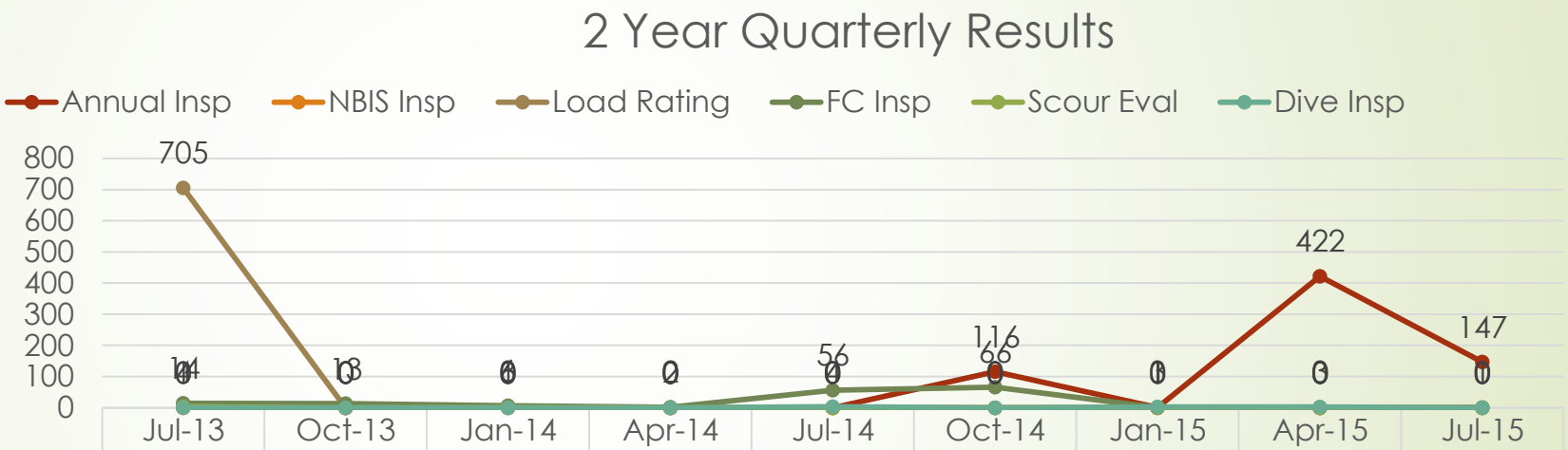
THEN THEY STARTED DRIVING A
DIFFERENT ROUTE TO AVOID US
SO WE STARTED DOING WORK ON THAT ROAD TOO

2015 Ohio bridge conference

Bridge QAR Update

Quarterly Data



	Jul-13	Oct-13	Jan-14	Apr-14	Jul-14	Oct-14	Jan-15	Apr-15	Jul-15
Annual Insp	1	0	3	0	0	116	1	422	147
NBIS Insp	0	0	0	0	0	0	0	0	0
Load Rating	705	0	0	0	0	0	0	0	0
FC Insp	14	13	6	2	56	66	1	0	1
Scour Eval	4	0	1	0	0	0	1	0	0
Dive Insp	0	0	0	0	4	0	3	3	0

Inspection Deadlines

- Inspection Deadline Dec 31
  - all bridges must be inspected annually (calendar year)

- Data Input Deadline last business day of February
  - (FHWA moved their deadline up from April 1 to March 15)

Inspection Data Input Deadline

March 15 date Moved
Ahead 2 Weeks...

February 29, 2016

March						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	~~15~~	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

February						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29					

New SMS

- Reduce Number of items to less than half
- Most inspection items with 1-4 codes will be gone.
- Keep using current SMS this year.
- Hopefully change will occur in 2016 but could be 2017

Element Level

- No answer yet on MAP-21 “study”
- Expect sometime in future to be required
- Element Level can be used to mitigate fewer inspection items
  - add defects specific to each bridge

BM – 191 Inventory Form

Unit of Measure: ENGLISH
Structure File Number: 2531798
Sufficiency Rating: 69.0

Bridge Inventory and Appraisal
Inventory Bridge Number: FRA T1384 00.100 N
1 MASON RUN(PED ARMUTH RD)

DRAFT

Report Date: 12/15/2014
BR. TYPE: 3 - STEEL/2 - BEAM/1 - SIMPLE
Date of Last Inventory Update: 08/10/2015

(2) District: 06
(3) County: 25 - FRANKLIN
(4) FIPS Code: 50064 - MIFFLIN TWP
(102) Direction of Traffic: 0 - Highway traffic not
(216) Temporary:
(9) Location: AT ARMUTH RD
(208) Route On Bridge: 99 - Non highway traffic
(110) Truck Network: N
(42A) Type Serv (On): 3 - Pedestrian-bicycle
(7) Facility Carried: PEDESTRIAN WALKWAY
(207) Route Under Bridge: 99 - Non highway traffic on
(101) Parallel: N
(42B) Type Serv (Under): 5 - Waterway

