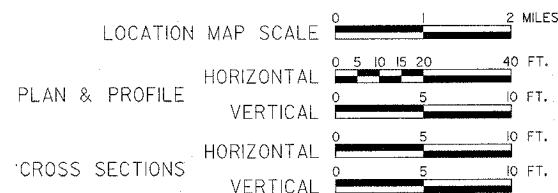


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR
PROPOSED LOCAL AGENCY IMPROVEMENT
FEDERAL-AID BRRP PROJECT**

INDEX OF SHEETS

- 1 = COVER SHEET
- 2 = GENERAL NOTES, SCHEDULES, AND TYPICAL SECTION
- 3 = EROSION CONTROL PLAN
- 4 = PLAN AND PROFILE
- 5 = CULVERT DETAILS
- 6-7 = CROSS SECTIONS



SUMMARY OF QUANTITIES

CODE NO.	QUANTITY	UNIT	PAY ITEM
20200100	700	CU YD	EARTH EXCAVATION
*20700220	119	CU YD	POROUS GRANULAR EMBANKMENT
25000350	0.75	ACRE	SEEDING CLASS 7
*25001000	0.75	ACRE	SEEDING CLASS 2 (SPECIAL)
25100630	760	SQ YD	EROSION CONTROL BLANKET
28000300	10	EACH	TEMPORARY DITCH CHECK
*35101400	833	TON	AGGREGATE BASE COURSE, TYPE B
*40200800	40	TON	AGGREGATE SURFACE COURSE, TYPE B
40500300	242	TON	BITUMINOUS MIXTURE COMPLETE
40600100	549	GALLON	BITUMINOUS MATERIALS (PRIME COAT)
48101200	140	TON	AGGREGATE SHOULDERS, TYPE B
50100100	1	EACH	REMOVAL OF EXISTING STRUCTURES
50800105	37450	POUND	REINFORCEMENT BARS
51500100	1	EACH	NAME PLATES
54003000	224.4	CU YD	CONCRETE BOX CULVERTS
54200220	64	FOOT	PIPE CULVERTS, CLASS D, TYPE 1-15"
67100100	1	LS	MOBILIZATION
Δ78001110	2200	FOOT	PAINT PAVEMENT MARKING LINE - 4"
*20005400	270	TON	BREAKER RUN CRUSHED STONE

STANDARDS

- 000001-04 STANDARD SYMBOLS, ABBREVIATIONS & PATTERNS
- 280001-02 TEMPORARY EROSION CONTROL SYSTEMS
- 515001-02 DETAIL OF NAME PLATE FOR BRIDGES
- 702001-06 TRAFFIC CONTROL DEVICES
- 780001-01 TYPICAL PAVEMENT MARKINGS
- BLR-21-6 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- BLR-22-4 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES

**BRIDGE REPLACEMENT &
REHABILITATION PROGRAM**

**SECTION 04-00162-00-BR
STEPHENSON COUNTY
PROJECT NO. BRS-40(112)
2006**

CONSTRUCTION TYPE CODE - X028 - 2A

*SEE SPECIAL PROVISIONS
ΔSPECIALTY ITEMS

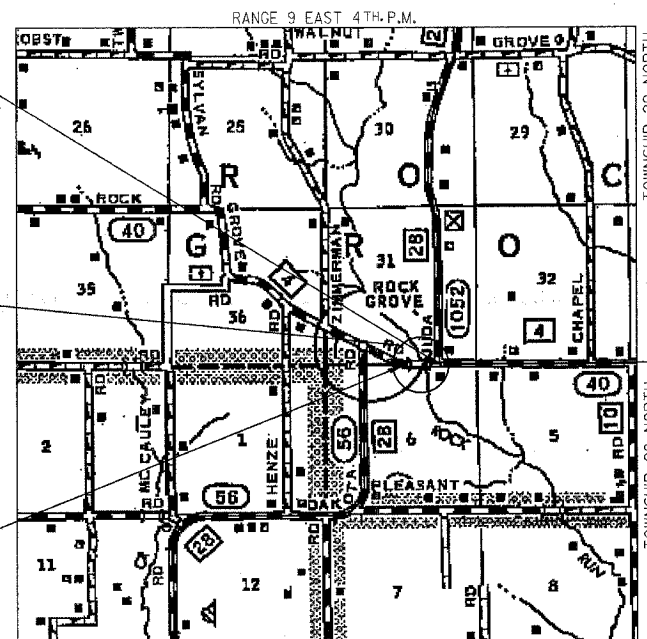
NET LENGTH 550 FEET = .010 MILES

SECTION ENDS
STA. 41+00

EXISTING STRUCTURE: S.N. 089-3000
REINFORCED CONCRETE SLAB ON
CLOSED REINFORCED CONCRETE
ABUTMENTS. STA. 37+73. SKEWED 0°.

PROPOSED STRUCTURE: S.N. 089-5130
A TRIPLE BARREL (13'-6" x 8') REINFORCED CONCRETE
BOX CULVERT AT STA. 37+73, SKEWED 0°
50' O.-O. OF HEADWALLS.

SECTION BEGINS
STA. 35+50



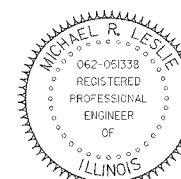
LOCATION MAP

CALL J.U.L.I.E.
BEFORE YOU DIG
800-892-0123

ATTENTION CONTRACTORS

THE ILLINOIS DEPARTMENT OF TRANSPORTATION
BUREAU OF MATERIALS AND PHYSICAL RESEARCH,
"PROJECT PROCEDURES GUIDE"
IS APPLICABLE TO THIS PROJECT.

