9-18-09 Letting, Item 052

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	1

CONTRACT NO. 62539
D-91-358-02

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

F.A.U. 2843 – DIXIE HIGHWAY OVER BUTTERFIELD CREEK BRIDGE REPLACEMENT SECTION 3249B-R COOK COUNTY C-91-358-02

PROJECT NO. BRM-2843(007)

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT IS LOCATED IN:
VILLAGE OF FLOSSMOOR

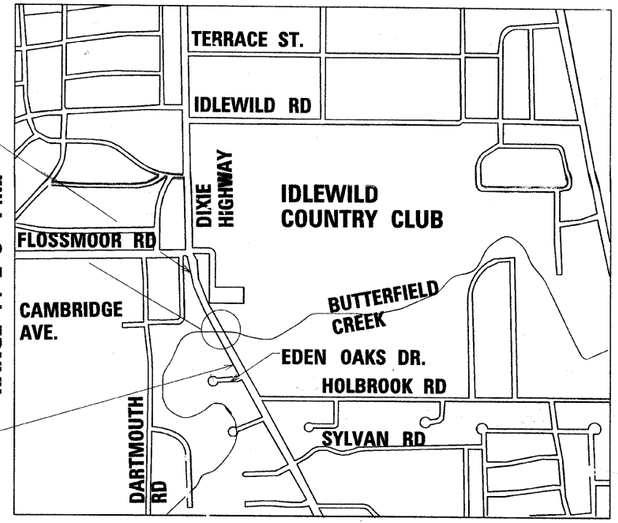
LOCATION OF SECTION INDICATED THUS: –

DESIGN DESIGNATION:
2160(15) URBAN ARTERIAL 1.59 (FD-20)
TRAFFIC DATA
DIXIE HIGHWAY
DESIGN SPEED = 45 MPH
POSTED SPEED = 40 MPH
DHV 14,000 (2000)
ADT 21,572 (2020)

END PROJECT
STA. 84+25

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
STA. 78+55
STRUCTURE #016-0775 (EXISTING)
STRUCTURE #016-7946 (PROPOSED)
LENGTH = 165'-8"
BRIDGE REPLACEMENT
NEW APPROACH ROADWAY
WATERMAIN AND SANITARY SEWER WORK
RETAINING WALL NO. 016-W962 (PROPOSED)
LENGTH = 97'-0"

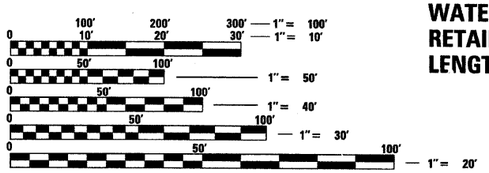
BEGIN PROJECT
STA. 73+50



BLOOM TOWNSHIP T. 35 N

LOCATION MAP
SCALE: 1" = 750'

GROSS & NET LENGTH OF PROJECT = 1075 FEET (0.20 MILE)



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

CONTRACT NO. 62539

DESIGN CONSULTANT SERVICES PROJECT MANAGER - BRIAN KUTTAB (847)705-4431

N

STATE OF ILLINOIS
MOHSEN W. FARAHANY
62-43875
REGISTERED PROFESSIONAL ENGINEER

Mohsen Farahany
Licensed Professional Engineer
State of Illinois
Lic. No. 62-43875
Expires: 11-30-2009
Pages: 1-13, 21, 49, 60-64

STATE OF ILLINOIS
MOHSEN W. FARAHANY
81-5131
REGISTERED STRUCTURAL ENGINEER

Mohsen Farahany
Licensed Structural Engineer
State of Illinois
Lic. No. 81-5131
Expires: 11-30-2010
Pages: 22-48

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200 S. Michigan Ave, Suite 1500 Chicago IL 60604-2482
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED June 24 20 09
Dian O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
August 14, 2009
Charles J. Ingersoll
ENGINEER OF DESIGN AND ENVIRONMENT
August 14, 2009
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	2
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62539

INDEX OF SHEETS

HIGHWAY STANDARDS

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT REBARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-04	TEMPORARY EROSION CONTROL SYSTEMS
353001-04	PCC BASE COURSE WITH HMA CONCRETE BINDER AND SURFACE COURCES
420001-07	PAVEMENT JOINTS
442201-03	CLASS C AND D PATCHES
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-03	NAME PLATE FOR BRIDGES
542301-02	PRECAST REINFORCED CONCRETE FLARED END SECTION
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
609001-04	BRIDGE APPROACH SHOULDER PAVEMENT AND DRAIN
609006-04	BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
630001-08	STEEL PLATE BEAM GUARDRAIL
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
631031-07	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 4.5m (15') AWAY
701006-03	OFF-ROAD OPERATIONS, 2L, 2W, 4.5m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701301-03	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701606-06	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
~~702001~~ 701901-01	TRAFFIC CONTROL DEVICES
704001-05	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS

GENERAL NOTES

1. ALL SAWCUTTING SHALL BE CONSIDERED INCLUDED IN THE COST OF THE REMOVAL ITEMS INVOLVED.
2. BEFORE STARTING ANY EXCAVATION THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF ALL BURIED FACILITIES INCLUDING ELECTRICAL, TELEPHONE, AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED)
3. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ASSURE THAT NO DEBRIS FALLS IN THE CREEK. COST OF THIS WORK SHALL BE INCLUDED AS PART OF REMOVAL OF EXISTING STRUCTURE.
4. CONTRACTOR IS FULLY RESPONSIBLE FOR PROVIDING ANY DIVERSION OF CREEK AND PROTECTION OF CREEK AS NEEDED TO FACILITATE REMOVAL OF EXISTING STRUCTURES. SUCH TEMPORARY MEASURES ARE SUBJECT TO THE APPROVAL OF ENGINEER, DEPARTMENT OF NATURAL RESOURCES AND ARMY CORP OF ENGINEERS. THE COST OF SUCH TEMPORARY MEASURES SHALL BE CONSIDERED INCLUDED IN THE UNIT COST OF THE REMOVAL OF EXISTING STRUCTURES.
5. THE ENGINEER SHALL CONTACT THE AREA TRAFFIC FIELD TECHNICIAN, MS. PATRICE HARRIS, AT 708-597-9800 TWO WEEKS PRIOR TO PLACING PERMANENT PAVEMENT MARKINGS
6. WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 40 mm (1-1/2") WHERE THE SPEED LIMIT IS 80 KM/H (45 MPH) OR LESS THAN 25 mm (1 INCH) WHERE THE SPEED LIMIT IS GREATER THAN 80 KM/H (45 MPH). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 75 mm (3 INCHES) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H)
7. BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
8. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ALL UTILITY COMPANIES AND LOCAL AGENCIES IN THE VILLAGE OF FLOSSMOOR.
9. ~~THE HMA MATERIAL PRIME COAT QUANTITIES HAVE BEEN DETERMINED USING A RATE OF 0.44 GAL/SQ YD.~~
10. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE OWNED PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
11. BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SANDBAGS ON EACH TYPE I OR TYPE II BARRICADE USED-ONE(1) WEIGHTED SANDBAG ACROSS EACH BOTTOM RAIL.
12. WHERE ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.
13. ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.
14. PROTECT EXISTING VEGETATION TO REMAIN BY PLACING TEMPORARY FENCING TO PREVENT ACCESS TO THE VEGETATED AREA. TEMPORARY FENCE SHOULD BE ERECTED ALONG THE DRIPLINE OF THE TREES DESIGNATED TO REMAIN WITHIN THE CONSTRUCTION AREA OR ALONG THE LIMIT OF CONSTRUCTION IN ORDER TO PROTECT AGAINST THE MANEUVERING OF MACHINERY OR STOCKPILING OF MATERIAL WITHIN THE ROOT ZONE OF THE TREES TO REMAIN.
15. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ENTRANCES SERVICING ADJACENT PROPERTIES AT ALL TIMES DURING CONSTRUCTION
16. IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 107.20 OF THE STANDARD SPECIFICATIONS FOR PROTECTION AND RESTORATION OF PROPERTY, THE CONTRACTOR SHALL DOCUMENT THE EXISTING PRE-CONSTRUCTION CONDITIONS OF ALL ADJACENT PROPERTIES NEAR THE BRIDGE AS WELL AS THE CREEK CHANNEL USING VIDEOTAPE AND/OR PICTURES. THIS WORK REFERS TO BUT NOT LIMITED TO THE ADJACENT GOLF COURSE PARKING LOT, THE EXISTING TREES ALONG THE SLOPES, THE PEDESTRIAN GOLF BRIDGE AND ANY OTHER APPURTENANCES/PROPERTIES WHICH MAY HAVE POTENTIAL FOR DAMAGES AS A RESULT OF THE BRIDGE/ROADWAY RECONSTRUCTION PROJECT. THE POST-CONSTRUCTION CONDITIONS FOR THE PROPERTIES INVOLVED ALSO NEED TO BE DOCUMENTED UPON COMPLETION OF THE PROJECT. TWO COPIES OF THE DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER UPON THE PROJECT COMPLETION.

    THE COST FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE COST OF THE BRIDGE REMOVAL PAY ITEM AND WILL NOT BE PAID FOR SEPARATELY.
17. CONTRACTOR TO COORDINATE REMOVAL AND REPLACEMENT WITH THE VILLAGE OF FLOSSMOOR. PLEASE CONTACT _____ AT (708)672-4994.
18. SLIP FORMING OF THE PARAPRTS IS NOT ALLOWED.
19.

COMMITMENTS: NONE

RME Rubinos & Mesia Engineers, Inc.
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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HIGHWAY
OVER BUTTERFIELD CREEK

INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES AND COMMITMENTS

SCALE: VERT. NONE HORIZ.
DATE 6-26-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

SUMMARY OF QUANTITIES

LOCATION OF WORK: DIXIE HIGHWAY OVER BUTTERFIELD CREEK
COUNTY

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	3
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62539

CODE NO.	ITEM	UNIT	URBAN TOTAL QTY	80% FED/20% STATE CONSTRUCTION TYPE FUND CODE ROADWAY I000-2A	BRIDGE X071-2A	RET-WALL Y007	Y060 FLOSSMOOR VILLAGE-100%
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	461	301			160
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	577	477			100
20101000	TEMPORARY FENCE	FOOT	250	250			
20101100	TREE TRUNK PROTECTION	EACH	50	50			
20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	25	25			
20200100	EARTH EXCAVATION	CU YD	666	666			
20300100	CHANNEL EXCAVATION	CU YD	4000	4000			
20400800	FURNISHED EXCAVATION	CU YD	4135	4135			
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	450		270	180	
20800150	TRENCH BACKFILL	CU YD	442	217			225
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	7100	6700			400
25000210	SEEDING, CLASS 2A	ACRE	0.75	0.50			0.25
25000310	SEEDING, CLASS 4	ACRE	1.00	1.00			
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	50	50			
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	50	50			
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	50	50			
25100630	EROSION CONTROL BLANKET	SQ YD	6460	5250			1210
25200110	SODDING, SALT TOLERANT	SQ YD	1141	1141			
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	125	125			
28000300	TEMPORARY DITCH CHECKS	EACH	12	12			
28000400	PERIMETER EROSION BARRIER	FOOT	2175	1975			200
28000510	INLET FILTERS	EACH	2	2			
28100107	STONE RIPRAP, CLASS A4	SQ YD	1900		1900		
28200200	FILTER FABRIC	SQ YD	2150		2150		
35501308	HOT-MIX ASPHALT BASE COURSE, 6"	SQ YD	105	105			
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	30	30			
40600300	AGGREGATE (PRIME COAT)	TON	10	10			
40600895	CONSTRUCTING TEST STRIP	EACH	2	2			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT	SQ YD	222	222			
40701941	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 13"	SQ YD	4725	4725			
42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	350	350			
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	70	70			
44000100	PAVEMENT REMOVAL	SQ YD	4685	4685			

CODE NO.	ITEM	UNIT	URBAN TOTAL QTY	80% FED/20% STATE CONSTRUCTION TYPE FUND CODE ROADWAY I000-2A	BRIDGE X071-2A	RET-WALL Y007	FLOSSMOOR VILLAGE-100% Y060
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	150	150			
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	26	26			
44000700	APPROACH SLAB REMOVAL	SQ YD	303	303			
44004250	PAVED SHOULDER REMOVAL	SQ YD	340	340			
44201717	CLASS D PATCHES, TYPE II, 6 INCH	SQ YD	20	10			10
44201713	CLASS D PATCHES, TYPE I, 6 INCH	SQ YD	15	15			
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	201	201			
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1		
50200100	STRUCTURE EXCAVATION	CU YD	360		80	280	
50300100	FLOOR DRAINS	EACH	10		10		
50300225	CONCRETE STRUCTURES	CU YD	508		362	146	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	300		300		
50300260	BRIDGE DECK GROOVING	SQ YD	900		900		
50300280	CONCRETE ENCASEMENT	CU YD	20		20		
50300300	PROTECTIVE COAT	SQ YD	1300	180	1070	50	
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1		
50500505	STUD SHEAR CONNECTORS	EACH	6072		6072		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	136340		120540	15800	
50800515	BAR SPLICERS	EACH	792		792		
51201610	FURNISHING STEEL PILES HP12x63	FOOT	1560			1560	
51201700	FURNISHING STEEL PILES HP12x74	FOOT	2550		2550		
51202305	DRIVING PILES	FOOT	4110		2550	1560	
51203610	TEST PILE STEEL HP12x63	EACH	1			1	
51203700	TEST PILE STEEL HP12x74	EACH	4		4		
51204650	PILE SHOES	EACH	95		56	39	
51205200	TEMPORARY SHEET PILING	SQ FT	6600		6600		
51500100	NAME PLATES	EACH	1		1		
52100520	ANCHOR BOLTS, 1"	EACH	64		64		
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	1	1			
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	1	1			
55023800	STORM SEWERS, TYPE 3, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS IV 15"	FOOT	45	45			

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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HIGHWAY
OVER BUTTERFIELD CREEK

SUMMARY OF QUANTITIES
(1 OF 2)

SCALE: VERT. NONE
HORIZ.
DATE 6-25-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

SUMMARY OF QUANTITIES

80% FED./20% STATE

	CODE NO.	ITEM	UNIT	URBAN TOTAL QTY	CONSTRUCTION TYPE FUND CODE ROADWAY I000-2A	BRIDGE X071-2A	RET-WALL Y007	YOGO FLOSSMOOR VILLAGE-100%
	55019900	STORM SEWERS, TYPE 1, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS IV 24"	FOOT	285	285			
***	55039700	STORM SEWERS TO BE CLEANED	FOOT	330	330			
	56104000	DUCTILE IRON WATER MAIN, MECHANICAL JOINT 10"	FOOT	410				410
	56109000	TAPPING VALVES AND SLEEVES 10"	EACH	2				2
	56400820	FIRE HYDRANT WITH AUXILARY VALVE AND VALVE BOX	EACH	2				2
	56400500	FIRE HYDRANTS TO BE REMOVED	EACH	2				2
	58700300	CONCRETE SEALER	SQ FT	3480		3480		
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	335		180	155	
	60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	330		220	110	
	60107700	PIPE UNDERDRAINS 6"	FOOT	110	110			
	60228110	MANHOLES, SANITARY, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	4				4
	60248900	VALVE VAULTS, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2				2
	60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	8	8			
	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	5	5			
	60614600	PAVED DITCH (SPECIAL)	FOOT	400	400			
*	63000003	STEEL PLATE BEAM GUARD RAIL, TYPE A, 9' POSTS	FOOT	312	312			
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4			
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4			
	63200310	GUARD RAIL REMOVAL	FOOT	412	412			
	66400305	CHIAN LINK FENCE, 6'	FOOT	180		180		
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12			
	67100100	MOBILIZATION	L SUM	1	0.5	0.5		
	70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	0.5	0.4	0.1	
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	50	50			
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	2100	2100			
*	78000200	THERMOPLASTIC PAVEMENT MARKING- LINE 4"	FOOT	3816	3816			
*	78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	1022	1022			
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	88	88			
*	78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	24	24			
*	78200200	BIDIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	50	50			
*	78200405	GUARDRAIL MARKERS	EACH	43	43			

80% FED./20% STATE

	CODE NO.	ITEM	UNIT	URBAN TOTAL QTY	CONSTRUCTION TYPE FUND CODE ROADWAY I000-2A	BRIDGE X071-2A	RET-WALL Y007	YOGO FLOSSMOOR VILLAGE-100%
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4			
	78300105	PAVEMENT MARKING REMOVAL	FOOT	1344	1344			
*	81200120	CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	692		692		
*	81301110	JUNCTION BOX EMBEDDED IN STRUCTURE, STAINLESS STEEL, 12"x8"x6"	EACH	4		4		
	X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	500	500			
	X0322671	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	600	600			
	X0326243	SEDIMENT CONTROL, SILT CURTAIN	L SUM	1	1			
	X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	3400		3400		
	X0325775	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH	FOOT	14258	14258			
	X0325837	WET REFLECTIVE TEMPORARY TAPE, TAPE III, 6 INCH	FOOT	321	321			
	X0325841	WET REFLECTIVE TEMPORARY TAPE, TAPE III, 24 INCH	FOOT	144	144			
	X0325842	WET REFLECTIVE TEMPORARY TAPE, TYPE III, LETTERS AND SYMBOLS	SQ FT	731	731			
	X0426200	DEWATERING	L SUM	1				1
	X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	1	1			
	X4023000	TEMPORARY ACCESS (ROAD)	EACH	1	1			
	X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION-LOCATION 1	EACH	1		1		
	X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION-LOCATION 2	EACH	1		1		
	XX004782	TEMPORARY BITUMINOUS PAVEMENT	SQ YD	779	779			
***	XX005656	INLET FILTER CLEANING	EACH	2	2			
	XX007864	SANITARY SEWER, DUCTILE IRON 8"	FOOT	221				221
	Z0001050	AGGREGATE SUBGRADE 12"	SQ YD	5200	5200			
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1			
***	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	4	4			
	Z0022800	FENCE REMOVAL	FOOT	120	120			
	Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2			
	Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2			
	X0326673	CASING PIPE TO BE JACKED AND BORED IN PLACE - 16"	FOOT	110				110
⊙	Z0076600	TRAINEES	HOUR	1000		1000		
	X0326674	CASING PIPE TO BE JACKED AND BORED IN PLACE - 20"	FOOT	55				55

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	4
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62539

* SPECIALTY ITEM

⊙ YOGO

*** NON PARTICIPATING ITEM

RME Rubinos & Mesia Engineers, Inc.
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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HIGHWAY OVER BUTTERFIELD CREEK
SUMMARY OF QUANTITIES (2 OF 2)

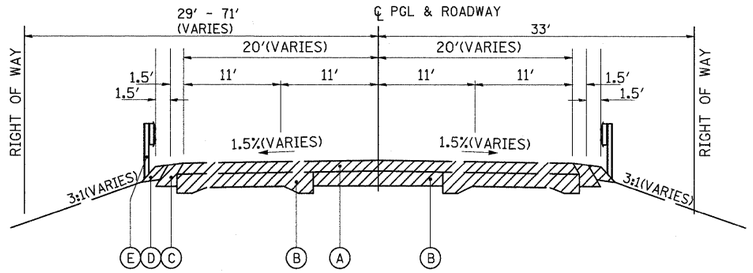
SCALE: VERT. NONE HORIZ.
DATE 6-25-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

Rev.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	5
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

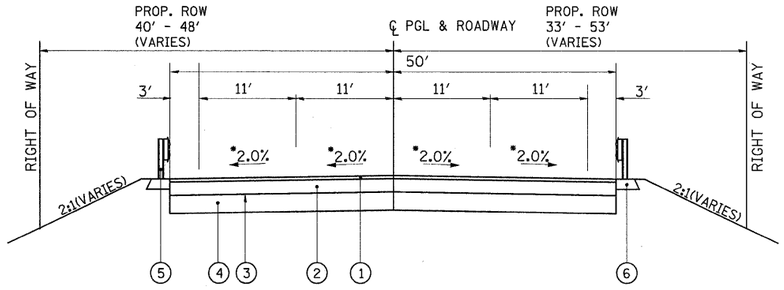
CONTRACT NO. 62539



REMOVAL ITEM

EXISTING ROADWAY - DIXIE HIGHWAY

Sta. 73+50 to Sta. 77+97
Sta. 79+15 to Sta. 84+25
BRIDGE LIMITS
(78+28 to 78+84)



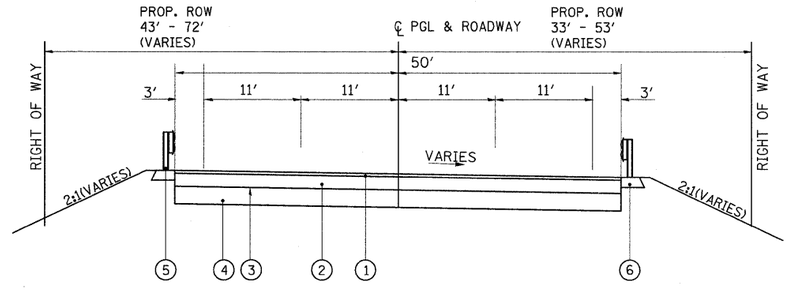
• TRANSITIONS TO SUPERELEVATION

PROPOSED ROADWAY - DIXIE HIGHWAY

Sta. 73+50 to Sta. 77+42

SUPERELEVATION CHART

SUPERELEVATION RATE: e=3.29%
SUPERELEVATION RUNOFF: L=196.80'
TANGENT RUNOUT: TR=80.08'
BEGIN SUPERELEVATION TRANSITION: STA. 75+30.23
TANGENT RUNOUT: STA. 76+10.31
FULL SUPERELEVATION: STA. 80+32.77



PROPOSED ROADWAY - DIXIE HIGHWAY

Sta. 79+68 to Sta. 84+25

EXISTING LEGEND

(A) EXISTING HMA PAVEMENT, 2 1/4" (+-)
(B) EXISTING P.C.C. BASE COURSE, 9" (+-)
(C) EXISTING HMA SHOULDER, 8" (+-)
(D) EXISTING AGGREGATE SHOULDER
(E) EXISTING STEEL PLATE BEAM GUARDRAIL

PROPOSED LEGEND

(1) HOT-MIX ASPHALT SURFACE COURSE, MIX D, N 70, (IL-9.5mm), 2""
(2) HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N 70, 11"
(3) AGGREGATE MATERIALS (PRIME COAT)
(4) PROPOSED AGGREGATE SUBGRADE, 12"
(5) PROPOSED STEEL PLATE BEAM GUARDRAIL, TYPE A
(6) HMA SHOULDERS, 8"

HMA MIXTURE REQUIREMENTS		
PAY ITEM	AC TYPE	VOIDS
FULL DEPTH PAVEMENT, 13"		
HOT-MIX ASPHALT SURFACE COURSE, MIX D, N 70, (IL-9.5mm), 2"	PG 64 -22	4% @ 70 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N 70, 11"	PG 64 -22	4% @ 70 GYR
TEMPORARY HMA PAVEMENT, 10"		
HOT-MIX ASPHALT SURFACE COURSE, MIX D, N 70,(IL-9.5mm), 1.5"	PG 64 -22	4% @ 70 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N 70, 8.5"	PG 64 -22	4% @ 70 GYR
DRIVEWAYS		
HMA BASE COURSE (HMA BINDER IL-19 mm), 6"	PG 58-22	2% @ 50 GYR
HOT-MIX ASPHALT SURFACE COURSE, MIX D, N 70, (IL-9.5mm), 2"*	PG 64-22	4% @ 70 GYR
CLASS D PATCHES		
CLASS D PATCH (HMA BINDER IL-19 mm), 6"	PG 64-22	4% @ 70 GYR
HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19 mm)	PG 64-22	4% @ 70 GYR
SHOULDERS		
HMA SHOULDER, 8"	PG 58-22	2% @ 30 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIX QUANTITIES IS 112 lbs / sq yd / in.

*DUE TO THE MINIMAL AMOUNT OF DRIVEWAY SURFACE NEEDED, PAVEMENT SURFACE COURSE TO BE USED.

STRUCTURAL DESIGN TRAFFIC: Year 2015

PV = 19,052 SU = 595 MU = 198

ROAD / STREET CLASSIFICATION: Class 1

PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:

P = 32% S = 45% M = 45%

TRAFFIC FACTOR: Actual TF = 1.59 AC Type = 10

Minimum TF = 0.59

AC GRADE:
Binder = IL - 19, N70 Surface = Mix " D ", N70

SUBGRADE SUPPORT RATING:

SSR = (Sta. to)
SSR = (Sta. to)

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Ave, Suite 1500 Chicago IL 60604-2482
T> 312 870 6800 F> 312 663 1473

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HIGHWAY
OVER BUTTERFIELD CREEK

TYPICAL SECTIONS
(ROADWAY)

SCALE: VERT. HORIZ. NONE
DATE 7-2-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	6
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62539

LOCATION STATION TO STATION		EARTH EXCAVATION (CU FT)		TOTAL SUITABLE EXCAVATION (CU FT)		EXCAVATION TO BE USED IN EMBANKMENT (ADJ. FOR SHRINKAGE) 15% (CU FT)		EMBANKMENT (CU FT)		EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU FT)	
		STAGE I	STAGE II	STAGE I	STAGE II	STAGE I	STAGE II	STAGE I	STAGE II	STAGE I	STAGE II
73+50	74+00	2013.75	2013.75	2013.75	2013.75	1711.69	1711.69	10.15	10.15	1701.54	1701.54
74+00	75+00	2684.25	2684.25	2684.25	2684.25	2281.61	2281.61	144	144	2137.61	2137.61
75+00	75+27	181.65	181.65	181.65	181.65	154.40	154.40	503	503	348.60	348.60
75+27	76+00	0	0	0	0	0	0	3876.30	3876.30	3876.30	3876.30
76+00	76+66	0	0	0	0	0	0	7101.25	7101.25	7101.25	7101.25
76+66	77+00	0	0	0	0	0	0	5809.40	5809.40	5809.40	5809.40
77+00	77+35	0	0	0	0	0	0	7740.35	7740.35	7740.35	7740.35
77+35	77+65	0	0	0	0	0	0	5781.40	5781.40	5781.40	5781.40
BRIDGE OMISSION (STA. 77+72 to STA. 79+38)											
79+45	79+75	38.50	38.50	38.50	38.50	32.73	32.73	4432.75	4432.75	4400.02	4400.02
79+75	80+00	69.75	69.75	69.75	69.75	59.29	59.29	4437.00	4437.00	4377.71	4377.71
80+00	81+00	195.75	195.75	195.75	195.75	166.39	166.39	12676.50	12676.50	12510.11	12510.11
81+00	82+00	0	0	0	0	0	0	7029.00	7029.00	7029.00	7029.00
82+00	83+00	778.50	778.50	778.50	778.50	661.73	661.73	2463.75	2463.75	1802.02	1802.02
83+00	84+00	2261.25	2261.25	2261.25	2261.25	1922.06	1922.06	258.75	258.75	1663.31	1663.31
84+00	84+25	758.25	758.25	758.25	758.25	644.51	644.51	18.00	18.00	626.51	626.51
TOTALS		8981.65	8981.65	8981.65	8981.65	7634.41	7634.41	62281.60	62281.60	-54647.19	-54647.19

	STAGE I	STAGE II	TOTAL
EARTH EXCAVATION	8981.65	8981.65	17963.30 Cu Ft
FURNISHED EXCAVATION	55819.84	55819.84	111639.68 Cu Ft

R M E Rubinos & Mesia Engineers, Inc.
200 S. Michigan Ave, Suite 1500 Chicago IL 60604-2482
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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HIGHWAY
OVER BUTTERFIELD CREEK

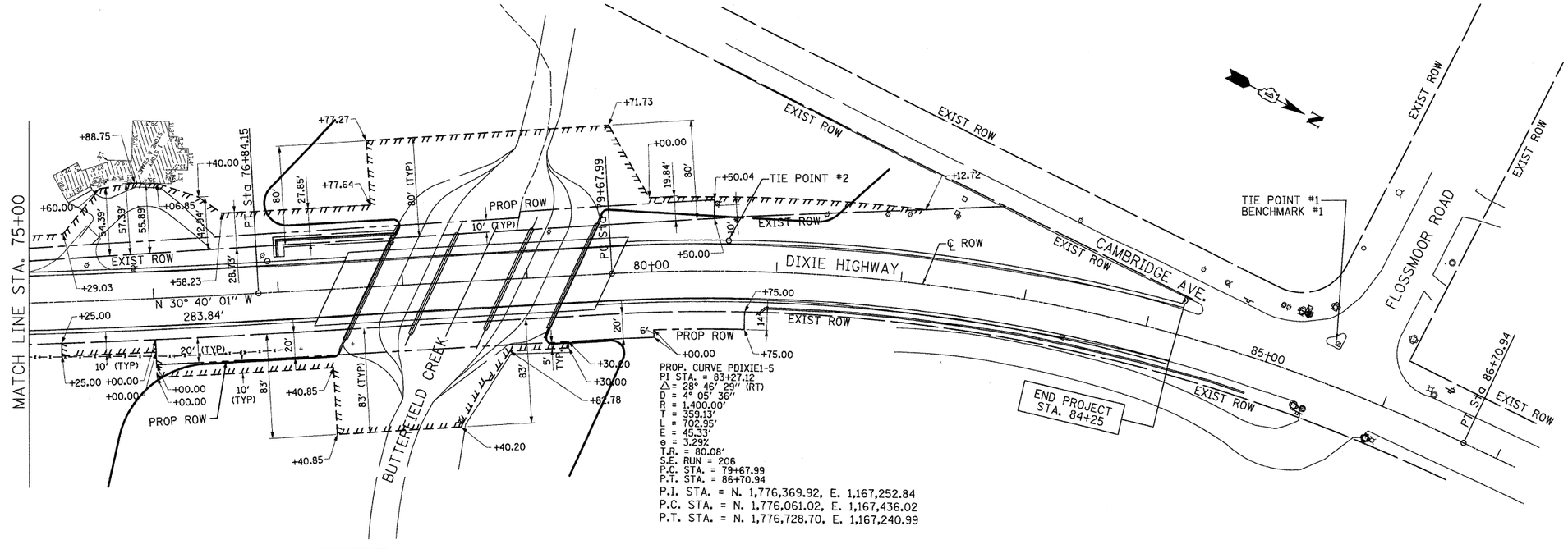
SCHEDULE OF QUANTITIES
EARTHWORK

SCALE: VERT. NONE
HORIZ.
DATE 6-25-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

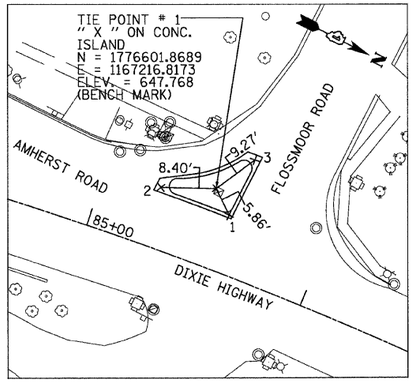
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	7
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62539



PROP. CURVE PDIXIE1-5
PI STA. = 83+27.12
△= 28° 46' 29" (RT)
D = 4° 05' 36"
R = 1,400.00'
T = 359.13'
L = 702.95'
E = 45.33'
e = 3.29%
T.R. = 80.08'
S.E. RUN = 206
P.C. STA. = 79+67.99
P.T. STA. = 86+70.94

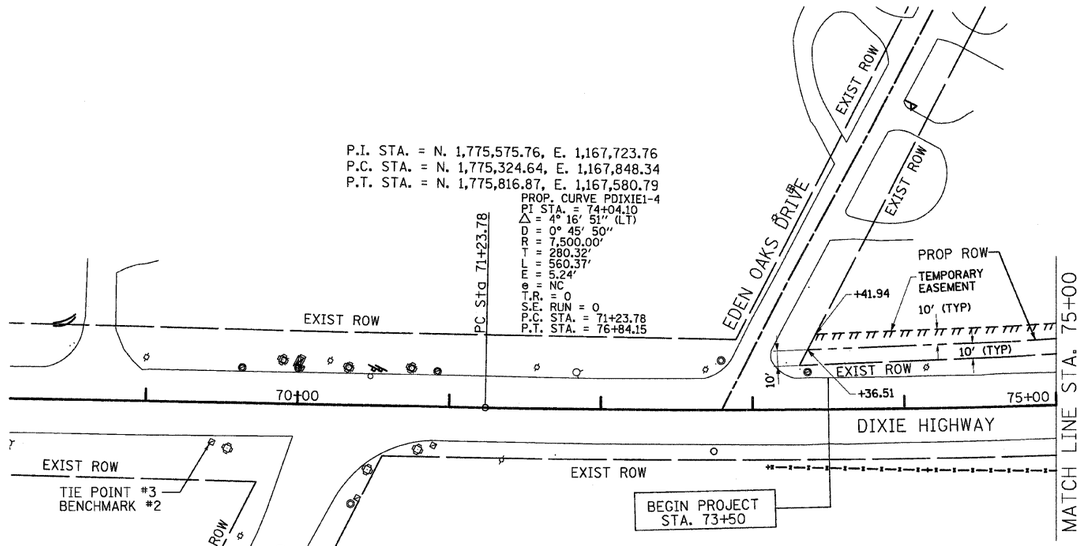
P.I. STA. = N. 1,776,369.92, E. 1,167,252.84
P.C. STA. = N. 1,776,061.02, E. 1,167,436.02
P.T. STA. = N. 1,776,728.70, E. 1,167,240.99



TIES:

1. " X " ON NORTHEAST CORNER OF CONCRETE ISLAND.
2. " X " ON SOUTHEAST CORNER OF CONCRETE ISLAND.
3. " X " ON NORTHWEST CORNER OF CONCRETE ISLAND.

TIE POINT #1 (TP1)



P.I. STA. = N. 1,775,575.76, E. 1,167,723.76
P.C. STA. = N. 1,775,324.64, E. 1,167,848.34
P.T. STA. = N. 1,775,816.87, E. 1,167,580.79

PROP. CURVE PDIXIE1-4
PI STA. = 74+04.10
△= 4° 16' 51" (LT)
D = 0° 45' 50"
R = 7,500.00'
T = 280.32'
L = 560.37'
E = 5.24'
e = NC
T.R. = 0
S.E. RUN = 0
P.C. STA. = 71+23.78
P.T. STA. = 76+84.15

NOTE:

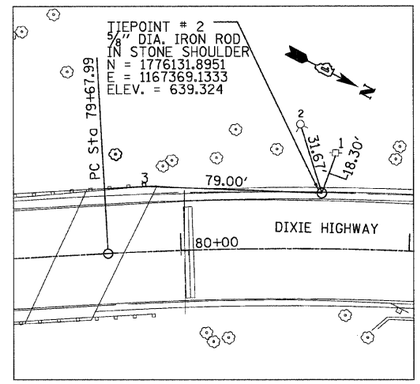
1. THE PROPOSED ALIGNMENT IS THE SAME AS THE EXISTING ALIGNMENT.

BENCH MARKS #1
ELEVATION = 647.768
" X " ON CONCRETE ISLAND AT SOUTHWEST QUADRANT OF DIXIE HIGHWAY AND FLOSSMOOR ROAD.

BENCH MARKS #2
ELEVATION = 643.918
"X" ON SOUTHWEST CORNER OF TRAFFIC HANDHOLE AT SOUTHEAST QUADRANT OF DIXIE HIGHWAY AND HOLBROOK ROAD.

NOTE:

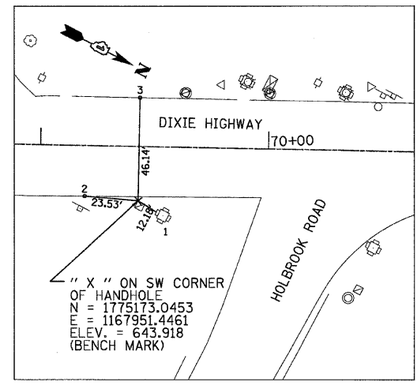
ADDITIONAL PROPOSED ROW AND TEMPORARY EASEMENTS SHOWN ON THIS PLAN ARE BASED ON THE ROW PLAT / INFORMATION DATED NOVEMBER 3RD, 2005, PROVIDED BY IDOT'S RIGHT OF WAY CONSULTANT, RUETTIGER, TONNELI AND ASSOCIATES. SINCE THE ROADWAY CENTERLINES AND THE CONTROL POINTS FROM THE ROW INFORMATION AND THE PHASE I SURVEY DID NOT COINCIDE, IN COORDINATION AND CONCURRENCE WITH RUETTIGER, TONELLI AND ASSOCIATES, RME SHIFTED THE SURVEY SO THAT THE CONTROL POINTS AND CENTERLINES WOULD COINCIDE.



TIES:

1. MAG (MAGNETIC NAIL) ON EAST FACE OF POWER POLE.
2. " X " ON EAST FLANGE BOLT OF FIRE HYDRANT.
3. MAG (MAGNETIC NAIL) ON TOP OF NORTH MOST WOOD GUARDRAIL POST.

TIE POINT #2 (TP2)



TIES:

1. " X " ON SOUTHWEST CORNER OF CONCRETE TRAFFIC SIGNAL BASE.
2. MAG (MAGNETIC NAIL) ON EDGE OF PAVEMENT.
3. MAG (MAGNETIC NAIL) ON EDGE OF PAVEMENT.

TIE POINT #3 (TP3)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HIGHWAY
OVER BUTTERFIELD CREEK

ALIGNMENT, TIES AND BENCHMARKS

SCALE: VERT. 1"=50'
HORIZ.
DATE 6-25-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Ave, Suite 1500 Chicago IL 60604-2482
T> 312 870 6600 F> 312 663 1473

PAVEMENT REMOVAL
DRIVEWAY PAVEMENT REMOVAL
REM REMOVE
REL RELOCATE

NOTE:

1) PROVIDE TEMP. FENCE PROTECTION FOR ALL TREES ALONG BOTH SIDES OF DIXIE HIGHWAY. (SEE GENERAL NOTES FOR DESCRIPTION.)

2) PRUN TREES (1" TO 10").

EDEN OAKS DRIVE
EXIST HOUSE
EXIST GARAGE
SAWCUT (TYP)
TEMP. EASEMENT
0.02 AC ON-SITE WETLANDS
REM EXIST GUARD RAILS
REM EXIST BIT DRIVEWAY
PROP ROW
EXIST ROW
DIXIE HIGHWAY
EXISTING 100-YR FLOODWAY/ FLOODPLAIN LIMITS
TEMP. EASEMENT
REM EXIST AGG SHOULDER
CAMBRIDGE AVE.
REM EXIST CURB AND GUTTER
FLOSSMOOR ROAD
20' BUTT JOINT SAWCUT
BEGIN PROJECT STA. 73+50
REM EXIST BIT PAVEMENT CONC BASE, AGG SUB-BASE STA. 73+50 TO STA. 84+25
PROVIDE TREE TRUNK PROTECTION AND TEMPORARY FENCE AROUND THIS TREE
EXISTING FENCE TO BE REMOVED (77+00 TO 78+20)
BUTTERFIELD CREEK
REM EXIST BRIDGE (158' x 57') & APPROACH SLABS (30' x 44')
EXIST RETAINING WALL TO REMAIN
END PROJECT STA. 84+25
EXIST ACCESS ROAD TO REMAIN
EXISTING

PROP. CURVE PDIXIE1-4
PI STA. = 74+04.10
Δ = 4° 16' 51" (LT)
D = 0° 45' 50"
R = 7,500.00'
T = 280.32'
L = 560.37'
E = 5.24'
e = NC
T.R. = 0
S.E. RUN = 0
P.C. STA. = 71+23.78
P.T. STA. = 76+84.15

PC Sta 71+23.78
PT Sta 76+84.15
TEMP. EASEMENT
HMA CONCRETE PAVEMENT (FULL DEPTH) TYPE 1 - 13"
PROP. 122' (TBT TY 6, SPBGR TY A, TBT TY 1-SP-TAN)
PROP. 96' RETAINING WALL
0.02 AC ON-SITE WETLANDS
BRIDGE STA. 79+37.83
BRIDGE APPROACH PAVEMENT(SPL) STA. 79+67.83
TEMP. EASEMENT
100-YR HIGH WATER ELEV. 638.3
PROP. 246' (TBT TY 6, SPBGR TY A, TBT TY 1-SP-TAN)
PROP. 5'-B6.18 CURB AND GUTTER
PROP. BITUMINOUS PAVEMENT
PC Sta 79+67.99
PROP ROW
EXIST ROW
DIXIE HIGHWAY
CAMBRIDGE AVE.
FLOSSMOOR ROAD
MATCH EXIST PAVEMENT.
EXIST ROW20' BUTT JOINT
BEGIN PROJECT STA. 73+50
SHOULDER PAVEMENT SAME AS ROADWAY PAVEMENT (TYP)
STA. 73+50 to STA. 77+42.17 AND STA. 79+67.83 to STA. 84+25 PROP. HMA CONCRETE PAVEMENT (FULL DEPTH) TYPE 1 - 13"
EXISTING TREE TO REMAIN
PROP. 90' (TBT TY 6, SPBGR TY A, TBT TY 1-SP-TAN)
BRIDGE APPROACH PAVEMENT (SPL) STA. 77+42.17
100-YR HIGH WATER ELEV. 638.3 BRIDGE STA. 77+72.17
BUTTERFIELD CREEK
PROP. BRIDGE CENTERLINE STRUCTURE NO. SN 016-7946(PROP), SN 016-0775(EXIST) STA. 78+55.00
PROP. 78' (TBT TY 6, SPBGR TY A, TBT TY 1-SP-TAN)
PROP. CURVE PDIXIE1-5
PI STA. = 83+27.12
Δ = 28° 46' 29" (RT)
D = 4° 05' 36"
R = 1,400.00'
T = 359.13'
L = 702.95'
E = 45.33'
e = 3.29%
T.R. = 80.08'
S.E. RUN = 206
P.C. STA. = 79+67.99
P.T. STA. = 86+70.94
EXIST. RETAINING WALL
END PROJECT STA. 84+25
EXIST. ENTRANCE ROAD
PT Sta 86+70.94
PROPOSED

NOTE:
The low chord of the bridge was established from the lowest point on the bridge (southeast corner) ; intersection of center line of Bearing South Abutment and center line of outermost Beam of the future bridge expansion : Sta. 77+43.56, offset 40.33 Ft. Rt., P.G.L. EL. 643.36. The Low Chord EL. is 639.43. (See typical bridge section for more details.)

FLOODPLAIN/FLOODWAY LIMITS
PROPOSED RETAINING WALL
CENTER LINE OF BRIDGE 78+55
EXISTING RETAINING WALL TO REMAIN
EXISTING PGL
PROPOSED PGL
PROJECT BEGIN VPI STA. 73+50.00 ELEVATION 643.31
ex = 0.41'
K = 122
200.00' V.C.
LOW PT. STA. 75+21.95
LOW PT. EL. = 642.20
+00.00 EL. 642.81
+00.00 EL. 642.45
DRIVEWAY STA. 75+44.6 LT
APPROACH SLAB STA. 77+35+42.17
STA. 77+43.56 EL. 643.36
BRIDGE STA. 77+72.17
HIGH PT. STA. 78+55.00
HIGH PT. EL. = 643.68
VPI STA. 78+55.00 ELEVATION 644.08
PHASE 1 PROFILE
STA. 79+23.56 EL. 643.36
BRIDGE STA. 79+37.83
APPROACH SLAB STA. 79+67.83
+00.00 EL. 643.15
ex = 0.73'
K = 99
240.00' V.C.
LOW PT. STA. 80+63.21
LOW PT. ELEV. = 642.95
VPI STA. 81+20.00 ELEVATION 642.36
+40.00 EL. 644.53
VPI STA. 83+20.00 ELEVATION 645.96
VPI STA. 84+25.00 ELEVATION 647.01 PROJECT END
+00.00 EL. 646.76
Flossmoor Road Intersection - 85+67
MATCH EXISTING STA. 84+25
PROPOSED PROFILE
EXISTING PROFILE
MATCH EXISTING STA. 73+50
100-YR NATURAL HIGH WATER ELEV = 638.3
50-YR PROPOSED HIGH WATER ELEV = 637.32
50-YR NATURAL HIGH WATER ELEV = 637.10
10-YR NATURAL HIGH WATER ELEV = 636.9
NATURAL HIGH WATER ELEV = 628.52 (OFF SCALE)
-1.00%
+0.64%
+1.79%
-0.64%
+1.00%
5.28' CLEARANCE
2'-4" CLEARANCE
LOW CHORD=639.43
EXISTING BRIDGE
ex = -0.40'
K = 195
250.00' V.C.
ex = -0.16'
K = 203
160.00' V.C.

EXIST.	643.39	643.58	643.76	643.93	643.85	643.31	642.76	641.77	640.77	639.89	639.03	638.41	637.81	637.60	637.42	637.43	637.47	637.83	638.19	638.98	639.78	+20	640.85	642.22	643.59	644.99	+20	645.84	646.80	647.13	647.45
PROP.	643.39	643.58	643.76	643.93	643.85	643.31	642.81	642.41	642.22	642.23	642.45	642.77	643.09	643.40	643.60	643.68	643.63	643.45	643.15	642.96	643.02	643.11	643.33	643.90	644.71	645.52	645.80	646.20	646.76		

71+00 72+00 73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00 81+00 82+00 83+00 84+00 85+00 86+00

650 645 640 635

F.A.U. 2843 DIXIE HIGHWAY
PLAN AND PROFILE
STA. 71+00 TO STA. 86+00

SCALE: VERT. 1"=5'
HORIZ. 1"=50'
DATE 6-25-09
DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

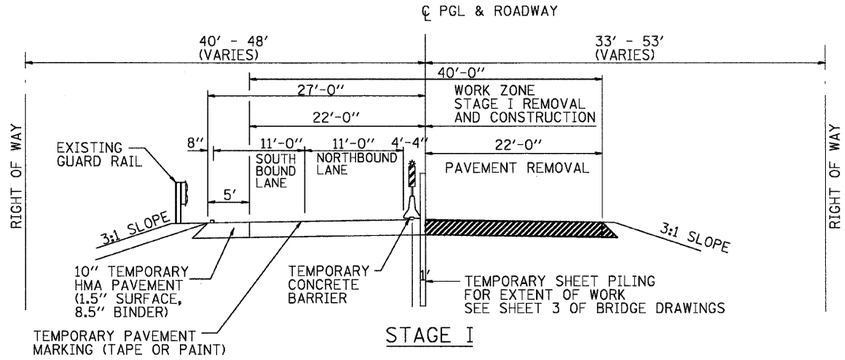
RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Ave, Suite 1500 Chicago IL 60604-2482
T> 312 870 0600 F> 312 663 1473

CONTRACT NO. 62539

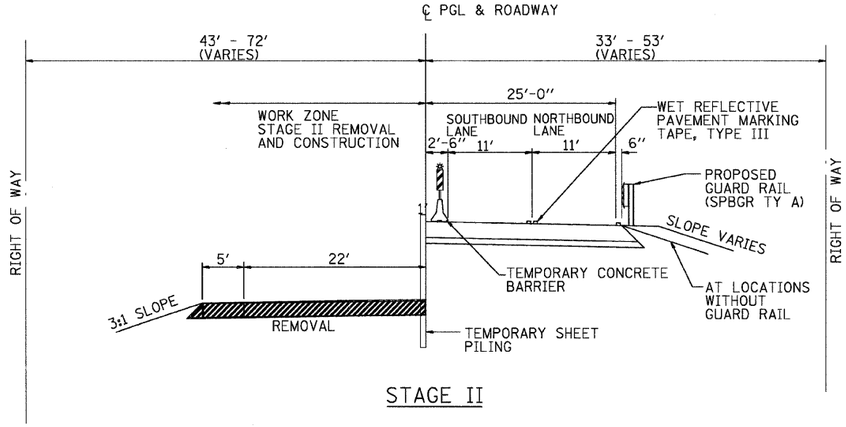
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	8
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	9
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

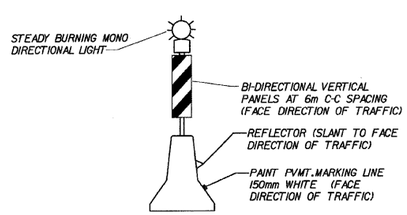
CONTRACT NO. 62539



STAGE I



STAGE II



42" TEMPORARY CONCRETE BARRIER WALL

NO SCALE

TRAFFIC MAINTENANCE NOTES:

1. THE CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC FLOW IN EACH DIRECTION THROUGHOUT THE DURATION OF THE CONTRACT.
2. THE CONTRACTOR SHALL MAINTAIN TRAFFIC IN ACCORDANCE WITH THE SPECIAL PROVISION AND AS DIRECTED BY THE ENGINEER.
3. THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY CHANGE IN CONSTRUCTION STAGING.
4. BARRICADES OR DRUMS SHALL BE EQUIPPED WITH MONO-DIRECTIONAL STEADY BURN LIGHTS AND SHALL BE PLACED AT A MAXIMUM OF 30.0 FT INTERVALS ALONG THE PROPOSED WORK ZONE AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
5. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ALL PAVEMENT MARKINGS WHICH CONFLICT WITH THE DESIGNATED TRAFFIC CONTROL PLAN. THIS WORK SHALL BE PAID FOR AS PAVEMENT MARKING REMOVAL
6. THE CONTRACTOR SHALL MAKE A SOLID EDGE LINE AT EACH SIDE OF ROADWAY DURING STAGE I, II, AND III TRAFFIC OPERATIONS. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR PAVEMENT MARKING TAPE, TYPE III.
7. SIGN LOCATIONS PLACEMENT ARE APPROXIMATE & SUBJECT TO LOCATION ADJUSTMENT DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST.
8. ALL SIGNS/BARRICADES SHALL BE ACCORDING TO LATEST ILL. MUTCD.
9. THE FURNISHING, INSTALLING AND RELOCATION OF ALL TRAFFIC SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION.
10. ALL CONFLICTING TRAFFIC SIGNS SHALL BE COVERED AS DIRECTED BY THE ENGINEER. THIS SHALL BE INCLUDED TO THE COST OF TRAFFIC CONTROL AND PROTECTION.
11. TEMPORARY CONCRETE BARRIER SHALL HAVE THE BASE OF THE WALL PAINTED WITH REFLECTIVE YELLOW OR WHITE PAINT AS NOTED. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR INSTALL AND REMOVE TEMPORARY CONCRETE BARRIER.
12. THE TEMPORARY PAVEMENT MARKINGS SHALL BE WET REFLECTIVE PAVEMENT MARKINGS, TYPE III TAPE). THE APPLICABLE LOCATIONS FOR THE USE OF TAPE SHALL BE GOVERNED BY THE STANDARD SPECIFICATIONS.

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.U. 2843 DIXIE HIGHWAY OVER BUTTERFIELD CREEK

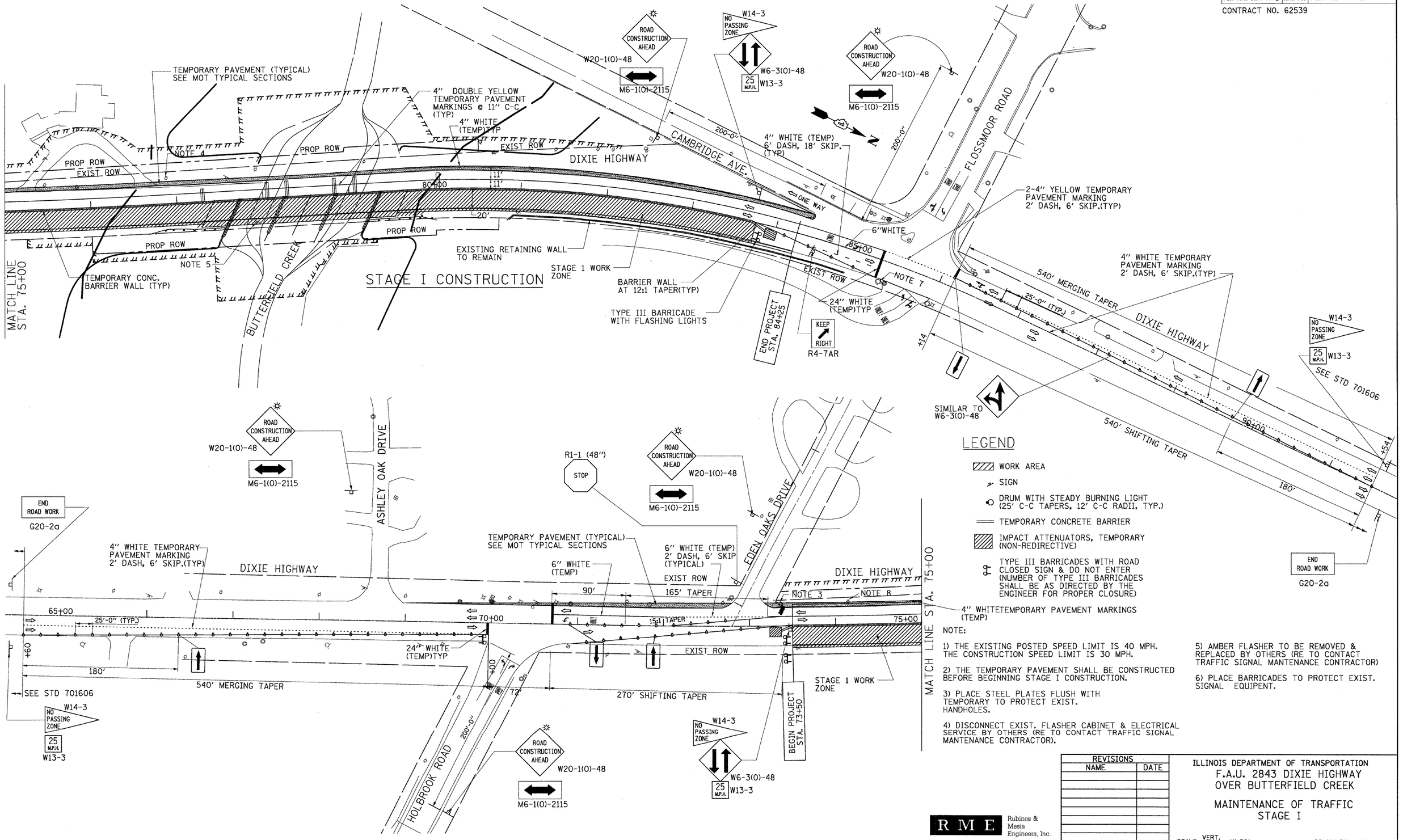
MAINTENANCE OF TRAFFIC SECTIONS

SCALE: VERT. NONE
HORIZ.
DATE 6-25-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	10
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62539



LEGEND

- WORK AREA
- SIGN
- DRUM WITH STEADY BURNING LIGHT (25' C-C TAPERS, 12' C-C RADII, TYP.)
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE)
- TYPE III BARRICADES WITH ROAD CLOSED SIGN & DO NOT ENTER (NUMBER OF TYPE III BARRICADES SHALL BE AS DIRECTED BY THE ENGINEER FOR PROPER CLOSURE)

NOTE:

1) THE EXISTING POSTED SPEED LIMIT IS 40 MPH. THE CONSTRUCTION SPEED LIMIT IS 30 MPH.