Inventory Route Data

(5A) Route On/Under: 1 - Route carried "on" the
(5B) Hwy Sys: 0 - Non-Highway Related
(5D) Route No: T1384
(5E) Dir: 0 - Not
(5C) Des: 0 - Other
(6) Feature Intersected: MASON RUN(PED ARMUTH RD)
(3) County: FRA
(200) Mileage: 00.100
(201) Special Desig: N
(209)Mile Marker:
(29) Avg. Daily Traffic (ADT): 00
(30) ADT Year: 2015
(235) Truck Traf: 00
(210) Corridor: N
(104) NHS: 0 - NON-NHS BRIDGE
(26) Functional Class: 00 - Non-highway or a
(100) Strahnt: 0 - NOT STRAHNET

Intersected Route Data

(370A) Record Type:
(370B) Hwy Sys:
(370D) Route No:
(370E) Dir:
(370C) Des:
(373) Feature Intersected:
(3) County: FRA
(371) Mile Marker:
(387) Special Desig:
(379) Avg. Daily Traffic (ADT):
(380) ADT Year:
(381) Truck Traf:
(384) Corridor:
(378) NHS:
(375) Functional Class:
(386) Strahnt:

Clearance On the Bridge

Min. Hriz on Bridge:
(335) NC: 0 Ft
(47) CARD: 40 Ft
(53) Prac Max Vert On Brg: 0 Ft
Min Vrt Clr On Brg:
(336) NC: 0 Ft
(10) CARD: 0 Ft
Min Latl Clr:
(338) Right NC: 0 Ft
(337) Right CARD: 0 Ft
(340) Left NC: 0 Ft
(339) Left CARD: 0 Ft
(39) Vrt Clr Lft: 0 Ft

Structure Information

(19) Bypass Length: 0 Miles
(16) Latitude: 40.019296
(17) Longitude: -82.906311
(20) Toll: N - Not Applicable (i.e. railroad,
(106) Major Rehabilitation:
(27) Date Built: 1968
Major Reconstruction Date:
(28A) No. Lanes On: 0
(28B) No. Lanes Under: 0
(301) Horiz Curve: 0
(34) Skew: 0 Deg
(32) App. Rdw Width: 0 Ft
(51) Brg. Rdw Width: 4 Ft
(52) Deck Width: 4 Ft
Deck Area: 164
(406) Median Type: N - NONE/N - NON BARRIER/N - NO JOINT
(33) Bridge median: N - No median
Sidewalks:
(50A) Left: 0 Ft
(50B) Right: 0 Ft
Type Curb or Sidewalk:
(425) Left Matl: N - None
(426) Type: N - None or N/A (RR, Pedestrian,
(427) Right Matl: N - None
(428) Type: N - None or N/A (RR, Pedestrian,
(412) Flared: N
(408) Composite: X - Not Applicable
(407) Railing: 7 - Steel Guardrail on Steel, Concrete or Timber Posts
(409) Deck Drainage: 1 - Over the side (without drip strip)
(107) Deck Type: 7 - Steel buckle plate
Deck Protection:
(108B) External: N - Not Applicable (only for bridges for no decks)
(108C) Internal: N - Not Applicable (applies only to bridges without deck)
(108A) Wearing Surface: N - Not Applicable (Culvert under fill etc.) - Not an overlay
(420) Thickness: 0.0 in
(419) Date of Wearing Surface:
(547) Slope Protection: N - None

(45) Main Spans Number: 1
Type: 3 - STEEL/2 - BEAM/1 - SIMPLE
(46) Approach Spans Number: 0
Type: N - NONE/N - NONE/N - NONE
(307) Total Spans: 0
(48) Max Span: 40 Ft
(49) Overall Leng: 41 Ft

Substructure:
Foundation and Scour Information:

Abut-Rear	(532) Matl: 2 - Concrete	(531) Type: 1 - Gravity	(533) Fnd: N - None (such as most Culverts)
Abut-Fwd	(527) Matl: 2 - Concrete	(526) Type: 1 - Gravity	(528) Fnd: N - None (Such as most Culverts)
Pier-Pred	(535) Matl: N - None	(534) Type: N - None	(536) Fnd: N - None (Such as most Culverts)
Pier-Other	(538) Matl: N - None	(537) Type: N - None	(539) Fnd: N - None (Such as most Culverts)
Pier-Other	(541) Matl: N - None	(540) Type: N - None	(542) Fnd: N - None (Such as most Culverts)

(545) Pier, Total Count: 0
(663) Stream Velocity:
(113) Scour: 8 - Bridge foundations determined to be stable for the assessed or
(92B) Dive: N
Freq: 0
(655) Chan Prot: N - None
(93B) Date of Last Dive Insp:
(657) Drainage Area:

