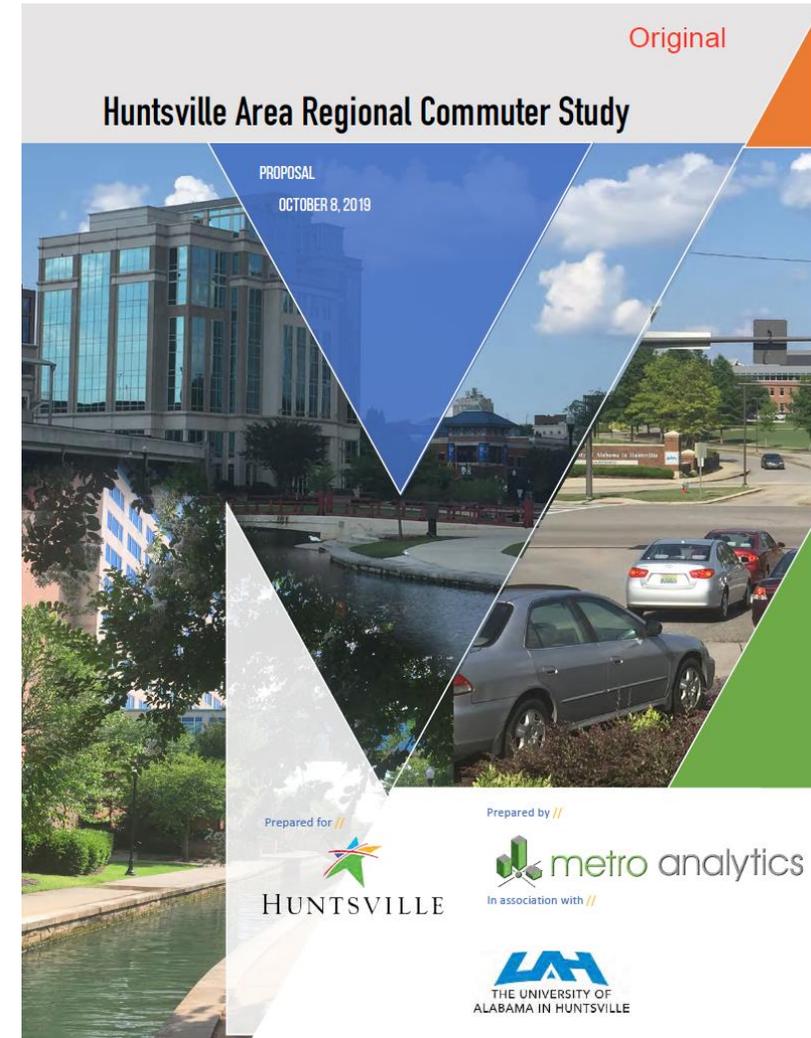


Huntsville Area Regional Commuter Study

8/26/2020 MPO/TCC Meetings:
Presentation of Conclusions and
Park-n-Ride Analysis

Presented to:
*Huntsville Area
Metropolitan Planning Organization*

Presented by:
Robert G. Schiffer, AICP
and Wade Carroll, AICP
Metro Analytics



Presentation Overview

- Quick recap
- StreetLight Data analysis of:
 - Depart from home times
 - COVID-19 traffic patterns
- Congestion Management Plan: Park-n-ride locations
- Study conclusions/next steps
- Project schedule

