

Norman Comprehensive Transportation Plan

CTP UPDATE

City Council Study Session April 2, 2013

Overview Scope and Schedule



Dec 2012 Mar 2013 Jun 2013 Sep 2013 Dec 2013 Mar 2014

1. **Guiding Principles, Goals and Objectives**



2. **Existing Transportation Systems**



3. **Assessment of Transportation Needs**



4. **Forecast Transportation Conditions**



5. **Develop Long Range Improvements Plan**



6. **Transportation Policies and Programs**



7. **Implementation**



8. **Documentation**



 Subcommittee Meetings

 Public Meetings

 Public Hearings

Subcommittee Meetings



- Subcommittee Membership
 - 45 members
 - 4 modal subcommittees
 - Co-Chair leadership
- Meeting Structure
 - Opening collaborative session
 - Independent group work
 - Combined wrap-up session
 - Homework
- E-Builder Collaboration



Four Subcommittees

- Autos and Parking
- Transit Service
- Pedestrian, Bike and Streetscape
- Freight, Airport, Emergency Response

Meeting Dates

- SC#1 Feb. 7th: Goals/Objectives
- SC#2 Feb 18th: Existing Conditions & Needs
- SC#3 Mar. 25th: Improvement Concepts
- SC#4 Apr. 25th: Assess Potential Projects
- SC#5 May 23rd: Policies and Programs

Subcommittee Meeting #1 Goals & Objectives Review



- Five guiding principles
- Refined Goals
- Development of Objectives
- Mixed group collaboration

separate objectives for:

- Core Norman
 - walkability
 - crossable streets
 - bikeable

- Rural Norman
 - safety for bicycling
 - trails
 - approach corridors

- Suburban (beyond)

- Downtown?

enhance
appeal

3. Guiding Principle: Maintain and Preserve Existing infrastructure

Goal #1: Prioritize investments to ensure the maintenance, rehabilitation, safety and reconstruction of current infrastructure systems.

To Competitively

Objective P1: Design, operate and manage the transportation system to meet the needs and enhance transportation safety for those traveling in and from Norman.

Objective P2: Implement transportation performance measures to forecast, monitor and evaluate the degree to which the transportation system investments accomplish mobility objectives.

Objective P3: Strive to limit impacts of project implementation upon the historic neighborhoods during construction.

Objective P4/M4: Manage, reduce and avoid roadway congestion through targeted capacity enhancements, and promotion of making trips by transit.

Further describe the goal and better define
add the detail to be overall goal
accessibility
- materials - not a wait key to traveling city
P1 - involve law enforcement in design + operate
P1 - system defined by individual modes of
market bike lanes, debris controls

2. Guiding Principle: Mobility

Goal #2: Manage, reduce and avoid roadway congestion by emphasizing multi-modal modes and network management through operational improvements, and other strategies.

Objective M1: Invest in locally street improvements for a network of arterial roads to meet the needs in the core of Norman that support the balanced mobility of pedestrians, bicyclists and vehicles.

Objective M2: Invest in improvements to arterial and collector street network and parking provisions in the core of Norman that support the balanced mobility of pedestrians, bicyclists and vehicles.

Objective M3: Invest in proactive transit improvements that serve the central core of Norman at a high level of service with serving target areas of the city of Norman and providing connectivity to regional transit services with the intent to provide viable options to the personal vehicle.

Objective M4/M4: Manage, reduce and avoid roadway congestion through operational improvements, targeted capacity enhancements, and promotion of making trips by transit.

Objective M5: Serve as leader in regional transit discussions.

Consider complete streets policy for all roadway project
Create a
broadside bicycle and pedestrian links network
not necessarily connected to roadways.



1. Guiding Principle: A Special Place to Live

Goal #1: Provide a transportation system planned and designed with people and places in mind, and provided with amenities and aesthetic treatments that enhance the traveling experience for all modes of transportation.

Objective S1. Adopt policies and ordinances and create programs that promote multimodal and context sensitive considerations and aesthetics into the planning and project funding of transportation facilities in Norman.

Objective S2. Institute departmental processes and procedures to ensure coordination of land use and transportation planning, and context sensitive solutions for design and implementation of transportation corridors and facilities in Norman.

Objective S3. Provide transportation investments and procedures that help enhance the traffic access and circulation, walkability, bikeability, aesthetics and amenities of the central core of Norman including Downtown, Campus Corner, OU, and surrounding neighborhoods.

Objective S4. Enhance the aesthetics of the section line roadway corridors that lead residents and visitors to the central core and major areas of retail and development and to significant attractions in Norman such as Thunderbird State Park.

Objective S5. Invest in improvements to minimize the impacts of railroad delay and noise through Norman.

Objective S6. Provide a wayfinding system of signage, markers and other devices to inform visitors and residents of the special areas and attractions in Norman.

Goals & Objectives Review



2. Guiding Principle: *Mobility*

Goal #2: Provide efficient and effective mobility to, from and within Norman by providing multi-modal transportation options and management for existing and anticipated future needs.

- Objective M1.** Provide mobility for people who live, work and visit Norman - especially those who are economically, socially or physically challenged - in order to support their full participation in society and contributions to Norman's economic productivity.
- Objective M2.** Invest in timely street improvements for a network of section line roads in the area beyond the core of Norman that support the effective movement of vehicles around rather than through the central core of Norman, while accommodating bicyclists and pedestrians in the roadway corridor.
- Objective M3.** Invest in improvements to arterial and collector street network and parking provisions in the core of Norman that support the balanced mobility of motorists, pedestrians, bicyclists and goods movement vehicles.
- Objective M4.** Invest in proactive transit system improvements that serve the central core of Norman at a high Level of Service while serving targeted areas of the city of Norman and providing connectivity to regional transit services with the intent to provide viable options to the personal vehicle.
- Objective M5.** Support efforts to develop a regional transit system including rail transit, and serve as leaders in regional rail transit discussions.
- Objective M6.** Provide a network of bicycle and pedestrian facilities, including sidewalks, bike routes, bike lanes and paths, that provides mobility options, regional and multimodal connectivity and recreational opportunities for Norman residents.



3. Guiding Principle: *Maintain and Improve Existing infrastructure*

Goal #3: Prioritize investments to ensure the maintenance, rehabilitation, safety and reconstruction of current infrastructure systems.

- Objective P1.** Design, operate and manage the transportation system to maintain or improve the quality of multimodal mobility, access and safety for those traveling in and living within Norman.
- Objective P2.** Develop and implement transportation performance measures and programs to regularly monitor, evaluate, and forecast the degree to which the transportation system investments accomplish community goals and mobility objectives.
- Objective P3.** Minimize the impacts of project implementation upon the multimodal access to businesses and neighborhoods during construction.
- Objective P4.** Manage, reduce and avoid roadway congestion and increase mobility and safety for all roadway users through operational improvements, targeted capacity enhancements, and promotion of making trips by transit, walking and bicycling.
- Objective P5.** Develop and promote programs to incorporate public and business observations of and assistance with the conditions assessment and maintenance of the multimodal transportation infrastructure and corridor amenities.

Goals & Objectives Review



4. Guiding Principle: *Fiscal Stewardship*

Goal #4: Optimize the use of City of Norman funds and leverage additional funding for transportation to maximize the Norman public return on investment in transportation infrastructure and operations.

- Objective F1.** On an ongoing basis, identify and pursue private, regional, state and federal revenue sources for funding **multimodal** transportation improvements in Norman.
- Objective F2.** On an ongoing basis, integrate state and federal long-range transportation planning factors with local and regional transportation planning to maximize future funding opportunities for surface transportation projects in Norman.
- Objective F3.** On a monthly basis as needed, provide transparency and meaningful public awareness, ongoing citizen input, and participation opportunities to prepare the Norman CTP and its long-term implementation process.
- Objective F4.** On an ongoing basis, plan for and preserve rights-of-way and other real property for future **multimodal** transportation and supporting infrastructure investments in advance of economic development.
- Objective F5.** Develop a policy and programs for city consideration of private/public partnerships and donations to fund transportation infrastructure, amenities and aesthetics.
- Objective F6.** Create and implement tax assessments for transportation and supporting improvements associated with special initiatives, including bridge repair and rail transit.



5. Guiding Principle: *Enhance Economic Vitality*

Goal #5: Invest in transportation improvements that support the physical and economic vitality of Norman's neighborhoods, **businesses**, employment and education districts.

- Objective E1.** Initiate and promote a managed parking system(s) and/or district(s) to support and encourage increased activity and density of development within the core of Norman and specifically to address the needs of Downtown, **Campus Corner** and OU, parking management for the adjacent neighborhoods.
- Objective E2.** Provide for effective trucking, railroad and air freight movement to, from and through Norman, **including supporting facilities and airspace**, while minimizing their impact on the quality of life, specifically in the core of Norman.
- Objective E3.** Identify and promote land development strategies and suitable locations to maximize and support multi-modal development, such as mixed-use districts and transit oriented development that maximize the benefits of transit investments.
- Objective E4.** Identify and implement policies and programs to support and incentivize development initiatives within the city by establishment of special districts (e.g. TIF, PID, MMD) for use in timely implementation of transportation improvements.
- Objective E5.** Identify and implement policies and programs to streamline the project development process to reduce time to implement transportation improvements.

Land Use Planning Workshop with City Staff

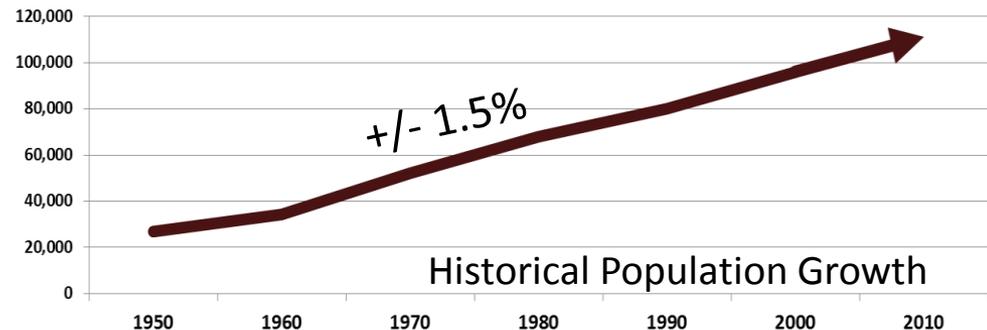


- Discussions of growth trends
 - Steady Population growth
 - Residential and commercial building permits locations
 - Rural vs Urban sectors

- Comparison of Comprehensive Plan with ACOG Model for 2035
 - Population density
 - Roadway linkages
 - Capital improvements

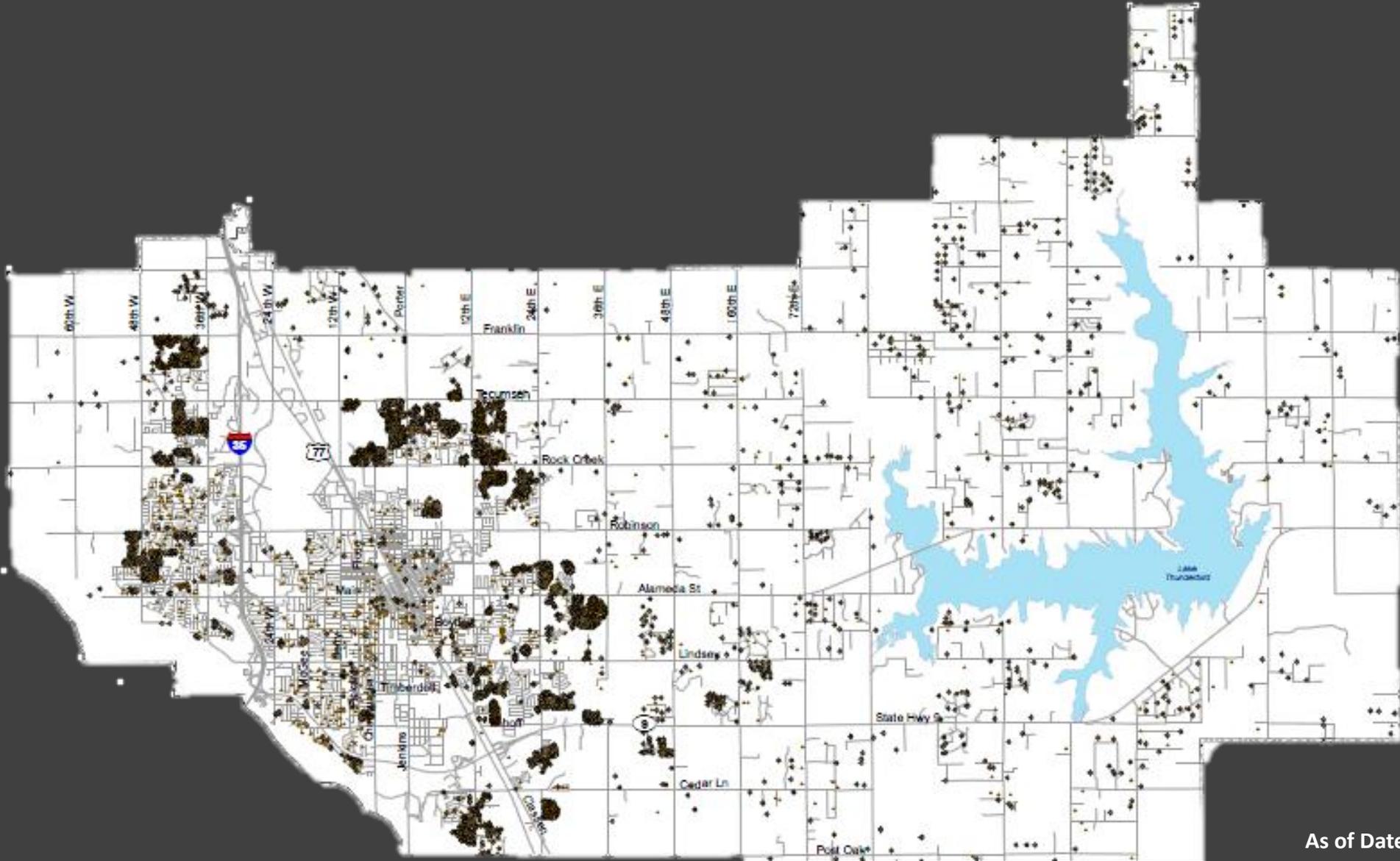
Population Projections			
Year	1.50%	Norman 2025	ACOG
2015	119,497	120,152	121,120
2025	136,682	137,147	137,548
2035	160,946	156,518	156,173

Year	Employment Projections	CAGR
2005	59,002	1.85%
2015	70,872	
2025	85,130	
2035	102,298	



