

INDEX OF SHEETS

1	COVER SHEET
2	GENERAL NOTES
3-4	SUMMARY OF QUANTITIES
5	TYPICAL SECTIONS
6-7	SCHEDULE OF QUANTITIES
8	TRANSIT LINE LOCATION & TIES
9-11	PLAN & PROFILE SHEETS
12	STAKE
13-16	TOUR MAPS
17-18	LIMITS OF CONSTRUCTION, EROSION CONTROL AND TREE REMOVAL PLAN
19	LIMITS OF CONSTRUCTION AND EROSION CONTROL
20-28	S.N. 050-W001
29-34	S.N. 050-C803
35-40	S.N. 050-W003
41-49	S.N. 050-W002
50	DISTRICT DETAILS
51	DISTRICT DETAIL AND DETAILS
52-60	CROSS SECTIONS

STANDARDS

000001-04	602401	701006-02
001001	602406-01	701011-01
280001-02	604001-02	701201-02
442101-05	604006-02	701301-02
482001	606001-02	701306-01
515001-02	630001-05	701311-02
542401	630201-03	701326-02
601101	635006-02	702001-05
602301	635011-01	780001-01
602306	701001-01	781001-02



1" = 20' HORIZ.
PLAN & PROFILE



1" = 5' VERT.
PROFILE

SCALES
IN
ENGLISH



1" = 10' HORIZ.
CROSS-SECTIONS



1" = 5' VERT.
CROSS-SECTIONS



SCALE IN FEET

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.

MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE _____
ON THE FOLLOWING SHEETS _____

JULIE 1-800-892-012

DISTRICT 3 NO. (815) 434-6131

ENGINEER: DANIEL J. DRAPER
F: PAT BRABOY
TOWNSHIP: DEER PARK

CONTRACT NO. 66550

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY IMPROVEMENT

F.A.P. RTE. 627 (IL RTE. 71)

SECTION (1-1)I-1

LaSALLE COUNTY

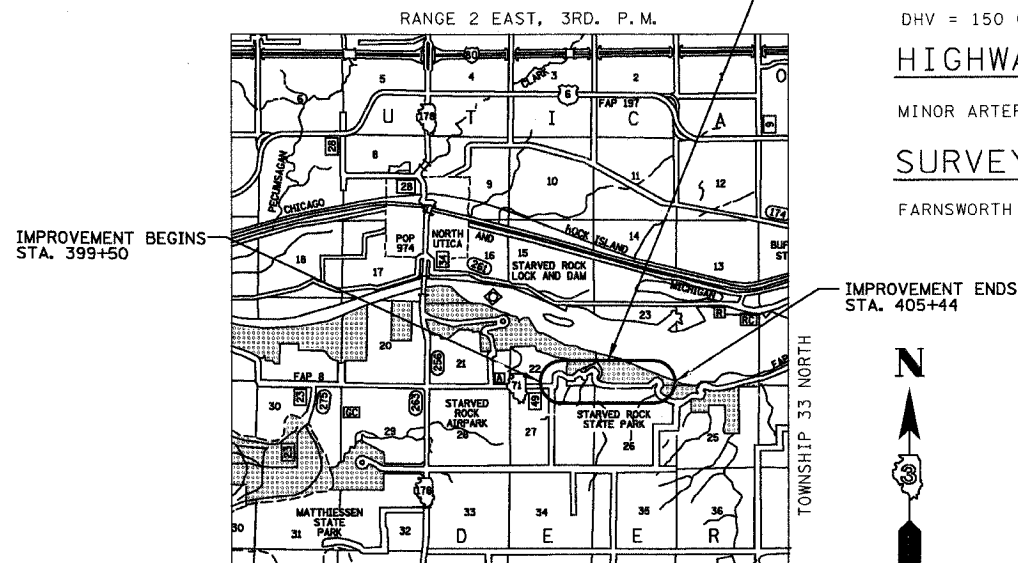
C-93-032-05

PROJECT F-0627(009)

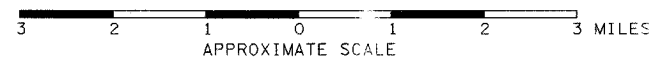
ONE CULVERT REPAIR AND THREE RETAINING
WALL REPLACEMENTS, 2.02 MILES EAST OF IL 178

- 1.) S.N. 050-W001 @ STA. 399+91.88 TO STA. 400+87.50
- 2.) S.N. 050-C803 @ STA. 402+22.00
- 3.) S.N. 050-W003 @ STA. 401+80.00 TO STA. 402+64.00
- 4.) S.N. 050-W002 @ STA. 403+94.31 TO STA. 405+31.53

NOTE: SEE PLANS FOR LOCATION AND DETAILS



LOCATION MAP



GROSS LENGTH OF IMPROVEMENT = 594 FEET = (0.11 MILES)
NET LENGTH OF IMPROVEMENT = 513 FEET = (0.10 MILES)

DESIGN DESIGNATION

POSTED ADVISORY SPEED LIMIT: 25 MPH
ADT = 1500 (2005) 1740 (2015)
% SU = 1.6%
% MU = 0.8%
DHV = 150 (2005) 174 (2015)

HIGHWAY CLASSIFICATION

MINOR ARTERIAL (RURAL)

SURVEY BOOK NOS.

FARNSWORTH GROUP, INC. BOOK 2490

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LaSALLE	60	1

PROJECT NO. C-93-032-99 CONTRACT NO. 66550
DATE: 3-025-05



LOCATION OF SECTION INDICATED THUS: [Symbol]

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED April 7, 2005

Gregory Mounts
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 13, 2005
Mike Hine
ENGINEER OF DESIGN AND ENVIRONMENT

May 13, 2005
Victor Maden
DIRECTOR, DIVISION OF HIGHWAYS



Mark S. Wylie Date 3/24/05
MARK S. WYLIE
ILLINOIS PROFESSIONAL ENGINEER
NO. 062-043716
EXPIRATION 11/30/05

Farnsworth GROUP
2700 McGraw Drive
Bloomington, Illinois 61704
309/663-2225, 309/663-1571 fax
PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

GENERAL NOTES

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

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.

AGGREGATE (PRIME COAT): FA 20 MAY BE USED IN ADDITION TO THE GRADATIONS LISTED IN THE 3RD PARAGRAPH OF ARTICLE 1003.03(c) OF THE STANDARD SPECIFICATIONS.

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

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.

SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDDED WILL BE DETERMINED BY THE ENGINEER.

ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

ON EXISTING PAVEMENT WHICH MAY BE SUPERELEVATED, THE NEW BITUMINOUS PAVEMENT SHALL BE BUILT WITH THE SAME SUPERELEVATION UNLESS NEW SUPERELEVATION RATES ARE GIVEN ON THE PLANS.

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

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

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

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
BITUMINOUS MAT PRIME COAT	0.08	GAL / SQ YD OR
	0.375	GAL / SQ YD
AGGREGATE PRIME COAT	0.002	TONS / SQ YD
BITUMINOUS RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT /100 FT OF APPLICATION
MIX FOR CRACKS, JTS & FLGWYS	0.0003	TONS / SQ YD
LEVEL BINDER (HAND METHOD)	0.0005	TONS / SQ YD
SUPPLEMENTAL WATERING	3	GAL / SQ YD / APPLICATION
CALCIUM CHLORIDE	2	LB / SQ YD / APPLICATION
TEMPORARY DITCH CHECKS	9	BALES OR
	5	TONS AGGREGATE

THE COST OF MAKING ANY SEWER CONNECTIONS TO AN EXISTING DRAINAGE STRUCTURE OR PIPE SHALL BE INCLUDED IN THE COST OF THE NEW SEWER.

THERE ARE NO KNOWN MEMBERS OF J.U.L.I.E. WITHIN THE LIMITS OF THE IMPROVEMENT.

THE EXISTING SHOULDERS ARE LOW. IN THE EVENT THAT CONSTRUCTION OPERATIONS RESULT IN A DROP OFF GREATER THAN 3" BETWEEN THE EDGE OF PAVEMENT OR EDGE OF SHOULDER WITHIN 3' OF THE EDGE OF PAVEMENT AND THE EARTH OR AGGREGATE SHOULDERS, THEN THE DROP OFF SHALL BE PROTECTED ACCORDING TO ARTICLE 701.04(B)(1) OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICES FOR TRAFFIC CONTROL.

COMMITMENTS:

IDNR PROJECT CONCURRENCE LETTER FROM STEVE HAMER DATED 02/22/05.

STARVED ROCK STATE PARK LAND USE PERMIT NO. 9376.

PRIOR TO COMMENCEMENT OF THE PROPOSED REPAIRS OR IMPROVEMENTS, PLEASE CONTACT SITE SUPERINTENDENT, TOM LEVY, AT PHONE NUMBER 815/667-4726 LOCATED AT UTICA, ILLINOIS.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT THREE	
REVIEWED BY:	<i>Thomas R. Anderson</i> DISTRICT STUDIES & PLANS ENGINEER
DATE:	4-7-05
EXAMINED BY:	<i>Debra D. [Signature]</i> DISTRICT CONSTRUCTION ENGINEER
	<i>Kenneth P. [Signature]</i> DISTRICT MATERIALS ENGINEER
	<i>Paul G. [Signature]</i> DISTRICT OPERATIONS ENGINEER

GENERAL NOTES

IL ROUTE 71
OVER TRIBUTARY TO ILLINOIS RIVER
F.A.P. ROUTE 627 - SEC. (1-1)I-1
LA SALLE COUNTY

80% FED
20% STATE

CODE NUMBER	ITEM	UNIT	TOTAL	ROADWAY 1000	STRUCTURE NO. 050-W001 Y007	STRUCTURE NO. 050-C803 Y007	STRUCTURE NO. 050-W003 Y007	STRUCTURE NO. 050-W002 Y007
20100110	TREE REMOVAL 6 TO 15 UNITS DIAMETER	UNIT	317	317				
20100210	TREE REMOVAL OVER 15 UNITS DIAMETER	UNIT	122	122				
20101100	TREE TRUNK PROTECTION	EACH	17	17				
20200100	EARTH EXCAVATION	CU. YD.	290	290				
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU. YD.	67	67				
20400800	FURNISHED EXCAVATION	CU. YD.	210	210				
20800150	TRENCH BACKFILL	CU. YD.	11	11				
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	58	58				
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	58	58				
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	58	58				
25100115	MULCH, METHOD 2	ACRE	0.64	0.64				
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	840	840				
28000400	PERIMETER EROSION BARRIER	FOOT	1072	1072				
28000500	INLET AND PIPE PROTECTION	EACH	4	4				
28100107	STONE RIPRAP, CLASS A4	SQ. YD.	16	16				
28200200	FILTER FABRIC	SQ. YD.	16	16				
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GAL	46	46				
42001200	PAVEMENT FABRIC	SQ. YD.	16	16				
42001300	PROTECTIVE COAT	SQ. YD.	75	75				
44000006	BITUMINOUS SURFACE REMOVAL 1 1/2"	SQ. YD.	421	421				
44001900	COMBINATION CURB & GUTTER REMOVAL (SPECIAL)	FOOT	150	150				
44200924	CLASS B PATCHES, TYPE III, 7 INCH	SQ. YD.	16	16				
44213200	SAW CUTS	FOOT	48	48				
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	50	50				

* SPECIALTY ITEM

80% FED
20% STATE

CODE NUMBER	ITEM	UNIT	TOTAL	ROADWAY 1000	STRUCTURE NO. 050-W001 Y007	STRUCTURE NO. 050-C803 Y007	STRUCTURE NO. 050-W003 Y007	STRUCTURE NO. 050-W002 Y007
48202210	BITUMINOUS SHOULDERS SUPERPAVE 4 1/2"	SQ. YD.	40	40				
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1		1			
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1				1	
50102400	CONCRETE REMOVAL	CU. YD.	2.5	0.5		2.0		
50200100	STRUCTURE EXCAVATION	CU. YD.	433		135	17	85	196
50200400	ROCK EXCAVATION FOR STRUCTURES	CU. YD.	5			5		
50300225	CONCRETE STRUCTURES	CU. YD.	148		41.8	26.0	27.7	52.5
50300510	RUSTICATION FINISH	SQ. FT.	2858		980		643	1235
50500505	STUD SHEAR CONNECTORS	EACH	490		166		104	220
50700209	UNTREATED TIMBER LAGGING	SQ. FT.	2256		776		512	968
X5120902	FURNISHING SOLDIER PILES (HP 14X73)	FOOT	438				158	280
X5120903	FURNISHING SOLDIER PILES (HP 14X117)	FOOT	321		281		40	
X5120910	FURNISHING SOLDIER PILES (W14X159)	FOOT	132					132
50800105	REINFORCEMENT BARS	POUND	5620			5620		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	16200		3900		5320	6980
51500100	NAME PLATES	EACH	4		1	1	1	1
54213450	END SECTIONS 15"	EACH	1	1				
542C3421	PIPE CULVERT, CLASS C, TYPE 5 66"	FOOT	196			196		
550A0070	STORM SEWERS, CLASS A, TYPE 1 15"	FOOT	48	48				
55100500	STORM SEWER REMOVAL 12"	FOOT	25	25				
59100100	GEOCOMPOSITE WALL DRAIN	SQ. YD.	183		63		43	77
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	1	1				

* SPECIALTY ITEM

SUMMARY OF QUANTITIES

IL ROUTE 71
OVER TRIBUTARY TO ILLINOIS RIVER
F.A.P. ROUTE 627 - SEC. (1-1)I-1
LA SALLE COUNTY

80% FED
20% STATE

CODE NUMBER	ITEM	UNIT	TOTAL	ROADWAY 1000	STRUCTURE NO. 050-W001 Y007	STRUCTURE NO. 050-C803 Y007	STRUCTURE NO. 050-W003 Y007	STRUCTURE NO. 050-W002 Y007
60100905	PIPE DRAINS 4"	FOOT	59	59				
60100955	PIPE DRAINS 15"	FOOT	45	45				
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	324		88		87	149
60223800	MANHOLES, TYPE A, 6' DIA, TYPE 1 FRAME, CLOSED LID	EACH	1	1				
60235700	INLETS, TYPE A TYPE 3 FRAME & GRATE	EACH	1	1				
60240220	INLETS, TYPE B TYPE 3 FRAME & GRATE	EACH	1	1				
60500060	REMOVING INLETS	EACH	1	1				
60602800	CONCRETE GUTTER, TYPE B	FOOT	88	88				
60605000	COMBINATION CONCRETE CURB & GUTTER, TYPE B 6.24	FOOT	160	160				
60900515	CONCRETE THRUST BLOCKS	EACH	1	1				
63000005	STEEL PLATE BEAM GUARD RAIL, TYPE B	FOOT	700	700				
63200305	STEEL PLATE BEAM GUARD RAIL REMOVAL	FOOT	700	700				
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4				
67100100	MOBILIZATION	L SUM	1	1				
70103700	TRAFFIC CONTROL COMPLETE	L SUM	1	1				
72000100	SIGN PANEL - TYPE 1	SQ. FT.	43.5	43.5				
72000200	SIGN PANEL - TYPE 2	SQ. FT.	21.0			21.0		
78001110	PAINT PAVEMENT MARKING LINE, 4"	FOOT	640	640				
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	5	5				
78200400	GUARDRAIL REFLECTORS	EACH	32	32				
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	5	5				
Z0005215	BITUMINOUS STABILIZATION 6" AT STEEL PLATE BEAM GUARD RAIL	SQ. YD.	30	30				
Z0017200	DOWEL BARS 1/4"	EACH	44	44				

• SPECIALTY ITEM

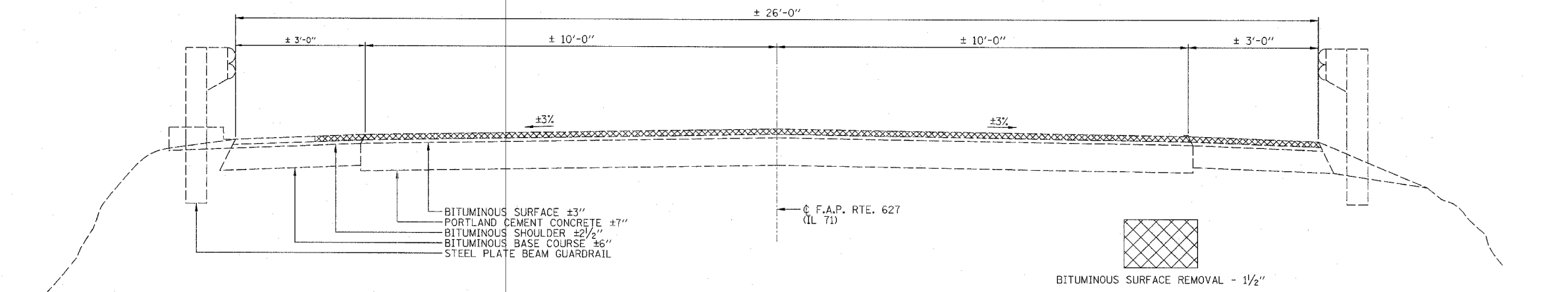
80% FED
20% STATE

CODE NUMBER	ITEM	UNIT	TOTAL	ROADWAY 1000	STRUCTURE NO. 050-W001 Y007	STRUCTURE NO. 050-C803 Y007	STRUCTURE NO. 050-W003 Y007	STRUCTURE NO. 050-W002 Y007
A2005616	TREE, OSTRYA VIRGINIANA (AMERICAN HOPHORNBEAM), 2" CALIPER, BALLED AND BURLAPPED	EACH	5	5				
A2006416	TREE, QUERCUS ALBA (WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	4	4				
A2006516	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	5	5				
A2006616	TREE, QUERCUS IMBRICARIA (SHINGLE OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	4	4				
A2006716	TREE, QUERCUS MACROCARPA (BUR OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	4	4				
A2006816	TREE, QUERCUS MUEHLENBERGII (CHINKAPIN OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	5	5				
A2007116	TREE, QUERCUS RUBRA (RED OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	4	4				
A2007816	TREE, TILIA AMERICANA (AMERICAN LINDEN/BASSWOOD), 2" CALIPER, BALLED AND BURLAPPED	EACH	5	5				
K1005421	SEEDING (SPECIAL)	ACRE	0.64	0.64				
X0320139	TEMPORARY CONSTRUCTION FENCE	FOOT	917	917				
X0321473	PIPE ELBOW 15"	EACH	2	2				
X0324456	DRILLING AND SETTING SOLDIER PILES (IN ROCK)	CU. FT.	369		104		95	170
X0324455	DRILLING AND SETTING SOLDIER PILES (IN SOIL)	CU. FT.	2494		794		509	1191
X2510635	HEAVY DUTY EROSION CONTROL BLANKET SPECIAL	SQ. YD.	3090	3090				
X4066414	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIXTURE "C", N50	TON	40	40				
X5430100	INSERTION CULVERT LINER (SPECIAL)	FOOT	196			196		
A2007150	TREE, QUERCUS VELUTINA (BLACK OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	4	4				

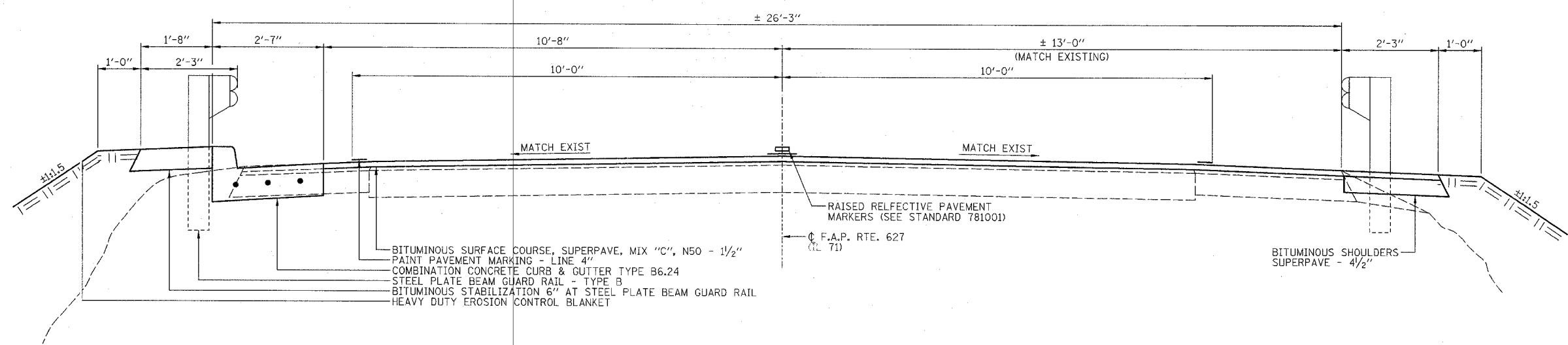
• SPECIALTY ITEM

DESIGNED BY MSW	 <p>2700 Motrow Drive Bloomington, Illinois 61704 304/988-8688 304/988-1871 fax</p>	FILE NO. 24-6772
DRAWN BY DJM		DATE 03/24/05
CHECKED BY MSW		SHEET NO. 4 OF 60

SUMMARY OF QUANTITIES	
<p>IL ROUTE 71 OVER TRIBUTARY TO ILLINOIS RIVER F.A.P. ROUTE 627 - SEC. (1-1)I-1 LA SALLE COUNTY</p>	



EXISTING TYPICAL SECTION



PROPOSED TYPICAL SECTION
STA. 401+52 TO STA. 403+12

	SUPERPAVE SURFACE	SUPERPAVE SHOULDERS/STABILIZATION
PG GRADE	PG64-22	PG58-22
MAX % RAP ALLOWABLE**	15%	30%
DESIGN AIR VOIDS	4.0% @ N50	2.0% @ N30
MIXTURE COMPOSITION	IL 12.5 OR IL 9.5	BAM
FRICTION AGGREGATE	MIXTURE C	
PLANT CONTROL LIMITS	CLASS I	NON-CLASS I
DENSITY TEST METHOD	CORES/NUCLEAR	*

* MATERIAL SHALL BE COMPACTED TO 93-97 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT THE BOTTOM LIFT SHALL BE COMPACTED TO A MINIMUM OF 91.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/QA SPECIFICATION.
 ** IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.

- NOTES:
- 1.) ALL DIMENSIONS AND SLOPES AT RIGHT ANGLES TO ROADWAY CENTERLINE.
 - 2.) FOR LIMITS OF ITEMS TO BE REMOVED SEE SCHEDULES OF QUANTITIES, SHEETS 6 & 7.

TYPICAL SECTIONS

IL ROUTE 71
OVER TRIBUTARY TO ILLINOIS RIVER
F.A.P. ROUTE 627 - SEC. (1-1)I-1
LA SALLE COUNTY

DESIGNED BY MSW	<p>2706 MacGraw Drive Bloomington, Illinois 61704 309/883-8436 309/883-1871 fax</p>	FILE NO. 24-6772
DRAWN BY DJM		DATE 03/24/05
CHECKED BY MSW		SHEET NO. 5 OF 60

TREE REMOVAL (6 TO 15 UNITS DIAMETER)					
STRUCTURE NO. 050-W001			STRUCTURE NO. 050-C803		
STATION	OFFSET	DIA	STATION	OFFSET	DIA
399+69	33' LT	13	401+55	33' LT	8
399+90	28' LT	8	401+77	33' RT	10
399+94	28' LT	7	401+82	35' LT	8
399+98	40' LT	7	401+83	37' LT	12
401+10	25' LT	6	401+88	33' LT	11
			401+97	38' LT	8
			401+98	48' LT	8
			402+00	24' LT	6
			402+01	51' RT	15
			402+18	23' LT	10
			402+18	69' RT	6
			402+19	25' LT	7
			402+20	77' RT	11
			402+20	36' RT	6
			402+27	29' RT	8
			402+60	29' RT	10
			402+65	65' RT	7
			402+72	35' LT	11
			402+74	29' RT	14
			402+74	38' RT	7
			402+80	61' RT	7
			402+81	48' LT	9
			402+87	27' LT	11
			402+89	39' LT	6
			402+91	25' LT	7
			402+96	30' LT	6
			402+99	24' LT	8
			403+12	32' LT	10
TOTAL		41			247
TOTAL TREE REMOVAL (6 TO 15 UNITS DIAMETER) = 288					
10% GROWTH RATE BASED ON SURVEY IN 2001 TOTAL = 317					

TREE REMOVAL (OVER 15 UNITS DIAMETER)		
STRUCTURE NO. 050-C803		
STATION	OFFSET	DIA
401+64	39' RT	16
401+64	30' RT	19
401+83	47' RT	19
402+10	48' RT	17
402+46	54' RT	16
402+60	42' RT	24
TOTAL		111
TOTAL TREE REMOVAL (OVER 15 UNITS DIAMETER) = 111		
10% GROWTH RATE BASED ON SURVEY IN 2001 TOTAL = 122		

TRENCH BACKFILL	
LOCATION	CU. YD.
STRUCTURE NO. 050-C803	
STA. 402+00	9
STA. 402+00 LT TO STA. 402+22 LT	2
TOTAL	11

CONCRETE REMOVAL	
LOCATION	CU. YD.
STRUCTURE NO. 050-C803	
STA. 402+22 LT	0.5
TOTAL	0.5

INLETS			
LOCATION	REMOVAL EACH	INLETS TY. A	INLETS TY. B
		TY. 3 FR & GR EACH	TY. 3 FR & GR EACH
STRUCTURE NO. 050-C803			
STA. 402+00 LT			1
STA. 402+22 LT	1	1	
TOTAL	1	1	1

GUARDRAIL			
LOCATION	REMOVAL	SPBGR-TY B	REFLECTORS
	FOOT	FOOT	EACH
STRUCTURE NO. 050-W001			
STA. 399+50 LT TO STA. 401+35 LT	175	175	8
STRUCTURE NO. 050-C803			
STA. 401+37 LT TO STA. 403+12 LT	175	175	8
STA. 401+37 RT TO STA. 403+12 RT	175	175	8
STRUCTURE NO. 050-W002			
STA. 403+70 LT TO STA. 405+44 LT	175	175	8
TOTAL	700	700	32

STORM SEWERS							
LOCATION	REMOVAL 12"	CLASS A, TY 1, 15"	PIPE DRAINS 4"	PIPE ELBOW 15"	PIPE DRAINS 15"	END SECTIONS 15"	MH. TY A, 6' DIA TY 1 FRAME, CLOSED LID
	FOOT	FOOT	FOOT	EACH	FOOT	EACH	EACH
STRUCTURE NO. 050-W001							
STA. 400+35 LT TO STA. 400+36 LT			35				
STRUCTURE NO. 050-C803							
STA. 402+00 LT TO STA. 402+00 RT		26					
STA. 402+00 RT				2	45	1	1
STA. 402+00 LT TO STA. 402+22 LT		22					
STA. 402+22 LT	25						
STRUCTURE NO. 050-W002							
STA. 404+39 LT			24				
TOTAL	25	48	59	2	45	1	1

BITUMINOUS MATERIALS					
LOCATION	BIT. MATLS. PRIME COAT	BIT. CONC. SURF. CSE. SUPERPAVE MIX "C" N50	BIT. SURFACE REMOVAL 1 1/2"	BIT. SHLDRS. SUPERPAVE 4 1/2"	BITUMINOUS STABILIZATION 6"
	GAL	TON	SQ. YD.	SQ. YD.	SQ. YD.
STRUCTURE NO. 050-C803					
STA. 401+52 TO STA. 403+12	46	40	421		
STA. 401+52 RT TO STA. 403+12 RT				40	
STA. 401+52 LT TO STA. 403+12 LT					30
TOTAL	46	40	421	40	30

PATCHES					
LOCATION	CLASS B PATCHES TYPE III, 7 INCH	PAVEMENT FABRIC	STRIP REFLECTIVE CRACK CONTROL TREATMENT	SAW CUTS	DOWEL BARS 1/4"
	SQ. YD.	SQ. YD.	FOOT	FOOT	EACH
STRUCTURE NO. 050-C803					
STA. 402+00	16	16	50	48	44
TOTAL	16	16	50	48	44

CURB AND GUTTER				
LOCATION	REMOVAL (SPECIAL)	TYPE B6.24	GUTTER, TY B	PROTECTIVE COAT
	FOOT	FOOT	FOOT	SQ. YD.
STRUCTURE NO. 050-W001				
STA. 399+90 LT TO STA. 400+89 LT			88	20
STRUCTURE NO. 050-C803				
STA. 401+52 LT TO STA. 403+12 LT		160		
STA. 401+60 LT TO STA. 403+10 LT	150			55
TOTAL	150	160	88	75

PAINT PAVEMENT MARKING-LINE		
LOCATION	SOLID EDGES WHITE, 4 INCH	SOLID NO PASS YELLOW, 4 INCH
	FOOT	FOOT
STRUCTURE NO. 050-C803		
STA. 401+52 TO STA. 403+12	320	320
TOTAL	320	320

RAISED REFLECTIVE PAVEMENT MARKER		
LOCATION	REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER
	EACH	EACH
STRUCTURE NO. 050-C803		
STA. 401+52 TO STA. 403+12	5	5
TOTAL	5	5

SCHEDULE OF QUANTITIES
IL ROUTE 71 OVER TRIBUTARY TO ILLINOIS RIVER F.A.P. ROUTE 627 - SEC. (1-111-1) LA SALLE COUNTY

LOCATION	SEEDING						
	SEEDING (SPECIAL)	MULCH METHOD 2	TEMPORARY EROSION CONTROL SEEDING	FERTILIZER NITROGEN	FERTILIZER PHOSPHORUS	FERTILIZER POSTASSIUM	HEAVY DUTY EROSION CONTROL BLANKET
	ACRE	ACRE	POUND	POUND	POUND	POUND	SQ. YD.
STRUCTURE NO. 050-W001							
STA. 399+55 LT TO STA. 401+25 LT	0.13	0.13	170	12	12	12	620
STRUCTURE NO. 050-C803							
STA. 401+52 LT TO STA. 403+12 LT	0.16	0.16	210	14	14	14	780
STA. 401+52 RT TO STA. 403+12 RT	0.19	0.19	250	17	17	17	910
STRUCTURE NO. 050-W002							
STA. 403+75 LT TO STA. 405+50 LT	0.16	0.16	210	15	15	15	780
TOTAL	0.64	0.64	840	58	58	58	3090

TREE SCHEDULE	
TYPE	EACH
Ostrya virginiana (AMERICAN HOPHORNBEAM)	5
Quercus alba (WHITE OAK)	4
Quercus bicolor (SWAMP WHITE OAK)	5
Quercus imbricaria (SHINGLE OAK)	4
Quercus macrocarpa (BUR OAK)	4
Quercus muehlenbergii (CHINKAPIN OAK)	5
Quercus rubra (RED OAK)	4
Tilia americana (AMERICAN LINDEN/BASSWOOD)	5
Quercus velutina (BLACK OAK)	4

NOTE: THE ENGINEER WILL COORDINATE WITH THE STARVED ROCK SITE SUPERINTENDENT TO DETERMINE THE EXACT LOCATION WHERE THE TREES WILL BE PLANTED.

EARTHWORK TABLE					
LOCATION	EARTH EXCAVATION (CU YD)	TOTAL EXCAV. ADJUSTED FOR 25% SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	BALANCE WASTE (+) SHORTAGE (-) (CU YD)	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL (CU YD)
STRUCTURE NO. 050-W001	76	57	19	38	0
STRUCTURE NO. 050-C803	214	161	401	-240	0
STRUCTURE NO. 050-W002	0	0	8	-8	67

EARTH EXCAVATION = 290 CU YD
 FURNISHED EXCAVATION = 210 CU YD
 REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL = 67 CU YD
 BASED ON CROSS SECTIONS FROM 2001. QUANTITIES MAY CHANGE BASED ON CURRENT CONDITIONS.

EROSION CONTROL		
LOCATION	INLET AND PIPE PROTECTION	PERIMETER EROSION BARRIER
	EACH	FOOT
STRUCTURE NO. 050-W001		
STA. 399+40 62' LT TO STA. 401+40 62' LT		146
STA. 399+93 22' LT TO STA. 400+87 18' LT		84
STRUCTURE NO. 050-C803		
STA. 401+37 65' LT TO STA. 401+88 63' LT		45
STA. 401+80 35' LT TO STA. 402+64 35' LT		84
STA. 401+88 63' LT TO STA. 401+88 51' LT		12
STA. 401+37 85' RT TO STA. 402+16 85' RT		88
STA. 402+16 85' RT TO STA. 402+16 48' RT		37
STA. 402+28 48' RT TO STA. 402+28 85' RT		37
STA. 402+28 85' RT TO STA. 403+27 85' RT		96
STA. 402+38 50' LT TO STA. 402+38 58' LT		8
STA. 402+38 58' LT TO STA. 403+27 65' LT		91
STA. 402+14 45' LT	1	
STA. 402+00 60' RT	1	
STA. 402+22 47' RT	1	
STRUCTURE NO. 050-W002		
STA. 403+65 65' LT TO STA. 405+60 65' LT		204
STA. 403+94 21' LT TO STA. 405+32 28' LT		140
STA. 404+39 53' LT	1	
TOTAL	4	1072

TEMPORARY CONSTRUCTION FENCE	
LOCATION	FOOT
STRUCTURE NO. 050-W001	
STA. 399+49 10' LT TO STA. 399+49 41' LT	31
STA. 399+49 41' LT TO STA. 399+98 53' LT	42
STA. 399+98 53' LT TO STA. 399+96 62' LT	9
STA. 399+96 62' LT TO STA. 400+28 62' LT	22
STA. 400+45 62' LT TO STA. 400+75 62' LT	20
STA. 400+75 62' LT TO STA. 400+75 52' LT	10
STA. 400+75 52' LT TO STA. 401+31 36' LT	46
STA. 401+31 36' LT TO STA. 401+30 13' LT	23
STRUCTURE NO. 050-C803	
STA. 401+45 13' LT TO STA. 401+43 43' LT	30
STA. 401+43 43' LT TO STA. 401+72 64' LT	33
STA. 401+72 64' LT TO STA. 401+88 63' LT	16
STA. 401+43 13' RT TO STA. 401+44 44' RT	31
STA. 401+44 44' RT TO STA. 401+90 85' RT	65
STA. 401+90 85' RT TO STA. 402+16 85' RT	27
STA. 402+28 85' RT TO STA. 402+75 85' RT	47
STA. 402+75 85' RT TO STA. 403+20 42' RT	62
STA. 403+20 42' RT TO STA. 403+20 13' RT	30
STA. 402+38 58' LT TO STA. 402+73 60' LT	35
STA. 402+73 60' LT TO STA. 403+19 43' LT	50
STA. 403+19 43' LT TO STA. 403+19 13' LT	30
STRUCTURE NO. 050-W002	
STA. 403+72 15' LT TO STA. 403+72 44' LT	29
STA. 403+72 44' LT TO STA. 404+37 65' LT	70
STA. 404+37 65' LT TO STA. 405+30 65' LT	98
STA. 405+30 65' LT TO STA. 405+53 44' LT	32
STA. 405+53 44' LT TO STA. 405+53 15' LT	29
TOTAL	917

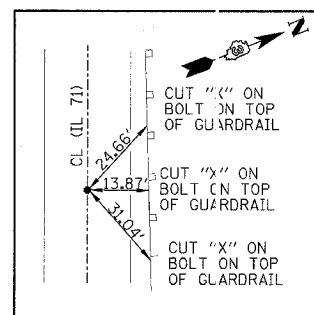
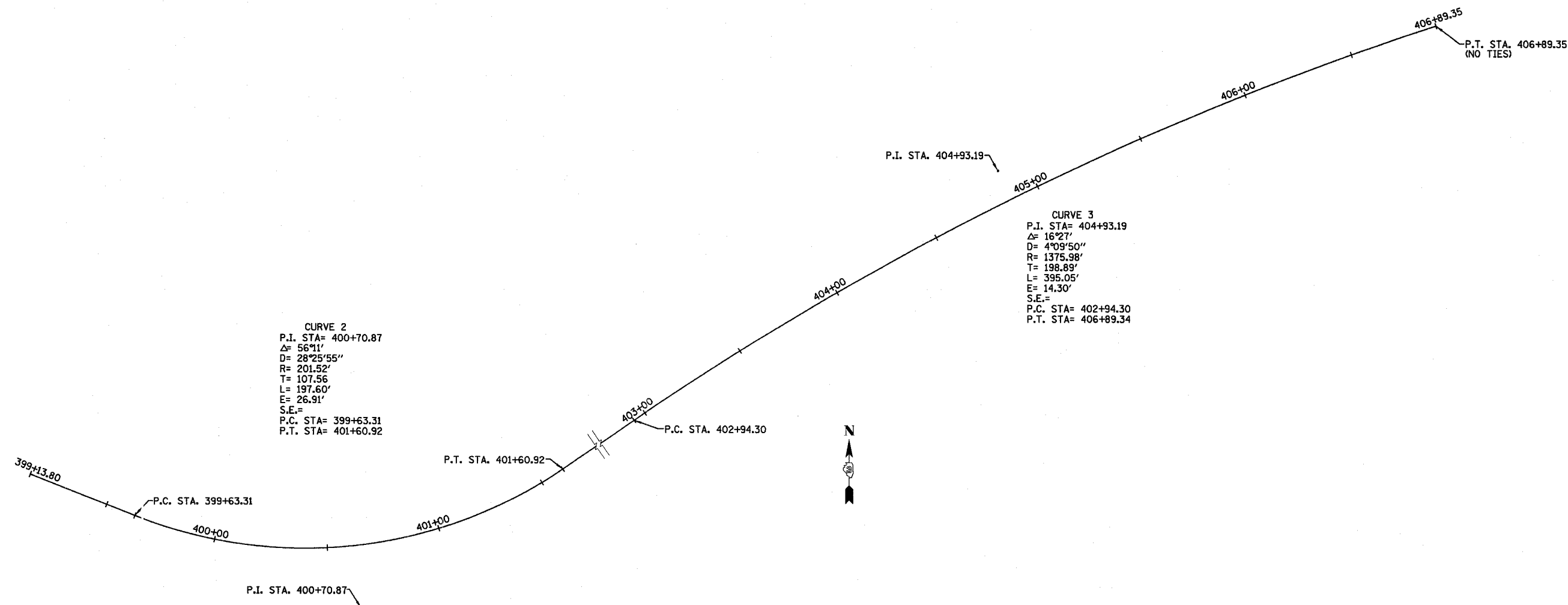
STONE RIPRAP		
LOCATION	CLASS A4	FILTER FABRIC
	SQ. YD.	SQ. YD.
STRUCTURE NO. 050-W001		
STA. 399+90 LT	8	8
STA. 400+89 LT	8	8
TOTAL	16	16

CONCRETE HEADWALL FOR PIPE DRAINS	
LOCATION	EACH
STRUCTURE NO. 050-W002	
STA. 404+39 LT.	1
TOTAL	1

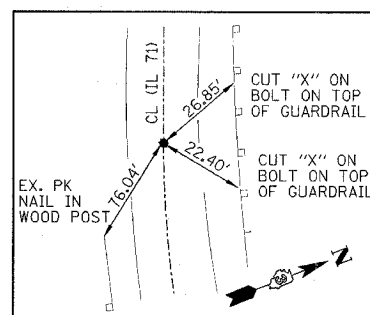
CONCRETE THRUST BLOCK	
LOCATION	EACH
STRUCTURE NO. 050-C803	
STA. 402+00 RT	1
TOTAL	1

SCHEDULE OF QUANTITIES
IL ROUTE 71 OVER TRIBUTARY TO ILLINOIS RIVER F.A.P. ROUTE 627 - SEC. (1-1)I-1 LA SALLE COUNTY

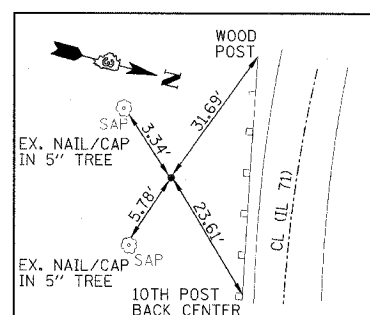
F.A.P. RYE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66550				



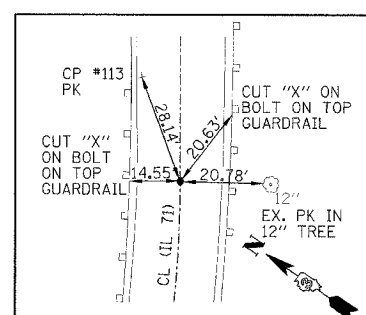
STA. 399+13.80, 0.00' LT
SPINDLE NAIL ON TANGENT
N=1692255.72
E=808085.76



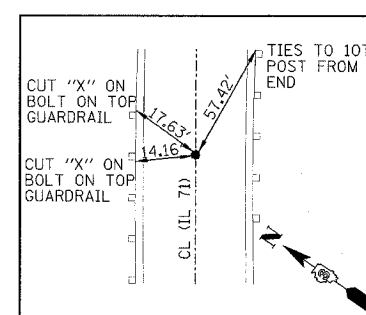
P.C. STA. 399+63.31, 0.00' LT
(CURVE #2) SPINDLE NAIL
N=1692237.391
E=808131.755



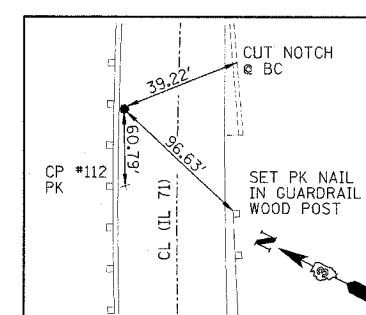
P.I. STA. 400+70.87, 26.91' RT
(CURVE #2) IR SET
N=1692197.570
E=808231.677



P.T. STA. 401+60.92, 0.00' LT
(CURVE #2) SPINDLE NAIL
N=1692258.425
E=808320.370



P.C. STA. 402+94.30, 0.00' LT
(CURVE #3) SPINDLE NAIL
N=1692333.888
E=808430.355



P.I. STA. 404+93.19, 14.30' LT
(CURVE #3) SPINDLE NAIL
N=1692446.414
E=808594.357

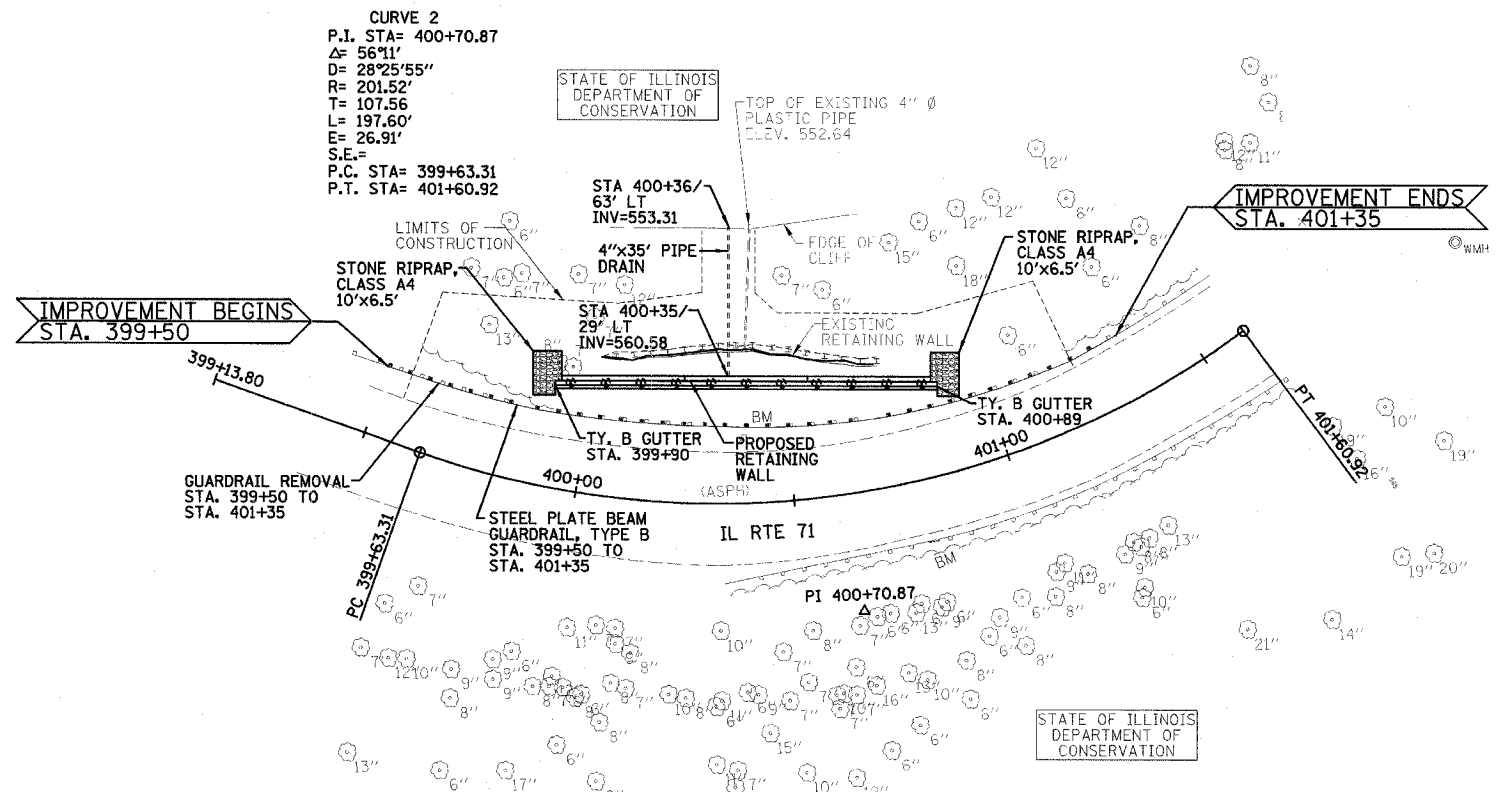
TRANSIT LINE LOCATION & TIES
STRUCTURES 050-W001, 050-C803
& 050-W002
STA. 399+50 TO STA. 405+50

IL ROUTE 71
OVER TRIBUTARY TO ILLINOIS RIVER
F.A.P. ROUTE 627 - SEC. (1-1)I-1
LA SALLE COUNTY

DESIGNED BY MSW	<p>2709 McGraw Drive Bloomington, Illinois 61704 309/863-8636 309/863-8771 fax</p>	FILE NO. 24-6772
DRAWN BY DJM		DATE 03/24/05
CHECKED BY MSW		SHEET NO. 8 OF 60

SE 1/4 SEC. 22, T33N, R2E, 3RD P.M.

