

February 6, 2018  
Indiana Bridge Inspection Workshop

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INDOT Central Office Bridge Inspection

# Authoritative Data Systems

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- Data-centric Environments
- My Data v/s Your Data - No Longer Acceptable.
  - Location Referencing
  - Vertical Clearance
  - Load Rating
- Concept of Authoritative Sources



INDOT Bridge Clearances



# Authoritative Data Systems

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- Bridge Inspection Application System (BIAS a.k.a. InspectTech)
  - Asset Condition (Deck/Super/Sub) and Detail (Material/Size/Type)
  - Responsibility/Ownership
  - Doing Business with INDOT (Load Rating Engineers/Team Leaders/Pre-qual)
- ESRI Roads & Highways (GIS)
  - Location (LRS ID/County/City)
  - Road Inventory Items (Functional Class/NHS/AADT)
- Clearance Map
  - Vertical Clearances (present)
  - Horizontal Clearances (future)
- Electronic Records Management System (ERMS)
  - Bridge File Documents
  - As-Built Plans and Shop Plans

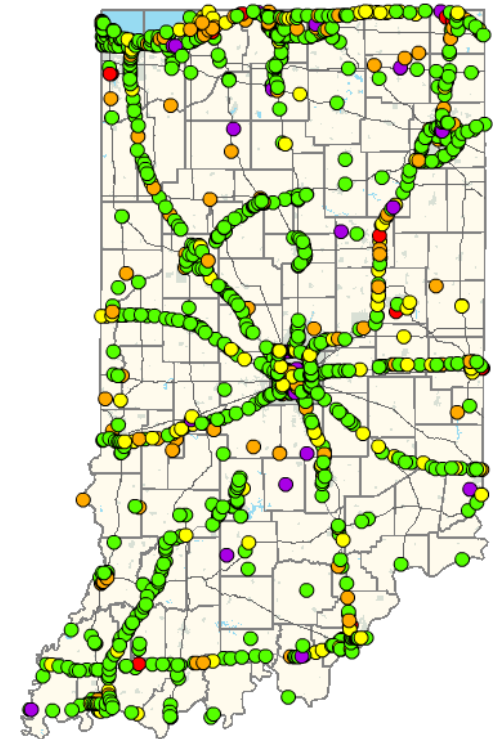
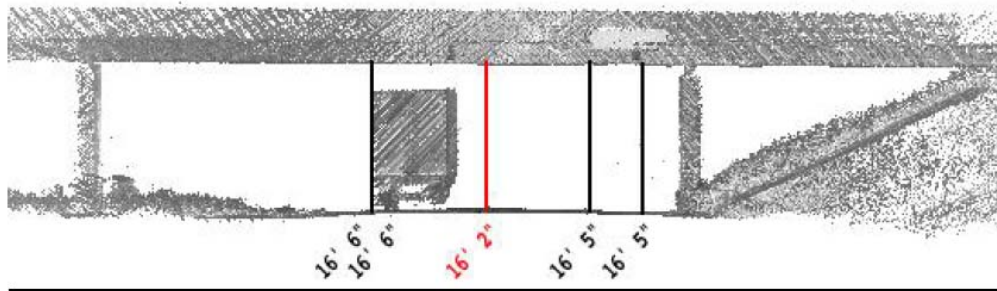




# Integrating Fields to Authoritative Sources

- Clearance Data – Clearance Map

- <http://intranet.indot.state.in.us/BridgeClearance/>
- Currently, 2 Read Only Fields
  - Item 53, Minimum Vertical Clearance Over Bridge Roadway
  - Item 54, Minimum Vertical UnderClearance
- Potential Future, 4 Read Only Fields
  - Item 10, Inventory Route, Minimum Vertical Clearance
  - Item 47, Inventory Route, Total Horizontal Clearance
  - Item 55, Minimum Later UnderClearance on Right
  - Item 56, Minimum Later UnderClearance on Left



