

PLEASE BE ADVISED THAT SOME OF THE INFORMATION IN THIS PRESENTATION IS OUTDATED SO IT IS ABLE TO SHOW CHANGES IN THE PLAN OVER TIME.

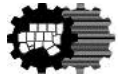
- SANDRA GREEN, CITY SECRETARY

FARMERSVILLE CITY COUNCIL MEETING

February 13, 2018

Farmersville City Hall

Farmersville, Texas



North Central Texas Council of Governments

COLLIN COUNTY

STRATEGIC ROADWAY PLAN (CCSRP)

CONSIDERATIONS FOR EXPEDITED IMPLEMENTATION

WELCOME + INTRODUCTIONS

NCTCOG STAFF

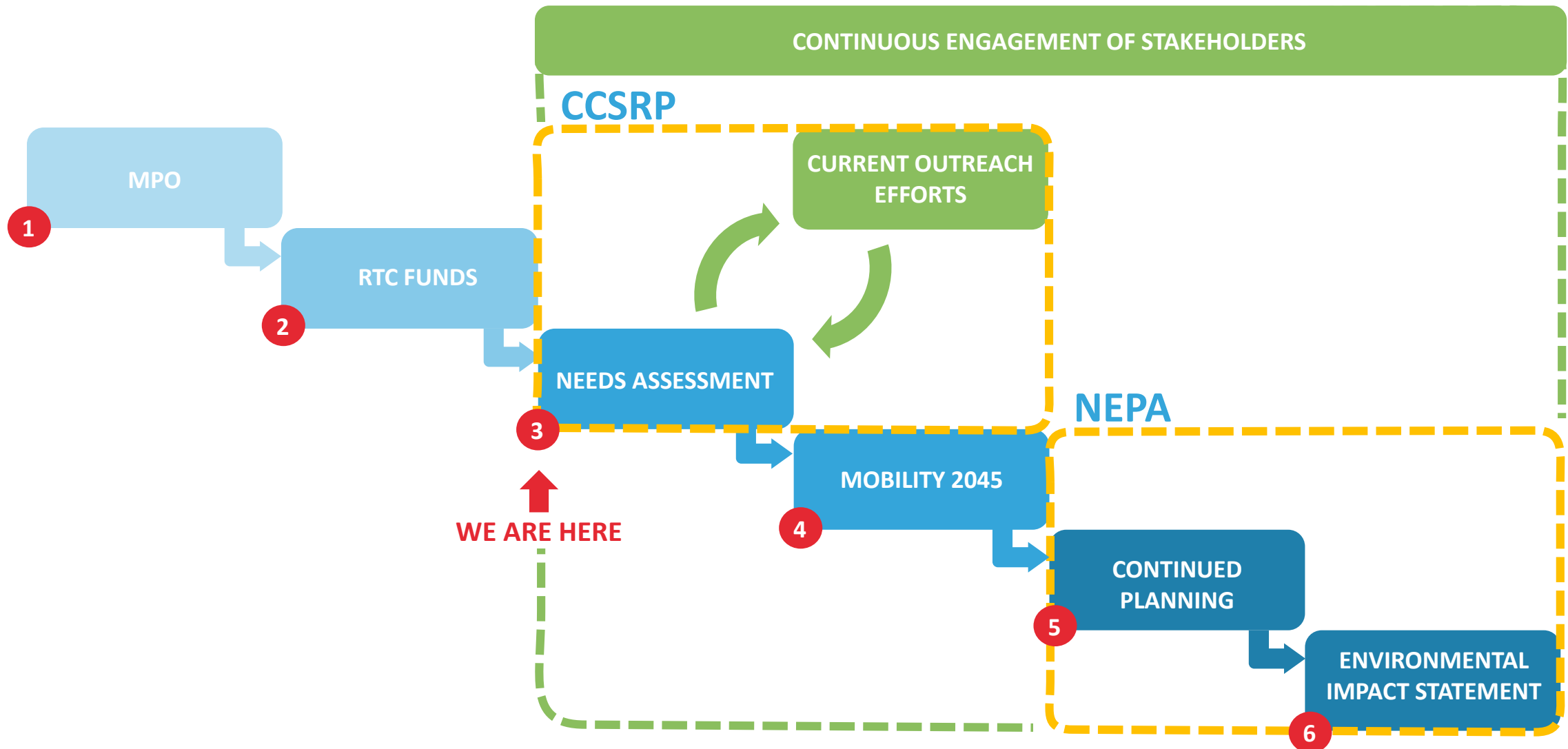
Michael Morris, P.E. – Director of Transportation

Dan Lamers, P.E. – Senior Program Manager

Jeff Neal, PTP – Program Manager

Chris Reed – Senior Transportation Planner

WHERE ARE WE NOW? WHERE ARE WE GOING?





DEVELOPMENT OF COLLIN COUNTY STRATEGIC ROADWAY PLAN (CCSRP)

Corridor 1 (Near Term):

US 75

- Widening in Allen
- Ridgeview Drive Interchange
- PGBT Interchange Ramp Improvement
- Technology Lane

Corridor 2 (Near Term):

Collin County Outer Loop

- Staged construction of frontage roads

Corridor 3 (Near Term):

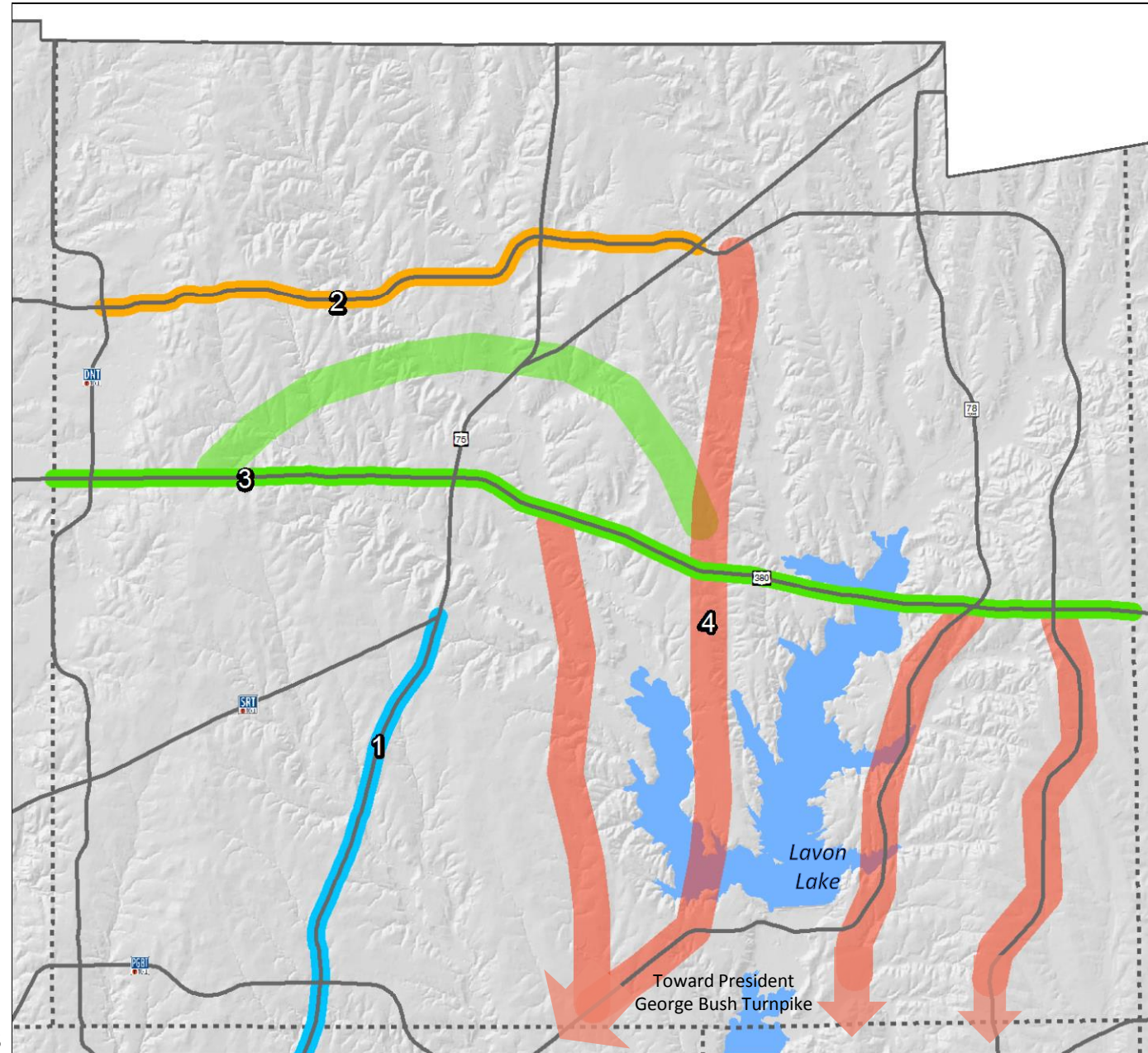
US 380

- Countywide Study
- McKinney Bypass

Corridor 4 (Longer Term):

Collin County Strategic Transportation Initiative

- Study of non-tolled north/south roadway needs and opportunities



10-YEAR PLAN (HOUSE BILL 20)

An annual collaborative performance-based apparatus for local governments and MPOs to assist the Texas Department of Transportation (TxDOT) in selecting and prioritizing roadway projects for the statewide Unified Transportation Program (UTP). The North Central Texas regional project list was approved by the RTC in December 2016.

