

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0327	112 T-1	WILL	17	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	60G54	

D-91-496-09

PROJECT LOCATED IN THE CITY OF WILMINGTON AND ADJACENT TO THE CITY OF BRAIDWOOD

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

**PROPOSED HIGHWAY PLANS
2-BARREL BOX CULVERT
REPLACEMENT**

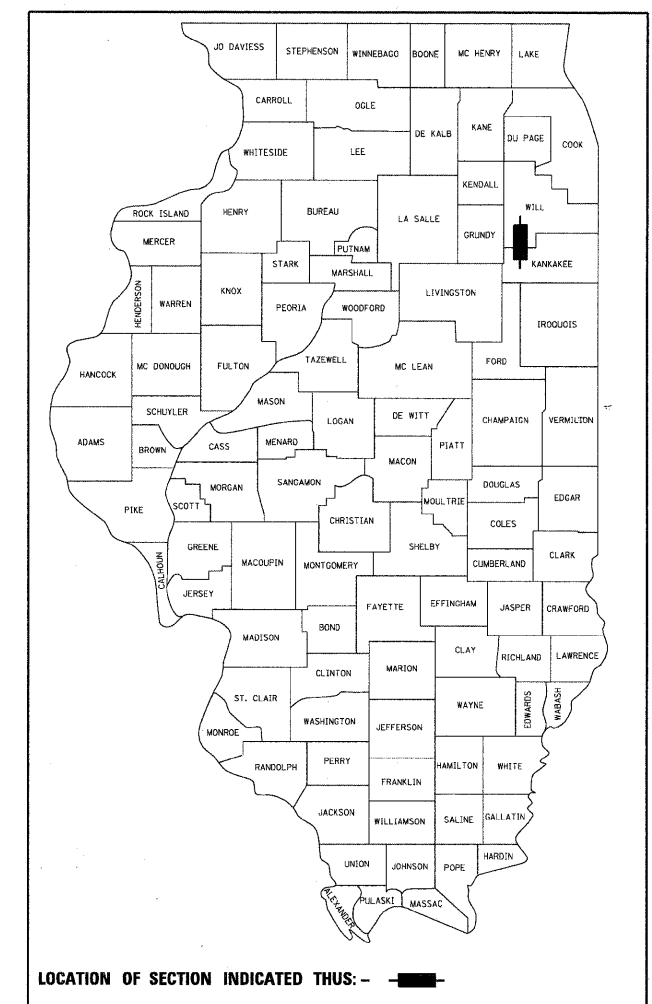
**F.A.U. 0327 WEST RIVER ROAD
OVER UN-NAMED TRIBUTARY TO KANKAKEE RIVER
(2.6 MI. SOUTH OF IL ROUTE 53)
SECTION 112 T-1
WILL COUNTY
C-91-496-09
PROJECT: M-0327(047)**

FOR INDEX OF SHEETS, SEE SHEET NO. 2

DESIGN DESIGNATION
MINOR ARTERIAL (URBAN)
ADT 2800 (2004)
POSTED SPEED LIMIT 55 MPH

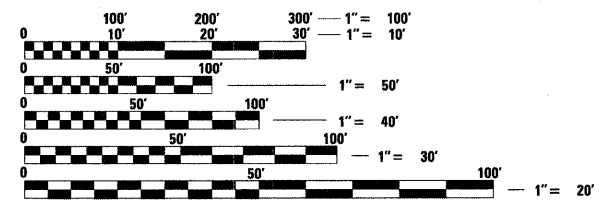
THE PROPOSED WORK TO BE PERFORMED CONSISTS OF REMOVING THE EXISTING 8'x6' DOUBLE BARREL CULVERT AT STATION 100+00, AND REPLACING THE EXISTING STRUCTURE WITH A NEW 9'x6' DOUBLE-BARREL PRECAST CONCRETE BOX CULVERT UTILIZING NON-PHASED DEMOLITION AND CONSTRUCTION. THE EXISTING STRUCTURE NUMBER IS 099-0349.

THE PROPOSED STRUCTURE NUMBER IS SN 099-0521.



PROJECT BEGINS
STA. 98+95.47

PROJECT ENDS
STA. 101+20

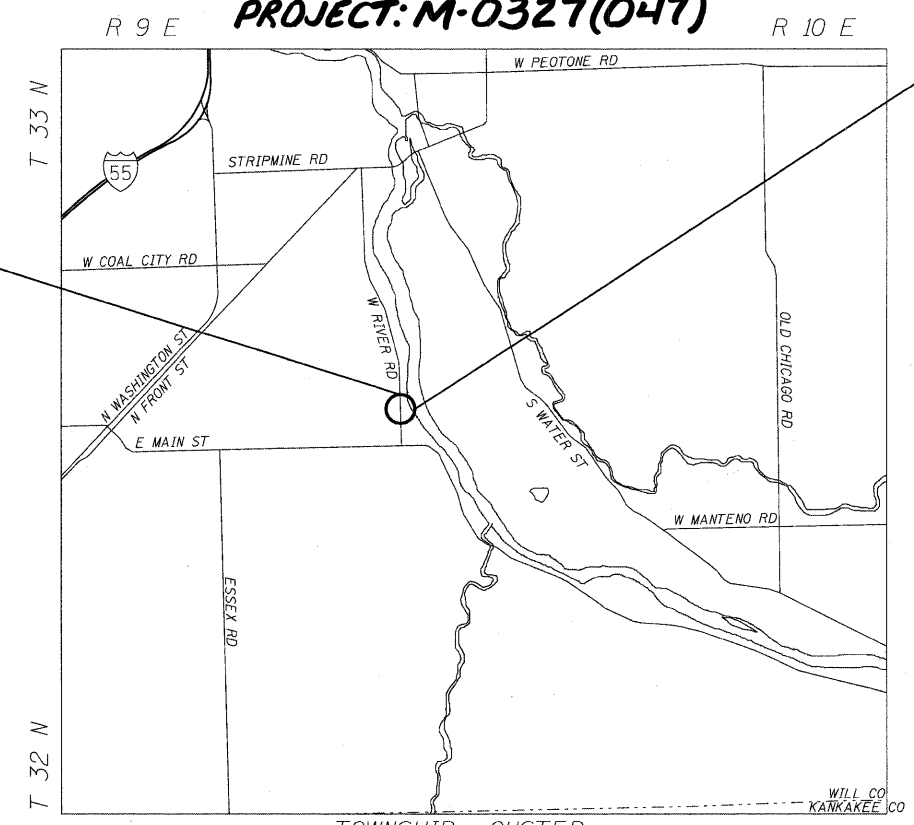


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

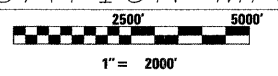
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT MANAGER: KIM HARVEY (847) 705-4055
PROJECT ENGINEER: ERSKINE W. KLYCE (847) 705-4594

CONTRACT NO. 60G54



TOWNSHIP: CUSTER
LOCATION MAP



NET AND GROSS LENGTH OF PROJECT = 224.53' = 0.043 MI

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED NOVEMBER 20, 2009

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

January 29, 2010
Scott E. Stitt *P.E./a*
ASSISTANT ENGINEER OF DESIGN AND ENVIRONMENT

January 29, 2010
Christine M. Reed *a*
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

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

Professional Engineer Seal for Scott E. Stitt, No. 092-047827, State of Illinois.

STATE STANDARDS

<u>SHEET NO.</u>	<u>TITLE</u>
1	TITLE SHEET
2	INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES
3-4	SUMMARY OF QUANTITIES
5-6	TYPICAL SECTIONS
7	PLAN AND PROFILE
8	DETOUR PLAN
9	PAVEMENT MARKING PLAN
10	EROSION CONTROL PLAN
11	GENERAL PLAN, ELEVATION AND INDEX
12	HEADWALL DETAILS
13	WINGWALL DETAILS
14	CROSS SECTIONS
15	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
16	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) (TC-11)
17	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13) HIGHWAY STANDARDS

<u>SHEET NO.</u>	<u>TITLE</u>
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT REBARS
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
406201-01	MAILBOX TURNOUT
442201-03	CLASS C AND CLASS D PATCHES
515001-03	NAME PLATE FOR BRIDGE
542001-02	REINFORCED CONCRETE END SECTIONS WITH PARALLEL WINGWALLS FOR PIPE CULVERTS 12" (300 mm) THRU 48" (1200 mm) DIA. AT RIGHT ANGLES WITH ROADWAY
542101-02	REINFORCED CONCRETE END SECTIONS WITH PARALLEL WINGWALLS FOR PIPE CULVERTS 15" (375 mm) THRU 36" (900 mm) DIA. AT RIGHT ANGLES WITH ROADWAY
542301-02	PRECAST REINFORCED CONCRETE FLARED END SECTION
630001-08	STEEL PLATE BEAM GUARDRAIL
630101-08	GUARDRAIL MOUNTED ON EXISTING CULVERT
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701301-03	LANE CLOSURE 2L, 2W SHORT TIME OPERATIONS
701901-01	TRAFFIC CONTROL DEVICES
704001-06	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
729001-01	APPLICATION OF TYPES A & B METAL POSTS (FOR SIGN & MARKERS)
780001-02	TYPICAL PAVEMENT MARKINGS

GENERAL NOTES

ALL ELEVATIONS ARE BASED ON UNITED STATES COAST AND GEODETIC SURVEY DATUM.

DIMENSIONS ARE IN ENGLISH UNITS UNLESS OTHERWISE NOTED.

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

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.

ANY REFERENCE TO STANDARDS IN THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE DEPARTMENT LISTED IN THE PLANS WITH THE LATEST NUMBERS.

DURING CONSTRUCTION OPERATIONS, LOOSE MATERIAL DEPOSITS THAT OBSTRUCT THE FLOW OF WATER IN DRAINING THE AREA SHALL BE REMOVED BEFORE THE END OF EACH WORK DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES (NEW AND EXISTING) SHALL BE FREE FROM ALL DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING PROPERTIES.

THE RESIDENT ENGINEER SHALL CONTACT MS. CORA MATHIS, AREA TRAFFIC FIELD ENGINEER AT (847) 715-8428 AT LEAST 72 HOURS PRIOR TO FINAL PAVEMENT MARKING INSTALLATION.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 715-8428 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

ALL WORK IS TO BE COMPLETED BY THE COMPLETION DATE. THE COMPLETION DATE FOR THIS CONTRACT IS JULY 30, 2010.

SUMMARY OF QUANTITIES			URBAN	80% FEDERAL, 20% STATE		SUMMARY OF QUANTITIES			URBAN	80% FEDERAL, 20% STATE	
CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 1000	BOX CULVERT X028-2A	CODE NO.	ITEM	UNIT	TOTAL QUANTITIES	ROADWAY 1000	BOX CULVERT X028-2A
20200100	EARTH EXCAVATION	CU YD	284		284	44000100	PAVEMENT REMOVAL	SQ YD	599	599	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	147		147	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	22	22	
20800150	TRENCH BACKFILL	CU YD	14	14		44004250	PAVED SHOULDER REMOVAL	SQ YD	200	200	
21101815	COMPOST FURNISH AND PLACE, 4"	SQ YD	497	497		48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	472	316	156
25000310	SEEDING, CLASS 4	ACRE	0.1	0.1		50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	9	9		50200100	STRUCTURE EXCAVATION	CU YD	240		240
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	9	9		50300300	PROTECTIVE COAT	SQ YD	15		15
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	9	9		50800105	REINFORCEMENT BARS	POUND	3523		3523
25100630	EROSION CONTROL BLANKET	SQ YD	497	497		50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	421		421
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	11	11		51500100	NAME PLATES	EACH	1		1
28000305	TEMPORARY DITCH CHECKS	FOOT	35	35		54003000	CONCRETE BOX CULVERTS	CU YD	47		47
28000400	PERIMETER EROSION BARRIER	FOOT	453	453		54010906	PRECAST CONCRETE BOX CULVERT 9'X6'	FOOT	103		103
28100107	STONE RIPRAP, CLASS A4	SQ YD	55		55	542A0220	PIPE CULVERTS, CLASS A, TYPE 1, 15"	FOOT	44	44	
28200200	FILTER FABRIC	SQ YD	111		111	54213450	END SECTIONS 15"	EACH	4	4	
31101900	SUB-BASE GRANULAR MATERIAL, TYPE C	TON	80	80		55100700	STORM SEWER REMOVAL 15"	FOOT	44	44	
35501308	HOT-MIX ASPHALT BASE COURSE, 6"	SQ YD	48	48		60109641	BACKSLOPE DRAINS, TYPE 3 6"	FOOT	60		60
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	10	10		* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	380	380	
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	34		34	* 63000025	STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES	FOOT	44		44
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	306	215	91	* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	73	73		* 63200307	STEEL PLATE BEAM GUARD RAIL REMOVAL, ATTACHED TO STRUCTURE	FOOT	64		64

* SPECIALTY ITEMS

Rev.

