

Planning and Response Issues for Transportation Before and After the Shake!

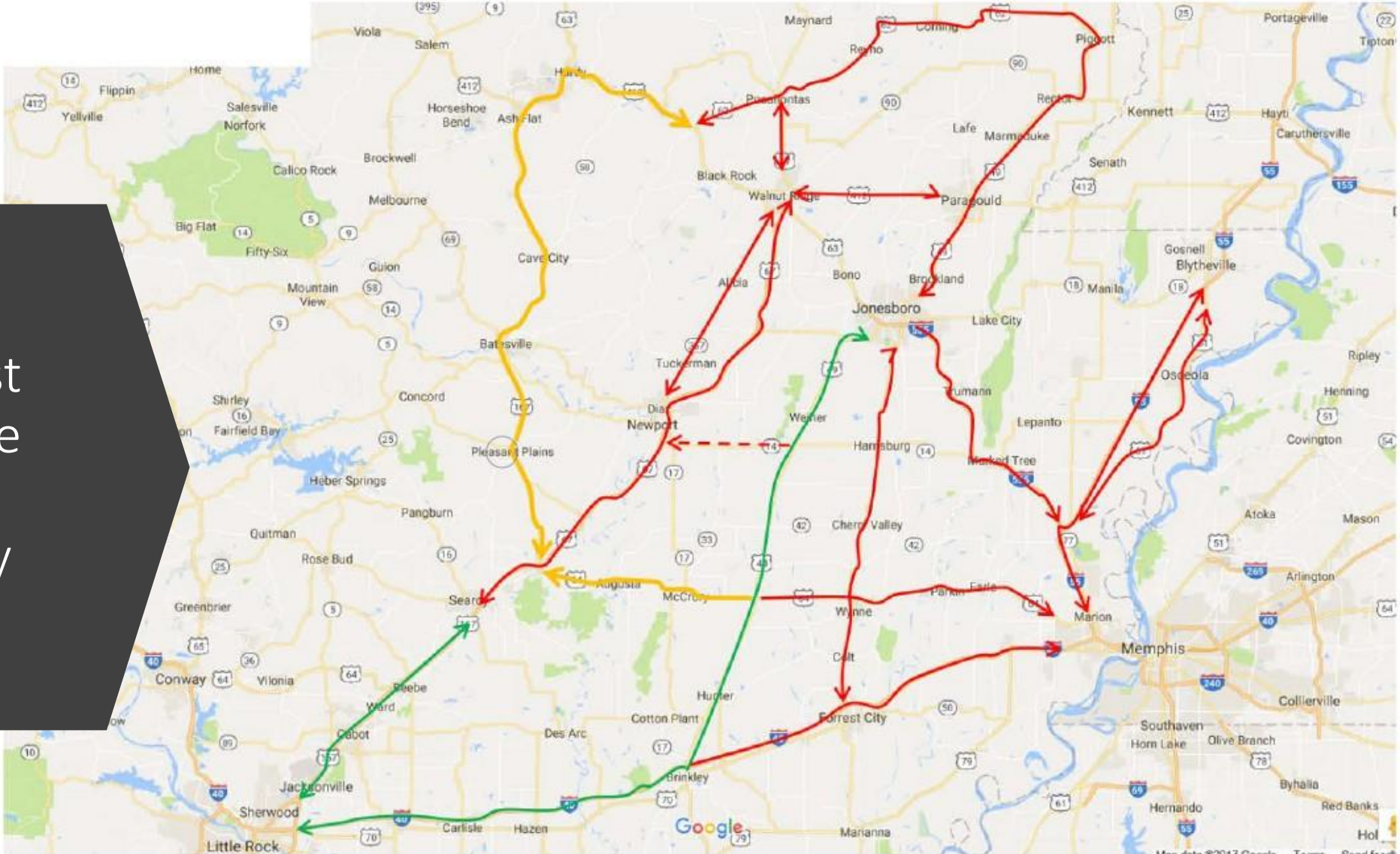
- ❖ MICHAEL WHITE MODOT – ASST. SAFETY AND EMERGENCY MANAGEMENT DIRECTOR
- ❖ JAMIE BELCOURT ARDOT – EMERGENCY MANAGEMENT COORIDINATOR
- ❖ MICHAEL NICHOLS INDOT – STATEWIDE DIRECTOR, EMERGENCY PLANNING AND RESPONSE



ArDOT Affected Transportation Facilities

Transportation Lifelines	Total Facilities	At Least Moderate Damage	Complete Damage
Highway Bridges	14,060	1,083	336
Railway Bridges	68	11	0
Railway Facilities	69	14	0
Bus Facilities	18	1	0
Port Facilities	103	17	0
Airport Facilities	335	37	0

