524-754 (217) **ANDERSON** LEADER:

INDEX OF SHEETS

SUMMARY OF QUANTITIES TYPICAL SECTIONS SCHEDULE OF QUANTITIES ALIGNMENT, TIES, AND BENCHMARKS

PLAN & PROFILE SHEET MAINTENANCE OF TRAFFIC DETAIL **EROSION CONTROL PLAN** PROPOSED CULVERT PLAN

BORING LOG **BUTT JOINT DETAIL** CROSS SECTIONS

STATE STANDARDS

001001-02

280001-04

630301--05 635006-03

635011-02

701901-01 780001--02

ALIGNMENT, TIES,

COVER SHEET, INDEX OF SHEETS & STANDARDS GENERAL NOTES & COMMITMENTS

AND BENCHMARKS HORIZONTAL 0 20' PLAN & PROFILE 0 20' 40' 60 EROSION CONTROL PLAN HORIZONTAL 0 10' 20 CROSS SECTIONS 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.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

HILLSBORO TOWNSHIP, SECTIONS 2 & 3

ADT: 100(2008); 125(2030)

SU: 1.5% MU: 0.5%

CONTRACT NO. 72B73

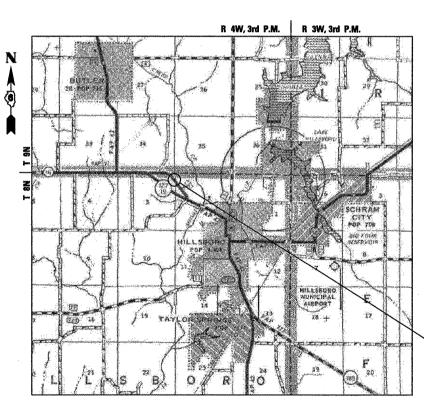
STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

SBI ROUTE 16A (CRESS CIRCLE) SECTION (21[FR#1])ACB PROJECT NO. ACRS-0135 (040) **MONTGOMERY COUNTY** C-96-033-08



DESCRIPTION OF WORK: THIS PROJECT CONSISTS OF THE REMOVAL OF THE EXISTING SINGLE BARREL BOX CULVERT. S.N. 068-7030 (EX.), WITH PROPOSED 6' x 8' SINGLE BARREL BOX CULVERT, S.N. 068-7059 (PR.), **CARRYING SBI ROUTE 16A OVER** UNNAMED DITCH. GUARDRAIL REPLACEMENT AND APPROACH **ROADWAY IMPROVEMENTS ARE**

PROPOSED IMPROVEMENTS: **STATION 56 + 25.00 TO STATION 56 + 90.00**

ALSO INCLUDED.

LOCATION MAP



GROSS LENGTH OF IMPROVEMENT = 65.0 FEET = 0.012 MILE NET LENGTH OF IMPROVEMENT = 65.0 FEET = 0.012 MILE



(21[FR#1])ACB MONTGOMERY 20 1 ILLINOIS CONTRACT NO. 72B73



PREPARED BY:
LIN ENGINEERING, LTD. WESTMONT, ILLINOIS 60559 (630) 323-5168

FRED M. LIN, P.E. ILLINOIS REGISTERED ENGINEER NO. 062-056704 REGISTRATION EXPIRES NOV. 30. 2009

> STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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GENERAL NOTES

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

AT ALL LOCATIONS WHERE THE PROPOSED HOT MIX ASPHALT JOINS THE EXISTING HOT MIX ASPHALT OR CONCRETE PAVEMENT, A FULL DEPTH SAWED JOINT SHALL BE CONSTRUCTED. THE COST OF SAW CUTS AND JOINTS IS CONSIDERED AS INCLUDED IN THE COST OF THE TYPE OF PAVEMENT BEING CONSTRUCTED.

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

THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER IN REGARD TO THE EXACT LENGTH OF THE BOX CULVERT REQUIRED PRIOR TO ORDERING THIS ITEM.

THE CONTRACTOR SHALL REMOVE OR RELOCATE ALL CONFLICTING MAILBOXES, EXISTING STREET NAME SIGNS, AND ALL PRIVATE AND COMMERCIAL SIGNS IN ACCORDANCE WITH ARTICLES 107.20 & 107.25 AND AS DIRECTED BY THE ENGINEER. SIGN LOCATIONS MAY BE ADJUSTED IN THE FIELD TO AVOID ANY FOUND UTILITIES AND AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED AS INCLUDED IN THE COST OF EARTH EXCAVATION. ALL WOOD POST LOCATIONS SHALL BE VERIFIED WITH THE BUREAU OF OPERATIONS, TRAFFIC SECTION, BEFORE INSTALLATION.

EXISTING FENCES SHALL BE REMOVED UP TO THE LIMITS AS SHOWN IN THE PLANS. EXISTING TIMBER VEGETATION SHALL BE REMOVED UP TO CONSTRUCTION LIMITS. THIS WORK SHALL BE CONSIDERED AS INCLUDED IN THE COST OF EARTH EXCAVATION.

BITUMINOUS AND AGGREGATE PRIME COAT SHALL BE PLACED IN ACCORDANCE WITH SECTION 406 OF THE STANDARD SPECIFICATIONS.

THE NEW NUMBER FOR THIS STRUCTURE SHALL BE S.N. 068-7059.

THE CONTRACTOR SHALL SUBMIT FOUR COPIES OF THE REQUIRED SHOP DRAWINGS FOR REVIEW AND APPROVAL TO THE BUREAU OF BRIDGES AND STRUCTURES, 2300 SOUTH DIRKSEN PARKWAY, SPRINGFIELD, IL, 62764. AFTER APPROVAL OF INITIAL SUBMITTAL, THE CONTRACTOR SHALL SUBMIT ONE SET OF SHOP DRAWINGS TO DAVE LIPPERT, ENGINEER OF MATERIALS, 126 EAST ASH STREET, SPRINGFIELD, IL, 62706 AND EIGHT (8) SETS OF SHOP DRAWINGS TO BE DISTRIBUTED TO:

DISTRICT 6 DISTRICT ENGINEER (1)
FABRICATOR (1)
CONTRACTOR (2)
RESIDENT ENGINEER (2)
DISTRICT 6 BUREAU OF MATERIALS (2)

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

THE COST OF REMOVAL OF ANY EXISTING NON-ROADWAY RELATED ITEM OR OTHER OBSTRUCTIONS WHICH INTERFERE WITH CONSTRUCTION WILL BE CONSIDERED INCLUDED IN THE COST OF SPECIAL EXCAVATION.

SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET OR IN AN UNTILLABLE CONDITION. AREAS TO BE SEEDED SHALL BE

EXISTING PAVEMENT DAMAGED DUE TO THE CONTRACTOR'S OPERATIONS, AND NOT OTHERWISE NECESSARY TO REPLACE, SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE RESIDENT ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. IF THE ENGINEER DECIDES TO HAVE THE CONTRACTOR RESET THE MONUMENT, THIS WORK SHALL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS

THE THICKNESS OF BITUMINOUS MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HOT-MIX ASPHALT MIXTURE IS PLACED.

THE FOLLOWING APPLICATION RATES WERE USED FOR QUANTITY CALCULATIONS.

HOT-MIX ASPHALT SURFACE COURSE, MIX C, NSO LEVELING BINDER (MACHINE METHOD), NSO BITUMINOUS MATERIALS (PRIME COAT) NITROGEN FERTILIZER NUTRIENT PHOSPOROUS FERTILIZER NUTRIENT POTASSIUM FERTILIZER NUTRIENT AGRICULTURAL GROUND LIMESTONE TEMPORARY EROSION CONTROL SEEDING AGGREGATE MATERIAL, TYPE A AGGREGATE SHOULDERS, TYPE B RIPRAP

0.056 TON / SQ YD / IN 0.056 TON / SQ YD / IN 0.00038 TON / SQ YD 90 LB / ACRE 90 LB / ACRE 90 LB / ACRE 2.00 TON / ACRE 100 LB / ACRE 2.05 TON / CU YD 1.89 TON / CU YD 1.50 TON / CU YD

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT.

