3-5-10 Letting, Item 029

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	40	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 63408		

INDEX OF SHEETS:

FOR LIST OF STATE STANDARDS, SEE SHEET 2

DESIGN DESIGNATION: BIKE PATH
DEERFIELD ROAD
ADT 22,000 POSTED SL = 40 MPH

PROJECT LOCATED IN
VILLAGE OF RIVERWOODS

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

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

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123 OR 811
TOWNSHIP 43 NORTH, RANGE 11 EAST,
SECTIONS 35

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

PROFESSIONAL DESIGN FIRM NO.: 184-001175
EXPIRATION DATE: APRIL 30, 2011

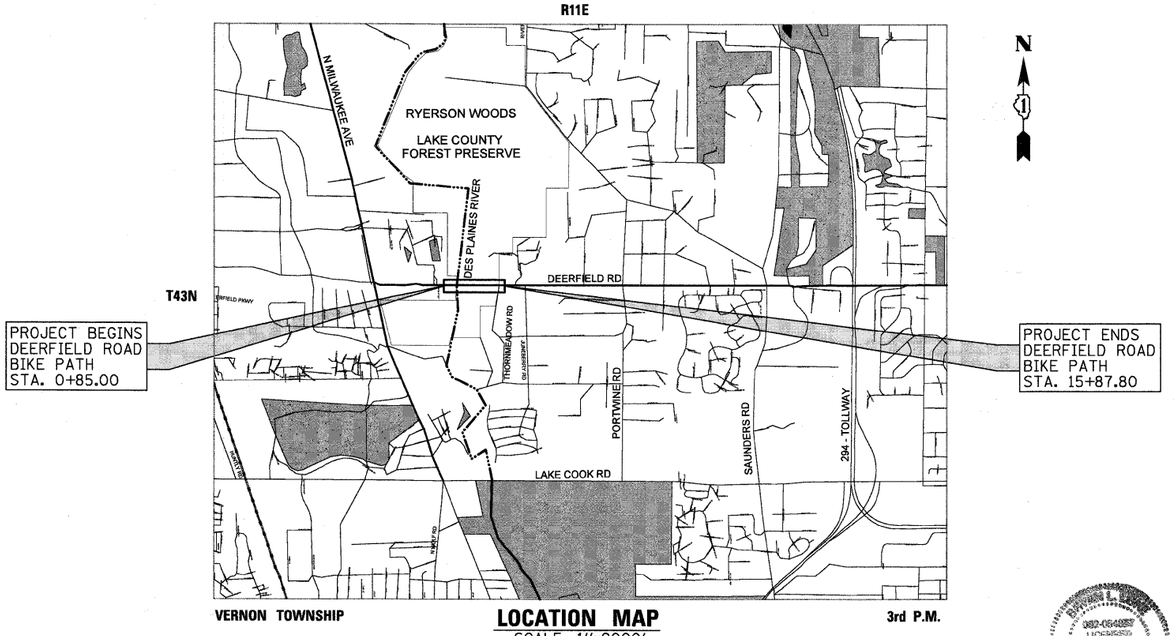
ASSOCIATE FIELD ENGINEER: KEVIN D. STALLWORTH, P.E.
201 W. CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096
(847) 705-4159

DT@06377A@CIVIL@CVR_06377A.SHT
250'

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAU 1257 (DEERFIELD ROAD)
DES PLAINES RIVER TRAIL TO THORNMEADOW ROAD
BIKE PATH IMPROVEMENT
SECTION 04-00038-03-BT
PROJECT NO. ARA-9003 (528)
JOB NO. C-91-165-10
LAKE COUNTY DIVISION OF TRANSPORTATION



LOCATION MAP
SCALE: 1"=2000'

GROSS LENGTH = 1,503 FT. (0.28 MI.)
NET LENGTH = 1,503 FT. (0.28 MI.)

LOCATION OF SECTION INDICATED THUS: –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED November 20, 2009
LAKE COUNTY DIVISION OF TRANSPORTATION, COUNTY ENGINEER

PASSED DECEMBER 8, 2009
DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS

RELEASED FOR BID BASED ON LIMITED REVIEW DECEMBER 8, 2009
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

BRYAN L. LUKE
062-054957
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS
11/30/09

BRYAN L. LUKE
ILLINOIS REGISTRATION No. 062-054957 ENGINEER
EXPIRATION DATE: 11/30/2011

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

LIST OF HIGHWAY STANDARDS

001001-02	AREAS OF REINFORCEMENT REBARS
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
424001-05	CURB RAMPS FOR SIDEWALK
542401-01	METAL END SECTION FOR PIPE CULVERT SECTION
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-03	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-02	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701301-03	LANE CLOSURE 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY
701501-05	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701801-04	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
704001-06	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/DIRECTION AND MEANS/METHODS OF CONSTRUCTION.

GENERAL NOTES

ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH:
"STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2007.
"SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED JANUARY 1, 2010
LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (IMUTCD)
STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" JULY 2009 SIXTH EDITION,
"DETAILS" IN THE PLANS
LATEST EDITION OF THE MANUAL OF TEST PROCEDURE OF MATERIALS
"SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS
USACOE PERMIT, LCSMC PERMIT, AND STORM WATER POLLUTION PREVENTION PLAN
AMERICANS WITH DISABILITIES ACT OF 1990 ACCESSIBILITY GUIDELINES
"DRAFT" REHABILITATION ACT OF 1973 (SECTION 504)
PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES.
ANY REFERENCE TO STANDARDS IN THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE LATEST STANDARDS OF THE DEPARTMENT.

ALL ELEVATIONS SHOWN ON THESE PLANS ARE ON N.G.V.D. OF 1929 DATUM.

THE CONTRACTOR SHALL GIVE NOTICES AND COMPLY WITH APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ALL PUBLIC AUTHORITIES BEARING ON SAFETY OF PERSONS OR PROPERTY OR THEIR PROTECTION FROM DAMAGE, INJURY OR LOSS.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE THE MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

THE CONTRACT DOCUMENTS ARE NOT INTENDED TO SHOW EVERY AND ALL DETAILS OF WORK TO BE PERFORMED OR EQUIPMENT TO BE SUPPLIED. THE INTENT OF THE CONTRACT DOCUMENTS IS TO ILLUSTRATE THE DESIGN AND LAYOUT. THE CONTRACTOR SHALL BE KNOWLEDGEABLE AND REGULARLY ENGAGED IN THE TYPE OF WORK DESCRIBED BY THESE CONTRACT DOCUMENTS, AND SHALL BE RESPONSIBLE FOR UNDERSTANDING THEIR INTENT. ANY WORK TO BE PERFORMED OR ITEM OF EQUIPMENT TO BE SUPPLIED WHICH IS NOT SPECIFICALLY CALLED FOR BY THESE CONTRACT DOCUMENTS BUT WHICH IS NECESSARY TO PROVIDE A COMPLETE AND SUCCESSFUL WORKING SYSTEM SHALL BE INCLUDED IN THE CONTRACTOR'S SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER.

ALL SAWCUTTING SHALL BE INCIDENTAL TO REMOVAL ITEMS AND SHALL BE PERFORMED PRIOR TO BEGINNING REMOVAL. ANY ITEMS OF WORK REMOVED PRIOR TO SAWCUTTING SHALL NOT BE MEASURED FOR PAYMENT.

THE THICKNESS OF HOT-MIX ASPHALT MIXTURES SHOWN IN THE PLANS ARE NOMINAL. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE SURFACES OR BASIS ON WHICH THEY ARE TO BE PLACED. PLAN THICKNESSES SHOULD BE CONSIDERED THE MINIMUM THICKNESS PERMITTED.

PROTECTIVE COATING SHALL BE APPLIED TO THE EXPOSED SURFACES OF THE CONCRETE PIERS, CONCRETE CURB AND GUTTER, AND CONCRETE SIDEWALK.

CONTRACTOR SHALL REPAIR, TO THE SATISFACTION OF THE ENGINEER, ALL DAMAGE TO EXISTING ITEMS NOT SHOWN FOR REMOVAL. THIS WORK SHALL BE DONE BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE.

CONTRACTOR SHALL CONTACT THE LOCAL AGENCY'S MATERIAL INSPECTOR AT A MINIMUM OF 48-HOURS PRIOR TO ANY MATERIAL DELIVERIES.

PROTECTION OF NATURAL RESOURCES: ACTIVITIES SHALL ONLY OCCUR IN IDENTIFIED CONSTRUCTION/ACCESS AREAS. NO EQUIPMENT, STAGING AREAS, OR ANY OTHER CONSTRUCTION RELATED ACTIVITIES SHALL OCCUR ON PRIVATE PROPERTY OR LAKE COUNTY FOREST PRESERVE PROPERTY.

NOTHING SHALL BE STORED ON BRIDGE DECK.

THE PROTECTED MASSASAUGA RATTLESNAKES MAY BE ENCOUNTERED IN THE WORK ZONE. CONTRACTOR IS URGED TO ATTEND A TRAINING SESSION PROVIDED BY LAKE COUNTY FOREST PRESERVE (CONTACT RANDY SEEBACH, AT 847-968-3262).

DRAINAGE NOTES

WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE OR PUBLIC DRAINS, SEWERS OR CATCH BASINS. HE SHALL PROVIDE FACILITIES TO TAKE IN ALL STORM WATER WHICH SHALL BE RECEIVED BY THESE DRAINS AND SEWERS AND DISCHARGE THE SAME. HE SHALL PROVIDE AND MAINTAIN AN EFFICIENT PUMPING PLANT, IF NECESSARY, AND A TEMPORARY OUTLET AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER RECEIVED FROM THESE TEMPORARY CONNECTIONS UNTIL SUCH TIME AS THE PERMANENT CONNECTIONS WITH SEWERS ARE BUILT AND IN SERVICE. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER ITEMS.

DURING THE CONSTRUCTION OPERATIONS WHEN ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS OR DRAINAGE STRUCTURES SO THE NATURAL FLOW OF WATER IS OBSTRUCTED, THE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF THE CONSTRUCTION OPERATIONS ALL DRAINAGE STRUCTURES SHALL BE FREE FROM ALL DIRT AND DEBRIS CAUSED BY THE CONSTRUCTION. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.

REGARDLESS OF THE SOURCE OF WATER, ANY DEWATERING WITHIN THE PIER 2 AND PIER 3 COFFERDAMS (SPECIAL) LIMITS SHALL BE PAID AS PER THE DEWATERING SPECIAL PROVISION. REGARDLESS OF THE SOURCE OF WATER, ANY DEWATERING REQUIRED TO KEEP EXCAVATIONS DRY OUTSIDE OF THE PIER 2 AND PIER 3 COFFERDAMS SPECIAL LIMITS, SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.

OBSERVATION STRUCTURES OR OTHER SIMILAR MAINTENANCE AND INSPECTION ACCESS STRUCTURES SHALL BE PLACED ON DRAIN TILES ENTERING AND LEAVING THE ROAD RIGHT-OF-WAY. WHEN REQUIRED, THIS WORK SHALL BE PER SECTION 109.04 OF THE STANDARD SPECIFICATIONS.

A STAFF GAUGE USED FOR DETERMINING FLOOD STAGE IS LOCATED ON THE WEST BANK OF THE DES PLAINES RIVER JUST SOUTH OF DEERFIELD ROAD. THE STAFF GAUGE SHALL NOT BE DAMAGED DURING CONSTRUCTION, AND IT SHALL ONLY BE MOVED IF NECESSARY DUE TO THE CONTRACTOR'S METHOD OF CONSTRUCTION; PRIOR TO MOVING THE GAUGE THE CONTRACTOR SHALL COORDINATE VERNON TOWNSHIP, AND THE COST OF MOVING THE STAFF GAUGE SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT.

REMOVAL AND DISPOSAL OF EXISTING STORM SEWER OR CULVERT AS PART OF INSTALLATION OF PROPOSED STORM SEWER OR PROPOSED CULVERT SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE PROPOSED STORM SEWER OR PROPOSED CULVERT PAY ITEM.

EARTH EXCAVATION NOTES

EXCAVATION REQUIRED TO CLEAN SIDE ROAD DITCHES, CONSTRUCT DRIVEWAYS OR CONSTRUCT SIDE ROAD APPROACHES SHALL BE CONSIDERED INCLUDED IN THE COST OF EARTH EXCAVATION.

ALL EXCESS MATERIAL FROM NECESSARY EXCAVATIONS WHICH MEET SECTION 205 OF THE STANDARD SPECIFICATIONS SHALL BE USED AS EMBANKMENT PER SECTION 205 OF THE STANDARD SPECIFICATIONS.

EARTH EXCAVATION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 202 OF THE "STANDARD SPECIFICATIONS", EXCEPT THAT OVERHAUL SHALL NOT BE PAID FOR. IN ADDITION TO ITEMS SPECIFIED IN SECTION 202 AND AS NOTED IN THE PLANS AND SPECIAL PROVISIONS, EARTH EXCAVATION SHALL CONSIST OF:

1. EXCAVATION TO SUBGRADE ELEVATION (INCLUDING TOPSOIL STRIPPING AND REMOVING EARTH FOR INSTALLATION OF POROUS GRANULAR EMBANKMENT).
2. PLACING AND COMPACTING SUITABLE EXCAVATED MATERIAL FOR FILL AREAS IN ACCORDANCE WITH SECTION 205 OF THE "STANDARD SPECIFICATIONS".
3. EARTH MOVED MORE THAN ONCE DUE TO CONSTRUCTION STAGING AND/OR PROCEDURES SELECTED BY THE CONTRACTOR SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF EARTH EXCAVATION.
4. REMOVAL OF EXISTING HMA AND PCC PATH ON DES PLAINES RIVER TRAIL.

ALL EMBANKMENT WIDENING SHALL BE SUFFICIENTLY BENCHED INTO EXISTING EMBANKMENTS/SLOPES PER ARTICLE 205 OF THE STANDARD SPECIFICATIONS, AND AS APPROVED BY THE ENGINEER. ALL COSTS SHALL BE INCLUDED IN THE UNIT PRICE FOR EARTH EXCAVATION.

ALL CLEARING AND REMOVAL OF BUSHES, HEDGES AND TREES LESS THAN SIX (6) IN. IN DIAMETER SHALL NOT BE PAID FOR SEPARATELY BUT, SHALL BE INCLUDED IN THE PRICE PER ACRE FOR TREE REMOVAL.

CONSTRUCTION SEQUENCING NOTES

SEE SOIL EROSION AND SEDIMENT CONTROL NOTES AND SUGGESTED TRAFFIC CONTROL NOTES FOR CONSTRUCTION SEQUENCING AND ADDITIONAL REQUIREMENTS.

CONTRACTOR SHALL SUBMIT CONSTRUCTION SEQUENCING PLAN TO THE ENGINEER. PLAN SHALL INCLUDE CONSTRUCTION STAGING SEQUENCE AND DURATION, CONSTRUCTION EQUIPMENT ACCESS ROUTE, ERECTION PLAN WITH SEQUENCE AND DURATION, ALL ITEMS NEEDED TO COMPLY WITH USACOE AND LCSMC PERMITS, ALL ITEMS NEEDED TO COMPLY WITH THE PLANS AND SPECIAL PROVISIONS, AND ALL ITEMS NEEDED TO RECEIVE APPROVAL FROM LCDOT TO USE DEERFIELD ROAD (FAU 1257) AND DEERFIELD ROAD BRIDGE (SN 049-1074) AS STAGING AREA. CONTRACTOR SHALL NOT BEGIN WORK UNTIL CONSTRUCTION SEQUENCING PLAN IS APPROVED BY ENGINEER.

ALL WORK INVOLVING SIGNS SHALL BE GOVERNED BY THE FOLLOWING REQUIREMENTS:

A. SIGNS SHALL NOT BE MOVED UNTIL PROGRESS OF WORK NECESSITATES IT.
B. THE CONTRACTOR SHALL BE REQUIRED TO RELOCATE, MAINTAIN AND REMOVE SIGNS WHICH INTERFERE WITH HIS CONSTRUCTION OPERATIONS.
C. THE CONTRACTOR SHALL REMOVE ALL UNUSED SIGNS NOT CALLED OUT TO BE RELOCATED. ALL UNUSED SIGNS SHALL BE RETURNED TO THE OWNER OR DISPOSED OF AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE COST OF THE CONTRACT.
D. SIGNS SHALL BE INSTALLED PER IDOT HIGHWAY STANDARD 720006 AT TEMPORARY AND PERMANENT LOCATIONS.

THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES AND AT LEAST TWO WEEKS PRIOR TO PERMANENT PAVEMENT MARKING PLACEMENT.

PEDESTRIAN / BICYCLE MANAGEMENT NOTES

ALL PEDESTRIAN ROUTES CONSTRUCTED AS PART OF THIS PROJECT SHALL BE ADA COMPLIANT.

DEPRESSED CURBS ACCESSIBLE TO THE HANDICAPPED SHALL BE PROVIDED AS SHOWN IN THE PLANS. THE TRANSITION FROM FULL HEIGHT CURB TO DEPRESSED CURB SHALL BE 6' LONG. THIS WORK IS INCLUDED IN THE COST OF THE ASSOCIATED CONC. CURB AND GUTTER.

TYPE "A" SIDEWALK RAMPS FOR THE HANDICAPPED SHALL BE INSTALLED AT ALL INTERSECTING STREETS AT LOCATIONS SHOWN IN THE PLANS (SEE STANDARD 424001 FOR CONSTRUCTION DETAILS).

DETECTABLE WARNINGS SHALL BE PLACED IN SIDEWALK AT LOCATIONS SHOWN ON THE PLANS BEHIND DEPRESSED CONCRETE CURB AND GUTTER.

SEE SUGGESTED TRAFFIC CONTROL NOTES FOR ADDITIONAL REQUIREMENTS.

UTILITIES NOTES

THE CONTRACTOR SHALL BE REQUIRED TO ASCERTAIN THE EXACT LOCATIONS OF UTILITIES AND EXERCISE CARE DURING HIS CONSTRUCTION OPERATIONS SO AS NOT TO DAMAGE THEM.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL EXISTING FACILITIES SO THAT THE UTILITIES AND THEIR APPURTENANCES MAY BE LOCATED AND ADJUSTED OR MOVED, IF NECESSARY, PRIOR TO THE START OF CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS AS PROVIDED FOR IN THE SPECIAL PROVISIONS.

THE LOCATIONS OF EXISTING DRAINAGE STRUCTURES, STORM AND SANITARY SEWERS, WATER LINES, WATER SERVICE LINES, AND OTHER UTILITY LINES ARE APPROXIMATE. THEIR EXACT HORIZONTAL AND VERTICAL LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AT HIS OWN EXPENSE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS AND CABLE TELEVISION FACILITIES (48 HOURS NOTIFICATION IS REQUIRED.)

THE CONTRACTOR SHALL NOT OPEN OR SHUT ANY WATER VALVES OR FIRE HYDRANTS WITHOUT PRIOR AUTHORIZATION FROM THE CITY WATER DEPARTMENT. UNAUTHORIZED USE SHALL SUBJECT THE OFFENDER TO ARREST AND PROSECUTION.

CONTRACTOR TO NOTE THAT LAKE COUNTY PUBLIC WORKS INTENDS TO REPLACE THEIR EXISTING 8" SANITARY FORCE MAIN FROM STA 2+00 TO STA 8+00. A 12" PVC FORCE MAIN WILL BE INSTALLED APPROXIMATELY 12-13 FEET NORTH AND PARALLEL TO THE PROPOSED DEERFIELD ROAD BIKE PATH ALIGNMENT AND THE EXISTING FORCE MAIN WILL BE FILLED AND ABANDONED. THIS WORK BY OTHERS IS ANTICIPATED TO BE COMPLETED BY SPRING 2010. CONTRACTOR SHALL COORDINATE WITH LAKE COUNTY PUBLIC WORKS.

LANDSCAPING NOTES

SEE SOIL EROSION AND SEDIMENT CONTROL NOTES FOR CONSTRUCTION SEQUENCING AND ADDITIONAL REQUIREMENTS.

FERTILIZER NUTRIENTS FOR SEEDING CLASS 1A:
USE A FERTILIZER WITH AN ANALYSIS OF 1:1 RATIO.
RATE PER ACRE:
90 LBS NITROGEN FERTILIZER NUTRIENT
90 LBS POTASSIUM FERTILIZER NUTRIENT
SEEDING CLASS 4 (MODIFIED), NO FERTILIZER TO BE APPLIED

TREES TO BE REMOVED: THE INDICATED TREES (INCLUDING STUMPS) TO BE REMOVED SHALL BE SUITABLY MARKED BY THE ENGINEER BEFORE TREE REMOVAL OPERATIONS BEGIN.

TREES TO BE SAVED: PARTICULAR EFFORT SHALL BE MADE TO SAVE ALL DESIRABLE (AS DETERMINED BY THE ENGINEER) EXISTING TREES AND UNDERGROWTH UNDER 6" DIAMETER CALIPER SIZE WHEN THEY ARE LOCATED 5 FEET OUTSIDE THE PROPOSED PATH IN AREAS OF CUT OR FILL SLOPES HAVING A GRADE CHANGE OF LESS THAN ONE FOOT. MINIMUM GRADING IS TO BE PERMITTED WITHIN AN APPROXIMATE RADIUS OF 5 FEET FROM ALL TREES TO BE SAVED AS DETERMINED BY THE ENGINEER. ANY TREES TO BE SAVED WITH CANOPIES LOCATED WITHIN 5 FEET OF THE PROPOSED PATH SHALL BE TRIMMED (TREE AND ROOT) ACCORDING TO THE PLAN DETAIL, SPECIAL PROVISION AND AS DIRECTED BY THE ENGINEER.

TREE PRUNING AND TREE ROOT PRUNING SHALL OCCUR PRIOR TO ANY CONSTRUCTION EQUIPMENT ENTERING JOB SITE.

CONTRACTOR SHALL NOT STOCKPILE/STORE EQUIPMENT, MATERIALS OR VEHICLES ON DEERFIELD ROAD BRIDGE, WITHIN FLOODWAY OR OUTSIDE THE LIMITS OF CONSTRUCTION.

THE CONTRACTOR SHALL REMOVE ALL CUT BRUSH AND WOOD CHIPS FROM THE FLOODPLAIN.

FILE NAME = N:\LCDOT\06377A\Civil\NOT_06377A_01.SHT	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -
		DRAWN - PMM	REVISED -
	PLOT SCALE = NONE	CHECKED - JGS	REVISED -
	PLOT DATE = 12/9/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
GENERAL NOTES AND HIGHWAY STANDARDS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	40	2
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

LOCATION OF PROJECT: FAU 1257 (DEERFIELD ROAD) BIKE PATH IMPROVEMENT
LAKE COUNTY

△ Y080

• SPECIALTY ITEM
+ QUANTITY IS PROVISIONAL; TO BE USED AS DIRECTED BY ENGINEER

		PAY CODE	DESCRIPTION	UNIT	QUANTITY	Y047	Y003	X932-2A
+		20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	50	---	50	---
+		20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	50	---	50	---
		20100500	TREE REMOVAL, ACRES	ACRE	1.00	---	1.00	---
		20101000	TEMPORARY FENCE	FOOT	1000	---	1000	---
		20101200	TREE ROOT PRUNING	EACH	13	---	13	---
		20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	7	---	7	---
		20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	6	---	6	---
		20200100	EARTH EXCAVATION	CU YD	460	460	---	---
+		20700420	POROUS GRANULAR EMBANKMENT, SUBGRADE	CU YD	40	40	---	---
		20800250	TRENCH BACKFILL, SPECIAL	CU YD	15	---	---	15
+		21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	120	120	---	---
		21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	2014	---	2014	---
+		21301084	EXPLORATION TRENCH 84" DEPTH	FOOT	100	100	---	---
		25000110	SEEDING, CLASS 1A	ACRE	0.09	---	0.09	---
		25000400	NITROGEN FERTILIZER NUTRIENT	POUND	10	---	10	---
		25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	10	---	10	---
		25100630	EROSION CONTROL BLANKET	SQ YD	2824	---	2824	---
		25100800	EROSION CONTROL MAT	SQ YD	150	---	150	---
+		25200200	SUPPLEMENTAL WATERING	UNIT	85	---	85	---
+		28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	59	---	59	---
		28000400	PERIMETER EROSION BARRIER	FOOT	1053	---	1053	---
+		28000510	INLET FILTERS	EACH	2	---	2	---
		28100105	STONE RIPRAP, CLASS A3	SQ YD	15	---	---	15
		28200200	FILTER FABRIC	SQ YD	15	---	---	15
		35100120	AGGREGATE BASE COURSE, TYPE A 2"	SQ YD	46	46	---	---
		35100500	AGGREGATE BASE COURSE, TYPE A 6"	SQ YD	528	528	---	---
		40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	257	257	---	---
		40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	80	80	---	---
		40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	129	129	---	---
		42001300	PROTECTIVE COAT	SQ YD	144	144	---	---
		42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	413	413	---	---
		42400800	DETECTABLE WARNINGS	SQ FT	35	35	---	---
		48101800	AGGREGATE SHOULDERS (SPECIAL)	SQ YD	4	4	---	---
		50200510	COFFERDAMS (SPECIAL)	EACH	2	2	---	---
		50300225	CONCRETE STRUCTURES	CU YD	47.6	---	---	47.6
		50300300	PROTECTIVE COAT	SQ YD	200	---	---	200
		50800105	REINFORCEMENT BARS	POUND	12950	---	---	12950
		50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	7300	---	---	7300
		51603000	DRILLED SHAFT IN SOIL	CU YD	109	---	---	109
		54213870	STEEL END SECTIONS 15"	EACH	4	---	---	4

		PAY CODE	DESCRIPTION	UNIT	QUANTITY	Y047	Y003	X932-2A
		550B0070	STORM SEWERS, CLASS B, TYPE 1 15"	FOOT	54	---	---	54
+	*	56106600	ADJUSTING WATER MAIN 12"	FOOT	40	---	---	40
+	*	56300100	ADJUSTING SANITARY SEWERS, 8-INCH DIAMETER OR LESS	FOOT	150	---	---	150
		60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	425	425	---	---
		67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6	---	---
		67100100	MOBILIZATION	L SUM	1	1	---	---
		70101900	TRAFFIC CONTROL AND PROTECTION (DETOUR 1)	L SUM	1	1	---	---
		70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1	---	---
		70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1	---	---
	*	70106800	CHANGEABLE MESSAGE SIGN	CAL MO	6	6	---	---
		70300230	TEMPORARY PAVEMENT MARKING - LINE 5"	FOOT	1510	1510	---	---
		70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	630	630	---	---
		70400100	TEMPORARY CONCRETE BARRIER	FOOT	325	325	---	---
		72000100	SIGN PANEL - TYPE 1	SQ FT	12	12	---	---
		72900200	METAL POST - TYPE B	FOOT	24	24	---	---
	*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	491	491	---	---
	*	78000300	THERMOPLASTIC PAVEMENT MARKING - LINE 5"	FOOT	1170	1170	---	---
	*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	48	48	---	---
	*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	12	12	---	---
		78200100	MONODIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	28	28	---	---
		X0321556	SANITARY MANHOLES TO BE ADJUSTED	EACH	1	---	---	1
		X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	42	42	---	---
	*	X0322508	PEDESTRIAN TRUSS SUPERSTRUCTURE	SQ FT	4084	---	---	4084
		X0322671	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	259	259	---	---
		X0426200	DEWATERING	L SUM	1	---	---	1
+		XX008290	TEMPORARY DITCH CHECKS, SPECIAL	EACH	9	9	---	---
		XX005913	TEMPORARY ACCESS CAUSEWAY	L SUM	1	1	---	---
+		XX006522	FURNISH WITNESS POST	EACH	2	2	---	---
+		XX006658	FLOCCULATION LOGS	EACH	5	---	5	---
+		XX006659	FLOCCULATION POWDER	POUND	50	---	50	---
		XX006701	SEEDING, CLASS 4 (MODIFIED) MESIC PRAIRIE	ACRE	0.20	---	0.20	---
		XX006702	SEEDING, CLASS 4 (MODIFIED) WET TO MESIC PRAIRIE	ACRE	0.29	---	0.29	---
		Z0001050	AGGREGATE SUBGRADE 12"	SQ YD	480	480	---	---
		Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	---	---
+		Z0019600	DUST CONTROL WATERING	UNIT	5	5	---	---
		Z0030250	IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	3	3	---	---
	△	Z0076600	TRAINEES	HOUR	500	500	---	---
		Z0077700	WOOD FENCE TO BE REMOVED AND RE-ERECTED	FOOT	35	35	---	---
	*	XX008287	BOARDWALK STRUCTURE	SQ FT	7271	---	---	7271
		XX008288	SEDIMENT COLLECTION CHAMBER SYSTEM, TEMPORARY	EACH	2	2	---	---

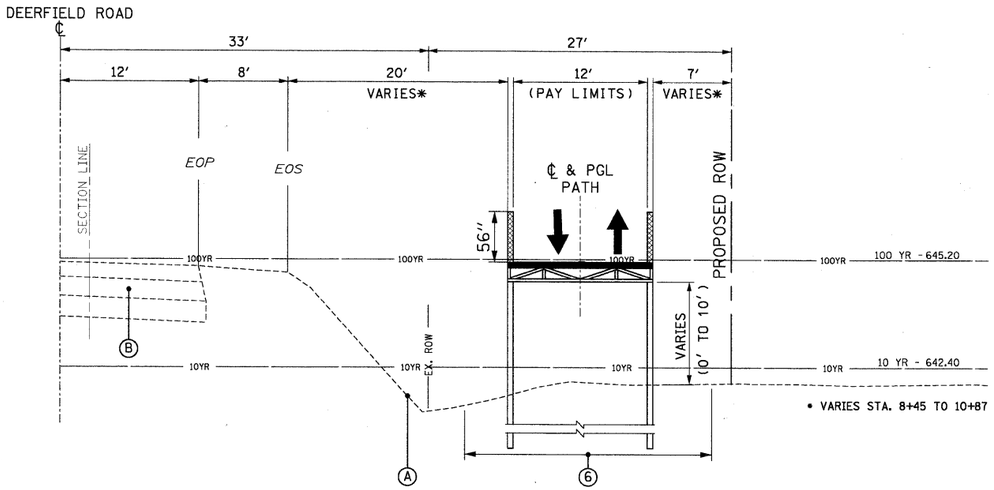
FILE NAME = N:\LCDOT\063778\Civil\QUA_063778A_01.SHT	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -
		DRAWN - PMM	REVISED -
	PLOT SCALE = NONE	CHECKED - JGS	REVISED -
	PLOT DATE = 12/9/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
SUMMARY OF QUANTITIES

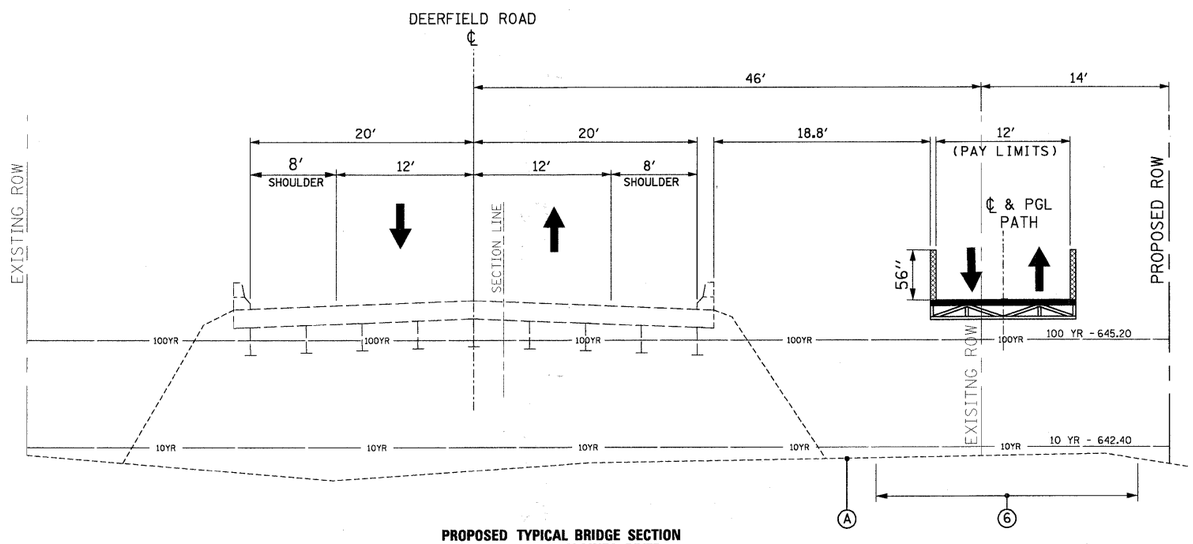
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	40	3
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



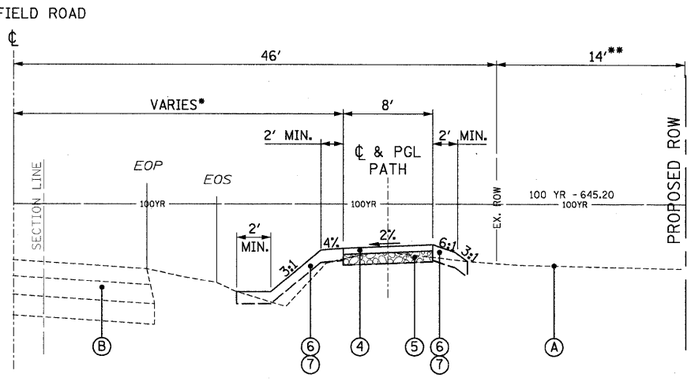
PROPOSED TYPICAL BOARDWALK SECTION

LOOKING EAST
STA. 1+40 TO STA. 3+07.30
STA. 6+47.30 TO STA. 10+86.24



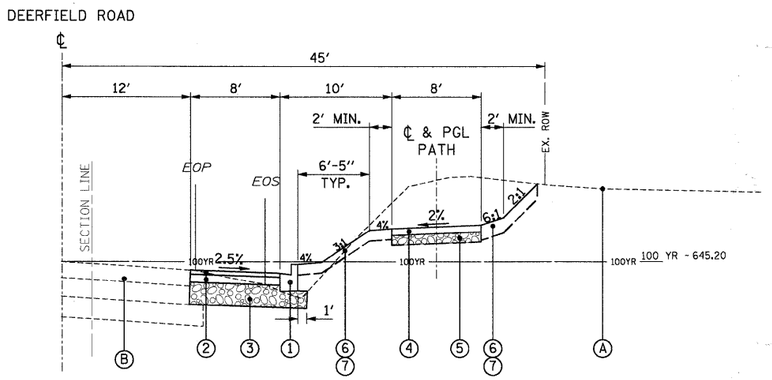
PROPOSED TYPICAL BRIDGE SECTION OVER THE DES PLAINES RIVER

LOOKING EAST
STA. 3+07.30 TO STA. 6+47.30



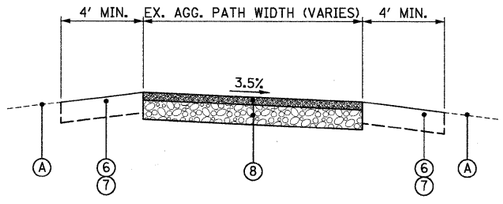
PROPOSED TYPICAL HOT-MIX ASPHALT PATH AT-GRADE SECTION

LOOKING EAST
STA. 10+86.24 TO STA. 11+65



PROPOSED TYPICAL HOT-MIX ASPHALT PATH AT-GRADE SECTION

LOOKING EAST
STA. 11+65 STA. 15+87.80



PROPOSED TYPICAL AGGREGATE PATH AT-GRADE SECTION

LEGEND

- (A) EXISTING GROUND
- (B) EXISTING ROADWAY
- (1) COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.12
- (2) HMA SHOULDER
  - HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50; 2"
  - HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50; 4"
- (3) AGGREGATE SUBGRADE, 12"
- (4) HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50; 3"
- (5) AGGREGATE BASE COURSE, TYPE A, 6"
- (6) LANDSCAPE RESTORATION (SEE EROSION AND SEDIMENT CONTROL PLANS AND DETAILS)
- (7) TOPSOIL FURNISH AND PLACE, 6"
- (8) AGGREGATE SHOULDERS (SPECIAL)
  - 3" FA-21 GRAVEL SCREENINGS
  - 5" CA-6 GRADE 8 OR 9 GRAVEL

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @Ndes
HMA SHOULDER	
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL-9.5mm), 2"	4% @ 50 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 4"	4% @ 50 GYR
HMA BIKE PATH	
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL-9.5mm), 3"	4% @ 50 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.

