60997

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| F.A.P. 337 | (19R-1) | LAKE | 800 | 583 |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT- | | |

SHEET NO. 1
37 SHEETS

# STATE OF ILLINOIS
# DEPARTMENT OF TRANSPORTATION

## BENCHMARK:

B.M. 74: X cut on bolt on fire hydrant located north side of IL 22. EL. 262.457

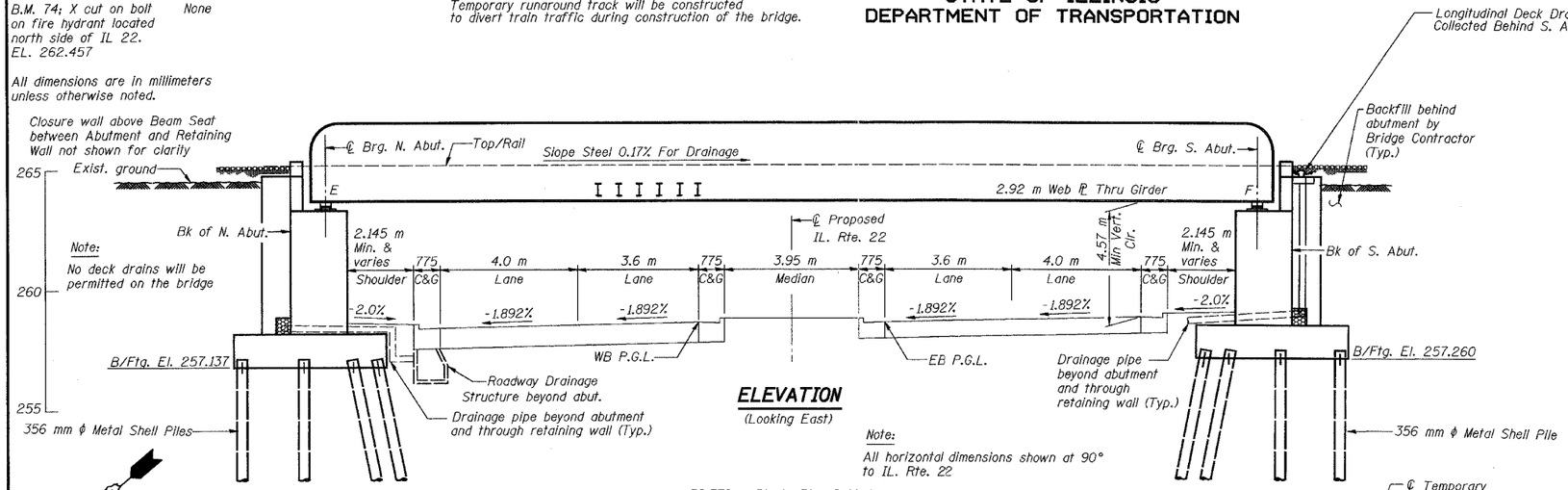
## EXISTING STRUCTURE:

None

## STAGING:

Temporary runaround track will be constructed to divert train traffic during construction of the bridge.

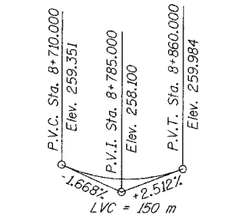
All dimensions are in millimeters unless otherwise noted.




## ELEVATION

(Looking East)

Note:
All horizontal dimensions shown at 90° to IL. Rte. 22



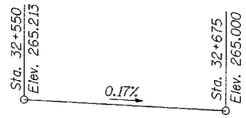

ELGIN, JOLIET & EASTERN RWY. CO.
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. 337 SEC. (19R-1)
STA. 32+611.151 LOADING COOPER E-356
STR. NO. 049-0188

