PAVEMENT STRUCTURE DESIGN INFORMATION

STRUCTURAL DESIGN TRAFFIC: YEAR 2014 ADT 800 P.V. = 704 (88%) SU = 56 (7%) MU = 40 (5%) ROAD CLASSIFICATION: CLASS III DESIGN PERIOD: 15 YR. T.F. = 0.162 (80K)

PAVEMENT STRUCTURE:

BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N50 3" BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50 2" AGGREGATE BASE COURSE, TYPE A (8")

BITUMINOUS CONCRETE MIXTURE REQUIREMENTS

ITEM	AGGREGATE COMPOSITION	ASPHALT GRADE	ALLOWABLE RAP	VOIDS
BINDER COURSE	IL-19.0	PG 64-22	20%	4.0%
SURFACE COURSE	IL-12.5	PG 64-22	15%	4.0%
	MIX "C"			

APPLICATION RATE TABLE

AGGREGATE BASE COURSE	2.05 TON / CU YD		
STONE DUMPED RIPRAP, CLASS A5	1.5 TON / CU YD		
AGGREGATE SHOULDERS	2.05 TON / CU YD		
BITUMINOIS MATERIALS (PRIME COAT)			
AGGREGATE BASE	0.40 GAL / SQ YD		
BITUMINOUS BASE	0.08 GAL / SQ YD		
BITUMINOUS CONCRETE BINDER COURSE	112 LBS / SQ YD / IN		
BITUMINOUS CONCRETE SURFACE COURSE	112 LBS / SO YD / IN		

TREE REMOVAL SCHEDULE

		TREE REMOVAL (6 TO 15 UNITS DIAMETER)	TREE REMOVAL (OVER 15 UNITS DIAMETER)
STATION	OFFSET	(UNIT)	(UNIT)
11+28	26' RT	8	
11+29	25′ RT	. 8	
11+35	28' RT	8	
11+44	28' RT	8	
11+46	27' RT	. 6	
11+62	20' RT	12	
11+75	18' RT	15	
12+03	21' RT		18
12+05	20' RT		18
12+68	46' LT	6	
12+69	49' LT	6	
12+76	25' LT		30
12+80	15′ RT		30
12+84	36' RT	8	
12+86	41′ LT		18
13+14	27' LT	6	
	TOTALS	91	114

EARTHWORK SCHEDULE

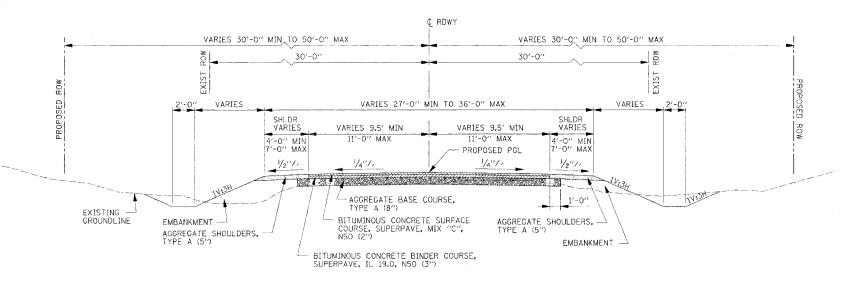
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LOCATION	EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJUSTED FOR 25% SHRINKAGE (CU YD)	CHANNEL & RIPRAP EXCAVATION (CU YD)	** SUITABLE CHANNEL & RIPRAP EXCAVATION (CU YD)	CHANNEL & RIPRAP EXCAVATION ADJUSTED FOR 25% SHRINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) SHRTAGE (-) (CU YD)
STA, 10+75 TO 11+75	109.3	82.0	0.0	0.0	0.0	265.8	-183.8
STA. 11+75 TO 12+75	0.0	0.0	926.0	504.0	377.6	32.0	+345.6
STA, 12+75 TO 12+85	11.7	8.8	0.0	0.0	0.0	72.4	-63.6
STA. 12+85 TO 13+75	123.5	92.6	0.0	0.0	0.0	190.4	-97.8
TOTALS	245	183	926	504	378	561	0