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

DESIGNED - MJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, DC	REVISED -
DATE - 11/23/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES
WEST RIVER ROAD OVER UN-NAMED TRIBUTARY TO KANKAKEE RIVER**

SCALE: NONE SHEET NO. 3 OF 17 SHEETS STA. 98+95.47 TO STA. 101+20

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0327	112 T-1	WILL	17	3
D-91-496-09			CONTRACT NO. 60654	
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES			URBAN	80% FEDERAL, 20% STATE		SUMMARY OF QUANTITIES			80% FEDERAL, 20% STATE		
CODE NO.	ITEM	UNIT	TOTAL	ROADWAY 1000	BOX CULVERT X028-2A	CODE NO.	ITEM	UNIT	TOTAL QUANTITIES	ROADWAY 1000	BOX CULVERT X028-2A
63200710	STEEL PLATE BEAM GUARD RAIL REMOVAL, TYPE A	FOOT	220	220							
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5	5							
67100100	MOBILIZATION	L SUM	1	1							
70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1	1							
70102550	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1	1							
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5	5							
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	899	899							
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	6	6							
* 78200200	BIDIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	4	4							
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	9	9							
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	6	6							
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	52	52							
X0322641	TEMPORARY CLEAR WATER DIVERSION	L SUM	1		1						
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	135	135							
XX007025	COARSE AGGREGATE BACKFILL (SPECIAL)	CU YD	952		952						
* XX004656	EMBANKMENT	CU YD	113		113						
Z0001050	AGGREGATE SUBGRADE 12"	SQ YD	768	768							
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1							
Z0064800	SELECTIVE CLEARING	UNIT	1	1							

* SPECIALTY ITEMS

LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH 6301 577-9100

DESIGNED - MJY
DRAWN - ST, TSC
CHECKED - MJY, DC
DATE - 11/23/2009

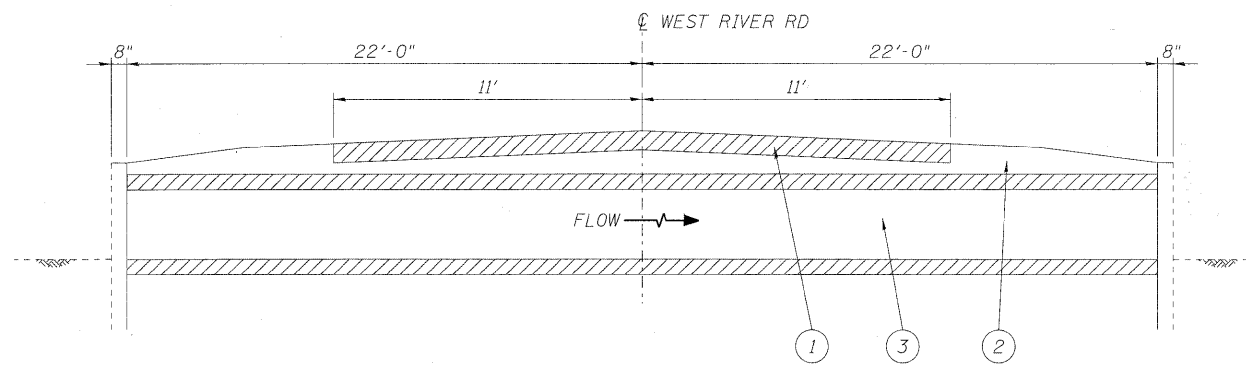
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

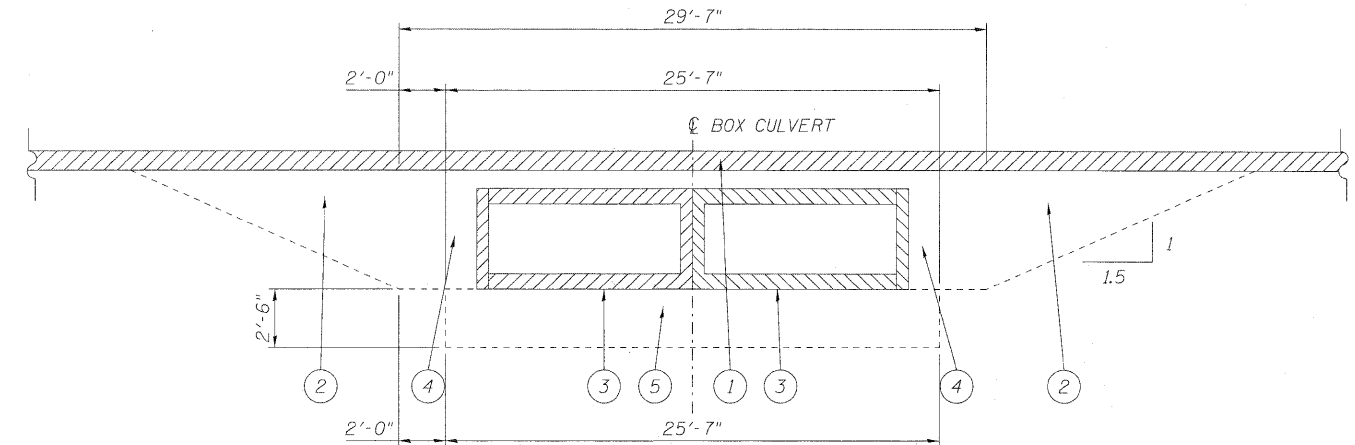
**SUMMARY OF QUANTITIES
WEST RIVER ROAD OVER UN-NAMED TRIBUTARY TO KANKAKEE RIVER**

SCALE: NONE SHEET NO. 4 OF 17 SHEETS STA. 98+95.47 TO STA. 101+20

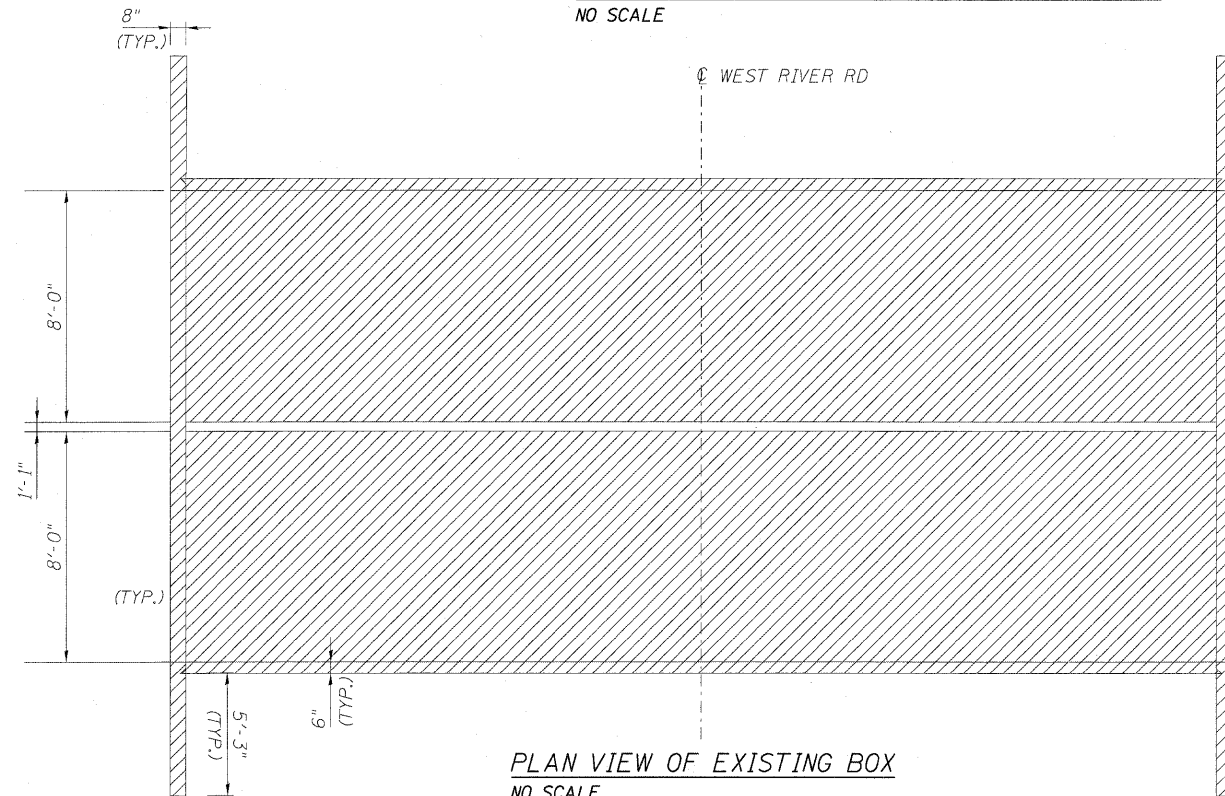
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0327	112 T-1	WILL	17	4
D-91-496-09		CONTRACT NO. 60C54		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



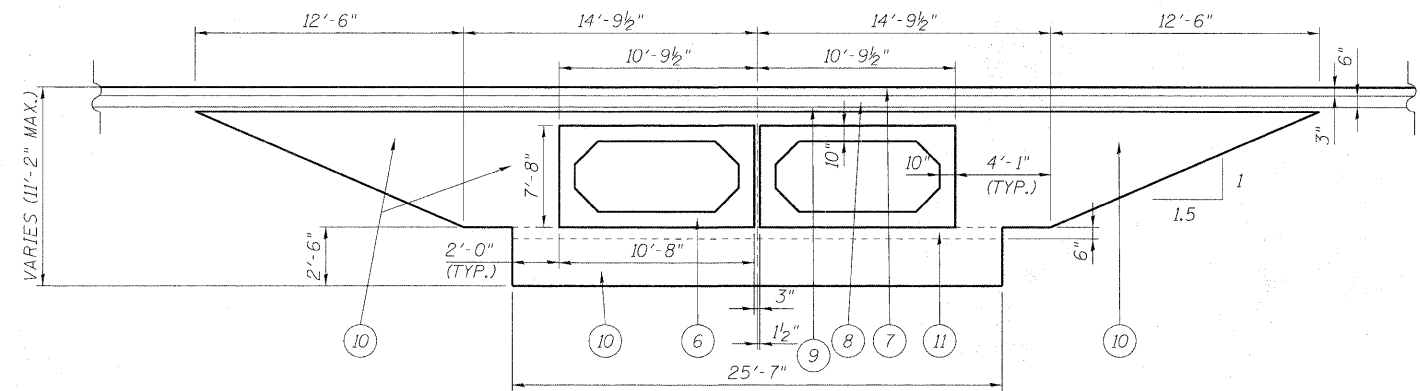
EXISTING CULVERT SECTION LOOKING NORTH
NO SCALE



EXISTING BOX CULVERT SECTION LOOKING WEST
NO SCALE



PLAN VIEW OF EXISTING BOX
NO SCALE



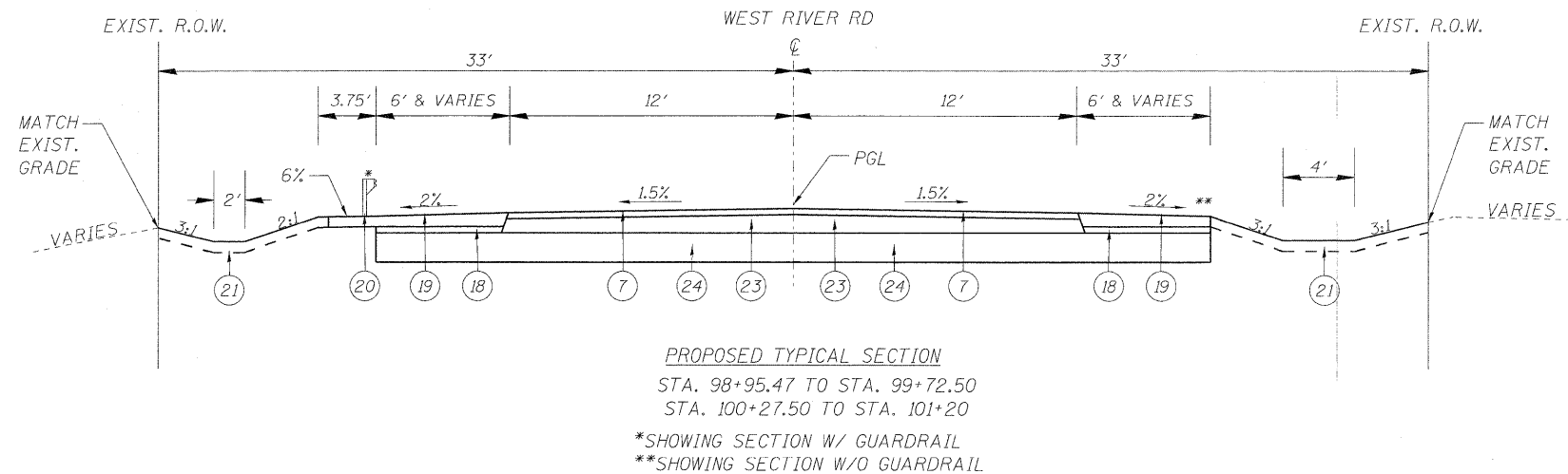
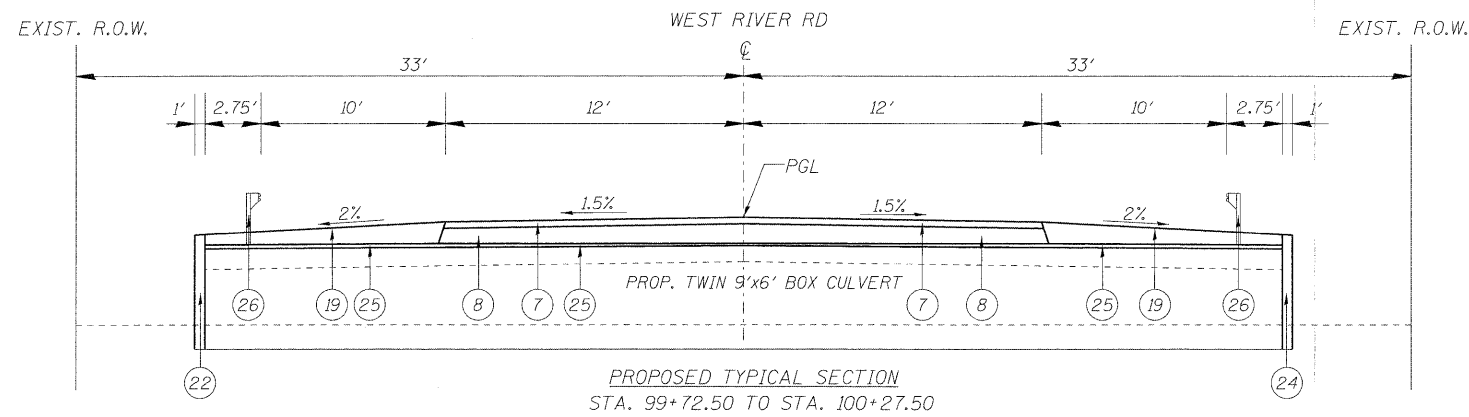
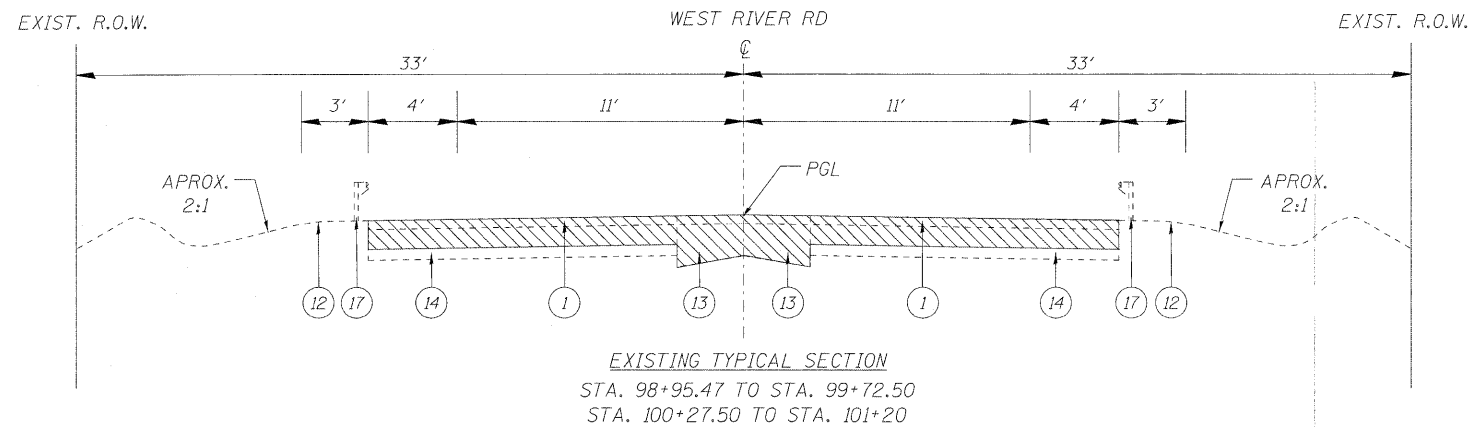
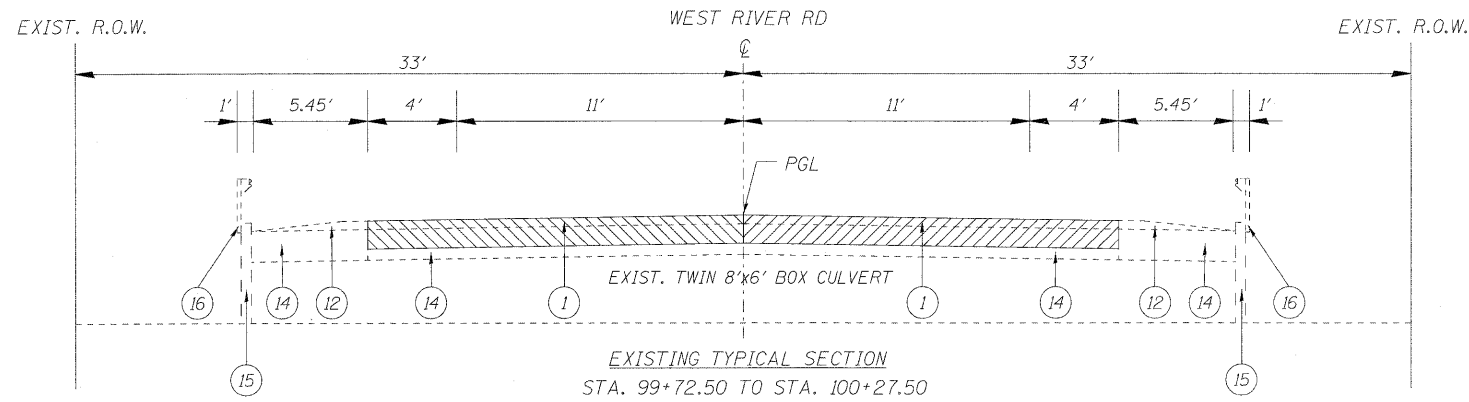
PROPOSED BOX CULVERT SECTION LOOKING WEST
NO SCALE