JOB NO. C-92-073-05
CONTRACT NO. 85375
ROAD CLASSIFICATION: MAJOR COLLECTOR RURAL
ADT 676 (2006), 825 (2016) 2% TRUCKS
DESIGN SPEED: 50 MPH
RURAL BLR



DATE: 1/19/06
EXPIRES 11/30/07

APPROVED	1/23	20 06
	<i>Chris Sabell</i>	LOCAL AGENCY OFFICIAL
PASSED	February 8	20 06
	<i>John M. ...</i>	DISTRICT ENGINEER OF LOCAL ROADS & STREETS
APPROVED FOR BIDDING	February 8	20 06
	<i>Angelo ...</i>	STRUCT ENGINEER
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		

DATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
04-00162-00	BR	STEPHENSON	7	2
STA. 35+50		TO STA. 41+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

Existing Structures (Including Foundations, Walls, Cisterns, Wells Or Other Underground Structures) Within The Right Of Way Shall Be Removed In Accordance With Article 501.02 And 501.03 Of The Standard Specifications, Without Additional Compensation, Unless Otherwise Noted In The Plans Or Special Provisions.

The Contractor Shall Seed All Disturbed Areas Within The Project Limits.

No Overhaul Has Been Computed And None Shall Be Paid For From Any Source.

The Final Top Four Inches Of Soil In Any Right-Of-Way Area Disturbed By The Contractor Must Be A Cohesive Soil Capable Of Supporting Vegetation.

The New Number For This Structure Will Be S.N. 089-5130.

The Contractor Shall Be Responsible For Protecting Utility Property During Construction Operations As Outlined In Article 107.31 Of The Standard Specifications.

The Utilities Located Within The Project Limits Or Immediately Adjacent To The Project Construction Limits Include:

Comed
123 Energy Ave.
Rockford, IL. 61109

Verizon North, Inc.
302 West Main St.
Freeport, IL. 61032

NICOR Gas
4651 Linden Road
Rockford, IL. 61109

A Minimum Of 48 Hours Advance Notice Is Required For Non-Emergency Work.

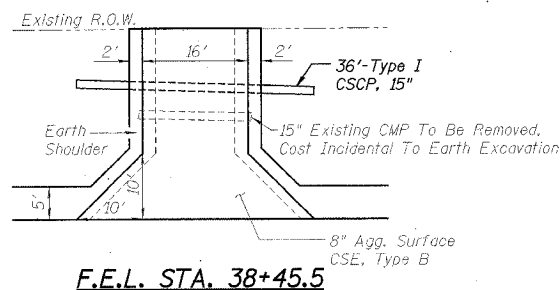
A Nationwide 404 Permit Has Been Issued For This Project And The Conditions Of That Permit Must Be Adhered To.

When Mulch With Emulsified Asphalt Is Applied, It Will Be The Contractor's Responsibility To Cover Or Protect All Traffic Signs, Guardrail And Curbs. Any Signs, Guardrail Or Curbs Which Become Covered With Asphaltic Material Shall Be Cleaned By The Contractor At His Own Expense.

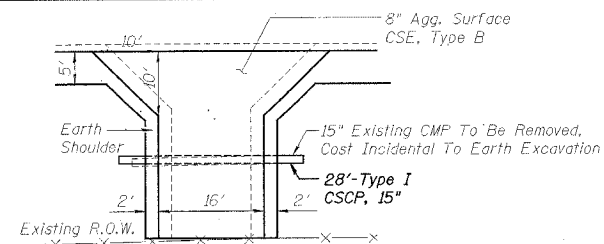
Where Section Or Subsection Monuments Are Encountered, The Engineer Shall Be Notified Before Such Monuments Are Removed. The Contractor Shall Protect And Carefully Preserve All Property Markers, Monuments And Right-Of-Way Pins Until The Owner, An Authorized Surveyor, Or Agent Has Witnessed Or Otherwise Referenced Their Location.

Existing Mail Boxes, Street Signs And Traffic Signs That Are Within The Construction Limits Shall Be Removed And Reset By The Contractor. Cost Of Removing And Resetting To Be Included In The Contract Unit Price Bid Per Cubic Yard For Earth Excavation.

Bituminous Concrete Removal Not On A Rigid Pavement Shall Be Incidental To Earth Excavation.



F.E.L. STA. 38+45.5



F.E.R. STA. 39+89

SCHEDULE OF QUANTITIES

SEEDING CLASS 2 (SPECIAL)

LOCATION	ACRE	REMARKS
LT & RT 35+50 - 41+00	0.75 ACRES	

SEEDING CLASS 1

LOCATION	ACRE	REMARKS
LT & RT 35+50 - 41+00	0.75 ACRES	TEMPORARY SEEDING AS REQUIRED

EROSION CONTROL BLANKET

LOCATION	SQ YD	REMARKS
LT. & RT. STA. 35+50 - 37+45	260	
LT. & RT. STA. 37+45 - 37+60	55	AROUND WINGS
LT. & RT. STA. 37+90 - 38+00	45	AROUND WINGS
LT. & RT. STA. 38+00 - 41+00	400	
TOTAL 760 SQ YD		

TEMPORARY DITCH CHECK

LOCATION	EACH	REMARKS
LT. & RT. STA. 36+00	2	
LT. & RT. STA. 37+00	2	
RT. STA. 38+50	1	
LT. STA. 38+75	1	
RT. STA. 39+50	1	
LT. STA. 39+75	1	
RT. STA. 40+50	1	
LT. STA. 40+75	1	
TOTAL 10 EACH		