Collin County Strategic Roadway Plan Projects:

North/South Corridors – \$200,000,000

Regional Outer Loop (DNT – SH 121) – \$100,000,000

Regional Outer Loop (US 380 – Rockwall C/L) – \$50,000,000

US 380/McKinney Bypass – \$252,000,000

Complementary Projects for North/South Corridors:

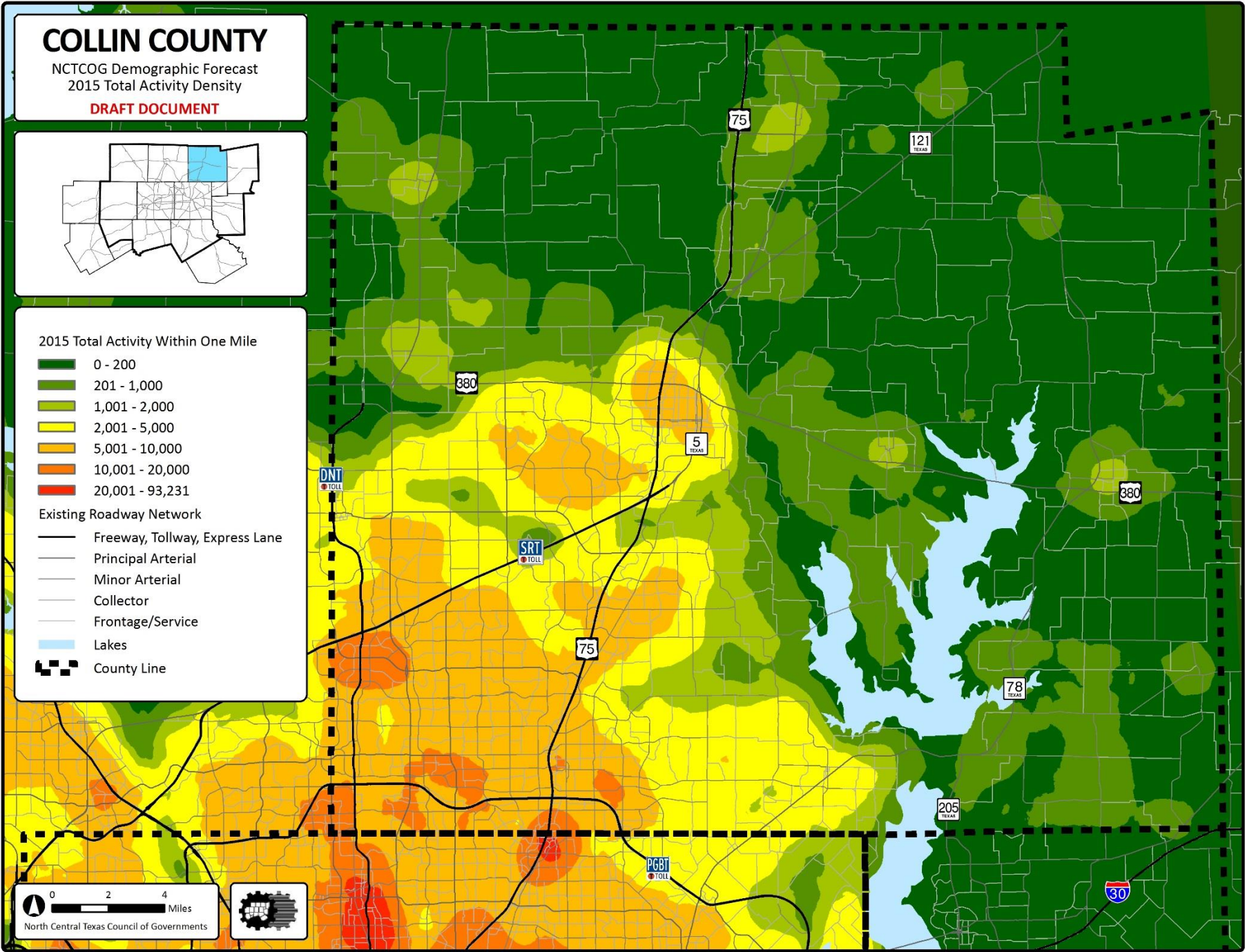
FM 2478 (FM 1461 – US 380) – \$32,600,000

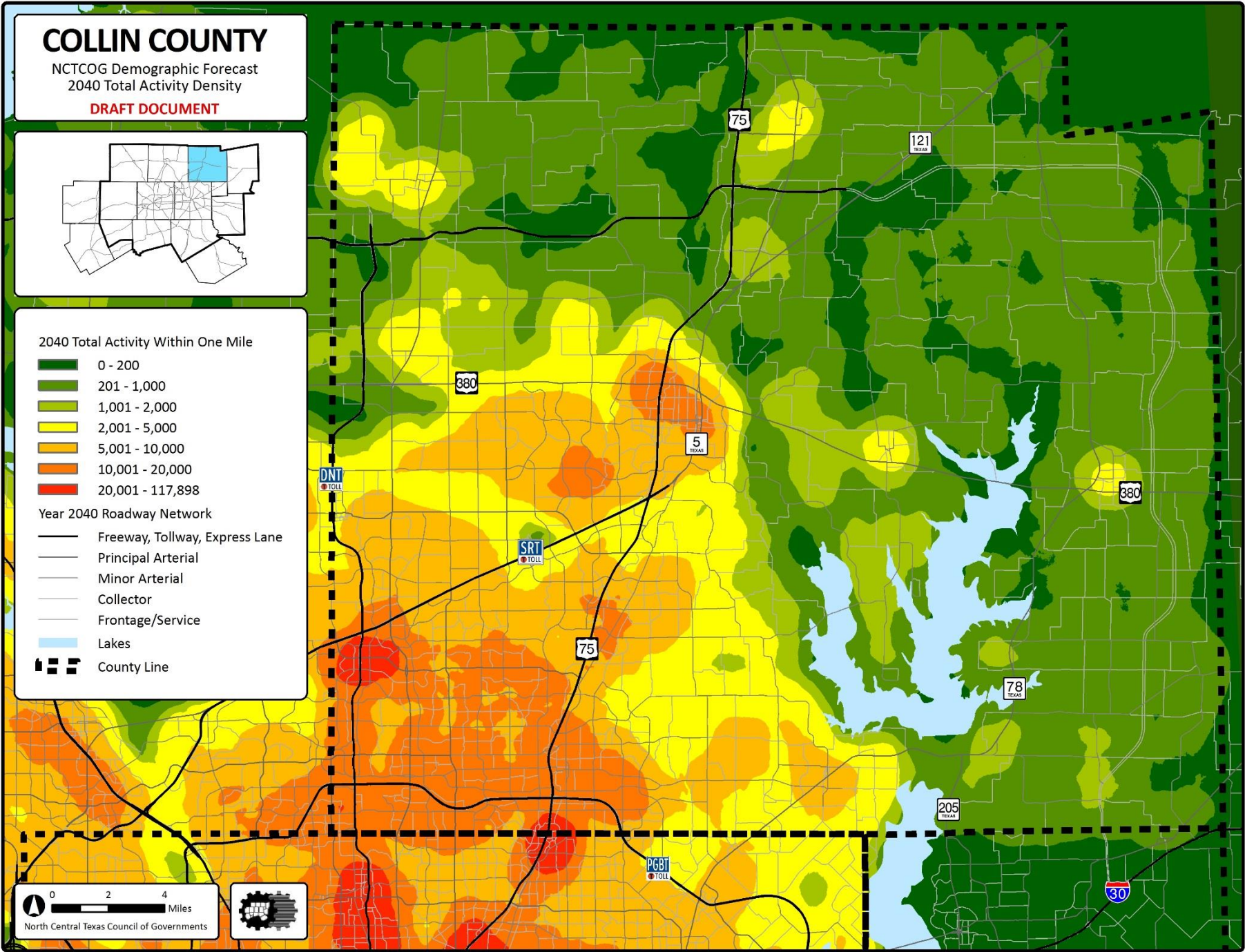
FM 2514 (Lavon Pkwy. – Brown Street) – \$26,796,024