Clearance Under the Bridge

Min. Horiz Under Clear:
(326) NC: 0 Ft
(325) CARD: 0 Ft
(328) Prac Max Vrt Under Clear: 0 Ft
Min. Vert Under Clear:
(327) NC: 0 Ft
(54) CARD: N 0 Ft
Min Lat Under Clear:
(329) Right NC: 0 Ft
(55) Right CARD: N 0 Ft
(330) Left NC: 0 Ft
(56) Left CARD: 0 Ft

Load Rating Information

(31) Design Load: 7 - HS25
(64) Opr Rat Fact: 0.000
(700) LD: 8
(66) Inv Rat Fact: 0.000
(702) LD: 8
(734) Ohio Percent Legal 0
(704) Year of Rating: 7/1/2000
(63) Analysis: 0 - Field evaluation and documented engineering judgment in
(708) Rate Soft: 0 - Assigned rating (No calculations were done)
(707) PE# 0

(71-72) Appraisal

(71) Waterway Adequacy: 6
(72) Approach Alignment: 4
(67) Calc Str Appraisal: 5 - Somewhat better than
(68) Calc Deck Geometry: N - Not applicable
(69) Calc Underclearance: N - Not applicable

Approach Information

(401) Approach Guardrail: X - Not applicable
(403) Approach Pavement: N - None or Not Applicable
(402) Grade: N - None or Not Applicable

Culvert Information

(575) Culvert Type: N - Not a Culvert or Rigid Frame
(578) Length: 0 Ft
(580) Depth of Fill: 0 Ft
(582) Headwalls: N - None or Not Applicable (Not a

General Information

(475) Main Member: 1 - Rolled Steel
(477) Moment Plate: X - Not Applicable
(414) Expansion Joint: N - NONE/
(453) Bearing Devices: A - SLIDING (OTHER)/N - NONE/
(38) Navigation: N - Not Applicable - No waterway
(39) Vert Clr: 0 Ft
(40) Horiz Clear: 0 Ft
(92C) Spec Insp: N
Freq: 0
(93C) Special Inspection Date:
(92A) Fracture Critical Insp: N
Freq: 0
(93A) Special Inspection Date:
(474) Long Member: N - Not Applicable (i.e. Culvert, Beam, Slab,
(468) Hinges: N - Not Applicable (structures with no hinges)
(486) Structural Steel Memb: U - Unknown
(465) Framing: 4 - Straight Beams/Girders
(407) Railing: 7 - Steel Guardrail on Steel, Concrete or Timber
(482) Paint: 0 - Other Paint
(203) Bridge Dedicated

BM – 191 Inventory Form

Asset Details: FRA-T1384-0010 _(2531798)

Show More De

Open Reports

No Reports Found

▲Asset Values Report Sections

Group: All

The report sections below are included in the selected group.

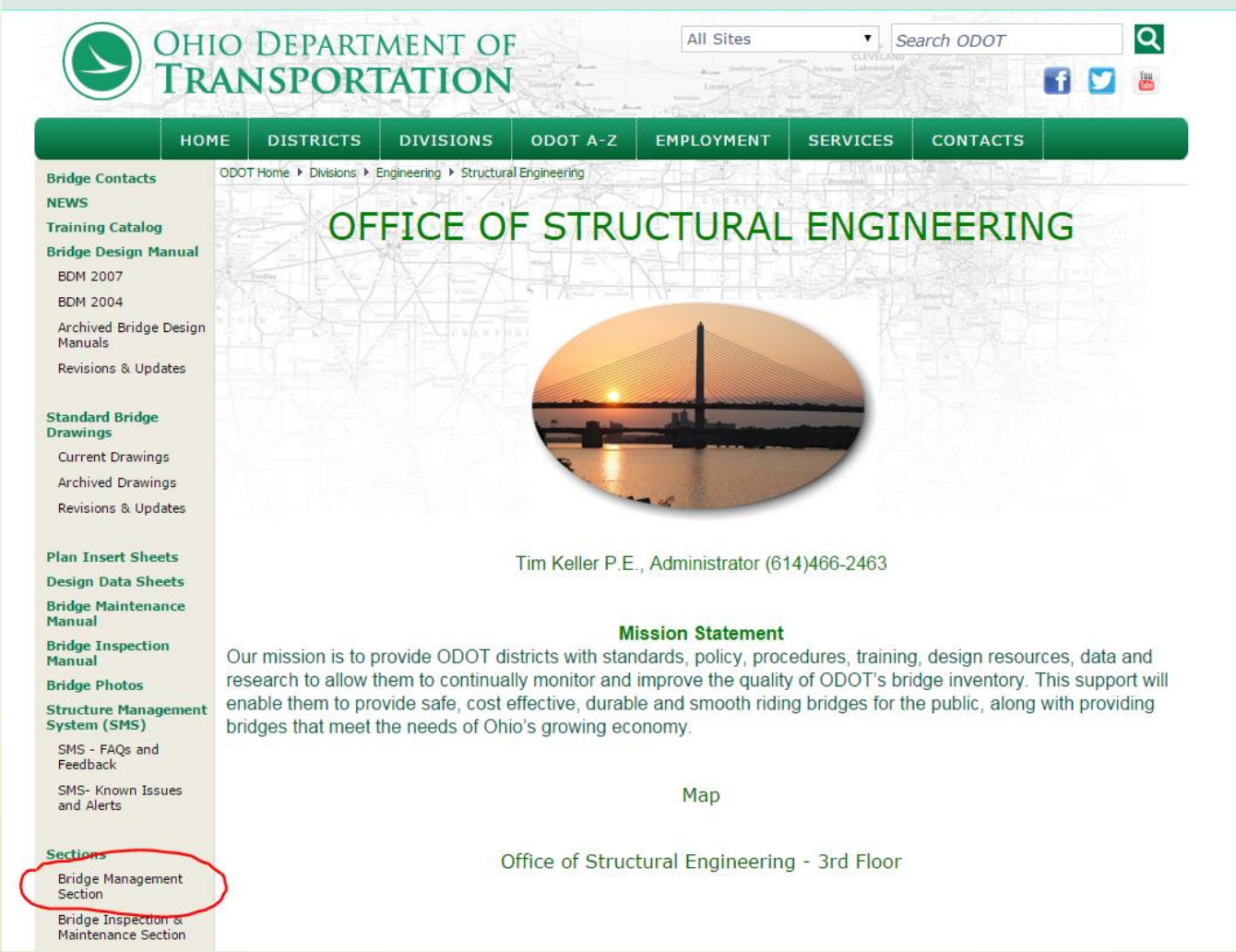
Save Order Changes | Add Sections/PDF Attachments | View PDF