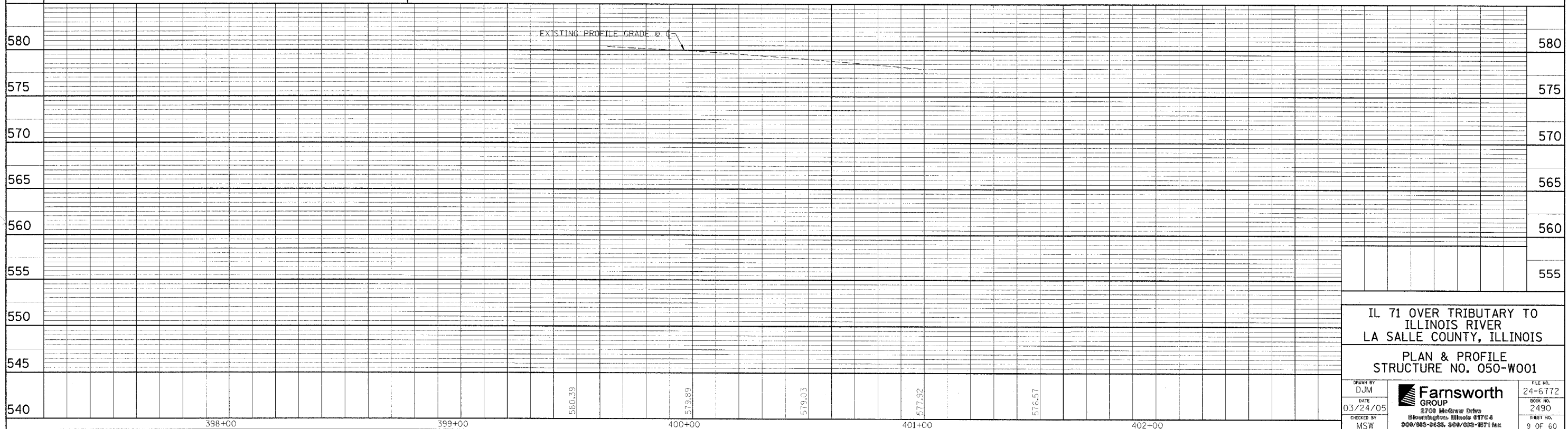
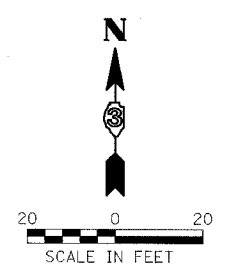
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	11-111-1	LA SALLE	60	9
STA. 399+50 TO STA. 401+35				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 66550				



CURVE 2
 P.I. STA= 400+70.87
 $\Delta = 56^{\circ}11'$
 $D = 28^{\circ}25'55''$
 $R = 201.52'$
 $T = 107.56'$
 $L = 197.60'$
 $E = 26.91'$
 $S.E. =$
 P.C. STA= 399+63.31
 P.T. STA= 401+60.92

- B.M. #1: Top of guardrail post on the South side of IL Rte. 71 @ back center of the 10th post East from the West end of the rail @ Station 400+80.31/14.61' RT., Elevation = 581.01.
- B.M. #2: Top of guardrail post on the South side of IL Rte. 71 @ back center of the 10th post West from the East end of the rail @ Station 396+93.99/15.57' RT., Elevation = 579.55.

- NOTES:**
- 1.) SEE SHEETS 20-28 FOR STRUCTURAL PLANS.
 - 2.) SEE SHEET 8 FOR TRANSIT LINE LOCATION & TIES.
 - 3.) SEE SHEET 17 FOR LIMITS OF CONSTRUCTION, EROSION CONTROL AND TREE REMOVAL PLAN.
 - 4.) SEE SHEETS 52-54 FOR CROSS SECTIONS.
 - 5.) SEE SHEET 51 FOR TY. B GUTTER DETAIL.
 - 6.) NO PARKING OF CONTRACTOR VEHICLES OUTSIDE OF EXISTING PAVEMENT.



IL 71 OVER TRIBUTARY TO ILLINOIS RIVER
 LA SALLE COUNTY, ILLINOIS
 PLAN & PROFILE
 STRUCTURE NO. 050-W001

DRAWN BY DJM	<p>2700 McGray Drive Bloomington, Illinois 61704 309/888-8438, 309/888-1871 fax</p>	FILE NO. 24-6772
DATE 03/24/05		BSN NO. 2490
CHECKED BY MSW		SHEET NO. 9 OF 60

FILE: c:\userp\vgdn\papeing.dgn
 DATE: 8-Dec-96 12:10

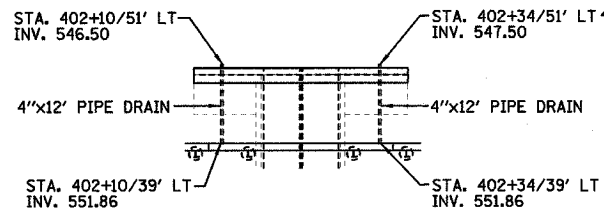
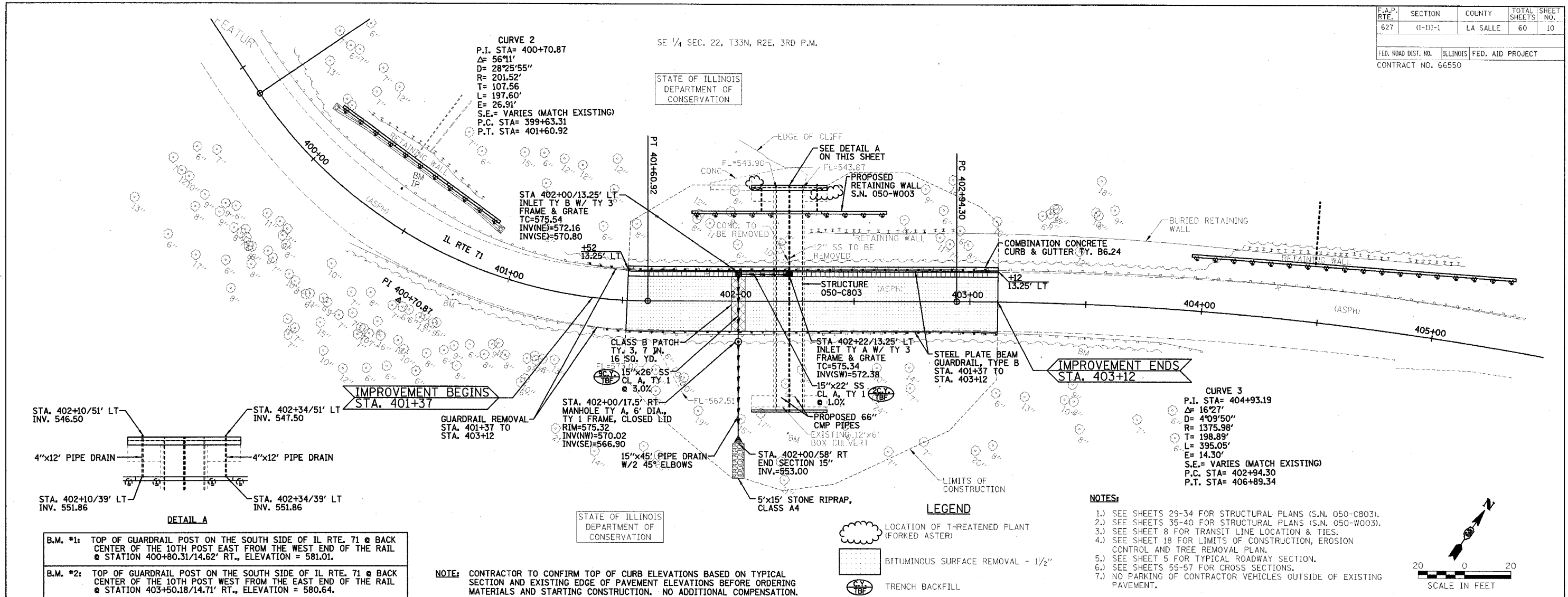
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)-1	LA SALLE	60	10
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66550		

SE 1/4 SEC. 22, T33N, R2E, 3RD P.M.

STATE OF ILLINOIS
DEPARTMENT OF
CONSERVATION

CURVE 2
P.I. STA= 400+70.87
Δ= 56°11'
D= 28°25'55"
R= 201.52'
T= 107.56'
L= 197.60'
E= 26.91'
S.E.= VARIES (MATCH EXISTING)
P.C. STA= 399+63.31
P.T. STA= 401+60.92

CURVE 3
P.I. STA= 404+93.19
Δ= 16°27'
D= 4°09'50"
R= 1375.98'
T= 198.89'
L= 395.05'
E= 14.30'
S.E.= VARIES (MATCH EXISTING)
P.C. STA= 402+94.30
P.T. STA= 406+89.34



B.M. #1: TOP OF GUARDRAIL POST ON THE SOUTH SIDE OF IL RTE. 71 @ BACK CENTER OF THE 10TH POST EAST FROM THE WEST END OF THE RAIL @ STATION 400+80.31/14.62' RT., ELEVATION = 581.01.

B.M. #2: TOP OF GUARDRAIL POST ON THE SOUTH SIDE OF IL RTE. 71 @ BACK CENTER OF THE 10TH POST WEST FROM THE EAST END OF THE RAIL @ STATION 403+50.18/14.71' RT., ELEVATION = 580.64.

NOTE: CONTRACTOR TO CONFIRM TOP OF CURB ELEVATIONS BASED ON TYPICAL SECTION AND EXISTING EDGE OF PAVEMENT ELEVATIONS BEFORE ORDERING MATERIALS AND STARTING CONSTRUCTION. NO ADDITIONAL COMPENSATION.

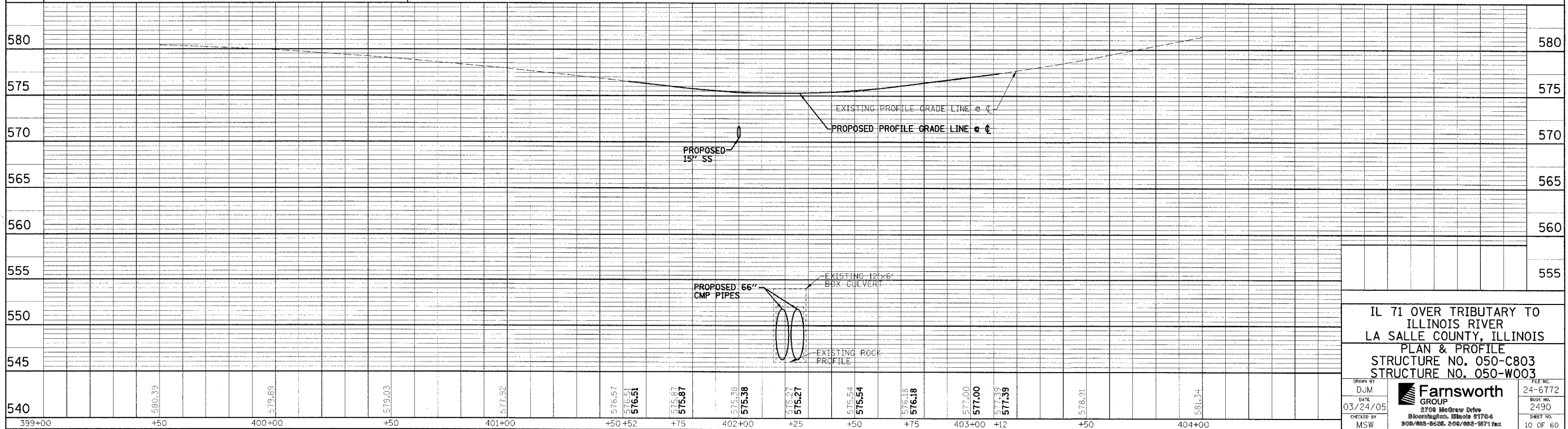
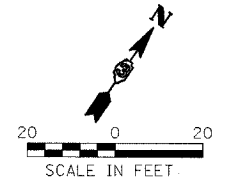
STATE OF ILLINOIS
DEPARTMENT OF
CONSERVATION

LEGEND

- LOCATION OF THREATENED PLANT (FORKED ASTER)
- BITUMINOUS SURFACE REMOVAL - 1/2"
- TRENCH BACKFILL

NOTES:

- 1.) SEE SHEETS 29-34 FOR STRUCTURAL PLANS (S.N. 050-C803).
- 2.) SEE SHEETS 35-40 FOR STRUCTURAL PLANS (S.N. 050-W003).
- 3.) SEE SHEET 8 FOR TRANSIT LINE LOCATION & TIES.
- 4.) SEE SHEET 18 FOR LIMITS OF CONSTRUCTION, EROSION CONTROL AND TREE REMOVAL PLAN.
- 5.) SEE SHEET 5 FOR TYPICAL ROADWAY SECTION.
- 6.) SEE SHEETS 55-57 FOR CROSS SECTIONS.
- 7.) NO PARKING OF CONTRACTOR VEHICLES OUTSIDE OF EXISTING PAVEMENT.



IL 71 OVER TRIBUTARY TO ILLINOIS RIVER
LA SALLE COUNTY, ILLINOIS
PLAN & PROFILE
STRUCTURE NO. 050-C803
STRUCTURE NO. 050-W003

DRAWN BY DJM	FILE NO. 24-6772
DATE 03/24/05	BOOK NO. 2490
CHECKED BY MSW	SHEET NO. 10 OF 60

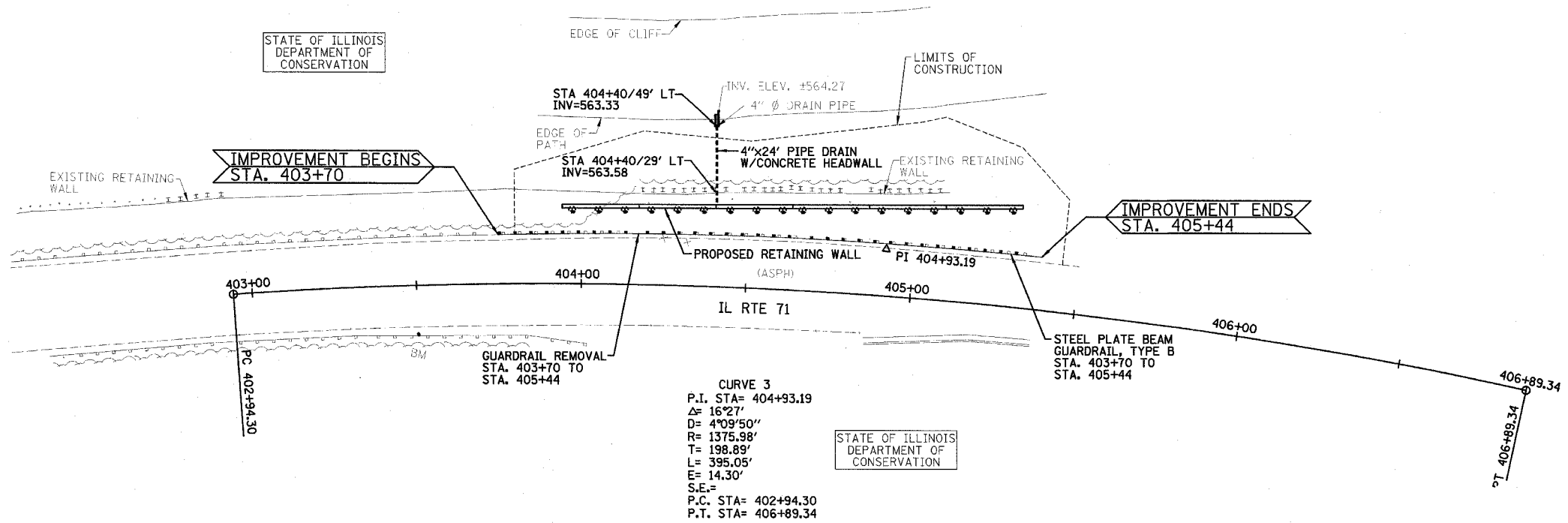
Farnsworth GROUP
3708 McGraw Drive
Bloomington, Illinois 61704
808/888-8436, 808/888-1871 fax

FILE: c:\userp\dgm\papeng.dgn
DATE: 8-Dec-96 12:40

SE 1/4 SEC. 22, T33N, R2E, 3RD P.M.

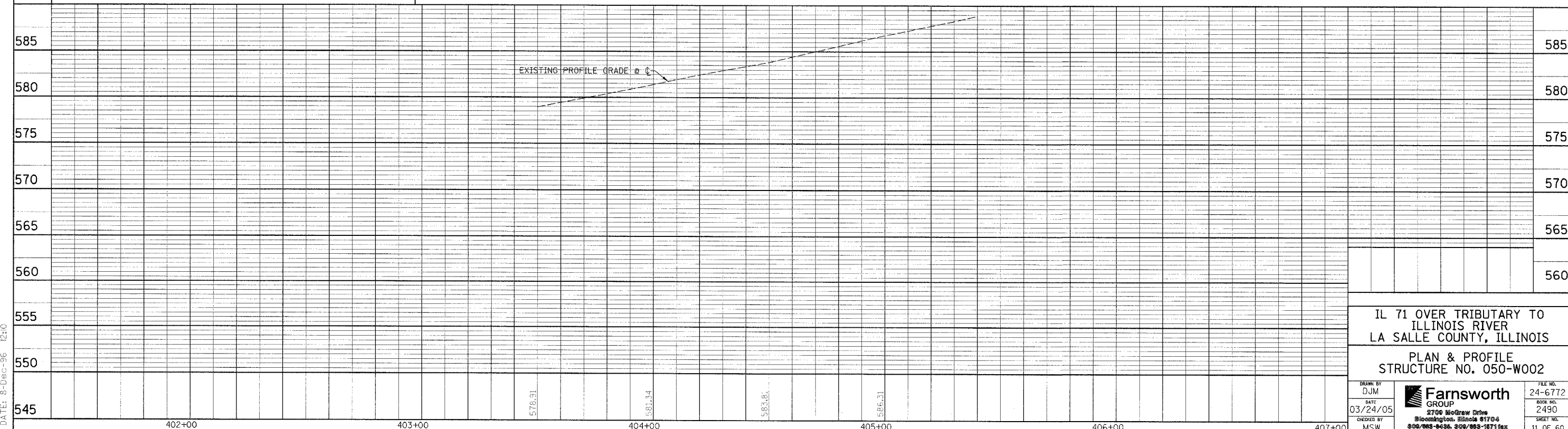
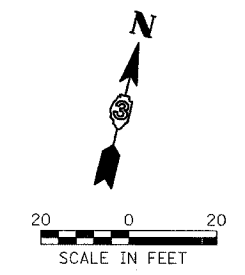
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-DI-1)	LA SALLE	60	11

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
CONTRACT NO. 66550



- B.M. #1: TOP OF GUARDRAIL POST ON THE SOUTH SIDE OF IL RTE. 71 @ BACK CENTER OF THE 10TH POST EAST FROM THE WEST END OF THE RAIL @ STATION 400+80.31/14.62' RT., ELEVATION = 581.01.
- B.M. #2: TOP OF GUARDRAIL POST ON THE SOUTH SIDE OF IL RTE. 71 @ BACK CENTER OF THE 10TH POST WEST FROM THE EAST END OF THE RAIL @ STATION 403+50.18/14.71' RT., ELEVATION = 580.64.

- NOTES:
- 1.) SEE SHEETS 41-49 FOR STRUCTURAL PLANS.
 - 2.) SEE SHEET 8 FOR TRANSIT LINE LOCATION & TIES.
 - 3.) SEE SHEET 19 FOR LIMITS OF CONSTRUCTION AND EROSION CONTROL PLAN.
 - 4.) SEE SHEETS 58-60 FOR CROSS SECTIONS.
 - 5.) NO PARKING OF CONTRACTOR VEHICLES OUTSIDE OF EXISTING PAVEMENT.



IL 71 OVER TRIBUTARY TO ILLINOIS RIVER LA SALLE COUNTY, ILLINOIS
PLAN & PROFILE
STRUCTURE NO. 050-W002

DRAWN BY DJM	<p>2700 McGraw Drive Bloomington, Illinois 61704 309/883-8488, 309/883-1871 fax</p>	FILE NO. 24-6772
DATE 03/24/05		BOOK NO. 2490
CHECKED BY MSW		SHEET NO. 11 OF 60

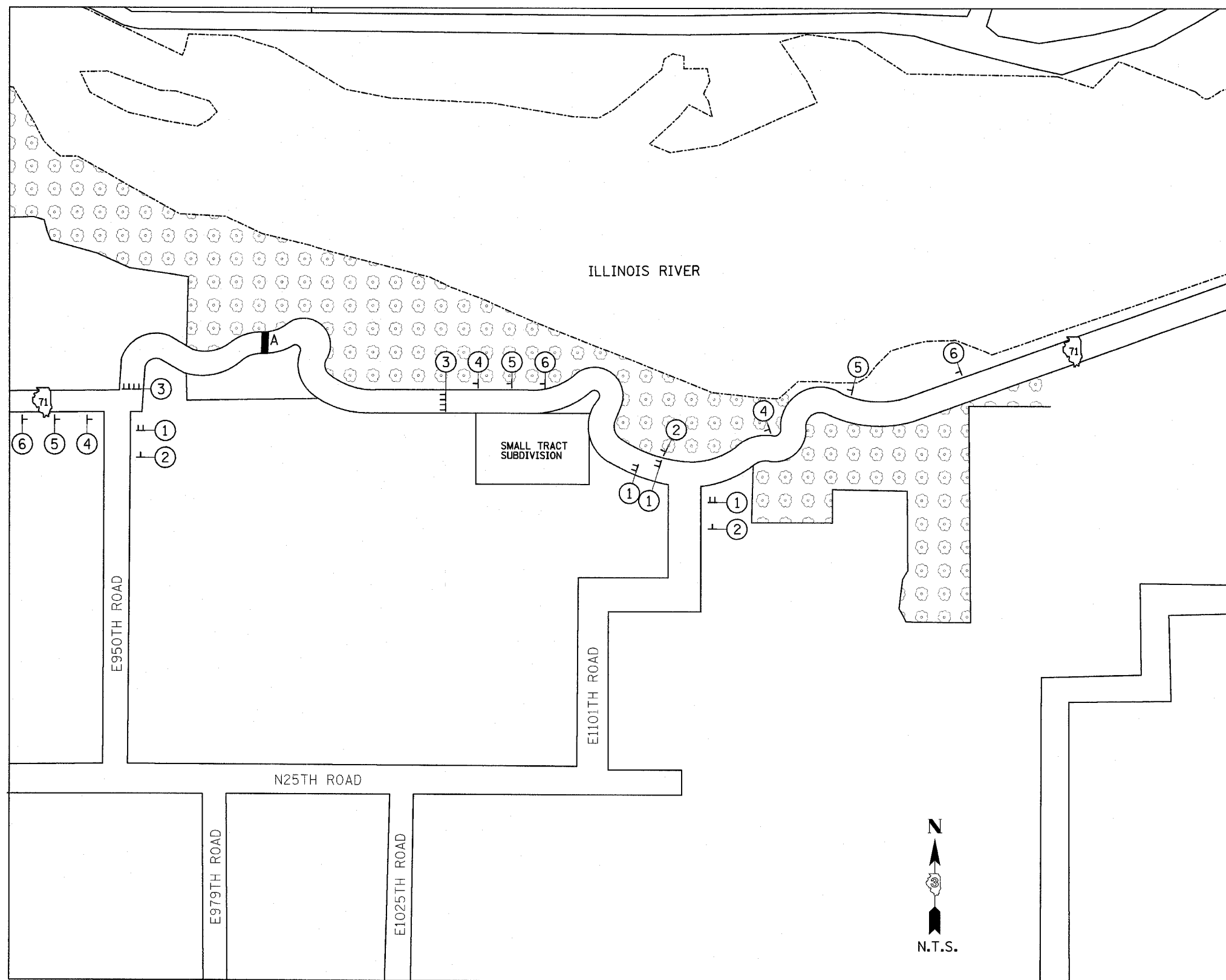
FILE: c:\usep\dgn\paperng.dgn
 DATE: 8-Dec-06 12:10

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	12
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66550				

LEGEND

- XXXX TO BE COVERED
- FLASHING LIGHT
- ◇ 18"x8" ORANGE FLAG
- TT TYPE III BARRICADE
- DIRECTION ARROW CHANGE

- ① **ROAD CLOSED TO THRU TRAFFIC**
R11-4
60x30
- ② **ROAD WORK AHEAD**
W20-1
36x36
- ③ **ROAD CLOSED**
R11-2
48x30
- ④ **ROAD CLOSED 500 FT**
W20-3
36x36
- ⑤ **ROAD CLOSED 1000 FT**
W20-3
36x36
- ⑥ **ROAD CLOSED 1500 FT**
W20-3
36x36



STRUCTURE LOCATIONS
A.) S.N. 050-C803 @ STA. 402+22.00

GENERAL NOTES:

- 1.) ONLY SIGNS THAT ARE TO BE CHANGED OR ADDED ARE SHOWN ON THIS MAP.
- 2.) ALL SIGNS SHALL BE POST MOUNTED.
- 3.) ALL TYPE III BARRICADES SHALL BE EQUIPPED WITH 2 (TWO) TYPE A BI-DIRECTIONAL FLASHING LIGHTS.

SIGNAGE

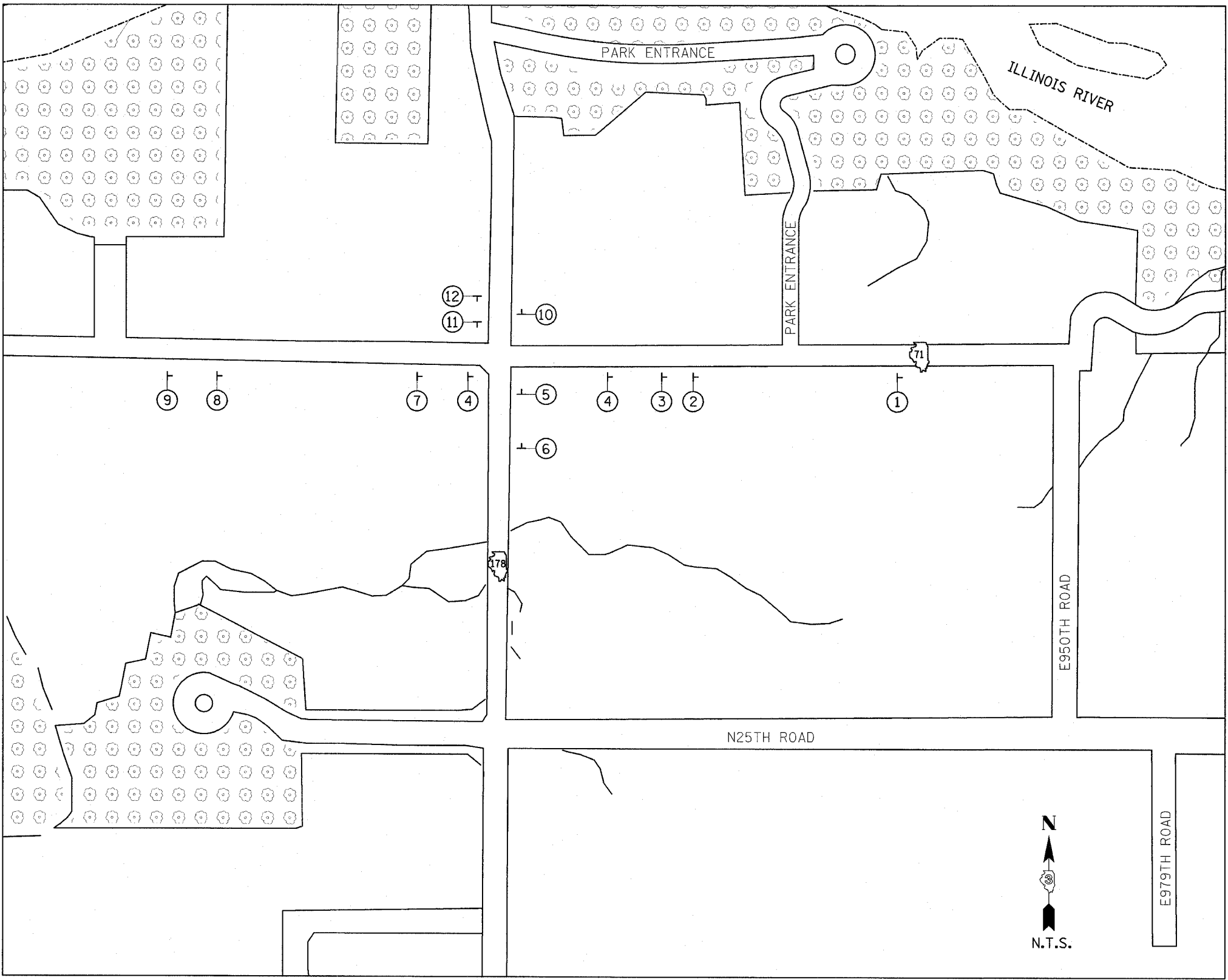
IL ROUTE 71
OVER TRIBUTARY TO ILLINOIS RIVER
F.A.P. ROUTE 627 - SEC. (1-1)I-1
LA SALLE COUNTY

DESIGNED BY MSW	<p>2700 McGraw Drive Bloomington, Illinois 61704 309/885-6156 309/885-9771 fax</p>	FILE NO. 24-6772
DRAWN BY DJM		DATE 03/24/05
CHECKED BY MSW		SHEET NO. 12 OF 60

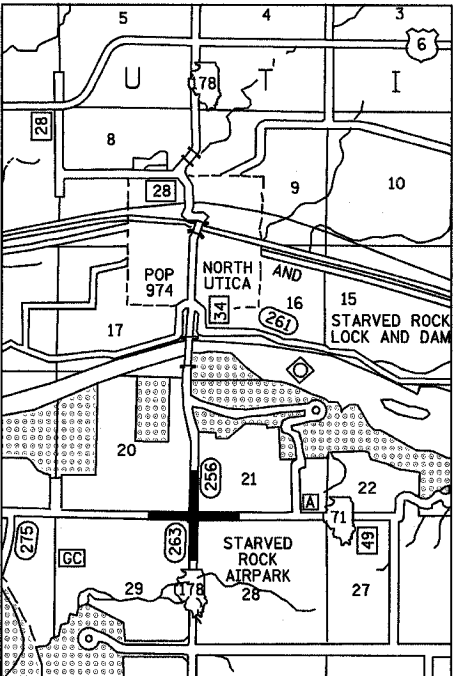
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	13
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66550				

LEGEND

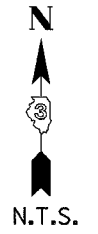
- XXXX TO BE COVERED
- FLASHING LIGHT
- ◇ 18"x8" ORANGE FLAG
- TT TYPE III BARRICADE
- DIRECTION ARROW CHANGE
- ① ROAD CLOSED 1/2 MILES AHEAD LOCAL TRAFFIC ONLY
MI-1100 24x24
R11-3a 60x30
- ② STARVED ROCK 1
- ③
- ④ ROAD CLOSED 1 1/2 MILES AHEAD LOCAL TRAFFIC ONLY
MI-1100 24x24
R11-3a 60x30
- ⑤ 71
- ⑥ ← OGLESBY OTTAWA
- ⑦ 71
- ⑧ DETOUR M4-10 48x18
- ⑨ DETOUR AHEAD W20-2 36x36
- ⑩ ROAD CLOSED AHEAD W20-3 36x36
- ⑪ DETOUR M4-8 24x12
- ⑫ 71 MI-1100 24x24
- ⑬ 71
- ⑭ ← OTTAWA OGLESBY



JUNCTION IL 178 & IL 71



LOCATION MAP



DETOUR MAP

IL ROUTE 71
OVER TRIBUTARY TO ILLINOIS RIVER
F.A.P. ROUTE 627 - SEC. (1-1)I-1
LA SALLE COUNTY

GENERAL NOTES:

- 1.) ONLY SIGNS THAT ARE TO BE CHANGED OR ADDED ARE SHOWN ON THIS MAP.
- 2.) ALL SIGNS TO BE POST MOUNTED.

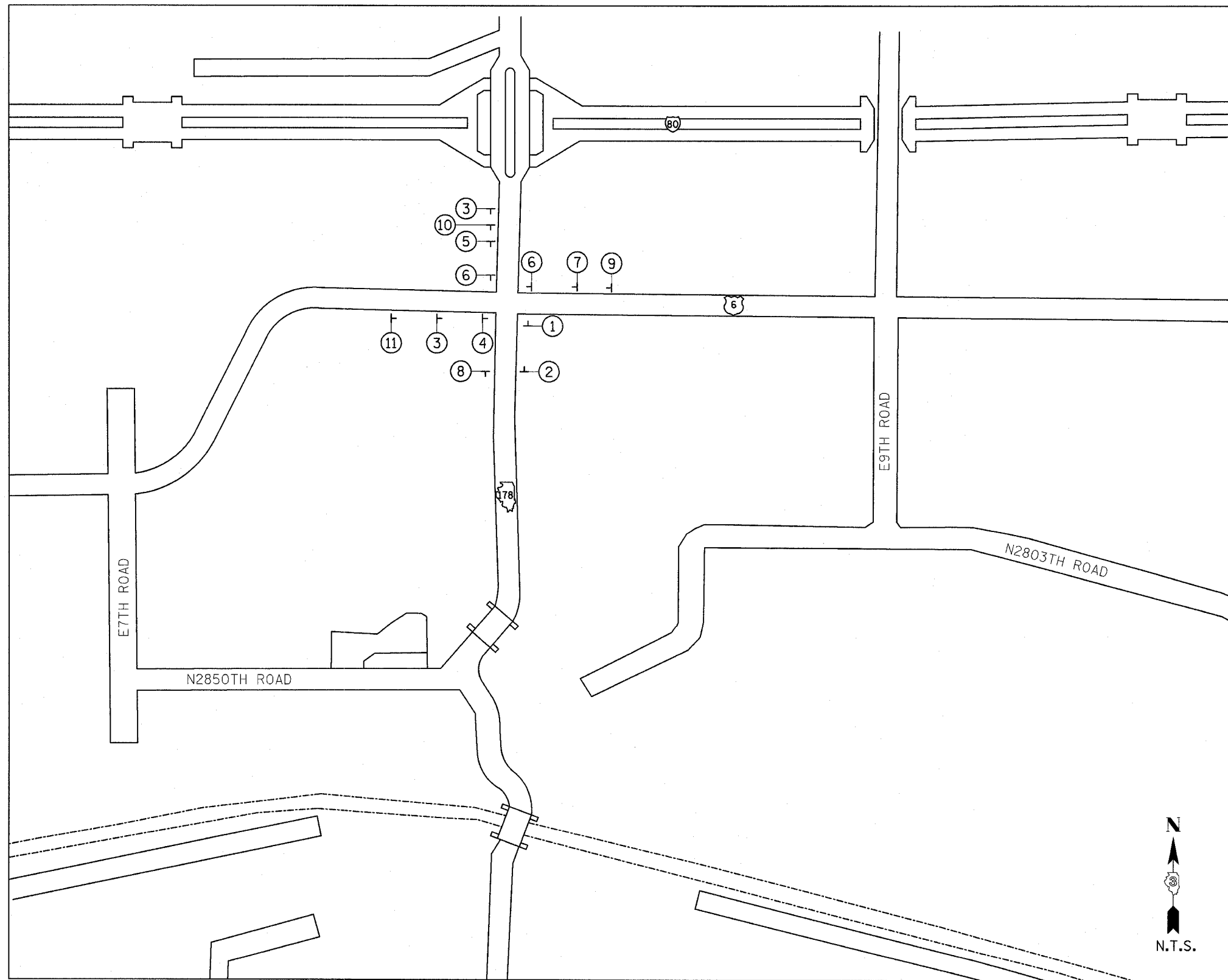
DESIGNED BY MSW	<p>Farnsworth GROUP 2700 McGraw Drive Bloomington, Illinois 61704 302/883-8426 302/883-1671 fax</p>	FILE NO. 24-6772
DRAWN BY DJM		DATE 03/24/05
CHECKED BY MSW		SHEET NO. 13 OF 60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	14
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 66550				

LEGEND

- XXXX TO BE COVERED
- FLASHING LIGHT
- △ 18"x8" ORANGE FLAG
- TT TYPE III BARRICADE
- DIRECTION ARROW CHANGE

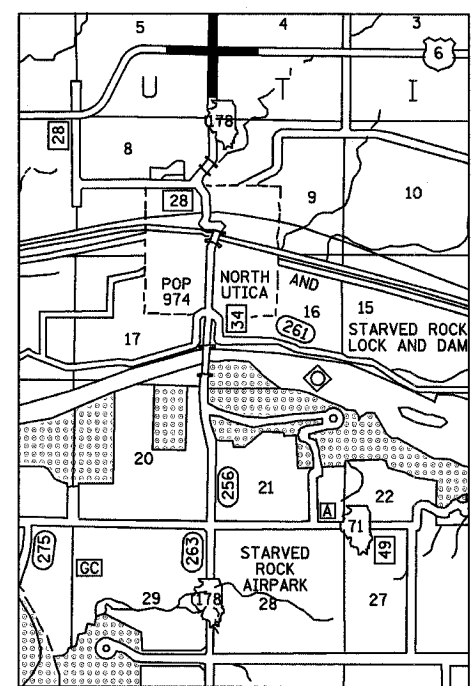
- ① M1-I100 24x24
M4-10 48x18
DETOUR
- ② M1-I100 24x24
M5-1 21x15
DETOUR
- ③ M2-1 21x12
M4-8 24x12
JCT
- ④ M1-I100 24x24
M6-6 21x15
DETOUR
- ⑤ M1-I100 24x24
M6-6 21x15
DETOUR
- ⑥ M1-I100 24x24
M4-10 48x18
DETOUR
- ⑦ M1-I100 24x24
M5-1 21x15
DETOUR
- ⑧ STATE PARKS
STARVED ROCK 3
MATTHIESSEN 5
BUFFALO ROCK 8
ROAD TO PARKS OPEN SEE "SIGN DETAIL"
- ⑨ STATE PARKS
STARVED ROCK
BUFFALO ROCK
MATTHIESSEN
ROAD TO PARKS OPEN SEE "SIGN DETAIL"
- ⑩ STATE PARKS
STARVED ROCK
BUFFALO ROCK
MATTHIESSEN
ROAD TO PARKS OPEN SEE "SIGN DETAIL"
- ⑪ STATE PARKS
STARVED ROCK
BUFFALO ROCK
MATTHIESSEN
ROAD TO PARKS OPEN SEE "SIGN DETAIL"



SIGN DETAIL
SIGN PANEL - TYPE 1

NOTES:

- 1.) AREA = 5.25 SQ. FT.
- 2.) TOTAL AREA REQUIRED (4-SIGNS) = 21.0 SQ. FT.
- 3.) 4" SERIES C LETTERS
- 4.) LEGEND = BLACK
- 5.) BACKGROUND = ORANGE



LOCATION MAP



JUNCTION IL 178 & US 6

GENERAL NOTES:

- 1.) ONLY SIGNS THAT ARE TO BE CHANGED OR ADDED ARE SHOWN ON THIS MAP.
- 2.) ALL SIGNS TO BE POST MOUNTED.

DETOUR MAP

IL ROUTE 71
OVER TRIBUTARY TO ILLINOIS RIVER
F.A.P. ROUTE 627 - SEC. (1-1)I-1
LA SALLE COUNTY

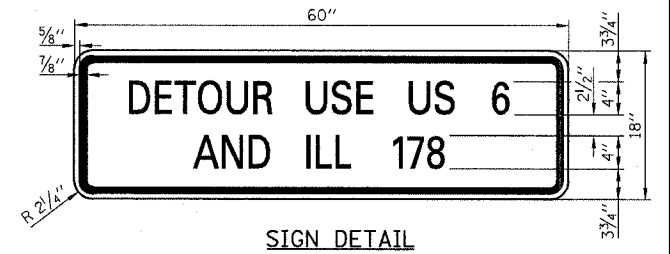
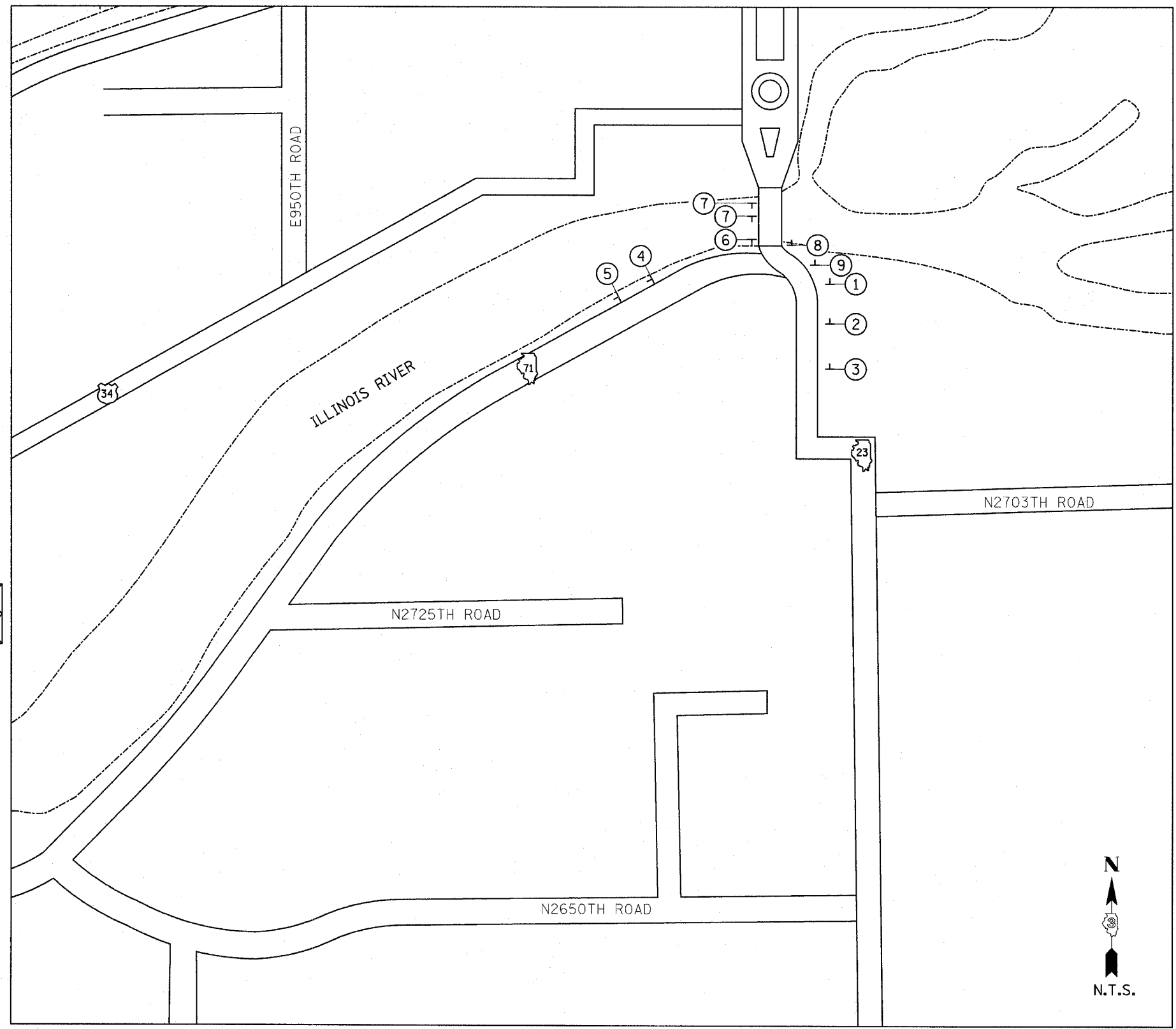
DESIGNED BY MSW	 2700 McGraw Drive Bloomington, Illinois 61704 309/893-9435, 309/893-1871 fax	FILE NO. 24-6772
DRAWN BY DJM		DATE 03/24/05
CHECKED BY MSW		SHEET NO. 14 of 60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	15
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 66550				

LEGEND

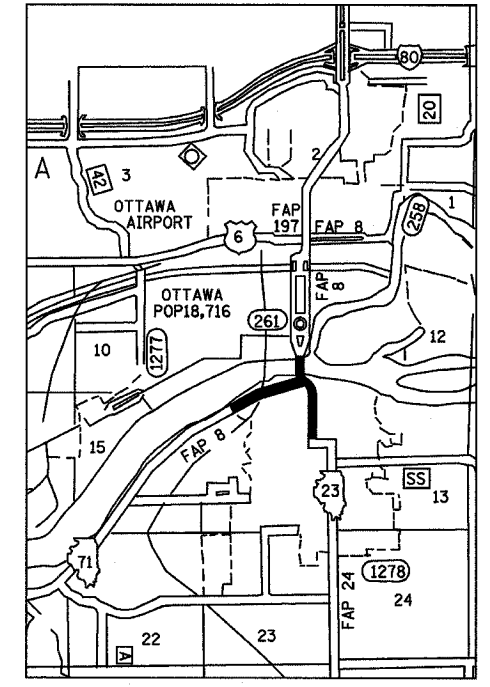
- XXXX TO BE COVERED
- FLASHING LIGHT
- △ 18"x8" ORANGE FLAG
- TT TYPE III BARRICADE
- DIRECTION ARROW CHANGE

- ① 71 23
- ② OSWEGO OGLESBY STARVED ROCK
- ③ DETOUR AHEAD
W20-2 36x36
- ④ ROAD CLOSED 6 MILES AHEAD LOCAL TRAFFIC ONLY 71
M1-1100 24x24
R11-3a 60x30
- ⑤ TO BE COVERED
- ⑥ SOUTH STREATOR WEST OGLESBY STARVED ROCK
- ⑦ 23
- ⑧ DETOUR 71
M4-8 24x12
M1-1100 24x24
M6-3 21x15
- ⑨ ROAD CLOSED TO THRU TRAFFIC DETOUR USE US 6 AND ILL 178
M1-1100 24x24
R11-4 60x30
SEE "SIGN DETAIL"

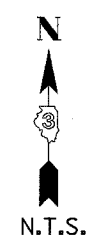


SIGN DETAIL
SIGN PANEL - TYPE 1

- NOTES:**
- TOTAL AREA = 7.5 SQ. FT.
 - 4" SERIES C LETTERS
 - LEGEND = BLACK
 - BACKGROUND = ORANGE



LOCATION MAP



JUNCTION IL 23 & IL 71

GENERAL NOTES:

- ONLY SIGNS THAT ARE TO BE CHANGED OR ADDED ARE SHOWN ON THIS MAP.
- ALL SIGNS TO BE POST MOUNTED.

