

ROUTE NO.	SECTION	COUNTY	ADDITIONAL SHEETS	SHEET
C.H. 14	99-00076-11-BR	LAKE	66	1
FED. ROAD DIST. NO.		ILLINOIS PROJ. AND DISTRICT		

CONTRACT NO: 83763

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HIGHWAY STANDARDS

SEE SHEET 3

UTILITIES

COMMONWEALTH EDISON COMPANY
 1500 FRANKLIN BOULEVARD
 LIBERTYVILLE, IL 60048
 TERRY BLECK, ENGINEERING COORDINATOR
 847 816 5239

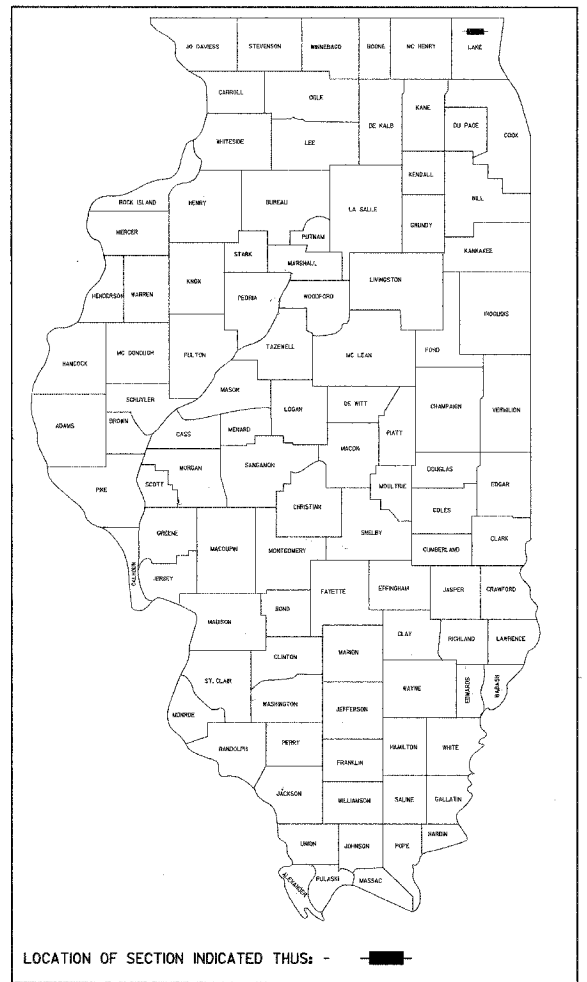
NORTH SHORE GAS COMPANY/PEOPLES ENERGY
 3001 GRAND AVE.
 WAUKEGAN, IL 60085
 MICHAEL SCHYMAN
 847 263 4666

NORTH SHORE SANITARY DISTRICT
 P.O. BOX 750, RUSSELL AVE.
 GURNEE, IL 60031
 MR. JOHN KRAUCUNAS
 847 623 6060

SBC
 1200 N. ARLINGTON HEIGHTS ROAD
 2ND FLOOR
 ARLINGTON HEIGHTS, IL 60004
 LEANNE RODGERS
 847 506 8082

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
BRIDGE REPLACEMENT AND REHABILITATION PROGRAM

F.A.U. 174
C.H. 14 /MILLBURN ROAD
OVER NORTH MILL CREEK
STRUCTURE NO. 049-3075
SECTION 99-00076-11-BR
PROJECT BRM-7003(952)
JOB NO.: C-91-334-00
LAKE COUNTY

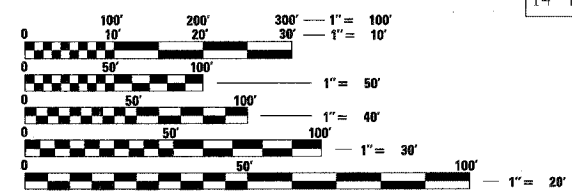


LOCATION OF SECTION INDICATED THUS: - [black rectangle] -

DESIGN FUNCTIONAL CLASSIFICATION:
 MINOR ARTERIAL
 DESIGN SPEED: 45MPH
 DESIGN ADT 12,750 (2025)
 DESIGN DESIGNATION: 9290 (2005) MINOR ARTERIAL 1.10 B(20)

SCALES

PLAN 0' = 20'
 PROFILE HORIZ. 0' = 20'
 PROFILE VERT. 0' = 5'
 CROSS SECTIONS 0' = 5'



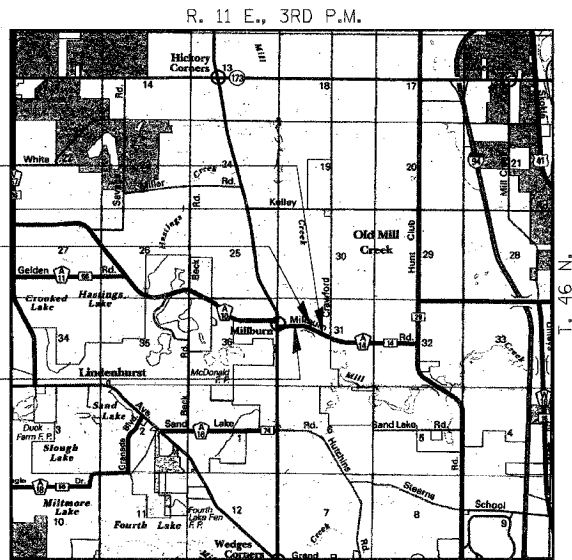
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123

IMPROVEMENT ENDS STATION 20+73.63

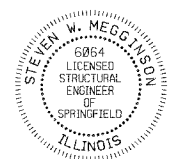
STA. 17+65 - SPECIAL BRIDGE DESIGN CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE. 3 SPANS 36'-0", 43'-0", 36'-0" RDWY: 14' BIKE PATH; SKEW = 10°

IMPROVEMENT BEGINS STATION 13+46.02



LAYOUT

APPROXIMATE SCALE: 0 1 MILE
 GROSS LENGTH = NET LENGTH OF SECTION = 727.61 FEET = 0.138 MILES



Expires 11-30-06

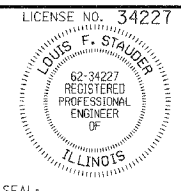
Steven W. Megginson 5-26-05
 ILLINOIS STRUCTURAL NO. 6064

APPROVED	<i>May 31</i>	20 05
	<i>Mark H. Buchler</i>	COUNTY ENGINEER
PASSED	<i>June 5</i>	20 05
	<i>Chas</i>	DISTRICT ENGINEER OF LOCAL ROADS & STREETS
APPROVED	<i>June 6</i>	20 05
	<i>Dina O'Keefe</i>	REGIONAL ENGINEER
		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DATE: *5/26/05*

BY: *Steven W. Megginson*

LICENSE EXPIRES: NOVEMBER 30, 2005



RLR

Rice, Berry and Associates
 A Division of Hampton, Lenzini and Renwick, Inc.
 Civil & Structural Engineers
 801 S. Durkin Drive
 Springfield, Illinois 62704
 217-546-3400

Account Number 12-07-0043
 P.O. Box 1036
 DuQuoin, Illinois 62832
 618-790-4637

FEDERAL DESIGN ENGINEER MICHAEL W. ADAMS 847-705-4179

GENERAL NOTES

SPECIFICATIONS, STANDARDS, AND SPECIAL PROVISIONS

ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," ADOPTED JANUARY 1, 2002 (HEREINAFTER REFERRED TO AS THE STANDARD SPECIFICATIONS); THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS," ADOPTED MARCH 1, 2005; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"; THE "STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS", FIFTH EDITION; THE DETAILS IN THE PLANS; AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.

ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE LATEST STANDARD OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH ARTICLE 107.14 OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR SHALL AT ALL TIMES PROVIDE PROTECTION FOR TRAFFIC AS CALLED FOR IN THE APPLICATION OF TRAFFIC CONTROL DEVICES, THE STANDARD SPECIFICATIONS AND THE PLANS.

UTILITIES

THE CONTRACTOR SHALL COOPERATE WITH THE COUNTY AND VILLAGE IF ANY UTILITY IMPROVEMENTS ARE REQUIRED BY THE COUNTY OR VILLAGE WITHIN THE DURATION OF THE CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL UTILITIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF ALL UTILITY EQUIPMENT. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS AS PROVIDED FOR IN THE STANDARD SPECIFICATIONS IF UTILITY RELOCATION, ADJUSTMENT, OR PROTECTION IS NECESSARY.

STAKING

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED THE ENGINEER SHALL BE NOTIFIED BEFORE THE MONUMENTS ARE REMOVED.

THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS, PROPERTY CORNERS, AND REFERENCE MARKERS UNTIL THE OWNER, HIS AGENT, OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

ALL RADII FOR PROPOSED CURB AND GUTTER ARE TO THE BACK OF CURB, UNLESS OTHERWISE NOTED. CURB AND GUTTER ELEVATIONS SHOWN AT POINTS OF CURVE, ETC., ARE TOP OF CURB, UNLESS OTHERWISE NOTED.

STRUCTURE OFFSET LOCATIONS GIVEN ON THE DETAILED PLANS ARE TO THE FOLLOWING POINTS: A) FOR STRUCTURES FALLING IN THE CURB LINE--TO THE BACK OF CURB; B) FOR ALL OTHER STRUCTURES--TO THE CENTER OF THE STRUCTURE.

ALL ELEVATIONS ARE ON U.S.G.S. DATUM.

ALL OFFSET LOCATIONS GIVEN ON THE DETAILED PLANS FOR STRUCTURES, BACKS OF CURB, ETC. ARE FROM THE CENTERLINE AS SHOWN ON THE PLANS.

SEWERS AND WATER MAINS

ANY LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS OR DRAINAGE STRUCTURES WHICH OBSTRUCTS THE NATURAL FLOW OF WATER SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. PRIOR TO ACCEPTANCE OF THE IMPROVEMENT, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN IN AN OPERATING CONDITION TEMPORARY OUTLETS AND CONNECTIONS FOR ALL DRAINS, SEWERS, AND CATCH BASINS. THE CONTRACTOR SHALL PROVIDE FACILITIES WHICH HAVE THE CAPACITY TO RECEIVE AND DISCHARGE THE STORM WATER FLOW RATES NORMALLY ACCEPTED AND RELEASED BY EXISTING DRAINAGE FACILITIES. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

THE COST OF INTERCONNECTIONS BETWEEN THE PROPOSED AND EXISTING SEWER SYSTEMS AND PROPOSED AND EXISTING WATER MAIN SYSTEMS SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES OF THE PROPOSED SYSTEM.

ALL FRAMES, GRATES, LIDS, AND BOXES SCHEDULED TO BE REMOVED FROM EXISTING STRUCTURES SHALL REMAIN THE PROPERTY OF THE COUNTY OR VILLAGE, AS APPLICABLE. ANY ITEMS DAMAGED DURING REMOVAL SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE. THE COST OF SALVAGING EXISTING FRAMES, GRATES, LIDS, OR BOXES AND/OR STOCKPILING THEM ON THE JOB SITE FOR PICK-UP BY THE COUNTY OR VILLAGE OR DELIVERY TO THE COUNTY OR VILLAGE MAINTENANCE YARD SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

ANY OF THESE MATERIALS CONSIDERED SUITABLE FOR SALVAGE BY THE ENGINEER SHALL BE STORED WITHIN THE RIGHT-OF-WAY FOR LATER REMOVAL BY THE LAKE COUNTY DIVISION OF TRANSPORTATION. UNUSABLE MATERIAL SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY IN ACCORDANCE WITH SECTION 202.03 OF THE "STANDARD SPECIFICATIONS" AND AS DIRECTED BY THE ENGINEER.

ALL FRAMES WITH CLOSED LIDS TO BE FURNISHED AS PART OF THIS CONTRACT SHALL HAVE CAST INTO THE LID ONE OF THE FOLLOWING WORDS: FOR STORM SEWER STRUCTURES--"STORM". FOR SANITARY SEWER STRUCTURES--"SANITARY". FOR WATER SYSTEM STRUCTURES--"WATER". ANY ADDITIONAL COST FOR THIS REQUIREMENT SHALL BE CONSIDERED INCIDENTAL TO THE FRAME AND CLOSED LID PROVIDED.

BITUMINOUS OR CONCRETE PAVEMENT CROSSINGS SHALL NOT BE LEFT IN GRAVEL OVERNIGHT. THIS WILL INCLUDE THE MAIN ROAD, SIDE STREETS, PRIVATE ENTRANCES, COMMERCIAL ENTRANCES AND PARKING AREAS. TEMPORARY BITUMINOUS PATCHING AT THE CONTRACTOR'S EXPENSE MAY BE USED IN LIEU OF IMMEDIATE PAVEMENT REPLACEMENT.

AT LOCATIONS WHERE THE PROPOSED STORM SEWER CROSS OVER UTILITIES, A 4 INCH STYROFOAM CUSHION SHALL BE PLACED UNDER THE STORM SEWER WHERE DIRECTED TO DO SO BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

FRAME ELEVATIONS GIVEN ON THE PLANS ARE ONLY TO ASSIST THE CONTRACTOR IN DETERMINING THE APPROXIMATE OVERALL HEIGHT OF THE STRUCTURE. FRAMES ON ALL STRUCTURES WILL BE ADJUSTED TO THE FINAL ELEVATION AND CROSS SLOPE OF THE AREA IN WHICH THEY ARE LOCATED. THIS ADJUSTMENT SHALL BE INCLUDED IN THE COST OF THE STRUCTURE.

ALL STORM SEWERS SHALL BE RCCP, CLASS IV, UNLESS NOTED OTHERWISE ON THE PLAN.

WATER MAIN SHALL HAVE A MINIMUM COVER OF FIVE AND ONE-HALF (5 1/2) FEET.

BACKFILL

ALL TRENCH BACKFILL QUANTITIES FOR STORM AND SANITARY SEWER AND WATER MAIN HAVE BEEN COMPUTED AND SHALL BE PAID FOR IN ACCORDANCE WITH THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, BUREAU OF CONSTRUCTION TRENCH BACKFILL TABLE.

MISCELLANEOUS

THE CONTRACTOR SHALL MAINTAIN EXISTING SIDE STREET ACCESS, EXISTING DRIVEWAY ACCESS, AND PEDESTRIAN ACCESS TO ADJUTING PROPERTY AT ALL TIMES DURING CONSTRUCTION OF THE PROJECT. THIS ITEM SHALL BE INCLUDED IN THE ITEM "AGGREGATE FOR TEMPORARY ACCESS".

SAWING OF REMOVAL ITEMS AS NOTED ON THE PLANS, SPECIFIED IN THE STANDARD SPECIFICATIONS, OR AS REQUIRED BY THE ENGINEER SHALL BE INCLUDED IN THE COST OF THE ITEM BEING REMOVED.

AT ALL BUTT JOINT LOCATIONS, THE EXISTING SURFACE SHALL BE CUT TO A MINIMUM THICKNESS OF ONE AND ONE-HALF (1-1/2) INCHES.

THE THICKNESSES OF BITUMINOUS MIXTURES SHOWN IN THE PLANS ARE NOMINAL. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE SURFACES OR BASES ON WHICH THE BITUMINOUS MIXTURES ARE TO BE PLACED.

PROTECTIVE COAT SHALL BE APPLIED TO ALL GUTTER FLAGS, FACE AND TOP OF CURB, OR CURB AND GUTTER, P.C.C. SIDEWALK, P.C.C. DRIVEWAY PAVEMENT, AND AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING FRESH CONCRETE FROM DAMAGE AND VANDALISM. ANY DAMAGED OR VANDALIZED CONCRETE SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THIS CONTRACT.

WHERE NEW WORK MEETS EXISTING FEATURES TO REMAIN, FIELD CHECK ALL DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH CONSTRUCTION. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH ALL STATE REGULATIONS REGARDING AIR, WATER, AND NOISE POLLUTION. THE CONTRACTOR IS PROHIBITED FROM BURNING ANY MATERIAL WITHIN OR ADJACENT TO THE IMPROVEMENT.

ALL DISTURBED AREAS WITHIN THE PROJECT THAT ARE NOT OTHERWISE SURFACED SHALL BE SODDED. SOD LIMITS SHOWN ON THE PLANS ARE THE MAXIMUM PAY WIDTHS FOR PAYMENT PURPOSES.

ALL TYPE I AND II BARRICADES SHALL BE WEIGHTED DOWN WITH TWO SANDBAGS EACH.

THE CONTRACTOR SHALL PREPARE THE SUBGRADE IN ACCORDANCE WITH ARTICLE 301.03 OF THE STANDARD SPECIFICATIONS PRIOR TO THE REMOVAL OF ANY UNSTABLE MATERIALS.

EARTH EXCAVATION

THE REMOVAL OF BITUMINOUS PAVEMENT, POZZOLANIC AND AGGREGATE BASE COURSE SHALL BE CONSIDERED AS EARTH EXCAVATION.

EXCAVATION REQUIRED TO CLEAN SIDEROAD DITCHES, CONSTRUCT DRIVEWAYS OR CONSTRUCT SIDEROAD APPROACHES SHALL BE CONSIDERED INCIDENTAL TO EARTH EXCAVATION.

ALL SUITABLE EXCESS MATERIAL FROM SEWER TRENCHES, SIDEROADS, ENTRANCES OR OTHER NECESSARY EXCAVATIONS SHALL BE USED IN THE CONSTRUCTION OF THE ROADWAY. PLACEMENT AND COMPACTION OF THIS MATERIAL SHALL BE CONSIDERED INCIDENTAL TO EARTH EXCAVATION AND NO ADDITION COMPENSATION WILL BE ALLOWED.

SIGNS

THE CONTRACTOR WILL BE REQUIRED TO RELOCATE OR REMOVE AND REPLACE SIGNS WHICH INTERFERE WITH HIS CONSTRUCTION OPERATIONS AND TO TEMPORARILY RESET ALL SUCH SIGNS DURING CONSTRUCTION OPERATIONS. THIS WORK WILL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.

ALL WORK INVOLVING SIGNS SHALL BE GOVERNED BY THE FOLLOWING REQUIREMENTS:

1. SIGNS SHALL NOT BE MOVED UNTIL PROGRESS OF WORK NECESSITATES IT.
2. EVERY SIGN REMOVED MUST BE RE-ERECTED AT A TEMPORARY LOCATION IN A WORKMANLIKE MANNER AND BE VISIBLE TO TRAFFIC FOR WHICH IT IS INTENDED. ALL SUCH SIGNS MUST BE MAINTAINED STRAIGHT AND CLEAN FOR THE DURATION OF THE TEMPORARY SETTING.
3. ALL SIGNS SHALL BE RE-ERECTED IN PERMANENT LOCATIONS AS THE ROADWAY IS COMPLETED. HORIZONTAL LOCATION FROM THE EDGE OF PAVEMENT SHALL BE AS DESIGNATED BY THE ENGINEER.
4. ALL UNUSED SIGNS WILL BE RETURNED TO THE COUNTY.
5. LONGER POSTS MAY BE REQUIRED AT SOME TEMPORARY OR PERMANENT SIGN LOCATIONS TO MAINTAIN PROPER SIGN ELEVATIONS.

THE CONTRACTOR WILL BE REQUIRED TO TEMPORARILY RESET ALL EXISTING MAILBOXES WHICH INTERFERE WITH HIS CONSTRUCTION OPERATIONS, AND AFTER COMPLETION OF ROADWAY CONSTRUCTION, TO SET THEM IN THEIR PERMANENT LOCATIONS AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE IN CONFORMANCE WITH ARTICLE 107.20 OF THE STANDARD SPECIFICATIONS, AND THE COST WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

DRIVEWAYS OR ENTRANCES

- A) EXISTING BITUMINOUS, CONCRETE, AND GRAVEL DRIVEWAYS AND ENTRANCES SHALL BE RECONSTRUCTED TO THE RIGHT-OF-WAY LINE WITH BITUMINOUS CONCRETE SURFACE COURSE AND AGGREGATE BASE COURSE AS SCHEDULED IN THE PLANS.
- B) EXISTING FIELD ENTRANCES SHALL BE BUILT UP IN PLACE TO THE RIGHT-OF-WAY WITH AGGREGATE BASE COURSE.
- C) THE CONTRACTOR SHALL CONSTRUCT ALL COMMERCIAL AND PRIVATE DRIVEWAYS IN ACCORDANCE WITH THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

SEDIMENTATION AND EROSION CONTROL NOTES

SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL-STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES.

SOIL-EROSION AND SEDIMENT-CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.

DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN 14 CALENDAR DAYS OF THE END OF THE ACTIVE HYDROLOGIC DISTURBANCE, OR REDISTURBANCE.

AREAS OR EMBANKMENTS HAVING SLOPES GREATER THAN OR EQUAL TO 3H:1V SHALL BE STABILIZED WITH SOD, MAT, OR BLANKET IN COMBINATION WITH SEEDING.

EROSION-CONTROL BLANKET SHALL BE REQUIRED ON ALL INTERIOR DETENTION BASIN SIDE SLOPES BETWEEN NORMAL WATER LEVEL AND HIGH-WATER LEVEL.

ALL STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT-CONTROL MEASURE.

ALL TEMPORARY EROSION- AND SEDIMENT-CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.

ALL TEMPORARY AND PERMANENT EROSION-CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED BY THE CONTRACTOR AS NEEDED. THE PROPERTY OWNER SHALL BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE AND REPAIR.

A STABILIZED MAT OF AGGREGATE UNDERLAIN WITH FILTER CLOTH (OR OTHER APPROPRIATE MEASURE) SHALL BE LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT-OF-WAY, STREET, ALLEY, OR PARKING AREA. ANY SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY, OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT-DISPOSAL AREA.

SOIL STOCKPILES SHALL NOT BE LOCATED IN A FLOOD-PRONE AREA OR A DESIGNATED BUFFER PROTECTING WATERS OF THE UNITED STATES.

IF DE-WATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT-CONTROL MEASURE (E.G., SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURE).

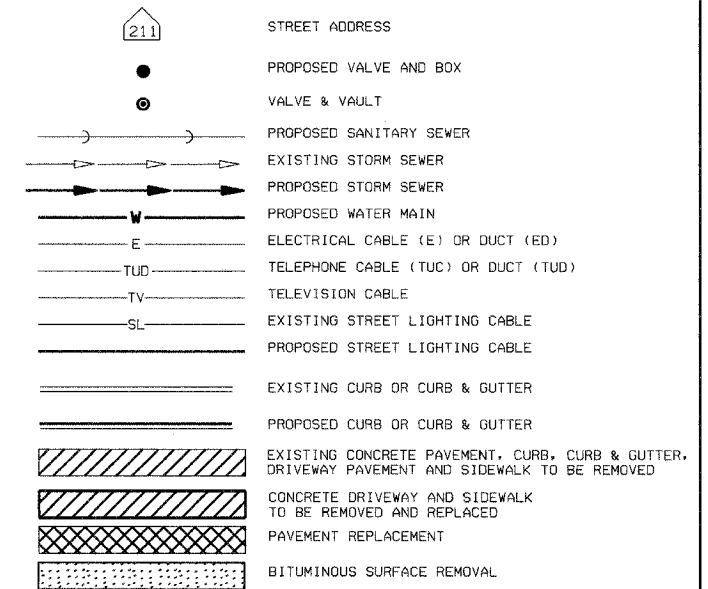
THE EROSION-CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 14	99-00076 -11-BR	LAKE	66	2
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

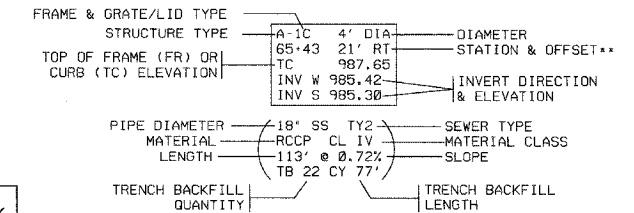
CONTRACT NO: 83763

SUPPLEMENTAL LEGEND

SEE STANDARDS FOR ADDITIONAL INFORMATION



SEWER STRUCTURE AND PIPE NOTATION

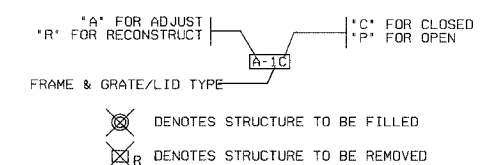


NOTE:
-OFFSET FOR STRUCTURES FALLING IN THE CURB LINE IS TO BACK OF CURB
-OFFSET FOR ALL OTHER STRUCTURES IS TO CENTER OF STRUCTURE.

STRUCTURE DIAMETER	CENTER OF BASE STRUCTURE LOCATION FROM BACK OF CURB			
	B-6.24 C&G TY 24 F&G	B-6.12 C&G TY 11V F&G		
2 FT	CONE 1.52 FT	SLAB -	CONE 0.79 FT	SLAB -
3 FT	1.02 FT	1.18 FT	0.29 FT	0.46 FT
4 FT	0.52 FT	0.68 FT	-0.21 FT	-0.04 FT
5 FT	0.02 FT	0.18 FT	-0.71 FT	-0.54 FT
6 FT	-0.48 FT	-0.32 FT	-1.21 FT	-1.04 FT

1) POSITIVE VALUE INDICATES TOWARD CENTERLINE; NEGATIVE VALUE INDICATES AWAY FROM CENTERLINE.
2) ALL FLAT TOPS AND CONES ARE ASSUMED TO BE ECCENTRIC
3) FLAT TOPS AND CONES ARE TO BE TURNED SO THAT THE FRAME IS CLOSEST TO THE EDGE OF PAVEMENT WHERE SPACE PERMITS. IN THE CASE OF CONFLICT ADJUSTMENTS TO THESE VALUES WILL BE REQUIRED.

STRUCTURE ADJUSTMENT/RECONSTRUCTION/REMOVAL NOTATION



CONTRACT NO: 83763

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE:		TOTAL QUANTITY
CODE NO.	ITEM	UNIT	X020-2A	1000	
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT		174	174
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT		46	46
20200100	EARTH EXCAVATION	CU YD		178	178
> 20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD		50	50
20300100	CHANNEL EXCAVATION	CU YD		1,070	1,070
> 20400800	FURNISHED EXCAVATION	CU YD		435	435
20700220	POROUS GRANULAR EMBANKMENT	CU YD	310		310
21301052	EXPLORATION TRENCH 52" DEPTH	FOOT		50	50
25000350	SEEDING, CLASS 7	ACRE		0.5	0.5
25200200	SUPPLEMENTAL WATERING	UNIT		3.3	3.3
28000400	PERIMETER EROSION BARRIER	FOOT		1,361	1,361
> 28000500	INLET AND PIPE PROTECTION	EACH		1	1
28100207	STONE RIPRAP, CLASS A4	TON	676	7	683
28200230	FILTER FABRIC	SQ YD	843	9	852
31100300	SUB-BASE GRANULAR MATERIAL, TYPE A 4"	SQ YD		298	298
31101200	SUB-BASE GRANULAR MATERIAL, TYPE B 4"	SQ YD		565	565
40200100	AGGREGATE SURFACE COURSE, TYPE A	TON		20	20
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON		512	512
40600300	AGGREGATE (PRIME COAT)	TON		4	4
40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD		508	508
40600990	TEMPORARY RAMP	SQ YD		95	95
> 42001165	BRIDGE APPROACH PAVEMENT	SQ YD		274	274
42001300	PROTECTIVE COAT	SQ YD	1,000		1,000
> 42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD		56	56
42300300	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 7 INCH	SQ YD		53	53
44000100	PAVEMENT REMOVAL	SQ YD		455	455
44004250	PAVED SHOULDER REMOVAL	SQ YD		1,073	1,073
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT		1,080	1,080
50100100	REMOVAL OF EXISTING STRUCTURES	EACH		1	1
50300100	FLOOR DRAINS	EACH	18		18
50300225	CONCRETE STRUCTURES	CU YD	216.4		216.4
50300255	CONCRETE SUPERSTRUCTURE	CU YD	396.5		396.5
> 50300260	BRIDGE DECK GROOVING	SQ YD		722	722
> 50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	152,800		152,800
50900500	ALUMINUM RAILING	FOOT	344		344
51201600	FURNISHING STEEL PILES HP12x53	FOOT	3,785		3,785
51202700	DRIVING STEEL PILES	FOOT	3,785		3,785
51203600	TEST PILE STEEL HP12x53	EACH	2		2
51204315	CONCRETE ENCASMENT	CU YD	8.4		8.4
51205200	TEMPORARY SHEET PILING	SQ FT	2,060		2,060
51500100	NAME PLATES	EACH	1		1
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH		1	1
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT		12	12
> 60255500	MANHOLES TO BE ADJUSTED	EACH		1	1
60260100	INLETS TO BE ADJUSTED	EACH		1	1
60900315	TYPE D INLET BOX, STANDARD 609006	EACH		1	1
> 60900515	CONCRETE THRUST BLOCKS	EACH		1	1
63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	200		200
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4		4
> 63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4		4
> 63304335	TERMINAL SECTION REMOVAL AND SALVAGE	EACH	8		8
> 67100100	MOBILIZATION	L SUM		1	1
> 70101700	TRAFFIC CONTROL AND PROTECTION	L SUM		1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	4		4
70106700	TEMPORARY RUMBLE STRIP	EACH	6		6
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	324		324
> 70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1,800		1,800
> 70300230	TEMPORARY PAVEMENT MARKING - LINE 5"	FOOT	1,800		1,800
> 70300630	TEMPORARY PAINT PAVEMENT MARKING LINE 5"	FOOT	1,800		1,800
> 70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	858		858
70400100	TEMPORARY CONCRETE BARRIER	FOOT	360		360
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	320		320
> 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,438		1,438
> 78001120	PAINT PAVEMENT MARKING - LINE 5"	FOOT	1,896		1,896
> 78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	362		362
> 78005120	EPOXY PAVEMENT MARKING - LINE 5"	FOOT	362		362
> 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	38		38
> 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	8		8
> 78200400	GUARDRAIL REFLECTORS	EACH	10		10
> 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4		4
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1,500		1,500
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	46		46

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE:		TOTAL QUANTITY
CODE NO.	ITEM	UNIT	X020-2A	1000	
> X0632001	CLEAR PROTECTIVE COATING FOR CONCRETE	SQ FT	7,220		7,220
> X2800500	INLET PROTECTION, SPECIAL	EACH		5	5
> X3550110	BITUMINOUS BASE COURSE SUPERPAVE 4 1/2"	SQ YD		355	355
> X3550300	BITUMINOUS BASE COURSE SUPERPAVE 6"	SQ YD		439	439
> X3550700	BITUMINOUS BASE COURSE SUPERPAVE 10"	SQ YD		450	450
> X4066414	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50	TON		38	38
> X4066426	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N70	TON		216	216
> X4066614	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, 1L-19.0, N50	TON		34	34
> X4066770	LEVELING BINDER (MACHINE METHOD), SUPERPAVE N70	TON		98	98
> X4080020	INCIDENTAL BITUMINOUS SURFACING, SUPERPAVE, N50	TON		8	8
> X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1		1
> X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1		1
> X6700405	ENGINEER'S FIELD OFFICE, TYPE A (MODIFIED)	CAL MO		12	12
> XX002868	TEMPORARY DITCH CHECKS (SPECIAL)	EACH		1	1
> XX004878	MAINTENANCE OF TEMPORARY EROSION CONTROL SYSTEMS	L SUM		1	1
> Z0002600	BAR SPLICERS	EACH	438		438
> Z0013798	CONSTRUCTION LAYOUT	L SUM		1	1
> Z0076600	TRAINEES	hour		500	500
> XX004236	AGGREGATE SHOULDERS, TYPE A (SPECIAL)	TON		20	20
> XX004334	AGGREGATE BASE COURSE, TYPE A (SPECIAL)	TON		123	123
> XX004337	ARCHITECTURAL FINISH FOR CONCRETE SURFACES	SQ FT	2,410		2,410
> XX004340	LIMESTONE CAP	EACH	33		33
> Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH		2	2
> Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH		2	2
> XX004346	TIMBER RAIL	FOOT	254		254
> XX004343	SEEDING (COMPLETE)	SQ YD		2,210	2,210
> XX004344	SODDING (COMPLETE)	SQ YD		225	225
> XX005543	STEEL PLATE BEAM GUARDRAIL REMOVAL & SALVAGE	FOOT		500	500
> XX006345	TURBIDITY BARRIER	FOOT		50	50

> SEE SPECIAL PROVISIONS
 * SPECIALTY ITEM
 Δ Y080

HIGHWAY STANDARDS	
420001-06	PAVEMENT JOINTS
420401-05	BRIDGE APPROACH PAVEMENT
421001-01	BAR REINFORCEMENT FOR CRC PAVEMENT
515001-02	NAME PLATE FOR BRIDGES
609006-02	BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
630001-05	STEEL PLATE BEAM GUARDRAIL
630301-03	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-05	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-02	REFLECTOR & TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER & MOUNTING DETAILS
701006-02	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO PAVEMENT EDGE FOR SPEEDS ≥ 45 MPH
701306-01	LANE CLOSURE, 2L, 2W, SLOW MOVING DAY ONLY OPERATIONS, FOR SPEEDS ≥ 45 MPH
701321-08	LANE CLOSURE, 2L, 2W BRIDGE REPAIR WITH BARRIER
701326-02	LANE CLOSURE 2L, 2W, PAVEMENT WIDENING FOR SPEEDS ≥ 45 MPH
702001-05	TRAFFIC CONTROL DEVICES
704001-02	TEMPORARY CONCRETE BARRIER

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 DuQuoin, Illinois 62832
 618-790-4637
 Account Number 12-07-0043-1
 Date: 08/05/04
 DESIGNED: S.W.M. CHECKED: S.W.M. DRAWN: TWK

SUMMARY OF QUANTITIES AND STANDARDS LIST
 SECTION 99-00076-11-BR
 C.H. 14 / MILLBURN ROAD
 LAKE COUNTY

CONTRACT NO: 83763

STATION	OFFSET FEET	LT/RT	QUANTITY UNIT
15+75.41	53.45	LT	14
15+94.23	58.20	LT	10
16+11.40	53.32	LT	14
16+22.54	54.39	LT	14
17+89.37	31.80	LT	10
18+06.60	40.00	LT	8
18+08.48	38.30	LT	12
18+14.07	37.87	LT	12
18+17.48	39.72	LT	6
18+29.34	40.72	LT	14
18+34.08	39.36	LT	8
18+36.86	49.76	LT	10
18+50.06	51.20	LT	8
18+60.10	45.09	LT	8
18+62.62	49.05	LT	12
18+64.89	55.12	LT	14
TOTAL			174

STATION	OFFSET FEET	LT/RT	QUANTITY UNIT
15+88.82	53.90	LT	28
18+48.42	40.01	LT	18
TOTAL			46

LOCATION	QUANTITY
RT. STA. 14+74 TO STA. 17+54	308
LT. STA. 14+17 TO STA. 14+44	27
RT. STA. 17+89 TO STA. 20+00	239
LT. STA. 14+54 TO STA. 17+54	379
RT. STA. 20+19 TO 20+74	55
LT. STA. 17+89 TO STA. 20+74	353
TOTAL	1,361

LOCATION	LT/RT	CLASS 2A SO YD	CLASS 7 ACRES	NITROGEN 90 LBS/ACRE	POTASSIUM 90 LBS/ACRE	EROSION CONTROL BLKT (SPC) SO YD	TOPSOIL 4" SO YD
STA. 14+14 TO STA. 14+44	LT	36.90	0.01	0.69	0.69	36.90	36.90
STA. 14+53 TO STA. 17+22	LT	677.13	0.14	12.59	12.59	677.13	677.13
STA. 14+75 TO STA. 17+55	RT	365.66	0.08	6.80	6.80	365.66	365.66
STA. 17+83 TO STA. 20+74	LT	683.55	0.14	12.71	12.71	683.55	683.55
STA. 17+90 TO STA. 20+03	RT	322.06	0.07	5.99	5.99	322.06	322.06
STA. 20+19 TO STA. 20+74	RT	121.24	0.03	2.25	2.25	121.24	121.24
TOTAL		2206.54	0.46	41.03	41.03	2206.54	2206.54
USE		2210	0.5	41	41	2210	2210

STATION	OFFSET FEET	LT/RT	INLET PROTECTION, SPECIAL EACH	INLET & PIPE PROTECTION EACH
13+45.78	24.76	RT	1	
14+17.93	22.76	LT	1	
14+17.98	24.20	RT	1	
18+91.54	23.50	RT	1	
19+80.53	24.65	RT	1	
20+29.52	27.87	RT		1
TOTAL			5	1

STATION	OFFSET FEET	LT/RT	QUANTITY
15+06.31	30.29	RT	1
TOTAL			1

LOCATION	SOD SO YD	SUPPLEMENTAL WATERING UNIT	NITROGEN 90 LBS/ACRE	POTASSIUM 90 LBS/ACRE
**	225	3.3	.5	.5

** FOR BIDDING PURPOSES

LOCATION	STL PTL BEAM GUARDRAIL TYPE A	TRAFFIC BAR, TERM. TYPE 1, SPC. (TANGENT)	TRAFFIC BAR, TERM. TYPE 6	TERMINAL MARKER DIRECT APPLIED	GUARDRAIL REFLECTORS	STL PTL BEAM GR REMOVAL & SALVAGE	TERMINAL SECTION REMOVAL & SALVAGE	TIMBER RAIL (2X6)
23' RT. STA. 15+38 TO 22' RT. STA. 15+88	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	FOOT
22' RT. STA. 15+88 TO 22' RT. STA. 16+63	75	1						
22' RT. STA. 16+63 TO 21.5' RT. STA. 16+94			1					
RT. STA. 15+38				1				
21.5' LT. STA. 15+86 TO 20.5' LT. STA. 16+36		1						45
20.5' LT. STA. 16+36 TO 20.5' LT. STA. 16+61	25							25
20.5" LT. STA. 16+61 TO 21' LT. STA. 16+92			1					32
LT. STA. 15+86				1				
21' LT. STA. 18+34 TO 20.5' LT. STA. 18+65			1					32
20.5' LT. STA. 18+65 TO 20.5' LT. STA. 19+40	75							75
20.5' LT. STA. 19+40 TO 21.5' LT. STA. 19+90		1						45
LT. STA. 19+90				1				
21' RT. STA. 18+43 TO 21.5' RT. STA. 18+74			1					
21.5' RT. STA. 18+74 TO 21.5' RT. STA. 18+99	25							
21.5' RT. STA. 18+99 TO 22.5' RT. STA. 19+49		1						
RT. STA. 19+49				1				
RT. STA. 15+87 TO RT. STA. 19+26					5			
LT. STA. 16+10 TO LT. STA. 19+40					5			
RT. STA. 15+72.93 TO RT. STA. 17+47.93						175		
LT. STA. 16+76.60 TO LT. STA. 17+51.6						75		
LT. STA. 17+90.10 TO LT. STA. 19+02.6						112.5		
RT. STA. 17+93.15 TO RT. STA. 19+30.65						137.5		
RT. STA. 15+35.43 TO RT. STA. 15+72.93							1	
LT. STA. 16+39.1 TO LT. STA. 16+76.6							1	
RT. STA. 19+30.65 TO RT. STA. 19+68.15							1	
LT. STA. 19+02.6 TO LT. STA. 19+40.10							1	
LT. STA. 17+51.60							1	
RT. STA. 17+47.53							1	
LT. STA. 17+90.10							1	
RT. STA. 17+93.15							1	
TOTAL	200	4	4	4	10	500	8	254

LOCATION	EARTH EXCAVATION (CU YD)	SHRINKAGE FACTOR	PERCENT USED	AVAILABLE EXCAVATION (CU YD)	EMBANKMENT REQUIRED (CU YD)	EARTHWORK BALANCE (CU YD)
PRE-STAGE 1						
STA. 13+46.02 TO STA. 17+50.85	46	15%	100%	39	0	39
STA. 17+91.79 TO STA. 20+73.63	41	15%	100%	35	0	35
STAGE 1						
STA. 13+46.02 TO STA. 17+50.85	40	15%	100%	34	591	-557
STA. 17+91.79 TO STA. 20+73.63	28	15%	100%	24	529	-505
CHANNEL EXCAVATION	475	15%	70%	283	0	283
STAGE 2						
STA. 13+46.02 TO STA. 17+06.33	16	15%	100%	14	62	-48
STA. 18+23.88 TO STA. 20+73.63	7	15%	100%	6	34	-28
CHANNEL EXCAVATION	595	15%	70%	354	0	354
ENTRANCES					8	-8
TOTAL	1,248				1,224	-435

* AVAILABLE EXCAVATION = EXC. x (1-SHRINKAGE FACTOR) x % USED

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SCHEDULE OF QUANTITIES
 SECTION 99-00076-11-BR
 C.H. 14 / MILLBURN ROAD
 LAKE COUNTY

CONTRACT NO: 83763

ROADWAY SCHEDULE

LOCATION	BRIDGE APPROACH PAVEMENT	FLEXIBLE PAVEMENT CONNECTOR	PCC DRIVEWAY PAVEMENT	SUB-BASE GRAN. MATL. TYPE A	SUB-BASE GRAN. MATL. TYPE B	BITUMINOUS SURF. CSE. SUPERPAVE MIX C N50	BITUMINOUS SURF. CSE. SUPERPAVE MIX D N70	BITUMINOUS BINDER CSE. SUPERPAVE IL-19.0 N50	LEVELING BINDER M M SUPERPAVE N70	AGGREGATE SURFACE COURSE. TYPE A	AGGREGATE SHOULDER. TYPE A (SPECIAL)	AGGREGATE BASE CSE. TYPE A (SPECIAL)	BIT. SURFACE REMOVAL BUTT-JOINT	BIT. BASE CSE. SUPERPAVE	BIT. BASE CSE. SUPERPAVE	BIT. BASE CSE. SUPERPAVE	INCIDTL. BIT. SURFACING SUPERPAVE N50	BIT. MATERIAL PRIME COAT	AGGREGATE PRIME COAT	STRIP REFLECTIVE CRACK CONTROL	PAVED SHOULDER REMOVAL	PAVEMENT REMOVAL	TEMPORARY RAMP	
	SQ YD	SQ YD	SQ YD	4"	4"	TON	TON	TON	TON	TON	TON	TON	SQ YD	SQ YD	SQ YD	SQ YD	TON	GAL	TON	FOOT	SQ YD	SQ YD	SQ YD	
PRESTAGE 1																								
STA. 13+46.02 TO STA. 17+65					185									153								185		
STA. 17+65 TO STA. 20+73.63					173									142								173		
STAGE 1																								
STA. 13+46.02 TO STA. 17+65	58.30	12.30	26.70	64.85	111	15	4	14	52		8	50	230	83	214			161			325	235	81	24
STA. 17+65 TO STA. 20+73.63	58.30	11.80	26.30	64.10	96	23	5	20	26		12	73	278	72	225			182			215	226	69	45
STAGE 2																								
STA. 13+46.02 TO STA. 17+65	78.30	16.30		85.70				120	14							187		101	2.02		325	111	165	13
STA. 17+65 TO STA. 20+73.63	78.30	15.70		83.40				87	6							168		67	1.34		215	143	140	13
ENTRANCES										20.4														
TOTAL	273.2	56.10	53.00	298.05	565	38	216	34	98	20.40	20	123	508	450	439	355	8.30	511.70	3.36		1080	1073	455	95
TOTAL USE	274	56	53	298	565	38	216	34	98	20	20	123	508	450	439	355	8	512	4		1080	1073	455	95

ENTRANCE SCHEDULE

LOCATION	Type	Existing Surface	Existing Width	Proposed Width	Proposed Surface	Radius	Incidental Bituminous Surfacing 2.5" TON	Aggregate Surface Course Type A 6" TON	BIT. MATL. PRIME COAT GAL.
MILLBURN RD.			FOOT	FOOT		FOOT			
LT. STA. 14+53	PE	BIT	16.00	16.00	BIT	12	5.14	12.66	0.42
RT. STA. 20+11	PE	BIT	16.00	16.00	BIT	12	3.12	7.70	0.26
TOTAL							8.27	20.36	0.68
TOTAL USE									

RIPRAP SCHEDULE

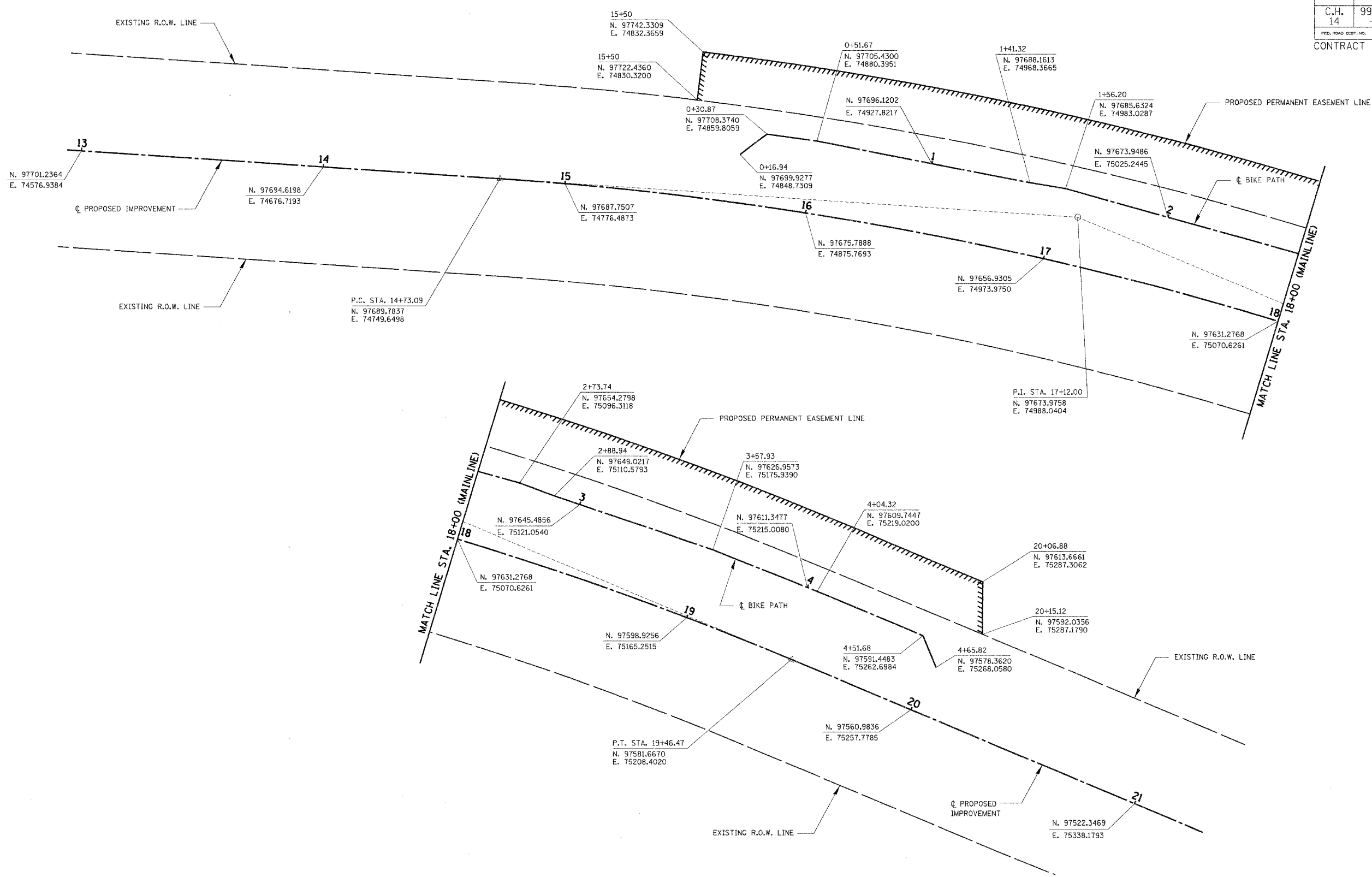
LOCATION	WIDTH	LENGTH	STONE RIPRAP CLASS A4	FILTER FABRIC
	FEET	FEET	TONS	SQ YD
MILLBURN RD.				
RT. STA. 18+45	9	5	4	5
RT. STA. 18+90	6	6	3	4
BRIDGE			676	843
TOTAL			683	852
USE			683	852

HLR
 Rice, Berry and Associates
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 Springfield, Illinois 62704
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 DuQuoin, Illinois 62832
 618-190-4631
 Account Number 12-07-0043-1
 Date: 06/28/04
 DESIGNED: S.W.M. CHECKED: L.F.S. DRAWN: W.J.S.