Mixture Use(s):	HMA SURFACE COURSE MIX "C", N50	LEVELING BINDER (MACHINE METHOD), N50	HMA BASE COURSE, 9"
PG:	PG 64-22	PG 64-22	PG 64-22
Design Air Voids	4.0% e Ndesign = 50	4.0% • Ndesign = 50	4.0% e Ndesign = 50
Mixture Composition (Gradation Mixture)	IL 9.5 OR 12.5	IL 9.5	IL 19.0
Friction Aggregate	MIXTURE "C"	N/A	N/A
20 Year ESAL			

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUB NUMBER LISTED IN THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

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

THE LOCATIONS OF EXISTING WATER MAINS, GAS MAINS, SEWERS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT THEY ARE NOT GUARANTEED. ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY THE UTILITY COMPANY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE THEIR EXACT LOCATION FROM THE UTILITY COMPANIES AND BY FIELD INSPECTION.

THE CONTRACTOR SHALL COORDINATE ACTIVITIES WITH ALL UTILITIES WITHIN THE PROJECT LIMITS.

THE APPLICABLE PORTIONS OF ARTICLE 105.07 OF THE STANDARD SPECIFICATIONS SHALL APPLY EXCEPT FOR THE FOLLOWING: THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE THE VERTICAL DEPTHS OF UNDERGROUND UTILITIES WHICH MAY INTERFERE WITH CONSTRUCTION OPERATIONS. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE COST OF EARTH EXCAVATION.

STREAM FLOWS SHALL BE MAINTAINED THROUGHOUT THE PROJECT. NORMAL FLOWS SHALL BE ALLOWED TO PASS AT THE RATE IT ENTERS THE JOBSITE. HIGH FLOWS SHALL BE ALLOWED TO PASS WITHOUT CAUSING DAMAGE TO UPSTREAM PROPERTIES.

THE FINAL TOP FOUR INCHES (100 MM) OF SOIL IN ANY RIGHT-OF-WAY AREA DISTRURBED BY THE CONTRACTOR MUST BE CAPABLE OF SUPPORTING VEGETATION, THE SOIL MUST BE FROM THE A HORIZON (ZERO TO 2' DEEP) OF SOIL PROFILES OF LOCAL SOILS.

TREE REMOVAL MAY BE NECESSARY PRIOR TO UTILITY COMPANIES BEING ABLE TO RELOCATE THEIR FACILITIES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR SHOULD COORDINATE ANY CONTRACT TREE REMOVAL ACTIVITIES WITH THE UTILITY COMPANIES TO ELIMINATE CONFLICTS AND POTENTIAL DELAYS CAUSED BY UTILITY TREE REMOVAL ACTIVITIES OR INCOMPLETE UTILITY RELOCATIONS.

COMMITMENTS ARE NOT TO BE ALTERED WITHOUT THE WRITTEN APPROVAL OF ALL PARTIES TO WHICH THE COMMITMENT WAS MADE.

PRIOR APPROVAL FROM IDOT SHALL BE OBTAINED FOR ANY TREE REMOVAL BEYOND THE LIMITS/LOCATIONS INCLUDED IN THE PLANS.

ANY PROTRUDING METAL BARS SHALL BE REMOVED PRIOR TO THE DISPOSAL OF BROKEN CONCRETE AT APPROVED DISPOSAL SITES.

THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS. SEEDING CLASS 2A SHALL BE USED. FERTILIZER NUTRIENTS SHALL BE APPLIED AT THE RATE SPECIFIED IN SECTIONS 250 AND 252 OF THE STANDARD SPECIFICATIONS.

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

THE FIELD/RESIDENT ENGINEER SHALL NOTIFY THE PROPERTY OWNER PRIOR TO CONSTRUCTION, DUE TO AN AGREEMENT ALLOWING THE EXISTING CULVERT TO BE UTILIZED AS A CATTLE CROSSING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS, AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED. THE JULIE NUMBER IS 1-800-892-0123.

COMMITMENTS

THE FIELD/RESIDENT ENGINEER SHALL CONTACT STUDIES & PLANS CONCERNING ANY MAJOR PLAN CHANGES TO MAKE SURE NO PREVIOUS COMMITMENTS (NOT LISTED) WERE MADE AFFECTING THE DESIGN AND ALLOW AN IMPROVED DESIGN FOR FUTURE PROJECTS.

DISTRICT SIX	
EXAMINED March 26 20 09	-
OPERATIONS ENGINEER	
EXAMPNED March 31 20 09	
PROGRAM IMPLEMENTATION ENGINEER	
FROGRAM HAT LEMENTATION ENGLISHED	
EXAMINED MARCH 17 20 09	_
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PROGRAM DEVELOPMENT ENGINEER	

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	PLOT DATE = 6/5/2009	DATE -	01/2009	REVISED	1

SCALE: N.T.S.

ILLINOIS DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES

80%. FED. 20%. STATE

	CONSTRU TYPE (
	RWY	STR			
CODE NO.	DE NO. ITEM UNIT TOTA				xo28 -2
20200100	EARTH EXCAVATION	CU. YD.	145	145	
20300100	CHANNEL EXCAVATION	CU. YD.	13	13	
20400800	FURNISHED EXCAVATION	CU. YD.	250	250	
25000210	SEEDING, CLASS 2A	ACRE	0. 25	0. 25	Ì
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	23	23	
25000500	PHOSPHOROUS FERTILIZER NUTRIENT	POUND	23	23	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	23	23	
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.5	0.5	
25100630	EROSION CONTROL BLANKET	SQ. YD.	888	888	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	100	100	
28000300	TEMPORARY DITCH CHECKS	EACH	2	2	
28000400	PERIMETER EROSION BARRIER	FOOT	378	378	
31100300	SUB-BASE GRANULAR MATERIAL, TYPE A 4"	sq. yD.	166	166	
35501320	HOT-MIX ASPHALT BASE COURSE, 9"	SQ. YD.	128	128	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.2	0.2	
40600300	AGGREGATE (PRIME COAT)	TON	0.5	0.5	

80%. FED. 20%. STATE

					201	MIC
		CONSTR TYPE				
		RWY	STR			
	CODE NO.	ITEM	UNIT	TOTAL	1000-24	X028 <i>-2</i>
	40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	8	8	
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ. YD.	54	54	
	40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	11	11	
	44000100	PAVEMENT REMOVAL	SQ. YD.	122	122	
	44000400	GUTTER REMOVAL	FOOT	175	175	
	48101200	AGGREGATE SHOULDERS. TYPE B	TON	25	25	
	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		ĭ
	50102400	CONCRETE REMOVAL	CU. YD.	7.0	7.0	
	54001000	BOX CULVERT END SECTIONS	EACH	2		2
	54010608	PRECAST CONCRETE BOX CULVERT 6' X 8'	FOOT	39.0		39.0
×	63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POST	FOOT	100	100	
X	63000025	STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES	FOOT	50	50	
¥	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
	63200305	STEEL PLATE BEAM GUARD RAIL REMOVAL	FOOT	133	133	
	67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	2	2	
	67100100	MOBILIZATION	L. SUM	1	1	

							*Specially Item	೮		
FILE NAME =	USER NAME = loughlinrl	DESIGNED -	DPS	REVISED -			SUMMARY OF QUANTITIES	F.A.U. SECTION	COUNTY TOTAL SHE	ET
c:\pw_work\PWIDOT\LAUGHLINRL\dØL56219\D	72B73-sht-summary.dgn	DRAWN ~	DPS	REVISED -	STATE OF ILLINOIS			(21[FR*1])ACB	MONTGOMERY 20 3	3
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	PLOT DATE = Jul-24-2009 10:35:36AM	DATE ~	01/2009	REVISED -		SCALE: N/A	SHEET NO. OF SHEETS STA, TO STA.	FED. ROAD DIST. NO. ILLINOIS FED.	AID PROJECT	

