

PROJECT LOCATED IN VILLAGE OF LONG GROVE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

OAKWOOD ROAD OVER INDIAN CREEK
BRIDGE REPLACEMENT
SECTION: 09-0005-00-BR
PROJECT: BROS-9003(230)
VILLAGE OF LONG GROVE
LAKE COUNTY
JOB NO.: C-91-298-09

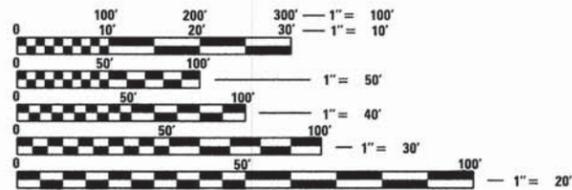
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FEDERAL AID PROGRAM ENGINEER: FAWAD AQUEEL, PE (847) 705-4021

DESIGN DESIGNATION

LOCAL ROAD
SPEED LIMIT = 30 MPH
TRAFFIC = 509 ADT



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: MARK REZNICEK, P.E.

CONTRACT NO. 61A24



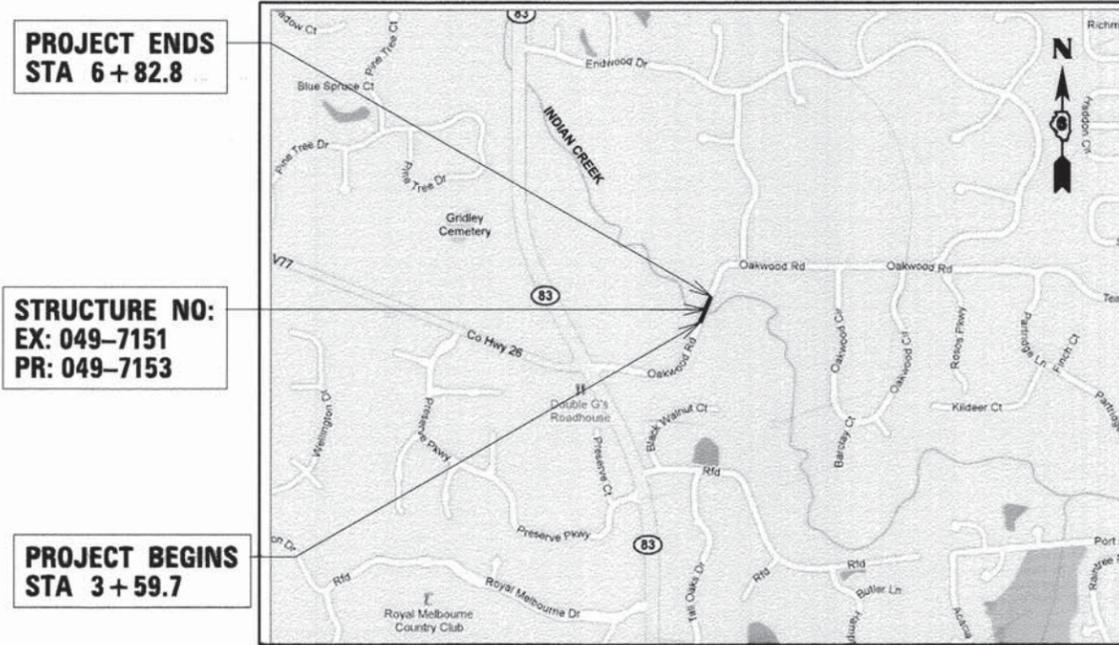
VILLAGE OF LONG GROVE
3110 RFD, LONG GROVE, ILLINOIS 60047
TELEPHONE 847.634.9440
FAX 847.634.9408
MARIA RODRIGUEZ Village President
DAVID LOTHSPREICH Village Manager

LOCATION MAP

GROSS LENGTH = 323.1 FT. = 0.061 MILE
NET LENGTH = 323.1 FT. = 0.061 MILE

ESI ESI CONSULTANTS, LTD
1979 NORTH MILL STREET
NAPERVILLE, IL 60563
(630) 420-1700
WWW.ESICONSULTANTS.LTD.COM

ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184-003485
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EXCEPT FOR THIS SPECIFIC PROJECT WITHOUT THE WRITTEN CONSENT OF ESI CONSULTANTS, LTD.



PROJECT ENDS
STA 6+82.8

STRUCTURE NO:
EX: 049-7151
PR: 049-7153

PROJECT BEGINS
STA 3+59.7



LOCATION OF SECTION INDICATED THIS: - [Symbol] -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED February 6, 2014
[Signature]
VILLAGE OF LONG GROVE, VILLAGE MANAGER

PASSED FEBRUARY 13, 2014
[Signature]
DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW February 13, 2014
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROFESSIONAL ENGINEER'S CERTIFICATION
I HEREBY CERTIFY THAT THIS SUBMISSION WAS PREPARED UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS.
DATED THIS 6th DAY OF February, 2014
[Signature]
MARK A. REZNICEK
ILLINOIS REG. PROF. ENGINEER NO. 062-046136 EXPIRATION DATE 11-30-2015



GENERAL NOTES

1. LOCATION OF EXISTING UTILITIES SHOWN ON PLANS ARE BASED ON RECORD INFORMATION AND ARE APPROXIMATE ONLY, AND ARE NOT NECESSARILY COMPLETE. CONTRACTOR SHALL MAKE HIS OWN INVESTIGATIONS AS TO LOCATION OF ALL EXISTING UNDERGROUND STRUCTURES, CABLES, AND PIPELINES.
2. ALL ROAD SIGNS, STREET SIGNS, AND TRAFFIC SIGNS WHICH NEED TO BE RELOCATED OR MOVED DUE TO CONSTRUCTION SHALL BE TAKEN DOWN AND STORED BY THE CONTRACTOR EXCEPT THOSE THAT ARE NECESSARY FOR PROPER TRAFFIC CONTROL WHICH SHALL BE TEMPORARILY RESET UNTIL COMPLETION OF CONSTRUCTION OPERATIONS. AFTER COMPLETION OF THE WORK, THE CONTRACTOR SHALL RESET ALL SAID SIGNS. THE WORK SHALL BE IN ACCORDANCE WITH ARTICLE 107.25.
3. SPECIAL ATTENTION IS DRAWN ARTICLE 105.06 OF THE STANDARD SPECIFICATIONS REQUIRES THE CONTRACTOR TO HAVE A COMPETENT SUPERINTENDENT ON THE PROJECT SITE AT ALL TIMES, IRRESPECTIVE OF THE AMOUNT OF WORK SUBLET. THE SUPERINTENDENT SHALL BE CAPABLE OF READING AND UNDERSTANDING THE PLANS AND SPECIFICATIONS, SHALL HAVE FULL AUTHORITY TO EXECUTE ORDERS TO EXPEDITE THE PROJECT, SHALL BE RESPONSIBLE FOR SCHEDULING AND HAVE CONTROL OF ALL WORK AS THE AGENT OF THE CONTRACTOR. FAILURE TO COMPLY WITH THIS PROVISION WILL RESULT IN A SUSPENSION OF WORK AS PROVIDED IN ARTICLE 108.08.
5. THE UNIT PRICE FOR ALL REMOVAL PAY ITEMS SHALL INCLUDE ALL REQUIRED SAW CUTS.
6. ALL WORK PERFORMED RELATIVE TO THIS IMPROVEMENT SHALL COMPLY WITH ALL APPLICABLE RULES AND REGULATIONS OF O.S.H.A. IN ACCORDANCE WITH ARTICLE 107.01.
7. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)
8. WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 2 INCHES (50 MM). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3-1/2 INCHES (85 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).
9. BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF RESURFACING (WHERE THE RESURFACING MEETS EXISTING PAVEMENT) ACCORDING TO THE IDOT DETAIL FOR "BUTT JOINT DETAIL".
10. SHOULD ANY DAMAGES OCCUR DUE TO THE CONTRACTOR'S NEGLIGENCE, THE CONTRACTOR, IN ACCORDANCE WITH ARTICLES 107.20 AND 105.07, SHALL MAKE REPAIRS IN A MANNER ACCEPTABLE TO THE ENGINEER. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES OF HIS CONSTRUCTION SCHEDULE AND COORDINATE CONSTRUCTION OPERATIONS WITH THE UTILITY COMPANIES SO THAT RELOCATION OF UTILITY LINES AND STRUCTURES MAY PROCEED IN AN ORDERLY MANNER.
11. UNLESS AUTHORIZED BY THE ENGINEER, ALL EXISTING ACCESS ENTRANCES SHALL BE MAINTAINED AT ALL TIMES BY THE CONTRACTOR.
12. THE CONTRACTOR WILL BE REQUIRED, AT HIS EXPENSE, TO HAVE AVAILABLE A WATER TRUCK OR SIMILAR EQUIPMENT TO CONTROL DUST. IF NECESSARY, THE CONTRACTOR SHALL BE REQUIRED TO CONTROL DUST DURING NONWORKING HOURS. THIS WORK IS INCLUDED IN THE CONTRACT UNIT PRICE FOR PAVEMENT REMOVAL.
13. PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES OR DEMOLITION OPERATIONS, THE CONTRACTOR WILL BE REQUIRED TO DEWATER THE CONSTRUCTION AREA. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING DEWATERING PLANS TO THE ENGINEER DISCUSSING METHOD AND PROPER MAINTENANCE OF EROSION CONTROL DEVICES.
14. DEWATERING DIRECTLY INTO FIELD TILES OR STORMWATER STRUCTURES IS STRICTLY PROHIBITED.
15. ALL EXCESS MATERIAL (BROKEN CONCRETE, CULVERT PIPE, WASTE ROADWAY EXCAVATION, SURPLUS MATERIAL FROM SEWER TRENCHES, ETC.) SHALL BE LEGALLY DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SELECT DUMP SITES AND OBTAIN PERMISSION AND ALL NECESSARY PERMITS TO USE SUCH DUMP SITES. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PAVEMENT REMOVAL.
16. THE CONTRACTOR SHALL INSPECT ADJACENT STREETS DAILY AND CLEAN ADJACENT STREETS WHEN NECESSARY.
17. THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

POROUS GRANULAR EMBANKMENT, SPECIAL	2.00 TON/CU YD
STONE RIPRAP, CLASS A4	1.75 TON/CU YD
BITUMINOUS MATERIALS PRIME COAT	0.1 GAL/SQ YD

TRAFFIC CONTROL

1. CONTRACTOR SHALL NOTIFY THE VILLAGE MANAGER (847.634.9440) OF ANY ROAD OR LANE CLOSURES A MINIMUM OF 48 HOURS IN ADVANCE OF CLOSURE.

DENOTES ITEM OR WORK INCLUDED IN THE COST OF OTHER ITEMS

HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-07	PAVEMENT JOINTS
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631032-08	TRAFFIC BARRIER TERMINAL, TYPE 6A
635006-03	REFLECTOR AND TERMINAL MARKER
515001-03	NAME PLATE FOR BRIDGES
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS, DAY ONLY
701321-13	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901-03	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
780001-04	TYPICAL PAVEMENT MARKINGS

IDOT DISTRICT ONE DETAILS

BD-22	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
BD-32	BUTT JOINT AND HMA TAPER DETAILS
BD-34	DETAILS FOR DEPRESSED CURB & GUTTER AND SHOULDER TREATMENT AT TBT TY 1 SPL.
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-22	ARTERIAL ROAD INFORMATION

PRINTED DATE: 2/20/2014
FILE NAME: K:\Projects\Long Grove\815-326 Oakwood Road Bridge Replacement\CADD\Drawings\Sheets\326.02_DET.dgn



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PLOT SCALE = 1:800' / 1"	DRAWN - DSD	REVISED -
PLOT DATE = 2/20/2014	CHECKED - KH	REVISED -
	DATE - 2/20/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
	09-0005-00-BR	LAKE	26	2
			CONTRACT NO.: 61A24	
ILLINOIS FEDERAL AID PROJECT				

SUMMARY OF QUANTITIES

ITEM NO.	CONSTRUCTION CODE TYPE		TOTAL QUANTITY
	ITEM	UNITS	
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	100
20200100	EARTH EXCAVATION	CU YD	110
20300100	CHANNEL EXCAVATION	CU YD	230
* 21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	520
* 25000310	SEEDING, CLASS 4	ACRE	0.25
* 25100630	EROSION CONTROL BLANKET	SQ YD	520
* 28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	40
28000400	PERIMETER EROSION BARRIER	FOOT	650
28100207	STONE RIPRAP, CLASS A4	TON	129
28200200	FILTER FABRIC	SQ YD	250
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	60
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	50
40600300	AGGREGATE (PRIME COAT)	TON	10
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	2
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	90
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	75
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	35
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	65
44000100	PAVEMENT REMOVAL	SQ YD	400
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	630

ITEM NO.	CONSTRUCTION CODE TYPE		TOTAL QUANTITY
	ITEM	UNITS	
48101620	AGGREGATE SHOULDERS, TYPE B 10"	SQ YD	173
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	104
50300225	CONCRETE STRUCTURES	CU YD	54.8
50300280	CONCRETE ENCASEMENT	CU YD	11.2
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1778
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3800
50800515	BAR SPLICERS	EACH	20
* 50901050	STEEL RAILING, TYPE SM	FOOT	130
51201600	FURNISHING STEEL PILES HP12X53	FOOT	350
51202305	DRIVING PILES	FOOT	350
51203600	TEST PILE STEEL HP12X53	EACH	2
51500100	NAME PLATES	EACH	1
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	47.7
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	350
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	175

ITEM NO.	CONSTRUCTION CODE TYPE		TOTAL QUANTITY
	ITEM	UNITS	
* 70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	5
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1000
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2
72400710	RELOCATE SIGN PANEL - TYPE 1	SQ FT	20
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1100
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	150
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
78300100	PAVEMENT MARKING REMOVAL	SQ FT	333
* A2002516	TREE, CARPINUS CAROLINIANA (AMERICAN HORNBEAM), 2" CALIPER, BALLED AND BURLAPPED	EACH	3
* A2002916	TREE, CELTIS OCCIDENTALIS (COMMON HACKBERRY), 2" CALIPER, BALLED AND BURLAPPED	EACH	4
* A2006520	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	4
Z0013798	CONSTRUCTION LAYOUT	L SUM	1
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	52

* DENOTES SPECIALITY ITEMS

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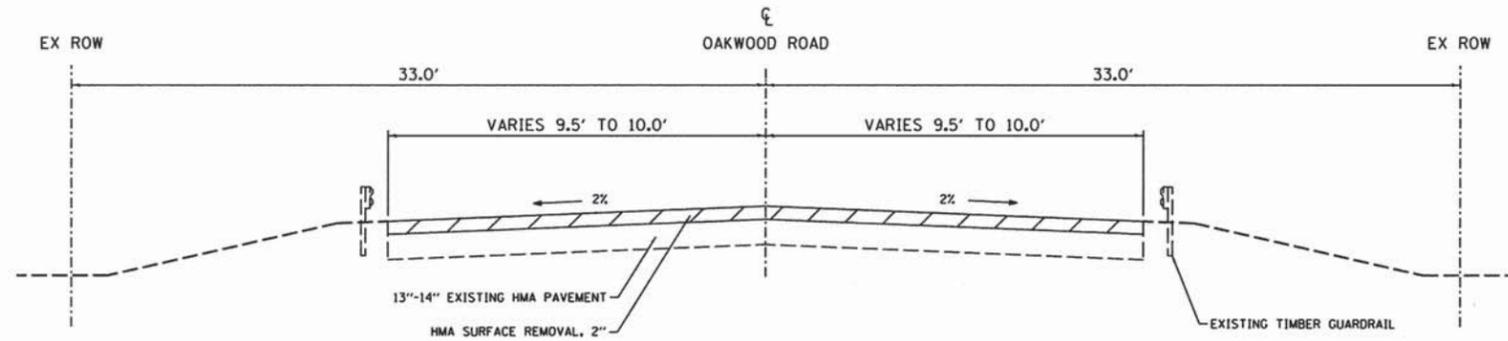
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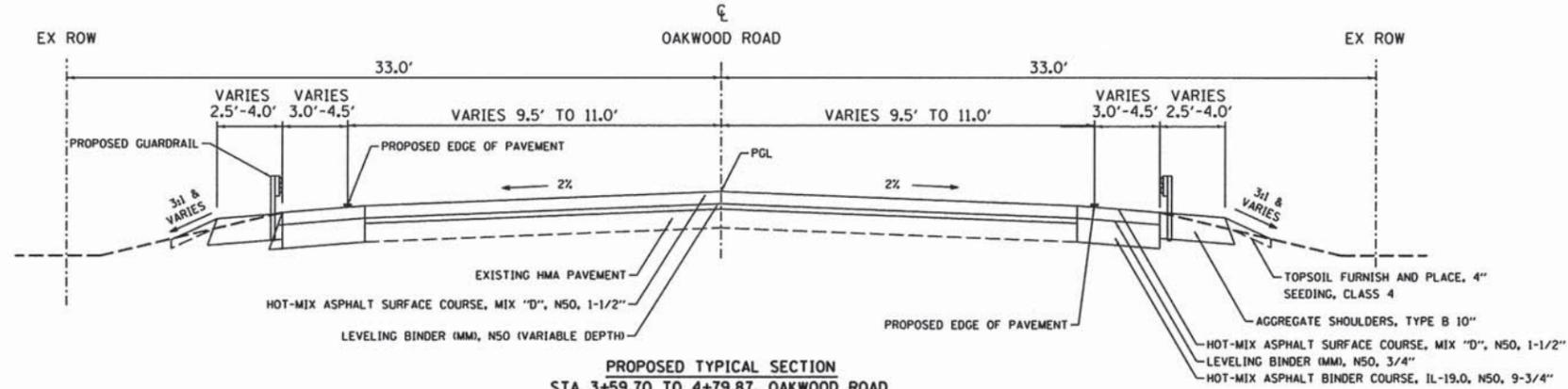
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

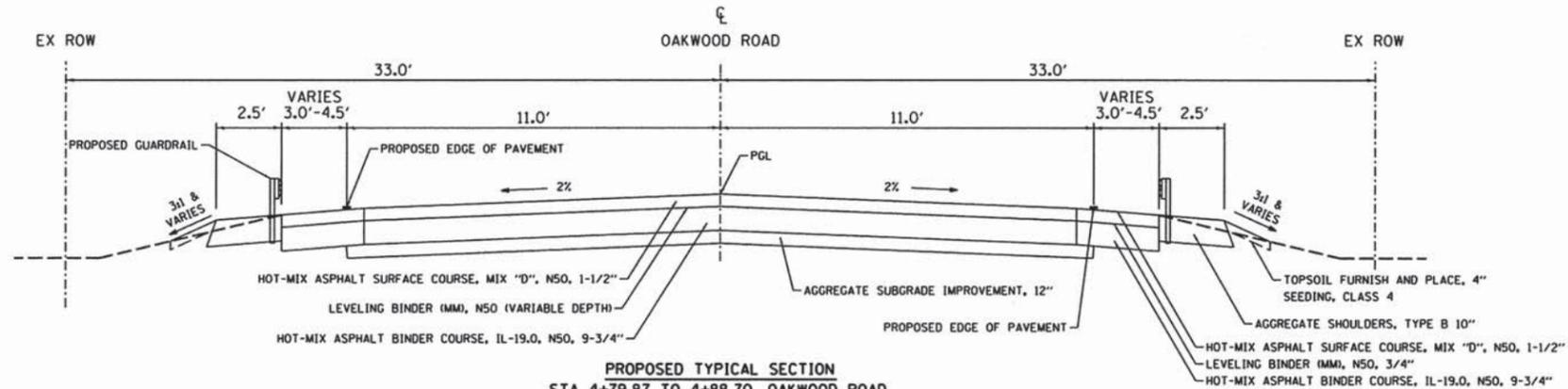
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	09-0005-00-BR	LAKE	26	3
			CONTRACT NO. 61A24	
ILLINOIS FEDERAL AID PROJECT				



EXISTING TYPICAL SECTION
 STA 3+59.70 TO 5+02.00, OAKWOOD ROAD
 STA 5+42.56 TO 6+82.80, OAKWOOD ROAD



PROPOSED TYPICAL SECTION
 STA 3+59.70 TO 4+79.87, OAKWOOD ROAD
 STA 5+79.09 TO 6+82.80, OAKWOOD ROAD



PROPOSED TYPICAL SECTION
 STA 4+79.87 TO 4+88.70, OAKWOOD ROAD
 STA 5+53.80 TO 5+62.59, OAKWOOD ROAD

HOT-MIX ASPHALT MIX REQUIREMENTS	
ITEM	VOID
RESURFACING	
HMA SURFACE COURSE, MIX "D", N50, 1-1/2"	4% @ 50 GYR.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	3.5% @ 50 GYR.
RECONSTRUCTION	
HMA BINDER COURSE, IL-19.0, N50	4% @ 50 GYR.
HMA SURFACE COURSE, MIX "D", N50, 1-1/2"	4% @ 50 GYR.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"	3.5% @ 50 GYR.