ArDOT Post Earthquake route availability

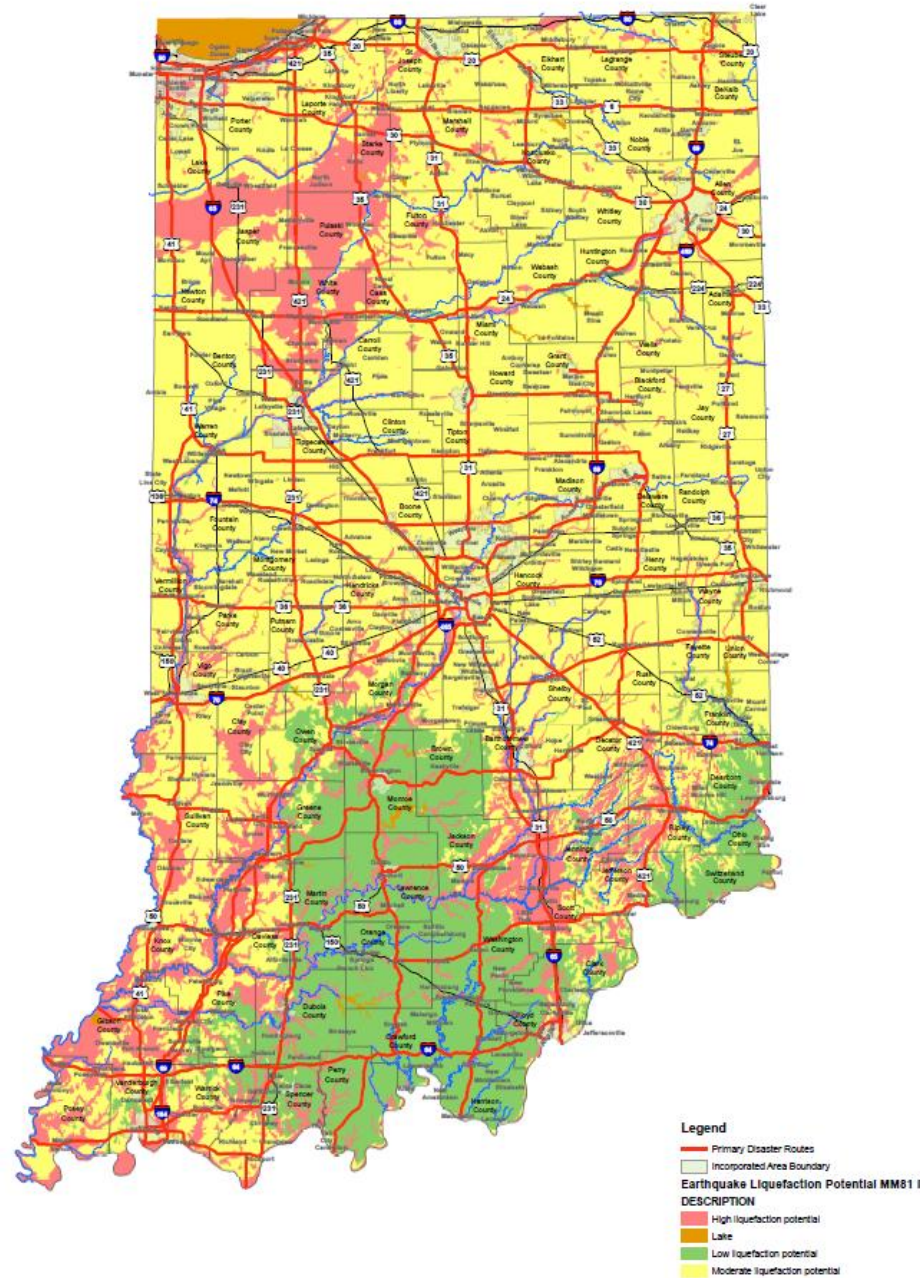


Hazus modeling route functionality post-earthquake

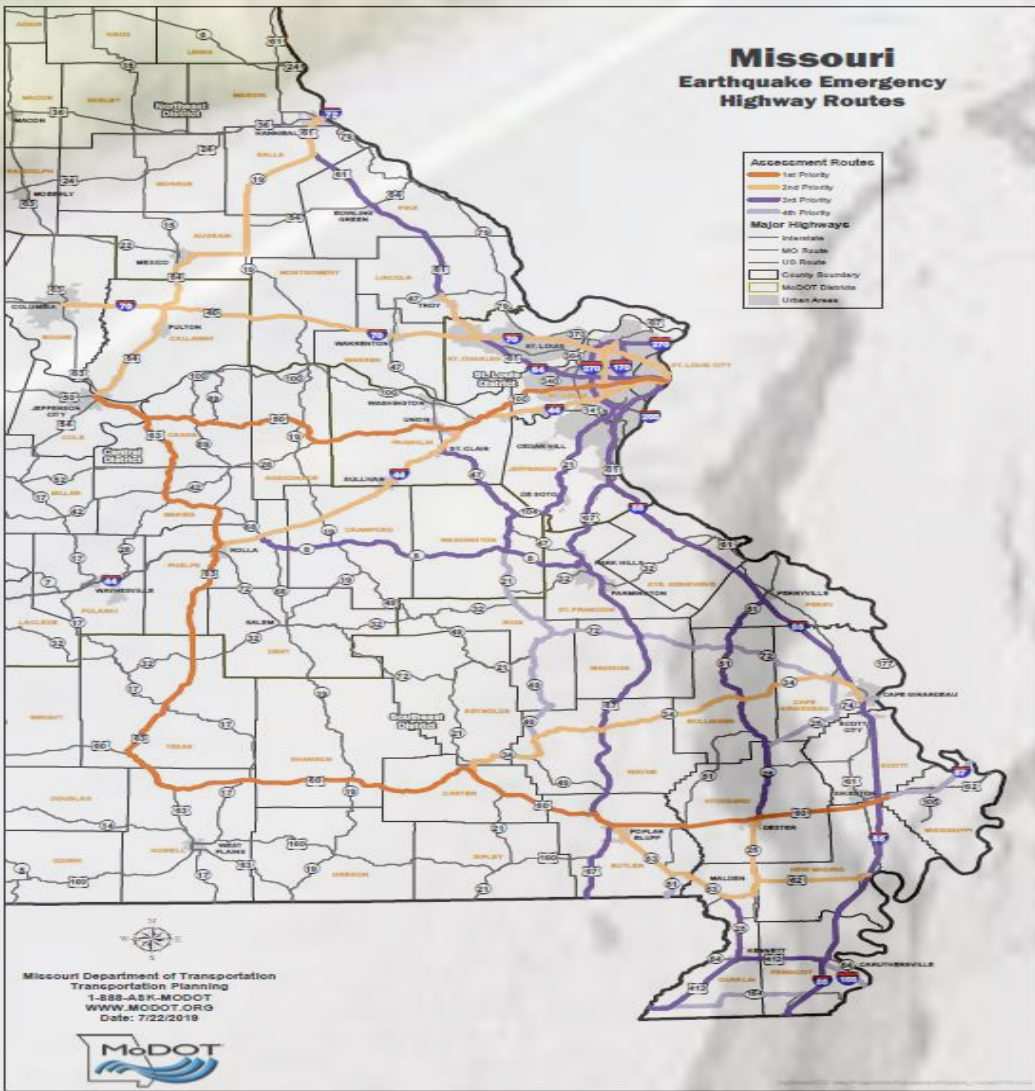
- ↔ Potentially functional
- ↔ Possibly functional w/in days to weeks
- ↔ Not functional for weeks to months

