

Development of Freight Investment Plans and Use of National Highway Freight Program Funds

Technical Session 24: Freight Funding & Federal Freight Update MAFC/MAASTO Conference – Traverse City, MI

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State Freight Plan (2017)



IOWA STATE FREIGHT PLAN FAST ACT UPDATE



- Bottleneck identification and prioritization
- Freight Investment Plan
- Linking Iowa's Freight Infrastructure System (LIFTS) program

Value, Condition, and Performance (VCAP) matrix

- Identification and prioritization of highway freight bottlenecks
- Tools
 - Freight Mobility Issue Survey
 - iTRAM statewide travel demand model
 - Infrastructure Condition Evaluation (ICE)
 - INRIX traffic data
 - Iowa DOT truck traffic data
- Process

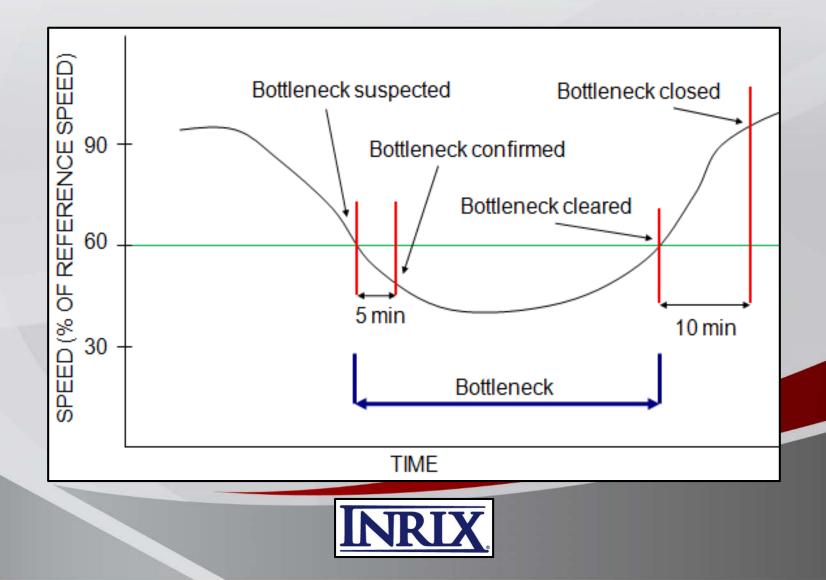
		VA	LUE	CONI	DITION	PERFO	RMANCE		TIEBREAK	
MAP ID	LOCATION	ITRAM	"V" RANK	ICE	"C" RANK	INRIX	"P" RANK	AVERAGE RANKING		PRIORITY RANK
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2										2
3										3
4										4 3
5										5

VCAP – improvement list

- Freight Mobility Issue Survey
- Identifying locations with freight mobility issues
 - INRIX Bottleneck Ranking tool
 - Occurrences throughout the year
 - At least 30% truck traffic or more than 5,000 trucks per day
- Prioritization and additions
 - Freight Advisory Council
 - DOT Transportation District Offices
 - Metropolitan Planning Organizations (MPOs)
 - Regional Planning Affiliations (RPAs)

		VA	LUE	CONI	DITION	PERFO	PERFORMANCE			
MAP	LOCATION	ITDAM	"V" RANK	ICE	"C" DANK	INDIV	"P" RANK	AVERAGE	TRUCK	PRIORITY
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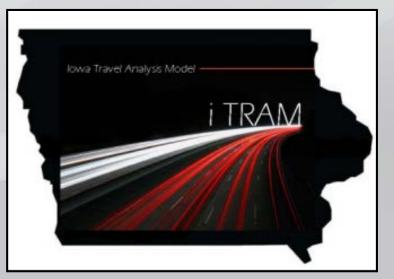
Tracking freight bottleneck conditions



VCAP - Value

• iTRAM

- Iowa Travel Analysis Model
- Updated to include freight components
- Base analysis
- Remove location with freight mobility issue(s)
- Test analysis
- Difference in statewide truck VHT



		4	5							
		VA	LUE	CONE	DITION	PERFO	RMANCE		TIEBREAK	
MAP	LOCATION	ITRAM	"V" RANK	ICE	"C" RANK	INRIX	"P" RANK	AVERAGE	TRUCK	PRIORITY
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1										1
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VCAP - Condition