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

80% FED. 20% STATE

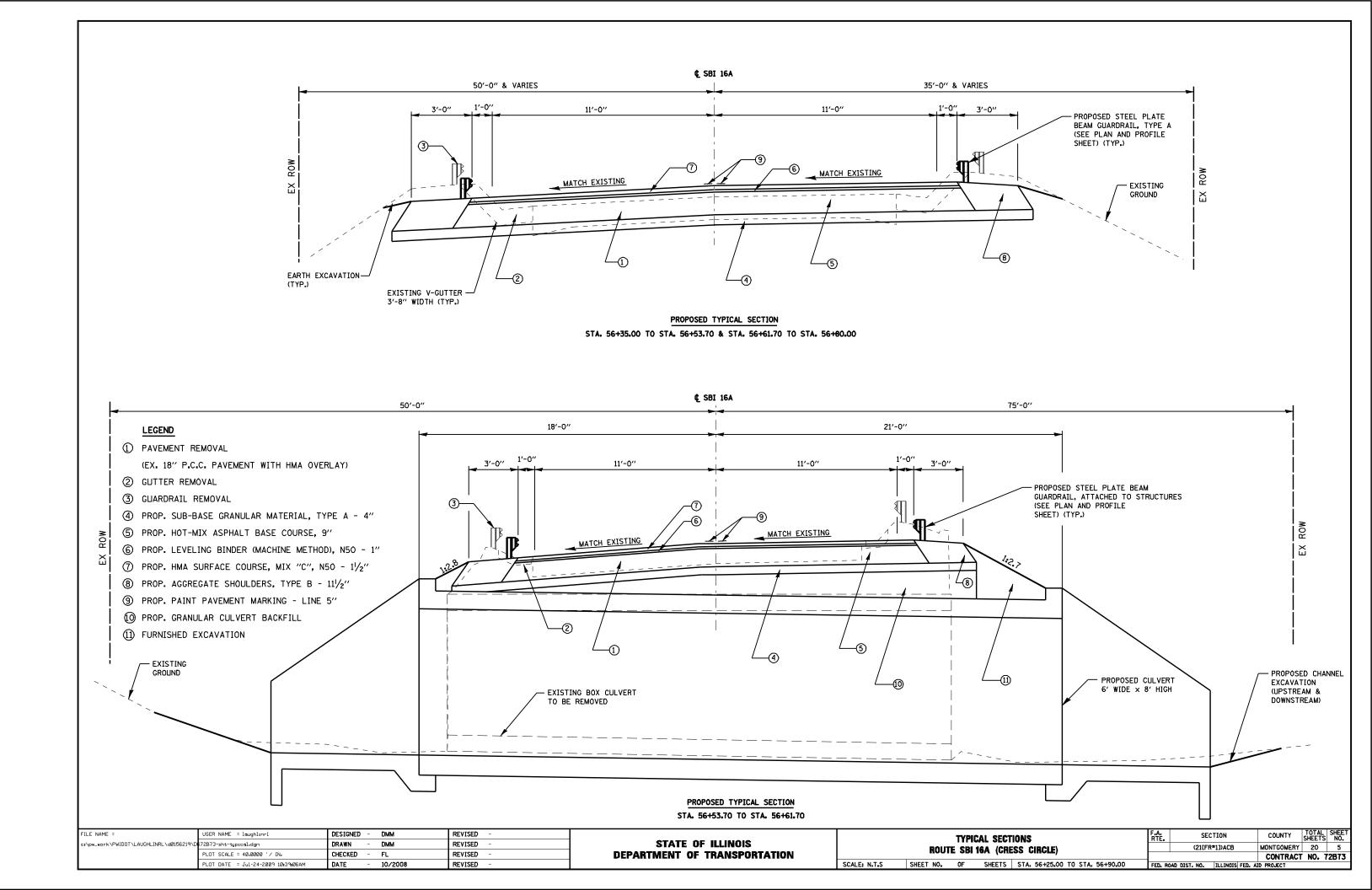
				201.0	
	ROUTE SBI 16A (CRESS CIRCLE)				
	SUMMARY OF QUANTITIES			RWY	STR
CODE NO.	ITEM	UNIT	TOTAL	1000-24	x028 -24
70101855	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21 (SPECIAL)	L. SUM	1	1	
78001120	PAINT PAVEMENT MARKING - LINE 5"	FOOT	130	130	
. 78200420	GUARDRAIL MARKERS, TYPE B	EACH	6	6	
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
X0322584	REVETMENT MAT REMOVAL	SQ. YD.	30	30	
X0324118	GRANULAR CULVERT BACKFILL	CU. YD.	222. 3		222. 3
XX001286	SPECIAL EXCAVATION	CU. YD.	10	10	
	70101855 78001120 78200420 78201000 X0322584 X0324118	SUMMARY OF QUANTITIES CODE NO. ITEM 70101855 TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21 (SPECIAL) 78001120 PAINT PAVEMENT MARKING - LINE 5" 78200420 GUARDRAIL MARKERS, TYPE B 78201000 TERMINAL MARKER - DIRECT APPLIED X0322584 REVETMENT MAT REMOVAL X0324118 GRANULAR CULVERT BACKFILL XX001286 SPECIAL EXCAVATION	SUMMARY OF QUANTITIES CODE NO. ITEM UNIT 70101855 TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21 (SPECIAL) 78001120 PAINT PAVEMENT MARKING - LINE 5" FOOT 78200420 GUARDRAIL MARKERS, TYPE B EACH 78201000 TERMINAL MARKER - DIRECT APPLIED EACH X0322584 REVETMENT MAT REMOVAL SQ. YD. X0324118 GRANULAR CULVERT BACKFILL CU. YD. XX001286 SPECIAL EXCAVATION CU. YD.	SUMMARY OF QUANTITIES CODE NO. ITEM UNIT TOTAL 70101855 TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21 (SPECIAL) 1 78001120 PAINT PAVEMENT MARKING - LINE 5" FOOT 130 1 78200420 GUARDRAIL MARKERS, TYPE B EACH 6 1 78201000 TERMINAL MARKER - DIRECT APPLIED EACH 4 X0322584 REVETMENT MAT REMOVAL SQ. YD. 30 X0324118 GRANULAR CULVERT BACKFILL CU. YD. 222.3 XX001286 SPECIAL EXCAVATION CU. YD. 10	SUMMARY OF QUANTITIES RWY CODE NO. ITEM UNIT TOTAL IO00-22 70101855 TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21 (SPECIAL) 78001120 PAINT PAVEMENT MARKING - LINE 5" FOOT 130 130 78200420 GUARDRAIL MARKERS, TYPE B EACH 6 6 78201000 TERMINAL MARKER - DIRECT APPLIED EACH 4 X0322584 REVETMENT MAT REMOVAL SQ. YD. 30 30 X0324118 GRANULAR CULVERT BACKFILL CU. YD. 222.3 XX001286 SPECIAL EXCAVATION CU. YD. 10 10

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1	PLOT DATE = Jul-24-2009 10:35:38AM	DATE	-	01/2009	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

* Specialty Ltems		
 SUMMARY OF QUANTITIES	F.A.U. RTE.	
 ROUTE SBI 16A (CRESS CIRCLE)		

	F.A.U. RTE.	SEC	TION			COUNTY	TOTAL	SHEET NO.
- 1		(21[FF	*13)ACB		М	ONTGOMERY	20	4
					7	CONTRACT	NO.	72873
	FED. RO	AD DIST. NO.	ILLINOIS	FED.	AJD I	ROJECT		



EARTHWORK

LOCATION	EARTH EXCAVATION	EMBANKMENT	EARTH EXCAVATION ADJ. FOR SHRINKAGE	CHANNEL EXCAVATION	CHANNEL EXCAVATION ADJ. FOR SHRINKAGE	WASTE (+) SHORTAGE (-)			
STATION TO STATION	CU. YD.								
55+22.00 TO 55+50.00	0.0	0.0	0.0			0.0			
55+50.00 TO 56+00.00	0.7	56.7	0.6			-56.1			
56+00.00 TO 56+25.00	6.0	70.8	4.5			-66.3			
56+25.00 TO 56+57.70	63.1	122.9	47.3	13	9.75	-65.8			
56+57.70 TO 56+90.00	62.3	111.2	46.7			-64.5			
56+90.00 T0 57+00.00	4.0	4.5	3.0			-1.5			
57+00.00 TO 57+22.00	8.8	0.0	6.6			6.6			
TOTAL	145.0	366.1	108.7	13	9.75	-247.6			

NOTE:

SHRINKAGE FACTOR = 25% FOR EARTH AND CHANNEL EXCAVATION.

CHANNEL EXCAVATION ASSUMED TO BE SUITABLE MATERIAL, AND IS INCLUDED IN EARTHWORK BALANCE.

EARTH EXCAVATION AND FURNISHED EXCAVATION TOTALS ARE ROUNDED TO THE NEAREST 5 CU. YDS.

