85547

04-27-12 LETTING ITEM 175

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00069-00-BR	WINNEBAGO	21	1
	ILLINOIS	CONTRACT NO. 85547		

INDEX OF SHEETS

LIST OF STANDARDS

000001–06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001–06	TEMPORARY EROSION CONTROL SYSTEMS
515001–03	NAME PLATE FOR BRIDGES
602401–03	MANHOLE – TYPE A
604001–03	FRAME AND LIDS – TYPE 1
606001–04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701006–03	OFF–RD OPERATIONS, 2L, 2W, 15' – 24"
701301–04	LANE CLOSURE, 2L, 2W, SHORT TERM OPERATIONS
701801–05	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901–02	TRAFFIC CONTROL DEVICES
720011–01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
728001–01	TELESCOPING STEEL SIGN SUPPORT
729001–01	APPLICATIONS OF TYPES A & B METAL POSTS
BLR21–9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR22–7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

UTILITY CONTACTS

GAS:
NICOR
MS. CONSTANCE LANE
1844 FERRY ROAD
NAPERVILLE, ILLINOIS 60563
(630) 388–3830

ELECTRIC:
MR. MIKE LENOX
COMMONWEALTH EDISON
123 ENERGY AVENUE
ROCKFORD, ILLINOIS 61109
(815) 490–2869

TELEPHONE:
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2239 NEWBURG ROAD
BELVIDERE, ILLINOIS 61008
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CABLE TELEVISION:
TELECOMMUNICATIONS OF ILLINOIS, INC.
2508 WEST ROUTE 120
McHENRY, ILLINOIS 60050
(815) 344–3150

WATER:
CITY OF LOVES PARK
DEPARTMENT OF PUBLIC WORKS
810 LAWN DRIVE
LOVES PARK, ILLINOIS 61111
(815) 654–5000

SEWER:
MR. DANA CARROLL
ROCK RIVER WATER RECLAIMATION DISTRICT
3501 KISHWAUKEE STREET
ROCKFORD, ILLINOIS 61109
(815) 387–7660

ROADWAYS:
MR. JERRY SOWERS
CITY OF LOVES PARK
DEPARTMENT OF PUBLIC WORKS
810 LAWN DRIVE
LOVES PARK, ILLINOIS 61111
(815) 654–5000

100' 200' 300' — 1"= 100'
0 10' 20' 30' — 1"= 10'
0 50' 100' — 1"= 50'
0 50' 100' — 1"= 40'
0 50' 100' — 1"= 30'
0 50' 100' — 1"= 20'

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

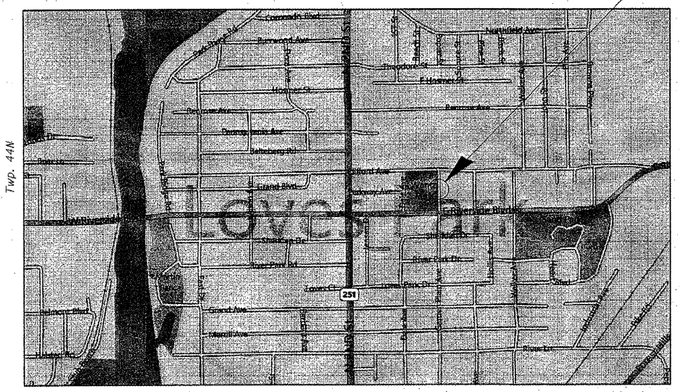
CONTRACT NO. 85547

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED BRIDGE REPLACEMENT PROJECT

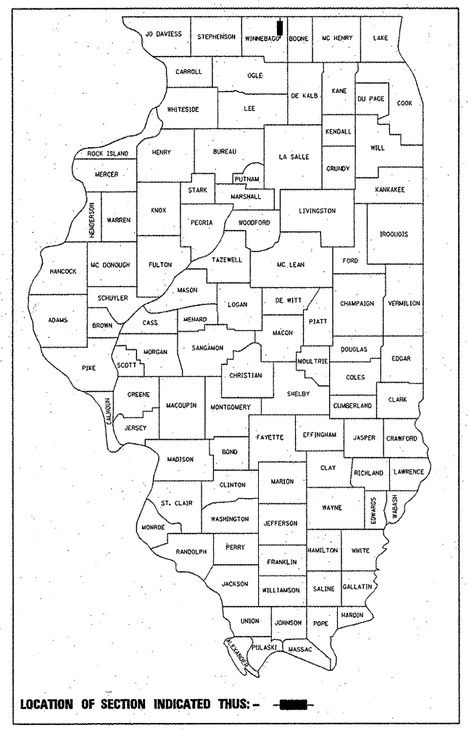
MS 6540 (GARDEN PLAIN AVENUE)
OVER LOVES PARK CREEK
EXISTING STRUCTURE NO. 101–6407
PROPOSED STRUCTURE NO. 101–6421
CITY OF LOVES PARK
WINNEBAGO COUNTY
SECTION NO. 08–00069–00–BR
PROJECT NO. BHM–5099 (105)
JOB NO. C–92–101–11

PROJECT LOCATION
STA. 8+79 TO STA. 11+27
STRUCTURE NO. 101–6407



LOCATION MAP
N.T.S.

N



LOCATION OF SECTION INDICATED THUS:– –■–

TRAFFIC DATA

HIGHWAY CLASSIFICATION : LOCAL STREET (URBAN)
2012 ADT : 310
DESIGN SPEED : 30 MPH
POSTED SPEED : NOT POSTED

PROJECT LENGTH = 248.00 FT. = 0.047 MILE

LICENSED PROFESSIONAL ENGINEER
JEFFREY T. TORMEY
062-050236
STATE OF ILLINOIS
12/15/11

JEFFREY T. TORMEY
IL REGISTRATION #062–050236
EXPIRATION DATE 11/30/13

AGENCY RESPONSIBLE FOR LETTING

APPROVED 12-12-2011
CITY OF LOVES PARK, DIRECTOR OF PUBLIC WORKS

PASSED
DISTRICT 2 ENGINEER of LOCAL ROADS and STREETS

RELEASED FOR BID BASED ON LIMITED REVIEW
DEPUTY DIRECTOR OF HIGHWAYS, REGION 2 ENGINEER

McClure Engineering Associates, Inc.
7282 Argus Drive
Rockford, Illinois 61107–5837
(815) 398–2332
FAX (815) 398–2496
Design Firm License: Illinois 184–000816

85547

CONSTRUCTION TYPE CODE 0011

GENERAL NOTES

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

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

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

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

5. THE LOCATIONS OF EXISTING WATERMAIN, GAS MAIN, SEWERS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE, BUT THEY ARE NOT GUARANTEED. ALL UTILITY LOCATIONS SHOWN ARE SUPPLIED BY THE UTILITY COMPANIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES AND BY FIELD INSPECTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES.

6. ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERCEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

7. PROVIDE POSITIVE DRAINAGE AT ALL TIMES WITHIN THE CONSTRUCTION AREA.

8. EROSION CONTROL FEATURES AS NEEDED SHALL BE INCORPORATED INTO THE CONSTRUCTION AT THE EARLIEST POSSIBLE TIME TO LIMIT EROSION AND STREAM POLLUTION AND SHALL BE MAINTAINED UNTIL ACCEPTANCE OF THE PROJECT. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PERIMETER EROSION BARRIER AND INLET AND PIPE PROTECTION.

9. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE ENCOUNTERED BETWEEN THE PLANS AND SPECIFICATIONS AND THE EXISTING FIELD CONDITIONS.

10. ALL MATERIALS, LABOR, AND EQUIPMENT REQUIRED TO FURNISH AND INSTALL THE PCC DECK BEAMS AS SHOWN ON THE PLANS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PRECAST, PRESTRESSED CONCRETE DECK BEAMS. THIS SHALL INCLUDE PORTLAND CEMENT FAIRING COURSE AS REQUIRED.

	GARDEN PLAIN AVENUE	
MIXTURE USES:	SURFACE	BINDER
PG:	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0% AT N50	4.0% AT N50
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 9.5 OR 12.5	IL 19.0
FRICTION AGGREGATE	MIX C	NA
20 YEAR ESAL	NA	NA
MIX UNIT WEIGHT	112 LB/SY/IN	

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	QUANTITY
	20100110	TREE REMOVAL 6" - 15"	UNIT	40
	20200100	EARTH EXCAVATION	CY	103
	20400100	BORROW EXCAVATION	CY	72
	20700220	POROUS GRANULAR EMBANKMENT	CY	46.1
	20900110	POROUS GRANULAR BACKFILL	CY	37
	21101615	TOPSOIL FURNISHED AND PLACED, 4"	SY	485
*	25000110	SEEDING, CLASS 1A	ACRE	0.10
	25000400	NITROGEN FERTILIZER NUTRIENT	LB	9
	25000500	PHOSPHORUS FERTILIZER NUTRIENT	LB	9
	25000600	POTASSIUM FERTILIZER NUTRIENT	LB	9
	25100115	MULCH METHOD 2	AC	0.10
	28000400	PERIMETER EROSION BARRIER	FOOT	354
	28000500	INLET AND PIPE PROTECTION	EACH	4
	35100600	AGGREGATE BASE COURSE TYPE B, 4"	SY	32
	35102400	AGGREGATE BASE COURSE TYPE B, 12"	SY	605
	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GAL	210
	40603080	HOT MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	72
	40603310	HOT MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	44
	42300200	PCC DRIVEWAY PAVEMENT, 6"	SY	32
*	42400100	PCC SIDEWALK, 4"	SF	2085
	44000100	PAVEMENT REMOVAL	SY	593
	44000500	CONCRETE CURB AND GUTTER REMOVAL	FOOT	371
	44000600	SIDEWALK REMOVAL	SF	664
	44213200	SAW CUTS	FOOT	100
	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
	50102400	CONCRETE REMOVAL	CY	27.1
	50200100	STRUCTURE EXCAVATION	CY	329
	50300225	CONCRETE STRUCTURES	CY	159
	50300255	CONCRETE SUPERSTRUCTURES	CY	33.3
	50300260	BRIDGE DECK GROOVING	SY	217
	50300280	CONCRETE ENCASEMENT	CY	8.4
	50300300	PROTECTIVE COAT	SY	330
	50400305	PRECAST PRESTRESSED CONCRETE DECK BEAM (17" DEPTH)	SF	2707
	50800205	REINFORCEMENT BARS, EPOXY COATED	LB	25884
	50800515	BAR SPLICERS	EACH	166
Δ	50900805	PEDESTRIAN RAILING	FOOT	136
	51200958	FURNISHING METAL SHELL PILES, 14"x0.250"	FOOT	1380
	51202305	DRIVING PILES	FOOT	1380
	51203200	TEST PILE METAL SHELLS	EACH	3
	51500100	NAME PLATES	EACH	1
	550A0070	STORM SEWERS, CLASS A, TYPE 1, 15"	FOOT	9
	550A0090	STORM SEWERS, CLASS A, TYPE 1, 18"	FOOT	18
	55100700	STORM SEWER REMOVAL, 15"	FOOT	13
	55100900	STORM SEWER REMOVAL, 18"	FOOT	18
	60218400	MANHOLE, TYPE A, 4' DIA., TYPE 1 FRAME & CL. LID	EACH	2
*	60604400	COMBINATION CONC. C&G, TYPE B-6.18	FOOT	356
	67100100	MOBILIZATION	LSUM	1
*	X5030305	CONCRETE WEARING SURFACE, 5"	SY	301
*	X7010216	TRAFFIC CONTROL AND PROTECTION, SPECIAL	L SUM	1
*	Z0013798	CONSTRUCTION LAYOUT	L SUM	1
*	Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SF	504
*	Z0077700	WOOD FENCE TO BE REMOVED AND RE-ERECTED	FOOT	56

* SPECIAL PROVISION

Δ SPECIALTY ITEMS

McClure Engineering Associates, Inc.
7282 Argus Drive, Rockford, Illinois 61107-3637
(815) 398-2332 FAX (815) 398-2499
Design Firm License Illinois 184-000818

USER NAME =	DESIGNED - JTT	REVISED - 2/9/12	
	DRAWN - SNG	REVISED -	
PLOT SCALE =	CHECKED - CTB	REVISED -	
PLOT DATE = 2/9/12	DATE - 12/12/11	REVISED -	

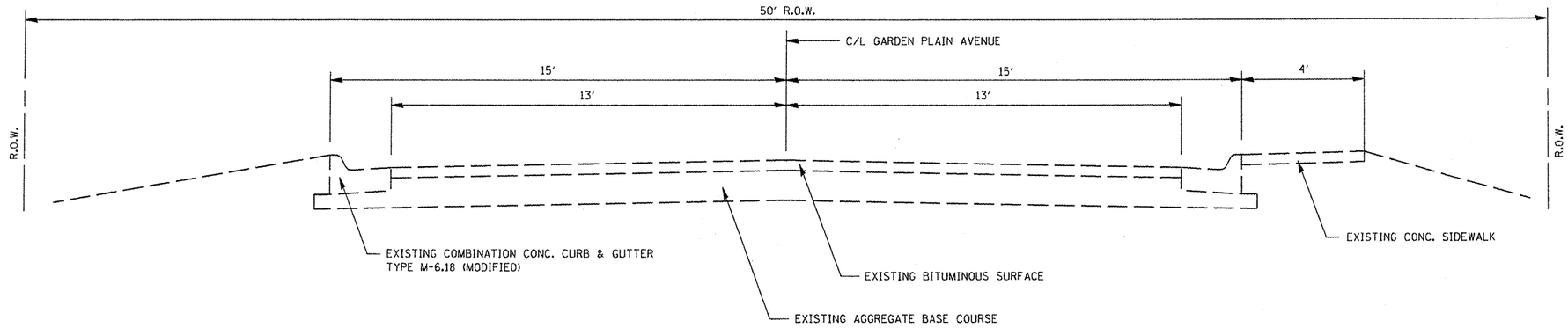
CITY OF LOVES PARK
GARDEN PLAIN AVE. BRIDGE

GENERAL NOTES & QUANTITIES

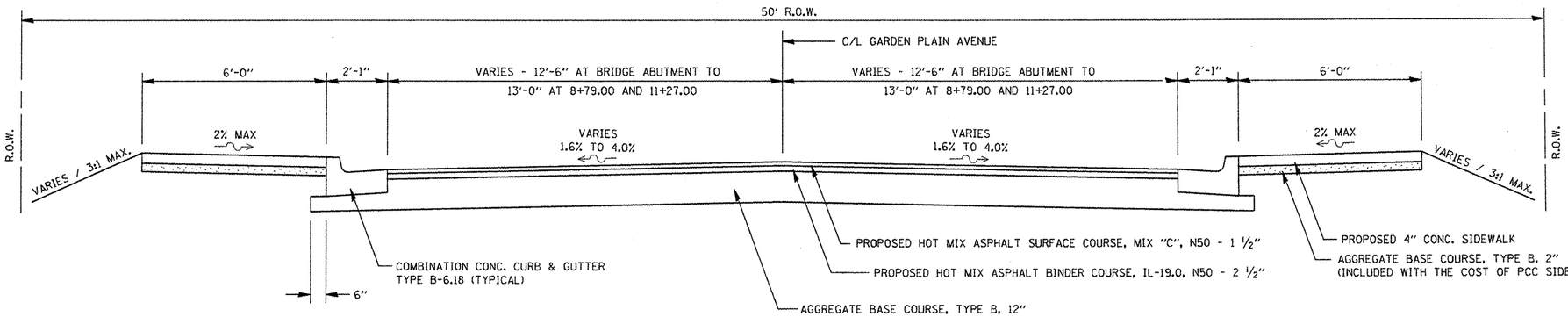
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00069-00-BR	WINNEBAGO	21	2
		CONTRACT NO. 85547		
		ILLINOIS FED. AID PROJECT		

85547



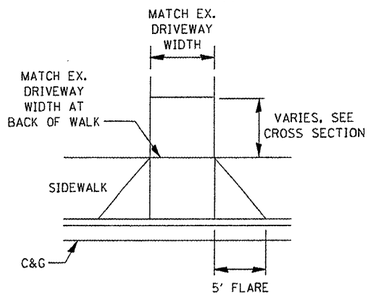
EXISTING TYPICAL SECTION



PROPOSED TYPICAL SECTION

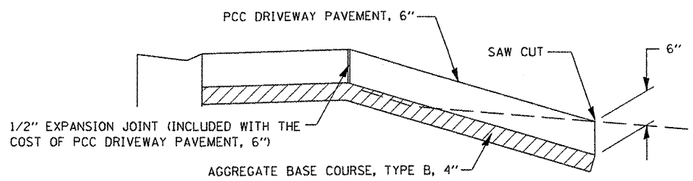
STA. 8+79.00 TO 9+65.12 & 10+34.87 TO 11+27.00

NOTE: STONE SHOWN UNDER THE CURB SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CURB.