THE "AC TYPE" FOR POLYMERIZED HMA 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.

FILE NAME = N:\LCDOT\86377A\Civil\TYP_86377A_01.SHT	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -
		DRAWN - PMM	REVISED -
	PLOT SCALE = NONE	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
TYPICAL SECTIONS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. 1+00 TO STA. 15+54

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~44~~ 70	4
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

EARTHWORK TABLE

STATION	TO STATION	(1) CUT VOLUME (CY)	CUT VOLUME ADJUSTED FOR SHRINKAGE 15% (CY)	(2) FILL VOLUME (CY)	(3) EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
HMA PATH AT-GRADE SECTIONS					
1+00	1+40	17.9	15.2	23.4	-8.2
10+87	11+00	0.2	0.2	9.0	-8.8
11+00	11+50	7.9	6.7	11.5	-4.8
11+50	12+00	34.0	28.9	4.7	+24.2
12+00	12+50	47.5	40.4	6.9	+33.4
12+50	13+00	40.9	34.7	7.7	+27.
13+00	13+50	38.0	32.3	9.4	+22.9
13+50	14+00	51.3	43.6	7.8	+35.8
14+00	14+50	74.3	63.1	5.7	+57.4
14+50	15+00	75.2	63.9	5.8	+58.1
15+00	15+50	68.2	58.0	5.8	+52.2
15+50	15+54	4.9	4.1	0.4	+3.8
Topsoil Stripping*			-270.0		-270.0
	TOTALS =	460	121	98	+23

NOTES

(1) PAID FOR AS EXCAVATION

(2) NOT MEASURED FOR PAYMENT

(3) + REMOVE FROM JOB SITE
- REQUIRED FURNISHED EXCAVATION

- TOPSOIL STRIPPING VOLUME CALCULATED BY ASSUMING 6" LAYER OF TOPSOIL AT AND ADJACENT TO HMA PATH AREAS. THIS QUANTITY IS NOT SUITABLE FOR EMBANKMENT AND SHALL BE REMOVED FROM THE JOB SITE. TOPSOIL STRIPPING SHALL BE PAID FOR AS EARTH EXCAVATION.

PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH

STA	STA	WIDTH	AREA
15+47	15+53	8 FT	50 SF
15+82	15+88	8 FT	48 SF
Des Plaines River Trail		-	315 SF
		TOTAL =	413 SF

DETECTABLE WARNINGS

STA	WIDTH	AREA
15+52	8 FT	16 SF
15+87	8 FT	19 SF
	TOTAL =	35 SF

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12

	STA	OFFSET	
START	11+65	11.6 LT	
	11+71	13.4 LT	
	15+46	13.0 LT	
END	15+51	15.4 RT	
		LENGTH =	415 FT
START	15+79	3.8 RT	
END	15+87	4.2 LT	
		LENGTH =	10 FT
		TOTAL =	425 FT

TREE REMOVAL, ACRES

WEST OF RIVER
0.25 ACRE:
EAST OF RIVER
0.75 ACRE:
TOTAL = 1.00 ACRE

NOTES

(1) AREA MEASURED FROM NORTH OF TEMPORARY FENCE TO EDGE OF SHOULDER. TREE REMOVAL WILL BE AS DETERMINED BY THE ENGINEER.

SIGN PANEL - TYPE 1

STA	OFFSET	SIGN	AREA
1+10	9 LT	YIELD	2 SF
1+10	9 LT	NO MOTOR VEHICLES	4 SF
15+40	7 RT	YIELD	2 SF
15+40	7 RT	NO MOTOR VEHICLES	4 SF
		TOTAL =	12 SF

METAL POST - TYPE B

STA	OFFSET	LENGTH
1+10	9 LT	12 FT
15+40	7 RT	12 FT
		24 FT

TEMPORARY FENCE

	STA	OFFSET	
START	0+82	29.4 LT	
	0+82	25.1 LT	
	0+85	22.4 LT	
	0+83	10.1 LT	
	0+80	8.6 LT	
	0+77	4.9 RT	
	0+70	12.7 RT	
END	0+72	19.4 RT	
		LENGTH =	57 FT
START	1+06	13.3 RT	
	1+28	10.8 RT	
	1+33	9.7 RT	
END	3+64	11.7 RT	
		LENGTH =	256 FT
START	5+16	9.4 RT	
	5+93	8.9 RT	
	5+95	11.6 RT	
	8+46	11.6 RT	
	8+94	12.0 RT	
	8+95	9.0 RT	
	9+57	11.8 RT	
	10+03	9.1 RT	
	10+05	12.0 RT	
END	11+96	12.0 RT	
		LENGTH =	687 FT
		TOTAL =	1000 FT

PERIMETER EROSION BARRIER

	STA	OFFSET	
START	0+90	32.2 LT	
	0+80	7.6 LT	
	0+80	1.7 RT	
	0+71	11.2 RT	
	0+71	21.1 RT	
	1+11	16.0 RT	
	1+11	13.2 RT	
	1+23	8.8 RT	
	1+81	11.0 RT	
END	3+31	11.2 RT	
		LENGTH =	319 FT
START	3+45	10 RT	
END	3+66	9.9 RT	
		LENGTH (DOUBLE ROW) =	40 FT
START	3+56	20.3 LT	
	3+58	15.4 LT	
END	3+64	15.4 LT	
		LENGTH (DOUBLE ROW) =	22 FT
START	5+28	15.2 LT	
	5+33	15.2 LT	
END	5+38	22.2 LT	
		LENGTH (DOUBLE ROW) =	28 FT
START	5+15	9.8 RT	
	5+36	9.2 RT	
END	5+98	9.4 RT	
		LENGTH (DOUBLE ROW) =	168 FT
START	5+98	9.4 RT	
	6+45	9.3 RT	
	6+44	14.0 RT	
	6+56	9.8 RT	
END	6+86	9.4 RT	
		LENGTH =	93 FT
START	7+21	9.2 RT	
	7+57	6.8 RT	
END	7+78	27.4 LT	
		LENGTH =	69 FT
START	8+94	13.9 RT	
	8+95	9.5 RT	
	9+57	11.6 RT	
	10+03	9.1 RT	
END	10+04	18.3 RT	
		LENGTH (DOUBLE ROW) =	244 FT
START	10+84	14.9 LT	
	10+76	9.4 LT	
	10+71	9.3 RT	
	10+70	21.1 RT	
END	10+98	22.4 RT	
		LENGTH =	70 FT
		TOTAL =	1053 FT

TEMPORARY CONCRETE BARRIER

	STA	OFFSET	
START	1+25	32.1 LT	
	1+65	34.9 LT	
END	2+83	34.9 LT	
		LENGTH =	162.5 FT
START	5+65	28.0 LT	
	6+15	34.9 LT	
END	7+29	34.9 LT	
		LENGTH =	162.5 FT
		TOTAL =	325 FT

IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3

STA	OFFSET	QUANTITY
1+20	32.5 LT	1 EACH
2+90	35.1 LT	1 EACH
7+35	35.1 LT	1 EACH
	TOTAL =	3 EACH

SANITARY MANHOLES TO BE ADJUSTED

STA	OFFSET	QUANTITY
12+37	18.4 LT	1 EACH
	TOTAL =	1 EACH

SEEDING, CLASS 1A

STA	STA	AREA
10+79	15+52	3960 SF
15+75	15+91	101 SF
	TOTAL =	4061 SF
	TOTAL =	0.09 AC

SEEDING, CLASS 4 (MODIFIED) MESIC PRAIRIE

STA	STA	AREA
1+66	2+95	3200 SF
7+20	8+43	1845 SF
10+54	15+54	3840 SF
	TOTAL =	8895 SF
	TOTAL =	0.20 AC

SEEDING, CLASS 4 (MODIFIED) WET TO MESIC PRAIRIE

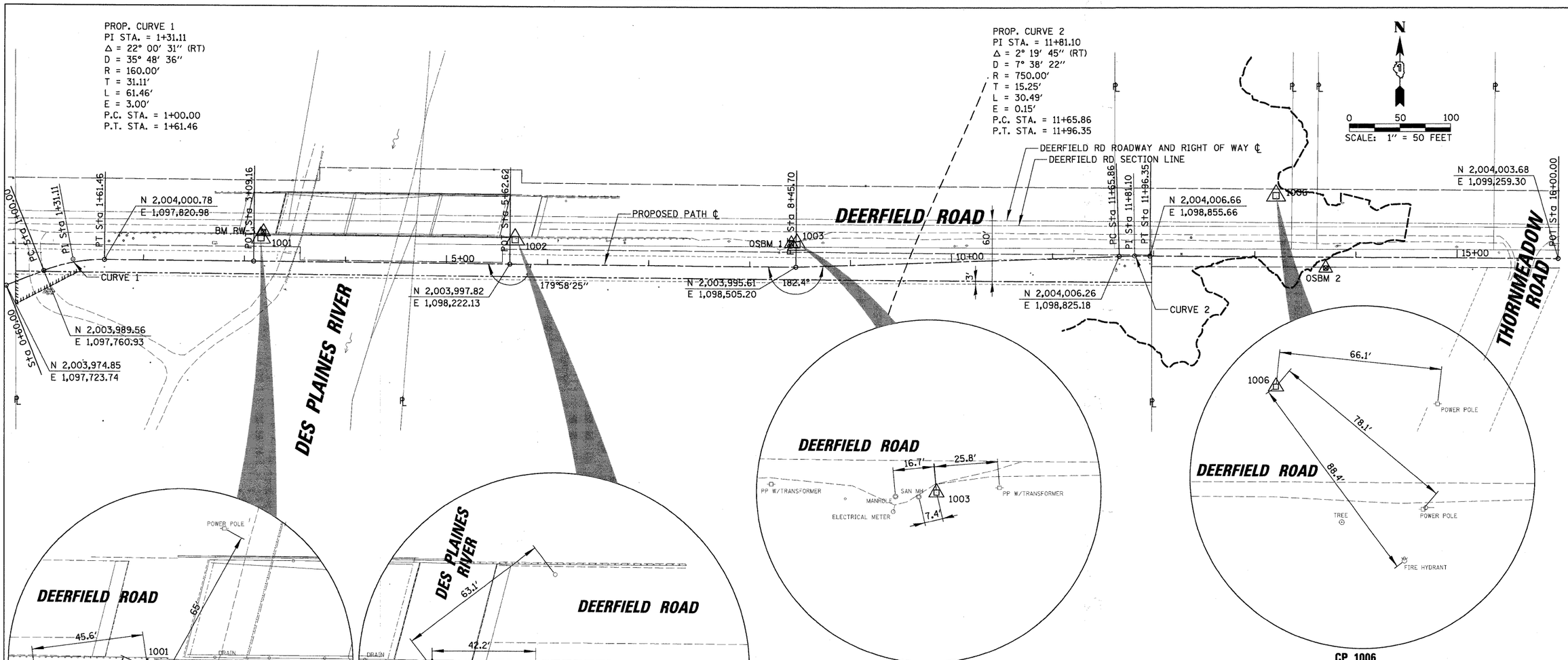
STA	STA	AREA
0+71	0+93	338 SF
1+06	1+66	1404 SF
2+95	3+40	1054 SF
3+45	3+69	462 SF
5+16	6+46	2440 SF
6+46	7+78	2960 SF
8+43	10+54	3796 SF
	TOTAL =	12454 SF
	TOTAL =	0.29 AC

FILE NAME = N:\LCDOT\86377A\Civil\SCH_86377A_01.SHT	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DEERFIELD ROAD BIKE PATH SCHEDULE OF QUANTITIES
		DRAWN - PMM	REVISED -		
	PLOT SCALE = NONE	CHECKED - JGS	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	440	5
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

PROP. CURVE 1
PI STA. = 1+31.11
Δ = 22° 00′ 31″ (RT)
D = 35° 48′ 36″
R = 160.00′
T = 31.11′
L = 61.46′
E = 3.00′
P.C. STA. = 1+00.00
P.T. STA. = 1+61.46

PROP. CURVE 2
PI STA. = 11+81.10
Δ = 2° 19′ 45″ (RT)
D = 7° 38′ 22″
R = 750.00′
T = 15.25′
L = 30.49′
E = 0.15′
P.C. STA. = 11+65.86
P.T. STA. = 11+96.35



CP 1001
SET REBAR

CP 1002
SET REBAR

CP 1003
SET REBAR

CP 1006
SET REBAR

LEGEND:

PR TEMPORARY EASEMENT	
EX PERMANENT EASEMENT (VILLAGE)	
EX ROW	
PR ROW	
EX FLOODWAY	
EX FLOOD PLAIN	
WETLAND BUFFER	

CONTROL POINTS

POINT	NORTH	EAST	STA.	OFFSET
1001	2,004,022.79	1,097,975.86	3+16.18	23.15′ LT
1002	2,004,022.05	1,098,227.48	5+67.78	24.26′ LT
1003	2,004,017.66	1,098,506.28	8+47.51	22.00′ LT
1006	2,004,066.15	1,098,980.31	13+20.55	60.41′ LT

ELEVATION BENCHMARKS
DATUM: NGVD 29

NO.	DESCRIPTION	ELEV.
LC5-45BR	SQUARE CUT ON NW CORNER PARAPET WALL AT NW CORNER BRIDGE APPROACH OF DEERFIELD RD. OVER DES PLAINES RIVER (LAKE COUNTY D.O.T. BM)	649.72
BM RW-3	SQUARE CUT ON W END OF S BARRIER WALL OF DEERFIELD RD. BRIDGE OVER DES PLAINES RIVER (NGVD 29)(RIVERWOOD)	649.62
OSBM 1	SQUARE CUT ON CONCRETE LID OF LIFT STATION ON S SIDE DEERFIELD RD E OF DES PLAINES RIVER	644.64
OSBM 2	NW FLANGE BOLT OF HYDRANT ON S SIDE OF DEERFIELD RD E OF THORN MEADOW RD	648.94

*NOTE: FOR CLARITY, PROPOSED PERMANENT EASEMENT NOT SHOWN IN OTHER SHEETS.

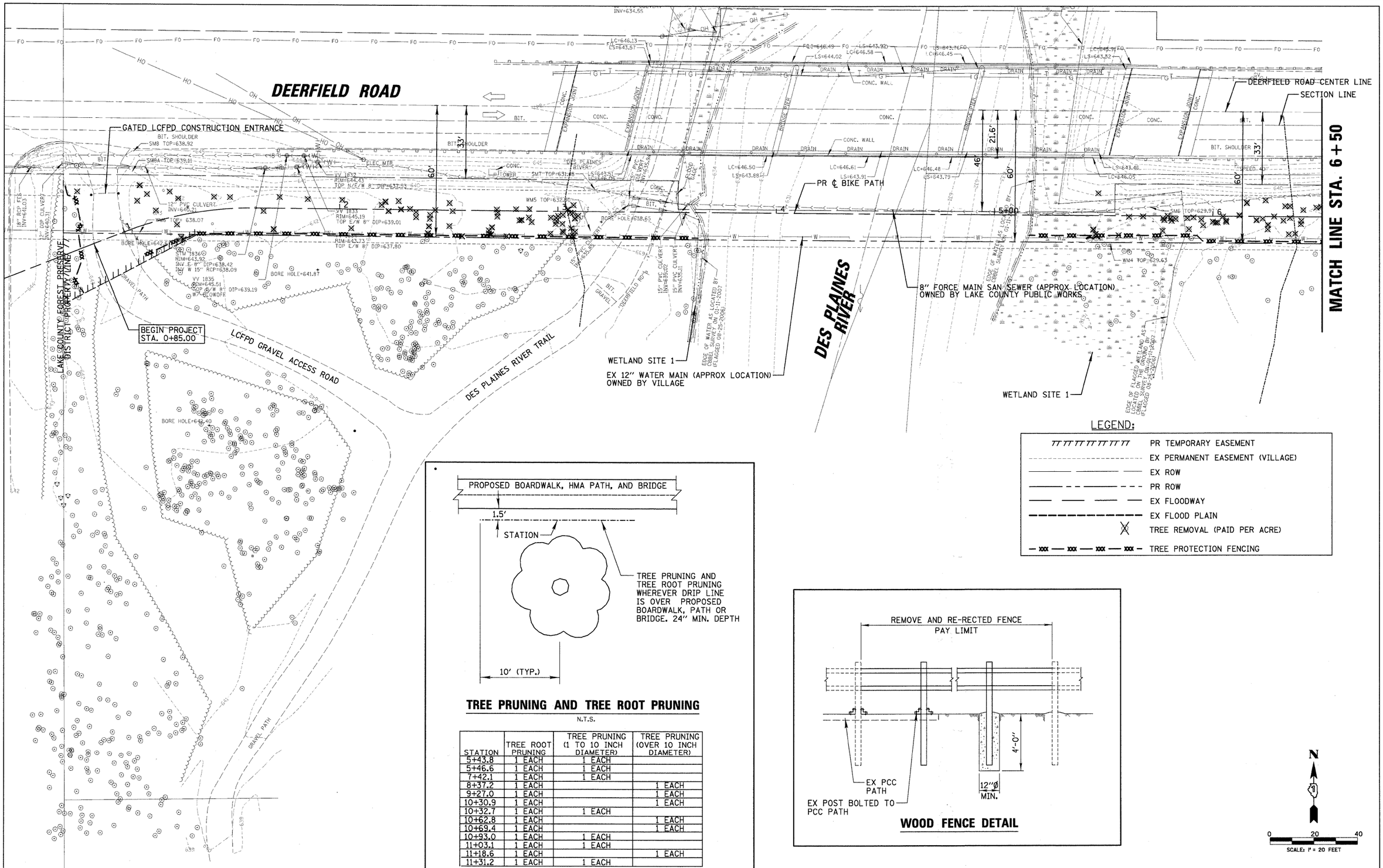
FILE NAME = N:\LCDOT\06377A\Civil\BNH_06377A.SHT	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -
		DRAWN - PMM	REVISED -
	PLOT SCALE = 50′	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
ALIGNMENT, TIES AND BENCHMARKS

SCALE: 1" = 50′ | SHEET NO. 1 OF 1 SHEETS | STA. 0+60 TO STA. 16+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~44~~ 40	6
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TREE PRUNING AND TREE ROOT PRUNING

N.T.S.

STATION	TREE ROOT PRUNING	TREE PRUNING (1 TO 10 INCH DIAMETER)	TREE PRUNING (OVER 10 INCH DIAMETER)
5+43.8	1 EACH	1 EACH	
5+46.6	1 EACH	1 EACH	
7+42.1	1 EACH	1 EACH	
8+37.2	1 EACH		1 EACH
9+27.0	1 EACH		1 EACH
10+30.9	1 EACH		1 EACH
10+32.7	1 EACH	1 EACH	
10+62.8	1 EACH		1 EACH
10+69.4	1 EACH		1 EACH
10+93.0	1 EACH	1 EACH	
11+03.1	1 EACH	1 EACH	
11+18.6	1 EACH		1 EACH
11+31.2	1 EACH	1 EACH	

WOOD FENCE DETAIL

LEGEND:

- PR TEMPORARY EASEMENT
- EX PERMANENT EASEMENT (VILLAGE)
- EX ROW
- PR ROW
- EX FLOODWAY
- EX FLOOD PLAIN
- TREE REMOVAL (PAID PER ACRE)
- TREE PROTECTION FENCING

N

0 20 40

SCALE: 1" = 20 FEET

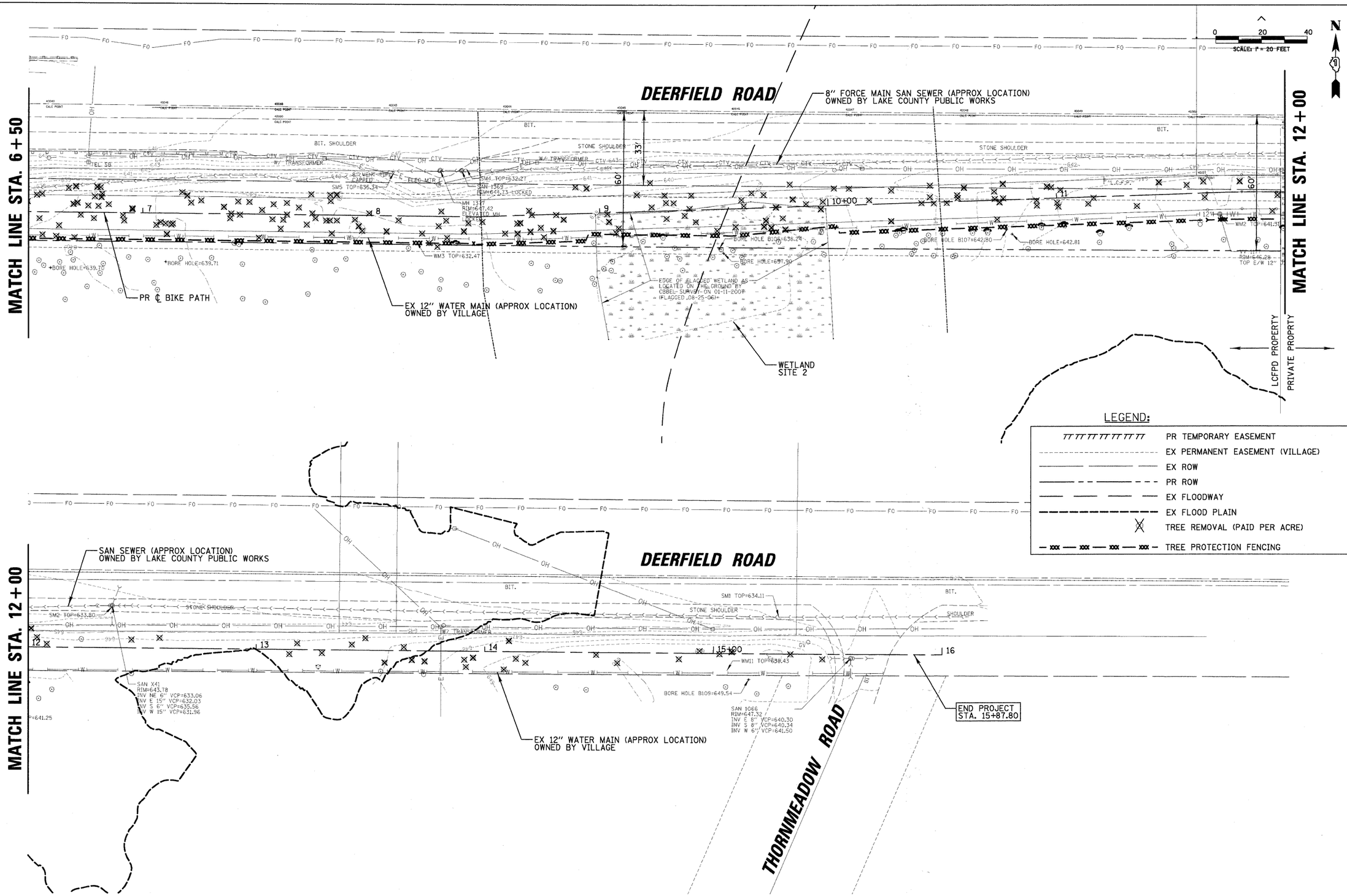
FILE NAME = N:\LCDOT\06377A\Civil\REM_06377A_01.SHT	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -
		DRAWN - PMM	REVISED -
	PLOT SCALE = 20'	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
EXISTING CONDITIONS AND REMOVAL PLAN

SCALE: 1"=20' | SHEET NO. 1 OF 2 SHEETS | STA. 0+80 TO STA. 6+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~10~~	7
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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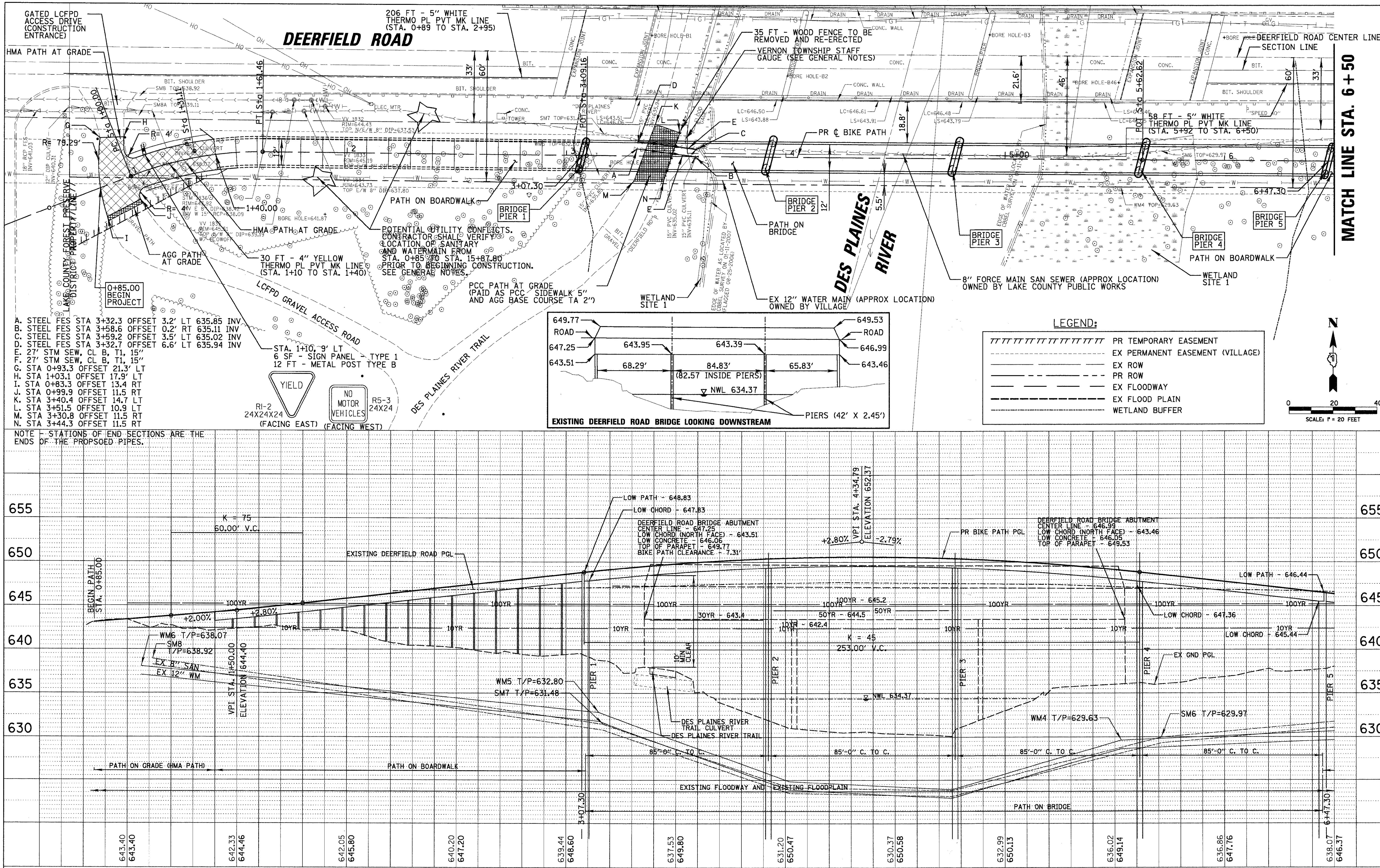
		DRAWN - PMM	REVISED -
	PLOT SCALE = 20'	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
EXISTING CONDITIONS AND REMOVAL PLAN

SCALE: 1"=20' | SHEET NO. 2 OF 2 SHEETS | STA. 6+50 | TO STA. 15+54

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	4440	8
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		


DEERFIELD ROAD
GATED LCFPD ACCESS DRIVE (CONSTRUCTION ENTRANCE)
HMA PATH AT GRADE
206 FT - 5" WHITE THERMO PL PVT MK LINE (STA. 0+89 TO STA. 2+95)
35 FT - WOOD FENCE TO BE REMOVED AND RE-ERECTED
VERNON TOWNSHIP STAFF GAUGE (SEE GENERAL NOTES)
DEERFIELD ROAD CENTER LINE
SECTION LINE
58 FT - 5" WHITE THERMO PL PVT MK LINE (STA. 5+92 TO STA. 6+50)
PR ℄ BIKE PATH
MATCH LINE STA. 6+50
PATH ON BOARDWALK
BRIDGE PIER 1
BRIDGE PIER 2
BRIDGE PIER 3
BRIDGE PIER 4
BRIDGE PIER 5
PATH ON BRIDGE
DES PLAINES RIVER
HMA PATH AT GRADE
POTENTIAL UTILITY CONFLICTS. CONTRACTOR SHALL VERIFY LOCATION OF SANITARY AND WATERMAIN FROM STA. 0+85 TO STA. 15+87.80 PRIOR TO BEGINNING CONSTRUCTION. SEE GENERAL NOTES.
AGG PATH AT GRADE
30 FT - 4" YELLOW THERMO PL PVT MK LINE (STA. 1+10 TO STA. 1+40)
PCC PATH AT GRADE (PAID AS PCC SIDEWALK 5" AND AGG BASE COURSE TA 2")
WETLAND SITE 1
EX 12" WATER MAIN (APPROX LOCATION) OWNED BY VILLAGE
8" FORCE MAIN SAN SEWER (APPROX LOCATION) OWNED BY LAKE COUNTY PUBLIC WORKS
0+85.00 BEGIN PROJECT
LCFPD GRAVEL ACCESS ROAD
DES PLAINES RIVER TRAIL
LAKE COUNTY FOREST PRESERVE DISTRICT PROPERTY LINE
A. STEEL FES STA 3+32.3 OFFSET 3.2' LT 635.85 INV
B. STEEL FES STA 3+58.6 OFFSET 0.2' RT 635.11 INV
C. STEEL FES STA 3+59.2 OFFSET 3.5' LT 635.02 INV
D. STEEL FES STA 3+32.7 OFFSET 6.6' LT 635.94 INV
E. 27' STM SEW, CL B, T1, 15"
F. 27' STM SEW, CL B, T1, 15"
G. STA 0+93.3 OFFSET 21.3' LT
H. STA 1+03.1 OFFSET 17.9' LT
I. STA 0+83.3 OFFSET 13.4 RT
J. STA 0+99.9 OFFSET 11.5 RT
K. STA 3+40.4 OFFSET 14.7 LT
L. STA 3+51.5 OFFSET 10.9 LT
M. STA 3+30.8 OFFSET 11.5 RT
N. STA 3+44.3 OFFSET 11.5 RT
STA. 1+10, 9' LT
6 SF - SIGN PANEL - TYPE 1
12 FT - METAL POST TYPE B
YIELD
R1-2 24X24X24 (FACING EAST)
NO MOTOR VEHICLES
R5-3 24X24 (FACING WEST)
NOTE - STATIONS OF END SECTIONS ARE THE ENDS OF THE PROPSOED PIPES.
EXISTING DEERFIELD ROAD BRIDGE LOOKING DOWNSTREAM
649.77 ROAD 647.25 643.51 643.95 643.39 649.53 ROAD 646.99 643.46
68.29' 84.83' (82.57 INSIDE PIERS) 65.83'
NWL 634.37
PIERS (42' X 2.45')
LEGEND:
PR TEMPORARY EASEMENT
EX PERMANENT EASEMENT (VILLAGE)
EX ROW
PR ROW
EX FLOODWAY
EX FLOOD PLAIN
WETLAND BUFFER
N
SCALE: 1" = 20 FEET
K = 75 60.00' V.C.
EXISTING DEERFIELD ROAD PGL
LOW PATH - 648.83
LOW CHORD - 647.83
DEERFIELD ROAD BRIDGE ABUTMENT CENTER LINE - 647.25 LOW CHORD (NORTH FACE) - 643.51 LOW CONCRETE - 646.06 TOP OF PARAPET - 649.77 BIKE PATH CLEARANCE - 7.31'
VPI STA. 4+34.79 ELEVATION 652.37
+2.80% -2.79%
PR BIKE PATH PGL
DEERFIELD ROAD BRIDGE ABUTMENT CENTER LINE - 646.99 LOW CHORD (NORTH FACE) - 643.46 LOW CONCRETE - 646.05 TOP OF PARAPET - 649.53
LOW PATH - 646.44
LOW CHORD - 647.36
LOW CHORD - 645.44
K = 45 253.00' V.C.
BEGIN PATH STA. 0+85.00
+2.00% +2.80%
VPI STA. 1+50.00 ELEVATION 644.40
WM6 T/P=638.07
SM8 T/P=638.92
EX 8" SAN
EX 12" WM
WM5 T/P=632.80
SM7 T/P=631.48
DES PLAINES RIVER TRAIL CULVERT
DES PLAINES RIVER TRAIL
EX GND PGL
WM4 T/P=629.63
SM6 T/P=629.97
NWL 634.37
85'-0" C. TO C.
PATH ON GRADE (HMA PATH)
PATH ON BOARDWALK
EXISTING FLOODWAY AND EXISTING FLOODPLAIN
PATH ON BRIDGE
3+07.30
6+47.30
655 650 645 640 635 630
643.40 643.40 642.33 644.46 642.05 645.80 640.20 647.20 639.44 648.60 637.53 649.80 631.20 650.47 630.37 650.58 632.99 650.13 636.02 649.14 636.86 647.76 638.07 646.37
1+00 1+50 2+00 2+50 3+00 3+50 4+00 4+50 5+00 5+50 6+00 6+50

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		DRAWN - PMM	REVISED -
	PLOT SCALE = 20'	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