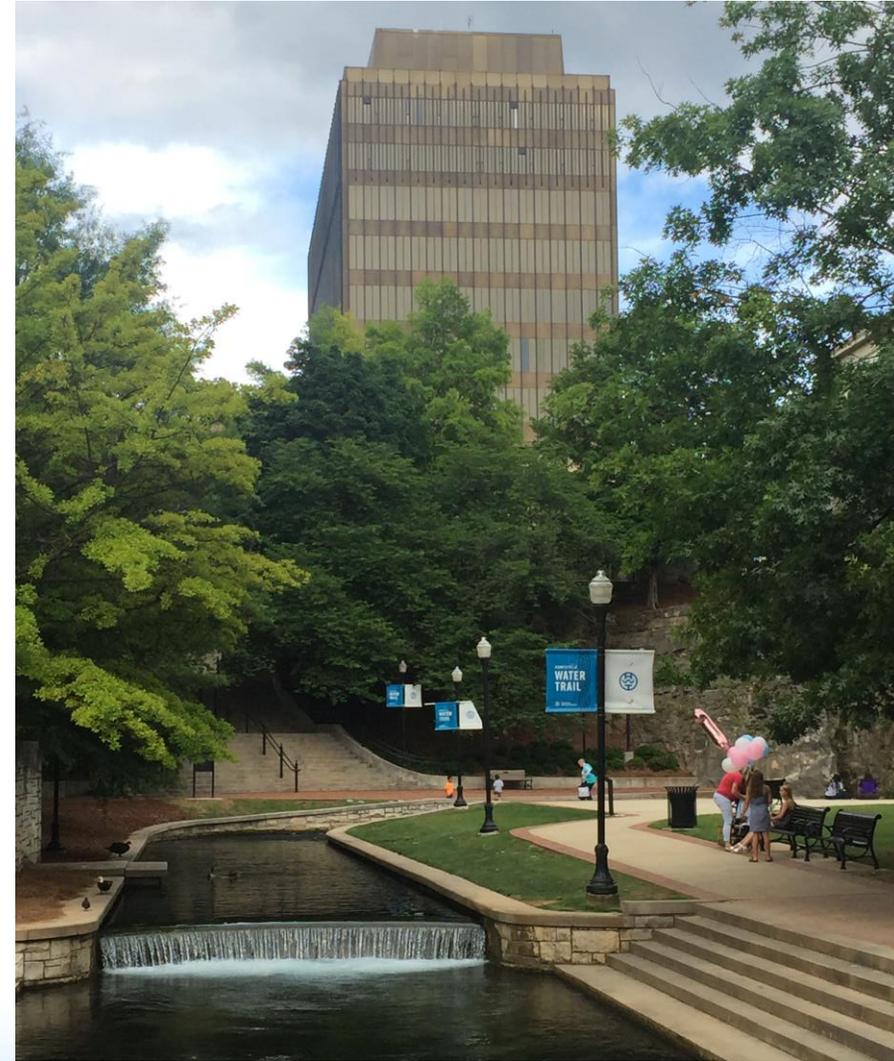


Huntsville Area Regional Commuter Study



Quick Recap

- Project Purpose:
 - *better understand worker travel patterns;*
 - *use findings in MPO's Congestion Management Plan and travel demand model*
- Project Tasks: *(1) Data Collection; (2) Data Presentation; (3) Data Analysis*
- *Previous two presentations covered tasks 1-3; today we focus on congestion management and other study conclusions, including COVID-19*



Huntsville Area Regional Commuter Study



Time of Departure from Trip Origin

- StreetLight InSight Percent Departure Times (*all vehicles, all trip purposes*):
 - Total AM Peak – 20.6%
 - 5:00-5:59 am – 1.4%
 - 6:00-6:59 am – 3.2%
 - 7:00-7:59 am – 6.9%
 - 8:00-8:59 am – 4.9%
 - 9:00-9:59 am – 4.2%
 - Remainder of Day – 79.4%



Analysis of COVID-19 traffic patterns

- Discussed this topic previously with MPO staff
- StreetLight InSight includes data for pre- and post-COVID-19 shutdown
- Decided to focus on comparing travel patterns of April 2019 with April 2020 using 50 origin-destination zones
 - All trips by zones
 - Truck trips by zones



Analysis of COVID-19 traffic patterns (Cont'd) – All Trips

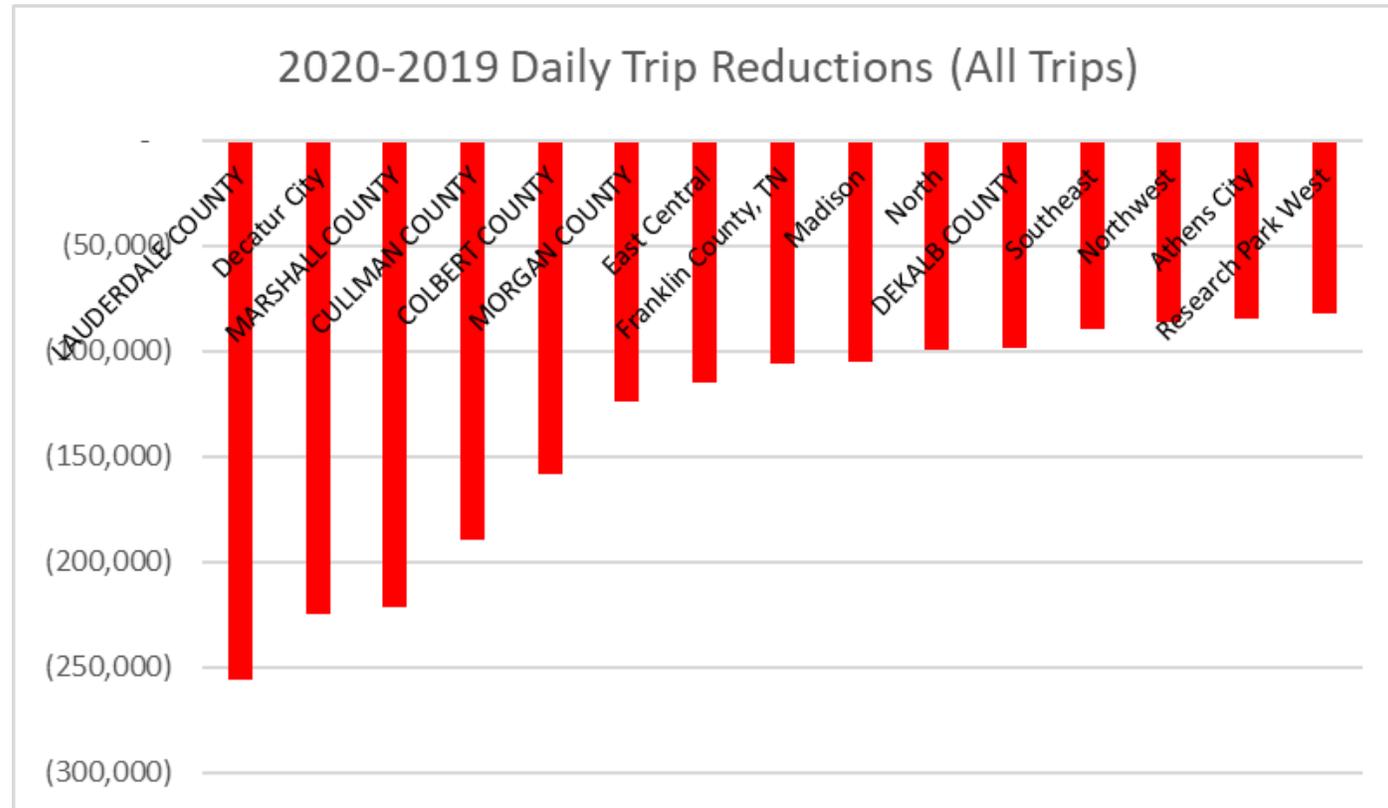
Day Type	Day Part	2019 % by Hour	2020 % by Hour	# of Time Periods
1: AllWeekdays (M-F)	00: All Day (12am-12am)			1
1: AllWeekdays (M-F)	01: AM Overnight (12am-5am)	1.4%	1.8%	1
1: AllWeekdays (M-F)	02: 5-6am (5am-6am)	1.3%	1.5%	2
1: AllWeekdays (M-F)	03: 6-7am (6am-7am)	3.2%	3.0%	3
1: AllWeekdays (M-F)	04: 7-8am (7am-8am)	7.7%	4.6%	4
1: AllWeekdays (M-F)	05: 8-9am (8am-9am)	5.1%	4.5%	5
1: AllWeekdays (M-F)	06: 9-10am (9am-10am)	4.1%	4.6%	6
1: AllWeekdays (M-F)	07: 10am-11am (10am-11am)	4.4%	5.4%	7
1: AllWeekdays (M-F)	08: 11am-12pm (11am-12noon)	5.7%	6.8%	8
1: AllWeekdays (M-F)	09: 12pm-1pm (12noon-1pm)	6.4%	7.9%	9
1: AllWeekdays (M-F)	10: 1-2pm (1pm-2pm)	6.0%	7.7%	10
1: AllWeekdays (M-F)	11: 2-3pm (2pm-3pm)	6.9%	7.8%	11
1: AllWeekdays (M-F)	12: 3-4pm (3pm-4pm)	9.1%	8.4%	12
1: AllWeekdays (M-F)	13: 4-5pm (4pm-5pm)	8.5%	9.1%	13
1: AllWeekdays (M-F)	14: 5-6pm (5pm-6pm)	8.6%	8.7%	14
1: AllWeekdays (M-F)	15: 6-7pm (6pm-7pm)	7.0%	6.7%	15
1: AllWeekdays (M-F)	16: 7-8pm (7pm-8pm)	5.6%	4.9%	16
1: AllWeekdays (M-F)	17: 8-9pm (8pm-9pm)	4.3%	3.0%	17
1: AllWeekdays (M-F)	18: 9-10pm (9pm-10pm)	2.7%	1.8%	18
1: AllWeekdays (M-F)	19: 10pm-12am (10pm-12am)	2.1%	1.9%	19
		100%	100%	
		7,809,789	4,868,640	(2,941,149)