SCHEDULE OF QUANTITIES
 SECTION 99-00076-11-BR
 C.H. 14 / MILLBURN ROAD
 LAKE COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET
C.H. 14	99-00076 -11-BR	LAKE	66	6
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO: 83763



SEE SHEETS 12 & 13 FOR TIE POINTS

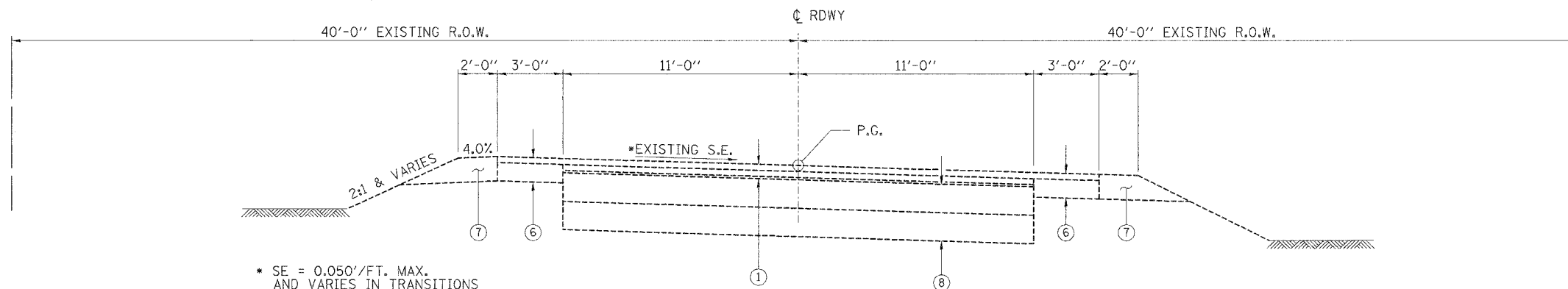
	Rice, Berry and Associates A Division of Hampton, Lenzini and Renwick, Inc. Civil & Structural Engineers 801 S. Durkin Drive Springfield, Illinois 62704 217-546-3400	ALIGNMENT SECTION 99-00076-11-BR C.H. 14 / MILLBURN ROAD LAKE COUNTY
	Account Number 12-07-0043-1 Date: 06/22/04 DESIGNED: L.F.S. CHECKED: S.W.M. DRAWN: TWK	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 14	99-00076-11-BR	LAKE	66	7
FED. ROAD DIST. NO.	ILL. ROAD DIST. NO.	FED. AID PROJECT NO.		

CONTRACT NO: 83763

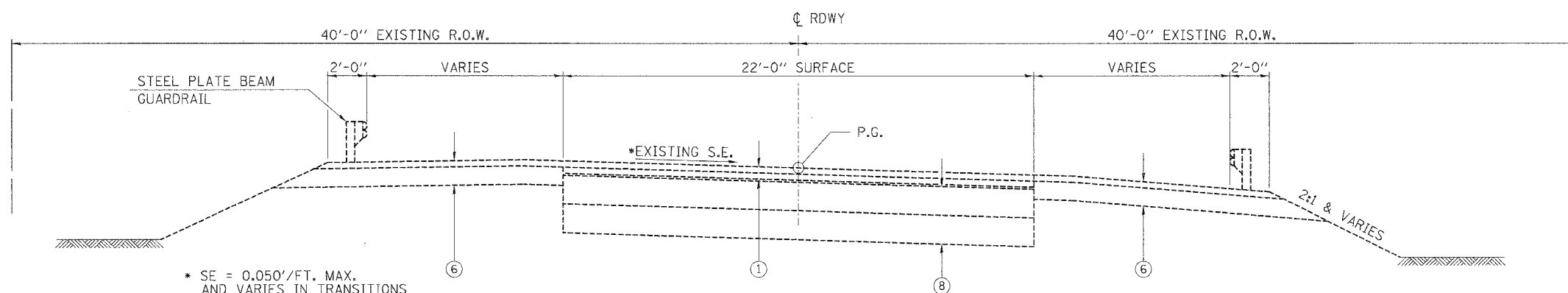
LEGEND

- ① -BITUMINOUS SURFACE COURSE, MIX C, CL. 1, TY. 2 (1 1/2" THICK)
-BITUMINOUS CONCRETE BINDER COURSE, MIX B, TY. 2 (1 1/2" THICK)
-LEVELING BINDER, TY. 2 (1/2" THICK, NOMINAL)
- ② BITUMINOUS CONCRETE BINDER COURSE, MIX B, TY. 2 (6" THICK)
- ③ AGGREGATE BASE COURSE, TY. A (3" THICK)
- ④ POROUS GRANULAR EMBANKMENT, (9" THICK)
- ⑤ POROUS GRANULAR BACKFILL
- ⑥ PAVED SHOULDER:
-BITUMINOUS CONCRETE SURFACE COURSE, MIX C, CL. 1, TY. 2 (1 1/2" THICK)
-BITUMINOUS CONCRETE BINDER COURSE, MIX B, TY. 2 (4 1/2" THICK)
- ⑦ AGGREGATE SHOULDERS, TY. B (6" THICK)
- ⑧ -7" BITUMINOUS PAVEMENT
-7" GRAVEL



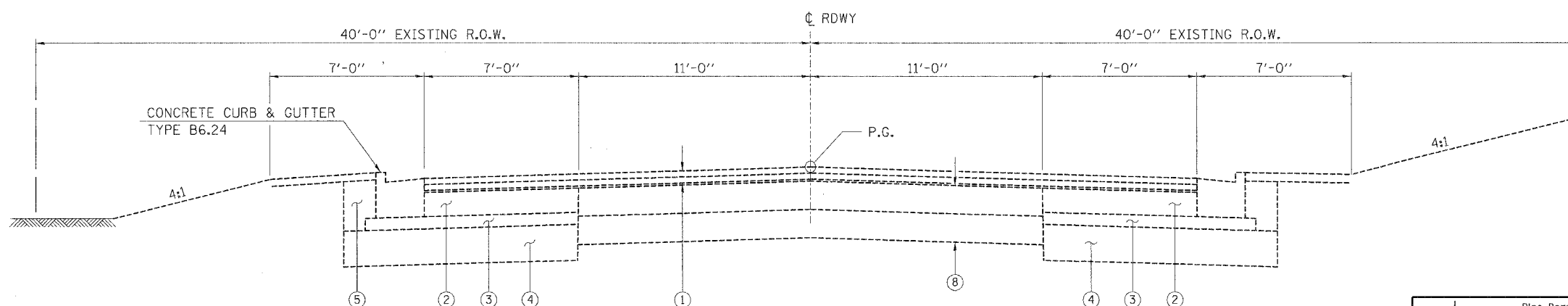
EXISTING TYPICAL ROADWAY CROSS SECTION

STATION 19+68.15 TO 20+73.63



EXISTING TYPICAL ROADWAY CROSS SECTION

STATION 14+90 TO 17+50.5
AND STATION 17+91.5 TO 19+68.15



EXISTING TYPICAL ROADWAY CROSS SECTION

STATION 13+46.02 TO 14+90

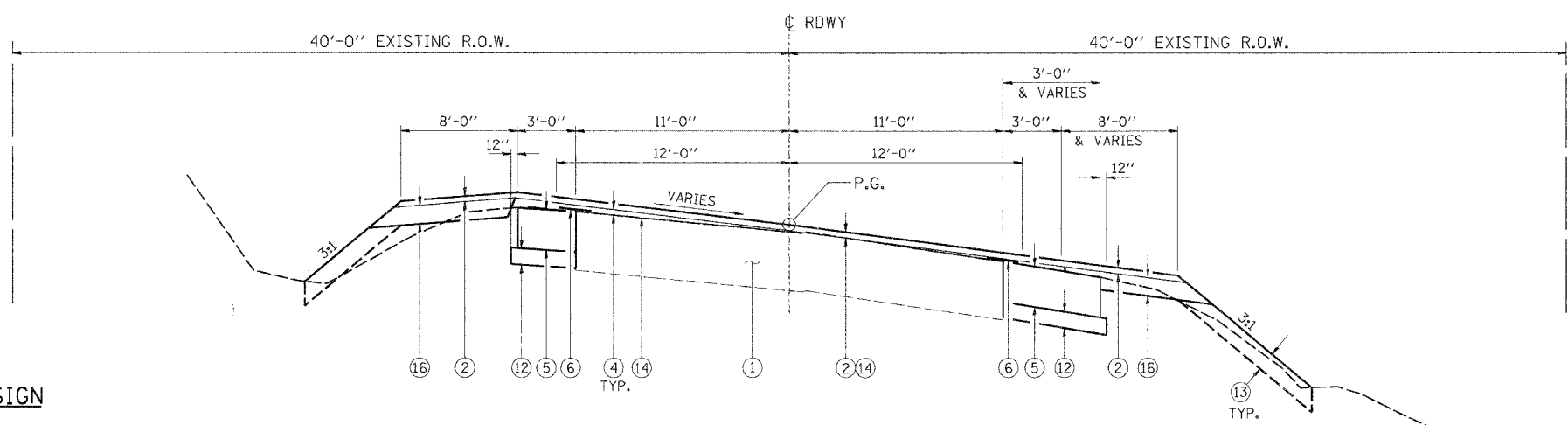
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**TYPICAL CROSS SECTIONS
(EXISTING)**

SECTION 99-00076-11-BR
 C.H. 14 / MILLBURN ROAD
 LAKE COUNTY

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET TOTAL
C.H. 14	99-00076-11-BR	LAKE	66	8
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

CONTRACT NO: 83763



PROPOSED TYPICAL ROADWAY CROSS SECTION
STATION 14+90 TO 15+80
STATION 19+40 TO 20+73.63

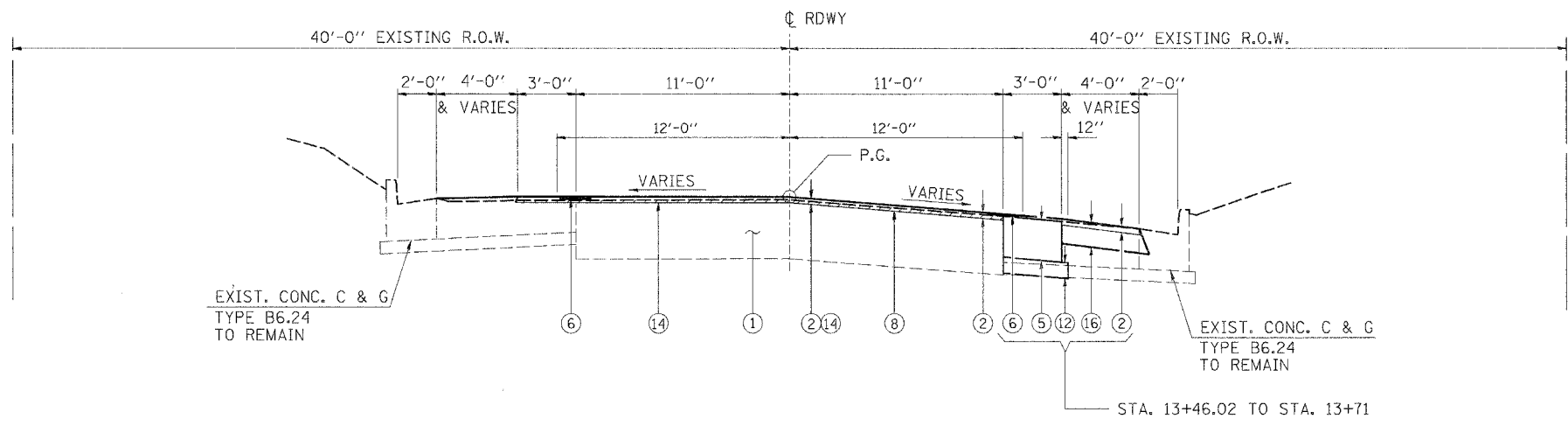
PAVEMENT DESIGN

MAINLINE:
DESIGN PERIOD: 20 YEARS
STRUCTURAL DESIGN TRAFFIC (SDT) = 12,178 YEAR 2015
PU = 95% SU = 3% MU = 2%
CLASS II ROAD
PERCENT OF SDT IN DESIGN LANE
P = 50% SU = 50% MU = 50%
73,280 LB LOAD LIMIT
SUBGRADE SUPPORT RATING = POOR, IBR 3
TRAFFIC FACTOR = 1.10

TEMPORARY WIDENING:
DESIGN PERIOD 1 YEAR
STRUCTURAL DESIGN TRAFFIC (SDT) = 10,591 YEAR 2005
PU = 95% SU = 3% MU = 2%
CLASS II ROAD
PERCENT OF SDT IN DESIGN LANE
P = 100% SU = 100% MU = 100%
73,280 LB LOAD LIMIT
SUBGRADE SUPPORT RATING = POOR, IBR 3
TRAFFIC FACTOR = 0.10

LEGEND

- ① EXISTING BITUMINOUS SURFACE ON AGGREGATE BASE
- ② BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE MIX D, N70 (1 1/2" MINIMUM THICKNESS)
- ③ BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE IL 19.0, N50 (1 3/4" THICKNESS)
- ④ LEVELING BINDER, MACHINE METHOD, SUPERPAVE N70 (THICKNESS VARIES AS REQUIRED)
- ⑤ BITUMINOUS BASE COURSE, SUPERPAVE 10"
- ⑥ STRIP REFLECTIVE CRACK CONTROL TREATMENT
- ⑦ TEMPORARY RAMP AT 1:40 (SEE ARTICLE 406.18)
- ⑧ BITUMINOUS SURFACE REMOVAL - BUTT JOINT
- ⑨ PAVEMENT REMOVAL
- ⑩ BRIDGE APPROACH PAVEMENT (STANDARD 420401)
- ⑪ STEEL PLATE BEAM GUARD RAIL. SEE SCHEDULE OF QUANTITIES FOR LOCATIONS
- ⑫ SUB-BASE GRANULAR MATERIAL, TY B, 4"
- ⑬ FURNISHING AND PLACING TOPSOIL, 4"
- ⑭ BITUMINOUS MATERIALS (PRIME COAT)
- ⑮ AGGREGATE BASE COURSE TY. A (SPECIAL) 6"
- ⑯ BITUMINOUS BASE COURSE, SUPERPAVE 4.5"
- ⑰ SUB-BASE GRANULAR MATERIAL, TY A, 4"
- ⑱ AGGREGATE SHOULDER TY. A (SPECIAL) 4"
- ⑳ TEMPORARY CONCRETE BARRIER
- ㉑ PROPOSED GUARD RAIL
- ㉒ REMOVE STEEL PLATE BEAM GUARD RAIL
- ㉔ BITUMINOUS BASE COURSE SUPERPAVE 6"
- ㉕ BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE MIX C, N50 (2" MINIMUM THICKNESS)
- ㉖ PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT 7"
- ㉗ FLEXIBLE PAVEMENT CONNECTOR



PROPOSED TYPICAL ROADWAY CROSS SECTION
STATION 13+46.02 TO 14+90

HLR
Rice, Berry and Associates
A Division of Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers
801 S. Durkin Drive
Springfield, Illinois 62704
217-546-3400
P.O. BOX 1036
DuQuoin, Illinois 62832
618-790-4637
Account Number 12-07-0043-1
Date: 06/28/04
DESIGNED: S.W.M. CHECKED: S.W.M. DRAWN: D.T.M.

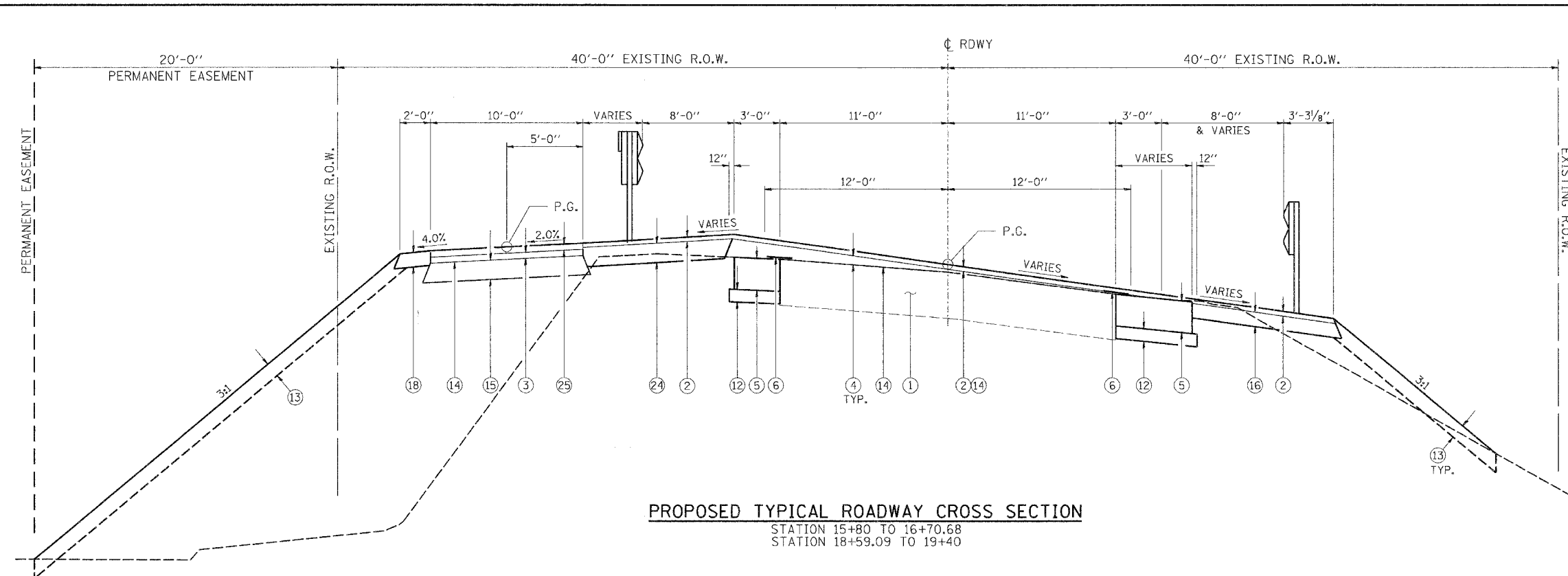
TYPICAL CROSS SECTIONS (PROPOSED)
SECTION 99-00076-11-BR
C.H. 14 / MILLBURN ROAD
LAKE COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 14	99-00076-11-BR	LAKE	66	9
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

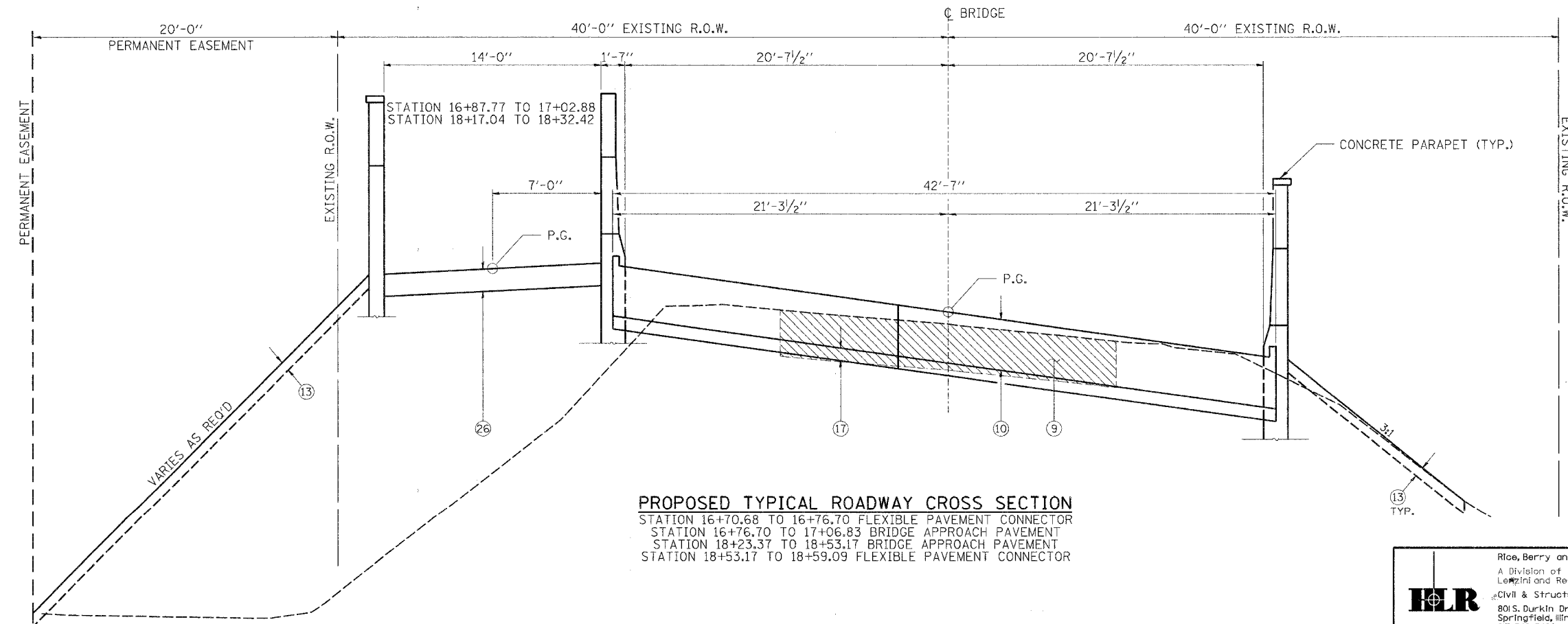
CONTRACT NO: 83763

LEGEND

- ① EXISTING BITUMINOUS SURFACE ON AGGREGATE BASE
- ② BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE MIX D, NTO (1 1/2" MINIMUM THICKNESS)
- ③ BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE IL 19.0, N50 (1 3/4" THICKNESS)
- ④ LEVELING BINDER, MACHINE METHOD, SUPERPAVE N70 (THICKNESS VARIES AS REQUIRED)
- ⑤ BITUMINOUS BASE COURSE, SUPERPAVE 10"
- ⑥ STRIP REFLECTIVE CRACK CONTROL TREATMENT
- ⑦ TEMPORARY RAMP AT 1:40 (SEE ARTICLE 406.18)
- ⑧ BITUMINOUS SURFACE REMOVAL - BUTT JOINT
- ⑨ PAVEMENT REMOVAL
- ⑩ BRIDGE APPROACH PAVEMENT (STANDARD 420401)
- ⑪ STEEL PLATE BEAM GUARD RAIL. SEE SCHEDULE OF QUANTITIES FOR LOCATIONS
- ⑫ SUB-BASE GRANULAR MATERIAL, TY B, 4"
- ⑬ FURNISHING AND PLACING TOPSOIL, 4"
- ⑭ BITUMINOUS MATERIALS (PRIME COAT)
- ⑮ AGGREGATE BASE COURSE TY. A (SPECIAL) 6"
- ⑯ BITUMINOUS BASE COURSE, SUPERPAVE 4.5"
- ⑰ SUB-BASE GRANULAR MATERIAL, TY A, 4"
- ⑱ AGGREGATE SHOULDER TY. A (SPECIAL) 4"
- ⑳ TEMPORARY CONCRETE BARRIER
- ㉑ PROPOSED GUARD RAIL
- ㉒ REMOVE STEEL PLATE BEAM GUARD RAIL
- ㉔ BITUMINOUS BASE COURSE SUPERPAVE 6"
- ㉕ BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE MIX C N50 (2" MINIMUM THICKNESS)
- ㉖ PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT 7"
- ㉗ FLEXIBLE PAVEMENT CONNECTOR



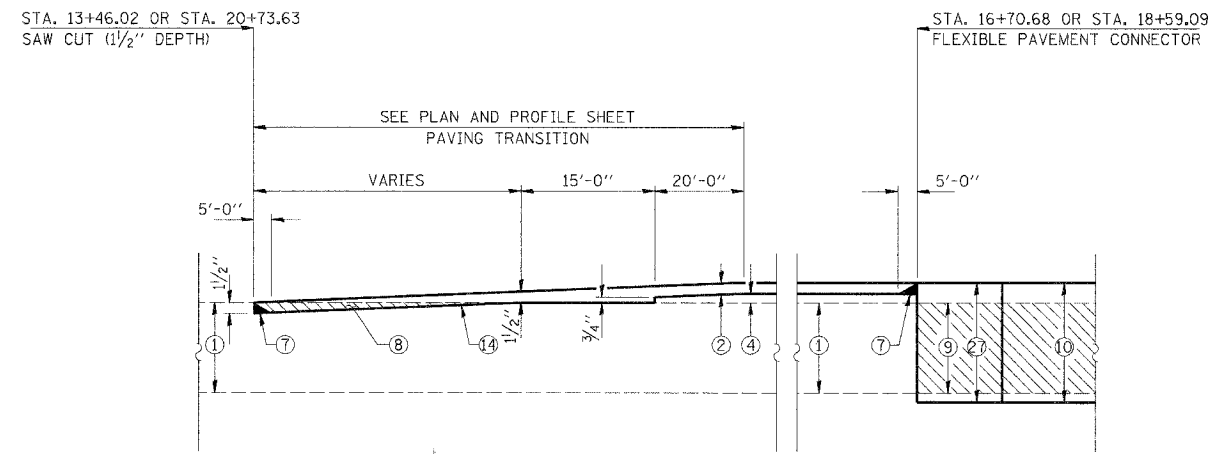
PROPOSED TYPICAL ROADWAY CROSS SECTION
 STATION 15+80 TO 16+70.68
 STATION 18+59.09 TO 19+40



PROPOSED TYPICAL ROADWAY CROSS SECTION
 STATION 16+87.77 TO 17+02.88
 STATION 18+17.04 TO 18+32.42
 STATION 16+70.68 TO 16+76.70 FLEXIBLE PAVEMENT CONNECTOR
 STATION 16+76.70 TO 17+06.83 BRIDGE APPROACH PAVEMENT
 STATION 18+23.37 TO 18+53.17 BRIDGE APPROACH PAVEMENT
 STATION 18+53.17 TO 18+59.09 FLEXIBLE PAVEMENT CONNECTOR

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TYPICAL CROSS SECTIONS (PROPOSED)
 SECTION 99-00076-11-BR
 C.H. 14 / MILLBURN ROAD
 LAKE COUNTY



PAVEMENT TRANSITION DETAIL

LEGEND

- ① EXISTING BITUMINOUS SURFACE ON AGGREGATE BASE
- ② BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE MIX D, N70 (1 1/2" MINIMUM THICKNESS)
- ③ BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE IL 19.0, N50 (1 3/4" THICKNESS)
- ④ LEVELING BINDER, MACHINE METHOD, SUPERPAVE N70 (THICKNESS VARIES AS REQUIRED)
- ⑤ BITUMINOUS BASE COURSE, SUPERPAVE 10.5"
- ⑥ STRIP REFLECTIVE CRACK CONTROL TREATMENT
- ⑦ TEMPORARY RAMP AT 1:40 (SEE ARTICLE 406.18)
- ⑧ BITUMINOUS SURFACE REMOVAL - BUTT JOINT
- ⑨ PAVEMENT REMOVAL
- ⑩ BRIDGE APPROACH PAVEMENT (STANDARD 420401)
- ⑪ STEEL PLATE BEAM GUARD RAIL. SEE SCHEDULE OF QUANTITIES FOR LOCATIONS
- ⑫ SUB-BASE GRANULAR MATERIAL, TY B, 4"
- ⑬ FURNISHING AND PLACING TOPSOIL, 4"
- ⑭ BITUMINOUS MATERIALS (PRIME COAT)
- ⑮ AGGREGATE BASE COURSE TY. A (SPECIAL) 6"
- ⑯ BITUMINOUS BASE COURSE, SUPERPAVE 4.5"
- ⑰ SUB-BASE GRANULAR MATERIAL, TY A, 4"
- ⑱ AGGREGATE SHOULDER TY. A (SPECIAL) 4"
- ⑳ TEMPORARY CONCRETE BARRIER
- ㉑ PROPOSED GUARD RAIL
- ㉒ REMOVE STEEL PLATE BEAM GUARD RAIL
- ㉔ BITUMINOUS BASE COURSE SUPERPAVE 6"
- ㉕ BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE MIX C, N50 (2" MINIMUM THICKNESS)
- ㉖ PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT 7"
- ㉗ FLEXIBLE PAVEMENT CONNECTOR

MIXTURE REQUIREMENTS	
LOCATION(S):	C.H. 14 (MILLBURN ROAD) MAINLINE
MIXTURE USE(S):	SURFACE COURSE
AC/PG:	PG 64-22
RAP % (MAX):	10%
DESIGN AIR VOIDS:	4% @ Ndes 70
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL 9.5 OR IL 12.5
FRICITION AGGREGATE:	MIXTURE D
MIXTURE WEIGHTS	112 LBS/SY/INCH THICKNESS

MIXTURE REQUIREMENTS	
LOCATION(S):	C.H. 14 (MILLBURN ROAD) MAINLINE
MIXTURE USE(S):	LEVELING BINDER (MACHINE METHOD)
AC/PG:	PG 64-22
RAP % (MAX):	10%
DESIGN AIR VOIDS:	4% @ Ndes 70
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL 9.5 OR IL 12.5
FRICITION AGGREGATE:	MIXTURE D
MIXTURE WEIGHTS	112 LBS/SY/INCH THICKNESS

MIXTURE REQUIREMENTS	
LOCATION(S):	C.H. 14 (MILLBURN ROAD) MAINLINE
MIXTURE USE(S):	BASE COURSE
AC/PG:	PG 58-22
RAP % (MAX):	25%
DESIGN AIR VOIDS:	4% @ Ndes 50
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL 19.0
FRICITION AGGREGATE:	-
MIXTURE WEIGHTS	112 LBS/SY/INCH THICKNESS

MIXTURE REQUIREMENTS	
LOCATION(S):	BIKE PATH
MIXTURE USE(S):	SURFACE COURSE
AC/PG:	PG 64-22
RAP % (MAX):	15%
DESIGN AIR VOIDS:	4% @ Ndes 50
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL 9.5 OR IL 12.5
FRICITION AGGREGATE:	MIXTURE C
MIXTURE WEIGHTS	112 LBS/SY/INCH THICKNESS

MIXTURE REQUIREMENTS	
LOCATION(S):	BIKE PATH
MIXTURE USE(S):	BINDER COURSE
AC/PG:	PG 64-22
RAP % (MAX):	15%
DESIGN AIR VOIDS:	4% @ Ndes 50
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL 19.0
FRICITION AGGREGATE:	-
MIXTURE WEIGHTS	112 LBS/SY/INCH THICKNESS

MIXTURE REQUIREMENTS	
LOCATION(S):	C.H. 14 (MILLBURN ROAD) MAINLINE
MIXTURE USE(S):	BITUMINOUS SHOULDERS (TOP LIFT)
AC/PG:	PG 64-22
RAP % (MAX):	10%
DESIGN AIR VOIDS:	4% @ Ndes 70
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL 9.5 OR IL 12.5
FRICITION AGGREGATE:	MIXTURE D
MIXTURE WEIGHTS	112 LBS/SY/INCH THICKNESS

MIXTURE REQUIREMENTS	
LOCATION(S):	C.H. 14 (MILLBURN ROAD) MAINLINE
MIXTURE USE(S):	BITUMINOUS SHOULDERS (BOTTOM LIFT)
AC/PG:	PG 58-22
RAP % (MAX):	25%
DESIGN AIR VOIDS:	4% @ Ndes 50
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL 19.0
FRICITION AGGREGATE:	-
MIXTURE WEIGHTS	112 LBS/SY/INCH THICKNESS

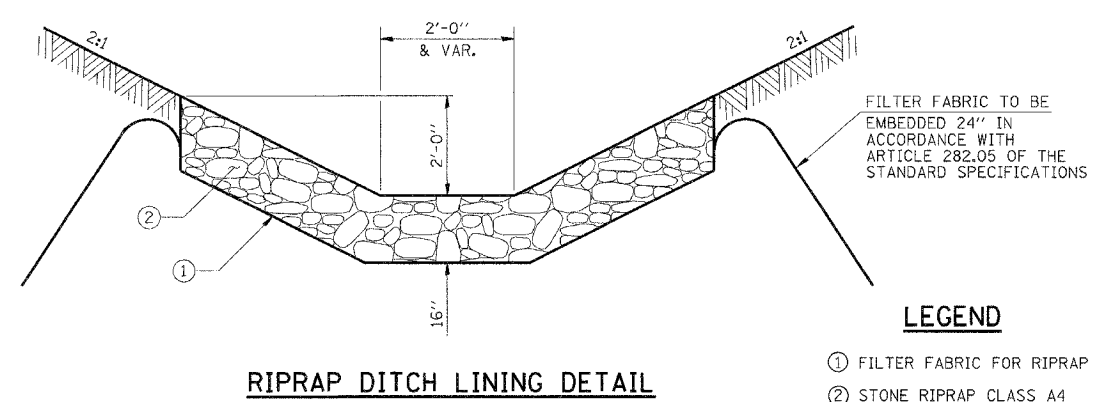
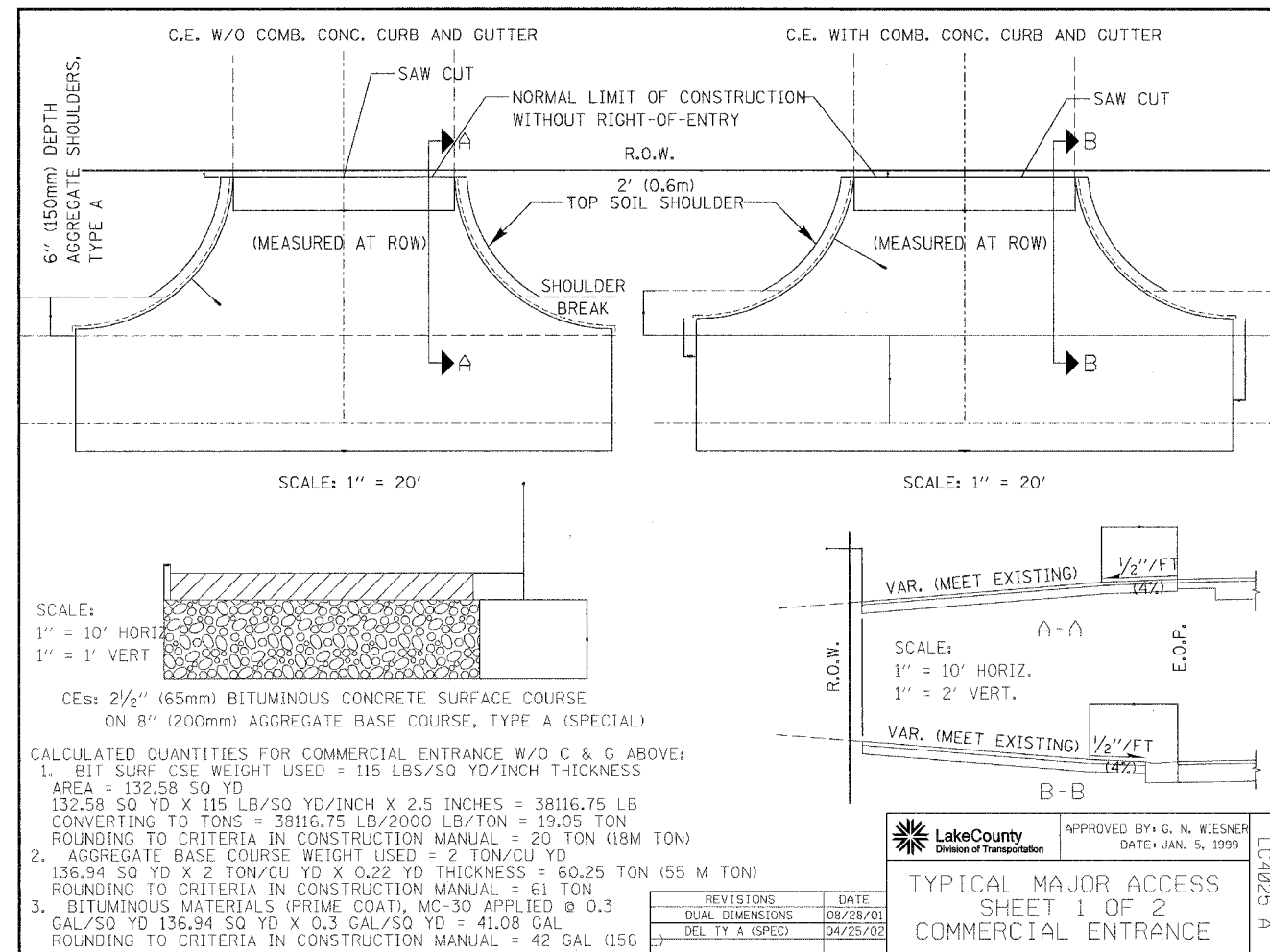
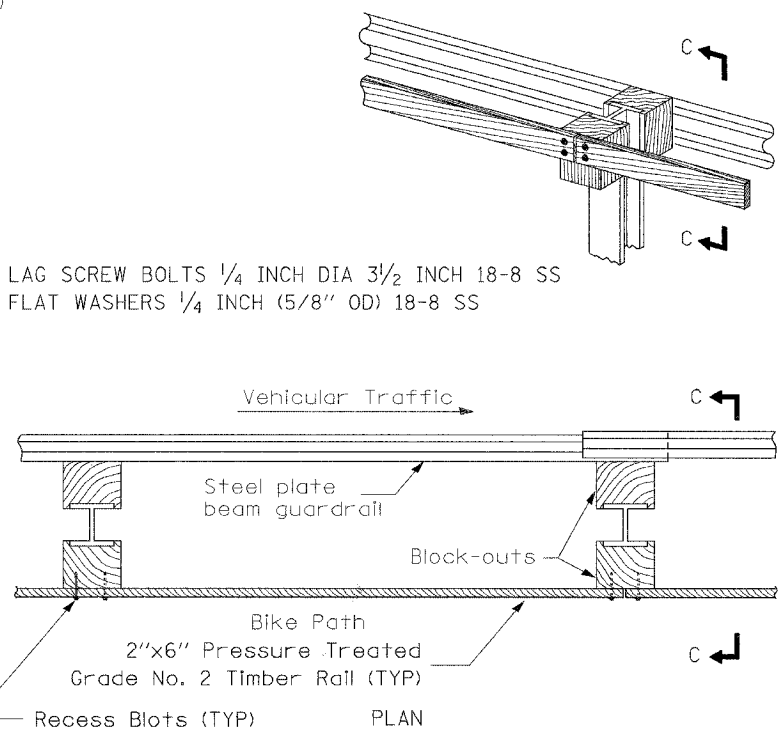
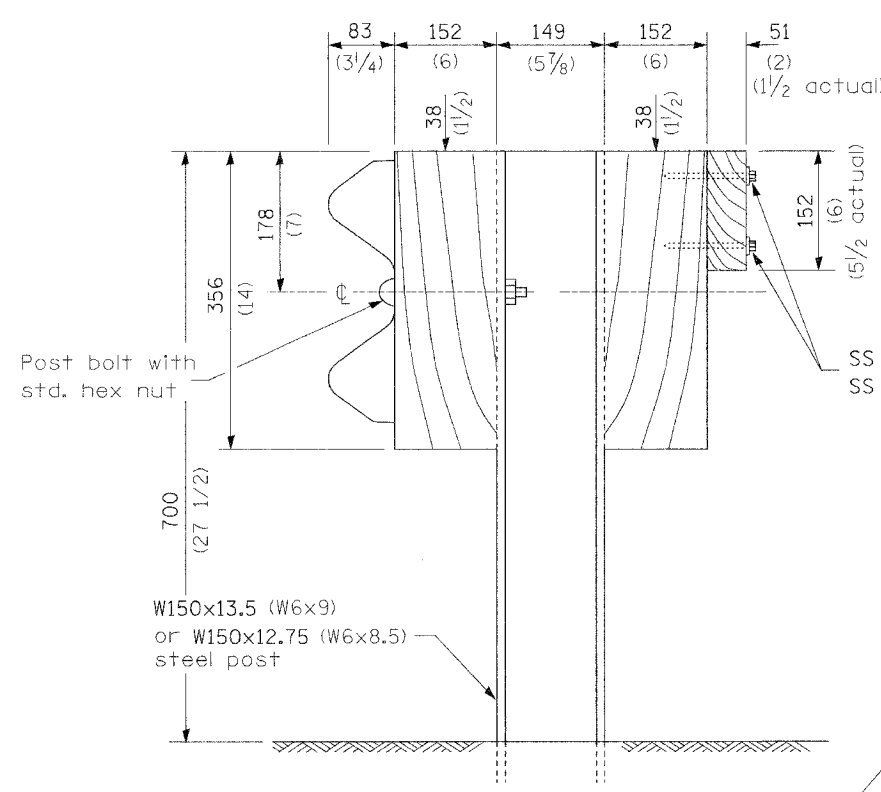
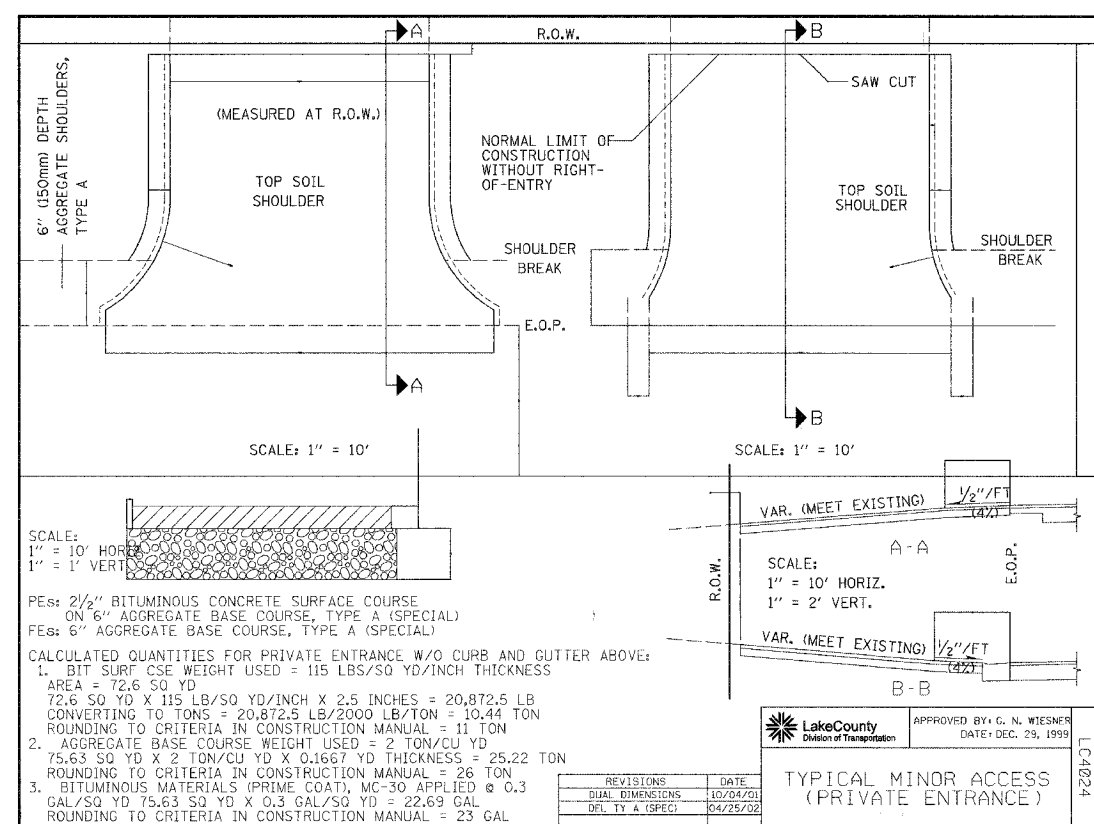
MIXTURE REQUIREMENTS	
LOCATION(S):	DRIVEWAYS
MIXTURE USE(S):	INCIDENTAL BITUMINOUS SURFACING
AC/PG:	PG 64-22
RAP % (MAX):	15%
DESIGN AIR VOIDS:	4% @ Ndes 50
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL 9.5 OR IL 12.5
FRICITION AGGREGATE:	MIXTURE C
MIXTURE WEIGHTS	112 LBS/SY/INCH THICKNESS

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ROADWAY DETAILS
 SECTION 99-00076-11-BR
 C.H. 14 / MILLBURN ROAD
 LAKE COUNTY

ROUTE NO.	SECTION	COUNTY	SHEET	OF SHEETS
C.H. 14	99-00076 -11-BR	LAKE	66	11
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

CONTRACT NO: 83763

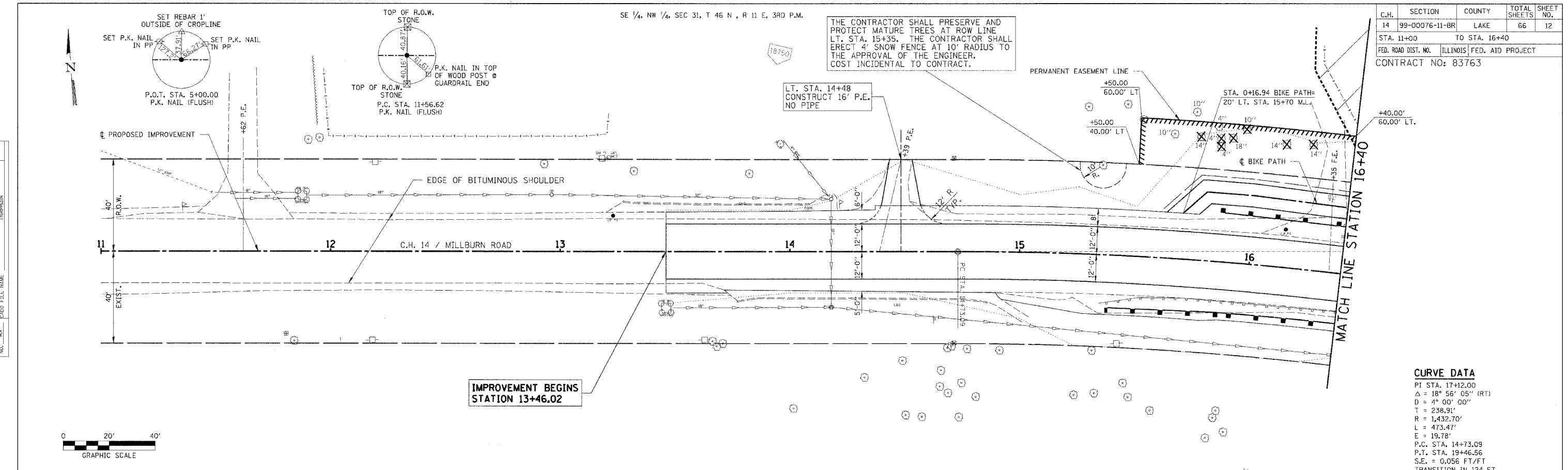


- LEGEND**
- ① FILTER FABRIC FOR RIPRAP
 - ② STONE RIPRAP CLASS A4

	Rice, Berry and Associates A Division of Hampton, Lenzini and Renwick, Inc. Civil & Structural Engineers 801 S. Durkin Drive Springfield, Illinois 62704 217-546-3400	MISCELLANEOUS DETAILS SECTION 99-00076-11-BR C.H. 14 / MILLBURN ROAD LAKE COUNTY
	Account Number: 12-07-0043-1 Date: 06/28/04 DESIGNED: S.W.M. CHECKED: L.F.S. DRAWN: W.J.S.	

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	12
STA. 11+00		TO STA. 16+40		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83763				

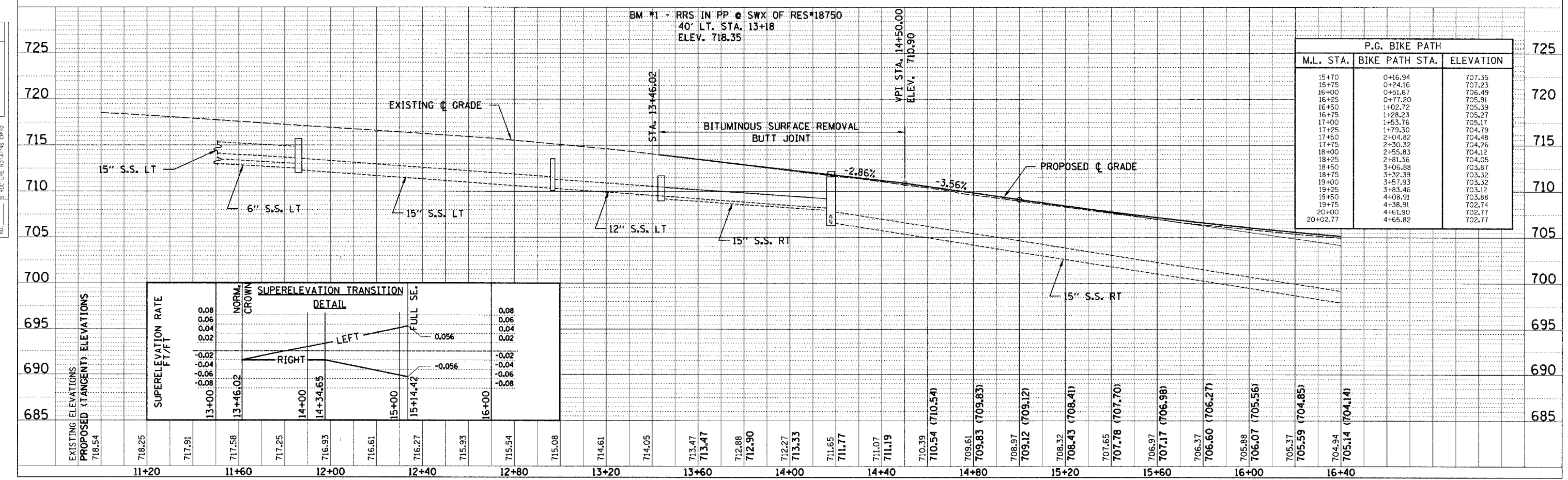
THE CONTRACTOR SHALL PRESERVE AND PROTECT MATURE TREES AT ROW LINE LT. STA. 15+35. THE CONTRACTOR SHALL ERECT 4' SNOW FENCE AT 10' RADIUS TO THE APPROVAL OF THE ENGINEER. COST INCIDENTAL TO CONTRACT.



