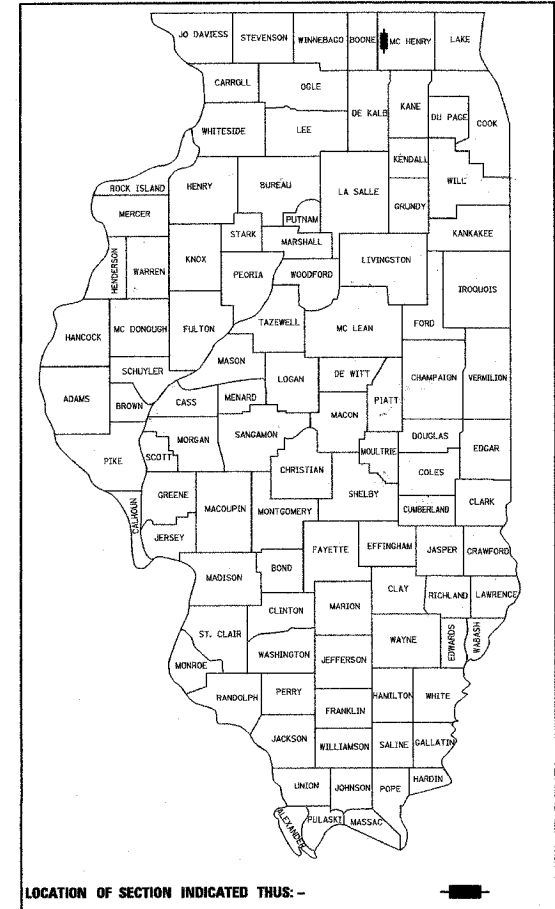


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	1
			73	total
			= 91	Sheets

62202

D-91-190-01



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
HIGHWAY**

FAP ROUTE 303 (U.S. RTE. 14)
SECTION 29R-T

FOR INDEX OF SHEETS, SEE SHEET NO. 2

TRAFFIC DATA

U.S. ROUTE 14 OVER MOKELER CREEK
ADT (CURRENT) = 11,900 (1999)
ADT (PROJECTED) = 16,065 (2021)
SPEED LIMIT = 50 Km/h
DESIGNATION = OTHER PRINCIPAL ARTERIAL

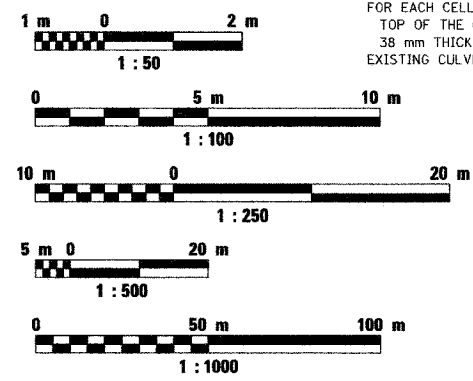
**CULVERT, RETAINING WALLS REMOVAL (PARTIAL) AND REPLACEMENT
AND ROADWAY WIDENING**

U.S. ROUTE 14 MOKELER CREEK TO N. OF IL. 173 & AT UPRR
McHENRY COUNTY
C-91-190-01

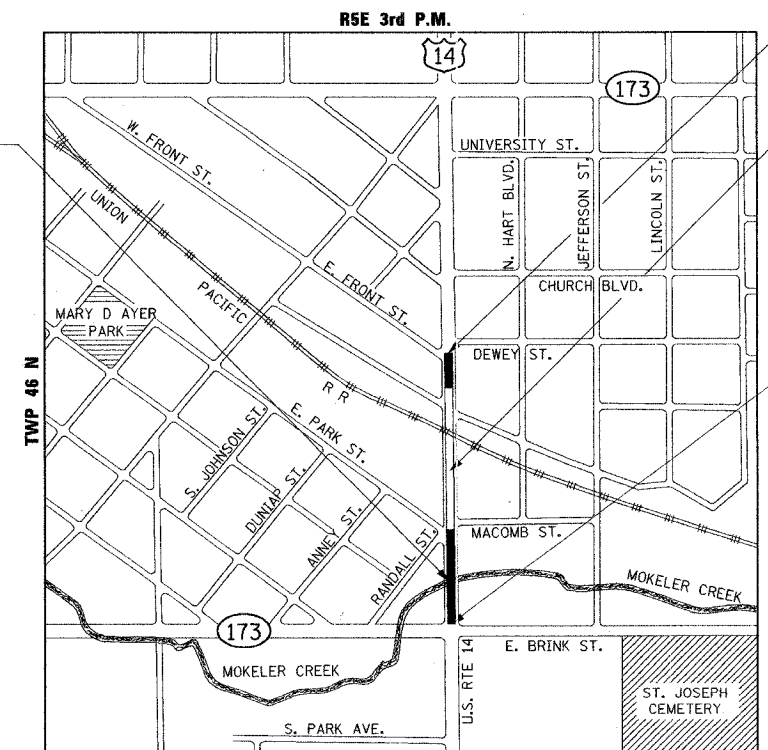
SCALES

PLAN	1:500
PROFILE HORIZ.	1:500
PROFILE VERT.	1:50
CROSS SECTIONS	1:100 HORIZ. 1:50 VERT.

METRIC RATIOS



EXISTING STRUCTURE (OLD) NO. 056-0048 AND STRUCTURE (NEW) NO. 056-0076 THE CULVERT CARRYING MOKELER CREEK (CENTER OF CULVERT STA. 0+955.00) HAS A LENGTH OF 17 m AND IS A TWO-CELL BOX CULVERT WITH A TOTAL WIDTH OF 6.8 m. THE DIMENSIONS FOR EACH CELL ARE 3 m x 1.5 m. THE ROADWAY ON TOP OF THE CULVERT HAS A BITUMINOUS OVERLAY 38 mm THICK OVER 0.2 m THICK P.C.C. PAVEMENT. EXISTING CULVERT WILL BE REMOVED AND REPLACED WITH A FOUR-CELL BOX CULVERT.



IMPROVEMENT BEGINS STA. 0+643.40

EXISTING STRUCTURE NO. 056-0007 THE BRIDGE OVER THE UNION PACIFIC RAILROAD (CENTER OF BRIDGE STA. 0+777.76) IS AN ELEVEN-SPAN BRIDGE WITH A TOTAL LENGTH OF 195.7 m AND SKEW ANGLE 30° ON THE NORTH HALF OF THE STRUCTURE. IT HAS A P.C.C. DECK SLAB ON STEEL GIRDERS, WITH A BITUMINOUS OVERLAY 38 mm THICK, SUPPORTED BY TEN PIERS AND TWO CLOSED ABUTMENTS. THIS BRIDGE IS OMITTED UNDER THIS CONTRACT. R.C.C. RETAINING WALLS ARE LOCATED AT ALL FOUR QUADRANTS OF THIS BRIDGE. THE EXISTING RETAINING WALLS WILL BE PARTIALLY REMOVED. NEW SOLDIER PILE (WITH CONC. FACING) RETAINING WALLS AT ALL FOUR QUADRANTS WILL BE BUILT.

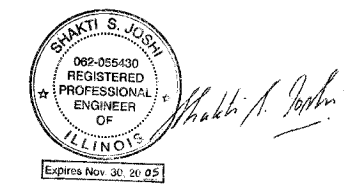
IMPROVEMENT ENDS STA. 1+026.98

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

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

CONTRACT NO. 62202

CHEMUNG TOWNSHIP
LOCATION MAP
SCALE: 1:5000
GROSS LENGTH OF PROJECT = 383.58 METERS
NET LENGTH OF PROJECT = 187.90 METERS



ILLINOIS PROFESSIONAL NO. 062-055430
EXPIRES 11/30/05
PLANS PREPARED BY: SOODAN & ASSOCIATES, INC.
100 NORTH LASALLE ST., SUITE 1800
CHICAGO, ILLINOIS 60602

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED February 4, 2005
Diana O'Hara / AP DISTRICT ENGINEER

March 25, 2005
Mike Hene / D ENGINEER OF DESIGN AND ENVIRONMENT

March 25, 2005
Victor Madere / D DIRECTOR, DIVISION OF HIGHWAYS

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

IDOT PROJECT ENGINEER RICK YOUNG / JOSE DOMINGUEZ, DISTRICT 1, SCHLAUBURG (847) 705 4232

GENERAL NOTES

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON McHENRY COUNTY, VILLAGE OF HARVARD OR STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM McHENRY COUNTY OR THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

ALL SAWCUTTING ON THE ROADWAY ITEMS SHALL BE CONSIDERED INCIDENTAL TO THE REMOVAL ITEM INVOLVED.

ALL BARRICADES AND TRAFFIC CONTROL DEVICES NOTED IN CONTRACT DOCUMENTS AND DEEMED NECESSARY BY THE ENGINEER SHALL BE PLACED PRIOR TO THE START OF CONSTRUCTION.

THE CONTRACTOR WILL NOT REMOVE ANY UTILITY, CONDUIT, OR VAULT WITHIN THE LIMITS OF THE PROJECT UNTIL AFTER RECEIVING WRITTEN PERMISSION FROM THE UTILITY COMPANY OR AGENCY INVOLVED AND PERMISSION FROM THE ENGINEER.

ALL AREAS DAMAGED OR DISTURBED IN THE COURSE OF THE CONTRACTORS OPERATIONS OF THIS IMPROVEMENT, SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

THE FINAL TOP ONE HUNDRED MILLIMETER (100mm) OF SOIL IN AREA DISTURBED BY THE CONTRACTOR MUST BE REPLACED AT NO ADDITIONAL COST TO THE CONTRACT.

THE ELEVATIONS SHOWN ON THE PLANS ARE FINISHED GRADES OF PROPOSED PAVEMENT OR SURFACE COURSES, UNLESS OTHERWISE INDICATED.

CONCRETE BREAKER: WHEN REMOVING PAVEMENT, CURB AND GUTTER, OR ANY OTHER STRUCTURES, THE USE OF ANY TYPE OF CONCRETE BREAKERS WHICH MIGHT DAMAGE THE UNDERGROUND PUBLIC OR PRIVATE UTILITIES IF ANY WILL NOT BE PERMITTED. UNDER NO CIRCUMSTANCES WILL THE USE OF A FROST BALL BE PERMITTED.

WHEREVER THE PLANS CALL FOR THE REMOVAL OF EXISTING CONCRETE PAVEMENT, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE A FULL DEPTH SAWCUT OF THE PAVEMENT AT THE LIMIT OF REMOVAL.

THE CONTRACTOR SHALL OBTAIN A CONSTRUCTION PERMIT FROM THE ILLINOIS DEPARTMENT OF NATURAL RESOURCES (IDNR), OFFICE OF WATER RESOURCES FOR ANY TEMPORARY CONSTRUCTION ACTIVITY PLACED IN THE WATER EXCEPT COFFERDAMS. THIS SHALL INCLUDE THE PLACEMENT OF MATERIAL FOR RUN-AROUNDS, CAUSEWAYS, ETC. ANY PERMIT APPLICATION BY THE CONTRACTOR SHALL REFER TO THE IDNR PERMIT NUMBER AS PER SPECIAL PROVISION WHICH WAS ISSUED FOR PERMANENT CONSTRUCTION.

3-m TRANSITIONS SHALL BE USED TO MATCH PROPOSED ITEMS OF WORK TO EXISTING ITEMS IN FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEM OF WORK SPECIFIED.

THE BITUMINOUS MATERIAL PRIME COAT QUANTITIES HAVE BEEN DETERMINED USING A RATE OF 2.0 L/m².

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR WILL CALL "J.U.L.I.E." AT (800)-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED)

THE CONTRACTOR WILL COORDINATE CONSTRUCTION ACTIVITIES WITH ALL UTILITY COMPANIES AND MUNICIPALITIES INVOLVED.

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

WHEN ARTIFICIAL LIGHTING IS USED FOR NIGHT OPERATIONS THE CONTRACTOR WILL MAKE CERTAIN THAT THE LIGHTING WILL NOT CAUSE GLARE OR OTHER VISIBILITY PROBLEMS TO THE MOTORING PUBLIC OR NEARBY RESIDENTIAL AREAS.

THE UNIT WEIGHT USED TO CALCULATE ALL BITUMINOUS SURFACE MIXTURE QUANTITIES IS 112 LBS/50 YD.³/IN.

THE GENERAL CONTRACTOR IS REQUIRED TO HIRE AN ENVIRONMENTAL FIRM WITH AT LEAST (5) DOCUMENTED LEAKING UNDERGROUND STORAGE TANK (LUST) CLEANUPS OR THAT IS PREQUALIFIED IN HAZARDOUS WASTE BY THE DEPARTMENT TO REMEDIATE THE SOIL CONTAMINATION AND MONITOR FOR WORKER PROTECTION.

THERE IS A CONTAMINATED SOIL ON THE PROJECT SITE. THE UTILITY COMPANIES ARE REQUIRED TO HIRE AN ENVIRONMENTAL FIRM WITH AT LEAST (5) DOCUMENTED LEAKING UNDERGROUND STORAGE TANK (LUST) CLEANUPS OR THAT IS PREQUALIFIED IN HAZARDOUS WASTE BY THE DEPARTMENT TO REMEDIATE THE SOIL CONTAMINATION AND MONITOR FOR WORKER PROTECTION.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE WILL NOT EXCEED 40MM WHERE THE SPEED LIMIT IS 80KPH OR LESS OR 25MM WHERE THE SPEED LIMIT IS OVER 80KPH. WITH WRITTEN APPROVAL FROM THE ENGINEER A MAXIMUM GRADE DIFFERENTIAL OF 75MM MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM OF 1:3 (V:H).

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT) IN ACCORDANCE WITH THE "BUTT JOINT AND BITUMINOUS TAPE DETAIL" SHEET INCLUDED IN THE PLANS UNLESS OTHERWISE SPECIFIED.

THE CONTRACTOR WILL MAINTAIN ALL ROADWAYS OPEN TO TRAFFIC AS SHOWN ON THE TRAFFIC CONTROL PLAN EXCEPT FOR SNOW REMOVAL OPERATIONS.

ALL ELEVATIONS REFER TO U. S. G. S. MEAN SEA LEVEL DATUM.

PRIVATE UTILITY FRAME AND GRATE ADJUSTMENTS WITHIN THE LIMITS OF THIS PROJECT WILL BE DONE BY THEIR RESPECTIVE OWNERS.

THE CONTRACTOR AT CONTRACTOR'S EXPENSE WILL REPLACE ALL FRAMES AND GRATES DAMAGED BY THE CONTRACTOR.

PRECAST REINFORCED CONCRETE FLAT SLAB TOPS WILL BE REQUIRED ON CATCH BASINS AND MANHOLES IN ACCORDANCE WITH HIGHWAY STANDARD 602601 WHEN THE RIM-TO-INVERT DEPTH IS SUCH THAT IT PRECLUDES THE USE OF A CONE SECTION AND AT LOCATIONS SHOWN ON THE PLANS.

TWO WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKING PLACEMENT THE CONTRACTOR WILL CONTACT THE AREA TRAFFIC FIELD ENGINEER TO VERIFY WHETHER PREFORMED PLASTIC PAVEMENT MARKINGS ARE STILL APPLICABLE DUE TO CURRENT OR ANTICIPATED WEATHER CONDITIONS

BOX ITEMS ARE INCIDENTAL TO OTHER ITEMS IN THIS CONTRACT:

ALL STORM SEWER CONNECTIONS WITH PIPES 685MM IN DIAMETER OR LESS WILL BE MADE WITH PRECAST "TEE" OR "WYE" PIPES. FOR PROPOSED STORM SEWER PIPES LARGER THAN 685MM IN DIAMETER OPENINGS OF THE SPECIFIED DIAMETER WILL BE MADE IN THE PIPE AT THE TIME IT IS MANUFACTURED. PRECAST "TEE" AND "WYE" PIPE CONNECTIONS FOR PROPOSED STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE SEWER.

USE NO. 25 (NO. 8) EPOXY-COATED TIE BARS CONFORMING TO ARTICLE 1006.10 (B) (2) OF THE STANDARD SPECIFICATION FOR LONGITUDINAL CONSTRUCTION JOINT, GROUDED-IN-PLACE TIE BARS AS SHOWN ON STATE STANDARD 420001, CURRENT VERSION. THIS IS INCLUDED IN THE COST OF THE PAVEMENT ITEM BEING CONSTRUCTED.

THE COST OF MAKING SEWER CONNECTIONS TO EXISTING OR PROPOSED DRAINAGE STRUCTURES OR SEWERS WILL BE INCLUDED IN THE UNIT PRICES OF THE VARIOUS STORM SEWERS BEING CONNECTED.

DUE TO CLOSE PROXIMITY OF EXISTING UTILITIES WHICH WILL REMAIN IN PLACE ALONG NE RETAINING WALL, CONTRACTOR SHALL SUBMIT A PLAN FOR PROTECTION OF EXISTING UTILITIES TO IDOT FOR APPROVAL, PRIOR TO DRIVING PILES OR EXCAVATION AT THAT LOCATION. IT IS CONTRACTOR'S RESPONSIBILITY TO PROTECT EXISTING UTILITIES DURING CONSTRUCTION. THE COST OF PROTECTION OF EXISTING UTILITIES & REPAIR OR REPLACEMENT DUE TO DAMAGE CAUSED BY THE CONTRACTOR WILL NOT BE PAID SEPARATELY, BUT WILL BE INCLUDED IN THE COST OF "DRIVING SOLDIER PILES (HP SECTION)" LOCATIONS OF EXISTING UTILITIES SHOWN AT THE PLANS ARE APPROXIMATE. IT IS CONTRACTOR'S RESPONSIBILITY TO LOCATE EXISTING UTILITIES IN THE FIELD PRIOR TO START OF CONSTRUCTION ACTIVITIES.

COMMITMENT

THE CONTRACTOR SHALL SCHEDULE HIS OPERATIONS SO THAT THE TEMPORARY EASEMENT (SEE PLAT OF SURVEY FOR LIMITS) WILL REMAIN OPEN DURING TIMES OF SCHEDULED DELIVERIES FOR THE BUSINESS AT THIS LOCATION AND DURING TIMES WHEN THE CONTRACTOR IS NOT ACTUALLY WORKING.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	3
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
JOB D-91-190-01		CONTRACT NO. 62202		

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION US 14 - MOKELER CREEK TO N. OF IL. 173 AND AT UPRR GENERAL NOTES
NAME	DATE	
		SCALE: NONE DATE FEBRUARY, 2005 DRAWN BY R.A.D. CHECKED BY DR, SSJ

SOODAN & ASSOCIATES INC.
Architects, Engineers & Construction Consultants

Plotted by: jslmhp
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	86	4
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB D-91-190-01		62202		

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONST. TYPE CODE				
				ROADWAY 100% STATE 1000 - 2A	CULVERT 100% STATE X028-2A	RETAINING WALLS 100% STATE Y007	TRAFFIC 100% STATE Y031-1F	HIGHWAY LIGHTING 100% CITY Y030-1E
20101100	TREE TRUNK PROTECTION	EACH	3	3				
28000510	INLET FILTERS	EACH	10	10				
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1			
50500505	STUD SHEAR CONNECTORS	EACH	2,277			2,277		
51500100	NAME PLATES	EACH	1		1			
60237470	INLETS, TYPE A, TYPE 24 FRAME AND GRATE	EACH	2	2				
60404950	FRAMES AND GRATES, TYPE 24	EACH	2	2				
60500040	REMOVING MANHOLES	EACH	2	2				
60500060	REMOVING INLETS	EACH	5	5				
* 66900450*	SPECIAL WASTE PLANS AND REPORT	L SUM	1	1				
* 66900530*	SOIL DISPOSAL ANALYSIS	EACH	2	2				
* 66900635*	LEAD TCLP SOIL ANALYSIS	EACH	4	4				
* 66900640*	VOCS AND SVOCS SOIL ANALYSIS	EACH	4	4				
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	3	3	4	2	
67100100*	MOBILIZATION	L SUM	1	0.3	0.3	0.3	0.1	
70101700*	TRAFFIC CONTROL AND PROTECTION	L SUM	1	1				
70400300	TEMPORARY CONCRETE BARRIER, TERMINAL SECTION	EACH	4	4				
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	40	40				
* 78100105*	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	18	18				
* 78200530*	BARRIER WALL MARKERS, TYPE C	EACH	31	31				
* 81400100	HANDHOLE	EACH	1			1		
* 87900200	DRILL EXISTING HANDHOLE	EACH	4			4		
* 88500100	INDUCTIVE LOOP DETECTOR	EACH	1			1		
* 89502380*	REMOVE EXISTING HANDHOLE	EACH	2			2		
M5416010	GRATING FOR CONCRETE FLARED END SECTION 300MM	EACH	1	1				
M2010110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	6	6				
M2010500	TREE REMOVAL, HECTARES	HA	0.005	0.005				
M2020010	EARTH EXCAVATION	CU M	548	548				

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONST. TYPE CODE				
				ROADWAY 100% STATE 1000 - 2A	CULVERT 100% STATE X028-2A	RETAINING WALLS 100% STATE Y007	TRAFFIC 100% STATE Y031-1F	HIGHWAY LIGHTING 100% CITY Y030-1E
M2070220	POROUS GRANULAR EMBANKMENT	CU M	1197			1197		
M2080150	TRENCH BACKFILL	CU M	121	121				
M2113100	TOPSOIL FURNISH AND PLACE, 100MM	SQ M	1,066	1,066				
M2500210	SEEDING, CLASS 2A	HA	0.1	0.1				
M2500312	SEEDING, CLASS 4A	HA	0.1	0.1				
M2500400	NITROGEN FERTILIZER NUTRIENT	KG	11	11				
M2500500	PHOSPHORUS FERTILIZER NUTRIENT	KG	11	11				
M2500600	POTASSIUM FERTILIZER NUTRIENT	KG	11	11				
M2510630*	EROSION CONTROL BLANKET	SQ M	1,066	1,066				
M2800250*	TEMPORARY EROSION CONTROL SEEDING	KG	35.2	35.2				
M2800400	PERIMETER EROSION BARRIER	METER	325	325				
M2810107	STONE RIPRAP, CLASS A4	SQ M	136		136			
M2820100	FILTER FABRIC FOR USE WITH RIPRAP	SQ M	136		136			
M3111100	SUB-BASE GRANULAR MATERIAL, TYPE B 100MM	SQ M	1,279	1,279				
M3530245	PORTLAND CEMENT CONCRETE BASE COURSE 245MM	SQ M	1,162	1,162				
M4060100	BITUMINOUS MATERIALS (PRIME COAT)	LITER	1,111	1,111				
M4060980	BITUMINOUS SURFACE REMOVAL-BUTT JOINT	SQ M	43	43				
M4061000	BITUMINOUS REPLACEMENT OVER PATCHES	M TON	6	6				
M4060300	AGGREGATE (PRIME COAT)	M TON	5	5				
M4205000	BRIDGE APPROACH PAVEMENT	SQ M	251	251				
M4206100	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ M	50	50				
M4240125	PORTLAND CEMENT CONCRETE SIDEWALK 125MM	SQ M	224	224				
M4400065	BITUMINOUS SURFACE REMOVAL 65MM	SQ M	994	994				
M4400375*	BITUMINOUS REMOVAL OVER PATCHES 75MM	SQ M	29	29				
M4402000	PAVEMENT REMOVAL	SQ M	1,025	1,025				
M4402040	COMBINATION CURB AND GUTTER REMOVAL	METER	295	295				
M4402050	SIDEWALK REMOVAL	SQ M	347	347				
M4402060*	APPROACH SLAB REMOVAL	SQ M	223	223				

* DENOTES SPECIAL PROVISION REQUIRED
** SPECIALTY ITEMS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US 14 - MOKELER CREEK TO N. OF
IL. 173 AND AT UPRR
SUMMARY OF QUANTITIES
SCALE: NONE DRAWN BY R.A.D.
DATE FEBRUARY, 2005 CHECKED BY DR. SSJ

Rev.

SUMMARY OF QUANTITIES

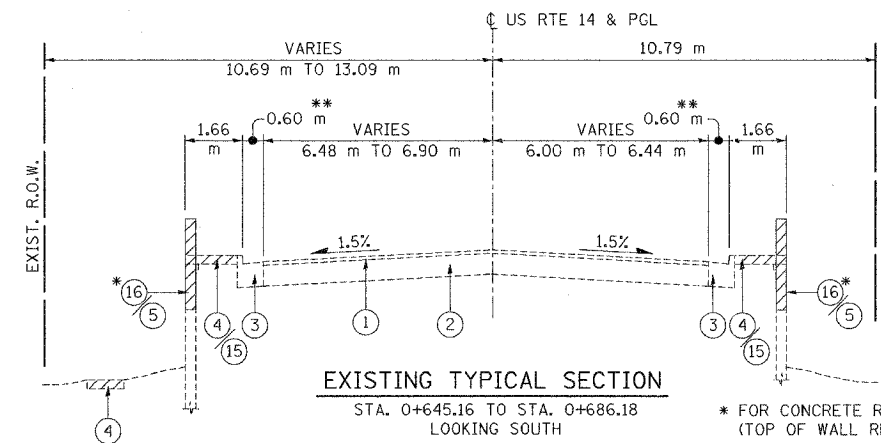
CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONST. TYPE CODE				
				ROADWAY 100% STATE 1000 - 2A	CULVERT 100% STATE X028-2A	RETAINING WALLS 100% STATE Y007	TRAFFIC 100% STATE Y031-IF	HIGHWAY LIGHTING 100% CITY Y030-IE
M4427235	CLASS C PATCHES, TYPE II, 300MM	SO M	60	60				
M4427435	CLASS C PATCHES, TYPE IV, 300MM	SO M	85	85				
M4428435	CLASS D PATCHES, TYPE IV, 275MM	SO M	22	22				
M5010240	CONCRETE REMOVAL	CU M	209.6			209.6		
M5020100	STRUCTURE EXCAVATION	CU M	139			139		
M5030350	CONCRETE STRUCTURES	CU M	243.0			243.0		
M5030360	CONCRETE SUPERSTRUCTURE	CU M	317.1		32.1	285.0		
M5030450	PROTECTIVE COAT	SO M	1,251	464	95	692		
M5030720*	FORMED CONCRETE REPAIR (DEPTH LESS THAN 125MM)	SO M	2.6			2.6		
M5050405	FURNISHING AND ERECTING STRUCTURAL STEEL	KG	25,660			25,660		
** M5070209*	UNTREATED TIMBER LAGGING	SO M	758.0			758.0		
M5080105	REINFORCEMENT BARS	KG	37,770		37,770			
M5080205	REINFORCEMENT BARS, EPOXY COATED	KG	43,150		2,670	40,480		
M5090010	ALUMINUM RAILING, TYPE L	METER	303.6		31.6	272.0		
M5120317	DRIVING SOLDIER PILES	METER	1,033.0			1,033.0		
M5120900*	TEMPORARY SHEET PILING	SO M	364.6		234.6	130.0		
M5403000	CONCRETE BOX CULVERTS	CU M	274.1		274.1			
M542E112	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 300MM	EACH	1	1				
M542E116	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 375MM	EACH	1	1				
M542E136	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 750MM	EACH	1	1				
M542G020*	GRATING FOR CONCRETE FLARED END SECTION 375MM	EACH	1	1				
M542G045*	GRATING FOR CONCRETE FLARED END SECTION 750MM	EACH	1	1				
M5502840	STORM SEWERS, TYPE 1, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS IV, 300MM	METER	95.4	95.4				

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONST. TYPE CODE				
				ROADWAY 100% STATE 1000 - 2A	CULVERT 100% STATE X028-2A	RETAINING WALLS 100% STATE Y007	TRAFFIC 100% STATE Y031-IF	HIGHWAY LIGHTING 100% CITY Y030 - IE
M5502900	STORM SEWERS, TYPE 1, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III, 750MM	METER	30	30				
M5503050	STORM SEWERS, TYPE 2, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III, 300MM	METER	1.4	1.4				
M5503060	STORM SEWERS, TYPE 2, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III, 375MM	METER	25.9	25.9				
M5510025	STORM SEWER REMOVAL 300MM	METER	81	81				
M5510035	STORM SEWER REMOVAL 375MM	METER	106	106				
M5510070	STORM SEWER REMOVAL 750MM	METER	33	33				
M5900100	EPOXY CRACK SEALING	METER	25			25		
M5910100	GEOCOMPOSITE WALL DRAIN	SO M	684			684		
M6011100*	PIPE UNDERDRAINS FOR STRUCTURES 100MM	METER	141.0			141.0		
M6020185	CATCH BASINS, TYPE A, 1.2M DIAMETER, TYPE 24 FRAME AND GRATE	EACH	1	1				
M6021410	MANHOLES, TYPE A, 1.2M DIAMETER, TYPE 1 FRAME CLOSED LID	EACH	4	4				
M6021610	MANHOLES, TYPE A, 1.5M DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1				
M6060020	CONCRETE CURB	METER	12	12				
M6060700	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-15.60	METER	268	268				
** M6690200*	NON-SPECIAL WASTE DISPOSAL	CU M	310	310				
M7030100	SHORT-TERM PAVEMENT MARKING	METER	227	227				
M7030510	PAVEMENT MARKING TAPE, TYPE III - LETTERS AND SYMBOLS	SO M	28	28				

* DENOTES SPECIAL PROVISION REQUIRED
 ** SPECIALTY ITEMS

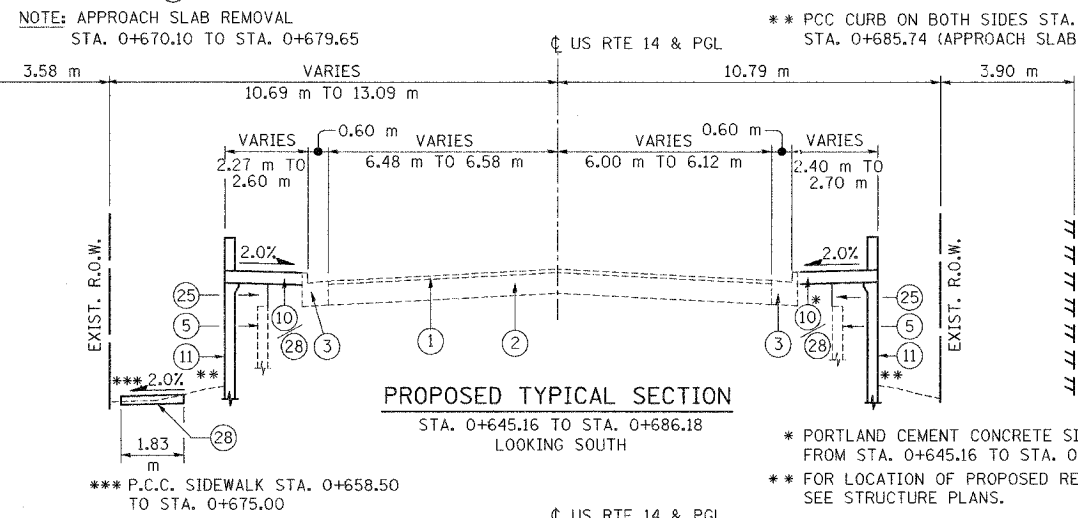
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION US 14 - MOKELER CREEK TO N. OF IL. 173 AND AT UPRR SUMMARY OF QUANTITIES
NAME	DATE	
		SCALE: NONE DATE FEBRUARY, 2005 DRAWN BY R.A.D. CHECKED BY DR, SSJ

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	7
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT			
JOB 0-91-190-01	CONTRACT NO. 62202			

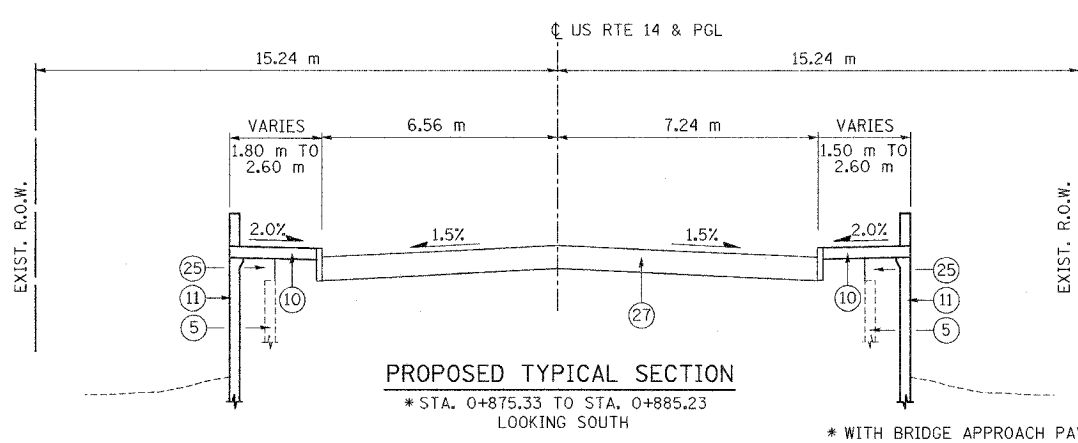
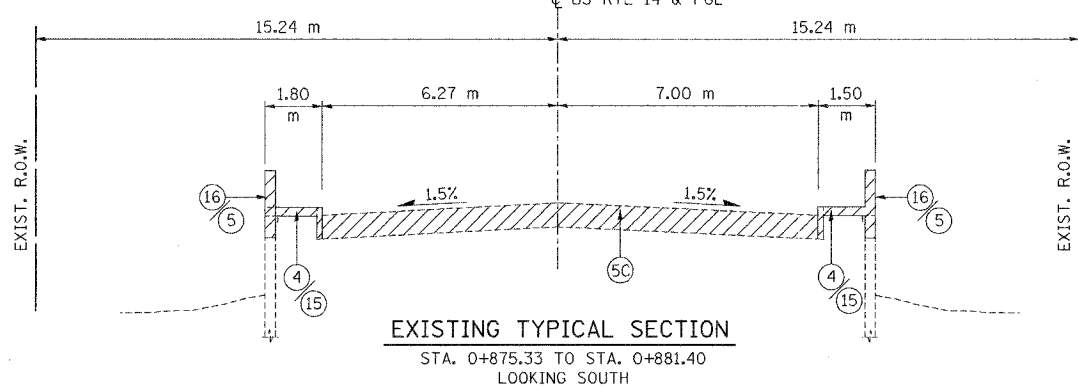


- (25) POROUS GRANULAR EMBANKMENT
- (26) CULVERT HEADWALL
- (27) PROP. BRIDGE APPROACH PAVEMENT STD. 420401
- (28) PROP. PORTLAND CEMENT CONCRETE SIDEWALK, 125 mm

- LEGEND:**
- (1) EXIST. BITUMINOUS SURFACE COURSE, 75 mm
 - (2) EXIST. P.C.C. PAVEMENT, 190 mm
 - (3) EXIST. CONCRETE CURB & GUTTER B-15.60
 - (4) EXIST. CONCRETE SIDEWALK 127 mm
 - (5) EXIST. R.C.C. RETAINING WALL
 - (5A) EXIST. TWO CELL R.C.C. BOX CULVERT
 - (5B) EXIST. PARARPET WALL
 - (5C) EXIST. APPROACH SLAB REMOVAL
 - (6) PROP. BITUMINOUS SURFACE REMOVAL, 63 mm
 - (7) PROP. BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D" N70, 38 mm
 - (8) PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50, 19 mm TO 25 mm
 - (9) PROP. COMBINATION CONCRETE CURB & GUTTER TYPE B-15.60
 - (10) PROP. REINFORCED CEMENT CONCRETE SIDEWALK, 385 mm
 - (11) PROP. SOLDIER PILE RETAINING WALL
 - (12) PROP. PORTLAND CEMENT CONCRETE BASE COURSE, 245 mm
 - (13) PROP. SUB-BASE GRANULAR MATERIAL TYPE B, 100 mm
 - (14) PROP. FOUR CELL REINFORCED CONCRETE CULVERT (TWO 3.70 m x 2.28 m, TWO 3.70 m x 2.53 m)
 - (15) PROP. SIDEWALK REMOVAL
 - (16) PROP. CONCRETE REMOVAL
 - (17) PROP. PAVEMENT REMOVAL
 - (18) PROP. PARAPET WALL
 - (19) PROP. COMBINATION CURB AND GUTTER REMOVAL
 - (20) PROP. EARTH EXCAVATION (EMBANKMENT)
 - (21) PROP. CONSTRUCTION JOINT WITH #25 EPOXY COATED, DEFORMED BARS 600 mm LONG @ 600 mm C-C
 - (22) PROP. SAWED LONGITUDINAL JOINT WITH #20 EPOXY COATED, DEFORMED BARS 750 mm LONG @ 750 mm C-C
 - (23) PROP. #20 EPOXY COATED, DEFORMED BARS 600 mm LONG @ 600 mm C-C
 - (24) PROP. DRILL AND GROUT #25 TIE BARS (750 mm C-C)



NOTE: BRIDGE APPROACH PAVEMENT STA. 0+669.75 TO STA. 0+679.65 STD. 420401 (WITH BRIDGE APPROACH PAVEMENT CONNECTOR P.C.C.)



NOTE: U.S. 14 OVER UNION PACIFIC RAILROAD BRIDGE OMISSION STA. 0+679.65 TO STA. 0+875.33.

BITUMINOUS MIXTURE REQUIREMENT			
	% RAP	VOID	AC TYPE
BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D" N70, 38 mm	10	4% @ 70 GYR.	PG 64-22
POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50, 19 mm TO 25 mm	0	2.5% @ 50 GYR.	SBS/SBR PG 76-28

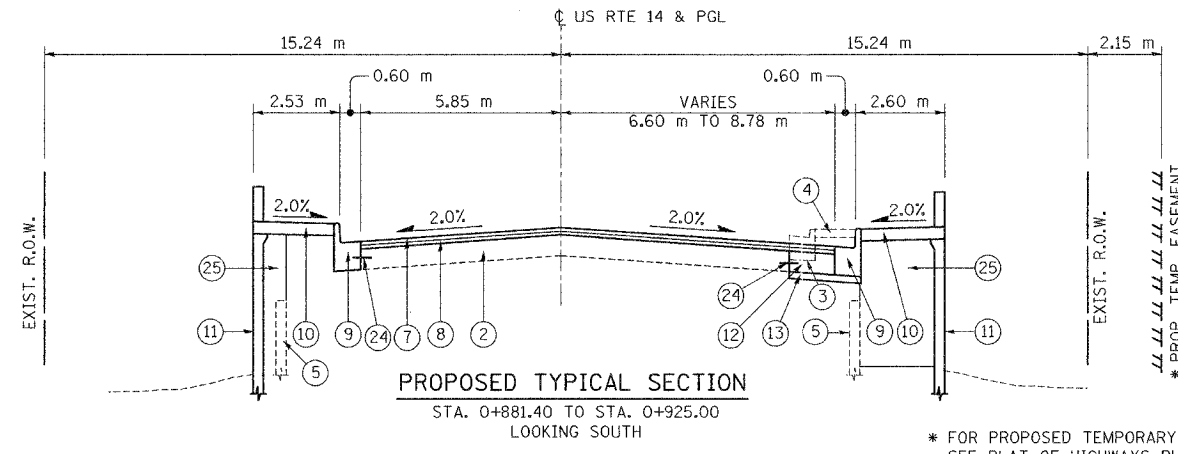
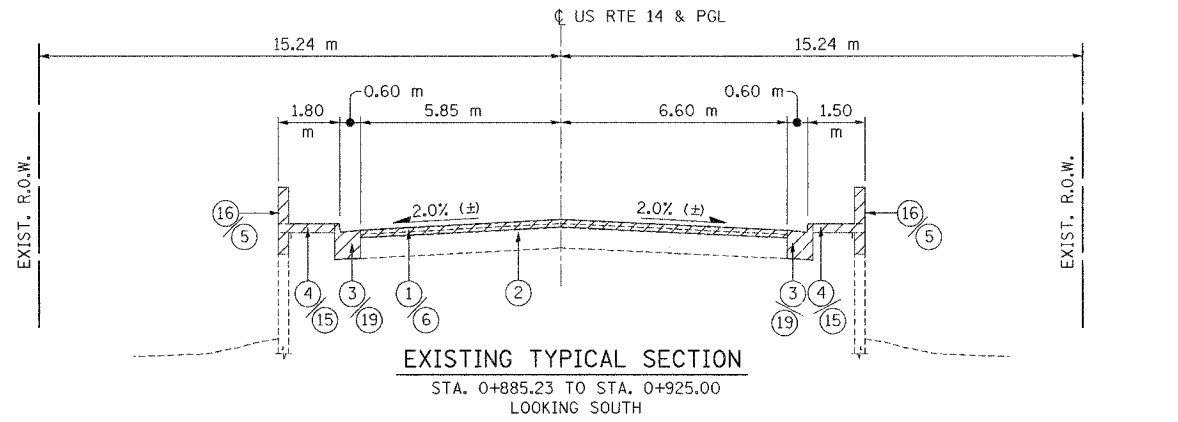
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION US 14 - MOKELER CREEK TO N. OF IL. 173 AND AT UPRR EXISTING AND PROPOSED TYPICAL SECTIONS
NAME	DATE	

SCALE: VERT: NONE HORIZ. DATE FEBRUARY, 2005 DRAWN BY R.A.D. CHECKED BY DR. SSJ

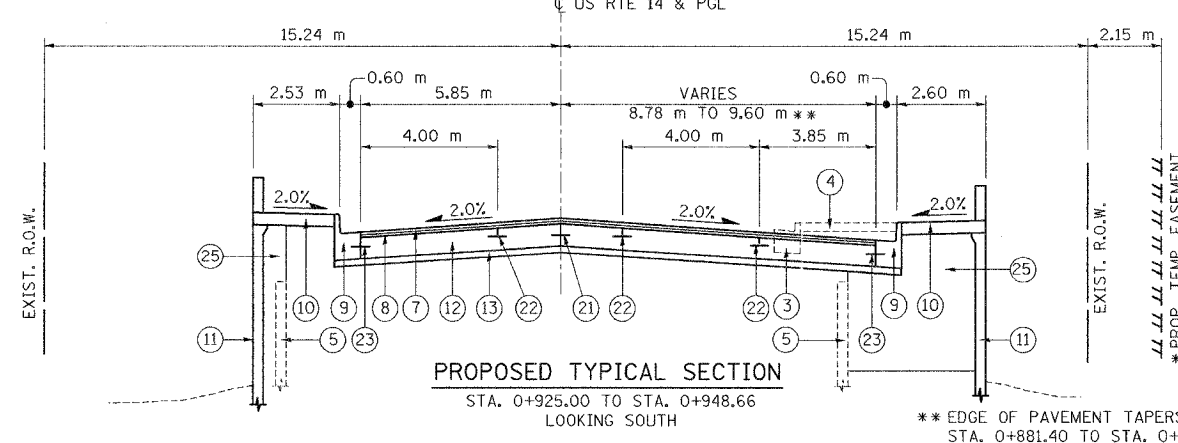
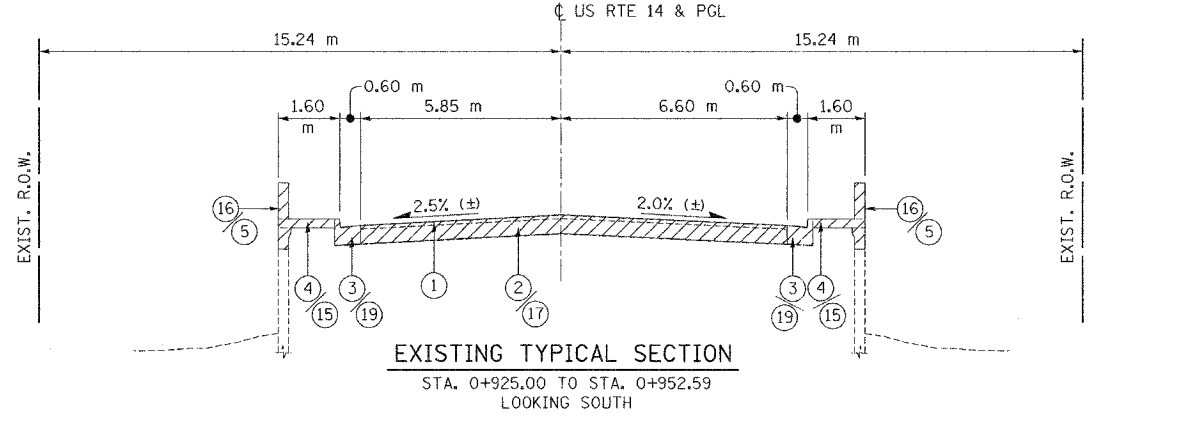
SOODAN & ASSOCIATES INC.
Architects, Engineers & Construction Consultants

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	8
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB D-91-190-01		CONTRACT NO. 62202		



* FOR PROPOSED TEMPORARY EASEMENT LOCATION SEE PLAT OF HIGHWAYS PLAN.



LEGEND:

- ① EXIST. BITUMINOUS SURFACE COURSE, 75 mm
- ② EXIST. P.C.C. PAVEMENT, 190 mm
- ③ EXIST. CONCRETE CURB & GUTTER B-15.60
- ④ EXIST. CONCRETE SIDEWALK 127 mm
- ⑤ EXIST. R.C.C. RETAINING WALL
- ⑤A EXIST. TWO CELL R.C.C. BOX CULVERT
- ⑤B EXIST. PARAPET WALL
- ⑤C EXIST. APPROACH SLAB REMOVAL
- ⑥ PROP. BITUMINOUS SURFACE REMOVAL, 63 mm
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- ⑩ PROP. REINFORCED CEMENT CONCRETE SIDEWALK, 385 mm
- ⑪ PROP. SOLDIER PILE RETAINING WALL
- ⑫ PROP. PORTLAND CEMENT CONCRETE BASE COURSE, 245 mm
- ⑬ PROP. SUB-BASE GRANULAR MATERIAL TYPE B, 100 mm
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- ㉑ PROP. CONSTRUCTION JOINT WITH #25 EPOXY COATED, DEFORMED BARS 600 mm LONG @ 600 mm C-C
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- ㉕ POROUS GRANULAR EMBANKMENT
- ㉖ CULVERT HEADWALL
- ㉗ PROP. BRIDGE APPROACH PAVEMENT STD. 420401
- ㉘ PROP. PORTLAND CEMENT CONCRETE SIDEWALK, 125 mm

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US 14 - MOKELER CREEK TO N. OF
IL. 173 AND AT UPRR
**EXISTING AND PROPOSED
TYPICAL SECTIONS**

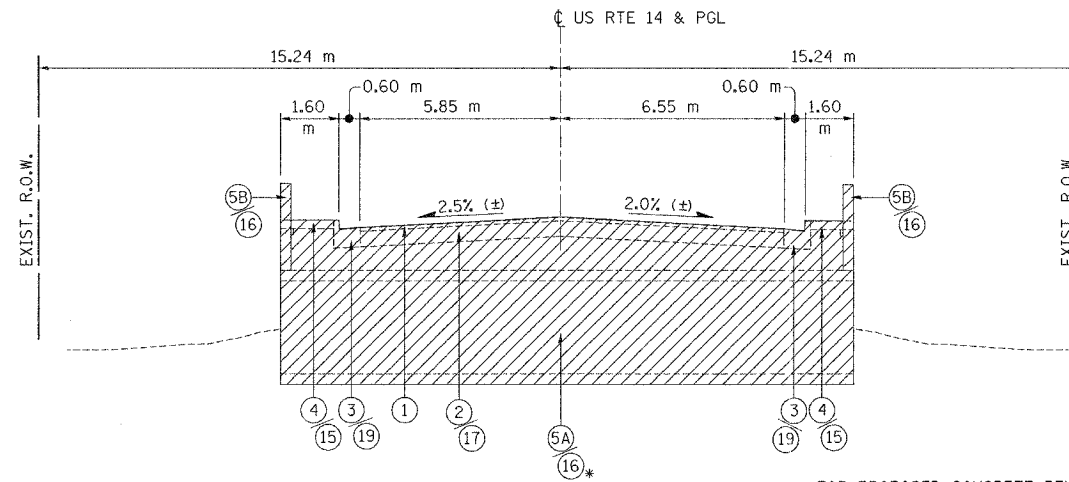
SCALE: VERT: NONE
HORIZ.
DATE FEBRUARY, 2005
DRAWN BY R.A.D.
CHECKED BY DR, SSJ

Plotted by: jslngq
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	9
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB D-91-190-01		CONTRACT NO. 62202		

LEGEND:

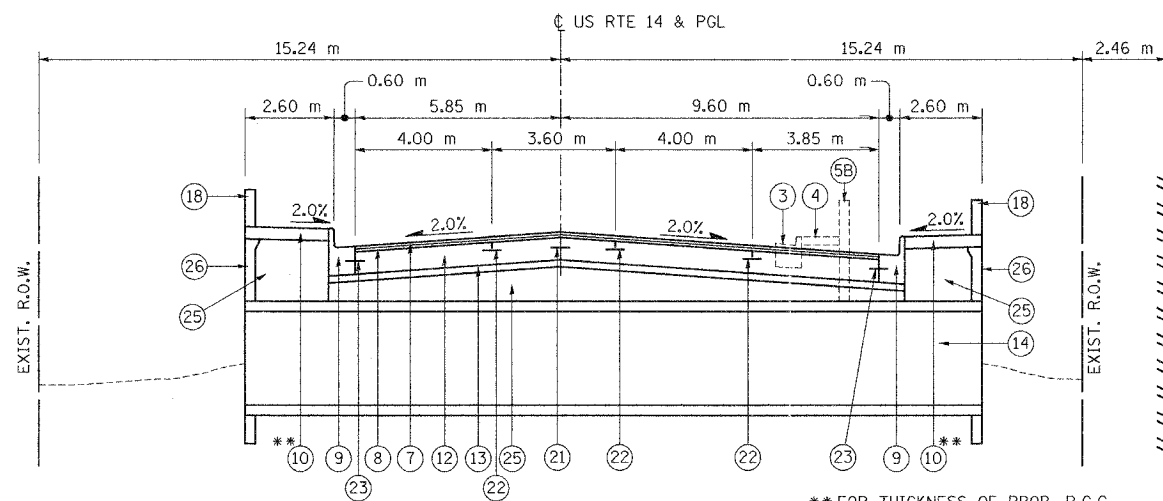
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- ㉕ POROUS GRANULAR EMBANKMENT
- ㉖ CULVERT HEADWALL
- ㉗ PROP. BRIDGE APPROACH PAVEMENT STD. 420401
- ㉘ PROP. PORTLAND CEMENT CONCRETE SIDEWALK, 125 mm



EXISTING TYPICAL SECTION

STA. 0+952.59 TO STA. 0+960.40
LOOKING SOUTH

* FOR PROPOSED CONCRETE REMOVAL, SEE STRUCTURE PLANS



PROPOSED TYPICAL SECTION

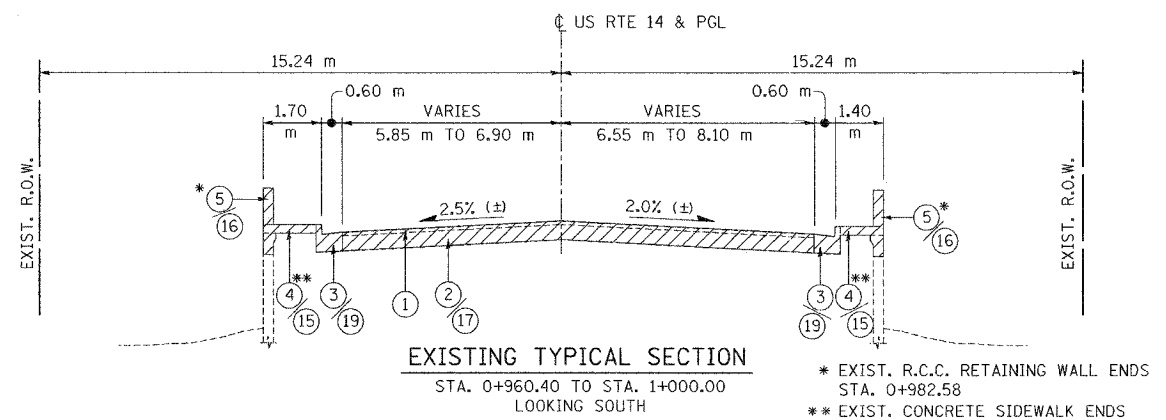
STA. 0+948.66 TO STA. 0+964.46
LOOKING SOUTH

** FOR THICKNESS OF PROP. R.C.C. SIDEWALK, SEE STRUCTURE PLANS

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION US 14 - MOKELER CREEK TO N. OF IL. 173 AND AT UPRR EXISTING AND PROPOSED TYPICAL SECTIONS
NAME	DATE	
		SCALE: VERT: NONE HORIZ. DATE FEBRUARY, 2005 DRAWN BY R.A.D. CHECKED BY DR, SSJ

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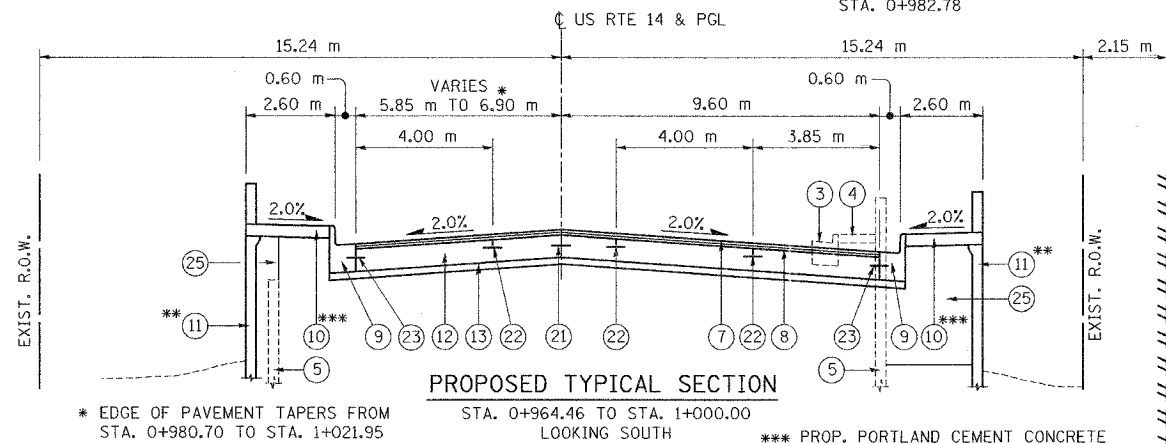
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	10
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB D-91-190-01		CONTRACT NO. 62202		



EXISTING TYPICAL SECTION

STA. 0+960.40 TO STA. 1+000.00
LOOKING SOUTH

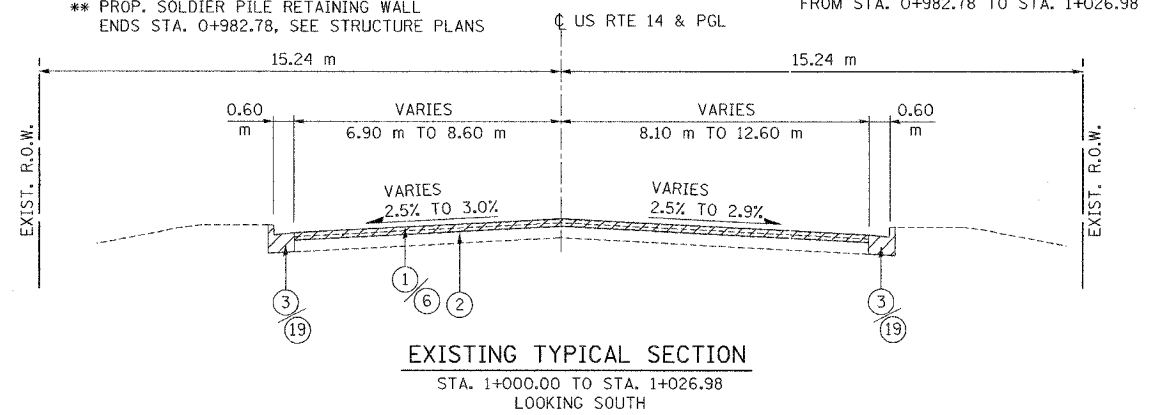
* EXIST. R.C.C. RETAINING WALL ENDS
STA. 0+982.58
** EXIST. CONCRETE SIDEWALK ENDS
STA. 0+982.78



PROPOSED TYPICAL SECTION

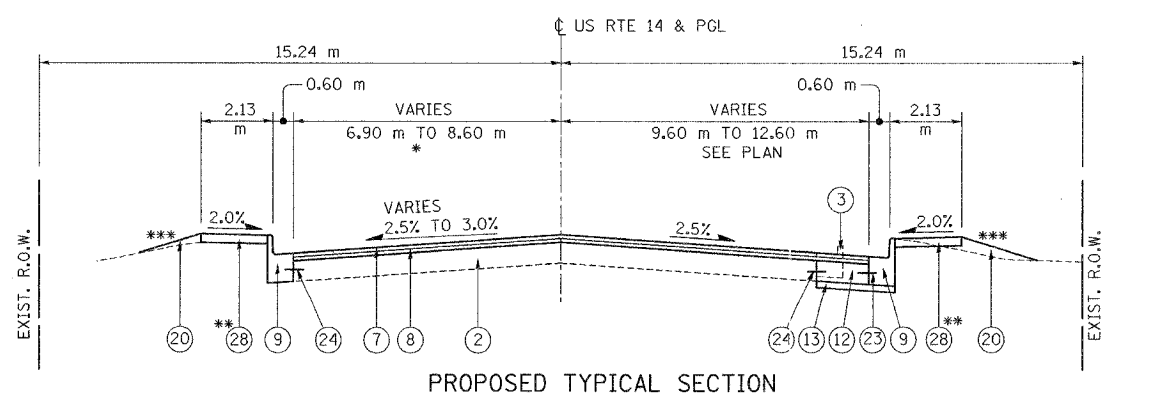
STA. 0+964.46 TO STA. 1+000.00
LOOKING SOUTH

* EDGE OF PAVEMENT TAPERS FROM STA. 0+980.70 TO STA. 1+021.95 SEE PLANS
** PROP. SOLDIER PILE RETAINING WALL ENDS STA. 0+982.78, SEE STRUCTURE PLANS
*** PROP. PORTLAND CEMENT CONCRETE SIDEWALK, 125 mm FROM STA. 0+982.78 TO STA. 1+026.98



EXISTING TYPICAL SECTION

STA. 1+000.00 TO STA. 1+026.98
LOOKING SOUTH



PROPOSED TYPICAL SECTION

STA. 1+000.00 TO STA. 1+026.98
LOOKING SOUTH

* EDGE OF PAVEMENT TAPERS FROM STA. 0+980.70 TO STA. 1+021.95 SEE PLANS
** PROP. PORTLAND CEMENT CONCRETE SIDEWALK, 125 mm FROM STA. 0+982.78 TO STA. 1+026.98
*** SEE CROSS SECTIONS

LEGEND:

- ① EXIST. BITUMINOUS SURFACE COURSE, 75 mm
- ② EXIST. P.C.C. PAVEMENT, 190 mm
- ③ EXIST. CONCRETE CURB & GUTTER B-15.60
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REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION US 14 - MOKELER CREEK TO N. OF IL. 173 AND AT UPRR EXISTING AND PROPOSED TYPICAL SECTIONS
NAME	DATE	

SCALE: VERT: NONE
HORIZ.
DATE: FEBRUARY, 2005
DRAWN BY: R.A.D.
CHECKED BY: DR. SSJ

SOODAN & ASSOCIATES INC.
Architects, Engineers & Construction Consultants

Plotted by: jslgn 02/10/2005 03:37:32 PM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	11
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB D-91-190-01		CONTRACT NO. 62202		

ITEM M4060980 BITUMINOUS SURFACE REMOVAL-BUTT JOINT	
STATION TO STATION	AREA (Sq m)
0+881.40 TO 0+882.75	17
1+025.63 TO 1+026.98	26
TOTAL =	43

ITEM M3111100 SUB-BASE GRANULAR MATERIAL, TYPE B 100mm	
STATION TO STATION	AREA (Sq m)
0+925.00 TO 1+000.00	1279
TOTAL =	1279

ITEM M4402050 SIDEWALK REMOVAL		
STATION TO STATION	RIGHT (Sq m)	LEFT (Sq m)
0+645.05 TO 0+676.06	54.50	
0+661.14 TO 0+685.08		28.60
0+875.33 TO 0+982.78	114.53	
0+875.33 TO 0+982.78		130.87
* 0+658.50 TO 0+675.00		18.50
TOTAL (RIGHT + LEFT) =		347

ITEM M4428435 CLASS D PATCHES, TYPE IV, 275mm	
STATION TO STATION	AREA (Sq m)
0+656.87 TO 0+678.52, 10.19 m RT.	22
TOTAL =	22

ITEM M4400065 BITUMINOUS SURFACE REMOVAL 63mm	
STATION TO STATION	AREA (Sq m)
0+882.75 TO 0+925.00	541.53
1+000.00 TO 1+026.98	452.47
TOTAL =	994

ITEM M3530245 PORTLAND CEMENT CONCRETE BASE COURSE 245mm	
STATION TO STATION	AREA (Sq m)
0+925.00 TO 1+000.00	1162
TOTAL =	1162

ITEM M4240125 PORTLAND CEMENT CONCRETE SIDEWALK 125mm		
STATION TO STATION	RIGHT (Sq m)	LEFT (Sq m)
0+644.59 TO 0+647.68	6.50	
0+658.78 TO 0+661.14		4.90
0+982.78 TO 1+026.98		91.30
0+982.78 TO 1+026.98	92.10	
* 0+658.42 TO 0+675.00		29.20
TOTAL (RIGHT + LEFT) =		224

ITEM M2080150 TRENCH BACKFILL	
LOCATION	Cu m
SEWER ①	1.00
SEWER ②	15.00
SEWER ③	71.75
SEWER ④	2.84
SEWER ⑥	4.75
PART OF SEWER ⑥	13.96
SEWER ⑧	5.54
SEWER ⑨	6.16
TOTAL =	121

ITEM MX406770 POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50, 19mm TO 25mm	
STATION TO STATION	(M TON)
0+881.40 TO 0+925.00	35.29
0+925.00 TO 1+000.00	69.51
1+000.00 TO 1+026.98	28.20
TOTAL =	133

ITEM M4402040 COMBINATION CURB AND GUTTER REMOVAL		
STATION TO STATION	RIGHT (m)	LEFT (m)
0+881.40 TO 1+026.98		145.58
0+881.40 TO 1+026.98	145.58	
0+666.20, 6.0m RT TO 0+670.04, 6.0m RT	3.84	
TOTAL (RIGHT + LEFT) =		295

ITEM 20101100 TREE TRUNK PROTECTION	
STATION	EACH
0+980.40, 15.30 m LT.	1
1+003.54, 12.93 m LT.	1
1+019.48, 11.34 m LT.	1
TOTAL =	3

ITEM M4427235 CLASS C PATCHES, TYPE II, 300mm	
LOCATION	Sq m
US 14 ROADWAY RESURFACING AREA	60
TOTAL =	60

ITEM MX406024* BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N70, 38mm	
STATION TO STATION	(M TON)
0+881.40 TO 0+925.00	53.49
0+925.00 TO 1+000.00	105.65
1+000.00 TO 1+026.98	42.86
TOTAL =	202

ITEM M6060700 COMBINATION CONCRETE CURB AND GUTTER, TYPE B-15.60		
STATION TO STATION	RIGHT (m)	LEFT (m)
0+881.40 TO 0+986.00		104.60
0+881.40 TO 0+986.79	105.5	
0+994.60 TO 1+026.98		32.5
1+001.62 TO 1+026.98	25.4	
TOTAL (RIGHT + LEFT) =		268

ITEM M2010110 TREE REMOVAL (6 TO 15 UNITS DIAMETER)	
STATION	UNIT
0+966.57, 12.57 m LT.	6
TOTAL =	6

ITEM M4427435 CLASS C PATCHES, TYPE IV, 300mm	
LOCATION	Sq m
0+875.00 TO 0+930.40, 11.65 m LT.	45.24
US 14 ROADWAY RESURFACING AREA	39.76
TOTAL =	85

ITEM M4402000 PAVEMENT REMOVAL	
STATION TO STATION	AREA (Sq m)
0+666.00 TO 0+670.00, 3.9 m RT.	14.5
0+881.50 TO 0+885.00	55.25
0+925.00 TO 1+000.00	955.25
TOTAL =	1,025

ITEM MX606050* COMBINATION CONCRETE CURB AND GUTTER, TYPE M-5.60		
STATION TO STATION	RIGHT (m)	LEFT (m)
0+986.00 TO 0+944.60		9
0+986.79 TO 1+001.62	15	
TOTAL (RIGHT + LEFT) =		24

ITEM M4061000 BITUMINOUS REPLACEMENT OVER PATCHES	
STATION	M ton
NW CORNER OF BRIDGE ON PARKING LOT	6
TOTAL =	6

ITEM M4400375* BITUMINOUS REMOVAL OVER PATCHES 75 mm	
STATION	Sq m
NW CORNER OF BRIDGE ON PARKING LOT	29
TOTAL =	29

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US 14 - MOKELER CREEK TO N. OF
IL. 173 AND AT UPRR

SCHEDULE OF QUANTITIES

SCALE: NONE DRAWN BY R.A.D.
DATE FEBRUARY, 2005 CHECKED BY DR. SSI

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	12
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB D-91-190-01		CONTRACT NO. 62202		

STORM SEWERS, TYPE 2, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III				
FROM STATION, OFFSET (M)	TO STATION, OFFSET (M)	DIAMETER (MM)	LENGTH (M)	REMARKS
0+653.800, 5.810 RT.	0+655.092, 9.430 RT.	375	4.00	②
0+654.294, 5.018 RT.	0+655.414, 6.154 RT.	300	1.40	①
0+656.000, 10.059 RT.	0+676.950, 10.129 RT.	375	21.00	③
0+678.100, 9.805 RT.	0+679.000, 9.200 RT.	375	0.90	④
STORM SEWER (WATER MAIN REQUIREMENTS) TYPE 1				
0+873.680, 10.874 RT.	0+948.725, 13.950 RT.	375	75	⑤

STORM SEWERS, TYPE 1, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS IV				
FROM STATION, OFFSET (M)	TO STATION, OFFSET (M)	DIAMETER (MM)	LENGTH (M)	REMARKS
0+872.410, 10.356 LT.	0+887.150, 11.691 LT.	300	14.35	⑥
0+888.450, 11.680 LT.	0+948.800, 11.680 LT.	300	60.35	⑦
0+989.417, 10.500 LT.	0+996.671, 7.130 LT.	300	3.70	⑨
0+996.800, 10.000 RT.	0+996.800, 7.043 LT.	300	17.00	⑧
STORM SEWERS, TYPE 1, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS III				
0+964.024, 12.079 LT.	0+994.79, 11.17 LT.	750	30.00	⑩

DRAINAGE STRUCTURE SCHEDULE												
STRUCTURE NO.	STATION	OFFSET (M)	MANHOLE	CATCH BASIN	INLET	DIAMETER (M)	FRAME & GRATE	RIM ELEV. (M)	INVERT ELEVATION			REMARKS
									NORTH	SOUTH	EAST	
①	0+655.35	6.29 RT.			TYPE A	0.6	TYPE 24	291.829			290.500 (NE)	
②	0+655.35	10.06 RT.	TYPE A			1.2	TYPE 1 CL	290.805	287.525 (NE)	287.365		
③	0+677.57	10.13 RT.	TYPE A			1.2	TYPE 1 CL	289.215	286.315		286.315 (SE)	
④	0+679.07	8.64 RT.	TYPE A			1.2	TYPE 1 CL	288.965	286.297 (NW)	286.107		
⑤	0+887.69	11.74 LT.	TYPE A			1.2	TYPE 1 CL	283.455	282.615	282.615		PRECAST REINFORCED CONCRETE FLAT SLAB TOP, PIPE OUTLET AT CREEK INV. EL. 281.675
⑥	0+954.41	9.97 RT.					TYPE 24	284.677				FOR DETAILS, SEE CULVERT PLAN
⑦	0+954.41	6.22 LT.					TYPE 24	284.752				FOR DETAILS, SEE CULVERT PLAN
⑧	0+996.77	9.90 RT.			TYPE A	0.6	TYPE 24	283.574			282.846	
⑨	0+994.79	11.17 LT.	TYPE A			1.5	TYPE 1 CL	283.257	281.818	281.818 (SW)		PRECAST REINFORCED CONCRETE FLAT SLAB TOP, PIPE OUTLET AT CREEK INV. EL. 281.728
⑩	0+996.77	7.04 LT.		TYPE A		1.2	TYPE 24	283.631	282.727 (NE)		282.727	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
EXIST. MH								291.875 (EXIST.)		290.472 (SW)	287.725 (W)	

EARTHWORK SCHEDULE								
LOCATION	EARTH EXCAVATION	ROCK EXCAVATION	UNSUITABLE OR UNSUITABLE MATERIAL	EXCAVATION TO BE USE IN EMBANKMENT ADJ. FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	TOPSOIL EXCAVATION AND PLACEMENT	TOPSOIL FURNISH AND PLACE
	CUBIC METER	CUBIC METER	CUBIC METER	CUBIC METER	CUBIC METER	CUBIC METER	CUBIC METER	SQ METER
STA. 0+640.60 TO STA. 0+685.00	----	----	----	----	----	----	----	119.0
STA. 0+874.40 TO STA. 0+948.70	----	----	----	----	----	----	----	476.0
STA. 0+964.50 TO STA. 1+027.00	----	----	----	----	----	----	----	471.0
STA. 0+948.66 TO STA. 0+952.59	258.0	----	----	219.3	----	219.3	----	----
STA. 0+952.59 TO STA. 0+960.40	----	----	----	----	----	----	----	----
STA. 0+960.40 TO STA. 0+964.46	266.5	----	----	226.5	----	226.5	----	----
STA. 0+964.46 TO STA. 0+975.00	----	----	----	----	----	----	----	----
STA. 0+975.00 TO STA. 1+000.00	13.9	----	----	11.8	34.1	- 22.3	----	----
STA. 1+000.00 TO STA. 1+017.50	9.7	----	----	8.2	32.0	- 23.8	----	----
STA. 1+017.50 TO STA. 1+026.98	----	----	----	----	4.9	- 4.9	----	----
TOTAL	548.10	----	----	465.8	71.00	394.8	----	1066.0