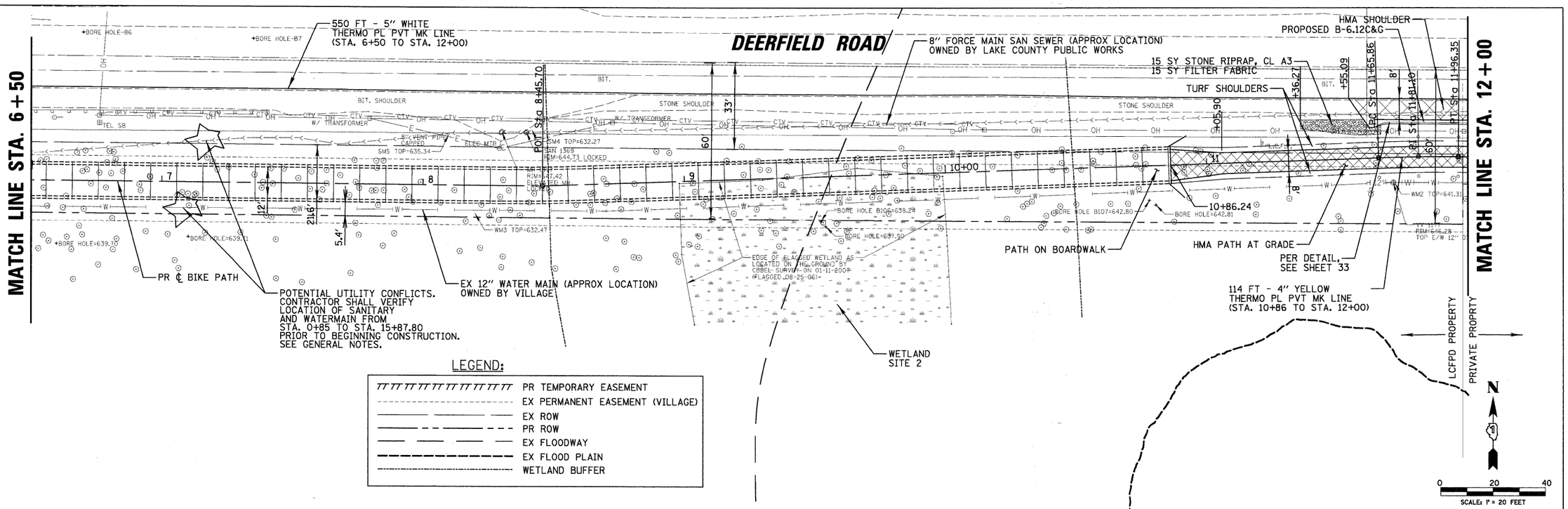
DEERFIELD ROAD BIKE PATH
PLAN AND PROFILE

SCALE: H:20 V:5 | SHEET NO. 1 OF 3 SHEETS | STA. 1+00 TO STA. 6+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	40	9

CONTRACT NO. 63408

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



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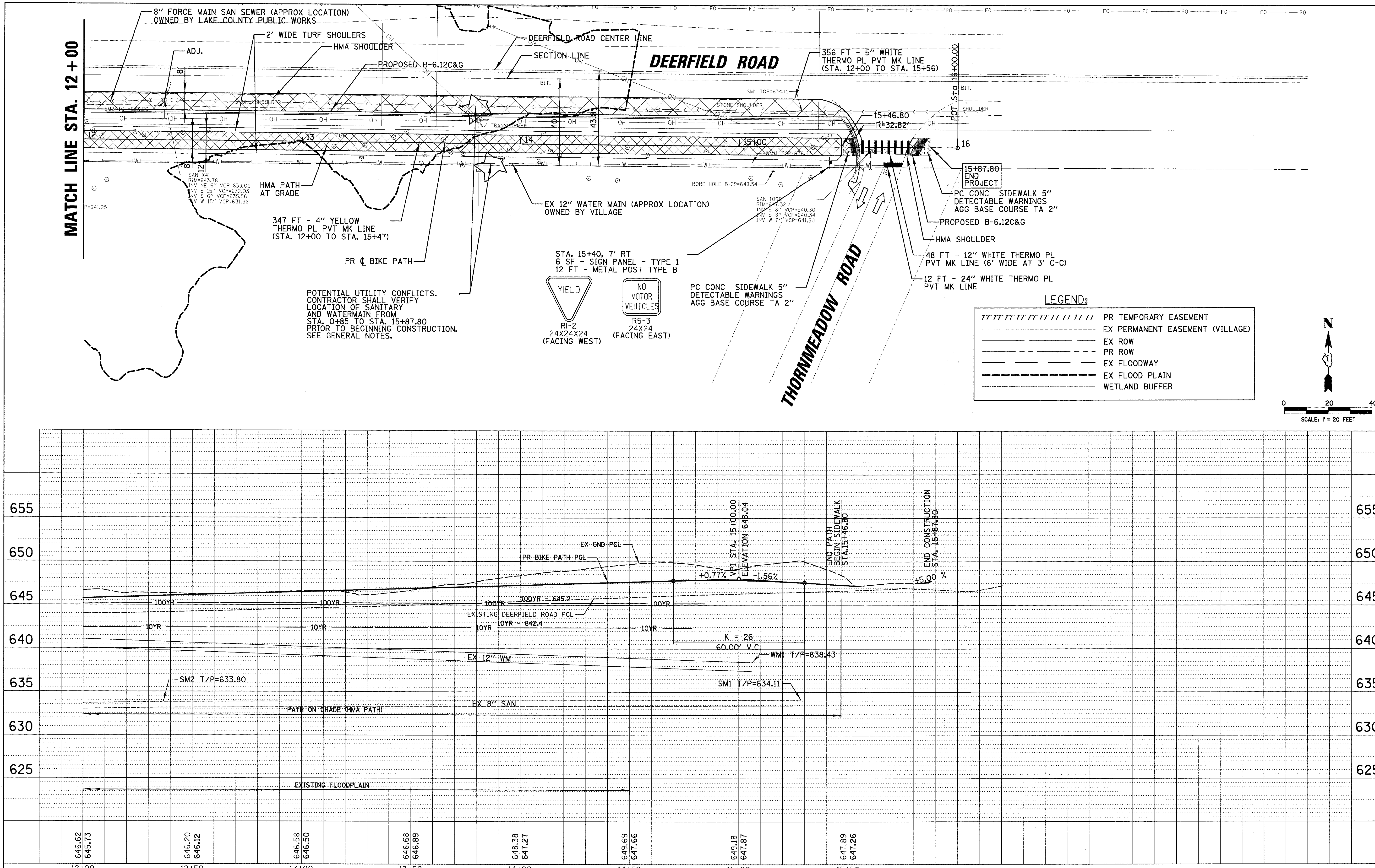
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
PLAN AND PROFILE

SCALE: H:20 V:5 | SHEET NO. 2 OF 3 SHEETS | STA. 6+50 TO STA. 12+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~44~~ 40	10
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
PLAN AND PROFILE

SCALE: H:20 V:5 | SHEET NO. 3 OF 3 SHEETS | STA. 12+00 TO STA. 16+00

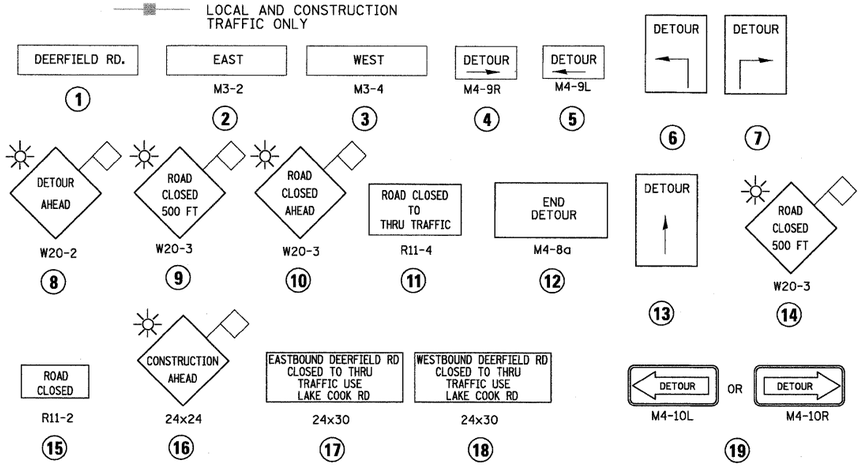
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	4440	11
		CONTRACT NO. 63408		

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

EAST/WEST DETOUR ROUTE

BRIDGE CLOSED

LOCAL AND CONSTRUCTION TRAFFIC ONLY



PLACE 100' AHEAD OF PROPOSED PATH

PROPOSED CONSTRUCTION SIGN

TYPE III BARRICADE

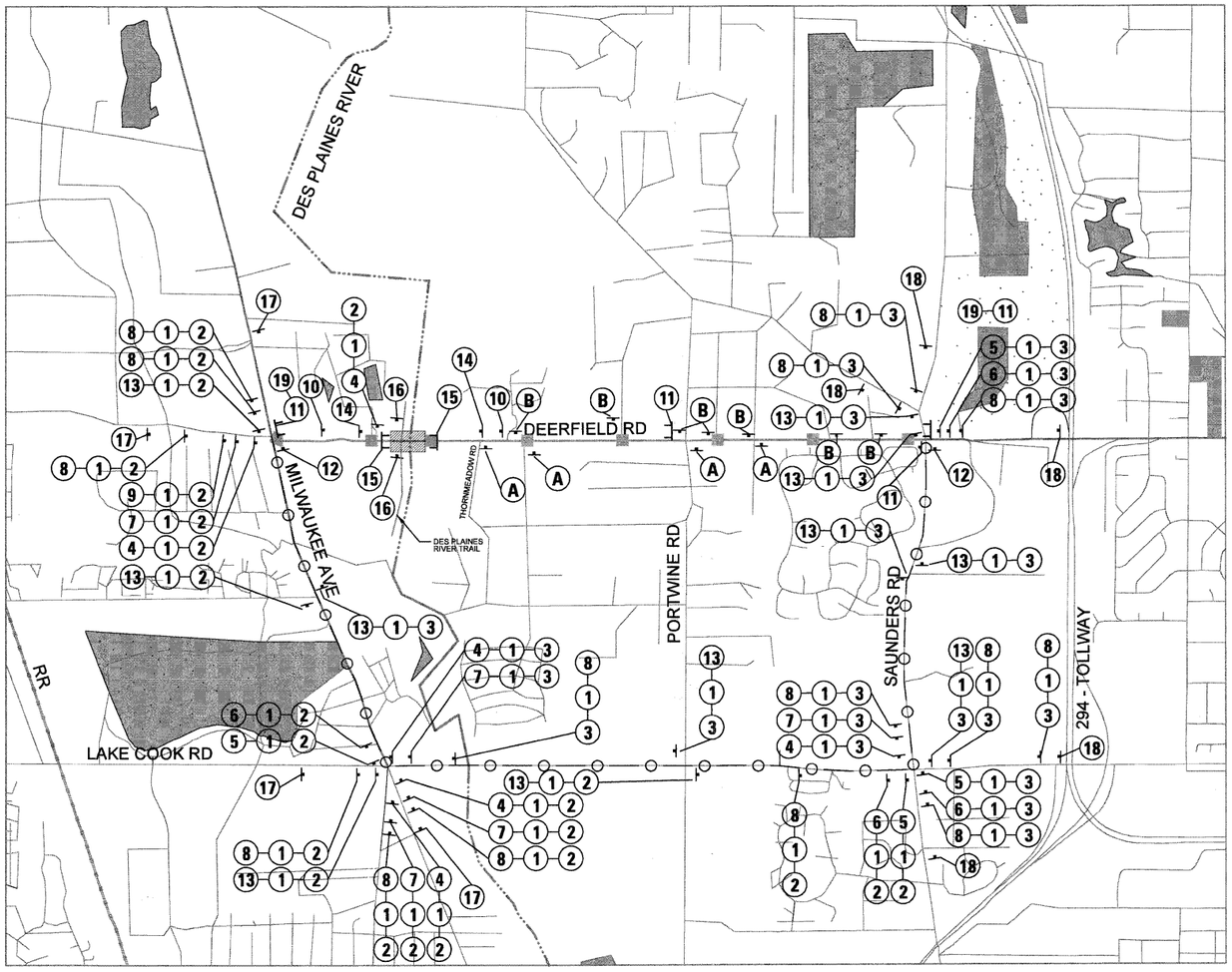
DEERFIELD RD - COUNTY RTE A47 (LAKE COUNTY JURISDICTION)

MILWAUKEE AVE - STATE RTE 21 - US RTE 45 (IDOT JURISDICTION)

LAKE COOK RD - COUNTY RTE A50 (COOK COUNTY JURISDICTION)

SAUNDERS RD - COUNTY RTE W24 (LAKE COUNTY JURISDICTION)

SIGN SPACING:
200' BETWEEN 8&13, 7&4, AND 6&5
300' BETWEEN 9&7, 9&6, AND 9&8
500' BETWEEN 8&9, 14&15, 17&8, 18&8 AND 10&14



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SUGGESTED TRAFFIC CONTROL PLAN GENERAL NOTES

1. ALL SIGNING SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2007", "THE QUALITY STANDARD FOR WORK ZONE TRAFFIC CONTROL DEVICES ADOPTED 2004", THE DETAILS IN THESE PLANS, THE LATEST EDITION OF THE STATE OF ILLINOIS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", AND THE SPECIAL PROVISIONS.

2. THE ENGINEER SHALL BE NOTIFIED IN WRITING AT LEAST THREE WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT. THE ENGINEER SHALL DETERMINE THE HOUR OF CLOSURE. THE ENGINEER WILL CONTACT THE APPROPRIATE LOCAL AGENCIES AND INTERESTED PARTIES.

3. THE CONTRACTOR SHALL SUPPLY TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF HIS REPRESENTATIVES ON THE CONSTRUCTION SITE AND HIS REPRESENTATIVE RESPONSIBLE FOR THE DETOUR SIGNING PRIOR TO THE START OF THE WORK.

4. IF REQUESTED BY THE CONTRACTOR IN WRITING AT LEAST THREE WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT, THE ENGINEER WILL FIELD LOCATE THE POSITIONS OF ANY SIGNS.

5. THE DURATION OF THIS DETOUR SHALL NOT EXCEED FOUR (4) CALENDAR DAYS. THE CONTRACTOR SHALL PROCEED WITH THE WORK IN AN EXPEDIENT MANNER TO REDUCE THE LENGTH OF TIME THAT THE DETOUR NEEDS TO BE IN EFFECT.

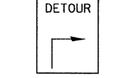
6. THE ROAD SHALL NOT BE CLOSED UNTIL ALL SIGNING IS ERECTED IN ACCORDANCE WITH THE DETOUR PLAN AND INSPECTED AND APPROVED BY THE ENGINEER.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL BARRICADES, SIGNS, LIGHTS, AND OTHER DEVICES INSTALLED BY HIM ARE IN PLACE AND OPERATING 24 HOURS EACH DAY INCLUDING SUNDAYS AND HOLIDAYS DURING THE TIME THE DETOUR IS IN EFFECT.

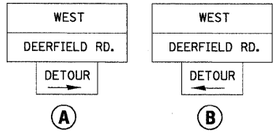
8. THE TRAFFIC CONTROL SHOWN ON THE DETOUR PLAN IS THE MINIMUM NECESSARY TO ENSURE THIS ROAD CLOSURE. THE CONTRACTOR SHALL MAKE ALL CHANGES IN TRAFFIC CONTROL THAT IS DEEMED NECESSARY BY THE ENGINEER. ADDITIONS AND DELETIONS OF TRAFFIC CONTROL FOR THIS DETOUR SHALL BE CONSIDERED INCLUDED IN THE COST OF THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, (DETOUR 1)".

9. ALL EXISTING SIGNING THAT IS NOT APPLICABLE WHILE THE DETOUR IS IN EFFECT SHALL BE COMPLETELY COVERED BY THE CONTRACTOR, IN A MANNER APPROVED BY THE ENGINEER.

10. ALL DETOUR SIGNING SHALL BE POST MOUNTED IF THE ROAD CLOSURE IS TO EXCEED FOUR (4) CALENDAR DAYS.



TYPICAL DETOUR SIGN ARRANGEMENT



TYPICAL DETOUR SIDE ROAD SIGN ARRANGEMENT

11. ALL DETOUR SIGNING EXCEPT REGULATORY SIGNS SHALL HAVE BLACK LEGENDS ON FLUORESCENT ORANGE SHEETING AND STANDARD BLACK BORDERS. THE FLUORESCENT ORANGE REFLECTIVE SHEETING SHALL MEET THE REQUIREMENTS OF ARTICLE 1084.02 OF THE STANDARD SPECIFICATIONS. ALL DETOUR SIGNING SHALL BE NEW OR LIKE NEW CONDITION OF THE SIGNS. THE ENGINEER SHALL BE THE SOLE JUDGE OF THE CONDITION OF THE SIGNS.

12. THE SIZES OF ALL SIGNS NOT SPECIFIED IN THESE PLANS SHALL BE AS REQUIRED BY THE ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

13. AS A MINIMUM, ALL AMBER FLASHING LIGHTS THAT ARE REQUIRED FOR THIS DETOUR SHALL MEET THE REQUIREMENTS FOR TYPE A-LOW INTENSITY FLASHING LIGHTS IN ARTICLE 1084.01 OF THE STANDARD SPECIFICATIONS. ALL LIGHTS SHALL OPERATE DURING THE HOURS OF DARKNESS. ONLY LIGHTS THAT HAVE BEEN APPROVED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION SHALL BE USED.

14. WHEN REQUIRED THE MINIMUM DIMENSIONS OF THE ORANGE WARNING FLAGS SHOWN IN THESE PLANS ARE 18" X 18".

15. ALL BARRICADES SHALL HAVE REFLECTORIZED STRIPING ON BOTH SIDES OF THE BARRICADES. THE TYPE III BARRICADES USED AT THE POINT OF CLOSURE TO THRU TRAFFIC SHALL NOT EXCEED 8 FEET IN WIDTH EACH, FOR A SINGLE APPROACH LANE.

16. THE "ROAD CLOSED" (R11-2), THE "ROAD CLOSED TO THRU TRAFFIC" (R11-4) SIGNS SHALL BE MOUNTED ABOVE THE TOP OF THE BARRICADE. ALL TYPE III BARRICADES SHALL HAVE TWO (2) AMBER TYPE A-LOW INTENSITY FLASHING LIGHTS SPACED NEAR THE CENTERLINE OF THE SUPPORTS.

17. THE ROAD NAME SIGN SHALL HAVE A BLACK LEGEND ON FLUORESCENT ORANGE REFLECTIVE SHEETING. THE SIGN SHALL BE A 9" X VARIABLE OR A 12" X VARIABLE WITH DESIGN SERIES C LETTERS. THE CAPITAL LETTERS SHALL BE 6" WITH 5" LOWER CASE.

18. DURING NON-WORKING HOURS AT THE POINT OF ROAD CLOSURE TO ALL TRAFFIC THE CONTRACTOR SHALL PROVIDE A MEANS TO RESTRAIN THE BARRICADES FROM EASY MOVEMENT BY VANDALS. THE CHOSEN METHOD SHALL BE APPROVED BY THE ENGINEER.

19. CONSTRUCTION EQUIPMENT SHALL NOT BE PARKED WITHIN 25 FT BEHIND THE TYPE III BARRICADES. IN ANY EVENT ARTICLE 701.04 OF THE STANDARD SPECIFICATIONS SHALL APPLY.

20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE VISIBILITY OF ALL DETOUR AND CONSTRUCTION SIGNING, INCLUDING BRUSHING BACK VEGETATION IF DEEMED NECESSARY BY THE ENGINEER.

21. THE ENGINEER SHALL BE NOTIFIED AT LEAST TWO (2) HOURS BEFORE THE ROAD IS TO BE OPENED TO TRAFFIC. THE ENGINEER WILL CONTACT THE APPROPRIATE LOCAL AGENCIES AND INTERESTED PARTIES.

22. LIQUIDATED DAMAGES WILL APPLY IF DEERFIELD ROAD ROADWAY CLOSURE DURATION EXCEEDS FOUR CONSECUTIVE CALENDAR DAYS. SEE SPECIAL PROVISIONS.

23. THE ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT 847-705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

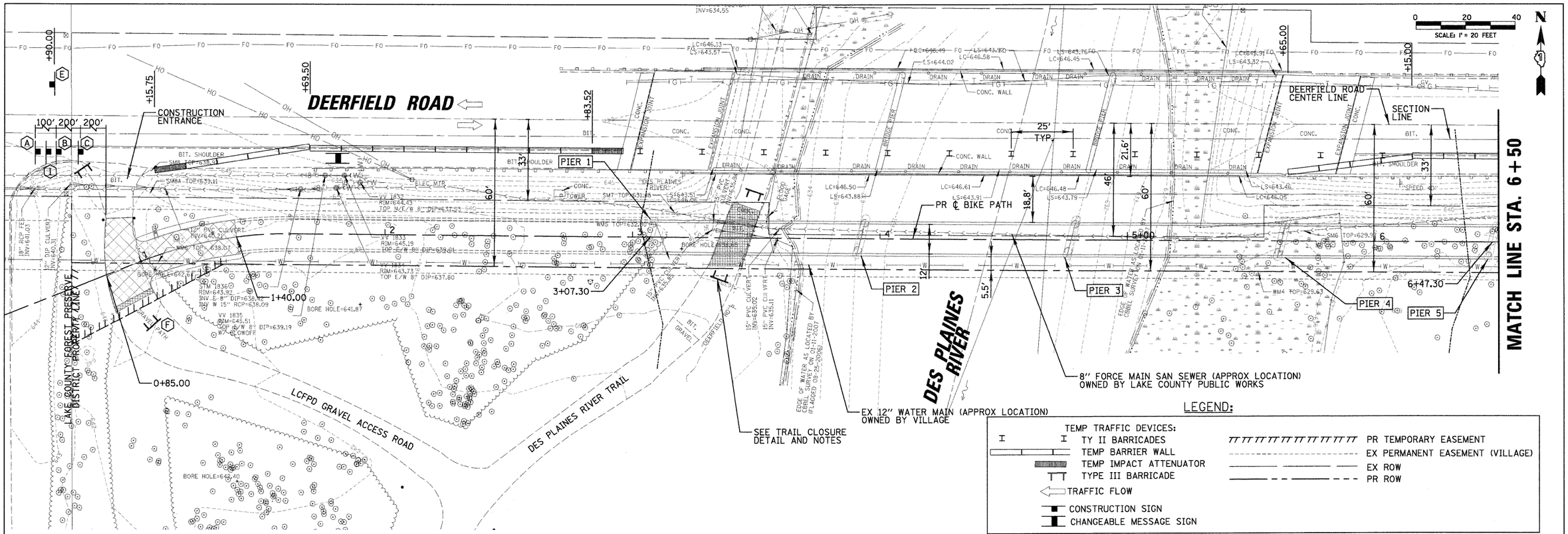
FILE NAME = N:\LCDOT\06377A\Civil\DTR_06377A.SHT	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -
		DRAWN - PMM	REVISED -
	PLOT SCALE = 200'	CHECKED - JGS	REVISED -
	PLOT DATE = 12/9/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
SUGGESTED TRAFFIC CONTROL – DETOUR ROUTE

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	40	12
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



LEGEND:

TEMP TRAFFIC DEVICES:
- TY II BARRICADES
- TEMP BARRIER WALL
- TEMP IMPACT ATTENUATOR
- TYPE III BARRICADE
- TRAFFIC FLOW
- CONSTRUCTION SIGN
- CHANGEABLE MESSAGE SIGN
- PR TEMPORARY EASEMENT
- EX PERMANENT EASEMENT (VILLAGE)
- EX ROW
- PR ROW

SEE SHEET 14 FOR MOT SIGN LEGEND

MAINTENANCE OF TRAFFIC GENERAL NOTES

SEE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.

CONTRACTOR SHALL SUBMIT CONSTRUCTION SEQUENCING PLAN TO THE ENGINEER. PLAN SHALL INCLUDE CONSTRUCTION STAGING SEQUENCE AND DURATION, CONSTRUCTION EQUIPMENT ACCESS ROUTE, ERECTION PLAN WITH SEQUENCE AND DURATION, ALL ITEMS NEEDED TO COMPLY WITH USACOE AND LCSMC PERMITS, ALL ITEMS NEEDED TO COMPLY WITH THE PLANS AND SPECIAL PROVISIONS, AND ALL ITEMS NEEDED TO RECEIVE APPROVAL FROM LCDOT TO USE DEERFIELD ROAD (FAU 1257) AND DEERFIELD ROAD BRIDGE (SN 049-1074) AS STAGING AREA. CONTRACTOR SHALL NOT BEGIN WORK UNTIL CONSTRUCTION SEQUENCING PLAN IS APPROVED BY ENGINEER.

TEMPORARY LANE CLOSURES

A. THE CONTRACTOR SHALL WORK EXPEDITIOUSLY TO OPEN TRAFFIC LANES CLOSED DUE TO PROJECT'S WORK. THE ENGINEER SHALL BE THE SOLE JUDGE OF WHEN A LANE IS READY TO BE OPENED TO TRAFFIC.

B. THE OPENING OF THE LANE TO TRAFFIC SHALL BE IN ACCORDANCE WITH SECTION 107.29 OF THE STANDARD SPECIFICATIONS.

C. PROJECT WORK REQUIRING A CLOSURE OF A LANE SHALL BE ALLOWED AT THE DISCRETION OF THE ENGINEER AND UNDER THE FOLLOWING CONDITIONS:

1) THE LANE CLOSURE SHALL ONLY BE IN EFFECT WHILE WORKERS ARE PRESENT IN OR NEAR THE CLOSED LANE.
2) THE CLOSED LANE SHALL BE REOPENED TO TRAFFIC AT THE END OF THE WORKDAY.
3) ALL TRAFFIC CONTROL DEVICES PERTAINING TO THE LANE CLOSURE SHALL BE REMOVED FROM THE ROADWAY AT THE END OF THE WORKDAY.

TYPE II BARRICADES WILL BE USED AS CHANNELIZING DEVICES.

PRIOR TO ANY WORK, PLACE EROSION CONTROL ITEMS PER THE STORM WATER POLLUTION PREVENTION PLAN AND AS DIRECTED BY THE ENGINEER.

PEDESTRIAN / BICYCLE MANAGEMENT NOTES

THE DES PLAINES RIVER BIKE PATH SHALL REMAIN OPEN DURING CONSTRUCTION EXCEPT DURING CONSTRUCTION OF PIER 2 AND DURING SETTING OF PRE-FABRICATED BRIDGE SECTIONS. PATH SHALL BE PROTECTED FROM WORK SITE AS SHOWN IN THE PLAN, EXCEPT DURING CLOSURES.

WHEN TRAIL IS OPEN, SIGNS AND TYPE III BARRICADES SHALL BE ROTATED OFF OF PATH AND COVERED.

CONSTRUCTION FENCE SHALL BE PLACED ALONG BOTH EDGES OF THE DES PLAINES RIVER TRAIL WITH THE WORK LIMITS. CONSTRUCTION FENCE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701801.

WHEN REOPENING THE TRAIL DURING CONSTRUCTION, THE EXISTING TRAIL SHALL BE RESTORED. TEMPORARY RESTORATION OF THE TRAIL WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT.

CLOSURES OF THE DES PLAINES RIVER TRAIL SHALL NOT EXCEED 5 CONSECUTIVE CALENDAR DAYS AND SHALL NOT OCCUR ON SATURDAY OR SUNDAY OR DURING PERIODS AS SPECIFIED IN ARTICLE 107.09. THERE SHALL BE A MINIMUM OF TWO CONSECUTIVE CALENDAR DAYS BETWEEN CLOSURE PERIODS.

BEFORE TEMPORARY PATH CLOSURES THE ENGINEER SHALL APPROVE THE DATES THE TRAIL WILL BE TEMPORARILY CLOSED.

AT LEAST THREE WEEKS PRIOR TO ANY TEMPORARY PATH CLOSURES, CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE ANTICIPATED CLOSURE DATES.

AFTER RECEIVING ENGINEER'S APPROVAL ON TEMPORARY PATH CLOSURE DATES AND NO LESS THAN TWO WEEKS PRIOR TO ANY TEMPORARY PATH CLOSURES, CONTRACTOR SHALL PROVIDE AND ERECT TEMPORARY PATH CLOSURE SIGNAGE AS SHOWN ON THE PLANS.

SHOULDER / CURB CONSTRUCTION

SUGGESTED TRAFFIC CONTROL

SHOULDER CLOSURES IN ACCORDANCE WITH:
HIGHWAY STANDARDS 701001, 701006, 701011, 701301, 701311, 701501, AND 701901

CONSTRUCTION ACTIVITIES

CONSTRUCT HMA SHOULDER AND PROPOSED CURB AND GUTTER.

PLACE FINAL PAVEMENT MARKINGS.

HMA PATH CONSTRUCTION

SUGGESTED TRAFFIC CONTROL

SHOULDER CLOSURES IN ACCORDANCE WITH:
HIGHWAY STANDARDS 701001, 701006, 701011, 701301, 701311, 701501, AND 701901

CONSTRUCTION ACTIVITIES

CONSTRUCT HMA PATH AND PCC SIDEWALK AT THORNMEADOW ROAD.

PLACE PROPOSED LANDSCAPING ITEMS.

PLACE FINAL PAVEMENT MARKINGS.

PLACE PROPOSED PATH SIGNING.

BRIDGE AND BOARDWALK CONSTRUCTION

SUGGESTED TRAFFIC CONTROL

SHOULDER CLOSURES IN ACCORDANCE WITH:
HIGHWAY STANDARDS 701001, 701006, 701011, 701301, 701311, 701501, 701801, 701901, AND 704001

SEE PEDESTRIAN / BICYCLE MANAGEMENT NOTES FOR DES PLAINES RIVER TRAIL CLOSURES.

CONSTRUCTION ACTIVITIES

CONSTRUCT BRIDGE PIERS.

CONSTRUCT BOARDWALK.

RESTORE DISTURBED AREAS OF DES PLAINES RIVER TRAIL AND THE LCFPD GRAVEL ACCESS ROAD.

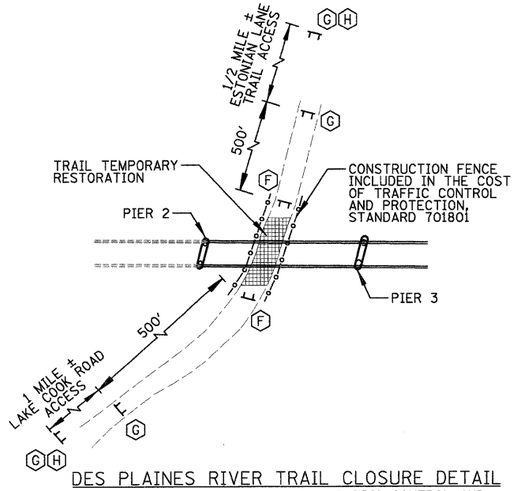
PLACE PROPOSED LANDSCAPING ITEMS.

PRE-FABRICATED BRIDGE ERECTION

DEERFIELD ROAD SHALL BE CLOSED TO THROUGH TRAFFIC DURING THE INSTALLATION OF THE PRE-FABRICATED BRIDGE.

SEE PEDESTRIAN / BICYCLE MANAGEMENT NOTES FOR DES PLAINES RIVER TRAIL CLOSURES.

SEE DETOUR SHEET FOR PROPOSED DETOUR ROUTE AND NOTES.



DES PLAINES RIVER TRAIL CLOSURE DETAIL
(WORK INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701801)

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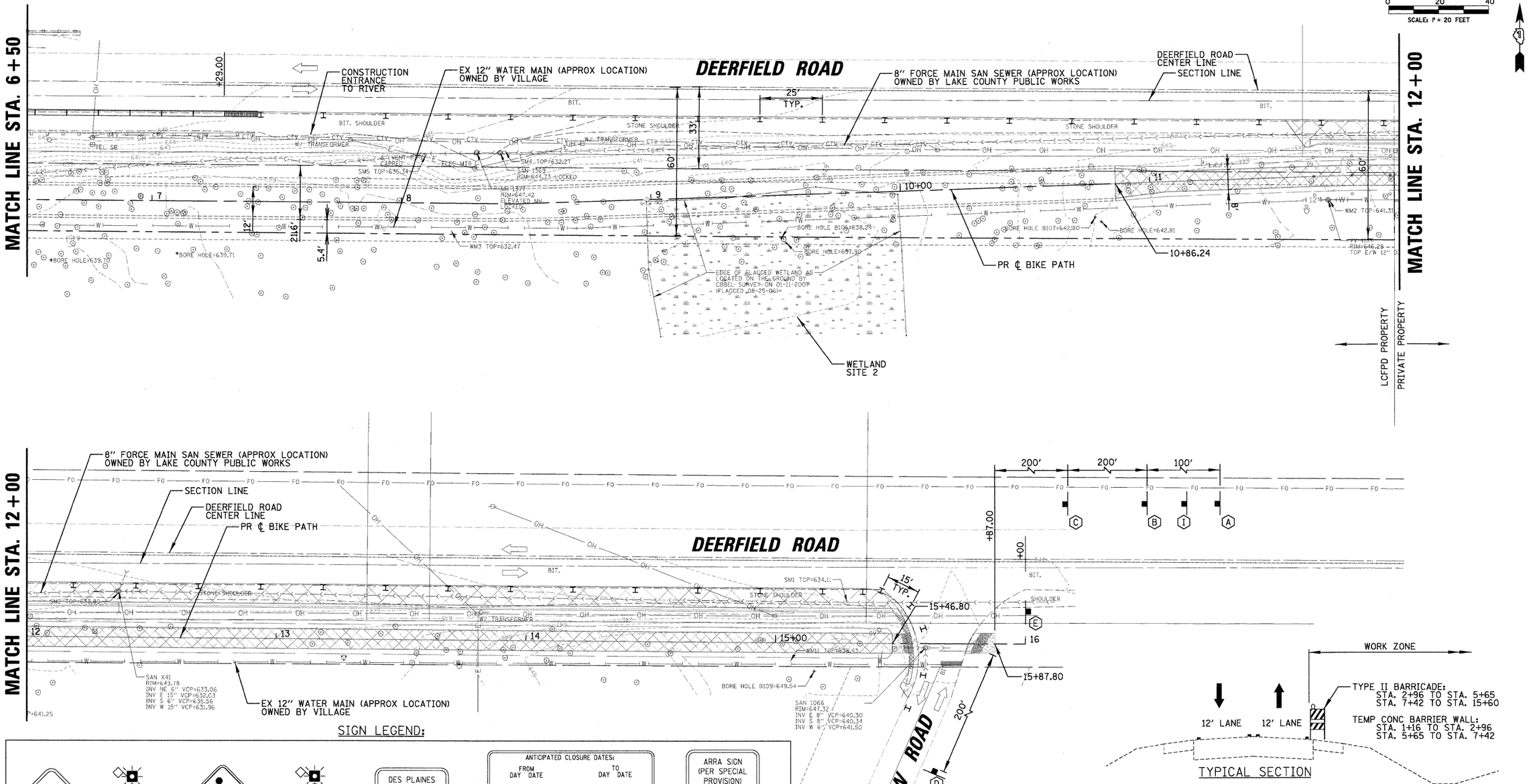
	PLOT DATE = 12/9/2009	DATE - 12/01/09	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

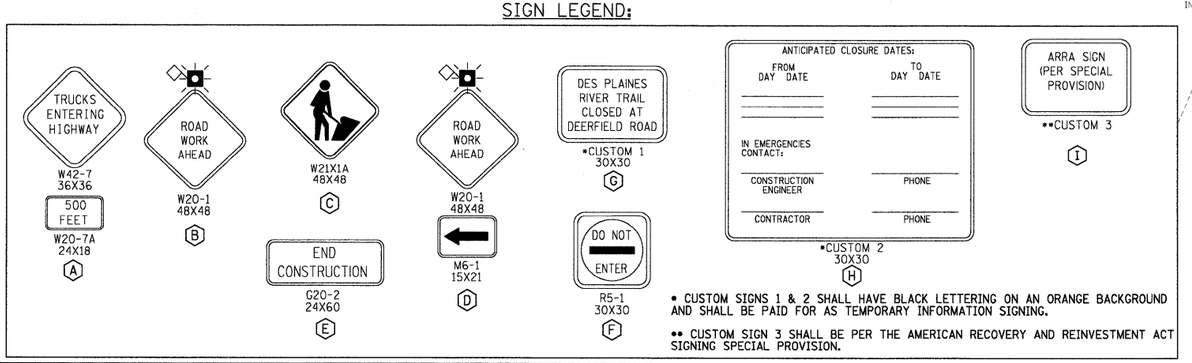
DEERFIELD ROAD BIKE PATH
SUGGESTED TRAFFIC CONTROL PLAN

SCALE: 1"=20' | SHEET NO. 1 OF 2 SHEETS | STA. 0+50 TO STA. 6+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	40	13
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



SIGN LEGEND:



• CUSTOM SIGNS 1 & 2 SHALL HAVE BLACK LETTERING ON AN ORANGE BACKGROUND AND SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

•• CUSTOM SIGN 3 SHALL BE PER THE AMERICAN RECOVERY AND REINVESTMENT ACT SIGNING SPECIAL PROVISION.