CURVE DATA

PT STA. 17+12.00
 $\Delta = 18^\circ 56' 05''$ (RT)
 $D = 4^\circ 00' 00''$
 $T = 238.91'$
 $R = 1,432.70'$
 $L = 473.47'$
 $E = 19.78'$
P.C. STA. 14+73.09
P.T. STA. 19+46.56
S.E. = 0.056 FT/FT
TRANSITION IN 124 FT.
FROM STA. 13+46.02 TO STA. 15+14.42
FROM STA. 19+05.23 TO STA. 20+73.63

SE 1/4, NW 1/4, SEC 31, T 46 N, R 11 E, 3RD P.M.



PLAN

DATE	11-13-92
BY	...
NO.	...

PROFILE

DATE	11-13-92
BY	...
NO.	...

DAVID C. & ANN G. BONNER
SE 1/4, NW 1/4, SEC 31, T 46 N, R 11 E, 3RD P.M.

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	13
STA. 16+40		TO STA. 22+00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
CONTRACT NO: 83763				

DATE	BY	REVISION

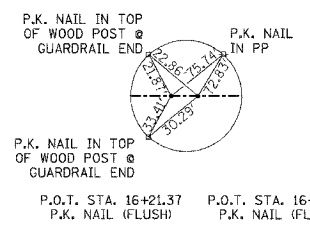
DATE	BY	REVISION

AREA #1
WETLANDS IMPACTED
2,126 SQ. FT.
0.049 ACRES

AREA #2
WETLANDS IMPACTED
1,567 SQ. FT.
0.036 ACRES

AREA #3
WETLANDS IMPACTED
322 SQ. FT.
0.007 ACRES

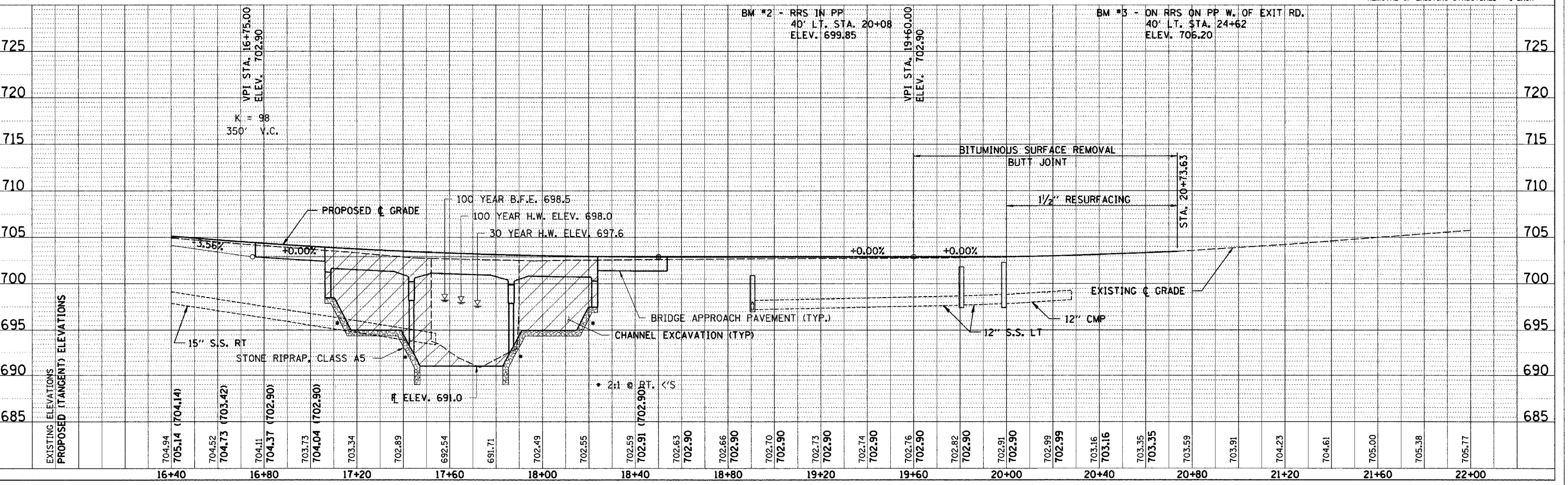
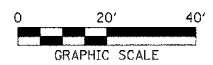
STA. 17+65 - SPECIAL BRIDGE DESIGN
CONTINUOUS REINFORCED CONCRETE SLAB
BRIDGE. 3 SPANS: 36'-0", 43'-0", 36'-0"
40'-0" RDWY; 14' BIKE PATH; SKEW=10°
S.E. = 0.056 FT/FT.



IMPROVEMENT ENDS
STATION 20+73.63

EXISTING STRUCTURE NO. 049-3013
STATION 14+50 - SINGLE SPAN REINFORCED
CONCRETE TEE GIRDER BRIDGE WITH CONCRETE
RAILING ON CLOSED CONCRETE ABUTMENTS.
43.0' BK-BK. ABUTS: 33.0' O-O. DECK
REMOVAL OF EXISTING STRUCTURES = 1 EACH

CURVE DATA
PI STA. 17+12.00
Δ = 18° 56' 05" (RT)
D = 4° 00' 00"
T = 238.91'
R = 1,432.70'
L = 473.47'
E = 19.78'
P.C. STA. 14+73.09
P.T. STA. 19+46.56
S.E. = 0.056 FT/FT
TRANSITION IN 124 FT.
FROM STA. 13+46.02 TO STA. 15+14.42
FROM STA. 19+05.23 TO STA. 20+73.63

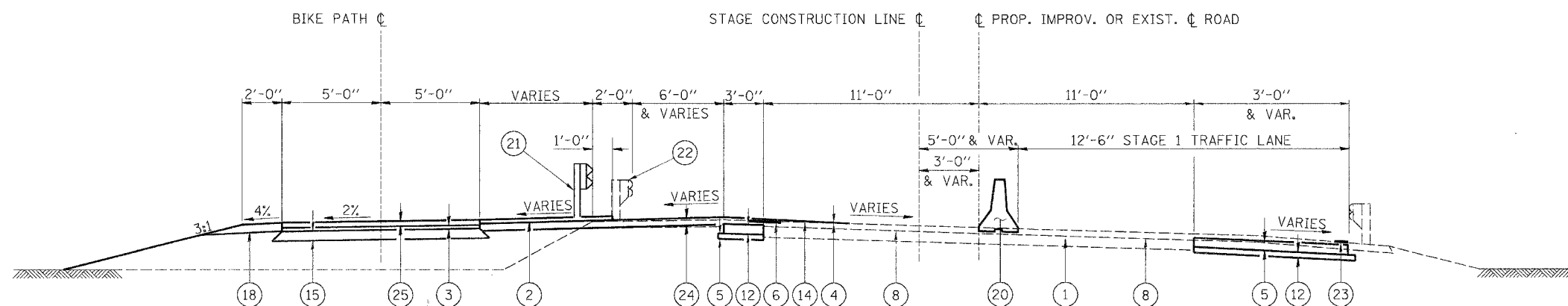


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 14	99-00076-11-BR	LAKE	66	14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO: 83763

NOTES:

- 1) BITUMINOUS SURFACE REMOVAL BUTT JOINT TO BE CONSTRUCTED IN STAGE I BITUMINOUS SURFACE COURSE TO BE CONSTRUCTED IN STAGE II.
- 2) ADDITIONAL REQUIREMENTS AND FURTHER INFORMATION FOR MAINTAINING TRAFFIC WITHIN THE PROJECT AREA ARE AS INDICATED ON IDOT STANDARD 701321.
- 3) EXISTING PAVEMENT WIDTH VARIES ALONG PROPOSED CL. ADJUST PROPOSED PAVEMENT WIDTH ACCORDINGLY.
- 4) TOP OF 10" BASE COURSE TO MATCH THE ADJACENT EXISTING PAVEMENT SURFACE ELEVATION OR IN AREAS OF SURFACE MILLING MATCH MILLED SURFACE ELEVATION.
- 5) MONO DIRECTIONAL PRISMATIC BARRIER REFLECTORS SHALL BE INSTALLED AS DESCRIBED IN THE LCDOT TRAFFIC CONTROL AND PROTECTION SPECIAL PROVISIONS.

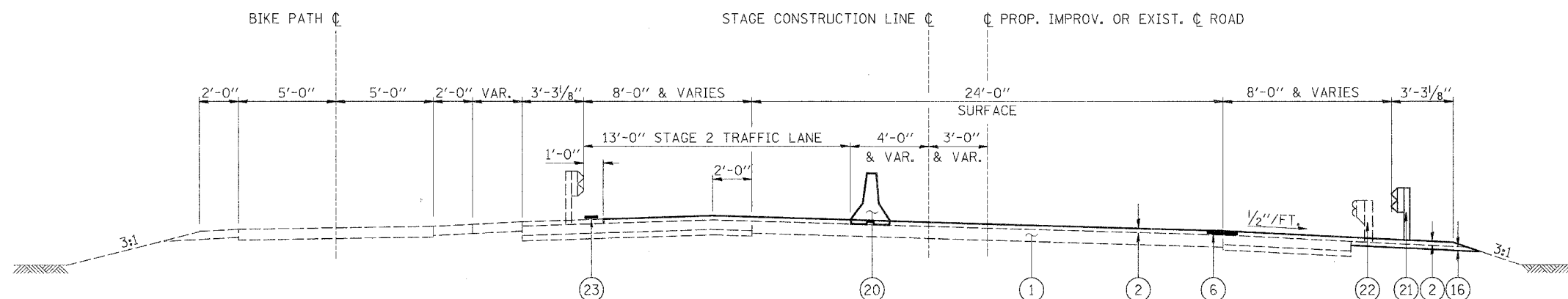


TYPICAL ROADWAY CROSS SECTION (STAGE I)

(LOOKING EAST)
STATION 14+90 TO 17+50.00
AND STATION 17+92.00 TO 20+73.63

LEGEND

- 1 EXISTING BITUMINOUS SURFACE ON AGGREGATE BASE
- 2 BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE MIX D, N70 (1/2" MINIMUM THICKNESS)
- 3 BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE IL 19.0 (1 3/4" THICKNESS)
- 4 LEVELING BINDER, MACHINE METHOD, SUPERPAVE N70 (THICKNESS VARIES AS REQUIRED)
- 5 BITUMINOUS BASE COURSE, SUPERPAVE 10"
- 6 STRIP REFLECTIVE CRACK CONTROL TREATMENT
- 7 TEMPORARY RAMP AT 1:40 (SEE ARTICLE 406.18)
- 8 BITUMINOUS SURFACE REMOVAL - BUTT JOINT
- 9 PAVEMENT REMOVAL
- 10 BRIDGE APPROACH PAVEMENT (STANDARD 420401)
- 11 STEEL PLATE BEAM GUARD RAIL. SEE SCHEDULE OF QUANTITIES FOR LOCATIONS
- 12 SUB-BASE GRANULAR MATERIAL, TY B, 4"
- 13 FURNISHING AND PLACING TOPSOIL, 4"
- 14 BITUMINOUS MATERIALS (PRIME COAT)
- 15 AGGREGATE BASE COURSE TY. A (SPECIAL) 6"
- 16 BITUMINOUS BASE COURSE, SUPERPAVE 4.5"
- 17 SUB-BASE GRANULAR MATERIAL, TY A, 4"
- 18 AGGREGATE SHOULDER TY. A (SPECIAL) 4"
- 20 TEMPORARY CONCRETE BARRIER
- 21 PROPOSED GUARD RAIL
- 22 REMOVE STEEL PLATE BEAM GUARD RAIL
- 23 TEMPORARY PAINT PAVEMENT MARKING LINE 5"
- 24 BITUMINOUS BASE COURSE SUPERPAVE 6"
- 25 BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE MIX C N50 (2" MINIMUM THICKNESS)
- 26 PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT 7"
- 27 FLEXIBLE PAVEMENT CONNECTOR



WHEN THE SUPERELEVATION RATE OF THE PAVEMENT EXCEEDS 4% THE SHOULDER SHALL BE SLOPED SO THAT THE ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT AND SHOULDER WILL NOT BE GREATER THAN 8%.

THE SHOULDER SHALL BE THE SAME AS THE SUPERELEVATION RATE BUT NOT LESS THAN 4%.

TYPICAL ROADWAY CROSS SECTION (STAGE II)

(LOOKING EAST)
STATION 13+46.02 TO 17+50.00
AND STATION 17+92.00 TO 20+73.63

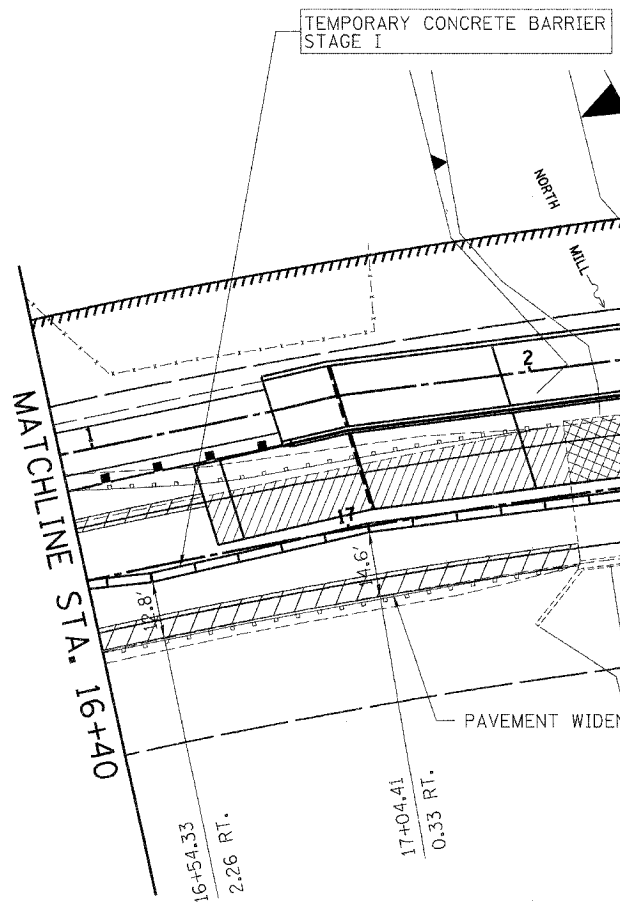
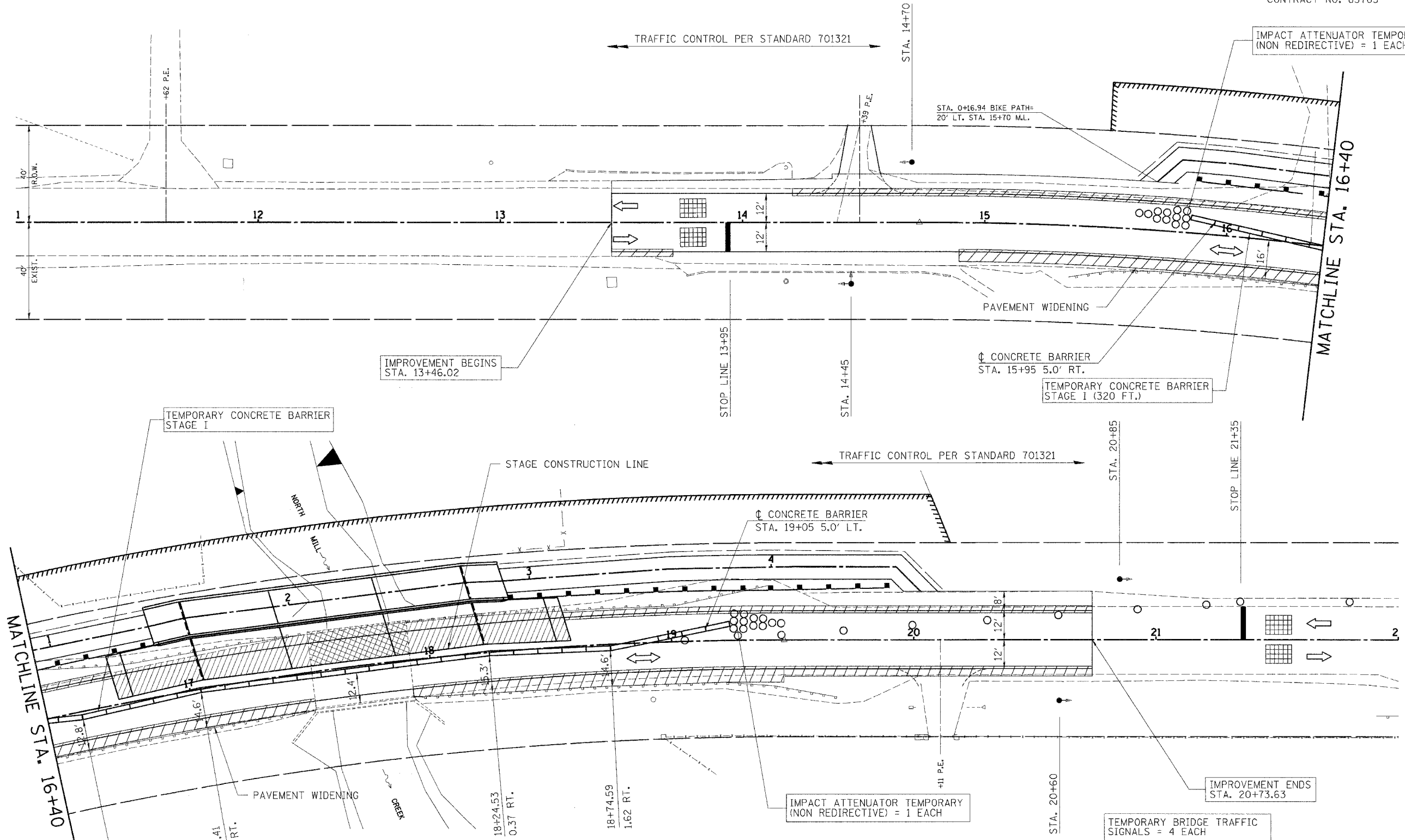
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**MAINTENANCE OF TRAFFIC NOTES
STAGE 1 & 2**

SECTION 99-00076-11-BR
C.H. 14 / MILLBURN ROAD
LAKE COUNTY

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
C.H. 14	99-00076-11-BR	LAKE	66	15
FED. ROAD DIST. NO.		ILL. ROAD DIST. NO.	FED. AID PROJECT-	

CONTRACT NO: 83763



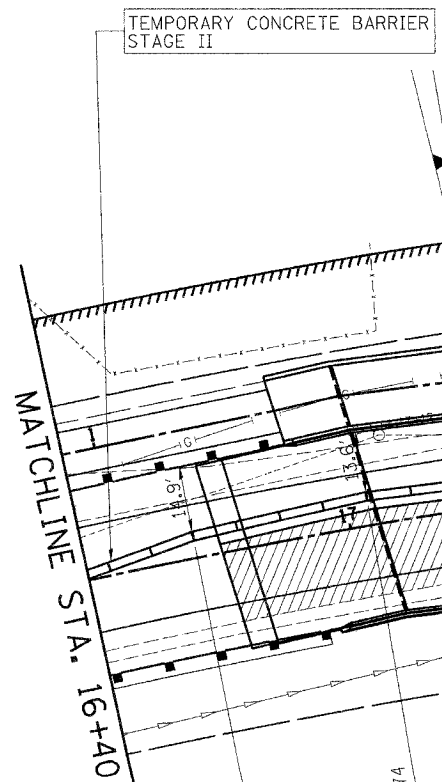
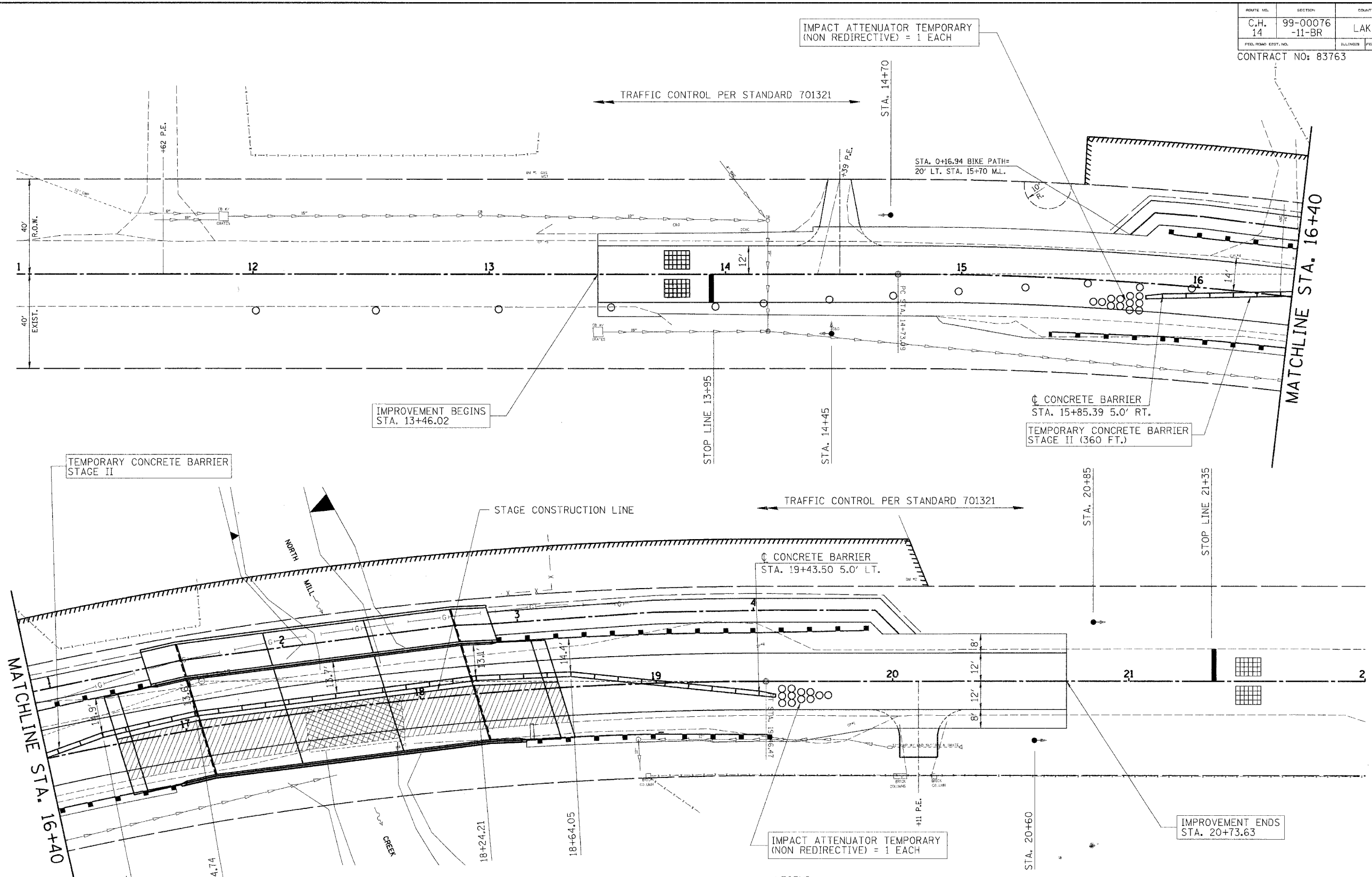
- LEGEND
- DETECTOR ZONE
 - BRIDGE REMOVAL
 - PAVEMENT REMOVAL
 - BITUMINOUS WIDENING
 - DRUM
 - TRAFFIC SIGNAL

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**MAINTENANCE OF TRAFFIC
 STAGE 1**
 SECTION 99-00076-11-BR
 C.H. 14 / MILLBURN ROAD
 LAKE COUNTY

ROUTE NO.	SECTION	COUNTY	POST MILES	SHEET
C.H. 14	99-00076 -11-BR	LAKE	66	16
FED. ROAD DIST. NO.	ILL. PROJ. NO.	FED. AID PROJECT-		

CONTRACT NO: 83763



- LEGEND
- DETECTOR ZONE
 - BRIDGE REMOVAL
 - PAVEMENT REMOVAL
 - BITUMINOUS WIDENING
 - DRUM
 - TRAFFIC SIGNAL

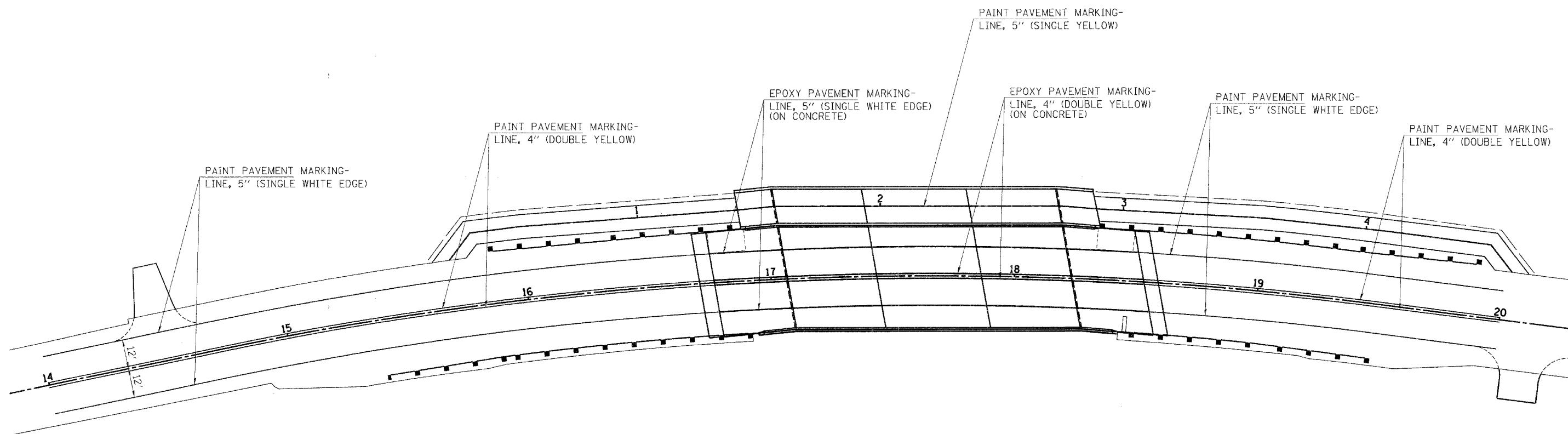
HLR
 Rice, Berry and Associates
 A Division of Hampton, Lenzini and Renwick, Inc.
 Civil & Structural Engineers
 801 S. Durkin Drive
 Springfield, Illinois 62704
 217-546-3400
 P.O. BOX 1036
 DuQuoin, Illinois 62832
 618-790-4637
 Account Number 12-07-0043-1
 Date: 05/23/05
 DESIGNED: L.F.S. CHECKED: S.W.M. DRAWN: D.T.M.

**MAINTENANCE OF TRAFFIC
 STAGE 2**
 SECTION 99-00076-11-BR
 C.H. 14 / MILLBURN ROAD
 LAKE COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET
C.H. 14	99-00076-11-BR	LAKE	66	17
FED. ROAD DIST. NO.	FED. ROAD PROJECT	CONTRACT NO: 83763		

GENERAL NOTES

ALL RAISED REFLECTIVE PAVEMENT MARKERS USED IN WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS, AND OFFSET 4 INCHES FROM THE CENTERLINE OF THE DASH TO MATCH THE EXISTING MARKERS ON THE COUNTY HIGHWAY
SEE SHEETS - AND - FOR TYP. PAVEMENT MARKINGS & REFLECTIVE PAVEMENT MARKINGS.



WORK ZONE PAVT. MARKING REMOVAL

STAGE	WIDTH	SQ FT
STAGE I		
RT. STA. 13+00 TO STA. 22+00 (EDGE)	5"	375
STAGE II		
LT. STA. 13+00 TO STA. 22+00 (EDGE)	5"	375
SHORT TERM		
CL. STA. 13+00 TO STA. 22+00 (CNTR LINE)	4"	60
RT. STA. 13+00 TO STA. 22+00 (EDGE)	4"	24
LT. STA. 13+00 TO STA. 22+00 (EDGE)	4"	24
TOTAL:		858

PAVEMENT MARKING REMOVAL

	WIDTH	SQ FT
2 @ CL. STA. 13+00 TO STA. 22+00	5"	750
RT. STA. 13+00 TO STA. 22+00	5"	750
TOTAL:		1,500

SHORT-TERM PAVEMENT MARKING

(2 LIFTS)		
CL. STA. 13+00 TO STA. 22+00 (4"/40')		= 180 FT.
EDGE RT. & LT. STA. 13+00 TO STA. 22+00 (4"/100')		= 144 FT.
TOTAL:		324 FT.

TEMPORARY PAVEMENT MARKING LINE

	5"	4"
12' RT. & LT. STA. 13+00 TO STA. 22+00 = 1800 FT.		
2 @ CL. STA. 13+00 TO STA. 22+00 =	1800 FT.	1800 FT.
TOTAL:	1800 FT.	1800 FT.

TEMPORARY PAINT PAVEMENT MARKING, LINE 5"

STAGE		
STAGE I		
RT. STA. 13+00 TO STA. 22+00 =	900 FT.	
STAGE II		
LT. STA. 13+00 TO STA. 22+00 =	900 FT.	
TOTAL:	1800 FT.	

RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) (YELLOW/YELLOW)

(PLACE @ 40' C.-C.)		
CL. RT. & LT. STA. 16+76.70 TO STA. 18+53.17 =	8 EACH	
TOTAL:	8 EACH	

RAISED REFLECTIVE PAVEMENT MARKERS (YELLOW/YELLOW)

(PLACE @ 40' C.-C.)		
CL. RT. & LT. STA. 13+00 TO STA. 16+76.70 =	20 EACH	
CL. RT. & LT. STA. 18+53.17 TO STA. 22+00 =	18 EACH	
TOTAL:	38 EACH	

RAISED REFLECTIVE PAVEMENT MARKER REMOVAL

CL. RT. & LT. STA. 13+00 TO STA. 22+00 =	46 EACH
TOTAL:	46 EACH

GUARDRAIL REFLECTORS

10 EACH
SEE STD'S 635006 AND 635011 FOR DETAILS

PAINT PAVEMENT MARKING - LINE

	5"	4"
12' RT. & LT. STA. 13+00 TO STA. 16+72 =	744 FT.	
12' RT. & LT. STA. 18+53 TO STA. 22+00 =	694 FT.	
2 @ CL. STA. 13+00 TO STA. 16+72 =		744 FT.
2 @ CL. STA. 18+53 TO STA. 22+00 =		694 FT.
CL. BIKE PATH STA. 0+17 TO STA. 4+65 =	448 FT.	
TOTAL:	1,896 FT.	1,438 FT.

EPOXY PAVEMENT MARKING - LINE

	5"	4"
12' RT. & LT. STA. 16+72 TO STA. 18+53 =	362 FT.	
2 @ CL. STA. 16+72 TO STA. 18+53 =		362 FT.
TOTAL:	362 FT.	362 FT.

HLR
 Account Number: 12-07-0043-1
 Date: 06/11/04
 DESIGNED: S.W.M. CHECKED: S.W.M. DRAWN: D.T.M.

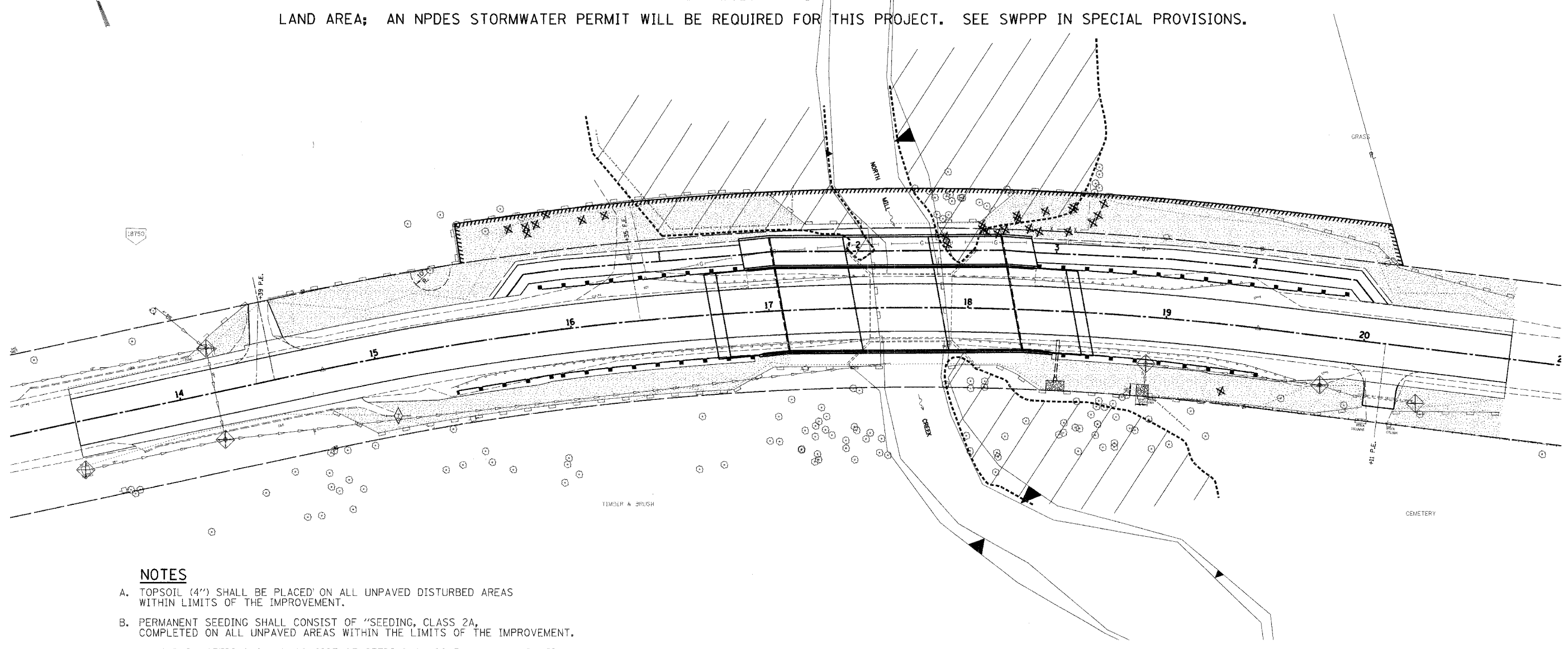
Rice, Berry and Associates
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 Civil & Structural Engineers
 801 S. Durkin Drive
 Springfield, Illinois 62704
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 P.O. BOX 1036
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 618-190-4637

STRIPING PLAN
SECTION 99-00076-11-BR
C.H. 14 / MILLBURN ROAD
LAKE COUNTY

EROSION CONTROL PLAN & STORMWATER POLLUTION PREVENTION PLAN

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 14	99-00076-11-BR	LAKE	66	18
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83763				

THIS PROJECT DISTURBS 1.0 ACRES OF TOTAL LAND AREA. COMPLIANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER PERMIT IS NECESSARY IF A PROJECT DISTURBS 1 OR MORE ACRES OF TOTAL LAND AREA; AN NPDES STORMWATER PERMIT WILL BE REQUIRED FOR THIS PROJECT. SEE SWPPP IN SPECIAL PROVISIONS.



NOTES

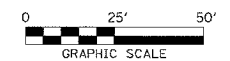
- A. TOPSOIL (4") SHALL BE PLACED ON ALL UNPAVED DISTURBED AREAS WITHIN LIMITS OF THE IMPROVEMENT.
- B. PERMANENT SEEDING SHALL CONSIST OF "SEEDING, CLASS 2A, COMPLETED ON ALL UNPAVED AREAS WITHIN THE LIMITS OF THE IMPROVEMENT.
- C. TEMPORARY SEEDING SHALL CONSIST OF SEEDING CLASS 7 ON ALL UNPAVED AREAS WITHIN THE LIMITS OF THE IMPROVEMENT.
- D. FOR SCHEDULE OF QUANTITIES SEE SHEET 4.

TYPICAL CONSTRUCTION SEQUENCING

1. INSTALL SEDIMENT AND EROSION CONTROL MEASURES
2. COMPLETE TREE REMOVAL (CLEAR & GRUB).
3. STRIP & STOCKPILE TOPSOIL & COMPLETE STOCKPILE PROTECTION.
4. CONSTRUCT PROPOSED STRUCTURE & ROADWAY GRADING.
5. INSTALL TEMPORARY OR FINAL STABILIZATION MEASURES.
6. COMPLETE FINAL CONSTRUCTION ITEMS & CLEANUP.
7. REMOVE EROSION CONTROL ITEMS.
8. RESTORE FINAL AREAS.

LEGEND

- PERIMETER EROSION BARRIER
- TEMPORARY DITCH CHECKS (SPECIAL)
- DITCH FLOW OR OUTFALL
- INLET PROTECTION, SPECIAL OR INLET & PIPE PROTECTION
- INDICATES WETLAND AREA
- SEEDING CLASS 2, SPL. OR SODDING
- STONE RIPRAP, CLASS A4



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 Account Number 12-07-0043-1
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EROSION CONTROL PLAN
 SECTION 99-00076-11-BR
 C.H. 14 / MILLBURN ROAD
 LAKE COUNTY

TYPICAL PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS

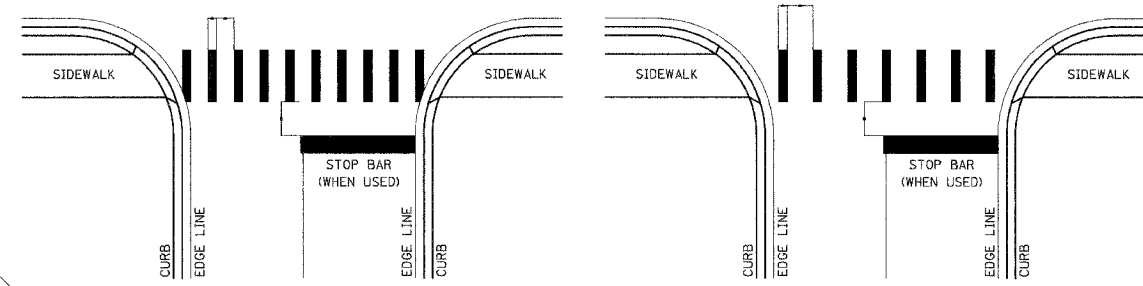
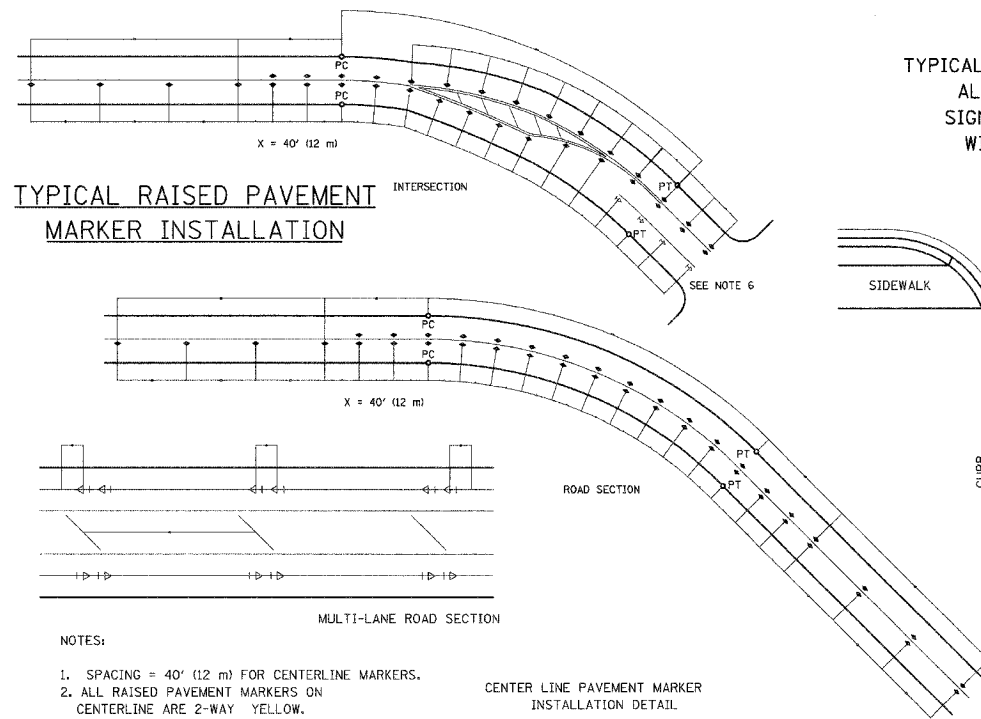
ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
C.H. 14	99-00076 -11-BR	LAKE	66	19
FED. ROAD DIST. NO.		ILLINOIS	P.E.A. PROJ. NO.	

CONTRACT NO: 83763

CROSSWALKS

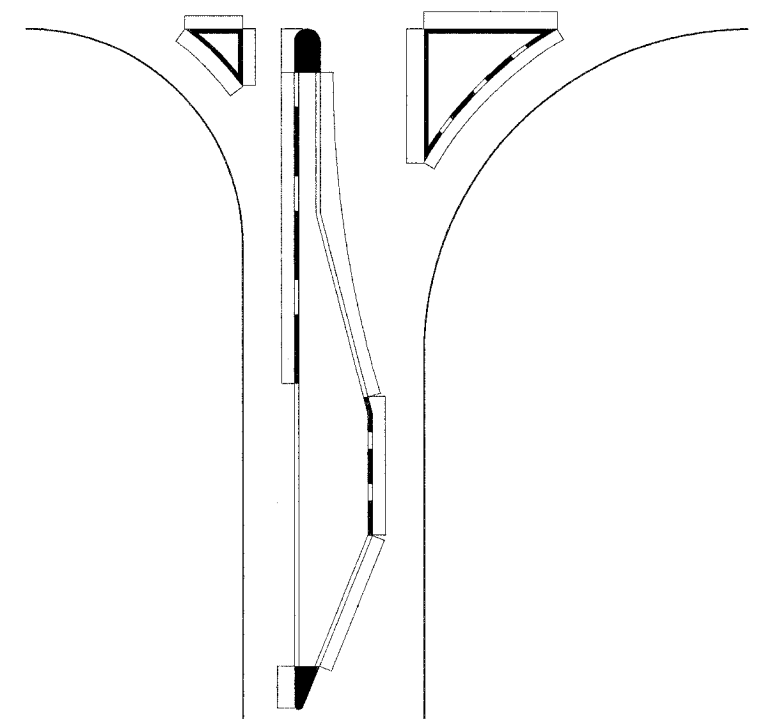
TYPICAL CROSSWALK INSTALLATION
ALL LOCATIONS EXCEPT
SIGNALIZED INTERSECTIONS
WITH VIDEO DETECTION

TYPICAL CROSSWALK INSTALLATION
FOR SIGNALIZED INTERSECTIONS
WITH VIDEO DETECTION



1. WIDTH OF THE CROSSWALK IS GENERALLY 6' (1.8 m) EXCEPT AT SCHOOL CROSSINGS AND BICYCLE CROSSINGS, WHICH CAN BE 8' (2.4 m).
2. THE STOP BAR SHOULD BE INSTALLED A MINIMUM OF 4' (1.2 m) IN ADVANCE OF THE CROSSWALK.

CURB MARKING



- NOTES:
1. PAINT CURB AND NOSE SOLID FOR 10' (3m) OR RADIUS OF NOSE, WHICHEVER IS GREATER.
 2. PAINT MINIMUM OF 3 STRIPES IN DIRECTION OF TRAFFIC.
 3. REDUCED SPACING USED TO OBTAIN 3 STRIPE MINIMUM.
 4. STRIPING RECOMMENDED ONLY WHERE OPERATIONAL PROBLEMS DICTATE.
 5. PAINT SOLID WHERE A MINIMUM OF 3 STRIPES CANNOT BE PLACED.

PAVEMENT MARKING GUIDELINES - ENGLISH MEASUREMENTS

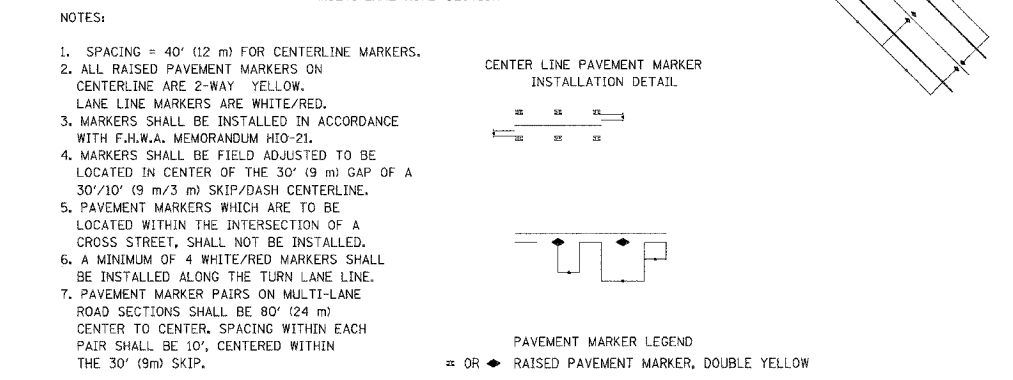
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE OF 2 LANE PAVEMENT	4 IN.	SKIP-DASH	YELLOW	10 FT. LINE WITH 30 FT. SPACE
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 IN. 2 @ 4 IN.	SOLID SOLID	YELLOW YELLOW	6 IN. C-C FROM SKIP-DASH CENTERLINE 12 IN. C-C (OMIT SKIP-DASH CENTERLINE BETWEEN)
CENTERLINE ON MULTI-LANE UNDIVIDED	2 @ 4 IN.	SOLID	YELLOW	12 IN. C-C
LANE LINES	4 IN.	SKIP-DASH	WHITE	10 FT. LINE WITH 30 FT. SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2 FT. LINE WITH 6 FT. SPACE
EDGE LINES	5 IN. WHITE 4 IN. YELLOW	SOLID	WHITE - RIGHT YELLOW - LEFT	OUTLINE RAISED MEDIANS IN YELLOW
TURN LANE MARKINGS	6 IN. LINE FULL SIZE LETTERS AND SYMBOLS (8 FT.)	SOLID	WHITE	TURN ARROW 156 SQ. FT. STRAIGHT ARROW 115 SQ. FT. ONLY 208 SQ. FT. COMB. ARROW 260 SQ. FT.
TWO WAY LEFT TURN MARKING	2 @ 4 IN. EACH DIRECTION 8 FT. LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10 FT. LINE WITH 30 FT. SPACE FOR SKIP-DASH 5 IN. C-C BETWEEN SKIP-DASH LINE AND SOLID LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK	12 IN. @ 90°	SOLID	WHITE	12 IN. LONGITUDINAL BAR WITH 24/36 IN. SPACE 6 FT. TO 12 FT. WIDE SEE TYPICAL CROSSWALK MARKING DETAIL
STOP BARS	24 IN.	SOLID	WHITE	PLACE 4 FT. IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE PLACE AT DESIRED STOPPING POINT.
PAINTED MEDIANS	2 @ 4 IN. WITH 12 IN. DIAGONALS @ 45° NO DIAGONALS USED FOR 4 FT. WIDE MEDIAN	SOLID	YELLOW - 2-WAY TRAFFIC WHITE - 1-WAY TRAFFIC	12 IN. C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING DETAIL MINIMUM OF 5 DIAGONALS
GORE MARKING AND CHANNELIZING LINES	8 IN. WITH 12 IN. DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS 15 FT. C-C (LESS THAN 30 MPH) 20 FT. C-C (30 TO 45 MPH) 30 FT. C-C (OVER 45 MPH) MINIMUM OF 5 DIAGONALS
R.R. CROSSING	24 IN. TRANSVERSE LINES RR IS 6 FT. LETTER 16 IN. LINE FOR "X"	SOLID	WHITE	SEE IDOT-STD.78000 SQ. FT. AREA OF: "R" = 36 SQ. FT. / "R" "X" = 540 SQ. FT.
SHOULDER DIAGONALS	12 IN. @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50 FT. C-C (LESS THAN 30 MPH) 75 FT. C-C (30 TO 45 MPH) 150 FT. C-C (OVER 45 MPH) MINIMUM OF 5 DIAGONALS

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO PART III "MARKINGS" IN THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND IDOT-HIGHWAY STANDARD 78000 EFFECTIVE JAN. 9, 1998.

