.01



PLAN

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	491+96.09	12.00	562.30
A1	492+06.09	12.00	562.25
A2	492+16.09	12.00	562.22
E. End W. Appr. Pav't.	492+26.09	12.00	562.20

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	491+95.02	16.00	562.38
A1	492+05.02	16.00	562.31
A2	492+15.02	16.00	562.28
E. End W. Appr. Pav't.	492+25.02	16.00	562.26

NORTH EDGE OF SHOULDER

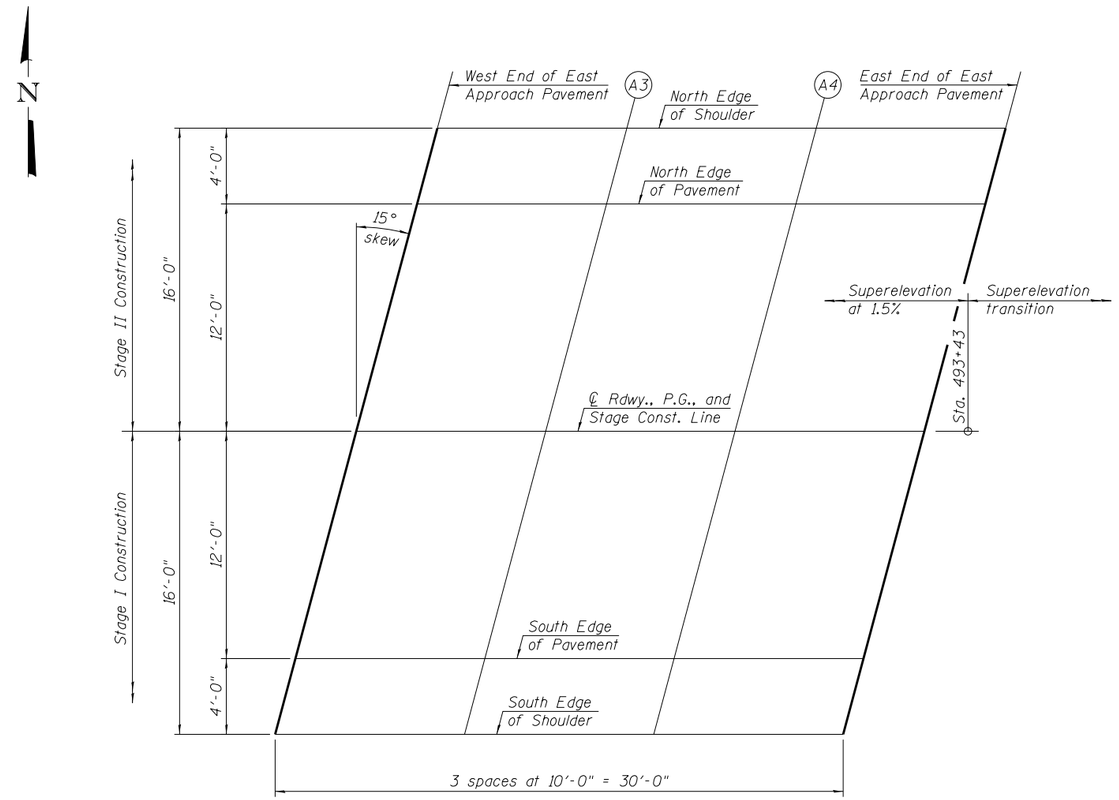
Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	493+14.98	-16.00	561.55
A3	493+24.98	-16.00	561.53
A4	493+34.98	-16.00	561.50
E. End E. Appr. Pav't.	493+44.98	-16.00	561.47

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	493+13.91	-12.00	561.61
A3	493+23.91	-12.00	561.59
A4	493+33.91	-12.00	561.56
E. End E. Appr. Pav't.	493+43.91	-12.00	561.54

℄ ROADWAY, P.G., AND STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	493+10.69	0.00	561.80
A3	493+20.69	0.00	561.78
A4	493+30.69	0.00	561.75
E. End E. Appr. Pav't.	493+40.69	0.00	561.73



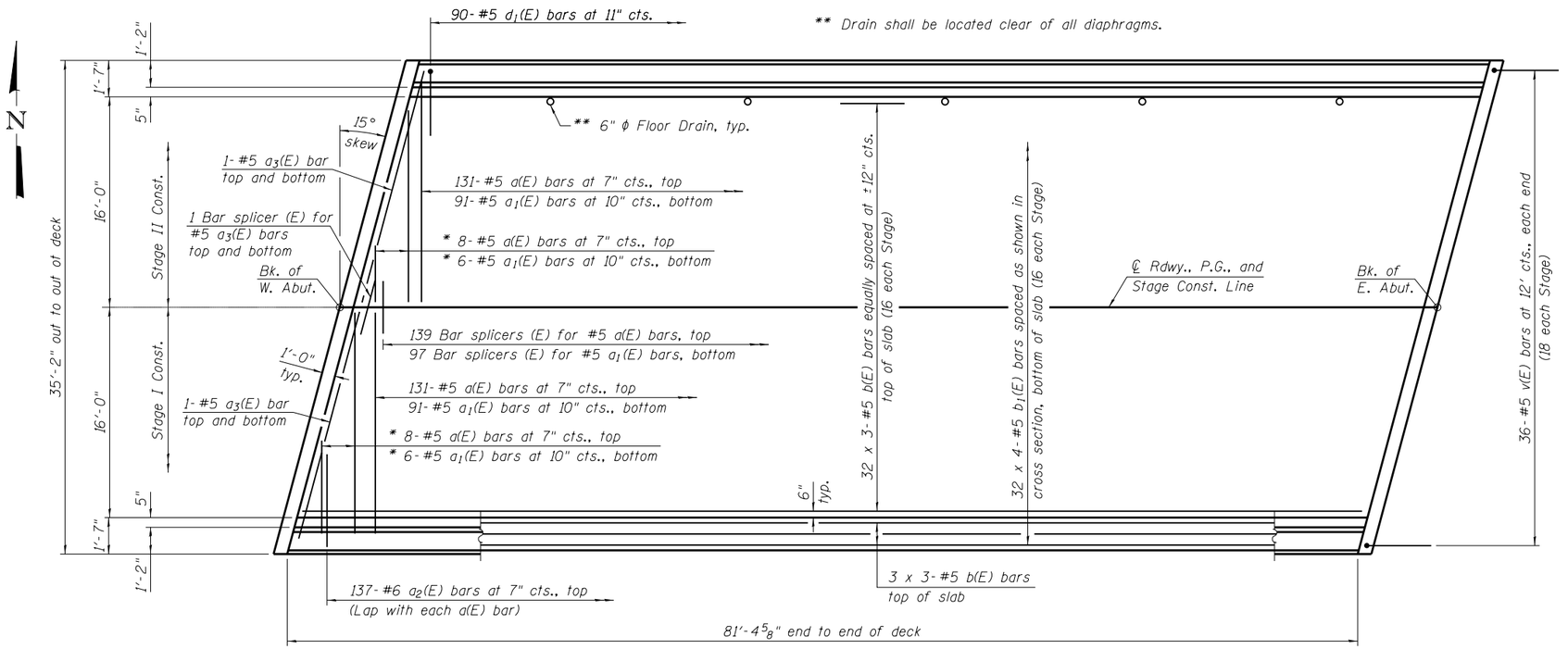
PLAN

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	493+07.48	12.00	561.99
A3	493+17.48	12.00	561.96
A4	493+27.48	12.00	561.94
E. End E. Appr. Pav't.	493+37.48	12.00	561.91

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	493+06.41	16.00	562.05
A3	493+16.41	16.00	562.03
A4	493+26.41	16.00	562.00
E. End E. Appr. Pav't.	493+36.41	16.00	561.98



* Order a(E) and a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

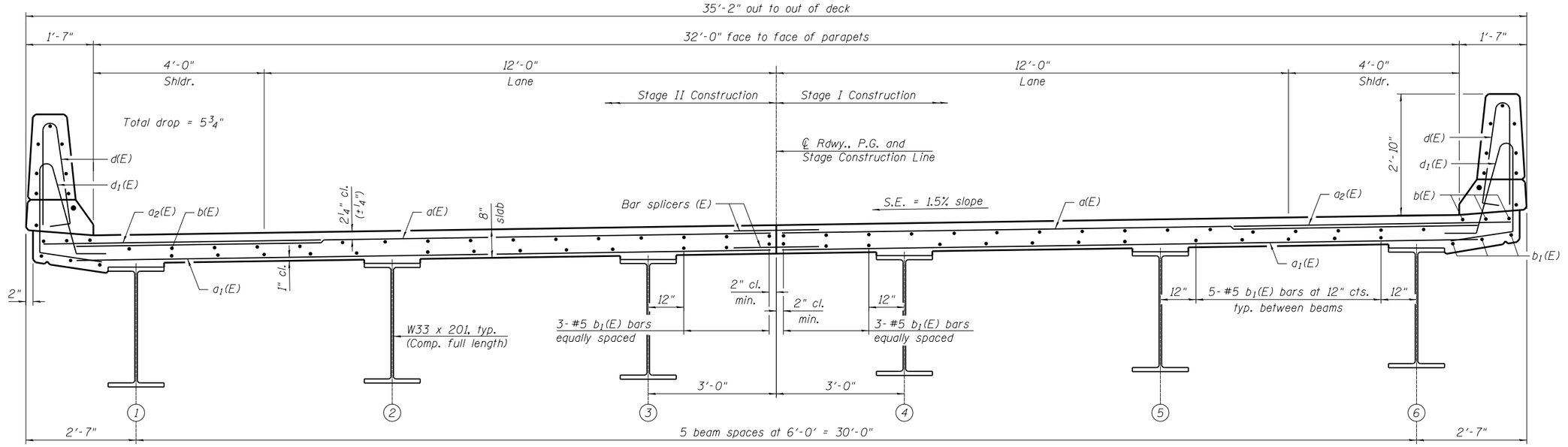
PLAN

Notes:

1. See sheet 10 of 20 for superstructure details and Bill of Material.
2. Bars indicated thus 32 x 3- #5 etc. indicates 32 lines of bars with 3 lengths per line.
3. See sheet 10 of 20 for parapet reinforcement.
4. See sheet 18 of 20 for bar splicer details.
5. See sheet 1 of 20 for floor drain locations.

MINIMUM BAR LAP

#5 bar = 2'-7"



CROSS SECTION

(Looking East)

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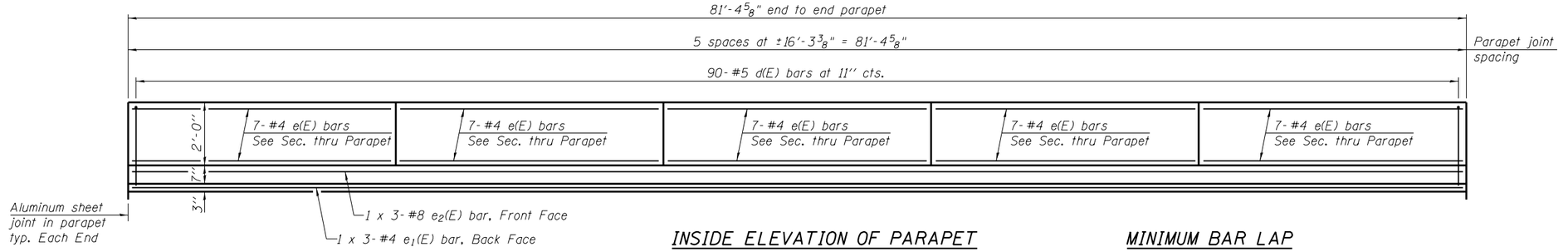
		PLOT DATE =	CHECKED - TJZ	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 068-0513
SHEET NO. 9 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2	MONTGOMERY	121	85
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		



INSIDE ELEVATION OF PARAPET

MINIMUM BAR LAP

(Parapet)

