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

62303 +11818, ETC, 2324.6-IPIR-1)

Benchmark: BM No. 3528
"+" Cut on Northwesterly bolt of Fire Hydrant at the Northwest corner of 45th St. and Wentworth Ave.
El. 16.20

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 2122-921 PT.1 and designated Wall "W4". The existing wall is a cast-in-place concrete cantilever type on pile supported footings with a total length of 524'-9". The height from top of wall to bottom of footing varies from approximately 11'-6" to 6'-3". The stem is 1'-0" in width at the top and increases toward the base as the front face slopes 1/4" per foot. There is an existing chain link fence mounted on top of wall. 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.

DESIGN SPECIFICATIONS

2002 AASHTO

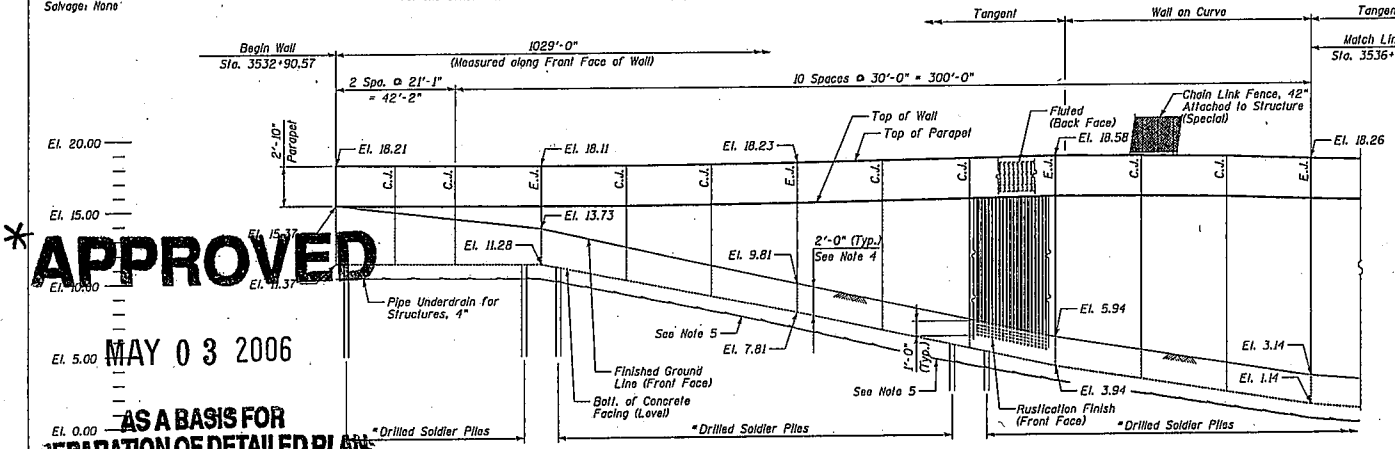
DESIGN STRESSES

FIELD UNITS

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

HIGHWAY CLASSIFICATION

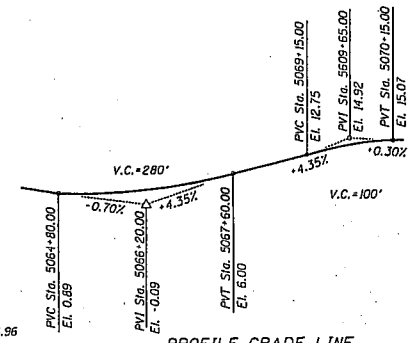
SB LOCAL LANES	RAMP 47A	WENTWORTH AVE.
Class: Interstate	Class: Ramp	Class: Urban Collector
DHV: 4604 (2000)	DHV: 916 (2000)	DHV: 727 (2000)
4476 (2020)	1695 (2020)	848 (2010)
ADT: 89,045 (2000)	ADT: 14,040 (2000)	ADT: Not available from Phase 1
Design Speed: 60 mph	Design Speed: 40 mph	Design Speed: 30 mph



PARTIAL FRONT FACE ELEVATION

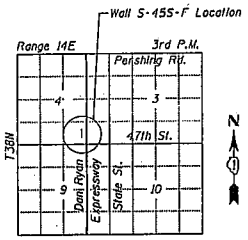
EJ - Denotes Expansion Joint
CJ - Denotes Construction Joint