Development Trends

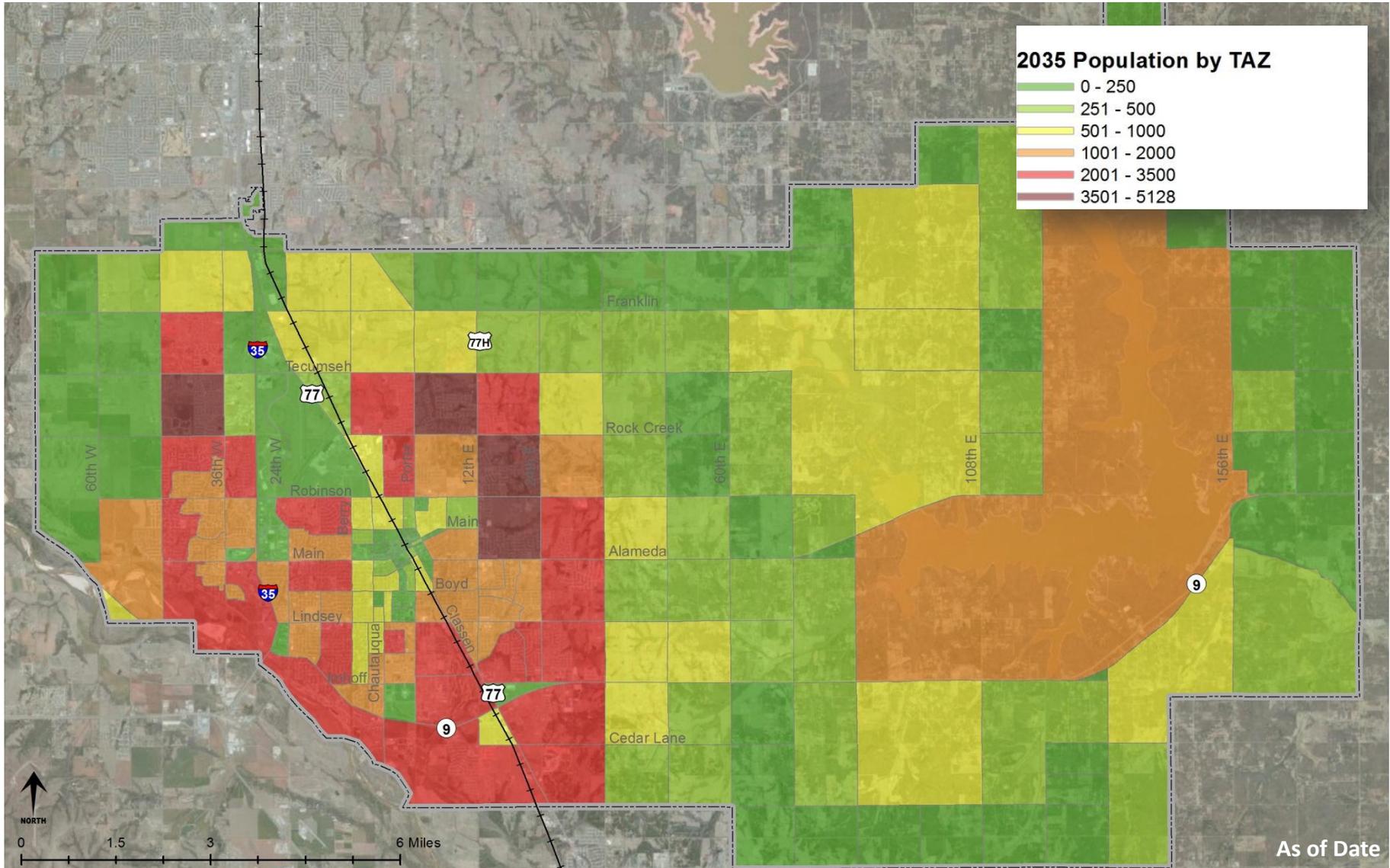
2002-2011 Residential Building Permits



As of Date

Existing Conditions

2035 Population by TAZ (ACOG)



Existing Conditions

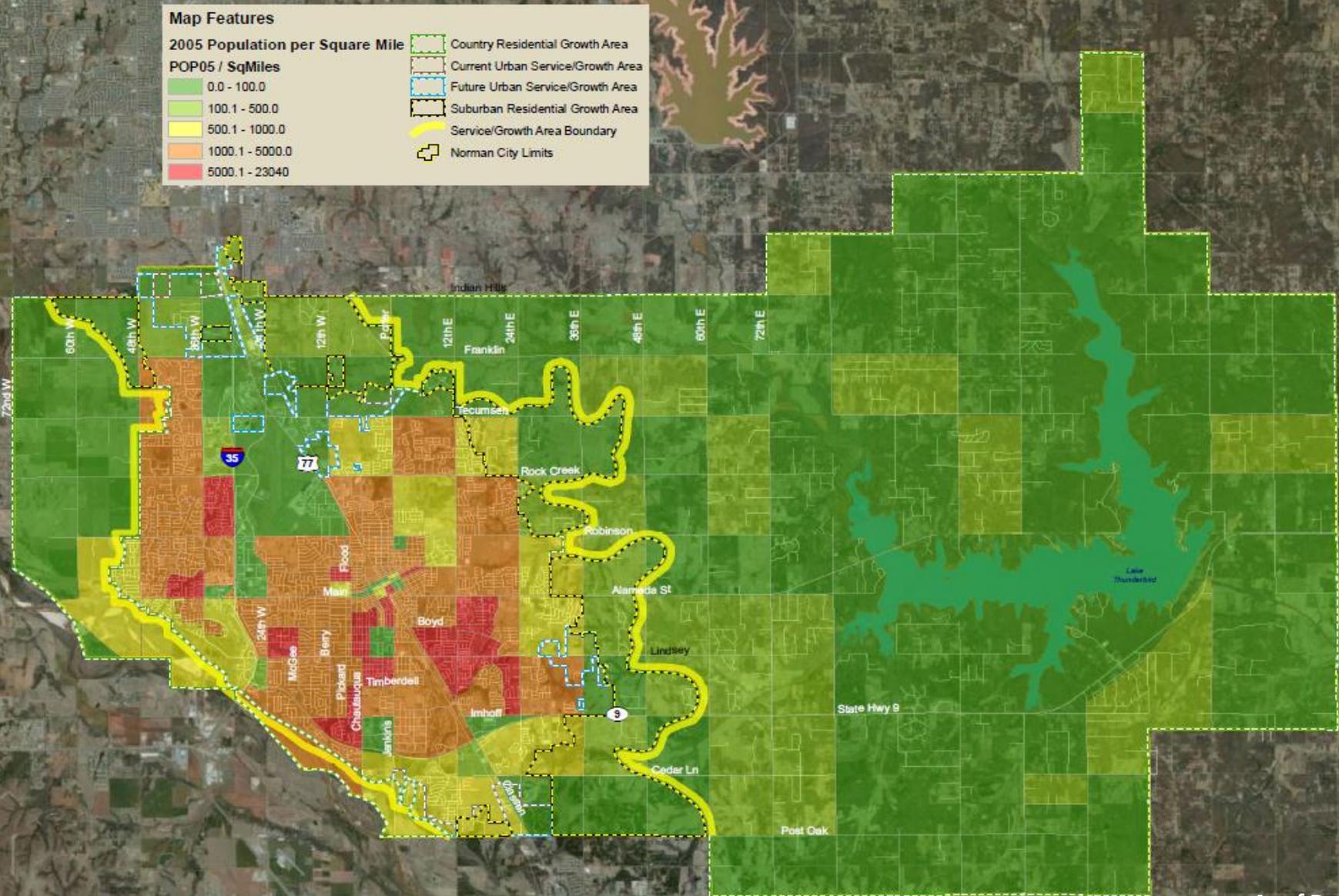
2005 Population Density (ACOG)



Map Features

2005 Population per Square Mile	
POP05 / SqMiles	
	0.0 - 100.0
	100.1 - 500.0
	500.1 - 1000.0
	1000.1 - 5000.0
	5000.1 - 23040

	Country Residential Growth Area
	Current Urban Service/Growth Area
	Future Urban Service/Growth Area
	Suburban Residential Growth Area
	Service/Growth Area Boundary
	Norman City Limits



As of Date

Existing Conditions 2035 Population Density (ACOG)



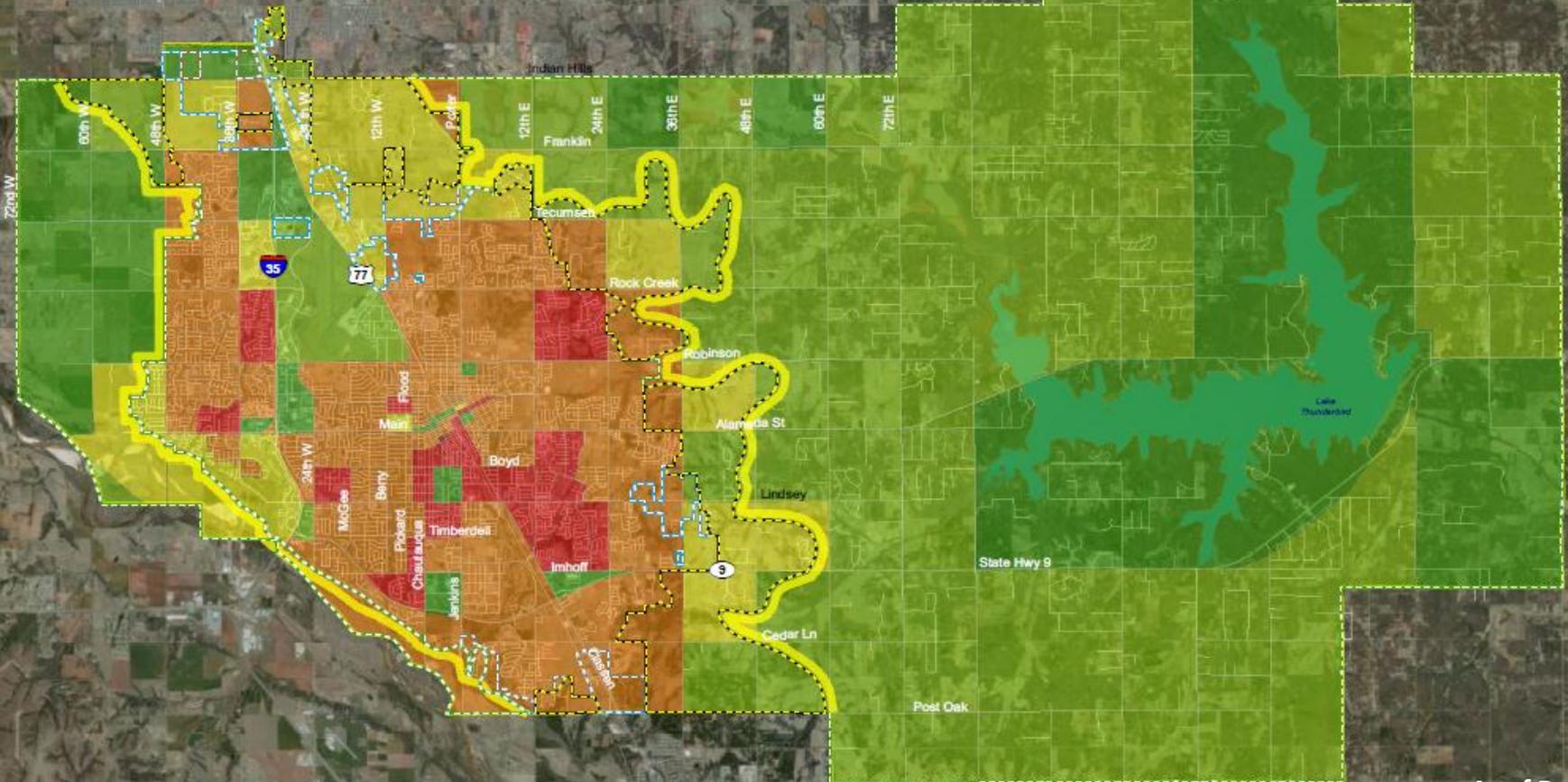
Map Features

2035 Population per Square Mile

RUN3 / SqMiles

0.0 - 100.0
100.1 - 500.0
500.1 - 1000.0
1000.1 - 5000.0
5000.1 - 25000.0
25000.1 - 31350.8

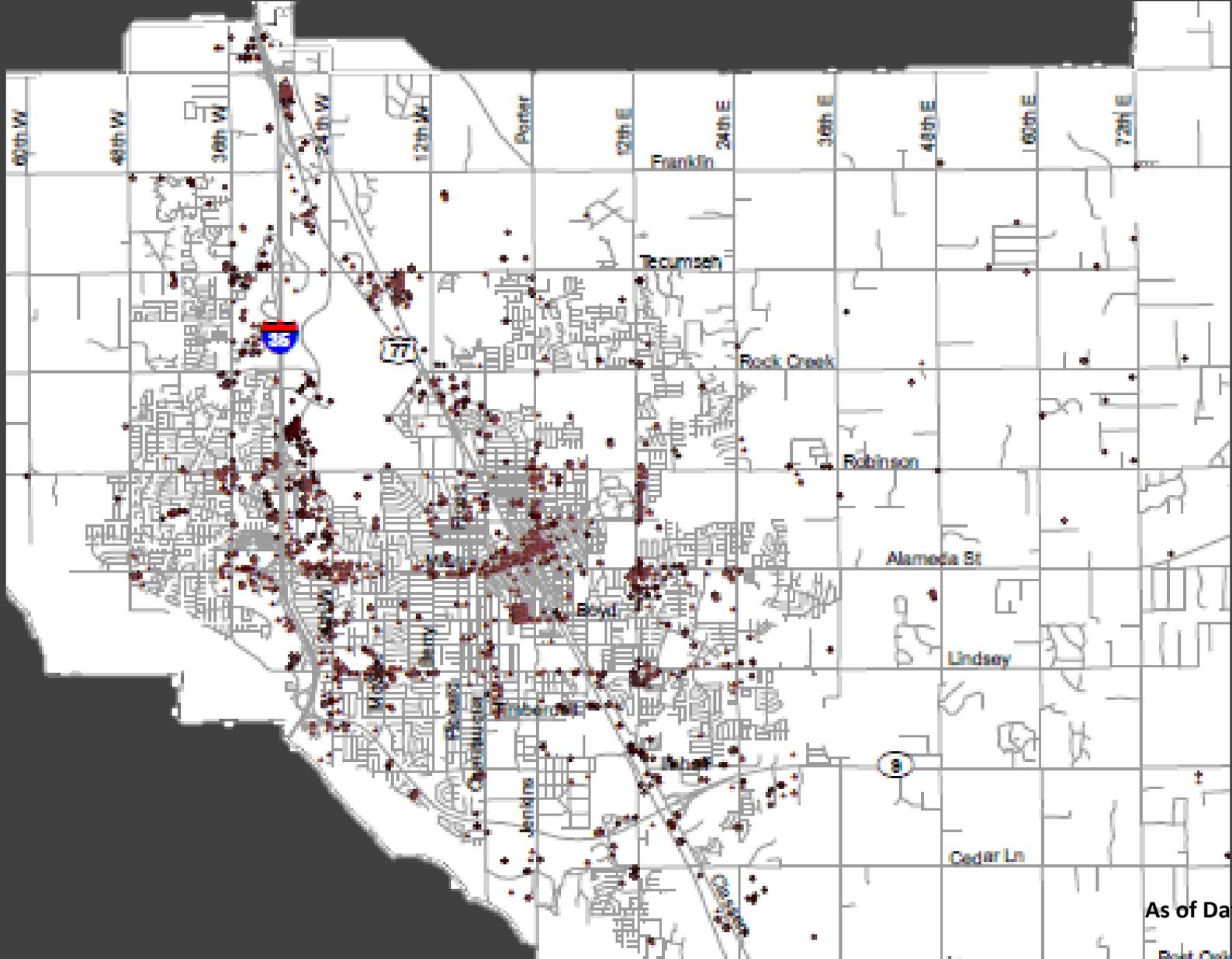
	Country Residential Growth Area
	Current Urban Service/Growth Area
	Future Urban Service/Growth Area
	Suburban Residential Growth Area
	Service/Growth Area Boundary
	Norman City Limits