FM 2551 (FM 2170 – FM 2514) – \$38,099,111

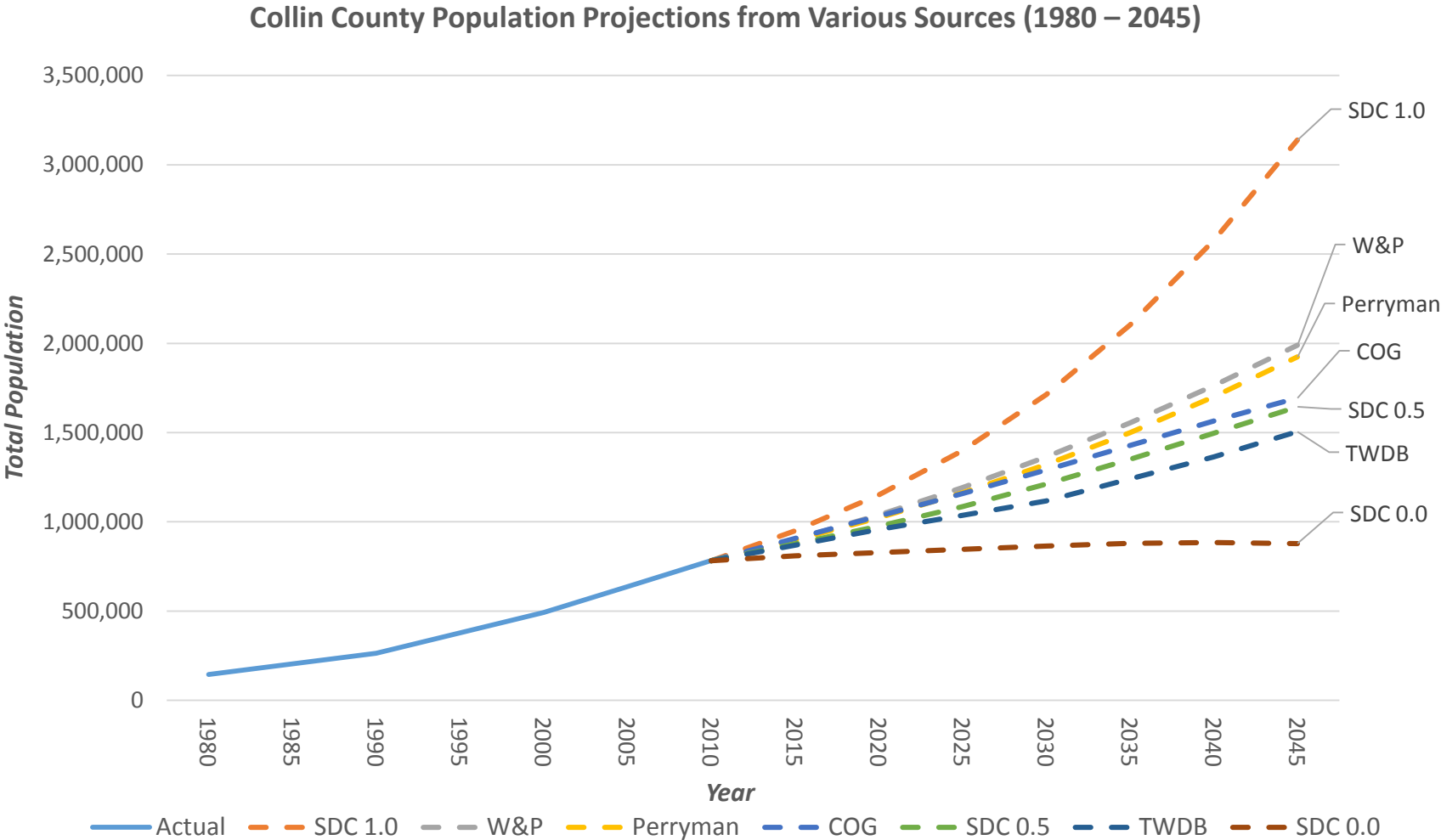
SH 205 (SH 78 – Rockwall C/L) – \$28,654,950

SH 205 (Collin C/L – SH 66) – \$32,115,673



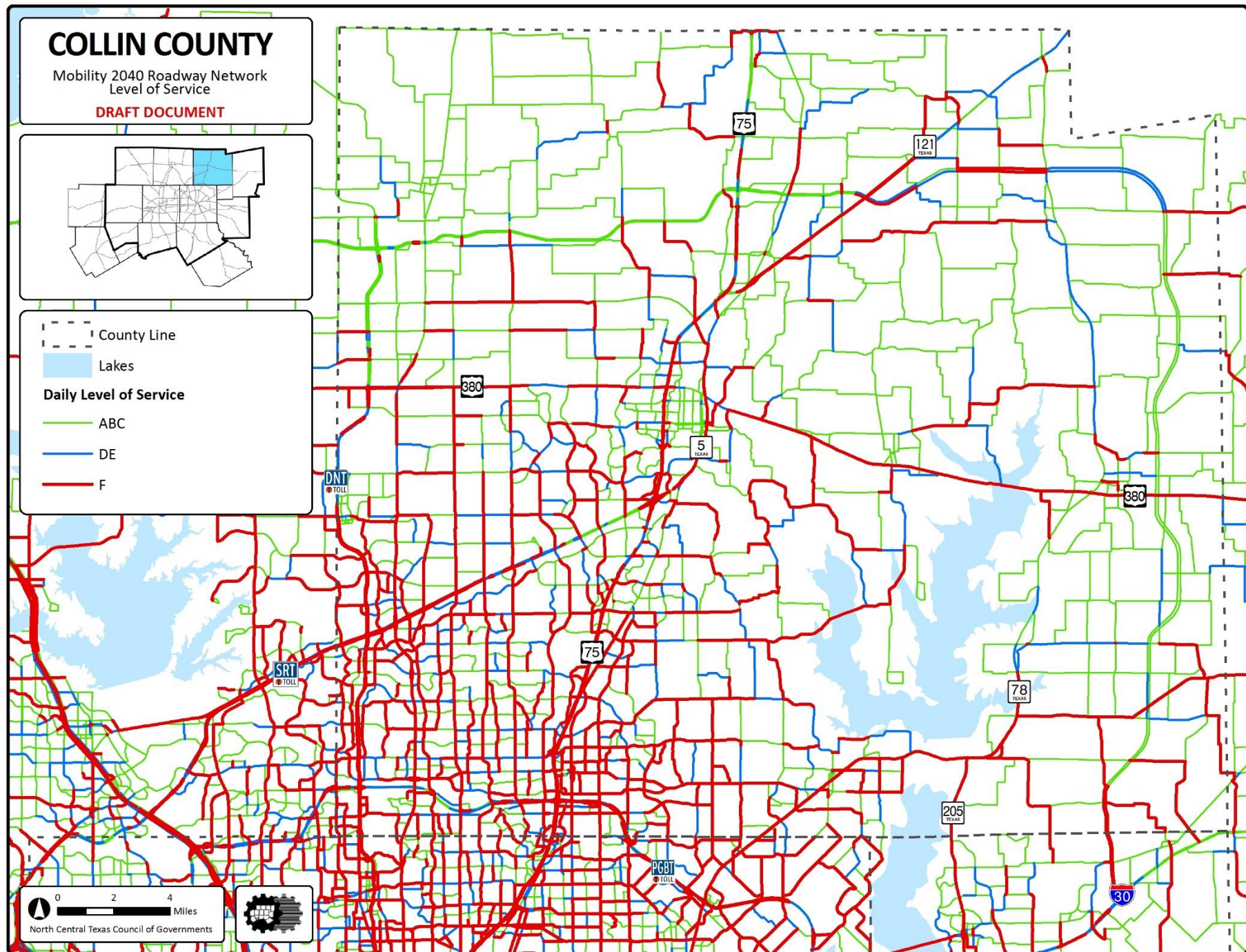


COLLIN COUNTY DEMOGRAPHIC PROJECTION COMPARISON



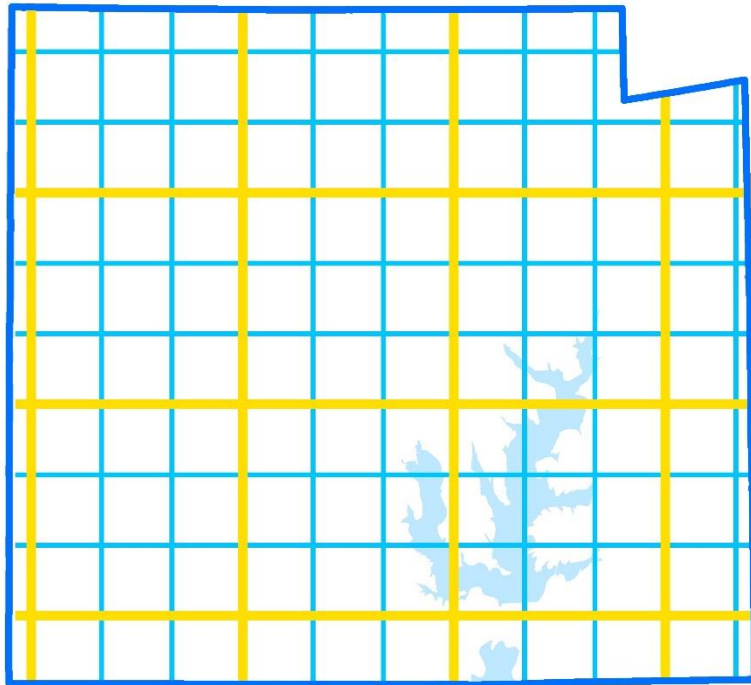
SDC – Texas State Data Center 0.0, 0.5, & 1.0 migration forecasts; released in 2014
W&P – Woods & Poole Economics, Inc.; released in 2015
Perryman – The Perryman Group (Ray Perryman); released in 2013