CHANNEL EXCAVATION TOTAL IS ROUNDED TO THE NEAREST 1 CU. YD.

SEEDING, CLASS 2A

LOCATION	LOCATION					
STATION	OFFSET	(ACRE)				
55+22.00 TO 57+10.50	LT	0.06				
55+22.00 TO 57+10.50	RT	0.12				
	TOTAL	0.18				
	USE	0.25				

NITROGEN FERTILIZER NUTRIENT

LOCATION	QUANTITY	
STATION OFFSET		(POUND)
55+22.00 TO 57+10.50	JOBSITE	23
	TOTAL	23

PHOSPHOROUS FERTILIZER NUTRIENT

LOCATION	QUANTITY	
STATION OFFSET		(POUND)
55+22.00 TO 57+10.50 JOBSITE		23
	TOTAL	23

POTASSIUM FERTILIZER NUTRIENT

LOCATION	QUANTITY	
STATION OFFSET		(POUND)
55+22.00 TO 57+10.50 JOBISTE		23
	TOTAL	23

AGRICULTURAL GROUND LIMESTONE

LOCATION	QUANTITY	
STATION OFFSET		(TON)
55+22.00 TO 57+10.50 JOBSITE		0.5
	TOTAL	0.5

EROSION CONTROL BLANKET

LOCATION	QUANTITY	
STATION	OFFSET	(SQ YD)
55+22.00 TO 57+10.50	LT	279
55+22.00 TO 57+10.50	RT	609
	TOTAL	888

TEMPORARY EROSION CONTROL SEEDING

LOCATION	QUANTITY
	(POUND)
JOBSITE	100
TOTAL	100

TEMPORARY DITCH CHECKS

LOCATI	QUANTITY				
STATION	STATION OFFSET				
56+43.3	56+43.3 35.1' RT.				
56+76.8	29.8' RT.	1			
	TOTAL	2			

PERIMETER EROSION BARRIER

LOCATION	QUANTITY	
STATION	OFFSET	(FOOT)
55+19.65 TO 56+35.25	LT	127
56+75.61 TO 57+10.30	LT	50
55+19.65 TO 56+50.43	RT	139
56+72.16 TO 57+10.30	RT	62
	TOTAL	378

SUB-BASE GRANULAR MATERIAL TYPE A. - 4"

LOCATION	QUANTITY
STATION	(SQ YD)
56+35.00 TO 56+57.70	83.3
56+57.70 TO 56+80.00	81.8
TOTAL	165.1
USE	166

HOT-MIX ASPHALT BASE COURSE, 9"

LOCATION	QUANTITY
STATION	(SQ YD)
56+35.00 TO 56+57.70	64.3
56+57.70 TO 56+80.00	63.2
TOTAL	127.5
USE	128

BITUMINOUS MATERIALS (PRIME COAT)

LOCATION	QUANTITY
STATION	(TON)
56+35.00 TO 56+80.00	0.1
×2 APPLICATIONS	0.1
TOTAL	0.2

FILE NAME =	USER NAME = laughlinrl	DESIGNED - DPS	REVISED -	STATE OF ILLINOIS	SCHEDULE OF QUANTITIES ROUTE SBI 16A (CRESS CIRCLE)		F.A.U. SECTION	COUNTY TOTAL SHEET NO.
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	PLOT SCALE = 2,00000 '/ IN.	CHECKED - FML	REVISED -	DEPARTMENT OF TRANSPORTATION	NUUTE SBI IOA (CRESS CINCLE)	1	CONTRACT NO. 72B73	
	PLOT DATE = Jul-24-2009 10:39:07AM	DATE - 01/2009	REVISED -		SCALE:	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AT	

AGGREGATE (PRIME COAT)

LOCATION	QUANTITY
STATION	(TON)
56+35.00 TO 56+80.00	0.1
x2 APPLICATIONS	
56+25.00 TO 56+90.00, LT. & RT.	0.4
x3 APPLICATIONS	
TOTAL	0.5

LEVELING BINDER (MACHINE METHOD), N50

LOCATION	QUANTITY
STATION	(TON)
56+35.00 TO 56+57.70	3.6
56+57.70 TO 56+80.00	3.5
TOTAL	7.1
USE	8

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

LOCATION	QUANTITY
STATION	(SQ YD)
56+25.00 TO 56+35.00	27
56+80.00 TO 56+90.00	27
TOTAL	54

HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50

LOCATION	QUANTITY
STATION	(TON)
56+35.00 TO 56+57.70	5.4
56+57.70 TO 56+80.00	5.3
TOTAL	10.7
USE	11

PAVEMENT REMOVAL

LOCATION	QUANTITY
STATION	(SQ YD)
56+35.00 TO 56+57.70	62
56+57.70 TO 56+80.00	60
TOTAL	122

GUTTER REMOVAL

LOCATION		QUANTITY
STATION	OFFSET	(FOOT)
56+25.00 T0 57+22.0	LT	97.0
56+12.5 TO 56+90.00	RT	77.5
	TOTAL	174.5
	USE	175

AGGREGATE SHOULDERS. TYPE B

LOCATION		QUANTITY
STATION	OFFSET	(TON)
56+25.00 T0 56+90.00	LT	11.9
56+25.00 T0 56+90.00	RT	12.3
	TOTAL	24.2
	USE	25

CONCRETE REMOVAL

	QUANTITY
OFFSET	(CU. YD.)
LT	3.1
RT	3.9
TOTAL	7.0
	LT RT

STEEL PLATE BEAM GUARD RAIL. TYPE A. 6 FOOT POST

LOCATION		QUANTITY
STATION	OFFSET	(FOOT)
55+72.00 TO 56+47.00	RT	75
56+22.00 TO 56+47.00	LT	25
	TOTAL	100

STEEL PLATE BEAM GUARD RAIL. ATTACHED TO STRUCTURES

LOCATION		QUANTITY
STATION	OFFSET	(FOOT)
56+47.00 TO 56+72.00	LT	25
56+47.00 TO 56+72.00	RT	25
	TOTAL	50

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

LOCATION		QUANTITY
STATION	OFFSET	(EACH)
55+22.00 TO 55+72.00	RT	1
55+72.00 T0 56+22.00	LT	1
56+72.00 TO 57+22.00	RT	1
56+72.00 TO 57+22.00	LT	1
	TOTAL	4

STEEL PLATE BEAM GUARD RAIL REMOVAL

LOCATION		QUANTITY
STATION	OFFSET	(FOOT)
56+43.1 TO 56+84.3	LT	41.2
55+98.2 TO 56+88.1	RT	91.1
	TOTAL	132.3
	USE	133

ENGINEER'S FIELD OFFICE. TYPE B

LOCATION	QUANTITY
LUCATION	(CAL MO)
JOBSITE	2
TOTAL	2

MOBILIZATION

LOCATION	QUANTITY
LOCATION	(L SUM)
JOBSITE	1
TOTAL	1

TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21 (SPECIAL)

LOCATION	QUANTITY
STATION	(L SUM)
JOBSITE	1
TOTAL	1

FILE NAME =	USER NAME = laughlinrl	DESIGNED -	DPS	REVISED -		SCHEDULE OF QUANTITIES				F.A.U.	SECTION	COUNTY	TOTAL SHEET		
c:\pw_work\PWIDOT\LAUGHLINRL\dØ156219\D	72B73-sht-schedule•dgn	DRAWN -	DPS	REVISED -			ROUTE SBI 16A (CRESS CIRCLE)				(21[FR#1])ACB	MONTGOMERY	20 7		
	PLOT SCALE = 2,00000 '/ IN.	CHECKED -	FML	REVISED -	DEPARTMENT OF TRANSPORTATION	NOUTE SPI ION (CHESS CINCLE)				'			T NO. 72B73		
	PLOT DATE = Jul-24-2009 10:39:09AM	DATE -	01/2009	REVISED -		SCALE:	SHEET NO.	0F	SHEETS	STA.	TO STA.	FED. ROAD	DIST. NO. ILLINOIS FED. AI		

PAINT PAVEMENT MARKING -

LINE 5"

LOCATION		QUANTITY
STATION	OFFSET	(FOOT)
56+25.00 TO 56+90.00	€ x2	130
	TOTAL	130

GUARDRAIL MARKERS. TYPE B

LOCA	LOCATION				
STATION	OFFSET	(EACH)			
55+72.00	LT	1			
56+22.00	LT	1			
56+72.00	LT	1			
55+59.50	RT	1			
56+09.50	RT	1			
56+59.50	RT	1			
	TOTAL	6			