2) THE TEMPORARY PAVEMENT SHALL BE CONSTRUCTED BEFORE BEGINNING STAGE I CONSTRUCTION.

3) PLACE STEEL PLATES FLUSH WITH TEMPORARY TO PROTECT EXIST. HANDHOLES.

4) DISCONNECT EXIST. FLASHER CABINET & ELECTRICAL SERVICE BY OTHERS (RE TO CONTACT TRAFFIC SIGNAL MANTENANCE CONTRACTOR).

5) AMBER FLASHER TO BE REMOVED & REPLACED BY OTHERS (RE TO CONTACT TRAFFIC SIGNAL MANTENANCE CONTRACTOR)

6) PLACE BARRICADES TO PROTECT EXIST. SIGNAL EQUIPENT.

REVISIONS	
NAME	DATE

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ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.U. 2843 DIXIE HIGHWAY OVER BUTTERFIELD CREEK

MAINTENANCE OF TRAFFIC STAGE I

SCALE: VERT. 1"=50'
HORIZ.
DATE 6-25-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	11
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62539

MATCH LINE STA. 75+00

4" WHITE TEMPORARY PAVEMENT MARKINGS TYPE II TAPE ON PORTLAND CEMENT CONCRETE

4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKINGS @ 11" C-C (TYP UNLESS NOTED)

PROP ROW

EXIST ROW

DIXIE HIGHWAY

25'

80+00

11'

11'

TEMPORARY CONC. BARRIER WALL (TYP)

BUTTERFIELD CREEK

4" WHITE TEMPORARY PAVEMENT MARKINGS (TYP. UNLESS NOTED)

4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKINGS TYPE II TAPE @ 11" C-C

EXISTING RETAINING WALL TO REMAIN

STAGE II CONSTRUCTION

ROAD CONSTRUCTION AHEAD

W20-1(0)-48

M6-1(0)-2115

CAMBRIDGE AVE.

ONE WAY

200'-0"

4" WHITE (TEMP) 2' DASH, 6' SKIP (TYP)

FLOSSMOOR ROAD

NO TURN ON RED

R10-11a

85+00

EXIST ROW

W14-3 NO PASSING ZONE

W6-3(0)-48

25 M.P.H.

W13-3

END PROJECT STA. 84+25

24" WHITE (TEMP)TYP

TYPE III BARRICADES WITH FLASHING LIGHTS

2-4" YELLOW (TEMP) 2' DASH, 6' SKIP (TYP)

540' MERGING TAPER

DIXIE HIGHWAY

25'-0" (TYP.)

+95

540' SHIFTING TAPER

180'

SEE STD 701606

+35

END ROAD WORK

G20-2a

ASHLEY OAK DRIVE

EDEN OAKS DRIVE

KEEP RIGHT

R4-7AR

STOP

R1-1 (48") EXIST ROW

4" WHITE TEMPORARY PAVEMENT MARKING 6' DASH, 18' SKIP

65+00

70+00

75+00

25'-0" (TYP.)

+60

+00

180'

540' MERGING TAPER

270' SHIFTING TAPER

HOLBROOK ROAD

200'-0"

SIMILAR TO W6-3(0)-48

BEGIN PROJECT STA. 73+50

BARRIER WALL AT 12:1 TAPER (TYP)

MATCH LINE STA. 75+00

LEGEND

- WORK AREA
- SIGN
- DRUM WITH STEADY BURNING LIGHT (25' C-C TAPERS, 12' C-C RADII, TYP.)
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE)
- TYPE III BARRICADES WITH ROAD CLOSED SIGN & DO NOT ENTER (NUMBER OF TYPE III BARRICADES SHALL BE AS DIRECTED BY THE ENGINEER FOR PROPER CLOSURE)
- 4" WHITETEMPORARY PAVEMENT MARKINGS (TEMP)

NOTE:

1) PLACE BARRICADES TO PROTECT EXIST. SIGNAL EQUIPENT.

2) CONTRACTOR SHALL COORDINATE COMED POWER POLE RELOCATIONS.

REVISIONS	
NAME	DATE

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ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.U. 2843 DIXIE HIGHWAY OVER BUTTERFIELD CREEK

MAINTENANCE OF TRAFFIC STAGE II

SCALE: VERT. 1"=50' HORIZ.

DATE 6-25-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	12
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62539

TEMPORARY EROSION CONTROL NOTES

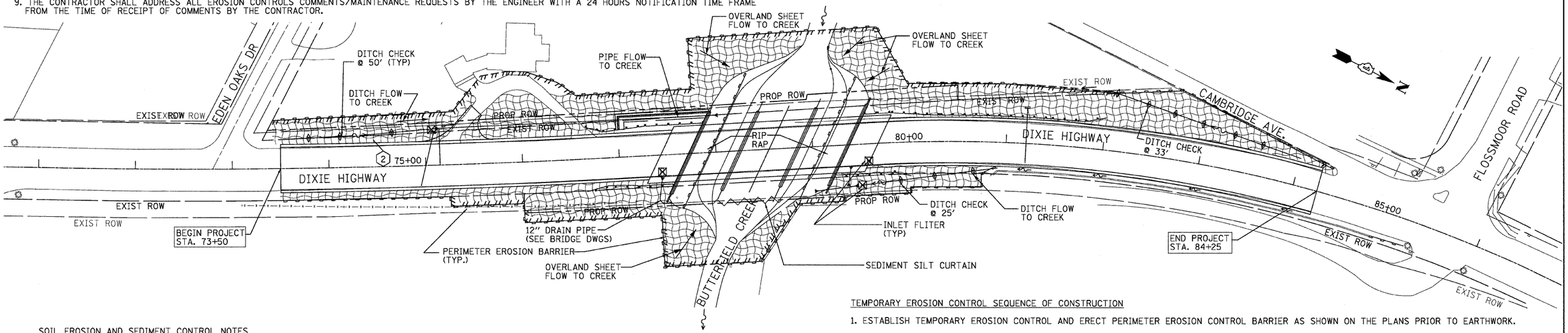
1. ALL CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER PERMIT.
2. THE CONTRACTOR SHALL INSTALL PERIMETER EROSION BARRIER PRIOR TO STRIPPING VEGETATION.
3. TEMPORARY DITCH CHECKS SHALL BE INSTALLED IMMEDIATELY AFTER DITCH GRADING IS COMPLETED. DITCH CHECKS ARE BASED ON ONE (1) INSTALLATION AND THREE (3) REPLACEMENTS OVER THE DURATION OF THE CONTRACT. THESE ITEMS WILL BE PAID FOR AS EACH, REGARDLESS OF THE TYPE OF CONFIGURATION USED.
4. RUNOFF FROM EXCAVATION AREAS SHALL LEAVE THE SITE THROUGH SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL ADJUST HIS OPERATION AND IMPLEMENT EROSION CONTROL MEASURES ACCORDINGLY.
5. THE CONTRACTOR SHALL SURROUND ALL EARTH STOCKPILES WITH PERIMETER EROSION BARRIER.
6. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AT ALL TIMES. EROSION CONTROL DEVICES SHALL BE INSPECTED EVERY SEVEN CALENDAR DAYS OR WITHIN 24 HOUR AFTER A 13 MM (0.5 INCH) RAINFALL OR SNOWFALL.
7. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS AS SOON AS PRACTICAL AFTER CONSTRUCTION ACTIVITIES IN THAT AREA HAS BEEN CONCLUDED. AREAS THAT HAVE STEEP SLOPES OR WILL NOT RECEIVE PERMANENT LANDSCAPING SHALL BE TEMPORARILY SEEDED. ALL FLATTER AREAS OR AREAS WHERE NO FURTHER WORK IS TO OCCUR FOR ONE MONTH OR MORE SHALL BE SEEDED AND EXCELSIOR BLANKED WITHIN SEVEN (7) CALENDAR DAYS.
8. NO SEDIMENT SHALL BE ALLOWED TO FLOW DOWNSTREAM AT ANY TIME. ALL WATER FROM DEWATERING OPERATIONS SHALL BE FILTERED TO REMOVE SEDIMENT BEFORE IT IS DISCHARGED INTO THE CREEK.
9. THE CONTRACTOR SHALL ADDRESS ALL EROSION CONTROLS COMMENTS/MAINTENANCE REQUESTS BY THE ENGINEER WITH A 24 HOURS NOTIFICATION TIME FRAME FROM THE TIME OF RECEIPT OF COMMENTS BY THE CONTRACTOR.

LEGEND

TEMPORARY EROSION CONTROL SYSTEMS PER STANDARD

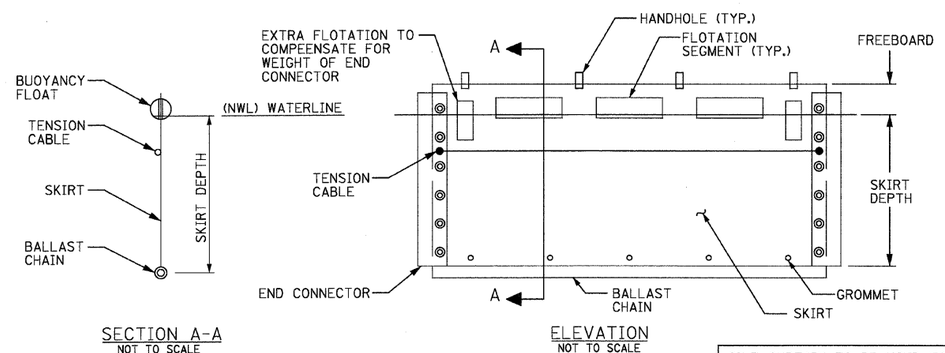
- TEMPORARY EROSION CONTROL SEEDING
- PERIMETER EROSION BARRIER
- TEMPORARY DITCH CHECK (ROLLED EXCELSIOR)
- INLET FLITER
- SEDIMENT CONTROL, SILT CURTAIN (STREAM VELOCITY=2.84 FPS)

NOTE: STABILIZED CONSTRUCTION ENTRANCES SHALL BE USED. LOCATIONS WILL VARY.



SOIL EROSION AND SEDIMENT CONTROL NOTES

1. THE SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSPECTED WEEKLY AND AFTER ½ INCH OF RAIN OR MORE BY THE INDIVIDUAL ON SITE IN CHARGE OF SOIL EROSION AND SEDIMENT CONTROL DURING THE CONSTRUCTION OF THE PROJECT.
2. EROSION CONTROL BLANKET SHALL BE INSTALLED TO ALL DISTRUBED AREAS WITH SLOPES EQUAL TO OR GREATER THAN 5H:1V AND IN CRITICAL AREAS (I.E. DETENTION BASIN PERIMETERS, STREAMBANKS, BERMS, ETC.) IMMEDIATELY UPON FINAL GRADING.
3. SILT FENCE SHALL BE INSTALLED FOLLOWING THE COMPLETION AND STABILIZATION OF THE STORMWATER FACILITIES WILL REMAIN IN PLACE UNTIL THE CONTRIBUTING AREA IS STABILIZED.
4. STOCKPILES OF SOIL AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE MORE THAN (3) DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES (I.E. PERIMETER SILT FENCE). STOCKPILES TO REMAIN IN PLACE FOR 30 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING.
5. ALL ADJACENT STREETS MUST BE KEPT CLEAR OF DEBRIS. INSPECTED DAILY AND CLEANED WHEN NECESSARY.
6. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE REFERENCED FROM THE ILLINOIS URBAN MANUAL.



SEDIMENT CONTROL, SILT CURTAIN DETAIL

SILT CURTAIN TO BE USED TO CONTROL SILT AND DEBRIS WHEN WORKING IN WATERWAY-SEE SPECIAL PROVISION

TEMPORARY EROSION CONTROL SEQUENCE OF CONSTRUCTION

1. ESTABLISH TEMPORARY EROSION CONTROL AND ERECT PERIMETER EROSION CONTROL BARRIER AS SHOWN ON THE PLANS PRIOR TO EARTHWORK.
2. IMPLEMENT SEDIMENT AND EROSION CONTROL DEVICES FOR STOCKPILE AREAS REQUIRED.
3. CONSTRUCT CONSTRUCTION STAGING OF PROPOSED DRAINAGE FACILITIES AND INSTALL TEMPORARY DITCH CHECKS IMMEDIATELY AFTER DITCH GRADING IS COMPLETED. MAINTAIN EROSION CONTROL DEVICES AND ELEMENTS FOR THE ENTIRE DURATION OF CONSTRUCTION AS DIRECTED BY THE ENGINEER.
4. INSTALL PERMANENT LANDSCAPING IN CONJUNCTION WITH CONSTRUCTION STAGING.
5. CLEAN DRAINAGE FACILITIES AND REMOVE TEMPORARY EROSION CONTROL DEVICES WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED.

REVISIONS	
NAME	DATE

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ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.U. 2843 DIXIE HIGHWAY OVER BUTTERFIELD CREEK

EROSION AND SEDIMENT CONTROL PLAN

SCALE: VERT. 1"=50'
HORIZ.
DATE 6-25-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	13
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

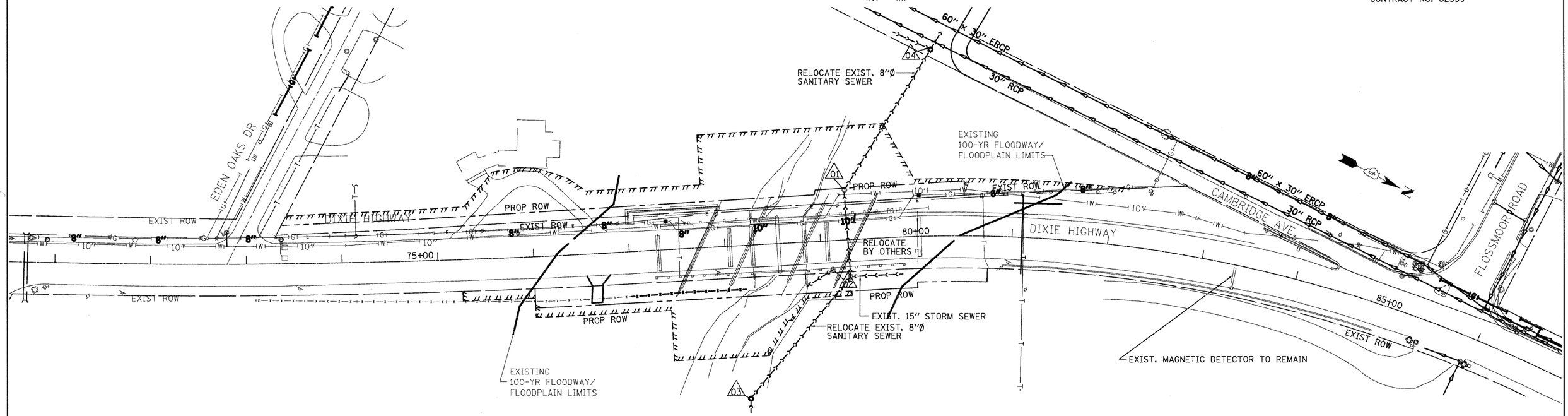
CONTRACT NO. 62539

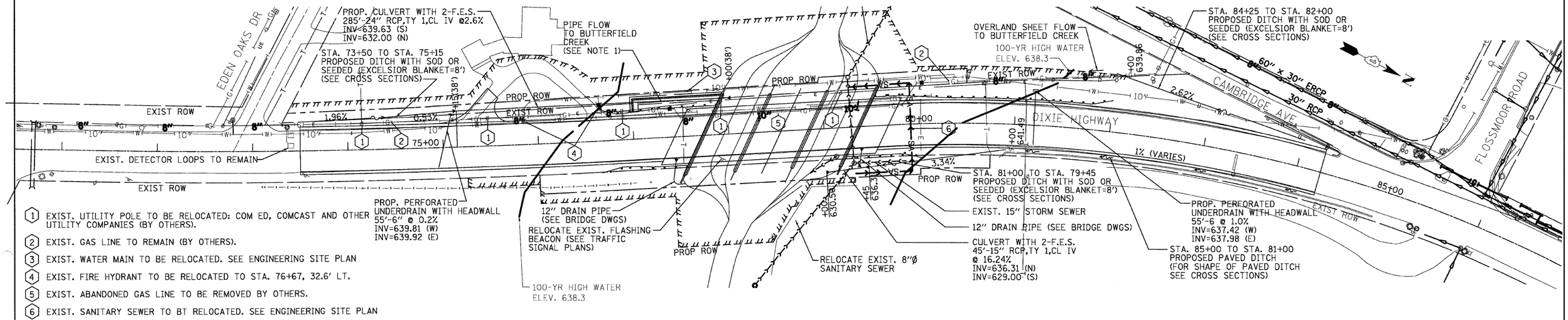
△01 EXIST. SANITARY MH-1
(TO BE REMOVED BY OTHERS)
RIM 634.89
INV 628.98(E) 10", INV 626.69(W) 10"
(8" ABS SEWER WITH 18" STEEL CASING PIPE
BETWEEN MH-1 & MH-2 PER VILLAGE ATLAS)

△02 EXIST. SANITARY MH-2
(TO BE REMOVED BY OTHERS)
RIM 636.36
INV 631.74(E) 15"
INV 631.79(W) 15"

△03 (LOCATED BY ATLAS, NOT SURVEY)
EXIST. SANITARY MH-3
(TO REMAIN)
RIM 634.9+-
INV - (E), INV - (W)

△04 (LOCATED BY ATLAS, NOT SURVEY)
EXIST. SANITARY MH-4
(TO REMAIN)
RIM -
INV - (E)
INV - (W)
INV - (S)





1. EXIST. UTILITY POLE TO BE RELOCATED: COM ED, COMCAST AND OTHER UTILITY COMPANIES (BY OTHERS).
2. EXIST. GAS LINE TO REMAIN (BY OTHERS).
3. EXIST. WATER MAIN TO BE RELOCATED. SEE ENGINEERING SITE PLAN
4. EXIST. FIRE HYDRANT TO BE RELOCATED TO STA. 76+67, 32.6' LT.
5. EXIST. ABANDONED GAS LINE TO BE REMOVED BY OTHERS.
6. EXIST. SANITARY SEWER TO BT RELOCATED. SEE ENGINEERING SITE PLAN

NOTE
1. THE 24" RCP PIPE WILL REQUIRE AN 18" CLEAR DISTANCE TO THE PILES UNDER ABUTMENT. CONTRACTOR TO COORDINATE THIS EFFORT. (SEE BRIDGE DRAWINGS)
2. ALL TREE REMOVAL SHALL BE DONE BEFORE UTILITY POLE RELOCATION.

○ POLE LOCATIONS SHOWN PER COMED PERMIT DRAWING.

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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HIGHWAY
OVER BUTTERFIELD CREEK

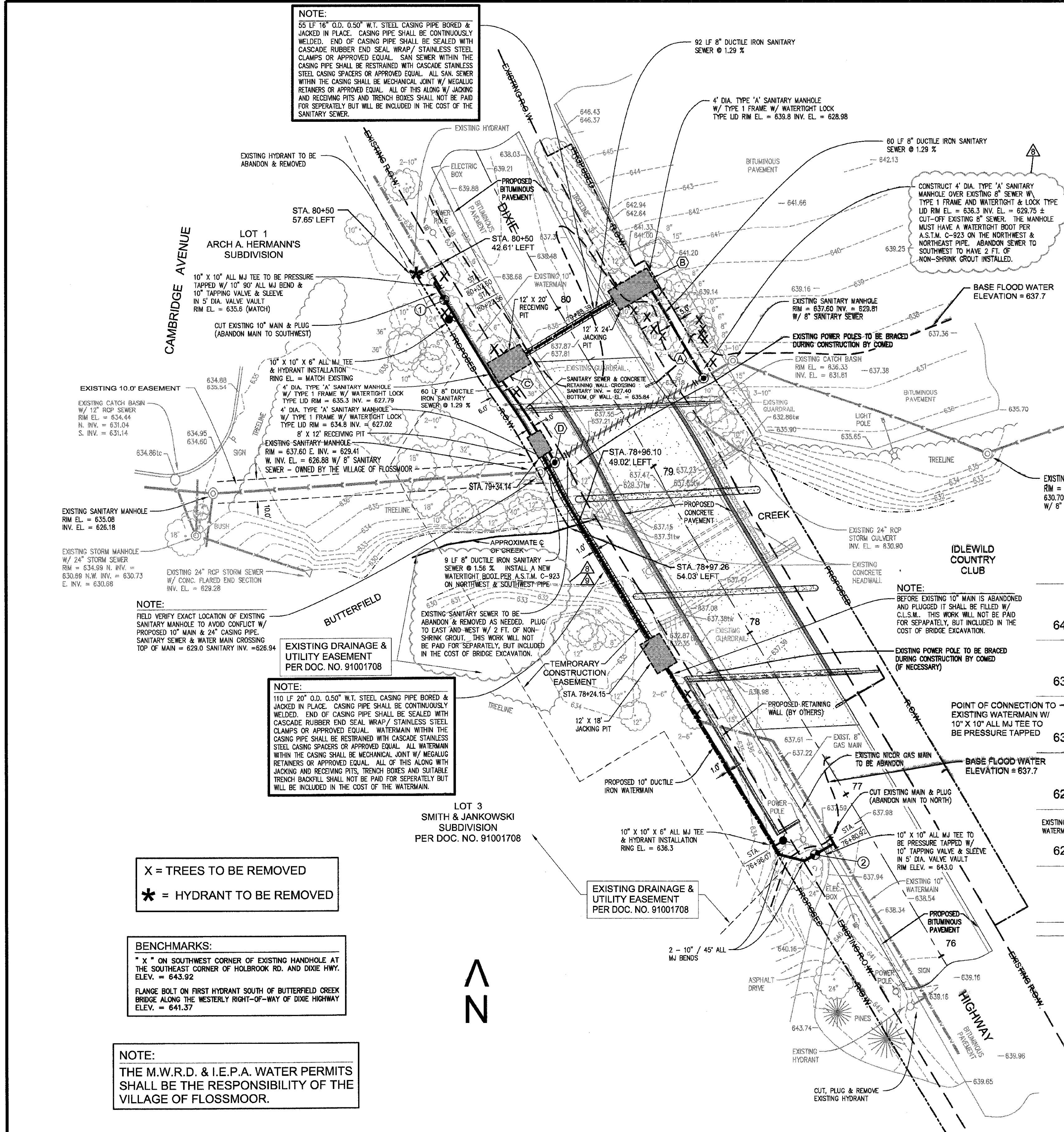
DRAINAGE AND UTILITIES

SCALE: VERT. 1"=50'
HORIZ.
DATE 6-25-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	14
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT -	

Contract No. 62539



NOTE:
55 LF 16" O.D. 0.50" W.T. STEEL CASING PIPE BORED & JACKED IN PLACE. CASING PIPE SHALL BE CONTINUOUSLY WELDED. END OF CASING PIPE SHALL BE SEALED WITH CASCADE RUBBER END SEAL WRAP/ STAINLESS STEEL CLAMPS OR APPROVED EQUAL. SAN SEWER WITHIN THE CASING PIPE SHALL BE RESTRAINED WITH CASCADE STAINLESS STEEL CASING SPACERS OR APPROVED EQUAL. ALL SAN. SEWER WITHIN THE CASING SHALL BE MECHANICAL JOINT W/ MEGALUG RETAINERS OR APPROVED EQUAL. ALL OF THIS ALONG W/ JACKING AND RECEIVING PITS AND TRENCH BOXES SHALL NOT BE PAID FOR SEPERATELY BUT WILL BE INCLUDED IN THE COST OF THE SANITARY SEWER.
92 LF 8" DUCTILE IRON SANITARY SEWER @ 1.29 %
4' DIA. TYPE 'A' SANITARY MANHOLE W/ TYPE 1 FRAME W/ WATERTIGHT LOCK TYPE LID RIM EL. = 639.8 INV. EL. = 628.98
60 LF 8" DUCTILE IRON SANITARY SEWER @ 1.29 %
CONSTRUCT 4' DIA. TYPE 'A' SANITARY MANHOLE OVER EXISTING 8" SEWER W/ TYPE 1 FRAME AND WATERTIGHT & LOCK TYPE LID RIM EL. = 636.3 INV. EL. = 629.75 ± CUT-OFF EXISTING 8" SEWER. THE MANHOLE MUST HAVE A WATERTIGHT BOOT PER A.S.T.M. C-923 ON THE NORTHWEST & NORTHEAST PIPE. ABANDON SEWER TO SOUTHWEST TO HAVE 2 FT. OF NON-SHRINK GROUT INSTALLED.
BASE FLOOD WATER ELEVATION = 637.7
EXISTING HYDRANT TO BE ABANDON & REMOVED
STA. 80+50 57.65' LEFT
STA. 80+50 42.61' LEFT
LOT 1 ARCH A. HERMANN'S SUBDIVISION
CAMBRIDGE AVENUE
DIXIE
10" X 10" ALL MJ TEE TO BE PRESSURE TAPPED W/ 10" 90' ALL MJ BEND & 10" TAPPING VALVE & SLEEVE IN 5' DIA. VALVE VAULT RIM EL. = 635.6 (MATCH)
CUT EXISTING 10" MAIN & PLUG (ABANDON MAIN TO SOUTHWEST)
12' X 20' RECEIVING PIT
12' X 24' JACKING PIT
EXISTING SANITARY MANHOLE RIM = 637.60 INV. = 629.81 W/ 8" SANITARY SEWER
EXISTING POWER POLES TO BE BRACED DURING CONSTRUCTION BY COMED
EXISTING CATCH BASIN RIM EL. = 636.33 INV. EL. = 631.81
EXISTING 10.0' EASEMENT
SANITARY SEWER & CONCRETE RETAINING WALL CROSSING: SANITARY INV. = 627.40 BOTTOM OF WALL EL. = 635.84
STA. 78+96.10 49.02' LEFT
STA. 79+34.14
EXISTING SANITARY MANHOLE RIM = 635.84 E. INV. EL. = 630.70 W. INV. = 630.66 W/ 8" SANITARY SEWER
CREEK
EXISTING 24" RCP STORM CULVERT INV. EL. = 630.90
IDLEWILD COUNTRY CLUB
APPROXIMATE ℄ OF CREEK
9 LF 8" DUCTILE IRON SANITARY SEWER @ 1.56 %. INSTALL A NEW WATERTIGHT BOOT PER A.S.T.M. C-923 ON NORTHWEST & SOUTHWEST PIPE.
EXISTING SANITARY SEWER TO BE ABANDON & REMOVED AS NEEDED. PLUG TO EAST AND WEST W/ 2 FT. OF NON-SHRINK GROUT. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT INCLUDED IN THE COST OF BRIDGE EXCAVATION.
STA. 78+97.26 54.03' LEFT
NOTE:
BEFORE EXISTING 10" MAIN IS ABANDONED AND PLUGGED IT SHALL BE FILLED W/ C.L.S.M. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT INCLUDED IN THE COST OF BRIDGE EXCAVATION.
EXISTING POWER POLE TO BE BRACED DURING CONSTRUCTION BY COMED (IF NECESSARY)
NOTE:
FIELD VERIFY EXACT LOCATION OF EXISTING SANITARY MANHOLE TO AVOID CONFLICT W/ PROPOSED 10" MAIN & 24" CASING PIPE. SANITARY SEWER & WATER MAIN CROSSING TOP OF MAIN = 629.0 SANITARY INV. =626.94
BUTTERFIELD
EXISTING DRAINAGE & UTILITY EASEMENT PER DOC. NO. 91001708
TEMPORARY CONSTRUCTION EASEMENT
STA. 78+24.15
12' X 18' JACKING PIT
NOTE:
110 LF 20" O.D. 0.50" W.T. STEEL CASING PIPE BORED & JACKED IN PLACE. CASING PIPE SHALL BE CONTINUOUSLY WELDED. END OF CASING PIPE SHALL BE SEALED WITH CASCADE RUBBER END SEAL WRAP/ STAINLESS STEEL CLAMPS OR APPROVED EQUAL. WATERMAIN WITHIN THE CASING PIPE SHALL BE RESTRAINED WITH CASCADE STAINLESS STEEL CASING SPACERS OR APPROVED EQUAL. ALL WATERMAIN WITHIN THE CASING SHALL BE MECHANICAL JOINT W/ MEGALUG RETAINERS OR APPROVED EQUAL. ALL OF THIS ALONG WITH JACKING AND RECEIVING PITS, TRENCH BOXES AND SUITABLE TRENCH BACKFILL SHALL NOT BE PAID FOR SEPERATELY BUT WILL BE INCLUDED IN THE COST OF THE WATERMAIN.
PROPOSED RETAINING WALL (BY OTHERS)
EXISTING NICOR GAS MAIN TO BE ABANDON
BASE FLOOD WATER ELEVATION = 637.7
PROPOSED 10" DUCTILE IRON WATERMAIN
CUT EXISTING MAIN & PLUG (ABANDON MAIN TO NORTH)
LOT 3 SMITH & JANKOWSKI SUBDIVISION PER DOC. NO. 91001708
10" X 10" X 6" ALL MJ TEE & HYDRANT INSTALLATION RING EL. = 636.3
10" X 10" ALL MJ TEE TO BE PRESSURE TAPPED W/ 10" TAPPING VALVE & SLEEVE IN 5' DIA. VALVE VAULT RIM ELEV. = 643.0
EXISTING DRAINAGE & UTILITY EASEMENT PER DOC. NO. 91001708
2 - 10" / 45' ALL MJ BENDS
HIGHWAY
CUT, PLUG & REMOVE EXISTING HYDRANT

X = TREES TO BE REMOVED

* = HYDRANT TO BE REMOVED

BENCHMARKS:

" x " ON SOUTHWEST CORNER OF EXISTING HANDHOLE AT THE SOUTHEAST CORNER OF HOLBROOK RD. AND DIXIE HWY. ELEV. = 643.92

FLANGE BOLT ON FIRST HYDRANT SOUTH OF BUTTERFIELD CREEK BRIDGE ALONG THE WESTERLY RIGHT-OF-WAY OF DIXIE HIGHWAY ELEV. = 641.37

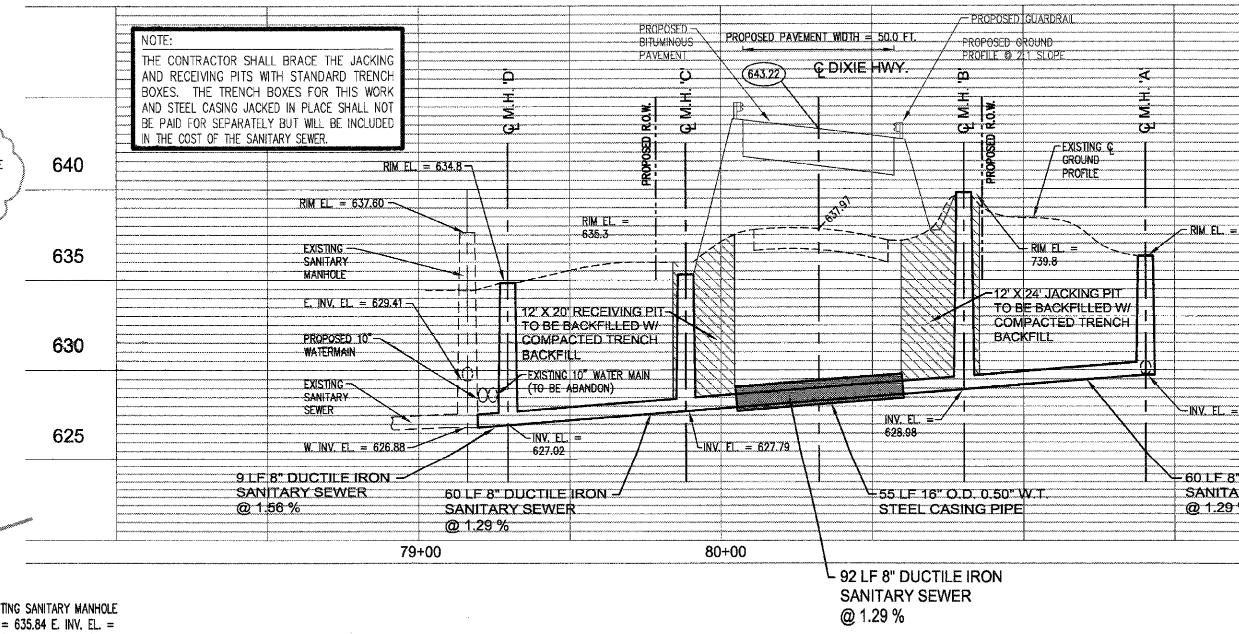
N

NOTE:
THE M.W.R.D. & I.E.P.A. WATER PERMITS SHALL BE THE RESPONSIBILITY OF THE VILLAGE OF FLOSSMOOR.

PROPOSED UTILITIES LEGEND

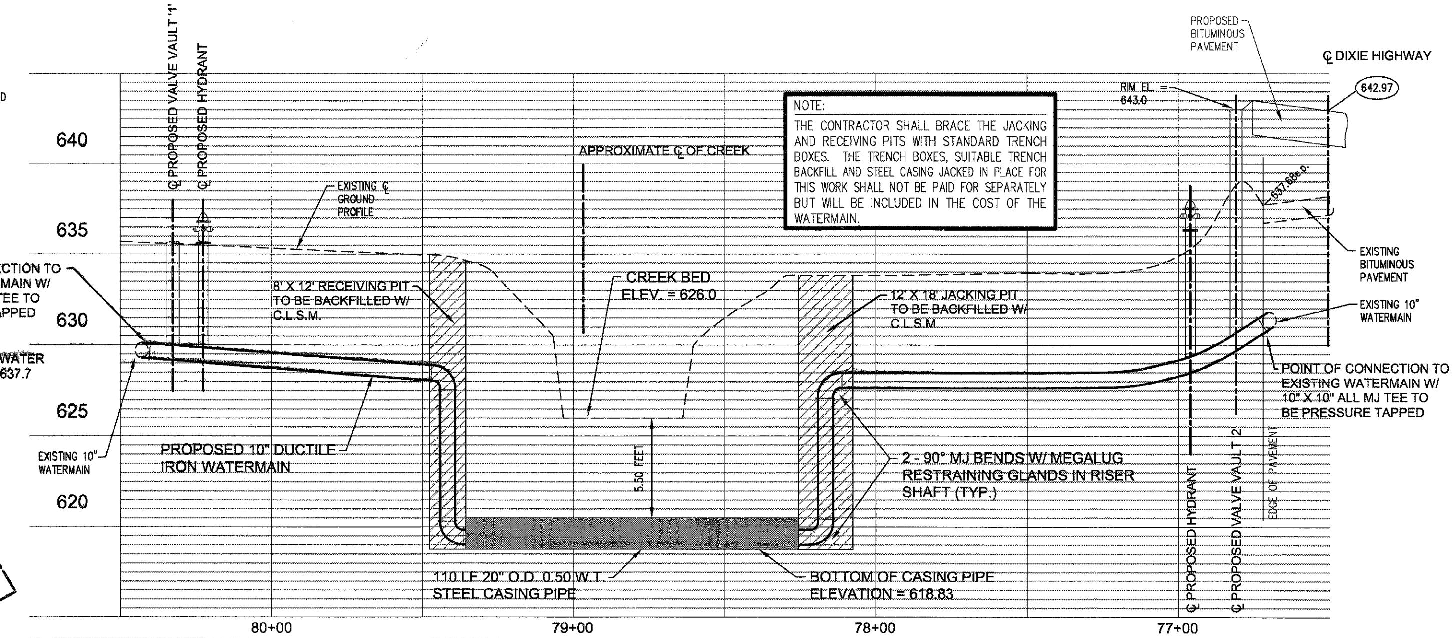
(A) = PROPOSED SANITARY MANHOLE IDENTIFICATION LETTER

(1) = PROPOSED VALVE VAULT IDENTIFICATION NUMBER



NOTE:
THE CONTRACTOR SHALL BRACE THE JACKING AND RECEIVING PITS WITH STANDARD TRENCH BOXES. THE TRENCH BOXES FOR THIS WORK AND STEEL CASING JACKED IN PLACE SHALL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE SANITARY SEWER.
PROPOSED PAVEMENT WIDTH = 50.0 FT.
℄ DIXIE HWY.
12' X 20' RECEIVING PIT TO BE BACKFILLED W/ COMPACTED TRENCH BACKFILL
12' X 24' JACKING PIT TO BE BACKFILLED W/ COMPACTED TRENCH BACKFILL
9 LF 8" DUCTILE IRON SANITARY SEWER @ 1.56 %
60 LF 8" DUCTILE IRON SANITARY SEWER @ 1.29 %
55 LF 16" O.D. 0.50" W.T. STEEL CASING PIPE
60 LF 8" DUCTILE IRON SANITARY SEWER @ 1.29 %
92 LF 8" DUCTILE IRON SANITARY SEWER @ 1.29 %
79+00
80+00

PROPOSED SANITARY SEWER PROFILE



℄ DIXIE HIGHWAY
NOTE:
THE CONTRACTOR SHALL BRACE THE JACKING AND RECEIVING PITS WITH STANDARD TRENCH BOXES. THE TRENCH BOXES, SUITABLE TRENCH BACKFILL AND STEEL CASING JACKED IN PLACE FOR THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE WATERMAIN.
APPROXIMATE ℄ OF CREEK
POINT OF CONNECTION TO EXISTING WATERMAIN W/ 10" X 10" ALL MJ TEE TO BE PRESSURE TAPPED
8' X 12' RECEIVING PIT TO BE BACKFILLED W/ C.L.S.M.
CREEK BED ELEV. = 626.0
12' X 18' JACKING PIT TO BE BACKFILLED W/ C.L.S.M.
PROPOSED 10" DUCTILE IRON WATERMAIN
2 - 90° MJ BENDS W/ MEGALUG RESTRAINING GLANDS IN RISER SHAFT (TYP.)
110 LF 20" O.D. 0.50 W.T. STEEL CASING PIPE
BOTTOM OF CASING PIPE ELEVATION = 618.83
80+00
79+00
78+00
77+00

PROPOSED WATERMAIN PROFILE

TECH 3 CONSULTING GROUP, INC. ASSUMES NO LIABILITY FOR THE CORRECTNESS OR ACCURACY OF THESE PLANS UNLESS AN ORIGINAL SIGNATURE AND SEAL OF A REGISTERED PROFESSIONAL ENGINEER EMPLOYED BY THE CORPORATION ARE AFFIXED TO THIS SHEET OF THESE PLANS.

DATED THIS 5th DAY OF FEBRUARY, 20 09.

LICENSE EXPIRES: NOVEMBER 30, 2009

ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-002235

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	09/10/07	EGH	REVISE R.O.W. AND UTILITY LOCATIONS
2	12/18/07	EGH	REVISE UTILITY LOCATIONS
3	1/16/08	EGH	PER I.D.O.T. REVIEW
4	3/21/08	EGH	PER I.D.O.T. REVIEW
5	4/29/08	EGH	PER I.D.O.T. REVIEW
7	11/12/08	EGH	PER M.W.R.D. REVIEW
8	11/24/08	EGH	PER M.W.R.D. REVIEW
9	11/24/08	JJF	PER M.W.R.D. REVIEW
10	12/01/08	EGH	PER M.W.R.D. REVIEW
11	2/05/09	EGH	FOR CONSTRUCTION ISSUE
12	7/08/09	EGH	FOR CONSTRUCTION ISSUE

TECH 3 Consulting Group, Inc.
ENGINEERS SURVEYORS
737 West Exchange St. Crete, IL 60417
ph 708.672.4994 fax 708.672.3739

Village of Flossmoor
Flossmoor, Illinois

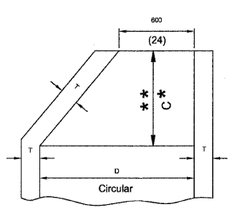
DESIGNED BY: RWM
DRAWN BY: EGH
CHECKED BY: RWM

IDOT DIXIE BRIDGE RECONSTRUCTION
UTILITY LOCATION
ENGINEERING SITE PLAN

DATE: JANUARY 16, 2008 SCALE : 1" = 30' JOB NO. 06702

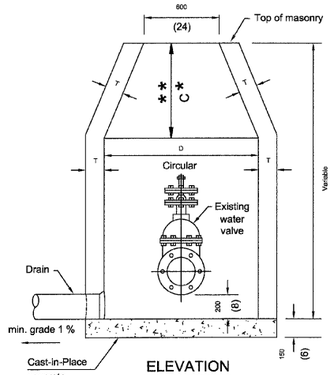
C-1

F. A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	15
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT -		
		Contract No. 62539		



The cone of the valve vault shall be constructed as shown above only when there is interference with underground conditions and those conditions cannot be altered.

NOTE:
3/4" TAP SHALL BE MADE ON WATER MAIN ON EACH SIDE OF VALVE. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST FOR THE WATER MAIN.

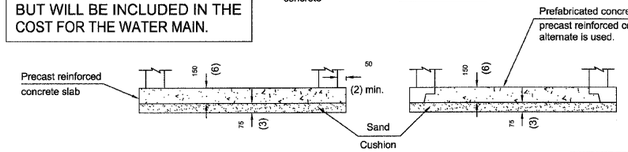


ELEVATION

ALTERNATE MATERIALS FOR WALLS	D	C	T (min.)
Concrete Masonry Unit	1.2 m (4'-0")	750 (30)	125 (5)
	1.5 m (5'-0")	1.15 m (3'-9")	125 (5)
Brick Masonry	1.2 m (4'-0")	750 (30)	200 (8)
	1.5 m (5'-0")	1.15 m (3'-9")	200 (8)
Precast Reinforced Concrete Section	1.2 m (4'-0")	750 (30)	100 (4)
	1.5 m (5'-0")	1.15 m (3'-9")	125 (5)
Cast-in-Place Concrete	1.2 m (4'-0")	750 (30)	150 (6)
	1.5 m (5'-0")	1.15 m (3'-9")	150 (6)

DIAMETER OF WATER MAIN	D
200 (8) and under	1.2 m (4'-0")
250 (10) and over	1.5 m (5'-0")

NOTE :
THE VALVE VAULT TO BE CONSTRUCTED SURROUNDING THE TWELVE INCH (12") VALVE SHALL HAVE FIVE FOOT (5') ID AND SHALL HAVE A ONE (1) PIECE FLAT SLAB ON TOP INSTEAD OF A CONE WITH OPENING CENTERED ON TURNING NUT OF THE VALVE. THAT VALVE FRAME AND LIDS ARE TO BE NEENAH R-1712 OR APPROVED EQUAL W/ THE WORD "WATER" CAST INTO THE SELF-SEALED LIDS.



ALTERNATE METHODS

GENERAL NOTES

* Dimension "C" for Precast Reinforced Concrete Section may vary from the dimension given to plus 150 mm (6").

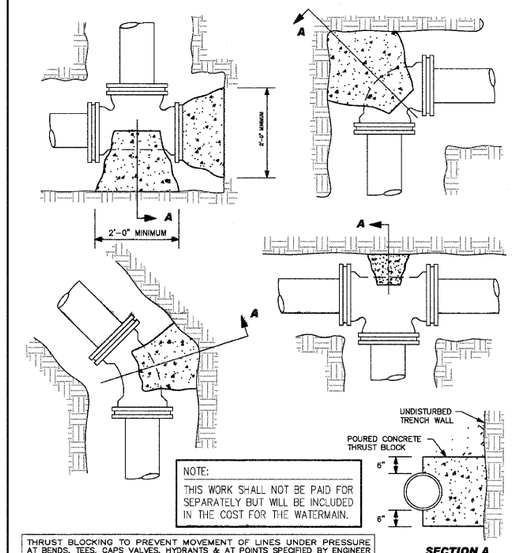
** See Standard I.D.O.T. 602601 for optional Precast Reinforced Concrete Flat Top Slab.

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

DATE	REVISIONS
1-1-97	Renum. Standard 1526-8
6-15-94	Moved G.N. to Specs.
	Added Metric

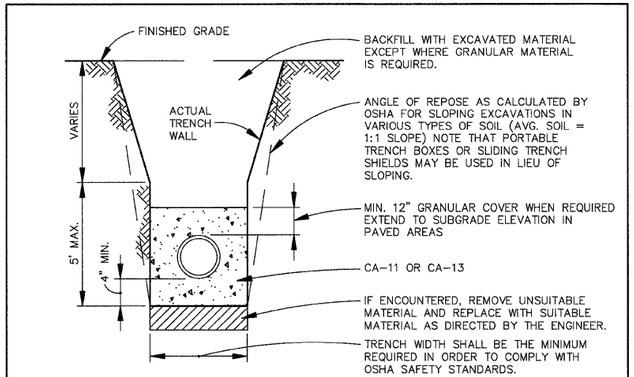
VALVE VAULT TYPE A

THRUST BLOCK INSTALLATION



NOTE:
THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST FOR THE WATERMAIN.

THRUST BLOCKING TO PREVENT MOVEMENT OF LINES UNDER PRESSURE AT BENDS, TEES, CAPS VALVES, HYDRANTS & AT POINTS SPECIFIED BY ENGINEER SHALL BE STRUCTURAL CONCRETE (CLASS "SI") A MINIMUM OF 12" THICK, PLACED BETWEEN SOLID GROUND AND FITTING, AND SHALL BE ANCHORED IN SUCH A MANNER THAT PIPE AND FITTING WILL BE ACCESSIBLE FOR REPAIRS. THRUST BLOCK SHALL BE PLACED AT BENDS OF 11 1/4 DEGREE.



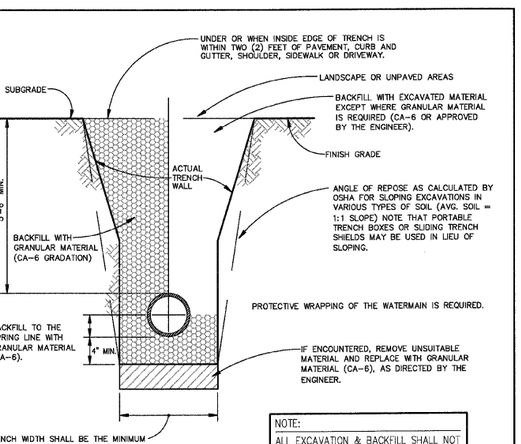
ABS AND PVC WHEN USED AS SANITARY SEWER SHALL REQUIRE GRANULAR BEDDING AND COVER AS DETAILED.

DIP WHEN USED AS SANITARY SEWER SHALL REQUIRE GRANULAR BEDDING ONLY.

NOTE:
ALL EXCAVATION & BACKFILL SHALL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST OF THE SANITARY SEWER.

TRENCH SECTION (SANITARY)

(NO SCALE)



NOTE:
ALL EXCAVATION & BACKFILL SHALL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST OF THE WATER MAIN.

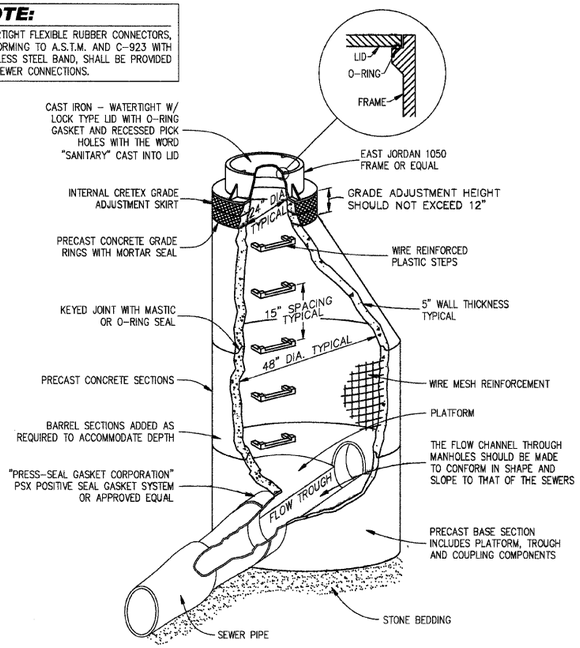
GENERAL NOTES:

1. CONTRACTOR SHALL CONDUCT OPERATIONS IN A SAFE MANNER AT ALL TIMES AND SHALL COMPLY WITH ALL APPLICABLE GOVERNING REGULATIONS, INCLUDING BUT NOT LIMITED TO OSHA SAFETY STANDARDS.
2. ALL BACKFILL MATERIAL UP TO A HEIGHT OF 12 INCHES ABOVE THE PIPE SHALL BE CAREFULLY DEPOSITED IN UNIFORM LAYERS NOT EXCEEDING 8 INCHES THICK (LOOSE MEASURE). THE MATERIAL IN EACH LAYER SHALL BE FIRMLY COMPACTED BY RAMMING OR TAMPING WITH TOOLS APPROVED BY THE VILLAGE ENGINEER IN SUCH A MANNER AS NOT TO DISTURB OR INJURE THE PIPE. THE BACKFILLING ABOVE THIS HEIGHT SHALL BE DONE AS NOTED BELOW.
3. GRANULAR BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED AS SPECIFIED IN NOTE 2 ABOVE. THE USE OF JETTING SHALL NOT BE ALLOWED UNLESS AUTHORIZED IN WRITING BY THE VILLAGE ENGINEER. IT SHALL BE THE DESIGN ENGINEER OR CONTRACTOR'S RESPONSIBILITY TO PROVIDE APPROPRIATE JUSTIFICATION AND DOCUMENTATION (SOIL INVESTIGATION REPORTS, ETC.) TO THE VILLAGE ENGINEER WITH THE REQUEST FOR APPROVAL OF JETTING.
4. BACKFILL MATERIAL CONSISTING OF SUITABLE EXCAVATED MATERIAL SHALL BE PLACED IN LIFTS NOT EXCEEDING TWELVE (8) INCHES THICK (LOOSE MEASURE) AND EACH LAYER SHALL BE COMPACTED BY RAMMING OR TAMPING TO ACHIEVE THE REQUIRED COMPACTION. JETTING OF THIS MATERIAL MAY BE PERMITTED WHEN AUTHORIZED IN WRITING BY THE ENGINEER. IT SHALL BE THE DESIGN ENGINEER OR THE CONTRACTOR'S RESPONSIBILITY TO SUBMIT APPROPRIATE JUSTIFICATION AND DOCUMENTATION (SOIL INVESTIGATION REPORTS, ETC.) TO THE ENGINEER WITH THE REQUEST FOR APPROVAL OF JETTING.

WATERMAIN TRENCH SECTION

NO SCALE

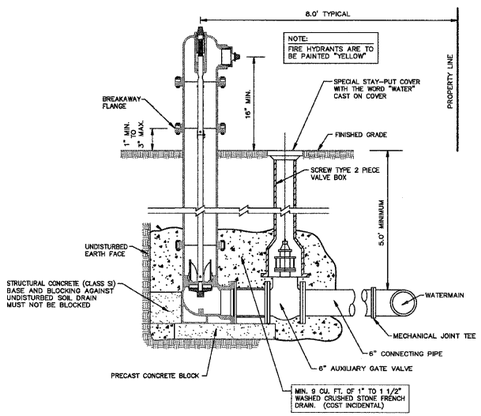
NOTE:
WATERTIGHT FLEXIBLE RUBBER CONNECTORS, CONFORMING TO A.S.T.M. AND C-923 WITH STAINLESS STEEL BAND, SHALL BE PROVIDED FOR SEWER CONNECTIONS.



SANITARY MANHOLE

NO SCALE

Village of Flossmoor
Flossmoor, Illinois
Department of Public Works



NOTES

1. HYDRANT TO BE EAST JORDAN 5BR-HARRINGTON INTEGRAL STORZ OR APPROVED EQUIVALENT (COMPRESSED TYPE 6 IN. MECHANICAL JOINT BOTTOM, BREAK FLANGE CONSTRUCTION, TWO 2.5 IN. NOZZLES, ONE 4.5 IN. PUMPER NOZZLE).
2. HYDRANT DISCHARGE OUTLETS SHALL BE SMOOTH AND ROUNDED. HYDRANT COEFFICIENT OF DISCHARGE SHALL BE 0.09 OR GREATER AS OUTLINED IN THE N.F.P.A. STANDARD 291-1-10.
3. AUXILIARY VALVE TO BE 6 IN. RESILIENT WEDGE TYPE OR APPROVED ALTERNATE.
4. MINIMUM COVER OVER F.H. CONNECTING PIPE = 60 IN.
5. FIRE HYDRANTS SHALL BE LOCATED NO CLOSER THAN 18 IN. FROM ANY STRUCTURE, DRIVEWAY, SIDEWALK OR CURB.
6. BACKFILL FOR ALL EXCAVATIONS WITHIN PUBLIC RIGHTS-OF-WAY SHALL BE APPROVED GRANULAR MATERIAL AND COMPACTED TO MIN. 95% OF STANDARD LABORATORY DENSITY.