COG – NCTCOG 2040 forecast; released in 2015 (year 2045 is from 2017)
TWDB – Texas Water Development Board; released in 2016



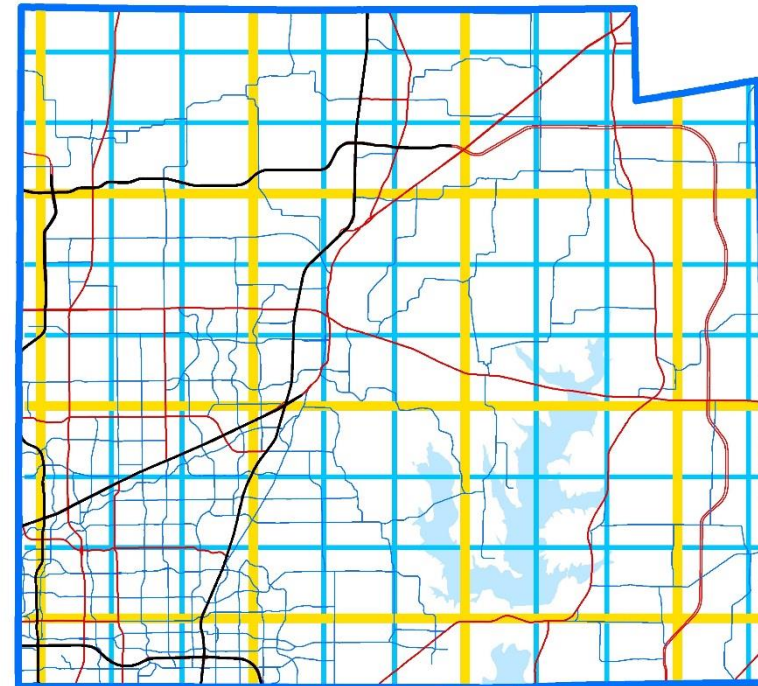
FACILITY SPACING IN COLLIN COUNTY

Theoretical Facility Spacing
(Freeways \approx 10 mi., Principal Arterials \approx 2-5 mi.)



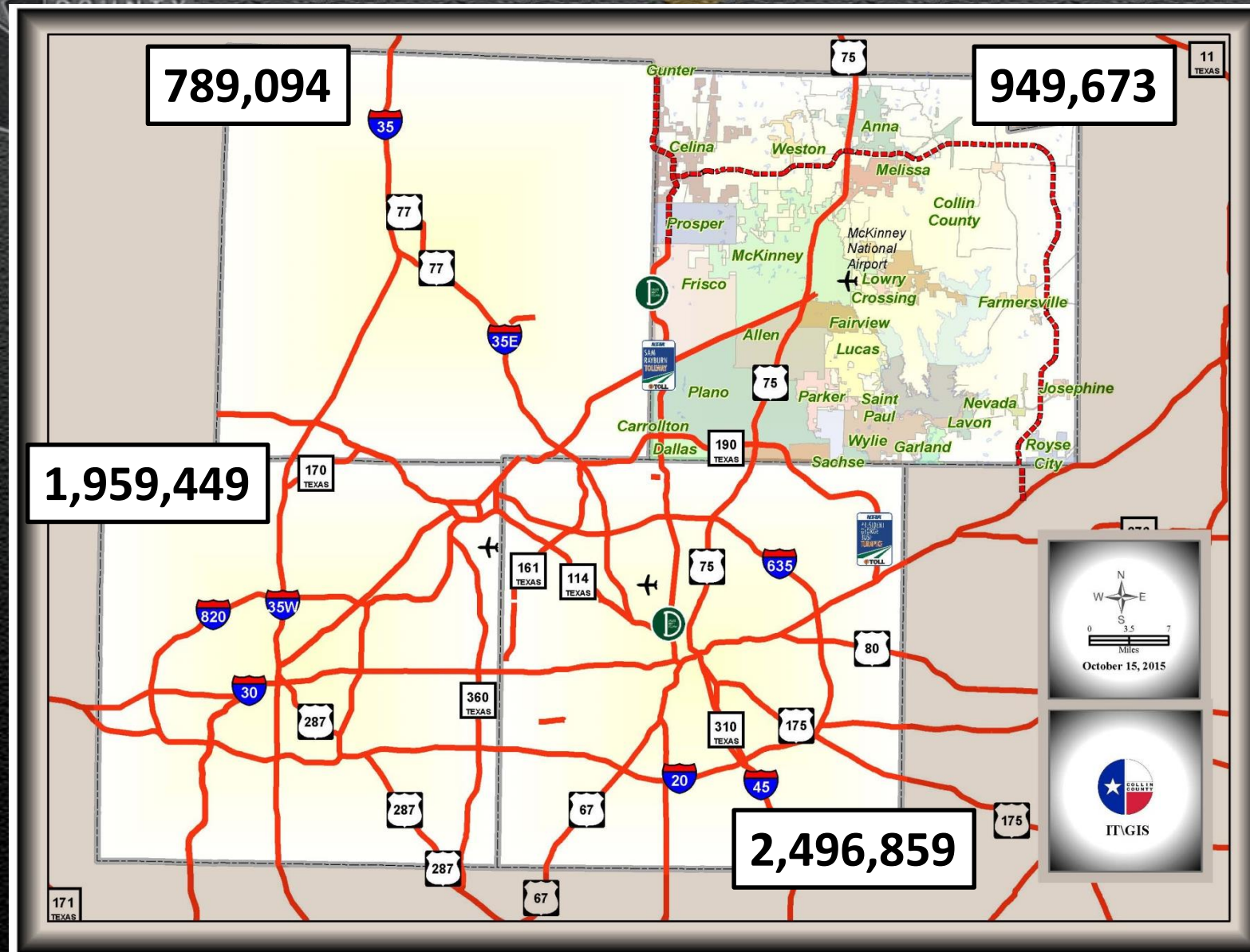
Freeway Principal Arterial

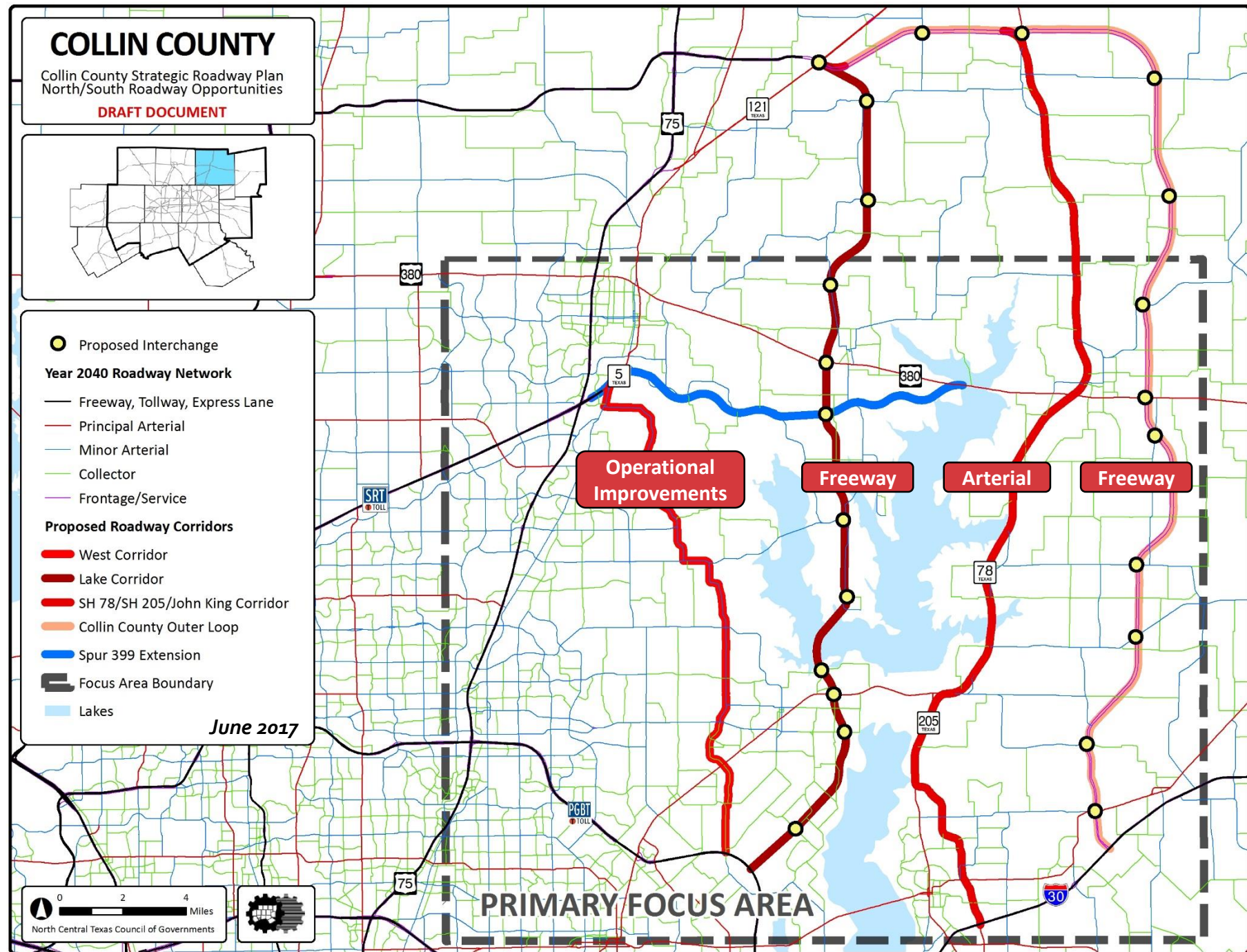
Theoretical Facility Spacing overlaid
on Year 2040 Roadway Network