TERMINAL MARKER - DIRECT APPLIED

LOCATION	QUANTITY	
STATION	OFFSET	(EACH)
55+22.00	RT	1
55+72.00	LT	1
57+22.00	RT	1
57+22.00	LT	1
	TOTAL	4

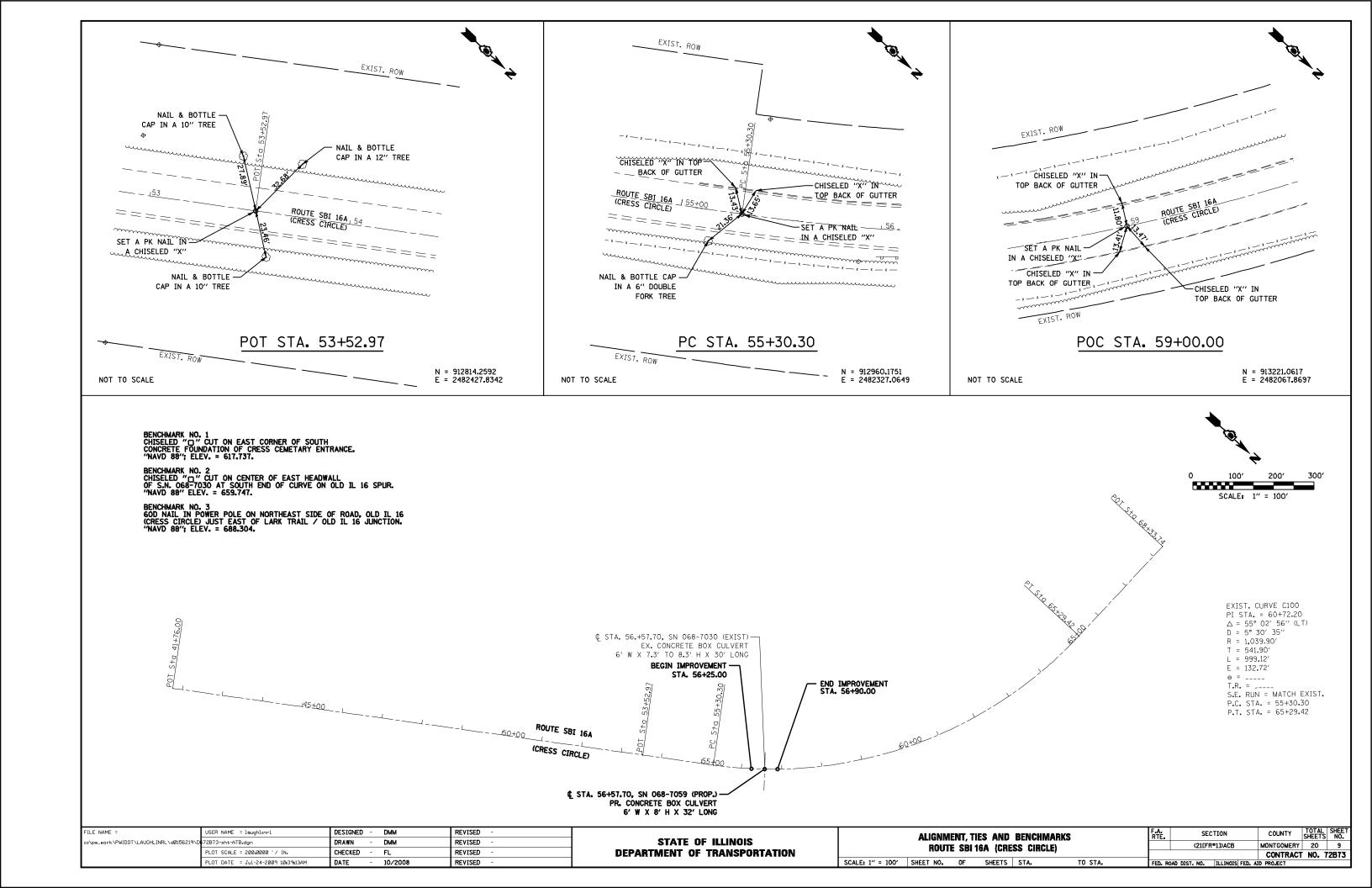
REVETMENT MAT REMOVAL

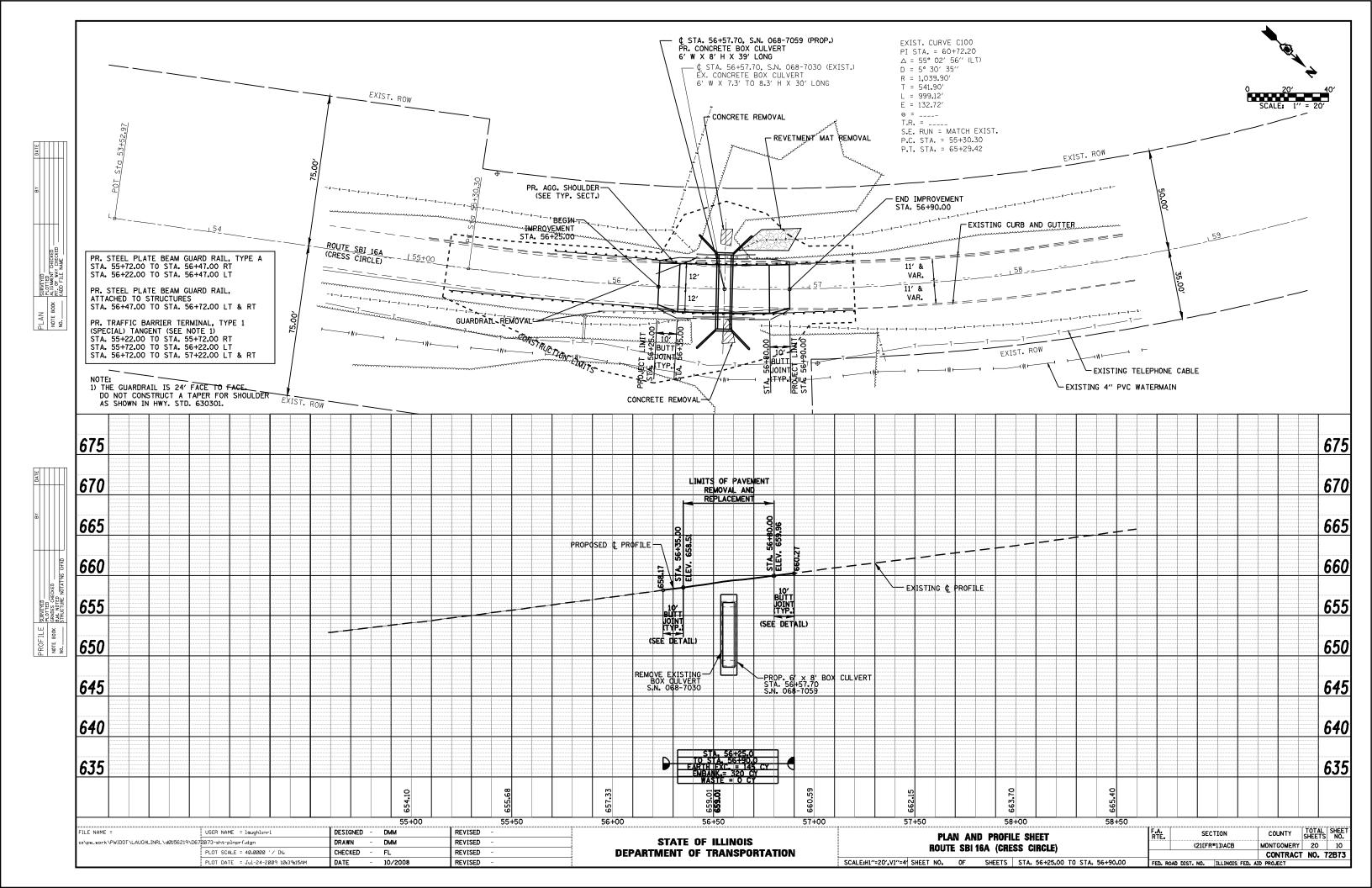
LOCATION	QUANTITY				
STATION TO STATION	OFFSET	(SQ. YD.)			
56+62.72 TO 56+96.32	LT	28.9			
	USE	30			

