

Bench Mark: CP41, cross-cut in median of 103rd street approximately 900' west of Stony Island Extension. Elevation 585.80.

Existing Structure: The existing bridges carrying northbound (SN 016-2441) and southbound (SN 016-2442) Stony Island Extension over 103rd Street are single-span structures with three steel plate tub girders each supporting a composite concrete deck with a 1.5" bituminous overlay. The bridges have closed abutments founded on creosoted timber piles. The existing structures are each 125'-8" long from centerline to centerline of abutment bearings, measured along the girders, and each structure has an out-to-out width of 49'-0", measured radially. Each bridge will be separately closed to the traffic during construction.

SCOPE OF WORK

1. Remove HMA overlay and replace with latex concrete overlay.
2. Remove expansion joints and replace with strip seal joints.
3. Perform partial and full depth deck slab repairs.
4. Remove and replace parapets and approach slabs.
5. Perform concrete repairs and epoxy crack injections on abutments and wingwalls.
6. Remove and replace keeper angles (side retainers).
7. Clean and paint all exterior surfaces and portions of interior surfaces of steel tub girders.
8. Clean bearing seats.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition.
1995 FHWA Seismic Retrofitting Manual for Highway Bridges (FHWA-RD-94-052).

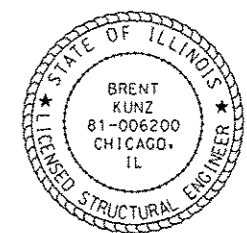
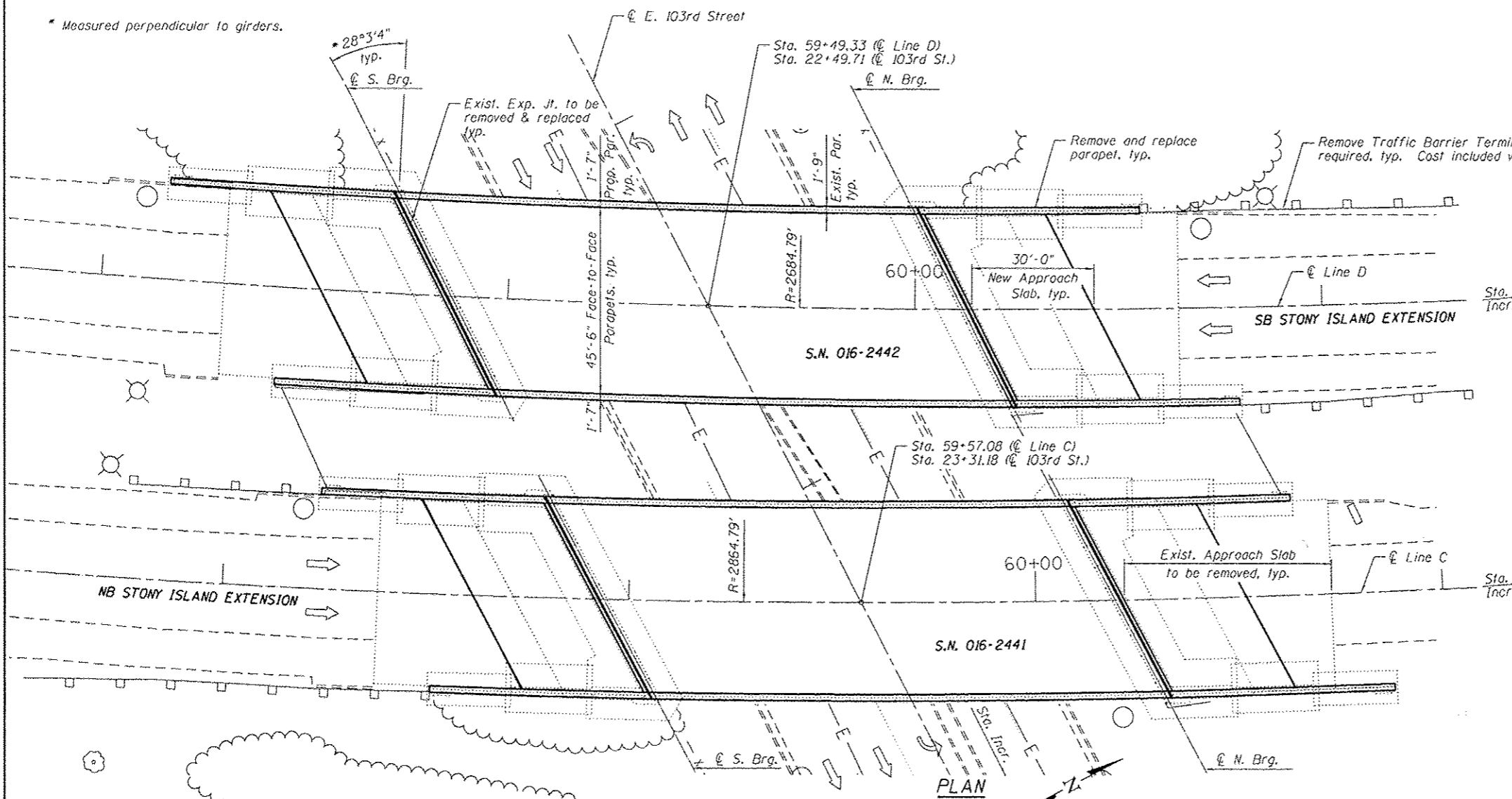
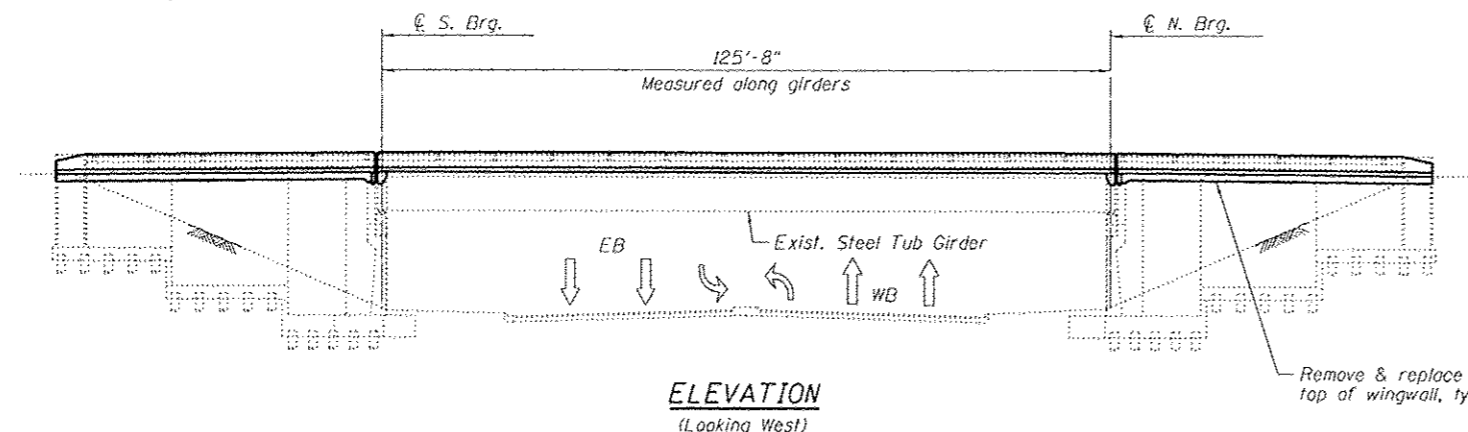
DESIGN STRESSES