Indiana Liquefaction

Earthquake_Liquefaction_Potential_MM81_IN



Missouri Earthquake Emergency Highway Routes



Assessment Routes

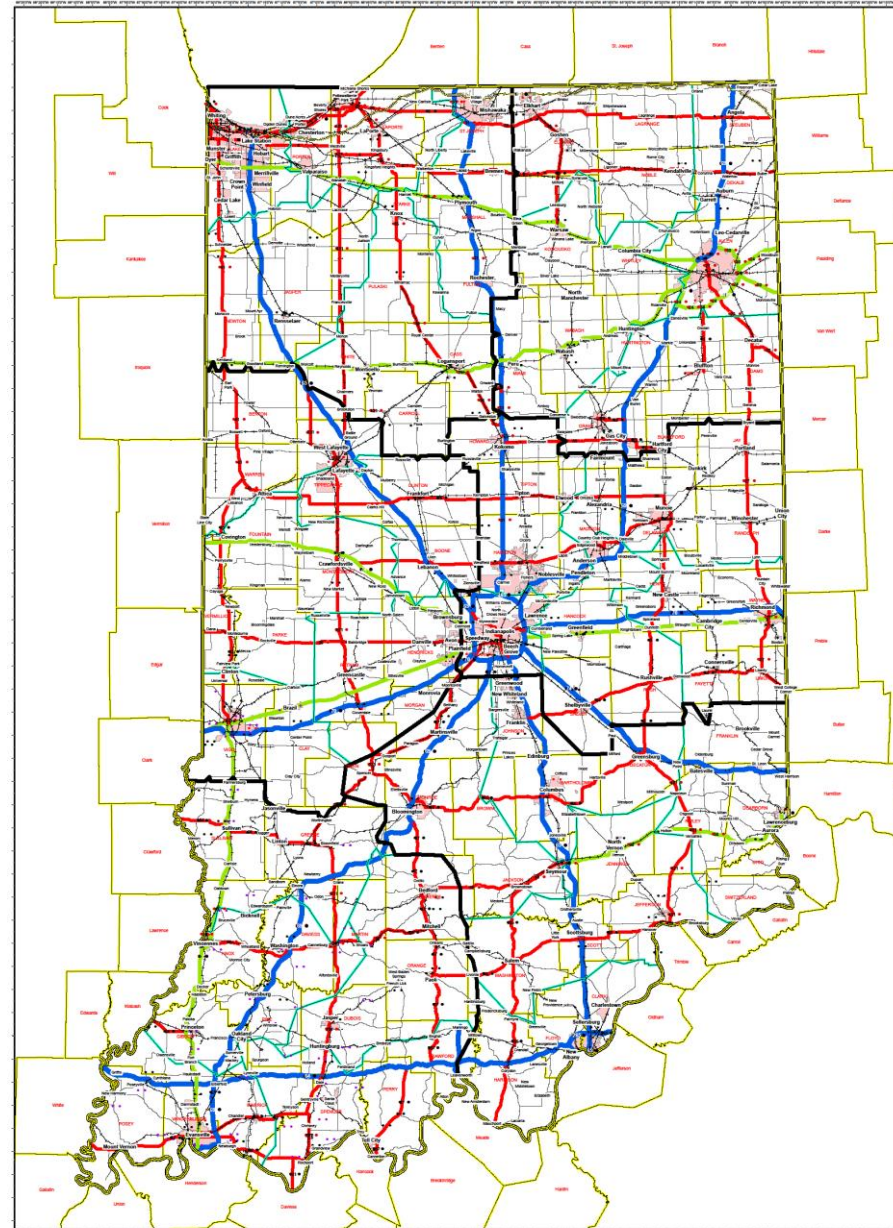
- 1st Priority
- 2nd Priority
- 3rd Priority
- 4th Priority