DETOUR MAP

IL ROUTE 71
OVER TRIBUTARY TO ILLINOIS RIVER
F.A.P. ROUTE 627 - SEC. (1-1)I-1
LA SALLE COUNTY

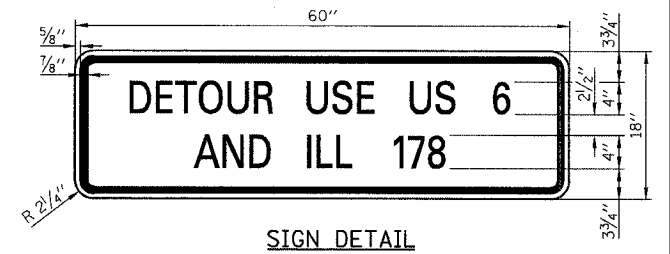
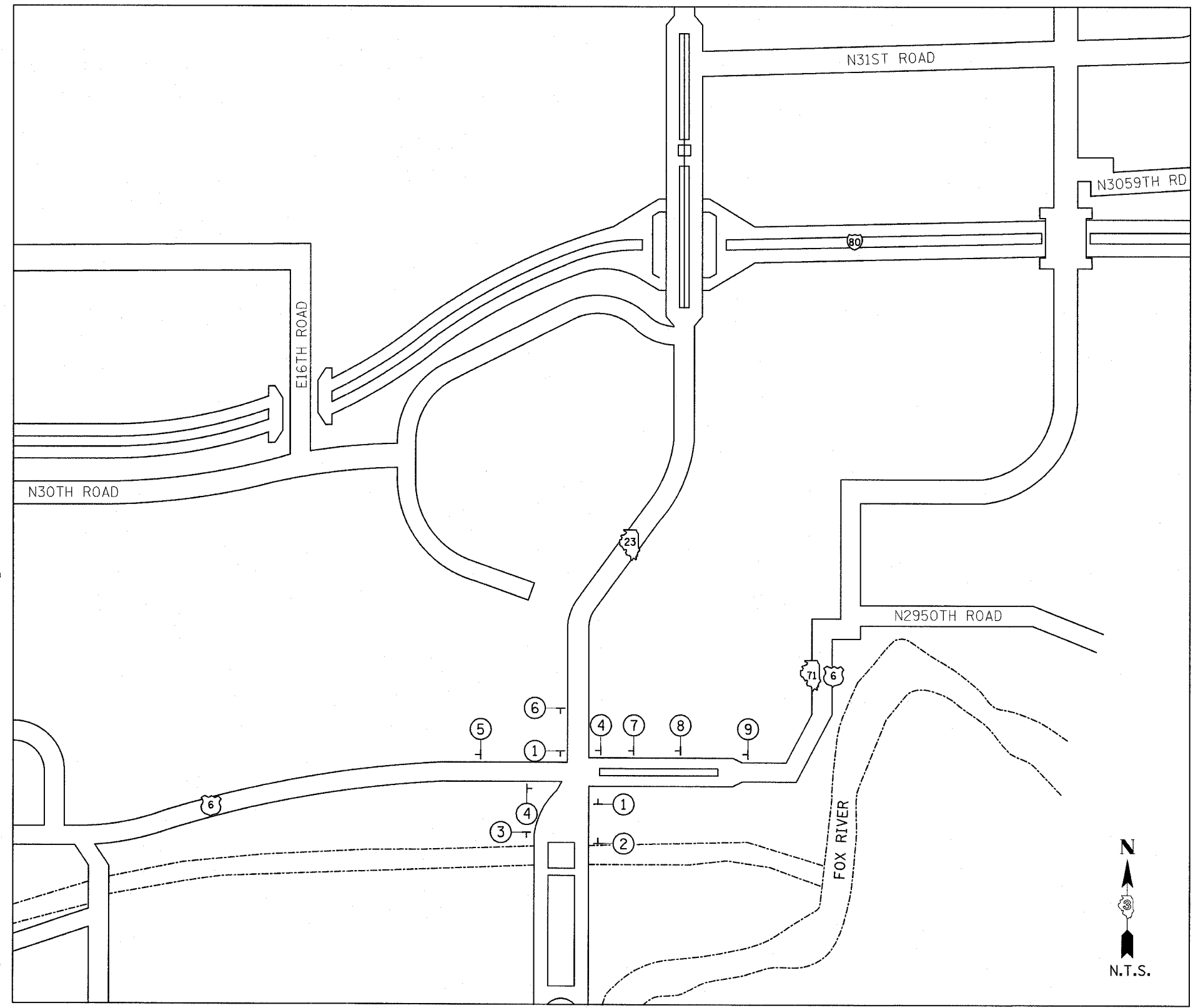
DESIGNED BY MSW	<p>Farnsworth GROUP 2700 McHenry Drive Bloomington, Illinois 61704 302/883-6485, 302/883-1671 fax</p>	FILE NO. 24-6772
DRAWN BY DJM		DATE 03/24/05
CHECKED BY MSW		SHEET NO. 15 OF 60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	16
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 66550				

LEGEND

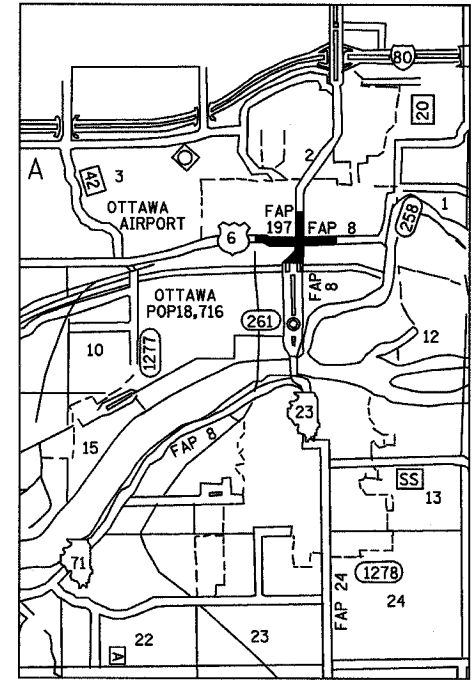
- XXXX TO BE COVERED
- FLASHING LIGHT
- ◇ 18"x8" ORANGE FLAG
- TT TYPE III BARRICADE
- DIRECTION ARROW CHANGE

1. [Sign: 71 with arrow pointing right]
2. [Sign: DETOUR WEST, M3-4 24x12, M4-8 24x12, M1-1100 24x24, M5-1 21x15]
3. [Sign: ROAD CLOSED 7 MILES AHEAD LOCAL TRAFFIC ONLY, DETOUR USE US 6 AND ILL 178, M1-1100 24x24, R11-3a 60x30]
4. [Sign: 71 with arrow pointing up]
5. [Sign: DETOUR, M4-8 24x12, M1-1100 24x24]
6. [Sign: ROAD CLOSED 7 MILES AHEAD LOCAL TRAFFIC ONLY, DETOUR, M1-1100 24x24, R11-3a 60x30, M4-10 48x18]
7. [Sign: DETOUR, M4-8 24x12, M1-1100 24x24, M6-3 21x15]
8. [Sign: DETOUR AHEAD, W20-2 36x36]
9. [Sign: ROAD CLOSED 7 MILES AHEAD LOCAL TRAFFIC ONLY, DETOUR USE US 6 AND ILL 178, M1-1100 24x24, R11-3a 60x30]

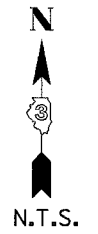


SIGN DETAIL
SIGN PANEL - TYPE 1

- NOTES:**
- 1.) AREA REQUIRED = 7.5 SQ. FT.
 - 2.) TOTAL AREA (2-SIGNS) = 15.0 SQ. FT.
 - 3.) 4" SERIES C LETTERS
 - 4.) LEGEND = BLACK
 - 5.) BACKGROUND = ORANGE



LOCATION MAP



JUNCTION IL 23 & US 6

GENERAL NOTES:

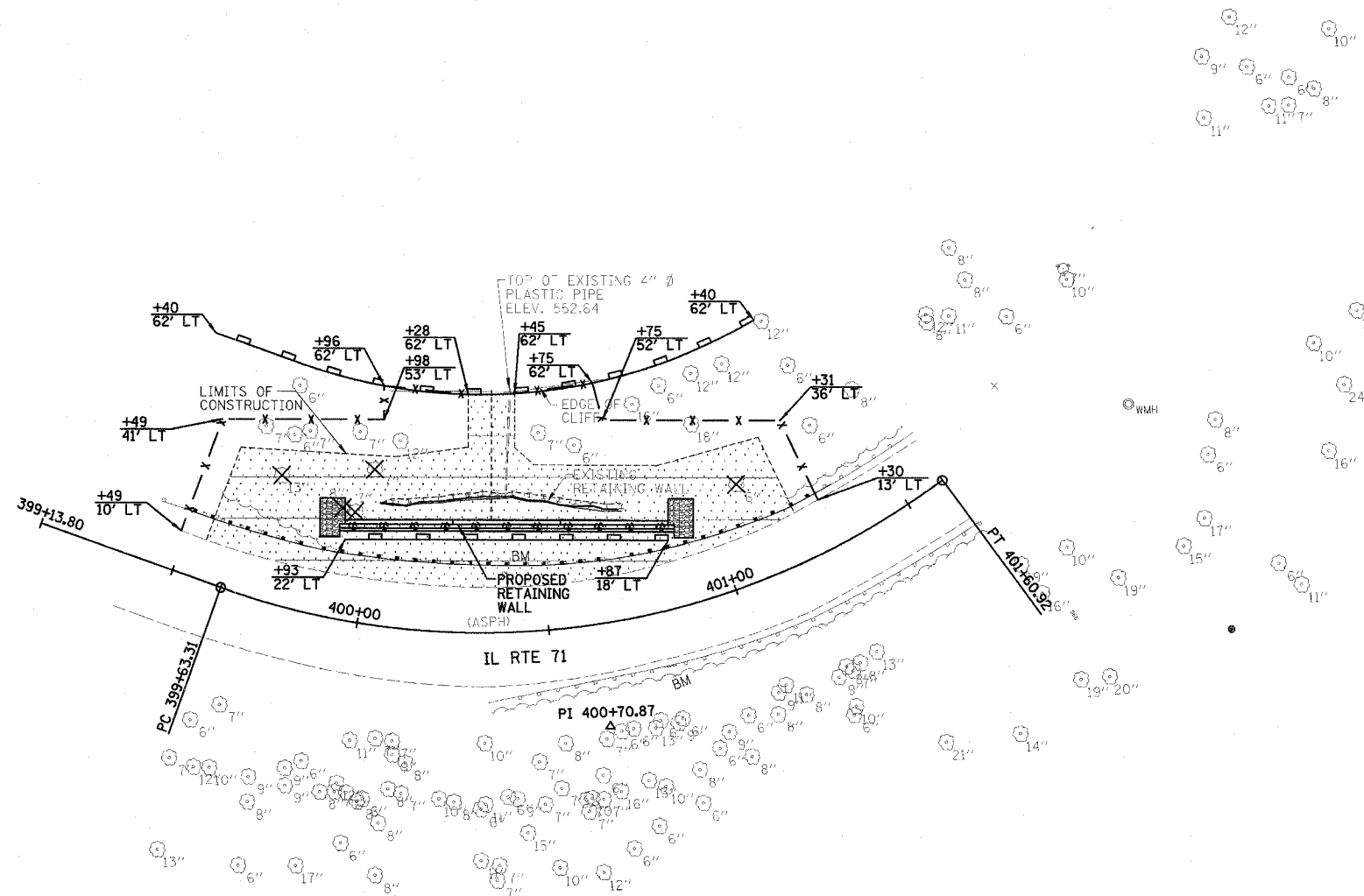
- 1.) ONLY SIGNS THAT ARE TO BE CHANGED OR ADDED ARE SHOWN ON THIS MAP.
- 2.) ALL SIGNS TO BE POST MOUNTED.

DETOUR MAP

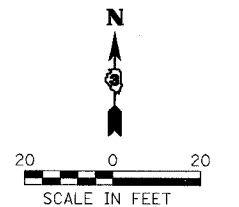
IL ROUTE 71
OVER TRIBUTARY TO ILLINOIS RIVER
F.A.P. ROUTE 627 - SEC. (1-1)I-1
LA SALLE COUNTY

DESIGNED BY MSW	<p>2750 McGraw Drive Bloomington, Illinois 61704 309/885-6436, 309/885-1871 fax</p>	FILE NO. 24-6772
DRAWN BY DJM		DATE 03/24/05
CHECKED BY MSW		SHEET NO. 16 OF 60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	17
STA. 401+35		TO STA. 403+12		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 66550				



LEGEND	
	INLET & PIPE PROTECTION
	PERIMETER EROSION BARRIER
	TEMPORARY CONSTRUCTION FENCE
	TEMPORARY EROSION CONTROL SEEDING, SEEDING (SPECIAL), & HEAVY DUTY EROSION CONTROL BLANKET
	RIPRAP
	DECIDUOUS TREE TO BE REMOVED
	EVERGREEN TREE TO BE REMOVED
	LOCATION OF THREATENED PLANT (FORKED ASTER)



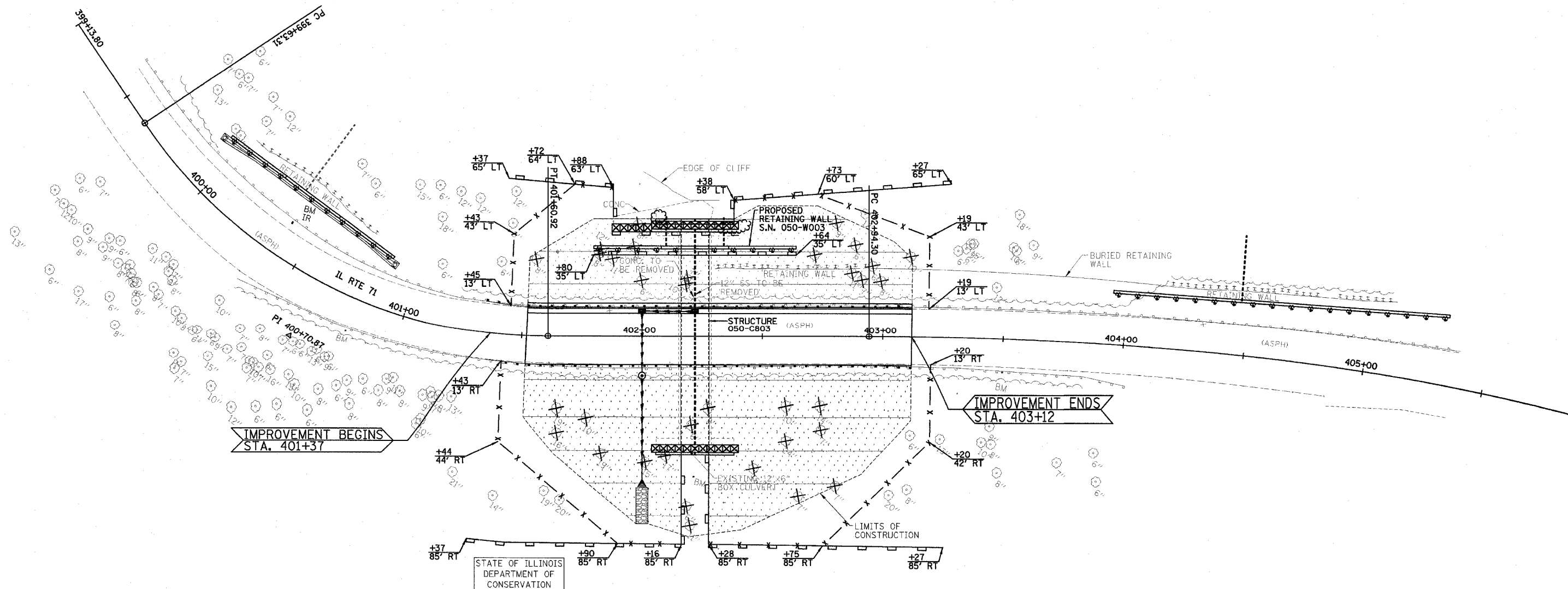
NOTE:

NO PARKING OF CONTRACTOR VEHICLES OUTSIDE OF EXISTING PAVEMENT.

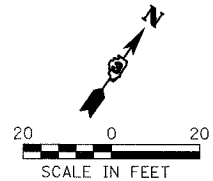
LIMITS OF CONSTRUCTION, EROSION CONTROL AND TREE REMOVAL PLAN

IL ROUTE 71
 SOLDIER PILE RETAINING WALL
 F.A.P. ROUTE 627 - SEC. (1-1)I-1
 LA SALLE COUNTY
 STA 399+94.07 TO STA 400+85.41
 STRUCTURE NO. 050-W001

DESIGNED BY JML	 Farnsworth GROUP 3709 McGraw Drive Bloomington, Illinois 61704 309/883-9435 309/883-9571 fax	FILE NO. 24-6772
DRAWN BY DJM		DATE 03/24/05
CHECKED BY MSW		SHEET NO. 17 OF 60



LEGEND	
	INLET & PIPE PROTECTION
	PERIMETER EROSION BARRIER
	TEMPORARY CONSTRUCTION FENCE
	TEMPORARY EROSION CONTROL SEEDING, SEEDING (SPECIAL), & HEAVY DUTY EROSION CONTROL BLANKET
	RIPRAP
	DECIDUOUS TREE TO BE REMOVED
	EVERGREEN TREE TO BE REMOVED
	LOCATION OF THREATENED PLANT (FORKED ASTER)



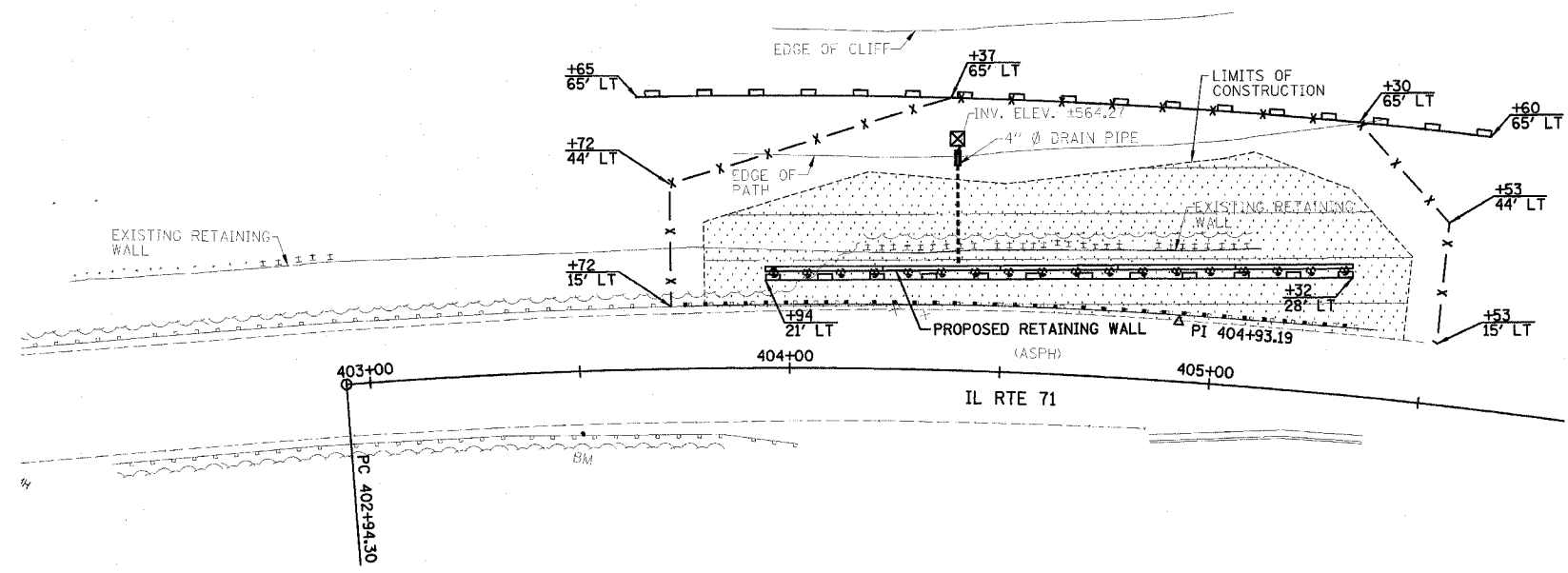
LIMITS OF CONSTRUCTION, EROSION CONTROL AND TREE REMOVAL PLAN
 IL ROUTE 71
 OVER TRIBUTARY TO ILLINOIS RIVER
 F.A.P. ROUTE 627 - SEC. (1-1)I-1
 LA SALLE COUNTY
 STATION 402+22.00
 STRUCTURE NO. 050-C803/050-W003

NOTE:
 NO PARKING OF CONTRACTOR VEHICLES OUTSIDE OF EXISTING PAVEMENT.

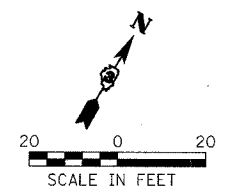
DESIGNED BY JML	FILE NO. 24-6772
DRAWN BY DJM	DATE 03/24/05
CHECKED BY MSW	SHEET NO. 18 OF 60

Farnsworth GROUP
 2700 McGraw Drive
 Bloomington, Illinois 61704
 309/883-6436 309/883-1871 fax

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	19
STA. 403+75		TO STA. 405+50		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66550				



LEGEND	
	INLET & PIPE PROTECTION
	PERIMETER EROSION BARRIER
	TEMPORARY CONSTRUCTION FENCE
	TEMPORARY EROSION CONTROL SEEDING, SEEDING (SPECIAL), & HEAVY DUTY EROSION CONTROL BLANKET
	RIPRAP
	DECIDUOUS TREE TO BE REMOVED
	EVERGREEN TREE TO BE REMOVED
	LOCATION OF THREATENED PLANT (FORKED ASTER)



NOTE:
NO PARKING OF CONTRACTOR VEHICLES OUTSIDE OF EXISTING PAVEMENT.

LIMITS OF CONSTRUCTION AND EROSION CONTROL PLAN
IL ROUTE 71
SOLDIER PILE RETAINING WALL
F.A.P. ROUTE 627 - SEC. (1-1)I-1
LA SALLE COUNTY
STA 403+96.28 TO STA 405+29.55
STRUCTURE NO. 050-W002

DESIGNED BY JML	 2700 McDrew Drive Bloomington, Illinois 61704 309/883-8436 309/883-8711 fax	FILE NO. 24-6772
DRAWN BY DJM		DATE 03/24/05
CHECKED BY MSW		SHEET NO. 19 OF 60

Benchmarks: 1.) Top of guardrail post on the South side of IL Rte. 71
 • the back center of the 10th post East from the West end of the rail • Station 400+80.31/14.62' RT., Elevation = 581.01.

2.) Top of guardrail post on the South side of IL Rte. 71
 • the back center of the 10th post West from the East end of the rail • Station 396+93.99/15.57' RT., Elevation = 579.55.

Existing Structure: Existing Retaining Wall, built 1922, under Section I-1 from Station +400+01.00/+32.0' LT. to Station +400+76.00/+29.0' LT. of F.A.P. 627 (IL 71). Consists of sheet piling and 16 steel piles • approximately 4'-0" centers. The structure is approximately 63'-0" long.

No Salvage.

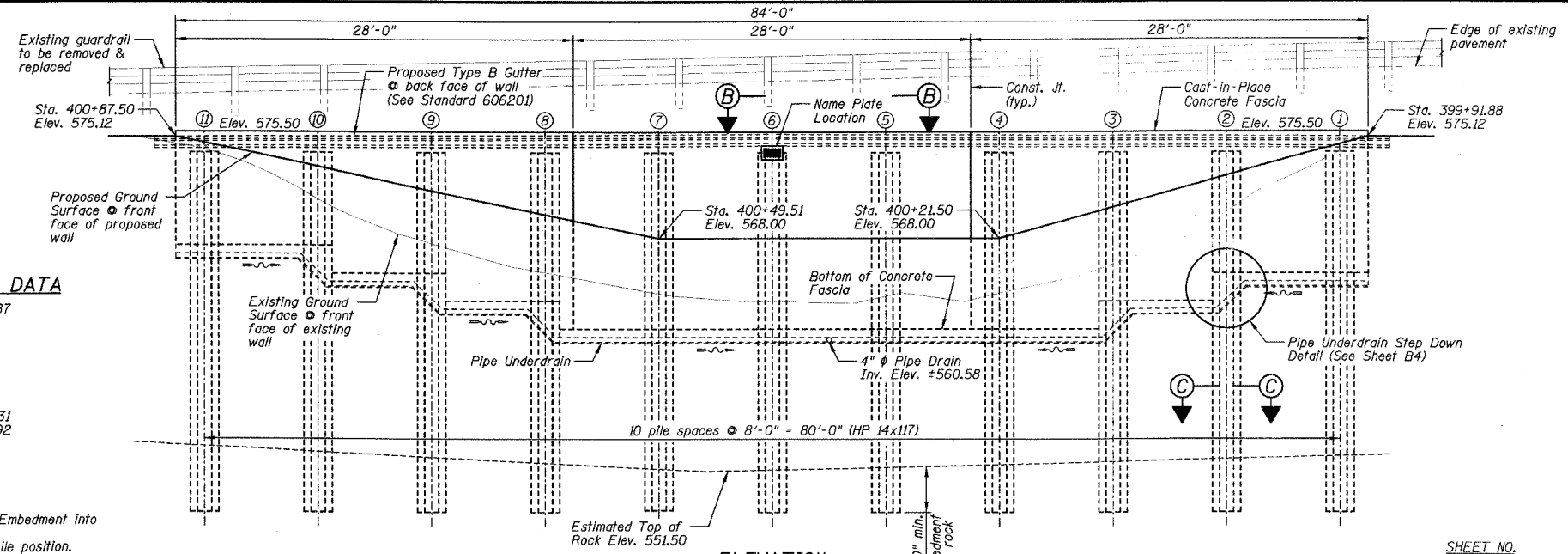
DESIGN SPECIFICATIONS HORIZONTAL CURVE DATA

AASHTO 2002
DESIGN STRESSES
 FIELD UNITS
 $f'_c = 3,500$ psi (Cast-In-Place Concrete)
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (Soldier Pile Steel)

P.I. STA. = 400+70.87
 $\Delta = 56^{\circ}11'$
 $D = 28^{\circ}25'55''$
 $R = 201.52'$
 $L = 107.56'$
 $E = 26.91'$
 $S.E. = 0.04'/ft.$
 P.C. STA. = 399+63.31
 P.T. STA. = 401+60.92

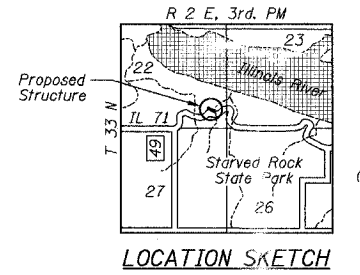
CONSTRUCTION SEQUENCE:

- 1.) Excavate working platform and drill shaft excavation for soldier pile. Embedment into rock shall be as shown on the plans.
- 2.) Set soldier pile in the shaft excavation and brace to maintain proper pile position.
- 3.) Place encasement concrete around soldier pile to the bottom of the C.I.P. concrete fascia, and Controlled Low Strength Material (CLSM) to the excavated ground surface.
- 4.) Excavate in front of wall in stages removing only the soil necessary to place each timber lagging snug against excavated surface. (Removal of the Existing Retaining Wall shall be done during this sequence.)
- 5.) After the lagging has been placed to the depths shown in the plans, the Geocomposite Wall Drain shall be attached to and cover the untreated timber lagging.
- 6.) The French Drain shall be excavated, lined with fabric, pipe and aggregate placed and connected to the Geocomposite Wall Drain as shown on the plans.
- 7.) Attach stud shear connectors, set reinforcement, form and pour C.I.P. concrete fascia.



ELEVATION
(Looking South)

F.A.P. RTE. 627	SECTION (1-DI-1)	COUNTY LA SALLE	TOTAL SHEET NO. 60
STA.	IC STA.	ILLINOIS FED. AID PROJ.	SHEET B1
FED. ROAD DIST. NO.	CONTRACT NO. 66550		OF 9 SHEETS



INDEX TO SHEETS

SHEET NO.	TITLE
B1	GENERAL PLAN AND ELEVATION
B2	GENERAL NOTES, BILL OF MATERIALS, SECTIONS AND DETAILS
B3	WALL REINFORCEMENT AND SOLDIER PILE INFORMATION
B4	RUSTICATION FINISH DETAILS AND PIPE UNDERDRAIN DETAILS
B5-B7	SOIL BORING/ROCK CORE LOGS
B8-B9	EXISTING PLANS

NOTES:

- 1.) Work this sheet with Sheets B2 thru B4.
- 2.) For Sections A-A, B-B & C-C see Sheet B2.
- 3.) The existing retaining wall to be removed is not shown in the Elevation for clarity.
- 4.) For Stone Riprap, Class A4 and Type B Gutter see Roadway Plans.

WALL INFORMATION CHART

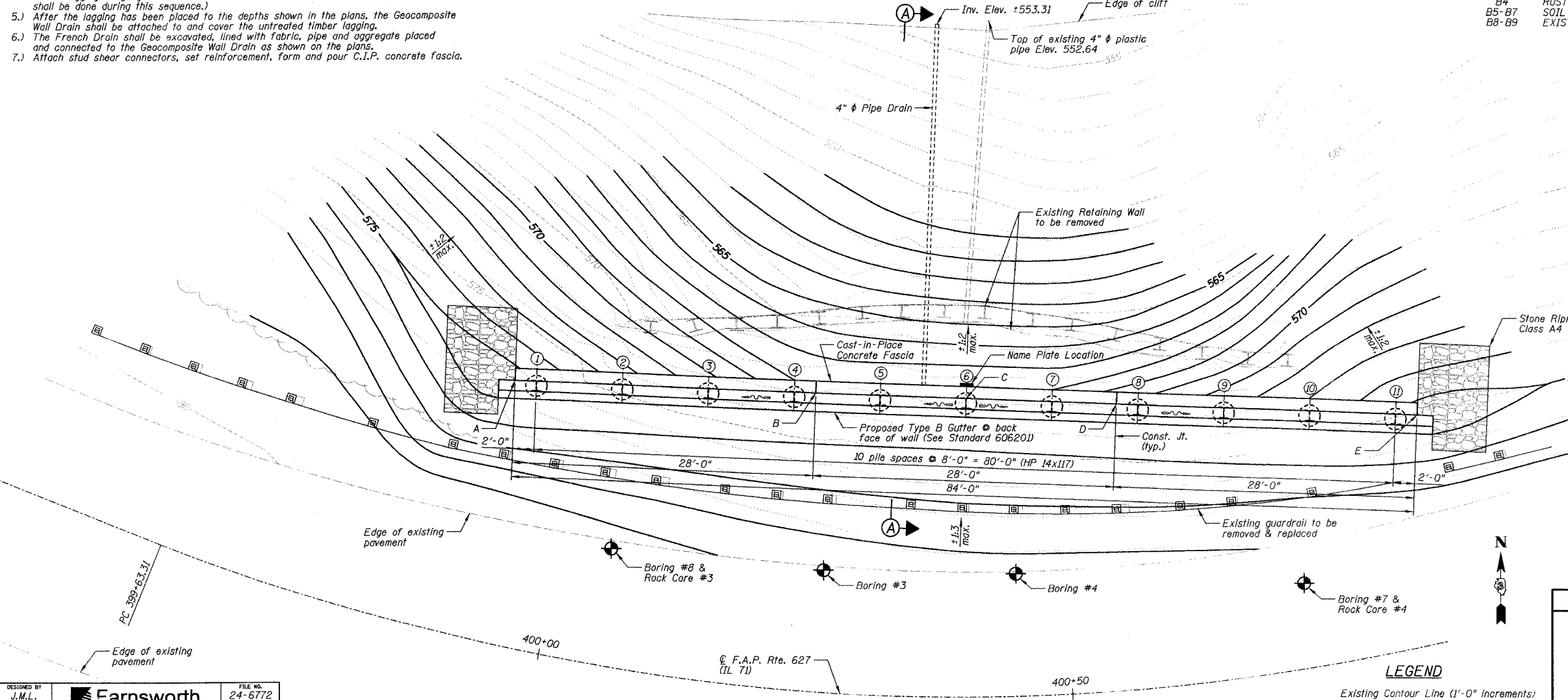
Reference Points	Station to Back Face of Wall	Offset to Back Face of Wall
A	399+91.88	24.59' LT.
B	400+23.88	27.94' LT.
C	400+40.14	27.94' LT.
D	400+56.29	26.81' LT.
E	400+87.50	21.28' LT.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Adams
ENGINEER OF BRIDGES AND STRUCTURES



Mark S. Wylie Date 3/21/05
MARK S. WYLIE
ILLINOIS STRUCTURAL ENGINEER
NO. 081-005002
Exp. Date 11/30/06



PLAN

LEGEND

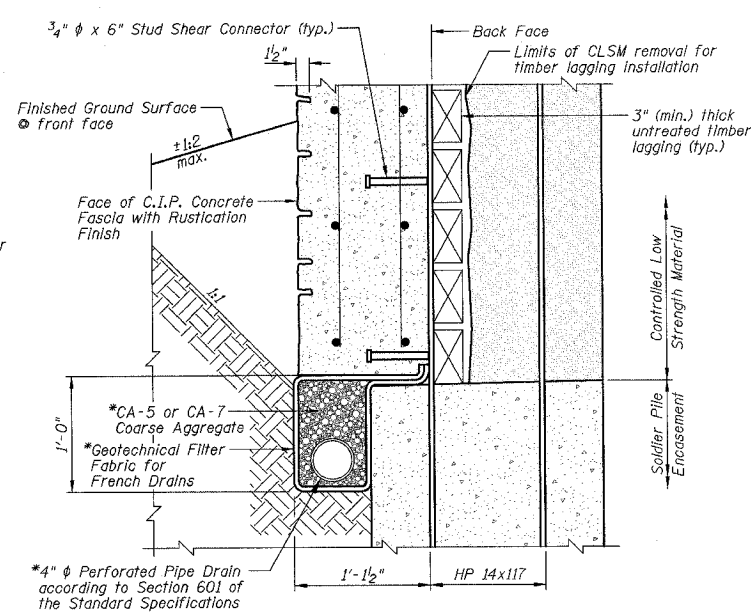
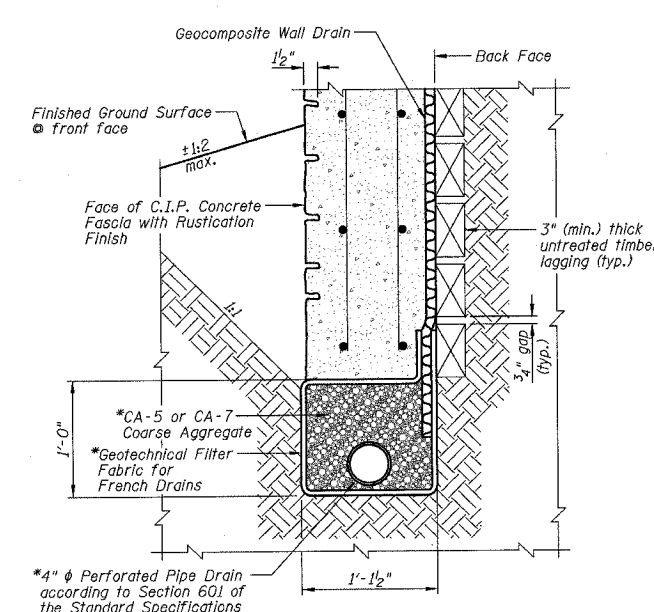
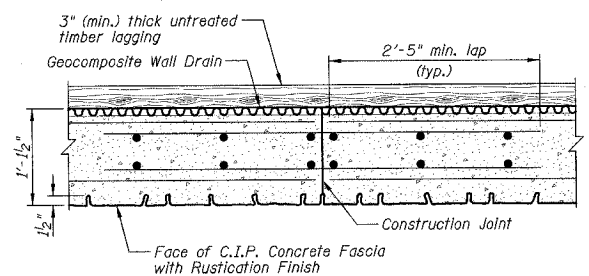
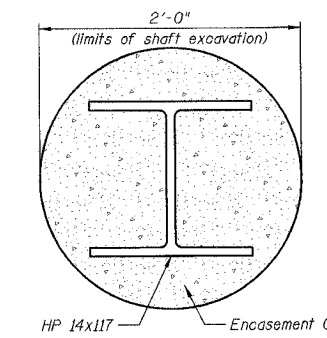
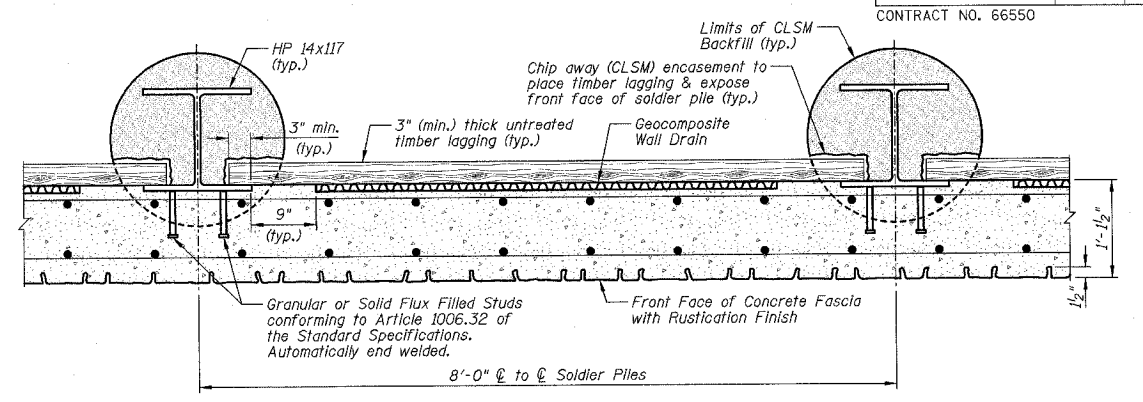
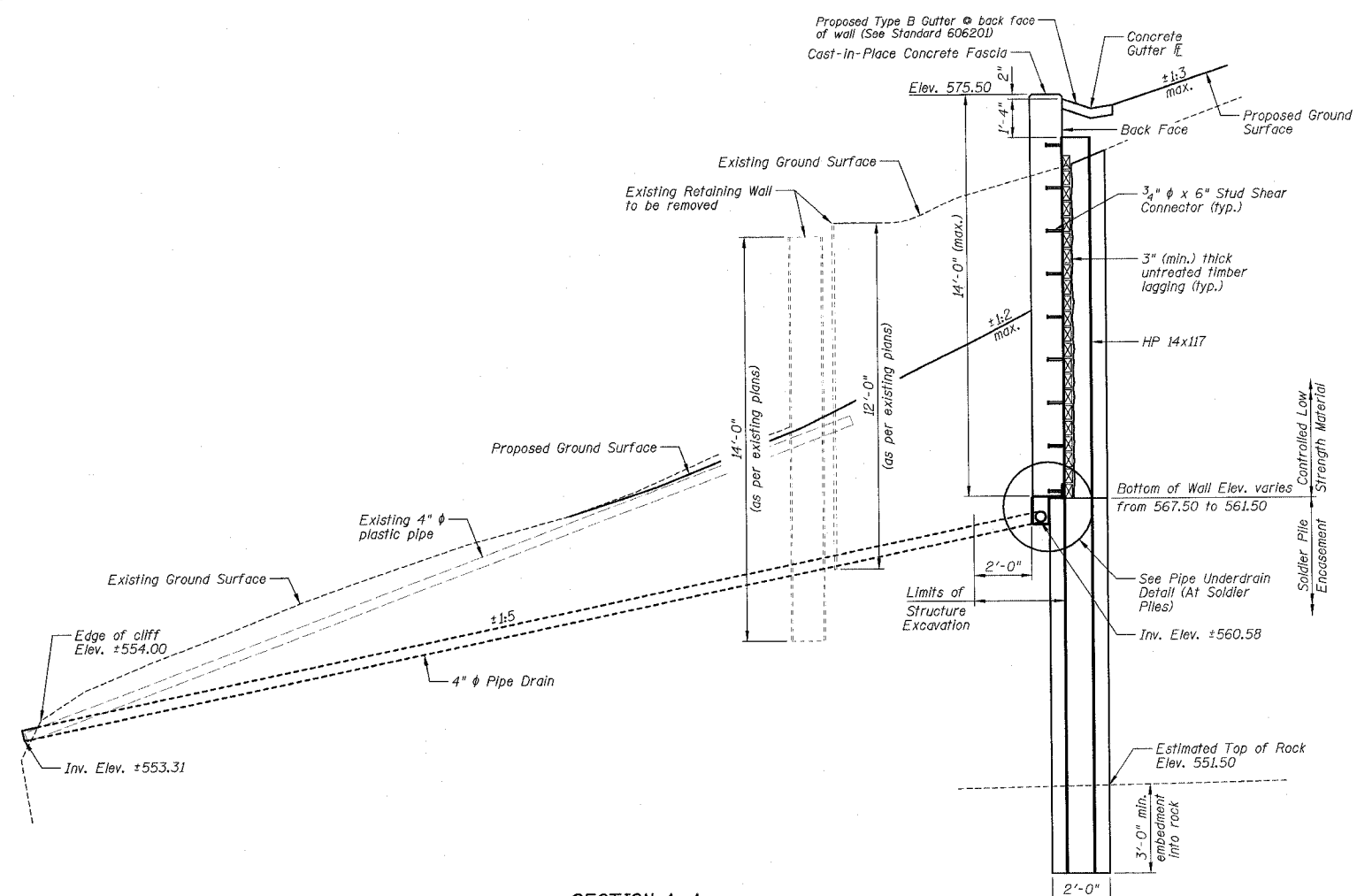
Existing Contour Line (1'-0" increments)
 Existing Contour Line (5'-0" increments)
 Proposed Contour Line

DESIGNED BY J.M.L.	FILE NO. 24-6772
DRAWN BY D.J.M.	DATE 03-24-05
CHECKED BY M.S.W.	SHEET NO. 20 OF 60



GENERAL PLAN AND ELEVATION
 IL ROUTE 71
 SOLDIER PILE RETAINING WALL
 F.A.P. ROUTE 627 - SEC. (1-DI-1)
 LA SALLE COUNTY
 STATION 399+91.88 TO STATION 400+87.50
 STRUCTURE NO. 050-W001

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-11-1)	LA SALLE	60	21
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		CONTRACT NO. 66550	
			SHEET NO. B2	
			OF 9 SHEETS	



- GENERAL NOTES:**
- 1.) Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
 - 2.) See Sheets B5 thru B7 for soil boring and rock core data.
 - 3.) All exposed edges shall be chamfered 3/4" except as noted.
 - 4.) The Contractor is responsible for the design and performance of the Untreated Timber Lagging using no less than a 3" nominal rough-sawn thickness and timber with a minimum fb of 1000 psi. The design shall be approved by the Engineer.
 - 5.) Stud Shear Connectors shall be 3/4" φ x 6" granular or solid flux filled headed studs automatically end welded to the front flange in field.
 - 6.) For information on the Drilled Soldier Pile Retaining Wall, see Special Provision "Drilled Soldier Pile Retaining Wall".
 - 7.) All construction joints shall be bonded.
 - 8.) See Sheet B4 for the limits of "Rustication Finish". See Special Provision "Rustication Finish" for additional information.
 - 9.) All Cast-in-Place concrete shall be integrally colored. See the Special Provision "Colored Concrete - Cast-in-Place" for additional information.
 - 10.) For backfilling of the retaining wall, see the Standard Specifications.
 - 11.) See Roadway Plans for 4" φ Pipe Drain quantity.
 - 12.) C.I.P. denotes Cast-in-Place.
 - 13.) The existing plans are provided for informational use only.

STATION 399+91.88 TO STATION 400+87.50
 BUILT 200... BY
 STATE OF ILLINOIS
 F.A.P. RTE. 627 SECTION (1-11-1)
 F.A. PROJECT:
 STR. NO. 050-W001

NAME PLATE DETAIL
 See Standard 515001

TOTAL WALL BILL OF MATERIALS

ITEMS	UNITS	TOTAL
Removal of Existing Structures No. 1	Each	1
Structure Excavation	Cu Yd	135
Concrete Structures	Cu Yd	41.8
Rustication Finish	Sq Ft	980
Stud Shear Connectors	Each	166
Untreated Timber Lagging	Sq Ft	776
Furnishing Soldier Piles (HP 14x117)	Foot	281
Reinforcement Bars, Epoxy Coated	Pound	3900
Name Plates	Each	1
Geocomposite Wall Drain	Sq Yd	63
Pipe Underdrains for Structures 4"	Foot	88
Drilling and Setting Soldier Piles (in Rock)	Cu Ft	104
Drilling and Setting Soldier Piles (in Soil)	Cu Ft	794

- NOTES:**
- 1.) Work this sheet with Sheets B1, B3 and B4.
 - 2.) For location of Sections A-A, B-B and C-C see Sheet B1.

GENERAL NOTES, BILL OF MATERIALS, SECTIONS AND DETAILS

IL ROUTE 71
SOLDIER PILE RETAINING WALL
 F.A.P. ROUTE 627 - SEC. (1-11-1)
 LA SALLE COUNTY
 STATION 399+91.88 TO STATION 400+87.50
 STRUCTURE NO. 050-W001

DESIGNED BY
 J.M.L.

DRAWN BY
 D.J.M.

CHECKED BY
 M.S.W.

Farnsworth GROUP
 2708 McGraw Drive
 Bloomington, Illinois 61704
 309/882-6636, 309/953-1871 fax

FILE NO.
 24-6772

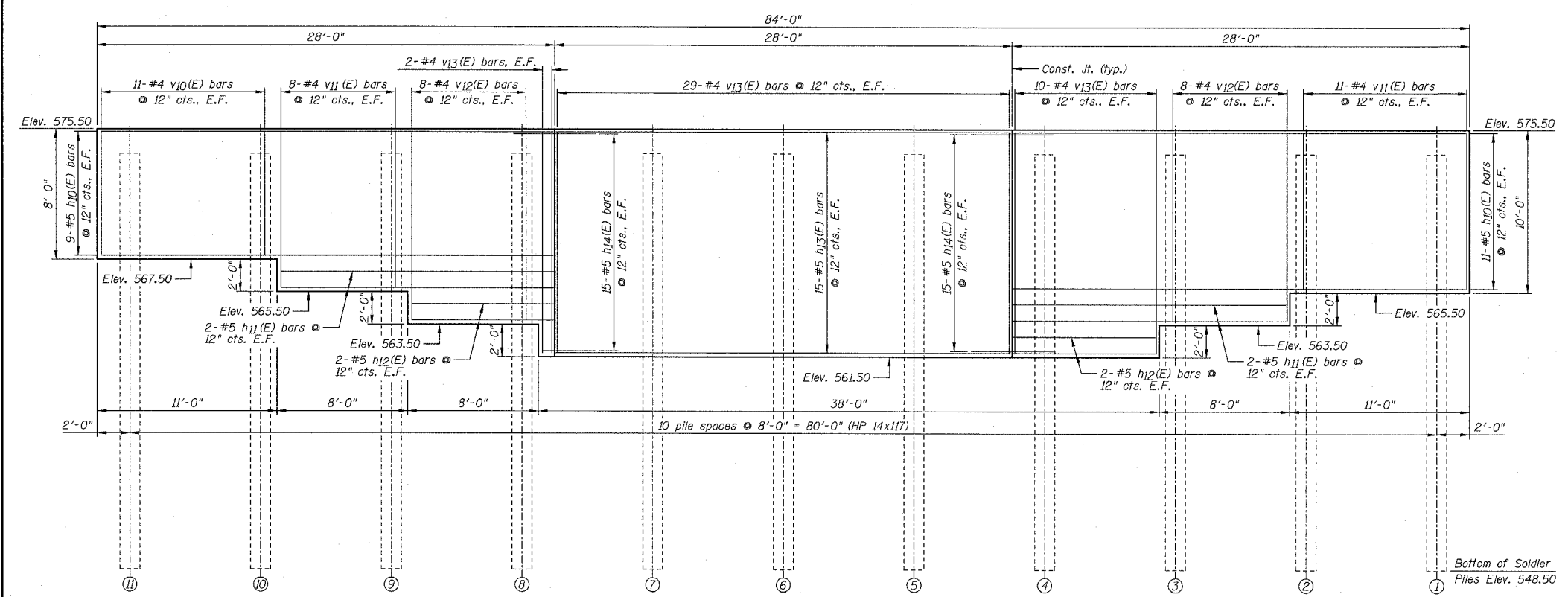
DATE
 03-24-05

SHEET NO.
 21 of 60

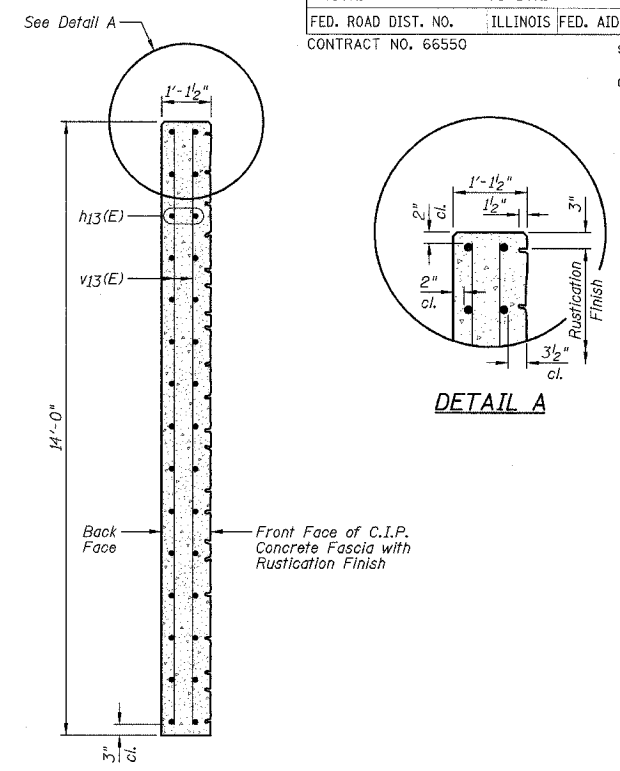
PIPE UNDERDRAIN DETAIL
 *Cost Included with "Pipe Underdrains for Structures".