LEGEND:

TEMP TRAFFIC DEVICES:
- TY II BARRICADES
- TEMP BARRIER WALL
- TEMP IMPACT ATTENUATOR
- TYPE III BARRICADE
- TRAFFIC FLOW
- CONSTRUCTION SIGN
- CHANGEABLE MESSAGE SIGN
- PR TEMPORARY EASEMENT
- EX PERMANENT EASEMENT (VILLAGE)
- EX ROW
- PR ROW

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		DRAWN - PMM	REVISED -
	PLOT SCALE = 20'	CHECKED - JGS	REVISED -
	PLOT DATE = 12/9/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
SUGGESTED TRAFFIC CONTROL PLAN

SCALE: 1"=20' | SHEET NO. 2 OF 2 SHEETS | STA. 6+50 TO STA. 16+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	40	14
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SEDIMENTATION AND EROSION CONTROL NOTES

A. EROSION AND SEDIMENT CONTROL (SE/SC) MEASURES SHALL BE AS SHOWN ON THE PLANS, DETAILED IN THE SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS, DIRECTED BY THE ENGINEER, AS REQUIRED BY STORM WATER POLLUTION PREVENTION PLAN AND AS REQUIRED BY USACOE AND LCSMC PERMITS.

B. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.

C. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.

D. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN 7 CALENDAR DAYS OF THE END OF ACTIVE HYDROLOGIC DISTURBANCE, OR REDISTURBANCE.

E. AREAS OR EMBANKMENT HAVING SLOPES GREATER THAN OR EQUAL TO 3H:1V, AND APPROVED BY THE ENGINEER, SHALL BE STABILIZED WITH SOD, MAT OR BLANKET IN COMBINATION WITH SEEDING AND WILL BE PAID FOR AS TEMPORARY EROSION CONTROL SEEDING.

F. EROSION CONTROL BLANKET SHALL BE REQUIRED ON ALL SIDE SLOPES BETWEEN NORMAL WATER LEVEL AND HIGH WATER LEVEL.

G. ALL STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED, BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.

H. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.

I. 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.

J. A STABILIZED MAT OF AGGREGATE UNDERLAIN WITH FILTER CLOTH (OR OTHER APPROPRIATE MEASURE) SHALL BE LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA. ANY 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.

K. SOIL STOCKPILES SHALL NOT BE LOCATED IN WETLANDS, WETLAND BUFFERS, FLOOD PRONE AREAS, WATERS OF THE U.S, DESIGNATED BUFFER PROTECTING WATERS OF THE US OR IN ISOLATED WATERS OF LAKE COUNTY.

L. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (E.G. SEDIMENT TRAP, SEDIMENT BASIN OR OTHER APPROPRIATE MEASURE.)

M. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENT. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY.

N. EXCAVATED AREAS AND EMBANKMENT SHALL BE SODDED OR TEMPORARILY SEEDED IMMEDIATELY AFTER FINAL GRADING. ANY BARE EARTH THAT WILL NOT HAVE CONSTRUCTION ACTIVITY FOR 7 DAYS SHALL BE TEMPORARILY SEEDED ON A WEEKLY BASIS TO MINIMIZE THE AMOUNT OF ERODIBLE SURFACE AREA WITHIN THE CONTRACT LIMITS.

O. TEMPORARY EROSION CONTROL SEEDING, PER IDOT STANDARD SPECIFICATION SECTION 280, SHALL BE APPLIED AT A RATE OF 100 LBS/ACRE.

P. PERIMETER EROSION BARRIER SHALL BE INSTALLED AT LOCATIONS SPECIFIED IN THE PLANS AT 1 FOOT OUTSIDE THE TOE OF SLOPE OR INSIDE THE RIGHT-OF-WAY WHICHEVER IS CLOSER TO THE CENTERLINE, OR AS DIRECTED BY THE ENGINEER, PRIOR TO THE START OF ANY EARTHWORK, OR CULVERT CONSTRUCTION. THE PERIMETER EROSION BARRIER SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED WITH VEGETATION. AT THIS TIME THE PERIMETER EROSION BARRIER SHALL BE REMOVED AND AREAS DAMAGED BY THE FENCE INSTALLATION RESTORED.

NOTE:

OF THE 1.3 ACRES OF LAND AREA WITHIN PROJECT'S BOUNDARIES, THIS PROJECT DISTURBS 1.0 ACRES OF TOTAL LAND AREA. A NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM STORM WATER PERMIT WILL BE REQUIRED FOR THIS PROJECT.

FOR ADDITIONAL REQUIREMENTS SEE GENERAL NOTES.

SEDIMENTATION AND EROSION CONTROL NOTES

CONSTRUCTION SEQUENCING.

1.) INSTALLATION OF TEMPORARY SE/SC MEASURES; PERIMETER EROSION BARRIER, SEDIMENTATION BASINS/TRAPS, OIL ABSORBENT BOOM. MAINTAIN ALL SE/SC MEASURES THROUGHOUT CONSTRUCTION SEQUENCING.
2.) TREE REMOVAL AND CLEARING.
3.) EAST OF RIVER: STRIP AND REMOVE TOPSOIL IN AREAS OF PROPOSED GRADING. NO STRIPING OF TOPSOIL SHALL OCCUR WITHIN THE WETLAND AREAS OR WETLAND BUFFER AREAS. INSTALL THE BITUMINOUS AT-GRADE SECTION OF THE PATH. PLACE RIPRAP, TOPSOIL, SEEDING, EROSION CONTROL BLANKET.
4.) INSTALL THEN DEWATER COFFERDAM IN DES PLAINES RIVER AT PIER 3.
5.) INSTALL LOG MATTING IN DEWATERED COFFERDAM. BUILD PIER 3 FOUNDATION AND PIER.
6.) REMOVE LOG MATTING AND REMOVE COFFERDAM AT PIER 3.
7.) BUILD PIERS 4 AND 5.
8.) EAST OF RIVER: INSTALL BOARDWALK.
9.) INSTALL THEN DEWATER COFFERDAM IN DES PLAINES RIVER AT PIER 2.
10.) INSTALL LOG MATTING IN DEWATERED COFFERDAM. BUILD PIER 2 FOUNDATION AND PIER.
11.) REMOVE LOG MATTING, REPLACE DUAL 15" CULVERTS UNDER EXISTING DES PLAINES BIKE PATH AND REMOVE COFFERDAM AT PIER 2.
12.) BUILD PIER 1.
13.) INSTALL PRE-FABRICATED BRIDGE DECKS.
14.) WEST OF RIVER: STRIP AND REMOVE TOPSOIL IN AREAS OF PROPOSED GRADING. NO STRIPING OF TOPSOIL SHALL OCCUR WITHIN THE WETLAND AREAS OR WETLAND BUFFER AREAS. INSTALL THE BITUMINOUS AT-GRADE SECTION OF THE PATH. PLACE TOPSOIL, SEEDING AND EROSION CONTROL BLANKET.
15.) WEST OF RIVER: INSTALL BOARDWALK.
16.) REMOVE TEMPORARY SE/SC DEVICES WITHIN THE STABILIZED AREAS.

SEEDING, MESIC PRAIRIE

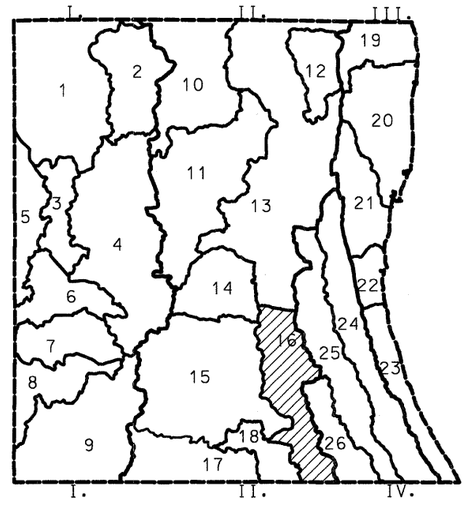
C - Value	Ind. Status	Scientific Name	Common Name	Lb. per Acre
5	FAC-	Andropogon gerardii	big bluestem	2.000
5	FACU-	Andropogon scoparius	little bluestem	0.500
8	UPL	Bouteloua curtipendula	side oats	0.250
4	FAC-	Elymus canadensis	Canada wild rye	1.000
5	FAC+	Panicum virgatum	switch grass	0.750
5	FACU+	Sorghastrum nutans	indian grass	1.500
9	UPL	Amorpha canescens	leadplant	0.125
9	UPL	Aster laevis	smooth blue aster	0.062
4	FACW	Aster novae-angliae	New England aster	0.062
8	FACU+	Baptisia leucantha*	white wild indigo	0.062
10	UPL	Carex bicknellii	Bicknell's sedge	0.062
5	FACU-	Cassia fasciculata*	partridge pea	0.125
3	UPL	Echinacea purpurea	purple coneflower	0.420
9	FAC+	Eryngium yuccifolium	rattlesnake master	0.188
5	UPL	Heliopsis helianthoides	ox-eye sunflower	0.031
4	FACU	Lespedeza capitata*	roundhead bushclover	0.125
6	UPL	Liatris aspera	button blazing star	0.125
8	FAC-	Liatris pycnostachya	prairie blazing star	0.188
4	FACU	Monarda fistulosa	bergamot	0.031
8	UPL	Parthenium integrifolium	wild quinine	0.063
4	FAC-	Penstemon digitalis	foxglove beardtongue	0.125
9	UPL	Petalostemum purpureum	purple prairie clover	0.063
6	OBL	Physostegia virginiana	fase dragonhead	0.063
9	FACU-	Potentilla arguta	prairie cinquefoil	0.063
4	UPL	Ratibida pinnata	yellow coneflower	0.125
5	FACU	Rosa blanda	early wild rose	0.125
1	FACU	Rudbeckia hirta	black-eyed susan	0.250
9	FACU+	Rudbeckia subtomentosa	sweet coneflower	0.250
5	UPL	Silphium integrifolium	rosin weed	0.188
5	UPL	Silphium laciniatum	compass plant	0.188
5	FACU	Silphium terebinthinaceum	prairie dock	0.188
4	UPL	Solidago nemoralis	old-field goldenrod	0.125
7	OBL	Solidago riddellii	Riddell's goldenrod	0.063
4	FACW-	Solidago rigida	stiff goldenrod	0.063
7	UPL	Solidago speciosa	showy goldenrod	0.063
2	FACU+	Tradescantia ohiensis	spiderwort	0.063
4	UPL	Verbena stricta	hoary vervain	0.125
5	FACW	Vernonia fasciculata	common ironweed	0.188
7	FAC	Veronicastrum virginicum	Culver's root	0.013
			Total Weight of Seeds (lbs)	**10.000**

* = innoculant required

Cover Crop:

0	UPL	Lolium multiflorum	annual rye	30.000
			oats	32.000

LAKE COUNTY DRAINAGE BASINS



I. FOX RIVER WATERSHED
1. Upper Fox River
2. Sequoit Creek
3. Fish Lake Drain
4. Squaw Creek
5. Lower Fox River
6. Marrion Creek
7. Slocum Lake Drain
8. Tower Lake Drain
9. Flint Creek

II. DES PLAINES RIVER WATERSHED
10. North Mill Creek
11. Mill Creek
12. Newport Drainage Ditch
13. Upper Des Plaines River
14. Bull Creek
15. Indian Creek
16. Lower Des Plaines River
17. Buffalo Creek
18. Aptakisic Creek

III. LAKE MICHIGAN WATERSHED
19. Kellogg Creek
20. Dead River
21. Waukegan River
22. Pettibone Creek
23. Bluff/Ravine

IV. CHICAGO RIVER WATERSHED
24. Skokie River
25. Middle Fork
26. West Fork

SEEDING, WET TO MESIC

C - Value	Ind. Status	Scientific Name	Common Name	Lb. per Acre
5	FAC-	Andropogon gerardii	big bluestem	1.500
3	OBL	Calamagrostis canadensis	blue joint grass	0.250
4	FACW-	Elymus virginicus	Virginia wild rye	1.000
4	FACW	Glyceria striata	fowl manna grass	0.500
5	FAC+	Panicum virgatum	switch grass	0.250
4	FACW+	Spartina pectinata	cord grass	0.250
		Alisma subcordatum	water plantain	0.250
4	OBL	Asclepias incarnata	swamp milkweed	0.063
9	UPL	Aster laevis	smooth blue aster	0.125
4	FACW	Aster novae-angliae	New England aster	0.031
		Bidens sp.	tickseed	0.062
6	OBL	Carex bebbii	Bebb's sedge	0.125
2	OBL	Carex vulpinoidea	fox sedge	0.125
2	OBL	Eleocharis acicularis	needle spike rush	0.062
2	OBL	Eleocharis erythropoda	red-rooted spike rush	0.062
4	OBL	Eupatorium maculatum	spotted joe pye weed	0.259
4	FACW+	Eupatorium perfoliatum	boneset	0.115
5	FACW+	Helenium autumnale	sneezeweed	0.500
4	FAC	Juncus dudleyi	Dudley's rush	0.031
4	FACW	Juncus torreyi	Torrey rush	0.062
6	FAC	Liatris picata	spiked gayfeather	0.188
6	FACW+	Lobelia siphilitica	great blue lobelia	0.031
5	OBL	Lycopus americanus	water horehound	0.063
7	OBL	Lythrum alatum	winged loosestrife	0.015
6	OBL	Mimulus ringens	monkey flower	0.031
4	FACU	Monarda fistulosa	bergamot	0.016
5	OBL	Penthorum sedoides	ditch stonecrop	0.001
5	FACW+	Pycnanthemum virginianum	common mountain mint	0.160
1	FACU	Rudbeckia hirta	black-eyed susan	0.250
5	FACW+	Rudbeckia laciniata	wild golden glow	0.063
		Sagitaria latifolia	arrowhead	0.500
		Scirpus fluviatils	river bulrush	0.250
		Scirpus validus	great bulrush	0.250
5	FACW-	Silphium perfoliatum	cup plant	0.125
4	FACW-	Solidago rigida	stiff goldenrod	0.125
		Sparganium eurycarpum	bur reed	1.000
4	FACW+	Verbena hastata	blue vervain	0.046
5	FACW	Vernonia fasciculata	common ironweed	0.018
7	FAC+	Zizia aurea	golden alexander	0.031
			Total Weight of Seeds (lbs)	**12.250**

Cover Crop:

0	UPL	Lolium multiflorum	annual rye	30.000

FILE NAME = N:\LCDOT\06377A\Civil\NOT_ECP_06377A_01.SHT	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -
		DRAWN - PMM	REVISED -
	PLOT SCALE = NONE	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

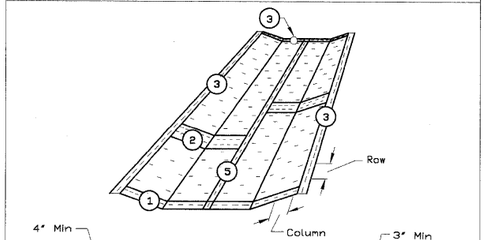
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

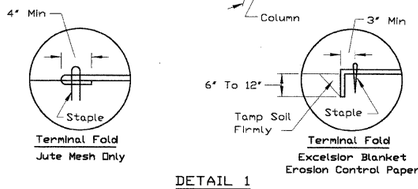
DEERFIELD ROAD BIKE PATH
EROSION AND SEDIMENT CONTROL NOTES

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

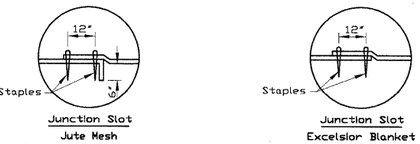
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	44 40	15
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

EROSION BLANKET PLAN





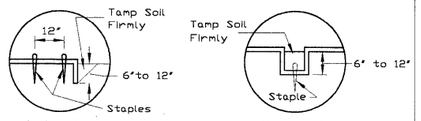
DETAIL 1



DETAIL 2

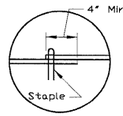
REFFERENCE		STANDARD DWG. NO.
Project		IL-530
Designed ____ Date ____	NRCS Natural Resources Conservation Service	SHEET 1 OF 2
Checked ____ Date ____		DATE 5-24-94
Approved ____ Date ____		

EROSION BLANKET PLAN

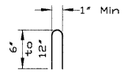


DETAIL 3

DETAIL 4



DETAIL 5

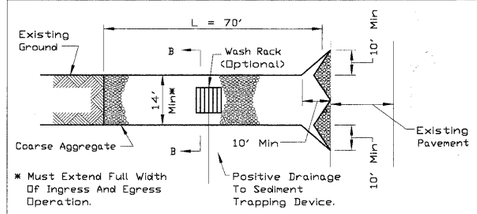


STAPLE DETAIL

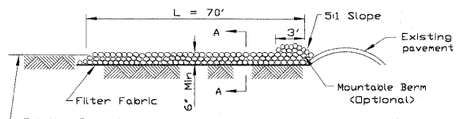
NOTES:
1. On erosion control paper, check slots, in ditch channel shall be spaced so that one occurs within each 50' on slopes of more than 4% and less than 6%. On slopes of 6% or more, they shall be spaced so that one occurs within each 25'.
2. Staples are to be placed alternately, in columns approximately 2' apart and in rows approximately 3' apart. Approximately 175 staples are required per 4'x 225' roll of material and 125 staples are required per 4'x 150' roll of material.
3. Erosion control material shall be placed loosely over ground surface. Do not stretch.
4. All terminal ends and transverse laps shall be stapled at approximately 12' intervals.

REFFERENCE		STANDARD DWG. NO.
Project		IL-530
Designed ____ Date ____	NRCS Natural Resources Conservation Service	SHEET 2 OF 2
Checked ____ Date ____		DATE 3-1-95
Approved ____ Date ____		

STABILIZED CONSTRUCTION ENTRANCE PLAN



PLAN VIEW

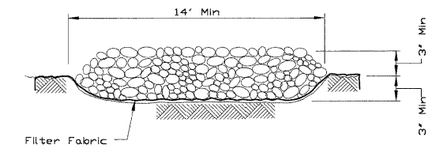


SIDE ELEVATION

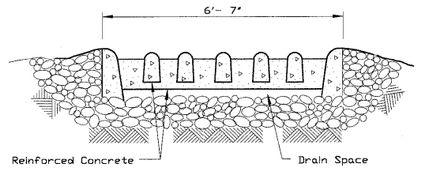
NOTES:
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

REFERENCE		STANDARD DWG. NO.
Project		IL-630
Designed ____ Date ____	NRCS Natural Resources Conservation Service	SHEET 1 OF 2
Checked ____ Date ____		DATE 8-18-94
Approved ____ Date ____		

STABILIZED CONSTRUCTION ENTRANCE PLAN



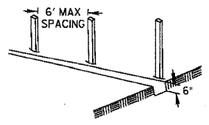
SECTION A-A



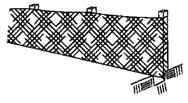
SECTION B-B

REFERENCE		STANDARD DWG. NO.
Project		IL-630
Designed ____ Date ____	NRCS Natural Resources Conservation Service	SHEET 2 OF 2
Checked ____ Date ____		DATE 8-18-94
Approved ____ Date ____		

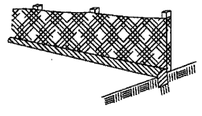
1. SET POSTS AND EXCAVATE OR SLIT-TRENCH A 6-INCH DEEP TRENCH UPSLOPE ALONG THE LINE OF POSTS



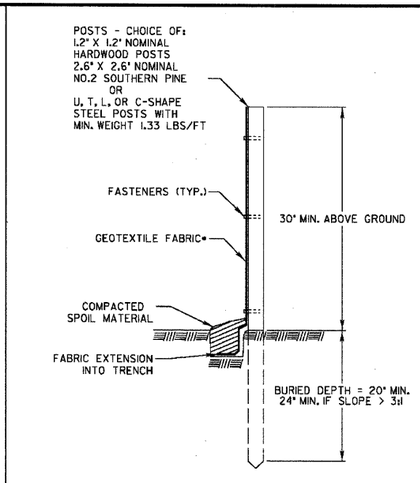
2. ATTACH GEOTEXTILE FILTER FABRIC TO EACH POST WITH A MINIMUM OF 3 (THREE) FASTENERS PER POST AND EXTEND FABRIC TO THE BOTTOM OF THE TRENCH



3. BACKFILL AND COMPACT THE EXCAVATED MATERIALS



Requirements	Test Methods	Wire Backed Supported Silt Fence [a]	Unsupported Silt Fence	
			Geotextile Elongation >=50% [b]	Geotextile Elongation <50% [b]
Maximum Post Spacing		4 feet	4 feet	6 feet
Grab Strength	ASTM D 4632			
Machine direction		90 lbs	124 lbs	124 lbs
X-Machine direction		90 lbs	100 lbs	100lbs
Permittivity [c]	ASTM D 4491	0.05 sec [-1]	0.05 sec [-1]	0.05 sec [-1]
Apparent Opening Size	ASTM D 4751	0.024in maximum average roll value		
Ultraviolet stability (retained strength)	ASTM D 4355	70% after 500 hours of exposure		



* NOTE: OPTIONAL WIRE SUPPORT
- MIN. 30" HEIGHT
- MIN. 14 GAUGE WIRE
- MIN. 6 HORIZ. WIRES
- MIN. 6' VERTICAL SPACING

SCALE 1" = 1'

REVISIONS	DATE	LakeCounty Division of Transportation	APPROVED BY: M. G. ZEMAITIS DATE: JUNE 20, 2008	LC2051
ORIG. by LCSMC	04/21/08	PERIMETER EROSION BARRIER INSTALLATION		

FILE NAME = N:\LCDOT\06377A\Civil\DET_ECP_06377A_01.SHT	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -
		DRAWN - PMM	REVISED -
	PLOT SCALE = NONE	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

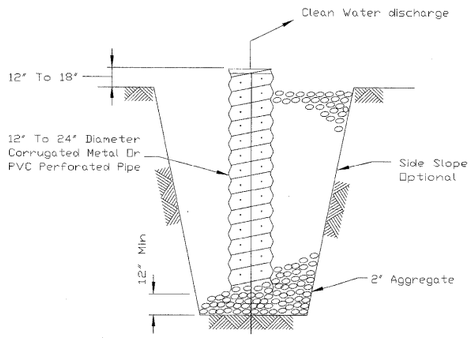
DEERFIELD ROAD BIKE PATH
EROSION AND SEDIMENT CONTROL DETAILS

SCALE: NONE | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~44~~ 40	16
		CONTRACT NO. 63408		

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

SUMP PIT PLAN

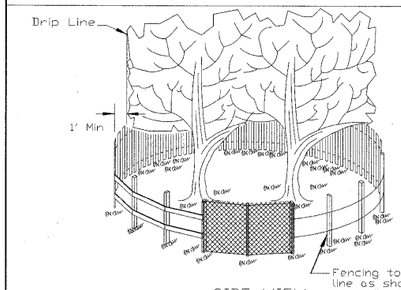


SECTION

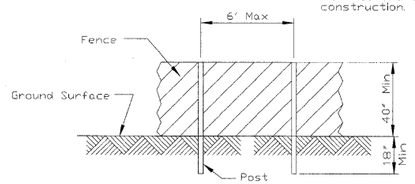
NOTES:
1. Pit dimensions are optional.
2. The standpipe will be constructed by perforating a 12"-24" diameter corrugated metal or PVC pipe.
3. A base of 2" aggregate will be placed in the pit to a minimum depth of 12". After installing the standpipe, the pit surrounding the standpipe will then be backfilled with 2" aggregate.
4. The standpipe will extend 12" to 18" above the lip of the pit.
5. If discharge will be pumped directly to a storm drainage system, the standpipe will be wrapped with filter fabric before installation.
6. If desired, 1/4"-1/2" hardware cloth may be placed around the standpipe prior to attaching the filter fabric. This will increase the rate of water seepage into the pipe.

REFERENCE	NRCS	STANDARD DWG. NO.
Project	Natural Resources Conservation Service	IL-650
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 8-11-94
Approved ____ Date ____		

TREE PROTECTION - FENCING



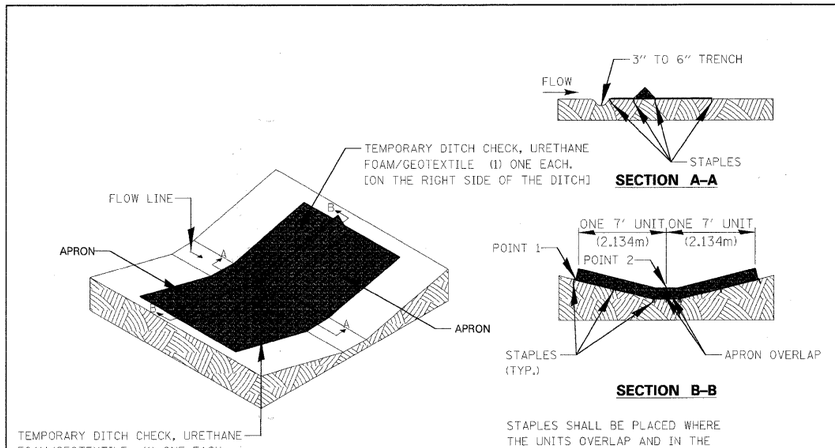
SIDE VIEW



POST AND FENCE DETAIL

NOTES:
1. ~~The fence shall be located a minimum of 1 foot outside the drip line of the tree to be saved and in no case closer than 5 feet to the trunk of any tree.~~
2. Fence posts shall be either standard steel posts or wood posts with a minumum cross sectional area of 3.0 sq. in.
3. The fence may be either 40" high snow fence, 40" plastic web fencing or any other material specified and approved by the engineer/inspector

REFERENCE	NRCS	STANDARD DWG. NO.
Project	Natural Resources Conservation Service	IL-690
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 4-7-94
Approved ____ Date ____		



SILT DIKE UNIT ISOMETRIC

STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE 7' UNIT AS SHOWN ON THE DIAGRAM.

POINT 1 MUST BE HIGHER THAN POINT 2 TO INSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

NOTE:
THE INSTALLATION SHOWN ABOVE WOULD BE PAID FOR AS TWO (2) EACH TEMPORARY DITCH CHECK, URETHANE FOAM/GEOTEXTILE.

SCALE: 1" = 5'

REVISIONS	DATE
DUAL DIMENSIONS	10/23/01
MODIFIED PAY ITEM NAME	3/8/05

LakeCounty Division of Transportation — APPROVED BY: G. N. WIESNER DATE: JULY 23, 1999

TRIANGULAR SILT DIKE INSTALLATION FOR ROADWAY DITCH OR DRAINAGE DITCH

LC:1005

FILE NAME =	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -
N:\LCDOT\06377A\Civil\DET_ECP_06377A_02.SHT		DRAWN - PMM	REVISED -
	PLOT SCALE = NONE	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

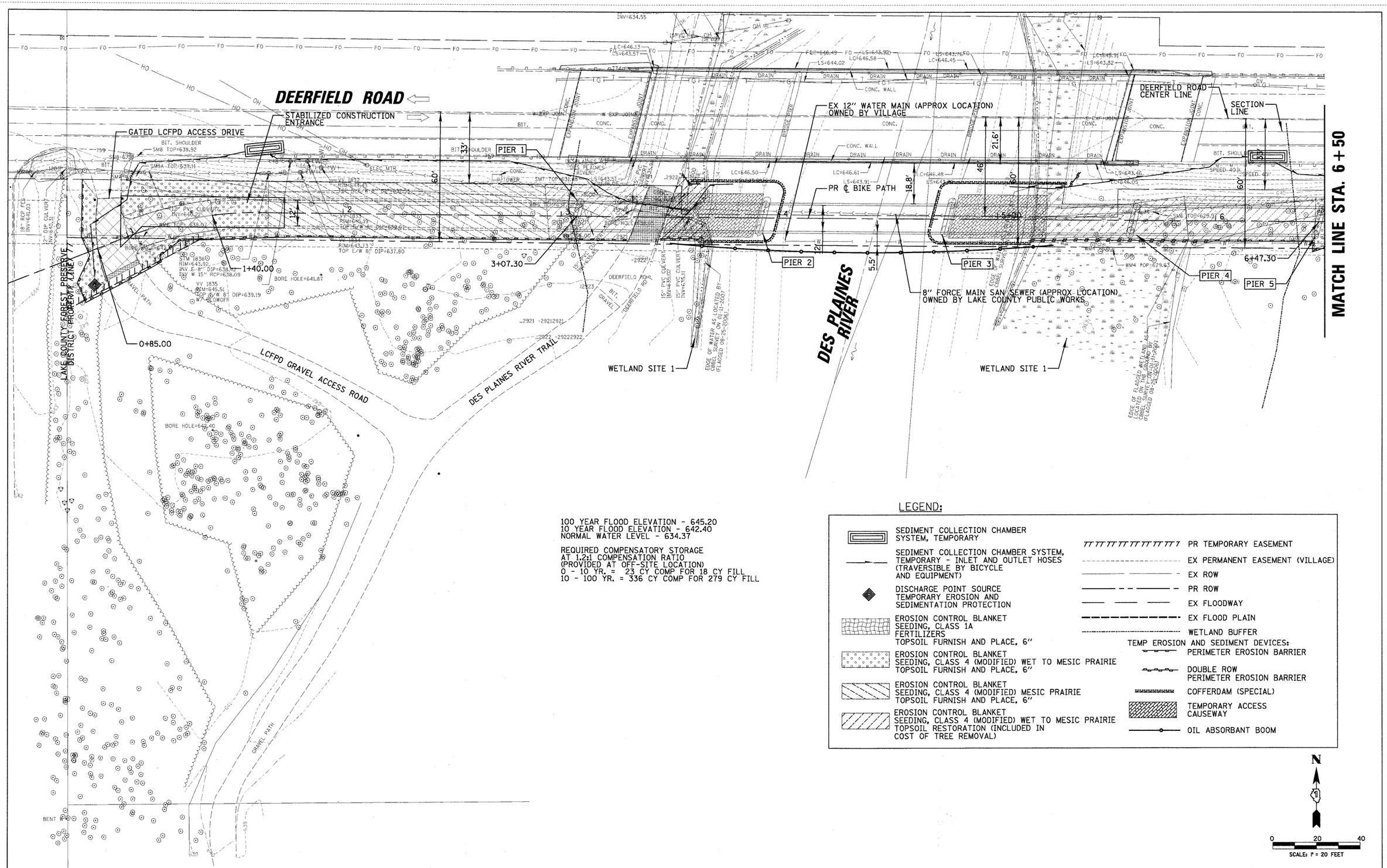
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
EROSION AND SEDIMENT CONTROL DETAILS

SCALE: NONE | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~44~~ 70	17
		CONTRACT NO. 63408		

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



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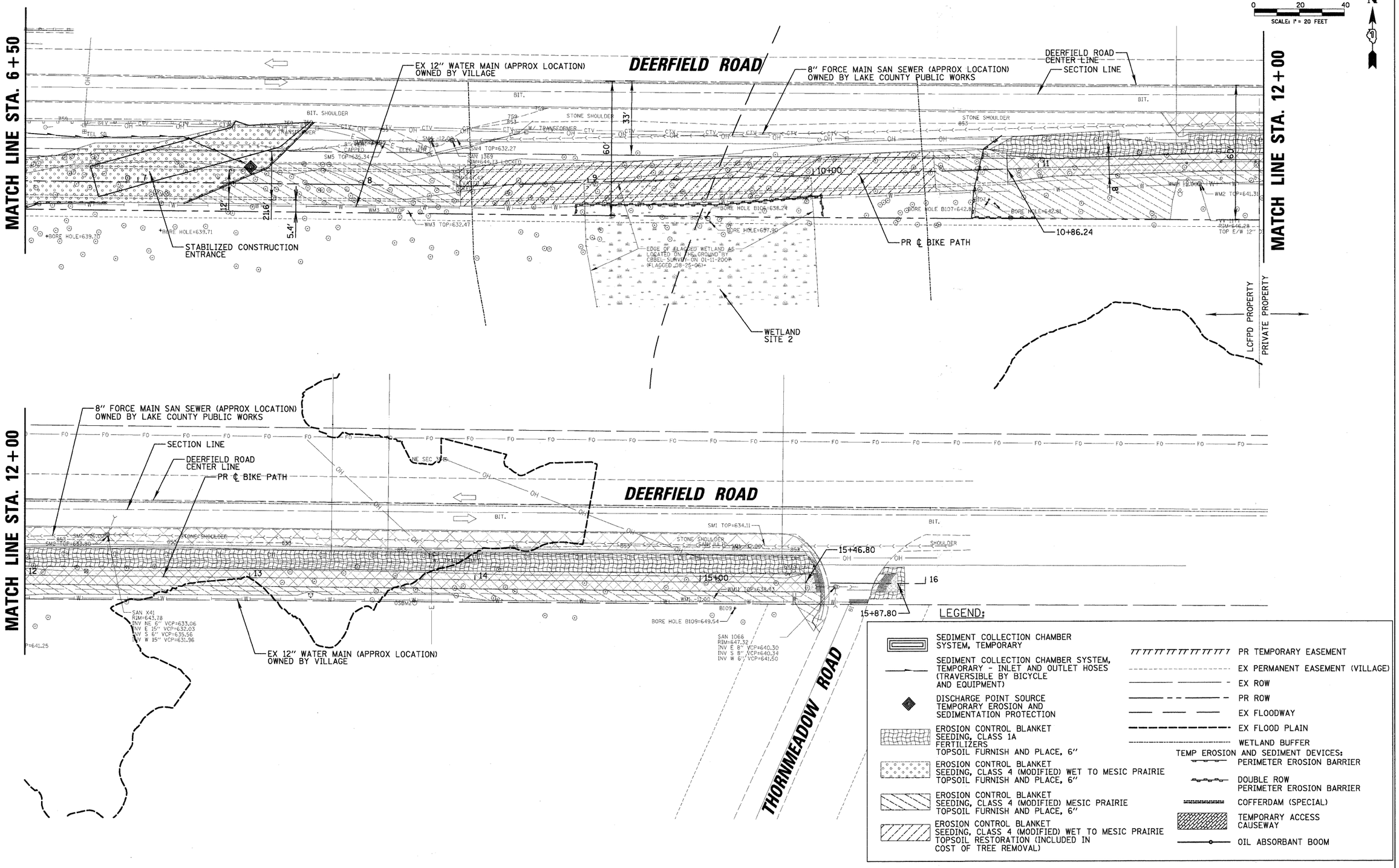
		DRAWN - PMM	REVISED -
	PLOT SCALE = 20'	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
EROSION AND SEDIMENT CONTROL AND LANDSCAPING PLAN