• ICE

- Infrastructure
 Condition
 Evaluation tool
- 7 criteria
- Weighting
- Composite rating for each location

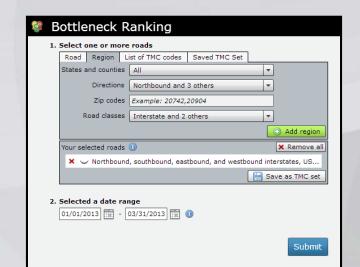
_	_	_	IC	E RATIN	8				_			
Rank	Corridor	Route type	All	N/E	s/w	PCI	IRI	Suff	Pass AADT	Single AADT	Combo AADT	V/C
1	US 30 (beginning of two-lane near jct of IA 1 to north jct of US30/US 61)	ND	58.58		-	5	3	9	5	4	4	8
2	I-380 (jct of US 30 to jct of IA- 100) ¹	1	59.83	59.95	59.71	з	з	10	1	1	6	5
3	I-35/80 (east jct of I-80/235 to west jct of I-80/235)	1	59.85	61.05	58.61	8	5	10	1	1	2	4
4	IA 136 (jct of US 20 to jct of IA 3/US 52)	ND	60.51	-	-	4	2	10	5	1	7	8
5	IA 136 (jct of US 151 to jct of US 20)	ND	60.87	-	-	4	2	9	8	4	6	9
6	US 69 (beginning of NHS on US 69 near Ankeny city limits to Ames south city limits)	ND	61.41	-	-	4	2	9	2	5	9	7
	US 169 (ict of L90 to cont ict of											

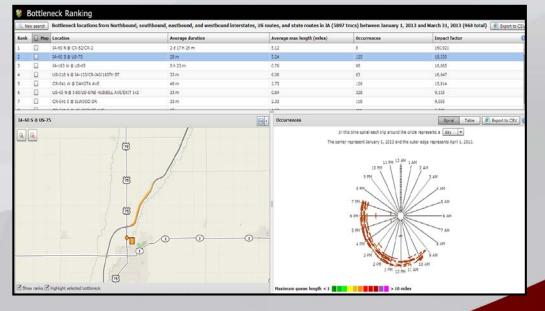
		VA	LUE	CONI	DITION	PERFO	RMANCE		TIEBREAK	
MAP	LOCATION	ITRAM	"V" RANK	ICE	"C" RANK	INDIV	"P" RANK	AVERAGE	TRUCK	PRIORITY
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VCAP - Performance

• INRIX

- Bottleneck Ranking Tool
- Annual Occurrences





		VA	LUE	CONE	DITION	PERFORMANCE			TIEBREAK	
MAP ID	LOCATION	ITRAM	"V" RANK	ICE	"C" RANK	INRIX	"P" RANK	AVERAGE RANKING		PRIORITY RANK
1										1
2										2
3										3
4										4 8
5										5

VCAP summary

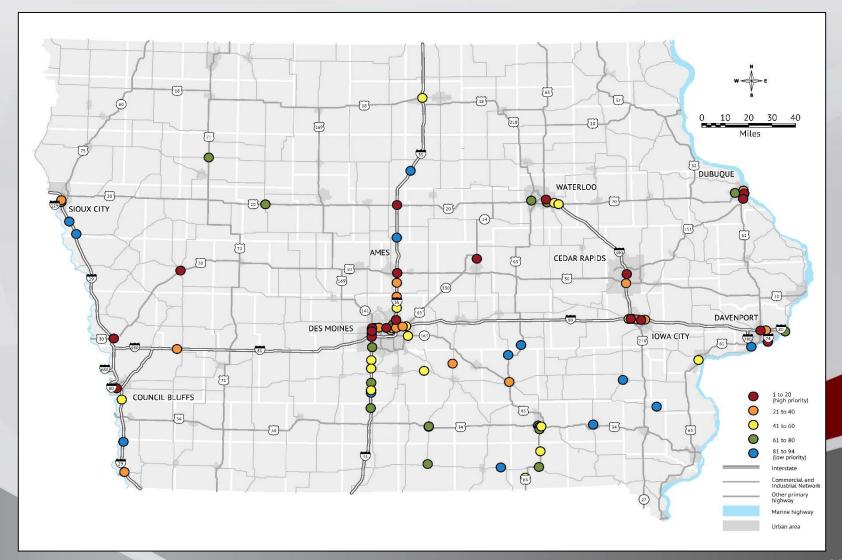
- 1. Freight Mobility Issue Survey
 - Populate initial improvement list
- 2. Value Iowa Travel Analysis Model (iTRAM)
 - How much the location improves efficiency of the network
- 3. Condition Infrastructure Condition Evaluation (ICE) tool
 - Composite rating of seven condition and traffic criteria
- 4. Performance INRIX Bottleneck Ranking tool
 - How often bottlenecks occur
- 5. Average the three rankings
- 6. Truck traffic counts (tiebreaker if necessary)

