Meeting Via Videoconference

DATE: May 5, 2020

TIME: 6:00 p.m.

CALL TO ORDER

OUR VISION: PLANO IS A GLOBAL ECONOMIC LEADER BONDED BY A SHARED SENSE OF COMMUNITY WHERE RESIDENTS EXPERIENCE UNPARALLELED QUALITY OF LIFE.

The Comprehensive Plan Review Committee may convene into Executive Session to discuss posted items in the regular meeting as allowed by law.

The Comprehensive Plan Review Committee meeting will be held via videoconference. The Committee members, consultants, and staff will participate remotely via videoconference. The facility will not be open to the public. For those wanting to watch the meeting, the meeting will be live streamed at: https://plano.zoom.us/webinar/register/WN_gf0fKSATQ-WMMhGlqdDXTg.

As an ad hoc Committee of the City of Plano, the Open Meetings Act does not apply. This meeting will not include public comments. An audio recording of the meeting will be made available on www.PlanoCompPlanReview.org.

PLEDGE OF ALLEGIANCE

ITEMS FOR DISCUSSION

1. Approval of Minutes: April 21, 2020 Zarate
2. Discussion and Direction: Transportation Policies and Actions Sefko
3. Discussion and Direction: Roadways and Traffic Theme Harrison
4. Discussion and Direction: Land Use/Transportation Theme Harrison
5. Work Plan Updates Sefko

ADJOURN

COUNCIL LIAISONS: Council Member Kayci Prince and Council Member Lily Bao
Chair Shockey convened the Committee into the regular meeting on Tuesday, April 21, 2020, at 6:04 p.m. via videoconference. Thirteen Committee members were present. Member La Mastra arrived after the start of the meeting. Members Doyle and Liu were absent. Chair Shockey led the Committee in the Pledge of Allegiance.
ITEMS FOR DISCUSSION

1) Approval of Minutes: April 14, 2020

MOTION: Member Crawford requested an additional line be added to Item 5 acknowledging City Council advised the Committee to continue moving forward as scheduled, with respect to COVID-19 impacts. Upon a motion made by Vice Chair Bronsky and seconded by Member Howe, the Committee voted 9-0 to approve the April 14, 2020, Regular Meeting minutes with the modification requested by Member Crawford. Member Solomon abstained. The motion was approved by the affirmative vote of nine members.

2) Presentation: Transportation Overview – Eddie Haas gave a presentation providing an overview of the Plano transportation system. Brian Shewski also commented on the Plano transportation system and proposed projects for the future. Some questions were asked and discussion was held.

3) Presentation: Transportation and Comprehensive Plans – Dan Sefko gave a presentation discussing the importance of transportation in Comprehensive Plans. Some questions were asked and discussion was held.

4) Discussion and Direction: Transportation Actions in Plano Tomorrow – Daniel Harrison gave a brief summary of his presentation and advised the Committee will continue the discussion at the next meeting. Chair Shockey encouraged the Committee to read the item information provided in preparation for a discussion at the next meeting. No direction was provided.

5) Work Plan Updates – Mr. Sefko informed the Committee that the Work Plan will be updated to reflect Item No. 4 discussion being carried over into the next meeting.

Mr. Sefko informed the Committee that the next meeting will start a discussion regarding transportation. With no further discussion, Chair Shockey adjourned the meeting at 8:40 p.m.

______________________________
Doug Shockey, Chair
Agenda Item 2

Discussion and Direction: Transportation Policies and Actions

DESCRIPTION:

Hold a discussion and provide direction to Freese and Nichols, Inc. regarding transportation-related policies and actions in the Plano Tomorrow Comprehensive Plan. This item is continued from the April 21, 2020, meeting.

REMARKS:

Freese and Nichols, Inc. has prepared a list of policies and actions related to transportation from the Plano Tomorrow Comprehensive Plan (see Attachment A). After analyzing the Committee’s responses to the CPRC Kickoff Survey Results (see Attachment B), the consultant team perceives the Committee’s transportation-related comments fall into four general themes: Roadways and Traffic, Land/Use Transportation Relationship, Bikes and Transit, and Walkability and Urban Design. At upcoming meetings, Freese and Nichols, Inc. and staff plan to facilitate discussion of the themes and propose modifications to Plan policies, actions, and/or maps, as appropriate:

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<th>No.</th>
<th>Theme:</th>
<th>Tentative Date for Discussion</th>
<th>Follow-up Discussion Date</th>
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<td>1.</td>
<td>Roadways and Traffic</td>
<td>May 5</td>
<td>May 19</td>
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<td>2.</td>
<td>Land Use/Transportation Relationship</td>
<td>May 5</td>
<td>May 19</td>
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<td>3.</td>
<td>Bikes and Transit</td>
<td>May 19</td>
<td>June 2</td>
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<td>4.</td>
<td>Walkability and Urban Design</td>
<td>May 19</td>
<td>June 2</td>
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Daniel Harrison, AICP, of Freese and Nichols, Inc. will lead the Committee in a polling activity and general discussion of these items and seek input on the following:

- Does the Committee agree these are the primary areas of concern related to transportation?
- Does the Committee have any information requests on these items? Are there any speakers the Committee would like to invite to speak on these themes?

RECOMMENDATION:

Recommend the Committee provide direction on the proposed approach and make requests for information related to transportation topics.
ATTACHMENTS:

Attachment A – Transportation Actions in Plano Tomorrow Plan
Attachment B – CPRC Kickoff Survey Results Related to Transportation
Roadway and Traffic Theme
Policies and Actions

The Built Environment - Roadway System

**POLICY** - Plano will develop an integrated, multimodal transportation system, through the utilization of technology and innovative concepts that improves the safety and efficiency of the roadway system for all users.

- **RS1)** Develop a transportation plan for Plano that addresses all modes of travel.
- **RS2)** Create an Intelligent Transportation System for Plano’s roadway network.
- **RS3)** Improve intersections of all bicycle trails, pedestrian pathways, and streets for increased visibility, safety, and comfort.
- **RS4)** Review and update roadway standards to accommodate all modes of transportation.
- **RS5)** Develop criteria to assess the effectiveness of pilot projects.
- **RS6)** Identify and improve locations within the city’s transportation infrastructure to meet Americans with Disability Act (ADA) standards.
- **RS7)** Coordinate with neighboring communities to explore regional transportation approaches that improve traffic flow within and between jurisdictions.
- **RS8)** Review and update the Traffic Impact Assessment (TIA) threshold for new and redevelopment projects.

The Built Environment - Transportation Demand Management

**POLICY** - Plano will utilize Transportation Demand Management to improve air quality, reduce journey to work trips, and mitigate traffic congestion.

- **TDM1)** Partner with the corporate community in Plano to develop and implement a Transportation Demand Management (TDM) plan for city.
- **TDM2)** Pursue and develop incentives for businesses to participate in the TDM program.
- **TDM3)** Share ideas, expertise, and knowledge with transportation oriented companies within Plano regarding the city’s transportation planning efforts.
Roadway and Traffic Theme (Continued)
Policies and Actions

Regionalism – Regional Transportation*

**POLICY** - Plano will evaluate regional transportation options with consideration of the impact on existing residential and business development and emphasis on the expansion of transportation choices, traffic demand management, and trip reduction strategies to improve regional mobility.

RT1) Create criteria to evaluate regional transportation projects to determine the impact upon the city and develop solutions to mitigate negative effects.

RT4) Annually review the city’s transportation plan to ensure consistency with regional transportation agencies’ plans.

*NOTE: POLICY ALSO LISTED UNDER THE BIKES AND TRANSIT THEME*
The Built Environment - Land Use

**POLICY** - Plano will support a system of organized land use to provide greater housing and employment choices, where new and redevelopment areas respect existing neighborhoods and businesses.

**LU3)** Review development regulations and implement standards that configure development to provide complementary uses and foster good connections using a combination of streets, trails, and sidewalks for vehicular, pedestrian, and bicycle circulation.

The Built Environment - Transit-Oriented Development

**POLICY** - Plano will proactively encourage and incentivize development within walking distance of existing and future rail stations or bus transit centers to create an integrated mix of uses including residential, employment, retail, and civic spaces.

**TOD1)** Develop Criteria for Review of Transit-Oriented Developments and update as necessary.

**TOD2)** Prioritize and prepare station area plans to guide development patterns within 1/2 mile of identified transit stations.