SCALE: 1"=20' | SHEET NO. 1 OF 2 SHEETS | STA. 0+50 | TO STA. 6+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~44~~ 40	18
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



LEGEND:

- SEDIMENT COLLECTION CHAMBER SYSTEM, TEMPORARY
- SEDIMENT COLLECTION CHAMBER SYSTEM, TEMPORARY - INLET AND OUTLET HOSES (TRAVERSIBLE BY BICYCLE AND EQUIPMENT)
- DISCHARGE POINT SOURCE TEMPORARY EROSION AND SEDIMENTATION PROTECTION
- EROSION CONTROL BLANKET SEEDING, CLASS 1A FERTILIZERS TOPSOIL FURNISH AND PLACE, 6"
- EROSION CONTROL BLANKET SEEDING, CLASS 4 (MODIFIED) WET TO MESIC PRAIRIE TOPSOIL FURNISH AND PLACE, 6"
- EROSION CONTROL BLANKET SEEDING, CLASS 4 (MODIFIED) MESIC PRAIRIE TOPSOIL FURNISH AND PLACE, 6"
- EROSION CONTROL BLANKET SEEDING, CLASS 4 (MODIFIED) WET TO MESIC PRAIRIE TOPSOIL RESTORATION (INCLUDED IN COST OF TREE REMOVAL)
- PR TEMPORARY EASEMENT
- EX PERMANENT EASEMENT (VILLAGE)
- EX ROW
- PR ROW
- EX FLOODWAY
- EX FLOOD PLAIN
- WETLAND BUFFER

TEMP EROSION AND SEDIMENT DEVICES:

- PERIMETER EROSION BARRIER
- DOUBLE ROW PERIMETER EROSION BARRIER
- COFFERDAM (SPECIAL)
- TEMPORARY ACCESS CAUSEWAY
- OIL ABSORBANT BOOM

FILE NAME = N:\LCDOT\06377A\Civil\ECP_06377A_02.SHT	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -
		DRAWN - PMM	REVISED -
	PLOT SCALE = 20'	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
EROSION AND SEDIMENT CONTROL AND LANDSCAPING PLAN

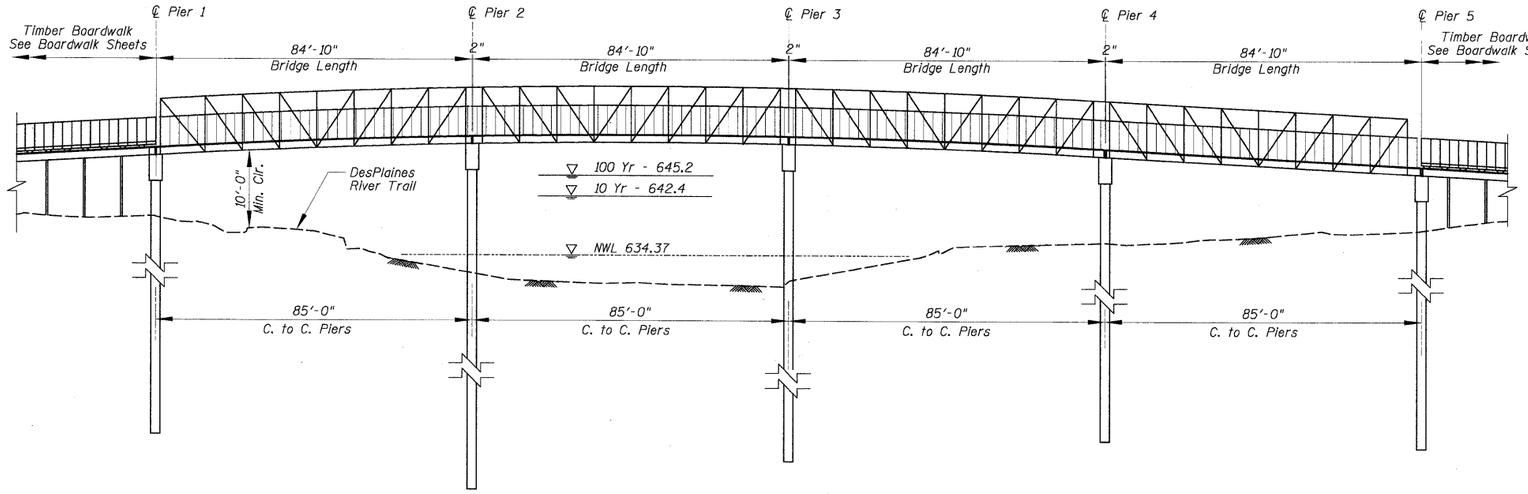
SCALE: 1"=20' | SHEET NO. 2 OF 2 SHEETS | STA. 6+50 TO STA. 16+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	44 10	19
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

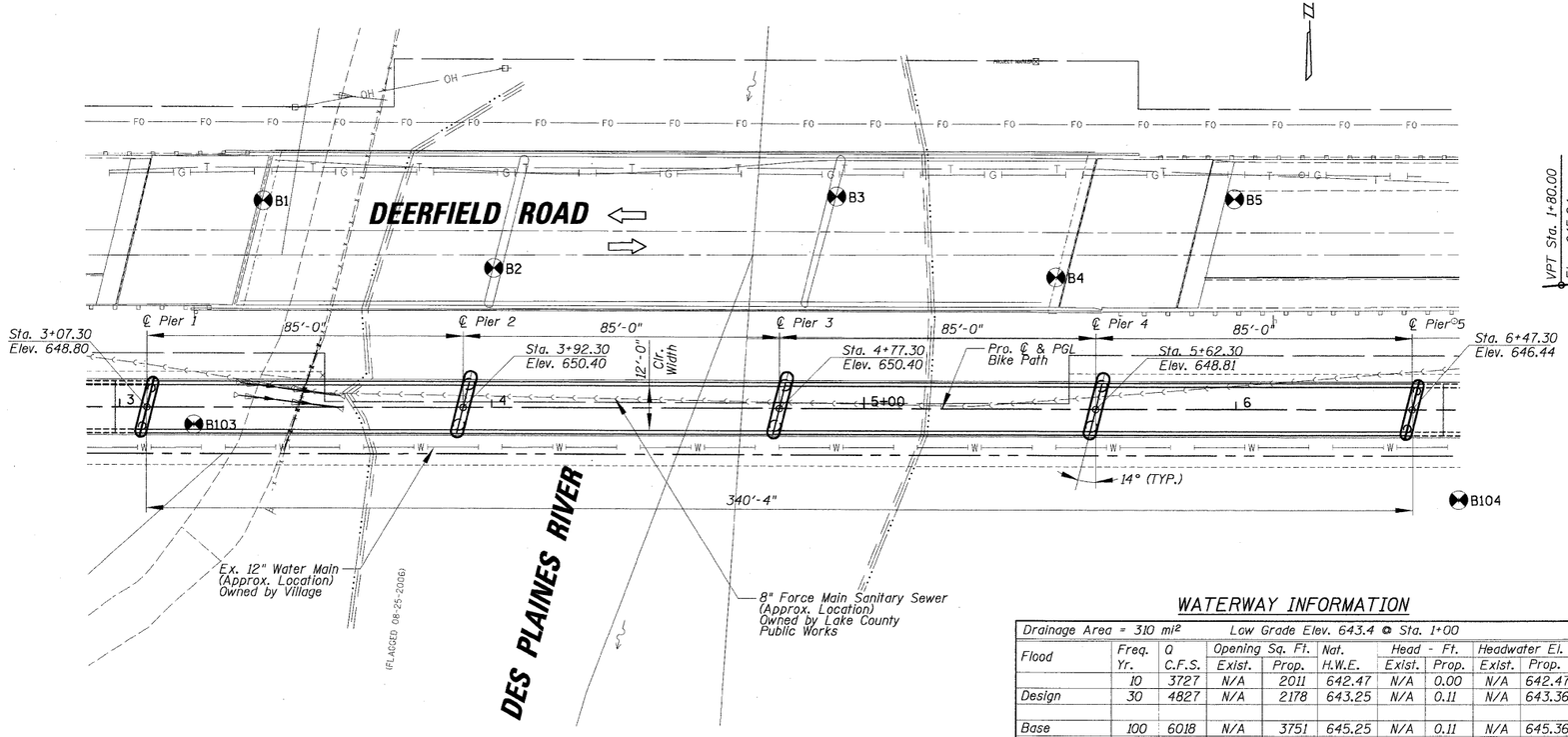
Bench Mark: LC5-45BR - Square Cut on NW Corner of Parapet Wall at NW Corner of Brigge Approach of Deerfield Road Over Des Plaines River. (Lake County D.O.T. Bench Mark) Elev. 649.72

Exsiting Structure: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN



ELEVATION

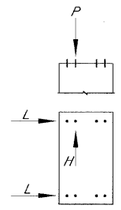
INDEX OF SHEETS

BILL OF MATERIAL

DESCRIPTION	UNIT	QUANTITY
Concrete Structures	Cu. Yd.	47.6
Protective Coat	Sq. Yd.	200
Reinforcement Bars	Lbs.	12950
Reinforcement Bars, Epoxy Coated	Lbs.	7300
Drilled Shaft In Soil	Cu. Yd.	109
Pedestrian Truss Superstructure	Sq. Ft.	4084

BRIDGE REACTION TABLE

ITEM	P (LBS) BRG.	H (LBS) ABUTMENT	L (LBS)
DEAD LOAD	10,600	—	—
UNI. LIVE LOAD	21,700	—	—
VEHICLE LOAD	6,000	—	—
UPLIFT WIND 20 PSF	-8,300	—	—
WIND	±2,410	8,565	—
THERMAL	—	—	3,710



All Footings Have Been Designed Based On The Bridge Reactions Shown
"P"- Vertical Load Per Base Plate
"H"- Horizontal Load Per Pier (2 on Piers 2, 3, and 4)
"L"- Longitudinal Load Per Base Plate

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

AASHTO "Guide Specifications For Design of Pedestrian Bridges"

LOADING H6 (12000#)

Distributed Live Load = 85 psf

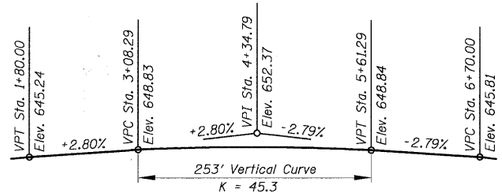
DESIGN STRESSES

FIELD UNITS

f'c = 4,000 psi (Drilled Shafts)
f'c = 3,500 psi (Concrete Structures)
fy = 60,000 psi (Reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 Sec. (SD1) = 0.06g
Design Spectral Acceleration at 0.2 Sec. (SDs) = 0.12g
Soil Site Class = C



PROPOSED PROFILE

WATERWAY INFORMATION

Drainage Area = 310 mi² — Low Grade Elev. 643.4 @ Sta. 1+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	3727	N/A	2011	642.47	N/A	0.00	N/A	642.47
Design	30	4827	N/A	2178	643.25	N/A	0.11	N/A	643.36
Base	100	6018	N/A	3751	645.25	N/A	0.11	N/A	645.36
Overtopping	32								
Max. Calc.	500	7511	N/A	5410	646.90	N/A	0.26	N/A	647.16

DESIGN SCOUR ELEVATION TABLE

Flood Frequency/ Scour Elevation	Pier 1	Pier 2	Pier 3	Pier 4	Pier 5
100 year Scour Elevation (ft.)	627.2	622.7	621.4	624.3	625.5
500 year Scour Elevation (ft.)	624.3	620.0	618.8	621.5	622.6

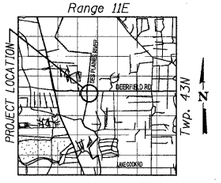
I Certify That To The Best Of My Knowledge, Information And Belief, This Bridge Design Is Structurally Adequate For The Design Loading Shown On The Plans. The Design Is An Economical One For The Syle Of Structure And Complies With Requirements Of The Current "AASHTO Standard Specification For Highway And Bridges".

STATE OF ILLINOIS MAJID MOBASSERI 081-005058 CHAMPAIGN, ILLINOIS REGISTERED STRUCTURAL ENGINEER

11-30-09

MAJID MOBASSERI
ILLINOIS REGISTRATION No. 081-005058
STRUCTURAL ENGINEER
EXPIRATION DATE: 11/30/10

Range 11E



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
DEERFIELD ROAD BIKE PATH OVER DES PLAINES
SEC. 04-00038-03-BR
LAKE COUNTY
STATION 4+77.30
STRUCTURE NO.

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

- 200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO.	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-1 SHEETS	1257	04-00038-03-BR	LAKE	44 40	20
			CONTRACT NO. 63408		
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I GENERAL NOTES

1. All work shall be done in accordance to the Illinois Department of Transportation (IDOT) Standard Specification For Road and Bridge Construction, Adopted January 1, 2007, and latest Supplemental Specifications and recurring Special Provisions, unless noted otherwise. Construction Plans and Subsequent Details are all to be considered as part of the Contract. Incidental Items or Accessories necessary to complete this work may not be specifically noted but are considered a part of this Contract.

2. No Construction Plans shall be used for Construction unless specifically Marked For Construction. Prior to commencement of construction, the Contractor shall verify all dimensions and conditions affecting the work with the actual conditions. If there are discrepancies between the job site and what is shown on the construction plans, The contractor must immediately report to Engineer before doing any work, otherwise the Contractor shall assume full responsibility. In the event of disagreement between the plans and existing conditions and or details, the Contractor shall secure written instruction from the Engineer prior to proceeding with any part of the work affected by omissions or discrepancies. In failing to secure such instruction, the Contractor will be considered to have proceeded at his own risk and expense. In the event of any doubt or questions arising with respect to the true meaning of the Construction Plans or Specifications, the decision of the Engineer shall be final and conclusive.

3. Contractor shall verify all topographic information and grade elevations adjacent to bridge prior to proceeding, inform Engineer of any variation.

II CAST-IN-PLACE CONCRETE

1. All cast-in-place concrete work and reinforcing steel work shall be in accordance with Sections 503 and 508 respectively of the IDOT Standard Specifications For Road And Bridge Construction, adopted January 1, 2007, and Supplemental Specifications and Recurring Special Provisions and as noted below.

2. Cover from the face of concrete to face of reinforcement bars shall be 3" for surfaces cast against earth and 2" for all other surfaces unless otherwise shown.

3. All reinforcement bars shall be epoxy coated.

4. Reinforcement Bars shall conform to the requirements of ASTM A760 Grade 60. Field bending or cutting shall not be permitted. See Special Provision.

5. Reinforcement Bars designated (E) shall be Epoxy Coated.

6. Reinforcing bar bending dimensions are out to out.

7. Concrete in drilled shafts shall be class DS concrete and shall have a minimum compressive strength of 4,000 psi @ 28 days. All other C.I.P. concrete shall be class SI concrete and shall have a minimum compressive strength of 3,500 psi @ 28 days.

8. All exposed concrete edges shall be beveled $\frac{3}{4}$".

III PREFABRICATED PEDESTRIAN BRIDGE

The Prefabricated Pedestrian Bridge shall be designed, fabricated, delivered and erected according to the Special Provisions of "Pedestrian Truss Superstructure" and design plans.

1. Style: Pratt Truss or Approved Equal.

2. Span: 84' - 10" end to end of each bridge span.

3. Loading: Per AASHTO Guide Specification for Design of Pedestrian Bridges.
   Dead Load : Actual weight of the structure
   Live Load : 85 PSF or H6 (12,000 Lb) vertical load. Vertical impact is not required.
   Wind Load : 35 PSF on the full vertical projected area of the bridge, as if enclosed.

4. Finishes: All steel shall be unpainted weathering steel conforming to the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel."

5. The total depth of deck, from top of deck to the bottom of bottom chord shall be less than 12".

6. Quality: The bridge manufacturer shall maintain proper records assuring that all steel, bolts, and materials used are in accordance with material specified. The bridge shall be identified and marked with a permanent nameplate showing the manufacturers name, location, date of manufacture, and load carrying capacity. Structural material shall be traceable to each bridge. All welders shall be qualified in accordance with AWS D1.1-2002 structural welding code. All workmanship shall be in compliance with AASHTO and AISC standard practice. Full penetration weld details used in shop splices shall be submitted to the Engineer to determine testing required (If any).

7. Delivery: Bridges shall be delivered by truck to a location nearest the site accessible by roads.

8. Field welding of construction accessories will not be permitted to beams or girders.

IV CONSTRUCTION

1. Do not scale dimensions for construction. Scale, if shown, applies only to full size drawings.

2. No construction joints, except those shown on the plans, will be allowed unless directed by the Engineer.

3. Any information concerning type or location of underground and other utilities is not guaranteed to be accurate or all inclusive. The Contractor is responsible for making his own determinations as to the type and location of the utilities as may be necessary to avoid damage thereto. Contractor shall call J.U.L.I.E. and the Engineer prior to excavation.

4. Shop working or layout drawings pertaining to the construction of the work, as may be required, shall be submitted to the Engineer for approval prior to the start of construction. Shop drawing shall be signed and sealed by a Structural Engineer licensed in State of Illinois.

5. Upon completion, the contractor shall collect and remove all construction debris and excess material from the site. Damaged trees, shrubs, and other landscape features resulting from construction activities shall be replaced or repaired.

6. All bearing surfaces must be true and level.

7. Contractor must coordinate with Bridge Manufacturer to ensure proper placement of cast-in-place anchors. If the contractor elects to use post-installed anchors in lieu of cast-in-place anchors, he must coordinate the plate dimensions, bolt spacing and bolt quantity with the Bridge Manufacturer prior to construction.

8. Bridge Seat Sealer shall be applied to the seat area of all piers.

V FOUNDATION NOTES

1. The minimum allowable end tip resistance of the drilled shafts shall be 7.5 ksf based on the soils report prepared by ECS Illinois, LLc. See soil report for additional information.

2. Soil borings prepared by Testing Service Corporation, File No. L-30,535 dated September 5, 1991, for the Deerfield Road bridge over the Des Plaines River (SN 049-0174) have been included in these plans.

3. The Contractor is responsible for design, installation and removal of all excavation support systems.

4. The excavation and work area shall be properly drained at all times during construction. all wet, loose, frozen or other unsuitable material shall be removed prior to placement of concrete or compacted backfill.

5. To reduce the potential for sloughing of granular soils resulting in loss of confinement, the use of full length temporary steel casing will likely be necessary.

6. The cost of temporary steel casing is included with "Drilled Shaft in Soil".

7. Based on the soil conditions encountered during our subsurface exploration, groundwater seepage and sloughing of granular sandy/silty soils will take place during drilled pier excavations. To reduce the potential for sloughing of granular soils resulting in loss of confinement, the use of full length temporary steel casing will likely be necessary. The temporary casing must be carefully twisted or vibrated ahead of the drilling to help maintain a stable excavation and reduce the risk of disturbance to or, heave or blow-in of saturated granular soils. Difficult drilling and casing advancement may be encountered. If difficult advancement of temporary casing ahead of drilling is experienced, the contractor may elect to excavate the pier in small increments (1 or 2 feet) then push the steel casing. The temporary steel casing should be extended a minimum 2 feet above the ground surface. Advancement of full length temporary protective steel casing by telescoping method should be anticipated during pier excavation.

   We anticipate groundwater seepage will take place during pier excavation. While drilling into the saturated granular soils, appropriate construction procedures should be implemented to reduce the potential for construction problems. In addition to full length temporary casing, the foundation contractor should be prepared to introduce drilling fluid/water into the drilled pier and complete the pier excavation under slurry. Drilling fluid/water is used with temporary casing to resist the seepage pressure on the excavation bottom and reduce the potential for sloughing of the excavation sides. An appropriate head must be maintained to reduce the potential for heave or blow-in.

   Due to the granular nature of the soils encountered in the borings and the presence of groundwater seepage, placement of pier concrete by tremie method is anticipated. Proper placement of pier concrete by tremie method should be implemented. We recommend a minimum diameter of 10 inches by used for the tremie. The tremie pipe should be kept below the surface of the concrete at all times and lifted slightly, no more than 1 foot, to permit the flow of concrete and reduce the potential for water contamination. We recommend the water or slurry be removed or pumped out from the top of the shaft while the pier concrete is being placed to minimize contamination to the concrete. The contractor should exercise care to make sure all surface contaminated concrete is completely removed during concreting. We recommend the concrete be placed immediately after pier excavation is completed. The temporary steel casing can be extracted as the concreting operation progresses. A positive head of concrete should be maintained prior to pulling out the temporary steel casing to prevent water and soil outside the steel casing from contaminating the concrete.

   The foundation contractor should have available on site full length temporary steel casing, a suitable pump, tremie pipes as well as an adequate source/supply of drilling fluid/water to reduce the potential for construction problems and prevent construction delay. The pump should be suitable to remove water seepage and slurry from the pier*s bearing depth. The contractor should have adequate water on site to flood the shaft if necessary should heave of the excavation bottom occur.

   One of the most critical aspects of installation of drilled piers is removal of the casing. Specifically, concrete will have a tendency to *arch* within the casing lining, creating the possibility of voids or discontinuities within the shaft of the caisson. During concreting operations, we recommend that special attention be paid to the pour and pull operations, to help ascertain that discontinuities are not created within the shaft of the caisson. The drilled pier concrete should be placed in intimate contact with undisturbed natural soil. To reduce the potential for arching, we recommend the drilled pier concrete mix be designed for a slump of 7 to 9 inches for tremie placement.

   All work described as part of item 7 above is included in the various pay items associated with the bridge piers.

DESIGNED -	
CHECKED -	
DRAWN -	
CHECKED -	

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EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

GENERAL NOTES
DEERFIELD ROAD BIKE PATH
OVER DES PLAINES
SEC. 04-00038-03-BR
LAKE COUNTY
STATION 4+77.30
STRUCTURE NO.

SHEET NO.	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-2 SHEETS	1257	04-00038-03-BR	LAKE	44 40	21
			CONTRACT NO. 63408		
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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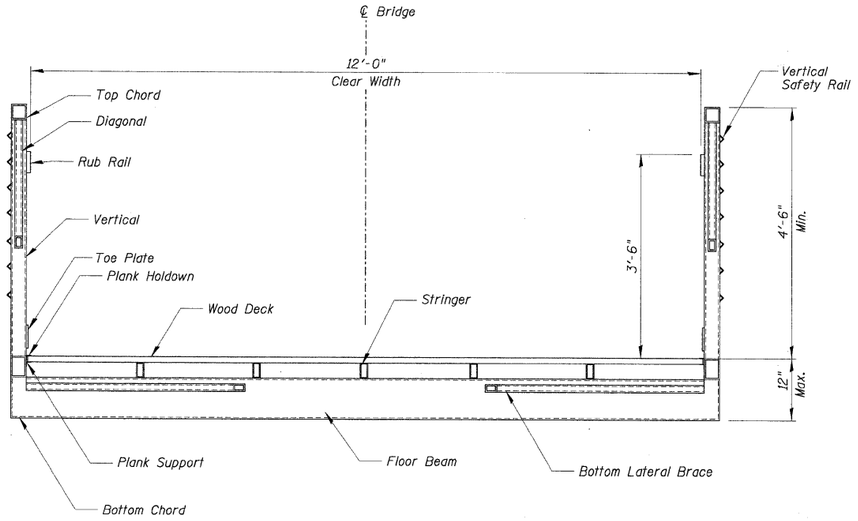
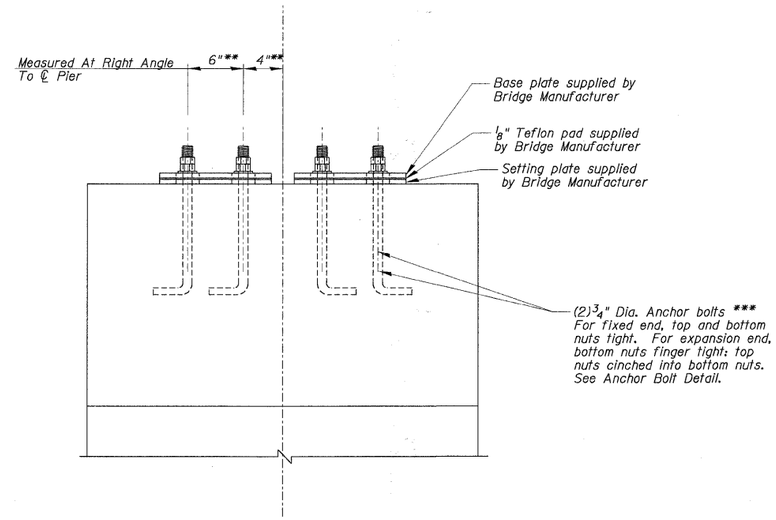
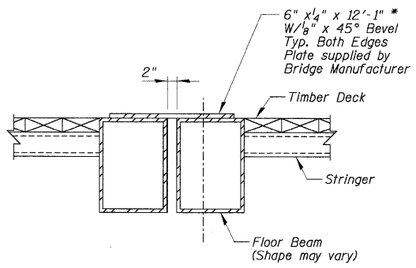
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



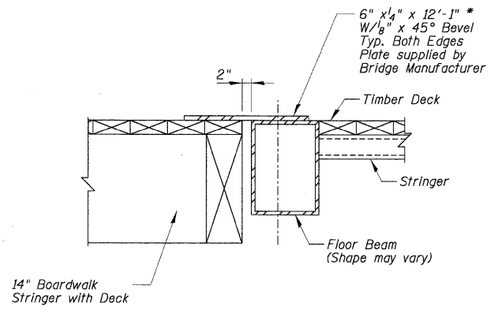
SECTION THRU FABRICATED BRIDGE SUPERSTRUTURE



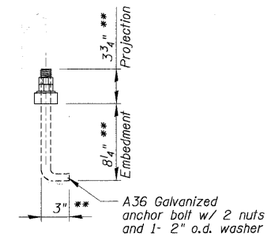
BEARING DETAIL AT PIER



JOINT SEAL AT PIERS 2, 3 AND 4



JOINT SEAL AT PIERS 1 AND 5



(Anchor Bolts Included In Cost Of
"Pedestrian Truss Superstructure")

ANCHOR BOLT DETAIL

NOTES:

* Contractor shall coordinate plate dimensions with Bridge Manufacturer prior to construction.

** The Contractor shall coordinate the location and layout of the anchor bolts with the Bridge Manufacturer and the Boardwalk Manufacturer

*** Contractor has the option of substituting anchor bolts with 4-3/4" ϕ HILTI HAS-EE AISI 304 SS Bolts embedded 6 5/8" into HIT HY 150 Injection adhesive. Bolts shall not be placed less than 5" from the edge of the structure or less than 6" apart. Contractor shall coordinate plate dimensions, bolt spacing and bolt quantity with Bridge Manufacturer prior to construction.

DESIGNED -	
CHECKED -	
DRAWN -	
CHECKED -	

\- 200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

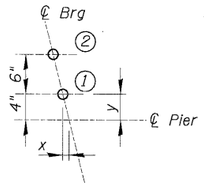
SUPERSTRUCTURE DETAILS
DEERFIELD ROAD BIKE PATH
OVER DES PLAINES
SEC. 04-00038-03-BR
LAKE COUNTY
STATION 4+77.30
STRUCTURE NO.

SHEET NO. S-3 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1257	04-00038-03-BR	LAKE	~~44~~ 40	22
			CONTRACT NO. 63408		
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

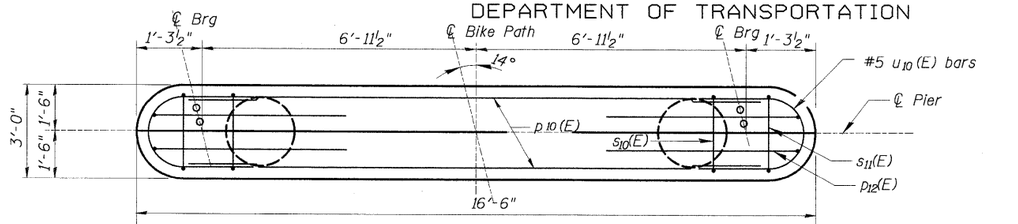
N:\LCDOT\86377A\Struct\86377A-S3.SHT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

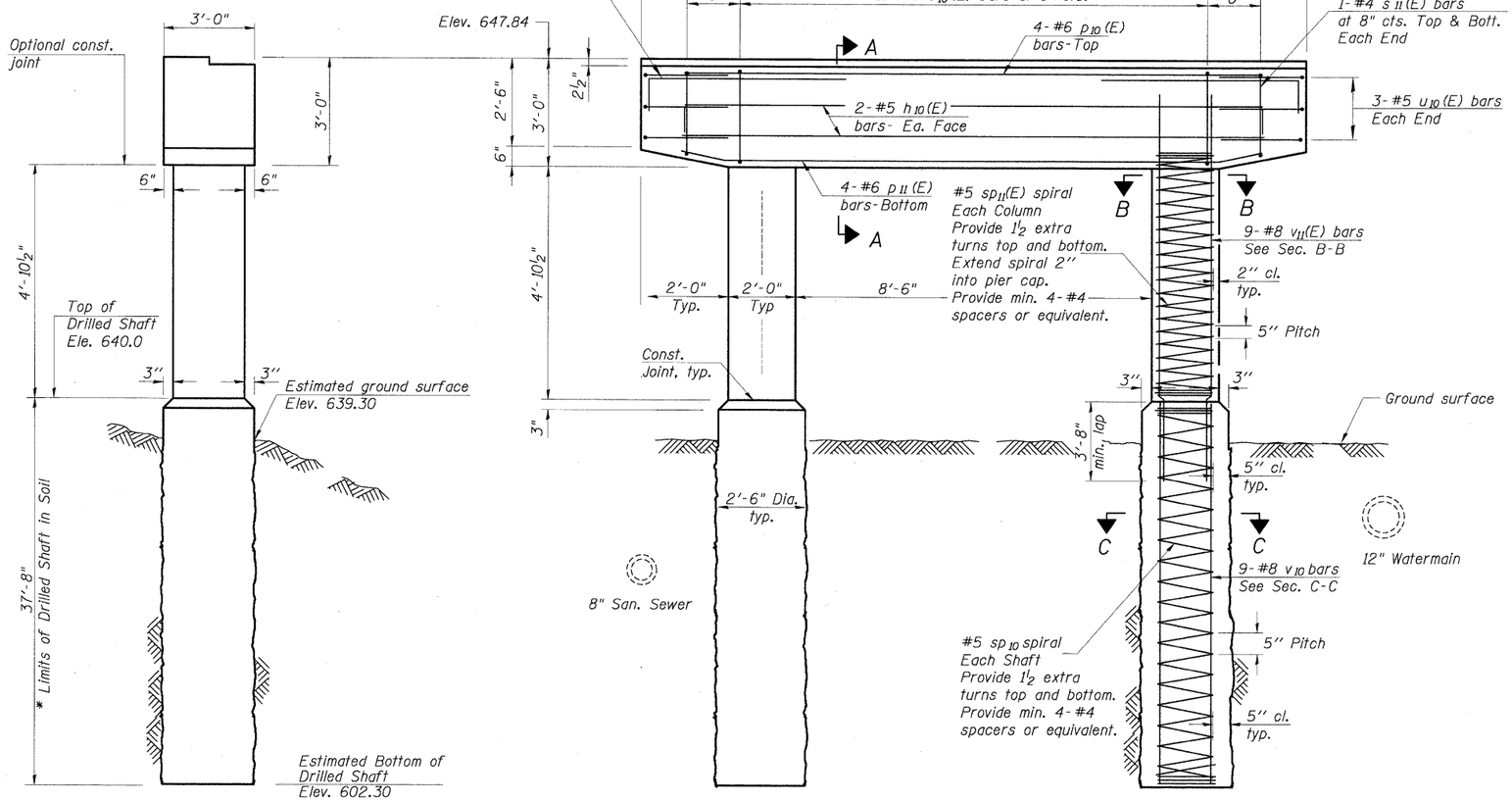
	x	y
1	1"	4"
2	2.5"	10"



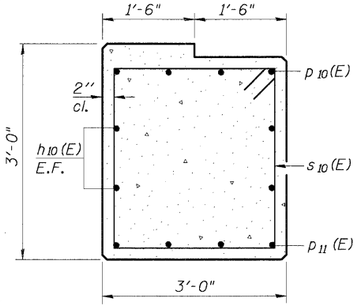
ANCHOR BOLT LAYOUT DETAIL



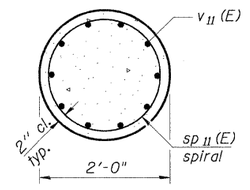
TOP PLAN



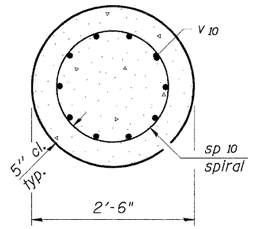
ELEVATION
(Looking East)



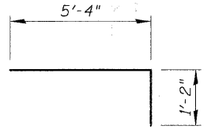
SECTION A-A



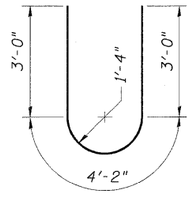
SECTION B-B



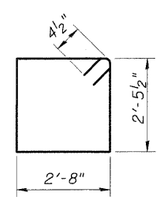
SECTION C-C



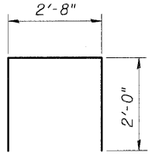
BAR p12(E)



BAR u10(E)



BAR s10(E)

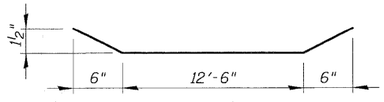


BAR s11(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10(E)	4	#5	13'-6"	
p10(E)	4	#6	13'-6"	
p11(E)	4	#6	13'-6"	
p12(E)	4	#7	6'-6"	
s10(E)	19	#4	10'-11"	
s11(E)	4	#4	6'-8"	
** sp10	2	#5	37'-8"	
** sp11(E)	2	#5	5'-0"	
u10(E)	6	#5	10'-2"	
v10	9	#8	37'-8"	
v11(E)	9	#8	10'-9"	
Concrete Structures			Cu. Yd.	6.4
Reinforcement Bars, Epoxy Coated			Pound	910
Reinforcement Bars			Pounds	1900
Drilled Shaft in Soil			Cu. Yd.	14

Cast steps monolithically with cap.
Space cap reinforcement to miss anchor bolts.
Minimum lap for spirals =2'-6"
** Length is height of spiral.



BAR p11(E)

END VIEW

DESIGNED -	
CHECKED -	
DRAWN -	
CHECKED -	

- 200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

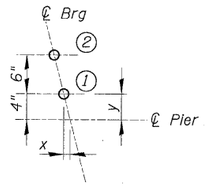
PIER 1 DETAILS
DEERFIELD ROAD BIKE PATH OVER DES PLAINES
SEC. 04-00038-03-BR
LAKE COUNTY
STATION 4+77.30
STRUCTURE NO.