As of Date

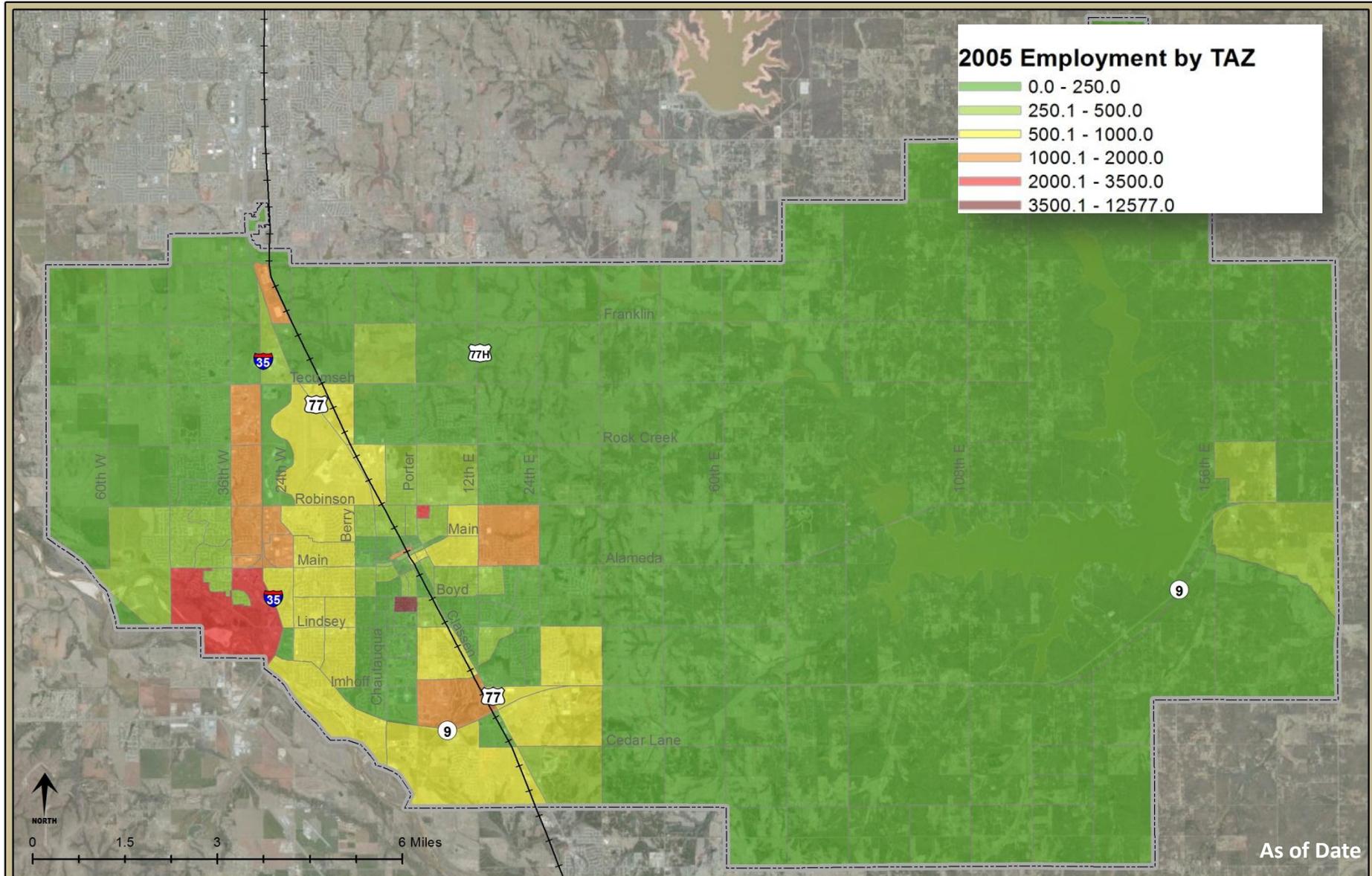
Development Trends

2002-2011 Commercial Building Permits



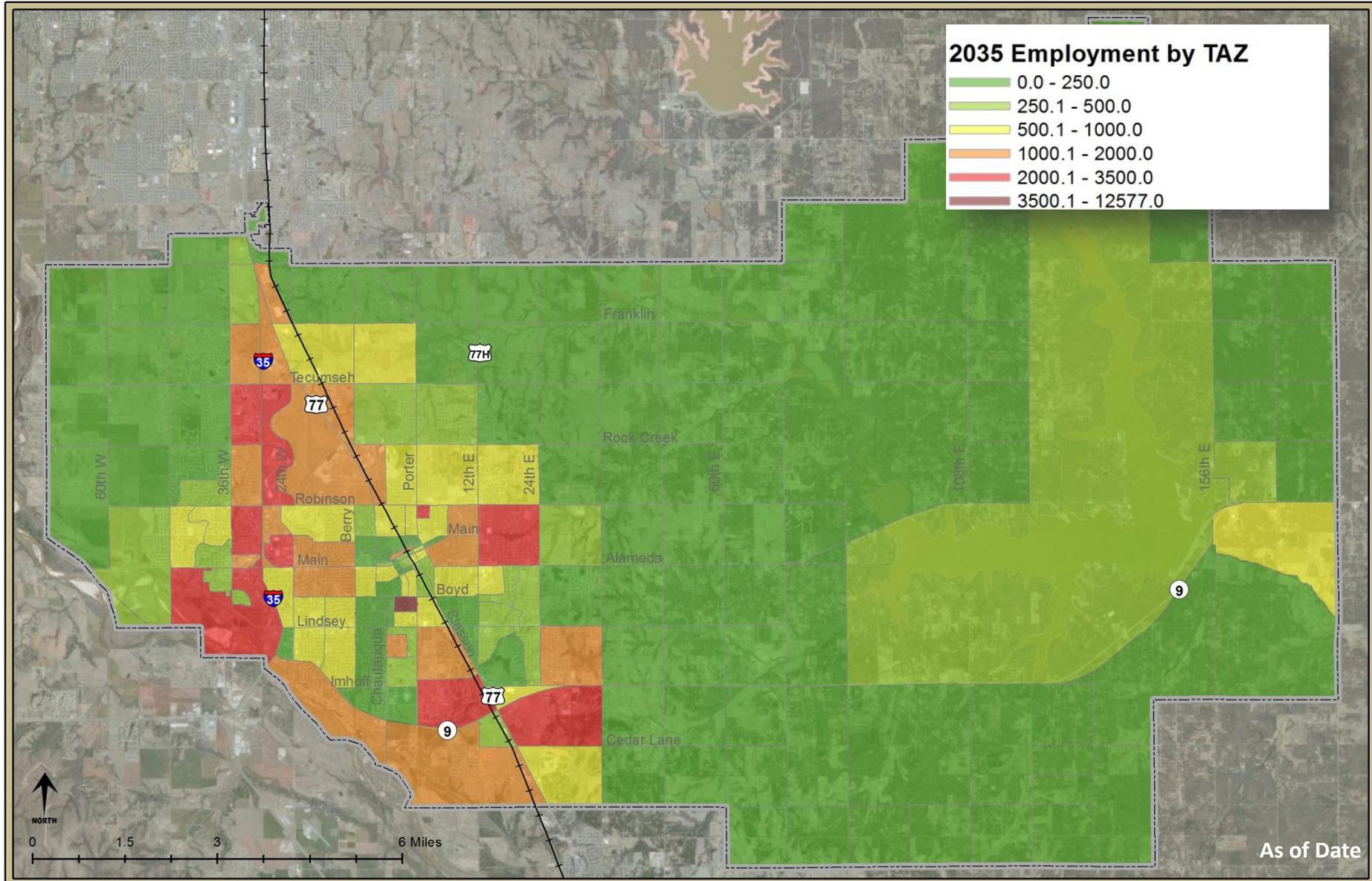
Existing Conditions

2005 Employment by TAZ (ACOG)



Existing Conditions

2035 Employment by TAZ (ACOG)



Existing Conditions 2005 Employment Density



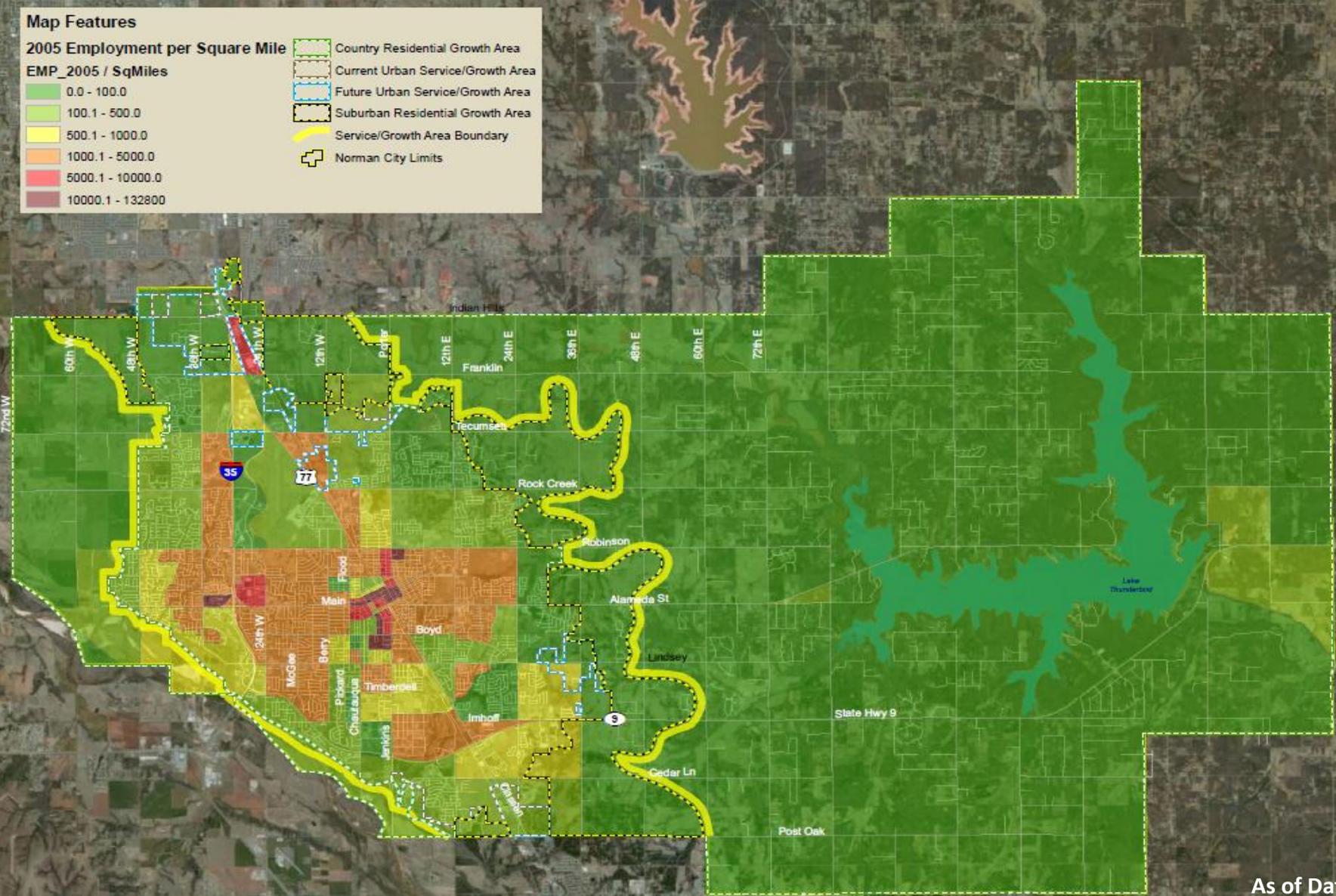
Map Features

2005 Employment per Square Mile

EMP_2005 / SqMiles

- 0.0 - 100.0
- 100.1 - 500.0
- 500.1 - 1000.0
- 1000.1 - 5000.0
- 5000.1 - 10000.0
- 10000.1 - 132800

- Country Residential Growth Area
- Current Urban Service/Growth Area
- Future Urban Service/Growth Area
- Suburban Residential Growth Area
- Service/Growth Area Boundary
- Norman City Limits



