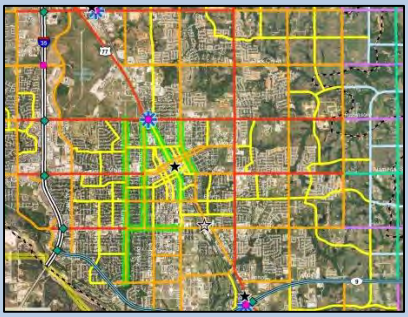
2014 City of Norman

Moving Forward

CTP APPENDICES



FREESE AND NICHOLS

In Association with:
Alliance Transportation Group
Garver

Final Report: May 13, 2014
Adopted by Resolution No. R-1314-112

Appendix A: Public Involvement in Developing the Norman CTP

Norman Community Transportation Survey

During November and December of 2011, the city retained ETC Institute to conduct a survey of citizen opinions of transportation programs and services. The citizen input confirmed the impetus for the development of the city's first Comprehensive Transportation Plan. **A copy of the report is available on the City's website.** Major findings for the survey included:

- **Satisfaction**: The highest levels of satisfaction with transportation issues, based upon the combined percentage of "very satisfied" and "satisfied" responses among residents who had an opinion, were the ease of traveling from home to work or school (64%), the ease of traveling from home to parks and recreation facilities (62%), the ease of traveling from Norman to other cities in Oklahoma (62%) and the flow of traffic at non—peak times (62%).
- **Dissatisfaction**: Several issues were rated by respondents as "very" or "somewhat dissatisfied" by half or nearly half of those responding. Those issues were east/west travel in Norman, traffic calming devices, availability of "off street" shared use paths, availability of "on street" bicycle lanes, the availability of public parking in downtown Norman and Campus Corner, and the flow of traffic on area streets during rush hour.
- **Level of Support for Various Transportation Improvements**: The highest levels of support for transportation improvements were; 1) improving traffic and eliminating bottlenecks and congestion (89%), 2) improving the maintenance of existing roadways and bridges (88%), and 3) improving major roads around the outer edges of Norman (81%).
- **Sections of Roads that are Most Problematic and Resident Willingness to Fund Change:** From a list of ten sections of roads that are too congested or have high accident rates, the top three chosen by residents were; 1) Porter Avenue (Alameda to Robinson), 2) Robinson Street between 24th Avenue NW and 36th Ave. NW, and 3) Lindsey Street (West of Berry Road). Willingness to Fund Change: If funding were provided for their top three choices, 80% were either "extremely likely" or "somewhat likely" to vote in favor of a bond issue to address a solution.
- **Transit in Norman:** The top three barriers to use of transit in Norman are 1) just a preference to drive, 2) unavailable service, and 3) current bus service takes too long to get to destination.
- **Bike Riding in Norman**: Thirty-three percent (33%) of those surveyed have ridden a bike in Norman in the last year, and the majority (57%) did not feel safe on streets in the area where they live.
- **Walking in Norman:** Eighty-five percent (85%) of those surveyed have walked in the area where they live, and the majority (81%) feel very or somewhat safe.
- **Budgeting Transportation Dollars:** Residents were instructed to divide $100 into the various needs for transportation. Thirty-eight dollars or 38% was allotted to maintaining existing roads, 16% went to widening existing streets, and 10% went to bike paths and lanes. Sidewalks, public bus service, and transportation for seniors and disabled each got 9% , passenger rail got 7%, and 2% was allocated to other.
- **Support for Funding a New North/South Roadway**: This roadway would run along the railroad corridor from North Flood Street to Downtown, to the OU Campus. Twenty-one percent (21%) of those surveyed were "extremely likely" to support the funding, 32% were "somewhat likely", 23% were "neutral", 13% were "somewhat unlikely" and 11% were "extremely unlikely" to support funding.

Citizens Visioning Committee

A Citizens Visioning Committee (CVC) was convened by the Mayor and City Council to provide direct input in the formative stages of the Plan development. As part of the information gathering during the formative stages of the Plan, the Citizens Survey (described previously) was conducted. With this input and that of the CVC, the guiding principles and a set of draft goals were developed to initiate the development of the Plan.

For the development of the (CTP) vision and goals, the CVC was comprised of the following community representatives:

- Chris Applegate (Red Earth Group, Sierra Club),
- Roger Brown (Norman Public Schools),
- Teresa Capps (Chair--Social and Voluntary Services Commission),
- Nick Hathaway (OU Vice President for Administration and Finance),
- Harold Heiple (Norman Developer's Council),
- Marion Hutchison (ONTRAC Board),
- Doug Myers (Director--CART),
- Chris Nanny (Chair--CART Disability Advisory Committee),
- Janice Oak (Progressive Independence),
- Renee O'Leary (United Way--Senior Council/Positive Aging Influence),
- Helen Robertson (Representative--Bicycle Advisory Committee),
- Tom Sherman (Chair--Chamber Transportation Committee),
- Joe Sparks (Chair--Norman Convention and Visitor's Bureau),
- Walt Strong (Administrator--Westheimer Airport),
- Chuck Thompson (Chair--Central OK Regional Advocacy Alliance),
- Larry Walker (Chair--Public Art Board),
- Brad Worster (Commercial Realtor/Norman Next).

During the visioning stage of the preparations for development of the CTP, the City and the CVC also received some technical assistance and guidance from Lochner, an engineering firm that develops plans and designs for transportation infrastructure. Lochner to helped to frame up the plan's goals and objectives and develop a scope of work for the retention of an experienced consulting firm to be retained to work with the city to develop the CTP.

Citizens Visioning Committee Subcommittees

After the formation of the guiding principles, draft goals and strategies, the CVC membership was enhanced with additional members to provide input and feedback to the Plan development team. The CVC membership was divided into groups to focus on four modal elements for direct involvement and input into the development of the Plan. The four CVC subcommittees were:

Note: (CVC) beside the person's name indicates original membership in the CVC that contributed to the formation of the initial project guiding principles, goals and strategies and helped to formulate the scope of the plan development effort. From that initial set of CVC members, additional members were added to assist with input and feedback to the project development team of city staff and consultants, and were grouped into subcommittees.

CVC Subcommittee: Automobile Capacity, Quality of Service and Parking

Joe Sparks (CVC), Co-Chair	Robin Allen	Chuck Thompson
Bill Nations	Bill Nations	Suzanne Mcauley
Rainey Powell	Stephen Koranda	
Jim Adair	Charlie Nicholson	

CVC Subcommittee: Pedestrian and Bicycle Mobility, Safety and Streetscape

Chris Applegate (CVC), Co-Chair	Gary Miller	Mark Nanny
Brad Worster (CVC), Co-Chair	David Huddleston	Larry Walker (CVC)
Evan Dunn	John High	Roger Brown (CVC)
Jennifer Newell	Marguerite Larson	Renee O'Leary (CVC)

CVC Subcommittee: Transit Capacity and Quality of Service

Doug Myers (CVC), Chair	Cody Ponder	Mary Albert
Tom Sherman (CVC), Co-Chair	Karleen Smith	Teresa Capps (CVC)
Rachel Butler	Linda Shannon	Marion Hutchison (CVC)
Chris Nanny (CVC)	Richard McKown	Evan Stair

CVC Subcommittee: Freight Movement, Airports and Emergency Response

Walt Strong (CVC), Co-Chair	Dr. John Dyer	Joe Lester
Nick Hathaway (CVC), Co-Chair	Harold Heiple (CVC)	Eddie Simms
Jim Bailey	Joe Sober	Harold Brooks
	Rick Nagel	

The CVC Subcommittees met with the plan development team five times throughout the process, helping to refine the goals and develop a set of objectives for the Plan, affirm the identification of the existing transportation conditions, discuss and prioritize the transportation system and policy needs for Norman, provide feedback on potential system improvements.

Sub-Committee Meeting #1: February 7, 2013

Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013

1

Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013

Agenda

6:00PM • Review of Previous Efforts
- CTP Sub-Committees & Operations
- Project Overview

6:30PM • Sub-Committee Work Session
- – Discuss Plan Goals and Objectives
- – Discuss Existing Conditions
- – Homework Assignment

7:05PM • Goals & Objectives Work Groups
- – Refine the 5 Goals and Enhance Objectives
- – Presentations to the Group

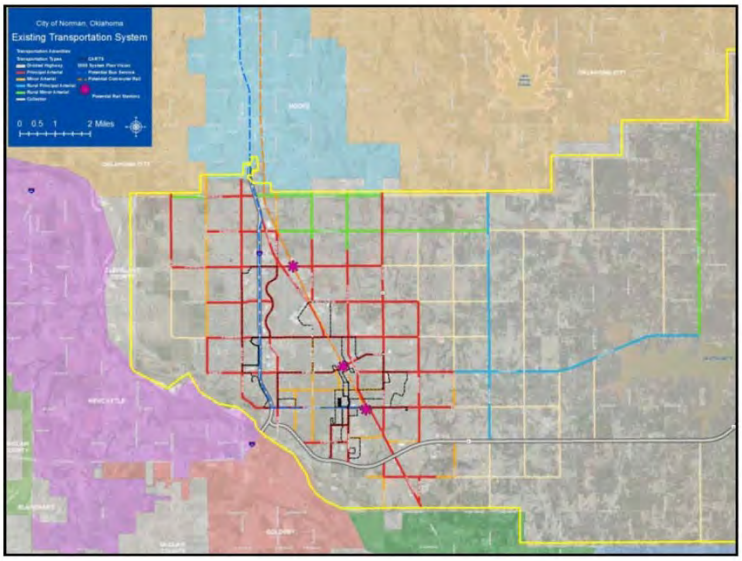
7:50PM • Summary and Next Steps

Benefits of Transportation Planning

- Framework for growth
- Land Use/transportation interface
- Multi-modal considerations
- System Alignments/ROW Preservation/Design Standards
- Coordination with other agency/city plans
- Infrastructure and utilities coordination
- Capital Improvements Programming
- Funding of Improvements
- Economic benefit
- Statement of Community Policy

2

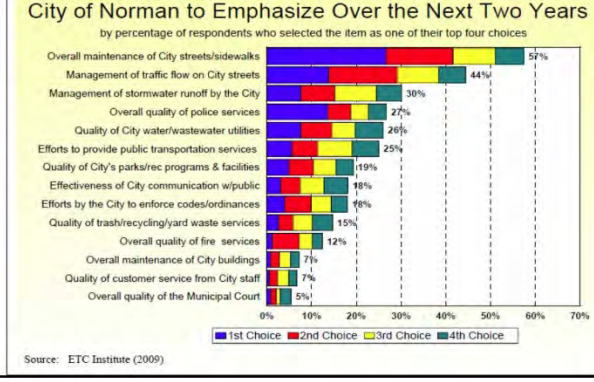
Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013



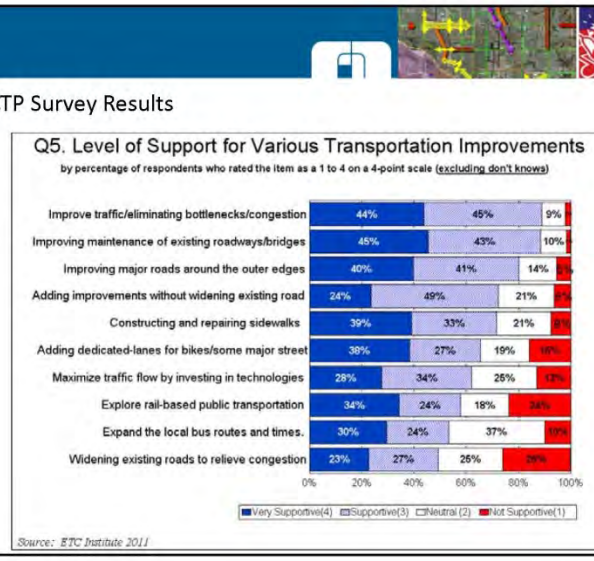
3

Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013

- 2009 Community Survey – Final Report



- 2011 CTP Survey Results



4

Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013

Previous Work Efforts

"MOVING FORWARD" Deliverables

- Scoping and Listening Phase conducted in 2011 and completed in early 2012
- Included numerous meetings, formation of a Citizens Vision Committee, and a Public Survey
- The deliverables at completion of the scoping phase were:
  - A ***scope of work*** which was inserted directly into the Request for Proposal for the full CTP
  - ***Guiding Principles*** which were adopted by Council at its meeting on February 14, 2012

CTP Guiding Principles and Goals

Special Place to Live

- **Vibrant** Norman Community in 2035
- Transportation and Infrastructure **focus on both people and places**
- Enhanced transportation **choices** and **accessibility**
- Create a **unique place** with **lasting value**
- **Blends** seamlessly with the character of **Norman's neighborhoods, employment centers and activity centers**

Mobility

- Seamless system of **transportation options** and solutions
- Norman Moving Forward's emphasis on **system management and operations, context sensitive** and **complete streets designs**
- Range of **accessible and convenient, multi-modal transportation choices** that provide connections between neighborhoods and destinations

Maintain and Preserve Existing Infrastructure

- Priority on **maintenance, rehabilitation, safety** and **reconstruction**
- **Neighborhood viability** through **maintaining streets, sidewalks, utilities, storm water systems** and other infrastructure facilities
- Investments **balance transportation needs** of the community and local neighborhoods

Fiscal Stewardship

- Provide a **detailed roadmap of actions** for transportation and infrastructure improvements
- Investments **maximize the benefits for multiple user groups** in a way that is **fiscally and environmentally responsible**
- **Input** from the **community-at-large** and ongoing dialogue with **stakeholders**

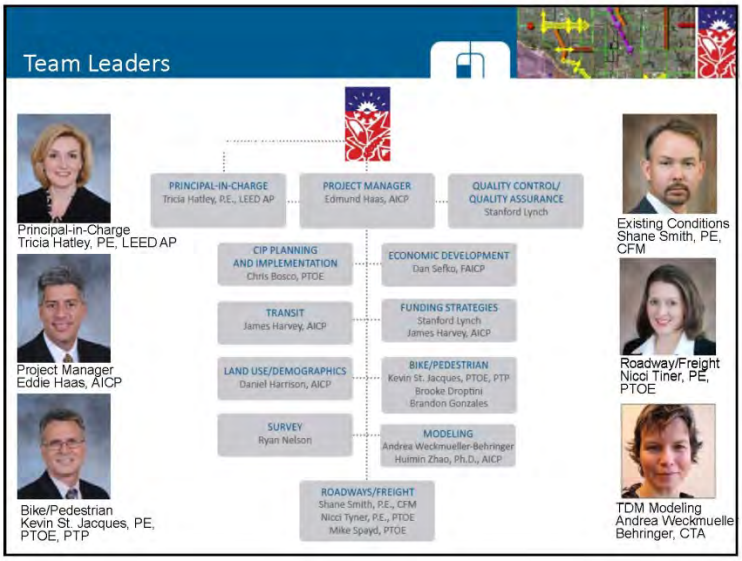
Enhance Economic Vitality

- Promotes economic growth while **using resources in an efficient and effective manner**
- Supports a **diverse, vibrant local economy** with a **strong tax base**
- **Reduces the fiscal burden on residents** to provide city services

Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013

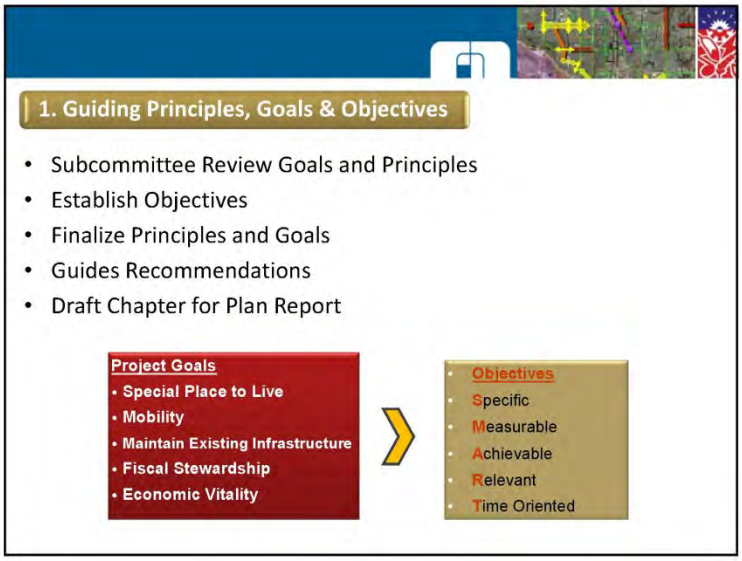
6

Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013



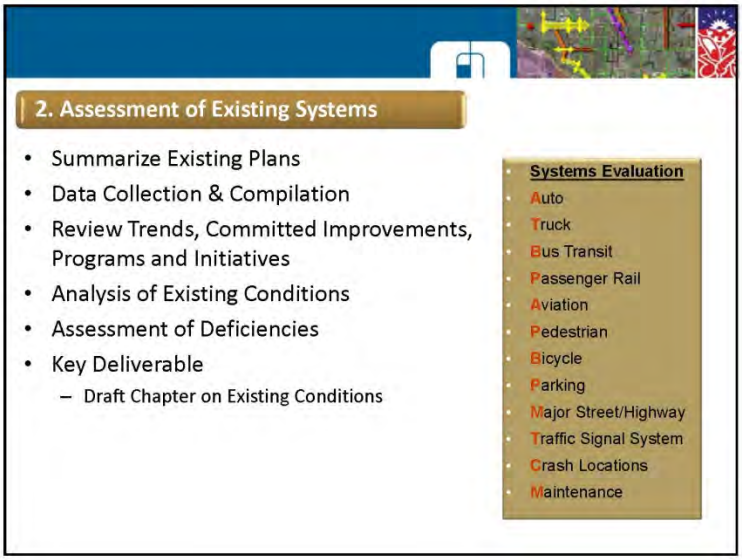
7

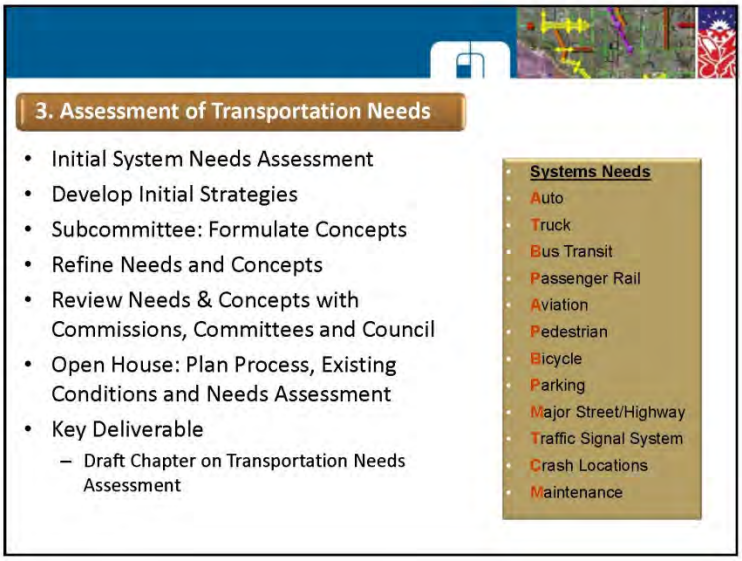
Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013



8

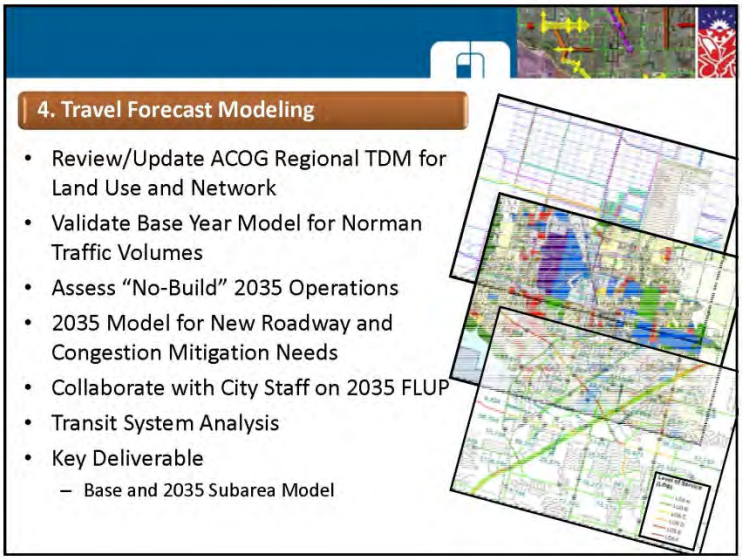
Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013





9

Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013



10

Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013

6. Transportation Policies and Programs

- Review Existing Policies & Programs
- Peer City Review
- Develop Action Plans to Address Programs
  - City Staff and Subcommittee Collaboration
- Implementation Strategies, Roles and Responsibilities
- Subcommittee Concurrence
- Draft Policies
  - Review with Commissions, Committees and Council
  - Social Media Outreach
- Key Deliverable
  - Draft Chapter on Policies, Programs & Procedures

Policies and Programs

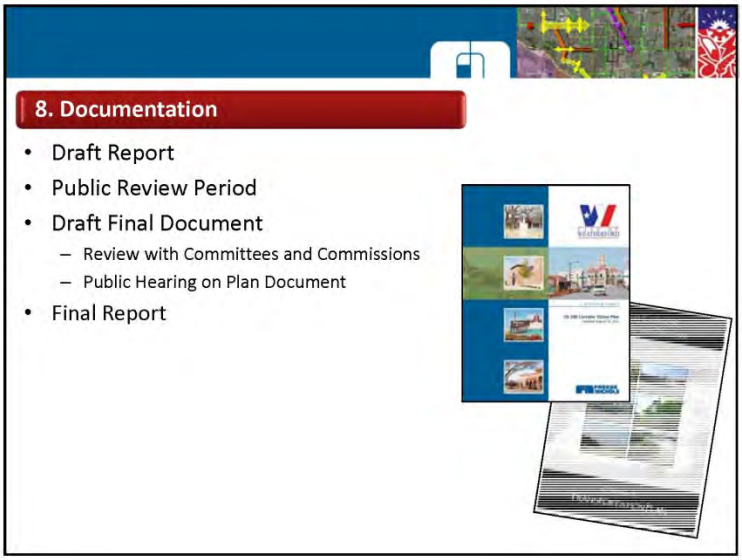
- Multimodal Integration
- Transportation Finance
- Traffic Impacts
- Maintenance
- Traffic Calming
- Access Management
- Parking

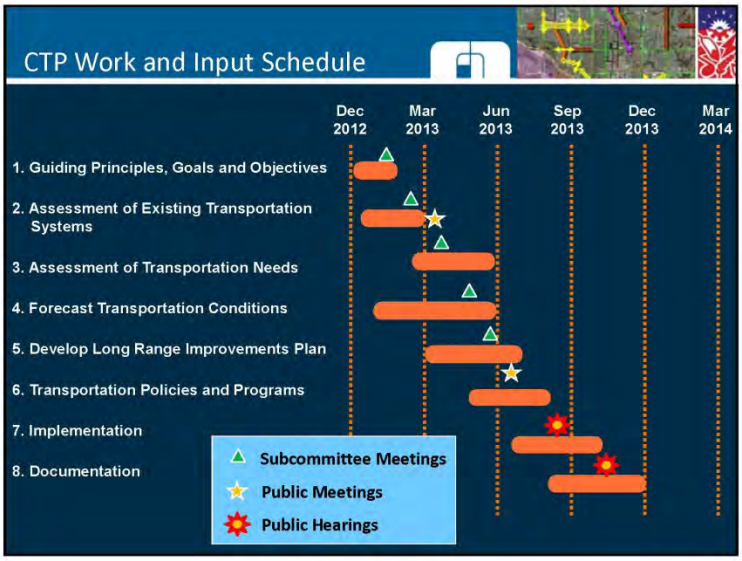
7. Implementation

- Review Transportation Revenues & Constraints
- Correlate Revenues and Prioritized Improvements
- Finance Plan for Short/Long-Range CIP
- Assess Potential New Funding Strategies
  - Collaborate with City Staff and CVC
  - Social Media on Implementation Plan
- Committee/Council Meeting on Improvements and Funding Strategies
- Develop 5-Year TIP
  - Review with Committees and Commissions
  - Public Hearing on Draft TIP
- Key Deliverable
  - Implementation Strategies, Funding, Draft TIP

11

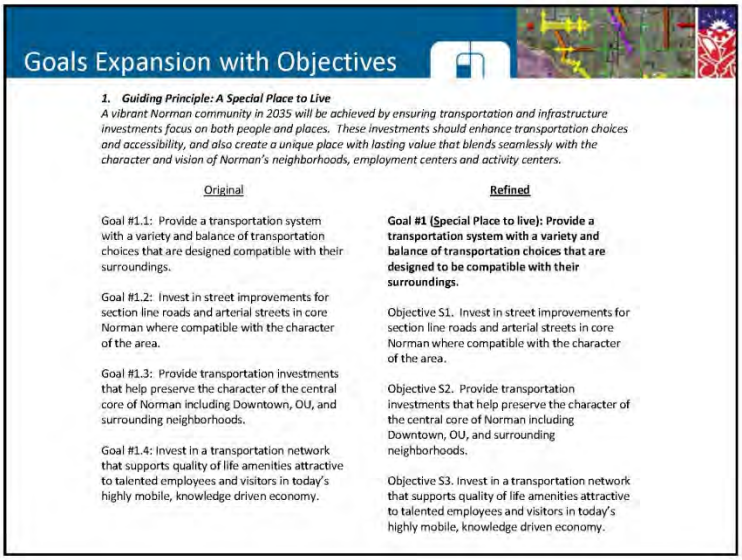
Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013

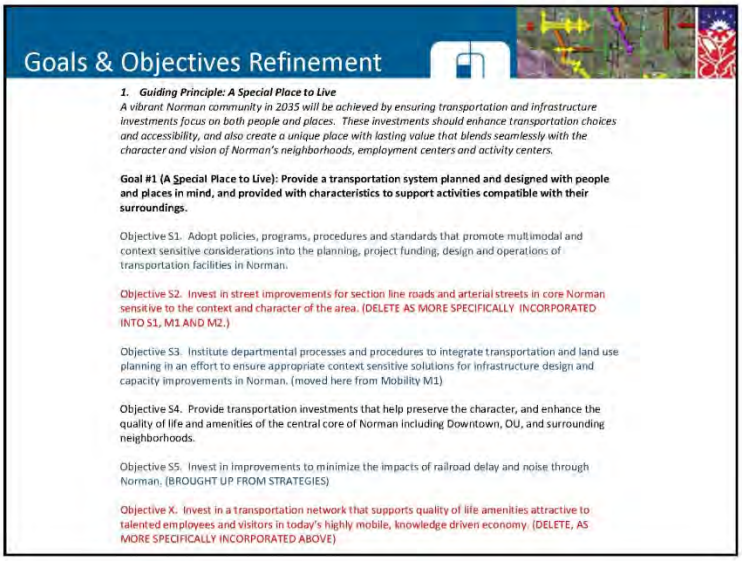




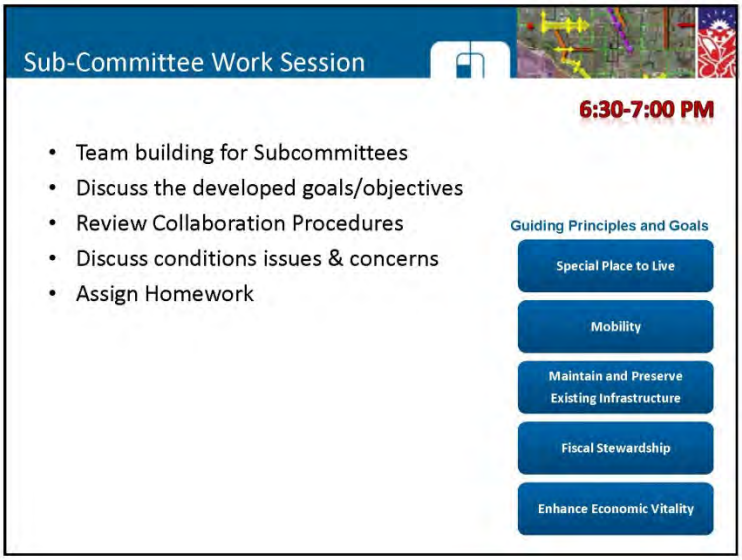
12

Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013

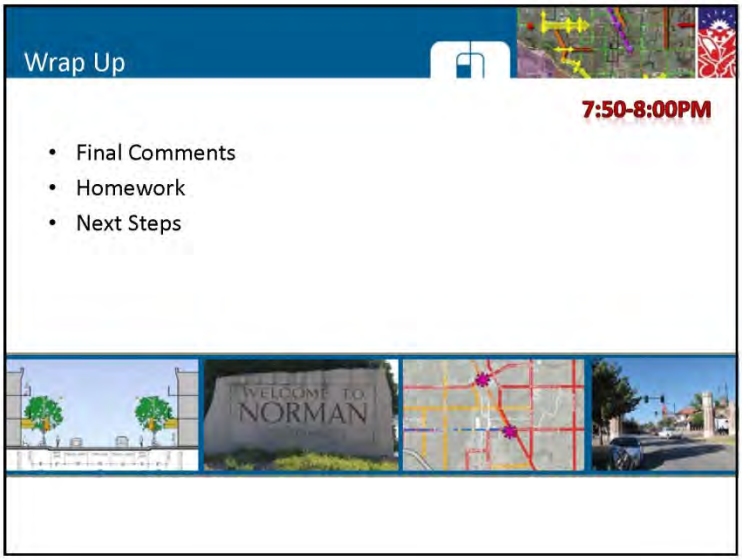


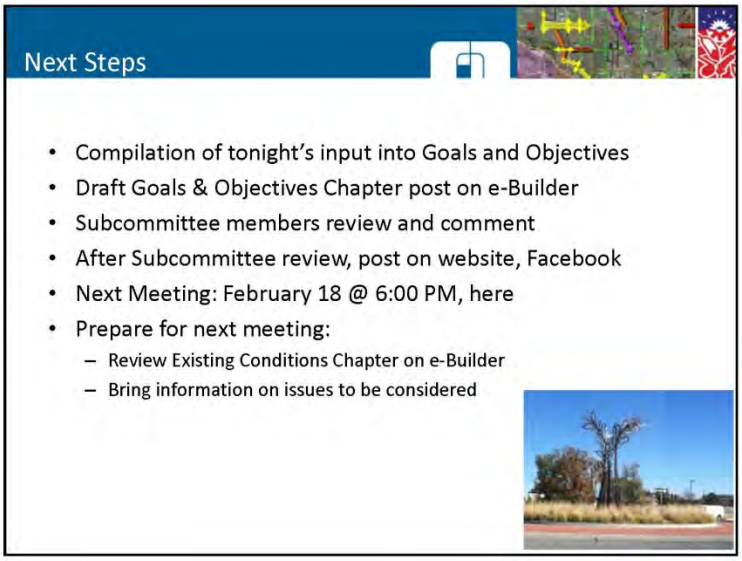


Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013



Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013





Norman CTP Sub-Committee Meeting #1
Freese and Nichols, Inc.
February 7, 2013

Homework

- E-Builder Collaboration site

- E-mail from: Morgan McIlwain Subject: Norman CTP (Page 3 of Guide)
- Below Signature, click "HERE"
- User form/Contact Info/Password
- Link to file in "Workflow in Your Court"
- After completion: "Action Completed"; ability to add Comment
- Vote for Assignment Done

e-Builder

- e-Builder Guide
- Save e-builder homepage to "Favorites"

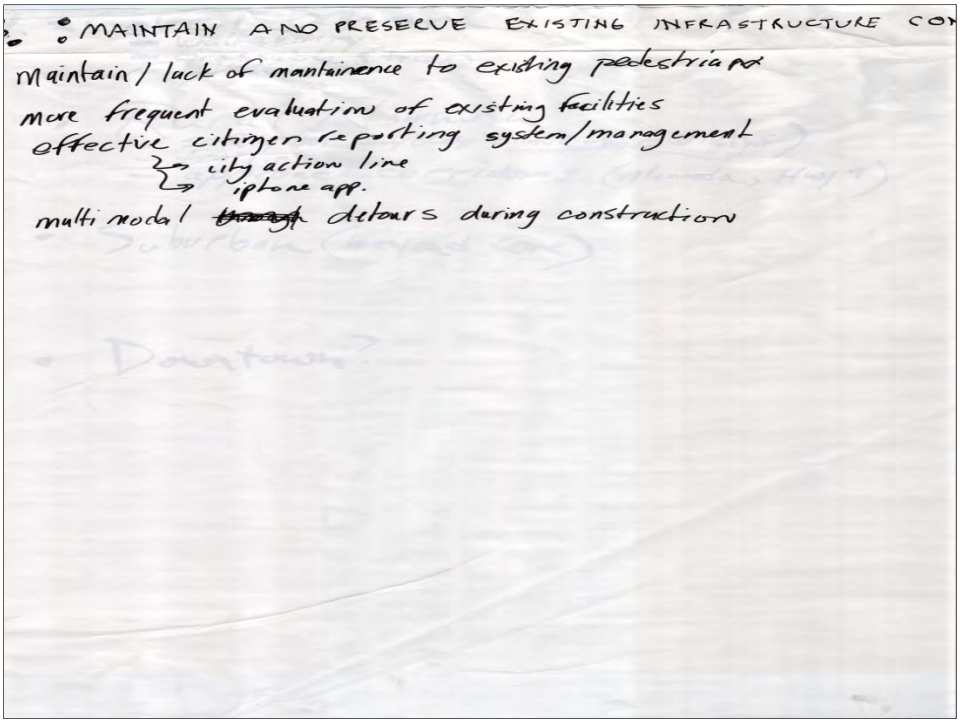
Thank You!