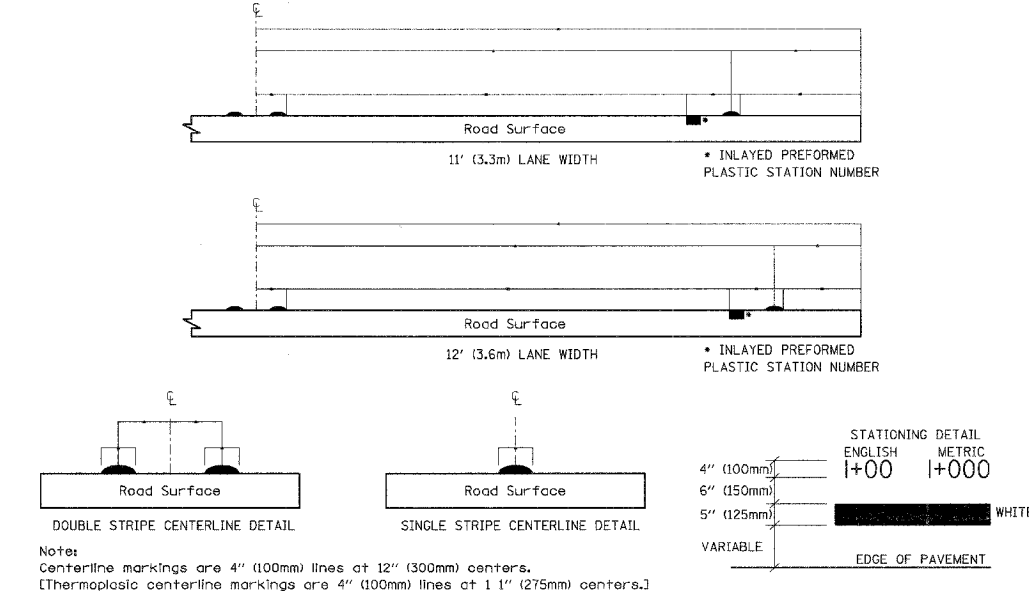
PAVEMENT MARKING GUIDELINES - METRIC MEASUREMENTS

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE OF 2 LANE PAVEMENT	100 mm	SKIP-DASH	YELLOW	3 m LINE WITH 9 m SPACE
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	100 mm 2 @ 100 mm	SOLID SOLID	YELLOW YELLOW	150 mm C-C FROM SKIP-DASH CENTERLINE 300 mm C-C (OMIT SKIP-DASH CENTERLINE BETWEEN)
CENTERLINE ON MULTI-LANE UNDIVIDED	2 @ 100 mm	SOLID	YELLOW	300 mm C-C
LANE LINES	100 mm	SKIP-DASH	WHITE	3 m LINE WITH 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	600 mm LINE WITH 18 m SPACE
EDGE LINES	125 mm WHITE 100 mm YELLOW	SOLID	WHITE - RIGHT YELLOW - LEFT	OUTLINE RAISED MEDIANS IN YELLOW
TURN LANE MARKINGS	150 mm LINE FULL SIZE LETTERS AND SYMBOLS (2.4 m)	SOLID	WHITE	TURN ARROW 15 SQ. m COMB. ARROW 2.4 SQ. m STRAIGHT ARROW 150. m ONLY 19 SQ. m
TWO WAY LEFT TURN MARKING	2 @ 100 mm EACH DIRECTION 2.4 m LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	3 m LINE WITH 9 m SPACE FOR SKIP-DASH 150 mm C-C BETWEEN SKIP-DASH LINE AND SOLID LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK	300 mm @ 90°	SOLID	WHITE	300 mm LONGITUDINAL BAR WITH 600/900 mm SPACE, 18 m TO 36 m WIDE SEE TYPICAL CROSSWALK MARKING DETAIL
STOP BARS	600 mm	SOLID	WHITE	PLACE 12 m IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE PLACE AT DESIRED STOPPING POINT.
PAINTED MEDIANS	2 @ 100 mm WITH 300 mm DIAGONALS @ 45° NO DIAGONALS USED FOR 12 m WIDE MEDIAN	SOLID	YELLOW - 2-WAY TRAFFIC WHITE - 1-WAY TRAFFIC	300 mm C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING DETAIL MINIMUM OF 5 DIAGONALS
GORE MARKING AND CHANNELIZING LINES	200 mm WITH 300 mm DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS 4.6 m C-C (LESS THAN 30 MPH) 6 m C-C (30 TO 45 MPH) 9 m C-C (OVER 45 MPH) MINIMUM OF 5 DIAGONALS
R.R. CROSSING	400 mm TRANSVERSE LINES RR IS 1.8 m LETTER 400 mm LINE FOR "X"	SOLID	WHITE	SEE IDOT-STD.78000 SQUARE METER AREA OF: "R" = 0.33 SQ. m / "R" "X" = 50 SQ. m
SHOULDER DIAGONALS	300 mm @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	15.2 m C-C (LESS THAN 30 MPH) 23.0 m C-C (30 TO 45 MPH) 45.7 m C-C (OVER 45 MPH) MINIMUM OF 5 DIAGONALS

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO PART III "MARKINGS" IN THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND IDOT-HIGHWAY STANDARD 78000 EFFECTIVE JAN. 9, 1998.



PAVEMENT CROSS SECTION SHOWING TYPICAL PAVEMENT MARKINGS (2-LANE ROADWAY)



Note:
Centerline markings are 4" (100mm) lines at 12" (300mm) centers.
[Thermoplastic centerline markings are 4" (100mm) lines at 11" (275mm) centers.]

Lake County
Division of Transportation

TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS

REVISIONS	NAME	DATE
1	JOHN SAUTER	7/7/99
2	JOHN SAUTER	11/01/01

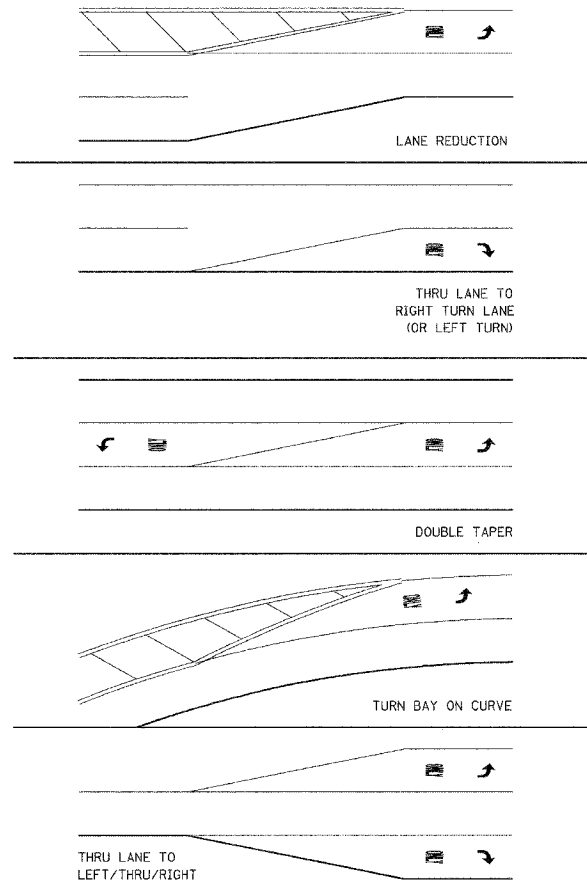
SCALE: NONE
DATE: JAN. 12, 1998

DRAWN BY: JPS
CHECKED BY: ANK

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET
C.H. 14	99-00076-11-BR	LAKE	66	20
FED. ROAD DIST. NO.	ILLINOIS		FED. AID PROJECT	

CONTRACT NO: 83763

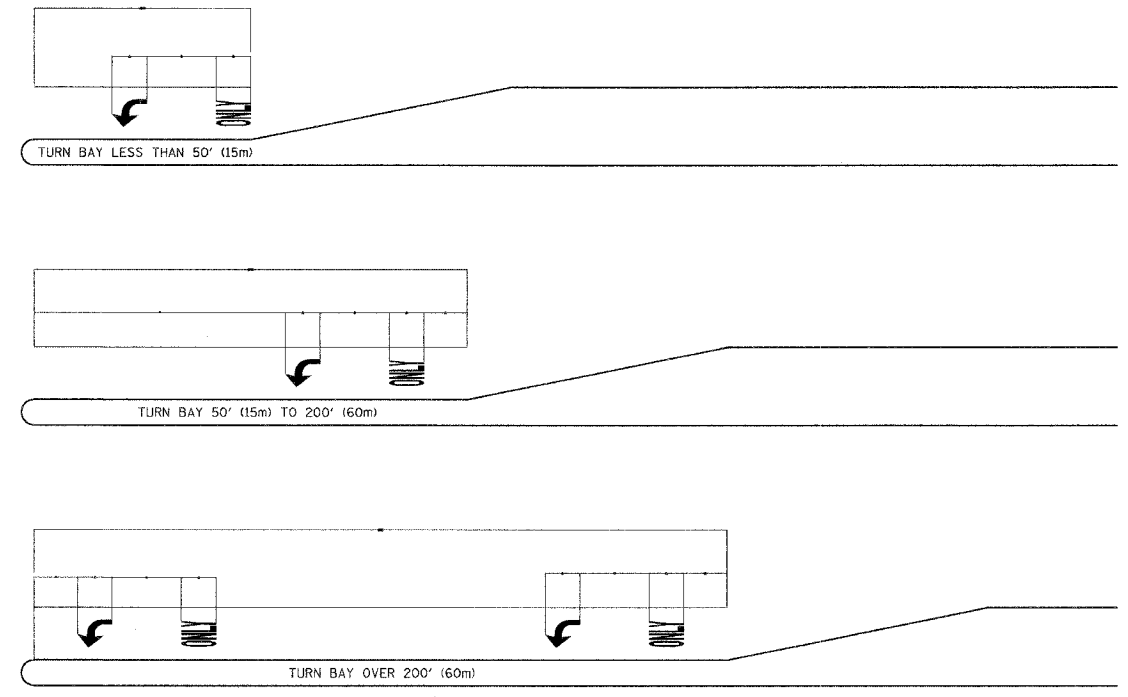
TYPICAL MINI-SKIP PAVEMENT MARKINGS



MINI-SKIPS ARE 2 FEET (600mm) WHITE LINE WITH 6 FEET (1.8m) SPACING. THE MINI-SKIP IS THE SAME WIDTH AS THE PAVEMENT MARKING LINE, IT EXTENDS

TYPICAL PAVEMENT MARKINGS

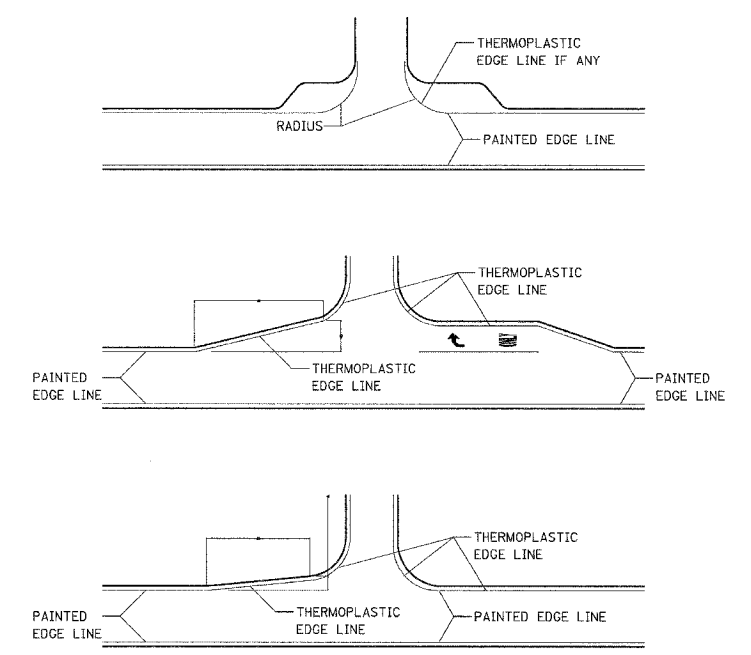
TYPICAL TURN BAY PAVEMENT MARKINGS



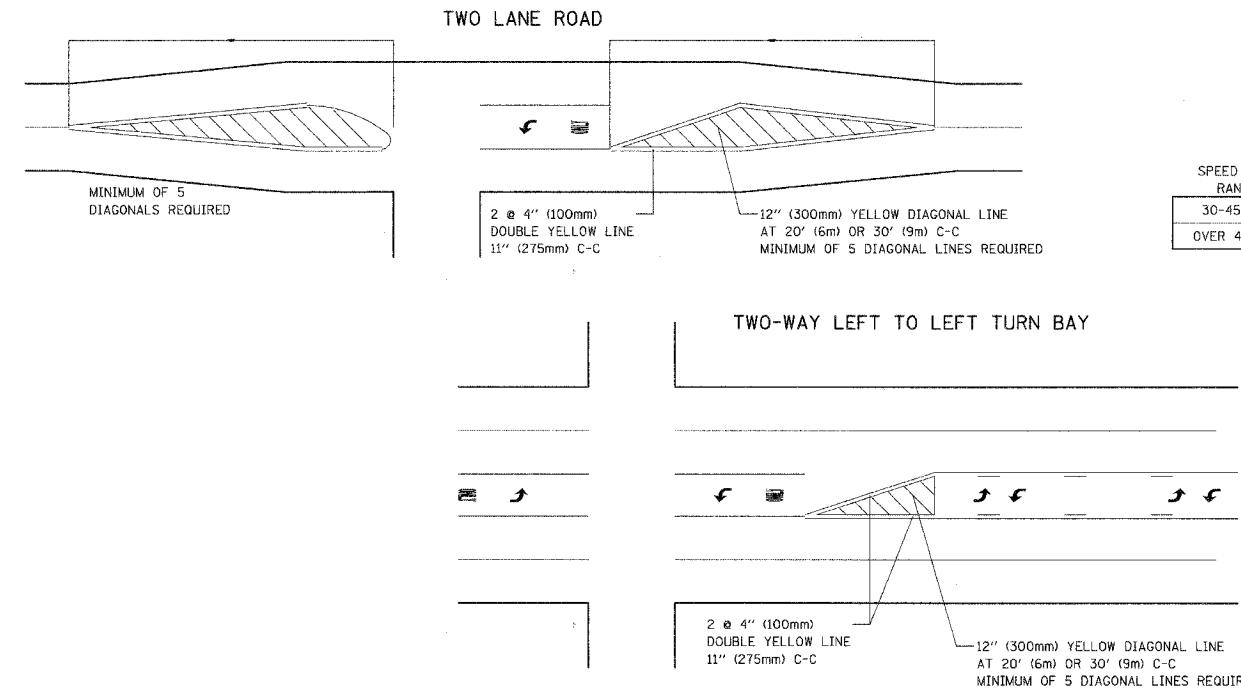
AREA = 15.6 SQ. FT. (1.5 SQ. m) AT INTERSECTIONS WITH VIDEO DETECTION THE DISTANCE "X" SHALL BE A MINIMUM OF 30' (10m). FULL SIZE LETTERS [8" (2.4m)] AND ARROWS SHALL BE USED. TURN LANES IN EXCESS OF 400' (120m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW W/ "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW W/ "ONLY".

AREA = 20.8 SQ. FT. (1.9 SQ. m)

EDGE LINE RADII AT SIDE STREETS



TYPICAL DIAGONAL SPACING

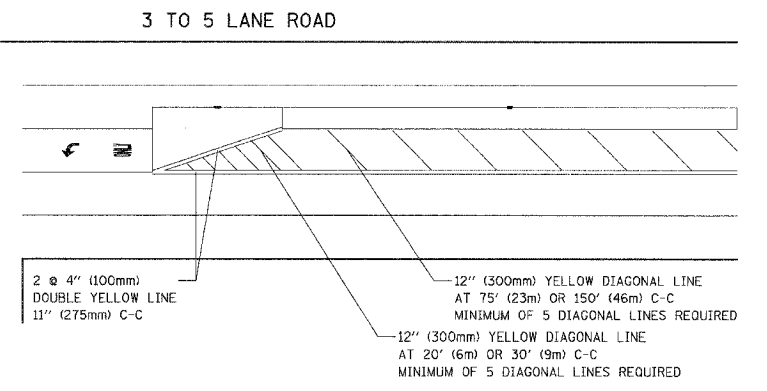


SPEED LIMIT RANGE	DIAGONAL SPACING	
	CONTINUOUS	INTERSECTION CHANNELIZATION
30-45 MPH	75 FT. (20m)	20 FT. (6m)
OVER 45 MPH	150 FT. (45m)	30 FT. (9m)

DUAL LEFT TURN ARROWS

A MINIMUM OF TWO PAIRS OF DUAL LEFT TURN ARROWS SHALL BE USED. THE DUAL LEFT TURN ARROWS SHALL BE WHITE IN COLOR. THE INTERVAL BETWEEN SETS OF DUAL LEFT TURN ARROWS SHOULD BE 200' (60 m) AND 300' (90 m).

31.2 SQ. FT. (2.94 SQ. M) MIN. OF 2 SETS REQUIRED



REVISIONS	
NAME	DATE
JOHN SAUTER	7/7/99
JOHN SAUTER	11/01/00

LakeCounty
Division of Transportation

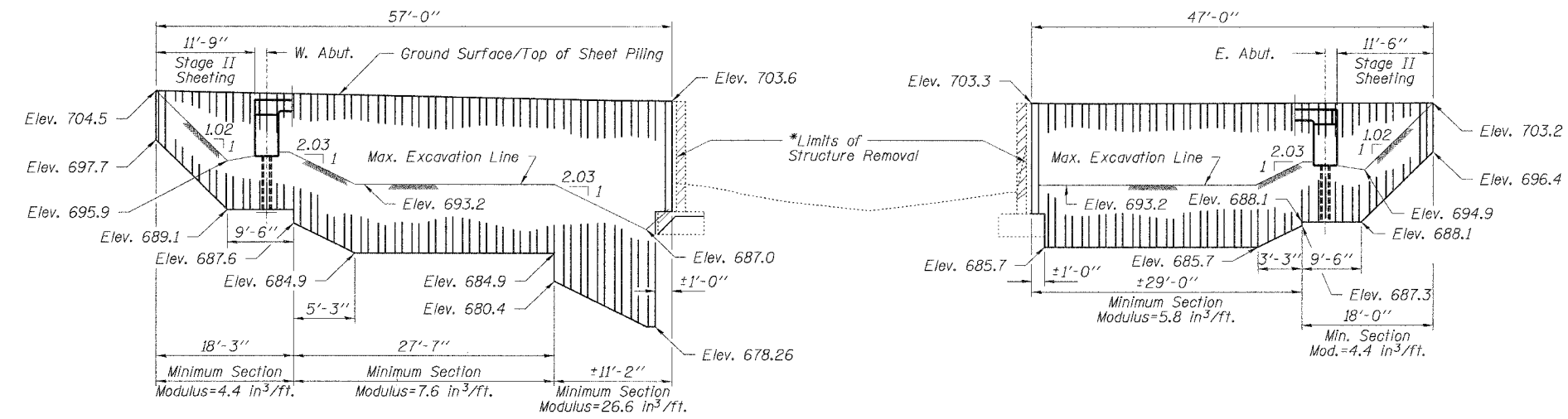
TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS

SCALE: NONE DATE: JAN. 12, 1998

DRAWN BY: JPS CHECKED BY: ANK

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 14	99-00076-11-BR	LAKE	66	22
FED. ROAD DIST. NO.	ILLINOIS		FED. AID PROJECT-	

CONTRACT NO: 83763



TEMPORARY SHEET PILING

* Existing Substructure layout below the ground line is unknown.

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M-31, M322 Grade 60. The Contractor shall drive two concrete test piles in permanent locations, one at the West Abutment and one at Pier 2, as directed by the Engineer before ordering the remainder of the piles.

Layout of riprap may be varied in the field to better suit existing ground conditions as directed by the Engineer.

The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.

The Contractor shall submit falsework plans to the Department for approval before construction begins.

All proposed construction activity shall be in accordance with Regional Permit of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.

Bridge Deck Grooving shall be completed on the surface of the bridge and Bridge Approach Pavement.

Protective Coat shall be applied to all exposed areas of the bridge surface and approach pavement.

All construction joints shall be bonded.

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.

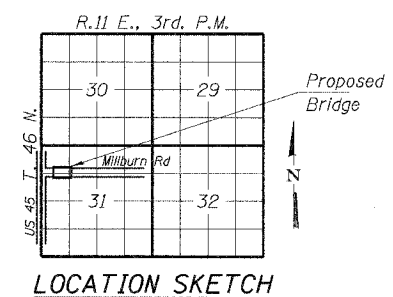
See Sheets 39 & 40 for Borings.

** Concrete Superstructure in the parapets noted to receive Architectural Finish for Concrete Surfaces shall also have a color additive to match Red Brick. (See Special Provisions for Architectural Finish for Concrete Surfaces)

A Clear Protective Coating for Concrete shall be applied to all vertical surfaces of the structure.

NORTH MILL CREEK
C.H. 14 / MILLBURN ROAD
BUILT 200_ BY
LAKE COUNTY
SEC. 99-00076-11-BR
F.A. PROJ. BRM-7003 (950)
STR. NO. 049-3075 LOADING HS20

NAME PLATE
See Std. 515001



WATERWAY INFORMATION

Drainage Area = 31.6 Sq. Mi. Low Grade Elev. 702.90 @ Sta. 16+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
	10	1264	180	360	697.0	0.7	0.0	697.7	697.0
Design	30	1800	205	405	697.6	1.4	0.2	699.0	697.8
Base	100	2433	220	445	698.0	2.3	0.5	700.3	698.5
Overtopping									
Max. Calc.	500	3210	275	590	699.4	2.5	0.0	701.9	699.3

TOTAL BILL OF MATERIAL

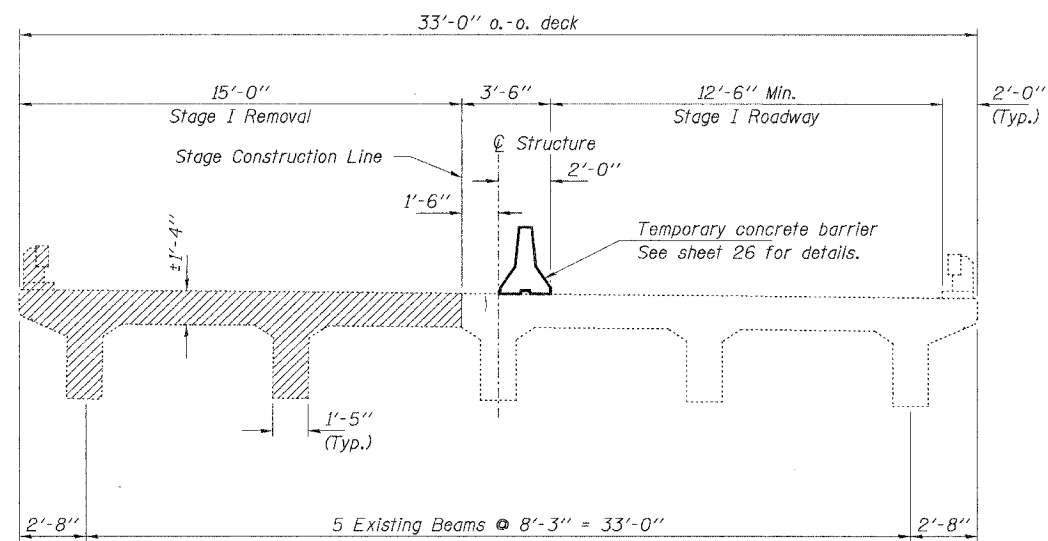
ITEM	UNIT	SUPER	SUB	TOTAL
** Concrete Superstructure	Cu. Yd.	396.5		396.5
Concrete Structures	Cu. Yd.		216.4	216.4
Reinforcement Bars, Epoxy Coated	Pound	130,790	22,010	152,800
Name Plates	Each		1	1
Stone Riprap, Class A4	Ton			676
Filter Fabric	Sq. Yd.			843
Steel Piles HP12x53	Foot		3,785	3,785
Test Pile Steel HP 12x53	Each		2	2
Protective Coat	Sq. Yd.	1000		1000
Porous Granular Embankment	Ton		310	310
Bridge Deck Grooving	Sq. Yd.	722		722
Bar Splacers	Each	350	88	438
Floor Drains	Each	18		18
Aluminum Railing	Foot	344		344
Limestone Cap	Each	33		33
Architectural Finish for Concrete Surfaces	Sq. Ft.	2,410	280	2,410
Temporary Sheet Piling	Sq. Ft.		2,060	2,060
Underwater Structure Exc. Protection - Loc. 1	Each		1	1
Underwater Structure Exc. Protection - Loc. 2	Each		1	1
Concrete Encasement	Cu. Yd.		8.4	8.4
Clear Protective Coating for Concrete	Sq. Ft.	3,615	3,605	7,220

HLR
Rice, Berry and Associates
A Division of Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers
801 S. Durkin Drive
Springfield, Illinois 62704
217-546-3400
P.O. Box 1036
DuQuoin, Illinois 62832
618-790-4637
Date: 05/23/05
Account Number 12-07-0043-1
DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

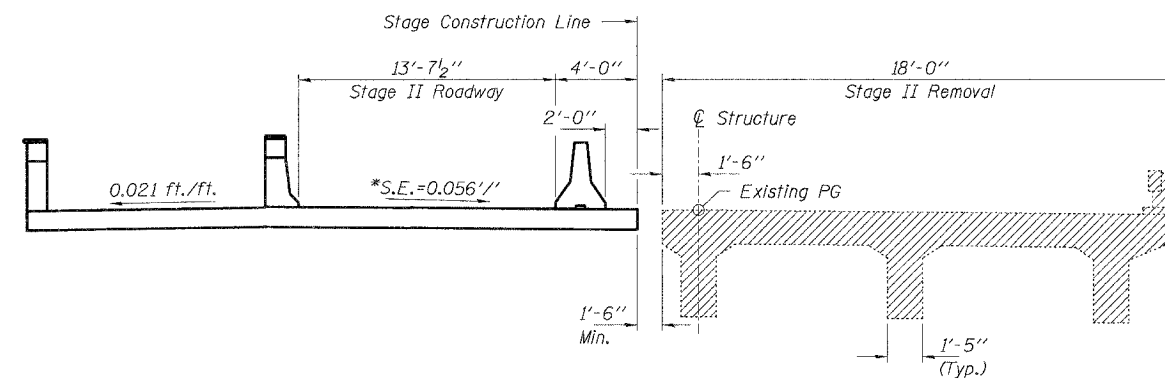
GENERAL PLAN NOTES
MILLBURN ROAD / CH 14
SECTION 99-00076-11-BR
LAKE COUNTY
STATION 17+65

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 14	99-00076 -II-BR	LAKE	66	24
FED. ROAD DIST. NO.	ALIGNMENT	FED. AID PROJECT		

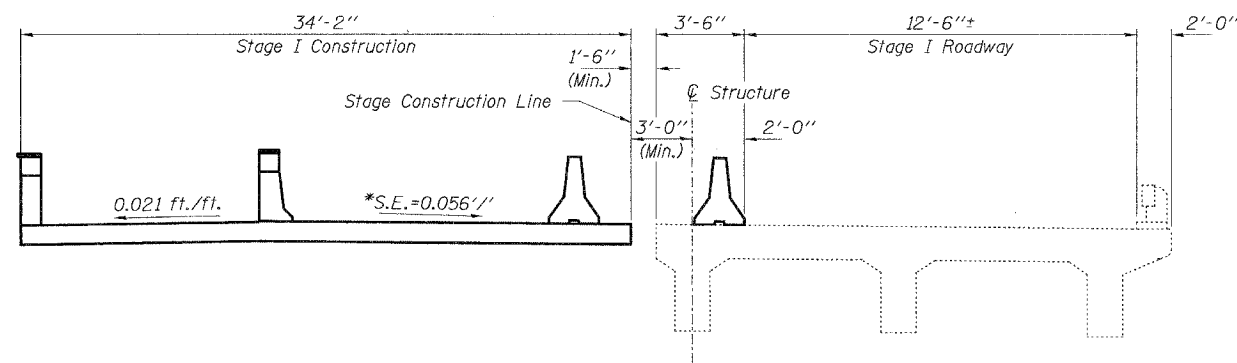
CONTRACT NO: 83763



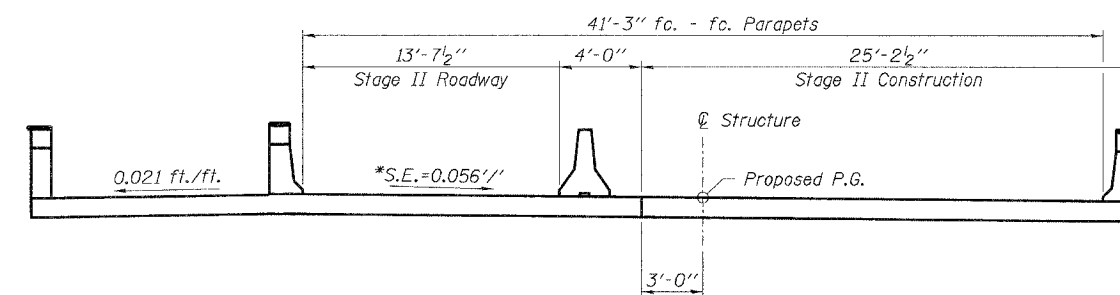
STAGE I REMOVAL
(Looking East)



STAGE II REMOVAL
(Looking East)



STAGE I CONSTRUCTION
(Looking East)



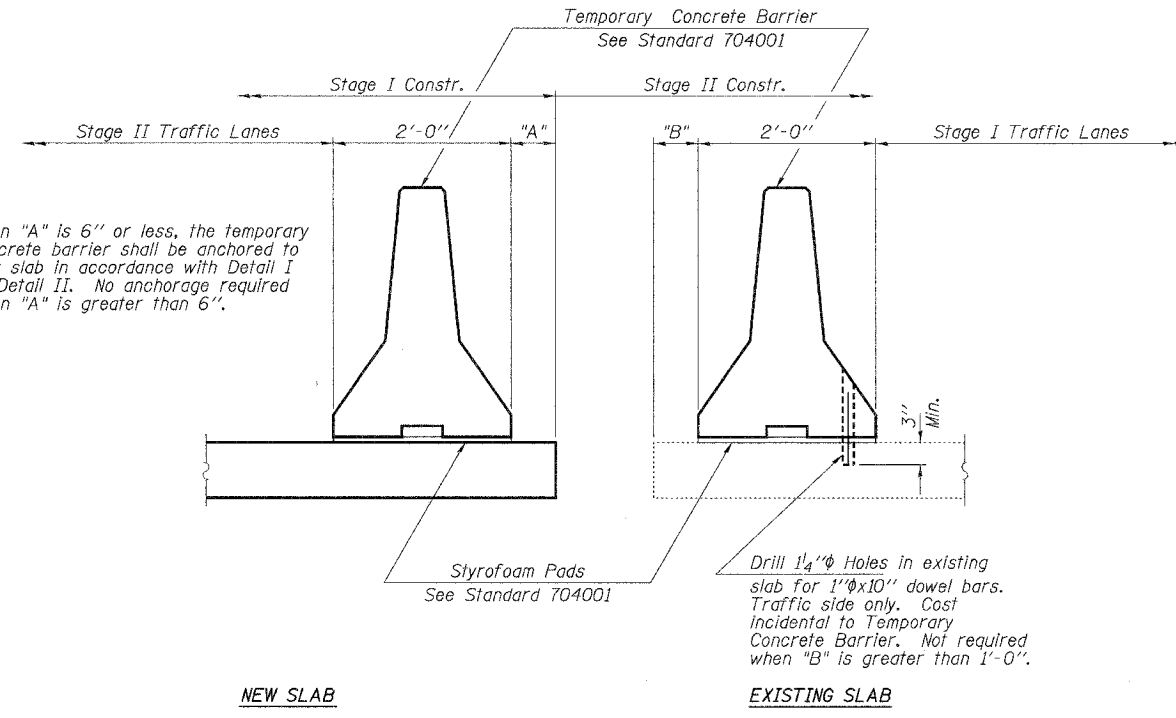
STAGE II CONSTRUCTION
(Looking East)

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Civil & Structural Engineers
801 S. Durkin Drive
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217-546-3400
P.O. Box 1036
DuQuoin, Illinois 62832
618-790-4637
Account Number
12-07-0043-1
Date: 7-22-04
DESIGNED: S.W.M. CHECKED: M.G.B. DRAWN: D.T.M.

ROADWAY STAGE DETAILS
MILLBURN ROAD / CH 14
SECTION 99-00076-II-BR
LAKE COUNTY
STATION 17+65

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 14	99-00076 - II-BR	LAKE	66	25
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT-			

CONTRACT NO: 83763



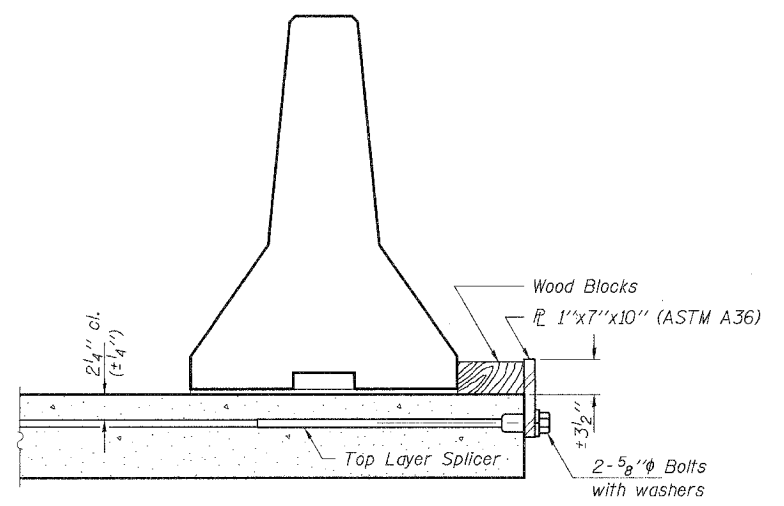
SECTIONS THRU SLAB

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{P} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each 10'-0" barrier panel.

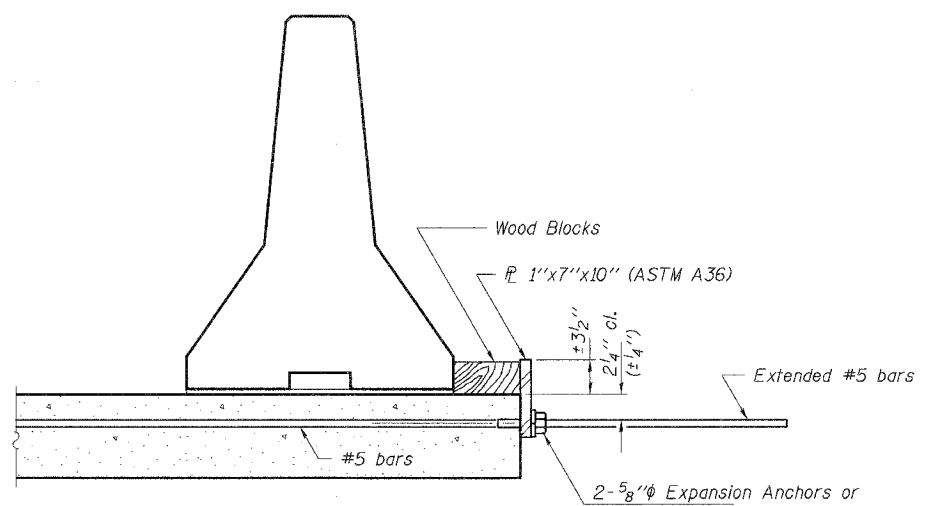
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{P} to the concrete slab with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each 10'-0" barrier panel.

Cost of anchorage is incidental to Temporary Concrete Barrier.



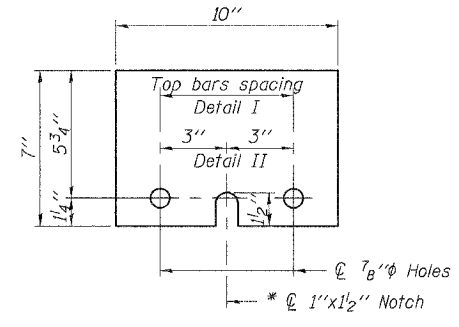
DETAIL I

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.



1" x 7" x 10"

* Required only with Detail II

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A Division of Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers
801 S. Durkin Drive
Springfield, Illinois 62704
217-546-3400

Account Number 02-07-0043-1
Date 7-22-04
DESIGNED: S.W.M. CHECKED: M.G.B. DRAWN: D.T.M.

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

MILLBURN ROAD / CH 14

SECTION 99-00076-II-BR

LAKE COUNTY

STATION 17+65

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET
C.H. 14	99-00076-11-BR	LAKE	66	26
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO: 83763

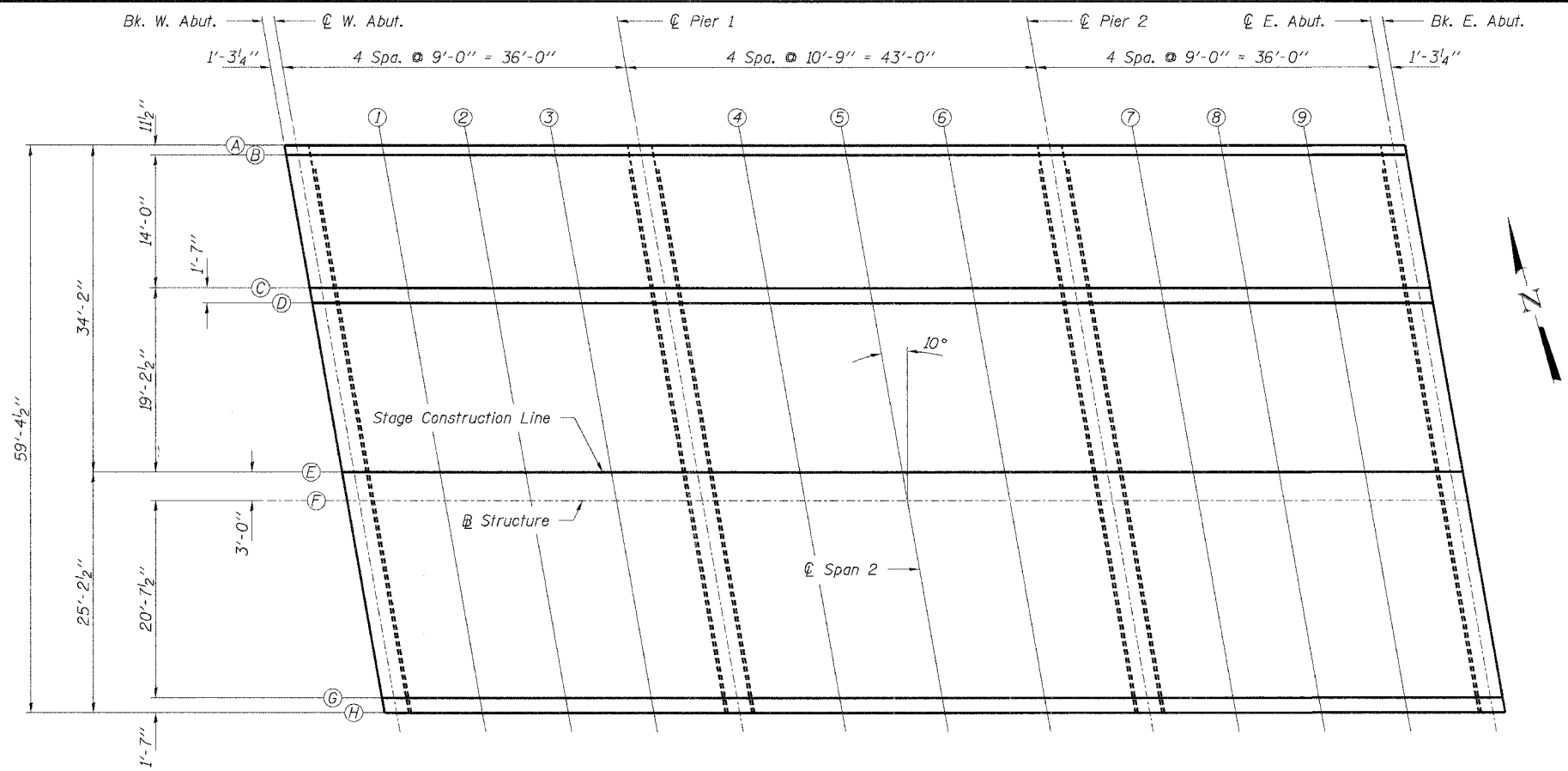


TABLE OF ELEVATIONS

LOCATION	BK. OF W. ABUT.	C. OF W. ABUT.	SPAN 1			C. OF PIER 1	SPAN 2			C. OF PIER 2	SPAN 3			C. OF E. ABUT.	BK. OF E. ABUT.
			1	2	3		4	5	6		7	8	9		
LINE T.	704.979	704.959	704.827	704.703	704.587	704.480	704.362	704.256	704.162	704.079	704.019	703.967	703.924	703.889	703.884
A ADJ.	704.979	704.959	704.853	704.734	704.598	704.480	704.367	704.271	704.167	704.079	704.030	703.999	703.950	703.889	703.884

LOCATION	BK. OF W. ABUT.	C. OF W. ABUT.	SPAN 1			C. OF PIER 1	SPAN 2			C. OF PIER 2	SPAN 3			C. OF E. ABUT.	BK. OF E. ABUT.
			1	2	3		4	5	6		7	8	9		
LINE T.	704.996	704.977	704.845	704.721	704.605	704.498	704.380	704.274	704.180	704.098	704.038	703.987	703.943	703.908	703.904
B ADJ.	704.996	704.977	704.871	704.752	704.616	704.498	704.385	704.290	704.186	704.098	704.049	704.018	703.969	703.908	703.904

LOCATION	BK. OF W. ABUT.	C. OF W. ABUT.	SPAN 1			C. OF PIER 1	SPAN 2			C. OF PIER 2	SPAN 3			C. OF E. ABUT.	BK. OF E. ABUT.
			1	2	3		4	5	6		7	8	9		
LINE T.	705.253	705.234	705.104	704.982	704.869	704.764	704.649	704.546	704.454	704.375	704.317	704.268	704.227	704.194	704.190
C ADJ.	705.253	705.234	705.130	705.014	704.879	704.764	704.654	704.561	704.460	704.375	704.328	704.299	704.253	704.194	704.190

LOCATION	BK. OF W. ABUT.	C. OF W. ABUT.	SPAN 1			C. OF PIER 1	SPAN 2			C. OF PIER 2	SPAN 3			C. OF E. ABUT.	BK. OF E. ABUT.
			1	2	3		4	5	6		7	8	9		
LINE T.	705.160	705.141	705.011	704.890	704.777	704.672	704.557	704.455	704.364	704.284	704.227	704.178	704.137	704.104	704.100
D ADJ.	705.160	705.141	705.037	704.921	704.787	704.672	704.563	704.470	704.369	704.284	704.237	704.209	704.163	704.104	704.100

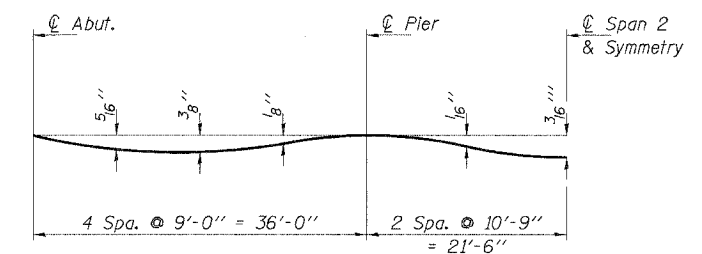
LOCATION	BK. OF W. ABUT.	C. OF W. ABUT.	SPAN 1			C. OF PIER 1	SPAN 2			C. OF PIER 2	SPAN 3			C. OF E. ABUT.	BK. OF E. ABUT.
			1	2	3		4	5	6		7	8	9		
LINE T.	704.127	704.108	703.982	703.863	703.753	703.651	703.539	703.440	703.352	703.276	703.222	703.176	703.138	703.108	703.104
E ADJ.	704.127	704.108	704.008	703.894	703.763	703.651	703.545	703.456	703.358	703.276	703.232	703.207	703.164	703.108	703.104

LOCATION	BK. OF W. ABUT.	C. OF W. ABUT.	SPAN 1			C. OF PIER 1	SPAN 2			C. OF PIER 2	SPAN 3			C. OF E. ABUT.	BK. OF E. ABUT.
			1	2	3		4	5	6		7	8	9		
LINE T.	703.951	703.933	703.806	703.688	703.578	703.477	703.366	703.267	703.180	703.105	703.051	703.005	702.968	702.938	702.935
F ADJ.	703.951	703.933	703.832	703.720	703.589	703.477	703.371	703.283	703.186	703.105	703.061	703.037	702.994	702.938	702.935

LOCATION	BK. OF W. ABUT.	C. OF W. ABUT.	SPAN 1			C. OF PIER 1	SPAN 2			C. OF PIER 2	SPAN 3			C. OF E. ABUT.	BK. OF E. ABUT.
			1	2	3		4	5	6		7	8	9		
LINE T.	702.744	702.726	702.603	702.488	702.381	702.283	702.177	702.082	701.999	701.927	701.877	701.834	701.800	701.774	701.771
G ADJ.	702.744	702.726	702.629	702.519	702.392	702.283	702.182	702.097	702.004	701.927	701.887	701.865	701.826	701.774	701.771

LOCATION	BK. OF W. ABUT.	C. OF W. ABUT.	SPAN 1			C. OF PIER 1	SPAN 2			C. OF PIER 2	SPAN 3			C. OF E. ABUT.	BK. OF E. ABUT.
			1	2	3		4	5	6		7	8	9		
LINE T.	702.651	702.633	702.510	702.396	702.290	702.192	702.085	701.991	701.908	701.837	701.786	701.744	701.710	701.685	701.682
H ADJ.	702.651	702.633	702.536	702.427	702.300	702.192	702.090	702.006	701.913	701.837	701.797	701.776	701.736	701.685	701.682

T. - Theoretical elevation at top of slab
Adj. - T adjusted for dead load deflection



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only.)

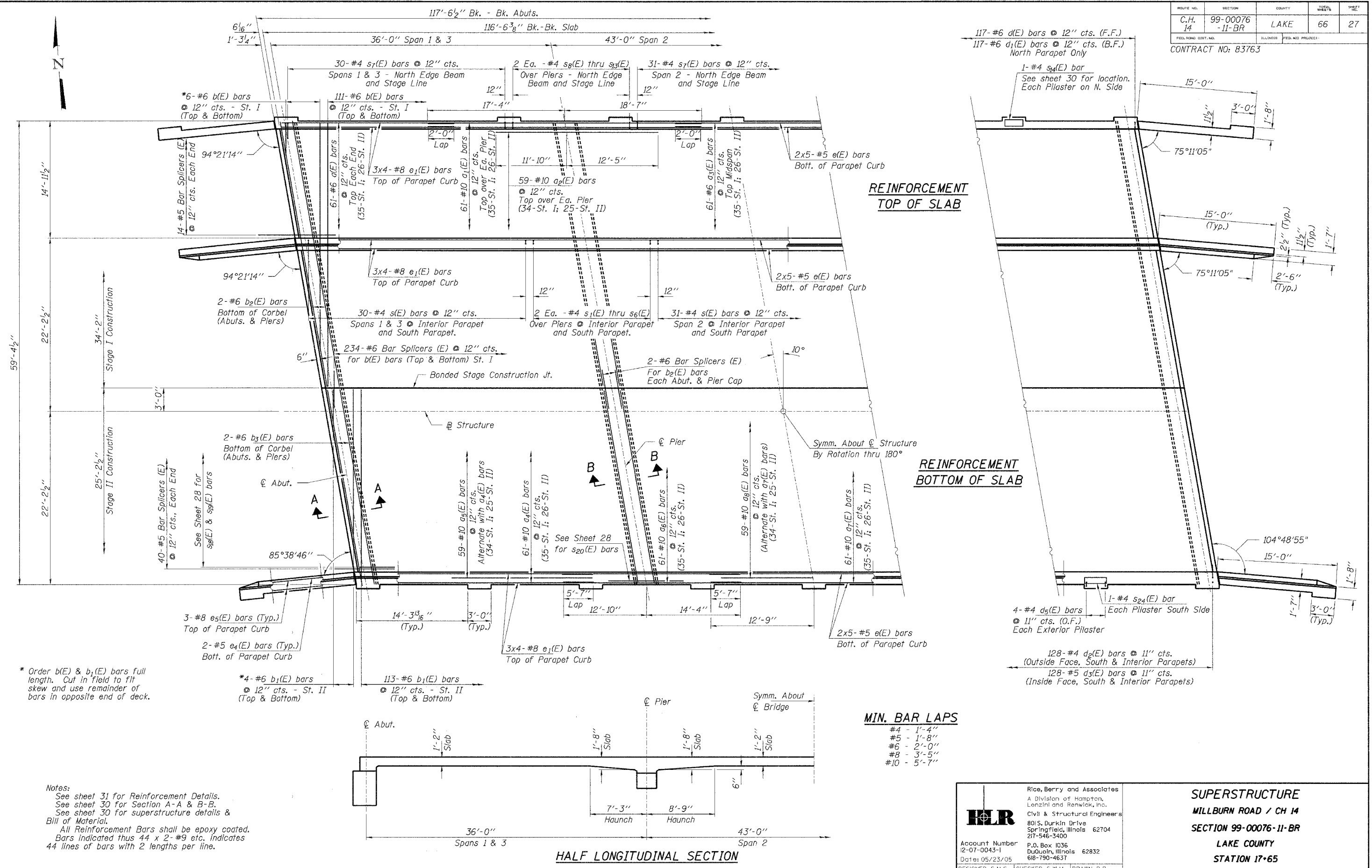
Notes: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown.