AGGREGATE BASE COURSE, TYPE B

LOCATION	TON	REMARKS
STA. 35+50 TO 36+00	75	10" COMPACTED, TAPER
STA. 36+00 TO 40+50	683	10" COMPACTED
STA. 40+50 TO 41+00	75	10" COMPACTED, TAPER
TOTAL 833 TON		

AGGREGATE SURFACE COURSE, TYPE B

LOCATION	TON	REMARKS
LT. STA. 38+45.5	20	FEL
RT. STA. 39+89	20	FER
TOTAL 40 TON		

BITUMINOUS MIXTURE COMPLETE

LOCATION	TON	REMARKS
STA. 35+50 TO 36+00	22	TAPER
STA. 36+00 TO 40+50	198	
STA. 40+50 TO 41+00	22	TAPER
TOTAL 242 TON		

BITUMINOUS MATERIALS (PRIME COAT)

LOCATION	GALLONS	REMARKS
STA. 35+50 TO 36+00	49	0.375 GAL/SY
STA. 36+00 TO 40+50	450	0.375 GAL/SY
STA. 40+50 TO 41+00	50	0.375 GAL/SY
TOTAL 549 GALLON		

AGGREGATE SHOULDER, TYPE B

LOCATION	TON	REMARKS
LT. STA. 35+50 TO 41+00	70	4" COMPACTED
RT. STA. 35+50 TO 41+00	70	4" COMPACTED
TOTAL 140 TON		

PIPE CULVERT, TYPE I, CLASS D, 15"

LOCATION	FOOT	REMARKS
LT. STA. 38+27.5 - 38+63.5	36	
RT. STA. 39+75 - 40+03	28	
TOTAL 64 FOOT		

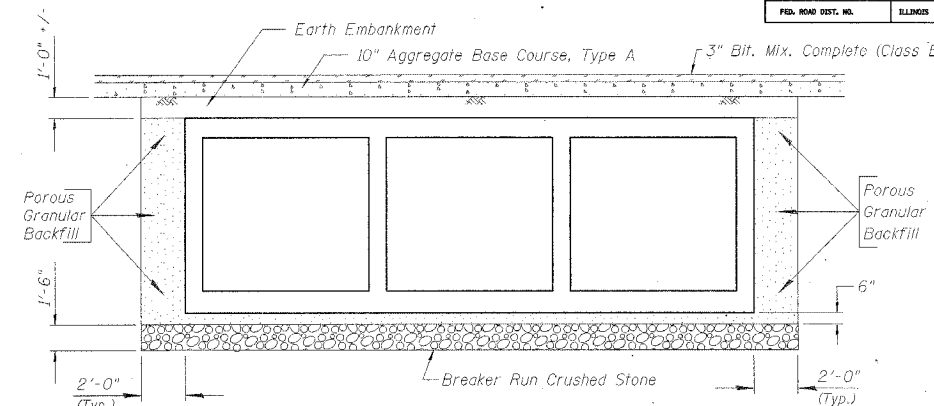
PAINT PAVEMENT MARKING LINE - 4"

LOCATION	FOOT	REMARKS
LT. & RT. STA. 35+50 TO 41+00	1100	SOLID WHITE
STA. 35+50 TO 41+00	1100	DOUBLE YELLOW
TOTAL 2200 FOOT		

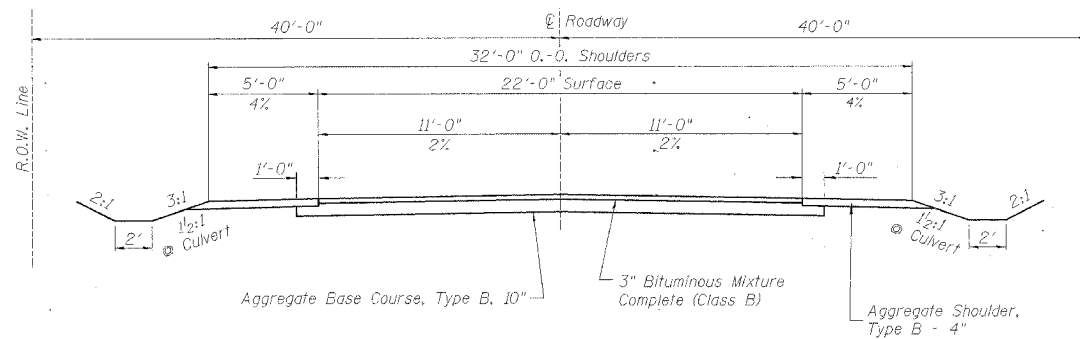
PAVEMENT STRUCTURAL DESIGN - ROCK GROVE ROAD

STRUCTURAL DESIGN TRAFFIC (S.D.T.) = YEAR 2016
 CLASS III STREET
 80,000# TRUCK DESIGN
 E_{RI} : (ASSUMED) 3 ksi
 TF = 0.04
 HMA MIX TEMP. 72°F
 HMA E_{AC} = 655 ksi
 HMA DESIGN STRAIN 367 microstrain
 USE
 3" BITUMINOUS MIXTURE COMPLETE
 10" AGGREGATE BASE, TYPE B