- NOTES:
1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES IS 112 LBS/SQ YD/IN
 2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" 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 SPECIAL PROVISIONS

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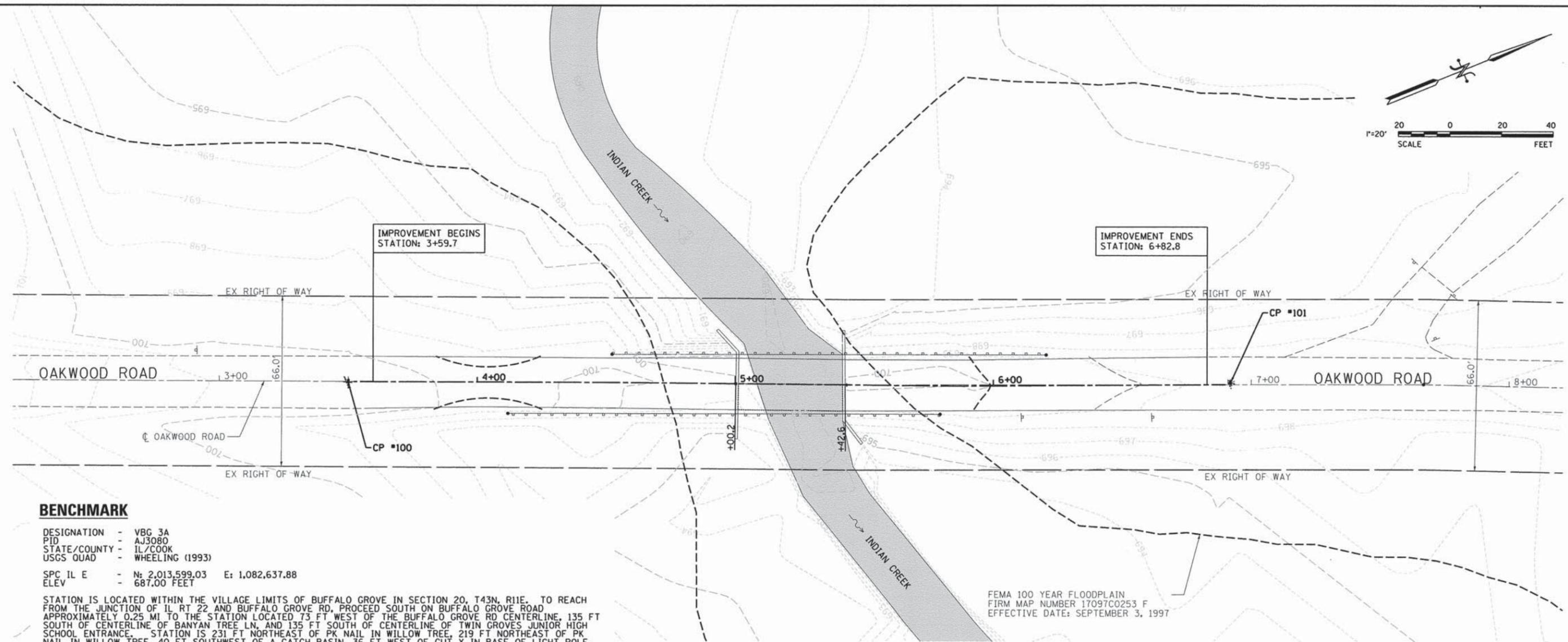
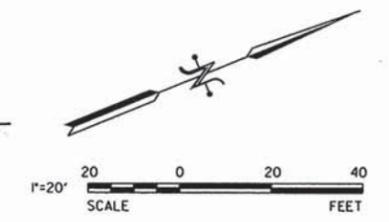


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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
	09-0005-00-BR	LAKE	26	4
			CONTRACT NO.: 61A24	
ILLINOIS FEDERAL AID PROJECT				



BENCHMARK

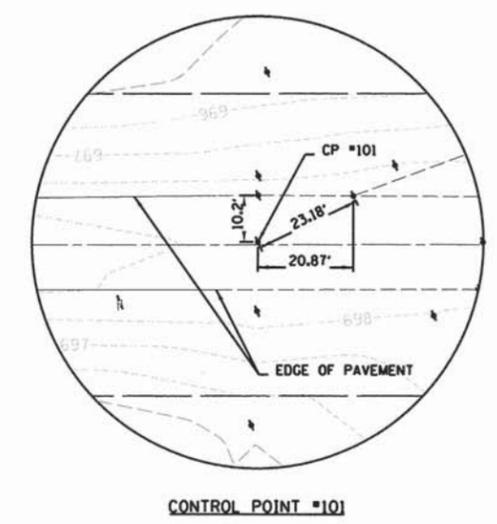
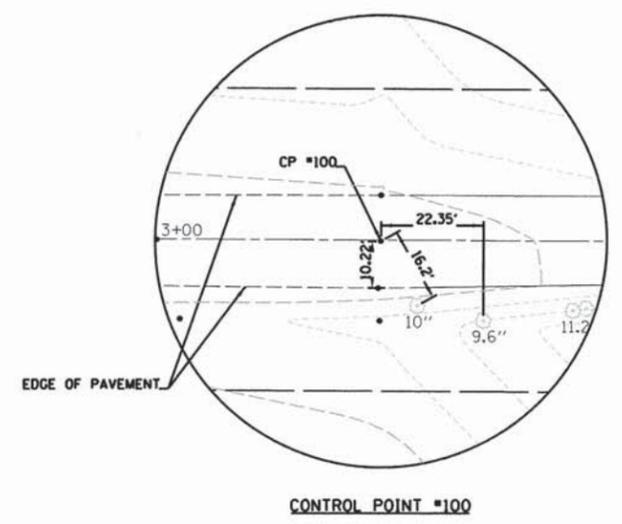
DESIGNATION - VBG 3A
 PID - AJ3080
 STATE/COUNTY - IL/COOK
 USGS QUAD - WHEELING (1993)
 SPC IL E - N: 2,013,599.03 E: 1,082,637.88
 ELEV - 687.00 FEET

STATION IS LOCATED WITHIN THE VILLAGE LIMITS OF BUFFALO GROVE IN SECTION 20, T43N, R11E. TO REACH FROM THE JUNCTION OF IL RT 22 AND BUFFALO GROVE RD, PROCEED SOUTH ON BUFFALO GROVE ROAD APPROXIMATELY 0.25 MI TO THE STATION LOCATED 73 FT WEST OF THE BUFFALO GROVE RD CENTERLINE, 135 FT SOUTH OF CENTERLINE OF BANYAN TREE LN, AND 135 FT SOUTH OF CENTERLINE OF TWIN GROVES JUNIOR HIGH SCHOOL ENTRANCE. STATION IS 231 FT NORTHEAST OF PK NAIL IN WILLOW TREE, 219 FT NORTHEAST OF PK NAIL IN WILLOW TREE, 40 FT SOUTHWEST OF A CATCH BASIN, 36 FT WEST OF CUT X IN BASE OF LIGHT POLE, 29 FT NORTH OF A UTILITY BOX, 20 FT SOUTHWEST OF A STORM MANHOLE, 23 FT WEST OF THE CONCRETE SIDEWALK, 19 FT SOUTHEAST OF A 36 INCH CONCRETE CULVERT AND CONCRETE DITCH, AND 19 FT SOUTHEAST OF ORANGE FIBERGLASS WITNESS POST. NOTE - ACCESS TO DATUM POINT THROUGH 6 INCH LOGO CAP.

FEMA 100 YEAR FLOODPLAIN
 FIRM MAP NUMBER 17097C0253 F
 EFFECTIVE DATE: SEPTEMBER 3, 1997

POINT	STATION	OFFSET	SIDE	NORTHING	EASTING
BM #1	OFF-SITE	-	-	2013599.03	1082637.88
PT	3+52.0	0.00	CL	2019338.936	1077848.424
PT	4+56.7	0.00	CL	2019435.801	1077888.268
PT	5+85.7	0.00	CL	2019554.788	1077938.076
PT	5+90.0	0.00	CL	2019651.622	1077976.757
CP 100	3+50.0	0.00	CL	2019337.004	1077847.897
CP 101	6+91.9	0.00	CL	2019653.639	1077976.932

CP #101 - PK NAIL, ELEV = 698.90



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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

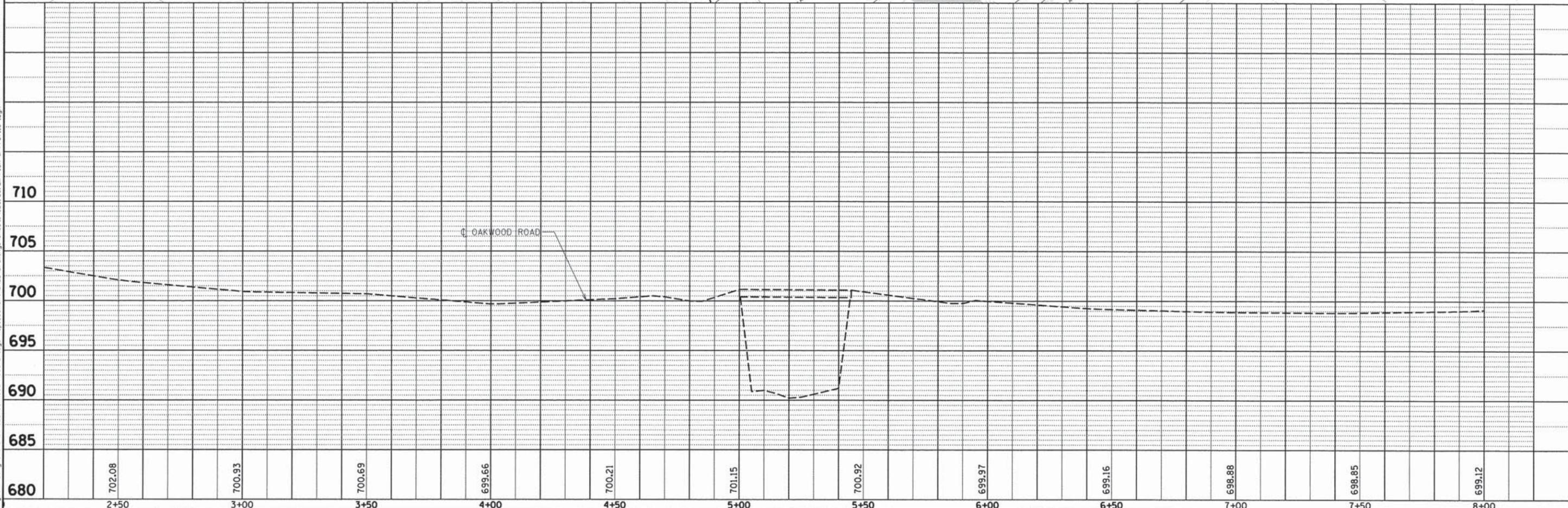
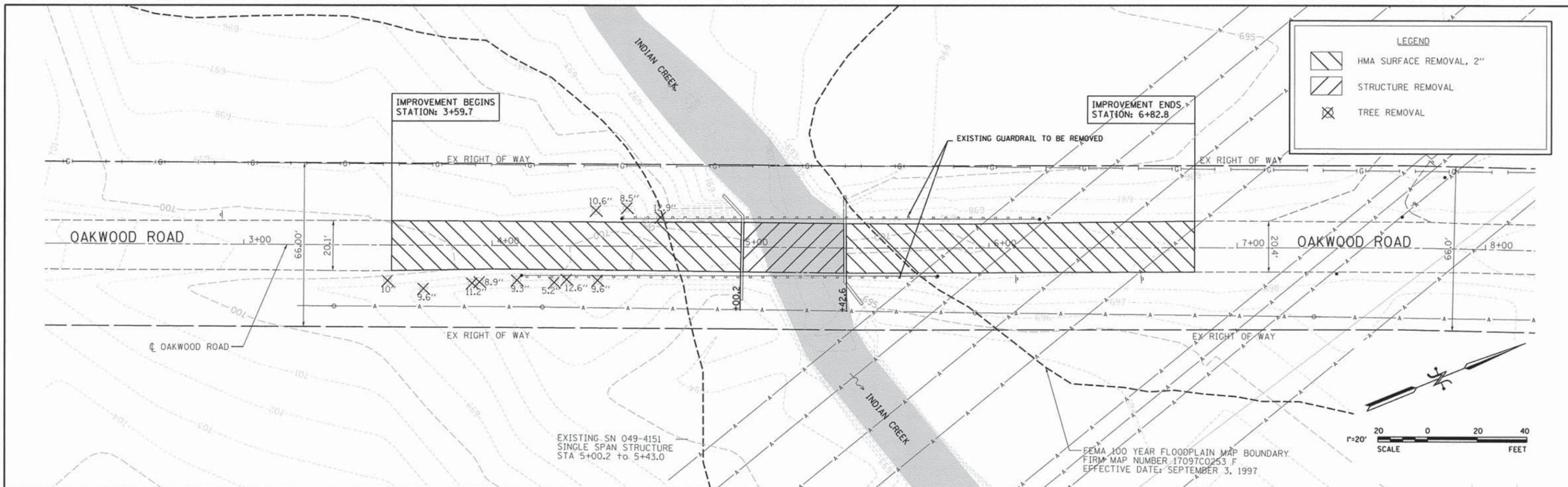
ALIGNMENT AND TIES

F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
	09-0005-00-BR	LAKE	26	5
CONTRACT NO.: 61A24				
ILLINOIS FEDERAL AID PROJECT				

DATE: _____ BY: _____
 SURVEYED: _____
 ALIGNED: _____
 CHECKED: _____
 RT. OF WAY: _____
 NO. _____
 PLAN

DATE: _____ BY: _____
 SURVEYED: _____
 GRADES: _____
 CHECKED: _____
 B.M. NOTED: _____
 NO. _____
 PROFILE

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 PLOT DATE = 2/20/2014

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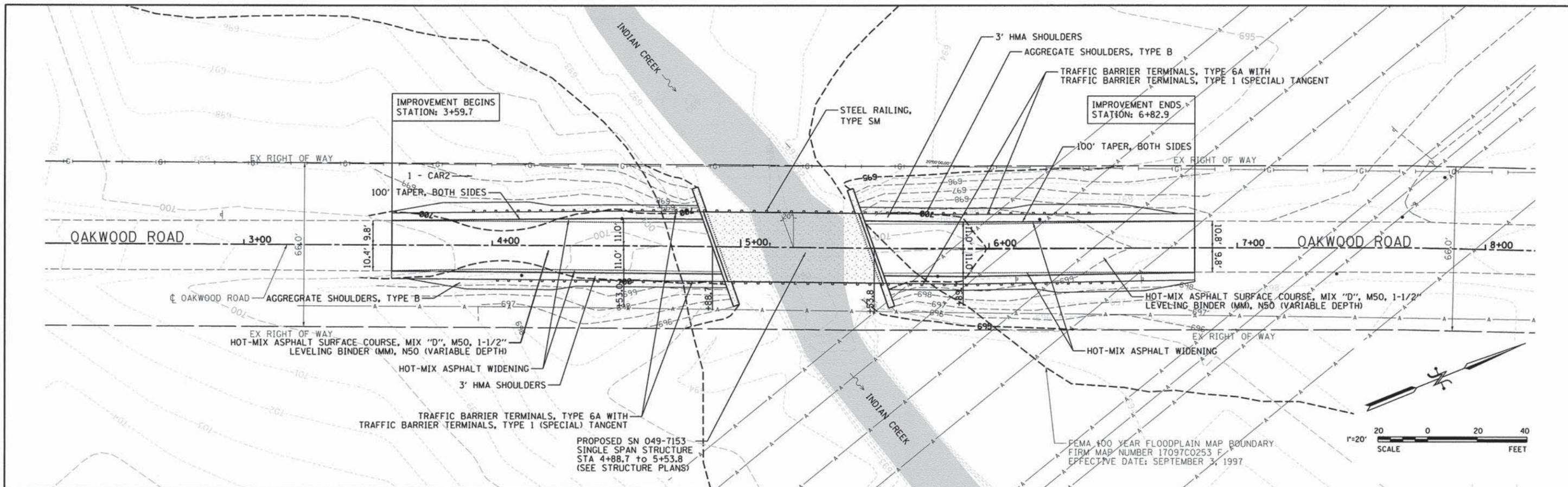
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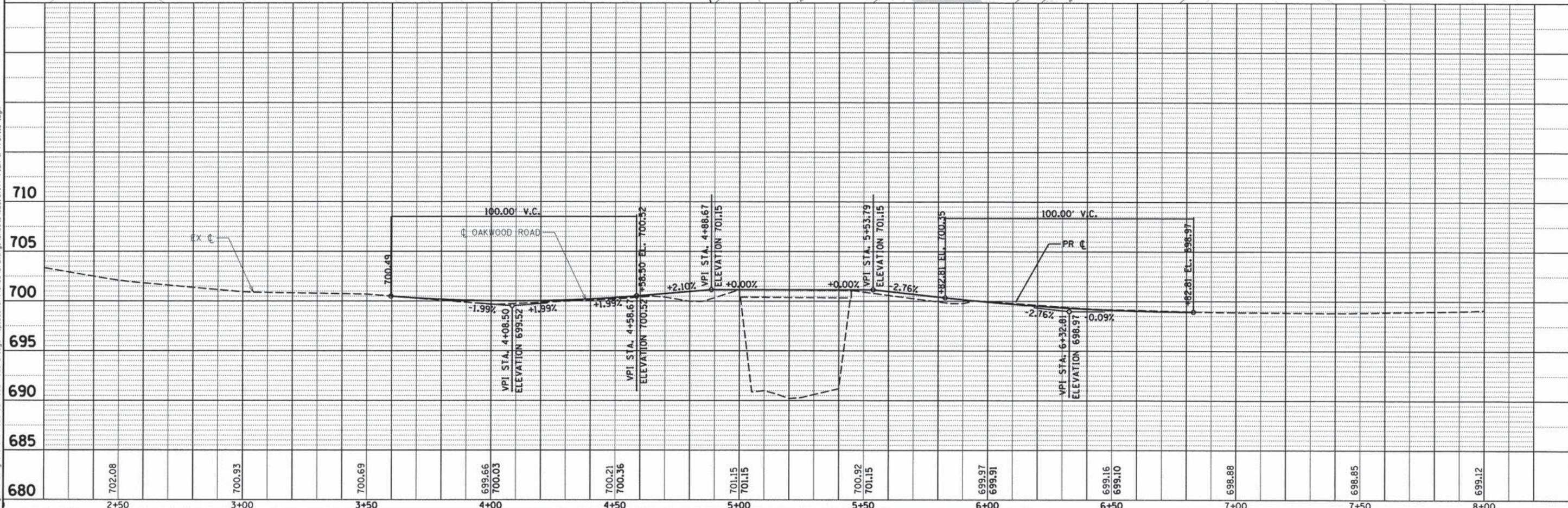
EXISTING REMOVAL PLAN

F.A. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
	09-0005-00-BR	LAKE	26	6
CONTRACT NO.: 61A24			ILLINOIS FEDERAL AID PROJECT	

DATE: _____ BY: _____
 SURVEYED: _____
 ALIGNED: _____
 CHECKED: _____
 RT. OF WAY: _____
 NO. _____
 PLAN: _____
 NOTE BOOK: _____
 NO. _____



DATE: _____ BY: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 B.M. NOTED: _____
 STRUCTURE NOTATIONS CHKD: _____
 NO. _____
 PROFILE: _____
 NOTE BOOK: _____
 NO. _____



PRINTED DATE: 2/21/2014
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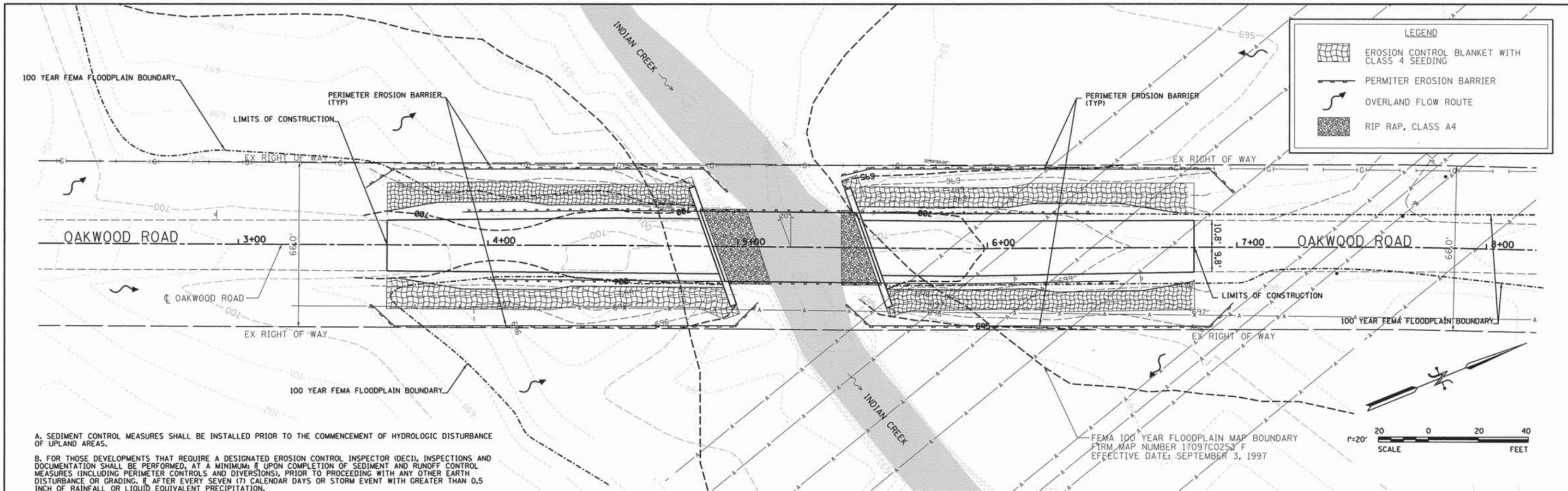
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PROPOSED PLAN AND PROFILE

F.A. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
	09-0005-00-BR	LAKE	26	7
CONTRACT NO.: 61A24			ILLINOIS FEDERAL AID PROJECT	



- A. SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.
- B. FOR THOSE DEVELOPMENTS THAT REQUIRE A DESIGNATED EROSION CONTROL INSPECTOR (DECI), INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM, UPON COMPLETION OF SEDIMENT AND RUNOFF CONTROL MEASURES (INCLUDING PERIMETER CONTROLS AND DIVERSIONS), PRIOR TO PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. # AFTER EVERY SEVEN (7) CALENDAR DAYS OR STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.
- C. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- D. A STABILIZED MAT OF CRUSHED STONE MEETING IDOT GRADATION CA--1 UNDERLAIN WITH FILTER FABRIC AND IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL, OR OTHER APPROPRIATE MEASURE(S) AS APPROVED BY THE ENFORCEMENT OFFICER, SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT--OF--WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
- E. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN.
- F. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING THE END OF ACTIVE HYDROLOGIC DISTURBANCE OR REDISTURBANCE.
- G. ALL STOCKPILES SHALL HAVE APPROPRIATE MEASURES TO PREVENT EROSION. STOCKPILES SHALL NOT BE PLACED IN FLOOD PRONE AREAS OR WETLANDS AND DESIGNATED BUFFERS.
- H. SLOPES STEEPER THAN 3H:1V SHALL BE STABILIZED WITH APPROPRIATE MEASURES AS APPROVED BY THE ENFORCEMENT OFFICER.
- I. APPROPRIATE EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL INTERIOR DETENTION BASIN SIDE SLOPES BETWEEN THE NORMAL WATER LEVEL AND HIGH WATER LEVEL.
- J. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
- K. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DISCHARGES SHALL BE ROUTED THROUGH AN APPROVED ANIONIC POLYMER DEWATERING SYSTEM OR A SIMILAR MEASURE AS APPROVED BY THE ENFORCEMENT OFFICER. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE ENFORCEMENT OFFICER, OR APPROVED REPRESENTATIVE, MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.
- L. ALL STREAMBANK STABILIZATION CONSTRUCTION SHALL BE DONE IN DRY WORKING CONDITIONS.
- M. IF INSTALLED SOIL EROSION AND SEDIMENT CONTROL MEASURES DO NOT MINIMIZE SEDIMENT LEAVING THE DEVELOPMENT SITE, ADDITIONAL MEASURES SUCH AS ANIONIC POLYMERS OR FILTRATION SYSTEMS MAY BE REQUIRED BY THE ENFORCEMENT OFFICER.
- N. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE PROPERTY OWNER SHALL BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE AND REPAIR.
- O. ALL TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
- P. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, ENFORCEMENT OFFICER, OR OTHER GOVERNING AGENCY.