Limited Access Roadways (LARs) Comparison

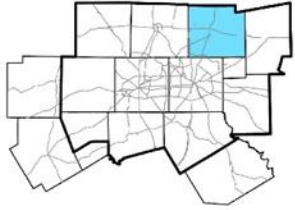
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COLLIN COUNTY

East/West Option 4A
Magnitude of Volume Change
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Daily Volume Decrease
(Linewidth is proportional to decrease in daily volume)

Daily Volume Increase
(Linewidth is proportional to increase in daily volume)

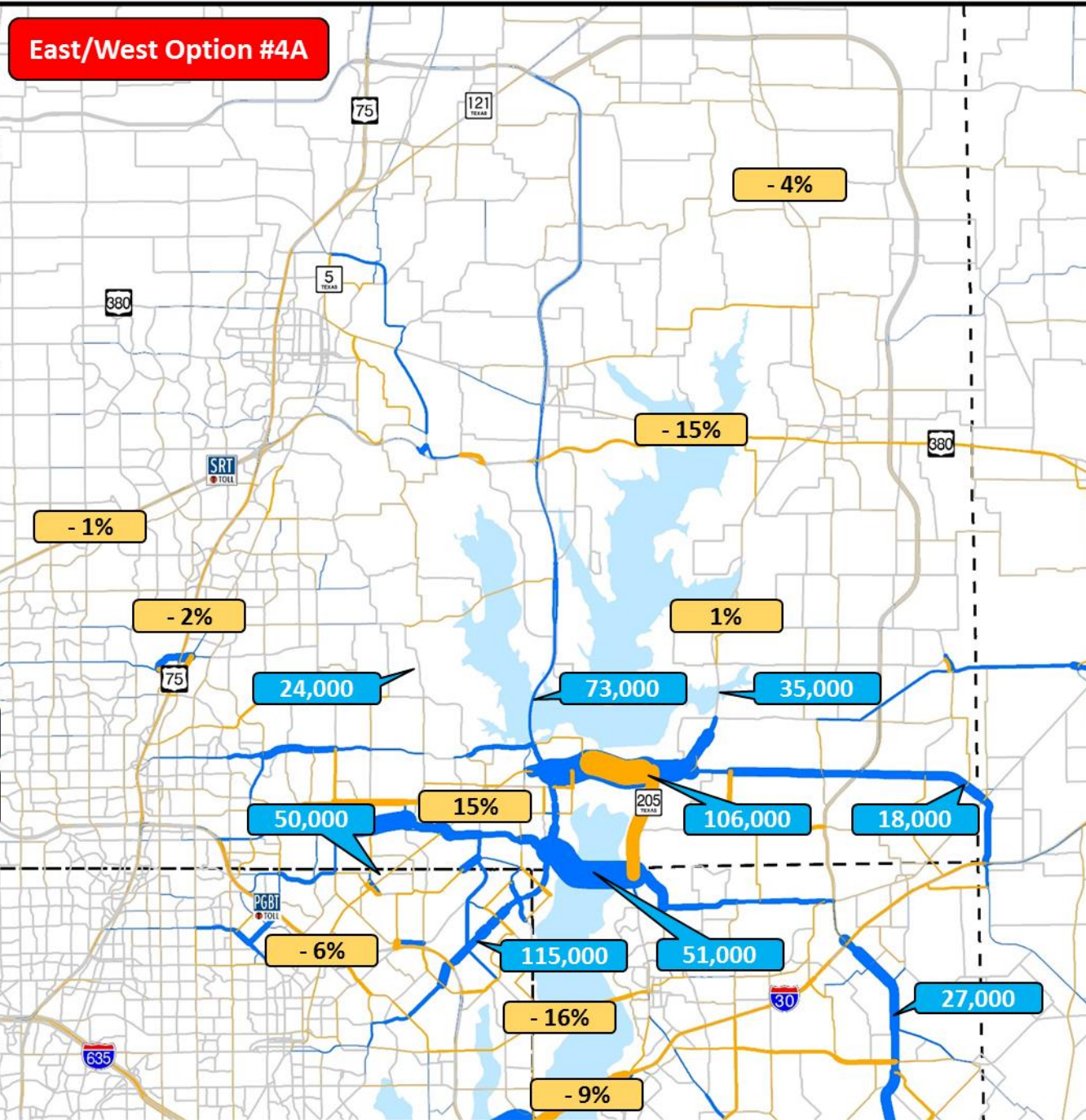
Mobility 2040 Roadway Network
Lakes
County Line

Sept 2017

Projected daily volumes in 2040
listed in blue callout boxes.

Percent change from Collin Co.
System in yellow callout boxes.

East/West Option #4A



| Computer Simulation Performance Comparison* | N/S System | N/S System + E/W Option #3 | N/S System + E/W Option #4 |
|---|------------|----------------------------|----------------------------|
| COUNTY | | | |
| VMT = Vehicle Miles or Travel | | | |
| VHT = Vehicle Hours of Travel | | | |
| Avg. Speed = Average Speed | | | |
| Control Delay = Traffic Control Delay | | | |
| Cong. Delay = Congestion Delay | | | |
| COLLIN COUNTY | | | |
| VMT | 0% | 3% | 1% |
| VHT | -6% | -8% | -8% |
| Avg. Speed | 7% | 11% | 10% |
| Control Delay | -4% | -7% | -5% |
| Cong. Delay | -16% | -22% | -23% |
| DALLAS COUNTY | | | |
| VMT | 0% | -1% | 0% |
| VHT | 0% | -2% | -1% |
| Avg. Speed | 1% | 1% | 1% |
| Control Delay | -1% | -2% | -1% |
| Cong. Delay | -1% | -4% | -4% |
| ROCKWALL COUNTY | | | |
| VMT | 3% | 0% | -3% |
| VHT | -6% | -15% | -18% |
| Avg. Speed | 9% | 18% | 19% |
| Control Delay | -9% | -13% | -12% |
| Cong. Delay | -19% | -46% | -51% |
| HUNT COUNTY | | | |
| VMT | -2% | -2% | -2% |
| VHT | -3% | -3% | -4% |
| Avg. Speed | 1% | 2% | 2% |
| Control Delay | -2% | -4% | -1% |
| Cong. Delay | -8% | -12% | -16% |
| 12-COUNTY REGION | | | |
| VMT | 0% | 0% | 0% |
| VHT | -1% | -2% | -2% |
| Avg. Speed | 1% | 2% | 2% |
| Control Delay | -1% | -2% | -1% |
| Cong. Delay | -3% | -6% | -5% |

*compared to CCSRP baseline

SUMMARY OF UPDATED CCSRP RECOMMENDATIONS

CONSIDERATIONS SINCE SEPTEMBER 29, 2017 CCSRP BRIEFING (PLANO):

LAKE CORRIDOR FREEWAY

- Significant public opposition, environmental concerns, and right-of-way conflicts identified in multiple jurisdictions
- December 12, 2017 City of Wylie Resolution:
 - a. No north-south or east-west freeways permitted within Wylie city limits
 - b. Evaluate feasibility of widening existing Lake Lavon crossings before identifying any new crossings

OUTER LOOP

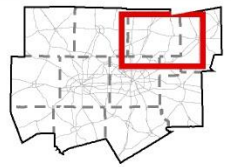
- As sole freeway east of US 75, Outer Loop determined to be unfeasible/insufficient by 2040 at proposed location
- Travel demand modeling suggested 2040 feasibility with western realignment to maximize existing SH 78 corridor
- Critical locations: Farmersville Bypass/US 380; new path between SH 78/FM 6 & FM 1138/FM 2755 intersections

EAST-WEST ARTERIALS

- Travel demand modeling suggested “East-West Thoroughfare Option #4A” as a technically preferable alternative
- January 2, 2018 City of Murphy Resolution:
 - a. City of Murphy formally opposed to extend Renner Road east of current Murphy Road terminus
 - b. City of Wylie still agreeable to advance Hensley/Alanis/John King Connector (McCreary Road to SH 205) for further study
 - c. New Lake Ray Hubbard crossing mitigates need to expand recently-finished SH 78 improvements between the lakes

ARTERIAL/FREEWAY CORRIDOR OPPORTUNITIES

Collin County Strategic Roadway Plan
January 2018



Proposed CCSRP Roadway Corridors

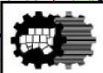
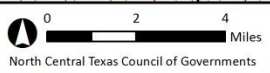
- Previously Committed Arterial
- Arterial Corridor Option
- Previously Committed Freeway
- Freeway Corridor Option