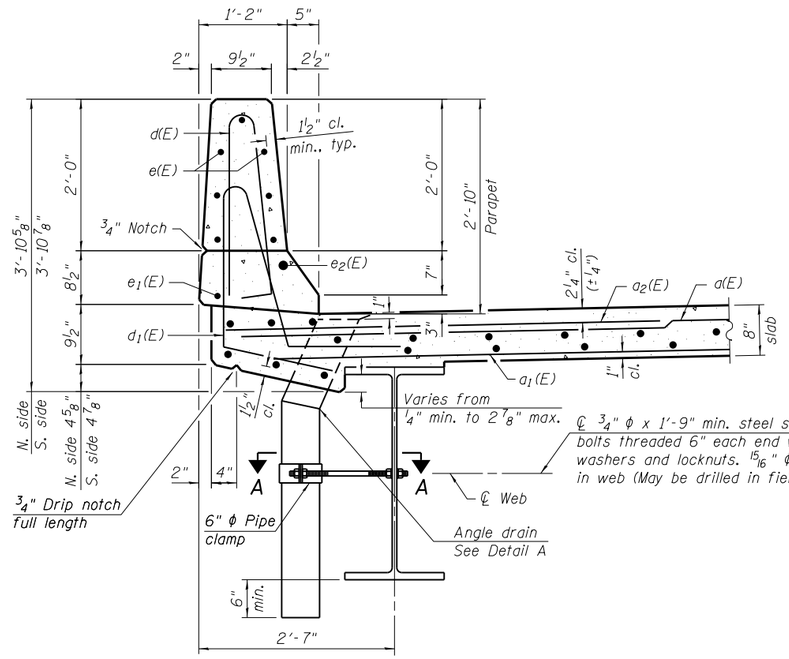
#4 bar = 2'-0"

#8 bar = 5'-2"

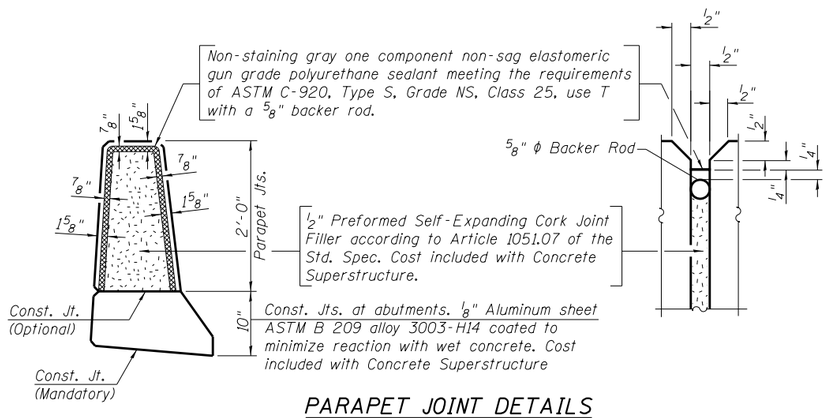
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	278	#5	17'-1"	——
a_1(E)	194	#5	16'-9"	——
a_2(E)	274	#6	6'-6"	——
a_3(E)	8	#5	17'-8"	——
b(E)	114	#5	28'-9"	——
b_1(E)	128	#5	22'-3"	——
d(E)	180	#5	5'-7"	
d_1(E)	180	#5	7'-2"	
e(E)	70	#4	15'-11"	——
e_1(E)	6	#4	28'-5"	——
e_2(E)	6	#8	30'-6"	——
m(E)	16	#6	17'-10"	——
m_1(E)	24	#6	5'-9"	——
m_2(E)	12	#6	2'-3"	——
m_4(E)	36	#5	4'-0"	
s(E)	72	#5	7'-7"	
s_1(E)	72	#5	9'-8"	
v(E)	72	#5	3'-1"	
Concrete Superstructure			Cu. Yd.	118.2
Reinforcement Bars, Epoxy Coated			Pound	23,650

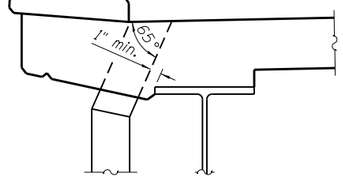
Bars indicated thus 1 x 3-#8 etc. indicates 1 line of bars with 3 lengths per line.



SECTION THRU PARAPET



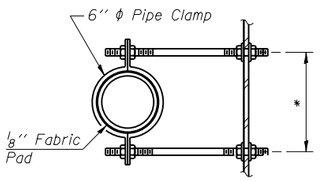
PARAPET JOINT DETAILS



DETAIL A

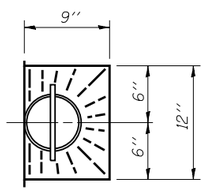
Notes:

1. Floor drains need not be painted.
2. Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
3. Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.

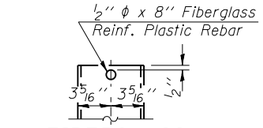


SECTION A-A

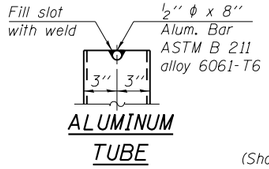
*Dimension as required by Pipe Clamp



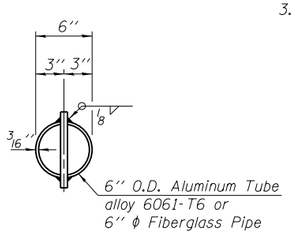
TOP PLAN



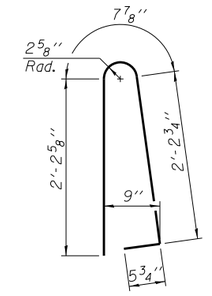
FIBERGLASS PIPE



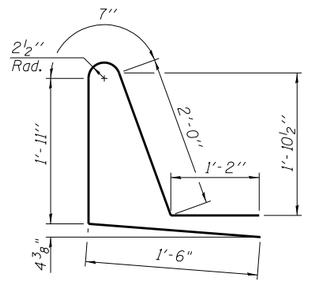
ALUMINUM TUBE



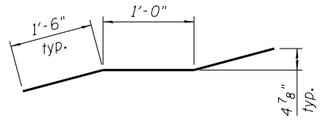
TOP PLAN (Showing Aluminum Tube)



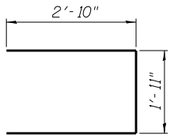
BAR d(E)



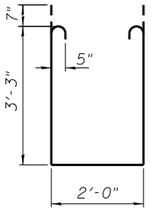
BAR d_1(E)



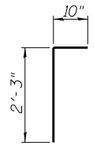
BAR m_4(E)



BAR s(E)



BAR s_1(E)



BAR v(E)

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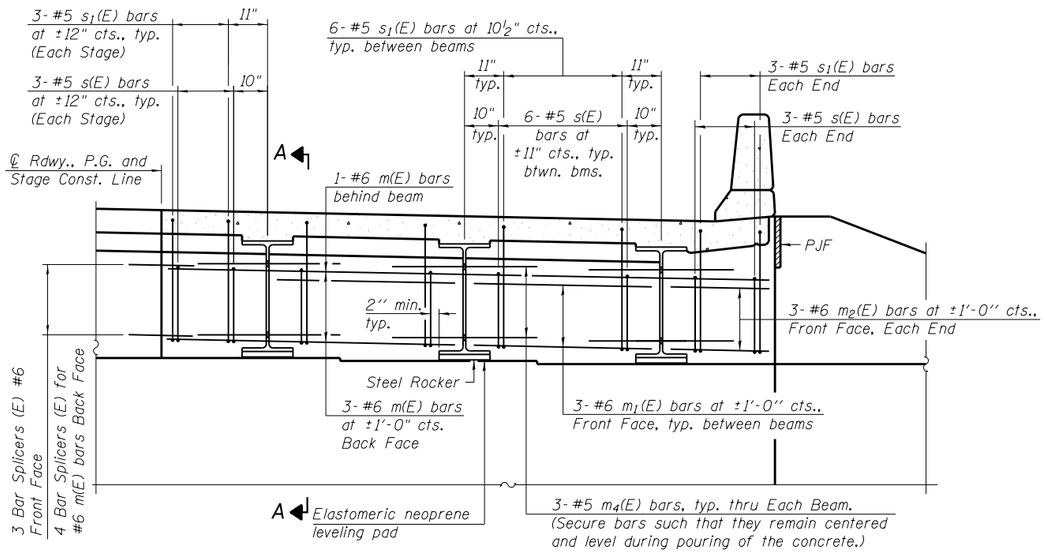
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

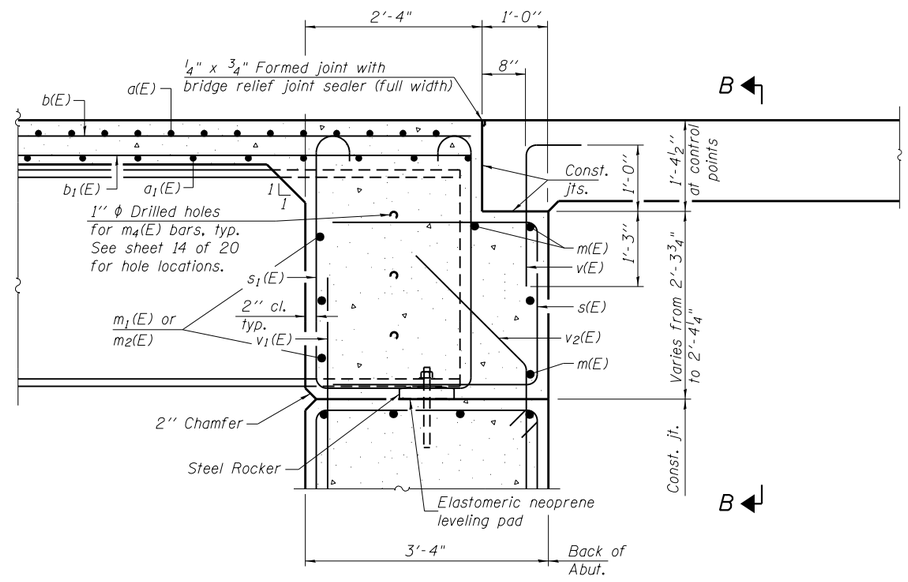
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 068-0513
SHEET NO. 10 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2	MONTGOMERY	121	86
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



DIAPHRAGM ELEVATION AT ABUTMENT

(Looking West)

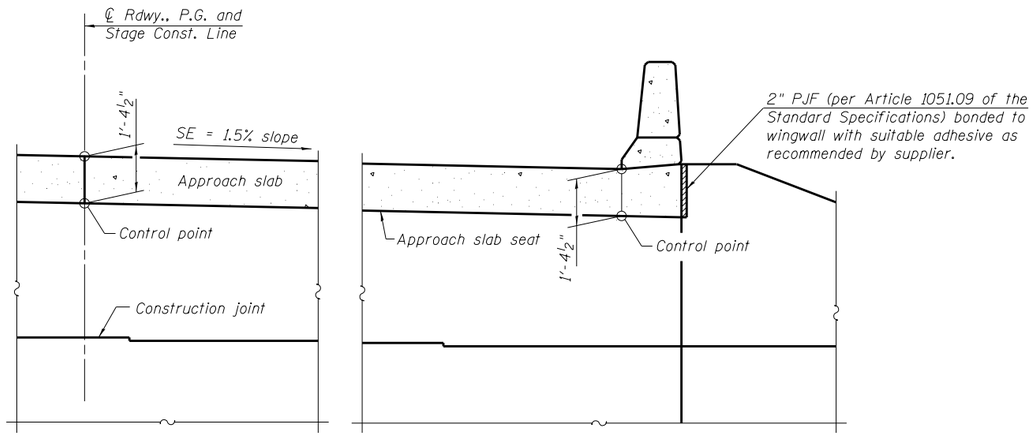


SECTION A-A

(at Rt. ℄'s)

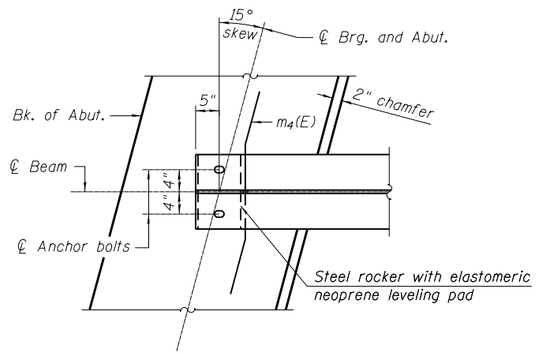
TOP OF CORBEL ELEVATIONS

Abutment	Location	Corbel Elevation
West Abutment	Inside Face of North Parapet	560.38
	Centerline Roadway	560.63
	Inside Face of South Parapet	560.88
East Abutment	Inside Face of North Parapet	560.18
	Centerline Roadway	560.43
	Inside Face of South Parapet	560.68