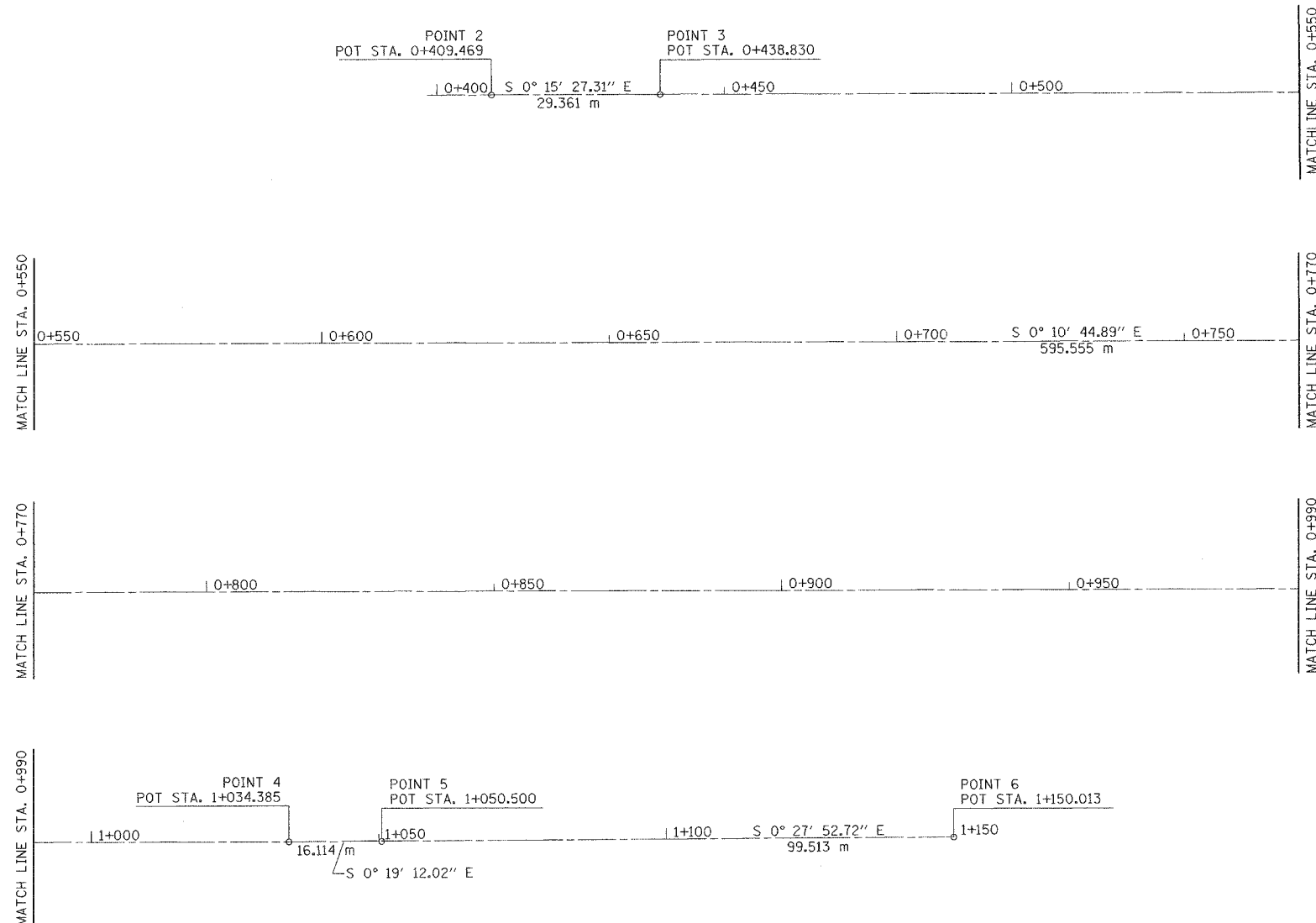
SHRINKAGE FACTORS:
 EARTH EXCAVATION = 15%
 ROCK EXCAVATION = 0%
 BORROW EXCAVATION = 30%

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 US 14 - MOKELER CREEK TO N. OF
 IL. 173 AND AT UPRR
 SCHEDULE OF QUANTITIES,
 DRAINAGE STRUCTURE AND
 EARTHWORK SCHEDULES
 SCALE: NONE DRAWN BY R.A.D.
 DATE FEBRUARY, 2005 CHECKED BY DR. SSS

SOODAN & ASSOCIATES INC.
 Architects, Engineers & Construction Consultants

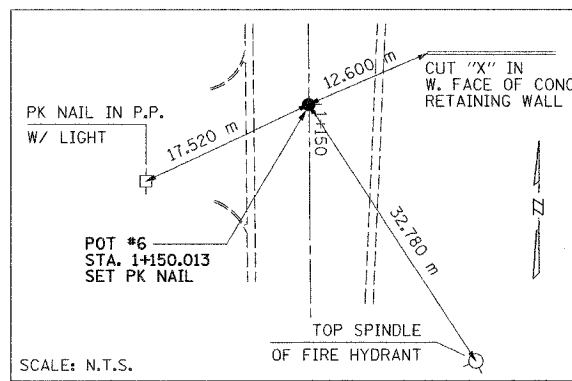
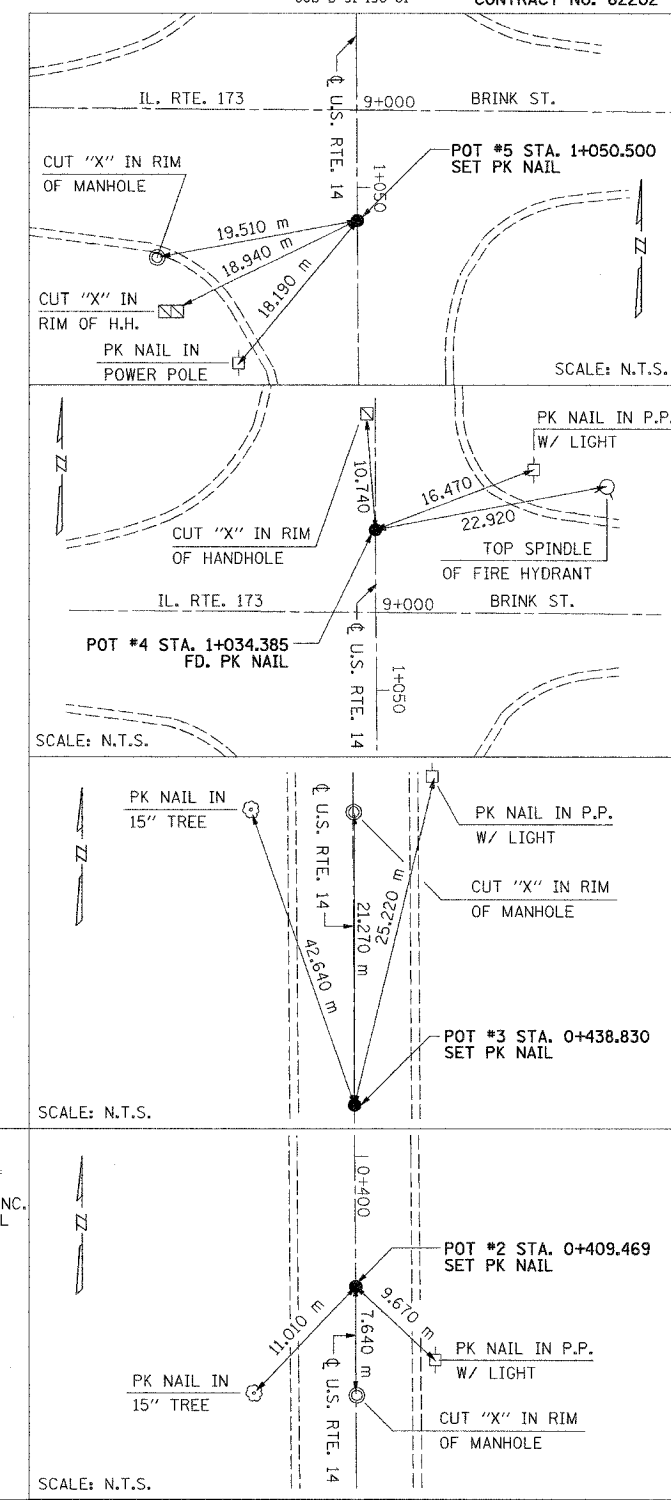
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	13
STA. 0+113.50			TO STA. 1+150.01	
FED. ROAD DIST. NO. 1			ILLINOIS FED. AID PROJECT	
JOB D-91-190-01			CONTRACT NO. 62202	



ALIGNMENT COORDINATES

POINT/ CURVE NAME	STATION (METERS)	NORTHING (METERS)	EASTING (METERS)
POINT 1	STA. 0+113.504	639132.0840	276926.0520
POINT 2	STA. 0+409.469	638836.1240	276927.8000
POINT 3	STA. 0+438.830	638806.7630	276927.9320
POINT 4	STA. 1+034.385	638211.2110	276929.7940
POINT 5	STA. 1+050.500	638195.0970	276929.8840
POINT 6	STA. 1+150.013	638095.5870	276930.6910

- B.M. # 1. □ AT HARVARD, ONE BLOCK E. OF U.S. HIGHWAY 14 ON STATE HIGHWAY 173, 14 m S., 11.6 m W. OF, AND 0.52 m HIGHER THAN CENTER OF CROSS STREETS (JUNCTION N. HART AND E. DIGGINS), 2.9 m S. AND 0.46 m W. OF NE. CORNER GRADE SCHOOL PARKING LOT, IN CONCRETE POST, ALUMINUM TABLET STAMPED "51 A 1923 966" PAINTED R1 "966.3" (TABLET MUTILATED, DESIGNATION RE-STAMPED) ELEV. =294.508
- B.M. # 2. □ REFERENCE MARK, 91.44 m S. OF BM, 8.53 m N. AND 10.06 m W. OF CENTER OF CROSS STREETS (N. HART AND E. UNIVERSITY), AT SE. CORNER GRADE SCHOOL YARD, ON CONCRETE SIDEWALK (1.68 m W. OF SE. CORNER), A CHISELED SQUARE, PAINTED "RM" ELEV. =294.312
- B.M. # 3. □ UE 51 A-A, 804.67 m S. OF BM, AT JUNCTION U.S. HWY. 14 AND STATE HWY. 173 W., JUST S. OF HWY. OVERPASS OVER RR., NEAR NW. CORNER OF ADMIRAL PLANT PARKING LOT, 11.28 m N., 11.28 m E., AND 0.18 m HIGHER THAN CENTER OF T-RD. W., 8.23 m N. OF E. BRINK ST., IN BASE OF SW SIDE OF POWER POLE, PAINTED "UE 930.2" ELEV. =283.507
- B.M. # 4. □ UE 51 A-B, 1.689 km. S. OF BM, AT JUNCTION U.S. HWY. 14 AND E.-W. BLACKTOP RD. (McGUIRE RD.-AIRPORT RD.), 7.62 m S., 12.80 m E. OF, AND 0.73 m LOWER THAN CENTER OF CROSSROADS, ON S. END CORRUGATED STEEL CULVERT, A PUNCHED HOLE, PAINTED "UE 926.5" ELEV. =282.379



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US 14 - MOKELER CREEK TO N. OF
IL. 173 AND AT UPRR
ALIGNMENT, TIES AND BENCHMARKS
SCALE: 1:500
DATE FEBRUARY, 2005
DRAWN BY R.A.D.
CHECKED BY DR. SSJ

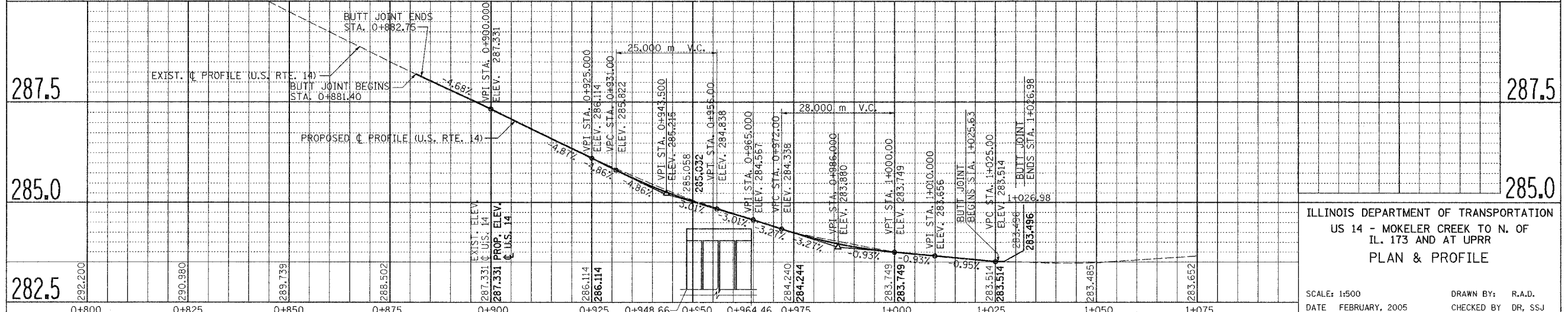
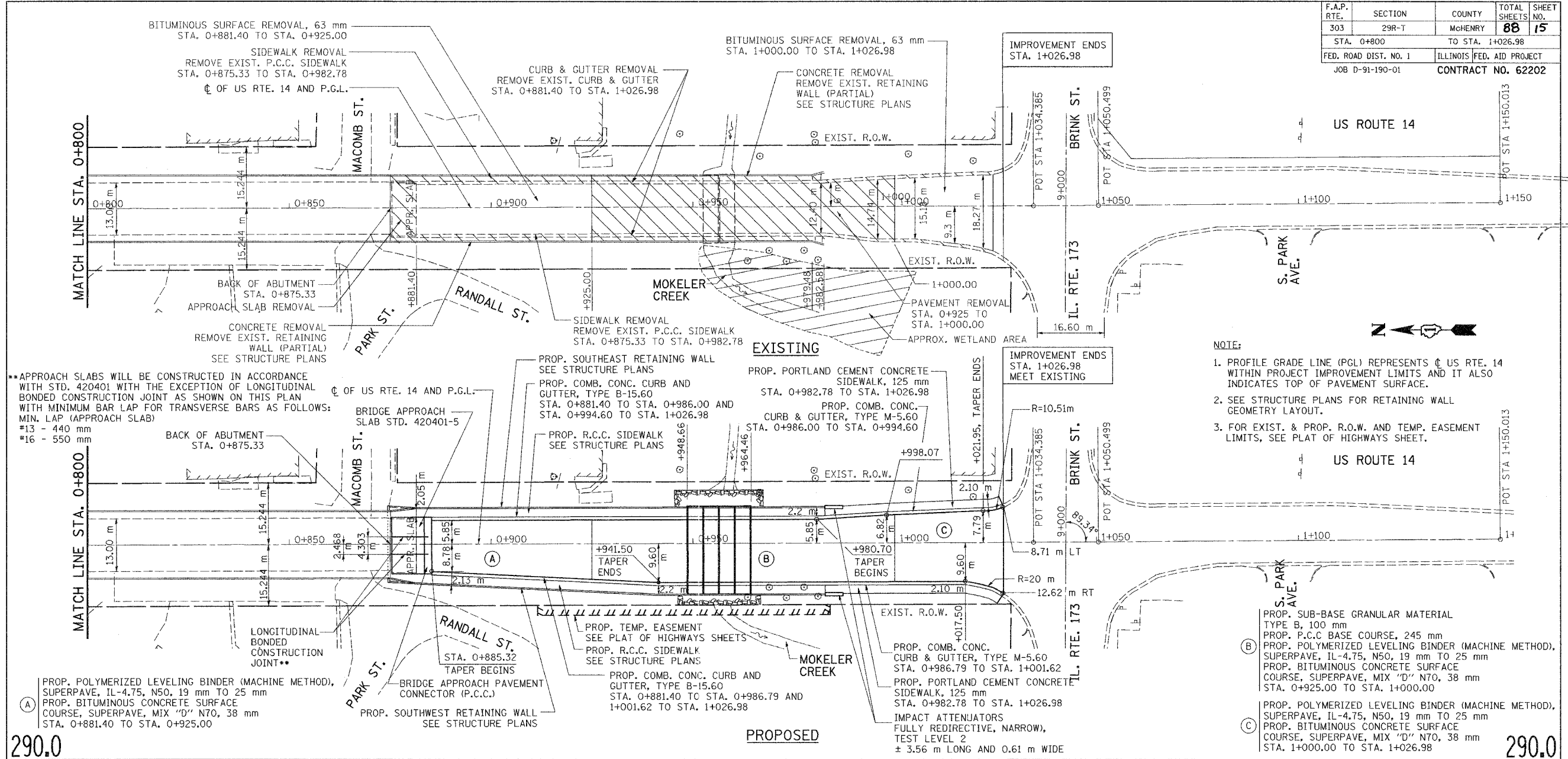
SOODAN & ASSOCIATES INC.
Architects, Engineers & Construction Consultants

I:\253-alignment_r1.sht 02/10/2005 08:33:46 PM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS NO.	SHEET NO.
303	29R-T	McHENRY	88	15
STA. 0+800		TO STA. 1+026.98		
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT
JOB D-91-190-01		CONTRACT NO. 62202		

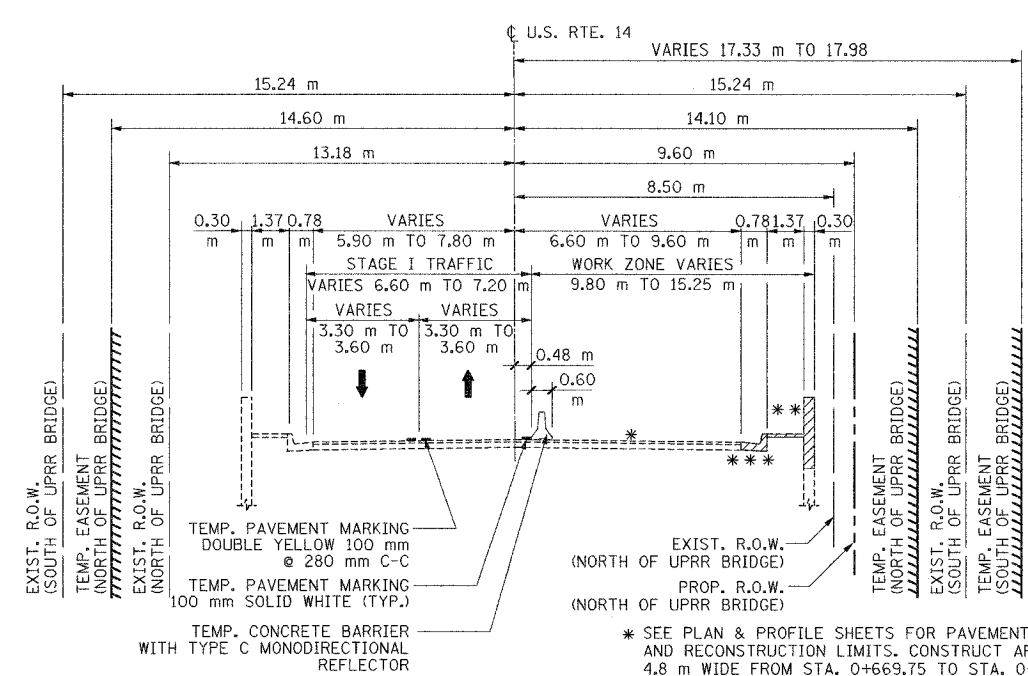
BY	DATE
FINAL SURVEY PLOTTED	
NOTE BOOK TEMPLATE	
AREAS CHECKED	
NO.	

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



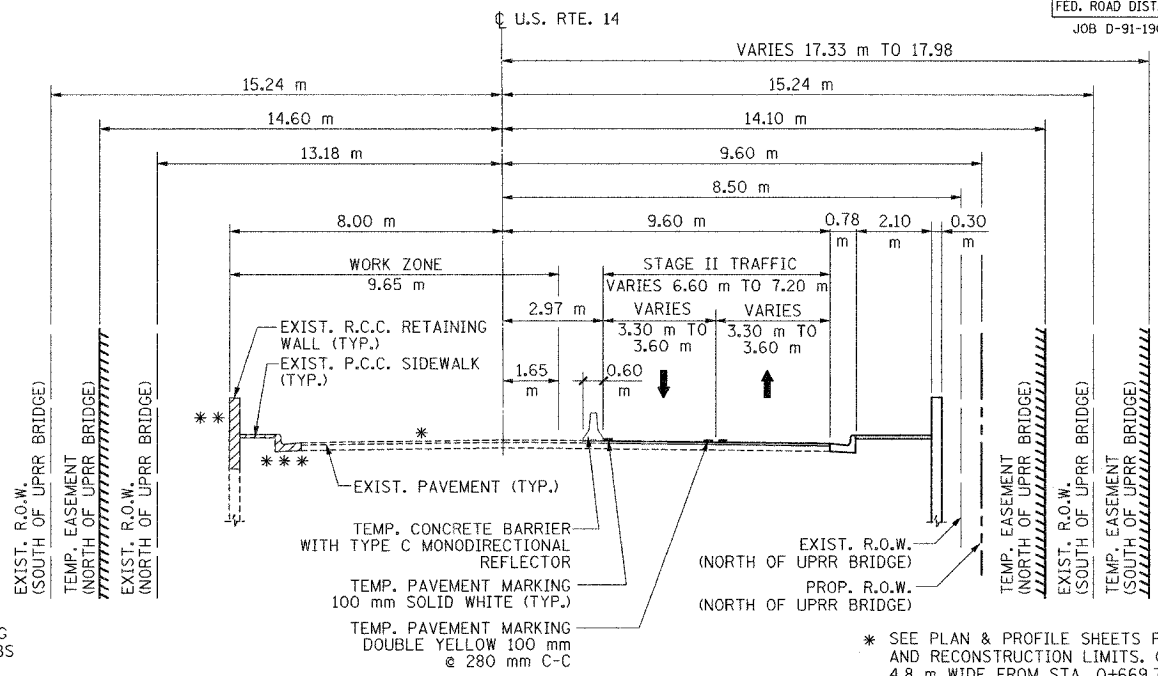
SOODAN & ASSOCIATES INC.
Architects, Engineers & Construction Consultants

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	16
STA.	0+645.16	TO STA.	1+026.98	
FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT			
JOB D-91-190-01			CONTRACT NO. 62202	



STAGE I
 STA. 0+645.16 TO STA. 0+686.19
 STA. 0+874.42 TO STA. 0+948.66
 STA. 964.46 TO STA. 1+026.98
 LOOKING SOUTH

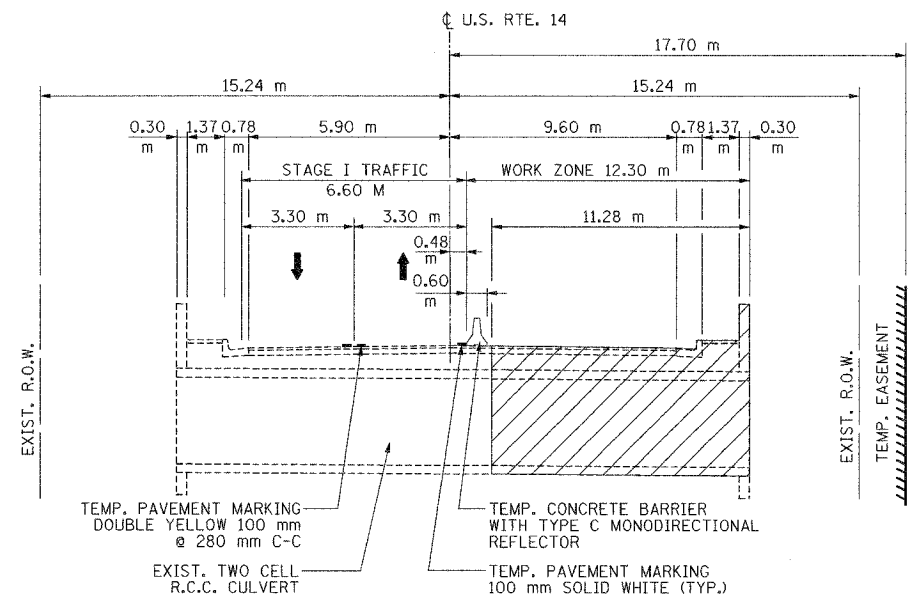
* SEE PLAN & PROFILE SHEETS FOR PAVEMENT RESURFACING AND RECONSTRUCTION LIMITS. CONSTRUCT APPROACH SLABS 4.8 m WIDE FROM STA. 0+669.75 TO STA. 0+679.65 AND STA. 0+875.33 TO STA. 0+885.23 (BOTH APPROACH SLABS INCLUDES BRIDGE APPROACH CONNECTOR P.C.C.)
 ** FOR CONCRETE REMOVAL, SEE STRUCTURE PLANS
 *** FOR CURB & GUTTER REMOVAL, SEE EXIST. & PROP. TYPICAL SECTIONS



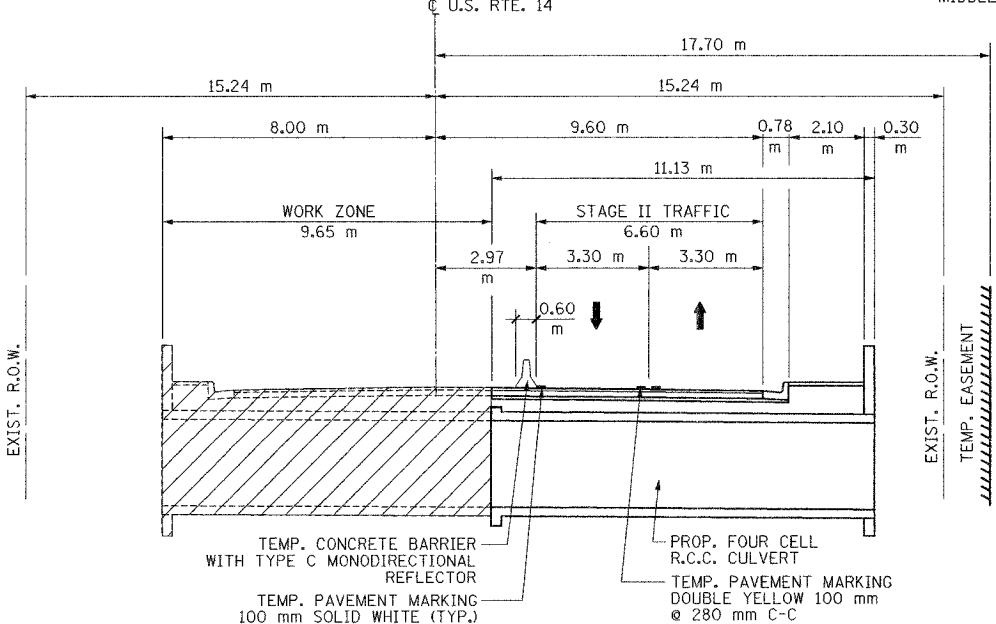
STAGE II
 STA. 0+645.16 TO STA. 0+686.19
 STA. 0+874.42 TO STA. 0+948.66
 STA. 964.46 TO STA. 1+026.98
 LOOKING SOUTH

* SEE PLAN & PROFILE SHEETS FOR PAVEMENT RESURFACING AND RECONSTRUCTION LIMITS. CONSTRUCT APPROACH SLABS 4.8 m WIDE FROM STA. 0+669.75 TO STA. 0+679.65 AND STA. 0+875.33 TO STA. 0+885.23 (BOTH APPROACH SLABS INCLUDES BRIDGE APPROACH CONNECTOR P.C.C.)
 ** FOR CONCRETE REMOVAL, SEE STRUCTURE PLANS
 *** FOR CURB & GUTTER REMOVAL, SEE EXIST. & PROP. TYPICAL SECTIONS

STAGE III
 AFTER COMPLETION OF STAGE I & II CONSTRUCT MIDDLE PORTION OF NORTH & SOUTH APPROACH SLABS



STAGE I
 STA. 0+948.66 TO STA. 0+964.46
 LOOKING SOUTH



STAGE II
 STA. 0+948.66 TO STA. 0+964.46
 LOOKING SOUTH

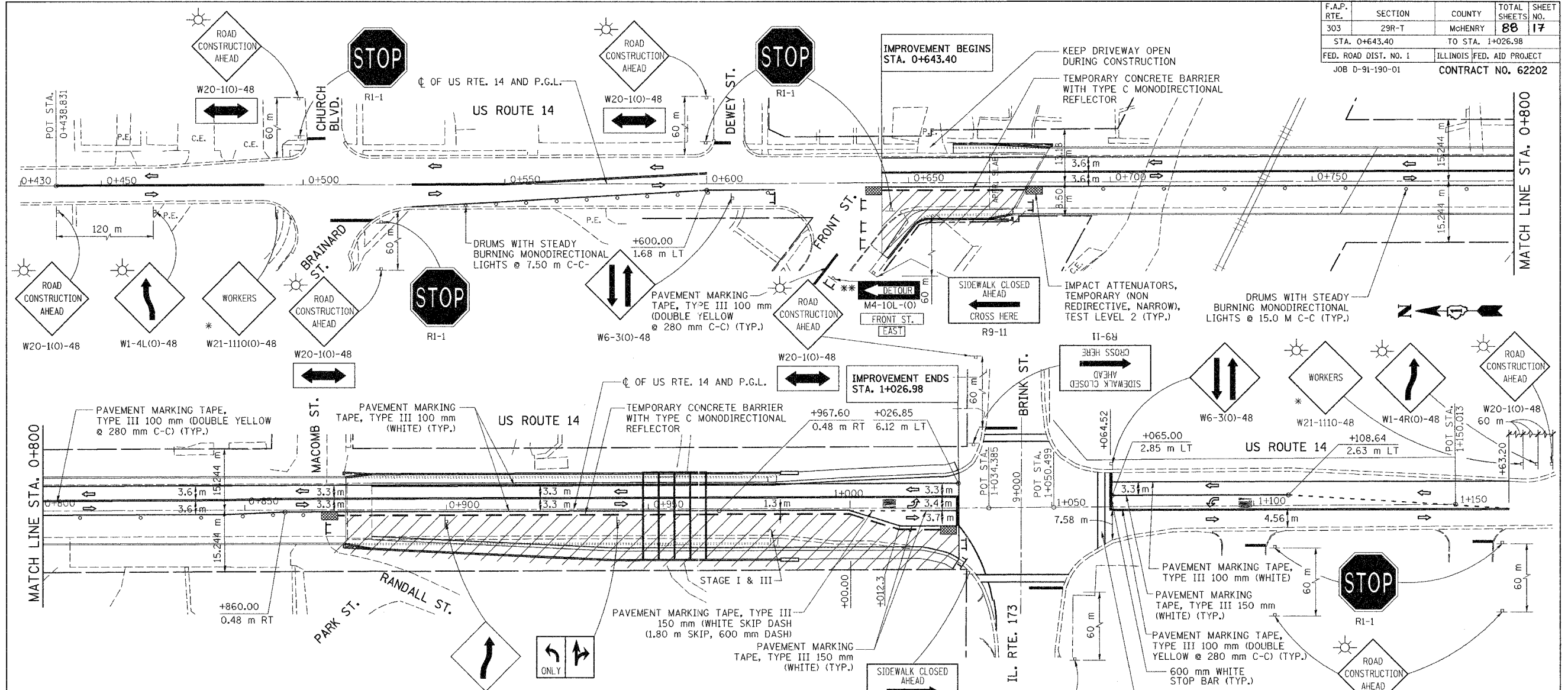
LEGEND:
 REMOVAL ITEM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 US 14 - MOKELER CREEK TO N. OF
 IL. 173 AND AT UPRR
 SUGGESTED STAGING AND TRAFFIC
 CONTROL PLAN TYPICAL SECTIONS
 SCALE: VERT: NONE
 HORIZ.
 DATE: FEBRUARY, 2005
 DRAWN BY: R.A.D.
 CHECKED BY: DR. SJJ

SOODAN & ASSOCIATES INC.
 Architects, Engineers & Construction Consultants

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS NO.	SHEET NO.
303	29R-T	McHENRY	88	17
STA. 0+643.40		TO STA. 1+026.98		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB D-91-190-01		CONTRACT NO. 62202		



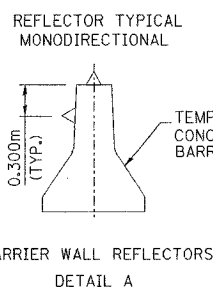
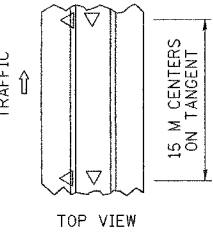
SUGGESTED SEQUENCE OF WORK:

STAGE I

- ** DETOUR FRONT STREET EASTBOUND TRAFFIC AT US ROUTE 14 TO BRAINARD STREET USING IDOT STANDARD 702001-04 AND USING REQUIRED TRAFFIC DETOUR SIGNS ACCORDING TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
- RE-ROUTE TRAFFIC (US14) (ONE LANE ON EACH SIDE) ON EAST SIDE OF THE ROADWAY AS SHOWN ON THE PLANS.
- BEGIN STAGE I AND FINISH STAGE I. STAGE I INCLUDES REMOVAL OF PARTIAL NORTHWEST EXISTING RETAINING WALL AND PARTIAL SOUTHWEST RETAINING WALL (SEE STRUCTURE PLANS). CONSTRUCT PROPOSED NORTHWEST AND SOUTHWEST WALLS. REMOVE AND CONSTRUCT PROPOSED CURB AND GUTTER & SIDEWALK ON SOUTHWEST SIDE. REMOVE & CONSTRUCT PROPOSED SIDEWALK ON NORTHWEST SIDE. ALSO REMOVE & INSTALL NEW STORM SEWERS AT NORTHWEST AND SOUTHWEST SIDES.
- REMOVE ABOUT HALF OF EXISTING CULVERT (WEST SIDE) & CONSTRUCT ABOUT HALF OF PROPOSED CULVERT (WEST SIDE) AS SHOWN ON STRUCTURE PLANS.
- REMOVE AND RECONSTRUCT PAVEMENT FROM STA. 0+925 TO STA. 1+000 IN THE WORK AREA (WEST SIDE) USING IDOT STANDARD 701606-03.

STAGE II

- REMOVE FRONT STREET EASTBOUND DETOUR AND OPEN FRONT STREET TRAFFIC AS SHOWN IN TRAFFIC CONTROL PLAN IN STAGE II. RE-ROUTE TRAFFIC (ONE LANE ON EACH SIDE) ON WEST SIDE OF THE ROADWAY (US ROUTE 14) AS SHOWN ON THE PLAN.
- BEGIN STAGE II AND FINISH STAGE II. STAGE II INCLUDES REMOVAL OF PARTIAL NORTHEAST & SOUTHEAST EXISTING RETAINING WALL (SEE STRUCTURE PLANS). CONSTRUCT PROPOSED NORTHEAST AND SOUTHEAST RETAINING WALLS. REMOVE AND CONSTRUCT PROPOSED CURB AND GUTTER & SIDEWALK ON SOUTHEAST SIDE. REMOVE AND CONSTRUCT PROPOSED SIDEWALK ON NORTHEAST SIDE. ALSO REMOVE AND INSTALL NEW STORM SEWERS AT SOUTHEAST SIDE AS SHOWN ON DRAINAGE & UTILITIES PLAN.
- REMOVE REMAINING PORTION OF EXISTING CULVERT (EAST SIDE) & CONSTRUCT A PORTION OF PROPOSED CULVERT (EAST SIDE) AS SHOWN ON STRUCTURE PLANS.
- REMOVE AND RECONSTRUCT PAVEMENT FROM STA. 0+925 TO STA. 1+000 IN THE WORK AREA (EAST SIDE) USING IDOT STANDARD 701606-03.
- FINISH RESURFACING OF ROADWAY FROM STA. 0+881.33 TO STA. 0+925 AND STA. 1+000 TO STA. 1+026.98



SYMBOLS

- ➔ ARROW BOARD
- ⊥ SIGN
- DRUMS WITH STEADY BURNING MONODIRECTIONAL LIGHT
- ⊥ TYPE III BARRICADE WITH FLASHING LIGHT
- TEMPORARY CONCRETE BARRIER WITH TYPE C MONODIRECTIONAL REFLECTOR
- △ TYPE C MONODIRECTIONAL REFLECTOR
- ➔ TRAFFIC DIRECTION ARROW
- ▨ IMPACT ATTENUATORS, TEMPORARY (NON REDIRECTIVE, NARROW), TEST LEVEL 2

LEGEND

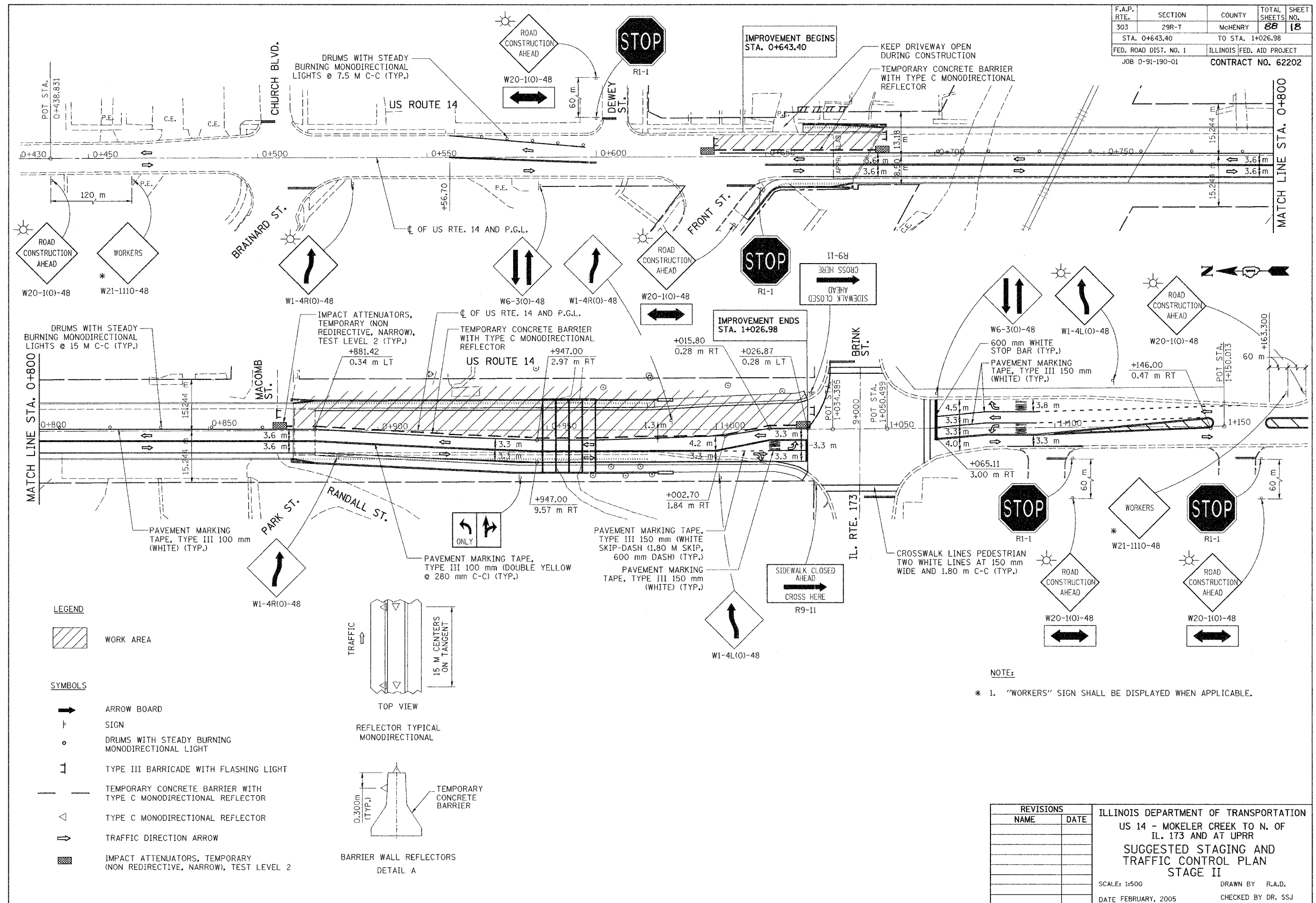


REVISIONS	
NAME	DATE

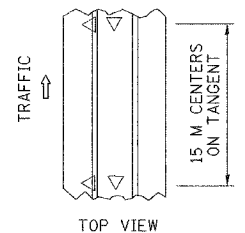
ILLINOIS DEPARTMENT OF TRANSPORTATION
 US 14 - MOKELER CREEK TO N. OF
 IL. 173 AND AT UPRR
**SUGGESTED STAGING AND
 TRAFFIC CONTROL PLAN
 STAGE I**
 SCALE: 1:500
 DATE FEBRUARY, 2005
 DRAWN BY R.A.D.
 CHECKED BY DR. SSJ

SOODAN & ASSOCIATES INC.
 Architects, Engineers & Construction Consultants

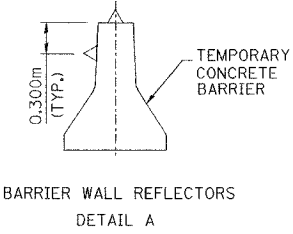
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	18
STA. 0+643.40		TO STA. 1+026.98		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB 0-91-190-01		CONTRACT NO. 62202		



- LEGEND**
- WORK AREA
- SYMBOLS**
- ARROW BOARD
 - SIGN
 - DRUMS WITH STEADY BURNING MONODIRECTIONAL LIGHT
 - TYPE III BARRICADE WITH FLASHING LIGHT
 - TEMPORARY CONCRETE BARRIER WITH TYPE C MONODIRECTIONAL REFLECTOR
 - TYPE C MONODIRECTIONAL REFLECTOR
 - TRAFFIC DIRECTION ARROW
 - IMPACT ATTENUATORS, TEMPORARY (NON REDIRECTIVE, NARROW), TEST LEVEL 2



REFLECTOR TYPICAL MONODIRECTIONAL



BARRIER WALL REFLECTORS

NOTE:
* 1. "WORKERS" SIGN SHALL BE DISPLAYED WHEN APPLICABLE.

REVISIONS	
NAME	DATE

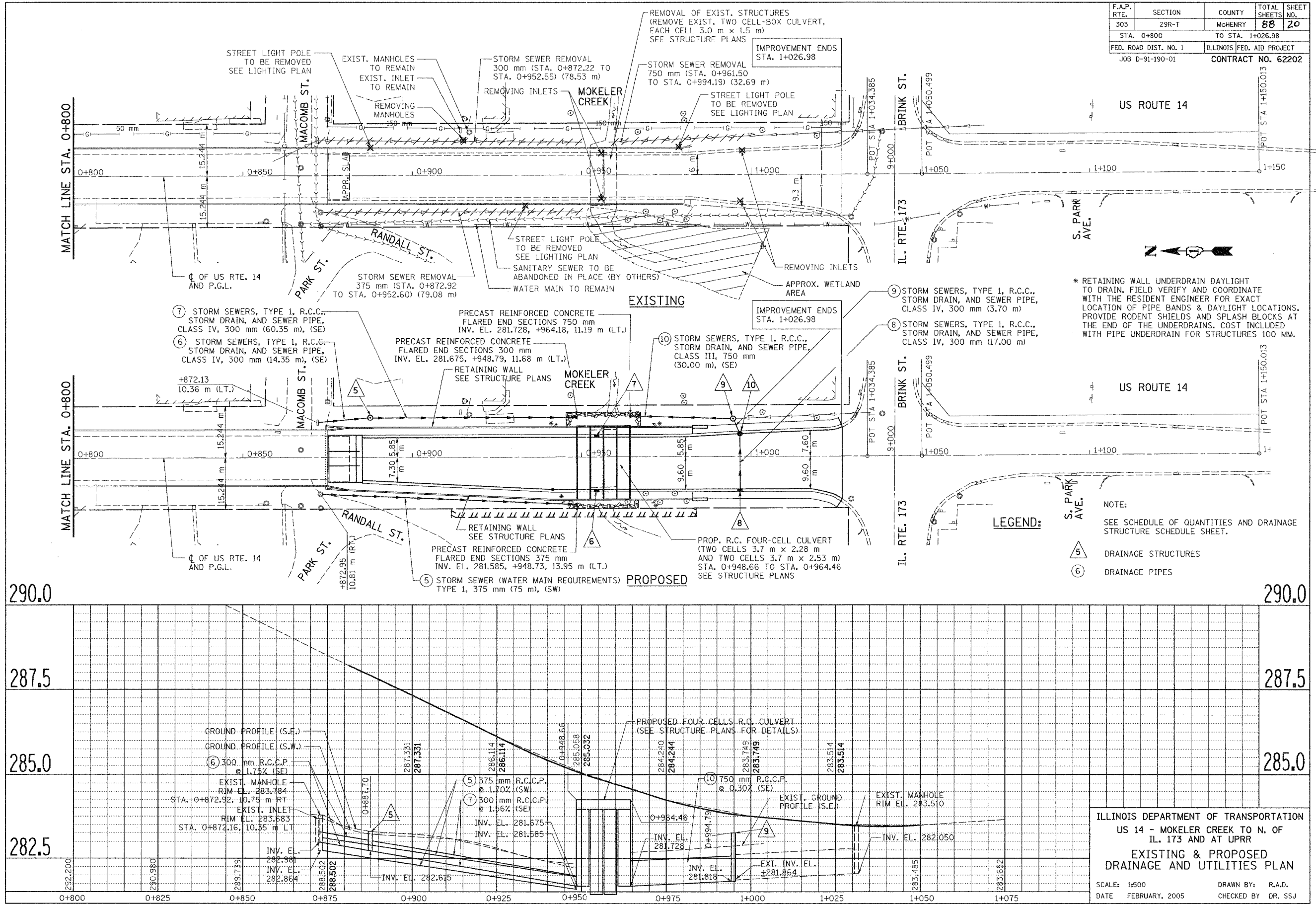
ILLINOIS DEPARTMENT OF TRANSPORTATION
US 14 - MOKELER CREEK TO N. OF IL. 173 AND AT UPRR
SUGGESTED STAGING AND TRAFFIC CONTROL PLAN
STAGE II
SCALE: 1:500
DATE FEBRUARY, 2005
DRAWN BY R.A.D.
CHECKED BY DR. SJJ

SOODAN & ASSOCIATES INC.
Architects, Engineers & Construction Consultants

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	20
STA. 0+800		TO STA. 1+026.98		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB D-91-190-01		CONTRACT NO. 62202		

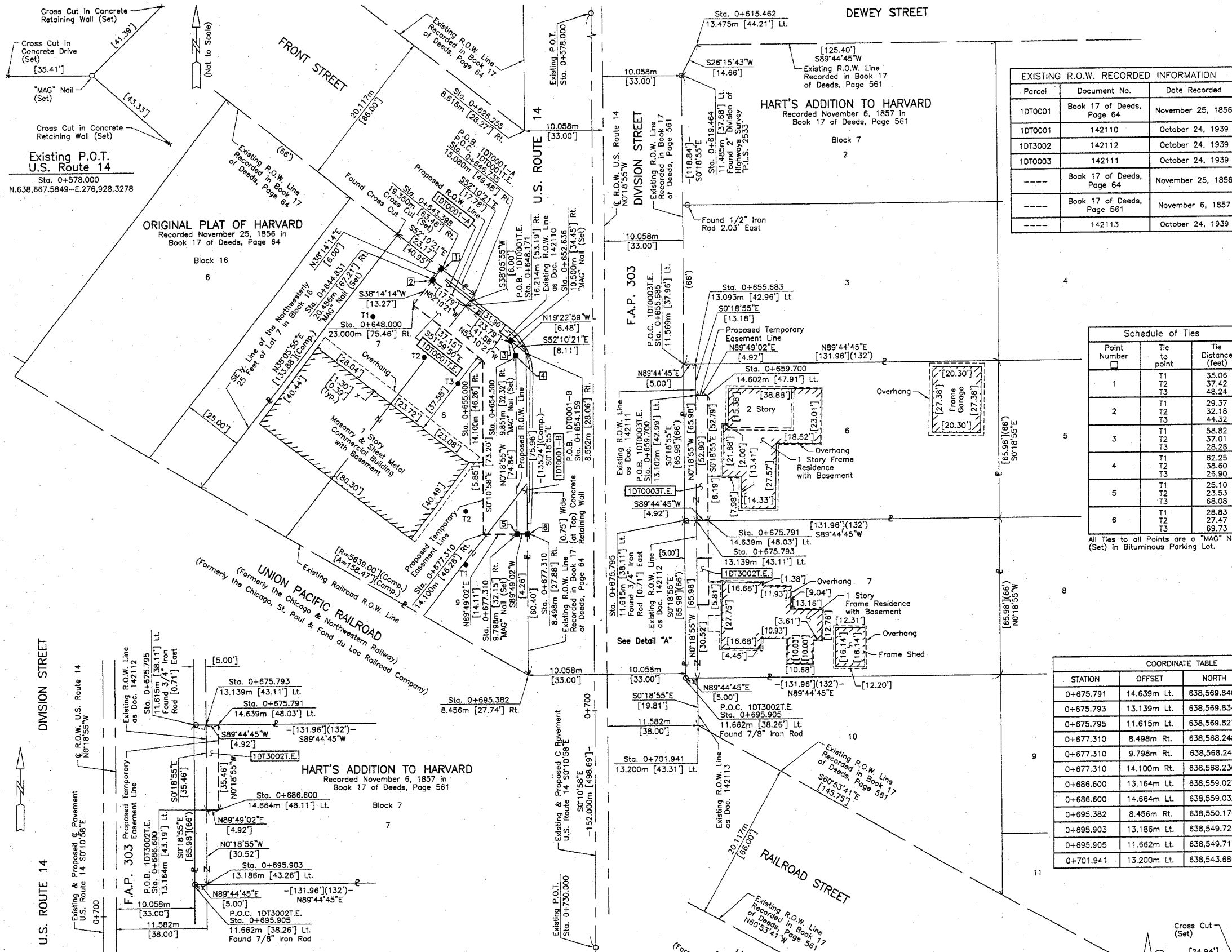
BY	DATE
ORIGINAL SURVEYED	
SURVEY PLOTTED	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	
NO.	

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



ILLINOIS DEPARTMENT OF TRANSPORTATION
 US 14 - MOKELER CREEK TO N. OF
 IL. 173 AND AT UPRR
**EXISTING & PROPOSED
 DRAINAGE AND UTILITIES PLAN**
 SCALE: 1:500 DRAWN BY: R.A.D.
 DATE FEBRUARY, 2005 CHECKED BY DR. SSJ

1253-pro-utility-2.rvt 02/10/2005 08:47:34 PM Plotted by: jstg



Parcel	Document No.	Date Recorded
1DT0001	Book 17 of Deeds, Page 64	November 25, 1856
1DT0001	142110	October 24, 1939
1DT3002	142112	October 24, 1939
1DT0003	142111	October 24, 1939
---	Book 17 of Deeds, Page 64	November 25, 1856
---	Book 17 of Deeds, Page 561	November 6, 1857
---	142113	October 24, 1939

Point Number	Tie to point	Tie Distance (feet)
1	T1	35.06
	T2	37.42
	T3	48.24
2	T1	29.37
	T2	32.18
	T3	44.32
3	T1	58.82
	T2	37.01
	T3	28.28
4	T1	62.25
	T2	38.60
	T3	26.90
5	T1	25.10
	T2	23.53
	T3	68.08
6	T1	28.83
	T2	27.47
	T3	69.73

SECTION CORNER 9 10 16 15
 QUARTER SECTION CORNER 16 15

SECTION LINE
 QUARTER SECTION LINE
 QUARTER SECTION LINE
 PLATTED LOT LINE
 PROPERTY (DEED) LINE

APL
 APPARENT PROPERTY LINE
 CENTER LINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED RIGHT OF WAY LINE
 PROPOSED EASEMENT
 MEASURED DIMENSION
 COMPUTED DIMENSION
 RECORD DATA U.S. FOOT
 MEASURED DIMENSION U.S. FOOT

EXISTING BUILDING

Bearings are referenced to the Illinois State Plane Coordinate System, NAD83, East Zone, as provided by the Illinois Department of Transportation.

IRON PIPE OR ROD FOUND
 CUT CROSS FOUND OR SET
 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO THE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO THE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
 STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
 STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
 PERMANENT SURVEY MARKER, I.D.O.T STD 2135 (TO BE SET BY OTHERS)
 RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS }
 COUNTY OF LAKE }SS

THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 35, TOWNSHIP 46N., RANGE 5E., OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT LAKE VILLA, ILLINOIS THIS 9th DAY OF December 2022 A.D.



STATION	OFFSET	NORTH	EAST
0+615.462	13.475m Lt.	638,630.1658	276,941.9225
0+619.464	11.485m Lt.	638,626.1580	276,939.9450
0+626.255	8.616m Rt.	638,619.3025	276,919.8656
0+643.398	19.350m Rt.	638,602.1253	276,909.1866
0+644.831	20.486m Rt.	638,600.6888	276,908.0547
0+646.735	15.080m Rt.	638,598.8021	276,913.4667
0+648.000	23.000m Rt.	638,597.5119	276,905.5513
0+648.171	16.214m Rt.	638,597.3629	276,912.3382
0+652.636	10.500m Rt.	638,592.9156	276,918.0660
0+654.500	8.552m Rt.	638,591.3991	276,920.0191
0+654.500	9.851m Rt.	638,591.0538	276,918.7210
0+655.000	14.100m Rt.	638,590.5403	276,914.4736
0+655.883	13.093m Lt.	638,589.9440	276,941.6883
0+655.685	11.569m Lt.	638,589.9372	276,940.1443
0+659.700	13.102m Lt.	638,585.9271	276,941.6904
0+659.700	14.602m Lt.	638,585.9319	276,943.1904

STATION	OFFSET	NORTH	EAST
0+615.462	13.475m Lt.	638,630.1658	276,941.9225
0+619.464	11.485m Lt.	638,626.1580	276,939.9450
0+626.255	8.616m Rt.	638,619.3025	276,919.8656
0+643.398	19.350m Rt.	638,602.1253	276,909.1866
0+644.831	20.486m Rt.	638,600.6888	276,908.0547
0+646.735	15.080m Rt.	638,598.8021	276,913.4667
0+648.000	23.000m Rt.	638,597.5119	276,905.5513
0+648.171	16.214m Rt.	638,597.3629	276,912.3382
0+652.636	10.500m Rt.	638,592.9156	276,918.0660
0+654.500	8.552m Rt.	638,591.3991	276,920.0191
0+654.500	9.851m Rt.	638,591.0538	276,918.7210
0+655.000	14.100m Rt.	638,590.5403	276,914.4736
0+655.883	13.093m Lt.	638,589.9440	276,941.6883
0+655.685	11.569m Lt.	638,589.9372	276,940.1443
0+659.700	13.102m Lt.	638,585.9271	276,941.6904
0+659.700	14.602m Lt.	638,585.9319	276,943.1904

JORGENSEN & ASSOCIATES, INC.
 120 PARK AVENUE
 LAKE VILLA, ILLINOIS 60046
 (847) 356-3371

SHEET 1 IS A COVER SHEET AND IS NOT RECORDED.

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 F.A.P. 303 (U.S. ROUTE 14)

SECTION McHENRY COUNTY
 PROJECT JOB NO. R-91-024-01
 STATION 0+578.000 TO STATION 0+730.000
 SCALE: 1:250/1"=6.35 SHEET 2 OF 3

BUREAU OF LAND ACQUISITION
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	TAKEN SQUARE FEET	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT SQUARE FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
1DT0001-A 1DT0001-B 1DT0001-E	Mike Hoeflich and Lori Hoeflich, as Tenants in Common, d/b/a Dun-Rite Electric	0.326	A=0.002 B=0.008	107 336	N/A	0.316	0.037	N/A	Construction Purposes	01-35-419-008	
1DT3002-E	William L. Huckabee	0.200	N/A	N/A	N/A	0.200	0.004	174	Construction Purposes	01-35-476-004	
1DT0003-E	Herbert G. Fick and Rose L. Schetgen, in Joint Tenancy	0.200	N/A	N/A	N/A	0.200	0.006	260	Construction Purposes	01-35-476-003	

ROW PLAT	DATE	BY	MADE	CHECKED	INKED	NOTEBOOK NO.

Detail "A"
 Scale: 1:250/1"=6.35

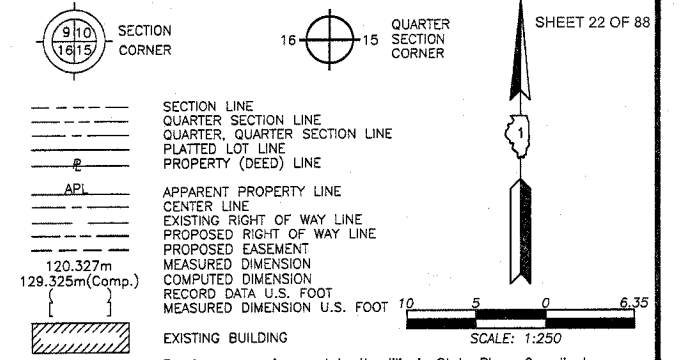
SEE SHEET 3

REVISION DATE
 November 15, 2004
 November 9, 2004
 December 2, 2002
 March 28, 2002

REVISION
 Change Parcel 1DT0002-E. to 1DT3002-E.
 Ownership Parcel 1DT0002-E.
 1DT0001-A & B, 1DT0001-E. thru 1DT0003-E.
 1DT0001-E. thru 1DT0003-E.

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	SQUARE FEET	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
1DT0004T.E.	Anton Stricker and Shirley J. Stricker as tenants in common	0.535	N/A	N/A	0.535	0.034	N/A	Construction Purposes	01-35-468-003	
1DT3005T.E.	Jeanette A Ward, as Executor of the Estate of William A Ward, Deceased	0.373	N/A	N/A	0.373	0.005	.231	Construction Purposes	01-35-469-007	

EXISTING R.O.W. RECORDED INFORMATION		
Parcel	Document No.	Date Recorded
1DT0004	Book 17 of Deeds, Page 64	November 25, 1856
1DT0004	142119	October 24, 1939
1DT3005	Book 35 of Deeds, Page 125	January 3, 1865
1DT3005	142119	October 24, 1939
1DT3005	95R-049298	November 8, 1995
----	Book 17 of Deeds, Page 64	November 25, 1856
----	Book 35 of Deeds, Page 125	January 3, 1865
----	142121	October 24, 1939
----	142122	October 24, 1939



- IRON PIPE OR ROD FOUND
- REPLACED AFTER CONSTRUCTION
- + CUT CROSS FOUND OR SET
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO THE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- T2
- T3
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO THE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT2
- BT3
- STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ⊙ PERMANENT SURVEY MARKER, I.D.O.T STD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS }
 COUNTY OF LAKE } SS

THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 35, TOWNSHIP 46N., RANGE 5E., OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT LAKE VILLA, ILLINOIS THIS 2nd DAY OF May 2022 A.D.



Christian H. Jorgensen, PRESIDENT
 ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797
 EXPIRATION DATE: NOVEMBER 30, 2002

NOTE: COORDINATES ARE GROUND VALUES.

COORDINATE TABLE			
STATION	OFFSET	NORTH	EAST
0+908.235	15.154m Rt.	638,337.3036	276,914.2278
0+910.991	17.329m Rt.	638,334.5403	276,912.0618
0+972.603	17.879m Rt.	638,272.9268	276,911.7077
0+974.279	15.744m Rt.	638,271.2574	276,913.8481
0+983.440	15.826m Rt.	638,262.0964	276,913.7954
0+983.440	17.976m Rt.	638,262.0896	276,911.6454
0+999.710	15.972m Rt.	638,245.8257	276,913.7019
1+021.787	16.169m Rt.	638,223.7489	276,913.5750
1+027.822	22.723m Rt.	638,217.6930	276,907.0403

JORGENSEN & ASSOCIATES, INC.
 120 PARK AVENUE 60046
 LAKE VILLA, ILLINOIS 60046
 (847) 356-3371

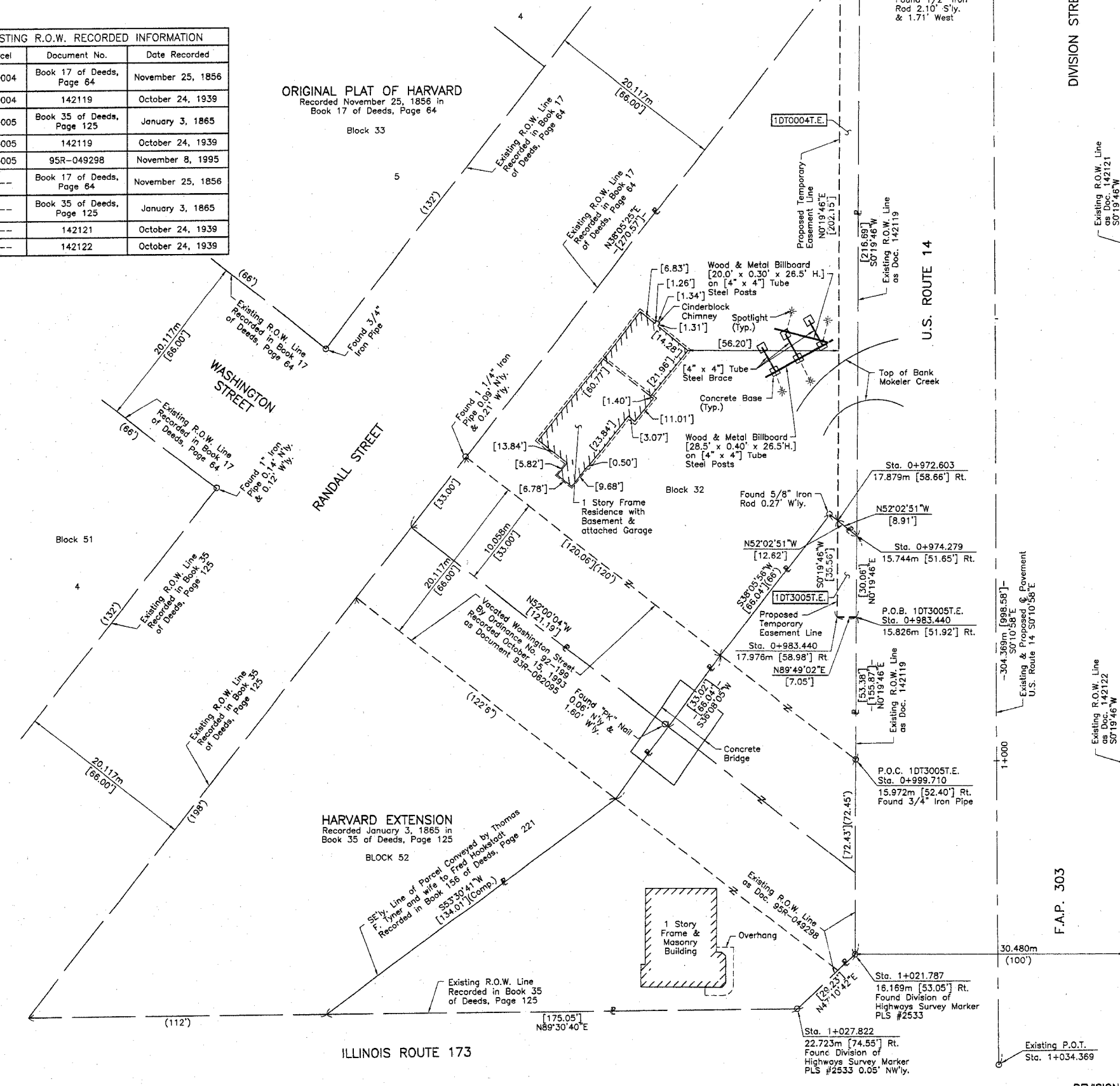
SHEET 1 IS A COVER SHEET AND IS NOT RECORDED.

PLAT OF HIGHWAYS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 F.A.P. 303 (U.S. ROUTE 14)

SECTION McHenry COUNTY
 PROJECT JOB NO. R-91-024-01
 STATION 0+730.000 TO STATION 1+034.369
 SCALE: 1:250/1"=6.35 SHEET 3 OF 3

BUREAU OF LAND ACQUISITION
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196

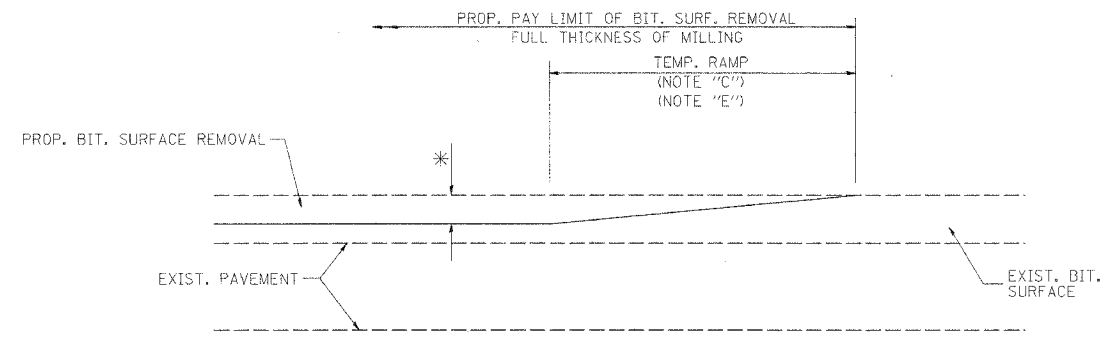
AS DOCUMENT NO.



ROW PLAT	DATE	BY
MADE		
CHECKED		
IN RECD		
NO		

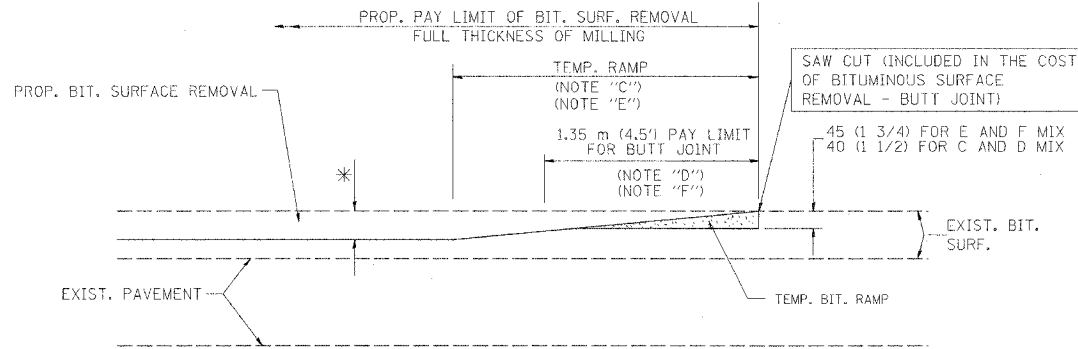
REVISION DATE November 22, 2004 REVISION Changed Parcel 10T0005T.E. to 10T3005T.E. & Ownership MADE BY

CONTRACT No. 62202



MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND BIT. TAPER SEE DETAIL BELOW)

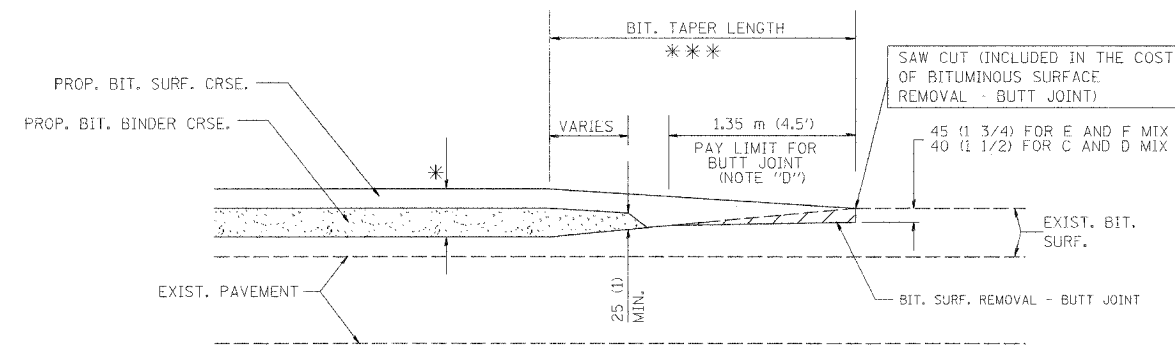
OPTION 1



BITUMINOUS CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND BIT. TAPER SEE DETAIL BELOW)

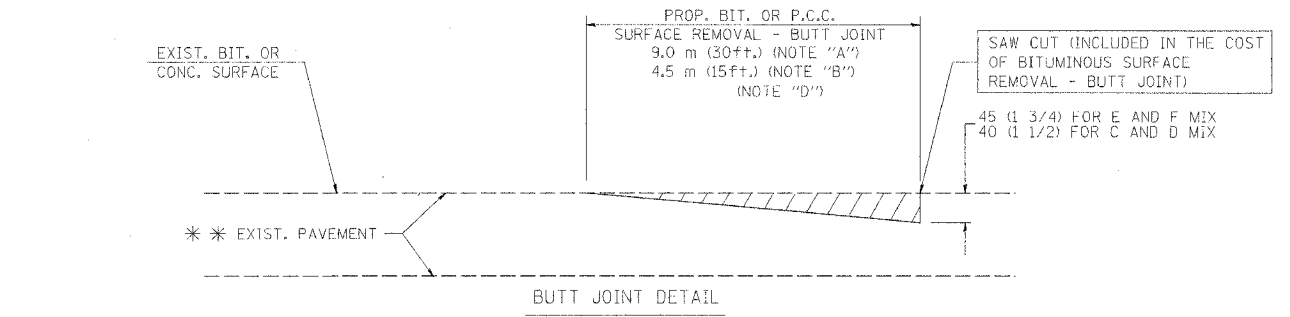
OPTION 2

TYPICAL TEMPORARY RAMP

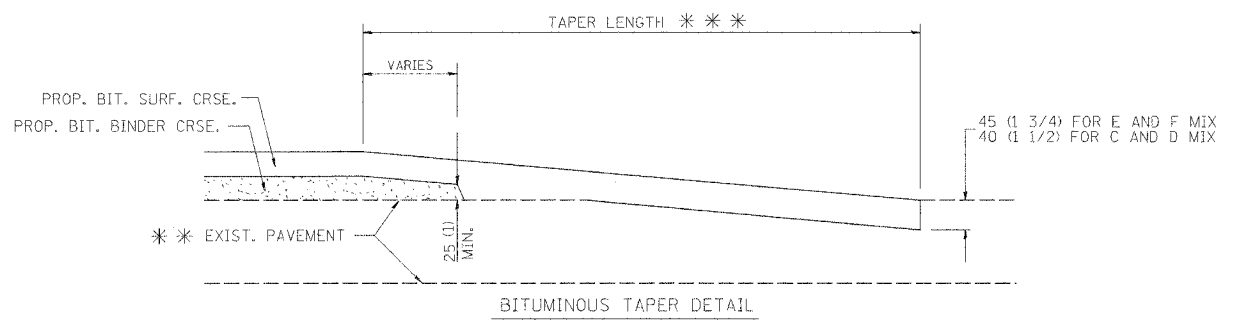


BUTT JOINT AND BITUMINOUS TAPER

TYPICAL BUTT JOINT AND BITUMINOUS TAPER
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



BITUMINOUS TAPER DETAIL

TYPICAL BUTT JOINT AND BITUMINOUS TAPER
FOR RESURFACING ONLY

*** PC CONCRETE, BITUMINOUS OR BITUMINOUS RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING BITUMINOUS SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED BITUMINOUS COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 900 (3 ft.) PER INCH OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 1.35 m (4.5') TEMP. BIT. RAMP WILL BE PAID AS "BITUMINOUS SURFACE REMOVAL - BUTT JOINT".
 - G: SEE ARTICLE 406.18 AND 406.24 OF THE STANDARD SPECIFICATIONS FOR "BITUMINOUS AND PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 6.1 m (20') PER 25 (1) RESURFACING (NOTE "A")
3.0 m (10') PER 25 (1) RESURFACING (NOTE "B")

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND BITUMINOUS TAPER DETAILS

BASIS OF PAYMENT:

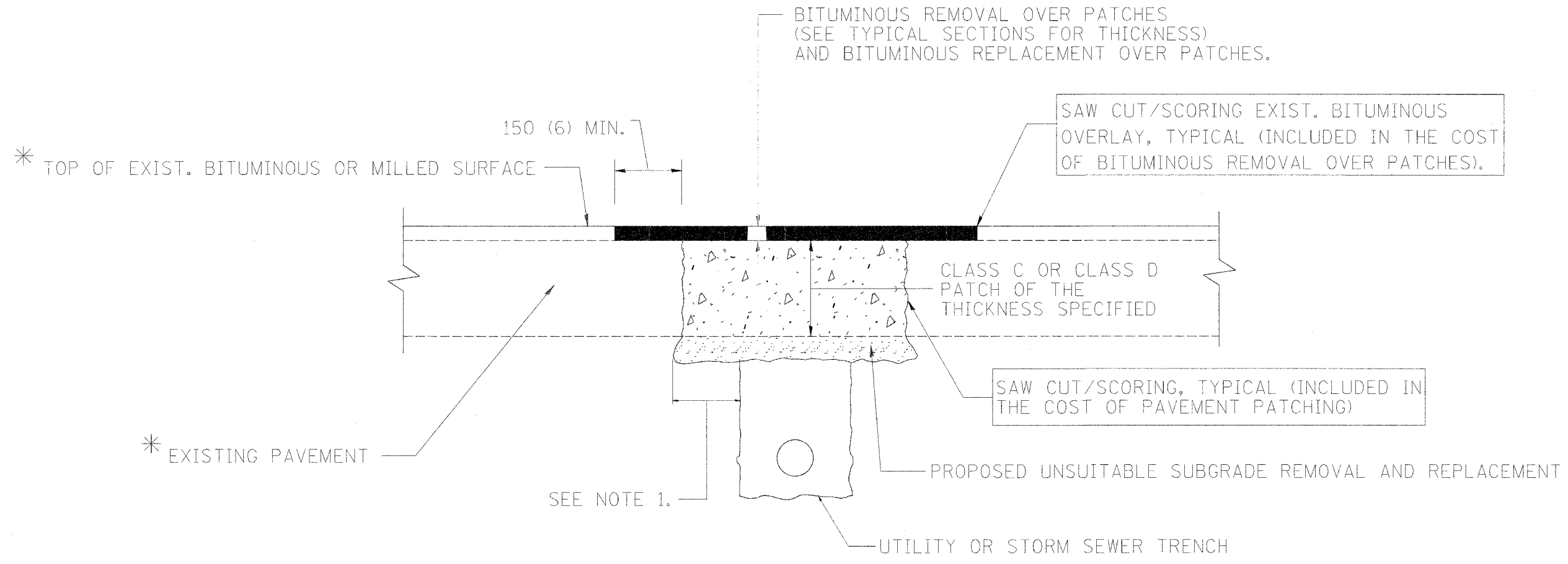
THE BUTT JOINT WILL BE PAID FOR PER SQUARE METER (SQUARE YARD.) AS "BITUMINOUS SURFACE REMOVAL - BUTT JOINT" OR AS "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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

SCALE: NONE
DATE PLOTTED: 10/18/2002

DRAWN BY
CHECKED BY
BD400-05 (VI-BD32)

CONTRACT NO. 62262



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 300 (12) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE SPECIAL PROVISION "PATCHING WITH BITUMINOUS OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION

1. REMOVE THE EXISTING BITUMINOUS MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE FULL DEPTH PATCHES
3. REPLACE BITUMINOUS MATERIAL OVER THE AREA TO BE PATCHED.