HLR
Rice, Berry and Associates
A Division of Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers
801 S. Durkin Drive
Springfield, Illinois 62704
217-546-3400
P.O. Box 1036
DuQuoin, Illinois 62832
618-790-4637
Account Number 12-07-0043-1
Date: 05/23/05
DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

SLAB ELEVATIONS
MILLBURN ROAD / CH 14
SECTION 99-00076-11-BR
LAKE COUNTY
STATION 17+65

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET
C.H. 14	99-00076-11-BR	LAKE	66	27
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO: 83763

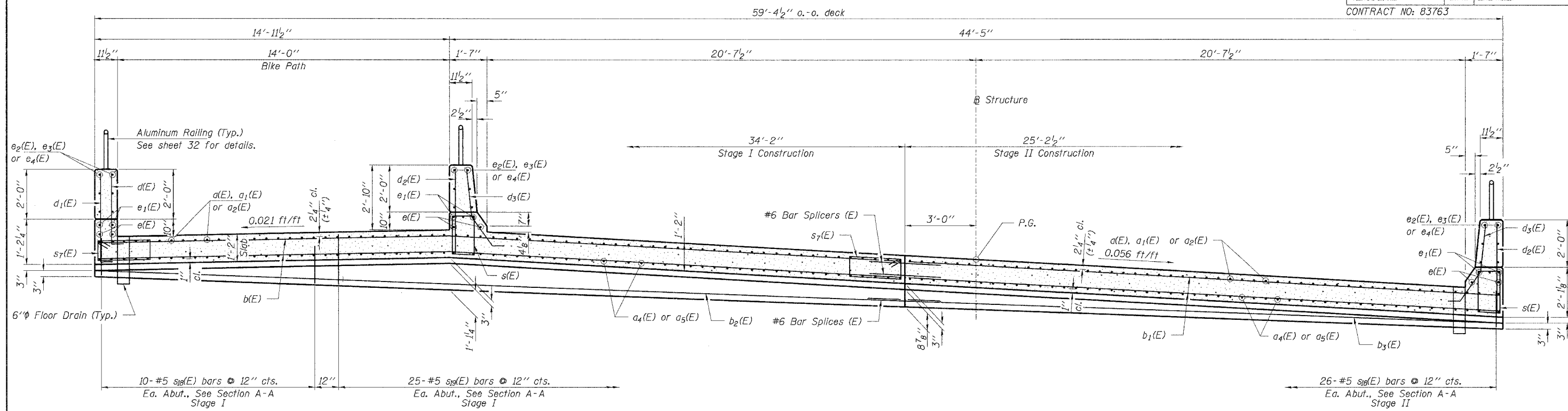


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 Rice, Berry and Associates
 A Division of Hampton, Lenzini and Renwick, Inc.
 Civil & Structural Engineers
 80 S. Durkin Drive
 Springfield, Illinois 62704
 217-546-3400
 P.O. Box 1036
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 618-790-4637
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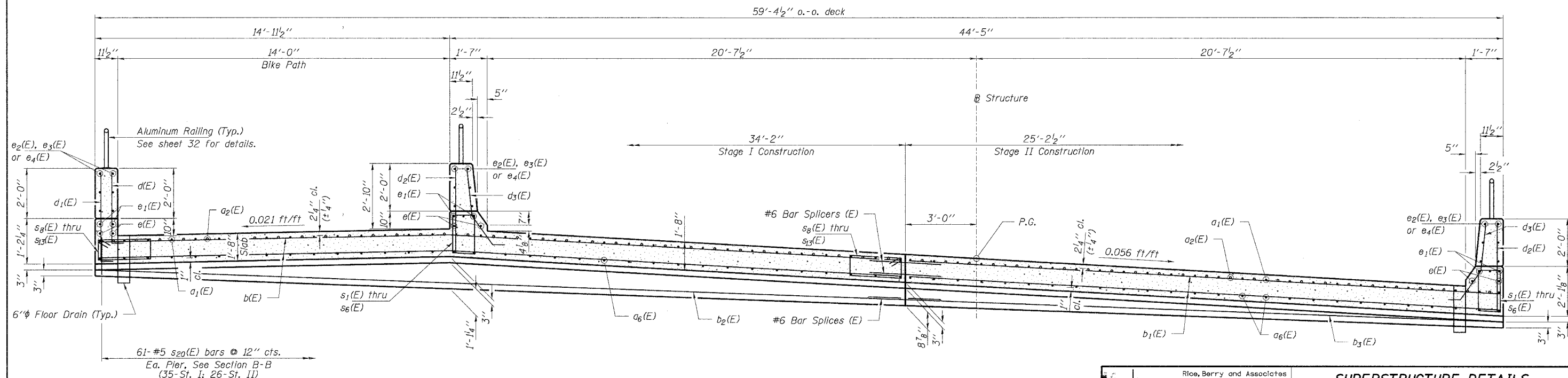
SUPERSTRUCTURE
MILLBURN ROAD / CH 14
SECTION 99-00076-11-BR
LAKE COUNTY
STATION 17+65

HALF LONGITUDINAL SECTION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 14	99-00076-11-BR	LAKE	66	28
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT-		CONTRACT NO: 83763	



CROSS SECTION AT ABUTMENTS & MIDSPAN
(Looking East)



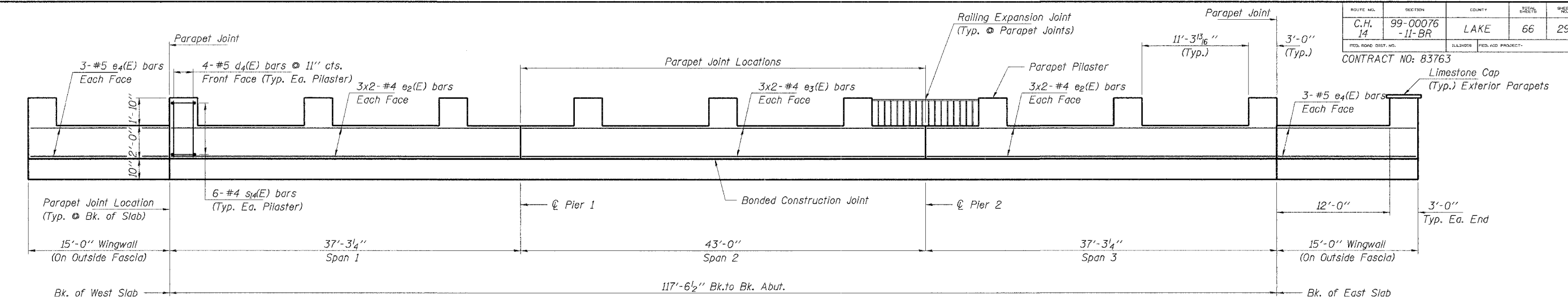
CROSS SECTION AT PIERS
(Looking East)

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Civil & Structural Engineers
801 S. Durkin Drive
Springfield, Illinois 62704
217-546-3400
P.O. Box 1036
DuQuoin, Illinois 62832
618-790-4637
Date: 05/23/05
DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

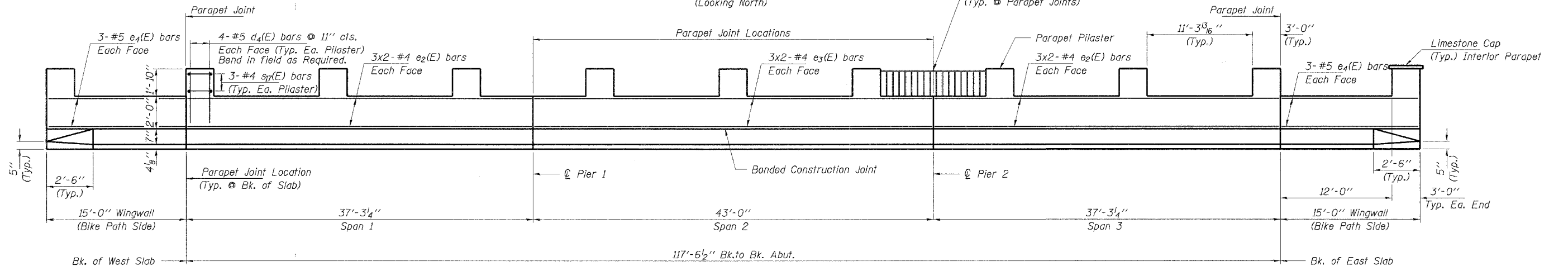
SUPERSTRUCTURE DETAILS
MILLBURN ROAD / CH 14
SECTION 99-00076-11-BR
LAKE COUNTY
STATION 17+65

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET
C.H. 14	99-00076 -11-BR	LAKE	66	29
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

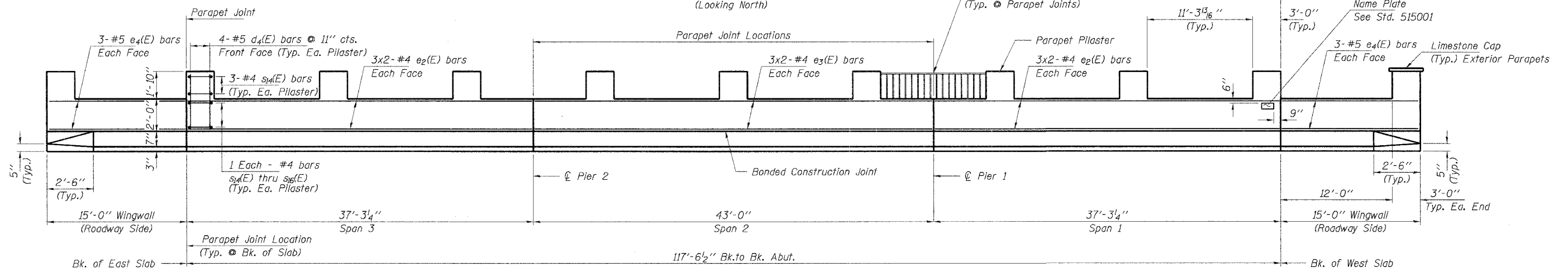
CONTRACT NO: 83763
Limestone Cap (Typ.) Exterior Parapets



INSIDE ELEVATION OF NORTH PARAPET
(Looking North)



INSIDE ELEVATION OF CENTER PARAPET
(Looking North)



INSIDE ELEVATION OF SOUTH PARAPET
(Looking South)

Notes: Base of wingwall parapets may be poured with substructure. See sheet 32 for Railing and Limestone Cap details.

MIN. BAR LAP
#4 - 1'-4"

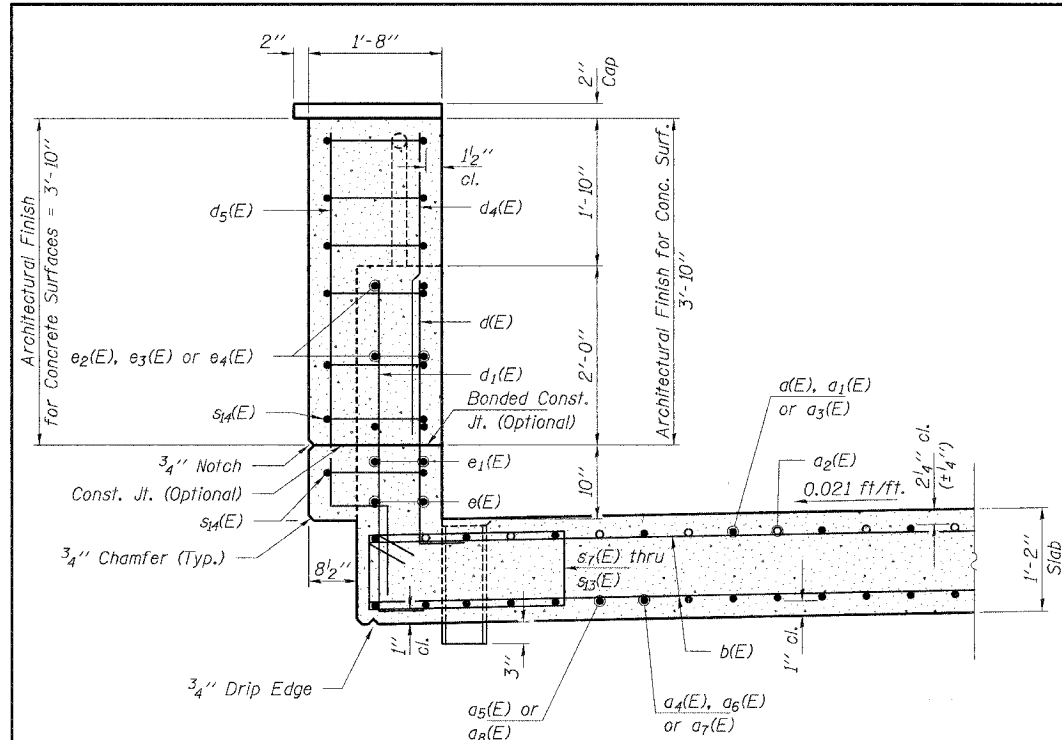
	Rice, Berry and Associates A Division of Hampton, Lenzini and Renwick, Inc. Civil & Structural Engineers 801 S. Durkin Drive Springfield, Illinois 62704 217-546-3400	SUPERSTRUCTURE DETAILS MILLBURN ROAD / CH 14 SECTION 99-00076-11-BR LAKE COUNTY STATION 17+65
	Account Number 12-07-0043-1 Date: 05/23/05 DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.	

CONTRACT NO: 83763

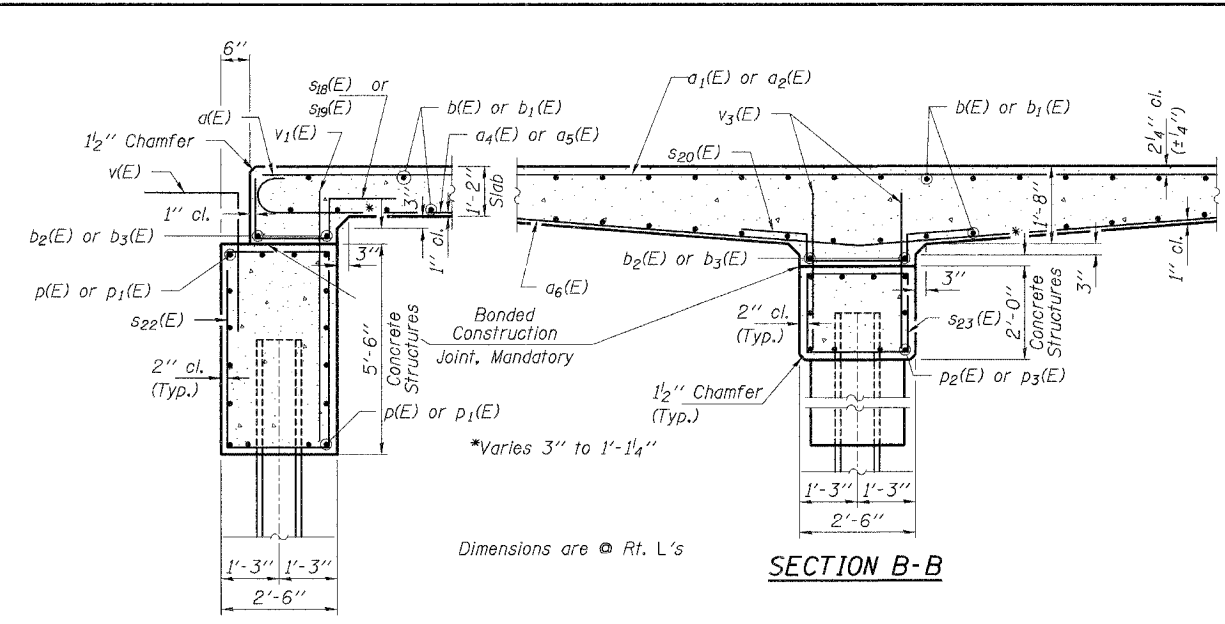
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	122	#6	21'-4"	
a ₁ (E)	122	#10	35'-11"	
a ₂ (E)	118	#10	24'-3"	
a ₃ (E)	61	#6	9'-10"	
a ₄ (E)	122	#10	30'-9"	C
a ₅ (E)	118	#10	29'-3"	C
a ₆ (E)	122	#10	27'-3"	
a ₇ (E)	61	#10	25'-6"	
a ₈ (E)	59	#10	23'-10"	
b(E)	234	#6	33'-10"	
b ₁ (E)	234	#6	24'-10"	
b ₂ (E)	8	#6	34'-4"	
b ₃ (E)	8	#6	25'-3"	
d(E)	117	#6	3'-5"	L
d ₁ (E)	117	#4	5'-6"	L
d ₂ (E)	256	#4	3'-9"	
d ₃ (E)	256	#5	3'-11"	J
d ₄ (E)	176	#5	3'-6"	J
d ₅ (E)	88	#4	6'-4"	L
e(E)	30	#5	24'-7"	
e ₁ (E)	36	#8	31'-8"	
e ₂ (E)	72	#4	18'-11"	
e ₃ (E)	36	#4	22'-0"	
e ₄ (E)	48	#5	14'-8"	
e ₅ (E)	18	#8	14'-8"	
s(E)	182	#4	6'-2"	□
s ₁ (E)	8	#4	6'-4"	□
s ₂ (E)	8	#4	6'-6"	□
s ₃ (E)	8	#4	6'-8"	□
s ₄ (E)	8	#4	6'-10"	□
s ₅ (E)	8	#4	7'-0"	□
s ₆ (E)	8	#4	7'-2"	□
s ₇ (E)	182	#4	6'-11"	□
s ₈ (E)	8	#4	7'-1"	□
s ₉ (E)	8	#4	7'-3"	□
s ₁₀ (E)	8	#4	7'-5"	□
s ₁₁ (E)	8	#4	7'-7"	□
s ₁₂ (E)	8	#4	7'-9"	□
s ₁₃ (E)	8	#4	7'-11"	□
s ₁₄ (E)	121	#4	9'-1"	□
s ₁₅ (E)	11	#4	9'-3"	□
s ₁₆ (E)	11	#4	9'-5"	□
s ₁₇ (E)	33	#4	7'-8"	□
s ₁₈ (E)	72	#5	5'-8"	L
s ₁₉ (E)	50	#5	6'-6"	L
s ₂₀ (E)	122	#5	8'-6"	L
s ₂₄ (E)	11	#4	9'-9"	□
Concrete Superstructure		Cu. Yd.	396.5	
Reinforcement Bars, Epoxy Coated		Pound	130,790	
Protective Coat		Sq. Yd.	1,000	
Bridge Deck Grooving		Sq. Yd.	722	
Name Plates		Each	1	
Bar Splicers		Each	350	
Arch. Finish for Conc. Surfaces		Sq. Ft.	2,410	

All Reinforcement bars shall be epoxy coated.



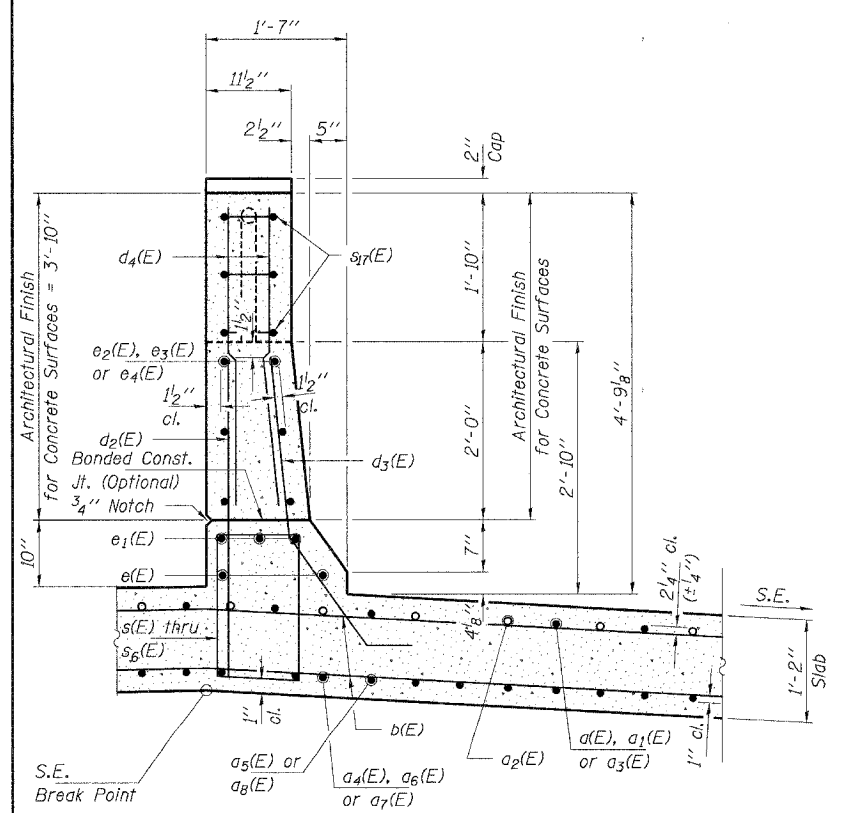
SECTION THRU NORTH PARAPET PILASTER
(Looking East)



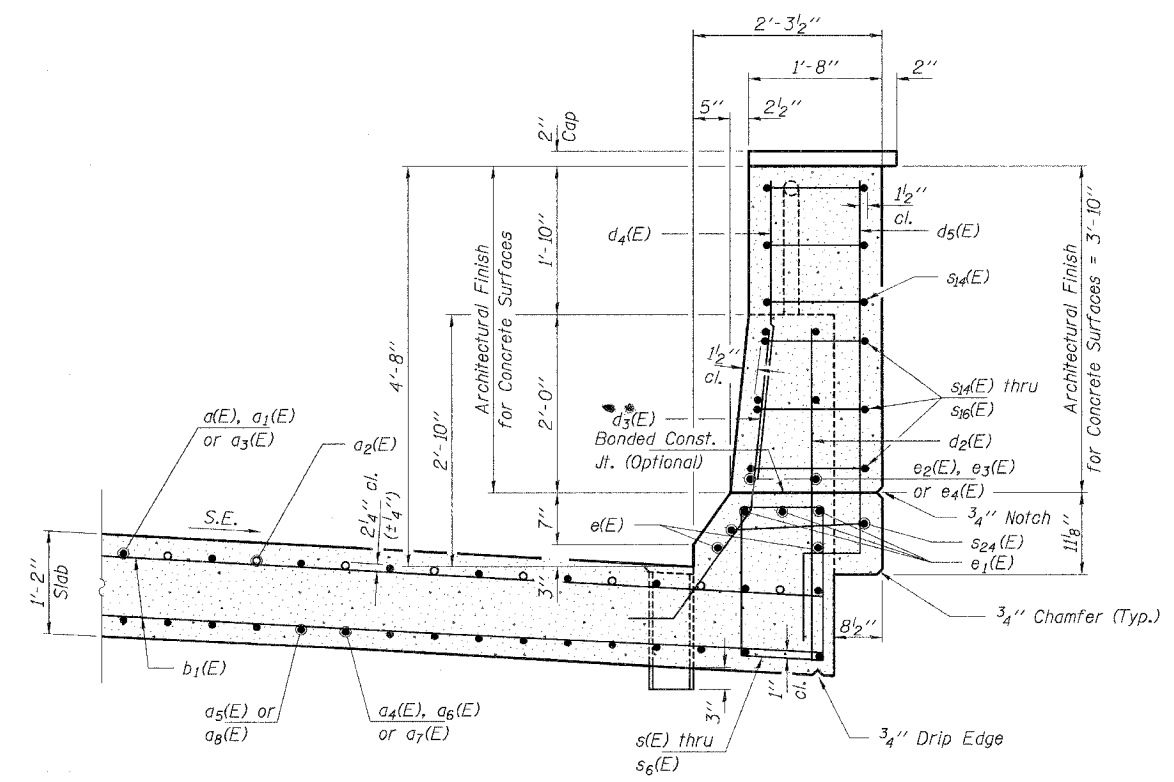
SECTION A-A

SECTION B-B

Dimensions are @ Rt. L's



SECTION THRU CENTER PARAPET PILASTER
(Looking East)

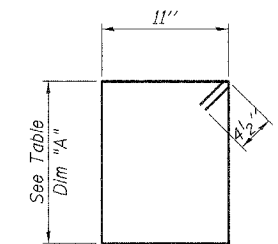
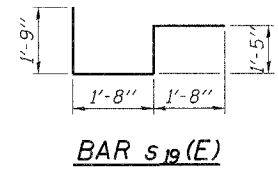
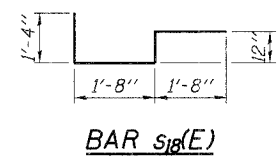
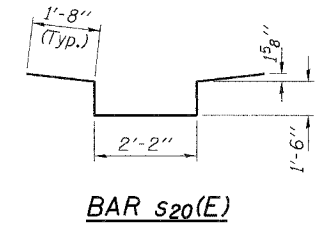
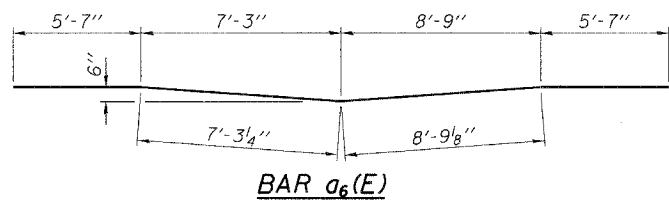
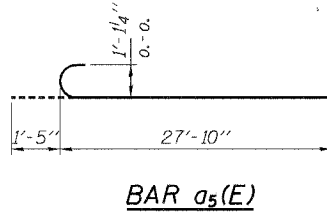
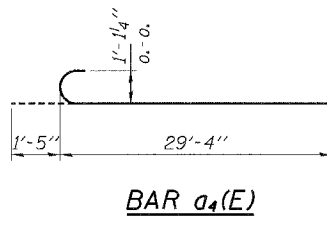


SECTION THRU SOUTH PARAPET PILASTER
(Looking East)

HLR
Rice, Berry and Associates
A Division of Hompton, Lenzini and Renwick, Inc.
Civil & Structural Engineers
801 S. Durkin Drive
Springfield, Illinois 62704
217-546-3400
P.O. Box 1036
DuQuoin, Illinois 62832
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SUPERSTRUCTURE DETAILS
MILLBURN ROAD / CH 14
SECTION 99-00076-11-BR
LAKE COUNTY
STATION 17+65

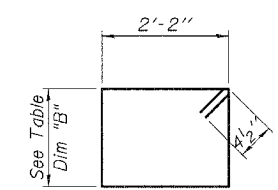
CONTRACT NO: 83763



DIM "A"

s(E)	1'-9 1/2"
s ₁ (E)	1'-10 1/2"
s ₂ (E)	1'-11 1/2"
s ₃ (E)	2'-0 1/2"
s ₄ (E)	2'-1 1/2"
s ₅ (E)	2'-2 1/2"
s ₆ (E)	2'-3 1/2"

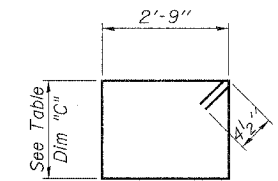
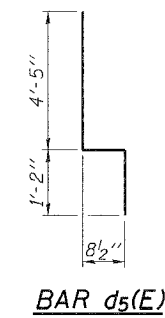
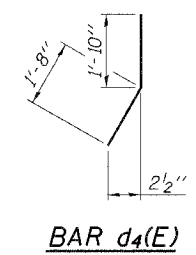
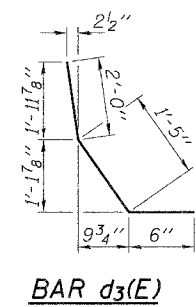
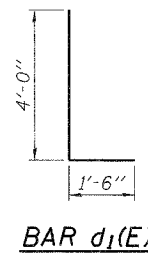
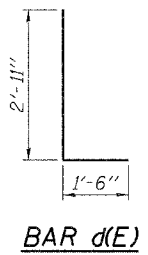
BARS s(E) THRU s₆(E)



DIM "B"

s ₇ (E)	11"
s ₈ (E)	1'-0"
s ₉ (E)	1'-1"
s ₁₀ (E)	1'-2"
s ₁₁ (E)	1'-3"
s ₁₂ (E)	1'-4"
s ₁₃ (E)	1'-5"

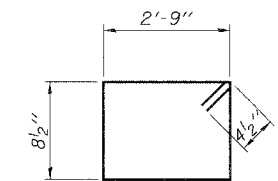
BARS s₈(E) THRU s₁₃(E)



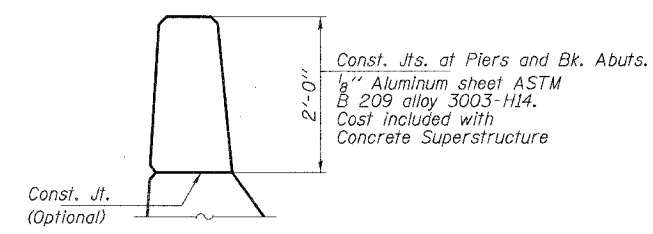
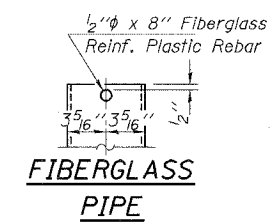
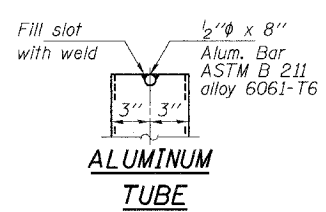
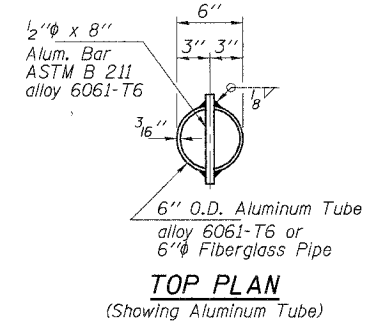
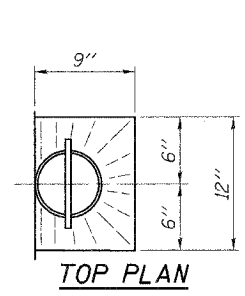
DIM "C"

s ₁₄ (E)	1'-5"
s ₁₅ (E)	1'-6"
s ₁₆ (E)	1'-7"
s ₂₄ (E)	1'-9"

BARS s₁₄(E) THRU s₁₆(E), s₂₄(E)



BARS s₁₇(E)

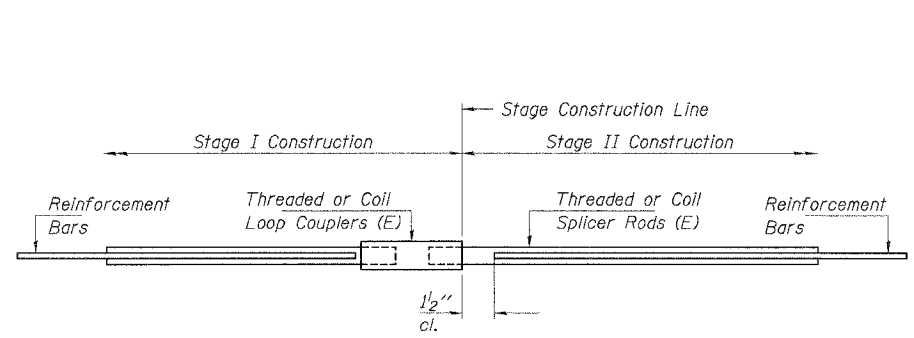


Notes:
 The exterior surfaces of fiberglass floor drains shall be painted with a vinyl enamel coat. The color shall be Munsell Std. 10Y7/1 Light Grey. Painting of the fiberglass floor drains will not be required when the exterior surfaces of the furnished drains are coated by the manufacturer with silver pigment or a pigment that matches the color of the concrete.
 Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

HLR
 Account Number 12-07-0043-1
 Date: 05/23/05
 DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

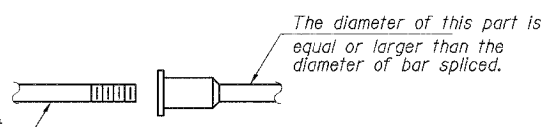
SUPERSTRUCTURE DETAILS
 MILLBURN ROAD / CH 14
 SECTION 99-00076-11-BR
 LAKE COUNTY
 STATION 17+65

CONTRACT NO: 83763



SPLICER DETAIL

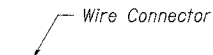
Bar Size	No. Assemblies Required	Location
#6	242	Deck Slab
#6	32	Abut. Caps
#7	20	Pier Caps
#5	36	Pier Wall



ROLLED THREAD DOWEL BAR



**** ONE PIECE**



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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

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.

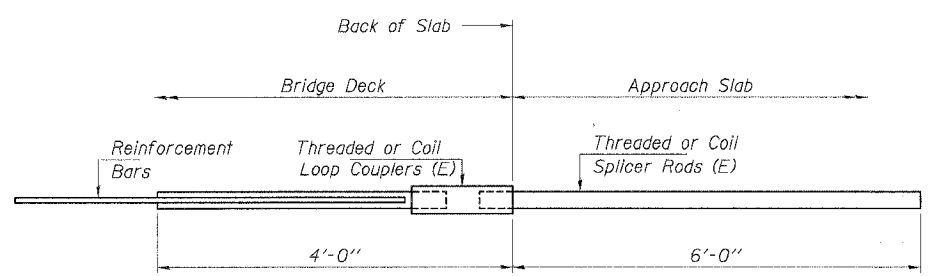
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- Minimum Capacity = $1.25 \times f_y \times A_t$ (Tension in kips)
- Minimum *Pull-out Strength = $1.25 \times f_{s,allow} \times A_t$ (Tension in kips)

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_{s,allow}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

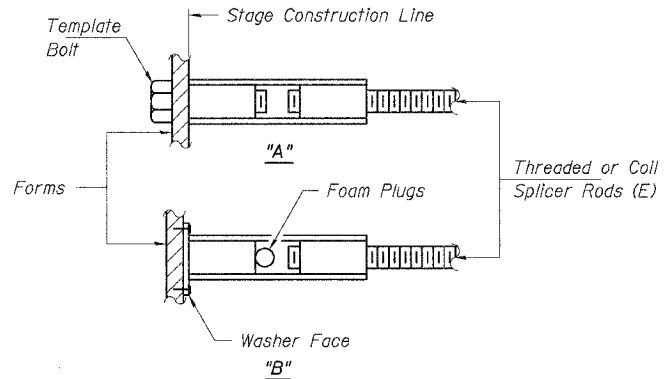
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



INTEGRAL ABUTMENT BAR SPLICER ASSEMBLY DETAIL FOR #5 BAR

Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 108

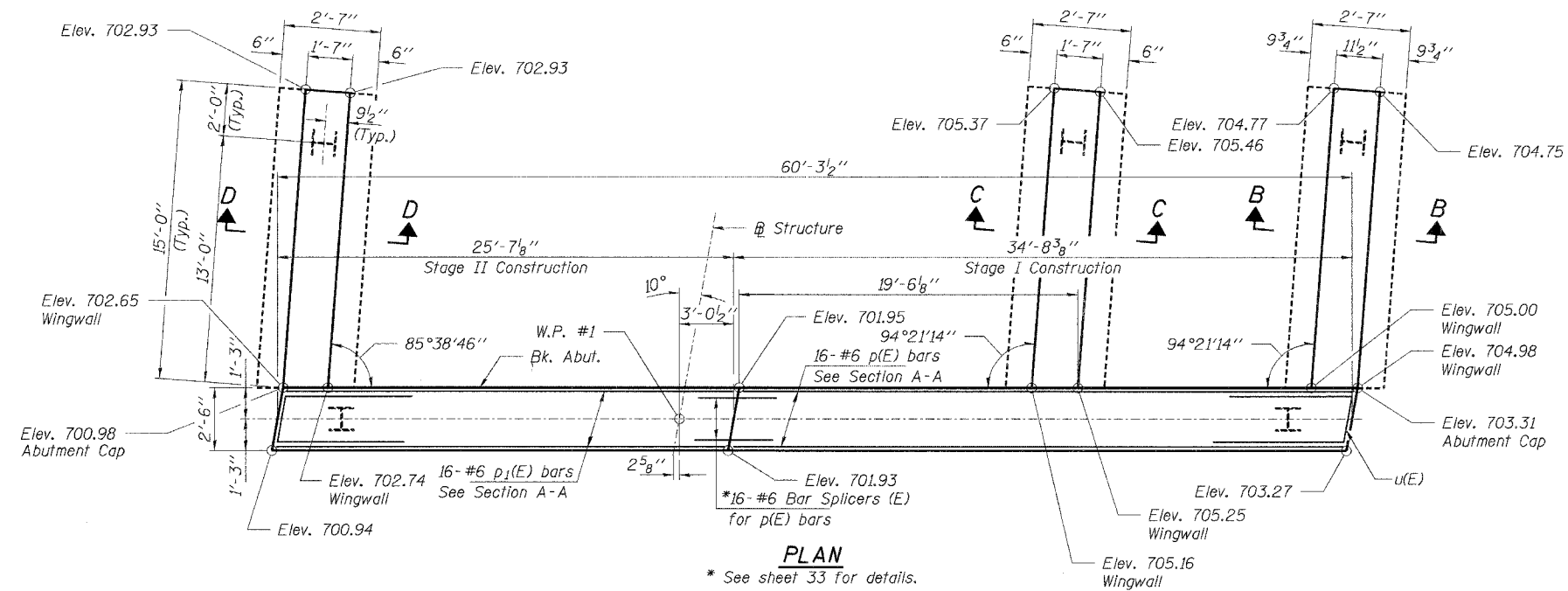


INSTALLATION AND SETTING METHODS

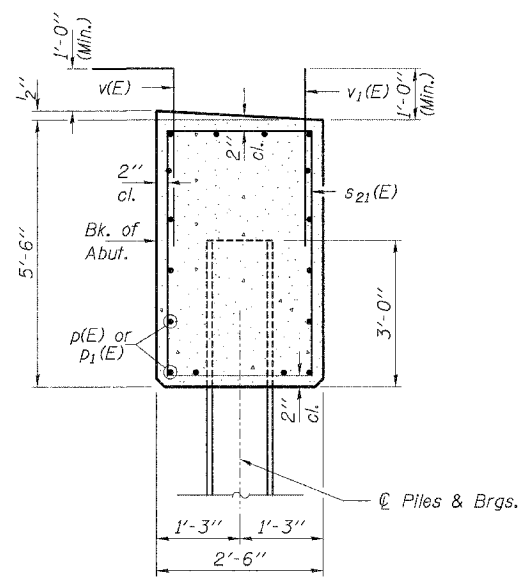
"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.

	Rice, Berry and Associates A Division of Hampton, Lenzini and Renwick, Inc. Civil & Structural Engineers 801 S. Durkin Drive Springfield, Illinois 62704 217-546-3400	BAR SPLICERS MILLBURN ROAD / CH 14 SECTION 99-00076-II-BR LAKE COUNTY STATION 17+65
	Account Number 12-07-0043-1 Date: 05/23/05 P.O. Box 1036 DuQuoin, Illinois 62832 618-790-4637	
DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.		

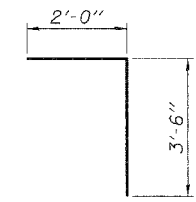
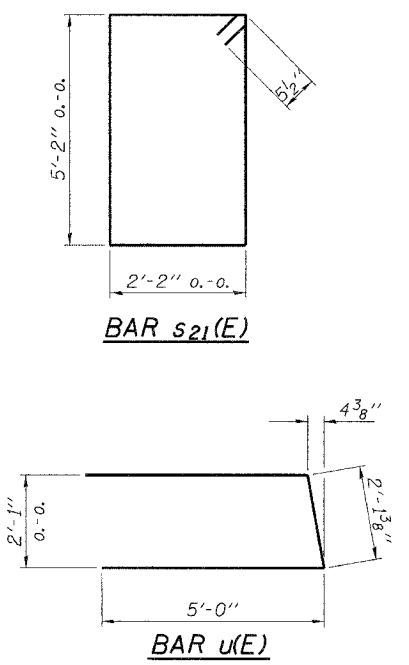
CONTRACT NO: 83763



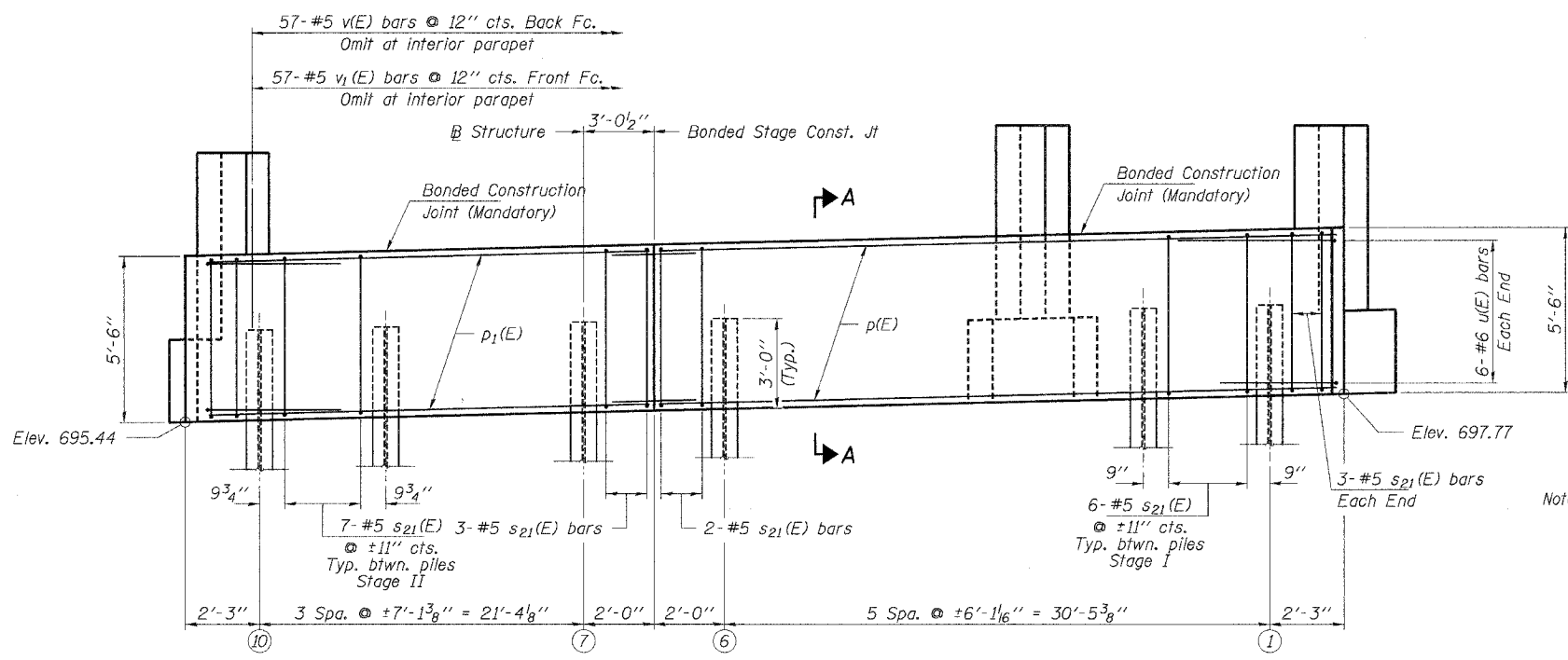
PLAN
* See sheet 33 for details.



SECTION A-A
Dimensions are at Rt. Ls



BAR v(E)



ELEVATION
(Looking West)

Notes:
All reinforcement bars shall be epoxy coated.
See sheet 36 for Section B-B and wingwall reinforcement.
Pile spacing may be adjusted up to a 9'-0\"/>

BILL OF MATERIAL - W. ABUT.

BAR	NO.	SIZE	LENGTH	SHAPE
d6(E)	28	#4	5'-9"	—
d7(E)	62	#5	4'-9"	—
h(E)	30	#5	14'-8"	—
h1(E)	36	#5	9'-0"	—
p(E)	16	#6	34'-4"	—
p1(E)	16	#6	25'-3"	—
s21(E)	62	#5	15'-7"	□
s22(E)	48	#5	9'-9"	□
u(E)	12	#6	12'-2"	—
v(E)	57	#5	5'-6"	—
v1(E)	57	#5	3'-6"	—
v2(E)	96	#5	8'-4"	—
w(E)	30	#5	14'-8"	—
Concrete Structures			Cu. Yd.	52.8
Reinf. Bars, Epoxy Coated			Pound	6,190
Steel Piles HP12x53			Foot	720
Test Pile Steel HP12x53			Each	1
Bar Splicers			Each	16

Pile	10	9	8	7	6	5	4	3	2	1
Elevation	698.53	698.80	699.08	699.35	699.50	699.74	699.98	700.21	700.45	700.68

WINGWALLS		CAP	
Type	Steel HP12x53	Type	Steel HP12x53
No. Req'd. (Wings)	3	No. Req'd.	10
Capacity	20 Tons/Pile	Capacity	63 Tons/Pile
Est. Length	30 Ft./Pile @ W. Abut.	Est. Length	70 Ft./Pile @ W. Abut.

* Includes one test pile to be driven in a permanent location at the West Abutment.

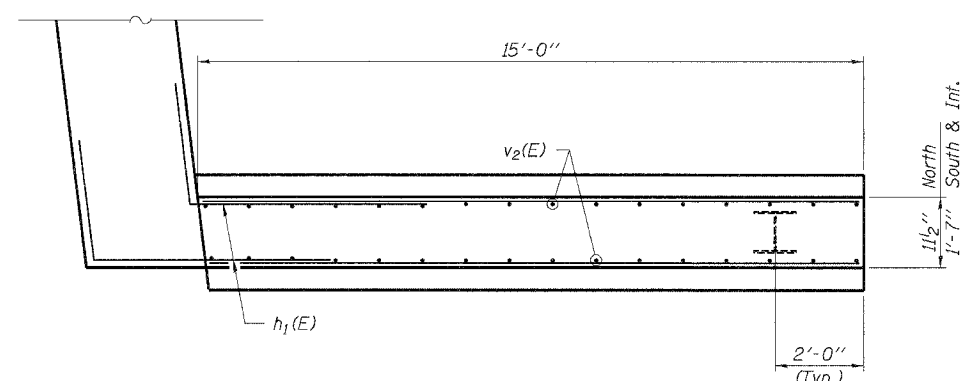
RLR
Rice, Berry and Associates
A Division of Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers
801 S. Durkin Drive
Springfield, Illinois 62704
217-546-3400
P.O. Box 1036
DuQuoin, Illinois 62832
618-790-4637
Account Number 12-07-0043-1
Date: 05/23/05
DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

WEST ABUTMENT
MILLBURN ROAD / CH 14
SECTION 99-00076-11-BR
LAKE COUNTY
STATION 17+65

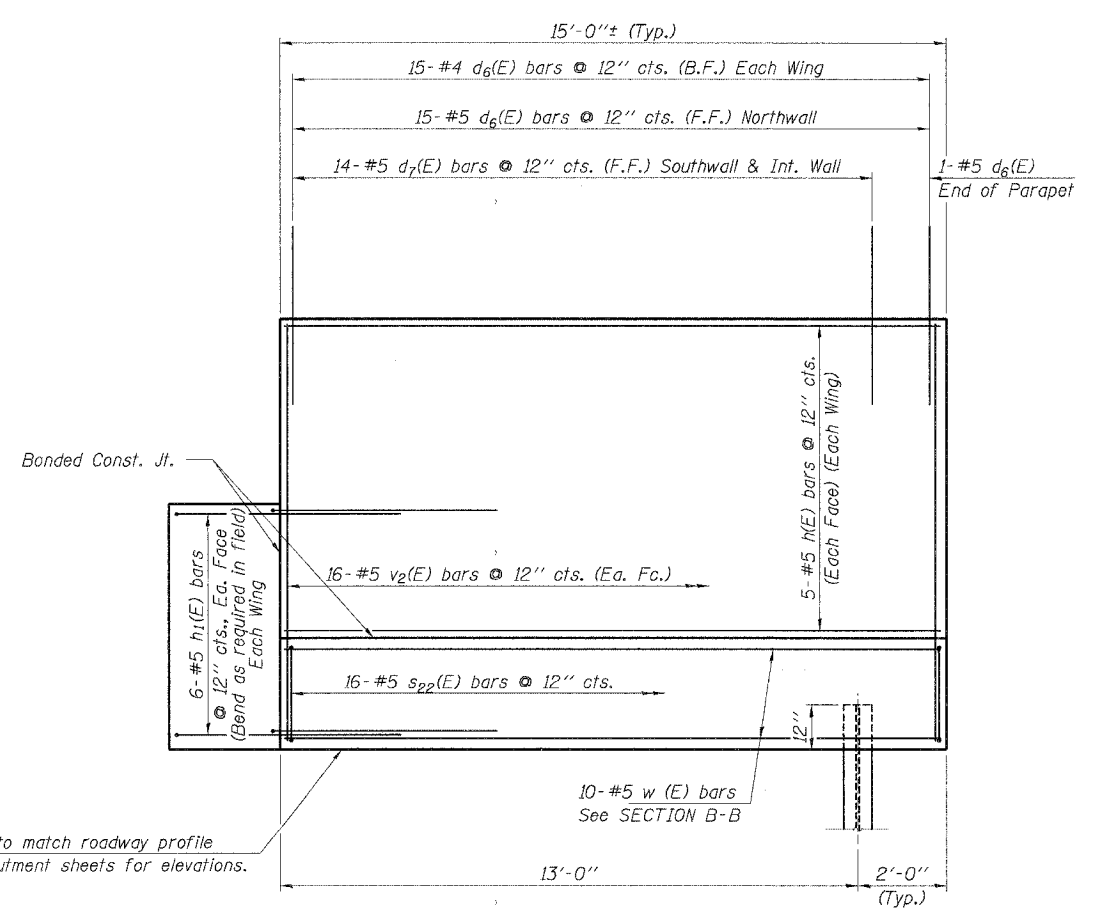
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 14	99-00076-11-BR	LAKE	66	35
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Note: See Superstructure Sheets for Parapet Details on Wingwalls.

