Bench Mark: (USGS Y–15) Sta. 45+17.00, 49.03 Lt., Elev. 558.89

Existing Structure: Single span, 65'± bk. to bk. abutments, 22'± o. to o. cast in place concrete deck on (2) concrete stringers on closed masonry abutments with spread footings. The contractor shall remove the existing structure as required and replace it with a single span steel plate girder superstructure on integral abutments. The road shall remain closed during the construction.

Salvage existing two metal nameplates from SN 001–6002 for City of Quincy.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

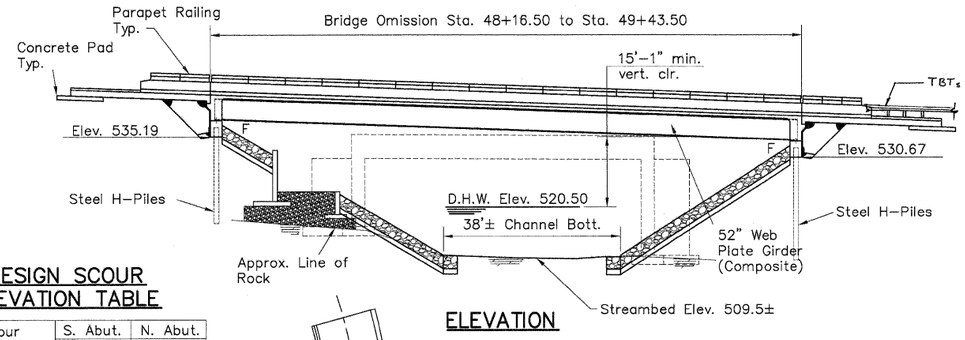
RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N 5TH ST	03–00289–00–BR	ADAMS	90	39
GENERAL PLAN AND ELEVATION				

CONTRACT NO. 93542

SHEET 1 OF 18

INDEX OF SHEETS

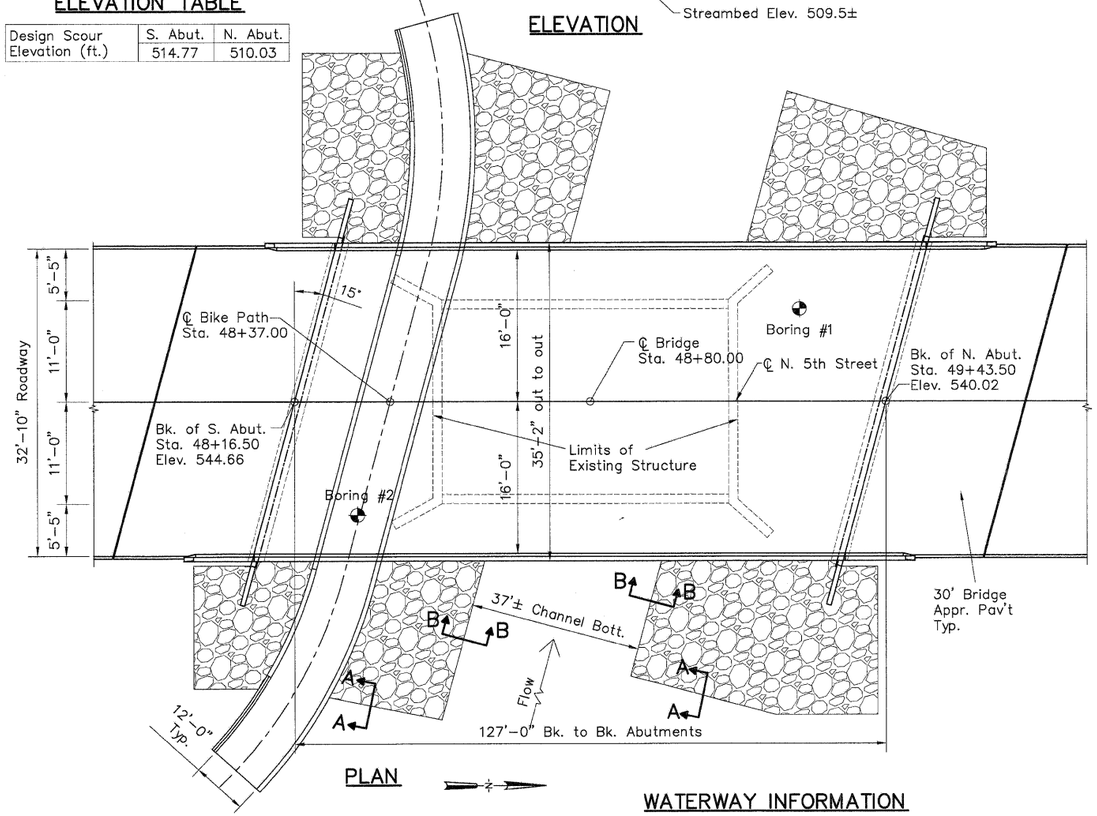
1	GENERAL PLAN AND ELEVATION
2	GENERAL NOTES / BILL OF MATERIALS
3–4	TOP OF SLAB ELEVATIONS
5–6	TOP OF APPROACH SLAB ELEVATIONS
7	SUPERSTRUCTURE
8	SUPERSTRUCTURE DETAILS
9–10	BRIDGE APPROACH SLAB DETAILS
11	DIAPHRAGM DETAILS
12	BICYCLE RAILING
13	STRUCTURAL STEEL
14–15	ABUTMENTS
16	PILE DETAILS
17	BAR SPLICER ASSEMBLY DETAILS
18	SOIL BORING LOGS