** 45.6% OF THE CHANNEL & RIPRAP EXCAVATION IS CONSIDERED UNSUITABLE MATERIAL.

PAVEMENT MATERIAL SCHEDULE

LOCATION	AGGREGATE BASE COURSE, TYPE A (TON)		BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50 (TON)	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL 19.0, N50 (TON)
STA. 10+75 TO 11+75	122.0	126.5	27.4	41.1
STA. 11+75 TO 12+75	0.0	24.9	51.4	0.0
STA. 12+75 TO 13+75	122.0	126.5	27.4	41.1
TOTALS	244	278	106	82

* 03-06118-00-BR



PROPOSED TYPICAL SECTION

STA. 10+75.00 TO STA. 11+75.00 BRIDGE STA. 11+75.00 TO STA. 12+75.00 STA. 12+75.00 TO STA. 13+75.00

SUMMARY OF QUANTITIES

SEE NOTE

ITEM	UNIT	QUANTITY
TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	91
TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	114
EARTH EXCAVATION	CU YD	245
CHANNEL EXCAVATION	CU YD	513
SEEDING, CLASS 2 (SPECIAL)	ACRE	0.3
TEMPORARY DITCH CHECKS	EACH	4
STONE DUMPED RIPRAP, CLASS A5	TON	756
AGGREGATE BASE COURSE, TYPE A	TON	244
BITUMINOUS MATERIALS (PRIME COAT)	GALLON	278
AGGREGATE SHOULDERS, TYPE A	TON	75
REMOVAL OF EXISTING STRUCTURES	EACH	11
STRUCTURE EXCAVATION	CU YD	100
CONCRETE STRUCTURES	CU YD	92.9
PRECAST PRESTRESSED CONCRETE DECK		
BEAMS (21" DEPTH)	SQ FT	2,751.0
REINFORCEMENT BARS	POUND	8,330
STEEL RAILING, TYPE S1	FOOT	200
FURNISHING METAL PILE SHELLS 12"	FOOT	1,230
DRIVING AND FILLING SHELLS	FOOT	1,230
TEST PILE METAL SHELLS	EACH	1
NAME PLATES	EACH	1
TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4
TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4
TRAFFIC CONTROL COMPLETE	L SUM	1
GUARDRAIL MARKERS, TYPE A	EACH	4
TERMINAL MARKER - DIRECT APPLIED	EACH	4
BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50	TON	106
BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N50	TON	82
UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1
UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1
	TREE REMOVAL (OVER 15 UNITS DIAMETER) EARTH EXCAVATION CHANNEL EXCAVATION SEEDING, CLASS 2 (SPECIAL) TEMPORARY DITCH CHECKS STONE DUMPED RIPRAP, CLASS A5 AGGREGATE BASE COURSE, TYPE A BITUMINOUS MATERIALS (PRIME COAT) AGGREGATE SHOULDERS, TYPE A REMOVAL OF EXISTING STRUCTURES STRUCTURE EXCAVATION CONCRETE STRUCTURES PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH) REINFORCEMENT BARS STEEL RAILING, TYPE S1 FURNISHING METAL PILE SHELLS 12" DRIVING AND FILLING SHELLS TEST PILE METAL SHELLS NAME PLATES TRAFFIC BARRIER TERMINAL, TYPE 5A TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT) TRAFFIC CONTROL COMPLETE GUARDRAIL MARKERS, TYPE A TERMINAL MARKER, TYPE A TERMINAL MARKER - DIRECT APPLIED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50 BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N50 UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1 UNDERWATER STRUCTURE EXCAVATION PROTECTION	TREE REMOVAL (OVER 15 UNITS DIAMETER) EARTH EXCAVATION CHANNEL EXCAVATION SEEDING, CLASS 2 (SPECIAL) TEMPORARY DITCH CHECKS STONE DUMPED RIPRAP, CLASS A5 TON AGGREGATE BASE COURSE, TYPE A BITUMINOUS MATERIALS (PRIME COAT) AGGREGATE SHOULDERS, TYPE A TON AGGREGATE SHOULDERS, TYPE A TON REMOVAL OF EXISTING STRUCTURES CU YD CONCRETE STRUCTURES PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH) STEEL RAILING, TYPE S1 FOOT FURNISHING METAL PILE SHELLS 12" FOOT DRIVING AND FILLING SHELLS TEACH NAME PLATES TRAFFIC BARRIER TERMINAL, TYPE 5A TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT) TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT) TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT) TRAFFIC CONTROL COMPLETE GUARDRAIL MARKERS, TYPE A TERMINAL MARKER - DIRECT APPLIED BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, MIX "C", NSO TON UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1 UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1 UNDERWATER STRUCTURE EXCAVATION PROTECTION