As of Date

Existing Conditions 2035 Employment Density



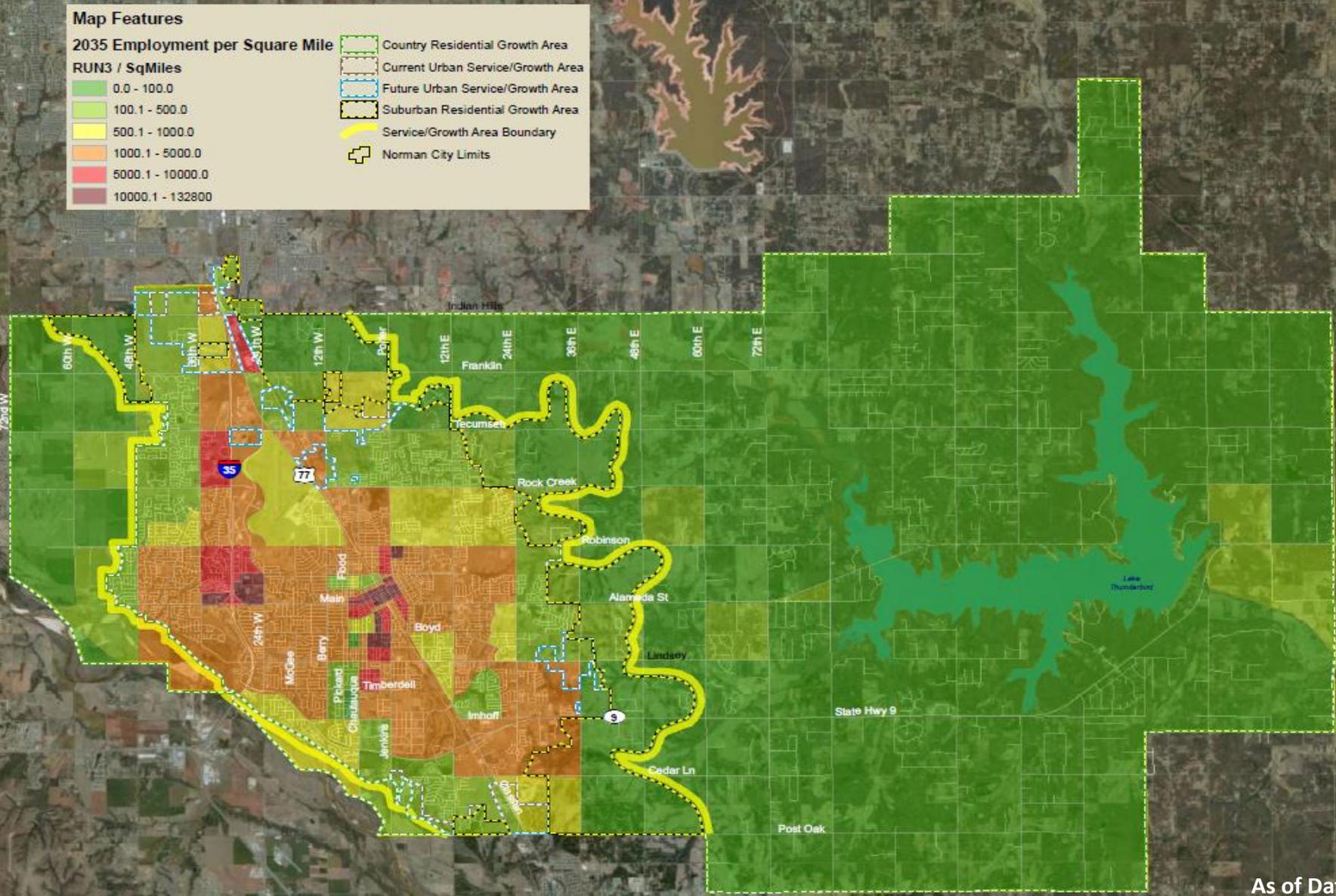
Map Features

2035 Employment per Square Mile

RUN3 / SqMiles

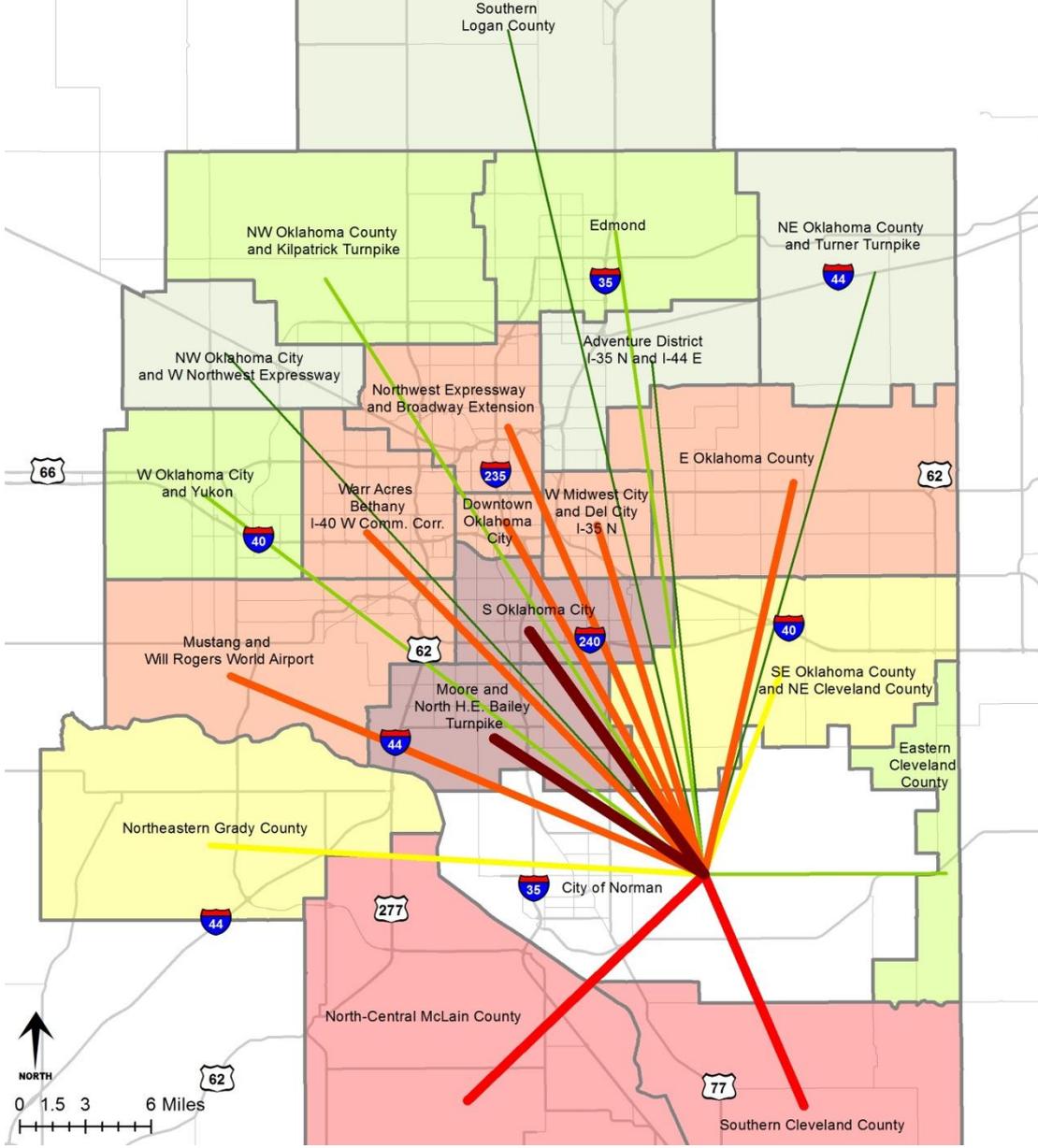
- 0.0 - 100.0
- 100.1 - 500.0
- 500.1 - 1000.0
- 1000.1 - 5000.0
- 5000.1 - 10000.0
- 10000.1 - 132800

- Country Residential Growth Area
- Current Urban Service/Growth Area
- Future Urban Service/Growth Area
- Suburban Residential Growth Area
- Service/Growth Area Boundary
- Norman City Limits

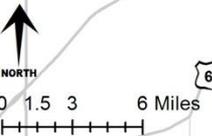
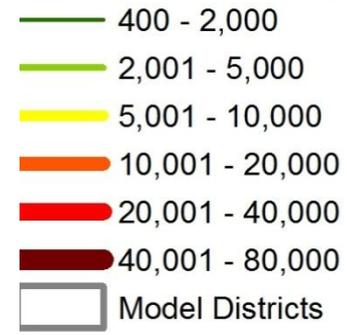


As of Date

2005 Travel Demand Origins/Destinations (ACOG)



Trips per Weekday (Base Year)



Subcommittee Meeting #2

Existing Transportation Conditions



- Roadway Network
- Access Management
- Traffic Volumes
- Congestion-Major Corridors
- Roadway Safety
- Parking Inventory
- Freight Movements, Impacts
- Aviation Land Use & Access
- Roadway Inventory & Maintenance
- System Improvements
- Bike & Pedestrian Accommodations
- Transit Service

e-Builder

02004

Dashboard Projects Planning Forms Processes Documents Calendar Contacts Bidding Cost Schedule Reports +

Freese Nichols

Kevin St. Jacques

Recent Pages...

Announcements
To Contact e-Builder Support
Please call (888)-288-5717 or email support@e-builder.net

Workflow in your court First ten

Project	Name	Subject	Step	Date Due
Norman CTP	Action Item #PM - 1	Folder Structure, Roles, Permissions		01.04.2013 12:00am
Norman CTP	AI - 5	Subcommittee Assignment 2-18-13	Review Action Item	
Norman CTP	AI - 1	Tech Memo on ACOG model adaptability for Norman CTP	Review Action Item	
Norman CTP	AI - 4	City Review of Existing Conditions Appendix	Review Action Item	
Norman CTP	AI - 6	Review summation of Subcommittee Breakout session notes	Review Action Item	
Norman CTP	AI - 2	First Draft of Compiled Existing Conditions Appendix	Review Action Item	

Forms | Processes

My first 10 tasks First ten

Project	Task	Finish Date	%	Manager
There are no tasks				

Tasks

Next Month's Events

February 2013

S	M	T	W	T	F	S
27	28	29	30	31	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	1	2
3	4	5	6	7	8	9

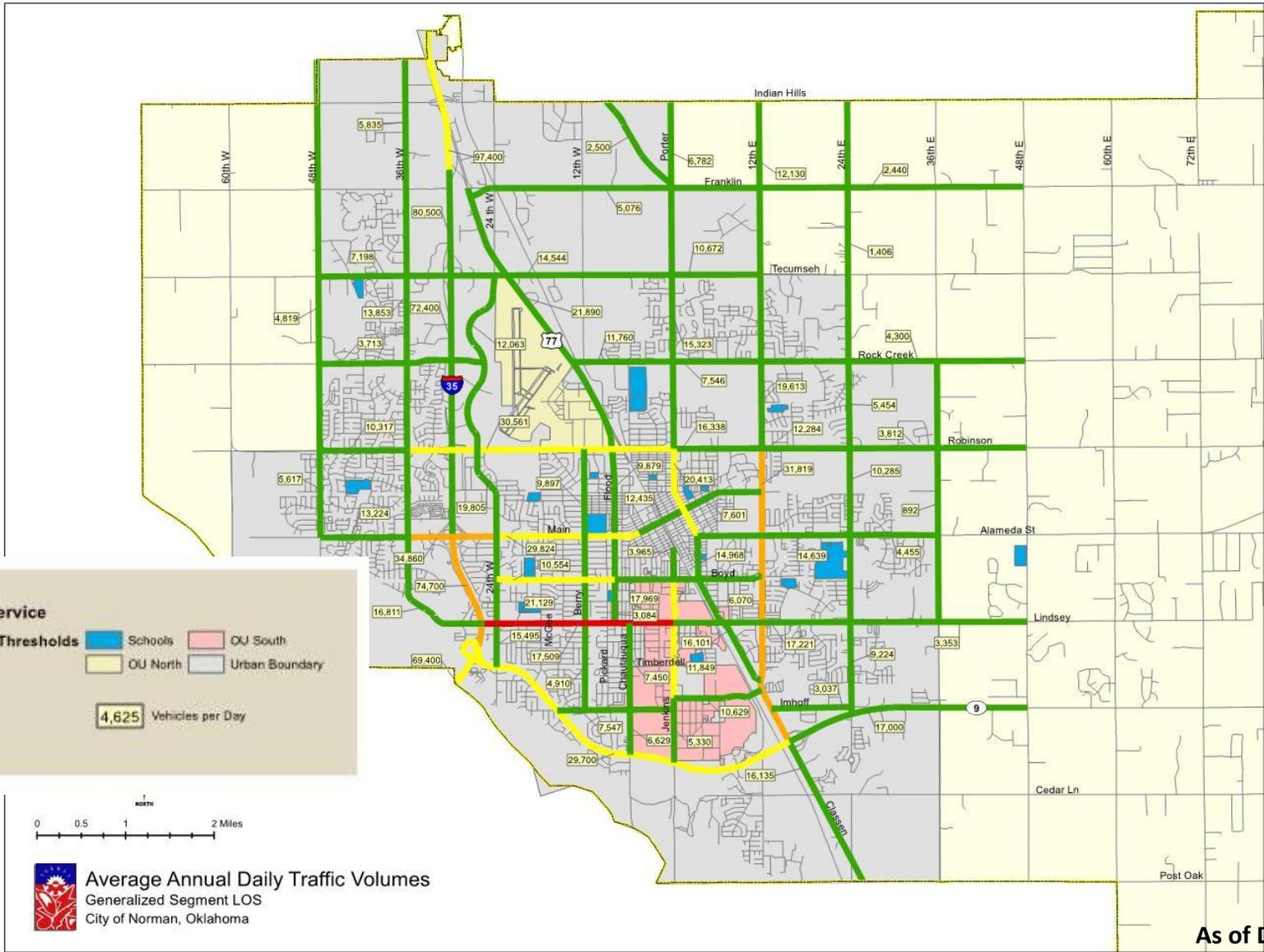
There are no events in the selected range.

Calendar

e-Builder Community | About | Help

© 2013 e-Builder, Inc. All Rights Reserved.

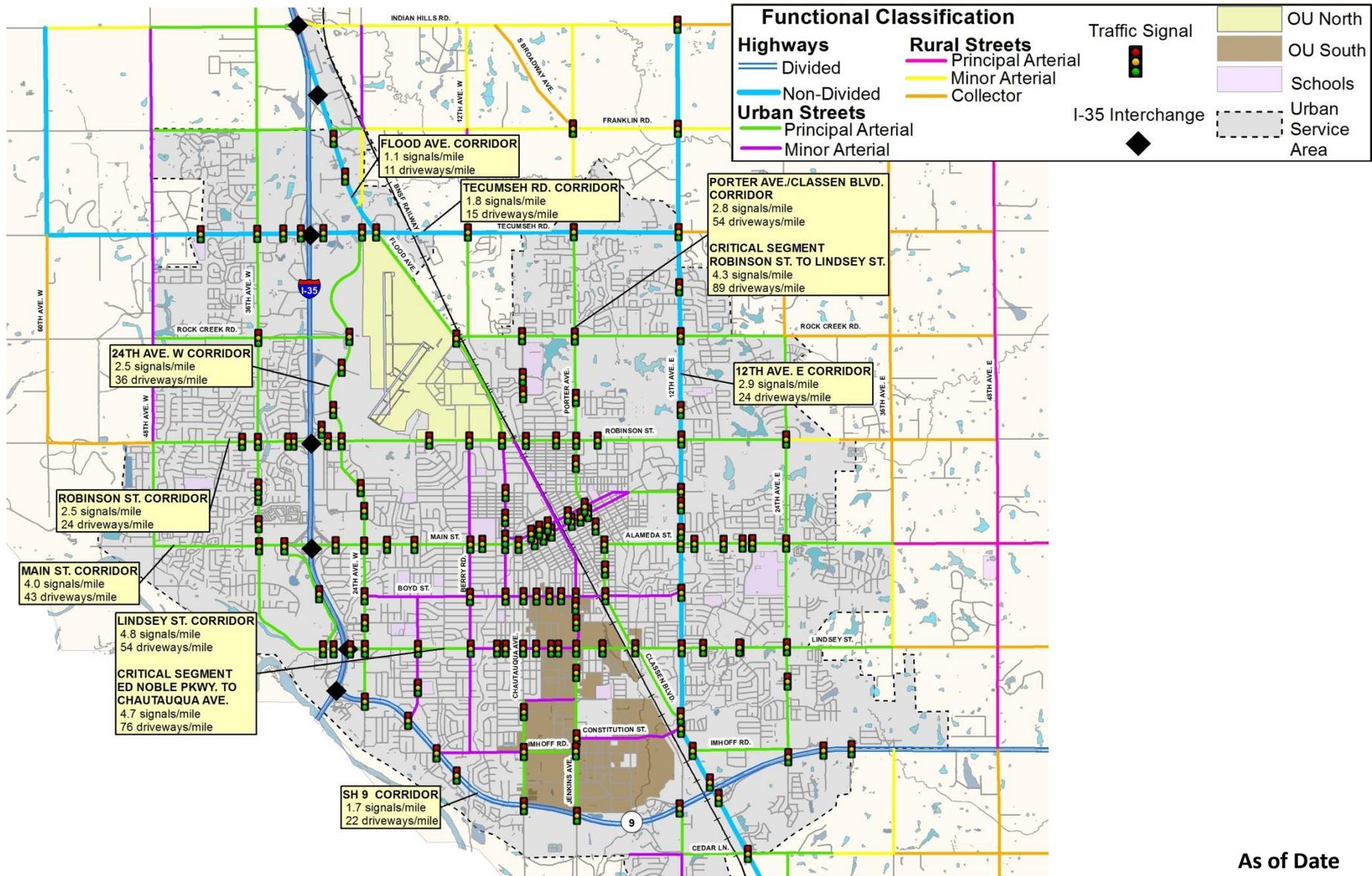
Existing Conditions Daily Traffic Volumes & Congestion