Major Highways

- Interstate
- MO Route
- US Route
- County Boundary
- MoDOT Districts
- Urban Areas

Emergency Highway Routes

Indiana Disaster Routes



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INDOT PRIMARY DISASTER ROUTES

- Powerplants
 - Distribution Points
 - Airfield
 - Airport/Tower
- Primary Disaster Routes
Priority
- Unit
 - Sub District
 - District
- District Boundary
• Subdistrict Boundary
• County
• District
• City
- Active Railroad

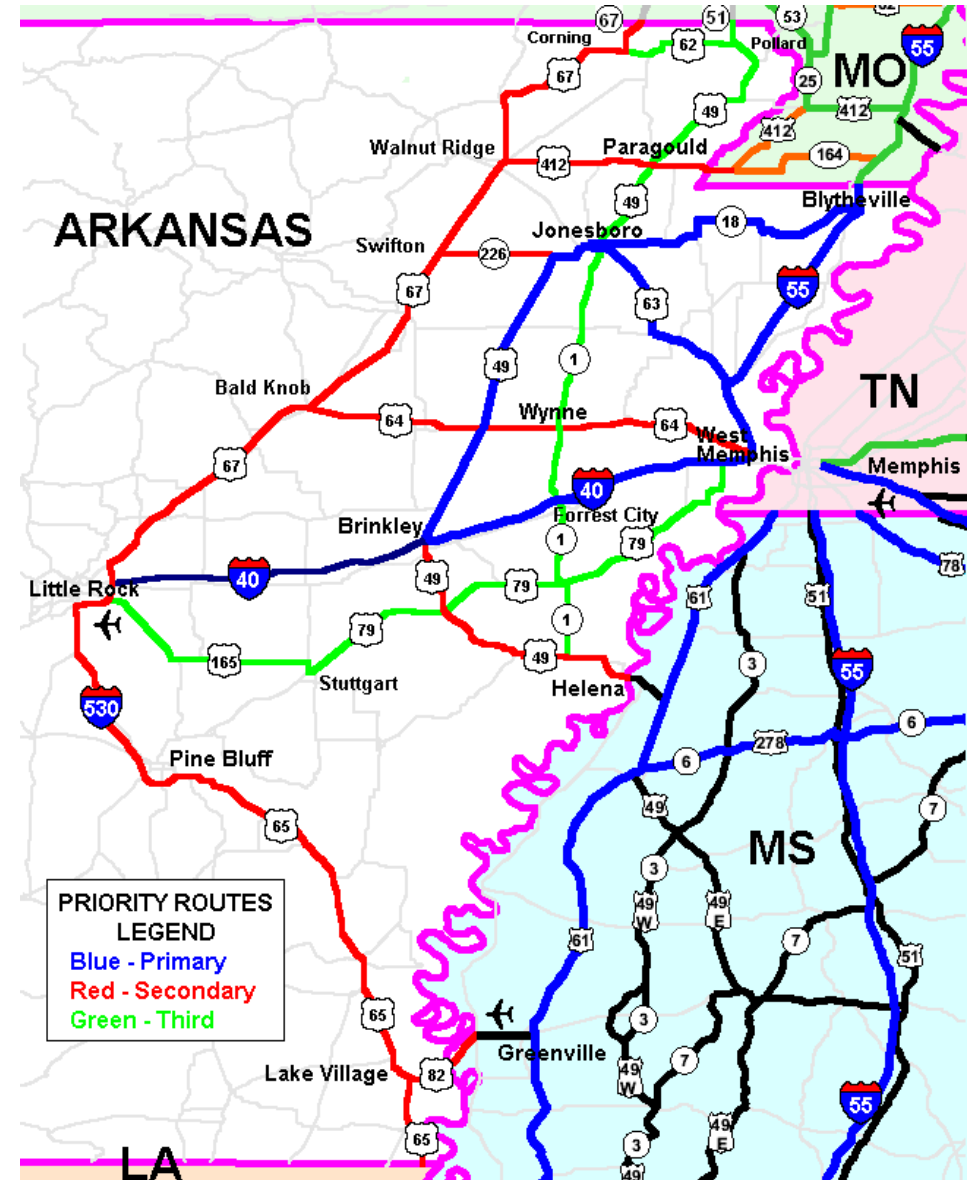
Miles 0 4.5 9 18 Date: 4/25/2013

Document Path: \\sftp\pwh\DOT\Projects\Emergency\GIS\4252013\Primary_Disaster_Routes_State_Map\Primary_Disaster_Routes_State_Map.aprx