LEGEND

- ① PAVEMENT REMOVAL
- ② EARTH EXCAVATION
- ③ REMOVAL OF EXISTING STRUCTURES
- ④ STRUCTURE EXCAVATION
- ⑤ REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL
- ⑥ PRECAST CONCRETE BOX CULVERT 9'x6'
- ⑦ PROPOSED HMA SURFACE COURSE, MIX "C", N50, 2"
- ⑧ PROPOSED HMA BINDER COURSE IL-19.0, N50, 11" (IN 2 LIFTS)
- ⑨ BITUMINOUS MATERIAL (PRIME COAT)
- ⑩ COARSE AGGREGATE BACKFILL (SPECIAL)
- ⑪ CA-7, 6"

NOTE:

1. THE INSTALLATION OF THE PRECAST CONCRETE BOX CULVERT WILL BE COMPLETED ALL AT ONE TIME.
2. EXCAVATION LIMITS VARY.
3. THE COST 6" OF CA 7 UNDER CULVERT SHALL BE INCLUDED IN THE PRECAST CONCRETE BOX CULVERT 9'x6' ITEM.



LEGEND

- ① PAVEMENT REMOVAL
- ⑦ PROPOSED HMA SURFACE COURSE, MIX "C", N50, 2"
- ⑧ PROPOSED HMA BINDER COURSE IL-19.0, N50, 11" (IN 2 LIFTS)
- ⑫ EXISTING AGGREGATE SHOULDER, VARIABLE DEPTH TO BE REMOVED
- ⑬ EXISTING PCC PAVEMENT, VARIABLE DEPTH TO BE REMOVED
- ⑭ EXISTING STABILIZED BIT. BASE COURSE, VARIABLE DEPTH
- ⑮ EXISTING HEADWALL TO BE REMOVED
- ⑯ EXISTING STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURE TO BE REMOVED
- ⑰ EXISTING STEEL PLATE BEAM GUARDRAIL TO BE REMOVED
- ⑱ PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE "C", 4.5"
- ⑲ PROPOSED HMA SHOULDER, 6" (IN 2 LIFTS)
- ⑳ PROPOSED STEEL PLATE BEAM GUARDRAIL, TYPE A (6 FOOT POST)
- ㉑ PROPOSED SWALE/DITCH
- ㉒ PROPOSED HEADWALL (PAID FOR AS CONCRETE BOX CULVERTS)
- ㉓ PROPOSED HMA BINDER COURSE IL-19.0, N50, 8.5" (IN 2 LIFTS)
- ㉔ PROPOSED AGGREGATE SUBGRADE 12"
- ㉕ PROPOSED LEVELING BINDER (MACHINE METHOD), N50, 1"
- ㉖ PROPOSED STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
OPERATION	MIXTURE TYPE	DESIGN AIR VOIDS
ROADWAY	HMA SURFACE COURSE, MIX "C", N50 (IL-9.5 mm)	4% @ 50 GYR
	HMA BINDER COURSE, IL-19.0, N50	4% @ 50 GYR
SHOULDER	HMA SHOULDER, 6" (HMA BINDER IL-19 mm)	2% @ 30 GYR
	LEVELING BINDER (MACHINE METHOD), N50 (IL-9.5 mm)	4% @ 50 GYR
DRIVEWAY	HMA SURFACE COURSE, MIX "C", N50 (IL-9.5 mm)	4% @ 50 GYR
	HMA BASE COURSE (HMA BINDER IL-19 mm)	4% @ 50 GYR

NOTES:

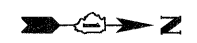
THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112 LBS/SQ-YD/IN.

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.

EARTHWORK					
LOCATION	EARTH EXCAVATION CU YD	EMBANKMENT CU YD	ADJ. EXCAVATION 15% CU YD	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	FURNISHED EXCAVATION CU YD
STATION 98+95.47 TO STATION 101+20	284	113	241	147	0

NOTE:

BENCHMARK #1 - CUT "□" IN TOP OF FIELD ENTRANCE CONCRETE
 CULVERT HEADWALL ± 2' WEST OF BOX CULVERT
 ELEV. = 552.88

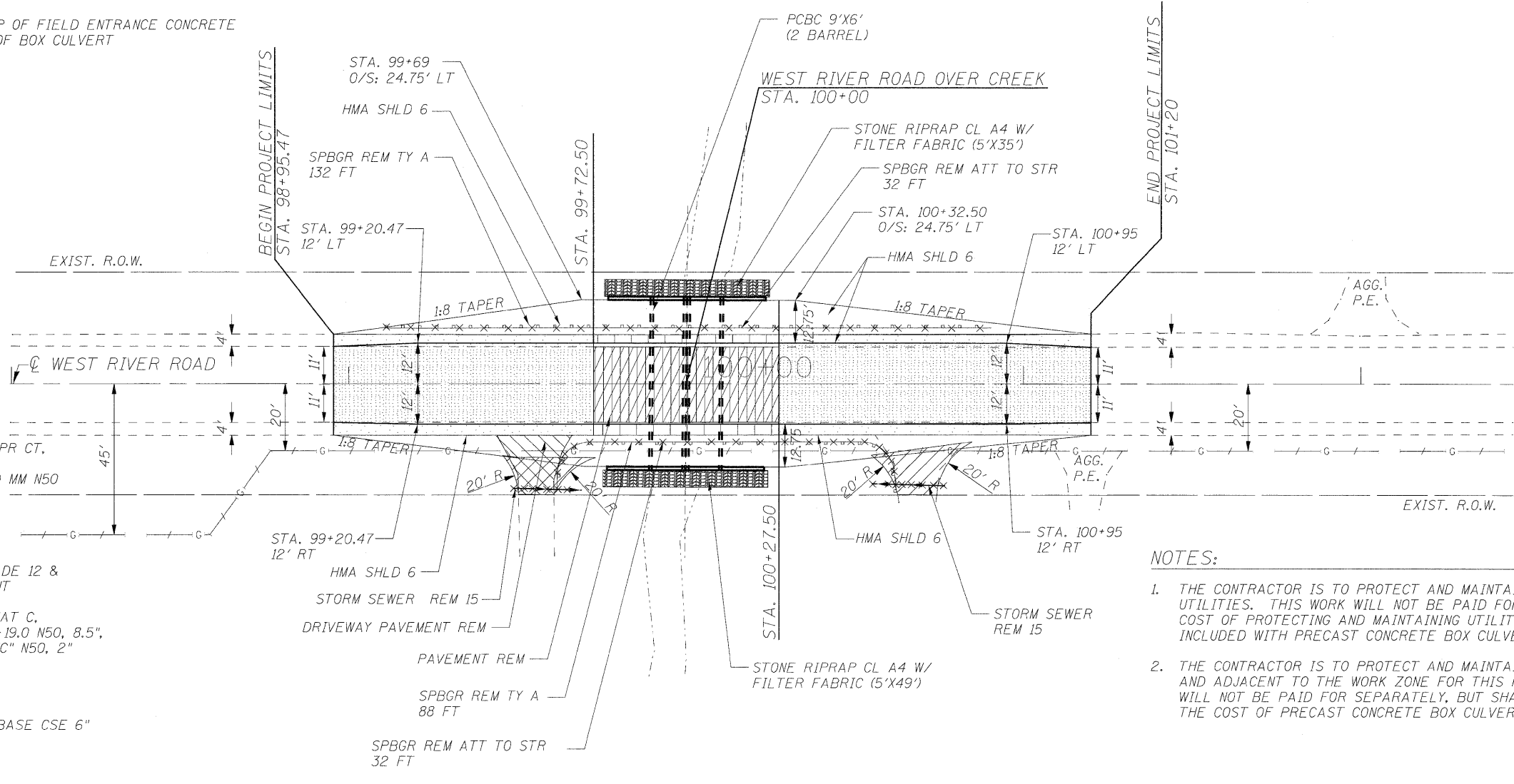


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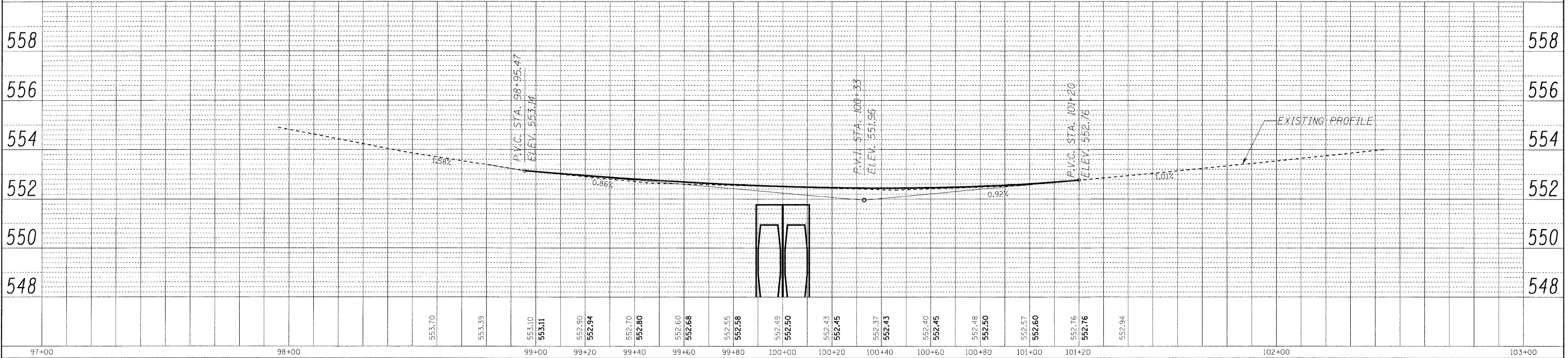
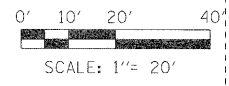
LEGEND

- PAVEMENT REM W/ BIT MATLS PR CT, HMA BC IL-19.0 N50, 11", HMA SC "C" N50, 2" & LEV BIND MM N50
- STONE RIPRAP CL A4 W/ FILTER FABRIC
- PAVED SHLD REMOVAL W/ SUB GRAN MAT C, AGG SUBGRADE 12 & HMA SHOULDER 6 REPLACEMENT
- PAVEMENT REM W/SUB GRAN MAT C, BIT MATLS PR CT, HMA BC IL-19.0 N50, 8.5", AGG SUBGRADE 12 & HMA SC "C" N50, 2"
- DRIVEWAY PAVEMENT REM
- HMA SC "C" N50, 2" AND HMA BASE CSE 6"
- PAVED SHLD REMOVAL W/ LEV BIND MM N50 & HMA SHOULDER 6" REPLACEMENT



NOTES:

1. THE CONTRACTOR IS TO PROTECT AND MAINTAIN ALL EXISTING UTILITIES. THIS WORK WILL NOT BE PAID FOR SEPARATELY, THE COST OF PROTECTING AND MAINTAINING UTILITIES SHALL BE INCLUDED WITH PRECAST CONCRETE BOX CULVERT 9'x6'.
2. THE CONTRACTOR IS TO PROTECT AND MAINTAIN ALL TREES WITHIN AND ADJACENT TO THE WORK ZONE FOR THIS PROJECT. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF PRECAST CONCRETE BOX CULVERT 9'x6'.