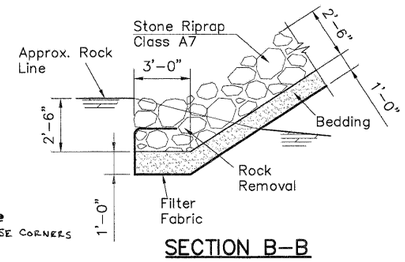
ELEVATION

DESIGN SCOUR ELEVATION TABLE

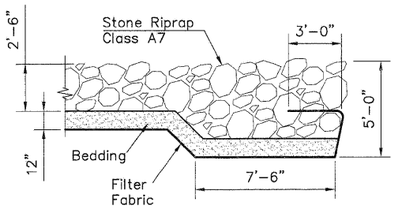
Design Scour Elevation (ft.)	S. Abut.	N. Abut.
	514.77	510.03



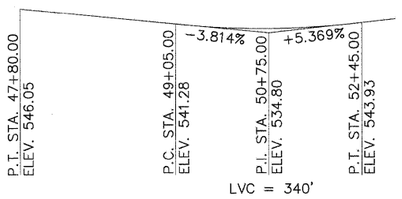
PLAN



SECTION B–B



SECTION A–A



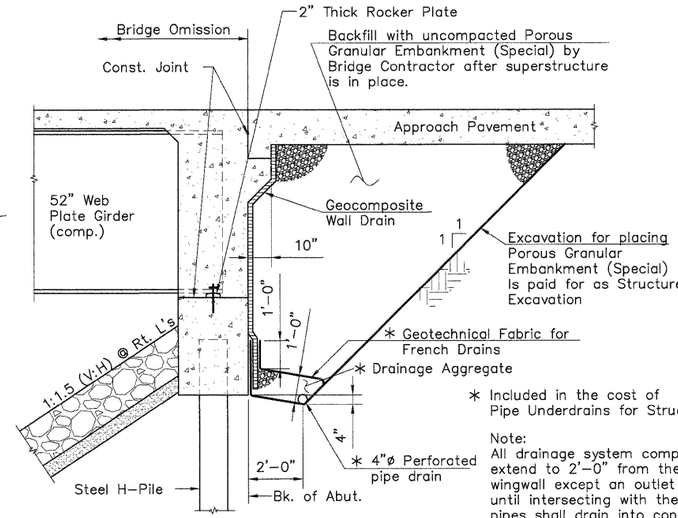
PROFILE GRADE

(ALONG ℄ ROADWAY)

STATION 48+80.00
BUILT 201_ BY
CITY OF QUINCY
SEC. 03–00289–00–BR
NORTH 5TH STREET
LOADING HL–93
STR. NO. 001–6012

LETTERING FOR NAMEPLATE

SEE STD. 515001



SECTION THRU ABUTMENT

(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures 4".

Note:
All drainage system components shall extend to 2'–0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101)

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2009 Interims

LOADING HL 93

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

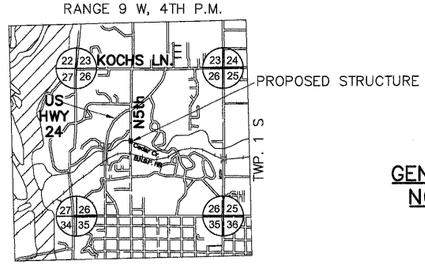
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 50,000 psi (AASHTO M270 Grade 50)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Accelerations at 1.0 sec. (SD1) = 0.048g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.150g
Soil Site Class = B



LOCATION SKETCH

GENERAL PLAN & ELEVATION NORTH 5TH STREET OVER CEDAR CREEK CITY OF QUINCY STATION 48+80.00 STRUCTURE NO. 001–6012

DESIGNED	D.S.P.
CHECKED	C.S.B.
DRAWN	D.S.P.
CHECKED	C.S.B.

20

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

WATERWAY INFORMATION

Drainage Area = 7.25 SQ. MI. Exist. Low Grade Elev. = 535.37 ft. @ Sta. 49+75
Proposed Low Grade Elev. = 538.74 ft. @ Sta. 50+51

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head – Ft. Exist.	Head – Ft. Prop.	Headwater Elev. Exist.	Headwater Elev. Prop.
	10	4,651	528	560	519.2	0.2	0.1	519.4	519.3
Design	30	6,158	646	698	520.5	0.7	0.6	521.2	521.1
Base	100	7,224	731	813	521.5	1.0	1.0	522.5	522.5
Overtopping									
Max. Calc.	500	10,711	998	1,181	524.1	2.5	2.5	526.6	526.6

PSBA
POEPPING, STONE, BACH & ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SURVEYORS
100 S 84TH ST, P.O. BOX 709 • QUINCY, IL 62306
WITH OFFICES IN IKEOKUK, IOWA & HANNIBAL, MISSOURI
www.psba.com • PHONE 877-223-4605

REVISIONS NAME	DATE

CITY OF QUINCY, ILLINOIS

N. 5TH STREET BRIDGE

GENERAL PLAN AND ELEVATION

SCALE: VERT.
HORIZ.
DATE

DRAWN BY: DSP
CHECKED BY: CSB