	1	2)		3	4	Ð	5	6	
		VA	LUE	CONI	DITION		RMANCE		TIEBREAK	
MAP	LOCATION	ITRAM	"V" RANK	ICE	"C" RANK	INRIX	"P" RANK	AVERAGE	TRUCK	PRIORITY
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Highway freight improvement priorities

_		Valu	e	Condi	tion	Perfo	rmance		Tie	
Map ID	Location	iTRAM	"V" rank	ICE	"C" rank	INRIX	"P" rank	Average ranking	Truck volume	Priority rank
48	I-80/29 N/S through Council Bluffs	60.79	32	52.82	2	374	16	16.67	13579	1
47	U.S.151 N/S @ Maquoketa Dr	53.29	38	57.36	6	1040	6	16.67	2115	2
87	I-74 @ Mississippi River	90.95	23	65.53	23	706	9	18.33	2908	3
57	I-35/80 N/S, E/W @ Iowa 141	49.26	43	61.17	13	2036	2	19.33	12761	4
76	I-380 N/S through Cedar Rapids	76.37	26	55.34	4	123	33	21.00	7226	5
5	U.S. 30 E/W through Missouri Valley	21.80	58	54.31	3	1563	4	21.67	993	6
79	I-380 N/S @ I-80/exit 0 and I-80 E/W @ I-380/exit 239 I-35 N/S @ U.S. 20/exit 142	146.63	10	73.35	47	250	24	27.00	11161	7
15	and U.S. 20 E/W @ I-35/exit 153	114.43	17	73.91	51	420	14	27.33	5559	8
55	I-35/80 N/S @ Douglas Ave	52.83	41	59.84	11	116	34	28.67	12884	9
6	lowa 160 E/W @ I-35 and I-35 N/S @ lowa 160/exit 90	108.67	18	69.29	36	114	35	29.67	8331	10
11	U.S. 30 E/W @ U.S. 59/lowa 141	60.33	33	70.81	41	387	15	29.67	1377	11
84	U.S. 61 N/S @ I-80/exit 123 and I-80 E @ U.S. 61/Brady St/exit 295	53.65	36	69.57	37	368	17	30.00	11230	12
51	I-80/I-35/I-235 N/S,E/W @ southwest mixmaster	92.24	22	73.83	50	365	18	30.00	6870	13
71	I-380/U.S. 218 N/S from San Marnan Dr To W Ninth St	12.87	61	66.45	27	1764	3	30.33	2799	14
46	U.S. 20 E/W@ lowa 946	55.22	35	58.80	8	79	48	30.33	2213	15
27	lowa 14 N/S from Marshalltown north city limits to lowa 330	11.10	63	62.08	17	576	12	30.67	542	16
17	I-35 N/S @ U.S. 30/exit 111 and U.S. 30 E/W @ I-35/exit 151	131.58	13	77.55	61	336	19	31.00	7633	17

VCAP priorities



National Highway Freight Program

- Dedicated freight funding allocated to each state
- Iowa NHFP funding (\$13 million \$18 million per year through 2020)
- At least 90% of allocated funding must be spent on the National Highway Freight System
- Up to 10% funding may be used on freight intermodal and/or freight rail projects
- Must document where the state will spend NHFP funding in a freight investment plan