FIRE HYDRANT DETAIL

(NO SCALE)

TECH 3 CONSULTING GROUP, INC. ASSUMES NO LIABILITY FOR THE CORRECTNESS OR ACCURACY OF THESE PLANS UNLESS AN ORIGINAL SIGNATURE AND SEAL OF A REGISTERED PROFESSIONAL ENGINEER EMPLOYED BY THE CORPORATION ARE AFFIXED TO THE [illegible] SHEETS OF THESE PLANS.

DATED THIS 5TH DAY OF FEBRUARY, 20 09.

ILLINOIS PROFESSIONAL ENGINEER
[illegible]
LICENSE EXPIRES: NOVEMBER 30, 2009

NO.	DATE	BY	DESCRIPTION
11	2/05/09	EGH	FOR CONSTRUCTION ISSUE

ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-002235

TECH 3 Consulting Group, Inc.
ENGINEERS SURVEYORS
737 West Exchange St. Crete, IL 60417
ph 708.672.4994 fax 708.672.3739

Village of Flossmoor
Flossmoor, Illinois

DESIGNED BY: RWM
DRAWN BY: EGH
CHECKED BY: RWM

NO.	DATE	BY	DESCRIPTION
3	1/16/08	EGH	PER I.D.O.T. REVIEW
4	3/21/08	EGH	PER I.D.O.T. REVIEW
5	4/29/08	EGH	PER I.D.O.T. REVIEW
6	9/01/08	EGH	PER I.D.O.T. REVIEW
7	11/12/08	EGH	PER M.W.R.D. REVIEW

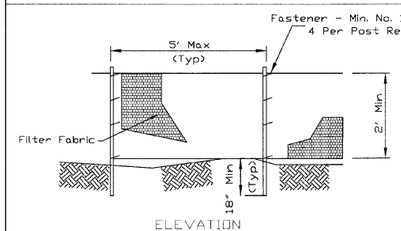
IDOT DIXIE BRIDGE RECONSTRUCTION
UTILITY LOCATION
CONSTRUCTION DETAILS

DATE: JANUARY 16, 2008 SCALE : AS NOTED JOB NO. 06702

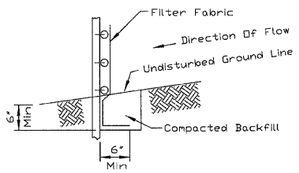
C-2

F. A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	16
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT -		
		Contract No. 62539		

PERIMETER EROSION BARRIER - (PLAN)



ELEVATION

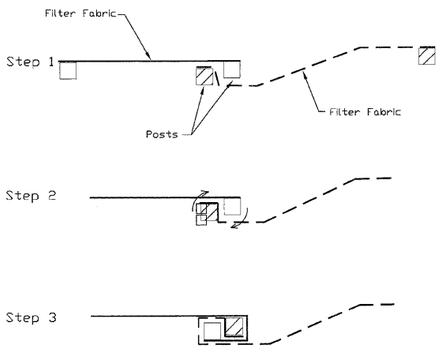


FABRIC ANCHOR DETAIL

NOTES:
1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I With equivalent opening size of at least 30 for nonwoven and 50 for woven.
3. Fence posts shall be either standard steel post or wood post with a minnum cross-sectional area of 3.0 sq./in.

REFERENCE		STANDARD DWG. NO.
Project		IL-620
Designed ____ Date ____	NRCS Natural Resources Conservation Service	SHEET 1 OF 2
Checked ____ Date ____		DATE 11-20-01
Approved ____ Date ____		

PERIMETER EROSION BARRIER



ATTACHING TWO SILT FENCES

NOTES:
1. Place the end post of the second fence inside the end post of the
2. first fence.
   Rotate both posts at least 180 degrees in a clockwise direction to
3. create a tight seal with the fabric material.
   Drive both posts a minimum of 18 inches into the ground and bury the flap.

REFERENCE		STANDARD DWG. NO.
Project		IL-620(W)
Designed ____ Date ____	USDA NRCS NATURAL RESOURCES CONSERVATION SERVICE ILLINOIS	SHEET 2 OF 2
Checked ____ Date ____		DATE 1-29-99
Approved ____ Date ____		

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO
LOCAL SEWER SYSTEMS SECTION
MWRD TYPICAL GENERAL NOTES

TYPICAL GENERAL NOTES	**COMMENTS**
1. The MWRD Local Sewer Systems Section Field Office must be notified at least two (2) working days prior to the commencement of any work (call 708-588-4055).	Required in all cases.
2. Elevation datum is U.S.G.S. Conversion equation _____	State if CCD or USGS: or provide conversion equation if other datum is used.
3. All floor drains shall discharge to the sanitary sewer system.	If none, state "no floor drains". (THERE ARE NO FLOOR DRAINS.)
4. All downspouts and footing drains shall discharge to the storm sewer system.	If none, state "no footing drains and downspouts". (THERE ARE NO FOOTING DRAINS.)
5. All sanitary sewer pipe materials and joints (and storm sewer pipe materials and joints in a combined sewer area) shall conform to:	Required in all cases. Specify pipe material and joint specifications. If project is in a combined sewer area, include storm sewer.

Pipe Material Spec.	**Joint Spec.**
Vitrified Clay Pipe	
VCP C-700	C-425
VCP (No-Bell) C-700	
Joint	C-425
Collar	D-1784
Concrete Pipe C-14	C-443
RCP C-76	C-443
ACP C-428	D-1869
ABS Sewer Pipe	
Solid Wall 6" dia. SDR 23.5	
ABS D-2751	D-2751
ABS Composite/Truss Pipe	
8"-15" dia.	
ABS D-2680	D-2680
PVC Gravity Sewer Pipe	
6"-15" dia. SDR 26	
D-3034	D-3212 or D-2855
18"-27" dia. F/dy=46	
F-679	D-3212 or D-2855
CISP A-74	C-564
DIP A-21.51	A-21.11

(Note: The District has approved less common pipematerials on a qualified basis in addition to those above. Please contact the District if consideringusing pipe not listed above.)

The Following Materials are allowed on A Qualified Basis: (When one of these materials is used for sewer construction, a special condition will be added to the Permit.)

Pipe Material Spec.	Joint Spec.
PVC Corrugated with a smooth interior, 4" -18" dia. F-949	D-3212 or D-2855
PVC Profile Gravity Sewer PVC F-794	D-3212 or D-2855
PVC Composite/Truss Pipe 8"-15" dia. PVC D-2680	D-2680 or D-3212
Type PS-46 PVC Gravity Sewer F-789	D-3212 or D-2855

(Must meet the performance requirements of D-3034, SDR-26)

High Density Polyethylene (HDPE) Plastic Pipe
Polyethylene (HDPE) Sewer Pipe shall conform to Type III, Class B (or better), category 5, Grade P34 as defined in ASTM D-1248 and/or D-3350 with a cell classification PE 345434C or higher. The joining method shall conform to ASTM D-2657.

1 of 2

LSS/Rev. Jan. 2003

6. All sanitary sewer construction (and storm sewer construction in combined sewer areas), requires stone bedding with stone ¼" to 1" in size, with minimum bedding thickness equal to ¼ the outside diameter of the sewer pipe, but not less than four (4) inches nor more than eight (8) inches. Material shall be CA-11 or CA-13 and shall be extended at least 12" above the top of the pipe when using PVC.	- Can be omitted if IDOT equiv. CA 11 or 13) bedding detail is submitted.	
7. "Band Seal" or similar flexible-type couplings shall be used in the connection of sewer pipes of dissimilar materials.	- Required in all cases. - Alternately, if a detail is provided, the general note should make a reference to that detail.	
8. When connecting to an existing sewer main by means other that an existing wye, tee, or an existing manhole, one of the following methods shall be used: 1. Circular saw-cut of sewer main by proper tools ("Shewer-Tap" machine or similar) and proper installation of hub-wye saddle or hub-tee saddle. 2. Remove an entire section of pipe (breaking only the top of one bell) and replace with a wye or tee branch section. 3. With pipe cutter, neatly and accurately cut out desired length of pipe for insertion of proper fitting, using "Band Seal" or similar couplings to hold it firmly in place.	- Required in all cases. - Alternately, if a detail is provided, the general note should make a reference to that detail.	
9. Whenever a sanitary/combined sewer crosses under a watermain, the minimum vertical distance from the top of the sewer to the bottom of the watermain shall be 18 inches. Furthermore, a minimum horizontal distance of 10 feet between sanitary/combined sewers and watermains shall be maintained unless: the sewer is laid in a separate trench, keeping a minimum 18" vertical separation; or the sewer is laid in the same trench with the watermain located at the opposite side on a bench of undisturbed earth, keeping a minimum 18" vertical separation. If either the vertical or horizontal distances described above can not be maintained, or the sewer crosses above the watermain, the sewer shall be constructed to watermain standards.	- Required in all cases. - Alternately, if a detail is provided, the general note should make a reference to that detail.	
10. All existing septic systems shall be abandoned. Abandoned tanks shall be filled with granular material or removed.	- Use when existing septic system is to be abandoned.	
11. All sanitary manholes, (and storm manholes in combined sewer areas), shall have a minimum inside diameter of 48 inches, and shall be cast in place or pre-cast reinforced concrete.	- Required in all cases. - Alternately, if a detail is provided, the general note should make a reference to that detail.	

2 of 2

GENERAL NOTES :

1. ALL CONSTRUCTION SHALL CONFORM TO THE ILLINOIS SOCIETY OF PROFESSIONAL ENGINEERS "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" IN ITS LATEST EDITION AND THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" IN ITS LATEST EDITION.
2. THE VILLAGE OF FLOSSMOOR DIRECTOR OF PUBLIC WORKS 708/957-4100, AND TECH 3 CONSULTING GROUP, INC. 708/672-4994 AND M.W.R.D. FIELD OFFICE 708/588-4055 SHALL BE NOTIFIED 2 WORKING DAYS PRIOR TO COMMENCING OF CONSTRUCTION.
3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES FOR FIELD LOCATIONS OF THEIR FACILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND PRESERVATION OF THESE FACILITIES. CALL J.U.L.I.E. 800/892-0123.
4. ALL SEWER, INCLUDING BUILDING STUBS, SHALL HAVE 5" MINIMUM CRUSHED STONE BEDDING. THE GRADATION SHALL BE CA-11.
5. ALL PROPOSED SANITARY MANHOLES ARE TO HAVE PRECAST SECTIONS AND BOTTOM. ADJUSTMENT RINGS TO BE PRECAST AND LIMITED TO 1'-0".
6. HORIZONTAL SEPARATION - WATERMAINS AND SEWERS

1. WATERMAINS SHALL BE LOCATED AT LEAST 10' HORIZONTALLY FROM ANY EXISTING OR PROPOSED DRAIN, STORM SEWER, SANITARY SEWER, COMBINED SEWER OR SEWER SERVICE CONNECTION.
2. WATERMAINS MAY BE LOCATED CLOSER THAN 10' TO A SEWER LINE WHEN:
   A. LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10' AND
   B. THE WATERMAIN INVERT IS AT LEAST 18" ABOVE THE CROWN OF THE SEWER; AND
   C. THE WATERMAIN IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELF LOCATED TO ONE SIDE OF THE SEWER.
3. WHEN IT IS IMPOSSIBLE TO MEET (1) OR (2) ABOVE, BOTH THE WATERMAIN AND DRAIN OR SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, PRESTRESSED CONCRETE PIPE, OR PVC PIPE EQUIVALENT TO WATERMAIN STANDARDS OF CONSTRUCTION. THE DRAIN OR SEWER SHALL BE PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD BEFORE BACKFILLING. (INCIDENTAL TO SANITARY SEWER UNIT PRICE).

VERTICAL SEPARATION - WATERMAIN AND SEWERS

1. A WATERMAIN SHALL BE SEPARATED FROM A SEWER SO THAT THE INVERT IS A MINIMUM OF 18" ABOVE THE CROWN OF THE DRAIN OR SEWER WHENEVER WATERMAINS CROSS STORM SEWERS, SANITARY SEWERS OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATERMAIN LOCATED WITHIN 10' HORIZONTALLY OF ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATERMAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER OR DRAIN.
2. BOTH THE WATERMAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, PRESTRESSED CONCRETE PIPE, OR PVC PIPE EQUIVALENT TO WATERMAIN STANDARDS OF CONSTRUCTION WHEN:
   A. IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED IN (1) ABOVE; OR
   B. THE WATERMAIN PASSES UNDER A SEWER OR DRAIN
3. A VERTICAL SEPARATION OF 18" BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATERMAIN SHALL BE MAINTAINED WHERE A WATERMAIN CROSSES UNDER A SEWER. SUPPORT THE SEWER AND DRAIN LINES TO PREVENT SETTLING AND BREAKING THE WATERMAIN, AS SHOWN ON THE PLANS OR AS APPROVED BY THE ENGINEER.
4. CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE PERPENDICULAR DISTANCE FROM THE WATERMAIN TO THE SEWER OR DRAIN LINE IS AT LEAST 10'.

7. ALL MANHOLES, CATCH BASINS, INLETS AND VALVE VAULTS SHALL INCLUDE A CAST IRON FRAME AND LID AS SPECIFIED ON PLANS.
8. ALL SEWER CONNECTIONS ARE TO BE MADE BY ONE OF THE FOLLOWING METHODS: (A.) CONNECT EXISTING STUB. (B.) USE SHEWER TAP MACHINE AND USE WYE SADDLE.
9. BAND SEAL OR SIMILAR FLEXIBLE TYPE COUPLINGS SHALL BE USED IN CONNECTION OF SEWER PIPE OR DISSIMILAR MATERIALS.
10. ALL WATERMAINS SHALL HAVE AT LEAST 5'-6" OF COVER.
11. ALL WATERMAINS SHALL BE HYDROSTATICALLY TESTED AS PER VILLAGE OF FLOSSMOOR SPECIFICATIONS. THE VILLAGE ENGINEER SHALL BE GIVEN 2 WORKING DAYS PRIOR TO STARTING OF THE 150 PSI PRESSURE TEST. ENGINEER SHALL BE PRESENT FOR ALL TESTING. TWO COPIES OF APPROVED CHLORINATION REPORT SHALL BE GIVEN TO THE DIRECTOR OF PUBLIC WORKS.
12. ALL WATERMAIN FITTINGS SHALL BE MECHANICAL JOINTS WITH RETAINER GLANDS. ALL FITTINGS SHALL BE MANUFACTURED IN THE U.S.A. * THE RETAINER GLAND IS TO BE MANUFACTURED BY E.B.A.A. IRON SALE, INC. OF EASTLAND, TEXAS AND KNOWN AS THEIR 1112 SERIES OR APPROVED EQUAL.
13. ALL ELEVATIONS ARE U.S.G.S. DATUM. SUBTRACT 579.48 TO OBTAIN CHICAGO CITY DATUM.
14. TWO (2) THREE-FOURTHS INCH (3/4") SAMPLING TAPS SHALL BE INSTALLED ON THE WATERMAIN IN EACH VALVE VAULT ; ON TAP ON EACH SIDE OF THE VALVE HEREON.
15. SANITARY SEWERS SHALL BE CLEANED IMMEDIATELY PRIOR TO INSPECTION BY CLOSED CIRCUIT TELEVISION. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED FOR THE COST OF THE SANITARY SEWER.
16. SANITARY SEWERS SHALL BE INSPECTED BY CLOSE CIRCUIT TELEVISION. TWO COPIES OF THE COLORED VIDEO TAPES WITH AUDIO DESCRIPTION ALONG WITH TWO COPIES OF THE TYPED REPORT SHALL BE GIVEN TO THE VILLAGE ENGINEER FOR REVIEW PRIOR TO THE APPROVAL OF THE INSTALLED SEWER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE SANITARY SEWER.
17. THE USE OF RETAINER GLANDS ON THE BELLS OF ALL FITTINGS DOES NOT NEGATE THE REQUIREMENTS OF THE INSTALLATION OF CONCRETE THRUST BLOCKS AT ALL FITTINGS.
18. ALL FIRE HYDRANTS SHALL BE BAGGED IMMEDIATELY AFTER INSTALLATION THE BAG WILL BE REMOVED AFTER THE WATERMAIN HAS BEEN PRESSURE TESTED AND CHLORINATED.
19. ALL DUCTILE IRON SANITARY SEWERS SHALL BE REQUIRED TO CONFORM TO THE TESTING AND ACCEPTANCE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS SECTION 31-1.11B OPTION 3 AND 4 "EXFILTRATION OF AIR UNDER PRESSURE" AND ALL PVC SEWER SHALL BE REQUIRED TO CONFORM TO THE TESTING AND ACCEPTANCE FOR "DEFLECTION FOR FLEXIBLE THERMOPLASTIC PIPE". THE COST OF THE "ESTING SHALL BE CONSIDERED INCIDENTAL TO THE SEWER.

SPECIFICATIONS :

1. DUCTILE IRON SANITARY SEWER

   ALL 8" SANITARY SEWER SHALL BE CLASS 52 DUCTILE IRON PER SPECIFICATION A.N.S.I. A 21.51. THE JOINTS SHALL BE PUSH-ON GASKET TYPE CONFORMING TO ANSI SPECIFICATION A-21.11. BEDDING AND BACKFILL MATERIAL SHALL BE PLACED IN ACCORDANCE WITH ASTM SPECIFICATION D-2321-89. BEDDING THICKNESS EQUALS 1/4 OUTSIDE DIAMETER OF THE SEWER PIPE BUT NOT LESS THAN 4 INCHES NOR MORE THAN EIGHT INCHES. SEWER PIPE SHALL BE BACKFILLED A MINIMUM OF 12" OVER THE TOP OF THE PIPE WITH CLASS 1 EMBEDMENT MATERIAL, GRADATION SHALL BE CA - 11 OR CA - 13 WITH A MINIMUM SIZE OF 1/4" DIA. AND A MAXIMUM OF 1" DIA. COST OF EMBEDMENT MATERIAL SHALL BE INCLUDED IN COST OF SEWER PIPE.

2. SANITARY MANHOLE

   (SEE DETAIL) CASTING SHALL BE NEENAH NO. 1712 WITH TYPE "A" SELF SEALING SOLID COVER OR APPROVED EQUAL. PROVIDE INTERNAL CRETEX CHIMNEY SEAL OR APPROVED EQUAL.

3. GRANULAR TRENCH BACKFILL

   GRANULAR BACKFILL FOR TRENCHES SHALL BE CLASS 1, GRADATION CA-6.

4. WATERMAIN

   ALL WATER MAIN SHALL BE DUCTILE IRON PIPE, CL 52, CEMENT LINED, CONFORMING TO AWWA C-151, WITH PUSH-ON JOINTS WITH FLEXIBLE ELASTOMERIC GASKETS CONFORMING TO AWWA C-111. ALL NUTS, BOLT, AND WASHERS ON THE WATER MAIN AND FITTINGS SHALL BE STAINLESS STEEL.

5. CASING PIPE BORE AND JACK WITH STAINLESS STEEL CASING SPACERS

   CASING PIPE SHALL BE AS SHOWN ON PLAN. JOINTS SHALL BE CONTINUOUS WELDED. CASING SPACERS SHALL BE ALL STAINLESS STEEL CASCADE WATERWORK MFG. OR APPROVED EQUAL. SPACERS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS TO RESTRAIN THE PIPE FROM MOVEMENT IN THE CASING PIPE. THE CASING PIPE SHALL BE SEALED AT BOTH ENDS WITH CASCADE WATERWORKS MFG. MODEL CCES END SEAL WRAP WITH STAINLESS CLAMPS OR APPROVED EQUAL. COST OF CASING SPACERS AND END SEALS SHALL BE INCIDENTAL TO COST OF CASING PIPE. THE COST FOR SANITARY SEWER CONSTRUCTED WITHIN SLEEVES WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR SEWER PIPE ITEMS.

TECH 3 CONSULTING GROUP, INC. ASSUMES NO LIABILITY FOR THE CORRECTNESS OR ACCURACY OF THESE PLANS UNLESS AN ORIGINAL SIGNATURE AND SEAL OF A REGISTERED PROFESSIONAL ENGINEER EMPLOYED BY THE CORPORATION ARE AFFIXED TO THE ORIGINAL SHEET OF THESE PLANS.

DATED THIS 5TH DAY OF FEBRUARY, 20 09.

REGISTERED PROFESSIONAL ENGINEER OF

LICENSE EXPIRES NOVEMBER 30, 2009

STANDARD SYMBOL LEGEND

EXISTING		PROPOSED
	WATERMAIN	
	WATERMAIN AND VALVE BOX	
	HYDRANT INSTALLATION	
	WATERMAIN AND VALVE PIT	
	WATER SERVICE W/ "B" BOX	
	SANITARY SEWER AND MANHOLE	
	SANITARY SEWER AND DROP MANHOLE	
	INLET AND STORM SEWER	
	CATCH BASIN AND STORM SEWER	
	DRAINAGE SWALE	
750.0	SPOT ELEVATION	750.0
	DIRECTION OF OVERLAND DRAINAGE	
	FENCE	
	PROPERTY LINE	
	RIGHT-OF-WAY LINE	
	SLOPE	
	STREET LIGHT	
	PARKING LIGHT	
T	I.B.T. BURIED CABLE	T
G	GAS LINE	G
	POWER LINE POLE	
	ELECTRICAL TRANSFORMER	
	ELECTRICAL PEDESTAL	

REVISIONS

NO.	DATE	BY	DESCRIPTION
10	12/01/08	EGH	PER M.W.R.D. REVIEW
11	2/09/09	EGH	FOR CONSTRUCTION ISSUE

ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-002235

TECH 3 Consulting Group, Inc.
ENGINEERS SURVEYORS
737 West Exchange St. Crete, IL 60417
ph 708.672.4994 fax 708.672.3739

Village of Flossmoor
Flossmoor, Illinois

DESIGNED BY: RWM
DRAWN BY: EGH
CHECKED BY: RWM

REVISIONS

NO.	DATE	BY	DESCRIPTION
3	1/16/08	EGH	PER I.D.O.T. REVIEW
4	3/21/08	EGH	PER I.D.O.T. REVIEW
5	4/29/08	EGH	PER I.D.O.T. REVIEW
6	9/01/08	EGH	PER I.D.O.T. REVIEW
7	11/12/08	EGH	PER M.W.R.D. REVIEW
8	11/24/08	EGH	PER M.W.R.D. REVIEW

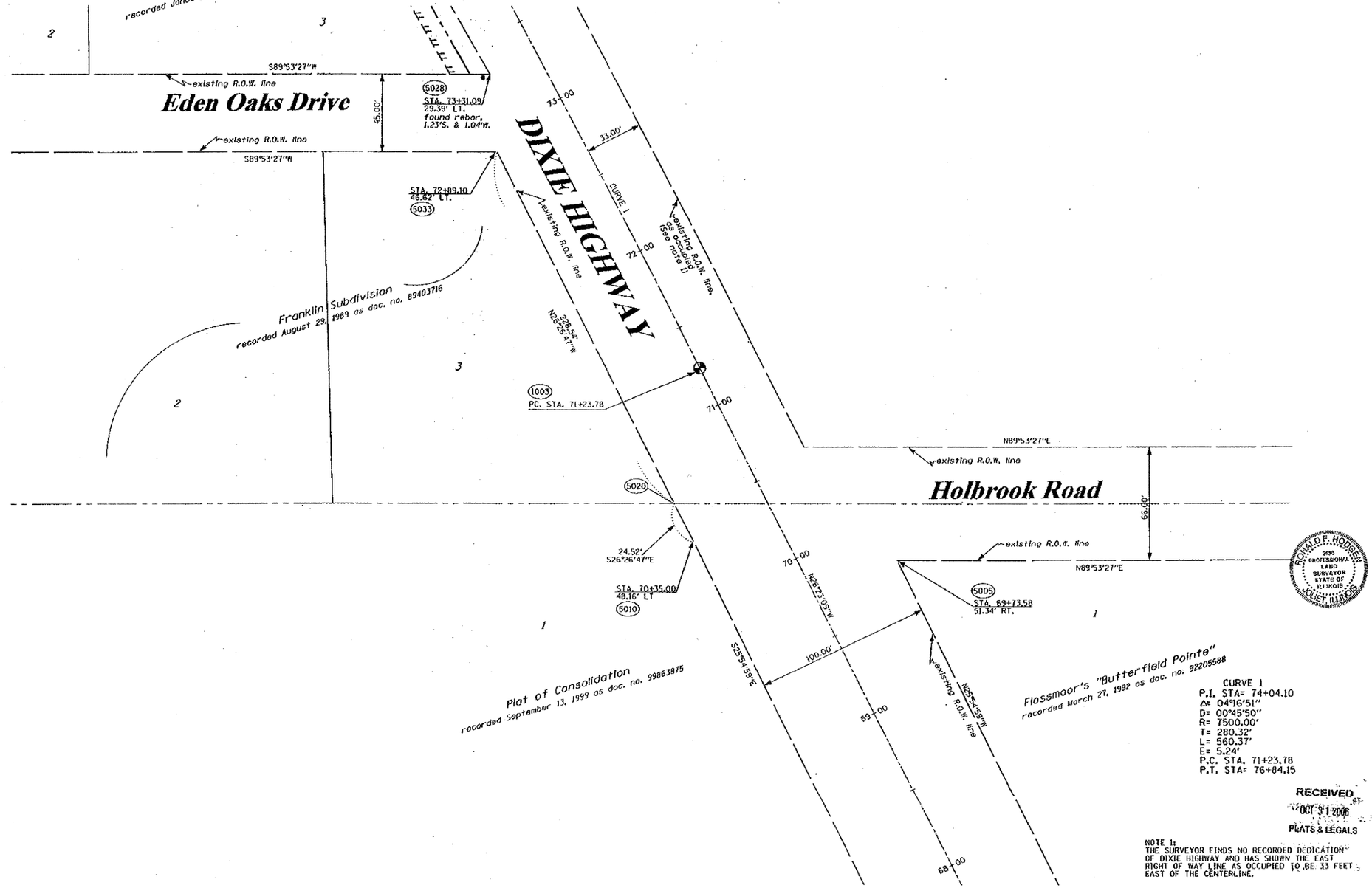
IDOT DIXIE BRIDGE RECONSTRUCTION UTILITY LOCATION
CONSTRUCTION DETAILS & GENERAL NOTES

DATE: FEBRUARY 16, 2007 SCALE : AS NOTED JOB NO. 06702

C-3

PART OF THE NE 1/4 OF SECTION 7, T35N, R14E OF THE 3rd PM, BLOOM TOWNSHIP, COOK COUNTY, ILLINOIS.

SEE SHEET 3 FOR CONTINUATION



CURVE 1
P.I. STA= 74+04.10
Δ= 04°16'51"
D= 00°45'50"
R= 7500.00'
T= 280.32'
L= 560.37'
E= 5.24'
P.C. STA. 71+23.78
P.T. STA= 76+84.15

RECEIVED
OCT 31 2006
PLATS & LEGALS

NOTE 1:
THE SURVEYOR FINDS NO RECORDED DEDICATION OF DIXIE HIGHWAY AND HAS SHOWN THE EAST RIGHT OF WAY LINE AS OCCUPIED TO BE 33 FEET EAST OF THE CENTERLINE.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0Y26 HIGHWAY	BUTTERFIELD CREEK	COOK	64	17
STATION 68+00	TO STATION 73+00			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

BEARINGS SHOWN HEREON ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83.

N

30' 0' 30'

LEGEND

- EXISTING CENTERLINE
- PROPOSED CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT LINE
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER QUARTER SECTION LINE
- P — PROPERTY (DEED) LINE
- APL — APPARENT PROPERTY LINE
- 121.45 — MEASURED DIMENSION
- 123.45 (COMP) — COMPUTED DIMENSION
- (123.45) — RECORDED DIMENSION
- ■ FOUND IRON PIPE OR IRON ROD
- ○ SET ⅝ INCH IRON ROD PERMANENT SURVEY MONUMENT.
- ⊕ I.D.O.T. STD. 2135 (TO BE SET BY OTHERS)
- \+ CUT CROSS FOUND OR SET
- SAME OWNERSHIP
- TEL — EXISTING TELEPHONE SPLICE BOX
- LGT — EXISTING STREET LIGHT
- MAIL BOX — EXISTING MAIL BOX
- WELL — EXISTING WELL HEAD

■ STAKING OF PROPOSED RIGHT OF WAY. SET ⅝ INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

■M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS, SET ⅝ INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER 20 INCHES BELOW GROUND SURFACE TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

SECTION CORNER — QUARTER SECTION CORNER

STATE OF ILLINOIS)
) SS
COUNTY OF WILL)

THIS IS TO CERTIFY THAT RUETTIGER, TONELLI & ASSOCIATES, INC., AN ILLINOIS DESIGN FIRM, HAS SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 7, TOWNSHIP 35 NORTH, RANGE 14 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY. THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT JOLIET, ILLINOIS THIS 23RD DAY OF OCTOBER 2006 A.D.

RONALD F. HODGEN 2630 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS JOLIET, ILLINOIS

RONALD F. HODGEN P.L.S. NO. 2630
MY LICENSE EXPIRES 11-30-2006

RUETTIGER, TONELLI & ASSOCIATES, INC.
Land Surveyors/Engineers/Planners/Landscape Architects/G.I.S. Consultants
2174 ONEIDA STREET JOLIET, ILLINOIS 60435 PH. (815) 744-6600 FAX (815) 744-0101
2603 SOUTH WASHINGTON STREET SUITE 170 NAPERVILLE, ILLINOIS 60565 PH. (630) 420-1740 FAX (630) 420-1741

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
DIXIE HIGHWAY

COOK COUNTY
JOB NO. R-90-014-03
STATION 68+00 TO STATION 73+00

SCALE: 1"=30' SHEET 2 OF 6

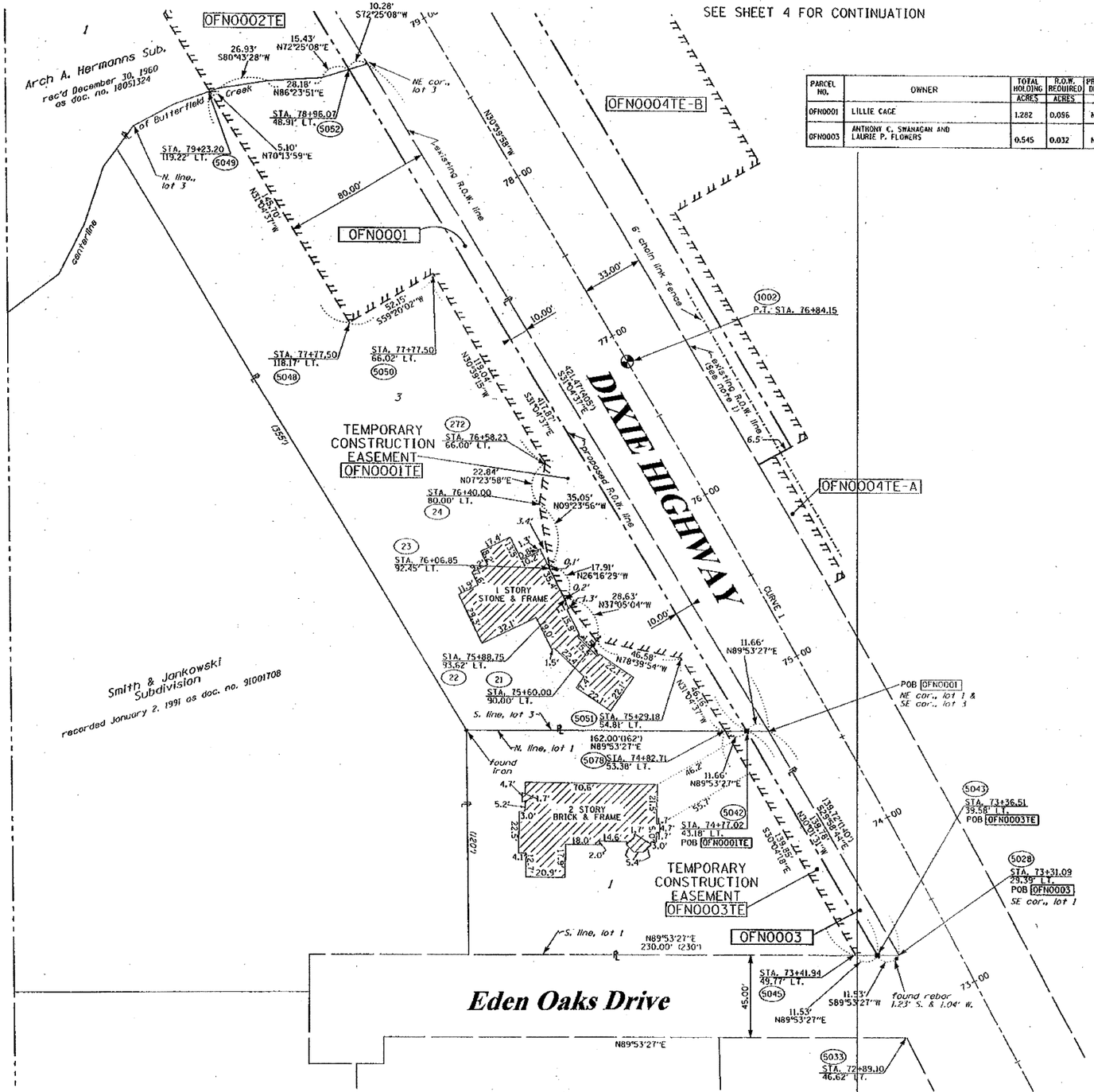
ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

SHEET 1 OF 6 IS A COVER SHEET AND IS NOT RECORDED

ROUTE: DIXIE HIGHWAY SECTION: OVER BUTTERFIELD CREEK COUNTY: COOK JOB NO. R-90-014-03 RT&A 20052213(DIXIE HWY)

PART OF THE NE 1/4 OF SECTION 7, T35N, R14E OF THE 3rd PM, BLOOM TOWNSHIP, COOK COUNTY, ILLINOIS.

SEE SHEET 4 FOR CONTINUATION



SEE SHEET 2 FOR CONTINUATION

PARCEL NO.	OWNER	TOTAL HOLDING ACRES	R.O.W. REQUIRED ACRES	PREVIOUSLY DEDICATED ACRES	REMAINDER ACRES	EASEMENTS TEMP ACRES	EASEMENTS PERM ACRES	EASEMENT PURPOSE	PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY
OFN0001	LILLIE CAGE	1.282	0.096	N/A	1.186	0.382	N/A	CONSTR.	32-07-200-067	
OFN0003	ANTHONY C. SWANAGAN AND LAURIE P. FLOWERS	0.545	0.032	N/A	0.513	0.032	N/A	CONSTR.	32-07-200-065	

CONTRACT NUMBER:

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DIXIE HIGHWAY	BUTTERFIELD CREEK	COOK	69	18
STATION 73+00	TO STATION 79+00			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

BEARINGS SHOWN HEREON ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83.

N

30' 0' 30'

LEGEND

- EXISTING CENTERLINE
- PROPOSED CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT LINE
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER QUARTER SECTION LINE
- PROPERTY (DEED) LINE
- APL — APPARENT PROPERTY LINE
- 123.45 — MEASURED DIMENSION
- 123.45 (COMP) — COMPUTED DIMENSION
- (123.45) — RECORDED DIMENSION
- ● — FOUND IRON PIPE OR IRON ROD
- ○ — SET ¾ INCH IRON ROD PERMANENT SURVEY MONUMENTS.
- ⊕ — I.D.O.T. STD. 2135 (TO BE SET BY OTHERS)
- \+ — CUT CROSS FOUND OR SET
- SAME OWNERSHIP
- TEL — EXISTING TELEPHONE SPLICE BOX
- LGT — EXISTING STREET LIGHT
- MAIL BOX — EXISTING MAIL BOX
- WELL — EXISTING WELL HEAD

■ STAKING OF PROPOSED RIGHT OF WAY. SET ⅝ INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

■M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. SET ⅝ INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER 20 INCHES BELOW GROUND SURFACE TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

SECTION CORNER — QUARTER SECTION CORNER

STATE OF ILLINOIS)
) SS
COUNTY OF WILL)

THIS IS TO CERTIFY THAT RUETTIGER, TONELLI & ASSOCIATES, INC., AN ILLINOIS DESIGN FIRM, HAS SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 7, TOWNSHIP 35 NORTH, RANGE 14 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY. THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT JOLIET, ILLINOIS THIS 19 DAY OF OCTOBER, 2006

RONALD F. HODGEN P.L.S. NO. 2630
MY LICENSE EXPIRES 11-30-2006

CURVE 1
P.I. STA= 74+04.10
Δ= 04°16'51"
D= 00°45'50"
R= 7500.00'
T= 280.32'
L= 560.37'
E= 5.24'
P.C. STA. 71+23.78
P.T. STA= 76+84.15

RECEIVED
OCT 31 2006
PLATS & LEGALS

NOTE 1:
THE SURVEYOR FINDS NO RECORDED DEDICATION OF DIXIE HIGHWAY AND HAS SHOWN THE EAST RIGHT OF WAY LINE AS OCCUPIED-TO BE 33 FEET EAST OF THE CENTERLINE.

REVISED 10-31-06 REVISED TE LINETYPE
REVISED 8-15-06 / REVISED OWNER, 0001
REVISED 8-11-06 / ADDED OWNER TO PARCEL 0003
REVISED 6-08-2006

RUETTIGER, TONELLI & ASSOCIATES, INC.
Land Surveyors/Engineers/Planners/Landscape Architects/G.I.S. Consultants
2174 ONEIDA STREET, JOLIET, ILLINOIS 60435, PH. (815) 744-6600 FAX (815) 744-0101
2603 SOUTH WASHINGTON STREET SUITE 170, NAPERVILLE, ILLINOIS 60565, PH. (630) 420-7740 FAX (630) 420-7741

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
DIXIE HIGHWAY

COOK COUNTY
JOB NO. R-90-014-03
STATION 73+00 TO STATION 79+00

SCALE: 1"=30' SHEET 3 OF 6

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

SHEET 1 OF 6 IS A COVER SHEET AND IS NOT RECORDED

ROUTE: DIXIE HIGHWAY SECTION: OVER BUTTERFIELD CREEK COUNTY: COOK JOB NO. R-90-014-03 RT&A 20052213DIXIE HWY

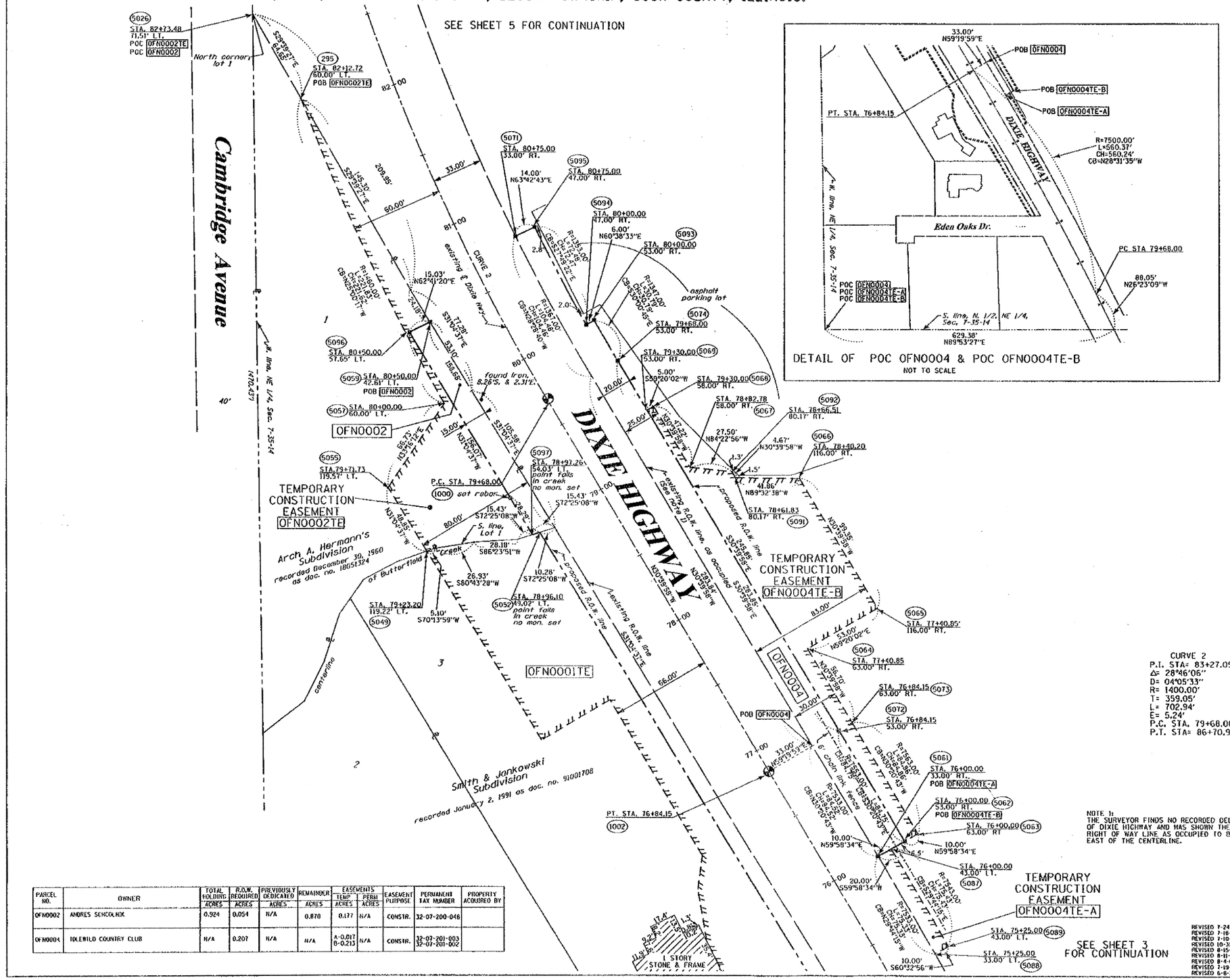
18.dgn 11/17/2006 8:58:01 AM

CONTRACT NUMBER:

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DIXIE HIGHWAY	BUTTERFIELD CREEK	COOK	64	19
STATION 76+00	TO STATION 83+00			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

PART OF THE NE 1/4 OF SECTION 7, T35N, R14E OF THE 3rd PM, BLOOM TOWNSHIP, COOK COUNTY, ILLINOIS.

SEE SHEET 5 FOR CONTINUATION



DETAIL OF POC OFN0004 & POC OFN0004TE-B
NOT TO SCALE

PARCEL NO.	OWNER	TOTAL HOLDING ACRES	R.O.W. REQUIRED ACRES	PREVIOUSLY DEDICATED ACRES	REMAINDER ACRES	EASEMENTS TEMP ACRES	EASEMENTS PERM ACRES	EASEMENT PURPOSE	PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY
OFN0002	ANDRES SCHOOL NIK	0.924	0.054	N/A	0.870	0.177	N/A	CONSTR.	32-07-200-046	
OFN0004	IDLEWILD COUNTRY CLUB	N/A	0.207	N/A	N/A	A-0.017 B-0.213	N/A	CONSTR.	32-07-201-003 32-07-201-002	

BEARINGS SHOWN HEREON ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83.

N

30' 0' 30'

LEGEND

- EXISTING CENTERLINE
- PROPOSED CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT LINE
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER QUARTER SECTION LINE
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- 121.45 MEASURED DIMENSION
- 123.45 (COMP) COMPUTED DIMENSION
- (123.45) RECORDED DIMENSION
- FOUND IRON PIPE OR IRON ROD
- SET 5/8 INCH IRON ROD PERMANENT SURVEY MONUMENT.
- I.D.O.T. STD. 2135 (TO BE SET BY OTHERS)
- CUT CROSS FOUND OR SET
- SAME OWNERSHIP
- TEL EXISTING TELEPHONE SPLICE BOX
- LGT EXISTING STREET LIGHT
- MAIL BOX EXISTING MAIL BOX
- WELL EXISTING WELL HEAD

■ STAKING OF PROPOSED RIGHT OF WAY. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

■M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER 20 INCHES BELOW GROUND SURFACE TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

SECTION CORNER — QUARTER SECTION CORNER

CURVE 2
P.I. STA= 83+27.05
Δ= 28°46'06"
D= 04°05'33"
R= 1400.00'
T= 359.05'
L= 702.94'
E= 5.24'
P.C. STA. 79+68.00
P.T. STA= 86+70.94

NOTE 1:
THE SURVEYOR FINDS NO RECORDED DEDICATION OF DIXIE HIGHWAY AND HAS SHOWN THE EAST RIGHT OF WAY LINE AS OCCUPIED TO BE 33 FEET EAST OF THE CENTERLINE.

SEE SHEET 3 FOR CONTINUATION

REVISED 7-24-07 ADDED NEW TIE INFO
REVISED 7-18-07 REVISED OIU LEADER
REVISED 7-10-07 CHANGED TAKE 0002
REVISED 10-31-06 UPDATED TE LINETYPE
REVISED 8-15-06 ADDED OWNER, OFN0002
REVISED 8-11-06 ADDED OWNER, OFN0004
REVISED 8-4-06 - CHANGED OFN0004
REVISED 7-19-06 - CHANGED OFN0004TE-B
REVISED 6-6-2006

STATE OF ILLINOIS)
) SS
COUNTY OF WILL)

THIS IS TO CERTIFY THAT RUETTIGER, TONELLI & ASSOCIATES, INC., AN ILLINOIS DESIGN FIRM, HAS SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 7, TOWNSHIP 35 NORTH, RANGE 14 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY. THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF. THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT JOLIET, ILLINOIS THIS 24th DAY OF July, 2007 A.D.

RONALD F. HODGEN P.L.S. NO. 2630
MY LICENSE EXPIRES 11-30-2008

RONALD F. HODGEN 2630 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS

RUETTIGER, TONELLI & ASSOCIATES, INC.
Land Surveyors/Engineers/Planners/Landscape Architects/G.I.S. Consultants
2174 ONEIDA STREET JOLIET, ILLINOIS 60435 PH. (815) 744-6600 FAX (815) 744-0201
2603 SOUTH WASHINGTON STREET SUITE 170 NAPERVILLE, ILLINOIS 60565 PH. (630) 420-7740 FAX (630) 420-7741

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
DIXIE HIGHWAY
COOK COUNTY
JOB NO. R-90-014-03
STATION 76+00 TO STATION 83+00

SCALE: 1"=30' SHEET 4 OF 6

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

SHEET 1 OF 6 IS A COVER SHEET AND IS NOT RECORDED
RT&A 20052213DIXIE HWY)

ROUTE: DIXIE HIGHWAY SECTION: OVER BUTTERFIELD CREEK COUNTY: COOK JOB NO. R-90-014-03

shts4.dgn 7/24/2007 10:58:47 AM

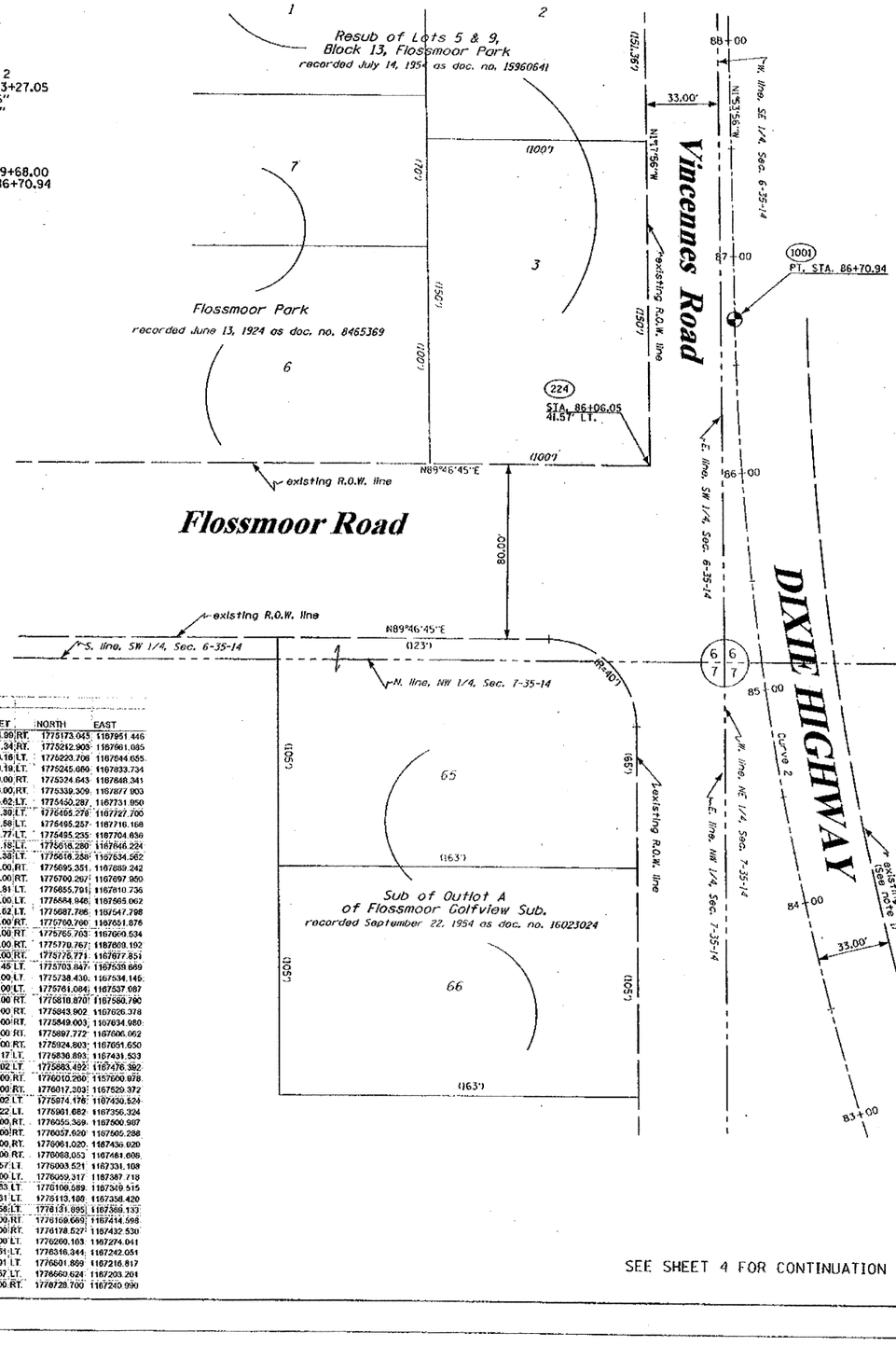
PART OF THE NW 1/4 OF SECTION 7 AND PART OF THE SW 1/4 OF SECTION 6, T35N, R14E OF THE 3rd PM, BLOOM TOWNSHIP, COOK COUNTY, ILLINOIS.

CONTRACT NUMBER:

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DIXIE HIGHWAY	BUTTERFIELD CREEK	COOK	64	20
STATION 83+00	TO STATION 88+00			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

BEARINGS SHOWN HEREON ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83.

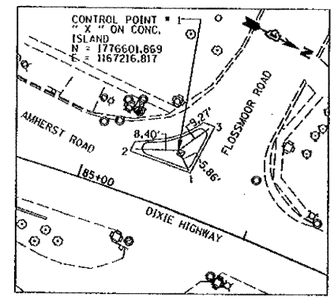
CURVE 2
P.I. STA= 83+27.05
Δ= 28°46'06"
D= 04°05'33"
R= 1400.00'
T= 359.05'
L= 702.94'
E= 5.24'
P.C. STA. 79+68.00
P.T. STA= 86+70.94



SEE SHEET 4 FOR CONTINUATION

COORDINATE TABLE

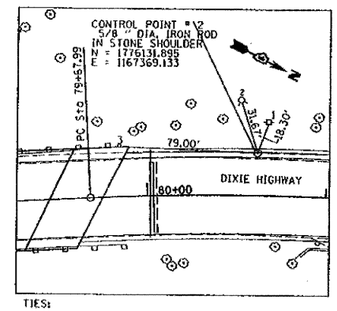
POINT NO.	STATION	OFFSET	NORTH	EAST
CONTROL PT. 3	69+42.15	24.99 RT.	1775173.045	1167951.446
5005	69+73.58	51.34 RT.	1775242.903	1167961.085
5010	70+35.00	46.16 LT.	1775223.706	1167844.655
5020	70+69.82	48.19 LT.	1775245.686	1167833.734
1003	71+23.78	0.00 RT.	1775324.643	1167868.341
269	71+23.78	33.00 RT.	1775339.309	1167877.903
5033	72+09.10	46.62 LT.	1775450.287	1167731.950
5028	73+31.09	26.39 LT.	1775495.276	1167727.700
5043	73+36.51	39.58 LT.	1775495.257	1167716.168
5045	73+41.94	49.77 LT.	1775495.235	1167704.636
5042	74+77.02	43.18 LT.	1775518.290	1167666.224
5078	74+82.71	63.38 LT.	1775516.258	1167634.562
5088	75+25.00	33.00 RT.	1775695.351	1167689.242
5089	75+25.00	43.00 RT.	1775700.267	1167697.950
5051	75+29.16	54.91 LT.	1775855.701	1167610.736
21	75+60.00	90.00 LT.	1775864.948	1167565.062
22	75+88.75	93.62 LT.	1775982.786	1167547.298
5001	76+00.00	33.00 RT.	1775760.760	1167651.876
5087	76+00.00	43.00 RT.	1775765.763	1167660.534
5062	76+00.00	53.00 RT.	1775770.767	1167669.192
5063	76+00.00	63.00 RT.	1775776.771	1167677.851
23	76+06.85	92.45 LT.	1775703.847	1167638.869
24	76+40.00	88.00 LT.	1775738.430	1167534.145
272	76+58.23	88.00 LT.	1775761.084	1167537.987
1002	76+84.15	0.00 RT.	1775810.870	1167580.790
5072	76+84.15	53.00 RT.	1775843.902	1167626.378
5073	76+84.15	63.00 RT.	1775849.003	1167634.980
5084	77+40.85	63.00 RT.	1775897.772	1167606.062
5065	77+40.85	116.00 RT.	1775924.803	1167651.650
5048	77+77.50	118.17 LT.	1775836.893	1167431.533
5050	77+77.50	88.02 LT.	1775883.492	1167476.982
5068	78+40.20	118.00 RT.	1776010.260	1167699.878
5087	78+82.78	58.00 RT.	1776017.303	1167529.372
5052	78+98.18	49.02 LT.	1775974.176	1167430.524
5049	79+23.20	119.22 LT.	1775961.682	1167356.324
5069	79+30.00	53.00 RT.	1776055.369	1167500.987
5088	79+30.00	58.00 RT.	1776057.509	1167505.288
1000	79+68.00	0.00 RT.	1776061.020	1167436.920
5074	79+68.00	53.00 RT.	1776068.053	1167461.608
5055	79+71.73	119.57 LT.	1776003.521	1167331.108
5057	80+00.00	60.00 LT.	1776059.317	1167387.718
5060	80+50.00	52.63 LT.	1776106.689	1167349.515
5059	80+50.00	42.61 LT.	1776113.108	1167358.420
CONTROL PT. 2	80+81.50	24.58 LT.	1776131.895	1167368.133
5071	80+75.00	33.00 RT.	1776169.669	1167414.598
5070	80+75.00	53.00 RT.	1776178.527	1167432.530
295	82+12.72	60.00 LT.	1776260.103	1167274.041
5026	82+73.46	71.51 LT.	1776316.344	1167242.051
CONTROL PT. 1	83+47.80	33.01 LT.	1776501.869	1167216.817
224	86+06.05	41.57 LT.	1776660.624	1167203.201
1001	86+70.94	0.00 RT.	1776728.700	1167240.990



TIES:

1. " X " ON NORTHEAST CORNER OF CONCRETE ISLAND.
2. " X " ON SOUTHEAST CORNER OF CONCRETE ISLAND.
3. " X " ON NORTHWEST CORNER OF CONCRETE ISLAND.

