

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
213	0102B-1	COOK	54	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 62390	

D-91-052-02

**PROJECT LOCATED IN THE VILLAGE OF PALOS PARK**

**FOR INDEX OF SHEETS, SEE SHEET NO. 2**

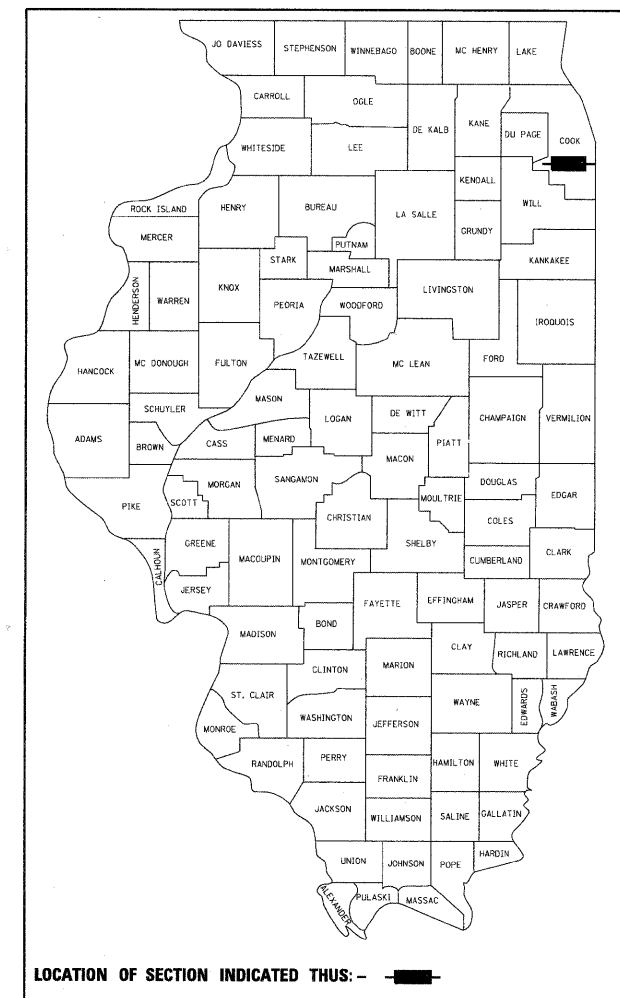
**DESIGN DESIGNATION**  
1800(20) LOCAL ROAD URBAN 0.02 (FP-20)

ADT 1,300 (2010)  
ADT 1920 (2021)  
POSTED SPEED LIMIT 35 MPH  
DESIGN SPEED LIMIT 35 MPH

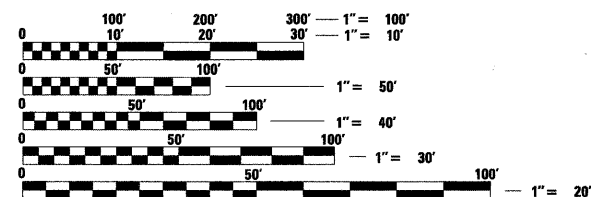
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS**

**PROPOSED  
HIGHWAY PLANS**

**OR 213 /119TH STREET  
OVER MILL CREEK  
SECTION: 0102B-1  
BRIDGE REPLACEMENT  
COOK COUNTY  
C-91-052-02**



**PROJECT SCOPE OF WORK**  
SCOPE OF WORK INCLUDES THE REMOVAL AND REPLACEMENT OF THE EXISTING BRIDGE STRUCTURE SN 016-0921 WITH A NEW BRIDGE (SN 016-2831), APPROACH ROADWAY RECONSTRUCTION AND RESURFACING.



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

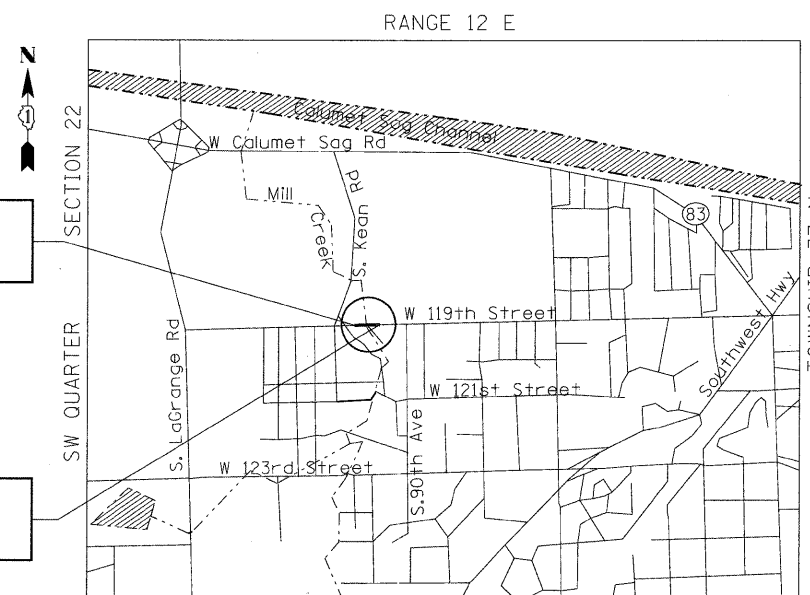
**J.U.L.I.E.**  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

**PROJECT MANAGER: BRIAN KUTTAB (847) 705-4431**  
**PROJECT ENGINEER: RON ZENAROSA (847) 705-4212**

**CONTRACT NO. 62390**

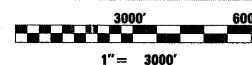
**PROJECT BEGINS  
STA. 17+53.36**

**PROJECT ENDS  
STA. 22+39.64**



PALOS & LYONS TOWNSHIP

LOCATION MAP



NET AND GROSS LENGTH OF PROJECT = 486.28' = 0.092 MI

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS**

SUBMITTED MAY 5, 20 11

Diana M. O'Keefe  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

August 19 20 11  
Scott E. Stitt, P.E.  
ENGINEER OF DESIGN AND ENVIRONMENT

August 19 20 11  
Christina M. Reed  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

**LONGO, INC.**  
CONSULTING ENGINEERS  
1560 WALL ST., SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: 630/577-9100

Professional Engineer Seal: WILLIAM H. LEIP, REGISTERED PROFESSIONAL ENGINEER, No. 081-005150, Expires 11-30-12

Professional Engineer Seal: WILLIAM H. LEIP, REGISTERED PROFESSIONAL ENGINEER, No. 082-047827, Expires 11-30-11

**SHEET NO. TITLE**

1	COVER SHEET
2	GENERAL NOTES, STATE STANDARDS AND INDEX OF SHEETS
3-4	SUMMARY OF QUANTITIES
5-6	TYPICAL SECTIONS
7	ALIGNMENT, TIES, AND BENCH MARKS
8	EXISTING PLAN & UTILITY PLAN
9-10	PLAN AND PROFILE
11	DETOUR PLAN
12	EROSION CONTROL PLAN
13	PAVEMENT MARKING PLAN
14	LANDSCAPING DETAILS
15-38	STRUCTURAL SHEETS
39	FRAMES AND LIDS ADJUSTMENT WITH MILLING; AND FRAMES AND LIDS ADJUSTMENT WITHOUT MILLING
40	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
41	BUTT JOINTS AND HMA TAPER DETAILS
42	HMA TAPER AT EDGE OF PCC PAVEMENT
43	STEEL PLATE BEAM GUARDRAIL ADJACENT TO CURB AND GUTTER AND STABILIZATION AT TBT TY. I SPL.
44	FIRE HYDRANT TO BE MOVED
45	BENCHING DETAIL FOR EMBANKMENT WIDENING
46	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
47	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW FLOW RESISTANT)
48	TYPICAL PAVEMENT MARKING
49	TEMPORARY INFORMATIONAL SIGNING
50	DETAIL SHEET - TRAFFIC BARRIER TERMINAL, TYPE 6 SPECIAL
51-54	CROSS SECTIONS
	HIGHWAY STANDARDS

**HIGHWAY STANDARDS**

<b>SHEET NO. TITLE</b>
000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02 AREAS OF REINFORCEMENT BARS
280001-05 TEMPORARY EROSION CONTROL SYSTEMS
353001-04 PCC BASE COURSE WITH HMA BINDER AND SURFACE COURSES
420001-07 PAVEMENT JOINTS
420401-08 BRIDGE APPROACH PAVEMENT
482001-02 HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
482011-03 HMA SHOULDER STRIPS / SHOULDERS WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
515001-03 NAME PLATE FOR BRIDGES
601001-04 SUB-SURFACE DRAINS
602001-02 CATCH BASIN, TYPE A
630001-09 STEEL PLATE BEAM GUARDRAIL
630201-06 PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-05 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-09 TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
701901-01 TRAFFIC CONTROL DEVICES
720001-01 SIGN PANEL MOUNTING DETAILS
720006-02 SIGN PANEL ERECTION DETAILS
720011-01 METAL POSTS (SIGNS, MARKERS, AND DELINEATORS)
729001-01 APPLICATION OF TYPE A AND B METAL POSTS
780001-02 TYPICAL PAVEMENT MARKINGS

**GENERAL NOTES**

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 FOR FILED LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS, AND OTHER FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED).
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF PALOS PARK.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SANDBAGS ON EACH TYPE I OR TYPE II BARRICADE USED, ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL.
- ON STATE STANDARD 482001, AGGREGATE SUBGRADE 12" SHALL BE USED AS THE IMPROVED SUBGRADE. THE ADDITIONAL THICKNESS OF AGGREGATE SUBGRADE UNDER THE SHOULDER SHALL BE INCLUDED IN THE COST PER SQUARE YARD OF "AGGREGATE SUBGRADE 12 IN".
- PILE DRIVING OPERATIONS, AND SHEET PILING OPERATIONS ARE RESTRICTED TO THE WORKING PERIOD FROM 9:00AM TO 5:00PM • WEEKDAYS.
- USE #8 EPOXY-COATED TIE BARS CONFORMING TO ART. 1006.10(B)(2) OF THE STANDARD SPECIFICATIONS FOR LONGITUDINAL CONSTRUCTION JOINT GROUTED-IN-PLACE TIE BAR AS SHOWN ON STATE STANDARD 420001 AND FOR TIEING PC CONCRETE WIDENING TO EXISTING CONCRETE PAVEMENT AS SHOWN ON THE PLANS. THE TIE BARS WILL NOT PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PAVEMENT ITEMS BEING CONSTRUCTED.

**GENERAL NOTES (CONTINUED)**

- WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1/2", WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3" MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).
- BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR IS TO SALVAGE 3 SAMPLE PANELS OF THE EXISTING STONE FACADE BEFORE THE REMOVAL OF THE EXISTING STRUCTURE, TO BE USED FOR COMPARISON PURPOSES. EACH PANEL SHALL BE 3 FOOT BY 3 FOOT IN SIZE. THESE SAMPLES WILL BE TAKEN FROM LOCATIONS SELECTED BY THE ENGINEER, MARKED OUT AND FIELD EXTRACTED IN SUCH A MANNER TO ENSURE THAT THE SAMPLES TAKEN WILL REMAIN IN SOUND CONDITION. THE CONTRACTOR WILL SAFELY STORE THESE SAMPLES FOR FUTURE PRESENTATION TO THE VILLAGE OF PALOS HILLS. THE WORK TO EXTRACT THESE SAMPLES IS IN ADDITION TO THE WORK REQUIRED TO CREATE FORM LINER SAMPLES FOR THE PARAPET WALLS, AND THE PROPOSED BRIDGE FACADE. ALL COSTS INVOLVING THE SECURING, EXTRACTING, STORING, TRANSPORTING, AND PRESENTING THESE EXISTING STONE FACADE SAMPLE PANELS ARE INCLUDED IN THE COST OF THE REMOVAL OF EXISTING STRUCTURES, AND STONE VENEER PAY ITEMS.
- THE CONTRACTOR IS TO PREPARE FIELD EXAMPLES OF AT LEAST THREE DIFFERENT PATTERNS AND COLOR SAMPLES FOR IDOT CONSIDERATIONS PRIOR TO BEGINNING FORM LINER TEXTURES SURFACE WORK. THE CONTRACTOR WILL ALSO PROVIDE AN ADDITIONAL TWO SAMPLES OF EACH OF THE THREE DIFFERENT PATTERNS AND COLOR SAMPLES FOR THE VILLAGE OF PALOS PARK'S USE DURING THEIR REVIEW IN ORDER TO PROVIDE INPUT IN CONJUNCTION WITH THE APPROVAL PROCESS BEING CONDUCTED BY THE DEPARTMENT, AND BY THE ENGINEER. ALL COSTS INVOLVING IN THE SECURING, CREATING, STORING, TRANSPORTING, AND PRESENTING THESE STONE FACADE SAMPLE PANELS IS INCLUDED IN THE COST OF THE REMOVAL OF EXISTING STRUCTURES, AND STONE VENEER PAY ITEMS.
- THE CONTRACTOR SHALL EXERCISE THE UTMOST CARE TO PREVENT ANY DEBRIS FROM THE BRIDGE REMOVAL WORK FROM DROPPING INTO MILL CREEK. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST FOR THE REMOVAL OF EXISTING STRUCTURES PAY ITEM.
- THIS PROJECT REQUIRES A US ARMY CORPS OF ENGINEERS 404 PERMIT. THE PERMIT ISSUED TO THE DEPARTMENT DOES NOT COVER IN STREAM WORK BY THE CONTRACTOR; THEREFORE AFTER AWARD, THE CONTRACTOR WILL NEED TO COORDINATE AND HAVE HIS WORK PLAN APPROVED BY THE CORPS. GUIDELINES ON ACCEPTABLE IN STREAM WORK TECHNIQUES CAN BE FOUND ON THE CORPS WEBSITE [HTTP://WWW.LRC.USACE.ARMY.MIL/](http://www.lrc.usace.army.mil/)
- TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS, CONTACT THE RESIDENT ENGINEER AND MS. PATRICE HARRIS, AREA TRAFFIC FIELD TECHNICIAN, AT (708) 597-9800.
- THE CONTRACTOR WILL NOT BE ALLOWED TO PROCEED WITH ANY WORK ON THIS PROJECT THAT REQUIRES A PERMANENT OR OVER-NIGHT LANE(S) OR SHOULDER(S) CLOSURE PRIOR TO APRIL 1, 2012. TEMPORARY DAY-TIME LANE/ SHOULDER CLOSURES MAY BE ALLOWED BETWEEN THE HOURS OF 9:00AM TO 3:00PM WITH THE WRITTEN PERMISSION/ APPROVAL OF THE ENGINEER AND THE BUREAU OF TRAFFIC OPERATIONS. THE COST TO COMPLY WITH THIS REQUIREMENT SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE INCLUDED IN THE COST OF THE PROJECT AND THIS RESTRICTION SHALL NOT BE CONSIDERED AS A BASIS FOR A TIME EXTENSION.
- A PALOS PARK PUMPING STATION IS LOCATED AT THE PROJECT LIMITS AT THE SOUTH END OF LAKEWOOD AVENUE. PROPOSED PROJECT WORK WILL NOT CONFLICT WITH THE OPERATION OF THE PUMPING STATION.

SUMMARY OF QUANTITIES			URBAN	100% STATE	
CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 0004	BRIDGE 0011
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	201	201	
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	15	15	
20101000	TEMPORARY FENCE	FOOT	580	580	
* 20101100	TREE TRUNK PROTECTION	EACH	5	5	
* 20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	3	3	
* 20101700	<b>SUPPLEMENTAL WATERING</b>	UNIT	26	26	
20200100	EARTH EXCAVATION	CU YD	179	179	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	324	324	
20300100	CHANNEL EXCAVATION	CU YD	1050	1050	
20400800	FURNISHED EXCAVATION	CU YD	646	646	
* 21101815	COMPOST FURNISH AND PLACE, 4"	SQ YD	551	551	
* 25000310	SEEDING, CLASS 4	ACRE	0.11	0.11	
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	10	10	
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	10	10	
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	10	10	
* 25000775	SELECTIVE MOWING STAKES	EACH	1	1	
* 25003310	INTERSEEDING, CLASS 4	ACRE	0.4	0.4	
* 25100105	MULCH, METHOD 1	ACRE	0.4	0.4	
* 25100630	EROSION CONTROL BLANKET	SQ YD	551	551	
* 28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	12	12	
28000305	TEMPORARY DITCH CHECKS	FOOT	39	39	
28000400	PERIMETER EROSION BARRIER	FOOT	826	826	
28100107	STONE RIPRAP, CLASS A4	SQ YD	745		745
28200200	FILTER FABRIC	SQ YD	745		745
35400400	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING, 9"	SQ YD	72	72	

SUMMARY OF QUANTITIES			URBAN	100% STATE	
CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 0004	BRIDGE 0011
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	1	1	
40600300	AGGREGATE (PRIME COAT)	TON	6	6	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	24	24	
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	13	13	
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	147	147	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	98	98	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	113	113	
44000100	PAVEMENT REMOVAL	SQ YD	599	599	
44000161	HOT-MIX ASPHALT SURFACE REMOVAL, 3"	SQ YD	860	860	
44002212	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3"	SQ YD	78	78	
44201297	DOWEL BARS 1"	EACH	340	340	
44201761	CLASS D PATCHES, TYPE I, 10 INCH	SQ YD	39	39	
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	39	39	
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	1081	1081	
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	358	358	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU YD	340		340
50300100	FLOOR DRAINS	EACH	4		4
50300225	CONCRETE STRUCTURES	CU YD	150.1		150.1
50300255	CONCRETE SUPERSTRUCTURE	CU YD	301.5		301.5
50300260	BRIDGE DECK GROOVING	SQ YD	671		671
50300280	CONCRETE ENCASEMENT	CU YD	5.6		5.6
50300285	FORM LINER TEXTURED SURFACE	SQ FT	1411		1411
50300300	PROTECTIVE COAT	SQ YD	763		763
50400905	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 42 IN.	FOOT	496		496
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	74760		74760

\* Specialty Items

**LONCO INC.**  
CONSULTING ENGINEERS  
1960 WALL ST., SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

DESIGNED - MJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, SLV	REVISED -
DATE - 07/01/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
119TH STREET OVER MILL CREEK

SCALE: NONE SHEET NO. 1 OF 2 SHEETS STA. 17+53.36 TO STA. 22+39.64

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
213	0102B-1	COOK	54	3
D-91-052-02			CONTRACT NO. 62390	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES			URBAN	100% STATE	
CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 0004	BRIDGE 0011
50800515	BAR SPLICERS	EACH	182		182
51201700	FURNISHING STEEL PILES HP12x74	FOOT	771		771
51202305	DRIVING PILES	FOOT	771		771
51203700	TEST PILE STEEL HP12x74	EACH	2		2
51204650	PILE SHOES	EACH	20		20
51500100	NAME PLATES	EACH	1		1
56400100	FIRE HYDRANTS TO BE MOVED	EACH	1	1	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	82		82
60266100	VALVE VAULTS TO BE RECONSTRUCTED	EACH	1	1	
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	689	689	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	EACH	1	1	
* 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (FLARED)	EACH	2	2	
63200310	GUARDRAIL REMOVAL	FOOT	890	890	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	15	15	
67100100	MOBILIZATION	L SUM	1	1	
70103815	TRAFFIC CONTROL SURVEILANCE	CAL DAY	100	100	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	12	12	
* 72000100	SIGN PANEL - TYPE I	SQ FT	384	384	
* 72000200	SIGN PANEL - TYPE II	SQ FT	313	313	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1768	1768	
* 78008210	POLYUREA PAVEMENT MARKING TYPE 1 - LINE 4"	FOOT	565	565	
* 78008270	POLYUREA PAVEMENT MARKING TYPE 1 - LINE 24"	FOOT	88	88	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	18	18	
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	8		8

SUMMARY OF QUANTITIES			URBAN	100% STATE	
CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 0004	BRIDGE 0011
* 78200200	BIDIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	6	6	
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	20	20	
* 78201000	TERMINAL MARKER-DIRECT APPLIED	EACH	3	3	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	26	18	8
* B2001164	TREE-CERCIS CANADENSIS (EASTERN REDBUD) 5' HEIGHT, CLUMP FORM, BALLED AND BURLAPPED	EACH	22	22	
* E2020061	VINE-PARTHENOCISSUS QUINQUEFOLIA (VIRGINIA CREEPER), 1-GALLON POT	EACH	15	15	
* K0013100	PERENNIAL PLANTS, WOODLAND TYPE, QUART POT	UNIT	28	28	
* K0026850	PERENNIAL PLANT CARE	SQ YD	944	944	
* K0029622	BROADLEAF WEED CONTROL IN TURF	GALLON	0.5	0.5	
* K0029634	WEED CONTROL, PRE-EMERGENT GRANULAR HERBICIDE	POUND	2	2	
X0324097	COARSE SAND PLACEMENT, 2"	SQ YD	320	320	
X0326671	CONCRETE SURFACE COLOR TREATMENT	SQ FT	1411		1411
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	229		229
X4023000	TEMPORARY ACCESS (ROAD)	EACH	1	1	
* X6310218	TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL)	EACH	2	2	
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
Z0004552	APPROACH SLAB REMOVAL	SQ YD	116		116
Z0001050	AGGREGATE SUBGRADE, 12"	SQ YD	637	637	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
Z0018002	DRAINAGE SCUPPERS, DS-II	EACH	2		2
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	200	200	
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	206		206
Z0049790	RELOCATING NAME PLATES	EACH	1		1
* Z0064800	SELECTIVE CLEARING	UNIT	30	30	
* X5030310	STONE VENEER	SQ FT	1388		1388

\*Specialty Items

**LONCO, INC.**  
CONSULTING ENGINEERS  
1560 WALL ST., SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

DESIGNED - MJY  
DRAWN - ST, TSC  
CHECKED - MJY, SLV  
DATE - 07/01/2011

REVISED -  
REVISED -  
REVISED -  
REVISED -

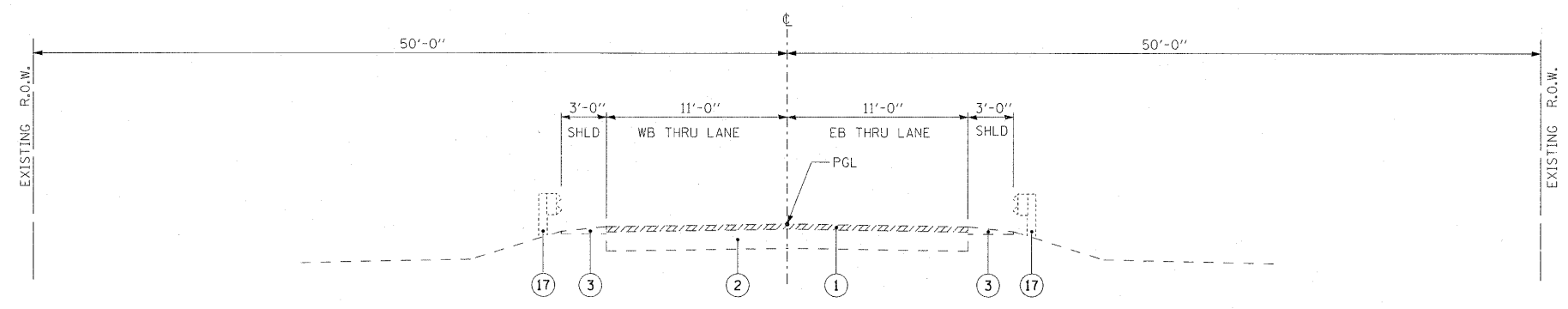
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
119TH STREET OVER MILL CREEK**

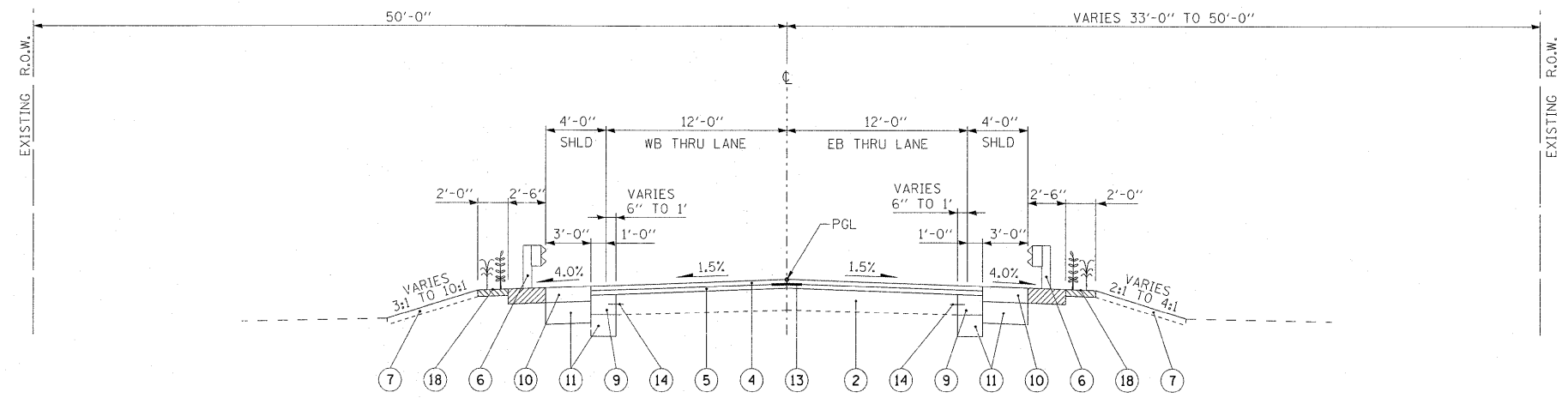
SCALE: NONE SHEET NO. 2 OF 2 SHEETS STA. 17+53.36 TO STA. 22+39.64

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
213	0102B-1	COOK	54	4
D-91-052-02			CONTRACT NO. 62390	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

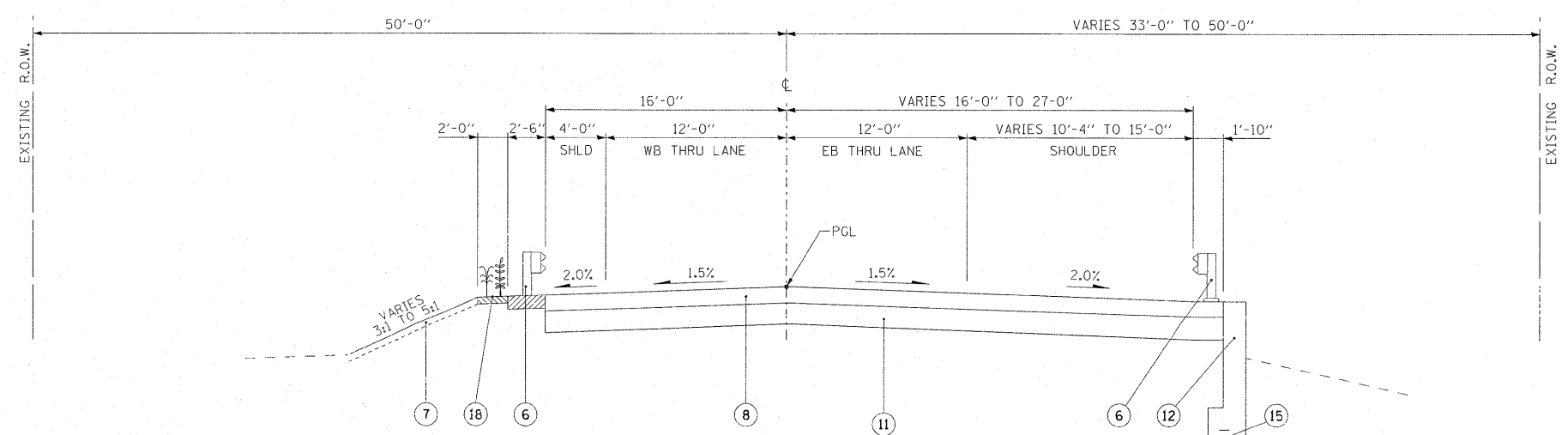




**EXISTING TYPICAL SECTION - 119TH STREET**  
 STA 17+53.36 TO STA 19+68.40  
 STA 20+34.27 TO STA 22+39.64  
 STA. 19+68.40 TO STA. 20+34.27 - SEE BRIDGE PLANS



**PROPOSED TYPICAL SECTION - 119th STREET**  
 STA. 17+53.36 TO STA. 19+35.34  
 STA. 20+93.34 TO STA. 22+39.64



**PROPOSED TYPICAL SECTION - 119th STREET (4)**  
 STA. 19+35.34 TO STA. 19+65.34  
 STA. 19+65.34 TO STA. 20+37.34 - SEE BRIDGE PLANS

**LEGEND**

- ① EXISTING BITUMINOUS SURFACE TO BE REMOVED, THICKNESS VARIES 2" TO 4", PAID AS HOT-MIX ASPHALT SURFACE REMOVAL, 3"
- ② EXISTING PAVEMENT, THICKNESS ±10"
- ③ EXISTING AGGREGATE SHOULDERS - See Note 1
- ④ HOT-MIX ASPHALT SURFACE COURSE, MIX D, N70, 1 1/2"
- ⑤ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70, 2 1/4"
- ⑥ STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POST
- ⑦ COMPOST FURNISH AND PLACE, 4", w/ SEEDING, CLASS 4, AND EROSION CONTROL BLANKET
- ⑧ BRIDGE APPROACH SLAB, PAID AS CONCRETE SUPERSTRUCTURES
- ⑨ PORTLAND CEMENT CONCRETE BASE COURSE WIDENING, 9"
- ⑩ HOT-MIX ASPHALT SHOULDERS, 6"
- ⑪ AGGREGATE SUB-GRADE 12"
- ⑫ RETAINING WALL
- ⑬ STRIP REFLECTIVE CRACK CONTROL TREATMENT
- ⑭ DOWELL BARS, 1"
- ⑮ FURNISHING STEEL PILES HP12X74, w/CAP
- ⑯ EXISTING BITUMINOUS PAVEMENT TO BE REMOVED, PAID AS PAVEMENT REMOVAL
- ⑰ EXISTING GUARDRAIL TO BE REMOVED, PAID AS GUARDRAIL REMOVAL
- ⑱ PERENNIAL PLANT, WOODLAND TYPE, 12" O.C. STAGGERED, WITH COARSE SAND PLACEMENT, 2"

**NOTES**

1. THE EXISTING AGGREGATE SHOULDERS TO BE REMOVED WILL NOT BE PAID FOR SEPARATELY. THE REMOVAL OF THE EXISTING AGGREGATE SHOULDERS SHALL BE CONSIDERED INCLUDED TO THE EARTH EXCAVATION, WHICH IS TO BE MEASURED AND PAID FOR PER CUBIC YARD.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE TYPE	DESIGN AIR Voids	THICKNESS
<b>ROADWAY RESURFACING (119th STREET)</b>		
HMA SURFACE COURSE, MIX "D", N70 (IL-9.5 mm)	4% @ 70 GYR	1 1/2"
HMA BINDER COURSE, IL-19.0, N70	4% @ 70 GYR	2 1/4"
<b>DRIVEWAY (LAKEWOOD AVENUE)</b>		
HMA SURFACE COURSE, MIX "D", N70 (IL-9.5 mm)	4% @ 70 GYR	1 1/2"
HMA BINDER COURSE, IL-19.0, N70	4% @ 70 GYR	2 1/4"
<b>BRIDGE APPROACH PAVEMENT CONNECTOR FLEXIBLE, 15"</b>		
HMA SURFACE COURSE, MIX "D", N70 (IL-9.5 mm)	4% @ 70 GYR	1 1/2"
HMA BINDER COURSE, IL-19.0, N70	4% @ 70 GYR	2 1/4"
<b>SHOULDER</b>		
HMA SHOULDERS (HMA BINDER IL-19 mm)	2% @ 30 GYR	6"
<b>PAVEMENT PATCHING</b>		
CLASS D PATCH (HMA BINDER IL-19 mm)	4% @ 70 GYR	10"
HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19 mm)	4% @ 70 GYR	---

**NOTES:**

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112 LBS/SQ-YD/IN.

THE CONTRACTOR SHALL PATCH FIRST BEFORE MILLING.

"THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70 -22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64 -22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS."  
 "FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS."

**LOWCO, INC.**  
 CONSULTING ENGINEERS  
 1560 WALL ST, SUITE 222  
 NAPERVILLE, ILLINOIS 60563 PH. 630.577.9100

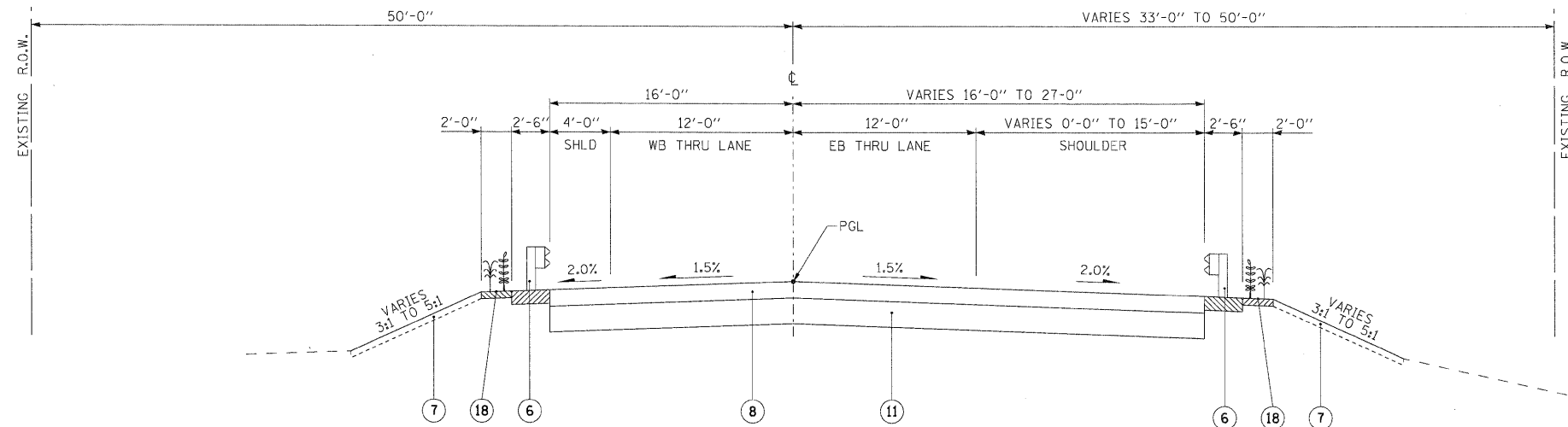
DESIGNED - MJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, SLV	REVISED -
DATE - 07/01/2011	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS  
 119TH STREET OVER MILL CREEK**

SCALE: NONE SHEET NO. 1 OF 2 SHEETS STA. 17+53.36 TO STA. 22+39.64

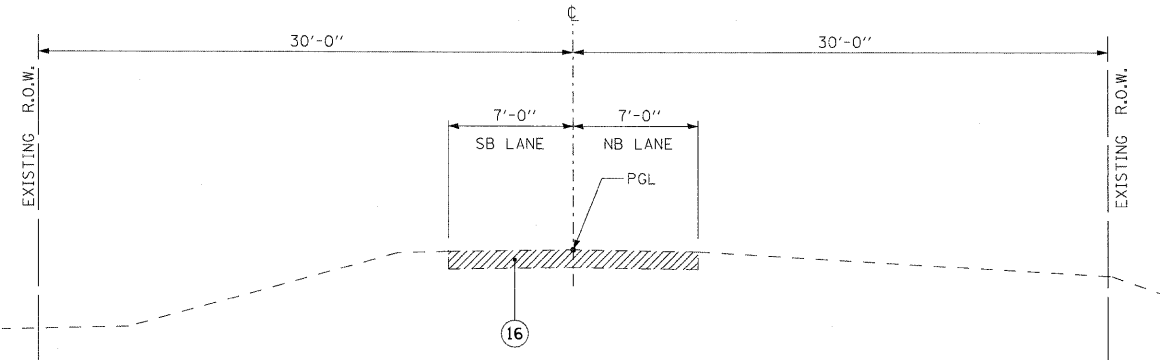
O.R. RTE. 213	SECTION 0102B-1	COUNTY COOK	TOTAL SHEETS 54	SHEET NO. 5
D-91-052-02		CONTRACT NO. 62390		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**PROPOSED TYPICAL SECTION - 119th STREET (4)**

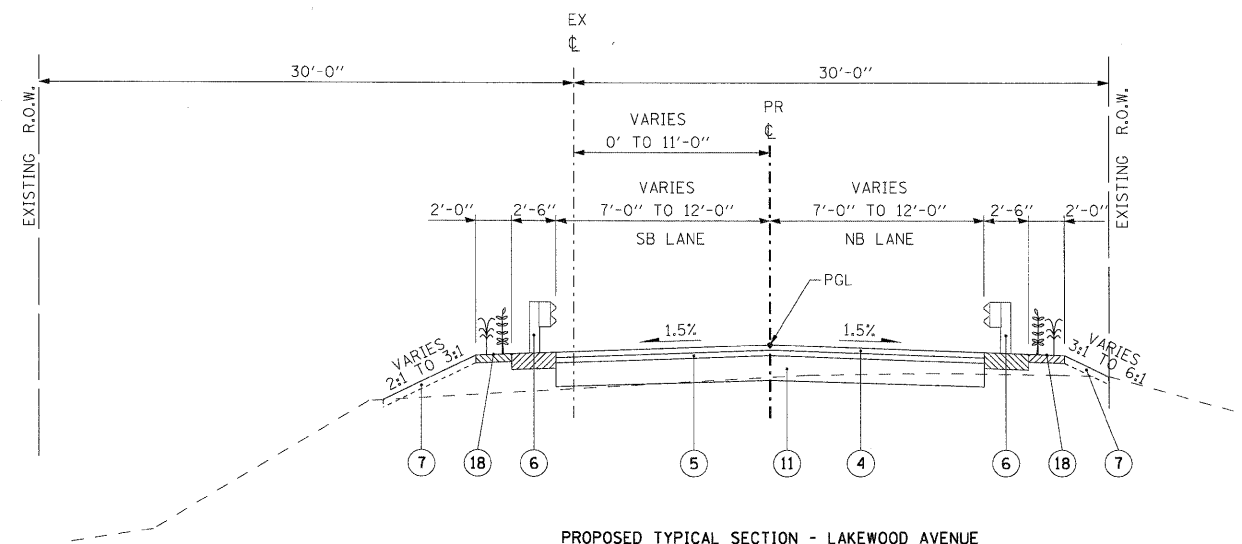
STA. 20+37.34 TO STA. 20+93.34

STA. 20+49.83 TO STA. 20+73.72 - LAKEWOOD AVENUE (RIGHT OF C)



**EXISTING TYPICAL SECTION - LAKEWOOD AVENUE**

STA 4+54.20 TO STA 5+87.84



**PROPOSED TYPICAL SECTION - LAKEWOOD AVENUE**

STA 4+54.20 TO STA 5+67.87

**LEGEND**

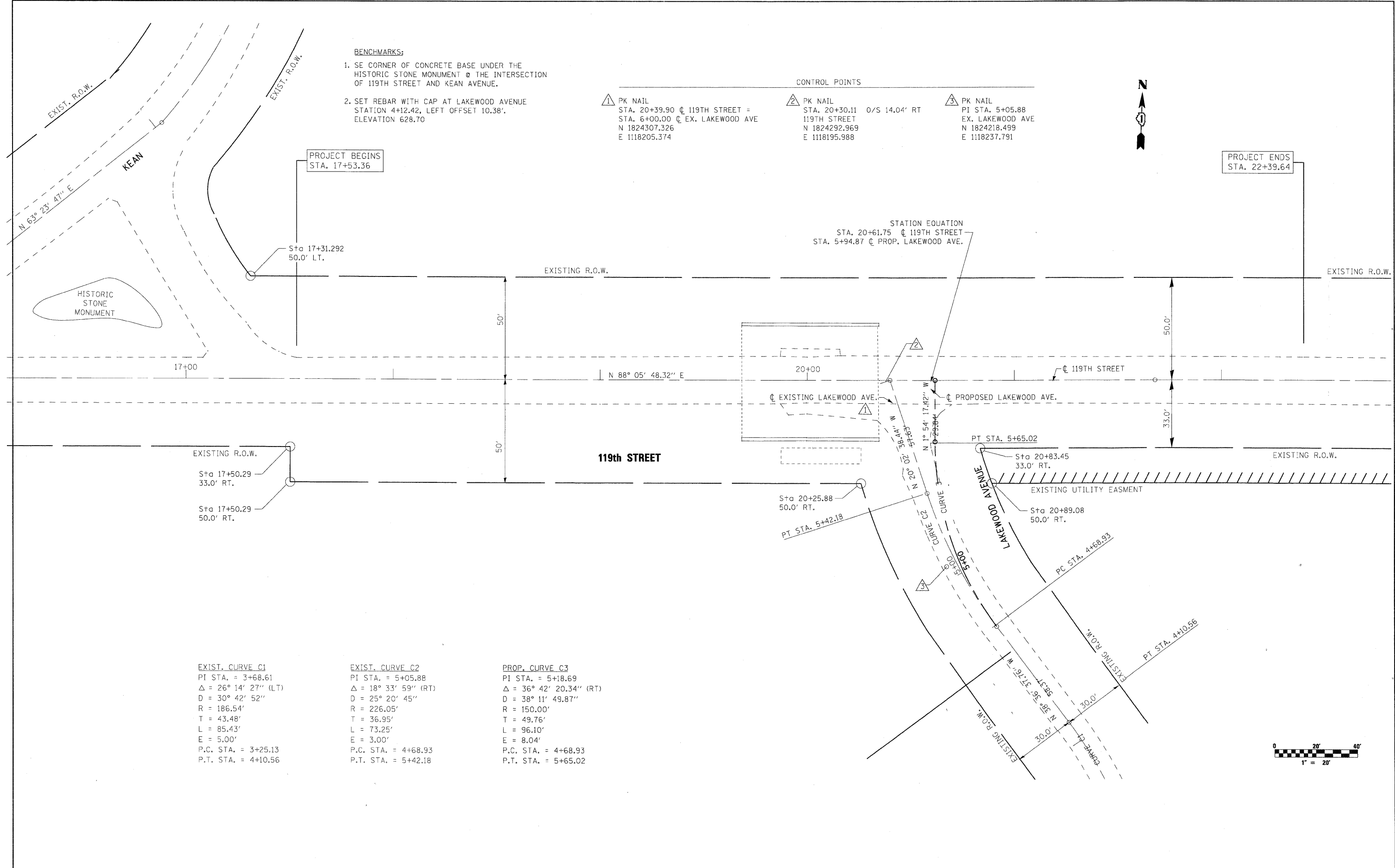
- ① EXISTING BITUMINOUS SURFACE TO BE REMOVED, THICKNESS VARIES 2" TO 4", PAID AS HOT-MIX ASPHALT SURFACE REMOVAL, 3"
- ② EXISTING PAVEMENT, THICKNESS ±10"
- ③ EXISTING AGGREGATE SHOULDERS - See Note 1
- ④ HOT-MIX ASPHALT SURFACE COURSE, MIX D, N70, 1 1/2"
- ⑤ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70, 2 1/4"
- ⑥ STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POST
- ⑦ COMPOST FURNISH AND PLACE, 4", w/ SEEDING, CLASS 4, AND EROSION CONTROL BLANKET
- ⑧ BRIDGE APPROACH SLAB, PAID AS CONCRETE SUPERSTRUCTURES
- ⑨ PORTLAND CEMENT CONCRETE BASE COURSE WIDENING, 9"
- ⑩ HOT-MIX ASPHALT SHOULDERS, 6"
- ⑪ AGGREGATE SUB-GRADE 12"
- ⑫ RETAINING WALL
- ⑬ STRIP REFLECTIVE CRACK CONTROL TREATMENT
- ⑭ DOWELL BARS, 1"
- ⑮ FURNISHING STEEL PILES HP12X74, w/CAP
- ⑯ EXISTING BITUMINOUS PAVEMENT TO BE REMOVED, PAID AS PAVEMENT REMOVAL
- ⑰ EXISTING GUARDRAIL TO BE REMOVED, PAID AS GUARDRAIL REMOVAL
- ⑱ PERENNIAL PLANT, WOODLAND TYPE, 12" O.C. STAGGERED, WITH COARSE SAND PLACEMENT, 2"