Average Annual Daily Traffic Volumes
Generalized Segment LOS
City of Norman, Oklahoma

As of Date

Existing Conditions Roadway Network



As of Date

Existing Conditions Access Management



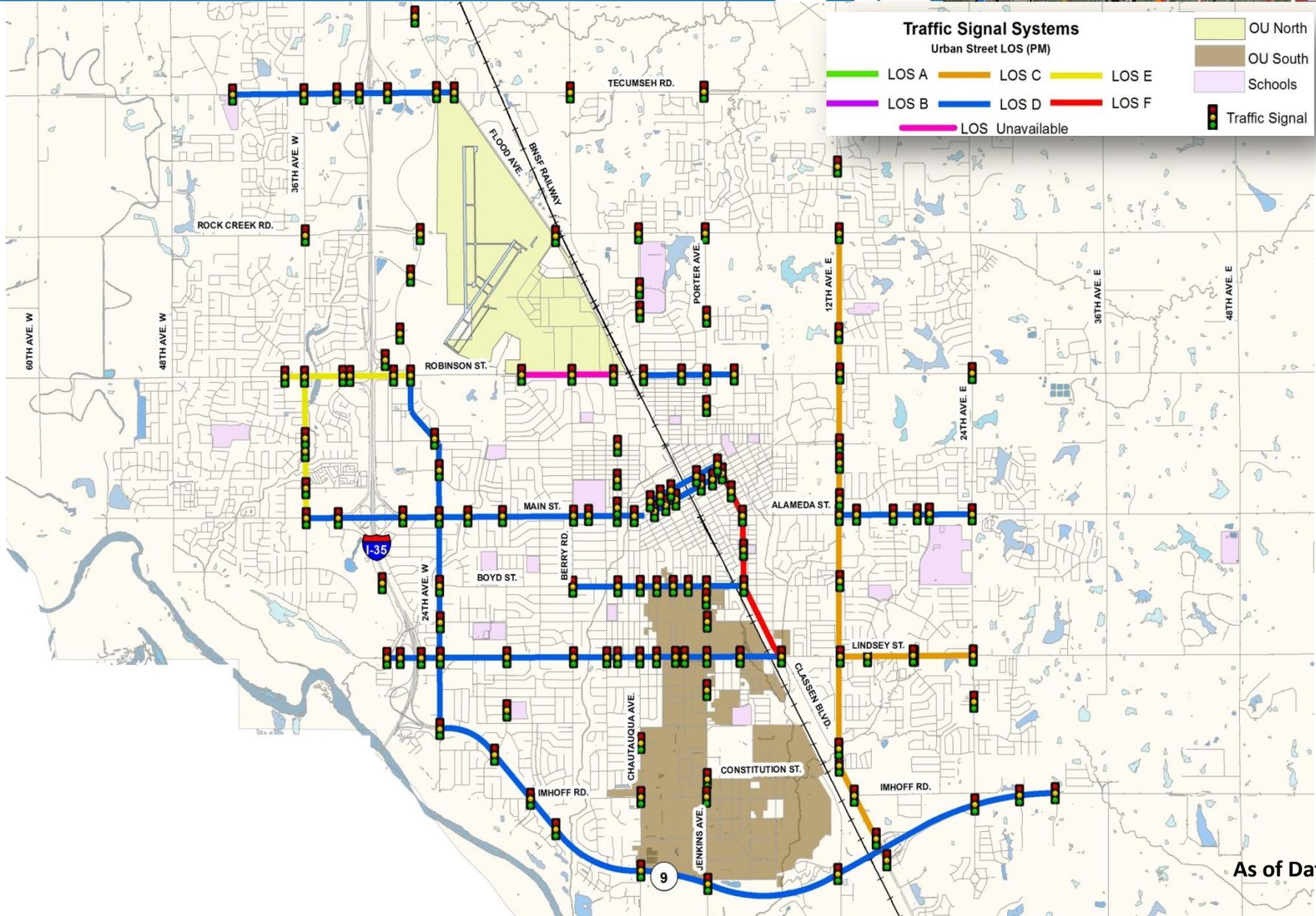
Existing Impediments

- Number and spacing of traffic signals
- Inefficient signal timings
- High number of access points
- Lack of turn lanes
- Lack of median presence
- Poor geometrics

Route	Segment	Distance	# of Signals	Signals / Mile	# of Driveways	Driveways / Mile
SH 9	I-35 to S Jenkins Road	2.5	6	2.4	12	4.8
	S Jenkins Road to 24th Ave E	2.2	2	0.9	10	4.5
	Total	4.7	8	1.7	22	4.7
Lindsey Street	Ed Noble Parkway to S Berry Rd	1.4	6	4.3	101	72.1
	S Berry Rd to Chataouqua Ave	0.5	3	6.0	43	86.0
	Chataouqua Ave to Classen Blvd	1.1	8	7.5	23	21.5
	Classen Blvd to 24th Ave E	1.4	4	2.8	69	48.3
	Total	4.4	21	4.8	236	53.6
Main Street	48th Ave W to 36th Ave W	1.0	1	1.0	27	27.0
	36th Ave W to 24th Ave W	1.0	3	3.0	33	33.0
	24th Ave W to University Blvd	1.6	7	4.3	97	59.9
	University Blvd to Porter Ave	0.6	6	10.0	23	38.3
	Total	4.2	17	4.0	180	42.7
Robinson Street	48th Ave W to 36th Ave W	1.0	2	2.0	26	26.0
	36th Ave W to 24th Ave W	0.8	4	5.0	16	20.0
	24th Ave W to Porter Ave	2.2	6	2.7	47	21.4
	Porter Ave to 24th Ave E	2.0	3	1.5	53	26.5
	Total	6.0	15	2.5	142	23.7
24th Ave W	Tecumseh Rd to Robinson St	2.3	5	2.2	18	8.0
	Robinson St to SH 9	2.6	7	2.7	154	60.4
	Total	4.8	12	2.5	172	35.8
12th Ave E	Tecumseh Rd to Robinson St	2.0	5	2.5	32	16.0
	Robinson St to Alameda St	1.0	4	4.0	27	27.0
	Alameda St to Classen Blvd	1.7	3	1.8	45	27.3
	Classen Blvd to SH 9	0.9	4	4.7	26	30.6
	Total	5.5	16	2.9	130	23.6
Porter Ave / Classen Blvd	Tecumseh Rd to Robinson St	2.0	4	2.0	63	31.5
	Robinson St to Alameda St	1.1	5	4.8	97	92.4
	Alameda St to Lindsey St	1.1	4	3.8	89	84.8
	Lindsey St to 12th Ave	0.9	1	1.1	21	23.3
	Total	5.0	14	2.8	270	54.0
Flood Ave	I-35 to Robinson Street	3.6	4	1.1	38	10.7
	Total	3.6	4	1.1	38	10.7
Tecumseh Rd	48th Ave W to 36th Ave W	1.0	1	1.0	30	30.0
	36th Ave W to 12th Ave W	2.0	6	3.0	30	15.0
	12th Ave W to 12th Ave E	2.0	2	1.0	14	7.0
	Total	5.0	9	1.8	74	14.8

As of Date

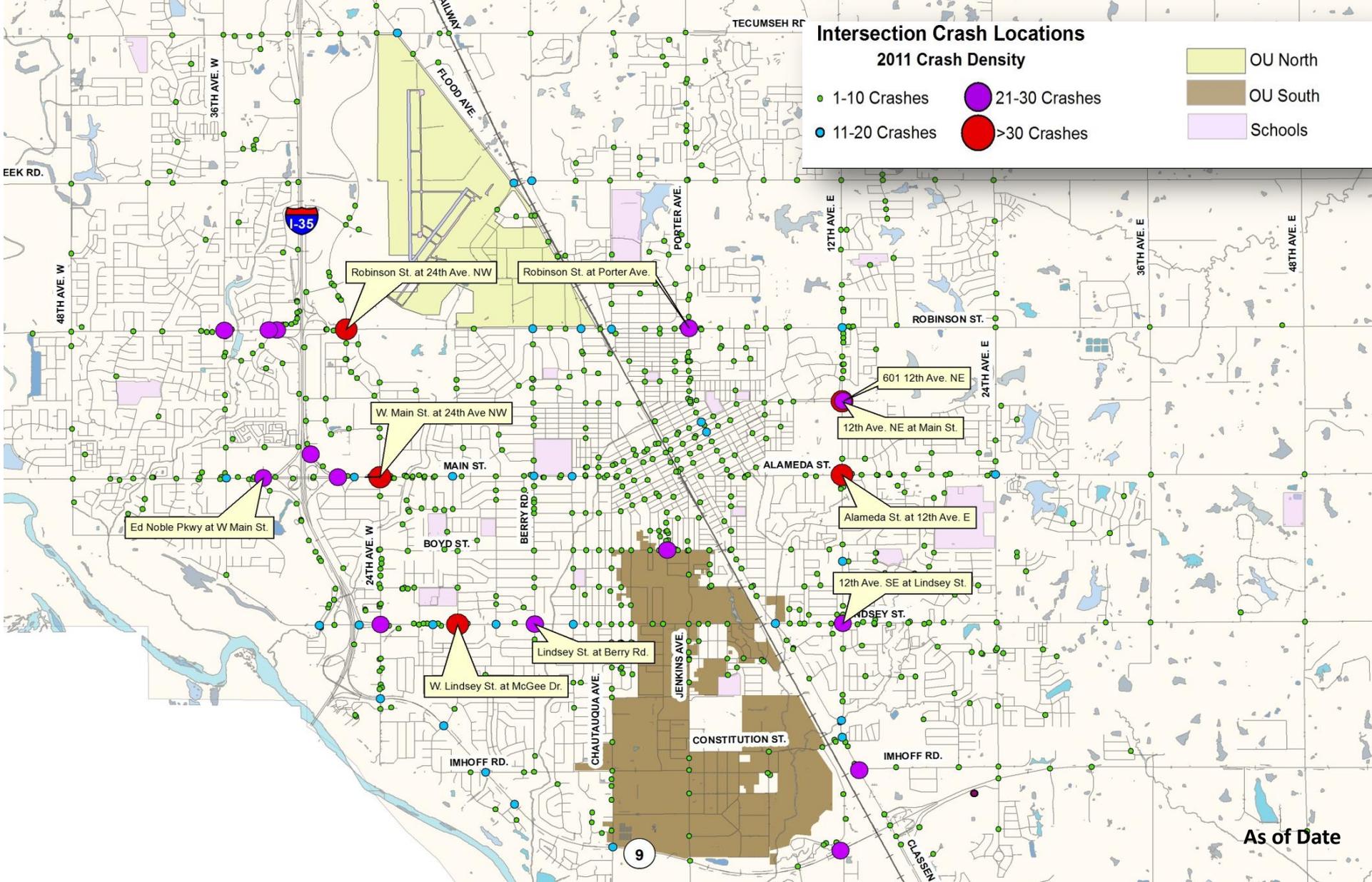
Existing Conditions Coordinated Traffic Signals



As of Date

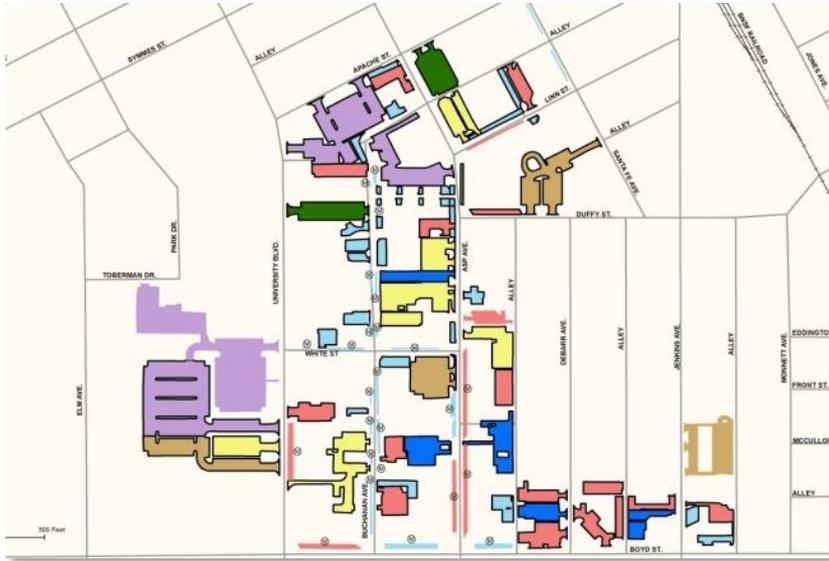
Existing Conditions

Roadway Safety-Crash Locations



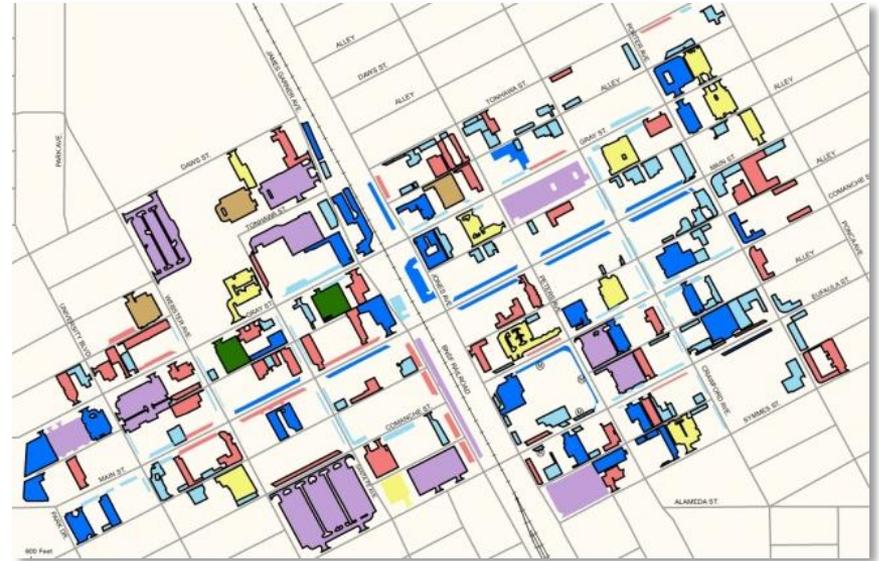
As of Date

Existing Conditions Parking Inventory Breakdown



Campus Corner Area

- Just under 2,000 spaces
- 87% surface
- 13% on-street
- 25% public
- Insufficient parking in the southern portion of the district