P.V. 809
 S.U. 8 } 825 ADT
 M.U. 8

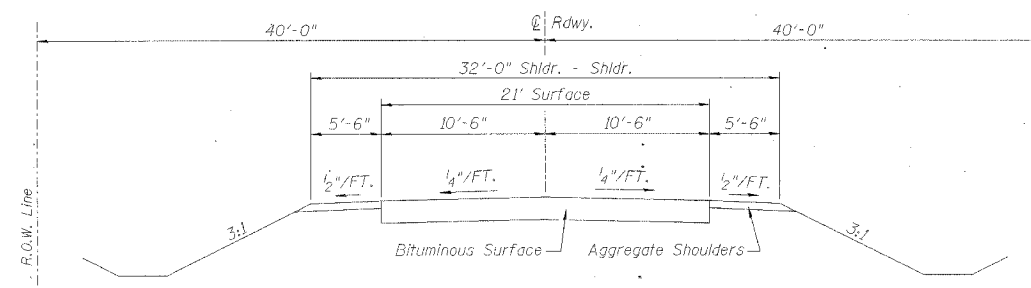


PAY LIMITS OF POROUS GRANULAR BACKFILL & BREAKER RUN CRUSHED STONE

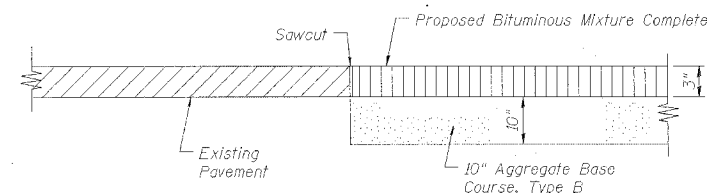


TYPICAL SECTION

Sta. 35+50 to Sta. 41+00
 Highway Classification: Major Collector (Rural)
 Design Speed: 50 MPH



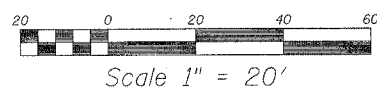
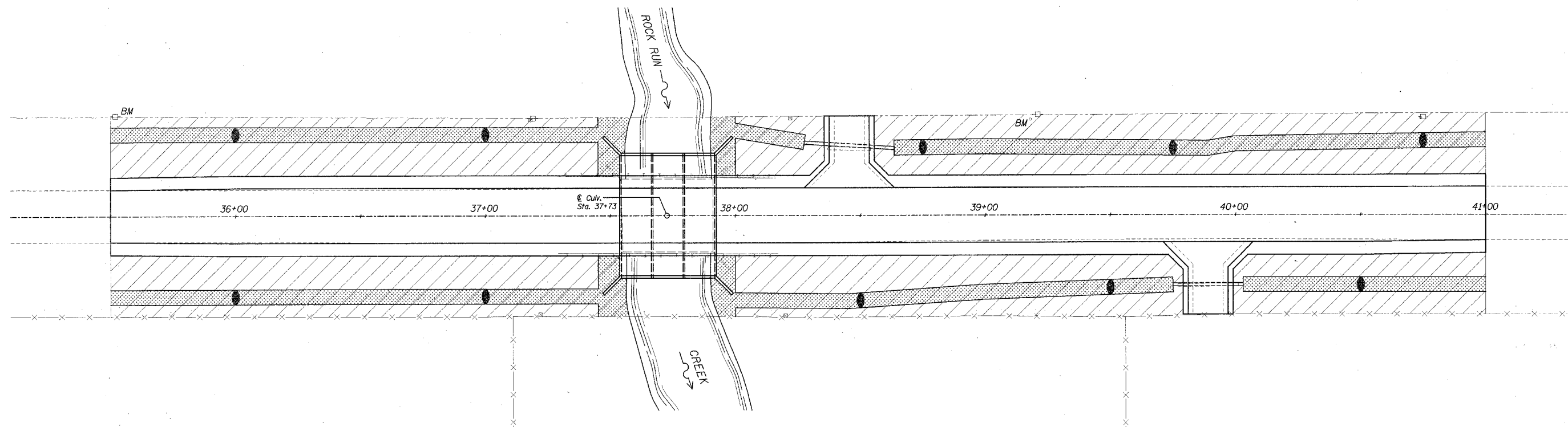
EXISTING TYPICAL SECTION




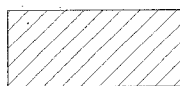

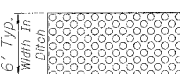
TYPICAL CORE JOINT DETAIL

**GENERAL NOTES, SCHEDULES, AND TYPICAL SECTIONS
 ROCK GROVE ROAD OVER ROCK RUN CREEK
 SECTION 04-00162-00-BR
 STA. 37+73 (S.N. 089-5130)
 STEPHENSON COUNTY**

FA No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	04-00162-00 BR	STEPHENSON	7	3
STA. 35+50		TO STA. 41+00		
FED. ROAD DIST. NO.	LINKS	FED. AID PROJECT		



LEGEND

-  Temporary Ditch Checks
-  Seeding Class II (Special)
-  Perimeter Erosion Barrier
-  Erosion Control Blanket