GENERAL NOTES

- NO BEDDING AND NO FILTER FABRIC MATERIAL IS REQUIRED UNDER THE STONE DUMPED RIPRAP.
- 2. THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST KNOWLEDGE OF THE OWNER AND THE INDICATED ADJUSTMENTS ARE CONSIDERED TO BE REASONABLY ACCURATE. AS DETAILED IN SECTION 563 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE THE LOCATION OF ALL UNDERGROUND UTILITIES BEFORE STARTING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, ITS OFFICERS AND EMPLOYEES AGAINST ALL CLAIMS DUE TO DAMAGE TO CORPORATE OR PRIVATE PROPERTY RESULTING FROM CONSTRUCTION OPERATIONS AS DESCRIBED IN ARTICLES 107.20 AND 107.26 OF THE STANDARD SPECIFICATIONS.
- 3. ALL EXISTING PRIVATELY OWNED UTILITIES REQUIRING ADJUSTMENT WILL BE MADE BY THE UTILITY COMPANY INVOLVED UNLESS OTHERWISE NOTED. WHERE NO PROVISIONS HAVE BEEN MADE FOR ADJUSTMENT ON THE PLANS, NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO DELAYS OR INCONVENIENCES CAUSED BY SAID UTILITY ADJUSTMENTS.
- 4. WHERE SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER OR AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.
- 5. DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHALL COMPLY WITH THE LEGAL LOADING LIMITS ESTABLISHED BY THE COUNTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY LUGS OR CLEATS ON TREADS OR WHEELS OR EQUIPMENT OR BY EXCESSIVE WEIGHTS AND LOADS.
- 6. THE NOMINAL THICKNESS FOR SURFACE COURSES ARE SHOWN ON THE TYPICAL SECTIONS, STANDARDS, SCHEDULES OR SPECIAL DETAILS. THE CONSTRUCTED THICKNESS OF THE ABOVE ITEMS SHALL NOT BE LESS THAN 90 PERCENT OF THE NOMINAL THICKNESS AT ANY LOCATION.
- 7. STOCKPILING OF MATERIALS WILL BE ALLOWED ON COUNTY PROPERTY AT MUTUALLY AGREEABLE LOCATIONS. NO STOCKPILING OF MATERIALS SHALL BE ALLOWED ON THE TRAVELED SURFACE OF EXISTING ROADS AND HIGHWAYS THAT ARE OPEN TO TRAFFIC.
- 8. THE CONTRACTOR MAY BE REQUIRED TO CONDUCT SOME OF HIS OR HER CONSTRUCTION AROUND TRANSMISSION POLES AND UNDER TRANSMISSION LINES. THE ADDED COST OF SO DOING SHALL BE INCLUDED IN THE COST OF THE PAY ITEM FOR THE WORK INVOLVED.

DRAWN BY	LEL	TYPICAL SECTION, GENERAL NOTES AND SCHEDULES		
APPROVED E		MASSEY LANE OVER SANDY CREEK SEC 03-06118-00-BR STA. 12+25.00		
DATE MAR	СН, 2005			
REV	ISIONS			
DATE	BY	MORGAN COUNTY, ILLINOIS		
		Benton & Associates, Inc. Consulting Engineers / Land Surveyors 1970 West Lafayette Avenue Jacksonville, Illinois 62650 Phone: 217-245-4146 Fax: 217-245-4149 IL Design Firm Registration No. 184-000862		
FIELD BOCK:		SCALE: N.T.S. JOB NO. 02E1314 SHEET 2 OF 15		