- 1) WORK IN THE WATERWAY SHOULD BE TIMED TO TAKE PLACE DURING LOW OR NO-FLOW CONDITIONS. LOW FLOW CONDITIONS ARE AT OR BELOW THE NORMAL WATER ELEVATION.
- 2) WATER SHALL BE ISOLATED FROM THE IN-STREAM WORK AREA USING A COFFERDAM CONSTRUCTED OF NON-ERODIBLE MATERIALS (STEEL SHEETS, AQUA BARRIERS, RIP RAP AND GEOTEXTILE LINER, ETC.). EARTHEN COFFERDAMS ARE NOT PERMISSIBLE.
- 3) THE COFFERDAM MUST BE CONSTRUCTED FROM THE UPLAND AREA AND NO EQUIPMENT MAY ENTER THE WATER AT ANY TIME. IF THE INSTALLATION OF THE COFFERDAM CANNOT BE COMPLETED FROM SHORE AND ACCESS IS NEEDED TO REACH THE AREA TO BE COFFERED, OTHER MEASURES, SUCH AS THE CONSTRUCTION OF A CAUSEWAY, WILL BE NECESSARY TO ENSURE THAT EQUIPMENT DOES NOT ENTER THE WATER. ONCE THE COFFERDAM IS IN PLACE AND THE ISOLATED AREA IS DEWATERED, EQUIPMENT MAY ENTER THE COFFERED AREA TO PERFORM THE REQUIRED WORK.
- 4) IF BYPASS PUMPING IS NECESSARY, THE INTAKE HOSE SHALL BE PLACED ON A STABLE SURFACE OR FLOATED TO PREVENT SEDIMENT FROM ENTERING THE HOSE. THE BYPASS DISCHARGE SHALL BE PLACED ON A NON-ERODIBLE, ENERGY DISSIPATING SURFACE PRIOR TO REJOINING THE STREAM FLOW AND SHALL NOT CAUSE EROSION. FILTERING OF BYPASS WATER IS NOT NECESSARY UNLESS THE BYPASS WATER HAS BECOME SEDIMENT-LADEN AS A RESULT OF THE CURRENT CONSTRUCTION ACTIVITIES.
- 5) DURING DEWATERING OF THE COFFERED WORK AREA, ALL SEDIMENT-LADEN WATER MUST BE FILTERED TO REMOVE SEDIMENT. POSSIBLE OPTIONS FOR SEDIMENT REMOVAL INCLUDE BAFFLE SYSTEMS, ANIONIC POLYMERS SYSTEMS, DEWATERING BAGS, OR OTHER APPROPRIATE METHODS. WATER SHALL HAVE SEDIMENT REMOVED PRIOR TO BEING RE-INTRODUCED TO THE DOWNSTREAM WATERWAY. A STABILIZED CONVEYANCE FROM THE DEWATERING DEVICE TO THE WATERWAY MUST BE IDENTIFIED IN THE PLAN. DISCHARGE WATER SHALL NOT RESULT IN A VISUALLY IDENTIFIABLE DEGRADATION OF WATER CLARITY.
- 6) THE PORTION OF THE SIDE SLOPE THAT IS ABOVE THE OBSERVED WATER ELEVATION SHALL BE STABILIZED AS SPECIFIED IN THE PLANS PRIOR TO ACCEPTING FLOWS. THE SUBSTRATE AND TOE OF SLOPE THAT HAS BEEN DISTURBED DUE TO CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO PROPOSED OR PRE-CONSTRUCTION CONDITIONS AND FULLY STABILIZED PRIOR TO ACCEPTING FLOWS.
- 7) NO HEAVY EQUIPMENT WILL BE ALLOWED IN WETLAND OR WATERS OF THE U.S. AREAS.

- CONSTRUCTION SEQUENCING**
- 1.) SELECTIVE VEGETATION REMOVAL FOR SILT FENCE INSTALLATION
 - 2.) SILT FENCE INSTALLATION
 - 3.) TREE REMOVAL AS INDICATED IN PLANS
 - 4.) SUBMIT STAGE 1 & STAGE 2 DEWATERING PLANS FOR ENGINEER APPROVAL
 - 5.) CONSTRUCT SEDIMENT TRAPPING DEVICES
 - 6.) DEWATER INDIAN CREEK
 - 7.) CONSTRUCT STAGE 1 OAKWOOD BRIDGE REPLACEMENT
 - 8.) PERMANENTLY STABILIZE STAGE 1 DISTURBED AREAS
 - 9.) CONSTRUCT STAGE 2 OAKWOOD BRIDGE REPLACEMENT
 - 10.) PERMANENTLY STABILIZE STAGE 2 DISTURBED AREAS
 - 11.) REMOVE ALL TEMPORARY SE/SC MEASURES AFTER THE SITE IS STABILIZED WITH VEGETATION
- * SOIL EROSION AND SEDIMENT CONTROL MAINTENANCE MUST OCCUR EVERY TWO WEEKS AND AFTER EVERY 1/2" OR GREATER RAINFALL EVENT.

STABILIZATION TYPE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
TEMPORARY SEEDING												
MULCHING												
PERMANENT SEEDING												
DORMANT SEEDING												
SODDING												

EACH PRACTICE SHALL BE APPLIED AT A MINIMUM RATE OF 90 LBS/ACRE
SEEDING AND MULCHING APPLICATION RATES AND APPLICATION TIME OF YEAR AS WELL AS SEEDING SPECIES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL, LATEST EDITION

OWNER'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

OWNER'S CERTIFICATION

SIGNATURE _____ TITLE _____ DATE _____

COMPANY _____

CONTRACTOR'S CERTIFICATION

I HEREBY CERTIFY, UNDER PENALTY OF LAW, THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (ILR10) THAT AUTHORIZES THE STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION

CONTRACTOR'S CERTIFICATION			SUB-CONTRACTOR		
SIGNATURE _____	TITLE _____	DATE _____	SIGNATURE _____	TITLE _____	DATE _____
COMPANY _____			COMPANY _____		
WITNESSED BY OWNER			SUB-CONTRACTOR		
SIGNATURE _____	TITLE _____	DATE _____	SIGNATURE _____	TITLE _____	DATE _____
COMPANY _____			COMPANY _____		

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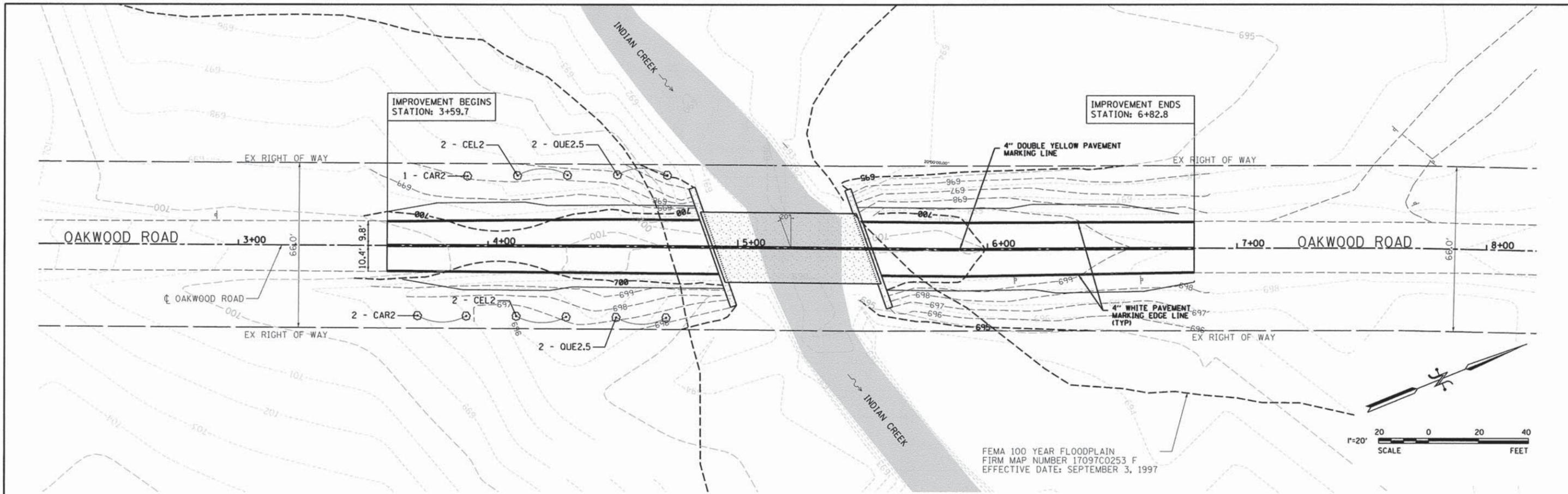
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

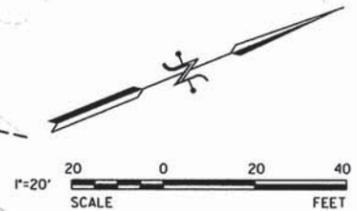
EROSION CONTROL PLAN

F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
	09-0005-00-BR	LAKE	26	8
CONTRACT NO.: 61A24				
ILLINOIS FEDERAL AID PROJECT				

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FEMA 100 YEAR FLOODPLAIN
FIRM MAP NUMBER 17097C0253 F
EFFECTIVE DATE: SEPTEMBER 3, 1997



- NOTES:**
- POLYUREA PAVEMENT MARKINGS TYPE I SHALL BE USED ON P.C.C. PAVEMENT.
 - THERMOPLASTIC PAVEMENT MARKINGS SHALL BE USED ON HMA PAVEMENT.

PLANT SCHEDULE

TREES	QTY	BOTANICAL / COMMON	CONT.
CAR2	3	CARPINUS CAROLINIANA / AMERICAN HORNBEAM	2" B&B
CEL2	4	CELTIS OCCIDENTALIS / COMMON HACKBERRY	2" B&B
QUE2.5	4	QUERCUS BICOLOR / SWAMP WHITE OAK	2.5" B&B



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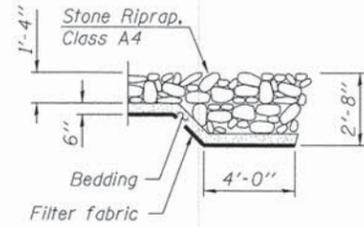
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING AND LANDSCAPING

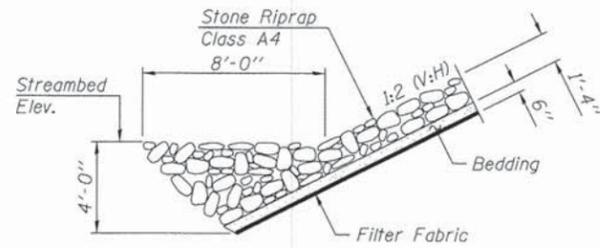
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	09-0005-00-BR	LAKE	26	9
CONTRACT NO.: 61A24				
ILLINOIS FEDERAL AID PROJECT				

B.M. - Designation VBG 3A, Elev 687.00

Existing Structure - Structure 049-7151 consists of single span PPC Deck Beam structure with a back-to-back abutment length of 42'. The out-to-out width is 21' and 20' face-to-face of curb. The existing structure shall be completely replaced. Stage construction shall be used.



SECTION A-A



SECTION B-B



PROFILE GRADE

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $F_y = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $F'_s = 270,000$ psi ($1/2$ " low relax. strands)
 $F_{sl} = 201,960$ psi ($1/2$ " low relax. strands)

DESIGN SPECIFICATIONS

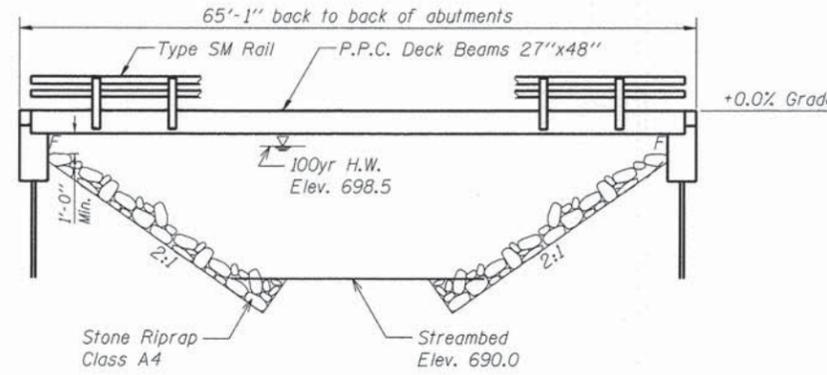
2012 AASHTO LRFD Bridge Design Specifications - 6th Ed. w/ 2012 Interims

LOADING HL-93

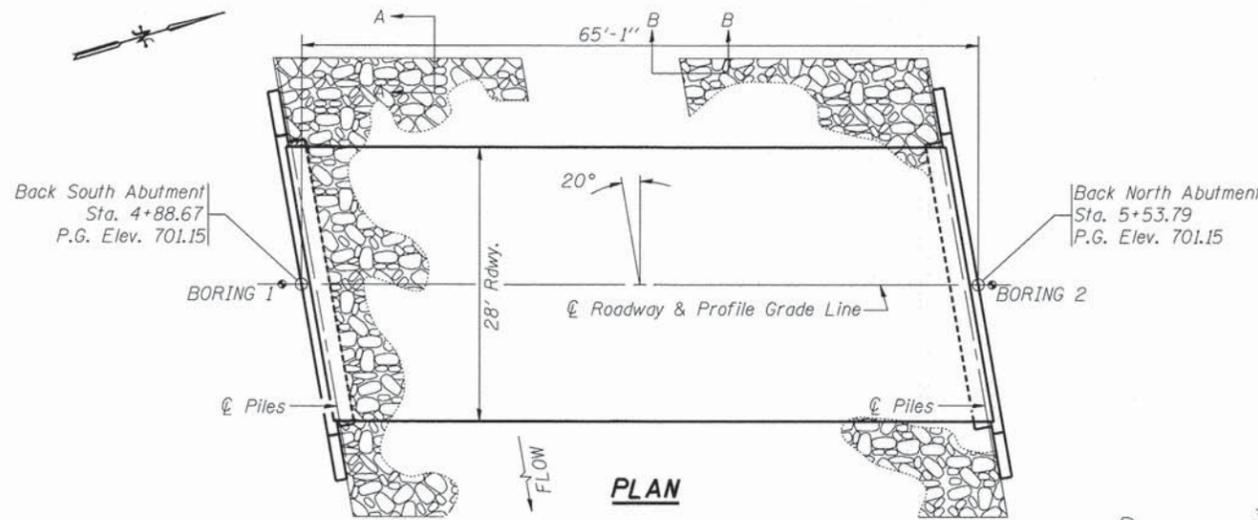
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.080
 Design Spectral Acceleration at 2.0 sec. (S_{D2}) = 0.135
 Soil Site Class = D



ELEVATION



PLAN

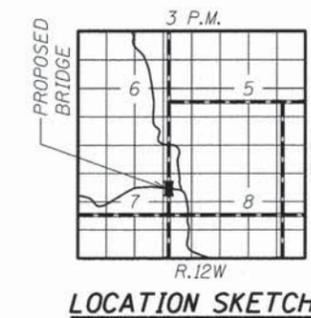
INDIAN CREEK
 BUILT 201_ BY
 VILLAGE OF LONG GROVE
 SEC. 09-00005-00-BR
 PROJECT NO. BROS-9003(228)
 M.S. 3008 STA. 5+21.3
 STR. NO. 049-7153 LOADING HL-93

LETTERING FOR NAME PLATE

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

WATERWAY INFORMATION

Drainage Area = 17.5 SQ MI		Low Grade Elev. = 698.8 @ Sta. 7+41							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist. Prop.	Nat. H.W.E. Exist. Prop.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.			
Design	50	920	239 288	696.6 0.2 0.0	696.8 696.6				
Base	100	1155	263 321	697.1 0.3 0.1	697.4 697.2				
Overtopping									
Max. Calc.	500	1400		697.5 0.4 0.2	697.9 697.6				



LOCATION SKETCH

GENERAL NOTES

- The Contractor shall drive 1 test pile, as specified, in a permanent location as directed by the Engineer before ordering the remaining piles.
- See Bridge Plan Sheet 9 of 10 for boring logs.
- Reinforcement bars designated (E) shall be epoxy coated.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Channel Excavation	Cu. Yd.	-	-	230.0	230.0
Stone Riprap Class A4	Ton	-	-	129.0	129.0
Removal of Existing Structures	Each	-	-	-	1
Structure Excavation	Cu. Yd.	-	-	104	104
Concrete Structures	Cu. Yd.	-	-	54.8	54.8
Concrete Encasement	Cu. Yd.	-	-	11.2	11.2
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1778	-	-	1778
Reinforcement Bars, Epoxy Coated	Pound	-	-	3800	3800
Bar Splicers	Each	-	-	20	20
Steel Railing, Type SM	Foot	130	-	-	130
Furnishing Steel Piles HP 12x53	Foot	-	-	350	350
Driving Piles	Foot	-	350	-	350
Test Piles Steel HP 12x53	Each	-	-	2	2
Name Plates	Each	1	-	-	1
Controlled Low-Strength Material	Cu. Yd.	-	-	47.7	47.7

INDEX OF SHEETS

- General Plan & Elevation
- Stage Construction Details
- Superstructure
- Superstructure Details
- Steel Railing
- Abutment Details
- Pile Details
- Bar Splicer Details
- Boring Logs
- Temp Barrier



Daniel Feuerborn
 Daniel Feuerborn
 License Expires 11-30-2014
 Date: 2/20/14

I certify that to the best of 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 with requirements of the current AASHTO Standard Specifications for Highway Bridges.

GENERAL PLAN & ELEVATION
M.S. 3008 OVER INDIAN CREEK
SEC. 09-0005-00-BR
LAKE COUNTY
STATION 5+21.23
STRUCTURE NO. 049-7153

PRINTED DATE: 2/20/2014
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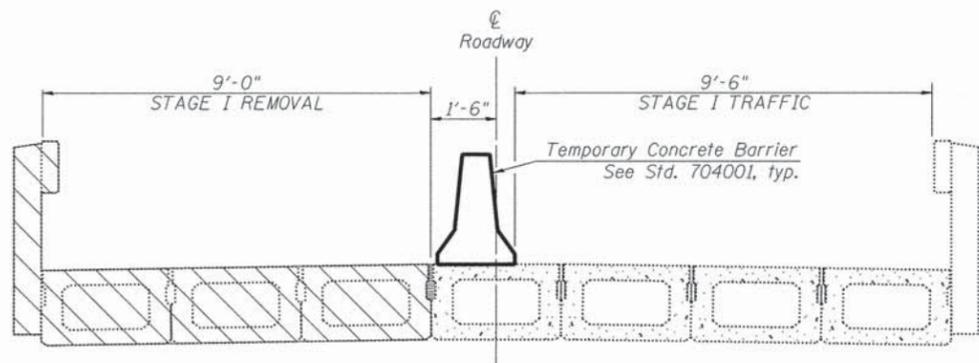
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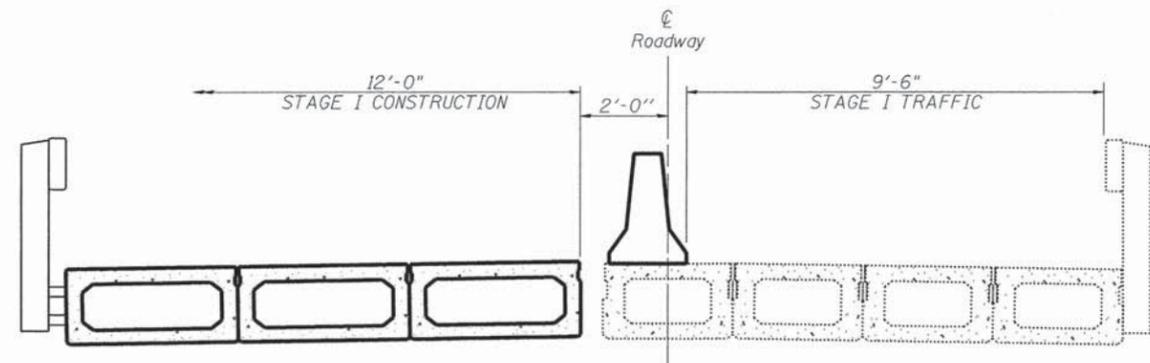
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 STRUCTURE NO. 049-7153

SHEET NO 1 OF 10 SHEETS

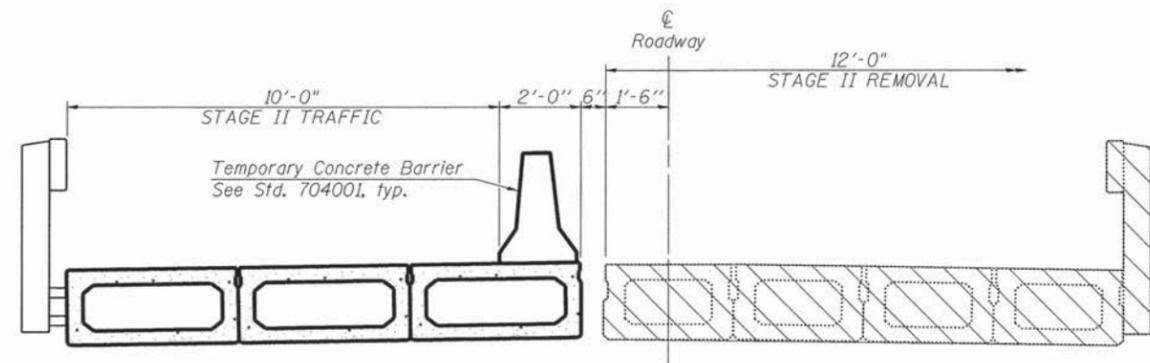
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3008	09-0005-00-BR	LAKE	26	10
				CONTRACT NO. 61A24
(ILLINOIS) FED. AID PROJECT				



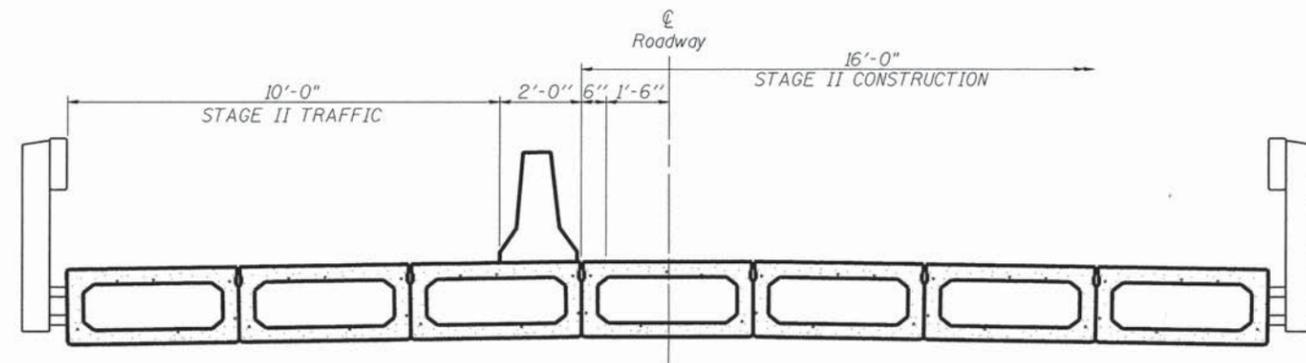
STAGE I REMOVAL



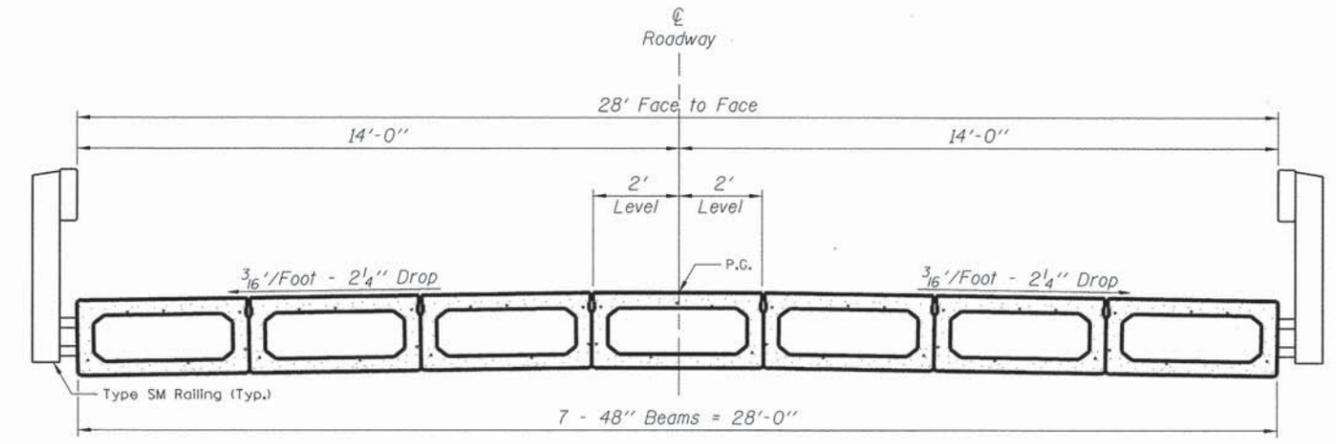
STAGE I CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION



PROPOSED CROSS-SECTION

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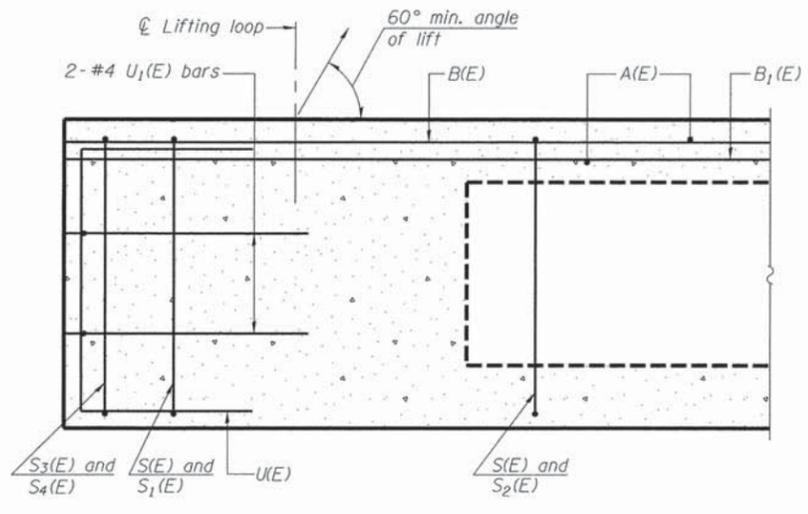
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

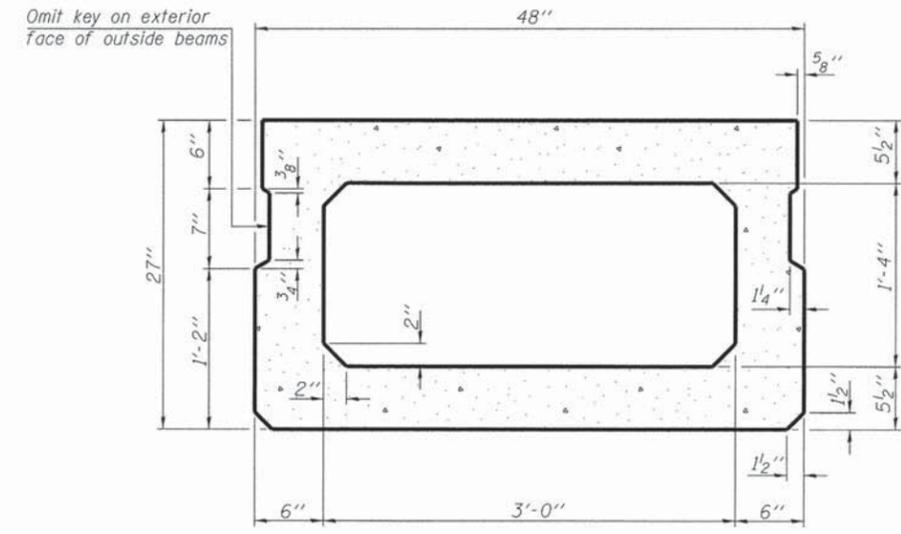
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SHEET NO 2 OF 10 SHEETS

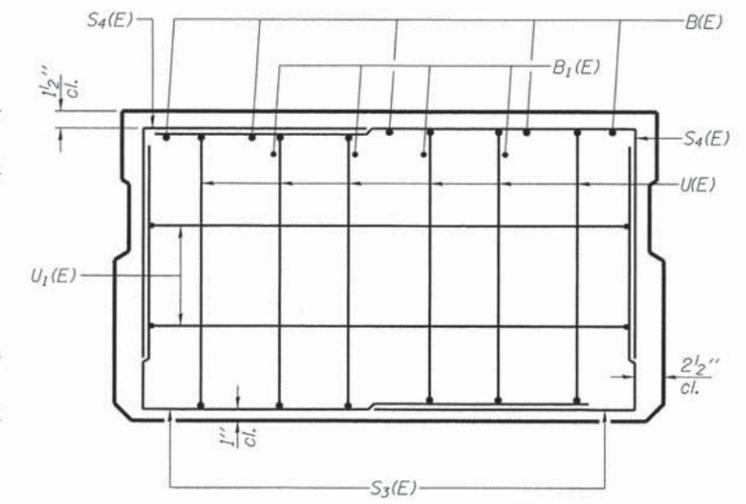
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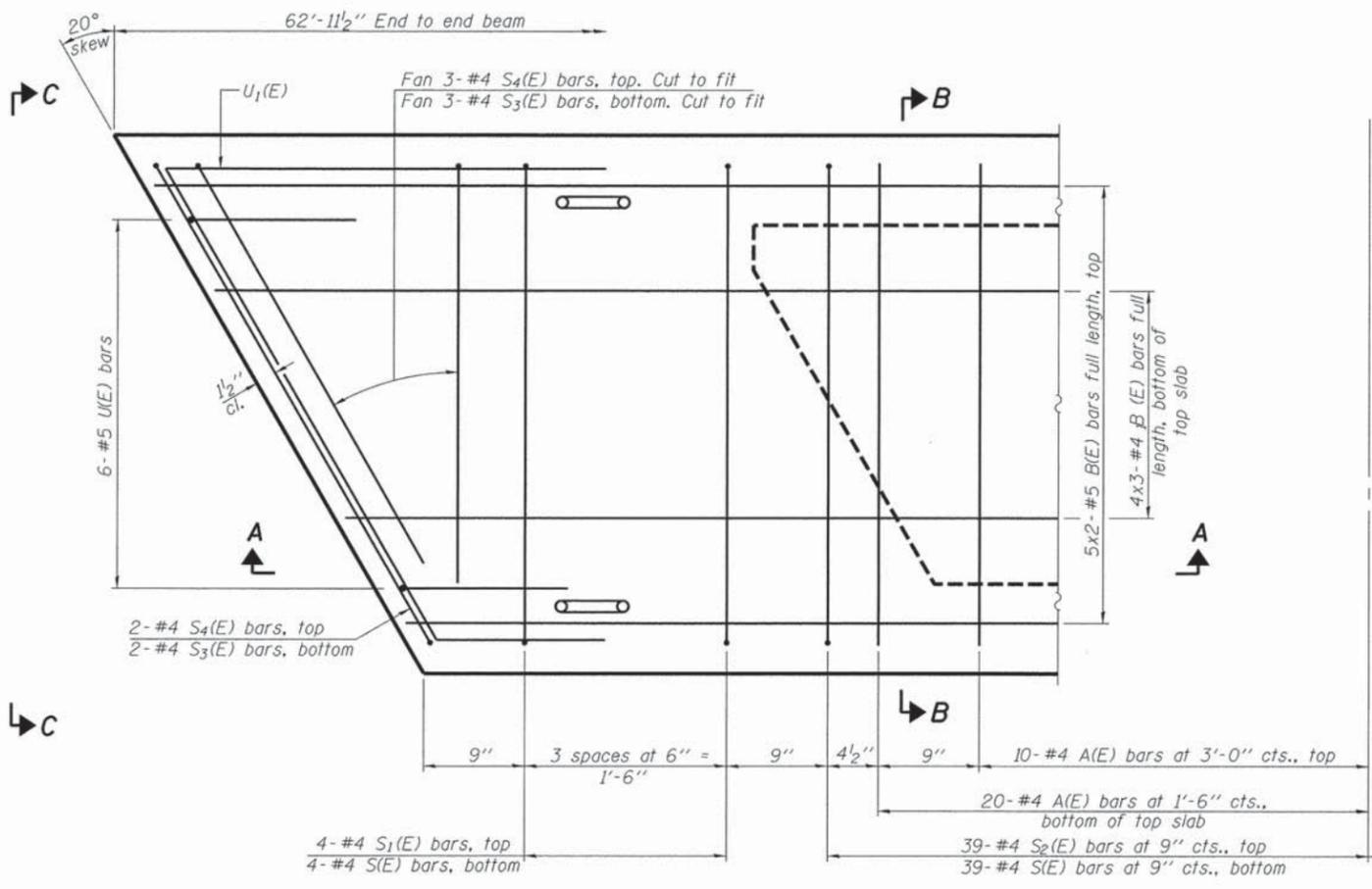
SECTION A-A



SECTION B-B
(Showing dimensions)

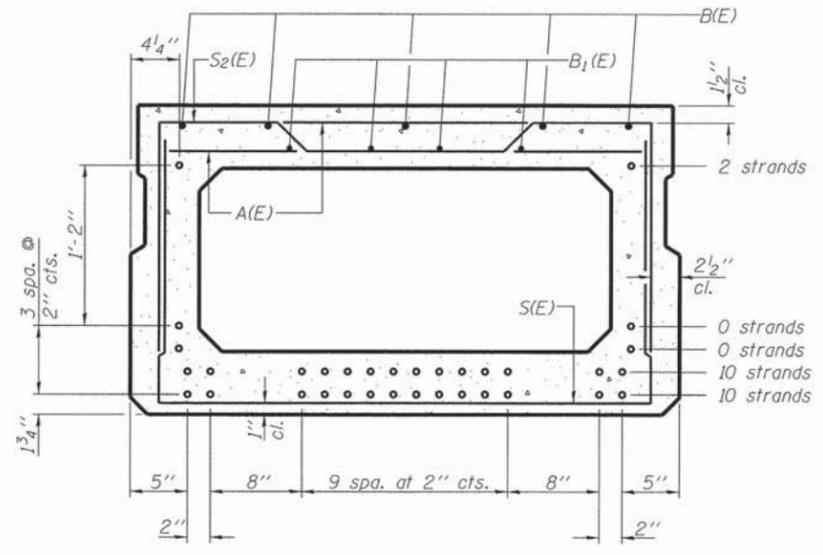


VIEW C-C



PLAN VIEW

Note: Spacing of S(E) and S2(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 B-B
(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)	38	#4	3'-7"	—
B(E)	10	#5	32'-7"	—
B1(E)	12	#4	22'-3"	—
S(E)	85	#4	7'-5"	U
S1(E)	8	#4	6'-11"	U
S2(E)	77	#4	7'-2"	U
S3(E)	5	#4	4'-8"	U
S4(E)	5	#4	4'-11"	U
U(E)	12	#5	4'-6"	U
U1(E)	4	#4	7'-6"	U

Note: See sheet 4 of 10 for additional details and Bill of Material.

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

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PD-2748-R 7-1-10



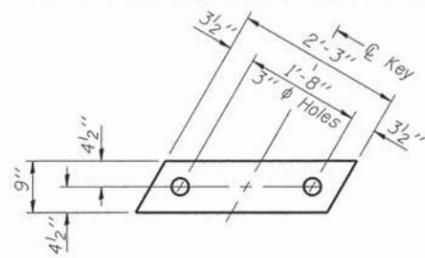
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

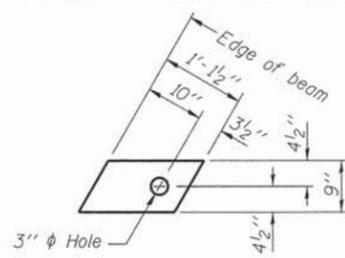
27" x 48" PPC DECK BEAM
STRUCTURE NO. 049-7153

SHEET NO 3 OF 10 SHEETS

M.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3008	09-00005-00-BR	LAKE	26	12
CONTRACT NO. 61A24				
ILLINOIS FED. AID PROJECT				



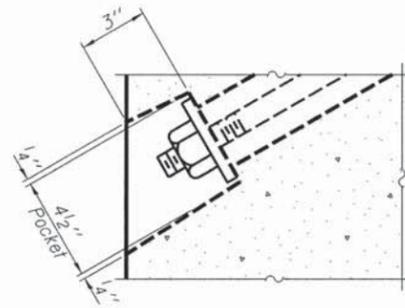
FABRIC BEARING PAD
(Interior)



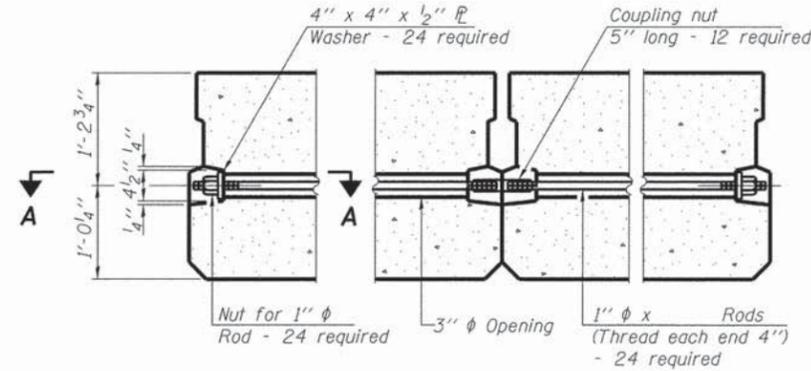
FABRIC BEARING PAD
(Exterior)

FIXED

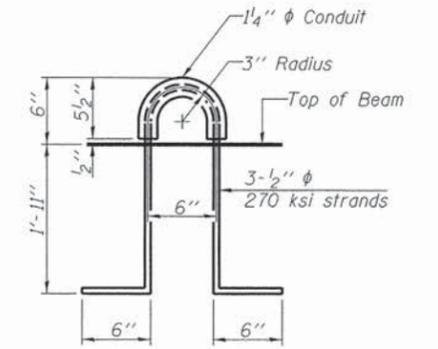
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



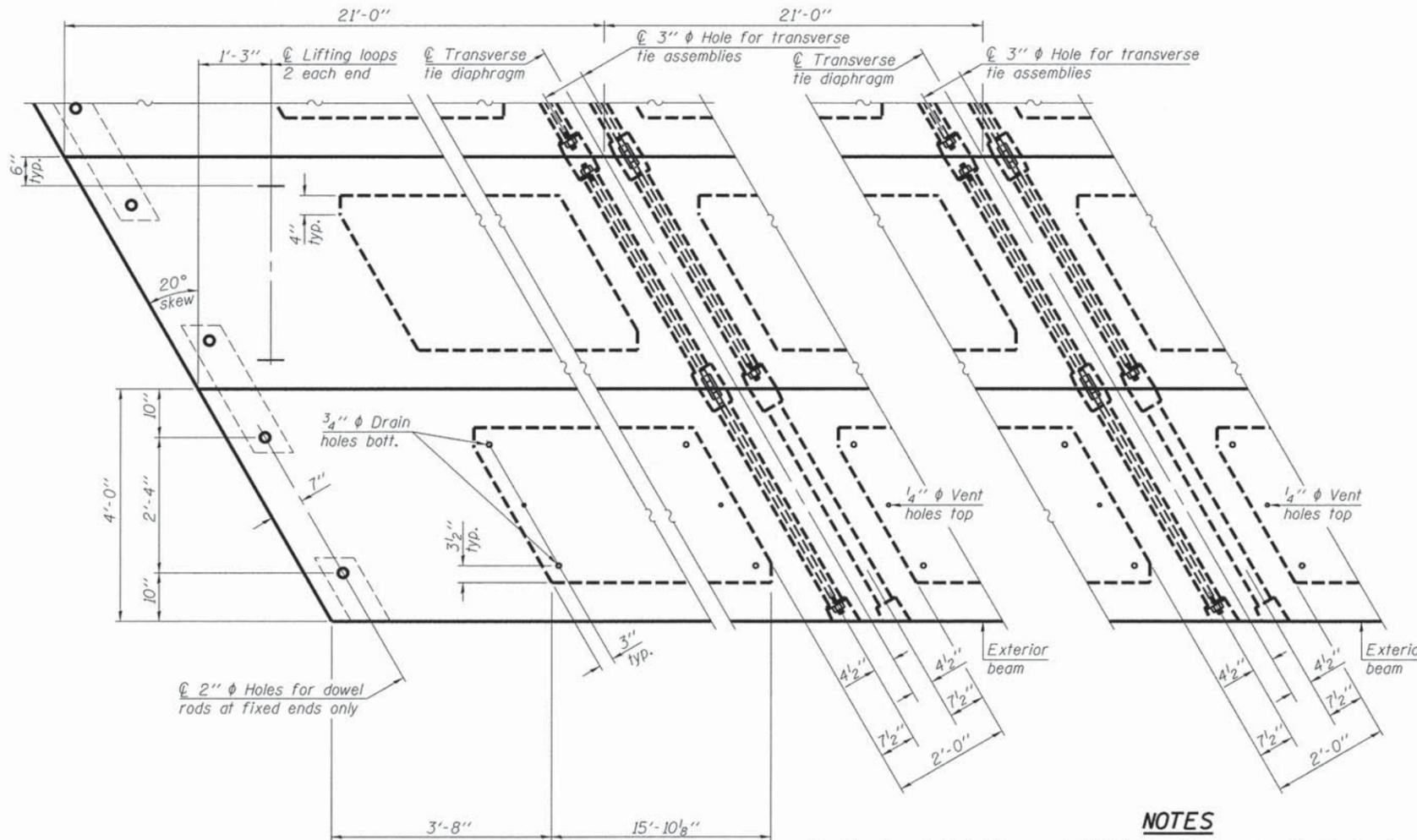
SECTION A-A



TYPICAL TRANSVERSE TIE ASSEMBLY



LIFTING LOOP DETAIL

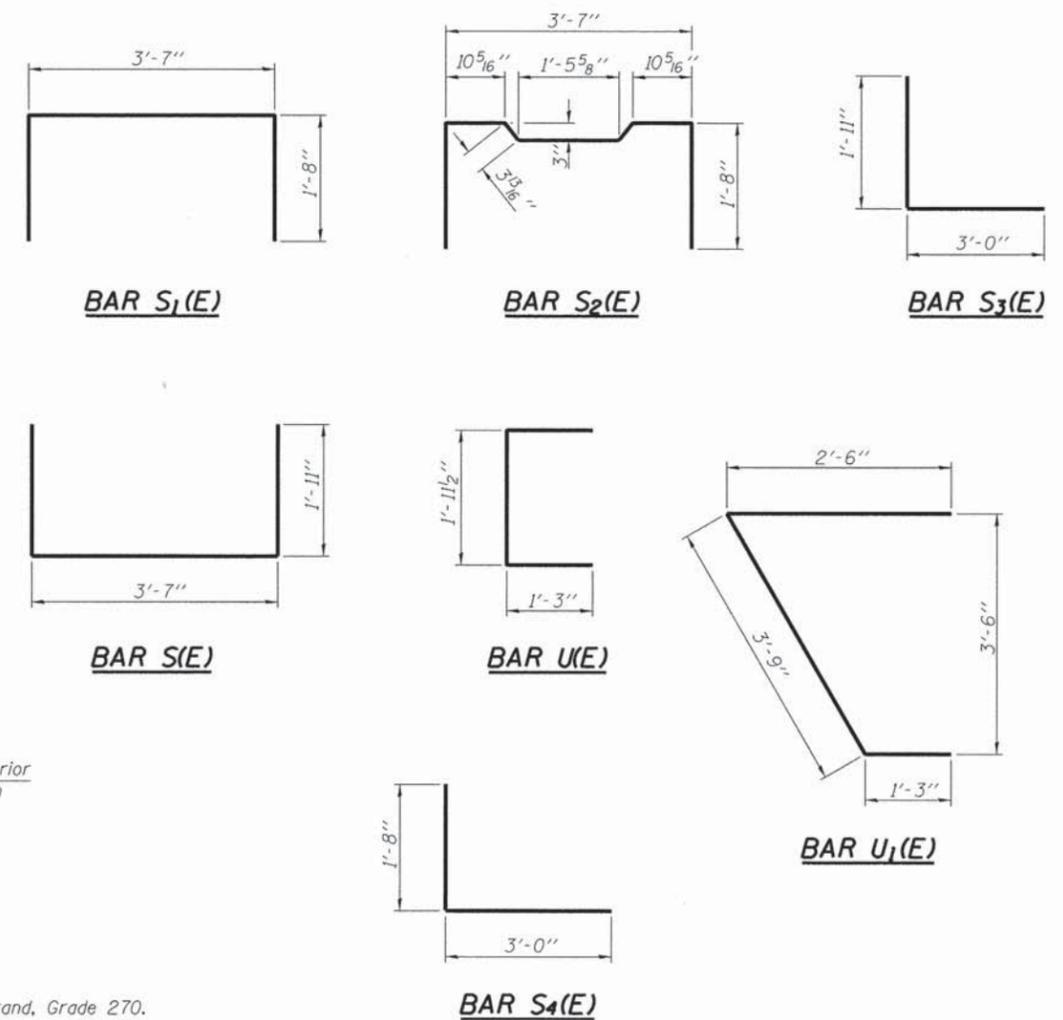


PLAN VIEW

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

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" 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 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
A minimum 2 1/2" diameter 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. (27" depth)	Sq. Ft.	1778
-------------------------------------------------	---------	------

PRINTED DATE: 2/19/2014 FILE NAME: R:\Projects\Long Grove, Village of\12-499 Oakwood Road Bridge Phase 2\CADD\Drawings\Sheets\04_SUPER DET.LG.Dekwood.dgn

PD-2748-RD

7-1-10



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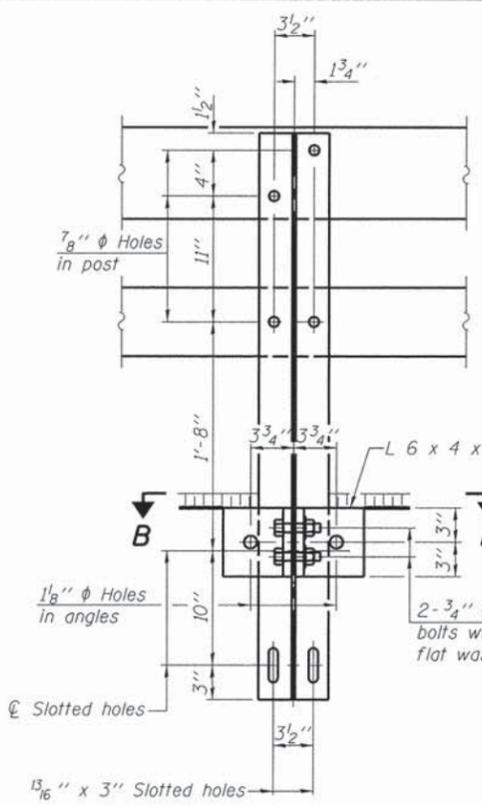
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

27" x 48" PPC DECK BEAM DETAILS
STRUCTURE NO. 049-7153

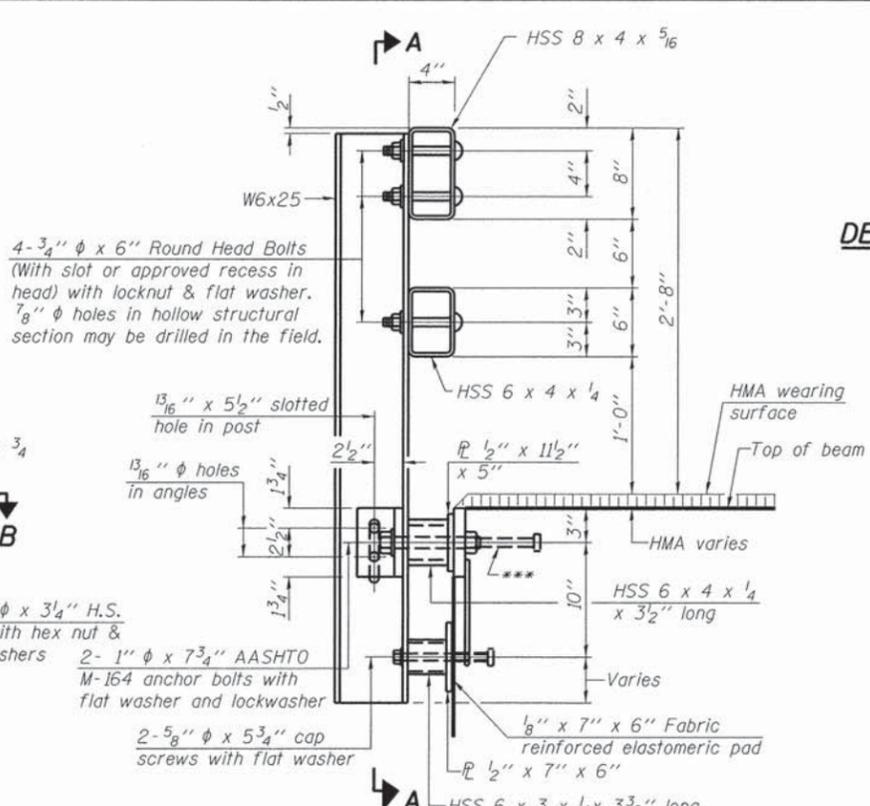
SHEET NO 4 OF 10 SHEETS

M.S. RTE. 3008	SECTION 09-0005-00-BR	COUNTY LAKE	TOTAL SHEETS 26	SHEET NO. 13
			CONTRACT NO. 61A24	
ILLINOIS FED. AID PROJECT				

