

Bench Mark: Square Cut On Curb Of Island Near Flagpoles In Front Of Address #1601 Hawthorne Lane. Elev. 753.33

Existing Structure: No Structure Number. Existing Structure Is Composed Of Dual 48" Diameter CMP With Metal Flared End Sections. The Catch Basin On The North End Of The Culvert And The 36" RCP Under The Proposed Box Culvert Will Be Removed. See Drainage Plans For Removal And Pay Item. The Construction Date Is Unknown. The Road Will Be Closed During Construction. The Culvert Shall Be Constructed During Phase III. The Contractor Shall Coordinate With Resident Engineer Construction Schedule So That Roadway Is Not Closed For More Than Two Calendar Weeks.

No Salvage Of Existing Structure.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1389	99-0062-00-PV	DUPAGE	199	118
CONTRACT NO. 83873				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TOTAL BILL OF MATERIAL

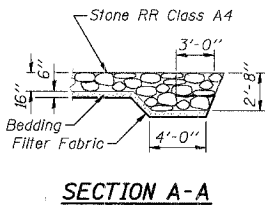
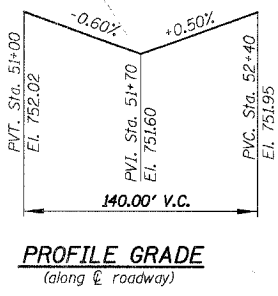
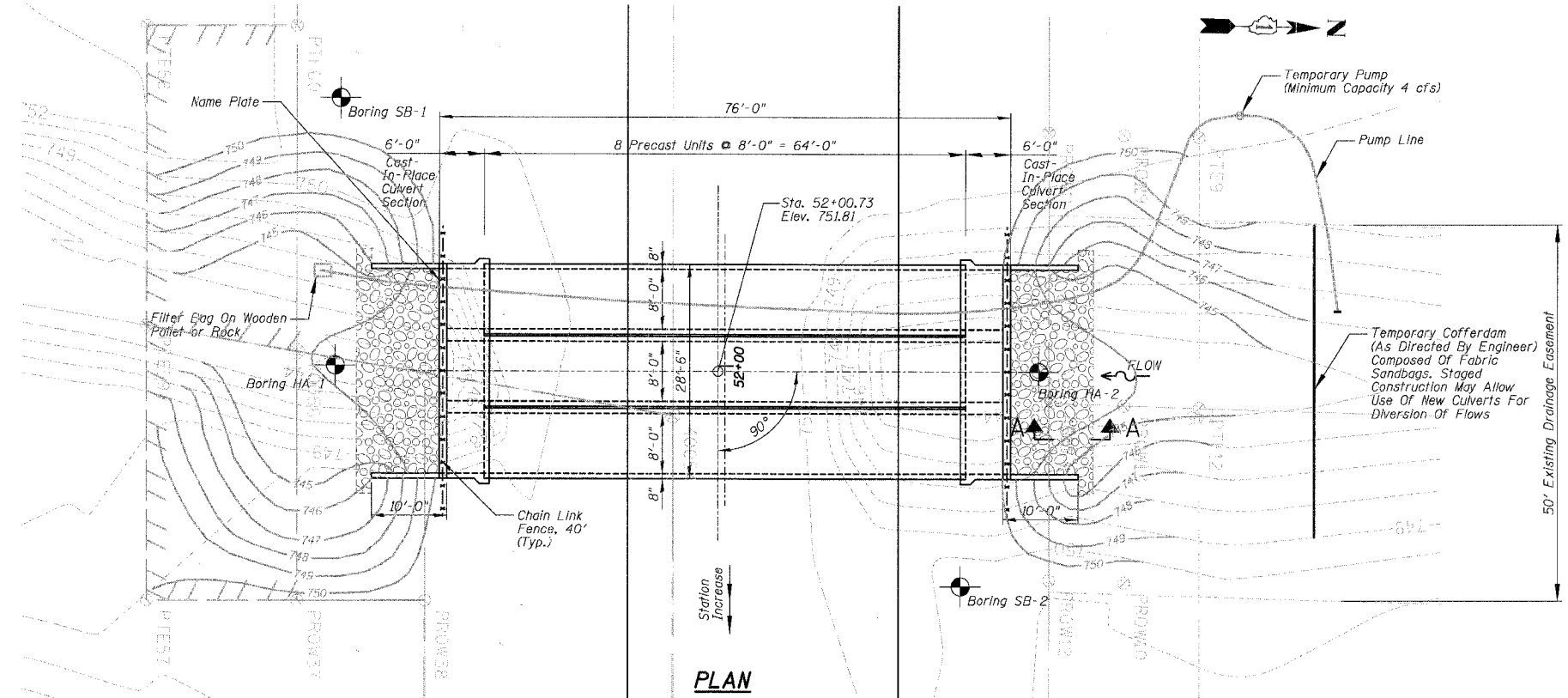
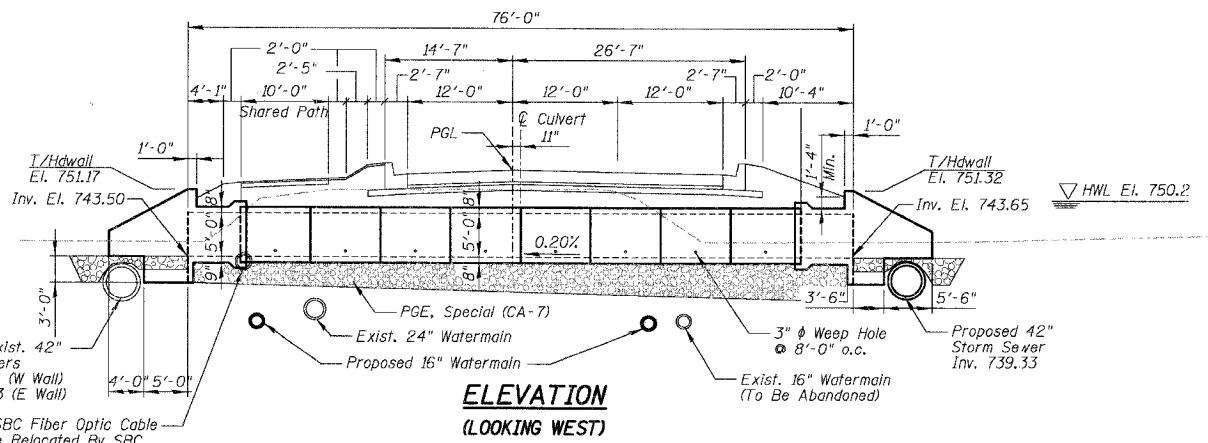
ITEM	UNIT	TOTAL
Precast Concrete Box Culverts 8' x 5' (M273)	Ft	192
Box Culvert End Sections	Each	2
Name Plates	Each	1
Stone Riprap, Class A4	Sq Yd	69
Filter Fabric	Sq Yd	69
Chain Link Fence, 6' Attached To Structure	Ft	80
Porous Granular Backfill	Cu Yd	58
Porous Granular Embankment, Special	Cu Yd	387
Removal And Disposal Of Unsuitable Material	Cu Yd	387