SECTION B-B

(Looking West)



PARTIAL PLAN AT ABUTMENT

(Showing bottom flange of beam)

Notes:

1. Reinforcement bars in diaphragm are billed with superstructure on sheet 10 of 20.
2. Concrete in diaphragm is included with Concrete Superstructure on sheet 10 of 20.
3. For details of bars s(E), s_1(E) and v(E) see sheet 10 of 20.
4. The approach slab seat shall have a constant slope determined from the control points shown.
5. For bearing details see sheet 15 of 20.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

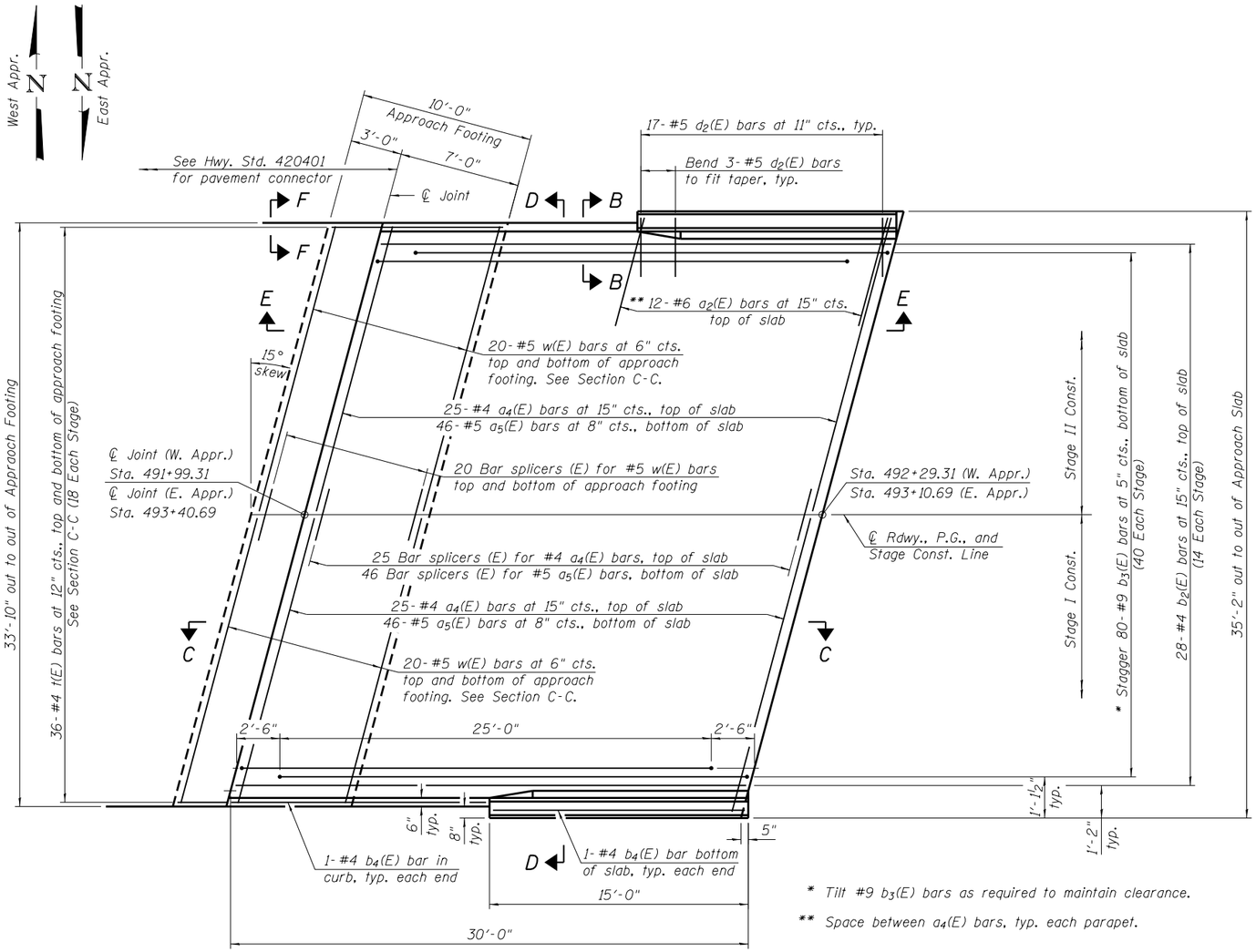
INTEGRAL ABUTMENT DIAPHRAGM DETAILS
STRUCTURE NO. 068-0513
SHEET NO. 11 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2	MONTGOMERY	121	87
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			

Notes:

1. See sheet 13 of 20 for Sections C-C & D-D and View E-E.
2. $a_4(E)$ and $a_5(E)$ bar spacings measured along ℄ Rdwy.
3. The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be $1\frac{1}{2}$" for installation purposes.

*** Cost included with Concrete Superstructure.

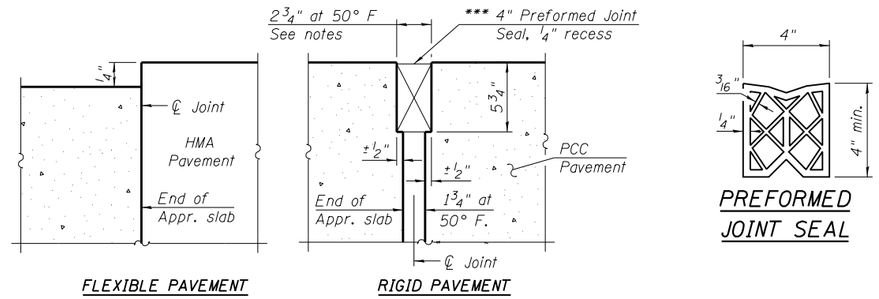


* Tilt #9 $b_3(E)$ bars as required to maintain clearance.

** Space between $a_4(E)$ bars, typ. each parapet.

PLAN

(West Approach shown, East Approach similar.)

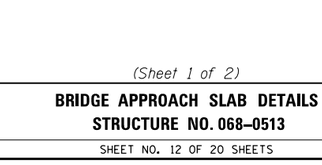


FLEXIBLE PAVEMENT

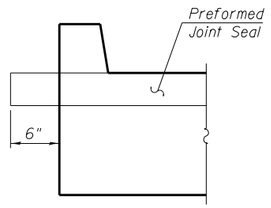
RIGID PAVEMENT

PREFORMED JOINT SEAL

DETAIL A



VIEW B-B



VIEW F-F

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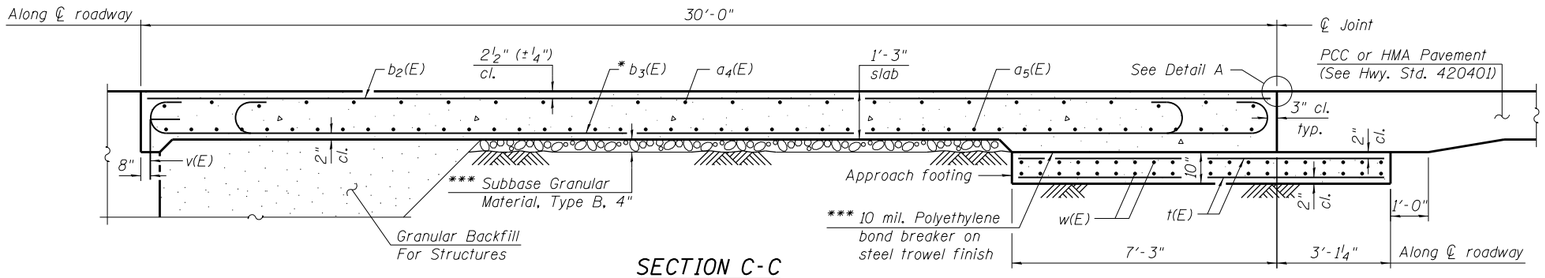
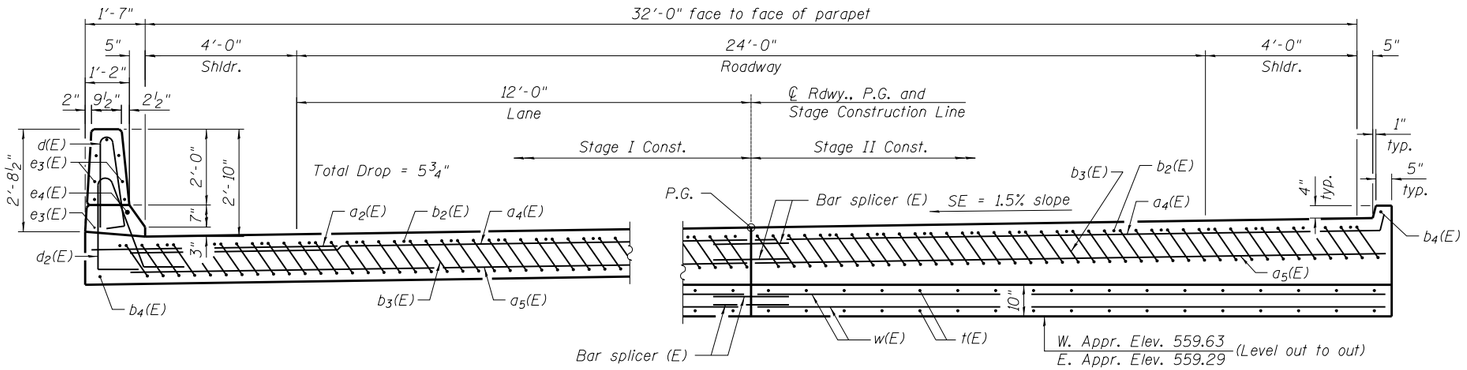
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 068-0513
SHEET NO. 12 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2	MONTGOMERY	121	88
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



SECTION C-C

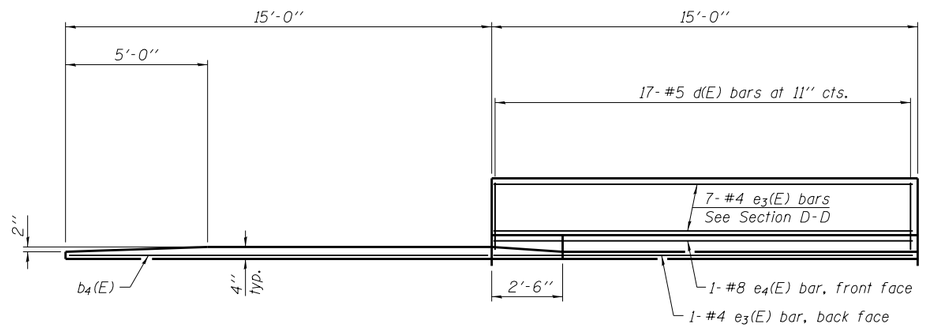


NEAR ABUTMENT

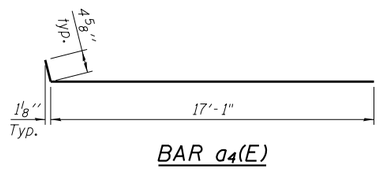
AT APPROACH FOOTING

SECTION D-D

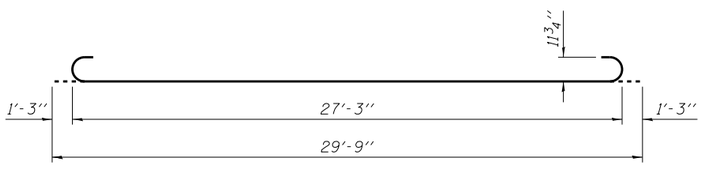
(See plan for dimensions not shown.)