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

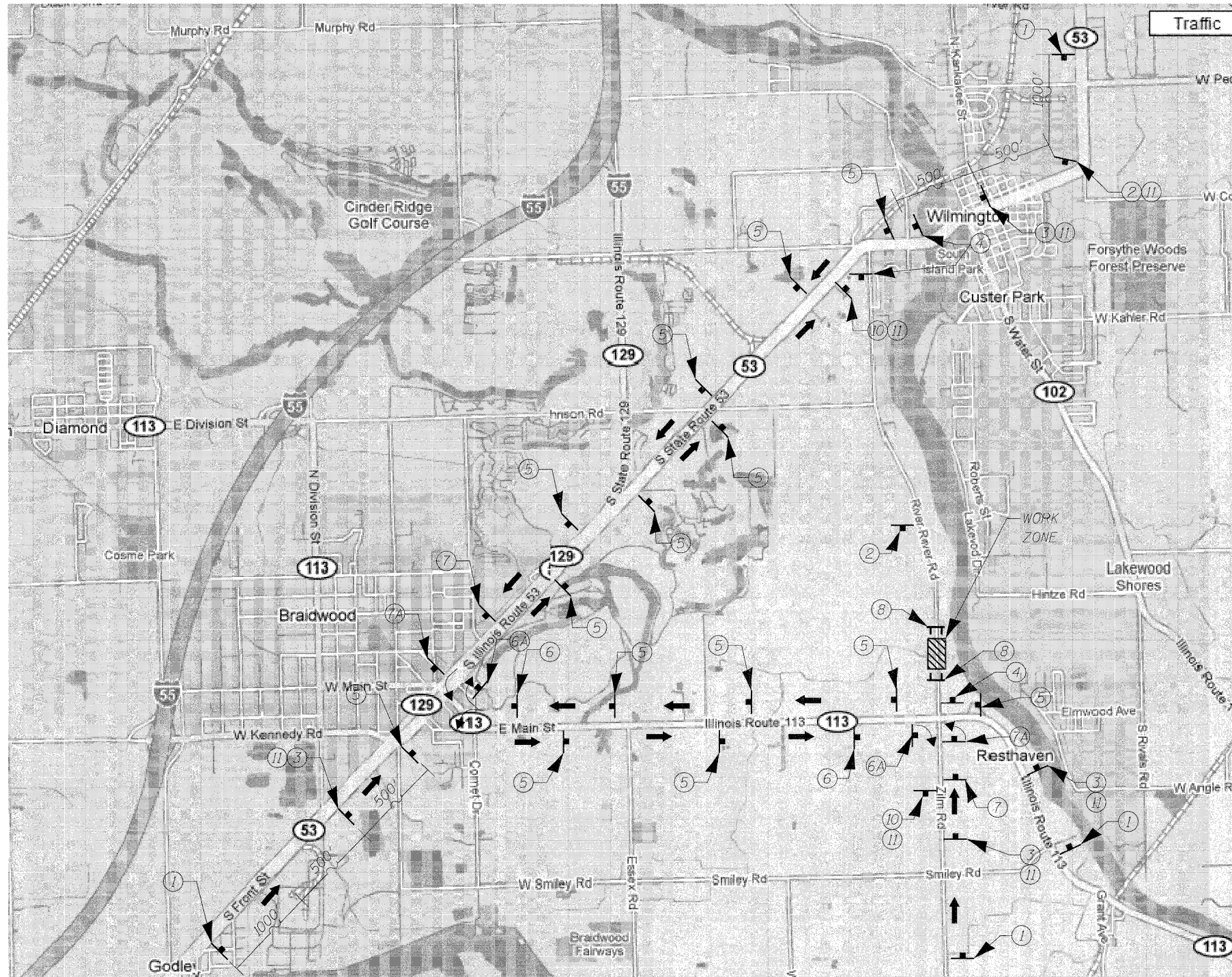
DESIGNED - MJY	REVISED -
DRAWN - ST, TSC	REVISED -
CHECKED - MJY, DC	REVISED -
DATE - 11/23/2009	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PLAN AND PROFILE
 WEST RIVER ROAD OVER UN-NAMED TRIBUTARY TO KANKAKEE RIVER**

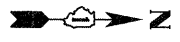
SCALE: 1" = 20' SHEET NO. 7 OF 17 SHEETS STA. 98+95.47 TO STA. 101+20

F.A.U. RTE. 0327	SECTION 112 T-1	COUNTY WILL	TOTAL SHEETS 17	SHEET NO. 7
D-91-496-09			CONTRACT NO. 60G54	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



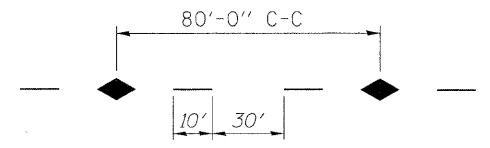
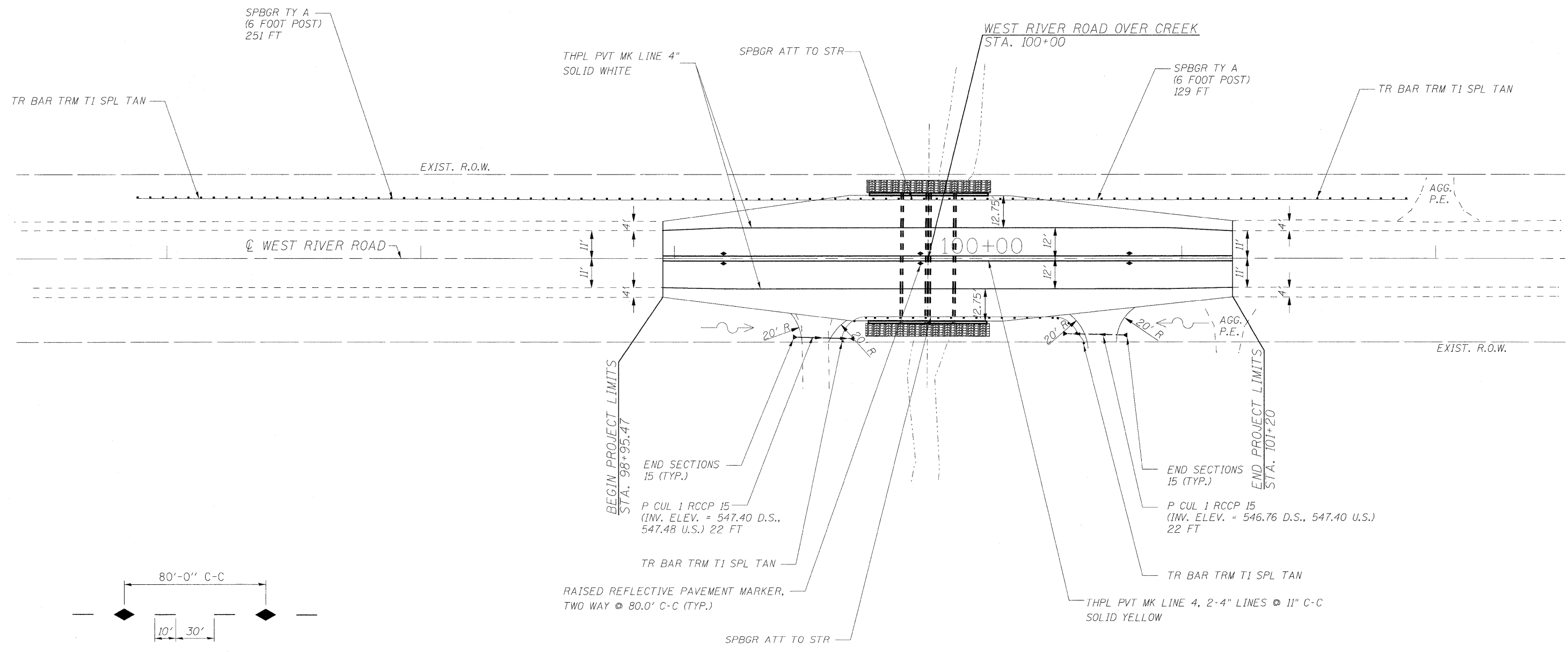
LEGEND

- ① R11-2
RIVER ROAD
- ② W20-3-48
- ③ W20-2-48
- ④ R11-3a
- ⑤ M4-8
RIVER ROAD
 M6-3
- ⑥ M4-8
RIVER ROAD
 M5-1
- ⑥A M4-8
RIVER ROAD
 M6-1R
- ⑦ M4-8
RIVER ROAD
 M5-2
- ⑦A M4-8
RIVER ROAD
 M6-1L
- ⑧ R11-2
- ⑨ R5-1
- ⑩ M4-8A
- ⑪ RIVER ROAD

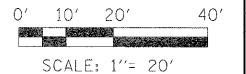


← REPLACE ANY PAVEMENT MARKING DAMAGED DURING CONSTRUCTION

REPLACE ANY PAVEMENT MARKING DAMAGED DURING CONSTRUCTION →



LANE PAVEMENT MARKER DETAIL
 SEE STATE STANDARD NO. 780001-01
 SEE DISTRICT STANDARD NO. TC-11



SCALE: 1" = 20'

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, DC	REVISED -
DATE - 11/23/2009	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

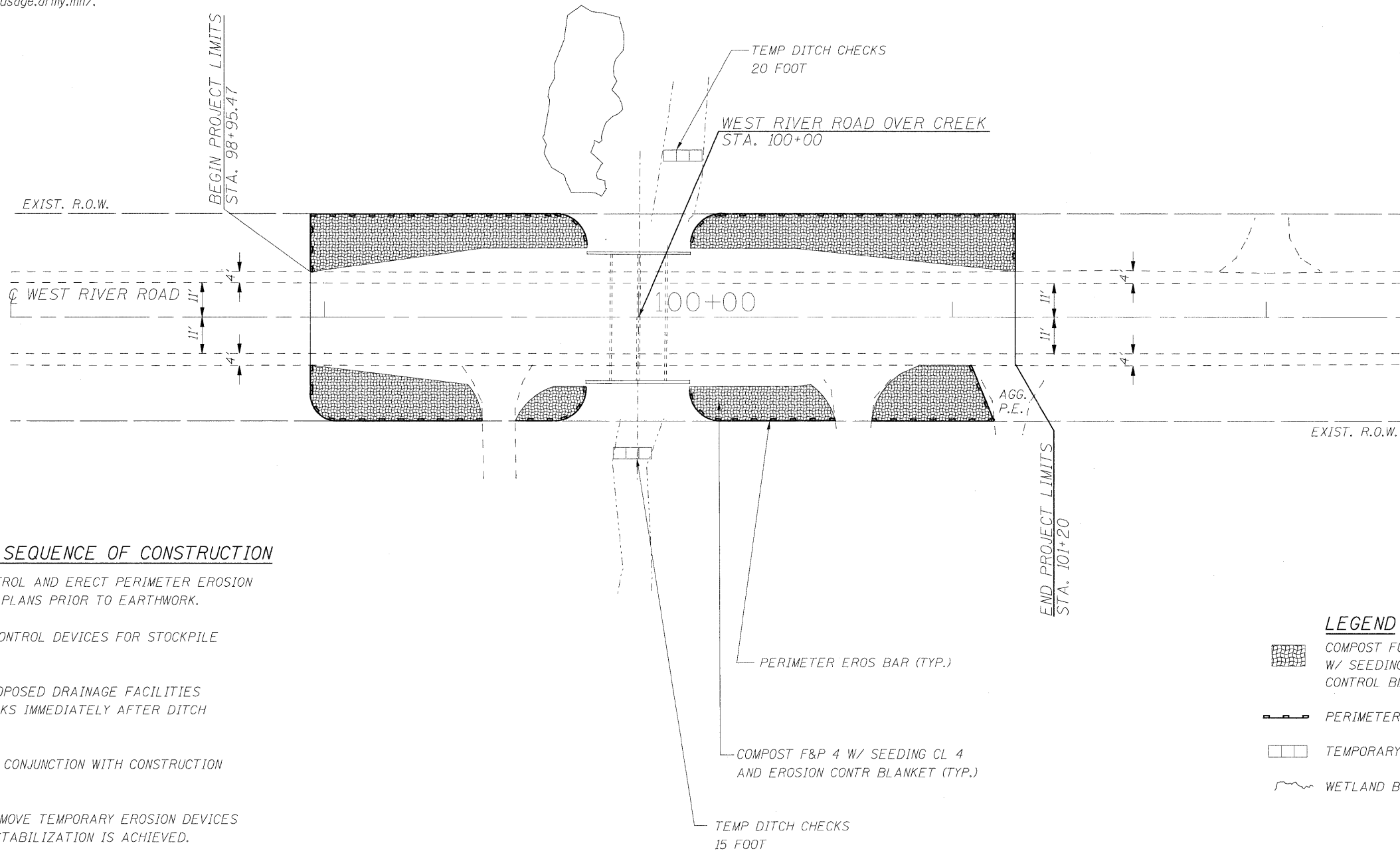
**PAVEMENT MARKING PLAN
 WEST RIVER ROAD OVER UN-NAMED TRIBUTARY TO KANKAKEE RIVER**

SCALE: 1" = 20' SHEET NO. 9 OF 17 SHEETS STA. 98+95.47 TO STA. 101+20

F.A.U. RTE. 0327	SECTION 112 T-1	COUNTY WILL	TOTAL SHEETS 17	SHEET NO. 9
D-91-496-09			CONTRACT NO. 60G54	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TEMPORARY EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL PERIMETER EROSION BARRIER PRIOR TO STRIPPING OF VEGETATION.
2. TEMPORARY DITCH CHECKS SHALL BE INSTALLED IMMEDIATELY AFTER GRADING IS COMPLETED. DITCH CHECKS ARE BASED ON ONE (1) INSTALLATION AND THREE (3) REPLACEMENTS OVER THE DURATION OF THE CONTRACT. THESE ITEMS WILL BE PAID FOR AS EACH, REGARDLESS OF THE TYPE OF CONFIGURATION USED.
3. RUNOFF FROM EXCAVATED AREAS SHALL LEAVE THE SITE THROUGH SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL ADJUST HIS OPERATION AND IMPLEMENT EROSION CONTROL MEASURES ACCORDINGLY.
4. THE PERMIT ISSUED TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION DOES NOT COVER IN-STREAM WORK BY THE CONTRACTOR. AFTER AWARD, THE CONTRACTOR WILL NEED TO COORDINATE AND HAVE A WORK PLAN APPROVED BY THE US ARMY CORPS OF ENGINEERS (USACOE). GUIDELINES ON ACCEPTABLE IN STREAM WORK TECHNIQUES CAN BE FOUND ON THE USACOE WEBSITE: <http://www.lrc.usage.army.mil/>.
5. THE CONTRACTOR SHALL SURROUND ANY NECESSARY 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 HOURS AFTER A 13 MM (0.5 INCH) RAINFALL OR SNOWFALL.
7. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS AS SOON AS PRACTICAL AFTER CONSTRUCTION ACTIVITIES IN THAT AREA HAVE BEEN CONCLUDED. AREAS THAT HAVE STEEP SLOPES OR WILL NOT RECEIVE PERMANENT LANDSCAPING, SHALL BE TEMPORARILY SEEDED. ALL FLATTER AREAS OR AREAS WHERE NO FURTHER WORK IS TO OCCUR FOR ONE MONTH OR MORE SHALL BE SEEDED AND COVERED WITH EXCELSIOR BLANKET WITHIN SEVEN (7) CALENDAR DAYS.

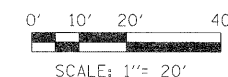


TEMPORARY EROSION CONTROL SEQUENCE OF CONSTRUCTION

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. SETUP 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 DEVICES WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED.