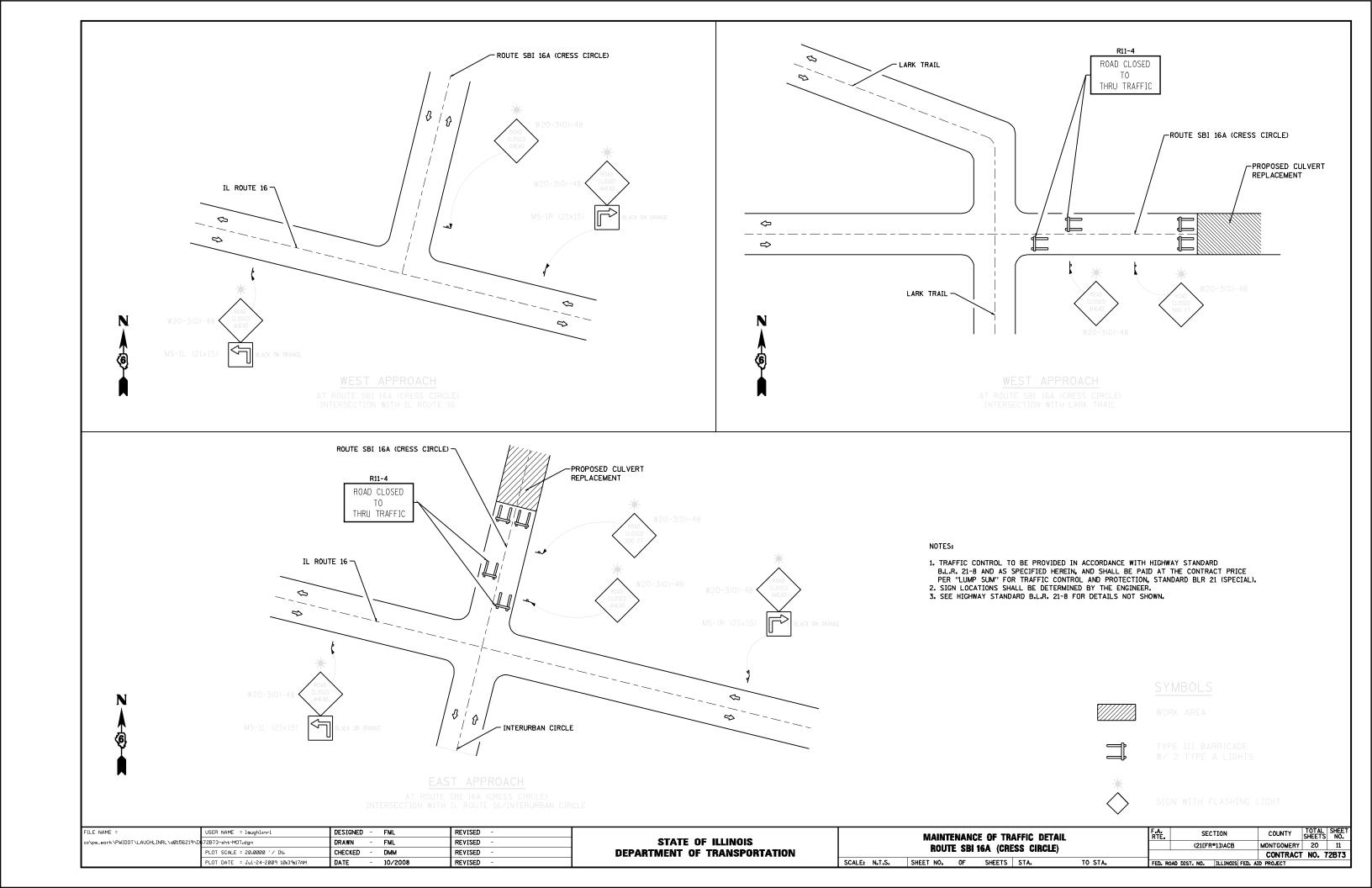
SPECIAL EXCAVATION

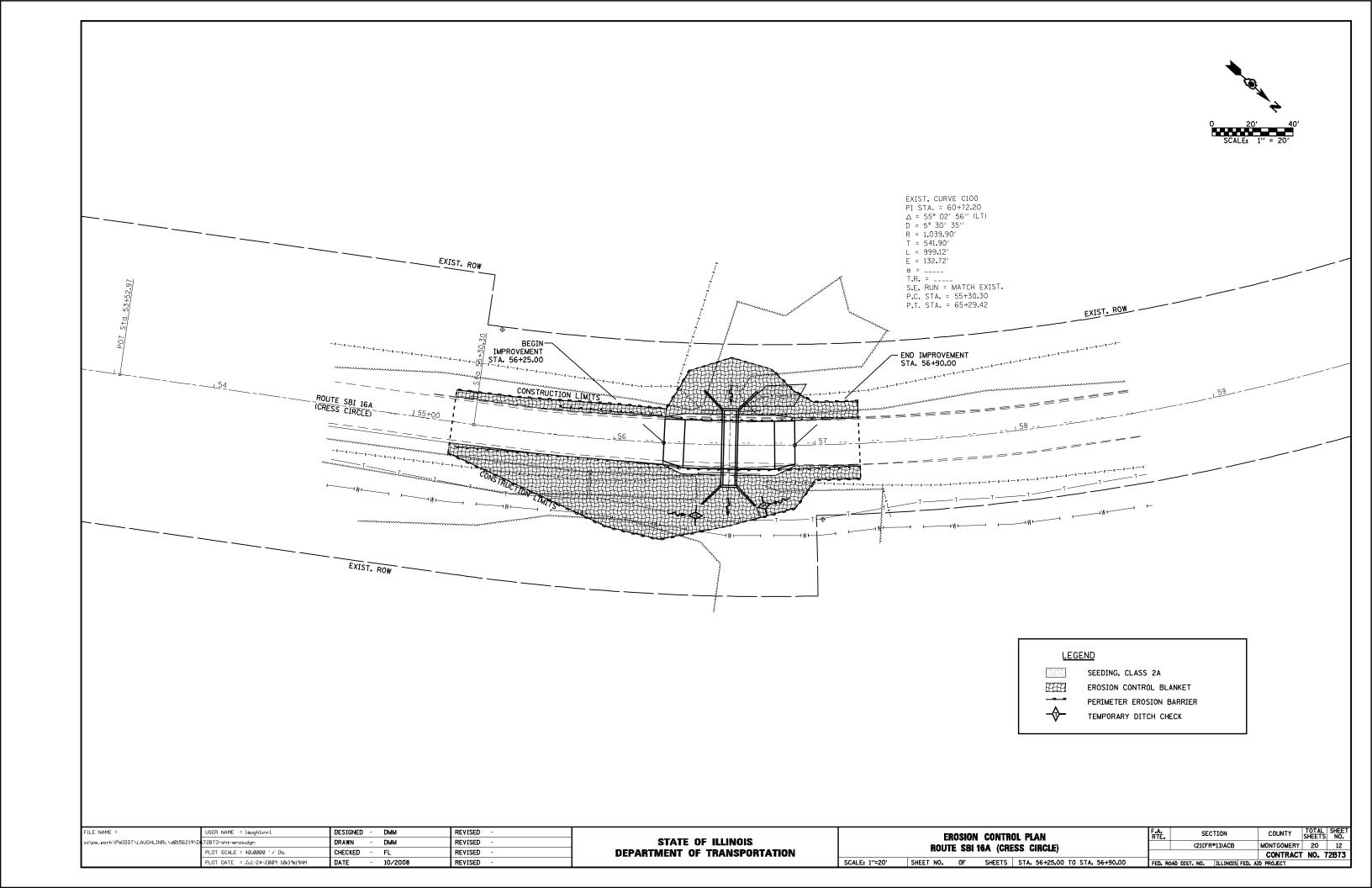
LOCATION	QUANTITY
LOCATION	(CU. YD.)
JOBSITE	10
TOTAL	10

FILE NAME =	USER NAME = laughlinrl	DESIGNED - DPS	REVISED -			6	CHEDIII	E DE DI	JANTITIES		F.A.U.	SECTIO	ON CO	UNTY TO	OTAL SHEET	1
c:\pw_work\PWIDOT\LAUGHLINRL\dØ156219\D	72B73-sht-schedule.dgn	DRAWN - DPS	REVISED -	STATE OF ILLINOIS							11.12.	(21[FR#1])	ACB MONT	GOMERY 2	20 8	1
	PLOT SCALE = 2,00000 ' / IN.	CHECKED - FML	REVISED -	DEPARTMENT OF TRANSPORTATION	ROUTE SBI 16A (CRESS CIRCLE)						NO. 72B73	1				
	PLOT DATE = Jul-24-2009 10;39;11AM	DATE - 01/2009	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROA	AD DIST. NO. ILL	LINOIS FED. AID PRO.			1