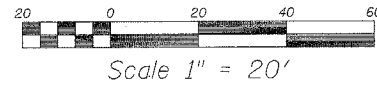
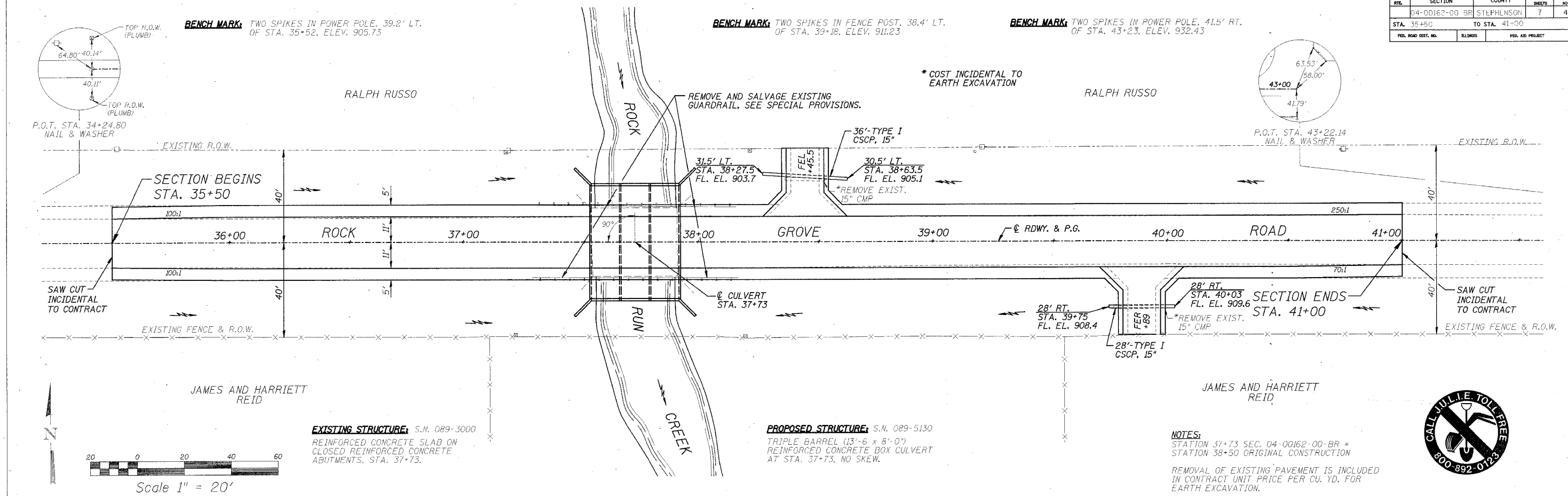
BILL OF MATERIAL

Seeding Class I	Acres	0.75
Seeding Class II (Special)	Acres	0.75
Erosion Control Blanket	Sq. Yd.	760
Temporary Ditch Checks	Each	10

Note:
See Special Provisions For
Stormwater Pollution Prevention Plan.

EROSION CONTROL PLAN
TRIPLE BARREL 13'-6" x 8'-0" R.C. BOX CULVERT
ROCK GROVE ROAD OVER ROCK RUN CREEK
SECTION 04-00162-00-BR
STEPHENSON COUNTY
 WHA # 1018D04

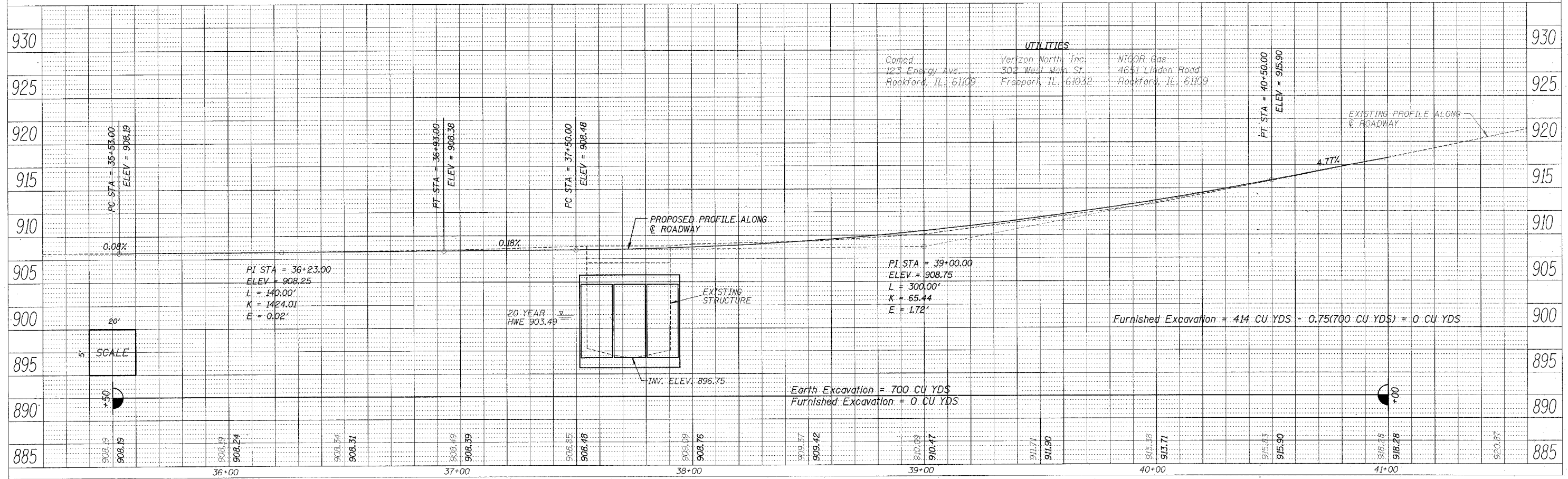
FA RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
04-00162-00	BR	STEPHENSON	7	4
STA. 35+50		TO STA. 41+00		
FED. ROAD DIST. NO.		BLDGNS	FED. AID PROJECT	