**119TH STREET EARTHWORK**

LOCATION	EARTH EXCAVATION CU YD	ADJ. EXCAVATION 15% CU YD	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL CU YD	FURNISHED EXCAVATION CU YD	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) CU YD
STA. 17+53.36 TO 22+39.64	177	150.5	371	483	-332.5

**LAKEWOOD STREET EARTHWORK**

LOCATION	EARTH EXCAVATION CU YD	ADJ. EXCAVATION 15% CU YD	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL CU YD	FURNISHED EXCAVATION CU YD	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) CU YD
STA. 17+53.36 TO 22+39.64	2	1.7	48	163	-161.3



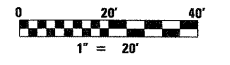
- BENCHMARKS:**
- SE CORNER OF CONCRETE BASE UNDER THE HISTORIC STONE MONUMENT @ THE INTERSECTION OF 119TH STREET AND KEAN AVENUE.
  - SET REBAR WITH CAP AT LAKEWOOD AVENUE STATION 4+12.42, LEFT OFFSET 10.38'. ELEVATION 628.70

**CONTROL POINTS**

① PK NAIL STA. 20+39.90 @ 119TH STREET = STA. 6+00.00 @ EX. LAKEWOOD AVE N 1824307.326 E 1118205.374	② PK NAIL STA. 20+30.11 O/S 14.04' RT 119TH STREET N 1824292.969 E 1118195.988	③ PK NAIL PI STA. 5+05.88 EX. LAKEWOOD AVE N 1824218.499 E 1118237.791
--	--	--

**STATION EQUATION**  
 STA. 20+61.75 @ 119TH STREET  
 STA. 5+94.87 @ PROP. LAKEWOOD AVE.

EXIST. CURVE C1	EXIST. CURVE C2	PROP. CURVE C3
PI STA. = 3+68.61	PI STA. = 5+05.88	PI STA. = 5+18.69
Δ = 26° 14' 27" (LT)	Δ = 18° 33' 59" (RT)	Δ = 36° 42' 20.34" (RT)
D = 30° 42' 52"	D = 25° 20' 45"	D = 38° 11' 49.87"
R = 186.54'	R = 226.05'	R = 150.00'
T = 43.48'	T = 36.95'	T = 49.76'
L = 85.43'	L = 73.25'	L = 96.10'
E = 5.00'	E = 3.00'	E = 8.04'
P.C. STA. = 3+25.13	P.C. STA. = 4+68.93	P.C. STA. = 4+68.93
P.T. STA. = 4+10.56	P.T. STA. = 5+42.18	P.T. STA. = 5+65.02



**LOWCO, INC.**  
 CONSULTING ENGINEERS  
 1560 WALL ST, SUITE 222  
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

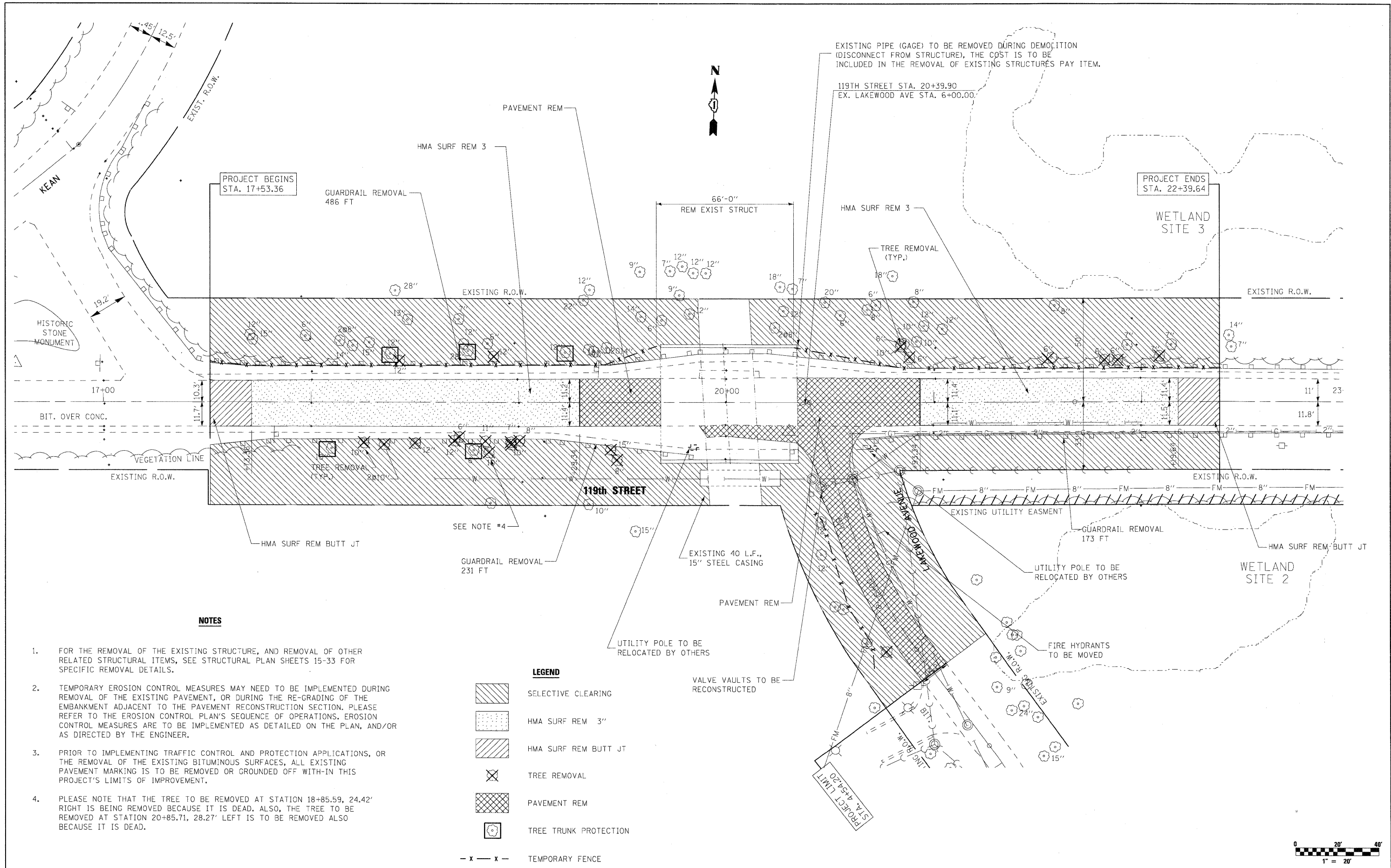
DESIGNED - M.J.Y.	REVISED -
DRAWN - S.T. TSC	REVISED -
CHECKED - M.J.Y. SLV	REVISED -
DATE - 07/01/2011	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ALIGNMENT, TIES & BENCHMARKS  
 119TH STREET OVER MILL CREEK**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 17+53.36 TO STA. 22+39.64







O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
213	0102B-1	COOK	54	7
D-91-052-02			CONTRACT NO. 62390	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



**NOTES**

1. FOR THE REMOVAL OF THE EXISTING STRUCTURE, AND REMOVAL OF OTHER RELATED STRUCTURAL ITEMS, SEE STRUCTURAL PLAN SHEETS 15-33 FOR SPECIFIC REMOVAL DETAILS.
2. TEMPORARY EROSION CONTROL MEASURES MAY NEED TO BE IMPLEMENTED DURING REMOVAL OF THE EXISTING PAVEMENT, OR DURING THE RE-GRADING OF THE EMBANKMENT ADJACENT TO THE PAVEMENT RECONSTRUCTION SECTION. PLEASE REFER TO THE EROSION CONTROL PLAN'S SEQUENCE OF OPERATIONS. EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS DETAILED ON THE PLAN, AND/OR AS DIRECTED BY THE ENGINEER.
3. PRIOR TO IMPLEMENTING TRAFFIC CONTROL AND PROTECTION APPLICATIONS, OR THE REMOVAL OF THE EXISTING BITUMINOUS SURFACES, ALL EXISTING PAVEMENT MARKING IS TO BE REMOVED OR GROUNDED OFF WITH-IN THIS PROJECT'S LIMITS OF IMPROVEMENT.
4. PLEASE NOTE THAT THE TREE TO BE REMOVED AT STATION 18+85.59, 24.42' RIGHT IS BEING REMOVED BECAUSE IT IS DEAD. ALSO, THE TREE TO BE REMOVED AT STATION 20+85.71, 28.27' LEFT IS TO BE REMOVED ALSO BECAUSE IT IS DEAD.

**LEGEND**

-  SELECTIVE CLEARING
-  HMA SURF REM 3"
-  HMA SURF REM BUTT JT
-  TREE REMOVAL
-  PAVEMENT REM
-  TREE TRUNK PROTECTION
-  TEMPORARY FENCE

**LOWCO INC.**  
CONSULTING ENGINEERS  
1560 WALL ST, SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

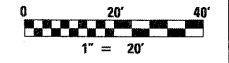
DESIGNED - WJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - WJY, SLV	REVISED -
DATE - 07/01/2011	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING PLAN AND UTILITY PLAN  
119TH STREET OVER MILL CREEK**

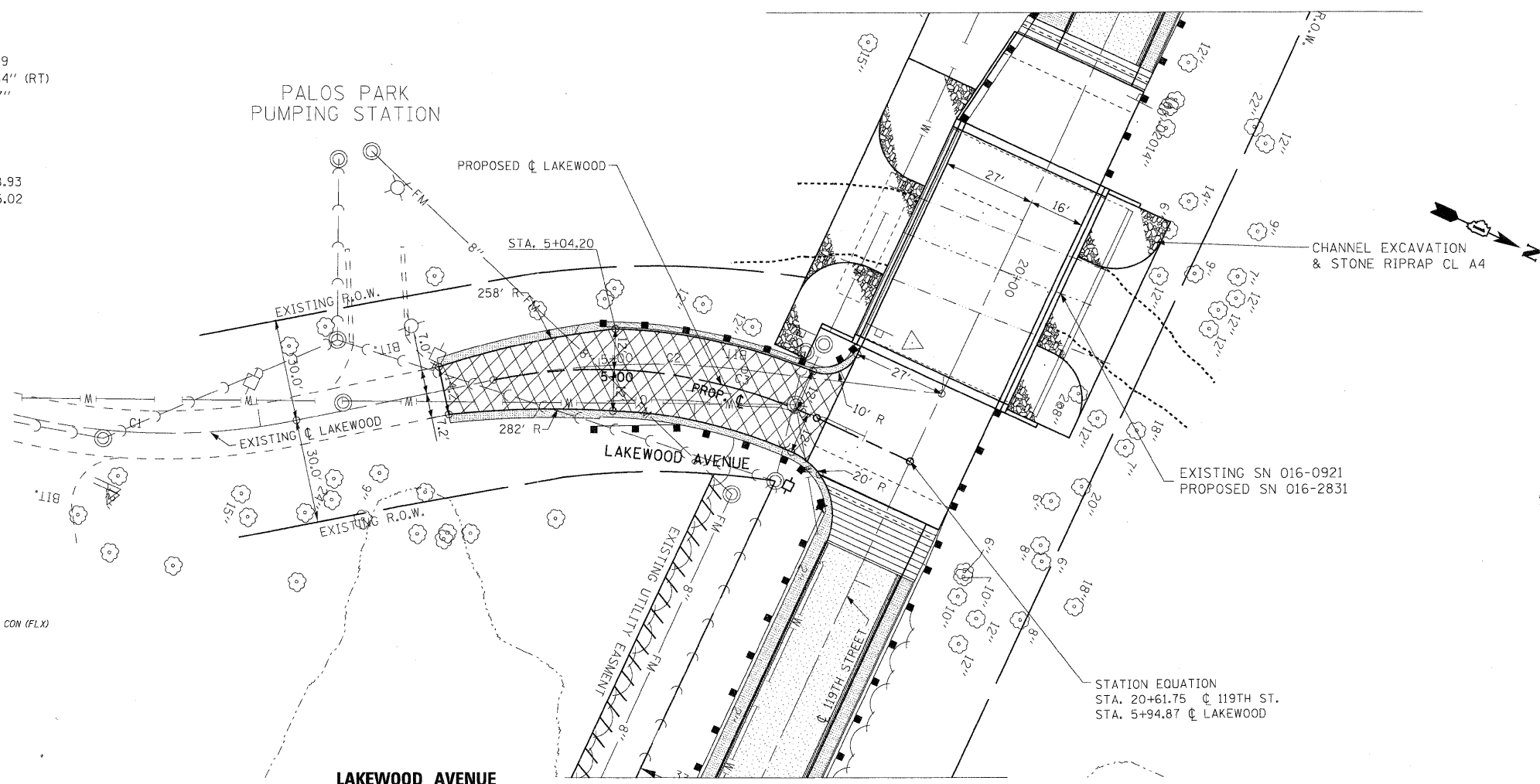
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 17+53.36 TO STA. 22+39.64

O.R. RTE. 213	SECTION 0102B-1	COUNTY COOK	TOTAL SHEETS 54	SHEET NO. 8
D-91-052-02			CONTRACT NO. 62390	
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				





EXIST. CURVE C2	EXIST. CURVE C1	PROP. CURVE C3
PI STA. = 5+05.88	PI STA. = 3+68.61	PI STA. = 5+18.69
$\Delta = 18^\circ 33' 59''$ (RT)	$\Delta = 26^\circ 14' 27''$ (LT)	$\Delta = 36^\circ 42' 20.34''$ (RT)
D = 25° 20' 45"	D = 30° 42' 52"	D = 38° 11' 49.87"
R = 226.05'	R = 186.54'	R = 150.00'
T = 36.95'	T = 43.48'	T = 49.76'
L = 73.25'	L = 85.43'	L = 96.10'
E = 3.00'	E = 5.00'	E = 8.04'
P.C. STA. = 4+68.93	P.C. STA. = 3+25.13	P.C. STA. = 4+68.93
P.T. STA. = 5+42.18	P.T. STA. = 4+10.56	P.T. STA. = 5+65.02

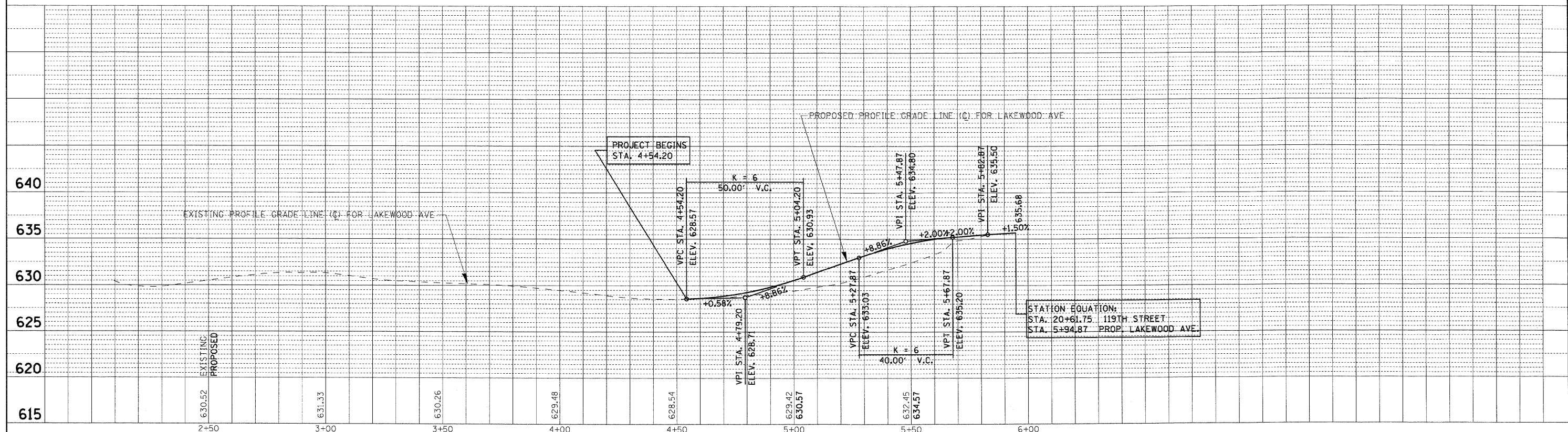


**EXISTING PLAN LEGEND**

- HMA SURF REM BUTT JT
- PCC BASE CSE W 9" & AGGREGATE SUBGRADE 12"
- HMA SURF REM 3 REPLACED W/ HMA SC "D" N70 1 1/2" & HMA BC 1L-19.0 N70 2 1/4"
- EARTH EXCAVATION REPLACED W/ HMA SHOULDERS 6" & AGGREGATE SUBGRADE 12"
- PAVEMENT REMOVAL REPLACED W/ HMA SC "D" N70 1 1/2" HMA BC 1L-19.0 N70 2 1/4" & AGGREGATE SUBGRADE 12"
- BR APPR PVT CON (FLX)

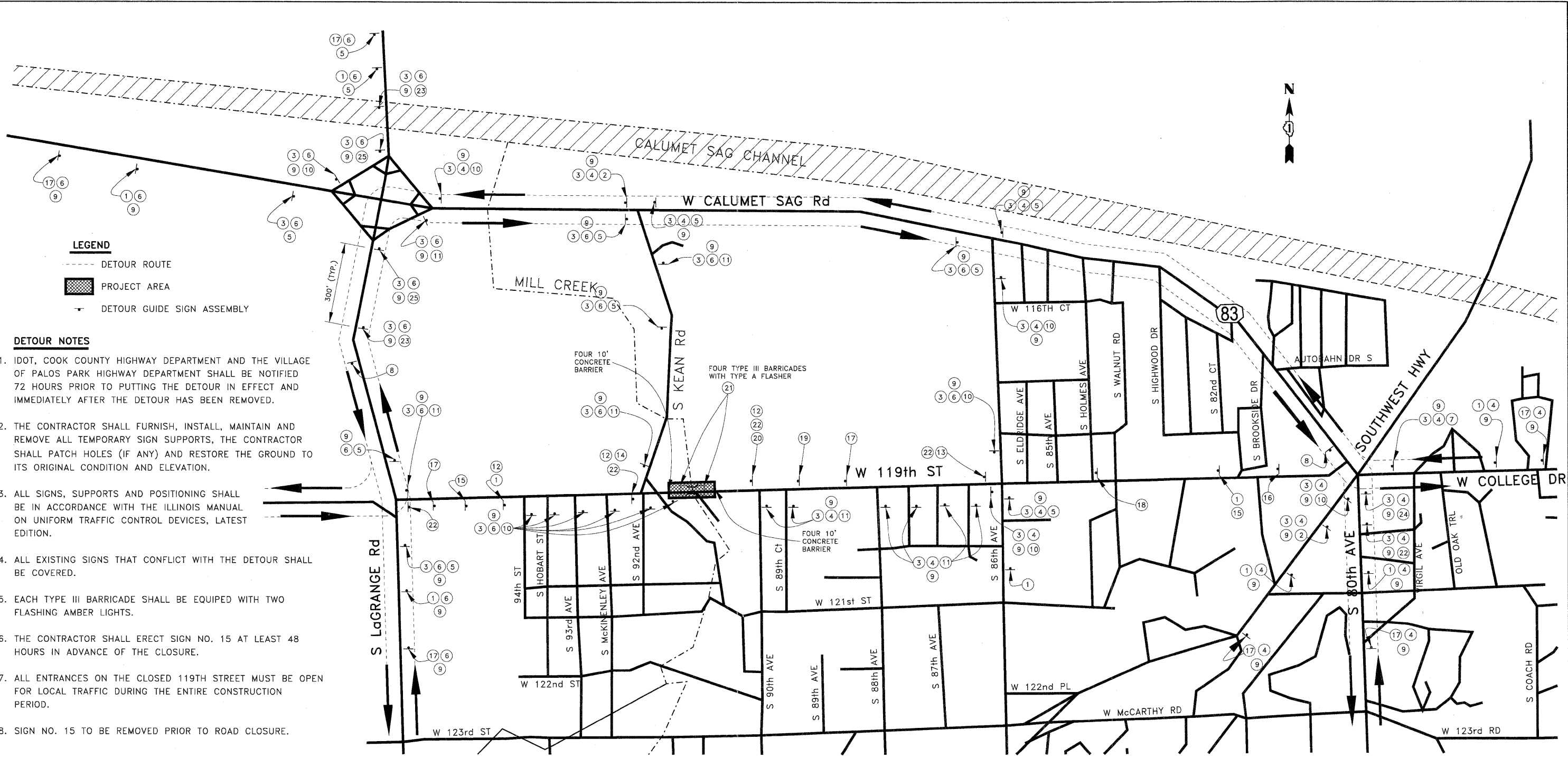
DATE	
PLAN	
SURVEYED	
PLotted	
NOTE BOOK	
NO.	

DATE	
PROFILE	
SURVEYED	
PLotted	
NOTE BOOK	
NO.	



<p>CONSULTING ENGINEERS 1560 WALL ST, SUITE 222 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100</p>	DESIGNED -	REVISED -	<p align="center"><b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b></p>	<p align="center"><b>PLAN AND PROFILE LAKEWOOD AVENUE</b> <b>119TH STREET OVER MILL CREEK</b></p>	O.R. RTE. 213	SECTION 0102B-1	COUNTY COOK	TOTAL SHEETS 54	SHEET NO. 10
	DRAWN -	REVISED -			D-91-052-02		CONTRACT NO. 62390		
CHECKED -	REVISED -	DATE - 07/01/2011		SCALE:	SHEET NO. 2 OF 2 SHEETS		STA. 4+54.20 TO STA. 5+94.87 (LAKEWOOD AVE.)		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT





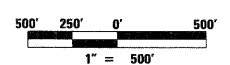
**LEGEND**

- DETOUR ROUTE
- ▨ PROJECT AREA
- ▼ DETOUR GUIDE SIGN ASSEMBLY

- DETOUR NOTES**
1. IDOT, COOK COUNTY HIGHWAY DEPARTMENT AND THE VILLAGE OF PALOS PARK HIGHWAY DEPARTMENT SHALL BE NOTIFIED 72 HOURS PRIOR TO PUTTING THE DETOUR IN EFFECT AND IMMEDIATELY AFTER THE DETOUR HAS BEEN REMOVED.
  2. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE ALL TEMPORARY SIGN SUPPORTS, THE CONTRACTOR SHALL PATCH HOLES (IF ANY) AND RESTORE THE GROUND TO ITS ORIGINAL CONDITION AND ELEVATION.
  3. ALL SIGNS, SUPPORTS AND POSITIONING SHALL BE IN ACCORDANCE WITH THE ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
  4. ALL EXISTING SIGNS THAT CONFLICT WITH THE DETOUR SHALL BE COVERED.
  5. EACH TYPE III BARRICADE SHALL BE EQUIPPED WITH TWO FLASHING AMBER LIGHTS.
  6. THE CONTRACTOR SHALL ERECT SIGN NO. 15 AT LEAST 48 HOURS IN ADVANCE OF THE CLOSURE.
  7. ALL ENTRANCES ON THE CLOSED 119TH STREET MUST BE OPEN FOR LOCAL TRAFFIC DURING THE ENTIRE CONSTRUCTION PERIOD.
  8. SIGN NO. 15 TO BE REMOVED PRIOR TO ROAD CLOSURE.

**DETOUR LEGEND**

1 W20-2 4848 	2 M5-1L 3024 	3 W4-8 2412 	4 2412 	5 M6-3 3024 	6 2412 	7 M5-1R 3024 	8 W4-8a 2412 	9 3018 	10 M6-1L 3024 	11 M6-1R 3024 	12 4830 	13 M4-10R 4818 	14 M4-10L 4818 	28 4830 
15 B/O 	16 W20-1 4848 	17 W20-3 4848 	18 W20-3-48 4848 	19 W20-3-48 4848 	20 W20-3-48 4848 	21 R11-2 4830 	22 M5-2L 3024 	23 M5-2R 3024 	24 M6-2L 3024 	25 M6-2R 3024 	26  TWO TYPE III BARRICADES WITH TYPE A FLASHERS AND R11-4 SIGNS (STAGGERED)			



**LONCO INC.**  
CONSULTING ENGINEERS  
1560 WALL ST, SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

DESIGNED - MJY  
DRAWN - ST, TSC  
CHECKED - MJY, SLV  
DATE - 07/01/2011

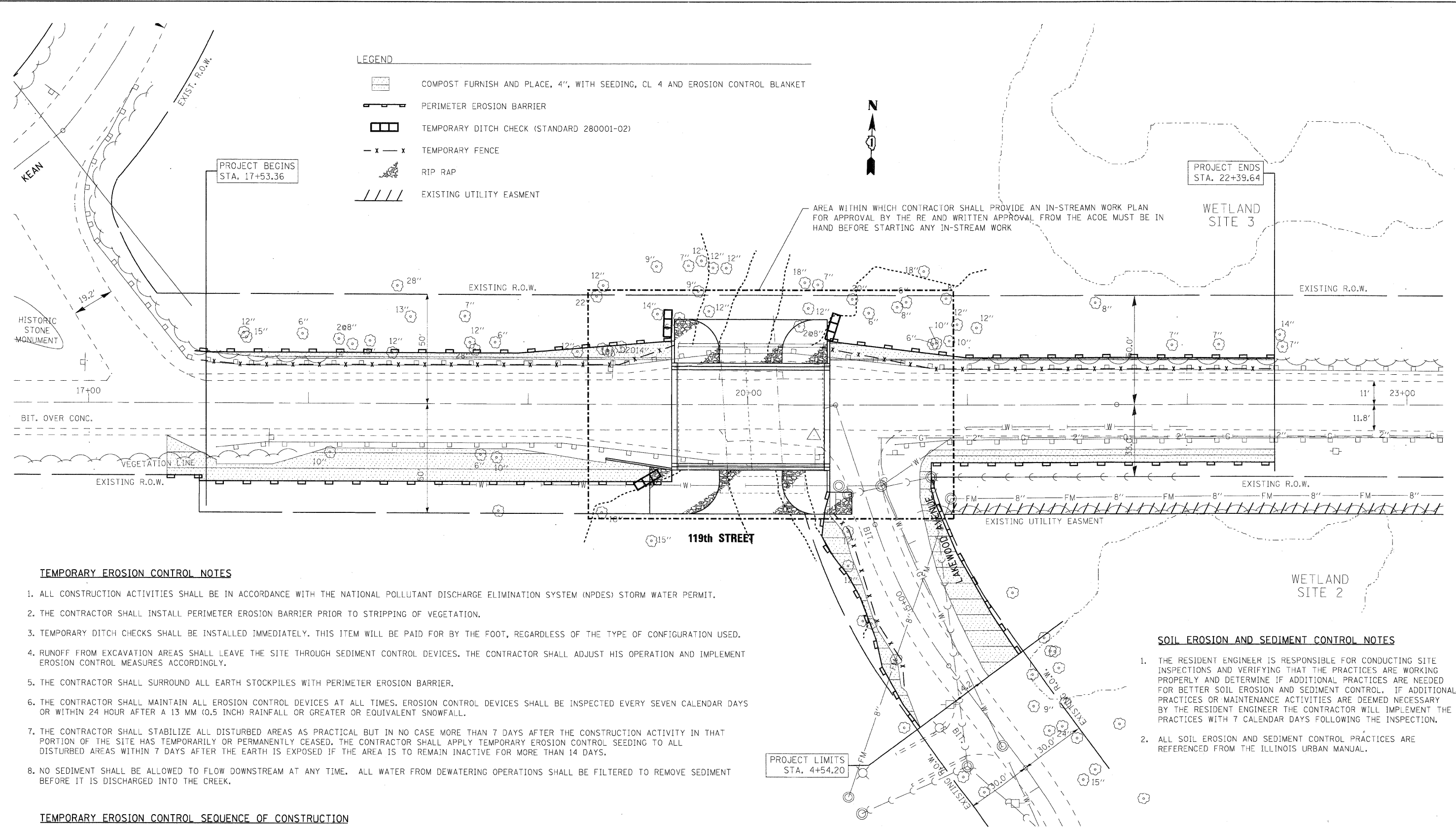
REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETOUR PLAN  
119TH STREET OVER MILL CREEK**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 17+53.36 TO STA. 22+39.64

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
213	0102B-1	COOK	54	11
D-91-052-02		CONTRACT NO. 62390		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**LEGEND**

	COMPOST FURNISH AND PLACE, 4", WITH SEEDING, CL 4 AND EROSION CONTROL BLANKET
	PERIMETER EROSION BARRIER
	TEMPORARY DITCH CHECK (STANDARD 280001-02)
	TEMPORARY FENCE
	RIP RAP
	EXISTING UTILITY EASMENT



**TEMPORARY EROSION CONTROL NOTES**

1. ALL CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER PERMIT.
2. THE CONTRACTOR SHALL INSTALL PERIMETER EROSION BARRIER PRIOR TO STRIPPING OF VEGETATION.
3. TEMPORARY DITCH CHECKS SHALL BE INSTALLED IMMEDIATELY. THIS ITEM WILL BE PAID FOR BY THE FOOT, REGARDLESS OF THE TYPE OF CONFIGURATION USED.
4. RUNOFF FROM EXCAVATION AREAS SHALL LEAVE THE SITE THROUGH SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL ADJUST HIS OPERATION AND IMPLEMENT EROSION CONTROL MEASURES ACCORDINGLY.
5. THE CONTRACTOR SHALL SURROUND ALL EARTH STOCKPILES WITH PERIMETER EROSION BARRIER.
6. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AT ALL TIMES. EROSION CONTROL DEVICES SHALL BE INSPECTED EVERY SEVEN CALENDAR DAYS OR WITHIN 24 HOUR AFTER A 13 MM (0.5 INCH) RAINFALL OR GREATER OR EQUIVALENT SNOWFALL.
7. THE CONTRACTOR SHALL STABILIZE ALL DISTURBED AREAS AS PRACTICAL BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. THE CONTRACTOR SHALL APPLY TEMPORARY EROSION CONTROL SEEDING TO ALL DISTURBED AREAS WITHIN 7 DAYS AFTER THE EARTH IS EXPOSED IF THE AREA IS TO REMAIN INACTIVE FOR MORE THAN 14 DAYS.
8. NO SEDIMENT SHALL BE ALLOWED TO FLOW DOWNSTREAM AT ANY TIME. ALL WATER FROM DEWATERING OPERATIONS SHALL BE FILTERED TO REMOVE SEDIMENT BEFORE IT IS DISCHARGED INTO THE CREEK.

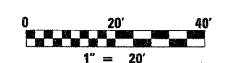
**TEMPORARY EROSION CONTROL SEQUENCE OF CONSTRUCTION**

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

**SOIL EROSION AND SEDIMENT CONTROL NOTES**

1. THE RESIDENT ENGINEER IS RESPONSIBLE FOR CONDUCTING SITE INSPECTIONS AND VERIFYING THAT THE PRACTICES ARE WORKING PROPERLY AND DETERMINE IF ADDITIONAL PRACTICES ARE NEEDED FOR BETTER SOIL EROSION AND SEDIMENT CONTROL. IF ADDITIONAL PRACTICES OR MAINTENANCE ACTIVITIES ARE DEEMED NECESSARY BY THE RESIDENT ENGINEER THE CONTRACTOR WILL IMPLEMENT THE PRACTICES WITH 7 CALENDAR DAYS FOLLOWING THE INSPECTION.
2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE REFERENCED FROM THE ILLINOIS URBAN MANUAL.

PROJECT LIMITS  
STA. 4+54.20



**LOWCO INC.**  
CONSULTING ENGINEERS  
1560 WALL ST, SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

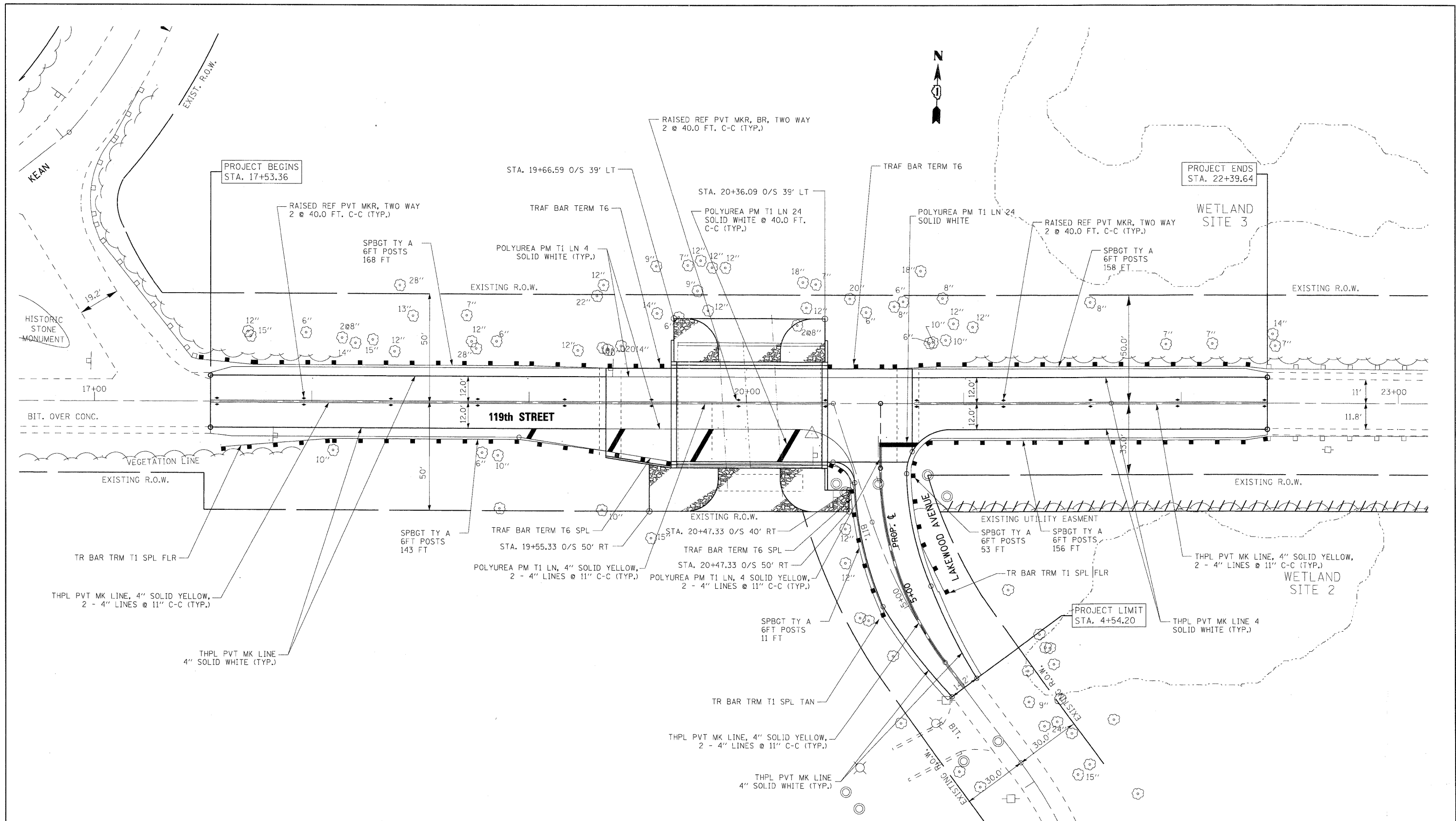
DESIGNED - M.J.Y.	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - M.J.Y, SLV	REVISED -
DATE - 07/01/2011	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

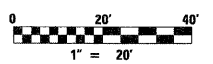
<b>EROSION CONTROL PLAN</b>		
<b>119TH STREET OVER MILL CREEK</b>		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 17+53.36 TO STA. 22+39.64

O.R. RTE. 213	SECTION 0102B-1	COUNTY COOK	TOTAL SHEETS 54	SHEET NO. 12
D-91-052-02		CONTRACT NO. 62390		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				





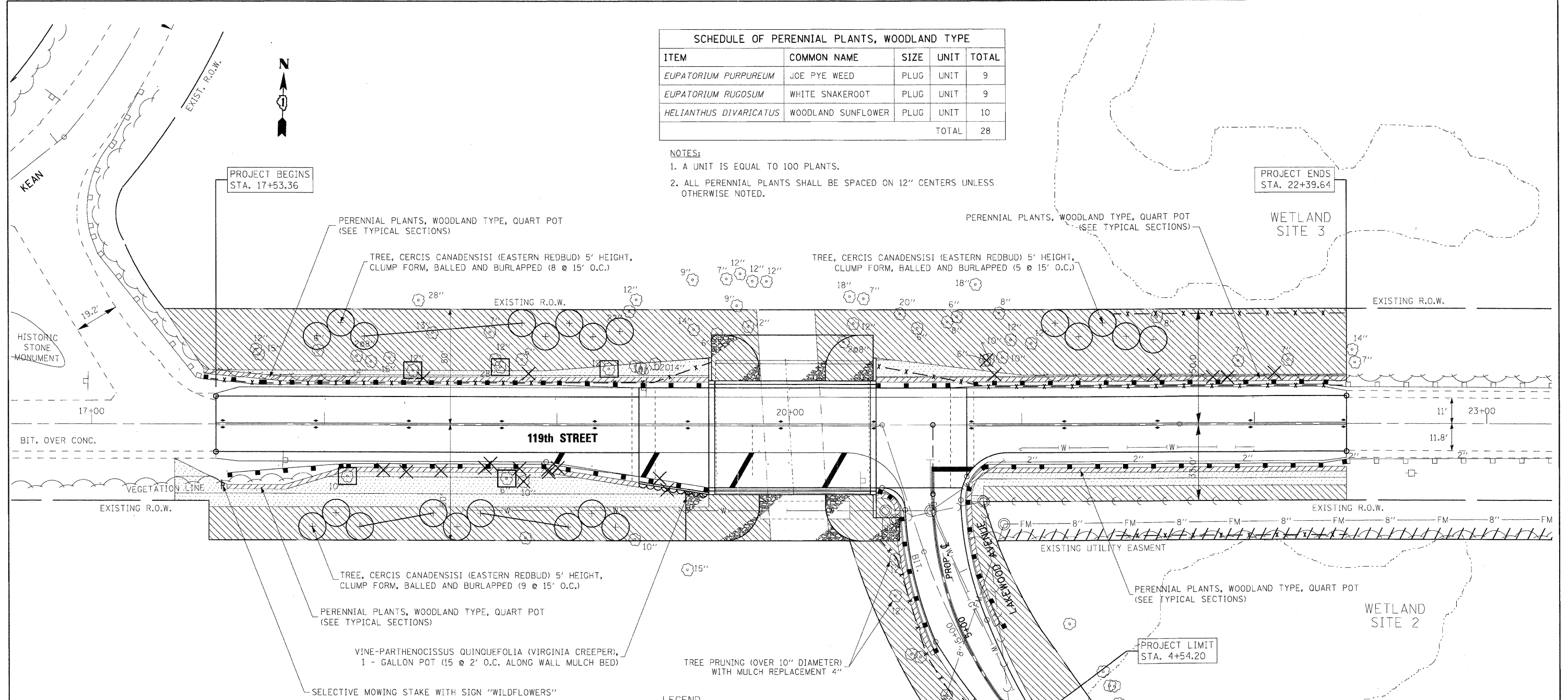
LEGEND  
 // // // // EXISTING UTILITY EASMENT



	DESIGNED - M.J.Y.	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT MARKING PLAN</b> <b>119TH STREET OVER MILL CREEK</b>		O.R. RTE. 213	SECTION 0102B-1	COUNTY COOK	TOTAL SHEETS 54	SHEET NO. 13
	DRAWN - ST, TSC	REVISED -		SCALE: NONE    SHEET NO. 1 OF 1 SHEETS    STA. 17+53.36 TO STA. 22+39.64			<b>D-91-052-02</b> FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		CONTRACT NO. 62390	
CHECKED - M.J.Y, SLV	REVISED -									
DATE - 07/01/2011	REVISED -									

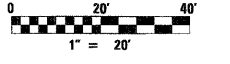
SCHEDULE OF PERENNIAL PLANTS, WOODLAND TYPE				
ITEM	COMMON NAME	SIZE	UNIT	TOTAL
EUPATORIUM PURPUREUM	JOE PYE WEED	PLUG	UNIT	9
EUPATORIUM RUGOSUM	WHITE SNAKEROOT	PLUG	UNIT	9
HELIANTHUS DIVARICATUS	WOODLAND SUNFLOWER	PLUG	UNIT	10
TOTAL				28

NOTES:  
 1. A UNIT IS EQUAL TO 100 PLANTS.  
 2. ALL PERENNIAL PLANTS SHALL BE SPACED ON 12" CENTERS UNLESS OTHERWISE NOTED.