- Significant drop in trips when comparing 2020 to 2019
- Peak spreading is evident when comparing 2020 to 2019
 - Decreased % trips in AM peak
 - Decreased % trips in PM peak
 - General increase in % trips during non-peak periods



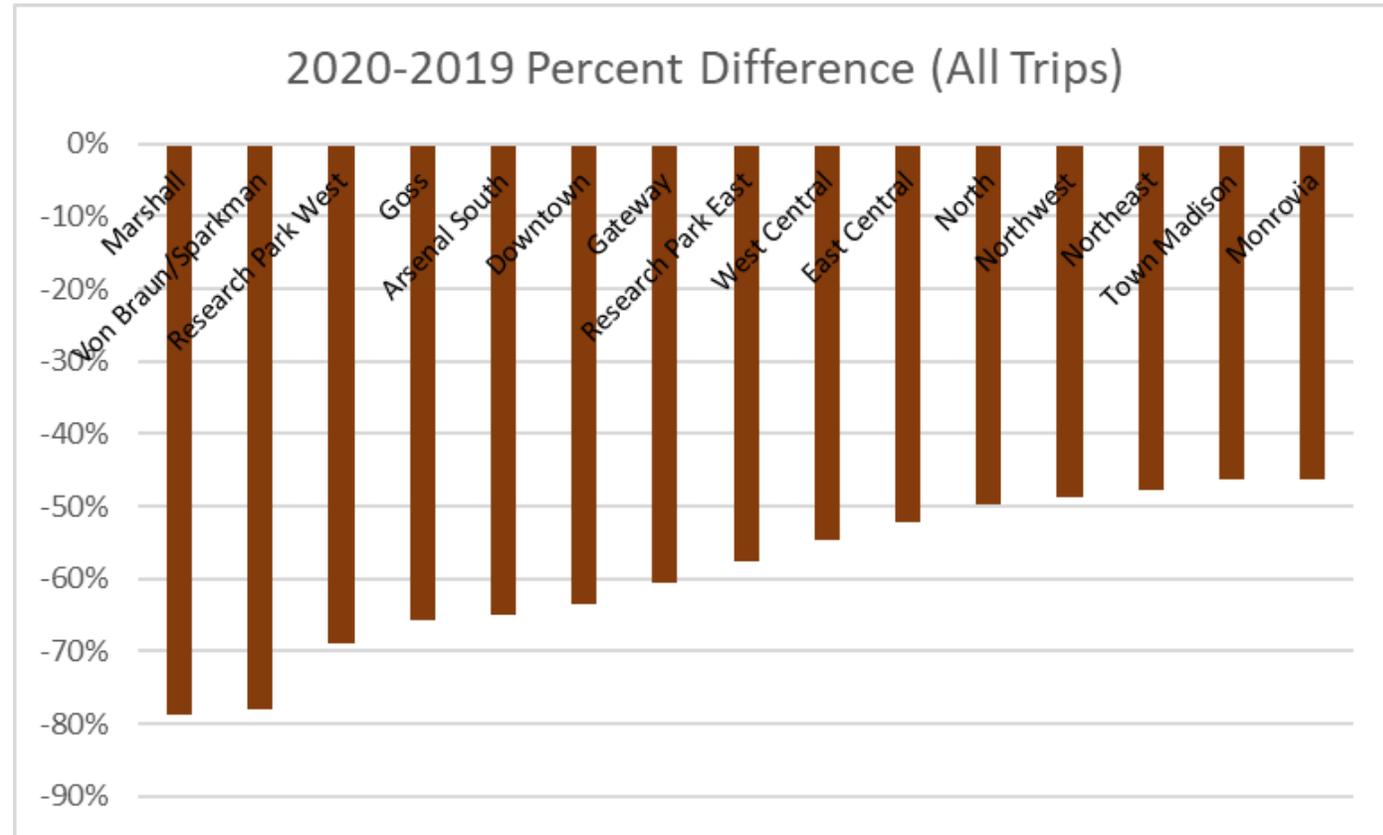
Analysis of COVID-19 traffic patterns (Cont'd) – All Trips