* Pile Size, Spacing & Tip Elevation to be determined During Final Design

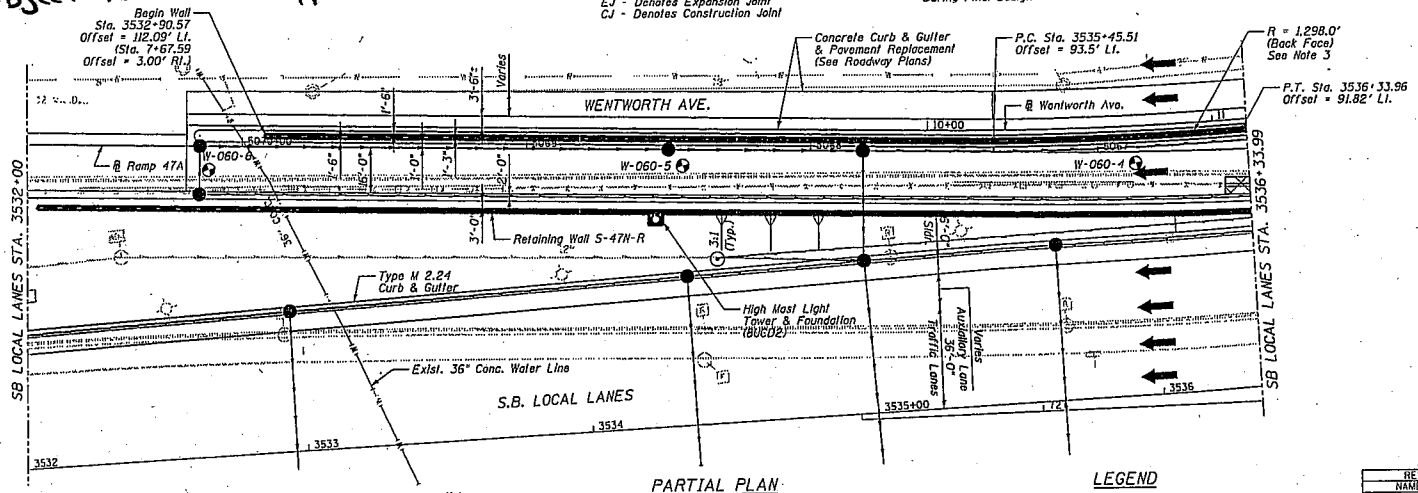


PROFILE GRADE LINE

Along @ Ramp 47A



LOCATION SKETCH



PARTIAL PLAN

Notes:

1. Offsets given to Back Face of Wall. Station and offsets in parenthesis are along Frontage Road or ramp.
2. HMLT. foundations and work pads by others. See Special Provisions for Contractor Cooperation.
3. Wall to be built along straight chords between construction joints.
4. Min. Facing in contact with soldier pile shall be 3'-0".
5. Connect underdrain to Catch Basin.

LEGEND

- Soil Boring Location
- Proposed Drainage Structure
- Proposed Underdrain
- Proposed Storm Sewer

APPROVED
MAY 03 2006
AS A BASIS FOR PREPARATION OF DETAILED PLAN
* Subject to FHWA Approval

REVISIONS	
NAME	DATE

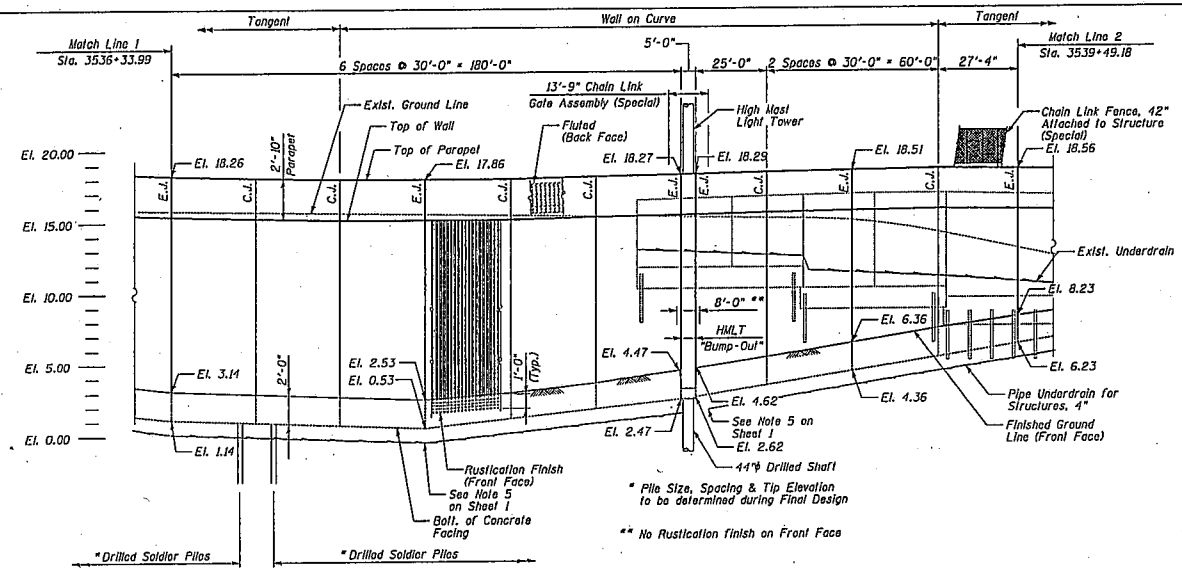
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (SB LOCAL LANES)
COOK COUNTY
STA. 3532+90.57 TO STA. 3543+57.42
RETAINING WALL S-45S-F
GENERAL PLAN 1
S.N. 016-W978