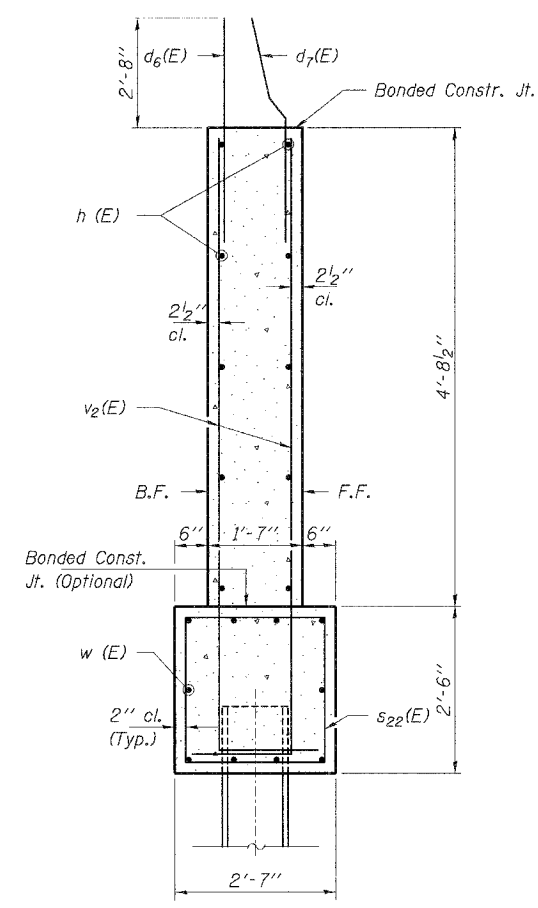
CONTRACT NO: 83763



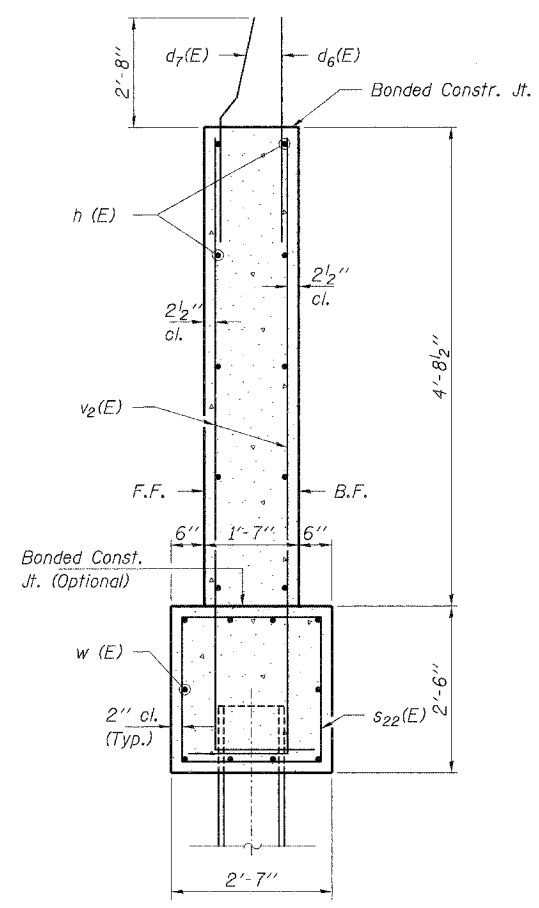
WINGWALL PLAN
(Typ. all Wingwalls - South East Shown)



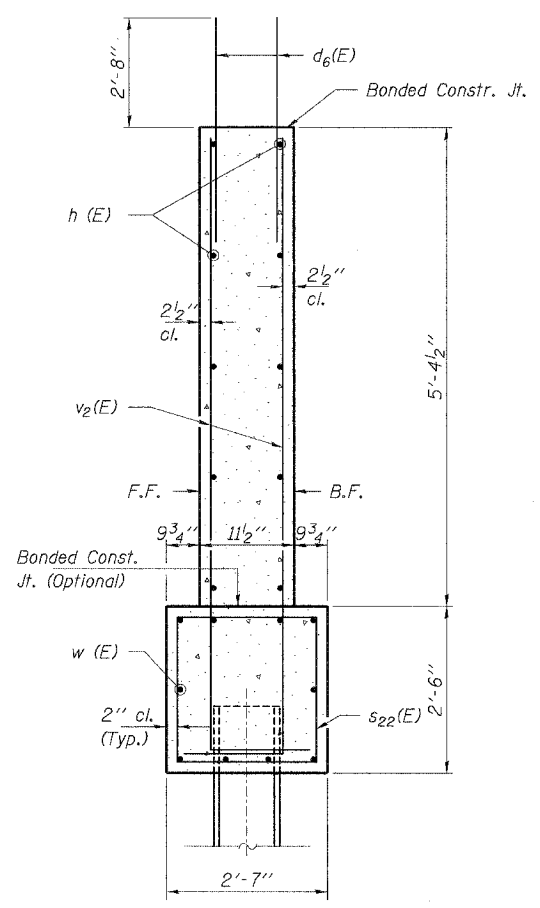
WINGWALL ELEVATION
(Typ. all Wingwalls)



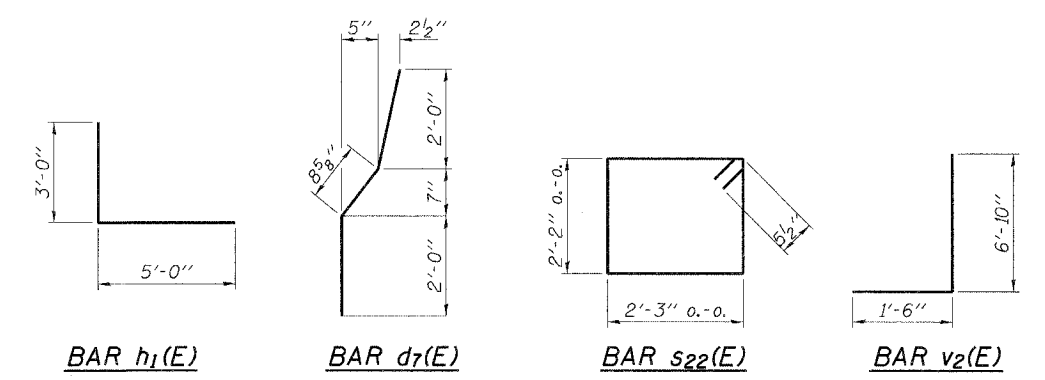
SECTION D-D



SECTION C-C



SECTION B-B

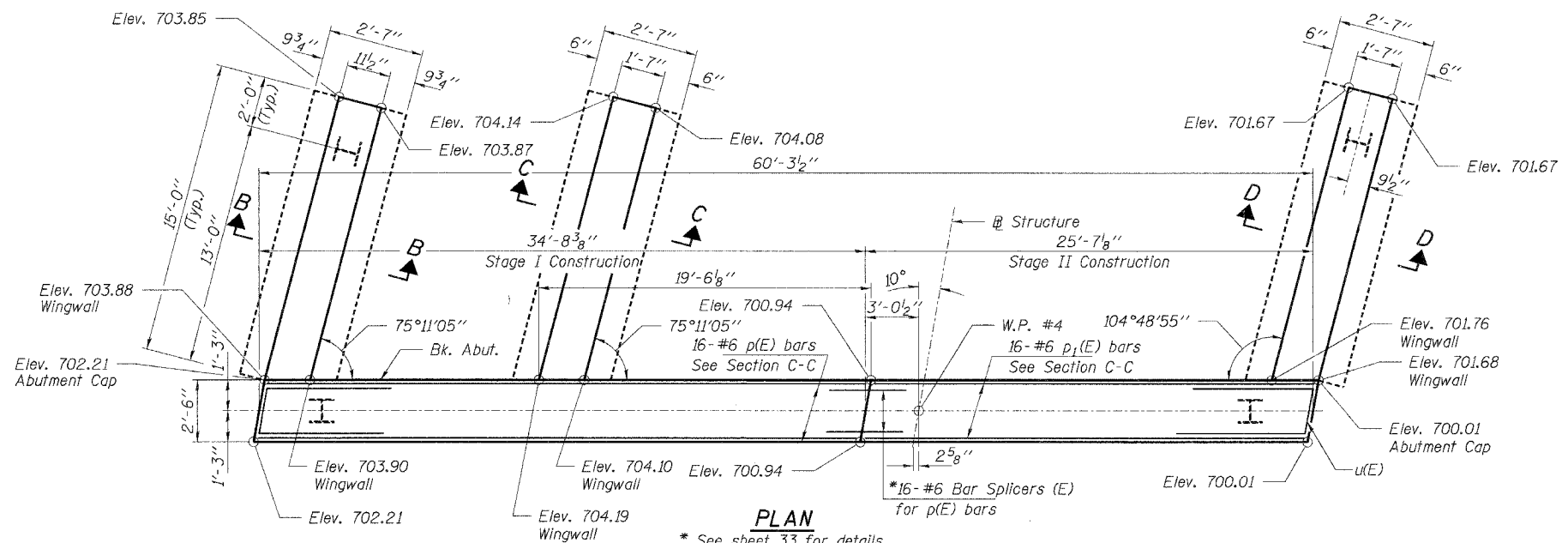


See sheet 34 for Bill of Material

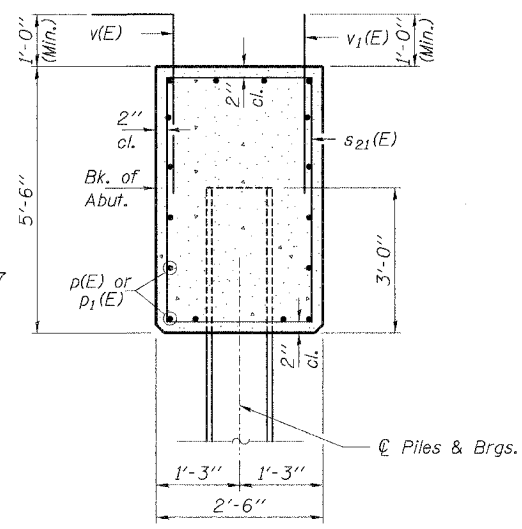
	Rice, Berry and Associates A Division of Hampton, Lenzini and Renwick, Inc. Civil & Structural Engineers 801 S. Durkin Drive Springfield, Illinois 62704 217-546-3400	WEST ABUTMENT DETAILS MILLBURN ROAD / CH 14 SECTION 99-00076-11-BR LAKE COUNTY STATION 17+65
	Account Number 12-07-0043-1 Date: 05/23/05 DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.	

ROUTE NO.	SECTION	COUNTY	DATE	SHEET
C.H. 14	99-00076-11-BR	LAKE	66	36
FED. ROAD DIST. NO.	ILL. NO. 225	FED. AID PROJECT-		

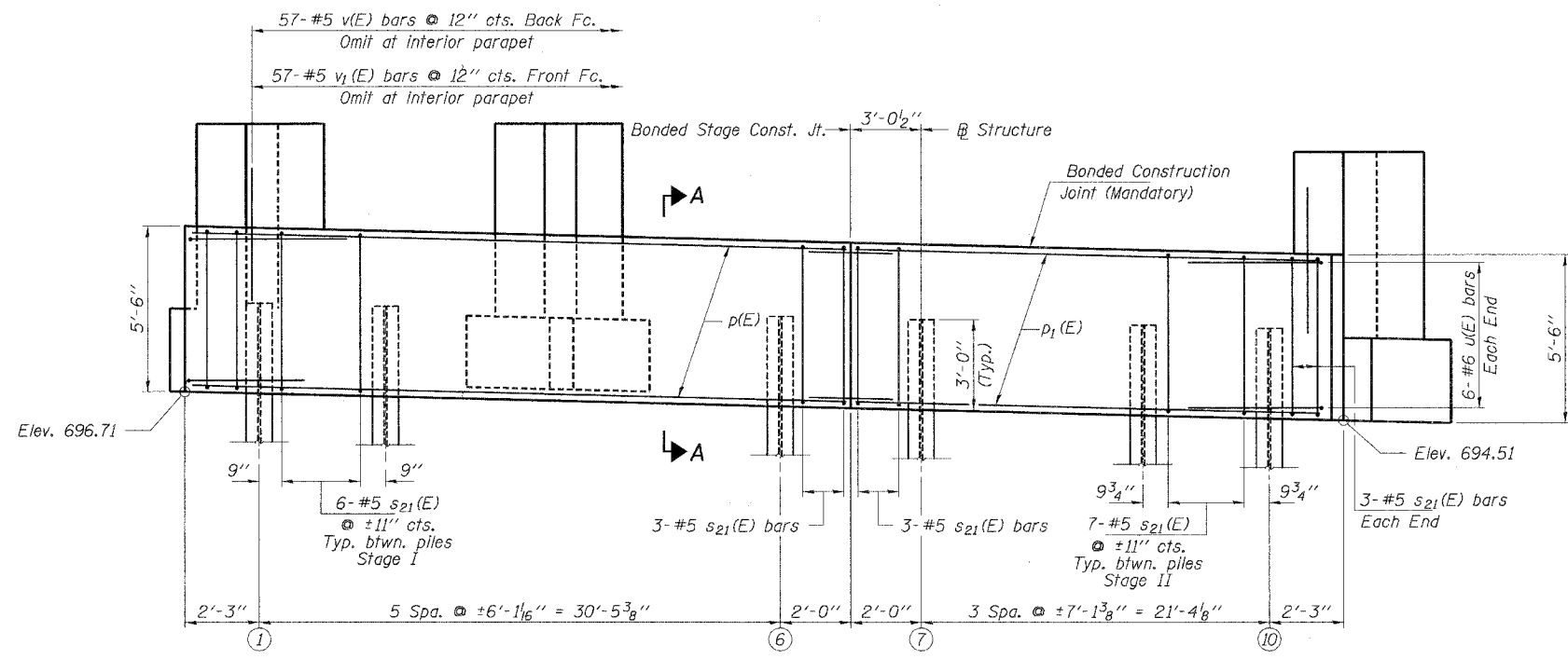
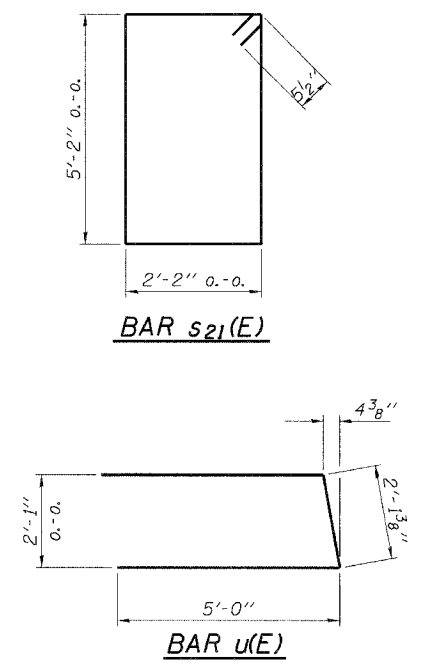
CONTRACT NO. 83763



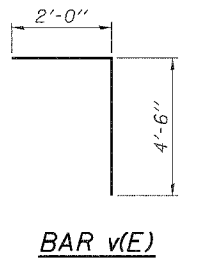
PLAN
* See sheet 33 for details.



SECTION A-A
Dimensions are at Rt. Ls



ELEVATION
(Looking East)



BAR v(E)

Notes:
All reinforcement bars shall be epoxy coated.
See sheet 36 for Section B-B and wingwall reinforcement.
Pile spacing may be adjusted up to a 9'-0" spacing in order to span the existing gas line along the north ROW line. Only as approved by the Engineer.

BILL OF MATERIAL - E. ABUT.

BAR	NO.	SIZE	LENGTH	SHAPE	
d6(E)	28	#4	5'-9"	—	
d7(E)	62	#5	4'-9"	—	
h(E)	30	#5	14'-8"	—	
h1(E)	36	#5	9'-0"	—	
p(E)	16	#6	34'-4"	—	
p1(E)	16	#6	25'-3"	—	
s21(E)	62	#5	15'-7"	□	
s22(E)	48	#5	9'-9"	□	
u(E)	12	#6	12'-2"	—	
v(E)	57	#5	5'-6"	—	
v1(E)	57	#5	3'-6"	—	
v2(E)	96	#5	8'-4"	L	
w(E)	30	#5	14'-8"	—	
Concrete Structures				Cu. Yd.	52.2
Reinf. Bars, Epoxy Coated				Pound	6,190
Steel Piles HP12x53				Foot	740
Bar Splicers				Each	16

TOP PILE ELEVATIONS

Pile	1	2	3	4	5	6	7	8	9	10
Elevation	699.63	699.40	699.18	698.96	698.74	698.51	698.37	698.11	697.85	697.59

WINGWALLS		CAP	
Type	Steel HP12x53	Type	Steel HP12x53
No. Req'd. (Wings)	3	No. Req'd.	*10
Capacity	20 Tons/Pile	Capacity	63 Tons/Pile
Est. Length	30 Ft./Pile @ E. Abut.	Est. Length	65 Ft./Pile @ E. Abut.

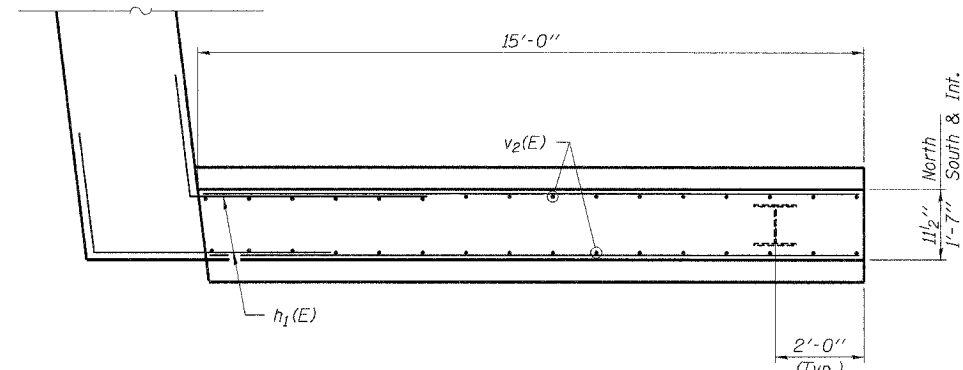
HLR
Rice, Berry and Associates
A Division of Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers
801 S. Durkin Drive
Springfield, Illinois 62704
217-546-3400
Account Number 12-07-0043-1
Date: 05/23/05
DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

EAST ABUTMENT
MILLBURN ROAD / CH 14
SECTION 99-00076-11-BR
LAKE COUNTY
STATION 17+65

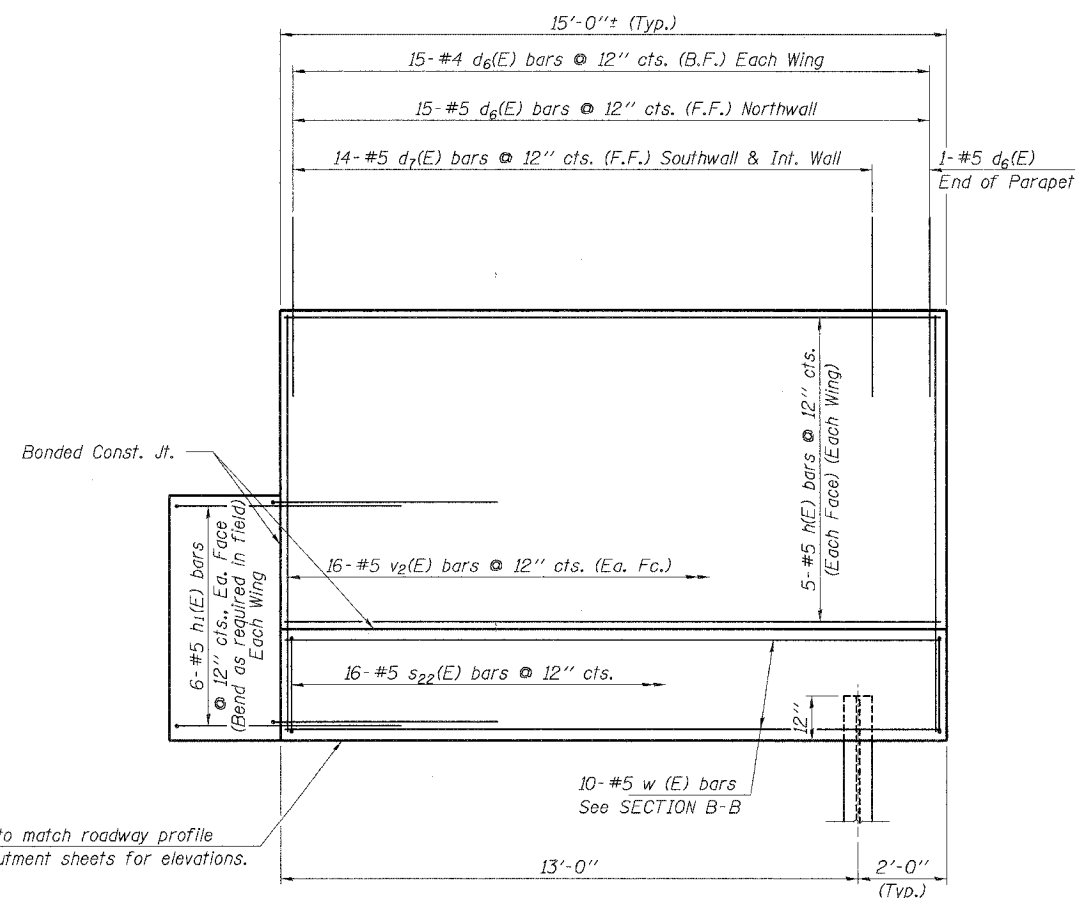
Note: See Superstructure Sheets for Parapet Details on Wingwalls.

ROUTE NO.	SECTION	COUNTY	DATE	SHEET
C.H. 14	99-00076-11-BR	LAKE	66	37
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

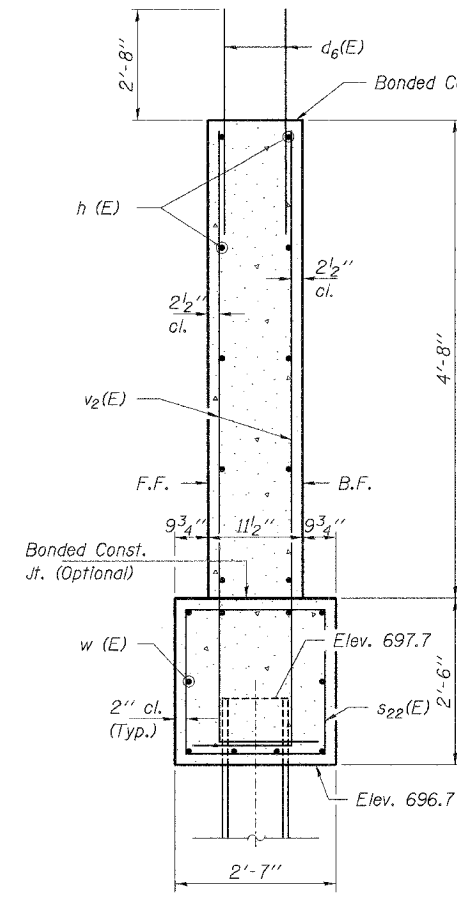
CONTRACT NO: 83763



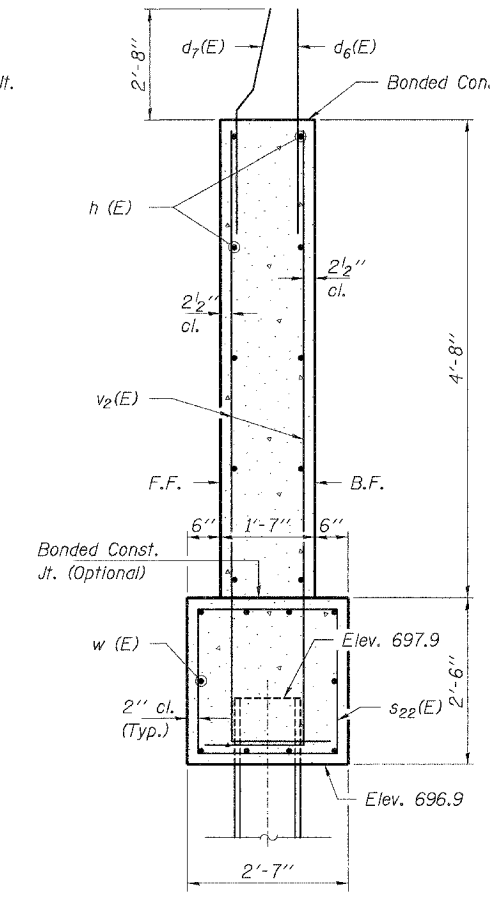
WINGWALL PLAN
(Typ. all Wingwalls - South East Shown)



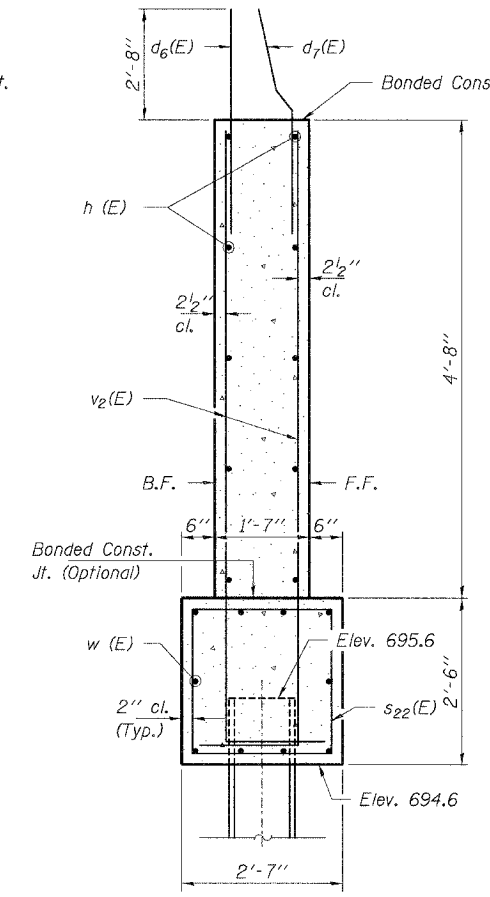
WINGWALL ELEVATION
(Typ. all Wingwalls)



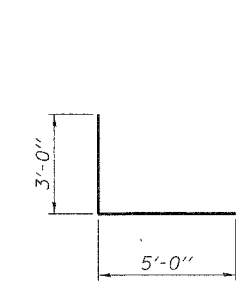
SECTION B-B



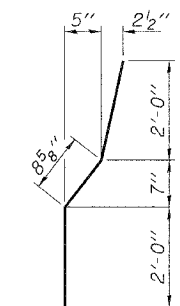
SECTION C-C



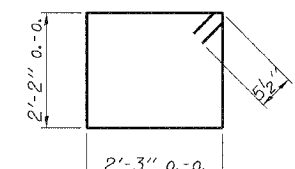
SECTION D-D



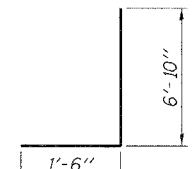
BAR h1(E)



BAR d7(E)



BAR s22(E)



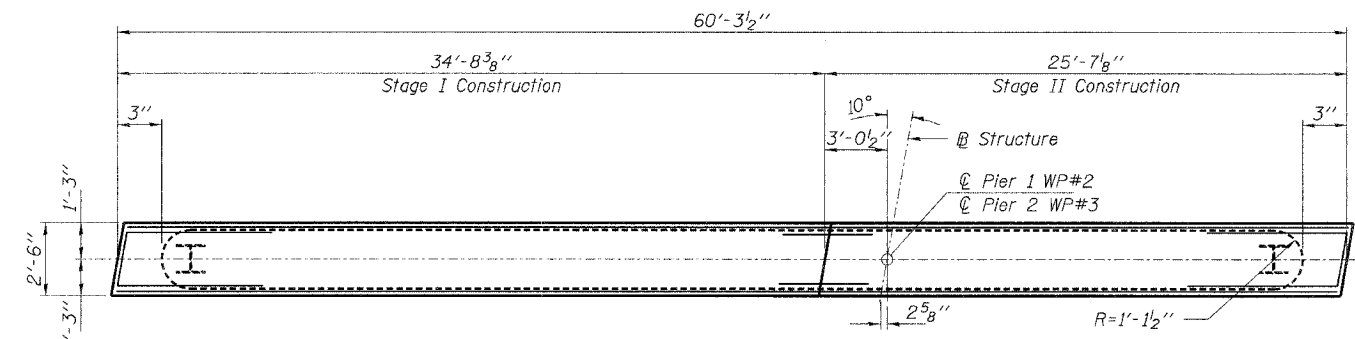
BAR v2(E)

See sheet 36 for Bill of Material

HLR
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A Division of Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers
801 S. Durkin Drive
Springfield, Illinois 62704
217-546-3400
P.O. Box 1036
DuQuoin, Illinois 62832
618-790-4637
Account Number 12-07-0043-1
Date: 05/23/05
DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

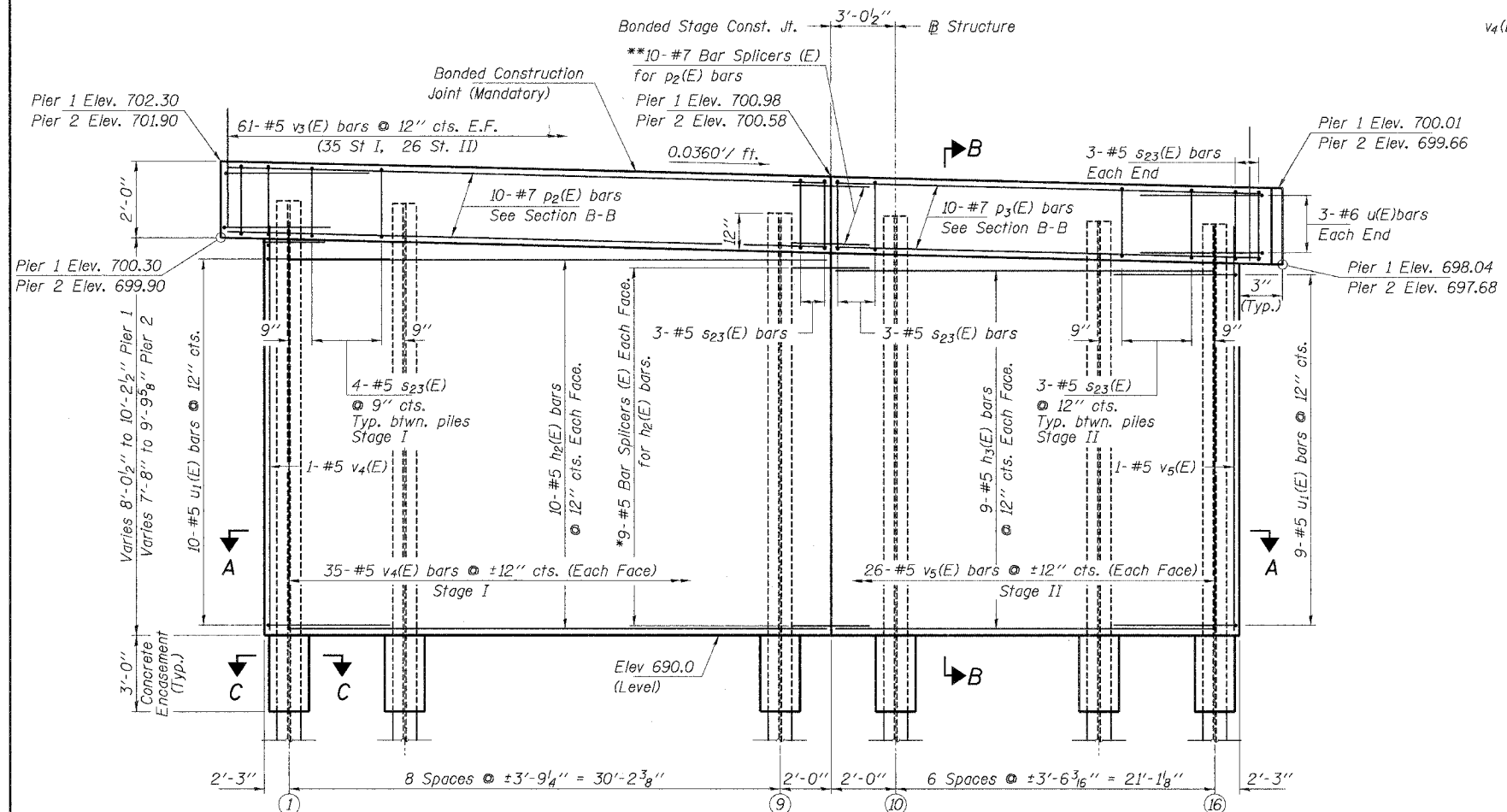
EAST ABUTMENT DETAILS
MILLBURN ROAD / CH 14
SECTION 99-00076-11-BR
LAKE COUNTY
STATION 17+65

CONTRACT NO: 83763

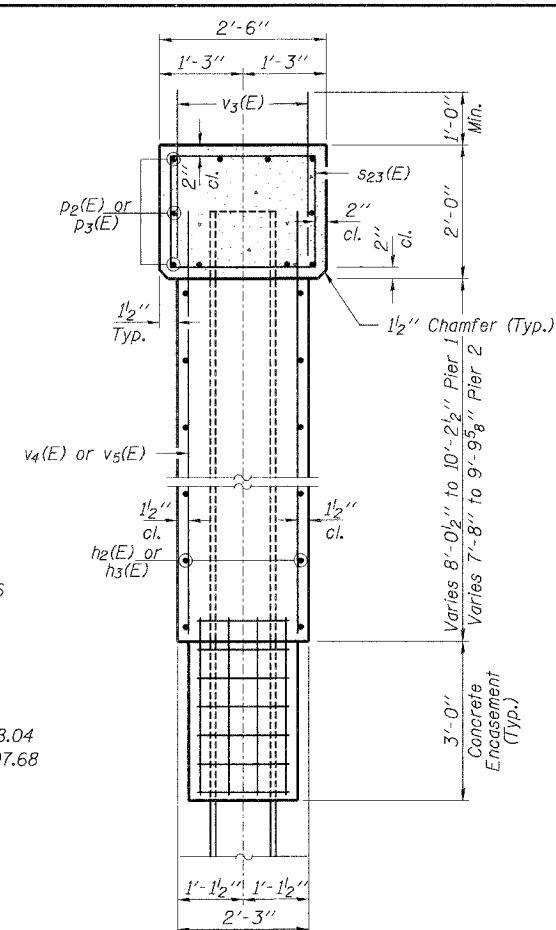


PLAN

** See sheet 33 for details.

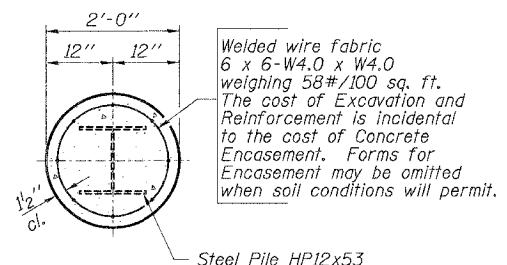


PIER ELEVATION
(Looking East)

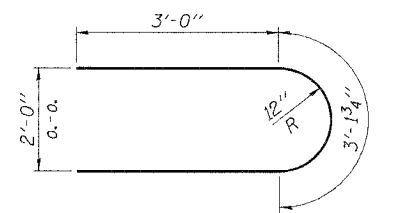


SECTION B-B

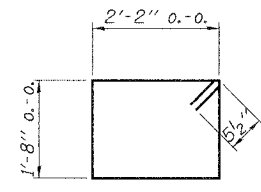
Dimensions are at Rt. Ls



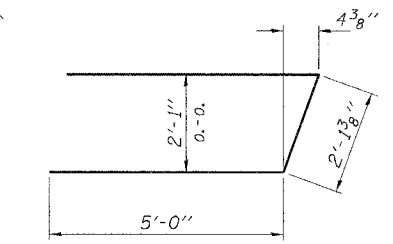
SECTION C-C



BAR u1(E)



BARS s23(E)



BAR u(E)

BILL OF MATERIAL - 2 PIERS

BAR NO.	SIZE	LENGTH	SHAPE
h2(E)	40 #5	33'-2"	—
h3(E)	36 #5	24'-1"	—
p2(E)	20 #7	34'-4"	—
p3(E)	20 #7	25'-3"	—
s23(E)	124 #5	8'-7"	□
u(E)	12 #6	12'-2"	U
u1(E)	38 #5	9'-2"	U
v3(E)	244 #5	2'-9"	—
v4(E)	142 #5	9'-4"	—
v5(E)	106 #5	10'-3"	—
Reinf. Bars, Epoxy Coated		Pound	9,630
Concrete Structures		Cu. Yd.	111.4
Steel Piles HP12x53		Foot	2,325
Test Pile Steel HP12x53		Each	1
Underwater Structure			
Excavation Prot. Location 1		Each	1
Underwater Structure			
Excavation Prot. Location 2		Each	1
Bar Splicers		Each	56
Concrete Encasement		Cu. Yd.	8.4

Notes:
All reinforcement bars shall be epoxy coated.
Pile spacing may be adjusted up to a 9'-0" spacing in order to span the existing gas line along the north ROW line. Only as approved by the Engineer.

Pile	TOP PILE ELEVATIONS															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pier 1	701.21	701.07	700.93	700.79	700.64	700.50	700.36	700.21	700.07	699.92	699.79	699.65	699.52	699.38	699.24	699.11
Pier 2	700.82	700.68	700.54	700.40	700.26	700.12	699.98	699.84	699.70	699.55	699.42	699.29	699.16	699.02	698.89	698.76

PILE DATA

Type: Steel HP12x53
No. Req'd: *32
Capacity: 70 Tons/Pile
Est. Lengths: 75 Ft/Pile

* Includes one test pile to be driven in permanent location at Pier 2.

HLR
Rice, Berry and Associates
A Division of Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers
801 S. Durkin Drive
Springfield, Illinois 62704
217-546-3400
P.O. Box 1036
DuQuoin, Illinois 62832
618-190-4637
Account Number: 12-07-0043-1
Date: 05/23/05
DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

PIERS
MILLBURN ROAD / CH 14
SECTION 99-00076-11-BR
LAKE COUNTY
STATION 17+65

CONTRACT NO: 83763

Professional Service Industries, Inc.
RECORD OF SUBSURFACE EXPLORATION

Boring: B-1

Project Name: Milburn Road Bridge West Abutment Date of Boring: 1-18-01
 Site: Lake County, Illinois Project No: 042-05013

DESCRIPTION	DEPTH ft.	SAMPLE	N	CLASS	Q _u tsf	Q _p tsf	M _v %	REMARKS
SURFACE	703.5							
Asphalt 12"	701.5							
FILL, Brown Sand and Gravel		1-SS	65	-	-	-	4.5	
	699.5							
FILL, Brown Clay, Trace Sand and Gravel		2-SS	12	-	-	-	13.3	
		3-SS	8	-	-	-	17.9	
	694.5							
Lean CLAY, Dark Gray, Trace Sand and Gravel, Soft	692.5	4-SS	4	CL	-	.5	21.2	Trace Organic
Lean CLAY, Brown, Trace Sand and Gravel, Stiff		5-SS	4	CL	1.5	1.5	14.7	
	689.5							
Lean CLAY, Gray, Trace Sand and Gravel, Stiff to Very Stiff		6-SS	13	CL	3.0	2.5	9.9	
		7-SS	11	CL	3.5	3.75	17.1	
Intermittent Silt and Sand Seams Throughout Material Strata		8-SS	11	CL	3.2	3.0	14.1	
		9-SS	8	CL	1.2	1.25	20.7	Moist Auger
	25	10-SS	10	CL	2.6	2.5	20.1	0 Hour
		11-SS	5	CL	2.1	2.0	26.1	
	30	12-SS	6	CL	1.2	1.0	19.6	
	35	13-SS	6	CL	2.8	2.5	16.3	
	40	14-SS	7	CL	1.0	1.0	22.5	
	45	15-SS	8	CL	0.9	1.0	20.2	
	50	16-SS	13	CL	1.2	1.25	25.3	

Professional Service Industries, Inc.
RECORD OF SUBSURFACE EXPLORATION

Boring: B-1

Project Name: Milburn Road Bridge West Abutment Date of Boring: 1-18-01
 Site: Lake County, Illinois Project No: 042-05013

DESCRIPTION	DEPTH ft.	SAMPLE	N	CLASS	Q _u tsf	Q _p tsf	M _v %	REMARKS
	653.5							
	650.5							
Sandy SILT, Gray, Medium Dense	55	17-SS	20	ML	-	-	22.3	
	651.5							
Lean CLAY, Gray, Trace Sand and Gravel, Stiff	60	18-SS	15	CL	1.0	1.0	24.1	
	643.5							
Silty SAND, Gray, Medium Dense to Dense	65	19-SS	36	SM	-	-	14.5	
	70	20-SS	33	SM	-	-	11.2	
	75	21-SS	28	SM	-	-	14.9	
	623.5							
End of Boring @ 80.0'	80	22-SS	32	SM	-	-	11.8	
Due to Collapsing Material During Removal of Augers, Final Water Level Unavailable.	85							
	90							
	95							
	100							

BORING B-1

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 CIVIL & Structural Engineers
 801 S. Durkin Drive
 Springfield, Illinois 62704
 217-546-3400
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 DuQuoin, Illinois 62832
 618-790-4637
 Account Number 12-07-0043-1
 Date: 05/23/05
 DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: P.K.

BORINGS
MILLBURN ROAD / CH 14
SECTION 99-00076-II-BR
LAKE COUNTY
STATION 17+65

CONTRACT NO: 83763

Professional Service Industries, Inc.
RECORD OF SUBSURFACE EXPLORATION

Boring: B-2

Project Name: Milburn Roiad Bridge East Abutment Date of Boring: 2-7-01
 Site: Lake County, Illinois Project No: 042-05013

DESCRIPTION	DEPTH ft.	SAMPLE	N	CLASS	Q _u tsf	Q _p tsf	M _v %	REMARKS
SURFACE	703.0							
Asphalt 12" FILL, Brown Sand and Gravel		1-SS	18	-	-	1.75	12.9	
	699.0							
FILL, Brown, Black and Gray-Green Clay, Trace Sand and Gravel	5	2-SS	42	-	-	2.0	20.3	Pushed Rock
		3-SS	9	CL	-	.5	43.6	Trace Organics
	694.5							
Sandy CLAY, Dark Brown, Trace Gravel	10	4-SS	17	CL	2.3	3.5	17.9	
		5-SS	17	CL	1.9	2.0	17.1	
	689.0							
Lean CLAY, Gray, Trace Sand and Gravel, Firm to Very Stiff	15	6-SS	27	CL	3.6	3.0	14.2	
		7-SS	8	CL	0.8	.75	23.7	
Intermittent Standard Silt Seams Throughout Material Strata	20	8-SS	7	CL	1.5	1.25	24.7	
		9-SS	10	CL	1.1	1.0	24.9	
	25	10-SS	11	CL	1.8	2.0	16.9	
		11-SS	12	CL	2.3	2.0	16.8	
	30	12-SS	12	CL	2.5	2.25	16.7	Wet Spoon
	670.0							
Fine SAND, Gray, Loose	35	13-SS	9	SP	-	-	18.2	0 Hour
	664.0							
Lean CLAY, Gray, Trace Sand and Gravel, Firm to Very Stiff	40	14-SS	5	CL	0.6	.5	23.2	
	45	15-SS	13	CL	3.5	3.75	22.1	
	655.0							
Sandy SILT, Gray, Trace Gravel, Medium Dense to Dense	50	16-SS	27	ML	-	-	20.7	

Professional Service Industries, Inc.
RECORD OF SUBSURFACE EXPLORATION

Boring: B-2

Project Name: Milburn Roiad Bridge East Abutment Date of Boring: 2-7-01
 Site: Lake County, Illinois Project No: 042-05013

DESCRIPTION	DEPTH ft.	SAMPLE	N	CLASS	Q _u tsf	Q _p tsf	M _v %	REMARKS
	653.0							
Sandy SILT, Gray, Trace Gravel, Medium Dense to Dense								
	55	17-SS	40	ML	-	-	15.9	
	60	18-SS	35	ML	-	-	17.7	
	65	19-SS	44	ML	-	-	17.4	
	633.0							
	70	20-SS	41	ML	-	-	14.8	
End of Boring @ 70.0'								
Due to Collapsing Material During Removal of Augers, Final Water Level Unavailable.	75							
	80							
	85							
	90							
	95							
	100							

BORING B-2

HLR
 Rice, Berry and Associates
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 Lenzini and Renwick, Inc.
 Civil & Structural Engineers
 801 S. Durkin Drive
 Springfield, Illinois 62704
 217-546-3400
 P.O. Box 1036
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BORINGS
MILLBURN ROAD / CH 14
SECTION 99-00076-11-BR
LAKE COUNTY
STATION 17+65

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	41
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83763				
65	70	75		

BY	DATE

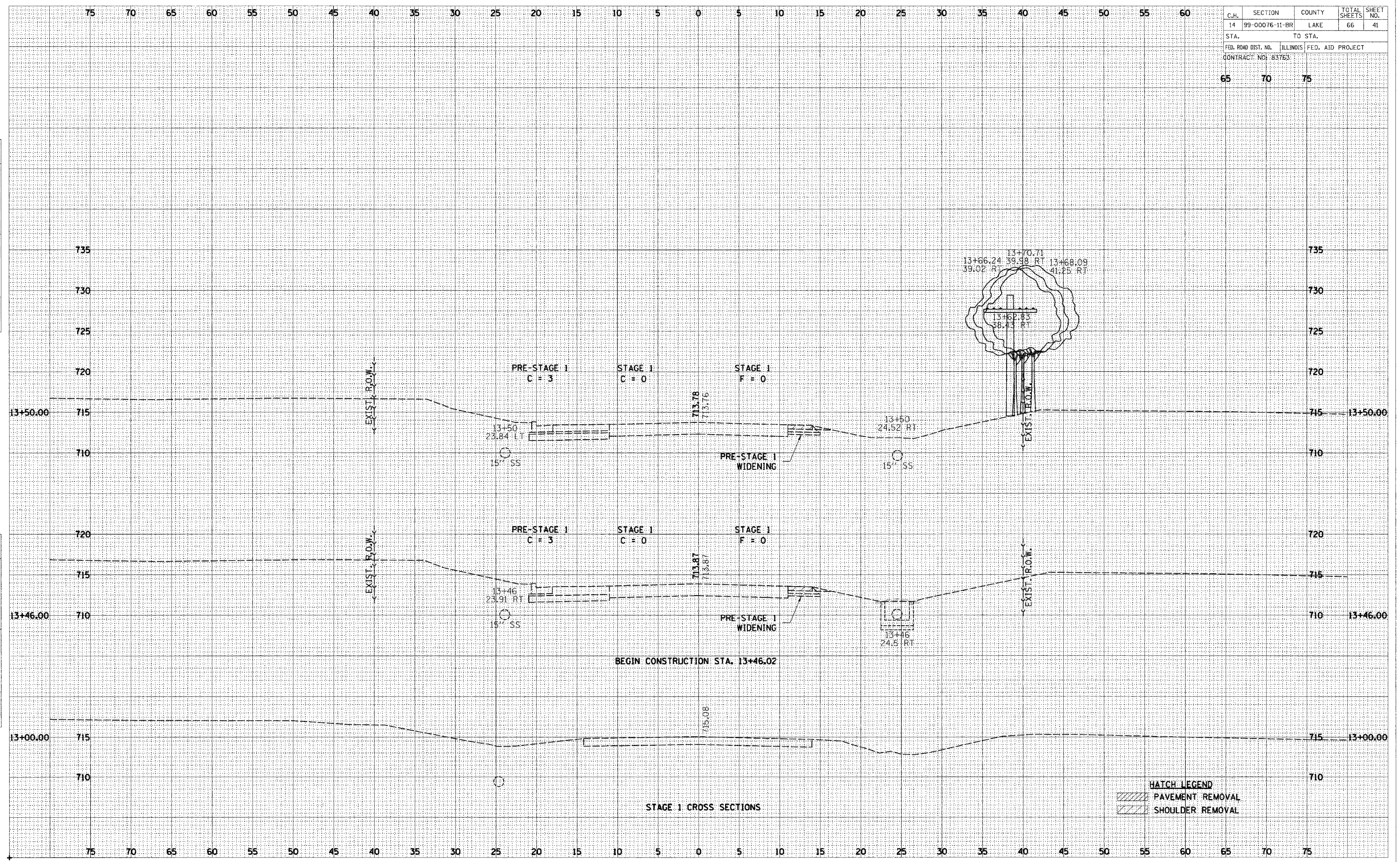
FINAL SURVEY	SURVEYED

NO. 1	NO. 2	NO. 3	NO. 4

BY	DATE

ORIGINAL SURVEY	SURVEYED

NO. 1	NO. 2	NO. 3	NO. 4



HATCH LEGEND

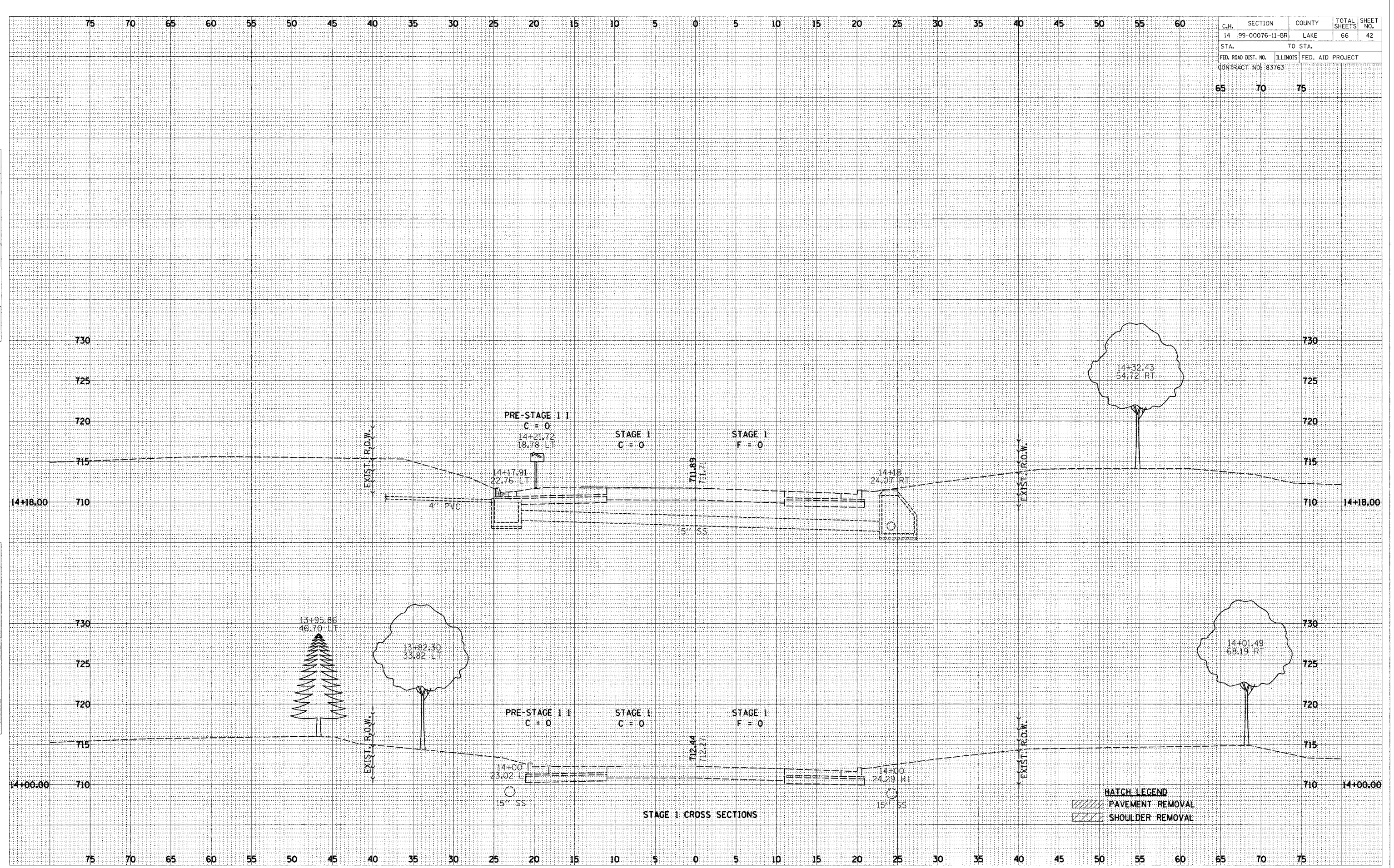
	PAVEMENT REMOVAL
	SHOULDER REMOVAL

STAGE 1 CROSS SECTIONS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	42
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83763				
65	70	75		