VIEW E-E



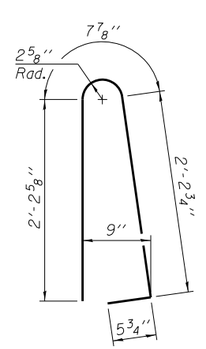
BAR a_4(E)



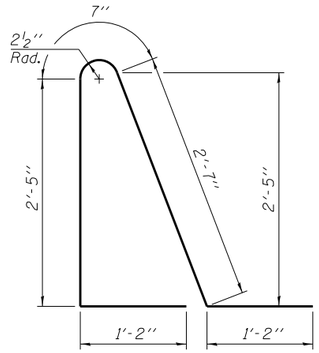
BAR b_3(E)

Notes:

1. See sheet 12 of 20 for Detail A and View B-B.
2. Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
3. Approach footing concrete shall be paid for as Concrete Structures.
4. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
5. For v(E) bar details, see sheet 10 of 20.
6. For bar splicer details, see sheet 18 of 20.
7. Cost of excavation for approach footing included with Concrete Structures.
8. For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 20.
9. For additional parapet details, see sheet 10 of 20.



BAR d(E)



BAR d_2(E)

* Tilt #9 b_3(E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_2(E)	48	#6	6'-6"	——
a_4(E)	100	#4	17'-6"	——
a_5(E)	184	#5	17'-2"	——
b_2(E)	56	#4	29'-8"	——
b_3(E)	160	#9	29'-9"	——
b_4(E)	8	#4	14'-8"	——
d(E)	68	#5	5'-7"	
d_2(E)	68	#5	7'-11"	
e_3(E)	32	#4	14'-8"	——
e_4(E)	4	#8	14'-8"	——
t(E)	144	#4	10'-0"	——
w(E)	160	#5	17'-2"	——
Concrete Structures			Cu. Yd.	21.8
Concrete Superstructure			Cu. Yd.	111.0
Reinforcement Bars, Epoxy Coated			Pound	27,570
Bar Splicers			Each	222

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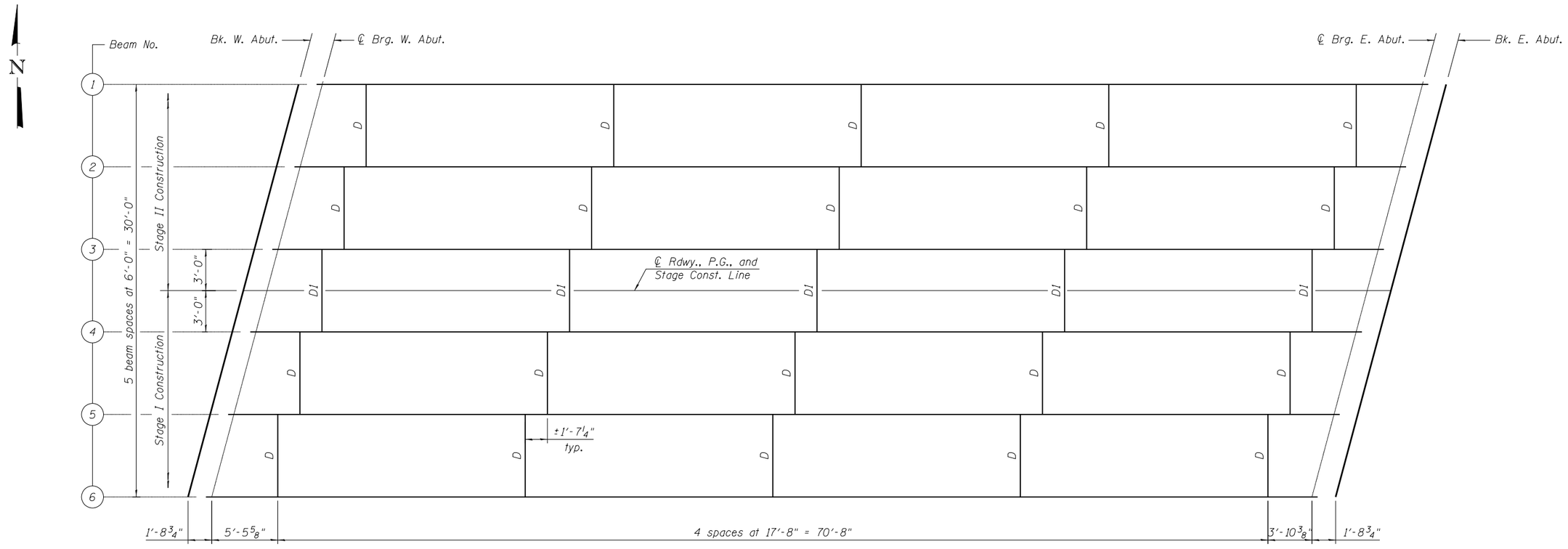
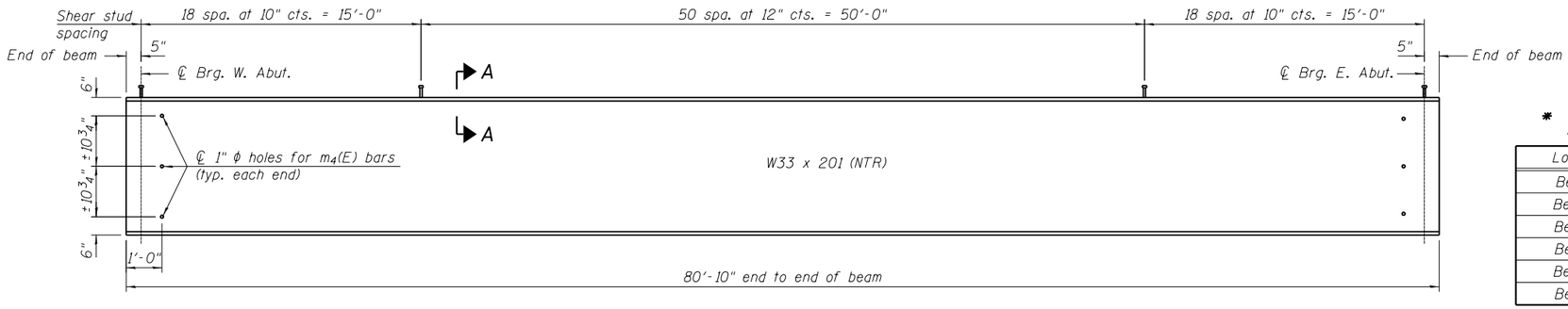
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 068-0513
SHEET NO. 13 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2	MONTGOMERY	121	89
		CONTRACT NO. 72D08		
	ILLINOIS FED. AID PROJECT			



PLAN

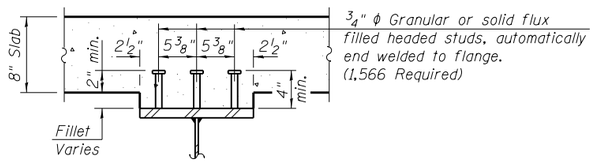


BEAM ELEVATION

* TOP OF BEAM ELEVATIONS

Location	℄ Brg. W. Abut.	℄ Brg. E. Abut.
Beam 1	561.05	560.85
Beam 2	561.15	560.94
Beam 3	561.24	561.04
Beam 4	561.33	561.13
Beam 5	561.43	561.23
Beam 6	561.52	561.32

* For Fabrication Only.



SECTION A-A

Notes:

1. *All structural steel shown shall be AASHTO M270, Grade 50W.*
2. *See Sheet 15 of 20 for Interior Diaphragm Details.*
3. *See Sheet 15 of 20 for Anchor Bolt Placement.*
4. *Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.*
5. *All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted.*

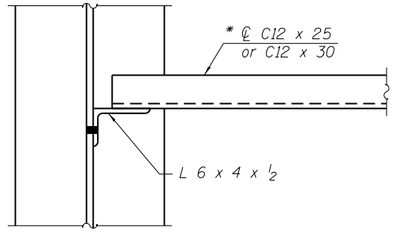
design firm no. 184001036
whks engineers + planners + land surveyors

USER NAME =	DESIGNED - TJZ	REVISED
FILE NAME =	CHECKED - BRD	REVISED
PLOT SCALE =	DRAWN - DLH	REVISED
PLOT DATE =	CHECKED - TJZ	REVISED

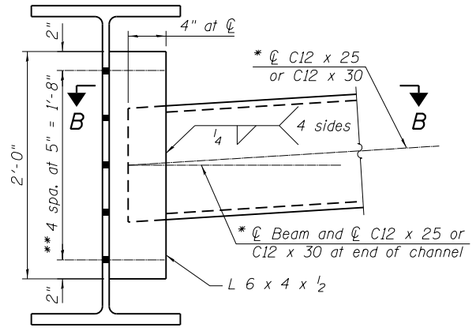
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NO. 068-0513
SHEET NO. 14 OF 20 SHEETS

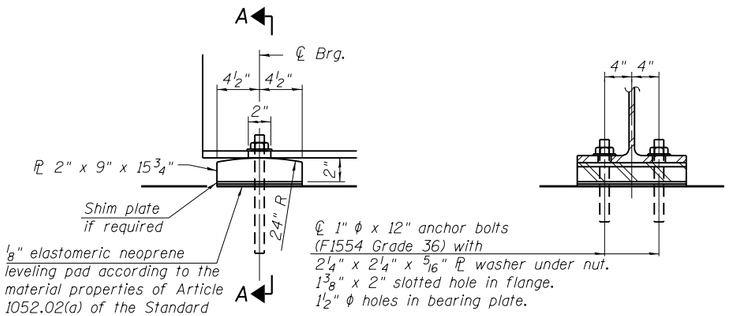
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2	MONTGOMERY	121	90
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		



SECTION B-B



INTERIOR DIAPHRAGM "D" DETAILS



ELEVATION AT ABUTMENT

SECTION A-A

FIXED BEARING

Notes:

1. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
2. Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
3. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
4. The bearing plates, diaphragms, and connecting angles shall conform to the requirements of AASHTO M 270 Grade 50W.
5. Two hardened washers required for each set of oversized and slotted holes.

INTERIOR BEAM MOMENT TABLE		
		0.5 Span
I_s	(in^4)	11600
$I_c(n)$	(in^4)	27998
$I_c(3n)$	(in^4)	19902
$I_c(cr)$	(in^4)	
S_s	(in^3)	686.0
$S_c(n)$	(in^3)	974.9
$S_c(3n)$	(in^3)	869.0
$S_c(cr)$	(in^3)	
DC1	(k/')	0.864
M_{DC1}	('k)	691
DC2	(k/')	0.150
M_{DC2}	('k)	120
DW	(k/')	0.267
M_{DW}	('k)	213
M_{L+IM}	('k)	1060
M_u (Strength I)	('k)	3188
$\phi_f M_n$	('k)	4424
f_s DC1	(ksi)	12.1
f_s DC2	(ksi)	1.7
f_s DW	(ksi)	2.9
f_s (L+IM)	(ksi)	13.0
f_s (Service II)	(ksi)	33.6
$0.95R_hF_{yf}$	(ksi)	47.5
f_s (Total)(Strength I)	(ksi)	
$\phi_f F_n$	(ksi)	
V_r	(k)	24.5

INTERIOR BEAM REACTION TABLE		
		Abut.
R_{DC1}	(k)	35.4
R_{DC2}	(k)	6.0
R_{DW}	(k)	10.7
R_{L+IM}	(k)	78.2
R_{Total}	(k)	130.3

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{L+IM} / S_c(cr)$ as applicable.

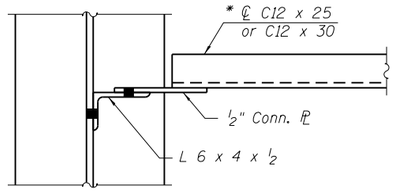
f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(L+IM)$

$0.95R_hF_yf$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\ (f_{sDC1} + f_{sDC2}) + 1.5\ f_{sDW} + 1.75\ f_s(L+IM)$

$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_r: Maximum factored shear range in span computed according to Article 6.10.10.