# Integrating Fields to Authoritative Sources

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- Load Rating (BRADIN)
  - New Form in BIAS
  - 32 Fields Read Only Fields
  - NBI Items, including but not limited to:
    - NBI Item 31: Design Load
    - NBI Item 66C: Tons Posted
    - NBI Item 66D: Date Posted/Closed
  - Load Rating Items, including but not limited to:
    - HS20-44: Legal LC
    - AASHTO Type 3: Legal RF
    - AASHTO Type 3-3: Legal RF
    - SU6: Legal RF
    - Superload-11 Axles: Special Permit RF
    - Superload-13 Axles: Special Permit RF

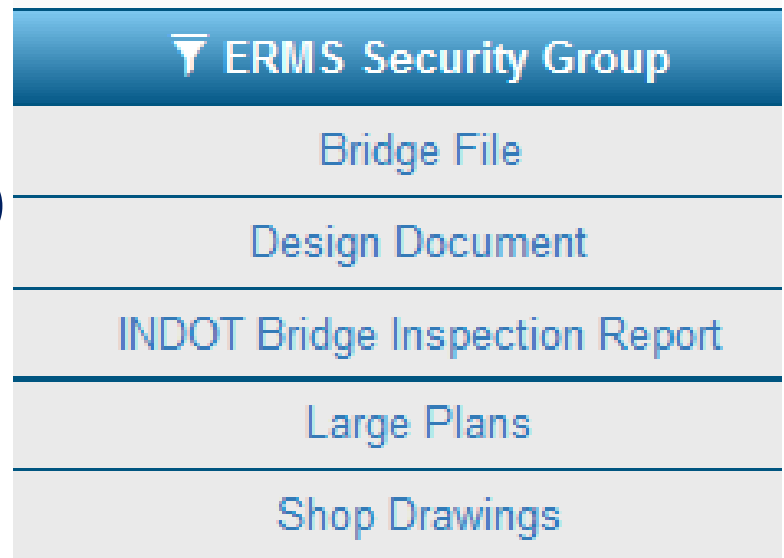




# ERMS Link to BIAS for Bridge File Documentation

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- ERMS is the only sanctioned long term file storage location.
- Periodic export of documents from BIAS to ERMS.
- ERMS Link provides easy access to multiple file libraries
  - Bridge File (See Memo 17-03)
  - Design Documents
  - Inspection Archive (Prior to 2011, no photos)
  - Large Plans (As-Built Plans provided by Construction)
    - Sometimes in .tif format
    - Send request for file compilation to INBridgesHelp email
  - Shop Plans
- Coming Soon: County Summary Reports
- Examples: 036-61-04384 B and 87-00264

A screenshot of a web application menu. The menu is titled "ERMS Security Group" in a dark blue header. Below the header, there are six menu items, each on a separate light gray background with a dark blue border. The items are: "Bridge File", "Design Document", "INDOT Bridge Inspection Report", "Large Plans", and "Shop Drawings".

ERMS Security Group
Bridge File
Design Document
INDOT Bridge Inspection Report
Large Plans
Shop Drawings



# ERMS Link to BIAS for Bridge File Documentation

InspectTech CONNECT Edition Main Collector Maintenance Manager Administration Help