LEGEND

- COMPOST FURNISH AND PLACE, 4" W/ SEEDING, CL 4 AND EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER
- TEMPORARY DITCH CHECK (STD 280001-04)
- WETLAND BOUNDARIES



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1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

USER NAME = #USER#	DESIGNED - MJY	REVISED -
PLOT SCALE = #SCALE#	DRAWN - ST, TSC	REVISED -
PLOT DATE = #DATE#	CHECKED - MJY, DC	REVISED -
	DATE - 11/23/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL PLAN
WEST RIVER ROAD OVER UN-NAMED TRIBUTARY TO KANKAKEE RIVER**

SCALE: 1" = 20' SHEET NO. 10 OF 17 SHEETS STA. 98+95.47 TO STA. 101+20

F.A.U. RTE. 0327	SECTION 112 T-1	COUNTY WILL	TOTAL SHEETS 17	SHEET NO. 10
D-91-496-09			CONTRACT NO. 60C54	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF STRUCTURAL SHEETS

SHT. NO.	DESCRIPTION
11	GENERAL PLAN, ELEVATION AND INDEX
12	HEADWALL DETAILS
13	WINGWALL DETAILS

GENERAL NOTES

1. EXISTING STRUCTURE: NOT SALVAGEABLE. THE NEW STRUCTURE NUMBER IS 099-0521.
2. THE PROPOSED PRECAST CONCRETE BOX CULVERT SHALL BE DESIGNED BY THE CONTRACTOR ACCORDING TO THE REQUIREMENTS OF AASHTO M273. COST IS INCLUDED IN PRECAST CONCRETE BOX CULVERT 9'x6' ITEM.
3. FLOW OF THE CREEK UNDER WEST RIVER ROAD IS TO BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION BY PLACE A TEMPORARY STREAM DIVERSION AT THE UPSTREAM END OF THE BOX CULVERT/WINGWALLS AND TEMPORARILY PUMPING OR OTHERWISE CONVEYING THE STREAM FLOW THROUGH THE WORK ZONE. THE DESIGN AND CONSTRUCTION OF THE TEMPORARY DIVERSION SHALL BE THE CONTRACTOR'S RESPONSIBILITY, AND THE COST SHALL BE INCLUDED IN CONCRETE BOX CULVERTS ITEM. THE TEMPORARY STREAM DIVERSION PLAN TO BE USED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK.
4. ALL CONSTRUCTION JOINTS SHALL BE BONDED.
5. THE INFORMATION SHOWN IN THESE PLANS CONCERNING THE TYPE AND LOCATION OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE EXISTENCE, TYPE, SIZE AND LOCATION OF ALL UNDERGROUND AND OVERHEAD UTILITIES AS MAY BE NECESSARY TO AVOID CONFLICT WITH CONSTRUCTION OPERATIONS AND/OR DAMAGE TO THE UTILITY.
6. THE CONTRACTOR IS TO PROTECT AND MAINTAIN ALL EXISTING UTILITIES. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO PRECAST CONCRETE BOX CULVERT 9'x6'.
7. THE CONTRACTOR IS TO PROTECT AND MAINTAIN ALL TREES WITHIN AND ADJACENT TO THE WORK ZONE FOR THIS PROJECT. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO PRECAST CONCRETE BOX CULVERT 9'x6'.
8. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60 (IL MODIFIED). SEE SPECIAL PROVISIONS.
9. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
10. THE CONTRACTOR SHALL SUBMIT A PLAN AND SCHEDULE OF CONSTRUCTION ACTIVITIES TO THE ENGINEER FOR APPROVAL BEFORE STARTING ANY WORK FOR THIS PROJECT.
11. AS-BUILT/ACTUAL DETAILS OF EXISTING BOX CULVERT AND WINGWALLS ARE NOT AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY ACTUAL EXISTING STRUCTURE TO BE REMOVED.
12. THE COST OF 6" OF CA 7 UNDER CULVERT SHALL BE INCLUDED IN THE PRECAST CONCRETE BOX CULVERT 9'x6' ITEM.
13. THE COST OF REMOVING AND REPLACING THE EXISTING 18" PIPE CULVERT SHALL BE INCLUDED IN THE PRECAST CONCRETE BOX CULVERT 9'x6' ITEM.

WATERWAY INFORMATION

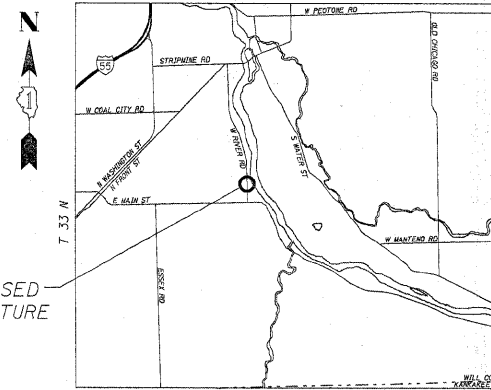
		DRAINAGE AREA = 2.43				LOW GRADE ELEV. = 552.22 EXISTING AND 552.28 PROPOSED				AT STATION 100+15	
FLOOD	FREQ. (YR.)	Q (CFS)	WATERWAY OPENING (FT.)		NATURAL H.W.E. (FT.)	HEAD (FT.)		HEADWATER ELEVATION (FT.)			
			EXISTING	PROPOSED		EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED
DESIGN	50	315	59.4	69.1	548.64	0.38	0.24	549.02	548.88		
BASE	100	354	67.3	77.9	549.13	0.42	0.28	549.55	549.41		
OVERTOPPING	-	-	-	-	-	-	-	-	-		
MAX. CALC.	-	-	-	-	-	-	-	-	-		

10 YEAR VELOCITY THROUGH EXISTING BRIDGE = 6.06ft/s 10 YEAR VELOCITY THROUGH PROPOSED STRUCTURE = 4.82 ft/s
ALL - TIME H.W.E. & DATE: UNKNOWN

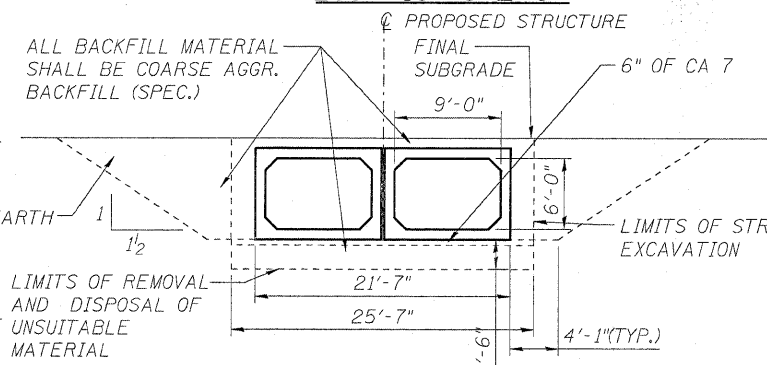
SIZE OF EXISTING BOX: 8'x6'
SIZE OF PROPOSED BOX: 9'x6'
SPANS: 2 (EXISTING, PROPOSED)

GENERAL PLAN, ELEVATION AND INDEX
FAU 0327 / WEST RIVER ROAD
OVER CREEK (2.6 MI. SOUTH OF IL ROUTE 53
SECTION 112 T-1
WILL COUNTY
STA. 100+00.00
STRUCTURE NO. 099-0521

SHEET NO. S1	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0327	112 T-1	WILL	17	11
OF S3 SHEETS		D-91-496-09		CONTRACT NO. 60G54	
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT	



LOCATION SKETCH



**SECTION THROUGH
PRECAST BARREL**

DESIGN LOADING

HS20-44 AND ALTERNATE MILITARY LOADING AND ALLOWANCE FOR 50 P.S.F. FUTURE WEARING SURFACE

DESIGN SPECIFICATIONS

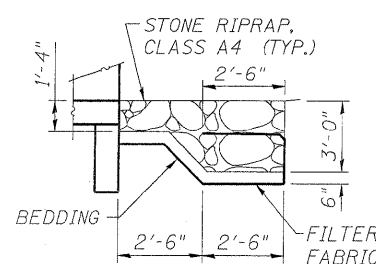
AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 2002

DESIGN STRESSES

FIELD UNITS $f'_c = 3,500$ psi $f_y = 60,000$ psi (REINFORCEMENT)	PRECAST UNITS $f'_c = 5,000$ psi $f_y = 65,000$ psi (WWF) $f_y = 60,000$ psi (REINFORCEMENT)
--	--

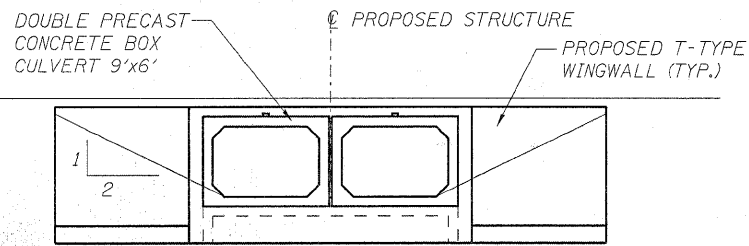
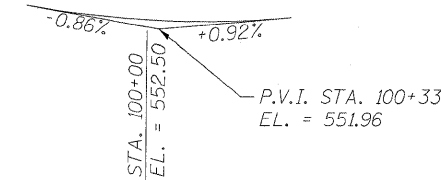
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Horizontal Bedrock Acceleration Coefficient (A) = 3.5%g
Site Coefficient (S) = 1.0



SECTION THRU RIPRAP

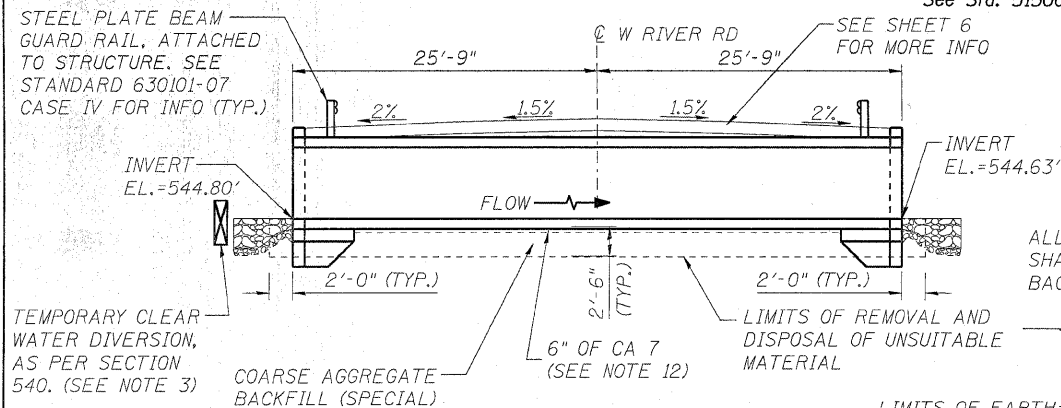
**PROFILE GRADE
(ALONG @ ROADWAY)**



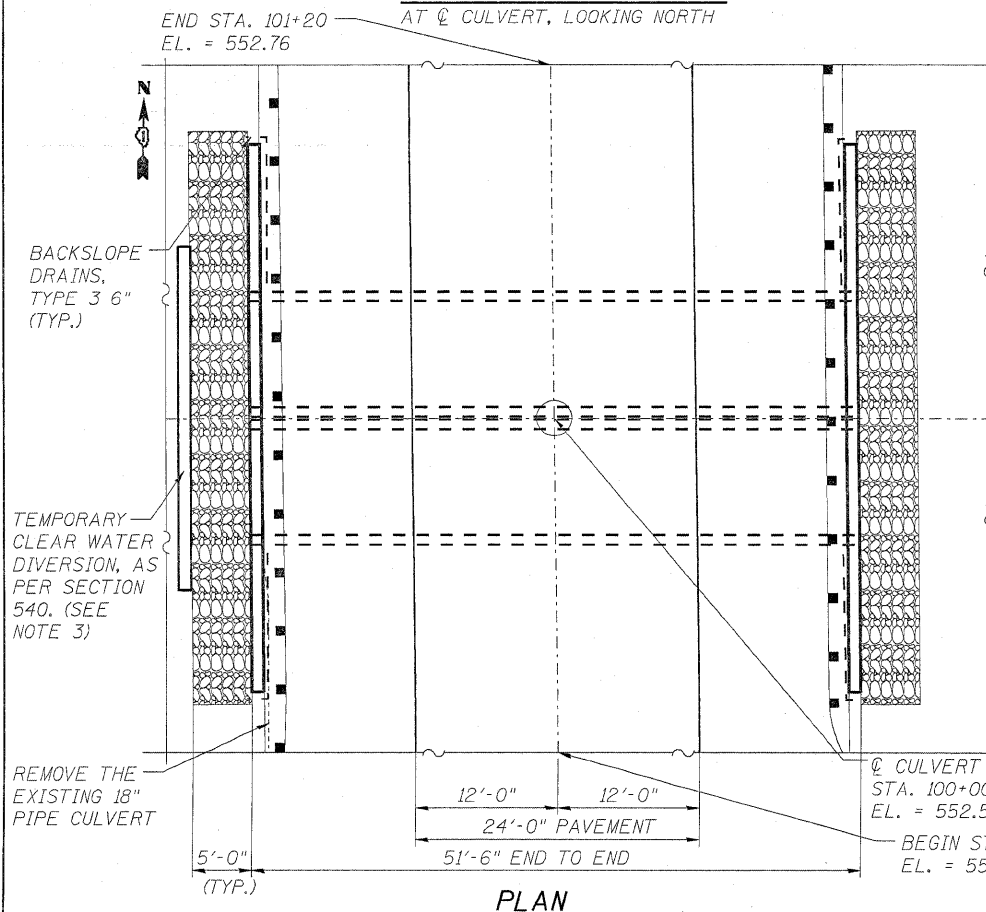
DOWNSTREAM END ELEVATION

STATION 100+00 (PROJECT)
BUILT 20XX BY
STATE OF ILLINOIS
F.A.U. ROUTE 0327 SEC. 112 T-1
LOADING HS20-44
STR. NO. 099-0521