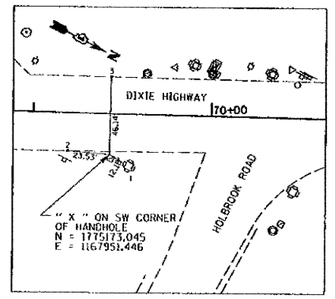
CONTROL POINT #1



TIES:

1. MAG (MAGNETIC NAIL) ON EAST FACE OF POWER POLE.
2. " X " ON EAST FLANGE BOLT OF FIRE HYDRANT.
3. MAG (MAGNETIC NAIL) ON TOP OF NORTH MOST WOOD GUARDRAIL POST.

CONTROL POINT #2



TIES:

1. " X " ON SOUTHWEST CORNER OF CONCRETE TRAFFIC SIGNAL BASE.
2. MAG (MAGNETIC NAIL) ON EDGE OF PAVEMENT.
3. MAG (MAGNETIC NAIL) ON EDGE OF PAVEMENT.

CONTROL POINT #3

NOTE 1:
THE SURVEYOR FINDS NO RECORDED DEDICATION OF DIXIE HIGHWAY AND HAS SHOWN THE EAST RIGHT OF WAY LINE AS OCCUPIED TO BE 33 FEET EAST OF THE CENTERLINE.

N

30' 0' 30'

LEGEND

- EXISTING CENTERLINE
- PROPOSED CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT LINE
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER QUARTER SECTION LINE
- P. PROPERTY (DEED) LINE
- APL APPARENT PROPERTY LINE
- 121.45 MEASURED DIMENSION
- 123.45 (COMP) COMPUTED DIMENSION
- (123.45) RECORDED DIMENSION
- ● FOUND IRON PIPE OR IRON ROD
- ○ SET ⅝ INCH IRON ROD PERMANENT SURVEY MONUMENT,
- I.D.O.T. STD. 2135 (TO BE SET BY OTHERS)
- + CUT CROSS FOUND OR SET
- SAME OWNERSHIP
- TEL EXISTING TELEPHONE SPLICE BOX
- LGT EXISTING STREET LIGHT
- MAIL BOX EXISTING MAIL BOX
- WELL EXISTING WELL HEAD

■ STAKING OF PROPOSED RIGHT OF WAY. SET ⅝ INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

■M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. SET ⅝ INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER 20 INCHES BELOW GROUND SURFACE TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

SECTION CORNER (FOUND IRON PIPE, 1/4 2 11 12, SET ⅝ INCH IRON ROD) — QUARTER SECTION CORNER (FOUND IRON PIPE, 27 26, SET ⅝ INCH IRON ROD)

STATE OF ILLINOIS)
) SS
COUNTY OF WILL)

THIS IS TO CERTIFY THAT RUETTIGER, TONELLI & ASSOCIATES, INC., AN ILLINOIS DESIGN FIRM, HAS SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTIONS 6 AND 7, TOWNSHIP 35 NORTH, RANGE 14 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT JOLIET, ILLINOIS THIS 23RD DAY OF OCTOBER, 2006 A.D.

RONALD F. HOOGEN P.L.S. NO. 2630
MY LICENSE EXPIRES 11-30-2006

RONALD F. HOOGEN 2630 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS COAST SURVEY

RECEIVED
OCT 31 2006
PLATS & LEGAL

RUETTIGER, TONELLI & ASSOCIATES, INC.
Land Surveyors/Engineers/Planners/Landscape Architects/G.I.S. Consultants
2174 OMEGA STREET, JOLIET, ILLINOIS 60435, PH. (815) 744-0600 FAX (815) 744-0103
2603 SOUTH WASHINGTON STREET SUITE 170, NAPERVILLE, ILLINOIS 60565, PH. (630) 420-7740 FAX (630) 420-7741

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
DIXIE HIGHWAY
COOK COUNTY
JOB NO. R-90-014-03
STATION 83+00 TO STATION 88+00

SCALE: 1"=30' SHEET 5 OF 6

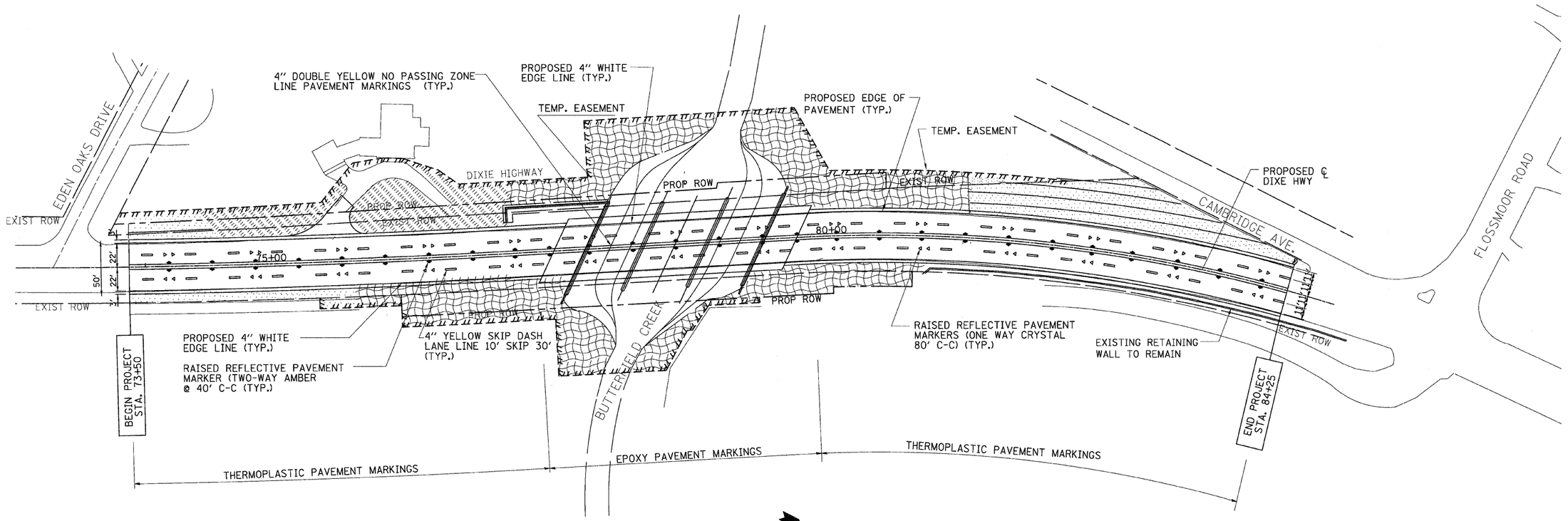
ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

ROUTE: DIXIE HIGHWAY SECTION: OVER BUTTERFIELD CREEK COUNTY: COOK JOB NO. R-90-014-03

SHEET 1 OF 6 IS A COVER SHEET AND IS NOT RECORDED
RT&A 20052213(01)XIE HWY

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	21
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62539



NOTES

1. ALL PROPOSED PAVEMENT MARKINGS ON HMA ROADWAY SURFACE SHALL BE THERMOPLASTIC.
2. ALL PAVEMENT MARKINGS ON PORTLAND CEMENT CONCRETE SURFACES SHALL BE EPOXY.
3. ALL EXISTING PAVEMENT MARKING IMPACTED BY THIS PROJECT OR STAGING OPERATION SHALL BE REMOVED & REPLACED IN KIND. PAYMENTS SHALL BE ACCORDING TO APPLICABLE PAY ITEMS SHOWN IN THE SUMMARY OF QUANTITIES.
4. THE SEEDING DATES FOR BARE EARTH SEEDING OF MIXTURE CLASSES 4 & 4B SHALL BE FROM MAY 15 TO JUNE 30 AND OCTOBER 30 TO DECEMBER 1.

LEGEND

TOPSOIL FURNISH & PLACE, 4"
NITROGEN FERTILIZER NUTRIENT
PHOSPHORUS FERTILIZER NUTRIENT
POTASSIUM FERTILIZER NUTRIENT
SEEDING, CLASS 2A
EROSION CONTROL BLANKET

TOPSOIL FURNISH & PLACE, 4"
SEEDING, CLASS 4
EROSION CONTROL BLANKET

TOPSOIL FURNISH & PLACE, 4"
NITROGEN FERTILIZER NUTRIENT
PHOSPHORUS FERTILIZER NUTRIENT
POTASSIUM FERTILIZER NUTRIENT
SODDING, SALT TOLERANT

REVISIONS	
NAME	DATE

R M E Rubinos & Mesia Engineers, Inc.
200 S. Michigan Ave, Suite 1500 Chicago IL 60604-2482
T> 312 870 6800 F> 312 663 1493

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HIGHWAY
OVER BUTTERFIELD CREEK

PAVEMENT MARKING AND LANDSCAPING

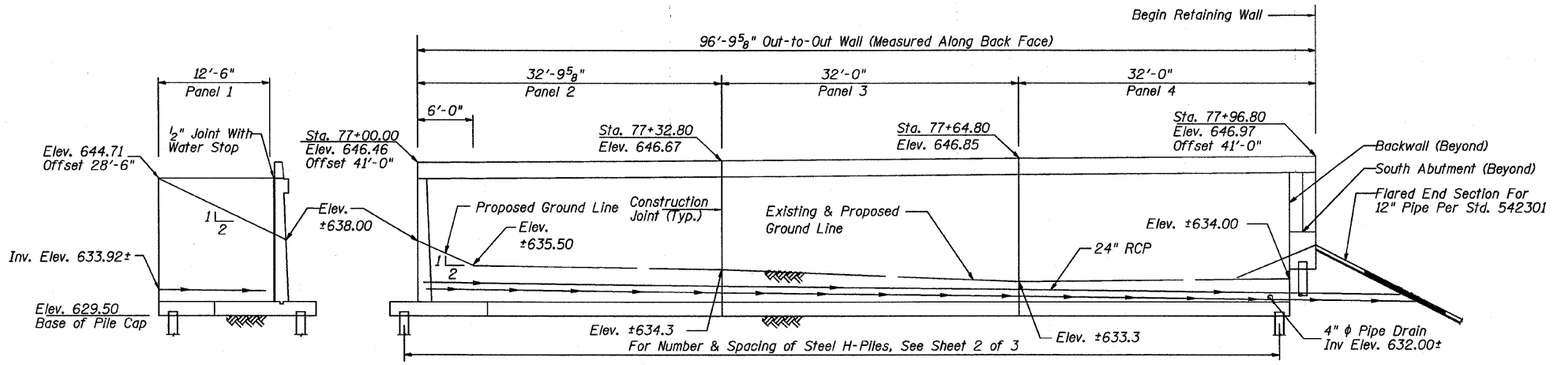
SCALE: VERT. 1"=50'
HORIZ.
DATE 6-25-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

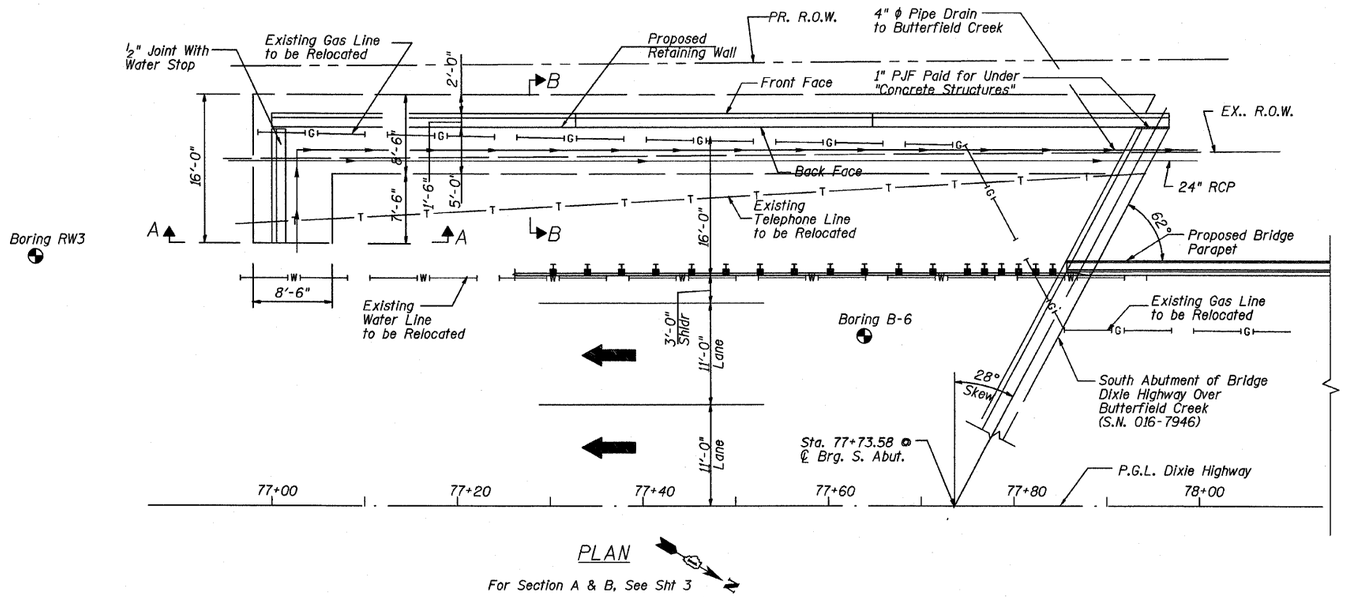
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	22
FED.ROAD DIST.NO.		ILLINOIS	FED.AID PROJECT-	

Sheet 1 of 3 Contract No. 62539

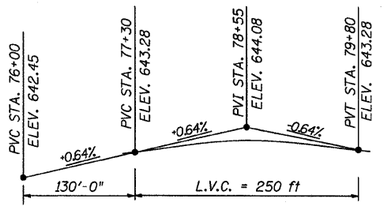


ELEVATION



PLAN

For Section A & B, See Sht 3



PROFILE GRADE OF ROADWAY

DESIGN SPECIFICATIONS
2002, AASHTO Specifications, 17th Edition
LOADING
Allow 2'-0" Soil Surcharge
DESIGN STRESSES
FIELD UNITS
f'c = 3500 psi
fy = 60,000 psi (Reinf.)

Utility Note:

Prior to Excavation in This Area, The Existing Utilities Will Be Field Located. The Utilities Interfering With The Construction Will Be Relocated as Shown on Contract Plans.

STATE OF ILLINOIS MOHSEN W. FARAHANY 81-5131 REGISTERED STRUCTURAL ENGINEER 7/30/09

Mohsen Farahany
Licensed Structural Engineer
State of Illinois
Lic. No. 81-5131
Expires: 11-30-2010

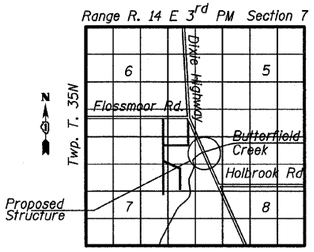
TOTAL BILL OF MATERIAL

ITEMS	UNITS	TOTAL
*Porous Granular Embankment (Special)	Cu. Yd.	180
Structure Excavation	Cu. Yd.	280
Concrete Structures	Cu. Yd.	146
Protective Coat	Sq. Yd.	50
*Reinforcement Bars, Epoxy Coated	POUND	15800
Furnishing Steel Piles HP 12 x 63	FOOT	1560
Driving Piles	FOOT	1560
Test Pile Steel, HP 12 x 63	EACH	1
Pile Shoes	EACH	39
Geocomposite Wall Drain	Sq. Yd.	155
*Pipe Underdrain for Structures 4"	FOOT	110

*See Special Provisions

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A-706 Grade 60. See Special Provisions.
2. The contractor shall drive test pile to 110% of the nominal required bearing specified in production locations at substructure specified or approved by the Engineer before ordering the remainder of piles.
3. For benchmark information and other relevant notes, see drawings for S.N. #016-7946.
4. Existing utilities in conflict with the retaining wall shall be abandoned or relocated according to directions given in plans.
5. All wall dimensions are from the front face of the wall.
6. All slopes shall be 1:2(max) unless otherwise specified.
7. All construction joints shall be bonded.
8. Temporary sheet piling is shown on Sheet 1 and 3 of the structural plans for S. N. 016-7946.



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E Anderson (TSD)
ENGINEER OF BRIDGES AND STRUCTURES

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

GENERAL PLAN, ELEVATION & BILL OF MATERIAL

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-W962

SCALE: NOT-TO-SCALE
DATE 6-30-09

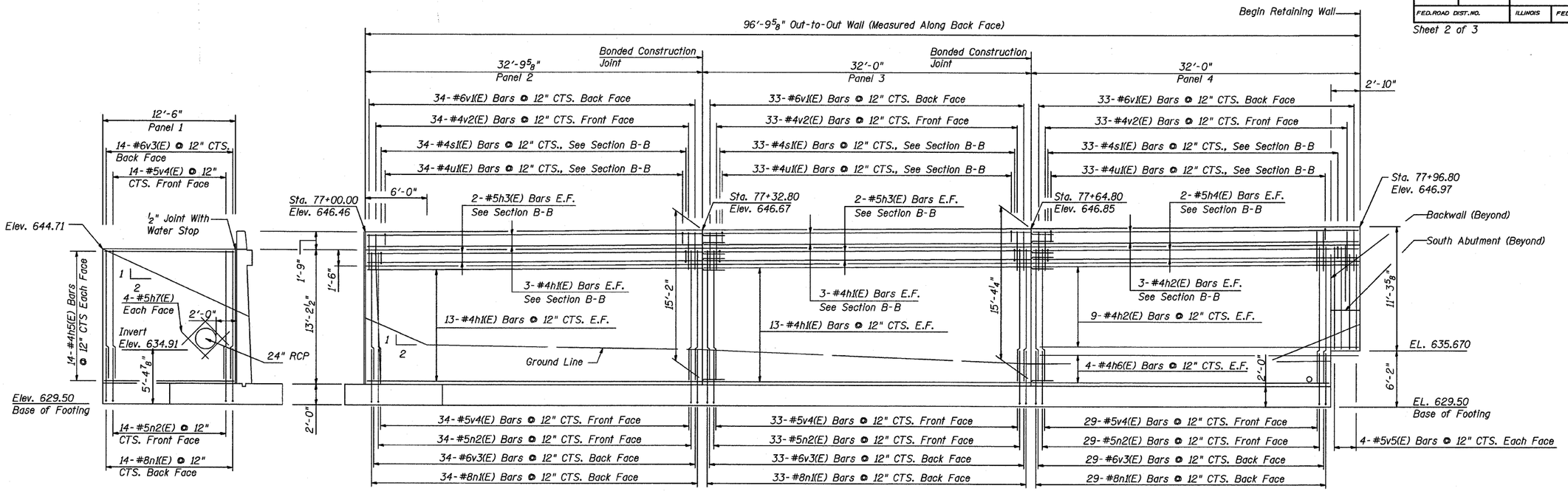
DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$PENTBL$
$PLTDRV$
$FILES$
$DATE$
$TIME$

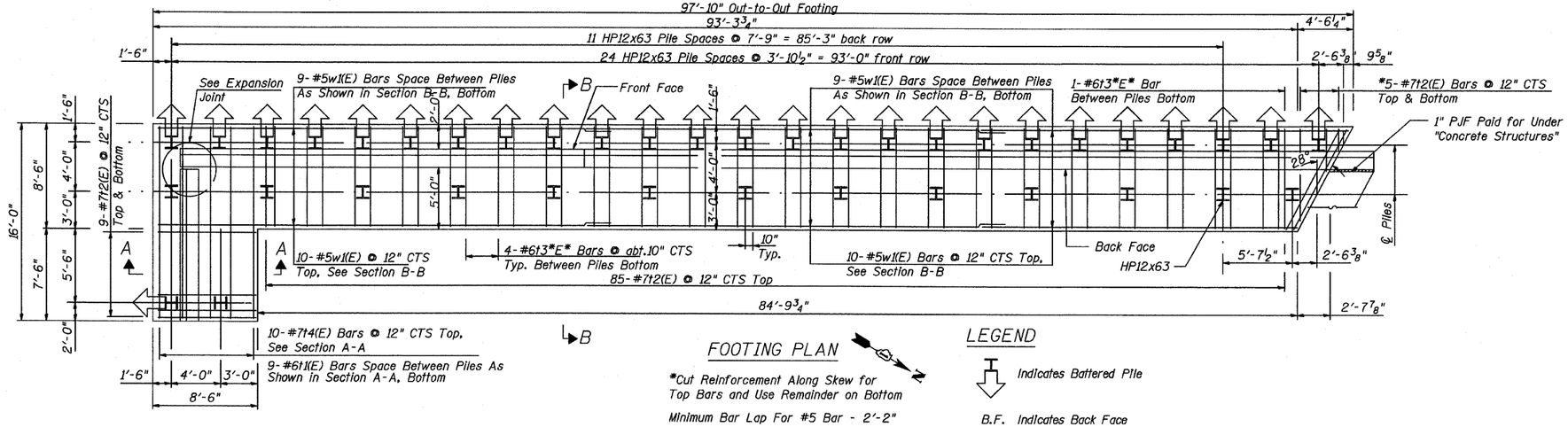
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	23
FED.ROAD DIST.NO.	ILLINOIS	FED.AID PROJECT-		

Sheet 2 of 3 Contract No. 62539



ELEVATION
(Looking West)



ELEVATION
(Looking West)

FOOTING PLAN

*Cut Reinforcement Along Skew for Top Bars and Use Remainder on Bottom

Minimum Bar Lap For #5 Bar - 2'-2"
Minimum Bar Lap For #6 Bar - 2'-7"

LEGEND

Indicates Battered Pile

B.F. Indicates Back Face
F.F. Indicates Front Face
E.F. Indicates Each Face

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

PLAN & ELEVATION

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-W962

SCALE: NOT-TO-SCALE
DATE 6-30-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

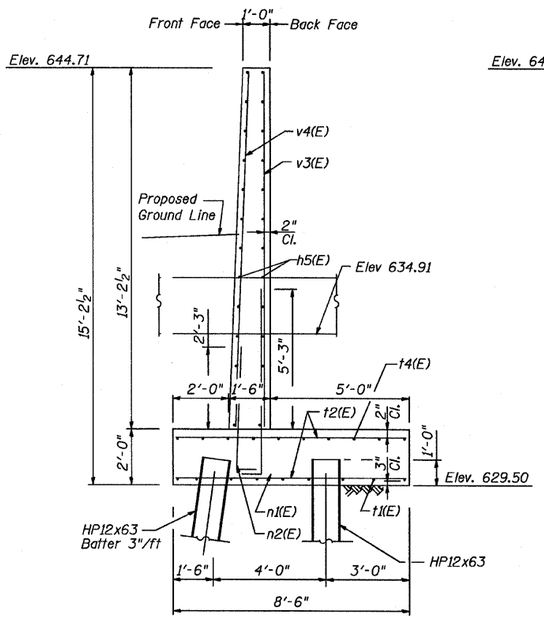
$PENTBL$
$PLTDRV$
$FILES$
$DATE$
$TIME$

$PENTBLS$
$PLTDRVS$

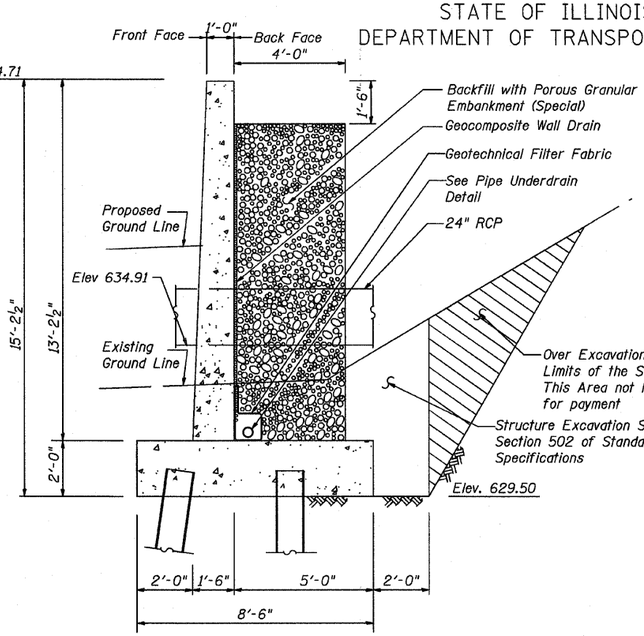
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	24
FED.ROAD DIST.NO.		ILLINOIS	FED.AID PROJECT-	

Sheet 3 of 3 Contract No. 62539

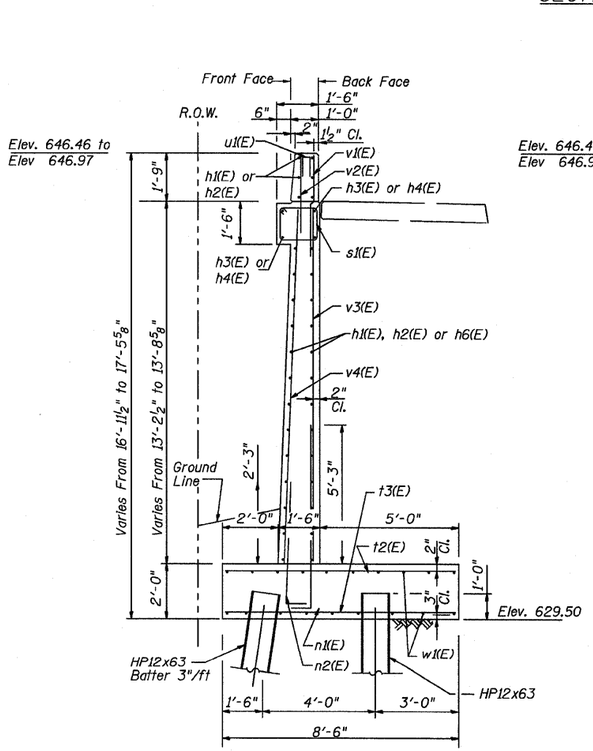


SECTION SHOWING REINFORCEMENT

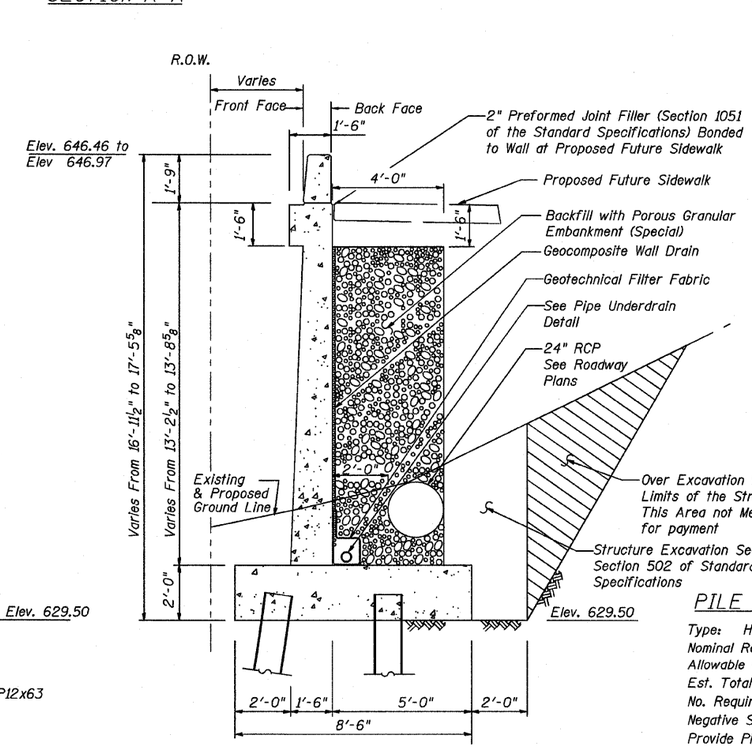


SECTION SHOWING DRAINAGE

SECTION A-A

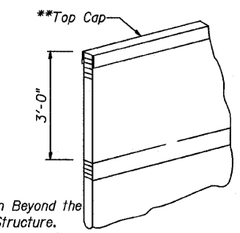


SECTION SHOWING REINFORCEMENT

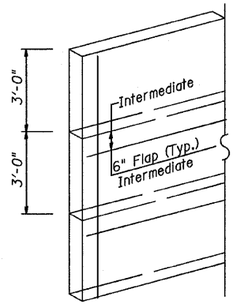


SECTION SHOWING DRAINAGE

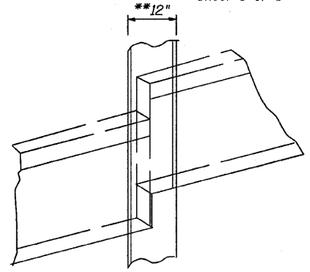
SECTION B-B



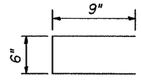
TOP COARSE



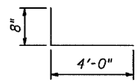
HORIZONTAL SECTION AND SEAM



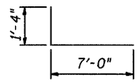
VERTICAL SPLICE



BAR u1(E)



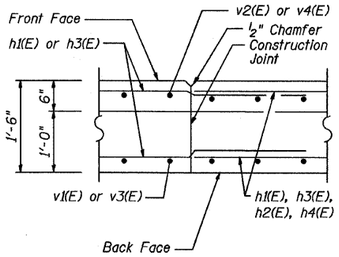
BAR n2(E)



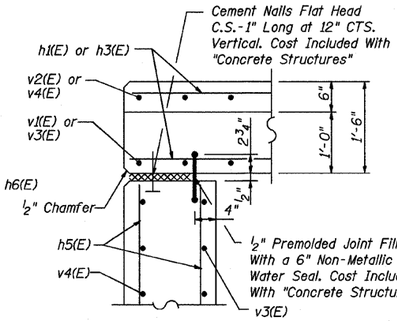
BAR n1(E)

**GEOCOMPOSITE WALL DRAIN DETAILS

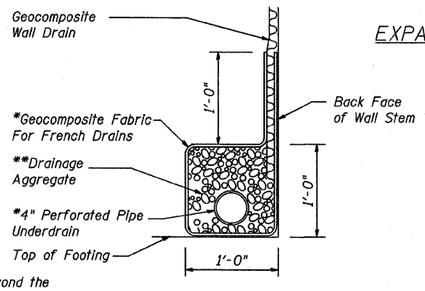
See Special Provisions



CONSTRUCTION JOINT DETAIL



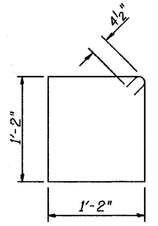
EXPANSION JOINT DETAIL



PIPE UNDERDRAIN DETAIL

*Cost Included With "Pipe Underdrain for Structures 4"

**Backfill Remainder of Structural Excavation and Over Excavation With Same Material Specified for Roadway Embankment.



BAR s1(E)

PILE DATA

Type: HP12x63
Nominal Required Bearing: 497 Kips
Allowable Resistance Available: 166 Kips
Est. Total Length: 40'-0"
No. Required: 39 + 1 Test Pile
Negative Skin Friction: 30 Kips/Pile
Provide Pile Shoes for all Piles

RETAINING WALL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	64	#4	34'-3"	
h2(E)	24	#4	31'-9"	
h3(E)	8	#5	34'-9"	
h4(E)	4	#5	31'-9"	
h5(E)	28	#4	12'-1"	
h6(E)	8	#4	28'-11"	
h7(E)	8	#5	4'-0"	
n1(E)	110	#8	8'-4"	J
n2(E)	110	#5	4'-8"	J
s1(E)	100	#4	5'-5"	□
t1(E)	9	#6	15'-9"	
t2(E)	108	#7	8'-3"	
t3(E)	85	#6	8'-3"	
t4(E)	10	#7	15'-9"	
u1(E)	100	#4	2'-0"	⊏
v1(E)	100	#6	4'-4"	
v2(E)	100	#4	3'-5"	
v3(E)	110	#6	13'-0"	
v4(E)	110	#4	13'-0"	
v5(E)	8	#5	9'-4"	
w1(E)	57	#5	34'-1"	

Reinforcement Bars, Epoxy Coated	Pound	15800
Concrete Structures	Cu. Yds.	146
Furnishing Steel Piles HP12x63	Foot	1560
Driving Piles	Foot	1560
Test Pile Steel, HP12x63	Each	1
Pile Shoes	Each	39

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

SECTIONS, DETAILS & BILL OF MATERIAL

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-W962

SCALE: NOT-TO-SCALE
DATE 6-30-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$FILES$
$DATE$
$TIME$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	25
FED.ROAD DIST.NO.		ILLINOIS	FED.AID PROJECT-	

Sheet 1 of 22 Contract No. 62539

#PENTBL$#
#PLTDRV$#

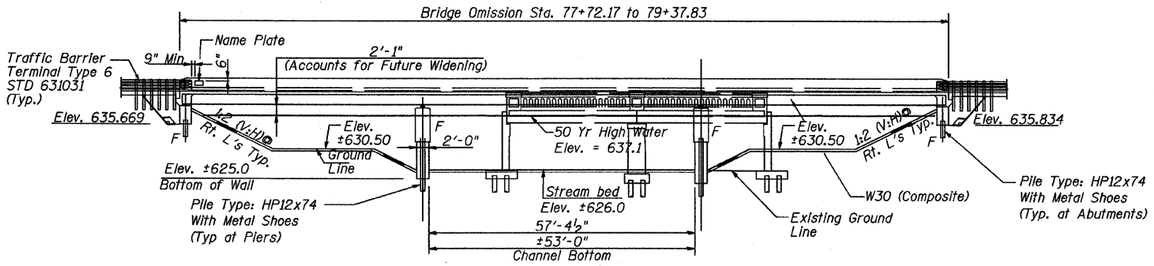
BENCH MARK: Control Point #1, "X" On Concrete Island at Southwest Quadrant of Dixie Highway and Flossmoor Road Elevation = 647.768.

The Existing Structure (SN 016-0775) Was Built In 1917 and Widened in 1930. The Superstructure Consists of a Two Span Cast-in-Place Reinforced Concrete Slab. The Substructure Consists of Two Closed Abutments With Wing-Walls on Each Side and One Pier.

Stage Construction will be Utilized as Shown, Allowing One Lane of Traffic In Each Direction to Remain Open at All Times.

The Existing Bridge will be Removed and Replaced In Two Stages. The Substructure is Designed to Accomodate a Future Superstructure Widening.

No Salvage



ELEVATION

CURVE PDIXIE1-5

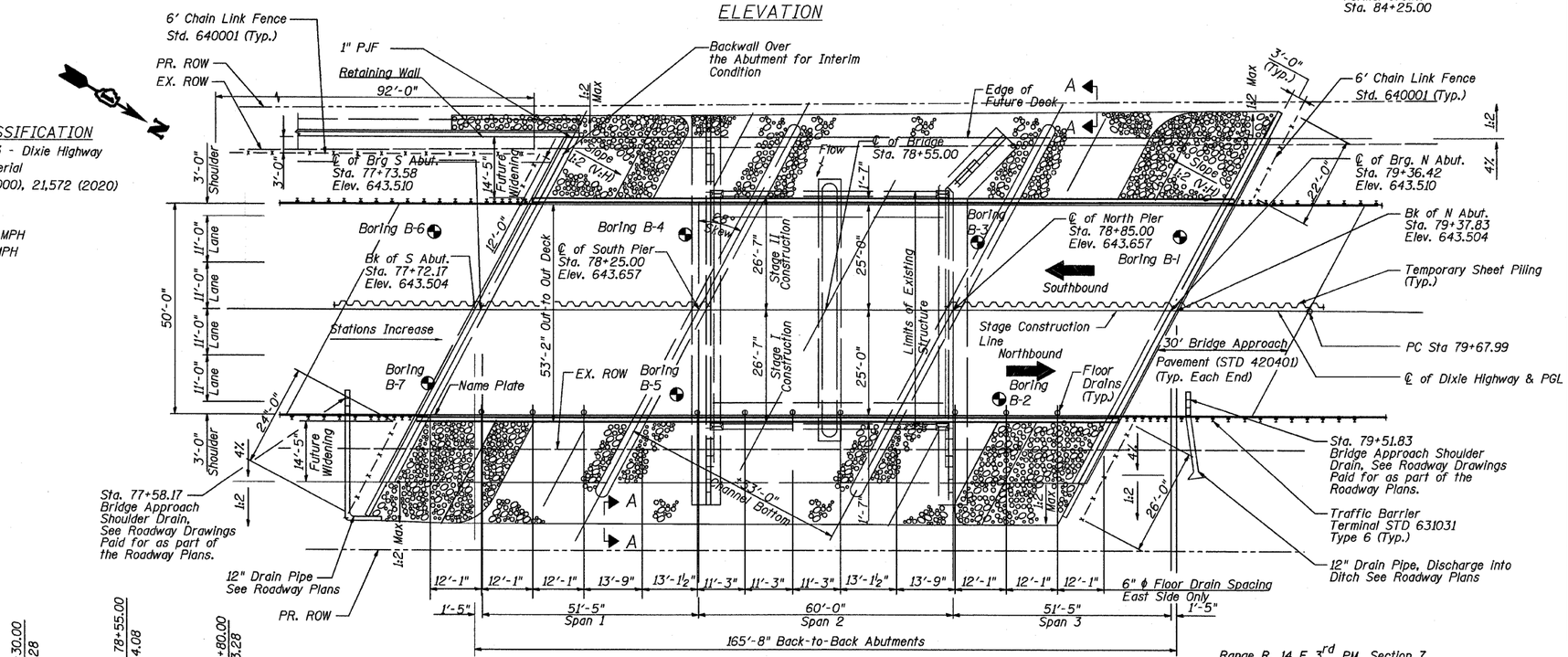
℄ F.A.U. RTE 2843
PI STA. = 83+27.12
Δ = 28° 46' 29" (RT)
D = 4° 05' 36"
T = 359.13'
R = 1,400.00'
L = 702.95'
E = 45.33'
SE = 2.4%
P.C. STA. = 79+67.99
P.T. STA. = 86+70.94
Normal Crown Sta. 74+00.00

Full Superelevation Sta. 77+19.00 to Sta. 79+91.00

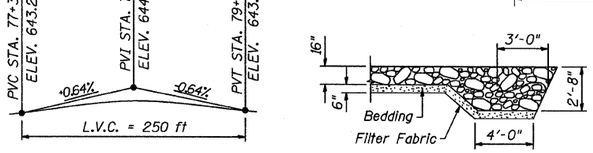
Normal Crown Sta. 84+25.00

HIGHWAY CLASSIFICATION

F.A.U. RTE 2843 - Dixie Highway
Classi Urban Arterial
ADT 14,000 (2000), 21,572 (2020)
ADTT 3%
DHV 1,400
Design Speed 45 MPH
Posted Speed 40MPH



PLAN



PROFILE GRADE

SECTION A-A
THICKENED RIP RAP FROM ABUTMENT TO ABUTMENT

WATERWAY INFORMATION

Drainage Area = 22.7 Sq. Mi. Prop. Low Grade Elev. = 644.6 ft. ℄ Sta 75+50

Flood	Freq yr.	Q cfs	Opening ft² Exist.	Opening ft² Prop	Nat. H.W.E.	Head (ft) Exist.	Head (ft) Prop.	Headwater EL. Exist.	Headwater EL. Prop.
	10	1650	337	946	636.4	0.7	0.2	637.1	636.6
Design	50	2305	337	1038	637.1	1.1	0.2	638.2	637.3
Base	100	2775	337	1091	637.5	1.2	0.2	638.7	637.7
Max Calc	500	3920	337	1226	638.5	1.0	0.2	639.5	638.7

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, (17th Edition)

LOADING HS20-44

Allow 50 psf for Future Wearing Surface

DESIGN STRESSES

FIELD UNITS

f'c = 3500 psi
fy = 50,000 psi (M 270 Grade 50)
fy = 60,000 psi (Reinf.)

SEISMIC DATA

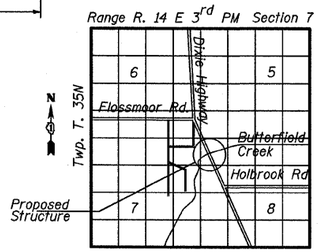
Seismic Perrmformance Category(SPC) = A
Bedrock Acceleration Coefficient (A) 0.04 g
Site Coefficient (S) = 1.0

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E Anderson (RD)
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
MOHSEN M. FARAHANY
81-5131
REGISTERED STRUCTURAL ENGINEER

Mohsen Farahany 7/30/09
Mohsen Farahany
Licensed Structural Engineer
State of Illinois
Lic. No. 81-5131
Expires: 11-30-2010



LOCATION SKETCH

TOTAL BILL OF MATERIAL

ITEMS	UNITS	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)*	Cu. Yd.		270	270
Stone Riprap, Class A4	Sq. Yd.	1,900		1,900
Filter Fabric	Sq. Yd.	2,150		2,150
Removal of Existing Structures	EACH	1		1
Structure Excavation	Cu. Yd.		80	80
Floor Drains	EACH	10		10
Concrete Structures	Cu. Yd.		362	362
Concrete Superstructure	Cu. Yd.	300		300
Bridge Deck Grooving	Sq. Yd.	900		900
Protective Coat	Sq. Yd.	1,070		1,070
Furnishing and Erecting Structural Steel	L. SUM	1		1
Stud Shear Connectors	EACH	6,072		6,072
*Reinforcement Bars, Epoxy Coated	POUND	70,800	31,740	102,540
Furnishing Steel Piles HP 12 x 74	FOOT		2,550	2,550
Driving Piles	FOOT		2,550	2,550
Test Pile Steel, HP 12 x 74	EACH		4	4
Pile Shoes	EACH		56	56
Geocomposite Wall Drain	Sq. Yd.	180		180
*Pipe Underdrain for Structures 4"	FOOT		220	220
Chain Link Fence, 6'	FOOT	180		180
Temporary Soil Retention System*	Sq. Ft.		3,400	3,400
Name Plates	EACH	1		1
Bar Splicers	EACH	690	102	792
Underwater Structure Excavation Protection, Location 1*	EACH		1	1
Underwater Structure Excavation Protection, Location 2*	EACH		1	1
Concrete Encasement	Cu.Yd.		20	20
Anchor Bolts, 1" Dia.	EACH	64		64
Concrete Sealer	Sq. Ft.		3,480	3,480
Conduit Embedded in Structure 2" Dia. Galvanized Steel	FOOT	692		692
Junction Box Embedded in Structure Stainless Steel, 12"x8"x6"	EACH	4		4

*See Special Provisions

STATION 78+55.00
BUILT 20__ BY
STATE OF ILLINOIS
F.A.U. ROUTE 2843 SEC. 3249B-R
LOADING HS20
STRUCTURE NO. 016-7946

NAME PLATE

See Std. 515001.

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

GENERAL PLAN, ELEVATION & BILL OF MATERIAL

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-30-09

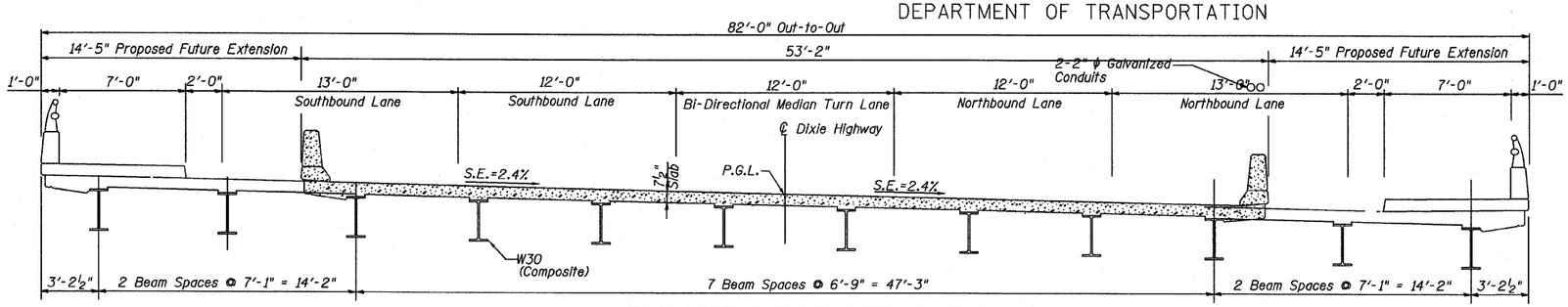
DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

#FILE$#
#DATE$#
#TIME$#

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	26
FED.ROAD DIST.NO.	ILLINOIS	FED.AID PROJECT-		

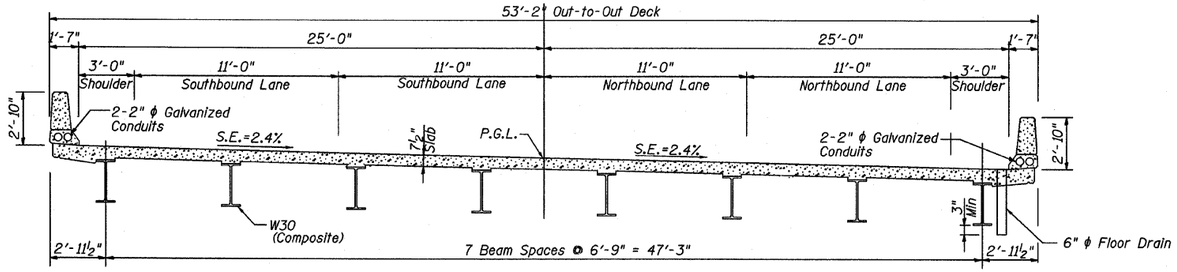
Sheet 2 of 22 Contract No. 62539



PROPOSED FUTURE BRIDGE SECTION

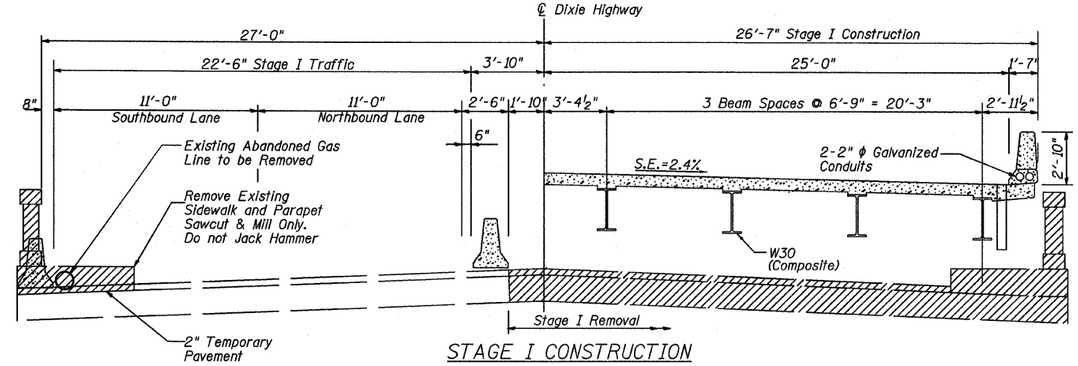
Looking North
℄ Dixie Highway

INDEX OF SHEETS



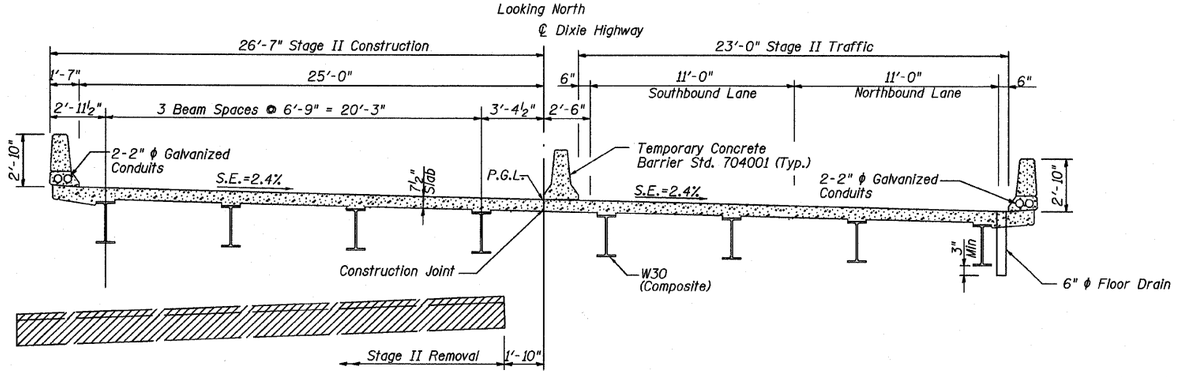
TYPICAL BRIDGE SECTION

Looking North
℄ Dixie Highway



STAGE I CONSTRUCTION

Looking North



STAGE II CONSTRUCTION

Looking North

GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts $\frac{7}{8}$" ϕ, open holes $\frac{15}{16}$" ϕ, unless otherwise noted.
2. Calculated weight of structural steel = 141000 lbs. M 270 Grade 50, 25000 lbs. M 270 Grade 36.
3. All structural steel shall be AASHTO M270 grade 50. Steel H-Piles shall be according to AASHTO M270 Grade 50.
4. Field welding of construction accessories will not be permitted to beams.
5. Anchor bolts shall be set before bolting diaphragms over supports.
6. The main load carrying member components subject to tensile stress shall conform to the supplemental requirements for notch toughness zone 2. These components are the wide flange beams and all splice plate material except fill plates.
7. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
8. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ in. adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.
9. The contractor shall drive HP12x74 test piles in a permanent location at piers and HP12x74 test piles in a permanent location at abutments as directed by the Engineer before ordering the remainder of piles.
10. Excavation behind existing abutment walls shall be done before removing the existing superstructure. The Contractor shall sawcut the existing abutments at the stage removal line before Stage I removal.
11. The inorganic zinc rich primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all steel surfaces shall be gray, Munsell No. 5b 7/1. See special provisions for "Cleaning and Painting New Metal Structures".
12. All construction joints shall be bonded.
13. The contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
14. Concrete sealer shall be applied to the designated areas of the piers and Abutments.
15. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See special provisions.
16. Reinforcement bars designated (E) shall be epoxy coated.
17. Slipforming of parapets is not allowed.
18. Existing substructure to be removed following a line of removal for superstructure and will be done in accordance with SSRBC section 501. See notes on drawing 3 of 22.
19. Contractor shall submit Structural Assessment Report (SAR) as required for contractor's means and methods of construction. See special provisions.
20. "Current Ratings on File for Existing Structure

    Inventory: HS 10.2
    Operating: HS 17.0
    Live Load Restrictions: No

    Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment."
21. SSPC QP1 Contractor certification will be required for this contract.

REVISIONS	
NAME	DATE

CONSTRUCTION STAGING & GENERAL NOTES

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-30-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

RME Rubinos & Mesia Engineers, Inc.