DRIVEWAY DETAIL

PLAN VIEW



DRIVEWAY DETAIL

SECTION VIEW

PROPOSED GRADES

STATION	T.O.C LT	E/P LT	C/L	E/P RT	T.O.C. RT
8+80	722.21	721.80	722.24	721.75	722.16
8+90	722.46	722.05	722.46	722.00	722.41
9+00	722.74	722.33	722.72	722.29	722.70
9+10	723.06	722.65	723.01	722.61	723.02
9+20	723.41	723.00	723.34	722.98	723.39
9+30	723.79	723.38	723.69	723.36	723.77
9+40	724.15	723.74	724.03	723.73	724.14
9+50	724.47	724.06	724.32	724.05	724.46
9+60	724.75	724.34	724.56	724.34	724.75
10+40	724.75	724.34	724.56	724.34	724.75
10+50	724.46	724.05	724.32	724.06	724.47
10+60	724.14	723.73	724.03	723.74	724.15
10+70	723.77	723.36	723.69	723.37	723.78
10+80	723.39	722.98	723.34	722.99	723.40
10+90	723.02	722.61	723.00	722.63	723.04
11+00	722.67	722.26	722.68	722.28	722.69
11+10	722.35	721.94	722.39	721.96	722.37
11+20	722.06	721.65	722.13	721.67	722.08

McClure Engineering Associates, Inc.
7282 Argus Drive Rockford, Illinois 61107-5837
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USER NAME =	DESIGNED - JTT	REVISED - 2/1/12
	DRAWN - SMG	REVISED -
PLOT SCALE =	CHECKED - JTT	REVISED -
PLOT DATE = 2/1/12	DATE - 12/12/11	REVISED -

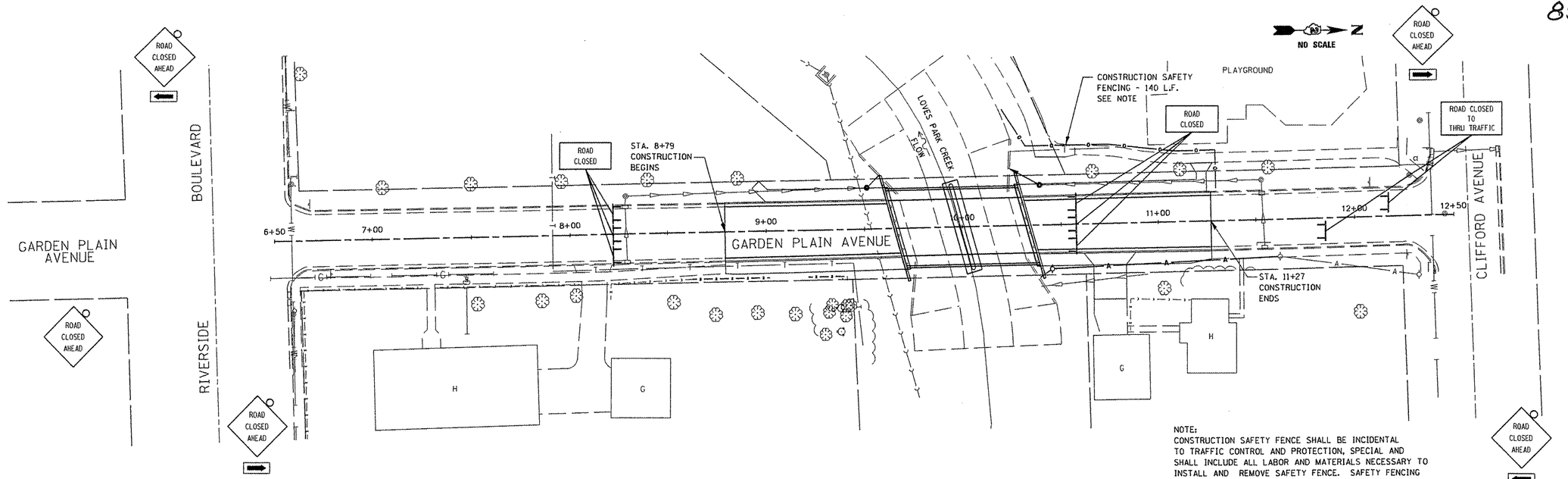
CITY OF LOVES PARK
GARDEN PLAIN AVE. BRIDGE

TYPICAL SECTION

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00069-00-BR	WINNEBAGO	21	3
		CONTRACT NO. 85547		
	ILLINOIS FED. AID PROJECT			

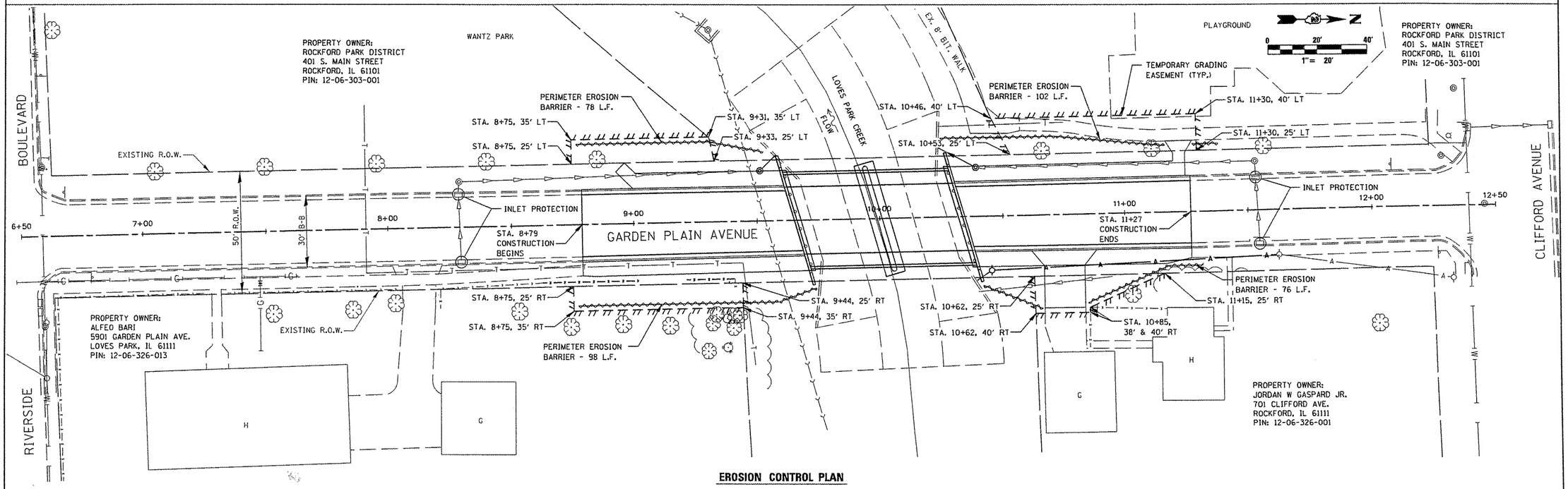
85547



NOTE:
CONSTRUCTION SAFETY FENCE SHALL BE INCIDENTAL TO TRAFFIC CONTROL AND PROTECTION, SPECIAL AND SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY TO INSTALL AND REMOVE SAFETY FENCE. SAFETY FENCING SHALL BE MADE OF A POLYPROPYLENE MATERIAL AND ORANGE IN COLOR. CONTRACTOR SHALL INSTALL FENCING AT TIME OF MOBILIZATION.

TRAFFIC CONTROL PLAN

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
BAL. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE



EROSION CONTROL PLAN

PROFILE
SURVEYED
PLOTTED
ALIGNMENT CHECKED
BAL. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

McClure Engineering Associates, Inc.
7262 Argus Drive (815) 398-2332
Rockford, Illinois 61107-5837 FAX (815) 398-2496
Design Firm License: Illinois 184-000816

USER NAME =	DESIGNED - JTT	REVISED - 2/1/12	
	DRAWN - SMG	REVISED -	
PLOT SCALE = 1"=40'	CHECKED - CTB	REVISED -	
PLOT DATE = 2/1/12	DATE - 12/12/11	REVISED -	

CITY OF LOVES PARK
GARDEN PLAIN AVE. BRIDGE

EROSION & TRAFFIC CONTROL PLAN

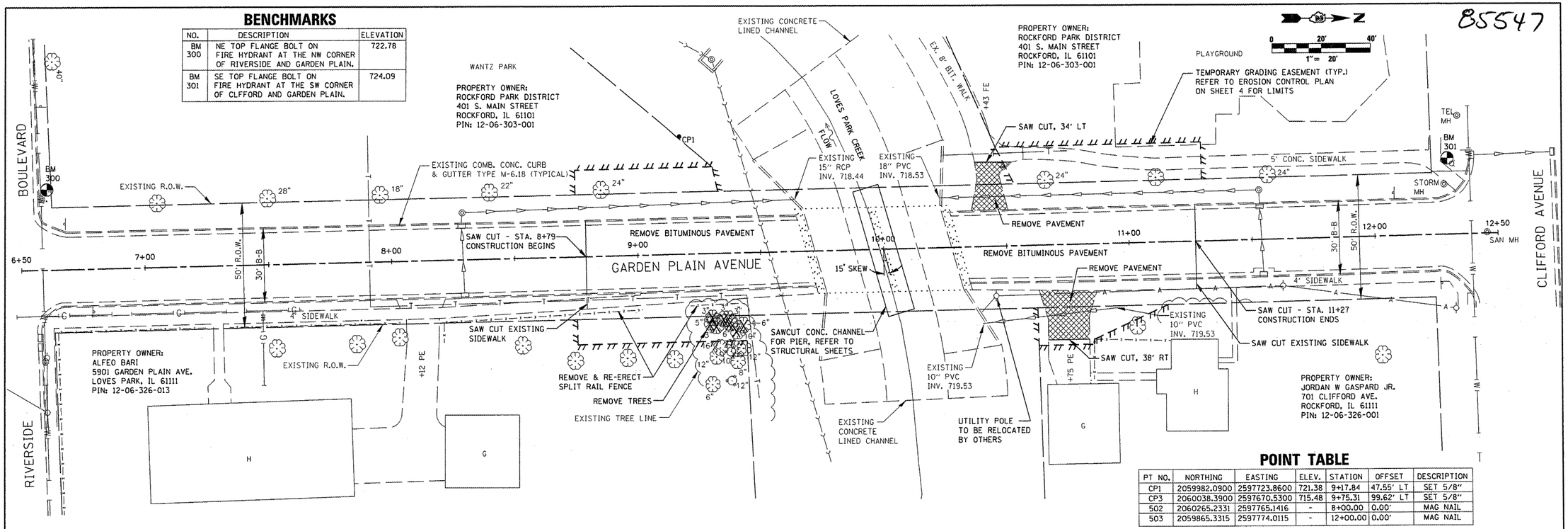
SCALE: 1"=20' | SHEET NO. 1 OF 1 SHEETS | STA. 6+60 TO STA. 12+60

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00069-00-BR	WINNEBAGO	21	4
		CONTRACT NO. 85547		
	ILLINOIS FED. AID PROJECT			

85547

BENCHMARKS

NO.	DESCRIPTION	ELEVATION
BM 300	NE TOP FLANGE BOLT ON FIRE HYDRANT AT THE NW CORNER OF RIVERSIDE AND GARDEN PLAIN.	722.78
BM 301	SE TOP FLANGE BOLT ON FIRE HYDRANT AT THE SW CORNER OF CLFFORD AND GARDEN PLAIN.	724.09

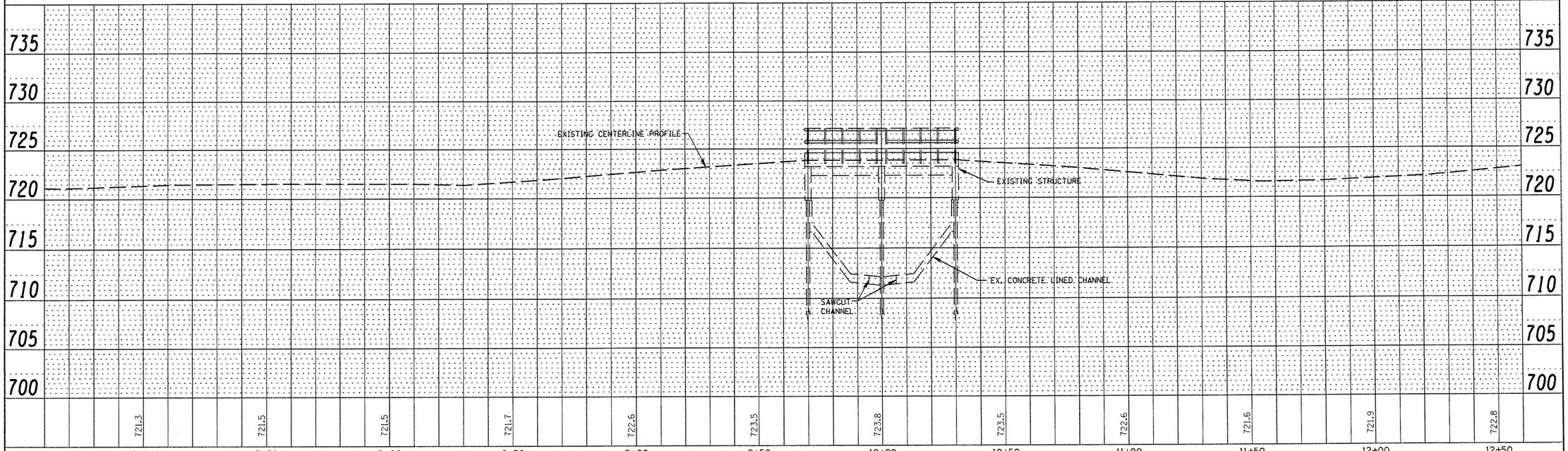


POINT TABLE

PT NO.	NORTHING	EASTING	ELEV.	STATION	OFFSET	DESCRIPTION
CP1	2059982.0900	2597723.8600	721.38	9+17.84	47.55' LT	SET 5/8"
CP3	2060038.3900	2597670.5300	715.48	9+75.31	99.62' LT	SET 5/8"
502	2060265.2331	2597765.1416	-	8+00.00	0.00'	MAG NAIL
503	2059865.3315	2597774.0115	-	12+00.00	0.00'	MAG NAIL

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, R.T. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO. ____, BY, DATE

PROFILE — SURVEYED, PLOTTED, ALIGNMENT CHECKED, B.M. NOTED, STRUCTURE NOTATNS CHKD, NOTE BOOK, NO. ____, BY, DATE



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PLOT SCALE = 1"=40'	CHECKED - CTB	REVISED -	
PLOT DATE = 12/12/11	DATE - 12/12/11	REVISED -	

CITY OF LOVES PARK
GARDEN PLAIN AVE. BRIDGE

DEMOLITION PLAN

SCALE: 1"=20' | SHEET NO. 1 OF 1 SHEETS | STA. 6+60 TO STA. 12+60

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00069-00-BR	WINNEBAGO	21	5
		CONTRACT NO. 85547		
	ILLINOIS FED. AID PROJECT			

85547

BENCHMARKS

NO.	DESCRIPTION	ELEVATION
BM 300	NE TOP FLANGE BOLT ON FIRE HYDRANT AT THE NW CORNER OF RIVERSIDE AND GARDEN PLAIN.	722.78
BM 301	SE TOP FLANGE BOLT ON FIRE HYDRANT AT THE SW CORNER OF CLFFORD AND GARDEN PLAIN.	724.09

PLAN — SURVEYED / PLOTTED / PLOTTED, CHECKED / ALIGN. NOT CHECKED / R.O.W. NOTED / PLAT OF WAY CHECKED / NOTE BOOK / NO. / PLAT FILE NAME / BY / DATE

WANTZ PARK

PROPERTY OWNER:
ROCKFORD PARK DISTRICT
401 S. MAIN STREET
ROCKFORD, IL 61101
PIN: 12-06-303-001

OUTLET THROUGH WALL
INV. = 718.44

15" SS CL A T1
9 L.F. @ 0.50%

CONCRETE LINED CHANNEL

LOVES PARK CREEK
FLOW

EX. 8' BIT. WALK

OUTLET THROUGH WALL
INV. = 718.53

18" SS CL A T1
18 L.F. @ 0.50%

SAW CUT, 34' LT

STA. 10+46, 40' LT

STA. 10+40, 20' LT
MANHOLE TYPE A, 4' DIA. REDUCED DEPTH WITH TYPE 1 FRAME & CL. LID
RIM=723.50 / INV=718.62

EROSIN CONTROL FENCE (TYP.)