PRINTED DATE: 2/19/2014
 FILE NAME: R-34HMAWS.dwg
 PROJECT: Village of Niles, 1245 N. Lincoln Ave., Niles, IL 60156
 SHEETS: 09-0005-00-BR
 CONTRACT NO. 61A24

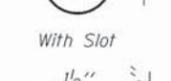
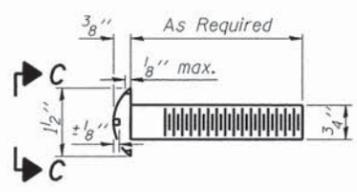


SECTION A-A

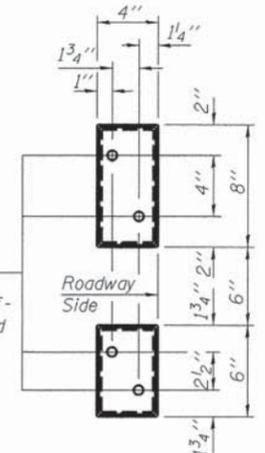


SECTION AT RAIL POST

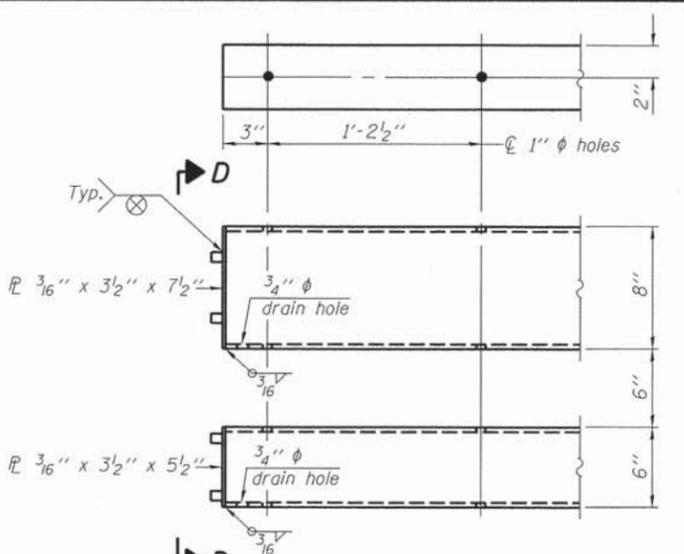
DETAIL OF 3/4" Ø ROUND HEAD BOLT



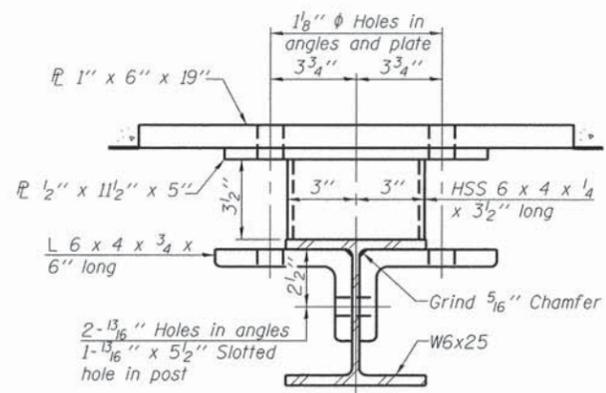
VIEW C-C



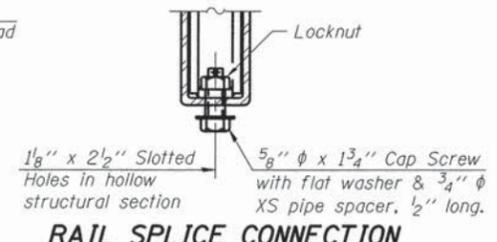
VIEW D-D



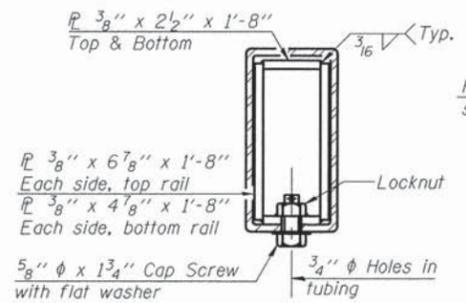
END OF RAIL DETAILS



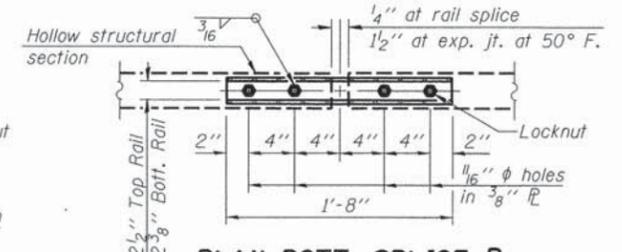
SECTION B-B



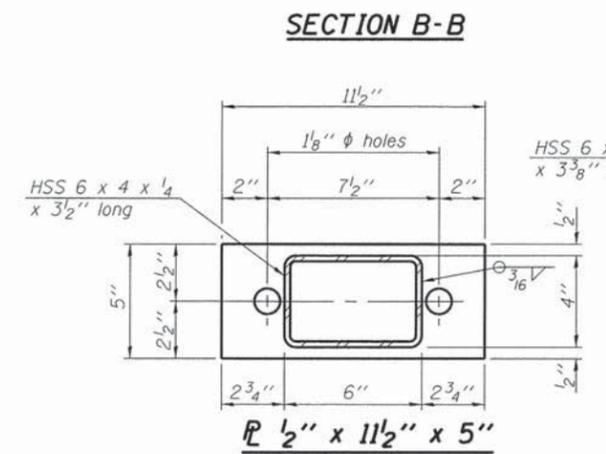
RAIL SPLICE CONNECTION AT EXPANSION JT.



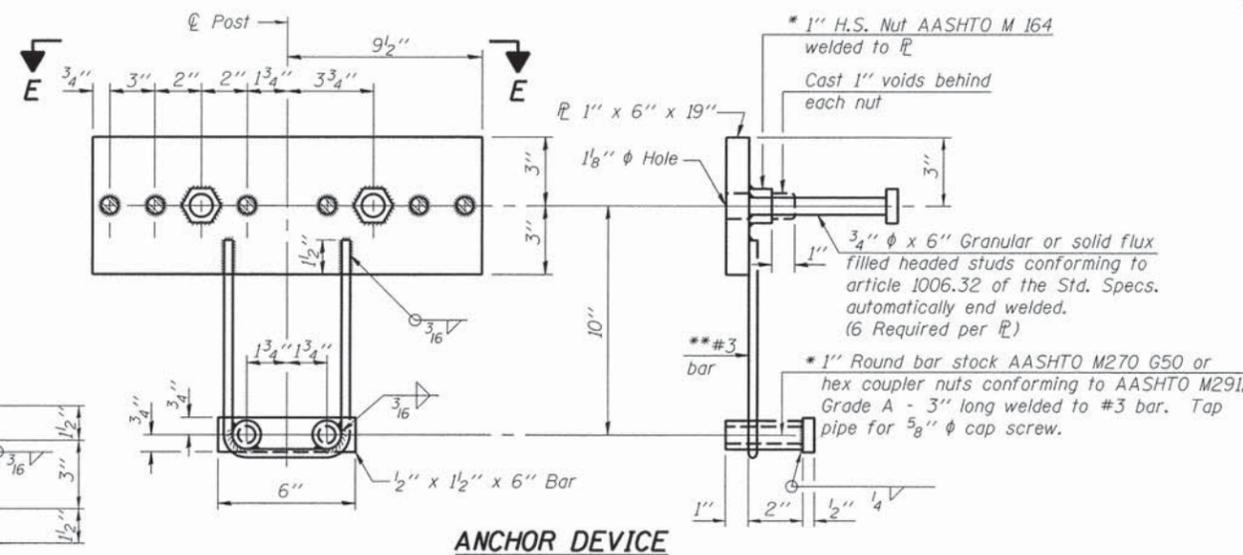
SECTION AT RAIL SPLICE



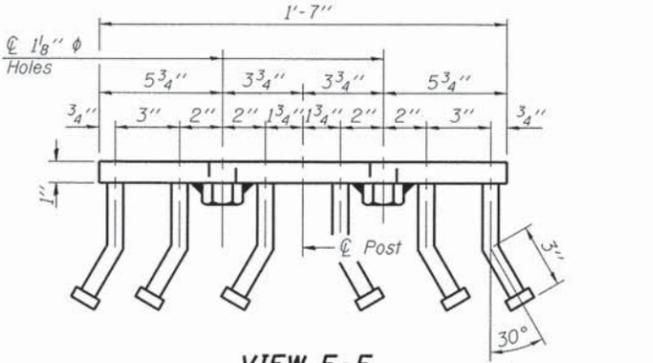
PLAN-BOTT. SPLICE TYPICAL



SECTION B-B



ANCHOR DEVICE



VIEW E-E

Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.
 All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.
 *** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	130

R-34HMAWS

7-1-10 (6'-3" Maximum Post Spacing) (1/4" minimum to 3/8" maximum HMA thickness)

*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



USER NAME	DESIGNED	REVISIONS
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	JEH	-
	JEH	-
	DF	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

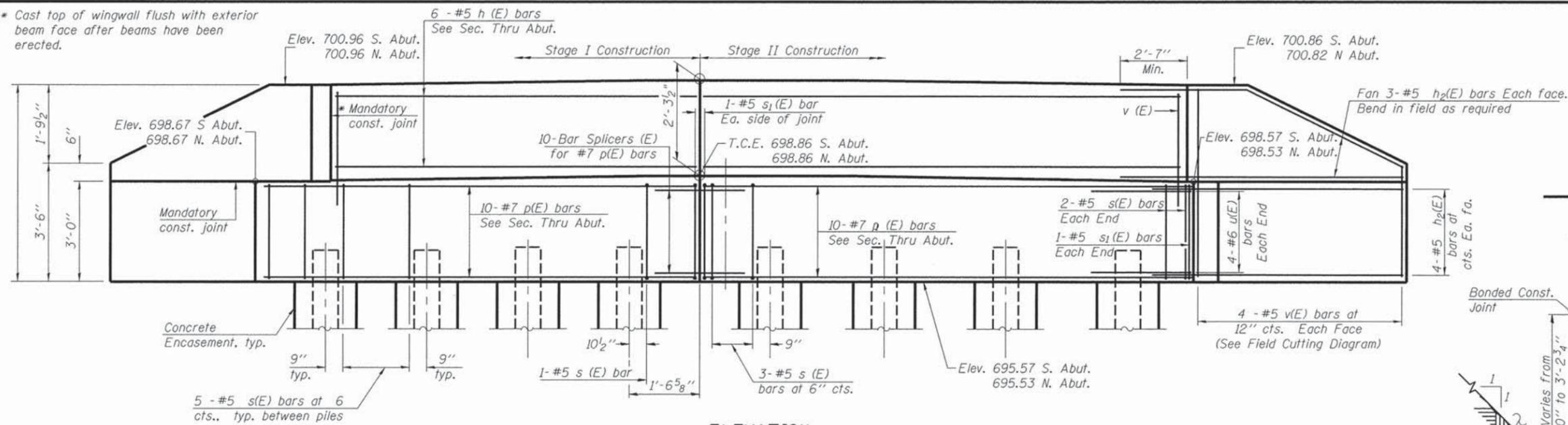
**STEEL RAILING, TYPE SM WITH HOT-MIX ASPHALT WEARING SURFACE
STRUCTURE NO. 049-7153**

M.S. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3008	09-0005-00-BR	LAKE	26	14

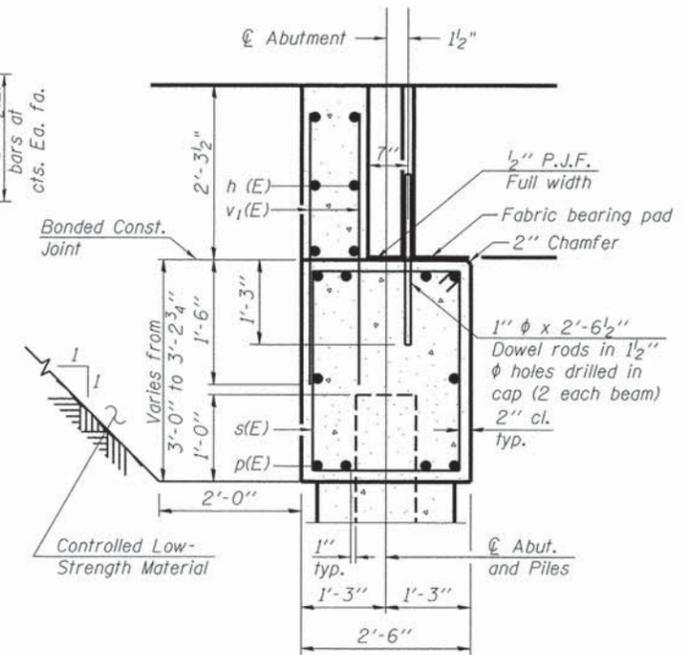
SHEET NO 5 OF 10 SHEETS

ILLINOIS FED. AID PROJECT

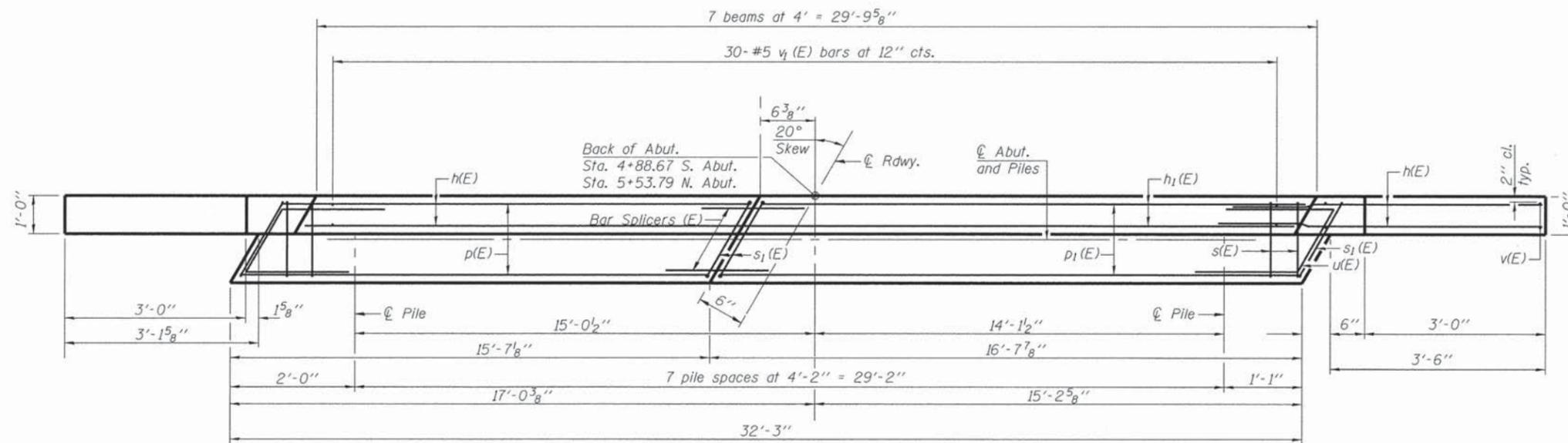
* Cast top of wingwall flush with exterior beam face after beams have been erected.



ELEVATION



SECTION A-A



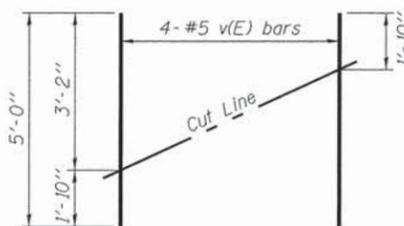
PLAN

BILL OF MATERIAL
(One Abutment)

Bar	No.	Size	Length	Shape
h(E)	6	#5	15'-3"	—
h1(E)	6	#5	16'-3"	—
h2(E)	28	#5	7'-5"	—
p(E)	10	#7	15'-3"	—
p1(E)	10	#7	16'-3"	—
s(E)	38	#5	10'-3"	□
s1(E)	4	#5	10'-7"	□
u(E)	8	#6	9'-10"	┘
v(E)	8	#5	5'-0"	—
v1(E)	60	#5	3'-7"	—
Structure Excavation		Cu. Yd.	52	
Concrete Structures		Cu. Yd.	27.4	
Reinforcement Bars, Epoxy Coated		Pound	1900	
Furnishing - Piles, HP 12x53		Foot	175	
Driving Piles		Foot	175	
Test Pile, HP 12x53		Each	1	
Concrete Encasement		Cu. Yd.	5.6	

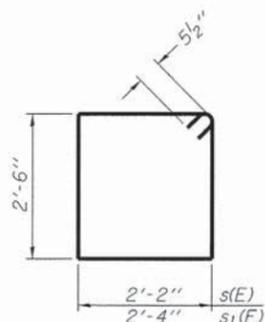
PILE DATA

Type: Steel - HP 12X53
 Nominal Required Bearing: 230 kips
 Factored Resistance Available: 125 kips
 Est. Length: 25'
 No. Production Piles: 7
 No. Test Piles: 1

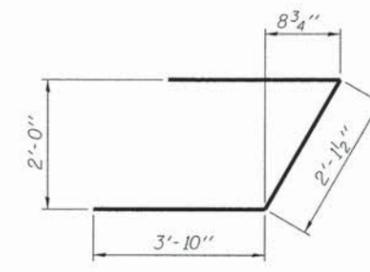


FIELD CUTTING DIAGRAM

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



BARS s(E) & s1(E)



BAR u(E)

Notes:
 For details of piles and Concrete Encasement, see sheet 7 of 9.
 Cast backwall after beams and concrete wearing surface, if applicable, have been erected.

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AD-2742-R

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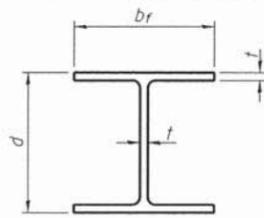
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

ABUTMENTS
 STRUCTURE NO. 049-7153

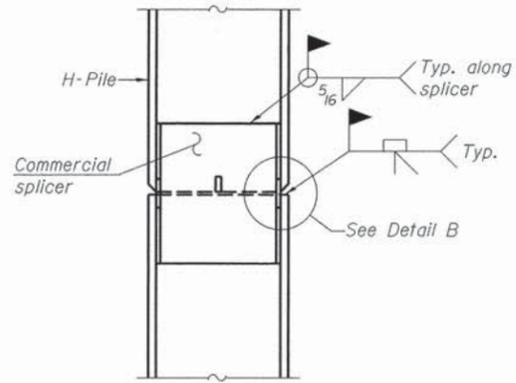
SHEET NO 6 OF 10 SHEETS

M.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3008	09-0005-00-BR	LAKE	26	15
CONTRACT NO. 61A24				
ILLINOIS FED. AID PROJECT				

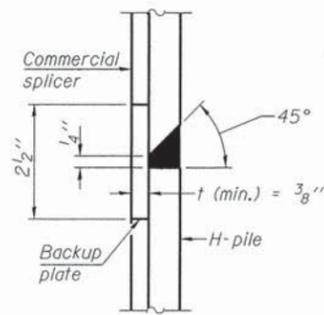


STEEL PILE TABLE

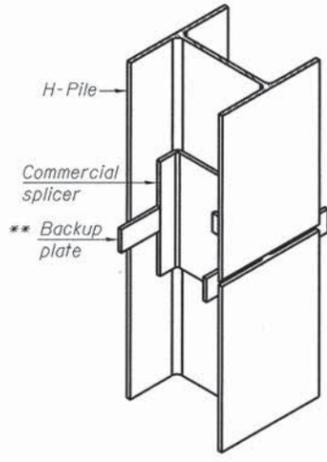
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53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



ELEVATION

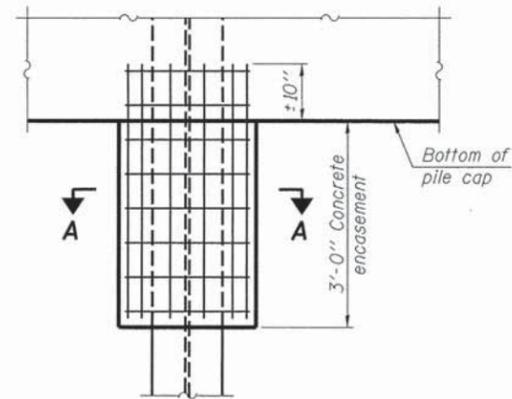


DETAIL "B"



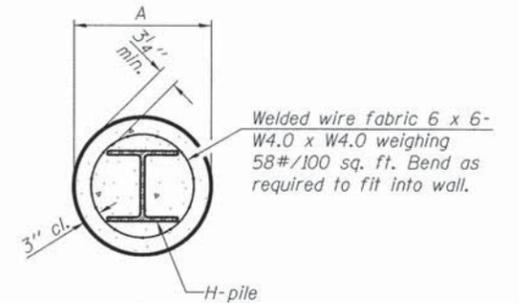
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



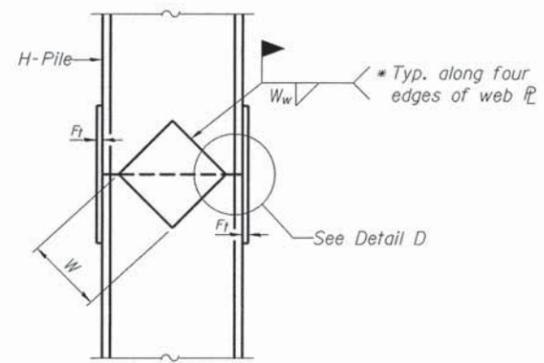
ELEVATION

PILE ENCASEMENT

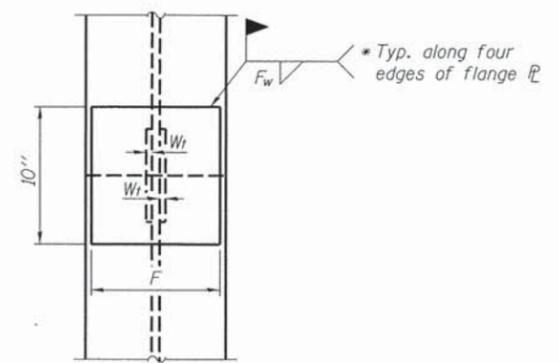


SECTION A-A

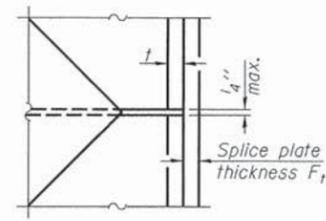
Note:
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