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT PATCHING FOR BITUMINOUS SURFACED PAVEMENT

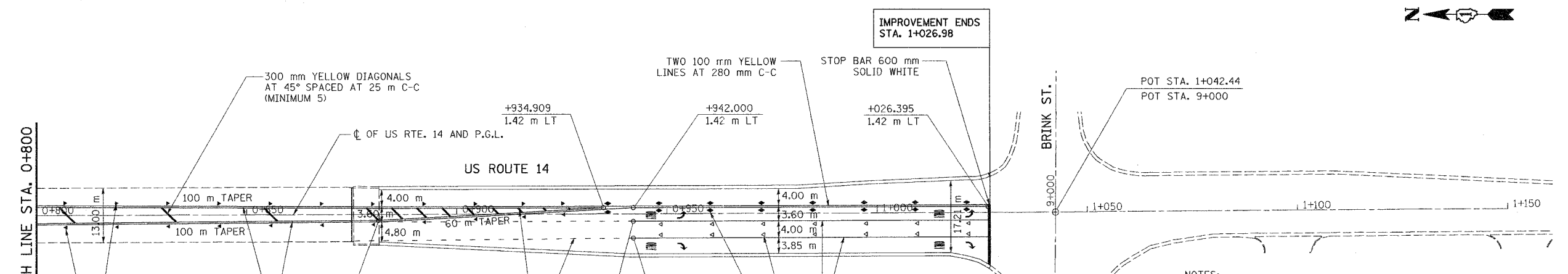
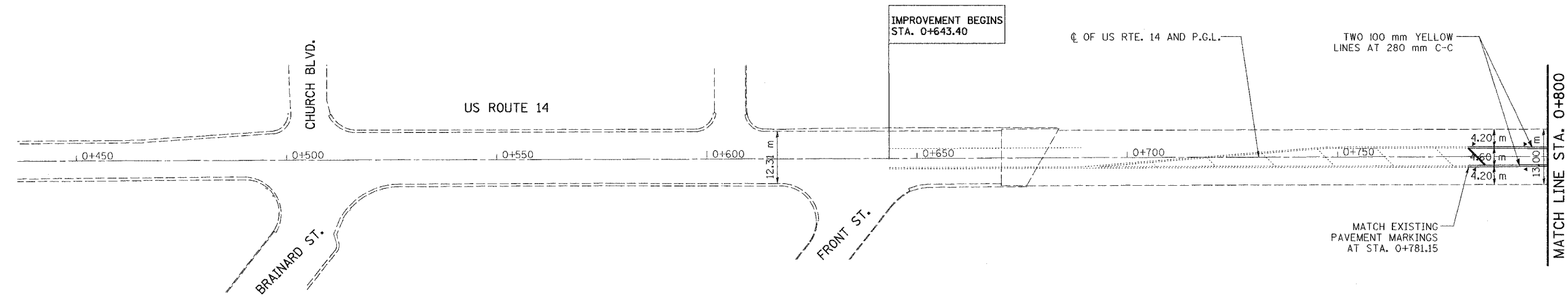
REVISIONS		REVISIONS	
NAME	DATE	NAME	DATE
R. SHAH	10/25/94	ART ABBAS	04/27/98
R. SHAH	01/14/95		
R. SHAH	03/23/95		
R. SHAH	04/24/95		
A. HOUSEH	03/15/96		
A. ABBAS	03/21/97		
A. ABBAS	01/20/98		

SCALE: NONE
DATE 10/18/2002

DRAWN BY
CHECKED BY

BD400-04 (BD-22)
REVISION DATE: 04/27/98

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	MCHENRY	88	25
STA. 0+643.40		TO STA. 1+026.98		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB D-91-190-01		CONTRACT NO. 62202		



- NOTES:
- PERMANENT PAVEMENT MARKINGS SHALL BE THERMOPLASTIC (OF THE EXTRUDED TYPE) CONFORMING TO I.D.O.T. STANDARD SPECIFICATIONS. PERMANENT PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL (TC-13) AND USED WITH THE STATE STANDARD.
 - RAISED REFLECTIVE PAVEMENT MARKERS ARE TO BE PLACED THROUGHOUT THE IMPROVEMENT LIMITS. DOUBLE LANE LINE MARKERS SHALL BE PLACED. SEE DETAIL "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SLOW-PLow RESISTANT)." STANDARD 781001-2.
 - THE RESIDENT ENGINEER SHALL CONTACT THE AREA TRAFFIC FIELD ENGINEER DEBBIE HANLON (847) 438-2300 AT LEAST TWO (2) WEEKS PRIOR TO INSTALLATION OF FINAL PAVEMENT MARKINGS.
 - EXISTING SIGNING SHALL BE MAINTAINED AND PROTECTED.
 - THERMOPLASTIC PAVEMENT MARKINGS SHALL BE USED FOR BITUMINOUS PAVEMENT SURFACES.
 - PREFORMED PLASTIC PAVEMENT MARKINGS SHALL BE USED ON (BRIDGE) PORTLAND CEMENT CONCRETE SURFACES.

- SYMBOLS:
- ◀ ONE-WAY AMBER MARKER
 - ◁ ONE-WAY CRYSTAL MARKER
 - ◆ TWO-WAY AMBER MARKER

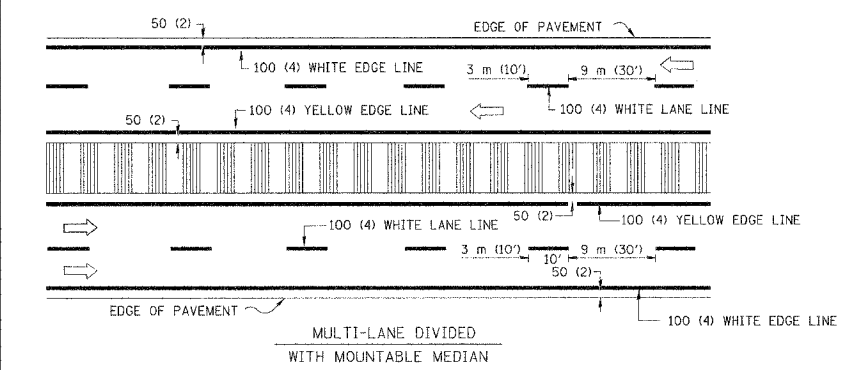
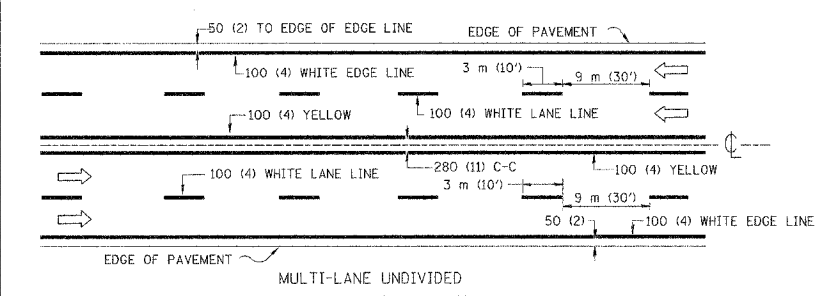
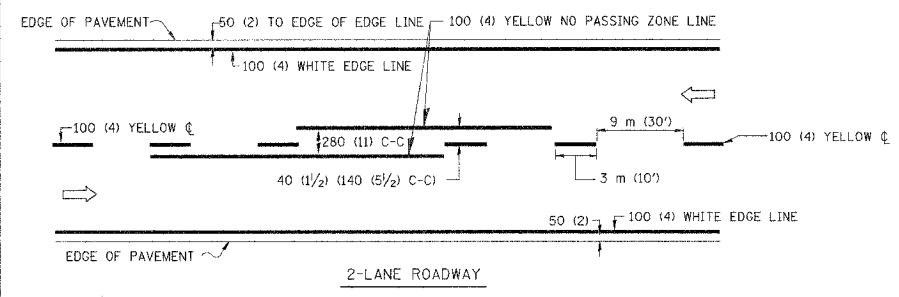
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION US 14 - MOKELER CREEK TO N. OF IL. 173 AND AT UPRR PAVEMENT MARKING PLAN
NAME	DATE	

SCALE: 1:500
DATE FEBRUARY, 2005
DRAWN BY R.A.D.
CHECKED BY DR, SSI

SOODAN & ASSOCIATES INC.
Architects, Engineers & Construction Consultants

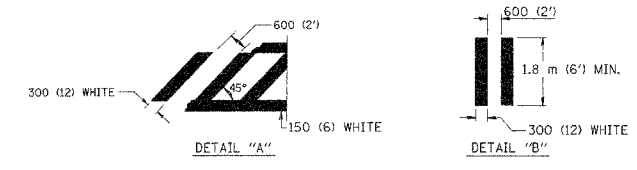
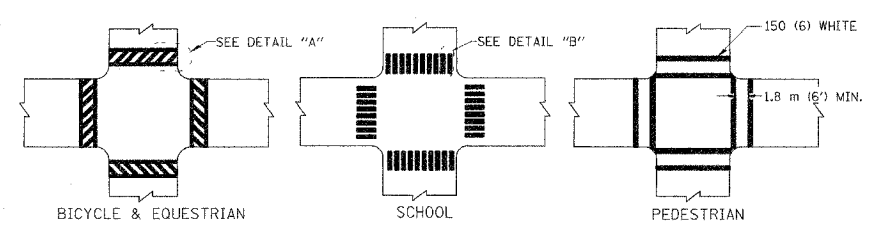
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CONTRACT NO. 62202

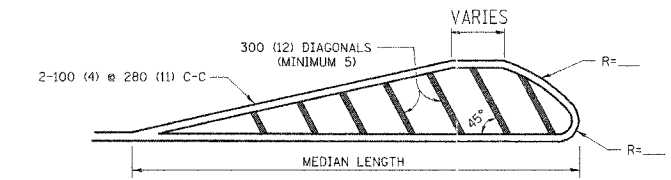
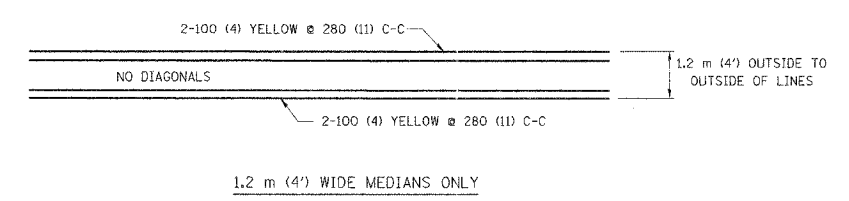


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING



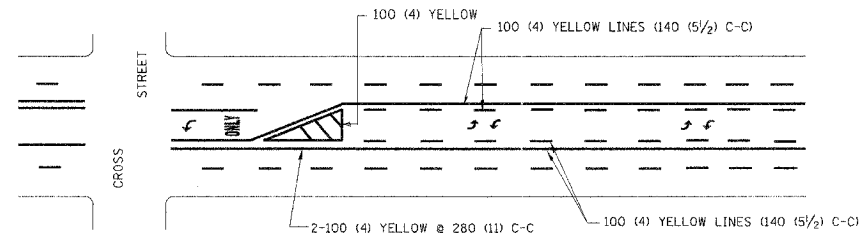
TYPICAL CROSSWALK MARKING



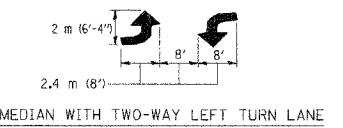
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

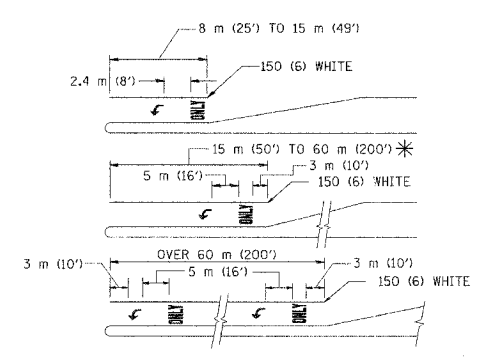
MEDIANS OVER 1.2 m (4') WIDE



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



TYPICAL PAINTED MEDIAN MARKING

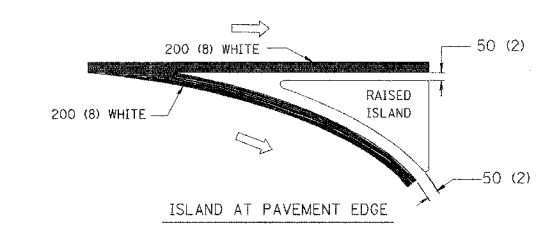
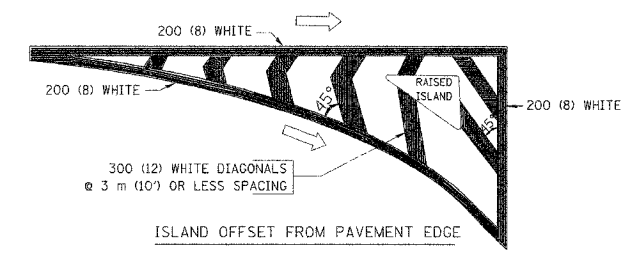


FULL SIZE LETTERS 2.4 m (8') AND ARROWS SHALL BE USED. AREA = 1.5 m² (15.6 SQ. FT.) ONLY AREA = 1.9 m² (20.8 SQ. FT.)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	100 (4)	SKIP-DASH	YELLOW	3 m (10') LINE WITH 9 m (30') SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 100 (4)	SOLID	YELLOW	280 (11) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	100 (4) 2 @ 100 (4)	SOLID SOLID	YELLOW YELLOW	140 (5 1/2) C-C FROM SKIP-DASH CENTERLINE 280 (11) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	100 (4) 125 (5) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	3 m (10') LINE WITH 9 m (30') SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	600 (24) LINE WITH 1.8 m (6') SPACE
EDGE LINES	100 (4)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	150 (6) LINE; FULL SIZE LETTERS & SYMBOLS (2.4 m (8'))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 100 (4) EACH DIRECTION 2.4 m (8') LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	3 m (10') LINE WITH 9 m (30') SPACE FOR SKIP-DASH 140 (5 1/2) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 150 (6) 300 (12) @ 45° 300 (12) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 1.8 m (6') APART 600 (24) APART 600 (24) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	600 (24)	SOLID	WHITE	PLACE 1.2 m (4') IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 100 (4) WITH 300 (12) DIAGONALS @ 45° NO DIAGONALS USED FOR 1.2 m (4') WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	280 (11) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
CORE MARKING AND CHANNELIZING LINES	200 (8) WITH 300 (12) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 4.5 m (15') C-C (LESS THAN 50 km/h (30 MPH)) 6 m (20') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 9 m (30') C-C (OVER 70 km/h (45 MPH))
RAILROAD CROSSING	600 (24) TRANSVERSE LINES: "RR" IS 1.8 m (6') LETTERS; 400 (16) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=0.33m ² (3.6 SQ. FT.) EACH "X"=5.0 m ² (54.0 SQ. FT.)
SHOULDER DIAGONALS	300 (12) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	15 m (50') C-C (LESS THAN 50 km/h (30 MPH)) 25 m (75') C-C (50 km/h (30 MPH) TO 70 km/h (45 MPH)) 45 m (150') C-C (OVER 70 km/h (45 MPH))

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

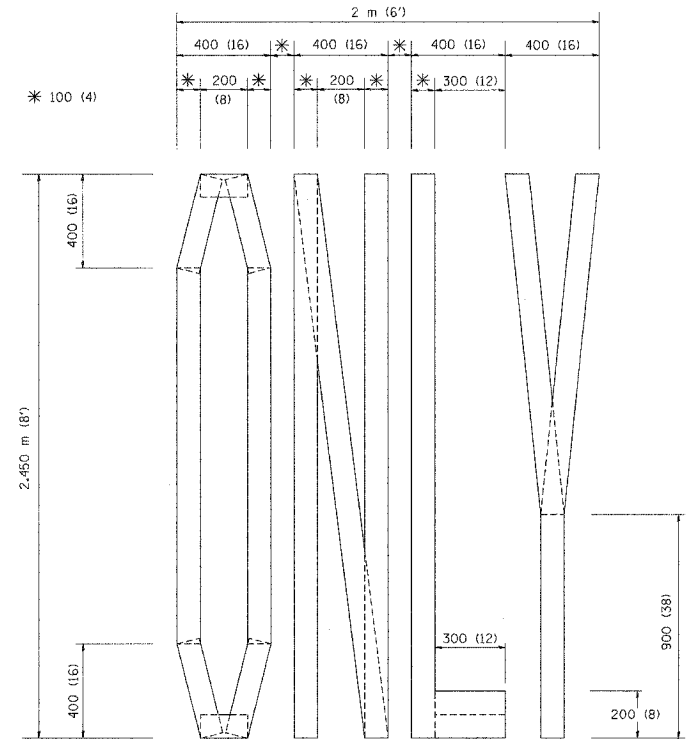
REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

SCALE: NONE
DATE: 10/18/2002

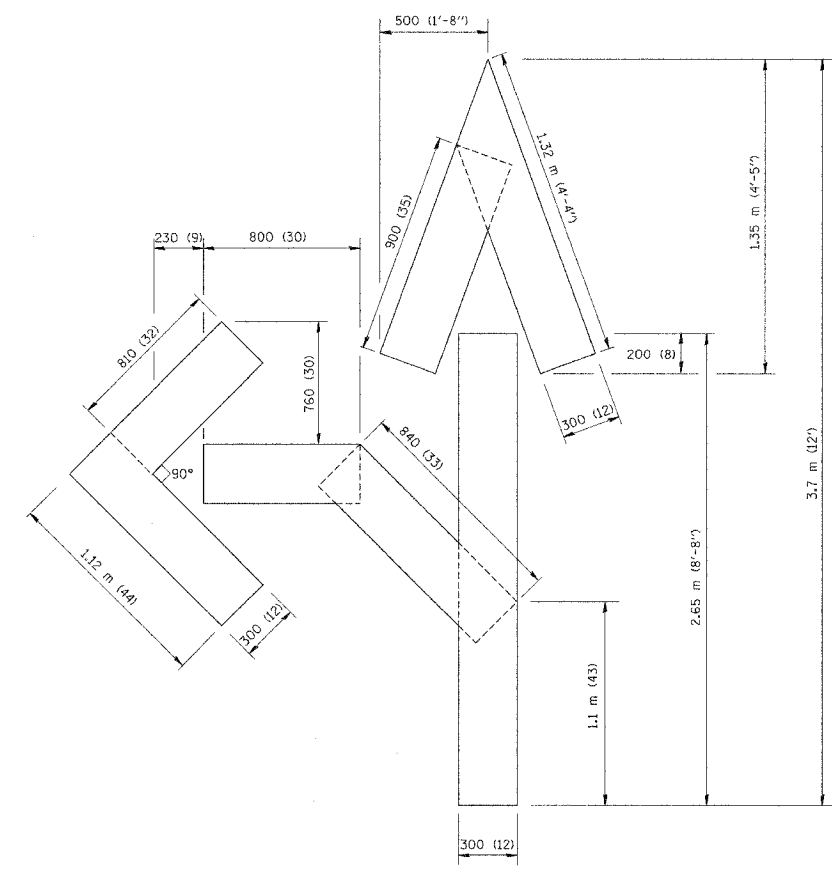
DRAWN BY: CADD
CHECKED BY: TC-13
REVISION DATE: 01/06/00

F. A. SITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			88	27
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

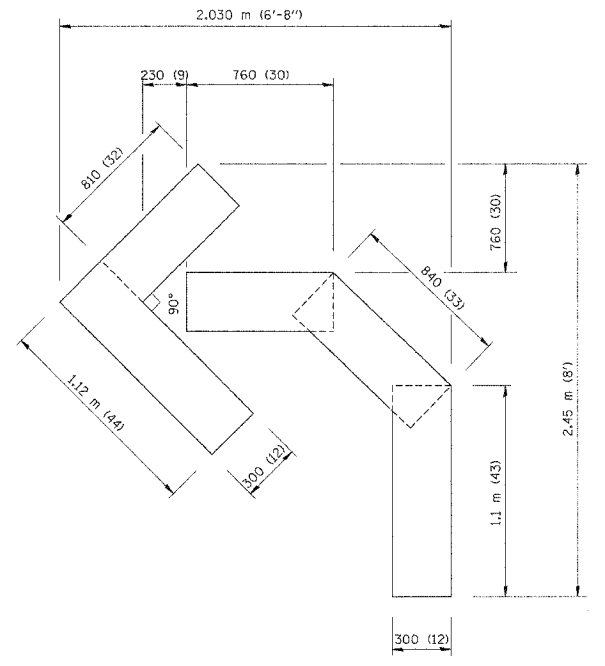
CONTRACT NO. 62202



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



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



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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING
 LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING

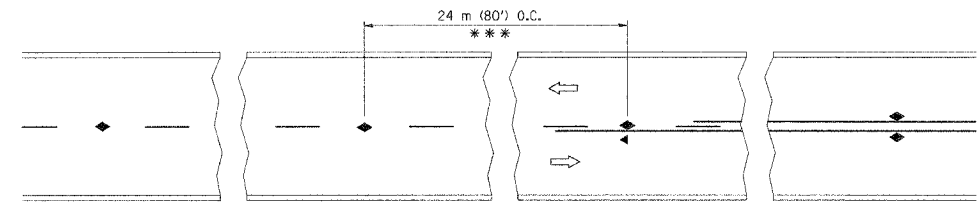
REVISIONS	
NAME	DATE
T. RAMMACHER	09/18/94
J. OBERLE	06/01/96
T. RAMMACHER	06/05/96
T. RAMMACHER	11/04/97
T. RAMMACHER	03/02/98
E. GOMEZ	08/28/00

SCALE: NONE
 DATE 10/18/2002

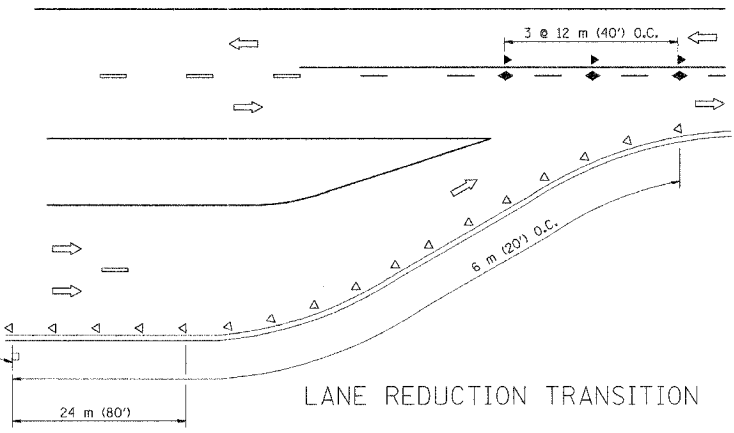
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 CHECKED BY TC-16

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

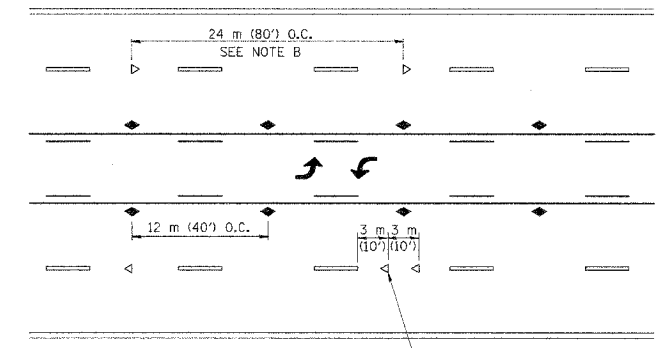
CONTRACT NO. 62202



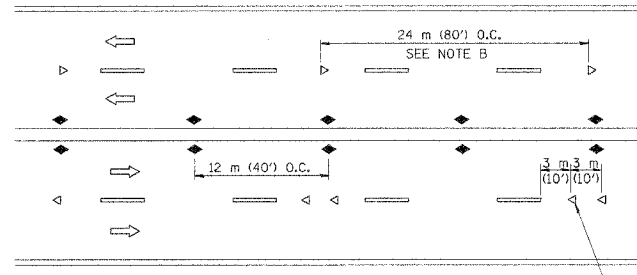
TWO-LANE/TWO-WAY



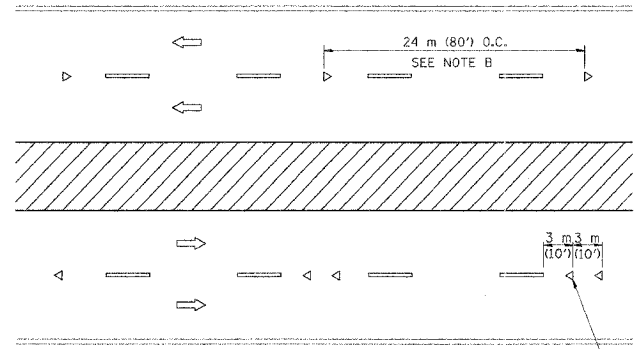
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

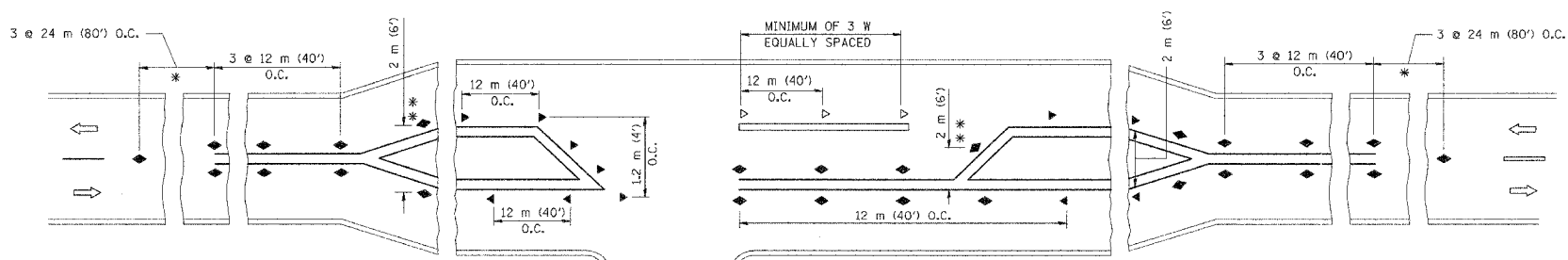
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- B. REDUCE TO 12 m (40') O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 20 km/h (10 M.P.H.) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

DESIGN NOTES

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



LEFT TURN

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

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

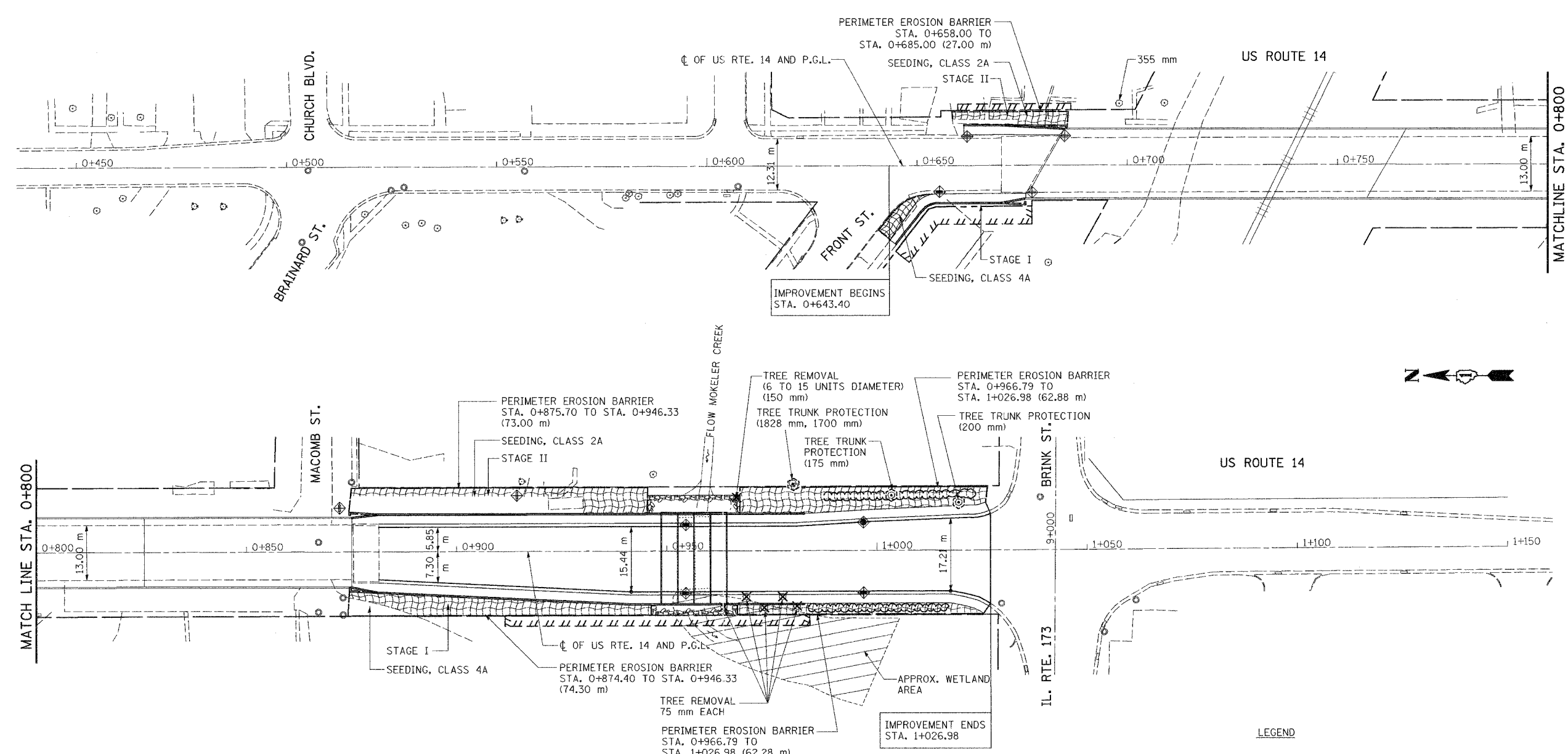
ILLINOIS DEPARTMENT OF TRANSPORTATION

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

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

SCALE: NONE
 DATE: 10/18/2002
 DRAWN BY CADD
 CHECKED BY TC-11

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	29
STA. 0+643.40		TO STA. 1+026.98		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB D-91-190-01		CONTRACT NO. 62202		



- NOTES:**
- SEE IDOT STANDARD 280001 FOR TEMPORARY EROSION CONTROL SYSTEMS.
 - THE CONTRACTOR SHALL ENSURE THAT THE PERIMETER EROSION BARRIER IS CONSTRUCTED AND SET IN PLACE PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION, GRADING, OR OTHER DISTURBANCE OF THE EXISTING GROUND.
 - THE LOCATION OF THE PERIMETER EROSION BARRIER MAY BE ADJUSTED AS NEEDED FOR TEMPORARY CONSTRUCTION EASEMENTS OR ACCESS TO THE SITE. THE CONTRACTOR SHALL ENSURE THAT ADJACENT PROPERTIES REMAIN PROTECTED FROM SEDIMENT DEPOSITION.
 - SOIL STOCKPILES SHALL BE PROTECTED WITH PERIMETER EROSION BARRIER OR OTHER EROSION PROTECTION SPECIFIED BY THE RESIDENT ENGINEER. THE COST SHALL BE INCLUDED IN THE UNIT PRICE FOR THE INDIVIDUAL SOIL MATERIALS.
 - WHEREVER CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY RUNOFF OR VEHICLE TRACKING ONTO THE PAVED SURFACE. THE PROVISIONS MAY INCLUDE SPRAYING VEHICLE WHEELS TO CLEAR SEDIMENT BEFORE EXITING THE CONSTRUCTION SITE OR OTHER MEASURES APPROVED BY THE ENGINEER.
 - AT THE END OF EACH WORK DAY THE SITE SHALL BE GRADED TO MAINTAIN THE DRAINAGE PATTERN ESTABLISHED IN THE EROSION CONTROL PLAN. THE COST OF MAINTAINING THE EROSION CONTROL PLAN IS INCLUDED IN THE PRICE FOR THE EROSION CONTROL ITEMS.
 - TOP SOIL 100 mm, SEEDING CLASS 2A, SEEDING CLASS 4A AND EROSION CONTROL BLANKET SHALL BE APPLIED TO DENOTED AREAS.
 - AREAS OF EXISTING VEGETATION (WETLAND, WOOD AND GRASSLANDS) OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE IDENTIFIED BY THE ENGINEER FOR PRESERVING AND SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES.

LEGEND

- PERIMETER EROSION BARRIER
- [Hatched Box] FURNISHING & PLACING TOP SOIL 100 mm, EROSION CONTROL BLANKET AND SEEDING
- ◆ INLET PROTECTION
- ⊙ TREE TRUNK PROTECTION

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
US 14 - MOKELER CREEK TO N. OF
IL. 173 AND AT UPRR
LANDSCAPING AND
EROSION CONTROL PLAN

SCALE: 1:500 DRAWN BY R.A.D.
DATE FEBRUARY, 2005 CHECKED BY DR. SSS

SOODAN & ASSOCIATES INC.
Architects, Engineers & Construction Consultants

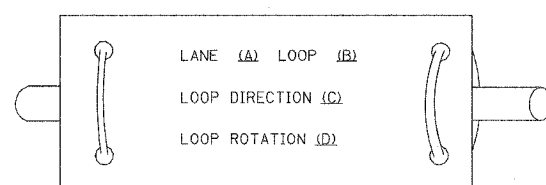
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CONTRACT NO. 62202

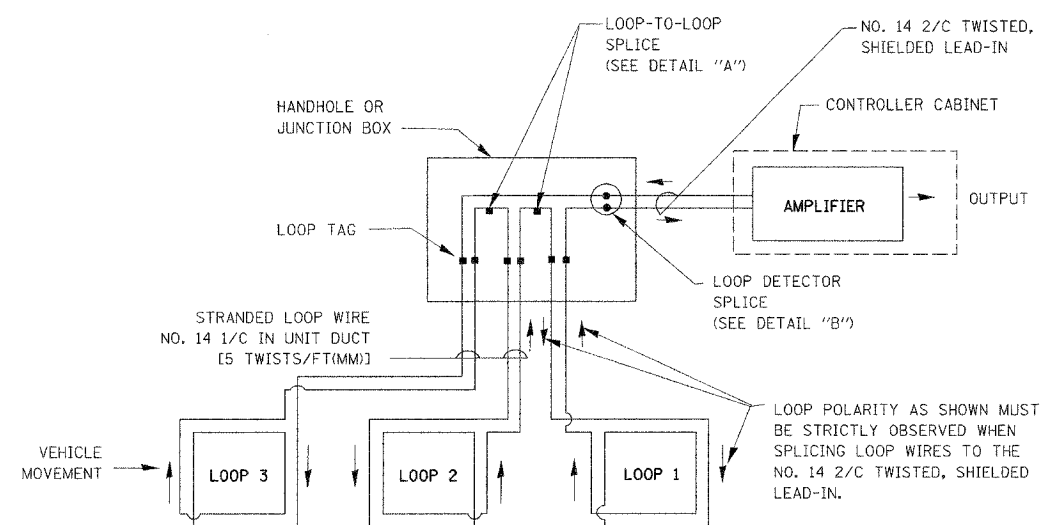
LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

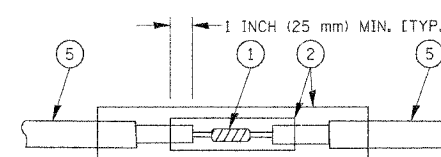


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

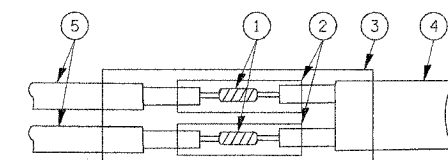


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

REVISIONS	
NAME	DATE
CADD	5/30/00
ADD NOTE NO. 8	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

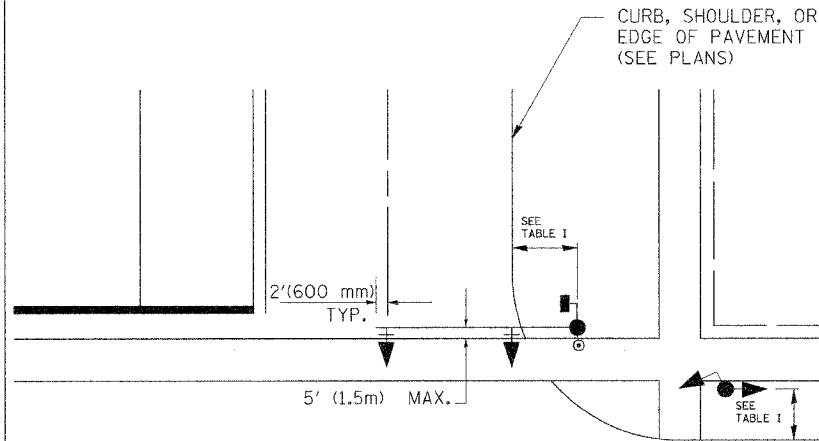
SCALE: VERT. NONE
HORIZ.
DATE 10/18/2002

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 1 OF 4

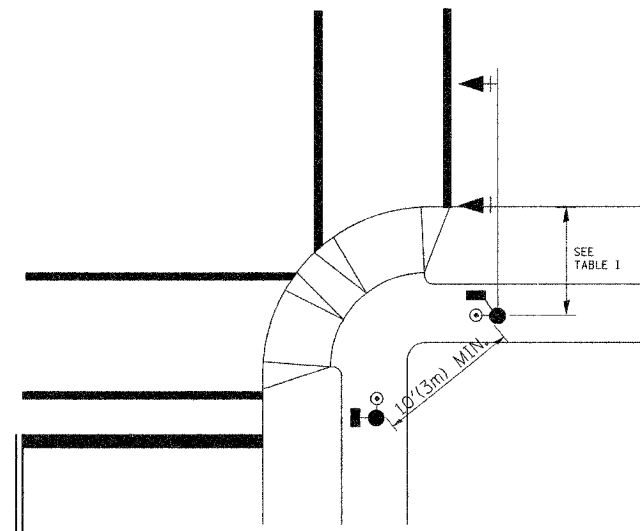
CONTRACT No. 62202

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.

AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.

PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 - A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 - B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 - C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 - D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 - E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

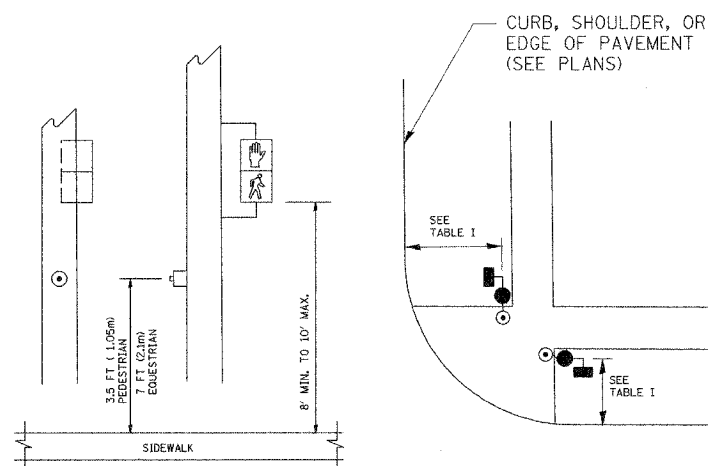


TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

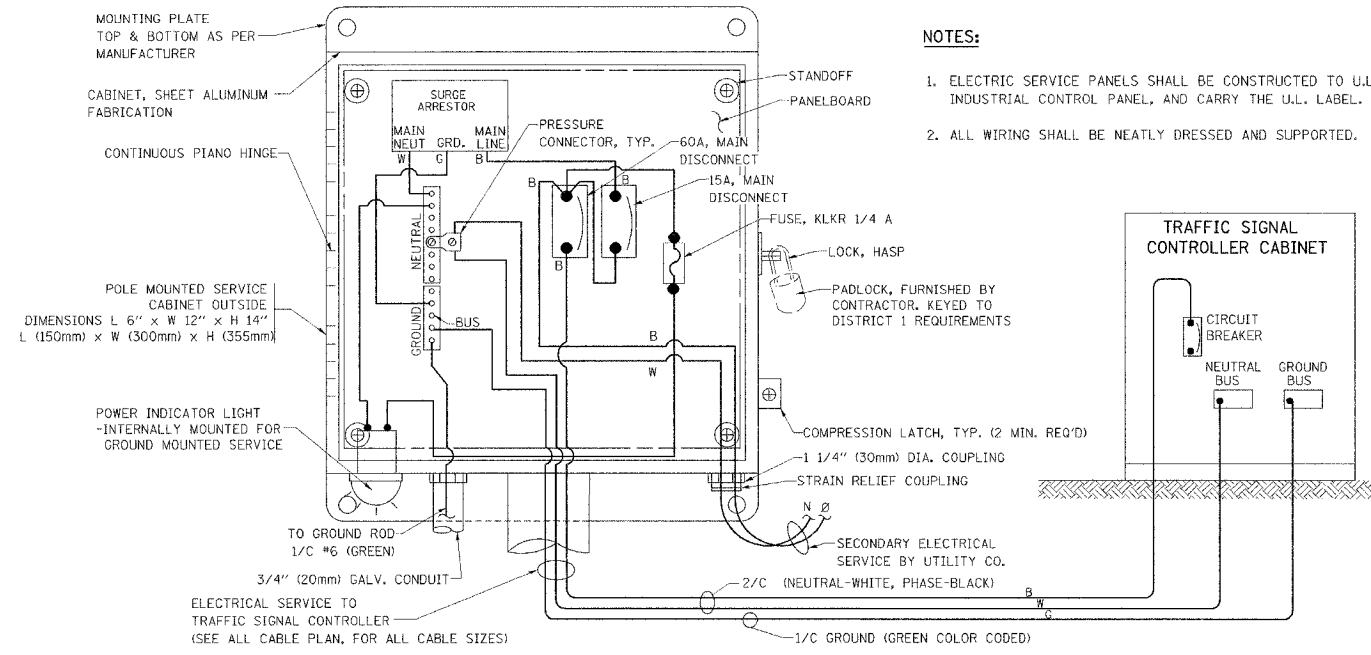
REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	1/01/02

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 1
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

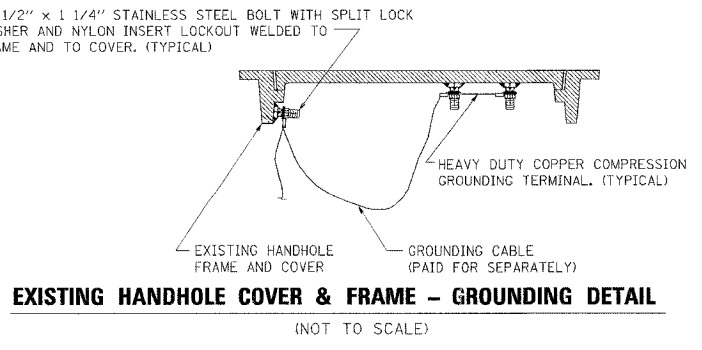
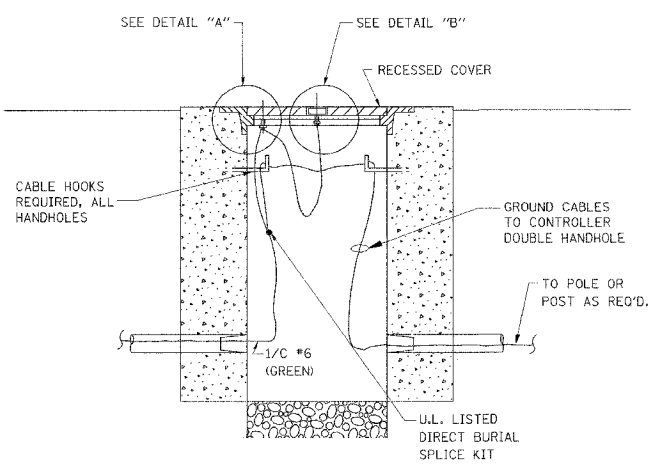
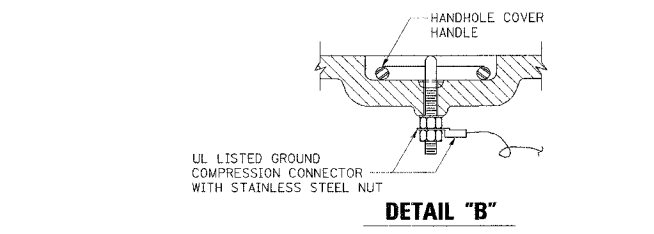
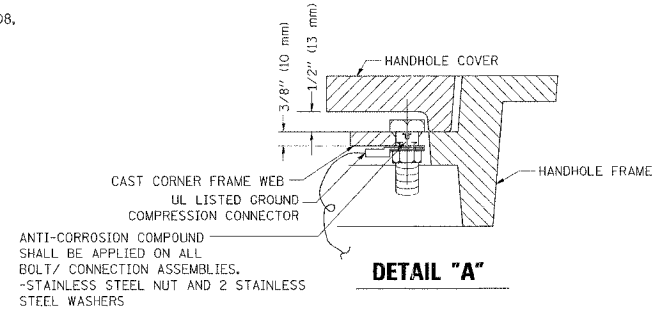
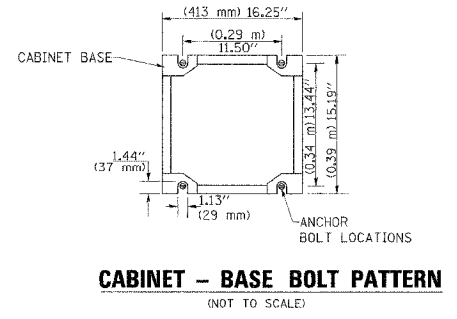
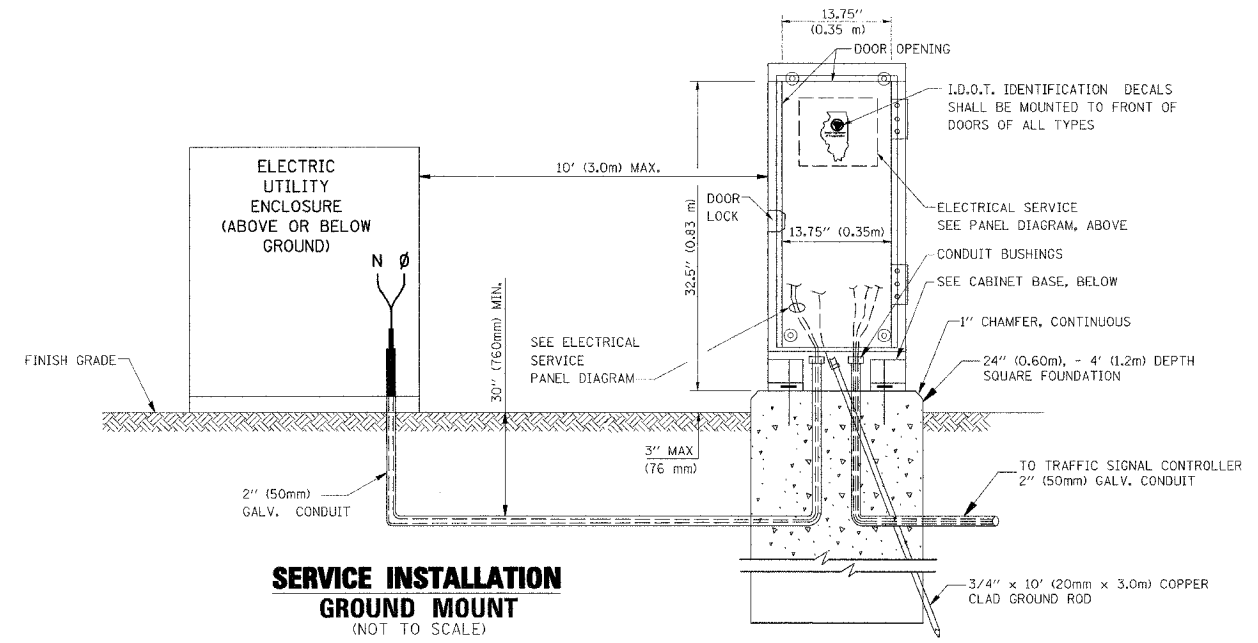
SCALE: VERT. NONE
HORIZ. NONE
DATE 10/18/2002

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 2 OF 4

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			86	32
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT No. 62202				



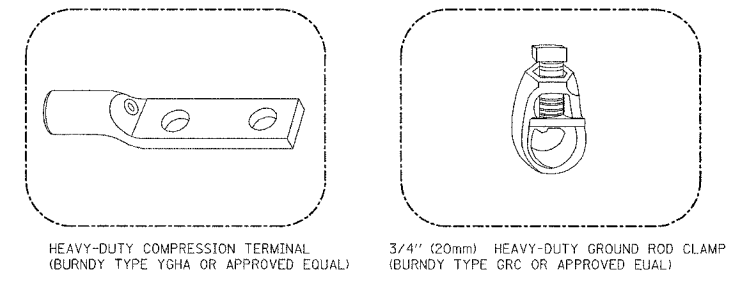
ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



NOTES:

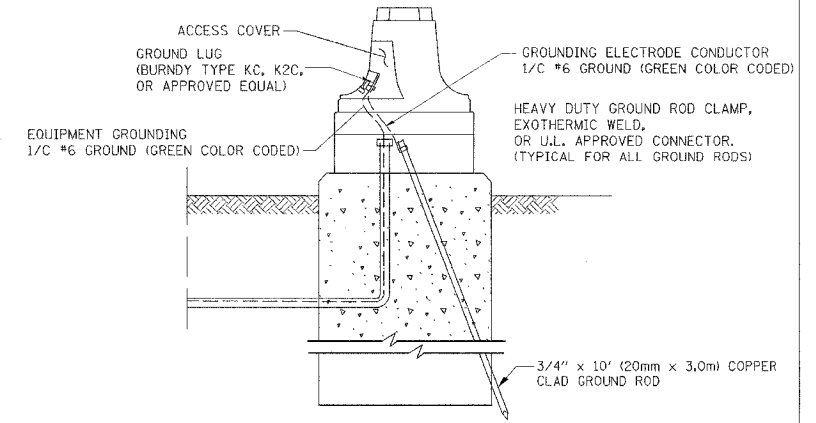
GROUNDING SYSTEM

- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD, ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
- THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

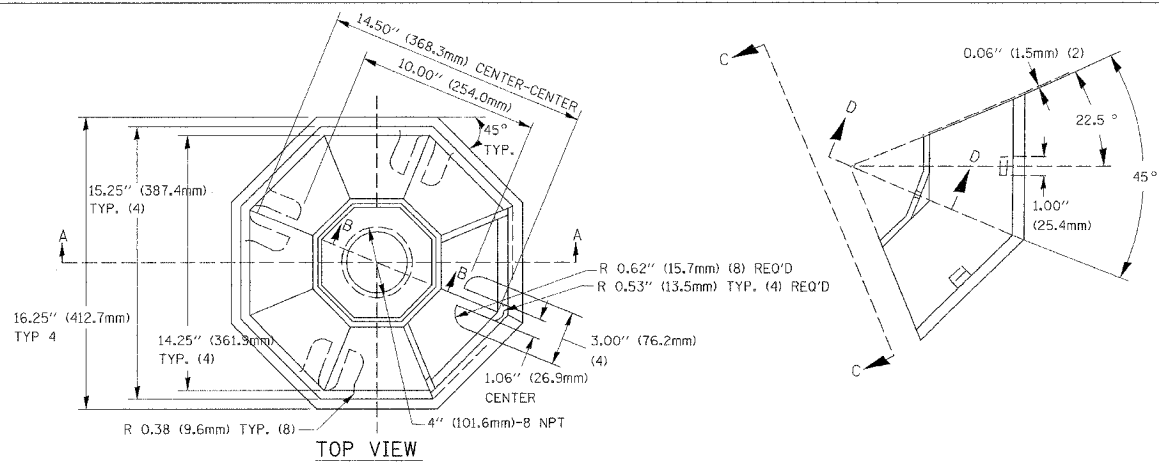


REVISIONS	
NAME	DATE
CADD	5/30/00
CADD	3/15/01
BUREAU OF TRAFFIC	1/01/02

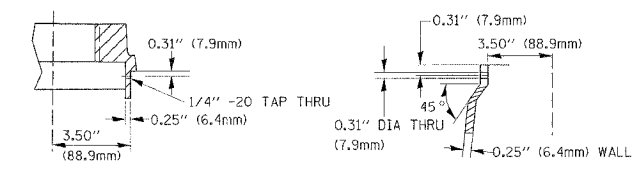
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 1
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: VERT. NONE
 HORIZ. NONE
 DATE 10/18/2002

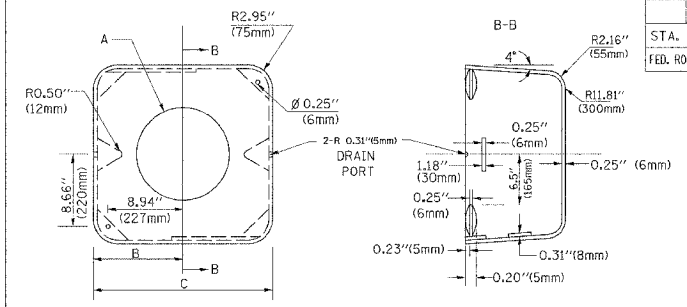
DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 3 OF 4



SECTION B-B



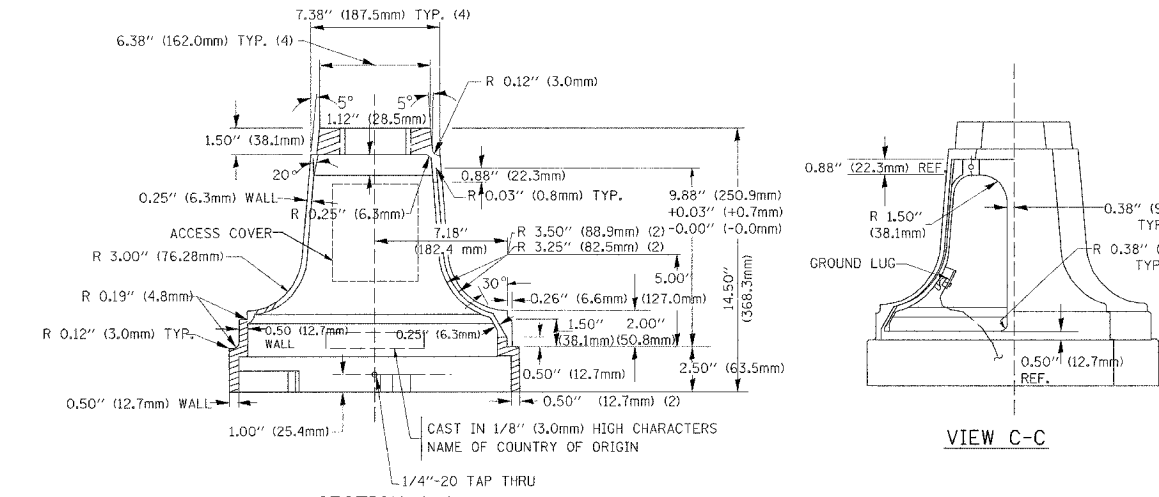
SECTION D-D



TYPE	A	B	C	HEIGHT	WEIGHT
I	ø 10.125\"(257mm)	9.5\"(241mm)	19\"(483mm)	12\"(300mm)	24kg
II	ø 11.125\"(283mm)	10.75\"(273mm)	21.5\"(546mm)	12\"(300mm)	26kg

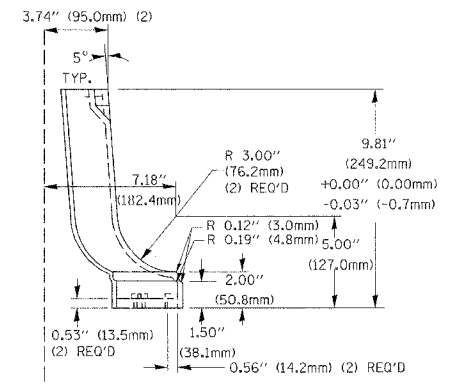
SHROUD DETAIL

MATERIAL:
 - ASTM A48 CLASS 30 GREY IRON
 - ASTM A123 HOT DIPPED GALVANIZED

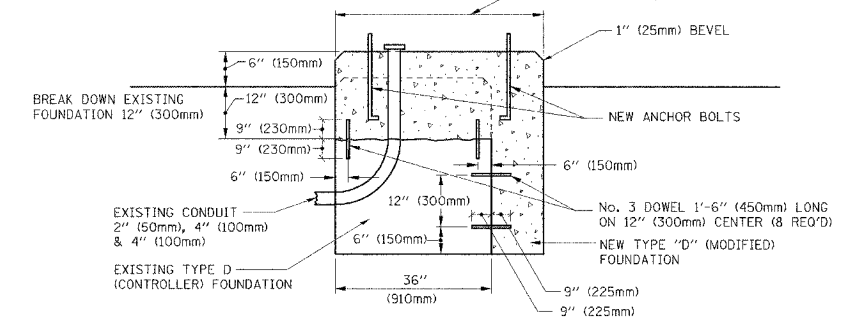


SECTION A-A

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

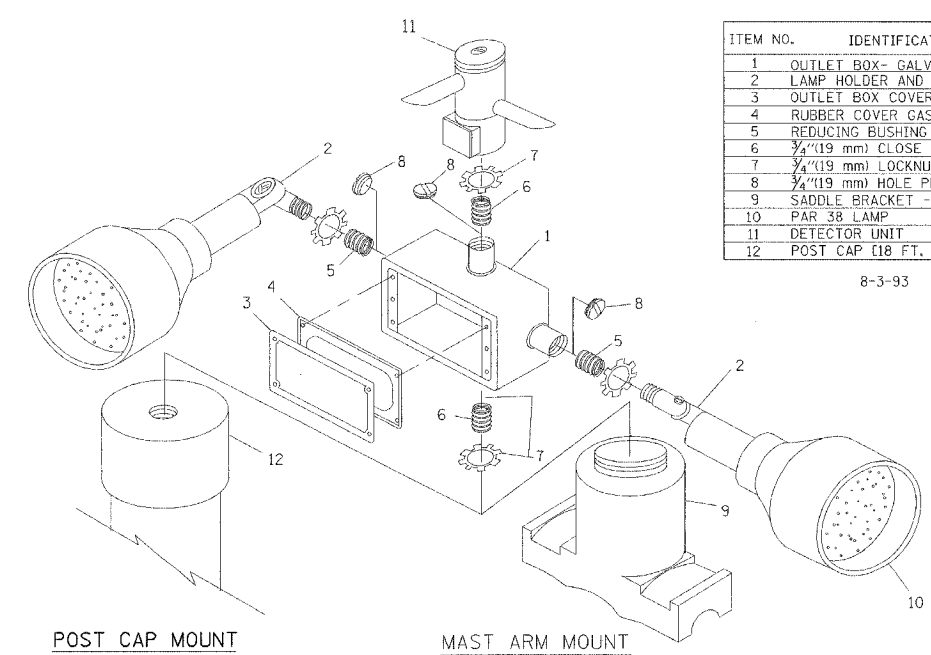


NOTE:
 SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)

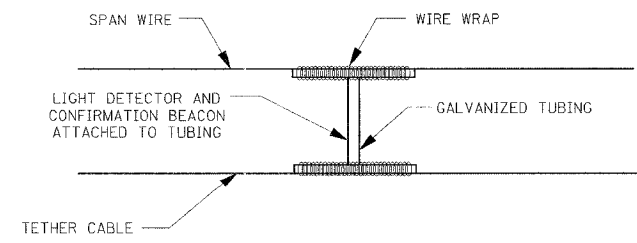


ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV. 21 CU. IN. (0.00344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\"(19 mm) CLOSE NIPPLE
7	3/4\"(19 mm) LOCKNUT
8	3/4\"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	PAR 38 LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

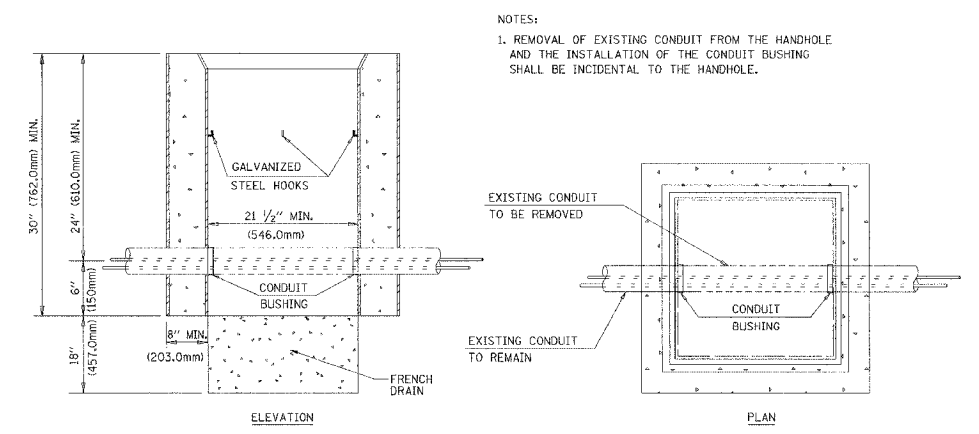
8-3-93

NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- 0Z/GEDNEY FSX-1-50 OR EQUIVALENT
 ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
 ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\"(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS (NOT TO SCALE)



DETAIL HANDHOLE TO INTERCEPT EXISTING CONDUIT N.T.S.