TEMPORARY GRADING EASEMENT (TYP.)

PLAYGROUND

CONSTRUCTION SAFETY FENCING

PROPERTY OWNER:
ROCKFORD PARK DISTRICT
401 S. MAIN STREET
ROCKFORD, IL 61101
PIN: 12-06-303-001

STA. 9+51, 21' LT
MANHOLE TYPE A, 4' DIA. REDUCED DEPTH WITH TYPE 1 FRAME & CL. LID
RIM=723.75 / INV=718.49

CP1

STA. 11+30, 40' LT

STA. 11+28, 29.3' LT

STA. 11+30, 25' LT

TEL MH

BM 301

5' CONC. SIDEWALK

STORM MH

STA. 8+75, 35' LT

STA. 8+75, 25' LT

STA. 9+00
15' LT

EXISTING COMB. CONC. CURB & GUTTER TYPE M-6.18 (MODIFIED)

EXISTING R.O.W.

BM 300

RIVERSIDE BOULEVARD

EXISTING 15" RCP
INV. 718.44

EXISTING 18" PVC
INV. 718.53

STA. 10+53, 25' LT

STA. 11+25, 24.3' LT

STA. 11+25, 15' LT

STA. 8+93, 21.5' LT

STA. 9+31, 35' LT
STA. 9+33, 25' LT

PROPOSED SIDEWALK

REMOVE PAVEMENT

SAW CUT MATCH EXISTING CONSTRUCTION BEGINS
STA. 8+79

PROPOSED 17' CONCRETE DRIVE, WITH 5' FLARES

STA. 10+61
15' RT

STA. 10+88 15' RT

PROPOSED SIDEWALK

4' SIDEWALK

6' SIDEWALK (TYP.)

15° SKEW

PROP. BRIDGE C/L
10+00.00
SN-101-6421

STA. 11+15, 25' RT

EXISTING 10" PVC INV. 719.53

SAW CUT MATCH EXISTING CONSTRUCTION ENDS
STA. 11+27

STA. 8+75, 25' RT

STA. 8+75, 35' RT

STA. 9+44, 25' RT

STA. 9+44, 35' RT

EXISTING 10" PVC INV. 719.53

STA. 10+62, 25' RT

STA. 10+62, 40' RT

STA. 10+85, 38' & 40' RT

REMOVE PAV'T

PROPERTY OWNER:
ALFEO BARI
5901 GARDEN PLAIN AVE.
LOVES PARK, IL 61111
PIN: 12-06-326-013

PROPERTY OWNER:
JORDAN W GASPARD JR.
701 CLIFFORD AVE.
ROCKFORD, IL 61111
PIN: 12-06-326-001

CLIFFORD AVENUE

COMB. CONC. CURB & GUTTER TYPE B-6.18 (TYPICAL)

REMOVE & RE-ERECT SPLIT RAIL FENCE

REMOVE TREES

EXISTING TREE LINE

PROPOSED STRUCTURE

PROPOSED SAWCUT CONCRETE CHANNEL FOR PIER

CONCRETE LINED CHANNEL

UTILITY POLE TO BE RELOCATED BY OTHERS

POINT TABLE

PT NO.	NORTHING	EASTING	ELEV.	STATION	OFFSET	DESCRIPTION
CP1	2059982.0900	2597723.8600	721.38	9+17.84	47.55' LT	SET 5/8"
CP3	2060038.3900	2597670.5300	715.48	9+75.31	99.62' LT	SET 5/8"
502	2060265.2331	2597765.1416	-	8+00.00	0.00'	MAG NAIL
503	2059865.3315	2597774.0115	-	12+00.00	0.00'	MAG NAIL

GARDEN PLAIN AVENUE

PROFILE — SURVEYED / PLOTTED / PLOTTED, CHECKED / ALIGN. NOTED / R.O.W. NOTED / STRUCTURE (OFFSETS, CL'ING) / NOTE BOOK / NO. / BY / DATE

PVI STA = 8+99.64
PVI ELEV = 722.63
A.D. = 1.51
K = 26.51
40.00' VC

PVI STA = 10+00
PVI ELEV = 726.14
A.D. = -6.99
K = 19.02
133' VC

PVI STA = 11+05.32
PVI ELEV = 722.46
A.D. = 1.24
K = 32.38
40.00' VC

HIGH POINT STA = 10+00.03
HIGH POINT ELEV = 724.98

PVC: 8+79.64
ELEV: 722.23

PVI: 9+19.64
ELEV: 723.33

PVC: 9+59.64
ELEV: 721.07

PVI: 10+65.5
ELEV: 724.11

PVC: 10+85.32
ELEV: 723.16

PVI: 11+25.32
ELEV: 724.01

EXISTING CENTERLINE PROFILE

1.98%

3.50%

-3.49%

2.26%

PROPOSED CENTERLINE PROFILE

EXISTING STRUCTURE

PROPOSED STRUCTURE

EX. CONCRETE LINED CHANNEL

SAWCUT CHANNEL

+79

+27

STA. 8+79 TO 11+27
EARTH EX. = 103 CY
BORROW EX. = 72 CY

	7+00	7+50	8+00	8+50	9+00	9+50	10+00	10+50	11+00	11+50	12+00	12+50
	721.3	721.5	721.5	721.7	722.6 / 722.72	723.5 / 724.32	723.8 / 724.98	723.5 / 724.32	722.6 / 722.68	721.6	721.9	722.8

735 730 725 720 715 710 705 700

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(815) 398-2332 FAX (815) 398-2456
Design Firm License: Illinois 184-000868

USER NAME =	DESIGNED - JTT	REVISED - 2/1/12	
	DRAWN - SMG	REVISED -	
PLOT SCALE = 1"=40'	CHECKED - CTB	REVISED -	
PLOT DATE = 12/12/11	DATE - 12/12/11	REVISED -	

CITY OF LOVES PARK
GARDEN PLAIN AVE. BRIDGE

PLAN AND PLOT

SCALE: 1"=20' | SHEET NO. 1 OF 1 SHEETS | STA. 6+60 TO STA. 12+60

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00069-00-BR	WINNEBAGO	21	6
		CONTRACT NO. 85547		
		ILLINOIS FED. AID PROJECT		

85547

BENCHMARKS:

B.M.- No. 300, Northeast bolt on Fire Hydrant located at Northwest corner of Riverside Blvd. and Garden Plain Ave. Elev. = 722.78'

B.M.- No. 301, Southeast bolt on Fire Hydrant located at Southwest corner of Clifford Ave. and Garden Plain Ave. Elev. = 724.09'

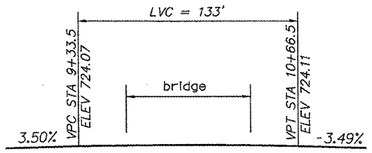
EXISTING STRUCTURE: S.N. 101-6407; Built in 1970, two span bridge that measures 62'-7" back to back of abutments with 30 ft. long precast, prestressed concrete deck beams supported by pile caps with 16 in. by 16 in. precast concrete piles. Overall width of the bridge measures 34 ft. with 3 ft. walks on both sides. The bridge deck has a bituminous overlay with steel railings. Roadway will be closed during demolition and construction.

Salvage- None

GARDEN PLAIN AVENUE OVER LOVES PARK CREEK
BUILT 2012
CITY OF LOVES PARK
WINNEBAGO COUNTY
SEC. 08-00069-00-BR
STATION 10+00
STR. NO. 101-6421 LOADING HL-93

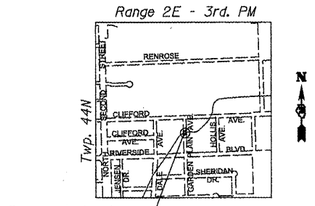
LETTERING FOR NAME PLATE

Locate Name Plate at Southeast Corner of Bridge (See Std. 515001)

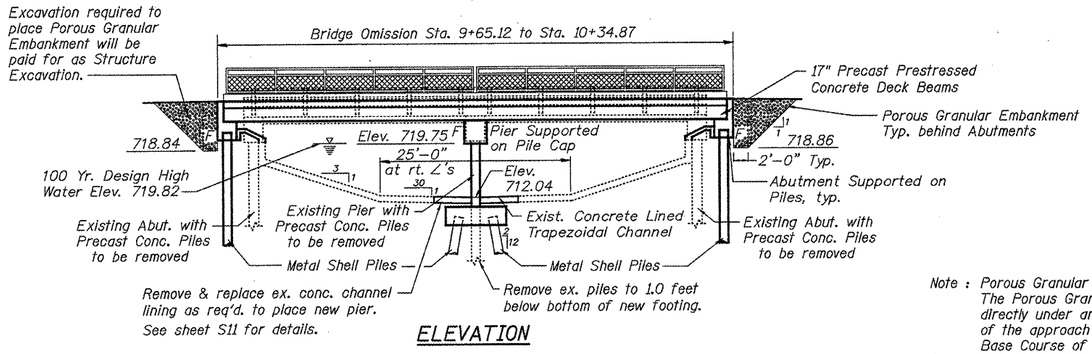


PROFILE GRADE

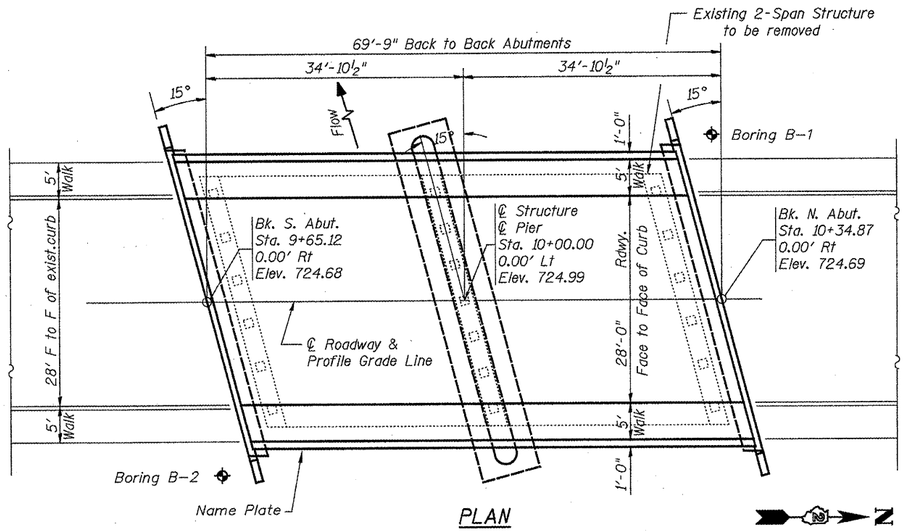
(along ℄ roadway)



LOCATION SKETCH



ELEVATION



PLAN

Note : Porous Granular Embankment is to be placed behind the abutment. The Porous Granular Embankment material shall be placed as shown directly under and for the full-width of the Aggregate Base Course of the approach roadway. Beyond the site limits of the Aggregate Base Course of the approach roadway, the Porous Granular Embankment material shall diminish in height from the full depth shown, utilizing a lateral slope of 1:1, to the bottom of the abutment cutoff wall at Elevation 718.84(S) & 718.86(N).

HIGHWAY CLASSIFICATION

Garden Plain Avenue
ADT: 310 (2012)
Functional Class: Local Street (Urban)

Posted Speed: not posted
Design Speed: 30 mph

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications 4th Edition with 2008 and 2009 Interims.

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

f'c = 3500 psi (Class P Concrete Substructure)
fy = 60,000 psi (reinforcement)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (1/2" ϕLow Relaxation strands)
fpbt = 201,960 psi (1/2" ϕLow Relaxation strands)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. S_{D1} = 0.075g
Design Spectral Acceleration at 0.2 sec. S_{DS} = 0.160g
Soil Site Class = D

DESIGN SCOUR ELEVATION TABLE

	S. Abut.	Pier 1	N. Abut.
Design Scour Elevation (ft)	N/A	N/A	N/A

Concrete lined channel
Scour elevation not applicable

WATERWAY INFORMATION

Drainage Area = 6.32 SQ.MI. Low Grade Elev. = 721.5 @ Sta. 8+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.
Design	50	2030	254.0	254.0	719.46
Base	100	2200	268.0	268.0	719.82
Max calc.	500	N/A			

JEFFREY T. TORMEY 081-004880 REGISTERED STRUCTURAL ENGINEER ILLINOIS

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies wityh requirements of the current 'AASHTO Standard Specifications for Highway Bridges'".

Jeffrey T Tormey 12/15/11

ILLINOIS STRUCTURAL NO. 081-004880 (Expires 11/30/12)

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GENERAL PLAN AND ELEVATION
GARDEN PLAIN AVENUE OVER LOVES PARK CREEK
SECTION 08-00069-00-BR
WINNEBAGO COUNTY
STATION 10+00.00
STRUCTURE NO. 101-6421

SHEET NO. S1	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 SHEETS		08-00069-00-BR	WINNEBAGO	21	7
			CONTRACT NO. 85547		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

85547

GENERAL NOTES

1. The Contractor shall drive test piles, as specified, in a permanent location as directed by the Engineer before ordering the remaining piles.
2. See Special Provisions for boring logs.
3. A Calcium Nitrate Corrosion inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
4. Backfill shall be placed behind the abutment after the deck beams are in place and any false work is removed.
5. See article 502.10 of the standard specifications.
6. All exposed concrete edges shall have a $\frac{3}{4}$" x 45° chamfer, unless noted otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below finished ground level.
7. Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60.
8. Reinforcement bars designated (E) shall be epoxy coated.
9. The Contractor shall drive test piles to 110% of the nominal required bearing specified in the production locations.
10. Saw cuts to existing channel liner/wall concrete shall not be paid for separately, but shall be included with cost of Concrete Removal.