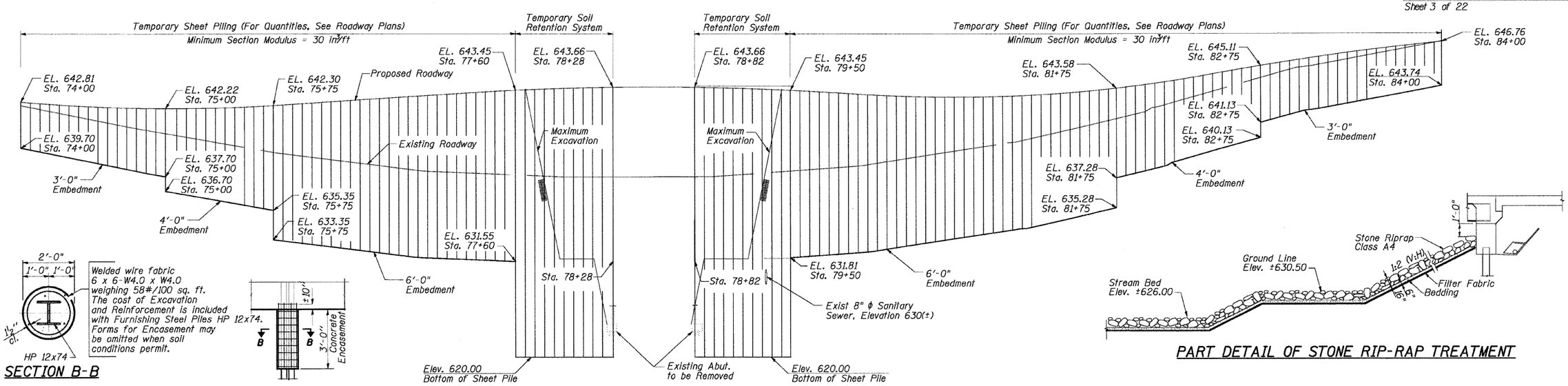
$PENTBLS$
$PLTDRV$

$FILES$
$DATE$
$TIME$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	27
FED.ROAD DIST.NO.		ILLINOIS	FED.AID PROJECT-	

Sheet 3 of 22 Contract No. 62539

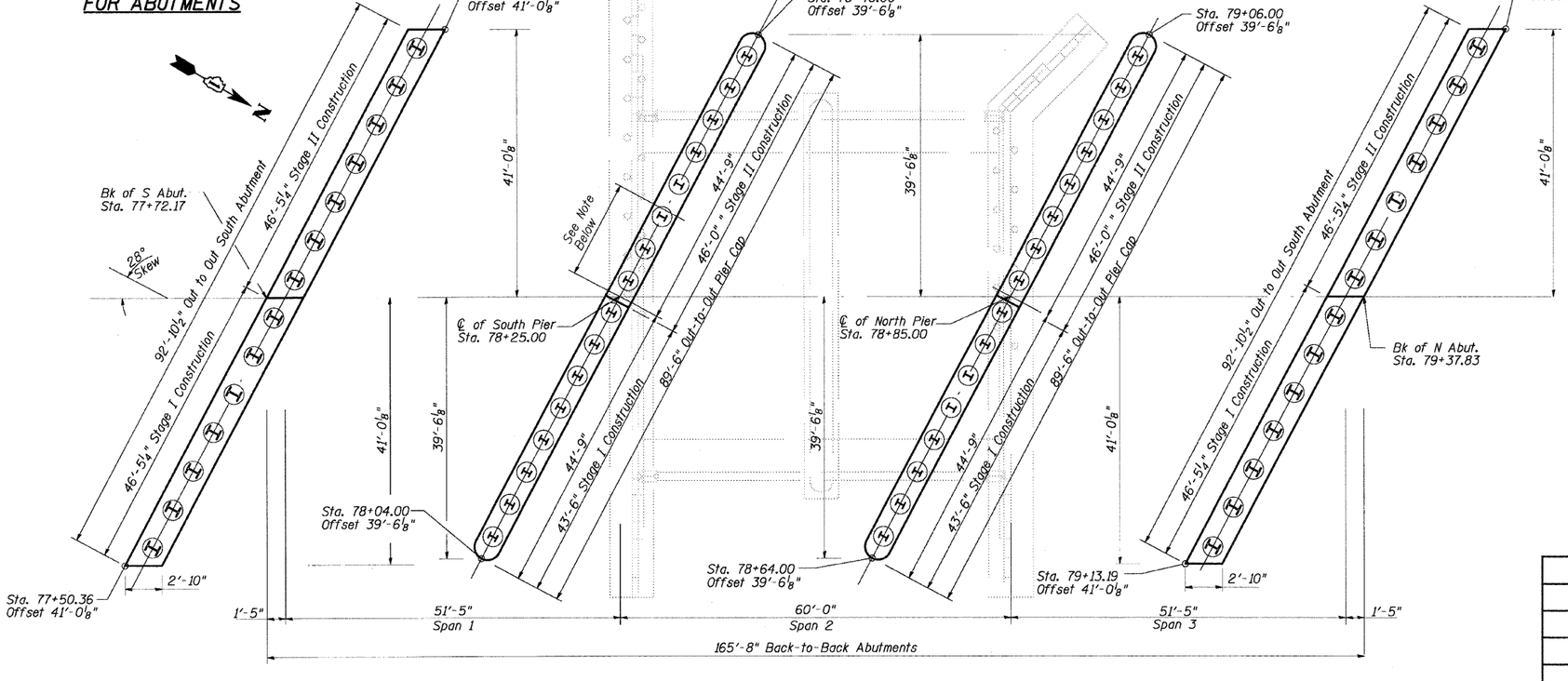


SECTION B-B

PART DETAIL OF STONE RIP-RAP TREATMENT

PILE ENCASEMENT DETAIL FOR ABUTMENTS

ELEVATION



FOOTING LAYOUT

Note:

Interference With Existing Piles in Existing Abutment is Possible. In Such Case, Proposed Piles Shall be Relocated as Directed by the Engineer of Record. Maintain Minimum Pile Spacing of 3'-0" New Piles Must Remain Along ℄ of Pier.

Notes:

A cantilevered sheet piling design is not feasible in the region designated as "Temporary Soil Retention System". A wale restraining system or other system will be required. The contractor shall submit a temporary soil retention system design including plan details and computations to the Engineer for review and approval. The design requires a seal from a Licenced Structural Engineer.

If the contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

The contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

Hard driving may be encountered during the sheet piling installation. The Contractor shall provide the appropriate driving equipment for the soil conditions indicated on the boring logs.

There are existing utilities in the areas where proposed sheet piling will be installed. Contractor to locate all existing utilities per requirements of the special provisions. For overhead utilities and all other known utilites. See Roadway Plans, Sheet 13.

RME Rubinos & Mesia Engineers, Inc.

REVISIONS	
NAME	DATE

FOOTING LAYOUT SHEET PILE ELEVATION & RIP-RAP DETAIL

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

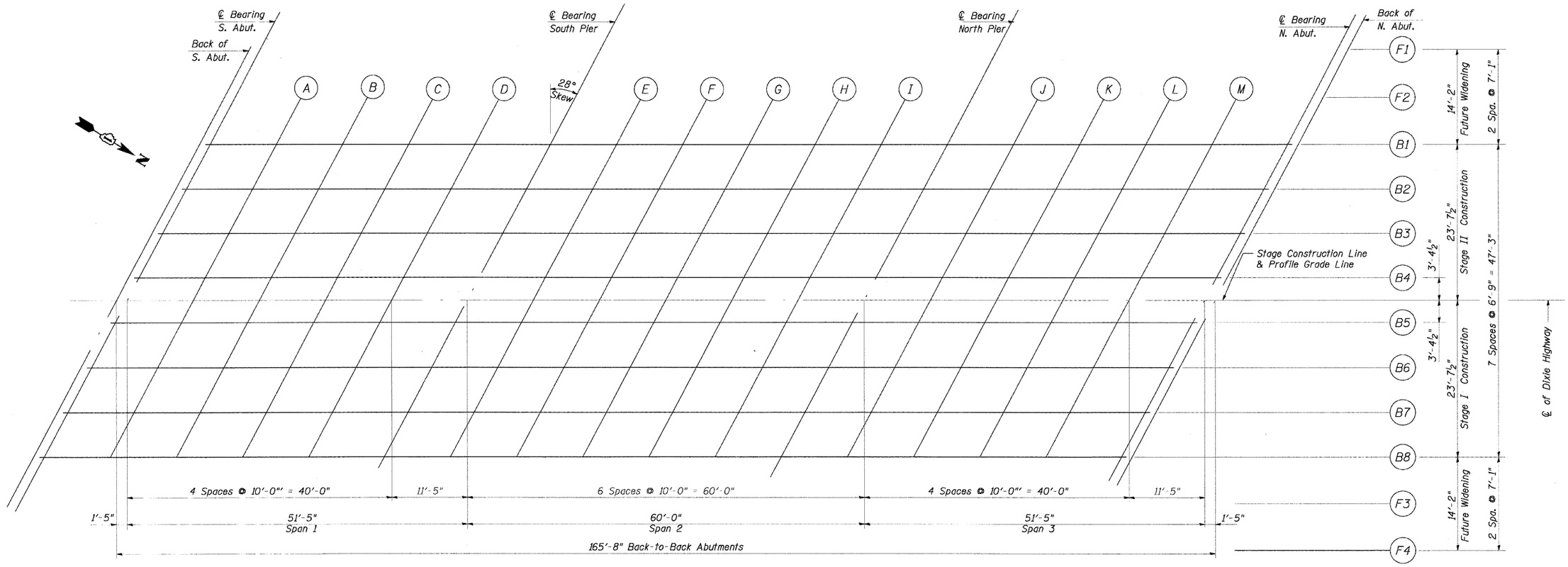
$FILES$
$DATE$
$TIME$

$PLOTDRVS$
$PLOTBYS$

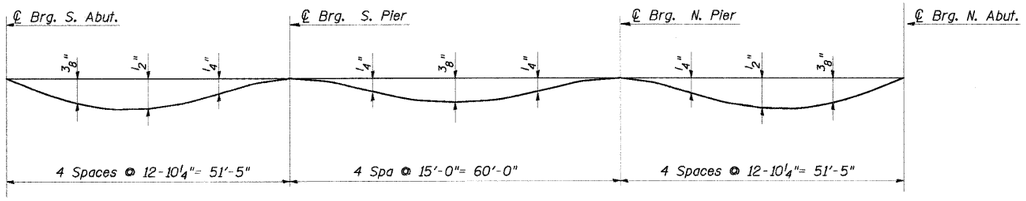
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	28
FED.ROAD DIST. NO.		ILLINOIS	FED.AID PROJECT-	

Sheet 4 of 22 — Contract No. 62539



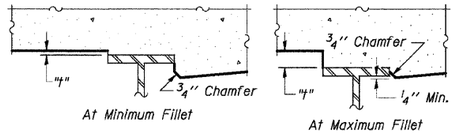
PLAN



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on deck elevation tables.



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

FILLET HEIGHTS

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

TOP OF DECK ELEVATIONS

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$FILES$
$DATE$
$TIME$

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	29
FED.ROAD DIST.NO.		ILLINOIS	FED.AID PROJECT-	

Sheet 5 of 22 Contract No. 62539

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

$#PENTBL:S$
$#PLTBRS:$

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. Abut.	77+84.728	-23.625	644.121	644.121
CL Brg. S. Abut.	77+86.145	-23.625	644.126	644.126
A	77+96.145	-23.625	644.158	644.184
B	78+06.145	-23.625	644.186	644.225
C	78+16.145	-23.625	644.208	644.243
D	78+26.145	-23.625	644.226	644.242
CL S. Pier	78+37.562	-23.625	644.239	644.239
E	78+47.562	-23.625	644.246	644.255
F	78+57.562	-23.625	644.247	644.271
G	78+67.562	-23.625	644.243	644.274
H	78+77.562	-23.625	644.234	644.258
I	78+87.562	-23.625	644.220	644.229
CL N. Pier	78+97.562	-23.625	644.201	644.201
J	79+07.562	-23.625	644.176	644.190
K	79+17.562	-23.625	644.147	644.179
L	79+27.562	-23.625	644.112	644.151
M	79+37.562	-23.625	644.072	644.101
CL Brg. N. Abut.	79+48.978	-23.625	644.021	644.021
BK N. Abut.	79+50.395	-23.625	644.014	644.014

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. Abut.	77+81.139	-16.875	643.945	643.945
CL Brg. S. Abut.	77+82.556	-16.875	643.951	643.951
A	77+92.556	-16.875	643.985	644.011
B	78+02.556	-16.875	644.015	644.053
C	78+12.556	-16.875	644.039	644.073
D	78+22.556	-16.875	644.058	644.074
CL S. Pier	78+33.973	-16.875	644.074	644.074
E	78+43.973	-16.875	644.082	644.091
F	78+53.973	-16.875	644.085	644.109
G	78+63.973	-16.875	644.083	644.114
H	78+73.973	-16.875	644.076	644.100
I	78+83.973	-16.875	644.064	644.072
CL N. Pier	78+93.973	-16.875	644.046	644.046
J	79+03.973	-16.875	644.024	644.037
K	79+13.973	-16.875	643.996	644.028
L	79+23.973	-16.875	643.963	644.002
M	79+33.973	-16.875	643.925	643.954
CL Brg. N. Abut.	79+45.389	-16.875	643.876	643.876
BK N. Abut.	79+46.806	-16.875	643.869	643.869

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. Abut.	77+77.550	-10.125	643.769	643.769
CL Brg. S. Abut.	77+78.967	-10.125	643.775	643.775
A	77+88.967	-10.125	643.811	643.837
B	77+98.967	-10.125	643.843	643.881
C	78+08.967	-10.125	643.869	643.903
D	78+18.967	-10.125	643.890	643.906
CL S. Pier	78+30.384	-10.125	643.907	643.907
E	78+40.384	-10.125	643.918	643.926
F	78+50.384	-10.125	643.922	643.946
G	78+60.384	-10.125	643.922	643.953
H	78+70.384	-10.125	643.917	643.941
I	78+80.384	-10.125	643.907	643.915
CL N. Pier	78+90.384	-10.125	643.891	643.891
J	79+00.384	-10.125	643.870	643.884
K	79+10.384	-10.125	643.844	643.877
L	79+20.384	-10.125	643.814	643.853
M	79+30.384	-10.125	643.778	643.806
CL Brg. N. Abut.	79+41.800	-10.125	643.730	643.730
BK N. Abut.	79+43.217	-10.125	643.724	643.724

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. Abut.	77+73.961	-3.375	643.593	643.593
CL Brg. S. Abut.	77+75.378	-3.375	643.599	643.599
A	77+85.378	-3.375	643.637	643.662
B	77+95.378	-3.375	643.670	643.709
C	78+05.378	-3.375	643.698	643.732
D	78+15.378	-3.375	643.721	643.737
CL S. Pier	78+26.795	-3.375	643.741	643.741
E	78+36.795	-3.375	643.753	643.761
F	78+46.795	-3.375	643.759	643.783
G	78+56.795	-3.375	643.761	643.792
H	78+66.795	-3.375	643.757	643.781
I	78+76.795	-3.375	643.749	643.758
CL N. Pier	78+86.795	-3.375	643.735	643.735
J	78+96.795	-3.375	643.716	643.730
K	79+06.795	-3.375	643.692	643.725
L	79+16.795	-3.375	643.663	643.702
M	79+26.795	-3.375	643.629	643.657
CL Brg. N. Abut.	79+38.211	-3.375	643.584	643.584
BK N. Abut.	79+39.628	-3.375	643.578	643.578

STAGE LINE & BONDED CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. Abut.	77+72.167	0.0	643.504	643.504
CL Brg. S. Abut.	77+73.583	0.0	643.510	643.510
A	77+83.583	0.0	643.549	643.575
B	77+93.583	0.0	643.583	643.622
C	78+03.583	0.0	643.612	643.646
D	78+13.583	0.0	643.636	643.653
CL S. Pier	78+25.000	0.0	643.657	643.657
E	78+35.000	0.0	643.670	643.679
F	78+45.000	0.0	643.677	643.701
G	78+55.000	0.0	643.680	643.711
H	78+65.000	0.0	643.677	643.701
I	78+75.000	0.0	643.670	643.679
CL N. Pier	78+85.000	0.0	643.657	643.657
J	78+95.000	0.0	643.639	643.653
K	79+05.000	0.0	643.616	643.648
L	79+15.000	0.0	643.588	643.627
M	79+25.000	0.0	643.555	643.583
CL Brg. N. Abut.	79+36.417	0.0	643.510	643.510
BK N. Abut.	79+37.833	0.0	643.504	643.504

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. Abut.	77+70.372	3.375	643.416	643.416
CL Brg. S. Abut.	77+71.789	3.375	643.422	643.422
A	77+81.789	3.375	643.462	643.487
B	77+91.789	3.375	643.497	643.535
C	78+01.789	3.375	643.527	643.561
D	78+11.789	3.375	643.551	643.568
CL S. Pier	78+23.205	3.375	643.573	643.573
E	78+33.205	3.375	643.587	643.596
F	78+43.205	3.375	643.595	643.619
G	78+53.205	3.375	643.599	643.630
H	78+63.205	3.375	643.597	643.621
I	78+73.205	3.375	643.591	643.599
CL N. Pier	78+83.205	3.375	643.579	643.579
J	78+93.205	3.375	643.562	643.575
K	79+03.205	3.375	643.540	643.572
L	79+13.205	3.375	643.512	643.551
M	79+23.205	3.375	643.480	643.508
CL Brg. N. Abut.	79+34.622	3.375	643.437	643.437
BK N. Abut.	79+36.039	3.375	643.431	643.431

RME Rubinos & Mesia Engineers, Inc.

REVISIONS	
NAME	DATE

TOP OF DECK ELEVATIONS

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$#FILES$
$#DATE$
$#TIME$

$PRINTED$
$PLOTDNS$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	30
FED.ROAD DIST.NO.		ILLINOIS	FED.AID PROJECT-	

Sheet 6 of 22 Contract No. 62539

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. Abut.	77+66.783	10.125	643.238	643.238
CL Brg. S. Abut.	77+68.200	10.125	643.244	643.244
A	77+78.2.00	10.125	643.286	643.311
B	77+88.2.00	10.125	643.323	643.361
C	77+98.2.00	10.125	643.354	643.389
D	78+08.2.00	10.125	643.381	643.397
CL S. Pier	78+19.616	10.125	643.405	643.405
E	78+29.616	10.125	643.421	643.429
F	78+39.616	10.125	643.431	643.455
G	78+49.616	10.125	643.436	643.467
H	78+59.616	10.125	643.436	643.460
I	78+69.616	10.125	643.432	643.440
CL N. Pier	78+79.616	10.125	643.421	643.421
J	78+89.616	10.125	643.406	643.420
K	78+99.616	10.125	643.386	643.418
L	79+09.616	10.125	643.361	643.400
M	79+19.616	10.125	643.330	643.358
CL Brg. N. Abut.	79+31.033	10.125	643.289	643.289
BK N. Abut.	79+32.450	10.125	643.283	643.283

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. Abut.	77+63.194	16.875	643.059	643.059
CL Brg. S. Abut.	77+64.611	16.875	643.066	643.066
A	77+74.611	16.875	643.110	643.135
B	77+84.611	16.875	643.148	643.187
C	77+94.611	16.875	643.182	643.216
D	78+04.611	16.875	643.210	643.226
CL S. Pier	78+16.027	16.875	643.236	643.236
E	78+26.027	16.875	643.254	643.262
F	78+36.027	16.875	643.266	643.290
G	78+46.027	16.875	643.273	643.304
H	78+56.027	16.875	643.275	643.299
I	78+66.027	16.875	643.272	643.281
CL N. Pier	78+76.027	16.875	643.264	643.264
J	78+86.027	16.875	643.250	643.264
K	78+96.027	16.875	643.232	643.264
L	79+06.027	16.875	643.208	643.247
M	79+16.027	16.875	643.180	643.208
CL Brg. N. Abut.	79+27.444	16.875	643.141	643.141
BK N. Abut.	79+28.861	16.875	643.135	643.135

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK S. Abut.	77+59.605	23.625	642.880	642.880
CL Brg. S. Abut.	77+61.022	23.625	642.887	642.887
A	77+71.022	23.625	642.932	642.958
B	77+81.022	23.625	642.973	643.012
C	77+91.022	23.625	643.008	643.042
D	78+01.022	23.625	643.038	643.055
CL S. Pier	78+12.438	23.625	643.067	643.067
E	78+22.438	23.625	643.086	643.095
F	78+32.438	23.625	643.100	643.124
G	78+42.438	23.625	643.109	643.140
H	78+52.438	23.625	643.113	643.137
I	78+62.438	23.625	643.112	643.121
CL N. Pier	78+72.438	23.625	643.105	643.105
J	78+82.438	23.625	643.094	643.107
K	78+92.438	23.625	643.077	643.109
L	79+02.438	23.625	643.055	643.095
M	79+12.438	23.625	643.029	643.057
CL Brg. N. Abut.	79+23.855	23.625	642.992	642.992
BK N. Abut.	79+25.272	23.625	642.987	642.987

RME Rubinos & Mesia Engineers, Inc.

REVISIONS	
NAME	DATE

TOP OF DECK ELEVATIONS

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$FILES$
$DATE$
$TIME$

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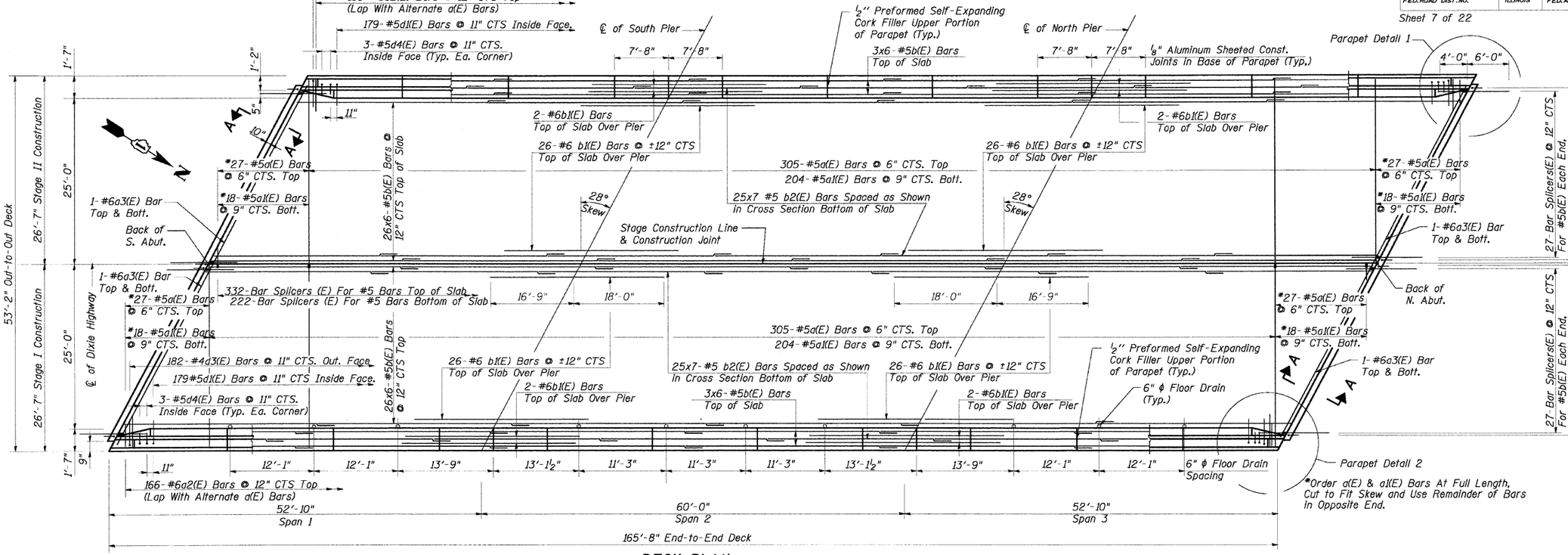
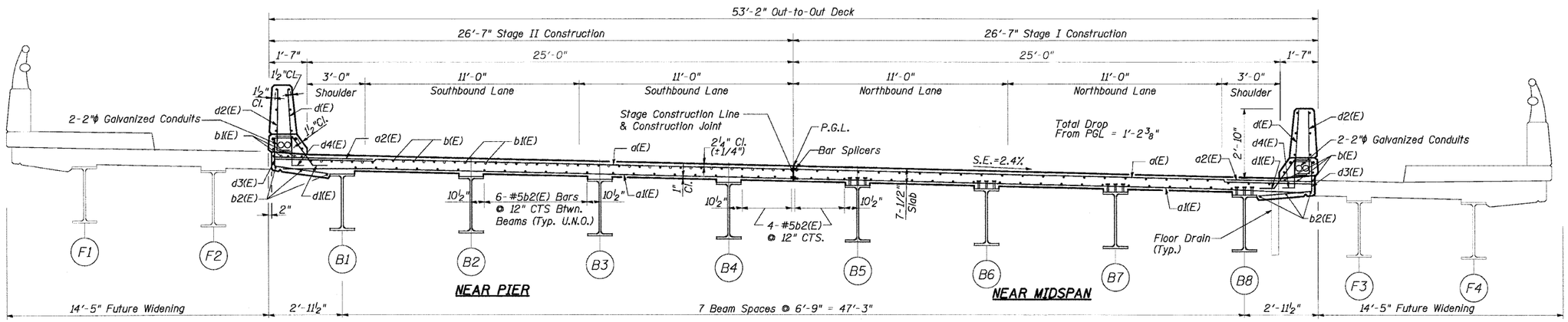
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	31
FED.ROAD DIST.NO.	ILLINOIS	FED.AID PROJECT-		

Sheet 7 of 22 Contract No. 62539



DECK PLAN



CROSS SECTION

Looking North

Notes:
- See Sheet #10 of 22 for Superstructure Details and Bill of Material.
- Reinforcement Bars Designated (E) Shall be Epoxy Coated.
- Bars Indicated Thus 25 x 7-#5 etc. Indicates 25 Lines of Bars With 7 Lengths per Line.
- See Sheet # 9 of 22 for Parapet Reinforcement.
- Space Reinforcement to Avoid Floor Drains.
- Minimum Bar Lap For #5 Bar - 2'-2".
- Minimum Bar Lap For #6 Bar - 2'-7".
- For Floor Drain Details, See Sht. #10 of 22.
- For Section A-A & Deck Diaphragm, See Sht #8 of 22.
- See Sheet #9 of 22 For Parapet Details 1 & 2.

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

DECK PLAN AND CROSS SECTION

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

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$FILES$
$DATE$
$TIME$

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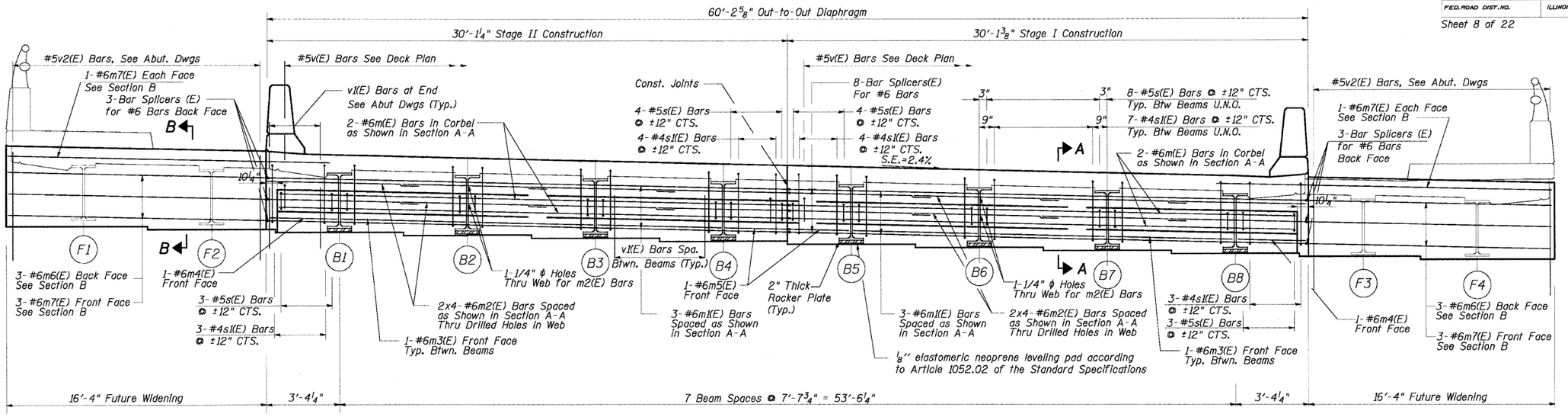
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

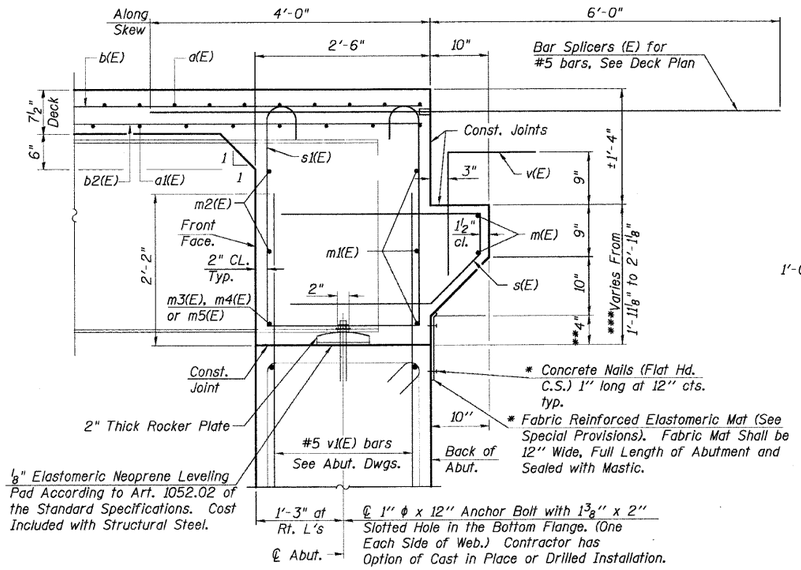
F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	32
FED.ROAD DIST.NO.		ILLINOIS	FED.AID PROJECT-	

Sheet 8 of 22 Contract No. 62539



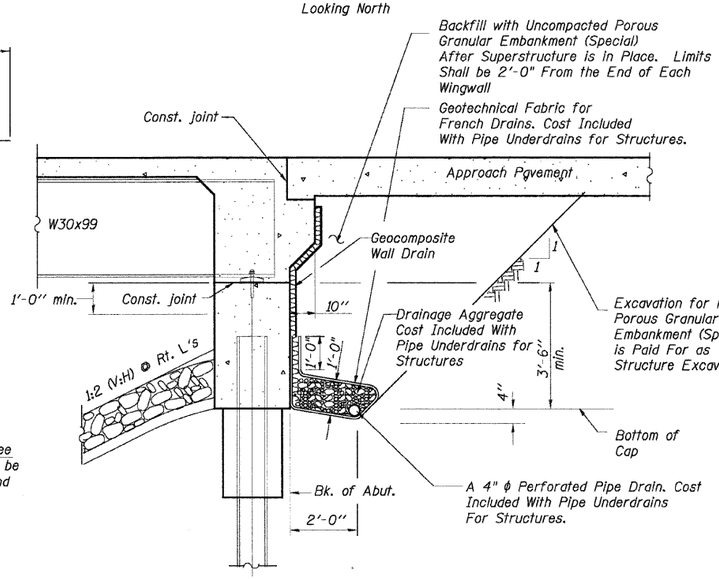
DIAPHRAGM ELEVATION AT ABUTMENT

Looking North



SECTION A-A

Dimensions at right angles to abutment, except as shown.
* Cost included with Concrete Superstructure.
**4 1/8" at CenterLine of Beam
***2'-0 1/8" at Centerline of Beam

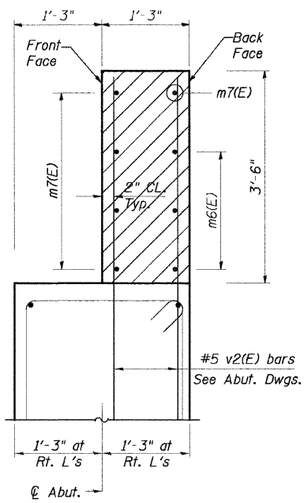


SECTION THRU ABUTMENT DRAIN

(Horiz. dim. @ Rt. L's)

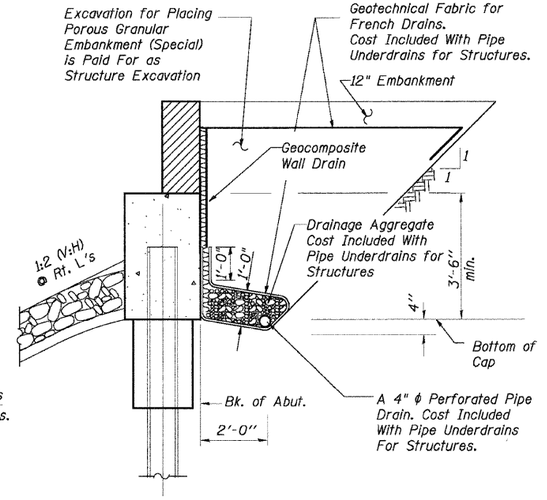
Notes:
Reinforcement bars in Diaphragm are Billed With Superstructure on Sheet 10 of 22 .
Concrete in Diaphragm is Included with Concrete Superstructure on Sheet 7 of 22 .
For Details of Bars s(E) & s1(E) See Sheet 10 of 22 .
The s(E) and s1(E) Bars Shall Be Placed Parallel to the Beams. Spacing for These Bars Shall be at Right Angles to the Beams.
For Anchor Bolt Details, See Sheet 19 of 22.

MIN. BAR LAP
#6 bar = 2'-9"



SECTION B-B

Hatching Indicates Backwall Over Abutment for Interim Conditions



SECTION THRU ABUTMENT DRAIN

(Horiz. dim. @ Rt. L's)
At Southwest Quadrant, Adjacent to Retaining Wall

Note:

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

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

DIAPHRAGM ELEVATION. SECTIONS & DRAIN DETAIL

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

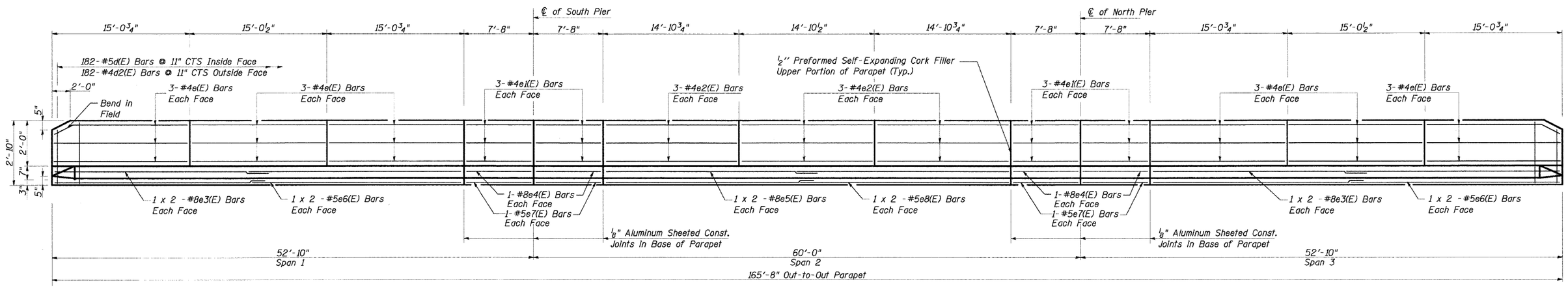
DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$FILE$
$DATE$
$TIME$

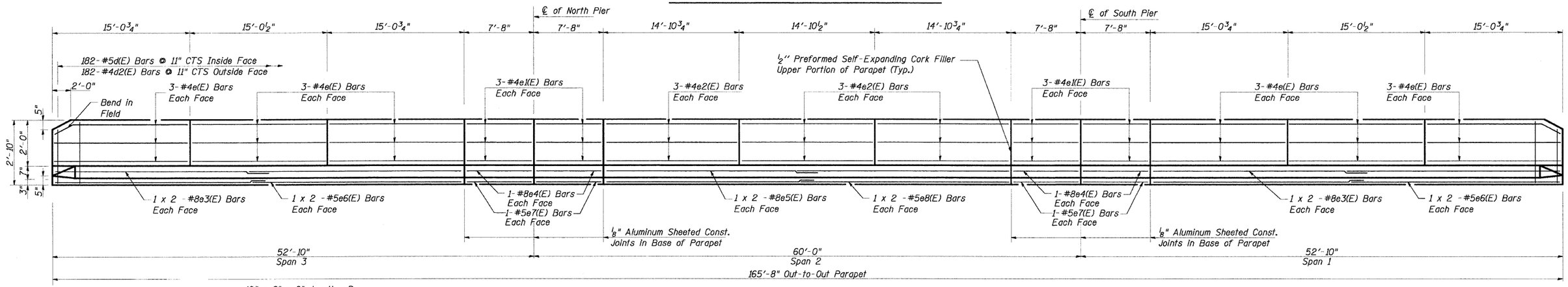
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

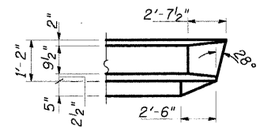
F.A. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	33
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

Sheet 9 of 22 Contract No. 62539

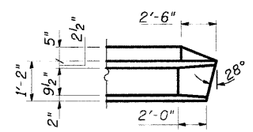


INSIDE ELEVATION OF WEST PARAPET

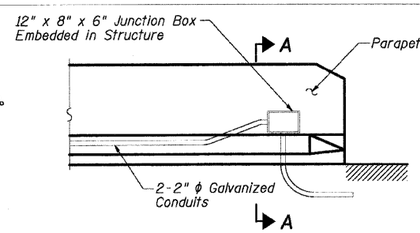




PARAPET DETAIL 1



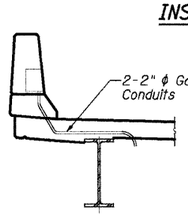
PARAPET DETAIL 2



JUNCTION BOX EMBEDDED IN PARAPET

Notes:

1. The Junction Box Shall Only be Installed when Indicated on the Plans or as Directed by the Engineer to Facilitate the Installation of Unit Duct into the Conduit Embedded in the Parapet.
2. The Junction Box Shall be Paid for at the Unit Price for Junction Box, Embedded in Structure, 12" x 8" x 6"
3. The Exact Location of the Junction Box Shall be Determined by the Engineer.



SECTION A-A

INSIDE ELEVATION OF EAST PARAPET

Notes: See Sheet #10 of 22 for Superstructure Details and Bill of Material.

Reinforcement bars designated (E) shall be epoxy coated.

Bars Indicated thus 1 x 2-#8 etc. Indicates 1 Line of Bars With 2 Lengths per Line.

Minimum Bar Lap For #4 Bar - 1'-8".

Minimum Bar Lap For #5 Bar - 2'-2".

Minimum Bar Lap For #8 Bar - 4'-6".

For Deck Diaphragm, See Sht #8 of 22.

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

PARAPET ELEVATION

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$PLOTNAME$
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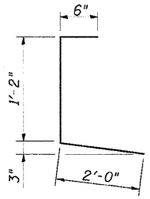
$TIME$

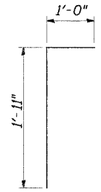
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	34
FED.ROAD DIST.NO.	ILLINOIS	FED.AID PROJECT-		

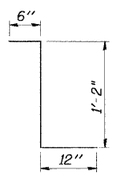
Sheet 10 of 22 Contract No. 62539



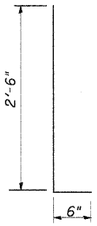
BAR d3(E)



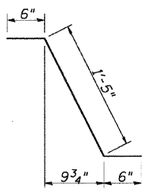
BAR v(E)



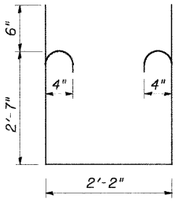
BAR d4(E)



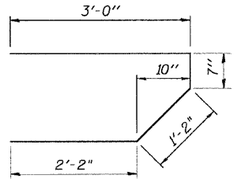
BARS d(E) & d2(E)



BAR d1(E)



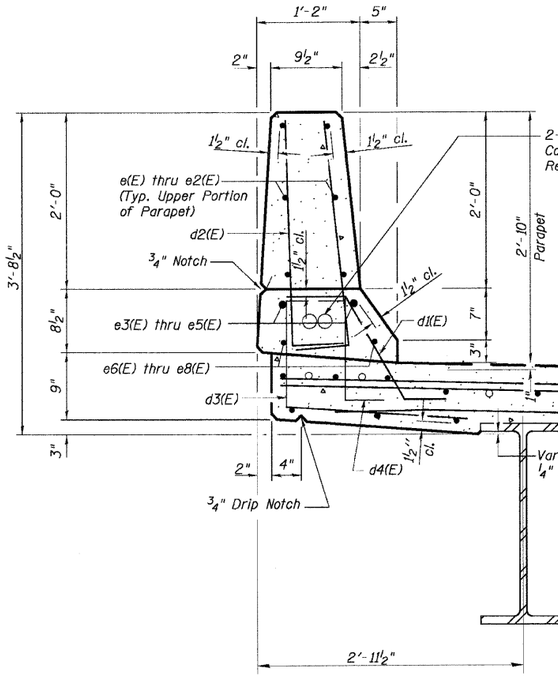
BAR s1(E)



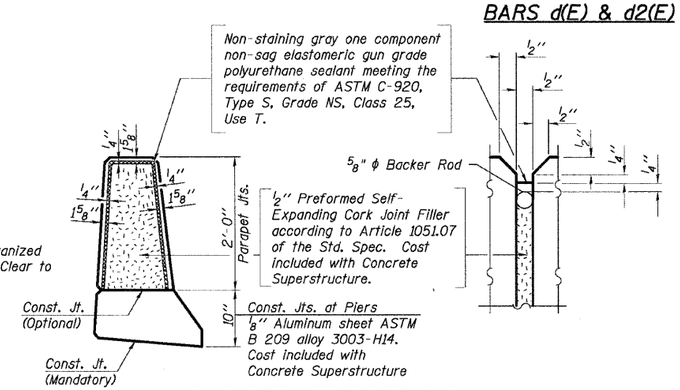
BAR s(E)

SUPERSTRUCTURE BILL OF MATERIAL

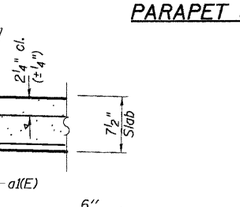
Bar	No.	Size	Length	Shape
a(E)	664	#5	26'-2"	
a1(E)	444	#5	25'-10"	
a2(E)	332	#6	4'-6"	
a3(E)	8	#6	29'-4"	
b(E)	348	#5	29'-5"	
b1(E)	112	#6	34'-9"	
b2(E)	350	#5	25'-6"	
d(E)	364	#5	3'-0"	
d1(E)	358	#5	2'-5"	
d2(E)	364	#4	3'-0"	
d3(E)	364	#4	3'-8"	
d4(E)	12	#5	2'-8"	
e(E)	72	#4	14'-9"	
e1(E)	48	#4	7'-5"	
e2(E)	36	#4	14'-7"	
e3(E)	16	#8	24'-10"	
e4(E)	16	#8	7'-4"	
e5(E)	8	#8	24'-7"	
e6(E)	16	#5	23'-8"	
e7(E)	16	#5	7'-4"	
e8(E)	8	#5	23'-5"	
m(E)	8	#6	29'-0"	
m1(E)	12	#6	29'-10"	
m2(E)	32	#6	9'-8"	
m3(E)	12	#6	7'-4"	
m4(E)	4	#6	3'-1"	
m5(E)	4	#6	3'-7"	
m6(E)	12	#6	16'-1"	
m7(E)	20	#6	18'-10"	
s(E)	124	#5	6'-11"	
s1(E)	112	#4	8'-4"	
v(E)	108	#6	2'-11"	
Reinforcement Bars, Epoxy Coated			Pound	70800
Concrete Superstructure			Cu Yd	300
Bar Splicers			Each	690



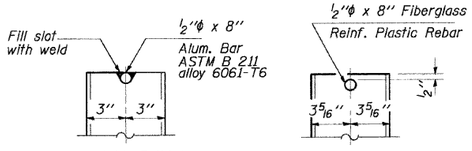
SECTION THRU WEST PARAPET



PARAPET JOINT DETAILS

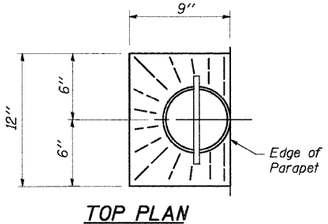


TOP PLAN
(Showing Aluminum Tube)

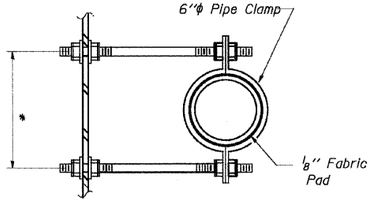


ALUMINUM TUBE

FIBERGLASS PIPE

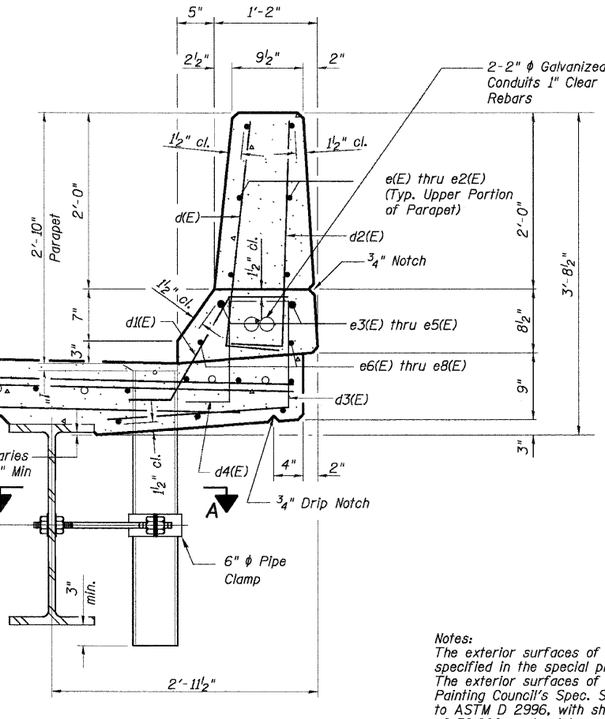


TOP PLAN



SECTION A-A

* Dimension as required by Pipe Clamp



SECTION THRU EAST PARAPET

Notes:
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SP1 prior to painting. Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

DECK DETAILS & BILL OF MATERIAL

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

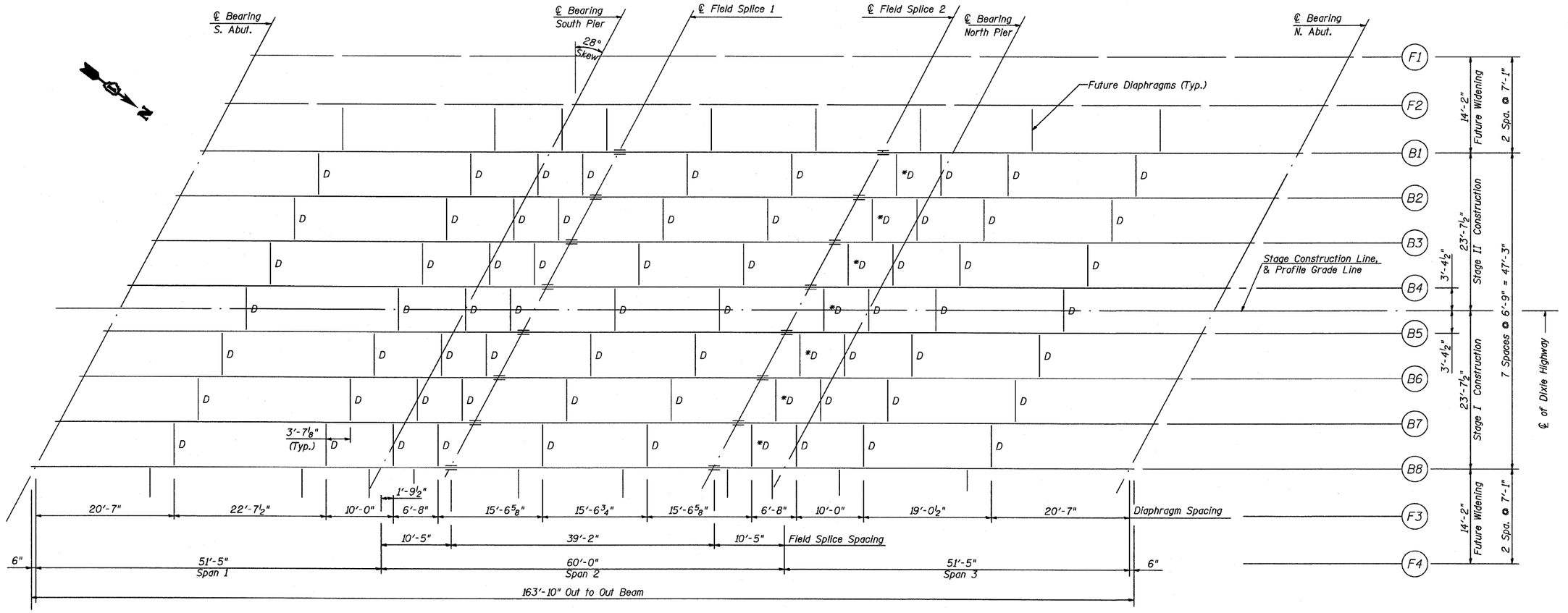
DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$PLOTNAME$
$PLOTDATE$
$FILES$
$DATES$
$TIME$

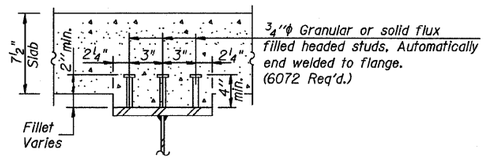
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	35
FED.ROAD DIST.NO.	ILLINOIS	FED.NO PROJECT-		

Sheet 11 of 22 Contract No. 62539

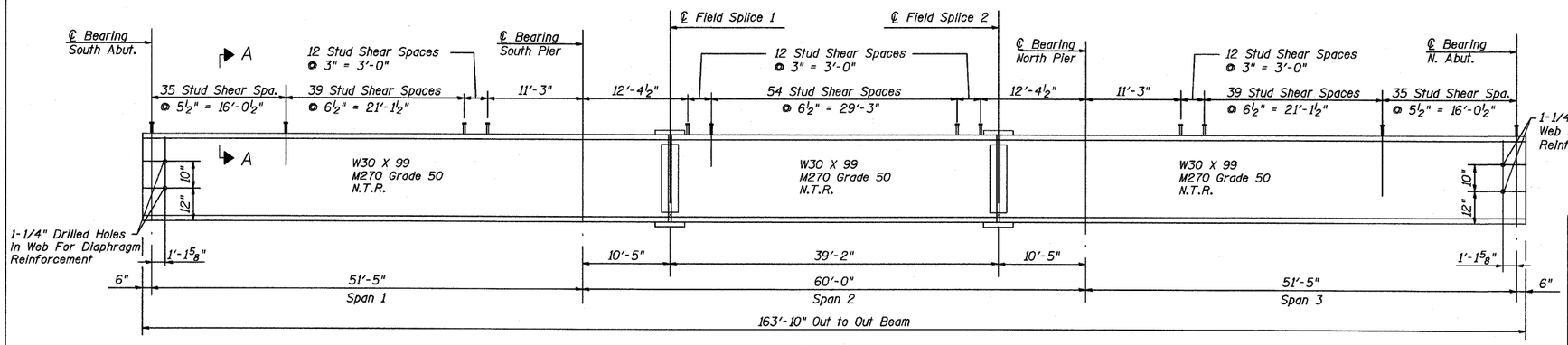


FRAMING PLAN
*D - Place Diaphragms at Center of Higher Beam



¾"ϕ Granular or solid flux filled headed studs, Automatically end welded to flange. (6072 Req'd.)

SECTION A-A



ELEVATION

Note:

1. All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
2. Components designated "N.T.R." shall conform to the supplemental requirements for notch toughness, Zone 2.
3. All Steel Beams Shall be M270 Grade 50.
4. D1 - Denotes Location of Future Diaphragms

RME Rubinos & Mesia Engineers, Inc.

REVISIONS	
NAME	DATE

FRAMING PLAN AND BEAM ELEVATION

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-30-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$PENTBL$
$PLTDRV$
$FILES$
$DATE$
$TIME$

$P:NTB:S$
$F:IDNI$S

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	36
FED.ROAD DIST. NO.		ILLINOIS	FED.AID PROJECT-	

Sheet 12 of 22 Contract No. 62539

INTERIOR BEAM MOMENT TABLE						
		0.4 Sp. 1	S. Pier	0.5 Sp. 2	N. Pier	0.6 Sp. 3
Is	(in^4)	3990	3990	3990	3990	3990
Ic (n)	(in^4)	11961		11961		11961
Ic (3n)	(in^4)	8864		8864		8864
Ss	(in^3)	269	269	269	269	269
Sc (n)	(in^3)	419		419		419
Sc (3n)	(in^3)	378		378		378
Z	(in^3)		312		312	
M_D	(k/ft.)	0.87	1.44	0.87	1.44	0.87
M_D	('k)	169	404	124	404	169
s_D	(k/ft.)	0.57		0.57		0.57
M_{SD}	('k)	127		121		127
M_L	('k)	363	191	362	191	363
M (Imp)	('k)	101	53	98	53	101
$5/3[M_L+M(Imp)]$	('k)	773.3	406.7	766.7	406.7	773.3
Ma	('k)	1390.1	1053.9	1315.2	1053.9	1390.1
* Mu	('k)	2062	1300	2073	1300	2062
f_{sD} non-comp	(k.s.i.)	7.5	18.0	5.5	18.0	7.5
f_{sD} (comp)	(k.s.i.)	4.0		3.8		4.0
f_s $5/3(L+Imp)$	(k.s.i.)	22.1	18.1	22.0	18.1	22.1
fs (Overload)	(k.s.i.)	33.6	36.1	31.3	36.1	33.6
** fs (Total)	(k.s.i.)					
VR	(k)	50.4		40.2		50.4

*Compact Braced Sections

**Non-Compact Section

INTERIOR BEAM REACTION TABLE					
		S. Abut.	S. Pier	N. Pier	N. Abut.
R_D	(k)	29.2	88.1	88.1	29.2
R_L	(k)	36.7	42.8	42.8	36.7
Imp.	(k)	10.3	12.0	12.0	10.3
R (Total)	(k)	76.2	142.9	142.9	76.2

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic (n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

Ic (3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads.

VR is the maximum Live Load + Impact shear within the composite portion of the span.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

Ma (Applied Moment) = $1.3[M_D + M_{SD} + 5/3(M_L + M(Imp))]$.