Asset Details: 87-00264

Show More Details Edit Asset Values Show on Map Create Report

Quick View Asset Info Files Maintenance Scheduling Administration

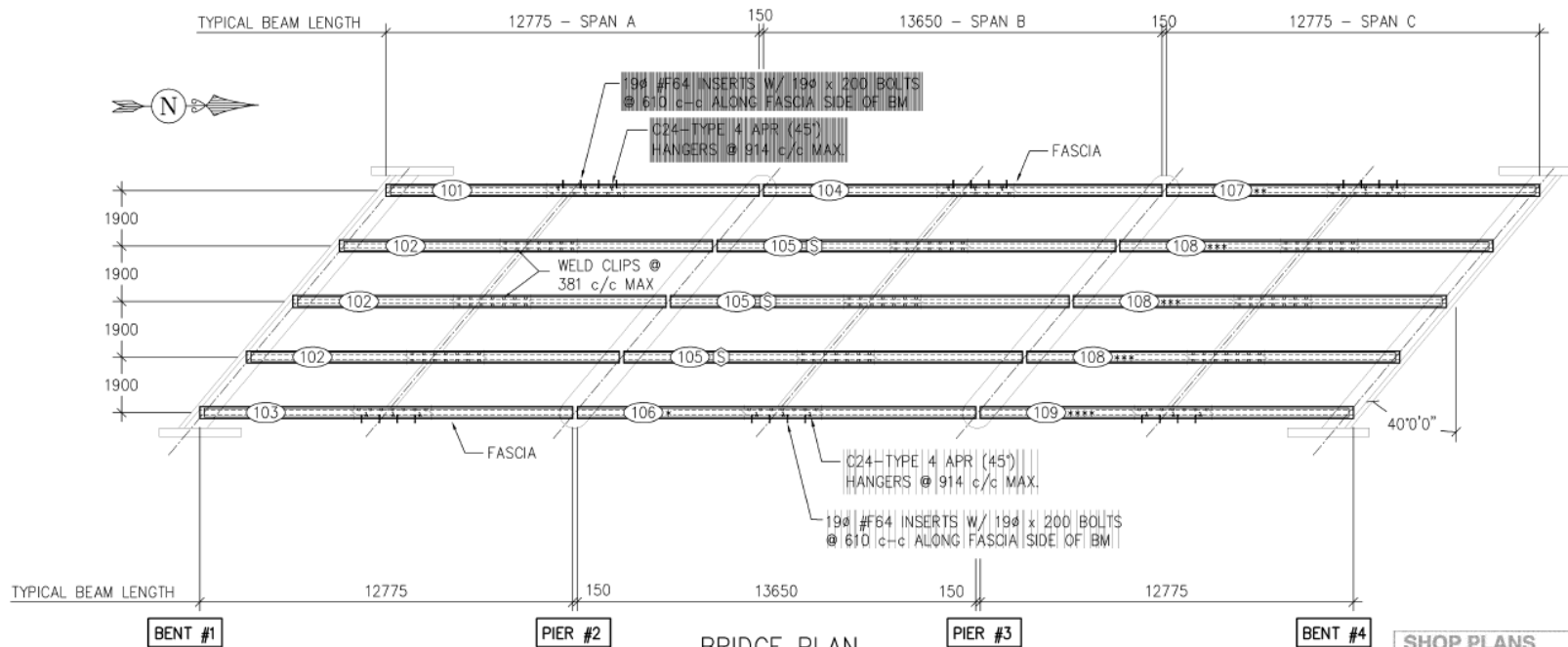
**Completed Reports**

Inspection Date	Last Revision	Asset Code	Owner	Asset Type	Inspection Type	NBI 007: Facility Carried by Structure	NBI 006: Feature Intersected	Approved Date
10/06/2017	11/01/2017	8700120	Moffatt, Andrew J.	Bridge	Scour Assessment	WARNER ROAD	CYPRESS CREEK	11/01/2017
10/06/2017	10/30/2017	8700120	Moffatt, Andrew J.	Bridge	Scour Screening	WARNER ROAD	CYPRESS CREEK	10/30/2017
08/29/2017	11/01/2017	8700120	ewski, Christopher	Bridge	Routine	WARNER ROAD	CYPRESS CREEK	11/01/2017
10/05/2015	12/30/2015	8700120	Scott G.	Bridge	Routine	WARNER ROAD	CYPRESS CREEK	12/30/2015
12/13/2013	03/20/2014	8700120	am	Bridge	Routine	WARNER ROAD	CYPRESS CREEK	
08/08/2011	10/24/2011	8700120	Marino, P.	Bridge	Routine	WARNER Rd	CYPRESS Creek	
10/29/2009	04/29/2011	8700120	County, V	Bridge	Routine	WARNER Rd	CYPRESS Creek	

ERMS

Export All

ERMS Security Group	Count
Bridge File	256
Design Document	12
INDOT Bridge Inspection Report	81
Large Plans	997
Shop Drawings	10



\* MK. 106 IS IDENTICAL TO MK. 104 BY 180° ROTATION  
 \*\* MK. 107 IS IDENTICAL TO MK. 103 BY 180° ROTATION  
 \*\*\* MK. 108 IS IDENTICAL TO MK. 102 BY 180° ROTATION  
 \*\*\*\* MK. 109 IS IDENTICAL TO MK. 101 BY 180° ROTATION

**BRIDGE PLAN**  
 ⊕ = BEAM IS SYMMETRICAL



**SHOP PLANS**  
 Indiana Department of Transportation  
 APPROVED  
 SUBJECT TO CONDITIONS WRITTEN BELOW  
 DATE: \_\_\_\_\_ CKD. BY: Joe Foster

NOTE: THIS DRAWING CHECKED FOR DESIGN FEATURES ONLY. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS, ACCURACY, AND FIT OF WORK.

