Bench Mark: "X" Cut on Top Row of N.W. bolt of Fire Hydrant W. Side of Mannheim Road and first Fire Hydrant S. of Bridge over RR Tracks and Franklin Ave.

Existing Structure: No. 016-0335. Built as US 12/20/45 (Mannheim Rd.) Sec. 465 VB-R-1 in 1940. Structure widened and rehabilitated in 1978. The superstructure consists of a R.C. deck 1250' long by 100.1' wide supported on 19 spans of Rolled Girder and riveted Plate Girder. Traffic shall be maintained during Structure rehabilitation by staged construction.

Salvage Materials: None.

## DESIGN SPECIFICATIONS

2002 AASHTO Std. Spec. for Highway Bridges

## DESIGN STRESSES

f'c = 3.5 ksi (Concrete)
fy = 50 ksi (M270 Gr. 50 Struct. Steel)
fy = 60 ksi (Reinforcement)

## SEISMIC DATA

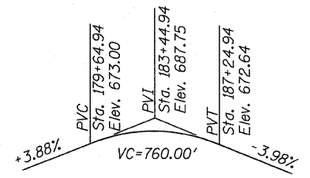
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0

## LOADING HS20-44

Allow 50 Lbs/Ft² for future wearing surface.

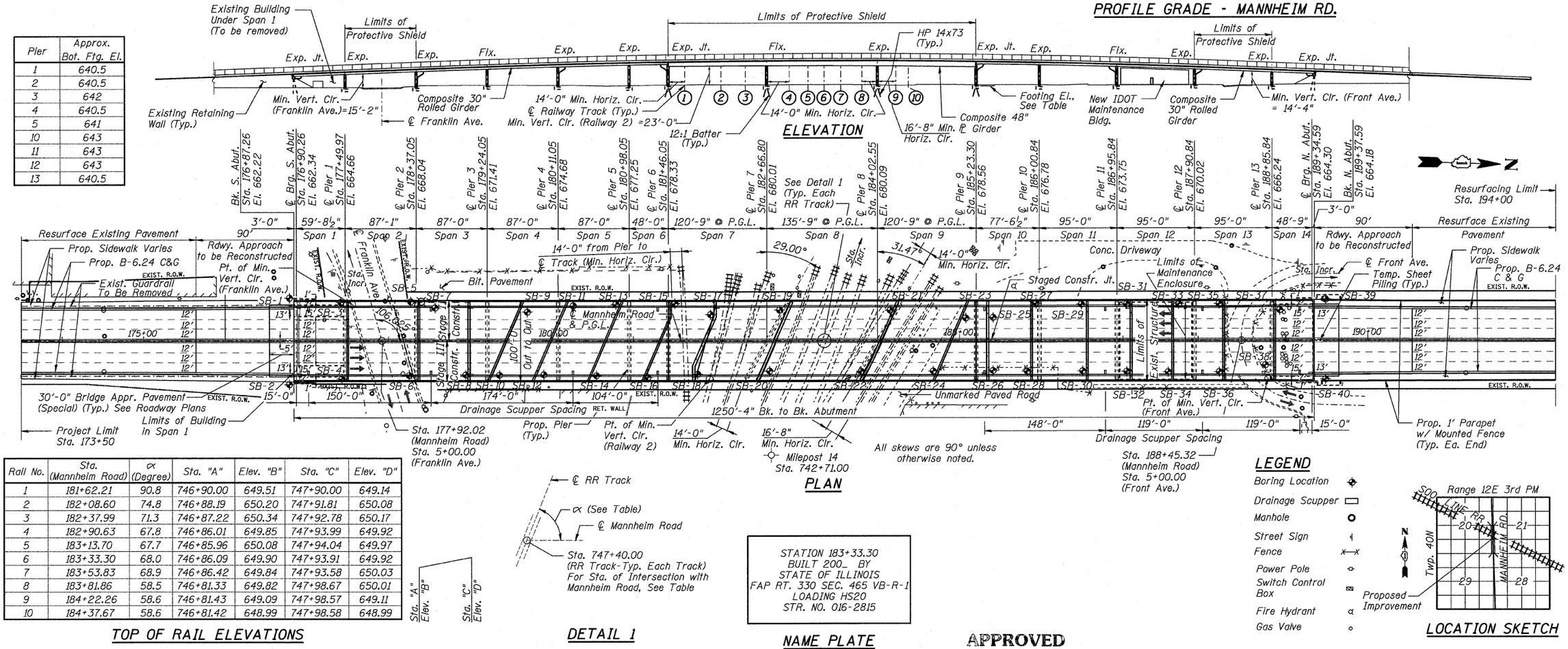
| F.A.P. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 330 | 465 VB-R-1 | COOK | 103 | 34 |
| STA. 173+50 | TO | STA. 195+00 | | |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT | | |

Contract # 60407 SHEET NO. S1 of S60




## PROFILE GRADE - MANNHEIM RD.

| Pier | Approx. Bot. Ftg. El. |
|---|---|
| 1 | 640.5 |
| 2 | 640.5 |
| 3 | 642 |
| 4 | 640.5 |
| 5 | 641 |
| 10 | 643 |
| 11 | 643 |
| 12 | 643 |
| 13 | 640.5 |




| Rail No. | Sta. (Mannheim Road) | ∝ (Degree) | Sta. "A" | Elev. "B" | Sta. "C" | Elev. "D" |
|---|---|---|---|---|---|---|
| 1 | 181+62.21 | 90.8 | 746+90.00 | 649.51 | 747+90.00 | 649.14 |
| 2 | 182+08.60 | 74.8 | 746+88.19 | 650.20 | 747+91.81 | 650.08 |
| 3 | 182+37.99 | 71.3 | 746+87.22 | 650.34 | 747+92.78 | 650.17 |
| 4 | 182+90.63 | 67.8 | 746+86.01 | 649.85 | 747+93.99 | 649.92 |
| 5 | 183+13.70 | 67.7 | 746+85.96 | 650.08 | 747+94.04 | 649.97 |
| 6 | 183+33.30 | 68.0 | 746+86.09 | 649.90 | 747+93.91 | 649.92 |
| 7 | 183+53.83 | 68.9 | 746+86.42 | 649.84 | 747+93.58 | 650.03 |
| 8 | 183+81.86 | 58.5 | 746+81.33 | 649.82 | 747+98.67 | 650.01 |
| 9 | 184+22.26 | 58.6 | 746+81.43 | 649.09 | 747+98.57 | 649.11 |
| 10 | 184+37.67 | 58.6 | 746+81.42 | 648.99 | 747+98.58 | 648.99 |

## TOP OF RAIL ELEVATIONS




## DETAIL 1

STATION 183+33.30
BUILT 200_ BY
STATE OF ILLINOIS
FAP RT. 330 SEC. 465 VB-R-1
LOADING HS20
STR. NO. 016-2815

## NAME PLATE

(See Std. 515001)

**APPROVED**
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (TFD)
ENGINEER OF BRIDGES AND STRUCTURES

## LEGEND

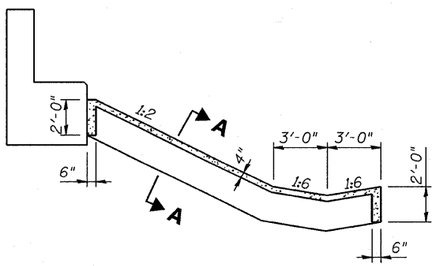
- Boring Location
- Drainage Scupper
- Manhole
- Street Sign
- Fence
- Power Pole
- Switch Control Box
- Fire Hydrant
- Gas Valve




## LOCATION SKETCH

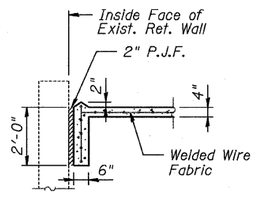
## NOTES

1. Elevations "B" and "D" represent top of rail elevations at approximately the fascia line of each side of the proposed new structure.
2. No deck drains will be permitted in the spans over tracks or within 10' of cross arms of a railroad pole line.
3. Conduits to be provided in sidewalk for future bridge lighting.



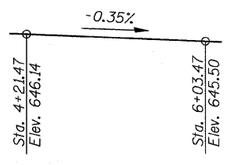

## TYPICAL SECTION THRU SLOPE WALL

(South Abutment shown, North is similar)



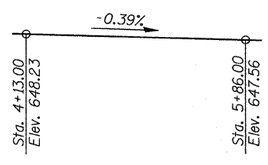

## SECTION A-A

Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.




## PROFILE GRADE - FRANKLIN AVE.

(Along N. Edge of Pavement)




## PROFILE GRADE - FRONT STREET

LICENSED STRUCTURAL ENGINEER
CHRISTOPHER L. STINE
081-006667
STATE OF ILLINOIS
Exp. 11/30/2010

| REVISIONS | |
|---|---|
| NAME | DATE |
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| | |

EARTH TECH | AECOM

ILLINOIS DEPARTMENT OF TRANSPORTATION

## GENERAL PLAN & ELEVATION

FAP 330 US 12/45 (MANNHEIM RD.) OVER SOO LINE RR & FRANKLIN AVE.
STRUCTURE NO. 016-2815
SECTION 465 VB-R-1 COOK COUNTY
STA. 183+33.30 DRAWN BY JHR
DATE 7/2009 CHECKED BY DSB

7/8/2009 $FILES$