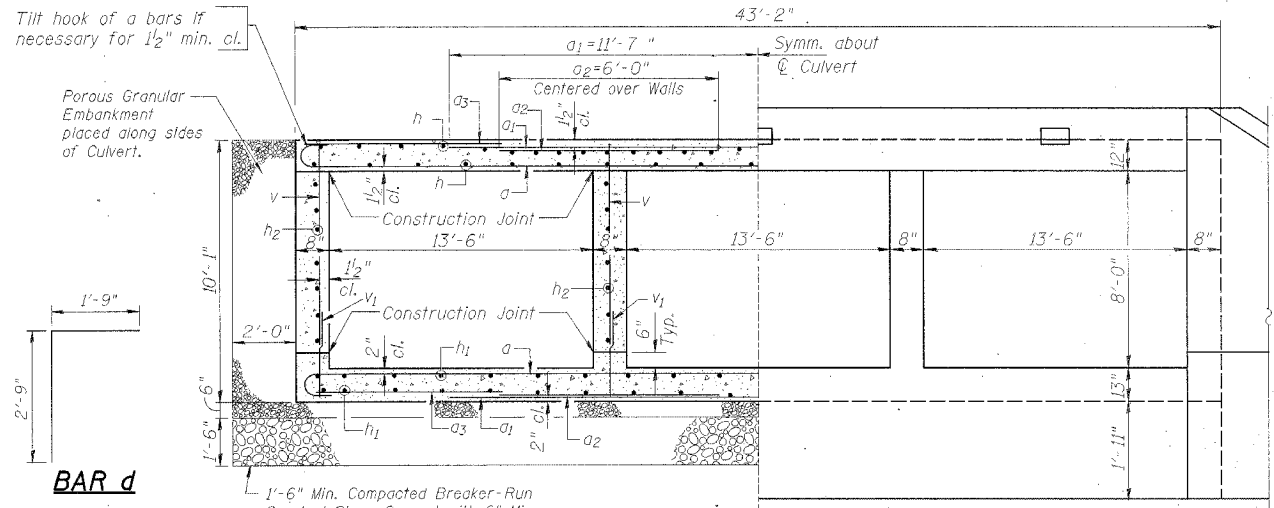
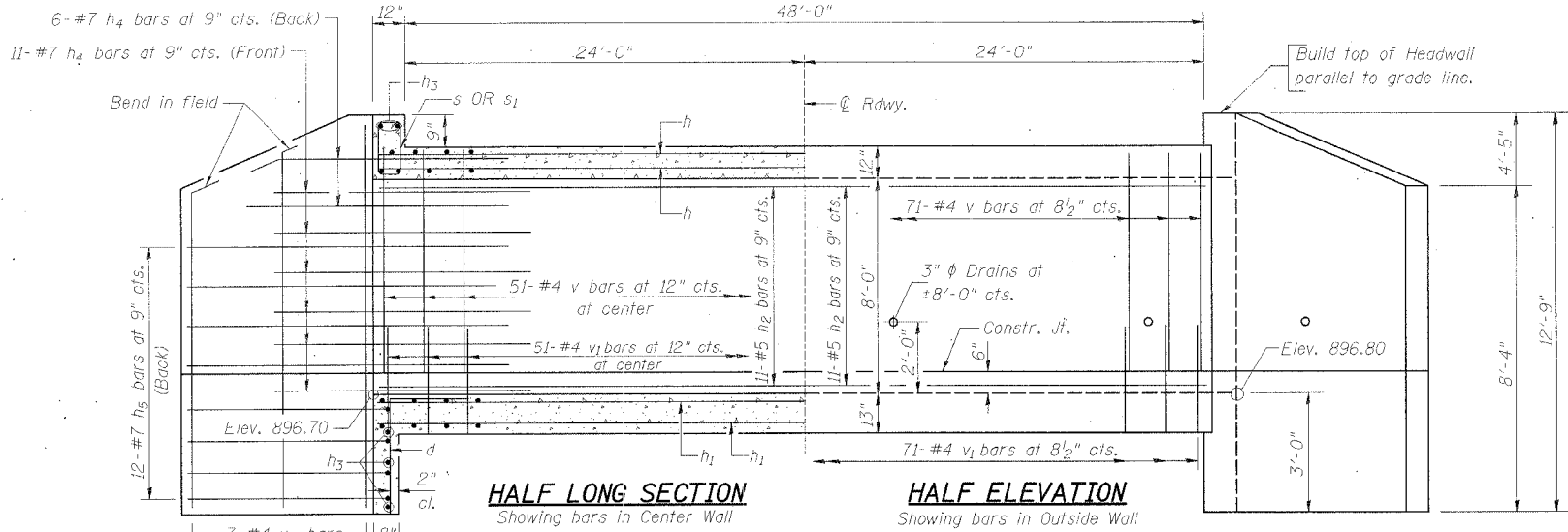
EXISTING STRUCTURE: S.N. 089-3000
 REINFORCED CONCRETE SLAB ON
 CLOSED REINFORCED CONCRETE
 ABUTMENTS. STA. 37+73.

PROPOSED STRUCTURE: S.N. 089-5130
 TRIPLE BARREL (13'-6 x 8'-0")
 REINFORCED CONCRETE BOX CULVERT
 AT STA. 37+73, NO SKEW.