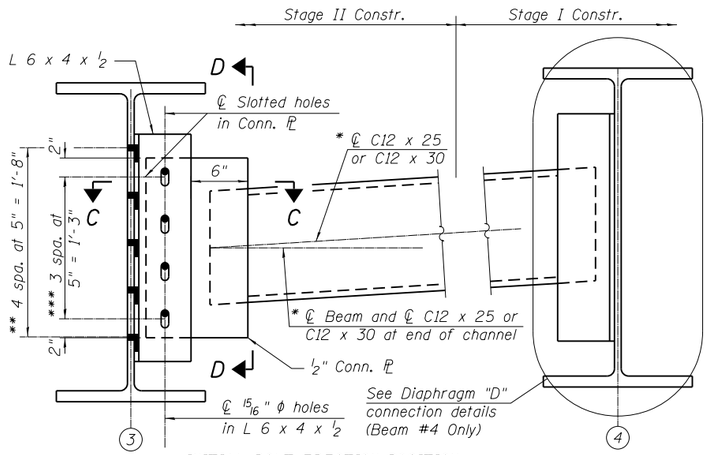


SECTION C-C

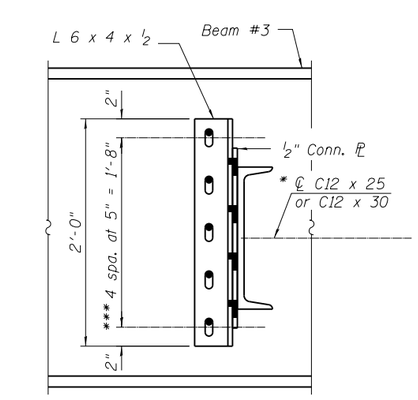
* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.

** $3/4$" ϕ HS bolts. $15/16$" ϕ holes.

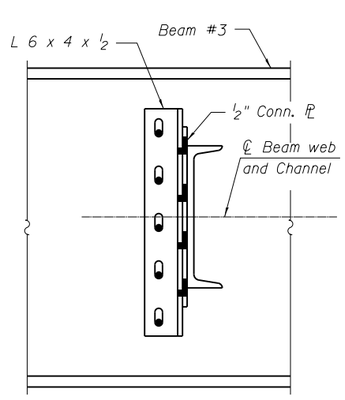
*** $3/4$" ϕ H.S. bolts, on the south side of Beam 3 provide $13/16$" x $1\ 7/8$" vertical slotted holes in the L 6 x 4 x 1/2 at the web and in the connection PL. Bolts in slotted holes shall be finger tightened until Stage II pour is completed. Position slots so bolts move from one end with no concrete load to the opposite end under the deck load. The slotted holes in the L 6 x 4 x 1/2 and connection PL shall be positioned as shown to allow the bolts to move to the final erection position under deck load. The holes shall be positioned to allow maximum bolt displacement without laterally stressing the beams.



INITIAL BOLT ERECTION POSITION



INITIAL BOLT ERECTION POSITION

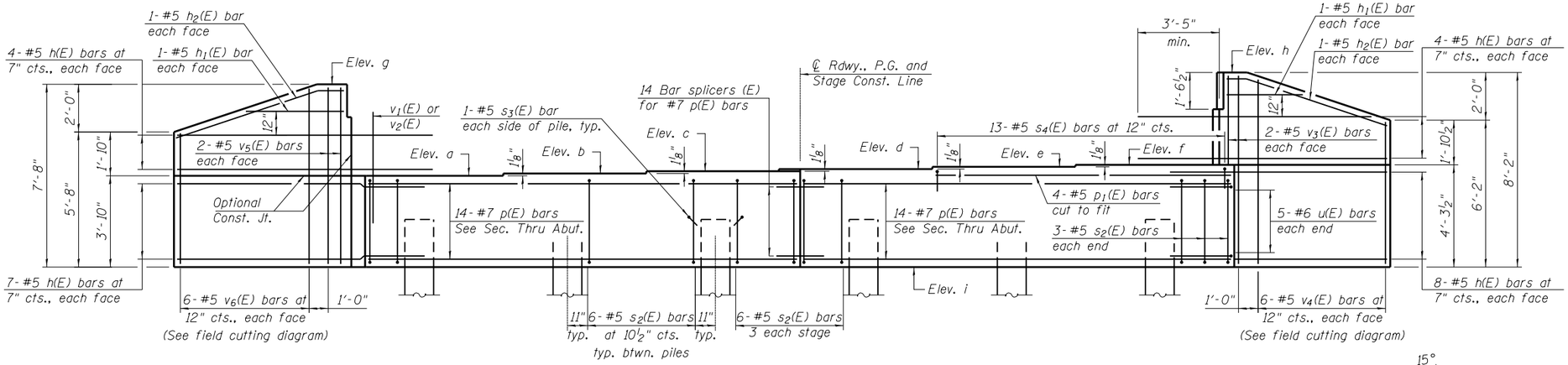


FINAL BOLT ERECTION POSITION
AFTER STAGE II DECK POUR

SECTION D-D

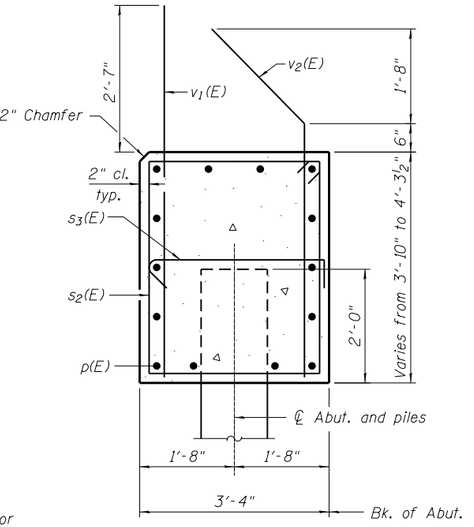
INTERIOR DIAPHRAGM "D1" DETAILS

design firm no. 184001036 — whks engineers + planners + land surveyors	USER NAME =	DESIGNED - TJZ	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL STEEL DETAILS STRUCTURE NO. 068-0513	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FILE NAME =	CHECKED - BRD	REVISED			777	10B-2	MONTGOMERY	121	91
	PLOT SCALE =	DRAWN - DLH	REVISED						CONTRACT NO. 72D08	
	PLOT DATE =	CHECKED - TJZ	REVISED		SHEET NO. 15 OF 20 SHEETS			ILLINOIS	FED. AID PROJECT	



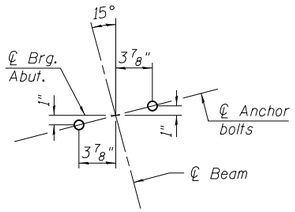
ELEVATION

(East abutment shown, West abutment 180° rotation)

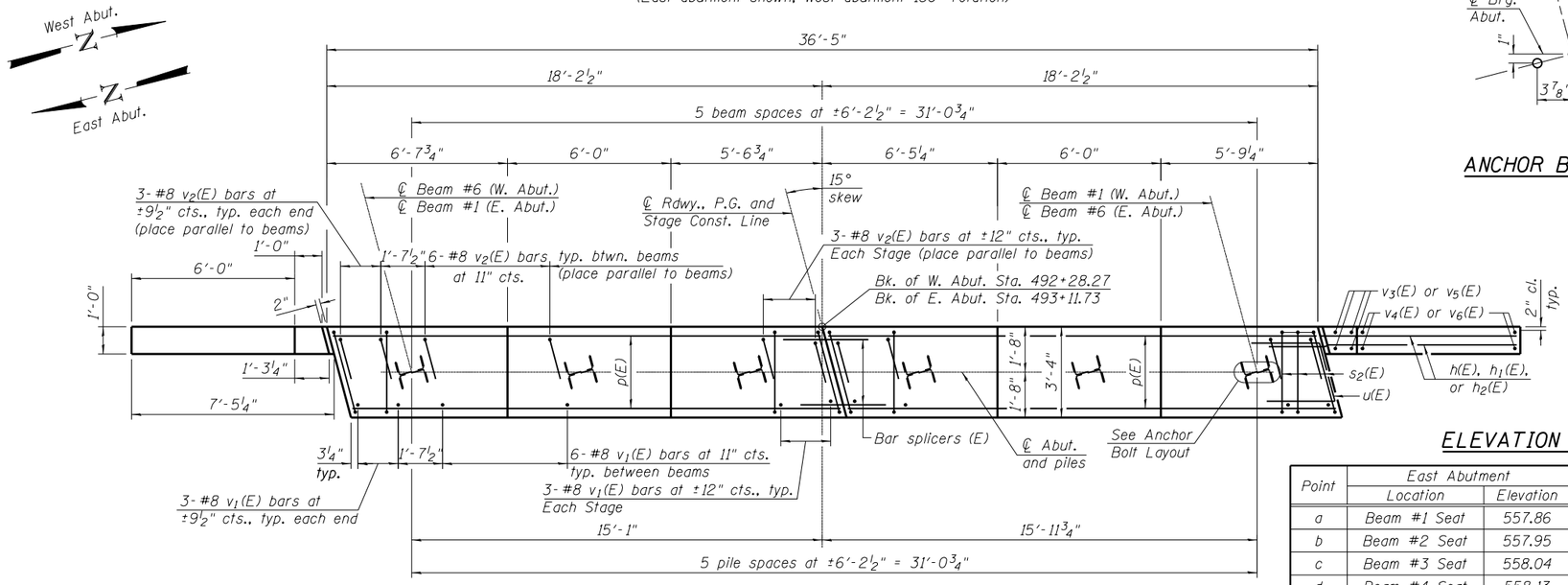


SECTION THRU ABUTMENT

(Dimensions at right angles to abutment.)



ANCHOR BOLT LAYOUT



PLAN

ELEVATION TABLE

Point	East Abutment		West Abutment	
	Location	Elevation	Location	Elevation
a	Beam #1 Seat	557.86	Beam #6 Seat	558.06
b	Beam #2 Seat	557.95	Beam #5 Seat	558.15
c	Beam #3 Seat	558.04	Beam #4 Seat	558.24
d	Beam #4 Seat	558.13	Beam #3 Seat	558.33
e	Beam #5 Seat	558.22	Beam #2 Seat	558.42
f	Beam #6 Seat	558.31	Beam #1 Seat	558.51
g	North Wingwall	561.68	South Wingwall	561.88
h	South Wingwall	562.18	North Wingwall	562.38
i	Bottom of Footing	554.03	Bottom of Footing	554.23

TWO ABUTMENTS BILL OF MATERIAL

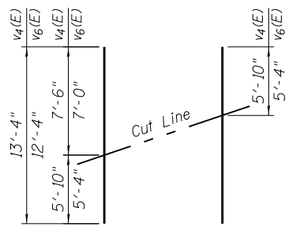
Bar	No.	Size	Length	Shape
h(E)	92	#5	10'-8"	
h1(E)	8	#5	3'-9"	
h2(E)	8	#5	7'-0"	
p(E)	56	#7	17'-10"	
p1(E)	8	#5	12'-4"	
s2(E)	72	#5	13'-11"	
s3(E)	24	#5	4'-0"	
s4(E)	26	#5	6'-10"	
u(E)	20	#6	10'-7"	
v1(E)	72	#8	6'-3"	
v2(E)	72	#8	6'-6"	
v3(E)	8	#5	7'-10"	
v4(E)	12	#5	13'-4"	
v5(E)	8	#5	7'-4"	
v6(E)	12	#5	12'-4"	
Structure Excavation		Cu. Yd.	235	
Concrete Structures		Cu. Yd.	44.2	
Reinforcement Bars, Epoxy Coated		Pound	7,810	
Bar Splicers		Each	28	
Furnishing Steel Piles HP12 x 53		Foot	400	
Driving Piles		Foot	400	
Test Pile Steel HP12 x 53		Each	2	
Pile Shoes		Each	12	

PILE DATA (W. ABUT.)

Type: Steel H-Piles HP12 x 53
Nominal Required Bearing: 407k
Factored Resistance Available: 224k
Est. Length: 40 ft.
No. Production Piles: 5
No. Test Piles: 1
Pile Shoes: 6

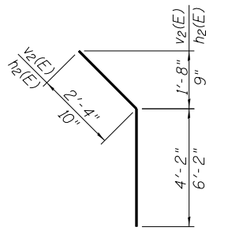
PILE DATA (E. ABUT.)

Type: Steel H-Piles HP12 x 53
Nominal Required Bearing: 398k
Factored Resistance Available: 219k
Est. Length: 40 ft.
No. Production Piles: 5
No. Test Piles: 1
Pile Shoes: 6

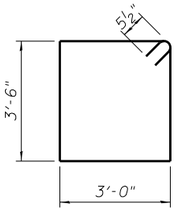


FIELD CUTTING DIAGRAM

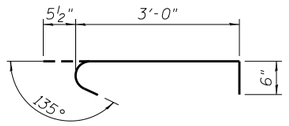
Order $v_4(E)$ and $v_6(E)$ full length. Cut as shown and use remainder of bars in opposite face.



