

**GENERAL NOTES:**

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

Expansion bolts shall consist of approved expansion anchors, providing minimum certified proof load = 4,080 lbs., and 3/4" x 12" hooked bolts.

Reinforcement bars designated (E) shall be epoxy coated.

Exposed edges shall have a 3/4" chamfer.

For backfilling and embankment, see Standard Specifications.

The structural repair of concrete depth ≤5" and epoxy crack sealing repairs specified on the plans indicate the minimum amount required for the rehabilitation of Structure No. 016-2400, based on the existing observed conditions. During cleaning of the box culverts, additional areas may be exposed that require high performance enhanced shotcrete and epoxy crack sealing repairs. Any such areas found shall be immediately brought to the attention of the Engineer and shall be repaired as directed by the Engineer. The cost for additional high performance enhanced shotcrete and epoxy crack sealing repairs not shown on the plans shall be paid at the unit price bid for that work.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal. Precast alternate not allowed.

**LOADING HS20-44**

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

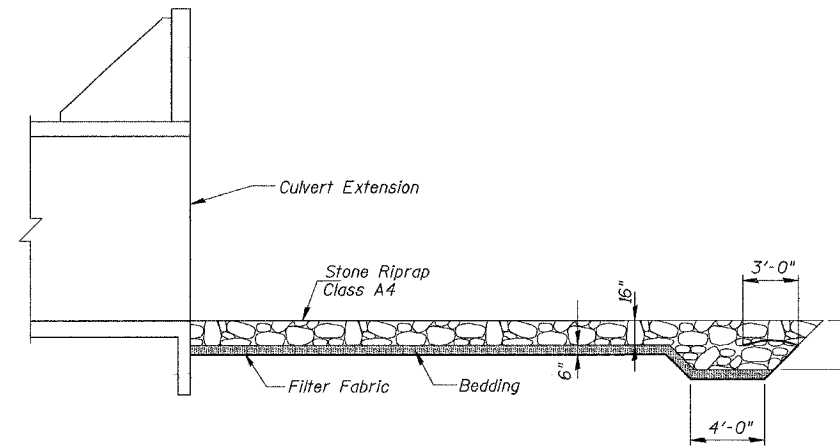
**DESIGN SPECIFICATIONS**

1996 AASHTO Standard Specifications for Highway Bridges, Including 1997, 1998, 1999 & 2000

**DESIGN STRESSES FOR NEW CONSTRUCTION**

**FIELD UNITS**

f'c = 3,500 psi  
fy = 60,000 psi (reinf.)



**STONE RIPRAP ANCHOR DETAIL**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S2
FAP 348	***	COOK	86	29	S13 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	Contract 62343		

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.		251.3	251.3
Structure Excavation	Cu. Yd.		3,691	3,691
Concrete Box Culverts	Cu. Yd.		284.2	284.2
Reinforcement Bars	Pound		55,880	55,880
Reinforcement Bars, Epoxy Coated	Pound		3,100	3,100
Stone Riprap, Class A4	Ton		154	154
Temporary Soil Retention System	Sq. Ft.		3,363	3,363
Name Plates	Each		1	1
Filter Fabric	Sq. Yd.		128	128
Epoxy Crack Injection	Foot		180	180
Structural Repair of Concrete Depth <5"	Sq. Ft.		704	704
Gabions	Cu. Yd.		82.0	82.0
Box Culverts to be Cleaned	Foot		421	421
Slope Wall Removal	Sq. Yd.		238.6	238.6
Geotechnical Fabric for French Drains	Sq. Yd.		66	66
Expansion Bolts 3/4 Inch x 12 inch	Each		112	112