BILL OF MATERIAL - BRIDGE

	Coded Pay Item No.	Item	Unit	Super	Sub. Pier	Sub. Abuts.	Channel Liner	Total
	20700220	Porous Granular Embankment	Cu. Yd.			46.1		46.1
	20900110	Porous Granular Backfill	Cu. Yd.				37.0	37.0
	50100100	Removal of Existing Structures	Each					1
	50102400	Concrete Removal	Cu. Yd.				27.1	27.1
	50300225	Concrete Structures	Cu. Yd.		82.2	40.3	36.5	159
	50400305	Precast Prestressed Concrete Deck Beams (17'' Depth)	Sq. Ft.	2707				2707
	50900805	Pedestrian Railing	Foot	136				136
	50200100	Structure Excavation	Cu. Yd.		73	184	72	329
	50800205	Reinforcement Bars, Epoxy Coated	Pound	8227	10820	3641	3196	25884
	51200958	Furnishing Metal Shell Piles, 14"x0.250"	Foot		780	600		1380
	51202305	Driving Piles	Foot		780	600		1380
	51203200	Test Pile Metal Shells	Each		1	2		3
	51500100	Name Plates	Each					1
	50300280	Concrete Encasement	Cu. Yd.		4.5	3.9		8.4
	50300255	Concrete Superstructure	Cu. Yd.	33.3				33.3
	50300260	Bridge Deck Grooving	Sq. Yd.	217				217
	50300300	Protective Coat	Sq. Yd.	330				330
	50800515	Bar Splicers	Each				166	166
*	X5030305	Concrete Wearing Surface, 5"	Sq. Yd.	301				301
*	Z0073002	Temporary Soil Retention System	Sq. Ft.				504	504

* Special Provision

INDEX OF BRIDGE SHEETS

GENERAL NOTES & BILL OF MATERIAL - BRIDGE STRUCTURE NO. 101-6421

SHEET NO. S2	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 SHEETS	-	08-00069-00-BR	WINNEBAGO	21	8
			CONTRACT NO. 85547		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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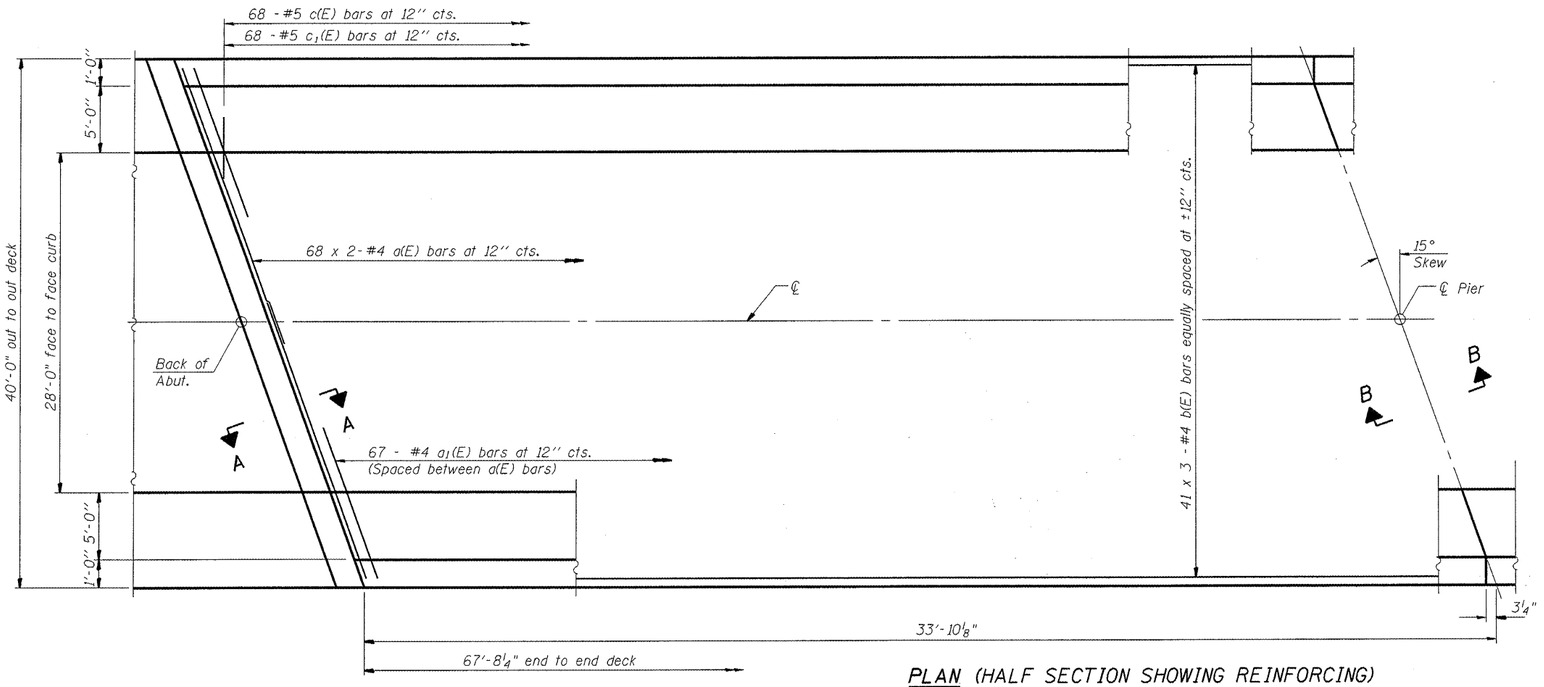
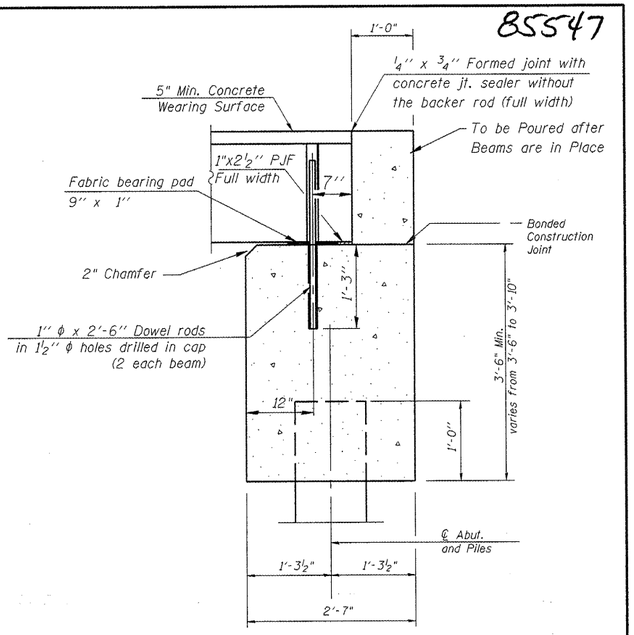


PLAN (HALF SECTION SHOWING REINFORCING)

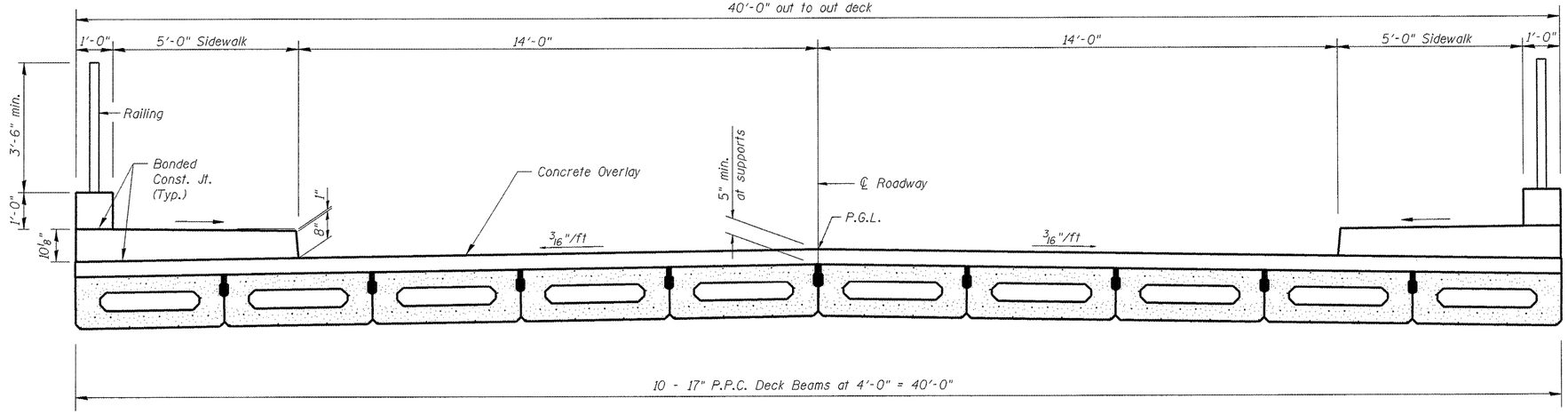


SECTION A-A

(Dimensions are at Rt ∠'s)

Notes:
All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.

See sheet S6 of 14 for fabric bearing pad details.



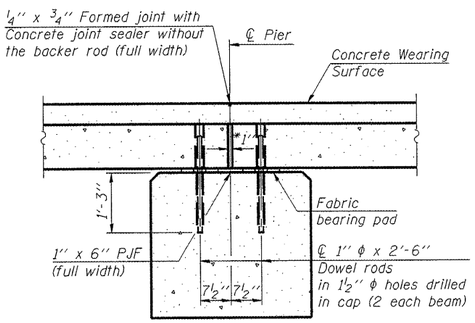
CROSS SECTION

GARDEN PLAIN AVE. OVER LOVES PARK CREEK

Notes:
See sheet S4 of 14 for Superstructure Details and Bill of Material.

Bars indicated thus 20 x 2 - #4 etc. indicates 20 lines of bars with 2 lengths per line.

Spacing of a(E) and a_1(E) bars shall be measured along the ℄ of structure.



SECTION B-B

(Dimensions are at Rt. L's)

*1'' Jt. shall be filled with non-shrink grout. 1'' dimension may vary to accommodate tolerance in beam lengths.

MINIMUM BAR LAP

#4 bar = 2'-7''

SUPERSTRUCTURE
STRUCTURE NO. 101-6421

SHEET NO. S3	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 SHEETS	-	08-00069-00-BR	WINNEBAGO	21	9
			CONTRACT NO. 85547		
	FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

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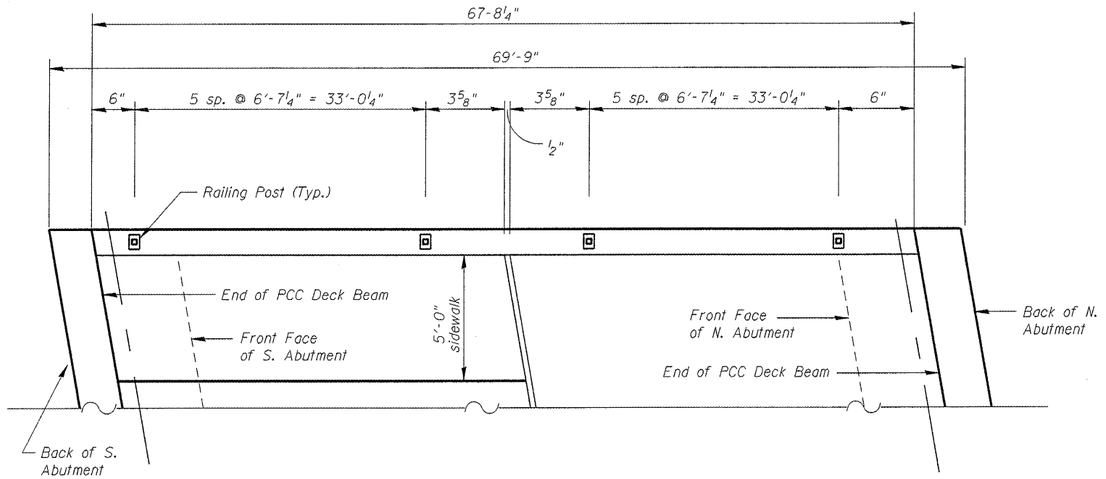
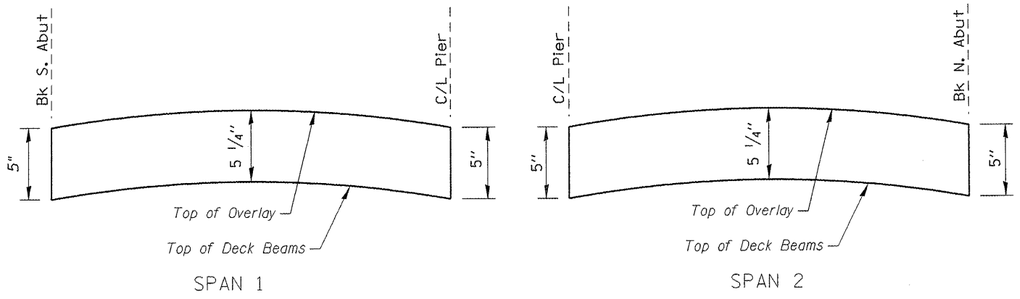
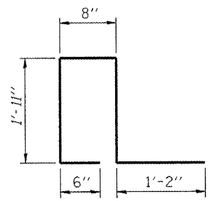


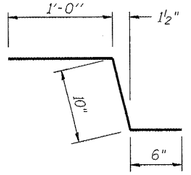
RAILING POST SPACING



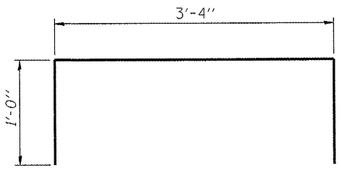
ANTICIPATED CONCRETE WEARING SURFACE PROFILE



BAR u(E)



BAR c(E)



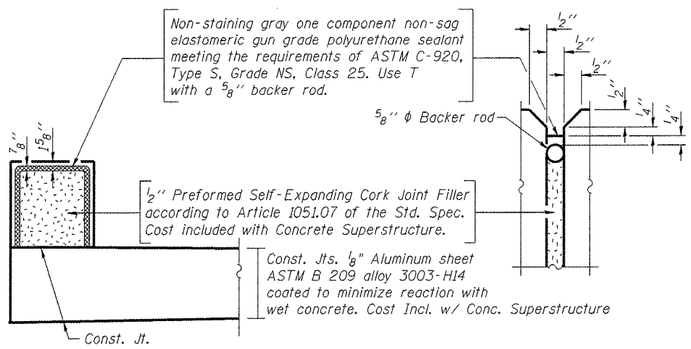
BAR D(E)

SUPERSTRUCTURE BILL OF MATERIAL

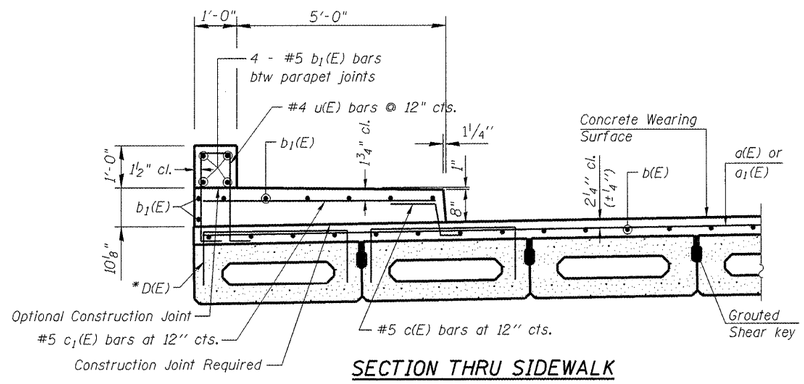
Bar	No.	Size	Length	Shape
a(E)	136	#4	21'-6"	——
a_1(E)	134	#4	10'-8"	——
b(E)	123	#4	23'-10"	——
b_1(E)	48	#5	33'-6"	——
c(E)	136	#5	2'-4"	⌐
c_1(E)	136	#5	5'-7"	——
u(E)	136	#4	6'-2"	⊔
Reinforcement Bars, Epoxy Coated		Pound	8,227	
Concrete Superstructure		Cu. Yd.	33.3	
Concrete Wearing Surface, 5"		Sq. Yd.	301	

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 101-6421



PARAPET JOINT DETAILS



SECTION THRU SIDEWALK

* Place #4 D(E) bars at 9" cts. in fascia beam and first interior beam.
D(E) bar included in cost of beam.