Remove Section	Order	Section Name		Print ☑	Include in Table of Contents ☐	Insert Cover Page Before Section ☐	Show Pa
🗑	1	Cover	View	☑	☐	☐	
🗑	2	Location Map	View	☑	☐	☐	
🗑	3	General Elevation Photos	View	☑	☐	☐	
🗑	5	Structure Inventory And Appraisal	View	☑	☐	☐	
🗑	6	Inventory Details	View	☑	☐	☐	
🗑	7	Approach Inspection	View	☑	☐	☐	

BM – 191 Inventory Form OBI&A

- External (outside of SMS) Link to BM-191
- http://www.dot.state.oh.us/Divisions/Engineering/Structures/BridgeManagementSection/StructureInventory/Pages/default.aspx
- New Name: Ohio Bridge Inventory and Appraisal Report (OBI&A)

BM – 191 Inventory Form OBI&A



BM – 191 Inventory Form OBI&A

Bridge Management Section

Amjad Waheed P.E., Assistant Administrator (614)752-9972

Bridge Rating & Superload

- Hauling Request
- Bridge Rating & Analysis
- Bridge Rating Reviews
- Bridge Rating Training

Bridge Inventory

- ODOT SMS
- Bridge Inventory Training
- SMS Training
- Inventory Quality Assurance Reviews (QAR)

BM – 191 Inventory Form OBI&A

Bridge Inventory

Mission Statement

The Bridge Inventory Section in the Office of Structural Engineering, develops policy and procedures for the gathering and recording of Inventory Data for the State's system of bridges. This data base includes Interstate, State, County and Municipal structures. The Bridge Inventory Coding Guide used by State, County and local governments originate in this section. We provide training to other entities through seminars and one-on-one classes. This office also conducts Quality Assurance Reviews (QARs) of district offices. The results of these QARs will help us to track inaccurate data and to plan future training in the districts.

(Click below to access SMS page)

SMS Webpage

(Click below to access Ohio Bridge Inventory & Appraisal (OBI&A) Report)

- Using SFN
- Using Bridge Parameters
- External OBI&A (BM191) Report Help Document

BM – 191 Inventory Form OBI&A

- Both locations should be accurate, but the ODOT one will be the data that is used by ODOT since it comes from their internal IQ tables that are updated every night.
- You can export this report in 8 different formats.
- OBI&A will not have DRAFT stamp on it

BM – 191 Inventory Form OBI&A

REMINDERS

- Keep your attendance certificate from Training classes
- Send replies for new bridges by end 2017 (SHV load rating exemption)
- Critical Findings – Requires Immediate Action
- – CF Also occurs when GA <= 2
  - pictures
  - describe finding
  - describe action taken

REMINDERS

- all Engineering Judgment bridges need a BR-100 Load Rating Summary
  - BR-100 takes place of load rating
- On all Posted bridges, the Load Limit sign at bridge needs to match load rating analysis, or BR-100.