**TOD3)** Rezone property within 1/2 mile of transit stations to encourage urban design and increase development opportunities.

**TOD4)** Establish parking maximums in transit-served areas and identified Compact Complete Centers.

**TOD5)** Develop plans for the K Avenue/DART light rail and the 14th Street/Cotton Belt commuter rail corridors to address redevelopment of retail and multifamily sites and encourage new development around transit stations.

Regionalism - Population Growth

**POLICY** - Plano will accommodate regional population growth in identified areas while preserving the suburban character of the community.

**PG5)** Advocate with the North Central Texas Council of Governments to include increased residential development within developed cities in traffic modeling.
Bikes and Transit Theme
Policies and Actions

The Built Environment - Bicycle

**POLICY** - Plano will enhance and maintain a safe regional bicycle system to provide a viable option for travel to destinations, which is accessible to all users.

B1) Meet with businesses and share ideas with other cities regarding bicycle transportation.

B2) Adopt a bicycle plan with a target mode share for biking, a safety goal and a target crash reduction.

B3) Create end of trip amenity guidelines, such as bicycle parking and shower facilities to encourage bicycle transportation.

B4) Adopt a Multimodal Streets Ordinance to meet the standards for a Bicycle Friendly Community as determined by the League of American Bicyclists.

B5) Measure the bicycle level of service to evaluate existing routes, prioritize site for improvement, and evaluate alternate treatments.

B6) Collect data to measure and analyze bicycle usage to improve public awareness and safety that will assist in determining and prioritizing necessary improvements.

The Built Environment - Public Transit

**POLICY** - Plano will provide access to a convenient transit network focused on increased travel options and direct connections to major local destinations.

PT1) Inform and promote Dallas Area Rapid Transit (DART) services offered in Plano to city residents.

PT2) Develop metrics to measure ridership and to identify service enhancements.

PT3) Increase the number of public transit options throughout all of Plano by working with DART to enhance service provision.

PT4) Study the feasibility and identify the required infrastructure and routes for a Bus Rapid Transit program.

PT5) Work with DART to protect public transit users from weather and vehicular traffic through the installation of transit shelters at service stops.
PT6) Support DART’s efforts to fund development of the Cotton Belt Commuter Rail to provide access to the Dallas-Fort Worth International Airport.

PT7) Investigate feasibility of partnerships regarding for the provision of trolley services within major destination areas.

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Regionalism – Regional Transportation*

**POLICY** - Plano will evaluate regional transportation options with consideration of the impact on existing residential and business development and emphasis on the expansion of transportation choices, traffic demand management, and trip reduction strategies to improve regional mobility.

RT2) Complete all proposed bicycle trail connections with neighboring cities.

RT3) Advocate with Dallas Area Rapid Transit (DART) member cities for a second tier membership status for nonmember cities.

RT5) Advocate and support development of the Cotton Belt commuter rail corridor from Plano to the Dallas-Fort Worth International Airport.

*NOTE: POLICY ALSO LISTED UNDER THE ROADWAY AND TRAFFIC THEME*
Walkability and Urban Design Theme
Policies and Actions

The Built Environment - Community Design

**POLICY** - Plano will promote and incorporate unique and functional community design components within new developments, public spaces, and streetscapes to enrich areas throughout the city, create distinctive visual character, and ensure a citywide pedestrian-friendly environment.

CD3) Create a Corridor Community Design Plan to identify unique streetscape design themes along major arterials.

CD5) Develop wayfinding signage guidelines to apply to special areas and public facilities citywide.

CD6) Evaluate and make revisions to parking regulations to ensure a balance between the needs of various transportation options and creating good community form.

The Built Environment - Pedestrian Environment

**POLICY** - Plano will pursue a universally accessible and well-connected pedestrian system that promotes walkability, improves navigation of major thoroughfares, and encourages connections between residential areas and neighborhood centers.

PE1) Develop and adopt a pedestrian plan that provides for an accessible, safe system to promote walkability in Plano.

PE2) Foster a streetscape design that includes tree plantings, lighting, street furniture, and wayfinding guides to enhance Plano’s pedestrian environment.

PE3) Implement traffic calming methodologies to reduce traffic speeds and improve pedestrian safety.

PE4) Review feasibility of narrowing intersections on major roadways to improve the safety of crosswalks and reduce the distance pedestrians must travel across streets.

PE5) Identify and complete sidewalk gaps along the city’s roadway system.

PE6) Create Safe Routes to School maps.

PE7) Partner with the public school districts, colleges, and businesses to develop public service announcements that promote pedestrian awareness education.
2. Having read the Land Use and Community Design component on pages 4-8, are there any policies or actions that concern you?

**Comments:**

1. Review and update the Zoning Map to resolve land use inconsistencies between the Future Land Use Map and the Zoning Map. Each zoning change should be required to go through a formal zoning change request on a parcel by parcel basis. When there is only a small amount of undeveloped land in Plano, each parcel affects nearby properties. The Future land use map is not an acceptable basis for approving zoning changes. Nearby owners should have the right to challenge and object to zoning changes and that is not possible if blanket changes are made. Create regulations that incentivize the redevelopment of underperforming retail and multifamily development. The word incentivize should be replaced with encourage. This does not need to take taxpayer dollars. **TOD** Establish parking maximums in transit-served areas and identified Compact Complete Centers. History has proven that inadequate parking results in issues and ultimately requires the city to spend its money building additional parking.

2. What ensures that there would be an system of ‘organized' land use?

3. **LU Policy** - What does it mean to "respect existing neighborhoods and businesses.", **LU6** - What types of incentives, **LU7** - physical AND historical character, **LU9** discussion is critical, **CD6** - explain/discuss "good community form", **TOD4** - define parking maximums and explain the necessity

4. In the plan it is stated that 6% of land in Plano is still available for development, but the city will limit it for business or compact complete centers, why is single family homes omitted from the use?

5. These seem to be general and positive statements of direction and they make sense to me.
6. I'm not sure what the future vision for the city is. What would it look like in the future? When the Plano Tomorrow plan was introduced in 2015, it compared Plano in 1985 with Plano in 2015, but didn't provide a vision for Plano 2045 (or even nearer). This should be the starting point for this section. How many people would live here? What would be acceptable density and where? CD1: what are these criteria? How are they developed? Will the development include REAL input from all residents? UL1: what is the process in which the criteria will be developed? The policy is too vague. Will the criteria be subject to ALL residents' input and oversight? TOD1: same comment.

7. In TOD3, rezoning property within 1/2 mile of transit stations, what is the impact on existing businesses or residences within that 1/2 mile?

8. Concerned land use would be justification for re-zoning. The transitioning of height standards. None of the specifics are listed. What process would be used to make changes to include citizens? What notification systems would be used to inform citizens? Question viability of pedestrian and bicycle usage. How do we know city-wide goals are consistent with majority of citizens. Who determines land use inconsistencies? In CD section concerned too many taxpayer monies will be involved in incentives. RTC need current and past setbacks. Concerned residential too close to expressways. It’s a quality of life. Unsure of compact complete center UL what are current specifics. What Type of new housing growth. TOD 3 specifics of urban design, TOD 5 question number of multi family size and necessity TOD6 specifics on land banking and ready the environment

9. Action Statement LU9 opens a door to build high density housing units.

10. TOD3) Rezone property within ½ mile of transit stations to encourage urban design and increase development opportunities. - I believe this needs to be looked at more closely and do what makes sense vs. just making a blanket action item

11. Land Use (LU1), Land Use (LU2), Land Use (LU6), Land Use (LU9) Community Development (CD1), Community Development (CD2) Regional Transportation Corridors (RTC1), Regional Transportation Corridors (RTC2), Regional Transportation Corridors (RTC4) Undeveloped Land (UL1), Undeveloped Land (UL3)

12. LU6 - unsure if enough action is be take on this action number
3. Having read the Transportation component on pages 9-13, are there any policies or actions that concern you?

No. I have no concerns at this time. 5/16

Yes. Please explain and provide policy abbreviations and action numbers, as appropriate. For example, Pedestrian Environment (PE1). 7/16

Unsure. 4/16

Comments:

1. TOD3) Rezone property within ½ mile of transit stations to encourage urban design and increase development opportunities. Rezoning should be based upon specific requests. TOD7) Prepare developer “Request for Qualifications (RFQ)/Request for Proposals (RFP)” for disposition of city property and include language describing vision, incentives available, and regulatory requirements. Past experience has shown this is a political give away. The city needs to quit wasting taxpayer dollars.

