F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	373
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62301 *(2021-922 PT2 ETC 2324.6-1P) R-10

Benchmark: BM No. 3538
"+" Cut on Easterly flange bolt of fire hydrant at Northeast corner of 47th Street and La Salle St.
El. 17.31

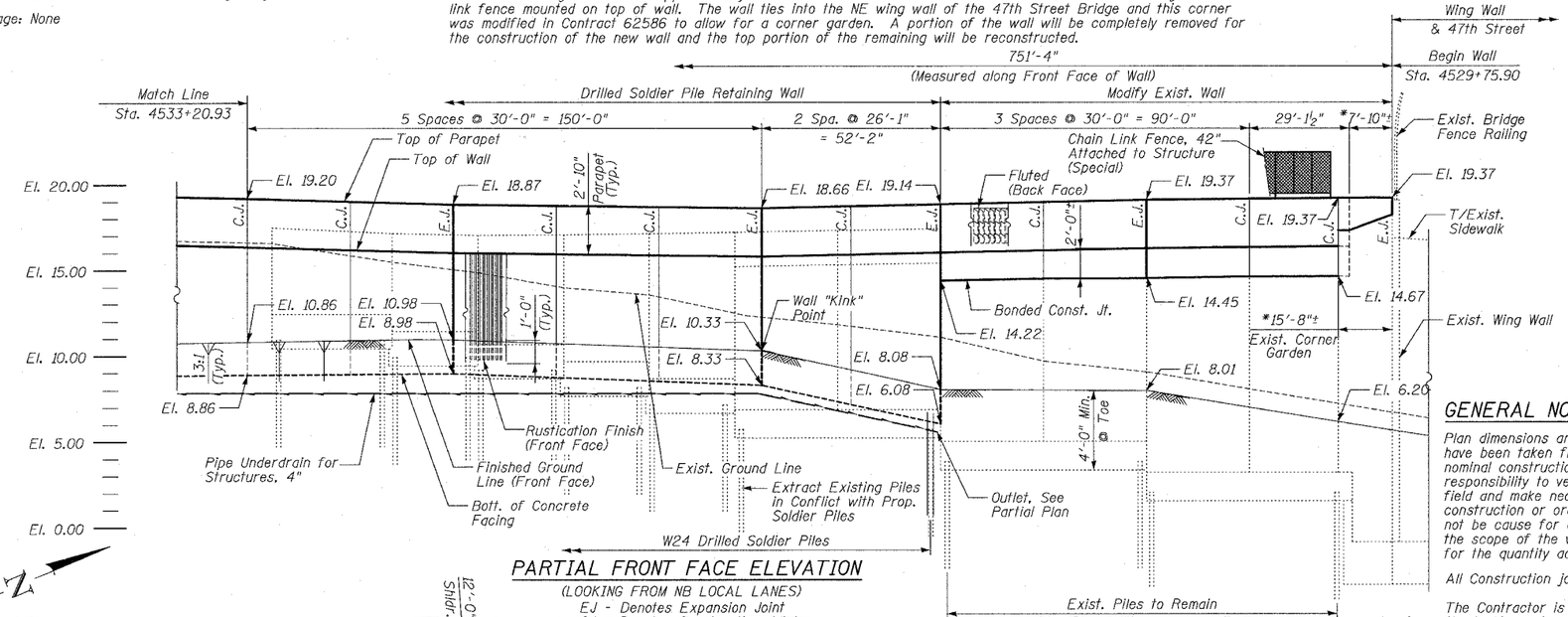
All elevations are based on the Chicago City Datum (C.C.D.)