- LEGEND**
- COMPOST FURNISH AND PLACE, 4", WITH SEEDING, CL 4 AND EROSION CONTROL BLANKET
  - INTERSEEDING, CLASS 4 (MODIFIED) - WOODLAND TYPE MIX
  - PERENNIAL PLANTS, WOODLAND TYPE
  - TREE, CERCIS CANADENSIS (EASTERN REDBUD) 5' HEIGHT, CLUMP FORM, BALLED AND BURLAPPED
  - VINE-PARTHENOCISSUS QUINQUEFOLIA (VIRGINIA CREEPER), 1 - GALLON POT
  - TREE REMOVAL
  - TREE TRUNK PROTECTION
  - TEMPORARY FENCE
  - EXISTING UTILITY EASMENT

PERENNIAL PLANT CARE SCHEDULE	
ACTIVITY	TIME
PLANT PERENNIALS AS PER PLAN	MAY 1 - JUNE 15 AUGUST 15 - SEPTEMBER 15
MULCH PERENNIAL BEDS	24 HOURS AFTER PLANTING
INSTALL SELECTIVE MOW STAKES AS PER PLAN OR DIRECTION OF RE	PRIOR TO PERIOD OF ESTABLISHMENT INSPECTION
PERENNIAL PLANT PERIOD OF ESTABLISHMENT - WATER ONCE EVERY 7 DAYS FOR 4 WEEKS	WITHIN 30 DAYS AFTER PLANTING
REPLACE DEAD PLANTS	AFTER PERIOD OF ESTABLISHMENT INSPECTION
PERENNIAL PLANT CARE (FIRST CYCLE)	30 DAYS AFTER PERIOD OF ESTABLISHMENT INSPECTION
PERENNIAL PLANT CARE (SECOND CYCLE)	60 DAYS AFTER PERIOD OF ESTABLISHMENT INSPECTION
PERENNIAL PLANT CARE (THIRD CYCLE)	90 DAYS AFTER PERIOD OF ESTABLISHMENT INSPECTION
SUPPLEMENTAL WATERING	USE AFTER PERIOD OF EST. INSP. AS DIRECTED BY RESIDENT ENGINEER



**LOCO, INC.**  
 CONSULTING ENGINEERS  
 1560 WALL ST., SUITE 222  
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

DESIGNED - MJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, SLV	REVISED -
DATE - 07/01/2011	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**LANDSCAPING DETAILS  
 119TH STREET OVER MILL CREEK**  
 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 17+53.36 TO STA. 22+39.64

O.R. RTE. 213	SECTION 0102B-1	COUNTY COOK	TOTAL SHEETS 54	SHEET NO. 14
D-91-052-02		CONTRACT NO. 62390		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

Benchmark : Benchmark #1 - Cut "□" in S.E. corner of conc. base of stone monument north of 119 St. between Kean Ave. ramps. Elev. 656.39

Existing Structure: S.N. 016-0921 built as Route SA-213 Sec. 213-0102-150 in 1933. The structure is a one span, cast in place, reinforced concrete T-beam bridge. 30'-6" bk.-bk. abutments and 57'-2" o-o deck, on closed abutments. The contractor shall remove the existing structure. Road to be closed and traffic detoured.

Salvage: None

**WATERWAY INFORMATION**

Drainage Area = 10.8 mi<sup>2</sup>      Exist. Low Grade Elev. = 635.10 ft.      Sta. 20+00  
 Prop. Low Grade Elev. = 635.10 ft.      Sta. 20+50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	669	133	173	625.50	0.00	0.00	625.50	625.50
Base	50	1400	179	263	627.40	0.00	0.00	627.40	627.40
Overtopping	100	1830	194	300	628.10	1.60	0.00	629.70	628.10
Max. Calc.	>500	2500	215	373	629.40	3.00	0.00	632.40	629.40

**LOADING HS20-44**  
 Allow 50 psf for future wearing surface

**DESIGN SPECIFICATIONS**  
 2002 AASHTO

**DESIGN STRESSES**  
 FIELD UNITS

f'c = 3,500 psi  
 fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6000 psi  
 f'ci = 5000 psi  
 f's = 270,000 psi (1/2" low lax. strands)  
 f'si = 201,960 psi (1/2" low lax. strands)

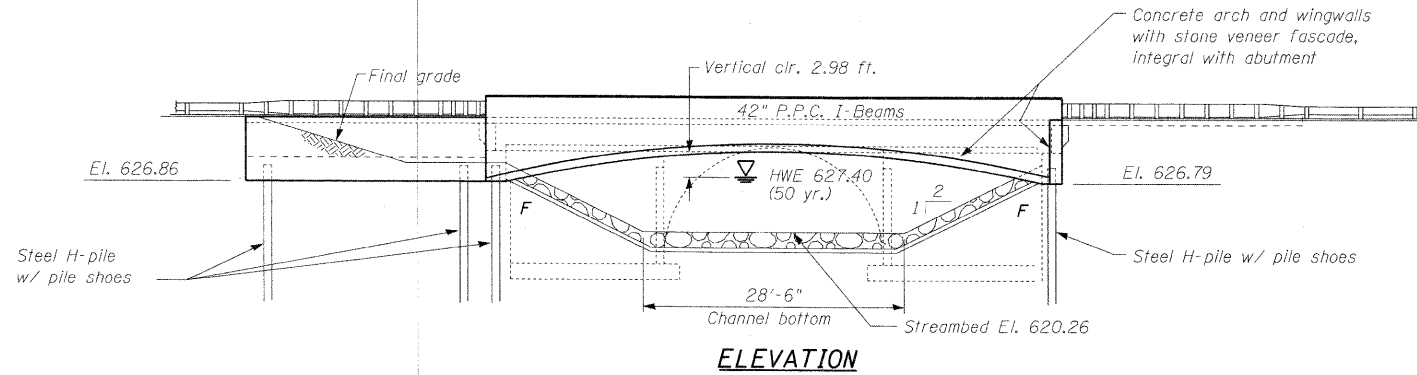
**NAME PLATE**

See Std. 515001

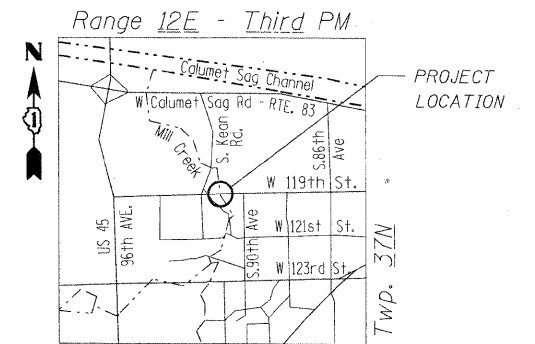
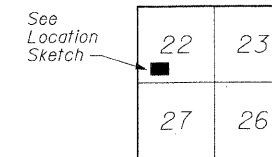
NOTE:  
 Existing Name Plates shall be cleaned and relocated next to new Name Plate.  
 See General Note 7 on Sheet 2 of 24.

**SEISMIC DATA**

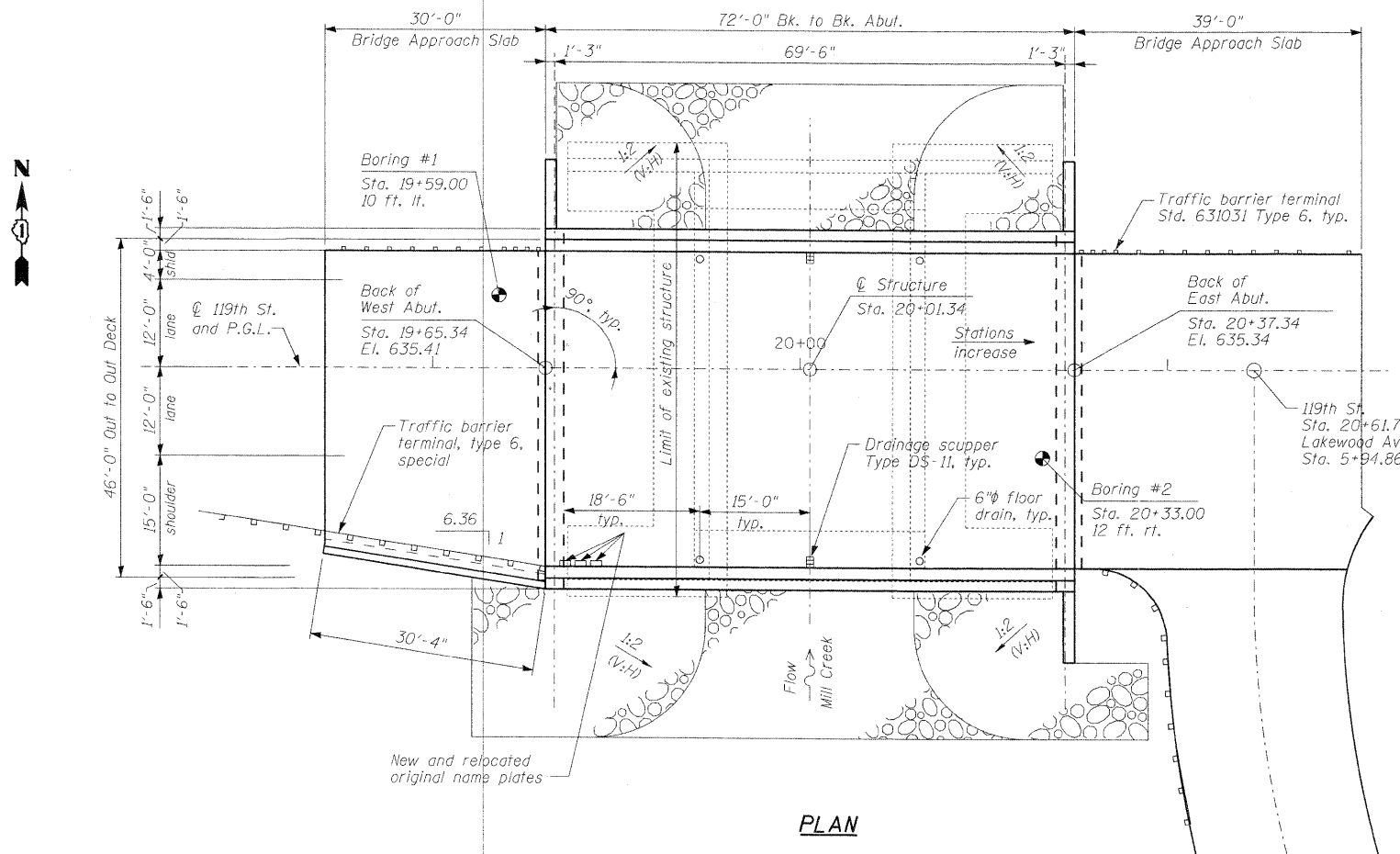
SPC = A  
 A = 0.04g  
 S = 1.0



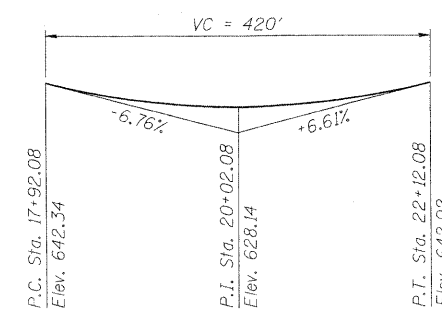
**ELEVATION**



**LOCATION SKETCH**



**PLAN**



**PROFILE GRADE**

Along Center Roadway

**APPROVED**  
 FOR STRUCTURAL ADEQUACY ONLY  
*William H. Epp, S.E.*  
 ENGINEER OF BRIDGES AND STRUCTURES



*William H. Epp*  
 WILLIAM H. EPP, S.E.  
 IL. LIC. NO. 081-005150  
 EXP. 11/30/2017  
 DATE 07/05/11

**GENERAL PLAN AND ELEVATION**  
**119th ST OVER MILL CREEK**  
 OR RT. 213  
 SECTION 0102B-1  
 COOK COUNTY  
 STA. 20+01.34  
 STRUCTURE NO. 016-2831

**LOXCO, INC.**  
 CONSULTING ENGINEERS  
 1560 WALL ST, SUITE 222  
 NAPERVILLE, ILLINOIS 60563    PH: (630) 577-9100

DESIGNED - MJM	REVISED -
CHECKED - WHE	REVISED -
DRAWN - SLV	REVISED -
CHECKED - MJM	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

SHEET NO. 1 OF 24 SHEETS

OR RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
213	0102B-1	COOK	54	15
D-91-052-02			CONTRACT NO. 62390	
ILLINOIS FED. AID PROJECT				

**GENERAL NOTES**

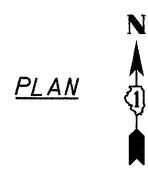
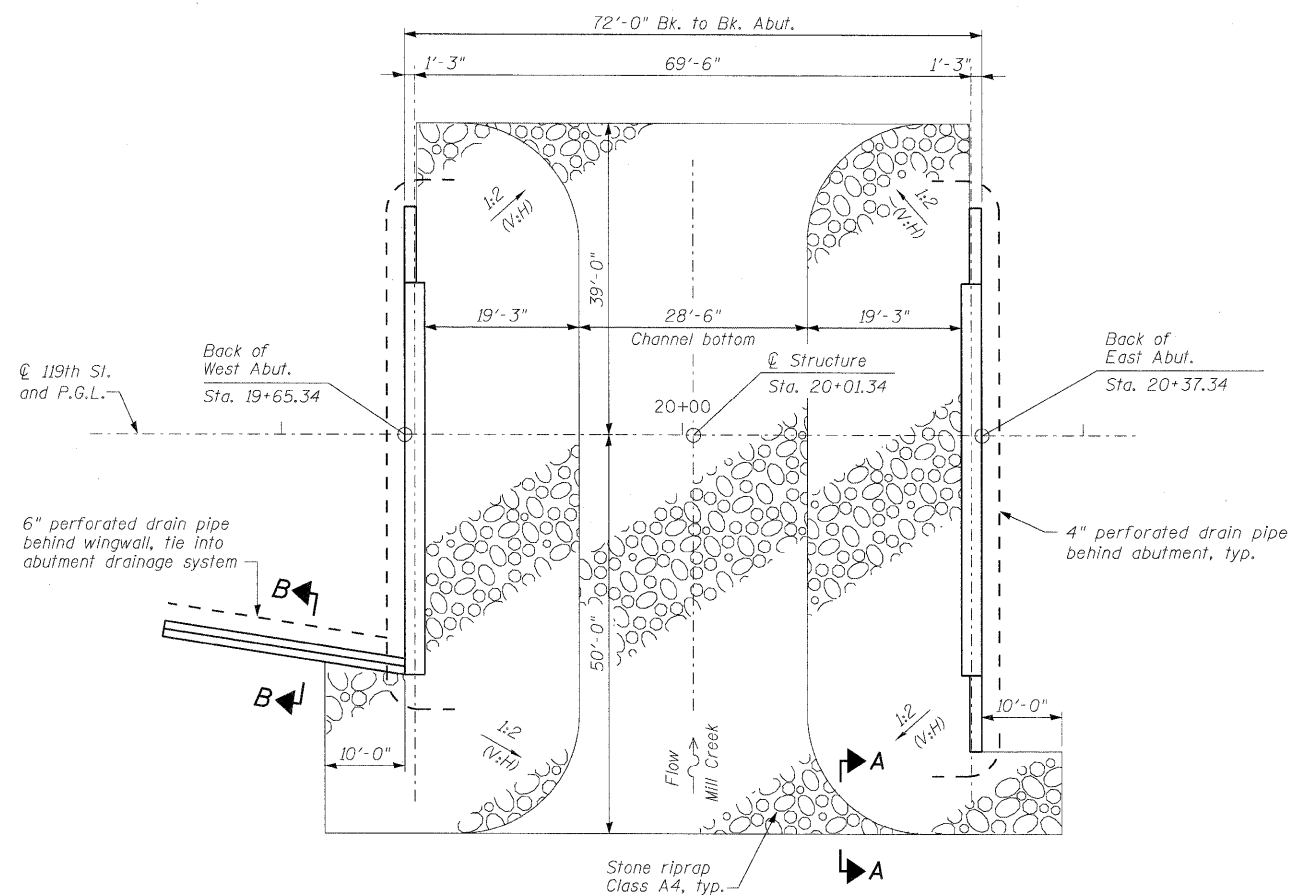
1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
4. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.
5. Slip forming of the parapets is not allowed.
6. The Contractor is advised that the existing superstructure is in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the deck and beams when developing construction procedures for removal of the existing structure.
7. The Contractor is to carefully remove and reinstall the existing bridge plaques, clean all remaining concrete debris from the plaque and safely store the plaque until such time that the existing plaque can be mounted in the new parapet walls of the proposed structure. All work shall be performed, including the final location of the plaque on the new bridge, as directed by the Engineer. The cost of this work shall be paid for as the pay item "Relocating Name Plates".

**INDEX OF SHEETS**

1. General Plan and Elevation
2. General Data and Bill of Material
3. Substructure Layout and Protection
4. Top of Deck Elevations (1 of 2)
5. Top of Deck Elevations (2 of 2)
6. Top of West Approach Slab Elevations
7. Top of East Approach Slab Elevations
8. Superstructure
9. Superstructure Details (1 of 2)
10. Superstructure Details (2 of 2)
11. Floor Drain Details
12. Drainage Scuppers
13. Bridge Approach Slab Details (1 of 2)
14. Bridge Approach Slab Details (2 of 2)
15. Framing Plan
16. 42" PPC I-Beam
17. 42" PPC I-Beam Details
18. West Abutment
19. East Abutment
20. Wingwall Details
21. Fascia Details
22. Bar Splicer Assembly Details
23. HP Pile Details
24. Boring Logs

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	APPR. SLAB	TOTAL
Stone Riprap, Class A4	Sq. Yd.		745		745
Filter Fabric	Sq. Yd.		745		745
Removal of Existing Structures	Each	1			1
Structure Excavation	Cu. Yd.		340		340
Floor Drains	Each	4			4
Concrete Structures	Cu. Yd.		124.5	25.6	150.1
Concrete Superstructure	Cu. Yd.	149.8		151.7	301.5
Bridge Deck Grooving	Sq. Yd.	344		327	671
Concrete Encasement	Cu. Yd.		5.6		5.6
Form Liner Textured Surface	Sq. Ft.	664	747		1411
Protective Coat	Sq. Yd.	436		327	763
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42 In.	Foot	496			496
Reinforcement Bars, Epoxy Coated	Pound	21950	15720	37090	74760
Bar Splicers	Each	142	40		182
Furnishing Steel Piles HP12x74	Foot		771		771
Driving Piles	Foot		771		771
Test Pile Steel HP12x74	Each		2		2
Pile Shoes	Each		20		20
Name Plates	Each	1			1
Geocomposite Wall Drain	Sq. Yd.		82		82
Concrete Surface Color Treatment	Sq. Ft.	664	747		1411
Porous Granular Embankment, Special	Cu. Yd.		229		229
Drainage Scuppers, DS-11	Each	2			2
Pipe Underdrains for Structures 4"	Foot		206		206
Relocating Name Plates	Each		1		1
Stone Veneer	Sq. Ft.		1388		1388

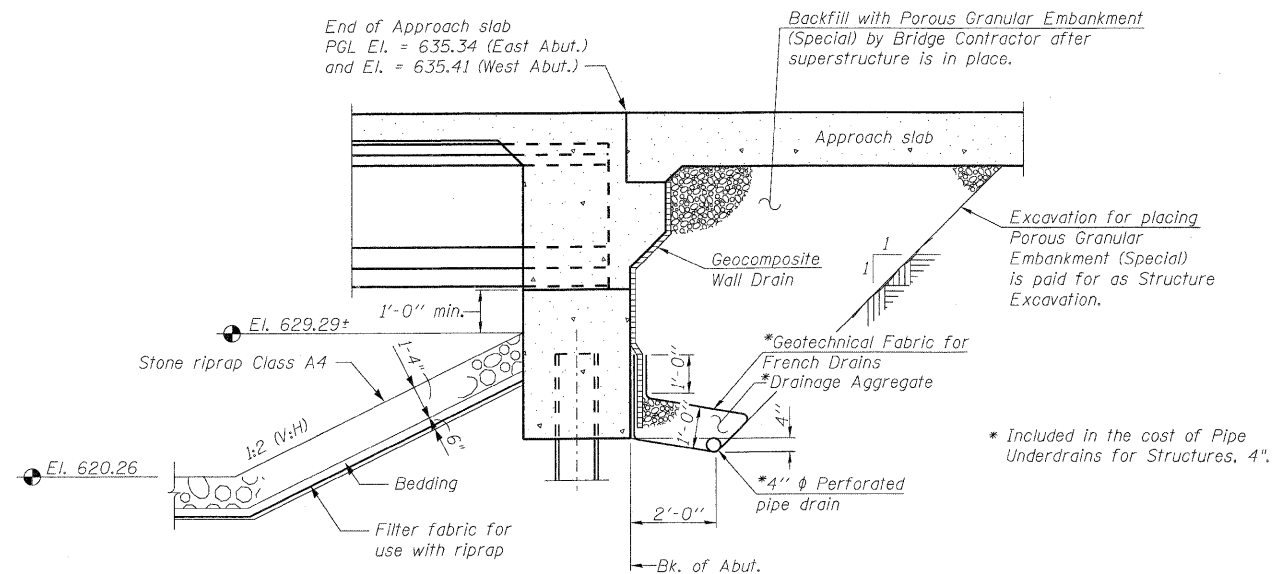


**NOTES:**

- Channel Excavation shall consist of the removal and disposal of all materials retained behind the existing abutments down to the proposed final grade (top of riprap), see Roadway Plans for limits of Channel Excavation.

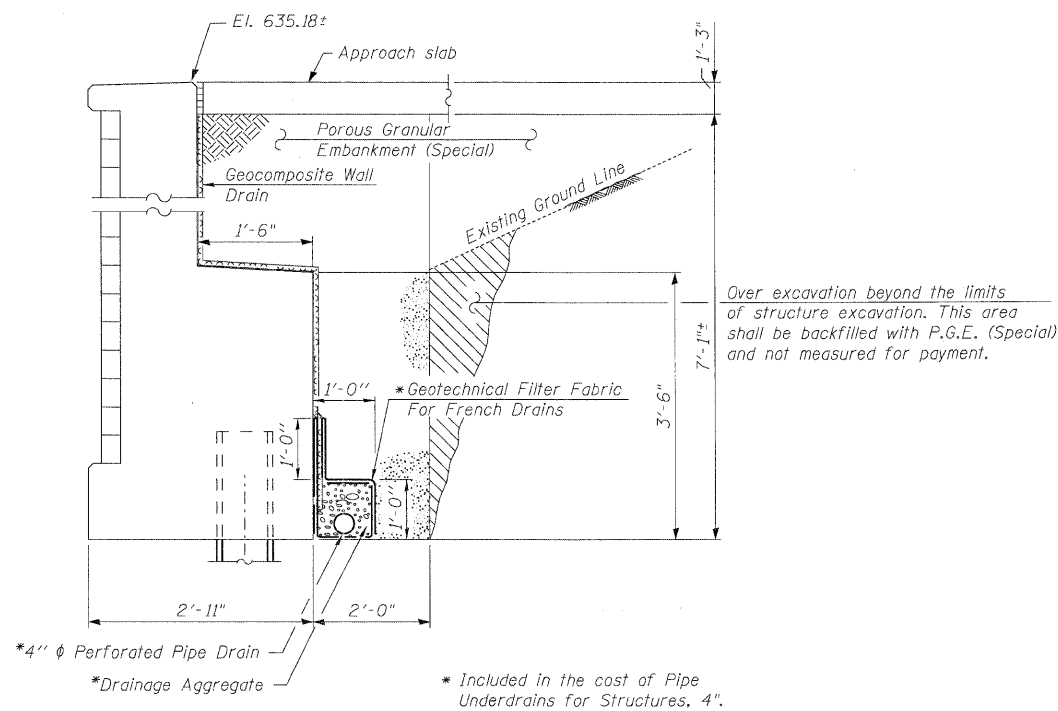
**BILL OF MATERIAL**

Item	Unit	Total
Stone Riprap, Class A4	Sq. Yd.	745
Filter Fabric	Sq. Yd.	745

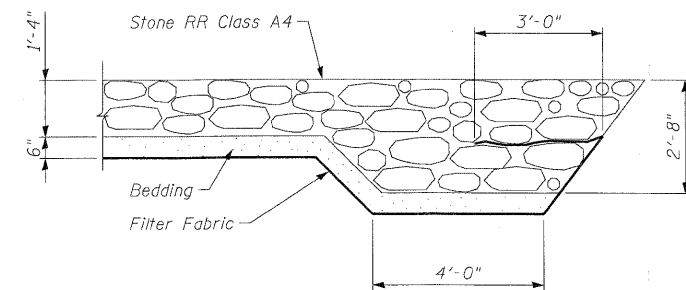


**SECTION THRU INTEGRAL ABUTMENT**  
(Horiz. dim. @ Rt. L's)

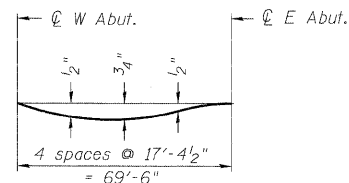
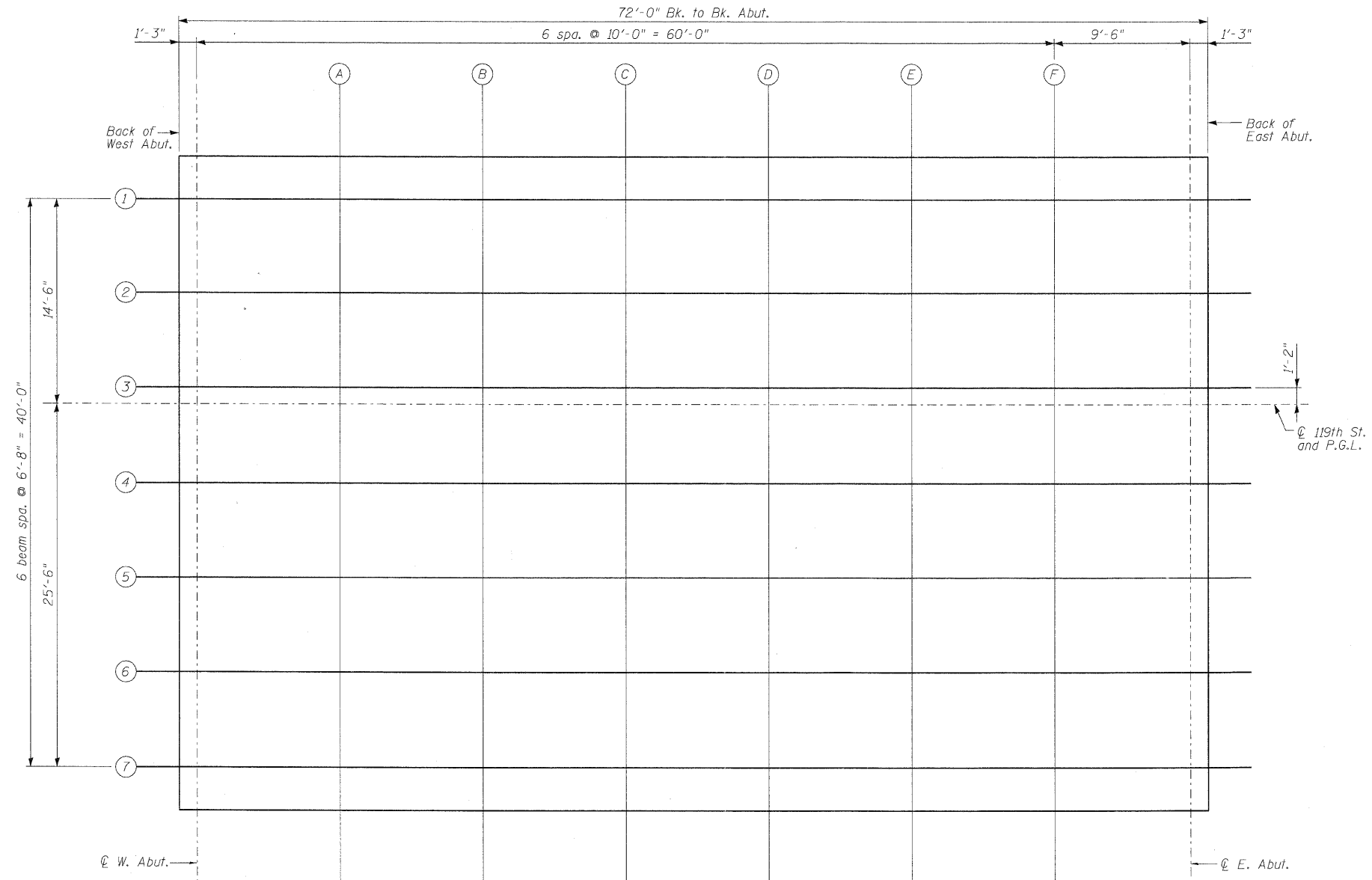
Note:  
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



**SECTION B-B**



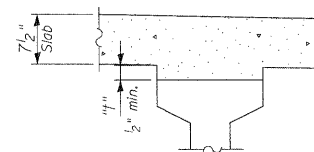
**SECTION A-A**  
Typical Flank Stone Riprap Treatment



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete deck only.)

Note:  
The above deflections are not to be used in the field if the engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection."



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

**FILLET HEIGHTS**

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk W Abut	19+65.34	-14.50	635.17	635.17
☉ W Abut	19+66.59	-14.50	635.15	635.15
A	19+76.59	-14.50	635.05	635.08
B	19+86.59	-14.50	634.97	635.03
C	19+96.59	-14.50	634.93	635.00
D	20+06.59	-14.50	634.92	634.99
E	20+16.59	-14.50	634.95	635.00
F	20+26.59	-14.50	635.00	635.03
☉ E Abut	20+36.09	-14.50	635.08	635.08
Bk E Abut	20+37.34	-14.50	635.10	635.10

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk W Abut	19+65.34	-7.83	635.28	635.28
☉ W Abut	19+66.59	-7.83	635.27	635.27
A	19+76.59	-7.83	635.16	635.19
B	19+86.59	-7.83	635.09	635.14
C	19+96.59	-7.83	635.05	635.12
D	20+06.59	-7.83	635.04	635.11
E	20+16.59	-7.83	635.06	635.12
F	20+26.59	-7.83	635.12	635.15
☉ E Abut	20+36.09	-7.83	635.20	635.20
Bk E Abut	20+37.34	-7.83	635.21	635.21

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk W Abut	19+65.34	-1.17	635.39	635.39
☉ W Abut	19+66.59	-1.17	635.37	635.37
A	19+76.59	-1.17	635.27	635.30
B	19+86.59	-1.17	635.19	635.25
C	19+96.59	-1.17	635.15	635.22
D	20+06.59	-1.17	635.14	635.21
E	20+16.59	-1.17	635.17	635.22
F	20+26.59	-1.17	635.22	635.25
☉ E Abut	20+36.09	-1.17	635.30	635.30
Bk E Abut	20+37.34	-1.17	635.32	635.32

**P.G.L**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk W Abut	19+65.34	0.00	635.41	635.41
☉ W Abut	19+66.59	0.00	635.39	635.39
A	19+76.59	0.00	635.29	635.32
B	19+86.59	0.00	635.21	635.27
C	19+96.59	0.00	635.17	635.24
D	20+06.59	0.00	635.16	635.23
E	20+16.59	0.00	635.19	635.24
F	20+26.59	0.00	635.24	635.27
☉ E Abut	20+36.09	0.00	635.32	635.32
Bk E Abut	20+37.34	0.00	635.33	635.33

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk W Abut	19+65.34	5.50	635.32	635.32
☉ W Abut	19+66.59	5.50	635.30	635.30
A	19+76.59	5.50	635.20	635.23
B	19+86.59	5.50	635.13	635.18
C	19+96.59	5.50	635.09	635.15
D	20+06.59	5.50	635.08	635.14
E	20+16.59	5.50	635.10	635.15
F	20+26.59	5.50	635.15	635.18
☉ E Abut	20+36.09	5.50	635.24	635.24
Bk E Abut	20+37.34	5.50	635.25	635.25

**BEAM 5**

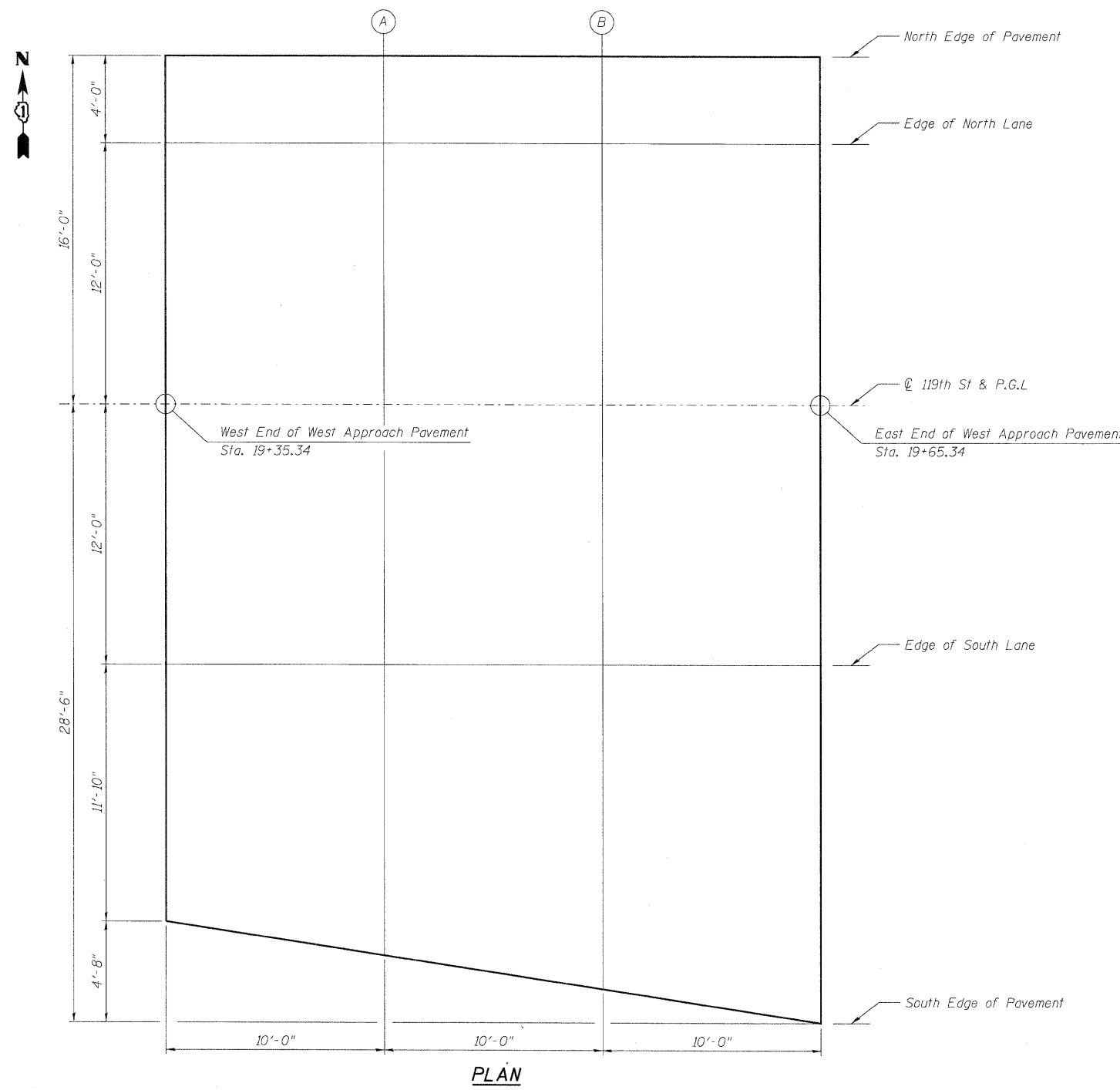
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk W Abut	19+65.34	12.17	635.21	635.21
☉ W Abut	19+66.59	12.17	635.20	635.20
A	19+76.59	12.17	635.09	635.13
B	19+86.59	12.17	635.02	635.08
C	19+96.59	12.17	634.98	635.05
D	20+06.59	12.17	634.97	635.04
E	20+16.59	12.17	634.99	635.05
F	20+26.59	12.17	635.05	635.08
☉ E Abut	20+36.09	12.17	635.13	635.13
Bk E Abut	20+37.34	12.17	635.14	635.14

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk W Abut	19+65.34	18.83	635.08	635.08
☉ W Abut	19+66.59	18.83	635.06	635.06
A	19+76.59	18.83	634.96	634.99
B	19+86.59	18.83	634.88	634.94
C	19+96.59	18.83	634.84	634.91
D	20+06.59	18.83	634.83	634.90
E	20+16.59	18.83	634.86	634.91
F	20+26.59	18.83	634.91	634.94
☉ E Abut	20+36.09	18.83	634.99	634.99
Bk E Abut	20+37.34	18.83	635.00	635.00

**BEAM 7**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk W Abut	19+65.34	25.50	634.94	634.94
☉ W Abut	19+66.59	25.50	634.92	634.92
A	19+76.59	25.50	634.82	634.85
B	19+86.59	25.50	634.74	634.80
C	19+96.59	25.50	634.70	634.77
D	20+06.59	25.50	634.69	634.76
E	20+16.59	25.50	634.72	634.77
F	20+26.59	25.50	634.77	634.80
☉ E Abut	20+36.09	25.50	634.85	634.85
Bk E Abut	20+37.34	25.50	634.87	634.87



**North Edge of Pavement**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Slab	19+35.34	-16.00'	635.65
A	19+45.34	-16.00'	635.45
B	19+55.34	-16.00'	635.28
E. End W. Appr Slab	19+65.34	-16.00'	635.13

**Edge of North Lane**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Slab	19+35.34	-12.00'	635.73
A	19+45.34	-12.00'	635.53
B	19+55.34	-12.00'	635.36
E. End W. Appr Slab	19+65.34	-12.00'	635.22

**☉ 119th St & P.G.L**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Slab	19+35.34	0.00'	635.92
A	19+45.34	0.00'	635.72
B	19+55.34	0.00'	635.55
E. End W. Appr Slab	19+65.34	0.00'	635.41

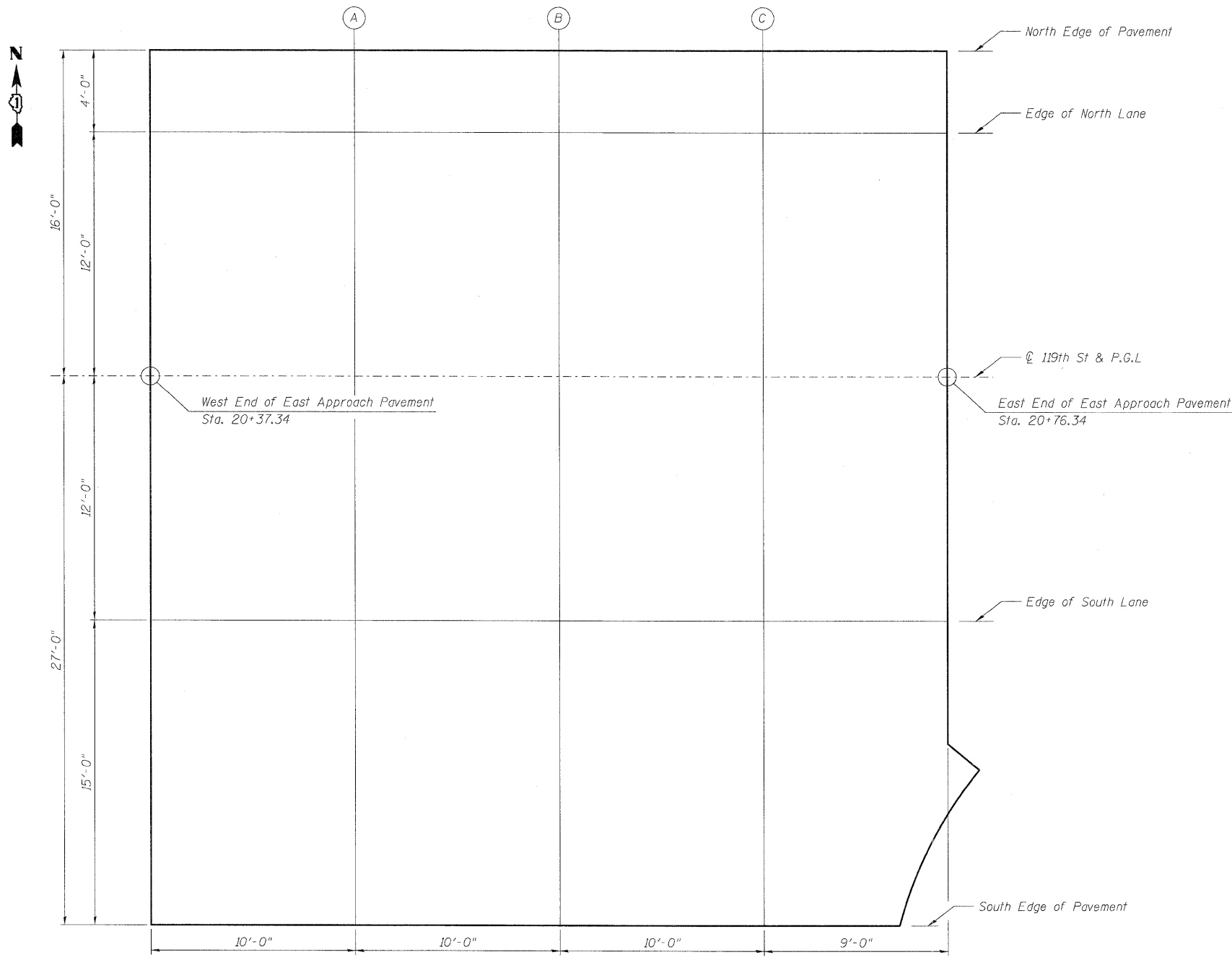
**Edge of South Lane**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Slab	19+35.34	12.00'	635.73
A	19+45.34	12.00'	635.53
B	19+55.34	12.00'	635.36
E. End W. Appr Slab	19+65.34	12.00'	635.22