2. RS4 - Need to accommodate all modes of transportation but focus on maintaining efficiencies for primary modes. PT5 - How do we prevent use by non-DART users, TDM Policy - Define what counts as a "journey to work trip", PE4 - ???

3. A lot of focus on bicycle trails and accommodations. I don't see a great deal of residents commuting to work, school or shopping on bicycles, where's the data that shows that this is a major need in Plano?

4. In theory, I'm in favor of promoting walkability, bicycling and public transportation. In the past, I've lived in a city without owning a car and I loved it. I would prefer NOT to rely on my own car to get around all the time. However, I'm skeptical as to the potential for increased walkability or reliance on public transportation given Plano's layout and given the weather (it's too hot at least 4 months out of the year) Without considering specific proposals, it's hard to say what's possible or not, but that's general concern. As the population ages, I do think we need more options for seniors who can no longer drive.

5. RS5: include fiscal considerations. If projects are tax-supported--need broad community support on ballots Bx: Study bike-sharing. Support only if this is a
viable option. Consider experiences and studies in other relevant places PT1: consider fiscal implications and let the residents weigh in.

6. RS2 how do you create an intelligent transportation system when you are adding more residents with inability to add streets and have a bus system that that is not functional. RS4 standards to accommodate all modes of transportation, clarify all modes. B section How can you retrofit major thoroughfares and streets that were never designed to safely accommodate bikes? What bike usage is expected for main transportation especially in summer heat? Costs associated for the plans vs actual usage PT what will cost be to taxpayer vs revenue taken in by DART. Will any plan make DART profitable and not a drain on taxpayers as it is currently? TDM specifics of TDM PE specifics on how you will make crossing major arteries and thoroughfares safe in a city never design for heavy pedestrian traffic

7. Need to address bike components a bit more closely to see if they make sense

8. Public Transit (PT4) Transportation Demand Management (TDM 01) Pedestrian Environment (PE7)

9. Roadway system / Traffic Demand Mgmt- is Plano adequately handling the traffic during rush hours?
5. Having read the Quality of Life component on pages 29-37, are there any policies or actions that concern you?

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<tr>
<td>No. I have no concerns at this time.</td>
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<tr>
<td>Yes. Please explain and provide policy abbreviations and action numbers, as appropriate. For example, Parks &amp; Recreation (PR1).</td>
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**Comments:**

1. PRS5, concerned on this point, explain how you are going to inspect private home structure?
2. Would like to see more attention toward providing emergency shelters where needed for tornado preparation (EM3). Like the idea of expanding library space to offer workshop and meeting space for nonprofits, HOAs, etc. (L7)
3. Make sure that public safety implications of zoning changes are considered. Learn from experiences in other places. Make sure plans and actions don't have adverse safety implications that were not considered initially. PS3: consider input from safety and best practices and experiences when making development decisions. Be PROACTIVE rather than REACTIVE (don't let zoning changes dictate the level of safety) PRSxx: make sure to balance city "looks" with residents' rights for their own property. There is a fine line to walk. SSx: Also consider other districts (e.g., FISD, LISD) within city limits. PR7: consider allowing drones (even if limited to AMA definition of "Park Flyers") operated within AMA regulations. That's part of transportation, and new technology and recreational hobbies should be considered. Is a large kite or sailplane OK because they are not motorized? Are bicycles less dangerous because they don't have motors? What about electric scooters? ALCWx: 24-hour urgent care. Focus on preventative medicine. Fire Chief gave great overview of that at the Plano Citizens Fire Academy. EOx: meeting with the school district(S) more often than once a year (in the past, city leaders/council AVOIDED meeting with the district board). Consider input from them when making planning decisions. What would be the consequences for education? Education is one of the top two (if not top one) reason people move to Plano. Let's keep it that way.
4. In EO5, what does, "evaluate the possibility of sharing facilities..." mean?

5. PR2 will developers pay a fair share for development of additional parks PR5 do other communities have extensive trails to connect

6. The Social Environment - Active Living and Citizen Well-Being - Perhaps look closer at this b/c much of it can be conducted by private sector and not taxpayer dollars. Plano also has a very educated community already.

7. Property Standards - Policy and Action items Social Services (SS2), Social Services (SS4) Parks and Recreation (PR3), Parks and Recreation (PR7) Active Living and Citizen Well-Being - Both policy and Action items Libraries - Both policies and action items Educational Opportunities - Policy and action items
11. Having read the Our Place in the DFW Region component on pages 56-61, are there any policies or actions that concern you?

Comments:

1. I would like to modify the statements on population growth. Preserving the suburban character of Plano is paramount and some of the statements could be taken to promote high density development.

2. I am especially supportive of action statements that support regional sustainability efforts, reduce traffic congestion, improve air quality, improve citizen health, and reduce greenhouse gas emissions – all while encouraging a diversified and strong 21st century regional economy. These are important topics that might need additional collaboration across the region to help education citizens on their importance, and the tremendous economic opportunities that are growing with the global transition to a low-carbon 21st market-based economy.

3. "Preserving the suburban character." City leadership / Mayor public communications were inconsistent with this statement. It leads me to believe that the city leadership is not taking its own plan seriously. RT3: make sure we are advocating for pragmatic plans, and consider all consequences. This action statement also uses terminology that is unclear to me. REx: Education comes in at the last page??? Why limit to local and regional universities? Why not beyond? The items are too specific.

4. In RT3, what would "second tier membership status" for non-member cities of DART entail?

5. Concerns with rezoning and making sure we have citizen input. Concerns with DART based on past history AQ4 how feasible is this and at what costs

6. Policy: what is population goal for the city?
7. Yes - the policy and action items under - Regionalism - Consistency with Neighboring Cities and yes also to Regional Education
8. Population Growth - how are we addressing affordable housing to accommodate pop growth in Plano
14. Do you have any concerns with the other comprehensive plan maps (Bicycle Transportation Map (page 44), Thoroughfare Plan Map (pages 23-24), Park Master Plan Map (page 43), Expressway Corridor Environmental Health Map (pages 25-27))?

Comments:

1. It should be important to consider more bicycle/pedestrian only crosswalk bridges or tunnels at major traffic intersections (e.g. Preston Road)
2. As noted before, I don’t see a large demand for bicycle riding in Plano and would like to see the data on why the city is pushing this.
3. Would just like to say that I consider Plano’s excellent parks a key perk in living here. I use the parks and enjoy them.
4. Same comment as question 12 above.
5. Question bicycle viability, usage and safety
6. I would like to see this improved and better communicated with the neighbors living in these areas, to ensure that the maps reflect the desires of those residents living in these areas, and the overall needs for the city's development. As well, coordinated with Plano ISD to ensure that it is working for their needs for a healthy city.
15. What do you think is most important for the City to consider when planning for its future growth?

Responses:

1. Maintaining the quality of Plano's suburban character.
2. It's growing diversity people.
3. Planning for evolving transportation patterns and methods as the region continues to grow.
4. Clear overarching direction with allowances for flexibility. Incorporating a variety of perspectives with emphasis on opinions of current residents and businesses.
5. Keep the Plano suburban lifestyle most move here for, limit or eliminate apartments and high density structures from the remaining land and redevelopment.
6. I think that citizens need to realize we can't "just say no" to changes we don't like. Some changes are inevitable. In other cases, saying "no" might yield unintended consequences. If you want to say "no" to something (like apartments) then you need to say what you hope to get, or would accept, instead. We have to deal with reality, not wishful thinking.
7. Maintain its tradition of striving to be the City of Excellence.
8. Start with creating a clear SHARED VISION of ALL residents. Do we all agree with this vision of what the city would look like in 2045? 2035? UNIFY the city instead of adopt a divisive rhetoric. The fact that this is what happens in Washington DC doesn't mean that we should have it here, or that it is a good thing. Start with identifying WHERE WE ARE today. Ignoring the city divide is a mistake. The first step for solving any problem is recognizing that there is one. Once we agree on those, I think we should set the boundaries of getting from where we are today.
9. Maintaining the cities' status as a place where individuals, families and businesses choose to live and work.
10. What do citizens want and need, not developers.
11. Listen to the residents in the city.
12. The changing nature of retail business and the space associated with it.
13. How much of the redevelopment is going to be urban planning. Also, how much resources are going to be put into bike plans (overspending to appease a small population). Additionally, ways to make it easier for people to ride DART train.
14. I believe that it is critical that Plano properly balance the needs of the current residents and businesses with the future needs of both. Additionally, we need to better communicate the open avenues for all parties to communicate and have an influence over the decisions that impact them.
15. Developing strategies (actions) that take in consideration of 20 to 30 year trends versus 5 to 10 year trends. Balancing how the city will take care of an aging
population while providing opportunities (e.g., housing, good schools) for younger adults/families
16. What are your thoughts or concerns about density? If any, please explain.