MINIMUM BAR LAP
#4 bar = 2'-7"

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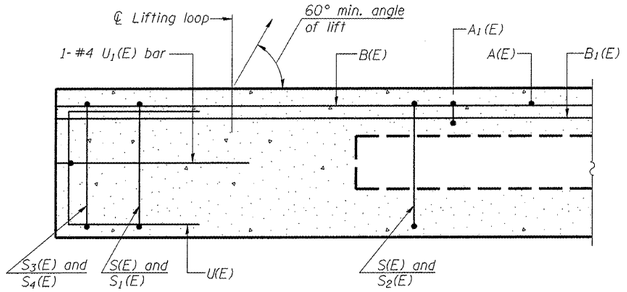
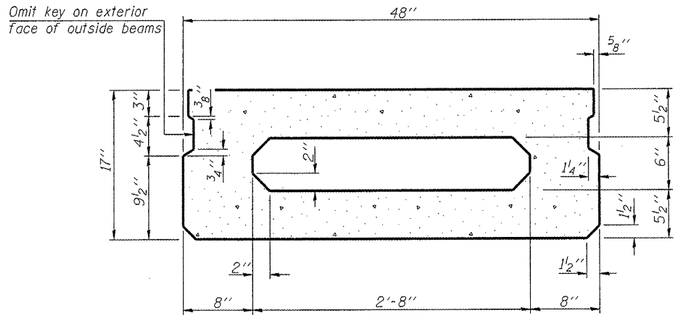
SHEET NO. S4	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 SHEETS	-	08-00069-00-BR	WINNEBAGO	21	10
			CONTRACT NO. 85547		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

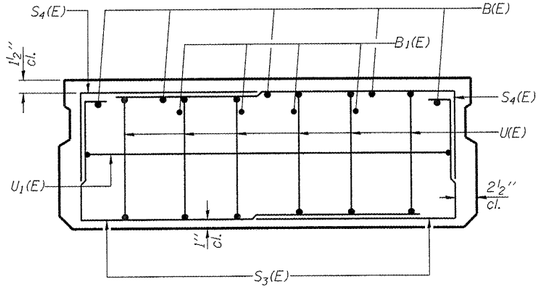
85547



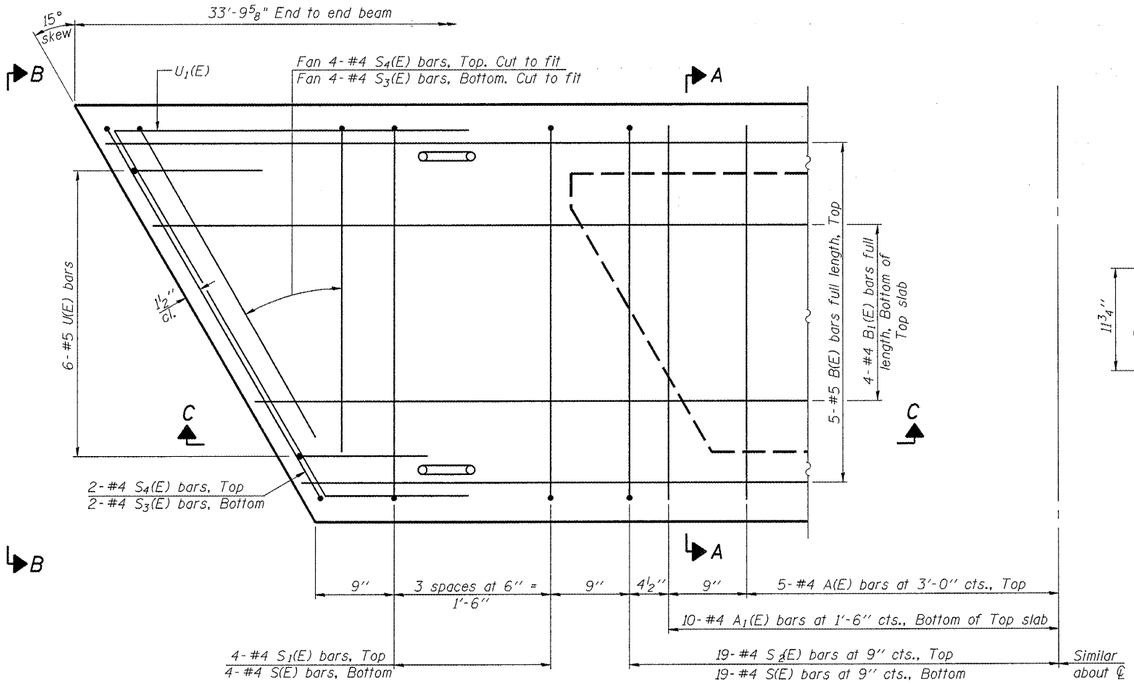
SECTION C-C



SECTION A-A
(Showing dimensions)

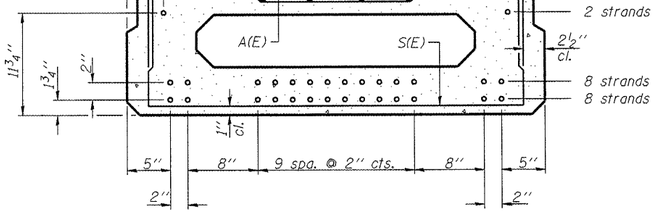


VIEW B-B



PLAN VIEW

Note: Spacing of S(E) and $S_2(E)$ bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



SECTION A-A
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	10	#4	3'-7"	—
$A_1(E)$	20	#4	3'-10"	⌒
B(E)	5	#5	33'-5"	—
$B_1(E)$	4	#4	33'-5"	—
S(E)	46	#4	6'-9"	⊔
$S_1(E)$	8	#4	5'-3"	⊓
$S_2(E)$	38	#4	5'-6"	⊓
$S_3(E)$	12	#4	4'-5"	⊔
$S_4(E)$	12	#4	3'-8"	⊔
U(E)	12	#5	3'-8"	⊏
$U_1(E)$	2	#4	7'-1"	⌒

Notes: See sheet S2 of 14 for additional details and Bill of Material.

Place #4 D(e) bars at 9" cts. in facia beam and first interior beam. D(e) bar included in cost of beam.

MINIMUM BAR LAP
#4 bar = 2'-0"
#5 bar = 2'-6"

17" X 48" PPC DECK BEAM
STRUCTURE NO. 101-6421

SHEET NO. S5	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 SHEETS	-	08-00069-00-BR	WINNEBAGO	21	11
			CONTRACT NO. 85547		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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Design Firm License: Illinois 184-000816

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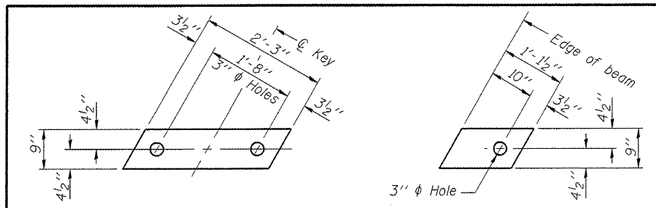
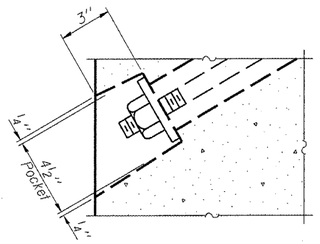


FABRIC BEARING PAD
(Interior)

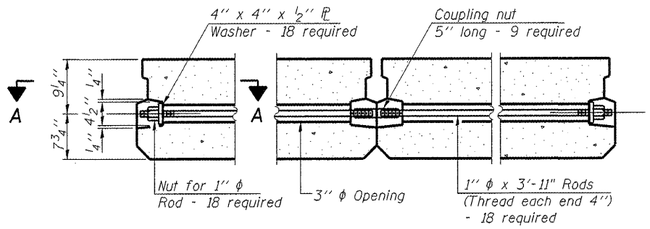
FABRIC BEARING PAD
(Exterior)

FIXED

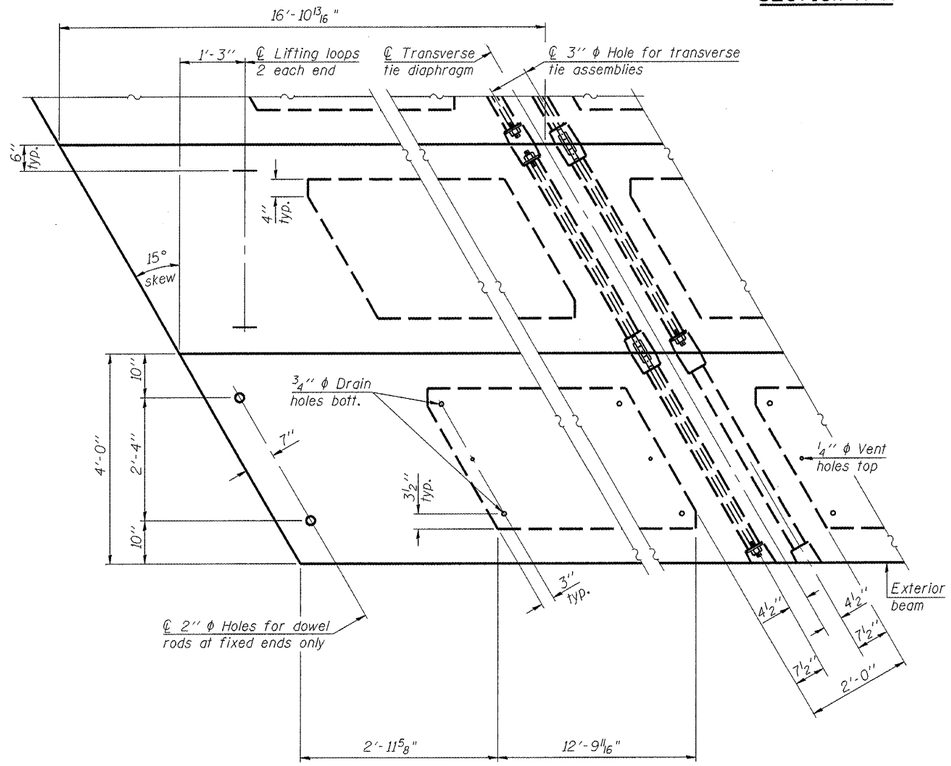
Note: All bearing pads shall be 1" thick.



SECTION A-A

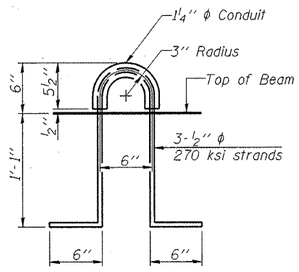


TYPICAL TRANSVERSE TIE ASSEMBLY

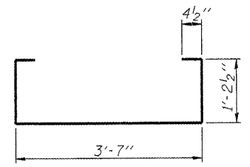


PLAN VIEW

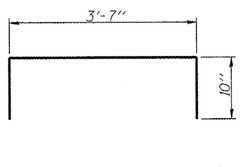
Note: Connect beams in pairs with the transverse tie configuration shown.



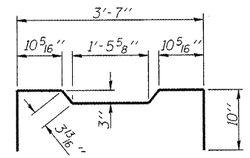
LIFTING LOOP DETAIL



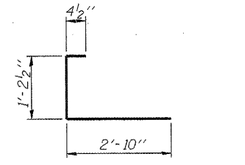
BAR S(E)



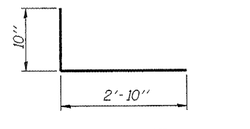
BAR S1(E)



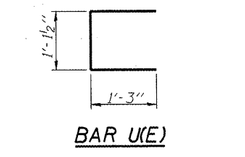
BAR S2(E)



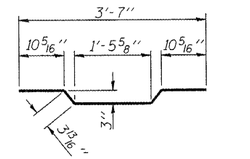
BAR S3(E)



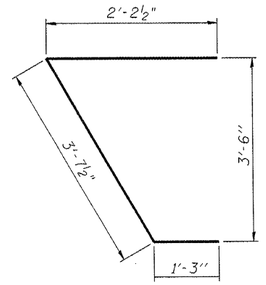
BAR S4(E)



BAR U(E)



BAR A1(E)



BAR U1(E)

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).

Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2½" ϕ lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	2707

17" X 48" PPC DECK BEAM DETAILS
STRUCTURE NO. 101-6421

SHEET NO. S6	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 SHEETS	-	08-0069-00-BR	WINNEBAGO	21	12
			CONTRACT NO. 85547		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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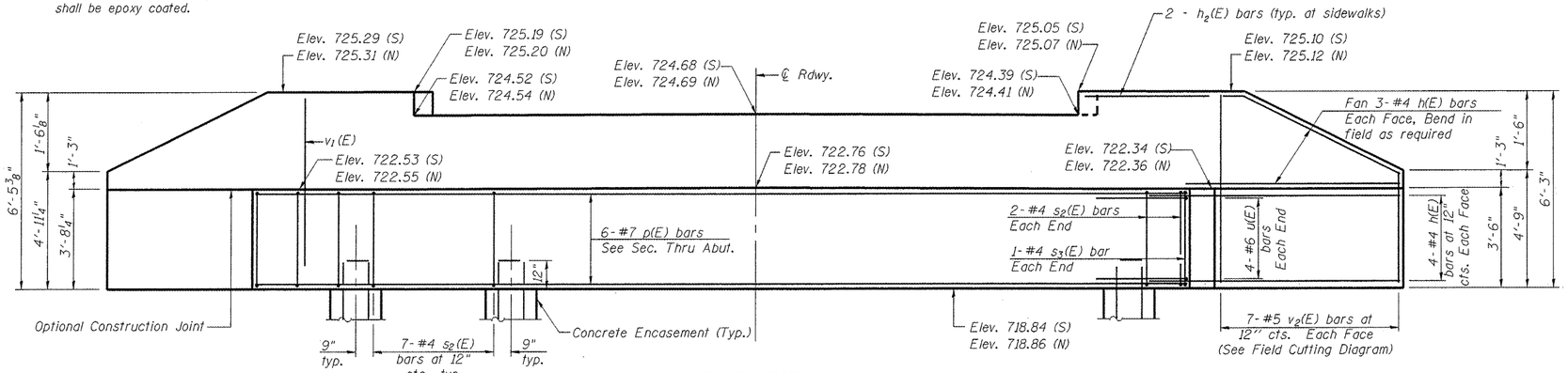
Note: Reinforcement bars designated (E) shall be epoxy coated.

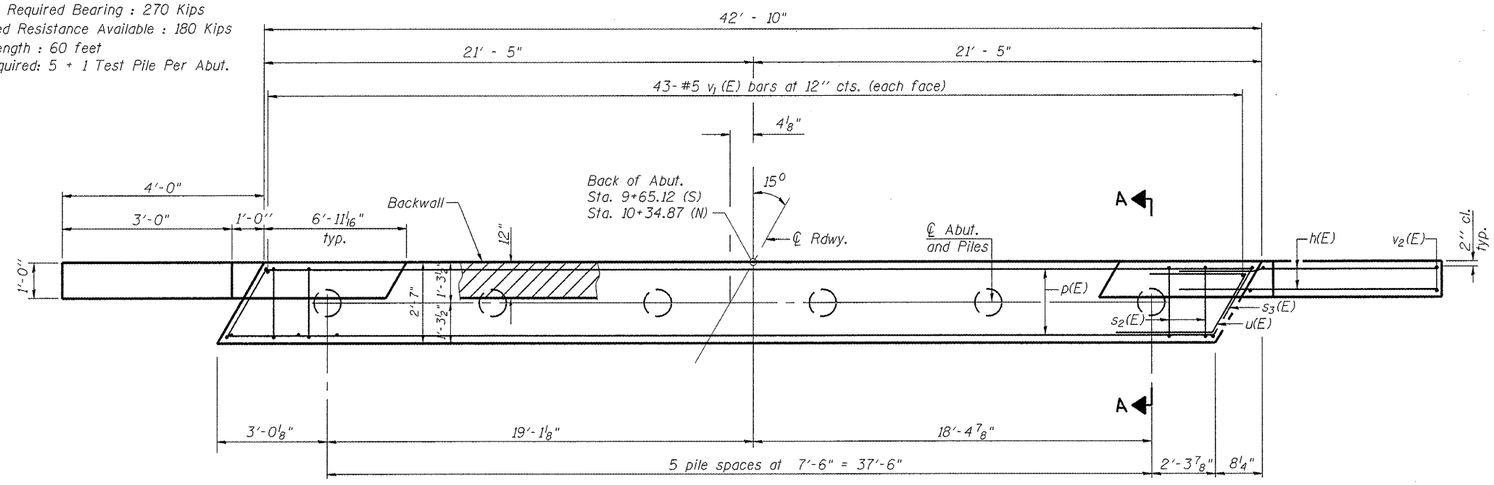


PILE DATA

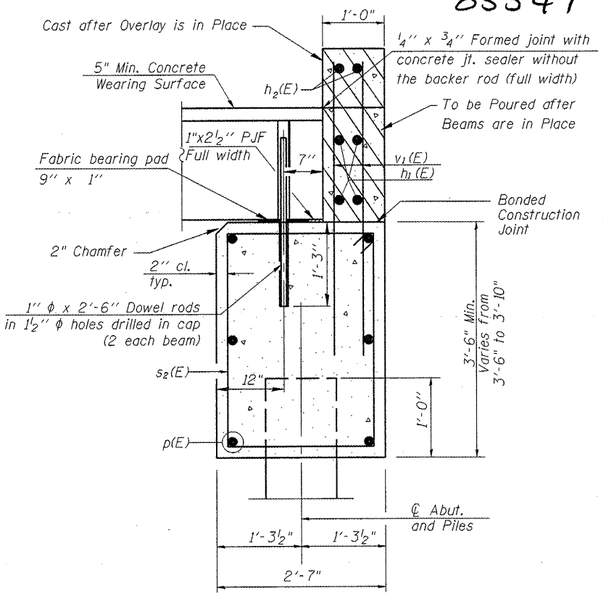
Pile Type and Size : 14 in. dia. x 0.25 in. walls
Nominal Required Bearing : 270 Kips
Factored Resistance Available : 180 Kips
Est. Length : 60 feet
No. Required: 5 + 1 Test Pile Per Abut.