SCALE: NTS — DRAWN BY: MTR
DATE: APRIL 3, 2006 — CHECKED BY: BLU

SHEET 1 OF 5

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

62303 *(1818, ETC, 2324.6-IPIR-1)



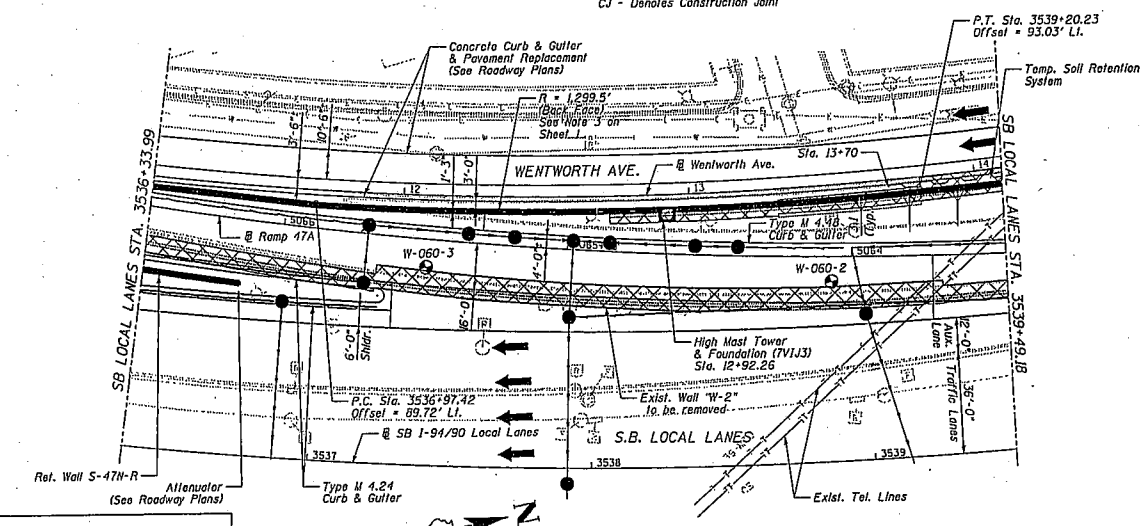
PARTIAL FRONT FACE ELEVATION

EJ - Denotes Expansion Joint
CJ - Denotes Construction Joint

E.O.P. ELEVATIONS

Along Wentworth Ave. at Retaining Wall

	Station	Elevation
Ramp 47A ℄	5070+00	14.85
	5069+50	14.76
	5069+00	14.71
	5068+50	14.79
	5068+00	14.95
Wentworth ℄	10+00	15.10
	10+50	15.17
	11+00	14.98
	11+50	14.67
	12+00	14.42
	12+50	14.67
	13+00	14.83
	13+50	15.07
	14+00	15.13
	14+50	14.87
	15+00	14.72
	15+50	14.69
	16+00	14.76
	16+50	14.86
	17+00	14.94
	17+50	15.03
	18+00	15.03



PARTIAL PLAN

LEGEND

- Soil Boring Location
- Proposed Drainage Structure
- Proposed Underdrain
- Proposed Storm Sewer
- Removal of Exist. Structures