Responses:

1. Plano is largely built out. Plano's development has been highly successful for its suburban character. We should not be trying to change Plano by significantly increasing density. Plano was built for a population of 260,000 but is already at 290,000. If does not have the appropriate infrastructure to accommodate much more growth.

2. None.

3. The city must develop responsibly to balance the needs of current AND future residents.

4. Density changes can alter the character of neighborhoods and should be adopted sparingly.

5. Too many apartments in Plano already that are taxing our infrastructure, police, Fire and schools. More focus on suburban life style and less on trying to reinvent Plano to be an overcrowded urban environment.

6. I think it's a meaningless term that's thrown around to create fear for political purposes. Plano might be denser than the next city — just for example — because our homes are on small lots. So what? Presumably we all knew what size lots we were getting when we bought our homes. If "density" is so bad, is there a level that is OK? I've never heard a number that was "too high" versus one that's "reasonable." It's just 'density bad - dangerous - awful - liberal plot - urbanization! - the end of life as we know it.' Meaningless.

7. Be thoughtful on redevelopment and revitalization. We should seek out lessons learned from other successful cities that have transitioned from new growth to redevelopment growth.

8. I think we are missing metrics and goals for density (as well as other areas in the plan). What should be our density goals in different types of areas? How would you measure "good transportation?"

9. I favor a mix of housing options in the city. I want Plano to be attractive to a diverse community, and that necessitates providing accessible, affordable, convenient places to live.

10. Traffic; we don’t have streets to accommodate. First responders. Will not have facilities, staffing to respond and traffic will slow response. We already have larger percentage of apts than Dallas. Used to be 2 or 3 stories now ordinances have changed minimum to 5. Plano was never designed to be a high density urban city. You can’t retrofit it now to be a biking, walking mass transit city. Residents moved here because it is a family oriented suburban city with excellent schools.
Agenda Item 3

Discussion and Direction: Roadways and Traffic Theme

DESCRIPTION:

Hold a discussion and provide direction to Freese and Nichols, Inc. regarding transportation-related policies and actions under the “Roadways and Traffic” theme.

REMARKS:

Of the 56 total transportation-related policies and actions, staff and the consultants have prepared a list of three policies and 13 actions under the “Roadways and Traffic” theme (see Attachment A). As part of this discussion, the Committee will take part in a polling exercise to determine the appropriate next steps for each of the policies and actions in this theme.

Step 1 – Introduction:
Freese and Nichols will read the policy or action and provide a brief summary of its purpose. The Committee will then be asked to take a poll on their preferences regarding this policy or action.

Step 2 – Poll No. 1:
Committee members may cast their vote by holding the green (A), yellow (B), or red (C) card (see Attachment B) in front of their screen. These cards correspond to the following options:

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<td><strong>A</strong></td>
<td>I support keeping the existing policy or action as-is.</td>
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<tr>
<td><strong>B</strong></td>
<td>I would like more information about this policy or action (to be discussed in Step 4).</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>I support modifying the policy or action (to be discussed in Step 4).</td>
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Note: This is an informal vote. It will not directly result in sending any policies or actions to the Planning & Zoning Commission.
Step 3 – Poll No. 1 Results
If there are two or more votes for Options B or C (in total), the Committee will move to discussion in Step 4. Otherwise, the Committee will move to consideration of the next policy or action and skip Steps 4 through 6 below.

Step 4 – Discussion
Each individual voting Options B or C will have the opportunity to briefly describe concerns, propose changes, or ask questions. The purpose of the discussion is to clarify what additional information or modifications to the policy or action may be needed. Staff may respond with concise factual or policy information that is readily available. Following discussion, Committee members may change their vote in Step 5.

Step 5 – Poll No. 2:
Committee members may cast their vote by holding the green (A), yellow (B), or red (C) card (see Attachment A) in front of their screen. These cards correspond to the following options:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>I support keeping the existing policy or action as-is.</td>
</tr>
<tr>
<td>B</td>
<td>I would like more information about this policy or action. (More information will be provided at the May 19th meeting.)</td>
</tr>
<tr>
<td>C</td>
<td>I support modifying the policy or action. (Modifications will be provided at the May 19th meeting.)</td>
</tr>
</tbody>
</table>

Note: This is an informal vote. It will not directly result in sending any policies or actions to the Planning & Zoning Commission. Any proposed modifications to a policy or action under Option C will be returned for consideration and a formal vote at the May 19, 2020, meeting.

Step 6 – Poll No. 2 Results
Following Poll No. 2, Freese and Nichols will determine their direction based on one of the following:

- If there are two or more votes for Options B or C (in total), modifications and/or more information will be provided at the May 19, 2020, meeting.
- If there are less than two votes for Options B or C (in total), the Committee will move on to the next policy or action. The policy or action will be returned for consideration and a formal vote at the May 19, 2020, meeting.

SPECIAL NOTE:
The Regional Transportation Policy includes additional actions that will be discussed as part of the “Bikes and Transit” and “Walkability and Urban Design” themes. Polling the
Committee’s preferences on this policy will be conducted as part of the May 19, 2020, meeting.

RECOMMENDATION:

Recommend the Committee provide direction regarding policies and actions under the “Roadways and Traffic” theme.

ATTACHMENTS:

Attachment A – “Roadways and Traffic” Theme Detailed Information
Attachment B – Voting Cards
The Plano Tomorrow Policies and Actions were developed through meetings with the Planning & Zoning Commission, City Council, and extensive public outreach. Information on this process can be found here:

- Public Outreach Process
- Advisory Committee Workshops
- Adoption Process

The Built Environment - Roadway System

**POLICY** - Plano will develop an integrated, multimodal transportation system, through the utilization of technology and innovative concepts that improves the safety and efficiency of the roadway system for all users.

**RS1)** Develop a transportation plan for Plano that addresses all modes of travel.

**Status:**
- Pending
- This is a priority project for the Planning Department and will move forward once funding is approved.

**Background:**
Plano traditionally has maintained a Thoroughfare Plan to address roadway capacity and connectivity, and a separate Bicycle Transportation Map to guide connectivity decisions related to trails, shared-use paths, and on-street bike routes. However, the City has never had a transportation plan that integrates all modes and prioritizes solutions that addresses the City’s various transportation needs. A multimodal transportation plan would address and serve the diverse demands on the City’s transportation network, including automobiles, transit, bicycles, pedestrians, and freight. When modes are planned as interconnected layers, consideration can be given to how modes connect and how effectively different land uses are able to access these modes.

**RS2)** Create an Intelligent Transportation System for Plano’s roadway network.

**Status:**
- In Progress
- The Transportation Engineering Division has made significant progress toward advancing the transportation technology that benefits the efficiency and safety of Plano’s roadway network. Completed improvements include installation of:
  - Upgraded Emergency Vehicle Preemption System
Plano Tomorrow Comprehensive Plan

Policies and Action Statements Relating to Transportation - Roadway and Traffic Theme

CPRC Meeting Date: May 5, 2020

- Upgraded School Zone Flasher System
- WAZE integration software
- 13 adaptive signalized intersections (currently being evaluated)

- Additional near-term projects include:
  - Replacing traffic signal wireless communications with fiber optic communications
  - Expanding signalized intersection CCTV camera coverage
  - Upgraded Transportation Management Center (TMC)
  - Evaluation of autonomous and connected vehicle technology solutions

**Background:**
Intelligent Transportation Systems (ITS) is considered a best practice to address safety, mobility, and environmental challenges through advanced technology improvements. ITS encompasses a broad range of wireless and traditional communications-based information and electronic technologies, such as those listed above. More information can be found on the US Department of Transportation Benefits of Intelligent Transportation Systems fact sheet.