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1I-1)	LA SALLE	60	22
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66550		SHEET NO. B3		

OF 9 SHEETS



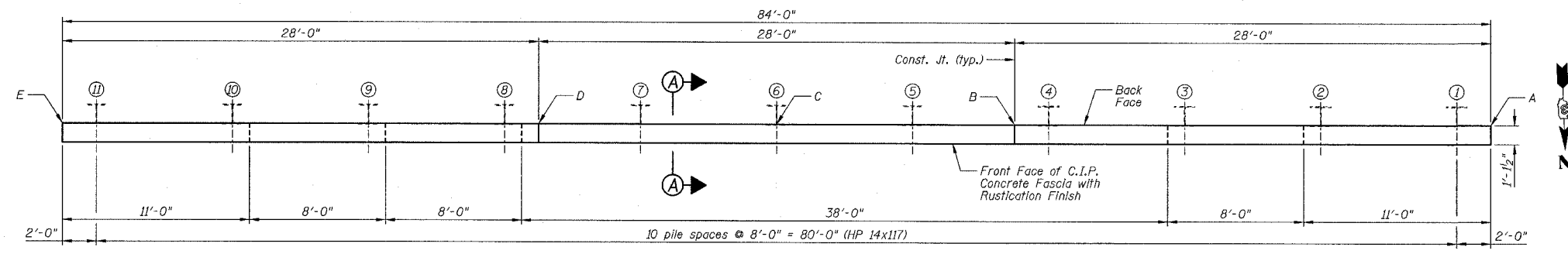
ELEVATION (SHOWING REINFORCEMENT)
(Looking South)



SECTION A-A
Note: Clearances are typical at all wall sections.

BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h10(E)	40	#5	27'-8"	—
h11(E)	8	#5	16'-8"	—
h12(E)	8	#5	8'-8"	—
h13(E)	30	#5	27'-10"	—
h14(E)	60	#5	5'-0"	—
v10(E)	22	#4	7'-7"	—
v11(E)	38	#4	9'-7"	—
v12(E)	32	#4	11'-7"	—
v13(E)	82	#4	13'-7"	—
Item	Unit	Quantity		
Concrete Structures	Cu. Yds.	41.8		
Stud Shear Connectors	Each	166		
Furnishing Soldier Piles (HP 14x117)	Foot	281		
Reinforcement Bars, Epoxy Coated	Pound	3900		



PLAN

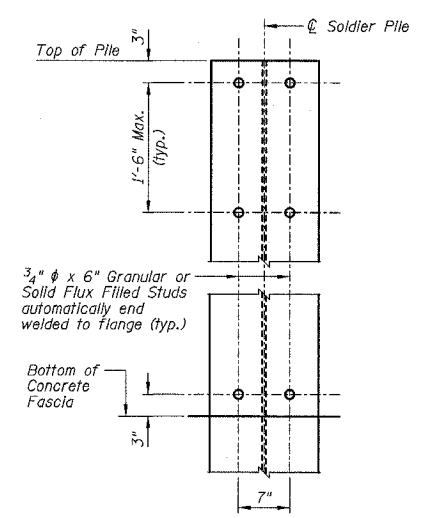
WALL INFORMATION CHART

Reference Points	Location at Wall	Station to Back Face of Wall	Offset to Back Face of Wall	Wall Height
A	Begin Wall	399+91.88	24.59' LT.	10'-0"
B	Const. Jt.	400+23.88	27.94' LT.	14'-0"
C	∅ Wall	400+40.14	27.94' LT.	14'-0"
D	Const. Jt.	400+56.29	26.81' LT.	14'-0"
E	End Wall	400+87.50	21.28' LT.	8'-0"

Note: See Plan for Reference Point locations.

STEEL SOLDIER PILE INFORMATION CHART

Pile No.	Station	Offset to Ctr. of Pile	Top of Pile Elevation	Bottom of Pile Elevation	Pile Length	No. of Stud Shear Connectors	Top of Class SI Concrete Encasement Elevation
1	399+94.22	24.52' LT.	574.00	548.50	25'-6"	14	565.50
2	400+03.24	25.84' LT.	574.00	548.50	25'-6"	14	563.50
3	400+12.37	26.79' LT.	574.00	548.50	25'-6"	16	561.50
4	400+21.59	27.39' LT.	574.00	548.50	25'-6"	18	561.50
5	400+30.85	27.62' LT.	574.00	548.50	25'-6"	18	561.50
6	400+40.12	27.48' LT.	574.00	548.50	25'-6"	18	561.50
7	400+49.35	26.97' LT.	574.00	548.50	25'-6"	18	561.50
8	400+58.51	26.11' LT.	574.00	548.50	25'-6"	16	561.50
9	400+67.56	24.87' LT.	574.00	548.50	25'-6"	14	563.50
10	400+76.47	23.30' LT.	574.00	548.50	25'-6"	10	565.50
11	400+85.21	21.37' LT.	574.00	548.50	25'-6"	10	567.50



STUD SHEAR CONNECTORS LAYOUT

NOTES:

- 1.) Work this sheet with Sheets B1, B2 and B4.
- 2.) E.F. denotes Each Face.
- 3.) For "Rustication Finish" details see Sheet B4.
- 4.) Reinforcement bars designated (E) shall be epoxy coated.
- 5.) h14(E) bars shall be field cut as required.
- 6.) Minimum lap length: #5 bar = 2'-2"
- 7.) See Sheet B2 for Construction Joint Detail.

WALL REINFORCEMENT AND SOLDIER PILE INFORMATION
IL ROUTE 71
SOLDIER PILE RETAINING WALL
F.A.P. ROUTE 627 - SEC. (1-1I-1)
LA SALLE COUNTY
STATION 399+91.88 TO STATION 400+87.50
STRUCTURE NO. 050-W001

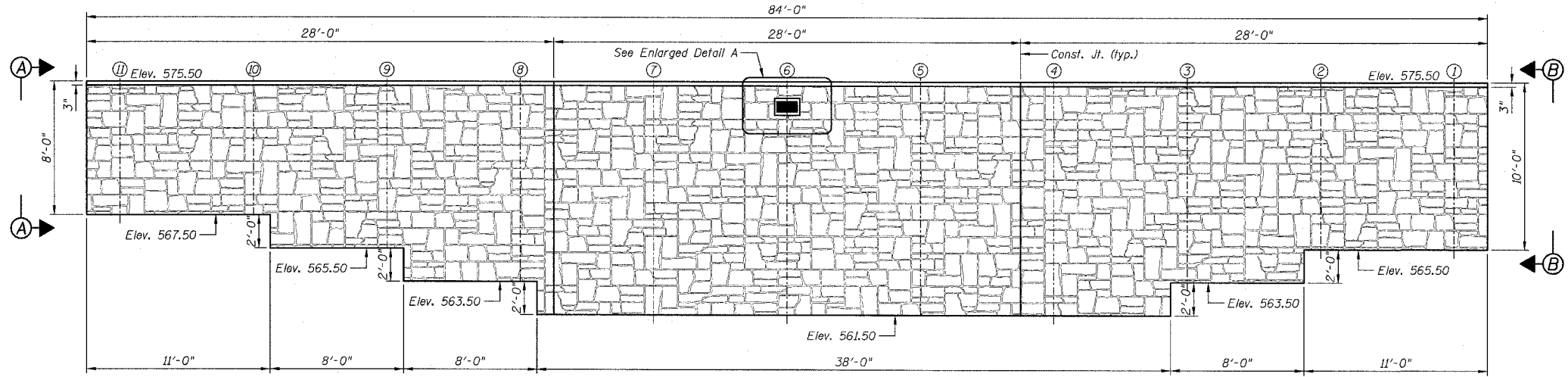
DESIGNED BY: J.M.L.
 DRAWN BY: D.J.M.
 CHECKED BY: M.S.W.

Farnsworth GROUP
 2700 McGraw Drive
 Bloomington, Illinois 61704
 302/883-2435, 302/883-1671 fax

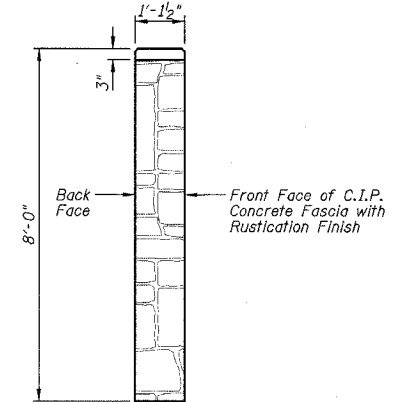
FILE NO. 24-6772
 DATE 03-24-05
 SHEET NO. 22 of 60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-DI-1	LA SALLE	60	23
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 66550			SHEET NO. B4	

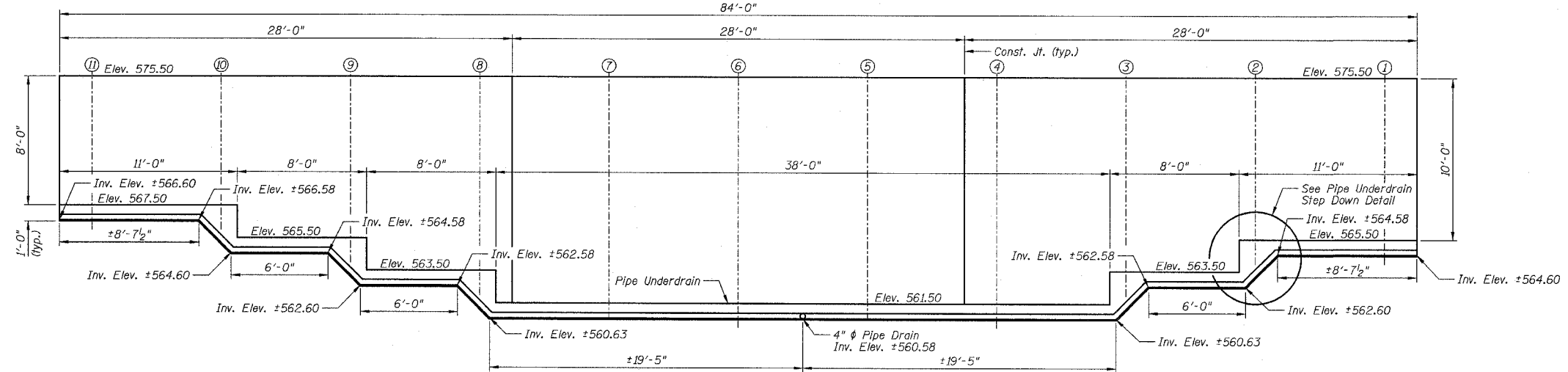
OF 9 SHEETS



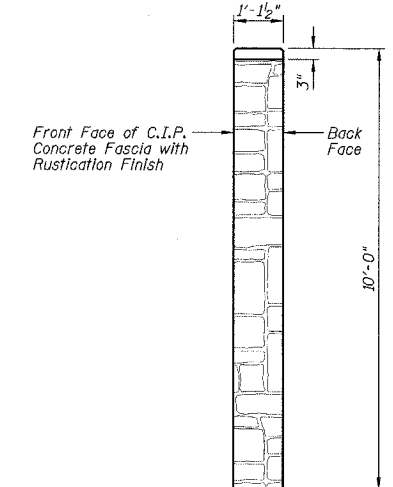
RUSTICATION FINISH ELEVATION - LOOKING SOUTH



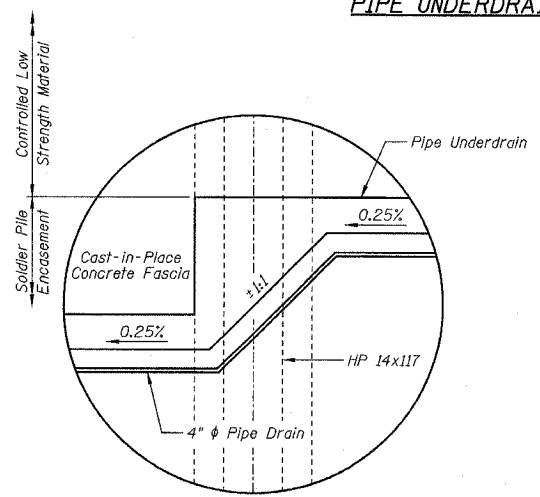
ENLARGED ELEVATION A-A



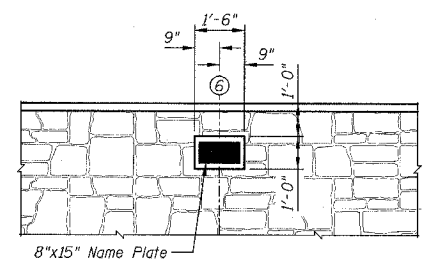
PIPE UNDERDRAIN ELEVATION - LOOKING SOUTH



ENLARGED ELEVATION B-B



PIPE UNDERDRAIN STEP DOWN DETAIL



ENLARGED DETAIL A



EXAMPLE OF RUSTICATION PATTERN
 Notes: Maximum Relief = 1/2"
 Stone Size = 8"-25"

BILL OF MATERIALS

Item	Unit	Total
Rustication Finish	Sq. Ft.	980
Pipe Underdrains for Structures 4"	Foot	88

NOTES:

- 1.) Work this sheet with Sheets B1 thru B3.
- 2.) Limits of Rustication Finish extend from bottom of wall to 3" from the top of wall.

RUSTICATION FINISH DETAILS
 AND PIPE UNDERDRAIN DETAILS
 IL ROUTE 71
 SOLDIER PILE RETAINING WALL
 F.A.P. ROUTE 627 - SEC. (1-DI-1
 LA SALLE COUNTY
 STATION 399+91.88 TO STATION 400+87.50
 STRUCTURE NO. 050-W001

DESIGNED BY: J.M.L.
 DRAWN BY: D.J.M.
 CHECKED BY: M.S.W.

Farnsworth GROUP
 2700 McGraw Drive
 Bloomington, Illinois 61704
 309/533-6555 309/533-6771 fax

FILE NO. 24-6772
 DATE 03-24-05
 SHEET NO. 23 of 60



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

Date 11/13/01

ROUTE FAP 627(IL71) DESCRIPTION RETAINING WALL AT TONTI CANYON ON ILLINOIS 71 LOGGED BY K.W.
SECTION (M)W&RS,(I-1,D)R,W&RS RET. WALLS LOCATION SE 1/4, SEC. 22, TWP. 33N, RNG. 2E, 3rd PM
COUNTY LASALLE DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	DEPTH	BLOW	UCS	MOIST	Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev.: First Encounter Upon Completion After Hrs.	DEPTH	BLOW	UCS	MOIST
AUGERED BITUMINOUS PAVEMENT Over Stone Base & Gray Weathered SHALE								10			
								21	4.5	12.0	
Very Stiff Brown-Gray Weathered SHALE with Limonite & Secondary Sulfur	576.25	5						26			
		7	2.0	18.0				82	-	8.0	
Hard Gray SHALE	571.75	8	S					100/3'	-		
		5						25			
Dense ST. PETER SANDSTONE	551.75	10	-	16.0				50	-	7.0	
	551.25	11	-					115	-		
Medium to Dense Black COAL (COLCHESTER NO. 2)	568.25	6						100/3'		4.0	
		9	-	69.0							
Medium Gray CLAY (UNDERCLAY)	565.25	11									
		7									
Hard to Dense Gray SHALE	563.75	27	-	34.0							
		28	-	14.0							
		15									
		17									
		6									
		9	-	69.0							
		11									
		7									
		27	-	34.0							
		28	-	14.0							
		5									
		12									
		17	4.5+P	16.0							
		10									
		22	4.5	12.0							
		36	P								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

Date 11/13/01

ROUTE FAP 627(IL71) DESCRIPTION RETAINING WALL AT TONTI CANYON ON ILLINOIS 71 LOGGED BY K.W.
SECTION (M)W&RS,(I-1,D)R,W&RS RET. WALLS LOCATION SE 1/4, SEC. 22, TWP. 33N, RNG. 2E, 3rd PM
COUNTY LASALLE DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	DEPTH	BLOW	UCS	MOIST	Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev.: First Encounter Upon Completion After Hrs.	DEPTH	BLOW	UCS	MOIST
AUGERED BITUMINOUS PAVEMENT & BASE Over Weathered SHALE								23			
								38	4.5	10.0	
Very Stiff Weathered SHALE with Limonite & Secondary Sulfur	575.86	4						16			
		5	2.5	18.0				32	4.5	12.0	
Dense Gray SHALE with Secondary Sulfur	571.36	8	S					77	P		
		4						36			
Dense ST. PETER SANDSTONE	551.36	12	-	17.0				100/3'	-	8.0	
	550.86	15	-								
Medium to Dense Black COAL (COLCHESTER NO. 2)	567.36	11									
		15	-	25.0							
Hard Black COAL (COLCHESTER (NO. 2))		21	-	43.0							
		11									
Hard Gray CLAY (UNDERCLAY)	564.86	22									
		24	4.5+P	17.0							
Dense (Hard) Gray SHALE	559.36	7									
		14	4.5	13.0							
		14	P								
		14									
		38	4.5	11.0							
		56	P								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

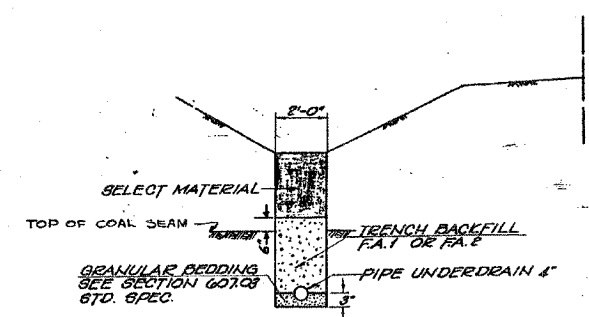
DESIGNED BY J.M.L.	 2700 McGraw Drive Bloomington, Illinois 61704 800/883-6436, 309/883-7871 fax	FILE NO. 24-6772
DRAWN BY D.J.M.		DATE 03-24-05
CHECKED BY M.S.W.		SHEET NO. 24 of 60

SOIL BORING/ROCK CORE LOGS
IL ROUTE 71
SOLDIER PILE RETAINING WALL
F.A.P. ROUTE 627 - SEC. (1-D)-1
LA SALLE COUNTY
STATION 399+91.88 TO STATION 400+87.50
STRUCTURE NO. 050-W001

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-DI-1	LA SALLE	60	27
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 66550		SHEET NO. 88		

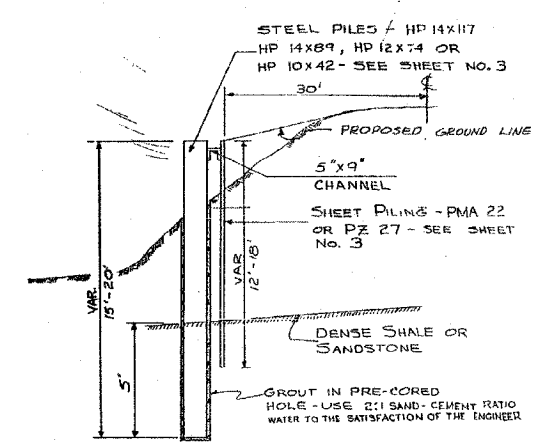
OF 9 SHEETS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7A I-I	LaSALLE	4	2



PIPE UNDERDRAINS

THE LOCATIONS OF THE UNDERDRAINS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD AND ESTIMATED QUANTITIES SHOWN HERE ARE INCLUDED IN APPROPRIATE SCHEDULES.

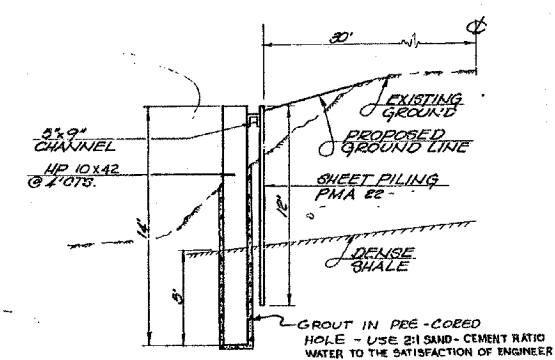


RETAINING WALL EAST SLIDE

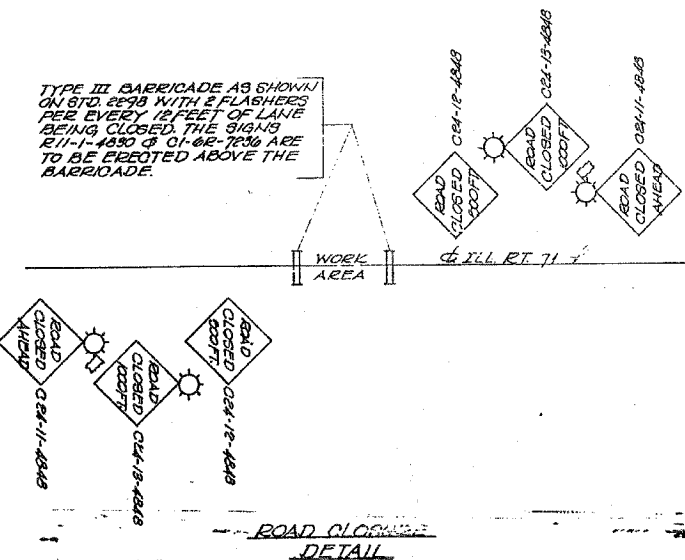
SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	LOCATION	
				EAST	WEST
204001	BORROW EXCAVATION	CU. YD.	910	100	210
* 503004	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	3	1	2
513014	FURNISHING STEEL PILES HP 10x42	LIN. FT.	508	144	364
* 513049	STEEL SHEET PILING	SQ. FT.	2400	1200	1200
633004	CABLE ROAD GUARD REMOVAL	LIN. FT.	180	80	100
* 642002	SEEDING II	ACRE	10	.25	.75
* 644001	SODDING	SQ. YD.	59	53	6
* X62837	SP8CR TY A	LIN. FT.	187.5	87.5	100
* X60708	CORRUGATED POLYETHYLENE TUBING PIPE DRAINS, 4 INCH	LIN. FT.	30	10	20
* X60709	CORRUGATED POLYETHYLENE TUBING PIPE UNDERDRAINS, 4 INCH	LIN. FT.	635	80	555
* X04615	5 INCH X 9 INCH CHANNEL IRON	LIN. FT.	182	80	100
513017	FURNISHING STEEL PILES 12x74	LIN. FT.	48	48	
513019	FURNISHING STEEL PILES 14x89	LIN. FT.	72	72	
513021	FURNISHING STEEL PILES 14x117	LIN. FT.	84	34	
* X04616	PILE PLACEMENT	LIN. FT.	712	348	364

* SEE SPECIAL PROVISIONS



RETAINING WALL West Side



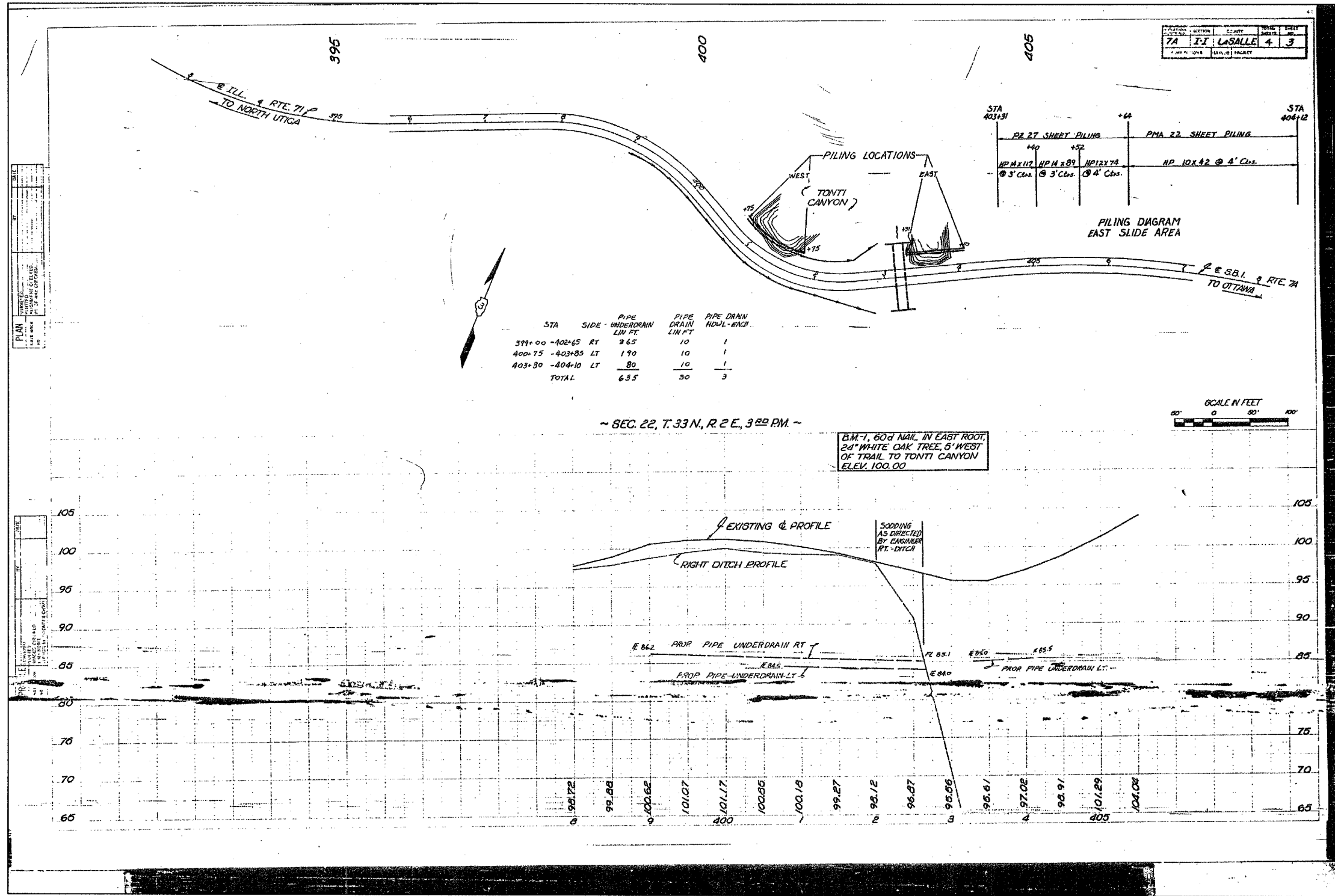
ROAD CLOSURE DETAIL

FOR INFORMATIONAL USE ONLY

DESIGNED BY J.M.L.		FILE NO. 24-6772
DRAWN BY D.J.M.		DATE 03-24-05
CHECKED BY M.S.W.		SHEET NO. 27 OF 60
2709 Old Grove Drive Bloomington, Illinois 61704 309/853-5435, 309/853-1571 fax		

EXISTING PLANS
 IL ROUTE 71
 SOLDIER PILE RETAINING WALL
 F.A.P. ROUTE 627 - SEC. (1-DI-1
 LA SALLE COUNTY
 STATION 399+91.88 TO STATION 400+87.50
 STRUCTURE NO. 050-W001

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS NO.
627	(1-11-1)	LA SALLE	60 28
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 66550	SHEET NO. B9		OF 9 SHEETS



FOR INFORMATIONAL USE ONLY

EXISTING PLANS
 IL ROUTE 71
 SOLDIER PILE RETAINING WALL
 F.A.P. ROUTE 627 - SEC. (1-11-1)
 LA SALLE COUNTY
 STATION 399+91.88 TO STATION 400+87.50
 STRUCTURE NO. 050-W001

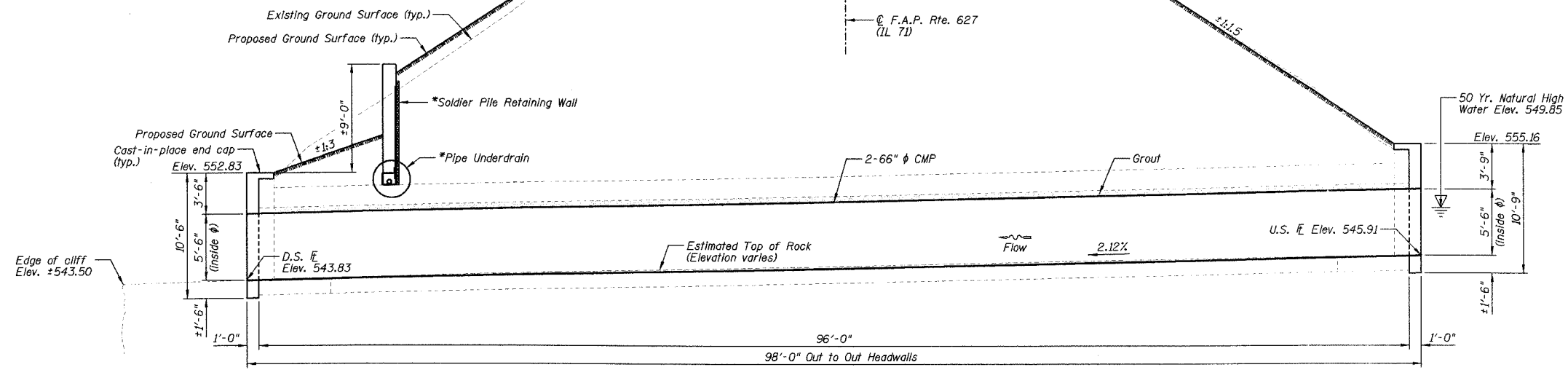
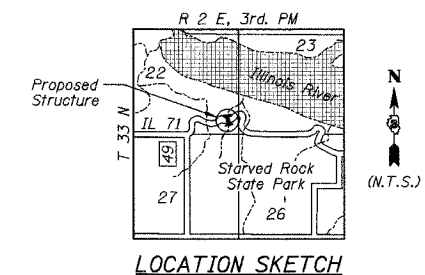
DESIGNED BY J.M.L.
 DRAWN BY D.J.M.
 CHECKED BY M.S.W.
Farnsworth GROUP
 2708 McGraw Drive
 Bloomington, Illinois 61704
 309/663-6455, 309/663-1671 fax
 FILE NO. 24-6772
 DATE 03-24-05
 SHEET NO. 28 OF 60

Benchmarks: 1.) Top of guardrail post on the South side of IL Rte. 71 @ the back center of the 10th post East from the West end of the rail @ Station 400+80.31/14.62' RT., Elevation = 581.01.
 2.) Top of guardrail post on the South side of IL Rte. 71 @ back center of the 10th post West from the East end of the rail @ Station 403+50.18/14.71' RT., Elevation = 580.64.

Existing Structure: Existing Culvert No. 9, built 1922, Section I-1 at Station 402+22.00 and carries F.A.P. 627 (IL 71) over tributary to Illinois River. Consists of a single barrel 12'x6' reinforced concrete box culvert with wingwalls parallel to the roadway and the out to out of headwall length = 96'-0". Traffic will be maintained during construction via detour routes.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	29
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66550		SHEET NO. C1		

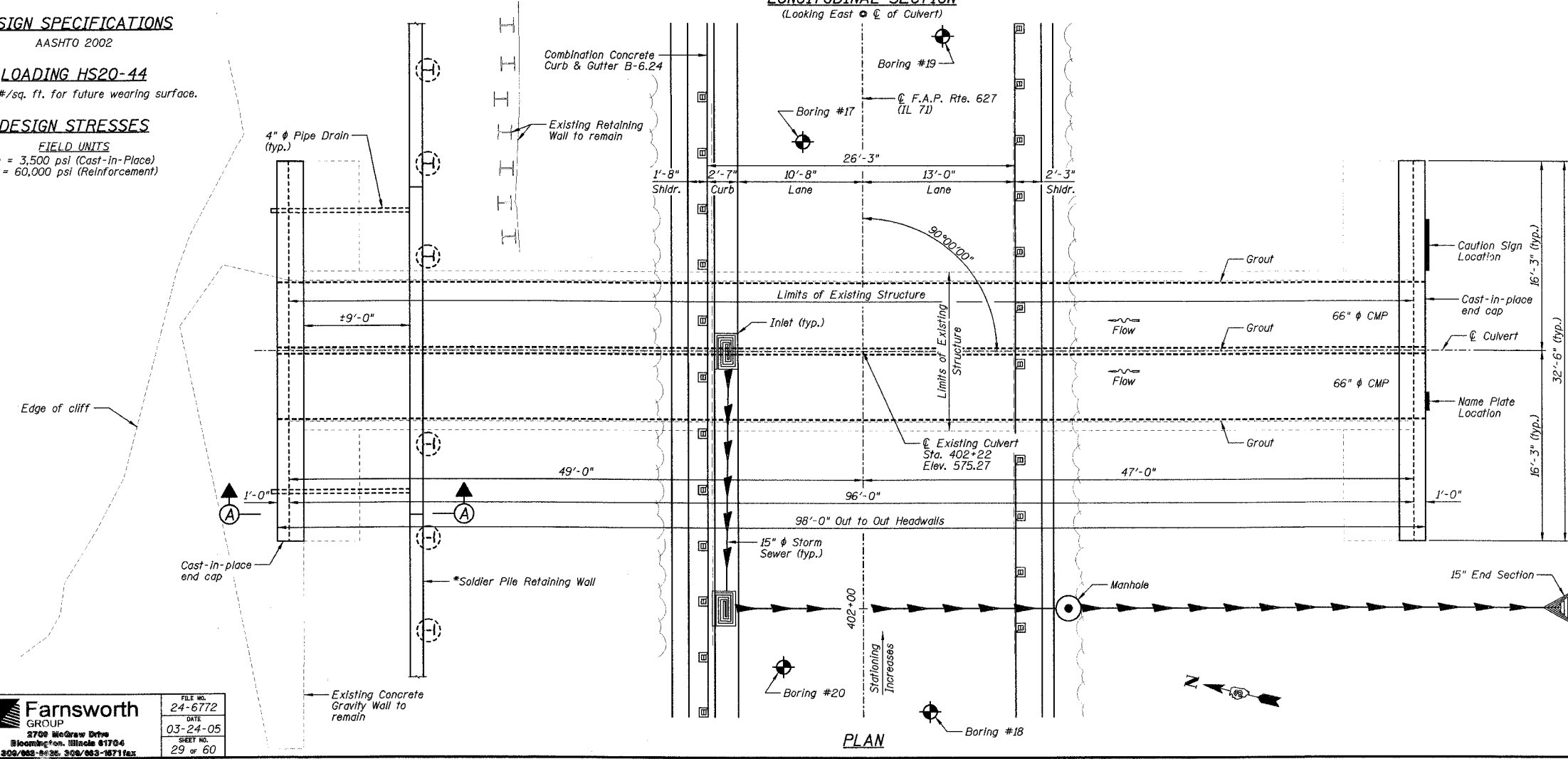
OF 6 SHEETS



DESIGN SPECIFICATIONS
AASHTO 2002

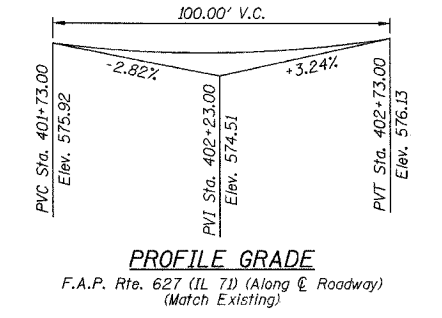
LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi (Cast-in-Place)
fy = 60,000 psi (Reinforcement)



INDEX TO SHEETS

SHEET NO.	TITLE
C1	GENERAL PLAN AND ELEVATION
C2	BOX CULVERT SECTION, DETAILS, GENERAL NOTES AND BILL OF MATERIALS
C3	SOUTH CAST-IN-PLACE END CAP PLAN, ELEVATIONS, SECTIONS AND DETAILS
C4	NORTH CAST-IN-PLACE END CAP PLAN, ELEVATIONS, SECTIONS AND DETAILS
C5-C6	EXISTING PLANS



Mark S. Wylie Date 3/24/05
 MARK S. WYLIE
 ILLINOIS STRUCTURAL ENGINEER
 NO. 081-005002
 Exp. Date 11/30/06

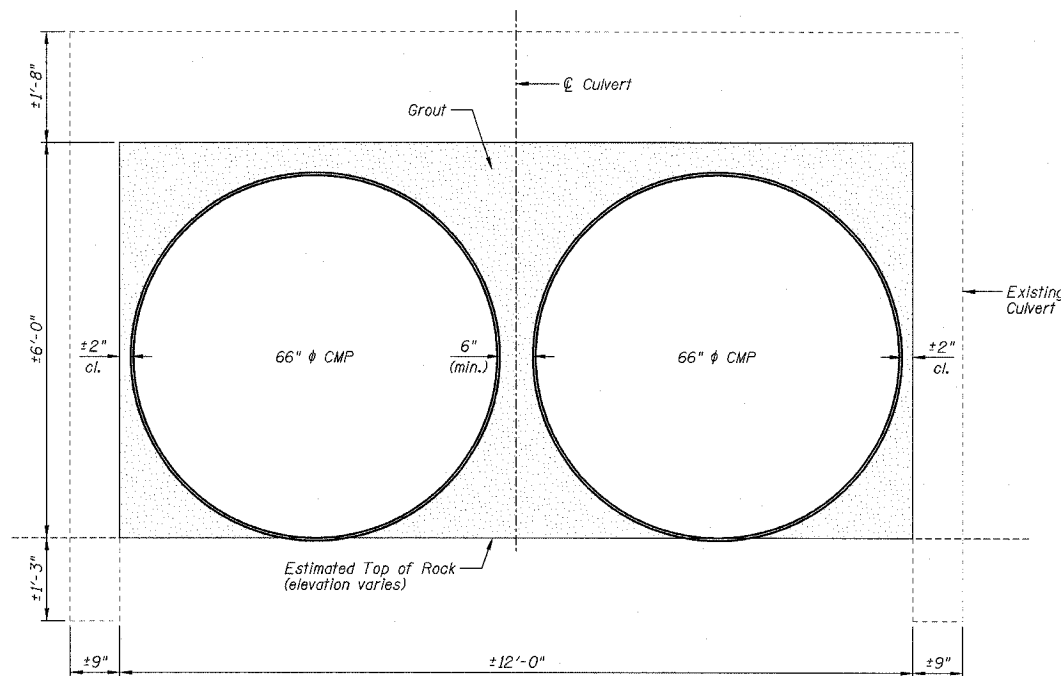
- NOTES:**
- 1.) Work this sheet with Sheets C2 thru C4.
 - 2.) *See Soldier Pile Retaining Wall plans, Structure No. 050-W003, Sheets D1 thru D4.
 - 3.) For Section A-A see Sheet C2.
 - 4.) P.G.L. denotes Profile Grade Line.

GENERAL PLAN AND ELEVATION
 IL ROUTE 71
 OVER TRIBUTARY TO ILLINOIS RIVER
 F.A.P. ROUTE 627 - SEC. (1-1)I-1
 LA SALLE COUNTY
 STATION 402+22.00
 STRUCTURE NO. 050-C803

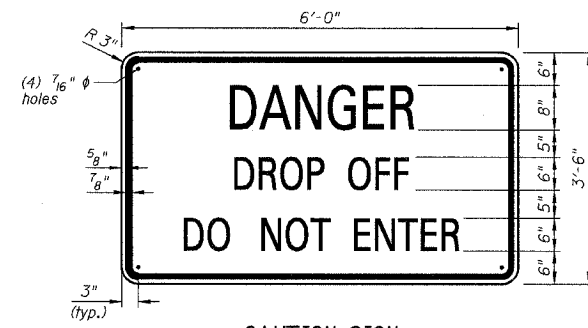
DESIGNED BY J.M.L.	 2700 McGraw Drive Bloomington, Illinois 61704 309/883-8836, 309/883-1871 fax	FILE NO. 24-6772
DRAWN BY D.J.M.		DATE 03-24-05
CHECKED BY M.S.W.		SHEET NO. 29 of 60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	30
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 66550			SHEET NO. C2	

OF 6 SHEETS



SECTION THRU STRUCTURE

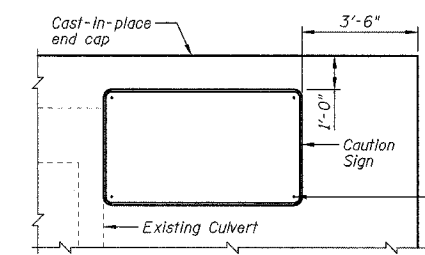


NAME PLATE DETAIL
Sign Panel - Type 2

- NOTES:
- 1.) Total Area Required = 21.0 Sq Ft
 - 2.) 6" & 8" Series D letters
 - 3.) Legend = Black
 - 4.) Background = Yellow
 - 5.) Only high intensity sheeting shall be used.

STATION 402+22.00
BUILT 1922 REBUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RTE. 627 SECTION (1-1)I-1
F.A. PROJECT:
LOADING HS20
STR. NO. 050-C803

NAME PLATE DETAIL
See Standard 515001



CAUTION SIGN LOCATION
(Looking North)

Drill (4) 7/16" x 3/2" holes in the concrete and epoxy grout a 5/8" ϕ threaded rod (304). The type of epoxy grout shall be according to Section 584 of the Standard Specifications and approved by the Engineer. Cost included with "Sign Panel - Type 2".

GENERAL NOTES:

- 1.) Cast-in-place concrete exposed edges shall be beveled 3/4 in.
- 2.) Class SI concrete shall be used throughout.
- 3.) Reinforcement bars shall conform to the requirements of AASHTO M31, M42, or M53, Grade 60.
- 4.) It shall be the responsibility of the Contractor to divert the stream flow during construction in order to keep the construction areas free of water. The method of water diversion shall be subject to the approval of the Engineer and the cost shall be included with the cost of "Concrete Structures."
- 5.) See Soldier Pile Retaining Wall Plans, Structure No. 050-W003, Sheets D5 and D6 for boring data.
- 6.) Structural seal is for cast-in-place portion of structure only.
- 7.) The end caps shown shall be cast-in-place.
- 8.) Plan dimensions and details relative to existing structure have been taken from existing plans & field information 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 for the work.
- 9.) The pipe culvert sections shall be made from precoated galvanized corrugated steel sheets. The precoated steel sheets used to fabricate these pipe culvert sections shall conform to AASHTO M245 and M246, Grade 10/3. See Section 542 and 1006 of the Standard Specifications for more information.
- 10.) The cost of removing all loose and deteriorated concrete from within the existing box culvert in order to facilitate the placement of the 66" diameter pipe culvert sections shall be included in the pay item "Pipe Culvert, Class C, Type 5 66".
- 11.) The existing plans are provided for informational use only.
- 12.) Stainless steel threaded rod, nuts, and washers used for fastening the sign panel to the concrete wingwall, shall conform to ASTM A 276, Type 304. Nuts shall conform to A 240, Type 304.
- 13.) The existing rock surface within the box culvert shall be removed in order to facilitate the insertion of the 66" diameter pipe culvert sections as directed by the Engineer.
- 14.) Contractor to take caution when working near edge of cliff.

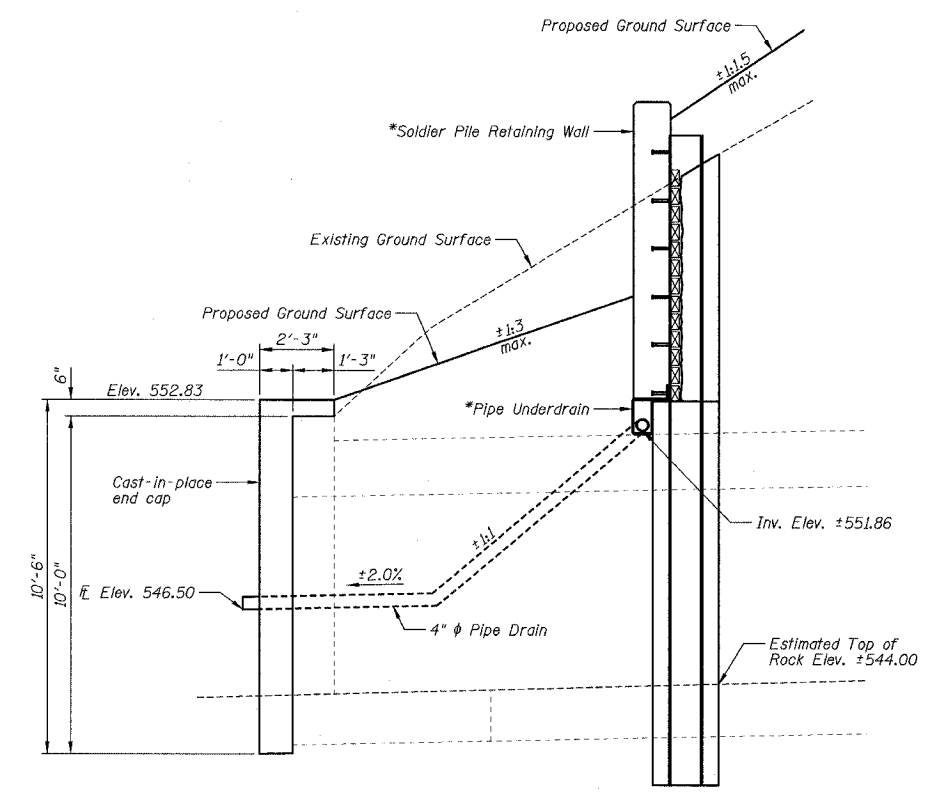
TOTAL CULVERT BILL OF MATERIALS

ITEMS	UNITS	TOTAL
Concrete Removal	Cu Yd	2.0
Structure Excavation	Cu Yd	17
Rock Excavation for Structures	Cu Yd	5
Concrete Structures	Cu Yd	26.0
Reinforcement Bars	Pound	5620
Name Plates	Each	1
Pipe Culvert, Class C, Type 5 66"	Foot	196
Sign Panel - Type 2	Sq Ft	21.0
Insertion Culvert Liner (Special)	Foot	196

WATERWAY INFORMATION

Drainage Area (Sq. Mi.) = 0.10 Existing Low Grade Elevation = 575.26 ft. @ Sta. 402+20
Proposed Low Grade Elevation = 575.26 ft. @ Sta. 402+20

Flood Year	Freq. C.F.S.	Opening (Sq. Ft.)		Ex. Nat.Pr. Nat.		Head-Ft.		Headwater El.		
		Exist.	Prop.	H.W.E.	H.W.E.	Exist.	Prop.	Exist.	Prop.	
Design	50	196	40	36	545.60	545.91	3.32	3.94	548.92	549.85
Base	100	228	44	40	545.60	545.91	3.67	4.33	549.27	550.24
Overtopping	-	-	-	-	-	-	-	-	-	-
Max. Calc.	500	308	54	47	545.60	545.91	4.48	5.27	550.08	551.18



SECTION A-A

NOTES:

- 1.) Work this sheet with Sheets C1 and C4.
- 2.) For location of Section A-A see Sheet C1.
- 3.) See Soldier Pile Retaining Wall plans, Structure No. 050-W003, Sheets D1 thru D4.