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (SB LOCAL LANES)
COOK COUNTY
STA. 3532+90.57 TO STA. 3543+57.42
RETAINING WALL S-45S-F
GENERAL PLAN 2
S.N. 016-W978

SCALE: NTS DRAWN BY: MTR
DATE: APRIL 3, 2006 CHECKED BY: BLU

SHEET 2 OF 5

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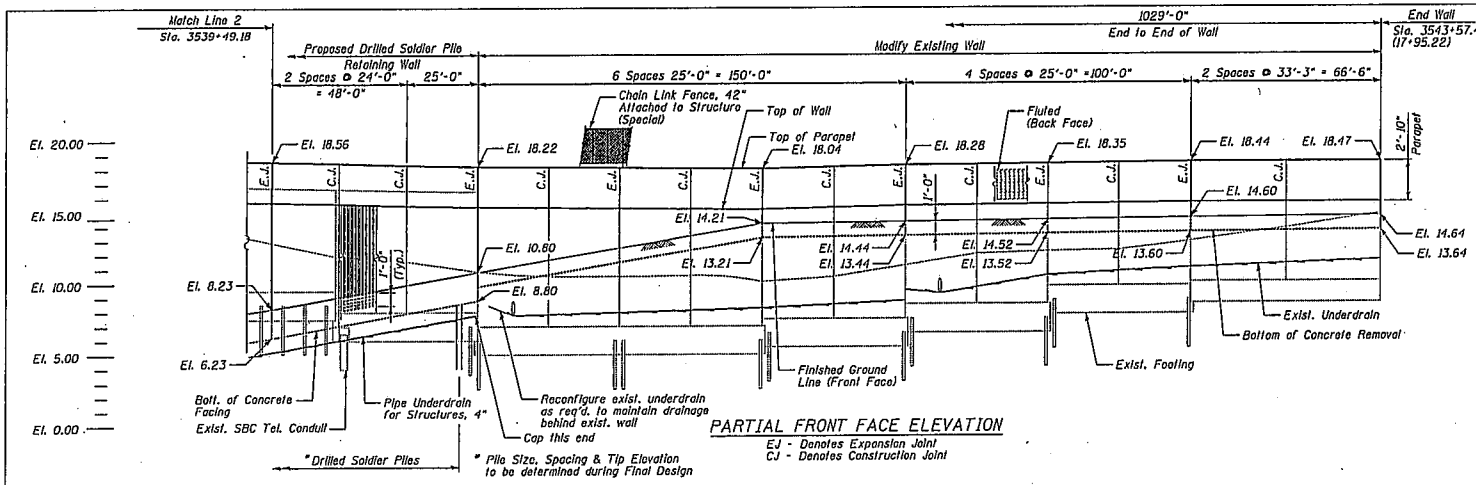
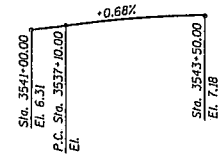
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK		
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62303	*(1818, ETC, 2324.6-1P)R-11			