REMINDERS

Sample BR-100 Form

BRIDGE LOAD RATING SUMMARY REPORT

PROGRAM RESPONSIBLILITY	Muskingum County		
MAINTENANCE RESPONSIBLILITY	Muskingum County		
SFN	BRIDGE NUMBER		DISTRICT
6037496	NEW-TR261-S016		5
ORIGINAL CONSTRUCTION YEAR	REHABILITATION YEAR		OVERALL STRUCTURE LENGTH (FT. xxxx.xx)
1945			32.00
FIPS	FEATURE INTERSECTED:		FACILITY CARRIED
	Moxahala Creek Tributary		TR 261 (Shaw Road)
SPECIAL ASSUMPTIONS & COMMENTS:	Using field measurment taken April 26, 2010; single span steel beam with non composite concrete deck (42.0') skew = 0°; assume 33 ksi steel based on year constrcuted, slab thickness = 6".		

PLEASE SELECT ON RIGHT, WHERE APPROPRIATE, BY USING UP-DOWN ARROW BUTTONS

LOAD RATING PURPOSE:	1- Initial Load Rating
LOAD RATING SOFTWARE:	7 - Combination
RATING SOURCE:	0 - No Plans or information available for load rating analysis
METHOD OF RATING:	D - Assigned Load Factor Rating (LFR) using HS20 loadings
ORIGINAL DESIGN LOADING:	U - Unknown

STRUCTURE RATING SUMMARY

LOADING TYPE	GVW (TONS)	RATING FACTOR - RF (x.xxx)	SAFE GVW (TONS)	Current Design Loading
INVENTORY RATING		0.400		2 - HS20 Loading
OPERATING RATING		0.670		2 - HS20 Loading
OHIO LEGAL - 2F1	15	0.980	15	OHIO LEGAL LOADS OVERALL MINIMUM RATING FACTOR
OHIO LEGAL - 3F1	23	0.710	16	*65%*
OHIO LEGAL - 4F1	27	0.670	18	OHIO LEGAL LOADS OVERALL CONTROLLING TRUCK
OHIO LEGAL - 5C1	40	0.760	30	*OHIO LEGAL - 4F1*

LOAD RESTRICTIONS RECOMMENDATION	BRIDGE POSTING IS NEEDED

RATED BY, PE#	REVIEWED BY, PE#	REPORT DATE
Brian Newton, N/A	Douglas R. Davis, 56345	4/26/2010
AGENCY/FIRM	PHONE NUMBER	EMAIL
MCEO	740-454-0155	mceo@rrohio.com

BR-100 (REV 4/2012)

REMINDERS

STRUCTURE RATING SUMMARY				
LOADING TYPE	GVW (TONS)	RATING FACTOR - RF (x.xxx)	SAFE GVW (TONS)	Current Design Loading
INVENTORY RATING		0.400		2 - HS20 Loading
OPERATING RATING		0.670		2 - HS20 Loading
OHIO LEGAL - 2F1	15	0.980	15	OHIO LEGAL LOADS OVERALL MINIMUM RATING FACTOR
OHIO LEGAL - 3F1	23	0.710	16	*65%*
OHIO LEGAL - 4F1	27	0.670	18	OHIO LEGAL LOADS OVERALL CONTROLLING TRUCK
OHIO LEGAL - 5C1	40	0.760	30	*OHIO LEGAL - 4F1*
LOAD RESTRICTIONS RECOMMENDATION		BRIDGE POSTING IS NEEDED		

REMINDERS - Item 41

- Item 41 “Open Posted or Closed”
  - can only be changed in the ‘Review’ screen of SMS

REMINDERS - Item 41

INSPECTION INFORMATION

Report Title:

Report Logo:

Inspection Creation Date: 07/11/2014

	Required	Frequency			Date Performed
(90) Routine Inspection Date:	Y - Yes, this is a routine inspection	NTE	12	months	12/15/2014
(93A) Fracture Critical Inspection Date:	N - No, FCM not on bridge	NTE	0	months	
(93B) Underwater Inspection Date:	N- No, UW Diver is Not Required	NTE	0	months	
(93C) Interim Inspection Date:	N - Interim Inspection Not Required	NTE	0	months	
Snooper Inspection:	N - Snooper Access Not Required	NTE		months	
Probe Inspection:	Y - Bridge Requires Probing Inspection	NTE	12	months	12/15/2014
Boat Inspection:	N - Boat Access Not Required	NTE		months	