Numeric Difference Rank Order			
#	Zone Name	Average Daily Zone Traffic (Start+End)	Outside MPO?
1	LAUDERDALE COUNTY	(256,001)	yes
2	Decatur City	(224,641)	yes
3	MARSHALL COUNTY	(221,716)	yes
4	CULLMAN COUNTY	(189,262)	yes
5	COLBERT COUNTY	(158,411)	yes
6	MORGAN COUNTY	(124,161)	yes
7	East Central	(114,875)	
8	Franklin County, TN	(105,912)	yes
9	Madison	(105,069)	
10	North	(99,593)	
11	DEKALB COUNTY	(98,932)	yes
12	Southeast	(89,997)	
13	Northwest	(86,527)	
14	Athens City	(84,291)	yes
15	Research Park West	(82,595)	



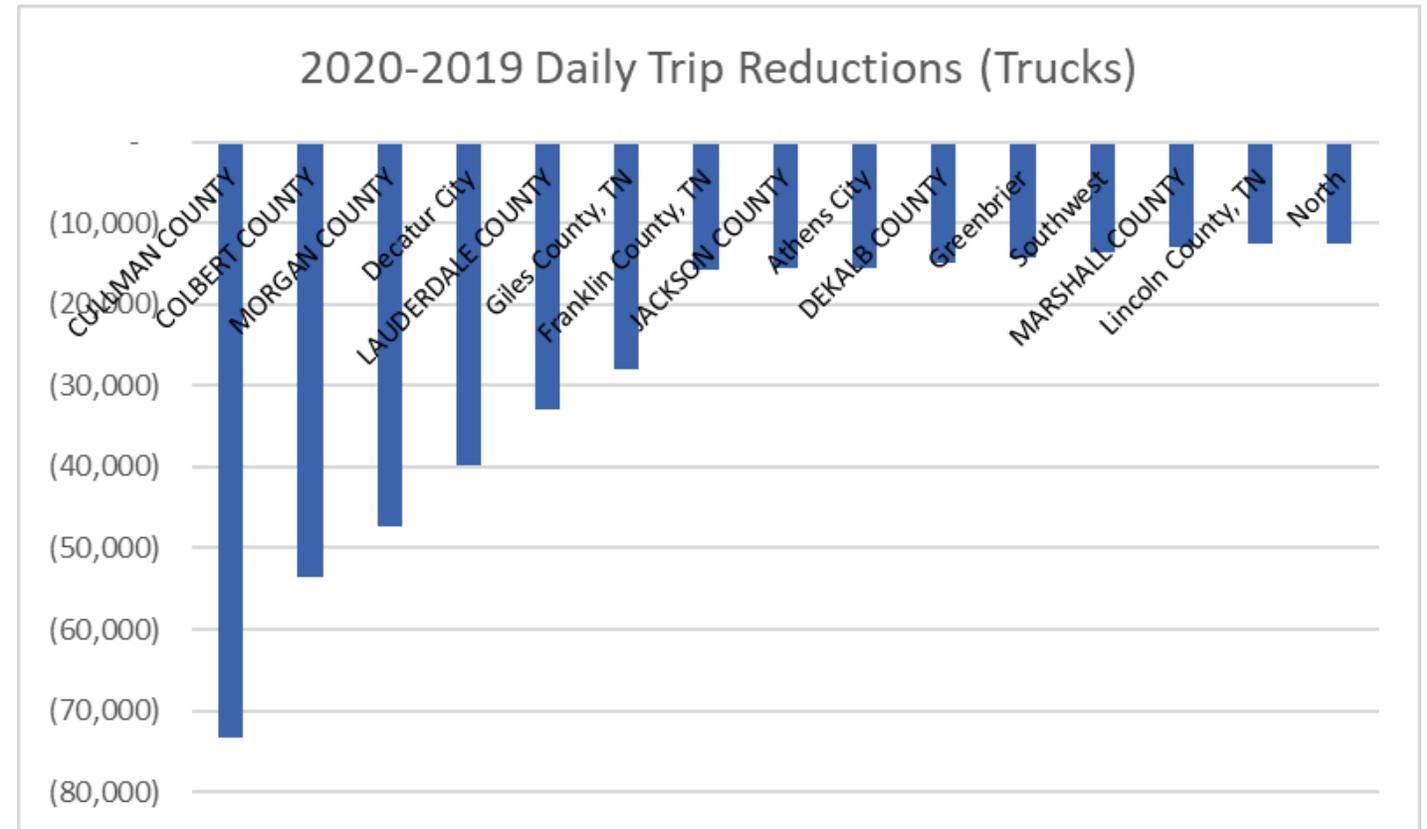
Analysis of COVID-19 traffic patterns (Cont'd) – All Trips