NAME PLATE
See Std. 515001



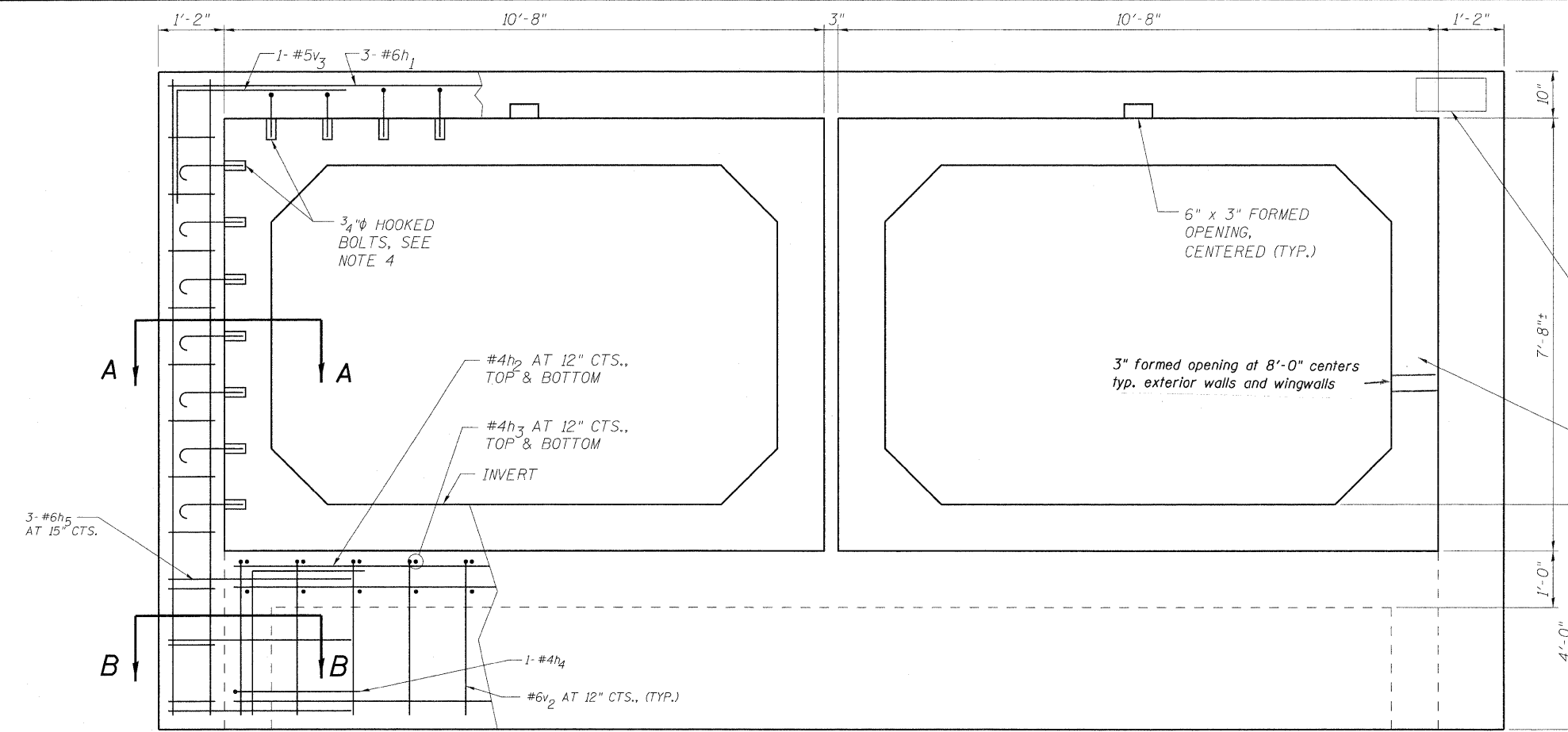
**LONGITUDINAL SECTION
AT @ CULVERT, LOOKING NORTH**



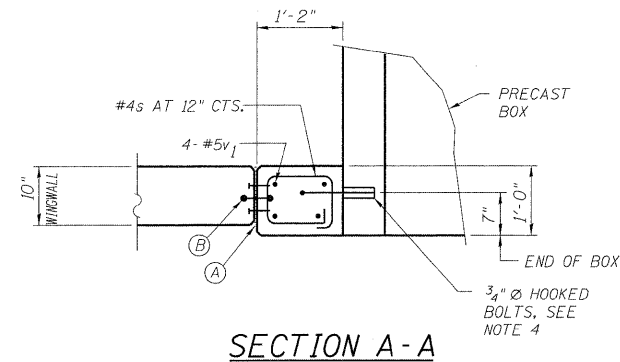
PLAN

DESIGNED -	ST
CHECKED -	WHE
DRAWN -	ST
CHECKED -	WHE

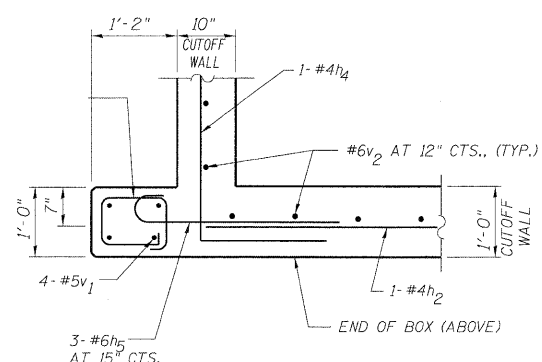
LOWCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100



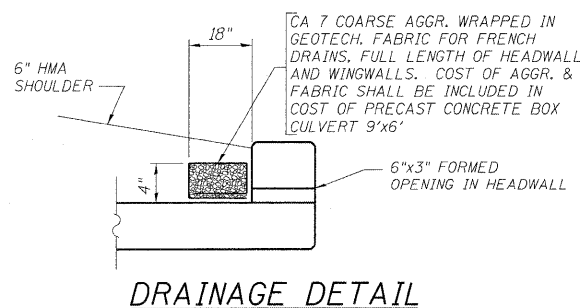
- (A) 1/2" PREMOULDED JOINT FILLER, INSTALL w/ 2 COLUMNS OF CONC. NAILS (FLAT HD. C.S.), 1" LONG, AT 12" CTS., VERTICAL.
- (B) 6" HOLLOW BULB TYPE NONMETALLIC WATER SEAL (6" FROM TOP OF WALL TO TOP OF FOOTING).



SECTION A-A



SECTION B-B

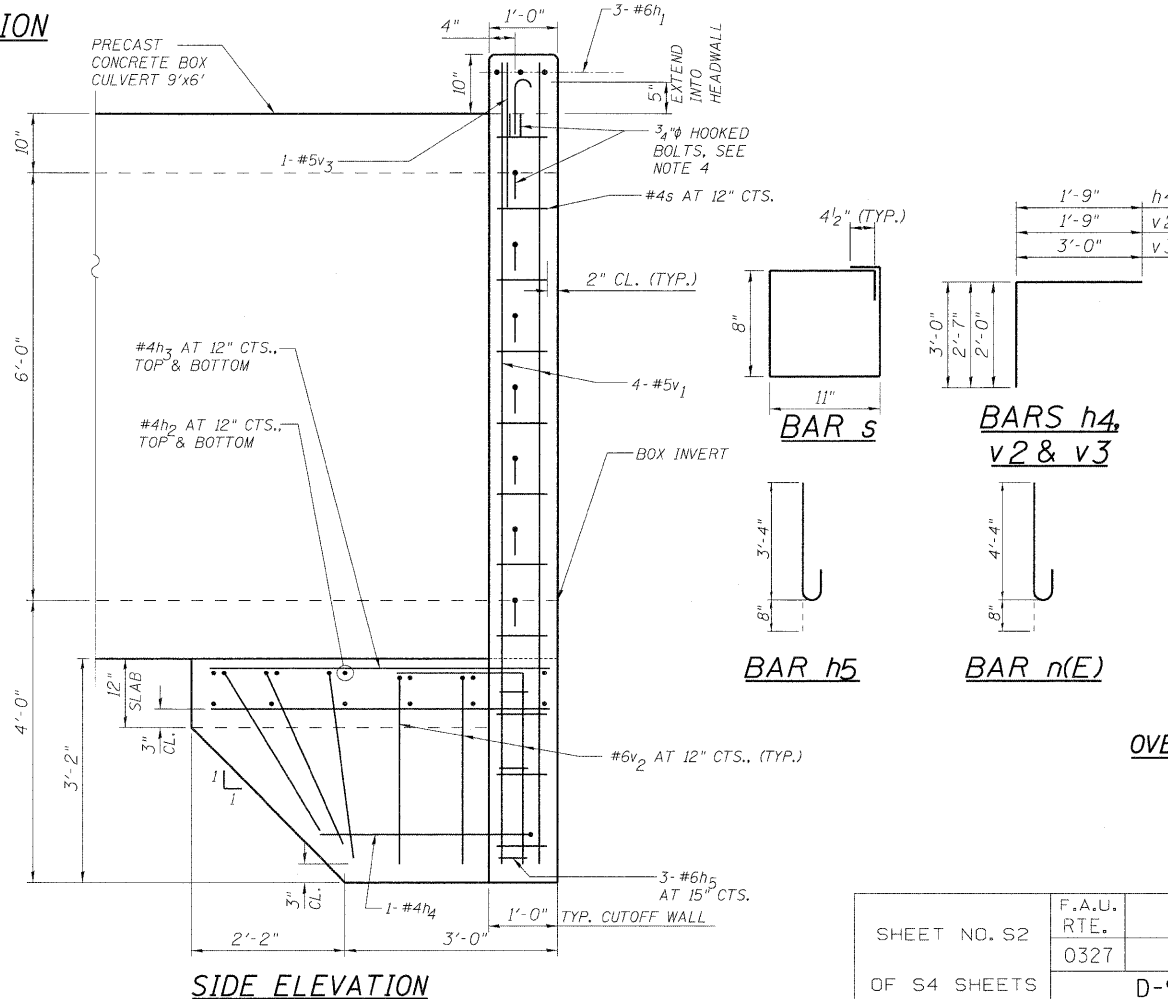


DRAINAGE DETAIL

DESIGNED	ST
CHECKED	MJM
DRAWN	ST
CHECKED	MJM

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

HEADWALL ELEVATION



SIDE ELEVATION

NOTES

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS BEFORE ORDERING MATERIALS.
2. ALL EDGES SHALL HAVE STANDARD 3/4" CHAMFERS, EXCEPT AS NOTED.
3. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
4. TO CONNECT CAST-IN-PLACE COLLAR TO PRECAST BOX, PROVIDE 3/4" HOOKED BOLTS WITH EMBEDDED INSERTS AT 12" MAXIMUM CENTERS. HOOKED BOLTS SHALL EXTEND 6" INTO HEADWALL AND 9" INTO SIDES OF COLLAR. COST SHALL BE INCLUDED IN THE PRECAST CONCRETE BOX CULVERT 9'x6' ITEM.
5. PROVIDE PROTECTIVE COAT ON TOP HORIZONTAL SURFACES AND TOP 6" ON INSIDE FACES OF HEADWALLS.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	68	#4	11'-0"	—
h1	6	#6	23'-7"	—
h2	24	#4	21'-3"	—
h3	88	#4	4'-10"	—
h4	4	#4	4'-9"	—
h5	12	#6	4'-0"	—
n(E)	56	#4	5'-0"	—
s	44	#4	3'-11"	□
t	112	#4	6'-1"	—
v	68	#4	9'-10"	—
v1	16	#5	11'-3"	—
v2	64	#6	4'-4"	—
v3	4	#5	5'-0"	—
w	40	#5	11'-0"	—

Item	Unit	Quantity
REMOVAL OF EXISTING STRUCTURES	EACH	1
NAME PLATES	EACH	1
CONCRETE BOX CULVERTS	CU YD	47
REINFORCEMENT BARS	POUND	3523
REINFORCEMENT BARS, EPOXY COATED	POUND	421
STRUCTURE EXCAVATION	CU YD	240
EARTH EXCAVATION	CU YD	284
REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	147
COARSE AGGREGATE BACKFILL (SPECIAL)	CU YD	952
FILTER FABRIC	SQ YD	112
STONE RIPRAP, CLASS A4	SQ YD	55
PRECAST CONCRETE BOX CULVERT 9'x6'	FOOT	103
BACKSLOPE DRAINS, TYPE 3 6"	FOOT	60
PROTECTIVE COAT	SQ YD	15

HEADWALL DETAILS

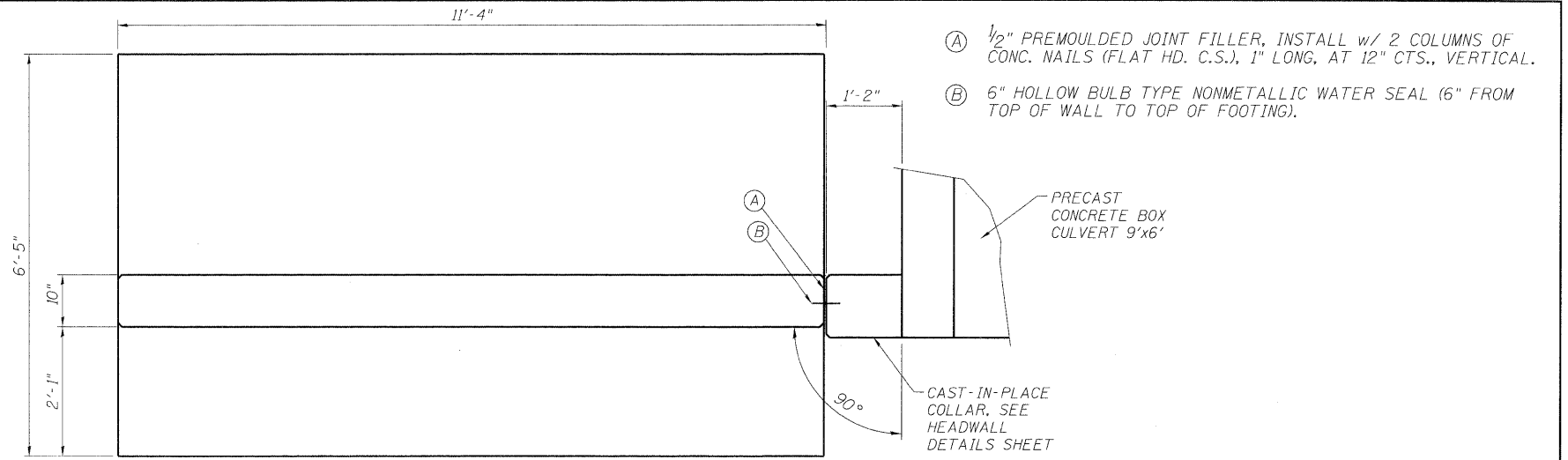
**FAU 0327 / WEST RIVER ROAD
 OVER CREEK (2.6 MI. SOUTH OF IL ROUTE 53
 SECTION 112 T-1, WILL COUNTY
 STA. 100+00.00
 STRUCTURE NO. 099-0521**

SHEET NO. S2	F.A.U. RTE. 0327	SECTION 112 T-1	COUNTY WILL	TOTAL SHEETS 17	SHEET NO. 12
OF S4 SHEETS	D-91-496-09		CONTRACT NO. 60G54		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