ELEVATION

(South Abutment Looking South)
(North Abutment Looking North)



PLAN



SECTION A-A THRU ABUTMENT

Notes:
After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys. The cost of furnishing and installing dowels is included in precast deck beams.

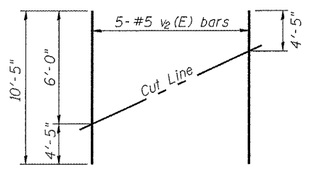
All horizontal dimensions are at right angles to beam ends. Hatched area to be poured after beams are in place. See sheet S6 of 14 for bearing pad details.

The backwall and the portion of the wingwalls above the bonded construction joint shall be cast against the in-place beam.

BILL OF MATERIAL - 2 ABUT.

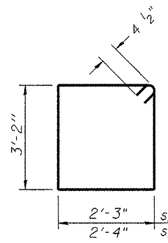
Bar	No.	Size	Length	Shape
h(E)	56	#4	6'-0"	
h1(E)	16	#4	22'-3"	
h2(E)	8	#4	6'-8"	
p(E)	24	#7	23'-4"	
s2(E)	78	#4	11'-7"	
s3(E)	4	#4	11'-9"	
u(E)	16	#6	8'-6"	
v1(E)	172	#5	5'-3"	
v2(E)	20	#5	10'-5"	
Test Pile Metal Shell			Each	2
Furnishing Metal Shell Piles, 14" x 0.250"			Foot	600
Driving Piles			Foot	600
Concrete Encasement			Cu. Yd.	3.9
Concrete Structures			Cu. Yd.	40.3
Reinforcement Bars, Epoxy Coated			Pound	3,641
Structure Excavation			Cu. Yd.	184

For details of piles and concrete encasement, see sheet S9 of 14.

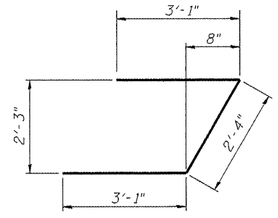


FIELD CUTTING DIAGRAM

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



BARS s2(E) & s3(E)



BAR u(E)

MINIMUM BAR LAP

#4 bar = 2'-1"
#5 bar = 2'-7"
#6 bar = 3'-1"
#7 bar = 4'-2"

ABUTMENTS
STRUCTURE NO. 101-6421

SHEET NO. S7	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 SHEETS	-	08-00069-00-BR	WINNEBAGO	21	13
			CONTRACT NO. 85547		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

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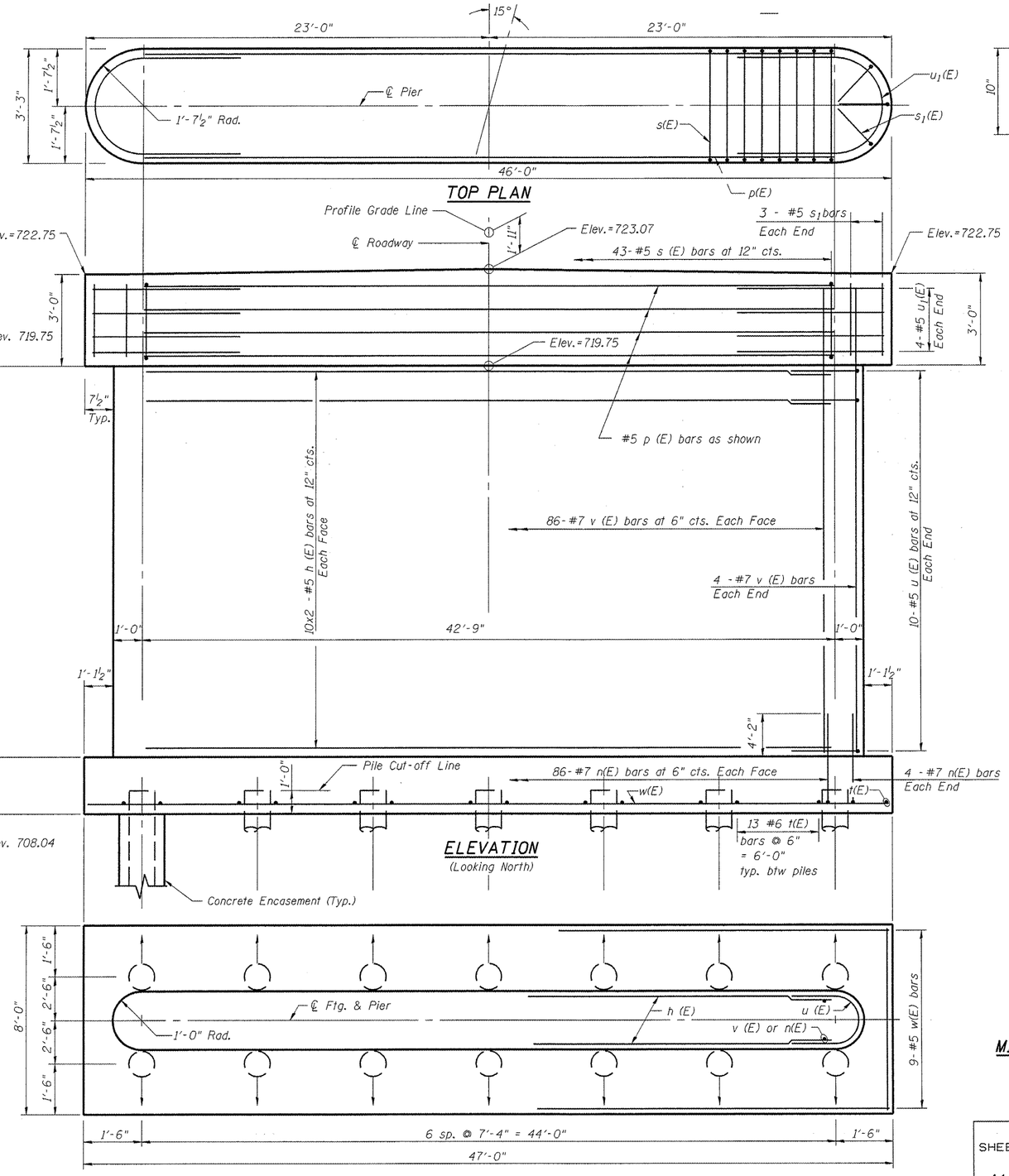
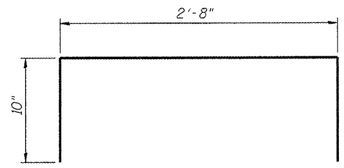
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet S9 of 11.

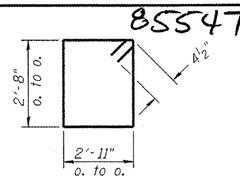
PILE DATA

Pile Type and Size: 14 in. dia. x 0.25 in. walls
Nominal Required Bearing : 270 Kips
Factored Resistance Available : 180 Kips
Est. Length : 60 feet
No. Req'd: 13 + 1 Test Pile

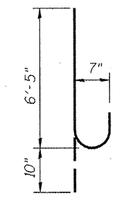




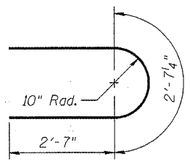
BAR $s_1(E)$



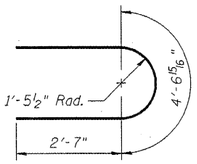
BAR s(E)



BAR n(E)



BAR u(E)



BAR $u_1(E)$

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h (E)	40	#5	22'-8"	
n(E)	180	#7	7'-3"	
p(E)	24	#5	22'-8"	
s(E)	43	#5	11'-11"	
s1(E)	6	#5	4'-4"	
t (E)	82	#6	7'-8"	
u (E)	20	#5	7'-9"	
u1(E)	8	#5	9'-9"	
v (E)	180	#7	12'-0"	
w (E)	18	#5	25'-4"	
Structure Excavation			Cu. Yd.	73
Concrete Structures			Cu. Yd.	82.2
Reinforcement Bars, Epoxy Coated			Pound	10,820
Furnishing Metal Shell Piles, 14" x 0.250"			Foot	780
Driving Piles			Foot	780
Test Pile.			Each	1
Concrete Encasement			Cu. Yd.	4.5

For details of piles and concrete encasement, see sheet S9 of 14.

MINIMUM BAR LAP

#5 bar = 2'-7"
#7 bar = 4'-2"

PIER
STRUCTURE NO. 101-6421

SHEET NO. S8	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 SHEETS	-	08-00069-00-BR	WINNEBAGO	21	14
			CONTRACT NO. 85547		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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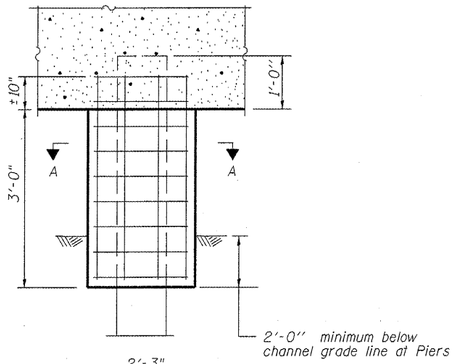
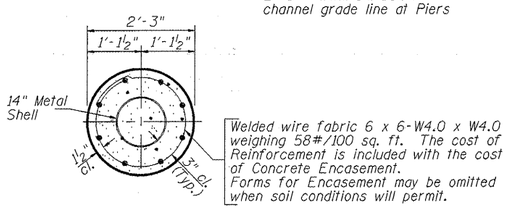
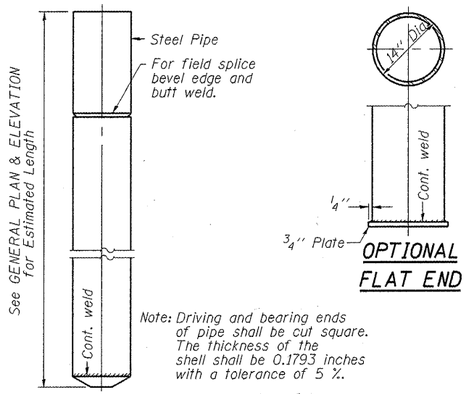




Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Reinforcement is included with the cost of Concrete Encasement. Forms for Encasement may be omitted when soil conditions will permit.

SECTION A-A
DETAIL OF
PILE ENCASEMENT



DETAIL OF CYLINDRICAL
STEEL SHELL FOR CAST IN
PLACE CONCRETE PILES

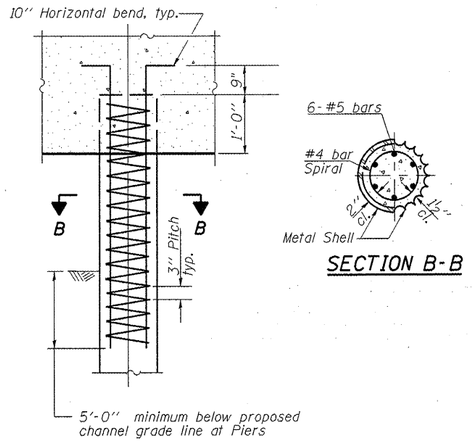
QUANTITIES/FT. OF ENCASEMENT

(METAL SHELL PILES)

Pipe Size	Item	Quantitiy
14" Dia.	Concrete Encasement	0.108 C.Y.

Reinforcement cage shall be omitted when Concrete Encasement is provided.

The cost of Reinforcement is included with the Cost of Furnishing Piles.



DETAIL OF REINFORCEMENT
FOR METAL SHELLS

PILE DETAILS
STRUCTURE NO. 101-6421

SHEET NO. 59	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 SHEETS	-	08-00069-00-BR	WINNEBAGO	21	15
			CONTRACT NO. 85547		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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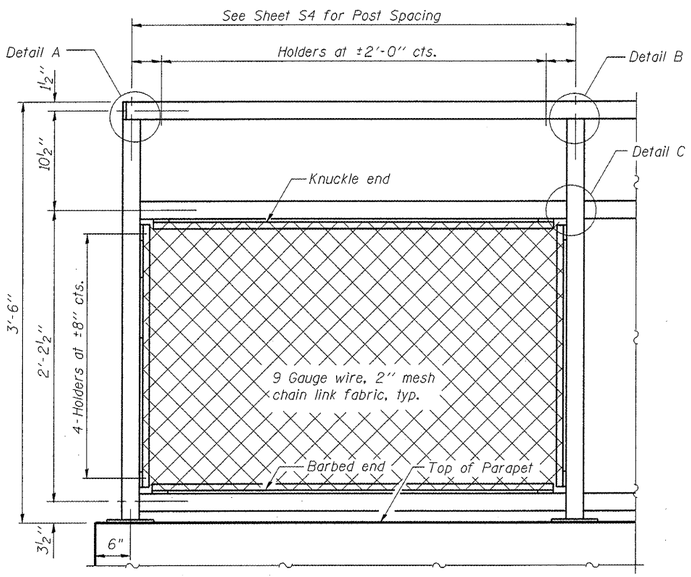
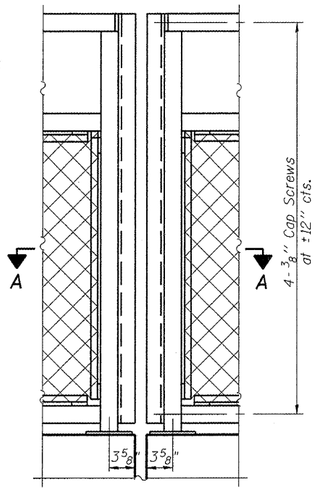
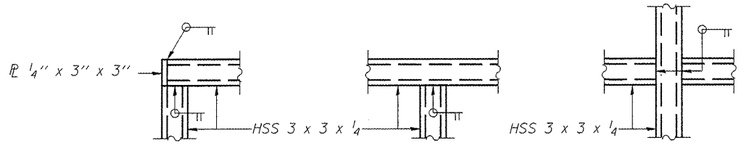