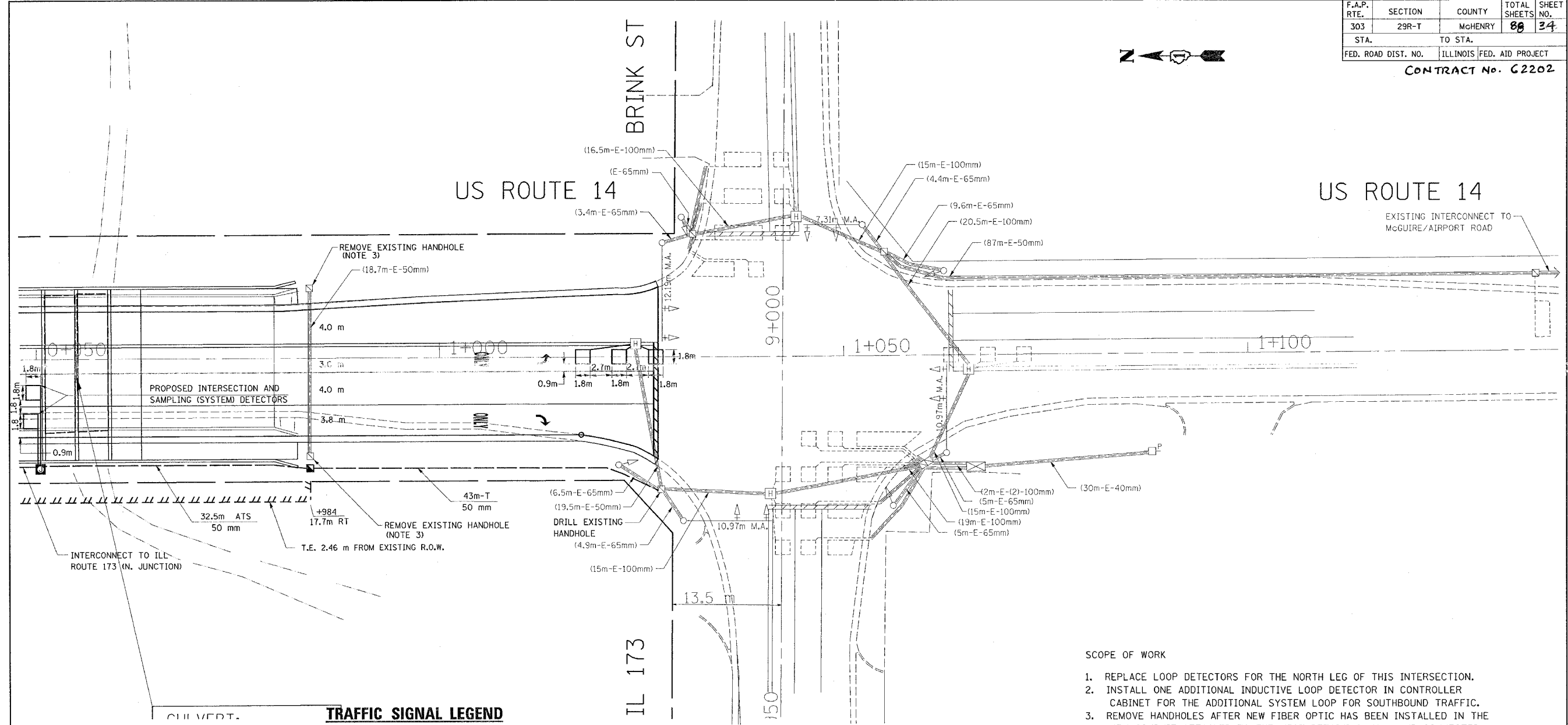
REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	5/30/00
BUREAU OF TRAFFIC	3/15/01
BUREAU OF TRAFFIC	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT 1
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: VERT. NONE
 DATE 10/18/2002
 DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 4 OF 4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	34
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT No. C2202



- SCOPE OF WORK
1. REPLACE LOOP DETECTORS FOR THE NORTH LEG OF THIS INTERSECTION.
 2. INSTALL ONE ADDITIONAL INDUCTIVE LOOP DETECTOR IN CONTROLLER CABINET FOR THE ADDITIONAL SYSTEM LOOP FOR SOUTHBOUND TRAFFIC.
 3. REMOVE HANDHOLES AFTER NEW FIBER OPTIC HAS BEEN INSTALLED IN THE NEW CONDUIT ATTACHED TO THE WEST RETAINING WALL AND CONNECTED TO THE CONTROLLER

TRAFFIC SIGNAL LEGEND

PROPOSED		EXISTING		PROPOSED		EXISTING	
CONTROLLER CABINET		EXISTING		JUNCTION BOX		EXISTING	
RAILROAD CONTROL CABINET		EXISTING		HANDHOLE		EXISTING	
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		EXISTING		HEAVY DUTY HANDHOLE		EXISTING	
TELEPHONE CONNECTION		EXISTING		DOUBLE HANDHOLE		EXISTING	
SIGNAL HEAD		EXISTING		G.S. CONDUIT IN TRENCH OR PUSHED		EXISTING	
SIGNAL HEAD WITH BACKPLATE		EXISTING		COMMON TRENCH		EXISTING	
SIGNAL HEAD OPTICALLY PROGRAMMED		EXISTING		UNIT DUCT		EXISTING	
SIGNAL HEAD PEDESTRIAN		EXISTING		PEDESTRIAN PUSHBUTTON DETECTOR		EXISTING	
ILLUMINATED SIGN "NO LEFT TURN"		EXISTING		DETECTOR LOOP, TYPE I		EXISTING	
ILLUMINATED SIGN "NO RIGHT TURN"		EXISTING		PREFORMED DETECTOR LOOP		EXISTING	
SIGNAL POST		EXISTING		MICROWAVE VEHICLE SENSOR		EXISTING	
WOOD POLE		EXISTING		VIDEO DETECTOR		EXISTING	
STEEL MAST ARM ASSEMBLY AND POLE		EXISTING		CLOSED CIRCUIT TV		EXISTING	
ALUMINUM MAST ARM ASSEMBLY AND POLE		EXISTING		EMERGENCY VEHICLE SYSTEM DETECTOR		EXISTING	
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		EXISTING		CONFIRMATION BEACON		EXISTING	

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p>TRAFFIC SIGNAL MODIFICATION PLAN U.S. RTE. 14 IL 173 (SOUTH JUNCTION) / BRINK ST</p> <p>SCALE 1:250 DATE 10/30/03</p> <p>DRAWN BY BCK DESIGN BY SPB CHECKED BY DAD</p>

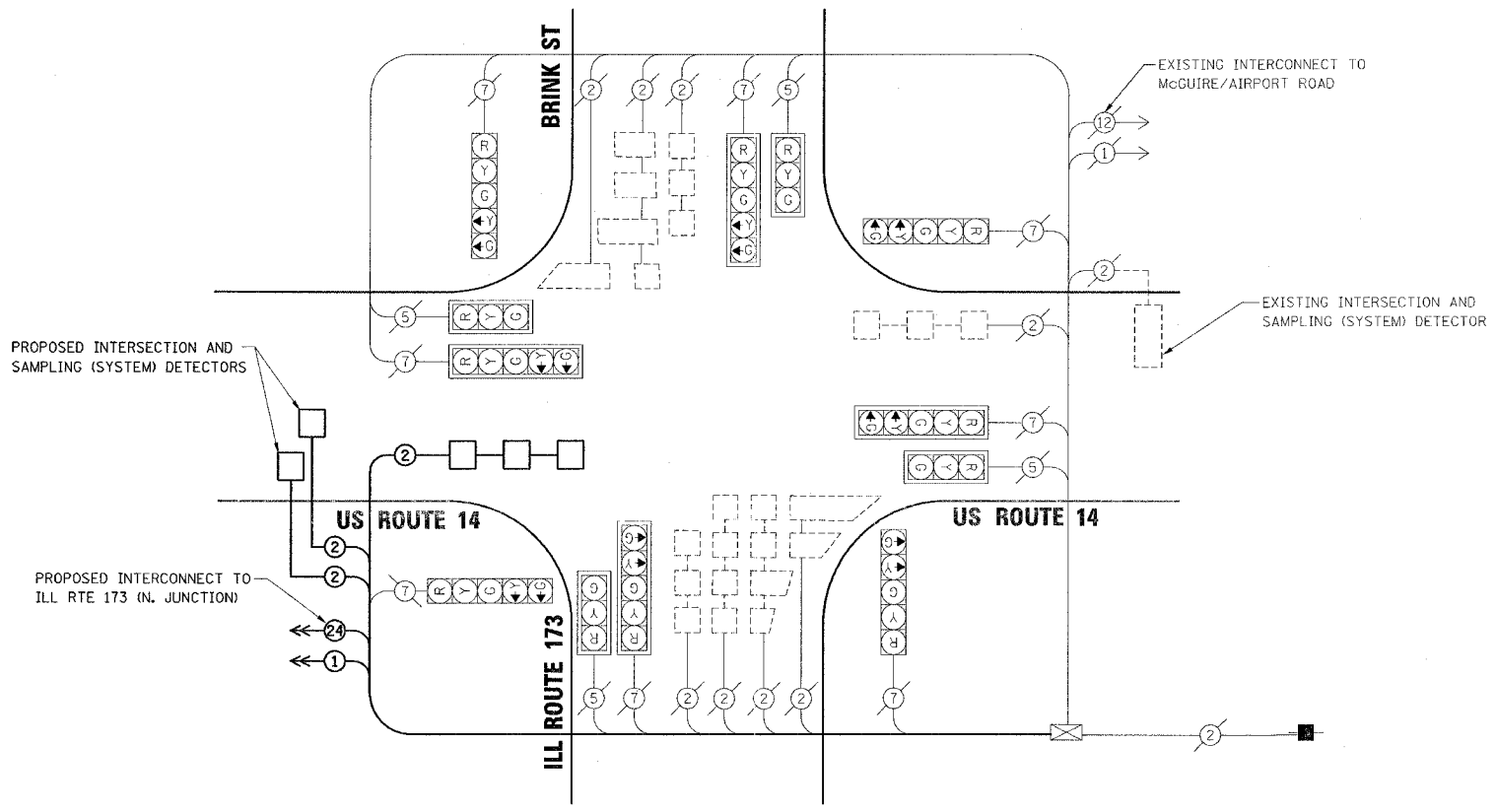
44099/1/10/04

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	35
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT No. 62202

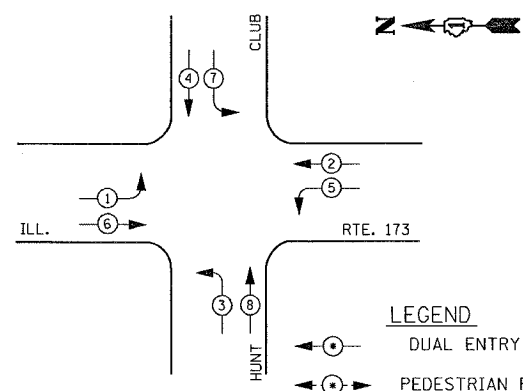
CABLE PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION		
TELEPHONE CONNECTION		
GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER		
GROUND ROD AT POST OR MAST ARM POLE		
GROUND ROD AT ELECTRIC SERVICE INSTALLATION		
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MMI2F SM12F		
DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.		
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD		
8" (200mm) TRAFFIC SIGNAL SECTION		
12" (300mm) TRAFFIC SIGNAL SECTION		
12" (300mm) PEDESTRIAN SIGNAL SECTION		
12" (300mm) PEDESTRIAN SIGNAL SECTION		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
PUSHBUTTON DETECTOR		
DETECTOR LOOP		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		



CABLE PLAN

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	HANDHOLE
4	EACH	DRILL EXISTING HANDHOLE
1	EACH	INDUCTIVE LOOP DETECTOR
2	EACH	REMOVE EXISTING HANDHOLE
43	METER	CONDUIT IN TRENCH, 50mm DIA., GALVANIZED STEEL
32.5	METER	CONDUIT ATTACHED TO STRUCTURE, 50mm DIA., GALVANIZED STEEL
325	METER	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
1	EACH	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 350mm X 300mm X 150mm
50	METER	TRENCH AND BACKFILL FOR ELECTRICAL WORK
60	METER	DETECTOR LOOP, TYPE I

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	810
(YELLOW)	12	135	25	0.25	405
(GREEN)	12	135	15	0.25	405
ARROW	16	135	12	0.10	216
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	--
FLASHER				0.50	--
TOTAL =					1936

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'4L-2" (6m+L-0.6m)=
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

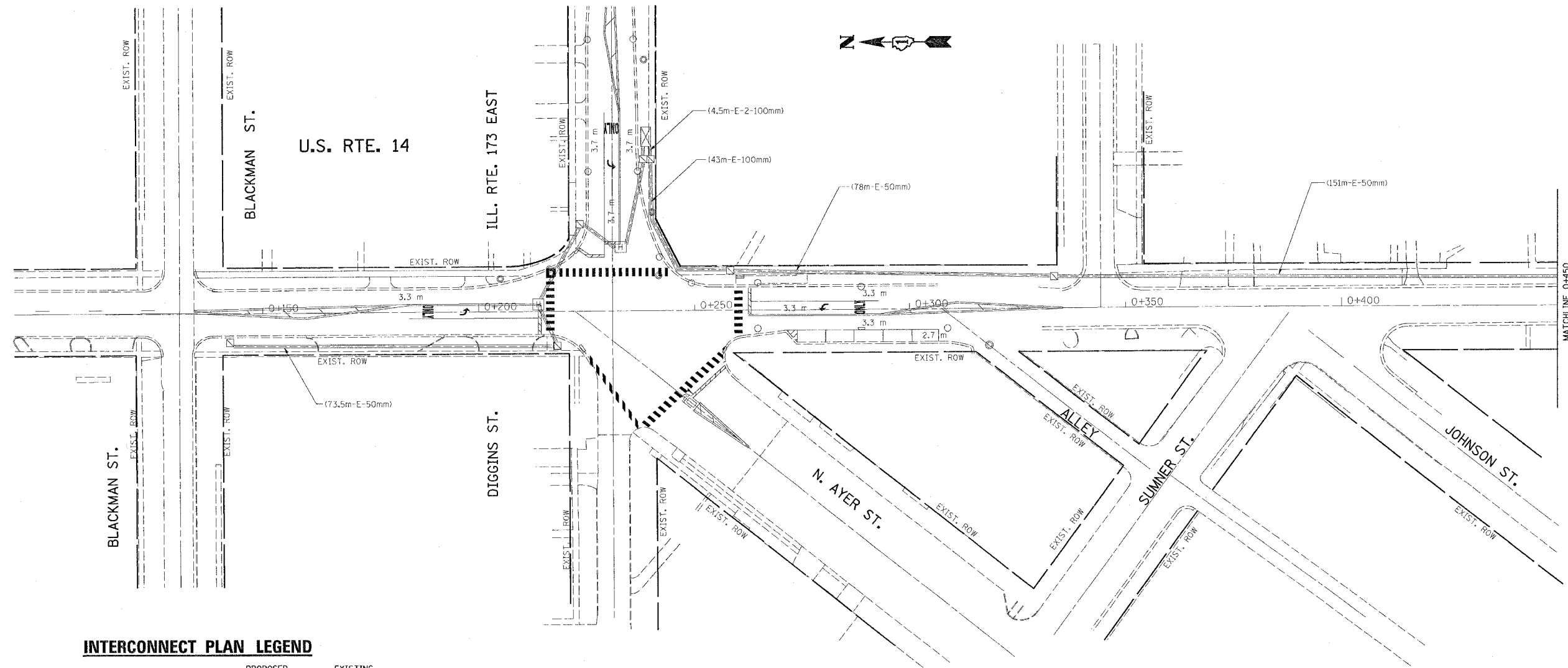
REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 CABLE MODIFICATION PLAN, PHASE
 DESIGNATION DIAGRAM, SCHEDULE OF QUANTITIES
 U.S. RTE. 14
 IL 173 (SOUTH JUNCTION) / BRINK ST
 SCALE: _____ DRAWN BY: BCK
 DATE: 10/30/03 DESIGN BY: SPB
 CHECKED BY: DAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	86	30
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

CONTRACT No. 62202



INTERCONNECT PLAN LEGEND

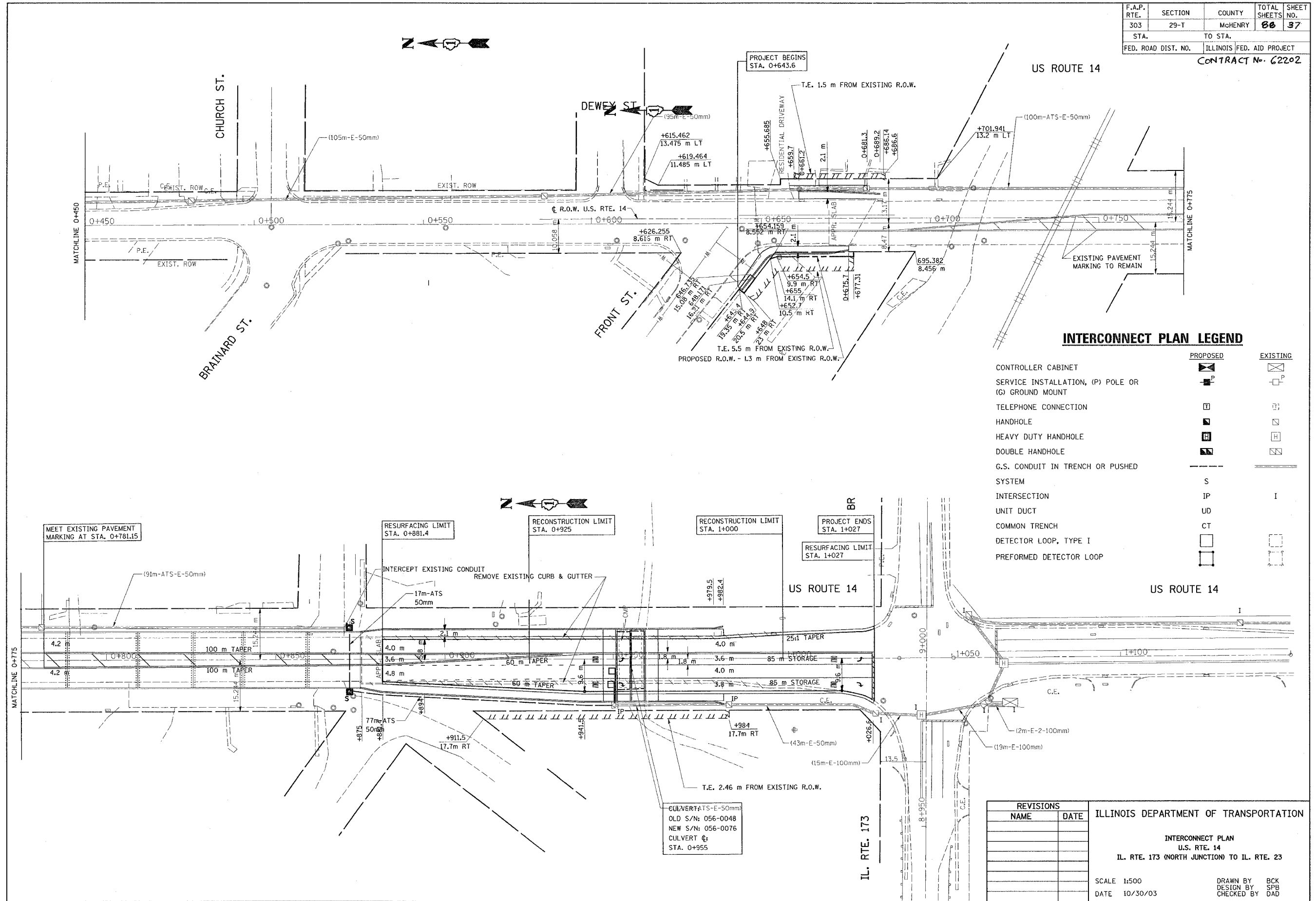
	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED SYSTEM	S	I
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP		

SCOPE OF WORK

USE EXISTING FIBER OPTIC CABLE TO MAINTAIN THE INTERCONNECT UNTIL THE WEST RETAINING WALL IS BUILT AND NEW CONDUIT ATTACHED. INTERCEPT EXISTING CONDUIT ON BRIDGE, INSTALL NEW JUNCTION BOX ATTACHED TO STRUCTURE, INSTALL NEW FIBER OPTIC AND TRACER CABLE.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p>INTERCONNECT PLAN U.S. RTE. 14 ILL. RTE. 173 (NORTH JUNCTION) TO ILL. RTE. 23</p> <p>1:500 DATE 10/30/03</p> <p>DRAWN BY BCK DESIGN BY SPB CHECKED BY DAD</p>

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29-T	McHENRY	86	37
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		CONTRACT No. 62202	



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET	[Symbol]	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
SYSTEM	S	
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	
DETECTOR LOOP, TYPE I	[Symbol]	[Symbol]
PREFORMED DETECTOR LOOP	[Symbol]	[Symbol]

CULVERT AT S-E-50mm
 OLD S/N: 056-0048
 NEW S/N: 056-0076
 CULVERT @
 STA. 0+955

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		INTERCONNECT PLAN U.S. RTE. 14 IL. RTE. 173 (NORTH JUNCTION) TO IL. RTE. 23 SCALE 1:500 DATE 10/30/03 DRAWN BY BCK DESIGN BY SPB CHECKED BY DAD

11:16:48 08/18/2004

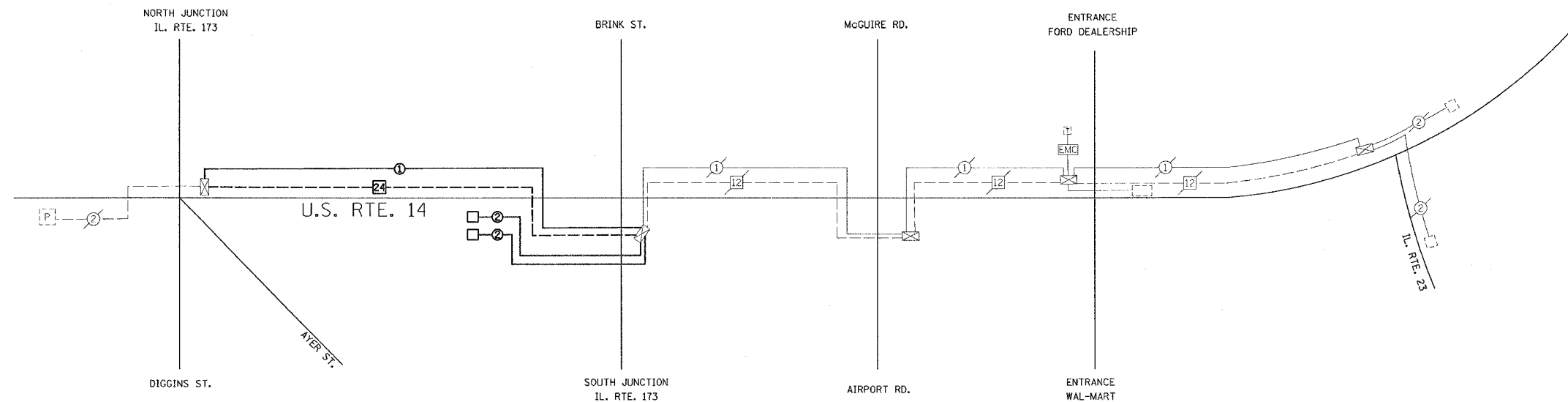
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	06	33
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT No. 62202

INTERCONNECT SCHEMATIC LEGEND

	PROPOSED	EXISTING
INTERSECTION CONTROLLER		
MASTER CONTROLLER		
MASTER MASTER CONTROLLER		
TELEPHONE CONNECTION		
INTERSECTION & SAMPLING (SYSTEM) DETECTORS		
PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS		
EXISTING INTERSECTION LOOP DETECTORS, PROPOSED SAMPLING (SYSTEM) DETECTORS		
SAMPLING (SYSTEM) DETECTORS		
SAMPLING (SYSTEM) PREFORMED DETECTORS		
EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS.		
EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED SAMPLING (SYSTEM) DETECTORS		
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED		
INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED		
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14, 1 PAIR		
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		

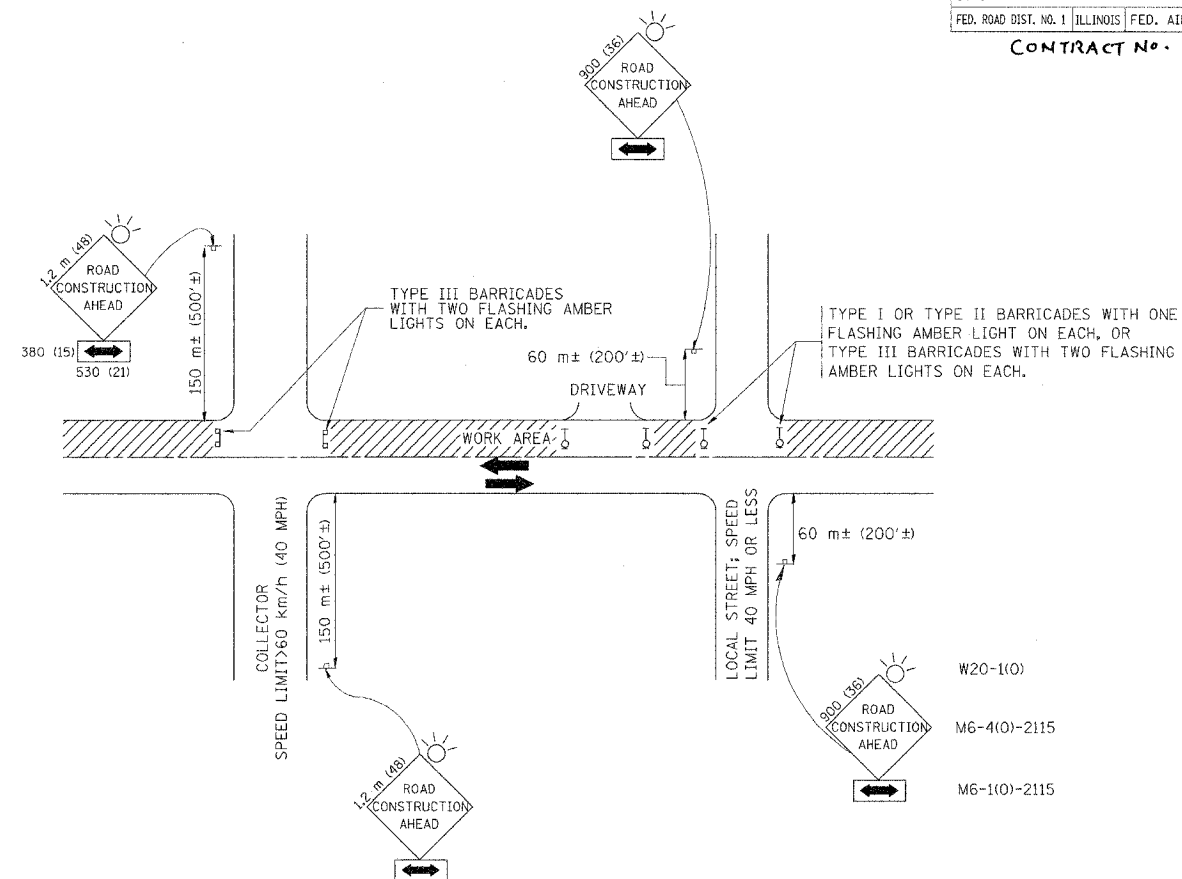


SCHEDULE OF QUANTITIES

U.S. RTE. 14 INTERCONNECT
IL. RTE. 23 TO IL. RTE. 173 NORTH JCT. (DIGGINS ST.)

QUANTITY	UNIT	ITEM
17	METER	CONDUIT ATTACHED TO STRUCTURE, 50mm DIA., GALVANIZED STEEL
2	EACH	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 350mm X 300 mm X 150mm
922	METER	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C
930	METER	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
1	EACH	INTERCEPT EXISTING CONDUIT

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p>INTERCONNECT SCHEMATIC SCHEDULE OF QUANTITIES U.S. RTE. 14 IL. RTE. 173 (NORTH JUNCTION) TO IL. RTE. 23</p> <p>SCALE NTS DATE 10/30/03</p> <p>DRAWN BY BCK DESIGN BY SPB CHECKED BY DAD</p>



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

NOTES:

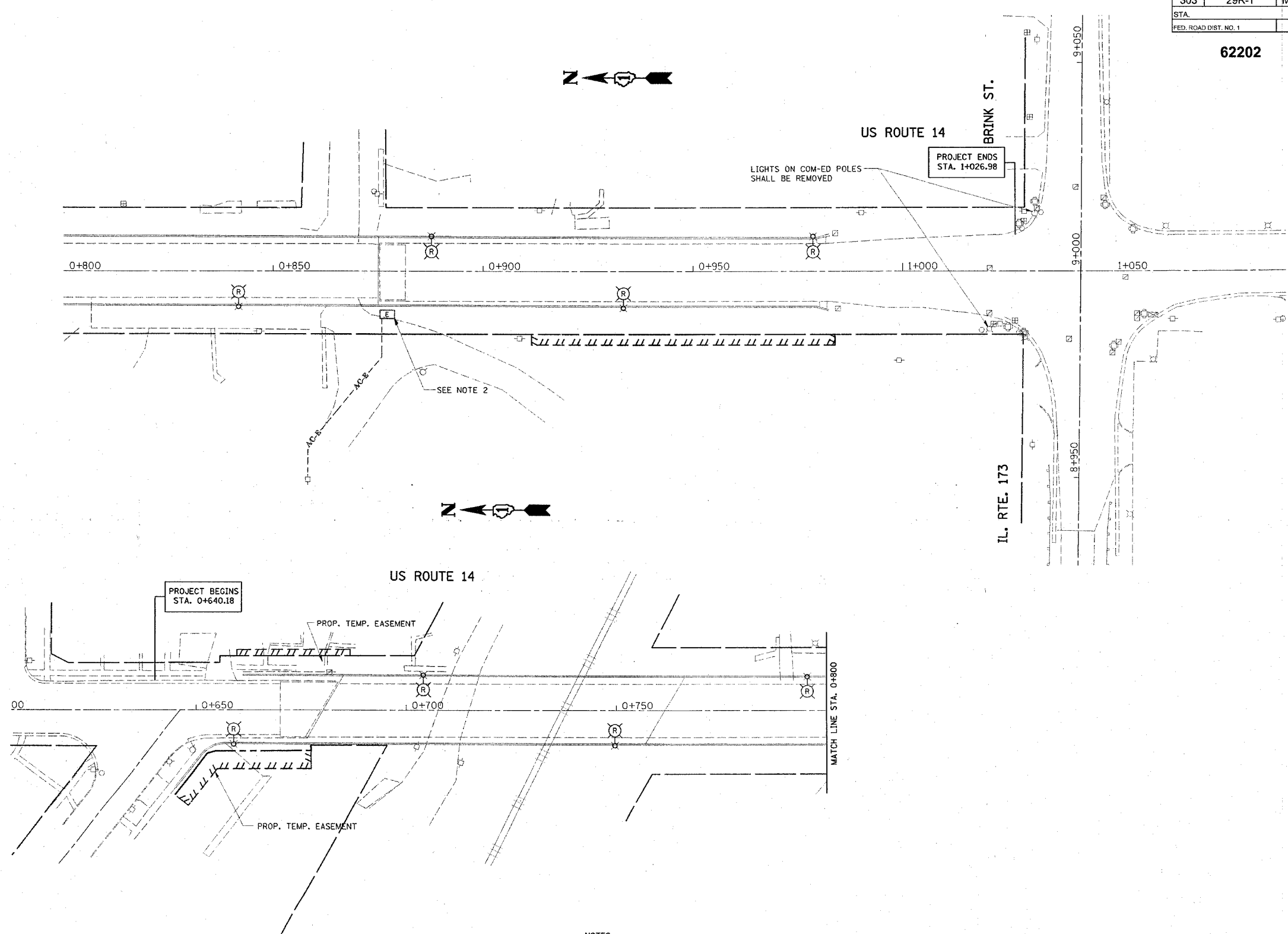
- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS**
- SIDE ROAD WITH A SPEED LIMIT OF 60 km/h (40 MPH) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE **ROAD CONSTRUCTION AHEAD** SIGN 900x900 (36x36) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 60 m (200') IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 60 km/h (40 MPH) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE **ROAD CONSTRUCTION AHEAD** SIGN 1.2 m x 1.2 m (48x48) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 150 m (500') IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
 - WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:**
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.**
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.**

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
NAME	DATE	
LHA	6/89	VERT. SCALE: HORIZ. DATE 10/18/2002 DRAWN BY CHECKED BY TC-10 REVISION DATE: 01/06/00
T. RAMMACHER	09/08/94	
J. OBERLE	10/18/95	
A. HOUSEH	03/06/96	
A. HOUSEH	10/15/96	
T. RAMMACHER	01/06/00	

REF-ELIGHT1
REF-ELIGHT2

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	39A
STA.	TO STA.		FED. AID PROJECT	
FED. ROAD DIST. NO. 1	ILLINOIS		D-91-190-01	

62202



- EXISTING LIGHTING UNIT TO BE REMOVED
- EXISTING JUNCTION BOX TO BE REMOVED
- EXISTING AERIAL SERVICE FEED TO BE REMOVED

NOTES:

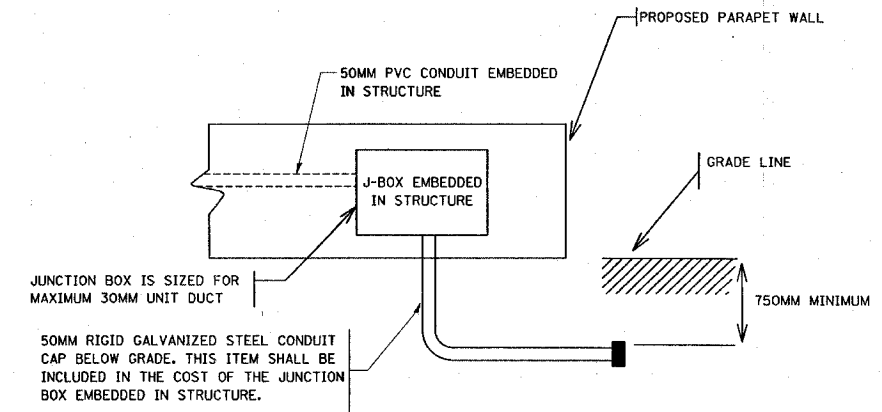
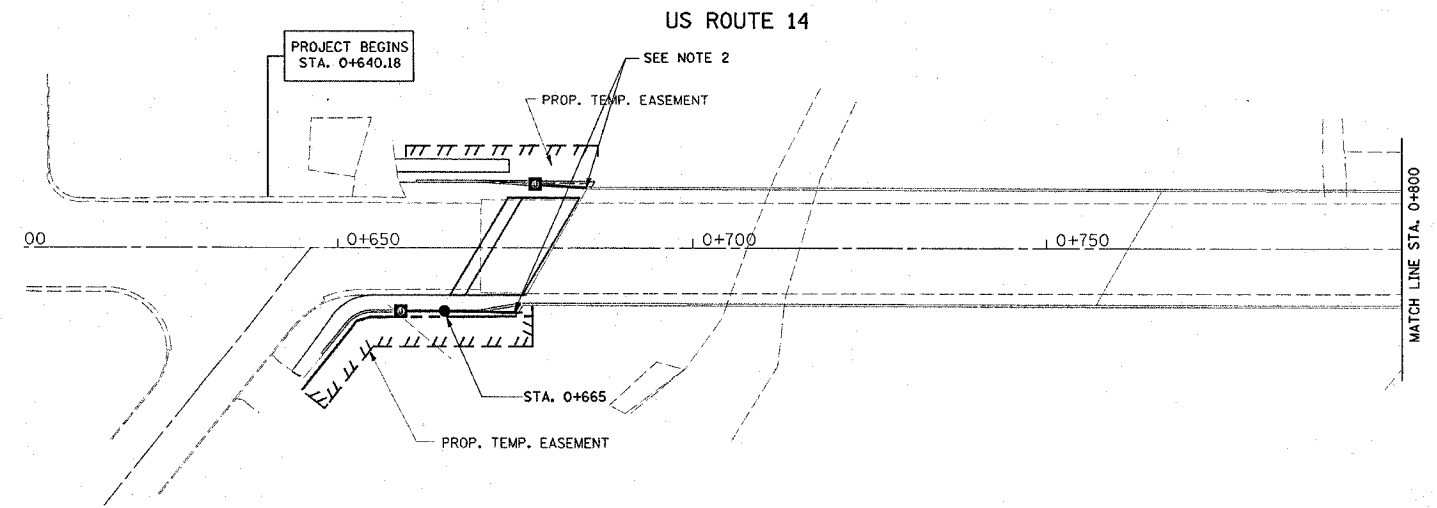
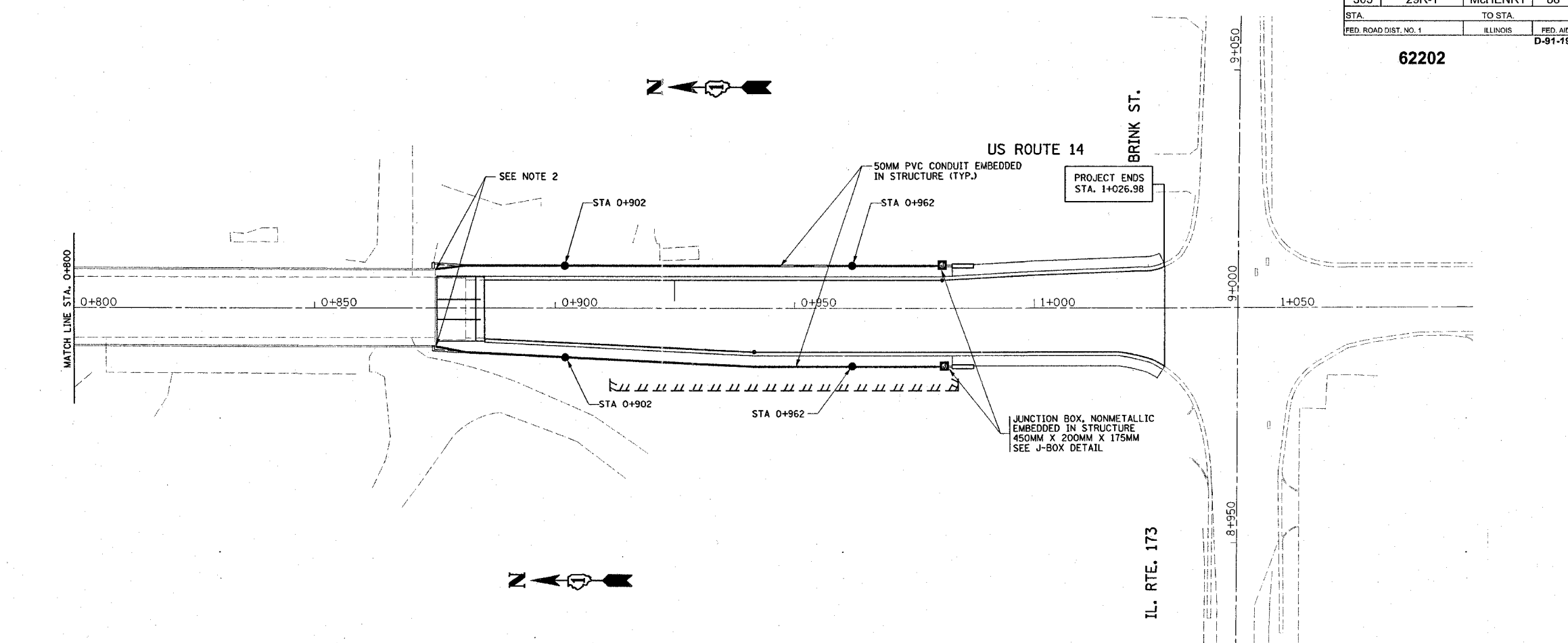
1. THE CONTRACTOR SHALL DISCONNECT AND REMOVE THE WHOLE LIGHTING SYSTEM AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL DISCONNECT AND REMOVE THE EXISTING AERIAL SERVICE FEED AND JUNCTION BOX ATTACHED TO STRUCTURE. THIS WORK SHALL BE PAID FOR UNDER REMOVAL OF EXISTING LIGHTING UNIT, NO SALVAGE PAY ITEM.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**U.S. RTE. 14
 OVER MOKELER CREEK
 LIGHTING REMOVAL PLANS**
 DRAWN BY AC
 CHECKED BY
 DATE 3/11/2005

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	39B
STA.	TO STA.		FED. ROAD DIST. NO. 1	ILLINOIS
				FED. AID PROJECT D-91-190-01

62202



J-BOX DETAIL

- PROPOSED PARAPET FOUNDATION
- 50MM PVC CONDUIT EMBEDDED IN STRUCTURE (TYP.)
- JUNCTION BOX, NONMETALLIC EMBEDDED IN STRUCTURE 450MM X 200MM X 175MM

- NOTES:
1. INSTALL POLE FOUNDATION CAP BOX AFTER FOUNDATIONS HAVE BEEN INSTALLED.
 2. CONTRACTOR TO PROTECT EXISTING 50MM PVC CONDUIT IN EXISTING PARAPET AND CONNECT TO THE NEW 50MM PVC CONDUIT IN NEW PARAPET. CONTRACTOR TO USE EXPANSION/ DEFLECTION COUPLINGS AS REQUIRED OR AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE 50MM PVC CONDUIT EMBEDDED IN STRUCTURE PAY ITEM.

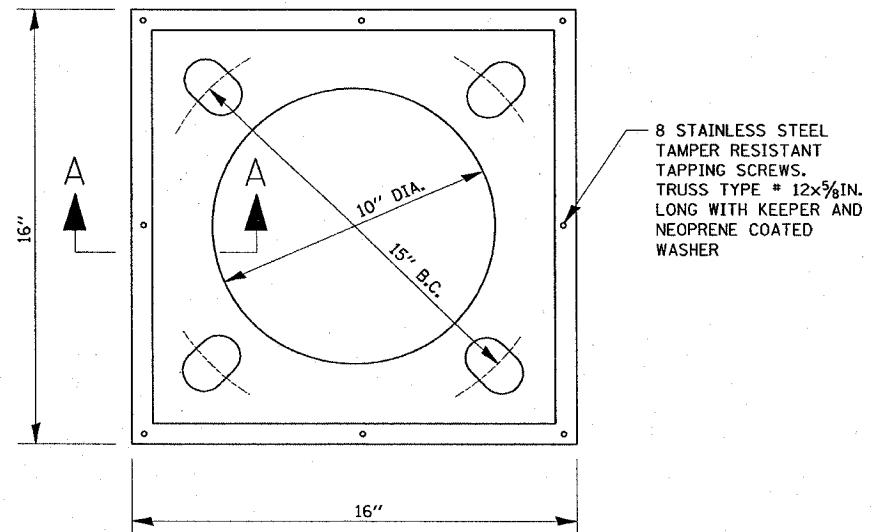
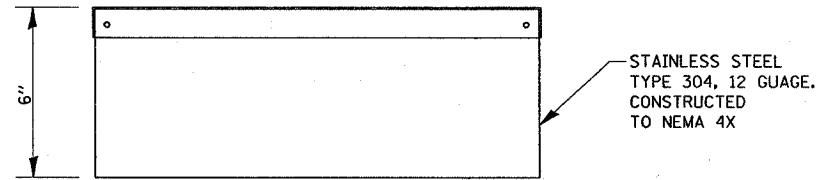
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**U.S. RTE. 14
OVER MOKELER CREEK
PROPOSED FUTURE LIGHT POLE
FOUNDATIONS**
DRAWN BY AC
CHECKED BY
DATE 3/11/2005

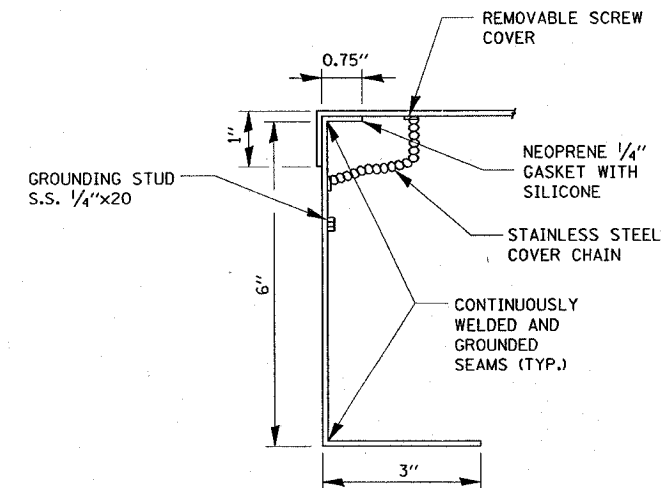
REF-PLIGHT 1
REF-PLIGHT 2

FAP ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	39C
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
			D-91-190-01	

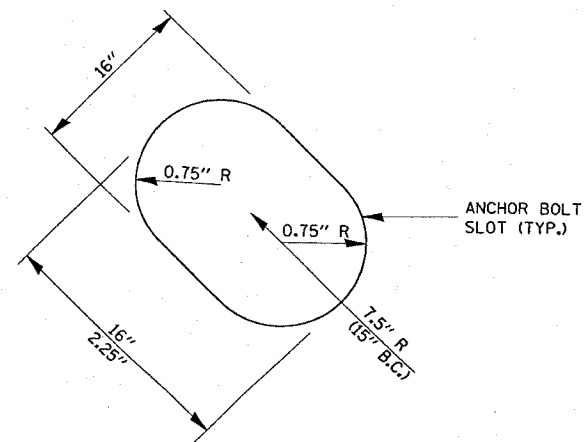
62202



BOX



SECTION A-A



REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION U.S. RTE. 14 OVER MOKELER CREEK POLE FOUNDATION CAP BOX DETAIL
NAME	DATE	
		SCALE NONE DATE 3/11/2005
		DRAWN BY CHECKED BY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	DISTRICT	COUNTY	SECTION	SHEET
29R-T	29R-T	McHENRY	88	40
FED. ROAD DIST. NO. 1				
BALANCE				
FED. AID PROJECT				

CONTRACT NO. 62202

DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications
for Highway Bridges

DESIGN STRESSES

FIELD UNITS
f'c = 24 MPa
fy = 400 MPa (Reinforcement)
fy = 250 MPa (Structural Steel)

LOADING

Live Load Traffic Surcharge = 11.5 kN/m²
Fluid Lateral Soil Pressure = 6.3 kN/m³
Parapet Impact Loading = 7.3 kN/m

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035g
Site Coefficient (S) = 1.0

NOTES:

- For Wall sections, see sheet SI-4
- For Utilities Locations & details see Roadway Plans.
- Lighting plans are being prepared by IDOT Dist. 1 and will be incorporated when made available.

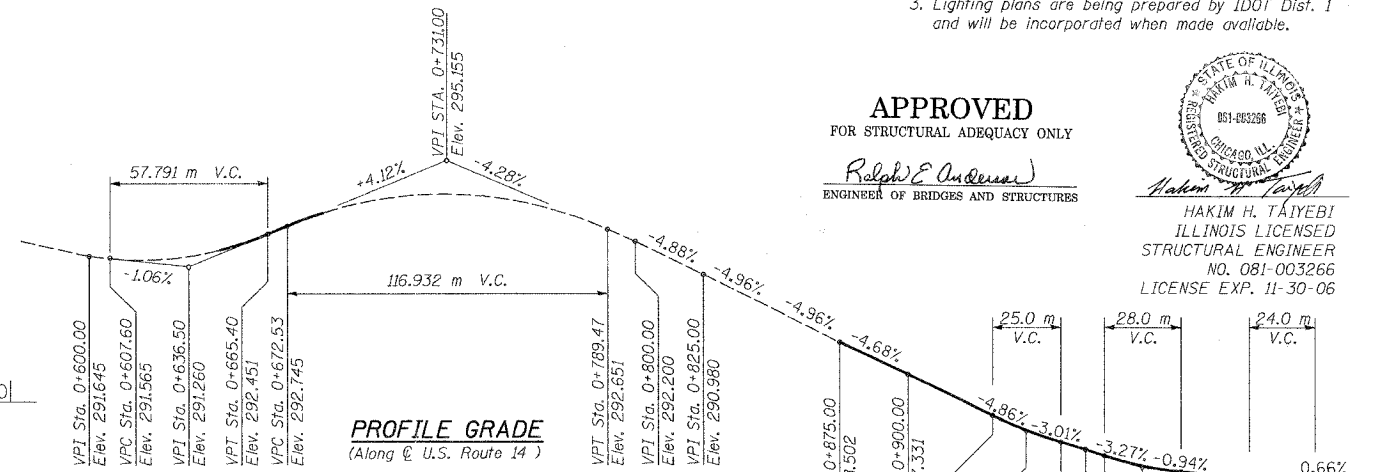
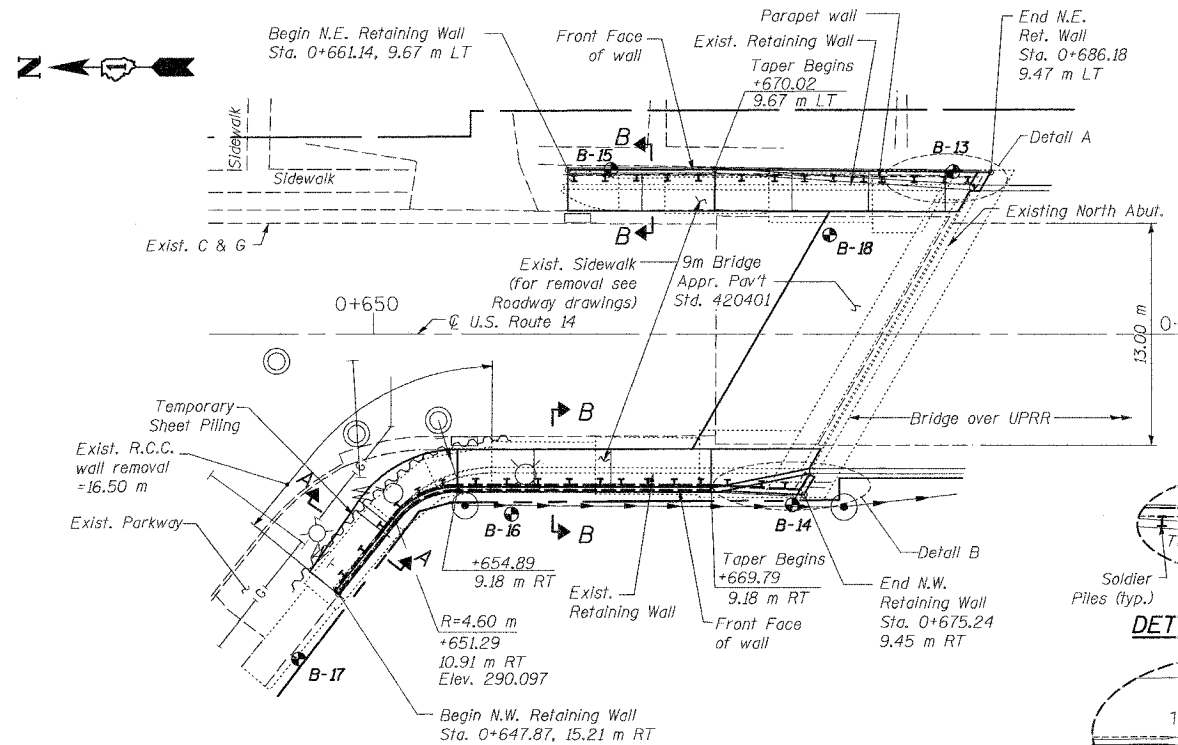
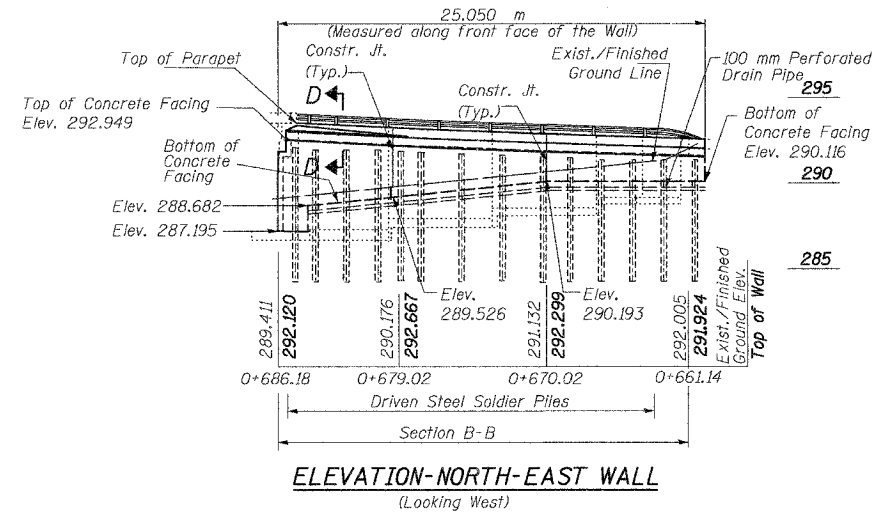
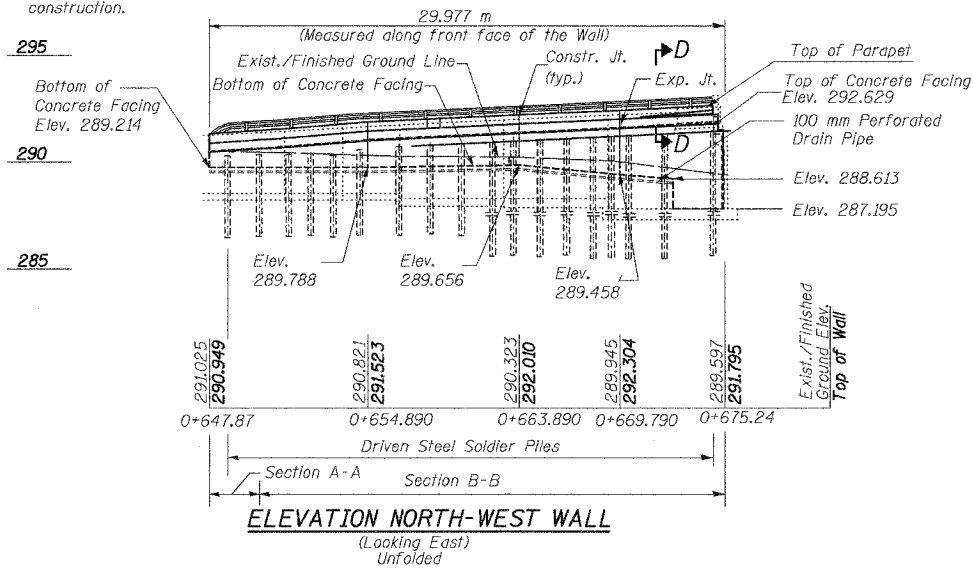
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

Hakim H. Tayebi
HAKIM H. TAYEBI
ILLINOIS LICENSED
STRUCTURAL ENGINEER
NO. 081-003266
LICENSE EXP. 11-30-06

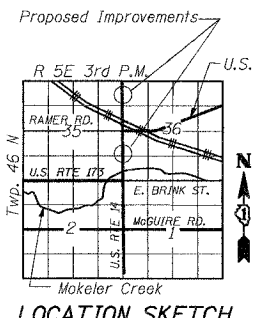
Bench Mark: At Harvard, one block E. of U.S. Highway 14 on State Highway 173, 14 m S., 11.6 m W. of, and 0.52 m Higher Than center of Cross Streets (Junction N. Hart and E. Diggins), 2.9 m S. and 0.46 m W. of NE, corner Grade School Parking Lot, in concrete post, Aluminum Tablet Stamped "51 A 1923 966" Painted R1 "966.3" Tablet Mutilated, Designation Re-Stamped) Elev. =294.508

Existing Structure: Reinforced concrete retaining walls were built in 1939 along the north and south approach pavement of bridge over UPRR. They are supported on spread footings and vary in height. The retaining walls have been previously repaired in 1984. Portions of remaining walls will be removed. New soldier piles with C.I.P. concrete facing to be constructed at all four quadrants of the bridge over UPRR. The road shall be kept open to one lane traffic in each direction at all times utilizing stage construction.

No Salvage.



- LEGEND**
- Exist. Light Pole
 - Exist. Fire Hydrant
 - Soil Boring Location
 - ▨ Existing Wall Removal
 - Exist. Catch Basin
 - Exist. Manhole
 - Prop. Manhole
 - Prop. Right of Way
 - Prop. S.S.
 - Exist. Gas Main
 - Exist. Water Main



GENERAL PLAN & ELEVATION NORTH WALLS
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

DESIGNED J.S./R.A.
CHECKED H.T./N.S.
DRAWN J.S.
CHECKED H.T./M.R.

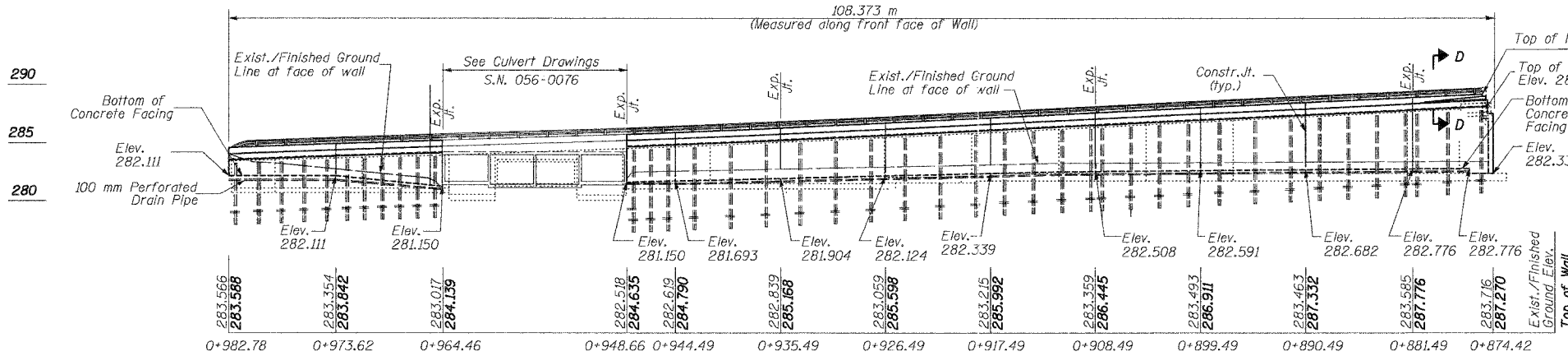
Soodan
Soodan & Associates, Inc.
Civil, Mechanical, Electrical & Construction Consultants
300 North LaSalle Street, Suite 2000
Chicago, Illinois 60602
Tel: 312/553-0003 Fax: 312/553-1006
E-Mail: Transportation@soodan.com

Date: February, 2005 Scale: None

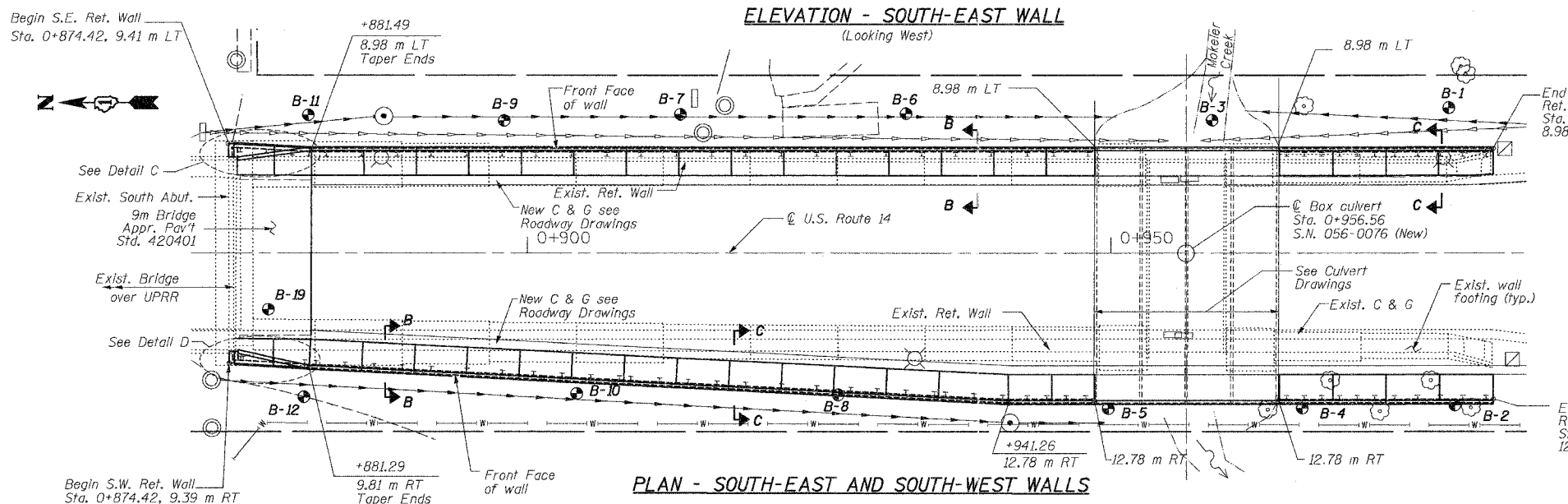
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 62202

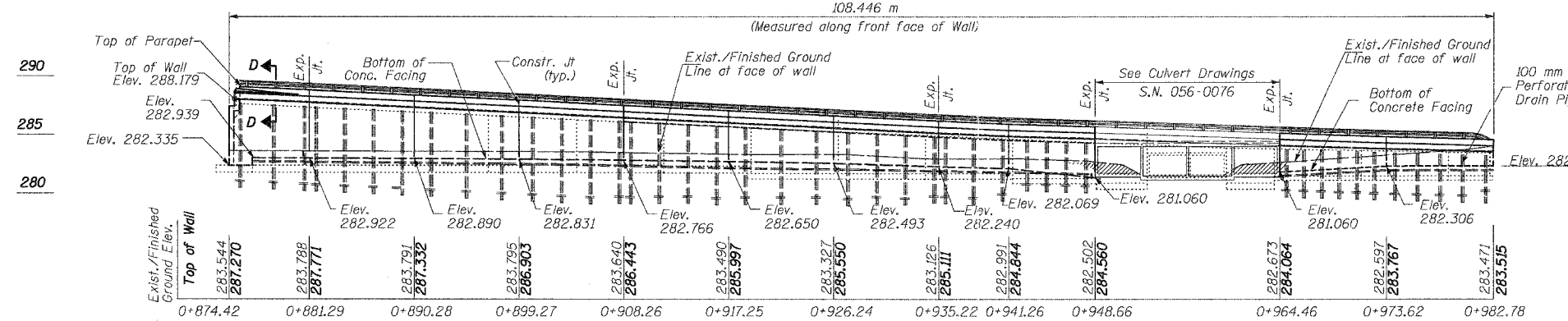
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U.S. 14	29R-T	McHENRY	88	41
F.A.P. 383				
FED. ROAD DIST. NO. 1				



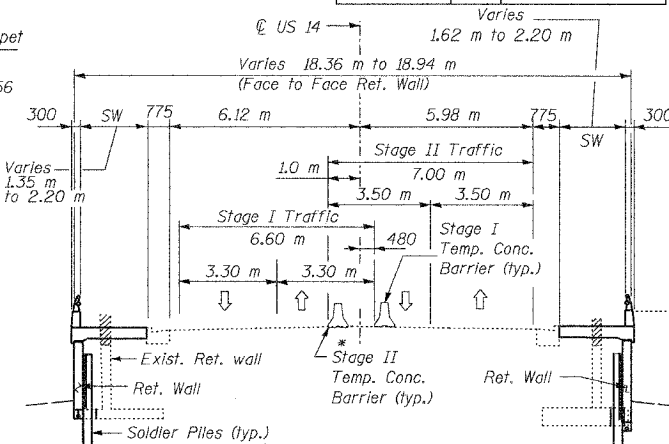
ELEVATION - SOUTH-EAST WALL
(Looking West)



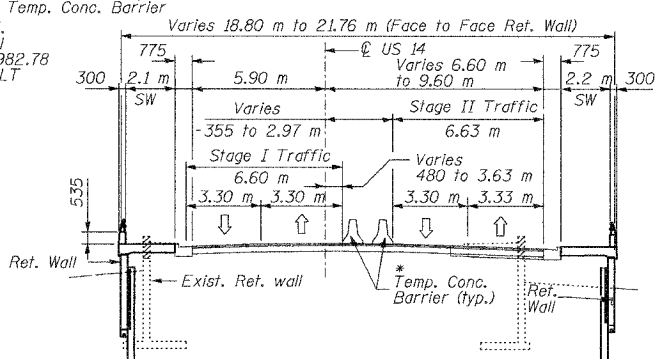
PLAN - SOUTH-EAST AND SOUTH-WEST WALLS



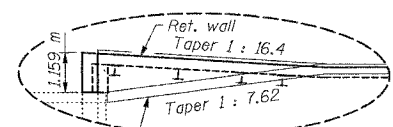
ELEVATION - SOUTH-WEST WALL
(Looking East)



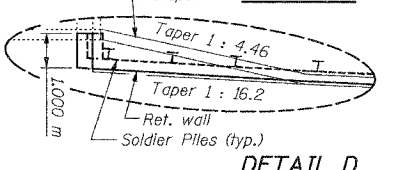
**** STAGE TRAFFIC - NORTH WALLS**
(Looking South)



**** STAGE TRAFFIC - SOUTH WALLS**
(Looking South)



DETAIL C



DETAIL D

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S./B.I.D.
CHECKED	H.T./M.R.

Soodan
Soodan & Associates, Inc.
Architect, Engineer & Construction Consultant
52 North LaSalle Street, Suite 2000
Chicago, Illinois 60602
Tel: 312/553-0003 Fax: 312/553-0006
E-Mail: transport@soodan.com

NOTES:

1. For wall sections see sheet S1-04
 2. For Legend see sheet S1-03
- ** For Stage Construction & Traffic see Roadway Plan & Profile

GENERAL PLAN & ELEVATION SOUTH WALLS
U.S. 14 RETAINING WALLS AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
S.A.L. P.A.P. 283	29R-T	McHENRY	88	42
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62202

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of AASHTO M 31M or M 322M Grade 400.
- Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- The Contractor is responsible for the design and performance of the lagging using no less than 75 mm nominal rough-sawn thickness, and timber with a minimum allowable bending stress f_b of 6.9 MPa.
- Stud shear connectors for Soldier Piles shall be field welded.
- All dimensions are in millimeters (mm) except as noted.
- All construction joints shall be bonded.
- Dimensions are measured along front face of the proposed wall unless noted otherwise.
- Prior to driving piles the Existing footing shall be drilled through.

SUGGESTED SEQUENCE OF CONSTRUCTION

- Drive Temporary Sheet Piling and demolish adjacent existing retaining wall and footing where indicated for existing Northwest wall (see sheet SI-5).
- Establish pile locations and drive pile to tip elevation shown on the plans.
- Remove portions of existing retaining wall stem in vertical sections as required.
- Install Tiebacks.
- Complete Untreated Timber Lagging to the depths shown on the plans.
- Remove remaining portions of existing retaining wall sections as required to meet limits indicated.
- Adjust Tiebacks for final position of Soldier piles
- Attach Geocomposite Wall Drain to cover the Untreated Timber Lagging
- Construct Pipe Underdrain for Structures by excavating a trench, lining it with fabric, placing a pipe and aggregate such that the Geocomposite Wall Drain is connected as shown on the plans.
- Attach shear studs on soldier piles, set reinforcement, form and pour C.I.P. Concrete Facing.
- Complete final grading at the base of wall.
- Construct Parapet and Sidewalk Slab.

LEGEND

B.F. - Back Face
F.F. - Front Face
E.F. - Each Face
T & B - Top and Bottom

W.P. - Work Point Number
P.N. - Concrete Facing Panel Number
P - Pile Number
[Hatched Box] - Concrete Removal

MIN. BAR LAP

#15 = 640
#20 = 790

LOCATION OF CONSTRUCTION & EXPANSION JOINT AND WORK POINT TABLES

NORTH-EAST WALL

PANEL NO.	W.P. NO.	U.S. 14 STATION	OFFSET TO FF OF WALL	TYPE OF JOINT
	301	0+661.140	9.670 m LT	Begin Wall
301	302	0+670.020	9.670 m LT	Wall Bend/Construction Joint
302	303	0+679.020	9.560 m LT	Construction Joint
303	304	0+686.180	9.470 m LT	End Wall

NORTH-WEST WALL

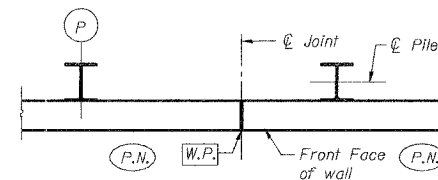
PANEL NO.	W.P. NO.	U.S. 14 STATION	OFFSET TO FF OF WALL	TYPE OF JOINT
	101	0+647.870	15.210 m RT	Begin Wall
101	102	0+654.890	9.180 m RT	Construction Joint
102	103	0+663.890	9.180 m RT	Construction Joint
103	104	0+669.790	9.180 m RT	Wall Bend/Expansion Joint
104	105	0+675.240	9.450 m RT	End Wall

SOUTH-WEST WALL

PANEL NO.	W.P. NO.	U.S. 14 STATION	OFFSET TO FF OF WALL	TYPE OF JOINT
	201	0+874.420	9.390 m RT	Begin Wall
201	202	0+881.290	9.810 m RT	Wall Bend/Expansion Joint
202	203	0+890.279	10.250 m RT	Construction Joint
203	204	0+899.268	10.700 m RT	Construction Joint
204	205	0+908.257	11.145 m RT	Expansion Joint
205	206	0+917.245	11.590 m RT	Construction Joint
206	207	0+926.235	12.035 m RT	Construction Joint
207	208	0+935.224	12.480 m RT	Expansion Joint
208	209	0+941.260	12.780 m RT	Wall Bend/Construction Joint
209	210	0+948.660	12.780 m RT	Culvert Edge/Expansion Joint
Culvert Omission				
210	211	0+964.460	12.780 m RT	Culvert Edge/Expansion Joint
211	212	0+973.620	12.780 m RT	Construction Joint
212	213	0+982.780	12.780 m RT	End Wall

SOUTH-EAST WALL

PANEL NO.	W.P. NO.	U.S. 14 STATION	OFFSET TO FF OF WALL	TYPE OF JOINT
	401	0+874.420	9.410 m LT	Begin Wall
401	402	0+881.490	8.980 m LT	Wall Bend/Expansion Joint
402	403	0+890.490	8.980 m LT	Construction Joint
403	404	0+899.490	8.980 m LT	Construction Joint
404	405	0+908.490	8.980 m LT	Expansion Joint
405	406	0+917.490	8.980 m LT	Construction Joint
406	407	0+926.490	8.980 m LT	Construction Joint
407	408	0+935.490	8.980 m LT	Expansion Joint
408	409	0+944.490	8.980 m LT	Construction Joint
409	410	0+948.660	8.980 m LT	Culvert Edge/Expansion Joint
Culvert Omission				
410	411	0+964.460	8.980 m LT	Culvert Edge/Expansion Joint
411	412	0+973.620	8.980 m LT	Construction Joint
412	413	0+982.780	8.980 m LT	End Wall



TYPICAL WORK POINT LOCATION

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. m	39.8	169.8	209.6
Protective Coat	Sq. m	692	-	692
Porous Granular Embankment	Cu. m	-	1197	1197
Concrete Structures	Cu. m	-	243	243
Concrete Superstructure	Cu. m	285	-	285
Stud Shear Connectors	Each	-	2277	2277
Reinforcement Bars, Epoxy Coated	kg	20760	19720	40480
Aluminum Railing, Type L	m	272	-	272
Temporary Sheet Piling	Sq. m	-	130	130
Furnishing Soldier Piles (HP Section)	m	-	1033	1033
Driving Soldier Piles	m	-	1033	1033
Untreated Timber Lagging	Sq. m	-	758	758
Geocomposite Wall Drain	Sq. m	-	684	684
Pipe Underdrains for Structures 100mm	m	-	141	141
Formed Concrete Repair (depth less than 125mm)	Sq. m	-	2.6	2.6
Epoxy Crack Sealing	m	-	25	25
Structure Excavation	Cu. m	-	139	139
Furnishing and Erecting Structural Steel	kg	-	25660	25660

* Top of Sidewalk, Front and Top Face of Parapet

INDEX OF SHEETS

SHEET NO.	TITLE
1.	General Plan & Elevation - North Walls
2.	General Plan & Elevation - South Walls
3.	General Notes, Index of Sheets & Total Bill of Material
4.	Typical Cross Sections
5.	Existing Retaining Wall Removal - North Walls
6.	Existing Retaining Wall Removal - South-East Wall
7.	Existing Retaining Wall Removal - South-West Wall
8.	Soldier Pile Layout - North-West Wall
9.	Soldier Pile Layout - North-East Wall
10.	Soldier Pile Layout - South-East Wall (1 of 2)
11.	Soldier Pile Layout - South-East Wall (2 of 2)
12.	Soldier Pile Layout - South-West Wall (1 of 2)
13.	Soldier Pile Layout - South-West Wall (2 of 2)
14.	Drainage & Tieback Details
15.	Concrete Facing - North-West Wall
16.	Concrete Facing - North-East Wall
17.	Concrete Facing - South-East Wall (1 of 2)
18.	Concrete Facing - South-East Wall (2 of 2)
19.	Concrete Facing - South-West Wall (1 of 2)
20.	Concrete Facing - South-West Wall (2 of 2)
21.	Concrete Facing Details
22.	Parapet and Sidewalk Slab - North-West Wall
23.	Parapet and Sidewalk Slab - North-East Wall
24.	Parapet and Sidewalk Slab - South-East Wall (1 of 2)
25.	Parapet and Sidewalk Slab - South-East Wall (2 of 2)
26.	Parapet and Sidewalk Slab - South-West Wall (1 of 2)
27.	Parapet and Sidewalk Slab - South-West Wall (2 of 2)
28.	Parapet and Sidewalk Slab Details
29.	Abutment Repairs
30.	Type L Aluminum Railing
31.	Boring Logs (1 of 7)
32.	Boring Logs (2 of 7)
33.	Boring Logs (3 of 7)
34.	Boring Logs (4 of 7)
35.	Boring Logs (5 of 7)
36.	Boring Logs (6 of 7)
37.	Boring Logs (7 of 7)

Sheet SI-3 of 37

GENERAL NOTES, INDEX OF SHEETS & TOTAL BILL OF MATERIAL
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

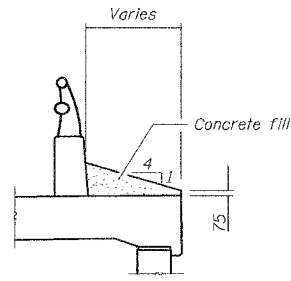
DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

Soodan
Soodan & Associates, Inc.
Architects, Engineers & Construction Consultants
500 North LaSalle Street, Suite 3000
Chicago, Illinois 60602
Tel: 312/553-0003 Fax: 312/553-0006
E-Mail: transport@soodan.com

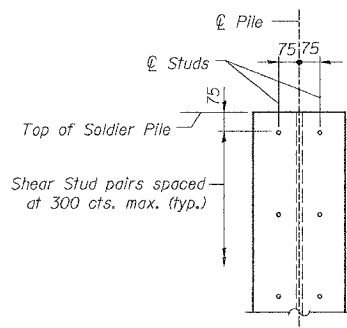
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
U.S. 14	29R-T	McHENRY	88	43
F.A.P. 303				
FED. ROAD DIST. NO. 1	BALANCE	FED. ROAD PROJECT		

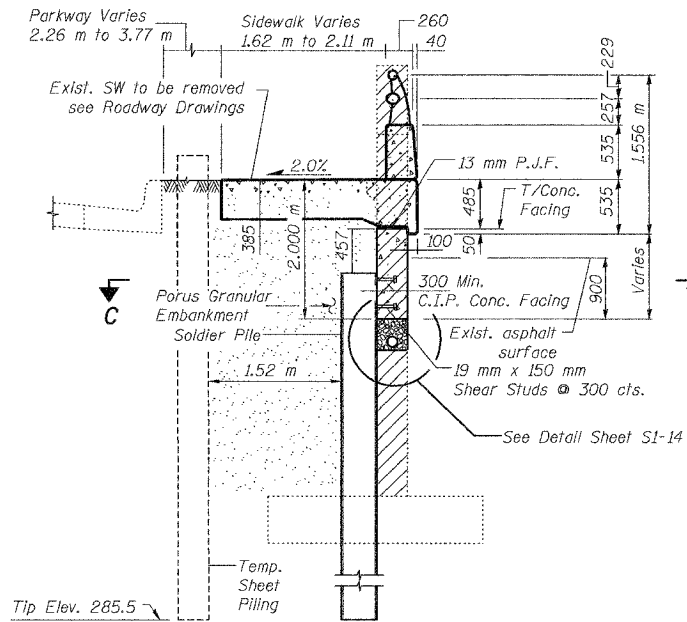
CONTRACT NO. 62202



SECTION D-D



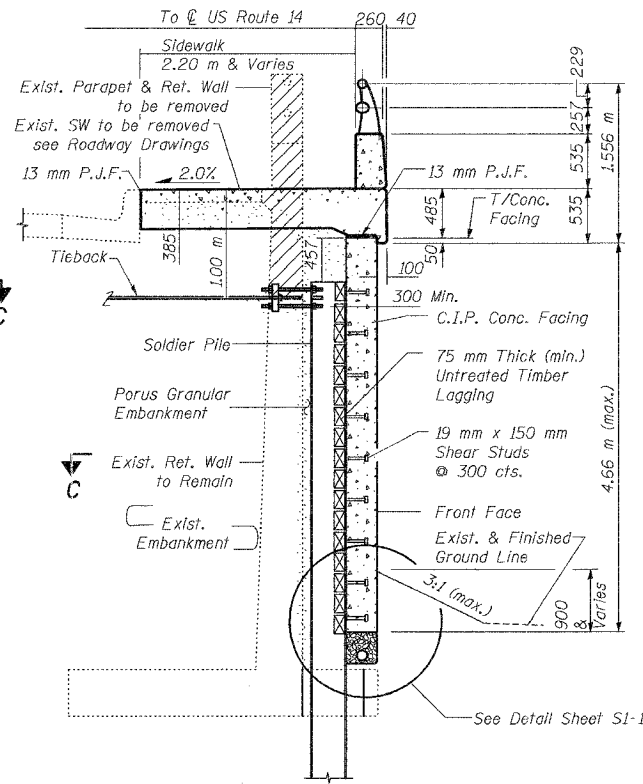
DETAIL OF SHEAR STUD
PLACEMENT ON SOLDIER PILE



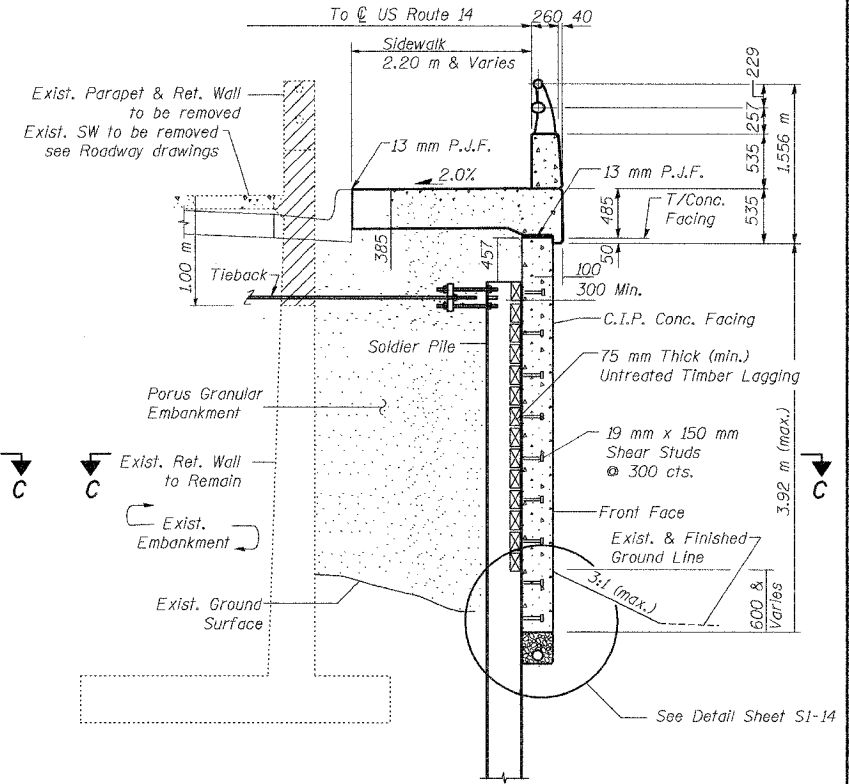
SECTION A-A

CONSTRUCTION SEQUENCE

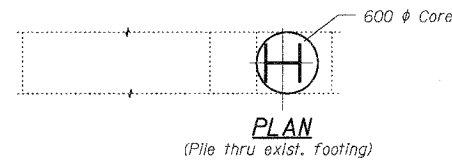
1. Drive Temporary Sheet Piling.
2. Remove portion of existing retaining wall.
3. Drive new Soldier Pile.
4. Construct wall facing.
5. Backfill and compact to 95%.