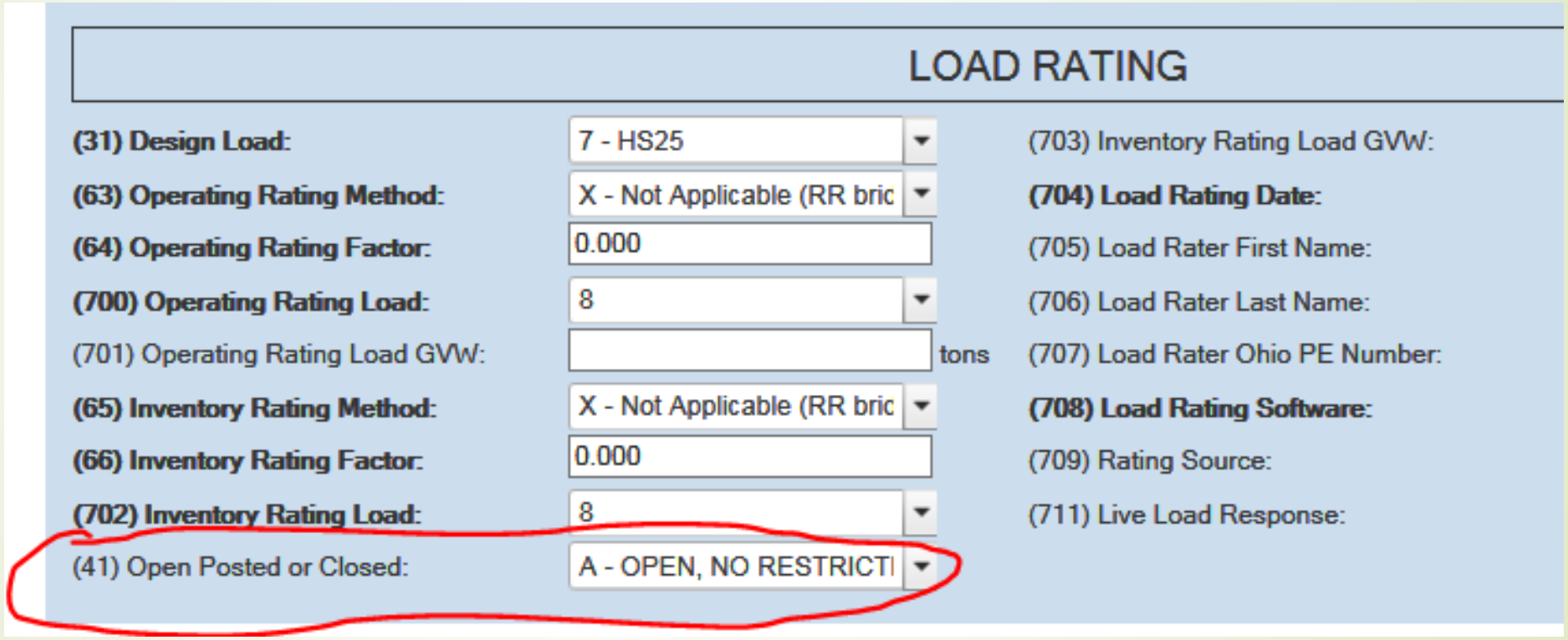
Inspection Program Responsibility: 3 - County Agency X - None X - None

General Appraisal : 5 **(41) Open, Posted or Closed:** A - OPEN, NO RESTRICTION

REMINDERS - Item 41

- Item 41 “Open Posted or Closed”
  - Also viewable on load rating screen, but changes there won’t count

REMINDERS - Item 41



LOAD RATING

(31) Design Load:	7 - HS25		(703) Inventory Rating Load GVW:
(63) Operating Rating Method:	X - Not Applicable (RR bric		**(704) Load Rating Date:**
(64) Operating Rating Factor:	0.000		(705) Load Rater First Name:
(700) Operating Rating Load:	8		(706) Load Rater Last Name:
(701) Operating Rating Load GVW:		tons	(707) Load Rater Ohio PE Number:
(65) Inventory Rating Method:	X - Not Applicable (RR bric		**(708) Load Rating Software:**
(66) Inventory Rating Factor:	0.000		(709) Rating Source:
(702) Inventory Rating Load:	8		(711) Live Load Response:
(41) Open Posted or Closed:	A - OPEN, NO RESTRICTI		

REMINDERS - SMS Queries

County Bridge Data (Reports created to show county various bridge data)

http://www.ceao.org/aws/CEAO/pt/sp/qarreports

- Inspection Comments List
- Project Cost
- Suff Rating, SD and FO, % Legal, and Summaries
- Bridge Card info
- County NHS
- Lat Long
- Legal Loads
- Batch Print by FIPS

REMINDERS - SMS Queries

Quality Assurance (Queries to check for data errors)

http://www.ceao.org/aws/CEAO/pt/sp/qarreports

- Percent Legal below 10 but Not Closed
- Percent Legal 100 or Above but Posted
- Percent Legal below 100 but Not Posted
- FC Date blank overdue FC bridges
- FC Date Blank all bridges
- GA Blank
- Open, Posted or Closed Blank
- Operating RF=0 but Not Closed
- Operating Status B
- Percent Legal Blank
- Scour Code Blank
- Suff Rating Blank
- Routine insp date not updated

REMINDERS - SMS Queries

2. <u>Project Cost</u>: List all Project costs for county

TEXT DESCRIPTION: (All assets where field '(221) Inspection Program Responsibility(A)' = '3' AND All assets where field '(3) County (Parish) Code' = '14')

QUERY PARAMETERS:

Report Query: Project Cost

t Description:(All assets where field '(221) Inspection Program Responsibility(A)' = '3' AND All assets where field '(3) County (Parish) Code' = '14')

Enter Query Criteria
Additional Filters
Select Display Columns

☑ Add Criteria Field to Displayed Columns

Return results that match All of the following:

→ (221) Inspection Program Responsibility(A) = 3

→ (3) County (Parish) Code = 14

Click to add a new criteria

DISPLAYED COLUMNS:

Search Results: 295 results found.