% Difference Rank Order			
#	Zone Name	Percent Difference	Arsenal Site?
1	Marshall	-79%	yes
2	Von Braun/Sparkman	-78%	yes
3	Research Park West	-69%	
4	Goss	-66%	yes
5	Arsenal South	-65%	yes
6	Downtown	-64%	
7	Gateway	-61%	yes
8	Research Park East	-58%	
9	West Central	-55%	
10	East Central	-52%	
11	North	-50%	
12	Northwest	-49%	
13	Northeast	-48%	
14	Town Madison	-46%	
15	Monrovia	-46%	



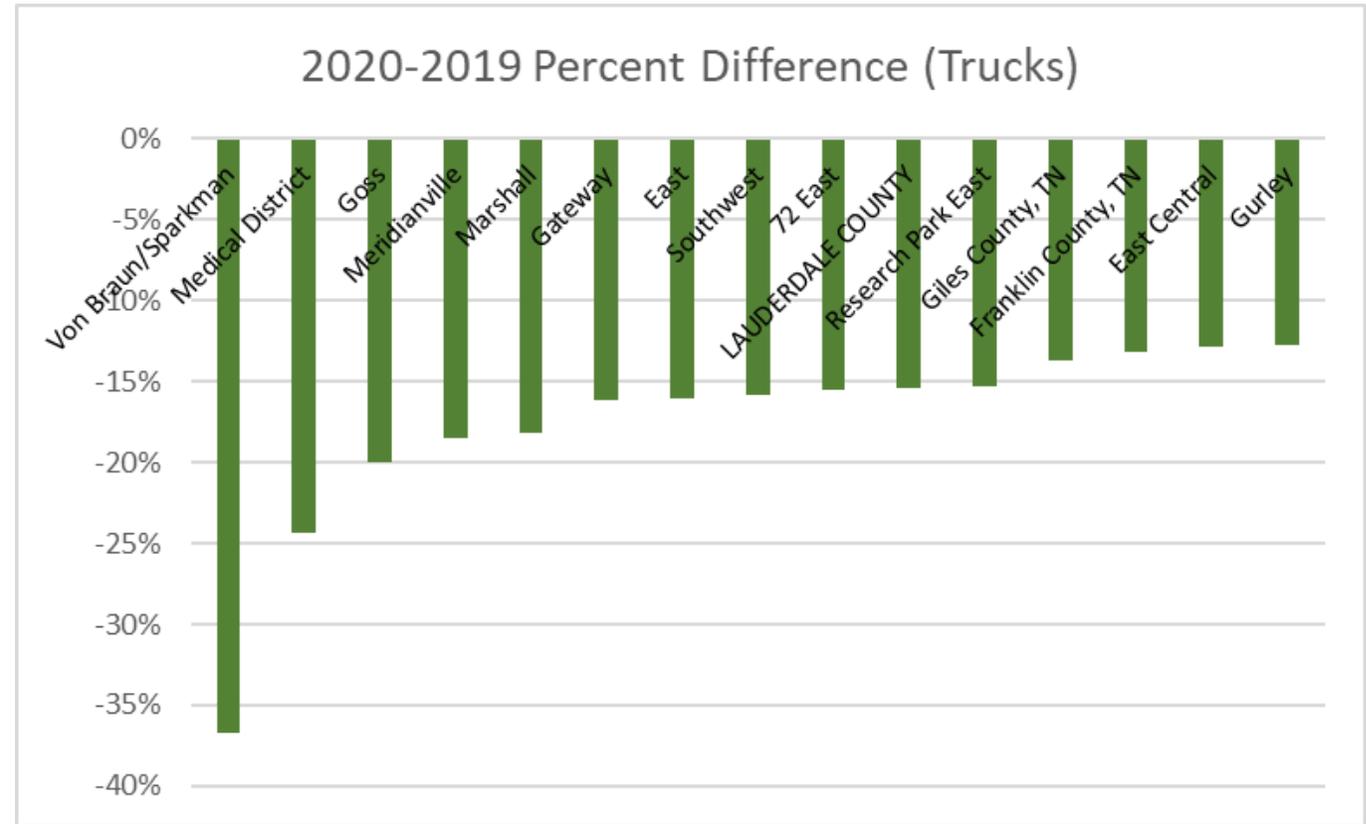
Analysis of COVID-19 traffic patterns (Cont'd) – Truck Trips