SECTION B-B

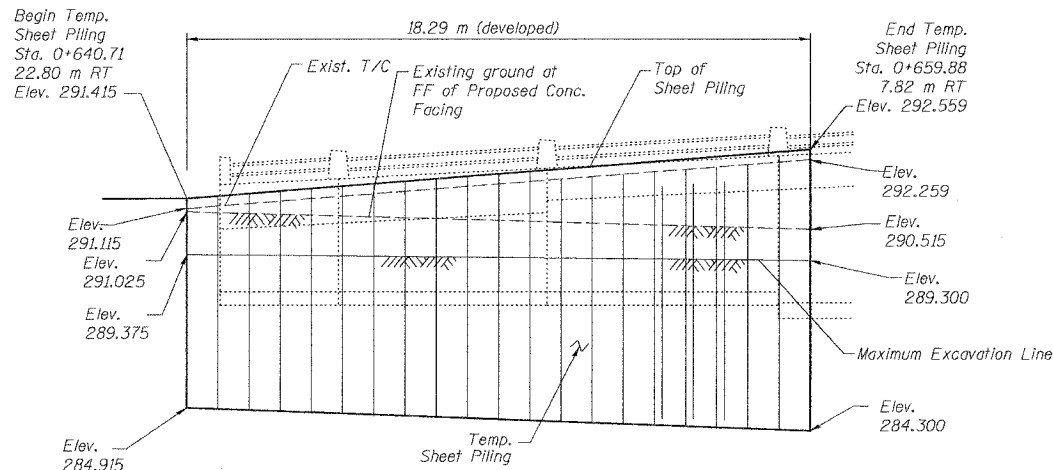


SECTION C-C



PLAN

(Pile thru exist. footing)



TEMPORARY SHEET PILING FOR STAGE 1 CONSTRUCTION

(Looking East)

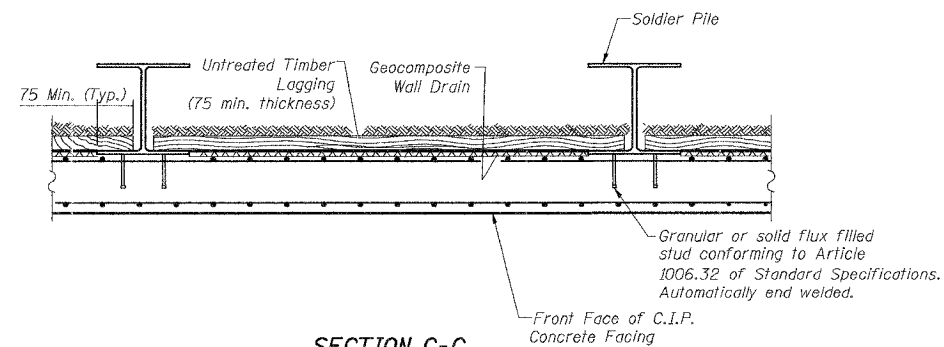
(Developed)

Min. section modulus = $479.0 \times 10^3 \text{ mm}^3/\text{m}$

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

Soodan

Soedon & Associates, Inc.
Civil/Structural Engineers & Construction Consultants
500 North LaSalle Street, Suite 3000
Chicago, Illinois 60602
Tel: 312/553-0003 Fax: 312/553-8006
E-Mail: transport@soodan.com



SECTION C-C

Typical

- Notes:
1. For tieback details see Sheet 14 of 37.
 2. All Shear Studs are 19 mm ϕ x 150 mm granular or Solid Flux filled headed automatically end welded to flange, spaced @ 300 cts. as shown. Spaced to miss the tieback connections when required.

Sheet SI-4 of 37

TYPICAL CROSS SECTIONS

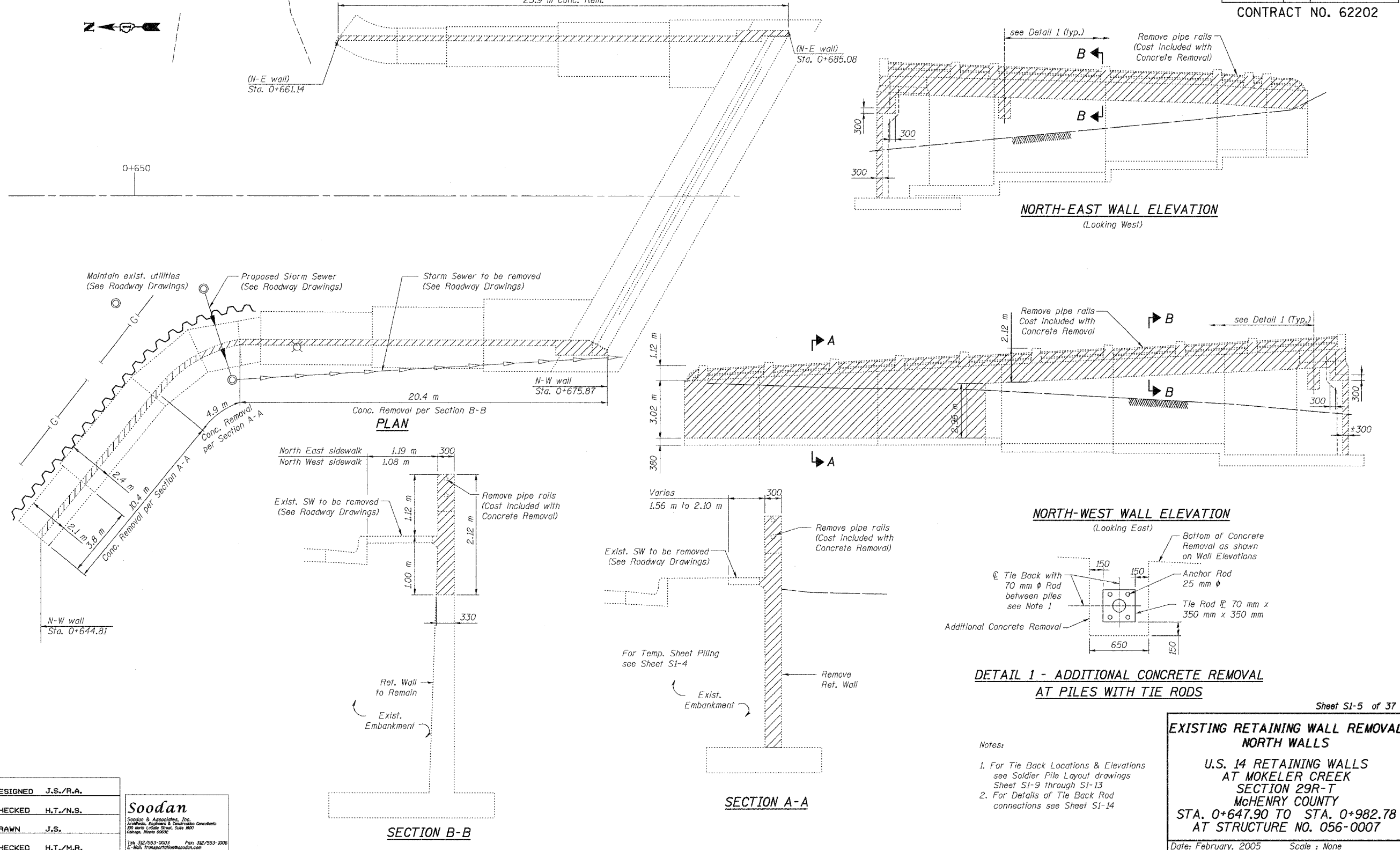
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET
U.S. 14	29R-T	McHENRY	88	44
F.A.P. 383				
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 62202



DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

Soodan
Soodan & Associates, Inc.
Civil/Structural/Environmental/Construction Consultants
200 North LaSalle Street, Suite 900
Chicago, Illinois 60602
Tel: 312/553-0003 Fax: 312/553-0006
E-Mail: transportation@soodan.com

Sheet S1-5 of 37

EXISTING RETAINING WALL REMOVAL NORTH WALLS

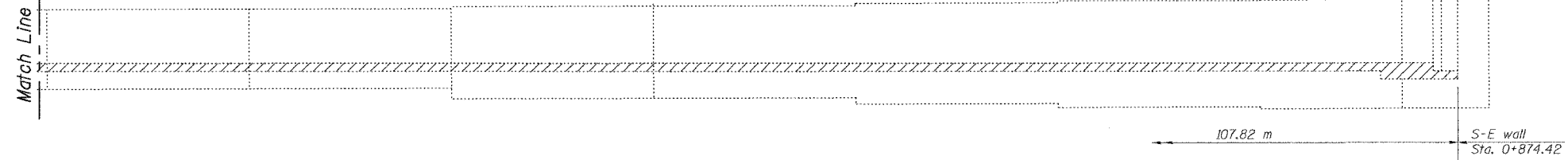
U.S. 14 RETAINING WALLS AT MOKELER CREEK SECTION 29R-T McHENRY COUNTY STA. 0+647.90 TO STA. 0+982.78 AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

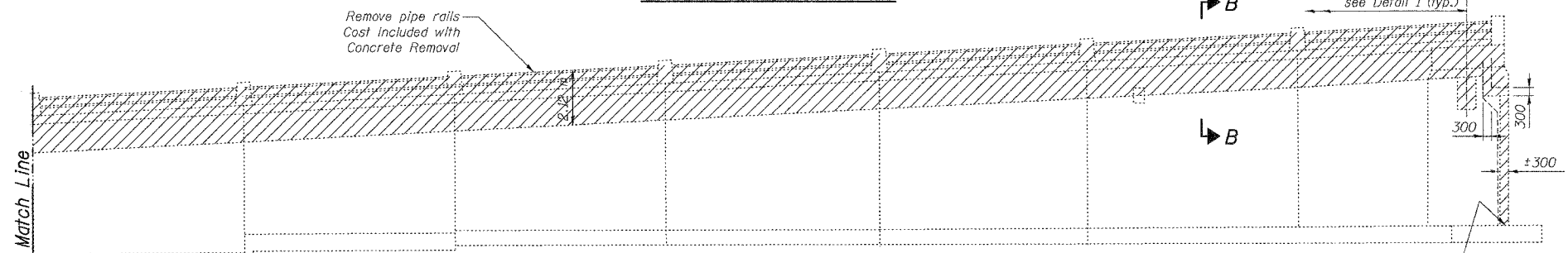
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	DISTRICT	COUNTY	SHEET NO.	TOTAL SHEETS
U.S. 14	29R-T	McHENRY	88	45
F.A.P. 383				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

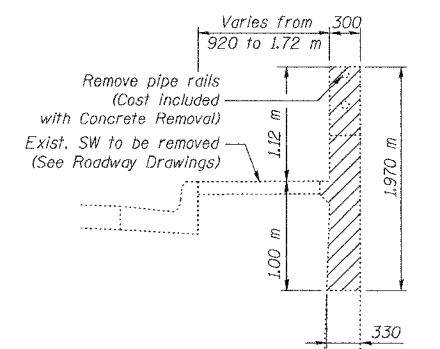
CONTRACT NO. 62202



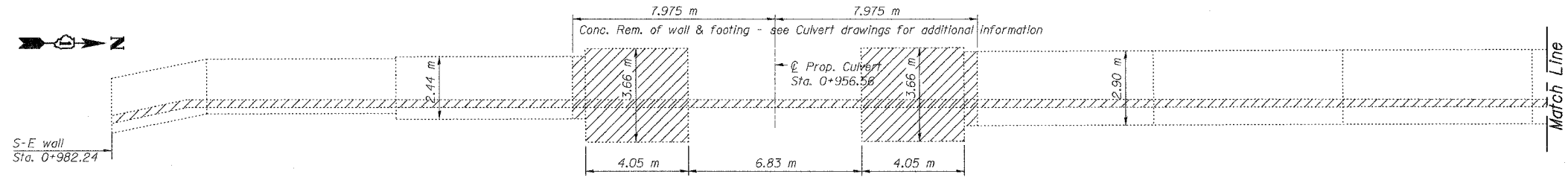
PLAN (SOUTH-EAST WALL)



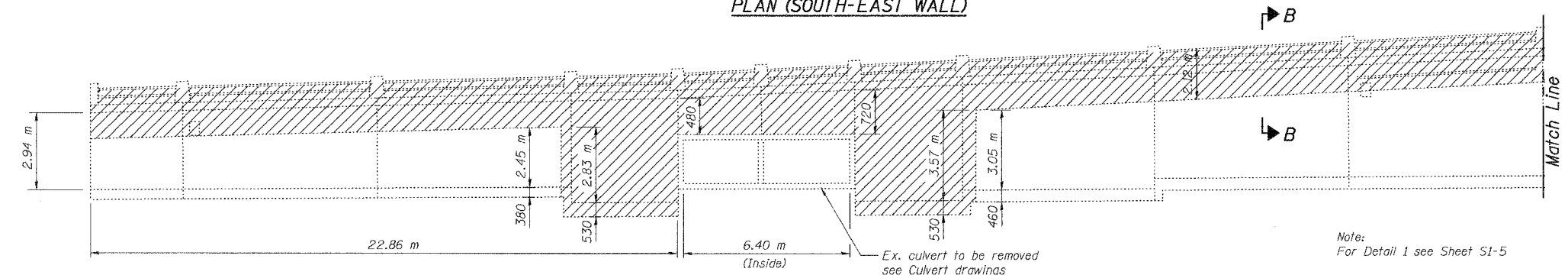
ELEVATION (SOUTH-EAST WALL)
(Looking West)



SECTION B-B



PLAN (SOUTH-EAST WALL)



ELEVATION (SOUTH-EAST WALL)
(Looking West)

Sheet SI-6 of 37

**EXISTING RETAINING WALL REMOVAL
SOUTH-EAST WALL**

U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale : None

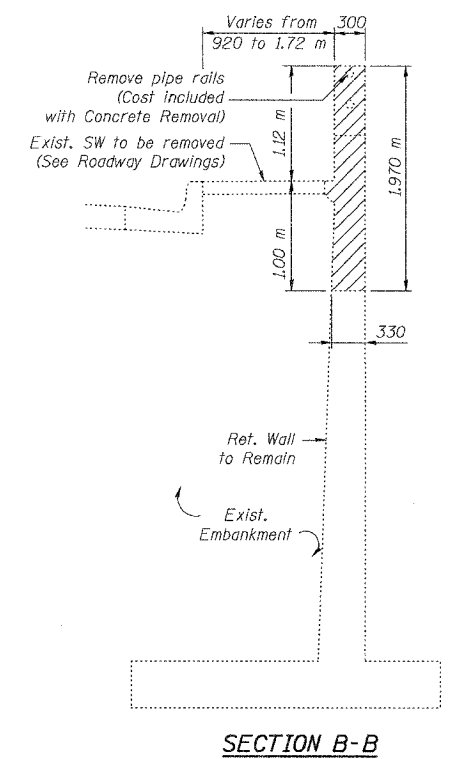
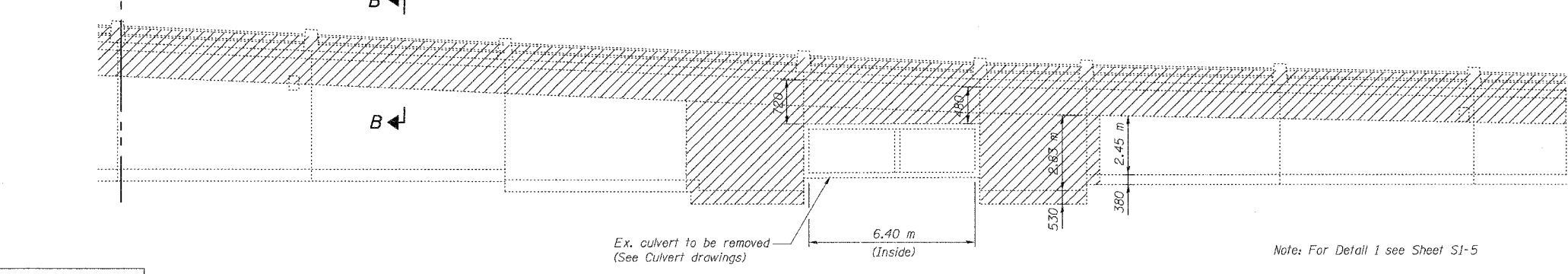
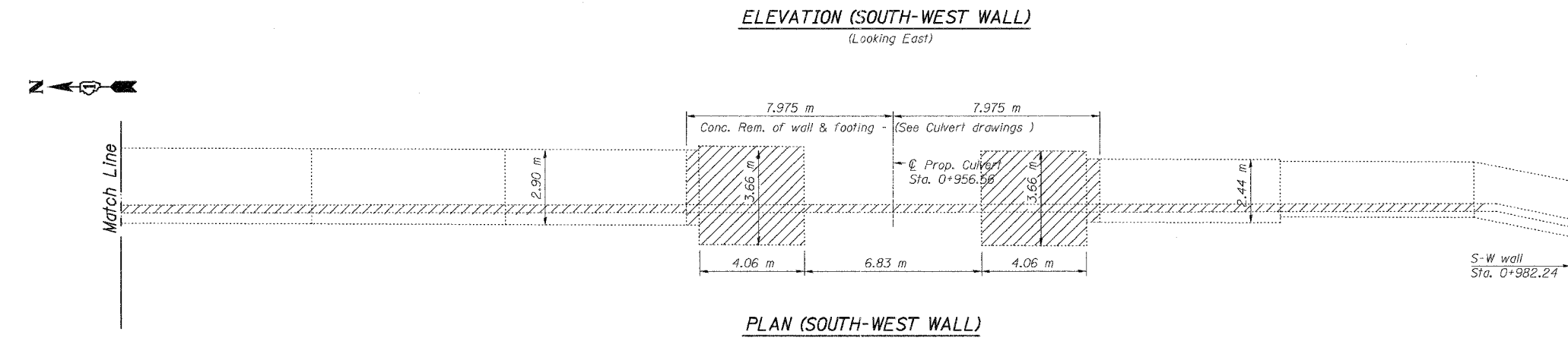
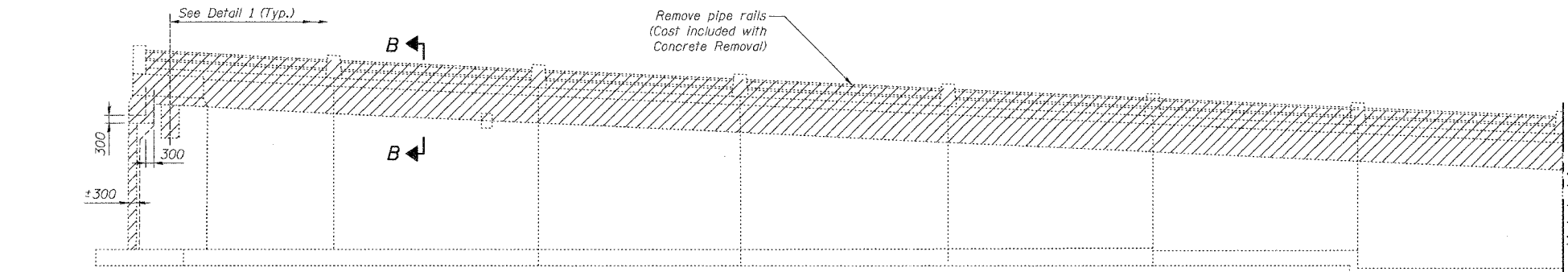
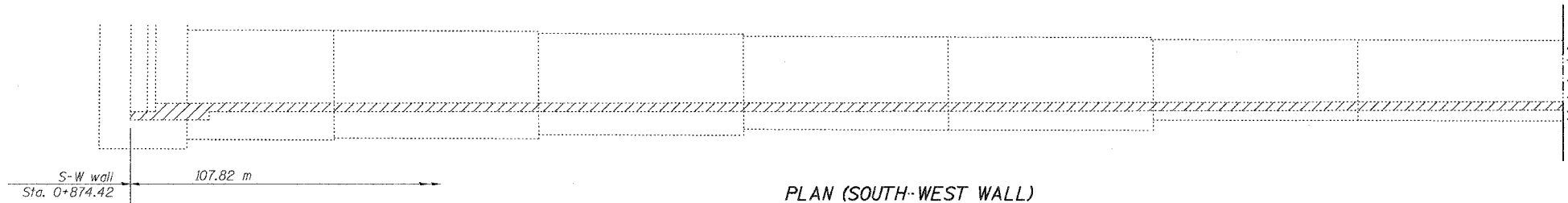
DESIGNED	J.S./R.A.	Soodan Soodan & Associates, Inc. Architects, Engineers & Construction Consultants 630 North LaSalle Street, Suite 900 Chicago, Illinois 60602 Tel: 312/553-0003 Fax: 312/553-8006 E-Mail: transport@soodan.com
CHECKED	H.T./N.S.	
DRAWN	J.S.	
CHECKED	H.T./M.R.	

Note:
For Detail 1 see Sheet SI-5

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
P.A.P. 383	29R-T	McHENRY	88	46
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 62202



Note: For Detail 1 see Sheet SI-5

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

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410 North Lincoln Street, Suite 1800
Chicago, Illinois 60602
Tel: 312/553-0003 Fax: 312/553-8006
E-Mail: Transportation@soodan.com

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. m.	169.8

**EXISTING RETAINING WALL REMOVAL
SOUTH-WEST WALLS**
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

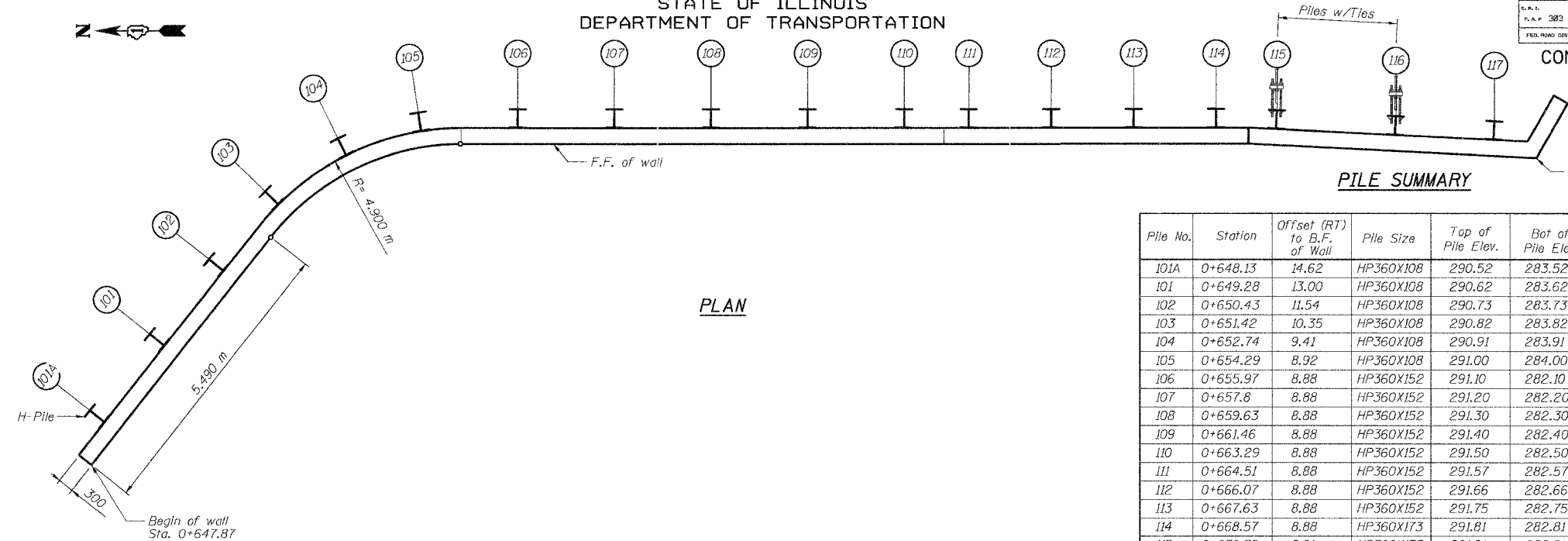
Date: February, 2005 Scale: None

Sheet SI-7 of 37

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
383	29R-T	McHENRY	88	47
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-	

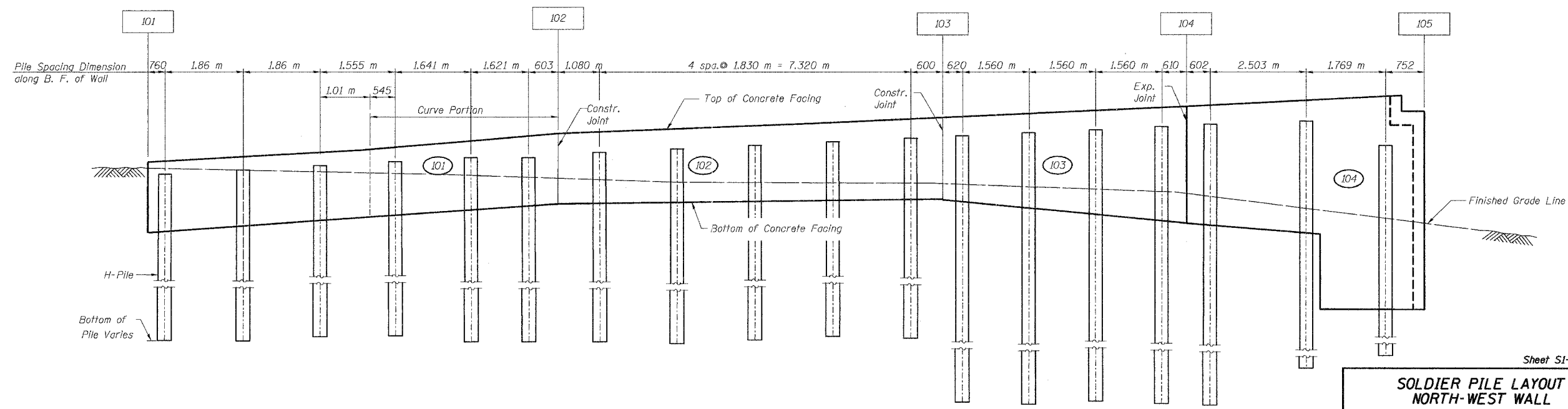
CONTRACT NO. 62202



PLAN

PILE SUMMARY

Pile No.	Station	Offset (RT) to B.F. of Wall	Pile Size	Top of Pile Elev.	Bot of Pile Elev.	Length (m)	Elev. of \bar{C} of Tieback
101A	0+648.13	14.62	HP360X108	290.52	283.52	7.0	-
101	0+649.28	13.00	HP360X108	290.62	283.62	7.0	-
102	0+650.43	11.54	HP360X108	290.73	283.73	7.0	-
103	0+651.42	10.35	HP360X108	290.82	283.82	7.0	-
104	0+652.74	9.41	HP360X108	290.91	283.91	7.0	-
105	0+654.29	8.92	HP360X108	291.00	284.00	7.0	-
106	0+655.97	8.88	HP360X152	291.10	282.10	9.0	-
107	0+657.8	8.88	HP360X152	291.20	282.20	9.0	-
108	0+659.63	8.88	HP360X152	291.30	282.30	9.0	-
109	0+661.46	8.88	HP360X152	291.40	282.40	9.0	-
110	0+663.29	8.88	HP360X152	291.50	282.50	9.0	-
111	0+664.51	8.88	HP360X152	291.57	282.57	9.0	-
112	0+666.07	8.88	HP360X152	291.66	282.66	9.0	-
113	0+667.63	8.88	HP360X152	291.75	282.75	9.0	-
114	0+668.57	8.88	HP360X173	291.81	282.81	9.0	-
115	0+670.39	8.91	HP360X173	291.91	282.91	9.0	290.99
116	0+672.89	9.03	HP360X173	292.03	283.03	9.0	291.11
117	0+674.66	9.12	HP360X173	291.04	282.04	9.0	-



ELEVATION
(Looking East) unfolded

BILL OF MATERIAL

Item	Unit	Total
Furnishing Soldier Piles (HP Section)	m	150
Driving Soldier Piles	m	150

Sheet SI-8 of 37

**SOLDIER PILE LAYOUT
NORTH-WEST WALL**

U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale : None

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

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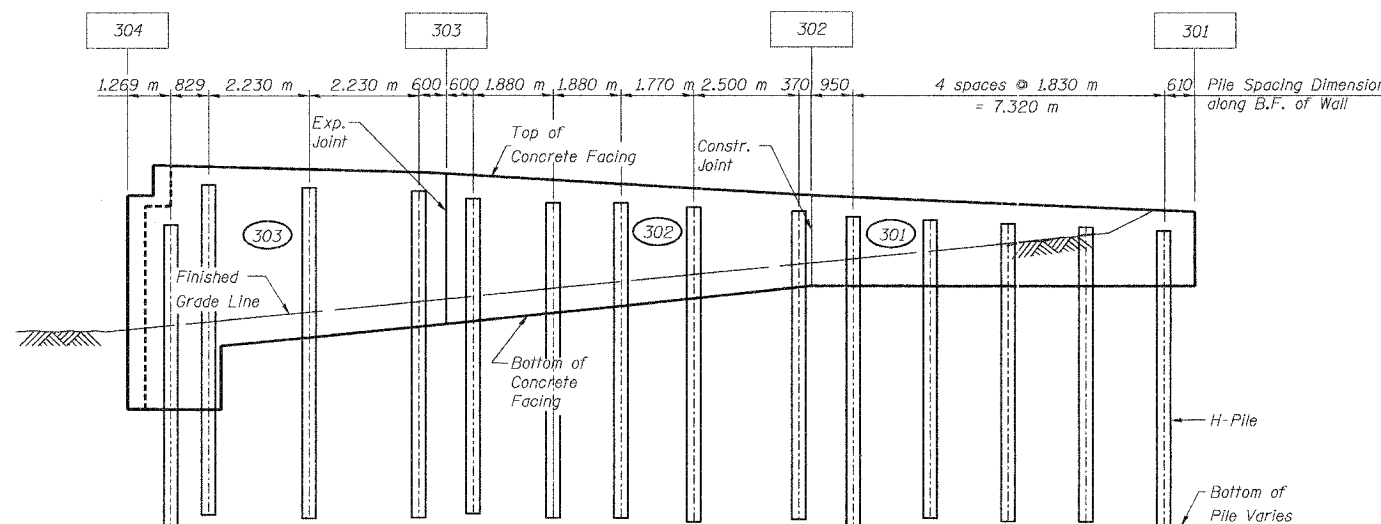
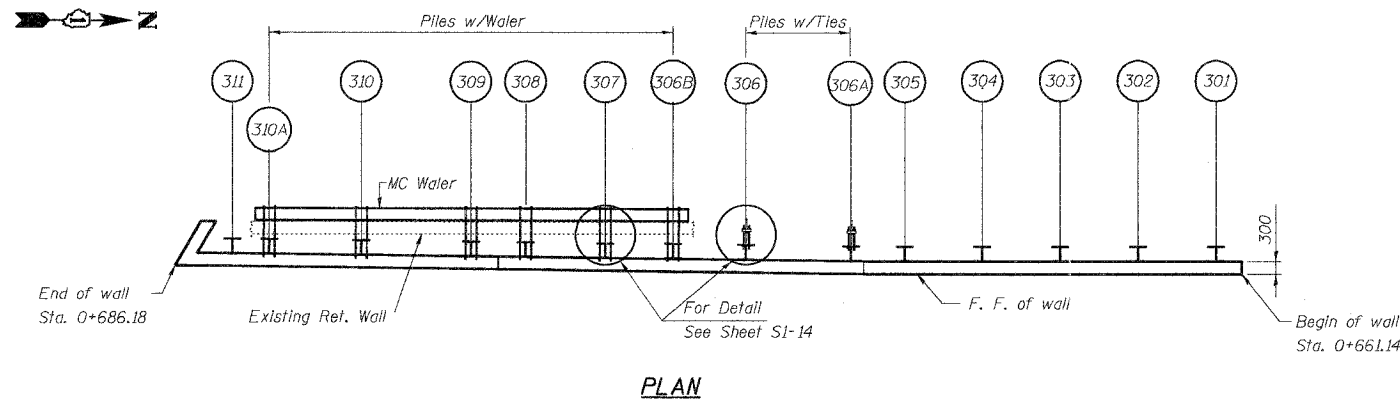
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET
U.S. 14	29R-T	McHENRY	86	48
F.A.P. 383				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62202

PILE SUMMARY

Pile No.	Station	Offset (LT) B.F. of wall (m)	Pile Size	Top of Pile Elev.	Bot. of Pile Elev.	Length (m)	Elev. of \odot of Tieback/Whaler
301	0+661.75	9.37	HP360X152	291.49	282.49	9.0	-
302	0+663.58	9.37	HP360X152	291.57	282.57	9.0	-
303	0+665.41	9.37	HP360X152	291.65	282.65	9.0	-
304	0+667.23	9.37	HP360X152	291.72	282.72	9.0	-
305	0+669.06	9.37	HP360X152	291.80	282.80	9.0	-
306A	0+670.39	9.37	HP360X152	291.86	282.86	9.0	290.99
306	0+672.89	9.33	HP360X152	291.96	282.96	9.0	291.11
306B	0+674.66	9.31	HP360X173	292.03	283.03	9.0	291.12
307	0+676.54	9.29	HP360X173	292.11	283.11	9.0	291.19
308	0+678.42	9.27	HP360X173	292.19	283.19	9.0	291.27
309	0+679.62	9.25	HP360X173	292.23	283.23	9.0	291.32
310	0+681.85	9.22	HP360X173	292.32	283.32	9.0	291.41
310A	0+684.08	9.20	HP360X173	292.41	282.41	10.0	291.50
311	0+684.91	9.18	HP360X173	291.36	281.36	10.0	-



NOTES:

1. For Notes & Legends see sheet SI-3.

Sheet SI-9 of 37

SOLDIER PILE LAYOUT
NORTH-EAST WALL

U.S. 14 RETAINING WALLS
AT MOKELEK CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

BILL OF MATERIAL

Item	Unit	Total
Furnishing Steel Piles (HP Section)	m	128
Driving Soldier Piles	m	128

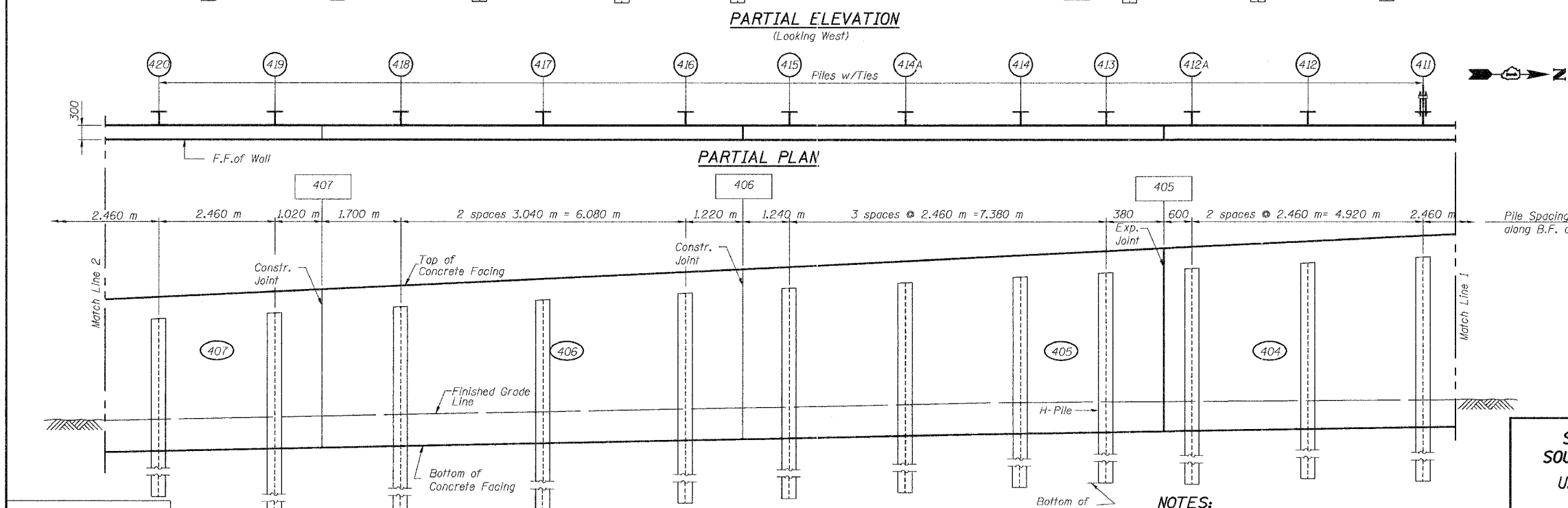
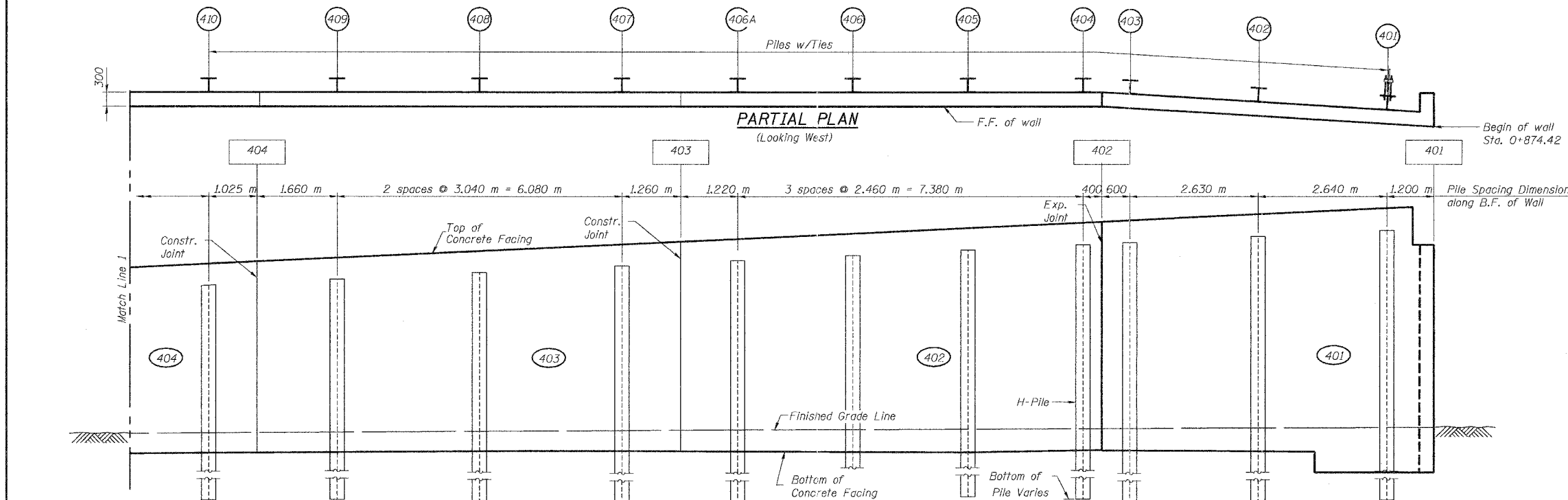
DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

Soodan
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
P.A.P. 303	29R-T	McHENRY	88	49
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62202



DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

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E-Mail: Info@soodan.com

- NOTES:**
1. For Notes & Legends see sheet SI-3.
 2. For Pile Summary see sheet SI-11.
 3. All dimensions are in millimeters (mm) except as noted.

Sheet SI-10 of 37

**SOLDIER PILE LAYOUT
SOUTH-EAST WALL (1 OF 2)
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007**

Date: February, 2005 Scale: None

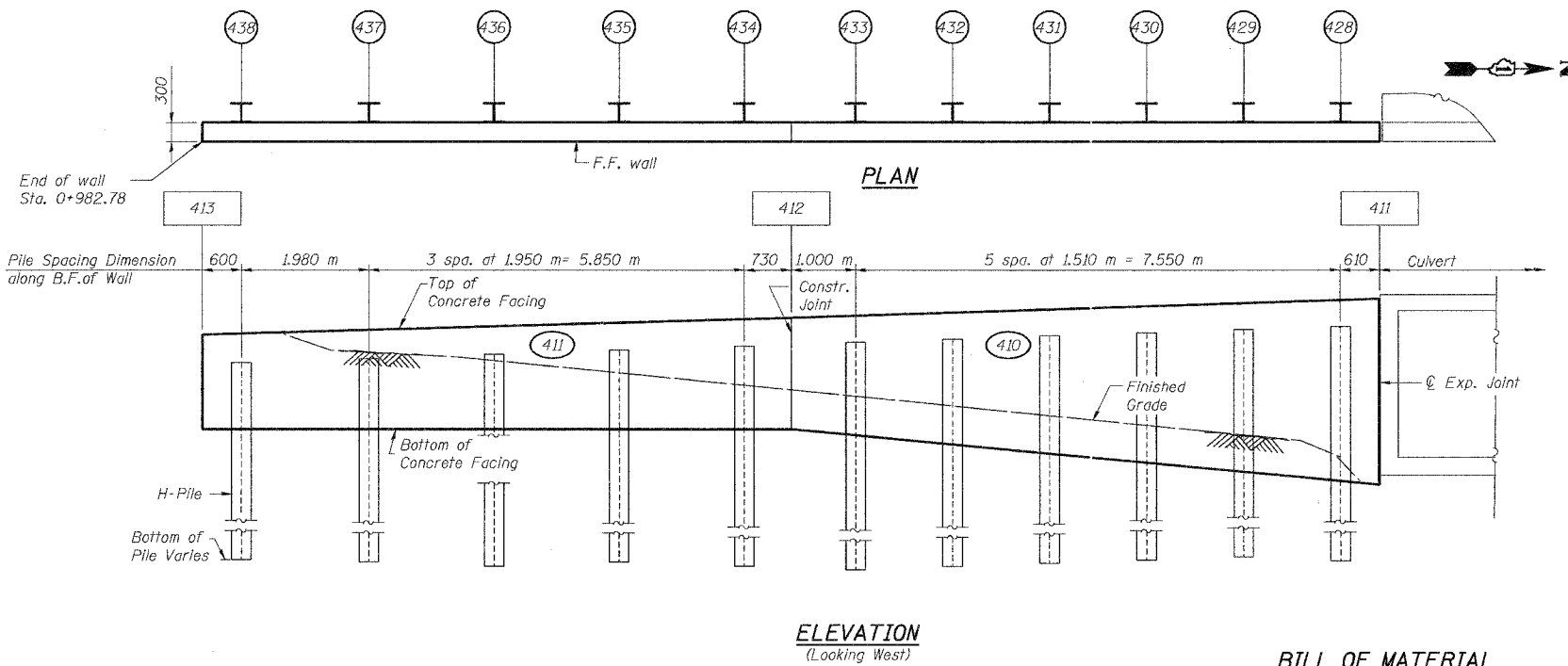
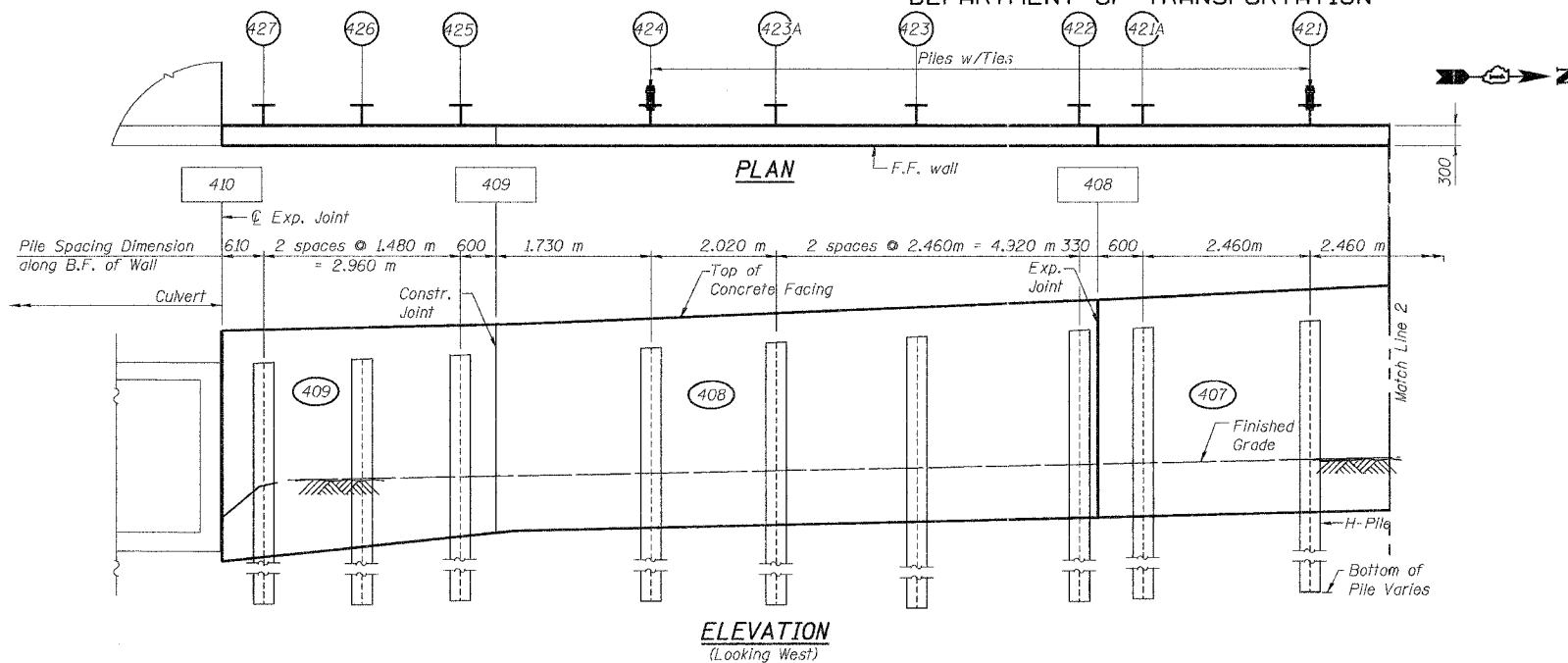
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
303	29R-T	McHENRY	88	50
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 62202

PILE SUMMARY

Pile No.	Station	Offset (LT) B.F. of Wall	Pile Size	Top of Pile Elevation	Bot. of Pile Elevation	Length (m)	Elev. of C. of Tieback
401	0+875.620	9.00	HP360X173	287.63	277.63	10.0	286.74
402	0+878.260	8.84	HP360X173	287.49	277.49	10.0	286.59
403	0+880.890	8.68	HP360X173	287.34	277.34	10.0	286.44
404	0+881.890	8.64	HP360X173	287.29	277.29	10.0	286.37
405	0+884.350	8.64	HP360X173	287.17	277.17	10.0	286.25
406	0+886.810	8.64	HP360X173	287.05	277.05	10.0	286.13
406A	0+889.270	8.64	HP360X173	286.93	276.93	10.0	286.01
407	0+891.750	8.64	HP360X108	286.82	277.82	9.0	285.89
408	0+894.790	8.64	HP360X108	286.67	277.67	9.0	285.75
409	0+897.830	8.64	HP360X108	286.53	277.53	9.0	285.60
410	0+900.510	8.64	HP360X108	286.40	277.40	9.0	285.47
411	0+902.970	8.64	HP360X108	286.27	277.27	9.0	285.34
412	0+905.430	8.64	HP360X108	286.15	277.15	9.0	285.22
412A	0+907.890	8.64	HP360X108	286.02	277.02	9.0	285.09
413	0+908.870	8.64	HP360X108	285.97	276.97	9.0	285.04
414	0+911.330	8.64	HP360X108	285.85	276.85	9.0	284.92
414A	0+913.790	8.64	HP360X108	285.72	276.72	9.0	284.80
415	0+916.250	8.64	HP360X108	285.60	277.60	8.0	284.68
416	0+918.710	8.64	HP360X108	285.48	277.48	8.0	284.55
417	0+921.750	8.64	HP360X108	285.35	277.35	8.0	284.40
418	0+924.790	8.64	HP360X108	285.19	277.19	8.0	284.25
419	0+927.510	8.64	HP360X108	285.09	277.09	8.0	284.12
420	0+929.970	8.64	HP360X108	284.97	276.97	8.0	284.00
421	0+932.430	8.64	HP360X108	284.86	276.86	8.0	283.88
421A	0+934.890	8.64	HP360X108	284.74	276.74	8.0	283.76
422	0+935.820	8.64	HP360X108	284.70	276.70	8.0	283.71
423	0+938.280	8.64	HP360X108	284.59	276.59	8.0	283.60
423A	0+940.740	8.64	HP360X108	284.49	276.49	8.0	283.50
424	0+942.760	8.64	HP360X108	284.41	276.41	8.0	283.68
425	0+945.090	8.64	HP360X152	284.69	274.69	10.0	-
426	0+946.570	8.64	HP360X152	284.63	274.63	10.0	-
427	0+948.050	8.64	HP360X152	284.58	274.58	10.0	-
428	0+965.070	8.64	HP360X152	283.66	274.66	9.0	-
429	0+966.580	8.64	HP360X152	283.61	274.61	9.0	-
430	0+968.090	8.64	HP360X152	283.56	274.56	9.0	-
431	0+969.60	8.64	HP360X152	283.52	274.52	9.0	-
432	0+971.110	8.64	HP360X152	283.47	274.47	9.0	-
433	0+972.620	8.64	HP360X152	283.42	274.42	9.0	-
434	0+974.346	8.64	HP360X152	283.36	276.36	7.0	-
435	0+976.30	8.64	HP360X152	283.31	276.31	7.0	-
436	0+978.250	8.64	HP360X152	283.26	276.26	7.0	-
437	0+980.20	8.64	HP360X152	283.20	276.20	7.0	-
438	0+982.180	8.64	HP360X152	283.15	276.15	7.0	-



BILL OF MATERIAL

Item	Unit	Total
Furnishing Soldier Piles (HP Section)	m	375
Driving Soldier Piles	m	375

NOTES:

- For Notes & Legends see sheet SI-3.
- All dimensions are in millimeters (mm) except as noted.
- Work this sheet with Sheet S-14

**SOLDIER PILE LAYOUT
SOUTH-EAST WALL (2 OF 2)**
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

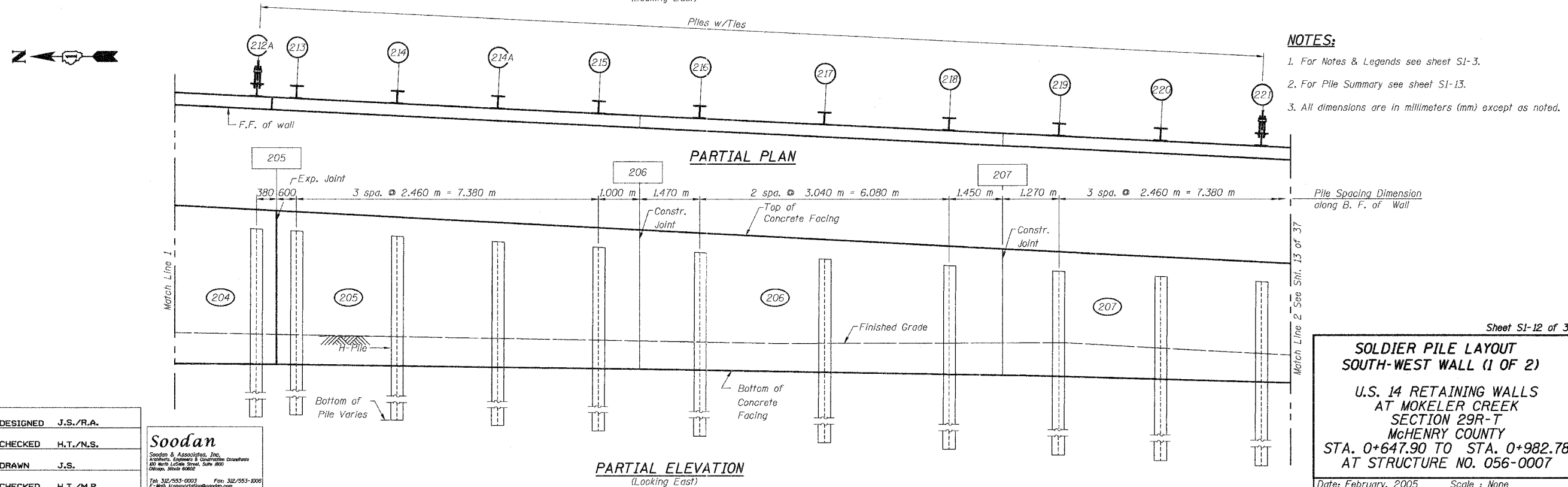
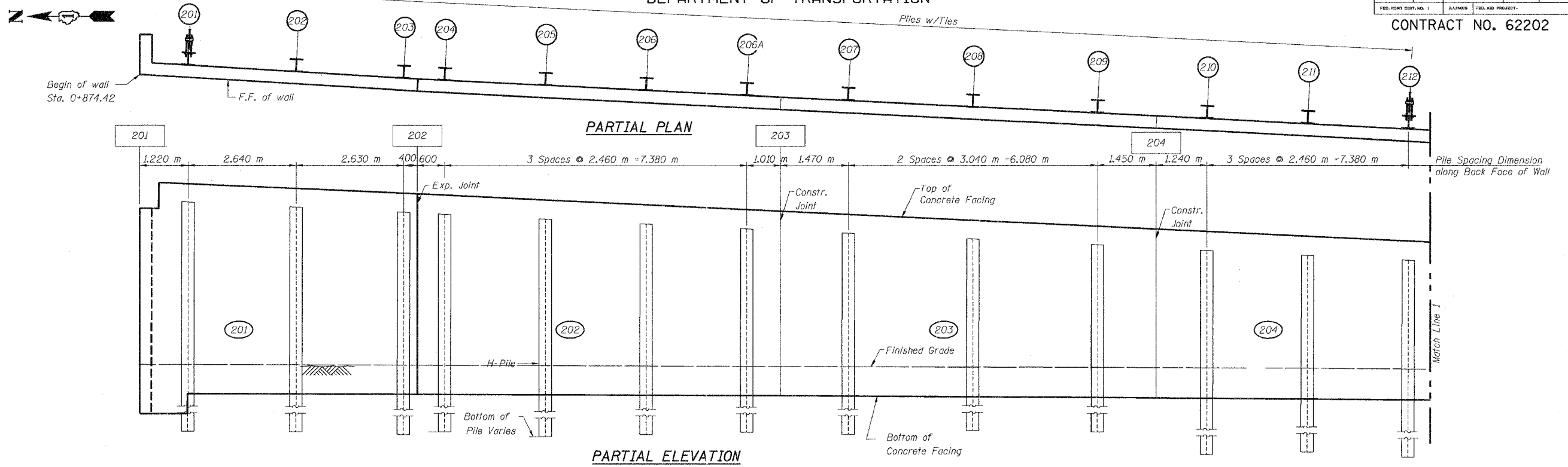
DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S./B.I.D.
CHECKED	H.T./M.R.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	DISTRICT	COUNTY	SHEET	TOTAL SHEETS
383	299-T	McHENRY	88	51
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 62202



- NOTES:**
1. For Notes & Legends see sheet SI-3.
 2. For Pile Summary see sheet SI-13.
 3. All dimensions are in millimeters (mm) except as noted.

