IOWADOT

IOWA COMMUTER TRANSPORTATION STUDY

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Why Study Commuter Transportation?

- Senate File 2349
  - Identify needs of employers
  - Projected demand
  - Capital and operating costs
- Regional interdependence
- Traffic volumes

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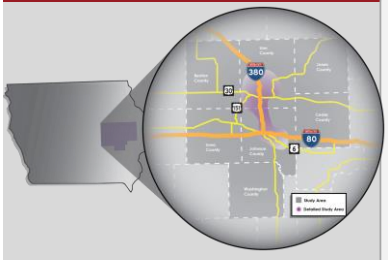
What is the Iowa Commuter Transportation Study?



Study Purpose

- Determine commuter market
- Assess existing services
- Identify alternatives
- Determine capital and operating costs
- Identify potential funding and financing opportunities
- Recommend implementation vehicle/strategy

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Public Outreach

- Stakeholder interviews
- Advisory group
- Online surveys
- News releases
- Social media
- Website: www.iowadot.gov/commuterstudy
- Public open house

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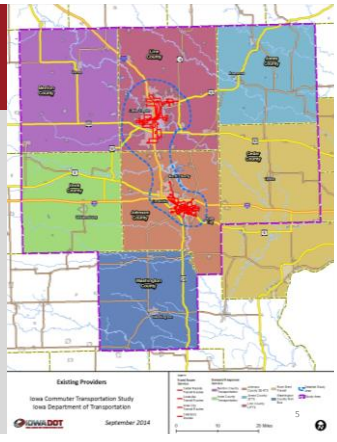
Existing Service Assessment

- All counties have public transit service
- There are limited public intercity connections
- Currently there are no dedicated interregional public transportation options for work trips



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Needs Assessment

- Factors affecting work trip demand
  - Population
  - Major employers
  - Housing costs
- Public surveys
- Stakeholder interviews

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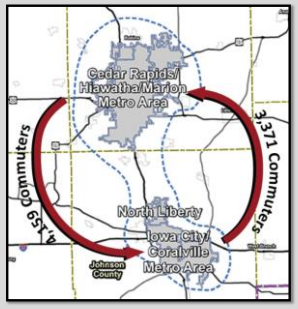
Commuter Travel Patterns – Major Origins and Destinations

- 7,530 commuters travelling between the Cedar Rapids and Iowa City Metropolitan areas
- Most are likely travelling during peak travel periods, using I-380
- Relative to its population, a significant amount of interregional work trips are occurring out of North Liberty



Survey #1 Commuter Transportation Needs

- Assessed current state of commuter transportation and commuter needs within the seven county area
  - 63 percent travel 21 or more minutes in their commute
  - Top two transportation concerns
    - Increased congestion
    - Safety
  - 93 percent reported improvements are needed to the I-380 corridor
  - 86 percent reported they may be willing, depending of the type of revenue generating approach, to support a future increase in public funding for inter-regional public transportation improvements

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Survey #2 Potential Service Options

- Evaluated what service improvements respondents would be most likely to use
  - 63 percent would use public bus for their commute
  - 56 percent would use a public vanpool or carpool for their commute
  - For public bus transportation, over 40 percent of preferred a minimum service frequency of ½-hour in the a.m. and p.m. peak travel periods, with provisions for a guaranteed ride home program
  - 50 percent would be willing to accept a minimal increase in travel time using public transportation for their commute

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Stakeholder Meetings

- Interviews conducted with major employers
  - Large employers located in rural areas cite transportation issues with recruiting and retaining employees especially in lower wage classifications
  - Most employers offer free parking but do not offer alternative transportation options
  - Multiple employers operate evening and overnight shifts, which complicate transportation coordination
  - Several employers provide commuter benefits

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Public Commuter Transportation Alternatives

- Public bus transportation
- Private bus transportation
- Vanpooling
- Carpooling
- Intercity Bus Transportation
- Commuter Rail

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Other Transportation Service Enhancements