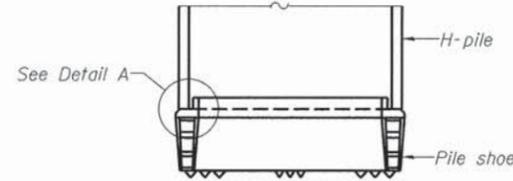
END VIEW



DETAIL D

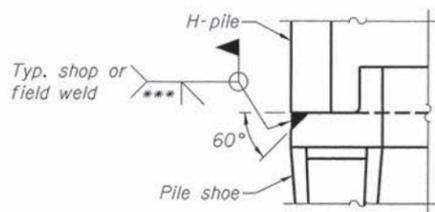
WELDED PLATE FIELD SPLICE

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

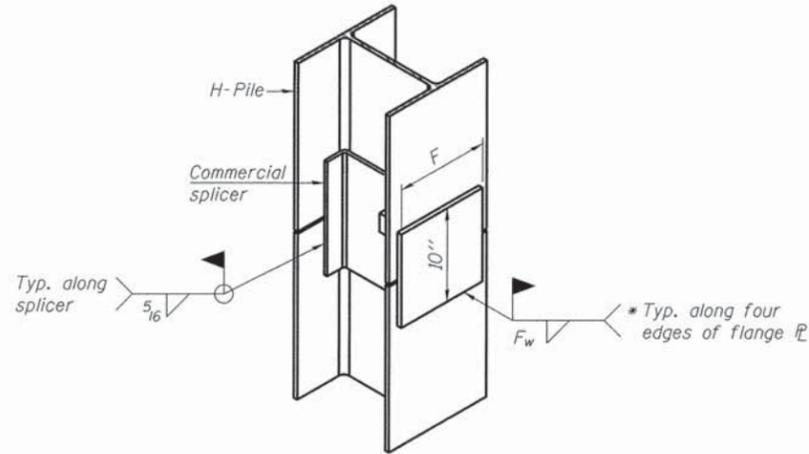


ELEVATION

H-PILE SHOE ATTACHMENT



DETAIL A



ISOMETRIC VIEW

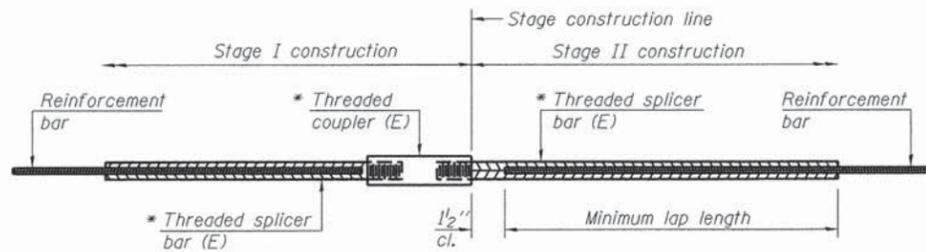
WELDED COMMERCIAL SPLICE ALTERNATE

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

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

PRINTED DATE: 2/19/2014 FILE: \\NET1\Projects\Long Grove, V11\Large of\12-456 Oakwood Road Bridge Phase 2\CADD\Drawings\Sheets\07.PILE DET.LIC.dwg

ESI ESI CONSULTANTS, LTD. Excellence. Service. Integrity.	USER NAME = #USER# PLOT SCALE = 0.1:0.000 1" = 10' PLOT DATE = 2/19/2014	DESIGNED - DF CHECKED - JEH DRAWN - JEH CHECKED - DF	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HP PILE DETAILS STRUCTURE NO. 049-7153 SHEET NO 7 OF 10 SHEETS	M.S. RTE. 3008 SECTION 09-0005-00-BR COUNTY LAKE TOTAL SHEETS 26 SHEET NO. 16 CONTRACT NO. 61A24 ILLINOIS FED. AID PROJECT
	F-HP 1-27-12					



STANDARD BAR SPLICER ASSEMBLY

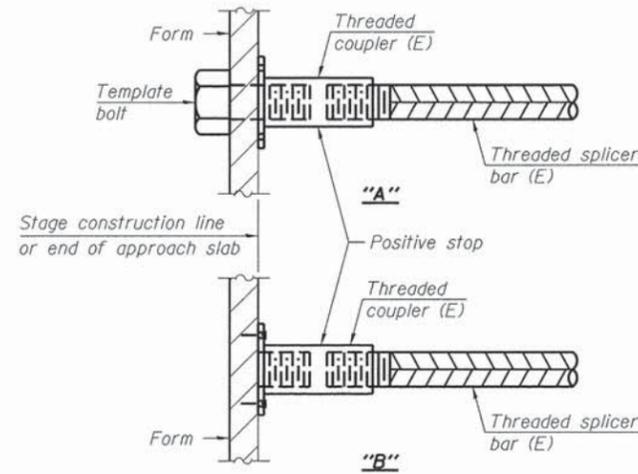
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

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

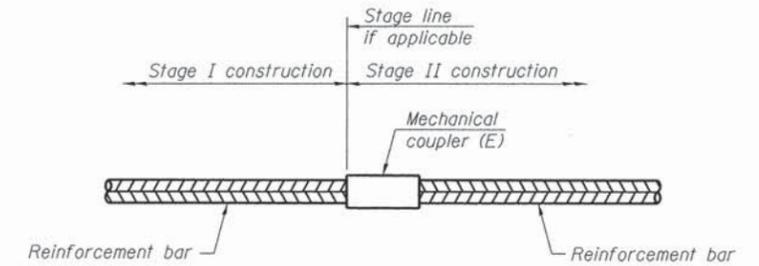
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Abutments	#7	20	4



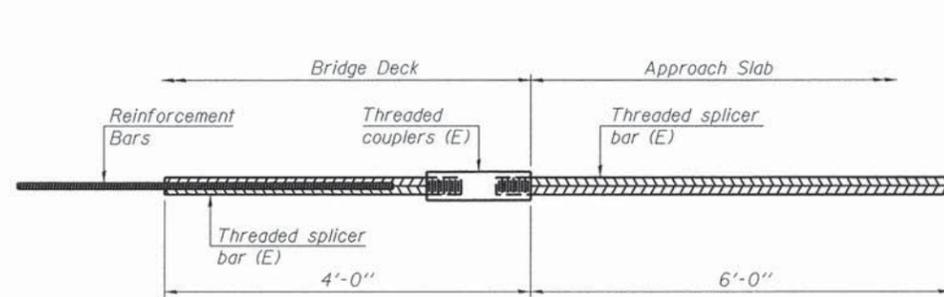
INSTALLATION AND SETTING METHODS

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



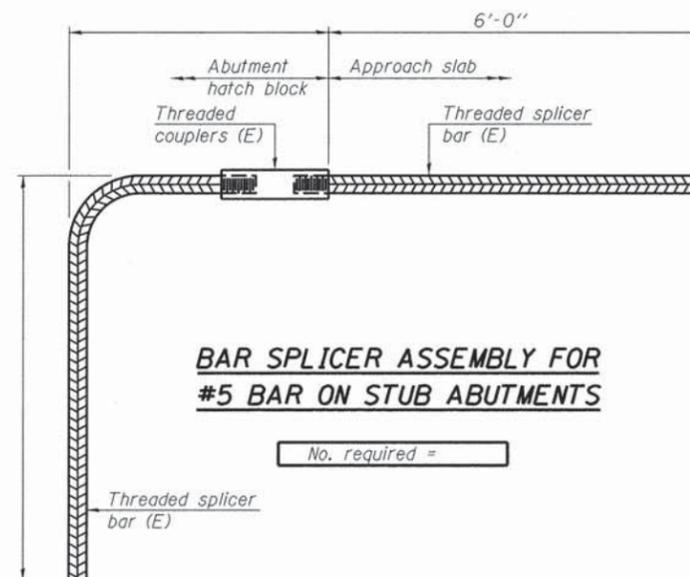
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

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

PRINTED DATE: 2/19/2014 FILE NAME: N:\Projects\Long Grove, Village of\12-491 Dakwood Road Bridge Phase 2\CADD\Drawings\Sheets\06.BAR SP-1.C.06.dwg

BSD-1 1-27-12



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 CHECKED - DF

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 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 049-7153

SHEET NO 8 OF 10 SHEETS

M.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3008	09-0005-00-BR	LAKE	26	17
CONTRACT NO. 61A24				

ILLINOIS FED. AID PROJECT

PRINTED DATE: 2/19/2014
 FILE NAME: N:\Projects\Long Grove, Village of\12-459 Oakwood Road Bridge Phase 2\CADD\Drawings\Sheets\BORE LOGS\LDG.LD Oakwood.dgn

PROJECT Oakwood Road Bridge, Long Grove, Illinois
 CLIENT ESI Consultants, Ltd., Naperville, Illinois
 BORING 1 DATE STARTED 1-31-11 DATE COMPLETED 1-31-11 JOB L-76,322
 ELEVATIONS WATER LEVEL OBSERVATIONS
 GROUND SURFACE 700.8 WHILE DRILLING 10.0'
 END OF BORING 655.8 AT END OF BORING 15.0'
 24 HOURS



DEPTH (FEET)	SAMPLE NO.	TYPE	N	WC	QU	DRY DEPTH	ELEV.	SOIL DESCRIPTIONS
0								Bituminous Concrete
1.1	1	SS	45	2.7			699.7	
2	2	SS	19	3.1				
3	3	SS	8	5.0				FILL - Brown SAND and GRAVEL, moist (SP) A-1-b Sand
4	4	SS	8	3.5				
5	5	SS	10	16.9	2.0'		115.7	
6	6	SS	11	14.7	2.5'		120.6	
7	7	SS	13	12.0	1.5'		122.3	
8	8	SS	20	20.8	3.5'		107.9	
9	9	SS	14	18.4	2.75'		112.6	
10	10	SS	12	17.8	4.40 4.5'		112.6	
11.1							697.8	
12								FILL - Gray silty CLAY, little sand, trace gravel, moist (CL) A-7-6 Clay
13								
14								Very stiff to stiff gray silty CLAY, some sand, trace gravel, moist to very moist (CL) A-5 Loam
15								
16								
17								
18								
19								
20								Very stiff gray silty CLAY, little sand, trace gravel, moist (CL) A-6 Loam
21								
22								
23								
24								
25								Hard gray silty CLAY, little sand and gravel, moist (CL) A-5 Clay Loam

PROJECT Oakwood Road Bridge, Long Grove, Illinois
 CLIENT ESI Consultants, Ltd., Naperville, Illinois
 BORING 1 DATE STARTED 1-31-11 DATE COMPLETED 1-31-11 JOB L-76,322
 ELEVATIONS WATER LEVEL OBSERVATIONS
 GROUND SURFACE 700.8 WHILE DRILLING 10.0'
 END OF BORING 655.8 AT END OF BORING 15.0'
 24 HOURS



DEPTH (FEET)	SAMPLE NO.	TYPE	N	WC	QU	DRY DEPTH	ELEV.	SOIL DESCRIPTIONS
25								
27.0							673.8	Hard gray silty CLAY, little sand and gravel, moist (CL) A-5 Clay Loam
28								
29								
30								
31	11	SS	12	20.6	1.75'			Stiff gray silty CLAY, little sand and gravel, moist (CL) A-6 Clay Loam
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45	14	SS	13	13.9	2.25'			Stiff to very stiff gray silty CLAY, some sand, trace gravel, moist (CL) A-6 Loam
46								
47								
48								
49								
50								End of Boring at 45.0' * Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer. SPT Hammer = CME Automatic 3.25" (83 mm) ID HSA

PROJECT Oakwood Road Bridge, Long Grove, Illinois
 CLIENT ESI Consultants, Ltd., Naperville, Illinois
 BORING 2 DATE STARTED 1-31-11 DATE COMPLETED 1-31-11 JOB L-76,322
 ELEVATIONS WATER LEVEL OBSERVATIONS
 GROUND SURFACE 700.8 WHILE DRILLING 18.0'
 END OF BORING 655.8 AT END OF BORING 30.0'
 24 HOURS



DEPTH (FEET)	SAMPLE NO.	TYPE	N	WC	QU	DRY DEPTH	ELEV.	SOIL DESCRIPTIONS
0								Bituminous Concrete
1.2	1	SS	80	4.3			699.6	
2	2	SS	12	3.3				
3	3	SS	6	3.3				FILL - Brown SAND and GRAVEL, moist (GP) A-1-a Sand
4	4	SS	8	4.9				
5	5	SS	7	26.1				
6	6	SS	17	10.7	4.13 4.5'		100.1	FILL - Black clayey TOPSOIL, trace sand and concrete, very moist (OL) A-7-6 Silty Clay
7	7	SS	17	20.4	4.5'		105.3	FILL - Brown clayey SAND, little gravel, very moist (SC) A-4 Sandy Loam
8	8	SS	14	18.1	3.75'		113.0	
9	9	SS	16	18.8	2.15 2.5'		118.0	Hard gray silty CLAY, trace to little sand and gravel, moist (CL) A-6 Clay
10	10	SS	17	19.0	2.25'		118.0	
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								Very stiff brownish-gray silty CLAY, little sand and gravel, moist (CL) A-6 Clay Loam

PROJECT Oakwood Road Bridge, Long Grove, Illinois
 CLIENT ESI Consultants, Ltd., Naperville, Illinois
 BORING 2 DATE STARTED 1-31-11 DATE COMPLETED 1-31-11 JOB L-76,322
 ELEVATIONS WATER LEVEL OBSERVATIONS
 GROUND SURFACE 700.8 WHILE DRILLING 18.0'
 END OF BORING 655.8 AT END OF BORING 30.0'
 24 HOURS



DEPTH (FEET)	SAMPLE NO.	TYPE	N	WC	QU	DRY DEPTH	ELEV.	SOIL DESCRIPTIONS
25								
27								
28								
29								
30								
31	11	SS	13	18.2	3.21 3.75'			Very stiff brownish-gray silty CLAY, little sand and gravel, moist (CL) A-6 Clay Loam
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								End of Boring at 45.0' * Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer. SPT Hammer = CME Automatic 3.25" (83 mm) ID HSA



USER NAME = #USER#
 PLOT SCALE = 0:1.0000' / 1" = 1'
 PLOT DATE = 2/19/2014

DESIGNED - DF
 CHECKED - JEH
 DRAWN - JEH
 CHECKED - DF

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

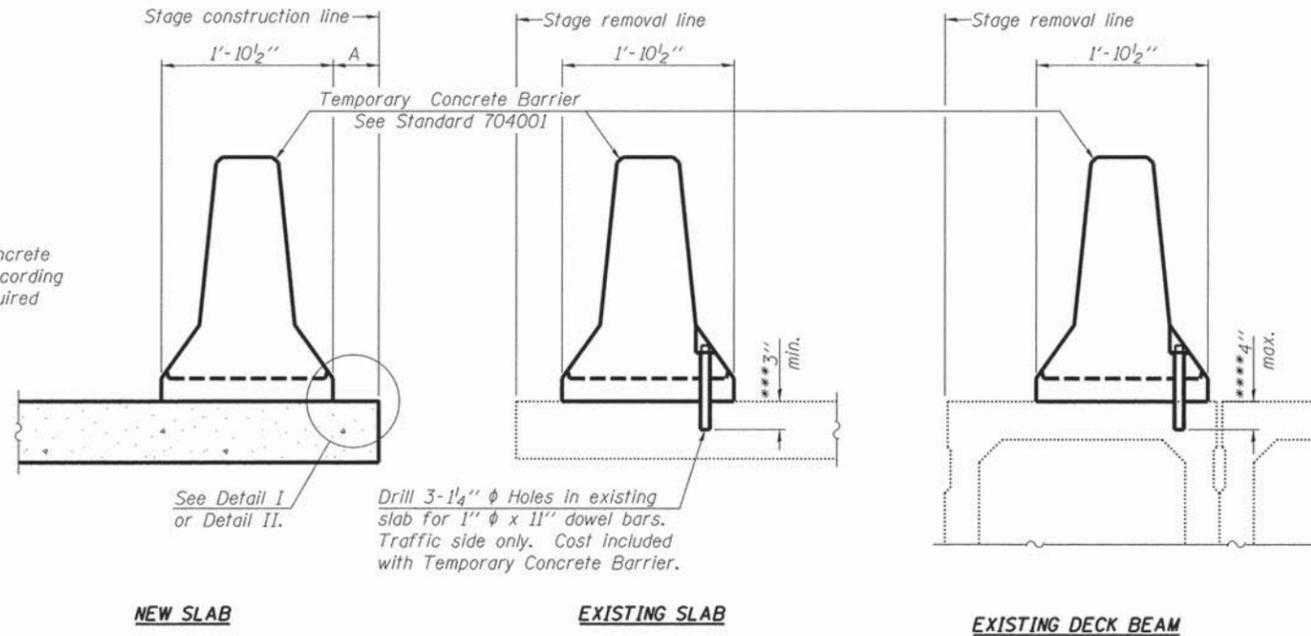
BORING LOGS
STRUCTURE NO. 049-7153

SHEET NO 9 OF 10 SHEETS

M.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3008	09-0005-00-BR	LAKE	26	18
CONTRACT NO. 61A24				

ILLINOIS FED. AID PROJECT

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

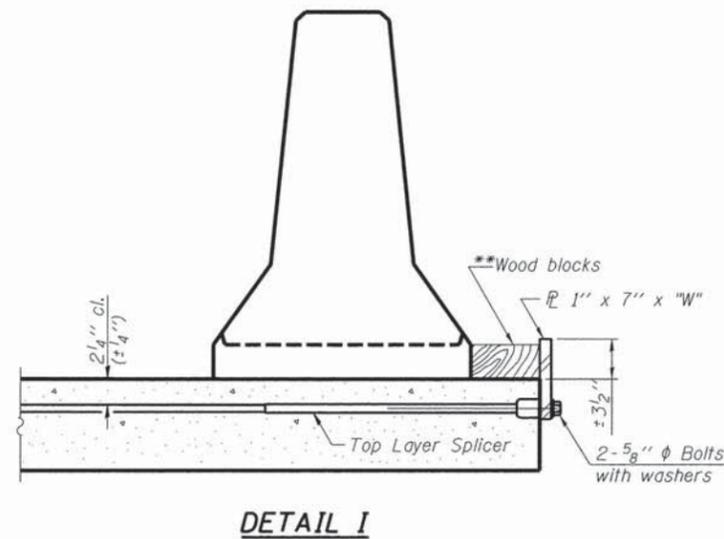
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel \bar{P} to the top layer of couplers with 2- $\frac{5}{8}$ " ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel \bar{P} to the concrete slab or concrete wearing surface with 2- $\frac{5}{8}$ " ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

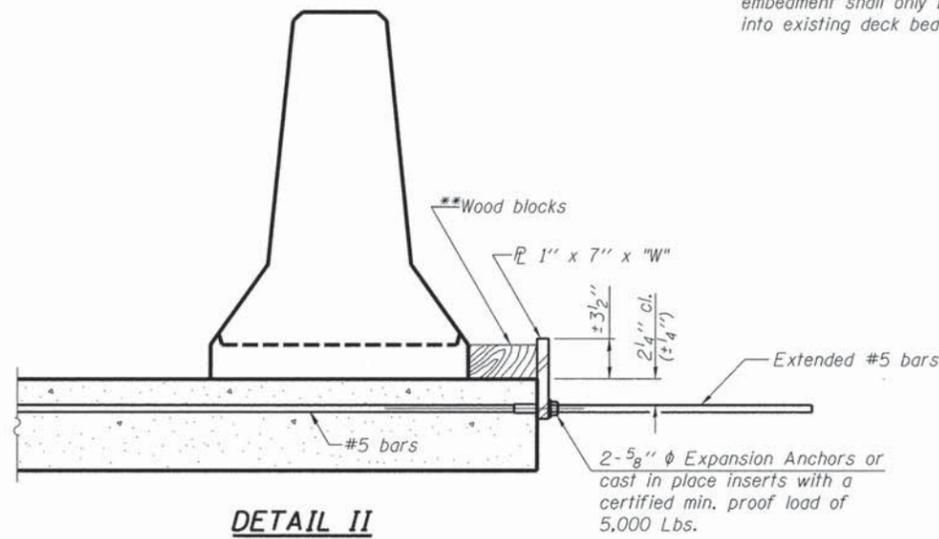
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

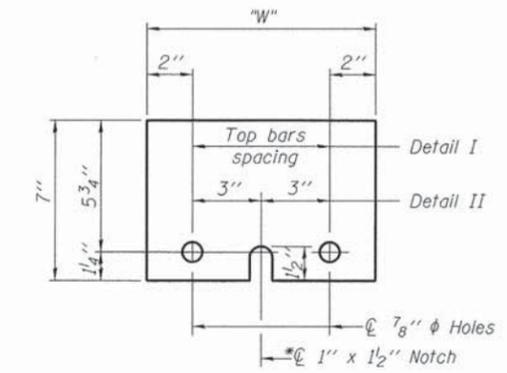
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER \bar{P} 1" x 7" x "W"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

PRINTED DATE: 2/19/2014 FILE NAME: N:\Projects\Long Grove, Village of\12-495 Dakwood Road Bridge Phase 2\CADD\Drawings\Sheets\16.TEMP BARRIER.LG.Dokwood.dgn

R-27

7-1-10

ESI
ESI CONSULTANTS, LTD.
Engineers, Surveyors, Geographers

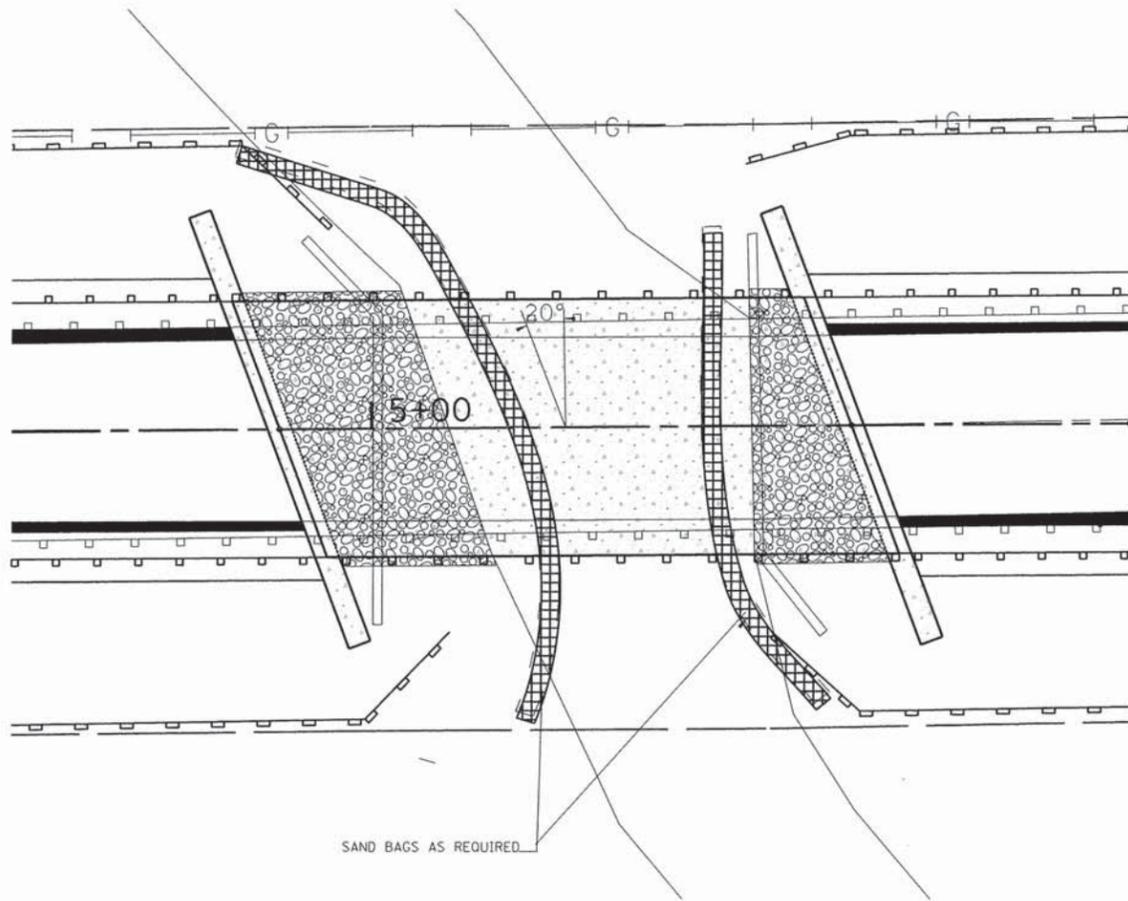
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	CHECKED - JEH	REVISED -
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PLOT DATE = 2/19/2014	CHECKED - DF	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 049-7153