RAILING ELEVATION

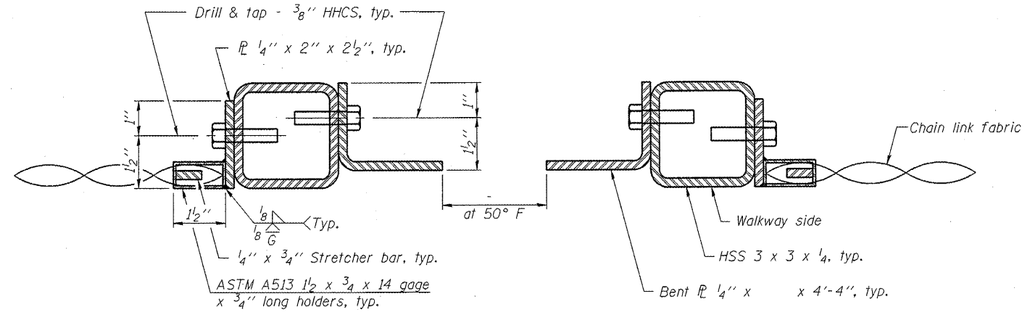


PEDESTRIAN RAILING

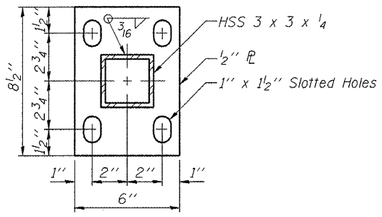


DETAIL A DETAIL B DETAIL C

All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

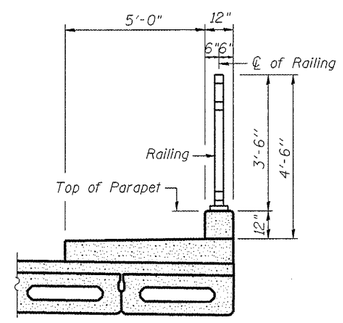


SECTION A-A

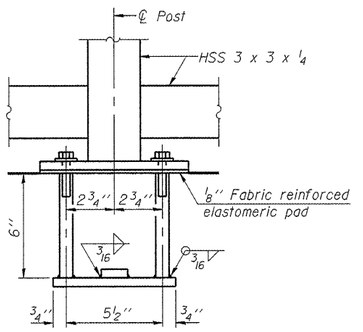


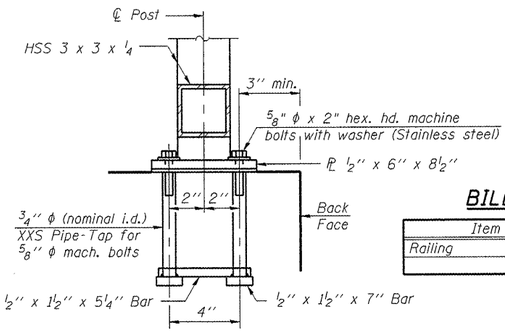
RAIL SPLICE

BASE ℄



SECTION THRU SIDEWALK





ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Railing	Foot	136

PEDESTRIAN RAILING DETAILS
STRUCTURE NO. 101-6421

SHEET NO. S10	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 SHEETS	-	08-00069-00-BR	WINNEBAGO	21	16
			CONTRACT NO. 85547		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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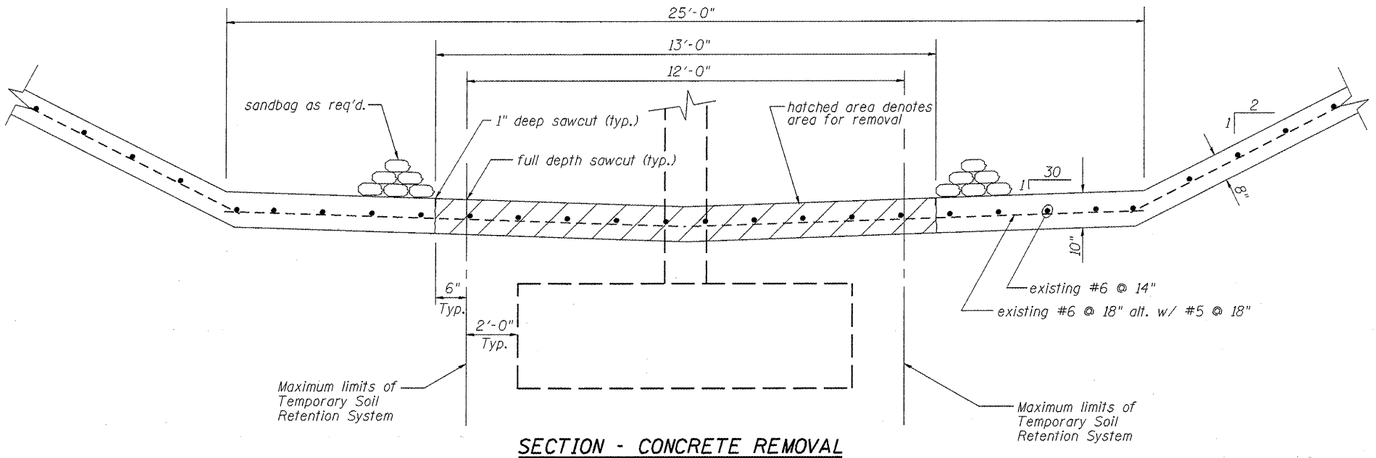
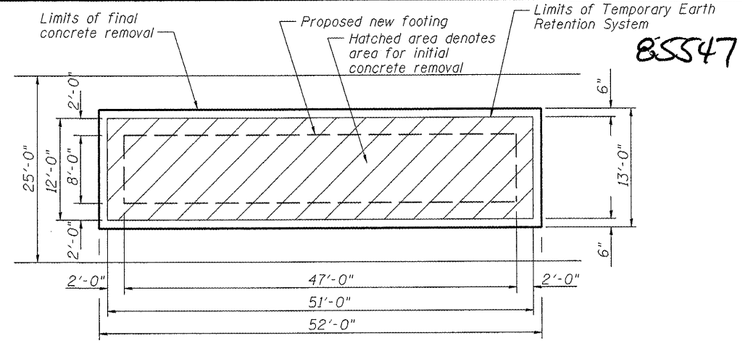
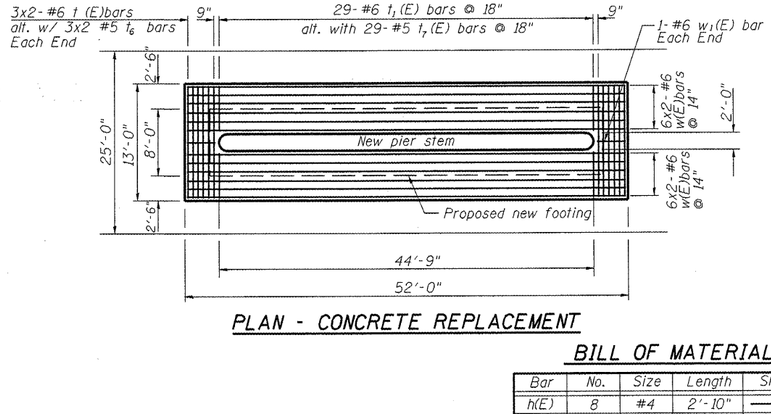


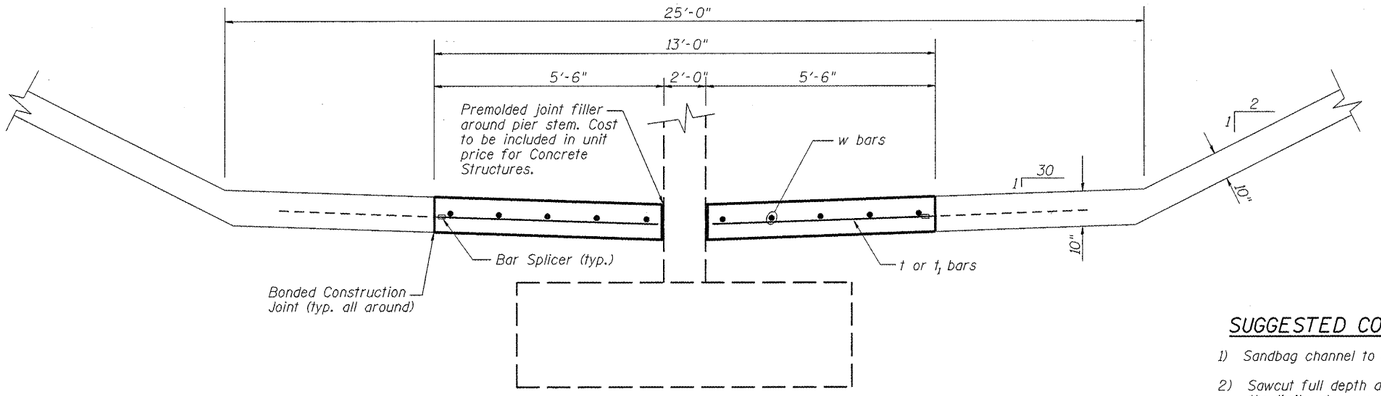
SECTION - CONCRETE REMOVAL



PLAN - CONCRETE REMOVAL



PLAN - CONCRETE REPLACEMENT

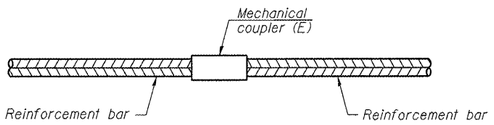


SECTION - CONCRETE REPLACEMENT

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	8	#4	2'-10"	
t(E)	12	#6	7'-7"	
t_1(E)	58	#6	4'-10"	
t_2(E)	74	#4	4'-6"	
t_3(E)	40	#4	4'-0"	
t_4(E)	74	#4	3'-9"	
t_5(E)	132	#4	2'-4"	
t_6(E)	12	#5	7'-4"	
t_7(E)	58	#5	4'-10"	
v(E)	8	#4	3'-4"	
v_1(E)	4	#6	3'-0"	
v_2(E)	4	#4	1'-6"	
v_3(E)	16	#4	2'-6"	
w(E)	24	#6	27'-1"	
w_1(E)	2	#6	3'-0"	
w_2(E)	16	#4	5'-8"	
w_3(E)	24	#4	25'-0"	
Bar Splicers			Each	166
Concrete Removal			Cu. Yd.	27.1
Concrete Structures			Cu. Yd.	36.5
Reinforcement Bars			Pound	3,196
Structure Excavation			Cu. Yd.	72

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

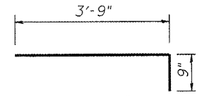


BAR SPLICER DETAIL

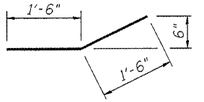
Location	Bar size	No. assemblies required
Channel Liner	#5	70
Channel Liner	#6	96

SUGGESTED CONSTRUCTION SEQUENCE:

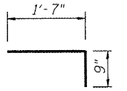
1) Sandbag channel to divert water around construction area.
2) Sawcut full depth and remove existing channel liner within the limits shown on the plan, (12'-0" x 51'-0" centered on the proposed pier location.
3) Install Temporary Soil Retention System within the limits shown on the plan.
4) Excavate within the limits of the Temporary Soil Retention System to the bottom of footing elevation.
5) Construct pier as shown on the plans.
6) Place porous granular backfill within the limits of the Temporary Soil Retention System.
7) Provide 1" deep sawcut and remove existing channel liner concrete to 1'-0" beyond the limits of the Temporary Soil Retention System and remove Temporary Soil Retention System, taking care not to damage newly exposed existing reinforcing steel.
8) Install new reinforcement. Tie new bars to existing exposed steel.
9) Cast new concrete to match existing grades and elevations. Provide 1" felt joint around new pier shaft.



BAR t_2(E)



BAR v_1(E)



BAR t_5(E)

NOTES:

1) Any portion of the existing concrete lined trapezoidal channel damaged during construction operations shall be repaired or replaced to its preconstruction condition, at no additional cost to the owner.
2) The contractor is advised of the possibility of rapidly rising water elevations within the channel with respect to equipment and personnel working on the channel. The contractor shall make every reasonable effort to minimize the length of time that the channel liner concrete is removed; and, at no time shall the contractor cause for delay any work relating to the bridge pier and subsequent replacement of the channel liner once work in the creek channel has commenced. If at any time, after the channel liner concrete has been removed, a significant rainfall event is forecasted, the contractor shall take the appropriate precautions necessary to protect the integrity of the exposed channel liner by placing adequately sized riprap in the area(s) of removed concrete below the normal channel bottom elevation. The contractor shall include the cost for all material, equipment, and labor necessary to install and remove this emergency standby procedure with the contract unit cost for concrete removal with no additional compensation allowed. Any areas of the channel that are damaged or undermined due to a significant rainfall event during construction shall be repaired in accordance with the original construction documents, at no additional cost to the owner.
3) The contractor shall provide a 24 hour contact number in case of an emergency.

CHANNEL LINER RESTORATION
SHEET 1 OF 2
STRUCTURE NO. 101-6421

McClure Engineering Associates, Inc.
7282 Argus Drive Rockford, Illinois 61107-5837
(815) 398-2332 FAX (815) 398-2496
Design Firm License: Illinois 184-000816

SHEET NO. S11	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 SHEETS	-	08-00069-00-BR	WINNEBAGO	21	17
			CONTRACT NO. 85547		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

85547

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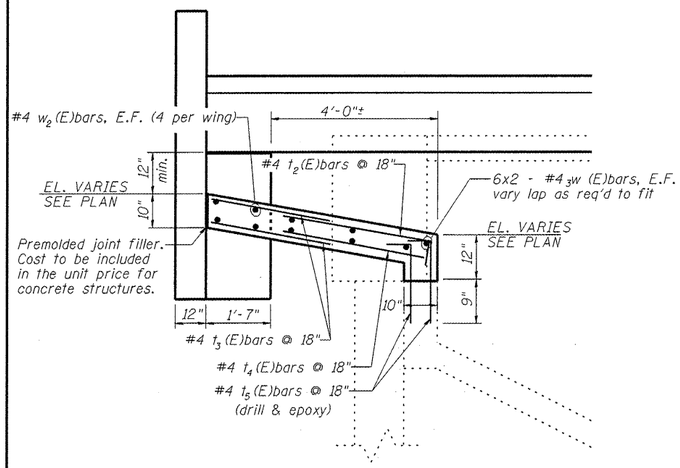
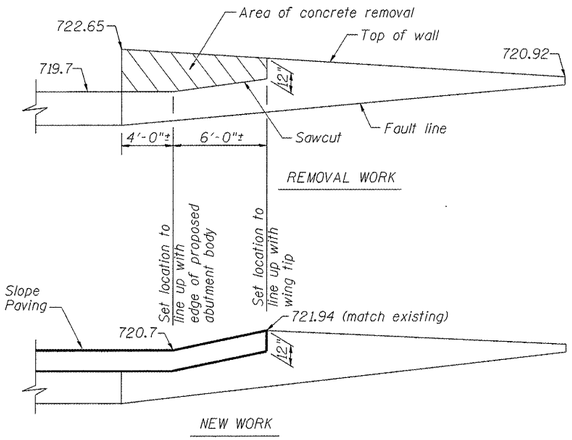
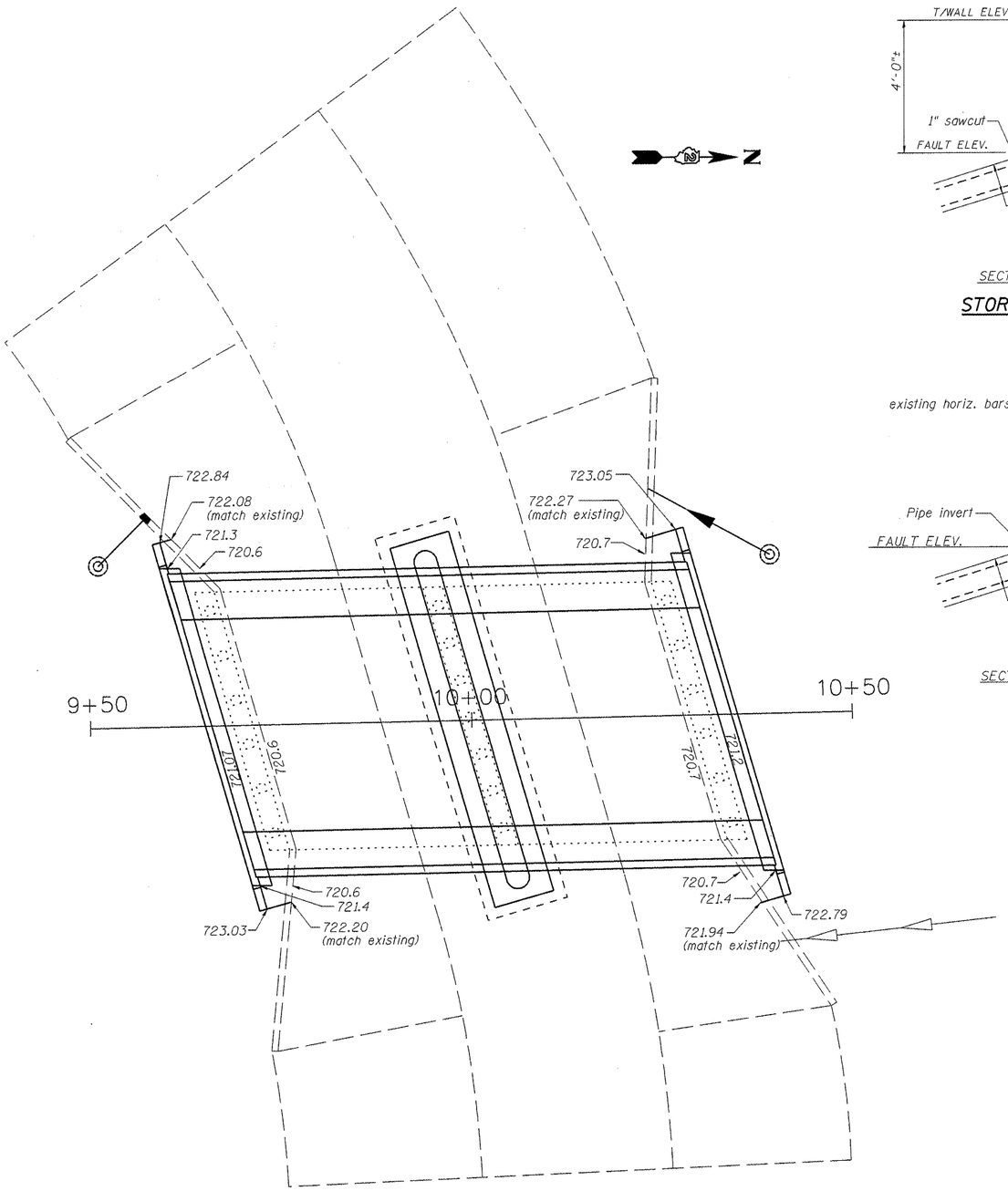