NOTES:

- Precast Concrete Box Culvert sections shall conform to the requirements of Article 540.06 of the Standard Specifications and the applicable requirements of AASHTO M 273.
- Reinforcement bars shall conform to the requirements of AASHTO M 31, or M-322.
- Lifting holes shall be filled with concrete plugs and mastic after box sections are in place.
- It shall be the responsibility of the Contractor to divert the stream flow during construction in order to keep the construction areas free of water. The method of water diversion shall be subject to the approval of the Engineer and cost shall be included with "Concrete Box Culvert".
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- For backfilling and embankment, see Standard Specifications.
- Exposed edges shall be beveled 3/4".
- All construction joints shall be bonded.
- Precast alternate not allowed for Box Culvert End Sections.
- The six foot C.I.P. portion of the box shall be cast monolithically with the wingwall.
- End sections will be paid for at the contract unit price each for Box Culvert End Sections of the culvert number specified, which price shall be payment in full for the work as specified and as shown on the plans, including cut-off walls, headwalls, collars, wingwalls, footings and all cast-in-place portions of the barrel, reinforcement bars and excavation.
- For removal and pay item of the existing dual 48" CMP and 36" RCP. See drainage plans.

KRESS CREEK
BUILT BY
DUPAGE COUNTY
SEC. 99-0062-00-PV
F.A.U. 1389 STA. 52+00.73
STR. NO. 022-6010 LOADING HS20

NAME PLATE
See Std. 515001



WATERWAY INFORMATION

Drainage Area	= 2 Sq. Mi.
Design Discharge (50 yr.)	= 460 c.f.s.
Exist. Opening (below 50 yr. H.W.E.)	= 25 Sq. Ft.
Prop. Opening (below 50 yr. H.W.E.)	= 17 Sq. Ft.
Created Head for Design Flood	= 0.0 Ft.
Created Head 100yr. Flood	= 0.0 Ft.
100 Yr. Discharge	= 505 c.f.s.
100 Yr. H.W.E.	= 750.6



I hereby Certify That The Waterway Opening For The Existing/Proposed Structure Has Been Analyzed And Evaluated Using Hydrologic And Hydraulic Engineering Methods In Accordance With The Policies And Procedures Presented In The Drainage Manual Of The Illinois Department Of Transportation.

September 8, 2006

Gerald L. Robinson
GERALD ROBINSON, P.E.
ILLINOIS REGISTRATION No. 062-047272
EXPIRATION DATE: 11/30/07

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 Style Of Structure And Complies With Requirements Of The Current "AASHTO Standard Specification For Highway And Bridges".



September 8, 2006

Majid Mobasser
MAJID MOBASSERI
ILLINOIS REGISTRATION No. 081-005058 STRUCTURAL ENGINEER
EXPIRATION DATE: 11/30/06

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges 17th Edition.

LOADING HS20-44

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

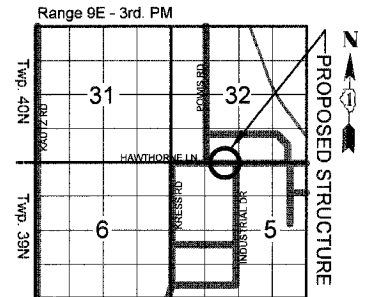
DESIGN STRESSES

FIELD UNITS

$f_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement Bars)

PRECAST UNITS

$f_c = 5,000$ psi
 $f_y = 60,000$ psi (Reinforcement Bars)
 $f_y = 65,000$ psi (Welded Wire Fabric)



GENERAL PLAN AND ELEVATION

HAWTHORNE LANE OVER
KRESS CREEK
F.A.U. 1389 - SECTION 99-0062-00-PV
DUPAGE COUNTY
STATION 52+00.73
STRUCTURE NO. 022-6010

CHRISTOPHER B. BURKE
ENGINEERING LTD.
9575 West Higgins Road, Suite 600
Rosemont, Illinois 60018

REVISIONS	NAME	DATE	DRAWING NUMBER

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