**South Edge of Pavement**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr Slab	19+35.34	23.83'	635.49
A	19+45.34	25.39'	635.25
B	19+55.34	26.94'	635.05
E. End W. Appr Slab	19+65.34	28.50'	634.87





**PLAN**

**North Edge of Pavement**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr Slab	20+37.34	-16.00'	635.06
A	20+47.34	-16.00'	635.18
B	20+57.34	-16.00'	635.34
C	20+67.34	-16.00'	635.52
E. End E. Appr Slab	20+76.34	-16.00'	635.74

**Edge of North Lane**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr Slab	20+37.34	-12.00'	635.15
A	20+47.34	-12.00'	635.27
B	20+57.34	-12.00'	635.42
C	20+67.34	-12.00'	635.60
E. End E. Appr Slab	20+76.34	-12.00'	635.82

**119th St & P.G.L.**

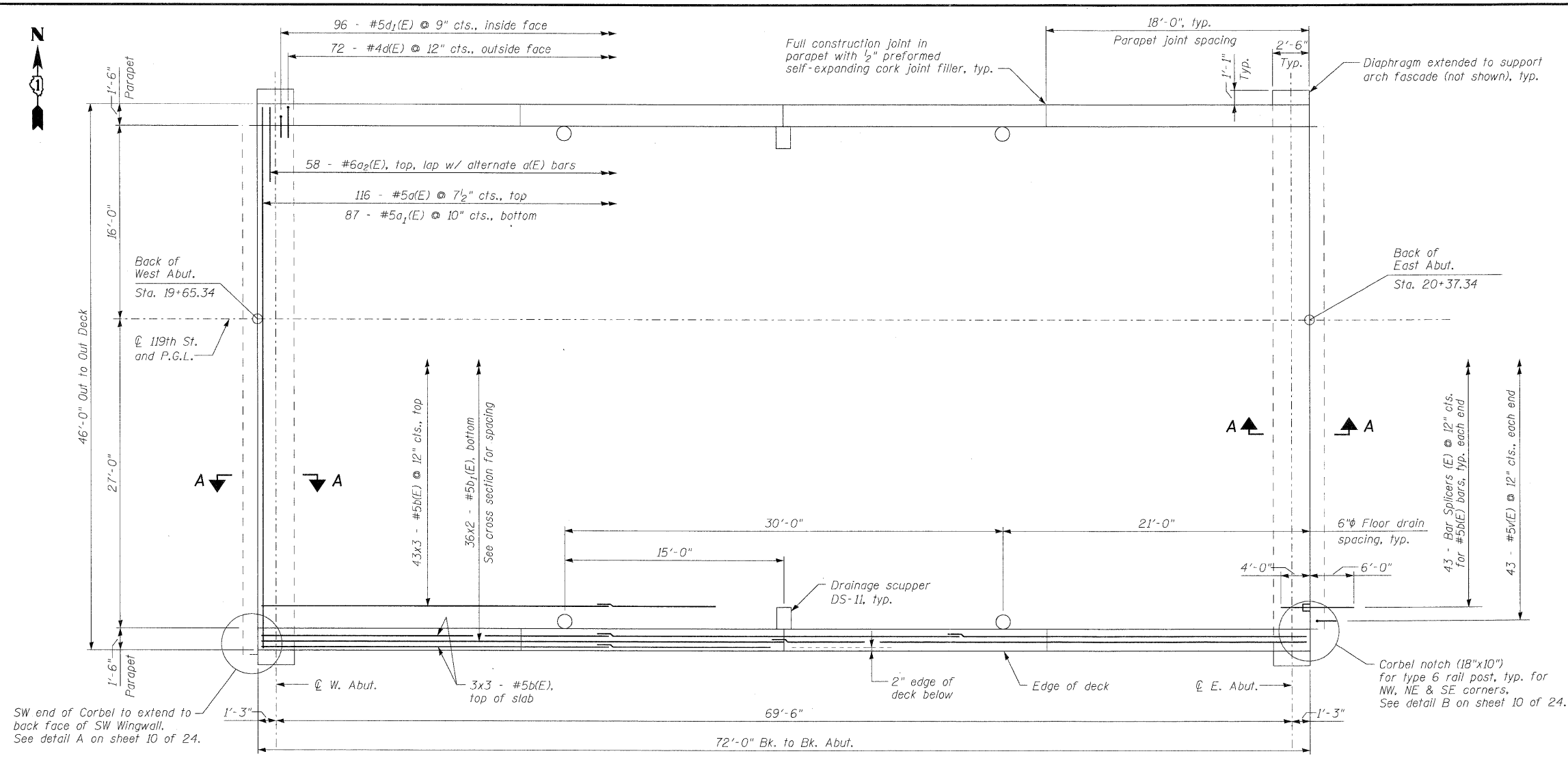
Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr Slab	20+37.34	0.00'	635.33
A	20+47.34	0.00'	635.46
B	20+57.34	0.00'	635.61
C	20+67.34	0.00'	635.79
E. End E. Appr Slab	20+76.34	0.00'	636.01

**Edge of South Lane**

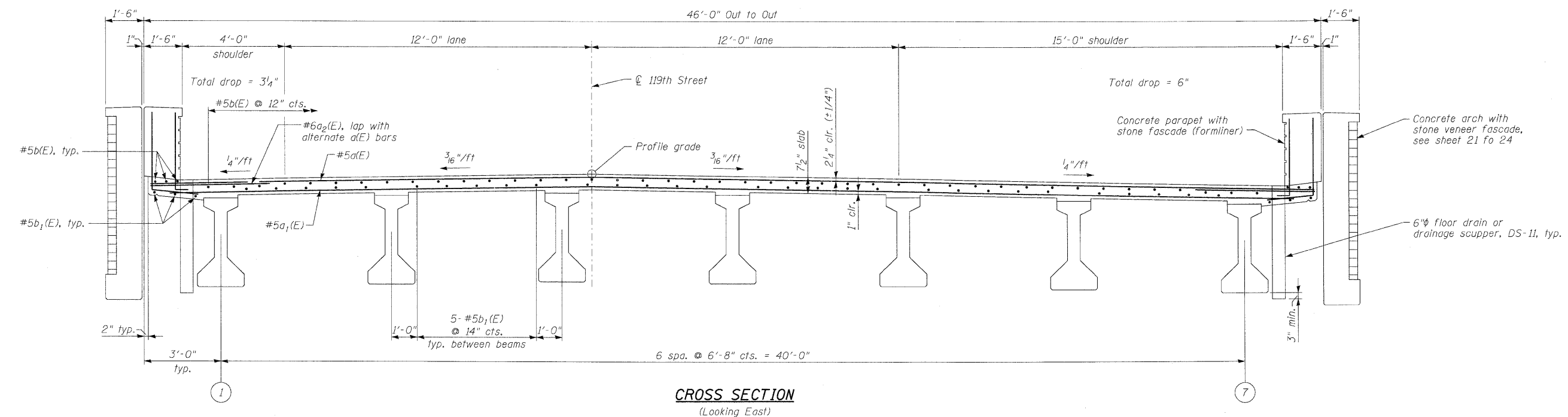
Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr Slab	20+37.34	12.00'	635.15
A	20+47.34	12.00'	635.27
B	20+57.34	12.00'	635.42
C	20+67.34	12.00'	635.60
E. End E. Appr Slab	20+76.34	12.00'	635.82

**Edge of South Lane**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr Slab	20+37.34	27.00'	634.83
A	20+47.34	27.00'	634.96
B	20+57.34	27.00'	635.11
C	20+67.34	27.00'	635.29
E. End E. Appr Slab	20+73.97	27.00'	635.43



**DECK PLAN**



**CROSS SECTION**  
(Looking East)

**NOTES:**  
 Reinforcement designated thus 43x3-#5, etc., indicates 46 lines of bars with 3 bars per line.  
 See sheet 10 of 24 for integral abutment diaphragm details, Section A-A and Bill of Material  
 See sheet 9 of 24 for Parapet Elevation  
 See sheet 11 of 24 for Floor Drain Details and sheet 12 of 24 for Drainage Scupper, DS-11.  
 See sheet 22 of 24 for Bar Splicer details.

**MINIMUM BAR LAP**  
 #5 bar = 2'-7"

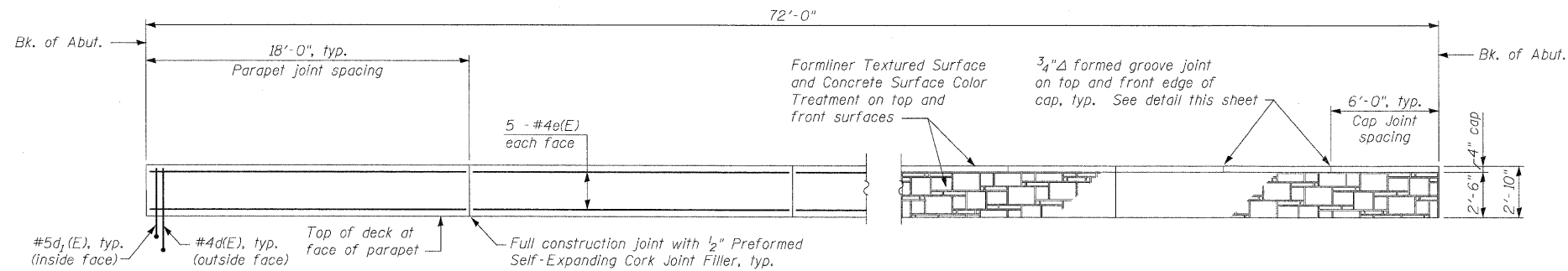
**LOWCO, INC.**  
 CONSULTING ENGINEERS  
 1560 WALL ST., SUITE 222  
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

DESIGNED - MJM	REVISED -
CHECKED - WHE	REVISED -
DRAWN - SLV	REVISED -
CHECKED - MJM	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

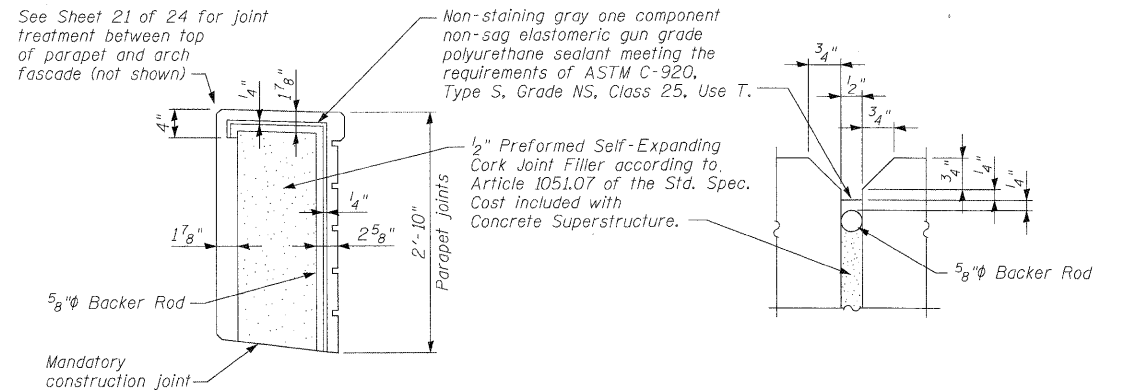
**SUPERSTRUCTURE**  
**STRUCTURE NO. 016-2831**  
 SHEET NO. 8 OF 24 SHEETS

OR. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
213	0102B-1	COOK	54	22
D-91-052-02		CONTRACT NO. 62390		
[ILLINOIS] FED. AID PROJECT				

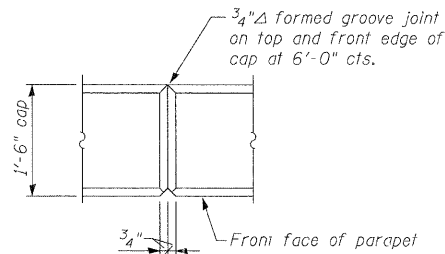


**INSIDE ELEVATION OF PARAPET**

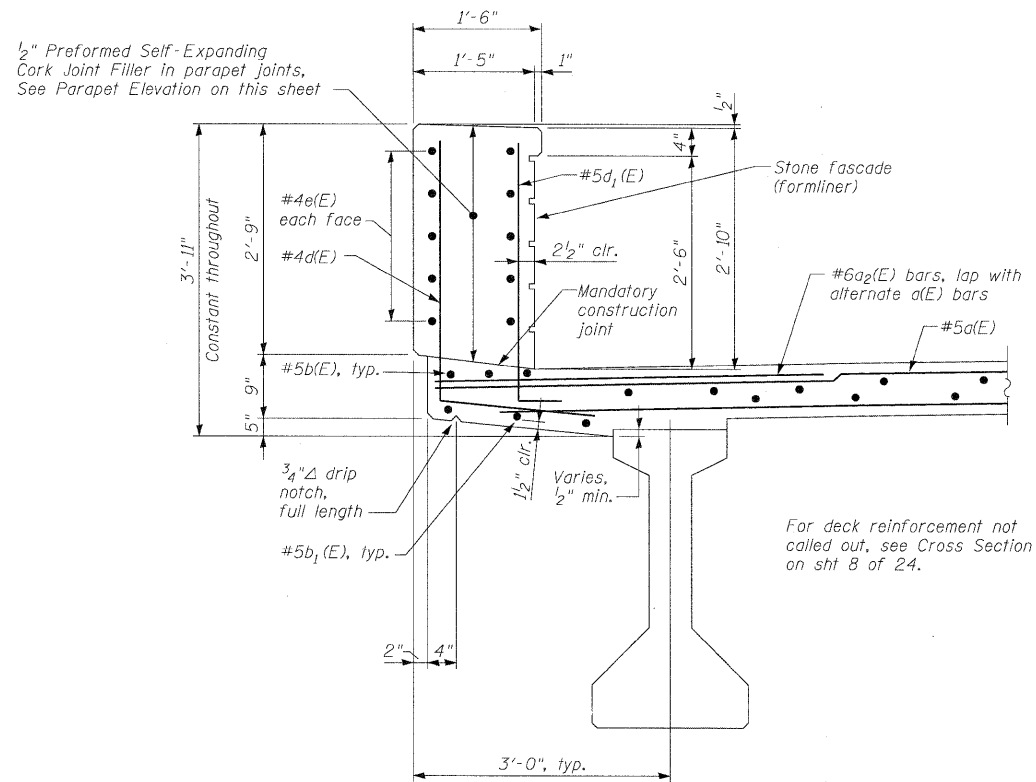
Typical each side of bridge



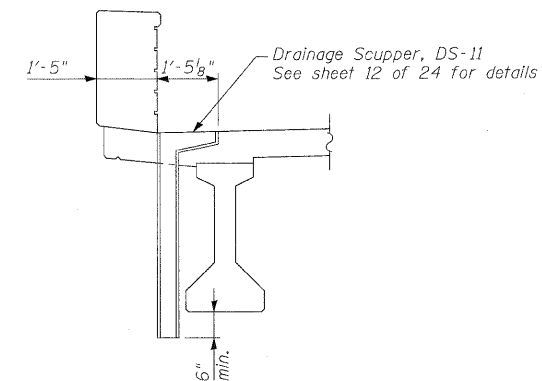
**PARAPET JOINT DETAIL**



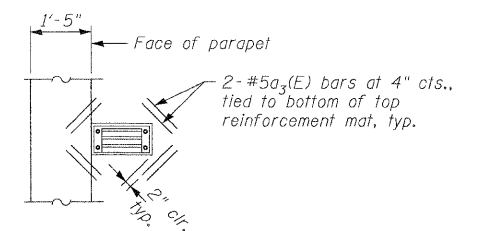
**CAP JOINT DETAIL**



**SECTION THROUGH PARAPET**



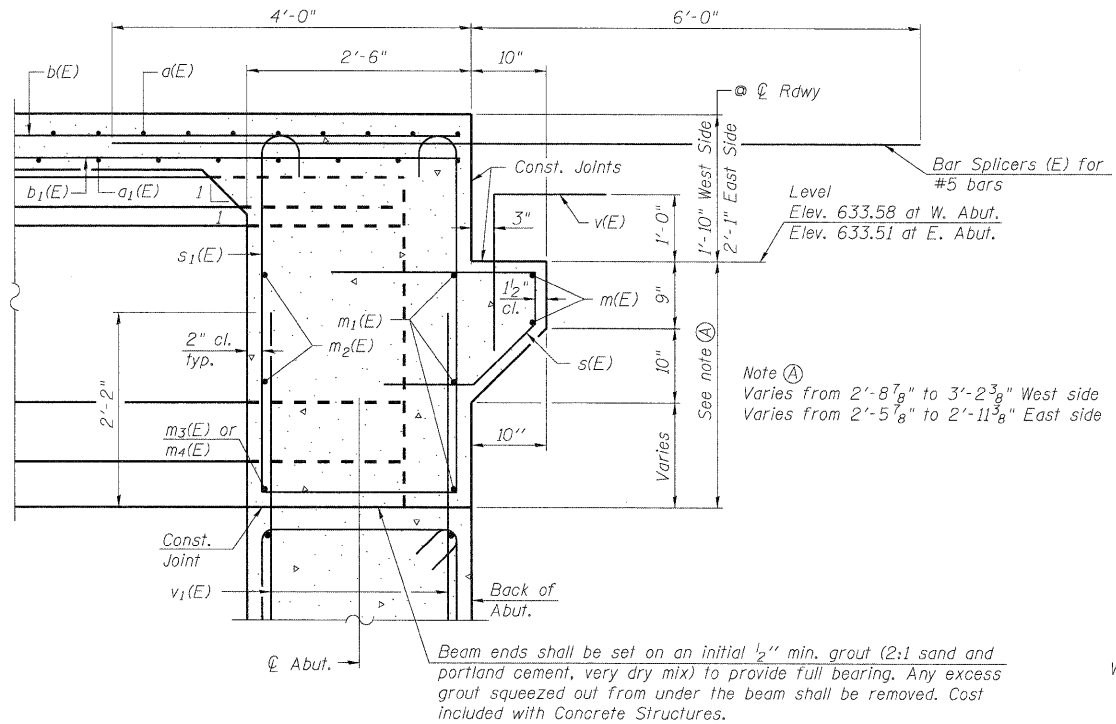
**DRAINAGE SCUPPER AT PARAPET**



**DRAINAGE SCUPPER PLAN**

**NOTES:**

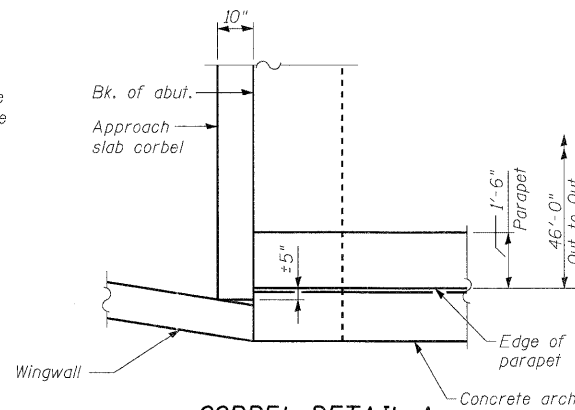
Space reinforcement to miss floor drains. Cut longitudinal reinforcement to clear drainage scuppers.  
Formliner Textured Surface and Concrete Surface Color Treatment shall be in accordance with the Special Provisions.



**SECTION A-A**

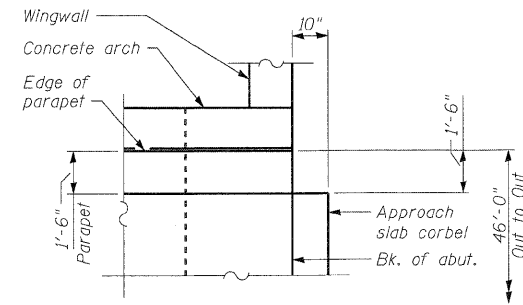
**MIN. BAR LAP**  
#6 bar = 3'-4"

Notes:  
Concrete in diaphragm is included with Concrete Superstructure.  
The s(E) and s1(E) bars shall be placed parallel to the beams.  
Spacing for these bars shall be at right angles to the beams.



**CORBEL DETAIL A**

SW end of Corbel to extend to back face of SW Wingwall.

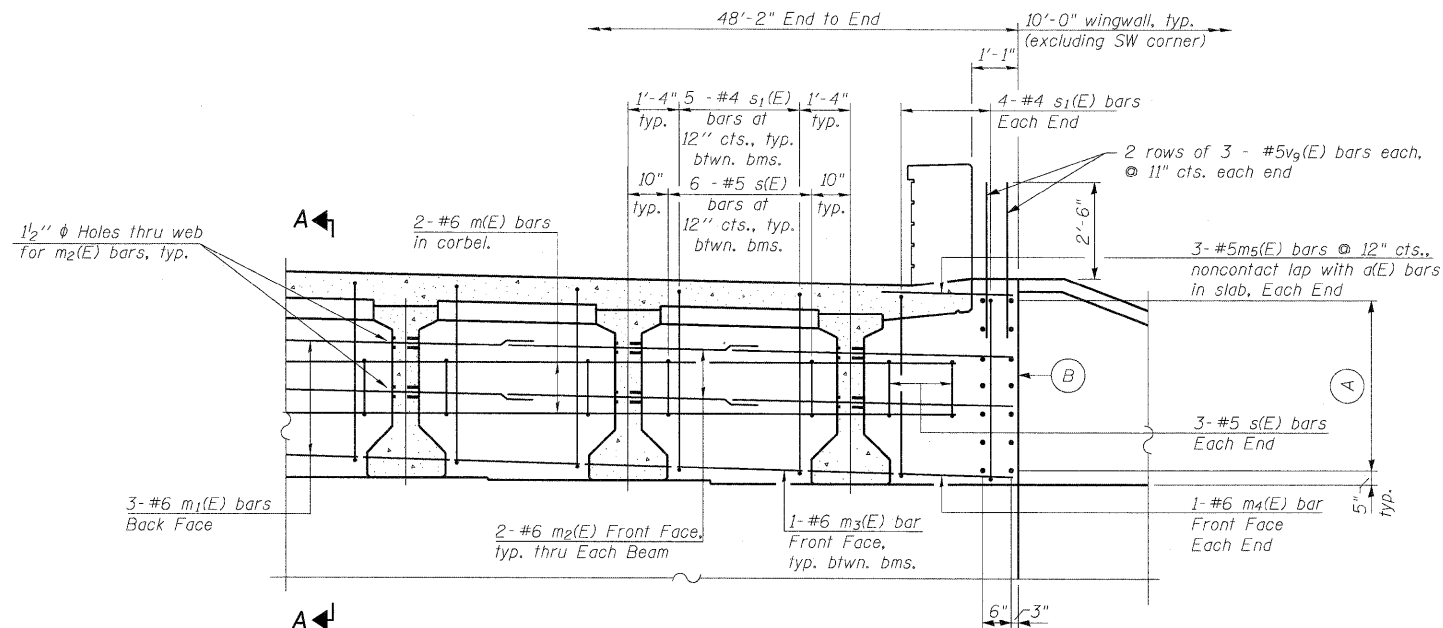


**CORBEL DETAIL B**

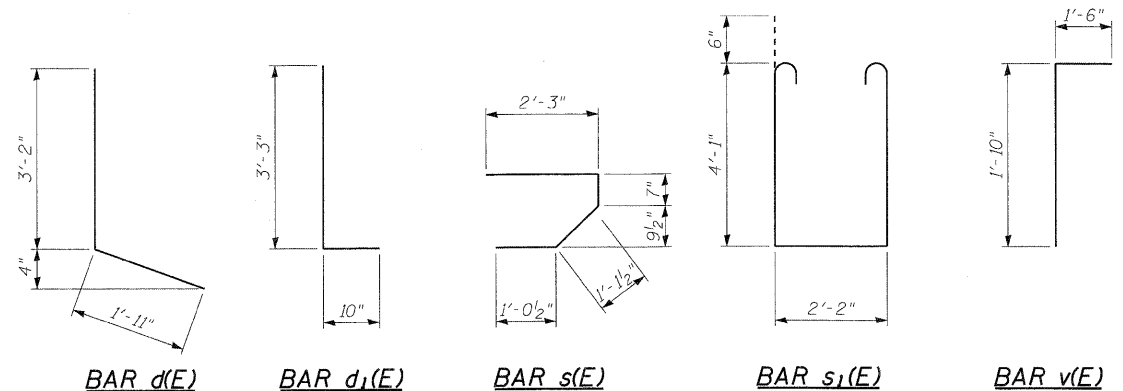
Notch required for traffic barrier terminal, Type 6, typ. for NW, NE & SE corners.

**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	116	#5	45'-4"	—
a1(E)	87	#5	44'-4"	—
a2(E)	116	#6	4'-6"	—
a3(E)	16	#5	1'-6"	—
b(E)	147	#5	25'-8"	—
b1(E)	72	#5	37'-2"	—
d(E)	144	#4	5'-1"	┌
d1(E)	192	#5	4'-1"	┌
e(E)	80	#4	17'-8"	—
m(E)	4	#6	43'-2"	—
m1(E)	6	#6	47'-10"	—
m2(E)	28	#6	10'-0"	—
m3(E)	12	#6	4'-6"	—
m4(E)	4	#6	2'-10"	—
m5(E)	12	#5	3'-5"	—
s(E)	84	#5	5'-0"	┌
s1(E)	76	#4	11'-4"	┌
v(E)	86	#5	3'-4"	┌
v9(E)	24	#5	3'-9"	┌
Item	Unit	Quantity		
Concrete Superstructure	Cu. Yd.	149.8		
Reinforcement Bars, Epoxy Coated	Pound	21950		
Bar Splicers	Each	142		
Bridge Deck Grooving	Sq. Yd.	344		
Protective Coat	Sq. Yd.	436		
Name Plates	Each	1		
Formliner Textured Surface	Sq. Ft.	664		
Concrete Surface Color Treatment	Sq. Ft.	664		

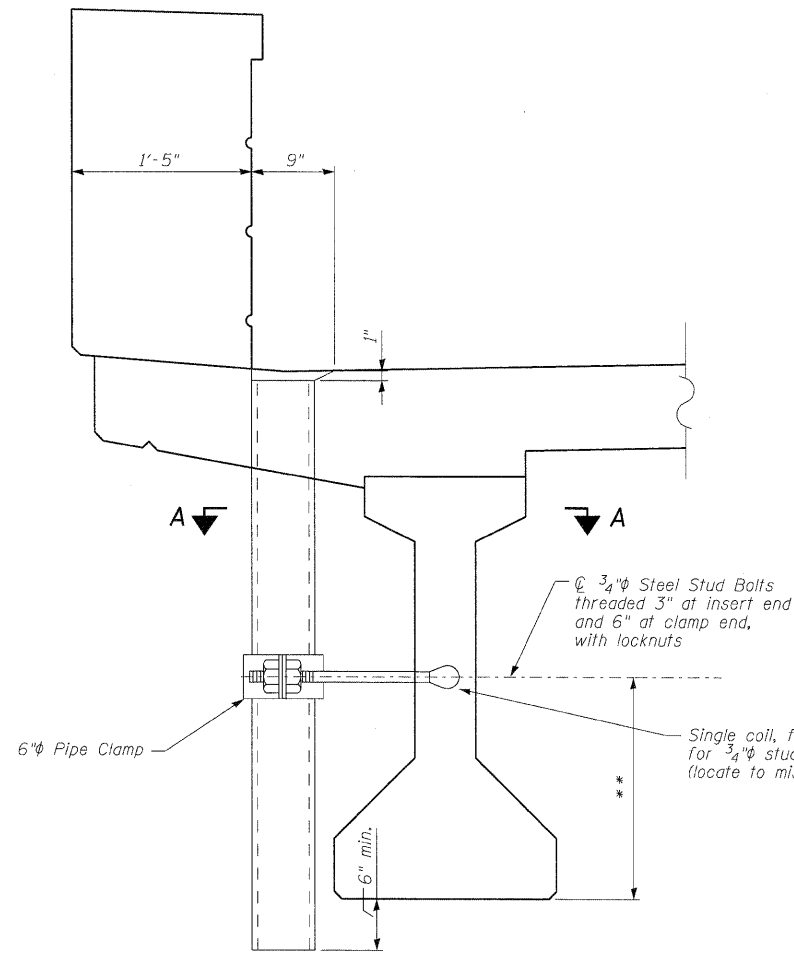


**DIAPHRAGM ELEVATION AT ABUTMENT**



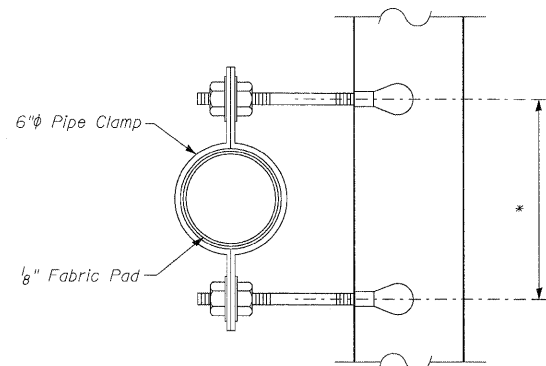
(A) 2 columns of 7 bar splicers (E) each at 7 1/2" cts., for #6h2(E) and #6h4(E) bars, each end. Coordinate with Sheet 21 of 24.

(B) Provide stainless steel masonry ties at 1'-6" maximum centers on all surfaces that have stone veneer (ends of diaphragm, etc.) See Sheet 21 of 24.



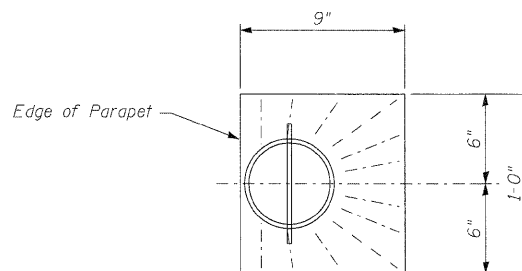
**SECTION AT PARAPET**

\*\*See sheet 16 of 24 for Insert locations

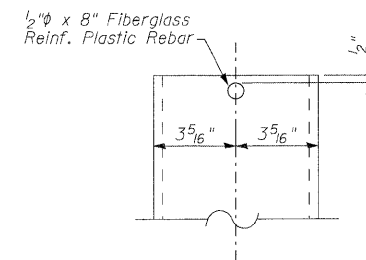


**SECTION A-A**

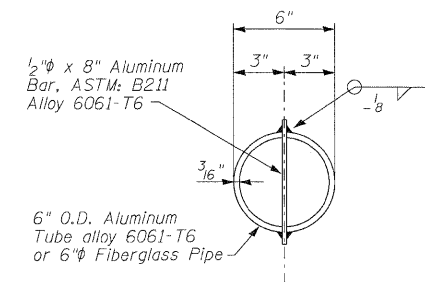
\*Dimension as required by Pipe Clamp.



**TOP PLAN**

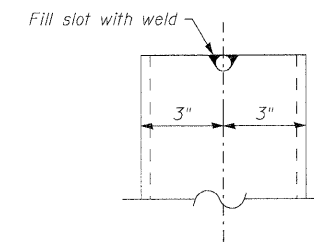


**FIBERGLASS PIPE**



**TOP PLAN**

(Showing Aluminum Tube)



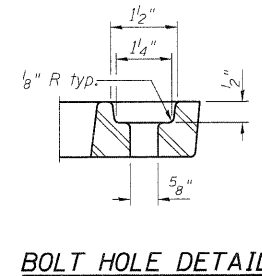
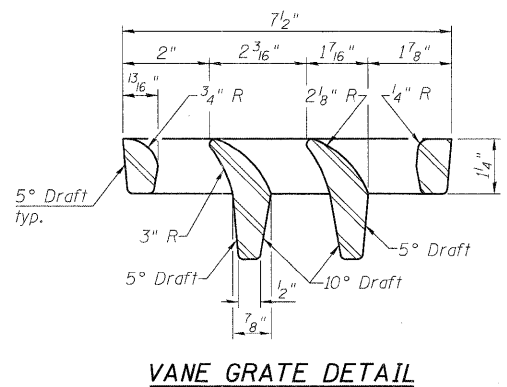
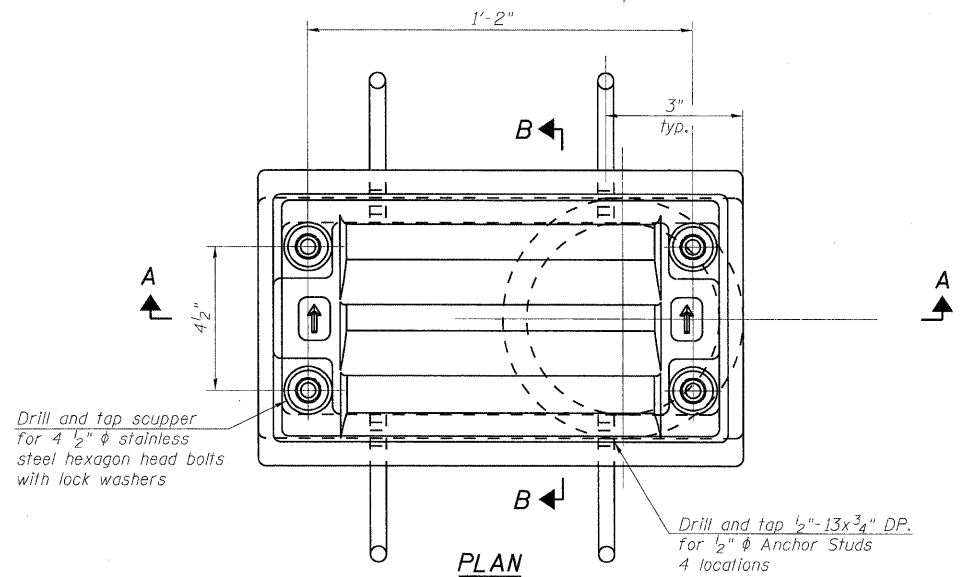
**ALUMINUM TUBE**

**BILL OF MATERIAL**

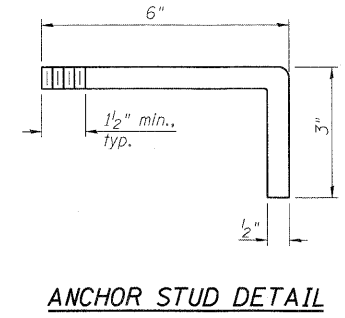
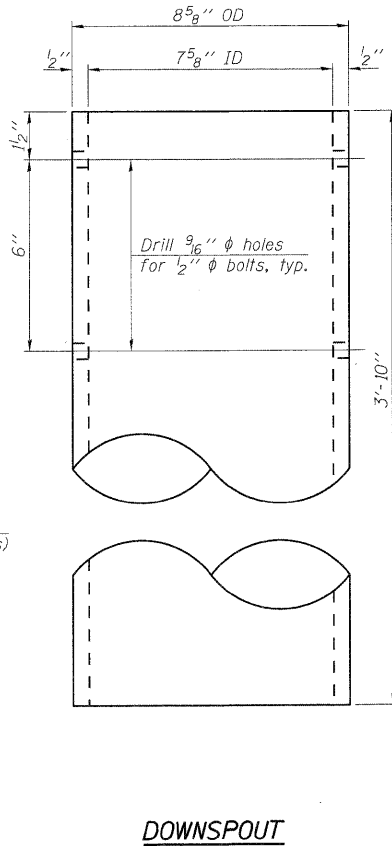
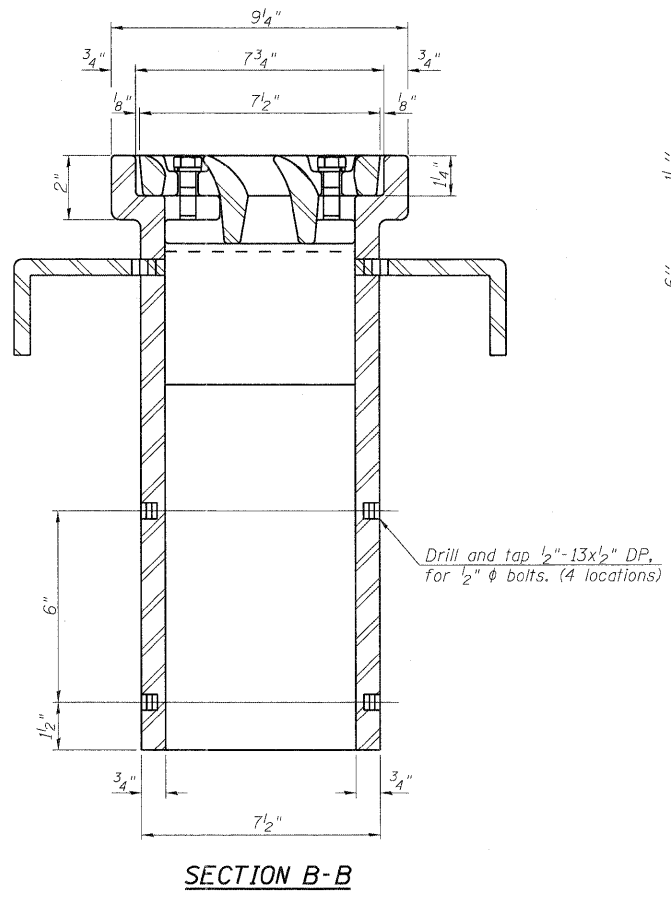
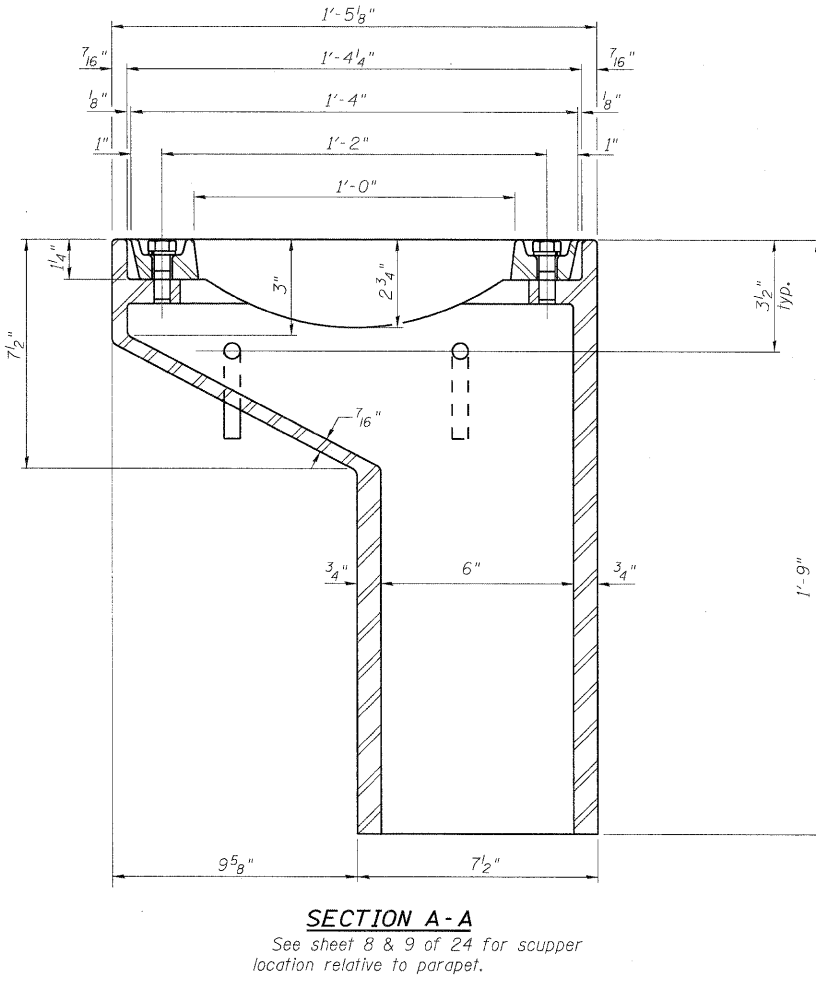
ITEM	UNIT	QUANTITY
Floor Drains	Each	4

**NOTES:**

Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.  
 The exterior surfaces of the floor drains shall be coated or pigmented by the manufacturer with a color that matches the concrete.  
 The clamping device and inserts shall be galvanized according to AASHTO M-232.