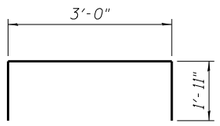
BAR $v_2(E)$ & $h_2(E)$



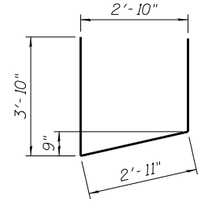
BAR $s_2(E)$



BAR $s_3(E)$



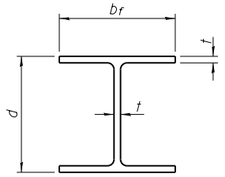
BAR $s_4(E)$



BAR $u(E)$

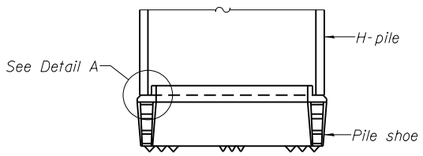
Notes:

1. For details of piles see sheet 17 of 20.
2. For bar splicer details see sheet 18 of 20.
3. Space reinforcement in the cap to miss anchor bolts.
4. Pour steps monolithically with cap.

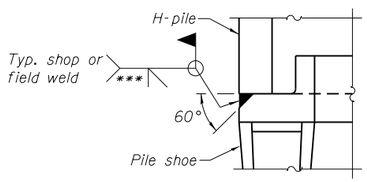


STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4''	14 7/8''	13/16''	30''
x102	14''	14 3/4''	11/16''	30''
x89	13 7/8''	14 3/4''	5/8''	30''
x73	13 5/8''	14 5/8''	1/2''	30''
HP 12x84	12 1/4''	12 1/4''	11/16''	24''
x74	12 1/8''	12 1/4''	5/8''	24''
x63	12''	12 1/8''	1/2''	24''
x53	11 3/4''	12''	7/16''	24''
HP 10x57	10''	10 1/4''	9/16''	24''
x42	9 3/4''	10 1/8''	7/16''	24''
HP 8x36	8''	8 1/8''	7/16''	18''

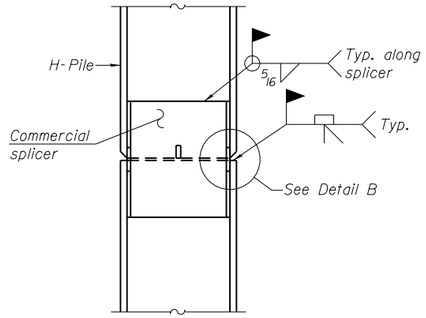


ELEVATION

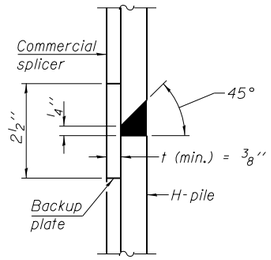


DETAIL A

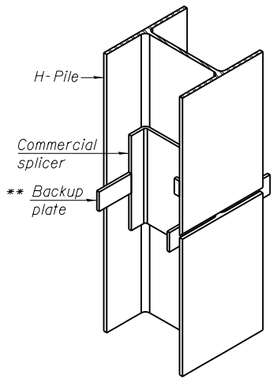
H-PILE SHOE ATTACHMENT



ELEVATION

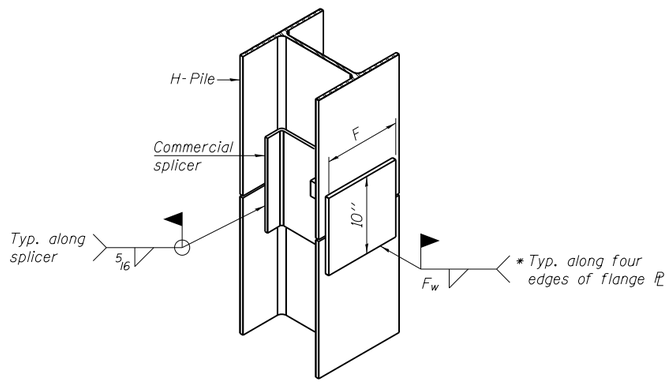


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



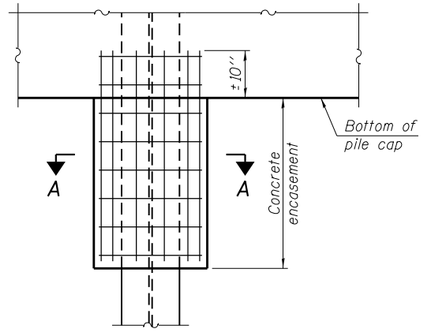
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

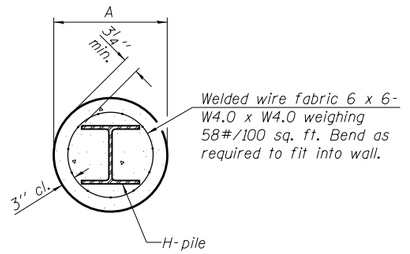
* Interrupt welds 1/4'' from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16'' min.).



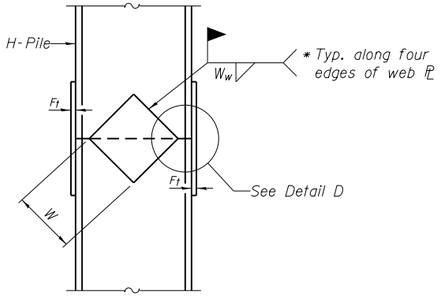
ELEVATION



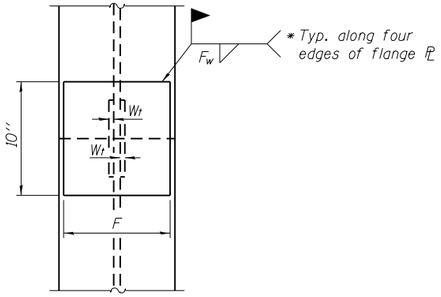
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

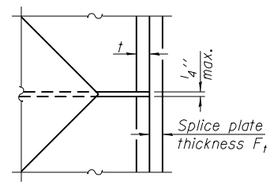
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

Designation	F	F_f	F_w	W	W_f	W_w
HP 14x117	12 1/2''	1''	7/8''	7 3/4''	5/8''	1/2''
x102	12 1/2''	7/8''	3/4''	7 3/4''	5/8''	1/2''
x89	12 1/2''	3/4''	11/16''	7 3/4''	5/8''	1/2''
x73	12 1/2''	5/8''	9/16''	7 3/4''	5/8''	1/2''
HP 12x84	10''	7/8''	11/16''	6 1/2''	5/8''	1/2''
x74	10''	7/8''	11/16''	6 1/2''	5/8''	1/2''
x63	10''	5/8''	1/2''	6 1/2''	1/2''	3/8''
x53	10''	5/8''	1/2''	6 1/2''	1/2''	3/8''
HP 10x57	8''	3/4''	9/16''	5 1/4''	1/2''	3/8''
x42	8''	5/8''	9/16''	5 1/4''	1/2''	3/8''
HP 8x36	7''	5/8''	7/16''	4 1/4''	1/2''	3/8''

WELDED PLATE FIELD SPLICE

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

F-HP 1-27-12

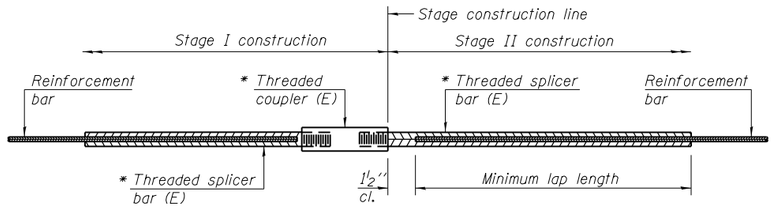
design firm no. 184001036 — whks engineers + planners + land surveyors

USER NAME =	DESIGNED - TJZ	REVISED
FILE NAME =	CHECKED - BRD	REVISED
PLOT SCALE =	DRAWN - DLH	REVISED
PLOT DATE =	CHECKED - TJZ	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 068-0513
SHEET NO. 17 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2	MONTGOMERY	121	93
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

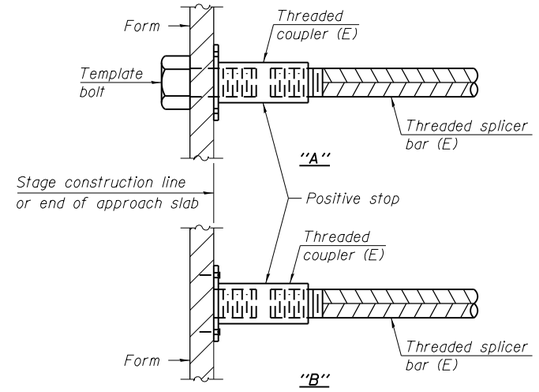
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C

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

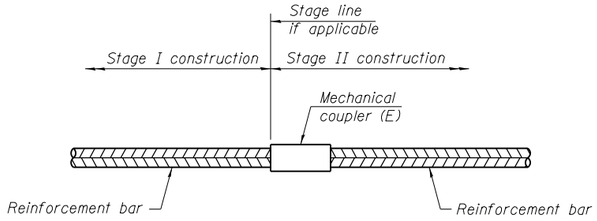
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Bridge top of deck	#5	141	3
Bridge bottom of deck	#5	99	3
Integral diaphragm - front face	#6	6	2
Integral diaphragm - back face	#6	8	4
Approach top of deck	#4	50	3
Approach bottom of deck	#5	92	3
Approach footing	#5	80	3
Abutment cap	#7	28	4



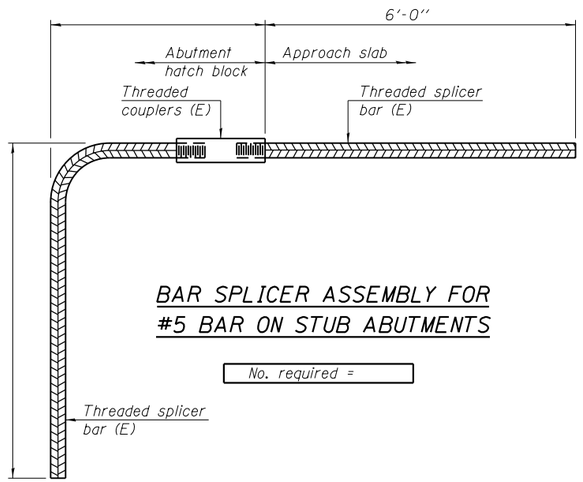
INSTALLATION AND SETTING METHODS

"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



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

Notes:

1. Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength
2. All reinforcement shall be lapped and tied to the splicer bars.
3. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
4. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 8-31-12

design firm no. 184001036
whks engineers + planners + land surveyors

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PLOT SCALE =	DRAWN - DLH	REVISED
PLOT DATE =	CHECKED - TJZ	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 068-0513
SHEET NO. 18 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2	MONTGOMERY	121	94
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Date 2/22/12

ROUTE IL 185 DESCRIPTION over Bayou Creek LOGGED BY M. Tappan

SECTION 108-1 LOCATION SE 1/4, SEC. 1, TWP. 7N, RNG. 3W, 3 PM

COUNTY Montgomery DRILLING METHOD HSA HAMMER TYPE 140 # AUTO

STRUCT. NO. 068-0513
Station 492+71

BORING NO. 1 W. Abut.
Station 492+23
Offset 13.0ft RT
Ground Surface Elev. 559.3 ft

Surface Water Elev. 543 ft
Stream Bed Elev. 542.5 ft

Groundwater Elev.:
▽ First Encounter 538.3 ft
▽ Upon Completion Washed ft
▼ After Plugged Hrs. ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Material
	1			Brown and Gray Moist CLAY LOAM (Fill)
	5	2.1	17	
	6	B		
556.30				
	1			Brown and Gray moist SILTY CLAY LOAM (Fill)
	2	.70	21	
-5	2	B		
	0			Gray Very Moist SILTY CLAY LOAM (Fill)
	1	.50	28	
	1	B		
	0			
	1	.60	27	
-10	1	B		
	0			
	0	.60	28	
	1	B		
545.80				
	0			Gray Very Moist SILTY CLAY LOAM
	1	.60	29	
-15	1	B		
	0			
	0	.50	30	
	1	B		
	0			Gray Wet SILTY CLAY LOAM
-20	1	.40	35	
				Gray Very Moist SILTY CLAY LOAM *(continued)*
537.80				
	0			
	1			Gray Dirty Medium to Coarse SAND
	4			
	4			Gray Medium to Coarse SANDY GRAVEL Washed
-25	4			
	1			Gray Medium to Coarse SAND Washed
	3			
	3			
	1			Gray Dirty Medium SANDY GRAVEL Washed
	2			
-30	2			
	5			Washed
	6			
-35	11			
521.80				
	8			Brown and Light Gray Moist Clayey SHALE Drilled Stiff at 37.5' Washed
	24	5.7	18	
-40	60	S-8		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
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)