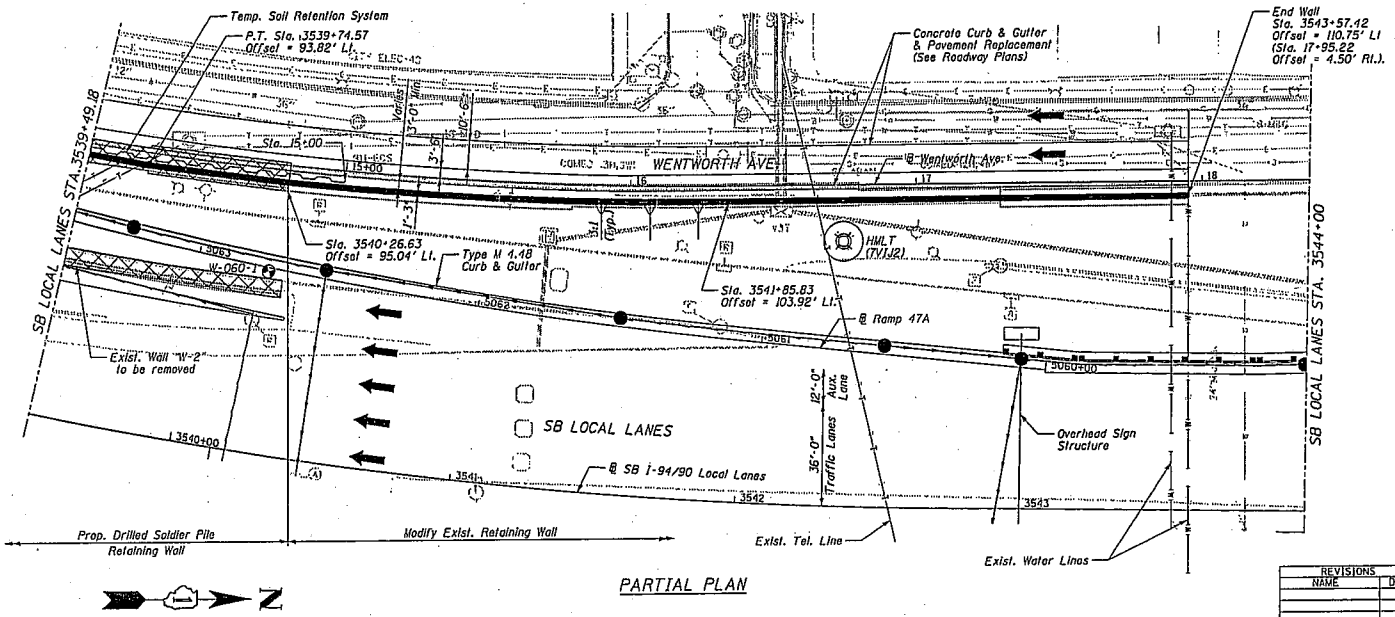
PARTIAL FRONT FACE ELEVATION

EJ - Denotes Expansion Joint
CJ - Denotes Construction Joint



PARTIAL PROFILE GRADE LINE

Along SB Local Lanes



PARTIAL PLAN

LEGEND

- Soil Boring Location
- Proposed Drainage Structure
- Proposed Underdrain
- Proposed Storm Sewer
- High Mast Lighting Foundation and Tower (See Notes on Sheet 1)
- Removal of Exist. Structures

SHEET 3 OF 5

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (SB LOCAL LANES)
COOK COUNTY
STA. 3532+90.57 TO STA. 3543+57.42
RETAINING WALL S-455-F
GENERAL PLAN 3
S.N. 016-W978

SCALE: NTS — DRAWN BY: MTR
DATE: APRIL 3, 2006 — CHECKED BY: DLU

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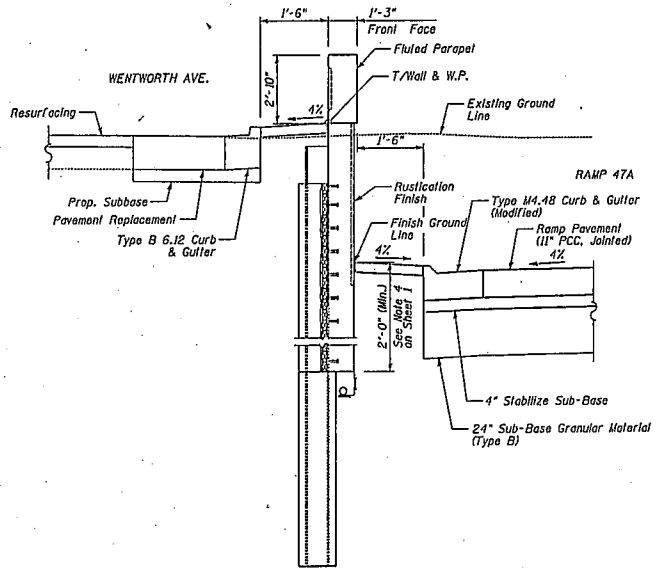
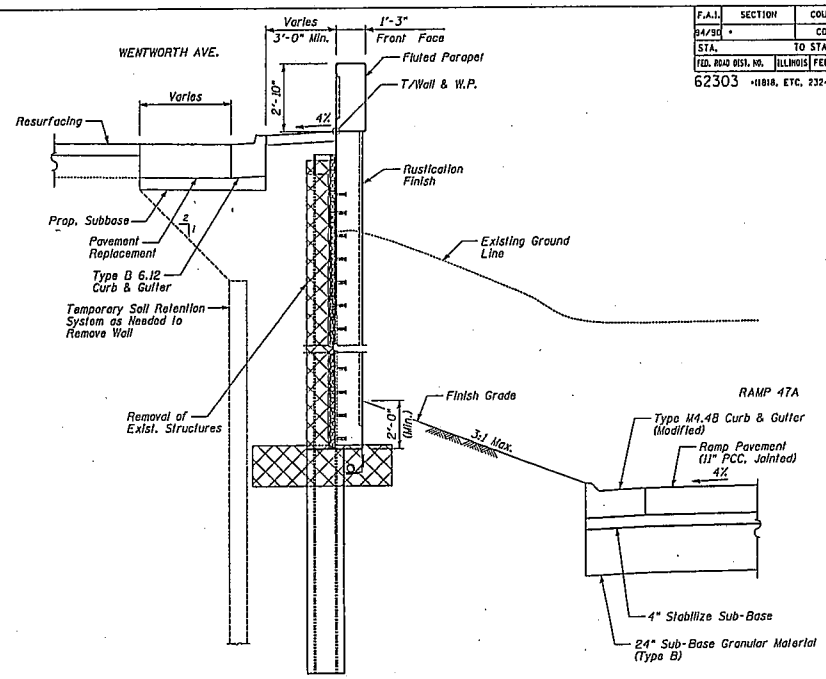
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK		
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