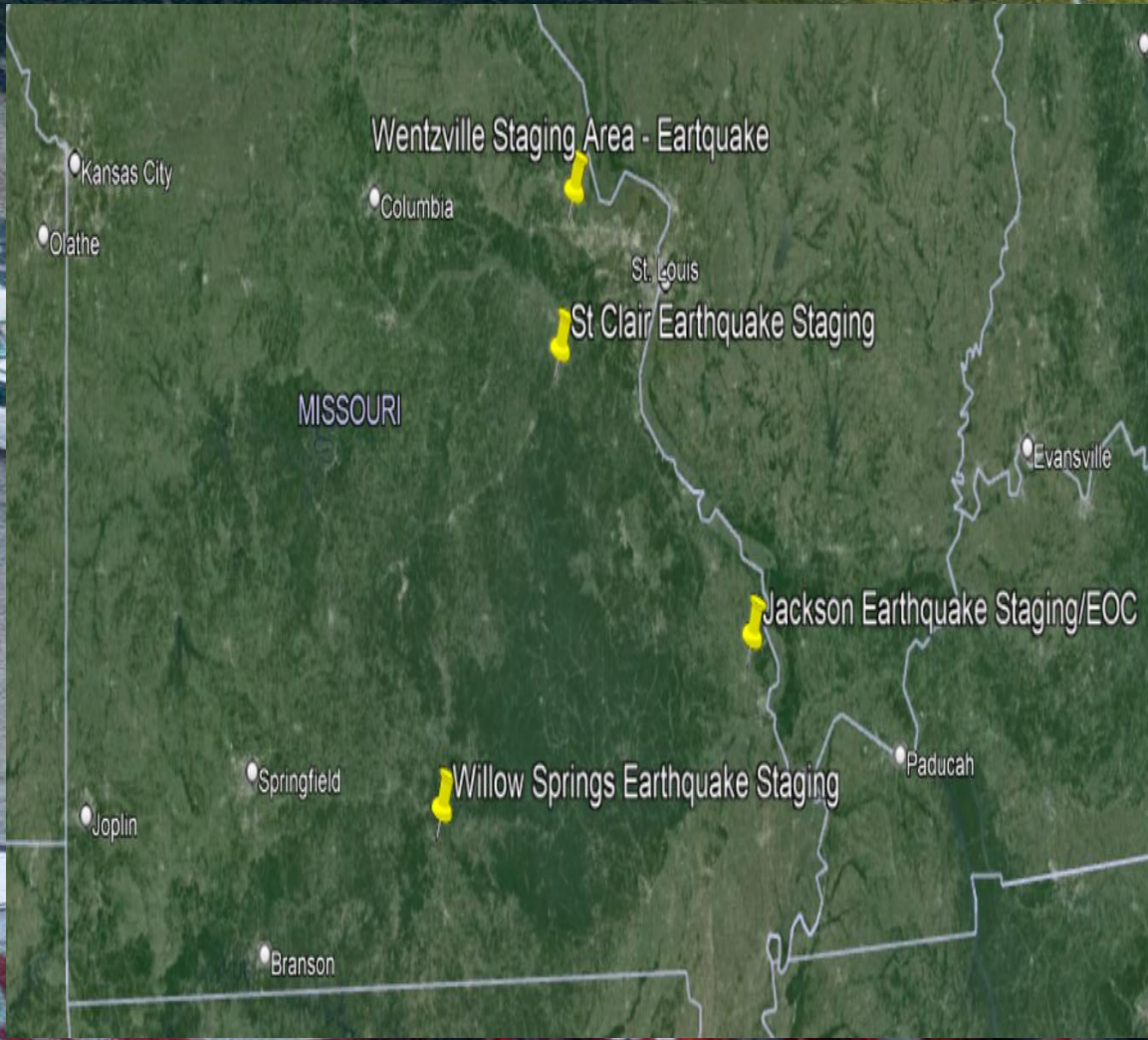


ArDOT Priority Ingress/Egress Routes

- US 49 from I-40 to Jonesboro follows along Crowley's Ridge and does not have any bridge length structures.
- I-40 from Little Rock to Brinkley has one major river crossing at the White River. The river crossing bridge was constructed in 2019 with the current seismic design standards.
- I-40 from Brinkley to West Memphis will be questionable post earthquake due to the bridges over the St. Francis River.