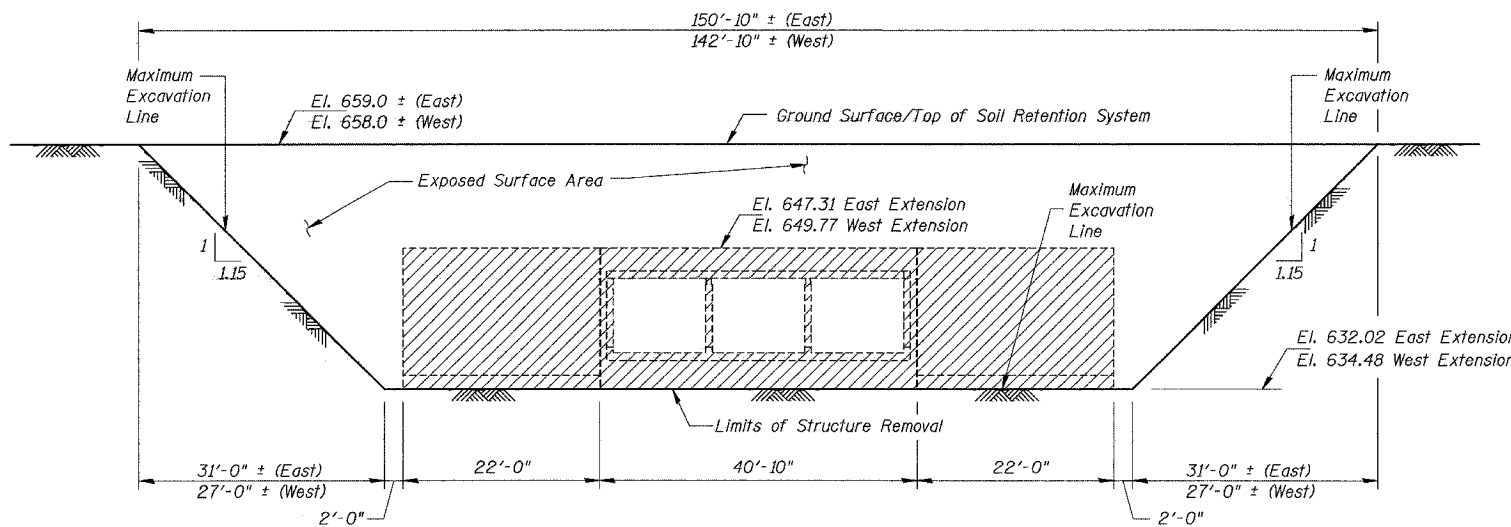
STATION 20+29  
RE-BUILT BY  
STATE OF ILLINOIS  
F.A.P. RT. 348 SEC. (1214 & 3127-1)RS-1  
LOADING HS20  
STR. NO. 016-2400

**NAME PLATE**

See Std. 515001

**LIST OF STRUCTURAL DRAWINGS**

TITLE	SHEET
General Plan And Elevation	S1
General Notes And Bill of Material	S2
Triple Box Culvert Details-I	S3
Triple Box Culvert Details-II	S4
Triple Box Culvert Details-III	S5
North Barrel Concrete Removal and Repairs	S6
Center Barrel Concrete Removal and Repairs	S7
South Barrel Concrete Removal and Repairs	S8
Concrete Removal Sections	S9
Channel Maintenance Plan	S10
Gabion Details - I	S11
Gabion Details - II	S12
Soil Borings	S13



**TEMPORARY SOIL RETENTION SYSTEM**

Dimensions are Parallel to  $\phi$  Roadway

**Note:**

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

COLLINS ENGINEERS, INC.  
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(312)704-9300  
ILLINOIS PROFESSIONAL DESIGN FIRM  
LICENSE NO. 184-000993

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
HARLEM AVENUE (IL. 43) OVER  
TINLEY CREEK  
FAP ROUTE 348 SECTION (1214 & 3127-1)RS-1  
COOK COUNTY STATION 20+29  
STRUCTURE NO. 016-2400  
**GENERAL NOTES AND BILL OF MATERIAL**  
DRAWN BY: KAC  
CHECKED BY: RAM/DGS  
DATE: JULY, 2003