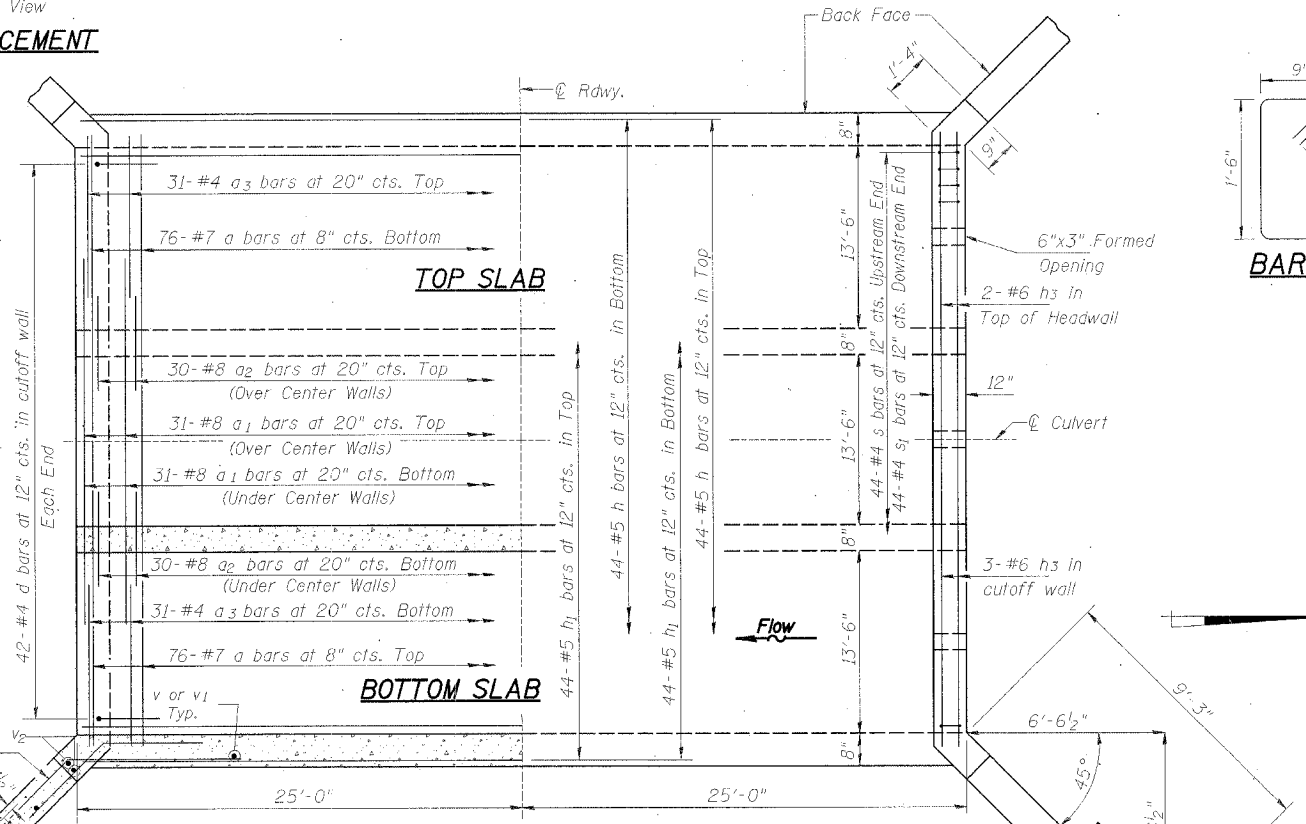
NOTES:
 STATION 37+73 SEC. 04-00162-00-BR =
 STATION 38+50 ORIGINAL CONSTRUCTION
 REMOVAL OF EXISTING PAVEMENT IS INCLUDED
 IN CONTRACT UNIT PRICE PER CU. YD. FOR
 EARTH EXCAVATION.



FA	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
04-00162-00	BR	STEPHENSON	7	5
STA. 35+50	TO STA. 41+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



REINFORCEMENT



NOTE:
a₁ & a₂ Bars Alternate.
a₃ Bars are tied to a₁ Bars.

MINIMUM BAR LAP

SIZE	LAP
#4	1'-4"
#5	1'-6"

NAME PLATE LETTERING
Refer to Std. 515001

ROCK RUN CREEK
BUILT 200- BY
STEPHENSON COUNTY
SECTION 04-00162-00-BR
STATION 37+73
STR. NO. 089-5130 LOADING-HS20

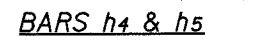
WATERWAY INFORMATION

Drainage Area	4.31	SQ. MI.
Design Discharge (20 Yr.)	1180	C.F.S.
Existing Opening	226	SQ. FT.
Required Opening	273	SQ. FT.
Proposed Opening	273	SQ. FT.
Created Head (20 Yr.)	<0.5	FT.
100 Yr. Discharge	1760	C.F.S.
Created Head (100 Yr.)	<1.0	FT.
High Water Elev. (100 Yr.)	903.86	

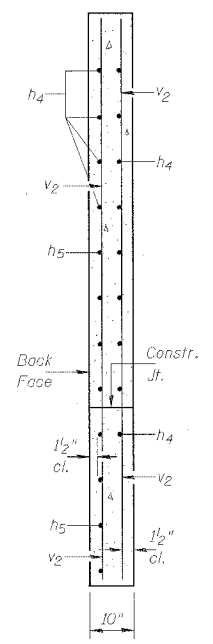
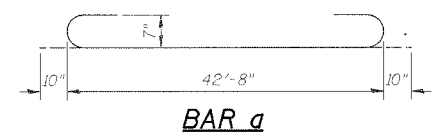
LOADING
HS20-44
Allow 50 PSF for FWS

DESIGN STRESSES
f_y = 60,000 p.s.i.
f'c = 3,500 p.s.i.

DESIGN SPECIFICATIONS
Design in accordance with AASHTO Specifications Dated 2002.