MoDOT Staging locations New Madrid Seismic Zone



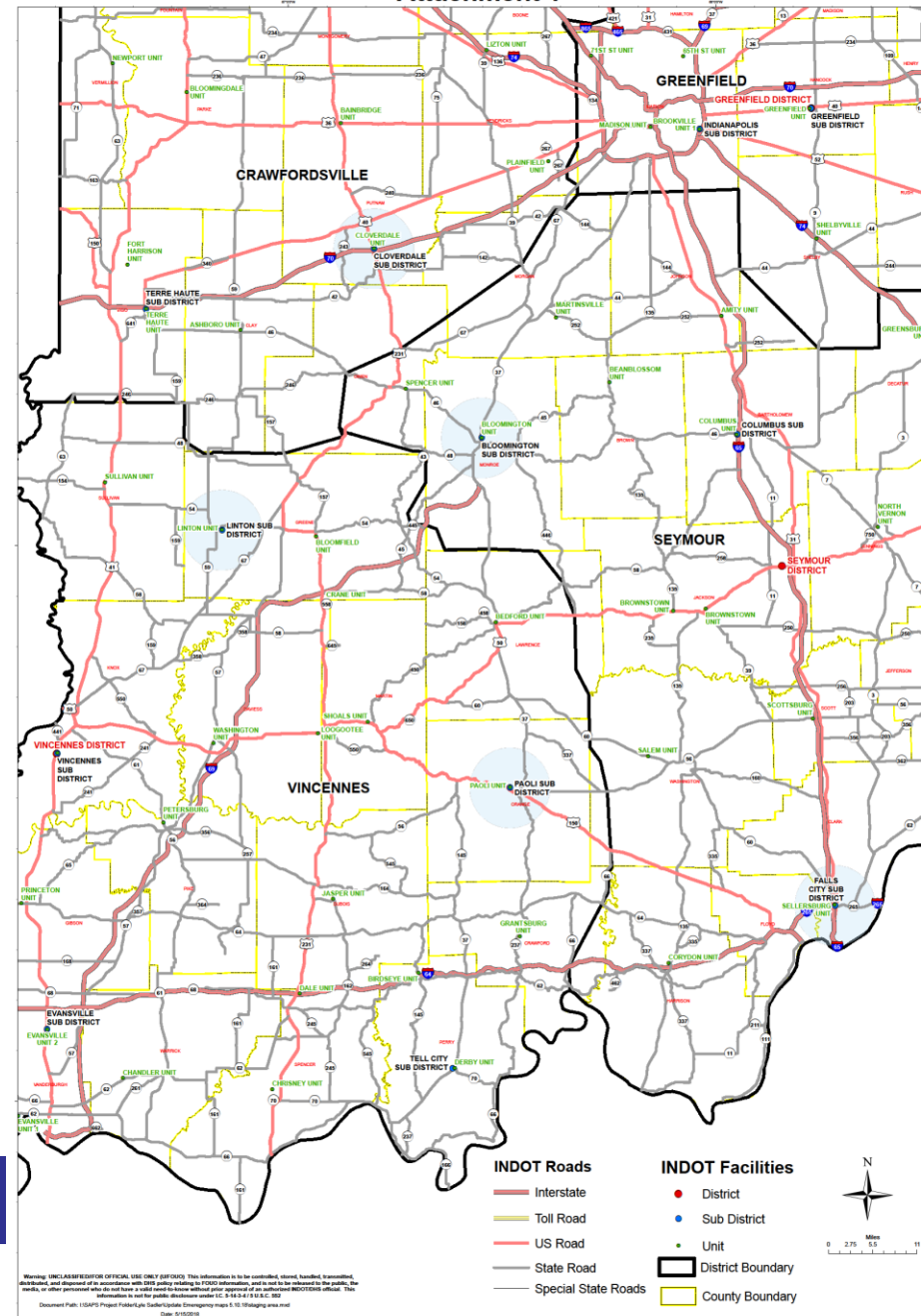
- Wentzville 2000 Gallons of Diesel 1000 Gallons of Gas**
- St Clair Mt 3500 Gallons of Diesel 960 Gallons of Gas**
- Jackson Forward MT 2000 Gallons of Diesel 2000 Gallons of Gas**
- Willow Spring Mt 5700 Gallons of Diesel 6000 Gallon of Gas**