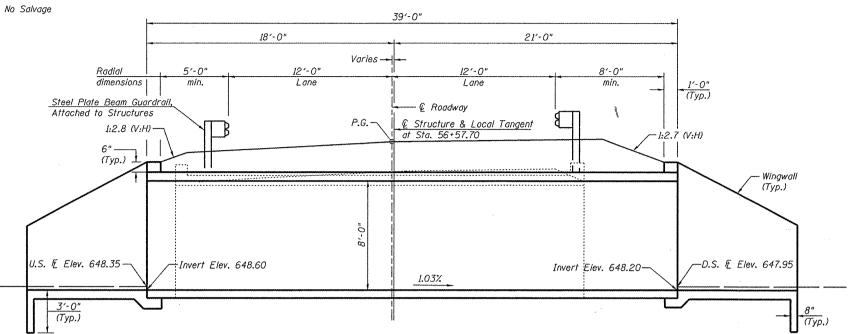


Bench Mark: Chiseled " " in east headwall of SN 068-7030 at south end of curve, Elev. 659,747 (NAVD 88).

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

Existing Structure S.N. 068-7030; built in 1965 as a single 6'x8' box culvert, 30' o. to o. headwall and with no skew. The existing structure is to be removed and replaced with a 39'-0", 6'x8' precast concrete box culvert.

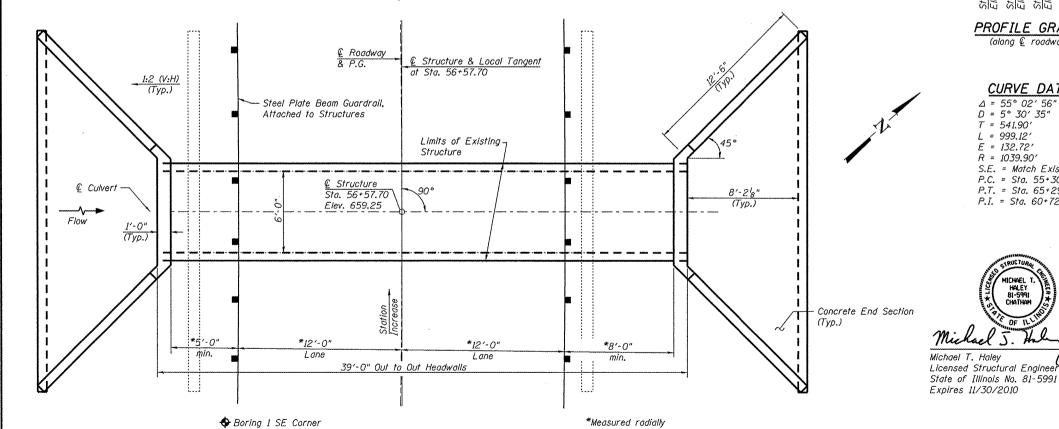
Road closure shall be used for construction.

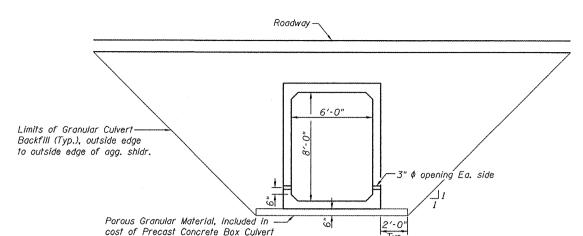


LONGITUDINAL SECTION

(Dimensions at Rt. L's to local tangent, unless noted otherwise) (Looking North)

PLAN





SECTION THRU BARREL



PROFILE GRADE (along & roadway)

CURVE DATA

 $\Delta = 55^{\circ} 02' 56'' (LT)$ D = 5° 30′ 35" T = 541.90'L = 999.12'E = 132.72'

R = 1039.90'S.E. = Match Existing P.C. = Sta. 55+30.30 P.T. = Sta. 65+29.42

P.I. = Sta. 60+72.20

LOADING HS20-44

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

DESIGN SPECIFICATIONS

DESIGN STRESSES

FIELD UNITS f'c = 3.500 psi

fy = 60,000 psi (reinforcement)

PRECAST UNITS f'c = 5,000 psi

fy = 65,000 psi (welded wire fabric)

GENERAL NOTES

- Precast Concrete Box Culvert Sections shall conform to requirement of Article 540.06 of the Standard Specifications and the applicable requirements of AASHTO M 273.
- 2. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60. See Special Provisions.
- 3. Reinforcement bars designated (E) shall be epoxy coated.
- 4. Lifting holes shall be filled with concrete plugs and mastic after boxsections are in place.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Precast Concrete Box Culvert 6'x 8'	Foot	39.0
Removal of Existing Structures	Each	1
Box Culvert End Sections	Each	2
Granular Culvert Backfill	Cu. Yd.	222.3

CULVERT DETAILS STATION 56+57.70

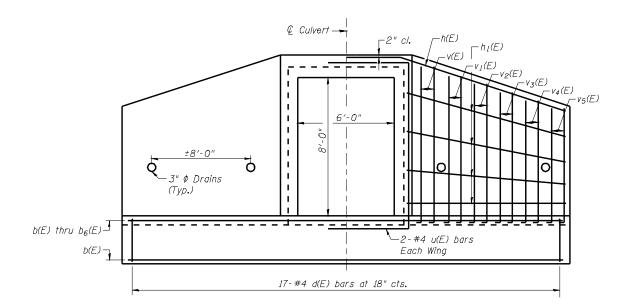
LIN ENGINEERING,LTD. Consulting Engineers

SHEET NO. 1 3 SHEETS

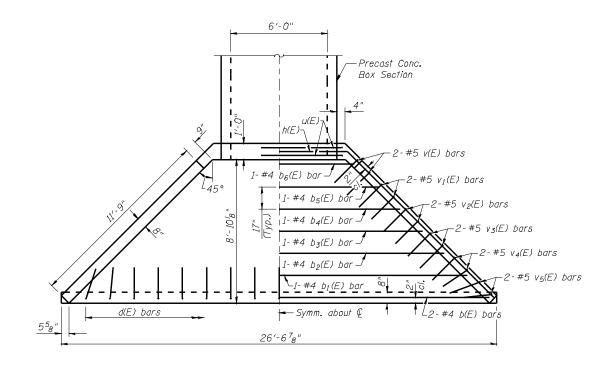
10-1-09

TOTAL SHEET NO. S.B.I RTE. SECTION COUNTY 20 16A (21[FR#1])ACB MONTGOMERY CONTRACT NO. 72B73 FED. ROAD DIST. NO. _ | ILLINOIS FED. AID PROJECT

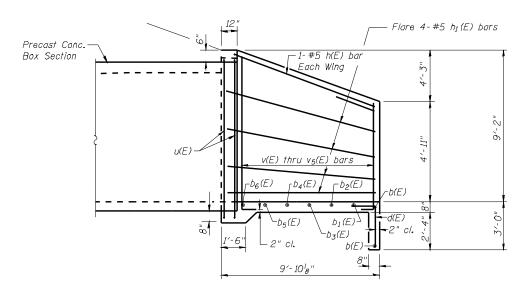
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



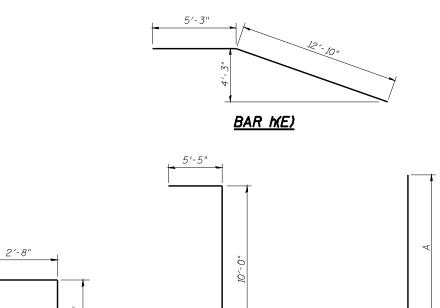
END ELEVATION



<u>PLAN</u> * Cut or bend to fit



HALF SIDE SECTION



BAR d(E) BAR U(E)