HALF SECTION THRU BARREL



BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE	
a	152	#7	44'-4"		
a ₁	62	#8	23'-2"		
a ₂	120	#8	6'-0"		
a ₃	124	#4	11'-6"		
d	84	#4	4'-6"		
h	88	#5	49'-9"		
h ₁	88	#5	49'-9"		
h ₂	44	#5	49'-9"		
h ₃	10	#6	37'-8"		
h ₄	68	#7	8'-0"		
h ₅	48	#7	12'-3"		
v	248	#4	8'-4"		
v ₁	248	#4	3'-0"		
v ₂	28	#4	12'-6"		
s	44	#4	5'-1"		
s ₁	44	#4	5'-3"		
Concrete Box Culverts				C.Y.	224.4
Reinforcement Bars				LB	37,450
Name Plate				EACH	1
Porous Granular Embankment				C.Y.	119
Breaker Run Crushed Stone				TON	270

NOTES:
Class S1 Concrete shall be used throughout.
Exposed edges shall be beveled 3/4".
For backfill and embankment see standard specifications.
Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42, or M-53 Grade 60.
It shall be the responsibility of the contractor to divert the stream flow during construction in order to keep the construction area free of water. The method of water diversion shall be subject to the approval of the engineer and the cost shall be included in the unit bid price of "Concrete Box Culverts".
NO PRECAST OPTION ALLOWED.

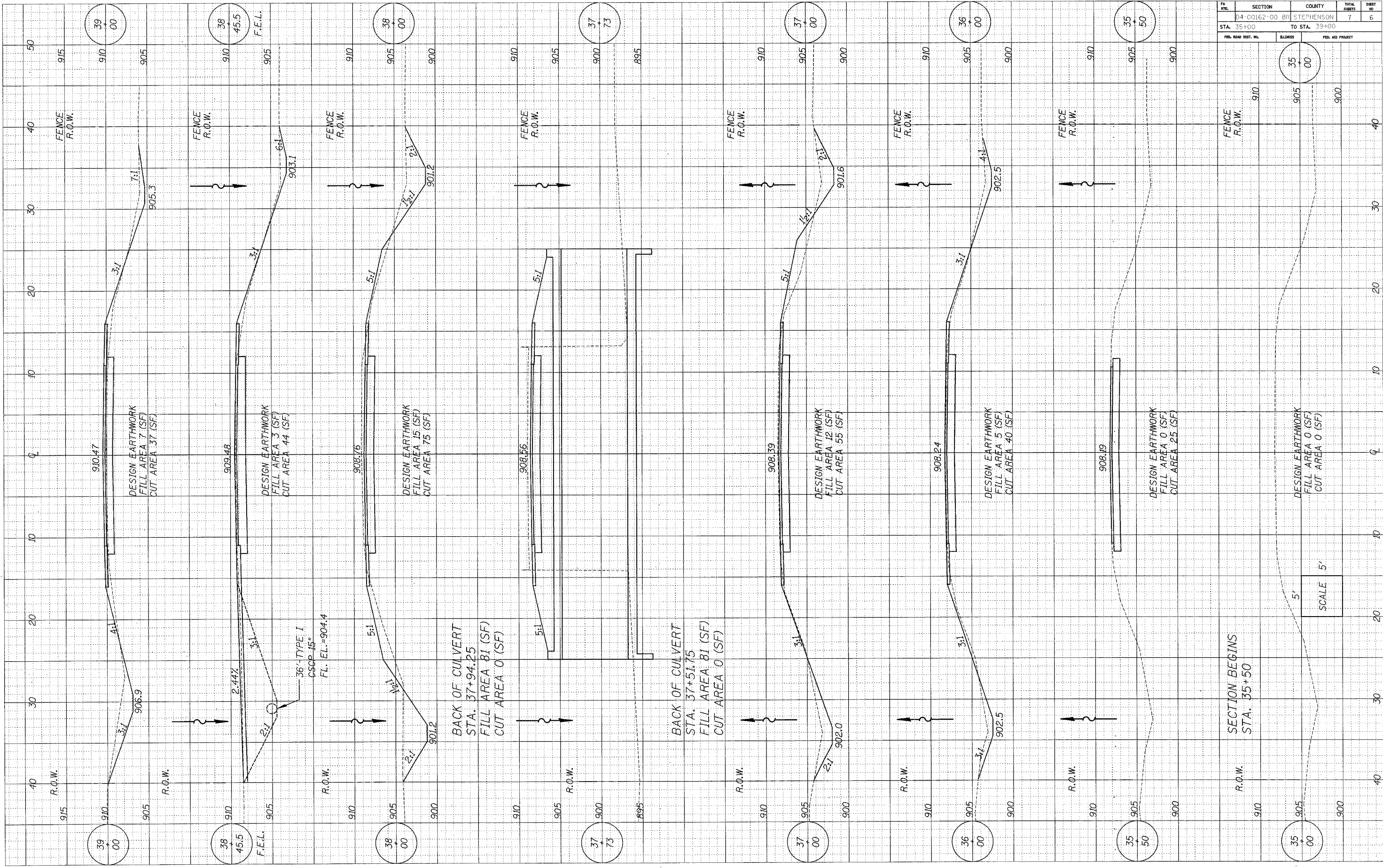


Michael R. LeBlond
DATE: 1/16/06
EXPIRES 11/30/06

CULVERT DETAILS
ROCK GROVE ROAD OVER ROCK RUN CREEK
SECTION 04-00162-00-BR
STA. 37+73 S.N. 089-5130
STEPHENSON COUNTY
WHA # 1018D04

"I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS CULVERT DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS, THE DESIGN IS AN ECONOMICAL ONE COMPLIES WITH REQUIREMENTS OF THE CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES."

FA RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
04-00162-00 BR	STEPHENSON		7	6
STA. 35+00		TO STA. 39+00		
FED. ROAD DIST. NO.		BLANKS	FED. AID PROJECT	



SECTION BEGINS
STA. 35+50

SCALE 5'

PL NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
04-00162-00	BR	STEPHENSON	7	7
STA. 39+89	TO STA. 41+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