FIELD UNITS (New Construction)

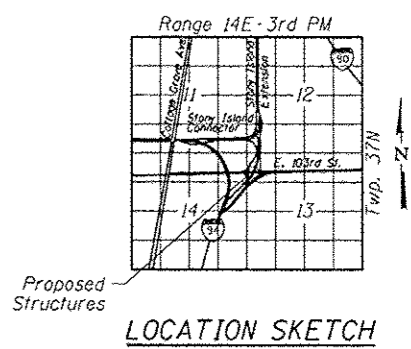
$f'_c = 3,500$ psi
 $f_y = 36,000$ psi (structural steel)
 $f_y = 60,000$ psi (reinforcement)

FIELD UNITS (Exist. Construction)

$f'_c = 3,000$ psi
 $f_y = 40,000$ psi (reinforcement)
 $f_y = 36,000$ psi (structural steel)



SIGNED: *Brent Kunz*
DATE: March 29, 2013
EXPIRES: November 30, 2014



GENERAL PLAN & ELEVATION
STONY ISLAND EXTENSION OVER 103rd STREET
F.A.I. RTE. 94 - SEC. 2012-059-BR
COOK COUNTY
STATION 59+57.08 (LINE C) & 59+49.33 (LINE D)
STRUCTURE NOS. 016-2441 & 016-2442

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com

USER NAME	DESIGNED - IYL	REVISED
PLOT SCALE	CHECKED - BAK	REVISED
PLOT DATE 03/29/2013	DRAWN - MTR	REVISED
	CHECKED - IYL	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2012-059-BR	COOK	631	557

CONTRACT NO. 60J12
ILLINOIS FED. AID PROJECT