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

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E-Mail: transport@soodan.com

Sheet SI-12 of 37

**SOLDIER PILE LAYOUT
SOUTH-WEST WALL (1 OF 2)**

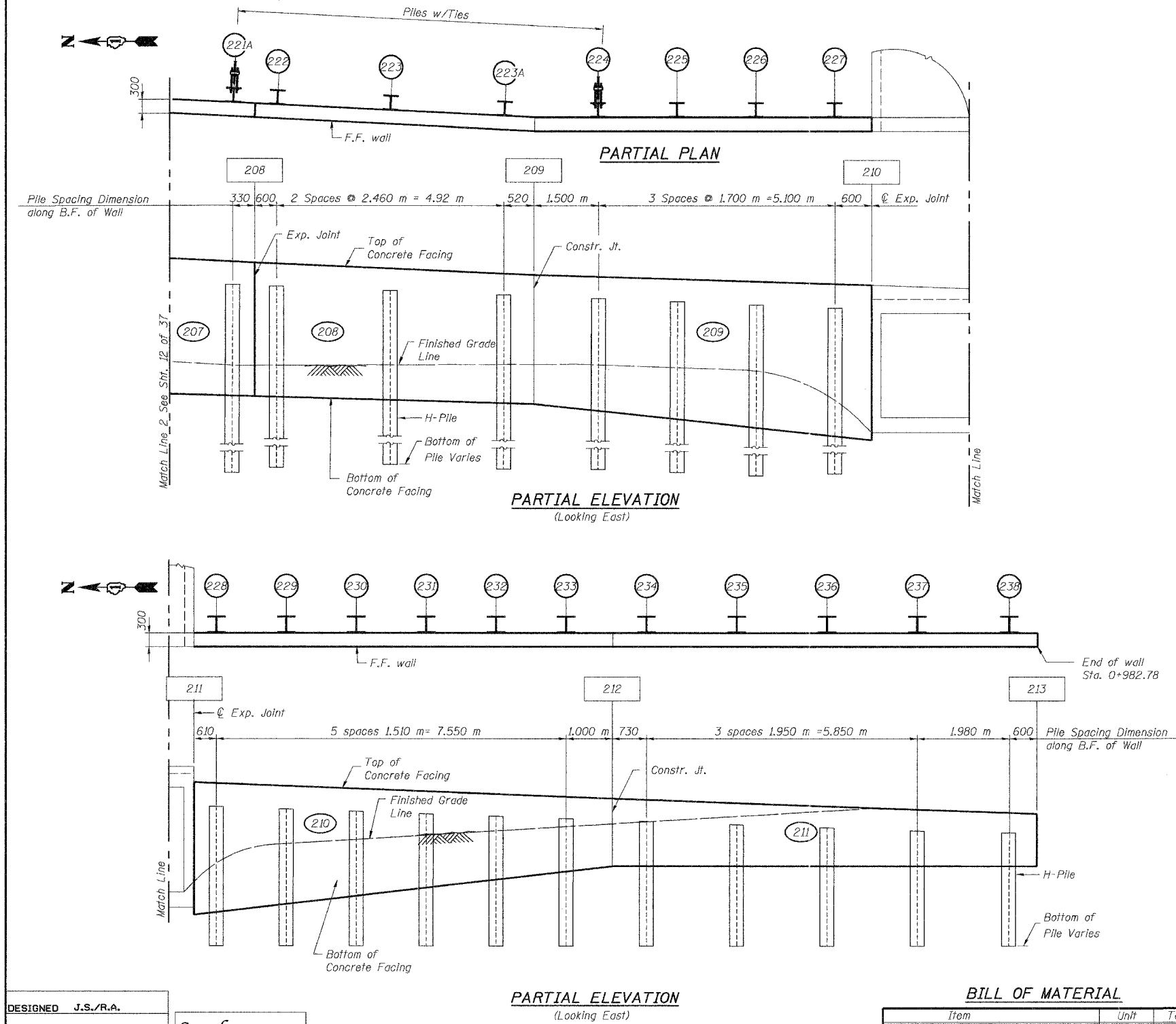
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 299-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET
U.S. 14	29R-T	McHENRY	88	52
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 62202



PILE SUMMARY

Pile No.	Station	Offset (RT) B.F. of Wall	Pile Size	Top of Pile Elevation	Bot. of Pile Elevation	Length (m.)	Elev. of \bar{C} of Tieback
201	0+875.62	9.20	HP360X173	287.65	277.15	10.5	286.74
202	0+878.26	9.38	HP360X173	287.50	277.00	10.5	286.59
203	0+880.89	9.52	HP360X173	287.35	276.85	10.5	286.44
204	0+881.89	9.58	HP360X173	287.28	277.28	10.0	286.37
205	0+884.35	9.70	HP360X173	287.16	277.16	10.0	286.25
206	0+886.81	9.82	HP360X173	287.04	277.04	10.0	286.13
206A	0+889.27	9.94	HP360X108	286.92	276.92	10.0	286.01
207	0+891.75	10.06	HP360X108	286.80	277.80	9.0	285.89
208	0+894.79	10.22	HP360X108	286.66	277.66	9.0	285.75
209	0+897.83	10.37	HP360X108	286.51	277.51	9.0	285.60
210	0+900.51	10.51	HP360X108	286.38	277.38	9.0	285.47
211	0+902.97	10.63	HP360X108	286.26	277.26	9.0	285.34
212	0+905.43	10.75	HP360X108	286.13	277.13	9.0	285.22
212A	0+907.89	10.87	HP360X108	286.01	277.01	9.0	285.09
213	0+908.86	10.92	HP360X108	285.96	276.96	9.0	285.04
214	0+911.32	11.04	HP360X108	285.83	276.83	9.0	284.92
214A	0+913.78	11.17	HP360X108	285.71	276.71	9.0	284.80
215	0+916.24	11.29	HP360X108	285.59	277.59	8.0	284.68
216	0+918.71	11.40	HP360X108	285.47	277.47	8.0	284.55
217	0+921.75	11.55	HP360X108	285.32	277.32	8.0	284.40
218	0+924.79	11.70	HP360X108	285.17	277.17	8.0	284.25
219	0+927.51	11.84	HP360X108	285.03	277.03	8.0	284.12
220	0+929.97	11.96	HP360X108	284.91	276.91	8.0	284.00
221	0+932.43	12.08	HP360X108	284.79	276.79	8.0	283.88
221A	0+934.89	12.25	HP360X152	284.67	276.67	8.0	283.76
222	0+935.82	12.37	HP360X152	284.63	276.63	8.0	283.71
223	0+938.28	12.49	HP360X152	284.52	276.52	8.0	283.60
223A	0+940.74	12.52	HP360X152	284.41	276.41	8.0	283.50
224	0+942.76	12.52	HP360X152	284.60	276.60	8.0	283.68
225	0+944.46	12.52	HP360X152	284.53	274.53	10.0	-
226	0+946.16	12.52	HP360X152	284.47	274.47	10.0	-
227	0+947.86	12.52	HP360X152	284.40	274.40	10.0	-
228	0+965.07	12.52	HP360X152	283.59	273.59	10.0	-
229	0+966.58	12.52	HP360X152	283.54	273.54	10.0	-
230	0+968.09	12.52	HP360X152	283.49	273.49	10.0	-
231	0+969.60	12.52	HP360X152	283.44	274.44	9.0	-
232	0+971.11	12.52	HP360X152	283.39	274.39	9.0	-
233	0+972.62	12.52	HP360X152	283.34	274.34	9.0	-
234	0+974.35	12.52	HP360X152	283.29	276.29	7.0	-
235	0+976.30	12.52	HP360X152	283.24	276.24	7.0	-
236	0+978.25	12.52	HP360X152	283.18	276.18	7.0	-
237	0+980.20	12.52	HP360X152	283.13	276.13	7.0	-
238	0+982.18	12.52	HP360X152	283.07	276.07	7.0	-

NOTES:

- For Notes & Legend see sheet S1-3.
- All dimensions are in millimeters (mm) except as noted.
- Work this sheet with Sheet S-14

Sheet S1-13 of 37

**SOLDIER PILE LAYOUT
SOUTH-WEST WALL (2 OF 2)**
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

Soodan
Soodan & Associates, Inc.
Architects, Engineers & Construction Consultants
815 North Lincoln Street, Suite 1000
Chicago, Illinois 60602
Tel: 312/253-0003 Fax: 312/253-1006
E-Mail: transportation@soodan.com

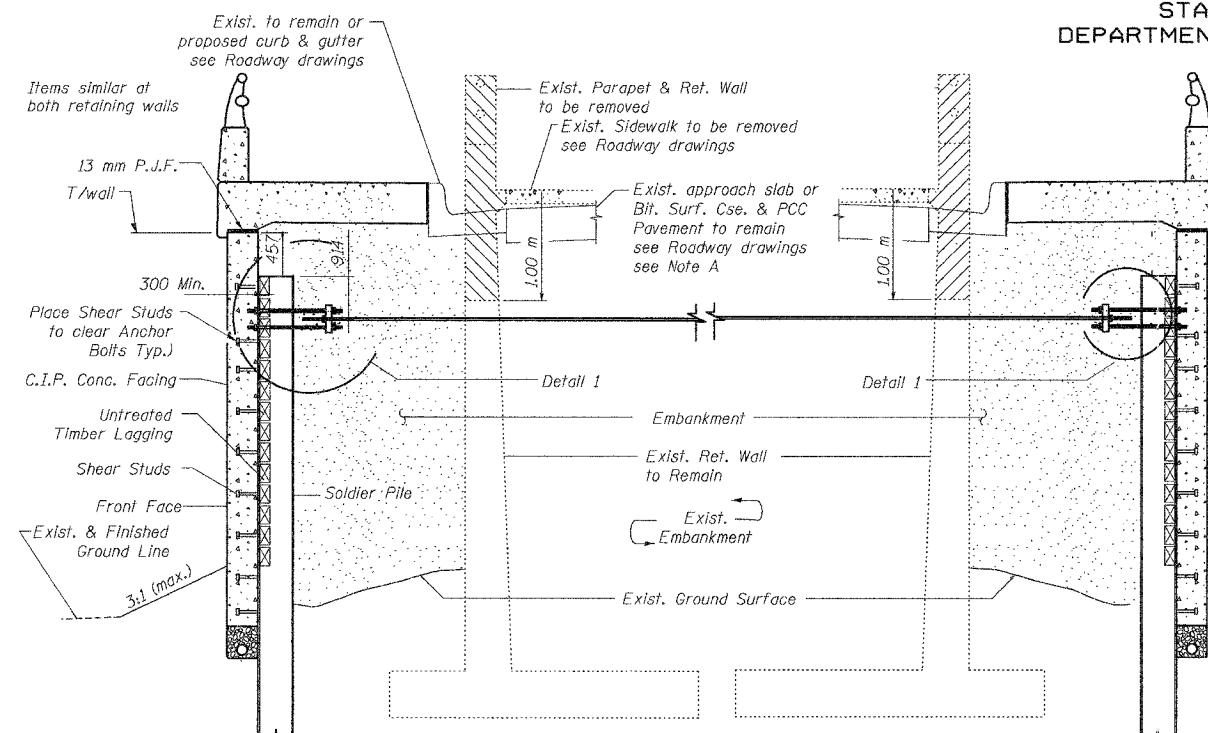
BILL OF MATERIAL

Item	Unit	Total
Furnishing Soldier Piles (HP Section)	m	380
Driving Soldier Piles	m	380

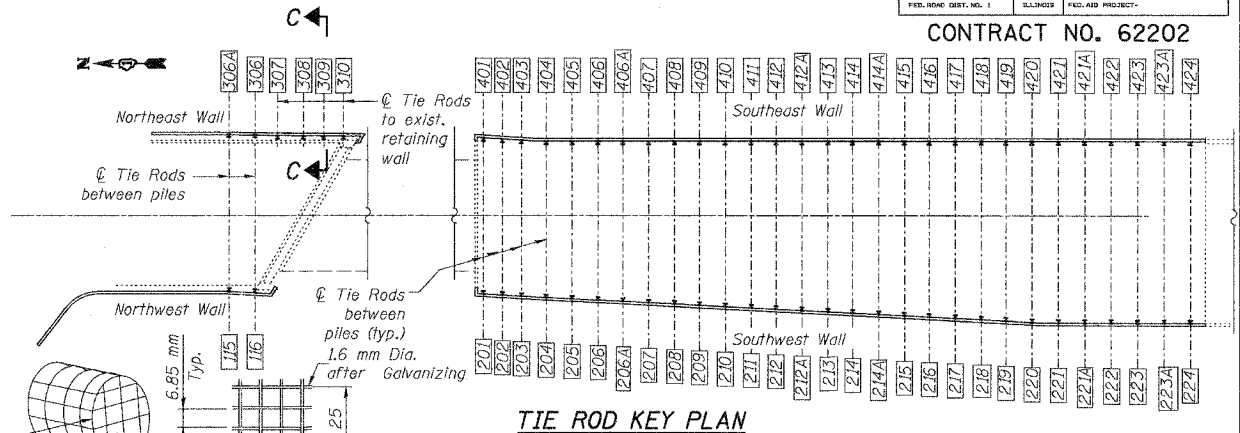
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
383	29R-T	McHENRY	66	53
F.A.P. 383		FED. AID PROJECT		

CONTRACT NO. 62202

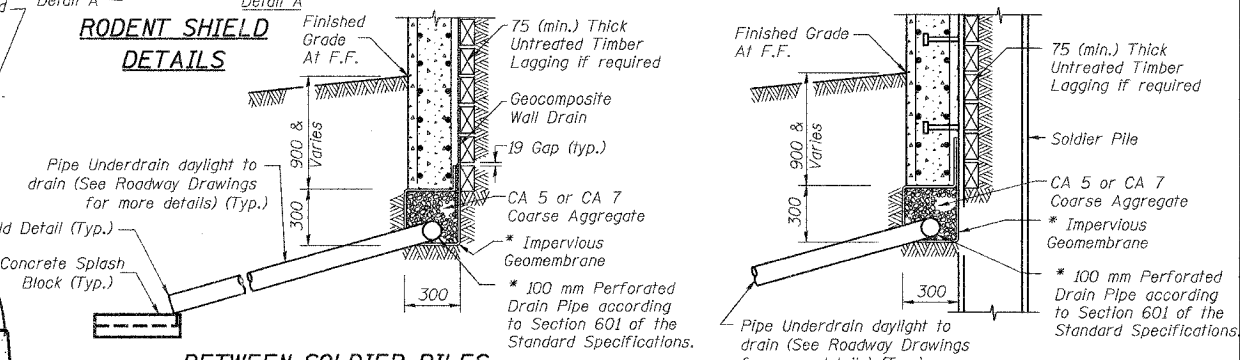


TYPICAL SECTION AT PILE TO PILE TIE ROD



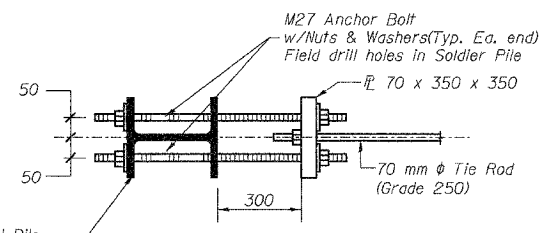
TIE ROD KEY PLAN

RODENT SHIELD DETAILS

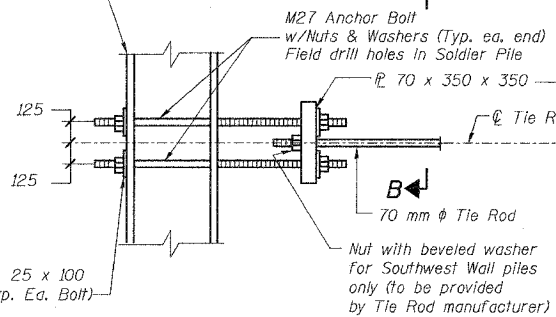


BETWEEN SOLDIER PILES

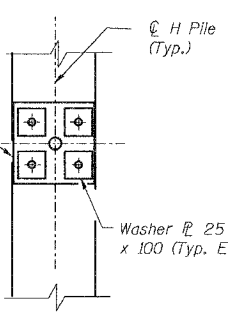
AT SOLDIER PILES



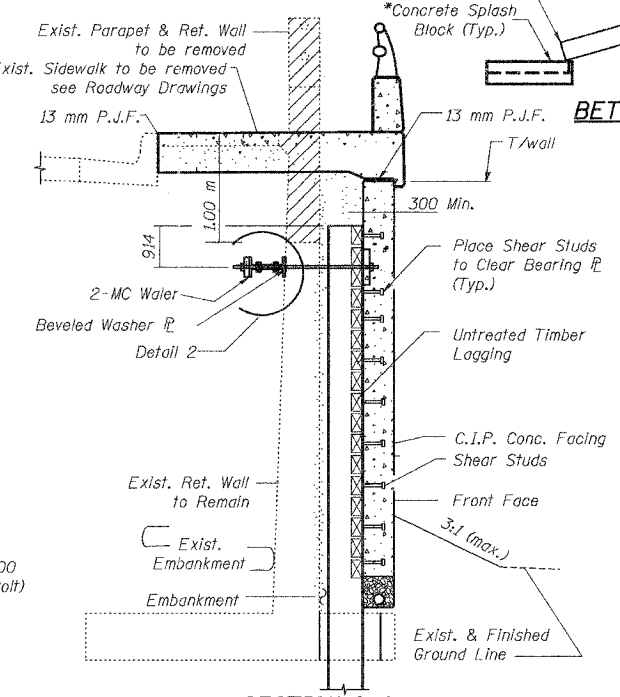
PLAN



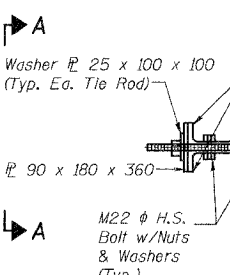
ELEVATION



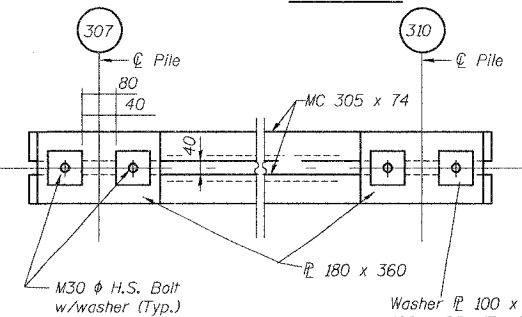
VIEW B-B



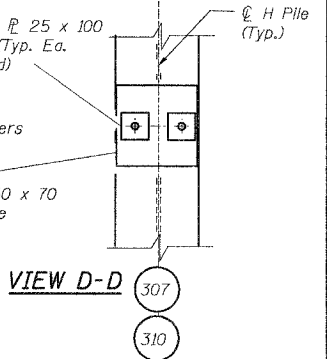
SECTION C-C (NEAR EAST CORNER OF NORTH ABUTMENT)



DETAIL 2



VIEW A-A



VIEW D-D

**Width of Spacers to Equal Dia. of Tierods

Sheet S1-14 of 37

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
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BILL OF MATERIAL

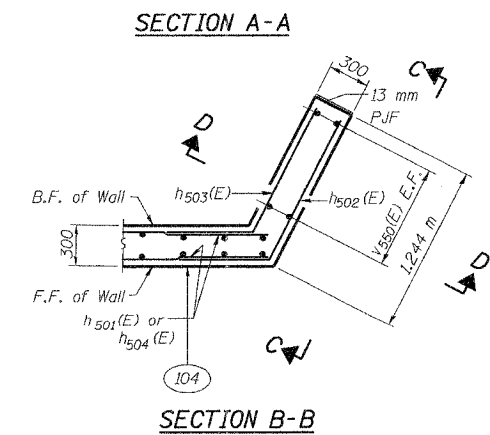
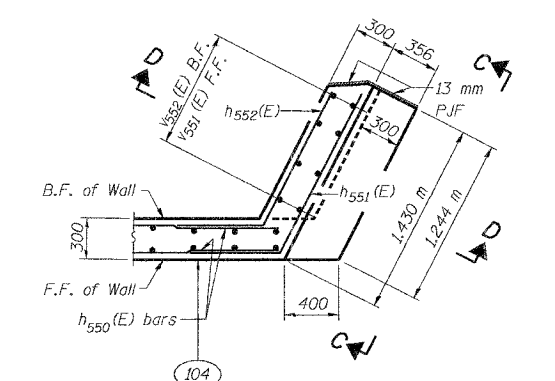
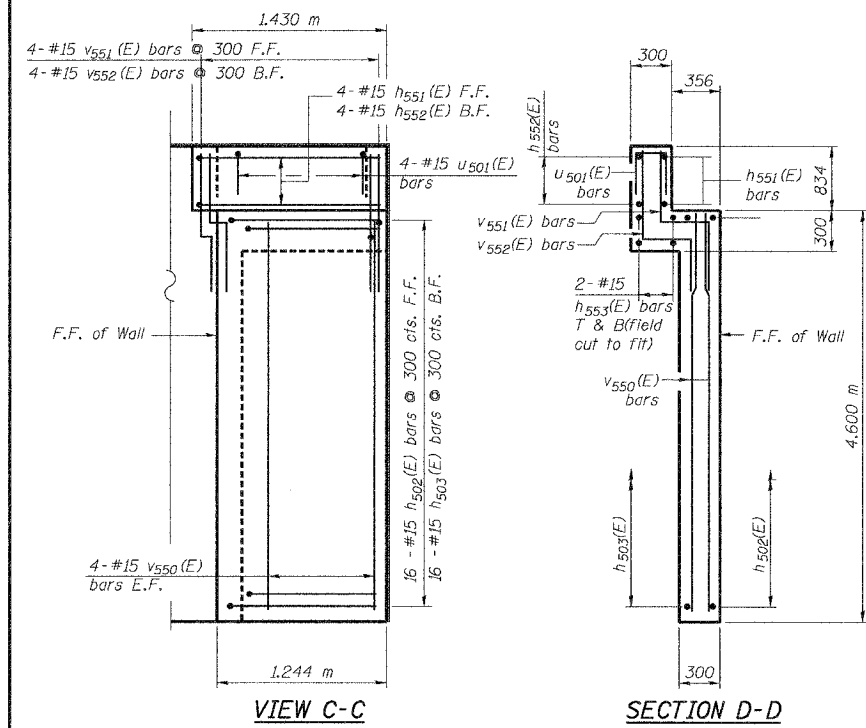
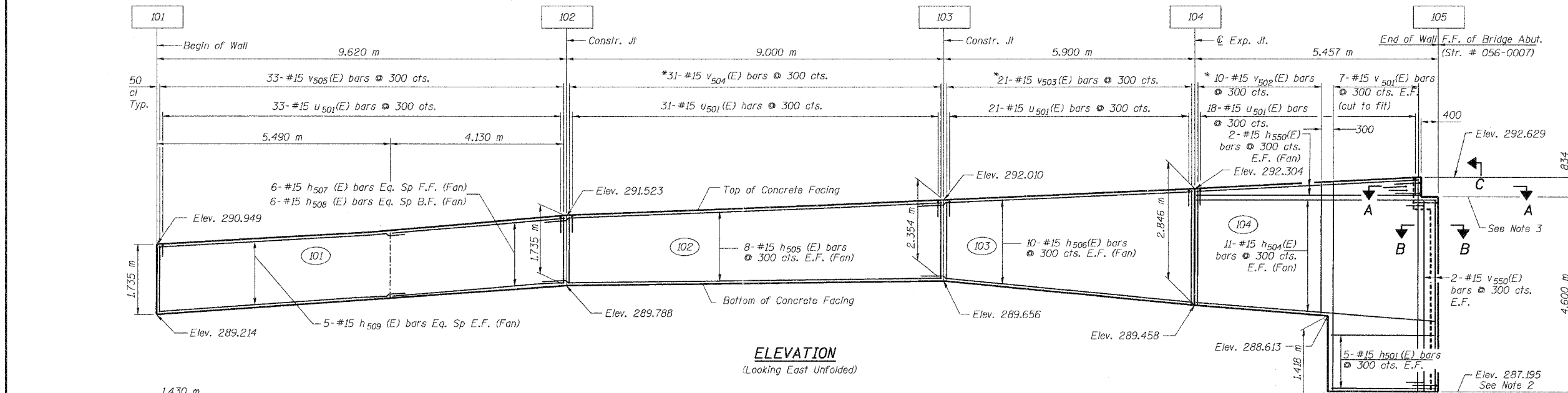
ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Kg	169.8
Pipe Underdrains for Structures 100 mm	m	141

DRAINAGE & TIEBACK DETAILS
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007
Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
D. A. L.	29R-T	McHENRY	86	54
F. A. P. 383				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 62202



MIN. LAP
#15= 640 mm

- NOTES:**
- For Notes & Legend see sheet S1-3.
 - Match bottom of wall to the top of existing abutment footing elevation.
 - Match top of wall to existing bridge seat elevation.
 - All dimensions are in millimeters (mm) except as noted.

*Order v₅₀₂(E) thru v₅₀₄(E) full length. Cut to fit and use the remainder of bars in other face.

DESIGNED	J.S./R.A.	Soodan Soodan & Associates, Inc. Architects, Engineers & Construction Consultants 150 North LaSalle Street, Suite 2000 Chicago, Illinois 60602 Tel: 312/253-0003 Fax: 312/253-8006 E-Mail: transportation@soodan.com
CHECKED	H.T./N.S.	
DRAWN	J.S./B.I.D.	
CHECKED	H.T./M.R.	

Sheet S1-15 of 37

**CONCRETE FACING
NORTH-WEST WALL**

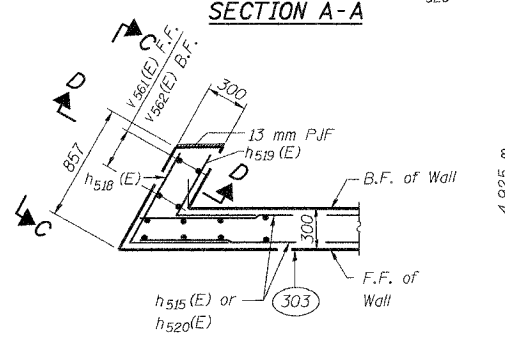
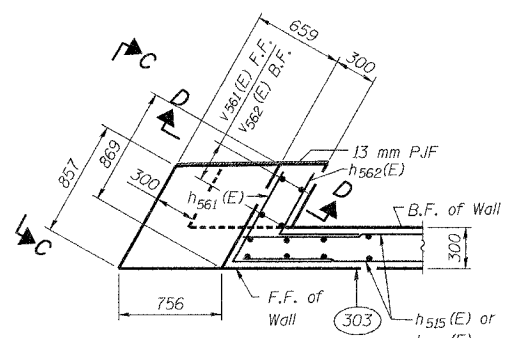
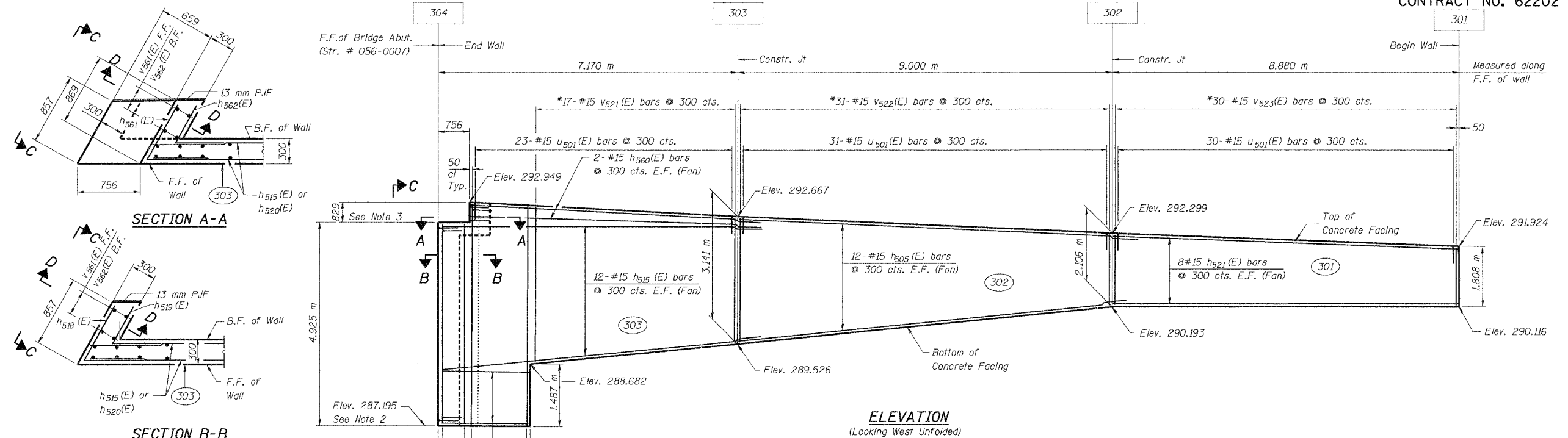
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

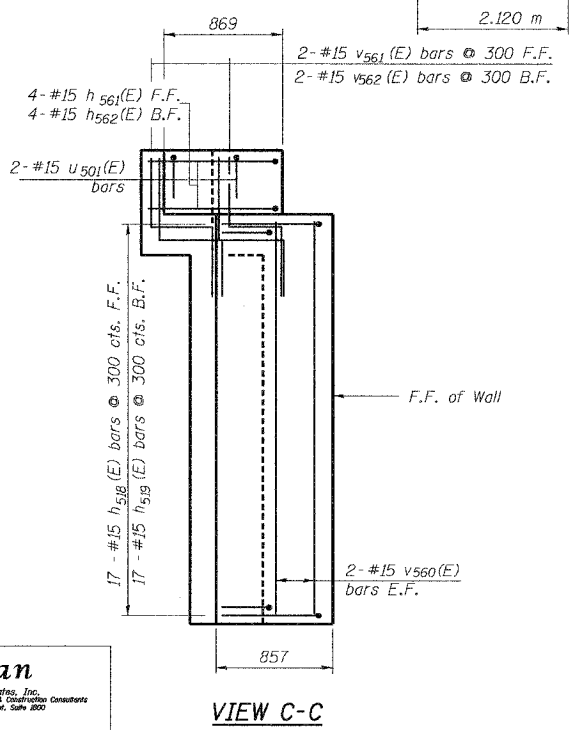
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
S.A.P. 303	29R-T	McHENRY	88	55
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-		

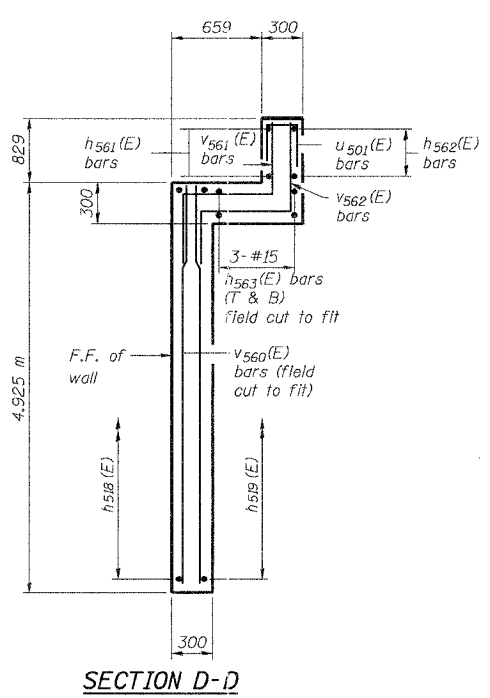
CONTRACT NO. 62202



SECTION B-B



VIEW C-C



SECTION D-D

ELEVATION
(Looking West Unfolded)

MIN. LAP
#15 = 640 mm

NOTES:

1. For Notes & Legend see sheet SI-3.
 2. Match bottom of wall to the top of existing abutment footing elevation.
 3. Match top of wall to existing bridge seat elevation.
 4. All dimensions are in millimeters (mm) except as noted.
- * Order v521(E) thru v523(E) full length. Cut to fit and use the remainder of bars in other face.

Sheet SI-16 of 37

**CONCRETE FACING
NORTH-EAST WALL**
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007
Date: February, 2005 Scale: None

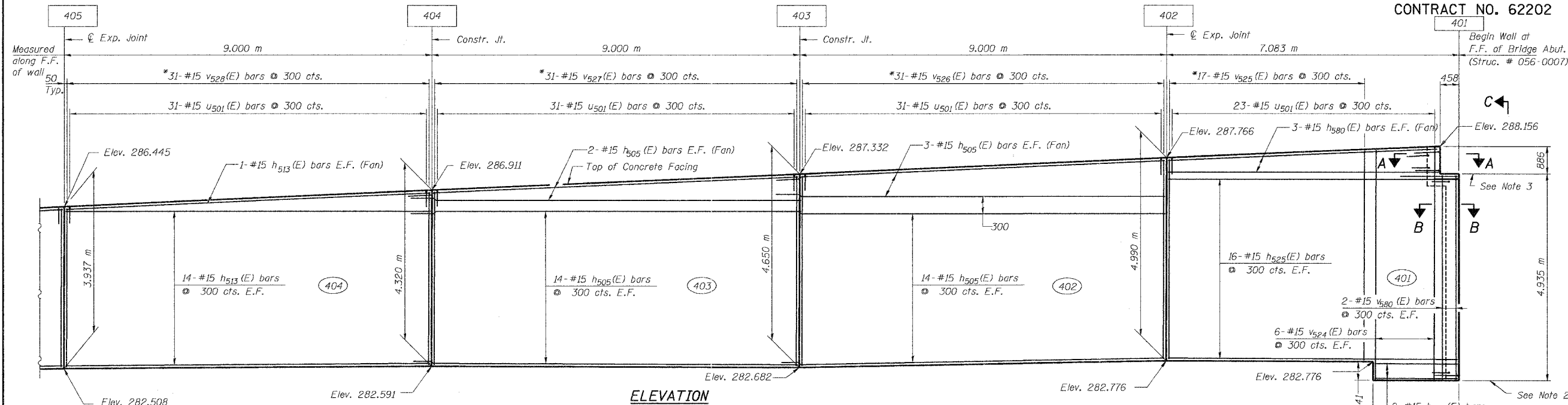
DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S./B.I.D.
CHECKED	H.T./M.R.

Soodan
Soodan & Associates, Inc.
Structural Engineers & Construction Consultants
210 North LaSalle Street, Suite 2000
Chicago, Illinois 60602
Tel: 312/553-0003 Fax: 312/553-8006
E-Mail: transport@soodan.com

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

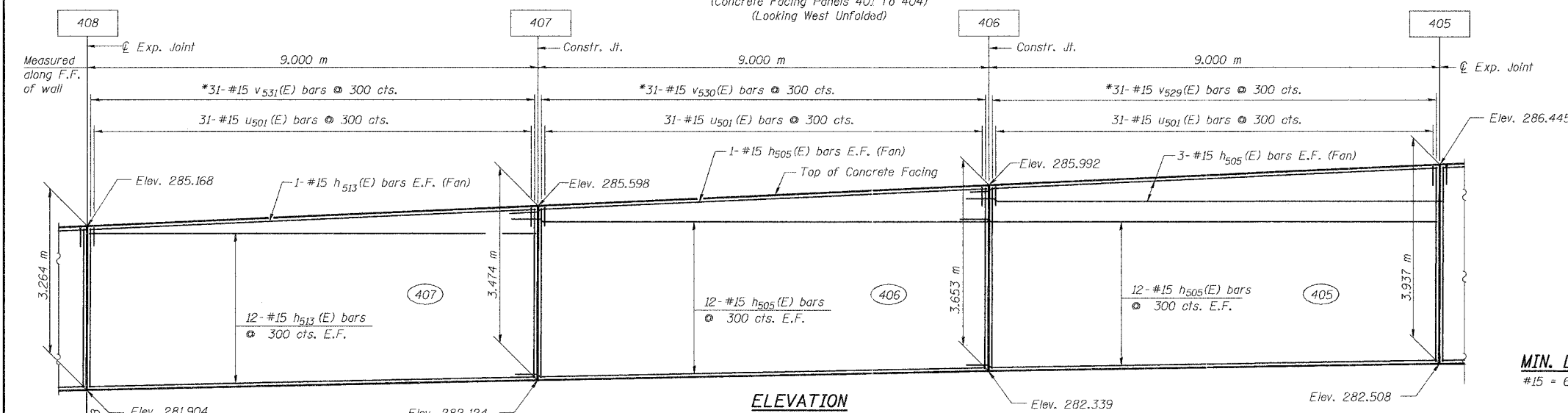
ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
299-T	299-T	McHENRY	88	56
F.L.P. 383		ILLINOIS PROJECT		
FED. ROAD DIST. NO. 1		FED. AID PROJECT		

CONTRACT NO. 62202



ELEVATION

(Concrete Facing Panels 401 To 404)
(Looking West Unfolded)



ELEVATION

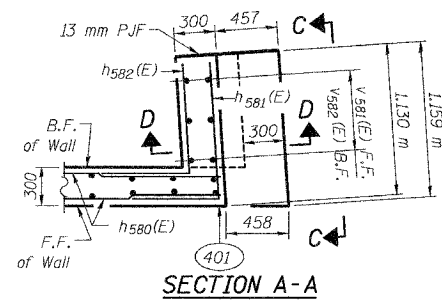
(Concrete Facing Panels 405 To 407)
(Looking West Unfolded)

* Order v524(E) thru v531(E) bars full length, cut to fit and use the remainder of bars in other face.

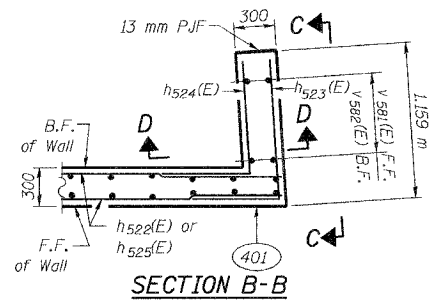
MIN. LAP
#15 = 640 mm

NOTES:

1. For Notes & Legend see sheet S1-3.
2. Match bottom of wall to the top of existing abutment footing elevation.
3. Match top of wall to existing bridge seat elevation.
4. For View C-C and Section D-D see Sheet S1-18.
5. All dimensions are in millimeters (mm) except as noted.



SECTION A-A



SECTION B-B

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S./B.I.D.
CHECKED	H.T./M.R.

Soodan
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Chicago, Illinois 60602
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Sheet S1-17 of 37

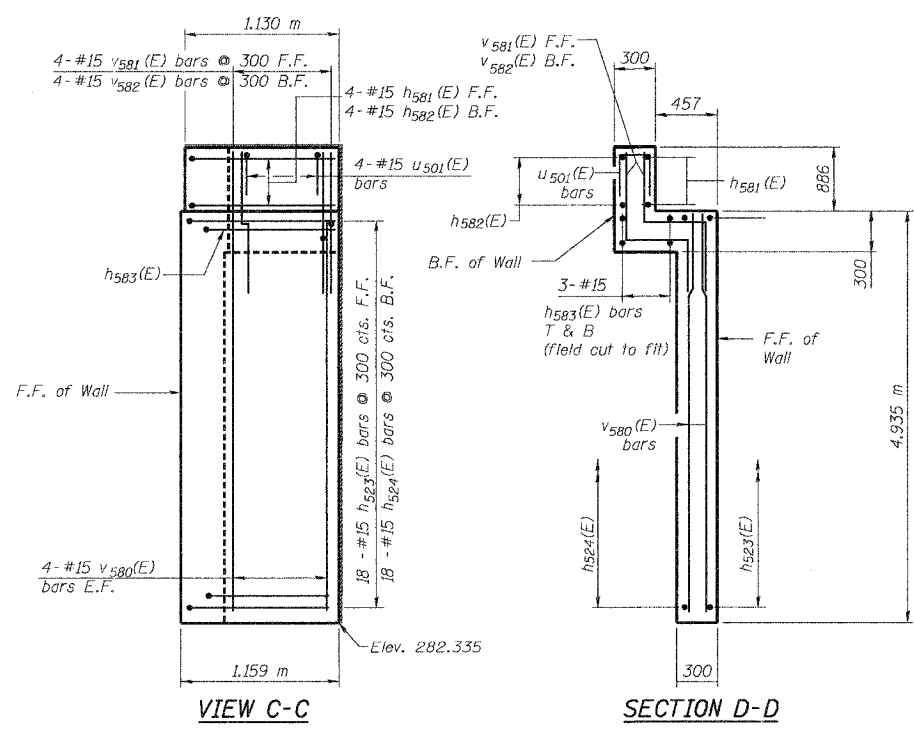
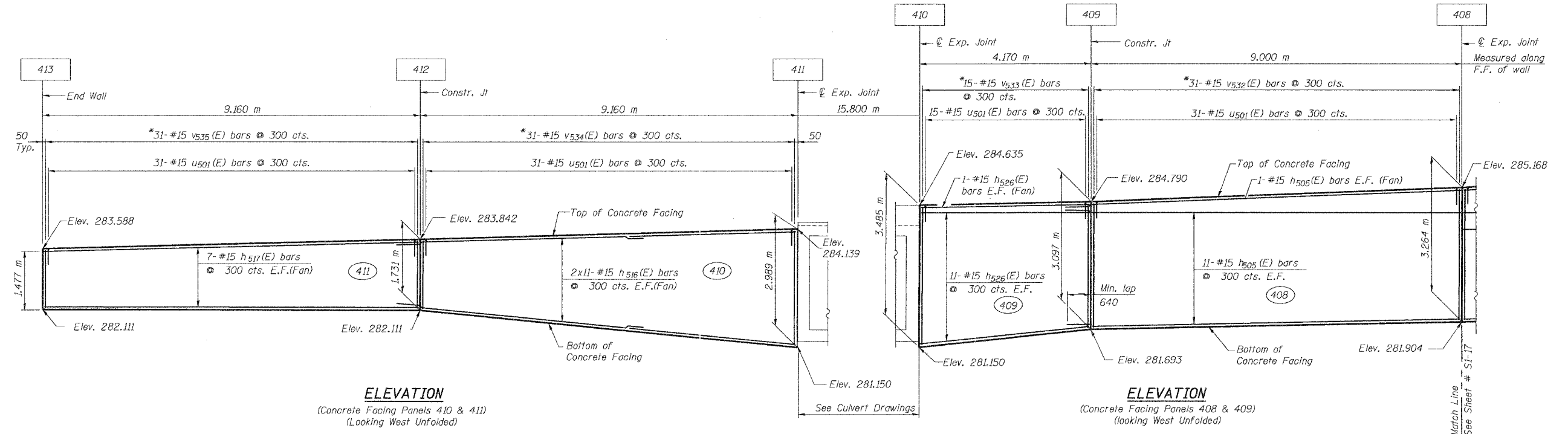
**CONCRETE FACING
SOUTH-EAST WALL (1 of 2)**
U.S. 14 RETAINING WALLS
AT MOKELEER CREEK
SECTION 299-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
299-T	299-T	McHENRY	88	57
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 62202



MIN. LAP
#15= 640 mm

- NOTES:**
- For Notes & Legend see Sheet SI-3.
 - Bars indicated thus 1 x 3-#15 etc. indicates 1 line of bars with 3 lengths per line.
 - All dimensions are in millimeters (mm) except as noted.
- * Order v₅₃₂(E) thru v₅₃₅(E) Bars full length, Cut to fit and use the remainder of bars in other face.

Sheet SI-18 of 37

**CONCRETE FACING
SOUTH-EAST WALL (2 of 2)**

U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 299-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale : None

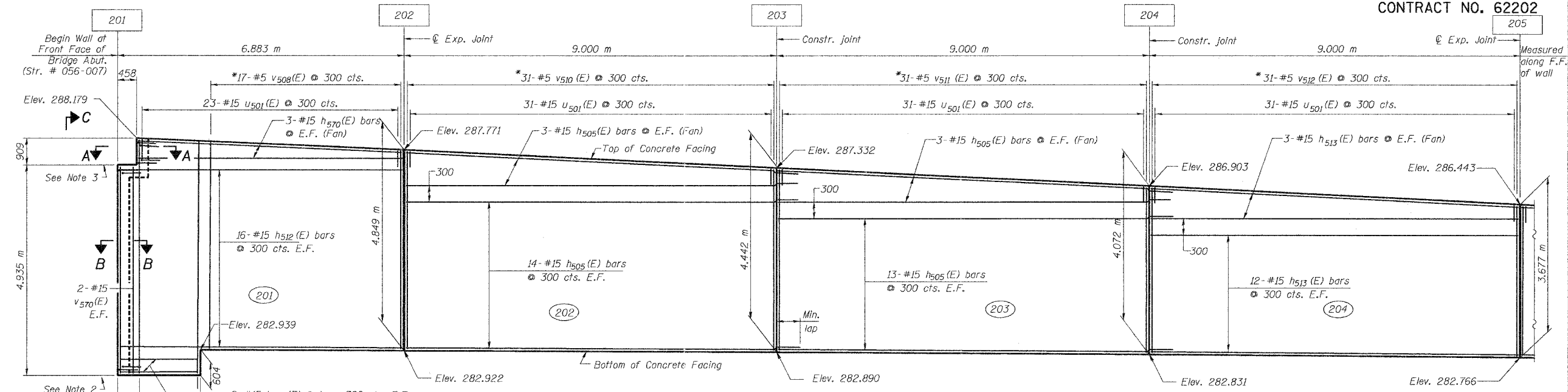
DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S./B.I.D.
CHECKED	H.T./M.R.

Soodan
Soodan & Associates, Inc.
Architect, Engineers & Construction Consultants
621 North College Street, Suite 800
Chicago, Illinois 60602
Tel: 312-953-0033 Fax: 312-953-2095
E-Mail: transportation@soodan.com

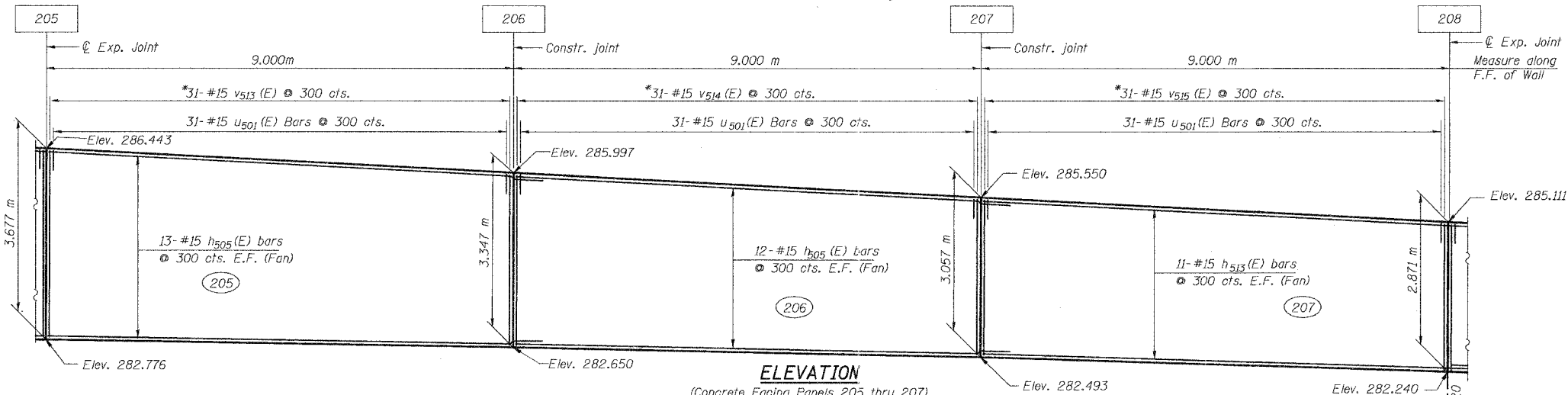
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	SHEETS	NO.
S.A.P. 383	29R-T	McHENRY	88	58
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

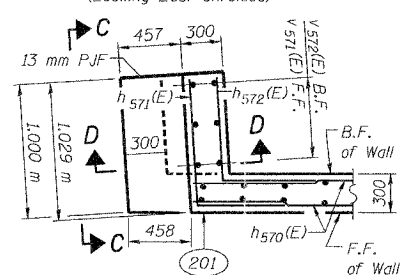
CONTRACT NO. 62202



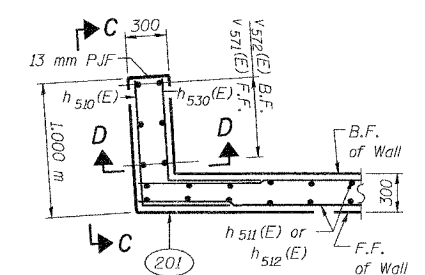
ELEVATION
(Concrete Facing Panels 201 thru 204)
(Looking East Unfolded)



ELEVATION
(Concrete Facing Panels 205 thru 207)
(Looking East Unfolded)



SECTION A-A



SECTION B-B

MIN. LAP
#15 = 640 mm

- NOTES:**
1. For Notes & Legend see sheet S1-3.
 2. Match bottom of wall to the top of existing abutment footing elevation.
 3. Match top of wall to existing bridge seat elevation.
 4. For View C-C and Section D-D see Sheet S1-20.
 5. All dimensions are in millimeters (mm) except as noted.

* Order v508(E) and v510(E) thru v515(E) full length. Cut to fit and use the remainder of bars in other face.

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S./B.I.D.
CHECKED	H.T./M.R.

Soodan
Soodan & Associates, Inc.
Architects, Engineers & Construction Consultants
231 North LaSalle Street, Suite 3000
Chicago, Illinois 60602
Tel: 312/953-0003 Fax: 312/953-8006
E-Mail: transport@soodan.com

Sheet S1-19 of 37

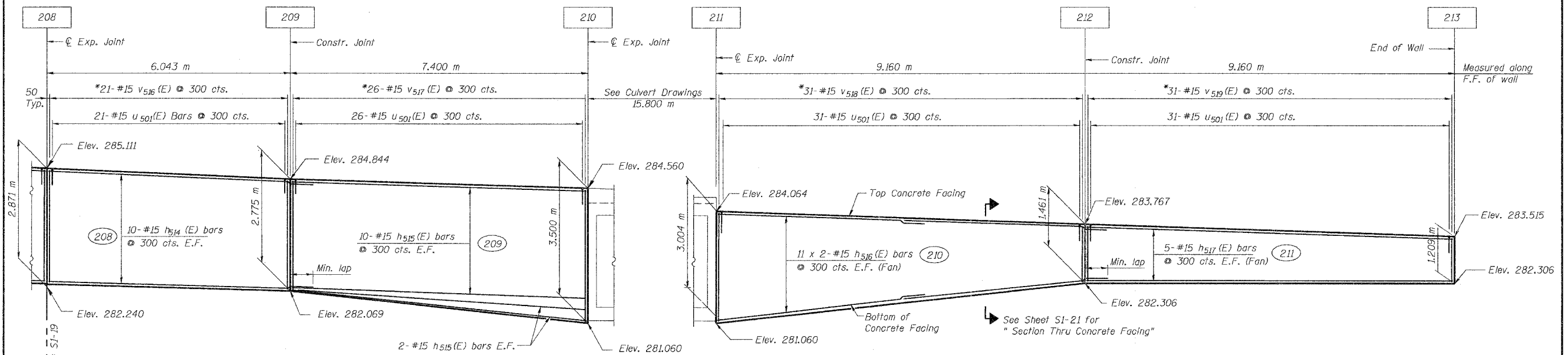
CONCRETE FACING
SOUTH-WEST WALL (1 of 2)
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

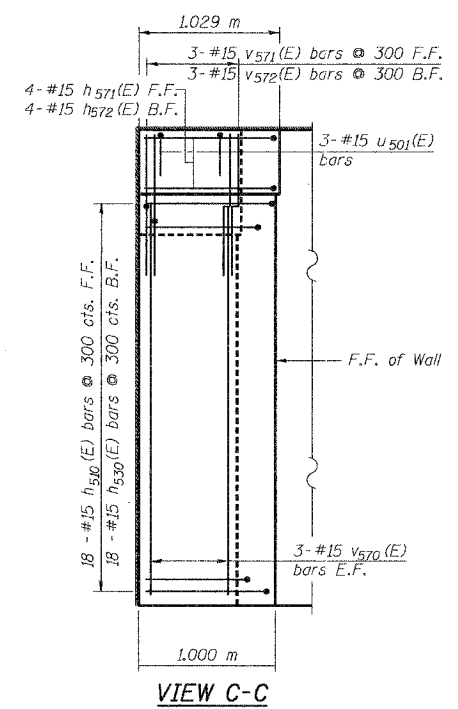
ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET
P.A.P. 303	29R-T	McHENRY	88	59
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62202

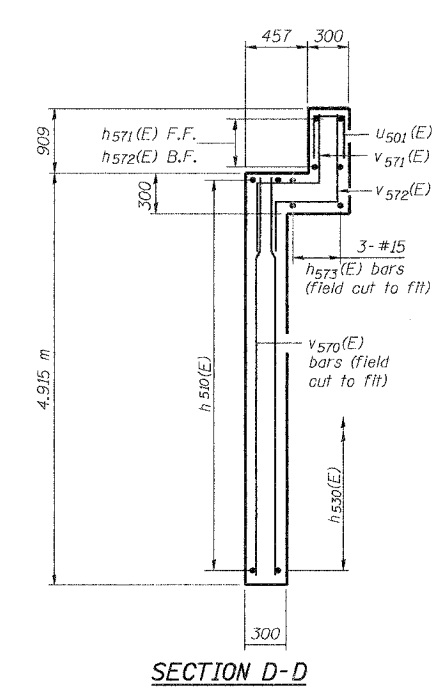


ELEVATION
(Concrete Facing Panels 208 & 209)
(Looking East Unfolded)

ELEVATION
(Concrete Facing Panels 210 & 211)
(Looking East Unfolded)



VIEW C-C



SECTION D-D

NOTES:

- For Notes & Legend see sheet S1-3.
 - Bars indicated thus 1 x 3-#15 etc. indicates 1 line of bars with 3 lengths per line.
 - All dimensions are in millimeters (mm) except as noted.
- * Order v516 (E) thru v519 (E) full length, cut to fit and use the remainder of bars in other face.

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S./B.I.D.
CHECKED	H.T./M.R.

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Tel: 312/551-0203 Fax: 312/551-0206
E-Mail: frampton@soodan.com

MIN. LAP
#15 = 640 mm

Sheet S1-20 of 37

**CONCRETE FACING
SOUTH-WEST WALL (2 of 2)**

U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-007

Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
298-T	McHENRY	88	60	

CONTRACT NO. 62202

SOUTH-EAST WALL

Bar	No.	Size	Length (m)	Shape
h 505 (E)	146	# 15	9.64	—
h 513 (E)	56	# 15	8.93	—
h 516 (E)	44	# 15	5.22	—
h 517 (E)	14	# 15	9.08	—
h 522 (E)	4	# 15	1.97	—
h 523 (E)	18	# 15	1.72	—
h 524 (E)	18	# 15	1.48	—
h 525 (E)	32	# 15	7.00	—
h 526 (E)	24	# 15	4.10	—
h 580 (E)	6	# 15	6.64	—
h 581 (E)	4	# 15	1.69	—
h 582 (E)	4	# 15	1.47	—
h 583 (E)	6	# 15	1.26	—
u 501 (E)	321	# 15	0.82	—
v 524 (E)	12	# 15	5.65	—
v 525 (E)	17	# 15	10.07	—
v 526 (E)	31	# 15	9.44	—
v 527 (E)	31	# 15	8.77	—
v 528 (E)	31	# 15	8.06	—
v 529 (E)	31	# 15	7.39	—
v 530 (E)	31	# 15	6.92	—
v 531 (E)	31	# 15	6.53	—
v 532 (E)	31	# 15	6.16	—
v 533 (E)	15	# 15	6.39	—
v 534 (E)	31	# 15	4.52	—
v 535 (E)	31	# 15	3.01	—
v 580 (E)	12	# 15	4.85	—
v 581 (E)	4	# 15	1.99	—
v 582 (E)	4	# 15	2.19	—
Reinforcement Bars, Epoxy Coated		kg	8,270	
Concrete Structures		m ³	101.7	
Pipe Underdrains for Structures 100mm		m ³	8.1	
Geocomposite Wall Drain		m ²	292.7	
Stud Shear Connectors		Each	960	

SOUTH-WEST WALL

Bar	No.	Size	Length (m)	Shape
h 505 (E)	116	# 15	9.64	—
h 510 (E)	18	# 15	1.56	—
h 511 (E)	4	# 15	1.90	—
h 512 (E)	32	# 15	6.78	—
h 513 (E)	52	# 15	8.93	—
h 514 (E)	20	# 15	6.68	—
h 515 (E)	24	# 15	7.32	—
h 516 (E)	24	# 15	5.22	—
h 517 (E)	10	# 15	9.08	—
h 530 (E)	18	# 15	1.44	—
h 570 (E)	6	# 15	6.32	—
h 571 (E)	4	# 15	1.59	—
h 572 (E)	4	# 15	1.47	—
h 573 (E)	6	# 15	1.35	—
u 501 (E)	321	# 15	0.82	—
v 506 (E)	12	# 15	5.74	—
v 508 (E)	17	# 15	9.78	—
v 510 (E)	31	# 15	9.09	—
v 511 (E)	31	# 15	8.31	—
v 512 (E)	31	# 15	7.55	—
v 513 (E)	31	# 15	6.83	—
v 514 (E)	31	# 15	6.21	—
v 515 (E)	31	# 15	5.73	—
v 516 (E)	21	# 15	5.45	—
v 517 (E)	26	# 15	6.08	—
v 518 (E)	31	# 15	4.26	—
v 519 (E)	31	# 15	2.47	—
v 570 (E)	10	# 15	4.83	—
v 571 (E)	3	# 15	2.01	—
v 572 (E)	3	# 15	2.21	—
Reinforcement Bars, Epoxy Coated		kg	7,600	
Concrete Structures		m ³	94.9	
Pipe Underdrains for Structures 100mm		m ³	8.1	
Geocomposite Wall Drain		m ²	270.1	
Stud Shear Connectors		Each	900	

NORTH-EAST WALL

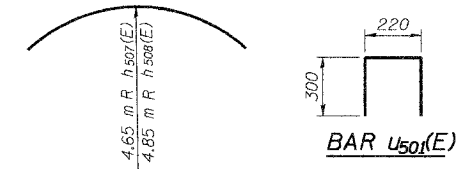
Bar	No.	Size	Length (m)	Shape
h 505 (E)	24	# 15	9.64	—
h 515 (E)	24	# 15	7.80	—
h 518 (E)	17	# 15	1.41	—
h 519 (E)	17	# 15	1.16	—
h 520 (E)	10	# 15	2.02	—
h 521 (E)	16	# 15	8.78	—
h 560 (E)	4	# 15	7.04	—
h 561 (E)	4	# 15	1.42	—
h 562 (E)	4	# 15	1.20	—
h 563 (E)	6	# 15	1.08	—
u 501 (E)	86	# 15	0.82	—
v 520 (E)	12	# 15	5.60	—
v 521 (E)	17	# 15	7.15	—
v 522 (E)	31	# 15	5.05	—
v 523 (E)	30	# 15	3.72	—
v 560 (E)	10	# 15	4.84	—
v 561 (E)	2	# 15	2.13	—
v 562 (E)	2	# 15	2.33	—
Reinforcement Bars, Epoxy Coated		kg	1,970	
Concrete Structures		m ³	22.5	
Pipe Underdrains for Structures 100mm		m ³	2.1	
Geocomposite Wall Drain		m ²	59.4	
Stud Shear Connectors		Each	208	

NORTH-WEST WALL

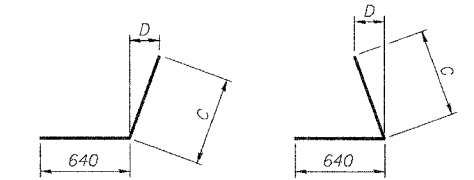
Bar	No.	Size	Length (m)	Shape
h 501 (E)	10	# 15	2.21	—
h 502 (E)	16	# 15	1.80	—
h 503 (E)	16	# 15	1.70	—
h 504 (E)	22	# 15	5.38	—
h 505 (E)	16	# 15	9.64	—
h 506 (E)	20	# 15	6.54	—
h 507 (E)	6	# 15	4.19	—
h 508 (E)	6	# 15	4.37	—
h 509 (E)	10	# 15	6.13	—
h 550 (E)	4	# 15	4.98	—
h 551 (E)	4	# 15	2.03	—
h 552 (E)	4	# 15	1.73	—
h 553 (E)	4	# 15	1.65	—
u 501 (E)	107	# 15	0.82	—
v 501 (E)	14	# 15	5.22	—
v 502 (E)	10	# 15	6.57	—
v 503 (E)	21	# 15	5.02	—
v 504 (E)	31	# 15	3.50	—
v 505 (E)	33	# 15	1.64	—
v 550 (E)	12	# 15	4.52	—
v 551 (E)	4	# 15	1.83	—
v 552 (E)	4	# 15	2.03	—
Reinforcement Bars, Epoxy Coated		kg	1,880	
Concrete Structures		m ³	23.9	
Pipe Underdrains for Structures 100mm		m ³	2.5	
Geocomposite Wall Drain		m ²	61.7	
Stud Shear Connectors		Each	210	

FIELD CUT BARS

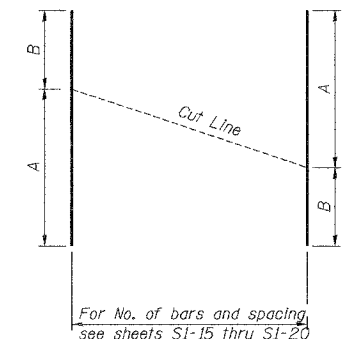
Bar	A (m)	B (m)
v 502 (E)	3.80	2.75
v 503 (E)	2.75	2.25
v 504 (E)	2.25	1.64
v 508 (E)	4.77	4.75
v 510 (E)	4.75	4.34
v 511 (E)	4.34	3.97
v 512 (E)	3.97	3.58
v 513 (E)	3.58	3.25
v 514 (E)	3.25	2.96
v 515 (E)	2.96	2.77
v 516 (E)	2.77	2.68
v 517 (E)	3.40	2.68
v 518 (E)	2.90	1.36
v 519 (E)	1.36	1.11
v 521 (E)	4.11	3.04
v 522 (E)	3.04	2.01
v 523 (E)	2.01	1.71
v 525 (E)	5.18	4.89
v 526 (E)	4.89	4.55
v 527 (E)	4.55	4.22
v 528 (E)	4.22	3.84
v 529 (E)	3.84	3.55
v 530 (E)	3.55	3.37
v 531 (E)	3.37	3.16
v 532 (E)	3.16	3.60
v 533 (E)	3.39	3.00
v 534 (E)	2.89	1.63
v 535 (E)	1.63	1.38



BAR h 507 (E)
BAR h 508 (E)



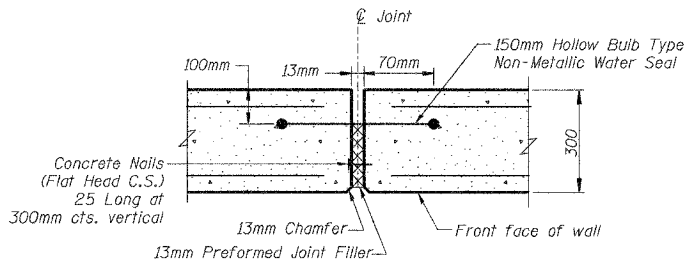
BAR	C	D
h 502 (E)	1.16 m	530
h 503 (E)	1.06 m	485
h 504 (E)	1.39 m	615
h 505 (E)	1.09 m	500
h 510 (E)	920	60
h 530 (E)	800	50
h 571 (E)	950	60
h 572 (E)	830	50
h 516 (E)	770	380
h 519 (E)	515	255
h 561 (E)	775	385
h 562 (E)	560	280
h 523 (E)	1.08 m	70
h 524 (E)	840	55
h 581 (E)	1.05 m	70
h 582 (E)	830	55



FIELD CUTTING DIAGRAM
Order bars in full length. Cut as shown and use remainder of bars in opposite face

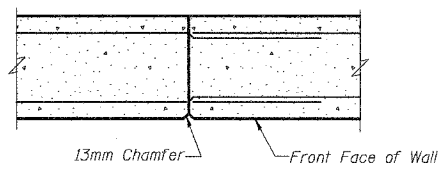
NOTES:

- For Notes and Legend see sheet S1-3.
- Reinforcement bars designated (E) shall be epoxy coated.



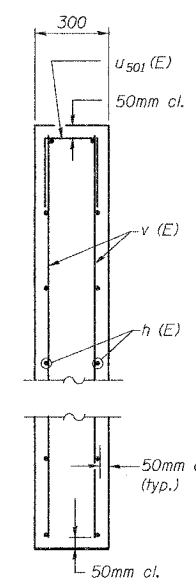
EXPANSION JOINT DETAIL

(Vertical Reinforcement not shown)
Note: Cost of joint treatment shall be included with "Concrete Structures"



CONSTRUCTION JOINT DETAIL

(Vertical Reinforcement not shown)



SECTION THRU CONCRETE FACING

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

Soodan
Soodan & Associates, Inc.
1400 North Lincoln Street, Suite 800
Chicago, Illinois 60610
Tel: 312/253-0203 Fax: 312/253-8306
E-Mail: transport@soodan.com

Sheet S1-21 of 37

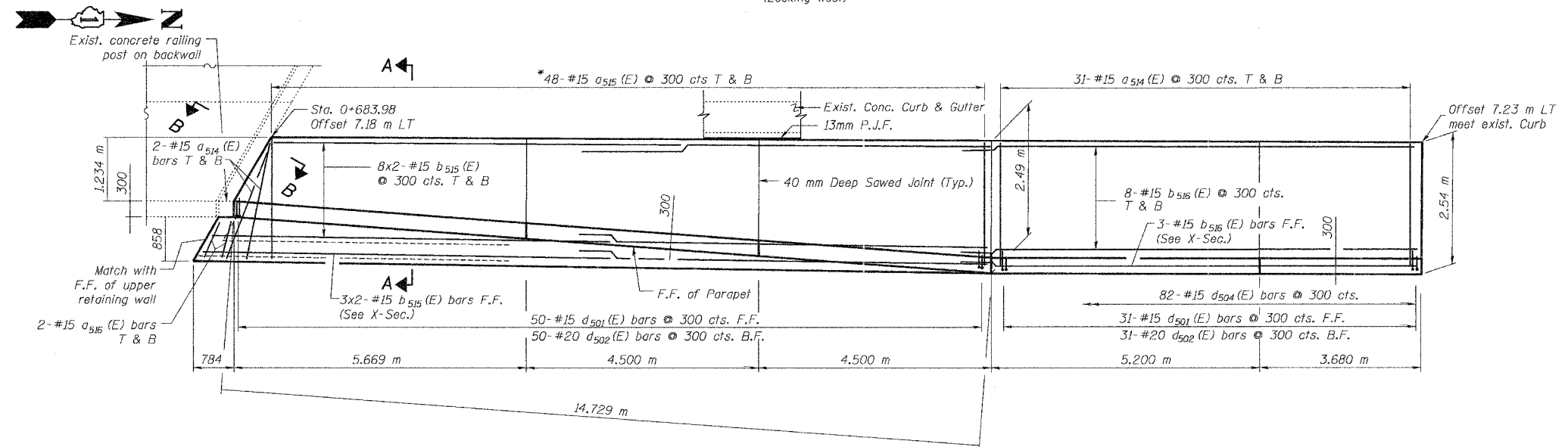
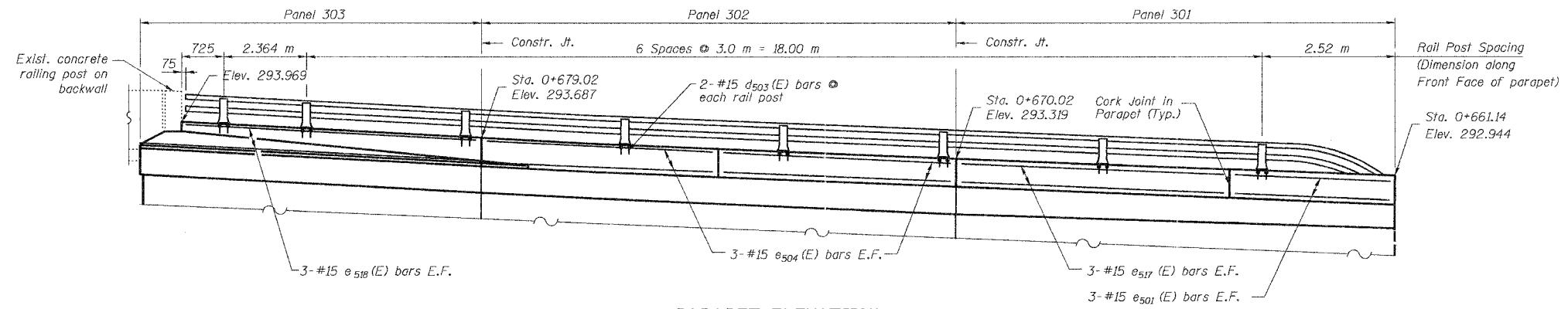
CONCRETE FACING DETAILS

U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007
Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
U.S. 14	29R-T	McHENRY	88	62
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62202



- NOTES:**
- For Notes & Legends see sheet S1-3.
 - Bars indicated thus 1 x 3-#15 etc. indicates 1 line of bars with 3 lengths per line.
 - For Sawed Joint see Transverse Contraction Joint in Sidewalk details sheet S1-28.
- * See bar cutting diagram on sheet S1-28.

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

Soodan
Soodan & Associates, Inc.
Architect, Engineers & Construction Consultants
630 North LaSalle Street, Suite 2000
Chicago, Illinois 60602
Tel: 312/553-0003 Fax: 312/553-0005
E-Mail: info@soodan.com

Sheet S1-23 of 37

**PARAPET AND SIDEWALK SLAB
NORTH-EAST WALL**

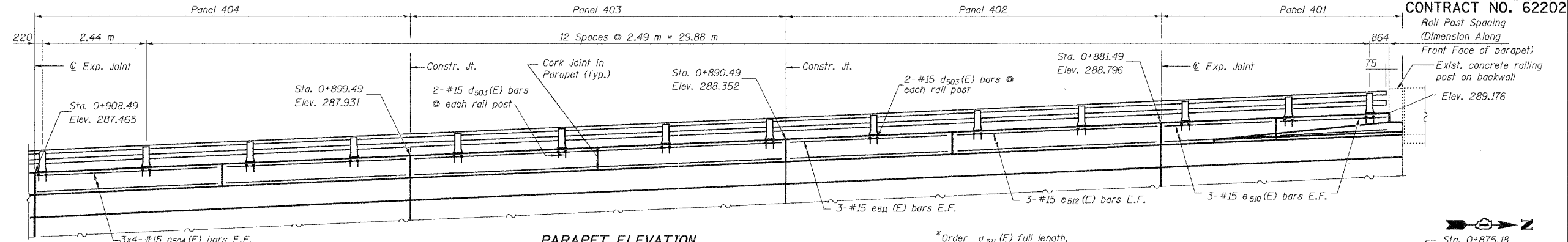
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

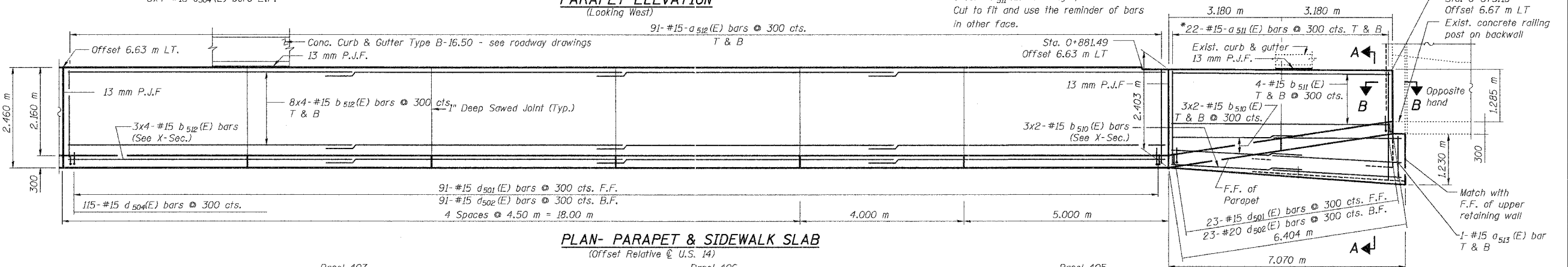
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
U.S. 14	29R-T	McHENRY	88	63
F.A.P. 383				
FED. ROAD DIST. NO. 1	ALIGNMENT	FED. AID PROJECT		

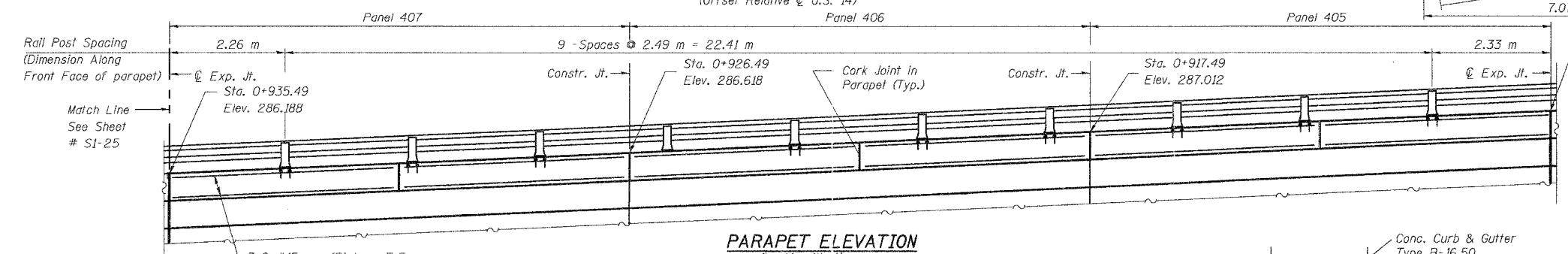
CONTRACT NO. 62202



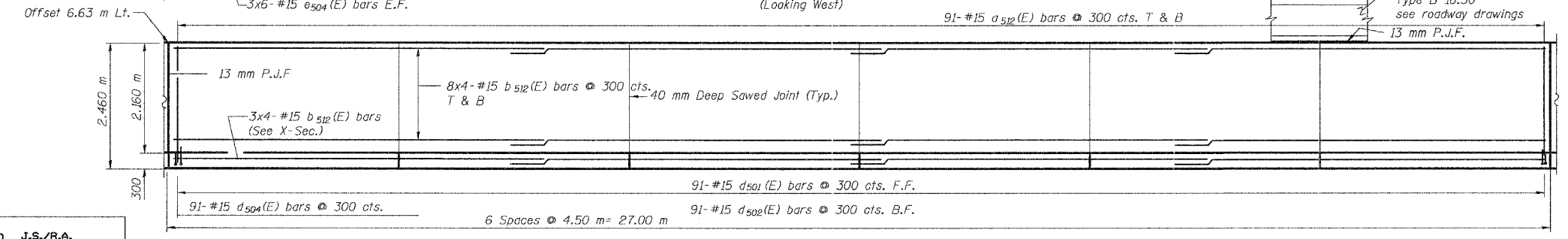
PARAPET ELEVATION
(Looking West)



PLAN- PARAPET & SIDEWALK SLAB
(Offset Relative to U.S. 14)



PARAPET ELEVATION
(Looking West)



PLAN- PARAPET & SIDEWALK SLAB
(Offset Relative to U.S. 14)

- NOTES:**
- For Notes & Legend see sheet S1-3.
 - Bars indicated thus 1 x 3-#15 etc. indicates 1 line of bars with 3 lengths per line.
 - For light standard, bill of material, sections & details see sheet S1-28.
 - For Sawn joint see Transverse Contraction Joint in Sidewalk details sheet S1-28.
- * See bar cutting diagram on sheet S1-28.

DESIGNED J.S./R.A.
CHECKED H.T./N.S.
DRAWN J.S.
CHECKED H.T./M.R.

Soodan
Soodan & Associates, Inc.
Structural, Electrical & Construction Consultants
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Chicago, Illinois 60602
Tel: 312/553-0003 Fax: 312/553-0006
E-Mail: transport@soodan.com

Sheet S1-24 of 37

**PARAPET AND SIDEWALK SLAB
SOUTH-EAST WALL (1 OF 2)**

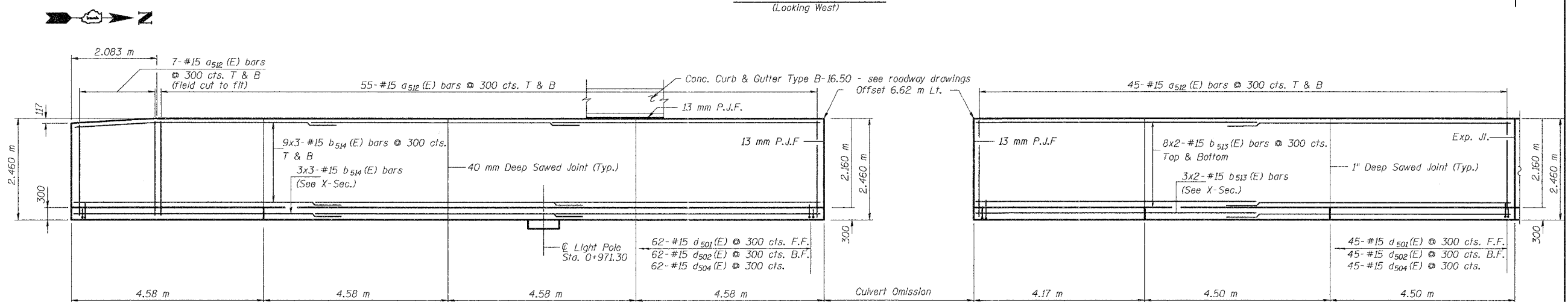
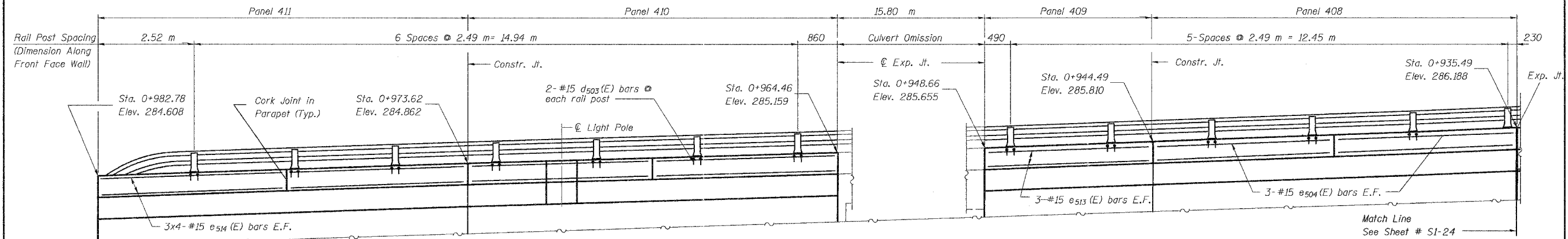
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
U.S. 14	29R-T	McHENRY	88	64
FED. ROAD DIST. NO. 1		BUILDING	FED. AID PROJECT-	

CONTRACT NO. 62202



NOTES:

1. For Notes & Legend see sheet S1-3.
2. Bars indicated thus 1 x 3- #15 etc. indicates 1 line of bars with 3 lengths per line.
3. For light standard, bill of material, sections & details see sheet S1-28.
4. For Sawed Joint see Transverse Contraction Joint in Sidewalk details sheet S1-28.