Central Business District

- 4,900 spaces
- 77% surface
- 23% on-street
- 25% public
- Insufficient parking in the eastern portion of the district especially along Main Street

Existing Conditions Freight Operations

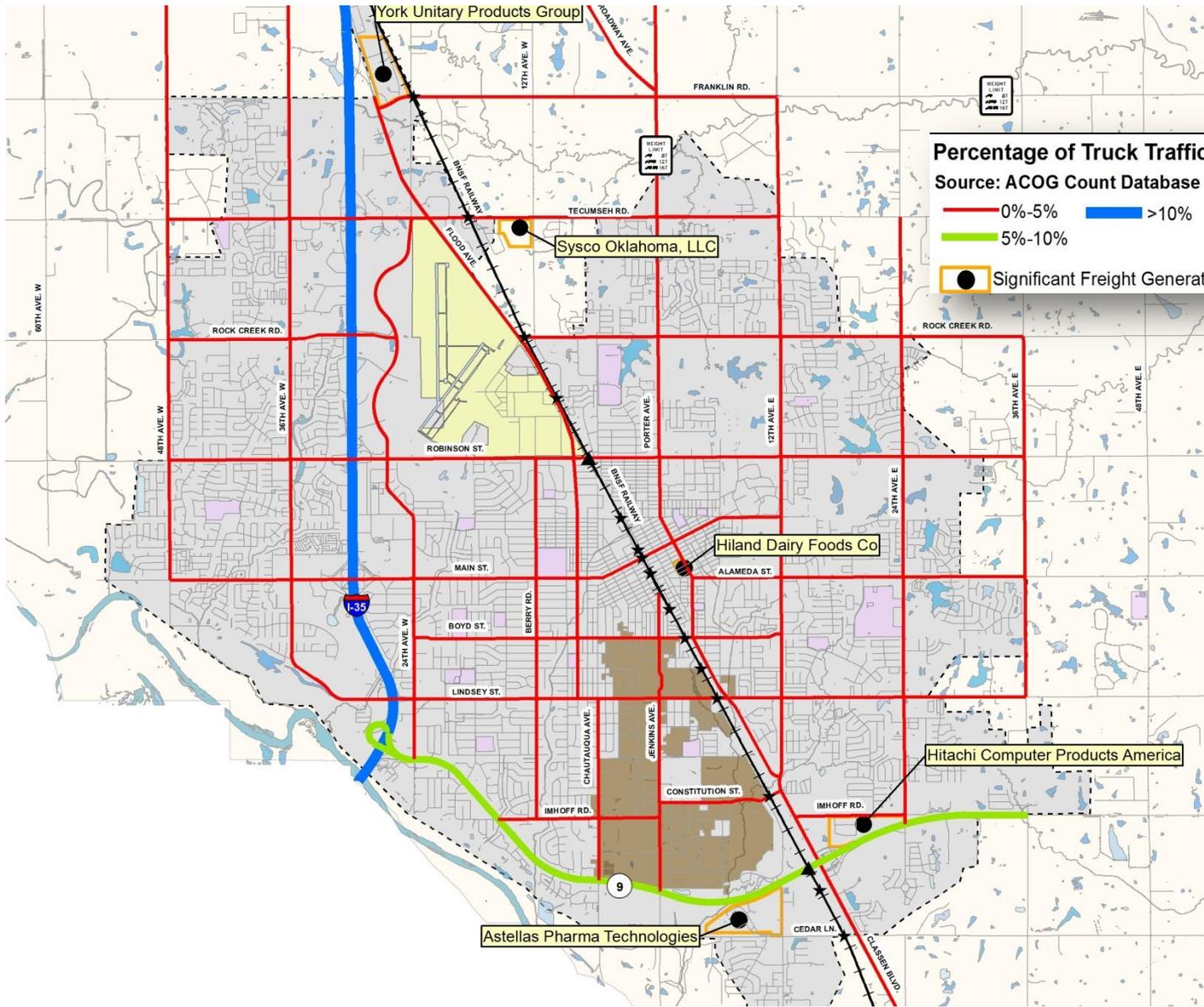


- Rail
 - BNSF “Mid-Con” corridor
 - 50 million tons of freight per year
- Passenger Rail
 - Amtrak’s “Heartland Flyer”
 - Along BNSF Line
 - Service Between Oklahoma City and Fort Worth
 - 84,000 annual ridership
 - On Average 10% originate/destined for Norman. Numbers differ by year (In 2011, 12% originating/destined for Norman)
- Truck Operations
 - Interstate 35 (15% Truck Traffic)
 - SH 9 (6% Truck Traffic)



As of Date

Existing Conditions Freight Truck Operations



Percentage of Truck Traffic
 Source: ACOG Count Database

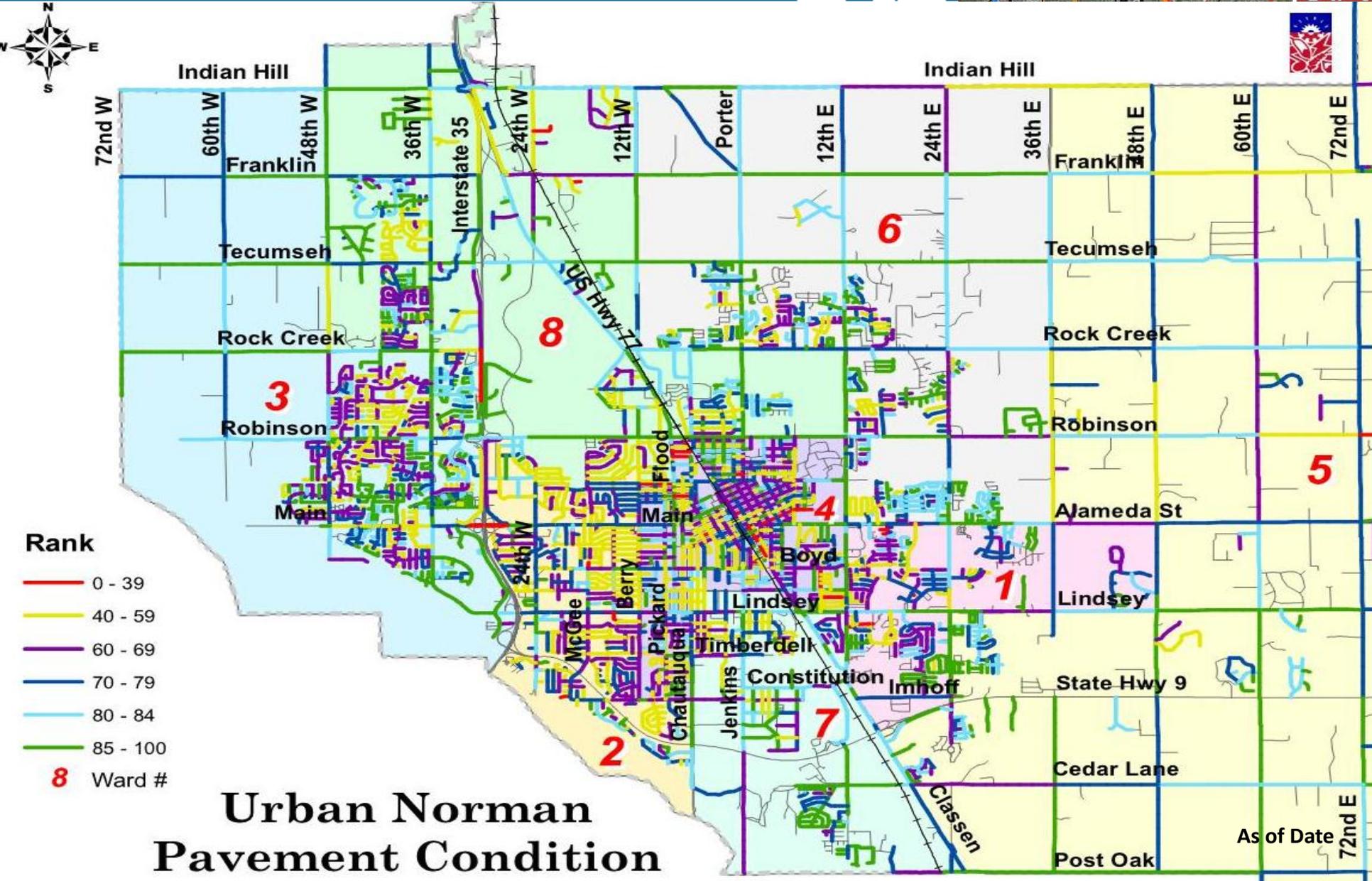
0%-5% (Red line)
 5%-10% (Green line)
 >10% (Blue line)

● Significant Freight Generators

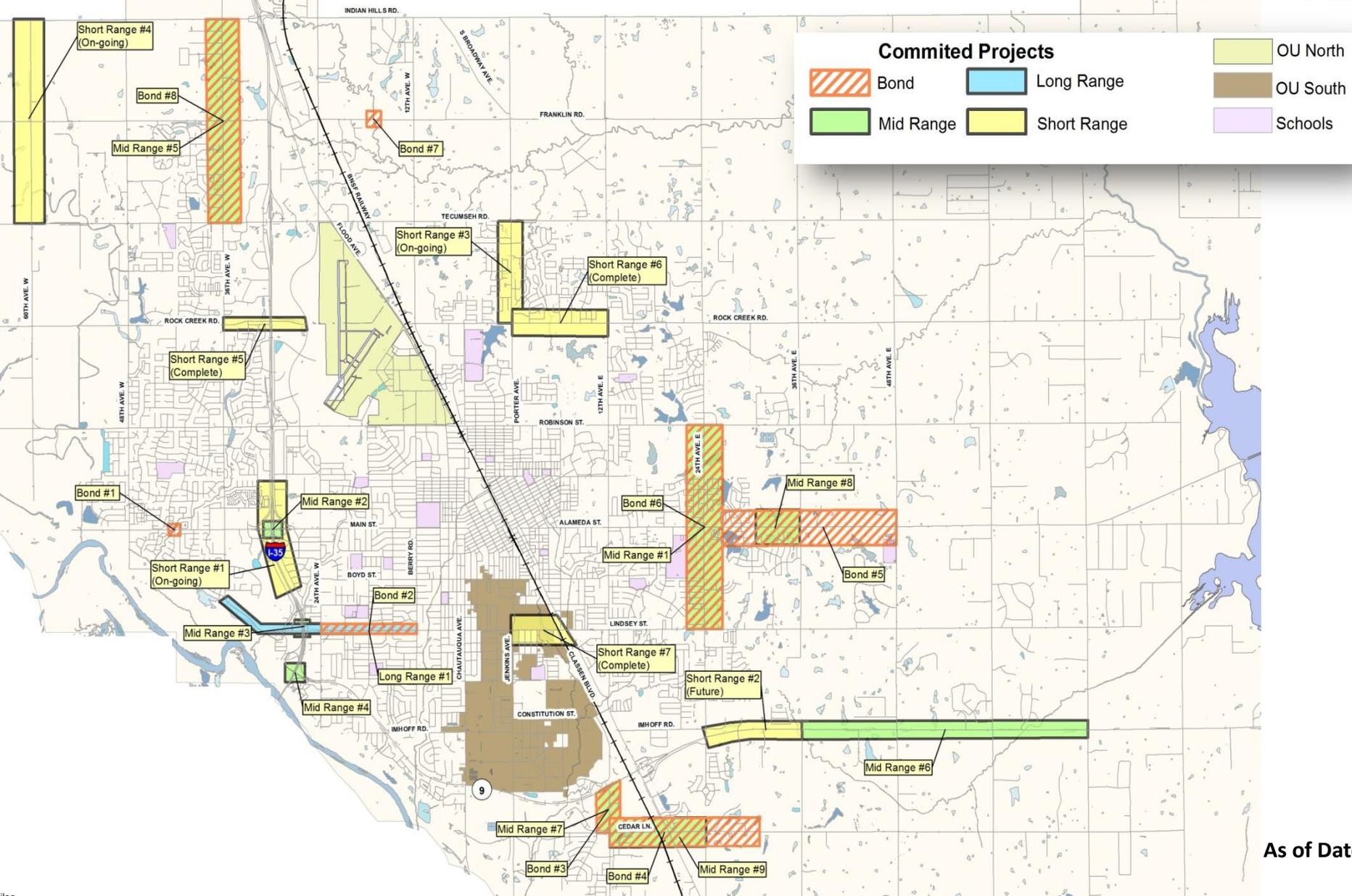
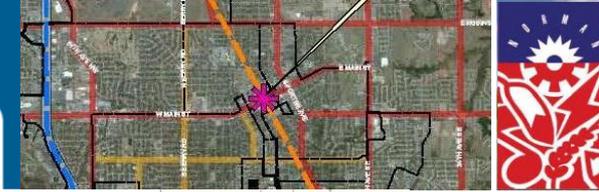
- ★ At Grade RR Crossing
- ▲ Grade Separated RR Crossing
- Ⓜ Load Posted Bridges
- OU North (Yellow shaded area)
- OU South (Brown shaded area)
- Schools (Purple shaded area)
- Urban Boundary (Dashed line)