File Name S:\SOILS\GINT FILES\068 MONTGOMERY\068-0513.GPJ Data Template D6TEMPLT.GDT Date Printed 7/31/14
Latitude 39.04.447N Longitude 89.21.787W Datum NAD83 Job Number D-96-109-09

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Date 2/22/12

ROUTE IL 185 DESCRIPTION over Bayou Creek LOGGED BY M. Tappan

SECTION 108-1 LOCATION SE 1/4, SEC. 1, TWP. 7N, RNG. 3W, 3 PM

COUNTY Montgomery DRILLING METHOD HSA HAMMER TYPE 140 # AUTO

STRUCT. NO. 068-0513
Station 492+71

BORING NO. 1 W. Abut.
Station 492+23
Offset 13.0ft RT
Ground Surface Elev. 559.3 ft

Surface Water Elev. 543 ft
Stream Bed Elev. 542.5 ft

Groundwater Elev.:
▽ First Encounter 538.3 ft
▽ Upon Completion Washed ft
▼ After Plugged Hrs. ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Material
				Brown and Light Gray Moist Clayey SHALE Drilled Stiff at 37.5' *(continued)*
	7			Dark Gray Moist Poorly Indurated Clayey SHALE Interbedded with Black Lignite COAL Seams
	17	4.0	20	
-45	17	S-10		
	7			Gray Moist Poorly Indurated Clayey SHALE
	18	3.7	13	
-50	22	S-9		
	8			Gray Dry Fissile Clayey SHALE
	55		11	
-55	45			
	10			
	33		16	
499.30 -60	67			
	6"			Boring Completed

Ref. Sta. to Centerline of Ex. Structure = 492+71
Sta. Increase to East

Ref. Elev. to Chsld Square on NE Approach Slab = 558.7

-65 -70 -75 -80

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
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design firm no. 184001036
whks engineers + planners + land surveyors

USER NAME =	DESIGNED - TJZ	REVISED	
FILE NAME =	CHECKED - BRD	REVISED	
PLOT SCALE =	DRAWN - DLH	REVISED	
PLOT DATE =	CHECKED - TJZ	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 068-0513
SHEET NO. 19 OF 20 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2	MONTGOMERY	121	95
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Date 2/23/12

ROUTE IL 185 DESCRIPTION over Bayou Creek LOGGED BY M. Tappan

SECTION 108-1 LOCATION SE 1/4, SEC. 1, TWP. 7N, RNG. 3W, 3 PM

COUNTY Montgomery DRILLING METHOD HSA HAMMER TYPE 140 # AUTO

STRUCT. NO. 068-0513
Station 492+71

BORING NO. 2 E. Abut.
Station 493+19
Offset 13.0ft LT
Ground Surface Elev. 558.8 ft

Surface Water Elev. 543 ft
Stream Bed Elev. 542.5 ft

Groundwater Elev.:
▽ First Encounter 542.8 ft
▼ Upon Completion Washed ft
▼ After Plugged Hrs. ft

	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
CA-6 and CINDERS (Fill)		10		
		6		
		5		
555.80				
Brown and Gray Moist SILTY CLAY (Fill)		1		
		1	.90	21
	-5	2	B	
553.30				
Grayish Brown Very Moist LOAM (Fill)		1		
		1	.50	18
		1	S-10	
550.30				
Gray Very Moist SILTY CLAY LOAM		0		
		1	.30	25
	-10	1	B	
		0		
		0	.40	30
		1	B	
Dark Gray Very Moist SILTY CLAY LOAM		0		
		0	.40	30
	-15	2	B	
543.30				
Gray Wet LOAM ▽		0		
		0	.10	25
		0	B	
		WOH		
540.30				
Gray Fine SAND		0		
		0		
	-20	1		
Gray Fine SAND *(continued)*		0		
		0		
		1		
		2		
Gray Medium SANDY GRAVEL Washed		2		
	-25	2		
Gray Dirty Fine SAND Washed		1		
		1		
		2		
530.80				
Gray Wet LOAM Washed		0		
		0	.30	26
	-30	1	B	
526.80				
Gray Dirty Medium SANDY GRAVEL Washed		2		
		6		
	-35	13		
521.80				
Light Olive Brown and Gray Moist Poorly Indurated Clayey SHALE Washed		8		
		18	4.1	18
	-40	28	S-8	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
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File Name S:\SOILS\GINT FILES\068 MONTGOMERY\068-0513.GPJ Data Template D6TEMPLT.GDT Date Printed 7/31/14
Latitude 39:04:45SN Longitude 89:21:764W Datum NAD83 Job Number D-96-109-09

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Date 2/23/12

ROUTE IL 185 DESCRIPTION over Bayou Creek LOGGED BY M. Tappan

SECTION 108-1 LOCATION SE 1/4, SEC. 1, TWP. 7N, RNG. 3W, 3 PM

COUNTY Montgomery DRILLING METHOD HSA HAMMER TYPE 140 # AUTO

STRUCT. NO. 068-0513
Station 492+71

BORING NO. 2 E. Abut.
Station 493+19
Offset 13.0ft LT
Ground Surface Elev. 558.8 ft

Surface Water Elev. 543 ft
Stream Bed Elev. 542.5 ft

Groundwater Elev.:
▽ First Encounter 542.8 ft
▼ Upon Completion Washed ft
▼ After Plugged Hrs. ft

	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Light Olive Brown and Gray Moist Poorly Indurated Clayey SHALE *(continued)*				
Dark Gray Dry Fissile Clayey SHALE with 3" Black Lignite COAL Seam		15		
		43		12
	-45	57		
		4"		
		7		
		22		19
Gray Dry Fissile Clayey SHALE	508.80 -50	78		
		6"		
Boring Completed				
Ref. Sta. to Centerline of Ex. Structure = 492+71 Sta. Increase to East				
Ref. Elev. to Chsld Square on NE Approach Slab = 558.7				
	-55			
	-60			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
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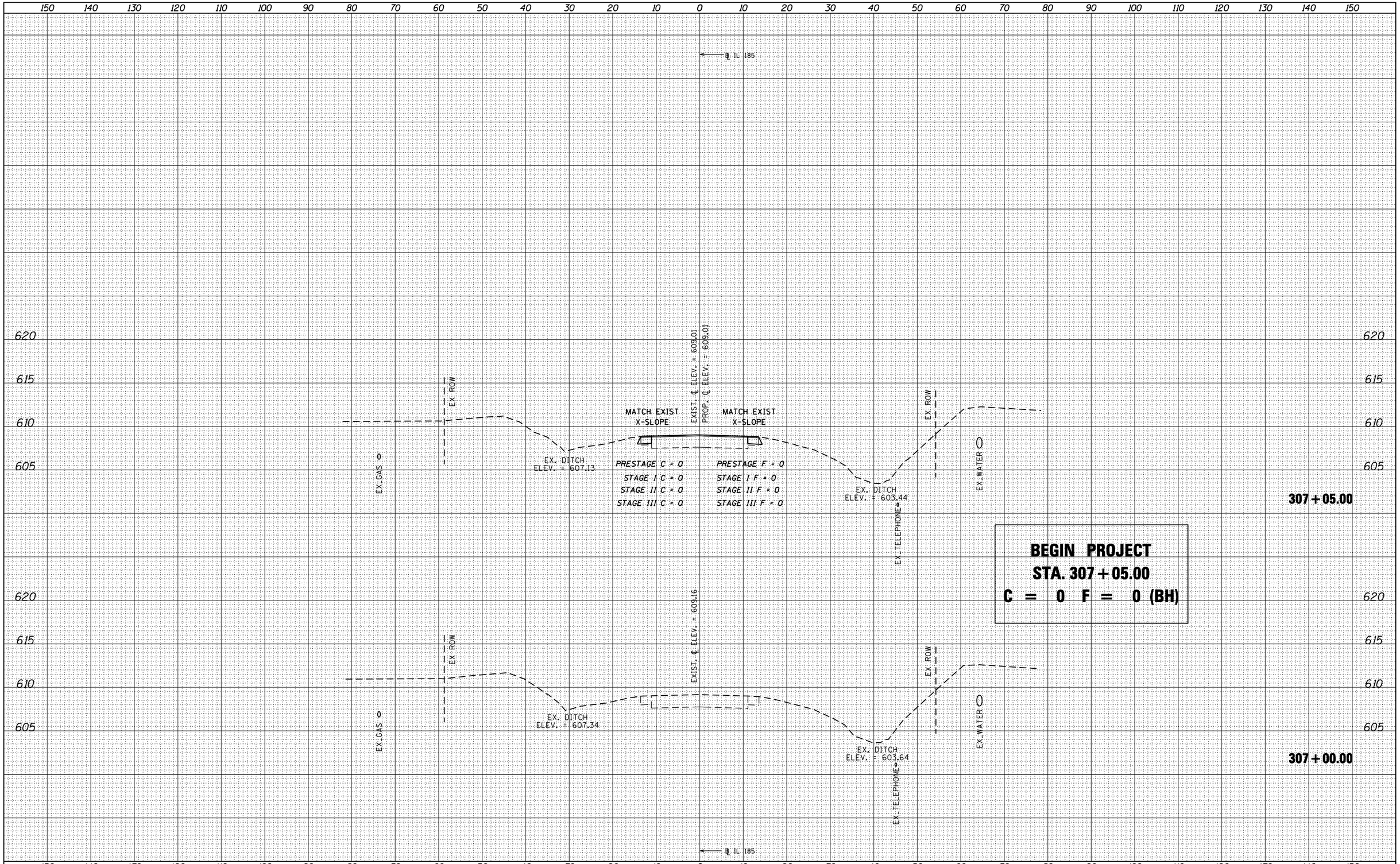
Latitude 39:04:45SN Longitude 89:21:764W Datum NAD83 Job Number D-96-109-09

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

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



design firm no. 184001036 whks engineers + planners + land surveyors	USER NAME = gjameson	DESIGNED -	REVISED
	FILE NAME = D672D08-SN0680026-SHT-XSECS.dgn	CHECKED -	REVISED
	PLOT SCALE = 20.0000 ' / IN.	DRAWN -	REVISED
	PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