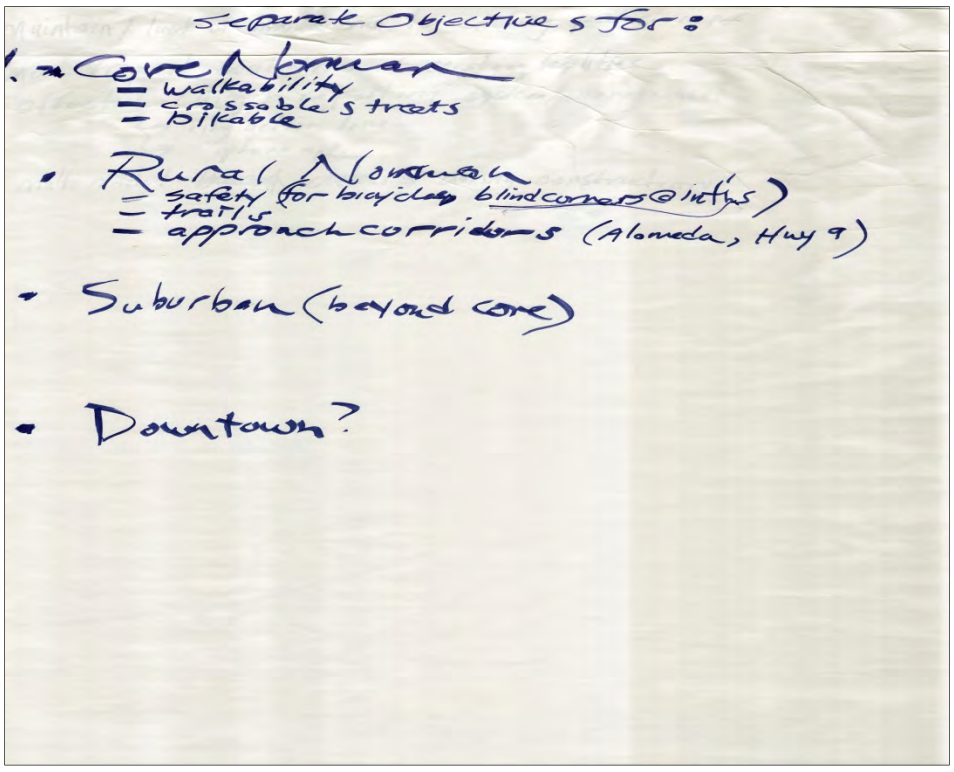
For your Time and Commitment!

16

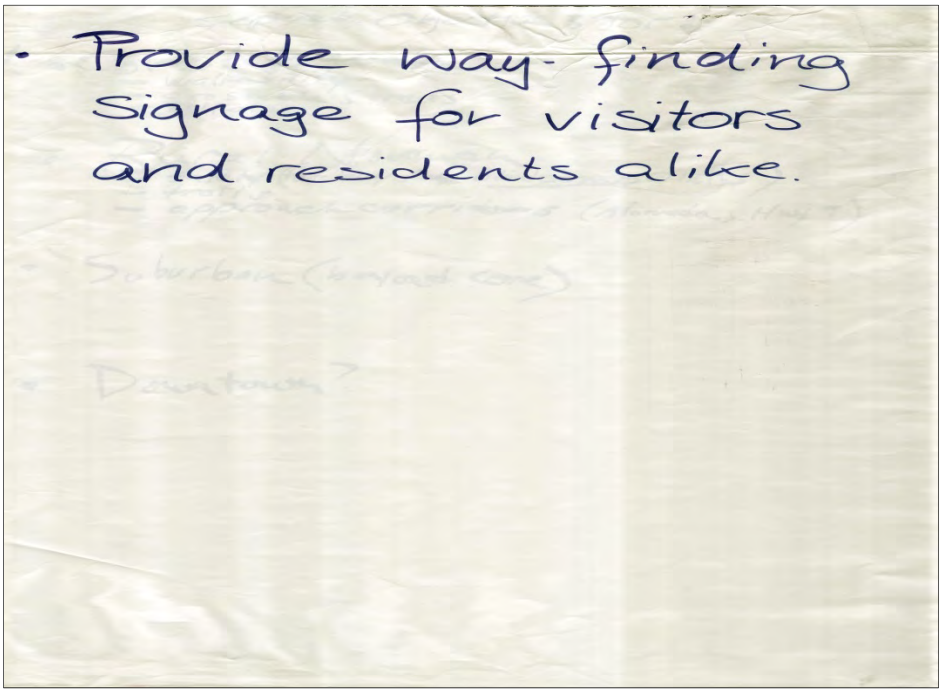
Sub-Committee Meeting #1 Flip Chart Notes: February 7, 2013

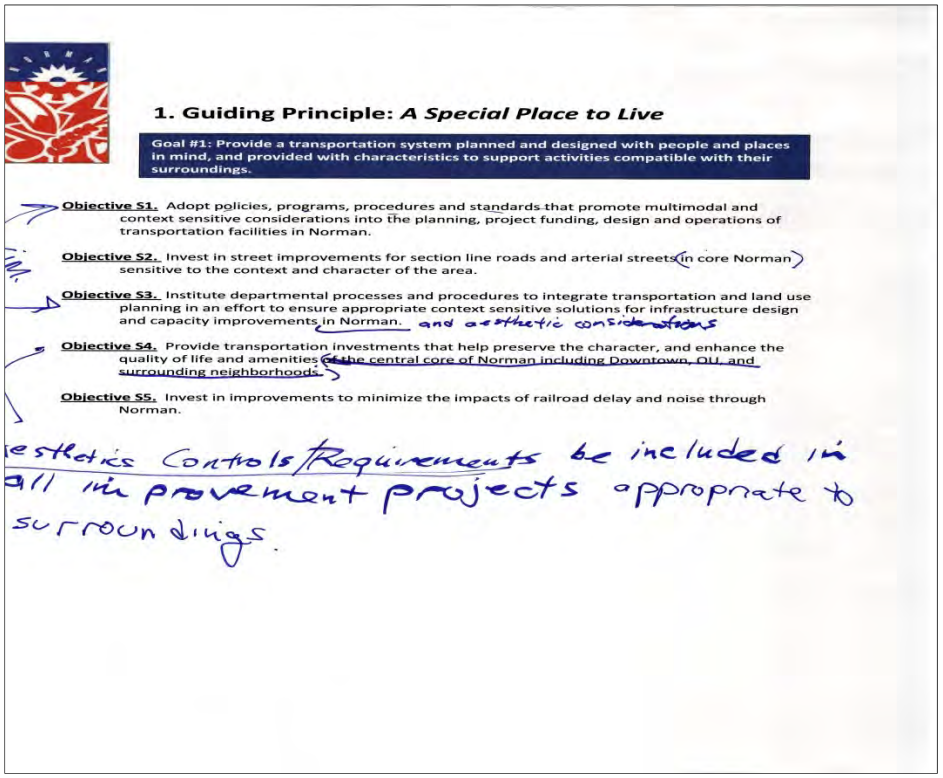
Norman CTP Sub-Committee Meeting #1
Freese and Nichols
Flip Chart Notes from February 7, 2013



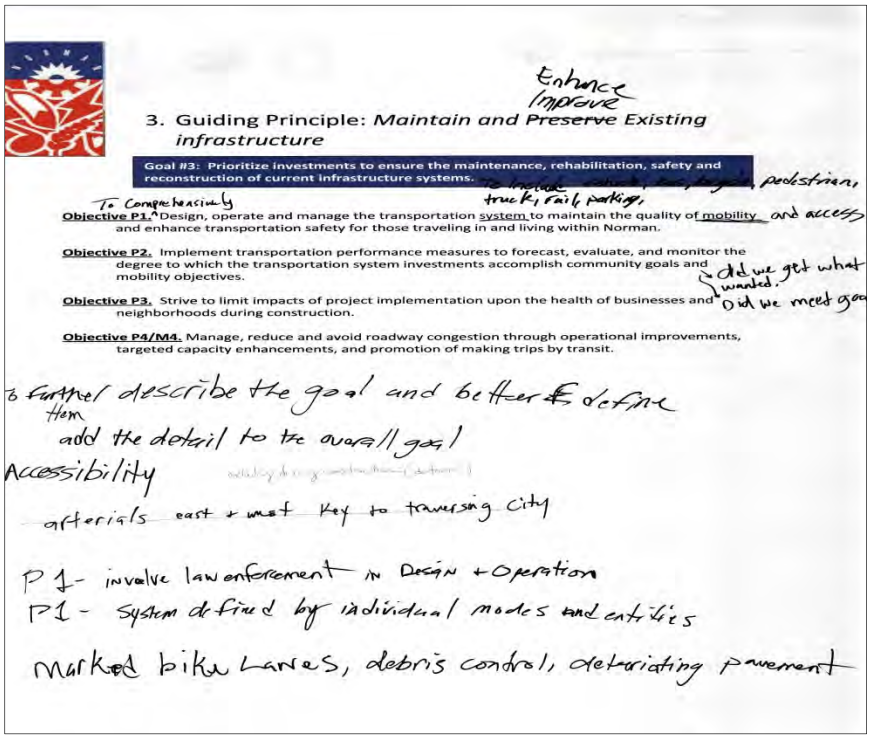


Norman CTP Sub-Committee Meeting #1
Freese and Nichols
Flip Chart Notes from February 7, 2013





Norman CTP Sub-Committee Meeting #1
Freese and Nichols
Flip Chart Notes from February 7, 2013



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

Enhance
Improve

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

pedestrian,
truck, rail, parking,

To Comprehensively

Objective P1. Design, operate and manage the transportation system to maintain the quality of mobility and access and enhance transportation safety for those traveling in and living within Norman.

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

Did we get what we wanted.
Did we meet goa

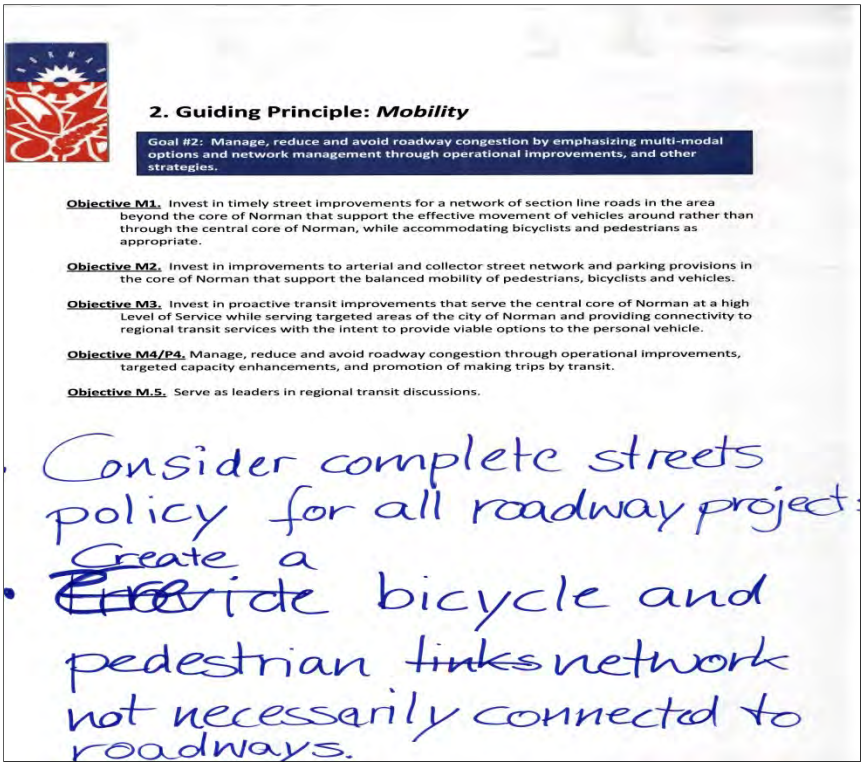
Objective P3. Strive to limit impacts of project implementation upon the health of businesses and neighborhoods during construction.

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

to further describe the goal and better define them
add the detail to the overall goal
Accessibility
arterials east + west key to traversing city

P1 - involve law enforcement in Design + Operation
P1 - System defined by individual modes and entities

Marked bike Lanes, debris control, deteriorating pavement



2. Guiding Principle: ***Mobility***

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

Objective M1. 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 as appropriate.

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

Objective M.5. Serve as leaders in regional transit discussions.

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

Norman CTP Sub-Committee Meeting #1
Freese and Nichols
Flip Chart Notes from February 7, 2013

5. Guiding Principle: *Enhance Economic Vitality*

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

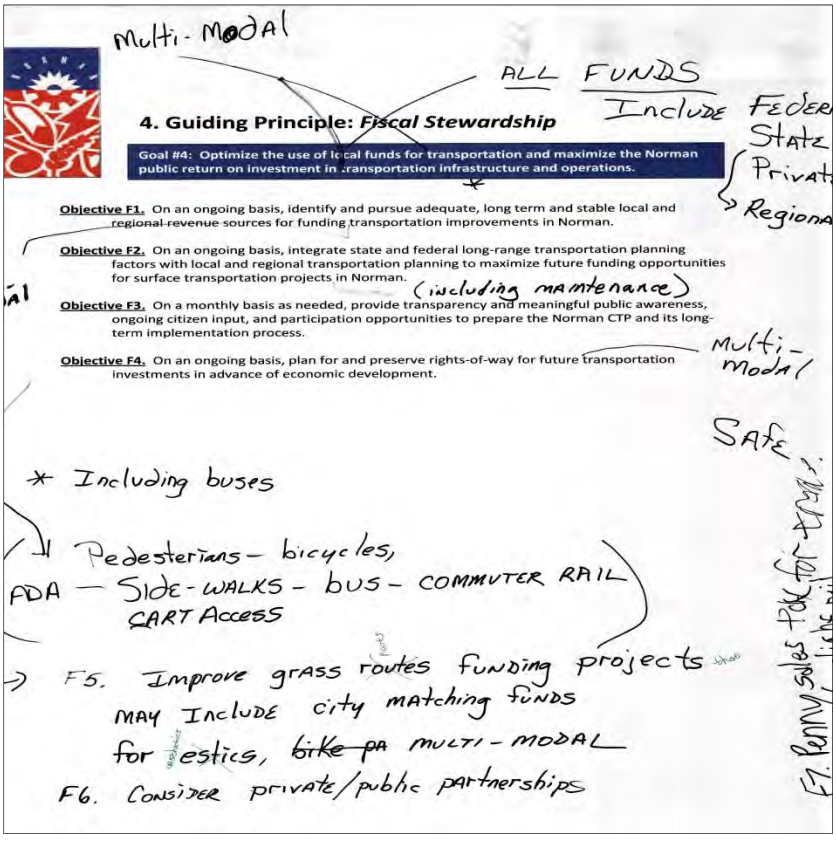
Objective E1. Provide mobility for people who are economically, socially or physically disadvantaged in order to support their full participation in society and contributions to Norman's economic productivity.

Objective E2. Establish local and regional public-private partnerships, including state and federal financial resources, to enhance the economic well-being of Norman citizens.

Objective E3. Initiate a managed parking system(s) and/or district(s) to support and encourage increased activity within the core of Norman and specifically to address the needs of Downtown, OU and the adjacent neighborhoods.

Objective E4. Provide for effective trucking, railroad and air freight movement to, from and through Norman while minimizing their impact on the quality of life, specifically in the core of Norman.

OE5. Support regional & local efforts to develop transit related opportunities to enhance economic vitality.



Multi-MODAL

ALL FUNDS Include FEDER State Privat Regiona

4. Guiding Principle: *Fiscal Stewardship*

Goal #4: Optimize the use of local funds for transportation and maximize the Norman public return on investment in transportation infrastructure and operations.

Objective F1. On an ongoing basis, identify and pursue adequate, long term and stable local and regional revenue sources for funding 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.

(including maintenance)

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 for future transportation investments in advance of economic development.

Multi-Modal

SAFE

* Including buses

Pedesterians – bicycles,
ADA – SIDE-WALKS – BUS – COMMUTER RAIL
CART Access

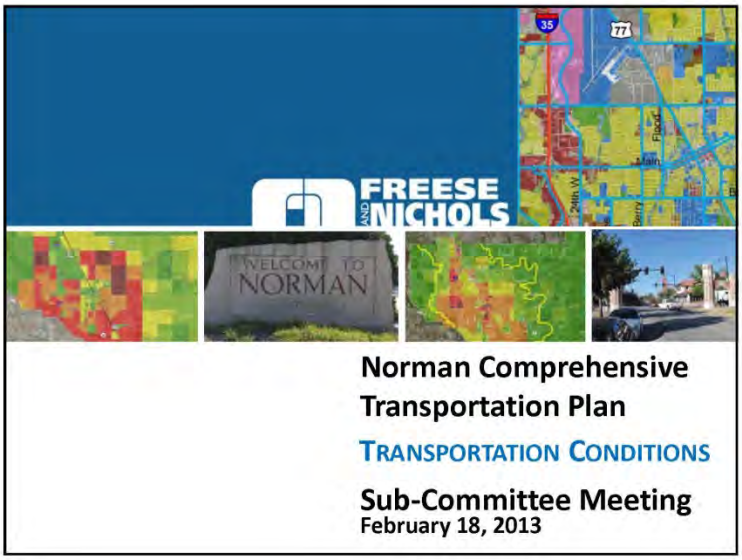
F5. Improve grass routes funding projects
MAY Include city matching funds
for estics, ~~bike pa~~ MULTI-MODAL

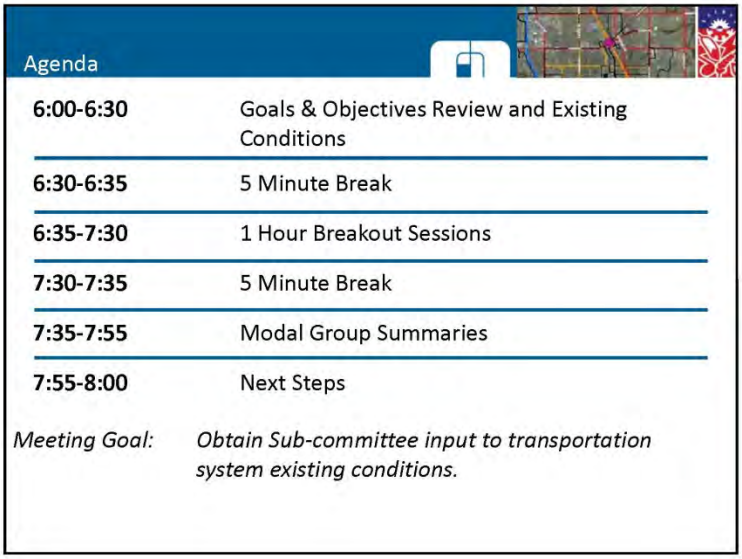
F6. Consider private/public partnerships

F7. Penny sales tax for ADA

Sub-Committee Meeting #2: February 18, 2013

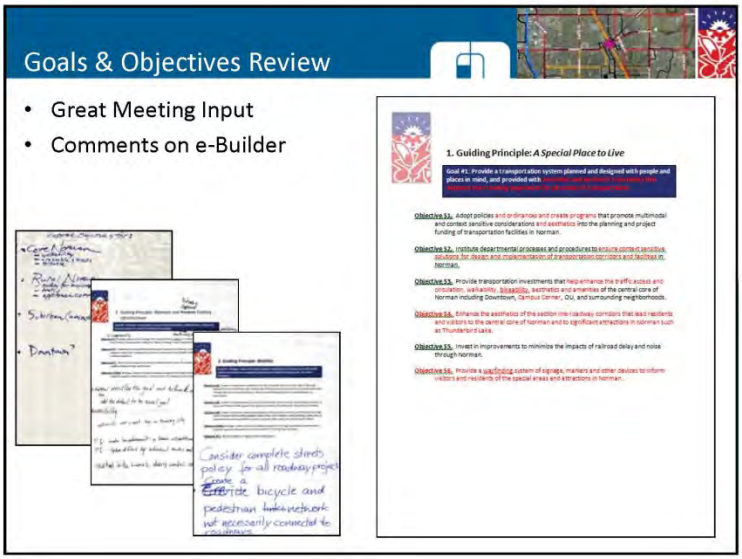
Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013

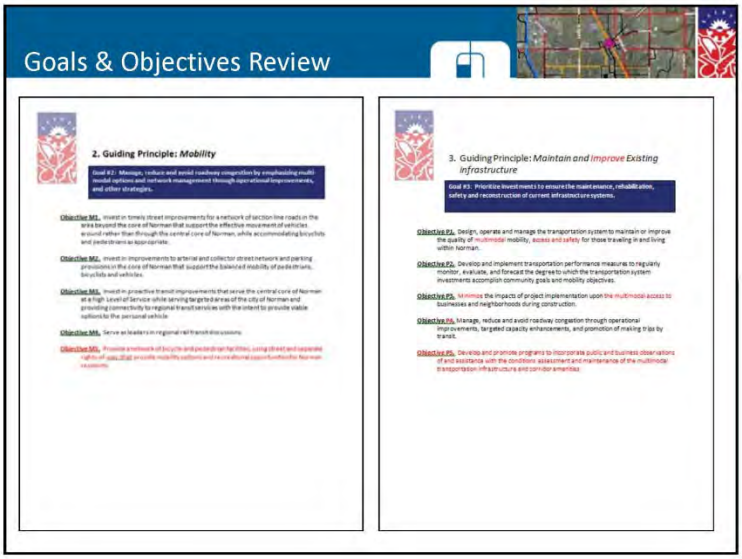




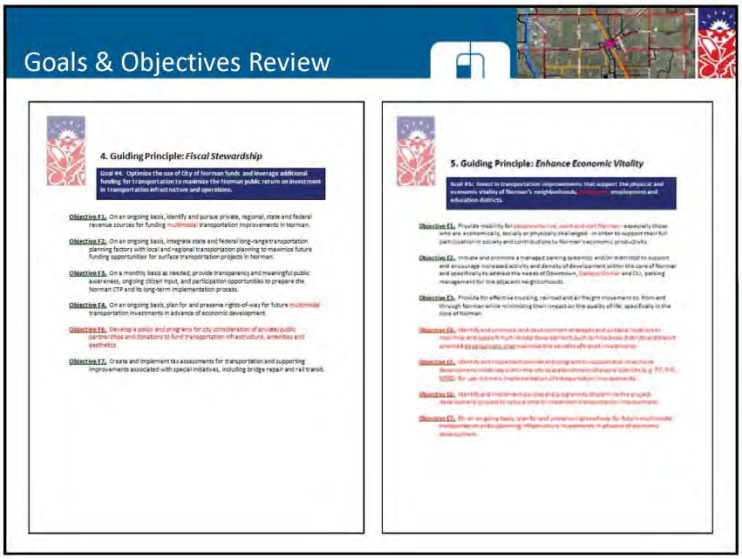
1

Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013





Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013

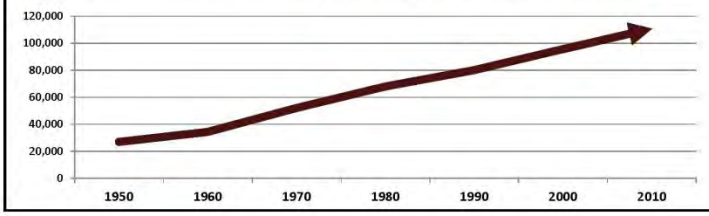


Existing Conditions
Population and Employment

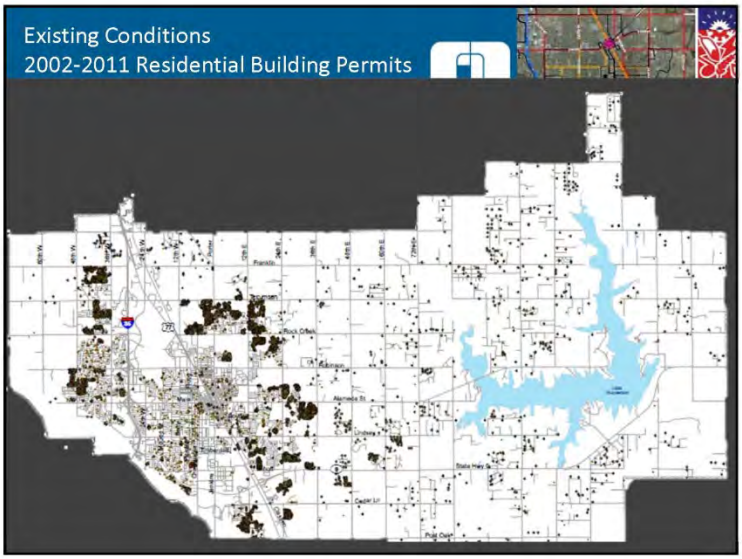
Year	Population	Numeric Change	Percent Change
1950	27,006	-	-
1960	34,412	7,406	27.4%
1970	52,117	17,705	51.5%
1980	68,020	15,903	30.5%
1990	80,071	12,051	17.7%
2000	95,694	15,623	19.5%
2010	110,925	15,231	15.9%

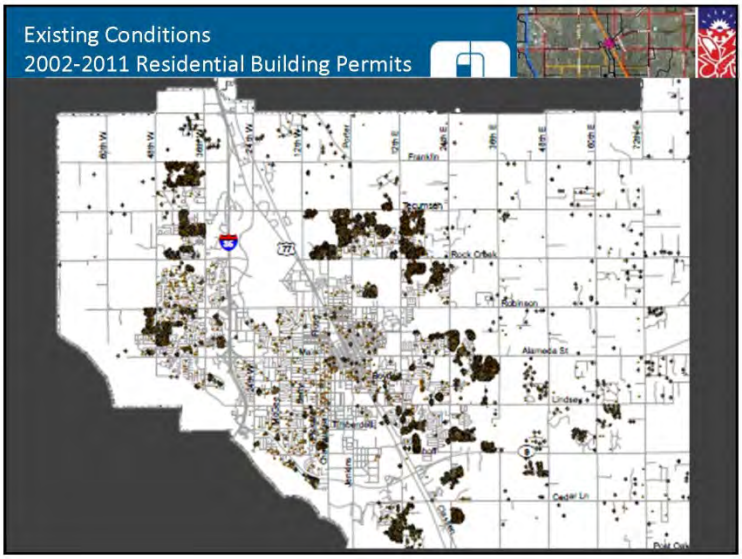
Year	Employment Projections	CAGR
2005	59,002	1.85%
2015	70,872	
2025	85,130	
2035	102,298	

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



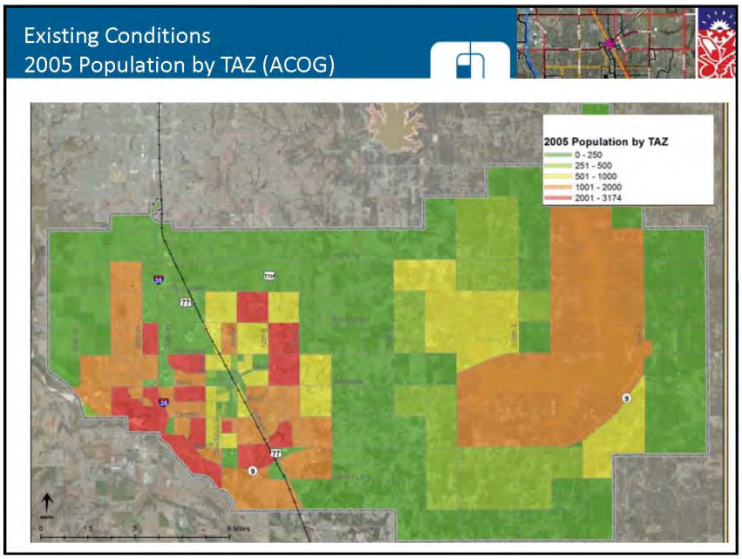
Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013

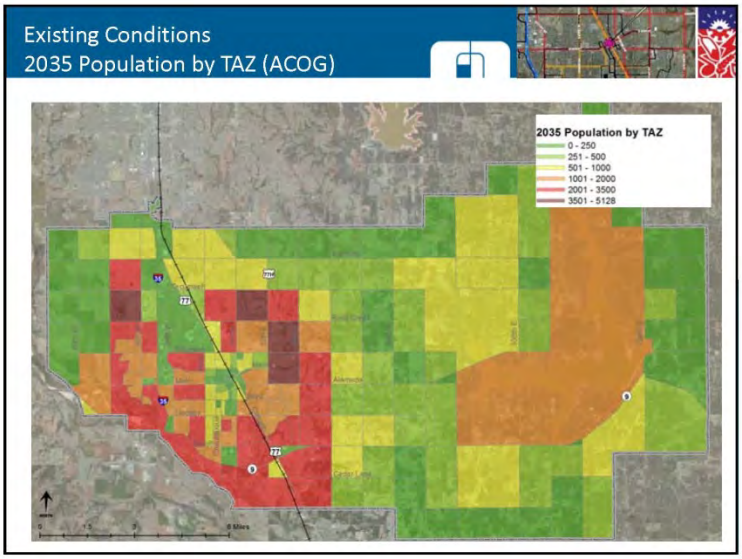




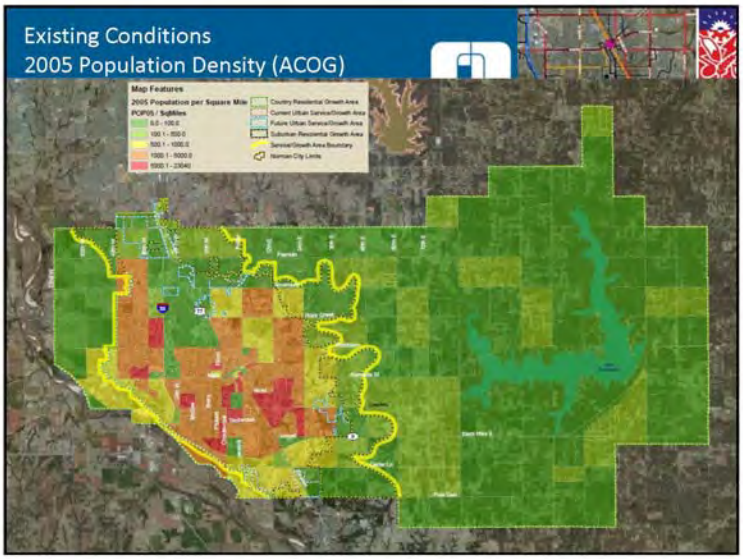
4

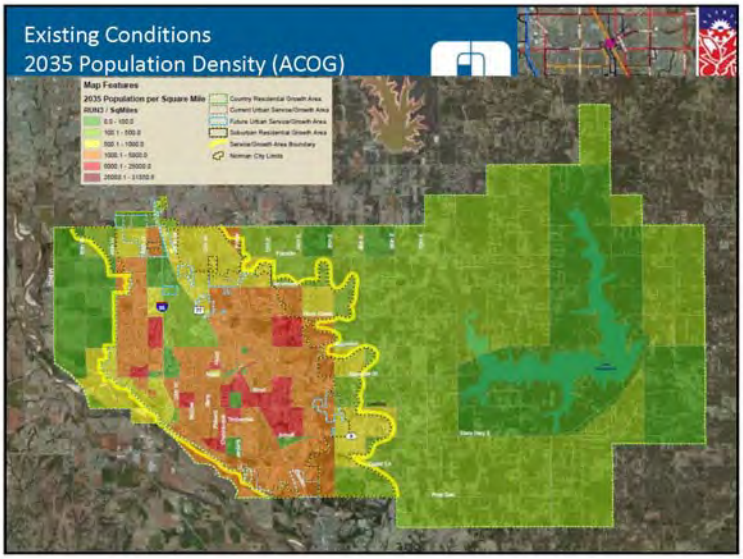
Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013





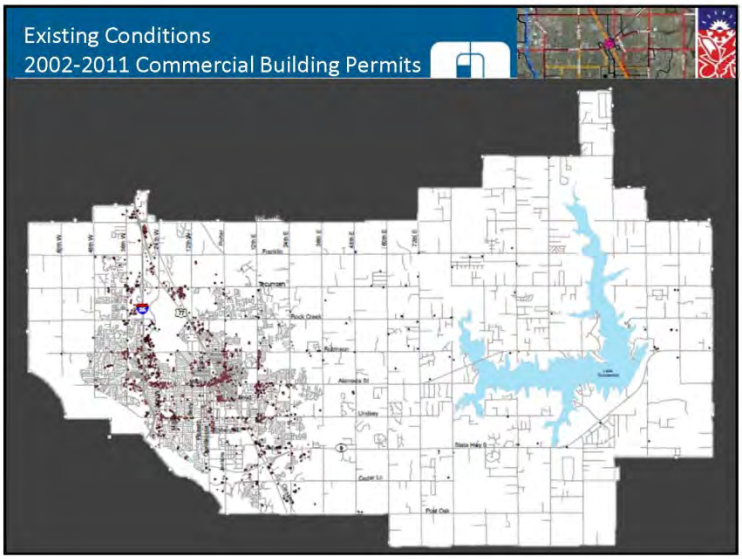
Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013