BOX CULVERT SECTION, DETAILS,
GENERAL NOTES AND BILL OF MATERIALS

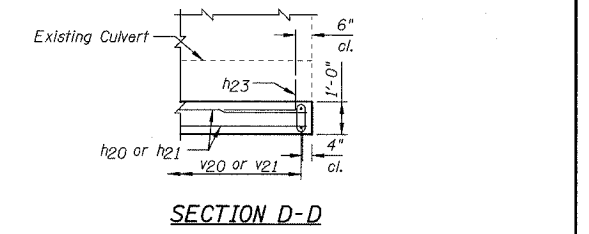
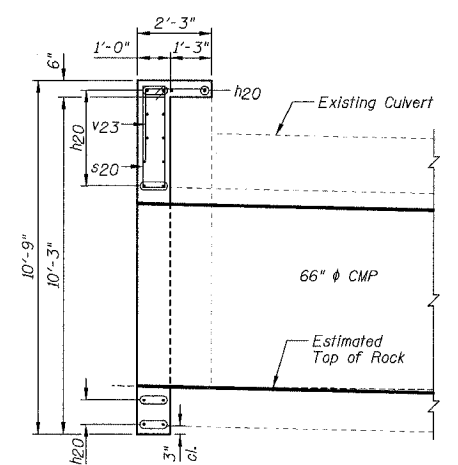
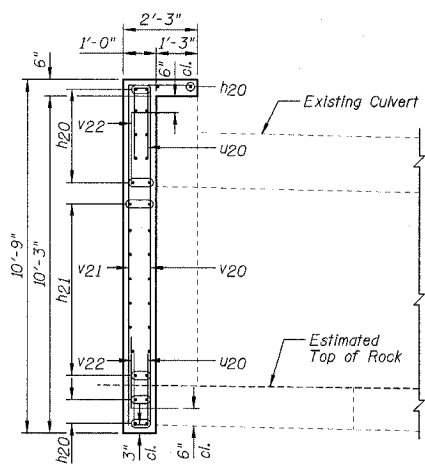
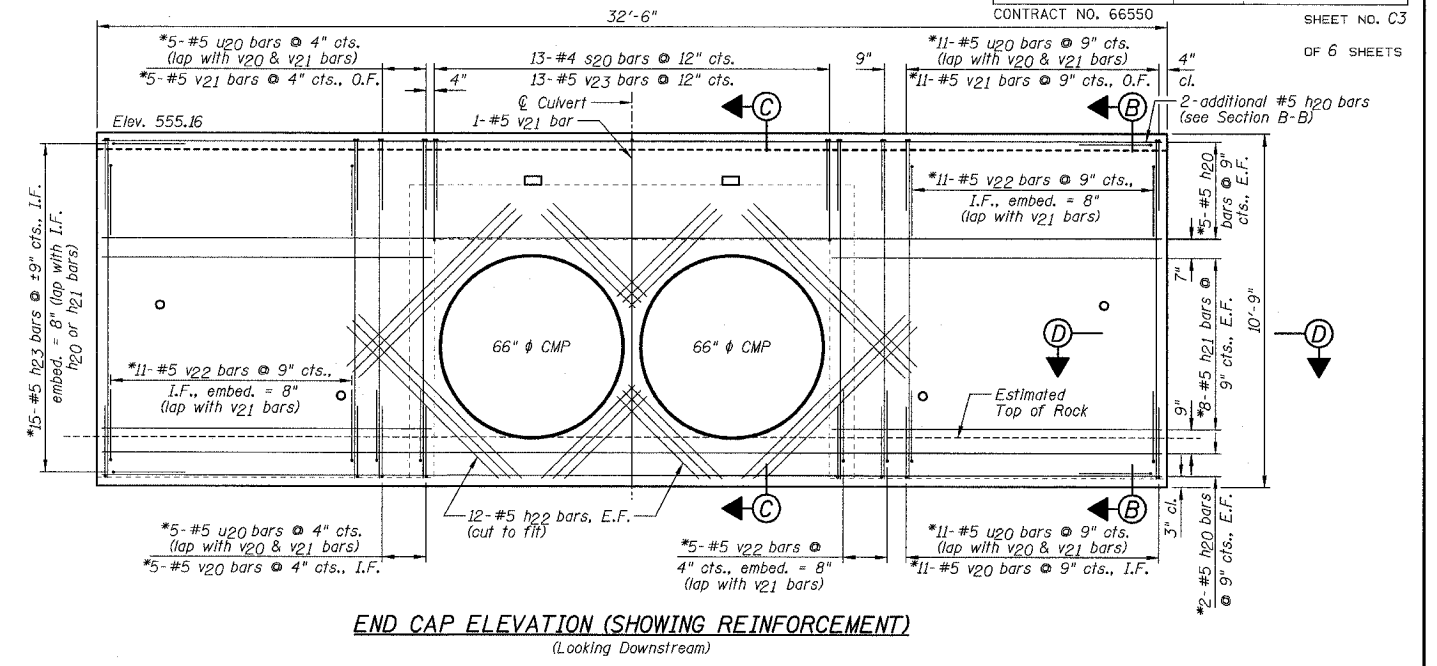
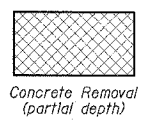
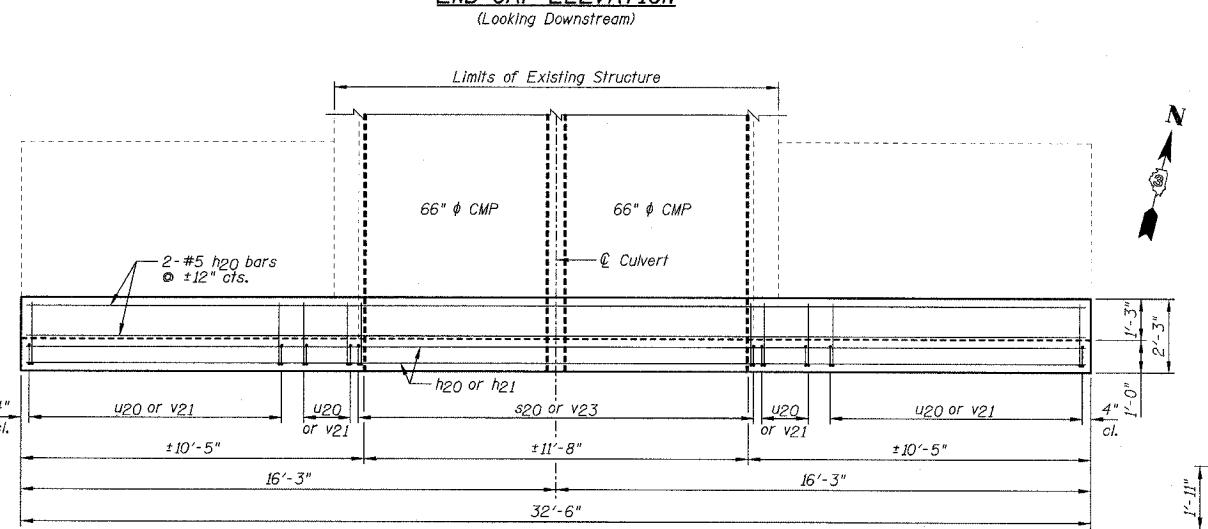
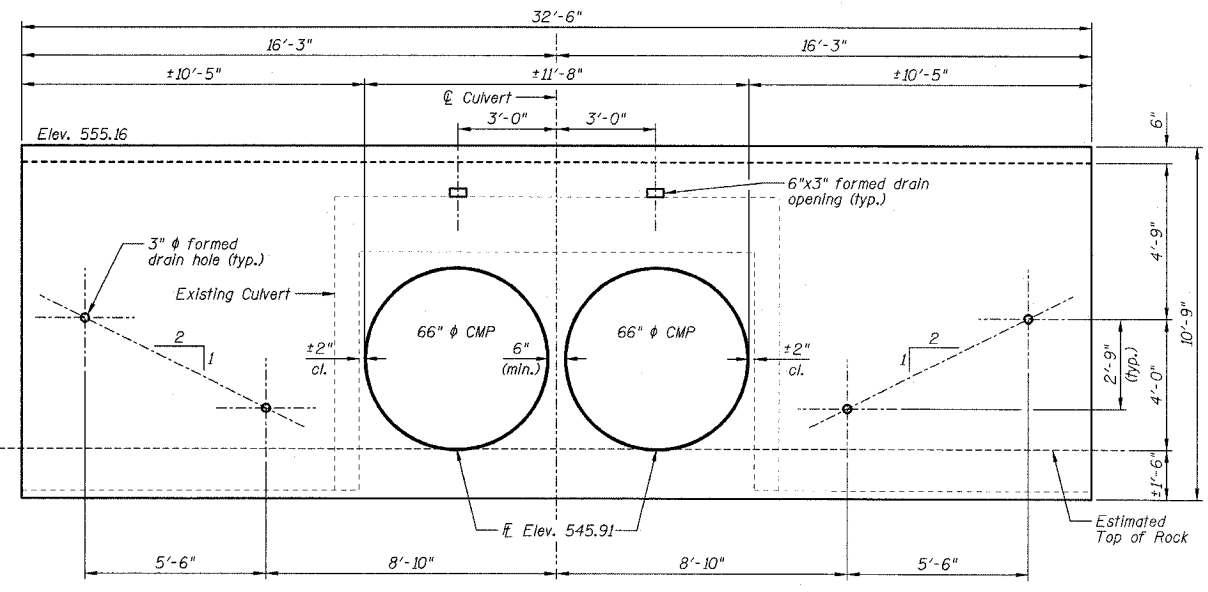
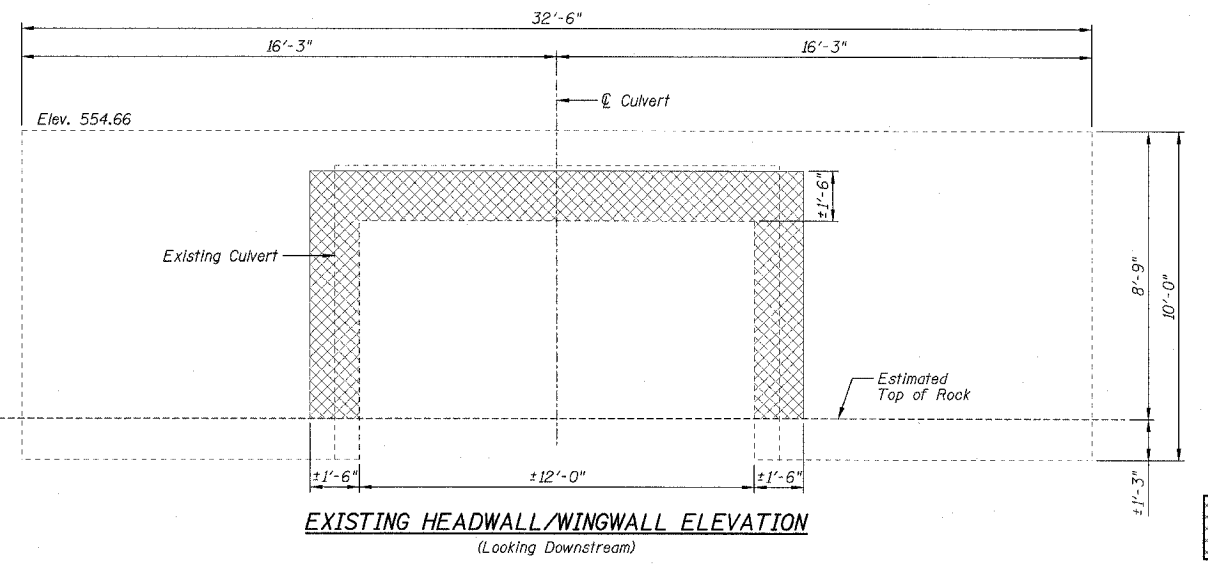
IL ROUTE 71
OVER TRIBUTARY TO ILLINOIS RIVER
F.A.P. ROUTE 627 - SEC. (1-1)I-1
LA SALLE COUNTY
STATION 402+22.00
STRUCTURE NO. 050-C803

DESIGNED BY: J.M.L.
DRAWN BY: D.J.M.
CHECKED BY: M.S.W.

Farnsworth GROUP
2700 McGraw Drive
Bloomington, Illinois 61706
808/853-8438, 808/853-1871 fax

FILE NO. 24-6772
DATE 03-24-05
SHEET NO. 30 OF 60

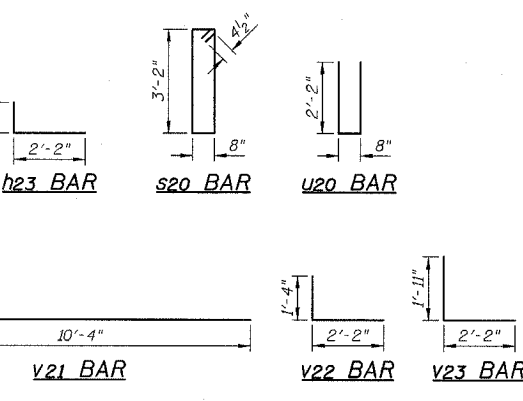
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	31
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 66550			SHEET NO. C3	
			OF 6 SHEETS	



- NOTES:**
- 1.) Work this sheet with Sheets C1, C2 & C4.
 - 2.) Minimum lap length: #5 bar = 2'-2"
 - 3.) The existing concrete within the hatched area denoted as "Concrete Removal (partial depth)" shall have all loose, unsound concrete removed completely to a depth approved by the Engineer. Cost included with "Concrete Removal".
 - 4.) Existing reinforcement extending into new concrete shall be cleaned, straightened and incorporated into the new construction. Cost included with "Concrete Removal".
 - 5.) Drill & epoxy grout h23 and v22 bars in 8" (min.) drilled holes according to Section 584 of the Standard Specifications.
 - 6.) The type of epoxy grout shall be approved by the Engineer.
 - 7.) E.F. denotes Each Face I.F. denotes Inside Face O.F. denotes Outside Face
 - 8.) Cut the h22 bars as required to fit diagonally around the 66" ϕ pipe culverts (min. 3" clearance from the 66" ϕ pipe culverts).
 - 9.) The concrete cover over reinforcement shall be 2" clear unless otherwise noted.
 - 10.) All proposed formed openings shown on the End Cap Elevation shall be extended through the existing headwall and wingwalls. The cost of removing the existing concrete to facilitate these openings will be included with "Concrete Removal".
 - 11.) Space reinforcement bars to miss proposed formed openings.
 - 12.) *The reinforcement bars are designated in one location on the End Cap Elevation (Showing Reinforcement), but are symmetrical about the centerline of the culvert.

BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h20	16	#5	32'-2"	—
h21	32	#5	9'-11"	—
h22	48	#5	7'-0"	—
h23	30	#5	3'-1"	—
s20	13	#4	8'-5"	□
u20	64	#5	5'-0"	—
v20	32	#5	10'-4"	—
v21	33	#5	12'-3"	—
v22	54	#5	3'-6"	—
v23	13	#5	4'-1"	—
Item	Unit	Quantity		
Reinforcement Bars	Pound	2740		
Concrete Structures	Cu Yd	11.9		
Concrete Removal	Cu Yd	1.0		



DESIGNED BY J.M.L.
 DRAWN BY D.J.M.
 CHECKED BY M.S.W.

Farnsworth GROUP
 2700 McGraw Drive
 Bloomington, Illinois 61704
 302/883-8436, 302/883-6711 fax

FILE NO. 24-6772
 DATE 03-24-05
 SHEET NO. 31 OF 60

SOUTH CAST-IN-PLACE END CAP PLAN, ELEVATIONS, SECTIONS AND DETAILS

IL ROUTE 71

OVER TRIBUTARY TO ILLINOIS RIVER

F.A.P. ROUTE 627 - SEC. (1-1)I-1

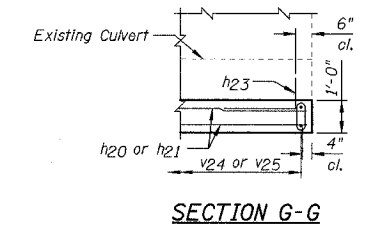
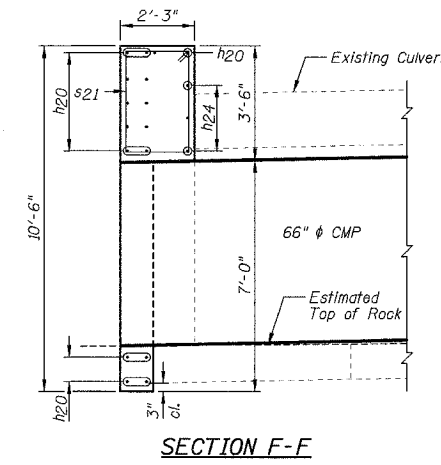
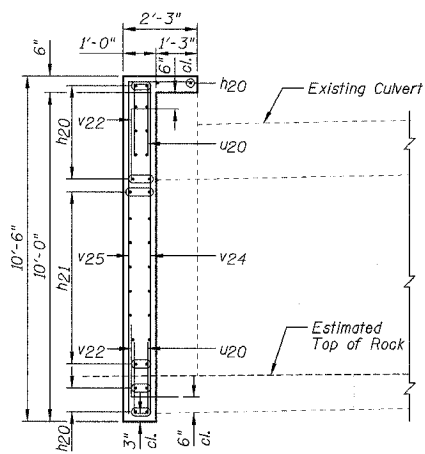
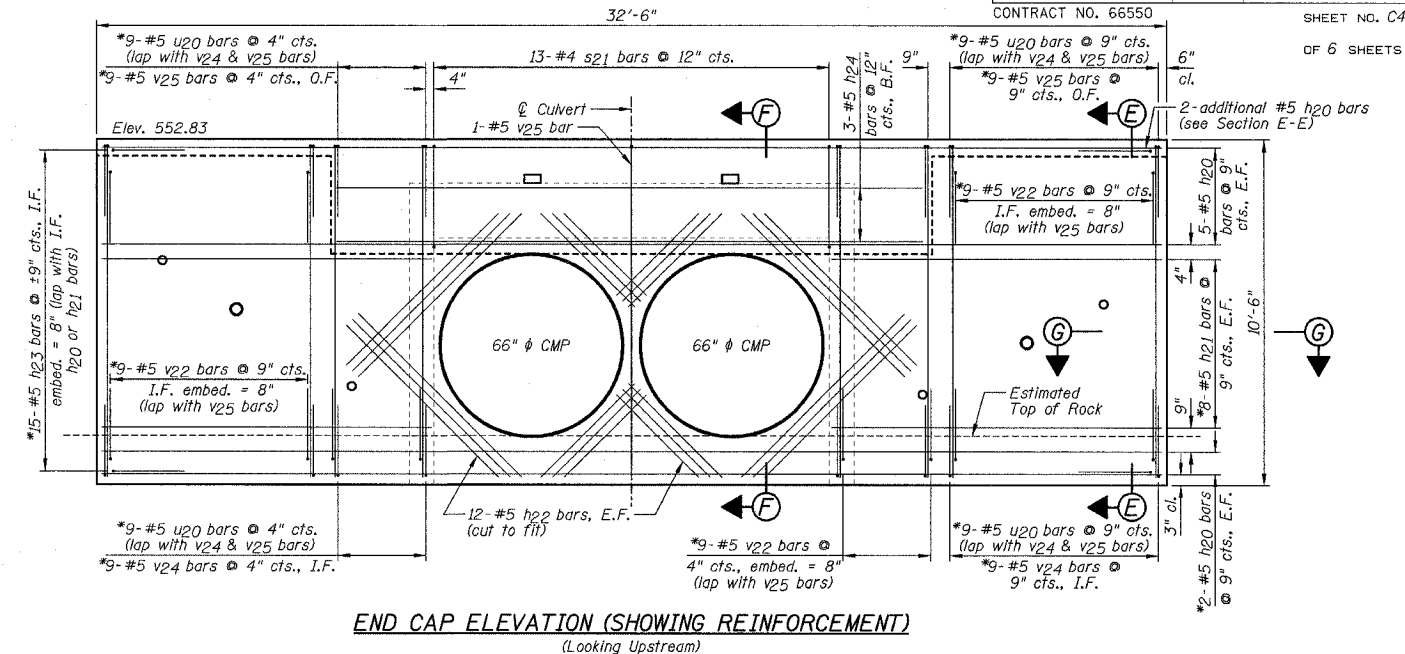
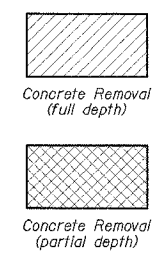
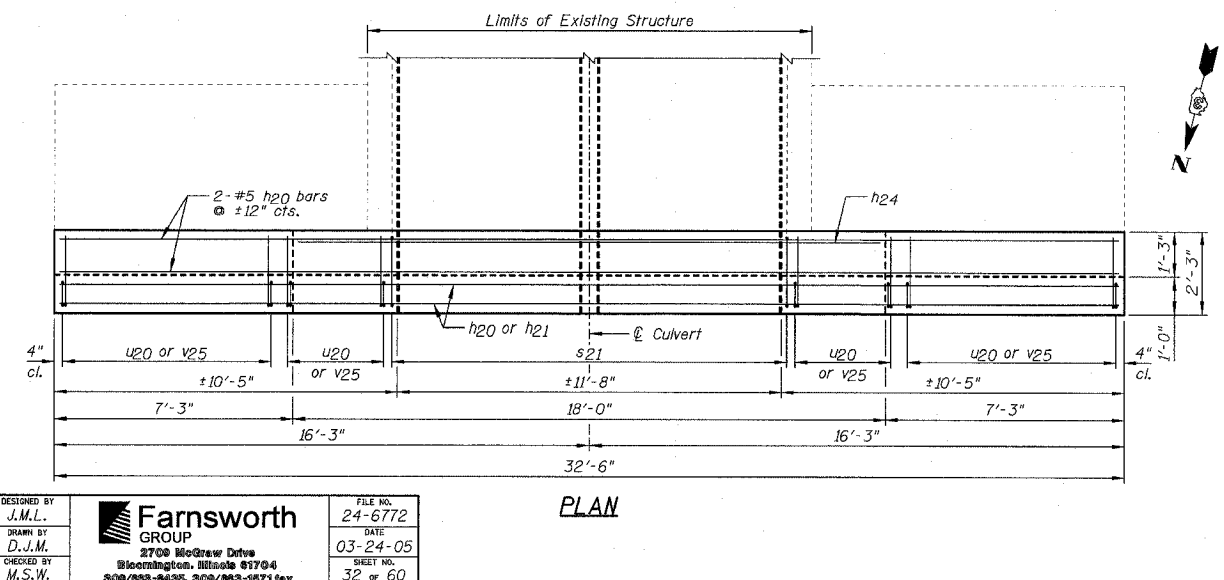
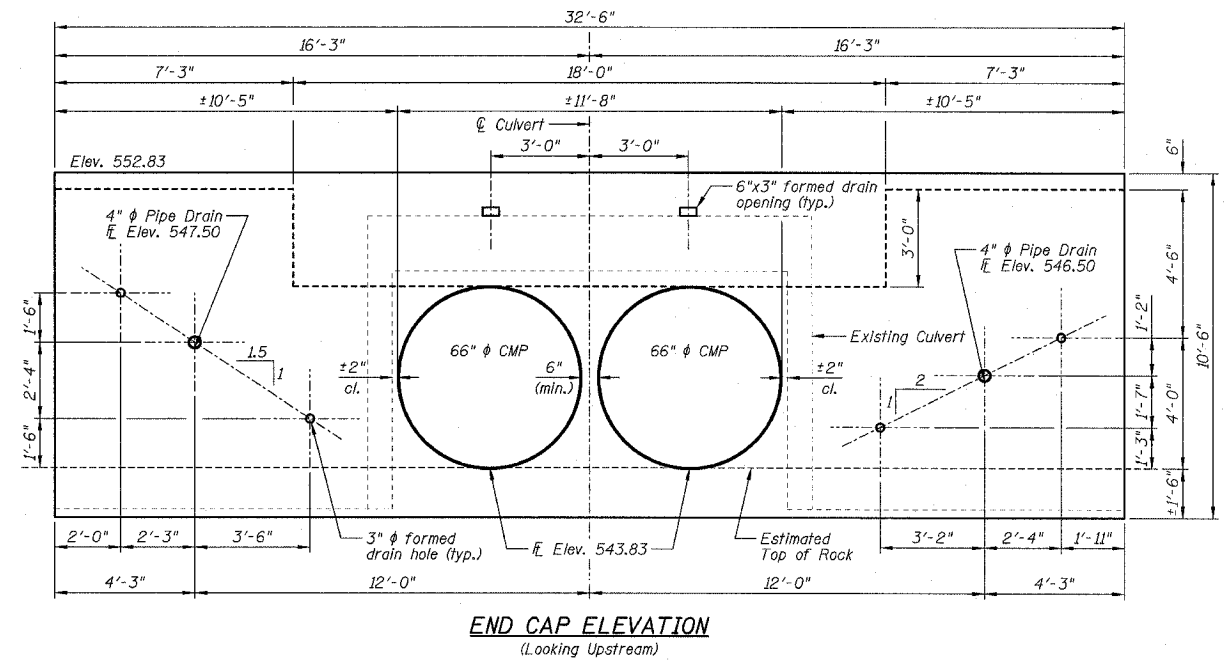
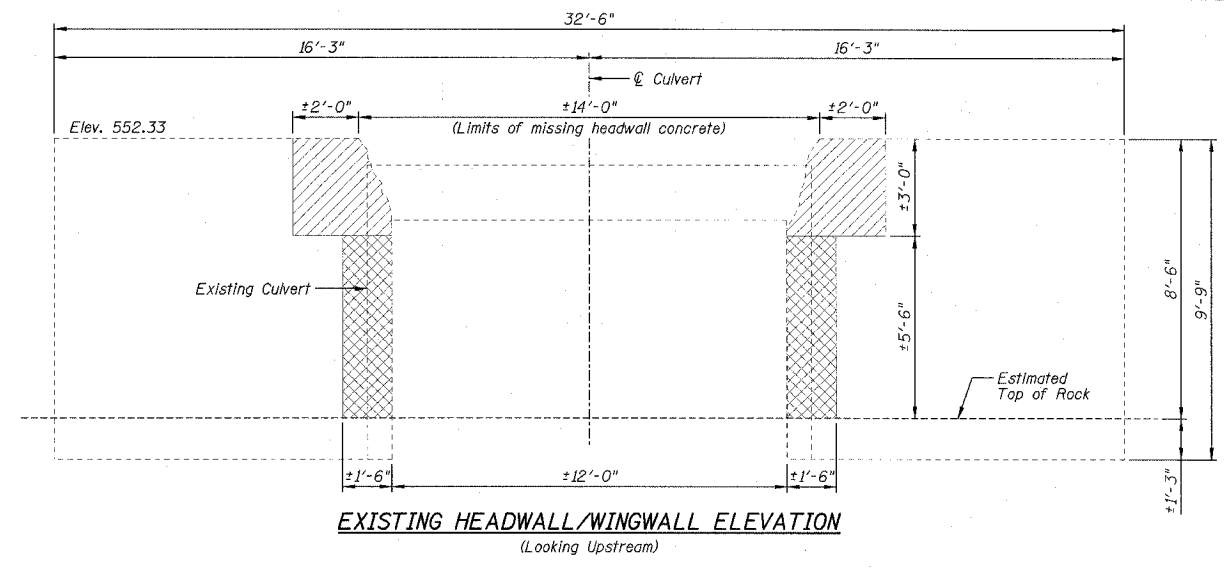
LA SALLE COUNTY

STATION 402+22.00

STRUCTURE NO. 050-C803

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-11-1)	LA SALLE	60	32
STA.	TO STA.			
	ILLINOIS FED. AID PROJECT			
FED. ROAD DIST. NO.	CONTRACT NO. 66550		SHEET NO. C4	

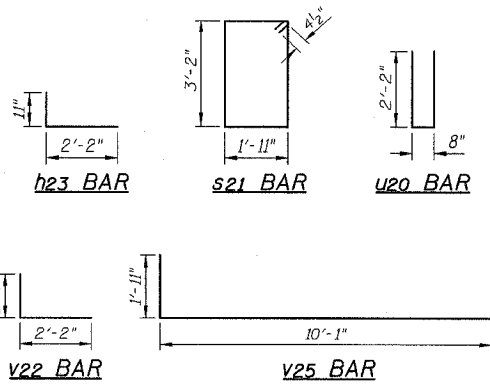
OF 6 SHEETS



- NOTES:**
- 1.) Work this sheet with Sheets C1 thru C3.
 - 2.) Minimum lap length: #5 bar = 2'-2"
 - 3.) The existing concrete within the hatched area denoted as "Concrete Removal (partial depth)" shall have all loose, unsound concrete removed completely to a depth approved by the Engineer. Cost included with "Concrete Removal".
 - 4.) Existing reinforcement not extended into new concrete shall be cut off flush.
 - 5.) Existing reinforcement extending into new concrete shall be cleaned, straightened and incorporated into the new construction. Cost included with "Concrete Removal".
 - 6.) Drill & epoxy grout h23 and v25 bars in 8" (min.) drilled holes according to Section 584 of the Standard Specifications.
 - 7.) The type of epoxy grout shall be approved by the Engineer.
 - 8.) E.F. denotes Each Face I.F. denotes Inside Face O.F. denotes Outside Face B.F. denotes Back Face
 - 9.) Cut the h22 bars as required to fit diagonally around the 66" pipe culverts (min. 3" clearance from the 66" pipe culverts).
 - 10.) The concrete cover over reinforcement shall be 2" clear unless otherwise noted.
 - 11.) All proposed formed openings shown on the End Cap Elevation shall be extended through the existing headwall and wingwalls. The cost of removing the existing concrete to facilitate these openings will be included with "Concrete Removal".
 - 12.) Space reinforcement bars to miss proposed formed openings.
 - 13.) *The reinforcement bars are designated in one location on the End Cap Elevation (Showing Reinforcement), but are symmetrical about the centerline of the culvert.

BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h20	16	#5	32'-2"	—
h21	32	#5	9'-11"	—
h22	48	#5	7'-0"	—
h23	30	#5	3'-1"	—
h24	3	#5	17'-8"	—
s21	13	#4	10'-11"	□
u20	72	#5	5'-0"	—
v22	54	#5	3'-6"	—
v24	36	#5	10'-1"	—
v25	37	#5	12'-0"	—
Item	Unit	Quantity		
Reinforcement Bars	Pound	2880		
Concrete Structures	Cu Yd	14.1		
Concrete Removal	Cu Yd	1.0		



DESIGNED BY J.M.L. FILE NO. 24-6772
 DRAWN BY D.J.M. DATE 03-24-05
 CHECKED BY M.S.W. SHEET NO. 32 OF 60

Farnsworth GROUP
 2709 McGraw Drive
 Bloomington, Illinois 61704
 309/858-9435 309/858-1671 fax

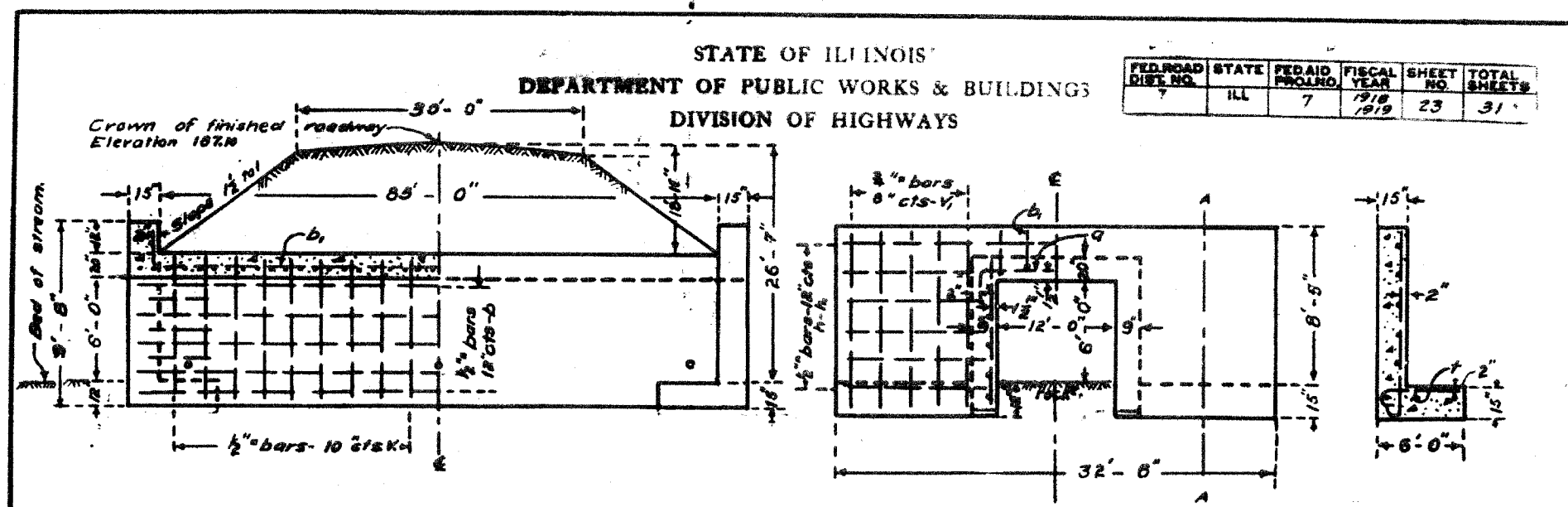
NORTH CAST-IN-PLACE END CAP PLAN, ELEVATIONS, SECTIONS AND DETAILS
 IL ROUTE 71
 OVER TRIBUTARY TO ILLINOIS RIVER
 F.A.P. ROUTE 627 - SEC. (1-11-1)
 LA SALLE COUNTY
 STATION 402+22.00
 STRUCTURE NO. 050-C803

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-DI-1	LA SALLE	60	33
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66550		SHEET NO. C5		

OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	ILL	7	1918 1919	23	31

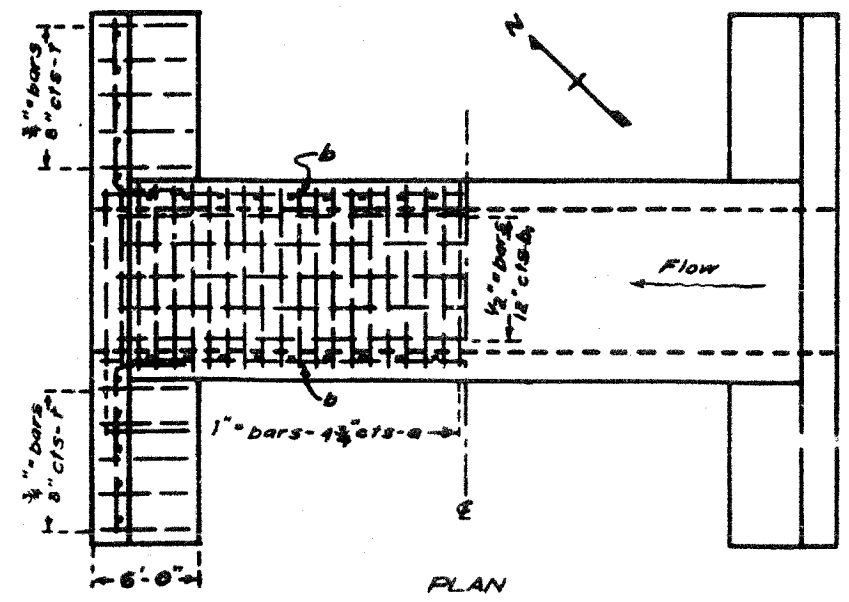
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



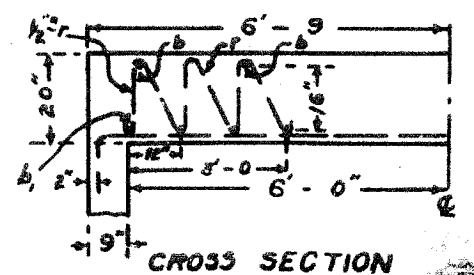
LONGITUDINAL SECTION ELEVATION

END ELEVATION SECTION A-A.

SHOWING REINFORCEMENT SHOWING OUTLINES.



PLAN SHOWING REINFORCEMENT. SHOWING OUTLINES.



CROSS SECTION

SHOWING SHEAR BARS.
Place one 7" bar on each end of alternate floor bars.

BILL OF MATERIAL.

Bars	No.	Size	Length
v	205	1/2"	8'-6"
v	38	3/4"	11'-6"
h	4	1/2"	17'-0"
h	36	1/2"	11'-0"
a	210	1"	16'-0"
b	60	1/2"	27'-9"
b	36	3/4"	27'-0"
l	60	3/4"	6'-6"
e	226	1/2"	10'-0"
Steel - Lbs.			19240
Concrete - Cu. Yd.			133.0

Class A concrete to be used throughout. Proportions 1:2 1/2:4.

B.M. No. 32. Spike on canyon side in 20" oak 15' left Sta 401+66. Elev. 200.27

APPROVED: *Clifford Olden*
CHIEF HIGHWAY ENGINEER

PASSED: *Frank J. Smith*
ENGINEER OF DESIGN

Revised 11-11-19

STATION. 403+21.
Federal Aid.
Project 7. Section I.
Morris - Henry Road.
La Salle County.

JBI Rt 7-A

FOR INFORMATIONAL
USE ONLY

EXISTING PLANS
IL ROUTE 71
OVER TRIBUTARY TO ILLINOIS RIVER
F.A.P. ROUTE 627 - SEC. (1-DI-1
LA SALLE COUNTY
STATION 402+22.00
STRUCTURE NO. 050-C803

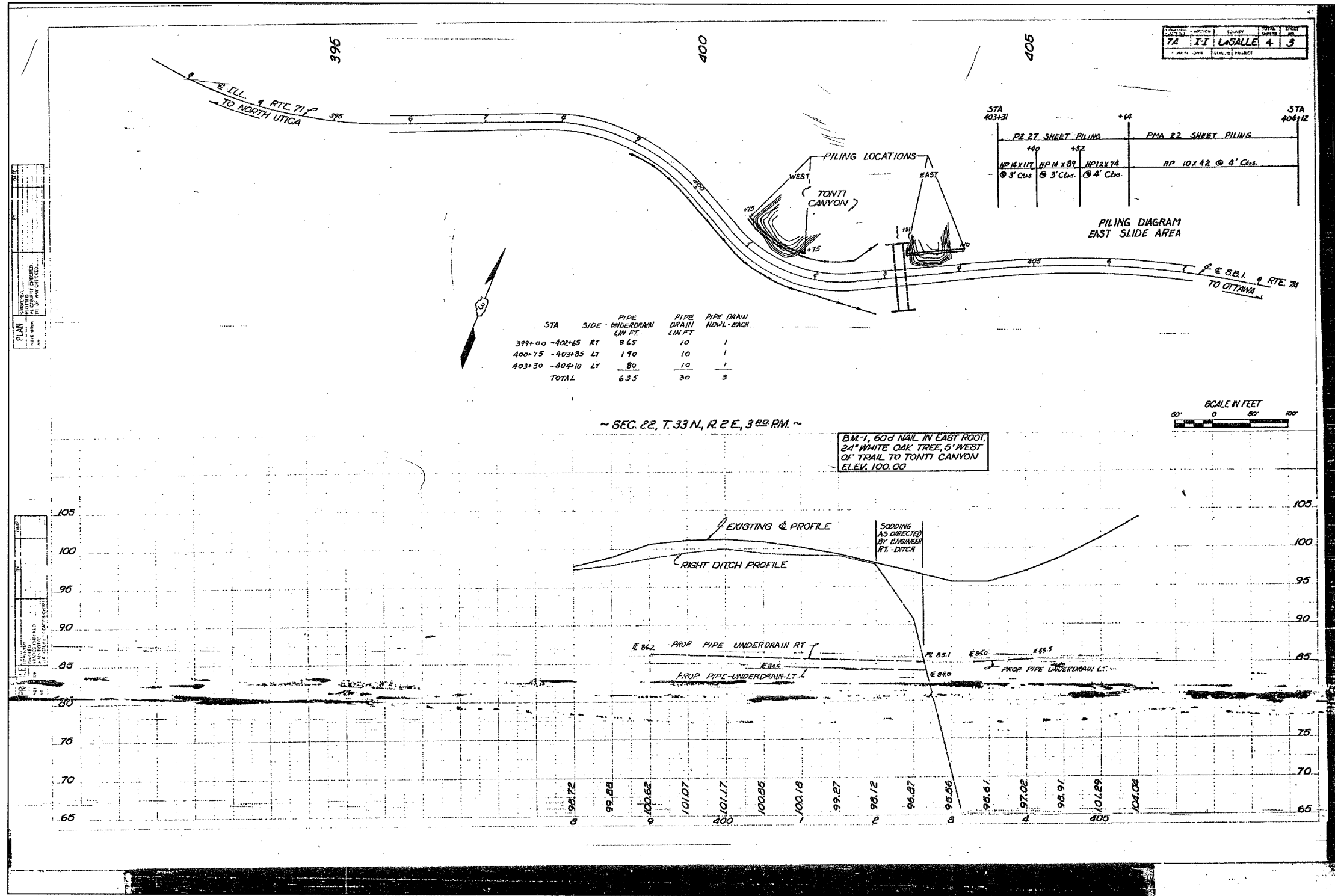
DESIGNED BY: J.M.L.
DRAWN BY: D.J.M.
CHECKED BY: M.S.W.

Farnsworth GROUP
2700 McGraw Drive
Bloomington, Illinois 61704
302/955-5455, 302/955-1871 fax

FILE NO. 24-6772
DATE 03-24-05
SHEET NO. 33 of 60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	34
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 66550	SHEET NO. C6			

OF 6 SHEETS



FOR INFORMATIONAL USE ONLY

DESIGNED BY J.M.L.
 DRAWN BY D.J.M.
 CHECKED BY M.S.W.

Farnsworth GROUP
 2700 MacBrew Drive
 Bloomington, Illinois 61704
 302/883-9438 302/883-1671 fax

FILE NO. 24-6772
 DATE 03-24-05
 SHEET NO. 34 of 60

EXISTING PLANS
 IL ROUTE 71
 OVER TRIBUTARY TO ILLINOIS RIVER
 F.A.P. ROUTE 627 - SEC. (1-1)I-1
 LA SALLE COUNTY
 STATION 402+22.00
 STRUCTURE NO. 050-C803

Benchmarks: 1.) Top of guardrail post on the South side of IL Rte. 71 @ the back center of the 10th post East from the West end of the rail @ Station 400+80.31/14.62' RT., Elevation = 581.01.
 2.) Top of guardrail post on the South side of IL Rte. 71 @ back center of the 10th post West from the East end of the rail @ Station 403+50.18/14.71' RT., Elevation = 580.64.

Existing Structure: Existing Culvert No. 9, built 1922, Section I-1 at Station 402+22.00 and carries F.A.P. 627 (IL 71) over tributary to Illinois River. Consists of a single barrel 12'x6" reinforced concrete box culvert with wingwalls parallel to the roadway and the out to out of headwall length = 96'-0". Traffic will be maintained during construction via detour routes.

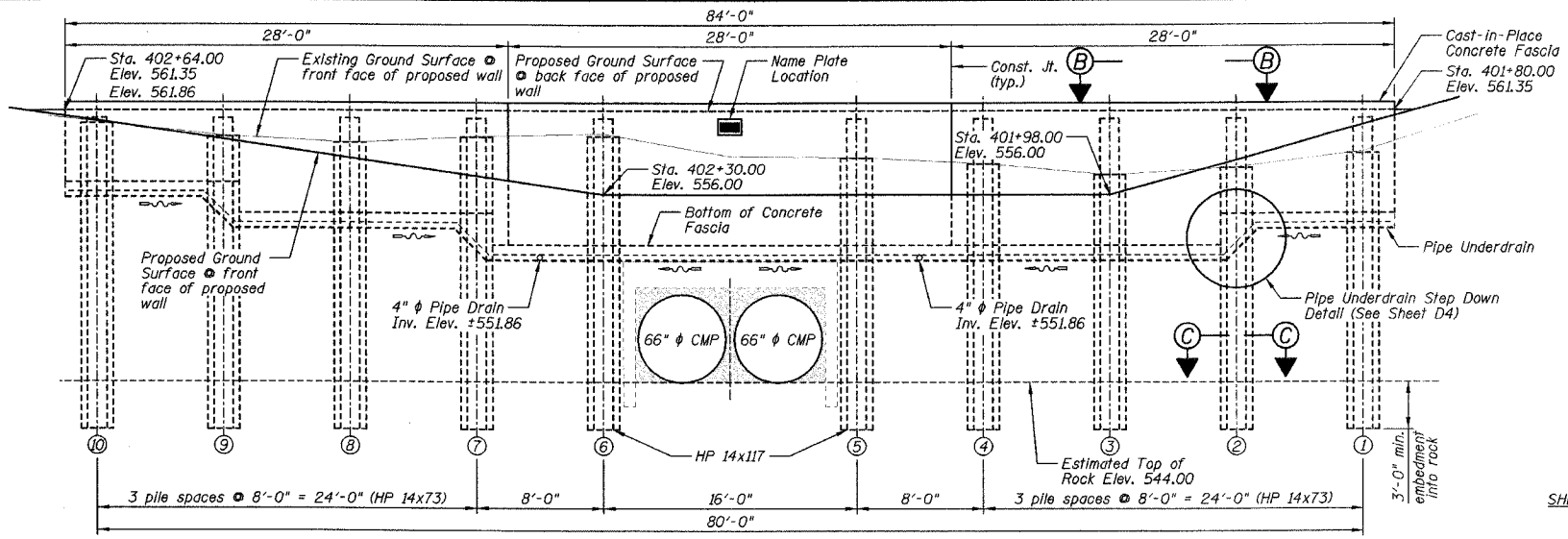
DESIGN SPECIFICATIONS
AASHTO 2002

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi (Cast-In-Place Concrete)
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (Soldier Pile Steel)

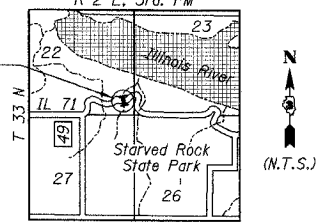
CONSTRUCTION SEQUENCE:

- 1.) Excavate working platform and drill shaft excavation for soldier pile. Embedment into rock shall be as shown on the plans.
- 2.) Set soldier pile in the shaft excavation and brace to maintain proper pile position.
- 3.) Place encasement concrete around soldier pile to the bottom of the C.I.P. concrete fascia, and Controlled Low Strength Material (CLSM) to the excavated ground surface.
- 4.) Excavate in front of wall in stages removing only the soil necessary to place each timber lagging snug against excavated surface. (Removal of the Existing Retaining Wall shall be done during this sequence.)
- 5.) After the lagging has been placed to the depths shown in the plans, the Geocomposite Wall Drain shall be attached to and cover the untreated timber lagging.
- 6.) The French Drain shall be excavated, lined with fabric, pipe and aggregate placed and connected to the Geocomposite Wall Drain as shown on the plans.
- 7.) Attach stud shear connectors, set reinforcement, form and pour C.I.P. concrete fascia.