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

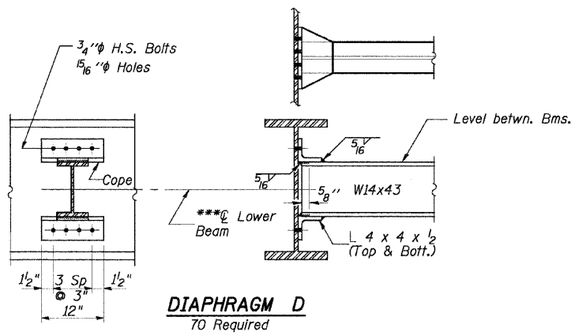
fs (Overload) is the sum of the stresses due to $M_D + M_{SD} + 5/3(M_L + M(Imp))$.

fs (Total) (Non-compact section) is the sum of the stresses due to $1.3[M_D + M_{SD} + 5/3(M_L + M(Imp))]$.

TOP OF BEAM ELEVATIONS

For Fabrication Only

Location	Beam B1	Beam B2	Beam B3	Beam B4	Beam B5	Beam B6	Beam B7	Beam B8
℄ Bearing South Abutment	643.438	643.263	643.088	642.911	642.734	642.557	642.378	642.199
℄ South Pier	643.495	643.329	643.163	642.996	642.828	642.660	642.491	642.322
℄ Field Splice 1	643.506	643.342	643.178	643.013	642.847	642.681	642.514	642.347
℄ Field Splice 2	643.481	643.324	643.167	643.009	642.851	642.692	642.532	642.372
℄ North Pier	643.456	643.301	643.146	642.990	642.834	642.677	642.519	642.361
℄ Bearing North Abutment	643.333	643.188	643.043	642.896	642.749	642.602	642.453	642.304



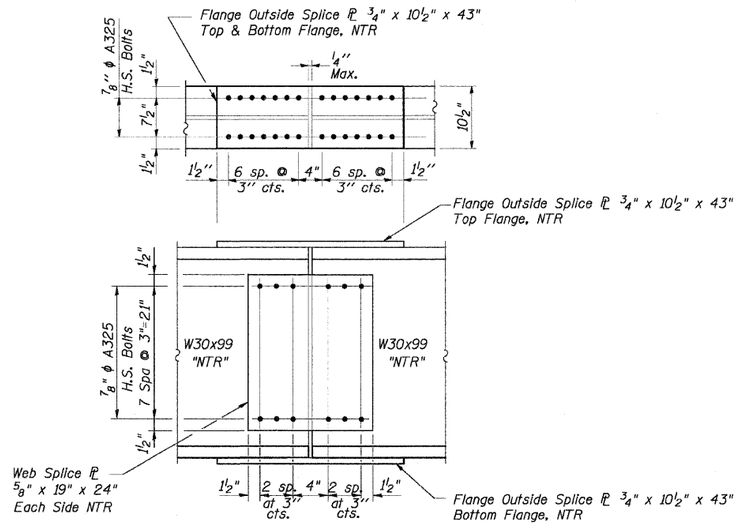
DIAPHRAGM D

70 Required

***For Diaphragm Adjacent to Field Splice 2, Use ℄ Higher Beam

Notes: Two hardened washers shall be required over all oversize holes

For future diaphragm D1, apply 15/16"ϕ holes at location specified on Framing Plan.



FIELD SPLICE

16 Field Splices Required

Components designated "N.T.R." shall conform to the supplemental requirements for notch toughness, Zone 2.

All Splice ℄. Except Filler ℄ Shall be M270 Grade 50 Steel, NTR.

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

STEEL DETAILS & TOP OF BEAM ELEVATIONS

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$FILES$
$DATES$
$INIS$

$PLOTBY$
$PLOTDAY$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	37
FED.ROAD DIST. NO.		ILLINOIS	FED.AID PROJECT-	

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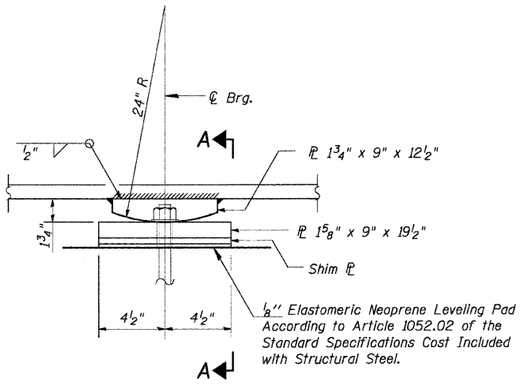
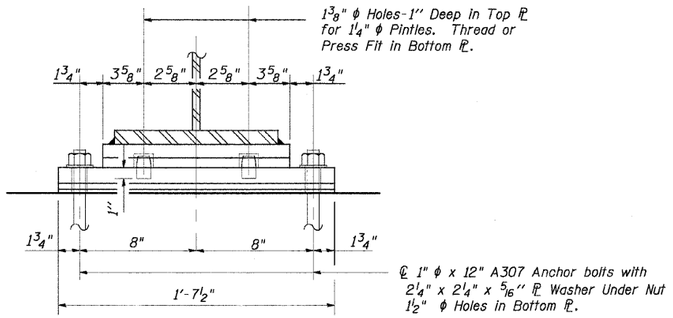
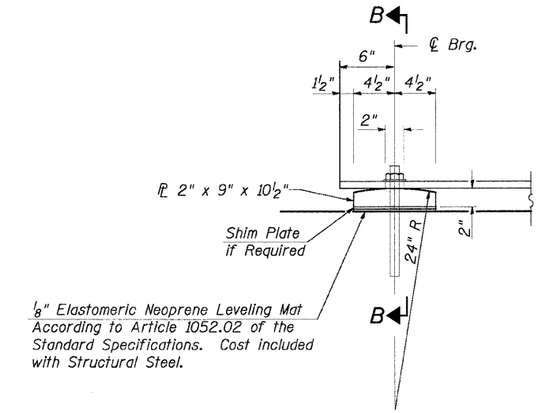


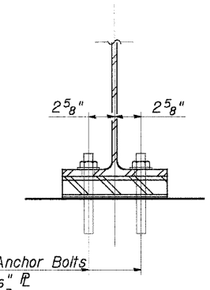
ELEVATION AT SOUTH PIER



SECTION A-A



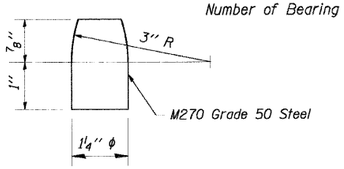
ELEVATION AT SOUTH ABUTMENT



SECTION B-B

FIXED BEARING

Number of Bearing Assemblies Required - 8



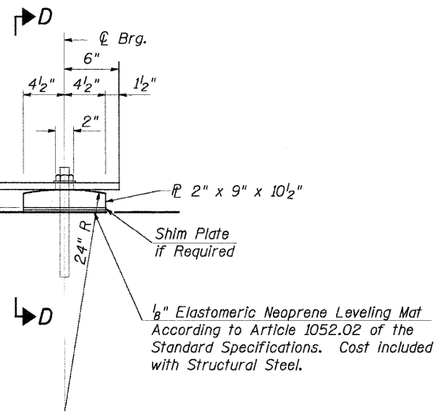
PINTLE

BEARINGS BILL OF MATERIALS

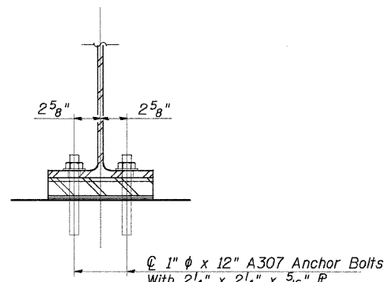
Item	Unit	Total
Anchor Bolts, 1"	Each	64

FIXED BEARING

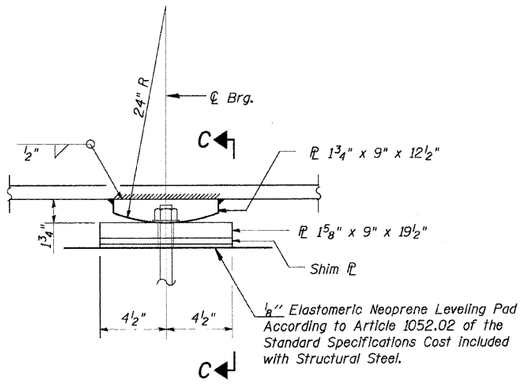
Number of Bearing Assemblies Required - 8



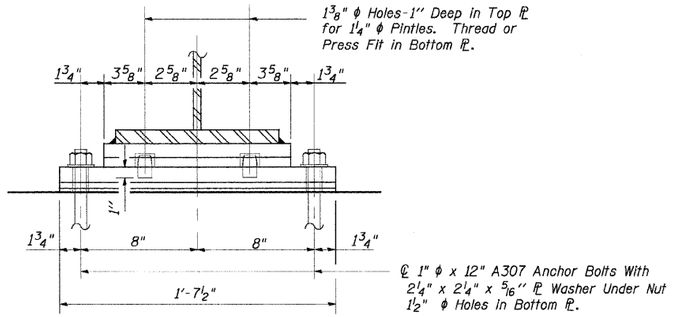
ELEVATION AT NORTH ABUTMENT



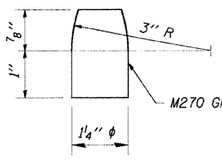
SECTION D-D



ELEVATION AT NORTH PIER



SECTION C-C



PINTLE

FIXED BEARING

Number of Bearing Assemblies Required - 8

Notes:
Anchor bolts at fixed bearings may be built into the Concrete Abutment.
See sheet 19 of 20 for Anchor Bolt installation.

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

BEARING DETAILS

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

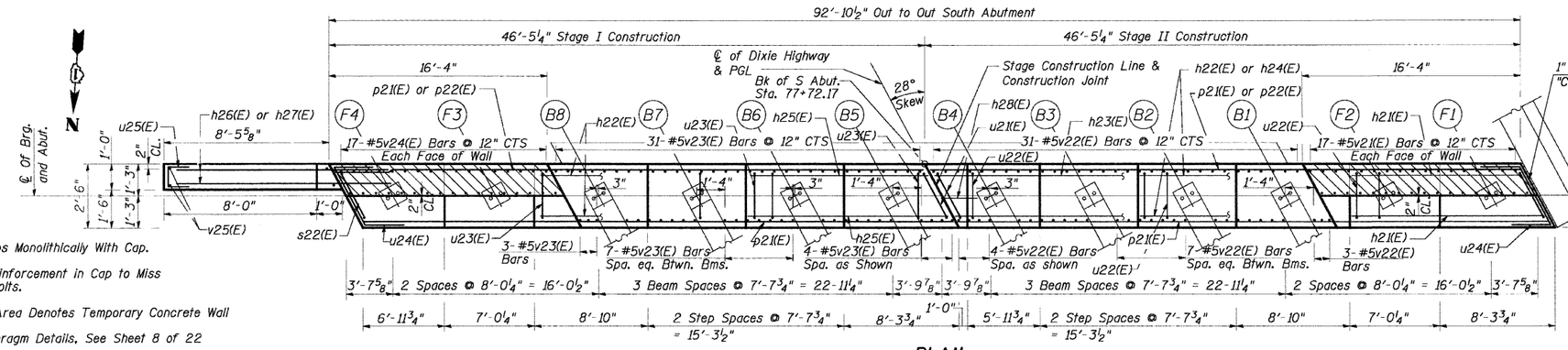
DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$FILES$
$DATES$
$TIME$

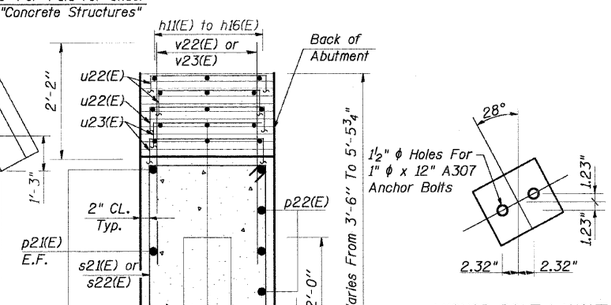
F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	38
FED.ROAD DIST.NO.		ILLINOIS	FED.AID PROJECT-	

Sheet 14 of 22 Contract No. 62539

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN



ANCHOR BOLT LAYOUT

Notes:

Pour Steps Monolithically With Cap.

Space Reinforcement in Cap to Miss Anchor Bolts.

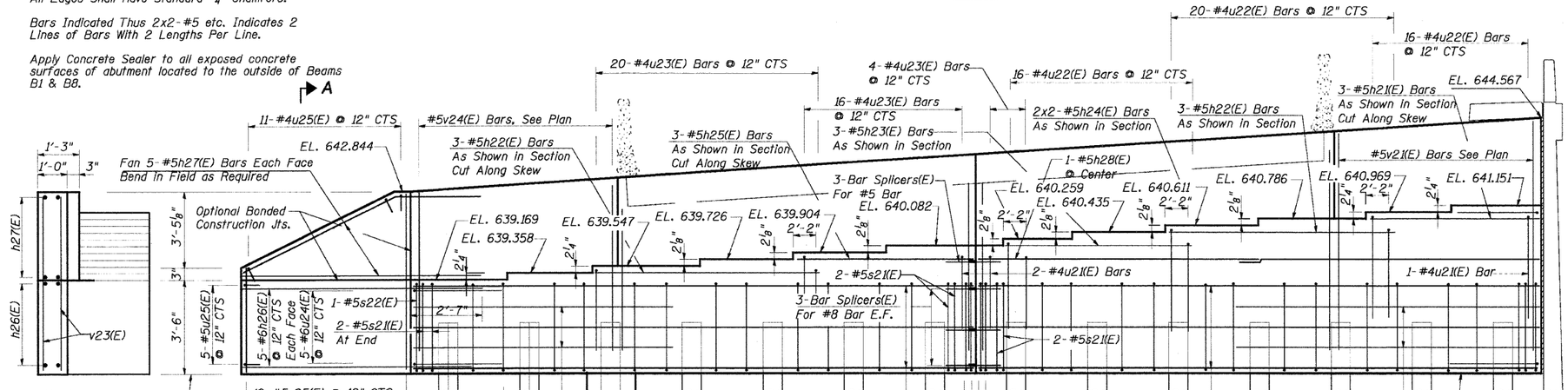
Hatched Area Denotes Temporary Concrete Wall

For Diaphragm Details, See Sheet 8 of 22

All Edges Shall Have Standard ¾" Chamfers.

Bars Indicated Thus 2x2-#5 etc. Indicates 2 Lines of Bars With 2 Lengths Per Line.

Apply Concrete Sealer to all exposed concrete surfaces of abutment located to the outside of Beams B1 & B8.



ELEVATION
(Looking South)

SECTION A-A

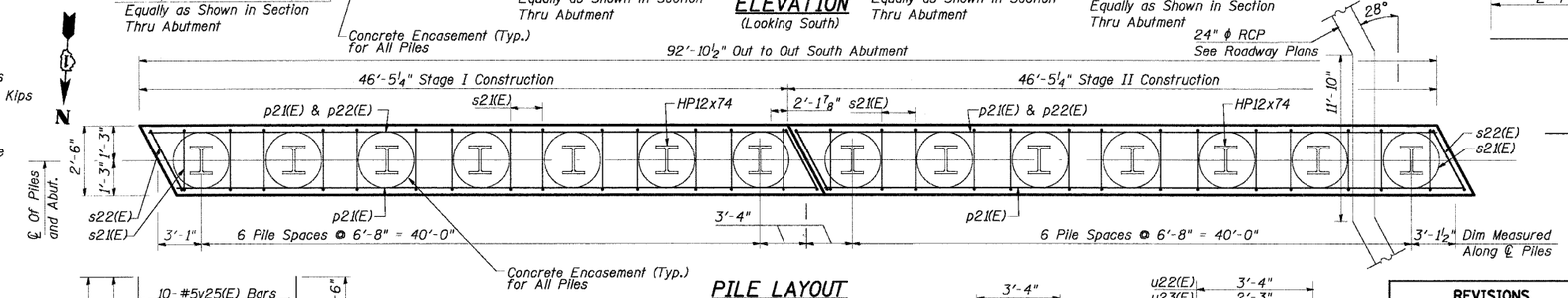
SECTION THRU S. ABUT.

S. ABUT. BILL OF MATERIAL

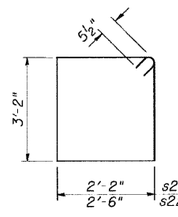
Bar	No.	Size	Length	Shape
h21(E)	3	#5	15'-1"	
h22(E)	6	#5	19'-0"	
h23(E)	3	#5	16'-1"	
h24(E)	4	#5	24'-4"	
h25(E)	3	#5	15'-9"	
h26(E)	10	#6	11'-7"	
h27(E)	10	#5	11'-11"	
h28(E)	1	#5	4'-6"	
p21(E)	12	#9	46'-3"	
p22(E)	4	#9	25'-1"	
s21(E)	80	#5	11'-7"	
s22(E)	6	#5	12'-3"	
u21(E)	3	#4	9'-1"	
u22(E)	52	#4	8'-9"	
u23(E)	40	#4	6'-7"	
u24(E)	12	#6	7'-8"	
u25(E)	16	#4	2'-2"	
v21(E)	34	#5	7'-8"	
v22(E)	59	#5	6'-0"	
v23(E)	59	#5	5'-1"	
v24(E)	34	#5	6'-0"	
v25(E)	10	#5	10'-8"	
Reinforcement Bars, Epoxy Coated		Pound	6,000	
Concrete Structures		Cu. Yd.	40	
Bar Splicers		Each	9	
Furnishing Steel Piles HP12x74		Foot	600	
Driving Piles		Foot	600	
Test Pile Steel, HP12x74		Each	1	
Pile Shoes		Each	13	
Structure Excavation		Cu. Yd.	15	
Concrete Sealer		Sq. Ft.	480	
Concrete Encasement		Cu. Yd.	5	

PILE DATA

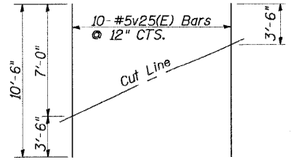
Type: HP12x74
Nominal Required Bearing: 589 Kips
Allowable Resistance Available: 196 Kips
Est. Total Length: 45'-0"
No. Required: 13 + 1 Test Pile
Negative Skin Friction: 30 Kips/Pile
Provide Pile Shoes for all Piles



PILE LAYOUT

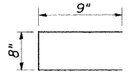


BARS s21(E) & s22(E)



FIELD CUTTING DIAGRAM

Order v25(E) Full Length. Cut as Shown and Use Remainder of Bars in Opposite Face.



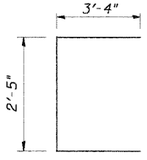
BAR u25(E)

LEGEND

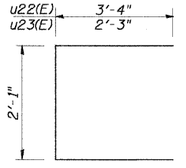
Indicates Temporary Wall

B.F. Indicates Back Face of Abutment

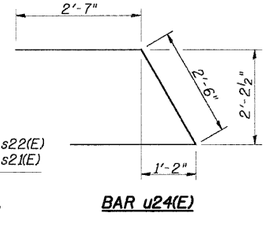
E.F. Indicates Each Face of Abutment



BAR u21(E)



BARS u22(E) & u23(E)



BAR u24(E)

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

SOUTH ABUTMENT

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$PLOTNIB$$
$PLOTDRV$$

$FILES$
$DATE$
$TIME$

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	39
FED.ROAD DIST.NO.	ILLINOIS	FED.AID PROJECT-		

Contract No. 62539

Notes:

Pour Steps Monolithically With Cap.

Space Reinforcement in Cap to Miss Anchor Bolts.

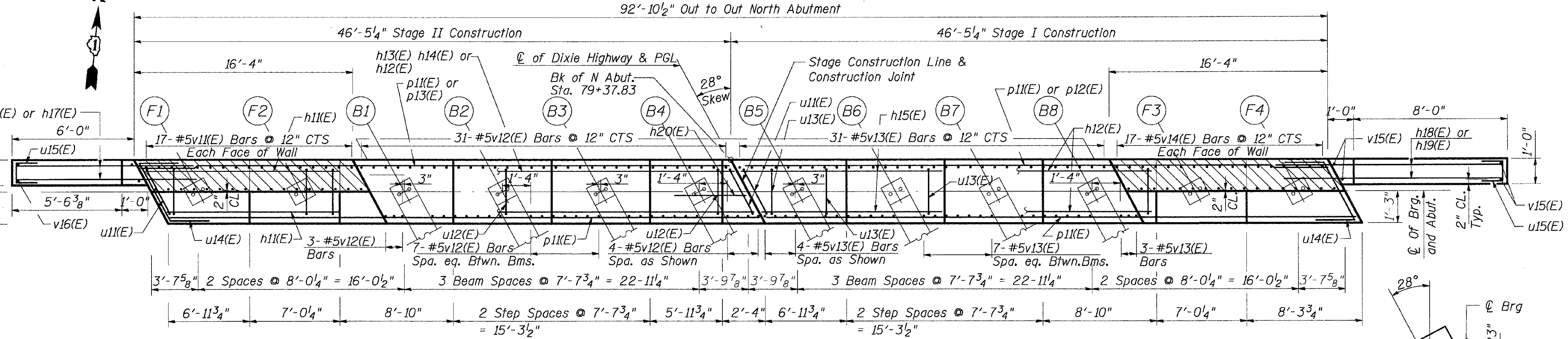
Hatched Area Denotes Temporary Concrete Wall

For Diaphragm Details, See Sheet 8 of 22

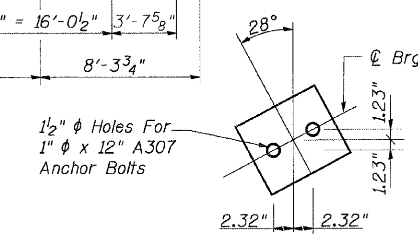
All Edges Shall Have Standard ¾" Chamfers.

Bars Indicated Thus 2x2-#5 etc. Indicates 2 Lines of Bars With 2 Lengths Per Line.

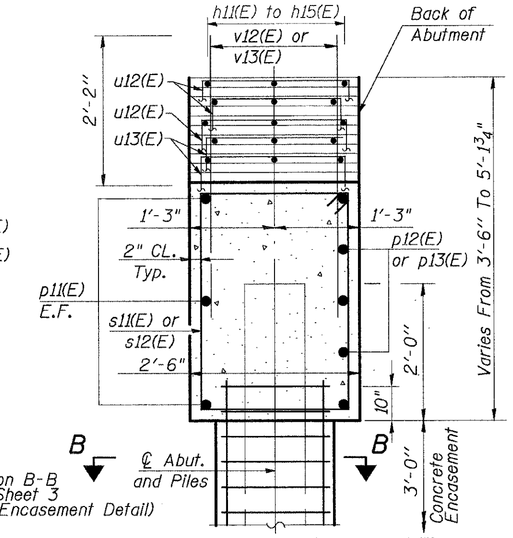
Apply Concrete Sealer to all exposed concrete surfaces of abutment located to the outside of Beams B1 & B8.



PLAN



ANCHOR BOLT LAYOUT

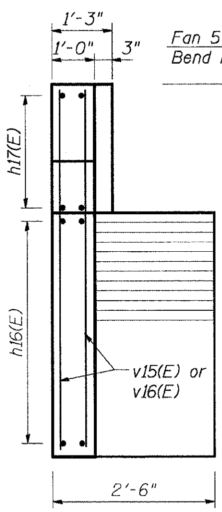


SECTION THRU N. ABUT.

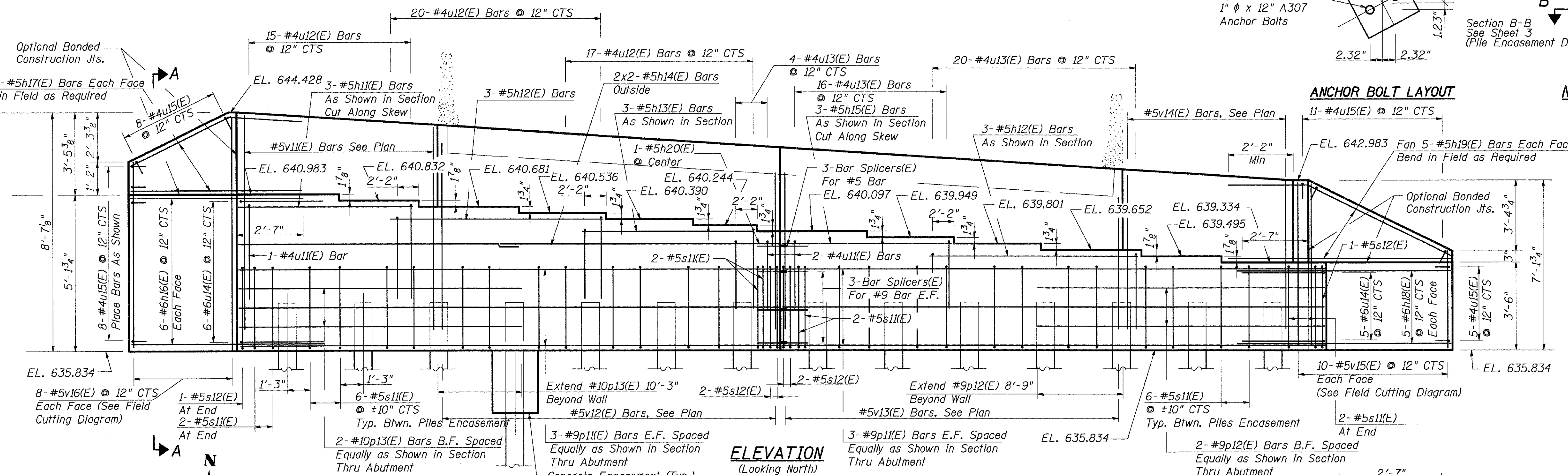
N. ABUT. BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h11(E)	3	#5	15'-1"	———
h12(E)	6	#5	18'-8"	———
h13(E)	3	#5	15'-10"	———
h14(E)	4	#5	24'-4"	———
h15(E)	3	#5	15'-9"	———
h16(E)	12	#6	9'-1"	———
h17(E)	10	#5	9'-1"	———
h18(E)	10	#6	11'-7"	———
h19(E)	10	#5	11'-10"	———
h20(E)	1	#5	4'-6"	———
p11(E)	12	#9	46'-3"	———
p12(E)	2	#9	25'-1"	———
p13(E)	2	#10	26'-7"	———
s11(E)	80	#5	11'-7"	□
s12(E)	6	#5	12'-3"	□
u11(E)	3	#4	8'-5"	⊐
u12(E)	52	#4	8'-1"	⊐
u13(E)	40	#4	6'-3"	⊐
u14(E)	11	#6	7'-8"	⊐
u15(E)	32	#4	2'-2"	⊐
v11(E)	34	#5	7'-4"	———
v12(E)	59	#5	6'-0"	———
v13(E)	59	#5	5'-1"	———
v14(E)	34	#5	6'-0"	———
v15(E)	10	#5	10'-5"	———
v16(E)	8	#5	14'-5"	———

Item	Unit	Quantity
Reinforcement Bars, Epoxy Coated	Pound	6,300
Concrete Structures	Cu. Yds.	42
Bar Splicers	Each	9
Furnishing Steel Piles HP12x74	Foot	590
Driving Piles	Foot	590
Test Pile Steel, HP12x74	Each	1
Pile Shoes	Each	13
Structure Excavation	Cu. Yd.	15
Concrete Sealer	Sq. Ft.	520
Concrete Encasement	Cu. Yds.	5



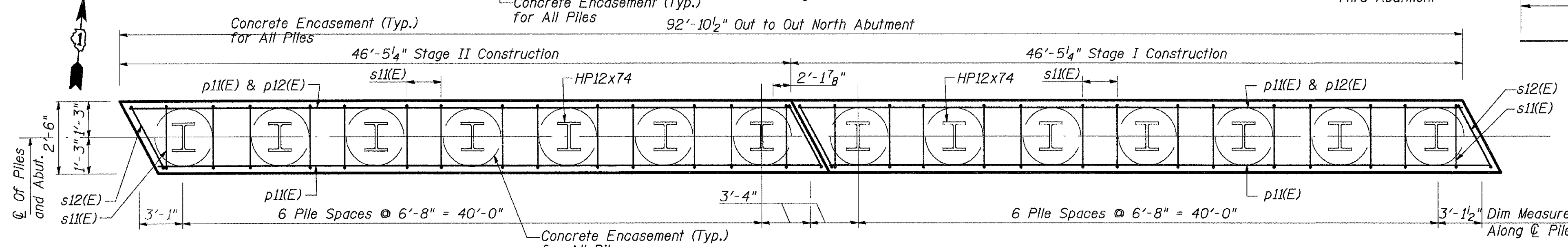
SECTION A-A



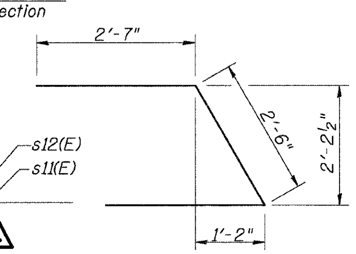
ELEVATION
(Looking North)

PILE DATA

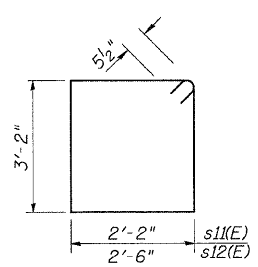
Type: HP12x74
Nominal Required Bearing: 589 Kips
Allowable Resistance Available: 196 Kips
Est. Total Length: 45'-0"
No. Required: 13 + 1 Test Pile
Negative Skin Friction: 30 Kips/Pile
Provide Pile Shoes for all Piles



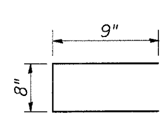
PILE LAYOUT



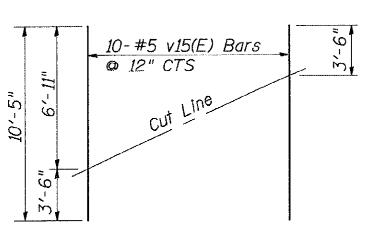
BAR u14(E)



BARS s11(E) & s12(E)

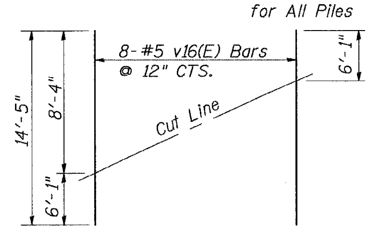


BAR u15(E)



FIELD CUTTING DIAGRAM

Order v15(E) Full Length. Cut as Shown and Use Remainder of Bars In Opposite Face.



FIELD CUTTING DIAGRAM

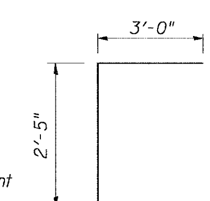
Order v16(E) Full Length. Cut as Shown and Use Remainder of Bars In Opposite Face.

LEGEND

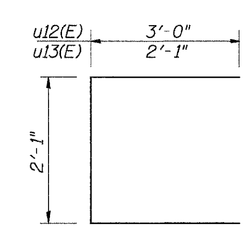
Indicates Temporary Wall

B.F. Indicates Back Face of Abutment

E.F. Indicates Each Face of Abutment



BAR u11(E)



BARS u12(E) & u13(E)

RME Rubinos & Mesia Engineers, Inc.

REVISIONS	
NAME	DATE

NORTH ABUTMENT

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

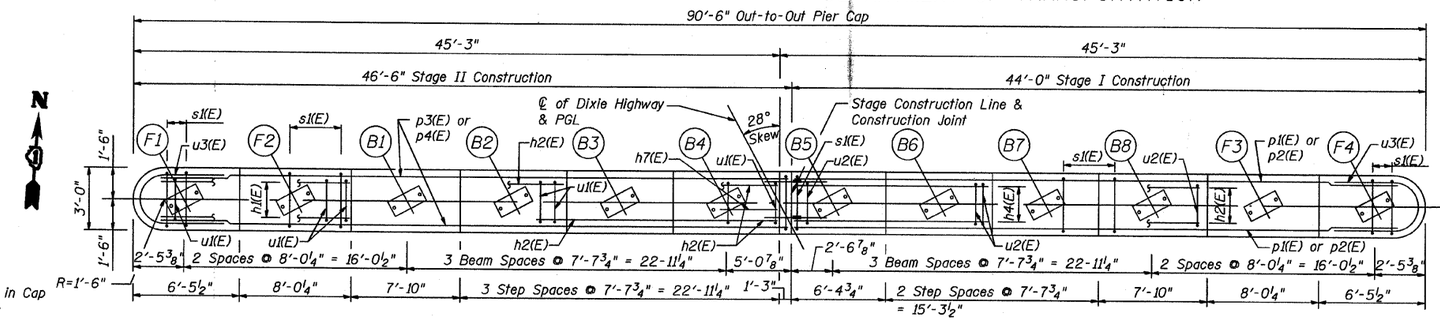
DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$PENTBLS$ $PLTDRVS$ $FILES$ $DATE$ $TIME$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	40
FED.ROAD DIST.NO.	ILLINOIS	FED.AID PROJECT-		

Sheet 16 of 22 Contract No. 62539



PLAN

Notes:

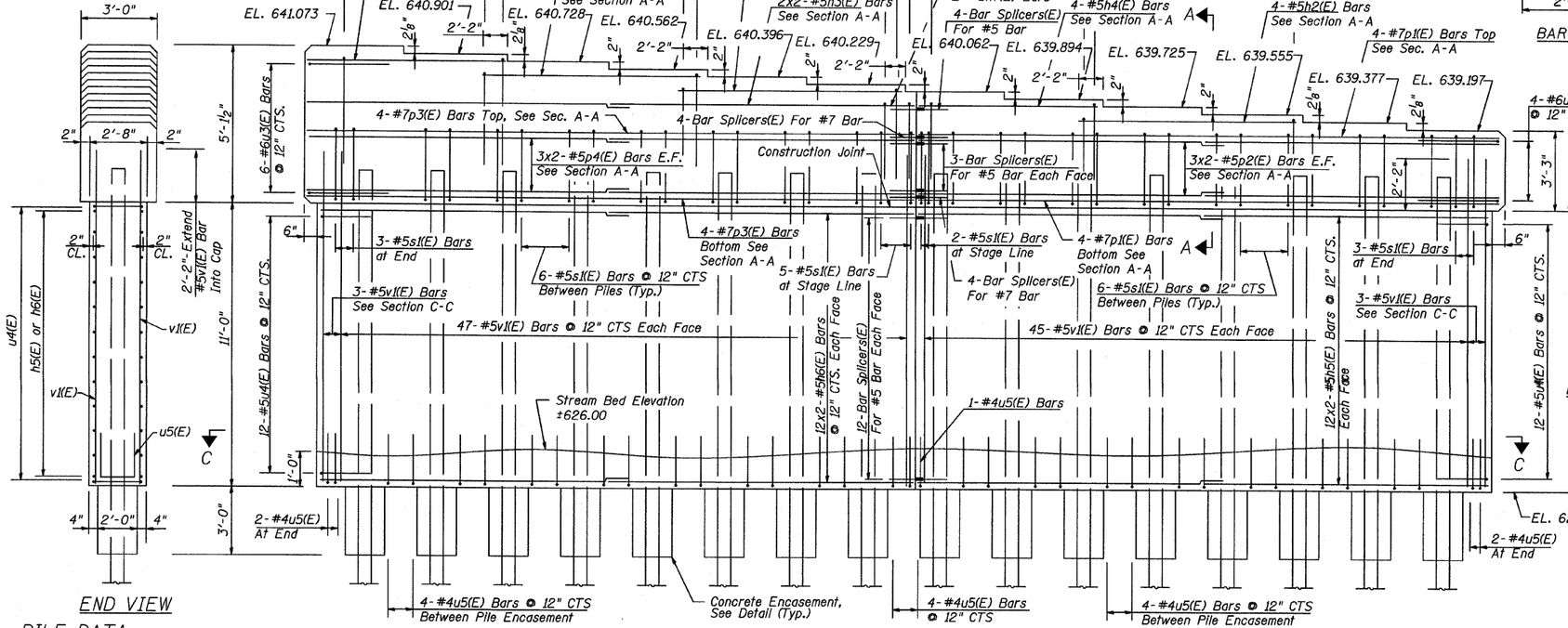
Space Reinforcement in Cap to Miss Anchor Bolts.

Pour steps Monolithically With Cap.

Bars Indicated Thus 4 x 2-#5 etc. Indicates 4 Lines of Bars With 2 Lengths Per Line

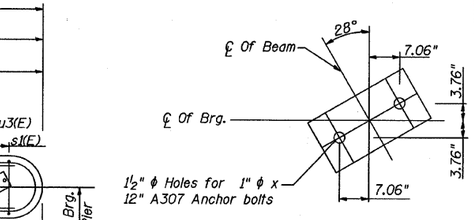
All Edges Shall Have Standard 3/4" Chamfers.

Apply Concrete Sealer to all exposed concrete surfaces of Pier located to the outside of Beams B1 & B8.

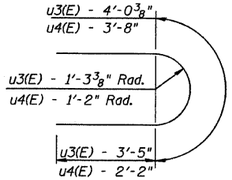


END VIEW

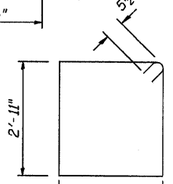
ELEVATION



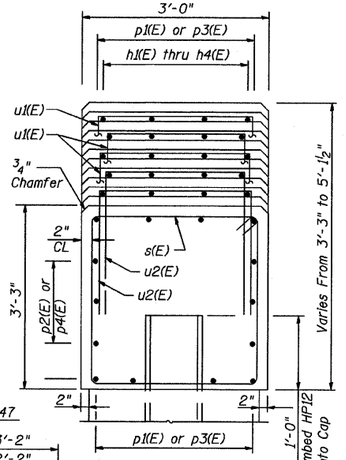
ANCHOR BOLT LAYOUT



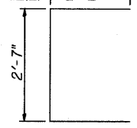
BARS u3(E) & u4(E)



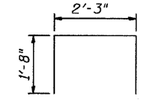
BAR s1(E)



SECTION A-A



BAR u1(E) & u2(E)



BAR u5(E)

SOUTH PIER
BILL OF MATERIAL

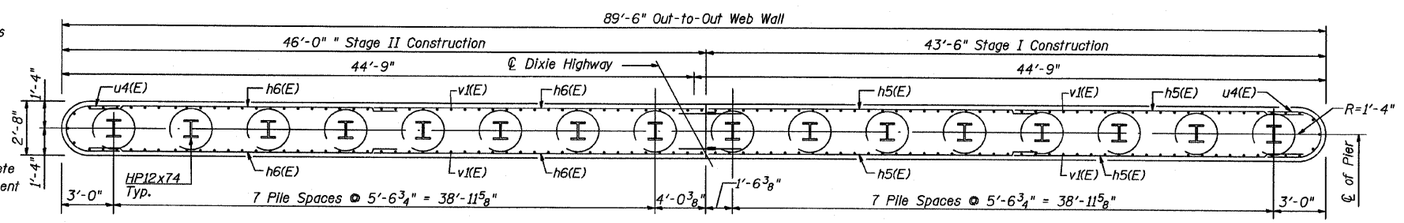
Bar	No.	Size	Length	Shape
h1(E)	4	#5	12'-10"	
h2(E)	12	#5	17'-9"	
h3(E)	4	#5	23'-7"	
h4(E)	4	#5	13'-10"	
h5(E)	48	#5	22'-9"	
h6(E)	48	#5	24'-0"	
h7(E)	2	#5	4'-0"	
p1(E)	8	#7	42'-5"	
p2(E)	12	#5	22'-4"	
p3(E)	8	#7	44'-11"	
p4(E)	12	#5	23'-7"	
s1(E)	97	#5	12'-1"	
u1(E)	52	#4	8'-11"	
u2(E)	39	#4	6'-11"	
u3(E)	10	#6	10'-10"	
u4(E)	24	#5	8'-0"	
u5(E)	65	#4	5'-7"	
v1(E)	190	#5	13'-2"	
Reinforcement Bars, Epoxy Coated		Pound	9,720	
Concrete Structures		Cu. Yd.	140	
Bar Splicers		Each	42	
Furnishing Steel Piles HP12x74		Foot	680	
Driving Piles		Foot	680	
Test Pile Steel, HP12x74		Each	1	
Pile Shoes		Each	15	
Structure Excavation		Cu. Yd.	25	
Concrete Encasement		Cu. Yd.	5	
Concrete Sealer		Sq. Ft.	1,240	

PILE DATA

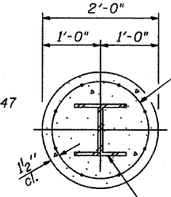
Type: HP12x74
Nominal Required Bearing: 589 Kips
Allowable Resistance Available: 196 Kips
Est. Total Length: 45'-0"
No. Required: 15 + 1 Test Pile
Negative Skin Friction: 30 Kips/Pile
Provide Pile Shoes for all Piles

Note:

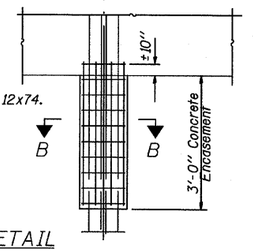
If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.



SECTION C-C



SECTION B-B



PILE ENCASEMENT DETAIL

REVISIONS	
NAME	DATE

SOUTH PIER

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-30-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

RME Rubinos & Mesia Engineers, Inc.

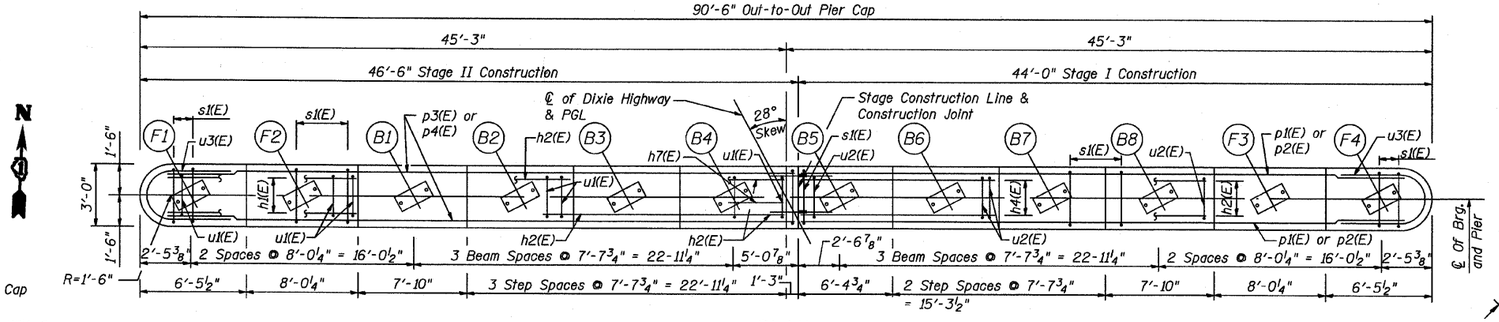
PENTBLS
PLTDRVS
FILES
DATES
TIME

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	41
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

Sheet 17 of 22 Contract No. 62539

PLAN



Notes:

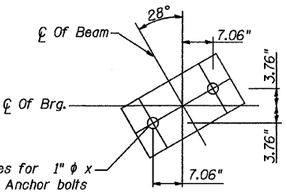
Space Reinforcement in Cap to Miss Anchor Bolts.

Pour steps Monolithically With Cap.

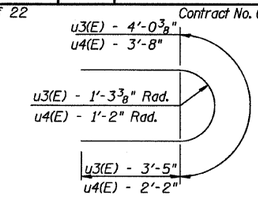
Bars Indicated Thus 4 x 2-#5 etc. Indicates 4 Lines of Bars With 2 Lengths Per Line

All Edges Shall Have Standard 3/4" Chamfers.

Apply Concrete Sealer to all exposed concrete surfaces of Pier located to the outside of Beams B1 & B8.



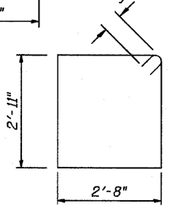
ANCHOR BOLT LAYOUT



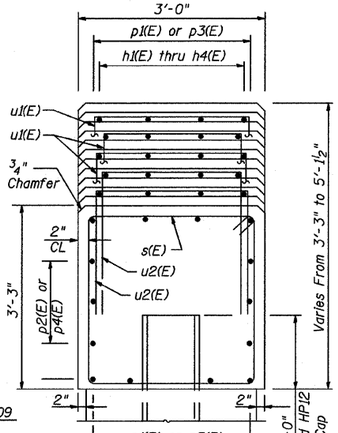
BARS u3(E) & u4(E)

NORTH PIER
BILL OF MATERIAL

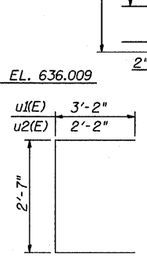
Bar	No.	Size	Length	Shape
h1(E)	4	#5	12'-10"	
h2(E)	12	#5	17'-9"	
h3(E)	4	#5	23'-7"	
h4(E)	4	#5	13'-10"	
h5(E)	48	#5	22'-9"	
h6(E)	48	#5	24'-0"	
h7(E)	2	#5	4'-0"	
p1(E)	8	#7	42'-5"	
p2(E)	12	#5	22'-4"	
p3(E)	8	#7	44'-11"	
p4(E)	12	#5	23'-7"	
s1(E)	97	#5	12'-1"	
u1(E)	52	#4	8'-11"	
u2(E)	39	#4	6'-11"	
u3(E)	10	#6	10'-10"	
u4(E)	24	#5	8'-0"	
u5(E)	65	#4	5'-7"	
v1(E)	190	#5	13'-2"	
Reinforcement Bars, Epoxy Coated			Pound	9,720
Concrete Structures			Cu. Yd.	140
Bar Splicers			Each	42
Furnishing Steel Piles HP12x74			Foot	680
Driving Piles			Foot	680
Test Pile Steel, HP12x74			Each	1
Pile Shoes			Each	15
Structure Excavation			Cu. Yd.	25
Concrete Encasement			Cu. Yd.	5
Concrete Sealer			Sq. Ft.	1,240



BAR s1(E)

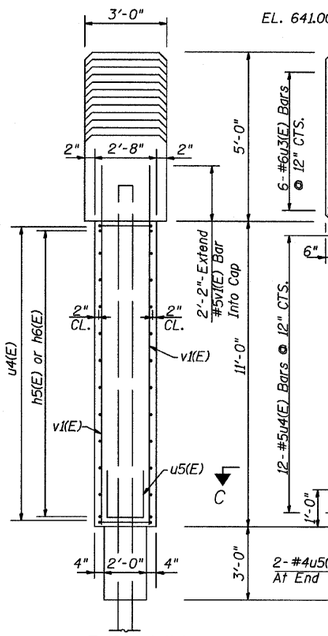


SECTION A-A

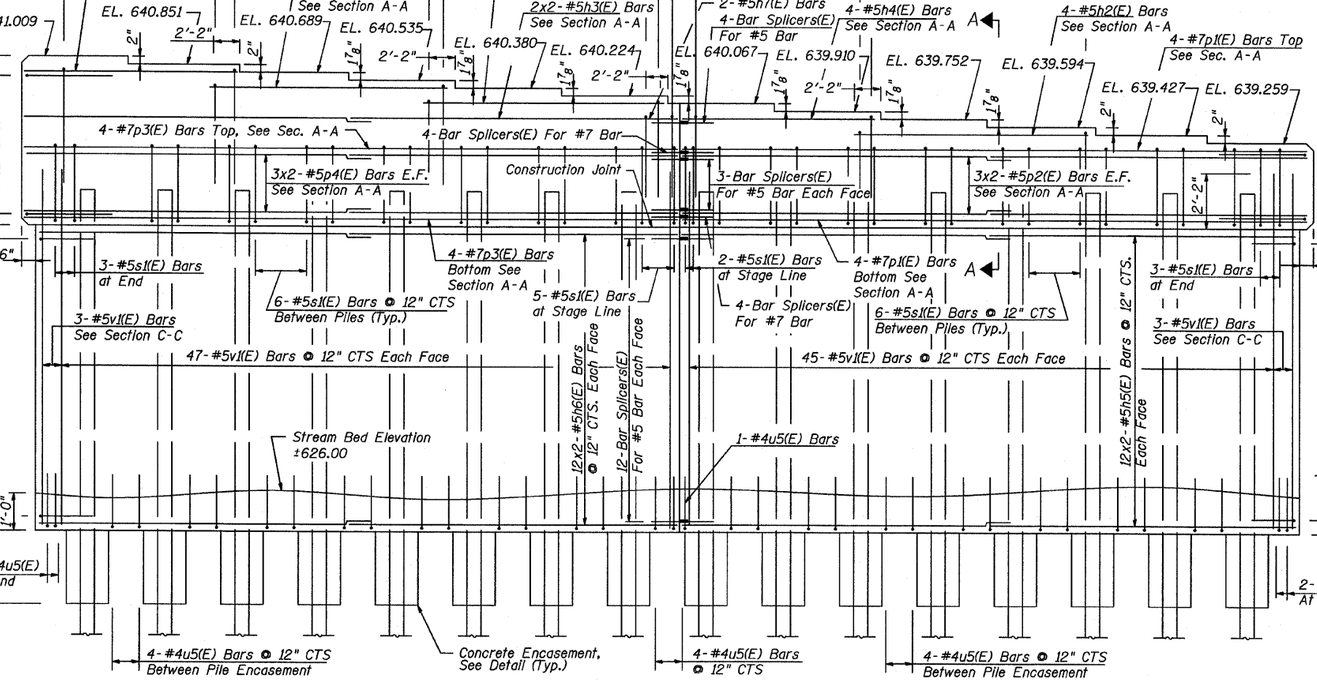


BAR u1(E) & u2(E)

BAR u5(E)



END VIEW



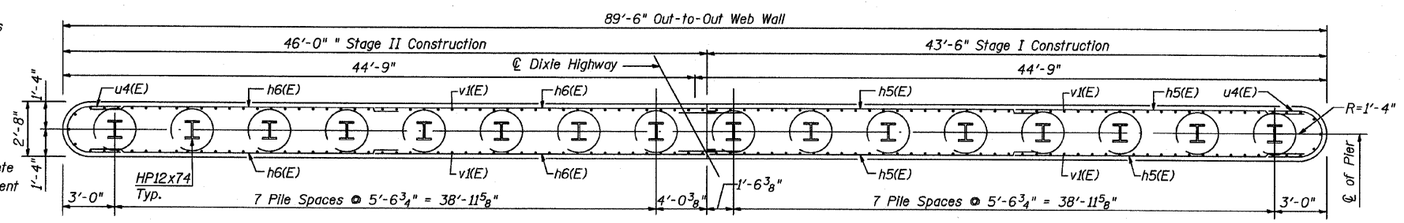
ELEVATION

PILE DATA

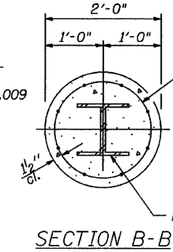
Type: HP12x74
Nominal Required Bearing: 589 Kips
Allowable Resistance Available: 196 Kips
Est. Total Length: 45'-0"
No. Required: 15 + 1 Test Pile
Negative Skin Friction: 30 Kips/Pile
Provide Pile Shoes for all Piles

Note:

If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

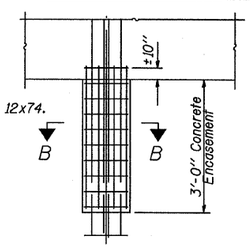


SECTION C-C



SECTION B-B

Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation and Reinforcement is included with Furnishing Steel Piles HP 12x74. Forms for Encasement may be omitted when soil conditions permit.