Year 2040 Roadway Network

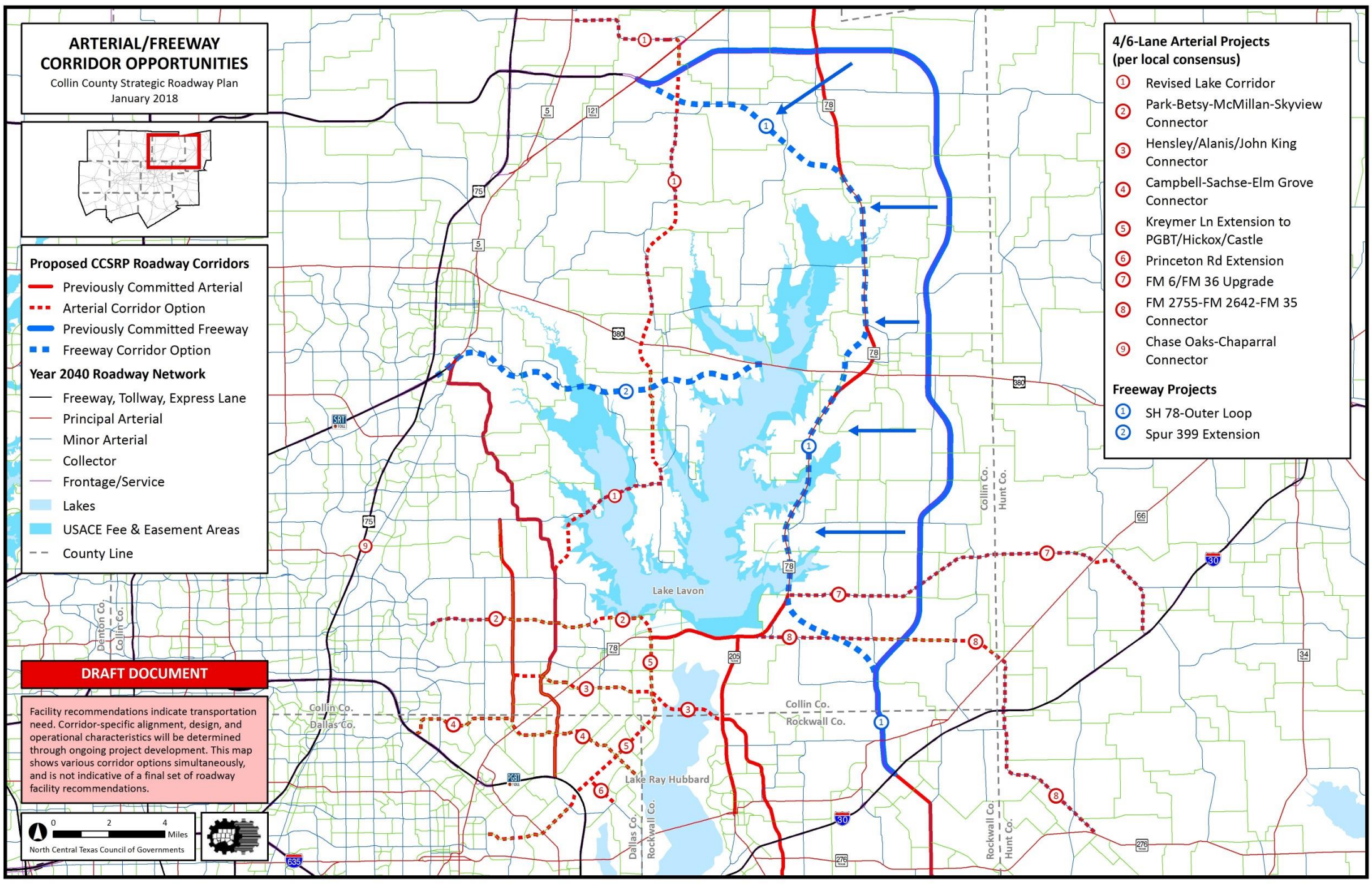
- Freeway, Tollway, Express Lane
- Principal Arterial
- Minor Arterial
- Collector
- Frontage/Service
- Lakes
- USACE Fee & Easement Areas
- County Line

DRAFT DOCUMENT

Facility recommendations indicate transportation need. Corridor-specific alignment, design, and operational characteristics will be determined through ongoing project development. This map shows various corridor options simultaneously, and is not indicative of a final set of roadway facility recommendations.



- ### 4/6-Lane Arterial Projects (per local consensus)
- 1 Revised Lake Corridor
 - 2 Park-Betsy-McMillan-Skyview Connector
 - 3 Hensley/Alanis/John King Connector
 - 4 Campbell-Sachse-Elm Grove Connector
 - 5 Kreymer Ln Extension to PGBT/Hickox/Castle
 - 6 Princeton Rd Extension
 - 7 FM 6/FM 36 Upgrade
 - 8 FM 2755-FM 2642-FM 35 Connector
 - 9 Chase Oaks-Chaparral Connector
- ### Freeway Projects
- 1 SH 78-Outer Loop
 - 2 Spur 399 Extension



U.S. 380 to S.H. 121 Develop Alternative Alignments

Alternative Alignments

North of Blue Ridge
South of Blue Ridge



Public Meeting – Tuesday, Oct 25, 2005 and Tuesday, Nov 1, 2005

- Use the purple or orange (FM 545) alignment within the blue “South of Blue Ridge” corridor from SH 121 to SH 78
- Shift west toward the red north/south corridor as SH 78 bypasses the City of Farmersville and intersects US 380
- Only difference between “North of Blue Ridge” & “South of Blue Ridge” in the original Corridor Evaluation was public input (based on factors different from the present)

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“SH 78 – Outer Loop Combo” Concept

U.S. 380 to S.H. 121 Corridor Evaluation

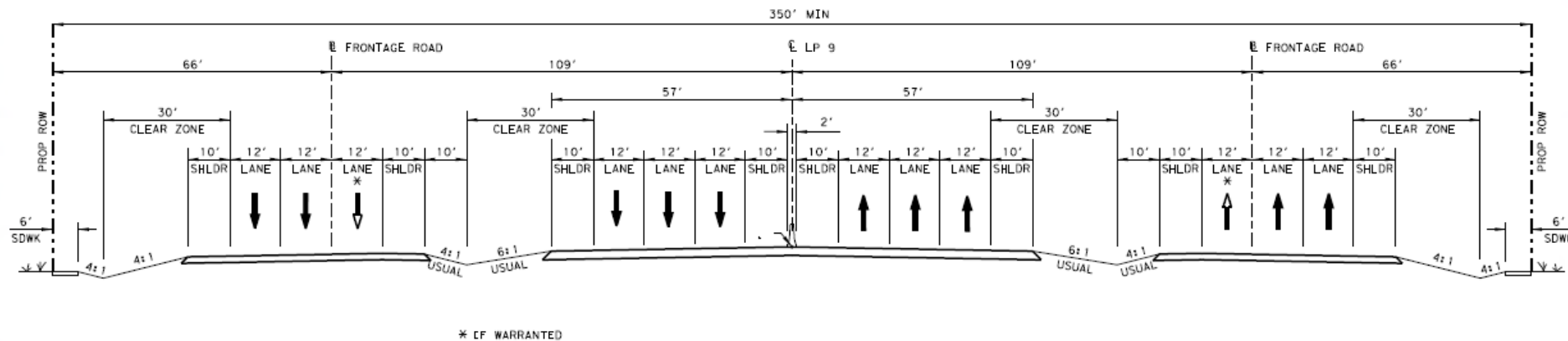
| Category | Criteria | Alternatives | | |
|-------------------------------------|--|---|--|---|
| | | North of Blue Ridge (North Corridor) | South of Blue Ridge (Middle Corridor) | North of Lake Lavon (South Corridor) |
| Enhanced Mobility and Safety | Accessibility | ++ | ++ | ++ |
| | Safety | ++ | ++ | ++ |
| Cost Effectiveness | Construction Cost | - | - | -- |
| | ROW Acquisition | - | - | - |
| | Utilities and Infrastructure | - | - | -- |
| Engineering Feasibility | Compatibility with Other Projects | + | + | +/- |
| | Public Input | + | - | - |
| Minimal Environmental Impacts | Socio-Economic and Neighborhood Impacts | - | - | - |
| | Noise Impacts | - | - | - |
| | Natural Impacts | - | - | -- |
| | Cultural Impacts | O | O | - |
| | Hazardous Materials | O | O | O |

| | | | | |
|--------------------------------|-------------------------|--------------------|----------------------|-----------------------------|
| Significant Negative Effect | Some Negative Effect | No Effect, Neutral | Some Positive Effect | Significant Positive Effect |
| -- | - | O | + | ++ |

Public Meeting – Tuesday, Oct 25, 2005 and Tuesday, Nov 1, 2005

RIGHT-OF-WAY NEEDS FOR SH 78 – OUTER LOOP COMBINATION:

- Since inception, Collin County Outer Loop has been planned with a typical section width of 500 feet:
 - a. Width may accommodate as many as 5 general purpose lanes in each direction
 - b. Median contains “future rail envelope”
- In Dallas/Ellis County, Loop 9 is being planned with a typical section width of 350 feet
- For greater flexibility/efficiency, Loop 9 may be a more appropriate model for the SH 78 – Outer Loop Combination option between SH 121 and IH 30