As of Date

Existing Conditions Roadway Inventory and Conditions



Existing Conditions Planned Programs and Initiatives

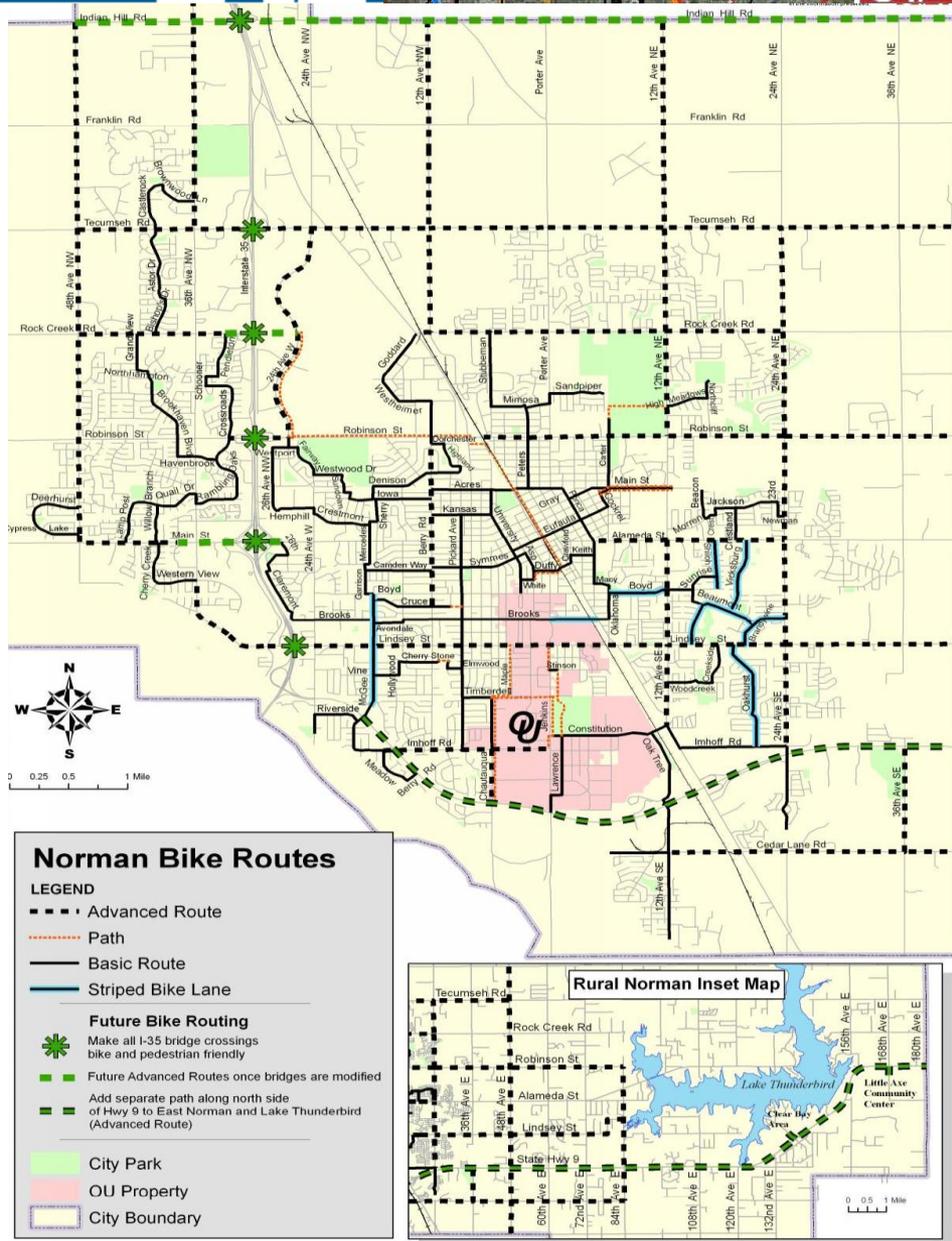


As of Date

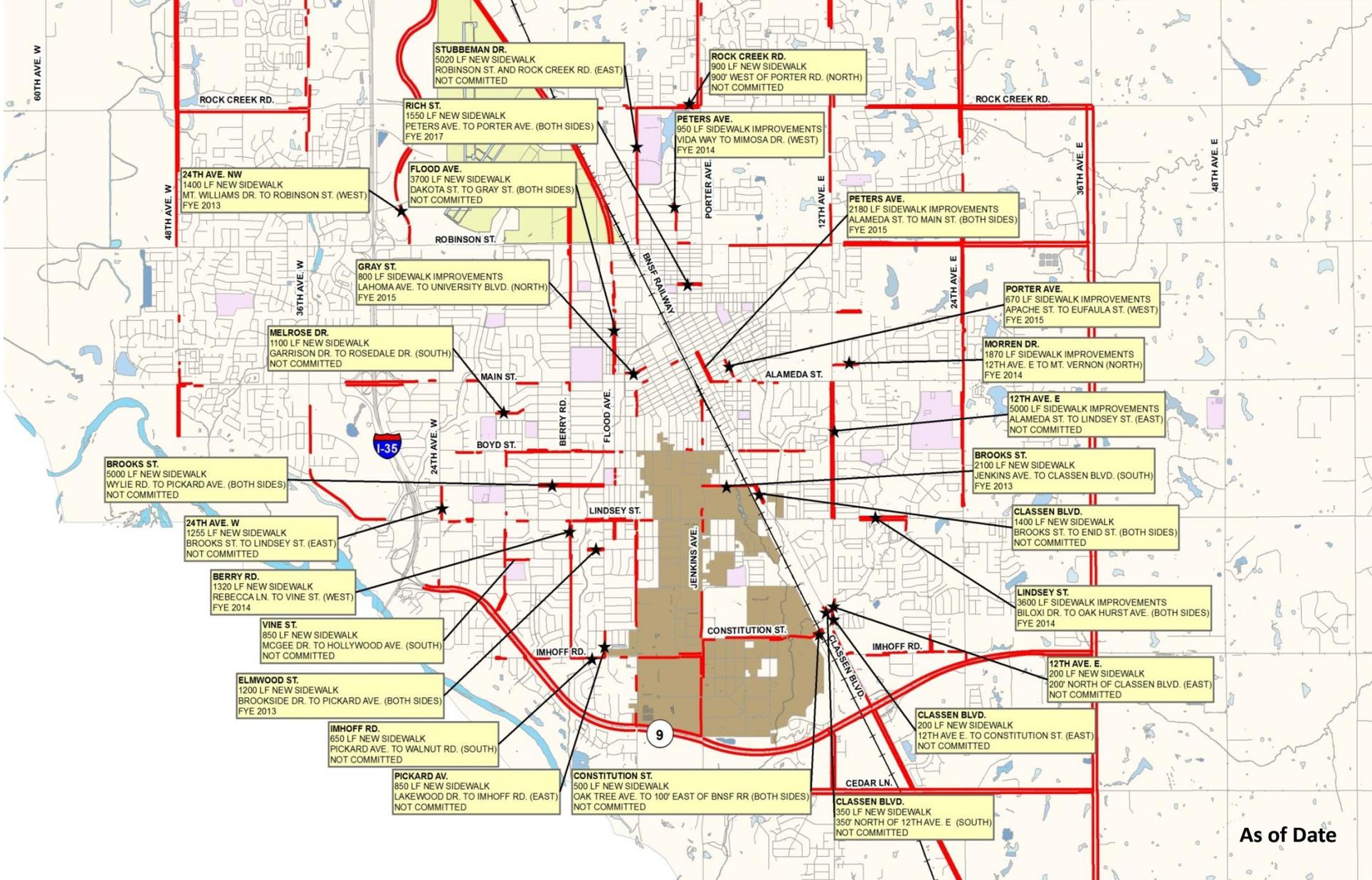
Existing Conditions Bicycle & Pedestrian Accommodations

- **Bicycle Accommodations**
 - 1996 Bicycle Transportation Map
 - Norman Bicycle Advisory Committee (BAC)
 - 2011 Bike Route Map
 - OU Bicycle Advisory Committee
 - OU Bike Patrol
 - Bicycle Friendly City
- **Pedestrian Accommodations**
 - Sidewalk Requirements
 - Walk Friendly Community (WFC)
 - CIP sidewalk project listing

As of Date

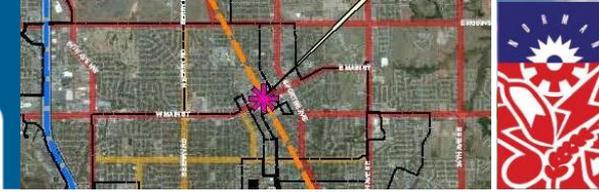


Existing Conditions Sidewalk Gaps and Planned Projects



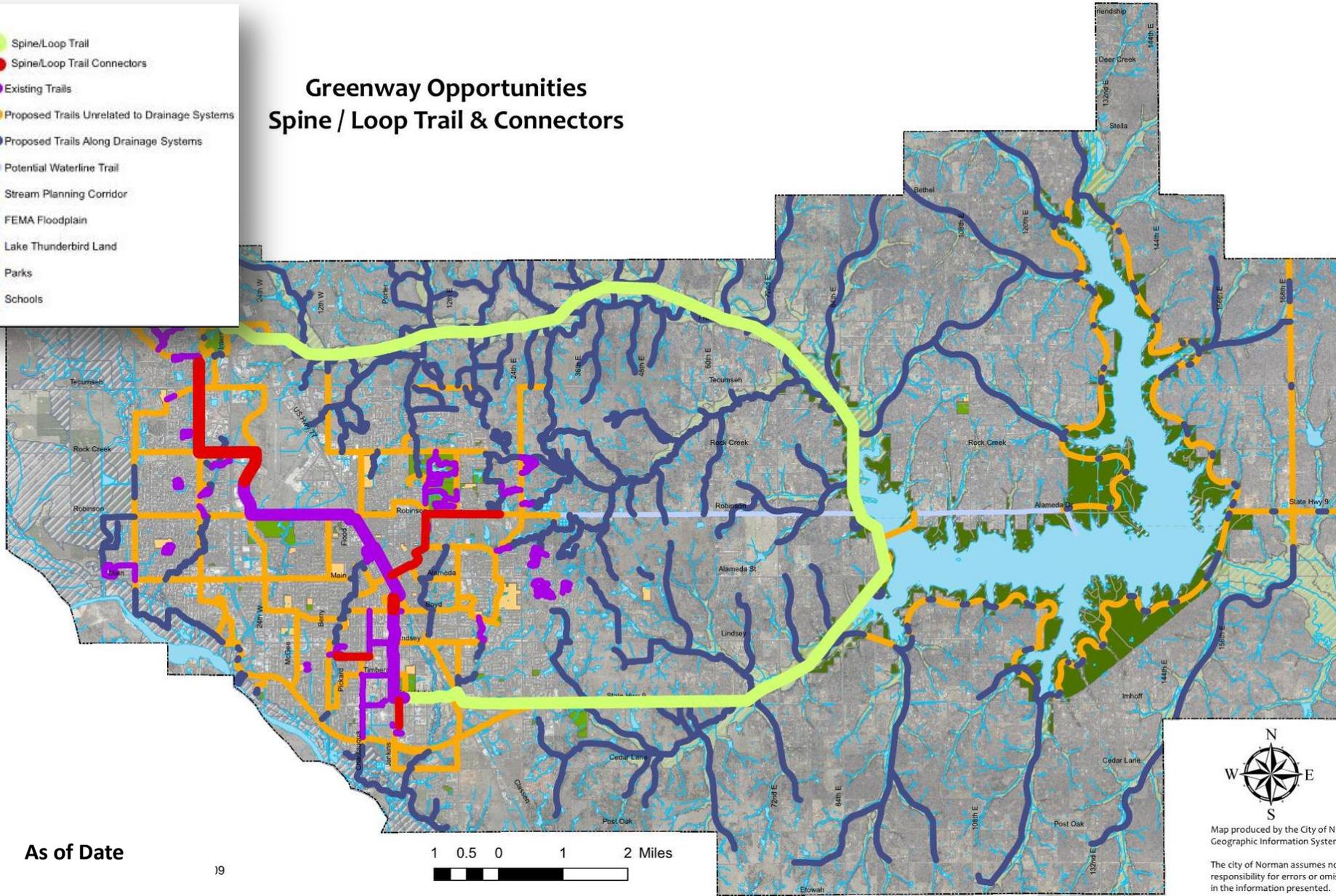
As of Date

Existing & Planned Conditions Bicycle and Pedestrian Accommodations



- Spine/Loop Trail
- Spine/Loop Trail Connectors
- Existing Trails
- Proposed Trails Unrelated to Drainage Systems
- Proposed Trails Along Drainage Systems
- Potential Waterline Trail
- Stream Planning Corridor
- FEMA Floodplain
- Lake Thunderbird Land
- Parks
- Schools

Greenway Opportunities Spine / Loop Trail & Connectors



As of Date



Map produced by the City of Norman Geographic Information System

The city of Norman assumes no responsibility for errors or omissions in the information presented.

Existing Conditions Transit Service

- Cleveland Area Rapid Transit
- Greyhound Bus
- Megabus
- Airport Express
- Taxi Operations
- GetAroundOK
- Timecar

Public Transportation

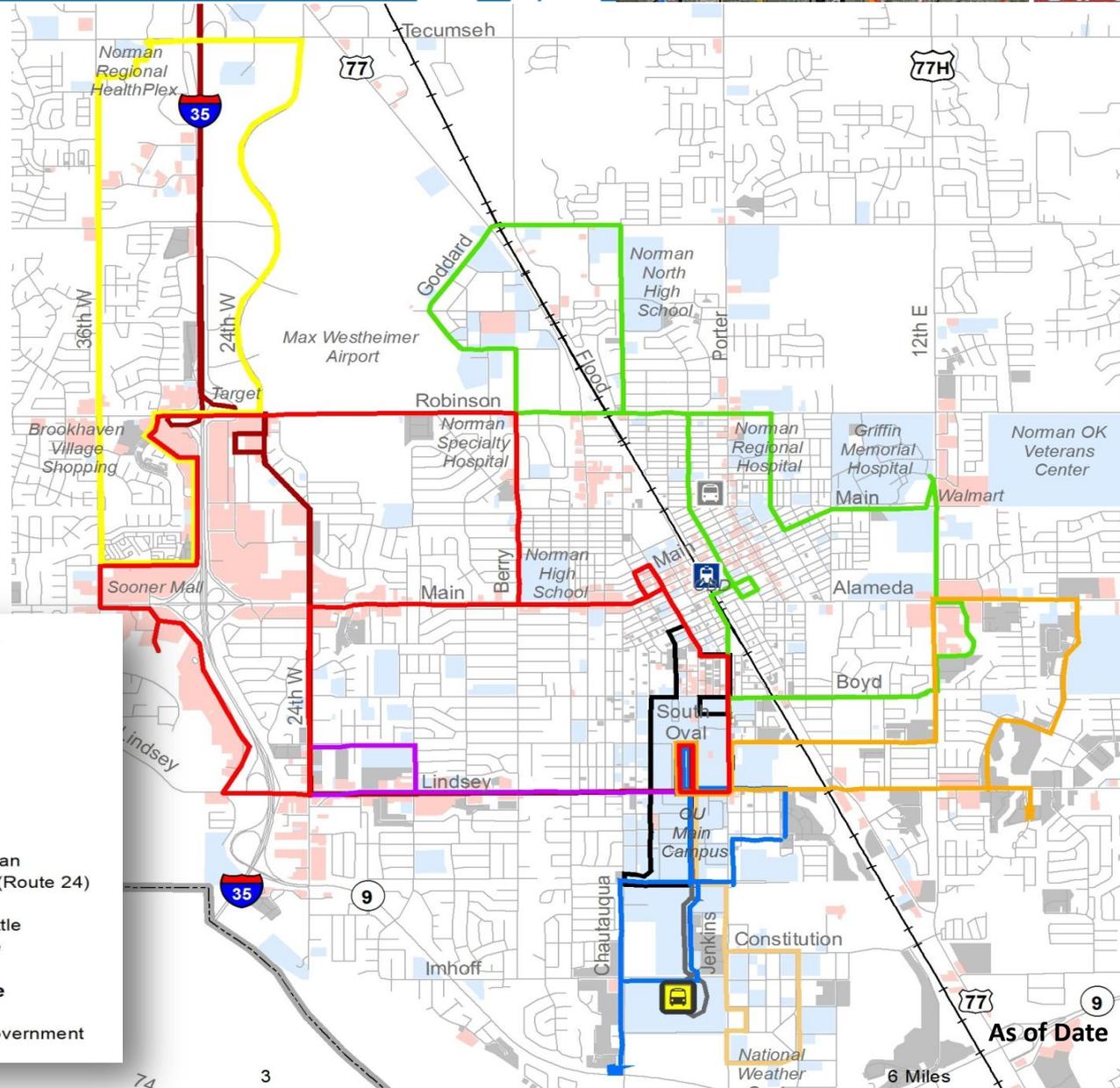
- Amtrak
- Megabus
- Greyhound

N10 Main Street

- N10 Main Street
- N11 Lindsey East
- N12 Lindsey West
- N20 West Norman
- N21 Alameda-E Norman
- N24 Sooner Express (Route 24)
- N32 Apartment Loop
- N40 Lloyd Noble Shuttle
- N42 Research Shuttle
- N52 Campus Loop