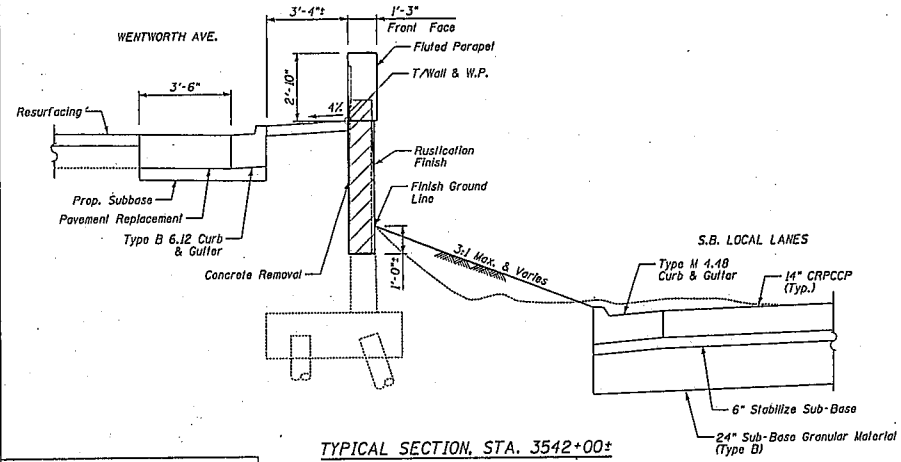
62303 *(1818, ETC. 2324.6-1P1R-1)



TYPICAL SECTION, STA. 3534+50±
(Looking Upstation)



TYPICAL SECTION, STA. 3539+00±
(Looking Upstation)



TYPICAL SECTION, STA. 3542+00±
(Looking Upstation)

LEGEND

- Concrete Removal
- Removal of Exist. Structures

SHEET 4 OF 5

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (SB LOCAL LANES)
COOK COUNTY
STA. 3532+90.57 TO STA. 3543+57.42
RETAINING WALL S-45S-F
TYPICAL SECTIONS
S.N. 016-W978

SCALE: NTS — DRAWN BY: MTR
DATE: APRIL 3, 2006 — CHECKED BY: BLU

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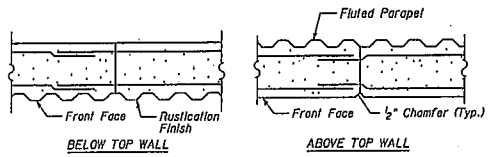
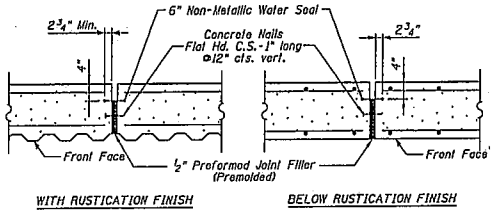
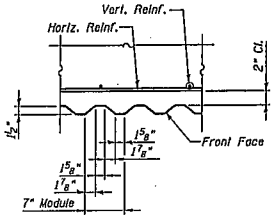
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK		
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62303	*(1816, ETC, 2324.6-IPIR-1)			