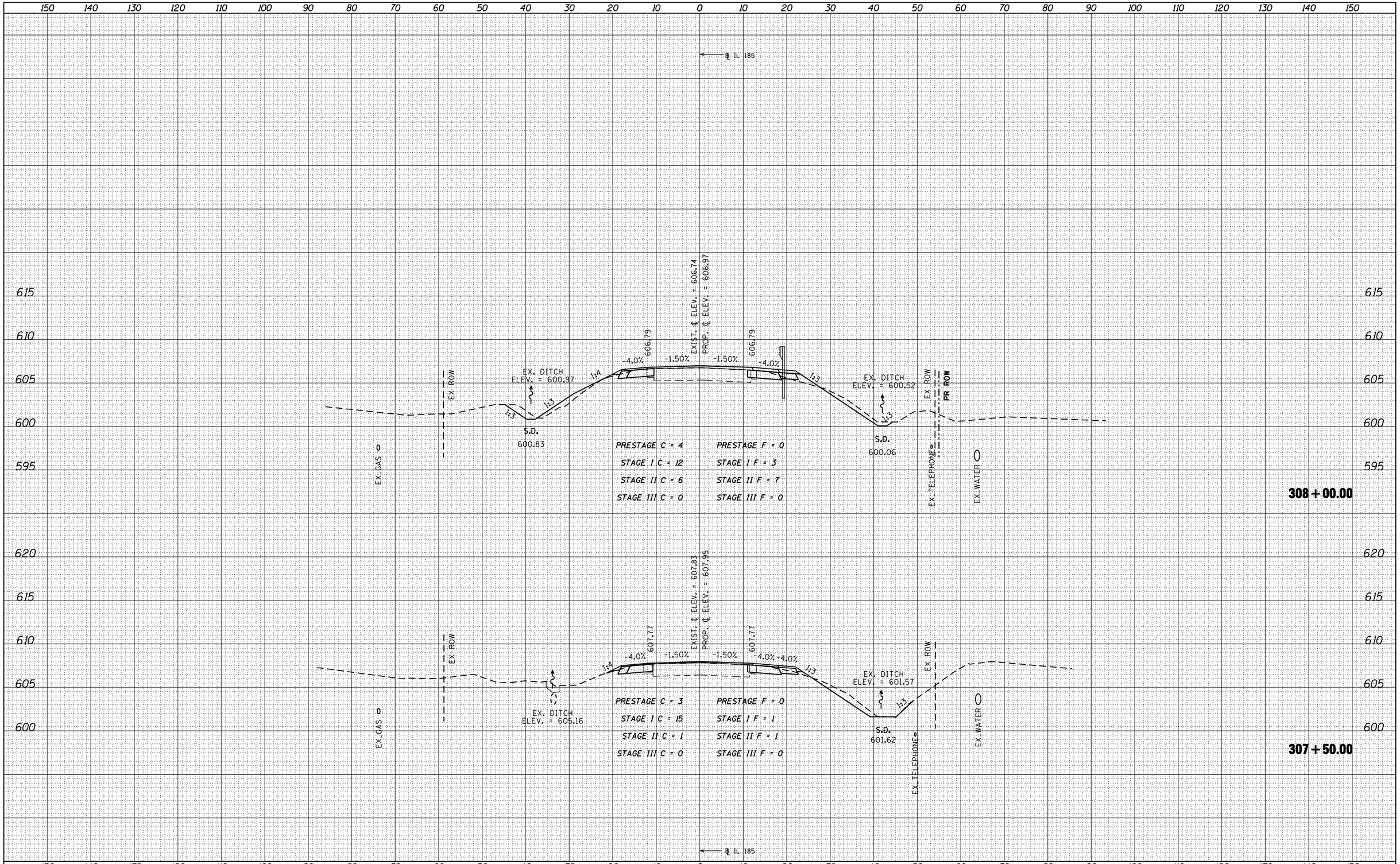
CROSS SECTIONS
IL 185 OVER MCDAVID BRANCH

SCALE: 1" = 10' | SHEET 1 OF 9 SHEETS | STA. 307+00.00 TO STA. 307+05.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	97
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		

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

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



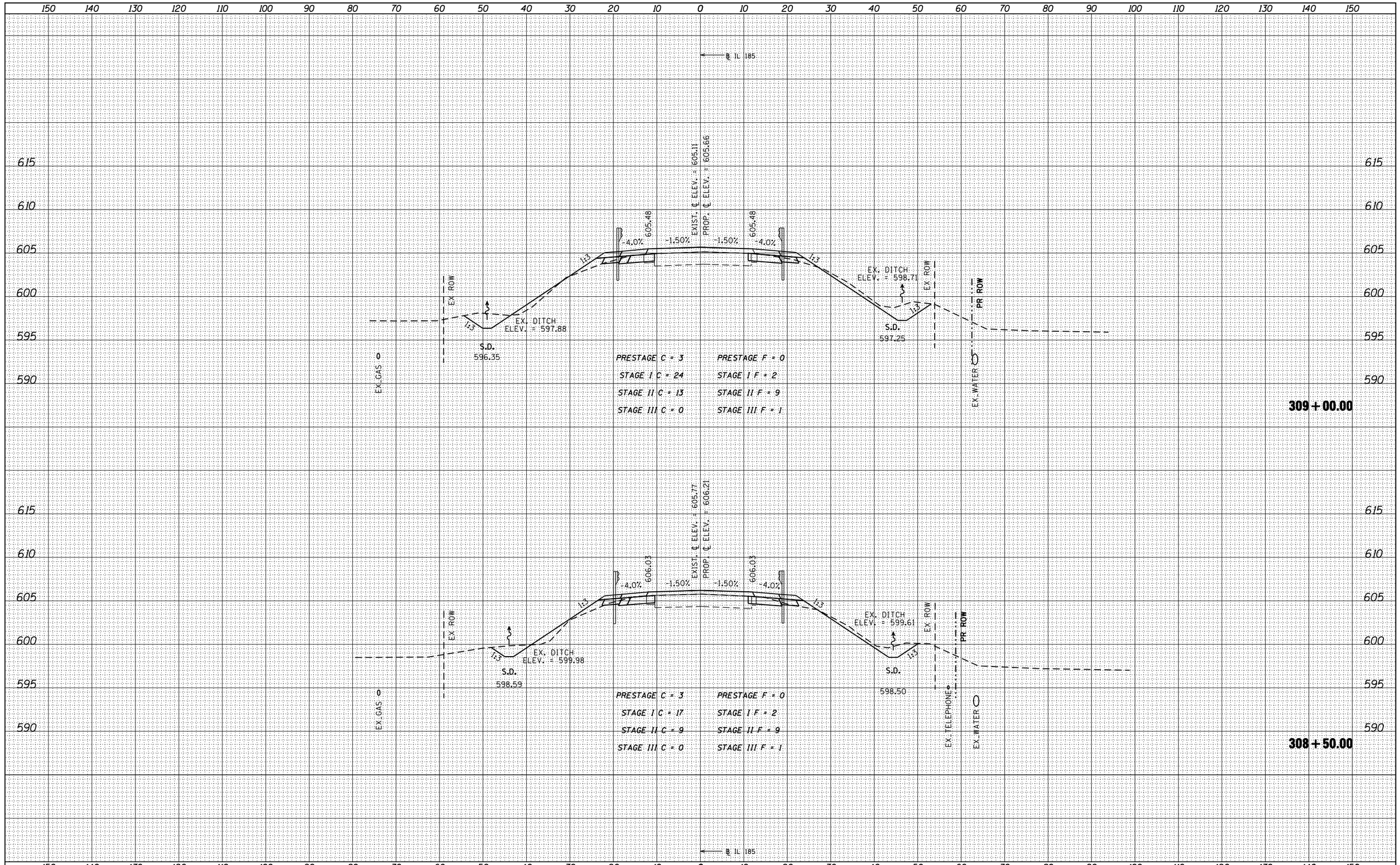
design firm no. 184001036 whks engineers + planners + land surveyors	USER NAME = gjameson	DESIGNED -	REVISED
	FILE NAME = D672D08-SN0680026-SHT-XSECS.dgn	CHECKED -	REVISED
	PLOT SCALE = 20.0000 ' / IN.	DRAWN -	REVISED
	PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 185 OVER MCDAVID BRANCH

SCALE: 1" = 10' | SHEET 2 OF 9 SHEETS | STA. 307+50.00 TO STA. 308+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	98
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY

NOTE BOOK	BY	DATE
NO.		

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY

NOTE BOOK	BY	DATE
NO.		

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

design firm no. 184001036

whks
engineers + planners + land surveyors

USER NAME = gjameson	DESIGNED -	REVISED
FILE NAME = D672D08-SN0680026-SHT-XSECS.dgn	CHECKED -	REVISED
PLOT SCALE = 20.0000 ' / IN.	DRAWN -	REVISED
PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 185 OVER MCDAVID BRANCH

SCALE: 1" = 10' | SHEET 3 OF 9 SHEETS | STA. 308+50.00 TO STA. 309+00.00

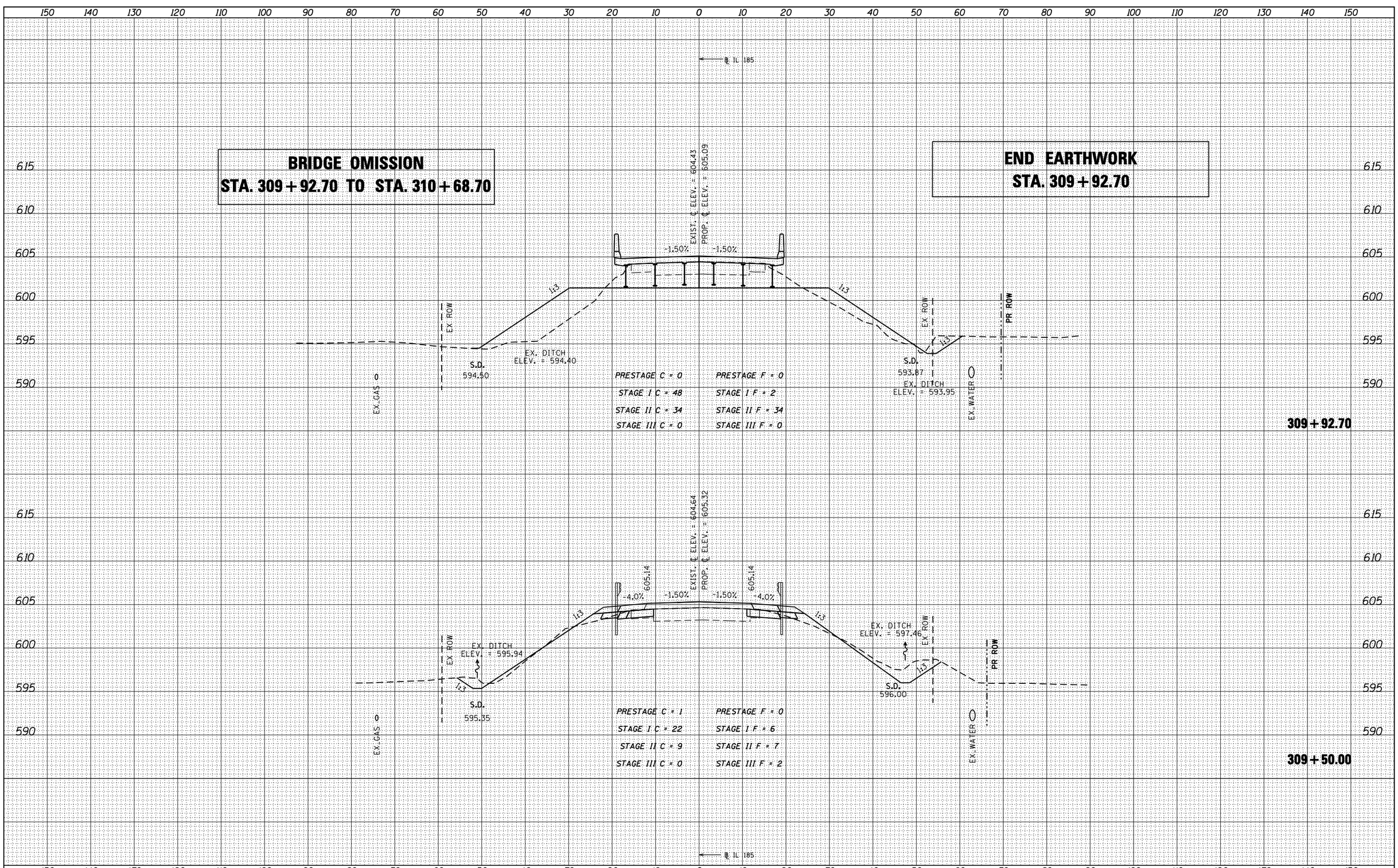
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	99
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		

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

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

BRIDGE OMISSION
STA. 309+92.70 TO STA. 310+68.70

END EARTHWORK
STA. 309+92.70



design firm no. 184001036 whks engineers + planners + land surveyors	USER NAME = gjameson	DESIGNED -	REVISED
	FILE NAME = D672D08-SN0680026-SHT-XSECTS.dgn	CHECKED -	REVISED
	PLOT SCALE = 20.0000 ' / IN.	DRAWN -	REVISED
	PLOT DATE = 10/15/2015	CHECKED -	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 185 OVER MCDAVID BRANCH

SCALE: 1" = 10' | SHEET 4 OF 9 SHEETS | STA. 309+50.00 TO STA. 309+93.70

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2, 405B-1	MONTGOMERY	121	100
		CONTRACT NO. 72D08		
	ILLINOIS	FED. AID PROJECT		