PILE ENCASEMENT DETAIL

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

NORTH PIER

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-30-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

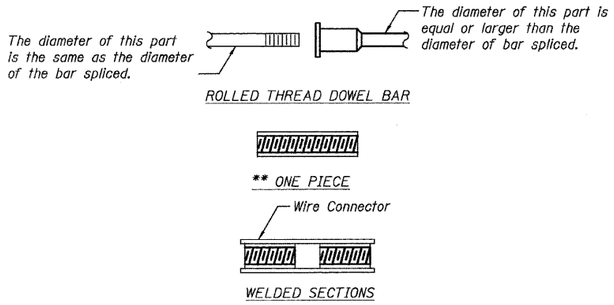
$PENTBLS$
$PLTDRVS$
$FILES$
$DATE$
$TIME$

$PLOTBIAS$
$PLOTDATE$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

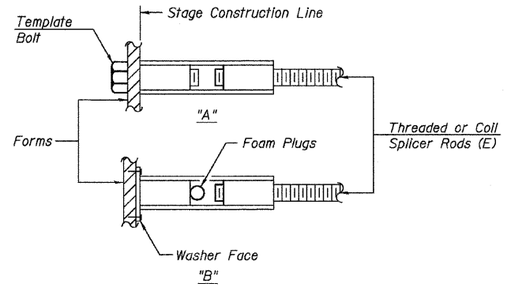
F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	42
FED.ROAD DIST.NO.		ILLINOIS	FED.AID PROJECT-	

Sheet 18 of 22 Contract No. 62539



BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



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.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

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

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

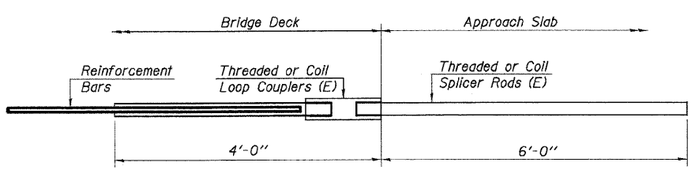
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

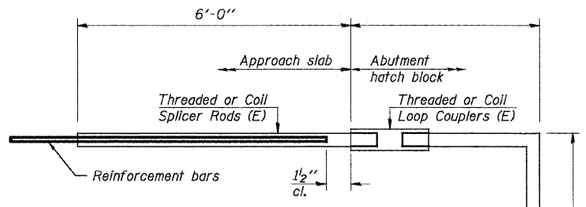
Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



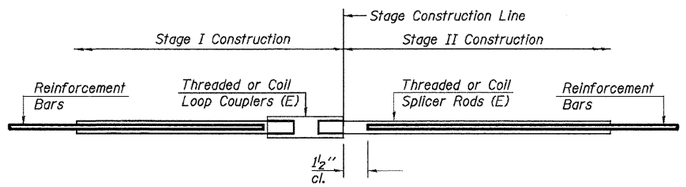
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 108



FOR PILE BENT ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location
#5	554	Deck
#6	28	Diaphragm
#5	68	Piers
#7	16	Piers
#9	12	Abutments
#5	6	Abutments

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

BAR SPLICER ASSEMBLY DETAILS

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

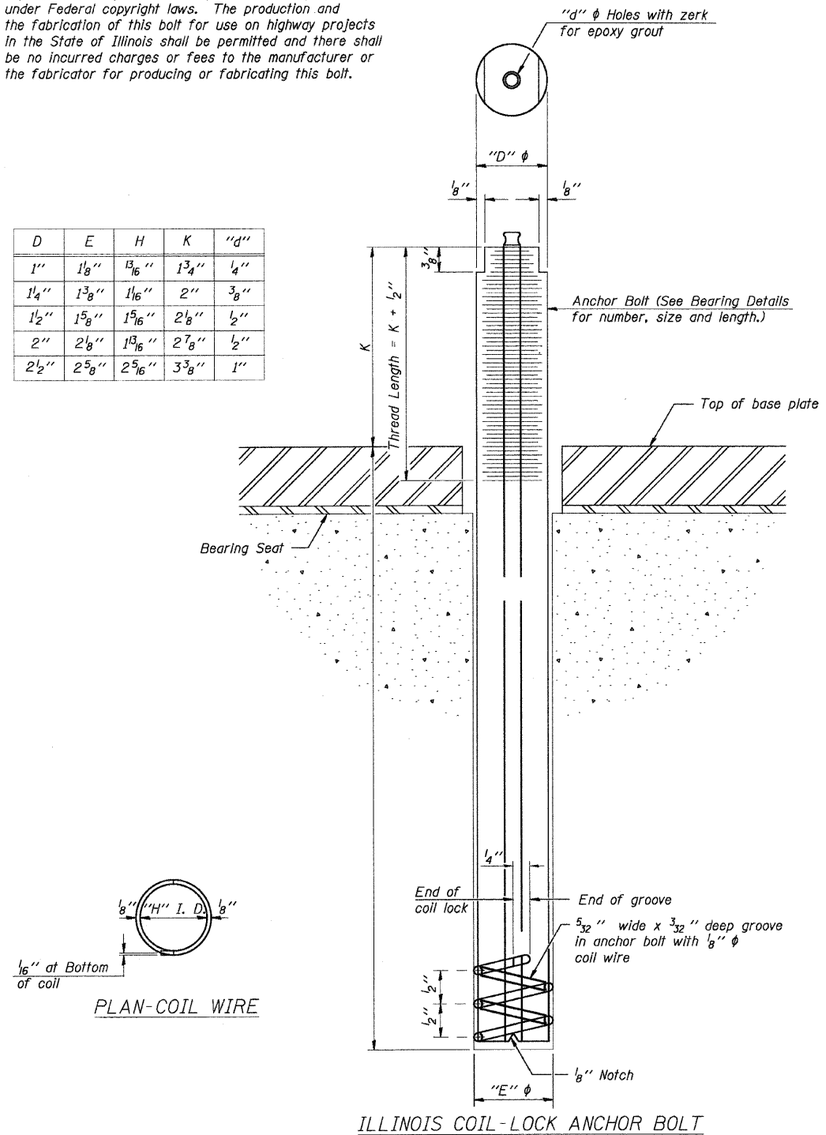
SCALE: NOT-TO-SCALE
DATE 6-25-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$FILES$
$DATE$
$TIME$

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	43
FED.ROAD DIST.NO.		ILLINOIS	FED.AID PROJECT-	

D	E	H	K	"d"
1"	1 1/8"	13/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



ILLINOIS COIL-LOCK ANCHOR BOLT

PLAN-COIL WIRE

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
S. Abut.	A307
S. Pier	A307
N. Pier	A307
N. Abut.	A307

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

RME Rubinos & Mesia Engineers, Inc.

REVISIONS	
NAME	DATE

ANCHOR BOLT DETAILS FOR BEARINGS

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

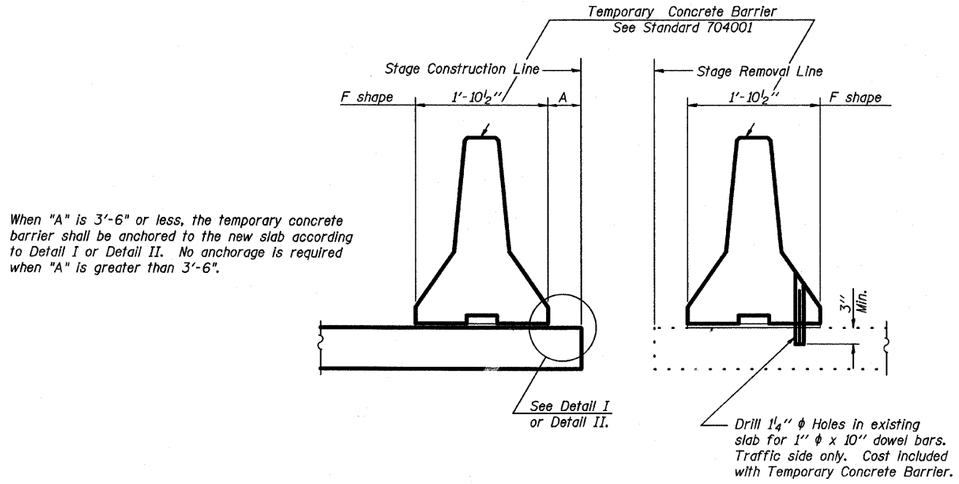
DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$PENTBL$
$PLTDRV$
$FILES$
$DATE$
$INIT$

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	44
FED.ROAD DIST.NO.		ILLINOIS	FED.AID PROJECT-	

Sheet 20 of 22 Contract No. 62539



When "A" is 3'-6" 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'-6".

NEW SLAB **EXISTING SLAB**

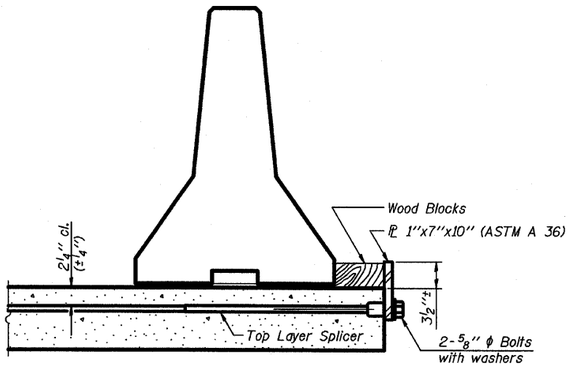
NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ 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"x7"x10" steel ℙ to the concrete slab with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

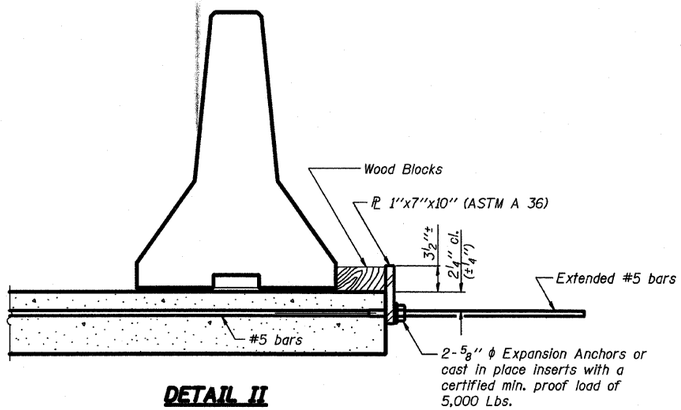
Cost of anchorage is included with Temporary Concrete Barrier.

SECTIONS THRU SLAB



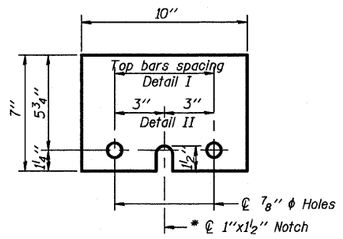
DETAIL I

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 1"x7"x10" 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.



ℙ 1"x7"x10"

* Required only with Detail II

REVISIONS	
NAME	DATE

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-30-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

RME Rubinos & Mesia Engineers, Inc.

$PENTBL$
$PLTDRV$
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	45
FED.ROAD DIST. NO.		ILLINOIS	FED.AID PROJECT-	

Sheet 21 of 22 Contract No. 62539

Illinois Department of Transportation — SOIL BORING LOG

Page 1 of 2

Date 12/28/03

ROUTE over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. Station

BORING NO. B-1 Station 79+38.6 Offset 17.30ft Lt. Ground Surface Elev. 637.10 ft

Surface Water Elev. ft Stream Bed Elev. ft

Groundwater Elev.: First Encounter 632.1 ft Upon Completion ft After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
8" Asphalt over 8" concrete			
637.10			
FILL, silty clay with sand & organic, brown-gray, very soft to soft	2	1.3	21.0
	3		
	4	1.9	24.0
	5		
630.10	6		
SILTY LOAM, b. gravel, gray, med. dense to loose, moist to wet	7		17.0
	8		
	9		18.0
	10		
	11		16.0
	12		
	13		13.0
	14		
	15		
625.10	16		
SILT, with sand & gravel, gray, wet, dense to extremely dense	17		
	18		
	19		
	20		
	21		
	22		
	23		
	24		
	25		
	26		
	27		
	28		
	29		
	30		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 133 (Rev. 6-99)

Illinois Department of Transportation — SOIL BORING LOG

Page 1 of 2

Date 1/1/04

ROUTE over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. Station

BORING NO. B-2 Station 79+55.2 Offset 24.30ft Rt. Ground Surface Elev. 636.64 ft

Surface Water Elev. ft Stream Bed Elev. ft

Groundwater Elev.: First Encounter 631.6 ft Upon Completion ft After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
8" Asphalt over 8" Concrete			
636.39			
SILTY CLAY, bl-brown, stiff	2	1.2	
	4		
	5	1.3	
631.64	5		
SANDY LOAM, gray, loose, moist	2		
	3		
	4		
628.64	5		
SAND & GRAVEL, b. clay, gray, med. dense to loose	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
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The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 6-99)

Illinois Department of Transportation — SOIL BORING LOG

Page 1 of 2

Date 12/24/03

ROUTE over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. Station

BORING NO. B-3 Station 79+90.8 Offset 12.80ft Lt. Ground Surface Elev. 630.98 ft

Surface Water Elev. ft Stream Bed Elev. ft

Groundwater Elev.: First Encounter 621.5 ft Upon Completion ft After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
8" Topsoil, sandy loam, strong			
630.98			
FILL, sand & gravel, brown & black, loose	2		
	3		15.0
626.98	4		
LOAM, brown, very loose	2		
	2		
624.48	1		
SANDY LOAM, b. gravel, dk. brown, very wet, loose to med. dense	2		17.0
	3		
	5	5.3	22.0
620.48	5		
SANDY LOAM, dk. brown, extremely dense	100		
	50		
617.98	50		
FINE SAND, b. silt, gray, med. dense	10		
	9		
	8		
	9		
615.98	9		
SANDY LOAM, b. limestone gravel, gray, loose	3		14.0
	4		
	5		
	6		
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The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 6-99)

Illinois Department of Transportation — SOIL BORING LOG

Page 1 of 2

Date 1/1/04

ROUTE over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. Station

BORING NO. B-4 Station 77+86.6 Offset 16.20ft Lt. Ground Surface Elev. 638.94 ft

Surface Water Elev. ft Stream Bed Elev. ft

Groundwater Elev.: First Encounter 631.9 ft Upon Completion ft After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
8" Asphalt over 8" Concrete			
638.94			
SANDY LOAM, dk. brown, moist, soft	2		
	3		14.0
632.94	3		
CLAY LOAM, b. gravel, brown, mod. stiff	3		
	4		18.0
	5		
627.94	6		
SAND & GRAVEL, gray, very wet, loose to med. dense	9		
	10		
	9		
	8		
	7		
619.94	7		
SANDY LOAM, some gravel, gray, med. dense	6		
	7		
	8		
617.94	9		
SILTY LOAM, b. limestone gravel, gray, very wet, loose	3		
	4		
	5		
	6		
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The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 6-99)

Illinois Department of Transportation — SOIL BORING LOG

Page 1 of 2

Date 12/28/03

ROUTE over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. Station

BORING NO. B-5 Station 77+97.2 Offset 18.40ft RT. Ground Surface Elev. 637.08 ft

Surface Water Elev. ft Stream Bed Elev. ft

Groundwater Elev.: First Encounter 631.1 ft Upon Completion ft After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
8" Asphalt over 8.5" Concrete			
633.83			
SILTY CLAY, b. sand & gravel, brown & dk. brown, soft	2	1.6	15.0
	3		
	4	1.7	18.0
630.58	5		
SANDY CLAY, brown & dk. brown, soft	2	0.3	16.0
	2		
627.58	1		
SAND & GRAVEL, b. clay loam, gray, med. dense	2		
	3		
	4		
	5		
	6		
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The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 6-99)

Illinois Department of Transportation — SOIL BORING LOG

Page 2 of 2

Date 1/1/04

ROUTE over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. Station

BORING NO. B-1 Station 79+38.6 Offset 17.30ft Lt. Ground Surface Elev. 637.10 ft

Surface Water Elev. ft Stream Bed Elev. ft

Groundwater Elev.: First Encounter 632.1 ft Upon Completion ft After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
SILT, with sand & gravel, gray, wet, dense to extremely dense (continued)			
	28		
	21		
	20		
590.10	50		
End of Boring	50/4"		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 6-99)

Illinois Department of Transportation — SOIL BORING LOG

Page 2 of 2

Date 1/1/04

ROUTE over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. Station

BORING NO. B-2 Station 79+55.2 Offset 24.30ft Rt. Ground Surface Elev. 636.64 ft

Surface Water Elev. ft Stream Bed Elev. ft

Groundwater Elev.: First Encounter 631.6 ft Upon Completion ft After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
LOAM, with gravel, gray, med. dense (continued)			
	12		
	13		
594.14	13		
SILTY LOAM TO SILT, with limestone, gray, dense to extremely dense	50		
	50		
	50/4"		
591.14			
DOLOMITIC LIMESTONE, solid, very hard, fresh, horizontal bedded, shaltic bands closely spaced, bluish-gray			
Recovery = 92% RQD = 61%			
583.64			
End of Boring			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 6-99)

Illinois Department of Transportation — SOIL BORING LOG

Page 2 of 2

Date 12/28/03

ROUTE over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. Station

BORING NO. B-3 Station 79+90.8 Offset 12.80ft Lt. Ground Surface Elev. 630.98 ft

Surface Water Elev. ft Stream Bed Elev. ft

Groundwater Elev.: First Encounter 621.5 ft Upon Completion ft After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
FINE SAND, tr. silt, gray, loose to med. dense (continued)			
	6		
	10		
	12		
	7		
	12		
601.98	13		
End of Boring			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 6-99)

Illinois Department of Transportation — SOIL BORING LOG

Page 2 of 2

Date 1/1/04

ROUTE over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. Station

BORING NO. B-4 Station 77+86.6 Offset 16.20ft Lt. Ground Surface Elev. 638.94 ft

Surface Water Elev. ft Stream Bed Elev. ft

Groundwater Elev.: First Encounter 631.9 ft Upon Completion ft After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
GRAVEL, some silt & fine sand, gray, very wet, med. dense to dense (continued)			
	10		
	14		
	23		
	25		
	23		
591.94	50		
DOLOMITIC LIMESTONE, solid, very hard, fresh, horizontal bedded, shaltic bands closely spaced, bluish-gray			
Recovery = 85% RQD = 55%			
586.94			
End of Boring			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 6-99)

Illinois Department of Transportation — SOIL BORING LOG

Page 2 of 2

Date 12/28/03

ROUTE over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO. Station

BORING NO. B-5 Station 77+97.2 Offset 18.40ft RT. Ground Surface Elev. 637.08 ft

Surface Water Elev. ft Stream Bed Elev. ft

Groundwater Elev.: First Encounter 631.1 ft Upon Completion ft After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
SAND, with gravel, tr. silt, gray, very wet, med. dense (continued)			
593.86	11		
SILTY LOAM, with limestone, gray, dense to extremely dense	29		
	50		
	50/4"		
590.86			
DOLOMITIC LIMESTONE, solid, very hard, fresh, horizontal bedded, shaltic bands closely spaced, bluish-gray			
Recovery = 72% RQD = 68%			
586.56			
End of Boring			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 6-99)

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

SOIL BORINGS

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$FILES$
$DATE$
$TIME$

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	46
FED.ROAD DIST. NO.		ILLINOIS	FED.AID PROJECT-	

Sheet 22 of 22 Contract No. 62539

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied Bio/Chemical Incorporated

Page 1 of 2

Date 12/30/03

ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. B-5
Station 77+63.9
Offset 18.908 LT
Ground Surface Elev. 636.99 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 632.0 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu	MOIST (%)
0.8" Asphalt over 7.3" Concrete			
SILTY CLAY, fr. gravel, dk. gray to black, soft	633.26		
	2		
	4	1.0	22.0
	6		
	2		
	4	1.5	23.0
	6	B	
FINE SAND, dk. gray, wet, med. dense	628.06		
	1		
	2		
	3		
	10		
	18		
	16		
	7		
SILTY LOAM, fr. gravel, gray, very wet, mod. dense	621.80		
	5		
	3		
	12		
FINE SAND, fr. silt, gravel & clay, gray, med. dense to loose	616.99		
	4		
	9		
	11		

DEPTH (ft)	BLOWS	UCS Qu	MOIST (%)
FINE SAND, fr. silt & clay, gray, med. dense to loose (continued)	606.61		
	3		
	5		
	11		
	3		
	6		
	5		
	2		
SILT, fr. clay & sand, gray, very wet, med. dense	592.99		
	5		
	6		
	12		
BROKEN LIMESTONE, gray, med. dense to extremely dense very wet	585.29		
	2		
	5		
	11		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied Bio/Chemical Incorporated

Page 1 of 2

Date 1/7/04

ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. B-7
Station 77+52.9
Offset 19.006 RT
Ground Surface Elev. 637.91 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 632.0 ft
Upon Completion ft
After hrs. ft

DEPTH (ft)	BLOWS	UCS Qu	MOIST (%)
0.8" Asphalt over 8.5" Concrete			
FILL, silty clay loam, dk. brown to black, stiff to very stiff	636.61		
	4		
	5	1.8	13.0
	6	B	
FILL, fine sand, dk. brown, loose	630.61		
	3		
	4	2.1	14.0
	5	B	
SILTY CLAY LOAM, fr. gravel, dk. grey, loose to med. dense	624.01		
	1		
	2		
	3		
FINE TO MEDIUM SAND, gray, wet, med. dense to loose	620.01		
	6		
	9		
	9		
SANDY SILTY LOAM, mixed with stone, gray, loose	610.01		
	3		
	4		
	5		

DEPTH (ft)	BLOWS	UCS Qu	MOIST (%)
SANDY SILTY LOAM, mixed with stone, gray, loose (continued)			
	4		
	5		
	6		
SANDY LOAM, gray, loose to med. dense, very wet	597.01		
	1		
	1		
	2		
	2		
	3		
	5		
	7		
	10		
	12		
	15		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied Bio/Chemical Incorporated

Page 1 of 1

Date 12/30/03

ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. RW-1
Station 80+27.1
Offset 27.606 RT
Ground Surface Elev. 655.41 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 621.5 ft
Upon Completion 621.5 ft
After Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu	MOIST (%)
6" Asphalt			
SILTY CLAY, fr. sand & gravel, brown, very stiff to stiff	627.91		
	4		
	5	2.9	12.0
	5	B	
	2		
	3	1.5	19.0
	4	B	
	3		
	4	1.4	19.2
	5	B	
	50		
SILTY LOAM, fr. fine gravel, gray, loose	621.91		
	3		
	4		
	5		
FINE SAND, light brown to gray, loose to very loose, very wet	616.41		
	2		
	2		
	3		
	3		
	3		
	3		
	3		
	3		

DEPTH (ft)	BLOWS	UCS Qu	MOIST (%)
FINE SAND, light brown to gray, loose to very loose, very wet (continued)			
	2		
	2		
	3		
	3		
	3		
	3		
	3		
	3		
SILTY LOAM, gray, very loose to med. dense	611.41		
	1		
	1		
	2		
	3		
	5		
	7		
	9		
	11		
FINE TO MEDIUM SAND (with GRAVEL, gray, med. dense to extremely dense	607.91		
	12		
	15		
	18		
	16		
	15		
	17		
	18		
	20		
End of Boring	598.41		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied Bio/Chemical Incorporated

Page 1 of 1

Date 12/30/03

ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. RW-2
Station 78+49.5
Offset 18.108 LT
Ground Surface Elev. 639.08 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 621.1 ft
Upon Completion 621.1 ft
After Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu	MOIST (%)
9" Asphalt over 7" Concrete			
FILL, silty clay loam, fr. gravel, brown, very stiff	629.08		
	6		
	8	2.5	18.0
	8	B	
SANDY CLAY LOAM, fr. gravel, brown, stiff	623.08		
	4		
	6	1.2	17.2
	8	B	
SANDY CLAY LOAM, gray, gray, very stiff	621.08		
	5		
	7	2.8	18.0
	10	B	
SILT TO SILTY LOAM, gray, very wet, loose	616.58		
	2		
	3		
	5		
	2		
	3		
	5		
	6		
	8		
	10		

DEPTH (ft)	BLOWS	UCS Qu	MOIST (%)
SILTY TO SILTY LOAM, gray, very wet, loose (continued)	613.08		
	2		
	3		
	3		
FINE SAND, gray, very wet, to dense	608.08		
	2		
	3		
	3		
SILTY LOAM, gray, loose, wet	603.08		
	3		
	3		
	4		
LOAM to limestone gravel, gray, very wet, loose	598.08		
	3		
	3		
	4		
SANDY LOAM, gray, very wet, loose to med. dense	593.08		
	3		
	4		
	5		
BROKEN LIMESTONE ROCK with some clay, sand, gray, med. dense	591.58		
	5		
	6		
	7		
	9		
	11		
	15		
End of Boring	586.08		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied Bio/Chemical Incorporated

Page 2 of 2

Date 12/30/03

ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. B-6
Station 77+63.8
Offset 18.908 LT
Ground Surface Elev. 636.99 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 632.0 ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu	MOIST (%)
LIMESTONE BOULDER(?), gray, med. dense to extremely dense very wet (continued)			
	10		
	13		
	15		
	12		
	60		
	R		
End of Boring	591.99		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied Bio/Chemical Incorporated

Page 2 of 2

Date 1/7/04

ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. B-7
Station 77+52.9
Offset 19.006 RT
Ground Surface Elev. 637.91 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 632.0 ft
Upon Completion ft
After hrs. ft

DEPTH (ft)	BLOWS	UCS Qu	MOIST (%)
SANDY CLAY, grey, loose to med. dense, very wet (continued)			
	10		
	10		
	12		
	16		
	18		
	60		
	R		
End of Boring	591.81		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied Bio/Chemical Incorporated

Page 1 of 1

Date 12/30/03

ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. RW-3
Station 80+16.1
Offset 27.606 RT
Ground Surface Elev. 637.60 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 621.6 ft
Upon Completion 621.6 ft
After Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu	MOIST (%)
Topsoil, sandy loam, dk. brown to black	636.10		
SILTY CLAY, fr. sand & gravel, brown, very stiff	630.60		
	2		
	3	3.2	17.0
	5	B	
SILTY CLAY, fr. sand & gravel, brown-gray, very stiff	625.10		
	4		
	6	5.3	16.0
	7	B	
SILTY LOAM, fr. fine gravel, gray, loose	620.60		
	3		
	4		
	5		
SANDY LOAM, gray, very wet, loose	615.10		
	2		
	2		
	2		
FINE TO MEDIUM SAND, gray, very wet, loose	609.60		
	3		
	3		
	3		
	2		
	2		
	4		
	3		
	3		
FINE SAND, gray, very wet, loose to very loose	601.60		
	3		
	3		
	3		

DEPTH (ft)	BLOWS	UCS Qu	MOIST (%)
FINE SAND, light brown to gray, very wet, to loose to very loose (continued)			
	2		
	2		
	3		
	3		
	3		
	3		
	3		
	3		
	3		
SANDY LOAM, gray, med. dense	583.60		
	4		
	5		
	7		
	10		
	12		
	15		
SILT, with sand & gravel, gray, med. dense to extremely dense	568.10		
	13		
	17		
	27		
	50		
	R		
End of Boring	557.00		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied Bio/Chemical Incorporated

Page 1 of 1

Date 12/30/03

ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION Tie #'s D-91-358-03 STR. # 016-7946 LOGGED BY

SECTION 3249 B-R LOCATION SEC. TWP. RNG.

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE

STRUCT. NO.
Station

BORING NO. RW-4
Station 76+49.5
Offset 27.606 RT
Ground Surface Elev. 631.00 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 621.0 ft
Upon Completion 621.5 ft
After Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu	MOIST (%)
Topsoil, sandy loam, dk. brown to black	630.10		
SILTY CLAY, some sand, brown, very stiff	625.60		
	5		
	7	3.5	16.0
	9	S	
SANDY CLAY, with gravel, brown, very stiff	616.60		
	4		
	5	2.1	17.2
	5	B	
SILTY CLAY, fr. sand & gravel, brown, very stiff	611.10		
	12		
	13	4.3	16.0
	18	B	
FINE SAND, brown, very wet, med. dense	606.60		
	7		
	9		
	7		
	5		
	5		
	3		
	2		
	3		
LOAM, gray, stiff	598.60		
	3		
	5	1.8	15.0
	4	B	
	3		
	4	1.8	17.2
	5	B	
	3		
	5	1.1	20.0
	3	B	

DEPTH (ft)	BLOWS	UCS Qu	MOIST (%)
LOAM, gray, stiff (continued)			
	3		
	4		
	5		
	6		
	8		
	10		
	12		
	15		
SILTY LOAM TO LOAM, gray, wet, soft to med. stiff	574.00		
	2		
	3	0.4	20.0
	3	B	
	3		
	3	0.8	23.0
	3	B	
	4		
	5		
	6		
	7		
	8		
	9		
SAND & GRAVEL, gray, med. dense	555.00		
	4		
	7		
	9		
	11		
	15		
End of Boring	547.00		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

SOIL BORINGS

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-25-09

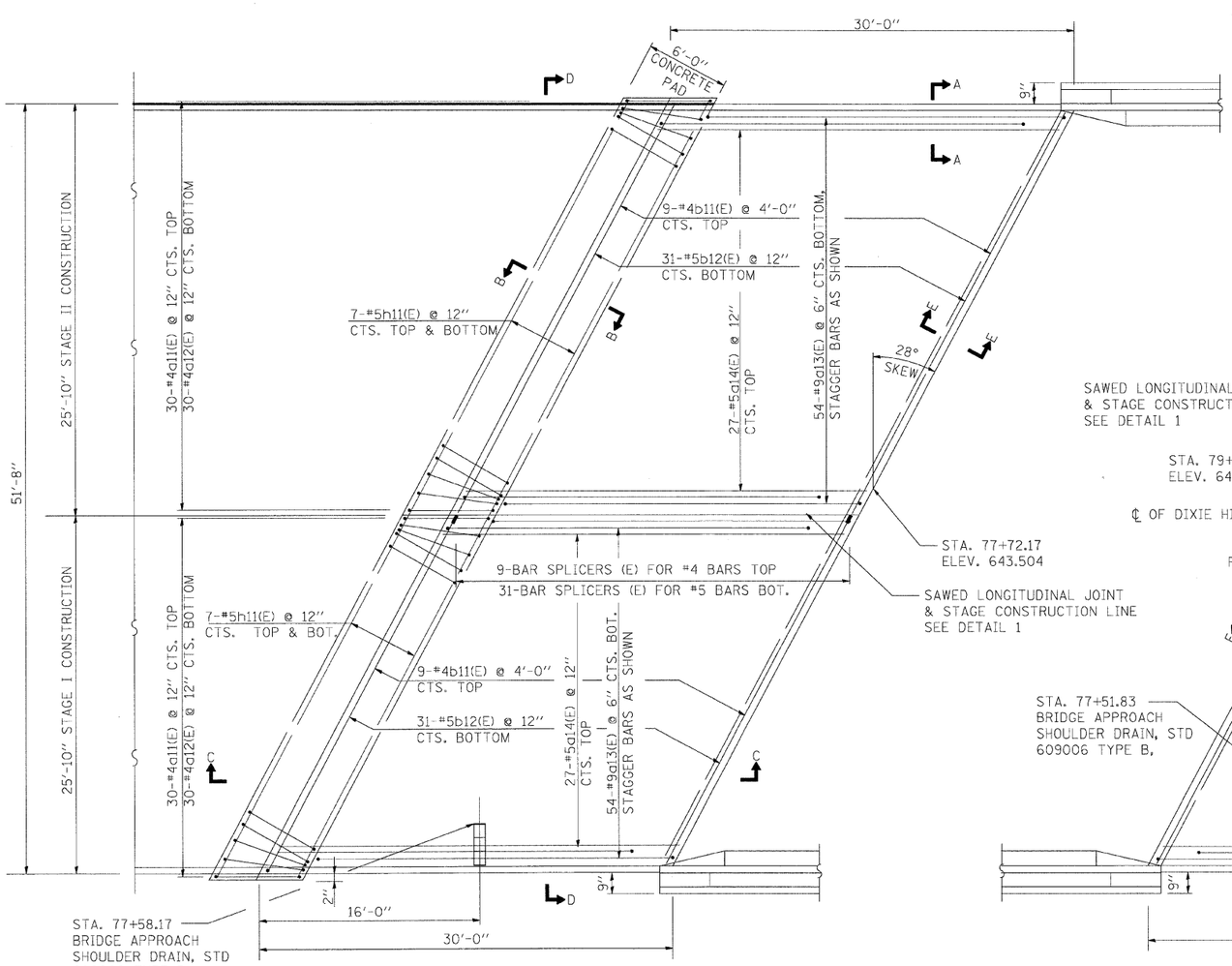
DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

$FILES$
$DATE$
$TIME$

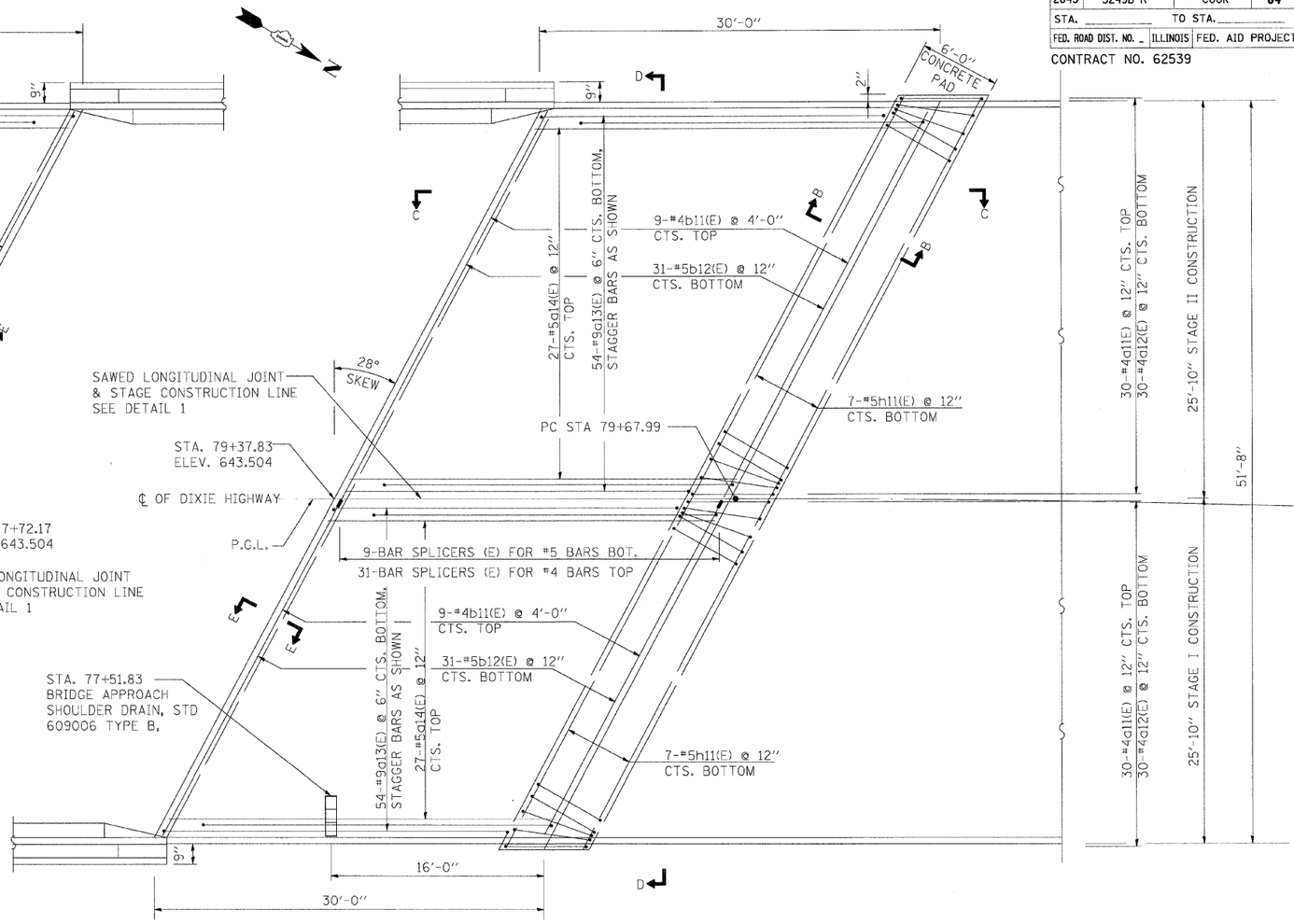
$PLOTNBS$
$PLOTDNBS$

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	47
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62539



PLAN SOUTH APPROACH



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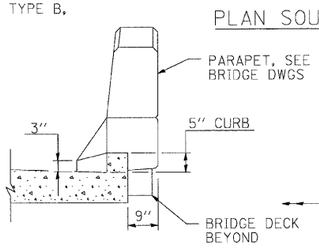
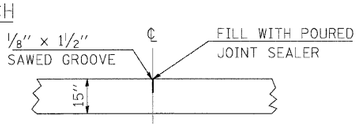
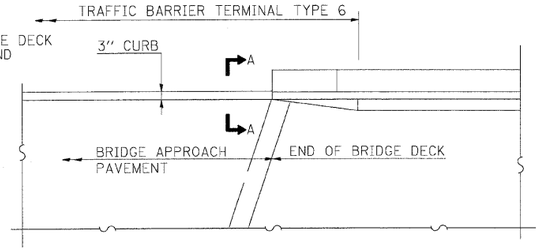


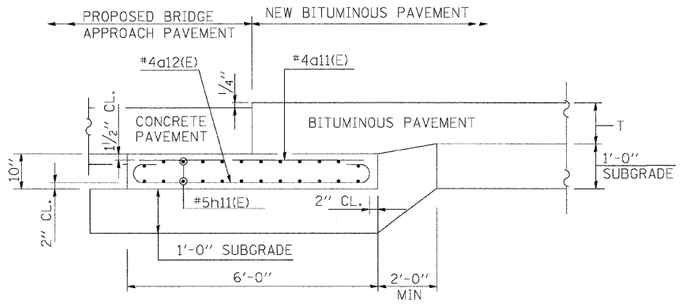
SECTION A-A



DETAIL 1



PARAPET TO CURB TRANSITION
INTEGRAL ABUTMENT



SECTION B-B
(SHOWING REINFORCEMENT)

GENERAL NOTES

THICKNESS-"T"=THICKNESS OF PAVEMENT

SEE STANDARD 420001 FOR DETAILS OF JOINTS NOT SHOWN.

SAW ℄ OR LANE EDGE IF POURED TWO OR MORE LANE WIDTHS AT A TIME. OMIT REINFORCEMENT, TIE BARS AND SAWED LONG. JT. FOR FLEXIBLE PAVEMENT.

ALL WORK SHOWN HERE AND RELATED TO BRIDGE APPROACH PAVEMENT, SHALL BE PAID FOR AS PART OF BRIDGE APPROACH PAVEMENT (SPECIAL).

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Ave, Suite 1500 Chicago IL 60604-2482
T> 312 870 6600 F> 312 663 1473

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.U. 2843 DIXIE HIGHWAY OVER BUTTERFIELD CREEK

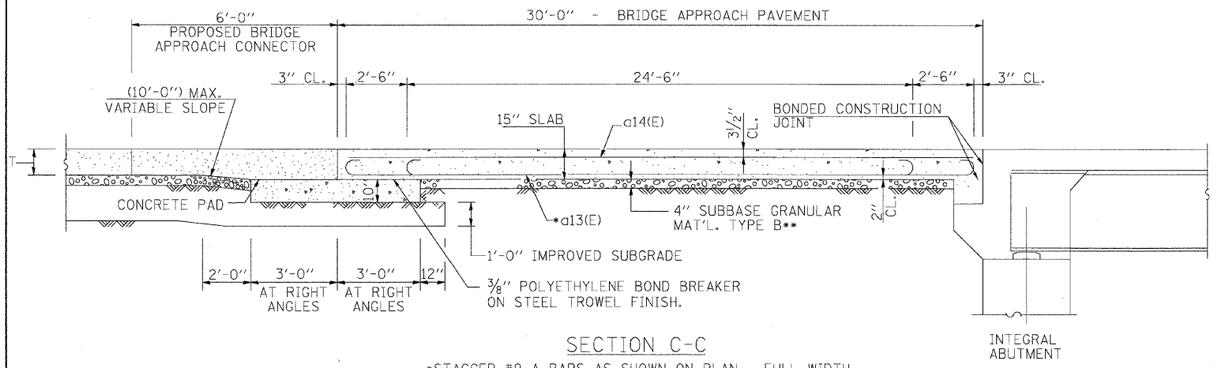
BRIDGE APPROACH SLAB (1 OF 2)

SCALE: VERT. NONE
HORIZ.
DATE 6-25-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	48
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

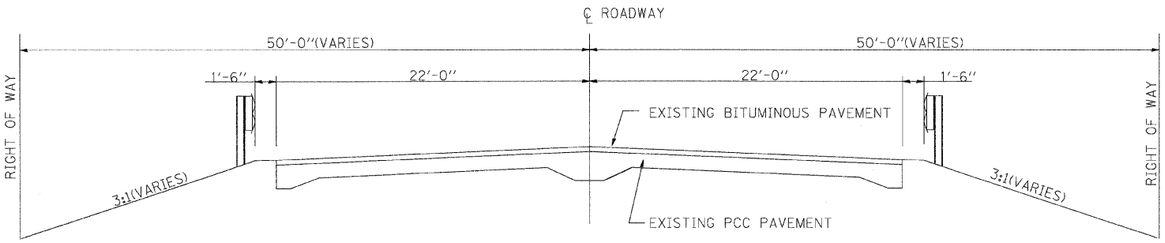
CONTRACT NO. 62539



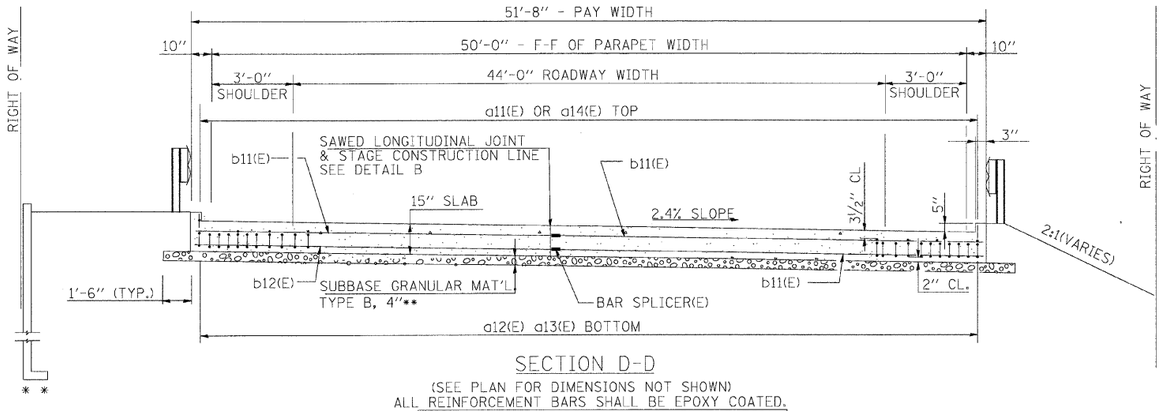
SECTION C-C

*STAGGER #9 A BARS AS SHOWN ON PLAN - FULL WIDTH

**INCLUDED IN BRIDGE APPROACH SLAB SPECIAL



EXISTING APPROACH SLAB

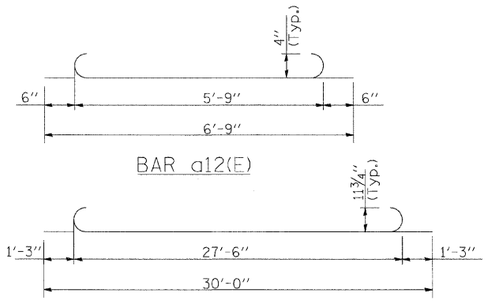


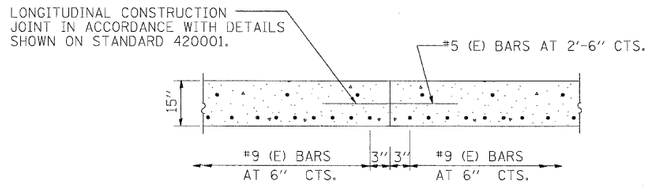
SECTION D-D

(SEE PLAN FOR DIMENSIONS NOT SHOWN)

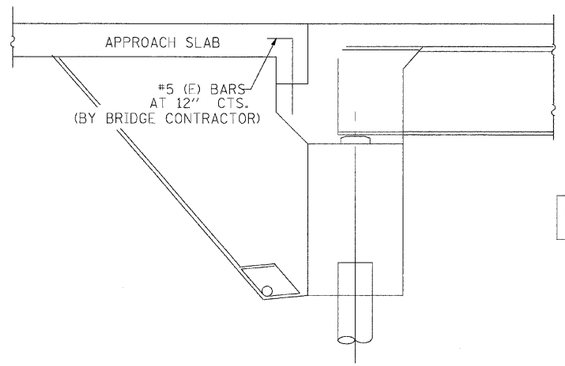
ALL REINFORCEMENT BARS SHALL BE EPOXY COATED.

**INCLUDED IN BRIDGE APPROACH SLAB SPECIAL





AS APPROVED BY THE ENGINEER, THE CONTRACTOR MAY ELECT TO REDUCE THE WIDTHS OF POUR BY USE OF THE OPTIONAL LONGITUDINAL CONSTRUCTION JOINT SHOWN. JOINTS SHALL BE LOCATED AT THE EDGE OF A TRAFFIC LANE.



(INTEGRAL ABUTMENTS)

APPROACH SLAB BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a11(E)	120	#4	5'-9"	straight
a12(E)	120	#4	6'-9"	bent
a13(E)	216	#5	29'-9"	bent
a14(E)	108	#9	30'-0"	straight
b11(E)	36	#4	29'-0"	straight
b12(E)	124	#5	29'-0"	straight
h11(E)	56	#5	29'-2"	straight

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED

NOTE:

ALL WORK AND MATERIAL RELATED TO APPROACH PAVEMENT WILL BE PAID FOR UNDER "BRIDGE APPROACH PAVEMENT (SPECIAL).

BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	350

fy = (60,000 P.S.I.)
f'c = (3,500 P.S.I.)
n = 8.5

#4 = 1'-8"
#5 = 2'-2"
#9 = 5'-9"

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Ave, Suite 1500 Chicago IL 60604-2482
P> 312 870 6600 F> 312 663 1473

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HIGHWAY OVER BUTTERFIELD CREEK

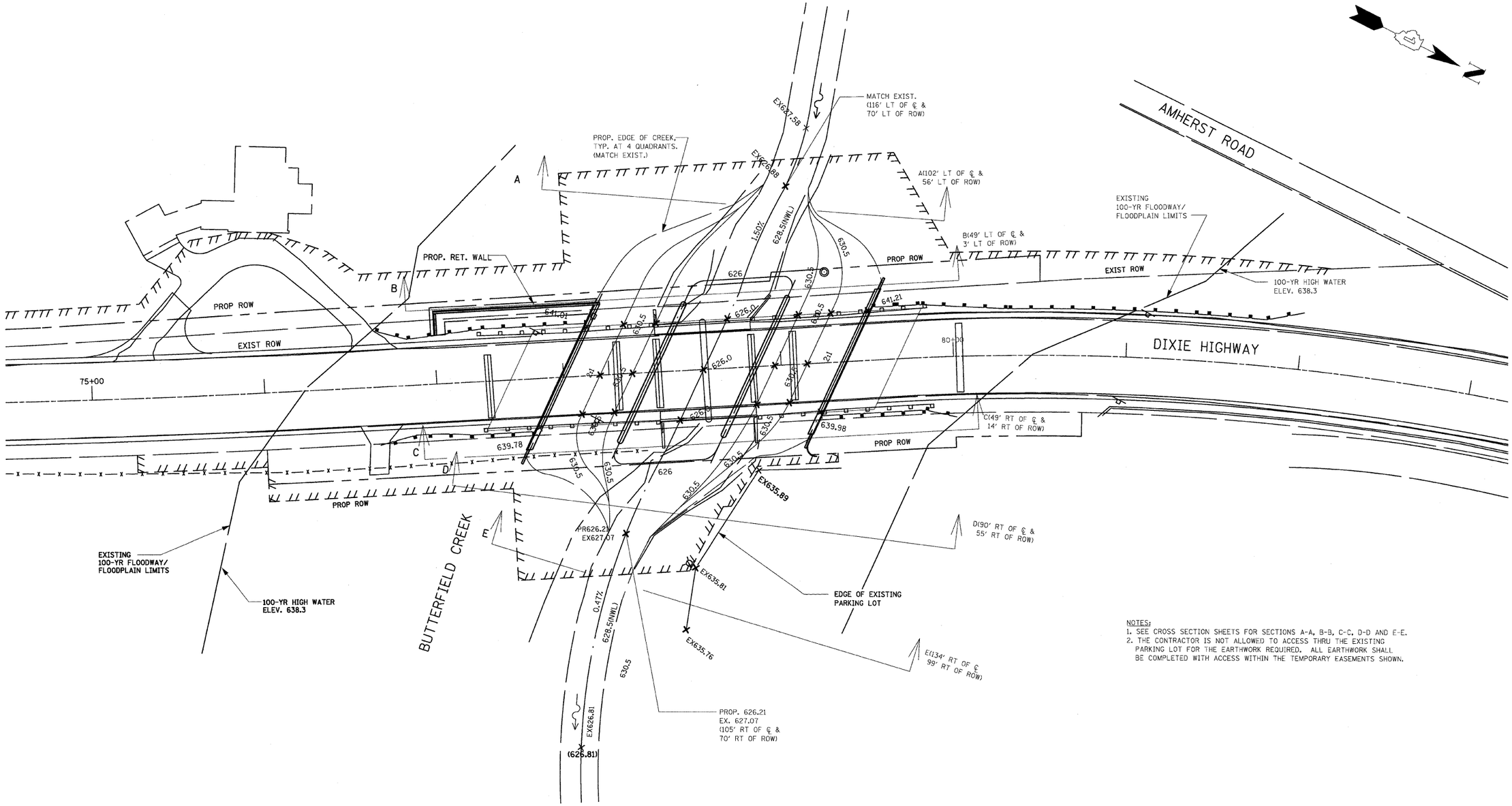
BRIDGE APPROACH SLAB (2 OF 2)

SCALE: VERT. NONE HORIZ.
DATE 6-25-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	49
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62539



NOTES:
1. SEE CROSS SECTION SHEETS FOR SECTIONS A-A, B-B, C-C, D-D AND E-E.
2. THE CONTRACTOR IS NOT ALLOWED TO ACCESS THRU THE EXISTING PARKING LOT FOR THE EARTHWORK REQUIRED. ALL EARTHWORK SHALL BE COMPLETED WITH ACCESS WITHIN THE TEMPORARY EASEMENTS SHOWN.

REVISIONS	
NAME	DATE

R M E Rubinos & Mesia Engineers, Inc.
200 S. Michigan Ave, Suite 1600 Chicago IL 60604-2462
T> 312 870 6600 F> 312 663 1473

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HIGHWAY
OVER BUTTERFIELD CREEK

BUTTERFIELD CREEK GRADING

SCALE: VERT. 1"=30'
HORIZ.
DATE 06-25-09

DRAWN BY AW
DESIGNED BY AW
CHECKED BY MF

CONTRACT NO. 62539

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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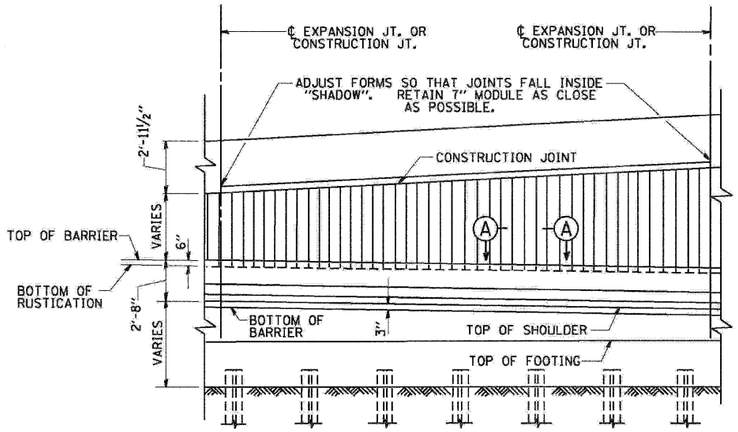
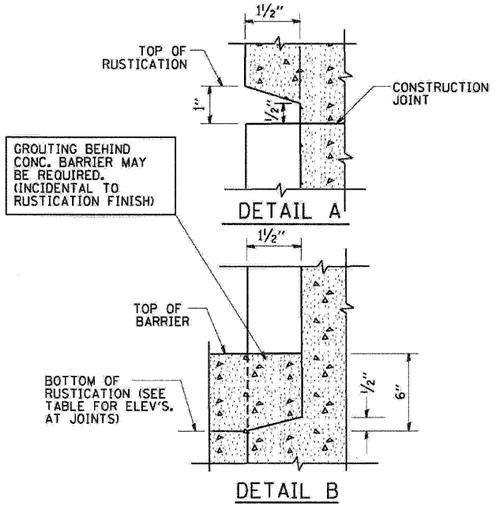
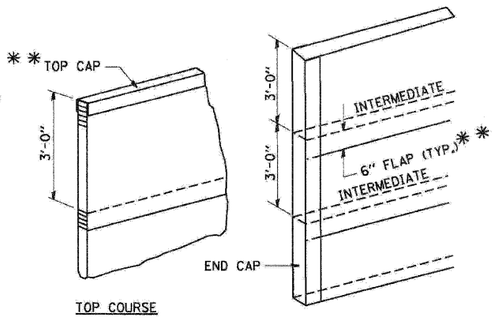
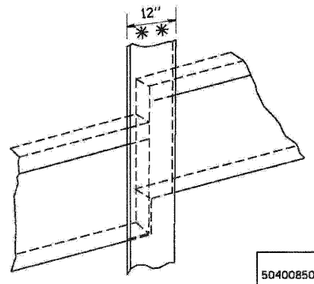
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELEVATION-TYPICAL ARCHITECTURAL FINISH







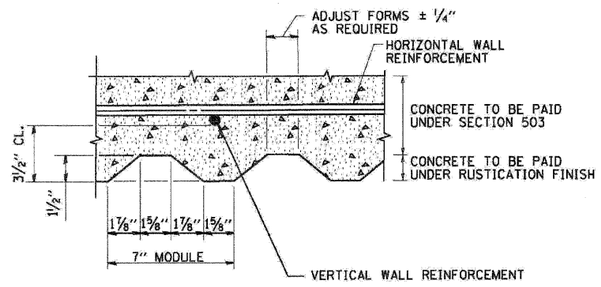
GEOCOMPOSITE WALL DRAIN DETAILS

** SEE RECURRING SPECIAL PROVISION #43 FOR GEOCOMPOSITE WALL DRAIN

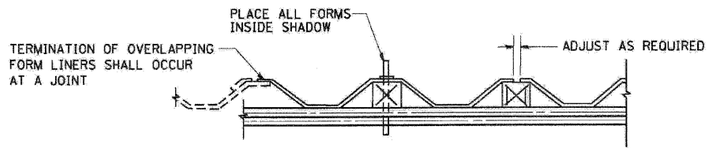
PREFERRED PAY ITEMS

50400850 *	CLASS X CONCRETE (RETAINING WALL)	(C.Y.)
50400510 *	RUSTICATION FINISH	(S.F.)
60709582 *	PIPE UNDERDRAINS FOR STRUCTURES 6"	(L.F.)
Z0027750 *	GEOCOMPOSITE WALL DRAIN	(S.Y.)
60700200	PIPE DRAINS 6"	(L.F.)