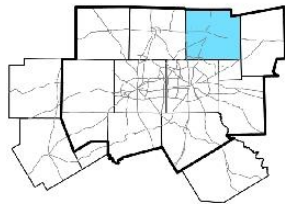


ULTIMATE SECTION
LOOP 9 PRELIMINARY TYPICAL SECTION
MAIN LANES & FRONTAGE ROADS
WITH SHOULDERS & SIDEWALKS

COLLIN COUNTY

SH 78 East Freeway
Magnitude of Volume Change

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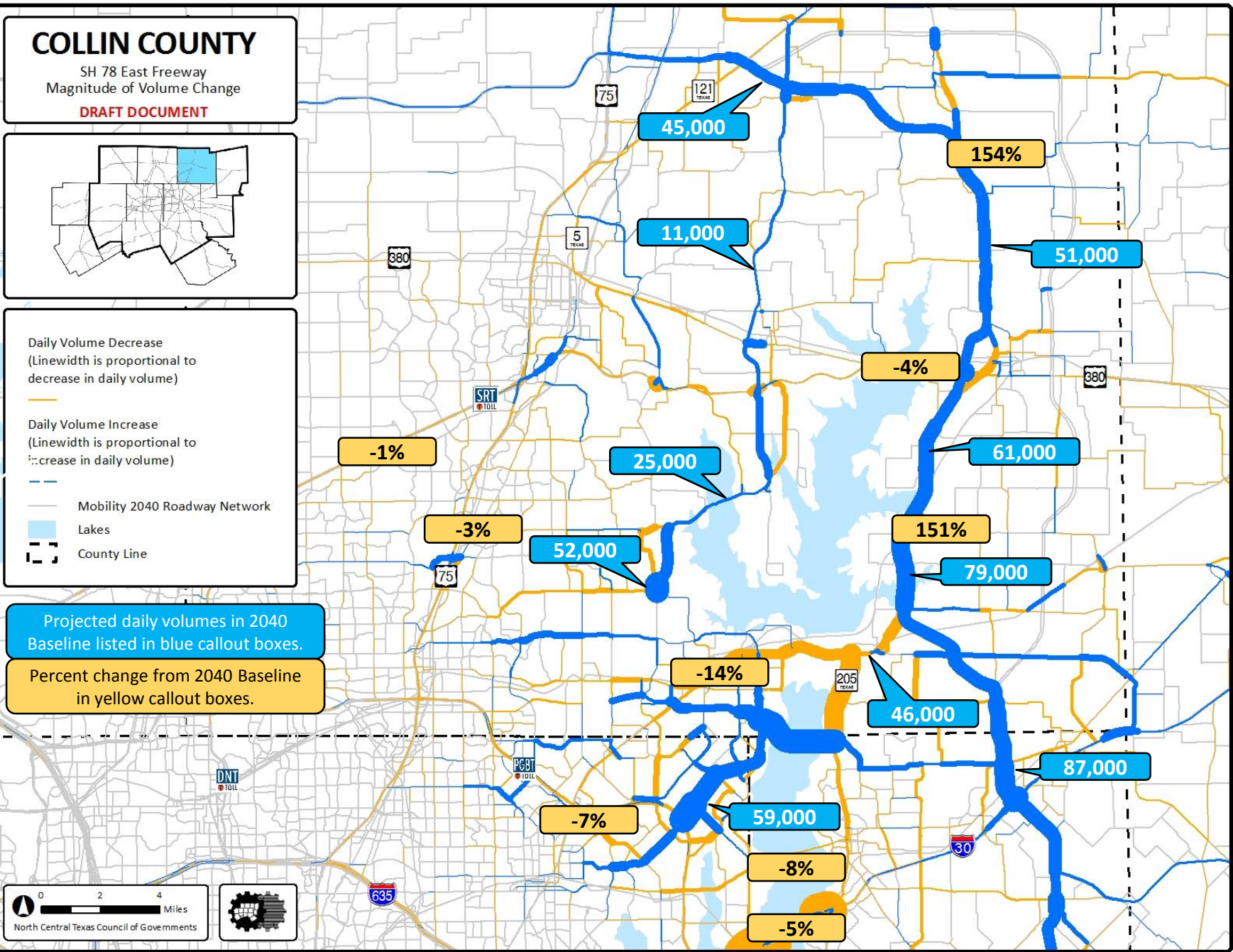
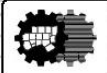
Daily Volume Decrease
(Linewidth is proportional to
decrease in daily volume)

Daily Volume Increase
(Linewidth is proportional to
increase in daily volume)

Mobility 2040 Roadway Network
Lakes
County Line

Projected daily volumes in 2040
Baseline listed in blue callout boxes.

Percent change from 2040 Baseline
in yellow callout boxes.



Computer Simulation Performance Comparison

N/S System
N/S System +
E/W Option
#4A
SH78/Outer
Loop
Combination

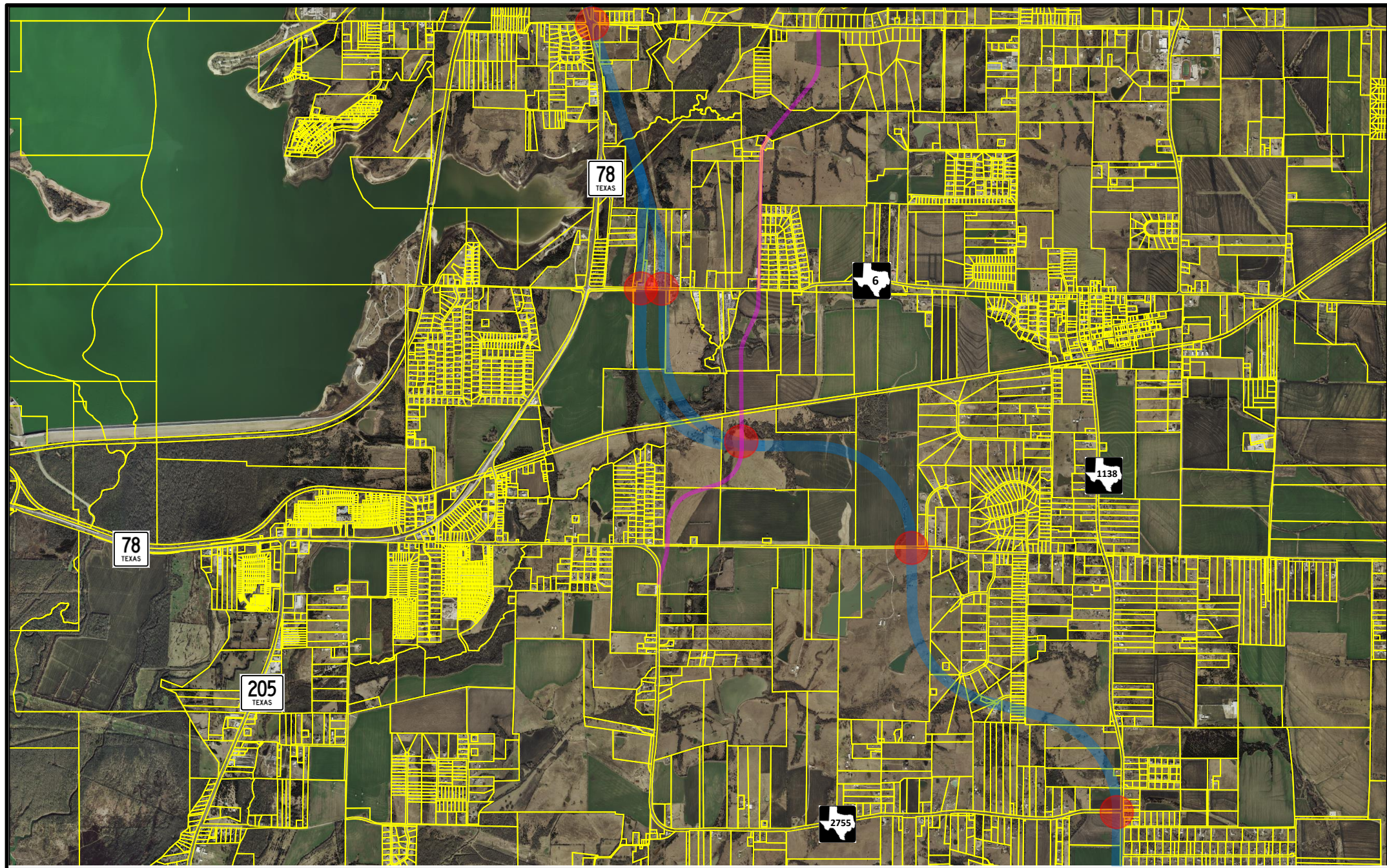
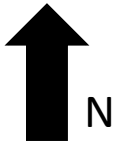
| COLLIN COUNTY | | | |
|-------------------------------|------|------|------|
| Vehicle Miles of Travel (VMT) | 0% | 1% | 1% |
| Vehicle Hours of Travel (VHT) | -6% | -8% | -5% |
| Average Speed | 7% | 10% | 6% |
| Traffic Control Delay (Hours) | -4% | -5% | -2% |
| Congestion Delay (Hours) | -16% | -23% | -16% |
| DALLAS COUNTY | | | |
| Vehicle Miles of Travel (VMT) | 0% | 0% | 0% |
| Vehicle Hours of Travel (VHT) | 0% | -1% | -1% |
| Average Speed | 1% | 1% | 1% |
| Traffic Control Delay (Hours) | -1% | -1% | 0% |
| Congestion Delay (Hours) | -1% | -4% | -3% |
| ROCKWALL COUNTY | | | |
| Vehicle Miles of Travel (VMT) | 3% | -3% | 2% |
| Vehicle Hours of Travel (VHT) | -6% | -18% | -10% |
| Average Speed | 9% | 19% | 13% |
| Traffic Control Delay (Hours) | -9% | -12% | -9% |
| Congestion Delay (Hours) | -19% | -51% | -34% |
| HUNT COUNTY | | | |
| Vehicle Miles of Travel (VMT) | -2% | -2% | -2% |
| Vehicle Hours of Travel (VHT) | -3% | -4% | -4% |
| Average Speed | 1% | 2% | 2% |
| Traffic Control Delay (Hours) | -2% | -1% | -2% |
| Congestion Delay (Hours) | -8% | -16% | -15% |
| 12-COUNTY REGION | | | |
| Vehicle Miles of Travel (VMT) | 0% | 0% | 0% |
| Vehicle Hours of Travel (VHT) | -1% | -2% | -1% |
| Average Speed | 1% | 2% | 1% |
| Traffic Control Delay (Hours) | -1% | -1% | -1% |
| Congestion Delay (Hours) | -3% | -5% | -4% |