2′-6"

BARS V(E) THRU V5(E)

* BILL OF MATERIAL

(2-End Sections)

(2-2/10/366/10/13)									
Bar	No.	Size	Length	Shape					
b(E)	4	#4	26'-3"						
b1(E)	2	#4	24'-0"						
b2(E)	2	#4	21'-2"						
b3(E)	2	#4	18'-4"						
b4(E)	2	#4	<i>15′-6"</i>						
b5(E)	2	#4	12′-8"						
b ₆ (E)	2	#4	9′-10"						
d(E)	34	#4	5′-4"						
h(E)	4	#5	18′-1"	ĺ					
h1(E)	16	#5	12'-3"						
u(E)	8	#4	20'-10"						
v(E)	8	#5	11'-6"						
v ₁ (E)	8	#5	10'-9"						
V2(E)	8	#5	10'-0"						
v 3(E)	8	#5	9′-3"						
V4(E)	8	#5	8'-6"						
v 5(E)	8	#5	7′-9"						
	SI Concr		Cu. Yd.	26.3					
	cement	Bars,	Pound	1200					
Ероху	Coated		, cana	1200					

* For Information only

Bar	Α
v(E)	9'-0"
v ₁ (E)	8'-3"
V2(E)	7'-6"
v 3(E)	6'-9"
V4(E)	6'-0"
v 5(E)	5'-3"

CULVERT DETAILS STATION 56+57.70



SHEET	NO. 2
3 SH	HEETS

S.B.I. RTE.	SECTION					COUNTY	TOTAL SHEETS		SHEE NO.
16A	(21[FR#1])ACB					MONTGOMERY	20		14
						CONTRACT	NO.	72	B73
FED. RO	AD DIST.	NO.	ILLINOIS	FED.	ΑΙ	PROJECT			

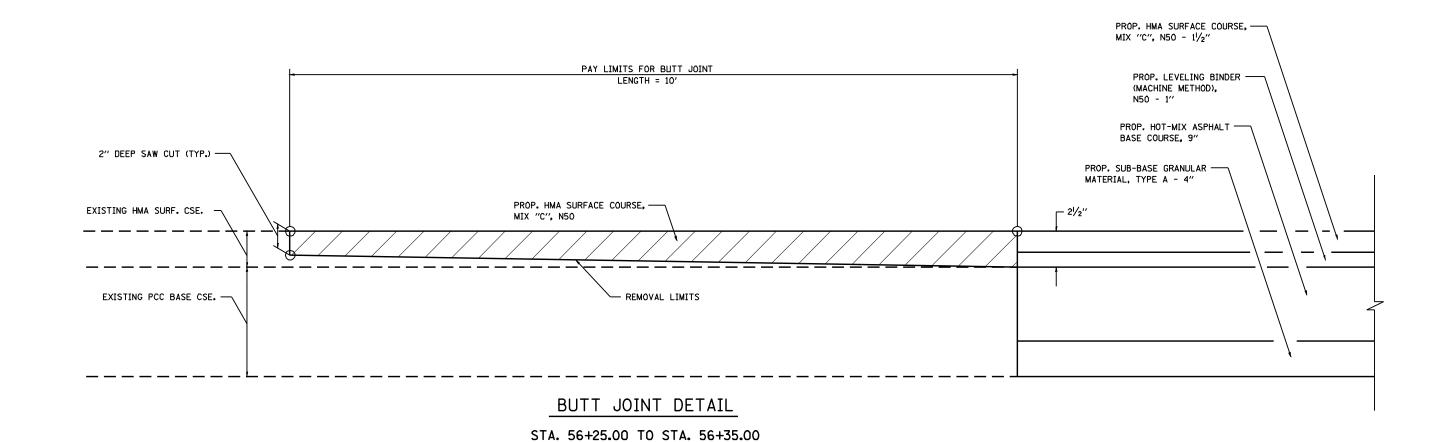
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

Illinois Departm of Transportation of Transportation Departm of Transportation Departm of Transportation Departm of Transportation Department of Transportation D	II.				(Old II	SOIL BORING LOG	age Date _	1 of 4708
COUNTY Montgomery DR	LLING 1	METHO	OD			HSA HAMMER TYPE	140#	Auto
STRUCT. NO. 068-7080 Pr Station 164-150 +4		D E P T H	E L O W 8	U C B Qn (tell)	M O I S T	Groundwater Elev: Verset Snounter Volume Completion Dry fi.	B L O W S	U M C O S I S Qu T
Light Brown and Gray Moist SILT LOAM to Grayish Brown Moist SILTY CLAY		_	1 2	11	17	Light Blue Grey and Brown Moist CLAY (Yill) (continued)	4 10	6.6 18
Greyish Brown Maist CLAY LOAM (Till)	655.80	_	2 4	1.2	14] =	19 4 12	B 6.2 16
			1	8-10		Boring Completed 532.30 - 35 Refer STA to P.C. 55+80.30 STA Increase to West	15	S-13
		<u> </u>	6	2,2 B	17	Refer Elevation to HM T-3002, Chieled Square on NH Headwall EM T-302=609.2*		
		10	1 3 4	LO B	13			
V. Moist	645.80	_	1 2 2	0.6 B	19			
Light Blue Grey and Brown Moist CLAY (Till)	020.00	-15	4 6 10	4.6 8-12	17			
			1 4	4.2	16			
			2 5	4.0	16			
		-20	10	4.0 B	120	40		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (2-Bulgs, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H. – Sampler Advanced By Weight of Hammer, W.O.P. – Advanced by Weight of Fpc, R.S. – Before Seating
The SPT (N value) is the sum of the last two blow values in each sempling zone (AASHTO T206) ESS, from 137 (Rev. 5-89)

E	IN ENGINEER Consulting Eng Chatham, Illinois	jineers	٤
Designed By: ADB	Checked By. MTH	Drawn By. TBP	

SHEET NO.3	S.B.I. RTE.	SECT	ΓΙΟΝ		COUNTY	TOTAL SHEETS	SHEE NO.
3,122, 110, 3	16A	(21[FR#	13)ACB		MONTGOMERY	20	15
3 SHEETS 16A (21[FR#1])ACB MONTGOMERY CONTRACT		NO. 72	B73				
	FED. RO	DAD DIST. NO.	ILLINOIS	FED. A	ID PROJECT		



STA. 56+80.00 TO STA. 56+90.00

NOTES FOR BUTT JOINT:

- 1. THE WORK SHALL BE DONE IN ACCORDANCE WITH ARTICLE 406.08.
- 2. SURFACE REMOVAL FOR BUTT JOINTS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR HOT-MIX ASPHALT SURFACE REMOVAL BUTT JOINT. THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 406.
- 3. THE SAW CUT JOINT AND THE BASE SHALL BE PRIMED JUST PRIOR TO THE PLACING OF HOT MIX ASPHALT MATERIAL. THE WORK WILL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF ARTICLE 406.06. THE HOT-MIX ASPHALT SURFACE REMOVAL BUTT JOINT PAY ITEM INCLUDES BOTH THE SAW CUT & PRIME COAT.
- 4. THE PAVEMENT SURFACE TO BE REMOVED MAY BE EITHER HMA OR P.C. CONCRETE. THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ARTICLE 440.04.
- 5. TRANSITION PROPOSED PAVEMENT AND SHOULDER WIDTHS FROM STA. 56+25.00 TO STA. 56+35.00 AND FROM STA. 56+80.00 TO STA. 56+90.00.

FILE NAME =	USER NAME = laughlinrl	DESIGNED - DMM	REVISED -		BUTT JOINT DETAIL	F.A.U. SECTION	COUNTY TOTAL SHEET NO.
c:\pw_work\PWIDOT\LAUGHLINRL\dØ156219\[672B73-sht-detail.dgn	DRAWN - DMM	REVISED -	STATE OF ILLINOIS	ROUTE SBI 16A (CRESS CIRCLE)	(21[FR#1])ACB	MONTGOMERY 20 16
	PLOT SCALE = 100.0000 '/ IN.	CHECKED - FML	REVISED -	DEPARTMENT OF TRANSPORTATION	NUUTE SDI IOA (GRESS GINGLE)		CONTRACT NO. 72B73
	PLOT DATE = Jul-24-2009 10:39:31AM	DATE - 01/2009	REVISED -		SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AI	