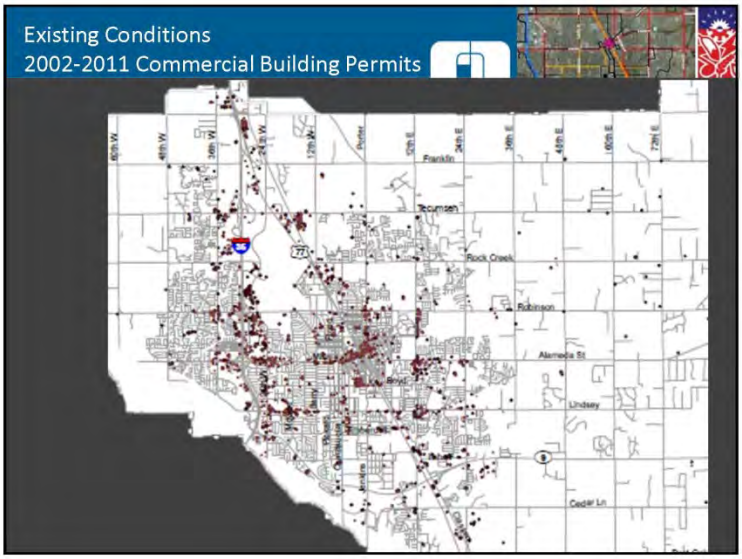




6

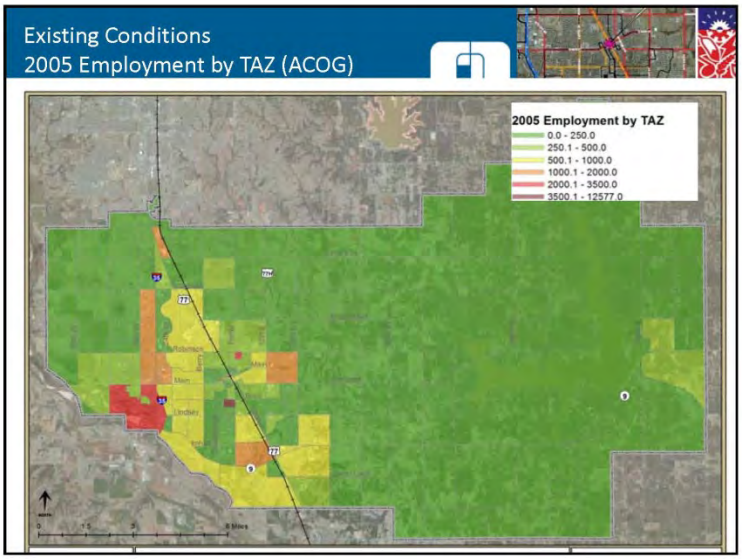
Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013

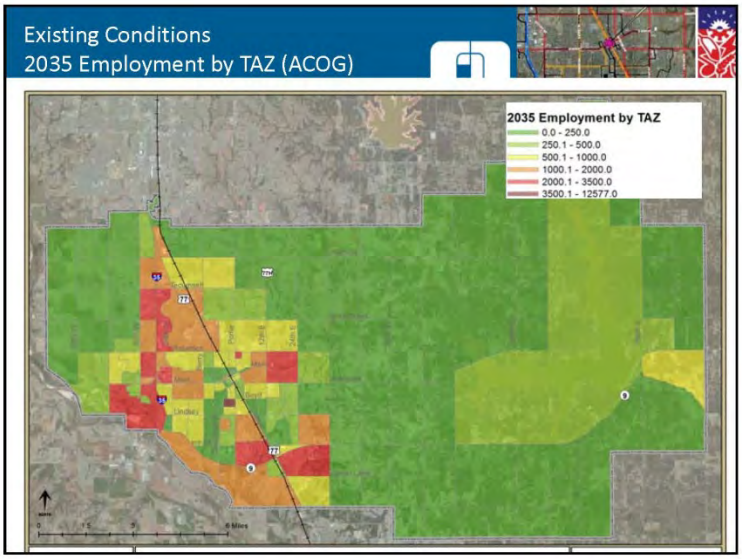




7

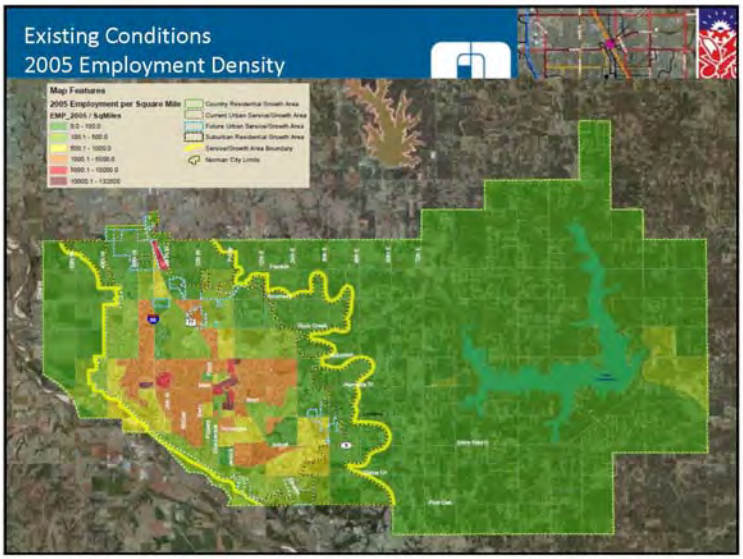
Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013

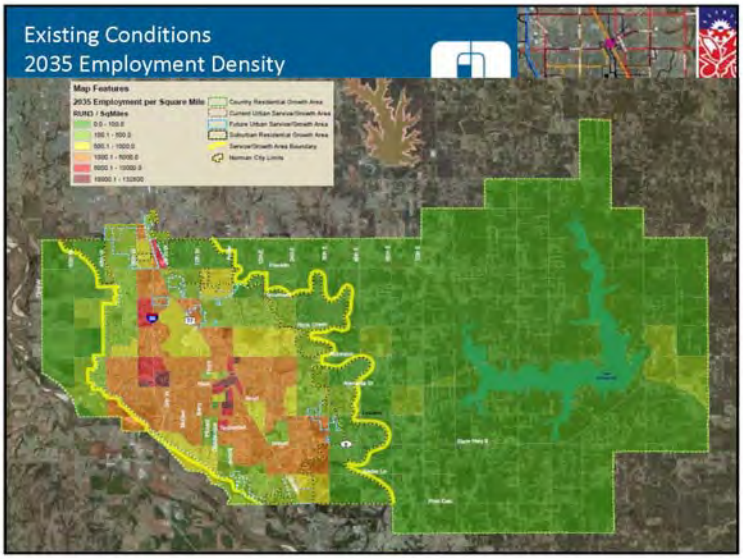




8

Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013



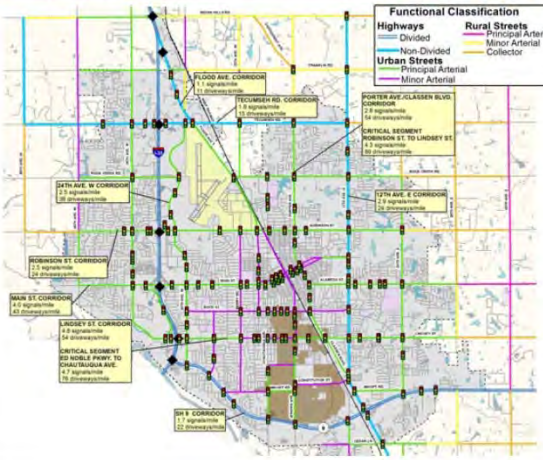


Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013

Existing Conditions
Major Topic Areas

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

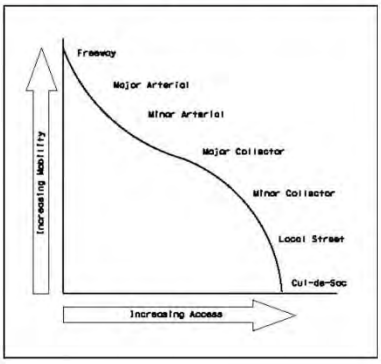
Existing Conditions
Roadway Network



Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013

Existing Conditions
Roadway Network

Balancing the Competing Demands of Mobility and Access



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 Chatauqua Ave	0.5	3	6.0	43	86.0
	Chatauqua 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	1.3	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**

Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013

Existing Conditions
Access Management

Effects of Signals on Traffic

Signals Per Mile	Increase in Travel Time (%)	Crashes Per Million Vehicles Miles Traveled
2	--	3.53
3	9	6.89
4	16	
5	23	7.49
6	29	
7	34	9.11
8	39	

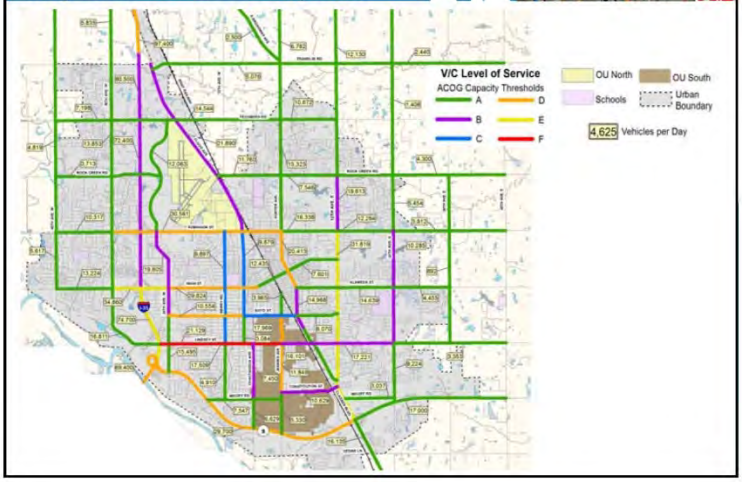
Source: FHWA Access Management Brochure and NCHRP Report 420

Effects of Access Points on Traffic

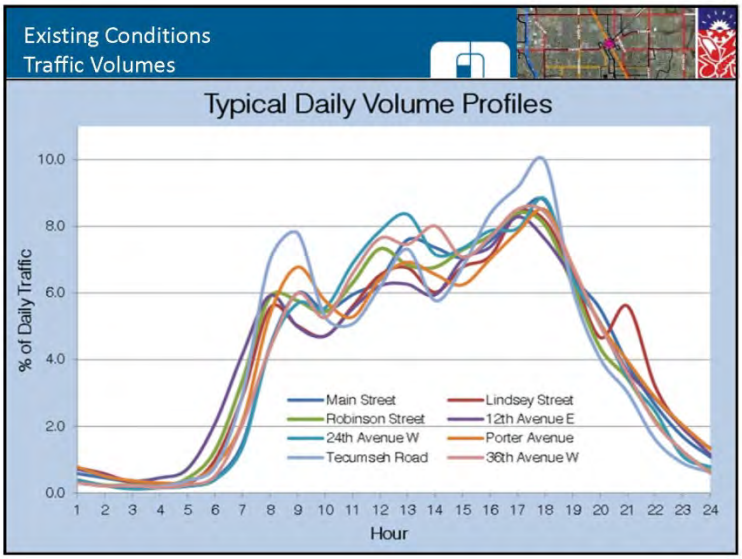
Access Points per Mile (Bi-Directional)	Reduction in Free-Flow Speed (mph)	Crash Rate Index
0	0	1
20	2.5	1.4
40	5	2.1
60	7.5	3
80 or more	10	3.5

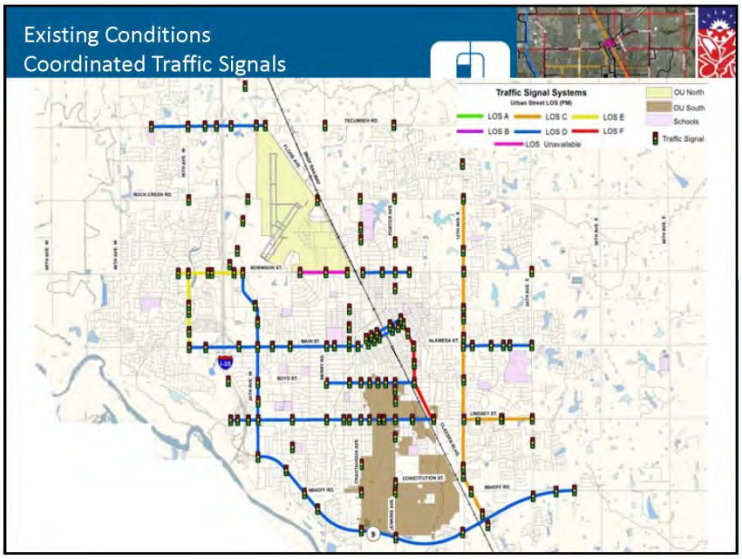
Source: Highway Capacity Manual and NCHRP Report 420

Existing Conditions
Daily Traffic Volumes & Congestion

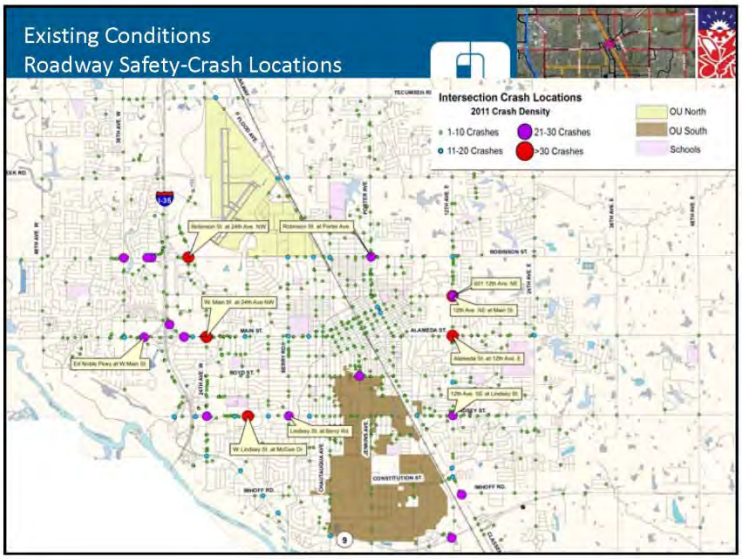


Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013





Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013



Existing Conditions
Roadway Safety-Crash Locations

Most Common Intersection Crash Locations for 2011

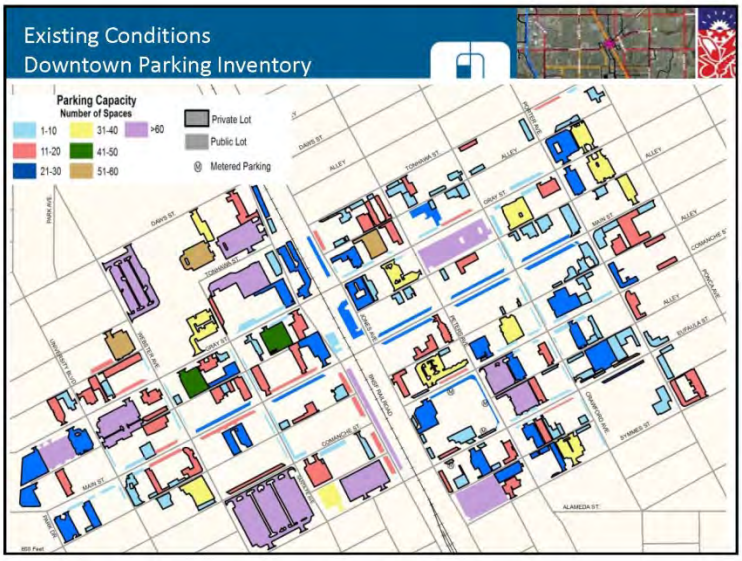
Intersection	Number of Crashes	% Injuries	% Rear End	% Angle	% Right Angle	% Other
24th Avenue W at Main Street	57	29%	58%	12%	30%	0%
12th Avenue E at Alameda Street	47	24%	52%	28%	4%	16%
24th Avenue W at Robinson Street	38	19%	43%	33%	10%	14%
Lindsey Street at McGee Street	37	42%	83%	9%	8%	0%
12th Avenue E at Main Street	31	27%	45%	55%	0%	0%

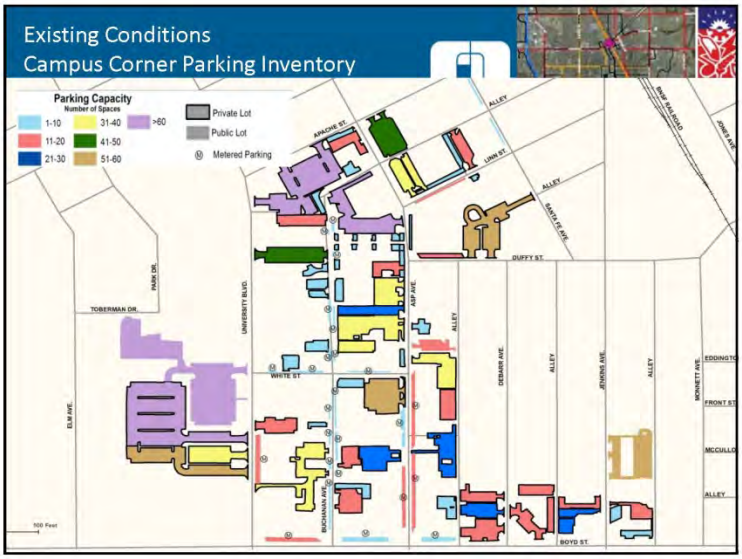
Corridor Crash Rates (2009-2011)

Route	Segment	Distance (miles)	Average Segment Volume (vpd)	Average Number of Crashes (2009-2011)	Average Crash Rate (2009-2011)[1]	State Crash Rate[1]	Ratio
Lindsey Street	East of 24th Ave W to East of Asp Ave	1.8	19,319	200	1573	179	8.8
Main Street	Thompson Drive to University Blvd.	1.3	29,824	131	923	378	2.4
Robinson Street	Brookhaven Blvd to 24th Ave W	1.0	30,561	147	1315	378	3.5
Tecumseh Road	36th Ave W to Flood Ave	1.1	14,544	43	736	378	1.9
24th Avenue W	Rock Creek Road to SH 9	3.65	16,291	209	965	378	2.6
Porter Avenue / Classen Boulevard	Robinson St to 12th Ave E	2.95	17,329	187	1000	378	2.6
12th Avenue E	Rock Creek Rd to SH 9	4.55	29,136	372	769	378	2.0
Berry Road	Robinson St to Imhoff Rd	3.0	8,235	104	1150	179	6.4

[1]Crash rates are shown per one million vehicle miles traveled

Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013





Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013

Existing Conditions
Parking Inventory Breakdown

Campus Corner

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

Central Business District

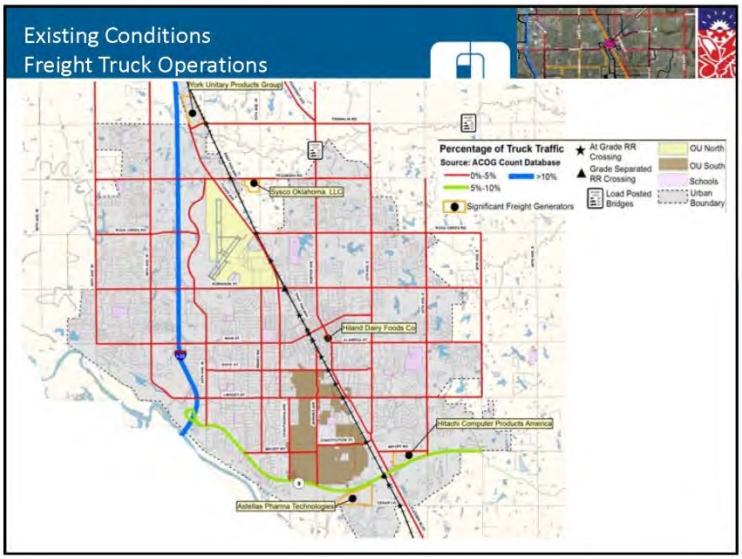
- 4,900 spaces
- 77% surface
- 23% on-street
- 25% public
- Insufficient parking in the eastern portion of the district especially along Main Street

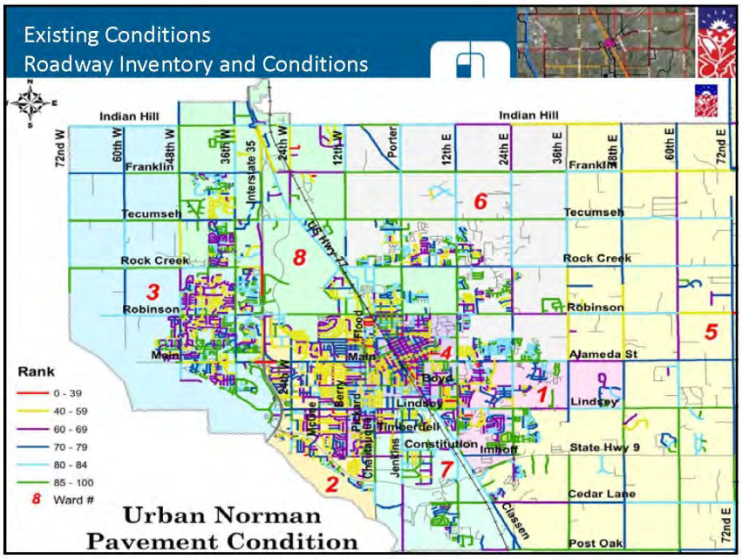
Existing Conditions
Freight Operations

- Rail
  - BNSF "Mid-Con" corridor
  - 50 million tons of freight per year
- Passenger Rail
  - Amtrack'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)

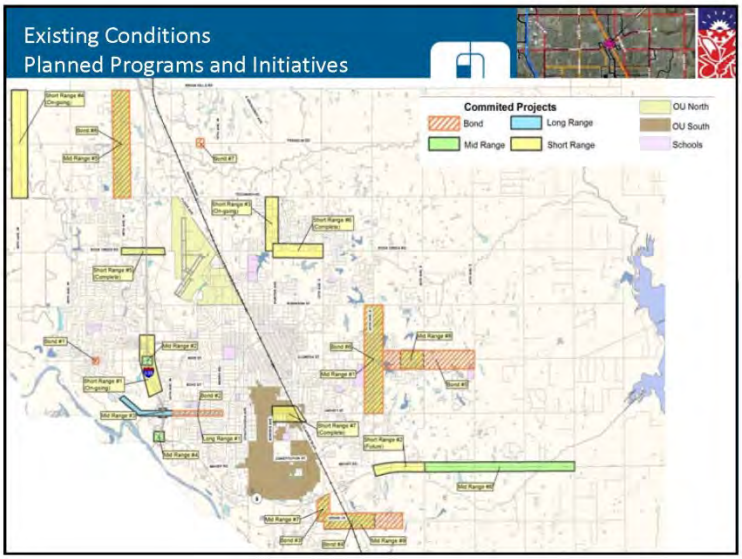
16

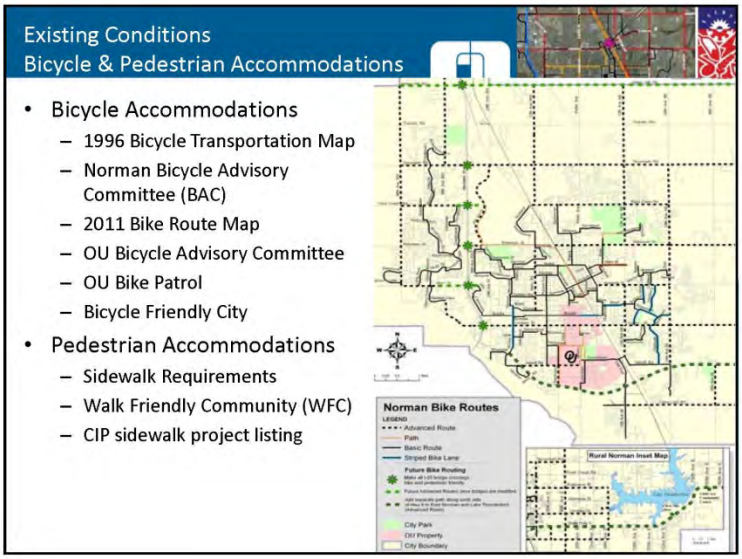
Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013





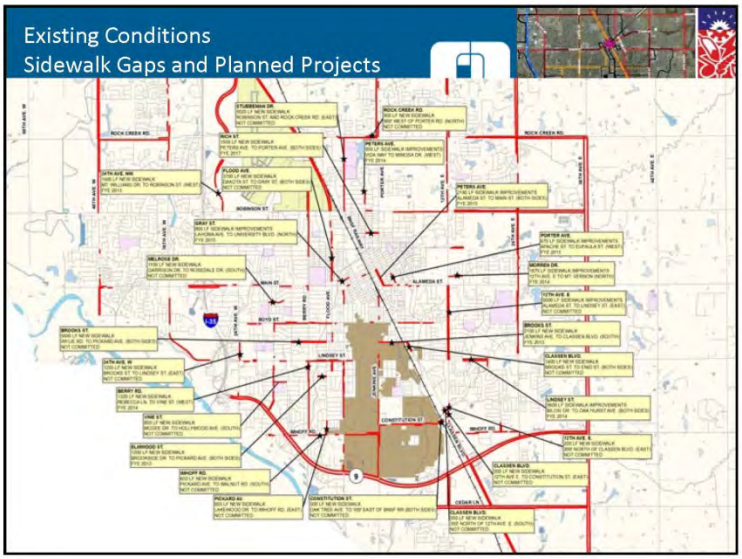
Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013

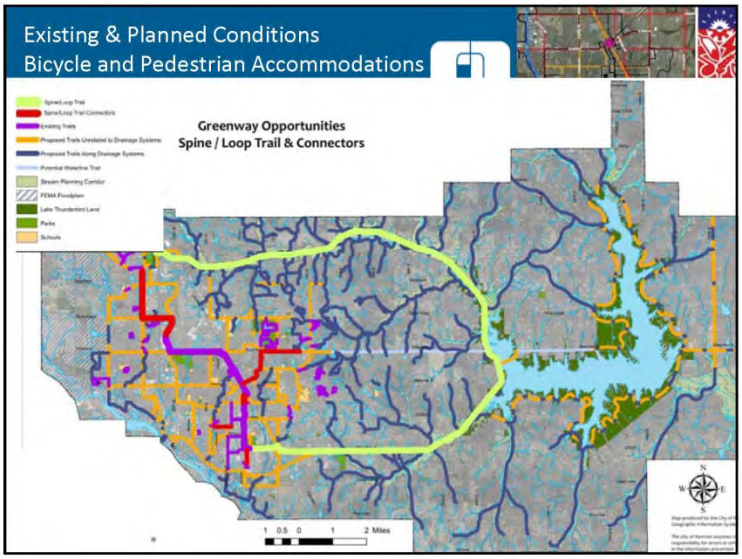




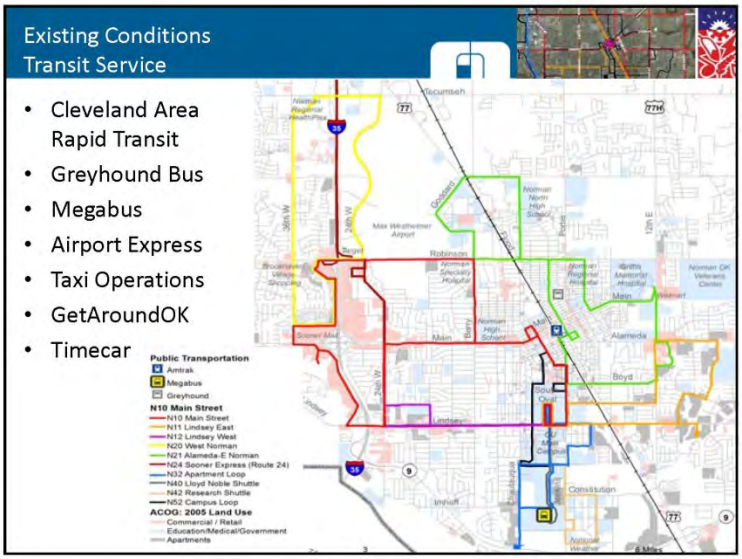
18

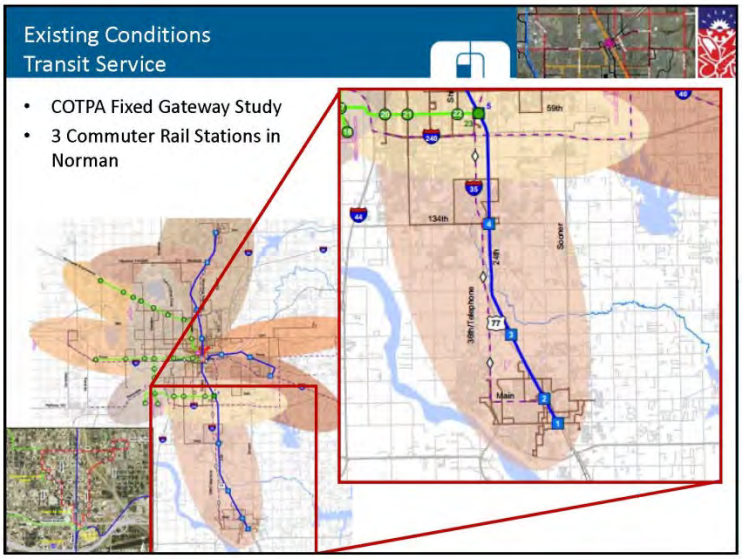
Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013





Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013





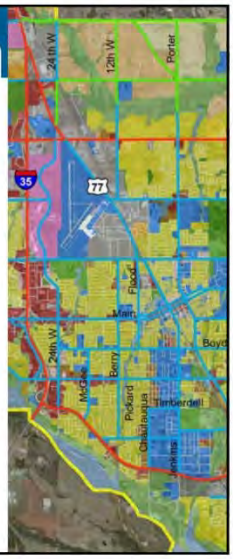
Norman CTP
Sub-Committee Meeting #2 – Existing Conditions
February 18, 2013

Breakout Session
(6:35-7:30)

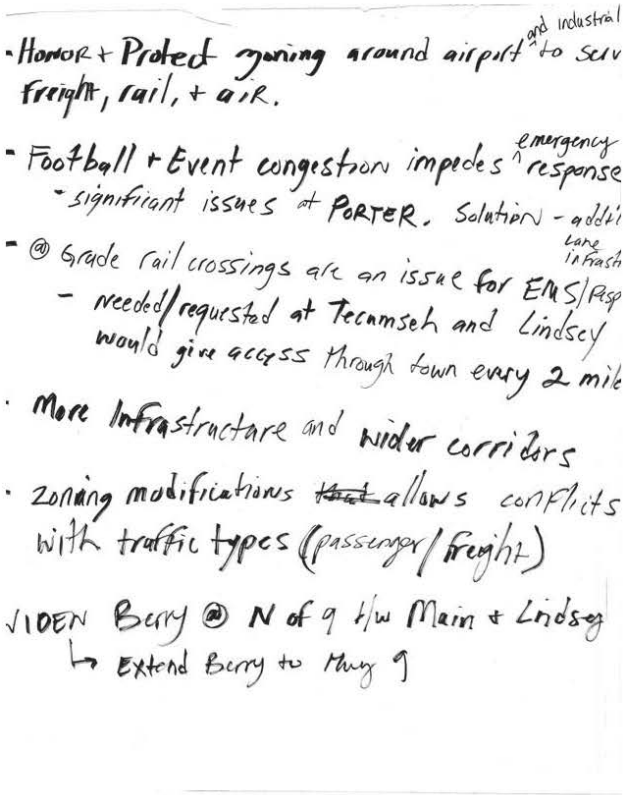
- Review Existing Conditions
- Discuss Issues
- Discuss Needs
- Input to Needs Assessment