Rank Order by Numeric Difference			
#	Zone Name	2020 Minus 2019 Trucks	Percent Difference Outside MPO?
1	CULLMAN COUNTY	(73,253)	-10% yes
2	COLBERT COUNTY	(53,469)	-11% yes
3	MORGAN COUNTY	(47,380)	-8% yes
4	Decatur City	(39,851)	-10% yes
5	LAUDERDALE COUNTY	(32,932)	-15% yes
6	Giles County, TN	(27,940)	-14% yes
7	Franklin County, TN	(15,684)	-13% yes
8	JACKSON COUNTY	(15,639)	-6% yes
9	Athens City	(15,627)	-11% yes
10	DEKALB COUNTY	(14,911)	-5% yes
11	Greenbrier	(14,310)	-11%
12	Southwest	(13,630)	-16%
13	MARSHALL COUNTY	(13,013)	-3%
14	Lincoln County, TN	(12,620)	-9%
15	North	(12,571)	-10%



Analysis of COVID-19 traffic patterns (Cont'd) – Truck Trips

Rank Order by Percentage Difference				
#	Zone Name	Percent Difference	2020 Minus 2019 Trucks	Arsenal Site?
1	Von Braun/Sparkman	-37%	(784)	yes
2	Medical District	-24%	(3,249)	
3	Goss	-20%	(1,343)	yes
4	Meridianville	-19%	(8,452)	
5	Marshall	-18%	(560)	yes
6	Gateway	-16%	(1,178)	yes
7	East	-16%	(5,733)	
8	Southwest	-16%	(13,630)	
9	72 East	-16%	(5,406)	
10	LAUDERDALE COUNTY	-15%	(32,932)	
11	Research Park East	-15%	(3,819)	
12	Giles County, TN	-14%	(27,940)	
13	Franklin County, TN	-13%	(15,684)	
14	East Central	-13%	(7,381)	
15	Gurley	-13%	(1,354)	



Congestion Management Plan – Potential PNR Lots

- Process

- Step 1: Identification of corridors – Congestion Management Plan

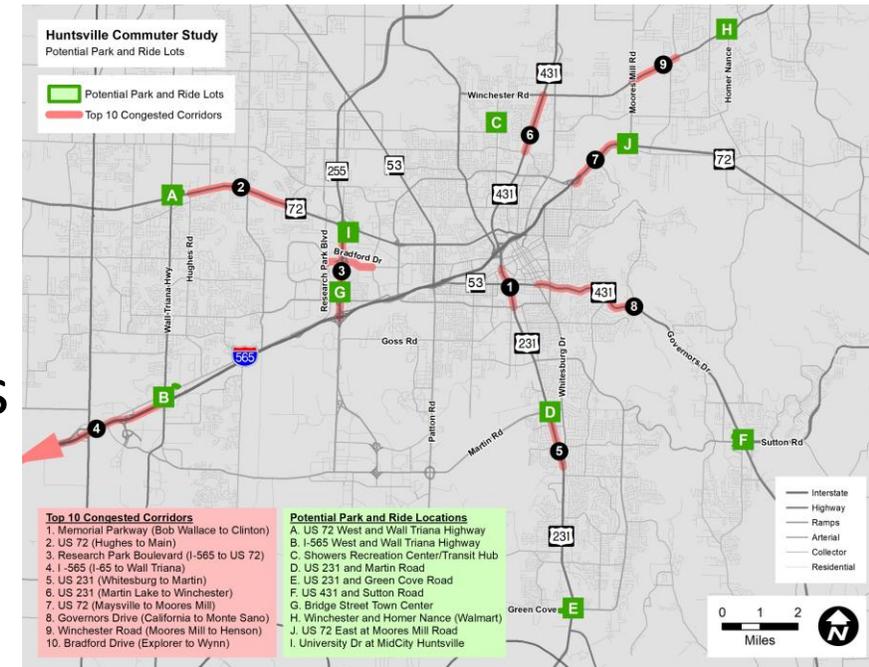
- *Top Ten Corridors*

- Step 2: Identification of potential areas – LRTP Factors, Huntsville Transit Study/Transit Routes

- *Existing/future traffic, travel times, transit service*

- Step 3: Identification of Potential Sites

- *Proximity to surrounding residential, abundance of surface parking, commuter flow patterns, XFER sites*

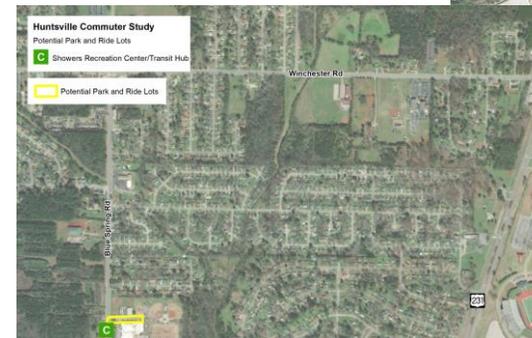


Huntsville Area Regional Commuter Study



Congestion Management Plan – Potential PNR Lots (cont'd)

- Areas for Potential PNR Lots
 - US 72 West and Wall Triana Highway
 - *Congested corridor, abundance of surface parking*
 - I-565 West and Wall Triana Highway
 - *Heavily-traveled corridor, potential linkage to Airport*
 - US 231-N/Winchester Road – ***Richard Showers Bus Transit Center***
 - *Station access to multiple transit routes*
- Huntsville Area Regional Commuter Study