**Notes:**  
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.  
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.  
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.  
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.  
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.  
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.  
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.  
 Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	2

DS-11 7-1-10

**LOWCO, INC.**  
 CONSULTING ENGINEERS  
 1560 WALL ST., SUITE 222  
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

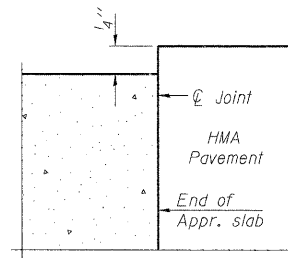
DESIGNED - MJM	REVISED -
CHECKED - WHE	REVISED -
DRAWN - SLV	REVISED -
CHECKED - MJM	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DRAINAGE SCUPPER, DS-11**  
**STRUCTURE NO. 016-2831**

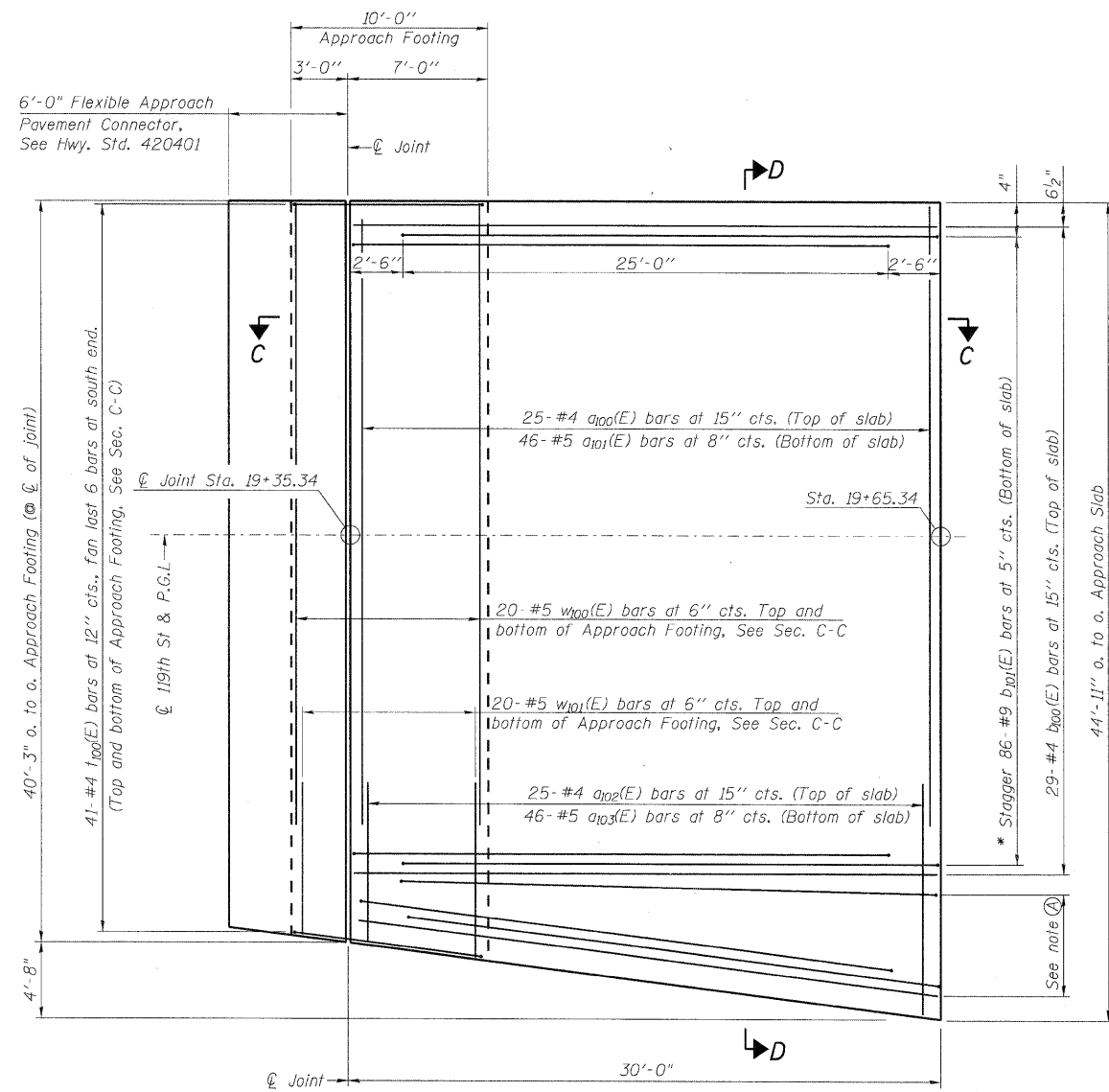
SHEET NO. 12 OF 24 SHEETS

OR. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
213	0102B-1	COOK	54	26
D-91-052-02			CONTRACT NO. 62390	
ILLINOIS FED. AID PROJECT				



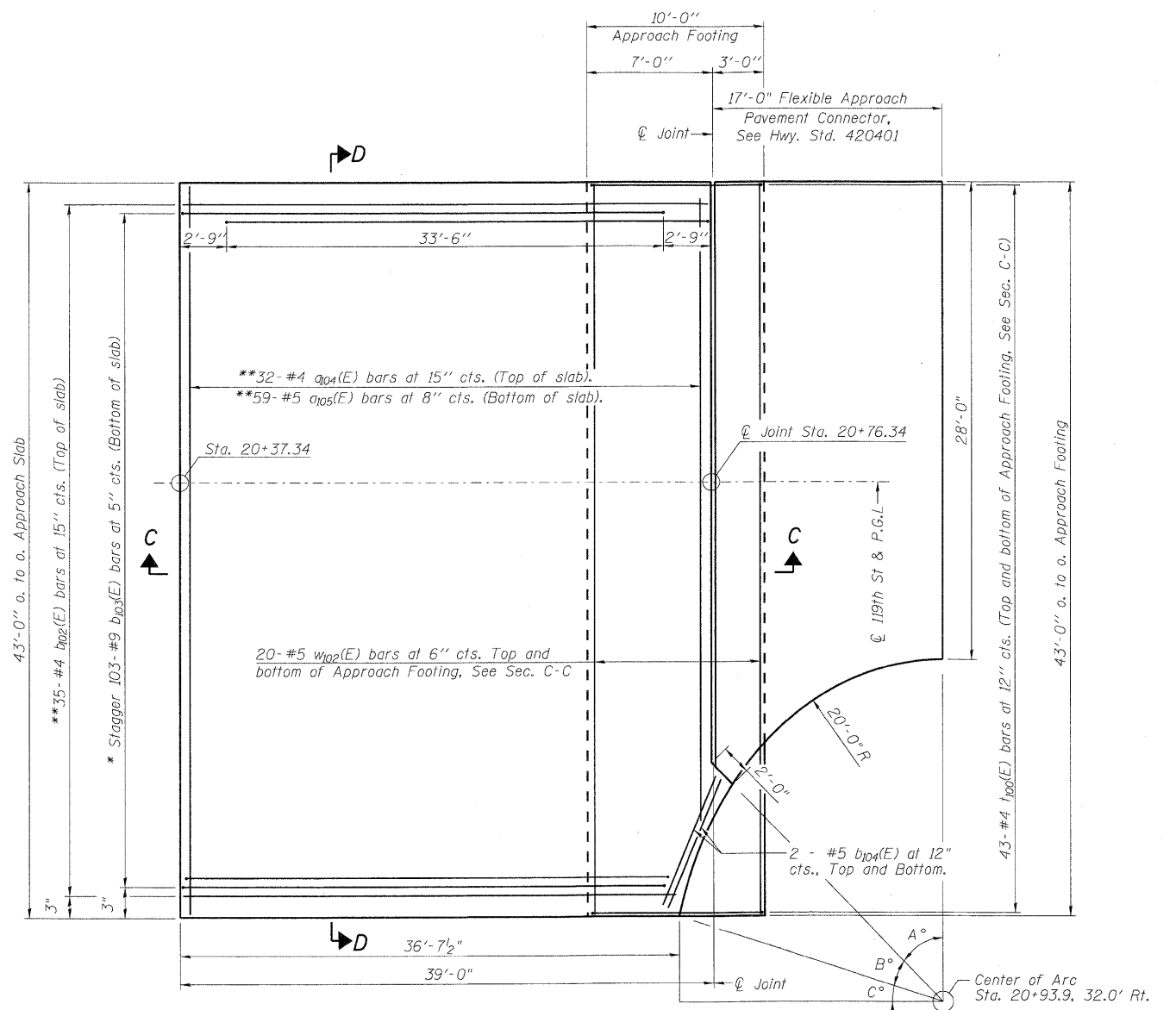
FLEXIBLE PAVEMENT  
DETAIL A

Notes:  
See sheet 14 of 24 for Sections C-C, D-D & E-E.  
All a(E) and w(E) bar spacings measured parallel to  $\text{C}$  Rdwy.



WEST APPROACH SLAB PLAN

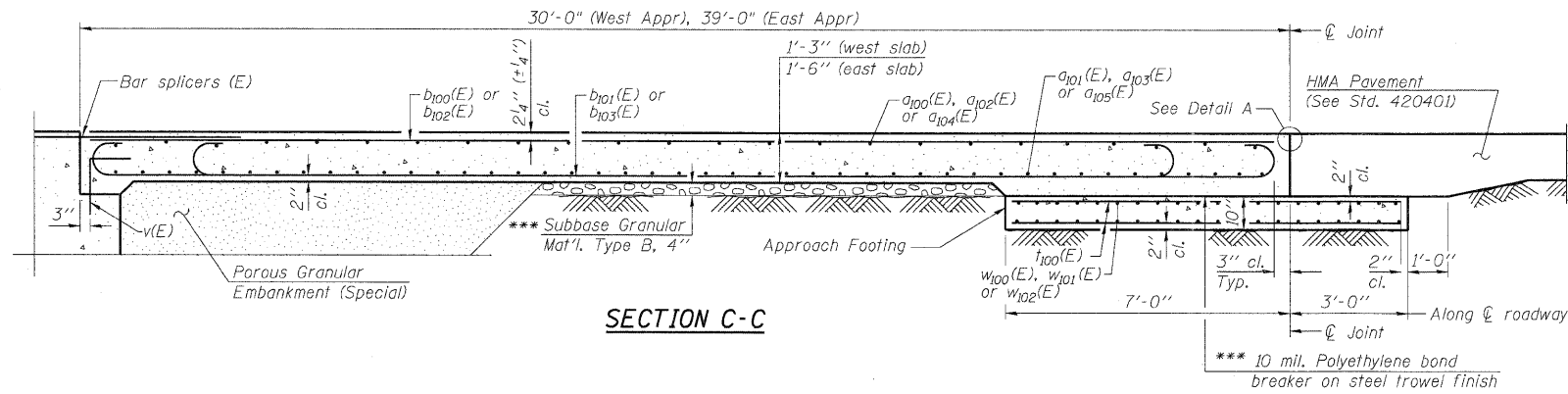
(A) Fan 7 - #4  $b_{100}(E)$  bars, top  
Fan 22 - #9  $b_{101}(E)$  bars, bottom



EAST APPROACH SLAB PLAN

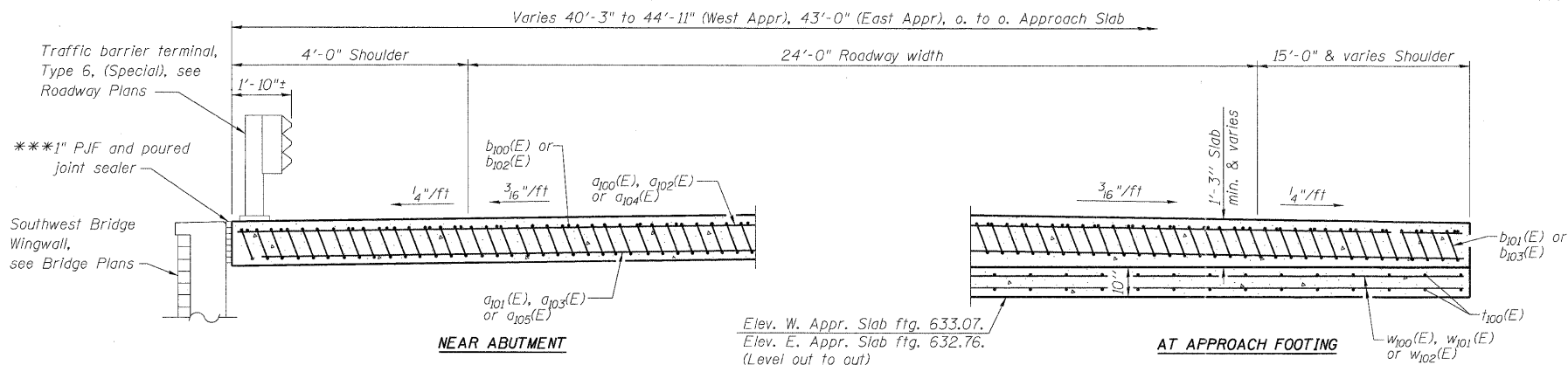
Arc Dimensions  
A - 50° 35' 57.8"  
B - 24° 55' 23.2"  
C - 14° 28' 39.0"

\*Tilt #9  $b_{101}(E)$  &  $b_{103}(E)$  bars as required to maintain clearance.  
\*\*Field cut bars to fit at radius



Notes:  
 See sheet 13 of 24 for Detail A.  
 Approach slab shall be paid for as Concrete Superstructure.  
 Approach footing concrete shall be paid for as Concrete Structures.  
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
 For v(E) bar details, see sheet S10 of 24.  
 The approach footing maximum applied service bearing pressure ( $Q_{max}$ ) = 2.0 ksf.  
 For bar splicer details, see sheet 22 of 24.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Porous Granular Embankment, Special and drainage treatment details, see sheet 3 of 24.

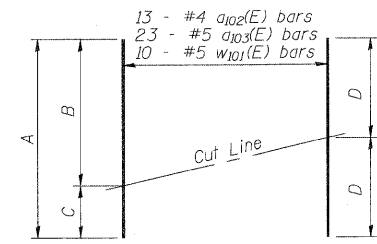
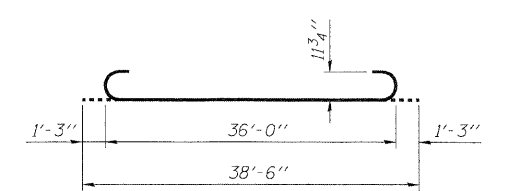
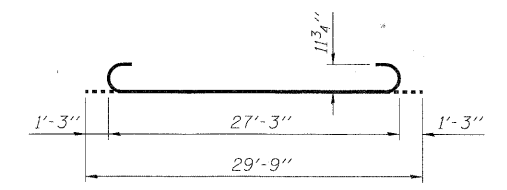
\* Tilt #9  $b_{101}(E)$  bars as required to maintain clearance.  
 \*\*\* Cost included with Concrete Superstructure.



Elev. W. Appr. Slab fig. 633.07.  
 Elev. E. Appr. Slab fig. 632.76.  
 (Level out to out)

**SECTION D-D**  
 (See Plan for dimensions not shown)

**MIN BAR LAP**  
 #4 bar = 2'-1"  
 #5 bar = 2'-7"

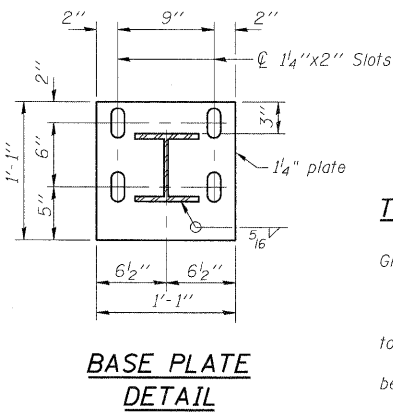
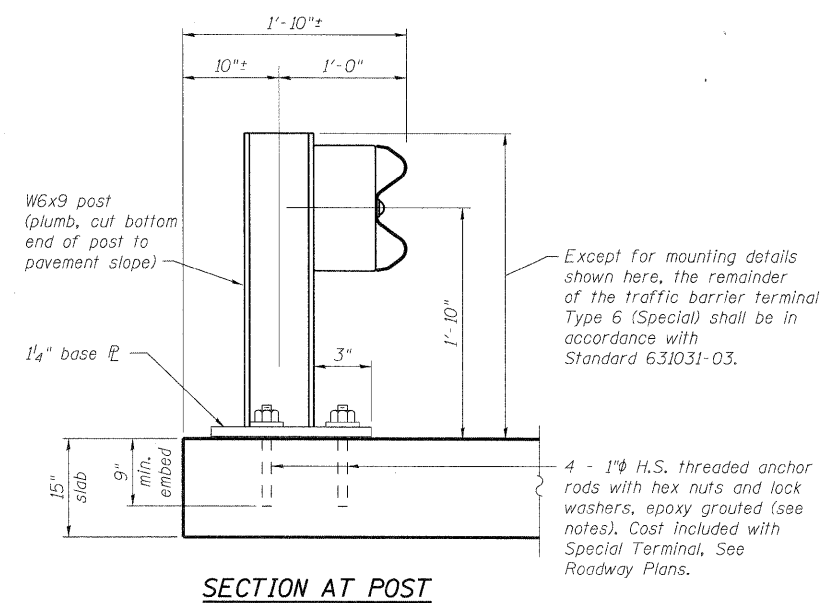


**FIELD CUTTING DIAGRAM**  
 Order  $a_{102}(E)$ ,  $a_{103}(E)$  &  $w_{101}(E)$  full length. Cut as shown and use remainder of bars to finish slab.

Dim.	$a_{102}(E)$	$a_{103}(E)$	$w_{101}(E)$
A	40'-0"	29'-0"	33'-0"
B	22'-4"	16'-10"	17'-4"
C	17'-8"	12'-2"	15'-8"
D	20'-0"	14'-6"	16'-6"

**TWO APPROACHES  
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
$a_{102}(E)$	25	#4	24'-0"	—
$a_{101}(E)$	46	#5	30'-0"	—
$a_{102}(E)$	13	#4	39'-11"	—
$a_{103}(E)$	23	#5	28'-11"	—
$a_{104}(E)$	32	#4	42'-8"	—
$a_{105}(E)$	59	#5	42'-8"	—
$b_{100}(E)$	36	#4	29'-8"	—
$b_{101}(E)$	108	#9	29'-9"	—
$b_{102}(E)$	35	#4	38'-8"	—
$b_{103}(E)$	103	#9	38'-6"	—
$b_{104}(E)$	4	#5	8'-8"	—
$t_{100}(E)$	168	#4	9'-6"	—
$w_{100}(E)$	40	#5	26'-0"	—
$w_{101}(E)$	20	#5	32'-10"	—
$w_{102}(E)$	40	#5	42'-8"	—
Bridge Deck Grooving		Sq. Yd.	327	
Concrete Superstructure		Cu. Yd.	151.7	
Concrete Structures		Cu. Yd.	25.6	
Protective Coat		Sq. Yd.	327	
Reinforcement Bars, Epoxy Coated		Pound	37090	

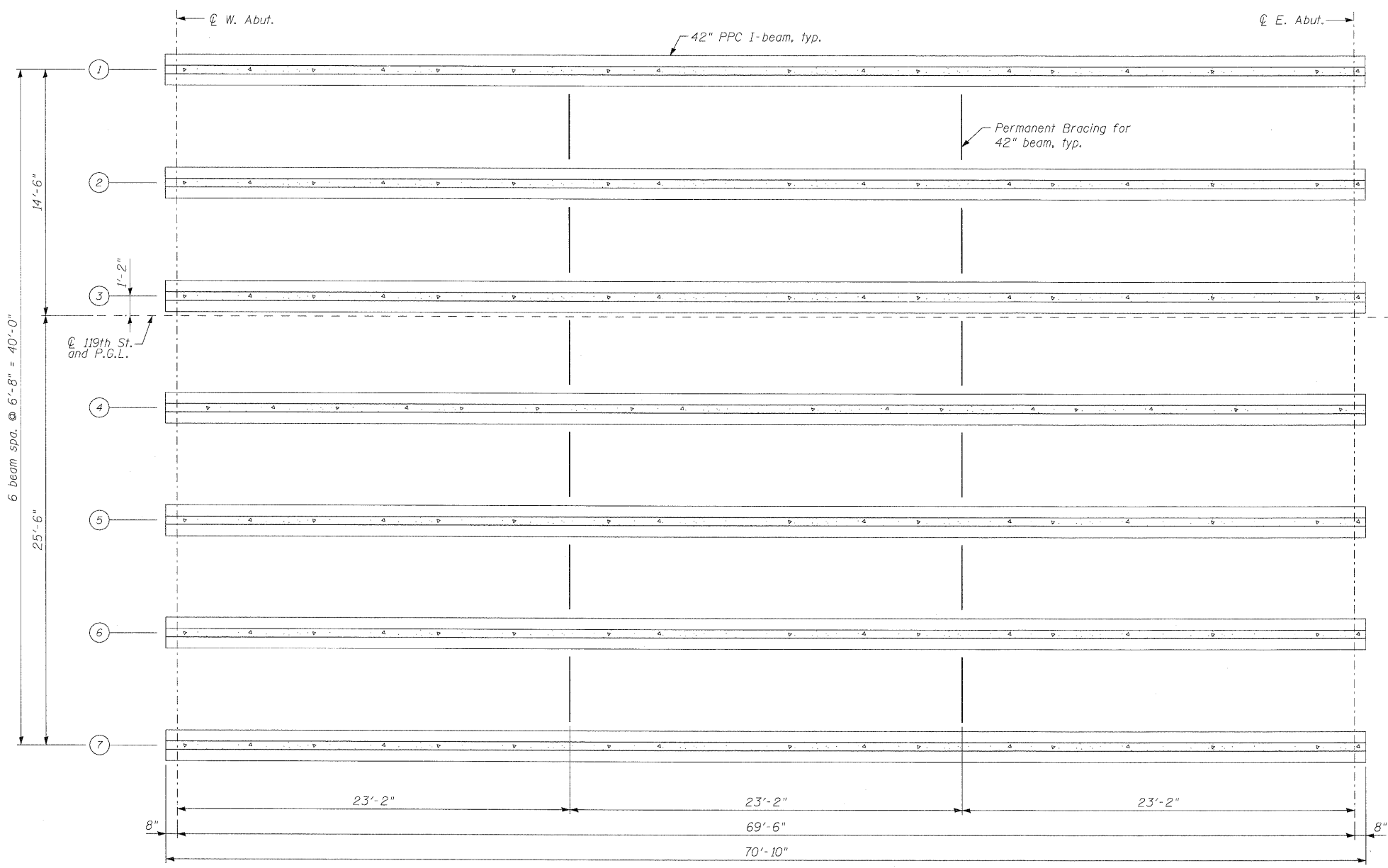


**DETAILS FOR TRAFFIC BARRIER  
 TERMINAL, TYPE 6 (SPECIAL)**

**TERMINAL NOTES:**

Steel shapes and plates shall conform to the requirements of AASHTO M 270, Grade 36 except posts shall conform to AASHTO M 270, Grade 50.  
 Threaded rods, nuts and washers shall conform to AASHTO M 164.  
 All nuts and lock washers shall be galvanized according to AASHTO M 232.  
 All posts and anchor rods shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385.  
 Provide one 1/8" and two 1/4" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.  
 The Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department.  
 The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with premeasured amounts of the adhesive chemical.  
 Nuts for 1" threaded anchor rods connecting the base plate to the concrete shall be tightened to a snug fit and given an additional 1/2 turn.



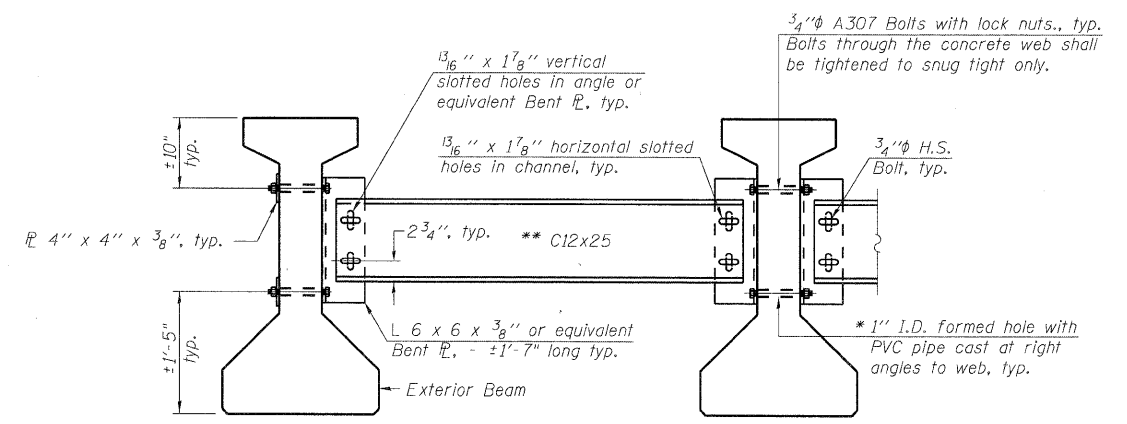


**FRAMING PLAN**

INTERIOR BEAM MOMENT TABLE		
0.5 Sp 1		
I	(in <sup>4</sup> )	90956
I'	(in <sup>4</sup> )	275306
S <sub>b</sub>	(in <sup>3</sup> )	5153
S <sub>b</sub> '	(in <sup>3</sup> )	8710
S <sub>t</sub>	(in <sup>3</sup> )	3736
S <sub>t</sub> '	(in <sup>3</sup> )	26495
Q	(k/')	1.150
M <sub>Q</sub>	(k)	694
s <sub>Q</sub>	(k/')	0.516
M <sub>s<sub>Q</sub></sub>	(k)	312
M <sub>L</sub>	(k)	592
M <sub>I</sub>	(k)	154

INTERIOR BEAM REACTION TABLE		
Abut.		
R <sub>Q</sub>	(k)	40.0
R <sub>s<sub>Q</sub></sub>	(k)	17.9
R <sub>L</sub>	(k)	37.9
R <sub>I</sub>	(k)	9.7
R <sub>Total</sub>	(k)	105.5

I: Non-composite moment of inertia of beam section (in<sup>4</sup>).  
 I': Composite moment of inertia of beam section (in<sup>4</sup>).  
 S<sub>b</sub>: Non-composite section modulus for the bottom fiber of the prestressed beam (in<sup>3</sup>).  
 S<sub>b</sub>': Composite section modulus for the bottom fiber of the prestressed beam (in<sup>3</sup>).  
 S<sub>t</sub>: Non-composite section modulus for the top fiber of the prestressed beam (in<sup>3</sup>).  
 S<sub>t</sub>': Composite section modulus for the top fiber of the prestressed beam (in<sup>3</sup>).  
 Q: Un-factored non-composite dead load (kips/ft.).  
 M<sub>Q</sub>: Un-factored moment due to non-composite dead load conservatively taken at 0.5 of the span (kip-ft.).  
 s<sub>Q</sub>: Un-factored long-term composite (superimposed) dead load (kips/ft.).  
 M<sub>s<sub>Q</sub></sub>: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).  
 M<sub>L</sub>: Un-factored live load moment on the composite section (kip-ft.).  
 M<sub>I</sub>: Un-factored moment due to impact on the composite section (kip-ft.).

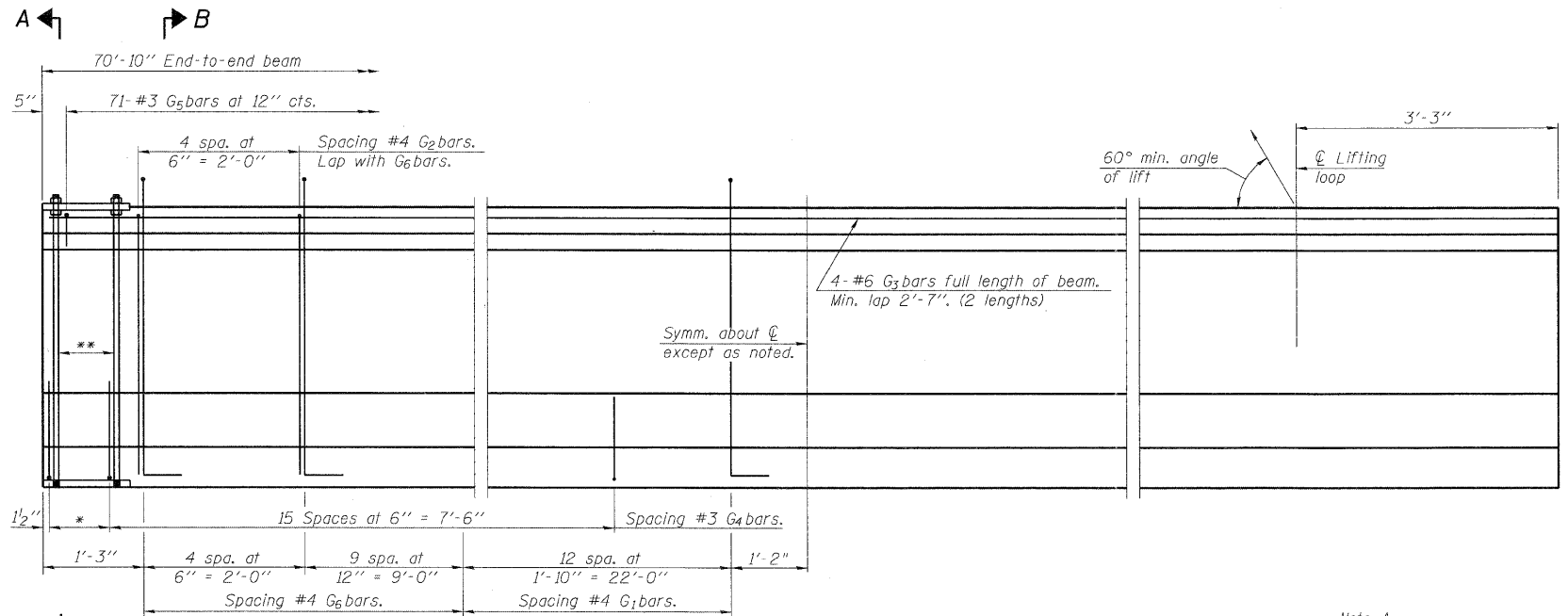


**PERMANENT BRACING DETAILS FOR 42" PPC I-BEAMS**

**Notes:**

All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted. Two hardened washers are required for each set of oversized holes. All holes shall be 1 5/16" unless otherwise noted. 5/16" x 3" x 3" plate washers are required over all slotted holes. All bolts shall be galvanized according to AASHTO M232. Bracing shall be installed as beams are erected and tightened as soon as possible during erection. Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete I-Beams.

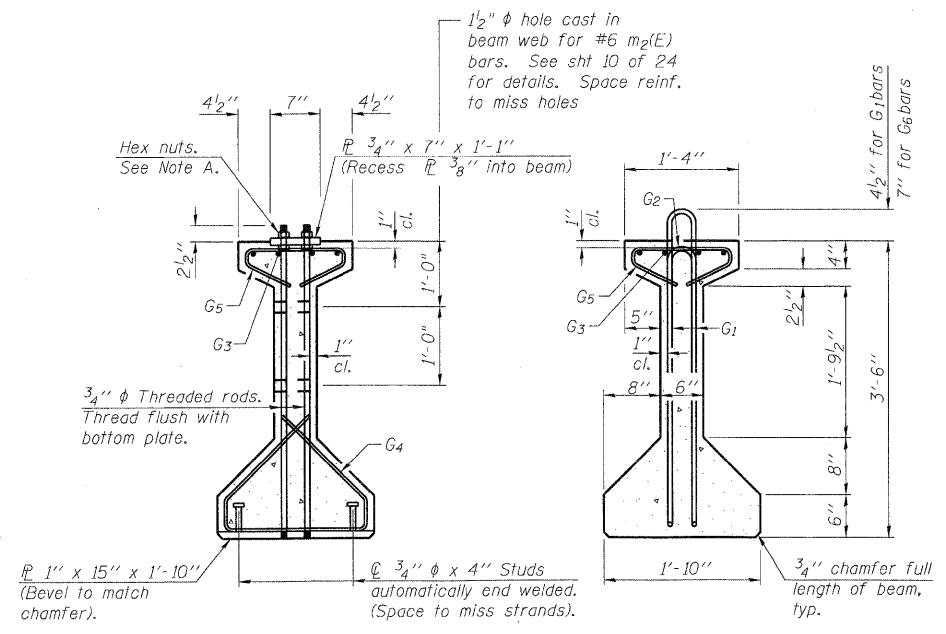
- \* Fabricator shall locate to miss strands within permissible tolerances.
- \*\* Alternate C12x30 channels are permitted to facilitate material acquisition.



**ELEVATION OF BEAM**  
(Showing reinforcement & dimensions)

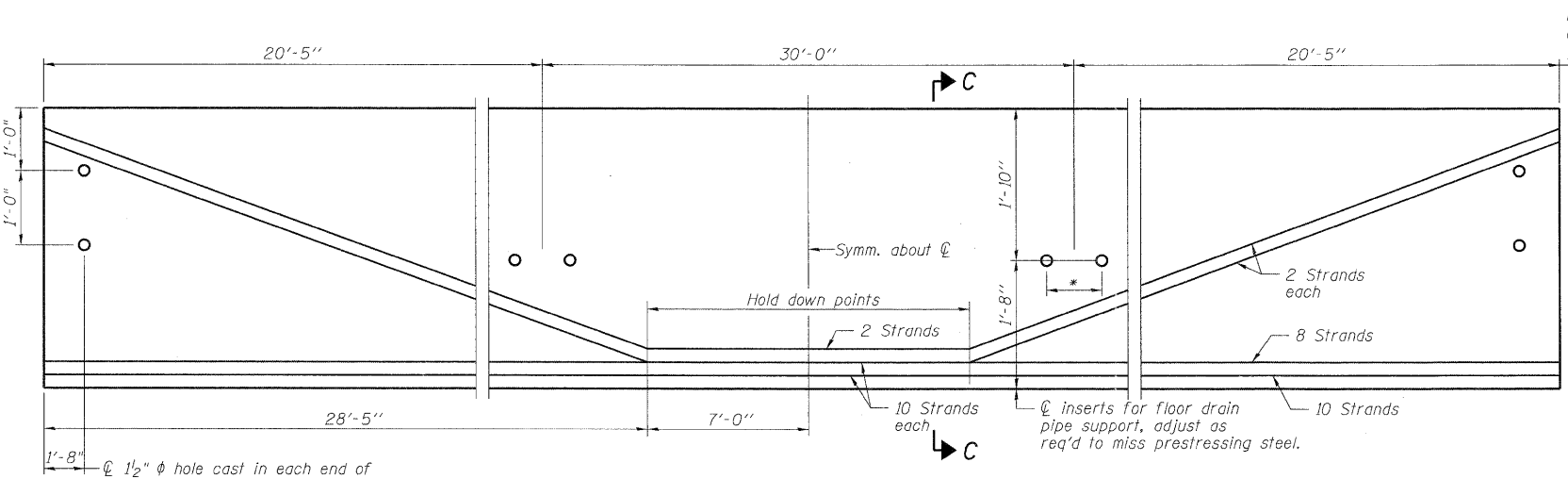
\*3 spaces at 3" = 9".  
\*\*4-3/4" φ threaded dowel rods at 3" cts., Each Face.

Note A:  
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



**SECTION A-A**

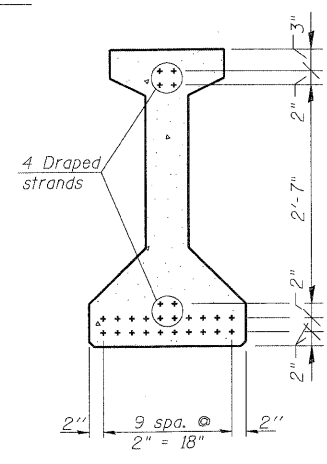
**SECTION B-B**



**ELEVATION OF BEAM**  
(Showing prestressing steel)

\*See sht 11 of 24 for insert spacing.

Floor drain inserts  
Outside face of beams  
1 and 7 only.



**SECTION C-C**

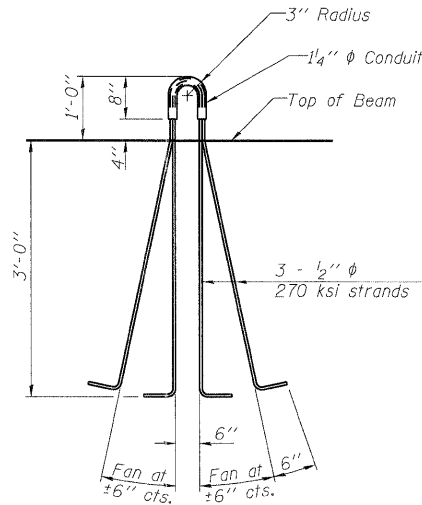
**\*\*\*BAR LIST  
ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G1	25	#4	8'-5"	∩ L
G2	10	#4	6'-8"	∩
G3	8	#6	36'-9"	—
G4	38	#3	4'-11"	U
G5	71	#3	2'-6"	U
G6	28	#4	8'-10"	∩ L

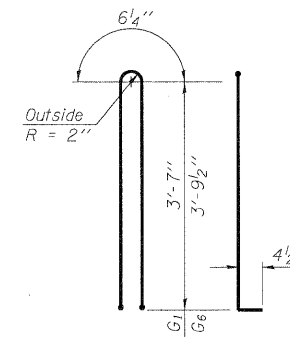
\*\*\*For information only  
Notes:  
See sheet 17 of 24 for additional details and Bill of Material.  
Required release strength, f'ci, shall be 5000 psi.

**NOTES**

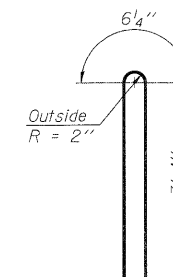
Inserts for  $\frac{3}{4}$ "  $\phi$  threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be  $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). A minimum  $2\frac{1}{2}$ "  $\phi$  lifting pin shall be used to engage the lifting loops during handling. The top and bottom plates shall be AASHTO M270 Grade 50. The bottom plates and studs shall be galvanized according to AASHTO M111. Top plates and threaded rods need not be galvanized. Threaded rods shall be ASTM F 1554 Grade 55.



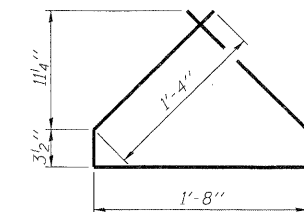
**LIFTING LOOP DETAIL**



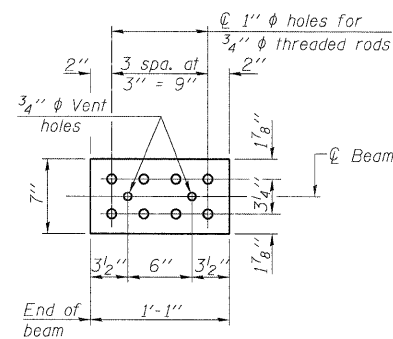
**BAR G1 & G6**



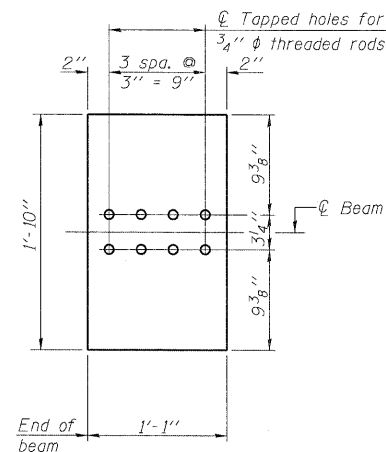
**BAR G2**



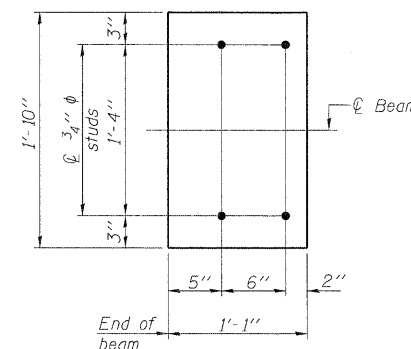
**BAR G4**



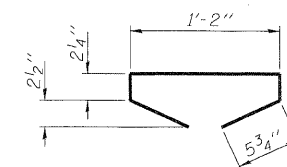
**TOP PLATE**



**BOTTOM PLATE**  
(Showing threaded rods)



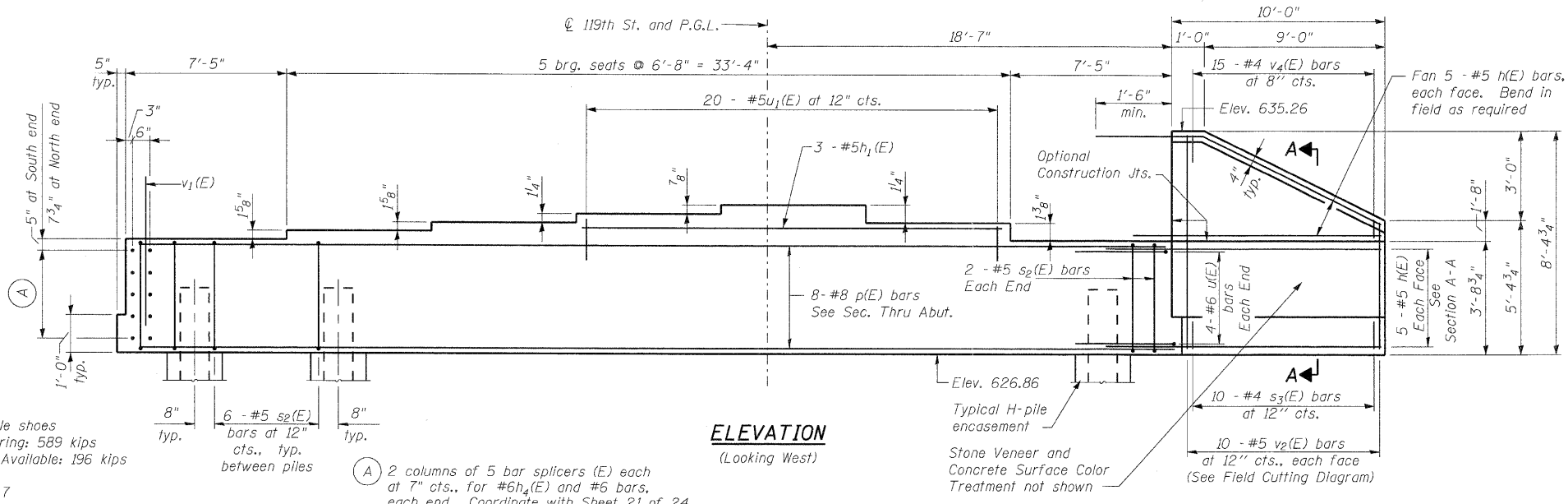
**BOTTOM PLATE**  
(Showing studs)



**BAR G5**

**BILL OF MATERIAL**

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Ft.	496

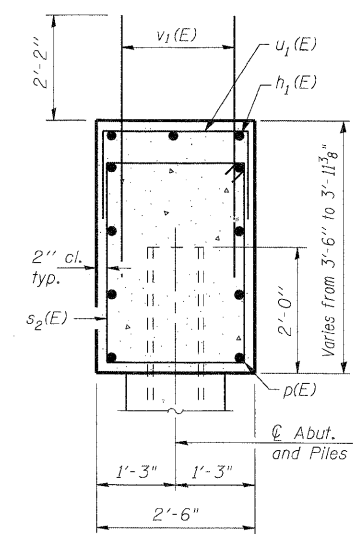


**PILE DATA**

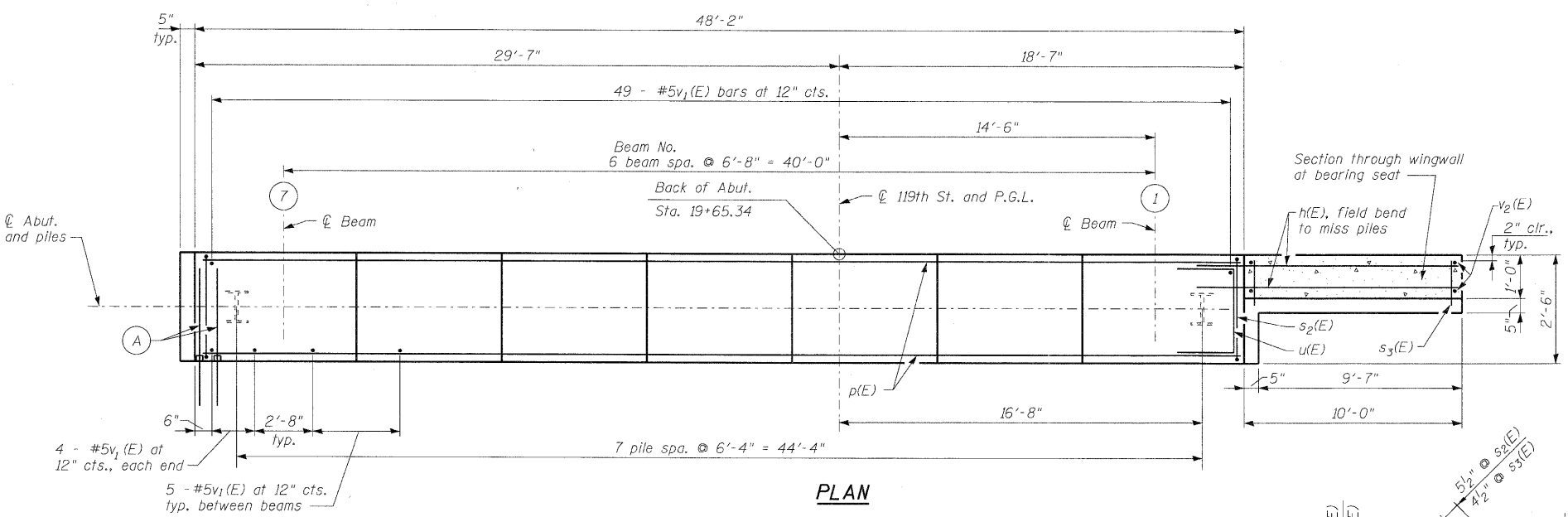
Type: HP12x74 w/ pile shoes  
 Nominal Required Bearing: 589 kips  
 Allowable Resistance Available: 196 kips  
 Est. Length: 44 ft.  
 No. Production Piles: 7  
 No. Test Piles: 1

**ELEVATION**  
 (Looking West)

2 columns of 5 bar splicers (E) each at 7" cts., for #6h4(E) and #6 bars, each end. Coordinate with Sheet 21 of 24.