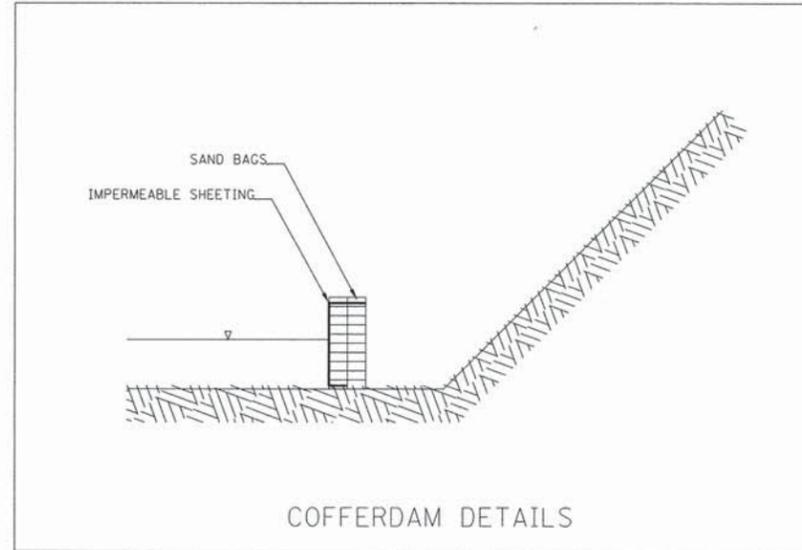
SHEET NO 10 OF 10 SHEETS

M.S. RTE. 3008	SECTION 09-0005-00-BR	COUNTY LAKE	TOTAL SHEETS 26	SHEET NO. 19
CONTRACT NO. 61A24				
ILLINOIS FED. AID PROJECT				

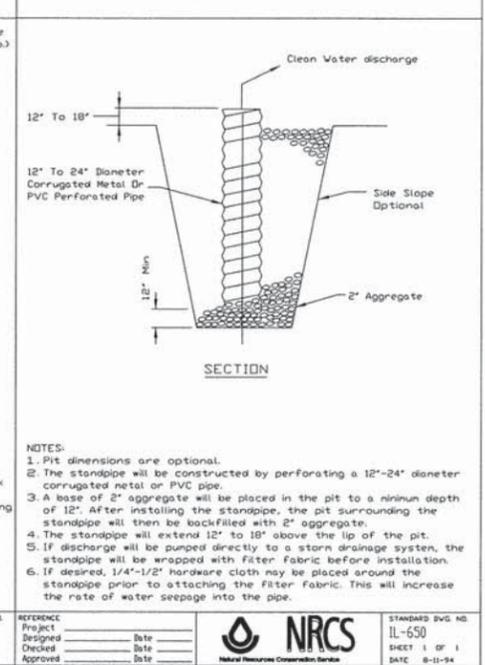
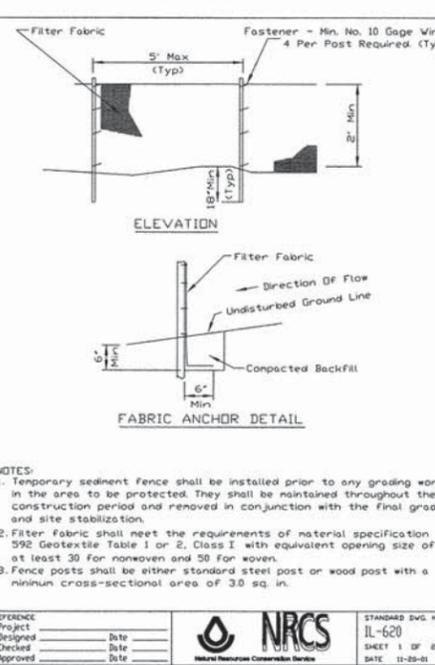
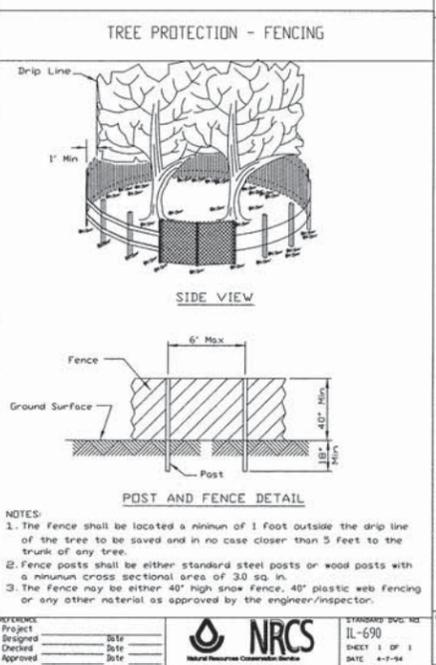
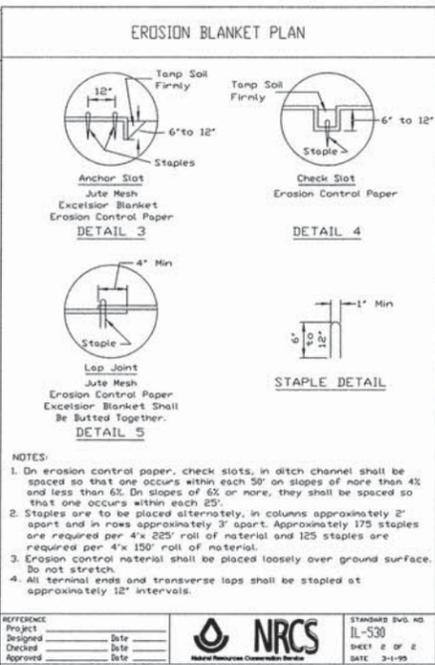
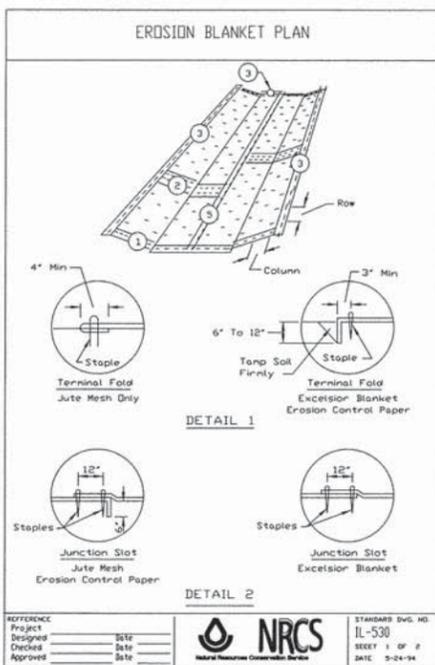


COFFERDAM / DEWATERING PLAN

1. FOR SANDBAGS USE MATERIALS THAT ARE RESISTANT TO ULTRAVIOLET RADIATION AND TEARING. WOVEN TIGHTLY ENOUGH TO PREVENT LEAKAGE OF FILL MATERIAL.
2. USE 10 MIL OR THICKER, UV RESISTANT, IMPERMEABLE SHEETING OR OTHER APPROVED MATERIAL THAT IS IMPERMEABLE AND RESISTANT TO PUNCTURING AND TEARING.
3. PLACE IMPERMEABLE SHEETING SUCH THAT UPGRADE PORTION OVERLAPS DOWNGRADE PORTION BY A MINIMUM OF 18 INCHES.
4. DEWATER WORK AREA USING AN APPROVED EROSION AND SEDIMENT CONTROL PRACTICE AS SPECIFIED ON APPROVED PLAN.
5. TOP OF SANDBAG ELEVATION TO BE DETERMINED BY CONTRACTOR AND APPROVED BY VILLAGE.



COFFERDAM DETAILS



PRINTED DATE: 2/20/2014
FILE NAME: K:\Projects\Long Grove\98-326 Oakwood Road Bridge Replacement\CADD\Drawings\Sheets\226_228_Erosion Control Details.dwg

ESI
ESI CONSULTANTS, LTD.
Excelsior, Service, Integrity

USER NAME = brusso
DESIGNED - MR
DRAWN - DSD
CHECKED - KH
DATE - 2/20/2014

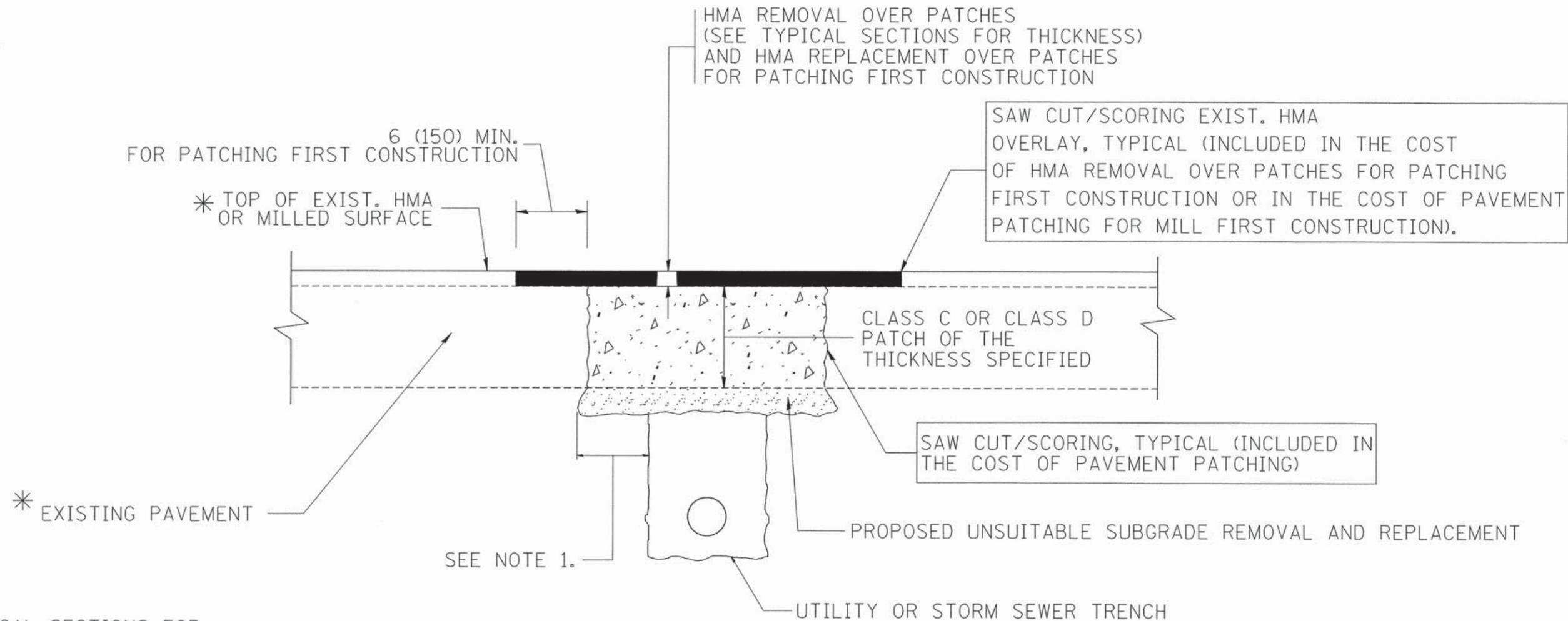
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DRAWN - DSD
CHECKED - KH
DATE - 2/20/2014

DESIGNED - MR
DRAWN - DSD
CHECKED - KH
DATE - 2/20/2014

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL DETAILS

F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
	09-0005-00-BR	LAKE	26	20
CONTRACT NO.: 61A24				
ILLINOIS FEDERAL AID PROJECT				



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

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

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

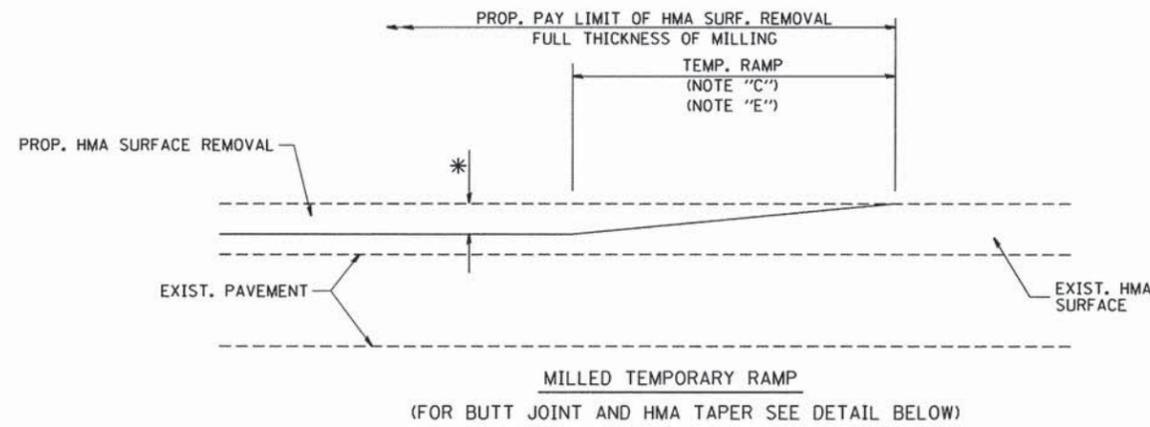
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

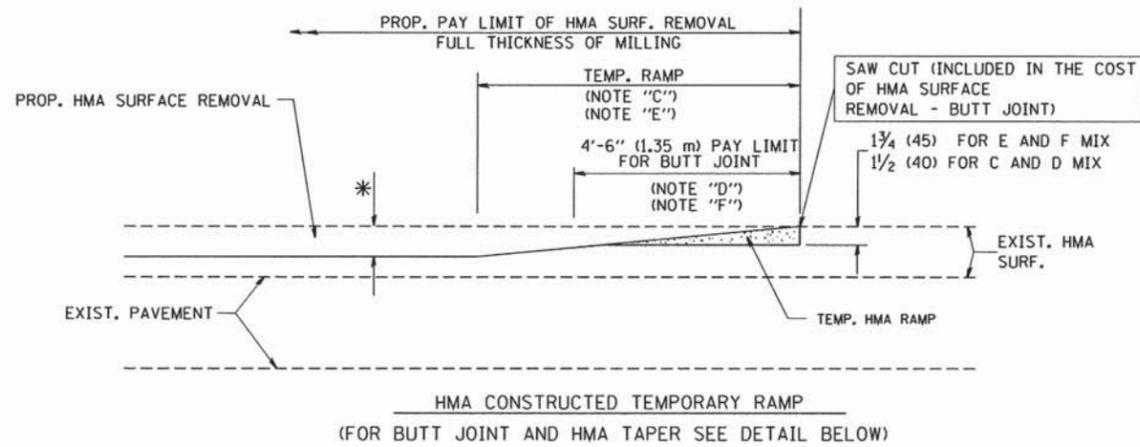
1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME = c:\projects\diststd22x34\bd22.dgn	USER NAME = bouerd1	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - R. BORO 01-01-07					09-00005-00-BR	LAKE	26	21	
		PLOT SCALE = 50.000' / IN.	REVISED - R. BORO 09-04-07					BD400-04 (BD-22)		CONTRACT NO. 61A24		
		PLOT DATE = 10/27/2008	REVISED - K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

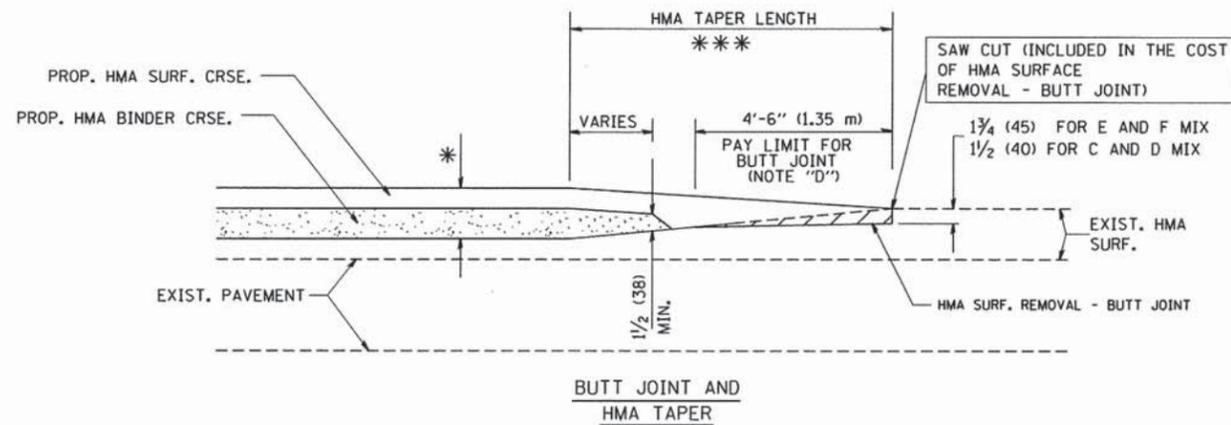


OPTION 1

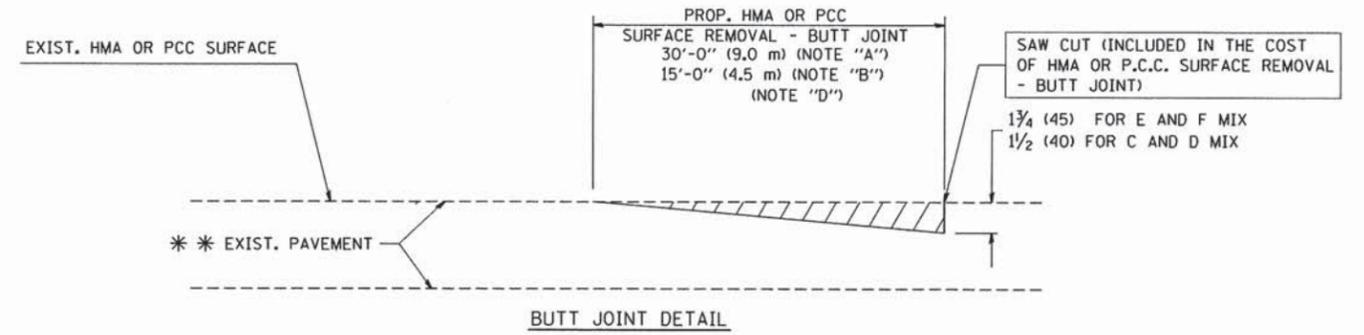


OPTION 2

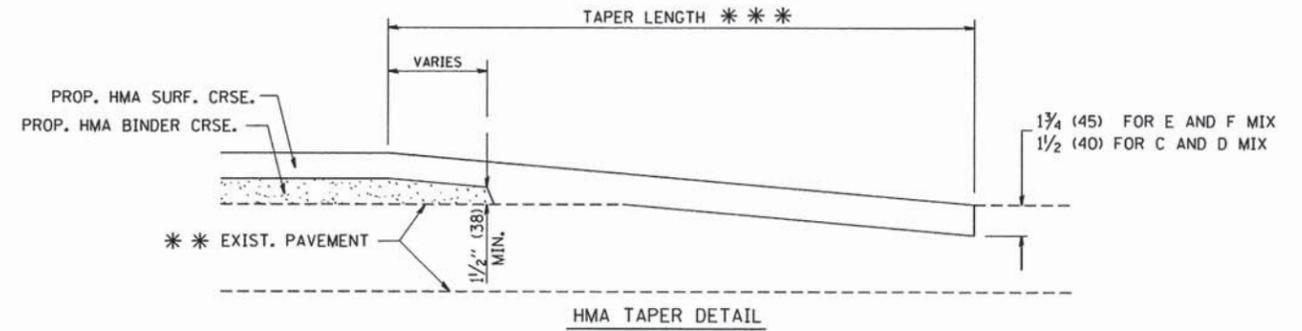
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

NOTES

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

BASIS OF PAYMENT:

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

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

FILE NAME = W:\diststd\22x34\bd32.dgn

USER NAME = goglienobt
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 PLOT DATE = 1/4/2008

DESIGNED - M. DE YONG
 DRAWN -
 CHECKED -
 DATE - 06-13-90

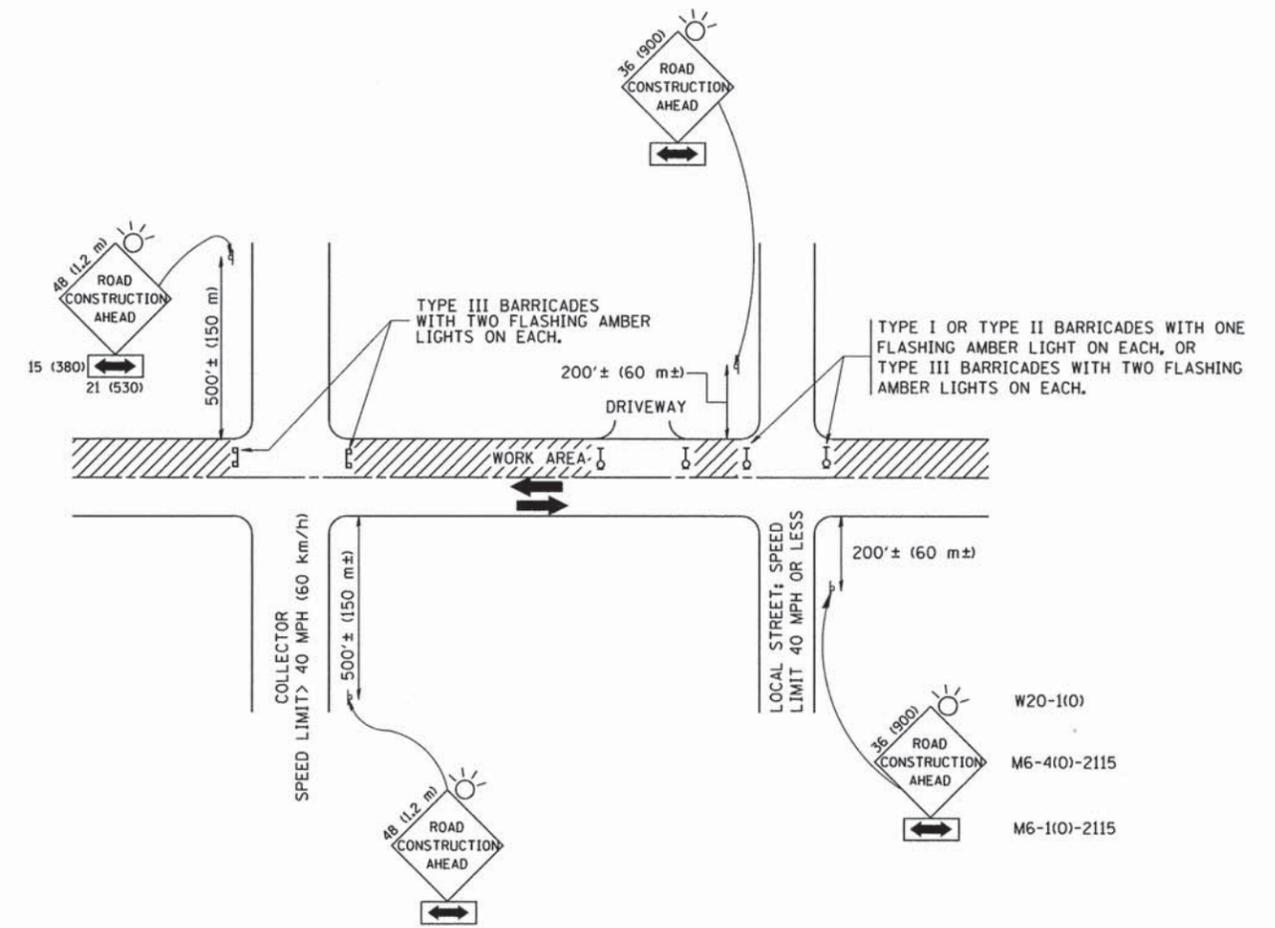
REVISED - R. SHAH 10-25-94
 REVISED - A. ABBAS 03-21-97
 REVISED - M. GOMEZ 04-06-01
 REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND
 HMA TAPER DETAILS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	09-00005-00-BR	LAKE	26	22
BD400-05 BD32			CONTRACT NO. 61A24	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



W20-1(0)
M6-4(0)-2115
M6-1(0)-2115

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.