**RS3) Improve intersections of all bicycle trails, pedestrian pathways, and streets for increased visibility, safety, and comfort.**

**Status:**
- Recurring and on track
- The Transportation Engineering Division, in coordination with Parks and Recreation, is developing updated trail crossing best practices.

**Background:**
Studies have shown that intersections are the place where the most vehicle-bicycle conflicts occur, and intersection design best practices have continued to advance in order to reduce vehicle-bicycle and vehicle-pedestrian conflicts. The National Association of City Transportation Officials (NACTO) has produced both the Urban Bikeway Design Guide and Don't Give Up at the Intersection: Designing All Ages and Abilities Bicycle Crossings to provide detailed guidance on how cities can improve intersection safety. The Transportation Research Board (TRB) is also currently developing updated research regarding Guidance to Improve Pedestrian and Bicycle Safety at Intersections. The City of Plano continues to evaluate how safety can be improved where local trails and pedestrian pathways interconnect with area roadways.

**RS4) Review and update roadway standards to accommodate all modes of transportation.**

**Status:**
- In Progress
- Engineering and Planning staff are evaluating qualifications with firms to update the Thoroughfare Standards.

**Background:**
National and state guidance on roadway design standards are continually evaluated for best practices, and therefore local roadway standards should be updated accordingly. Plano’s Thoroughfare Standards Rules & Regulations were last adopted by ordinance in 1997, with a small addition in 2009. The document is based on traditional roadways standards consisting of major thoroughfares spaced on a one mile grid distributing vehicular traffic into residential neighborhoods and commercial centers utilizing collector and local streets.

RS5) Develop criteria to assess the effectiveness of pilot projects.

Status:
- Complete
- The current analysis process follows best management practices established by Texas Manual on Uniform Traffic Control Devices (TMUTCD) and American Association of State Highway Transportation Officials (AASHTO) guidelines.

Background:
On occasion, Plano undertakes pilot projects as a way to implement and test new transportation concepts. These projects allow for the public to test and provide feedback on potential transportation improvements. Developing metrics in advance of improvements are strongly encouraged to measure the effectiveness of a pilot project. Additionally, adequate time should be provided to record the metrics under all traffic conditions and seasons. Examples of previous pilot projects with varying results include:

- The installation of the “Michigan Left Turn” lanes at the intersection of Legacy Drive and Preston Road in the early 2010s.
- The installation of the first Single Point Urban Interchange (SPUI) in Texas on Parker Road at U.S. Highway 75.

RS6) Identify and improve locations within the City’s transportation infrastructure to meet Americans with Disability Act (ADA) standards.

Status:
- Recurring and on track
- The Engineering Department completed the ADA Self-Evaluation and Transition Plan. Implementation and barrier removal efforts are on-going.
- Parks and Recreation address improvements as funding become available through the Community Investment Program.
- The Public Works Department completes sidewalk and Barrier Free Ramp (BFR) replacements throughout the city. As of April 15, 2020, there are 314 open service request, with 199 of them assigned to current projects.

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Miles of Sidewalk</th>
<th>Barrier Free Ramps</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY16-17</td>
<td>26.4</td>
<td>723</td>
<td>$4,918,956</td>
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<td>FY17-18</td>
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<td>785</td>
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<td>FY18-19</td>
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<tr>
<td>FY19-20 (estimate)</td>
<td>38.0</td>
<td>1,492</td>
<td>$7,655,074</td>
</tr>
</tbody>
</table>
**Background:**
The City of Plano is required by the Americans with Disabilities Act to conduct an ADA Self-Evaluation and Transition Plan. The Plan, in simple terms, is an assessment of the level of ADA compliance and an action plan for improving accessibility. The process included field data collection to determine ADA compliance and identification of the City’s intended steps to improve accessibility. Additional information can be found [here](#).

**RS7) Coordinate with neighboring communities to explore regional transportation approaches that improve traffic flow within and between jurisdictions.**

**Status:**
- Recurring and on track
- Staff communicates and coordinates traffic signal timing coordination needs across jurisdictional boundaries. Efforts include:
  - Working with the City of Frisco along SH 121 on several projects including: the sharing of CCTV camera feeds for better identification of signal timing and accident incident management needs; development of Legacy Drive/SRT interchange capacity improvements alternatives; and reconfiguration of Custer Road/SRT interchange lane assignments.
  - Working with NTTA and TxDOT on freeway corridor improvements.

**Background:**
Many of the City’s transportation issues are regional issues as so many of Plano’s residents and employees travel between other cities within the region. City staff routinely coordinates with neighboring jurisdictions on projects that impact both communities. Additionally, the North Central Texas Council of Governments (NCTCOG) plans and prioritizes regionally-significant transportation improvements with coordination from each city in the 12-county region. One of the major regional transportation planning efforts is the NCTCOG Metropolitan Transportation Plan, [Mobility 2045](#), which guides the expenditure of federal and state transportation funds to improve mobility and quality of life for all residents in the region.
RS8) Review and update the Traffic Impact Assessment (TIA) threshold for new and redevelopment projects.

**Status:**
- Pending
- Updating the Traffic Impact Assessment (TIA) threshold is expected to be addressed as part of the Thoroughfare Standards update (see RS4).

**Background:**
Plano has used Traffic Impact Analysis (TIA) studies for many years to determine the impact of new development on the local roadway system. TIA studies should identify any potential traffic operational problems or concerns and recommend appropriate actions to address such problems or concerns. TIAs are generally required whenever the additional site-generated Average Daily Traffic (ADT) is more than or equal to a specific number of trips.

The TIA ordinance was developed in the late 1980s when Plano’s street system was still being constructed and many options for mitigation of traffic impacts were still available. In 2010, the TIA ordinance was updated because the street system was then almost complete, meaning mitigation options were more limited. In addition, state laws governing the vesting of development projects were found to limit the City’s ability to decrease the size and intensity of a proposed development as mitigation to roadway impacts. At this time the requirement for a TIA was changed to raise the ADT threshold from 5,000 to 8,000 trips and to only require TIAs at the time of site planning. Additionally, the 2011 update to the Transportation Element of the previous Comprehensive Plan included a recommendation to abandon TIAs in favor of a circulation path for large development projects.

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**The Built Environment - Transportation Demand Management**

**POLICY** - Plano will utilize Transportation Demand Management to improve air quality, reduce journey to work trips, and mitigate traffic congestion.

**TDM1) Partner with the corporate community in Plano to develop and implement a Transportation Demand Management (TDM) plan for city.**

**Status:**
- In Progress
- The Transportation Engineering Division is currently working with the LegacyConnect Transportation Management Association to develop and implement TDM strategies for area businesses. Best TDM practices learned from the LegacyConnect TMA will be communicated to the rest of Plano’s business community.

**Background:**
Transportation Demand Management (TDM) is a national best practice that addresses the demand side of travel behavior by reducing the number of vehicles that travel on roadways through the promotion of alternatives to driving alone. Common TDM strategies include ridesharing (carpool and vanpool), transit, bicycling, walking, telecommuting, and flexible
work-hour scheduling. NCTCOG promotes projects and programs that help to reduce traffic congestion, improve air quality, and increase the efficiency of our regional roadways.

**TDM2)** Pursue and develop incentives for businesses to participate in the TDM program.

**Status:**
- In Progress
- Transportation Engineering Division is currently working with the LegacyConnect Transportation Management Association to develop and implement TDM strategies for area businesses. Best TDM practices learned from the LegacyConnect TMA will be communicated to the rest of Plano’s business community.

**Background:**
Successful TDM programs implement a wide range of specific and effective tools to encourage shifting trips to other modes or reduce trips during peak periods. These tools fall into three major categories:
- Expanded transportation options, such as improvements to bicycling and walking options as well as transit and ridesharing strategies;
- Incentives to use alternative modes, including commuter benefits for transit use and flexible scheduling; and
- Parking management, which includes a host of parking incentives and disincentives. Additional information on TDM best practices and incentives can be found in this State of the Practice report developed by Smart Growth America. Example local incentives include the DART Employer Annual Pass program and NCTCOG’s Try Parking It program which allows users to earn rewards for using alternative transportation options.