**SECTION THROUGH ABUTMENT**



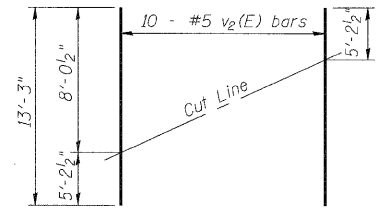
**PLAN**

**BEARING SEAT ELEVATIONS**

Beam No.	West Abut.
1	630.59
2	630.71
3	630.81
4	630.74
5	630.64
6	630.50
7	630.36

**BILL OF MATERIAL**

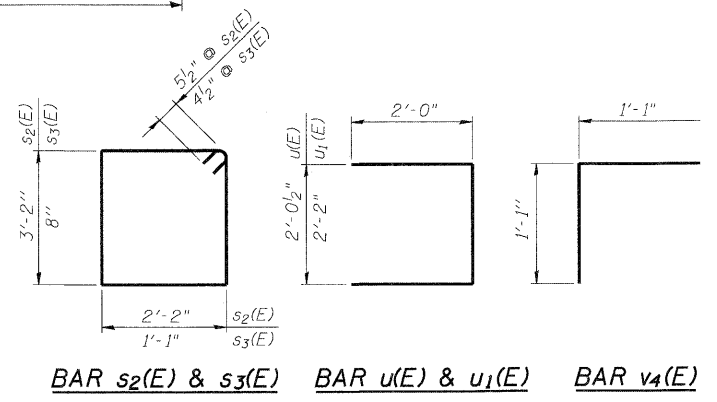
Bar	No.	Size	Length	Shape
h(E)	20	#5	11'-10"	—
h1(E)	3	#5	19'-8"	—
p(E)	8	#8	47'-10"	—
s2(E)	46	#5	11'-7"	□
s3(E)	10	#4	4'-3"	□
u(E)	8	#6	6'-1"	—
u1(E)	20	#5	6'-2"	—
v1(E)	87	#5	4'-4"	—
v2(E)	10	#5	13'-3"	—
v4(E)	15	#4	2'-2"	—
<b>Item Unit Quantity</b>				
Concrete Structures	Cu. Yd.	19.7		
Concrete Encasement	Cu. Yd.	2.8		
Reinforcement Bars, Epoxy Coated	Pound	2670		
Structure Excavation	Cu. Yd.	132		
Bar Splicers	Each	20		
Furnishing Steel Piles HP12x74	Foot	308		
Driving Piles	Foot	308		
Pile Shoes	Each	8		
Test Pile Steel HP12x74	Each	1		
Geocomposite Wall Drain	Sq. Yd.	25		
Porous Granular Embankment, Special	Cu. Yd.	92		
Pipe Underdrains for Structures, 4"	Foot	84		



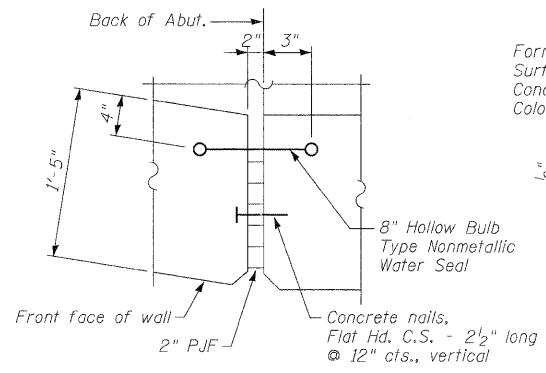
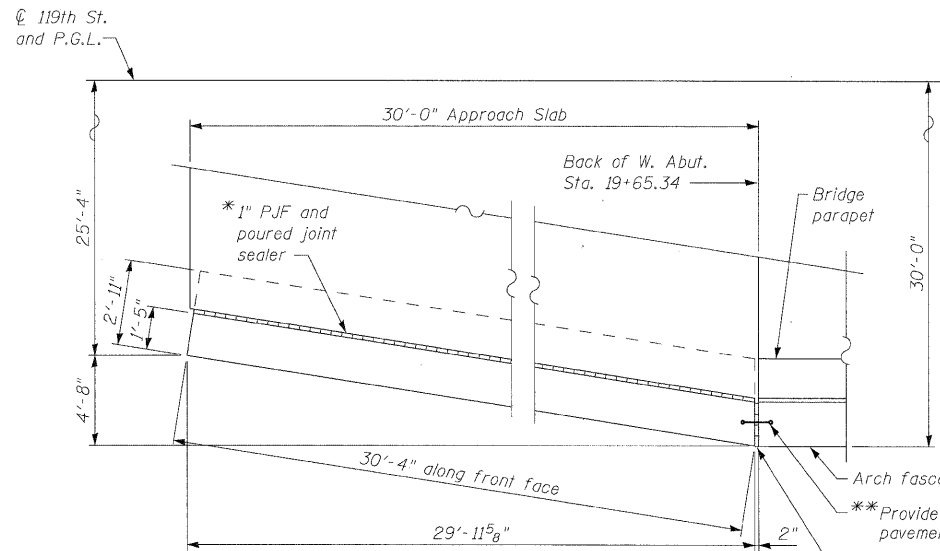
**FIELD CUTTING DIAGRAM**  
 Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.

**NOTES:**

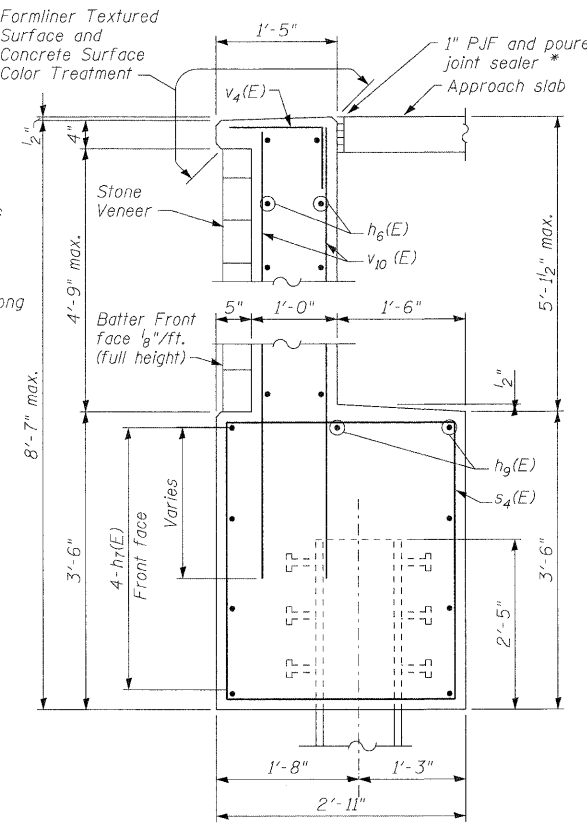
See sheet 19 of 24 for Section A-A. Pour steps monolithically with cap.  
 See Sheet 21 of 24 for details of the Stone Veneer, Formliner Textured Surface, and Concrete Surface Color Treatment to be applied to the wingwalls.  
 Provide stainless steel masonry ties and dovetail anchor channel slots at 12" maximum centers horizontally on all surfaces that have stone veneer. (Cost included in Stone Veneer, typ.)  
 See sheet 23 of 24 for pile encasement details.  
 The Steel H-Piles shall be according to AASHTO M270 Grade 50.  
 The test pile shall be driven to 110 percent of the Nominal Required bearing indicated in the pile data information.





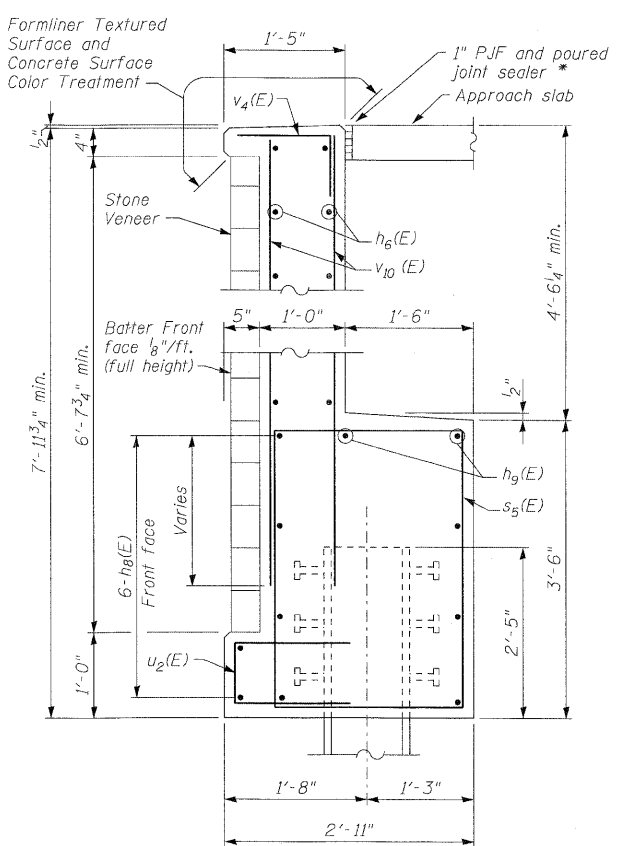


**WATER STOP DETAIL**



**SECTION A-A**

Vertical dimensions shown at West end



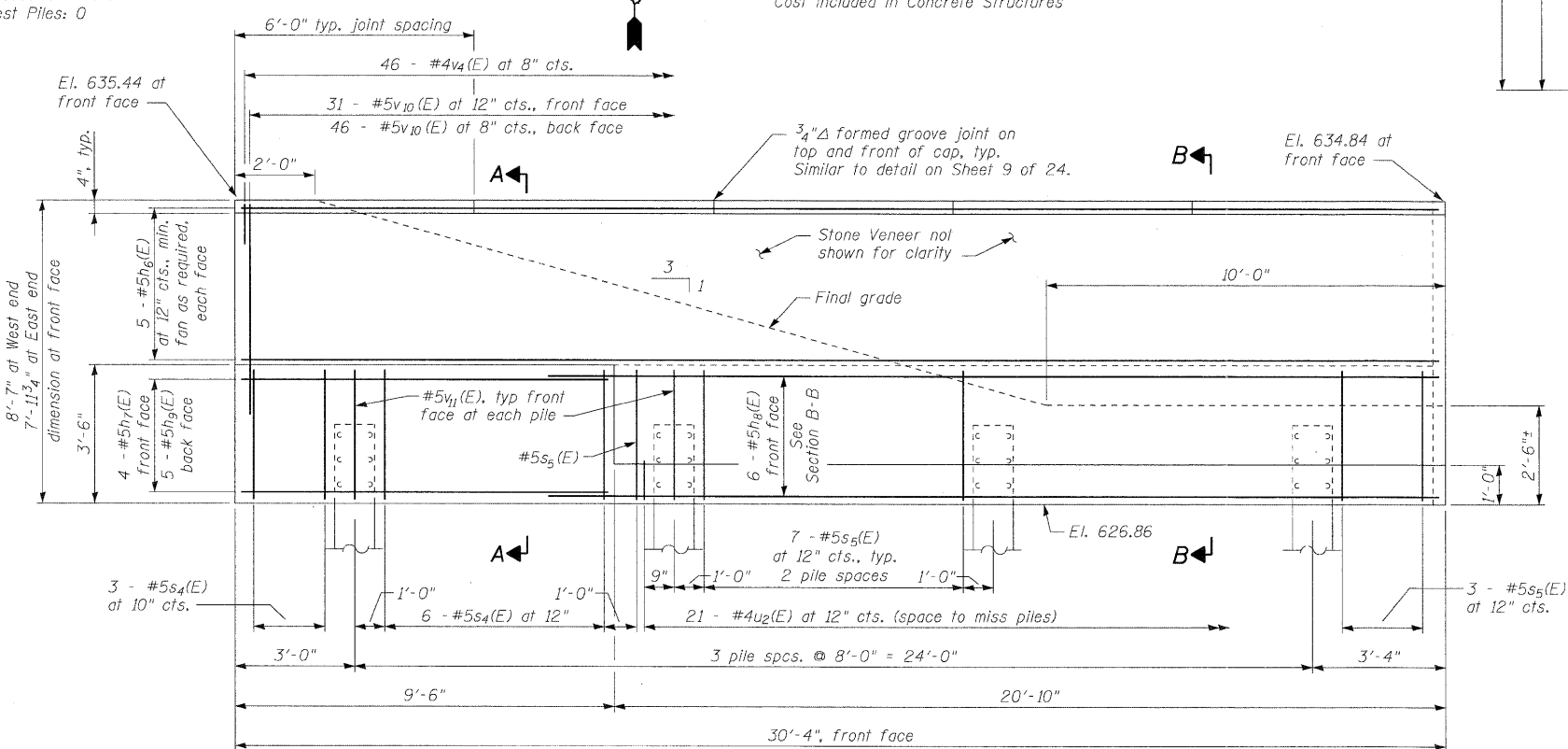
**SECTION B-B**

Vertical dimensions shown at East end

**PILE DATA**

Type: HP12x74 w/ pile shoes  
 Nominal Required Bearing: 589 kips  
 Allowable Resistance Available: 196 kips  
 Est. Length: 44 ft.  
 No. Production Piles: 4  
 No. Test Piles: 0

**PLAN**



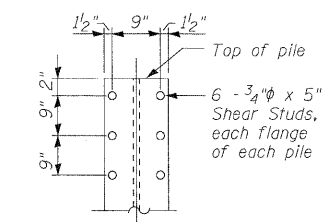
**ELEVATION**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h <sub>6</sub> (E)	10	#5	29'-9"	—
h <sub>7</sub> (E)	4	#5	9'-2"	—
h <sub>8</sub> (E)	6	#5	23'-0"	—
h <sub>9</sub> (E)	5	#5	29'-6"	—
s <sub>4</sub> (E)	9	#5	12'-5"	□
s <sub>5</sub> (E)	18	#5	11'-7"	□
u <sub>2</sub> (E)	21	#4	3'-8"	□
v <sub>4</sub> (E)	46	#4	2'-2"	□
v <sub>10</sub> (E)	77	#5	6'-6"	—
v <sub>11</sub> (E)	4	#5	3'-2"	—
Item	Unit	Quantity		
Concrete Structures	Cu. Yd.	16.1		
Reinforcement Bars, Epoxy Coated	Pound	1630		
Structure Excavation	Cu. Yd.	44		
Furnishing				
Steel Piles HP12x74	Foot	176		
Driving Piles	Foot	176		
Pile Shoes	Each	4		
Geocomposite Wall Drain	Sq. Yd	28		
Porous Granular Embankment, Special	Cu. Yd.	21		
Stone Veneer	Sq. Ft.	187		
Concrete Surface Color Treatment	Sq. Ft.	58		
Formliner Textured Surface	Sq. Ft.	58		
Pipe Underdrains for Structures, 4"	Foot	28		

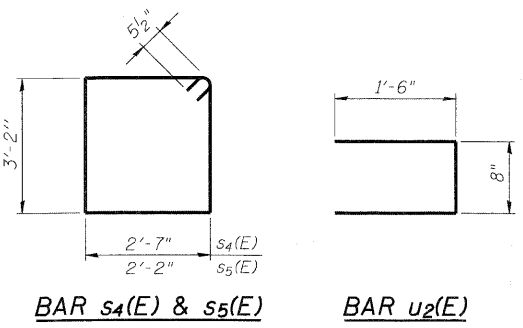
**NOTES:**

See Sheet 19 of 24 for v<sub>4</sub>(E) bar details.  
 Stone Veneer, Formliner Textured Surface, and Concrete Surface Color Treatment shall be in accordance with the Special Provisions.  
 Provide stainless steel masonry ties and dovetail anchor channel slots at 12" maximum centers horizontally on all surfaces that have stone veneer. (Cost included in Stone Veneer, typ.)  
 See Sheet 3 of 24 for Excavation, backfill and drainage system behind wingwall. The Steel H-Piles shall be according to AASHTO M270 Grade 50.



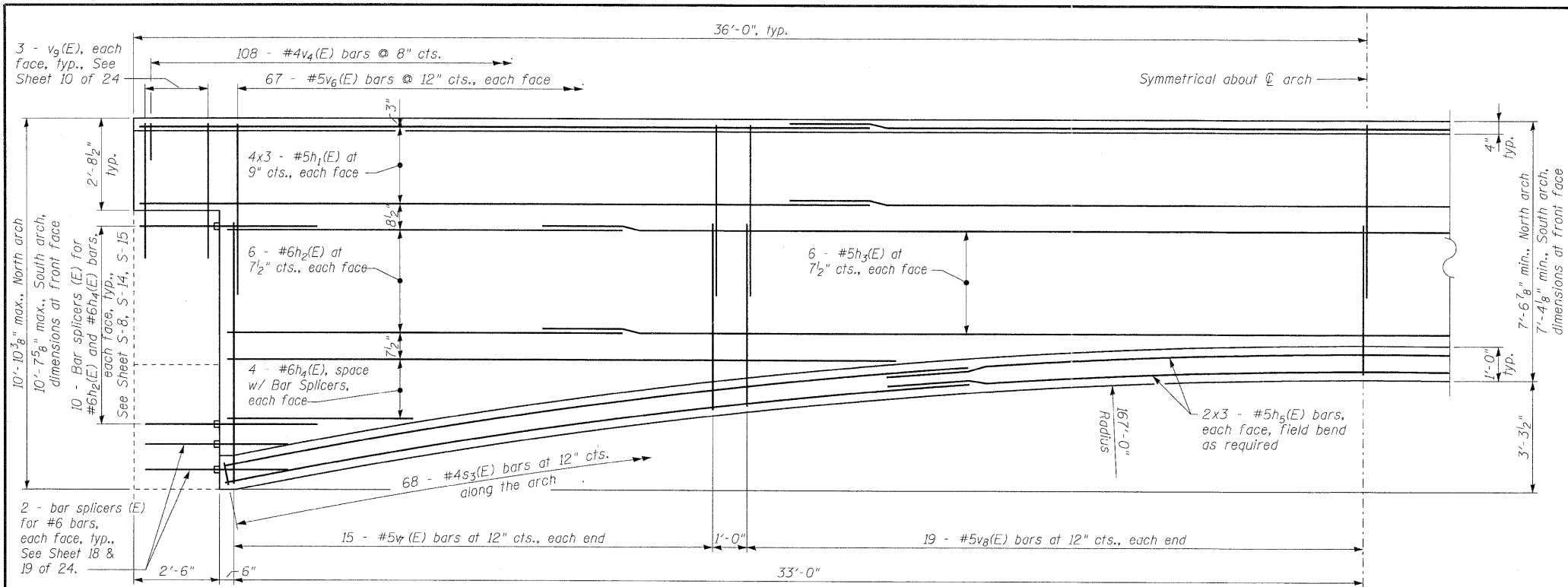
**SHEAR STUD DETAIL**

Cost of Shear Studs shall be included in Furnishing Steel Piles HP12x74



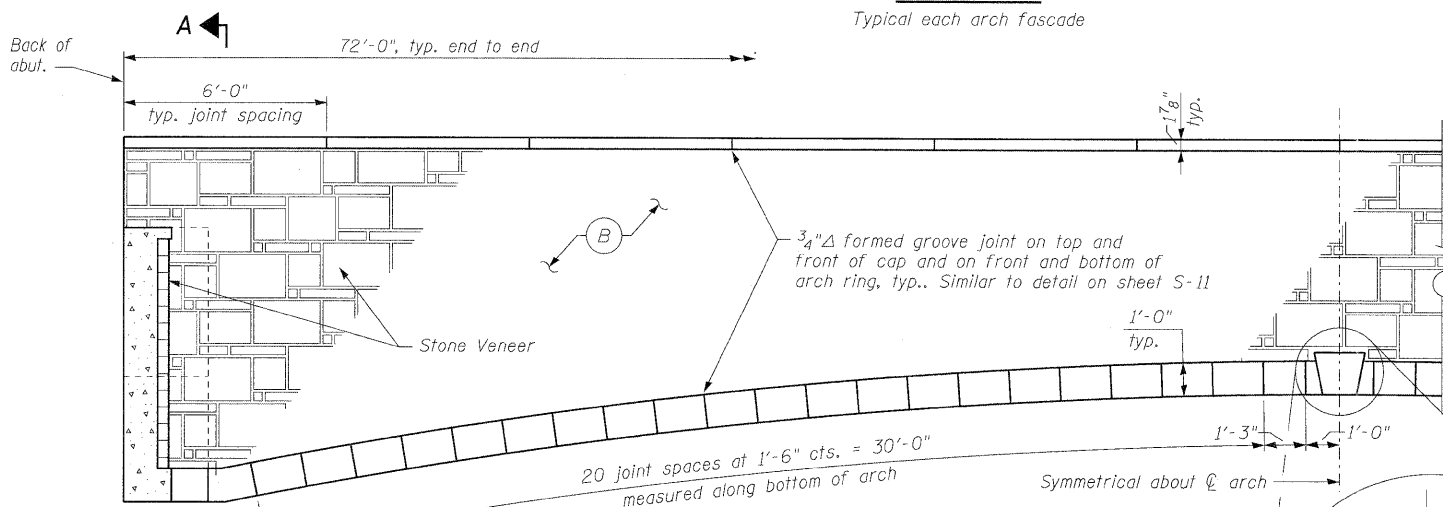
**BAR s<sub>4</sub>(E) & s<sub>5</sub>(E)**

**BAR u<sub>2</sub>(E)**



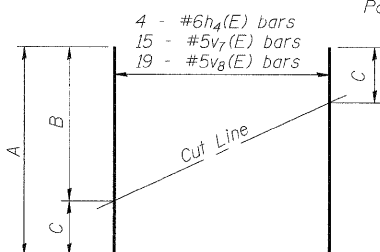
**ELEVATION**

Typical each arch fascade



**OUTSIDE ELEVATION OF ARCH**

Partial North fascade shown. South fascade is similar.



**FIELD CUTTING DIAGRAM**

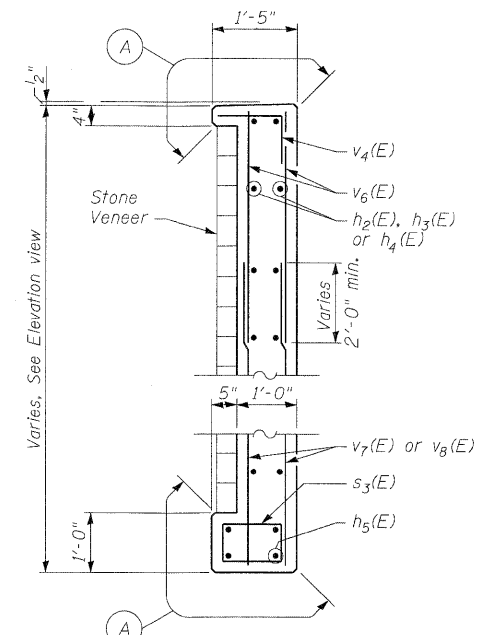
Order h4(E), v7(E), and v8(E) full length. Cut as shown and use remainder of bars in opposite face.

Dim.	h <sub>4</sub> (E)	v <sub>7</sub> (E)	v <sub>8</sub> (E)
A	27'-8"	13'-1"	9'-8"
B	22'-6"	7'-8"	5'-4"
C	5'-2"	5'-5"	4'-4"

**NOTES:**

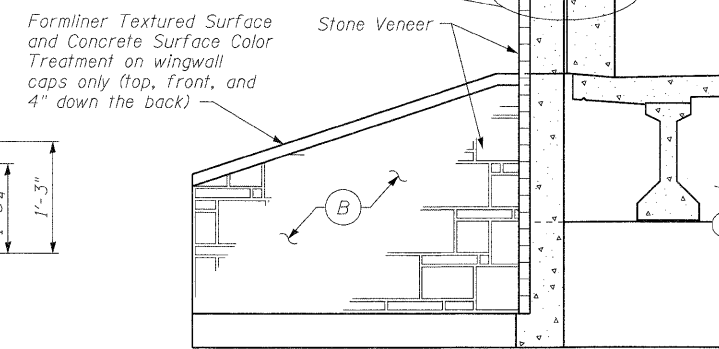
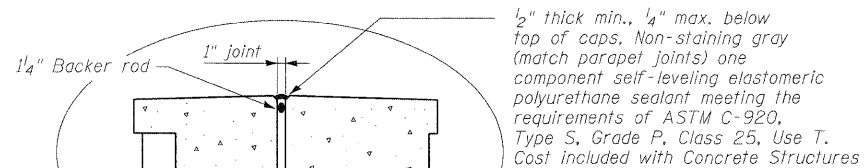
Reinforcement designated 4x2-#5, etc., indicates 4 lines of #5 bars with 2 bars per line.  
See Sheet 19 of 24 for s3(E) and v4(E) bar details.  
Minimum bar laps: #5 = 2'-7".  
Stone Veneer, Formliner Textured Surface, and Concrete Surface Color Treatment shall be in accordance with the Special Provisions.

(B) Provide stainless steel masonry ties and dovetail anchor channel slots at 12" maximum centers horizontally on all surfaces that have stone veneer. (Cost included in Stone Veneer, typ.)



**TYPICAL SECTION**

(A) Limits of Formliner Textured Surface and Concrete Surface Color Treatment



**SECTION A-A**

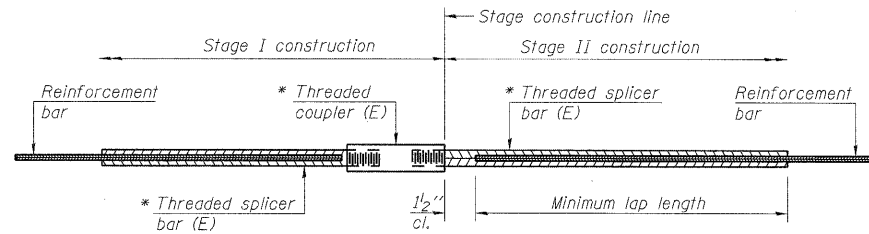
Typical detail at three standard wingwalls

**MINIMUM BAR LAP**

#5 bar = 2'-7"

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h <sub>1</sub> (E)	48	#5	25'-4"	—
h <sub>2</sub> (E)	48	#6	12'-0"	—
h <sub>3</sub> (E)	24	#5	47'-0"	—
h <sub>4</sub> (E)	16	#6	27'-8"	—
h <sub>5</sub> (E)	24	#5	23'-10"	—
s <sub>3</sub> (E)	136	#4	4'-3"	□
v <sub>4</sub> (E)	216	#4	2'-2"	┌
v <sub>6</sub> (E)	268	#5	5'-3"	—
v <sub>7</sub> (E)	60	#5	13'-1"	—
v <sub>8</sub> (E)	76	#5	9'-8"	—
Item	Unit	Quantity		
Concrete Structures	Cu. Yd.	66.3		
Reinforcement Bars, Epoxy Coated	Pound	8320		
Stone Veneer	Sq. Ft.	1201		
Concrete Surface Color Treatment	Sq. Ft.	689		
Formliner Textured Surface	Sq. Ft.	689		



**STANDARD BAR SPLICER ASSEMBLY**

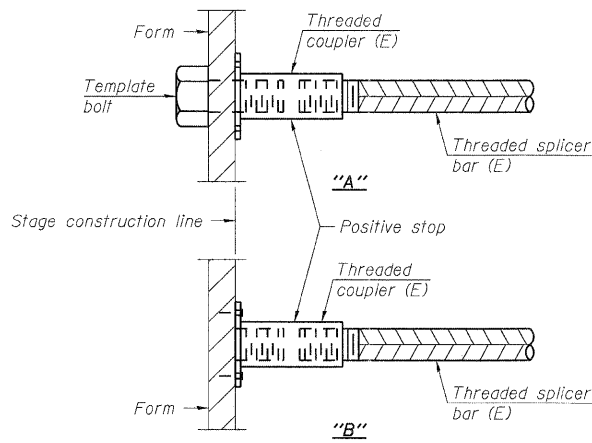
Bar size to be spliced	Minimum Lap Lengths				
	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1/2" + thread length

\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length

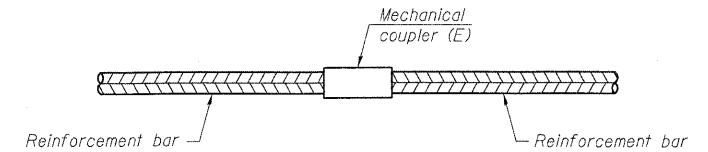


**INSTALLATION AND SETTING METHODS**

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

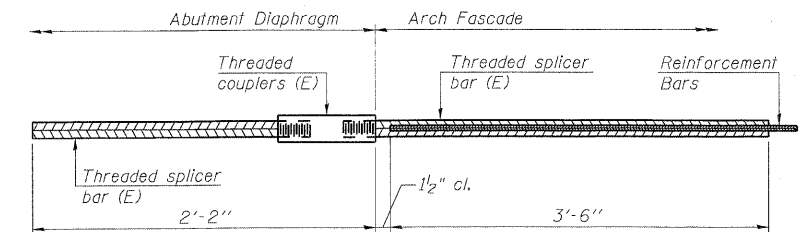
**NOTES**

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.  
 All reinforcement shall be lapped and tied to the splicer bars.  
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.  
 See special provision for Mechanical Splicers.  
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.



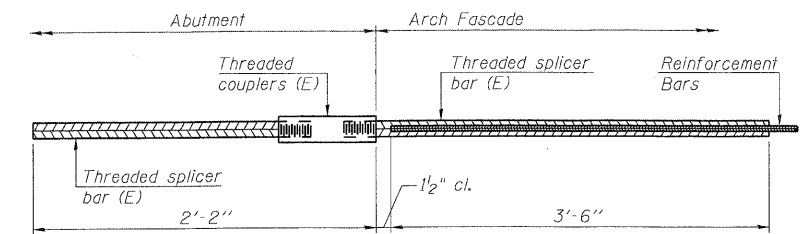
**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required



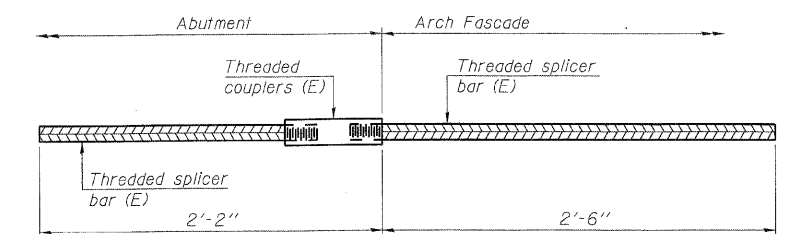
**FOR ABUTMENT DIAPHRAGM TO ARCH FASCAD**  
**BAR SPLICER FOR #6 h<sub>2</sub>(E) & #6 h<sub>4</sub>(E) BAR**

No. required = 56



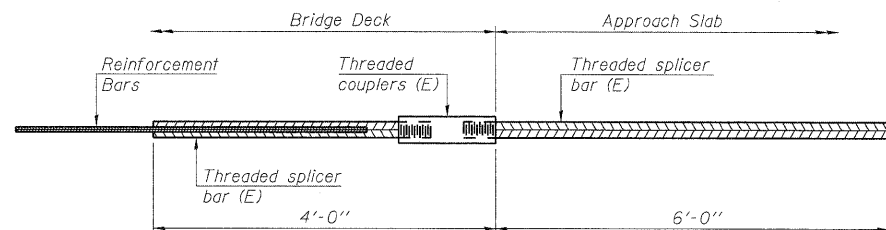
**FOR ABUTMENT (UPPER 3 ROWS) TO ARCH FASCAD**  
**BAR SPLICER FOR #6 h<sub>4</sub>(E) BAR**

No. required = 24



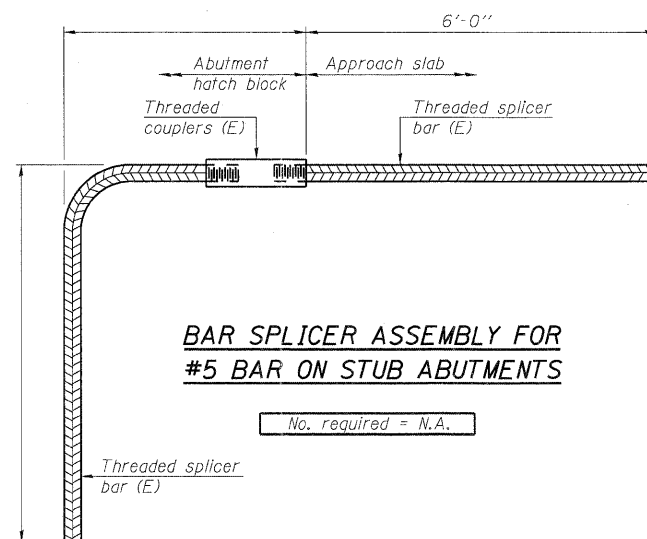
**FOR ABUTMENT (LOWER 2 ROWS) TO ARCH FASCAD**  
**BAR SPLICER FOR #6 BAR**

No. required = 16



**BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

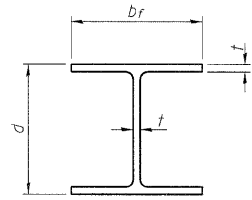
No. required = 86



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

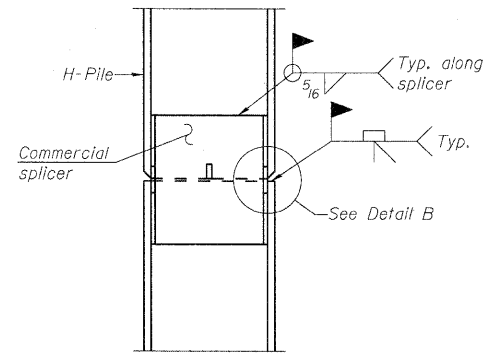
No. required = N.A.



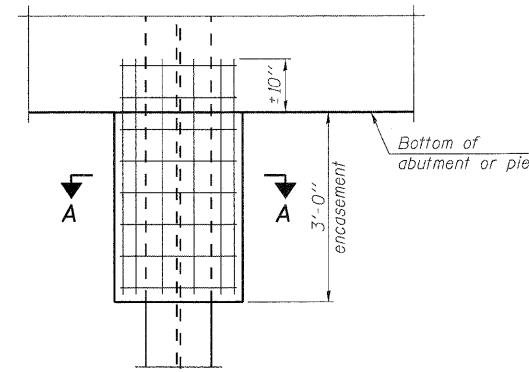


**STEEL PILE TABLE**

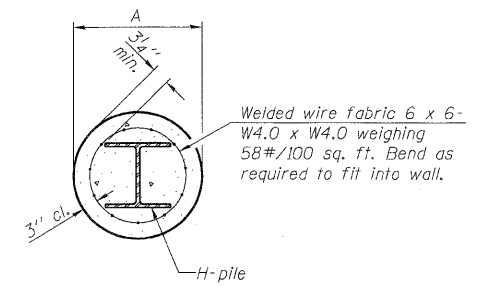
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



**ELEVATION**



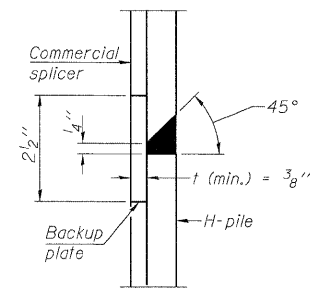
**ELEVATION**



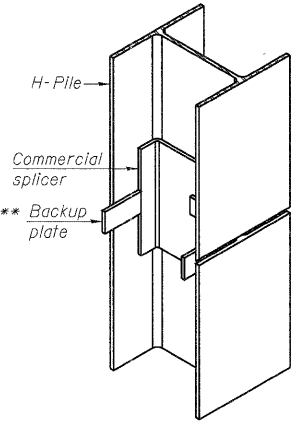
**SECTION A-A**

Note:  
Forms for encasement may be omitted when soil conditions permit.

**PILE ENCASEMENT**

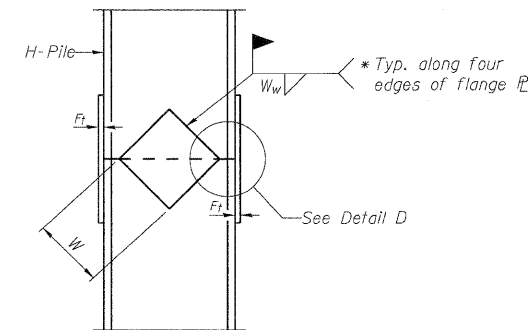


**DETAIL "B"**

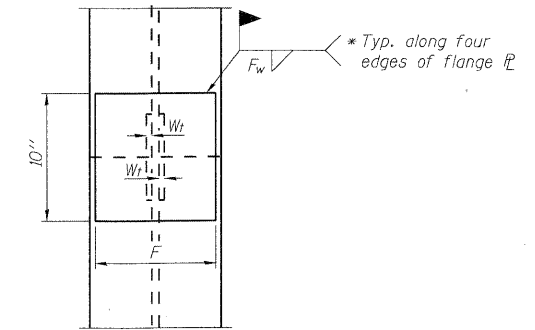


**ISOMETRIC VIEW**

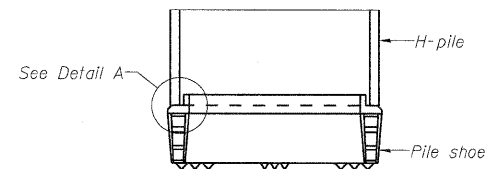
**WELDED COMMERCIAL SPLICE**



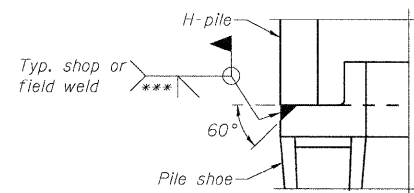
**ELEVATION**



**END VIEW**

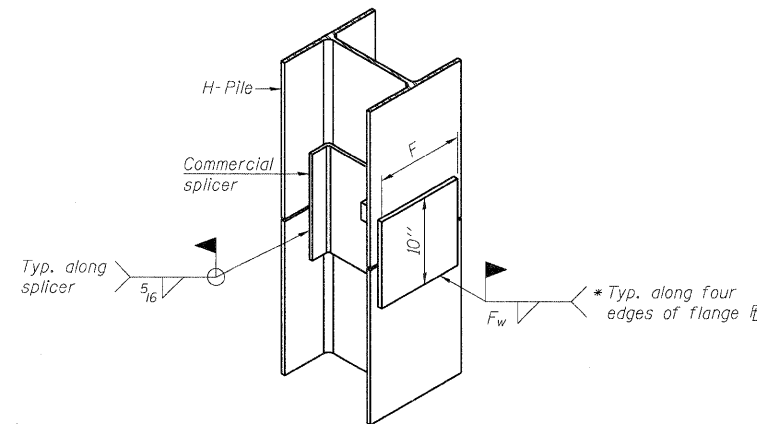


**ELEVATION**



**DETAIL A**

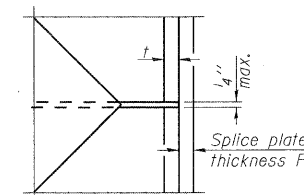
**H-PILE SHOE ATTACHMENT**



**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE ALTERNATE**

- \* Interrupt welds 1/4" from end of web and/or each flange.
- \*\* Remove portions of backup plates that extend outside the flanges.
- \*\*\* Weld size per pile shoe manufacturer (5/16" min.).



**DETAIL D**

**WELDED PLATE FIELD SPLICE**

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/2"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/2"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/2"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

Note:  
The steel H-piles shall be according to AASHTO M270 Grade 50.