DATE: _____
 BY: _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____

DATE: _____
 BY: _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____



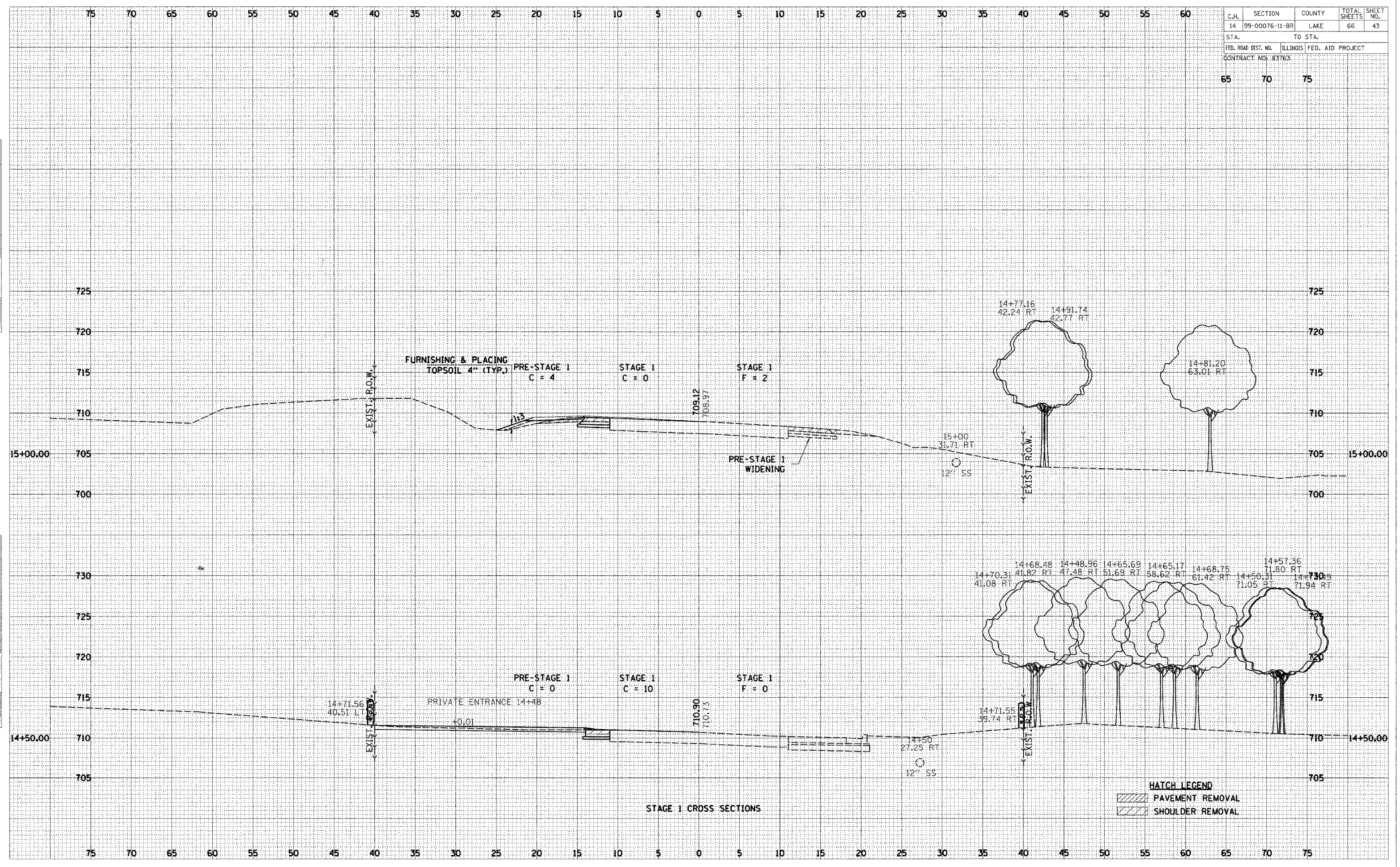
HATCH LEGEND

	PAVEMENT REMOVAL
	SHOULDER REMOVAL

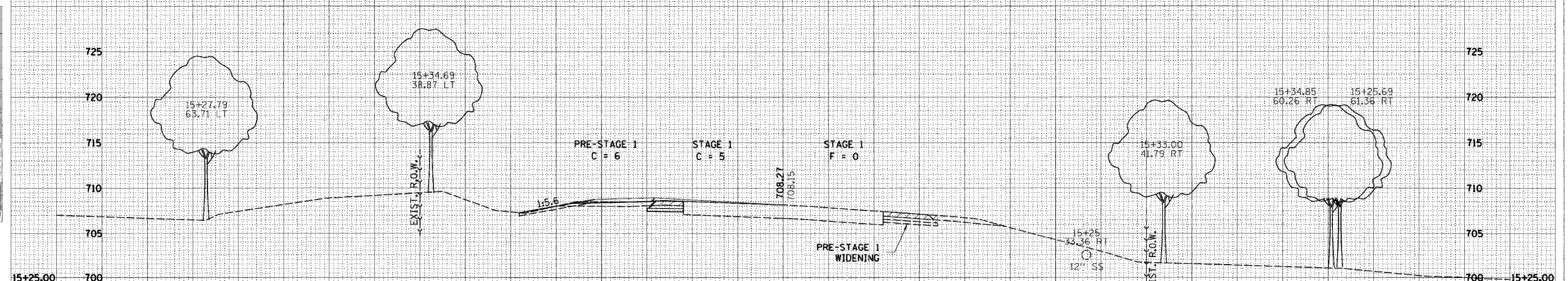
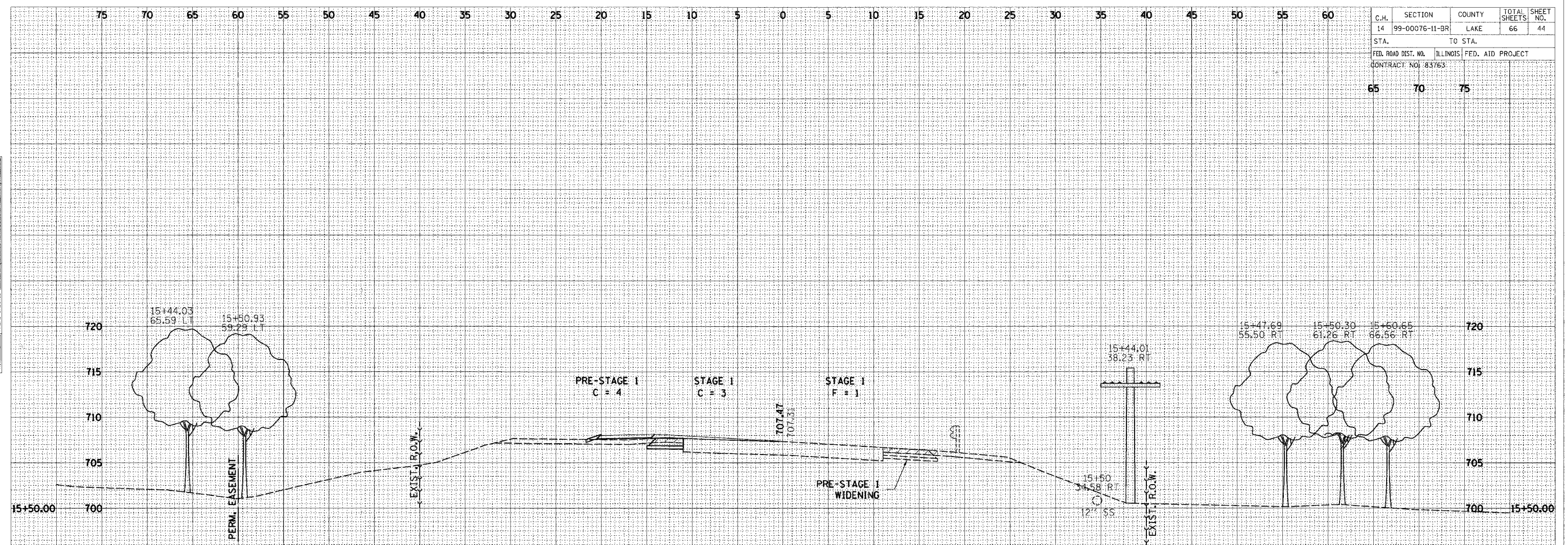
C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	43
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO: 83763				
65	70	75		

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 NO. _____

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 NO. _____



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	44
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83763				
65	70	75		



STAGE 1 CROSS SECTIONS

HATCH LEGEND

	PAVEMENT REMOVAL
	SHOULDER REMOVAL

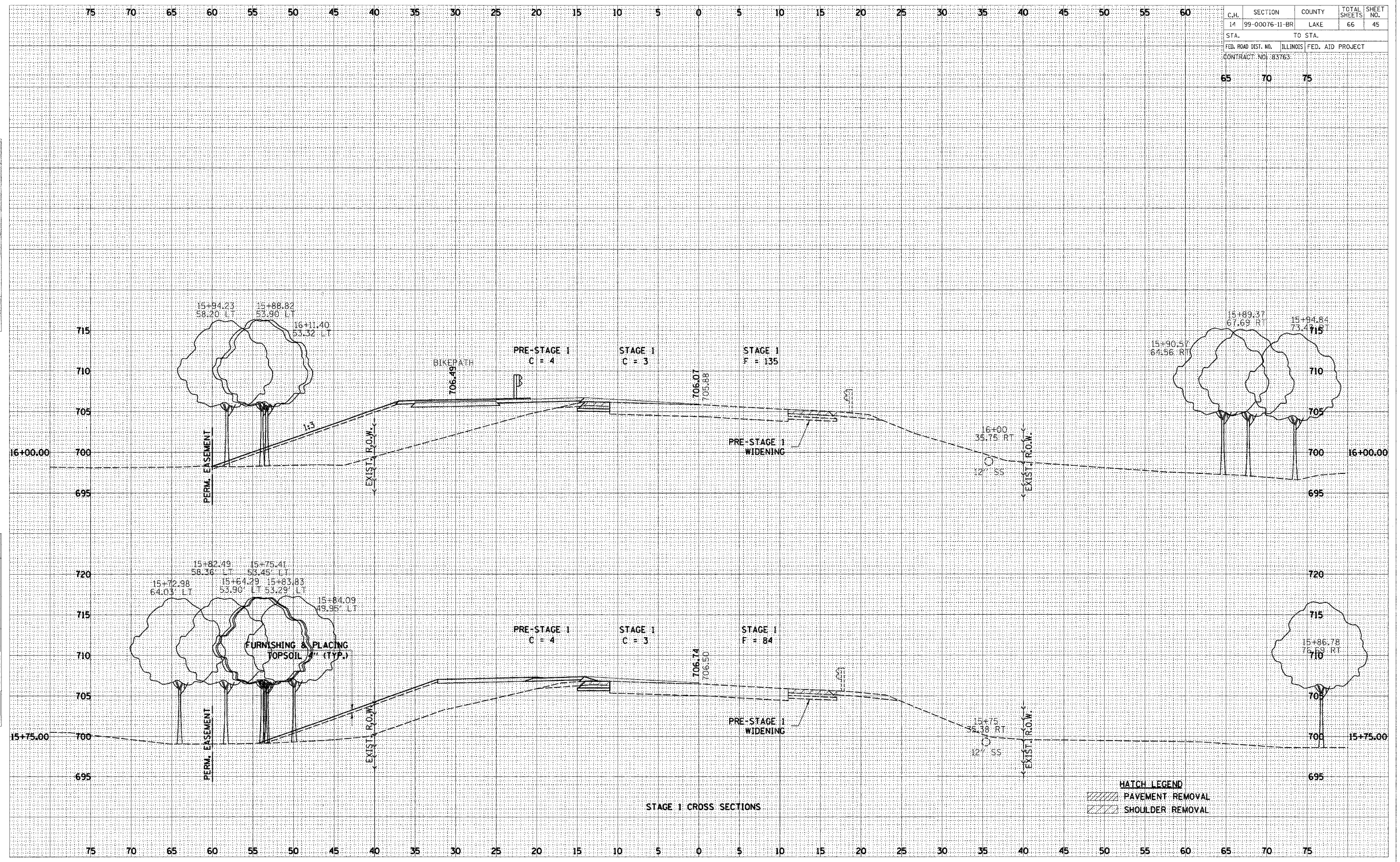
BY	DATE

BY	DATE

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	45
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83763				
65	70	75		

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____

BY: _____ DATE: _____
 ORIGINAL SURVEY _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____



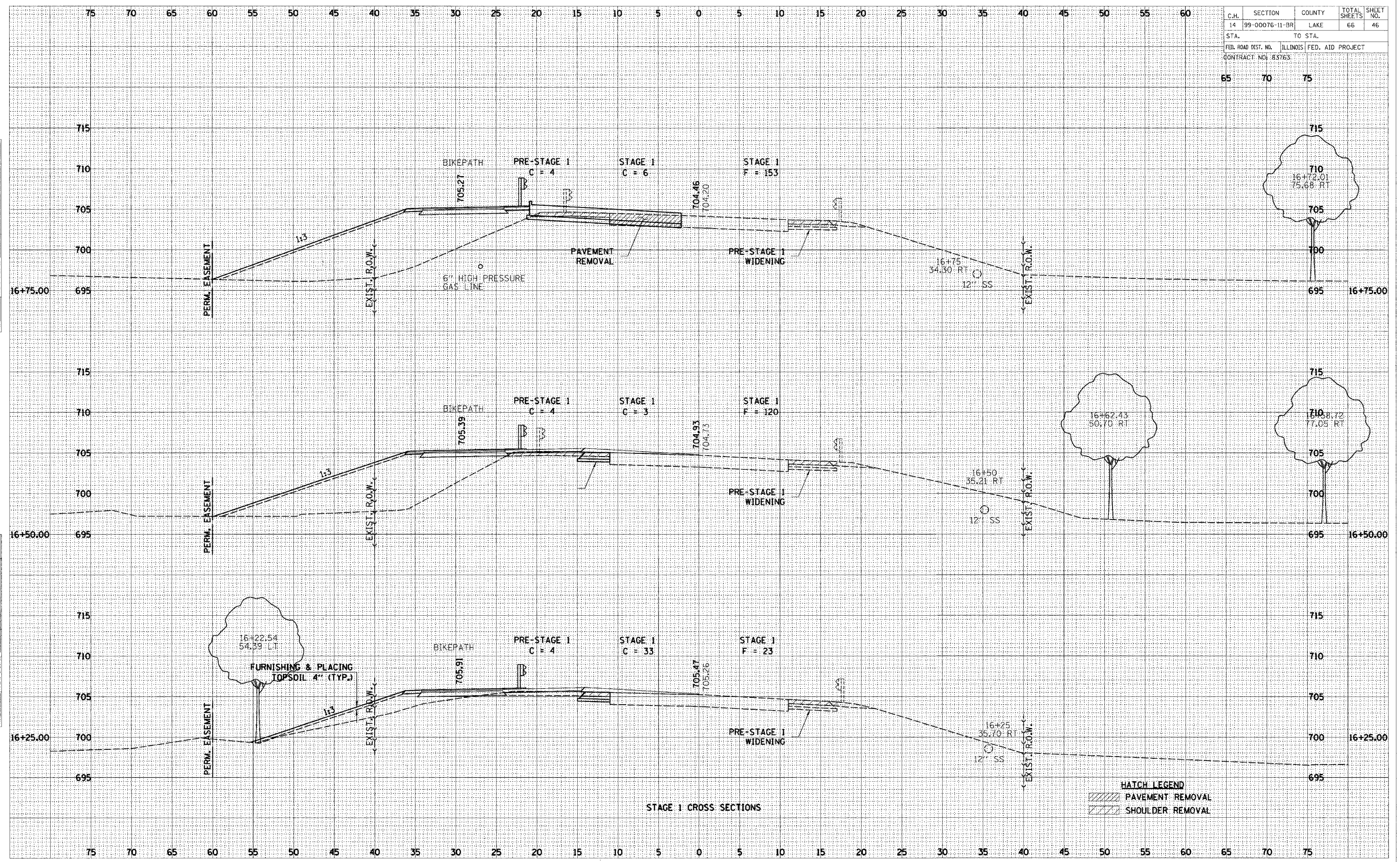
C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	46
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83763				
65	70	75		

BY	DATE

FINAL SURVEY	PLOTTED	DATE	AREAS CHECKED

BY	DATE

ORIGINAL SURVEY	PLOTTED	DATE	AREAS CHECKED

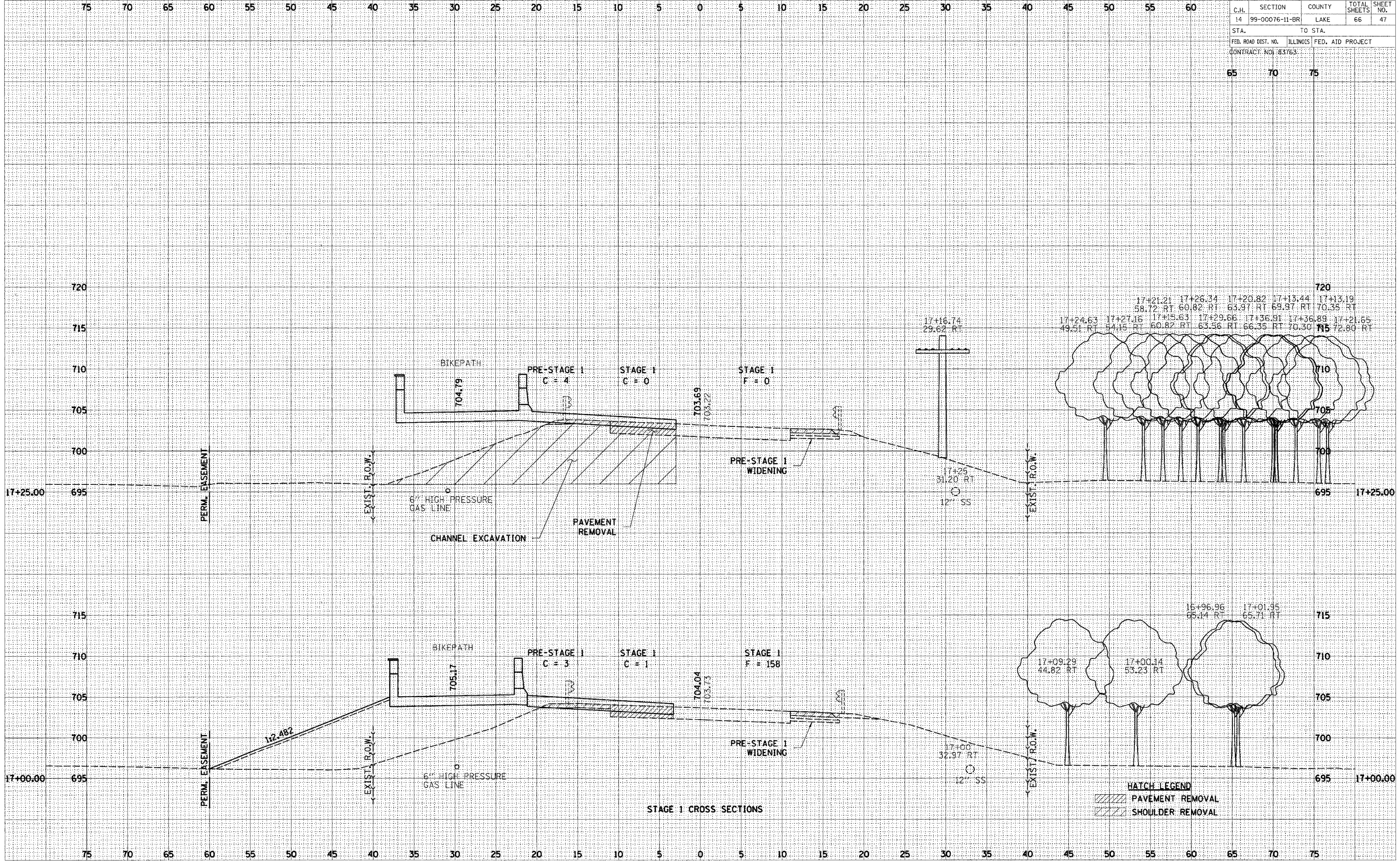


STAGE 1 CROSS SECTIONS

HATCH LEGEND

	PAVEMENT REMOVAL
	SHOULDER REMOVAL

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	47
STA. TO STA.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
CONTRACT NO. 83763				
65	70	75		



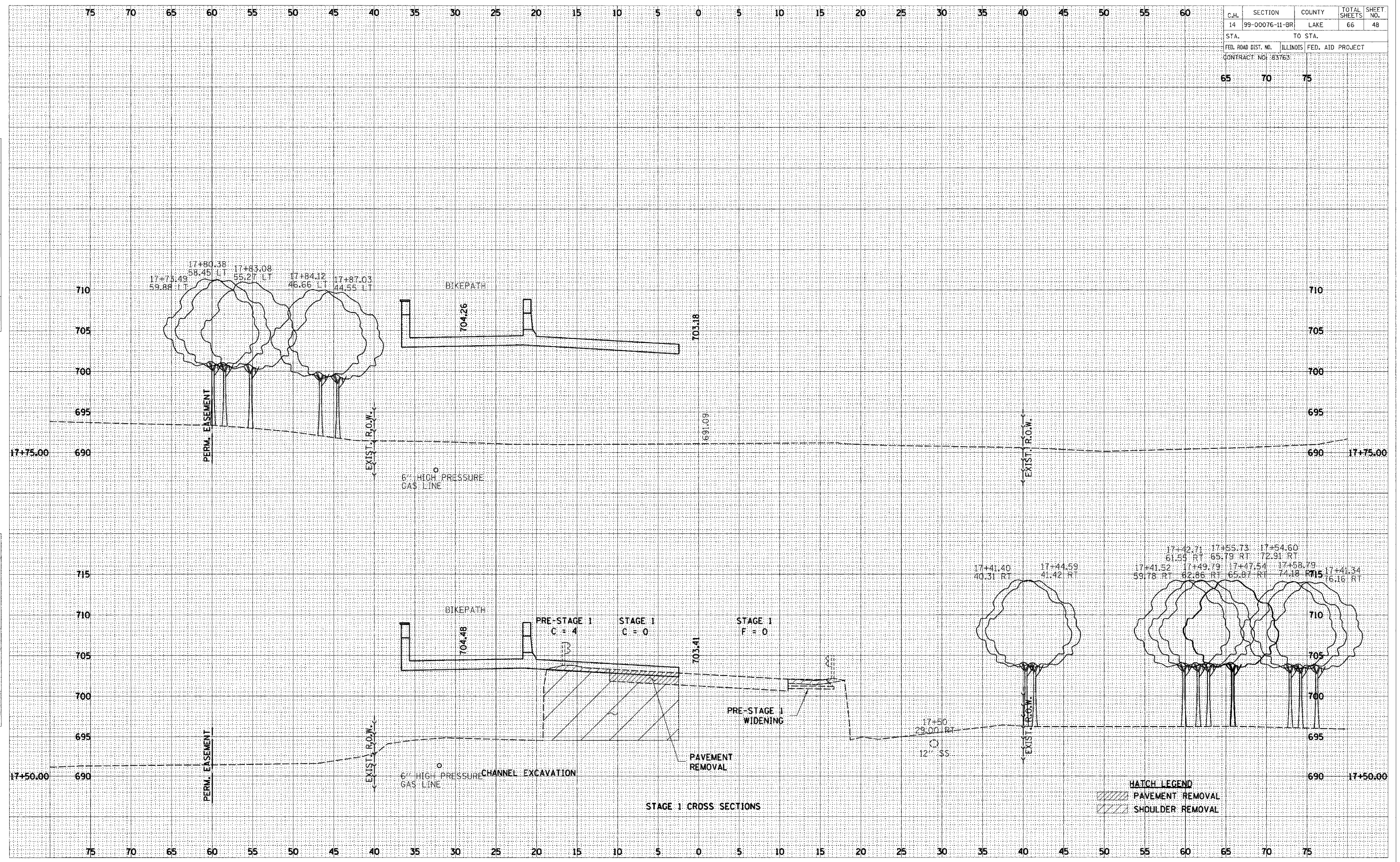
DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 ORIGINAL: _____ NOTE BOOK: _____
 NO. _____ AREAS CHECKED: _____

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 ORIGINAL: _____ NOTE BOOK: _____
 NO. _____ AREAS CHECKED: _____

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	48
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83763				
65	70	75		

BY _____ DATE _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____

BY _____ DATE _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____



HATCH LEGEND

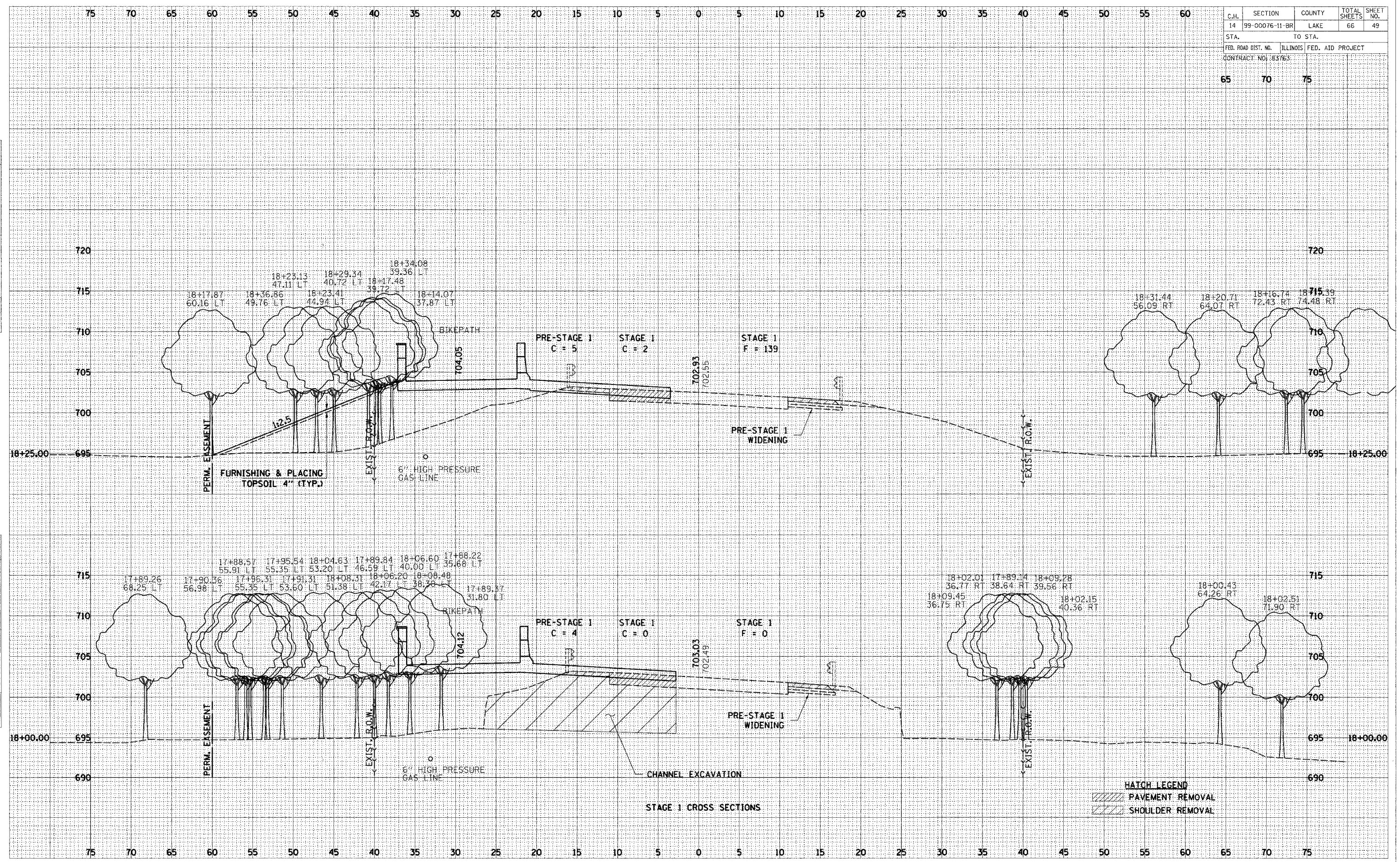
	PAVEMENT REMOVAL
	SHOULDER REMOVAL

STAGE 1 CROSS SECTIONS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	49
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83763				
65	70	75		

BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE

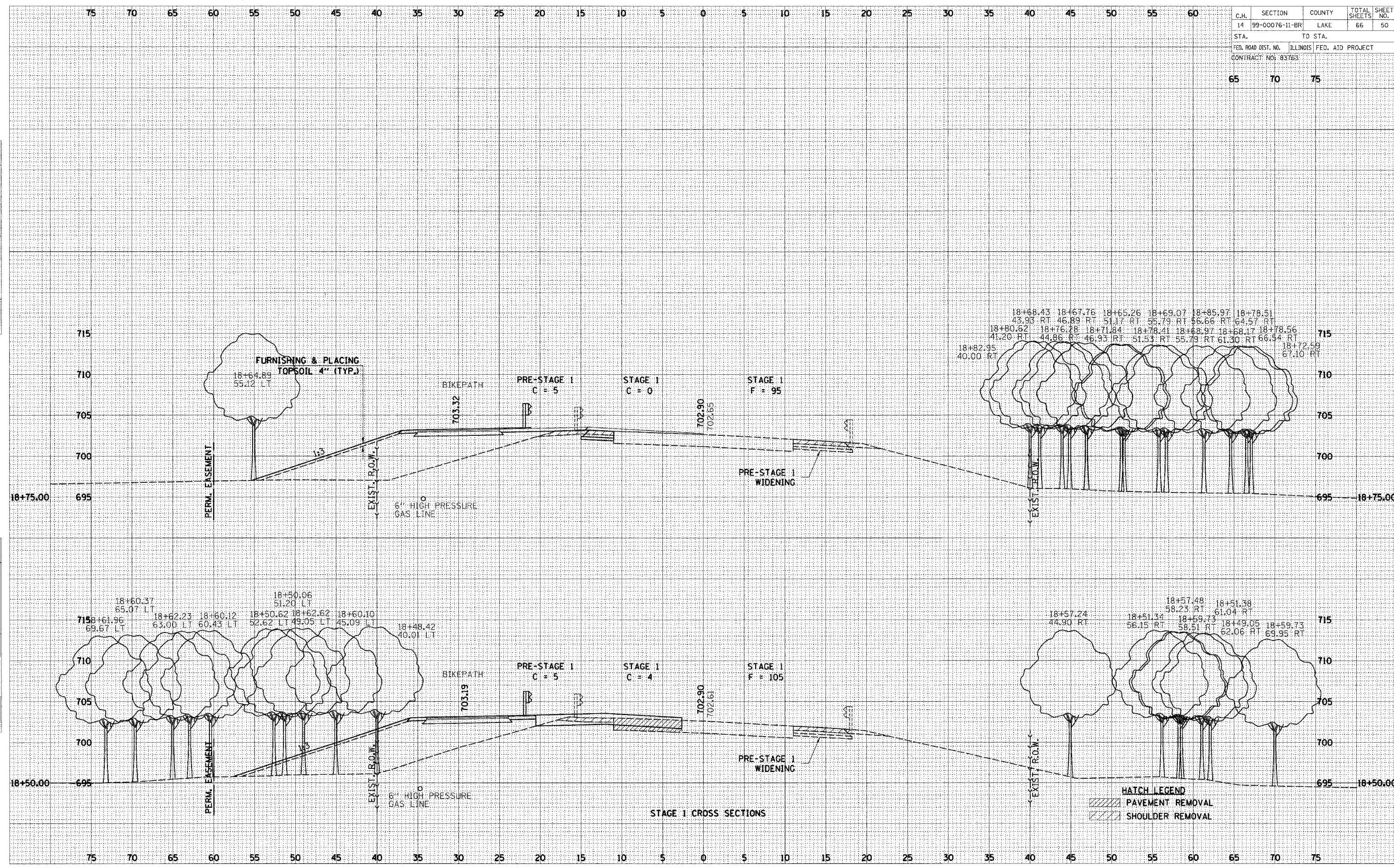
BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	50
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO: 83763				
65	70	75		

BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE

BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE



HATCH LEGEND

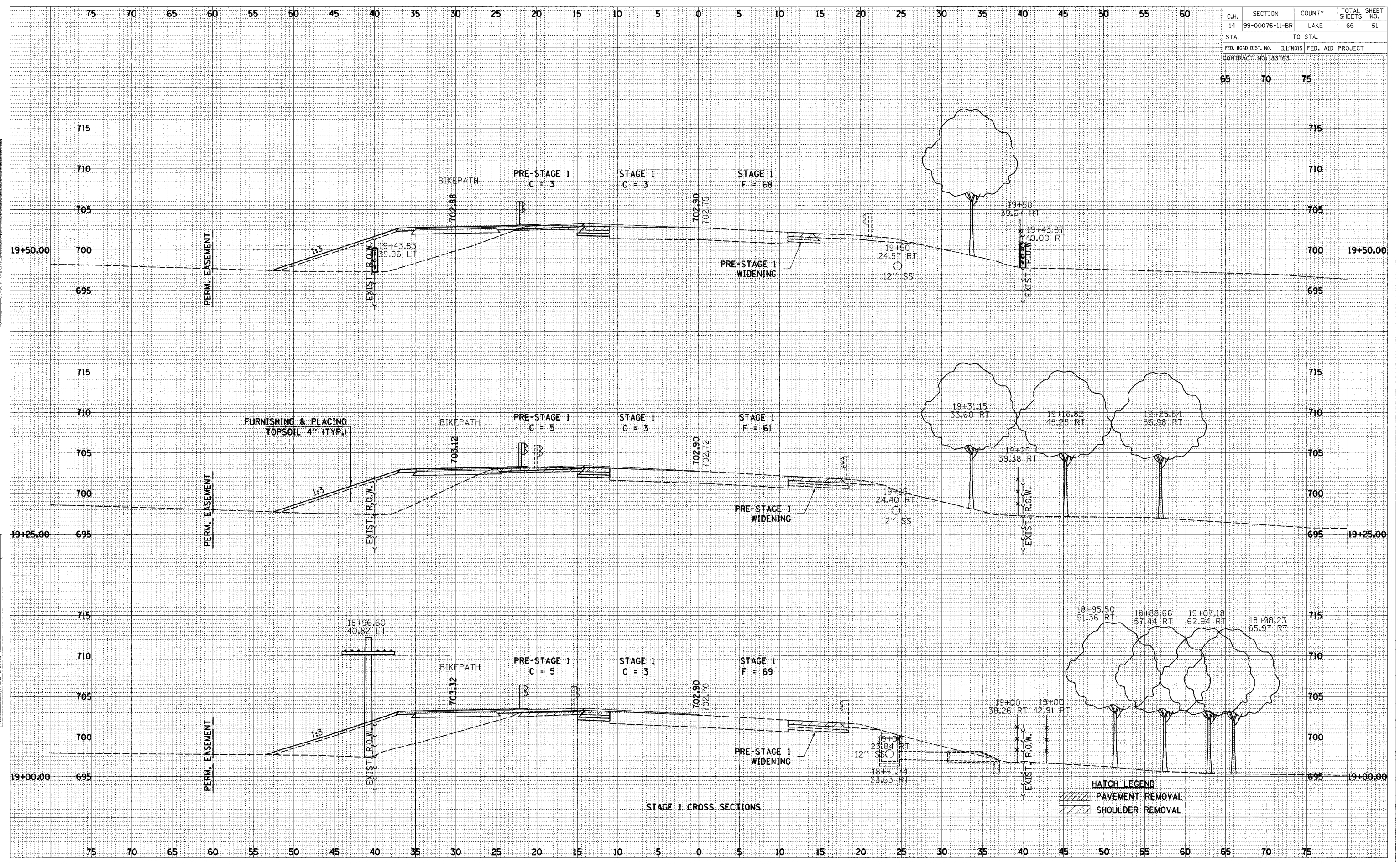
	PAVEMENT REMOVAL
	SHOULDER REMOVAL

STAGE 1 CROSS SECTIONS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	51
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83763				
65	70	75		

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____



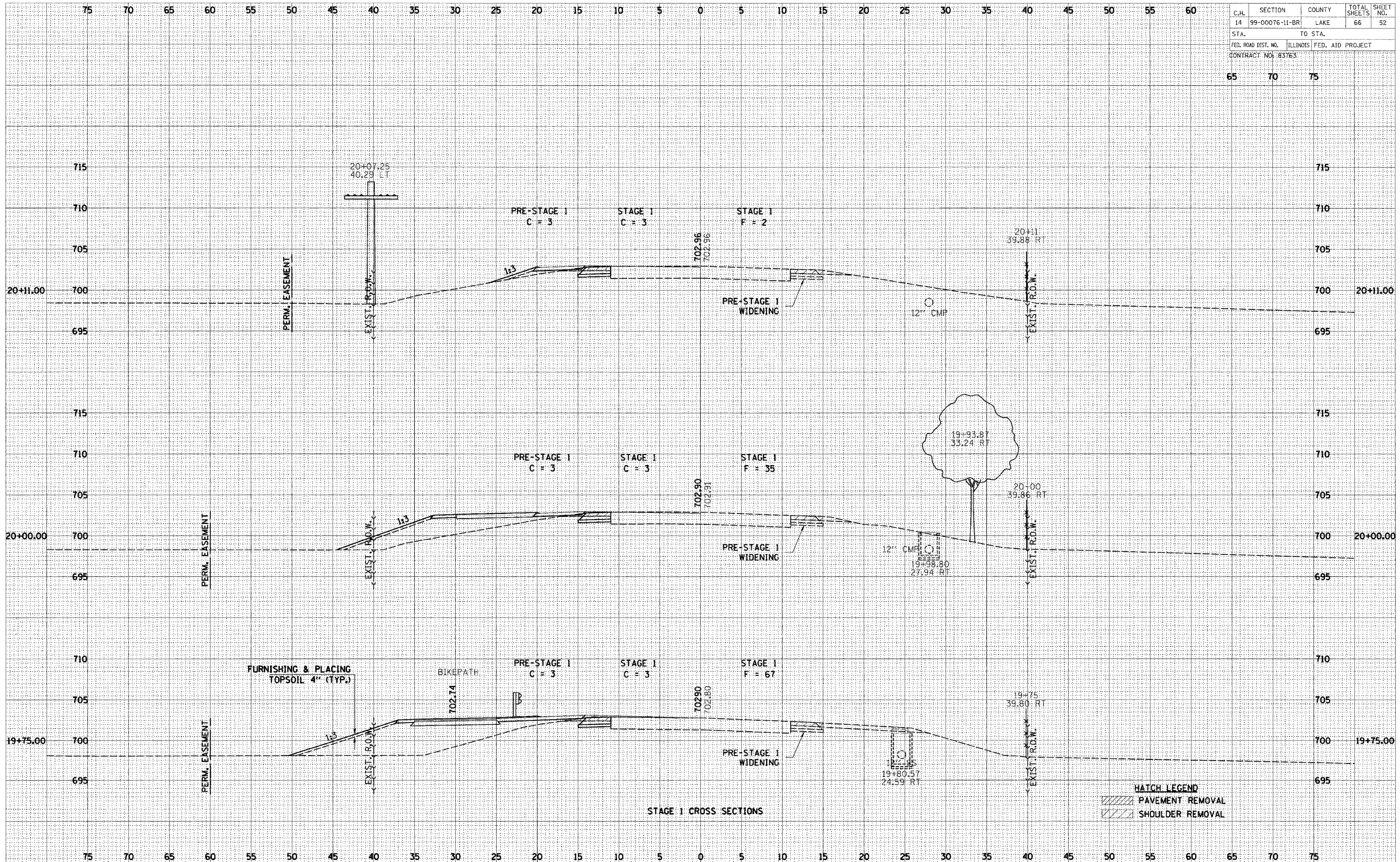
STAGE 1 CROSS SECTIONS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	52
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83763				
65	70	75		

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____

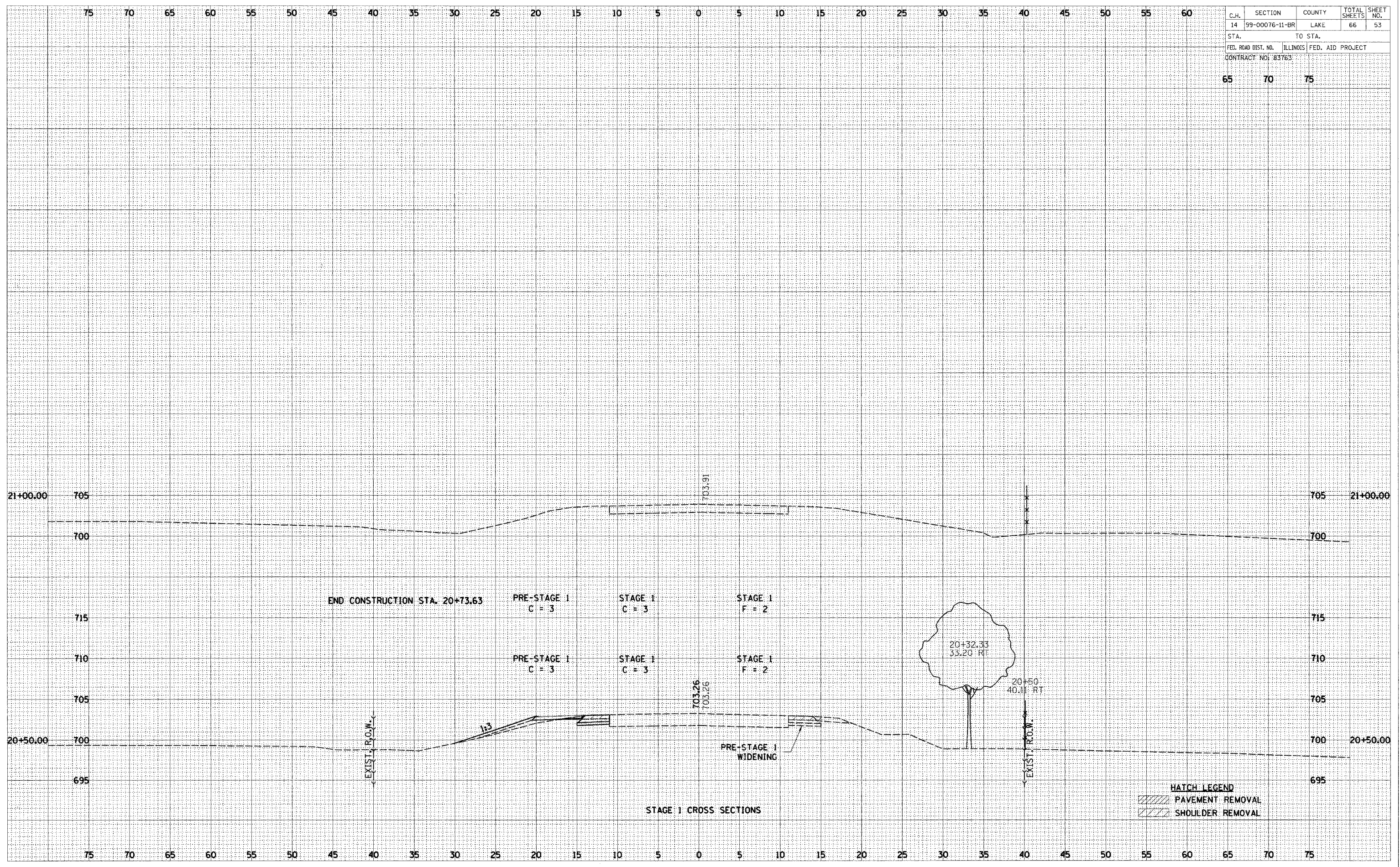
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C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	53
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO: 83763				
65	70	75		

FINAL SURVEY	DATE
SURVEYED	
TEMPLATE	
NOTE BOOK	
AREAS	
CHECKED	

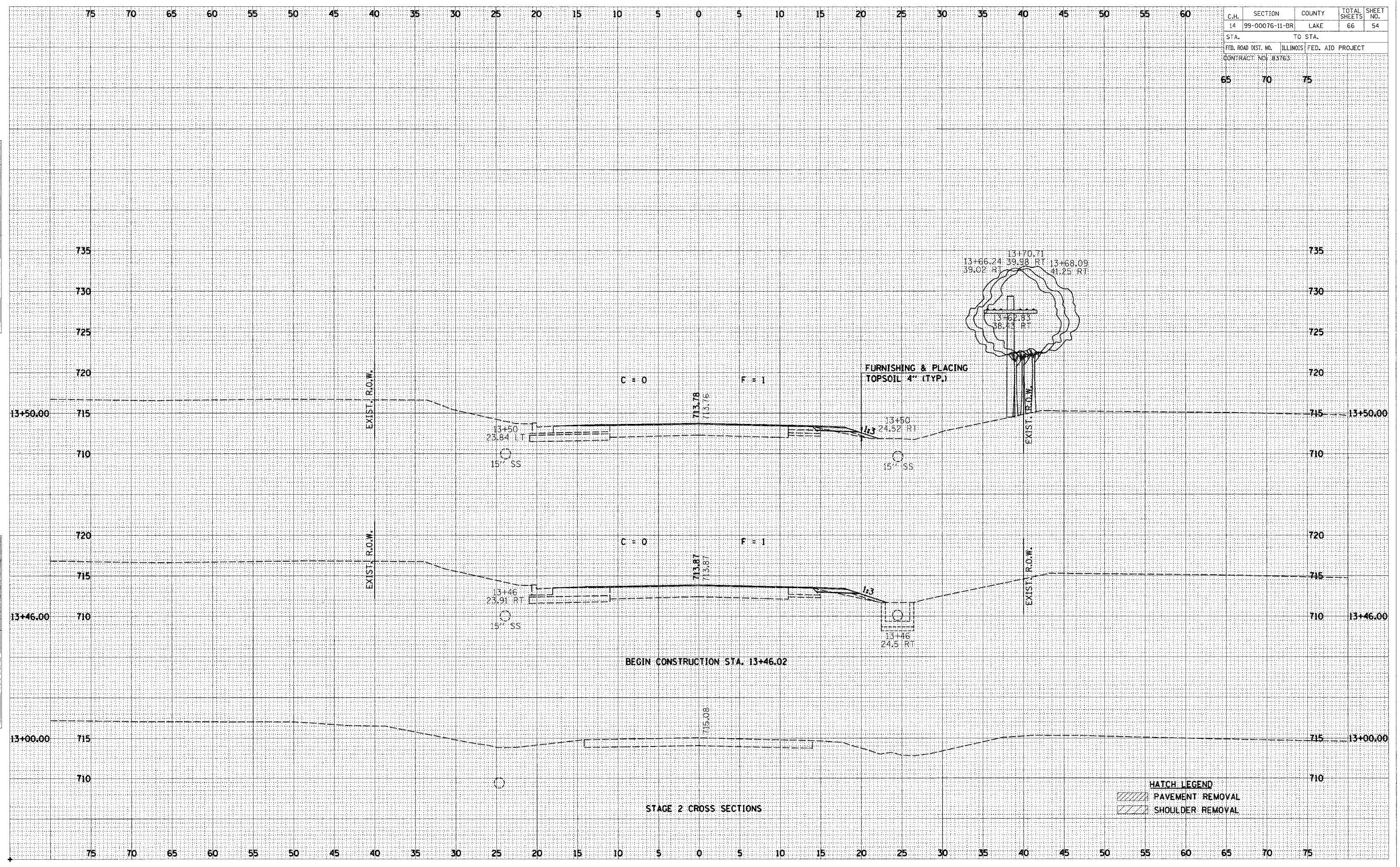
ORIGINAL SURVEY	DATE
SURVEYED	
TEMPLATE	
NOTE BOOK	
AREAS	
CHECKED	



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	54
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 83763				
65	70	75		