**TDM3)** Share ideas, expertise, and knowledge with transportation oriented companies within Plano regarding the City’s transportation planning efforts.

**Status:**
- Recurring and on track
- LegacyConnect promotes collaboration for better informed transportation solutions. Data collected through employer and transportation research assists the TMA and public members with evaluating new infrastructure or service pilots, area-specific improvements, and other micro-level solutions.
- The Transportation Engineering Division is currently working with the LegacyConnect TMA to develop and implement TDM strategies for area businesses.

**Background:**
Services and solutions provided by TMAs vary depending on the area, so local data and expertise is critical to tailoring efforts to the needs of the Legacy area. The TMA coordinates with the City of Plano, other public agencies, and Legacy business members on implementation of specific infrastructure and service improvements for Legacy. The TMA then communicates how these improvements may impact all stakeholders and engages with them in design as well as implementation. Best practices learned through the Legacy TMA may then be applicable to other businesses throughout the city.
**Regionalism – Regional Transportation**

**POLICY** - Plano will evaluate regional transportation options with consideration of the impact on existing residential and business development and emphasis on the expansion of transportation choices, traffic demand management, and trip reduction strategies to improve regional mobility.

**RT1) Create criteria to evaluate regional transportation projects to determine the impact upon the city and develop solutions to mitigate negative effects.**

**Status:**
- Pending
- No criteria have been adopted to date; however, projects are evaluated using best management practices involving regional coordination/connectivity, quality of flow, air quality impacts, public transit potential, bicycle and pedestrian safety needs.

**Background:**
Regional transportation projects have impacts on Plano, and this action was put in place to ensure that those impacts can be recognized. Planning & Zoning Commission and City Council agreed 16-1 with the idea that “Improving regional mobility is important, but the projects must be balanced with their impact on residential and business development.” NCTCOG monitors and sets target performance measures.

**RT4) Annually review the City’s transportation plan to ensure consistency with regional transportation agencies’ plans.**

**Status:**
- Pending
- City staff regularly participates on regional NCTCOG transportation committees, and coordinates with Collin County, DART, and TxDOT, to ensure regional efforts are consistent with city policies.

**Background:**
Citywide plans must be updated regularly to keep them in line with changes that occur over time and ever-evolving future challenges. Because transportation is not contained within Plano, coordination with regional entities must occur to ensure consistency in plans for all agencies. These entities each have their own plans:

- NCTCOG Mobility 2045
- Collin County Mobility Plan
- DART Transit System Plan
- TxDOT Texas Transportation Plan

*NOTE: POLICY ALSO LISTED UNDER THE BIKES AND TRANSIT THEME*
Agenda Item 4

Discussion and Direction: Land Use/Transportation Relationship Theme

DESCRIPTION:

Hold a discussion and provide direction to Freese and Nichols, Inc. regarding transportation-related policies under the “Land Use/Transportation Relationship” theme.

REMARKS:

Of the 56 total transportation-related policies and actions, staff and the consultants have prepared a list of three policies and seven actions under the “Land Use/Transportation Relationship” theme (see Attachment A). As part of this exercise, the Committee will take part in a polling exercise to determine the appropriate next steps for each of the actions in this theme.

The policies in this theme include additional actions that have not been classified as transportation-related and may be considered by the Committee during discussion of the Land Use topic at future meetings. No votes will be taken on the “Land Use/Transportation Relationship policies in Attachment A as part of the polling exercise.

Step 1 – Introduction:
Freese and Nichols will read the action and provide a brief summary of its purpose. The Committee will then be asked to take a poll on their preferences regarding this action.

Step 2 – Poll No. 1:
Committee members may cast their vote by holding the green (A), yellow (B), or red (C) card (see Attachment B in Agenda Item No. 3) in front of their screen. These cards correspond to the following options:

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>I support keeping the existing action as-is.</td>
</tr>
<tr>
<td>B</td>
<td>I would like more information about this action (to be discussed in Step 4).</td>
</tr>
<tr>
<td>C</td>
<td>I support modifying the action (to be discussed in Step 4).</td>
</tr>
</tbody>
</table>
Note: This is an informal vote. It will not directly result in sending any actions to the Planning & Zoning Commission.

**Step 3 – Poll No. 1 Results**
If there are two or more votes for Options B and C (in total), the Committee will move to discussion in Step 4. Otherwise, the Committee will move to consideration of the next action and skip Steps 4 through 6 below.

**Step 4 – Discussion**
The Committee will begin discussion of the action. The purpose of the discussion is to clarify what additional information or modifications to the action may be needed. Following discussion, Committee members may change their vote in Step 5.

**Step 5 – Poll No. 2:**
Committee members may cast their vote by holding the green (A), yellow (B), or red (C) card (see Attachment C) in front of their screen. These cards correspond to the following options:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>I support keeping the existing action as-is.</td>
</tr>
<tr>
<td>B</td>
<td>I would like more information about this action. (More information will be provided at the May 19th meeting.)</td>
</tr>
<tr>
<td>C</td>
<td>I support modifying the action. (Modifications will be provided at the May 19th meeting.)</td>
</tr>
</tbody>
</table>

Note: This is an informal vote. It will not directly result in sending any actions to the Planning & Zoning Commission. Any proposed modifications to an action under Option C will be returned for consideration and a formal vote at the May 19, 2020, meeting.

**Step 6 – Poll No. 2 Results**
Following Poll No. 2, Freese and Nichols will determine their direction based on one of the following:

- If there are two or more votes for Options B or C (in total), modifications and/or more information will be provided at the May 19, 2020, meeting.
- If there are less than two votes for Options B or C (in total), the Committee will move on to the next policy or action. The action will be returned for consideration and a formal vote at the May 19, 2020, meeting.

**RECOMMENDATION:**
Recommend the Committee provide direction on actions under the “Land Use/Transportation Relationship” theme.
ATTACHMENTS:

Attachment A – “Land Use/Transportation Relationship” Theme Detailed Information
The Plano Tomorrow Policies and Actions were developed through meetings with the Planning & Zoning Commission, City Council, and extensive public outreach. Information on this process can be found here:

- Public Outreach Process
- Advisory Committee Workshops
- Adoption Process

The Built Environment - Land Use

**POLICY** - Plano will support a system of organized land use to provide greater housing and employment choices, where new and redevelopment areas respect existing neighborhoods and businesses.

**LU3** Review development regulations and implement standards that configure development to provide complementary uses and foster good connections using a combination of streets, trails, and sidewalks for vehicular, pedestrian, and bicycle circulation.

**Status:**
- In progress
- Planning staff routinely accounts for land use compatibility and connectivity in the development review process. Targeted efforts to improve land use compatibility and connectivity include:
  - ongoing updates to the City's residential adjacency and street standards,
  - the review of policies addressing open storage and alcohol sales and production,
  - providing hike & bike trails and easements,
  - creating a zoning district for Collin Creek Mall which included advice from market analysts, urban designers, and structural specialists in support of the city

**Background:**
This action helps to provide more walkable and connected communities that bring together a diverse variety of compatible uses. By implementing standards that increase the use of alternative modes of transportation, the City can work to increase connectivity amongst land uses. This has a number of benefits, including economic, social, environmental, and health, as outlined in the following reports:
- ULI, Gen Y and Housing
- Vision North Texas
The Built Environment - Transit-Oriented Development

**POLICY** - Plano will proactively encourage and incentivize development within walking distance of existing and future rail stations or bus transit centers to create an integrated mix of uses including residential, employment, retail, and civic spaces.

**TOD1)** Develop Criteria for Review of Transit-Oriented Developments and update as necessary.

**Status:**
- Pending

**Background:**
A myriad of land use, design, and mobility components need to be considered to develop sustainable TOD. This action will help the city create the necessary criteria to review the appropriate intensity and type of developments needed to sustain TOD while protecting existing neighborhoods; notably access and housing around transit stations; a mix of commercial, recreational, and residential uses; active ground ground-floor retail; and parking, street, and building requirements that create an inviting public realm that is automobile, pedestrian and multi-modal friendly. Similar to building codes and thoroughfare standards, the city should continuously review these criteria to ensure that TOD in Plano is economically viable and achieves the long-term vision of the Transit Corridor future land use designation. More information can be found in [DART’s Transit-Oriented Development (TOD) Guidelines](#).

**TOD2)** Prioritize and prepare station area plans to guide development patterns within ½ mile of identified transit stations.