SHEET NO. S-4 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1257	04-00038-03-BR	LAKE	44 40	23
			CONTRACT NO. 63408		
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

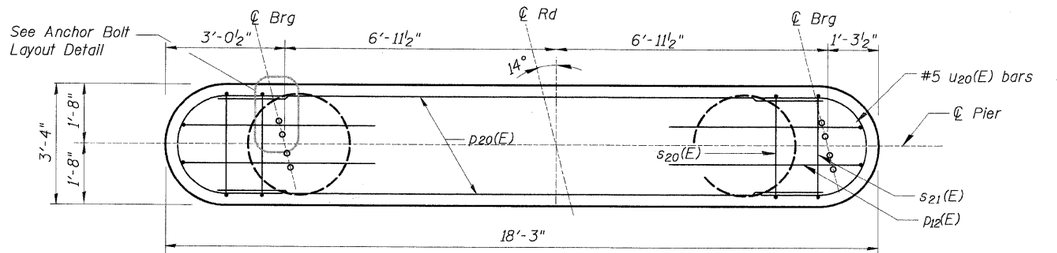
N:\LCDOT\86377A\Struct\86377A-S4.SHT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

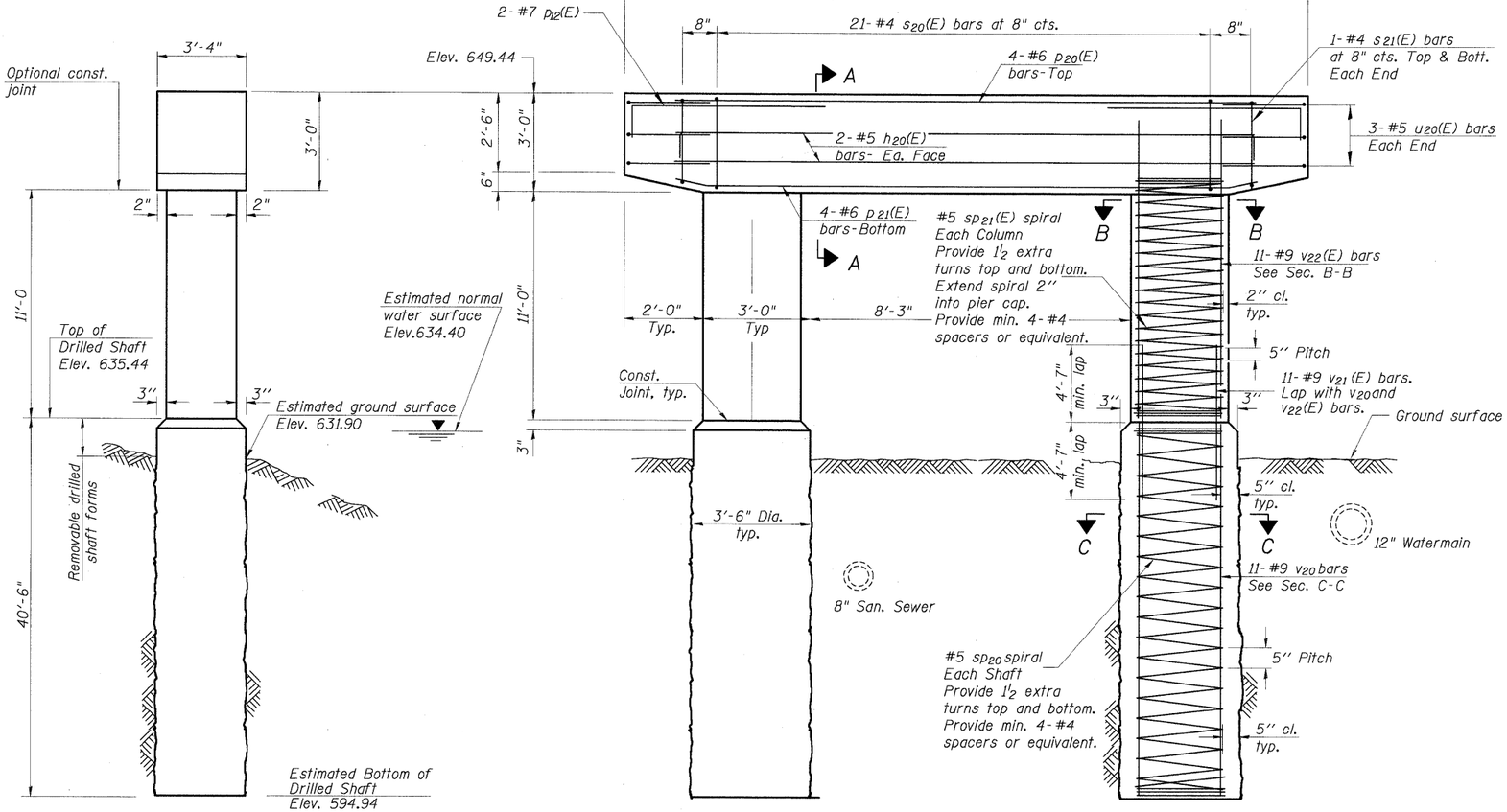
	x	y
1	1"	4"
2	2.5"	10"



ANCHOR BOLT LAYOUT DETAIL

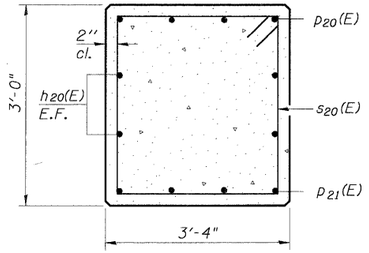


TOP PLAN

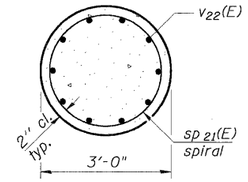


ELEVATION
(Looking East)

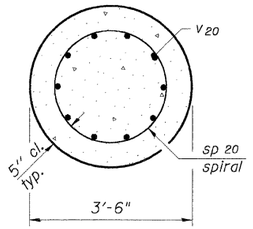
END VIEW



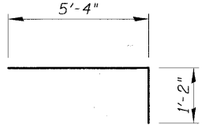
SECTION A-A



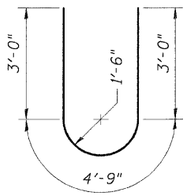
SECTION B-B



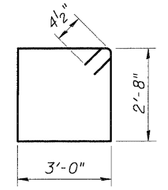
SECTION C-C



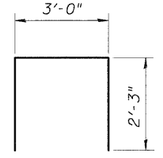
BAR p12(E)



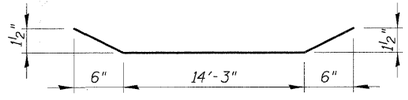
BAR u20(E)



BAR s20(E)



BAR s21(E)



BAR p21(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	4	#5	14'-11"	
p12(E)	4	#7	6'-6"	
p20(E)	4	#6	14'-11"	
p21(E)	4	#6	15'-3"	
s20(E)	21	#4	12'-1"	
s21(E)	4	#4	7'-6"	
** sp20	2	#5	40'-6"	
** sp21(E)	2	#5	11'-3"	
u20(E)	6	#5	10'-9"	
v20	11	#9	40'-6"	
v21(E)	11	#9	9'-6"	
v22(E)	11	#9	13'-8"	
Concrete Structures		Cu. Yd.	12.2	
Reinforcement Bars, Epoxy Coated		Pound	1940	
Reinforcement Bars		Pounds	3240	
Drilled Shaft in Soil		Cu. Yd.	29	

Space cap reinforcement to miss anchor bolts.
Minimum lap for spirals = 2'-6"
** Length is height of spiral.

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

\- 200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

PIER 2 DETAILS
DEERFIELD ROAD BIKE PATH
OVER DES PLAINES
SEC. 04-00038-03-BR
LAKE COUNTY
STATION 4+77.30
STRUCTURE NO.

SHEET NO. S-5 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1257	04-00038-03-BR	LAKE	~~44~~ 40	24
			CONTRACT NO. 63408		
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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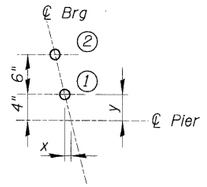
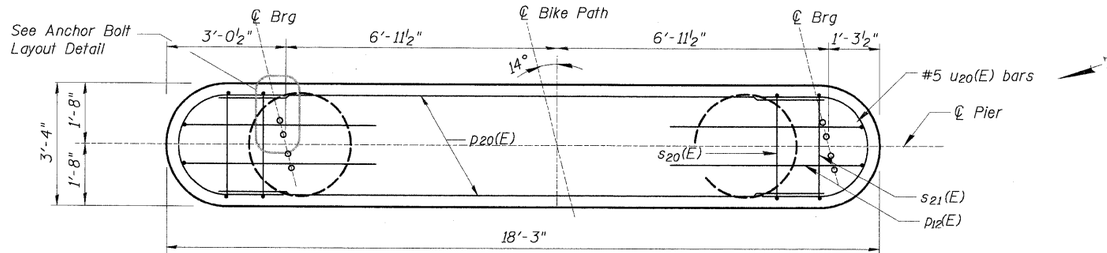
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

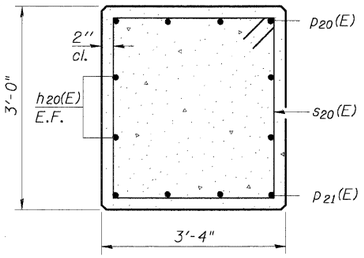
	x	y
1	1"	4"
2	2.5"	10"



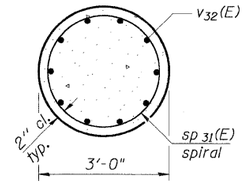
ANCHOR BOLT LAYOUT DETAIL



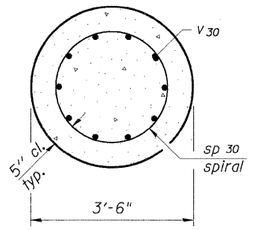
TOP PLAN



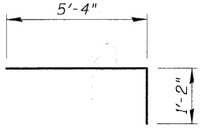
SECTION A-A



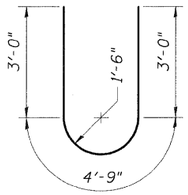
SECTION B-B



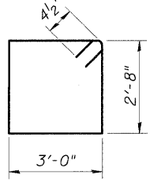
SECTION C-C



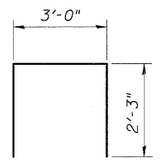
BAR p12(E)



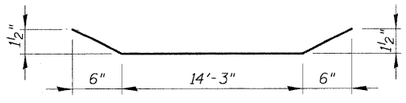
BAR u20(E)



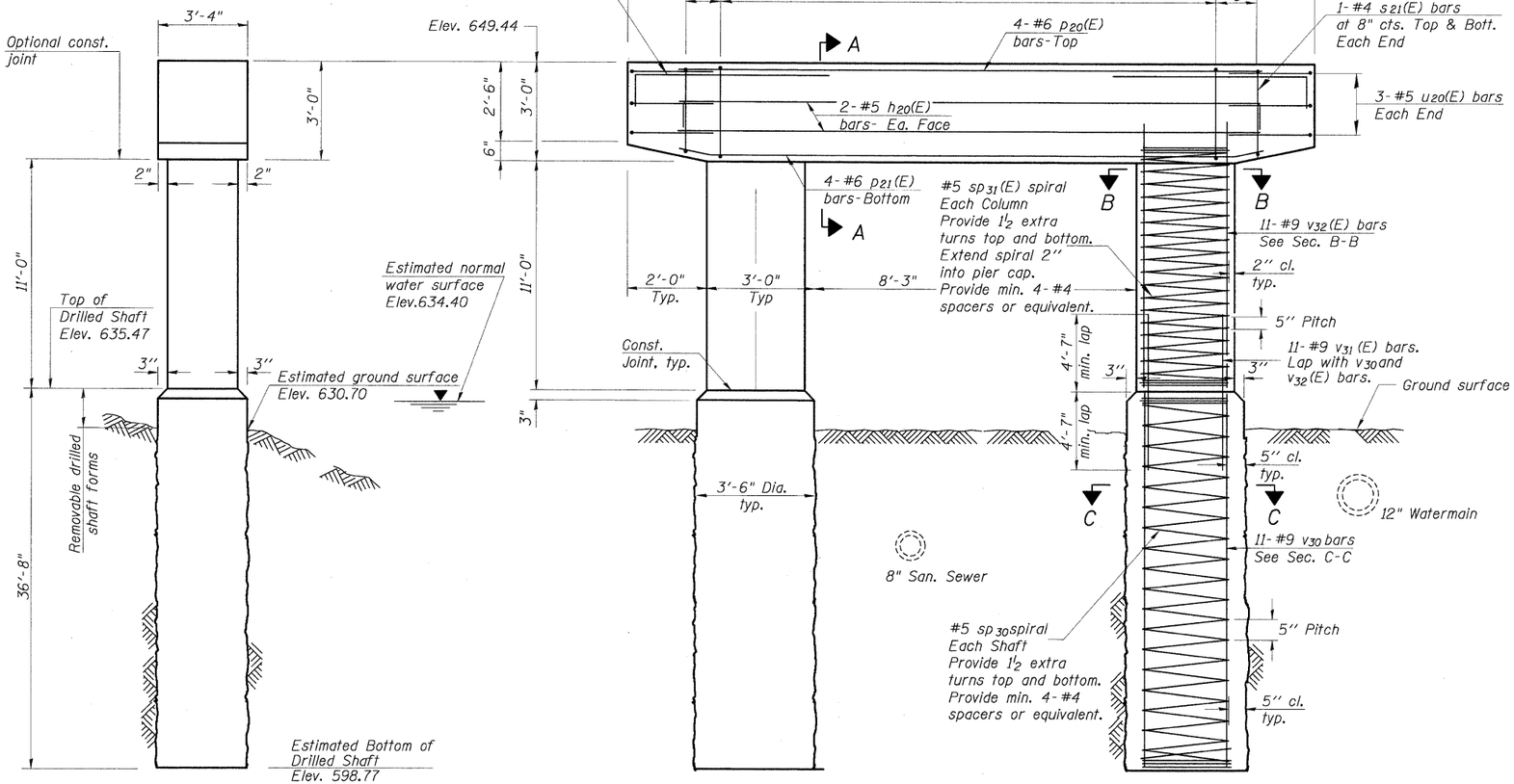
BAR s20(E)



BAR s21(E)



BAR p21(E)



ELEVATION
(Looking East)

END VIEW

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	4	#5	14'-11"	
p12(E)	4	#7	6'-6"	
p20(E)	4	#6	14'-11"	
p21(E)	4	#6	15'-3"	
s20(E)	21	#4	12'-1"	
s21(E)	4	#4	7'-6"	
** sp30	2	#5	38'-6"	
** sp31(E)	2	#5	11'-3"	
u20(E)	6	#5	10'-9"	
v30	11	#9	36'-8"	
v31(E)	11	#9	9'-6"	
v32(E)	11	#9	13'-8"	
Concrete Structures		Cu. Yd.	12.2	
Reinforcement Bars, Epoxy Coated		Pound	1940	
Reinforcement Bars		Pounds	3010	
Drilled Shaft in Soil		Cu. Yd.	26	

Space cap reinforcement to miss anchor bolts.
Minimum lap for spirals = 2'-6"
** Length is height of spiral.

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

\- 200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

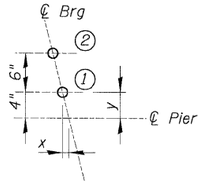
PIER 3 DETAILS
DEERFIELD ROAD BIKE PATH
OVER DES PLAINES
SEC. 04-00038-03-BR
LAKE COUNTY
STATION 4+77.30
STRUCTURE NO.

SHEET NO. S-6 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1257	04-00038-03-BR	LAKE	~~44~~ 40	25
			CONTRACT NO. 63408		
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

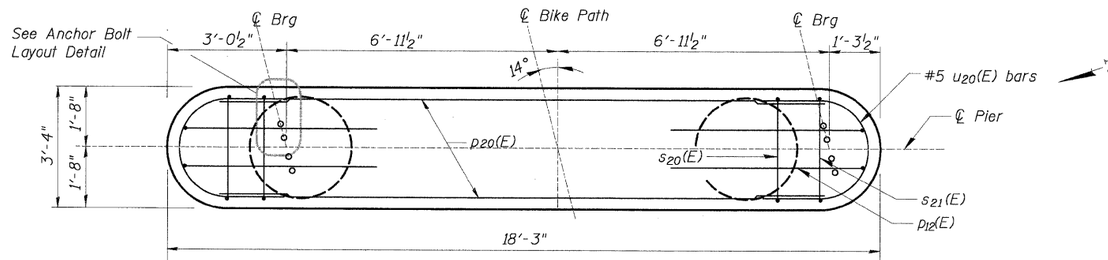
N:\LCDOT\063774\Struct\063774-S6.SHT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

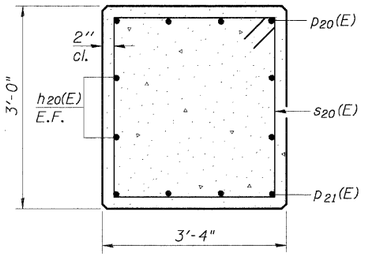
	x	y
1	1"	4"
2	2.5"	10"



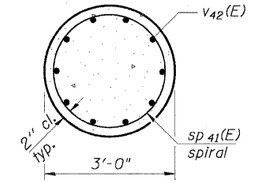
ANCHOR BOLT LAYOUT DETAIL



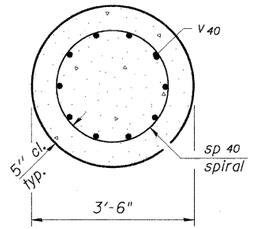
TOP PLAN



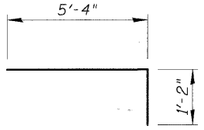
SECTION A-A



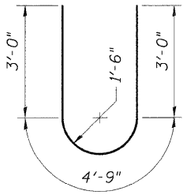
SECTION B-B



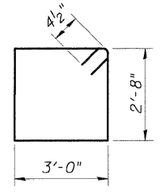
SECTION C-C



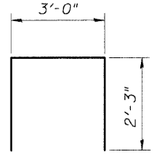
BAR p12(E)



BAR u20(E)



BAR s20(E)

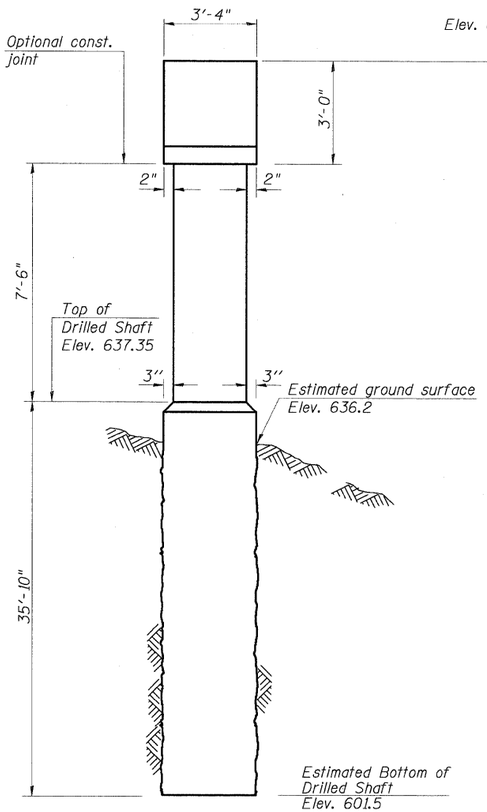


BAR s21(E)

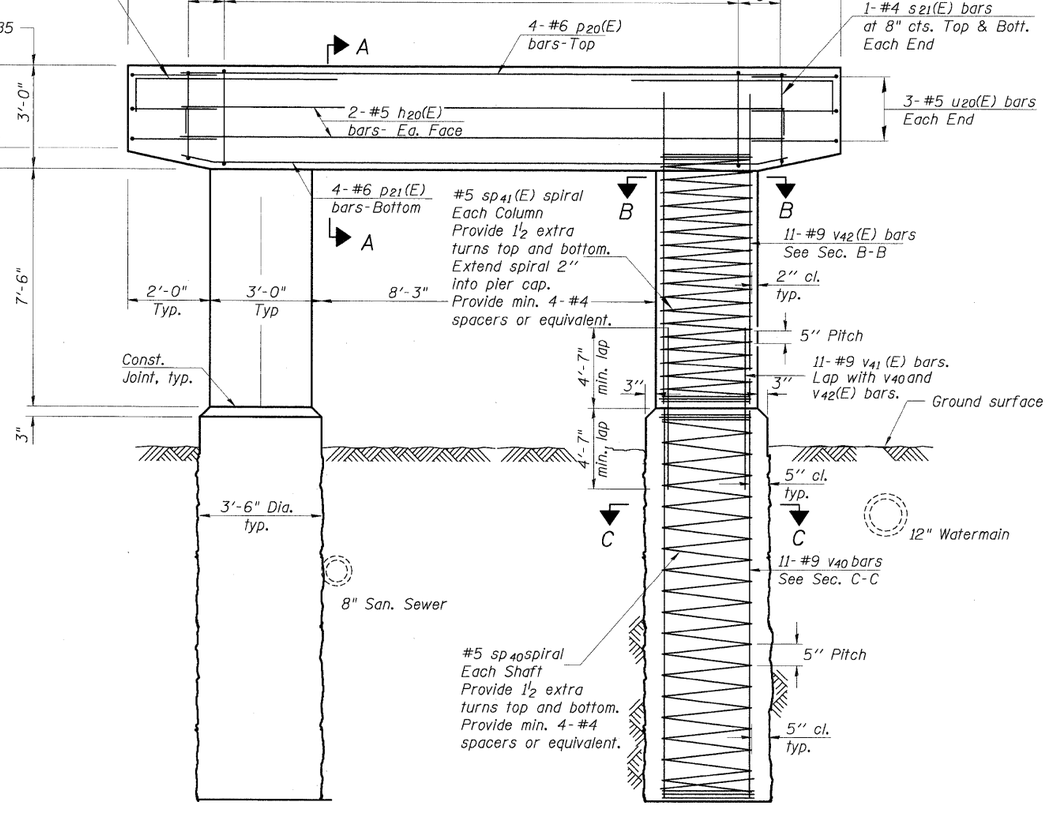
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	4	#5	14'-11"	
p12(E)	4	#7	6'-6"	
p20(E)	4	#6	14'-11"	
p21(E)	4	#6	15'-3"	
s20(E)	21	#4	12'-1"	
s21(E)	4	#4	7'-6"	
** sp40	2	#5	35'-10"	
** sp41(E)	2	#5	7'-9"	
u20(E)	6	#5	10'-9"	
V40	11	#9	35'-10"	
V41(E)	11	#9	9'-6"	
V42(E)	11	#9	10'-2"	
Concrete Structures		Cu. Yd.	10.6	
Reinforcement Bars, Epoxy Coated		Pound	1660	
Reinforcement Bars		Pounds	2870	
Drilled Shaft in Soil		Cu. Yd.	26	

Space cap reinforcement to miss anchor bolts.
Minimum lap for spirals = 2'-6"
** Length is height of spiral.

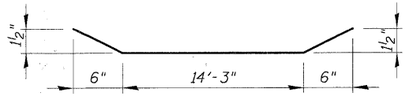


END VIEW



ELEVATION
(Looking East)

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.



BAR p21(E)

DESIGNED -	
CHECKED -	
DRAWN -	
CHECKED -	

\- 200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

PIER 4 DETAILS
DEERFIELD ROAD BIKE PATH
OVER DES PLAINES
SEC. 04-00038-03-BR
LAKE COUNTY
STATION 4+77.30
STRUCTURE NO.

SHEET NO. S-7 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1257	04-00038-03-BR	LAKE	~~44~~ 40	26
			CONTRACT NO. 63408		
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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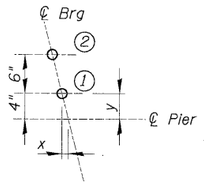
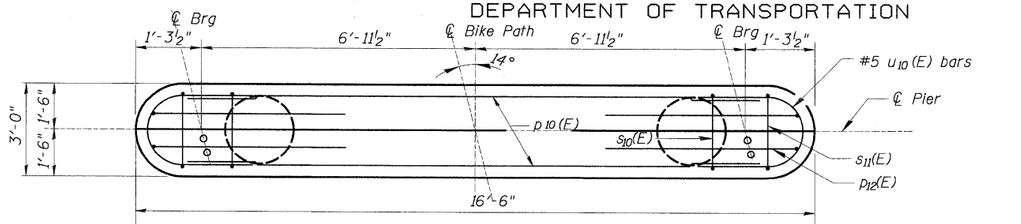
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

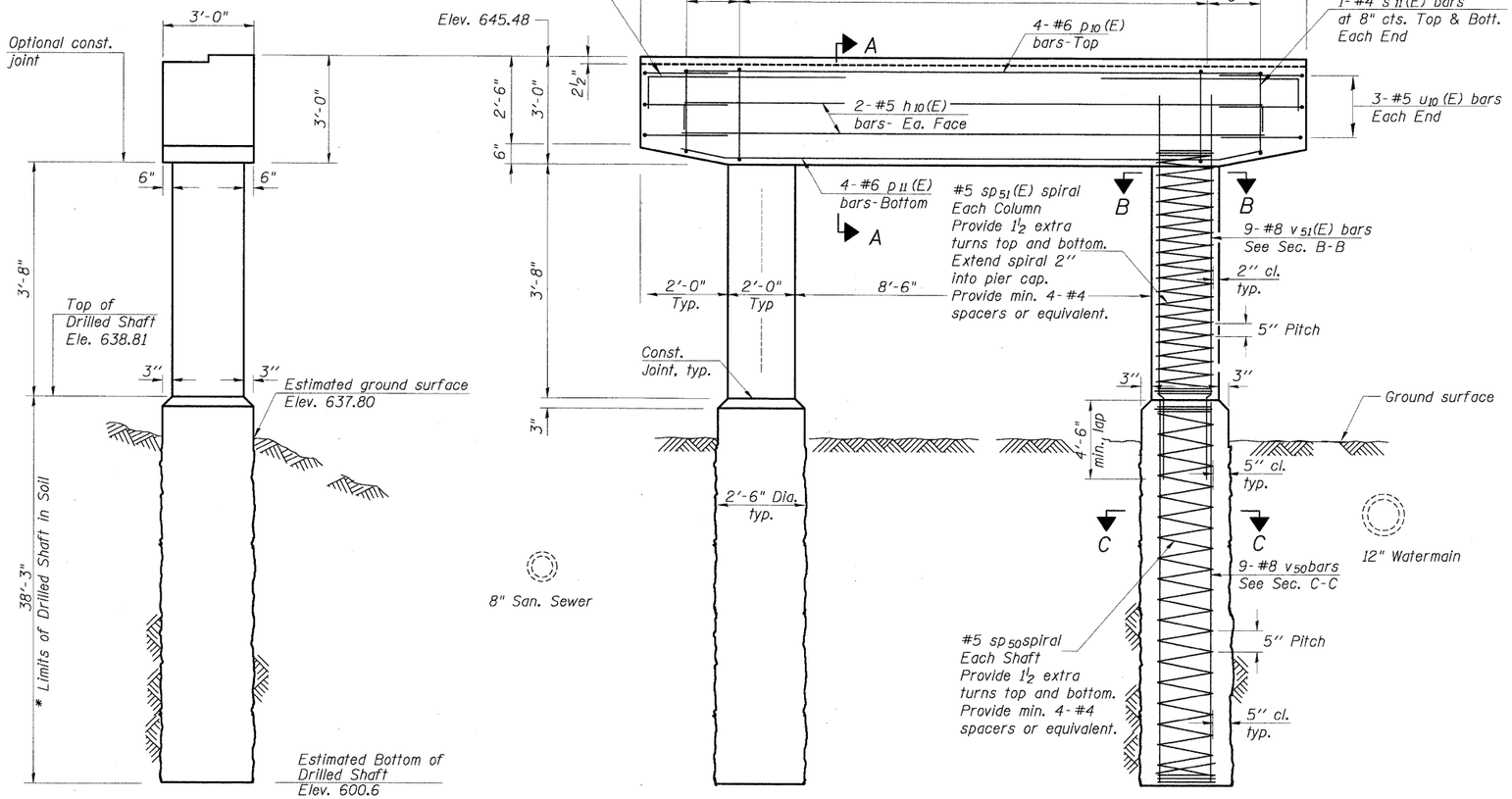
	x	y
1	1"	4"
2	2.5"	10"



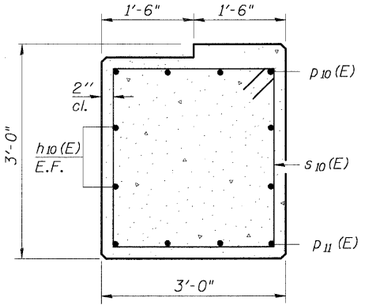
ANCHOR BOLT LAYOUT DETAIL



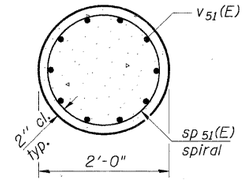
TOP PLAN



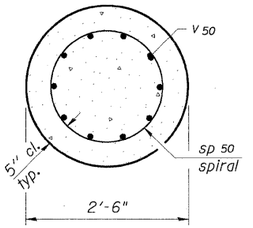
END VIEW



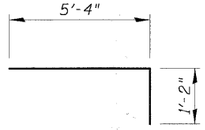
SECTION A-A



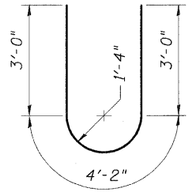
SECTION B-B



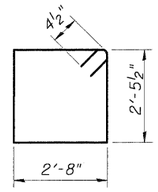
SECTION C-C



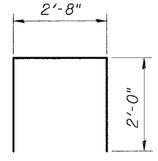
BAR p12(E)



BAR u10(E)



BAR s10(E)



BAR s11(E)

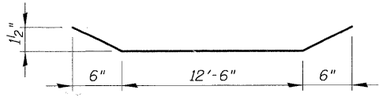
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10(E)	4	#5	13'-6"	
p10(E)	4	#6	13'-6"	
p11(E)	4	#6	13'-6"	
p12(E)	4	#7	13'-6"	
s10(E)	19	#4	10'-11"	
s11(E)	4	#4	6'-8"	
** sp50	2	#5	38'-3"	
** sp51(E)	2	#5	3'-10"	
u10(E)	6	#5	10'-2"	
v50	9	#8	38'-3"	
v51(E)	9	#8	9'-6"	
Concrete Structures			Cu. Yd.	6.2
Reinforcement Bars, Epoxy Coated			Pound	850
Reinforcement Bars			Pounds	1930
Drilled Shaft in Soil			Cu. Yd.	14

Cast steps monolithically with cap.
Space cap reinforcement to miss anchor bolts.
Minimum lap for spirals = 2'-6"
** Length is height of spiral.

ELEVATION
(Looking East)

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.



BAR p11(E)

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

PIER 5 DETAILS
DEERFIELD ROAD BIKE PATH
OVER DES PLAINES
SEC. 04-00038-03-BR
LAKE COUNTY
STATION 4+77.30
STRUCTURE NO.

SHEET NO. S-8 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1257	04-00038-03-BR	LAKE	~~44~~ 40	27
			CONTRACT NO. 63408		
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT Deerfield Road over Des Plaines River, Lake Co., Job No. D-91-521-89
CLIENT Illinois Department of Transportation, Schaumburg, Illinois
BORING 1 DATE STARTED 8-23-91 DATE COMPLETED 8-23-91 JOB L-30,535
ELEVATIONS
GROUND SURFACE 646.3
END OF BORING 591.3
WATER TABLE
▼ WHILE DRILLING 15.5'
▽ AT END OF BORING 32.0'
▼ 24 HOURS
Sta. 21+32, 8' LT

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Q_u	δ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.5	645.8	6 inches Bituminous Pavement
							1.0	645.3	6 inches P.C. Concrete
							1.2	645.1	2 inches Crushed Stone
1	SS		6 6 14	18.1	2.3				FILL - Dark brown CLAY, occasional very sandy layer, trace organic, moist A-6/A-7-6
2	SS		4 5 7	29.4	1.3				
3	SS		7 5 5	20.9	1.9				
							8.0	638.3	Tough black CLAY (Topsoil), moist A-7-6
4	SS		3 4 7	29.6	1.2				
							10.5	635.8	
5	SS		4 4 4	18.2	1.4				Tough to stiff brown CLAY LOAM, occasional sand seams, moist A-6
6	SS		3 2 3	22.4	0.8				
							15.5	630.8	▽
7	SS		6 11 11						Firm brown SAND, some gravel, saturated A-1-b
8	SS		7 9 11				20.5	625.8	
9	SS		9 9 14						Firm gray fine SAND, saturated A-3
10	SS		12 20 16						
11	SS		12 12 16						
12	SS		6 10 15						
13	SS		5 10 18				33.0	613.3	▽
14	SS		11 15 27	11.0	4.7				Very tough gray CLAY, occasional sand seam or very silty layer, damp to moist A-6
15	SS		10 12 17	17.5	4.2				
16	SS		8 16 22	18.6	3.2				

DISTANCE BELOW SURFACE IN FEET

PROJECT Deerfield Road over Des Plaines River, Lake Co., Job No. D-91-521-89
CLIENT Illinois Department of Transportation, Schaumburg, Illinois
BORING 1 DATE STARTED 8-23-91 DATE COMPLETED 8-23-91 JOB L-30,535
ELEVATIONS
GROUND SURFACE 646.3
END OF BORING 591.3
WATER TABLE
▼ WHILE DRILLING 15.5'
▽ AT END OF BORING 32.0'
▼ 24 HOURS
Sta. 21+32, 8' LT

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Q_u	δ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
17	SS		10 12 17	24.4	2.4				Very tough gray CLAY, trace gravel, moist A-6
18	SS		10 11 16	20.2	3.1				
19	SS		8 10 13	16.5	3.1				
20	SS		9 9 13	16.8	2.4				
21	SS		10 18 18	16.7	2.6				
22	SS		7 12 16	16.2	2.6				End of Boring at 55.0 feet
									* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

PROJECT Deerfield Road over Des Plaines River, Lake Co., Job No. D-91-521-89
CLIENT Illinois Department of Transportation, Schaumburg, Illinois
BORING 2 DATE STARTED 8-22-91 DATE COMPLETED 8-22-91 JOB L-30,535
ELEVATIONS
GROUND SURFACE 646.1
END OF BORING 571.1
WATER TABLE
▼ WHILE DRILLING 15.0'
▽ AT END OF BORING 15.0'
▼ 24 HOURS
Sta. 21+94, 10' RT

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Q_u	δ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	C						1.1	645.0	2.0 inches Bituminous Pavement 10.75 inches P.C. Concrete
									Air Void
							14.5	631.6	▽
2	SS		2 3 3	37.9	0.5*				Soft dark gray SANDY LOAM, wet A-6
3	SS		8 7 8				18.0	628.1	Firm gray SANDY LOAM, occasional silt seams, wet A-2-4
4	SS		5 6 9				20.5	625.6	Firm gray fine SAND, saturated A-3
5	SS		7 8 9						
6	SS		7 10 13	13.2	1.2				
7	SS		6 7 12	13.4	1.6				
8	SS		7 14 25	13.0	4.4		25.5	620.6	Tough gray CLAY LOAM, moist A-6
9	SS		14 15 22	13.8	4.3		30.5	615.6	Hard gray CLAY LOAM, moist A-6
10	SS		13 17 23	21.1	4.0				
11	SS		7 12 16	21.2	2.5		35.5	610.6	Hard to very tough gray CLAY, moist A-6

DISTANCE BELOW SURFACE IN FEET

PROJECT Deerfield Road over Des Plaines River, Lake Co., Job No. D-91-521-89
CLIENT Illinois Department of Transportation, Schaumburg, Illinois
BORING 2 DATE STARTED 8-22-91 DATE COMPLETED 8-22-91 JOB L-30,535
ELEVATIONS
GROUND SURFACE 646.1
END OF BORING 571.1
WATER TABLE
▼ WHILE DRILLING 15.0'
▽ AT END OF BORING 15.0'
▼ 24 HOURS
Sta. 21+94, 10' RT

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Q_u	δ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
12	SS		14 15 15	22.3	2.2				Very tough gray CLAY, moist A-6
13	SS		13 14 15	19.4	2.0				
14	SS		9 10 10	18.7	0.7		45.5	600.6	Stiff gray SILTY LOAM, very moist A-4/A-6
15	SS		9 11 13	29.3	0.9				
16	SS		6 11 14	16.4	1.8		50.5	595.6	
17	SS		7 12 14	16.3	2.0				Tough to very tough gray CLAY, trace gravel, moist A-6
18	SS		7 11 15	16.1	1.9				
19	SS		7 12 15	15.1	1.8				
20	SS		8 11 14	15.5	1.8				
21	SS		7 12 13	16.2	1.7				
22	SS		7 11 13	14.9	2.0				
23	SS		9 12 13	15.5	2.0				
24	SS		8 10 12	13.0	1.9				
25	SS		7 9 12	25.1	2.0				End of Boring at 75.0 feet
									* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

PROJECT Deerfield Road over Des Plaines River, Lake Co., Job No. D-91-521-89
CLIENT Illinois Department of Transportation, Schaumburg, Illinois
BORING 3 DATE STARTED 8-22-91 DATE COMPLETED 8-22-91 JOB L-30,535
ELEVATIONS
GROUND SURFACE 646.2
END OF BORING 573.7
WATER TABLE
▼ WHILE DRILLING 15.0'
▽ AT END OF BORING 15.0'
▼ 24 HOURS
Sta. 22+86, 9' LT

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Q_u	δ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	C						1.1	645.1	2.0 inches Bituminous Pavement 10.5 inches P.C. Concrete
									Air Void
							15.0	631.2	▽
							16.0	630.2	Water (River)
2	SS		7 13 8	22.2	0.76*				Firm gray layers of SILTY LOAM and SAND, saturated A-2/A-4
							18.0	628.2	
3	SS		6 6 7						Firm gray fine SAND, saturated A-3
4	SS		10 15 19				20.5	625.7	
5	SS		24 21 26						Dense gray SAND and GRAVEL, saturated A-1-a
							25.5	620.7	
6	SS		13 16 13	16.2	0.7				Firm gray SILTY LOAM, moist to very moist A-4
7	SS		11 12 14	16.1	0.6				
8	SS		31 35 37	10.9	4.3		31.0	615.2	(4" Boulder @ 31 feet)
9	SS		21 26 22	15.8	5.4				Hard gray CLAY, trace gravel, damp A-6
10	SS		13 20 23	15.1	4.8				
							38.0	608.2	
11	SS		4 9 13	22.0	2.4				Very tough gray CLAY, moist A-6

DISTANCE BELOW SURFACE IN FEET

PROJECT Deerfield Road over Des Plaines River, Lake Co., Job No. D-91-521-89
CLIENT Illinois Department of Transportation, Schaumburg, Illinois
BORING 3 DATE STARTED 8-22-91 DATE COMPLETED 8-22-91 JOB L-30,535
ELEVATIONS
GROUND SURFACE 646.2
END OF BORING 573.7
WATER TABLE
▼ WHILE DRILLING 15.0'
▽ AT END OF BORING 15.0'
▼ 24 HOURS
Sta. 22+86, 9' LT

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Q_u	δ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
12	SS		5 10 14	18.4	2.5				Very tough gray CLAY, moist A-6
A 13 B	SS		6 16 19	18.7 16.6	2.3 -		44.5	601.7	Dense gray SILTY LOAM, moist A-4
							45.5	600.7	
14	SS		6 8 10	18.0	2.2				Very tough gray CLAY, trace silt seams, moist A-6
15	SS		6 7 13	26.6	1.4		48.0	598.2	Tough gray CLAY LOAM, occasional silt and sand seams, moist A-6
16	SS		5 10 13	17.2	1.6				
							53.0	593.2	
17	SS		6 8 12	14.7	2.5				Very tough gray CLAY, trace gravel, moist A-6
18	SS		8 15 15	16.2	2.4				
19	SS		8 12 14	15.9	2.1				
20	SS		8 12 17	13.7	2.2				
21	SS		12 18 24	14.1	3.2		53.0	593.2	
22	SS		16 18 26	14.9	3.2				Very tough to hard gray CLAY, trace silt seams, trace gravel, moist to damp A-6
23	SS		8 14 19	11.4	2.6				
24	SS		12 16 27	18.4	4.0				
									End of Boring at 72.5 feet
									* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

DESIGNED -	
CHECKED -	
DRAWN -	
CHECKED -	

\- 200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

N:\LCDOT\86377A\Struct\86377A-S9.SHT

SOIL BRING LOGS
DEERFIELD ROAD BIKE PATH
OVER DES PLAINES
SEC. 04-00038-03-BR
LAKE COUNTY
STATION 4+77.30
STRUCTURE NO.