Sheet S1-25 of 37

**PARAPET AND SIDEWALK SLAB
SOUTH-EAST WALL (2 OF 2)**
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

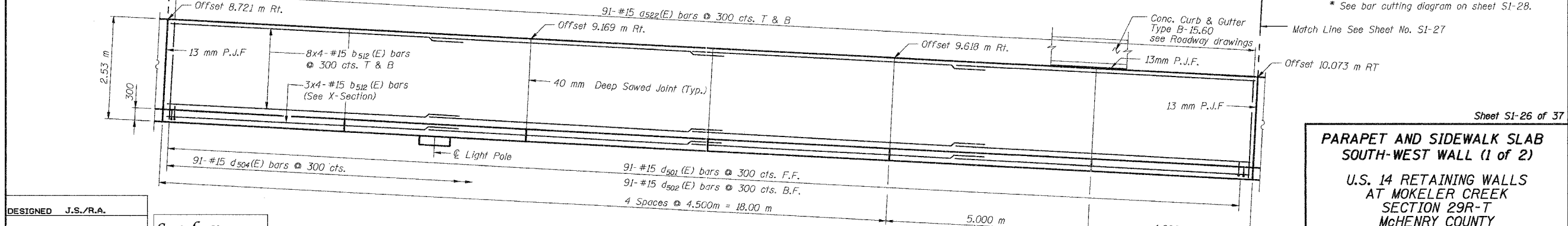
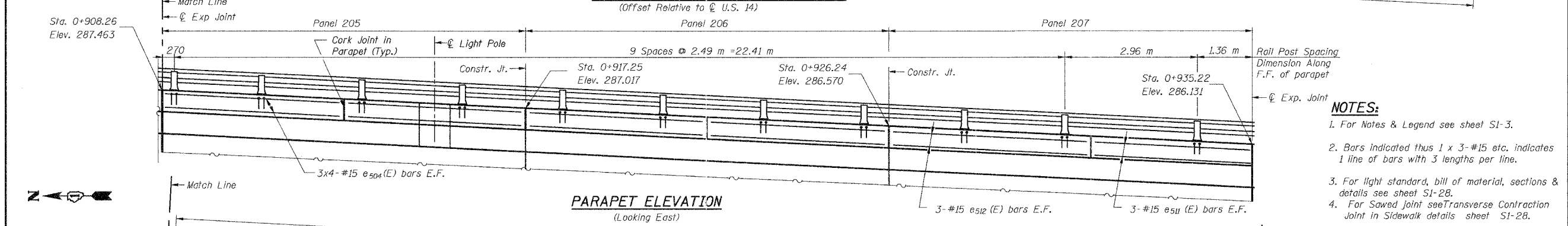
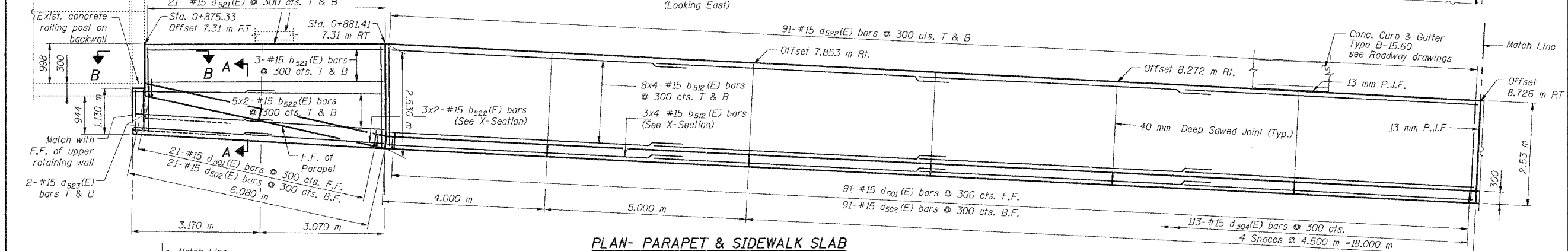
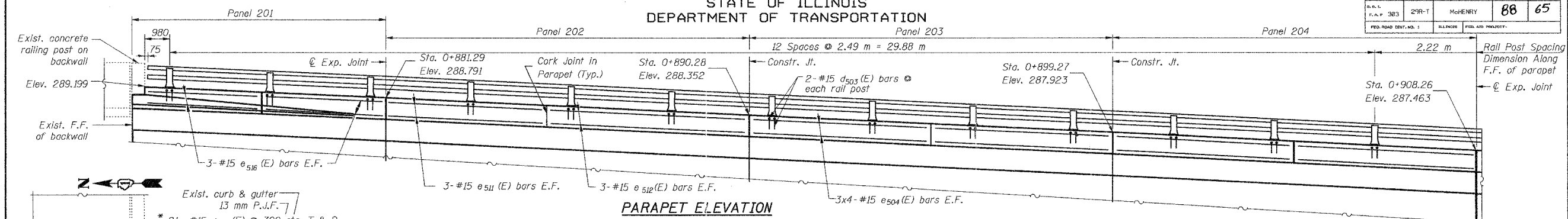
DESIGNED J.S./R.A.
CHECKED H.T./N.S.
DRAWN J.S.
CHECKED H.T./M.R.

Soodan
Soodan & Associates, Inc.
Architect, Engineers & Construction Consultants
130 North LaSalle Street, Suite 800
Chicago, Illinois 60602
Tel: 312/553-0003 Fax: 312/553-8206
E-Mail: Transportation@soodan.com

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 62202

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
U.S. 14	29R-T	McHENRY	88	65
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



- NOTES:**
- For Notes & Legend see sheet S1-3.
 - Bars indicated thus 1 x 3-#15 etc. indicates 1 line of bars with 3 lengths per line.
 - For light standard, bill of material, sections & details see sheet S1-28.
 - For Sawed joint see Transverse Contraction Joint in Sidewalk details sheet S1-28.
- * See bar cutting diagram on sheet S1-28.

DESIGNED J.S./R.A.
CHECKED H.T./N.S.
DRAWN J.S.
CHECKED H.T./M.R.

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Chicago, Illinois 60602
Tel: 312/553-0003 Fax: 312/553-0006
E-Mail: transport@soodan.com

Sheet S1-26 of 37

**PARAPET AND SIDEWALK SLAB
SOUTH-WEST WALL (1 of 2)**

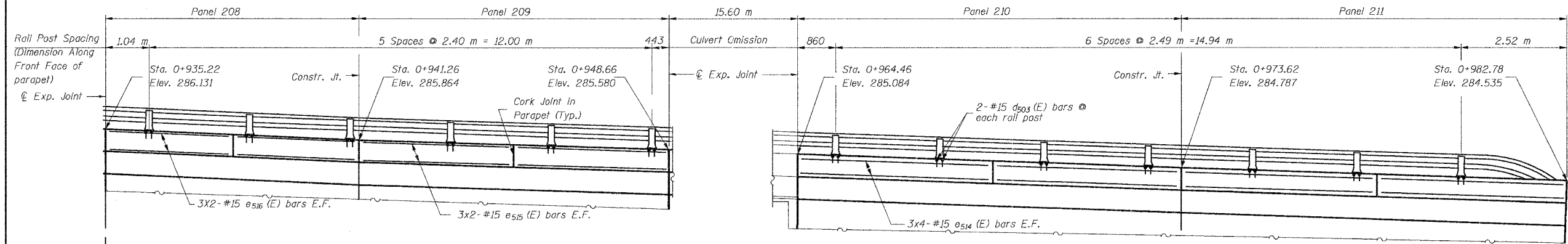
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

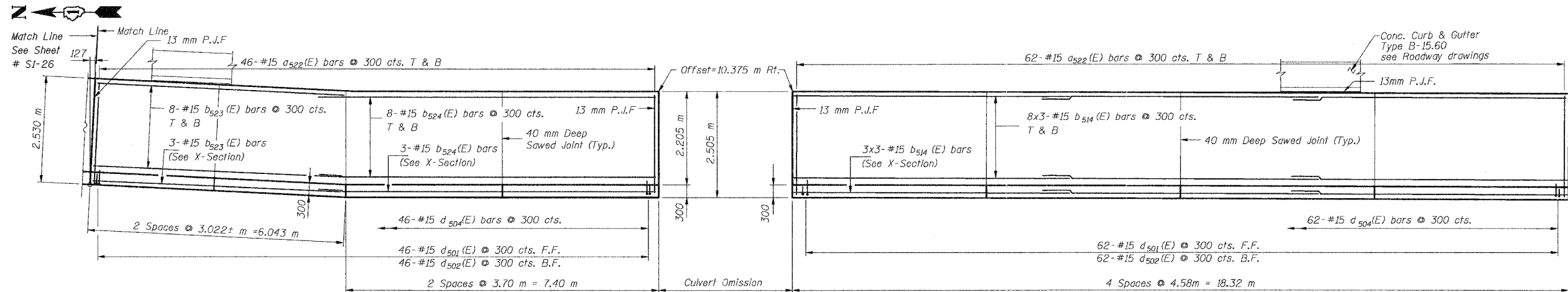
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
383	29R-T	McHENRY	88	66
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62202



PARAPET ELEVATION
(Looking East)



PLAN-PARAPET & SIDEWALK SLAB
(Offset Relative to U.S. 14)

NOTES:

1. For Notes & Legend see sheet SI-3.
2. Bars indicated thus 1 x 3-#15 etc. indicates 1 line of bars with 3 lengths per line.
3. For light standard, bill of material, sections & details see sheet SI-28.
4. For Sawed joint see Transverse Contraction Joint in Sidewalk details sheet SI-28.

Sheet SI-27 of 37

PARAPET AND SIDEWALK SLAB
SOUTH-WEST WALL (2 of 2)

U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

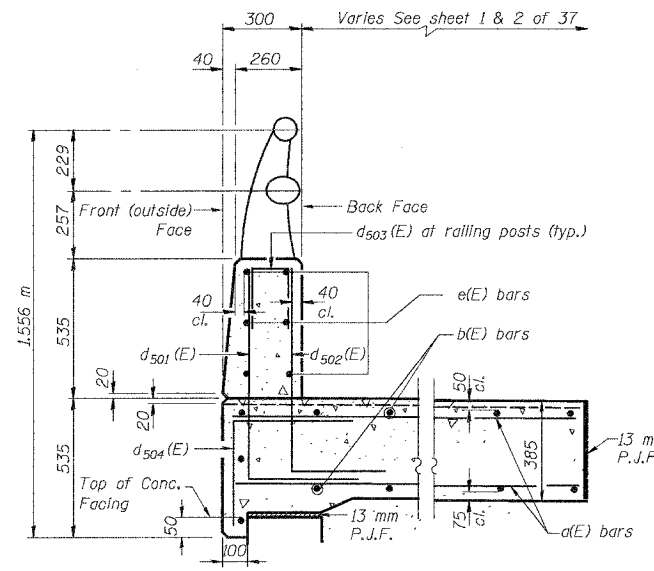
Soodan
Soodan & Associates, Inc.
Architect, Engineer & Construction Consultants
120 North LaSalle Street, Suite 800
Chicago, Illinois 60602
Tel: 312/553-0003 Fax: 312/553-8006
E-Mail: transportation@soodan.com

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

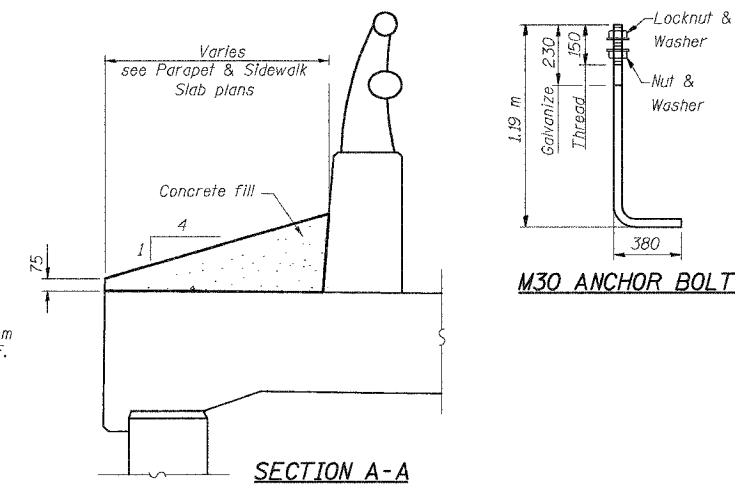
PARAPET AND SIDEWALK SLAB
BILL OF MATERIAL

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
I.A.P. 383	29R-T	McHENRY	88	67
FED. ROAD DIST. NO. 1	BUILDING	FED. AID PROJECT		

CONTRACT NO. 62202



SECTION THRU PARAPET AND SIDEWALK SLAB



SECTION A-A

NORTH EAST WALL

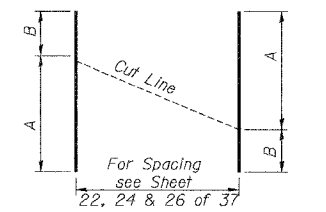
Bar	No.	Size	Length	Shape
d 514(E)	66	# 15	2.41	—
d 515(E)	48	# 15	4.72	—
d 516(E)	4	# 15	0.90	—
b 515(E)	38	# 15	8.36	—
b 516(E)	19	# 15	9.48	—
d 501(E)	81	# 15	1.05	—
d 502(E)	81	# 20	1.11	—
d 503(E)	16	# 15	0.61	—
d 504(E)	82	# 15	0.70	—
e 501(E)	6	# 15	3.60	—
e 504(E)	12	# 15	4.42	—
e 517(E)	6	# 15	5.12	—
e 518(E)	6	# 15	5.58	—

Reinforcement Bars, Epoxy Coated	Kg	2060
Concrete Superstructure	m ³	29.9
Protective Coat	Sq. m	63

NORTH WEST WALL

Bar	No.	Size	Length	Shape
a 501(E)	4	# 15	1.96	—
a 502(E)	19	# 15	5.22	—
a 503(E)	146	# 15	2.42	—
a 504(E)	19	# 15	4.54	—
a 505(E)	4	# 15	1.41	—
b 502(E)	42	# 15	3.07	—
b 503(E)	38	# 15	7.73	—
b 504(E)	38	# 15	3.60	—
b 505(E)	19	# 15	6.13	—
d 501(E)	104	# 15	1.05	—
d 502(E)	104	# 20	1.11	—
d 503(E)	24	# 15	0.61	—
d 504(E)	101	# 15	0.70	—
d 505(E)	3	# 20	1.39	—
d 506(E)	5	# 20	2.68	—
e 502(E)	6	# 15	5.94	—
e 503(E)	6	# 15	5.82	—
e 504(E)	12	# 15	4.42	—
e 505(E)	3	# 15	4.17	—
e 506(E)	3	# 15	4.00	—
e 507(E)	6	# 15	5.41	—

Reinforcement Bars, Epoxy Coated	Kg	2820
Concrete Superstructure	m ³	36.7
Protective Coat	Sq. m	88



FIELD CUTTING DIAGRAM

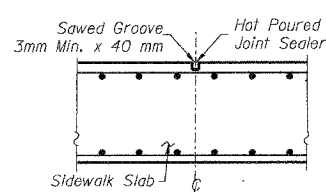
Order a502(E), a504(E), a511(E) & a521(E) bars full length. Cut to fit and use the remainder of bars in bottom of slab

FIELD CUT BARS

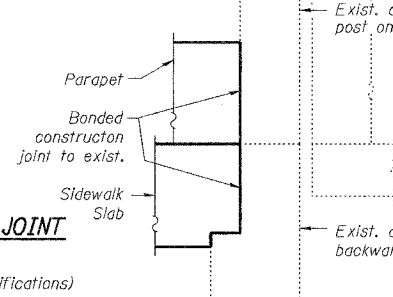
Bar	A	B
a502(E)	2.46	2.76
a504(E)	2.12	2.42
a511(E)	2.31	2.86
a521(E)	2.16	2.45

BENT BARS

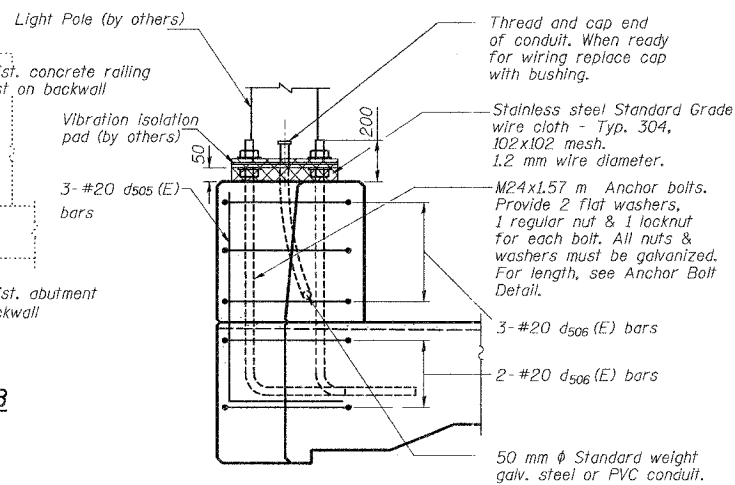
Bar	C	D
d501(E)	260	790
d502(E)	320	790
d504(E)	260	440
d505(E)	600	790



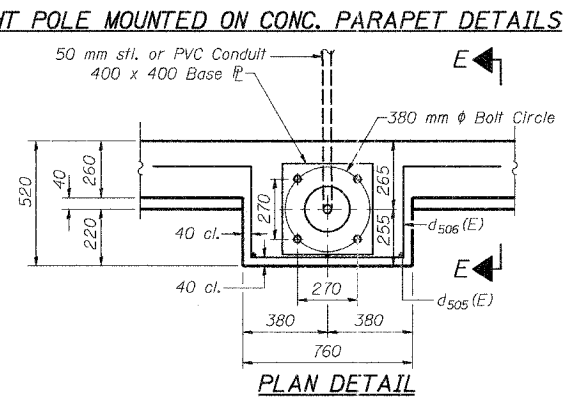
TRANSVERSE CONTRACTION JOINT IN SIDEWALK
(See Art. 420.10(d) of Standard Specifications)



PARAPET JOINT DETAILS



SECTION E-E LIGHT POLE MOUNTED ON CONC. PARAPET DETAILS



PLAN DETAIL

SOUTH WEST WALL

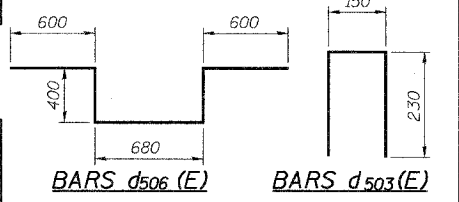
Bar	No.	Size	Length	Shape
a 521(E)	21	# 15	4.61	—
a 522(E)	580	# 15	2.45	—
a 523(E)	4	# 15	1.05	—
b 512(E)	152	# 15	7.23	—
b 514(E)	57	# 15	6.50	—
b 521(E)	6	# 15	5.90	—
b 522(E)	26	# 15	3.41	—
b 523(E)	19	# 15	6.00	—
b 524(E)	19	# 15	8.04	—
d 501(E)	311	# 15	1.05	—
d 502(E)	311	# 20	1.11	—
d 503(E)	74	# 15	0.61	—
d 504(E)	312	# 15	0.70	—
d 505(E)	3	# 20	1.39	—
d 506(E)	5	# 20	2.68	—
e 504(E)	48	# 15	4.42	—
e 511(E)	12	# 15	3.92	—
e 512(E)	12	# 15	4.92	—
e 514(E)	24	# 15	4.50	—
e 515(E)	12	# 15	3.62	—
e 516(E)	24	# 15	2.94	—

Reinforcement Bars, Epoxy Coated	Kg	8030
Concrete Superstructure	m ³	110.2
Protective Coat	Sq. m	273

SOUTH EAST WALL

Bar	No.	Size	Length	Shape
a 511(E)	22	# 15	5.17	—
a 512(E)	578	# 15	2.37	—
a 513(E)	2	# 15	1.15	—
b 510(E)	18	# 15	3.84	—
b 511(E)	8	# 15	6.23	—
b 512(E)	152	# 15	7.23	—
b 513(E)	38	# 15	6.86	—
b 514(E)	57	# 15	6.46	—
d 501(E)	312	# 15	1.05	—
d 502(E)	312	# 20	1.11	—
d 503(E)	74	# 15	0.61	—
d 504(E)	313	# 15	0.70	—
d 505(E)	3	# 20	1.39	—
d 506(E)	5	# 20	2.68	—
e 504(E)	72	# 15	4.42	—
e 510(E)	12	# 15	3.10	—
e 511(E)	6	# 15	3.92	—
e 512(E)	6	# 15	4.92	—
e 513(E)	6	# 15	4.09	—
e 514(E)	24	# 15	4.50	—

Reinforcement Bars, Epoxy Coated	Kg	7850
Concrete Superstructure	m ³	108.4
Protective Coat	Sq. m	268



BARS

Bar	R (m)	Ø°	L (m)
e 504(E)	5.76	27°	3.60
e 505(E)	4.76	26°	2.15
e 506(E)	4.54	23°	2.05
e 507(E)	4.54	23°	1.81

NOTES:

- For Notes and Legend see sheet S1-3.
- Reinforcement bars designated (E) shall be epoxy coated.

Sheet S1-28 of 37

PARAPET AND SIDEWALK SLAB DETAILS
U.S. 14 RETAINING WALLS AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

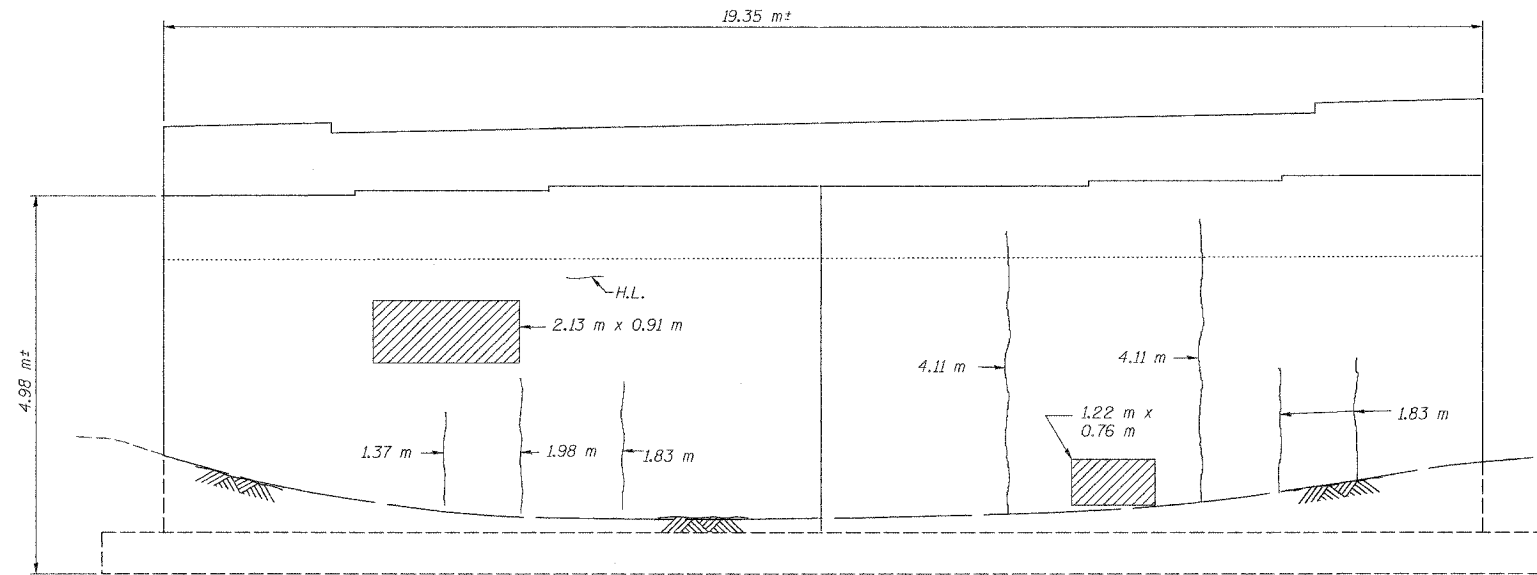
DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

Soodan
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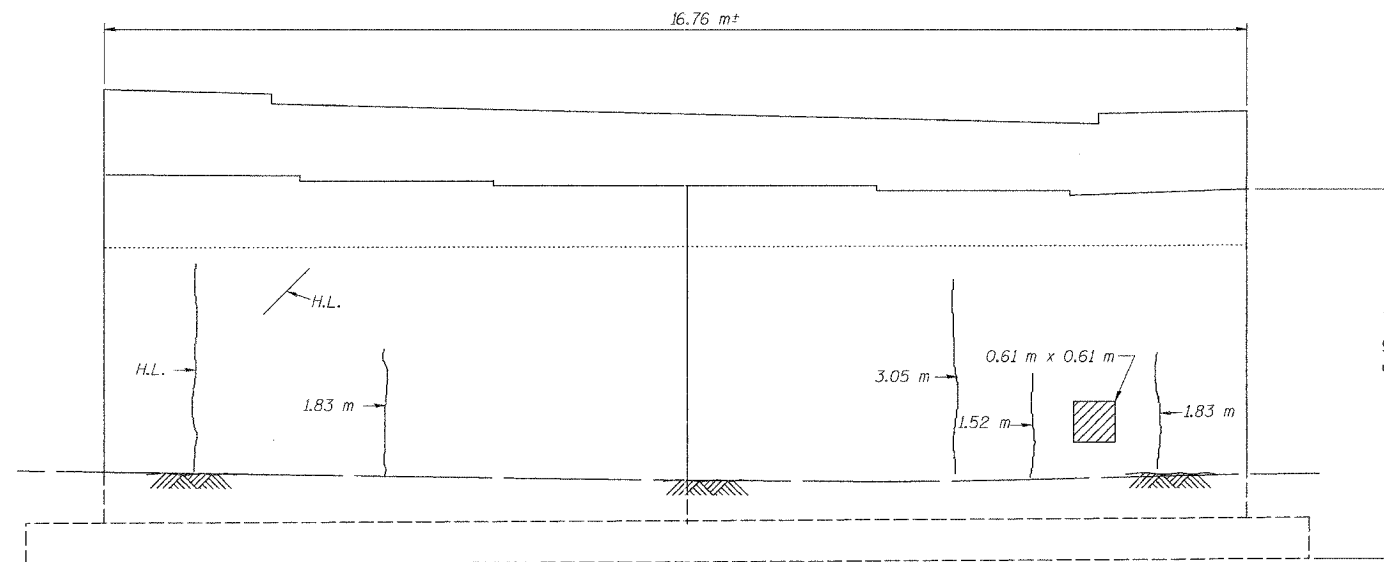
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
383	29R-T	McHENRY	88	68
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62202



NORTH ABUTMENT ELEVATION
(Looking North)






SOUTH ABUTMENT ELEVATION
(Looking South)

BILL OF MATERIAL

Item	Unit	Total
Formed Concrete Repair (depth less than 125mm)	m ²	2.6
Epoxy Cracking Sealing	m	25

LEGEND

-  Formed Concrete Repair (depth less than 125mm)
-  1.83 m Epoxy Cracking Sealing
-  H.L. Hairline Crack - Not to be Sealed

Sheet SI-29 of 37

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

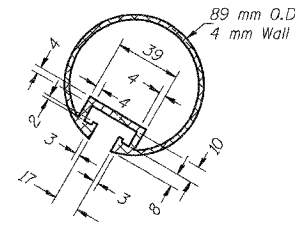
Soodan
Soodan & Associates, Inc.
Architect, Engineer & Construction Consultant
637 North LaSalle Street, Suite 200
Chicago, Illinois 60622
Tel: 312/553-0003 Fax: 312/553-1009
E-Mail: transport@soodan.com

ABUTMENT REPAIRS
U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007
Date: February, 2005 Scale: None

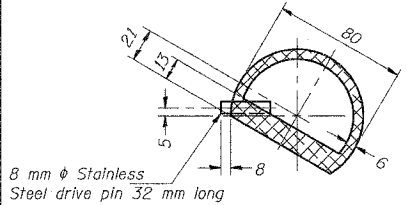
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	SHEET	TOTAL
F.A.P. 303	29R-T	McHENRY	88	69
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

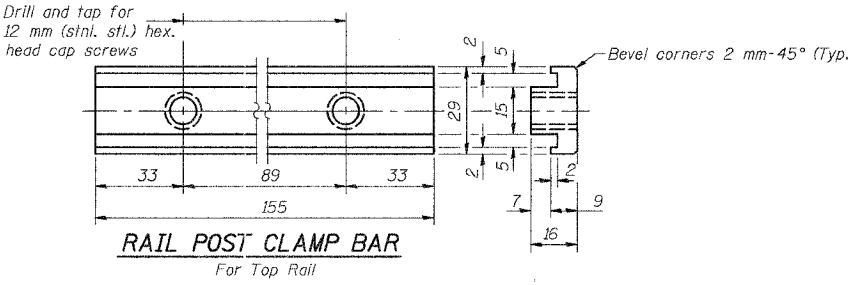
CONTRACT NO. 62202



SECTION THRU TOP RAIL

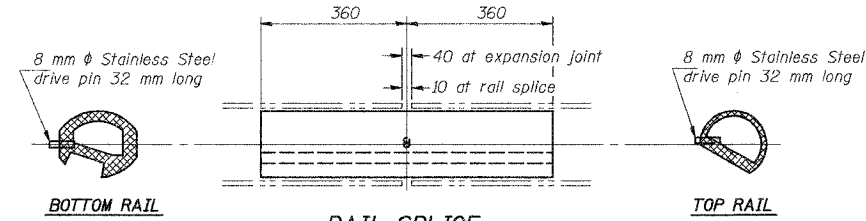


SECTION THRU SPLICE
TOP RAIL



RAIL POST CLAMP BAR

For Top Rail

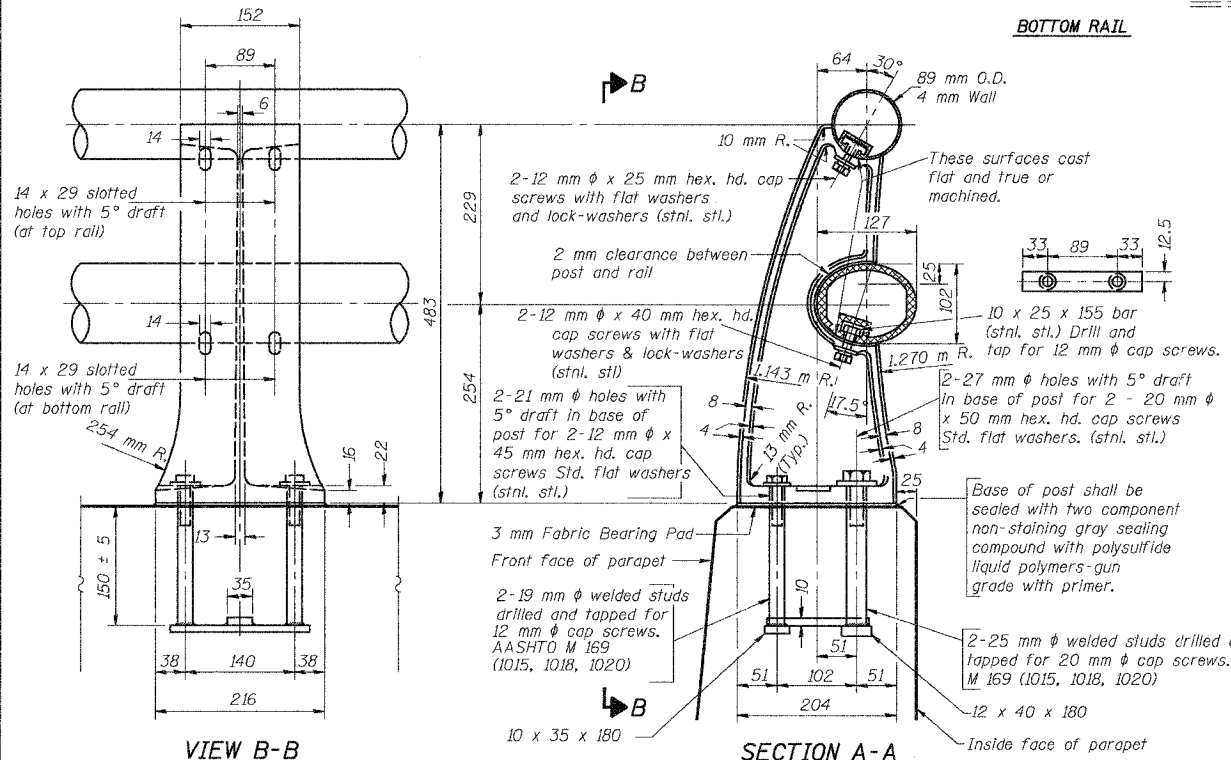


BOTTOM RAIL

RAIL SPLICE

TOP RAIL

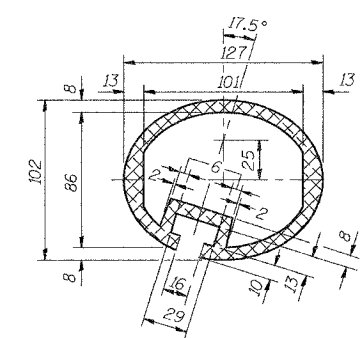
Notes: All Posts shall be normal to parapet.
All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 9 meters, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 700 meter radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.
All joints in rail shall be spliced per detail.
Provide 1-3 mm and 2-1.6 mm Aluminum Shims for 25% of the Posts.
Rail elements shall be parallel to Grade-high spots will be ground and low spots shimmed.
Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per meter for ALUMINUM RAILING, TYPE L.
Aluminum alloy rail shall conform to ASTM B 221M alloy 6061-T6 or 6351-T5 with min. yield stress 240 MPa, min. tensile strength 260 MPa, and elongation of 10% in 50 mm.
All dimensions are in millimeters (mm) except as noted.



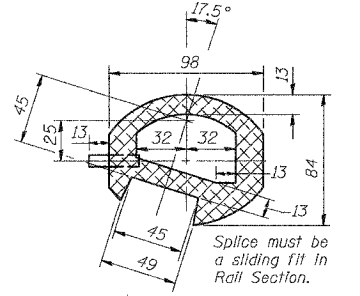
VIEW B-B

SECTION A-A

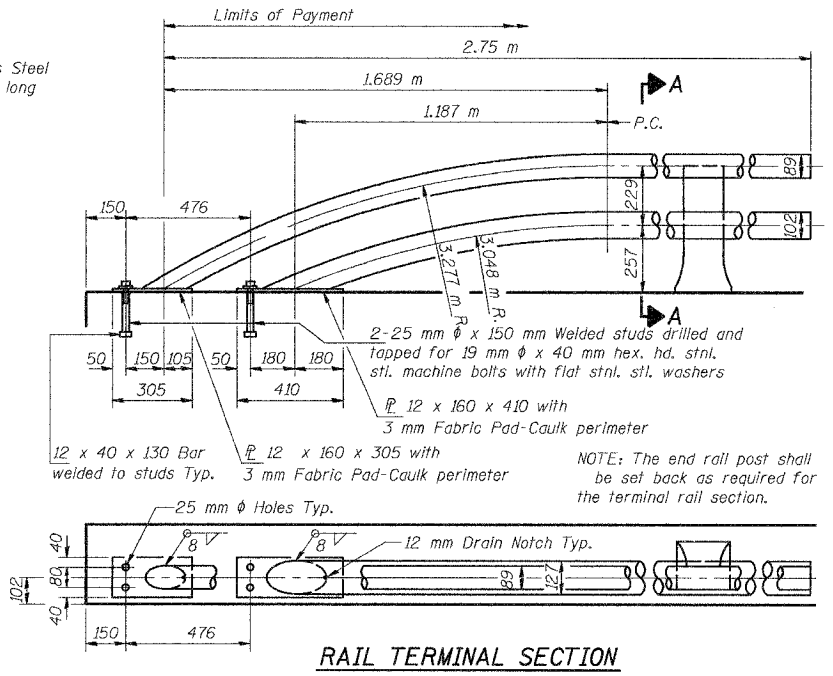
RAIL POST DETAILS



SEC. THRU ELLIPTICAL
RAIL SECTION



SEC. THRU SPLICE



RAIL TERMINAL SECTION

BILL OF MATERIAL

Item	Unit	Quantity
Aluminum Railing, Type L	m	272

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S./B.L.D.
CHECKED	H.T./M.R.

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Sheet SI-30 of 37

TYPE L ALUMINUM RAILING

U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
303	29R-T	McHENRY	88	70
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 62202

BORING NO. B-1 (1 OF 1)

BORING NO. B-2 (1 OF 1)

BORING NO. B-6 (1 OF 1)

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG

Page 1 of 1
Date 3/26/02

ROUTE _____ DESCRIPTION _____
SECT. _____ STRUCT. NO. _____ DRILLED BY BP
COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-1
Station 0+979.057
Offset 12.1 m Lt
Surface Elev. 282.65 (m)

D E P T H	B L O S	Qu kPa	W %	Surface Water Elev.		D E P T H	B L O S	Qu kPa	W %
				when drilling	Groundwater Elev.:				
				275.0					
	5		27				6		28
	5						7		
	5						9		
281.1	5		25				5		20
	9						8		
	13		18						
	13								
	6								
280.1	2	72	22				15		16
	2						10		
	2						18		
	13		12						
	11								
	13								
	9		14				9		11
	8						16		
	5						28		
	3		15						
	4								
	10								
	7		14						
	6								
	7								
276.3									
	4		16						
	5								
	2								
	5		24						
	10								
	11								

END OF BORING 270.6 -12.0

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG

Page 1 of 1
Date 3/18/02

ROUTE _____ DESCRIPTION _____
SECT. _____ STRUCT. NO. _____ DRILLED BY BP
COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-2
Station 0+979.980
Offset 10.7 m Rt
Surface Elev. 282.68 (m)

D E P T H	B L O S	Qu kPa	W %	Surface Water Elev.		D E P T H	B L O S	Qu kPa	W %
				when drilling	Groundwater Elev.:				
				274.3					
	4		17				7		13
	8						17		
	9						20		
	4		20				9		11
	7						20		
	10						24		
	4		25						
	7								
	11								
	5		14				5		12
	6						9		
	5						10		
	5		12						
	5								
	5								
	3		10				25		10
	4						22		
	6						20		
	5		11						
	7								
	8								
	4		12						
	10								
	13								
	4		16						
	5								
	22								
	5		12						
	13								
	22								

END OF BORING 270.7 -12.0

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG

Page 1 of 1
Date 3/19/02

ROUTE _____ DESCRIPTION _____
SECT. _____ STRUCT. NO. _____ DRILLED BY BP
COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-6
Station 0+932.532
Offset 11.8 m Lt
Surface Elev. 283.04 (m)

D E P T H	B L O S	Qu kPa	W %	Surface Water Elev.		D E P T H	B L O S	Qu kPa	W %
				when drilling	Groundwater Elev.:				
				273.4					
	4		22				6		10
	5						16		
	6						25		
	3		27				5		13
	3						15		
	4						26		
	4		17						
	3								
	2								
	10		16				10		13
	8						15		
	3						20		
	3		30						
	4								
	6								
	6		18				14		14
	10						25		
	14						40		
	4		8						
	8								
	5								
	10		7						
	18								
	18								
	38		18						
	23								
	20								
	6		18						
	10								
	19								

END OF BORING 271.0 -12.0

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S./B.I.D.
CHECKED	H.T./M.R.

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E-Mail: transport@soodan.com

Sheet S1-31 of 37

BORING LOGS (1 of 7)

**U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007**

Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	DATE
383	29R-T	McHENRY	88	71
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 62202

BORING NO. B-7 (1 OF 1)

BORING NO. B-8 (1 OF 1)

BORING NO. B-9 (1 OF 1)

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG

Page 1 of 1
Date 3/14/02

ROUTE _____ DESCRIPTION _____

SECT. _____ STRUCT. NO. _____ DRILLED BY BP

COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-7
Station 0+913.195
Offset 11.8 m Lt

Surface Elev. 283.30 (m)

DEPTH (m)	D	B	Qu	W	DESCRIPTION	DEPTH (m)	D	B	Qu	W
0					FILL, 6" concrete, topsoil, sand & clay, black & brown, medium dense	275.5				
0.5	4	5	30				9	10		15
1.5	4	6	19				8	10		11
2.5	20	50	12		STONE & GRAVEL, brown, extremely dense, saturated					
3.0	33	6	19				5	8		10
3.5	2	2	19							
4.5	2	2	14				6	12		13
5.0					END OF BORING	271.3	-12.0			
6.0	3	7	12							
7.0	4	6	16							
8.0	9	12	16							
9.0	9	16	16							
10.0										
11.0										
12.0										
13.0										
14.0										
15.0										

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG

Page 1 of 1
Date 3/14/02

ROUTE _____ DESCRIPTION _____

SECT. _____ STRUCT. NO. _____ DRILLED BY BP

COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-8
Station 0+926.718
Offset 12.3 m Rt

Surface Elev. 283.40 (m)

DEPTH (m)	D	B	Qu	W	DESCRIPTION	DEPTH (m)	D	B	Qu	W
0					FILL, sand & clay, brown & dark brown, loose	274.5				
0.5	3	4	27				18	23		13
1.5	3	3	21				21	42	192	13
2.5	13	10	14		SAND, some gravel, brown, medium dense, moist					
3.0	2	4	144	21			13	18	431	11
3.5	7	6	12		SANDY CLAY, brown, stiff					
4.5	6	4	14				13	21		31
5.0	5	9	11							
6.0	6	4	12		SAND, light gray & brown, medium dense to dense, saturated					
7.0	8	11	12							
8.0	11	20	14							
9.0					END OF BORING	271.4	-12.0			
10.0										
11.0										
12.0										
13.0										
14.0										
15.0										

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG

Page 1 of 1
Date 3/19/02

ROUTE _____ DESCRIPTION _____

SECT. _____ STRUCT. NO. _____ DRILLED BY BP

COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-9
Station 0+898.079
Offset 11.3 m Lt

Surface Elev. 283.44 (m)

DEPTH (m)	D	B	Qu	W	DESCRIPTION	DEPTH (m)	D	B	Qu	W
0					FILL, 8.5" concrete, topsoil, clay & sand, black & brown, medium dense	275.8				
0.5	2	5	29				9	9		9
1.5	3	7	16				10	19		11
2.5	5	15	10		SAND, some gravel, brown, dense, saturated					
3.0	8	13	15				18	17		10
3.5	2	2	18							
4.5	2	2	11				14	13		10
5.0					END OF BORING	271.4	-12.0			
6.0	2	3	14							
7.0	8	5	23							
8.0	5	7	16							
9.0	15	15	15							
10.0										
11.0										
12.0										
13.0										
14.0										
15.0										

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Sheet S1-32 of 37

BORING LOGS (2 of 7)

**U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-007**

Date: February, 2005 Scale: None

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S./B.I.D.
CHECKED	H.T./M.R.

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Architects, Engineers & Construction Consultants
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Tel: 312/553-0003 Fax: 312/553-8906
E-Mail: transport@soodan.com

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
0+904.311	29R-T	McHENRY	88	72
F.A.P. 303				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62202

BORING NO. B-10 (1 OF 1)

BORING NO. B-11 (1 OF 1)

BORING NO. B-12 (1 OF 1)

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG

Page 1 of 1
Date 3/12/02

ROUTE _____ DESCRIPTION _____
SECT. _____ STRUCT. NO. _____ DRILLED BY BP
COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-10
Station 0+904.311
Offset 12.1 m Rt
Surface Elev. 283.80 (m)

D E L P T H	B L O W S	Qu kPa	W %	Surface Water Elev. Groundwater Elev.: when drilling _____ at Completion _____ after _____ Hrs. _____	D E L P T H	B L O W S	Qu kPa	W %
	5		28			23		12
	4					23		
	5					28		
283.0								
	4					9		14
	5	144	26			12	240	
	5	P				18	P	
282.1								
	25		13					
	24							
	22							
	15		12			12	267	12
	17					14	P	
	19					14	P	
280.6								
	1		23					
	2							
	3							
	1		14			10	431	8
	2					15	P	
	9					80	P	
-4.5								
	4		22					
	4							
	6							
	1		18					
	3							
	5							
-8.0								
	10		11					
	17							
	18							
277.5								
	5		10					
	15							
	17							
-7.5								

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG

Page 1 of 1
Date 3/22/02

ROUTE _____ DESCRIPTION _____
SECT. _____ STRUCT. NO. _____ DRILLED BY BP
COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-11
Station 0+881.300
Offset 11.8 m Lt
Surface Elev. 283.50 (m)

D E L P T H	B L O W S	Qu kPa	W %	Surface Water Elev. Groundwater Elev.: when drilling _____ at Completion _____ after _____ Hrs. _____	D E L P T H	B L O W S	Qu kPa	W %
	3		23			7		9
	4					12		
	4					14		
282.7								
	3		20			5		10
	3	72				6		
	4	P				9		
281.8								
	11		14					
	21							
	22							
	52		8			105		12
	38					50		
	41					50		
-3.0								
280.3								
	2		17					
	4	168						
	5	P						
	3		15			71		14
	5	144				23		
	7	P				17		
-4.5								
278.8								
	1		16					
	2							
	2							
	4		12					
	2							
	3							
-8.0								
	6		15					
	6							
	9							
	7		13					
	7							
	12							
-7.5								

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG

Page 1 of 1
Date 3/14/02

ROUTE _____ DESCRIPTION _____
SECT. _____ STRUCT. NO. _____ DRILLED BY BP
COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-12
Station 0+880.903
Offset 12.3 m Rt
Surface Elev. 283.85 (m)

D E L P T H	B L O W S	Qu kPa	W %	Surface Water Elev. Groundwater Elev.: when drilling _____ at Completion _____ after _____ Hrs. _____	D E L P T H	B L O W S	Qu kPa	W %
	5		27			18		13
	4					19		
	8					21		
282.9								
	6		23			6		12
	6	192				10		
	7	P				11		
-1.5								
282.2								
	13		10					
	18							
	22							
	10		14			7		11
	13					8		
	14					10		
-3.0								
280.5								
	9		12					
	8							
	9							
	2		10			27		14
	6					40		
	4					15		
-4.5								
271.8								
	8		12					
	8							
	8							
	2		14					
	4							
	5							
-8.0								
277.8								
	22		15					
	16							
	16							
	7		16					
	9							
-7.5								

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Sheet SI-33 of 37

BORING LOGS (3 of 7)

**U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-007**

Date: February, 2005 Scale: None

DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S./B.L.D.
CHECKED	H.T./M.R.

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E-Mail: transportation@soodan.com

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
383	29R-T	McHENRY	88	73
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 62202

BORING NO. B-13 (1 OF 1)

BORING NO. B-14 (1 OF 1)

BORING NO. B-15 (1 OF 1)

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG Page 1 of 1 Date 3/26/02

ROUTE _____ DESCRIPTION _____
SECT. _____ STRUCT. NO. _____ DRILLED BY BP
COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-13 Surface Water Elev. _____
Station 0+684.163 Groundwater Elev. when drilling _____
Offset 9.5 m Lt after _____ Hrs. _____

DEPTH (m)	D E P T H		B L O W S	Qu kPa	W %	D E P T H	B L O W S		Qu kPa	W %
	P	H					P	H		
289.8	4	5	16	26		7	13	14		
288.8	15	30	22	5		40	28	10		
	13	19	22	9						
	15	20	30	12		13	15	17		
	19	28	62	7						
284.1	17	12	16	13		4	5	14		
	50	55	22	10						
	12	13	15	16						
	3	5	6	15						
	4	8	14	23						

END OF BORING 278.4 -12.0

Surface Water Elev. _____
Groundwater Elev. _____

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Meters

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG Page 1 of 1 Date _____

ROUTE _____ DESCRIPTION _____
SECT. _____ STRUCT. NO. _____ DRILLED BY BP
COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-14 Surface Water Elev. _____
Station 0+674.718 Groundwater Elev. when drilling _____
Offset 10.0 m Rt after _____ Hrs. _____

DEPTH (m)	D E P T H		B L O W S	Qu kPa	W %	D E P T H	B L O W S		Qu kPa	W %
	P	H					P	H		
	5	5	9	30		6	7	20		
	12	12	7	26		3	7	13		
	7	5	4	17						
	3	5	6	25		4	3	13		
	23	25	29	7						
	24	36	40	8		12	11	20		
	80	80	60	6						
	16	20	20	16						
	6	7	11	21						
	9	11	15	21						

END OF BORING 278.4 -12.0

Surface Water Elev. _____
Groundwater Elev. _____

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Meters

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG Page 1 of 1 Date 3/27/02

ROUTE _____ DESCRIPTION _____
SECT. _____ STRUCT. NO. _____ DRILLED BY BP
COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-15 Surface Water Elev. _____
Station 0+664.088 Groundwater Elev. when drilling _____
Offset 9.5 m Lt after _____ Hrs. _____

DEPTH (m)	D E P T H		B L O W S	Qu kPa	W %	D E P T H	B L O W S		Qu kPa	W %
	P	H					P	H		
	4	4	5	26		3	4	21		
	7	19	16	20		3	4	21		
	80	45	25	4						
	9	19	19	7		3	3	16		
	16	26	29	8						
	15	23	24	7		10	10	15		
	30	35	33	6						
	28	20	30	7						
	14	20	22	10						
	14	8	7	25						

END OF BORING 279.6 -12.0

Surface Water Elev. _____
Groundwater Elev. _____

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Meters

Sheet SI-34 of 37

BORING LOGS (4 of 7)

U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-007

Date: February, 2005 Scale: None

DESIGNED J.S./R.A.
CHECKED H.T./N.S.
DRAWN J.S./B.I.D.
CHECKED H.T./M.R.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
323	29R-T	McHENRY	88	74
FED. ROAD DIST. NO. 1		BALANCE	FED. AID PROJECT	

CONTRACT NO. 62202

BORING NO. B-16 (1 OF 1)

BORING NO. B-17 (1 OF 1)

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG

Page 1 of 1
Date 3/22/02

ROUTE _____ DESCRIPTION _____
SECT. _____ STRUCT. NO. _____ DRILLED BY BP
COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-16 Station 0+658.249 Offset 10.5 m Rt
Surface Elev. 290.59 (m)

D E P T H	B L O W S	Q u kPa	W %	Surface Water Elev.		D E P T H	B L O W S	Q u kPa	W %
				when drilling	at Completion				
	5		17				5		19
	3						7		
	2						7		
	7						4		18
	4		21				7		
-1.5	6					-9.0	14		
	7								
	4		19						
	2								
	7						2		21
	9		13				2		
-3.0	11					-10.5	2		
	7								
	6		8						
	11								
	21						3		
	31		7				5		22
-4.5	31					-12.0	7		
	31								
	58		8						
	90								
	25								
	50		11						
-6.0	100					-13.5			
	15								
	25		11						
	20								
	6								
	7		22						
-7.5	8					-15.0			

FILL, 8" concrete over topsoil, clay, sand, stone, cinders & rubble, brown & black, loose to medium dense, damp to moist

SAND & GRAVEL, brown, very dense to extremely dense, saturated

SANDY LOAM, brown, medium dense

Surface Water Elev. _____
Groundwater Elev. _____
when drilling _____
at Completion _____
after _____ Hrs. 290.59

END OF BORING 278.6 -12.0

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG

Page 1 of 1
Date 3/23/02

ROUTE _____ DESCRIPTION _____
SECT. _____ STRUCT. NO. _____ DRILLED BY BP
COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-17 Station 0+645.766 Offset 18.9 m Rt
Surface Elev. 290.87 (m)

D E P T H	B L O W S	Q u kPa	W %	Surface Water Elev.		D E P T H	B L O W S	Q u kPa	W %
				when drilling	at Completion				
	8		10				2		29
	3						2		
	11						3		
	5						4		18
	3		12				10		
-1.5	2					-9.0	14		
	14								
	7		24						
	3						3		17
	5		14				4		
-3.0	10					-10.5	4		
	5								
	3		13						
	7								
	5						5		20
	9		18				5		
-4.5	7					-12.0	7		
	7								
	8		16						
	6								
	20								
	38		8						
-6.0	28					-13.5			
	9								
	10		6						
	8								
	2								
	3		20						
-7.5	2					-15.0			

FILL, 5" asphalt, 6" stone base over sand, cinders, stone & clay, brown & black, loose to medium dense

SANDY LOAM, gray & brown, medium dense

SAND, some gravel, brown, dense to medium dense, damp to wet at 21'

SILT, dark gray, loose

Surface Water Elev. _____
Groundwater Elev. _____
when drilling _____
at Completion _____
after _____ Hrs. _____

END OF BORING 278.9 -12.0

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

Sheet SI-35 of 37

DESIGNED J.S./R.A.
CHECKED H.T./N.S.
DRAWN J.S./B.I.D.
CHECKED H.T./M.R.

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BORING LOGS (5 of 7)

U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

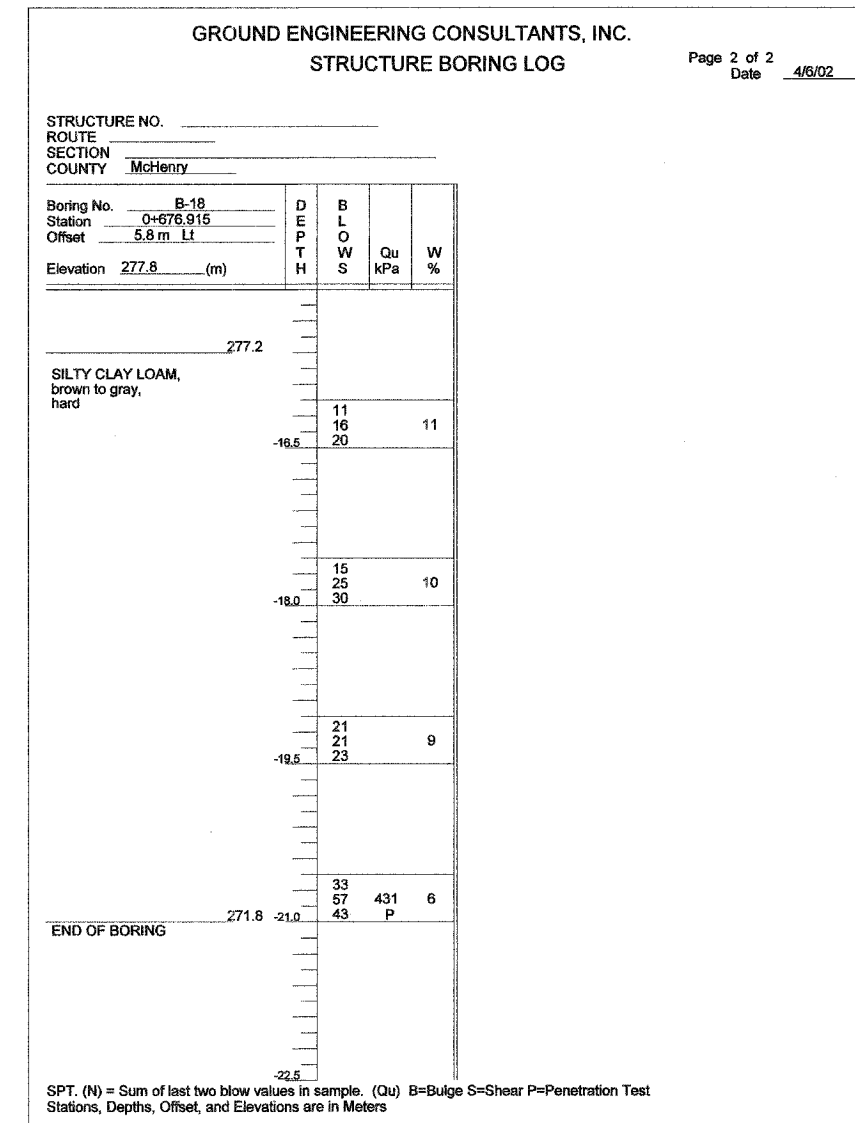
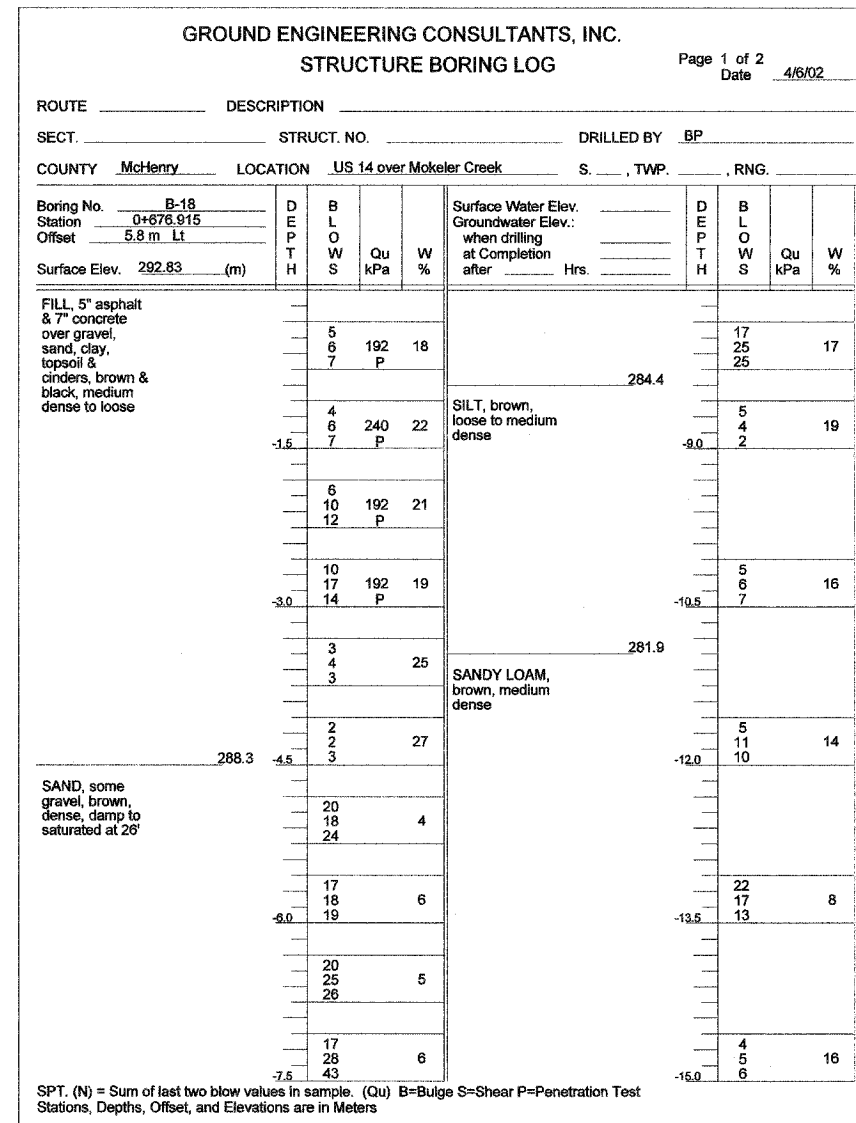
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
R.A.P. 383	29R-T	McHENRY	88	75
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62202

BORING NO. B-18 (1 OF 2)

BORING NO. B-18 (2 OF 2)



DESIGNED	J.S./R.A.
CHECKED	H.T./N.S.
DRAWN	J.S./B.L.D.
CHECKED	H.T./M.R.

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Soodan & Associates, Inc.
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Chicago, Illinois 60610
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E-Mail: transportation@soodan.com

Sheet S1-36 of 37

BORING LOGS (6 of 7)

U.S. 14 RETAINING WALLS
AT MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+647.90 TO STA. 0+982.78
AT STRUCTURE NO. 056-0007

Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

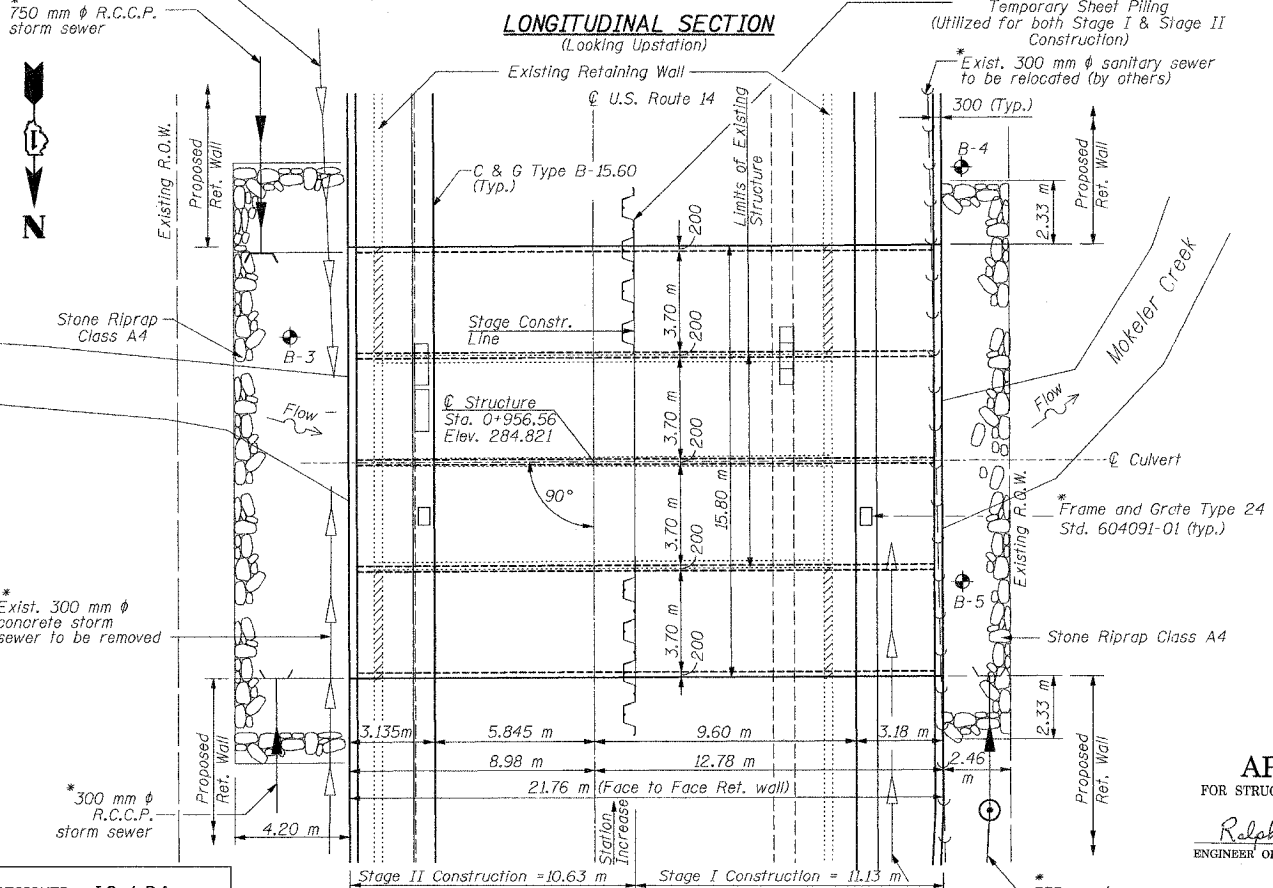
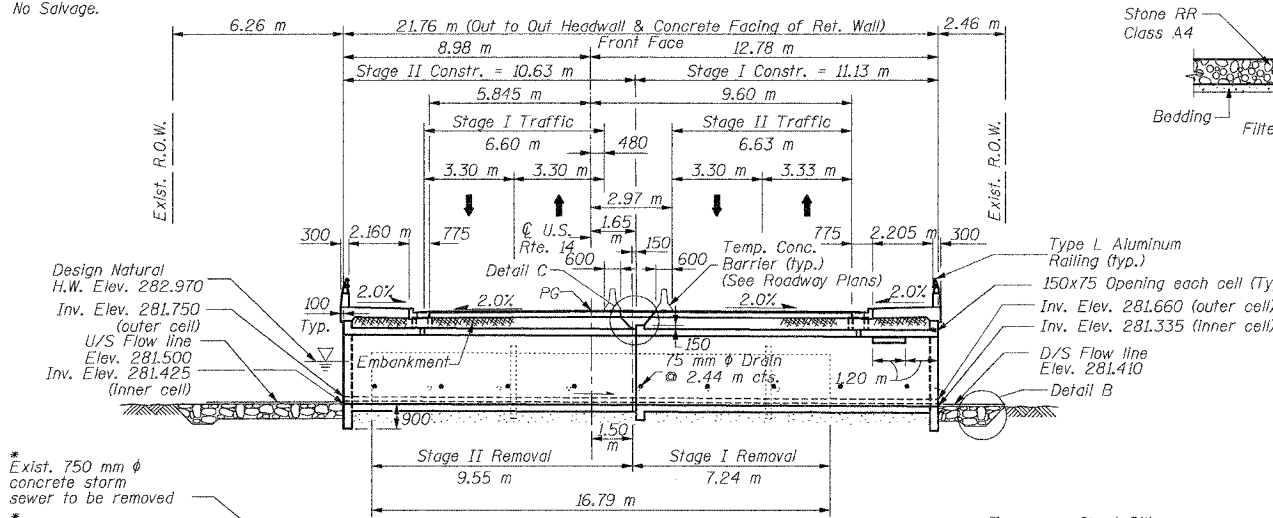
ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
383	29R-T	McHENRY	88	77
FED. ROAD DIST. NO. 1				

CONTRACT NO. 62202

Bench Mark: At Harvard, one block E. of U.S. Highway 14 on State Highway 173, 14 m S., 11.6 m W. of, and 0.52 m Higher Than center of Cross Streets (Junction N. Hart and E. Diggins), 2.9 m S. and 0.46 m W. of NE. corner Grade School Parking Lot, in concrete post, Aluminum Tablet Stamped "51 A 1923 966" Painted R1 "966.3" Tablet Mutilated, Designation Re-Stamped) Elev. =294.508

Existing Structure: Double 3.05m x 1.68 m x 16.79 m± long R.C. box culvert Struct. No. 056-0048 was originally constructed in 1924 and reconstructed in 1940, to be removed. The road shall be kept open to one lane traffic in each direction at all time utilizing stage construction.

No Salvage.



DESIGNED	J.S. / R.A.
CHECKED	H.T. / N.U.S
DRAWN	J.S.
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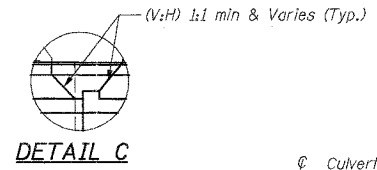
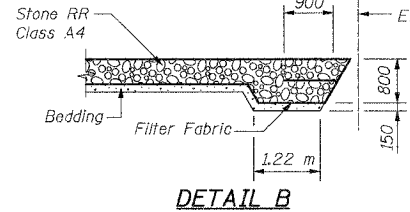
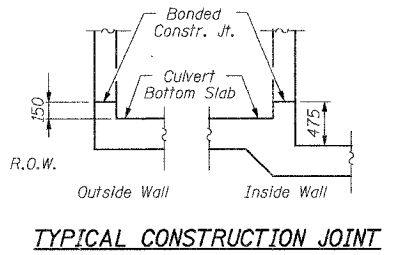
* See Roadway drawings

PLAN

Indicates Boring Location

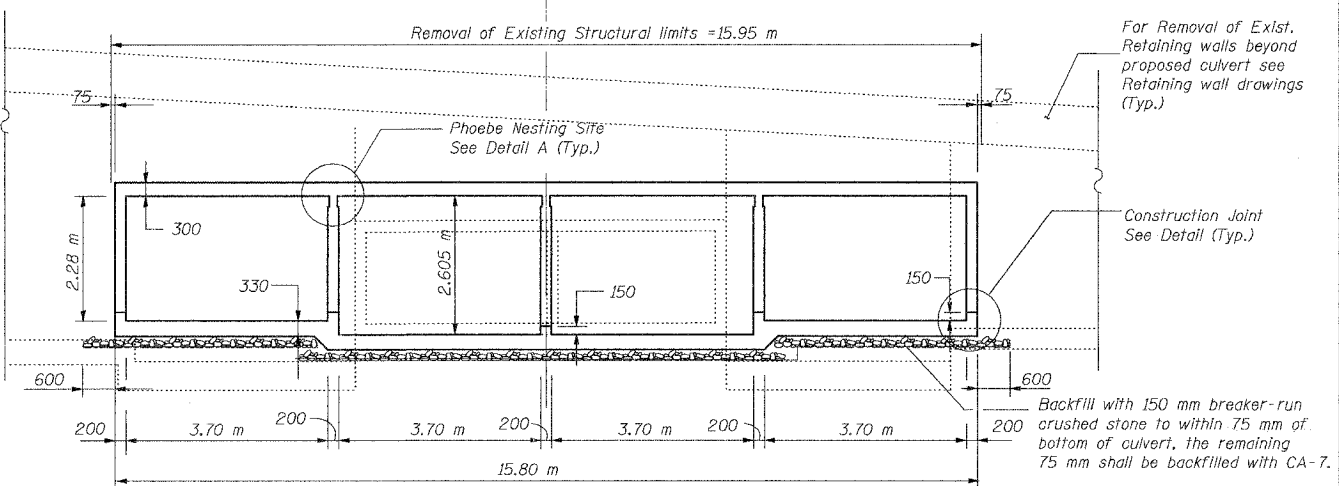
APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

Hakim H. Taiyebi
HAKIM H. TAIYEBI
ILLINOIS LICENSED
STRUCTURAL ENGINEER
NO. 081-003266
LICENSE EXP. 11-30-06



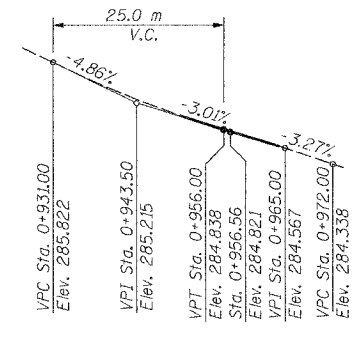
Note: Notch Formed by rough-finished board attached to and removed with formwork.