ELEVATION
(Looking South)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
627	(1-11-1)	LA SALLE	60 35
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 66550			SHEET NO. D1



LOCATION SKETCH

INDEX TO SHEETS

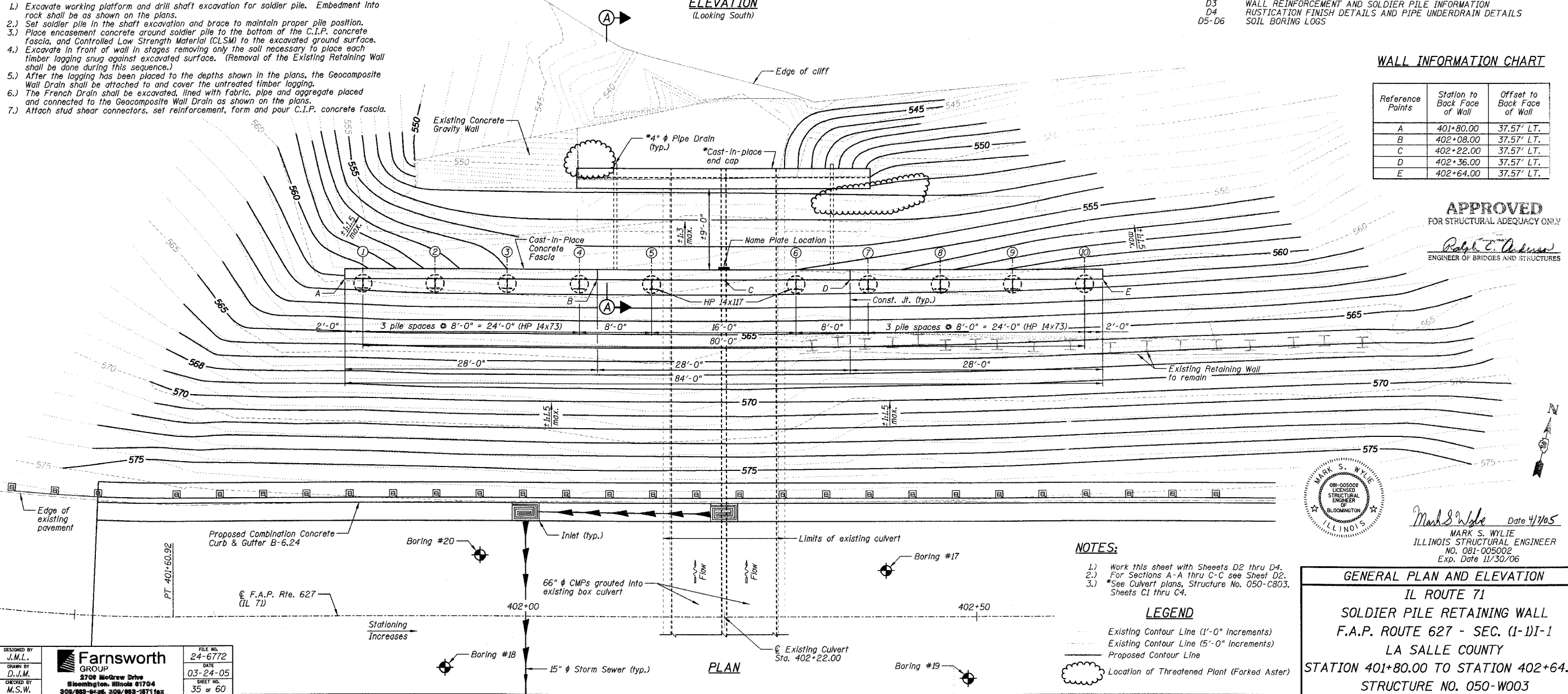
SHEET NO.	TITLE
D1	GENERAL PLAN AND ELEVATION
D2	GENERAL NOTES, BILL OF MATERIALS, SECTIONS AND DETAILS
D3	WALL REINFORCEMENT AND SOLDIER PILE INFORMATION
D4	RUSTICATION FINISH DETAILS AND SOLDIER PILE INFORMATION
D5-D6	SOIL BORING LOGS

WALL INFORMATION CHART

Reference Points	Station to Back Face of Wall	Offset to Back Face of Wall
A	401+80.00	37.57' LT.
B	402+08.00	37.57' LT.
C	402+22.00	37.57' LT.
D	402+36.00	37.57' LT.
E	402+64.00	37.57' LT.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



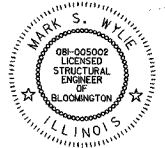
PLAN

NOTES:

- 1.) Work this sheet with Sheets D2 thru D4.
- 2.) For Sections A-A thru C-C see Sheet D2.
- 3.) See Culvert plans, Structure No. 050-C803, Sheets C1 thru C4.

LEGEND

	Existing Contour Line (1'-0" Increments)
	Existing Contour Line (5'-0" Increments)
	Proposed Contour Line
	Location of Threatened Plant (Forked Aster)



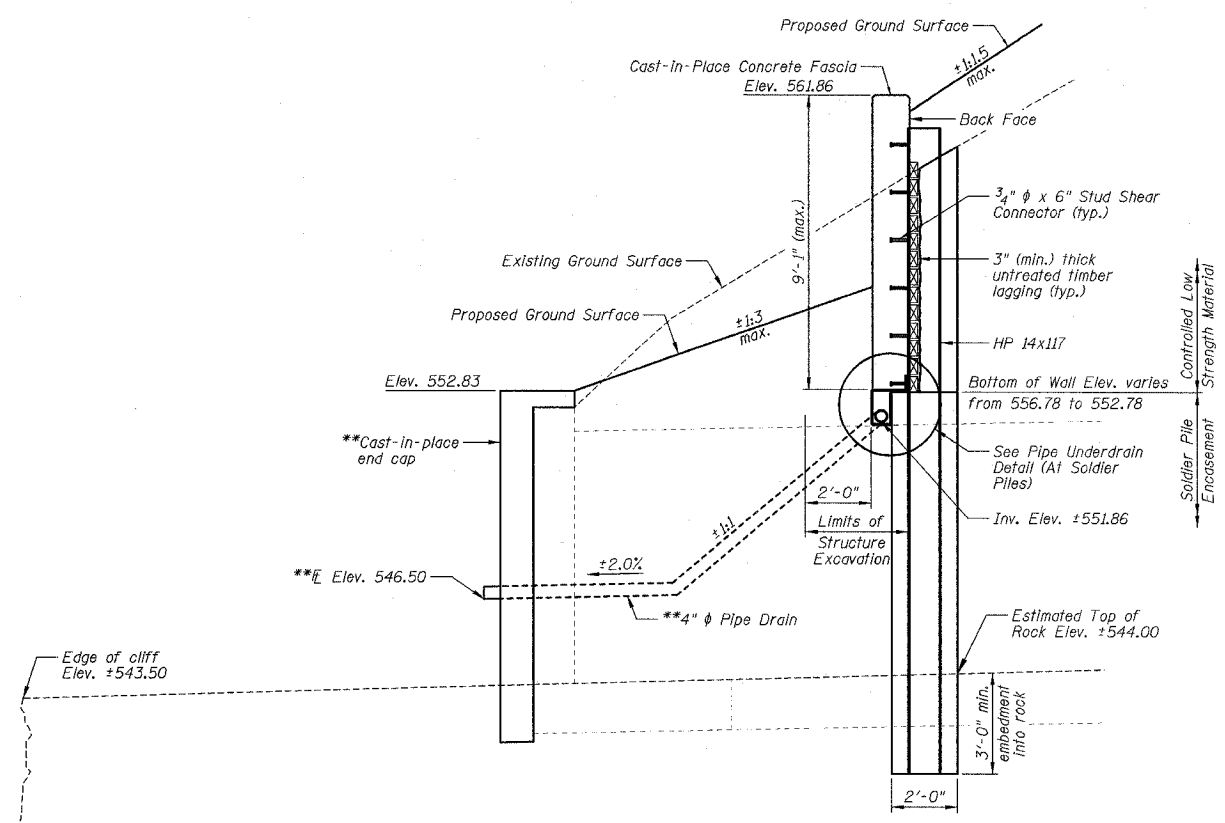
Mark S. Wylie Date 4/1/05
 MARK S. WYLIE
 ILLINOIS STRUCTURAL ENGINEER
 NO. 081-005002
 Exp. Date 11/30/06

GENERAL PLAN AND ELEVATION
 IL ROUTE 71
 SOLDIER PILE RETAINING WALL
 F.A.P. ROUTE 627 - SEC. (1-11-1)
 LA SALLE COUNTY
 STATION 401+80.00 TO STATION 402+64.00
 STRUCTURE NO. 050-W003

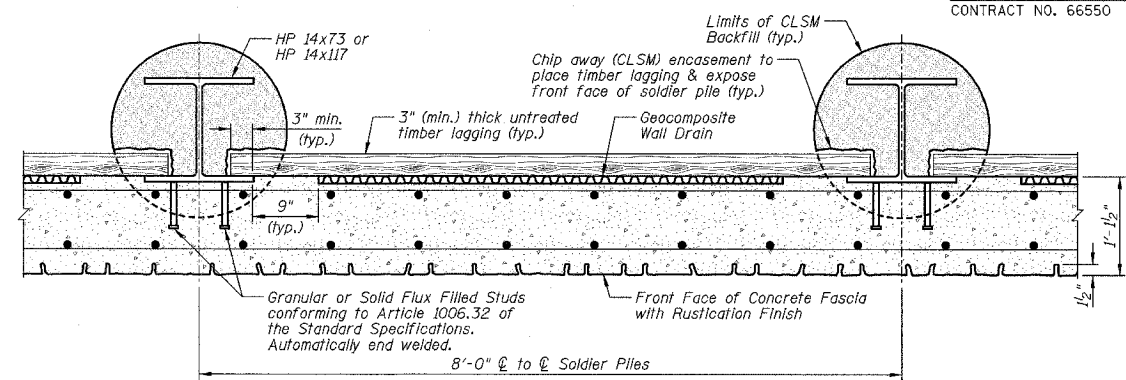
DESIGNED BY J.M.L.	Farnsworth GROUP 2709 McGraw Drive Bloomington, Illinois 61704 309/963-9446 309/963-8771 fax	FILE NO. 24-6772
DRAWN BY D.J.M.		DATE 03-24-05
CHECKED BY M.S.W.		SHEET NO. 35 of 60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-DI-1)	LA SALLE	60	36
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 66550			SHEET NO. D2	

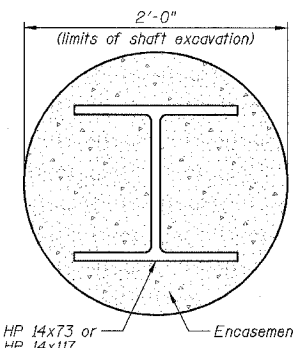
OF 6 SHEETS



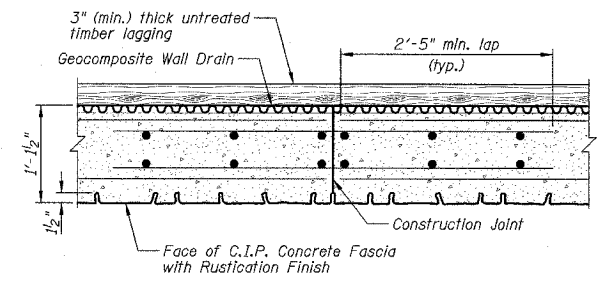
SECTION A-A



SECTION B-B



SECTION C-C



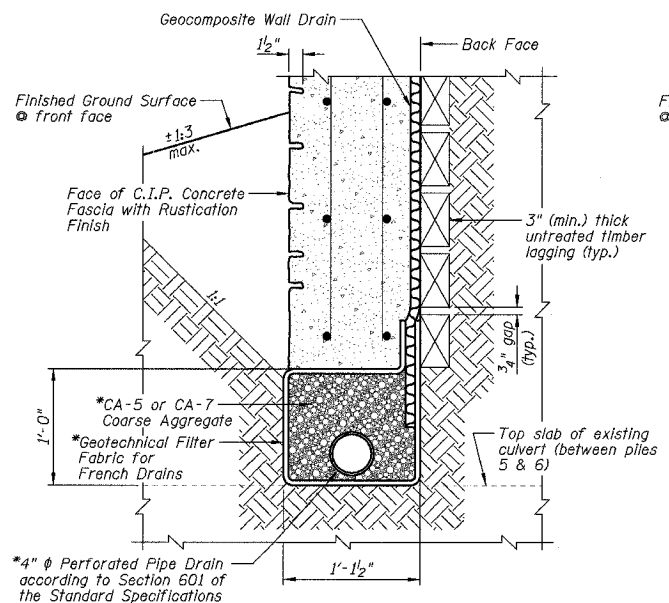
CONSTRUCTION JOINT DETAIL

GENERAL NOTES:

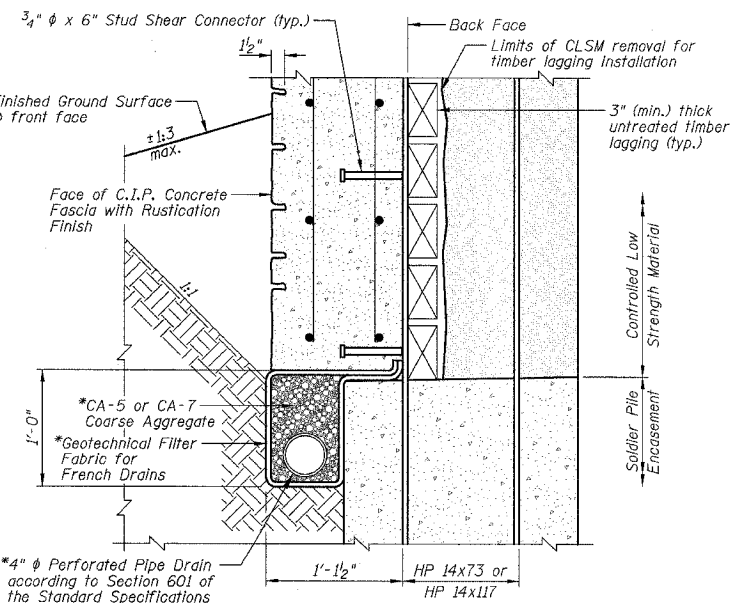
- 1.) Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
- 2.) See Sheets D5 and D6 for soil boring and rock core data.
- 3.) All exposed edges shall be chamfered 3/4" except as noted.
- 4.) The Contractor is responsible for the design and performance of the Untreated Timber Lagging using no less than a 3" nominal rough-sawn thickness and timber with a minimum fb of 1000 psi. The design shall be approved by the Engineer.
- 5.) Stud Shear Connectors shall be 3/4" x 6" granular or solid flux filled headed studs automatically end welded to the front flange in field.
- 6.) For information on the Drilled Soldier Pile Retaining Wall, see Special Provision "Drilled Soldier Pile Retaining Wall".
- 7.) All construction joints shall be bonded.
- 8.) See Sheet D4 for the limits of "Rustication Finish". See Special Provision "Rustication Finish" for additional information.
- 9.) All Cast-In-Place concrete shall be integrally colored. See the Special Provision "Colored Concrete - Cast-In-Place" for additional information.
- 10.) For backfilling of the retaining wall, see the Standard Specifications.
- 11.) 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 for the work.
- 12.) See Roadway Plans for 4" Pipe Drain quantity.
- 13.) C.I.P. denotes Cast-In-Place.
- 14.) For Existing Culvert plans, Structure No. 050-C803, see Sheets C5 and C6.
- 15.) Contractor to take caution when working near edge of cliff.

STATION 401+80.00 TO STATION 402+64.00
BUILT 200. BY
STATE OF ILLINOIS
F.A.P. RTE. 627 SECTION (1-DI-1)
F.A. PROJECT:
STR. NO. 050-W003

NAME PLATE DETAIL
See Standard 515001



BETWEEN SOLDIER PILES



AT SOLDIER PILES

PIPE UNDERDRAIN DETAIL
*Cost included with "Pipe Underdrains for Structures".

TOTAL WALL BILL OF MATERIALS

ITEMS	UNITS	TOTAL
Structure Excavation	Cu Yd	85
Concrete Structures	Cu Yd	27.7
Rustication Finish	Sq Ft	643
Stud Shear Connectors	Each	104
Untreated Timber Lagging	Sq Ft	512
Furnishing Soldier Piles (HP 14x73)	Foot	158
Furnishing Soldier Piles (HP 14x117)	Foot	40
Reinforcement Bars, Epoxy Coated	Pound	5320
Name Plates	Each	1
Geocomposite Wall Drain	Sq Yd	43
Pipe Underdrains for Structures 4"	Foot	87
Drilling and Setting Soldier Piles (In Rock)	Cu Ft	95
Drilling and Setting Soldier Piles (In Soil)	Cu Ft	509

NOTES:

- 1.) Work this sheet with Sheets D1, D3 and D4.
- 2.) For location of Sections A-A, B-B and C-C see Sheet D1.
- 3.) **See Culvert plans, Structure No. 050-C803, Sheets C1 thru C4.

GENERAL NOTES, BILL OF MATERIALS, SECTIONS AND DETAILS

IL ROUTE 71
SOLDIER PILE RETAINING WALL
F.A.P. ROUTE 627 - SEC. (1-DI-1)
LA SALLE COUNTY
STATION 401+80.00 TO STATION 402+64.00
STRUCTURE NO. 050-W003

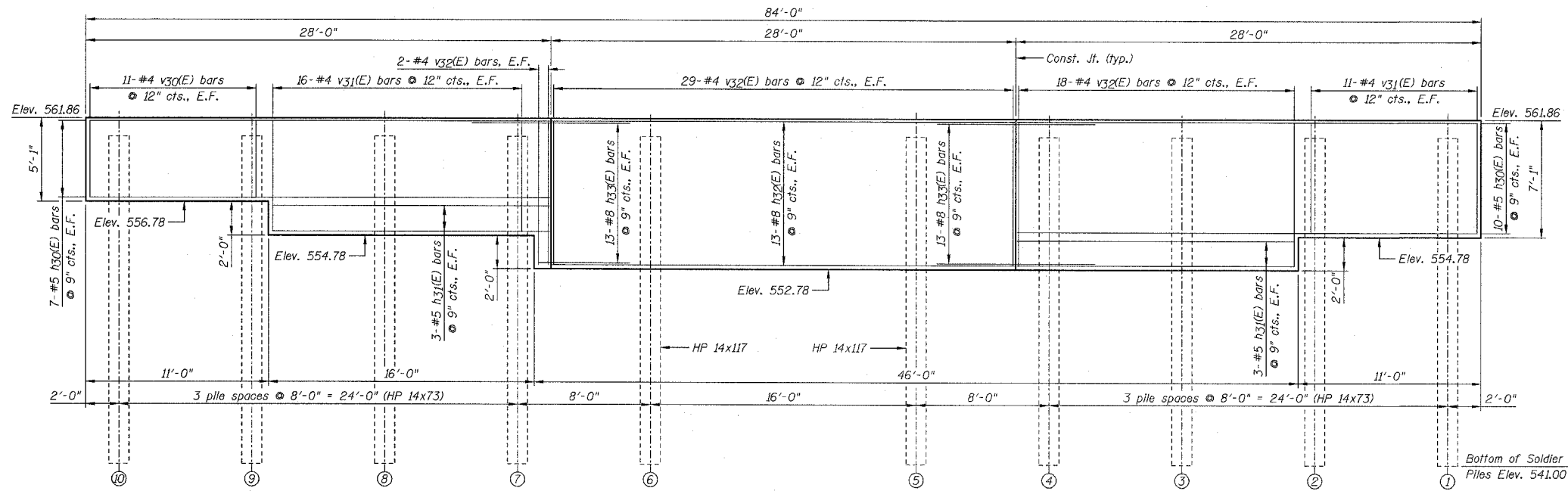
DESIGNED BY J.M.L.
DRAWN BY D.J.M.
CHECKED BY M.S.W.

Farnsworth GROUP
2700 McGraw Drive
Bloomington, Illinois 61704
309/893-8433, 309/893-1671 fax

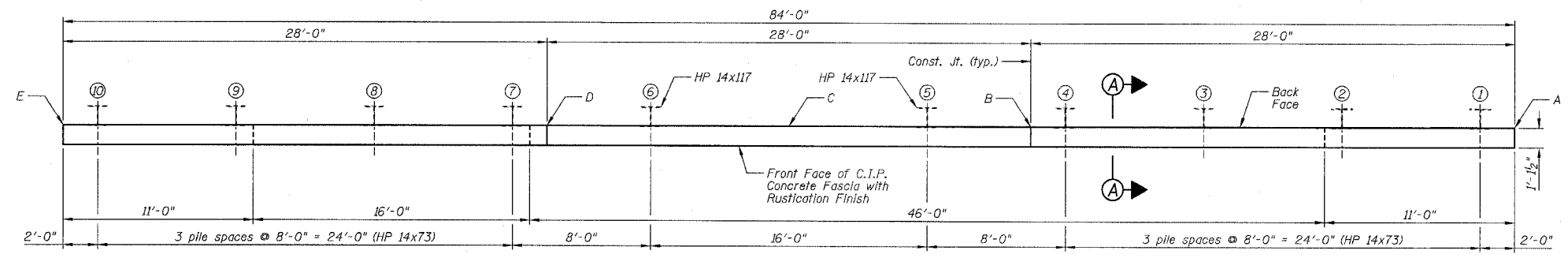
FILE NO. 24-6772
DATE 03-24-05
SHEET NO. 36 OF 60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1I-1	LA SALLE	60	37
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 66550	SHEET NO. D3			

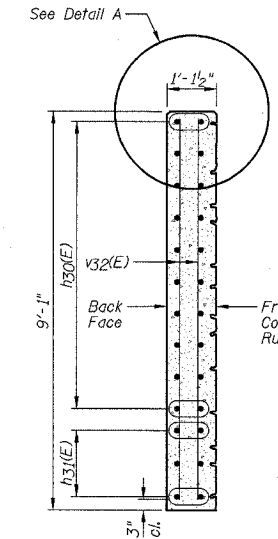
OF 6 SHEETS



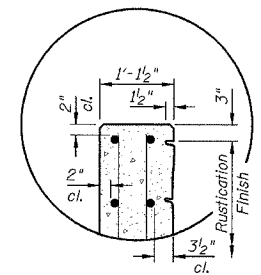
ELEVATION (SHOWING REINFORCEMENT)
(Looking South)



PLAN



SECTION A-A
Note: Clearances are typical at all wall sections.



DETAIL A

BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h30(E)	34	#5	27'-8"	
h31(E)	12	#5	16'-8"	
h32(E)	26	#8	27'-10"	
h33(E)	52	#8	9'-6"	
v30(E)	22	#4	4'-8"	
v31(E)	54	#4	6'-8"	
v32(E)	98	#4	8'-8"	

Item	Unit	Quantity
Concrete Structures	Cu. Yds.	27.7
Stud Shear Connectors	Each	104
Furnishing Soldier Piles (HP 14x73)	Foot	158
Furnishing Soldier Piles (HP 14x117)	Foot	40
Reinforcement Bars, Epoxy Coated	Pound	5320

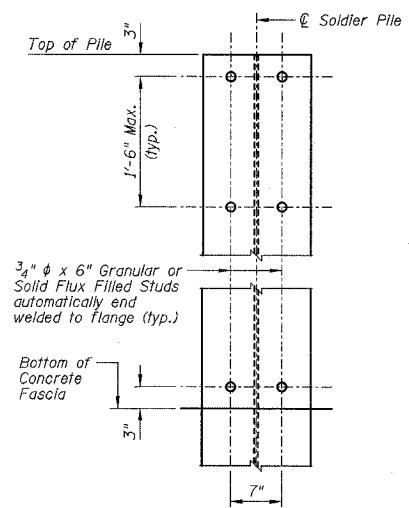
WALL INFORMATION CHART

Reference Points	Location at Wall	Station to Back Face of Wall	Offset to Back Face of Wall	Wall Height
A	Begin Wall	401+80.00	37.57' LT.	7'-1"
B	Const. Jt.	402+08.00	37.57' LT.	9'-1"
C	∅ Wall	402+22.00	37.57' LT.	9'-1"
D	Const. Jt.	402+36.00	37.57' LT.	9'-1"
E	End Wall	402+64.00	37.57' LT.	5'-1"

Note: See Plan for Reference Point locations.

STEEL SOLDIER PILE INFORMATION CHART

Pile No.	Station	Offset to Ctr. of Pile	Pile Section	Top of Pile Elevation	Bottom of Pile Elevation	Pile Length	No. of Stud Shear Connectors	Top of Class SI Concrete Encasement Elevation
1	401+82.00	37.04' LT.	HP 14x73	560.75	541.00	19'-9"	10	554.78
2	401+90.00	37.04' LT.	HP 14x73	560.75	541.00	19'-9"	10	552.78
3	401+98.00	37.04' LT.	HP 14x73	560.75	541.00	19'-9"	12	552.78
4	402+06.00	37.04' LT.	HP 14x73	560.75	541.00	19'-9"	12	552.78
5	402+14.00	37.04' LT.	HP 14x117	560.75	541.00	19'-9"	12	552.78
6	402+30.00	37.04' LT.	HP 14x117	560.75	541.00	19'-9"	12	552.78
7	402+38.00	37.04' LT.	HP 14x73	560.75	541.00	19'-9"	10	552.78
8	402+46.00	37.04' LT.	HP 14x73	560.75	541.00	19'-9"	10	554.78
9	402+54.00	37.04' LT.	HP 14x73	560.75	541.00	19'-9"	8	554.78
10	402+62.00	37.04' LT.	HP 14x73	560.75	541.00	19'-9"	8	556.78



STUD SHEAR CONNECTORS LAYOUT

NOTES:

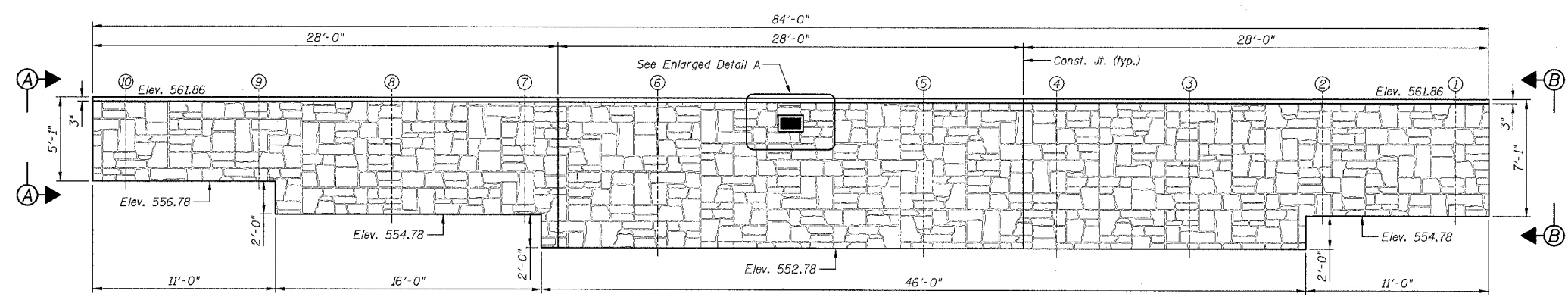
- 1) Work this sheet with Sheets D1, D2 and D4.
- 2) E.F. denotes Each Face.
- 3) For "Rustication Finish" details see Sheet D4.
- 4) Reinforcement bars designated (E) shall be epoxy coated.
- 5) h33(E) bars shall be field cut as required.
- 6) Minimum lap length: #8 bar = 4'-6"
- 7) See Sheet D2 For Construction Joint Detail.

WALL REINFORCEMENT AND SOLDIER PILE INFORMATION
IL ROUTE 71
SOLDIER PILE RETAINING WALL
F.A.P. ROUTE 627 - SEC. (1-1I-1
LA SALLE COUNTY
STATION 401+80.00 TO STATION 402+64.00
STRUCTURE NO. 050-W003

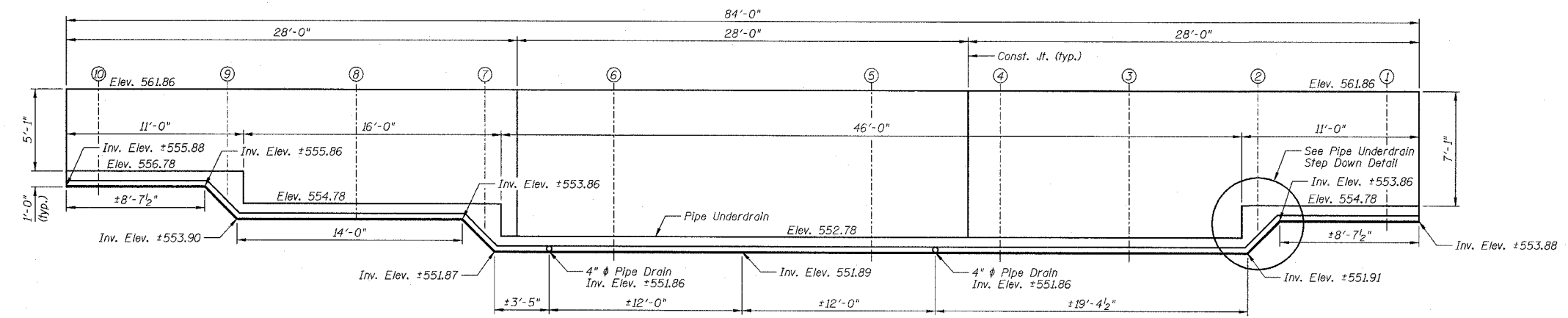
DESIGNED BY J.M.L.	Farnsworth GROUP 2700 McGraw Drive Bloomington, Illinois 61704 800/888-8436, 308/883-1671 fax	FILE NO. 24-6772
DRAWN BY D.J.M.		DATE 03-24-05
CHECKED BY M.S.W.		SHEET NO. 37 of 60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	38
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 66550			SHEET NO. D4	

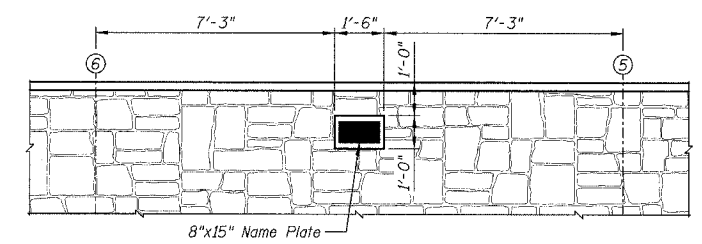
OF 6 SHEETS



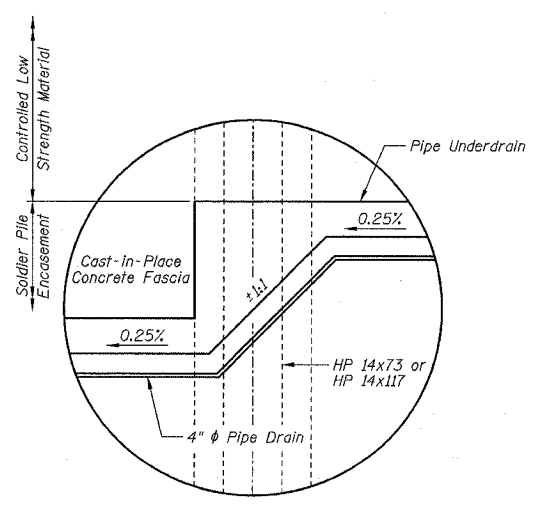
RUSTICATION FINISH ELEVATION - LOOKING SOUTH



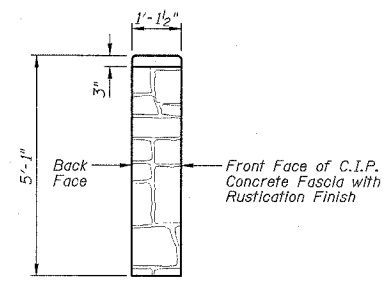
PIPE UNDERDRAIN ELEVATION - LOOKING SOUTH



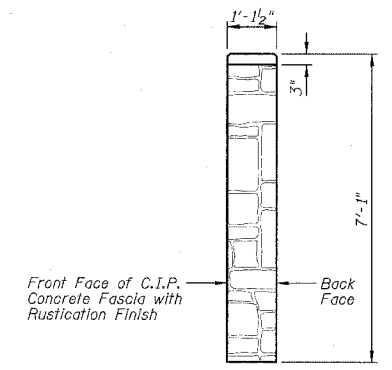
ENLARGED DETAIL A



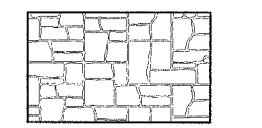
PIPE UNDERDRAIN STEP DOWN DETAIL



ENLARGED ELEVATION A-A



ENLARGED ELEVATION B-B



EXAMPLE OF RUSTICATION PATTERN
Notes: Maximum Relief = 1/2"
Stone Size = 8" x 25"

BILL OF MATERIALS

Item	Unit	Total
Rustication Finish	Sq. Ft.	643
Pipe Underdrains for Structures 4"	Foot	87

NOTES:

- 1.) Work this sheet with Sheets D1 thru D3.
- 2.) Limits of Rustication Finish extend from bottom of wall to 3" from the top of wall.

RUSTICATION FINISH DETAILS AND PIPE UNDERDRAIN DETAILS
 IL ROUTE 71
 SOLDIER PILE RETAINING WALL
 F.A.P. ROUTE 627 - SEC. (1-1)I-1
 LA SALLE COUNTY
 STATION 401+80.00 TO STATION 402+64.00
 STRUCTURE NO. 050-W003

DESIGNED BY: J.M.L.
 DRAWN BY: D.J.M.
 CHECKED BY: M.S.W.

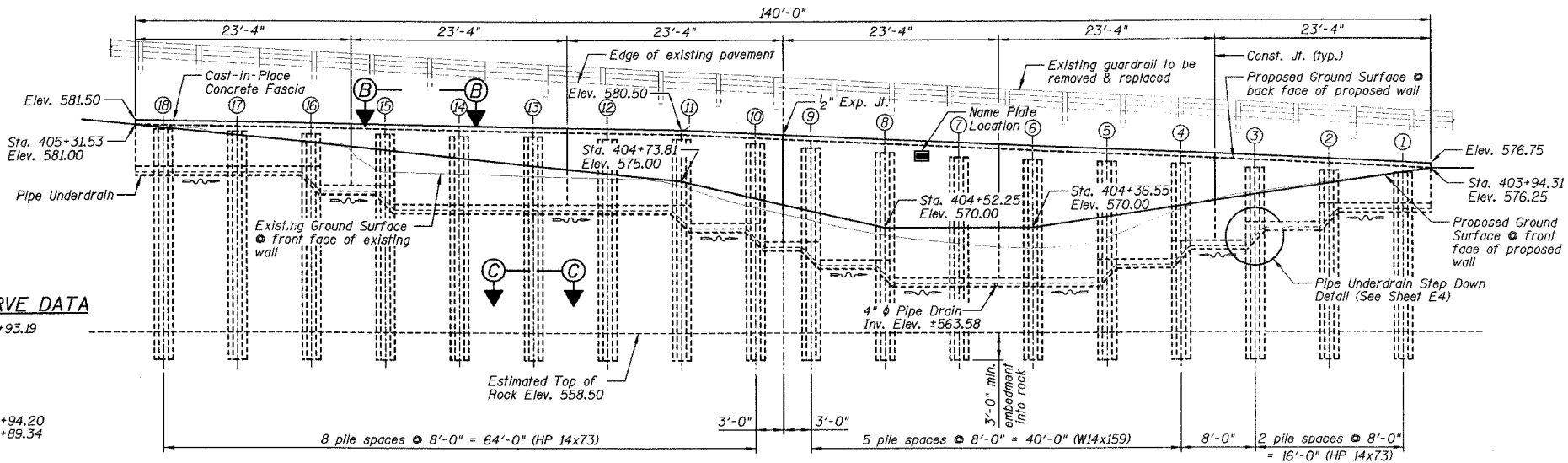
Farnsworth GROUP
 2706 McGraw Drive
 Bloomington, Illinois 61706
 309/888-6636, 309/888-1671 fax

FILE NO. 24-6772
 DATE 03-24-05
 SHEET NO. 38 of 60

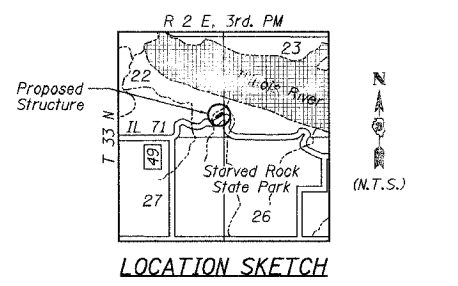
Benchmarks: 1.) Top of guardrail post on the South side of IL Rte. 71 @ the back center of the 10th post East from the West end of the rail @ Station 400+80.31/14.61' RT., Elevation = 581.01.
 2.) Top of guardrail post on the South side of IL Rte. 71 @ back center of the 10th post West from the East end of the rail @ Station 403+50.18/14.71' RT., Elevation = 580.64.

Existing Structure: Existing Retaining Wall, built 1922, Section I-1 from Station ±402+30.00/±29.0' LT. to Station ±405+09.00/±34.0' LT. of F.A.P. 627 (IL 71). Consists of sheet piling and 28 steel piles @ approximately 4'-0" centers. The structure is approximately 279'-0" long.

No Salvage.



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)-1	A SALLE	60	41
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		SHEET NO. E1	
CONTRACT NO. 66550			OF 9 SHEETS	



DESIGN SPECIFICATIONS HORIZONTAL CURVE DATA

AASTHO 2002

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi (Cast-in-Place Concrete)
 fy = 60,000 psi (Reinforcement)
 fy = 36,000 psi (Soldier Pile Steel)

P.I. STA. = 404+93.19
 Δ = 16°27'
 D = 4°09'50"
 R = 1375.98'
 T = 198.89'
 L = 395.05'
 E = 143'
 P.C. STA. = 402+94.20
 P.T. STA. = 406+89.34

CONSTRUCTION SEQUENCE:

- Excavate working platform and drill shaft excavation for soldier pile, embedment into rock shall be as shown on the plans.
- Set soldier pile in the shaft excavation and brace to maintain proper pile position.
- Place encasement concrete around soldier pile to the bottom of the C.I.P. concrete fascia, and Controlled Low Strength Material (CLSM) to the excavated ground surface.
- Excavate in front of wall in stages removing only the soil necessary to place each timber lagging snug against excavated surface. (Removal of the Existing Retaining Wall shall be done during this sequence.)
- After the lagging has been placed to the depths shown in the plans, the Geocomposite Wall Drain shall be attached to and cover the untreated timber lagging.
- The French Drain shall be excavated, lined with fabric, pipe and aggregate placed and connected to the Geocomposite Wall Drain as shown on the plans.
- Attach stud shear connectors, set reinforcement, form and pour C.I.P. concrete fascia.

INDEX TO SHEETS

SHEET NO.	TITLE
E1	GENERAL PLAN AND ELEVATION
E2	GENERAL NOTES, BILL OF MATERIALS, SECTIONS AND DETAILS
E3	WALL REINFORCEMENT AND SOLDIER PILE INFORMATION
E4	RUSTICATION FINISH DETAILS AND PIPE UNDERDRAIN DETAILS
E5-E7	SOIL BORING/ROCK CORE LOGS
E8-E9	EXISTING PLANS

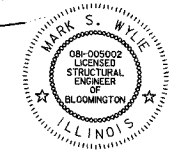
NOTES:

- Work this sheet with Sheets E2 thru E4.
- For Sections A-A, B-B & C-C see Sheet E2.
- The existing retaining wall to be removed is not shown in the Elevation for clarity.

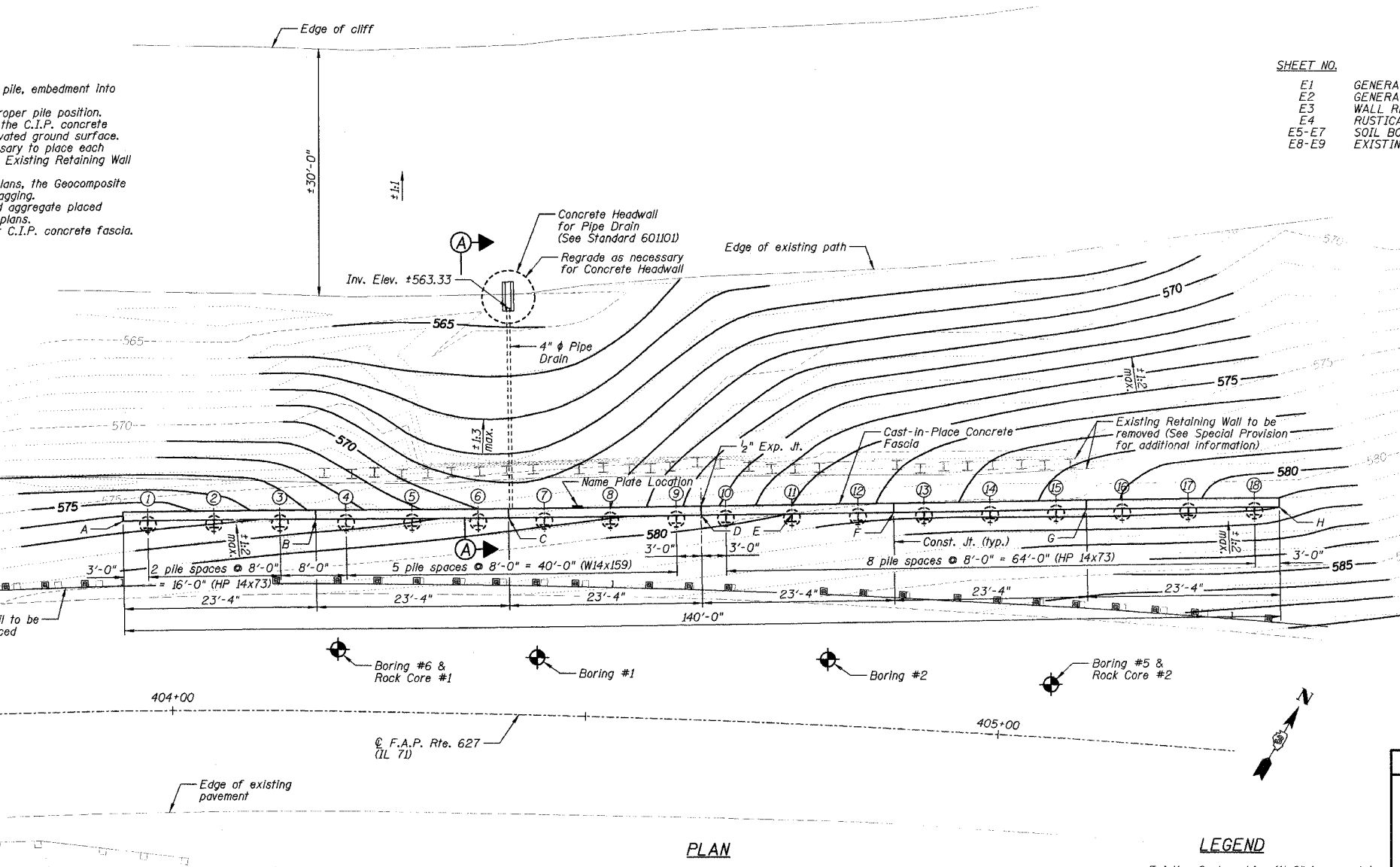
WALL INFORMATION CHART

Reference Points	Station to Back Face of Wall	Offset to Back Face of Wall
A	403+94.31	23.12' LT.
B	404+17.25	23.34' LT.
C	404+40.19	23.94' LT.
D	404+63.09	24.93' LT.
E	404+73.88	25.54' LT.
F	404+85.96	26.31' LT.
G	405+08.77	28.08' LT.
H	405+31.53	30.23' LT.

APPROVED
 FOR STRUCTURAL ADEQUACY ONLY



Mark S. Wylie
 LICENSED STRUCTURAL ENGINEER
 BLOOMINGTON, ILLINOIS
 Date 3/24/05
 MARK S. WYLIE
 ILLINOIS STRUCTURAL ENGINEER
 NO. 081-005002
 Exp. Date 11/30/06



LEGEND

Existing Contour Line (1'-0" increments)
 Existing Contour Line (5'-0" increments)
 Proposed Contour Line

DESIGNED BY: J.M.L.
 DRAWN BY: D.J.M.
 CHECKED BY: M.S.W.