TYPICAL SECTION - SLOPE PAVING

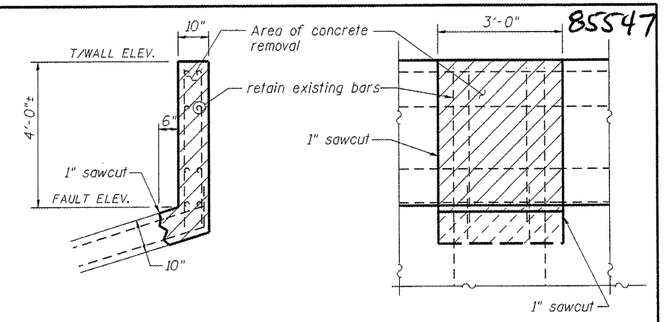


RETAINING WALL RETROFIT ELEVATION DETAIL

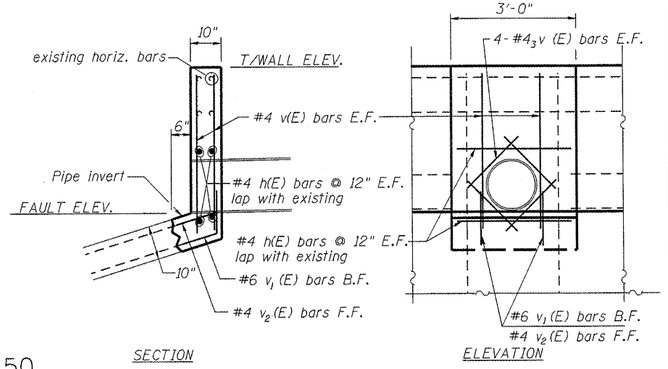
NE LOCATION SHOWN - OTHERS SIMILAR



RETAINING WALL RETROFIT DETAIL



STORM SEWER PENETRATION CONCRETE REMOVAL



STORM SEWER PENETRATION DETAIL

STORM SEWER PIPE PENETRATIONS SUGGESTED CONSTRUCTION SEQUENCE:

1) Remove existing concrete as shown to accommodate new storm sewer pipe, preserving existing reinforcement bars (2 locations).
2) Cut existing reinforcement bars as required to place new storm sewer pipe.
3) Place new storm sewer pipe and grout into place.
4) Replace all cut bars with new steel and tie to remaining existing bars.
5) Cast new concrete around new storm sewer pipe.
6) Grout full existing penetrations in channel from storm sewer being abandoned.

CHANNEL LINER RESTORATION
SHEET 2 OF 2
STRUCTURE NO. 101-6421

SHEET NO. S12	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 SHEETS	-	08-00069-00-BR	WINNEBAGO	21	18
			CONTRACT NO. 85547		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

McClure Engineering Associates, Inc.
7282 Argus Drive Rockford, Illinois 61107-5837
(815) 398-2332 FAX (815) 398-2496
Design Firm License: Illinois 184-000816

85547

LOG OF BORING NO. 1

CLIENT McClure Engineering Associates, Inc.

SITE Garden Plain Ave. & Loves Park Creek
Loves Park, IL

PROJECT Garden Plain Avenue Bridge

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SAMPLES SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf
	0.3 Approx. 1/4 Foot Topsoil				HS					
	FILL: FINE TO MEDIUM SAND, TRACE GRAVEL, CLAY AND CINDERS brown			1	SS	6	8	10		
	3				HS					
	FILL: LEAN CLAY, WITH SAND, TRACE SILT, dark brown			2	SS	8	8	18		
		5			HS					
				3	SS	8	10	16		
	8				HS					
	FINE TO MEDIUM SAND, TRACE CLAY AND GRAVEL, brown, loose to medium dense		SP	4	SS	2	8	9		
	Sample 4: Low Recovery	10			HS					
	13									
	FINE TO MEDIUM SAND, TRACE GRAVEL, brown, very loose to medium dense		SP	5	SS	8	10	9		
	▽	15			HS					
	▽		SP	6	SS	14	3	17		
		20			HS					
			SP	7	SS	16	7	17		
		25			HS					

Continued Next Page

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

**140 Lbs Automatic SPT Hammer
*Calibrated Hand Penetrometer

WATER LEVEL OBSERVATIONS, ft			
WL ▽ 17	WD ▽ 20	AB	
WL ▽	▽		
WL			

Terracon

BORING STARTED	02-25-09		
BORING COMPLETED	02-25-09		
RIG	D-50	FOREMAN	JA
APPROVED	LAZ	JOB #	19095011

BORE2 19095011.GPJ TERRACON.GDT 04/24/09

LOG OF BORING NO. 1

CLIENT McClure Engineering Associates, Inc.

SITE Garden Plain Ave. & Loves Park Creek
Loves Park, IL

PROJECT Garden Plain Avenue Bridge

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SAMPLES SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf
	FINE TO MEDIUM SAND, TRACE GRAVEL, brown, very loose to medium dense		SP	8	SS	10	6	17		
	32	30			HS					
	GRAVELLY FINE TO MEDIUM SAND brown, medium dense		SP	9	SS	8	12	12		
	38	35			HS					
	FINE TO MEDIUM SAND, WITH GRAVEL, TRACE SILT, brown, medium dense		SP	10	SS	10	20	15		
	43	40			HS					
	FINE TO MEDIUM SAND, TRACE GRAVEL, brown, medium dense		SP	11	SS	12	14	18		
	50	45			HS					
	BOTTOM OF BORING	50	SP	12	SS	10	13	16		

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

**140 Lbs Automatic SPT Hammer
*Calibrated Hand Penetrometer

WATER LEVEL OBSERVATIONS, ft			
WL ▽ 17	WD ▽ 20	AB	
WL ▽	▽		
WL			

Terracon

BORING STARTED	02-25-09		
BORING COMPLETED	02-25-09		
RIG	D-50	FOREMAN	JA
APPROVED	LAZ	JOB #	19095011

BORE2 19095011.GPJ TERRACON.GDT 04/24/09

SOIL BORING LOGS
SHHET 1 OF 2
STRUCTURE NO. 101-6421

SHEET NO. S13	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 SHEETS		08-00069-00-BR	WINNEBAGO	21	19
			CONTRACT NO. 85547		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

85547

LOG OF BORING NO. 2

Page 1 of 2

CLIENT: McClure Engineering Associates, Inc.

SITE: Garden Plain Ave. & Loves Park Creek, Loves Park, IL

PROJECT: Garden Plain Avenue Bridge

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf
	0.3 **Approx. 1/4 Foot Topsoil**				HS					
	FILL: LEAN CLAY, dark brown			1	SS	4	14	22		
	3				HS					
	FILL: FINE TO MEDIUM SAND, WITH GRAVEL, TRACE CLAY, brown			2	SS	8	11	7		
	5	5			HS					
	FINE TO MEDIUM SAND, TRACE CLAY AND GRAVEL, brown, medium dense		SP	3	SS	10	11	5		
	8				HS					
	GRAVELLY FINE TO MEDIUM SAND brown, medium dense		SP	4	SS	10	20	6		
		10			HS					
			SP	5	SS	10	14	4		
		15			HS					
			SP	6	SS	12	12	15		
		20			HS					
			SP	7	SS	12	11	12		
		25			HS					
	18 **FINE TO COARSE SAND** brown, medium dense									
	with gravel									

Continued Next Page

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

**140 Lbs Automatic SPT Hammer
*Calibrated Hand Penetrometer

WATER LEVEL OBSERVATIONS, ft			
WL ▽ 17	WD ▽ 18	AB	
WL ▽	▽		
WL			

Terracon

BORING STARTED	02-25-09		
BORING COMPLETED	02-25-09		
RIG	D-50	FOREMAN	JA
APPROVED	LAZ	JOB #	19095011

BORE2 19095011.GPJ TERRACON.GDT 04/24/09

LOG OF BORING NO. 2

Page 2 of 2

CLIENT: McClure Engineering Associates, Inc.

SITE: Garden Plain Ave. & Loves Park Creek, Loves Park, IL

PROJECT: Garden Plain Avenue Bridge

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf
	FINE TO COARSE SAND, WITH GRAVEL, brown, medium dense									
	28 **FINE TO MEDIUM SAND, TRACE GRAVEL**, brown, medium dense		SP	8	SS	17	10	15		
		30			HS					
	33 **GRAVELLY FINE TO MEDIUM SAND** brown, medium dense		SP	9	SS	16	23	12		
	35 **FINE TO MEDIUM SAND, TRACE SILT** brown, loose to medium dense				HS					
			SP	10	SS	14	8	18		
		40			HS					
			SP	11	SS	12	10	22		
		45			HS					
			SP	12	SS	14	11	20		
	50 BOTTOM OF BORING	50								

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

**140 Lbs Automatic SPT Hammer
*Calibrated Hand Penetrometer

WATER LEVEL OBSERVATIONS, ft			
WL ▽ 17	WD ▽ 18	AB	
WL ▽	▽		
WL			

Terracon

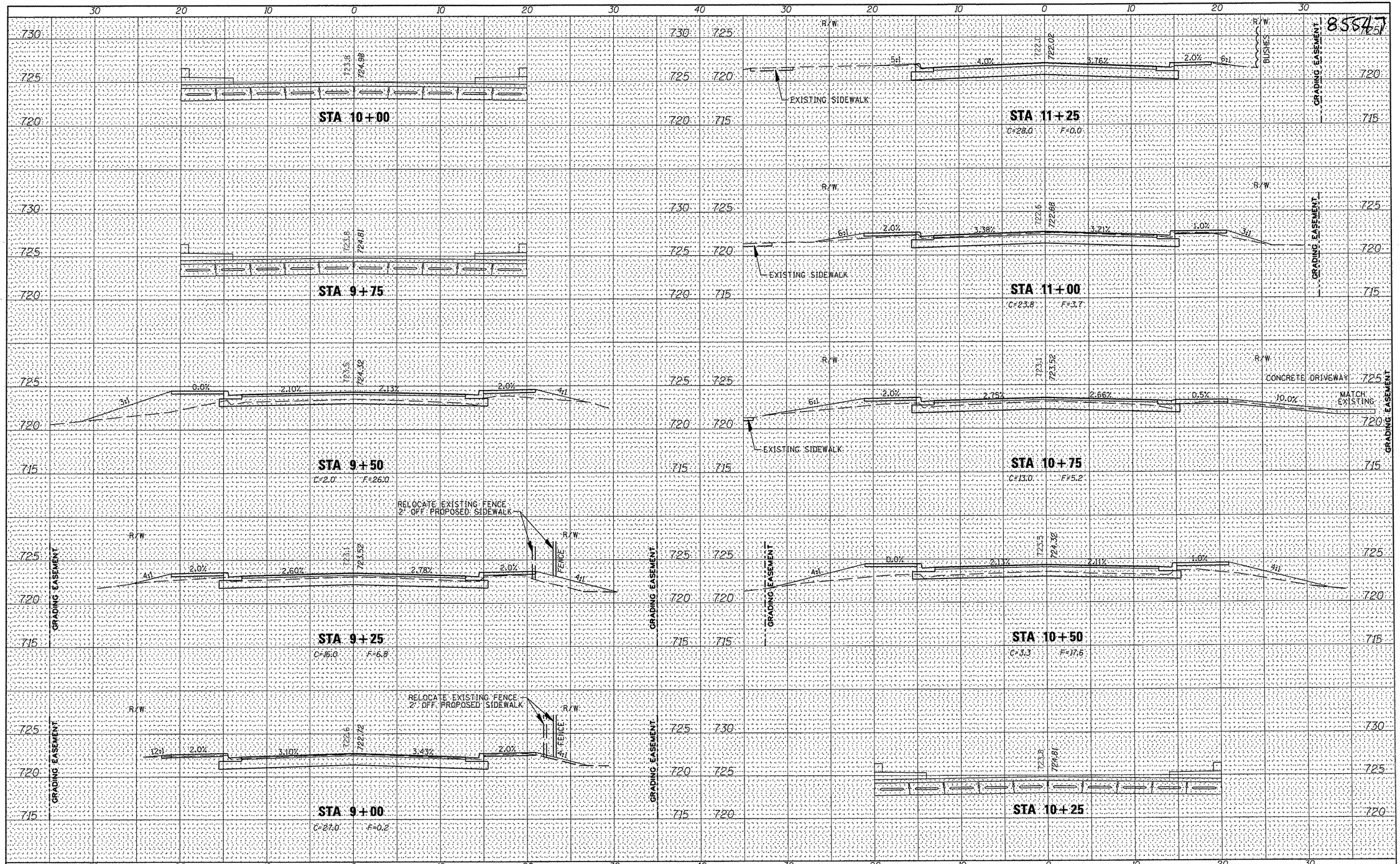
BORING STARTED	02-25-09		
BORING COMPLETED	02-25-09		
RIG	D-50	FOREMAN	JA
APPROVED	LAZ	JOB #	19095011

BORE2 19095011.GPJ TERRACON.GDT 04/24/09

SOIL BORING LOGS
SHEET 2 OF 2
STRUCTURE NO. 101-6421

SHEET NO. S14	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 SHEETS		08-00069-00-BR	WINNEBAGO	21	20
			CONTRACT NO. 85547		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

85547



McClure Engineering Associates, Inc.	USER NAME =	DESIGNED - JTT	REVISED -	CITY OF LOVES PARK GARDEN PLAIN AVE. BRIDGE
7282 Argus Drive Rockford, Illinois 61107-5837 (815) 398-2332 FAX (815) 398-2496 Design Firm License: Illinois 184-000816 Copyright 2012 By McClure Engineering Associates, Inc.		DRAWN - SMG	REVISED -	
	PLOT SCALE = 1" = 10'	CHECKED - CTB	REVISED -	
	PLOT DATE = 12-12-11	DATE - 12/12/11	REVISED -	

CROSS SECTIONS

SCALE: 1" = 5' | SHEET NO. 1 OF 1 SHEETS | STA. 9+00 TO STA. 11+25

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00069-00-BR	WINNEBAGO	21	21
		CONTRACT NO. 85547		
	ILLINOIS	FED. AID PROJECT		

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

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