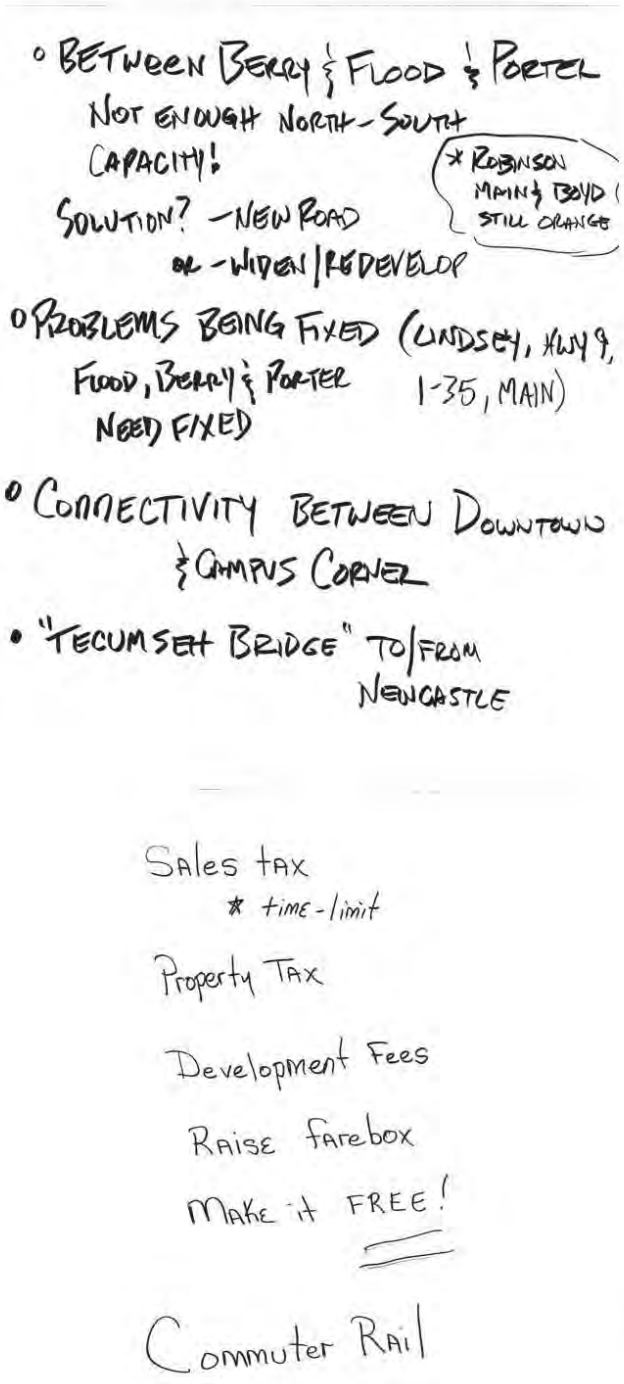
Group Summaries and Next Steps

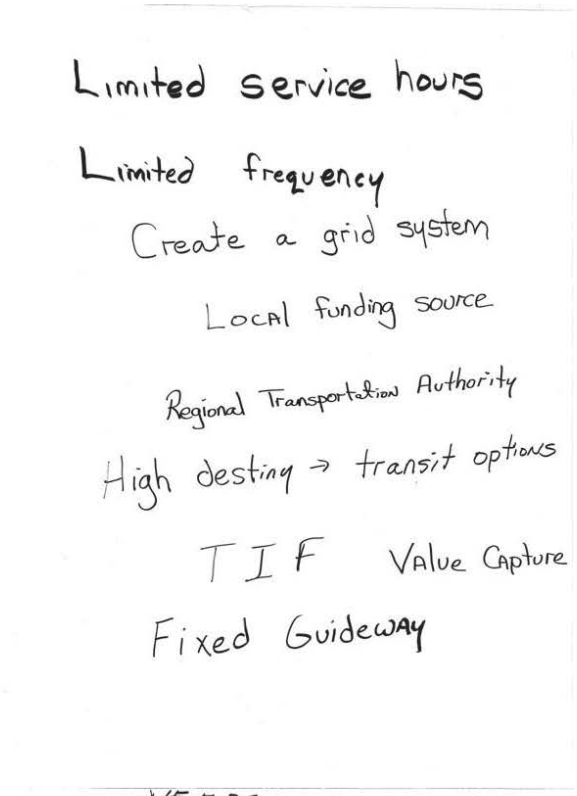
- Group Summaries
  - Automobile Capacity and Parking
  - Pedestrian and Bicycle Mobility, Safety and Streetscape
  - Transit
  - Freight, Airports and Emergency Response
- Next Steps
  - Transportation System Needs
  - Homework
  - Q&A

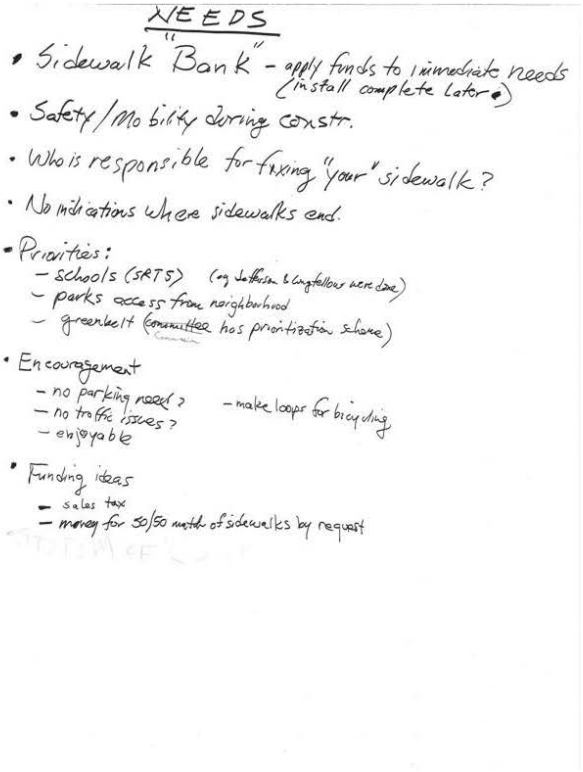


Sub-Committee Meeting #2 Flip Chart Notes : February 15, 2013



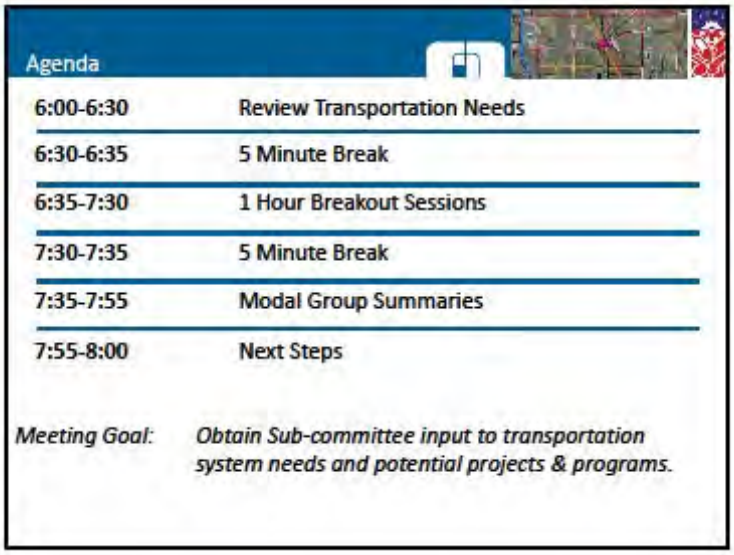

° BETWEEN BERRY & FLOOD & PORTER
NOT ENOUGH NORTH-SOUTH CAPACITY!
SOLUTION? -NEW ROAD
OR -WIDEN/REDEVELOP
* ROBINSON MAIN & BOYD STILL ORANGE
° PROBLEMS BEING FIXED (LINDSEY, HWY 9, FLOOD, BERRY & PORTER NEED FIXED 1-35, MAIN)
° CONNECTIVITY BETWEEN DOWNTOWN & CAMPUS CORNER
• "TECUMSEH BRIDGE" TO/FROM NEWCASTLE
Sales tax
* time-limit
Property Tax
Development Fees
Raise farebox
Make it FREE!
Commuter Rail


Limited service hours
Limited frequency
Create a grid system
Local funding source
Regional Transportation Authority
High destiny → transit options
TIF
Value Capture
Fixed Guideway


NEEDS
"Sidewalk Bank" - apply funds to immediate needs (install complete later)
Safety/Mobility during constr.
Who is responsible for fixing "your" sidewalk?
No indications where sidewalks end.
Priorities:
– schools (SRTS) (eg Jefferson & Longfellow were done)
– parks access from neighborhood
– greenbelt (committee has prioritization scheme)
Encouragement
– no parking needed?
– no traffic issues?
– enjoyable
– make loops for bicycling
Funding ideas
– sales tax
– money for 50/50 match of sidewalks by request

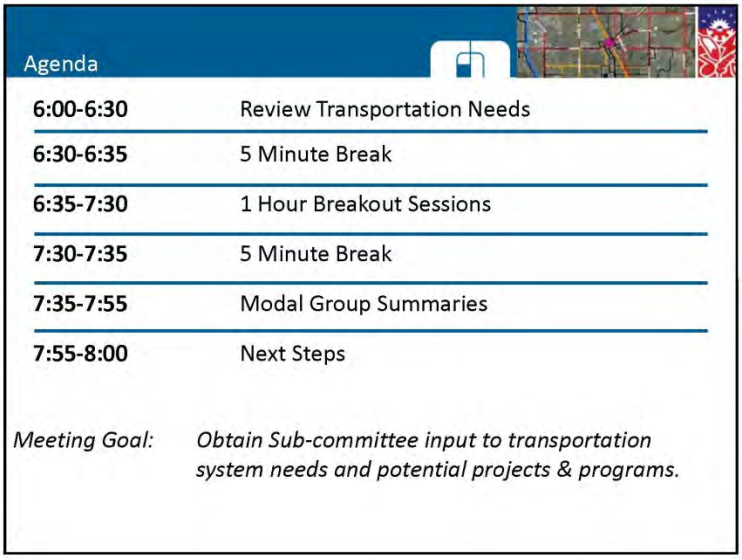
Sub-Committee Meeting #3: March 25, 2013

Norman CTP
Subcommittee Meeting #3 - Needs and Projects
March 25, 2013



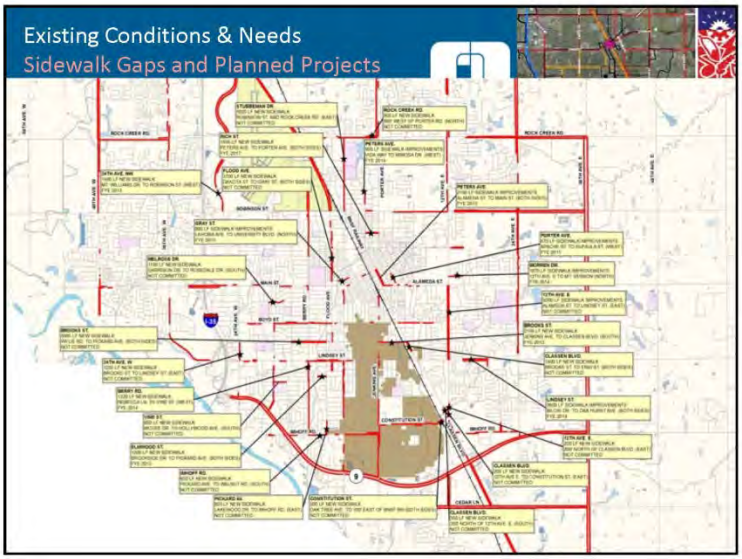
1

Norman CTP
Subcommittee Meeting #3 - Needs and Projects
March 25, 2013



1

Norman CTP
Subcommittee Meeting #3 - Needs and Projects
March 25, 2013



Transportation Needs: Motor Vehicles & Parking

- REGIONAL
- Potential E-W connection: "Tecumseh Bridge" to/from Newcastle
- In Berry/Flood and Porter corridor, not enough North-South roadway capacity. Potential Solutions: New road or widen existing roads
- Robinson, Main and Boyd not good LOS in ACOG future projection
- LOCAL
- Enhanced connectivity and synergy between Downtown and Campus Corner
- Parking needs: Campus Corner & Downtown off-street (garages)
  - Monitor County garage talks
  - High density development as possible solution
  - update the previous Parking Study
- Potential need for Parking Transportation Authority
- Campus Corner parking meters to manage preferred parking spots
- Bus parking/layover in/near Downtown and Campus Corner

Norman CTP
Subcommittee Meeting #3 - Needs and Projects
March 25, 2013

Transportation Needs: Bicyclists, Pedestrians, Streetscape

- Lots of gaps in sidewalks - Need mechanism to close gaps in higher use areas.
- Subdivisions occur in scattered remote areas and get waivers from having to put in the sidewalks along the collectors/arterials. Potential solution: Sidewalk Bank.
- Better safety/mobility/warnings for pedestrians at gaps & during construction.
- Public information/clarification about responsibilities for fixing "your" sidewalk
- Have done lots of planning for bicycles and pedestrians, need to establish priorities to implement (Safe Routes to Schools/Transit, Access to Parks, etc)
- Need to provide encouragement for walking and bicycling:
  - Promotion of health benefits of walking and bicycling
  - Enhanced aesthetics of streets. Sidewalks away from back of curb.
  - More and better parking for bicyclists
  - Increase cost of parking for cars
  - Enhance bicycle provisions on street, such as bike boulevards, bike lanes, etc.
  - Create area interest "loops" for bicycling.
- Funding ideas: dedicated budget item, 50/50 cost sharing, sidewalk bank

Transportation Needs: Transit

- Enhance currently limited service hours
- Increase currently limited service frequency of individual routes
- Expand to more of a grid system
- Support a Regional Transportation Authority
- Promote development of the regional commuter rail system
- Support higher density development, increasing transit efficiency and options
- Consider Value Capture (TIF) for potential commuter rail stations to enhance and advance funding for transit supportive station area development
- Funding will be a severe limitation. Need to dedicate a local funding source
- Potential funding strategies:
  - Sales tax (time limited), Property tax, Development fees, Student fees, Farebox fees
- Make service free (temporary or permanent) to promote usage

Norman CTP
Subcommittee Meeting #3 - Needs and Projects
March 25, 2013

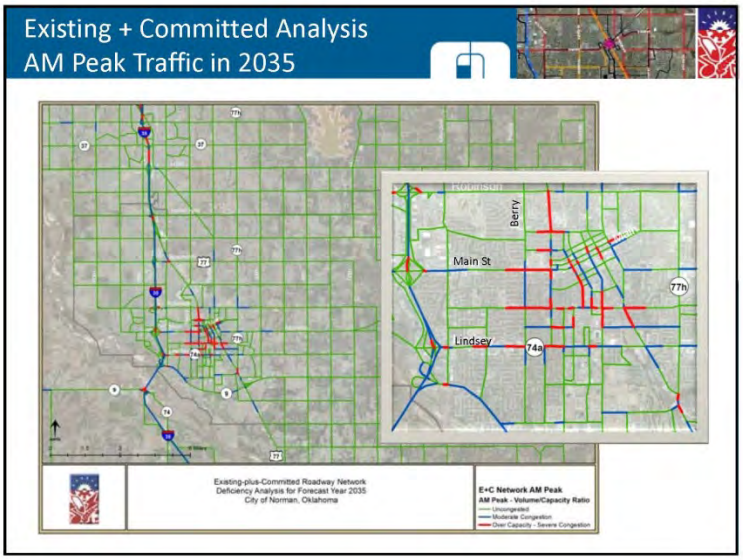
Transportation Needs: Freight, Airports & Emergency

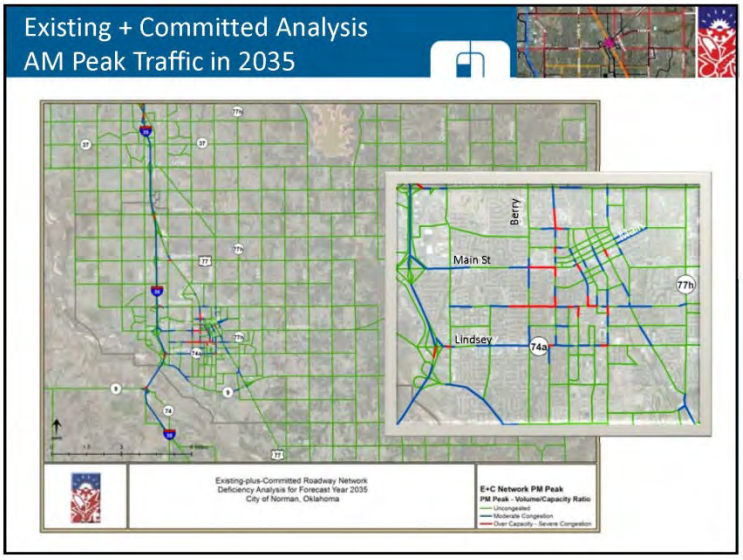
- Honor and protect zoning around airport and industrial districts to serve freight, rail and air transportation needs
- Football and special event congestion impedes emergency response. Significant issues at Porter. Potential solution – additional or designated lane infrastructure
- At-grade railroad crossings are an issue for EMS/first responders. Undercrossings at Tecumseh and Lindsey would give grade separated east-west access through town every 2 miles
- Overall, need more infrastructure and wider corridors
- Zoning modifications allow conflicts with traffic types (passenger/freight)
- Widen Berry @ between Main and Lindsey; extend Berry to Hwy 9

Transportation Needs Draft Chapter

- Highlights elements from Current Conditions and Trends appendix
- References the materials in the appendix
- Incorporates the Needs input from Subcommittee meeting #2
- Sets the stage for identification of projects and programs

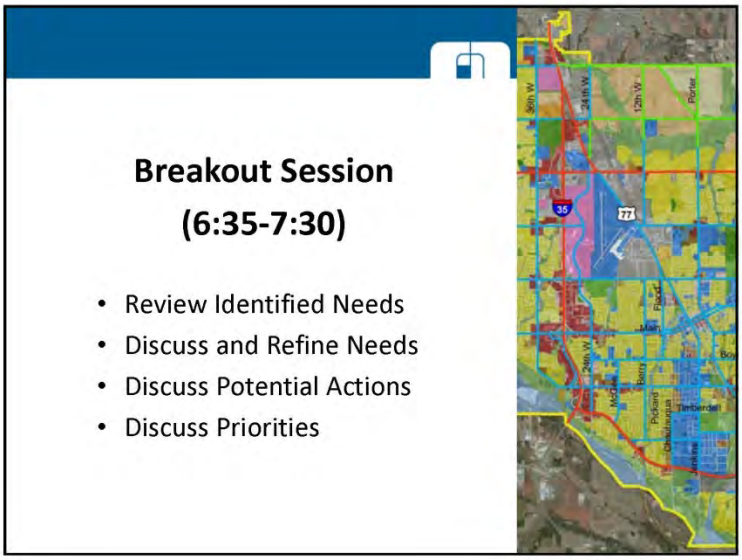
Norman CTP
Subcommittee Meeting #3 - Needs and Projects
March 25, 2013

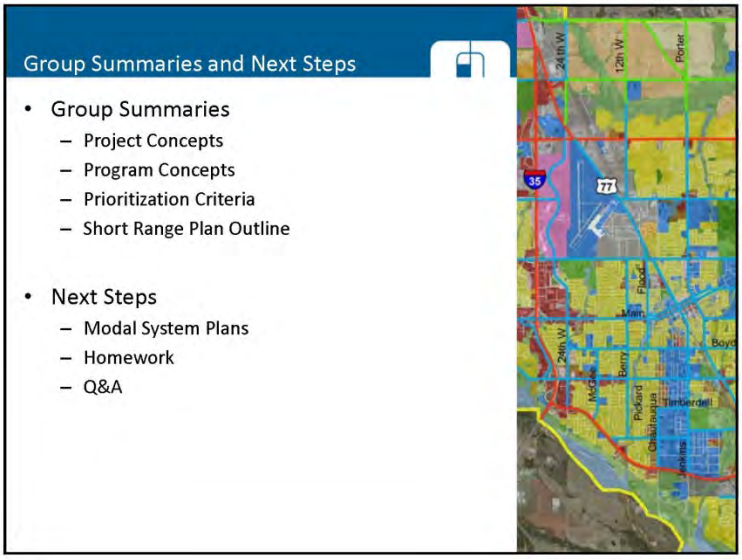




5

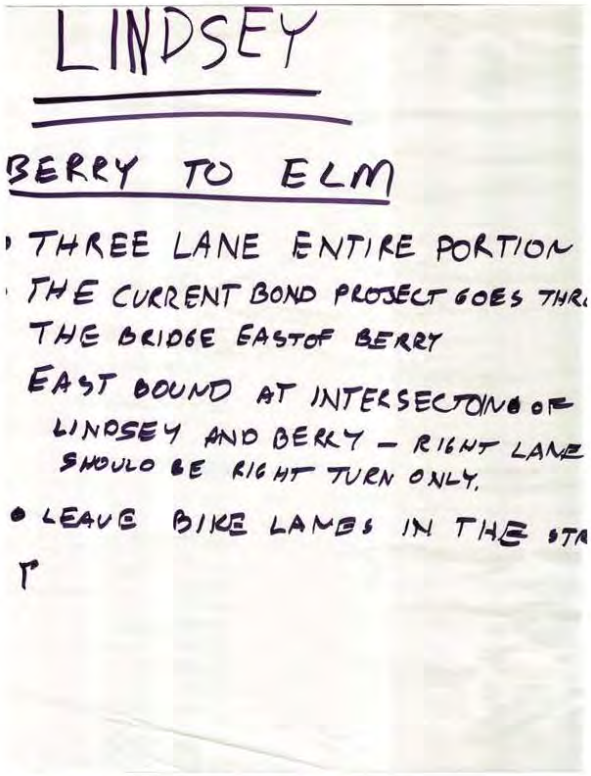
Norman CTP
Subcommittee Meeting #3 - Needs and Projects
March 25, 2013





6

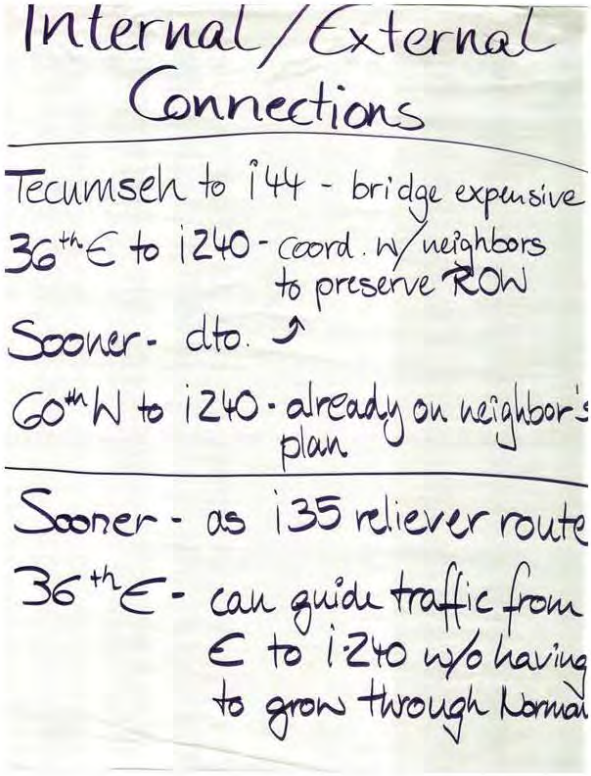
Sub-Committee Meeting #3 Flip Chart Notes: March 25, 2013



LINDSEY

BERRY TO ELM

- THREE LANE ENTIRE PORTION
- THE CURRENT BOND PROJECT GOES THR
  THE BRIDGE EASTOF BERRY
  EAST BOUND AT INTERSECTIONS OF
  LINDSEY AND BERRY – RIGHT LANE
  SHOULD BE RIGHT TURN ONLY.
- LEAVE BIKE LANES IN THE STR



Internal/External Connections

Tecumseh to I44 - bridge expensive

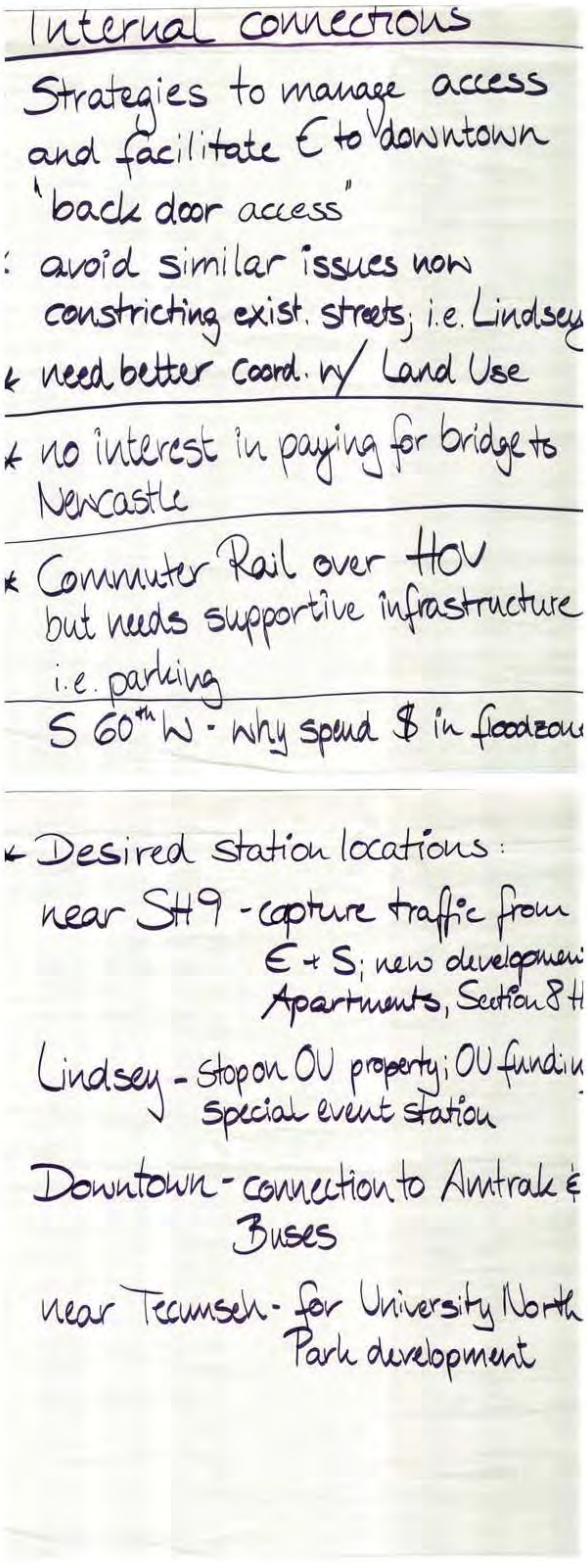
36th E to I240 - coord. w/ neighbors to preserve ROW

Sooner - dto. ↗

60th W to I240 - already on neighbor's plan

Sooner - as I35 reliever route

36th E - can guide traffic from E to I-240 w/o having to grow through Norman



Internal connections

Strategies to manage access and facilitate E to W downtown
"back door access"
: avoid similar issues now constricting exist. streets; i.e. Lindsey
← need better coord. w/ Land Use

← no interest in paying for bridge to Newcastle

← Commuter Rail over HOV
but needs supportive infrastructure
i.e. parking

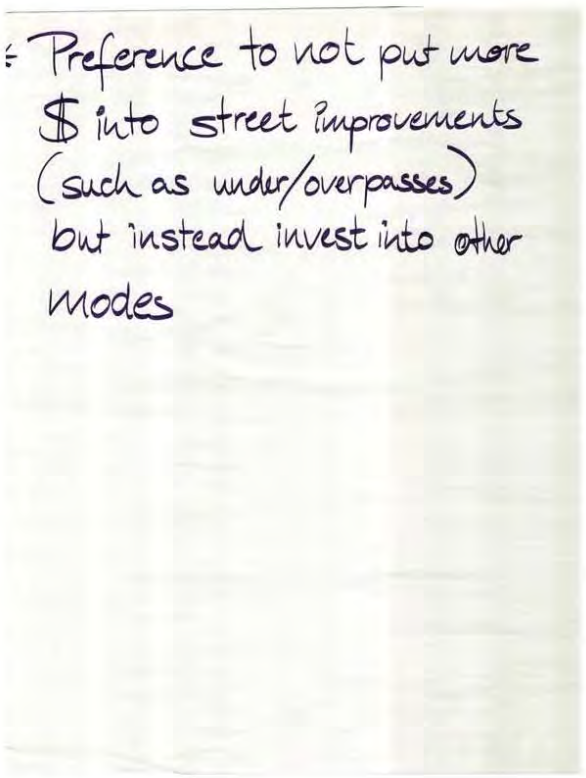
S 60th W - why spend $ in floodzon

← Desired station locations:
near SH9 - capture traffic from E + S; new developmen Apartments, Section 8 H

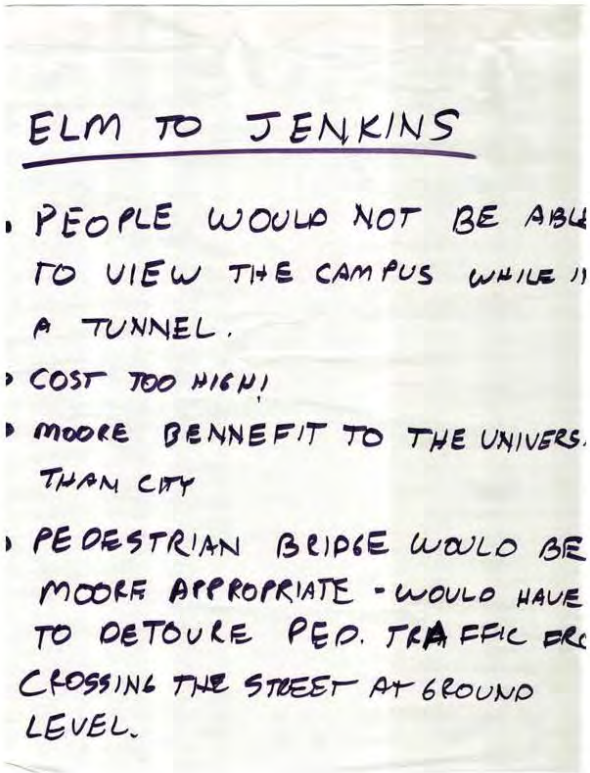
Lindsey - Stop on OU property; OU fundin special event station

Downtown - connection to Amtrak & Buses

near Tecumseh - for University North Park development

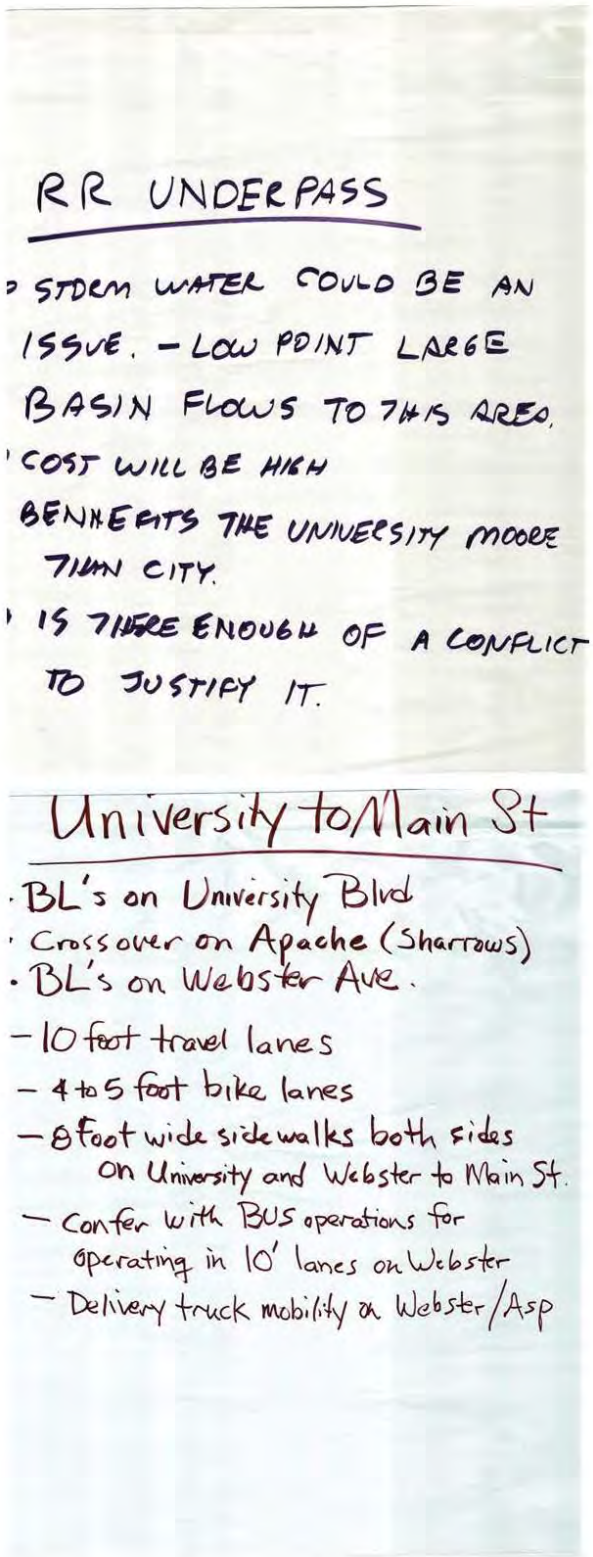


- Preference to not put more $ into street improvements (such as under/overpasses) but instead invest into other modes



ELM TO JENKINS

- PEOPLE WOULD NOT BE ABL TO VIEW THE CAMPUS WHILE I A TUNNEL.
- COST TOO HIGH!
- MOORE BENNEFIT TO THE UNIVERS. THAN CITY
- PEDESTRIAN BRIDGE WOULD BE MOORE APPROPRIATE - WOULD HAVE TO DETOURE PED. TRAFFIC ER CROSSING THE STREET AT GROUND LEVEL.