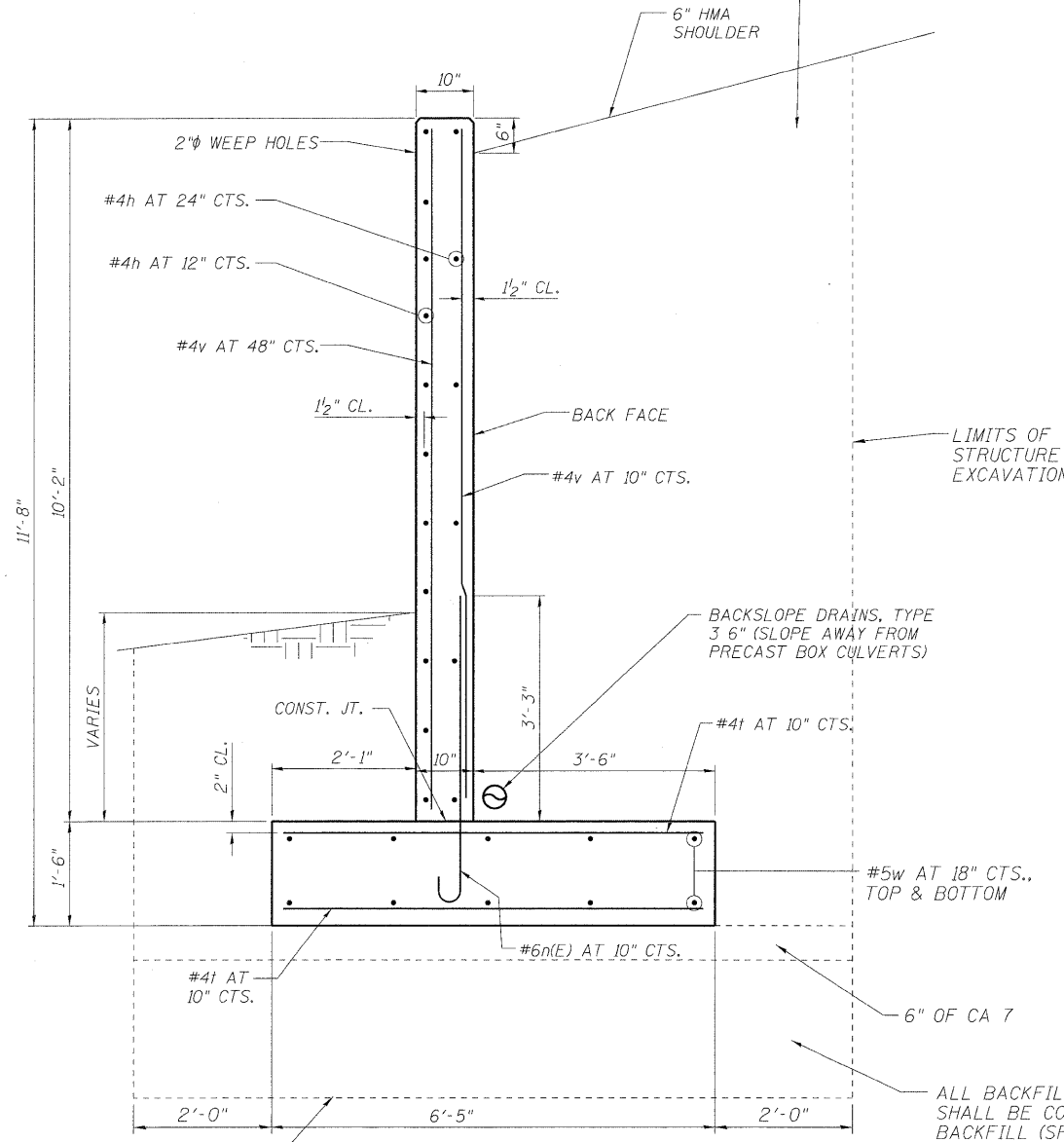
NOTES

1. ALL EDGES SHALL HAVE STANDARD 3/4" CHAMFERS, EXCEPT AS NOTED.
2. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
3. SEE HEADWALL DETAILS SHEET FOR BILL OF MATERIAL.
4. PROVIDE PROTECTIVE COAT ON TOP HORIZONTAL SURFACES AND TOP 12" ON INSIDE FACES OF WINGWALLS.
5. THE MAXIMUM DESIGN SOIL BEARING PRESSURE AT THE TOE OF THE WINGWALL FOOTING IS 2600 PSF.
6. THE COST 6" OF CA 7 UNDER WINGWALL SHALL BE INCLUDED IN THE PRECAST CONCRETE BOX CULVERT 9'x6' ITEM.

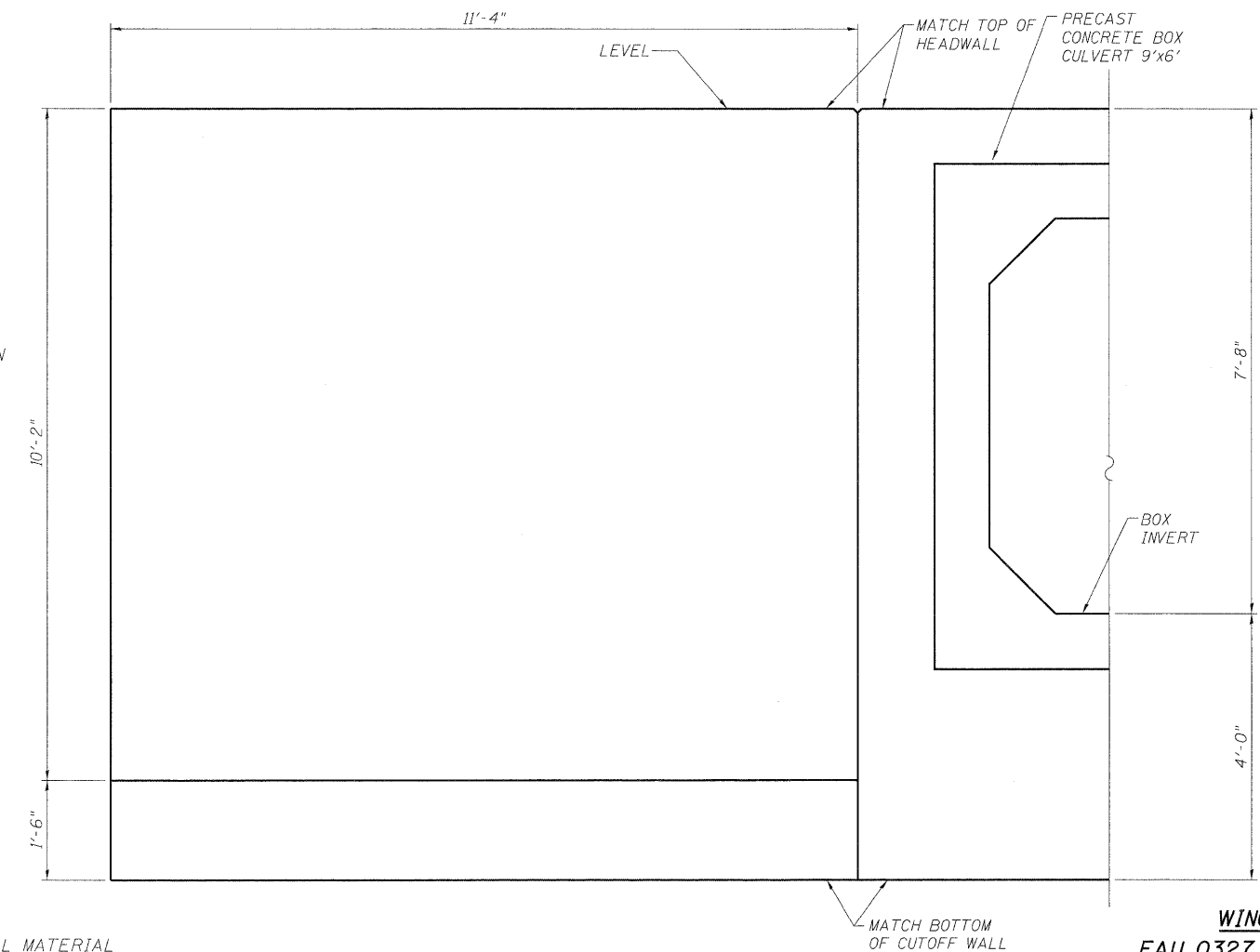
ALL BACKFILL MATERIAL SHALL BE COARSE AGGREGATE BACKFILL (SPECIAL)



PLAN



CROSS SECTION



ELEVATION

WINGWALL DETAILS
FAU 0327 / WEST RIVER ROAD
OVER CREEK (2.6 MI. SOUTH OF IL ROUTE 53
SECTION 112 T-1
WILL COUNTY
STA. 100+00.00
STRUCTURE NO. 099-0521

LIMITS OF REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

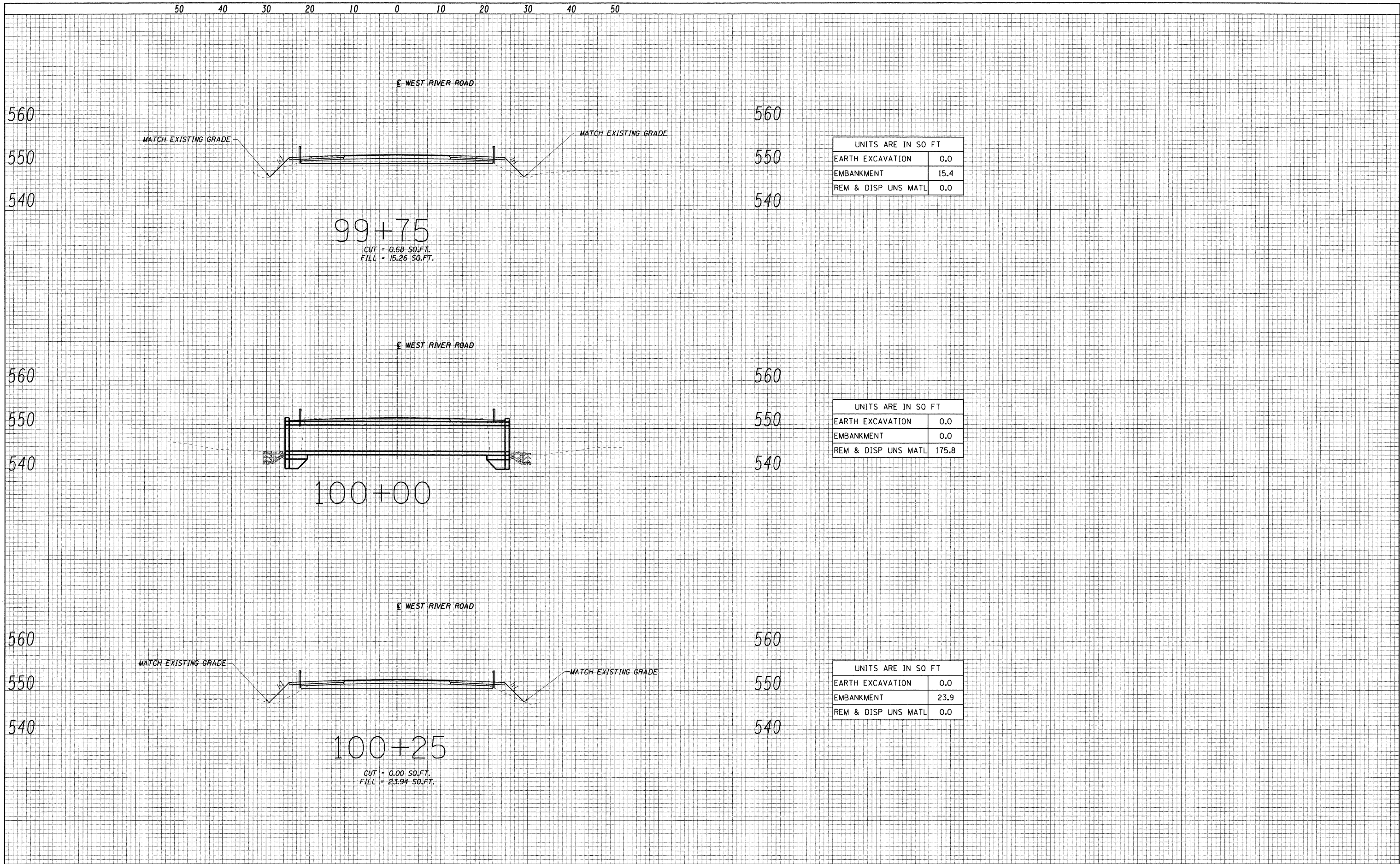
DESIGNED	ST
CHECKED	WHE
DRAWN	ST
CHECKED	WHE

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

SHEET NO. S3 OF S4 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0327	112 T-1	WILL	17	13
D-91-496-09			CONTRACT NO. 60G54		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