- Park and ride facilities
- Regional commuter travel information
- Transit priority measures
- Guaranteed ride home
- Destination end parking
- Destination end circulation

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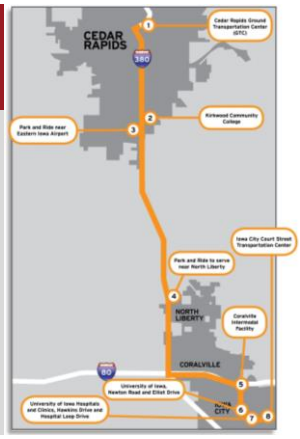
Public Interregional Express Bus Service

Option	Operating Plan	Total Vehicles
1	15 Minute Peak Service	10
2	30 Minute Peak Service	5
3	60 Minute Peak Service	3
4	1 Trip Peak Service	1

- Options 1- 3
  - Service span: 5 a.m. to 9 p.m.
  - Peak periods: 5 a.m. to 9 a.m. and 2 p.m. to 6 p.m.

Midday off peak service could be eliminated as long as a guaranteed ride home program is in place.



Public Interregional Express Bus Service Option

- Operating Costs

Option	Service Plan	Operating Vehicles	Revenue Hours		Cost/Hour	Annual Operating Cost
			Weekday	Annual		
Bus Option 1	15 Minute Peak Service	10	76	19,312	$107.35	$2,073,000
Bus Option 2	30 Minute Peak Service	5	38	9,656	$107.35	$1,037,000
Bus Option 3	60 Minute Peak Service	3	23	5,848	$107.35	$628,000
Bus Option 4	1 Trip Peak Service	1	5	1,163	$107.35	$125,000

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Public Interregional Express Bus Service Option

- Capital Costs

Option	Service Plan	Total Vehicles	Vehicle Unit Cost	Total Vehicle Cost	Facilities Cost	Park & Ride Lots (spaces)	Parking Space Unit Cost	Total Parking Cost	Other & Contingency	Total Capital Cost
Bus Option 1	15 Minute Peak Service	12	$429,000	$5,148,000	$2,400,000	350	$6,403	$2,241,000	$979,000	$10,768,000
Bus Option 2	30 Minute Peak Service	6	$429,000	$2,574,000	$1,200,000	250	$6,403	$1,601,000	$538,000	$5,913,000
Bus Option 3	60 Minute Peak Service	4	$429,000	$1,716,000	$800,000	70	$6,403	$448,000	$296,000	$3,260,000
Bus Option 4	1 Trip Peak Service	2	$429,000	$858,000	$400,000	20	$6,403	$128,000	$139,000	$1,525,000

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Interregional Commuter Rail Service Option

- Commuter Rail Capital Costs

Scenario	2006 Dollars	2014 Dollars
Scenario 1 Initial Service Plan	$21,407,000	$27,118,000
Scenario 2 Enhanced Service Plan	$35,281,000	$44,693,000

- Commuter Rail Operating Costs

Scenario	2006 Dollars	2014 Dollars
Scenario 1 Initial Service Plan	$5,014,000	$6,352,000
Scenario 2 Enhanced Service Plan	$11,960,000	$15,151,000

* Capital and operating costs for the commuter rail options are based on the 2006 Cedar – Iowa River Rail Transit Project Feasibility Study and were grown to year 2014 dollars for comparison.

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Public Transportation Financial Performance

- Cost Per Trip

Service Option	Daily Trips	Annual Trips	Operating Cost	Capital Costs	Annualized Capital Cost	Cost Per Trip
Bus Option 1	901	229,691	$2,073,000	$10,768,000	$715,505	$12.14
Bus Option 2	563	143,557	$1,037,000	$5,913,000	$375,152	$9.84
Bus Option 3	124	31,582	$628,000	$3,260,000	$227,660	$27.09
Bus Option 4	45	11,485	$125,000	$1,525,000	$110,419	$20.50
Commuter Rail Scenario 1	1,025	261,396	$6,352,000	$27,118,000	$736,127	$27.12
Commuter Rail Scenario 2	2,438	621,791	$15,151,000	$44,693,000	$1,324,772	$26.50

* Capital costs for the commuter rail options are based on the 2006 Cedar – Iowa River Rail Transit Project Feasibility Study and were grown to year 2014 dollars for comparison.