F-HP 7-1-10

**LONCO, INC.**  
CONSULTING ENGINEERS  
1560 WALL ST, SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

DESIGNED - MJM	REVISED -
CHECKED - WHE	REVISED -
DRAWN - SLV	REVISED -
CHECKED - MJM	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**HP PILE DETAILS  
STRUCTURE NO. 016-2831**

SHEET NO. 23 OF 24 SHEETS

OR RTE. 213	SECTION 0102B-1	COUNTY COOK	TOTAL SHEETS 54	SHEET NO. 37
D-91-052-02			CONTRACT NO. 62390	
ILLINOIS FED. AID PROJECT				

ROUTE \_\_\_\_\_ DESCRIPTION \_\_\_\_\_  
SECT. \_\_\_\_\_ STRUCT. NO. 06-0921 DRILLED BY BP  
COUNTY Cook LOCATION 19th St./Mill Creek S. 22 TWP. 37 RANG. 02

Boring No.	Station	Offset	Surface Elev.	D	E	L	Qu	W	Z	Surface Water Elev.	Groundwater Elev.	when drilling	at completion	after	Hrs.	D	E	L	Qu	W	Z	S	Tsf	P	Penetration Test		
																										H	S
8-1	20+33	10.00 ft N of CL	635.00																								
9' Asphalt 10' Sand & Gravel																											
Med. dense to loose mixed clay, sand & organic sand FILL																											
627.00																											
Loose brown-gray-black SAND, wet																											
622.00																											
Loose brown-gray-black FIBROUS SILT																											
58.50																											
Med. dense light gray fine SAND																											
585.00																											
SAND & BOULDERS																											
585.00																											

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

STRUCTURE NO. 06-0921  
ROUTE \_\_\_\_\_  
SECTION \_\_\_\_\_  
COUNTY Cook

Boring No.	Station	Offset	Elevation	D	E	L	Qu	W	Z	Surface Water Elev.	Groundwater Elev.	when drilling	at completion	after	Hrs.	D	E	L	Qu	W	Z	S	Tsf	P	Penetration Test		
																										H	S
Auger Refusal @ 50 feet																											
END OF BORING																											
Please Note that B-logs drilled by Foundation Engineering, Inc. and re-typed by TSC on 3/17/04.																											

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

ROUTE 0R 213 DESCRIPTION 19th Street over Mill Creek  
SECT. 0102B-1 STRUCT. NO. 06-2831 DRILLED BY TSC/57.03  
COUNTY Cook LOCATION East Abutment S. 27 TWP. 37N RANG. 02

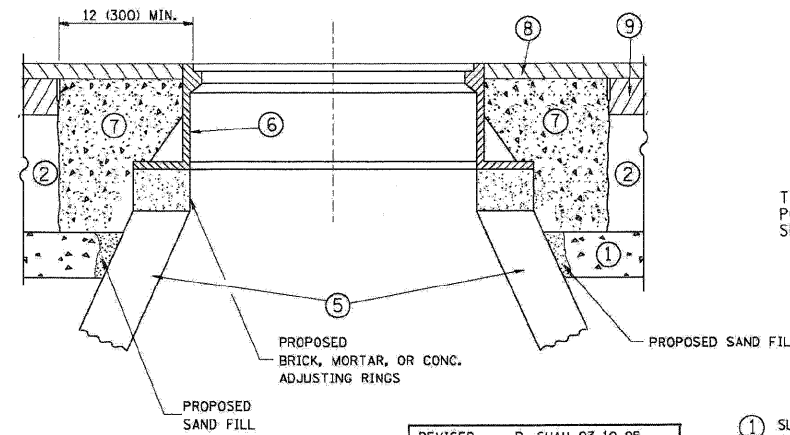
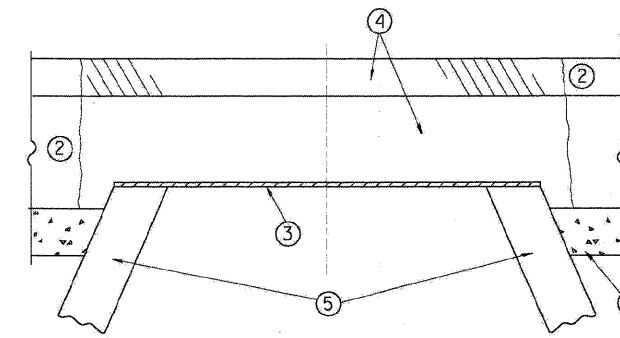
Boring No.	Station	Offset	Surface Elev.	D	E	L	Qu	W	Z	Surface Water Elev.	Groundwater Elev.	when drilling	at completion	after	Hrs.	D	E	L	Qu	W	Z	S	Tsf	P	Penetration Test		
																										H	S
2	20+33	12.00 ft RT	635.40																								
3' Bituminous Concrete																											
4' Gravel and Sand Subbase																											
FILL - Brown CLAY LOAM, trace gravel, moist (sp-4.0 Tsf)																											
A-6																											
FILL - Brown clayey SAND and GRAVEL, moist																											
A-2																											
Very tough brown CLAY, moist																											
A-6																											
Loose gray SANDY LOAM, very moist (A-2-4)																											
Firm gray medium to fine SAND, wet (A-1-b)																											
Firm gray fine SAND, trace silt, saturated																											
A-1-b																											
Very tough gray SILTY LOAM, moist																											
A-4																											
Firm gray medium to fine SAND, trace silt, saturated																											
A-1-b																											
Dense to very dense gray SAND and GRAVEL, occasional cobbles, saturated (A-1)																											
Weathered/fractured rock boulder zone (Hard Drilling) See Rock Core Description Next Page																											
Rock Core																											

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

STRUCTURE NO. 06-2831  
ROUTE 0R 213  
SECTION 0102B-1  
COUNTY Cook

Boring No.	Station	Offset	Elevation	D	E	L	Qu	W	Z	Surface Water Elev.	Groundwater Elev.	when drilling	at completion	after	Hrs.	D	E	L	Qu	W	Z	S	Tsf	P	Penetration Test		
																										H	S
2	20+33	12.00 ft RT	585.00																								
Brown and gray slightly weathered, medium spaced, hard DOLOMITE, occasional vertical joints																											
Rec=100Z RDB=76Z																											
Run=47.5-57.5'																											
End of Rock Core at 57.5'																											
Bus Push CP-750 on 4x6 International Truck (Rig #217) Rope and Coiled 3.25" (83 mm) ID HSA																											

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



**CONSTRUCTION PROCEDURES**

**STAGE 1 (BEFORE PAVEMENT MILLING)**

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1/2" (10) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

**STAGE 2 (AFTER PAVEMENT MILLING)**

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

REVISED	- R. SHAH 03-10-95
REVISED	- A. ABBAS 03-21-97
REVISED	- R. WIEDEMAN 05-14-04
REVISED	- R. BORO 01-01-07

**NOTES:**

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

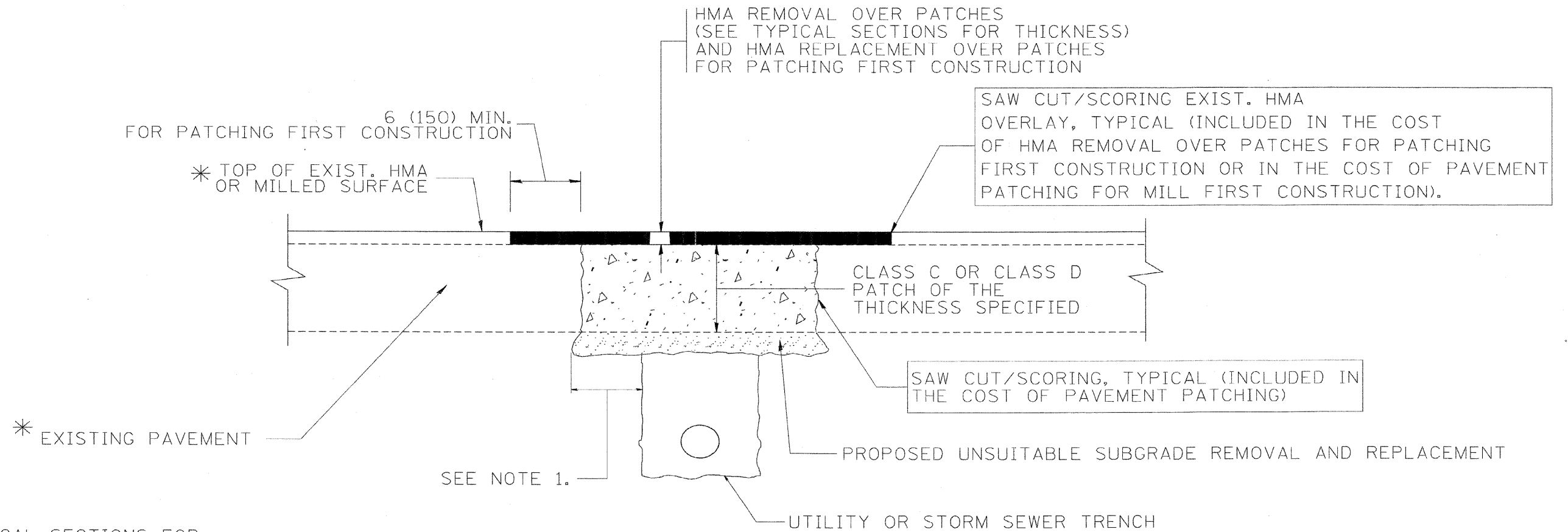
**LOCATION OF STRUCTURES:**

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

**BASIS OF PAYMENT:** THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**



\* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

**NOTES:**

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

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

REVISED	-	A. ABBAS	04-27-98
REVISED	-	R. BORO	01-01-07
REVISED	-	R. BORO	09-04-07
REVISED	-	K. ENG	10-27-08

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

**PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT**

**LOXCO, INC.**  
CONSULTING ENGINEERS  
1560 WALL ST, SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

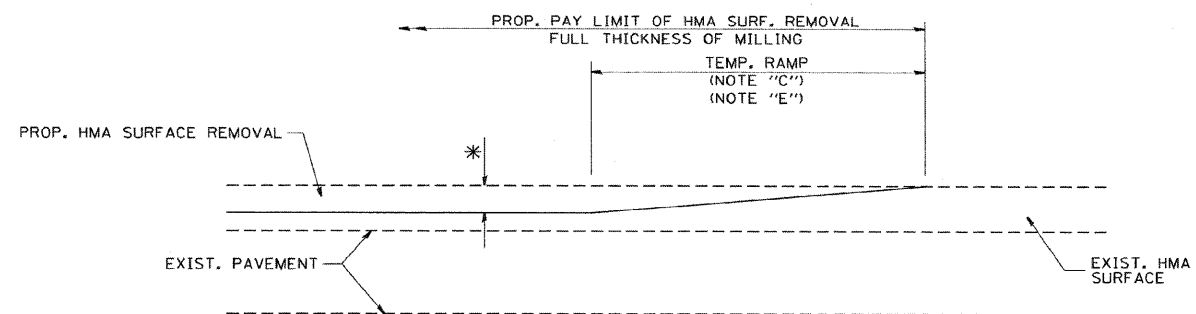
DESIGNED	-	REVISED	-
DRAWN	-	REVISED	-
CHECKED	-	REVISED	-
DATE	- 07/01/2011	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS  
119TH STREET OVER MILL CREEK

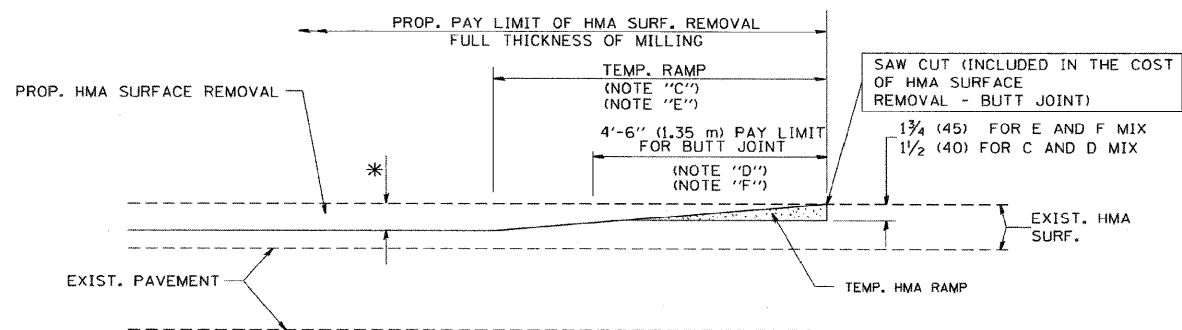
SCALE: SHEET NO. 2 OF 11 SHEETS STA. 17+53.36 TO STA. 22+39.64

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
213	0102B-1	COOK	54	40
D-91-052-02			CONTRACT NO. 62390	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



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

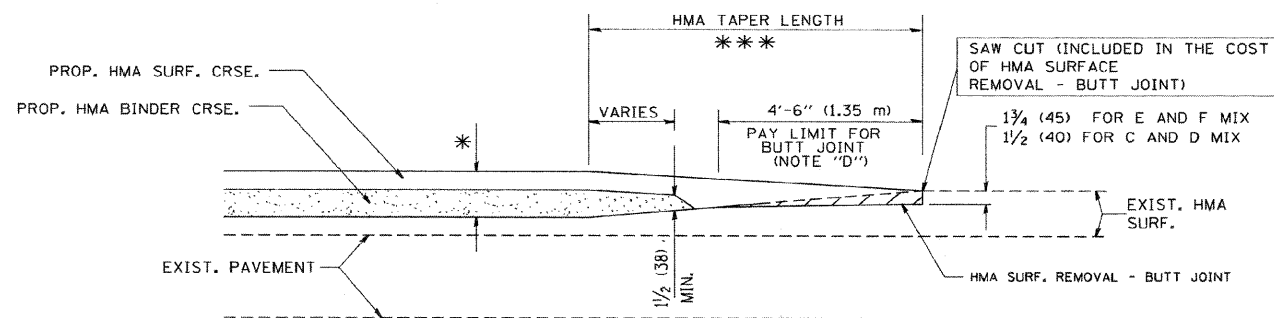
OPTION 1



HMA CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2

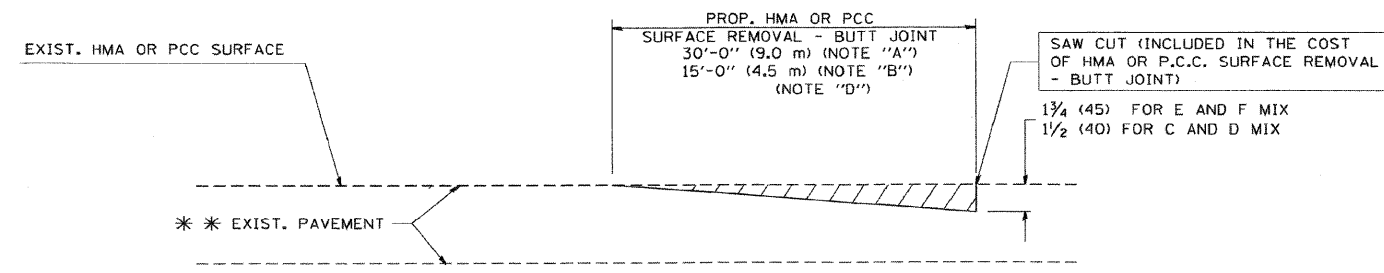
TYPICAL TEMPORARY RAMP



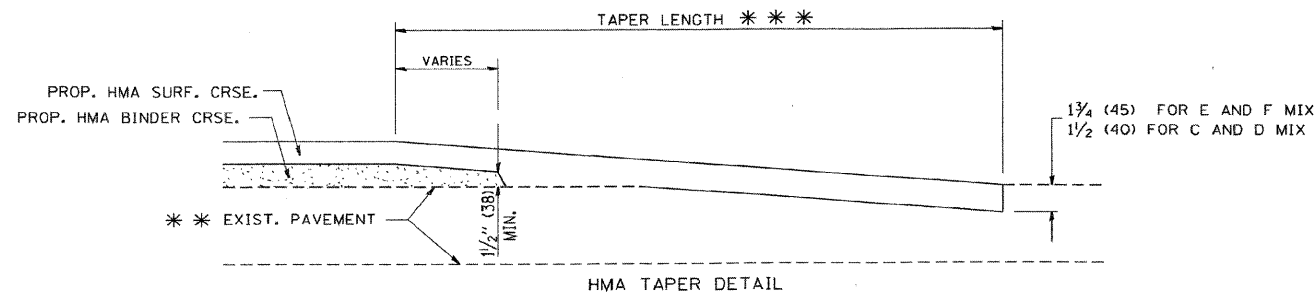
BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER  
FOR MILLING AND RESURFACING

REVISED	-	R. SHAH	10-25-94
REVISED	-	A. ABBAS	03-21-97
REVISED	-	M. GOMEZ	04-06-01
REVISED	-	R. BORO	01-01-07



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER  
FOR RESURFACING ONLY

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

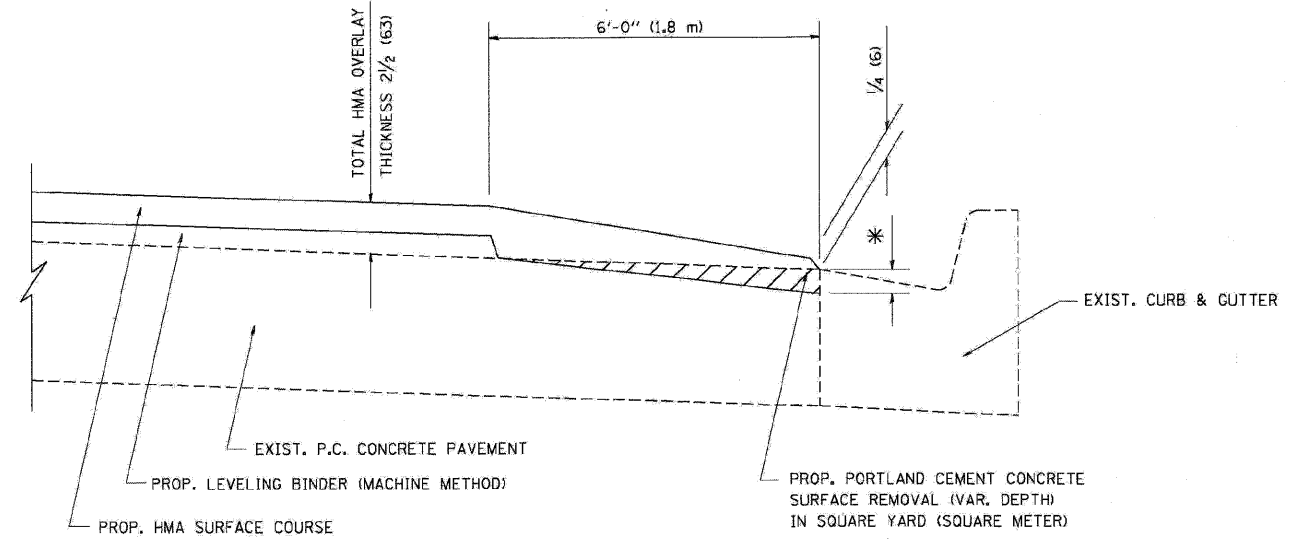
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - B: MINOR SIDE ROADS.
  - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
  - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

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

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

BUTT JOINT AND HMA TAPER DETAILS



REVISED	-	R. SHAH	10-25-94
REVISED	-	A. ABBAS	05-05-99
REVISED	-	E. GOMEZ	12-21-00
REVISED	-	R. BORO	01-01-07

HMA SURFACE	THICKNESS	LEVELING BINDER THICKNESS	* MILLING AT GUTTER FLAG
MIX			
C OR D	1 1/2 (38)	1 (25)	1/4 (33)
F	1 3/4 (44)	3/4 (19)	1/2 (38)

**HMA TAPER AT EDGE OF P.C.C. PAVEMENT**

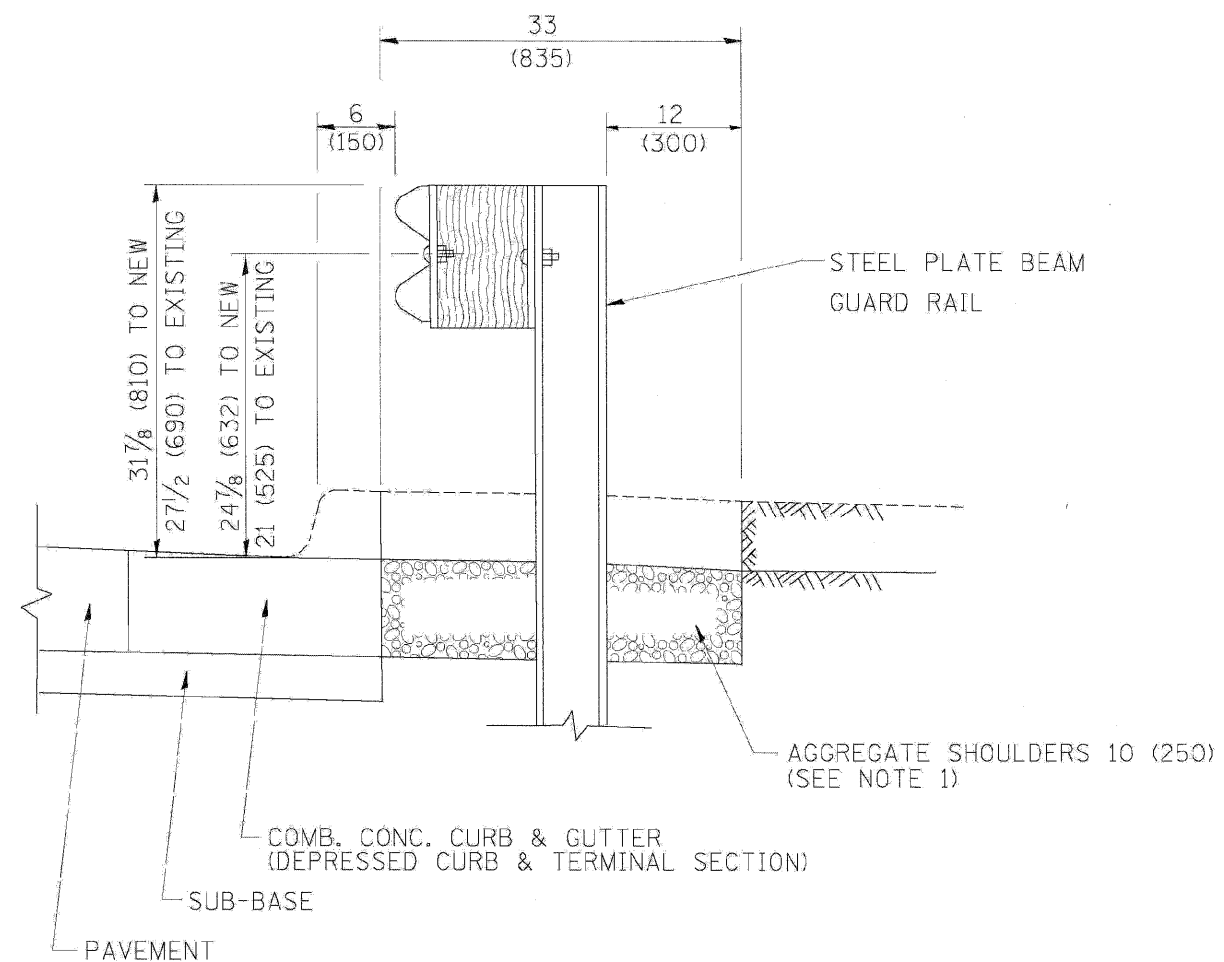
**LOWCO, INC.**  
CONSULTING ENGINEERS  
1560 WALL ST, SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE - 07/01/2011	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE DETAIL SHEETS</b>		
<b>119TH STREET OVER MILL CREEK</b>		
SCALE:	SHEET NO. 4 OF 11 SHEETS	STA. 17+53.36 TO STA. 22+39.64

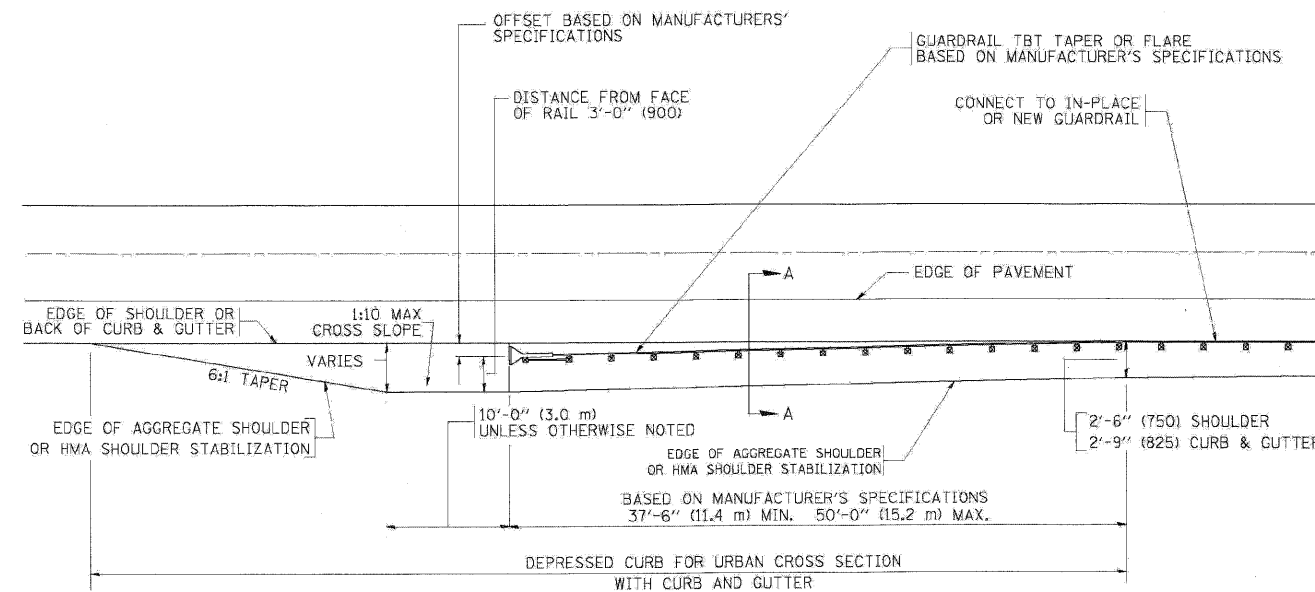
O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
213	0102B-1	COOK	54	42
D-91-052-02		CONTRACT NO. 62390		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SECTION A-A

- NOTES:
1. THE AGGREGATE SHOULDER, 10" OR HMA SHOULDER, 6" (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
  2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
  3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

**DETAILS FOR STEEL PLATE BEAM  
GUARD RAIL ADJECENT TO CURB AND GUTTER  
[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 40 PMH (70kmh)]**



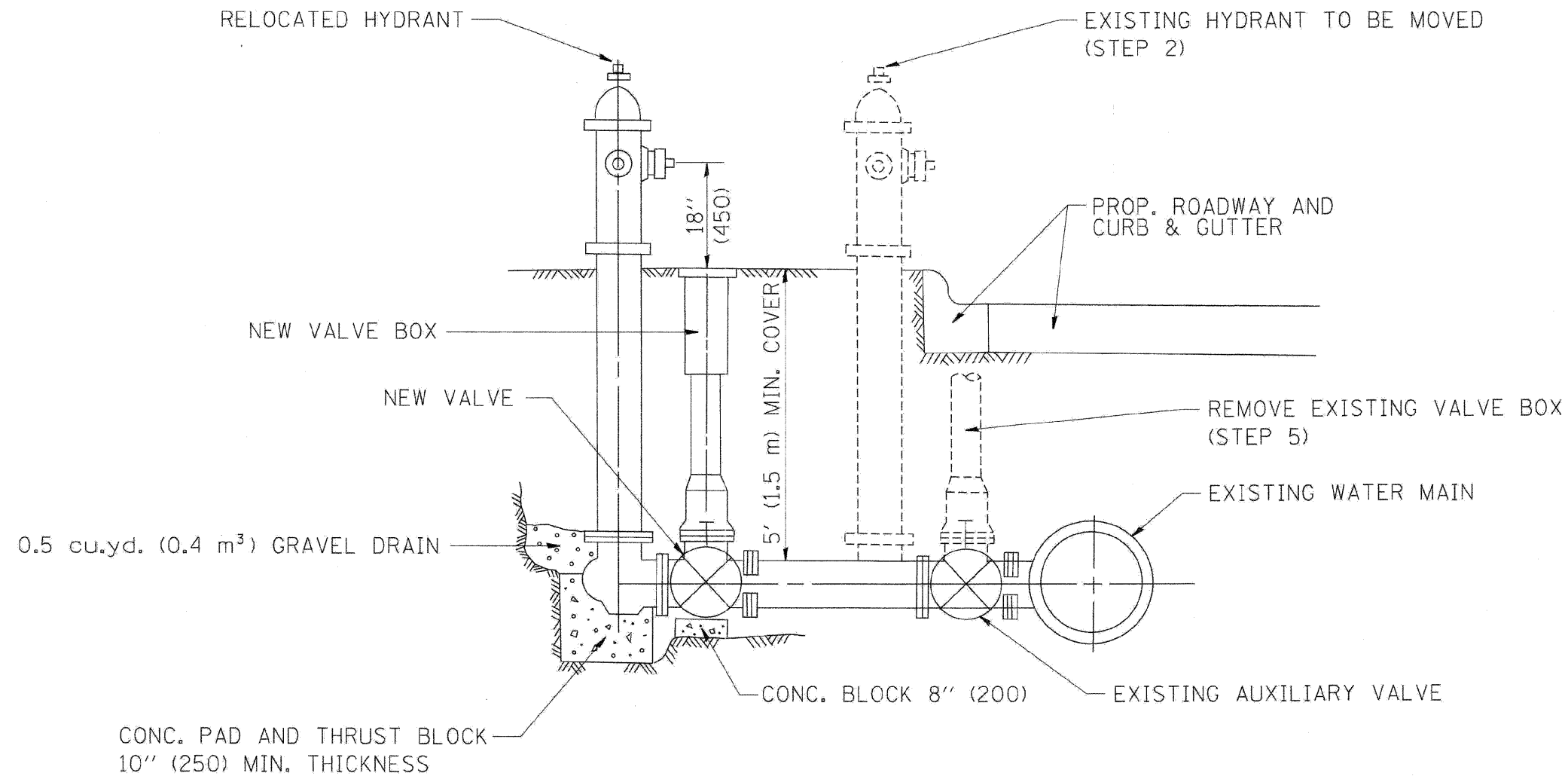
**DEPRESSED CURB AND GUTTER AND  
SHOULDER TREATMENT AT TBT TY. 1 SPL.**

BASIS OF PAYMENT: HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDERS 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

REVISED	-	E. GOMEZ	08-28-00
REVISED	-	R. BORO	01-01-07
REVISED	-	R. BORO	12-08-2008
REVISED	-	R. BORO	09-14-2009

TBT = TRAFFIC BARRIER TERMINAL  
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



SEQUENCE OF CONSTRUCTION:

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

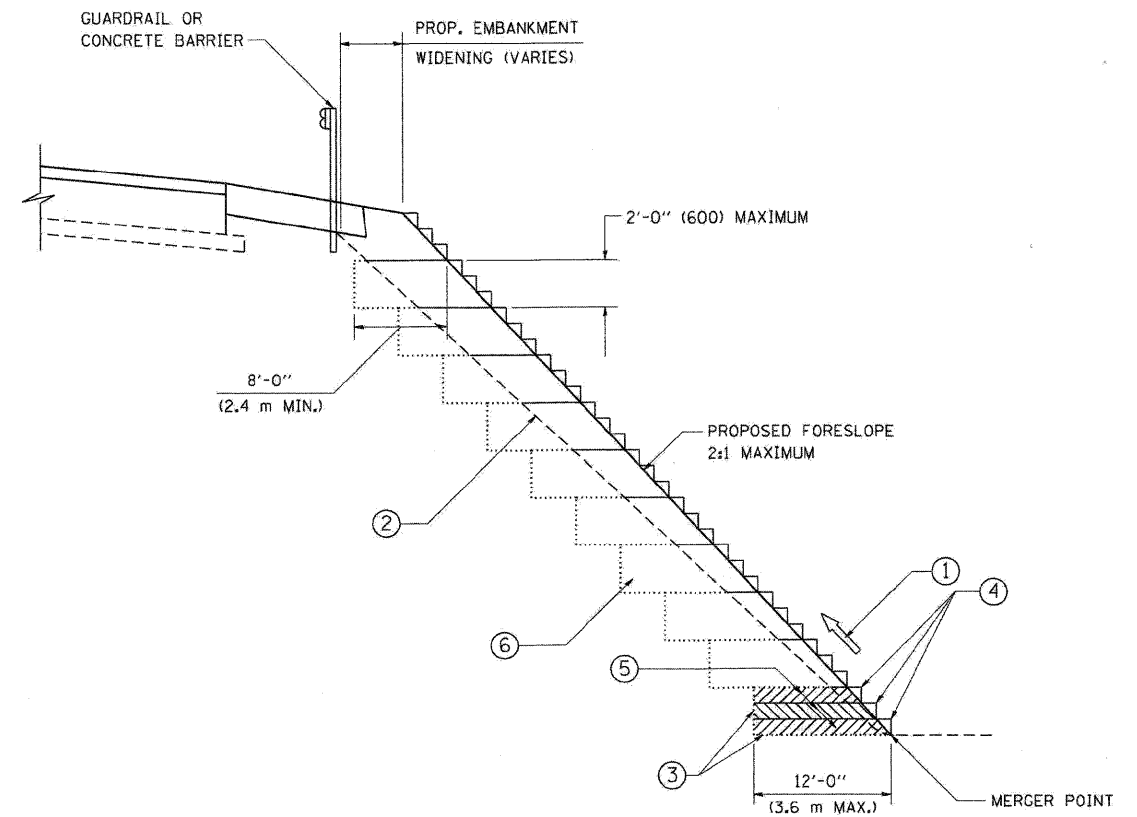
REVISED	-	R. SHAH	09-09-94
REVISED	-	R. SHAH	10-25-94
REVISED	-		
REVISED	-		

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

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

**FIRE HYDRANT TO BE MOVED**





TYPICAL BENCHING DETAIL  
FOR EMBANKMENT

NOTES:

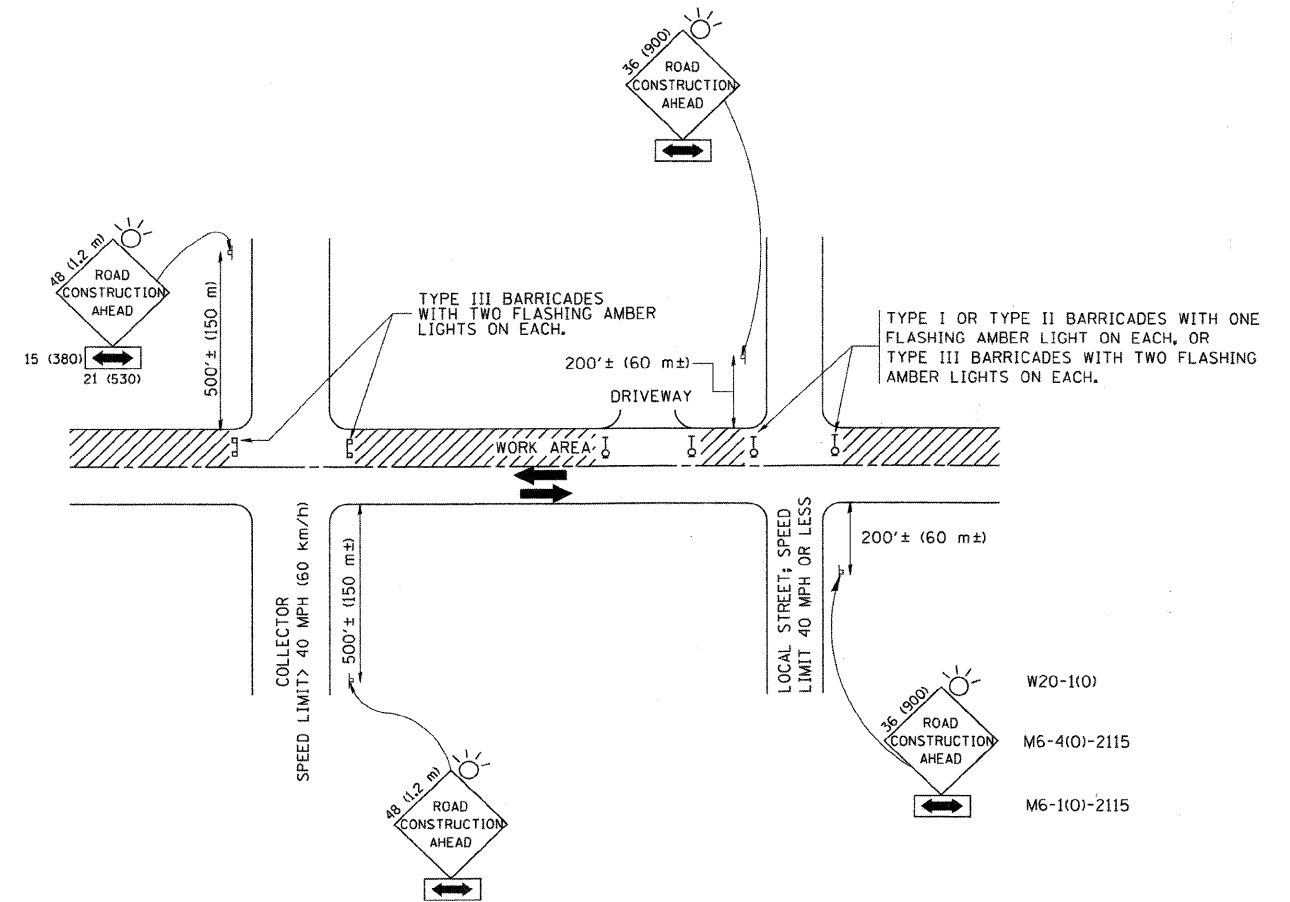
- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

DESIGNED	-
DRAWN	- CADD
CHECKED	- S.E.B.
DATE	- 06-16-04

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

DESIGNED	-	REVISED	-
DRAWN	-	REVISED	-
CHECKED	-	REVISED	-
DATE	- 07/01/2011	REVISED	-

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
213	0102B-1	COOK	54	45
D-91-052-02		CONTRACT NO. 62390		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



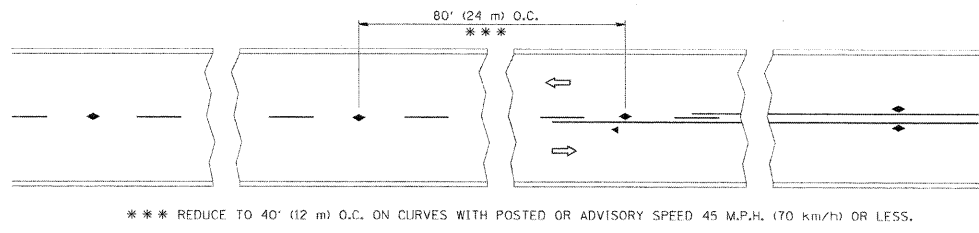
## TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

**NOTES:**

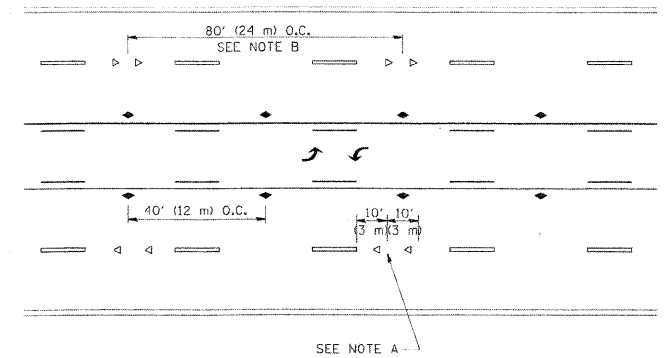
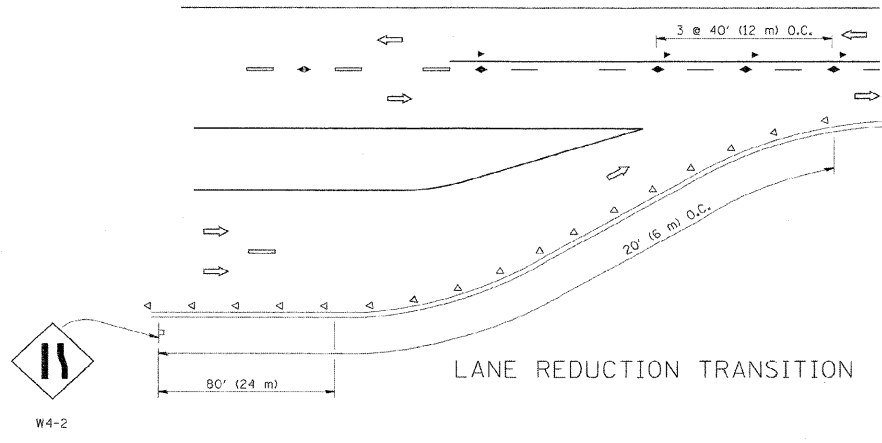
- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS**
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
    - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
  - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
    - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:**
- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 70150L, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.**
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.**

REVISED	- J. OBERLE	10-18-95
REVISED	- A. HOUSEH	03-06-96
REVISED	- A. HOUSEH	10-15-96
REVISED	- T. RAMMACHER	01-06-00

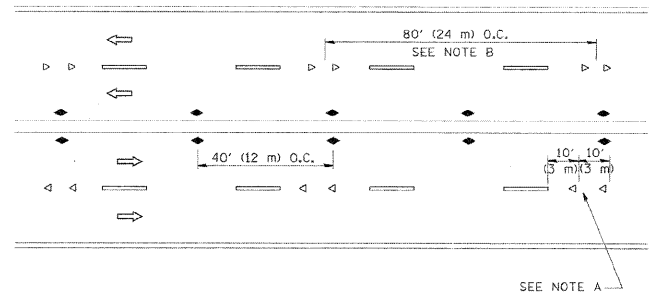
All dimensions are in millimeters (inches) unless otherwise shown.