RR UNDERPASS

- STORM WATER COULD BE AN ISSUE. – LOW POINT LARGE BASIN FLOWS TO THIS AREA.
- COST WILL BE HIGH
- BENEFITS THE UNIVERSITY MORE THAN CITY.
- IS THERE ENOUGH OF A CONFLICT TO JUSTIFY IT.

University to Main St

- BL's on University Blvd
- Crossover on Apache (Sharrows)
- BL's on Webster Ave.
  - 10 foot travel lanes
  - 4 to 5 foot bike lanes
  - 8 foot wide sidewalks both sides on University and Webster to Main St.
  - Confer with BUS operations for operating in 10' lanes on Webster
  - Delivery truck mobility on Webster/Asp

Main / Gray Couplet

- Reduce to 2 lanes each
- Options for using the 12' width
  - wider sidewalk (one or both sides)
  - buffer between lanes and parking
  - bike lanes
- Option to change to Back-in angled parking along right-hand side
- Need to accomodate 18-wheeler trucks, turn
- Need to get Downtown business buy-in
- Assure ample capacity for future

Norman CTP
Concept Planning Prioritization

	Project	From/To		Project Initiation Period: Short 1	Short 2	Medium 1	Medium 2	Long 1	Long 2
1	Lindsey St.	A. Berry to Elm (3 lane)	YES						
2	"	B. Elm to Jenkins (Underpass)	NO						
3	"	C. Jenkins to Classen (RR crossing)	NO						
4	Main St.	University to Porter (road diet)	NO			PLEASE:			
5	Gray St.	Porter to University (road diet)	NO			1. DO NOT PRIORITIZE			
6	University/ Webster	Boyd to Gray (bike lanes, 8' sidewalk)	YES			2. DO NOT ESTIMATE COSTS			
7	Front St.	Robinson to Acres (new 3-lane)	AT LEAST 3 - PROBABLY 4 YES			3. DO NOT SAY WHERE MONEY COMES FROM			
8	James Garner	Acres to Eufaula (enhanced 2-lane)	YES						
9	Jenkins Ave.	Constitution to Lindsey (widen to 4 lanes)	YES						
10	Chautauqua	Imhoff to Lindsey (widen to 4 lanes)	YES						
11	External Connectors	1. Tecumseh Rd.: Canadian River crossing/connection to US277 & IH 44	DEFINITELY NOT AT NORMAN'S EXPENSE						
12	"	2. 36th Ave. East; regional support corridor to IH 240	YES						
13	"	3. 60th Ave. NW/Western; regional support corridor	NO						
14	"	4. SH 9 corridor enhancements (grade separations)	NO						
15	"	5. IH 35 HOV lanes	YES						
16	"	6. Commuter Rail (corridor & stations)	SOME $ FOR STUDY NOW

Notes: 1. High Priority Investment; high anticipated return on investment (easy).
2. Needed Investment; $ with long-term pay-off (hard).

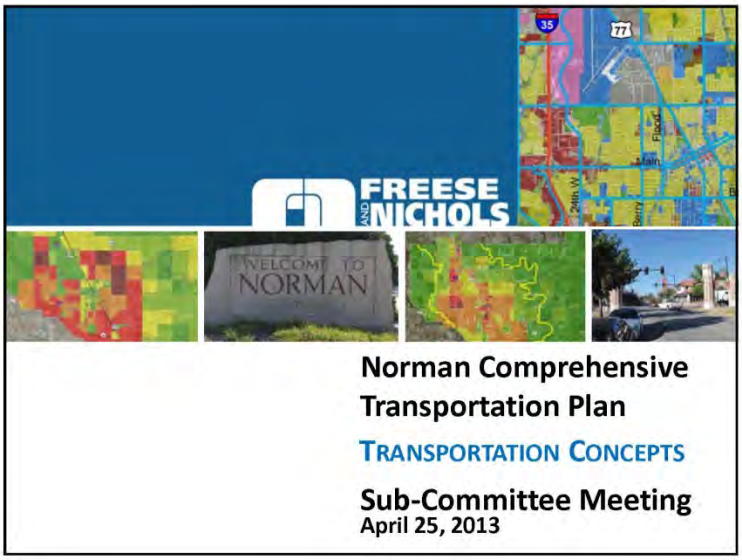
Norman CTP
Sub-Committee Meeting #4

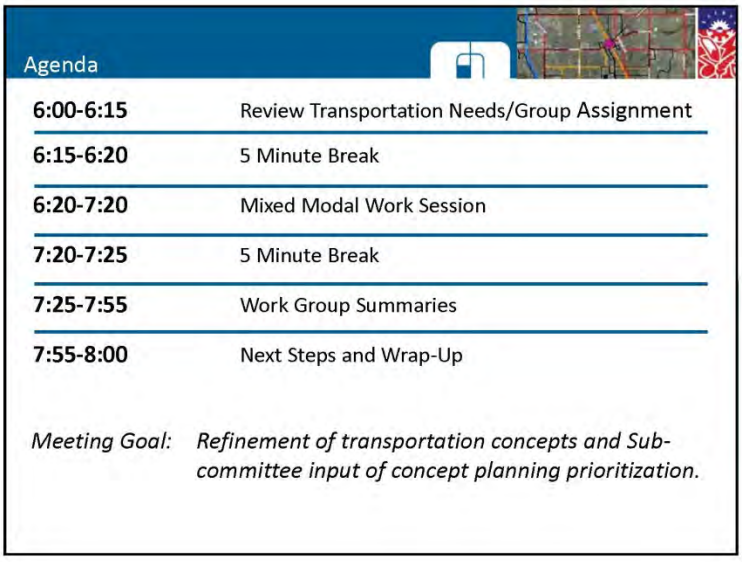
Harwood Hodges
4-22-2013

Page 1 of 1
Freese and Nichols, Inc.

Sub-Committee Meeting #4: April 25, 2013

Norman CTP
Subcommittee Meeting #4 – Transportation Concepts
April 25, 2013



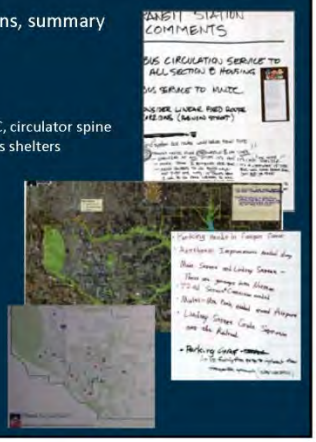


1

Norman CTP
Subcommittee Meeting #4 – Transportation Concepts
April 25, 2013

Public Input

- Public Input Meeting – April 15th
  - Small turnout; Presentation, modal stations, summary of input
  - Public Input:
    - Transit Station
      - Bus service to Section 8 Housing (list), MNTC, circulator spine routes, loops, destinations w/o transfers, bus shelters
      - Commuter rail
      - Bike loop - Brooks, 24th, Robinson, Porter
      - Voice activated crossing
      - Main Street as 2-way
    - Auto/Parking
      - 72nd E connection, aesthetic improvements
      - RR grade separation @ Lindsey
      - Parking needs – Campus Corner
    - Bike/Pedestrian
      - Bike lanes on side streets
      - Scenic pathways



Public Input

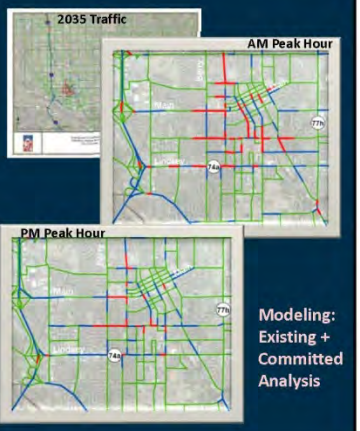
- OU Student Input Meeting – April 25th
  - Rawls Engineering Building
  - Overview presentation, modal stations, student input
  - Summary of Input

2

Norman CTP
Subcommittee Meeting #4 – Transportation Concepts
April 25, 2013

Roadway Needs

- North/South Capacity to downtown and areas to south
- Improvements for East/West capacity
- Connectivity between downtown and campus corner
- Parking:
  - Garage
  - Metering
  - Bus



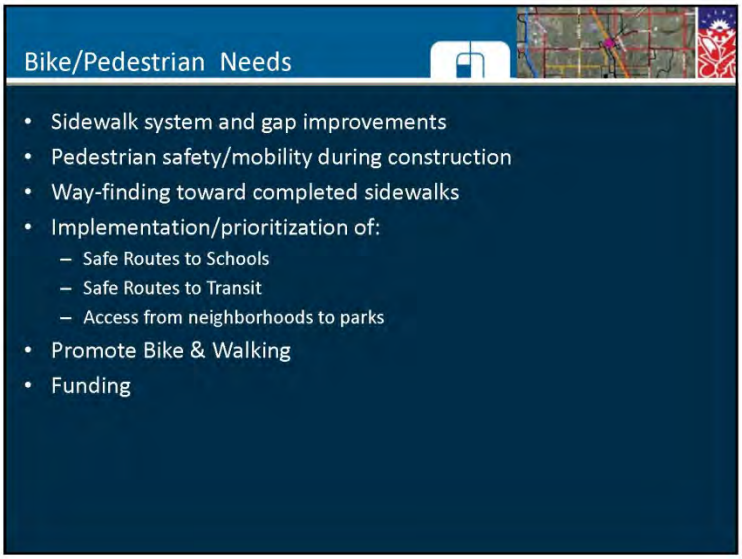
Modeling: Existing + Committed Analysis

Transit Needs

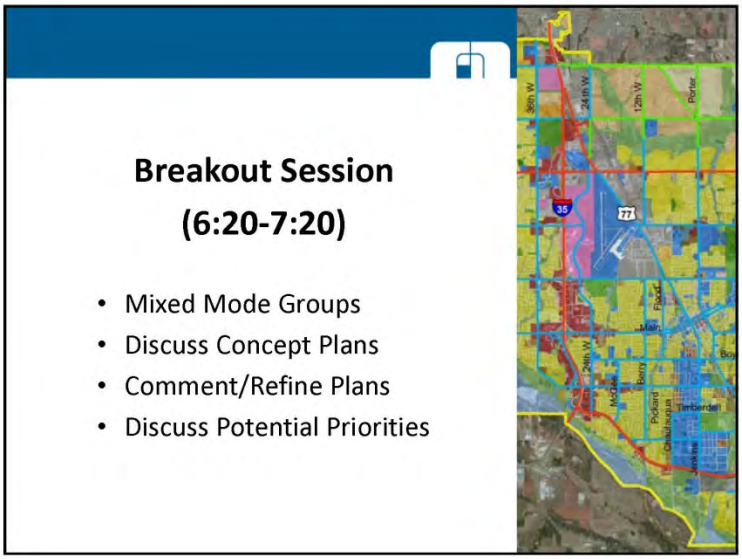
- Bus:
  - Enhance current service operations
  - System reconfiguration/expansion
- Commuter Rail:
  - Potential station locations
  - Funding
  - Land Use considerations
  - Regional Transportation Authority

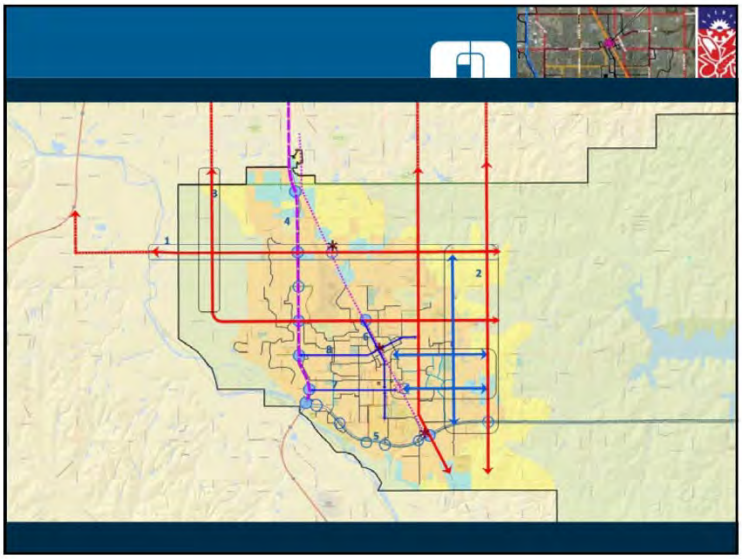
3


Airport, Freight and Emergency Response Needs
• Protect zoning around airport and industrial districts to serve freight, rail and air transportation needs
• Additional lane capacity for special events
• Additional grade separated crossing with RR
• Corridor enhancements
• Land use coordination


Bike/Pedestrian Needs
• Sidewalk system and gap improvements
• Pedestrian safety/mobility during construction
• Way-finding toward completed sidewalks
• Implementation/prioritization of:
– Safe Routes to Schools
– Safe Routes to Transit
– Access from neighborhoods to parks
• Promote Bike & Walking
• Funding

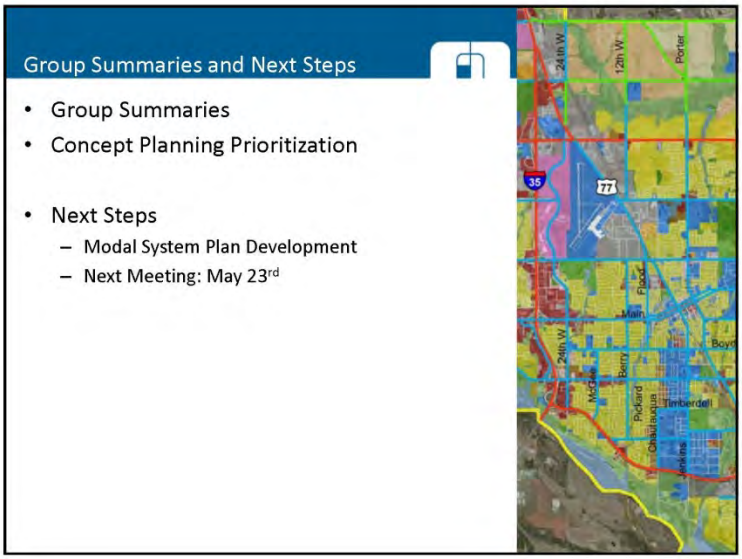
Norman CTP
Subcommittee Meeting #4 – Transportation Concepts
April 25, 2013

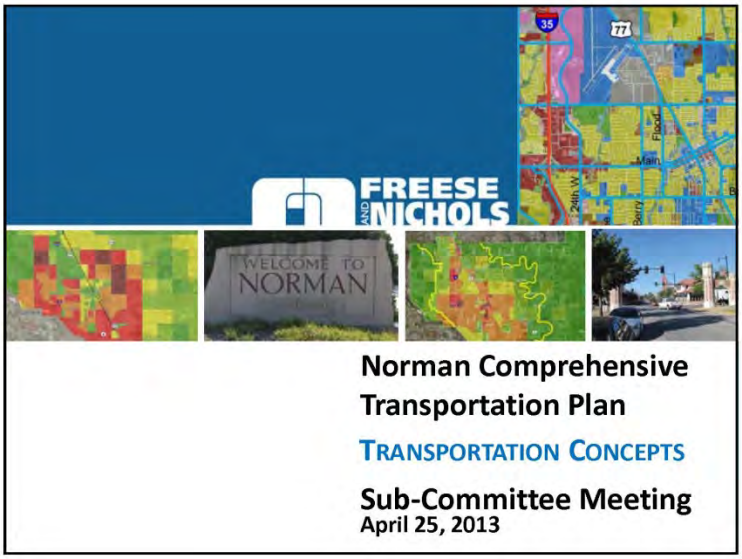




5

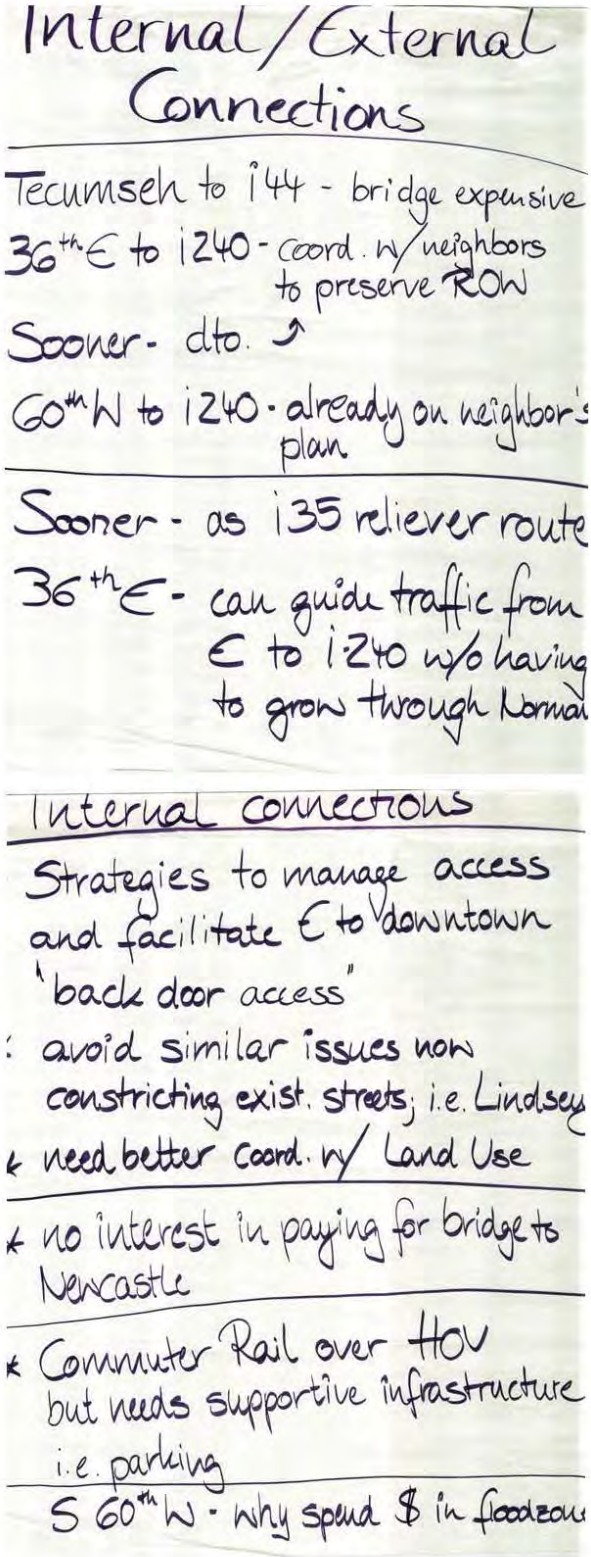
Norman CTP
Subcommittee Meeting #4 – Transportation Concepts
April 25, 2013





6

Sub-Committee Meeting #4 Flip Chart Notes: April 25, 2013



Internal/External Connections

Tecumseh to I44 - bridge expensive

36th E to I240 - coord. w/ neighbors to preserve ROW

Sooner - dto. ↗

60th W to I240 - already on neighbor's plan

Sooner - as I35 reliever route

36th E - can guide traffic from E to I240 w/o having to grow through Norman

Internal connections

Strategies to manage access and facilitate E to downtown

"back door access"

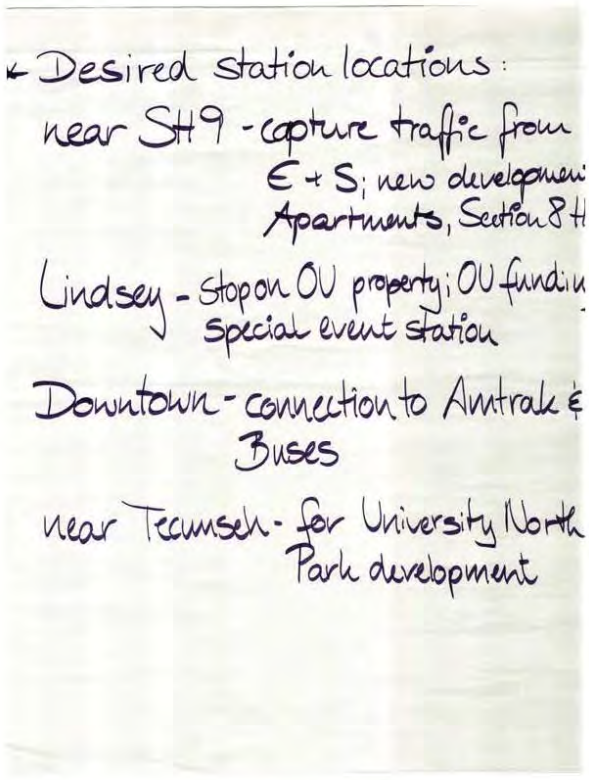
: avoid similar issues non constricting exist. streets; i.e. Lindsey

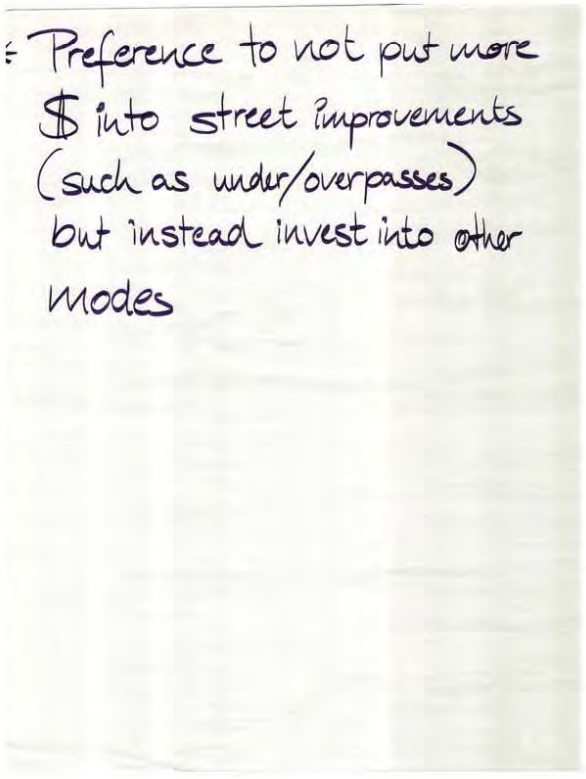
* need better coord. w/ Land Use

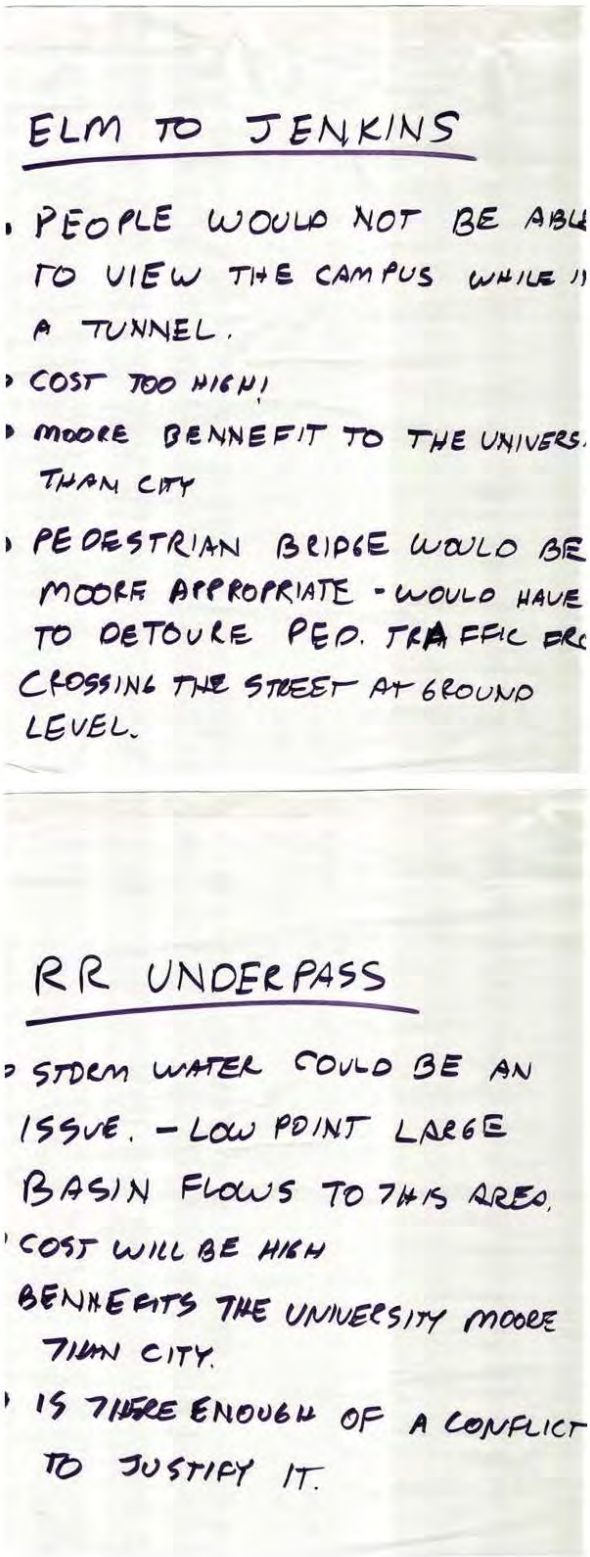
* no interest in paying for bridge to Newcastle

* Commuter Rail over HOV but needs supportive infrastructure i.e. parking

S 60th W - why spend $ in floodzon


Desired station locations:
near SH9 - capture traffic from
E + S; new developmen
Apartments, Section 8 H
Lindsey - Stop on OU property; OU fundi
special event station
Downtown - connection to Amtrak &
Buses
near Tecumseh - for University North
Park development


Preference to not put more
$ into street improvements
(such as under/overpasses)
but instead invest into other
modes

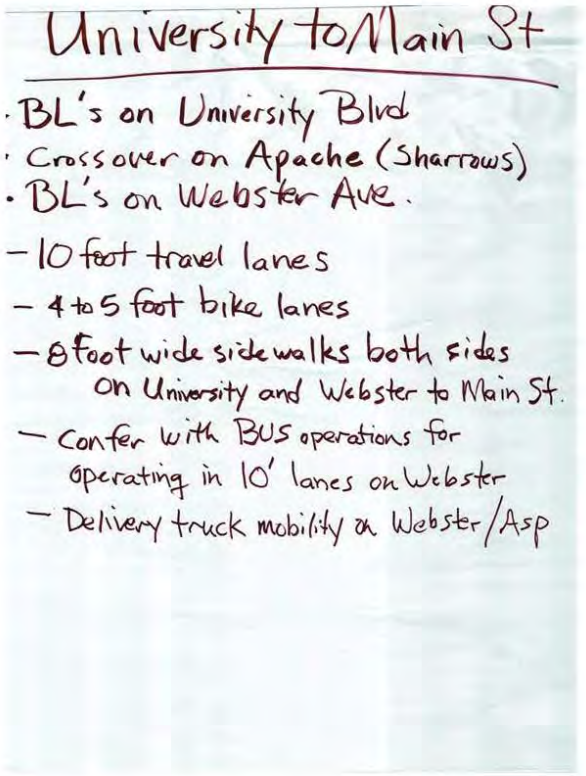


ELM TO JENKINS

- PEOPLE WOULD NOT BE ABL TO VIEW THE CAMPUS WHILE I A TUNNEL.
- COST TOO HIGH!
- MOORE BENNEFIT TO THE UNIVERS. THAN CITY
- PEDESTRIAN BRIDGE WOULD BE MOORE APPROPRIATE - WOULD HAVE TO DETOURE PED. TRAFFIC ER CROSSING THE STREET AT GROUND LEVEL.

RR UNDERPASS

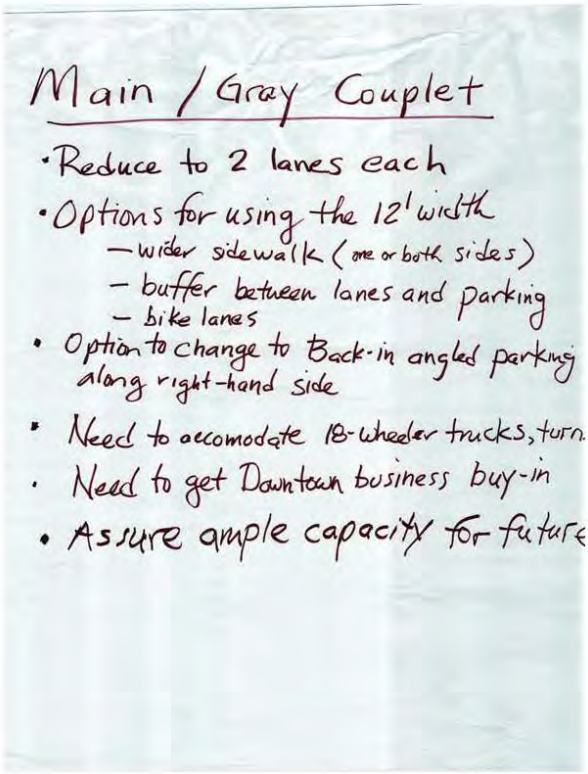
- STORM WATER COULD BE AN ISSUE. - LOW POINT LARGE BASIN FLOWS TO THIS AREA.
- COST WILL BE HIGH
- BENNEFITS THE UNIVERSITY MOORE THAN CITY.
- IS THERE ENOUGH OF A CONFLICT TO JUSTIFY IT.



University to Main St

- BL's on University Blvd
- Crossover on Apache (Sharrows)
- BL's on Webster Ave.

