

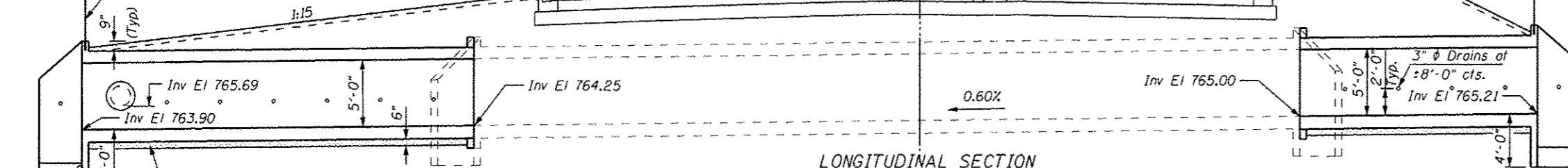
Bench Mark: Sta 1058+46.71 IL173 69.37' Rt Mast Arm, chiseled □ Elev 757.96

Existing Structure: S.N. 101-5151 Double 5'-0" x 10'-0" Precast Concrete Box Culvert constructed in 2000.

Traffic to be maintained during widening.

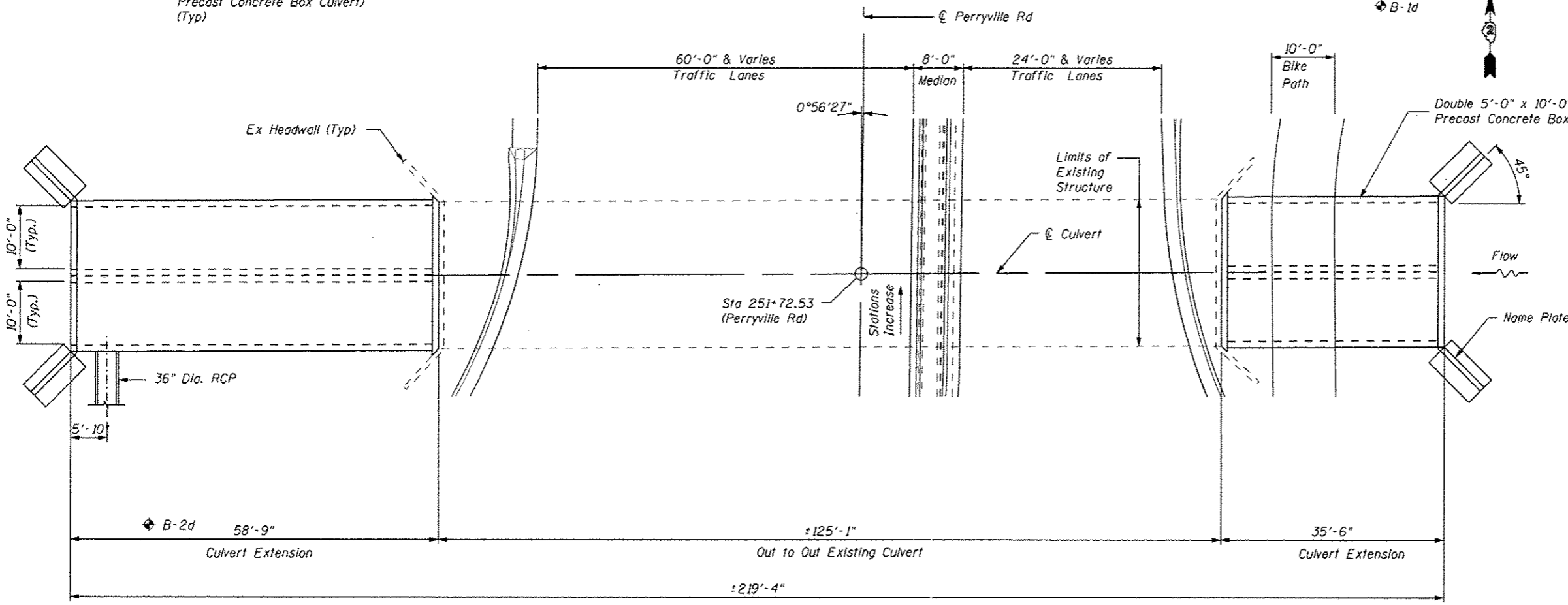
No salvage.

For Details of Pipe Handrail, Special see Roadway Plans (Typ)



LONGITUDINAL SECTION

(Vertical scale exaggerated for clarity)
(Cross slopes and dimensions are perpendicular to Perryville Rd)



PLAN

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60. See Special Provisions.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Plan dimensions and details relative to existing plans are subject to nominal construction 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 a change in the scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
4. Exposed edges shall have a 3/4" chamfer.
5. Precast Concrete Box Culvert sections shall conform to the requirements of Article 540.06 of the Standard Specifications and the applicable requirements of ASTM C1577.
6. See Erosion Control Plans for Slope Protection System.

LOADING HL-93

DESIGN SPECIFICATIONS

AASHTO LRFD Design Specifications 5th edition with 2010 Interims

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (reinforcement)
Max Soil Pressure under Footing = 2200 p.s.f.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.076 g
Design Spectral Acceleration at 0.2 sec. (SDs) = 0.125 g
Soil Site Class = D

WILLOW CREEK
BUILT 2000 BY
WINNEBAGO COUNTY
SEC. 99-00223-00-RP
STATION 523+22
STRUCTURE No. 101-5151
LOADING HS20

NAME PLATE

Remove and Relocate Existing Name Plate (See Std. 515001), Cost included with Name Plate



M. Silvestri 05-05-2013
Expires: 11-30-14

TOTAL BILL OF MATERIAL

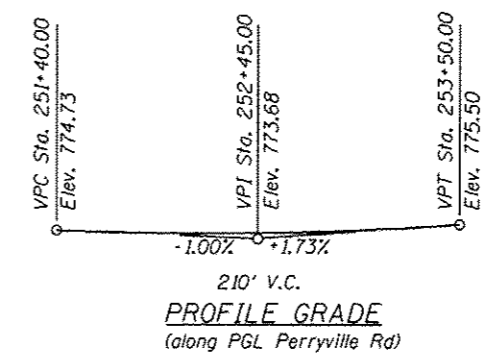
ITEM	UNIT	TOTAL
Reinforcement Bars, Epoxy Coated	Lbs.	260
Reinforcement Bars	Lbs.	3060
Name Plates	Each	1
Concrete Box Culverts	Cu.Yd.	29.5
Precast Concrete Box Culvert 10'x5'	Foot	184.5
Porous Granular Embankment	Ton	590
Expansion Bolts 3/4"	Each	60
Structure Excavation	Cu.Yd.	314
Concrete Collar	Cu.Yd.	3.1

WATERWAY INFORMATION

Drainage Area = 1.72 Sq. Mi. Low Grade Elev. 785.5

Flood	Freq.	Q	Opening	Sq.Ft	Natural	Head-Ft.	Headwater El.
Design	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.
Base	50	720	-	100	769.2	-	0.3
Overtopping	100	850	-	100	769.5	-	0.6
Max. Calc.	500						770.1

Note: The waterway information shown above was provided by Winnebago County, who is solely responsible for the hydraulic adequacy of the proposed culvert.



PROFILE GRADE
(along PGL Perryville Rd)

GENERAL PLAN AND ELEVATION
PERRYVILLE ROAD OVER WILLOW CREEK
WINNEBAGO COUNTY
STATION 251+72.53
SECTION 129TS-1
STRUCTURE NO. 101-5151