Freight Investment Plan

- NHFP funding (\$13 million \$18 million per year through 2020)
- 90% of allocated funding
 - VCAP #1 Interstate System (Council Bluffs, Pottawattamie County)
 - VCAP #3 I-74 bridge replacement (Davenport, Scott County)
 - VCAP #7 I-80/I-380 interchange (Iowa City, Johnson County)
- 10% flexible funding
 - Linking Iowa's Freight Transportation System (LIFTS) program
 - Competitive grant program



Linking Iowa's Freight Transportation System (LIFTS)

- 2016 pilot program (\$2.7 million)
 - 25 grant requests (\$17.2 million), 6 were awarded
 - Projects included studies, rail improvements/capacity enhancements, and transloading improvements
- 2017/2018 LIFTS program
 - Utilize flexible 10% of annual NHFP funds
 - Application based program for freight projects not eligible for typical highway and railroad funding
 - 7 grant requests (\$4.6 million), 5 were awarded



2017/2018 LIFTS overview

- \$2.74 million in the October 2017 funding cycle
 - This includes two years worth of funding
 - Thereafter \$1.3 million annually
- Eligible applicants:
 - Transportation provider or user
 - City or county
 - Private company/industry
 - Other entity interested in freight
- Private applicants:
 - Eligible for 50% grant funding
- Public applicants or public-private partnerships:
 - Eligible for 80% grant funding



Project evaluation

Category	Weight
Freight Mobility Benefits	25%
Economic Benefits	25%
Public Benefits	20%
Project Readiness	20%
Innovation/Process Improvement	10%



Applicants

Project Name	Applicant	Location
Moravia Rail Propane	Growmark	Moravia
Cerro Gordo Liquid Transload	Cerro Gordo County	Emery
Garner Industry Track	IANR/City of Garner	Garner
CP Unit Train Haul Road Bridge	Pattison Sand Co.	Clayton
KJRY Yard Expansion	Pioneer Rail Corp.	Keokuk
Centerville Transload	City of Centerville	Centerville
Iowa 100/Palo Rail Spur	Iowa Northern Railroad	Palo

Awards

Awardee	Total Awarded
Iowa Northern Railway Company & City of Garner	\$1,112,068
Pattison Sand Company	\$513,012
Growmark, Inc.	\$497,000
Keokuk Junction Railway Company	\$222,851
Cerro Gordo County	\$184,000
Available	\$2,747,252
Total	\$2,528,931
Remaining	\$218,321

***Freight Investment Plan amended and approved August 2, 2018

Lyon	Osceola	Dickinson	Emmet	Kossuth	Winnebago	Worth	Mitchell	Howard	Winneshiek	
Sioux	O'Brien	Clay	Palo Alto		Hancock	Cerro Gordo	Floyd	Chickasaw		Allamakee
									Fayette	Clayton
Plymouth	Cherokee	Buena Vista	Pocahontas	Humboldt	Wright	Franklin	Butler	Bremer	1	•
Woodbury	L Ida	_ Sac		Webster			Grundy	Black Hawk	Buchanan	Delaware Dubuque
$\langle $			Calhoun]	Hamilton	Hardin]		
Monona		elby Audu	ibon Guthri		š Polk	Jasp	per Pov	weshiek ^{Ic}	owa Joł	inn Jones Jackson Clinton Cedar Scott Muscatine
2	Mills	Nontgomery	Adams	Union	Clarke	Lucas	Monroe	Wapello	Jefferson	Henry Des Moines
٤ - ٢	Fremont	Page	Taylor	Ringgold	Decatur	Wayne	Appanoose	Davis	Van Buren	Lee

Future enhancements

- Improving the bottleneck identification process
 - Data overhaul
 - Multi-year tracking
 - Vetting Freight Mobility Issue Survey results
- Enhancing the VCAP prioritization process
 - iTRAM update
- Freight Investment Plan
 - Future use of 10% flexible funding
 - LIFTS program







Questions?

State Freight Plan website:

https://iowadot.gov/iowainmotion/specialized-system-plans/state-freight-plan LIFTS website:

https://www.iowadot.gov/iowarail/financial-assistance/lifts

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