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

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



HATCH LEGEND
 [Hatched Pattern] PAVEMENT REMOVAL
 [Hatched Pattern] SHOULDER REMOVAL

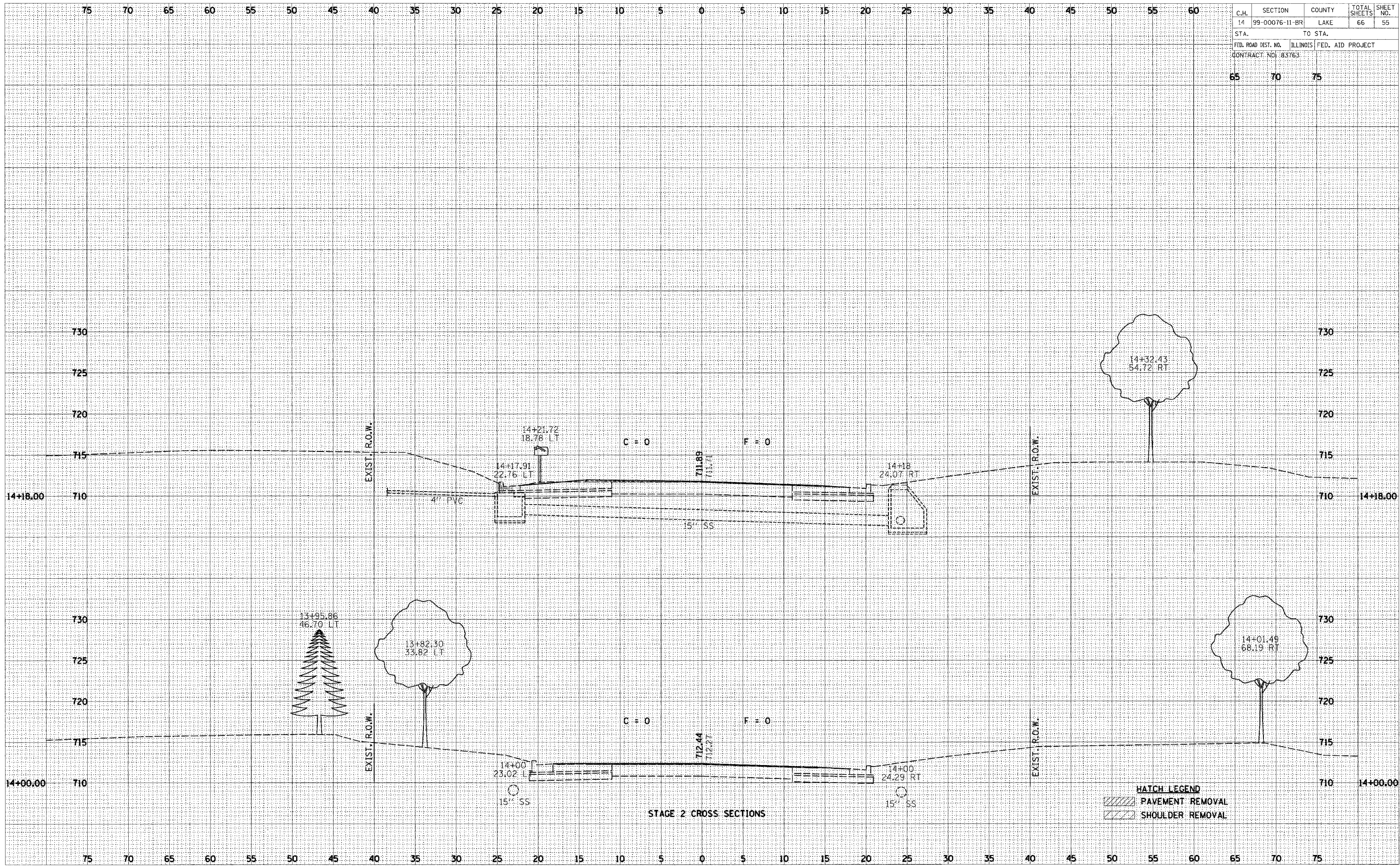
BEGIN CONSTRUCTION STA. 13+46.02

STAGE 2 CROSS SECTIONS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	55
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83763				
65	70	75		

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____

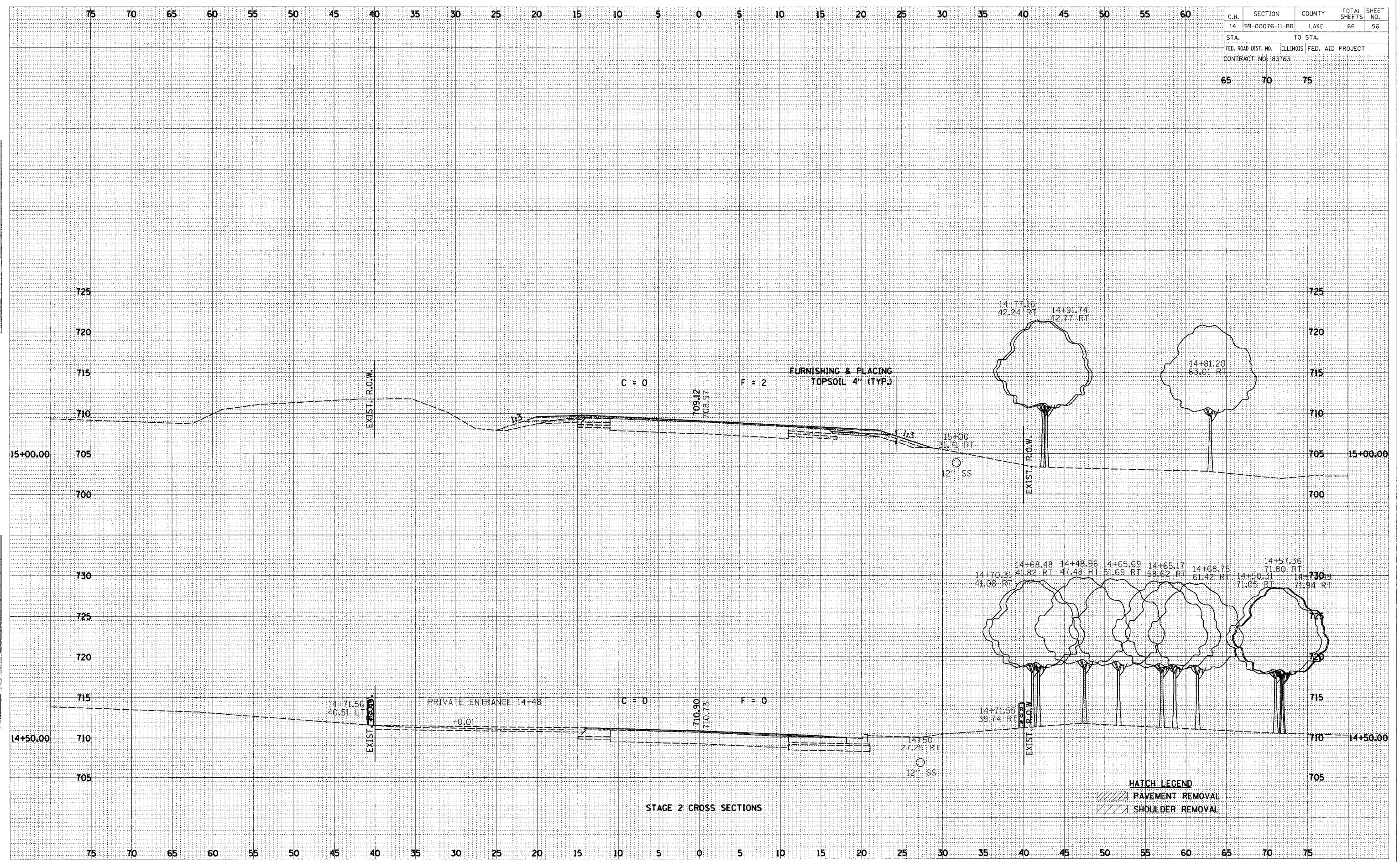
BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	56
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83763				
65	70	75		

DATE	BY
SURVEYED	PLOTTED
NO. 1	NO. 1
AREAS CHECKED	AREAS CHECKED

DATE	BY
SURVEYED	PLOTTED
NO. 1	NO. 1
AREAS CHECKED	AREAS CHECKED

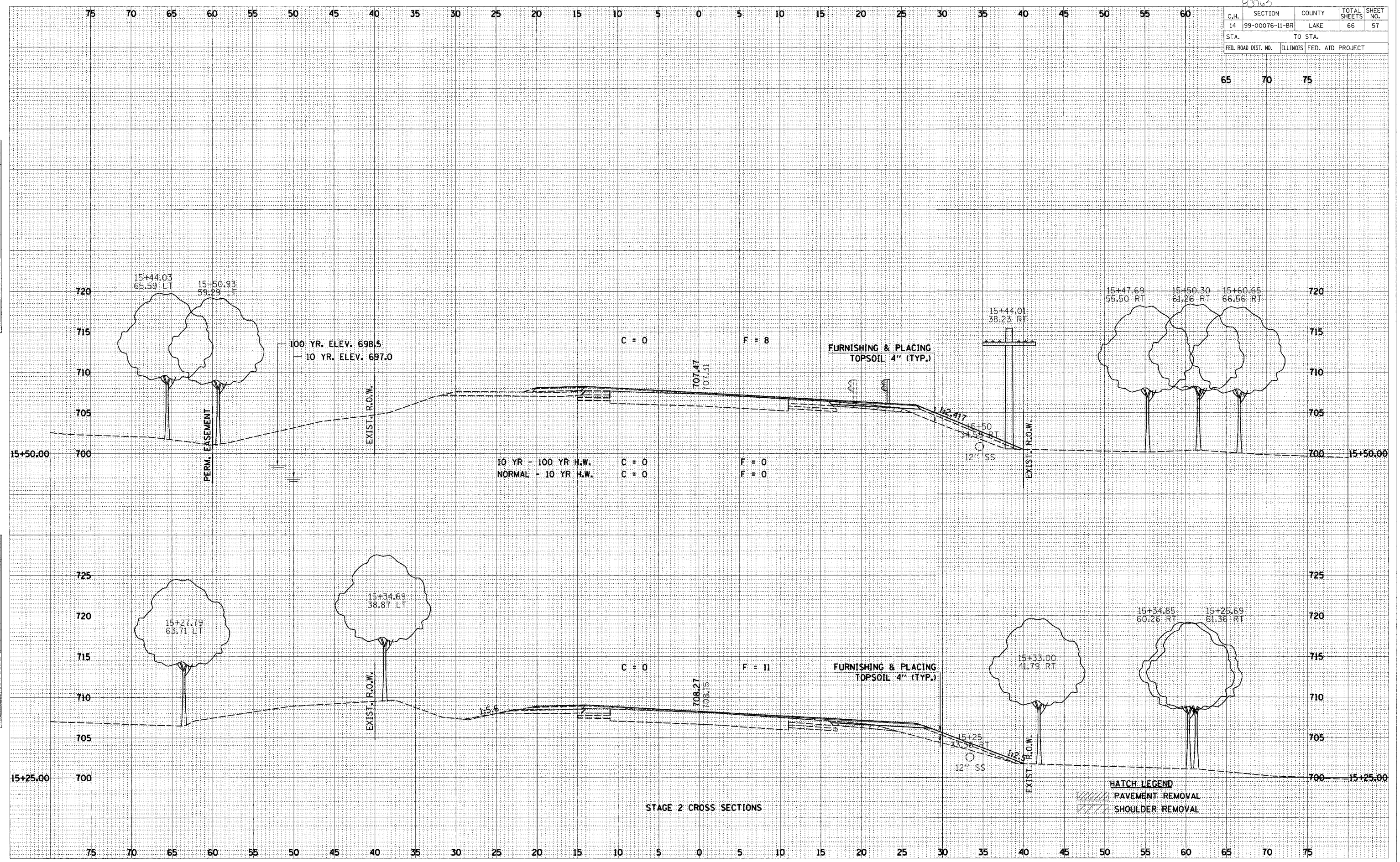


C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	57
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

65 70 75

BY _____ DATE _____
 SURVEYED _____
 PLOTTED _____
 FINAL SURVEY _____
 NOTE BOOK _____
 AREAS CHECKED _____

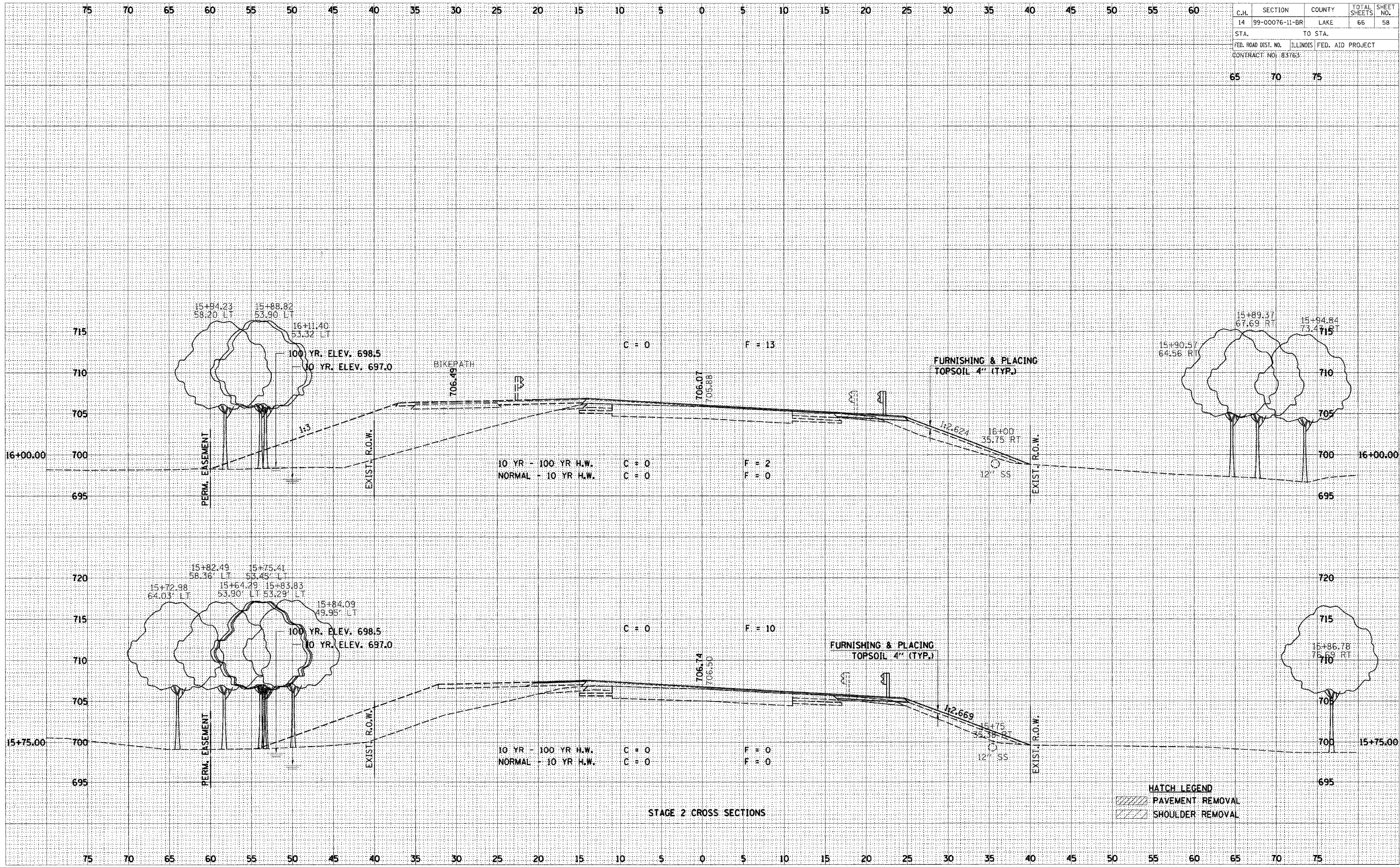
BY _____ DATE _____
 SURVEYED _____
 PLOTTED _____
 FINAL SURVEY _____
 NOTE BOOK _____
 AREAS CHECKED _____



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	58
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO: 83763				
65	70	75		

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 NO. _____

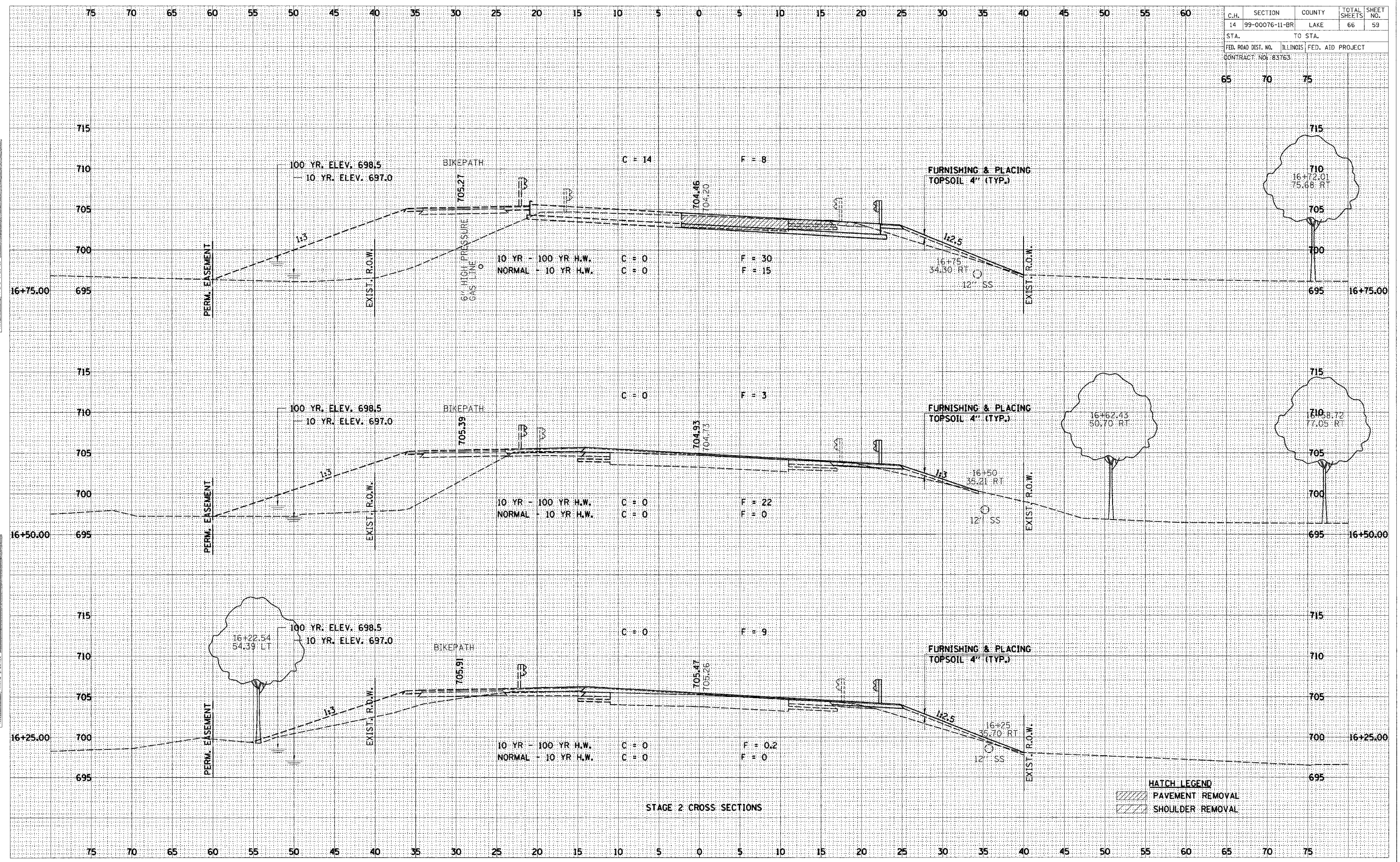
BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 NO. _____



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	59
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO: 83763				
65	70	75		

DATE: _____
 BY: _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____

DATE: _____
 BY: _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____



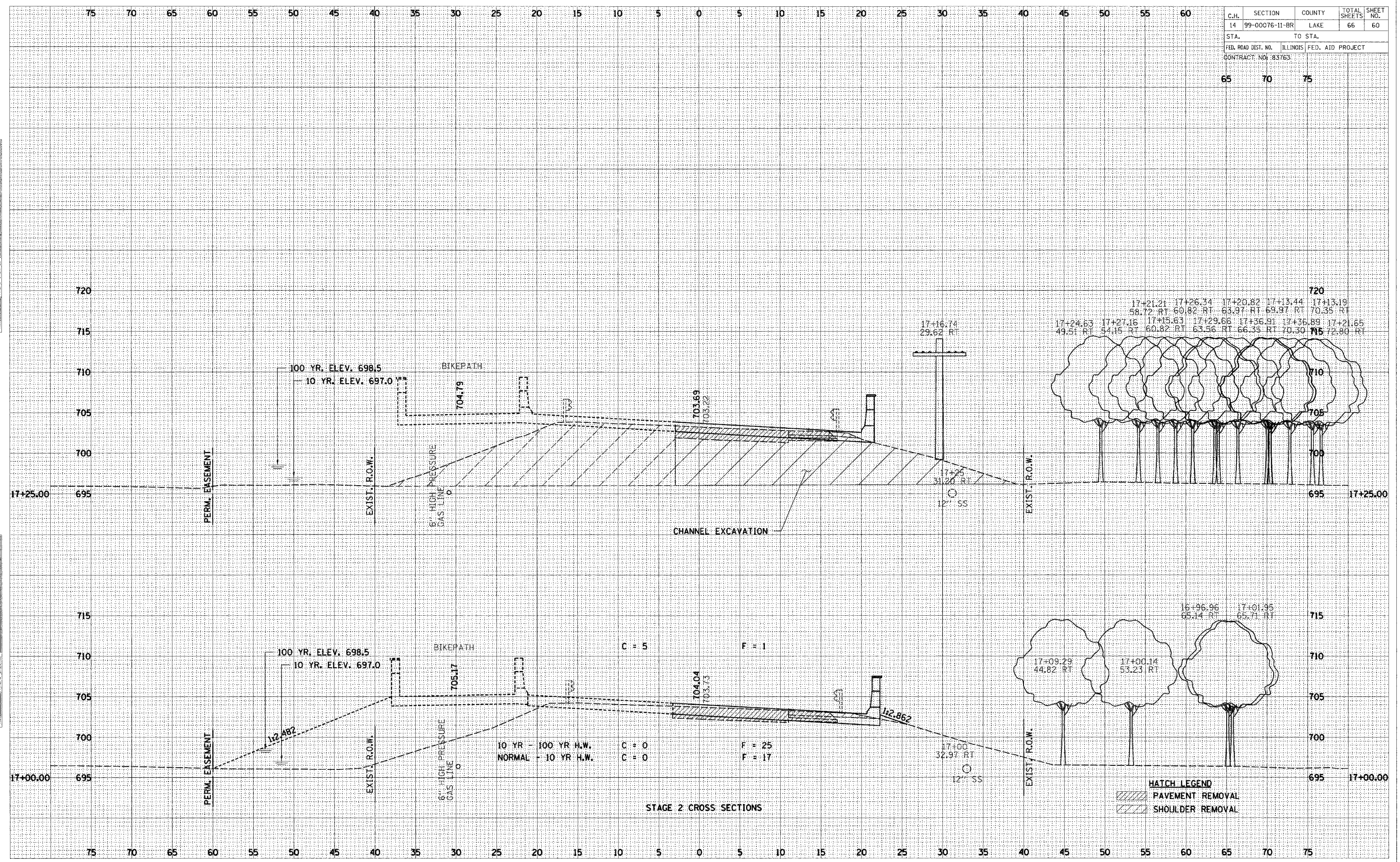
STAGE 2 CROSS SECTIONS

HATCH LEGEND
 [Diagonal Hatching] PAVEMENT REMOVAL
 [Cross-hatching] SHOULDER REMOVAL

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	60
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO: 83763				
65	70	75		

DATE	BY
NO.	

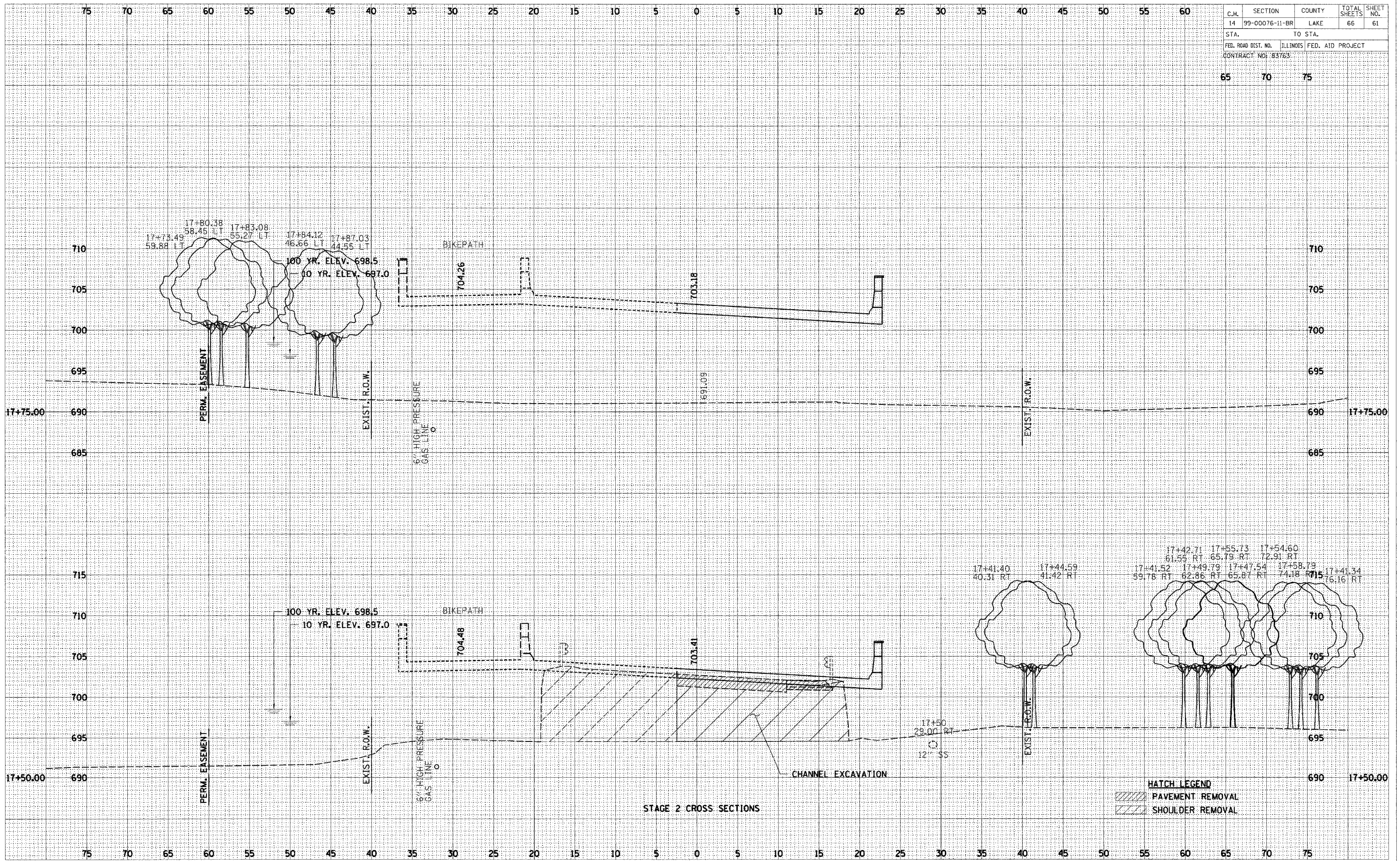
DATE	BY
NO.	



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	61
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO: 83763				
65	70	75		

BY _____ DATE _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____
 NO. _____

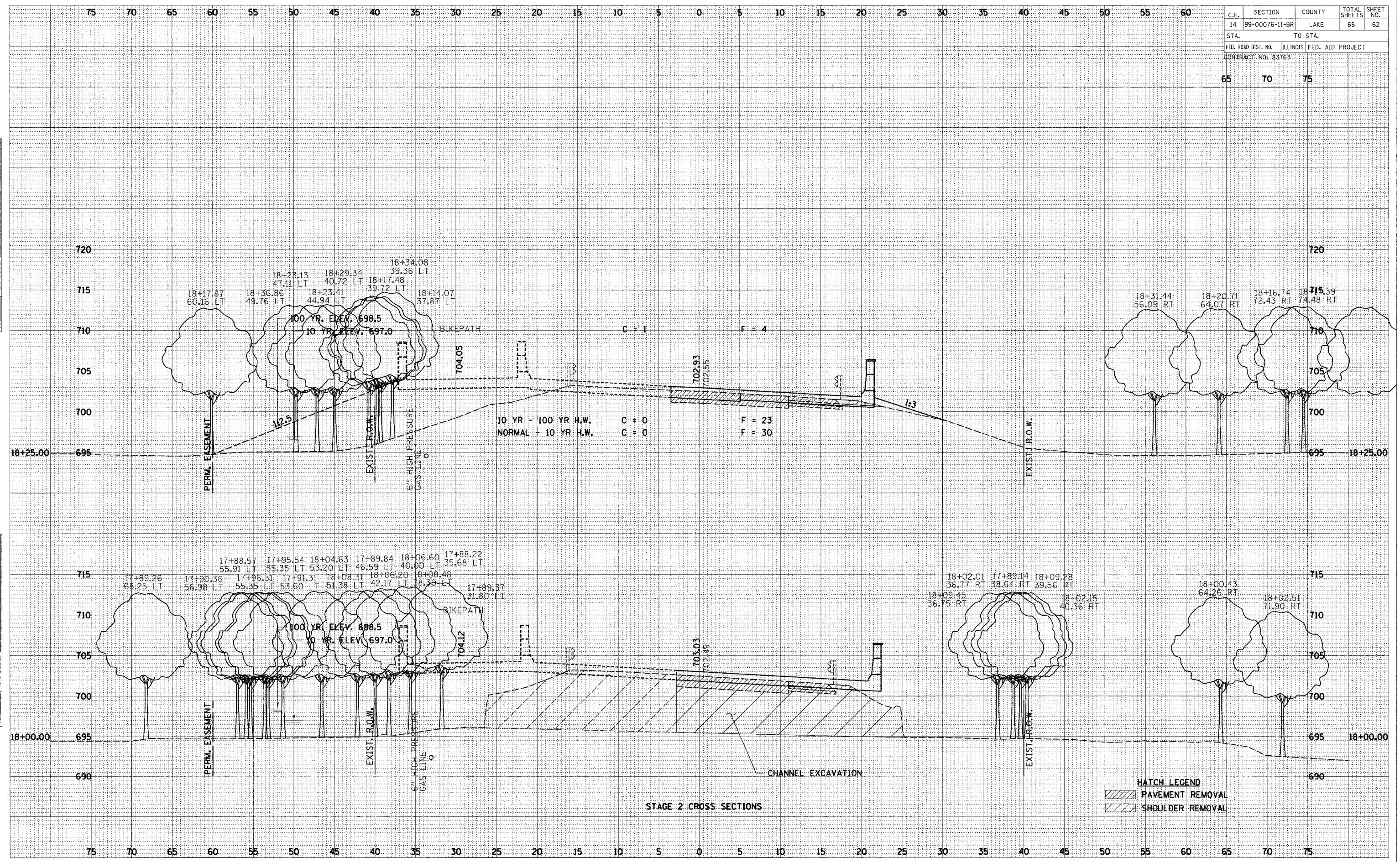
BY _____ DATE _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____
 NO. _____



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	62
STA. TO STA.				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 83763				
65	70	75		

BY	DATE

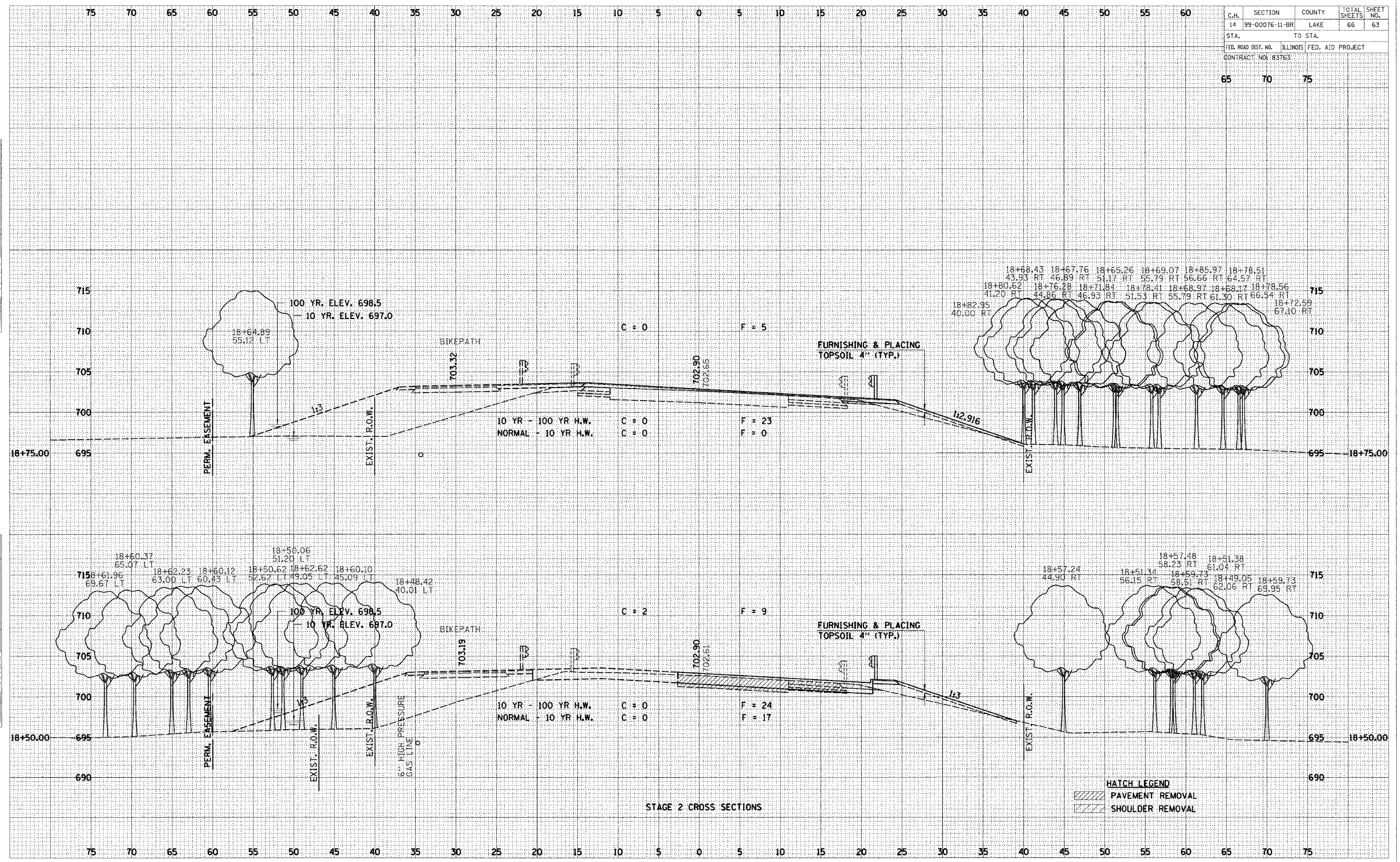
BY	DATE



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	63
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO: 83763				
65	70	75		

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 NOTE BOOK _____
 AREAS CHECKED _____

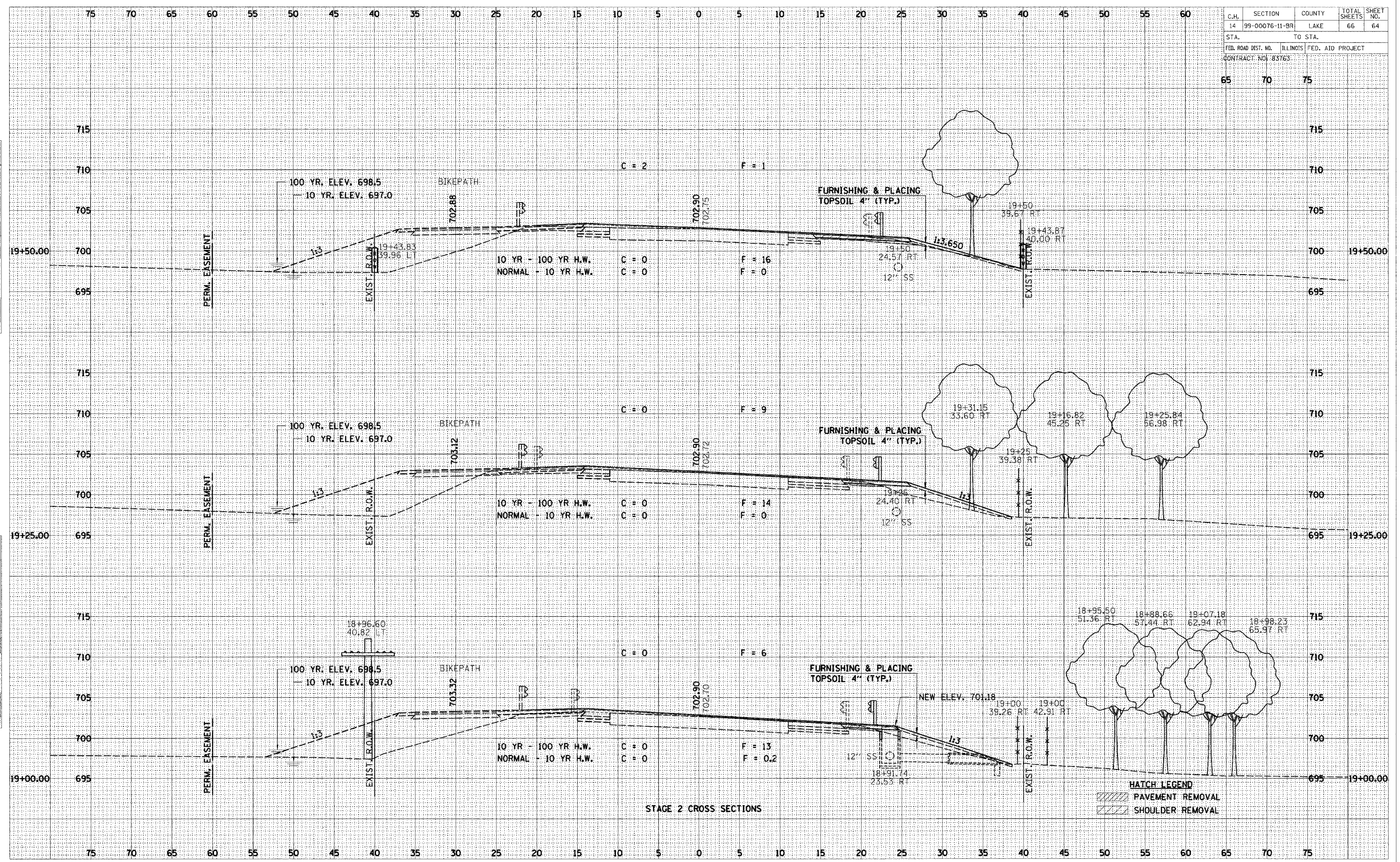
BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 NOTE BOOK _____
 AREAS CHECKED _____



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	64
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83763				
65	70	75		

DATE _____
 BY _____
 SURVEYED _____
 PLOTTED _____
 FINAL SURVEY _____
 NOTE BOOK _____
 AREAS CHECKED _____

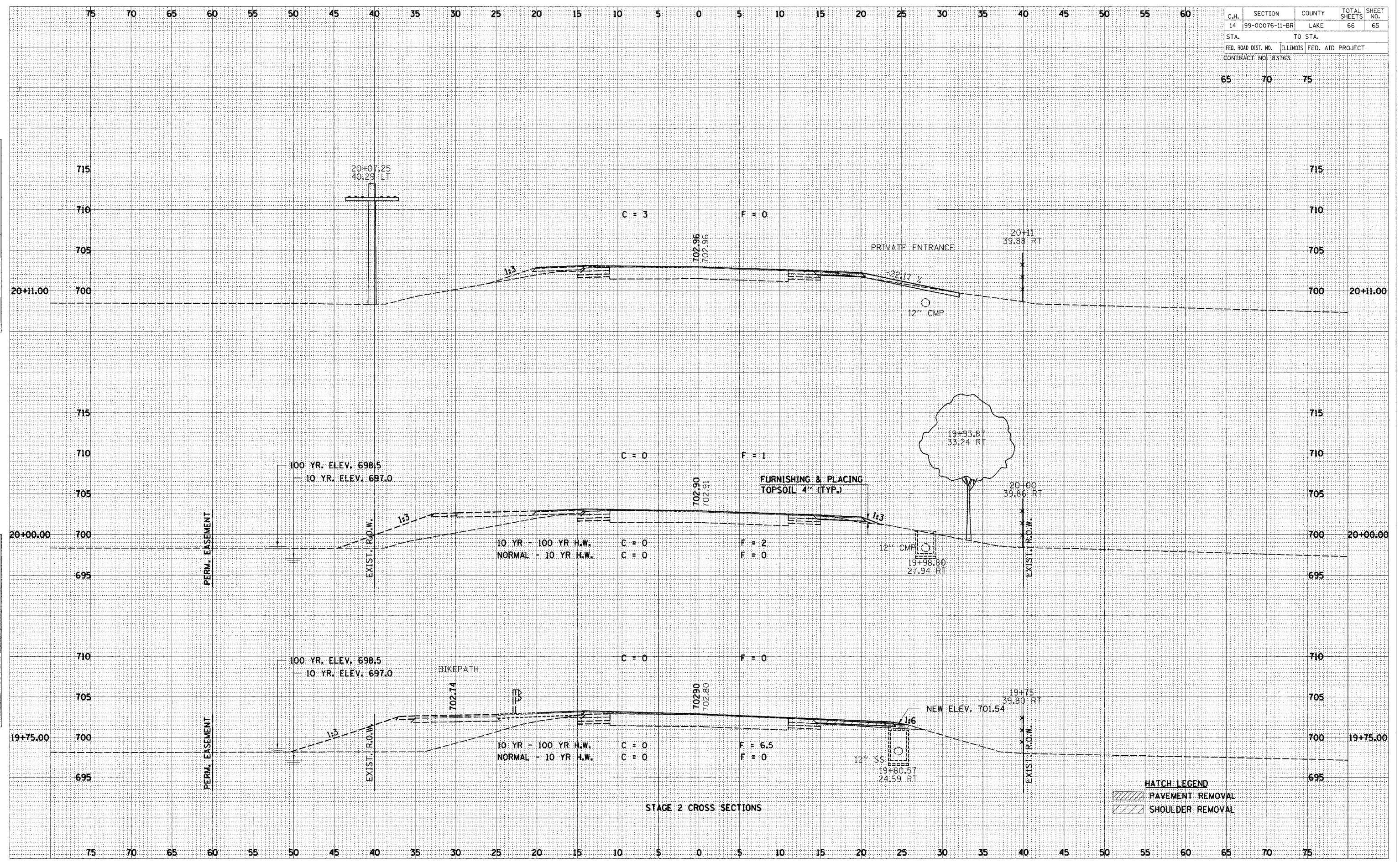
DATE _____
 BY _____
 SURVEYED _____
 PLOTTED _____
 ORIGINAL SURVEY _____
 NOTE BOOK _____
 AREAS CHECKED _____



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	65
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO: 83763				
65	70	75		

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 NO. _____

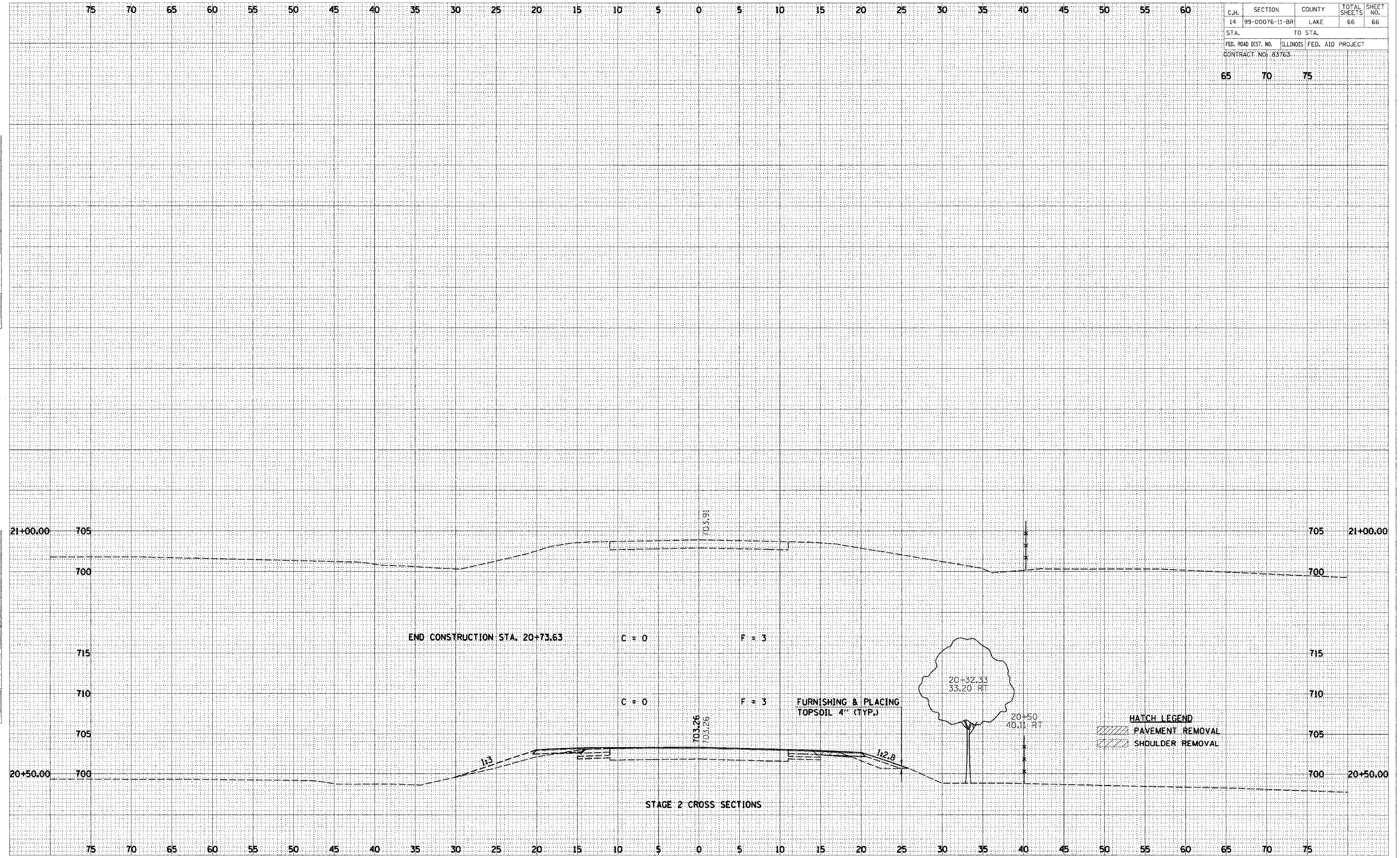
BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 NO. _____



C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14	99-00076-11-BR	LAKE	66	66
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO.		83763		
65	70	75		

DATE	BY
SURVEYED	PLOTTED
NOTE BOOK	AREAS CHECKED
NO.	

DATE	BY
SURVEYED	PLOTTED
NOTE BOOK	AREAS CHECKED
NO.	



HATCH LEGEND

	PAVEMENT REMOVAL
	SHOULDER REMOVAL