February 8, 2018

**CCSRP:
“SH 78 – Outer
Loop Combo”
Concept –
February 2018**

**Example
Alignment
Options for
FM 6 – FM 1138
Transition Area**

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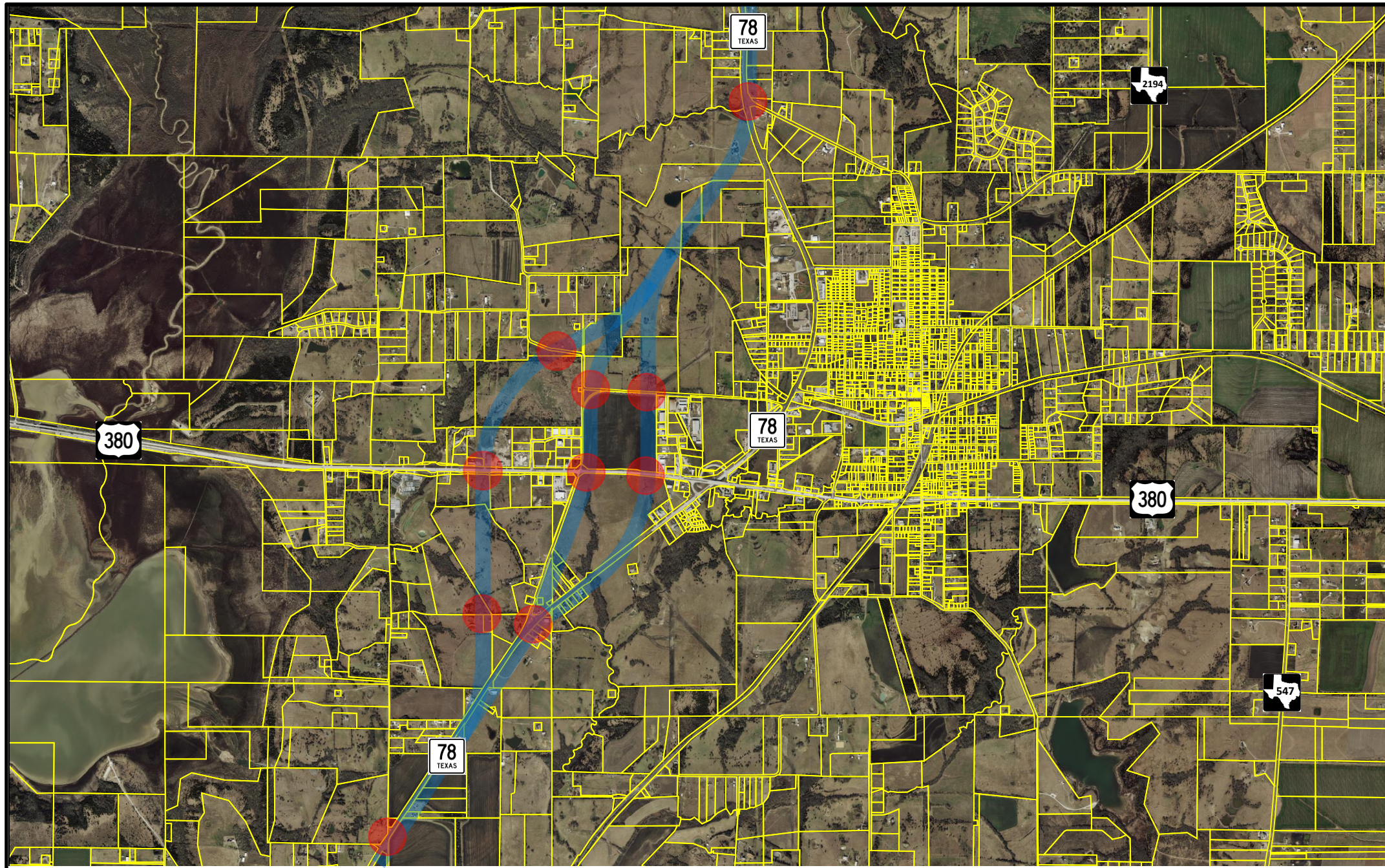
Parcel Boundaries FM 3549 Extension Proposed Freeway Alignment Options Grade Separation/Interchange

February 13, 2018

**CCSRP:
“SH 78 – Outer
Loop Combo”
Concept**

**Example
Alignment
Options for SH 78
Farmersville
Bypass**

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SUMMARY OF PRELIMINARY RECOMMENDATIONS FOR MOBILITY 2045:

(ALL RECOMMENDATIONS ARE NON-TOLLED)

FREEWAY PROJECTS

1. Regional Outer Loop (SH 121 to IH 30) –

- a. Continue to identify previously-planned corridor for staged development
- b. Evaluate new SH 78 – Outer Loop Combination Alternative as a potential replacement option (Illustrative Map)

ARTERIAL PROJECTS

1. West Corridor Operational Improvements (FM 1378/Woodbridge Parkway/Merritt Road)

2. SH 78/SH 205/John King Boulevard –

- a. **SH 78** – same as Mobility 2040; future changes dependent on SH 78 – Outer Loop Combination Alternative analysis
- b. **SH 205/John King Boulevard** – consistency w/ SH 205 Feasibility Study recommendations

3. Lake Corridor (thoroughfare only; no new Lake Lavon bridge based on public input) – Corridor #1 and #5

4. East-West Thoroughfare Option #4A (corridor placement awaiting final design results) –

- a. Maximize capacity per local thoroughfare plans (SE Collin/NE Dallas/Rockwall County) – Corridor #2, #4, and #6
- b. New/expanded thoroughfare facilities – Corridor #3 (McCreary Road to SH 205/John King Boulevard), #7, #8, and #9

5. Add FM 3549 and CR 483 extensions (to address Lavon/Collin County concerns w/future SH 78 traffic between lakes)

PUBLIC OUTREACH FOR CCSRP

NCTCOG recommends conducting public meetings with potential partners in several locations between Fall 2017 and Spring 2018 for the following purposes:

- Explain the Collin County Strategic Roadway Plan study process and the current context of draft recommendations.
- Determine general consensus and discuss potential outcomes related to integrating recommendations into Mobility 2045 and local thoroughfare plans. Mobility 2045 will have an independent public involvement process.
- Obtain input/feedback in advance of potential environmental studies by TxDOT and/or other partners.
- Discuss possible construction staging opportunities based on available UTP (10-Year Plan) funds and implications for planned Collin County Bond Program. (maximize additional 10% design and 10% right-of-way funds)

COMMITMENT TO ENVIRONMENTAL/ENGINEERING/CONSTRUCTION EFFORTS

1. Advance West Corridor operational improvement components into the next Transportation Improvement Program (TIP).
2. Present revised Lake Corridor (arterial) and potential SH 78/Outer Loop Combination Alternative (freeway) recommendations to indicate need to expedite environmental process so that appropriate public feedback/sentiment can be captured.
3. Continue construction of existing SH 78/SH 205/John King Boulevard corridor sections and investigate where funding gaps exist.
4. Advance environmental procedures to secure Regional Outer Loop right-of-way and advance frontage road construction in northern Collin County (DNT to SH 121).
5. Begin environmental procedures for proposed thoroughfare crossing of Lake Ray Hubbard.
6. Develop master cost/revenue matrix to leverage RTC funds with Collin County, TxDOT, and local governments that incorporates potential staged construction elements.
7. US 75 technology lanes are fully funded and should be implemented as soon as possible.
8. Continue to support TxDOT recommendations for US 380/Spur 399 Extension corridor improvements.

CONTACT INFORMATION

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