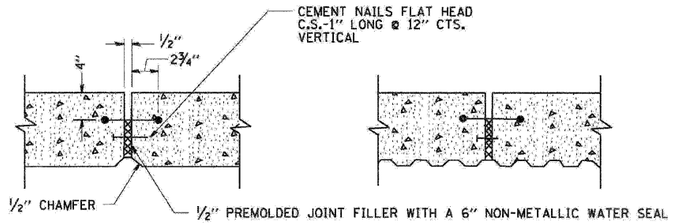
* SEE SPECIAL PROVISIONS



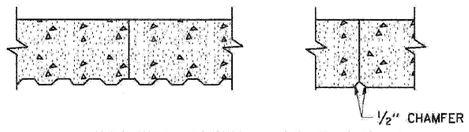
SECTION A-A



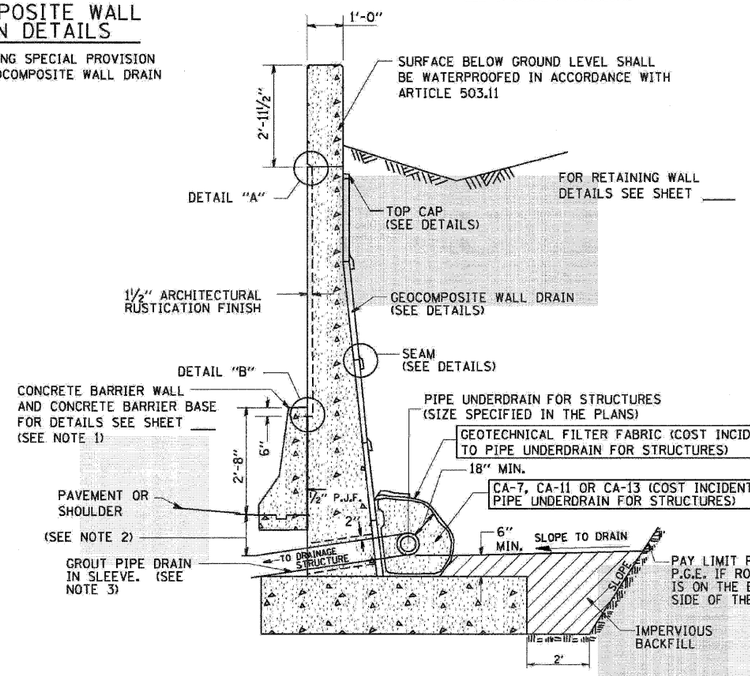
SUGGESTED FORMWORK DETAIL



EXPANSION JOINT DETAIL



CONSTRUCTION JOINT DETAIL



SLOPE: 1 TO 1 WITHOUT SHEETING
VERTICAL WITH SHEETING

WALL #		WALL #		WALL #		WALL #		WALL #		WALL #		WALL #		WALL #	
STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION

TYPICAL SECTION THRU RETAINING WALL

NOTE 1.

CONCRETE BARRIER CONSTRUCTION:

WHEN THE CONCRETE BARRIER WALL IS TO BE CONSTRUCTED MONOLITHIC WITH THE RETAINING WALL THE DETAILS SHOWN IN THE RETAINING WALL SECTION SHALL GOVERN.

NOTE 2.

PIPE DRAIN SLOPE:

PRIOR TO THE PLACEMENT OF THE PIPE UNDERDRAIN SLEEVE THE ENGINEER SHALL DETERMINE THE SLOPE REQUIRED FOR THE PIPE UNDERDRAIN TO ENTER BELOW THE DRAINAGE STRUCTURE LID AT OR BELOW THE MINIMUM DISTANCE SHOWN ON THE DETAILS FOR THE STRUCTURE.

NOTE 3.

PIPE DRAIN

THE PIPE DRAIN SHALL TERMINATE AT A DRAINAGE STRUCTURE.

THE COST OF THE SLEEVE AND GROUT SHALL BE INCIDENTAL TO PIPE DRAINS.

REVISIONS	
NAME	DATE
FORD	11/30/88
FORD	05/15/89
DE YONG	09/07/89
DE YONG	07/11/90
DE YONG	08/18/90
DE YONG	07/09/91
R. WEIDEMAN	02/20/04

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.U. 2843 DIXIE HWY over BUTTERFIELD CREEK

RUSTICATION FINISH AND GEOCOMPOSITE DRAIN FOR RETAINING WALLS

SCALE: VERT. NONE HORIZ.

DRAWN BY CADD

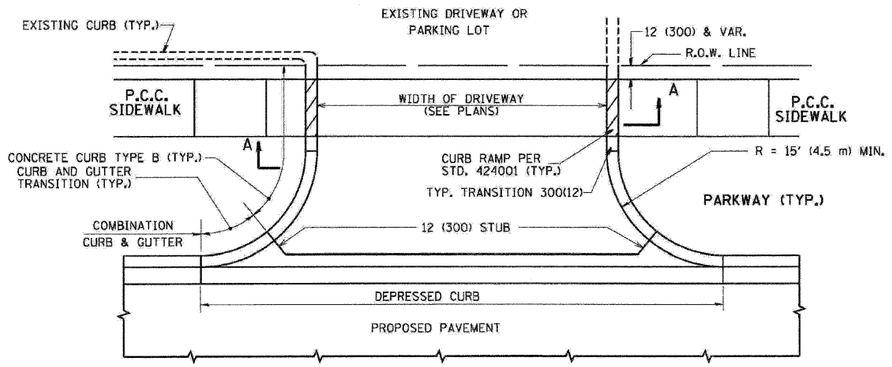
CHECKED BY

BD500-02 (BD-28)

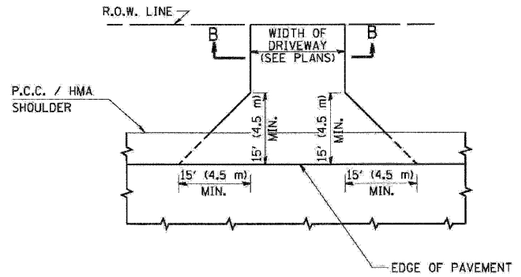
PLOT DATE = 3/5/2007
FILE NAME = K:\Data\cad\bd28.dgn
PLOT SCALE = 88.8888 ' / IN.
USER NAME = bauerdl

CONTRACT NO. 62539

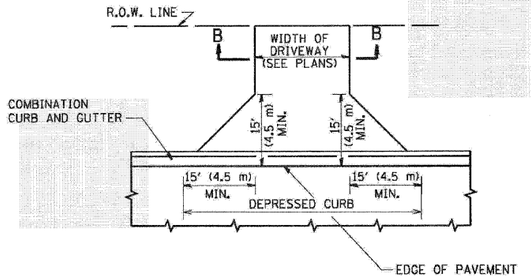
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	51
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



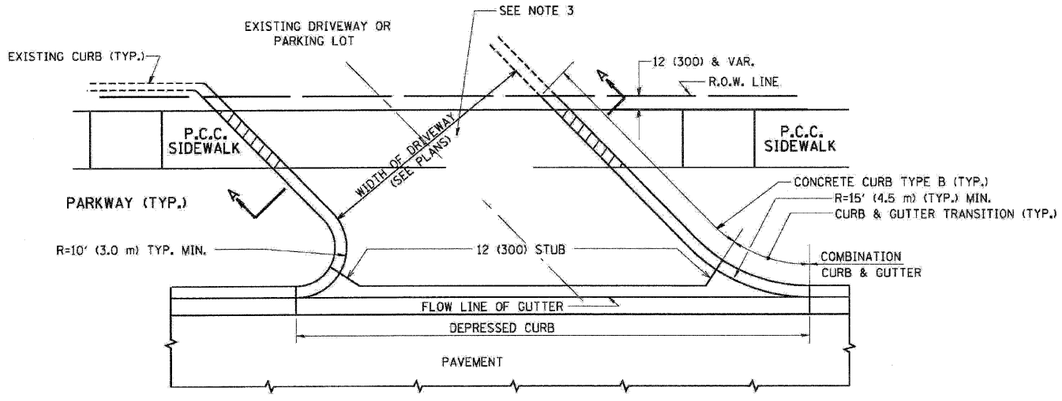
WITH CONCRETE CURB, TYPE B



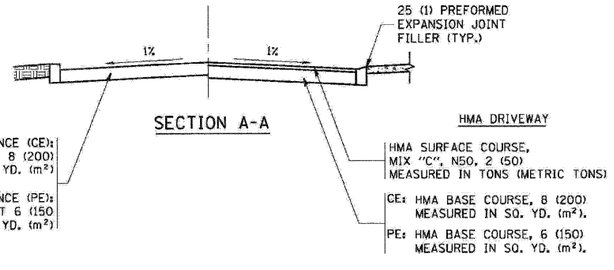
ADJACENT TO P.C.C. / HMA SHOULDER

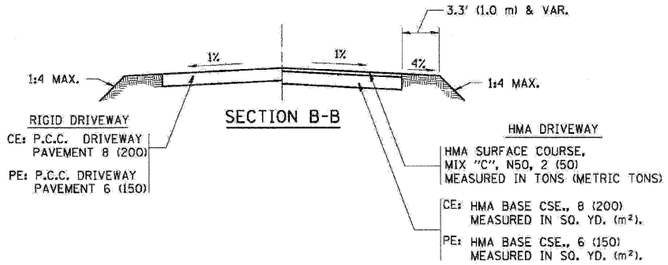


ADJACENT TO CURB AND GUTTER



WITH CONCRETE CURB, TYPE B





RURAL FIELD ENTRANCE (FE)

HMA SURFACE COURSE, MIX "C", N50, 2 (50) MEASURED IN TONS (METRIC TONS)

AGGREGATE BASE CSE., TYPE B, 8 (200) MEASURED IN SQ. YD. (m²).

GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED

REVISIONS	
NAME	DATE
R. SHAH	11-04-95
J. POLLASTRINI	08-12-96
J. POLLASTRINI	12-14-96
A. ABBAS	03-21-97
T. HOLTZ	04-08-97
M. GOMEZ	04-06-01
P. LaFLEUR	04-15-03
R. BORO	01-01-07
R. BORO	06-11-08

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HWY over BUTTERFIELD CREEK

DRIVEWAY DETAILS DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)

SCALE: VERT. NONE HORIZ.

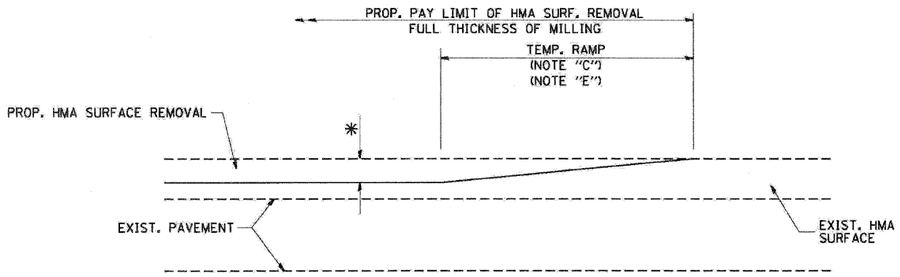
DRAWN BY

CHECKED BY

BD0156-07 (BD-01)

PLOT DATE = 6/12/2008
FILE NAME = c:\projects\Notes\bd24x36\bd01.dgn
PLOT SCALE = 49.9999 ' / IN.
USER NAME = bauerdj

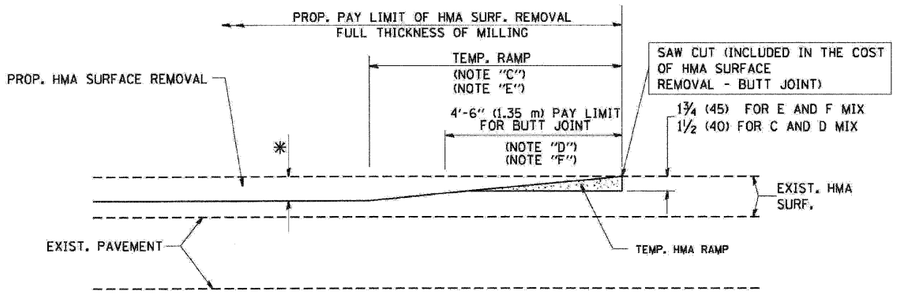
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	52
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

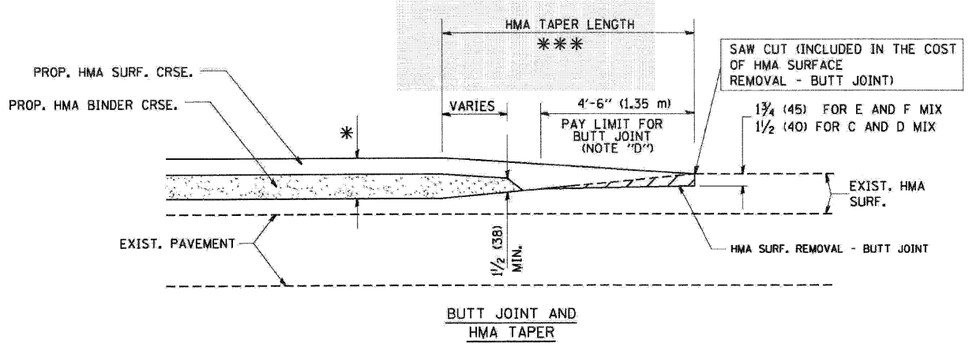


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

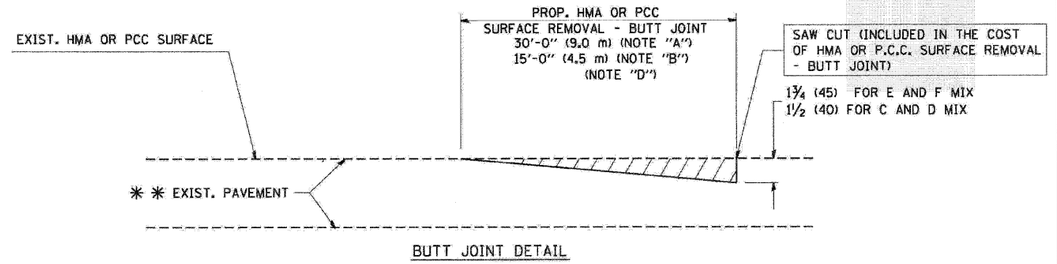
OPTION 2

TYPICAL TEMPORARY RAMP

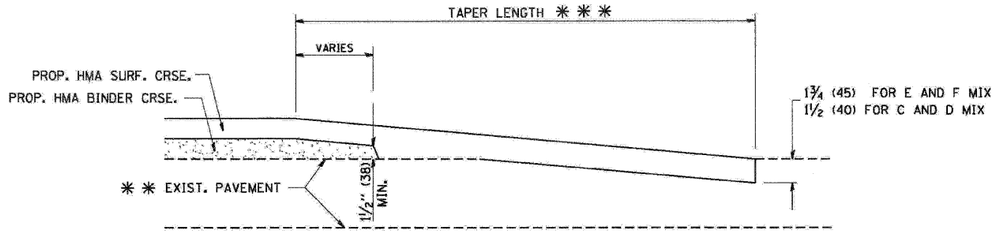


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

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

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

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

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

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

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

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

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

BASIS OF PAYMENT:

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

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.U. 2843 DIXIE HWY over BUTTERFIELD CREEK

BUTT JOINT AND HMA TAPER DETAILS

SCALE: VERT. HORIZ. NONE

DRAWN BY

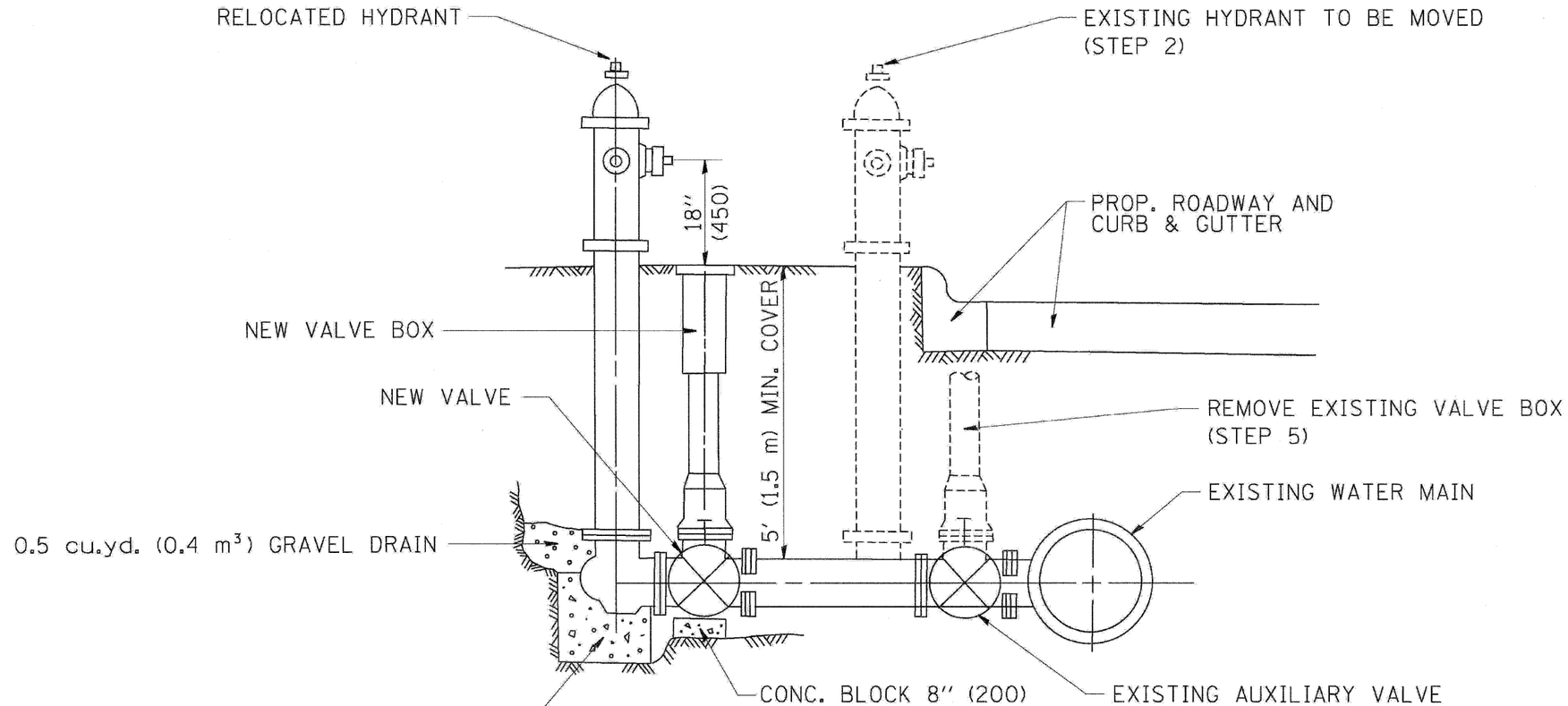
CHECKED BY

BD400-05 (VI=BD32)

PLOT DATE = 3/5/2007
FILE NAME = K:\dgn\sss\bd32-dgn
PLOT SCALE = 58.8888 ' / IN.
USER NAME = bauer-dl

CONTRACT NO. 62539

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	53
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SEQUENCE OF CONSTRUCTION:

1. CLOSE EXISTING VALVE.
2. REMOVE EXISTING HYDRANT.
3. INSTALL HYDRANT EXTENSION AND NEW VALVE.
4. RELOCATE EXISTING HYDRANT.
5. OPEN EXISTING VALVE, REMOVE BOX.
6. BACKFILL.
7. FLUSH AND TEST FOR CHLORIDE RESIDUAL AND PROVIDE TEST.

ALL WORK TO BE DONE IN ACCORDANCE WITH ARTICLE 564 OF THE STANDARD SPECIFICATIONS. NEW VALVE AND BOX SHALL BE SAME MAKE AND MODEL AS EXISTING.

FIRE HYDRANT TO BE MOVED

PLOT DATE = 3/5/2007
FILE NAME = K:\district\bd36.dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = bwardl

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

REVISIONS NAME	DATE
R. SHAH	09/09/94
R. SHAH	10/25/94

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.U. 2843 DIXIE HWY over BUTTERFIELD CREEK

FIRE HYDRANT TO BE MOVED

SCALE: VERT. NONE HORIZ.

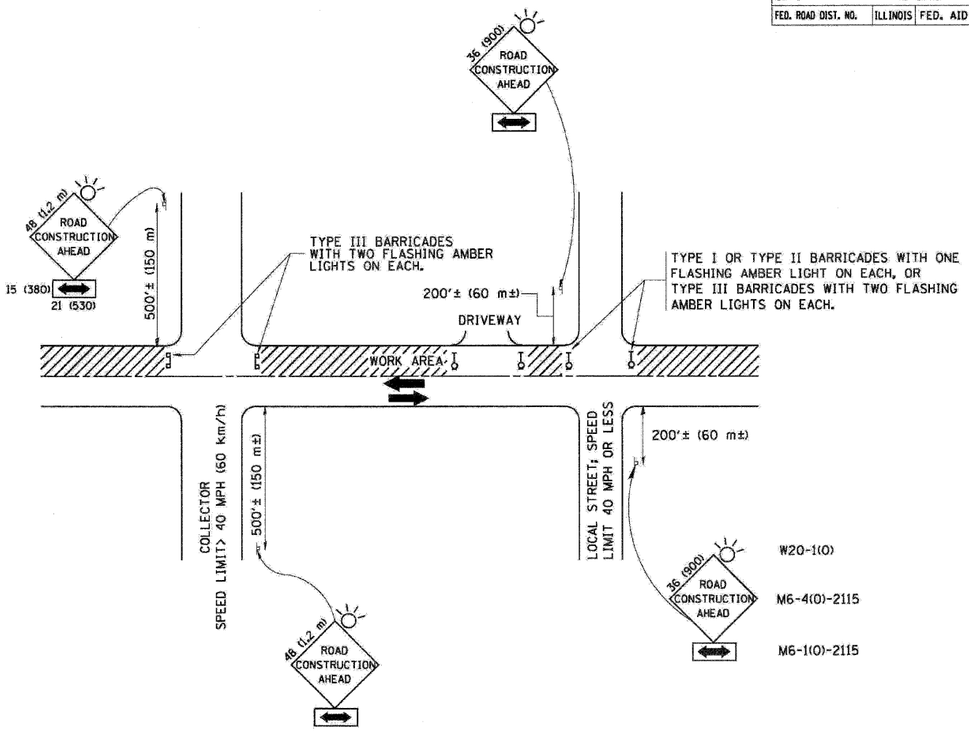
DRAWN BY

CHECKED BY

BD500-03 (BD-36)

CONTRACT NO. 62539

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	54
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HWY over BUTTERFIELD CREEK

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

SCALE: NONE

DRAWN BY

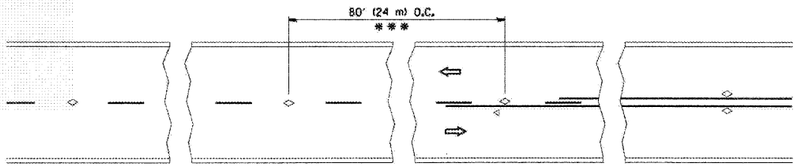
CHECKED BY

TC-10

PLOT DATE = 3/8/2007
FILE NAME = K:\data\tc\tc10.dgn
PLOT SCALE = 58.000 ' / IN.
USER NAME = bboard

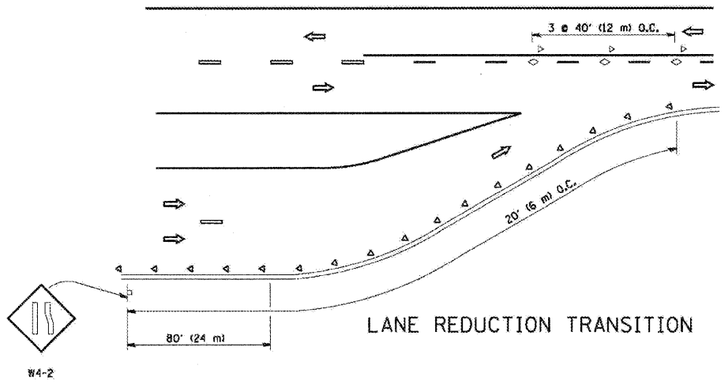
CONTRACT NO. 62539

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	55
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

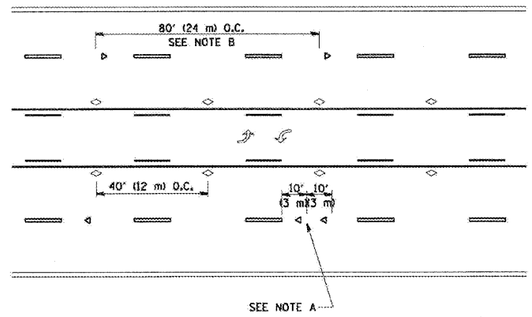


* * * REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

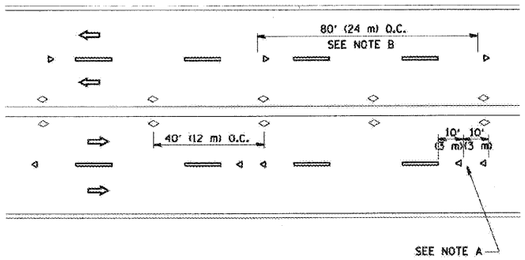
TWO-LANE/TWO-WAY



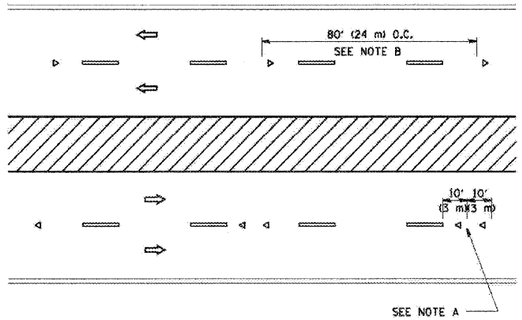
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

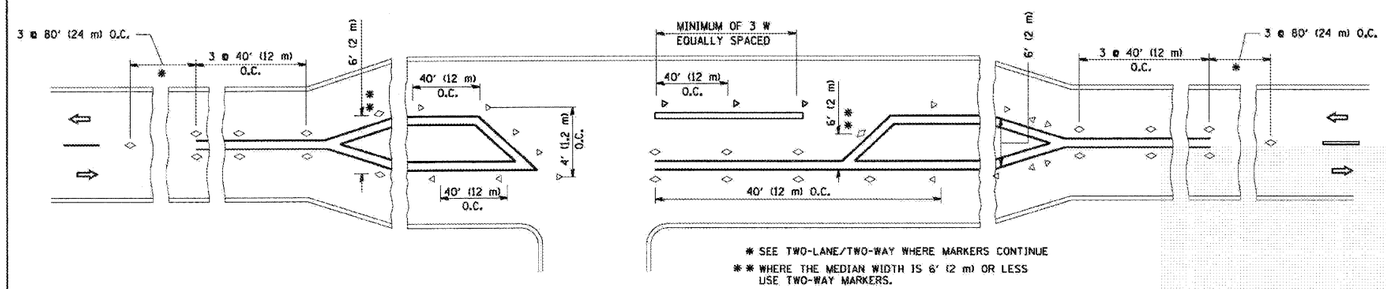
SYMBOLS

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

LANE MARKER NOTES

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

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.



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

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

LEFT TURN

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

REVISIONS	
NAME	DATE
T. RAMMACHER	09-19-94
T. RAMMACHER	03-12-99
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HWY over BUTTERFIELD CREEK

TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

SCALE: NONE

DRAWN BY CADD

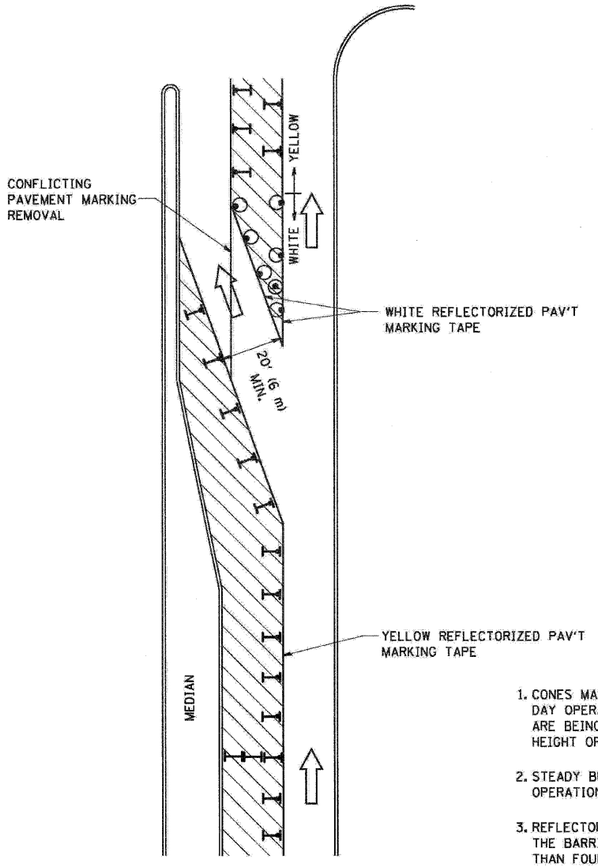
CHECKED BY

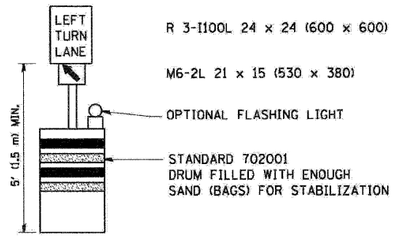
TC-11

PLOT DATE = 3/6/2007
FILE NAME = k:\dissad\tc11.dgn
PLOT SCALE = 50.000 '/ IN.
USER NAME = baumerd

CONTRACT NO. 62539

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	56
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

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

REVISIONS	
NAME	DATE
T. RAMMACHER	09/08/94
A. HOUSEH	11/07/95
A. HOUSEH	10/12/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HWY over BUTTERFIELD CREEK

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)

SCALE: NONE

DRAWN BY

CHECKED BY LHA

TC-14

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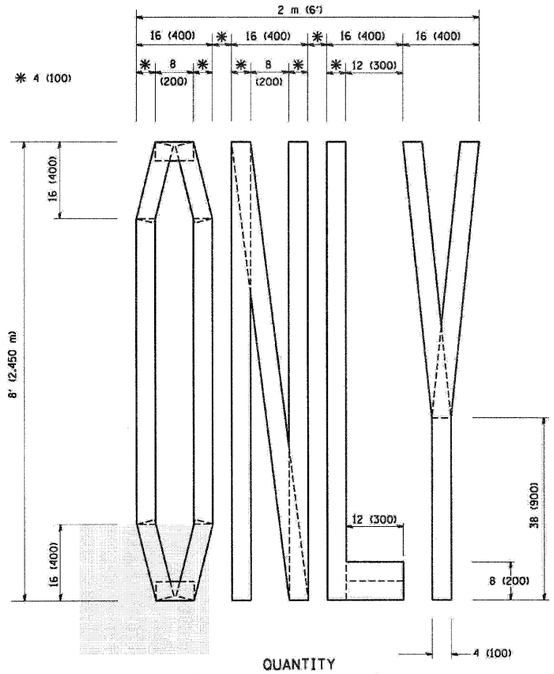
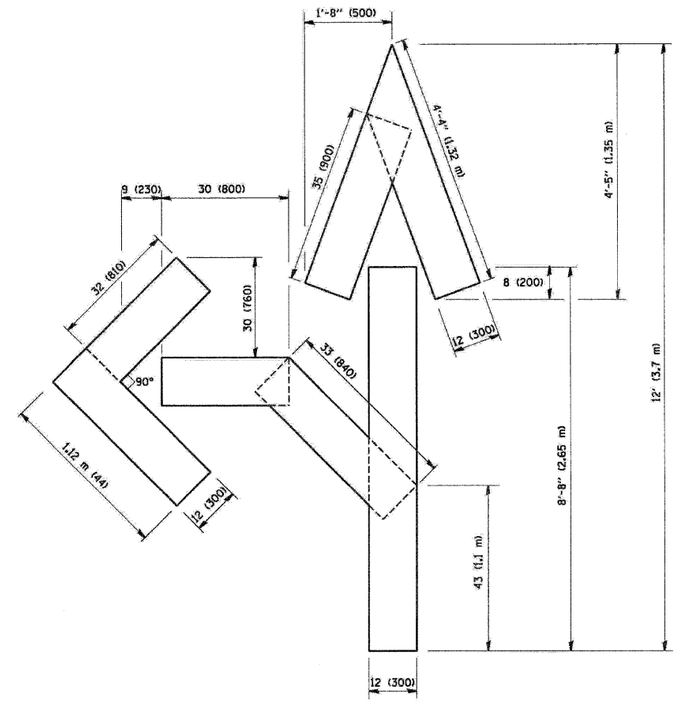
CONTRACT NO. 62539

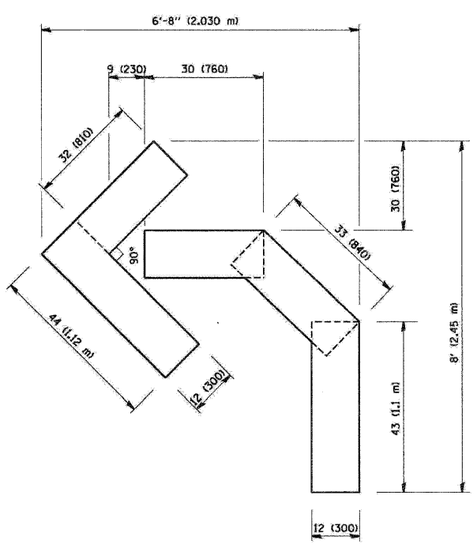
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	57
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



QUANTITY
4 (100) LINE = 64.1 ft. (19.7 m)
21.1 sq. ft. (1.97 sq. m)



QUANTITY
4 (100) LINE = 82.5 ft. (25.3 m)
27.5 sq. ft. (2.53 sq. m)



QUANTITY
4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.39 sq. m)

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

REVISIONS	
NAME	DATE
T. RAMMACHER	09/18/94
J. OBERLE	06/01/96
T. RAMMACHER	06/05/96
T. RAMMACHER	11/04/97
T. RAMMACHER	03/02/98
E. GOMEZ	08/28/00

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HWY over BUTTERFIELD CREEK

PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

SCALE: NONE

DRAWN BY CADD

CHECKED BY
TC-16

PLOT DATE = 3/7/2007
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CONTRACT NO. 62539

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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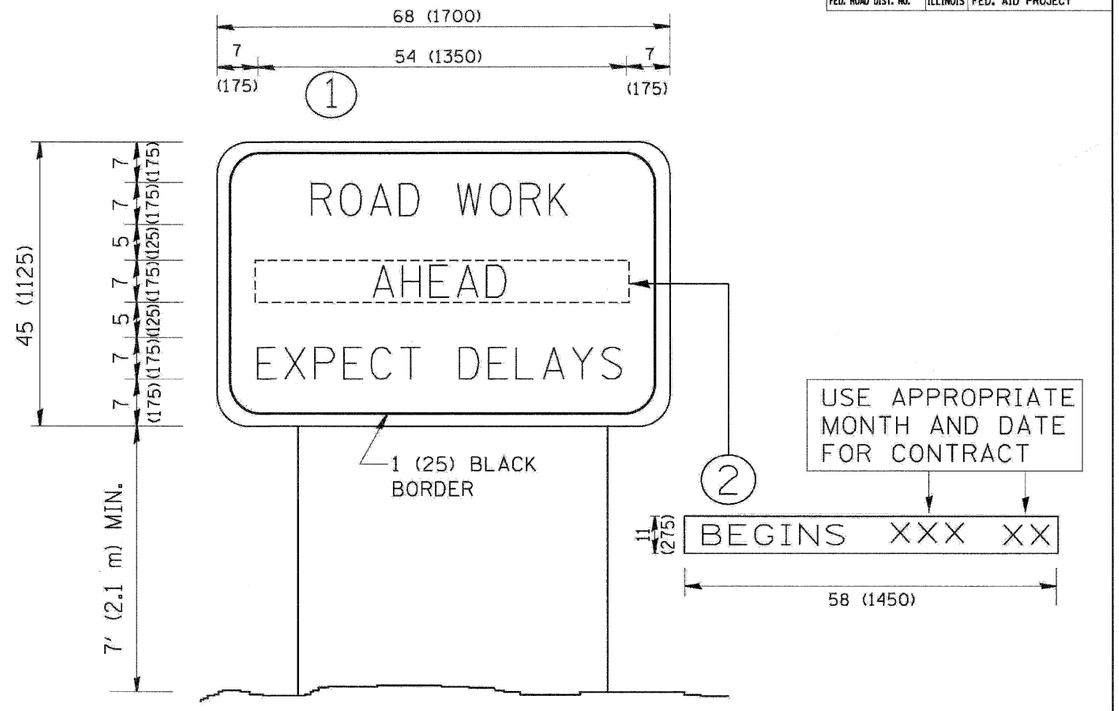
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:

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

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

REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99
C. JUCIUS	1-31-07

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HWY over BUTTERFIELD CREEK
ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE

DRAWN BY DESIGN
CHECKED BY
TC22

PLOT DATE = 3/8/2007
FILE NAME = c:\projects\tc22.dgn
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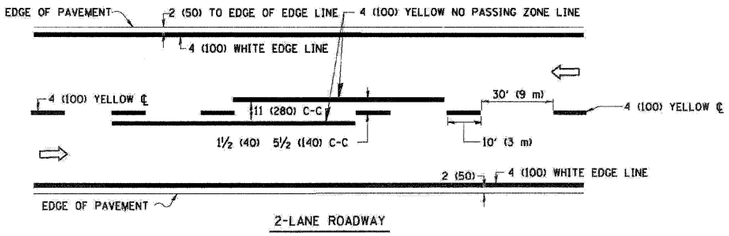
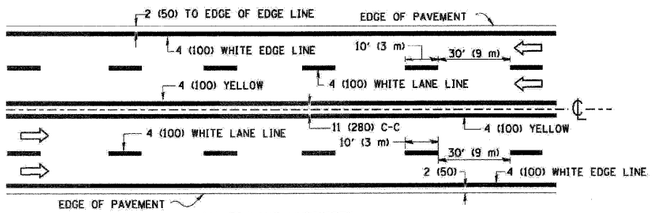
USER NAME = bauerdj

CONTRACT NO. 62539

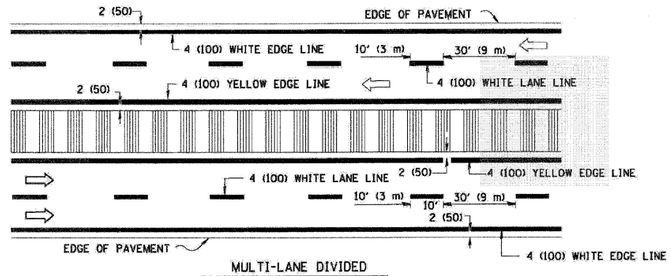
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	59
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



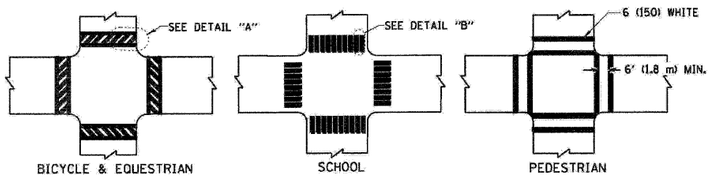
MULTI-LANE UNDIVIDED

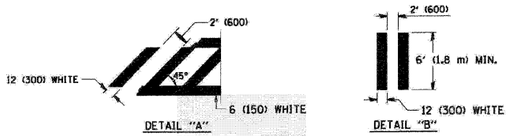


MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

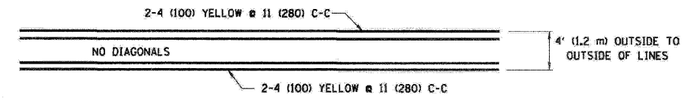
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

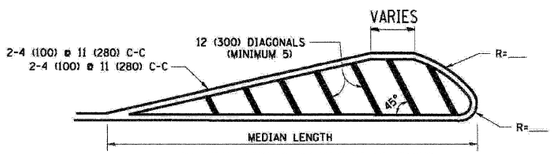




TYPICAL CROSSWALK MARKING



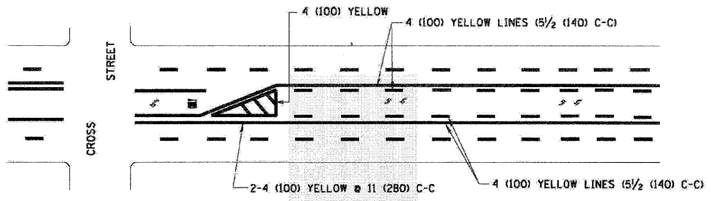
4' (1.2 m) WIDE MEDIANS ONLY



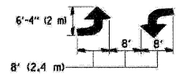
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

MEDIANS OVER 4' (1.2 m) WIDE

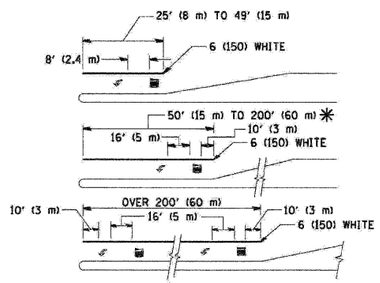


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

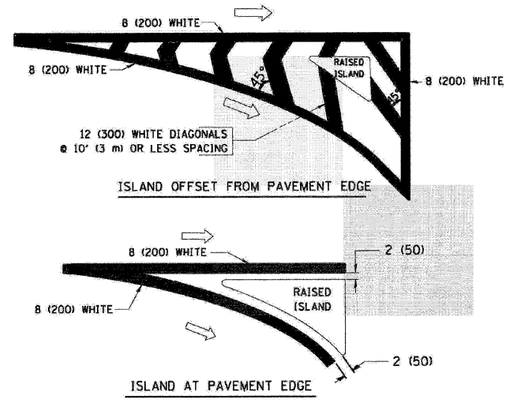


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m²)) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVEDED PAVEMENT	2 ⌀ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 ⌀ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 ⌀ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 ⌀ 6 (150) 12 (300) ⌀ 45° 12 (300) ⌀ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 ⌀ 4 (100) WITH 12 (300) DIAGONALS ⌀ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS ⌀ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) ⌀ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 2843 DIXIE HWY over BUTTERFIELD CREEK

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE

DRAWN BY CADD
CHECKED BY

TC-13

PLOT DATE = 3/6/2007
FILE NAME = K:\district\tc13.dgn
PLOT SCALE = 64.000 ' / IN.
USER NAME = bowerd

R M E
Rubinos & Mesia Engineers, Inc.
200 S. Michigan Ave, Suite 1500 Chicago IL 60604-2482
T> 312 870 8600 F> 312 663 1473

CONTRACT NO. 62539

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	60

STA. _____ TO STA. _____

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

EARTHWORK - HATCHING, CUT & FILL

SCALE: VERT. 1"=5'
HORIZ. 1"=10'

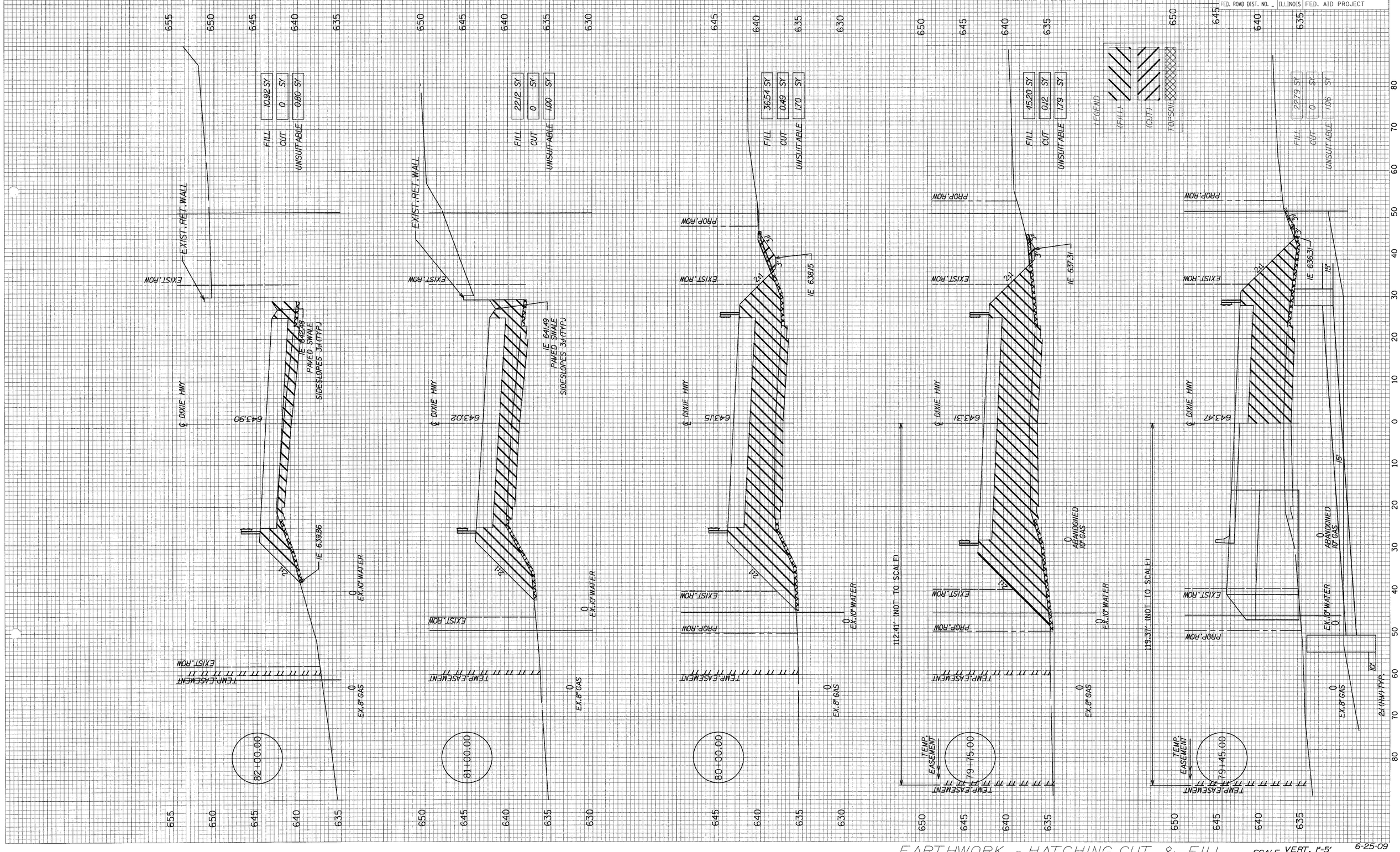
6-25-09

(1 OF 4)

R M E
Rubinos & Mesia Engineers, Inc.
200 S. Michigan Ave. Suite 1900 Chicago IL 60604-2482
Ph 312.870.0600 Fx 312.663.1673

CONTRACT NO. 62539

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	61
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EARTHWORK - HATCHING, CUT & FILL

SCALE: VERT. 1"=5'
HORIZ. 1"=10'

6-25-09
(2 OF 4)

RME
Rubinos & Mesia Engineers, Inc.
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T:312.870.8000 F:312.663.1473

CONTRACT NO. 62539

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	62
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STRUCTURE EXCAVATION
BRIDGE = 75 CU. YD. (ENTIRE STRUCTURE)
RET.-WALL = 210 CU. YD. (ENTIRE STRUCTURE)

EARTHWORK - HATCHING, CUT & FILL

SCALE: VERT. 1"=5'
HORIZ. 1"=10'

6-25-09
(3 OF 4)

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Ave. Suite 1600 Chicago IL 60604-2482
Ph: 312 871 6000 Fx: 312 663 1473

CONTRACT NO. 62539

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	63
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STA 76+66.00
FILL 33.31 SY
CUT 0 SY
UNSUITABLE 1.36 SY
EXISTING DRIVEWAY TO BE REMOVED
EXIST. FENCE
PROP. ROW
EXIST. ROW
TEMP. EASEMENT
2:1
℄ DIXIE HWY
642.87
EX. 10" WATER
EX. 8" GAS
EXISTING DRIVEWAY TO BE REM.
IE 635.70

STA 76+00.00
FILL 16.89 SY
CUT 0 SY
UNSUITABLE 1.01 SY
EXIST. FENCE
TEMP. EASEMENT
EXIST. ROW
2:1
℄ DIXIE HWY
642.45
EX. 10" WATER
EX. 8" GAS
IE 637.42
EXISTING DRIVEWAY
EDGE OF HOUSE / TEMP. EASEMENT

STA 75+27.00
FILL 8.74 SY
CUT 0 SY
UNSUITABLE 1.02 SY
EXIST. FENCE
TEMP. EASEMENT
EXIST. ROW
2:1
℄ DIXIE HWY
642.20
EX. 10" WATER
24" RCP
IE= 639.32
PROPOSED DRIVEWAY CULVERT
EXISTING DRIVEWAY
EX. 8" GAS

STA 75+00.00
FILL 0.56 SY
CUT 4.97 SY
UNSUITABLE 0.90 SY
EXIST. FENCE
EXIST. ROW
2:1
℄ DIXIE HWY
642.22
EX. 10" WATER
EX. 8" GAS
IE 639.71
3:1
4.5:1
TEMP. EASEMENT
PROP. ROW

STA 74+00.00
FILL 0.08 SY
CUT 8.18 SY
UNSUITABLE 0.76 SY
EXIST. FENCE
EXIST. ROW
2:1
℄ DIXIE HWY
642.81
EX. 10" WATER
EX. 8" GAS
IE 640.24
3:1
4.5:1
TEMP. EASEMENT
PROP. ROW

LEGEND
(FILL)
(CUT)
TOPSOIL

STA 73+50.00
FILL 0.01 SY
CUT 8.34 SY
UNSUITABLE 0.62 SY
EXIST. FENCE
EXIST. ROW
2:1
℄ DIXIE HWY
643.31
EX. 10" WATER
EX. 8" GAS
IE 641.22
3:1
4.5:1
TEMP. EASEMENT
PROP. ROW
2:1 (HW) TYP.

EARTHWORK - HATCHING, CUT & FILL

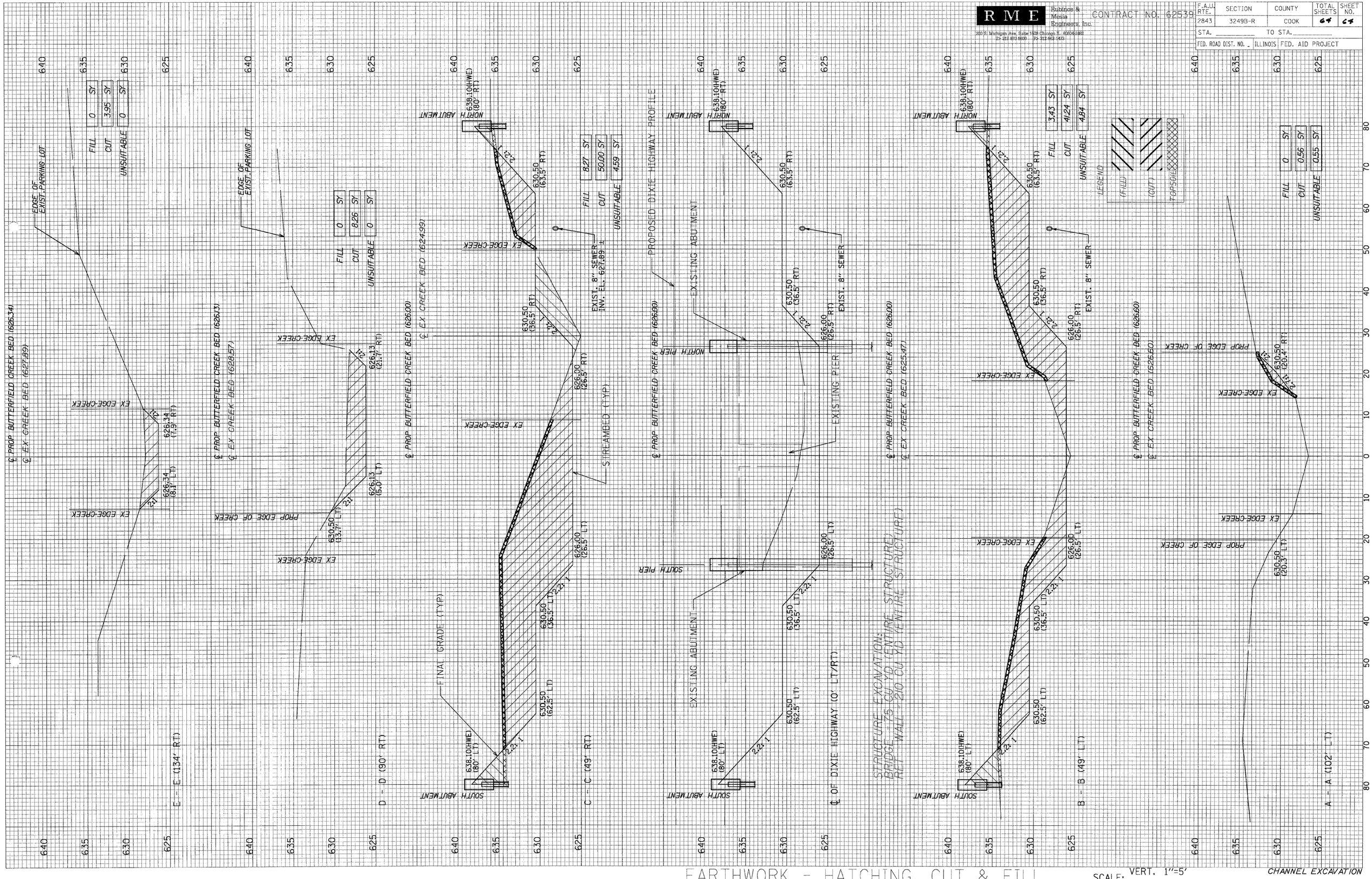
SCALE: VERT. 1"=5'
HORIZ. 1"=10'

6-25-09
(4 OF 4)

RME Rubinos & Mesia Engineers, Inc.
200 S. Michigan Ave. Suite 1500 Chicago IL. 60604-2382
tel 312.670.6600 fax 312.663.1473

CONTRACT NO. 62539

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	64
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



EARTHWORK - HATCHING, CUT & FILL

SCALE: VERT. 1"=5'
HORIZ. 1"=10'

CHANNEL EXCAVATION
6-25-09