Print Reports | Show Assets on Map | Export Results To Excel | Export Results To KML | Export Results To CSV

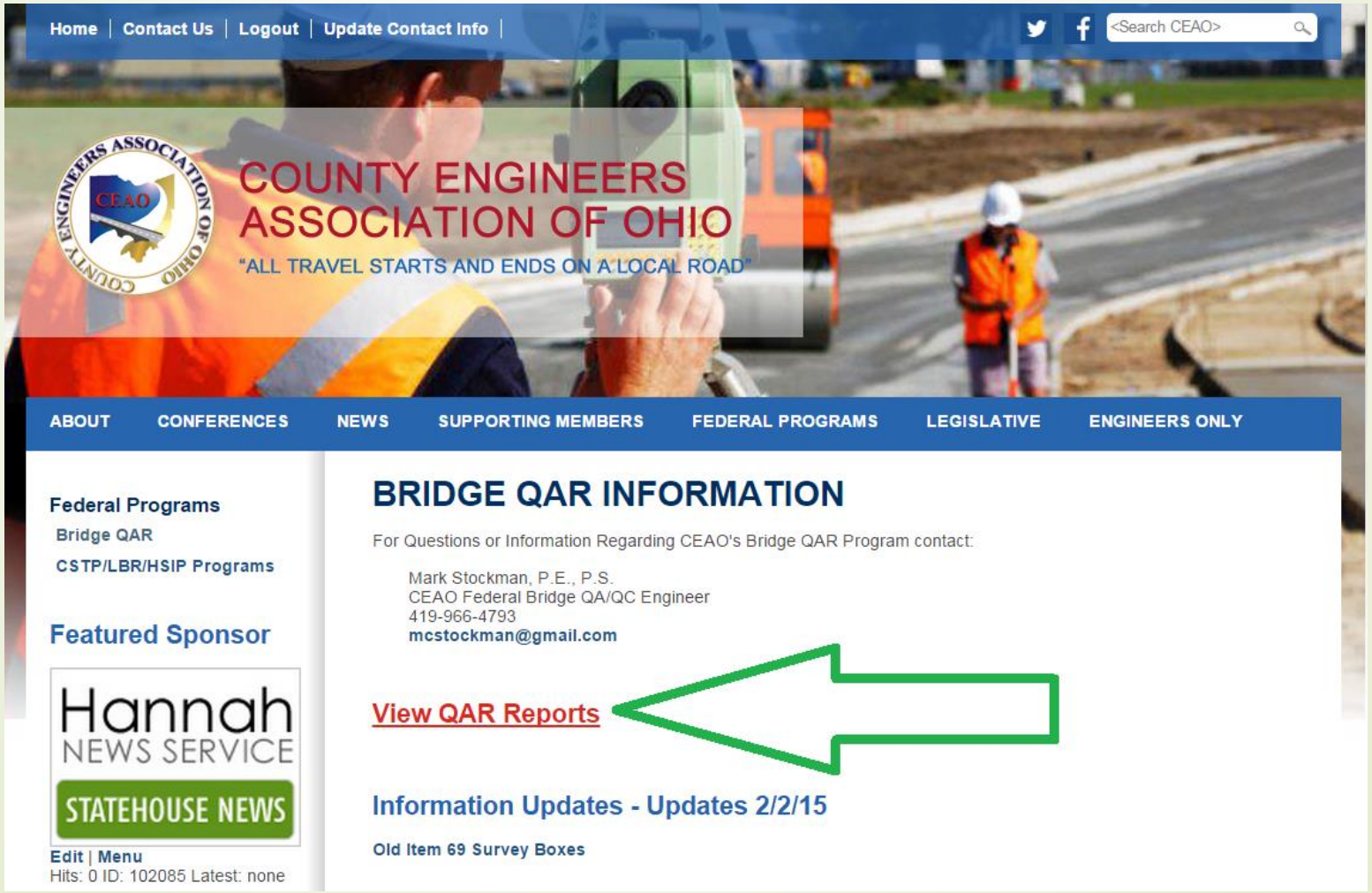
Asset Name	(221) Inspection Program Responsibility (A)	(3) County (Parish) Code	(21) Maintenance Responsibility	Asset Code	(5D) Inventory Route: Route Number - ROUTE [Identification]	(200) County Log Point (CL) [Identification]	(96) Total Project Cost [Identification]	Unofficial Sufficiency Rating [Calcs]	(43A) Structure Type: Material [Identification]	(43B) Structure Type: Type [Identification]	(43C) Main Structure Description [Identification]	(27) Year Built [Identification]	(264) Major Reconstruction Date [Identification]	(76) Length of Structure Improvement [Identification]	(52) Deck Width, Out-To-Out [Deck]	(8) Structure Number [Identification]
CLI-C0001-0056 (1430092)	3	14 - Clinton	3	1430092	C0001	0.560	72908	98.9	1	9	5	2006		12	0	1430092