SHEET NO. S-9 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1257	04-00038-03-BR	LAKE	~~44~~ 40	28
			CONTRACT NO. 63408		
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT Deerfield Road over Des Plaines River, Lake Co., Job No. D-91-521-89
CLIENT Illinois Department of Transportation, Schaumburg, Illinois
BORING 4 DATE STARTED 8-23-91 DATE COMPLETED 8-23-91 JOB L - 30,535
ELEVATIONS
GROUND SURFACE 645.9
END OF BORING 595.9
Sta. 23+45, 12' RT
WATER TABLE
▼ WHILE DRILLING 5.0'
▽ AT END OF BORING 45.5'
▼ 24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Q_u	δ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.0	645.9	FILL - SAND and GRAVEL
1	SS		5 5 6	16.1	2.5*		0.8	645.1	FILL - Brown and gray SANDY LOAM, trace gravel, moist A-6
2	SS		6 8 10	13.5	1.25*		3.0	642.9	FILL - Brown SANDY LOAM, moist A-2-4
3	SS		2 2 3				5.5	640.4	FILL - Brown SAND, wet A-1-b
4	SS		1 3 4	23.9	0.75*		8.0	637.9	FILL - Brown SANDY LOAM, very moist A-4
5	SS		4 6 9	33.6	1.75*		10.5	635.4	Tough dark gray CLAY, trace organic, moist A-7-6
6	SS		5 6 10	32.7	1.0		15.5	630.4	Firm gray fine SANDY LOAM, saturated A-2-4
7	SS		6 8 14				18.0	627.9	Firm gray fine SAND, saturated A-3
8	SS		6 9 13				20.0	625.9	Dense gray SAND, little gravel, saturated A-1-b
9	SS		7 15 20						
10	SS		10 13 22				25.5	620.4	Dense gray SAND, saturated A-1-b
11	SS		13 16 18				28.0	617.9	Tough gray CLAY LOAM, trace gravel, moist A-4
12	SS		7 9 11	13.3	1.2		30.5	615.4	Very tough gray CLAY LOAM, trace gravel, moist A-6
13	SS		8 12 15	12.3	3.2		33.0	612.9	Hard to very tough gray CLAY, damp to moist A-6
14	SS		7 13 21	14.6	6.2				
15	SS		10 15 19	20.1	3.7				
16	SS		12 16 18	23.1	2.4				

DRILL RIG NO. 91
Page 1 of 2

PROJECT Deerfield Road over Des Plaines River, Lake Co., Job No. D-91-521-89
CLIENT Illinois Department of Transportation, Schaumburg, Illinois
BORING 4 DATE STARTED 8-23-91 DATE COMPLETED 8-23-91 JOB L - 30,535
ELEVATIONS
GROUND SURFACE 645.9
END OF BORING 595.9
Sta. 23+45, 12' RT
WATER TABLE
▼ WHILE DRILLING 5.0'
▽ AT END OF BORING 45.5'
▼ 24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Q_u	δ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
17	SS		17 22 25	21.4	2.3				Very tough gray CLAY, moist A-6
18	SS		13 15 19	18.0	2.6		45.5	600.4	▽
19	SS		11 12 12	14.2	2.1				Very tough gray CLAY LOAM, moist A-6
20	SS		10 12 13	15.8	3.4				End of Boring at 50.0 feet
									* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. 91
Page 2 of 2

PROJECT Deerfield Road over Des Plaines River, Lake Co., Job No. D-91-521-89
CLIENT Illinois Department of Transportation, Schaumburg, Illinois
BORING 5 DATE STARTED 8-20-91 DATE COMPLETED 8-20-91 JOB L - 30,535
ELEVATIONS
GROUND SURFACE 646.1
END OF BORING 596.1
Sta. 23+93, 9' LT
WATER TABLE
▼ WHILE DRILLING 15.5'
▽ AT END OF BORING 48.0'
▼ 24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Q_u	δ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.9	645.2	11 inches Bituminous Pavement
							1.5	644.6	7 inches P.C. Concrete
							3.0	643.1	FILL - SAND and GRAVEL, damp A-1-a
1	SS		10 7 7						FILL - Dark gray and brown SANDY LOAM, very moist A-6
2	SS		4 4 4	24.1	0.8				
3	SS		4 4 5	20.2	0.9 2.0*		5.5	640.6	FILL - Brown SANDY LOAM, moist A-6
4	SS		4 4 5	18.9	0.9				
5	SS		5 6 8	38.0	1.0		10.5	635.6	Tough dark gray and black CLAY, moist A-7-6
6	SS		5 6 7	22.5	1.9				▽
7	SS		16 11 12				15.5	630.6	Firm brown SAND, saturated A-1-b
8	SS		9 10 10				18.0	628.1	Firm gray SAND, saturated A-1-b
9	SS		9 11 13						
10	SS		10 23 26				23.0	623.1	Dense gray SAND, saturated A-1-b
11	SS		17 24 28						
12	SS		45 15 25				30.5	615.6	Hard gray CLAY LOAM, occasional silt seams, damp A-6
13	SS		51 28 31	15.1	4.5+* Broken Sample		33.0	613.1	Hard gray CLAY, trace gravel, damp A-6
14	SS		36 24 34	13.1	7.5		35.5	610.6	Hard gray CLAY, moist A-6/A-7-6
15	SS		10 31 26	22.2	5.3		38.0	608.1	Very tough gray CLAY LOAM, trace gravel, moist A-6
16	SS		11 17 18	13.1	3.1				

DRILL RIG NO. 91
Page 1 of 2

PROJECT Deerfield Road over Des Plaines River, Lake Co., Job No. D-91-521-89
CLIENT Illinois Department of Transportation, Schaumburg, Illinois
BORING 5 DATE STARTED 8-20-91 DATE COMPLETED 8-20-91 JOB L - 30,535
ELEVATIONS
GROUND SURFACE 646.1
END OF BORING 596.1
Sta. 23+93, 9' LT
WATER TABLE
▼ WHILE DRILLING 15.5'
▽ AT END OF BORING 48.0'
▼ 24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Q_u	δ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
17	SS		21 39 29	14.1	4.6				Hard gray CLAY, trace gravel, moist A-6
18	SS		31 41 29	15.8	3.0		43.0	603.1	Very tough to hard gray CLAY, occasional sand or gravel seam, moist A-6
19	SS		15 17 22	15.8	4.9				▽
20	SS		6 10 16	25.6	4.2		48.0	598.1	Hard gray CLAY, moist A-6/A-7-6
									End of Boring at 50.0 feet
									* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. 91
Page 2 of 2

ECS ILLINOIS, LLC BORINGS

ROUTE _____ DESCRIPTION Deerfield Road Bike Path LOGGED BY LAS
SECTION _____ LOCATION Deerfield Road and Des Plaines River
COUNTY Lake DRILLING METHOD CFA HAMMER TYPE CME-75
STRUCT. NO. _____
Station _____
BORING NO. B-103
Station _____
Offset _____
Ground Surface Elev. 638.7 ft.
Surface Water Elev. _____ ft.
Stream Bed Elev. _____ ft.
Groundwater Elev.
First Encounter 8' ft.
Upon Completion 5.8' ft.
After _____ Hrs. 15.3' ft.

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Topsoil Depth 8" 638.70				(continued)			
637.50	2 2 1						
Gravel FILL, Reddish Brown to Dark Brown					7 10 12	4.25	19.4
	2 2 2			608.70			
633.20				Silty CLAY, Gray, Very Stiff to Hard			
Buried TOPSOIL, Black	1 1 1		42.2				
629.20	0 0 1		33.5		8 12 15	4.0	22.6
Sandy LOAM, Brown, Wet, Very Loose to Loose				601.70			
	2 3 3			Silty LOAM, Gray, Wet, Dense			
					21 21 23		
620.70							
Silty LOAM, Gray, Wet, Medium Dense	8 9 9		18.8		24 20 13		16.2
616.70				591.70			
Silty CLAY, Gray, Very Stiff to Hard 588.70				Silty CLAY, Gray, Very Stiff			
END OF BORING @ 50'	4 14 16	3.25	14.4		8 9 11	3.0	22.0

ECS ILLINOIS, LLC BORINGS

ROUTE _____ DESCRIPTION Deerfield Road Bike Path LOGGED BY LAS
SECTION _____ LOCATION Deerfield Road and Des Plaines River
COUNTY Lake DRILLING METHOD CFA HAMMER TYPE CME-75
STRUCT. NO. _____
Station _____
BORING NO. B-104
Station _____
Offset _____
Ground Surface Elev. 639.7 ft.
Surface Water Elev. _____ ft.
Stream Bed Elev. _____ ft.
Groundwater Elev.
First Encounter 10.5' ft.
Upon Completion 7.4' ft.
After _____ Hrs. 35.6' ft.

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Silty Clay FILL, Brown and Black 639.70				(continued)			
638.70	3 6 9	4.5+	20.2				
Silty CLAY, Brown, Hard					10 14 21	4.5+	13.4
	4 5 3	4.5+	15.2	609.70			
634.20				Silty CLAY, Gray, Very Stiff to Hard			
Fine to Medium SAND, Brown to Wet, Medium Dense 589.70	3 3 7						
END OF BORING @ 50'					11 18 26	2.5	12.7
	8 9 10						
	3 7 11				7 10 12	2.25	18.6
	7 9 11				6 8 11	2.0	21.7
615.70							
Silty CLAY, Gray, Very Stiff to Hard	5 6 8	2.5	14.0		6 7 9	2.0	16.1

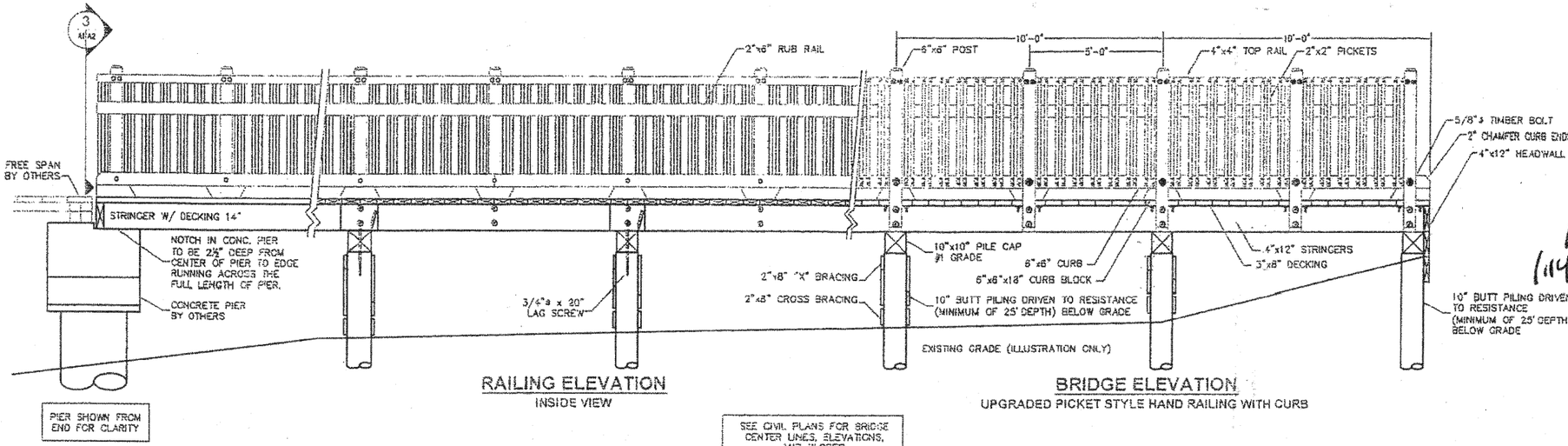
DESIGNED -
CHECKED -
DRAWN -
CHECKED -

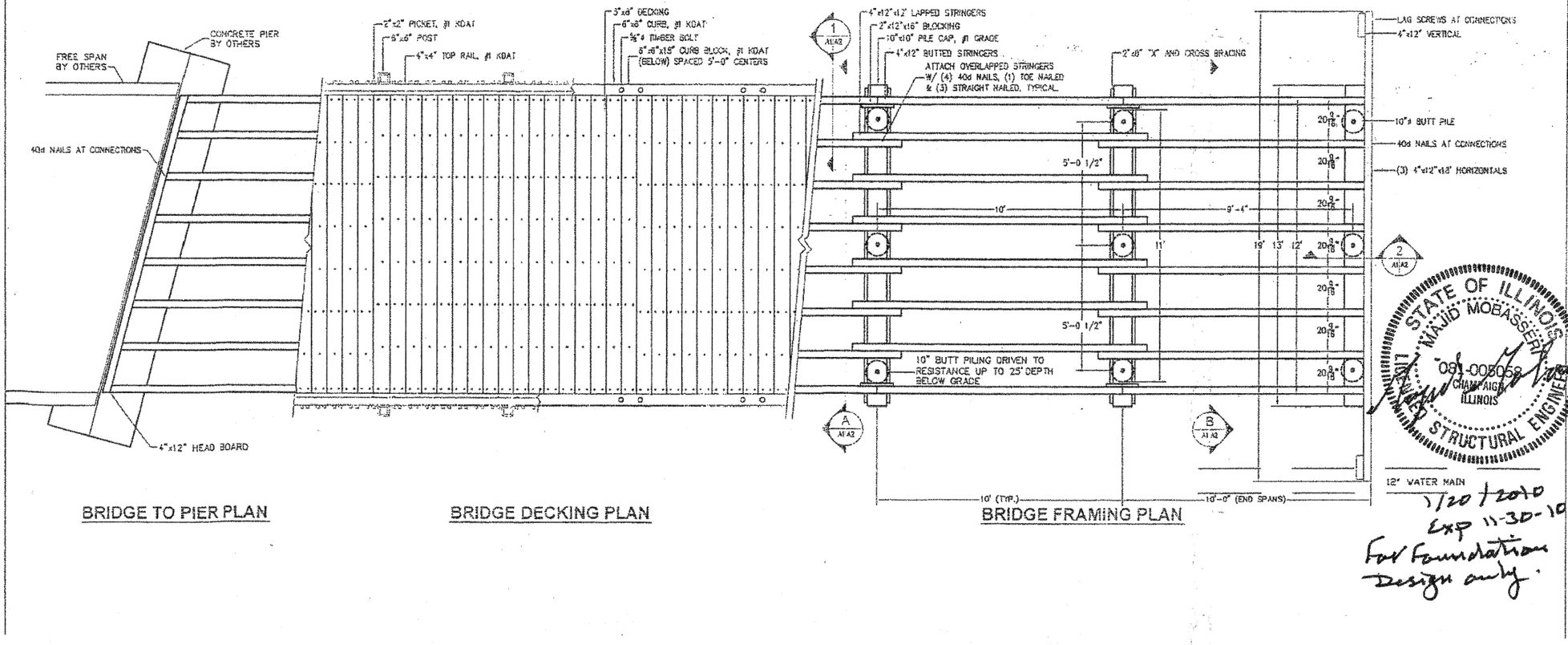
200
EXAMINED
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

SOIL BRING LOGS
DEERFIELD ROAD BIKE PATH
OVER DES PLAINES
SEC. 04-00038-03-BR
LAKE COUNTY
STATION 4+77.30
STRUCTURE NO.

SHEET NO. S-10 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1257	04-00038-03-BR	LAKE	~~44~~ 40	29
			CONTRACT NO. 63408		
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

N:\LCDOT\86377A\Struct\86377A-SI&.SHT





BRIDGE TO PIER PLAN

BRIDGE DECKING PLAN

BRIDGE FRAMING PLAN

date	ISSUE

REVISION	
no.	date

RAYMOND L. ENAFIELD
REGISTERED
01-7585
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
1/14/10
EXPIRES
NOV 30 2010

DEERFIELD ROAD BIKE PATH
TEN TON BOARDWALK
LAKE COUNTY
ILLINOIS

DFI BRIDGE CORPORATION
25055 BISCAYNE ST. N.E. #4
PALM BAY, FL 32905
Phone: (866) 727-7100
Fax: (321) 728-7100
Web: www.dfi-gc.com

STATE OF ILLINOIS
MAJID MOBASSERI
081-005058
CHAMPAIGN
ILLINOIS
STRUCTURAL ENGINEER

1/20/2010
Exp 11-30-10
For Foundation Design only.

scale:	as shown
drawn:	C. THOMAS
checked:	D. HUGHES
approved:	D. HUGHES
date:	11-02-09
job no.:	98109

PLAN & ELEVATION

SHEET NO.
A
1

FILE NAME = N:\LCDOT\06377A\Civil\BOARDWALK_06377A_01.SHT	USER NAME = PMAGNELLI	DESIGNED - BLL	REVISED -
		DRAWN - PMM	REVISED -
	PLOT SCALE =	CHECKED - JGS	REVISED -
	PLOT DATE = 1/20/2010	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
BOARDWALK

SCALE: NONE | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	40	30
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES:

1. OWNER IS DEFINED AS THE LAKE COUNTY DIVISION OF TRANSPORTATION.
2. BRIDGE SHALL BE DESIGNED FOR A MINIMUM 12,000 LB. (6) TON VEHICLE LOAD, WHICH INCLUDES IMPACT LOADING.
3. BRIDGE CONTRACTOR WILL PERFORM ALL WORK FROM DECK LEVEL. ALL FOOT TRAFFIC WILL BE CONTAINED WITHIN FIVE FEET FROM BOARDWALK PATH.

CONSTRUCTION NOTES:

4. ALL BRIDGE MATERIALS AND CONSTRUCTION SHALL BE MARINE GRADE.

TIMBER PILES: UNLESS OTHERWISE SPECIFIED,

5. TIMBER PILES SHALL BE SOUTHERN YELLOW PINE, CONFORMING TO ASTM STANDARD D-25 (LATEST EDITION) FOR QUALITY. SPECIFICATION FOR SIZE SHALL BE 1" TAPER IN 10 LINEAR FEET.
6. ALL PILING SHALL BE PRESSURE IMPREGNATED (TO A MINIMUM OF .30 POUND PER CUBIC FOOT NET RETENTION OF CCA), AWPA STANDARDS C1-90, C3-90, C14-90 AND C18-90 WHERE APPLICABLE.
7. HAND AUGURING AND JETTING ARE NOT APPROVED PILE INSTALLATION METHODS.
8. PILES ARE REQUIRED TO BE DRIVEN TO REFUSAL.
9. UPON ENCOUNTERING DENSE SOIL OR OTHER SIMILAR SOIL CONDITIONS THAT PREVENT DRIVING PILING, MECHANICAL AUGURING MAY BE UTILIZED TO ASSIST PILE DRIVING EQUIPMENT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE USE OF THE AUGURING METHOD TO DRIVE PILES. CONTRACTOR TO REFER TO GEOTECHNICAL INVESTIGATION REPORT, TO ASSIST IN DETERMINING WHETHER THE AUGURING METHOD MAY BE REQUIRED.
10. IF PROPER BEARING CAPACITY IS NOT MET AT PILE DEPTH AS SHOWN ON THE PLANS, PILINGS SHALL BE SPLICED AND DRIVEN UNTIL PROPER BEARING IS ACHIEVED. ALL STANDARD SPLICES MUST PROVIDE ENGINEERS CALCULATIONS SEALED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF ILLINOIS. CONTRACTOR TO REFER TO GEOTECHNICAL INVESTIGATION REPORT, TO ASSIST IN DETERMINING THE PROPER DEPTH OF PILINGS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DRIVING AND INSTALLING PILES DEEPER THAN MAY BE SHOWN ON THE DRAWINGS.

SAWN LUMBER: UNLESS OTHERWISE SPECIFIED,

11. ALL SAWN LUMBER SHALL BE SOUTHERN YELLOW PINE AND GRADED UNDER THE SOUTHERN PINE INSPECTION BUREAU (SPIB) RULES.
12. ALL SAWN LUMBER SHALL BE GRADE No. 2 OR BETTER, S4S (SURFACE FOUR SIDES).
13. ALL SAWN LUMBER SHALL BE PRESSURE TREATED TO A MINIMUM .50 POUNDS PER CUBIC FOOT NET RETENTION OF CCA (TYPE C), IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) STANDARD P5-90 AND A2-88. ALL LUMBER AND TIMBERS SHALL BE PRESSURE IMPREGNATED UNDER AWPA STANDARDS C1-90, C2-90, C14-90 AND C18-90 WHERE APPLICABLE.
14. WHERE LUMBER IS SPECIFIED K.D.A.T., K.D.A.T. SHALL BE DEFINED AS KILN DRIED AFTER TREATMENT TO A 19% OR LESS MOISTURE CONTENT.
15. SPLICES OF STRUCTURAL MEMBERS MAY ONLY BE MADE OVER SUPPORTS. SPLICES BETWEEN SUPPORTS ARE PROHIBITED UNLESS OTHERWISE APPROVED BY THE ENGINEER. USE ONLY LONGEST LENGTHS OF MATERIALS AND JOIN ONLY WHERE SOLID FASTENING CAN BE MADE.
16. ALL OUTSIDE STRINGER SPLICES SHALL BE MADE WITH A 2"x12"x18" SCAB, WITH (2) 16d NAILS EACH END SIDE OF JOINT.
17. EXPOSED CORNERS SHALL BE BEVELED/ROUTERED AND SANDED TO REMOVE SPLINTERS/SHARP EDGES.

HARDWARE: UNLESS OTHERWISE SPECIFIED,

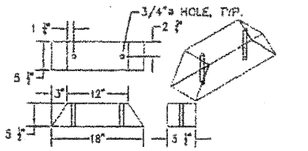
18. ALL HARDWARE SHALL BE ASTM A307 STEEL, ALL ASSOCIATED WASHERS AND NUTS, HOT DIPPED GALVANIZED PER A.A.S.H.T.O. SPECIFICATION M-232. AFTER FABRICATION, ALL STEEL SHAPES SHALL BE HOT DIPPED GALVANIZED PER A.A.S.H.T.O. SPECIFICATION M-111. ALL WELDING TO BE PER A.W.S. SPECIFICATIONS.

DECKING

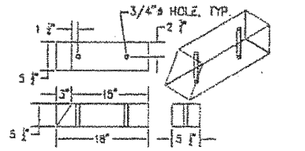
19. DECKING SHALL BE BUTTED TIGHTLY BOARD TO BOARD TO ALLOW FOR BOARD SHRINKAGE AFTER DECK CONSTRUCTION.
20. DECKING TO BE ATTACHED WITH 305 STAINLESS STEEL OR BETTER SCREW RECESSED ¼" BELOW DECK SURFACE.
21. NO SPLICES SHALL BE ALLOWED FOR BRIDGE DECKING

GEOTEXTIL

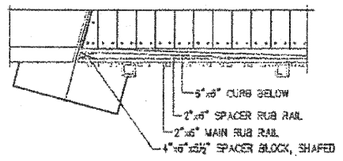
22. ABUTMENTS WILL USE MIRAFIL 140NC NEEDLE PUNCHED, NON-WOVEN GEOTEXTIL OR EQUAL.



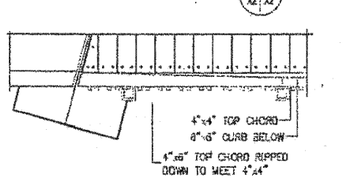
6"x6"x18" CURB BLOCK DETAIL



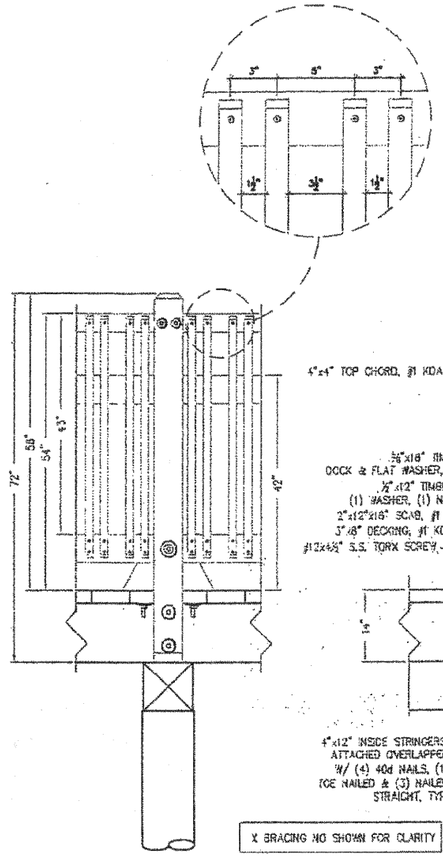
6"x6"x18" END BLOCK DETAIL



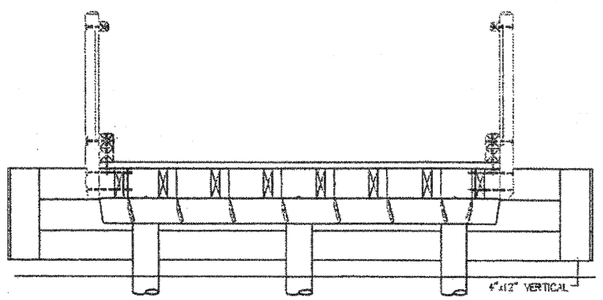
TOP CHORD DETAIL 5 (A2 | A2)



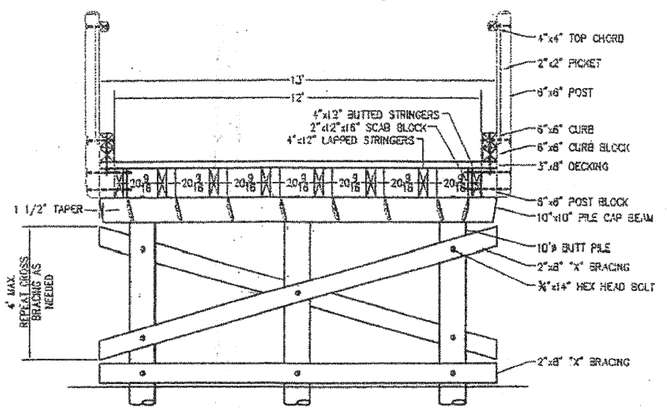
TOP CHORD DETAIL 4 (A2 | A2)



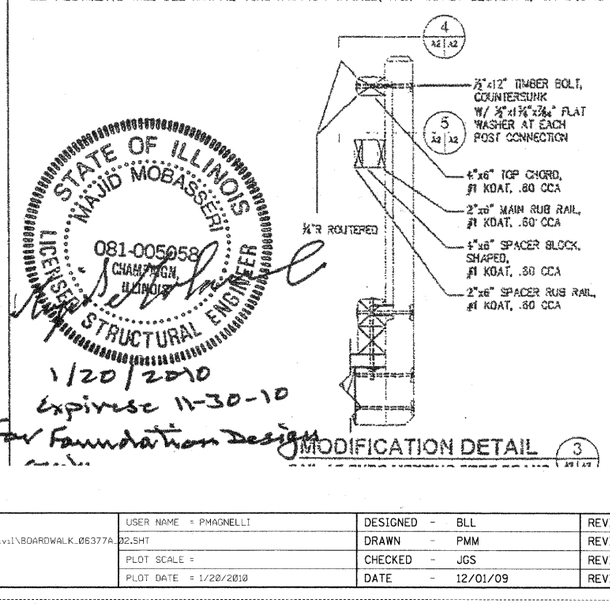
RAILING DETAIL 1 (A2 | A2)
UPGRADED PICKET STYLE HAND RAILING WITH CURB



PILE SUPPORT SECTION B (A1 | A2)



PILE SUPPORT SECTION A (A1 | A2)



MODIFICATION DETAIL 3 (A1 | A2)

STATE OF ILLINOIS
MAJID MOBASSERI
081-005058
CHAMPAIGN, ILLINOIS
LICENSED STRUCTURAL ENGINEER
1/20/2010
Expires 11-30-10
For Foundation Design

date	ISSUE

REVISION	
no.	date

RAYMOND L. ENFIELD
REGISTERED
No. 01-7585
STATE OF ILLINOIS
ARCHITECT
1/14/10
EXPIRES NOV 30 2010

DEERFIELD ROAD BIKE PATH
TEN TON BOARDWALK
LAKE COUNTY
ILLINOIS

DFI BRIDGE CORPORATION

5055 BABCOCK ST. N.E. #4
PALM BAY, FL 32905
Phone: (866) 727-7100
Fax: (321) 728-7100
Web: www.dfi-gc.com

scale:	as shown
drawn:	C. THOMAS
checked:	D. HUGHES
approved:	D. HUGHES
date:	11-02-09
job no.:	98109

SECTIONS & DETAILS, NOTES

SHEET NO.
A
2

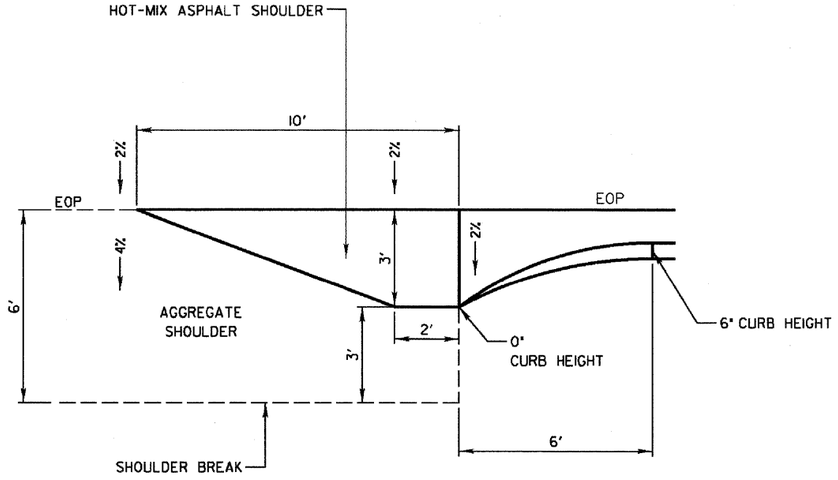
FILE NAME = N:\LCDOT\86377A\Civil\BOARDWALK_86377A_02.SHT	USER NAME = PMAGNELLI	DESIGNED - BLL	REVISED -
		DRAWN - PMM	REVISED -
	PLOT SCALE =	CHECKED - JGS	REVISED -
	PLOT DATE = 1/22/2010	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKE PATH
BOARDWALK

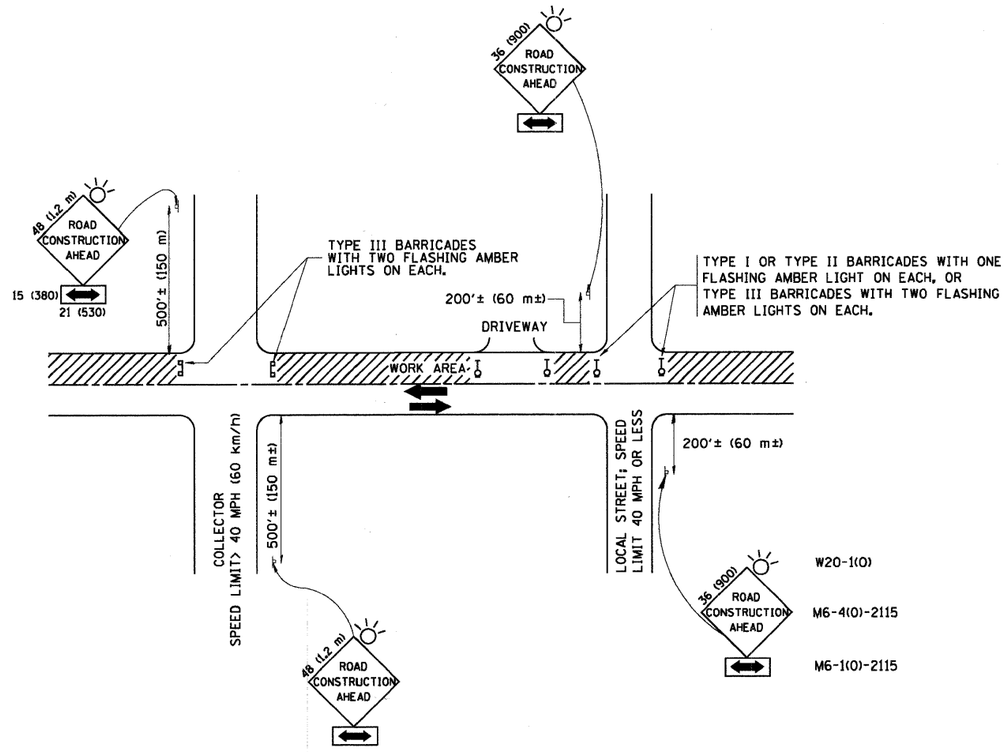
SCALE: NONE | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	40	31
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TRANSITION FROM AGGREGATE SHOULDER TO B-6.12

WITNESS POST



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.