- 10 foot travel lanes
- 4 to 5 foot bike lanes
- 8 foot wide sidewalks both sides on University and Webster to Main St.
- Confer with BUS operations for operating in 10' lanes on Webster
- Delivery truck mobility on Webster/Asp

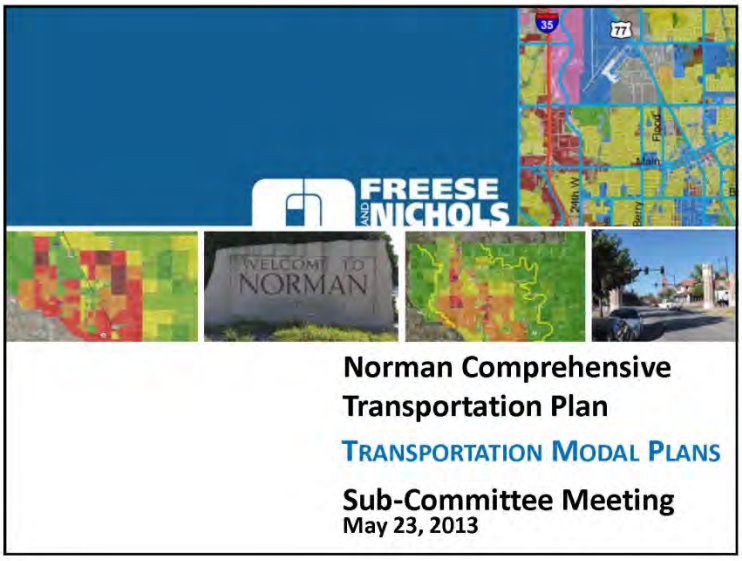


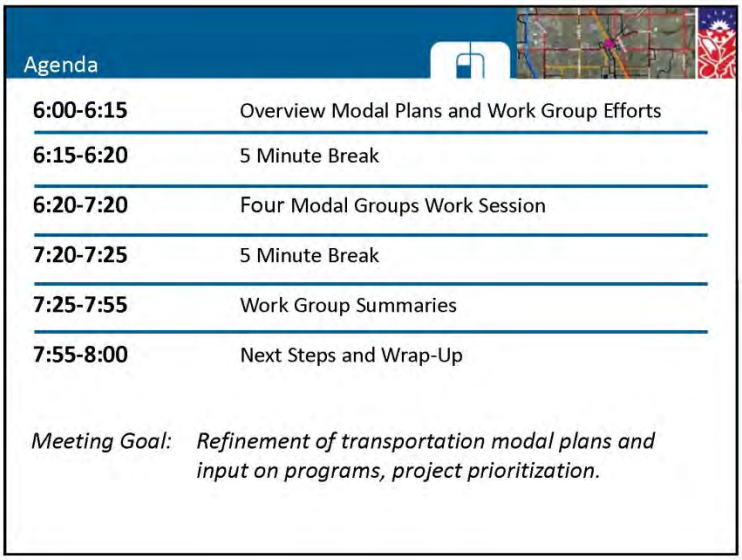
Main / Gray Couplet

- Reduce to 2 lanes each
- Options for using the 12' width
  - wider sidewalk (one or both sides)
  - buffer between lanes and parking
  - bike lanes
- Option to change to Back-in angled parking along right-hand side
- Need to accomodate 18-wheeler trucks, turn
- Need to get Downtown business buy-in
- Assure ample capacity for future

Sub-Committee Meeting #5 : May 23, 2013

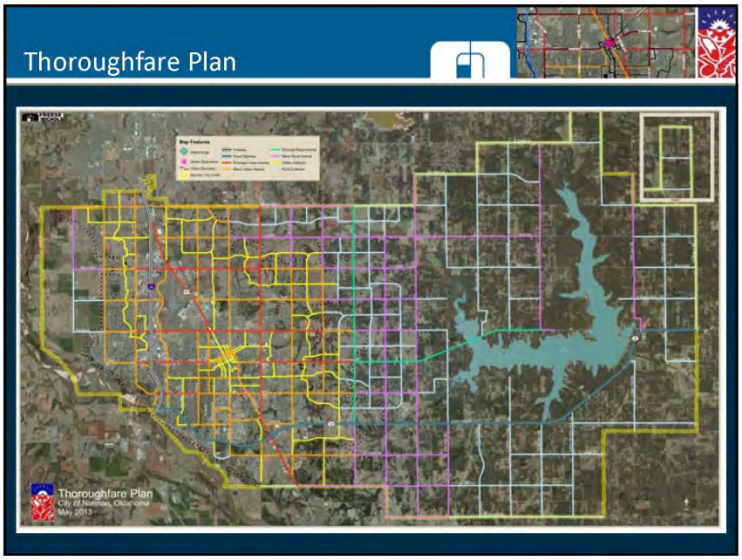
Norman CTP
Subcommittee Meeting #5 – Transportation Concepts
May 23, 2013

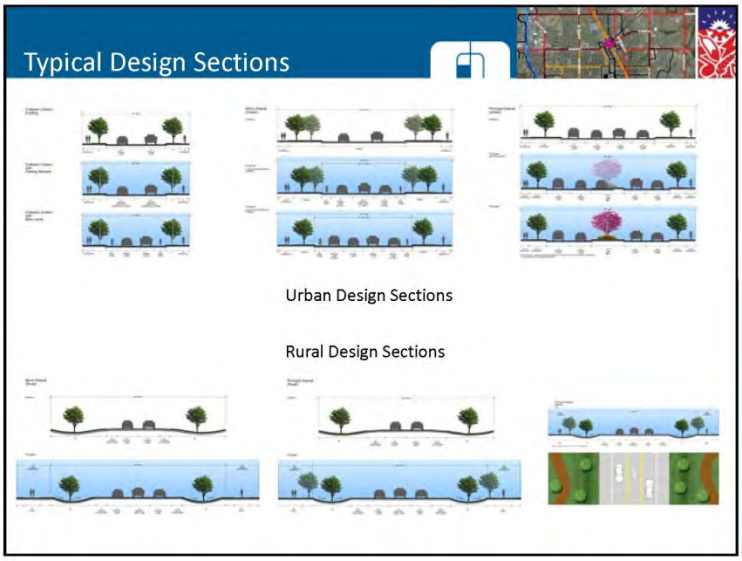




1

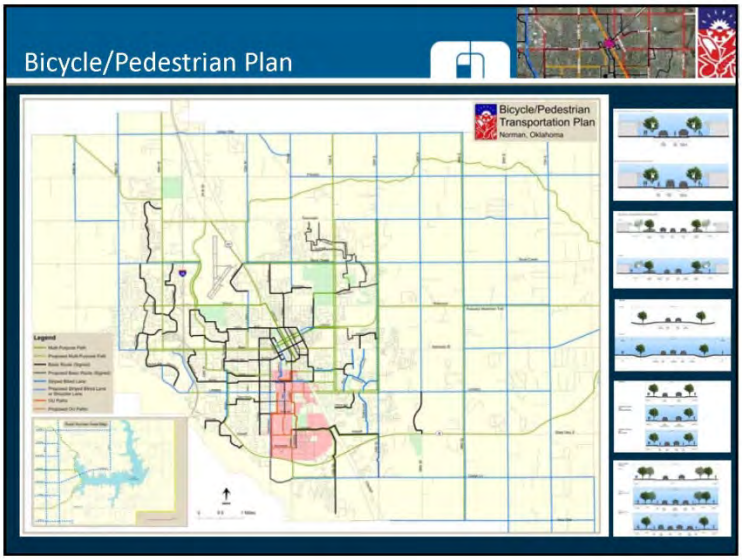
Norman CTP
Subcommittee Meeting #5 – Transportation Concepts
May 23, 2013

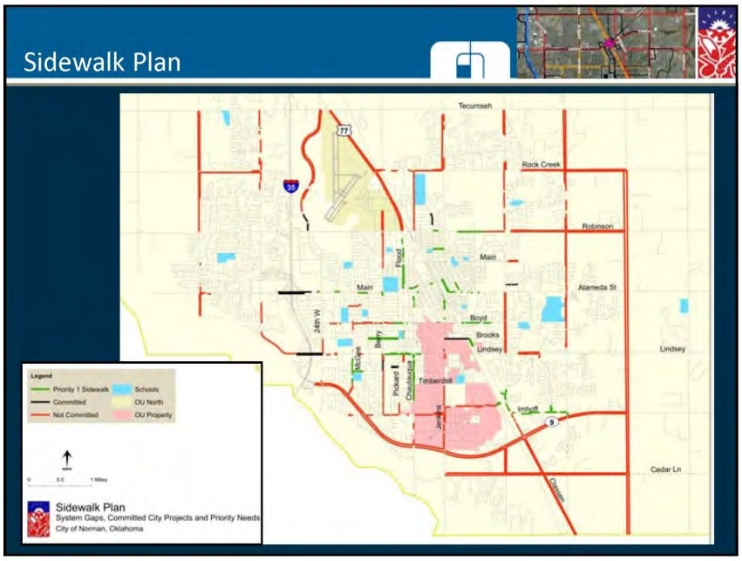




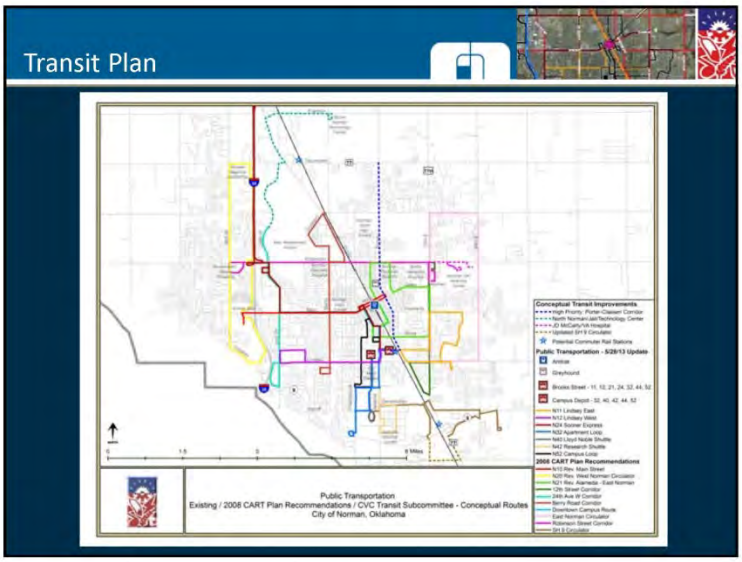
2

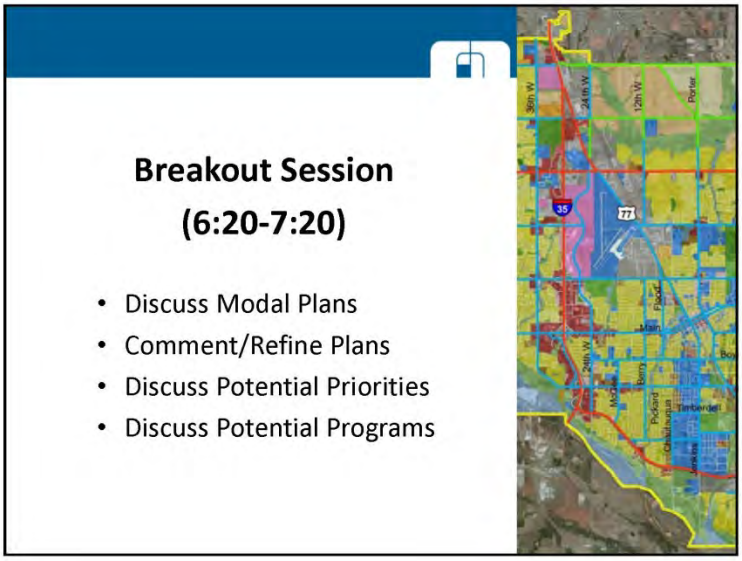
Norman CTP
Subcommittee Meeting #5 – Transportation Concepts
May 23, 2013





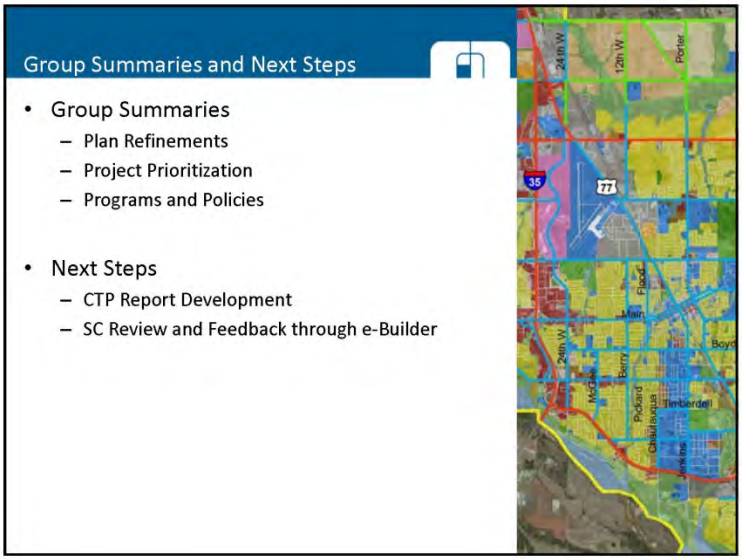
Norman CTP
Subcommittee Meeting #5 – Transportation Concepts
May 23, 2013

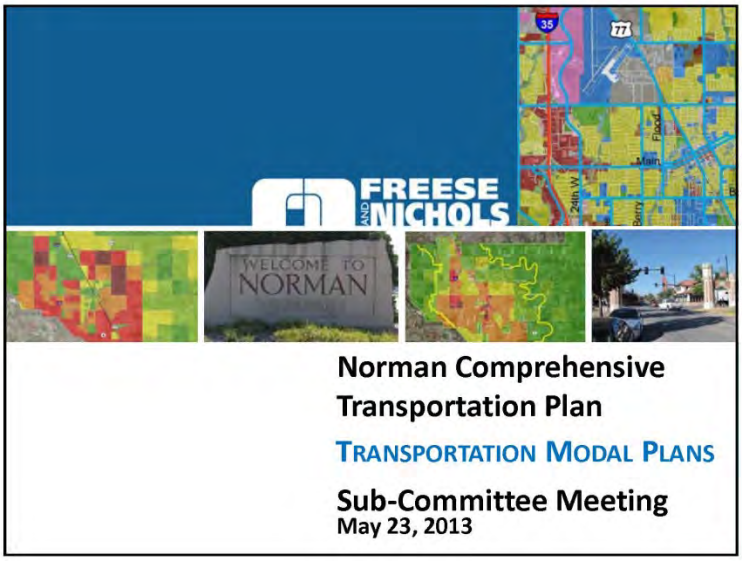




4

Norman CTP
Subcommittee Meeting #5 – Transportation Concepts
May 23, 2013





5

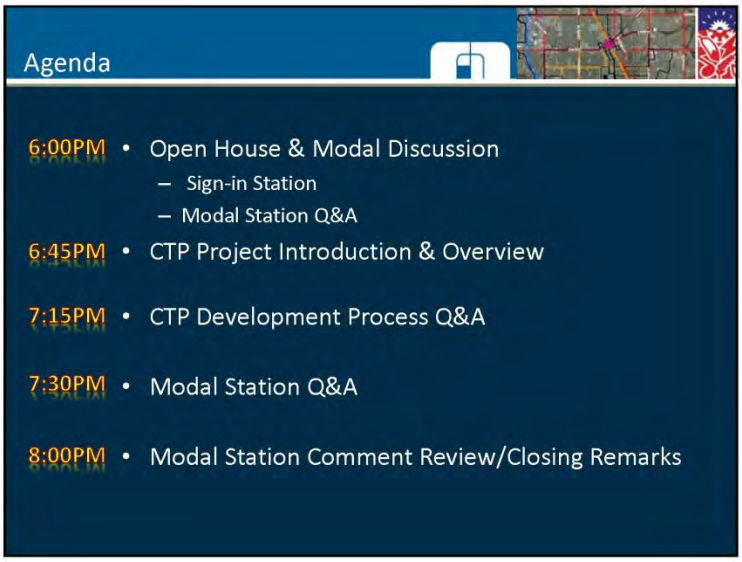
Public Meetings

Two public meetings and several interim presentations were made of the project existing conditions and needs, modal plans, policies and programs and implementation strategies for the CPT. These meetings included:

- City Council Briefing on Goals & Objectives, Existing Conditions and Needs
- Public Open House #1: Goals & Objectives, Existing Conditions and Needs
- OU Student Open House - Goals & Objectives, Existing Conditions and Needs
- Presentation to Chamber of Commerce Airport & Transportation Committee
- Presentation to City Bicycle Advisory Committee
- City Council Briefing on Modal Plans, Policies and Programs
- Public Open House #2: Modal Plans, Policies and Programs
- Public Hearing #1: Modal Plans, Policies and Programs, Implementation
- Public Hearing #2: Modal Plans, Policies and Programs, Implementation

Public Meeting #1: April 15, 2013

Norman CTP
Public Meeting No. 1
April 15, 2013

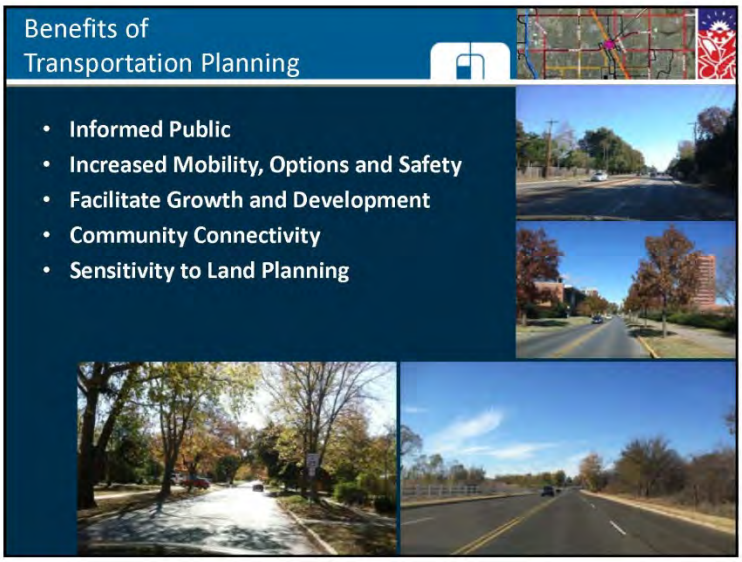


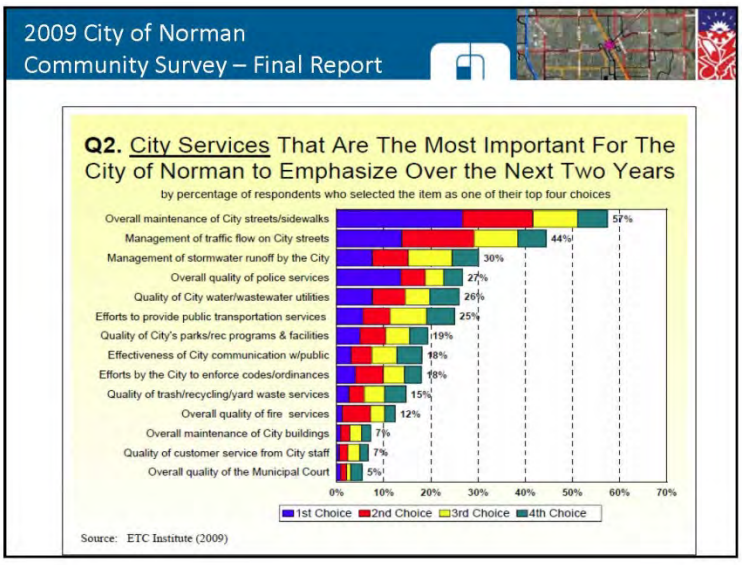
1

Norman CTP
Public Meeting No. 1
April 15, 2013

2

Norman CTP
Public Meeting No. 1
April 15, 2013





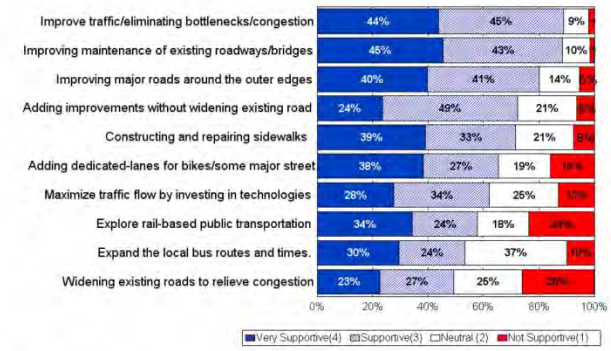
3

Norman CTP
Public Meeting No. 1
April 15, 2013

2011 CTP Survey Results

Q5. Level of Support for Various Transportation Improvements

by percentage of respondents who rated the item as a 1 to 4 on a 4-point scale (excluding don't knows)



Source: ETC Institute 2011

CTP Guiding Principles

Special Place to Live

- **Vibrant** Norman Community in 2035
- Transportation and Infrastructure **focus on both people and places**
- Enhanced transportation **choices** and **accessibility**
- Create a **unique place** with **lasting value**
- **Blends** seamlessly with the character of **Norman's neighborhoods, employment centers and activity centers**

Mobility

- Seamless system of **transportation options** and solutions
- Norman Moving Forward's emphasis on **system management and operations, context sensitive** and **complete streets designs**
- Range of **accessible and convenient, multi-modal transportation choices** that provide connections between neighborhoods and destinations

Maintain and Preserve Existing Infrastructure

- Priority on **maintenance, rehabilitation, safety** and **reconstruction**
- **Neighborhood viability** through **maintaining streets, sidewalks, utilities, storm water systems** and other infrastructure facilities
- Investments **balance transportation needs** of the community and local neighborhoods

Fiscal Stewardship

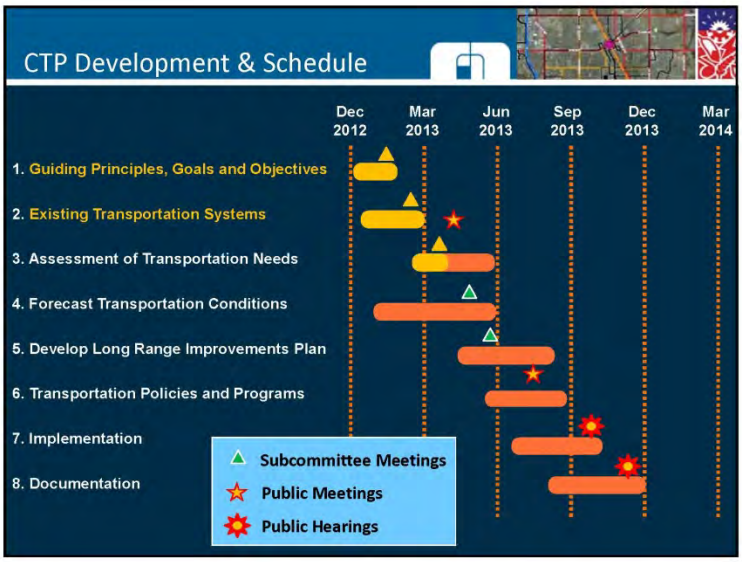
- Provide a **detailed roadmap of actions** for transportation and infrastructure improvements
- Investments **maximize the benefits for multiple user groups** in a way that is **fiscally and environmentally responsible**
- **Input** from the **community-at-large** and ongoing dialogue with **stakeholders**

Enhance Economic Vitality

- Promotes economic growth while **using resources in an efficient and effective manner**
- Supports a **diverse, vibrant local economy** with a **strong tax base**
- **Reduces the fiscal burden on residents** to provide city services

4

Norman CTP
Public Meeting No. 1
April 15, 2013

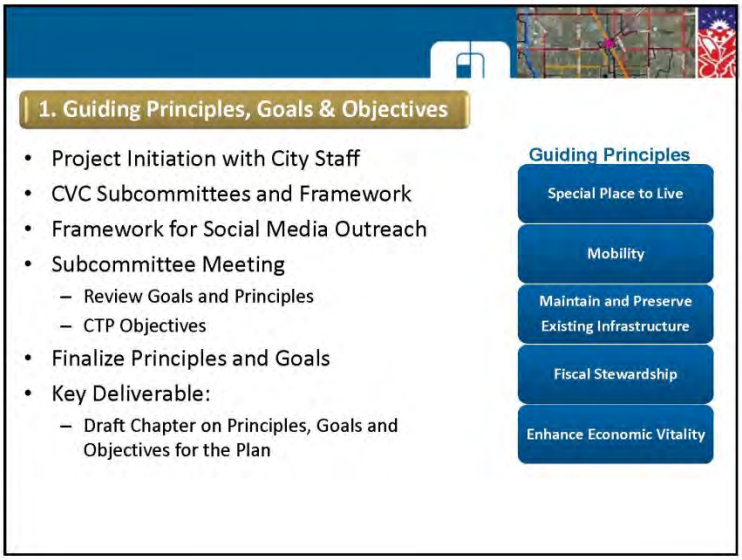


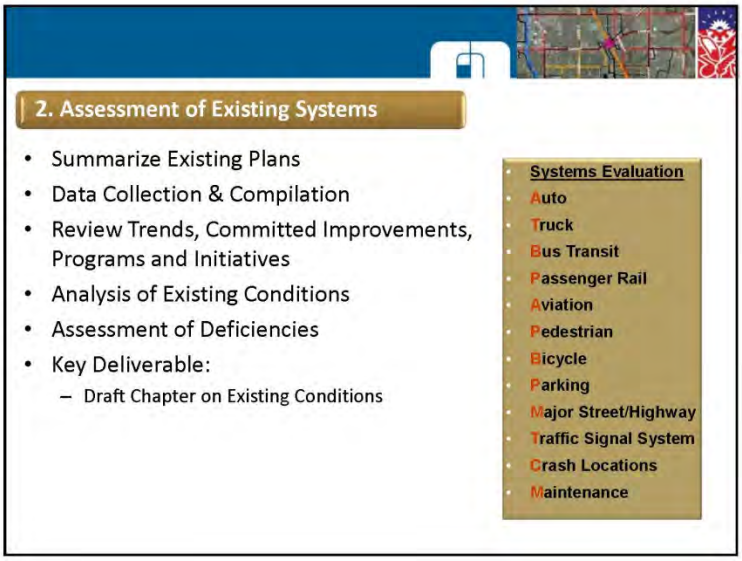
5

Norman CTP
Public Meeting No. 1
April 15, 2013

6

Norman CTP
Public Meeting No. 1
April 15, 2013





7

Norman CTP
Public Meeting No. 1
April 15, 2013

3. Assessment of Transportation Needs

- Initial System Needs Assessment
- Develop Initial Strategies
- Subcommittee: Formulate Concepts
- Refine Needs and Concepts
- Review Needs & Concepts with Commissions, Committees and Council
- Key Deliverable
  - Draft Chapter on Transportation Needs Assessment

4. Travel Forecast Modeling

- Review/Update ACOG Regional TDM for Sub-Area Land Use and Network
- Validate Base Year Model for Norman Traffic Volumes
- Assess "No-Build" 2035 Operations
- 2035 Model for New Roadway and Congestion Mitigation Needs
- Transit System Analysis
- Key Deliverable
  - Base and 2035 Subarea Model

8

Norman CTP
Public Meeting No. 1
April 15, 2013

5. Transportation Plan and Prioritization

- Transportation Plan and Improvements
  - Subcommittee Collaboration
- Street Classifications and Configuration
- Modal System Plans
- Short and Long-Range Improvements
  - Subcommittee Collaboration
- CIP Methodology, Scoring & Ranking of Short and Long-Range Projects
- Key Deliverable
  - System Plans, Short/Long-Range CIP

Modal System Plans
- Thoroughfare Plan
- Pedestrian System
- Bicycle System
- Transit Systems

6. Transportation Policies and Programs

- Review Existing Policies & Programs
- Peer City Review
- Develop Action Plans to Address Programs
  - City Staff and Subcommittee Collaboration
- Implementation Strategies, Roles and Responsibilities
- Subcommittee Concurrence
- Draft Policies
  - Review with Commissions, Committees and Council
  - Social Media Outreach
- Key Deliverable
  - Draft Chapter on Policies, Programs & Procedures

Policies and Programs
- Multimodal Integration
- Transportation Finance
- Traffic Impacts
- Maintenance
- Traffic Calming
- Access Management
- Parking

9

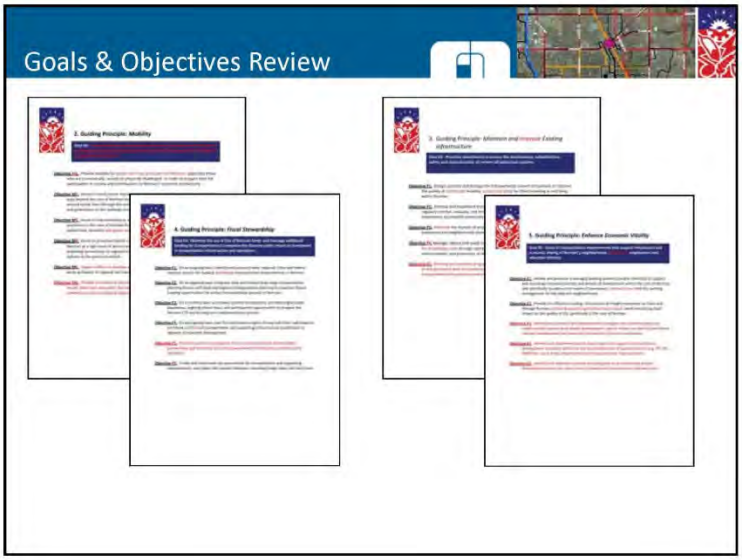
7. Implementation

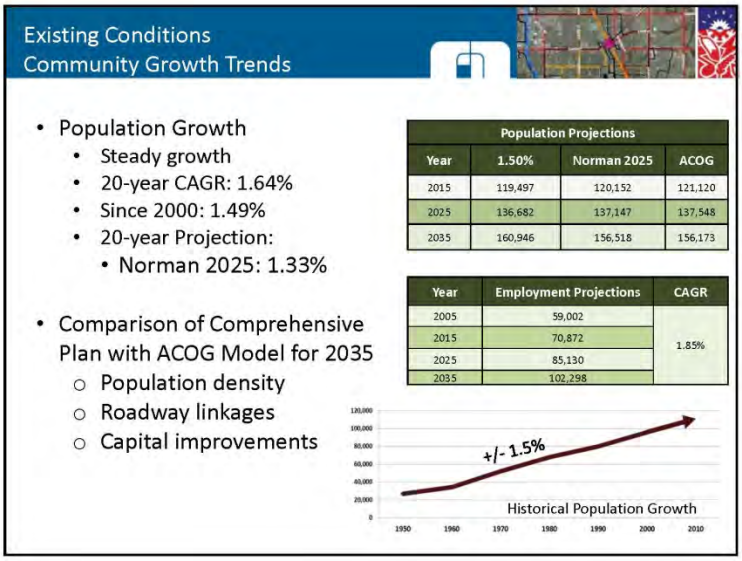
- Review Transportation Revenues & Constraints
- Correlate Revenues and Prioritized Improvements
- Finance Plan for Short/Long-Range CIP
- Assess Potential New Funding Strategies
  - Collaborate with City Staff and CVC
  - Social Media on Implementation Plan
- Committee/Council Meeting on Improvements and Funding Strategies
- Develop 5-Year TIP
  - Review with Committees and Commissions
  - Public Hearing on Draft TIP
- Key Deliverable
  - Implementation Strategies, Funding, Draft TIP

CTP Goals & Objectives Review

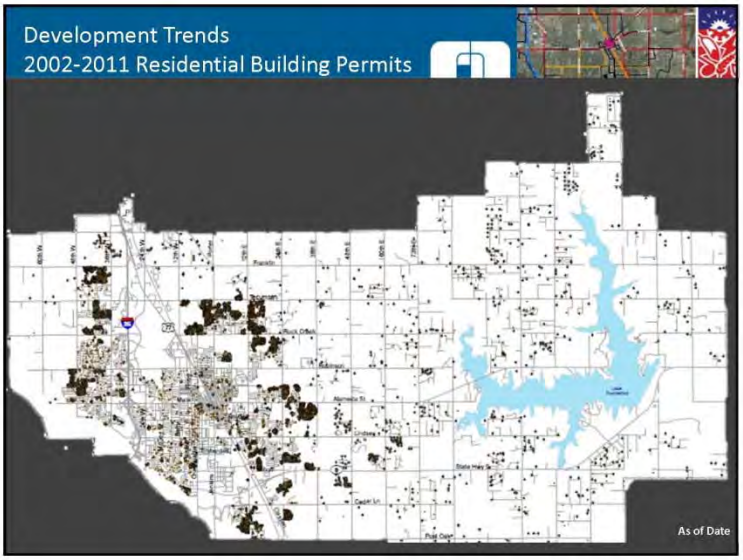
- Five guiding principles
- Refined Goals
- Development of Objectives
- Mixed group collaboration

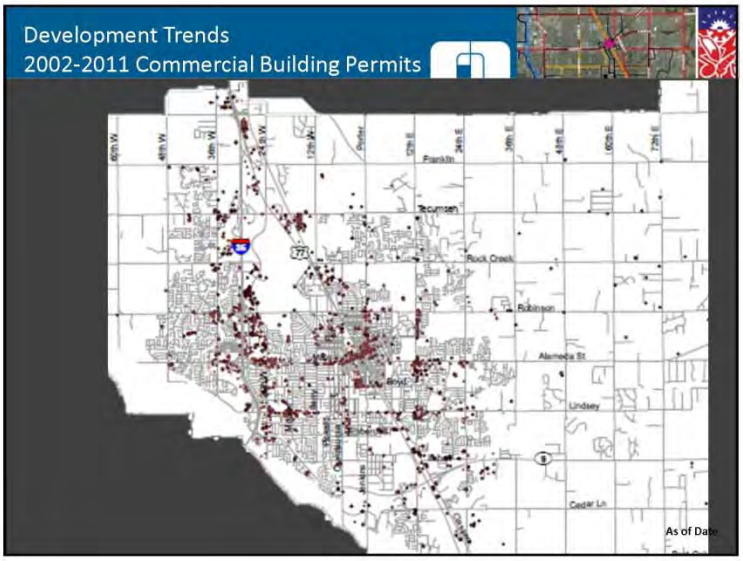
Norman CTP
Public Meeting No. 1
April 15, 2013





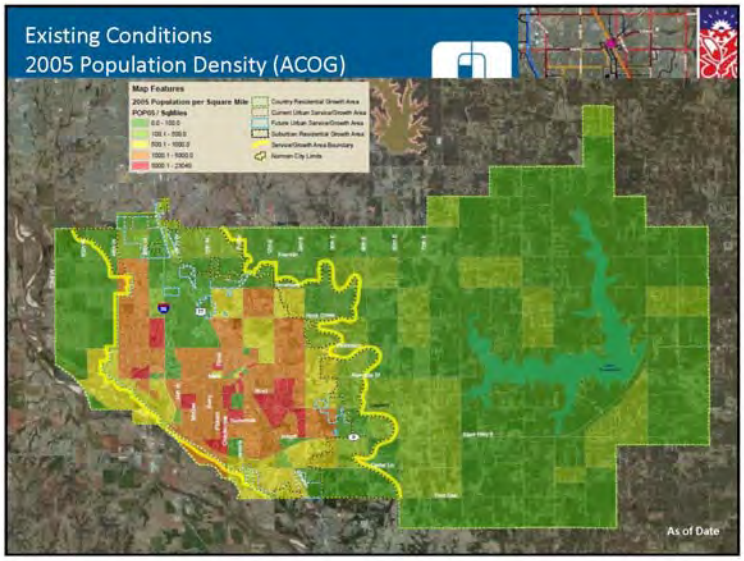
Norman CTP
Public Meeting No. 1
April 15, 2013