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

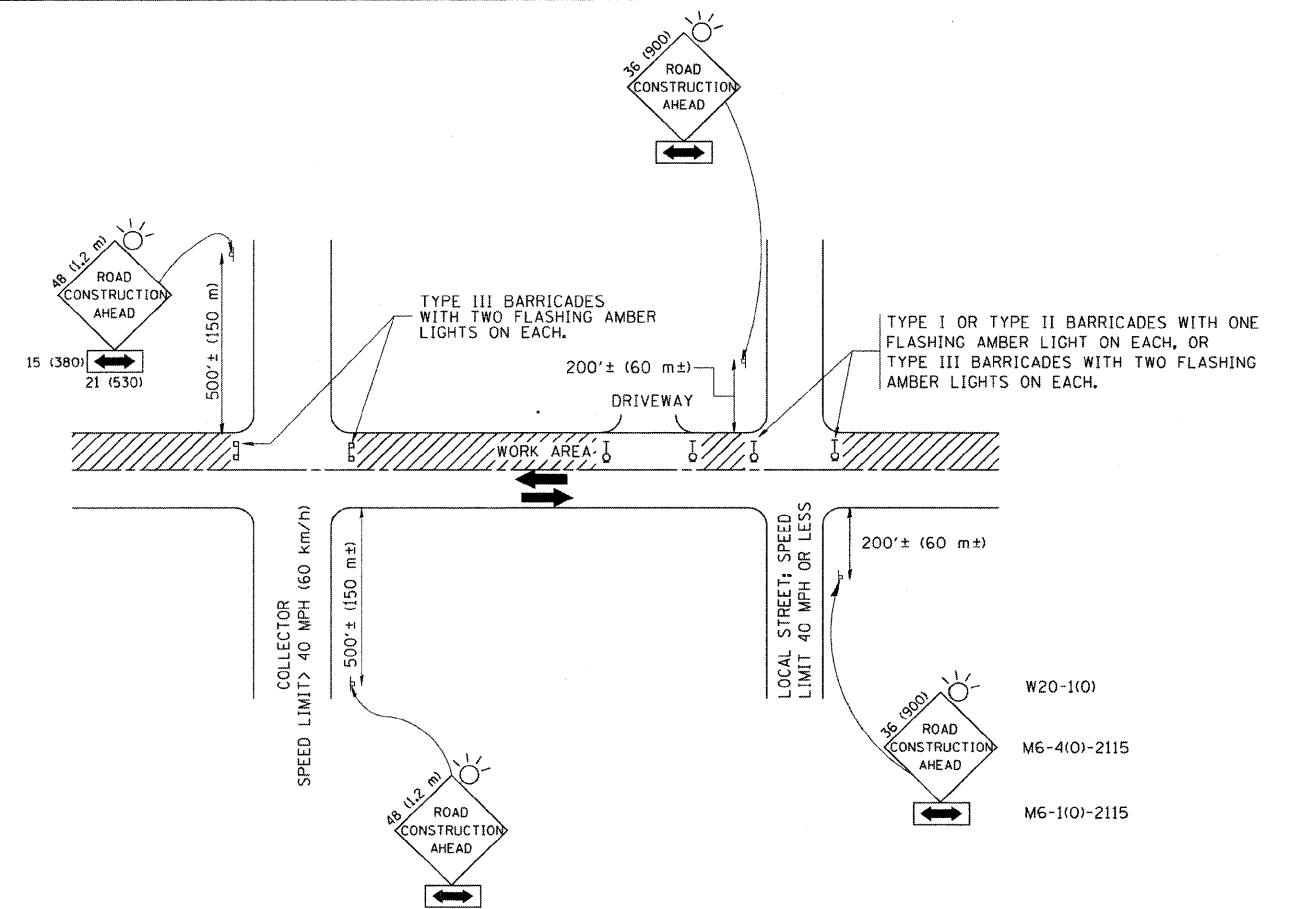
DATE _____
 BY _____
 SUPERVISOR _____
 PLOTTED _____
 TEMPLATE _____
 AREAS _____
 CHECKED _____
 ORIGINAL SURVEY _____
 NOTE BOOK _____
 NO. _____



UNITS ARE IN SO FT	
EARTH EXCAVATION	0.0
EMBANKMENT	15.4
REM & DISP UNS MATL	0.0

UNITS ARE IN SO FT	
EARTH EXCAVATION	0.0
EMBANKMENT	0.0
REM & DISP UNS MATL	175.8

UNITS ARE IN SO FT	
EARTH EXCAVATION	0.0
EMBANKMENT	23.9
REM & DISP UNS MATL	0.0



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

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. 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:
 - a) 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.
 - b) 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.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) 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.
 - b) 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.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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.

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

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

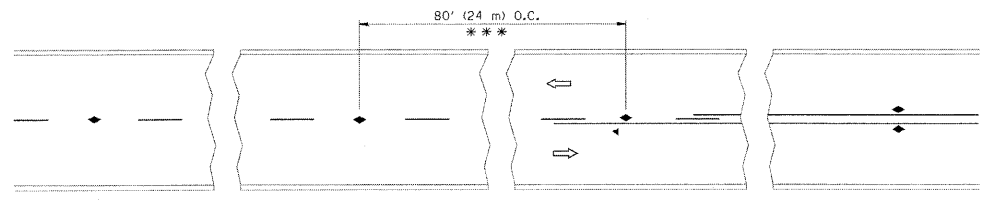
DESIGNED	- MJY	REVISED	-
DRAWN	- ST	REVISED	-
CHECKED	- MJY	REVISED	-
DATE	- 11/23/2009	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL SHEETS
WEST RIVER ROAD OVER UN-NAMED TRIBUTARY TO KANKAKEE RIVER

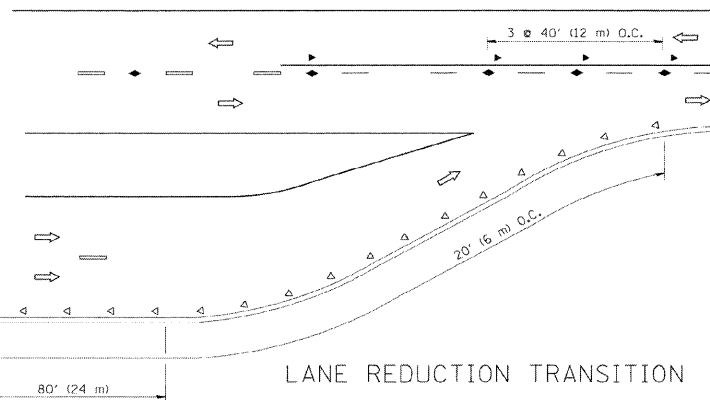
SCALE: NONE SHEET NO. 1 OF 3 SHEETS STA. 99+00 TO STA. 101+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0327	112 T-1	WILL	17	15
D-91-496-09			CONTRACT NO. 60G54	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

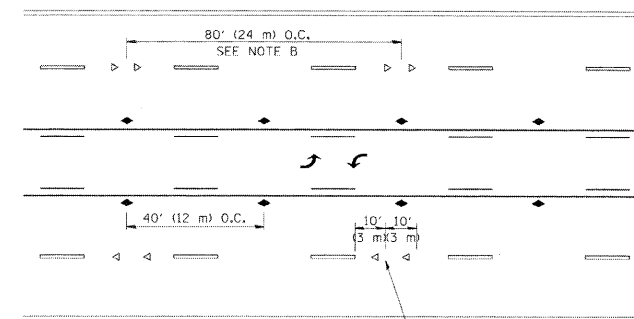


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

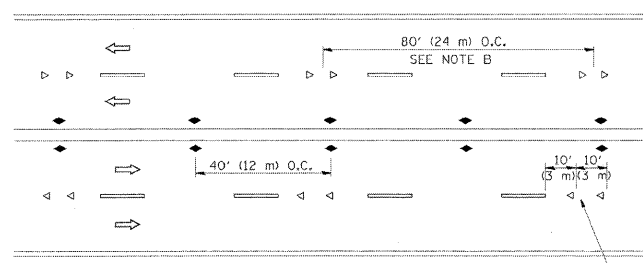
TWO-LANE/TWO-WAY



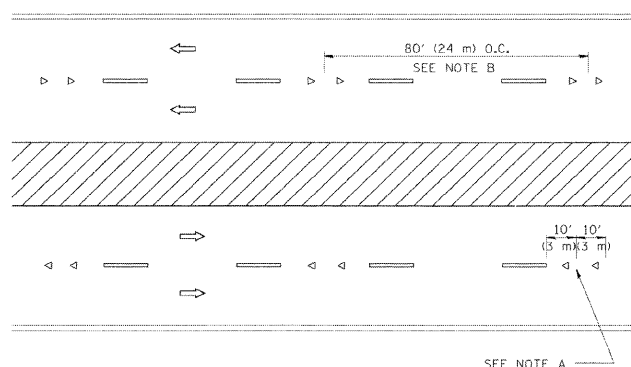
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 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

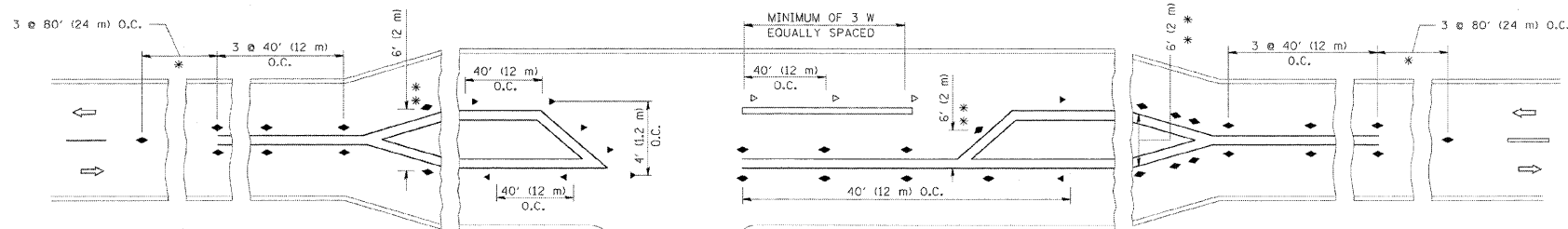
LANE MARKER NOTES

- 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. (20 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.

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

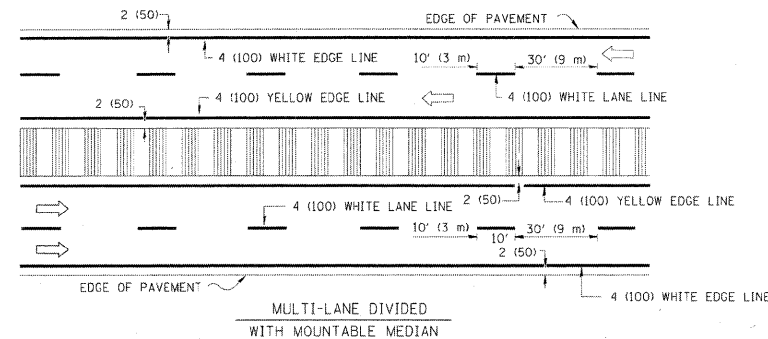
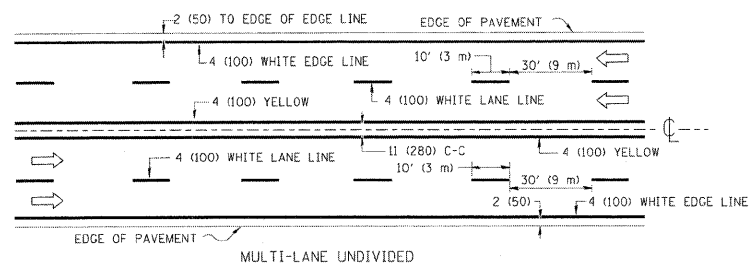
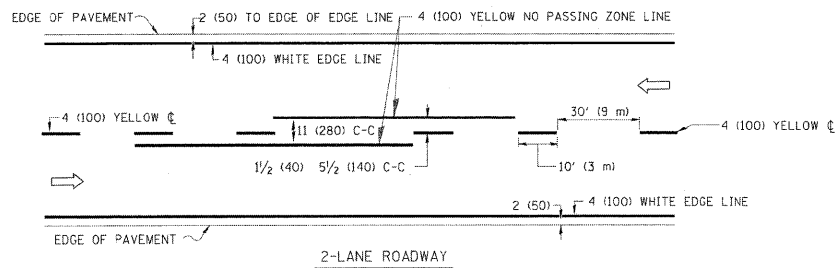


LEFT TURN

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

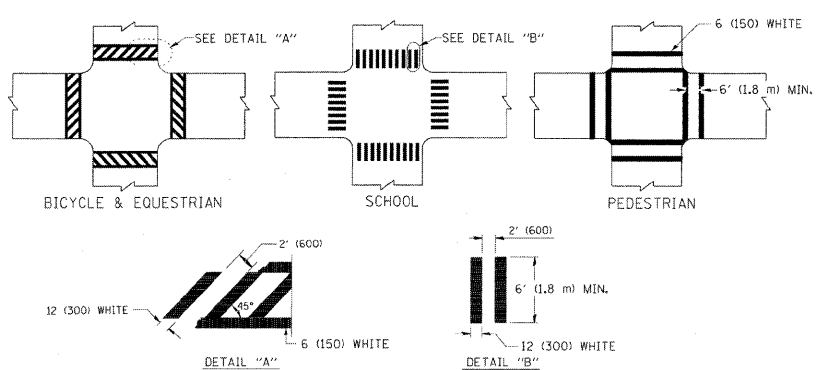
All dimensions are in inches (millimeters) unless otherwise shown.

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

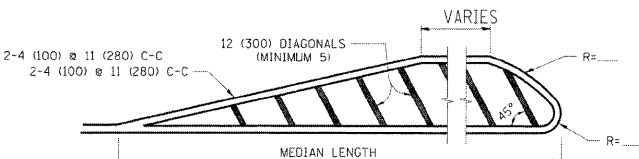
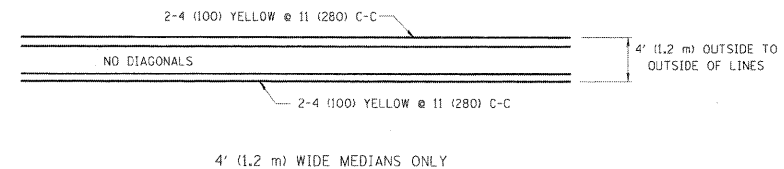


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

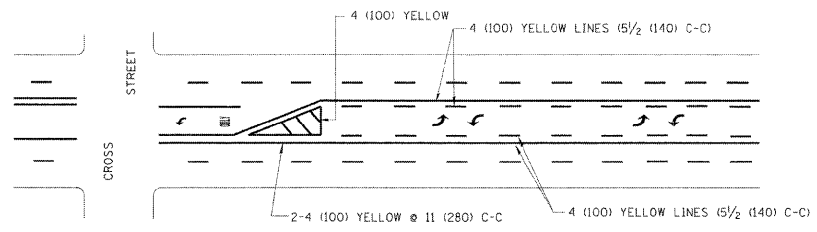


TYPICAL CROSSWALK MARKING

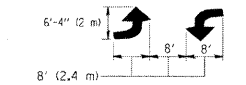


FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.
 DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

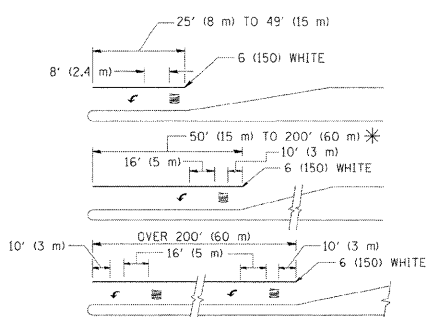


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

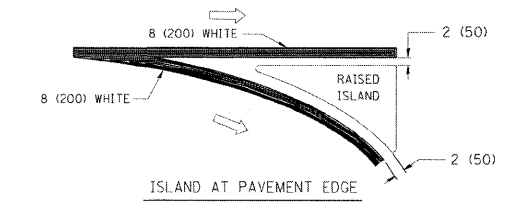
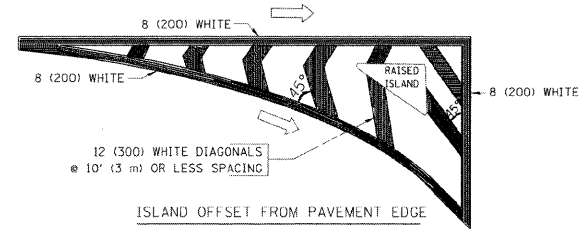


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

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



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" 15 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 ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
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.

DISTRICT ONE TYPICAL PAVEMENT MARKINGS