Salvage: None

Existing Structure Description:

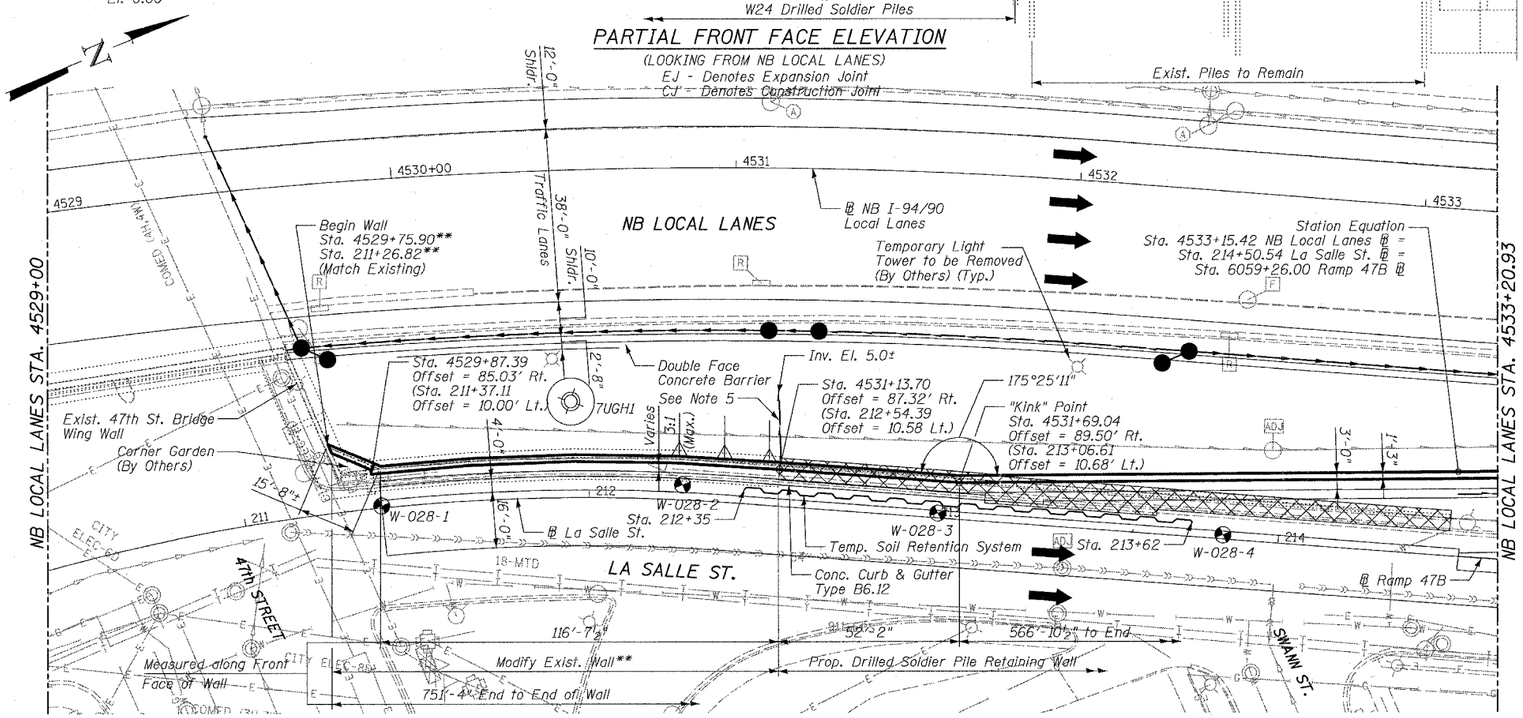
The existing wall was built in 1962 as part of Section 2122-907HB and Section 2122-921 PT. I in two phases designated as part of the 47th Street Bridge (S.N. 016-1156) and Wall "E-4". The existing wall is a cast-in-place concrete cantilever type on pile supported footings with a total length of 323'-4". The height from top of wall to bottom of footing varies from approximately 18'-9" to 7'-0" with a 1'-3" thick stem. There is an existing chain link fence mounted on top of wall. The wall ties into the NE wing wall of the 47th Street Bridge and this corner was modified in Contract 62586 to allow for a corner garden. A portion of the wall will be completely removed for the construction of the new wall and the top portion of the remaining will be reconstructed.