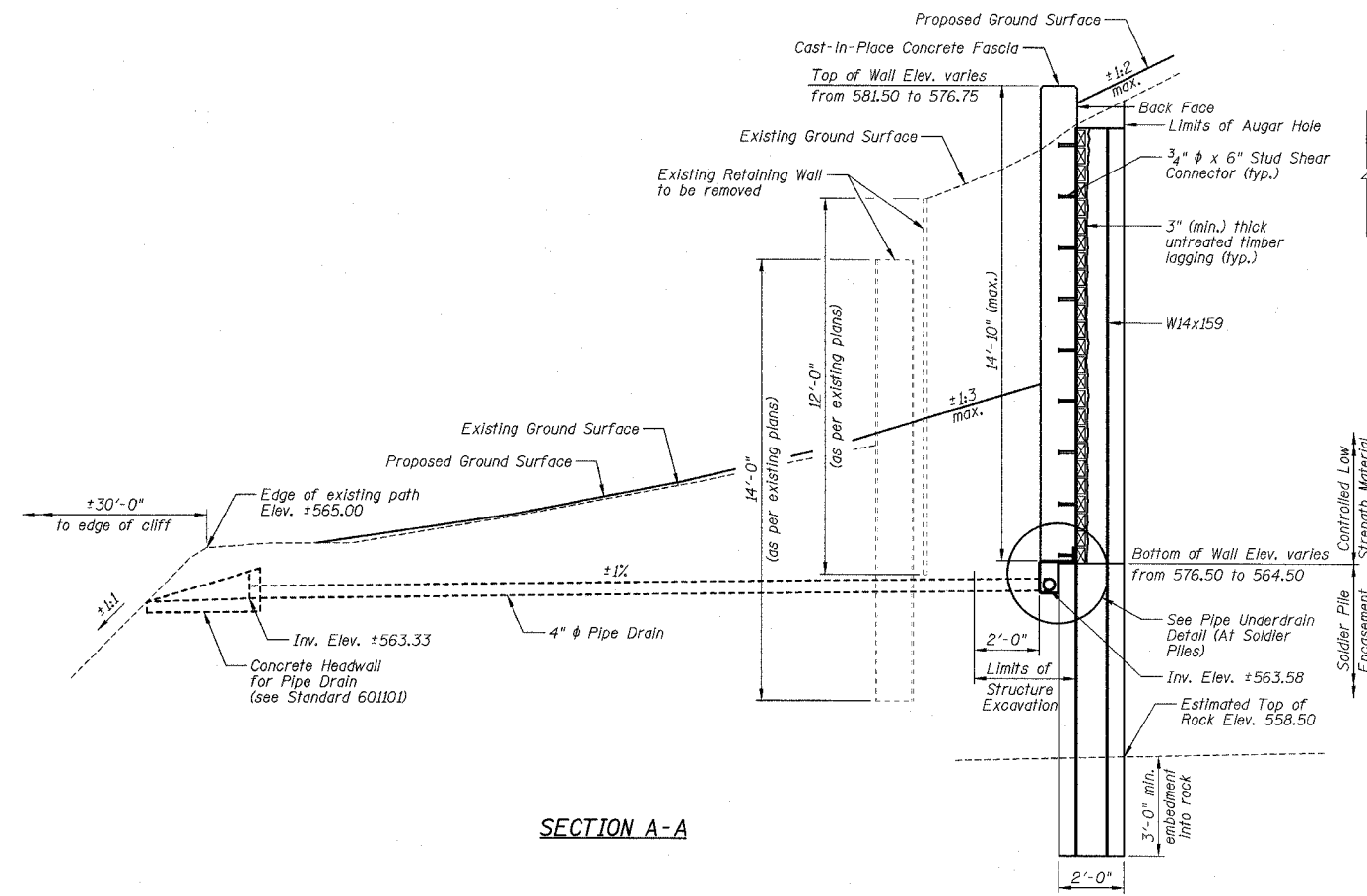
Farnsworth GROUP
 2700 Midway Drive
 Bloomington, Illinois 61704
 309/663-6436, 309/663-1071 fax

FILE NO. 24-6772
 DATE 03-24-05
 SHEET NO. 41 of 60

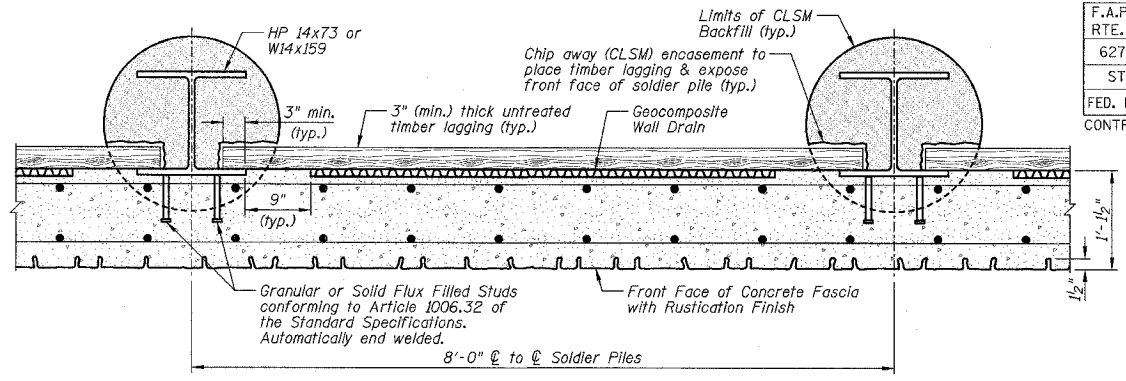
GENERAL PLAN AND ELEVATION
 IL ROUTE 71
 SOLDIER PILE RETAINING WALL
 F.A.P. ROUTE 627 - SEC. (1-1)-1
 LA SALLE COUNTY
 STATION 403+94.31 TO STATION 405+31.53
 STRUCTURE NO. 050-W002

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-DI-1)	LA SALLE	60	42
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 66550			SHEET NO. E2	

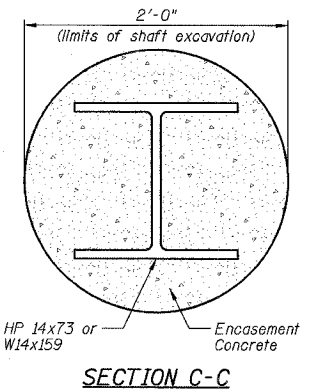
OF 9 SHEETS



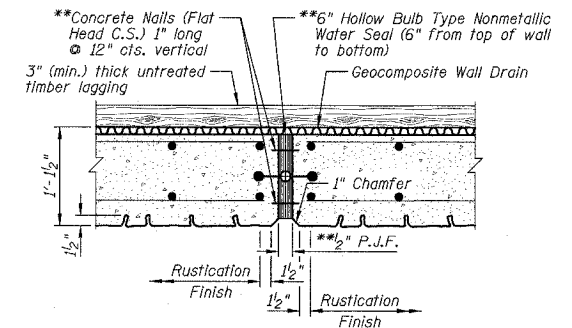
SECTION A-A



SECTION B-B

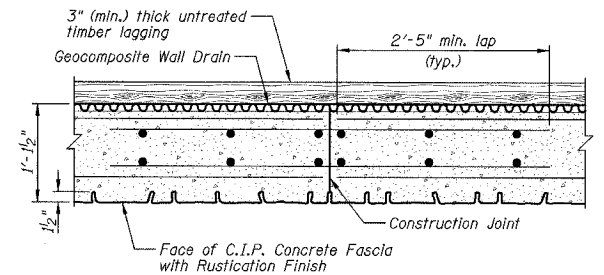


SECTION C-C



EXPANSION JOINT DETAIL

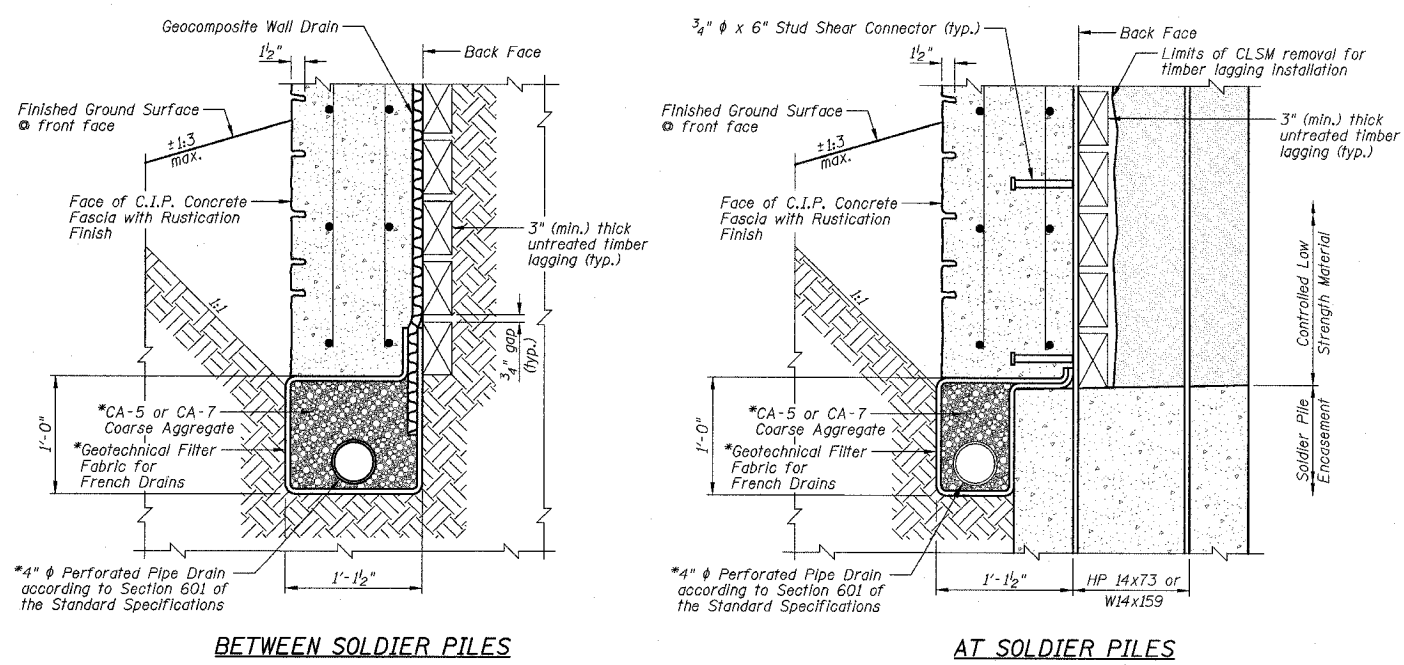
Notes: 1.) **Cost Included with "Concrete Structures".
2.) P.J.F. exaggerated for clarity.



CONSTRUCTION JOINT DETAIL

GENERAL NOTES:

- 1.) Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
- 2.) See Sheets E5 thru E7 for soil boring and rock core data.
- 3.) All exposed edges shall be chamfered 1/4" except as noted.
- 4.) The Contractor is responsible for the design and performance of the Untreated Timber Lagging using no less than a 3" nominal rough-sawn thickness and timber with a minimum fb of 1000 psi. The design shall be approved by the Engineer.
- 5.) Stud Shear Connectors shall be 3/4" diameter by 6" granular or solid flux filled headed studs automatically end welded to the front flange in field.
- 6.) For information on the Drilled Soldier Pile Retaining Wall, see Special Provision "Drilled Soldier Pile Retaining Wall".
- 7.) All construction joints shall be bonded.
- 8.) See Sheet E4 for the limits of "Rustication Finish". See Special Provision "Rustication Finish" for additional information.
- 9.) All Cast-In-Place concrete shall be integrally colored. See the Special Provision "Colored Concrete Cast-In-Place" for additional information.
- 10.) For backfilling of the retaining wall, see the Standard Specifications.
- 11.) See Roadway Plans for 4" diameter Pipe Drain and Concrete Headwall for Pipe Drain quantities.
- 12.) C.I.P. denotes Cast-In-Place.
- 13.) The existing plans are provided for informational use only.
- 14.) Length of existing structure removal may be varied in the field as directed by the Engineer.



PIPE UNDERDRAIN DETAIL

*Cost included with "Pipe Underdrains for Structures".

TOTAL WALL BILL OF MATERIALS

ITEMS	UNITS	TOTAL
Removal of Existing Structures No. 2	Each	1
Structure Excavation	Cu Yd	196
Concrete Structures	Cu Yd	52.5
Rustication Finish	Sq Ft	1235
Stud Shear Connectors	Each	220
Untreated Timber Lagging	Sq Ft	968
Furnishing Soldier Piles (HP 14x73)	Foot	280
Furnishing Soldier Piles (W14x159)	Foot	132
Reinforcement Bars, Epoxy Coated	Pound	6980
Name Plates	Each	1
Geocomposite Wall Drain	Sq Yd	77
Pipe Underdrains for Structures 4"	Foot	149
Drilling and Setting Soldier Piles (In Rock)	Cu Ft	170
Drilling and Setting Soldier Piles (In Soil)	Cu Ft	1191

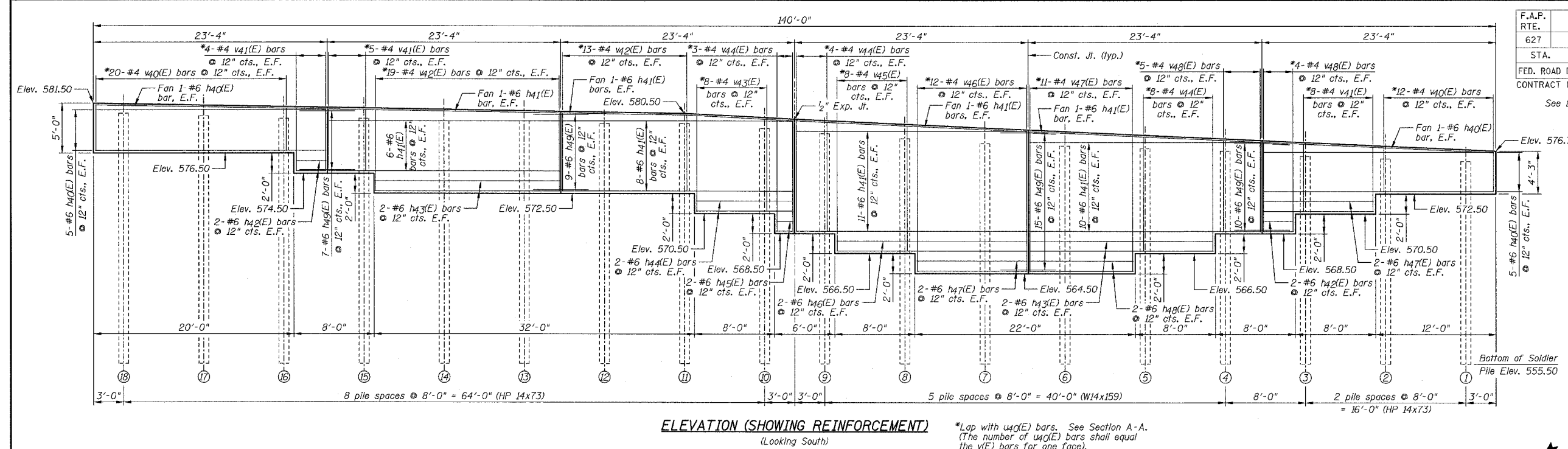
NOTES:

- 1.) Work this sheet with Sheets E1, E3 and E4.
- 2.) For location of Sections A-A, B-B and C-C see Sheet E1.

**GENERAL NOTES, BILL OF MATERIALS,
SECTIONS AND DETAILS**
IL ROUTE 71
SOLDIER PILE RETAINING WALL
F.A.P. ROUTE 627 - SEC. (1-DI-1)
LA SALLE COUNTY
STATION 403+94.31 TO STATION 405+31.53
STRUCTURE NO. 050-W002

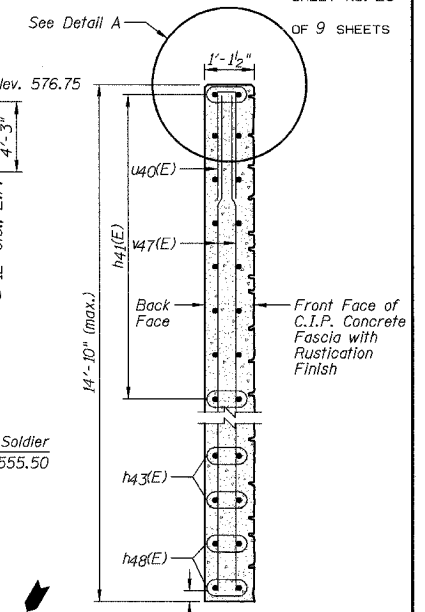
DESIGNED BY J.M.L.	<p>2700 McGraw Drive Bloomington, Illinois 61704 309/963-6636 309/963-1871 fax</p>	FILE NO. 24-6772
DRAWN BY D.J.M.		DATE 03-24-05
CHECKED BY M.S.W.		SHEET NO. 42 OF 60

F.A.P. RTE. 627	SECTION (1-11-1)	COUNTY LA SALLE	TOTAL SHEETS 60	SHEET NO. 43
STA.	TO STA.		ILLINOIS FED. AID PROJECT	
FED. ROAD DIST. NO.	CONTRACT NO. 66550		SHEET NO. E3 OF 9 SHEETS	



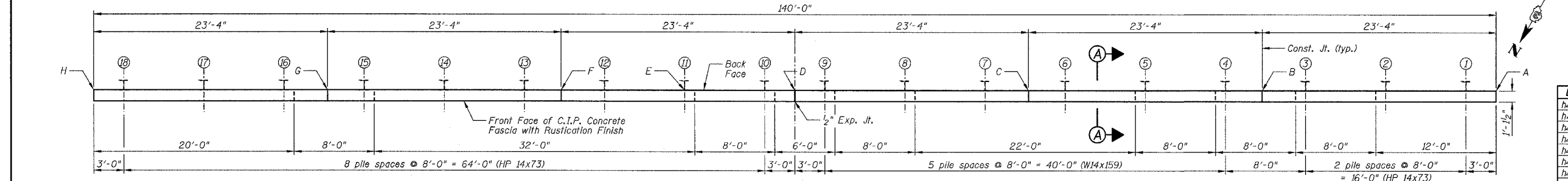
ELEVATION (SHOWING REINFORCEMENT)
(Looking South)

*Lap with u40(E) bars. See Section A-A.
(The number of u40(E) bars shall equal the v(E) bars for one face.)



SECTION A-A

Note: Clearances are typical at all wall sections.



PLAN

BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h40(E)	24	#6	23'-0"	
h41(E)	78	#6	23'-2"	
h42(E)	8	#6	3'-0"	
h43(E)	8	#6	18'-4"	
h44(E)	4	#6	9'-8"	
h45(E)	4	#6	1'-8"	
h46(E)	4	#6	19'-0"	
h47(E)	8	#6	11'-0"	
h48(E)	4	#6	10'-4"	
h49(E)	82	#6	5'-6"	
u40(E)	144	#4	5'-6"	
v40(E)	64	#4	3'-10"	
v41(E)	34	#4	6'-1"	
v42(E)	64	#4	7'-7"	
v43(E)	16	#4	9'-2"	
v44(E)	30	#4	10'-10"	
v45(E)	16	#4	12'-6"	
v46(E)	24	#4	14'-0"	
v47(E)	22	#4	13'-6"	
v48(E)	18	#4	8'-9"	
Item	Unit	Quantity		
Concrete Structures	Cu. Yds.	52.5		
Stud Shear Connectors	Each	220		
Furnishing Soldier Piles (HP 14x73)	Foot	280		
Furnishing Soldier Piles (W14x159)	Foot	132		
Reinforcement Bars, Epoxy Coated	Pound	6980		

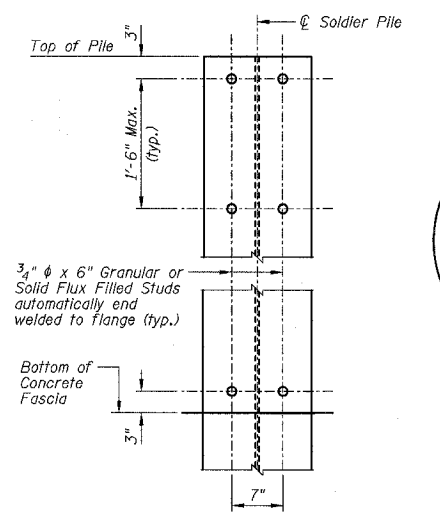
WALL INFORMATION CHART

Reference Points	Location at Wall	Station to Back Face of Wall	Offset to Back Face of Wall	Wall Height
A	Begin Wall	403+94.31	23.12' LT.	4'-3"
B	Const. Jt.	404+17.25	23.34' LT.	11'-6"
C	Const. Jt.	404+40.19	23.94' LT.	14'-9 3/4"
D	Exp. Jt.	404+63.09	24.93' LT.	9'-5 1/2" / 11'-5 1/2"
E	Break Point	404+73.88	25.54' LT.	8'-0"
F	Const. Jt.	404+85.96	26.31' LT.	8'-0 1/2"
G	Const. Jt.	405+08.77	28.08' LT.	8'-6 1/4"
H	End Wall	405+31.53	30.23' LT.	5'-0"

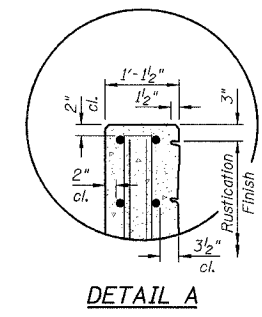
Note: See Plan for Reference Point locations.

STEEL SOLDIER PILE INFORMATION CHART

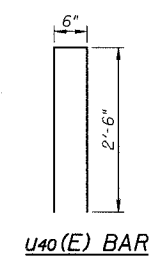
Pile No.	Station	Offset to Ctr. of Pile	Pile Section	Top of Pile Elevation	Bottom of Pile Elevation	Pile Length	No. of Stud Shear Connectors	Top of Class SI Encasement Elevation
1	403+97.26	22.68' LT.	HP 14x73	575.75	555.50	20'-3"	6	572.50
2	404+05.13	22.72' LT.	HP 14x73	576.00	555.50	20'-6"	6	570.50
3	404+13.00	22.81' LT.	HP 14x73	576.25	555.50	20'-9"	10	568.50
4	404+20.87	22.95' LT.	W14x159	576.75	555.50	21'-3"	14	566.50
5	404+28.73	23.14' LT.	W14x159	577.00	555.50	21'-6"	16	564.50
6	404+36.60	23.37' LT.	W14x159	577.25	555.50	21'-9"	20	564.50
7	404+44.46	23.64' LT.	W14x159	577.50	555.50	22'-0"	20	564.50
8	404+52.32	23.96' LT.	W14x159	578.00	555.50	22'-6"	18	564.50
9	404+60.17	24.33' LT.	W14x159	578.50	555.50	23'-0"	16	566.50
10	404+66.06	24.64' LT.	HP 14x73	579.00	555.50	23'-6"	14	568.50
11	404+73.90	25.08' LT.	HP 14x73	579.50	555.50	24'-0"	12	570.50
12	404+81.74	25.57' LT.	HP 14x73	579.50	555.50	24'-0"	12	572.50
13	404+89.58	26.11' LT.	HP 14x73	579.75	555.50	24'-3"	12	572.50
14	404+97.41	26.69' LT.	HP 14x73	579.75	555.50	24'-3"	12	572.50
15	405+05.23	27.32' LT.	HP 14x73	580.00	555.50	24'-6"	10	572.50
16	405+13.04	28.00' LT.	HP 14x73	580.00	555.50	24'-6"	6	574.50
17	405+20.85	28.71' LT.	HP 14x73	580.25	555.50	24'-9"	8	576.50
18	405+28.65	29.48' LT.	HP 14x73	580.50	555.50	25'-0"	8	576.50



STUD SHEAR CONNECTORS LAYOUT



DETAIL A



u40(E) BAR

NOTES:

- 1.) Work this sheet with Sheets E1, E2 and E4.
- 2.) E.F. denotes Each Face.
- 3.) For "Rustication Finish" details see Sheet E4.
- 4.) Reinforcement bars designated (E) shall be epoxy coated.
- 5.) Minimum lap length: #4 bar = 1'-8"; #6 bar = 2'-7".
- 6.) See Sheet E2 for Construction Joint Detail and Expansion Joint Detail.
- 7.) The u40(E) bars shall maintain a 2" clearance from the top of the wall, therefore adjust u40(E) bars accordingly (maintain 1'-8" min. lap with v(E) bars).

DESIGNED BY J.M.L.
DRAWN BY D.J.M.
CHECKED BY M.S.W.

Farnsworth GROUP
3700 McGraw Drive
Bloomington, Illinois 61704
309/853-9436, 309/853-1871 fax

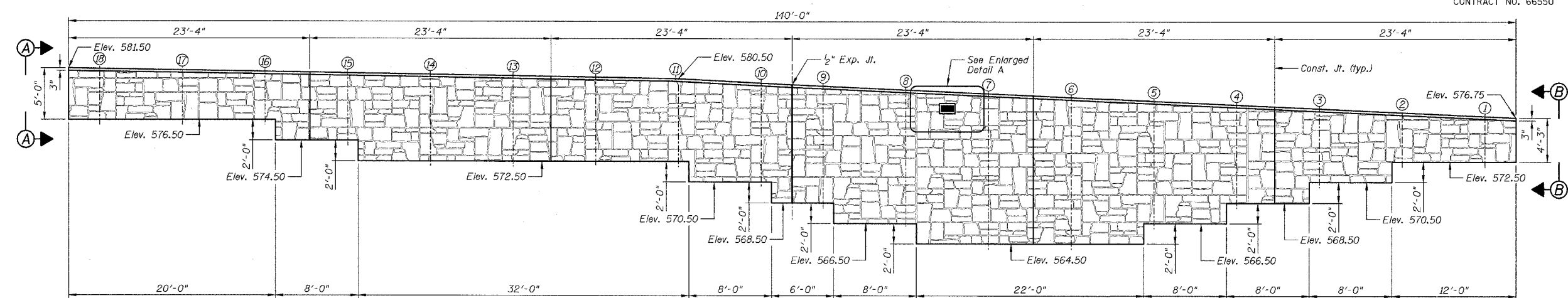
FILE NO. 24-6772
DATE 03-24-05
SHEET NO. 43 OF 60

WALL REINFORCEMENT AND SOLDIER PILE INFORMATION

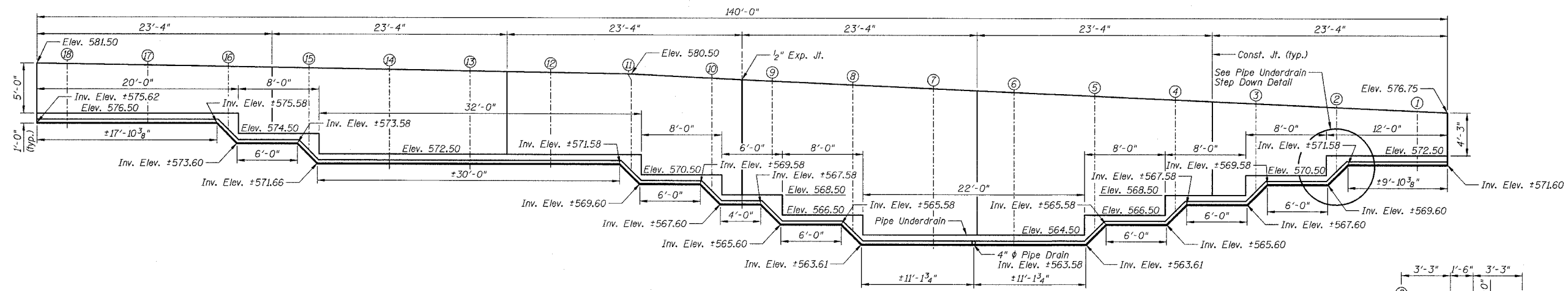
IL ROUTE 71
SOLDIER PILE RETAINING WALL
F.A.P. ROUTE 627 - SEC. (1-11-1)
LA SALLE COUNTY
STATION 403+94.31 TO STATION 405+31.53
STRUCTURE NO. 050-W002

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	44
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 66550			SHEET NO. E4	

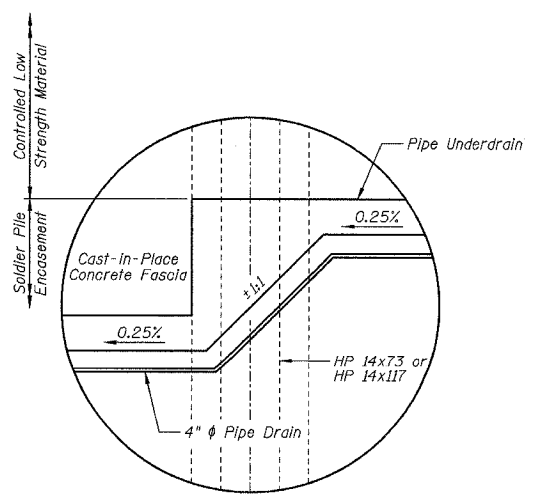
OF 9 SHEETS



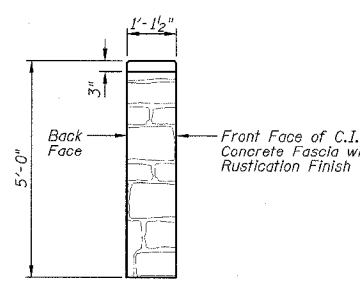
RUSTICATION FINISH ELEVATION - LOOKING SOUTH



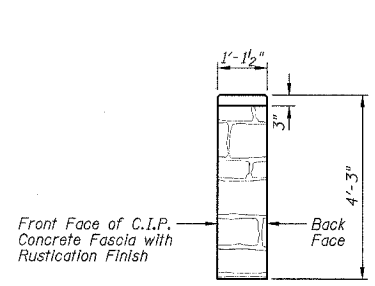
PIPE UNDERDRAIN ELEVATION - LOOKING SOUTH



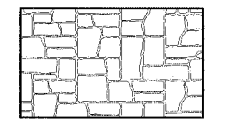
PIPE UNDERDRAIN STEP DOWN DETAIL



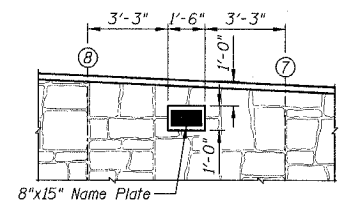
ENLARGED ELEVATION A-A



ENLARGED ELEVATION B-B



EXAMPLE OF RUSTICATION PATTERN
 Notes: Maximum Relief = 1/2"
 Stone Size = 8"-25"



ENLARGED DETAIL A

- NOTES:
- 1.) Work this sheet with Sheets E1 thru E3.
 - 2.) Limits of Rustication Finish extend from bottom of wall to 3" from the top of wall.

BILL OF MATERIALS

Item	Unit	Total
Rustication Finish	Sq. Ft.	1235
Pipe Underdrains for Structures 4"	Foot	149

RUSTICATION FINISH DETAILS
 AND PIPE UNDERDRAIN DETAILS
 IL ROUTE 71
 SOLDIER PILE RETAINING WALL
 F.A.P. ROUTE 627 - SEC. (1-1)I-1
 LA SALLE COUNTY
 STATION 403+94.31 TO STATION 405+31.53
 STRUCTURE NO. 050-W002

DESIGNED BY J.M.L.
 DRAWN BY D.J.M.
 CHECKED BY M.S.W.

Farnsworth GROUP
 2700 McGraw Drive
 Bloomington, Illinois 61704
 309/883-9435, 309/883-6711 fax

FILE NO. 24-6772
 DATE 03-24-05
 SHEET NO. 44 of 60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	45
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66550		SHEET NO. E5		

OF 9 SHEETS

Illinois Department of Transportation
 Division of Highways
 Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1
Date 11/13/01

ROUTE FAP 627(IL71) DESCRIPTION RETAINING WALL AT TONTI CANYON ON ILLINOIS 71 LOGGED BY K.W.
 (M)W&RS,(I-1,D)R,W&RS
 SECTION RET. WALLS LOCATION SE 1/4, SEC. 22, TWP. 33N, RNG. 2E, 3rd PM
 COUNTY LASALLE DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	BORING NO. Station Offset Ground Surface Elev.	D E P T H ft	B L O W S Qu	U C S Qu	M O I S T T	Surface Water Elev.		D E P T H ft		B L O W S Qu	U C S Qu	M O I S T T
						ft	ft	(ft)	(/6")			
	1 B-1 404+44 7.00ft LT 583.80											
AUGERED BITUMINOUS PAVEMENT Over Weathered Gray SHALE												
Stiff Mix of Brown SILTY CLAY TILL & Weathered Gray SHALE						581.30	3					
Stiff Brown Reworked SILTY CLAY TILL with Traces of Colluvial Gray SHALE						576.80	2 3	2.0 P	24.0			
Very Stiff Weathered Gray SHALE with Secondary Sulfur, Limonite FRANCIS CREEK SHALE CARBONDALE FORMATION PENNESLVANIAN SYSTEM						574.30	3 4 5		24.0			
Medium Black COAL with Argillaceous Material (COLCHESTER NO. 2)						570.80	6 9		74.0			
Very Stiff Gray CLAY (UNDERCLAY) TRADEWATER FORMATION						567.80	5		55.0			
Very Stiff Gray SHALE with Secondary Sulfur						567.30	8	3.5P	21.0			
Dense ST. PETER SANDSTONE ANCELL GROUP ORDOVICIAN SYSTEM						558.00 567.80	100/3		4.0			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
 Division of Highways
 Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1
Date 11/13/01

ROUTE FAP 627(IL71) DESCRIPTION RETAINING WALL AT TONTI CANYON ON ILLINOIS 71 LOGGED BY K.W.
 (M)W&RS,(I-1,D)R,W&RS
 SECTION RET. WALLS LOCATION SE 1/4, SEC. 22, TWP. 33N, RNG. 2E, 3rd PM
 COUNTY LASALLE DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	BORING NO. Station Offset Ground Surface Elev.	D E P T H ft	B L O W S Qu	U C S Qu	M O I S T T	Surface Water Elev.		D E P T H ft		B L O W S Qu	U C S Qu	M O I S T T
						ft	ft	(ft)	(/6")			
	2 B-2 404+79 8.00ft LT 585.62											
AUGERED BITUMINOUS PAVEMENT Over Broken Concrete or Base Coarse Material Over Weathered Gray SHALE												
Medium Brown & Gray SILTY CLAY TILL with Pieces of Gray Weathered SHALE						583.12	3 2		27.0			
Soft Brown SILTY LOAM with Pieces of Till & Colluvial Plant Organics						581.12	1 2	0.4 P	24.0			
Very Stiff Mix of SILTY CLAY TILL with Weathered SHALE & Colluvial Plant Organics						578.62	1 3 4		26.0			
Very Stiff Gray Weathered SHALE with Limonite & Secondary Sulfur						573.62	3 6 10		25.0			
Thin Black COAL Seam Mixed with Gray SHALE & CLAY with Secondary Sulfur (COLCHESTER NO. 2)						570.12	3 3		79.0			
Dense (Hard) Gray SHALE with Secondary Sulfur						567.62	5 12 17		46.0			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

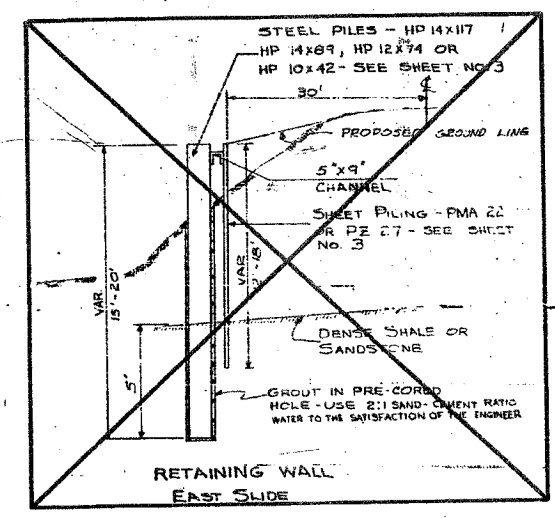
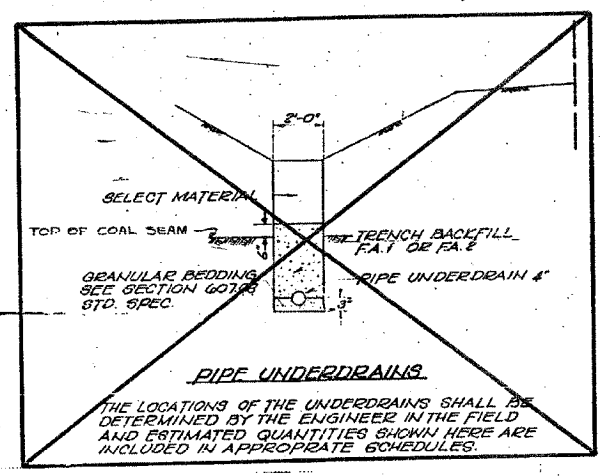
DESIGNED BY J.M.L. FILE NO. 24-6772
 DRAWN BY D.J.M. DATE 03-24-05
 CHECKED BY M.S.W. SHEET NO. 45 of 60

Farnsworth GROUP
 2700 McGraw Drive
 Bloomington, Illinois 61704
 800/883-5488, 309/883-1871 fax

SOIL BORING/ROCK CORE LOGS
 IL ROUTE 71
 SOLDIER PILE RETAINING WALL
 F.A.P. ROUTE 627 - SEC. (1-1)I-1
 LA SALLE COUNTY
 STATION 403+94.31 TO STATION 405+31.53
 STRUCTURE NO. 050-W002

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-11)-1	LA SALLE	60	48
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 66550			SHEET NO. E8	

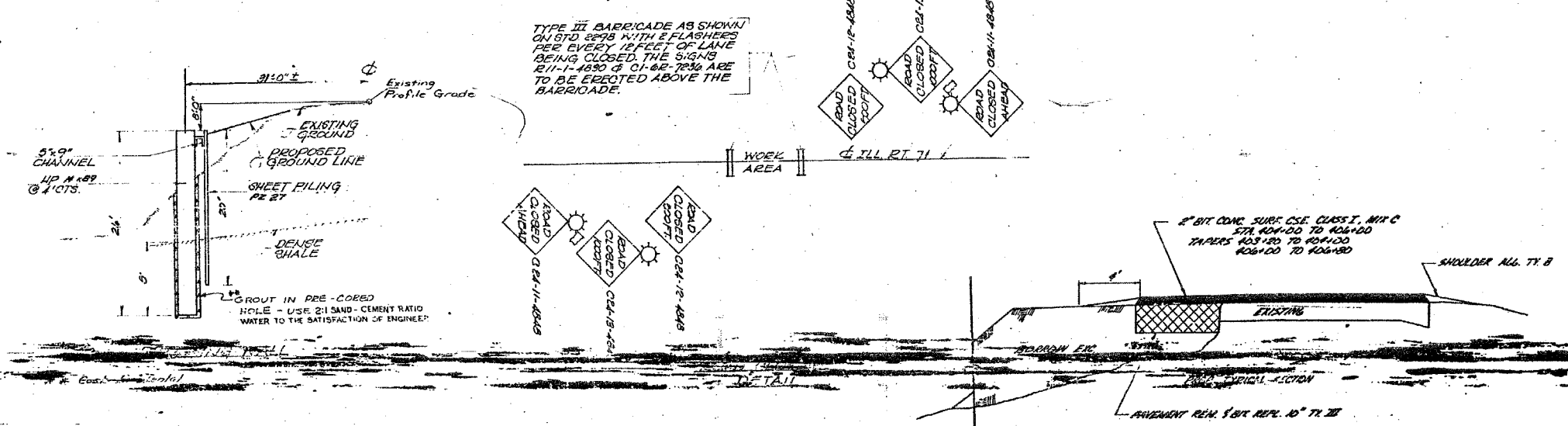
OF 9 SHEETS



SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
204001	BORR'NG EXCAVATION	CUB YD	302
204002	INSTALLATION SHOULDER TYPE B	LN. FT.	25
204003	INSTALLATION ANTIWHEEL (PAVEMENT)	LN. FT.	25
204004	INSTALLATION CONCRETE SURFACE COURSE CLASS I	LN. FT.	25
204005	CONCRETE ANTIWHEEL FOR PIPE CHANNEL	LN. FT.	25
204006	INSTALLATION SURFACE COURSE FOR PAVEMENT	LN. FT.	25
204007	INSTALLATION SURFACE COURSE FOR PAVEMENT	LN. FT.	25
204008	INSTALLATION SURFACE COURSE FOR PAVEMENT	LN. FT.	25
204009	INSTALLATION SURFACE COURSE FOR PAVEMENT	LN. FT.	25
204010	INSTALLATION SURFACE COURSE FOR PAVEMENT	LN. FT.	25
633004	CABLE ROAD GUARD	LN. FT.	342.5
633005	SEEDING CLASS III	ACRE	0.5
644001	SOODING	SG. YD.	20
X62837	STEEL PLATE BEAM GUARD RAIL TYPE A	LN. FT.	342.5
607081	PIPE 4 IN. DIA. 4 INCH (SEE CAL.)	LN. FT.	40
607076	PIPE UNDERDRAIN 4 INCH	LN. FT.	230
X04615	CHANNEL IRON, 5 INCH X 9 INCH	LN. FT.	180
X04616	PILE PLACEMENT	LN. FT.	498
X07810	REF. TEST AREAS	EACH	2
X04748	MOBILIZATION	L. SUM	7

* SEE SPECIAL PROVISIONS



FOR INFORMATIONAL USE ONLY

EXISTING PLANS
 IL ROUTE 71
 SOLDIER PILE RETAINING WALL
 F.A.P. ROUTE 627 - SEC. (1-11)-1
 LA SALLE COUNTY
 STATION 403+94.31 TO STATION 405+31.53
 STRUCTURE NO. 050-W002

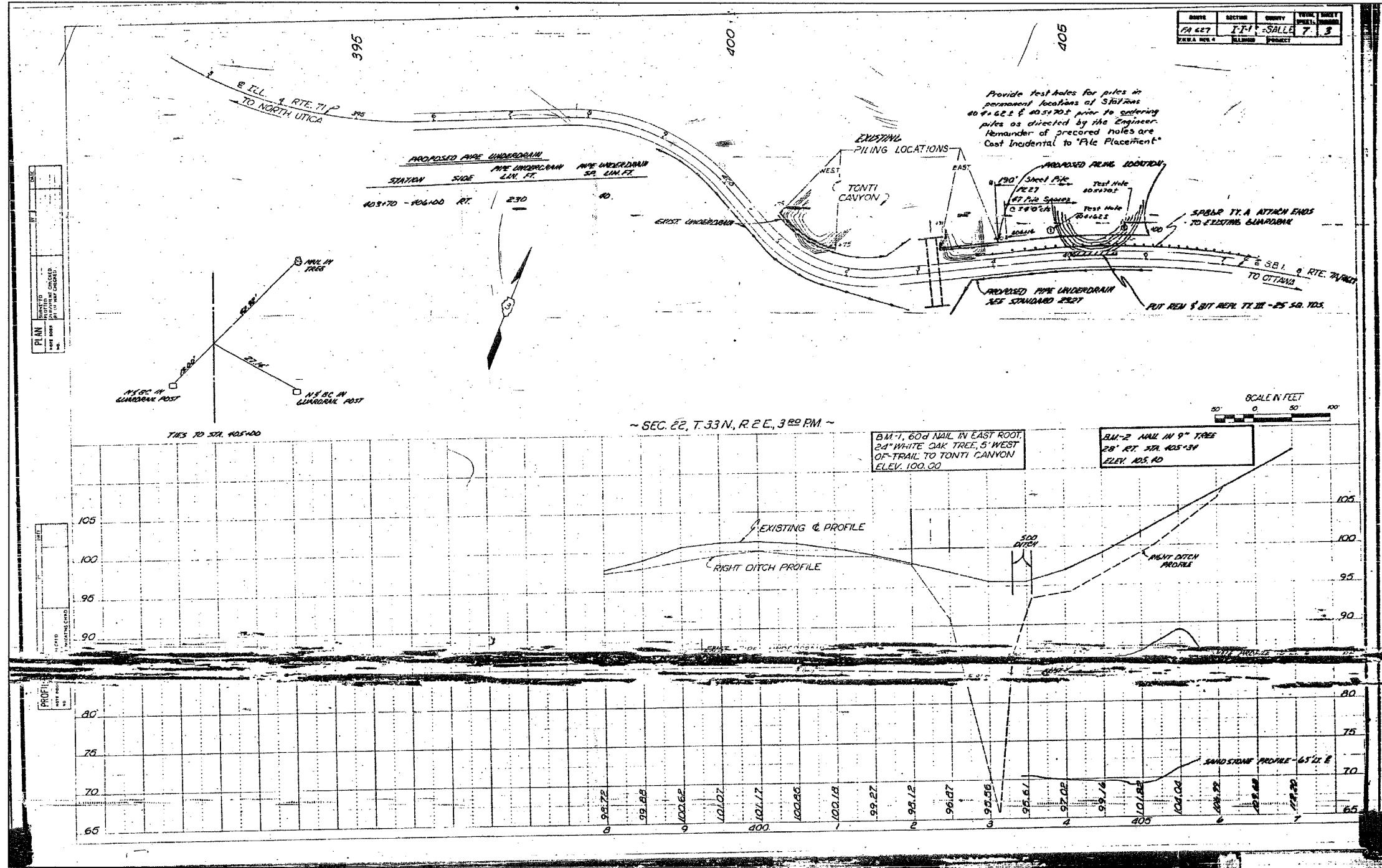
DESIGNED BY
 J.M.L.
 DRAWN BY
 D.J.M.
 CHECKED BY
 M.S.W.