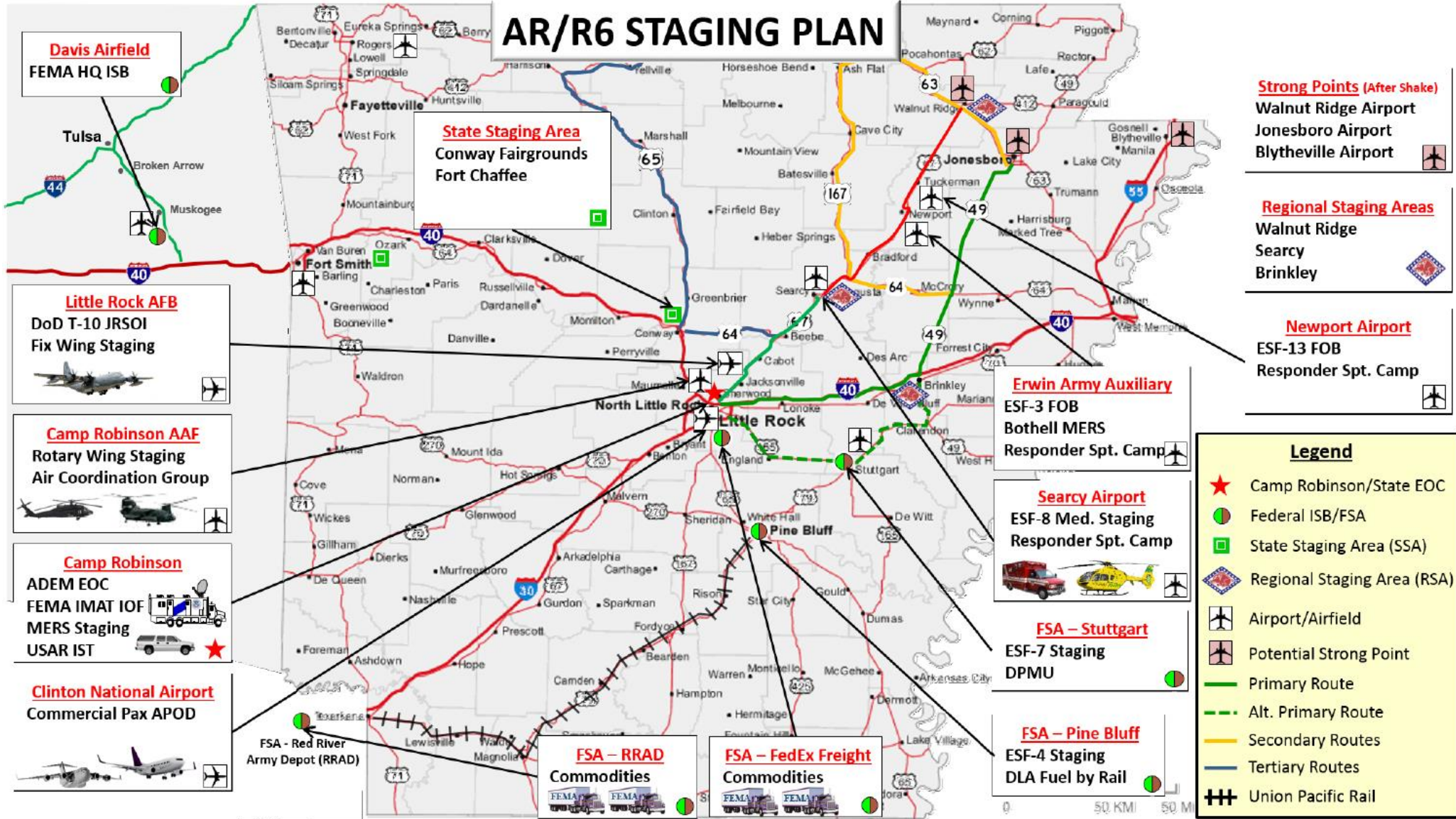
INDOT CETRP Earthquake Annex B

Attachment 1

INDOT Staging Areas



ArDOT Staging Areas



MoDOT-Response Fuel

500 Dump Trucks

Flammable

450 Passenger Car, Pickups and Vans

170 pieces of additional resources – skidsteer, excavator, loader ect.

For MoDOT response only daily fuel needs are 17,500 gallons of diesel and 3,500 gallons of gasoline

4 Staging Areas can hold 13,200 Gallons of diesel, 9,900 gallons of gasoline

- *7 CSR 10-11.020 (6) Emergency Procurement - When conditions meet the criteria of an emergency situation as defined in 7 CSR 10-11.010 ((15) Emergency—A situation which creates a serious and obvious threat to the public health, welfare, or safety, or creates a serious and obvious threat to the operation of the department in executing its legal responsibilities to the public or for the persons or property in its legal care, custody, or control, or a combination of these), emergency procurement procedures may be utilized. Formal competitive bids or proposals may be waived, but an emergency procurement should be made with as much informal bidding as practicable. Only those supplies which are necessary to alleviate the emergency may be purchased using emergency procedures.*

Indiana Fuel Plan

Current burn rate for INDOT: 14,275 gallons / day

Fuel purchased at commercial stations. No tanks/pumps owned by INDOT.

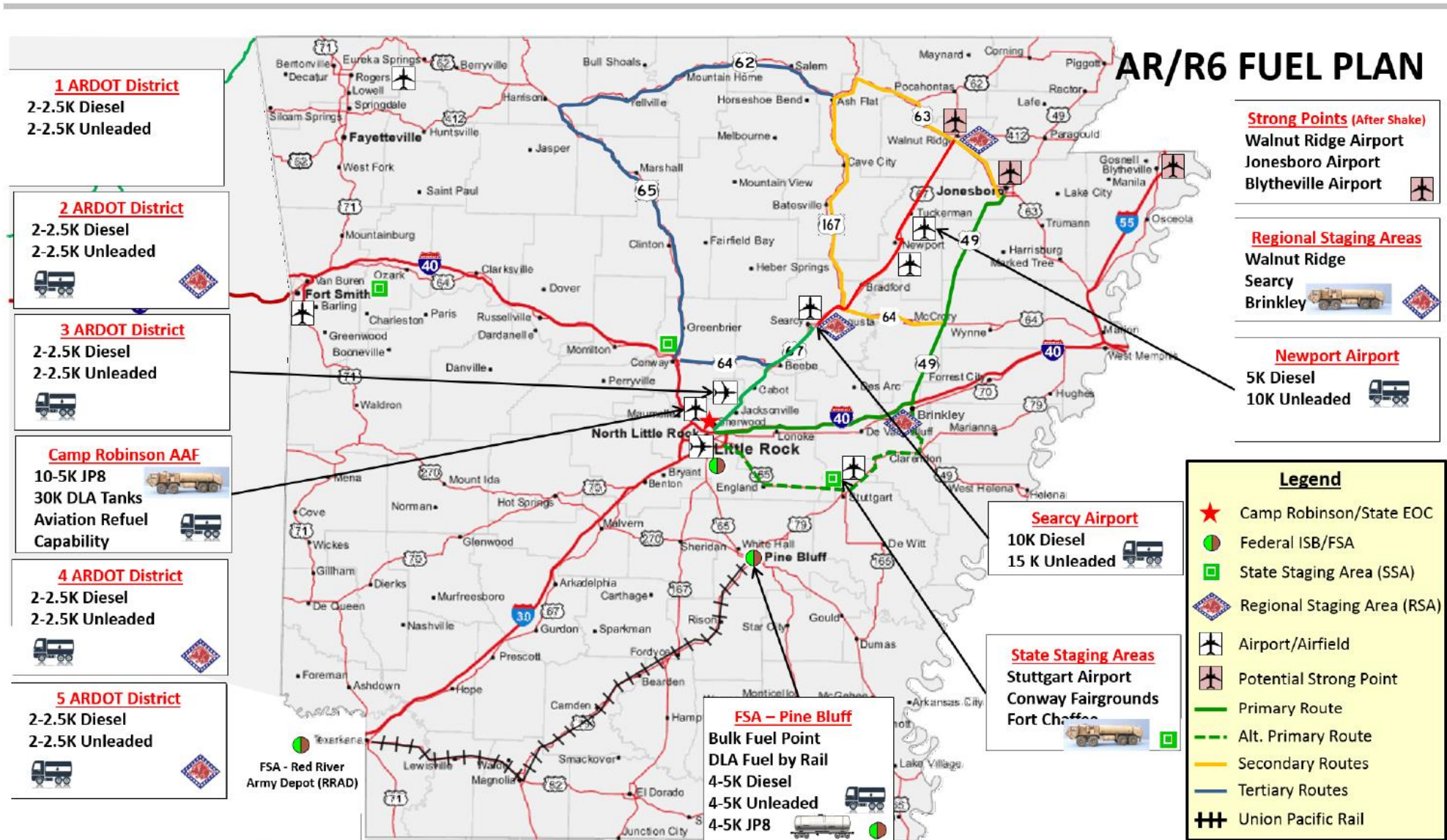
Emergency contract through Macro Companies