DISTRICT 1 - STANDARD TC-10

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

FILE NAME = N:\LCDOT\06377A\Civil\DET_06377A_01.SHT	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -
		DRAWN - PMM	REVISED -
	PLOT SCALE = NONE	CHECKED - JGS	REVISED -
	PLOT DATE = 12/9/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

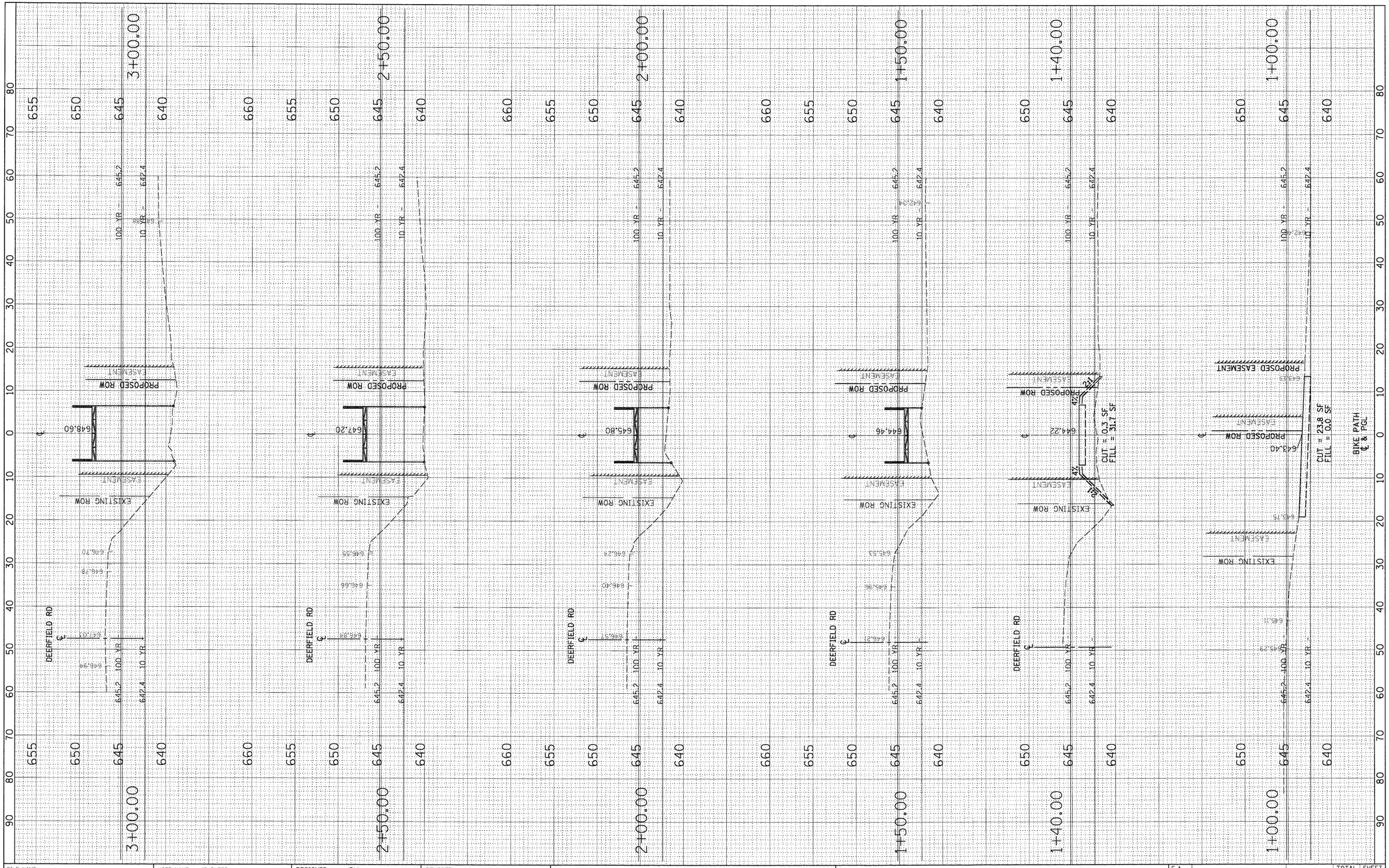
DEERFIELD ROAD BIKE PATH
CONSTRUCTION DETAILS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	40	32
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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

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



FILE NAME =	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -
N:\LCDOT\06377A\Civil\XS_06377A.SHT		DRAWN - PMM	REVISED -
	PLOT SCALE = 10'	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

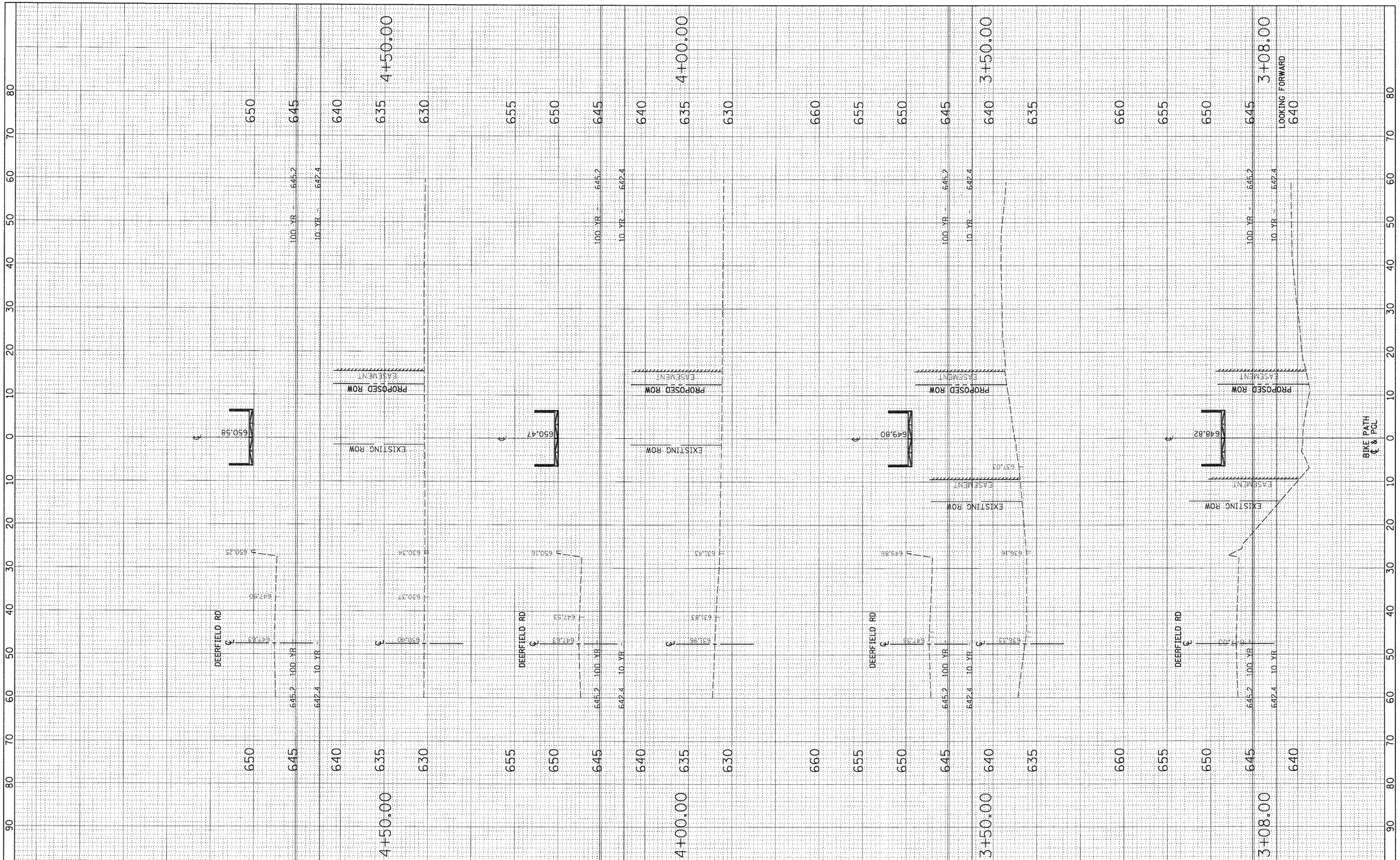
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKEPATH
CROSS SECTIONS

SCALE: 10H+10V | SHEET NO. 1 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~44~~ 40	~~3733~~
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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



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

FILE NAME = N:\LCDOT\06377A\Civil\XS_06377A.SHT	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -
		DRAWN - PMM	REVISED -
	PLOT SCALE = 10'	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKEPATH
CROSS SECTIONS

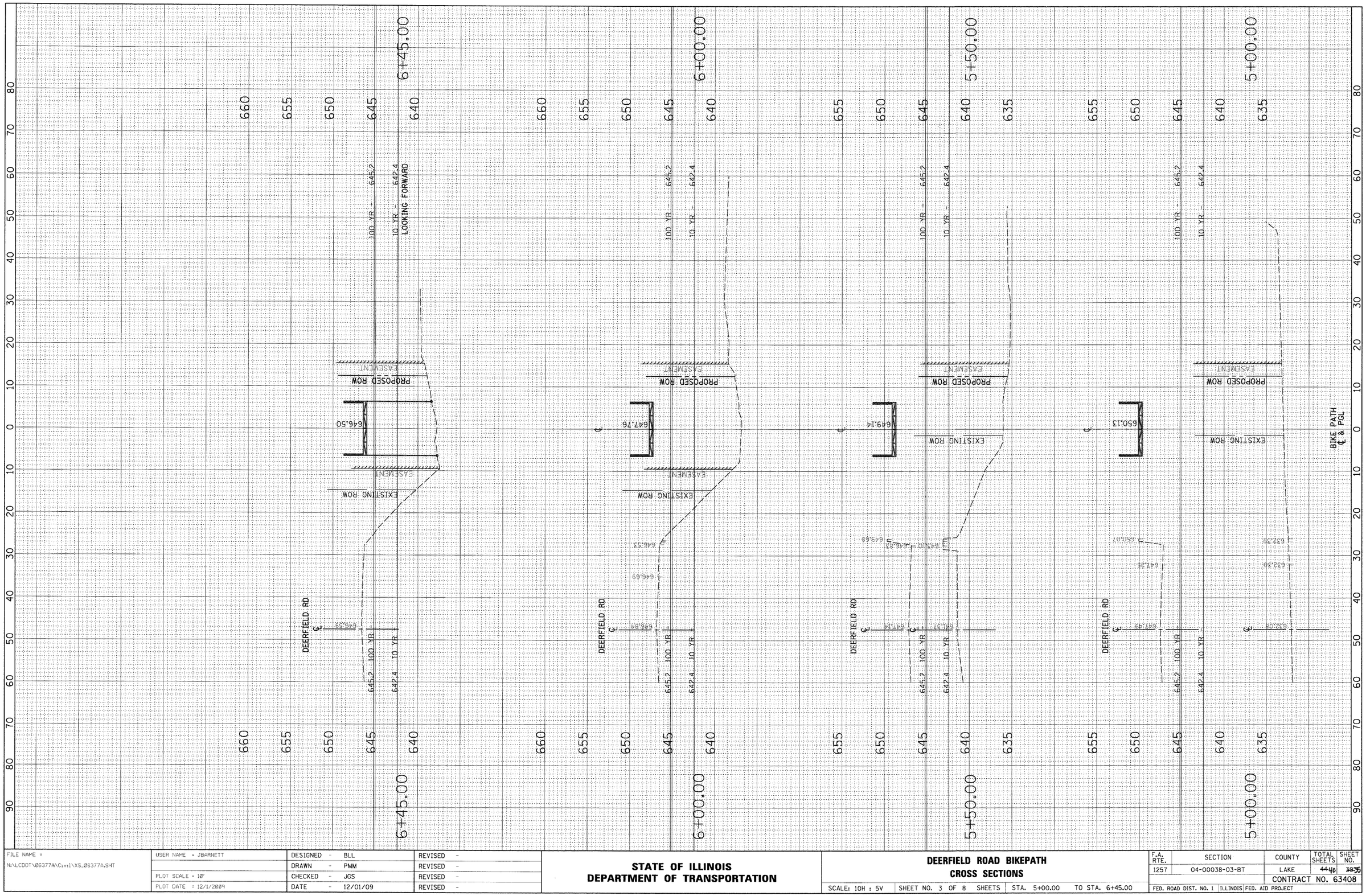
SCALE: 10H : 5V | SHEET NO. 2 OF 8 SHEETS | STA. 3+08.00 | TO STA. 4+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~44~~ 46	~~38~~ 39

CONTRACT NO. 63408

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

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



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

FILE NAME = N:\LCDOT\06377A\C1v1\XS_06377A.SHT	USER NAME = JBARNETT	DESIGNED - BLL	REVISED -
		DRAWN - PMM	REVISED -
	PLOT SCALE = 10'	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

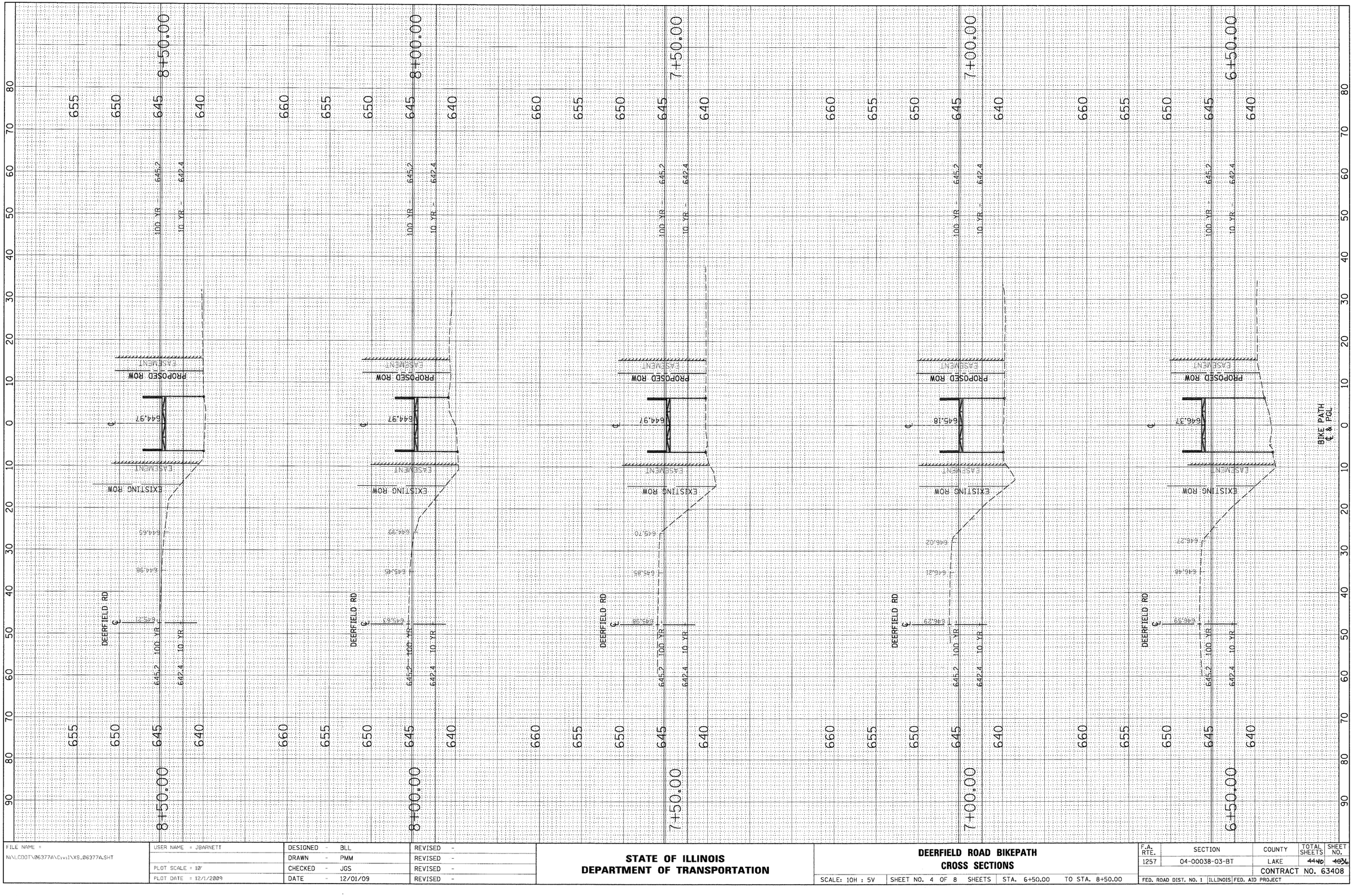
DEERFIELD ROAD BIKEPATH
CROSS SECTIONS

SCALE: 10H : 5V | SHEET NO. 3 OF 8 SHEETS | STA. 5+00.00 TO STA. 6+45.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~44~~ 46	~~37~~ 35
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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

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



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	PLOT SCALE = 10'	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

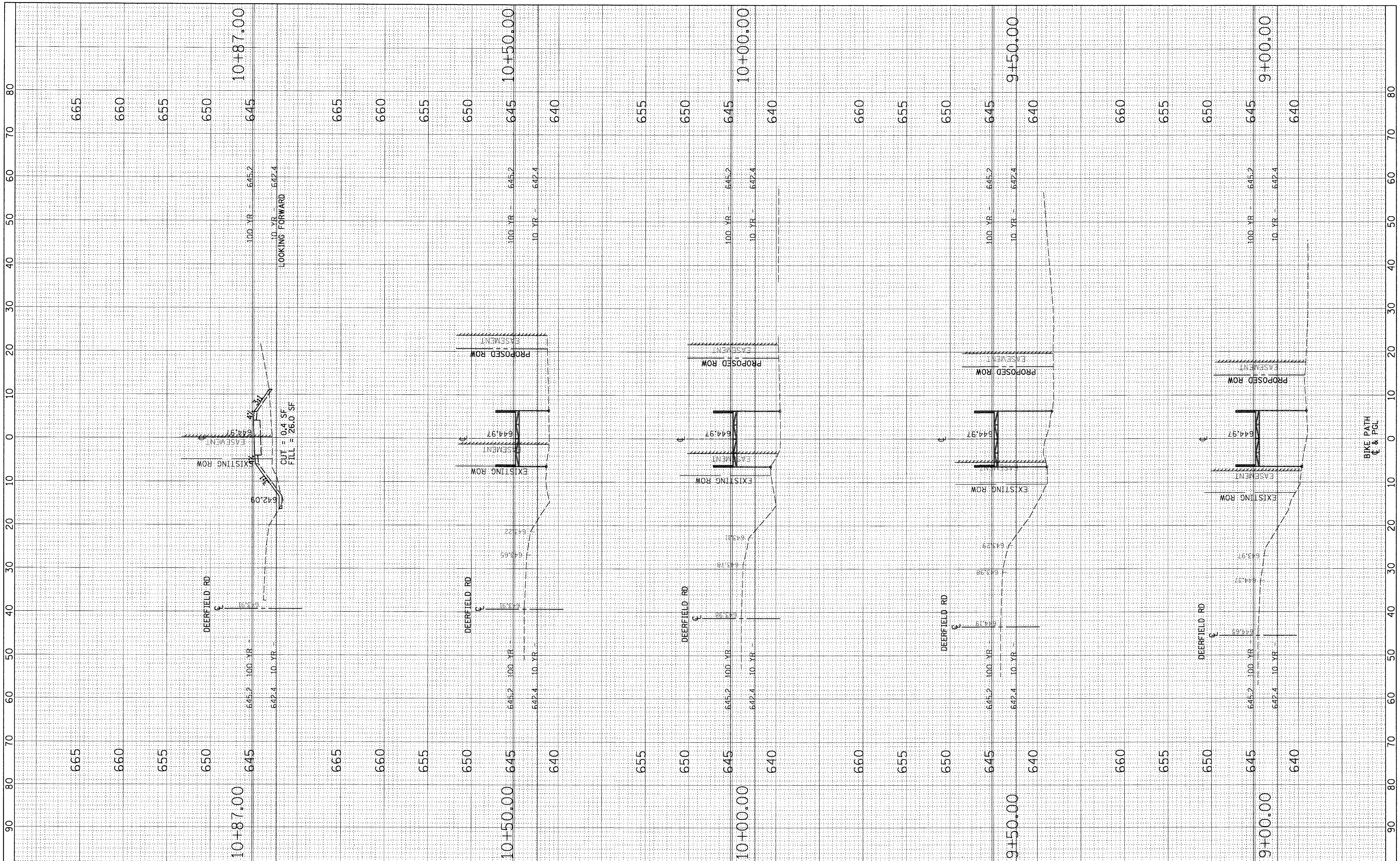
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKEPATH
CROSS SECTIONS

SCALE: 10H : 5V | SHEET NO. 4 OF 8 SHEETS | STA. 6+50.00 TO STA. 8+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~44~~	~~40~~
		CONTRACT NO. 63408		

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



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		DRAWN - PMM	REVISED -	
	PLOT SCALE = 10'	CHECKED - JGS	REVISED -	
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -	

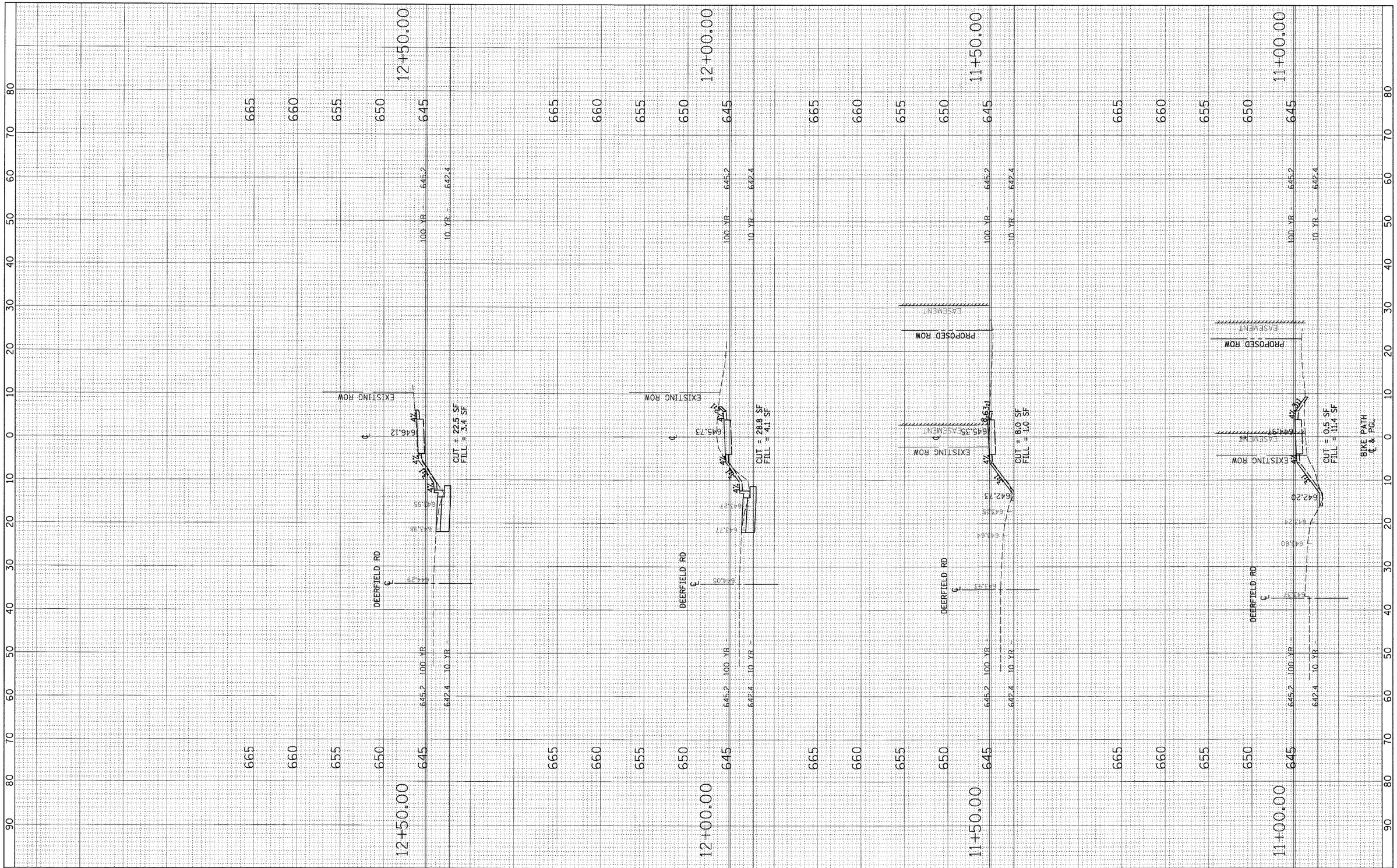
DEERFIELD ROAD BIKEPATH
CROSS SECTIONS

SCALE: 10H : 5V	SHEET NO. 5 OF 8 SHEETS	STA. 9+00.00	TO STA. 10+87.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~44~~ 46	~~43~~ 37
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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

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



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	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

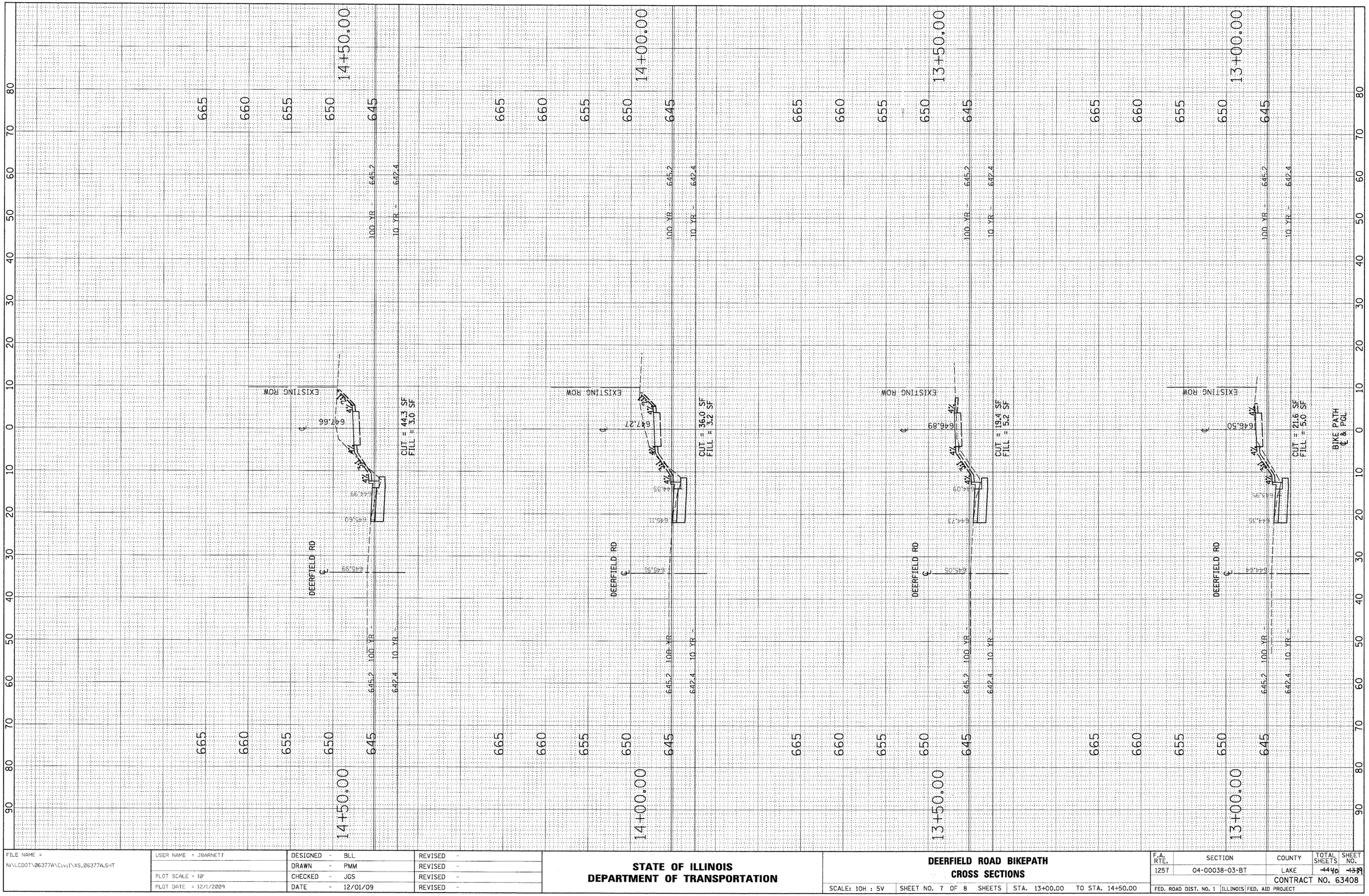
DEERFIELD ROAD BIKEPATH
CROSS SECTIONS

SCALE: 10H : 5V | SHEET NO. 6 OF 8 SHEETS | STA. 11+00.00 TO STA. 12+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~44~~ 40	~~42~~ 38
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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

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



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	PLOT SCALE = 10'	CHECKED - JGS	REVISED -
	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

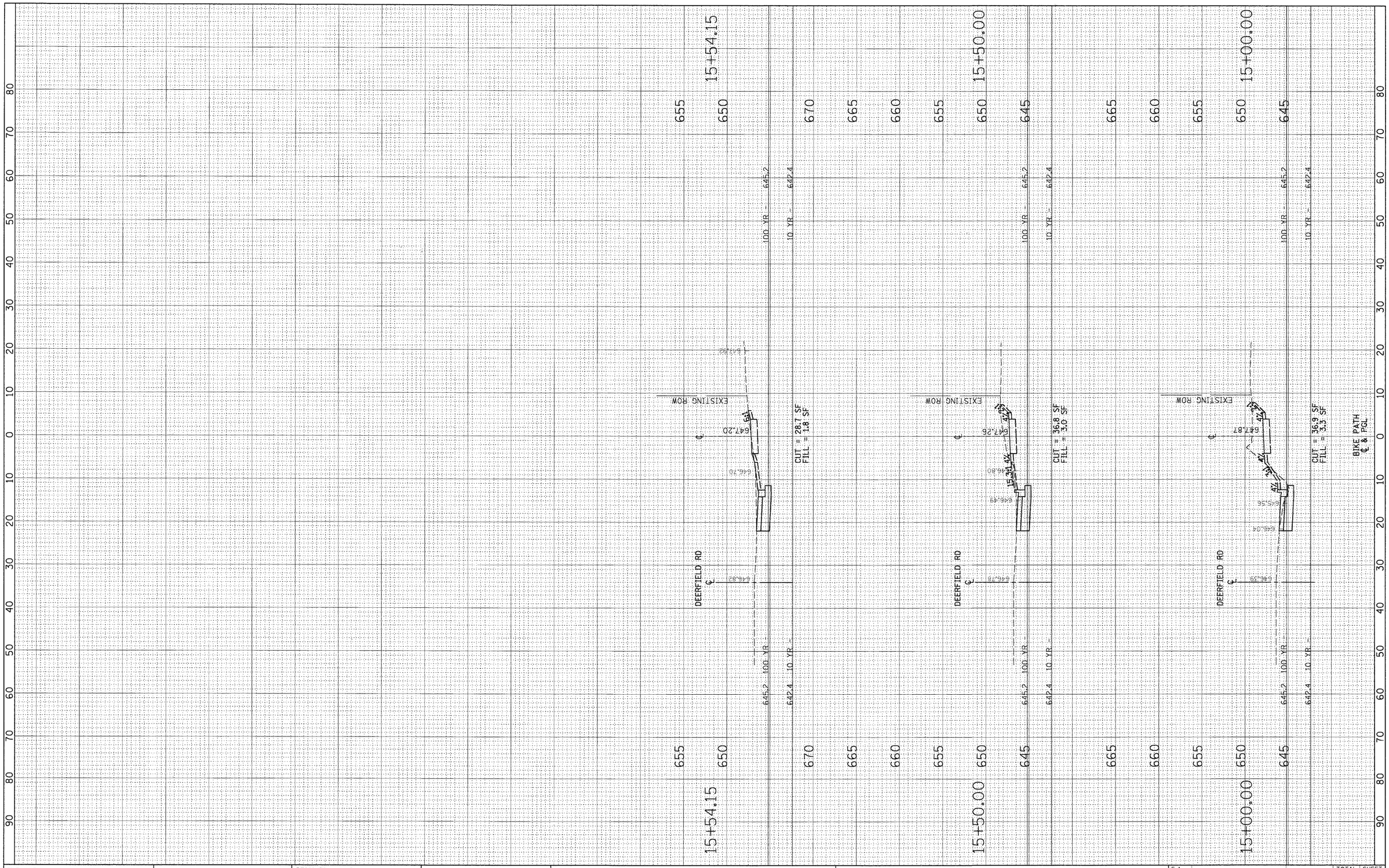
DEERFIELD ROAD BIKEPATH
CROSS SECTIONS

SCALE: 10H : 5V | SHEET NO. 7 OF 8 SHEETS | STA. 13+00.00 TO STA. 14+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~44~~ 40	~~43~~ 39
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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

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



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	PLOT DATE = 12/1/2009	DATE - 12/01/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DEERFIELD ROAD BIKEPATH
CROSS SECTIONS

SCALE: 10H : 5V | SHEET NO. 8 OF 8 SHEETS | STA. 15+00.00 TO STA. 15+54.15

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1257	04-00038-03-BT	LAKE	~~44~~ 40	~~44~~ 40
		CONTRACT NO. 63408		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		