Farnsworth GROUP
 2700 McGraw Drive
 Bloomington, Illinois 61704
 302/683-2455, 302/683-1871 fax

FILE NO.
 24-6772
 DATE
 03-24-05
 SHEET NO.
 48 OF 60

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-DI-1	LA SALLE	60	49
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 66550	SHEET NO. E9			

OF 9 SHEETS



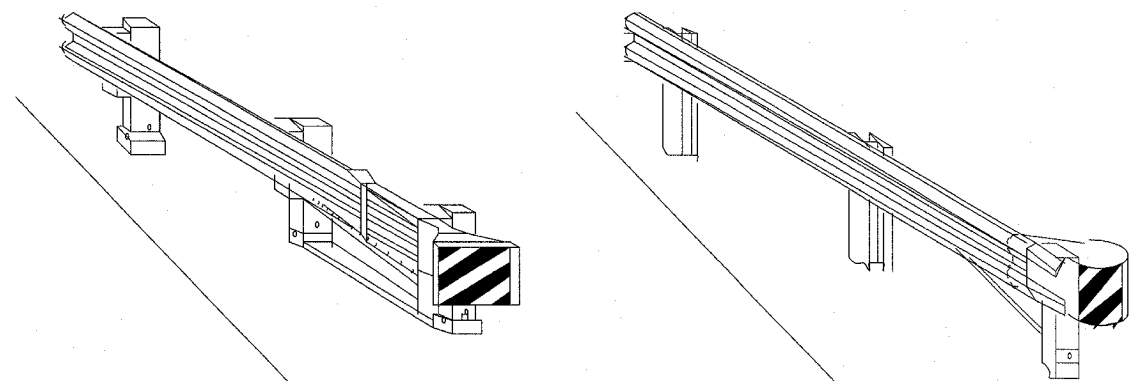
FOR INFORMATIONAL
USE ONLY

EXISTING PLANS
IL ROUTE 71
SOLDIER PILE RETAINING WALL
F.A.P. ROUTE 627 - SEC. (1-DI-1
LA SALLE COUNTY
STATION 403+94.31 TO STATION 405+31.53
STRUCTURE NO. 050-W002

DESIGNED BY J.M.L.	FILE NO. 24-6772
DRAWN BY D.J.M.	DATE 03-24-05
CHECKED BY M.S.W.	SHEET NO. 49 of 60

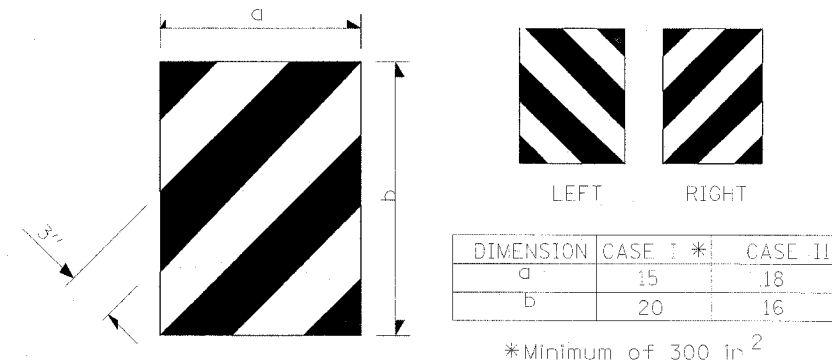
Farnsworth
GROUP
2700 McGraw Drive
Bloomington, Illinois 61704
309/898-8495, 309/898-1271 fax

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	1-11-1	LA SALLE	60	50
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66550				



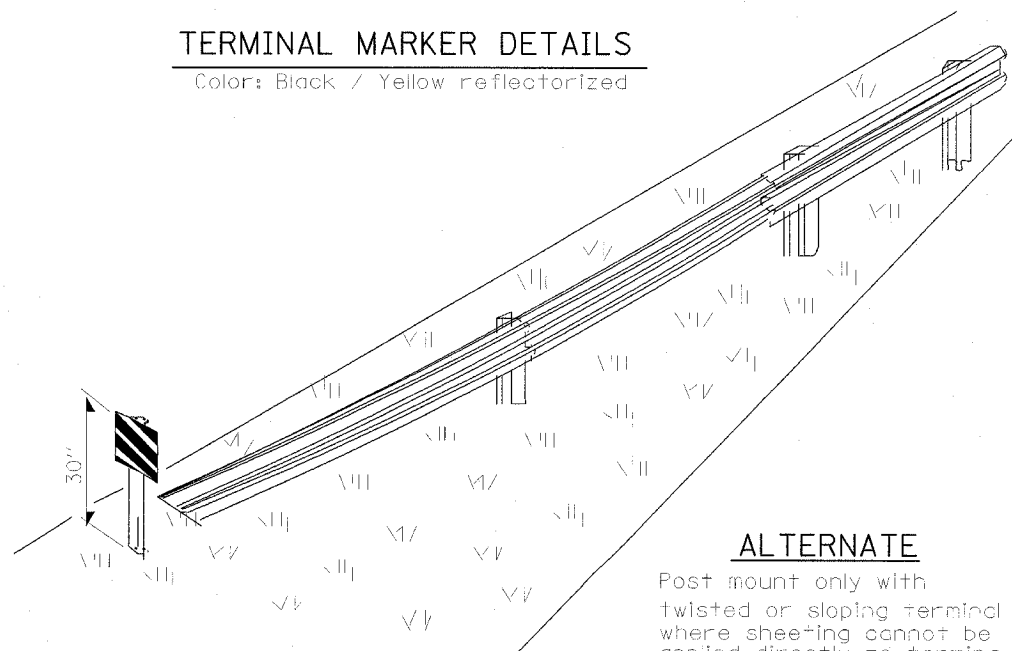
CASE I

CASE II



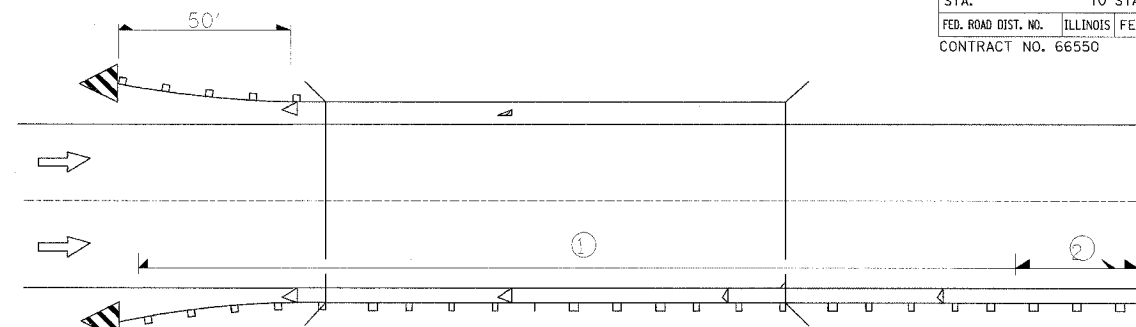
TERMINAL MARKER DETAILS

Color: Black / Yellow reflectorized



ALTERNATE

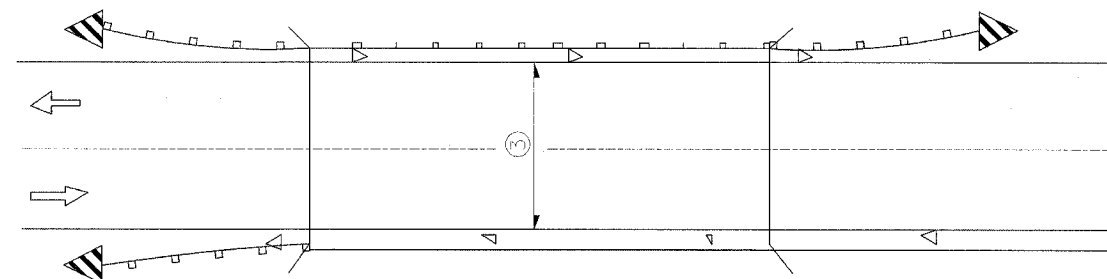
Post mount only with twisted or sloping terminal where sheeting cannot be applied directly to terminal.



① Spacing 80 ft max. for first 400 ft or curve spacing shown in Standard 635001, whichever is less (min. 4 reflectors regardless of length).

② After 400 ft, transition to normal delineator spacing shown in Standard 635001, and continue as required.

ONE-WAY TRAFFIC

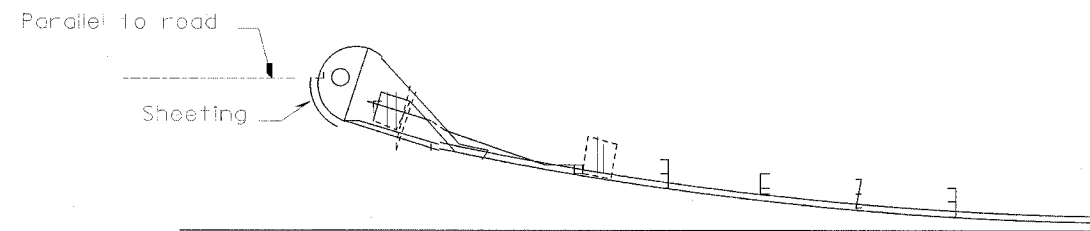


③ Bidirectional silver/silver should be used in lieu of monodirectional silver on both sides of two-lane bridges where the pavement is less than 24" wider than the pavement approaching the bridge.

- ◁ Monodirectional silver
- ◁ Monodirectional amber
- ◁ Terminal Marker - Black/Yellow Left or Right as appropriate

TWO-WAY TRAFFIC

GUARDRAIL / BARRIER WALL / BRIDGE RAIL REFLECTORS



SHEETING POSITION: CASE II

635-1

REVISIONS	
NAME	DATE

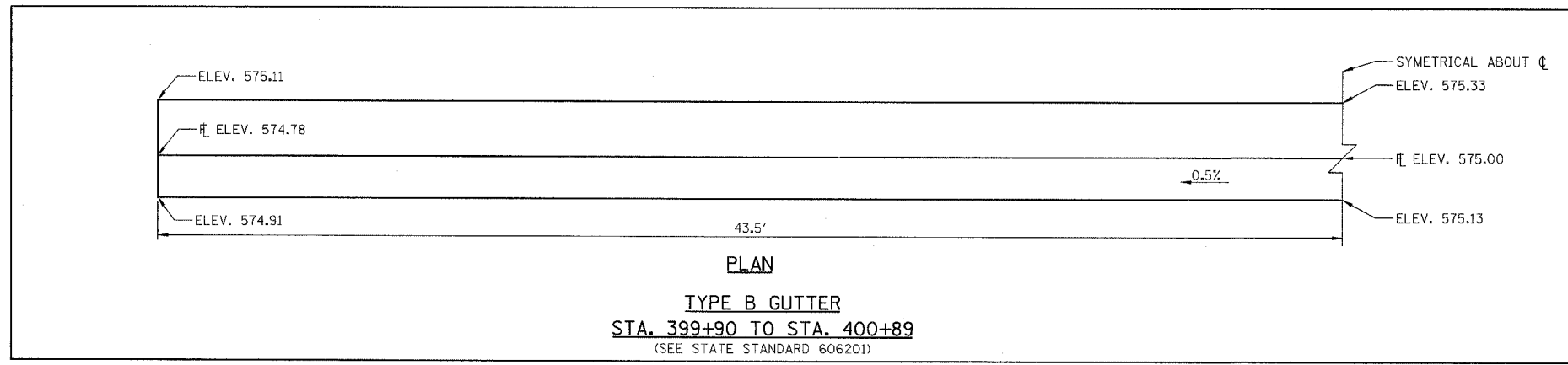
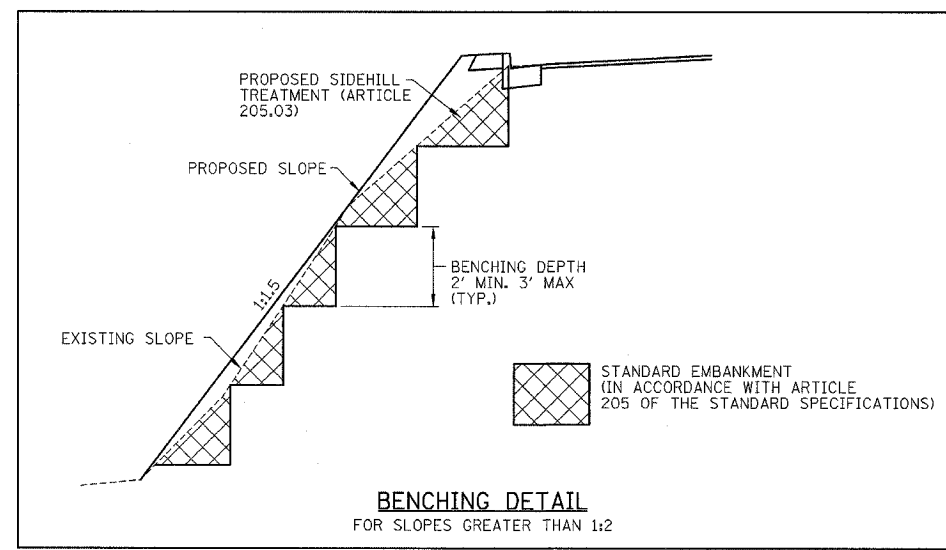
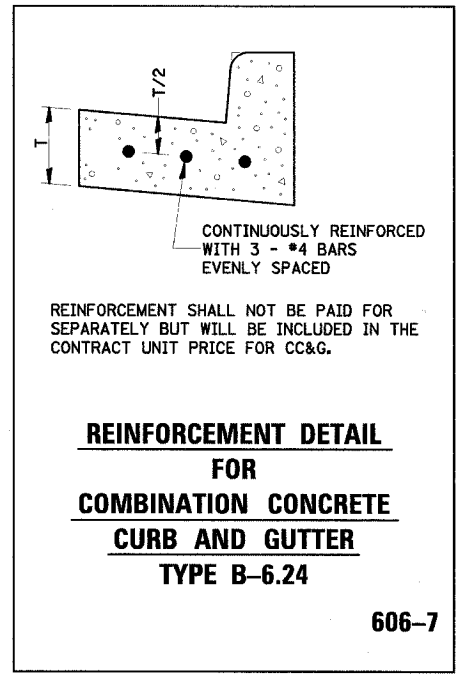
ILLINOIS DEPARTMENT OF TRANSPORTATION

REFLECTOR AND TERMINAL MARKER PLACEMENT

SCALE: VERT. DATE
HORIZ.

DRAWN BY
CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(1-1)I-1	LA SALLE	60	51
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 66550				

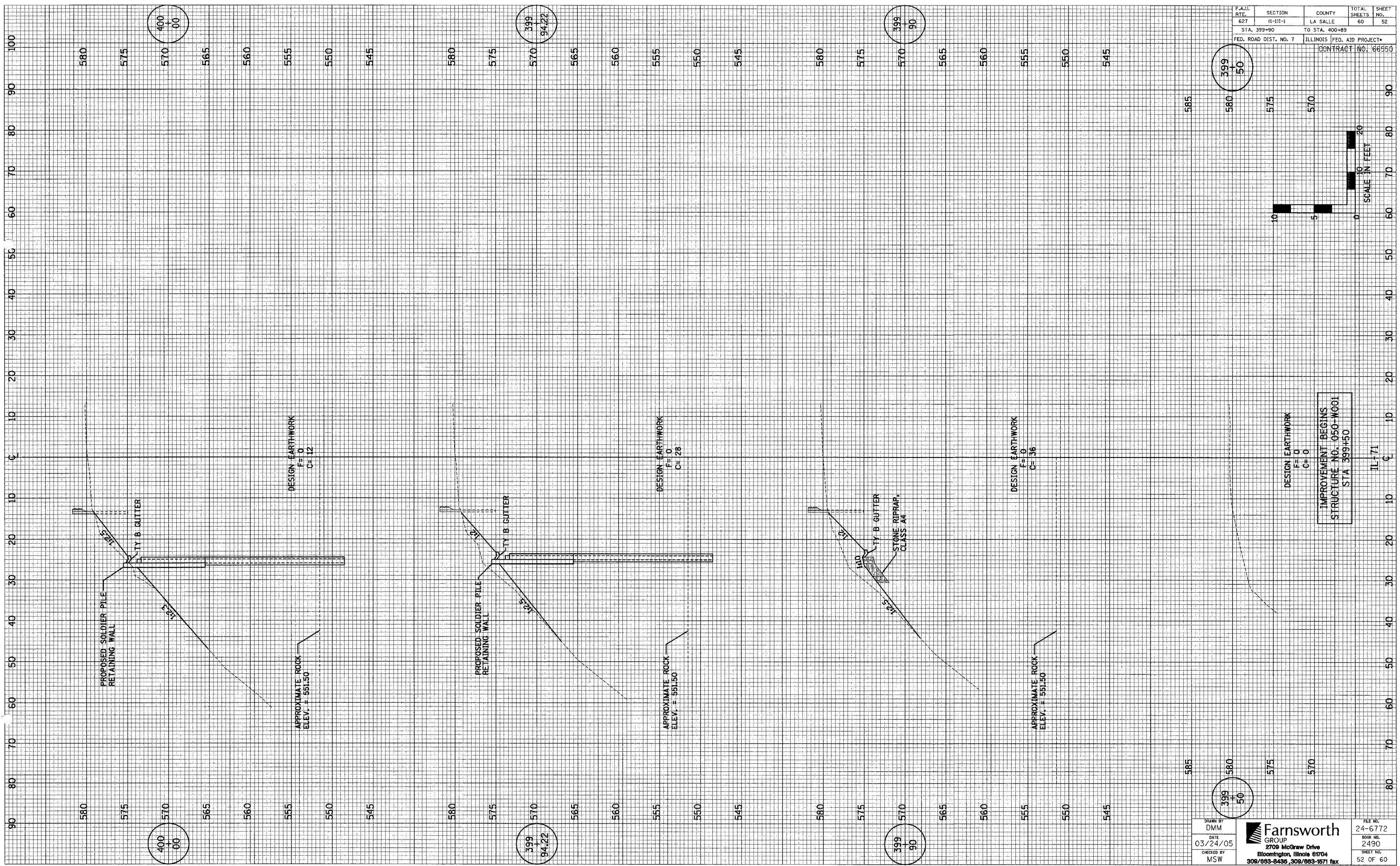


DISTRICT DETAIL AND DETAILS

IL ROUTE 71
OVER TRIBUTARY TO ILLINOIS RIVER
F.A.P. ROUTE 627 - SEC. (1-1)I-1
LA SALLE COUNTY

DESIGNED BY MSW	<p>Farnsworth GROUP 2708 McGraw Drive Bloomington, Illinois 61704 309/883-6426 309/883-9771 fax</p>	FILE NO. 24-6772
DRAWN BY DJM		DATE 03/24/05
CHECKED BY MSW		SHEET NO. 51 OF 60

F.A.U. RTE. 627	SECTION 11-112-1	COUNTY LA SALLE	TOTAL SHEETS 60	SHEET NO. 52
STA. 399+90		TO STA. 400+89		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT*		
CONTRACT NO. 66550				



IMPROVEMENT BEGINS
STRUCTURE NO. 050-W001
STA 399+50

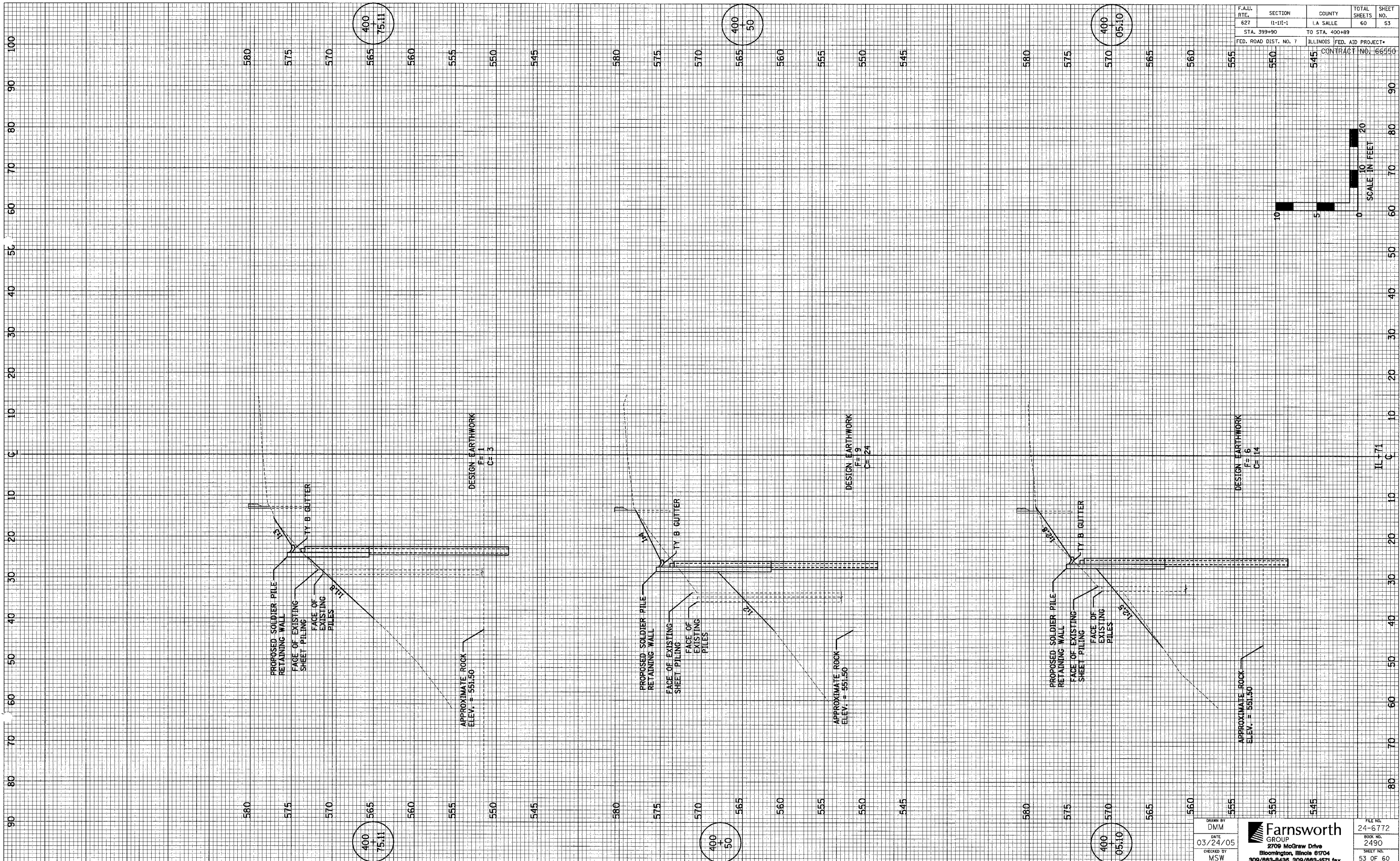
DRAWN BY
DMM
DATE
03/24/05
CHECKED BY
MSW

Farnsworth
GROUP
2708 McGraw Drive
Bloomington, Illinois 61704
308/663-8436, 309/663-1671 fax

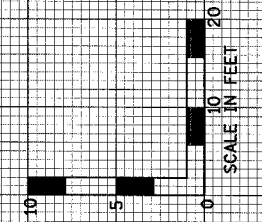
FILE NO.
24-6772
BOOK NO.
2490
SHEET NO.
52 OF 60

CS-1

STRUCTURE NO. 050-W001



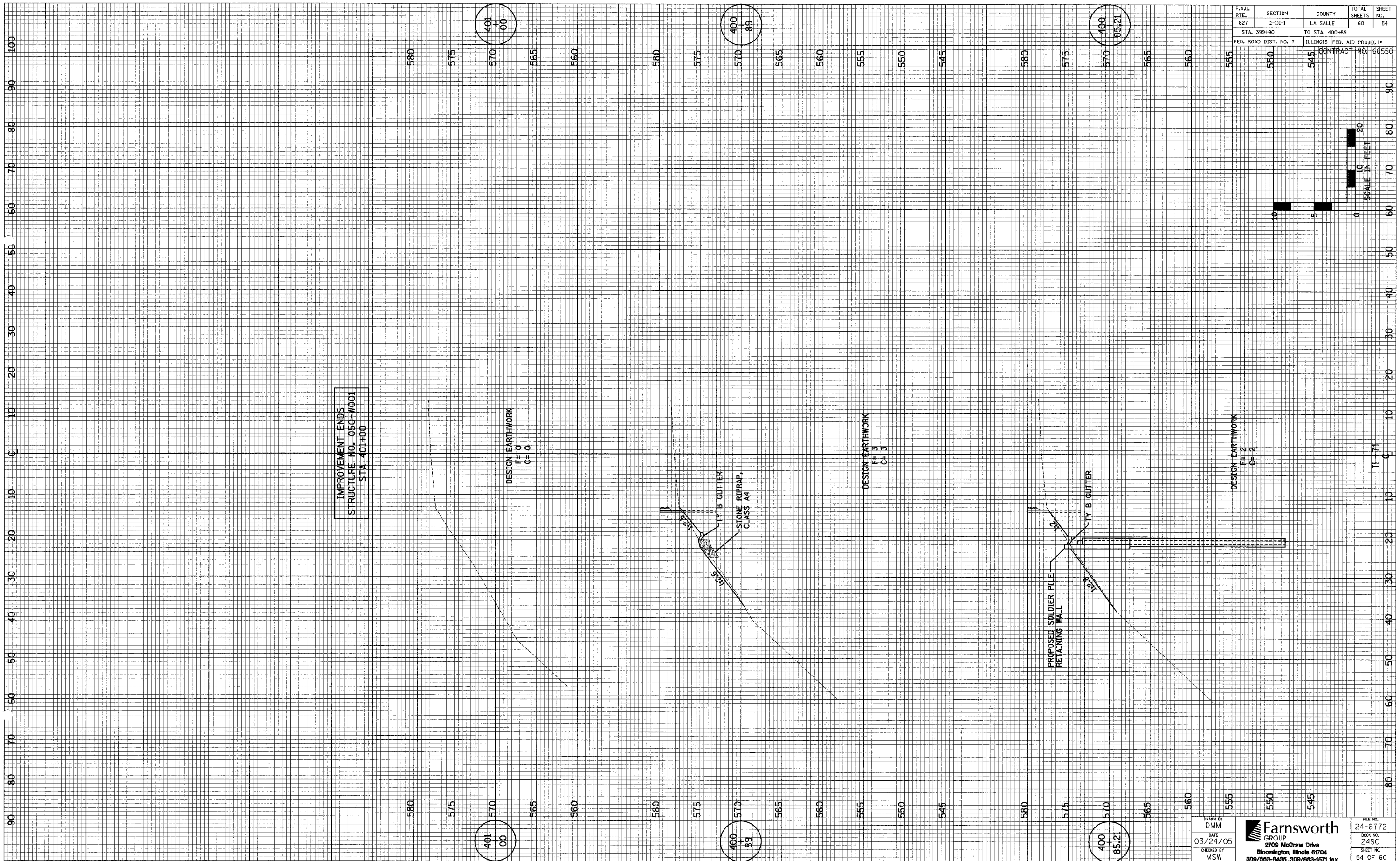
F.A.LL. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	11-111-1	LA SALLE	60	53
STA. 399+90		TO STA. 400+89		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT*		
		CONTRACT NO. 66550		



DRAWN BY DMM DATE 03/24/05 CHECKED BY MSW	Farnsworth GROUP 2709 McGraw Drive Bloomington, Illinois 61704 309/693-8436, 309/693-1671 fax	FILE NO. 24-6772 BOOK NO. 2490 SHEET NO. 53 OF 60
--	--	--

CS-2

STRUCTURE NO. 050-W001



F.A.I.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(I-III-1)	LA SALLE	60	54
STA. 399+90		TO STA. 400+89		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT*		
		CONTRACT NO. 66950		

IMPROVEMENT ENDS
STRUCTURE NO. 050-W001
STA 401+00

DESIGN EARTHWORK
F=0
C=0

DESIGN EARTHWORK
F=3
C=3

DESIGN EARTHWORK
F=2
C=2

PROPOSED SOLDIER PILE
RETAINING WALL

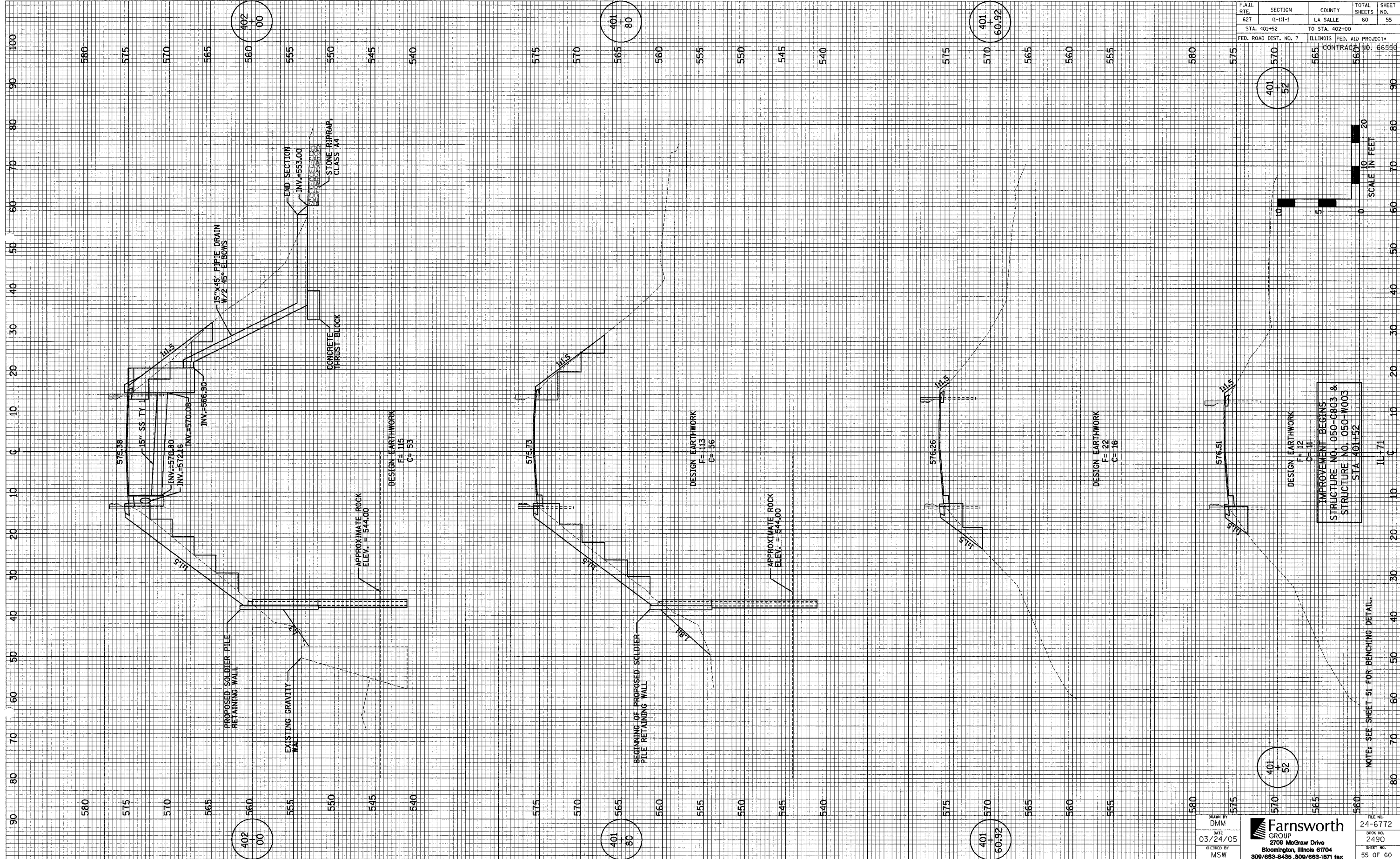
TY B GUTTER
STONE RIPRAP,
CLASS A4

DRAWN BY
DMM
DATE
03/24/05
CHECKED BY
MSW

Farnsworth
GROUP
2709 McGraw Drive
Bloomington, Illinois 61704
309/663-8435, 309/663-9571 fax

FILE NO.
24-6772
BOOK NO.
2490
SHEET NO.
54 OF 60

F.A.I.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	II-III-1	LA SALLE	60	55
STA. 401+52		TO STA. 402+00		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT*		
		CONTRACT NO. 66550		

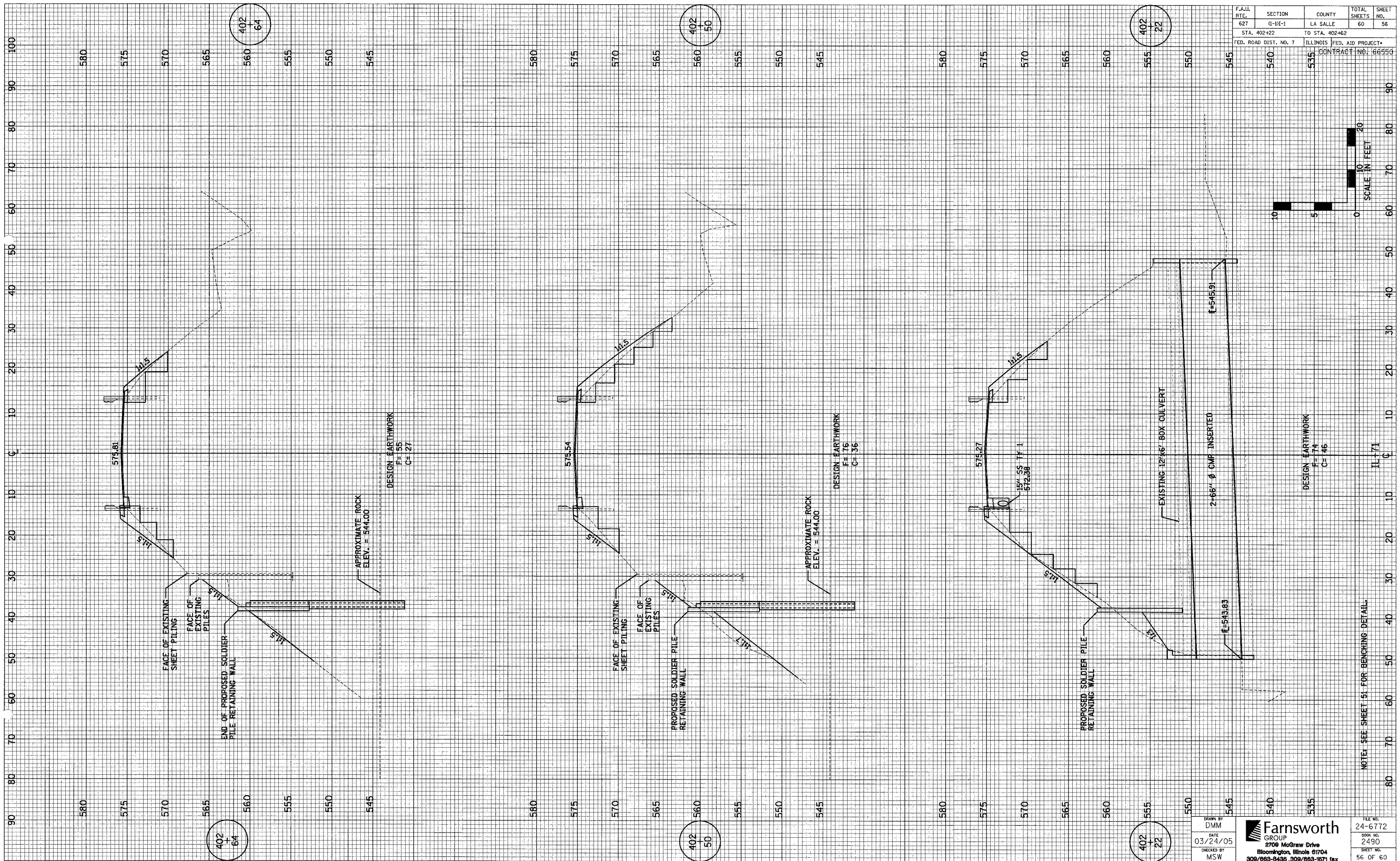


IMPROVEMENT BEGINS
STRUCTURE NO. 050-C803 &
STRUCTURE NO. 050-W003
STA. 401+52

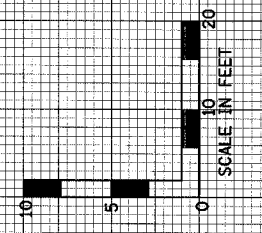
NOTE: SEE SHEET 51 FOR BENCHING DETAIL.

DRAWN BY DMM	FILE NO. 24-6772
DATE 03/24/05	BOOK NO. 2490
CHECKED BY MSW	SHEET NO. 55 OF 60

Farnsworth GROUP
2708 McGraw Drive
Bloomington, Illinois 61704
309/893-8436, 309/893-1571 fax



F.A.U. REL. 627	SECTION (I)-VI-1	COUNTY LA SALLE	TOTAL SHEETS 60	SHEET NO. 56
STA. 402+22		TO STA. 402+62		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66550		



402
+
64

402
+
50

402
+
22

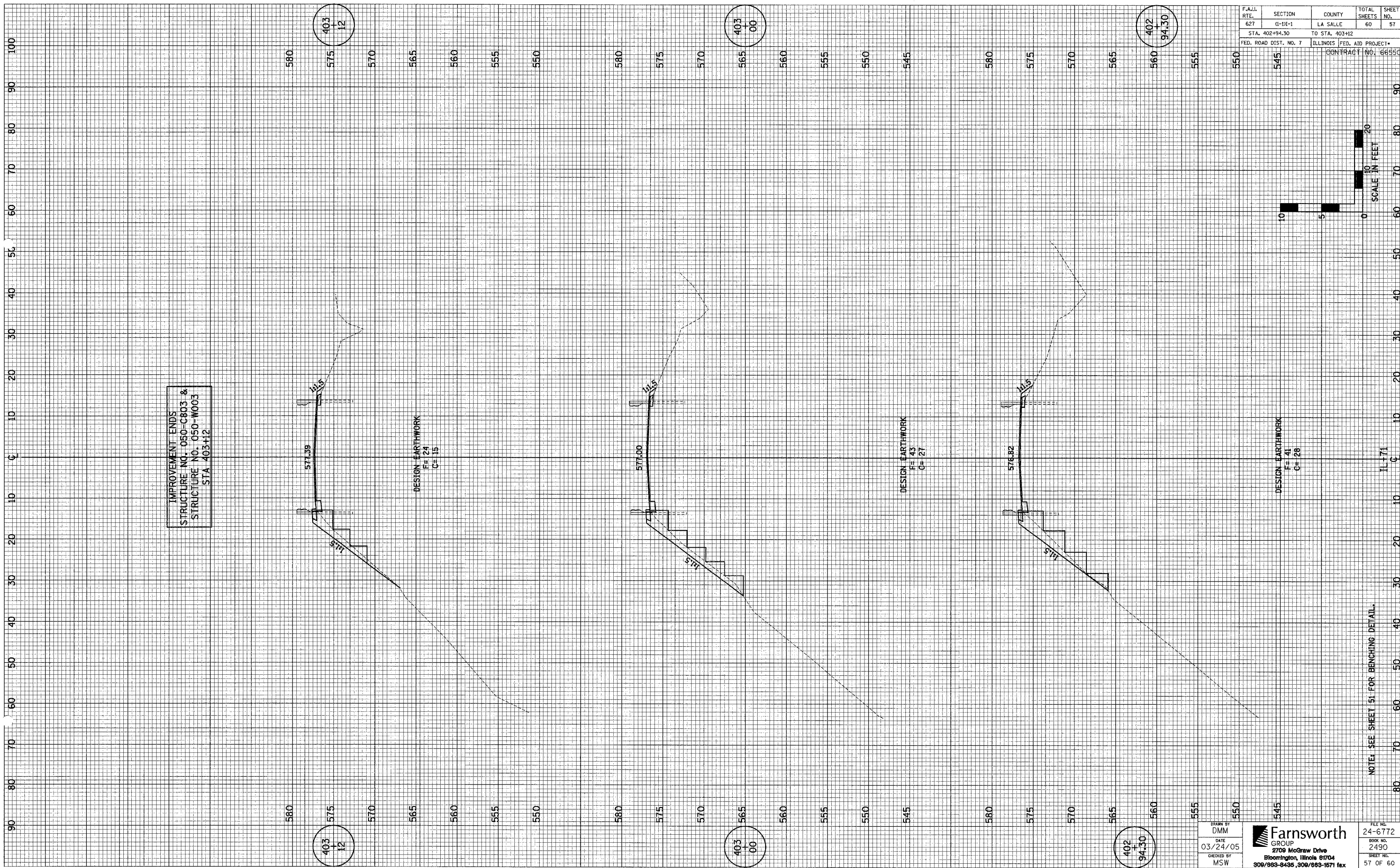
402
+
64

402
+
50

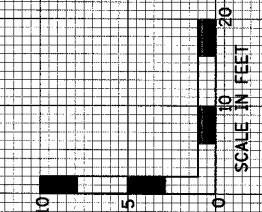
402
+
22

DRAWN BY DMM	FILE NO. 24-6772
DATE 03/24/05	BOOK NO. 2490
CHECKED BY MSW	SHEET NO. 56 OF 60
Farnsworth GROUP 2708 McGraw Drive Bloomington, Illinois 61704 309/863-6436, 309/863-5711 fax	

NOTE: SEE SHEET 51 FOR BENCHING DETAIL.



F.A.I.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	(L-III-1	LA SALLE	60	57
STA. 402+94.30		TO STA. 403+12		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT*		
CONTRACT NO. 66550				



IMPROVEMENT ENDS
STRUCTURE NO. 050-C803 &
STRUCTURE NO. 050-W003
STA 403+12

403
+
12

403
+
00

402
+
94.30

403
+
12

403
+
00

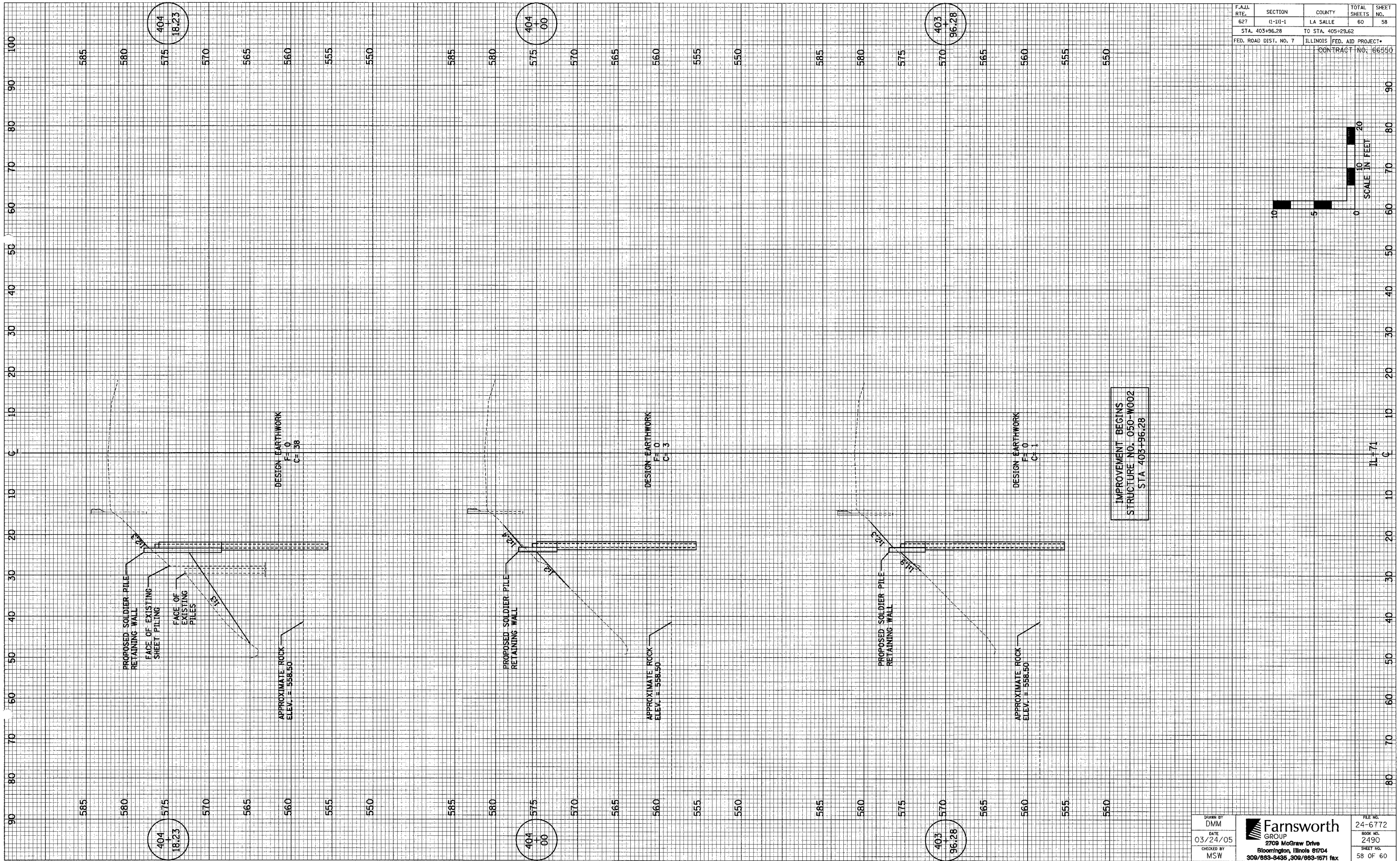
402
+
94.30

DRAWN BY
DMM
DATE
03/24/05
CHECKED BY
MSW

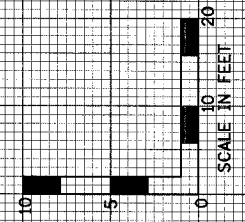
Farnsworth
GROUP
2700 McGraw Drive
Bloomington, Illinois 61704
309/893-8435, 309/863-1571 fax

FILE NO.
24-6772
BOOK NO.
2490
SHEET NO.
57 OF 60

NOTE: SEE SHEET 51 FOR BENCHING DETAIL.



F.A.I.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	IL-111-1	LA SALLE	60	58
STA. 403+96.28		TO STA. 405+29.62		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT*	
CONTRACT NO. 66550				



IMPROVEMENT BEGINS
STRUCTURE NO. 050-W002
STA 403+96.28

IL-171

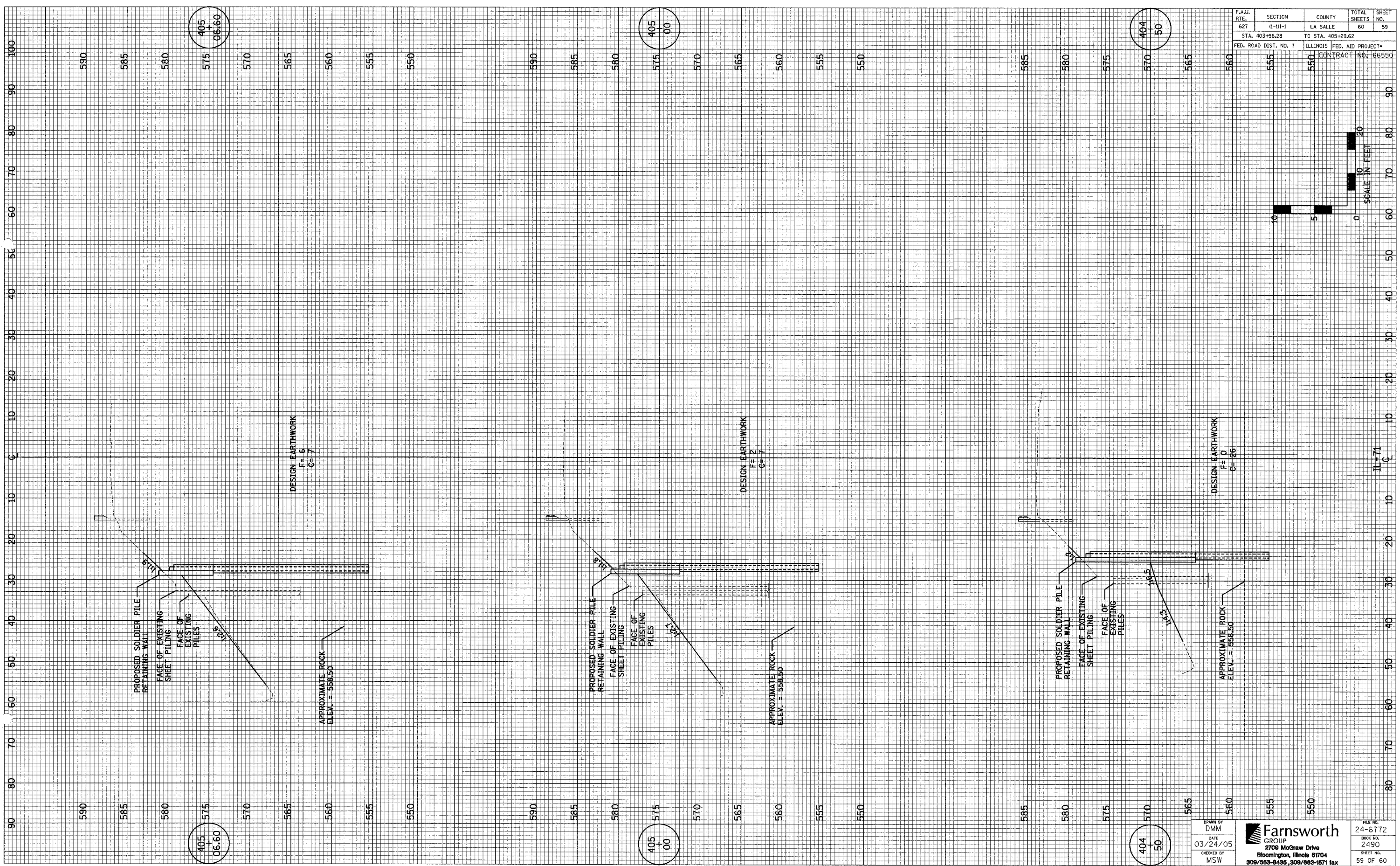
DRAWN BY
DMM
DATE
03/24/05
CHECKED BY
MSW

Farnsworth
GROUP
2709 McGraw Drive
Bloomington, Illinois 61704
309/883-8435, 309/883-9571 fax

FILE NO.
24-6772
BOOK NO.
2490
SHEET NO.
58 OF 60

CS-1

STRUCTURE NO. 050-W002



F.A.I.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
627	0-111-1	LA SALLE	60	59
STA. 403+96.28		TO STA. 405+29.62		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT*		
		CONTRACT NO. 66550		

DRAWN BY DMM	FILE NO. 24-6772
DATE 03/24/05	BOOK NO. 2490
CHECKED BY MSW	SHEET NO. 59 OF 60

Farnsworth GROUP
2709 McCreaw Drive
Bloomington, Illinois 61704
309/883-8435, 309/883-1571 fax