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Public Transportation Financial Performance

- Cost Per Trip - Bus Option 2

Service Option	Daily Trips	Annual Trips	Operating Cost	Capital Costs	Annualized Capital Cost	Cost Per Trip
Bus Option 2 – Scenario A New Buses, Facility Costs, Park & Ride Lot expenses, $107.35 Operating Costs Per Hour	563	143,557	$1,037,000	$5,913,000	$375,152	$9.84
Bus Option 2 – Scenario B New Buses, $107.35 Operating Costs Per Hour	563	143,557	$1,037,000	$2,831,400	$267,736	$9.09
Bus Option 2 – Scenario C Used Buses, $70.00 Operating Costs Per Hour	563	143,557	$676,000	$990,000	$93,614	$5.36

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Public Transportation Financial Performance

- Potential Operating Subsidy

Service Option	Annual Trips	One-Way Fare	Annual Revenue	Annual Operating Cost	Potential Operating Subsidy
Bus Option 1	229,691	$3.50	$804,000	$2,073,000	$1,269,000
Bus Option 2 – Scenario A	143,557	$3.50	$502,000	$1,037,000	$535,000
Bus Option 2 – Scenario B	143,557	$3.50	$502,000	$1,037,000	$535,000
Bus Option 2 – Scenario C	143,557	$3.50	$502,000	$676,000	$174,000
Bus Option 3	31,582	$3.50	$111,000	$628,000	$517,000
Bus Option 4	11,485	$3.50	$40,000	$125,000	$85,000
*Commuter Rail Scenario 1	261,396	$3.50	$915,000	$6,352,000	$5,437,000
*Commuter Rail Scenario 2	621,791	$3.50	$2,176,000	$15,151,000	$12,975,000

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Vanpools

- Vanpool Monthly User Fees – 50 to 60 Mile Round Trip

Program	11 - 14 Passengers	5 – 6 Passengers
University of Iowa	$70	$130
vRide	$178	$178
DART – Des Moines	$88	$131
KCATA – Kansas City	$110	$110

- Vanpool Operating and Capital Costs

Program Size	Participants	Capital Cost	Annual Operating Cost	Revenue at $80
50 vans	600	$1,925,000	$650,000	$576,000
100 vans	1,200	$3,850,000	$1,300,000	$1,152,000

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Preferred Package of Improvements

- **Public bus transportation**
  - **Interregional express bus service**
    - Connecting Cedar Rapids, North Liberty, Coralville and Iowa City
  - **Subscription bus service**
    - A subscription bus is very tailored to the commuter needs of a specific locale or even a single employer

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Preferred Package of Improvements

- **Public Vanpool Program**
  - Meets needs of dispersed trips off I-380 corridor
- **Public Carpool**
  - Centralized ridematching capabilities
  - Needs to be actively marketed and promoted

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Funding Requirements for Implementation

Program Cost and Funding	High Estimate	Low Estimate
Capital Programs		
Public Transportation Transit Only (Option 2)	$2,831,000	$990,000
Vanpool Program (50 units)	$1,750,000	$1,750,000
Operating Cost (net of revenue)		
Public Transportation (Option 2)	$535,000	$174,000
Vanpool Program (50 units)	$150,000	$90,000
Total Funding Requirement		
Capital Funding Required	$4,581,000	$2,740,000
Operating Funding Required	$685,000	$264,000
Total Capital and Operating Funding Required	$5,266,000	$3,004,000

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Next Steps

- Identify lead agency for implementation
- Form study implementation committee
- Pursue preferred funding options
  - Existing state and federal programs
  - New sources (sales and/or property tax)
- Define phasing based on funding and financing strategy
  - Consider initial pilot service
- Create implementation plan

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