STATION 0+956.56
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RTE. 303 SEC. 29R-T
LOADING MS18
STR. NO. 056-0076
NAME PLATE
See Std. 515001



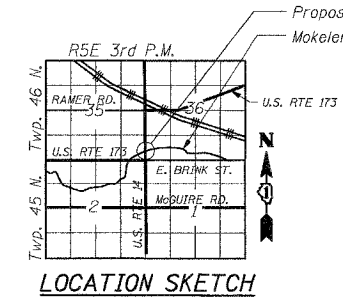
Note: Proposed Retaining Wall not shown for clarity See Retaining Wall drawings

Notes: All dimensions are in millimeters (mm) unless otherwise noted. Precast Culvert alternate is not allowed



WATERWAY INFORMATION

Drainage Area = 1109 ha		Low Grade Elev. 284.15 m @ Sta. 0+955		Max. Recorded H.W.E. 283.01 m					
Flood	Freq. Yr.	Q m³/s	Opening m²		Head - m		Headwater Elevation (m)		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	10	13.88	7.84	18.24	282.77	0.25	0.00	283.02	282.63
Base	100	24.07	9.29	22.07	283.05	0.63	0.00	283.68	283.03
Max. Calc.	500	32.00	9.29	24.07	283.20	1.17	0.00	284.37	283.19



GENERAL PLAN
U.S. ROUTE 14
OVER MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+956.56
STRUCTURE NO. 056-0076
Date: February, 2005 Scale: None

Sheet S2-1 of 8

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL
U.S. 14	29R-T	McHENRY	88	78
F.A.P. 383				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62202

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M 31M or M 322M Grade 420 and Grade 400.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

Exposed edges shall have a 20mm chamfer unless otherwise noted.

For backfilling and embankment, see standard specifications.

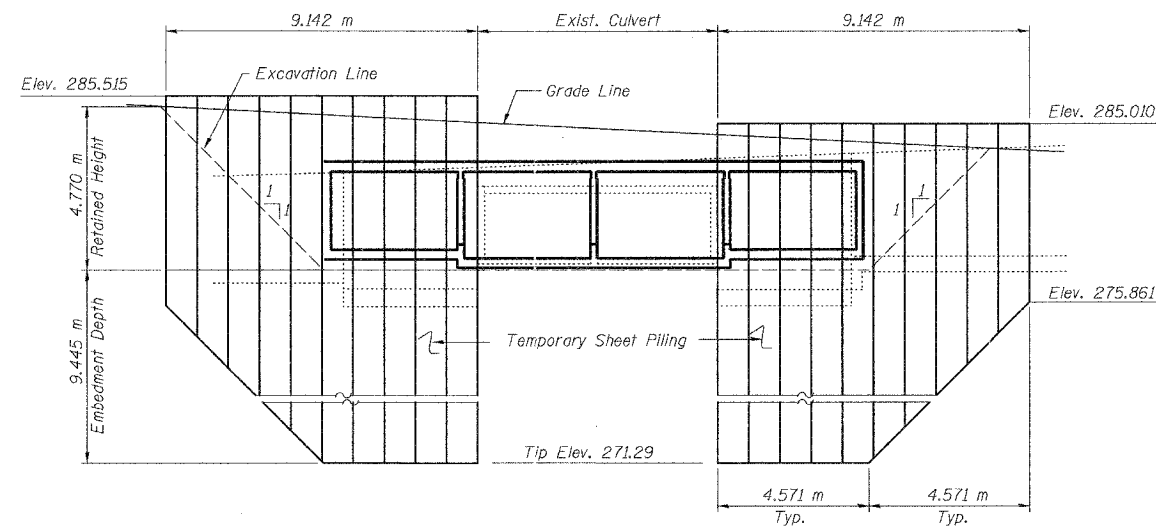
All construction joints shall be bonded.

Precast Culvert alternate is not allowed.

All dimensions are in millimeters (mm) except as noted.

MIN. BAR LAP (mm)

- #13 = 440
- #16 = 550
- #19 = 670
- #22 = 910



TEMPORARY SHEET PILING
Minimum Section Modulus of Sheet Piling = $3600 \text{ mm}^3/\text{m} \times 10^3$

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Box Culverts	cu.m	—	274.1	274.1
Removal of Existing Structures	Each	—	1	1
Reinforcement Bars	kg	—	37770	37770
Stone Riprap, Class A4	sq.m	—	136	136
Temporary Sheet Piling	sq.m	—	234.6	234.6
Name Plates	Each	1	—	1
Bar splicers	Each	—	265	265
Aluminum Railing, Type L	m	31.6	—	31.6
Breaker-Run Crushed Stone	m ton	—	162	162
Filter Fabric for use with Riprap	sq.m	—	136	136
* Concrete Superstructure	cu.m	32.1	—	32.1
* Reinforcement Bars, Epoxy Coated	kg	2,670	—	2,670
* Protective Coat	sq.m	95	—	95

* Include: Parapet and Sidewalk Slab.

INDEX OF SHEETS

SHEET NO.	TITLE
1.	General Plan
2.	General Notes and Bill of Material
3.	Culvert Plan
4.	Culvert Details
5.	Bar Splicer Assembly Details
6.	Parapet and Sidewalk Slab
7.	Type L Aluminum Railing
8.	Boring Logs

Sheet S2-2 of 8

**GENERAL NOTES AND
BILL OF MATERIAL**

U.S. ROUTE 14
OVER MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+956.56
STRUCTURE NO. 056-0076

Date: February, 2005 Scale: None

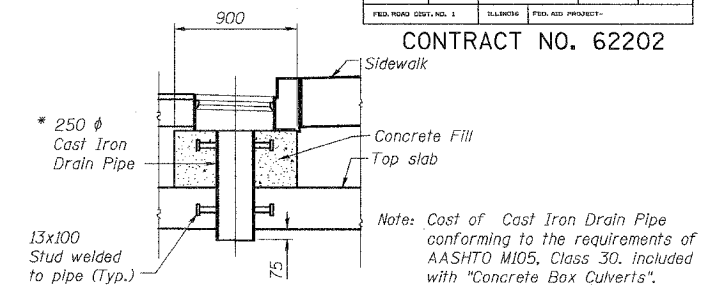
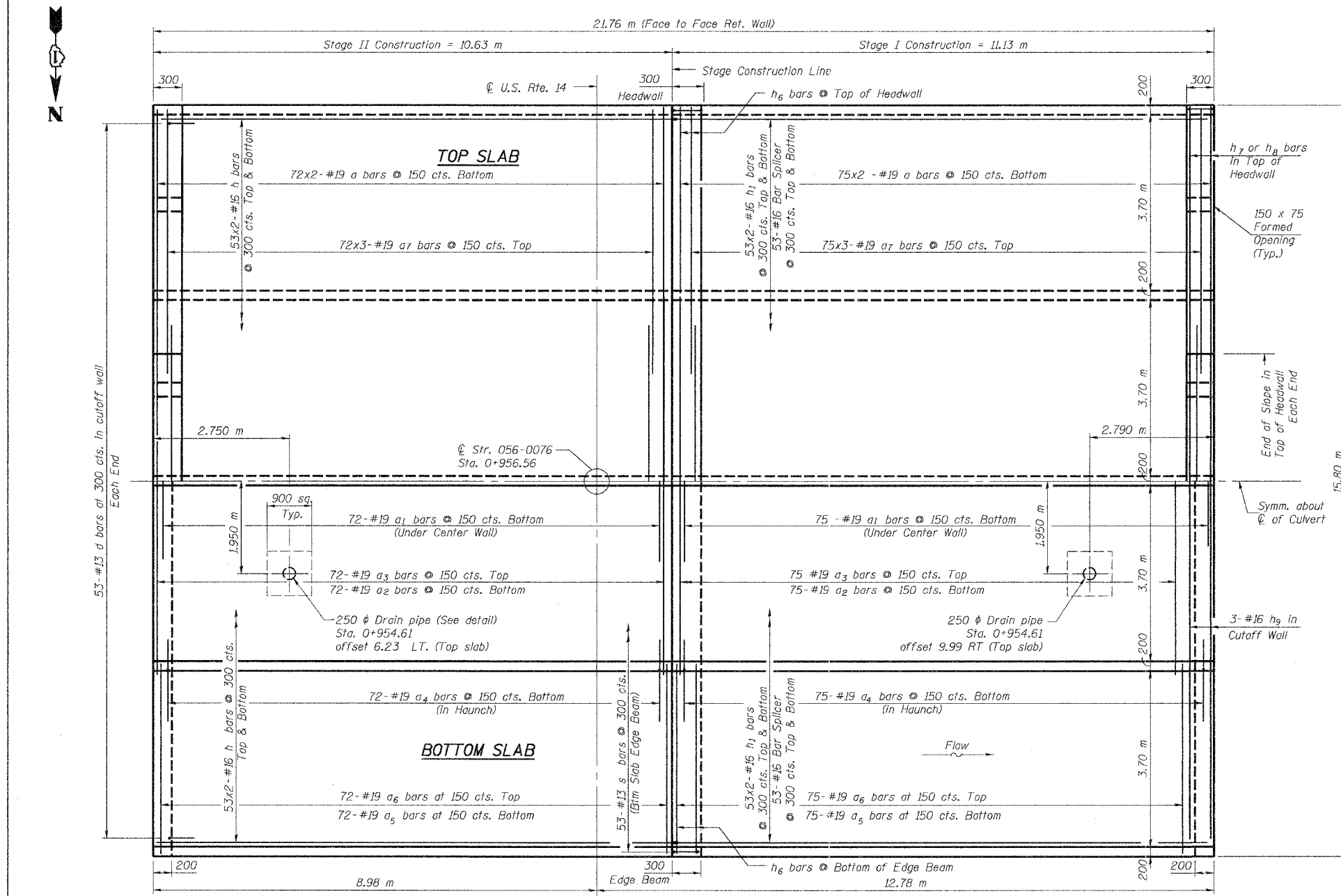
DESIGNED	J.S. / R.A.
CHECKED	H.T. / N.U.S
DRAWN	J.S.
CHECKED	H.T./M.R.

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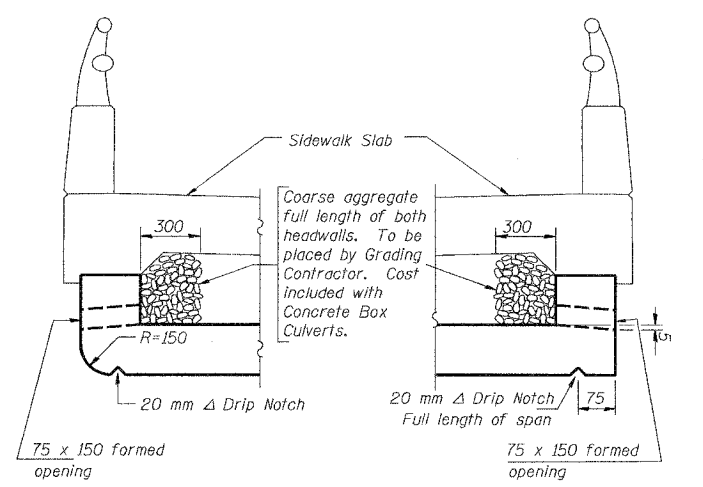
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
U.S. Rte. 14	29R-T	McHENRY	88	79
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 62202



DRAIN PIPE DETAIL



AT UP STREAM END AT DOWN STREAM END
DRAIN DETAIL

- Notes:
1. Bars indicated thus 12x4 - #15 etc. indicates 12 lines of bars with 4 lengths per line.
 2. All dimensions are in millimeters (mm) except as noted.
 3. For Bill of Material and Sections See Sheet S2-4 of 8.

PLAN

DESIGNED	J.S. / R.A.
CHECKED	H.T. / N.U.S
DRAWN	J.S.
CHECKED	H.T./M.R.

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Sheet S2-3 of 8

CULVERT PLAN

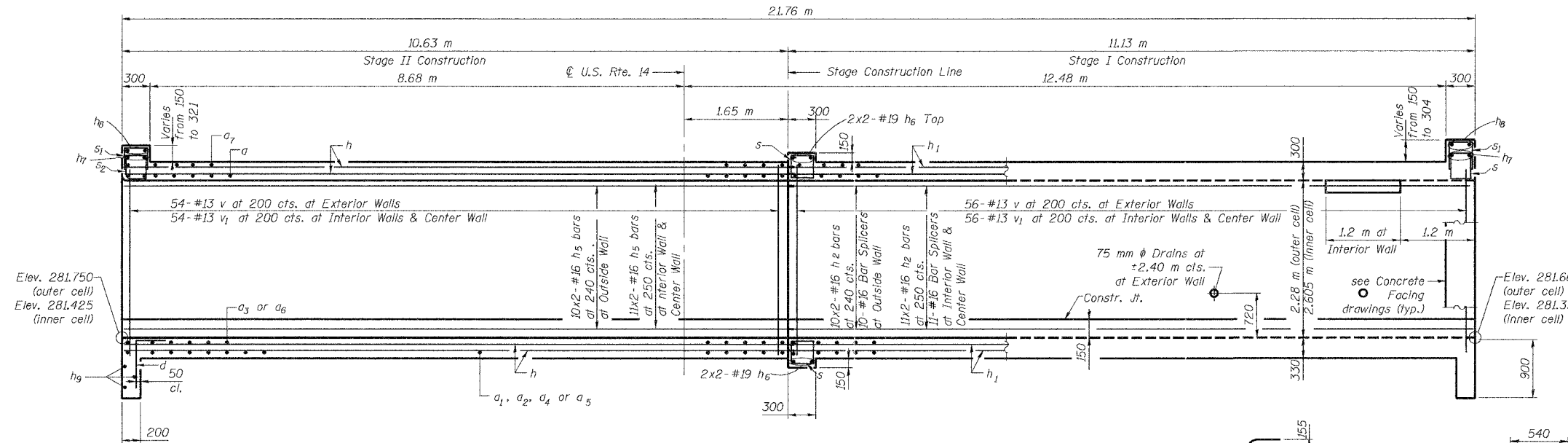
U.S. ROUTE 14
OVER MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+956.56
STRUCTURE NO. 056-0076

Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

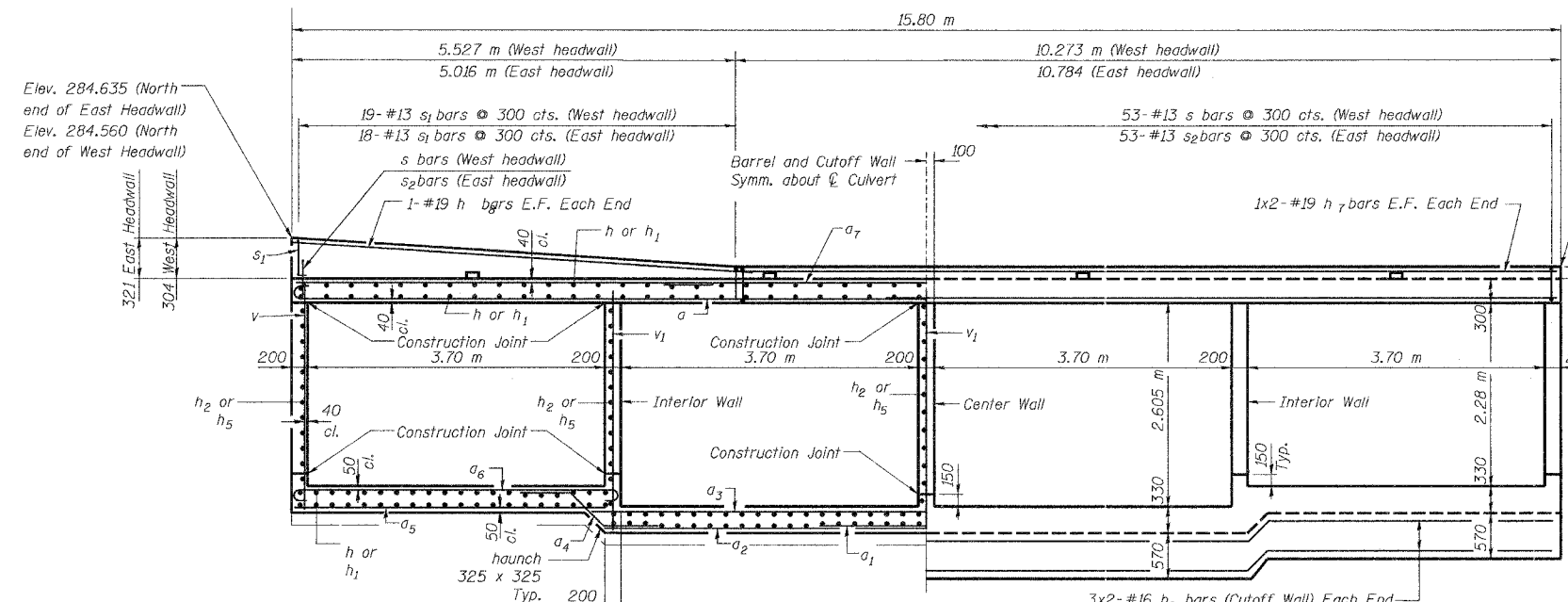
ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
P.A. 383	29R-T	McHENRY	88	80
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 62202
BILL OF MATERIAL



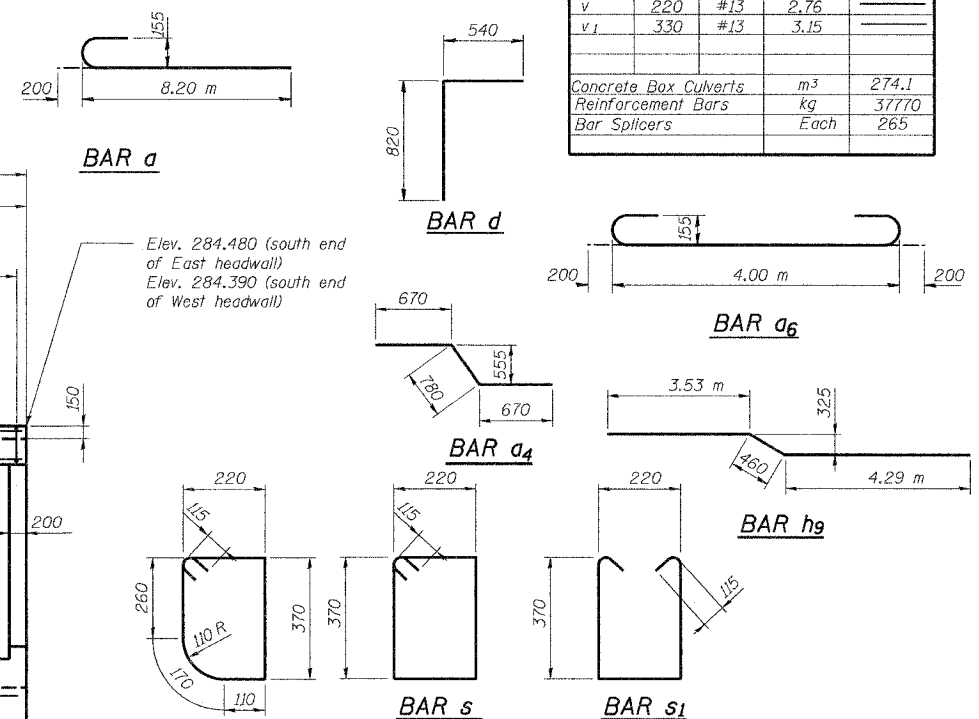
LONGITUDINAL SECTION
(Looking South)

Bar	No.	Size	Length (m)	Shape
a	294	#19	8.40	
a1	147	#19	2.44	
a2	147	#19	8.00	
a3	147	#19	8.58	
a4	294	#19	2.10	
a5	294	#19	4.00	
a6	294	#19	4.40	
a7	441	#19	5.70	
d	106	#13	1.22	
h	424	#16	5.59	
h1	424	#16	5.80	
h2	106	#16	5.85	
h3	181	#16	5.66	
h5	106	#16	5.52	
h6	8	#19	8.20	
h7	4	#19	5.71	
h8	2	#19	5.49	
h9	12	#16	8.28	
s	201	#13	1.41	
s1	9	#13	1.19	
s2	53	#13	1.24	
v	220	#13	2.76	
v1	330	#13	3.15	
Concrete Box Culverts			m ³	274.1
Reinforcement Bars			kg	37770
Bar Splicers			Each	265



HALF SECTION
THRU BARREL
Showing Reinforcement

HALF END ELEVATION
Showing Dimensions



MIN. BAR LAP
#13 - 440
#16 - 550
#19 - 670

DESIGNED	J.S. / R.A.
CHECKED	H.T. / N.U.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

Soodan
Soodan & Associates, Inc.
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E-Mail: transport@soodan.com

CULVERT DETAILS

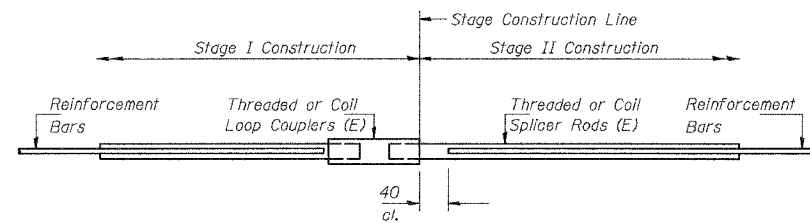
U.S. ROUTE 14
OVER MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+956.56
STRUCTURE NO. 056-0076

Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
383	29R-T	McHENRY	88	81
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-	

CONTRACT NO. 62202



BAR SPLICER ASSEMBLY DETAIL

Bar Size	No. Assemblies Required	Location
#16	212	Culvert T & B Slab
#16	53	Culvert Walls

The diameter of this part is equal or larger than the diameter of bar spliced.
The diameter of this part is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR



**** ONE PIECE**

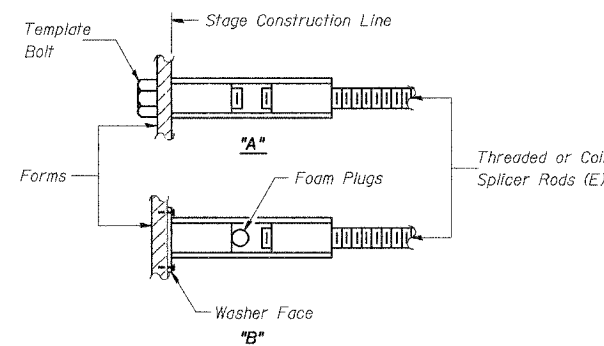
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 400 MPa 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 = $1.25 \times 10^{-3} \times f_y \times A_t$
(Tension in kN)
- Minimum *Pull-out Strength = $1.25 \times 10^{-3} \times f_{sallow} \times A_t$
(Tension in kN)

Where f_y = Yield strength of lapped reinforcement bars in MPa.
 f_{sallow} = Allowable tensile stress in lapped reinforcement bars in MPa (Service Load)
 A_t = Tensile stress area of lapped reinforcement bars (mm^2).
* = 28 day concrete

BAR SPLICER ASSEMBLIES

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kN - tension	Min. Pull-Out Strength kN - tension
#13	510 mm	68	27
#16	610 mm	102	41
#19	790 mm	147	59
#22	1.04 m	201	80
#25	1.37 m	262	105

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."
All dimensions are in millimeters (mm) except as noted.

Sheet S2-5 of 8

BAR SPLICER ASSEMBLY DETAILS

U.S. ROUTE 14
OVER MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+956.56
STRUCTURE NO. 056-0076

Date: February, 2005 Scale : None

DESIGNED	J.S. / R.A.
CHECKED	H.T. / N.U.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

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BSD-1 (M) 9-1-03

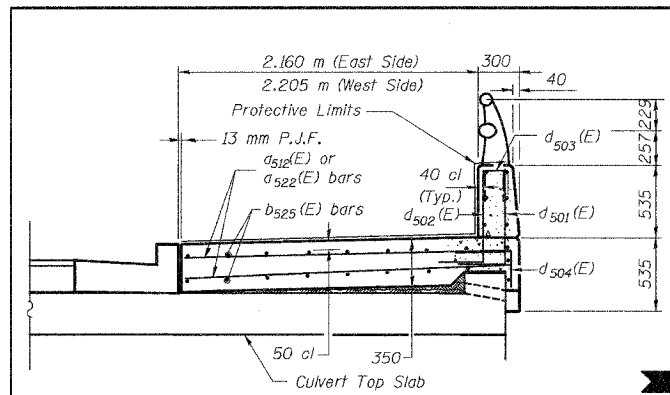
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	DISTRICT	SHEET NO.	TOTAL SHEETS
P.A. 383	29R-T	McHENRY	86	82
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

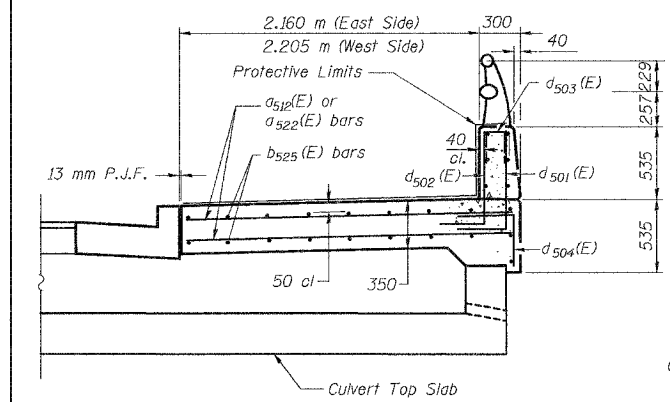
CONTRACT NO. 62202

BILL OF MATERIAL
PARAPET & SIDEWALK SLAB

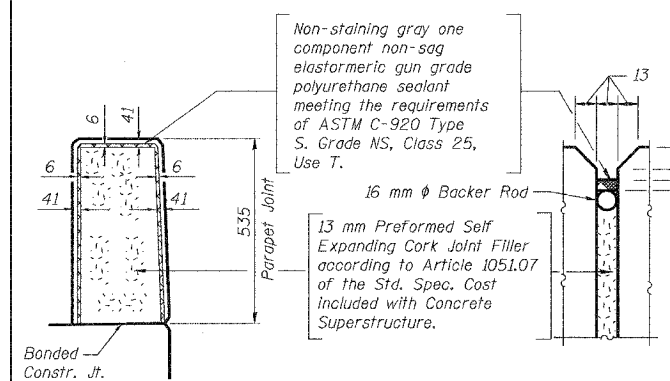
Bar	No.	Size	Length (m)	Shape	
d ₅₁₂ (E)	108	#15	2.38		
d ₅₂₂ (E)	108	#15	2.43		
b ₅₂₅ (E)	76	#15	8.18		
d ₅₀₁ (E)	108	#15	1.05		
d ₅₀₂ (E)	108	#20	1.11		
d ₅₀₃ (E)	24	#15	0.61		
d ₅₀₄ (E)	108	#15	0.61		
e ₅₂₀ (E)	24	#15	7.82		
Concrete Superstructure				m ³	32.1
Reinforcement Bars, Epoxy Coated				kg	2,670



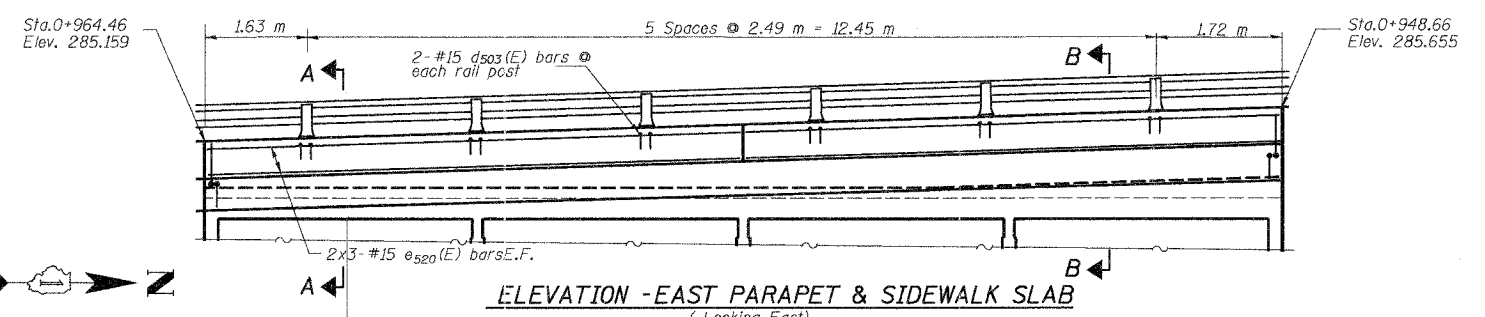
SECTION A-A



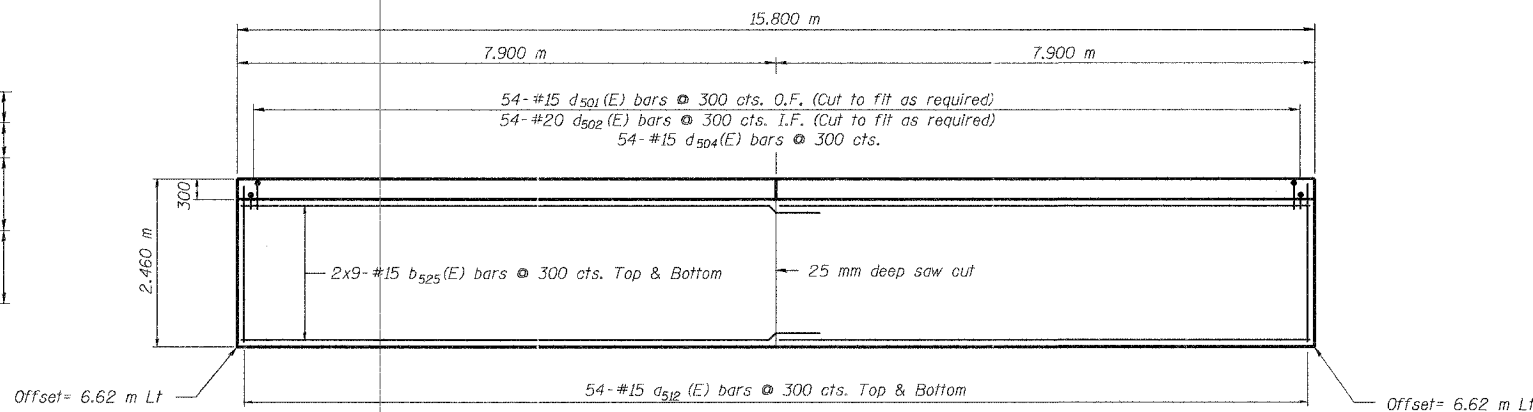
SECTION B-B



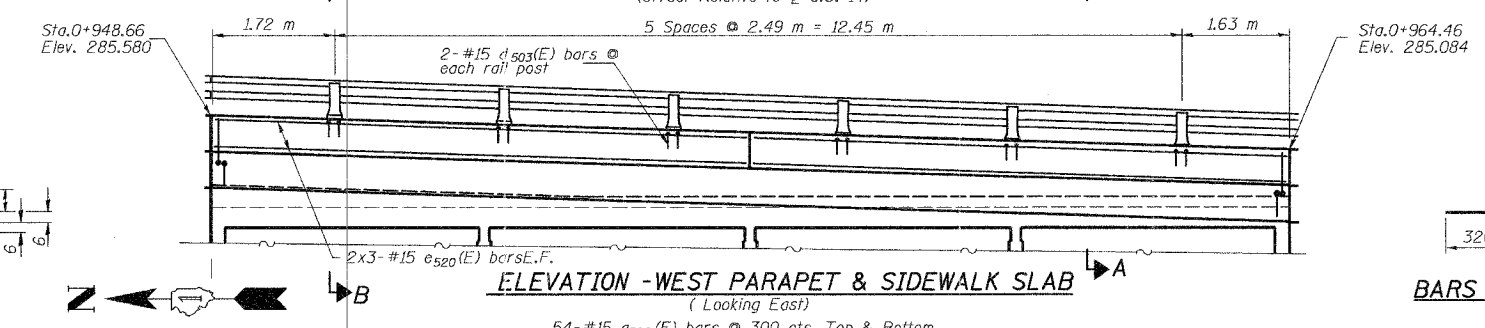
PARAPET JOINT DETAILS



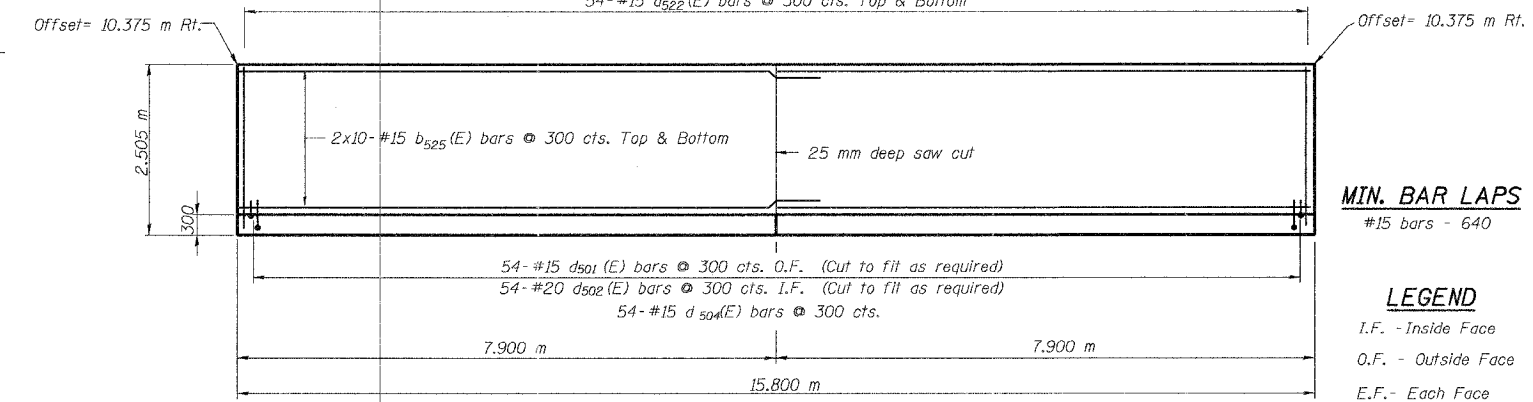
ELEVATION - EAST PARAPET & SIDEWALK SLAB
(Looking East)



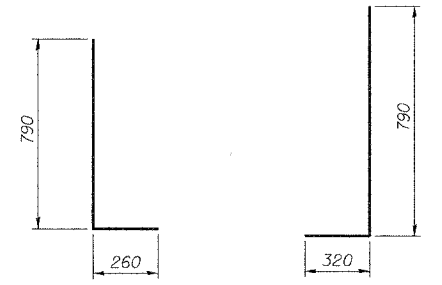
PLAN - PARAPET & SIDEWALK SLAB
(Offset Relative to U.S. 14)



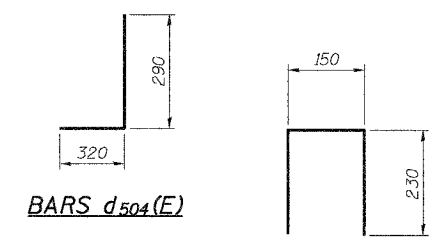
ELEVATION - WEST PARAPET & SIDEWALK SLAB
(Looking East)



PLAN - PARAPET & SIDEWALK SLAB
(Offset Relative to U.S. 14)



BARS d₅₀₁(E) BARS d₅₀₂(E)



BARS d₅₀₄(E)
BARS d₅₀₃(E)

MIN. BAR LAPS
#15 bars - 640

LEGEND
I.F. - Inside Face
O.F. - Outside Face
E.F. - Each Face
T & B - Top & Bottom

DESIGNED	J.S. / R.A.
CHECKED	H.T. / N.U.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

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Sheet S2-6 of 8

PARAPET AND SIDEWALK SLAB

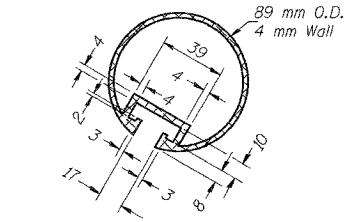
U.S. ROUTE 14
OVER MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+956.56
STRUCTURE NO. 056-0076

Date: February, 2005 Scale: None

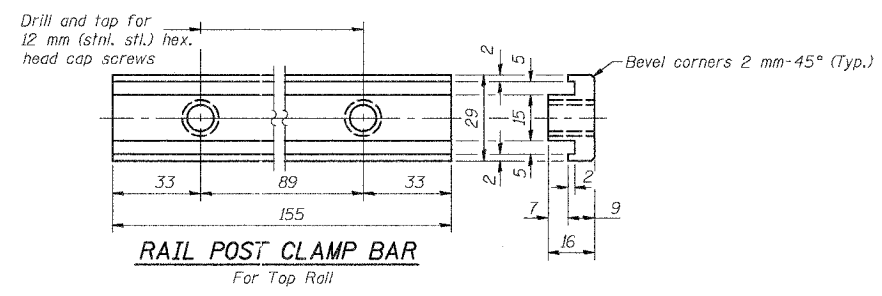
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
P.A.P. 383	29R-T	McHENRY	88	83
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

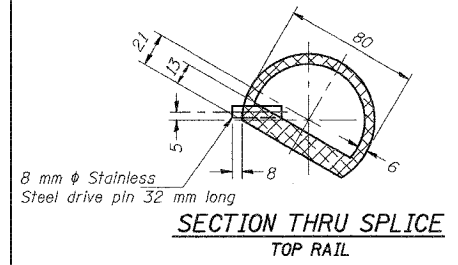
CONTRACT NO. 62202



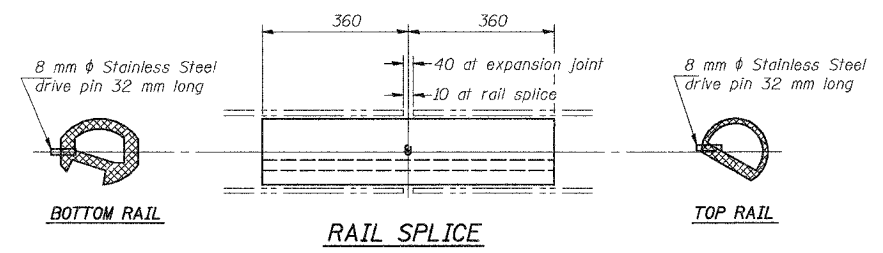
SECTION THRU TOP RAIL



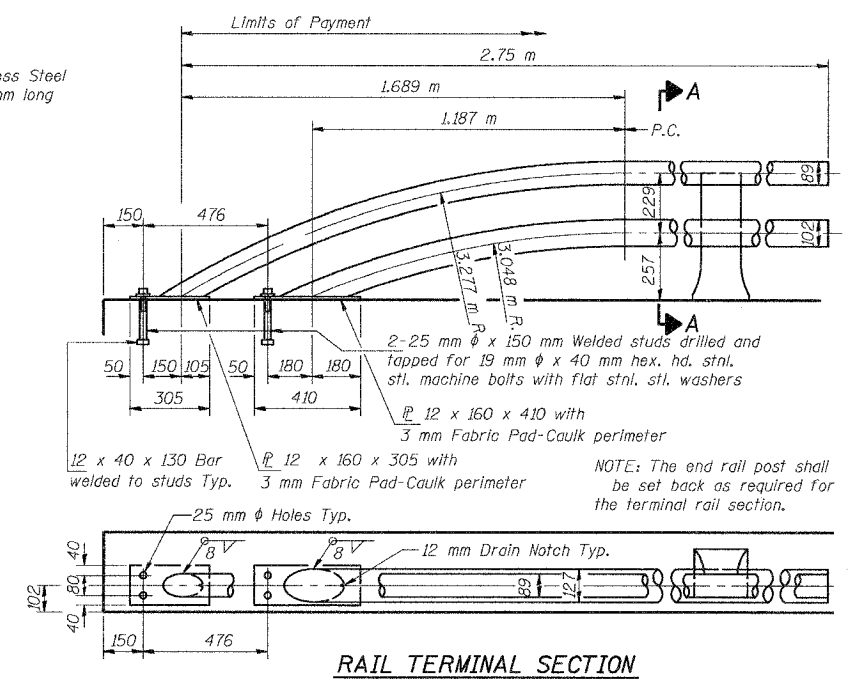
RAIL POST CLAMP BAR
For Top Rail



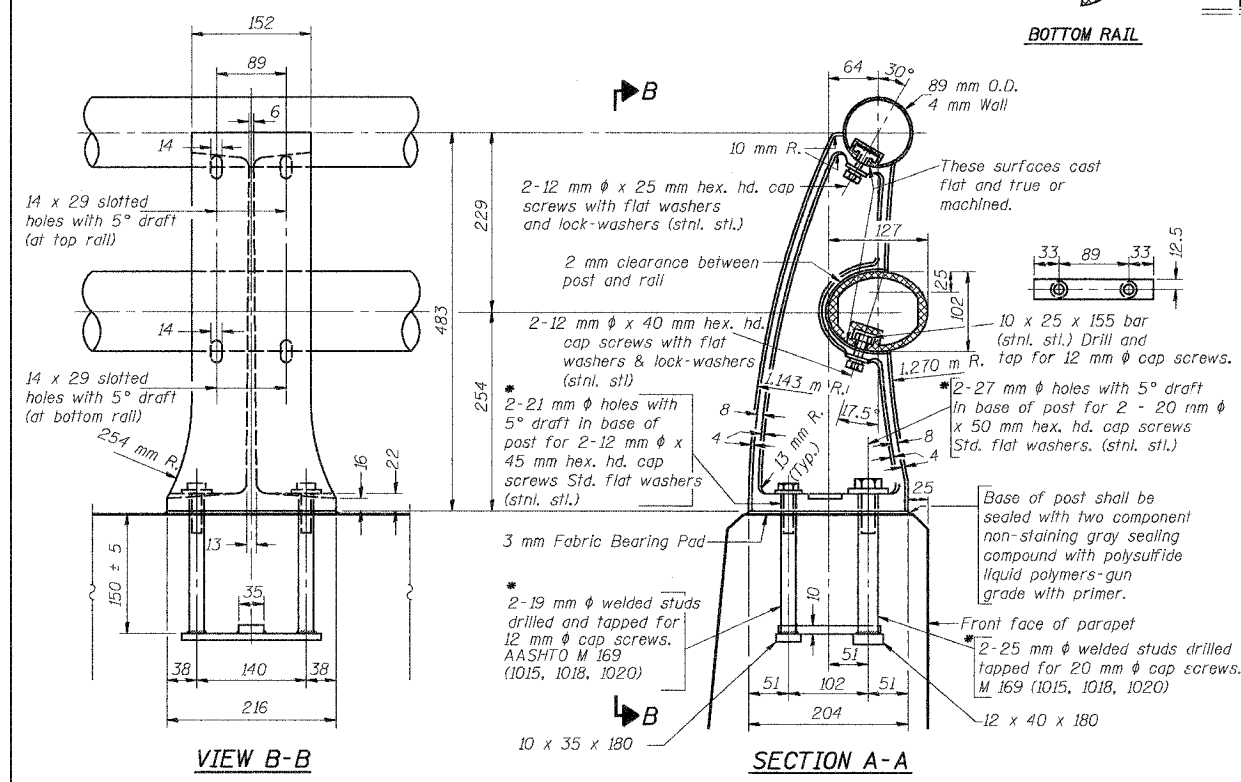
SECTION THRU SPLICE
TOP RAIL



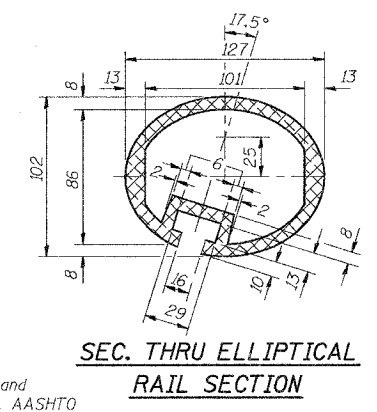
RAIL SPLICE



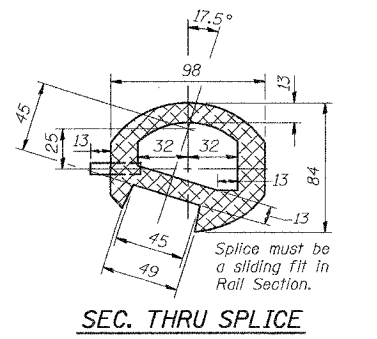
RAIL TERMINAL SECTION



RAIL POST DETAILS



SEC. THRU ELLIPTICAL
RAIL SECTION



SEC. THRU SPLICE

Notes: All Posts shall be normal to parapet.
All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 9 meters, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 700 meter radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.
All joints in rail shall be spliced per detail.
Provide 1-3 mm and 2-1.5 mm Aluminum Shims for 25% of the Posts.
Rail elements shall be parallel to Grade-high spots will be ground and low spots shimmed.
Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per meter for ALUMINUM RAILING, TYPE L.
Aluminum alloy rail shall conform to ASTM B 221M alloy 6061-T6 or 6351-T5 with min. yield stress 240 MPa, min. tensile strength 260 MPa, and elongation of 10% in 50 mm.
All dimensions are in millimeters (mm) except as noted.

BILL OF MATERIAL

Item	Unit	Quantity
Aluminum Railing, Type L	m	31.6

DESIGNED	J.S. / R.A.
CHECKED	H.T. / N.U.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

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E-Mail: transport@soodan.com

* In lieu of cast-in-place anchor device shown, the Contractor has the option of drilling and epoxy grout stainless steel anchor rods of the same diameter and grade as the specified cap screws. Embedment shall be according to manufacturer's specifications.

Sheet S2-7 of 8

**TYPE L
ALUMINUM RAILING**

U.S. ROUTE 14
OVER MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+956.56
STRUCTURE NO. 056-0076

Date: February, 2005 Scale: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
383	29R-T	McHENRY	88	84
F.A.P. 383		ILLINOIS FED. AID PROJECT-		

CONTRACT NO. 62202

BORING NO. B-3 (1 OF 1)

BORING NO. B-4 (1 OF 1)

BORING NO. B-5 (1 OF 1)

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG

Page 1 of 1
Date 3/26/02

ROUTE _____ DESCRIPTION _____
SECT. _____ STRUCT. NO. _____ DRILLED BY BP
COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-3
Station 0+956.771
Offset 11.1 m Lt

Surface Elev. (m)	DEPTH (m)	BLOW COUNT	QU (kPa)	W (%)	DESCRIPTION	DEPTH (m)	BLOW COUNT	QU (kPa)	W (%)	Surface Water Elev. / Groundwater Elev. when drilling at Completion after Hrs.	
										DEPTH (m)	BLOW COUNT
282.75	0				FILL, clay, silt & sand, black & brown, loose to medium dense	275.1					
	2	2	27				11		15		
	3	7	25				5		11		
	1.5	3				-9.0	20				
280.6	7	14	20		SANDY LOAM, brown, loose						
	15										
	3	3	21				11		11		
	3.0	3				-10.5	34				
278.8	2	2	16								
	1	1									
	5	4	14		SAND, tr. gravel, brown, medium dense, saturated	270.7	6	15	10		
	4.5	8			END OF BORING	-12.0	31				
	6	10	12								
	10	10									
	5	10	14								
	6.0	10				-13.5					
	10	15	15								
	16										
	6	11	14								
	7.5	12				-15.0					

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG

Page 1 of 1
Date 3/18/02

ROUTE _____ DESCRIPTION _____
SECT. _____ STRUCT. NO. _____ DRILLED BY BP
COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-4
Station 0+966.483
Offset 13.5 m Rt

Surface Elev. (m)	DEPTH (m)	BLOW COUNT	QU (kPa)	W (%)	DESCRIPTION	DEPTH (m)	BLOW COUNT	QU (kPa)	W (%)	Surface Water Elev. / Groundwater Elev. when drilling at Completion after Hrs.	
										DEPTH (m)	BLOW COUNT
282.64	0				FILL, clay & sand, black & brown, loose to medium dense	281.1					
	4	3	32				4		12		
	3	4					22		9		
	4						5		11		
	2	10	24				10		24		
	1.5	5				-9.0	12				
281.1	20	22	13		SAND, some gravel, brown & gray, dense to medium dense, saturated	273.0					
	23										
	11	10	14		SANDY LOAM, gray, very stiff		5		12		
	10	8					13	192	13		
	3.0	8				-10.5	14				
	1	5	15								
	5	5									
	4	9	15				12	30	335	8	
	4.5	8			END OF BORING	270.6	45				
	7	8	12								
	8	9									
	6	8	13								
	6.0	14				-13.5					
	7	8	14								
	8	9									
	7.5	15	15		SANDY LOAM, gray, medium dense & dense	275.7	6	12	15		
	15										

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

GROUND ENGINEERING CONSULTANTS, INC.
STRUCTURE BORING LOG

Page 1 of 1
Date 3/12/02

ROUTE _____ DESCRIPTION _____
SECT. _____ STRUCT. NO. _____ DRILLED BY BP
COUNTY McHenry LOCATION US 14 over Mokeler Creek S. _____, TWP. _____, RNG. _____

Boring No. B-5
Station 0+949.854
Offset 13.5 m Rt

Surface Elev. (m)	DEPTH (m)	BLOW COUNT	QU (kPa)	W (%)	DESCRIPTION	DEPTH (m)	BLOW COUNT	QU (kPa)	W (%)	Surface Water Elev. / Groundwater Elev. when drilling at Completion after Hrs.	
										DEPTH (m)	BLOW COUNT
282.90	0				FILL, sand, clay & topsoil, loose, moist	273.6					
	4	4	26				2		14		
	4	5					1		13		
	3	2	18				3		19		
	1.5	3				-9.0	20		12		
280.5	2	3	23		SILTY LOAM, brown & gray, very stiff						
	3	3									
	2	3	16		SANDY CLAY, brown to gray, soft		5		12		
	3.0	3				-10.5	20		22		
	2	4	17								
	6										
279.0	4	17	18		SILTY CLAY, gray, very stiff	270.9	14	17	9		
	4.5	12			END OF BORING	-12.0	15				
	10	12	18								
	12	10									
	9	7	16								
	6.0	7				-13.5					
	9	4	14								
	2										
	3	7	14								
	7.5	8				-15.0					

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Meters

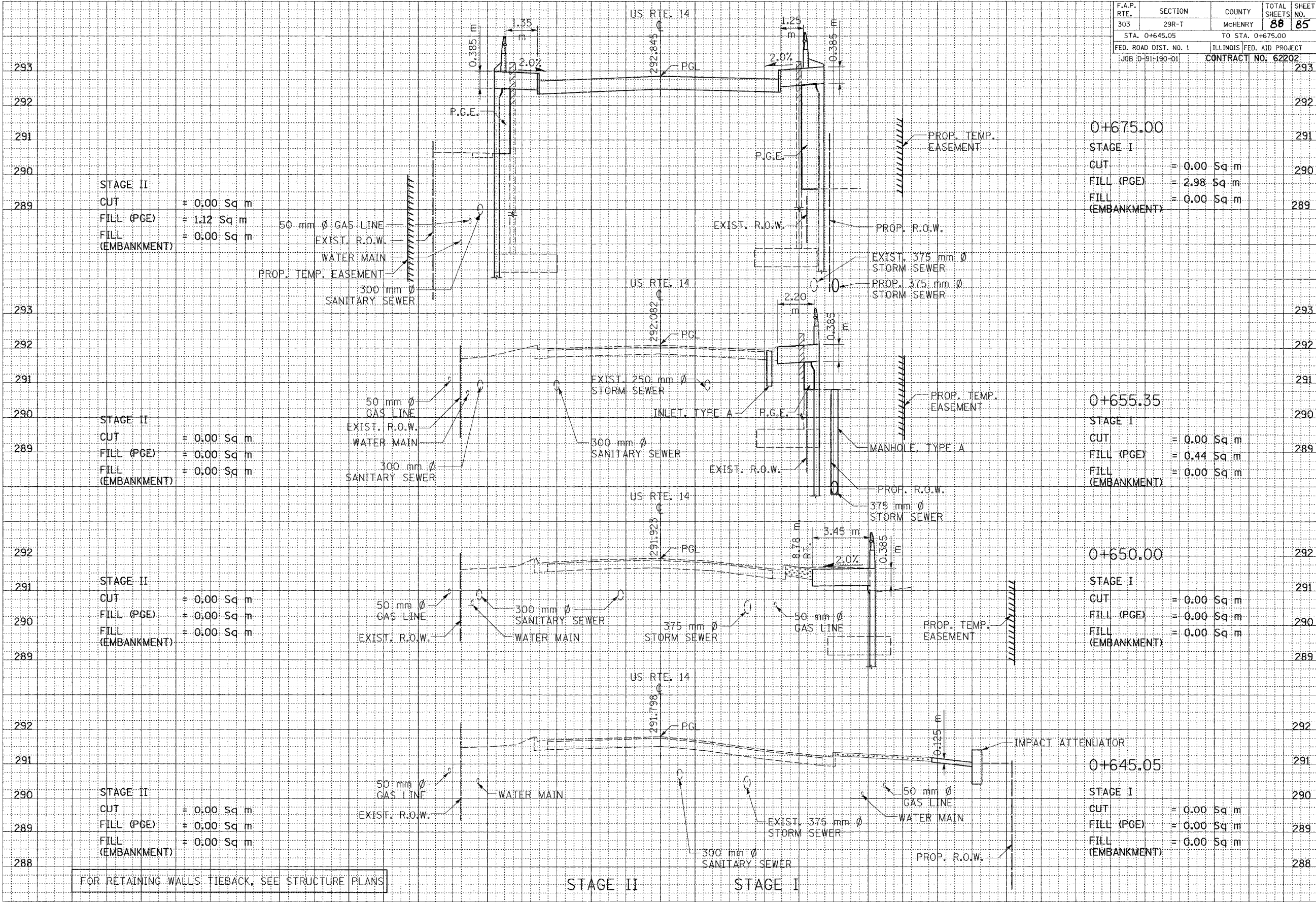
DESIGNED	J.S. / R.A.
CHECKED	H.T. / N.U.S.
DRAWN	J.S.
CHECKED	H.T./M.R.

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Sheet S2-B of 8

BORING LOGS
U.S. ROUTE 14
OVER MOKELER CREEK
SECTION 29R-T
McHENRY COUNTY
STA. 0+956.56
STRUCTURE NO. 056-0076
Date: February, 2005 Scale: None

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	85
STA. 0+645.05		TO STA. 0+675.00		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB D-91-190-01		CONTRACT NO. 62202		



293

292

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288

STAGE II

CUT = 0.00 Sq m

FILL (PGE) = 1.12 Sq m

FILL (EMBANKMENT) = 0.00 Sq m

STAGE II

CUT = 0.00 Sq m

FILL (PGE) = 0.00 Sq m

FILL (EMBANKMENT) = 0.00 Sq m

STAGE II

CUT = 0.00 Sq m

FILL (PGE) = 0.00 Sq m

FILL (EMBANKMENT) = 0.00 Sq m

STAGE II

CUT = 0.00 Sq m

FILL (PGE) = 0.00 Sq m

FILL (EMBANKMENT) = 0.00 Sq m

FOR RETAINING WALLS, TIEBACK, SEE STRUCTURE PLANS

0+675.00

STAGE I

CUT = 0.00 Sq m

FILL (PGE) = 2.98 Sq m

FILL (EMBANKMENT) = 0.00 Sq m

0+655.35

STAGE I

CUT = 0.00 Sq m

FILL (PGE) = 0.44 Sq m

FILL (EMBANKMENT) = 0.00 Sq m

0+650.00

STAGE I

CUT = 0.00 Sq m

FILL (PGE) = 0.00 Sq m

FILL (EMBANKMENT) = 0.00 Sq m

0+645.05

STAGE I

CUT = 0.00 Sq m

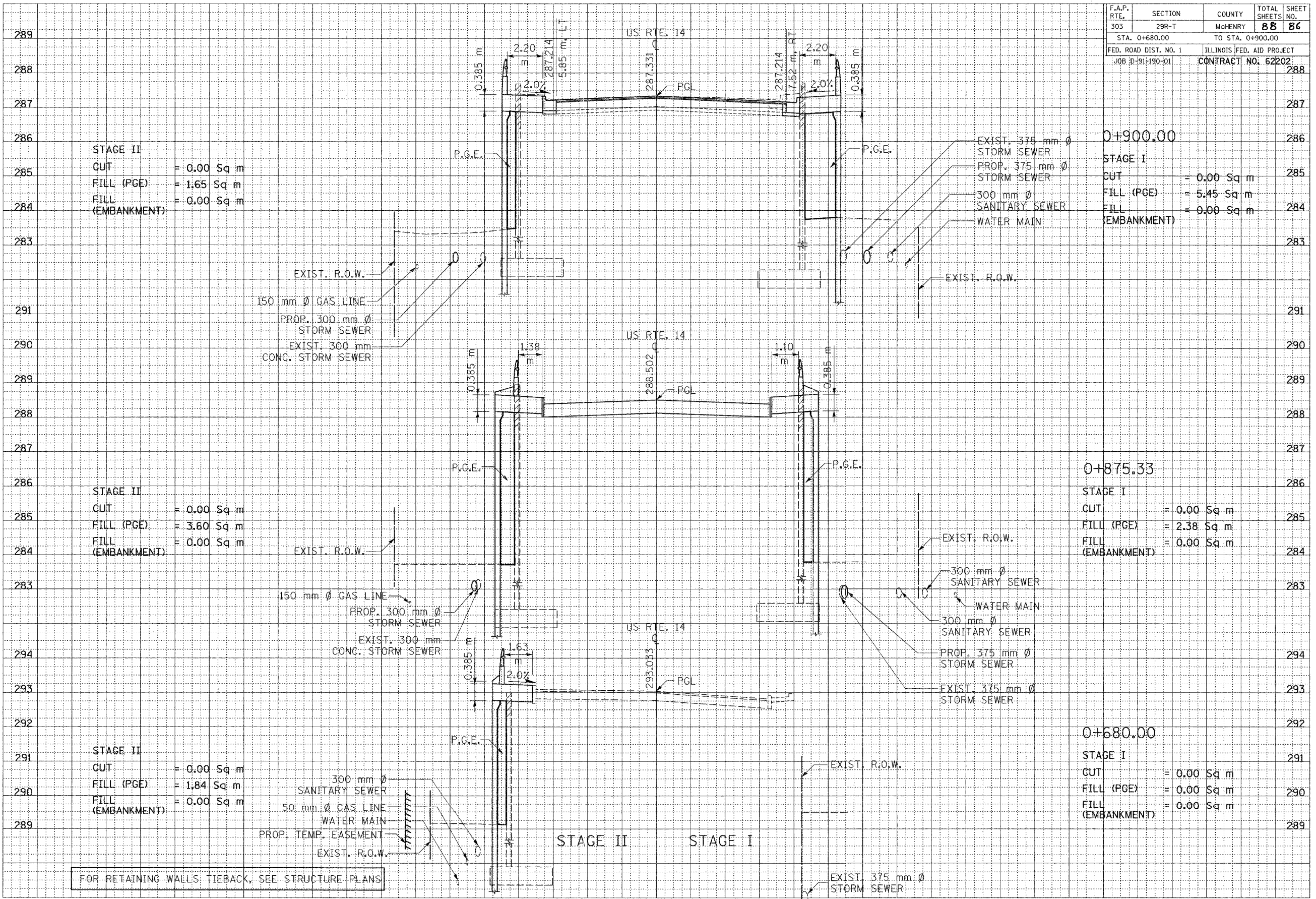
FILL (PGE) = 0.00 Sq m

FILL (EMBANKMENT) = 0.00 Sq m

STAGE II

STAGE I

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	86
STA. 0+680.00		TO STA. 0+900.00		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB D-91-190-01		CONTRACT NO. 62202		



STAGE II

CUT	= 0.00 Sq m
FILL (PGE)	= 1.65 Sq m
FILL (EMBANKMENT)	= 0.00 Sq m

0+900.00

STAGE I

CUT	= 0.00 Sq m
FILL (PGE)	= 5.45 Sq m
FILL (EMBANKMENT)	= 0.00 Sq m

STAGE II

CUT	= 0.00 Sq m
FILL (PGE)	= 3.60 Sq m
FILL (EMBANKMENT)	= 0.00 Sq m

0+875.33

STAGE I

CUT	= 0.00 Sq m
FILL (PGE)	= 2.38 Sq m
FILL (EMBANKMENT)	= 0.00 Sq m

STAGE II

CUT	= 0.00 Sq m
FILL (PGE)	= 1.84 Sq m
FILL (EMBANKMENT)	= 0.00 Sq m

0+680.00

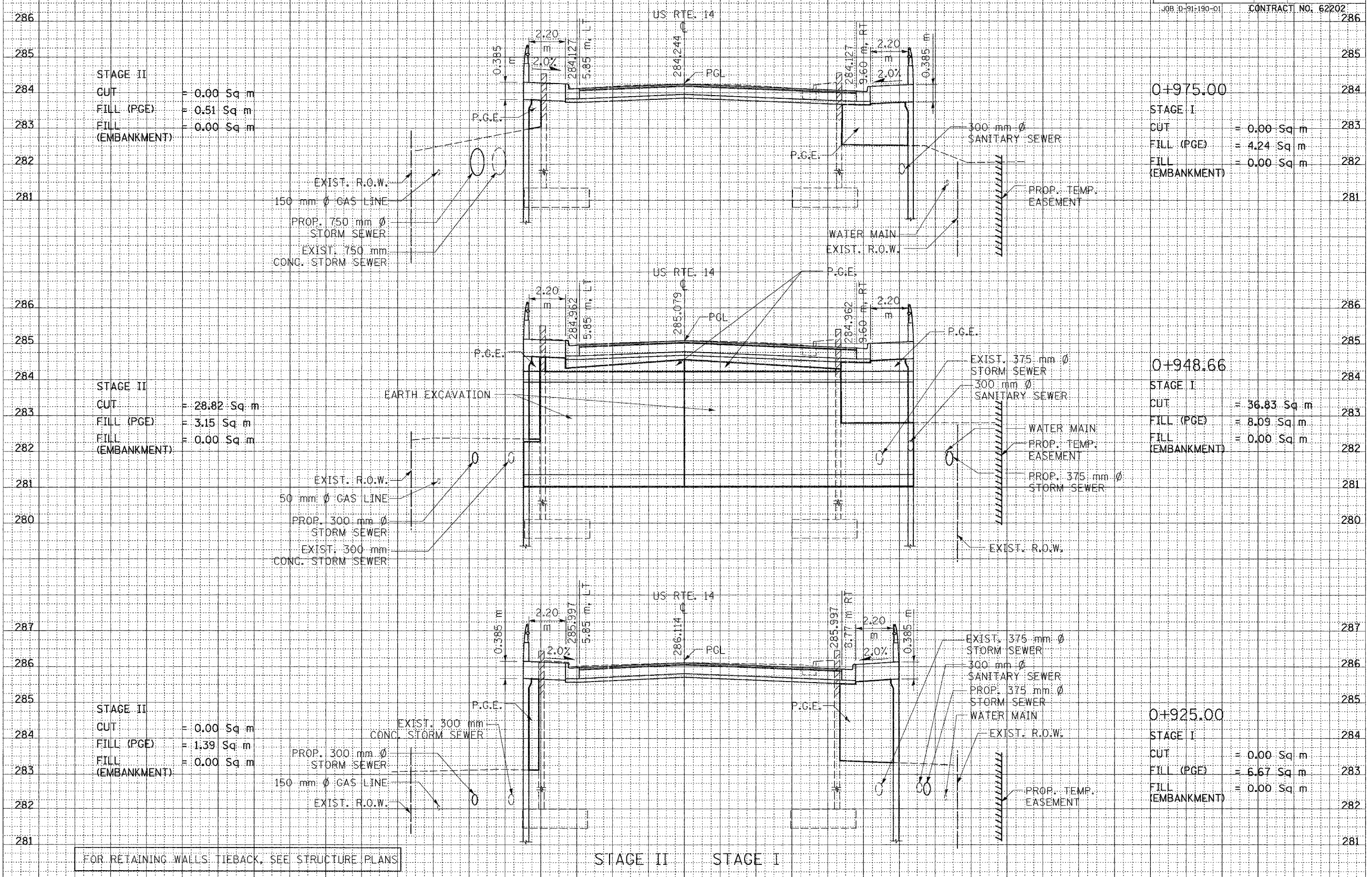
STAGE I

CUT	= 0.00 Sq m
FILL (PGE)	= 0.00 Sq m
FILL (EMBANKMENT)	= 0.00 Sq m

FOR RETAINING WALLS: TIEBACK, SEE STRUCTURE PLANS

...:\prelim\sh\vs\us14.dwg 02/10/2005 05:50:10 PM Plotted by: jstigh

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	McHENRY	88	87
STA. 0+925.00		TO STA. 0+975.00		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB D-91-190-01		CONTRACT NO. 62202		



STAGE II
 CUT = 0.00 Sq m
 FILL (PGE) = 0.51 Sq m
 FILL (EMBANKMENT) = 0.00 Sq m

0+975.00
 STAGE I
 CUT = 0.00 Sq m
 FILL (PGE) = 4.24 Sq m
 FILL (EMBANKMENT) = 0.00 Sq m

STAGE II
 CUT = 28.82 Sq m
 FILL (PGE) = 3.15 Sq m
 FILL (EMBANKMENT) = 0.00 Sq m

0+948.66
 STAGE I
 CUT = 36.83 Sq m
 FILL (PGE) = 8.09 Sq m
 FILL (EMBANKMENT) = 0.00 Sq m

STAGE II
 CUT = 0.00 Sq m
 FILL (PGE) = 1.39 Sq m
 FILL (EMBANKMENT) = 0.00 Sq m

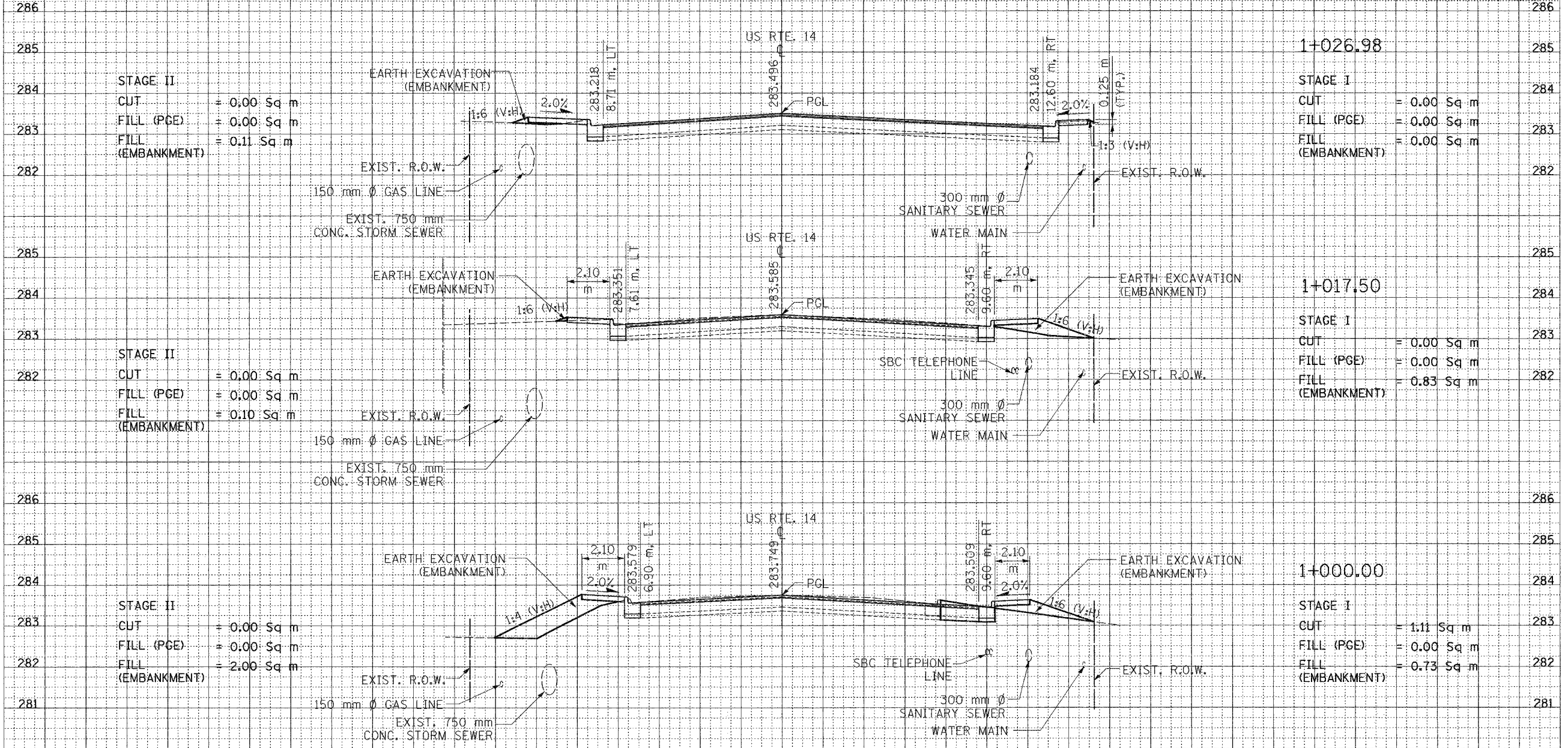
0+925.00
 STAGE I
 CUT = 0.00 Sq m
 FILL (PGE) = 6.67 Sq m
 FILL (EMBANKMENT) = 0.00 Sq m

FOR RETAINING WALLS: TIEBACK, SEE STRUCTURE PLANS

STAGE II STAGE I

Plotted by: jstigh

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	29R-T	MCHEMRY	88	88
STA. 1+000.00		TO STA. 1+026.98		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
JOB D-91-190-01		CONTRACT NO. 62202		



STAGE II
 CUT = 0.00 Sq m
 FILL (PGE) = 0.00 Sq m
 FILL (EMBANKMENT) = 0.11 Sq m

STAGE I
 CUT = 0.00 Sq m
 FILL (PGE) = 0.00 Sq m
 FILL (EMBANKMENT) = 0.00 Sq m

STAGE II
 CUT = 0.00 Sq m
 FILL (PGE) = 0.00 Sq m
 FILL (EMBANKMENT) = 0.10 Sq m

STAGE I
 CUT = 0.00 Sq m
 FILL (PGE) = 0.00 Sq m
 FILL (EMBANKMENT) = 0.83 Sq m

STAGE II
 CUT = 0.00 Sq m
 FILL (PGE) = 0.00 Sq m
 FILL (EMBANKMENT) = 2.00 Sq m

STAGE I
 CUT = 1.11 Sq m
 FILL (PGE) = 0.00 Sq m
 FILL (EMBANKMENT) = 0.73 Sq m

FOR RETAINING WALLS TIEBACK, SEE STRUCTURE PLANS

Plotted by: jsl:ngn
 Date: 02/10/2006 09:55:47 PM