## NAME PLATE

See Std. 515001

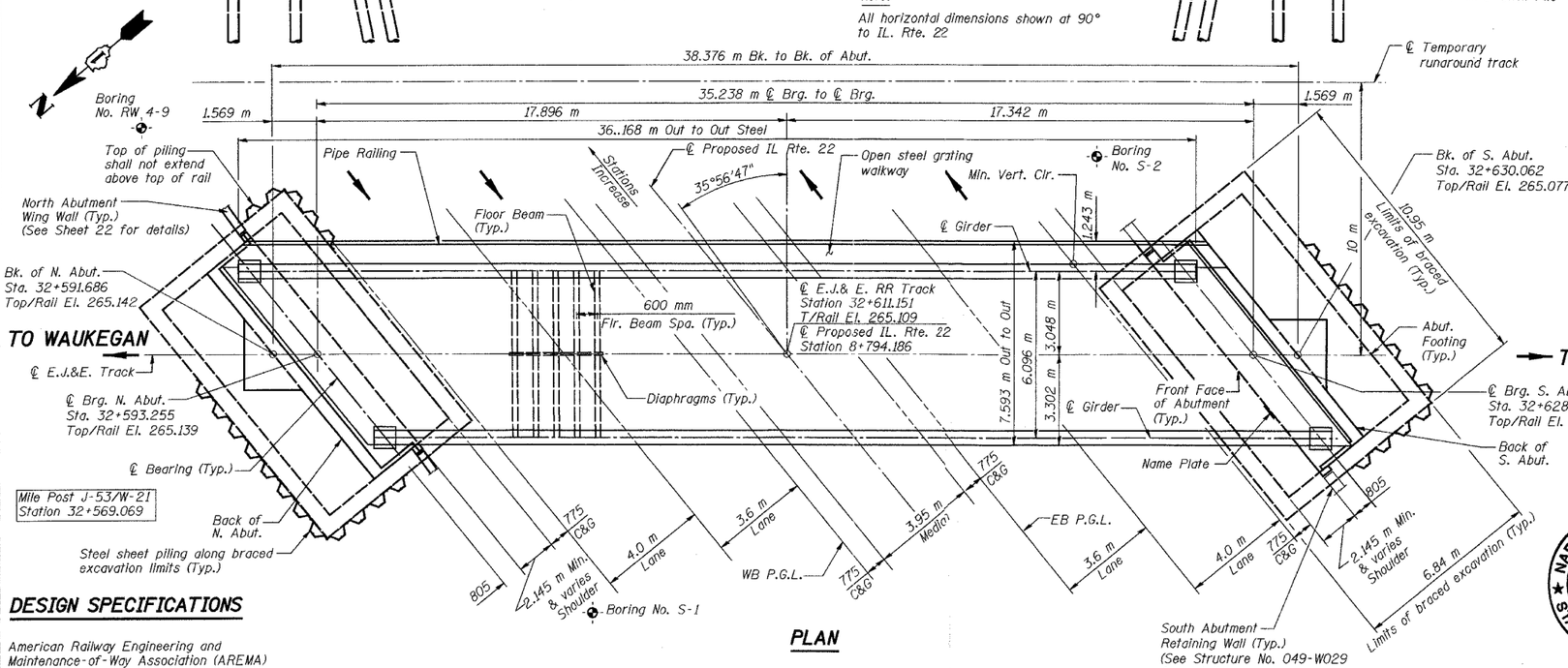
## PROFILE GRADE ILL. 22

℄ Proposed Rdwy




## TOP OF RAIL PROFILE GRADE

CURVE 621
PI STA = 8+941.561
Δ = 54° 28' 34" (LT)
R = 291.060 m
T = 149.829 m
L = 276.737 m
E = 36.300 m
S.E. = 3.3%
P.C. STA = 8+791.732
P.T. STA = 9+068.468




## PLAN




## LOCATION MAP

## DESIGN SPECIFICATIONS

American Railway Engineering and Maintenance-of-Way Association (AREMA) Manual for Railway Engineering, 2002

2002 AASHTO Standard Specifications for Highway Bridges.

## DESIGN STRESSES

### FIELD UNITS

f'c = 24 MPa
fy = 400 MPa (Reinforcement)
fy = 345 MPa (Struct.) (M 270M Grade 345)
fy = 250 MPa (Misc.) (M 270M Grade 250)

## LOADING COOPER E-356

Cooper E-356 plus Impact for equipment without hammer blow.

Service Load Design for steel superstructure and Load Factor Design for concrete substructure

## WALKWAY LIVE LOAD

Live Load = 4.1 kN/m²

## FUTURE BALLAST

150 mm

## SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.039g
Site Coefficient (S) = 1.0

Note:

1. Existing Wrought Iron drain pipe and the tile drain at the location of the proposed bridge site is to be removed and new drainage line will be provided and connected to the highway drainage system. See Roadway Plans for details.
2. See Sheet 3 for Sequence of Construction.
3. See sh. 22 for locations of Borings T-3 and T-4.
4. The stations and offsets for soil borings are with respect to ℄ IL Rte. 22.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

NARENDRA P. PATEL
081-004780
REGISTERED STRUCTURAL ENGINEER
STATE OF ILLINOIS
License Expires 11/30

## GENERAL PLAN AND ELEVATION

| Date | | |
|---|---|---|
| Revisions | Designed EV | ELGIN, JOLIET & EASTERN RWY. CO. BRIDGE OVER ILLINOIS ROUTE 22 F.A.P. ROUTE 337 SECTION (19R-1) LAKE COUNTY STATION 32+611.151 STRUCTURE NO. 049-0188 |
| | Drawn EV | |
| | Checked NPP | |
| | Approved NPP | |

Sheet No. 1 of 37

Prepared By: URS