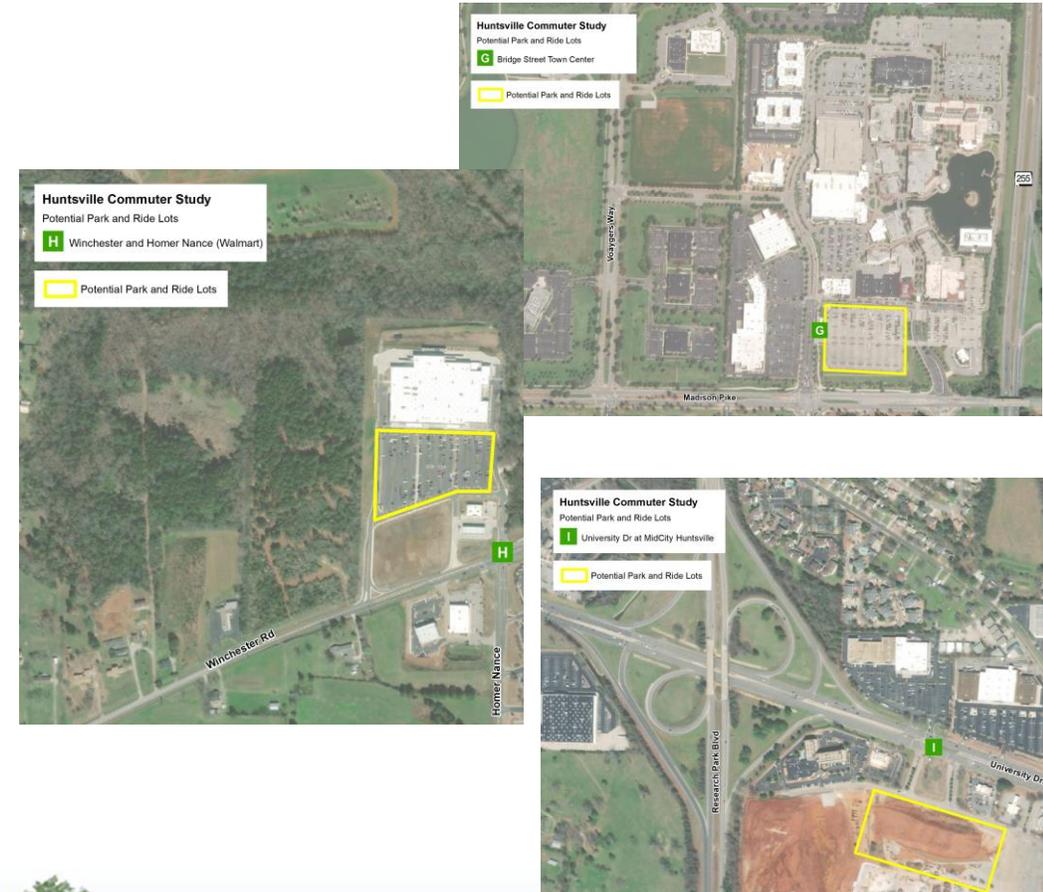
Congestion Management Plan – Potential PNR Lots (cont'd)

- Areas for Potential PNR Lots
 - US 231-S/Lily Flagg or Weatherly Rd. *(no image)*
 - *Proximity to surrounding residential, underutilized surface parking, potential transit XFER*
 - US 231-S/Green Cove Road (Outer)
 - *Long stretch of congested roadway, large tracts*
 - US 431-S/Sutton Road
 - *Constrained, congested roadway network, abundance of surface parking*



Congestion Management Plan – Potential PNR Lots (cont'd)

- Areas for Potential PNR Lots
 - Bridge Street Town Center
 - *Transfer site to multiple transit routes, abundance of surface parking*
 - Walmart - Winchester at Homer Nance
 - *Proximity to nearby residential, abundance of surface parking*
 - University Dr at MidCity Huntsville
 - *Abundance of surface parking; adjacent to Research Park Blvd Interchange*



Congestion Management Plan – Potential PNR Lots (cont'd)

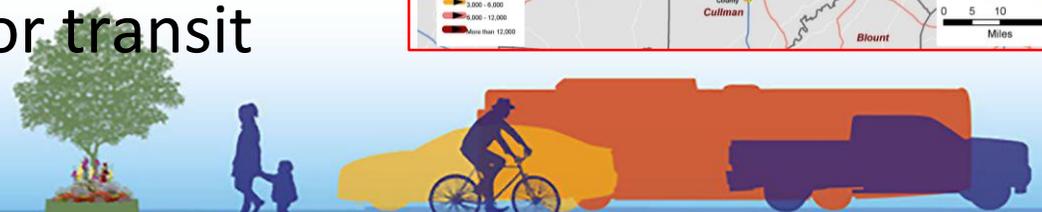
- Areas for Potential PNR Lots
 - US 72 East at Moores Mill Road
 - *Demonstration project for express bus and PNR*
 - Looking at potential sites beyond MPO boundary