REMINDERS - SMS Data Spreadsheets

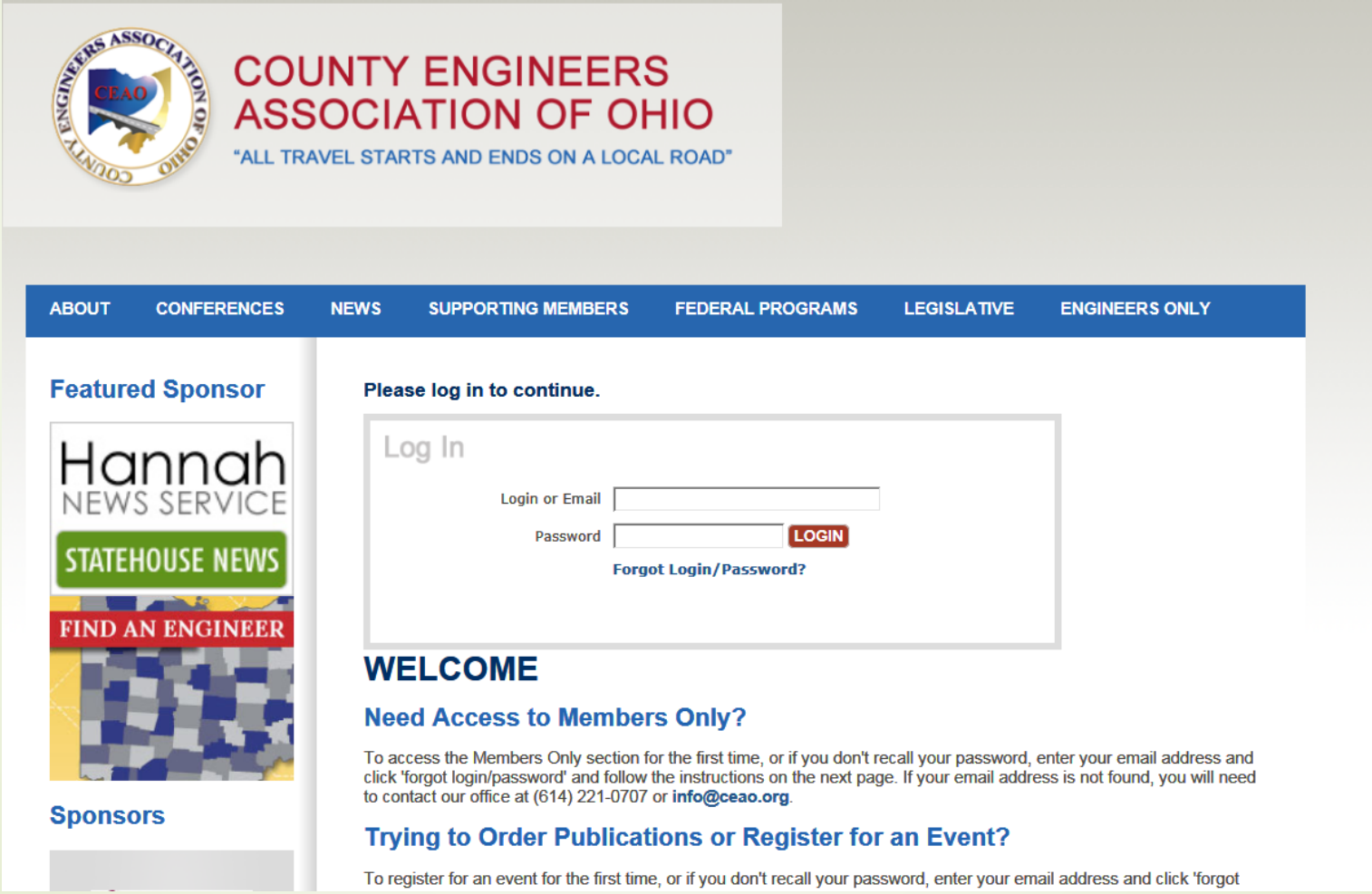
http://www.ceao.org/aws/CEAO/pt/sp/qarreports

SMS Queries Descriptions and Spreadsheets

SMS Queries Descriptions and Spreadsheets



SMS Queries Descriptions and Spreadsheets



REMINDERS - SMS Data Spreadsheets

http://www.ceao.org/aws/CEAO/pt/sp/qarreports

REMINDERS - SMS Queries

- Go to CEAO page for spreadsheets of data – OR – descriptions of queries
- Email me with your request
- I can change county and add individual items to the Results display
- Some queries are statewide, others are county specific, I can modify
- Certain counties beginning with A's are problematic

IF YOU HIT THIS SIGN,
YOU WILL HIT THAT BRIDGE
Useful sign