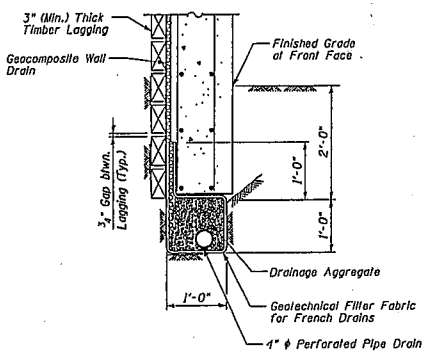
CONSTRUCTION JOINT DETAILS



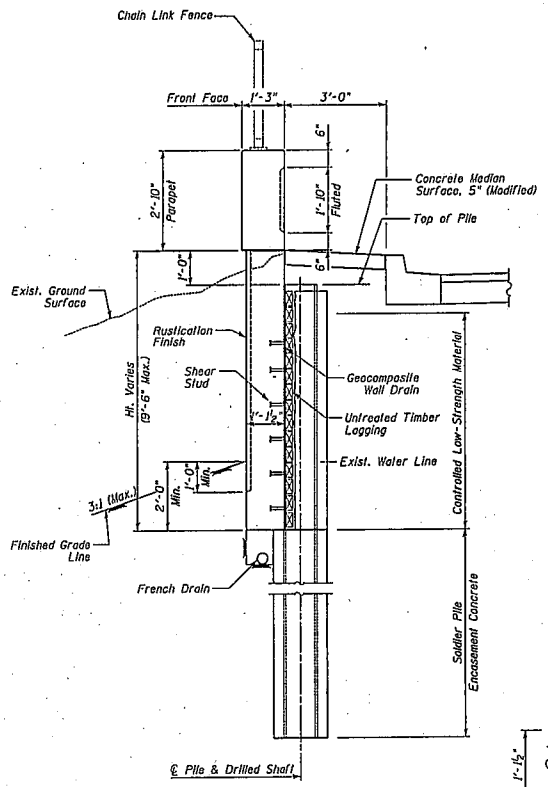
EXPANSION JOINT DETAILS



DETAIL 1

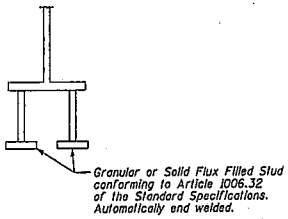


PIPE UNDERDRAIN DETAIL BETWEEN SOLDIER PILES

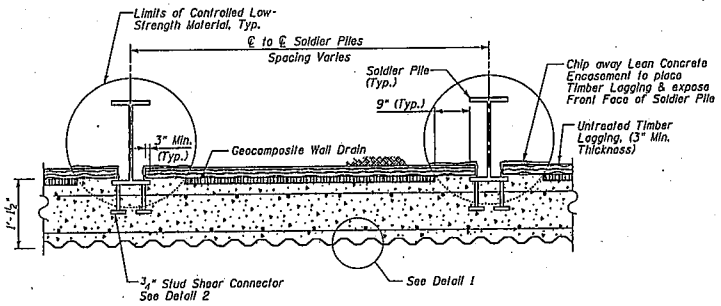


TYP. SECTION THRU PROPOSED WALL

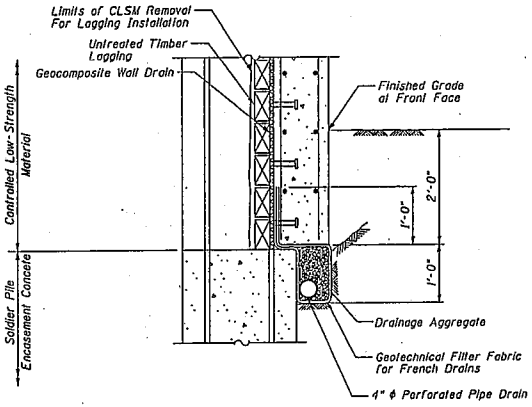
See Sheet 4 for Modifications to this Section



DETAIL 2



SECTION THRU SOLDIER PILE WALL



PIPE UNDERDRAIN DETAIL AT SOLDIER PILES

SHEET 5 OF 5

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (SB LOCAL LANES)
COOK COUNTY
STA. 3532+90.57 TO STA. 3543+57.42
RETAINING WALL S-45S-F
MISCELLANEOUS DETAILS
S.N. 016-W978

SCALE: NTS | DRAWN BY: MTR
DATE: APRIL 3, 2006 | CHECKED BY: BLU

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