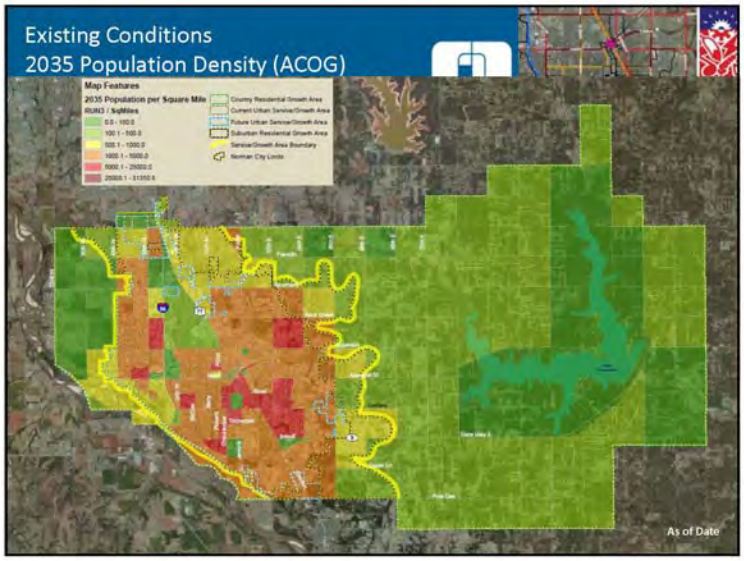




12

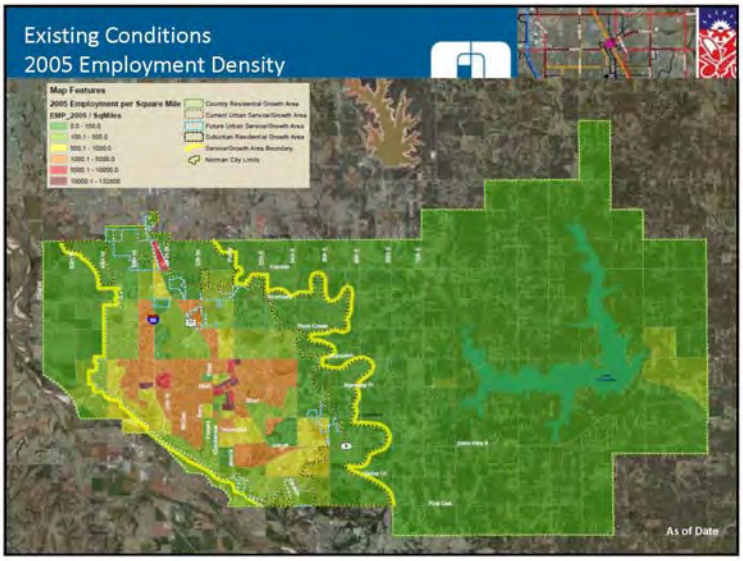
Norman CTP
Public Meeting No. 1
April 15, 2013

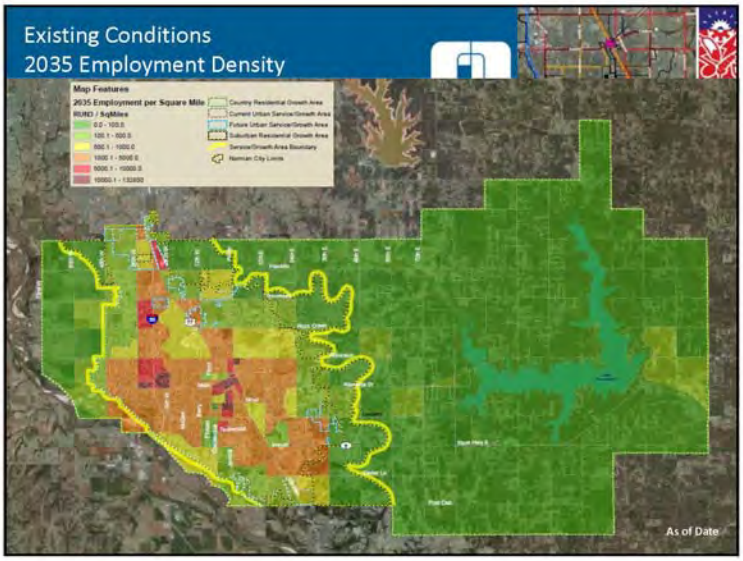




13

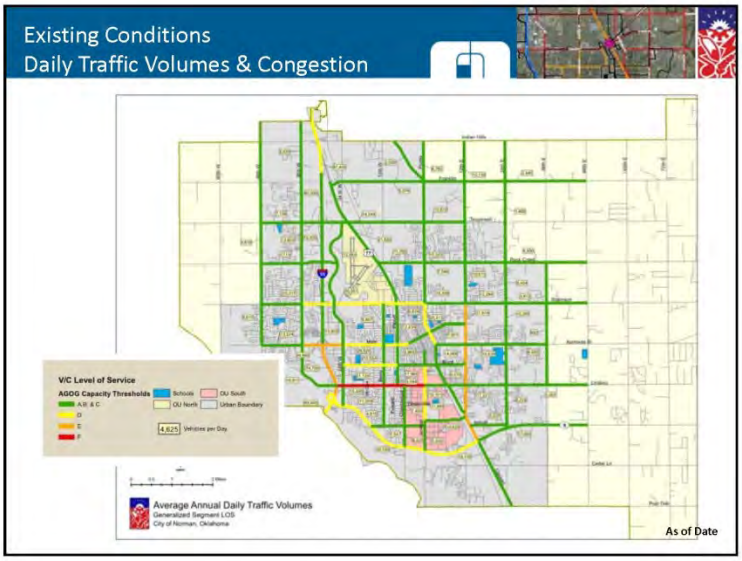
Norman CTP
Public Meeting No. 1
April 15, 2013



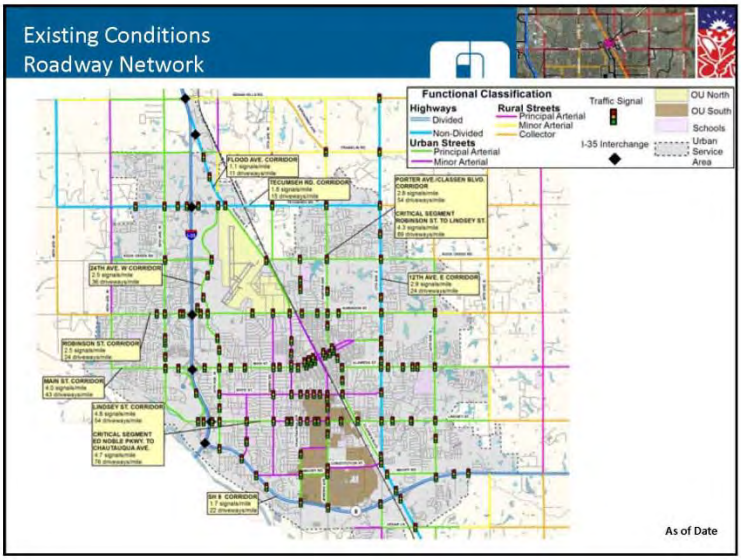


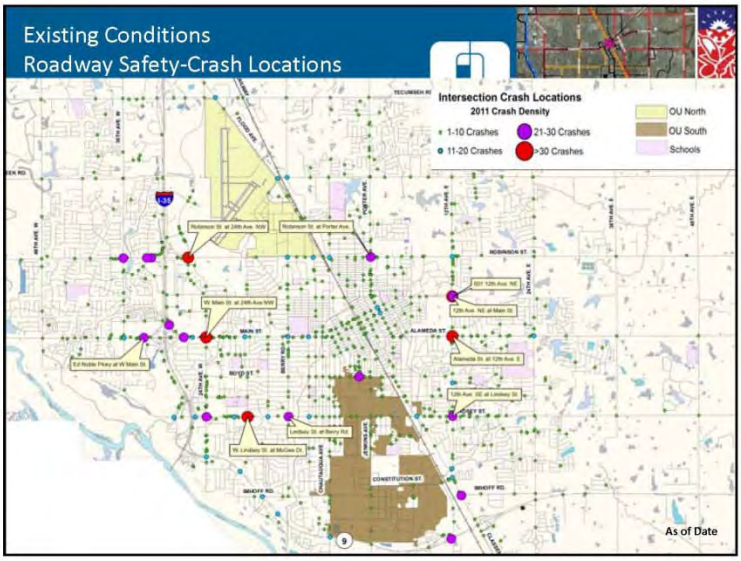
14

Norman CTP
Public Meeting No. 1
April 15, 2013



Norman CTP
Public Meeting No. 1
April 15, 2013





Norman CTP
Public Meeting No. 1
April 15, 2013

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

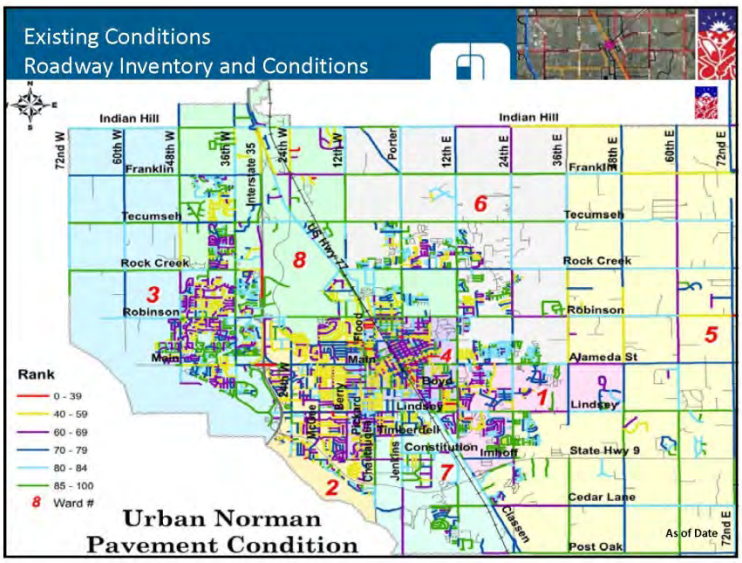
As of Date

Existing Conditions
Freight Operations

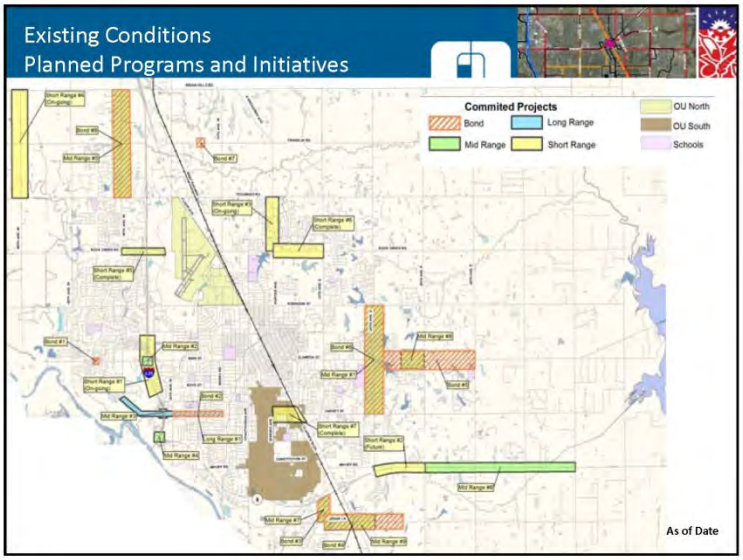
- Rail
  - BNSF "Mid-Con" corridor
  - 50 million tons of freight per year
- Passenger Rail
  - Amtrack's "Heartland Flyer"
  - Along BNSF Line
  - Service: Oklahoma City/Fort Worth
  - 84,000 annual ridership
  - On Average 10% originate/destined for Norman. Numbers differ by year (In 2011, 12% originating/destined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

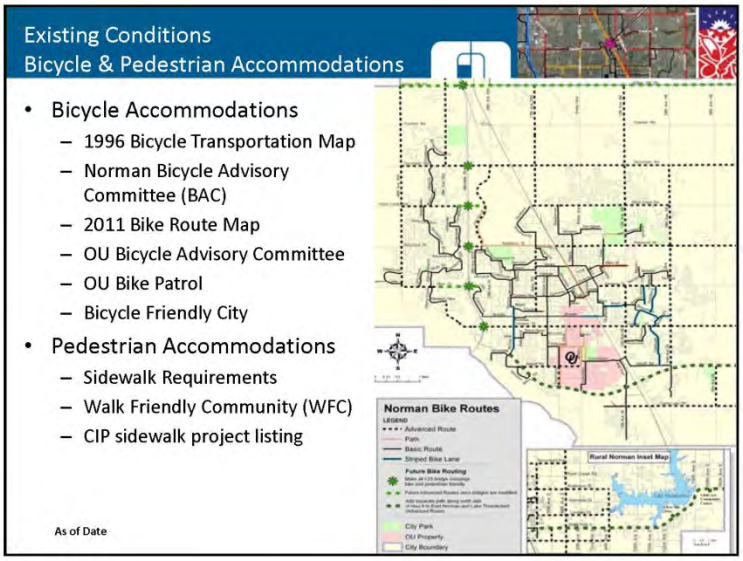
As of Date

Norman CTP
Public Meeting No. 1
April 15, 2013

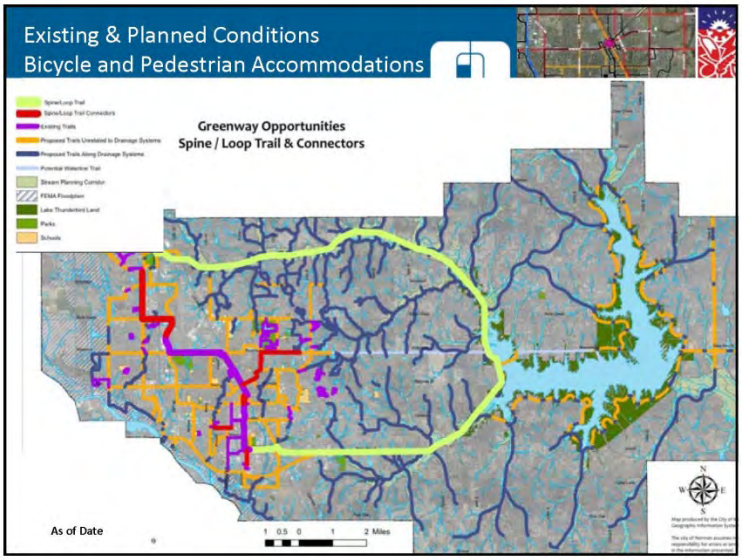


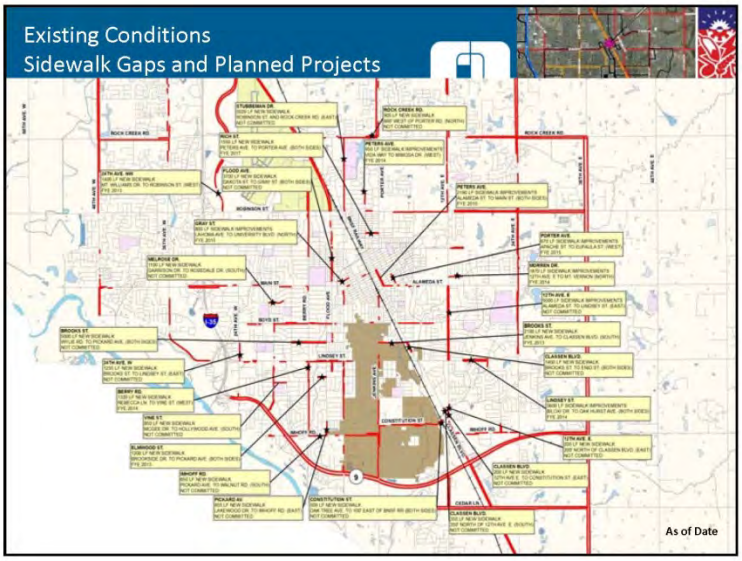
Norman CTP
Public Meeting No. 1
April 15, 2013



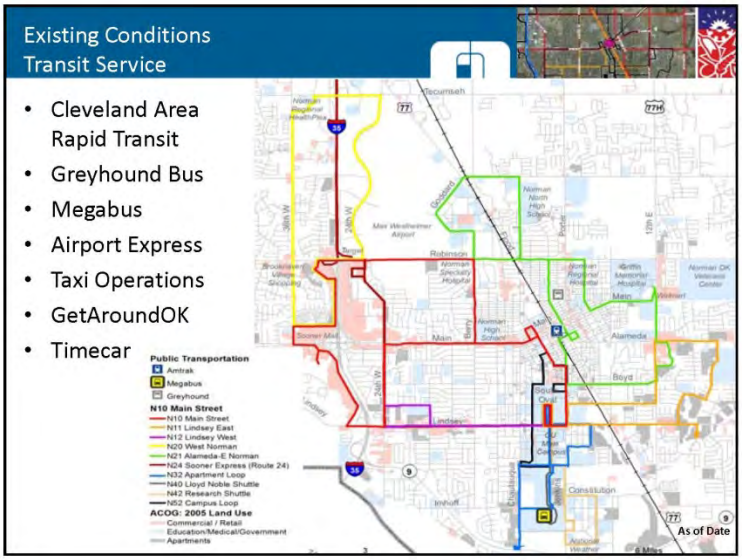


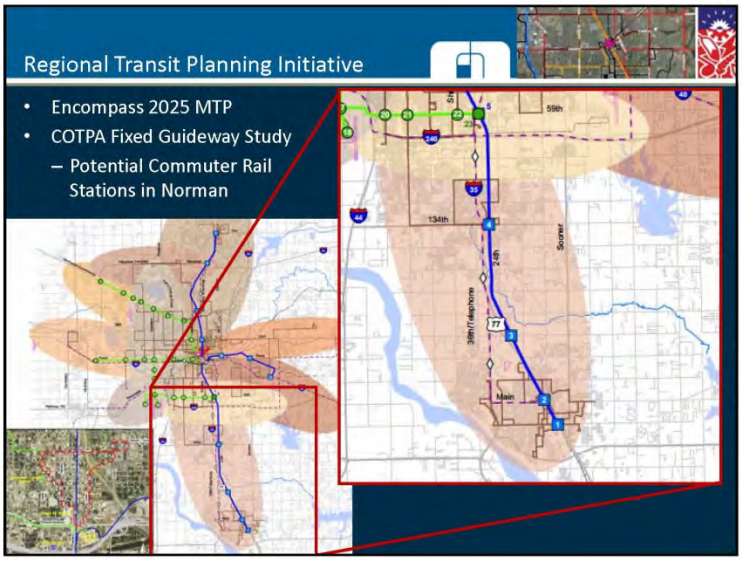
Norman CTP
Public Meeting No. 1
April 15, 2013



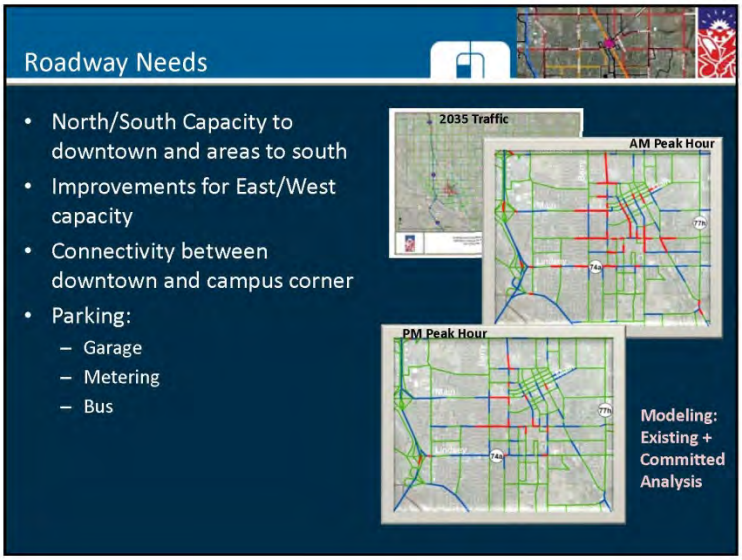


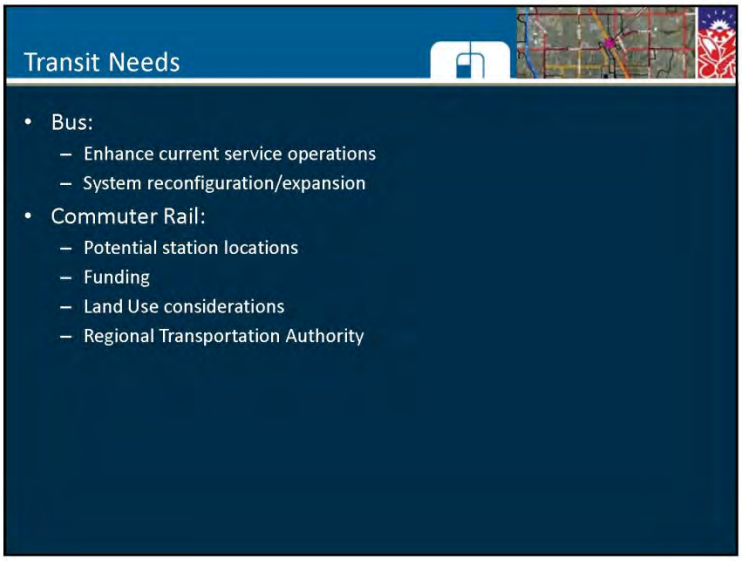
Norman CTP
Public Meeting No. 1
April 15, 2013





Norman CTP
Public Meeting No. 1
April 15, 2013





23

Norman CTP
Public Meeting No. 1
April 15, 2013

Airport, Freight and Emergency Response Needs

- Protect zoning around airport and industrial districts to serve freight, rail and air transportation needs
- Additional lane capacity for special events
- Additional grade separated crossing with RR
- Corridor enhancements
- Land use coordination

Bike/Pedestrian Needs

- Sidewalk system and gap improvements
- Pedestrian safety/mobility during construction
- Wayfinding toward completed sidewalks
- Implementation/prioritization of:
  - Safe Routes to Schools
  - Safe Routes to Transit
  - Access from neighborhoods to parks
- Promote Bike & Walking
- Funding

24

Norman CTP
Public Meeting No. 1
April 15, 2013

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 Materials
  - Chapter work
  - Presentation materials

Agenda

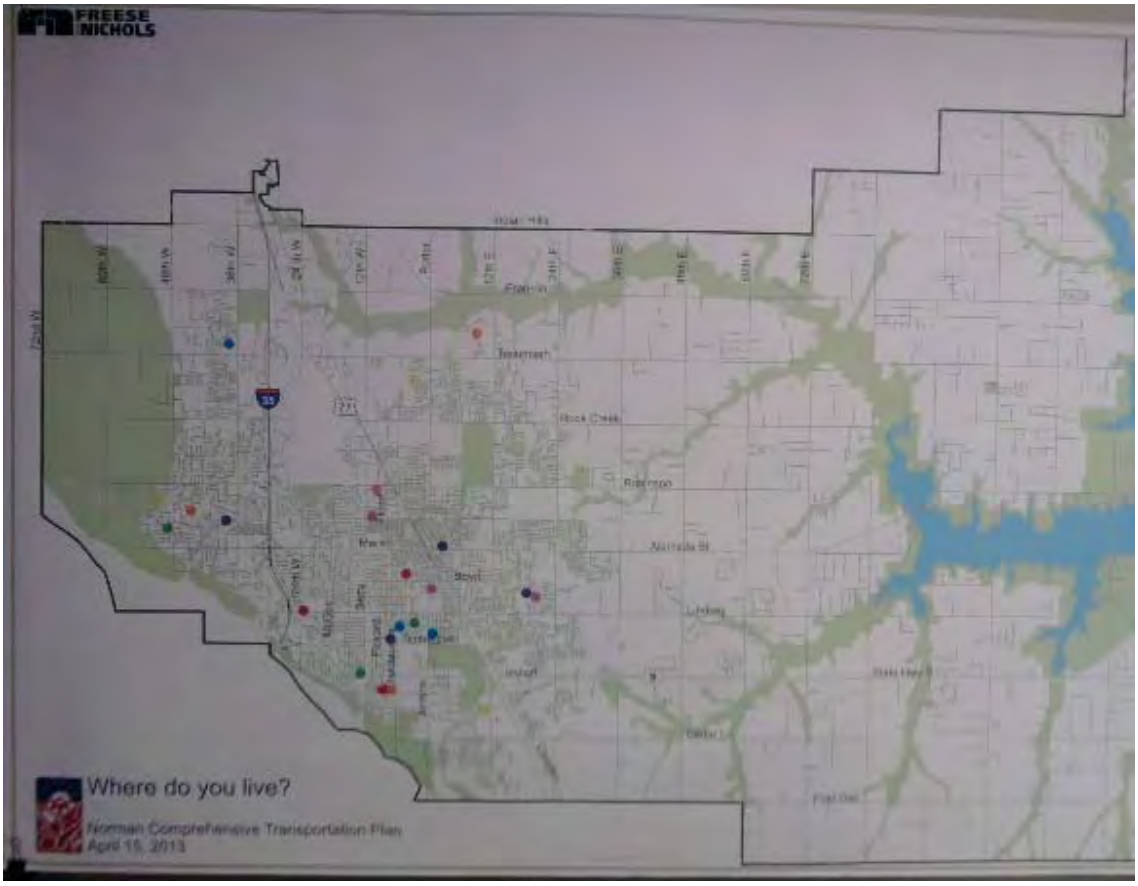
6:00PM • Open House & Modal Discussion
- Sign-in Station
- Modal Station Q&A

6:45PM • CTP Project Introduction & Overview

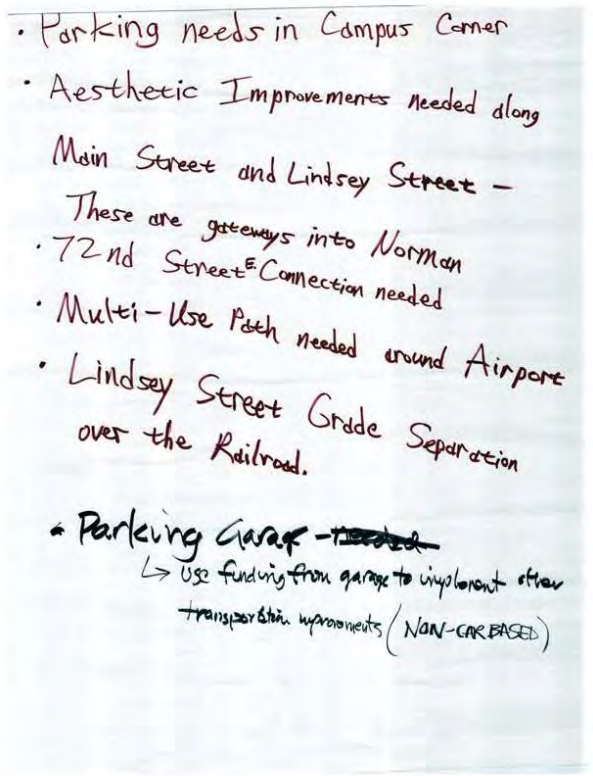
7:15PM • CTP Development Process Q&A

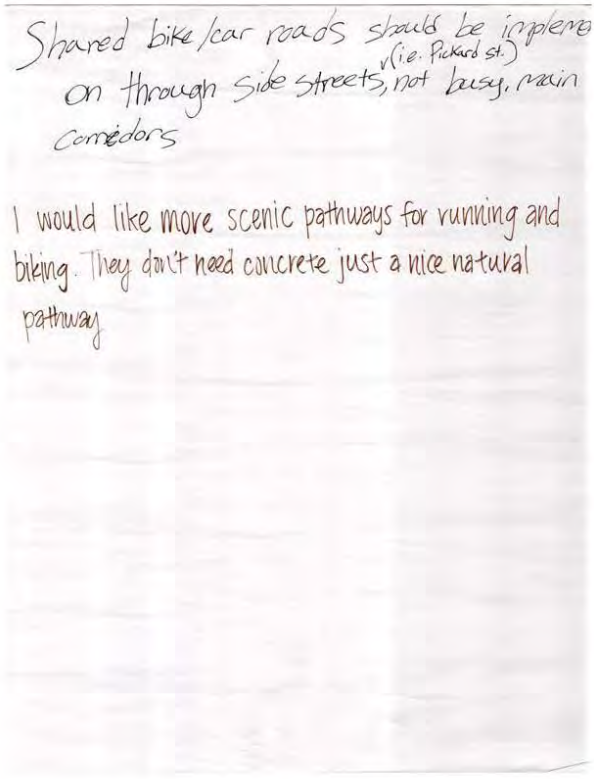
7:30PM • Modal Station Q&A

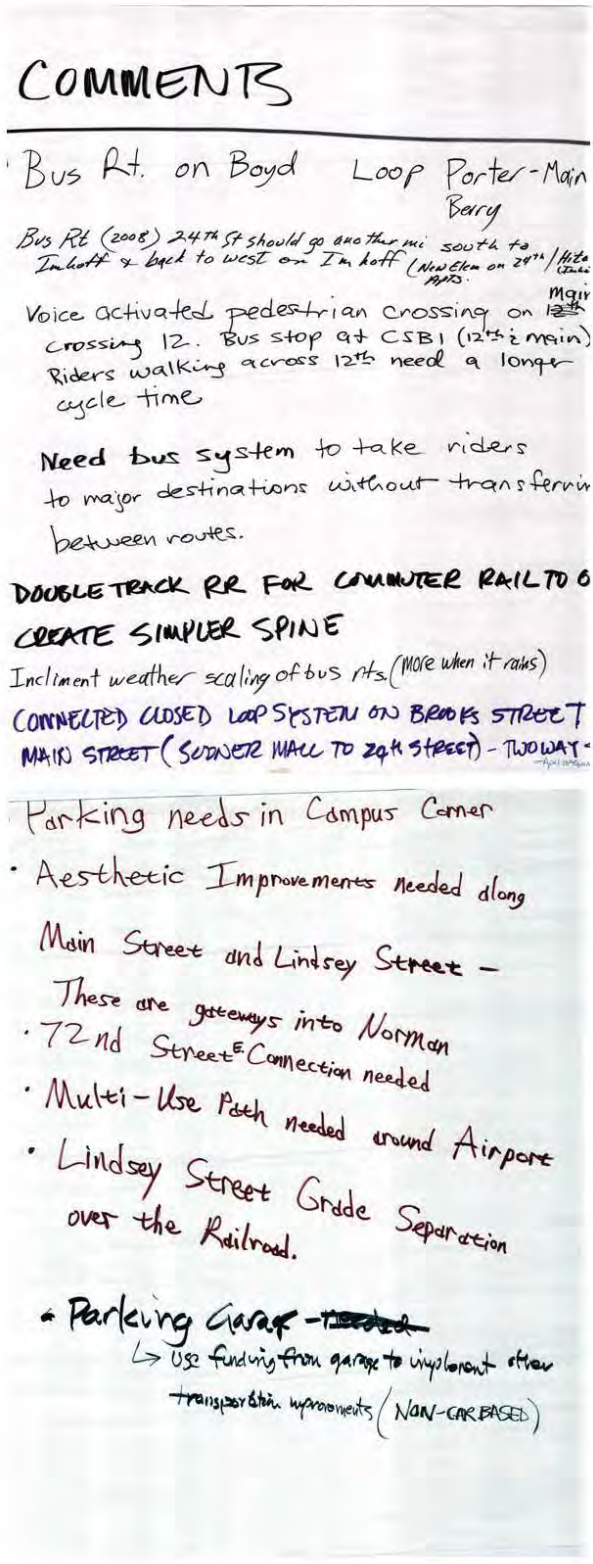
8:00PM • Modal Station Comment Review/Closing Remarks


FREESE NICHOLS
Where do you live?
Norman Comprehensive Transportation Plan
April 15, 2013

Public Meeting #1 Flip Chart Notes: April 15, 2013







COMMENTS

Bus Rt. on Boyd Loop Porter-Main Berry

Bus Rt (2008) 24th St should go another mi south to Imhoff & back to west on Imhoff (Now Elm on 24th/Hitz Main)

Voice activated pedestrian crossing on Main crossing 12. Bus stop at CSBI (12th & main) Riders walking across 12th need a longer cycle time

Need bus system to take riders to major destinations without transferri between routes.

DOUBLE TRACK RR FOR COMMUTER RAIL TO C

CREATE SIMPLER SPINE

Incliment weather scaling of bus rts (More when it rains)

CONNECTED CLOSED LOOP SYSTEM ON BROOKS STREET MAIN STREET (SOONER MALL TO 24th STREET) - TWO WAY -

Parking needs in Campus Corner

- Aesthetic Improvements needed along Main Street and Lindsey Street - These are gateways into Norman
- 72nd Street E. Connection needed
- Multi-Use Path needed around Airport
- Lindsey Street Grade Separation over the Railroad.
- Parking Garage - ~~Needed~~
  - ↳ Use funding from garage to implement other transportation improvements (NON-CAR BASED)

Shared bike/car roads should be implemented on through side streets (i.e. Pickard st.), not busy, main corridors

would like more scenic pathways for running and biking. They don't need concrete just a nice natural pathway

TRANSIT STATION COMMENTS

BUS CIRCULATION SERVICE TO ALL SECTION 8 HOUSING

BUS SERVICE TO M.N.T.C

CONSIDER LINEAR FIXED ROUTE CORRIDORS (ROBINSON STREET)

[redacted]

Grid system bus routes would reduce travel time

AND TRANSIT NEEDS PLAN. STOP WASTING $ ON CARS (!)