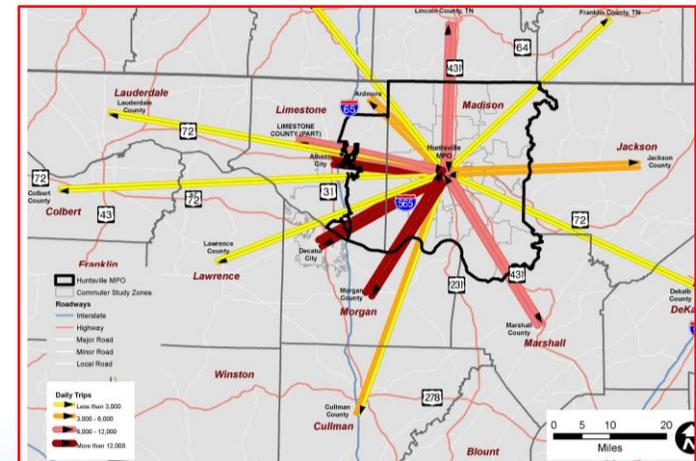
Study Conclusions/Next Steps

- Solid commuter data profile achieved using Arsenal employee locations and StreetLight InSight flows
- Uses of combined data profile by MPO include:
 - Enhance simulation of trip-making to/from and within Arsenal properties in travel demand model
 - Relative levels of trip generation by subarea
 - Validation of trip distribution patterns in model
 - Guidance on areas for future model expansion
 - Identification of key travel corridors for transit

Huntsville Area Regional Commuter Study



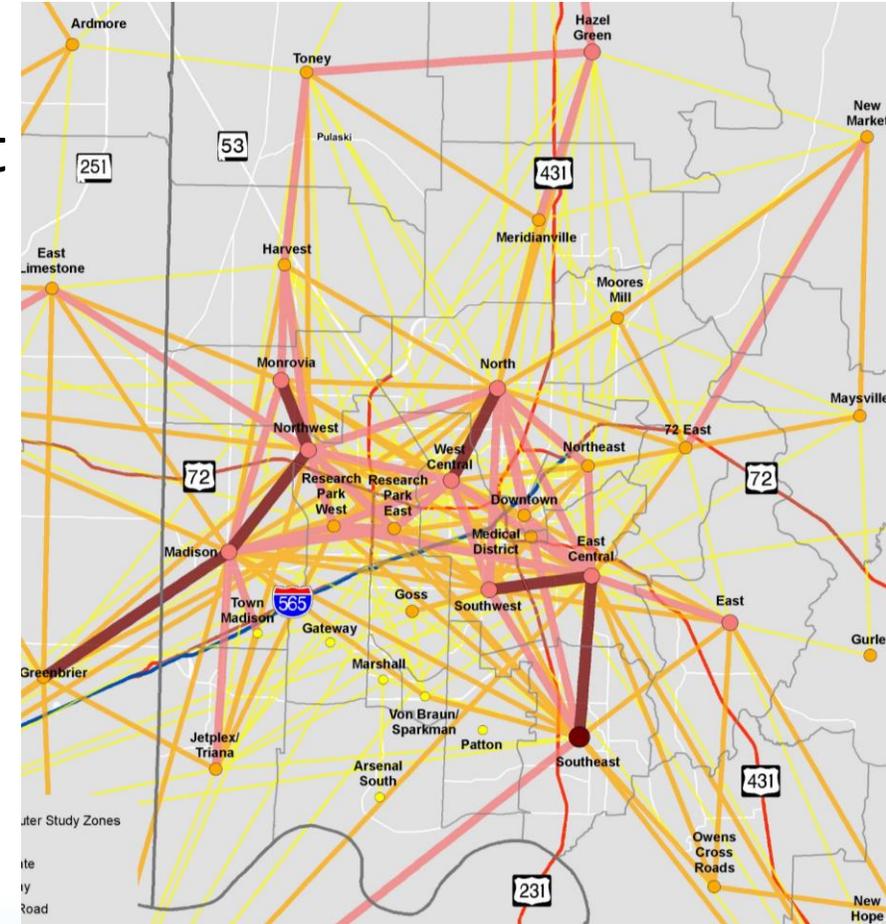
Trip Origin Rank	Zone Name	MPO Rank	Overall Rank Weekdays
1	Goss	26	40
2	Von Braun/Sparkman	30	44
3	Marshall	32	46
4	Gateway	33	47
5	Arsenal South	35	49
6	Patton	36	50
Destination Rank Order:			23 Total Arsenal Rank
1	Goss	27	41
2	Von Braun/Sparkman	30	44
3	Marshall	32	46
4	Gateway	33	47
5	Arsenal South	35	49
6	Patton	36	50
			23 Total Arsenal Rank



Study Conclusions/Next Steps (Cont'd)

- Uses of combined data profile by MPO (cont'd):
 - Identification of key travel corridors for transit
 - Opportunities for route extensions/expansions
 - Premium transit corridors
 - Park-n-ride locations
- Next steps
 - Delivery of Draft Study Report
 - 45-day review and comment period
 - Revised study recommendations/Final Report
 - Outlying PNR sites (outside MPO area)

Huntsville Area Regional Commuter Study



Project Schedule

- *November 2019: Project initiation*
- February 2020: Initial data findings
- June 2020: Data presentation
- **August 2020: Draft report**
- 45-day comment period: 8/2020-9/2020
- November 2020: Final report

TASKS	2019		2020										
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Task 1: Data Collection	★			▲									
Task 2: Data Presentation													
- Public Comment Period													
Task 3: Data Analysis and Presentation of Conclusions													

- ★ Project Kickoff/Presentation
- ▲ Interim Deliverable/Presentation
- ▲ Draft Report
- ▲ Final Report/Presentation
- Project Activities
- Internal Review/Public Comment Period



Huntsville Area Regional Commuter Study



Questions & comments



Huntsville Area Regional Commuter Study