ACOG: 2005 Land Use

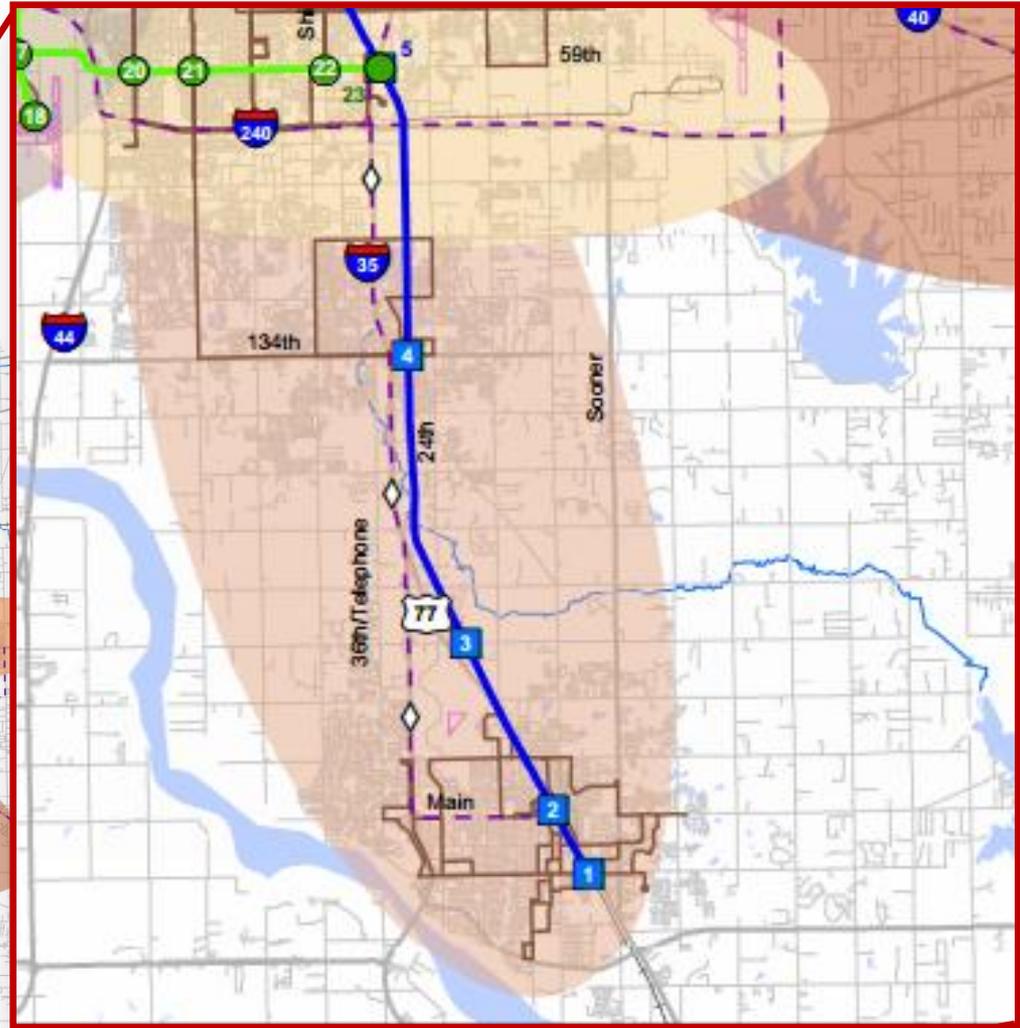
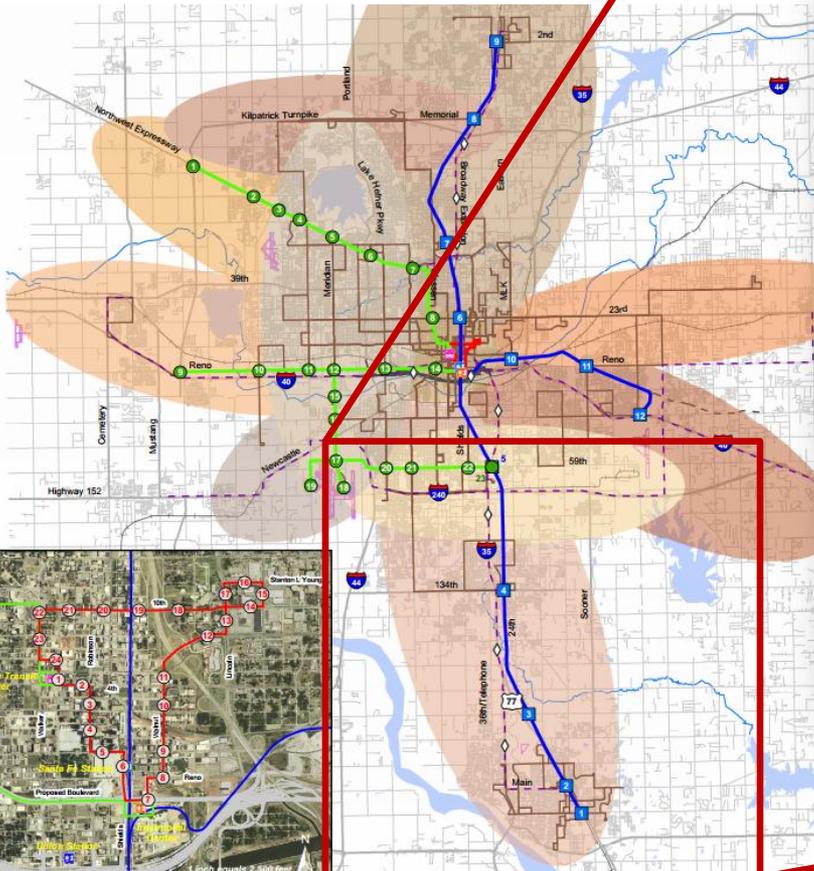
- Commercial / Retail
- Education/Medical/Government
- Apartments



Existing Conditions Transit Service



- COTPA Fixed Guideway Study
- 3 Commuter Rail Stations in Norman



As of Date

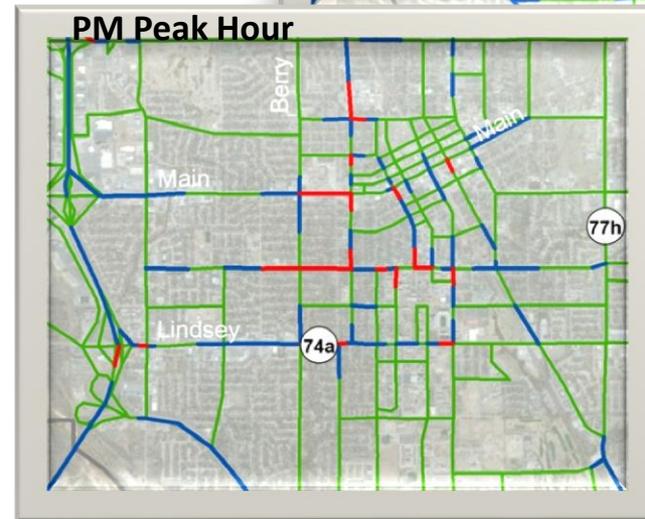
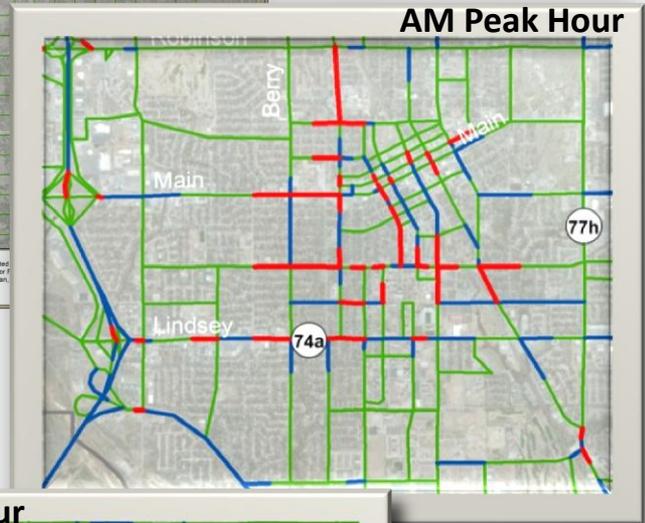
Transportation Needs



- Initial work with Sub-Committee
- Modal Assessment of needs
- Focus on short range projects
- Team evaluation of SR projects
- Modeling: E+C Analyses

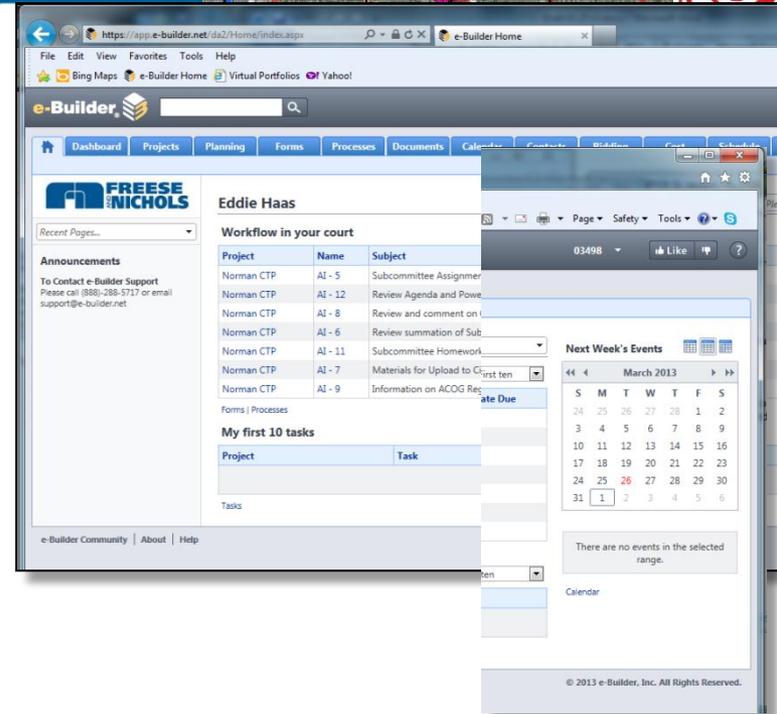
Existing + Committed Analysis

2035 Peak Traffic



Social Media

- SC work via e-Builder
- Posting of CTP interim products on City website
- Moving Forward website page
- Announcing availability of CTP interim products on Facebook
- Pushing out messages about CTP interim products using Twitter
- Recent product posts:
 - Subcommittee Meeting #1
 - Subcommittee Meeting #2
 - Refined Goals and Objectives



Next Steps: Public Meeting #1



Dec 2012 Mar 2013 Jun 2013 Sep 2013 Dec 2013 Mar 2014

1. **Guiding Principles, Goals and Objectives**



2. **Existing Transportation Systems**



Public Meeting #1 in Mid April

3. **Assessment of Transportation Needs**



4. **Forecast Transportation Conditions**



5. **Develop Long Range Improvements Plan**



6. **Transportation Policies and Programs**



7. **Implementation**



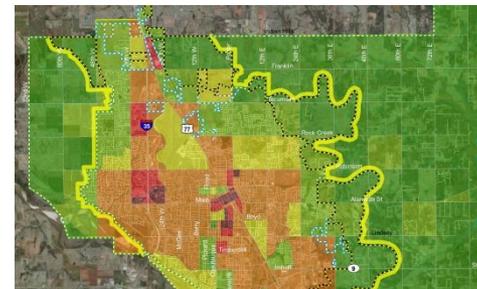
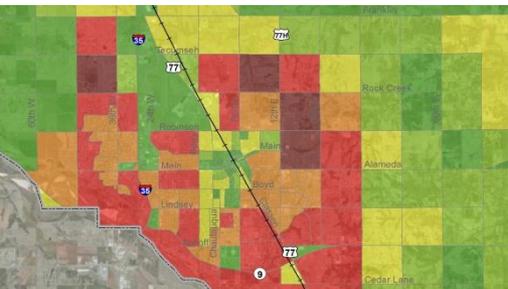
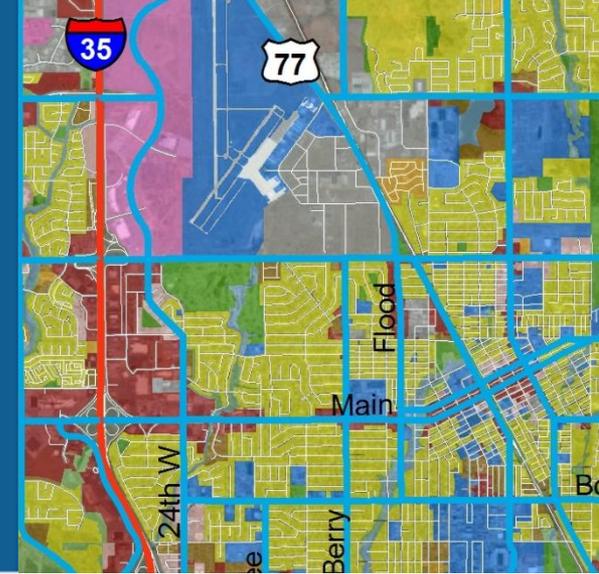
8. **Documentation**



 Subcommittee Meetings

 Public Meetings

 Public Hearings



Norman Comprehensive Transportation Plan

CTP UPDATE

City Council Study Session April 2, 2013