- SHELTERS AT ALL STOPS. IT'S HOT! IT'S COLD. WE NEED SHELTER!
- MORE THAN 3 BICYCLES PER BUS - IT'S A CRAPSHOOT IF THE BUS WILL HAVE ROOM FOR YOU AND YR BIKE
- NEED BUSSES TO GO BOTH WAYS - NOT JUST ONE WAY. IT TAKES ABOUT 1 HR TO GO FROM LIBRARY TO MALL BACK TO LIBRARY. THAT'S A LONG DAY.
- BUSSES NEED TO RUN TIL 11PM - PEOPLE WORK & WOULD LIKE TO RIDE HOME INSTEAD OF WALKING. THAT'S 7 DAYS A WEEK.

ANSIT SIATION COMMENTS

BUS CIRCULATION SERVICE TO ALL SECTION 8 HOUSING.

BUS SERVICE TO M.N.T.C

NSIDER LINEAR FIXED ROUTE ORRIDORS (ROBINSON STREET)

[redacted]

grid system bus routes would reduce travel time

TRANSIT NEEDS PLAN. STOP WASTING $ ON CARS

- SHELTERS AT ALL STOPS. IT'S HOT! IT'S COLD. SHELTER. WE NEED !'
- MORE THAN 3 BICYCLES PER BUS - IT'S A CRAPSHOOT IF THE BUS WILL HAVE ROOM FOR YOU AND YR BIKE
- NEED BUSSES TO GO BOTH WAYS - NOT JUST ONE WAY. IT TAKES ABOUT 1 HR TO GO FROM LIBRARY TO MALL BACK TO LIBRARY. THAT'S A LONG DAY.
- BUSSES NEED TO RUN TIL 11PM - PEOPLE WORK & WOULD LIKE TO RIDE HOME INSTEAD of WALKING. THAT'S 7 DAYS A WEEK.

COMMENTS

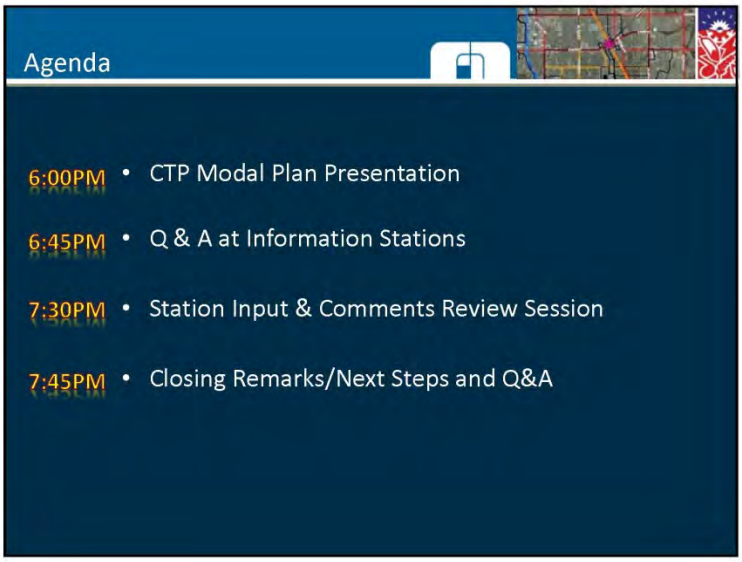
- Bus Rt. on Boyd Loop Porter - Main Berry
- Bus Rt (2008) 24th St should go another mi south to Imhoff & back to west on Imhoff (New Elem on 20th/Hitt Apts.
- Voice activated pedestrian crossing on 12th Main crossing 12. Bus stop at CSBI (12th & main) Riders walking across 12th need a longer cycle time
- Need bus system to take riders to major destinations without transferri between routes.
- DOUBLE TRACK RR FOR COMMUTER RAIL TO
- CREATE SIMPLER SPINE

Incliment weather scaling of bus rts (More when it rains)

CONNECTED CLOSED LOOP SYSTEM ON BROOKS STREET MAIN STREET (SOONER MALL TO 24th STREET) - TWO WAY

Public Meeting #2: September 26, 2013

Norman CTP Modal Plan
Public Meeting #2
September 26, 2013



1

Norman CTP Modal Plan
Public Meeting #2
September 26, 2013

Transportation Planning for Moving Forward

- Framework for growth
- Land Use/transportation interface
- Multi-modal considerations
- System Alignments/ROW Preservation/Design Standards
- Coordination with other agency/city plans
- Infrastructure and utilities coordination
- Capital Improvements Programming
- Funding of Improvements
- Economic benefit
- Statement of Community Policy

Guiding Principles, Goals, Objectives

Special Place to Live

- **Vibrant** Norman Community in 2035
- Transportation and Infrastructure **focus on both people and places**
- Enhanced transportation **choices** and **accessibility**
- Create a **unique place** with **lasting value**
- **Blends** seamlessly with the character of **Norman's neighborhoods, employment centers and activity centers**

Mobility

- Seamless system of **transportation options** and solutions
- Norman Moving Forward's emphasis on **system management and operations, context sensitive** and **complete streets designs**
- Range of **accessible and convenient, multi-modal transportation choices** that provide connections between neighborhoods and destinations

Maintain and Preserve Existing Infrastructure

- Priority on **maintenance, rehabilitation, safety** and **reconstruction**
- **Neighborhood viability** through **maintaining streets, sidewalks, utilities, storm water systems** and other infrastructure facilities
- Investments **balance transportation needs** of the community and local neighborhoods

Fiscal Stewardship

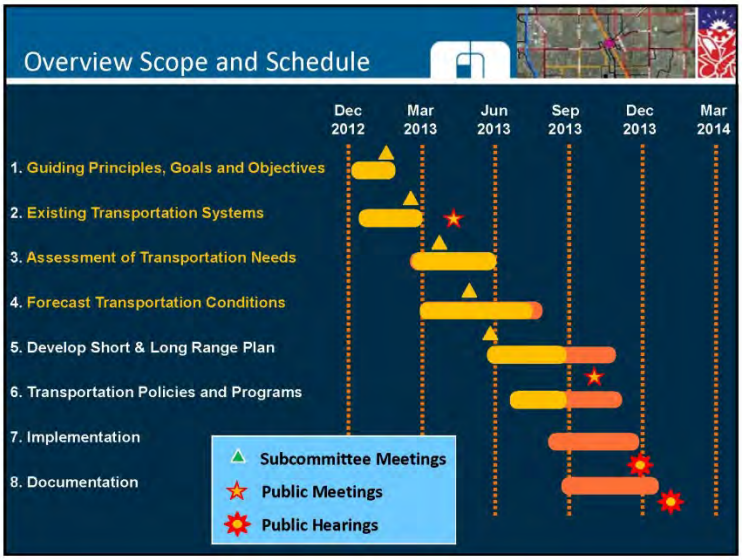
- Provide a **detailed roadmap of actions** for transportation and infrastructure improvements
- Investments **maximize the benefits for multiple user groups** in a way that is **fiscally and environmentally responsible**
- **Input** from the **community-at-large** and ongoing dialogue with **stakeholders**

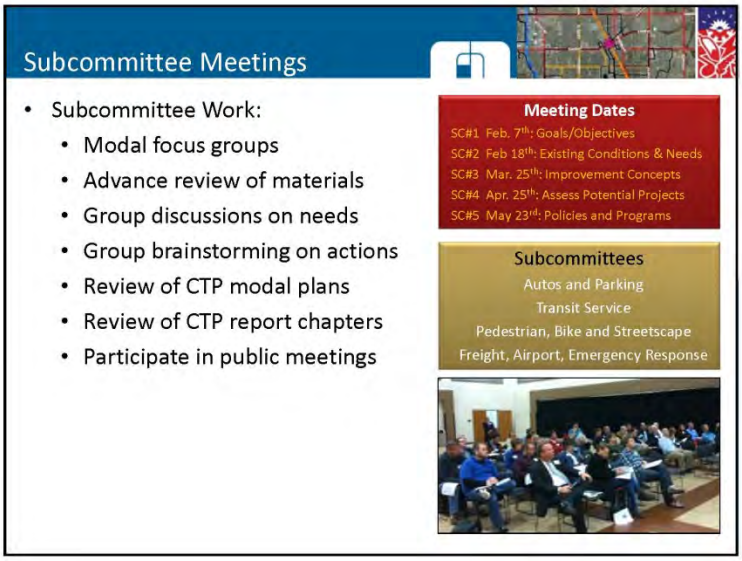
Enhance Economic Vitality

- Promotes economic growth while **using resources in an efficient and effective manner**
- Supports a **diverse, vibrant local economy** with a **strong tax base**
- **Reduces the fiscal burden on residents** to provide city services

2

Norman CTP Modal Plan
Public Meeting #2
September 26, 2013



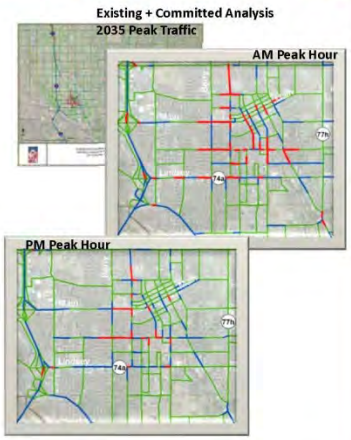


3

Norman CTP Modal Plan
Public Meeting #2
September 26, 2013

Transportation Needs

- Existing Conditions Assessment
- Initial work with Sub-Committee
- Assessment of needs
- Public Input
- Modeling & Analyses
  - Existing + Committed
  - Scenarios



CTP Elements

Modal Plans

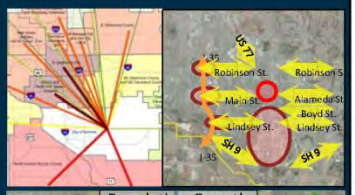
- Thoroughfare Plan and Typical Sections
- Bicycle and Pedestrian Plan, Sidewalk Completion Plan
- Transit Service Plan
- Airport, Freight and Emergency Response

4

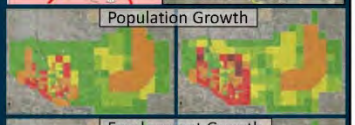
Norman CTP Modal Plan
Public Meeting #2
September 26, 2013

Roadway Needs

- Regional connections
- Norman core accessibility
- North/South Capacity to downtown and campus area
- East/West capacity needs
- Connectivity between downtown and campus corner



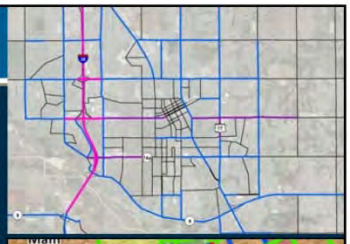
Population Growth

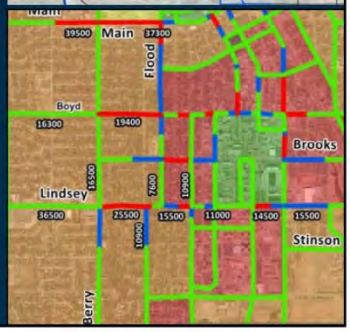


Employment Growth

CTP Travel Forecasting

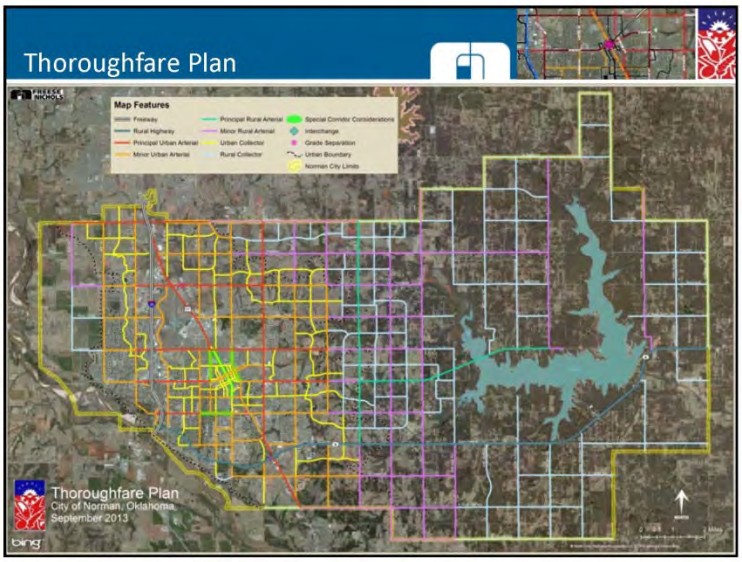
- ACOG Regional Model
  - Encompass 2035
  - Travel Survey-household and transit
  - Model Calibration
  - Commute Patterns
  - Norman 2025 Land Uses, Updated
- Norman Sub-Area Model
  - Added network definition
  - Refined TAZ loading onto network
  - University North Park Development
  - Socio-Demographics by TAZ
    - Population confirmed
    - Employment confirmed





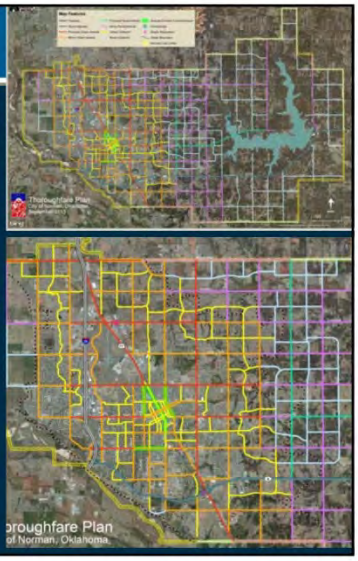
5

Norman CTP Modal Plan
Public Meeting #2
September 26, 2013



Highlights of the Thoroughfare Plan

- Added definition to functional classification and network
- Design options for roadway sections
- Formalization of internal loop for regional connection
- Identification of Collector network supporting section grid
- Creation of Special Corridors
- Railroad grade separations at Tecumseh and Lindsey

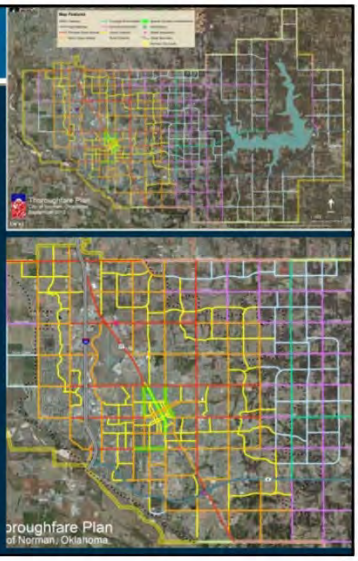


6

Norman CTP Modal Plan
Public Meeting #2
September 26, 2013

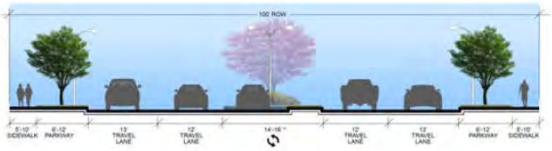
Highlights of the Thoroughfare Plan

- Extension of James Garner
- Increased significance of Jenkins and Chautauqua from SH9
- Re-thinking Main and Gray Streets thru downtown
- Main/Gray (Porter to Roundabout)
- Special Corridor Considerations
  - Lindsey Street
  - Porter Avenue
  - Flood Avenue
  - James Garner
- Rural Principle Arterials
  - 48th Street East
  - Alameda Street



Hierarchy of Design Sections

Principal
Urban Arterial



Design Section Options:
- Add Bike Lane – tradeoff with sidewalk and parkway or add ROW
- Six Through Lanes – for ADT > 40,000, requires additional ROW
- Flush Median – for complex property access needs

Applications:
Main, I-35 to Flood
Robinson, I-35 to 36th E.
Tecumseh, I-35 to 12th E.
12th E. thru Norman

7

Norman CTP Modal Plan
Public Meeting #2
September 26, 2013

Hierarchy of Design Sections

Minor Urban Arterial

Applications:
Berry, Lindsey to Robinson
36th W. thru Norman
Main, east of Porter

Design Section Options:

- Landscaped Median (three lane section) – where turns not needed
- Turn Lanes at Intersection (four lane section) - using portion of landscaping buffer
- Parking provisions, using portion of landscaping buffer
- Two-lane roadway with roundabouts at intersections
- One-way couplet, with one lane in each direction

Hierarchy of Design Sections

Urban Collector

Applications:
Webster
Acres
Boyd, Berry to 24th W.

Design Section Options:

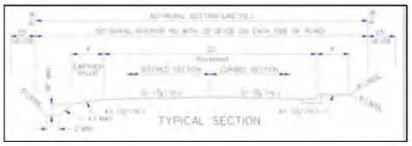
- Turn Lanes at Intersection – narrow lanes to 11' or additional ROW
- Parking provisions plus bike lanes – trade-off landscaping or additional ROW
-

8

Norman CTP Modal Plan
Public Meeting #2
September 26, 2013

Hierarchy of Design Sections

Rural Collector
(existing standard)



Design Section Options:
- Add 5-foot sidewalks or path along roadway
- Curb and gutter edges on roadway
- Medians, landscaping, wider pavement

Applications:
Sparse section line roads
Rural interior roadways

Complete Streets

- A network for all users
  - walking, bike, transit, auto
- Right-sizing of streets
- Improved safety
- Mobility choices
- Economic benefit

- Guidelines for:
  - Project selection
  - Design standards
  - Special considerations

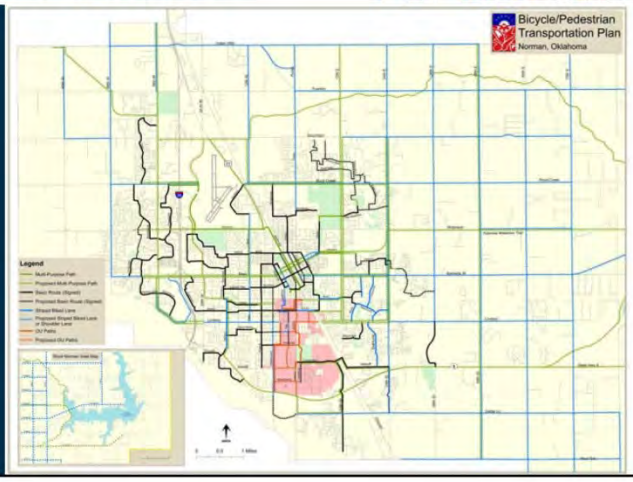
Source: National Complete Streets Coalition

Norman CTP Modal Plan
Public Meeting #2
September 26, 2013

Bike & Pedestrian Needs

- Sidewalk system and gap improvements
- Pedestrian safety/mobility during construction
- Wayfinding toward completed sidewalks
- Implementation/prioritization of:
  - Safe Routes to Schools
  - Safe Routes to Transit
  - Access from neighborhoods to parks
- Promote Bike & Walking
- Funding

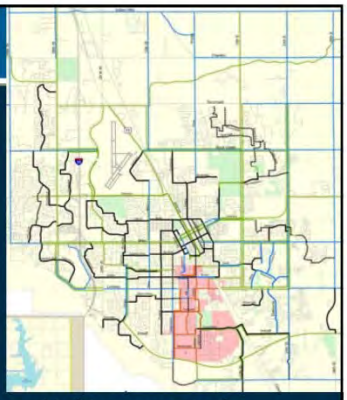
Bike & Pedestrian Plan



Norman CTP Modal Plan
Public Meeting #2
September 26, 2013

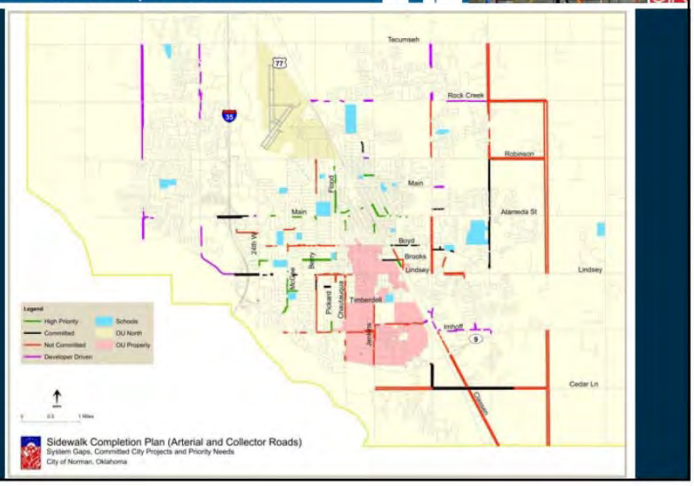
Highlights of the Bike & Pedestrian Plan

- Extension of Historic Trail around Max Westheimer Airport
- Bike lanes along:
  - Lindsey (Elm to 24th Ave. W)
  - Ed Noble Parkway (Lindsey to Main)
  - Main (Westernview to 48th W) and 48th W (Main to Indian Hills)
  - Rock Creek Road
  - University (Boyd to Apache)
  - Webster (Duffy to Gray)
  - Acres (Berry to Porter)
- Shoulder bike lanes on all principal and minor rural arterials
- Side-paths
  - 12th Ave. E (Tecumseh to Lindsey)
  - Lindsey (12th Ave. E to Classen)



- Multi-purpose trails
  - Main (12th E. to 24th E.)
  - Robinson (24th E. to lake)

Sidewalk Completion Plan

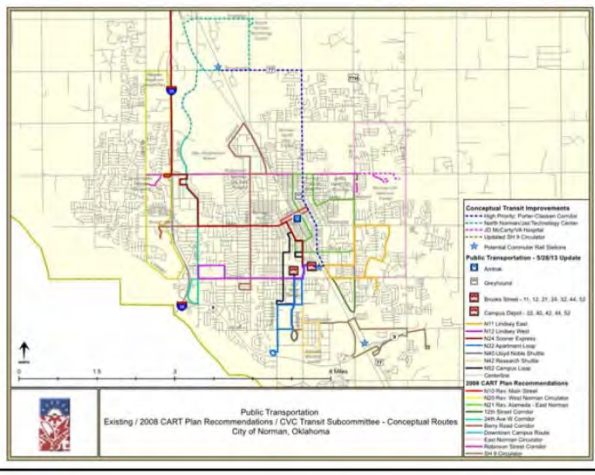


Norman CTP Modal Plan
Public Meeting #2
September 26, 2013

Transit Needs

- Bus:
  - Enhance current service operations
  - System reconfiguration/expansion
- Commuter Rail:
  - Potential station locations
  - Funding
  - Land Use considerations
  - Regional Transportation Authority

Transit Plan

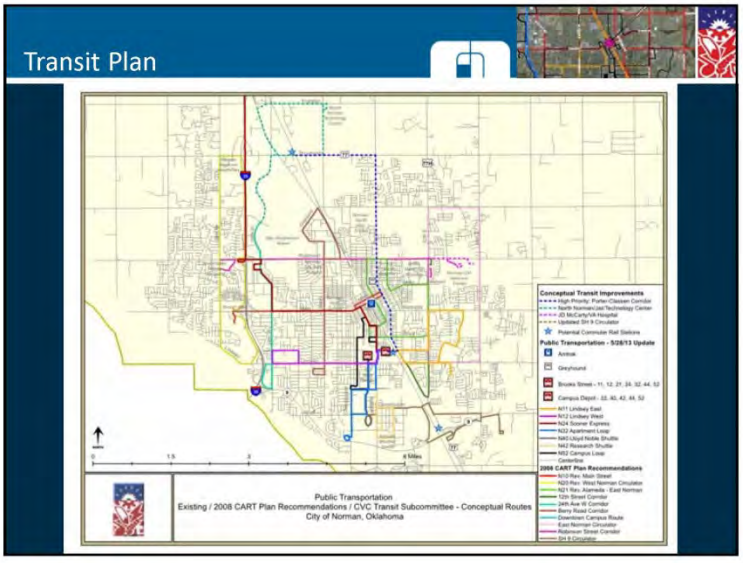


Norman CTP Modal Plan
Public Meeting #2
September 26, 2013

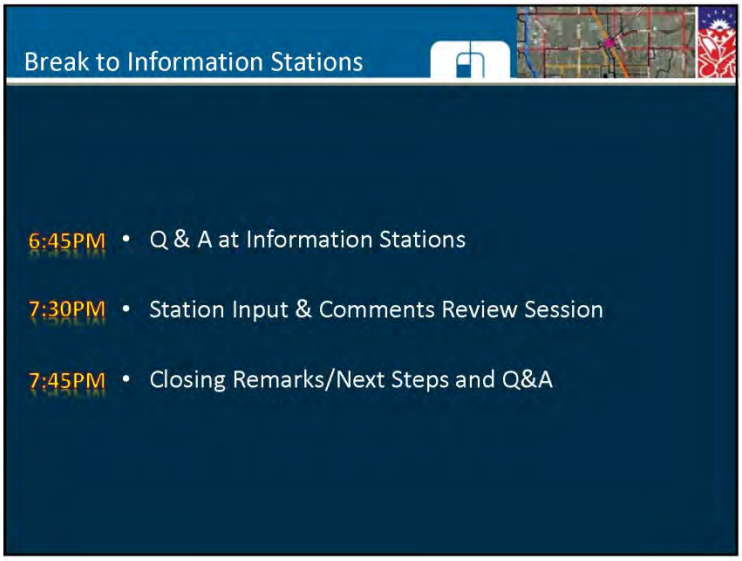
Highlights of the Transit Plan

- 2008 CARTS Plan; enhanced for:
  - Porter-Classen corridor
  - Moore Norman Technology Center
  - University North Park
  - SH9/Cedar Lane area
- Increased service frequency and hours of operation
- Better accommodation of patrons with wheelchairs
- ADA compliance at stops
- Regional Commuter Rail Stations
  - Tecumseh, Downtown, SH9/Imhoff
  - Platform for special events
- IH35 – Reversible HOV lane

Transit Plan



Norman CTP Modal Plan
Public Meeting #2
September 26, 2013



15

Norman CTP Modal Plan
Public Meeting #2
September 26, 2013

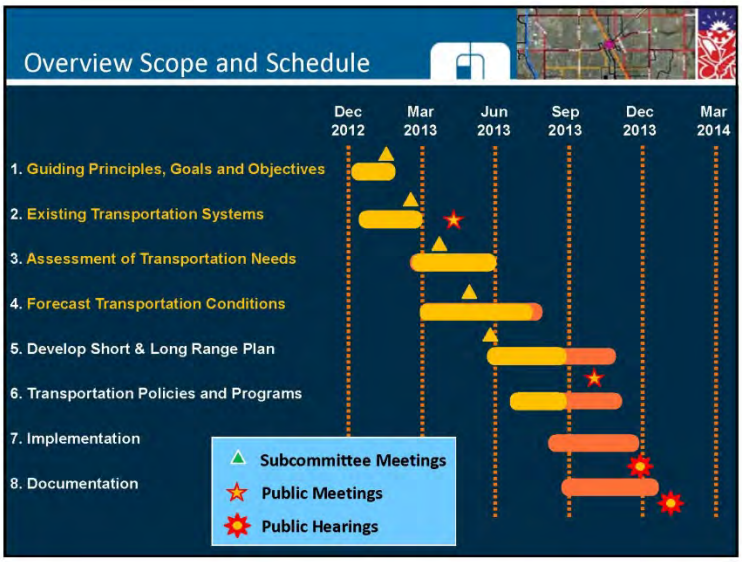
Upcoming Work

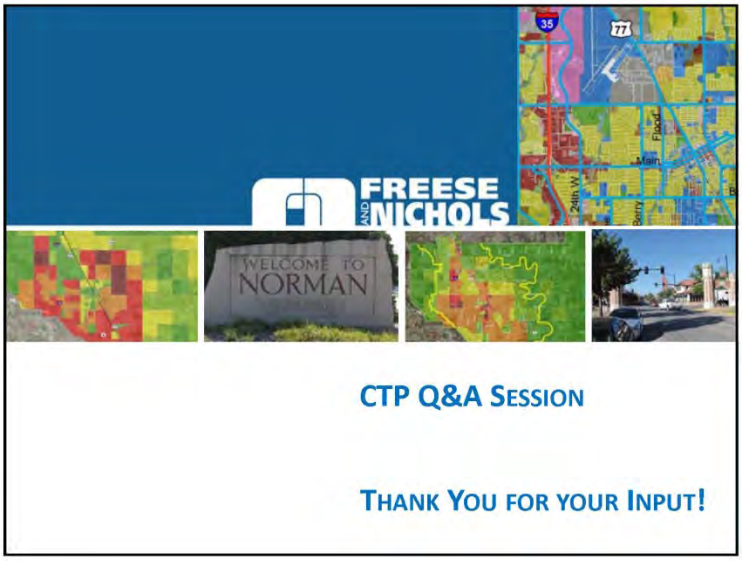
- Programs & Polices
  - Complete Streets
    - Project Selection Criteria
    - Design Considerations
  - Operations & Maintenance
    - Critical Intersections/Design Standards
    - Access/Corridor Management
    - CIP identification
  - Airport Preservation and Support
  - Growth and Development
    - Traffic Impact Assessment, Infrastructure Funding
  - Parking Program
- Short and Long Range Improvements
  - Short Range program for developing CIP
  - Long Range program for coordination with agencies
  - ROW preservation

Social Media

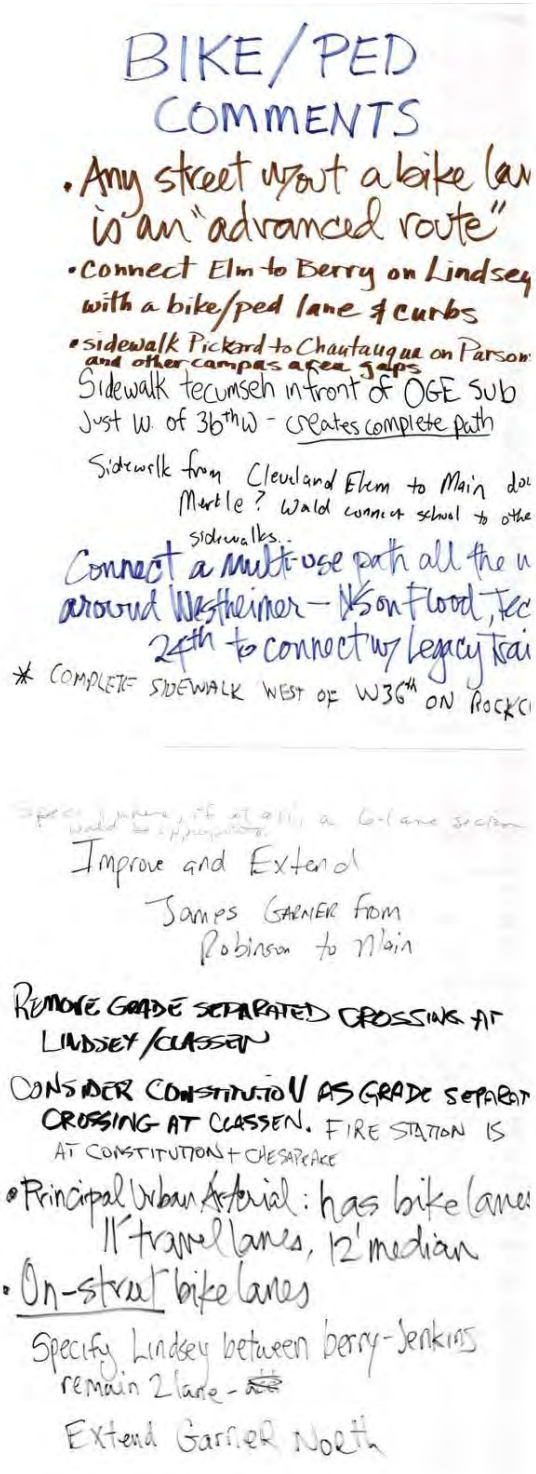
- SC continued review via e-Builder
- Posting of CTP interim products on City Moving Forward website
  - Subcommittee Meetings #1-5
  - Chamber of Commerce Committee
  - Public Open House #1 materials
  - Council Briefings
- Announcing availability of CTP interim products on Facebook
- Pushing out messages about CTP interim products using Twitter

Norman CTP Modal Plan
Public Meeting #2
September 26, 2013





Public Meeting #2 Flip Chart Notes: September 26, 2013



BIKE/PED COMMENTS

- Any street w/out a bike lan is an "advanced route"
- Connect Elm to Berry on Lindsey with a bike/ped lane & curbs
- sidewalk Pickard to Chautauqua on Parson and other campus area gaps

Sidewalk tecumseh in front of OGE sub Just W. of 36th W - creates complete path

Sidewalk from Cleveland Elem to Main do Myrtle? Would connect school to othe sidewalks..

Connect a Multi-use path all the u around Westheimer - N Santa Fe, Flood, Lee 24th to connect w/ Legacy Trai

* COMPLETE SIDEWALK WEST OF W36TH ON ROCKC

Improve and Extend James Garner from Robinson to Main

REMOVE GRADE SEPARATED CROSSING AT LINDSEY/CLASSEN

CONSIDER CONSTITUTION AS GRADE SEPARAT CROSSING AT CLASSEN. FIRE STATION IS AT CONSTITUTION + CHESAPEAKE

- Principal Urban Arterial: has bike lanes 11' travel lanes, 12' median
- On-street bike lanes

Specify Lindsey between Berry-Jenkins remain 2 lane -

Extend Garner North