**Status:**
- Pending
- A one-time funding of $75,000 to conduct a Market Assessment & Economic Development Strategy Study of the Silver Line rail corridor was approved in the budget for FY2019-20.

**Background:**
Land owners around the new stations will likely see opportunity in transit adjacency, so the city benefits from having a plan in place to guide development with principles supported by the community. Preparing plans that consider the area surrounding Plano’s transit stations will help to create complete TOD neighborhoods that afford the community high quality walking environments and convenient access to transportation; all of which are necessary to support a mix of housing, businesses, retail, services, and local jobs. It is a standard planning practice to plan a half-mile radius surrounding a transit station because the distance most people are willing to walk to reach a destination is about 10 minutes, or half a mile. Like any special area planning process (Envision Oak Point, for example), preparing station area plans will include
robust public outreach, stakeholder engagement, and a market assessment to ensure the plan is viable for the expected market. Learn more about the Principles of TOD here. The scope and definition of TOD areas in Plano were addressed during the September 29, 2014 Planning & Zoning Commission Work Session.

**TOD3** Rezone property within ½ mile of transit stations to encourage urban design and increase development opportunities.

**Status:**
- Pending
- Funding for a Market Assessment & Economic Development Strategy Study for the Silver Line rail corridor was approved as part of the FY2019-20 budget. This study will help determine the criteria needed to support existing and future TOD in Plano.

**Background**
Following the completion TOD1 and TOD2, staff will work proactively with surrounding property owners to implement the policies and strategies outlined in any adopted station area plan, including rezoning properties to better align with market potential and future land use recommendations. Private sector efforts will be the primary driver for redevelopment in these areas, which will be reviewed for consistency with station area plan policies and strategies and other adopted TOD policies or criteria.

**TOD4** Establish parking maximums in transit-served areas and identified Compact Complete Centers.

**Status:**
- Pending

**Background:**
Demand for parking around transit stations and in mixed-use areas is typically less than traditional development. In these areas, individuals live in closer proximity to supporting shops and businesses and have the opportunity to utilize alternative modes of transportation, including transit, walking, bicycling, etc. As a result, these areas typically require less on- and off-street parking than required in standard Zoning Ordinance regulations. This action will help reduce the amount of land dedicated to parking, which will increase land productivity, increase opportunities for open space, and, in turn, help foster these specific areas as vibrant, walkable, and human-scaled destinations.
- DART Transit-Oriented Development (TOD) Guidelines
- NCTCOG DART Red & Blue Line Corridors TOD Parking Study
- Memo #3

**TOD5** Develop plans for the K Avenue/DART light rail and the 14th Street/Cotton Belt commuter rail corridors to address redevelopment of retail and multifamily sites and encourage new development around transit stations.

**Status:**
- In progress
A one-time funding of $75,000 to conduct a Market Assessment & Economic Development Strategy Study of the Silver Line rail corridor was approved in the budget for FY2019-20.

**Background:**
This action will help the city prepare for the future development around the existing DART rail line stations and the new Cotton Belt (now called Silver Line) stations at 12th Street and Shiloh Road by creating a transit corridor plan that takes into consideration the key factors needed to develop and sustain successful TOD. This statement builds on Action TOD2.

- [DART Transit-Oriented Development (TOD) Guidelines](#)
- [Principles of TOD](#)

### Regionalism - Population Growth

**POLICY** - Plano will accommodate regional population growth in identified areas while preserving the suburban character of the community.

**PG5**  
Advocate with the North Central Texas Council of Governments to include increased residential development within developed cities in traffic modeling.

**Status:**
- Recurring and on track
- Staff recently provided feedback on NCTCOG modeling for the 2045 regional mobility plan.

**Background:**
The NCTCOG conducts traffic modeling for the DFW region and accounts for land use patterns to project future traffic volumes. The agency relied on feedback from local jurisdictions regarding accuracy of future land development plans in conjunction with model assumptions. This action is necessary to ensure the infill development that is anticipated throughout the region is considered in the [regional transportation model](#), thus providing more realistic data to predict future traffic congestion issues. The model helps prioritize transportation projects and funding, so ensuring adequate projections is critical to accurate resource allocation.
Agenda Item: 5

Discussion: CPRC Work Plan Updates

DESCRIPTION:

Hold a discussion and make any modifications to the Comprehensive Plan Review Committee (CPRC) Work Plan.

REMARKS:

On January 22, 2020, the Committee adopted a CPRC Work Plan that outlined target dates for discussion of key issues related to density, land use, transportation, growth management, and other unclassified topics. This is intended to be a working document that can be modified as needed.

Pursuant to direction at the April 21, 2020, meeting, Freese and Nichols, Inc. has made the following modifications to the Work Plan:

- Education and Training Items:
  - Marked Item 10 complete.
  - Moved the question previously listed as 4a under the Transportation Topic to Item 11 and marked it as complete.

- Transportation Topic:
  - Updated the subtopic categories to reflect the new transportation themes (Roadway and Traffic, Land Use/Transportation Relationship, Bikes and Transit, Walkability and Urban Design), established by Freese and Nichols, Inc. to guide the transportation discussions.
  - Revised and added subtopic questions under each theme.
  - Updated the dates for the Bikes and Transit and Walkability and Urban Design themes to be May 19, 2020, and June 2, 2020.

At the conclusion of the meeting, the Committee may request additional modifications as necessary.

RECOMMENDATION:

Consider the CPRC Work Plan and make modifications as necessary.

ATTACHMENTS: Attachment A – CPRC Work Plan
### Items to Consider Throughout the Review Process

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Be mindful of taxpayers – partner with private companies.</td>
<td>Continuous</td>
</tr>
<tr>
<td>2</td>
<td>How to retain existing population and attract new residents.</td>
<td>Continuous</td>
</tr>
<tr>
<td>3</td>
<td>Maintain parks and transportation via solid economic development goals and efforts.</td>
<td>Continuous</td>
</tr>
<tr>
<td>4</td>
<td>Have a plan to prevent crime and support police.</td>
<td>Continuous</td>
</tr>
<tr>
<td>5</td>
<td>Actions to execute what is in the plan.</td>
<td>Continuous</td>
</tr>
<tr>
<td>6</td>
<td>The City should move in the same direction of Plano 2045.</td>
<td>Continuous</td>
</tr>
<tr>
<td>7</td>
<td>The purpose of the comprehensive plan relating to density, land use, growth management, and transportation.</td>
<td>Continuous</td>
</tr>
<tr>
<td>8</td>
<td>We all want to live in the best community.</td>
<td>Continuous</td>
</tr>
<tr>
<td>9</td>
<td>Think about how we deliver the city to future generations.</td>
<td>Continuous</td>
</tr>
<tr>
<td>10</td>
<td>Strive for factual support.</td>
<td>Continuous</td>
</tr>
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### Education and Training Items

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<th>Item</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Plano Facts and Figures</td>
<td>Jan 22</td>
</tr>
<tr>
<td>2</td>
<td>Zoning change notice procedures</td>
<td>Feb 4</td>
</tr>
<tr>
<td>3</td>
<td>Executive Session for Legal Advice: Respond to questions and receive legal advice regarding the Fair Housing Act and legal issues related to comprehensive planning</td>
<td>Feb 4</td>
</tr>
<tr>
<td>4</td>
<td>Undeveloped Land Map &amp; Population Projections Part 1</td>
<td>Feb 4</td>
</tr>
<tr>
<td>5</td>
<td>Active Residential Projects and Population Projections Part 2</td>
<td>Feb 20</td>
</tr>
<tr>
<td>6</td>
<td>Police Department and Fire-Rescue Facts and Figures</td>
<td>Feb 20</td>
</tr>
<tr>
<td>7</td>
<td>Future Land Use Plans from Surrounding Cities</td>
<td>Feb 20</td>
</tr>
<tr>
<td>8</td>
<td>Review Middle Housing Types</td>
<td>March 3</td>
</tr>
<tr>
<td>9</td>
<td>Plano ISD Facts and Figures (Presentation by Plano ISD Superintendent)</td>
<td>March 18 (Postponed)</td>
</tr>
<tr>
<td>10</td>
<td>How does DART membership work? How is DART funded?</td>
<td>April 21</td>
</tr>
<tr>
<td>11</td>
<td>Define what counts as a “journey to work trip” related to transportation demand management</td>
<td>April 21</td>
</tr>
</tbody>
</table>