- **Provide all types of fuel**
- **Will set up mini-mobile fueling stations**
- **Mobile fuel tankers**
- **Fuel supply chain**

INDOT maintains the fuel contract supporting Indiana Department of Homeland Security



ArDOT Fuel Plan



Indiana Incident Response App

INDOT IR Dashboard Prototype
INDIANA DEPARTMENT OF TRANSPORTATION
INDOT Home Page

IR Issues in Current View

- IR 1 - Not Resolved Issues
- IR 1 Road Status

Tasks

- Issue by Date
- Issue by District
- Issue by Subdistrict
- Issue by Unit
- Issue by Inspector
- Issue by Route

Layers

- IR 1_Road Surface
- IR 1_Damaged Sign
- IR 1_Debris_DeadAnimal
- IR 1_Damaged Guardrail
- IR 1_Damaged Cable Barrier
- IR 1_Fallen Tree or Limbs
- IR 1_Damaged Fence
- IR 1_Roadway Light Outage
- IR 1_Drainage/Flooding
- IR 1_Signal Malfunction
- IR 1_Lines Down
- IR 1_Pole Down
- IR 1_DamagedAbandoned Vehicle
- IR 1_Bridge
- IR 1_Person
- IR 1_DamagedCollapsedStructure

IR Issue by Type

2:33 PM
2/23/2024

INDOT Incident Response - Prototype 1

Incident Name *
Incident A

Route Name *
I-69nb

Ref Post
222.4

Locate on map *
40.038°N 85.721°W ± 30.2 m

Type *
Drainage/Flooding

Type Description

Drainage/Flooding Description

Road Status
 Closed Proceed with Caution
 Open

Comments
Overflowing ditch

Date Captured
Tuesday, December 21, 2021
12:43 PM

Images

Other Location Info

Completion/Resolved Date
Setting completion date to today or earlier will set Resolved to Yes
Tuesday, December 21, 2021
12:43 PM

Images

Other Location Info

Completion/Resolved Date
Setting completion date to today or earlier will set Resolved to Yes

Resolved
 Yes No

User
MNichols2@indot.IN.gov

- Inputs by field personnel on mobile device
- Dashboard/Map view by command

Future Enhancements

- Interact with FHWA DDIR reimbursement
- Interact with State Homeland Security



MoDOT Damage Assessment App (Orion)

The screenshot displays the Orion mobile application interface for MoDOT Damage Assessment. The top status bar shows the time as 2:20 and 2:21, along with signal and battery icons. The app header includes the Orion logo and navigation options like 'Incident/Preplan: Emergency Use Incident (4/28/2023)'. The main interface is divided into several sections:

- Map Section:** Features a map of Jefferson City, Missouri, with a 'Map by: Structure Type and Damage' dropdown. A legend on the left lists 'Structure Types' (Residential, Business, Agricultural, Public/Infrastructure) and 'Damage Designations' (Not Affected, Affected, Minor, Major, Destroyed). It also includes 'Area Selector', 'Damage Selector', and 'Road Damage Selector' buttons.
- Incident Statistics Section:** Displays metrics for 'Human Impact' (Fatalities, Injured, Missing, Evacuated, Contaminated, Sheltered, Displaced) and 'Public Assistance Info' (Threshold, Current Damages: \$23,900). It also shows 'Individual Assistance' thresholds for Single Family, Multi Family, and Mobile Home, and 'Residential Damages'.
- Form Section:** Contains 'Address Information' (Public / Infrastructure, Location Type, Cole Area, 830 MoDOT Drive) and 'Public / Infrastructure Information' (Name, A - Debris Removal Category, Debris Field, Public Facility, Same Mailing Address, Property is CI / KR, Property is Historic, Property Setting, Manufacturing Jobs). A 'Save' button is at the bottom.

Contact Information

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