A Look at
INDOT’s Overhead Sign Structures

David Boruff, INDOT
INDOT’s Overhead Sign Structures

Their Function

• On Freeways-
  Primarily provides for Advance Exit and Exit Direction signing

• Non-Freeways-
  Supports Route Markers, Lane Control, Destination signs
INDOT’s Overhead Sign Structures

Freeway Cantilevers

Double Arm
Butterfly

Quad Chord
INDOT’s Overhead Sign Structures

Freeway- Box Trusses

Internal Walkway
INDOT’s Overhead Sign Structures

Freeway- Bridge Brackets
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Non Freeway- Single Arm Cantilevers
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Non Freeway- Span Structures

Monotube

Tri Chord Truss
INDOT’s Overhead Sign Structures

GIS Map

- Available on INDOT’s intranet - Collaborative GIS page: http://intranet.indot.state.in.us/CollaborativeGIS/

- Info includes:
  - Location
  - Structure Number & Type
  - Overall Condition
  - Inspection Reports
Structure OVS-170-92.1-W

Last Edit Operation: New
Vendor Status: Submitted
INDOT Status: Accepted
City: Indianapolis
Location: Double arm butterfly sign structure with dynamic message sign, located in the center median of I-70 just east of exit 91 to Post Road (at mile post 92.1), serving westbound traffic.
Direction: West
Work Done Since Last Inspection: Unknown

Structure Type: DMS = Dynamic Message Sign
Material: Galvanized Steel
Manufacturer: Unknown
Contractor: Unknown
Fabricator: Unknown

Zoom to Inspection: 9/20/2009, 8:00 PM
Inspection Type: Consultant Regular
Overall Condition: 2 - Fair
Overall Comments: Structure is 22.0 foot long butterfly structure serving westbound traffic on I-70. At the time of inspection, 30.5 feet of clearance was measured from the left edge of the westbound roadway to the centerline of the structure, and 30.0 feet of clearance was measured from the left edge of the eastbound roadway to the centerline of the structure.

Click here to view the report
Related tables:
Overhead Signs Inventory
INDOT’s Overhead Sign Structures

In Total

- Double Arm Cantilevers: 1106
- Box Trusses: 740
- Bridge Brackets: 509
- Single Arm Cantilevers: 794
- Monotube Spans: 246
- Tri Chord Trusses: 88
- Cable Spans: 554

- More than 4000
  ~ 60% are Freeway

- Value is $300,000,000 +
INDOT’s Overhead Sign Structures

Inspections

• Started in 2010
  • Driven by: Fatigue Concerns, FHWA Guidance, Purdue Research
  • 6 year contract

• Second Contract 2016
  • Also 6 years
  • Significant Changes from First Contract
    • Better Funded
    • Inspecting over traffic (certain structures)

→ Result- Inspecting more structures, inspection cost & cycle greatly reduced
  • Collins performing minor maintenance
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David Boruff
INDOT, Office of Traffic Administration
dboruff@indot.in.gov
Office: 317-234-7975