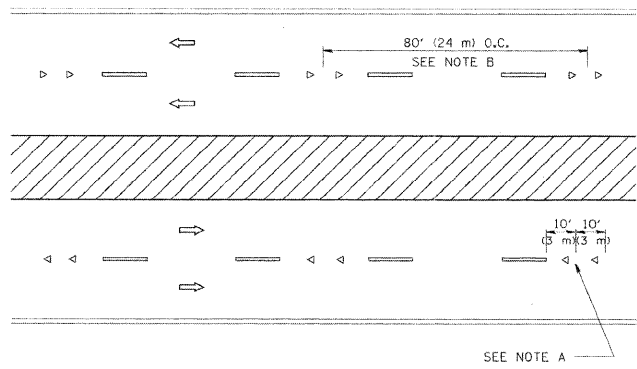
TWO-LANE/TWO-WAY



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

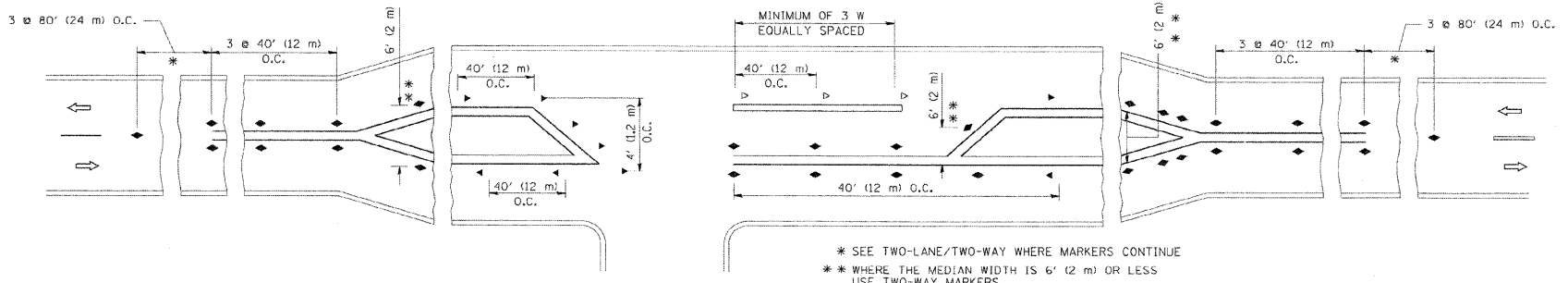
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- < ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (16 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

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



LEFT TURN

REVISED	- T. RAMMACHER	09-19-94
REVISED	- T. RAMMACHER	03-12-99
REVISED	- T. RAMMACHER	01-06-00
REVISED	- C. JUICIUS	09-09-09

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

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

LOWCO, INC.  
CONSULTING ENGINEERS  
1560 WALL ST, SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

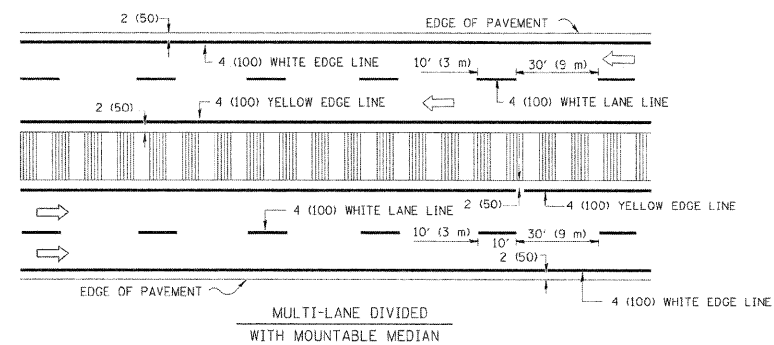
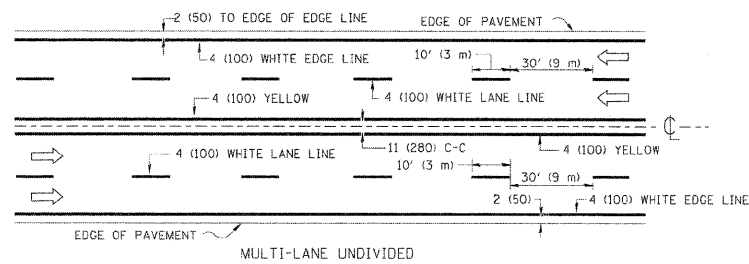
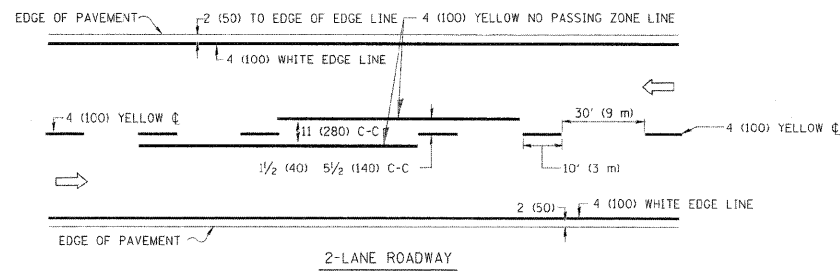
DESIGNED	-	REVISED	-
DRAWN	-	REVISED	-
CHECKED	-	REVISED	-
DATE	- 07/01/2011	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS  
119TH STREET OVER MILL CREEK

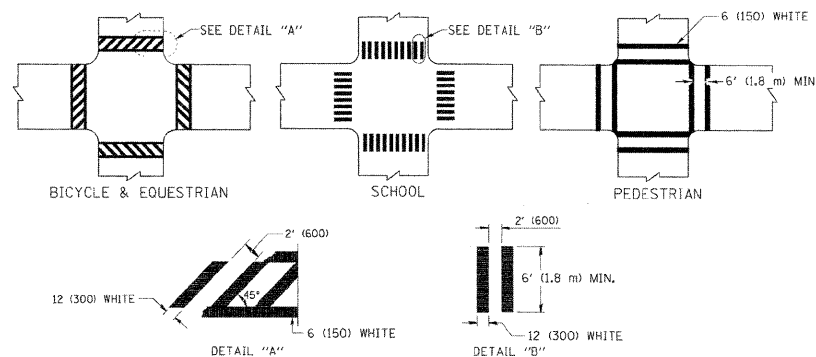
SCALE: SHEET NO. 9 OF 11 SHEETS STA. 17+53.36 TO STA. 22+39.64

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
213	0102B-1	COOK	54	47
D-91-052-02			CONTRACT NO. 62390	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

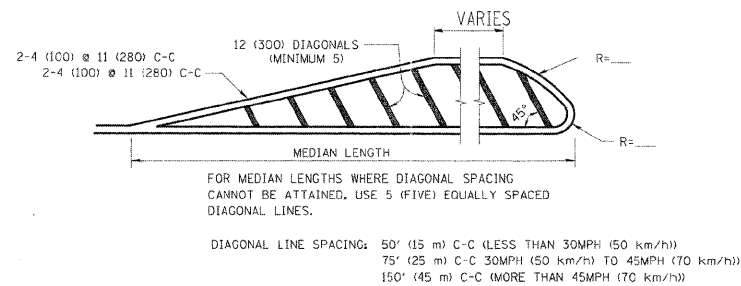
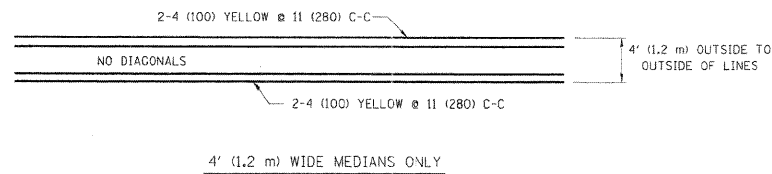


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

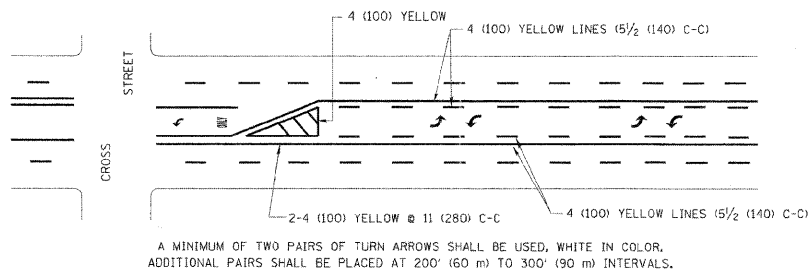
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

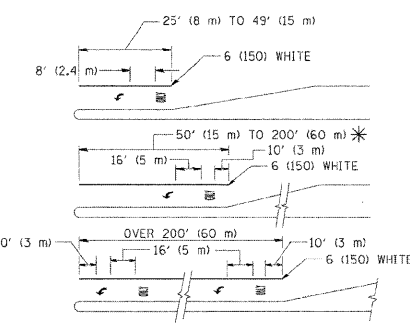


MEDIANS OVER 4' (1.2 m) WIDE



MEDIAN WITH TWO-WAY LEFT TURN LANE

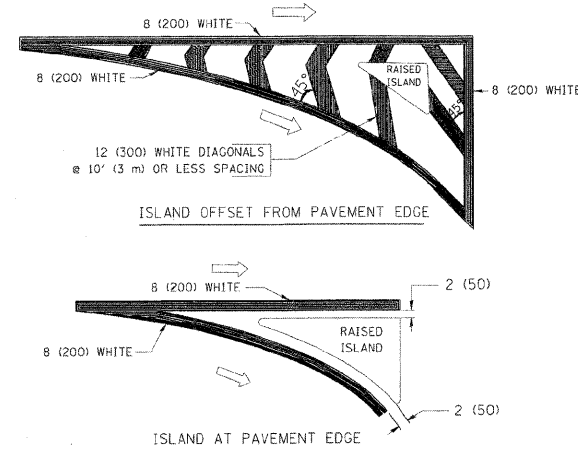
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
\* AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
\* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

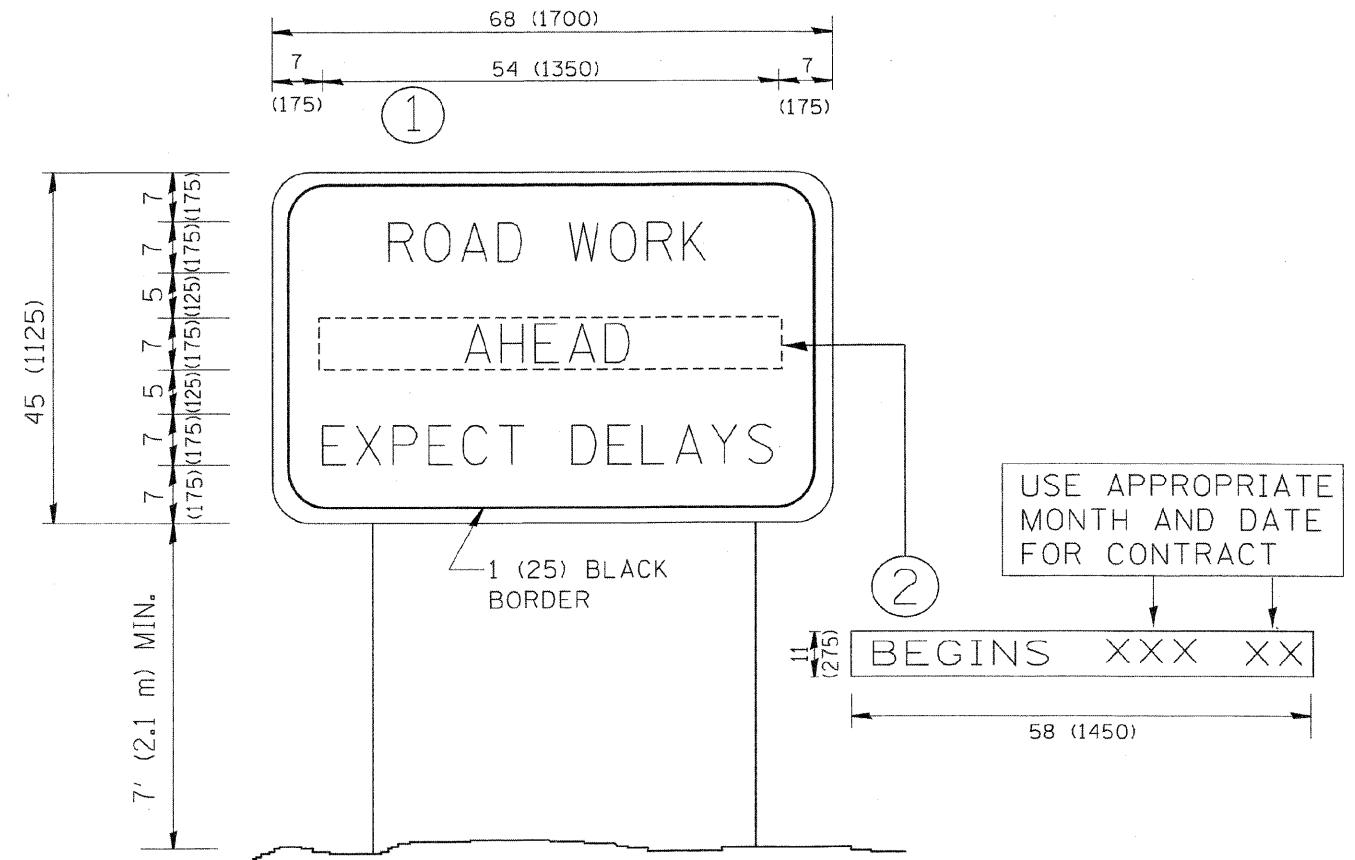
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100)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

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

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

REVISED	-T. RAMMACHER 10-27-94
REVISED	-C. JUCLUS 09-09-09
REVISED	-
REVISED	-

## DISTRICT ONE TYPICAL PAVEMENT MARKINGS



**NOTES:**

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

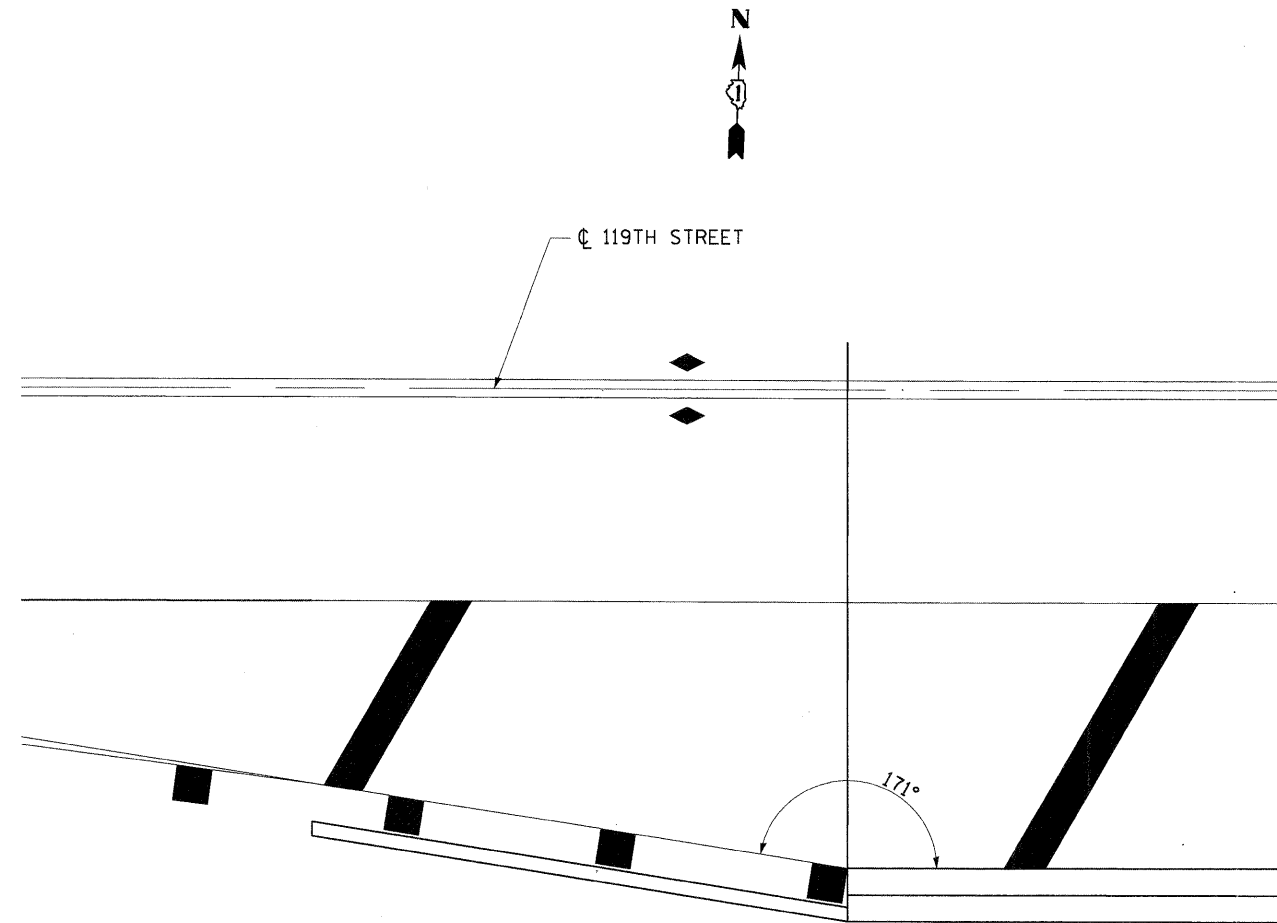
REVISED	-	R. MIRS 09-15-97
REVISED	-	R. MIRS 12-11-97
REVISED	-	T. RAMMACHER 02-02-99
REVISED	-	C. JUCIUS 01-31-07

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

**ARTERIAL ROAD INFORMATION SIGN**

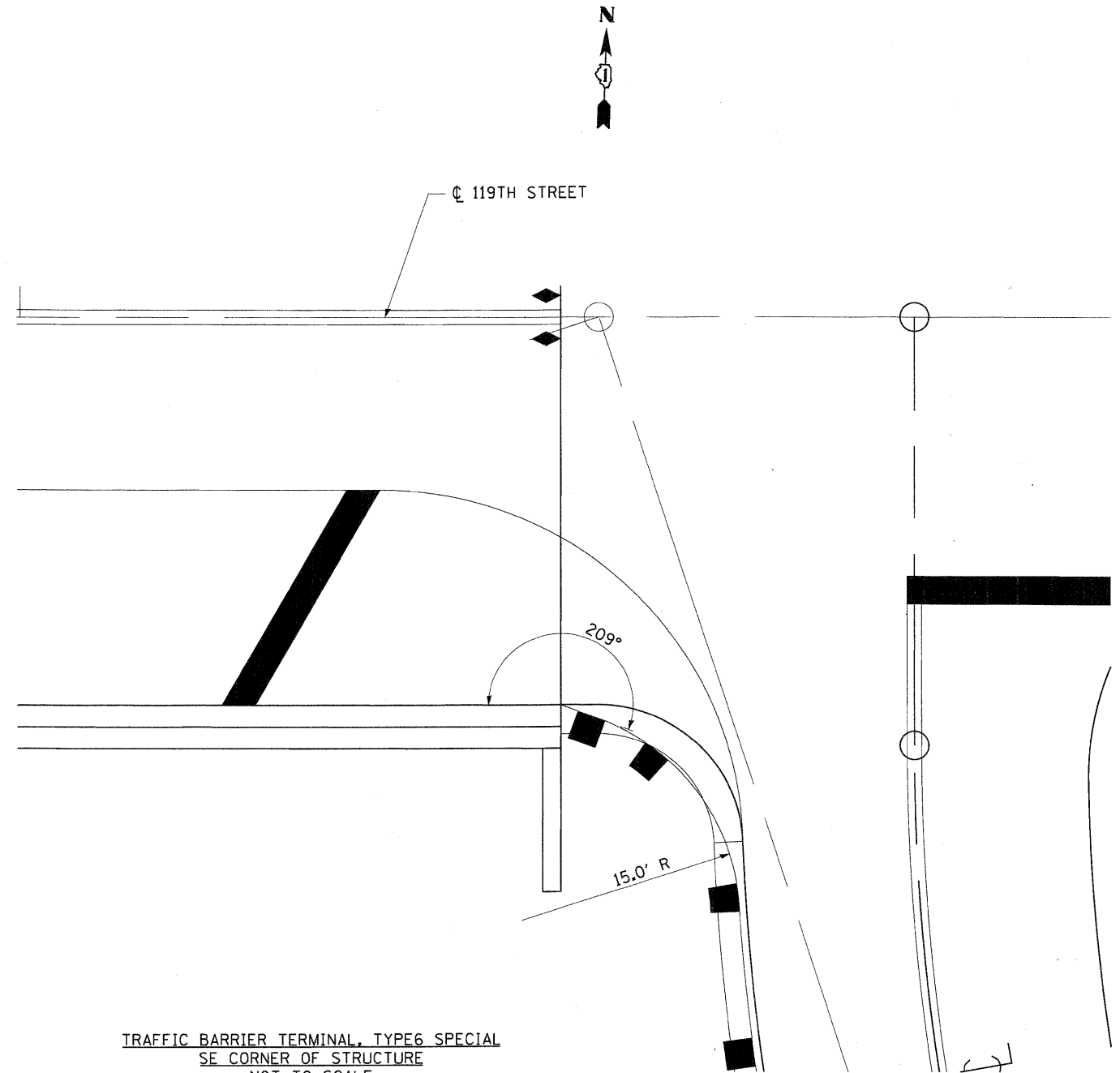
DESIGNED	-	REVISED	-
DRAWN	-	REVISED	-
CHECKED	-	REVISED	-
DATE	- 07/01/2011	REVISED	-

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
213	0102B-1	COOK	54	49
D-91-052-02			CONTRACT NO. 62390	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



TRAFFIC BARRIER TERMINAL, TYPE6 SPECIAL  
SW CORNER OF STRUCTURE  
NOT TO SCALE

THE CONNECTION PLATE WHERE THE GUARDRAIL TERMINAL, TYPE6 SPECIAL IS BOLTED TO THE PARAPET WALL REQUIRES A BEND OF 9 DEGREES TO THE LEFT FROM THE GUARDRAIL TANGENT TO FIT FLUSH WITH THE WALL.



TRAFFIC BARRIER TERMINAL, TYPE6 SPECIAL  
SE CORNER OF STRUCTURE  
NOT TO SCALE

THE CONNECTION PLATE WHERE THE GUARDRAIL TERMINAL, TYPE6 SPECIAL IS BOLTED TO THE PARAPET WALL REQUIRES A BEND OF 29 DEGREES TO THE RIGHT FROM THE GUARDRAIL TANGENT TO FIT FLUSH WITH THE WALL.



FINAL SURVEY PLOTTED TEMPLATE AREAS CHECKED

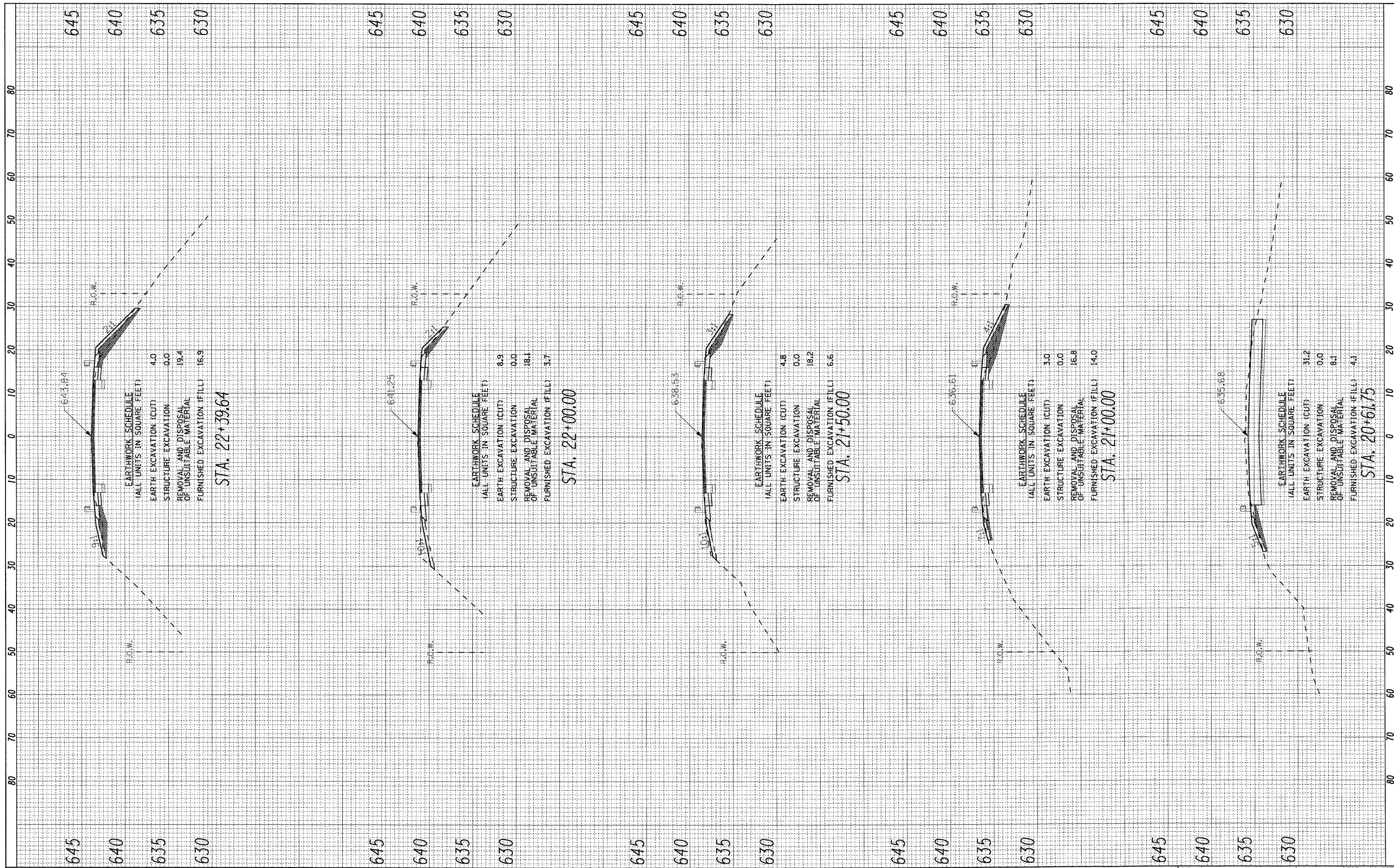
BY \_\_\_\_\_ DATE \_\_\_\_\_

NO. \_\_\_\_\_

ORIGINAL SURVEY PLOTTED TEMPLATE AREAS CHECKED

BY \_\_\_\_\_ DATE \_\_\_\_\_

NO. \_\_\_\_\_



**LOCO, INC.**  
CONSULTING ENGINEERS  
1560 WALL ST., SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH 630/571-9100

DESIGNED - ST	REVISED -
DRAWN - ST	REVISED -
CHECKED - DESIGNED	REVISED -
DATE - 01/24/2011	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
119TH STREET OVER MILL CREEK**

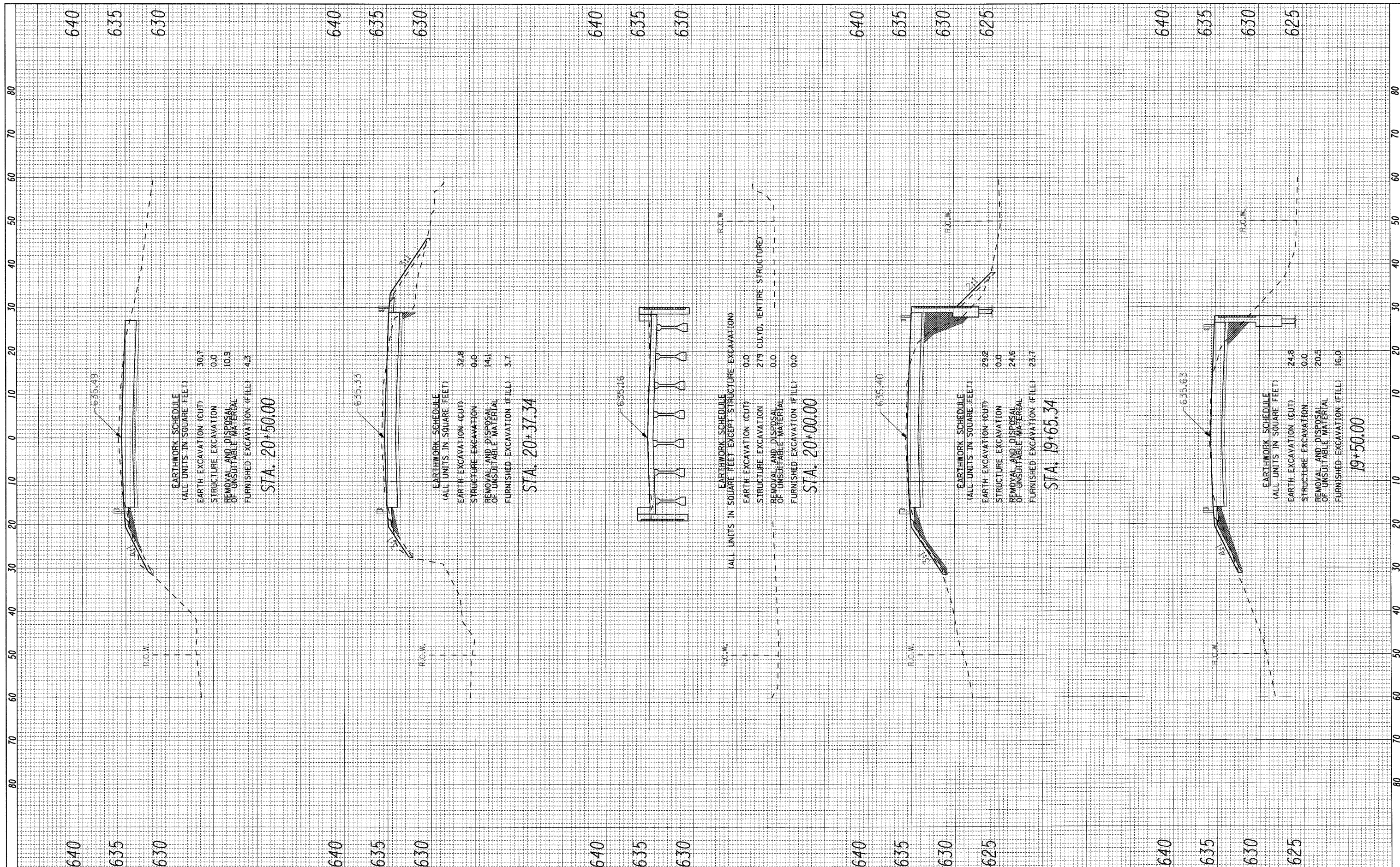
SCALE: 1" = 20'    SHEET NO. 1 OF 4 SHEETS    STA. 20+61.75 TO STA. 22+39.64

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
324	0102B-1	COOK	54	51
D-91-116-09		CONTRACT NO. 62390		
ILLINOIS FED. AID PROJECT				



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

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



**EARTHWORK SCHEDULE**  
(ALL UNITS IN SQUARE FEET)

EARTH EXCAVATION (CUT)	30.7
STRUCTURE EXCAVATION	0.0
REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	10.9
FURNISHED EXCAVATION (FILL)	4.3

**STA. 20+50.00**

**EARTHWORK SCHEDULE**  
(ALL UNITS IN SQUARE FEET)

EARTH EXCAVATION (CUT)	32.8
STRUCTURE EXCAVATION	0.0
REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	14.1
FURNISHED EXCAVATION (FILL)	3.7

**STA. 20+37.34**

**EARTHWORK SCHEDULE**  
(ALL UNITS IN SQUARE FEET EXCEPT STRUCTURE EXCAVATION)

EARTH EXCAVATION (CUT)	0.0
STRUCTURE EXCAVATION	279 CU.YD. (ENTIRE STRUCTURE)
REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	0.0
FURNISHED EXCAVATION (FILL)	0.0

**STA. 20+00.00**

**EARTHWORK SCHEDULE**  
(ALL UNITS IN SQUARE FEET)

EARTH EXCAVATION (CUT)	29.2
STRUCTURE EXCAVATION	0.0
REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	24.6
FURNISHED EXCAVATION (FILL)	23.7

**STA. 19+65.34**

**EARTHWORK SCHEDULE**  
(ALL UNITS IN SQUARE FEET)

EARTH EXCAVATION (CUT)	24.8
STRUCTURE EXCAVATION	0.0
REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	20.5
FURNISHED EXCAVATION (FILL)	16.0

**19+50.00**

**LOCO, INC.**  
CONSULTING ENGINEERS  
1560 WALL ST., SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

DESIGNED - ST	REVISED -
DRAWN - ST	REVISED -
CHECKED - DESIGNED	REVISED -
DATE - 01/24/2011	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

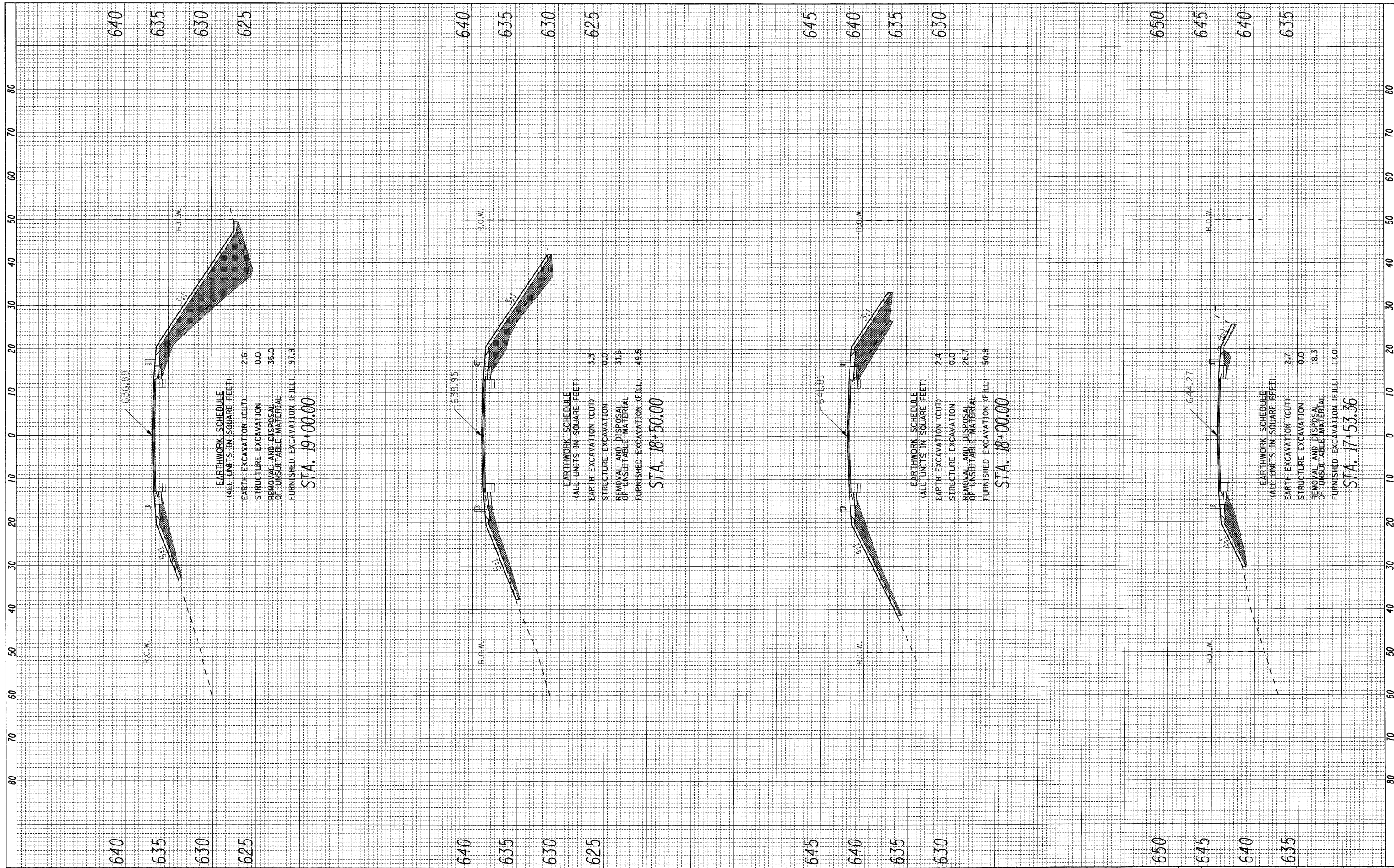
**CROSS SECTIONS  
119TH STREET OVER MILL CREEK**  
SCALE: 1" = 20' SHEET NO. 2 OF 4 SHEETS STA. 19+50 TO STA. 20+50

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
324	0102B-1	COOK	54	52
D-91-116-09		CONTRACT NO. 62390		
ILLINOIS FED. AID PROJECT				



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

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



**LOCO, INC.**  
 CONSULTING ENGINEERS  
 1560 WALL ST, SUITE 222  
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

DESIGNED - ST	REVISED -
DRAWN - ST	REVISED -
CHECKED - DESIGNED	REVISED -
DATE - 01/24/2011	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 119TH STREET OVER MILL CREEK**

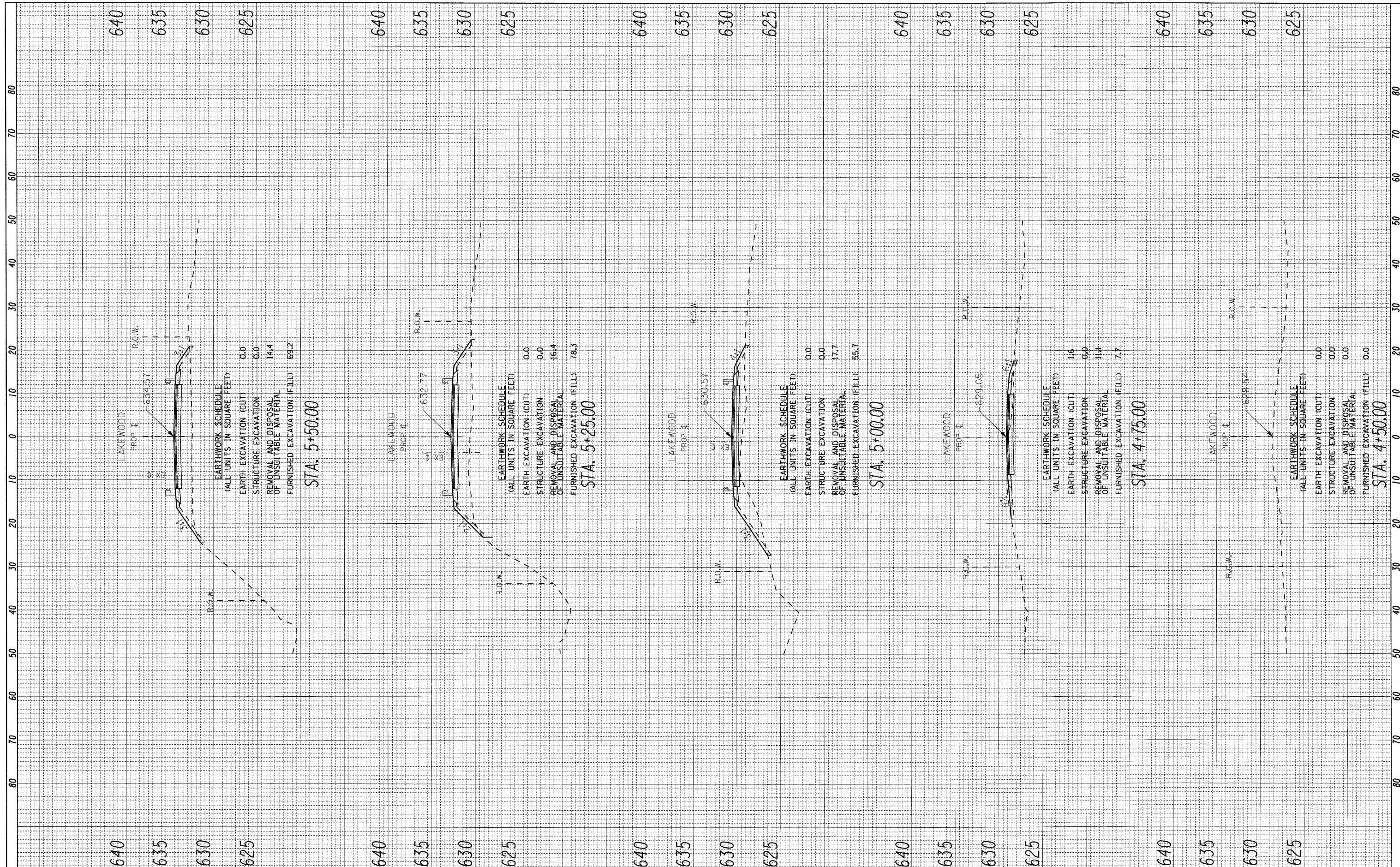
SCALE: 1" = 20'    SHEET NO. 3 OF 4 SHEETS    STA. 17+53.36 TO STA. 19+00

O.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
324	0102B-1	COOK	54	53
D-91-116-09		CONTRACT NO. 62390		
ILLINOIS FED. AID PROJECT				



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

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



**LOCO, INC.**  
CONSULTING ENGINEERS  
1560 WALL ST, SUITE 222  
NAPERVILLE, ILLINOIS 60563 Ph: 630/571-9100

DESIGNED	- ST	REVISED	-
DRAWN	- ST	REVISED	-
CHECKED	- DESIGNED	REVISED	-
DATE	- 01/24/2011	REVISED	-

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS (LAKEWOOD AVE.)  
119TH STREET OVER MILL CREEK**

SCALE: 1" = 20'    SHEET NO. 4 OF 4 SHEETS    LAKEWOOD AVE. STA. 4+50 TO STA. 5+50

C.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
324	0102B-1	COOK	54	54
D-91-116-09		CONTRACT NO. 62390		
ILLINOIS FED. AID PROJECT				