**GENERAL NOTES:**

1. MANUFACTURE BEAMS IN ACCORDANCE WITH INDOT PLANS & SPECIFICATIONS.
2. MINIMUM CONCRETE STRENGTH AT RELEASE OF STRAND = 34.5 MPa  
 MINIMUM CONCRETE STRENGTH AT 28 DAYS = 41.4 MPa
3. STRAND SHALL BE (7) WIRE, UNCOATED, LOW RELAXATION, 13mm "OVERSIZED" DIAMETER (A s = 108mm<sup>2</sup>), GRADE 270
4. PULL EACH STRAND TO 150.43 KN.
5. STEEL GRADE 60, A.S.T.M. A-615.
6. SCORE TOPS OF BEAMS WITH A POINTED TOOL AT 75 c/c MAX
7. HS20-44 LOADING.
8. BEAMS SHALL BE FABRICATED AT LEAST 15 DAYS BEFORE THE DECK IS POURED.
9. INDOT CLEAR (SILANE) SEALER SHALL BE APPLIED TO TOPS OF ALL BMS; & ALSO

**NOTE:**  
 PSI SHALL FURNISH, INCIDENTAL TO BEAMS:  
 (134) 19 x 200 HEX BOLTS  
 (40) #19(E) X 1000 THREADED ANCHOR BARS

BEAM MARK	NO. REQD.	SHIPPING WEIGHT	
		TONS	kg
101	1	7 TONS	5475 kg
102	3	7 TONS	5475 kg
103	1	7 TONS	5475 kg
104	1	7 TONS	5845 kg
105	3	7 TONS	5845 kg
106*	1	7 TONS	5845 kg
107**	1	7 TONS	5475 kg
108***	3	7 TONS	5475 kg
109****	1	7 TONS	5475 kg

**PRESTRESS SERVICES**

**PROJECT OVERVIEW**

WARRICK COUNTY, INDIANA  
 BRIDGE #264 (WARNER RD) / CYPRESS CREEK  
 BR. FILE: WARRICK 264 - DESIG. 9982640  
 INDOT CONTRACT #B-28538

CONTRACTOR: RAGLE CONSTRUCTION

PRODUCING PLANT: 747 8TH STREET HENDERSON, KY 42420 PH: (270) 826-6244 FAX: (270) 826-0628	DRAFTING OFFICE: P.O. BOX 211 MELBOURNE, KY 41059 PH: (859) 441-0068 FAX: (859) 441-7986
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DATE: 1-22-07    DRAWN BY: EDD    CHECKED: GDA

REVISIONS

# BIAS Training Questionnaire

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- Bridge Inspection and Bridge Design
- BIAS Training Opportunities
- 30 Minute Online via Web Ex
- Please fill out the Questionnaire
  - Leave on table
  - Hand to me as you leave
  - Email [kfrancis@indot.in.gov](mailto:kfrancis@indot.in.gov)
- Offered to all Current BIAS Users
  - Feel free to forward
  - Not currently a BIAS users? No problem, provide your contact information and we'll invite you.

## WebEx Demonstrations for BIAS

Please rank the following BIAS WebEx Demonstrations by marking **High, Med** or **Low** to indicate your level of interest in attending.

High	Med	Low	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Understanding the complement of documents to complete a "bridge file" (Memo 17-03)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	How to use the BIAS Link to ERMS
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	How to upload documents to ERMS

# Indiana Bridge Inspection Workshop

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**THANK YOU!!**

**QUESTIONS ???**

# Indiana Bridge Inspection Workshop

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