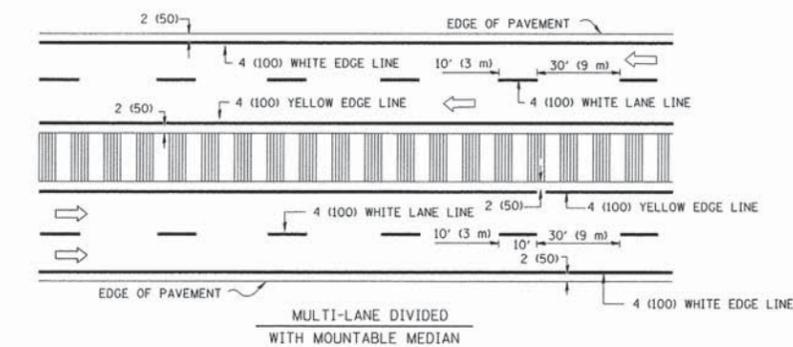
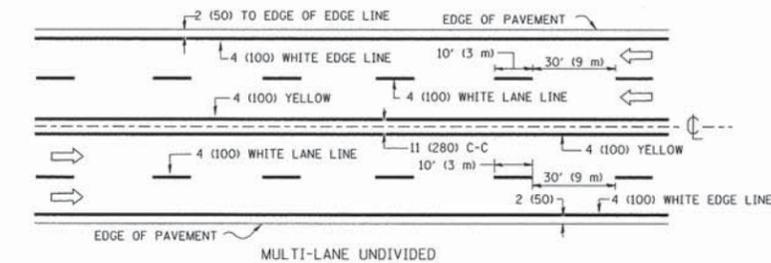
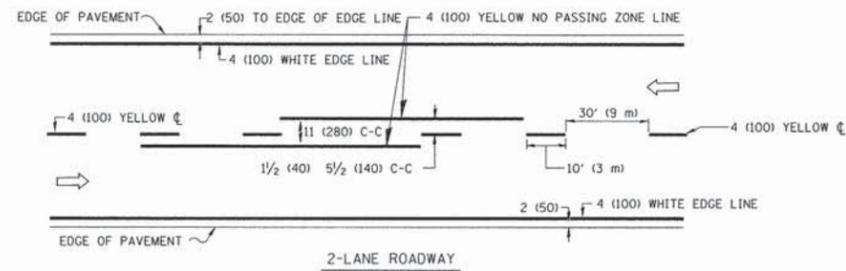
All dimensions are in millimeters (inches) unless otherwise shown.

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	DRAWN -	CHECKED -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 ' / IN.	DATE - 06-89	REVISED - A. HOUSEH 10-15-96
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

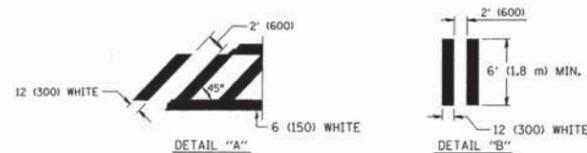
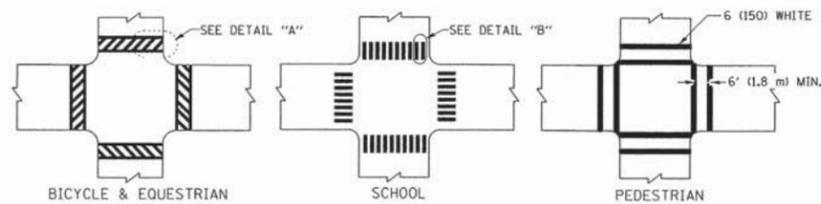
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	09-00005-00-BR	LAKE	26	23
TC-10			CONTRACT NO. 61A24	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

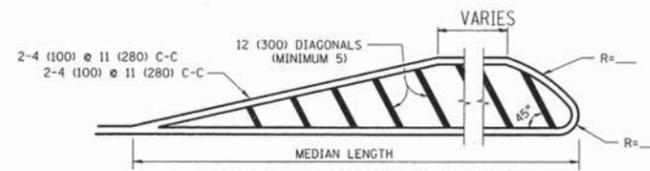
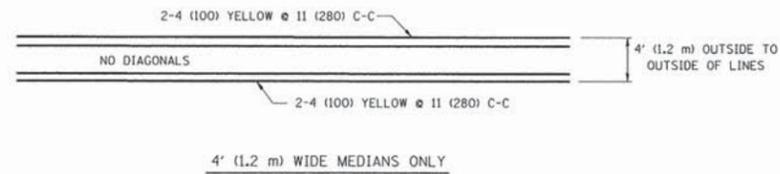


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING



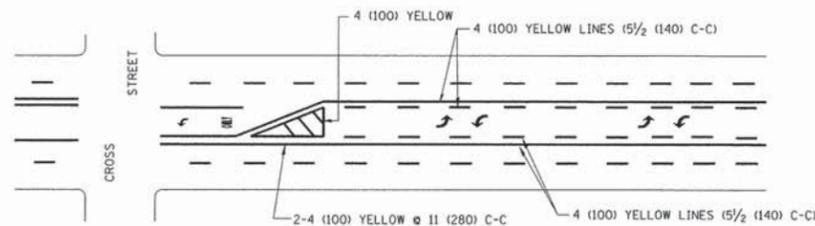
TYPICAL CROSSWALK MARKING



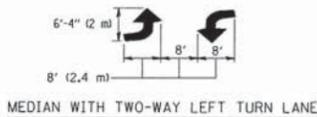
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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))

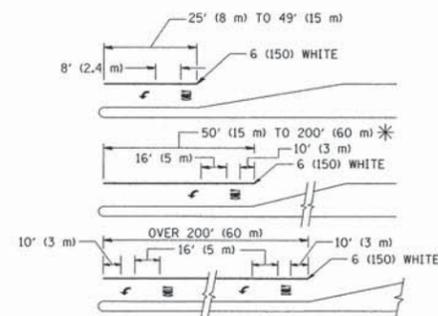
MEDIANS OVER 4' (1.2 m) WIDE



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.



TYPICAL PAINTED MEDIAN MARKING

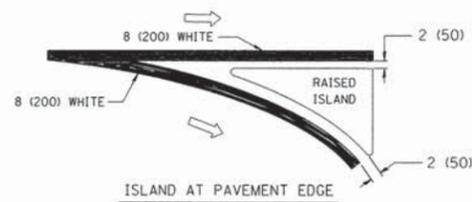
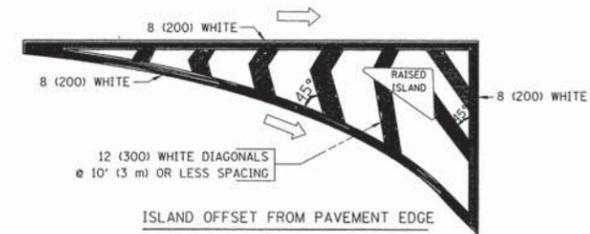


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

* 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



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 1/2 (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 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m 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.

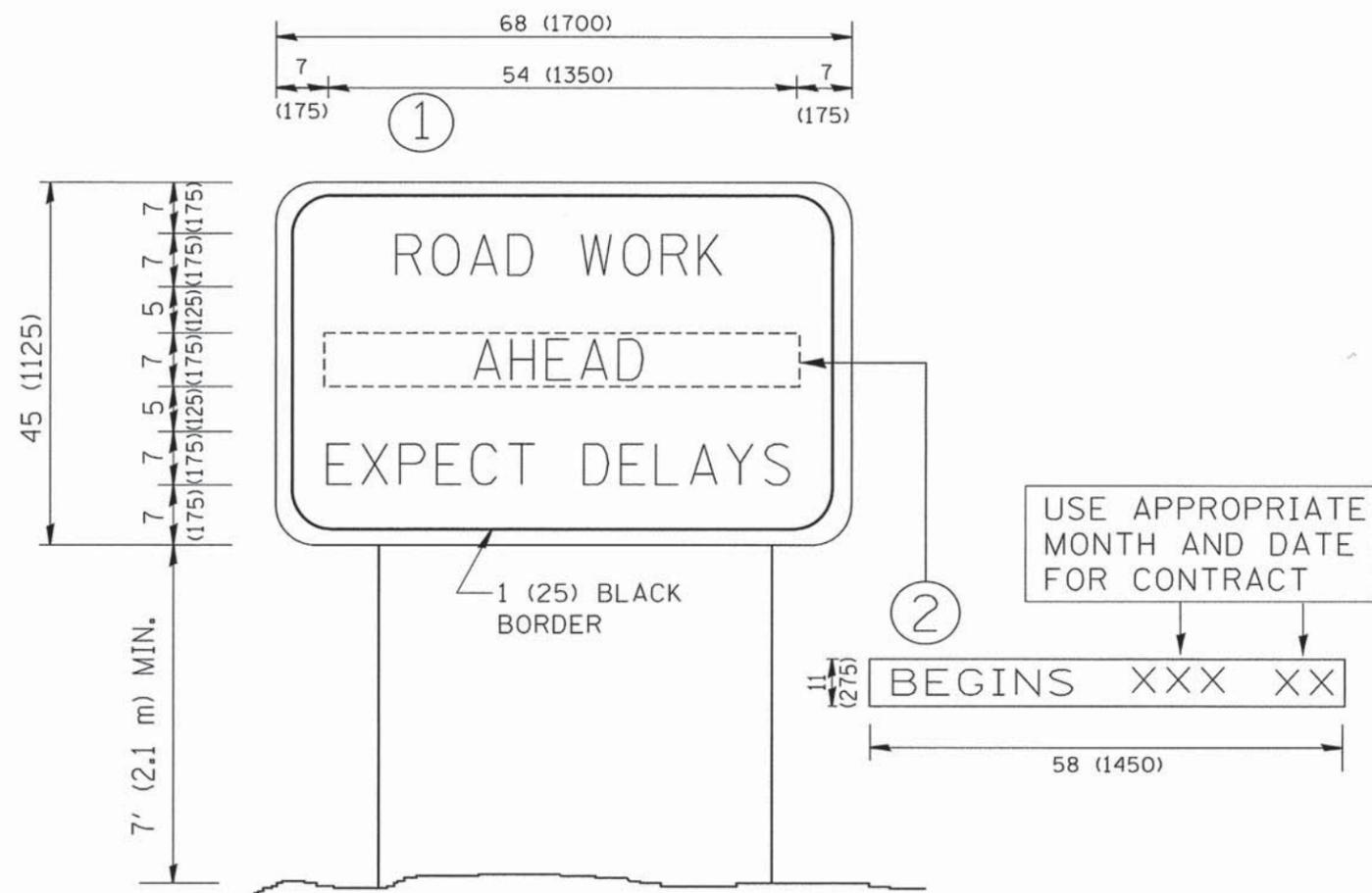
All dimensions are in inches (millimeters) unless otherwise shown.

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	PLOT SCALE = 50.000 / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS			09-00005-00-BR	LAKE	26	24
SCALE: NONE		SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 61A24	

FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT	
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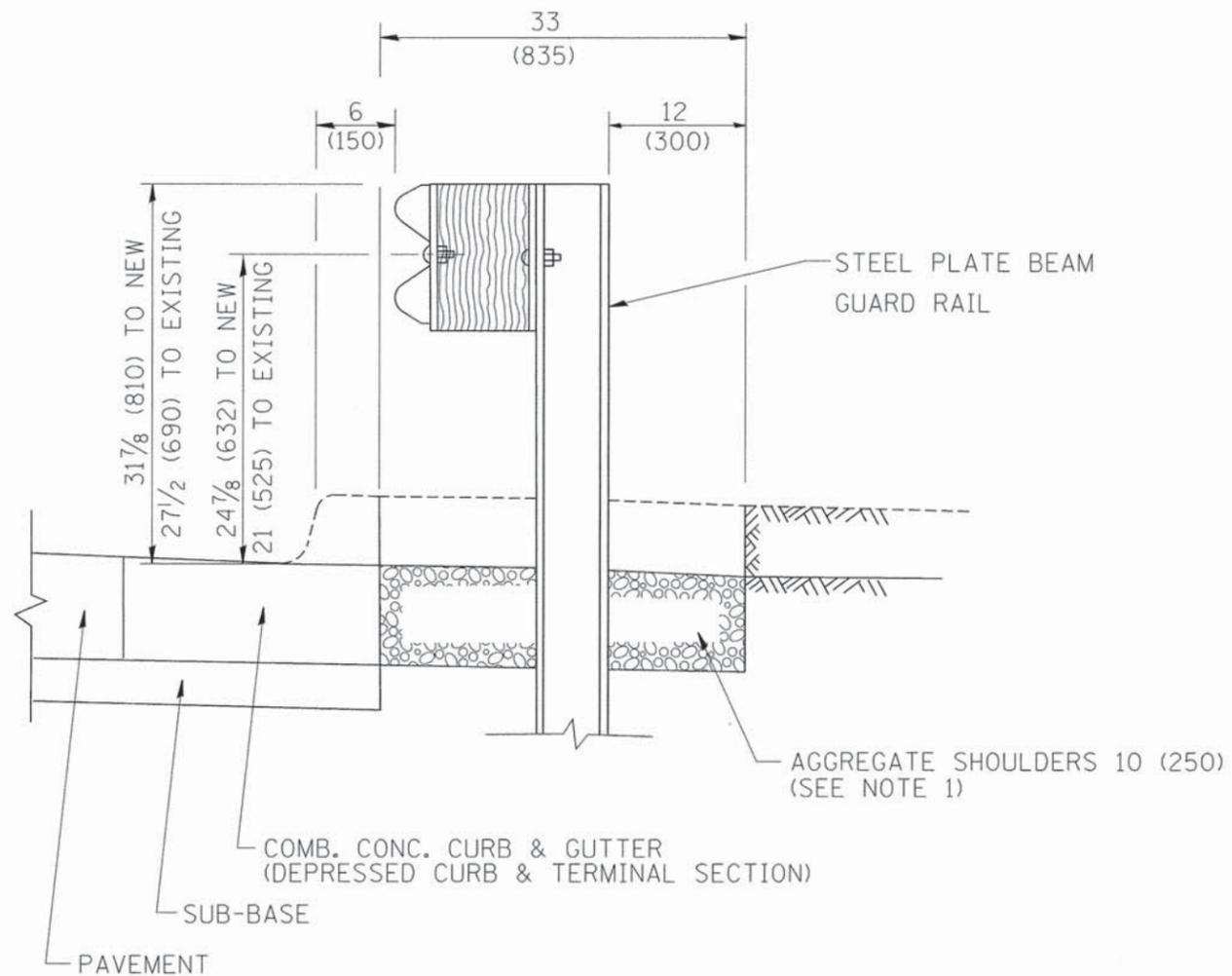


NOTES:

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

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

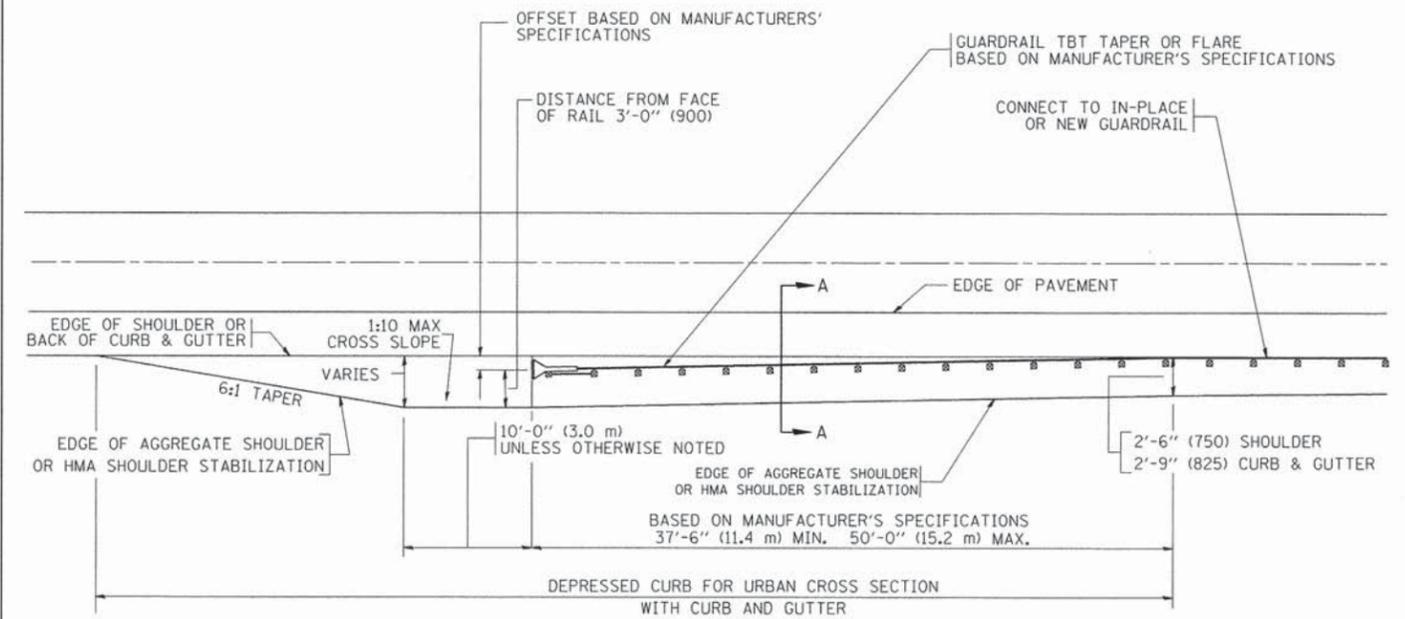
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	PLOT SCALE = 50,000 ' / IN.	DRAWN -	REVISED - R. MIRS 12-11-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	09-00005-00-BR	LAKE	26	25
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - T. RAMMACHER 02-02-99		TC-22		CONTRACT NO. 61A24		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
		DATE -	REVISED - C. JUCIUS 01-31-07									



SECTION A-A

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

**DETAILS FOR STEEL PLATE BEAM
GUARD RAIL ADJACENT TO CURB AND GUTTER
[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]**



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

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

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

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

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	PLOT SCALE = 49.9999' / IN.	CHECKED -	REVISED - R. BORO 12-08-2008
	PLOT DATE = 9/21/2009	DATE - 09-22-90	REVISED - R. BORO 09-14-2009

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

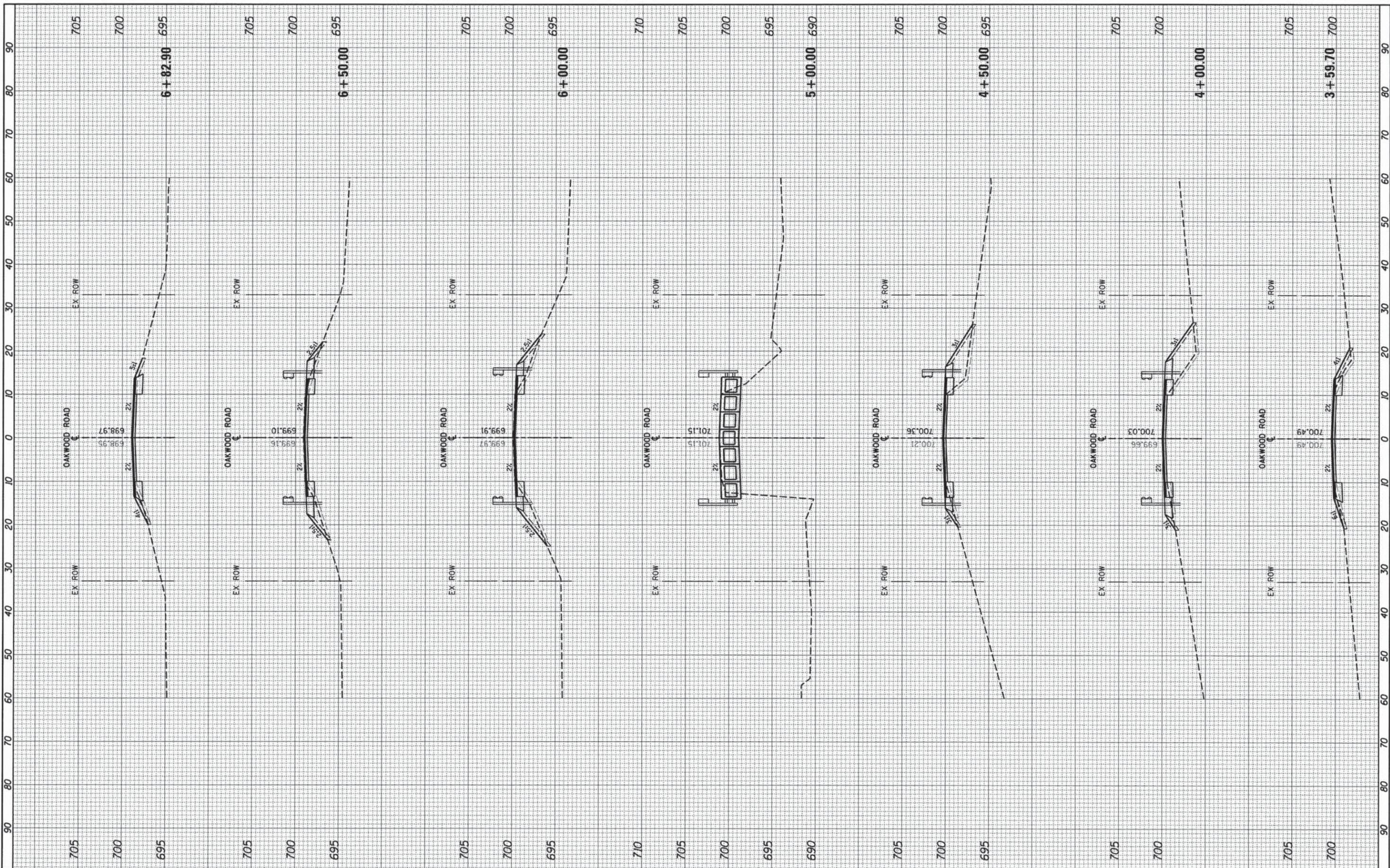
**DETAILS FOR DEPRESSED CURB & GUTTER AND
SHOULDER TREATMENT AT TBT TY 1 SPL.**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	09-00005-00-BR	LAKE	26	25A
BD600-10 (BD 34)			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

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



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USER NAME = brusso
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 PLOT DATE = 2/28/2014

DESIGNED -
 CHECKED -
 DATE -

REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

SCALE: SHEET OF SHEETS STA. 3+59.70 TO STA. 6+82.90

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	09-0005-00-BR	LAKE	26	26
CONTRACT NO.: 61A24				
ILLINOIS FED. AID PROJECT				