*Corner Garden wall at an angle with respect to wall, 7'-10" dimension is measured along original wall.



PARTIAL FRONT FACE ELEVATION

(LOOKING FROM NB LOCAL LANES)
EJ - Denotes Expansion Joint
CJ - Denotes Construction Joint



PARTIAL PLAN

** Utilize existing wall as reference to construct modification

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 36,000 psi (M270 Gr 36) Soldier Piles

TOTAL BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures	Each	1
Porous Granular Embankment (Special)	Cu. Yd.	267
Concrete Removal	Cu. Yd.	18
Structure Excavation	Cu. Yd.	101
Concrete Structures	Cu. Yd.	197.7
Concrete Superstructure	Cu. Yd.	88.1
Protective Coat	Sq. Yd.	686
Rustication Finish	Sq. Ft.	4,352
Stud Shear Connectors	Each	1,034
Untreated Timber Lagging	Sq. Ft.	3,837
Furnishing Soldier Piles (W Section)	Foot	2,150
Reinforcement Bars, Epoxy Coated	Pound	41,160
Geocomposite Wall Drain	Sq. Yd.	311
Pipe Underdrains for Structures 4"	Foot	700
Pile Extraction	Each	20
Temporary Soil Retention System	Sq. Ft.	805
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	12,579
Chain Link Fence, 42" Attached to Structure (Special)	Foot	470
Chain Link Gate Assembly (Special)	Each	1
Drilled Shaft In Soil, 44"	Foot	32

GENERAL NOTES:

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

All Construction joints shall be bonded.

The Contractor is responsible for the design and performance of the lagging using no less then a 3" nominal rough-sawn thickness and timber with a minimum allowable bending stress f_b of 1000 psi.

All exposed concrete edges shall be chamfered ¾" except as noted.

Protective Coat shall be applied to the top and back face of parapet and to the exposed front face in areas where the wall is within 25 feet of edge of pavement.

Additional Notes:

1. Offsets given to Back Face of Wall. Station and offsets in parentheses are along Frontage Road or ramp.
2. For HMLT foundation and work pads, see Electrical Infrastructure Plans and Structure Details. Towers by others.
3. Wall to be built along straight chords between const. joints.
4. Min. Facing in contact with soldier pile shall be 3'-0".
5. Outlet pipe underdrain to daylight at invert given with 1% min. slope. Provide Rodent Shield. Cost included with Pipe Underdrain for Structures, 4"
6. See Sheet 8 for Offset Sketch.

LEGEND

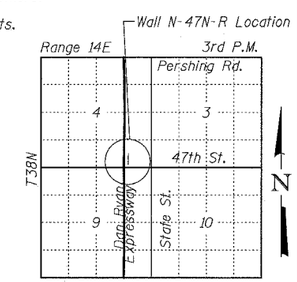
- Soil Boring Location
- High Mast Lighting Foundation and Tower (See Notes)
- Removal of Exist. Structures
- Proposed Drainage Structure
- Proposed Underdrain
- Proposed Storm Sewer

STATE OF ILLINOIS
BRIAN L. UMBRIGHT
081-005584
CHICAGO, IL
LICENSED STRUCTURAL ENGINEER

Date: July 13, 2006
License Expires: November 30, 2006

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

ENGINEER OF BRIDGES AND STRUCTURES



LOCATION SKETCH

SHEET 1 OF 24

REVISIONS		
	NAME	DATE
	REVISED	06/21/06
	REVISED	07/13/06
2	ADDENDUM 2	8/04/06

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
COOK COUNTY
STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
GENERAL PLAN AND ELEVATION 1
S.N. 016-W977

SCALE: NTS
DATE: JUNE 9, 2006
DRAWN BY: MTR
CHECKED BY: BLU

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

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