### Transportation Topic

<table>
<thead>
<tr>
<th>Subtopic #</th>
<th>Subtopic Category</th>
<th>Date (Apr-Jun)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Roadway and Traffic Theme</td>
<td>Apr 21; May 5 &amp; 19; June 2</td>
</tr>
<tr>
<td>1a</td>
<td>Discuss how does the plan address traffic congestion. (Survey)</td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>Discuss the level of maintenance required for roadways long-term. (Survey)</td>
<td></td>
</tr>
<tr>
<td>1c</td>
<td>Discuss what an intelligent transportation system is and how it works. (Survey)</td>
<td></td>
</tr>
<tr>
<td>1d</td>
<td>Discuss if Plano is adequately handling rush hour traffic. (Survey)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Land Use/Transportation Relationship Theme</td>
<td>Apr 21; May 5 &amp; 19; June 2</td>
</tr>
<tr>
<td>2a</td>
<td>Discuss preserving the suburban character of Plano. (Survey)</td>
<td></td>
</tr>
<tr>
<td>2b</td>
<td>Discuss how to be thoughtful on redevelopment and revitalization. (Survey)</td>
<td></td>
</tr>
<tr>
<td>2c</td>
<td>Discuss how TODs impact existing businesses/residences within ½ mile. (Survey)</td>
<td></td>
</tr>
<tr>
<td>2d</td>
<td>Discuss how review criteria for TODs will be developed. (Survey)</td>
<td></td>
</tr>
</tbody>
</table>
### Bikes and Transit Theme

#### 3a
Discuss modes of transportation and appropriateness in specific locations.

#### 3b
Discuss and understand how transit impacts the community.

#### 3c
Discuss the demand for biking in Plano. (Survey)

### Walkability and Urban Design Theme

#### 4a
What is the process in which the criteria (i.e., the development criteria to review undeveloped land – Page 7 of 58 adoption ord.) will be developed?

#### 4b
Discuss how you can make crossing major arteries and thoroughfares safe in a city never designed for heavy pedestrian traffic. (Survey)

#### 4c
Define parking maximums and explain their necessity. (Survey)

### Future Land Use Topic

#### Subtopic Category

<table>
<thead>
<tr>
<th>Subtopic #</th>
<th>Subtopic Category</th>
<th>Month (June-July)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Land Use Compatibility</td>
<td>June 16 &amp; 30; July 7 &amp; 21</td>
</tr>
<tr>
<td>1a</td>
<td>Discuss what “incentivize” means and prefer not to use monetary incentives.</td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>Define incentives to not burden the taxpayers – it is okay to maintain aging infrastructure.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Neighborhood Center Concept</td>
<td>June 16 &amp; 30; July 7 &amp; 21</td>
</tr>
<tr>
<td>2a</td>
<td>Discuss concepts to address aging neighborhoods / protect neighborhoods from declining</td>
<td></td>
</tr>
<tr>
<td>2b</td>
<td>Four corner retail centers need to change / purposeful planning for retail corners can have a positive impact on taxes.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Map Revision</td>
<td>June 16 &amp; 30; July 7 &amp; 21</td>
</tr>
<tr>
<td>4</td>
<td>Development review and approval criteria</td>
<td>June 16 &amp; 30; July 7 &amp; 21</td>
</tr>
<tr>
<td>4a</td>
<td>How does the implementation of these processes affect the effectiveness of a plan? (Survey)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Mixed Use composition (type and density)</td>
<td>June 16 &amp; 30; July 7 &amp; 21</td>
</tr>
<tr>
<td>5a</td>
<td>Evaluate the changing nature of the retail business and the space associated with it. (Survey)</td>
<td></td>
</tr>
</tbody>
</table>

### Density (Housing) Topic

#### Subtopic Category

<table>
<thead>
<tr>
<th>Subtopic #</th>
<th>Subtopic Category</th>
<th>Month (Part 1: Jan-Apr) (Part 2: TBD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Density (Establish an understanding of density.)</td>
<td>Jan 22</td>
</tr>
<tr>
<td>1a</td>
<td>Review of the vision statement</td>
<td>Jan 22</td>
</tr>
<tr>
<td>1b</td>
<td>Consensus of the work plan</td>
<td>Jan 22</td>
</tr>
<tr>
<td>1c</td>
<td>Education</td>
<td>Plano Facts and Figures</td>
</tr>
<tr>
<td>1d</td>
<td>Density</td>
<td>Definition and metrics</td>
</tr>
<tr>
<td>1e</td>
<td>Homework Assignment</td>
<td>Photos of desirables housing types for Plano</td>
</tr>
<tr>
<td>2</td>
<td>Housing Types (Goal: Establish the “menu options” and not location.)</td>
<td>Feb 4 &amp; 20; Mar 3 &amp; 18; Apr 14; TBD</td>
</tr>
<tr>
<td>2a</td>
<td>Have areas to draw young people / more walkable</td>
<td></td>
</tr>
<tr>
<td>2b</td>
<td>Housing affordability/attainability – e.g., some people need to live outside of the city when they work in Plano.</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>2c</td>
<td>What does mixed use mean? (repeated 3 times)</td>
<td></td>
</tr>
<tr>
<td>2d</td>
<td>Density is going to increase traffic, overcrowd schools, and reduce quality of life.</td>
<td></td>
</tr>
<tr>
<td>2e</td>
<td>How do we address aging neighborhoods and their preservation? (Survey)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Housing Mix (Goal: Address how housing types relate to each other in the same development and neighboring development.)</td>
<td>Feb 4 &amp; 20; Mar 3 &amp; 18; Apr 14; TBD</td>
</tr>
<tr>
<td>3a</td>
<td>Define what suburban development looks like.</td>
<td></td>
</tr>
<tr>
<td>3b</td>
<td>Discuss mixed use criteria and what does it mean.</td>
<td></td>
</tr>
<tr>
<td>3c</td>
<td>Use the phrase “attainable housing” because young people and workers should be able to live in Plano.</td>
<td></td>
</tr>
<tr>
<td>3d</td>
<td>Do not “urbanize” Plano, we don’t want to be Uptown Dallas.</td>
<td></td>
</tr>
<tr>
<td>3e</td>
<td>Plano will NOT be one of the largest communities in Collin County in the future.</td>
<td></td>
</tr>
</tbody>
</table>

### Growth Management Topic

<table>
<thead>
<tr>
<th>Subtopic #</th>
<th>Subtopic Category</th>
<th>Month (Sept-Oct)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How to Manage Growth</td>
<td>Sept 29; Oct 6 &amp; 20</td>
</tr>
<tr>
<td>1a</td>
<td>Consistent growth / success for city. e.g., should have downfall for of success</td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>Continue to strengthen economic development efforts to attract businesses.</td>
<td></td>
</tr>
<tr>
<td>1c</td>
<td>We are in a transition from bedroom community to be more urban, we need to continue making this a great community to live, work, play, and learn.</td>
<td></td>
</tr>
<tr>
<td>1d</td>
<td>Be proactive with managing the growth because we can’t control what is coming in the future.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Population Projections</td>
<td>Sept 29; Oct 6 &amp; 20</td>
</tr>
<tr>
<td>2a</td>
<td>The City’s population projections. (Survey)</td>
<td></td>
</tr>
<tr>
<td>2b</td>
<td>How do the population projections inform the plan and development of the City? (Survey)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Redevelopment and revitalization</td>
<td>Sept 29; Oct 6 &amp; 20</td>
</tr>
<tr>
<td>3a</td>
<td>Be thoughtful on redevelopment and revitalization. (Survey)</td>
<td></td>
</tr>
<tr>
<td>3b</td>
<td>Seek out lessons learned from successful cities that have transitioned from new growth to redevelopment growth. (Survey)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Review of the vision statement</td>
<td>Sept 29; Oct 6 &amp; 20</td>
</tr>
</tbody>
</table>
This memo was created in a response to a request by the City of Plano for utilization trends for retail and commercial space in support of the Plano Comprehensive Plan Update.

Utilization Trends for Retail Space

Utilization of retail space is largely driven by demand for retail goods and its vitality is reflective of the overall economic health of the communities in which they reside. Currently the retail industry is undergoing a revolution where changes are increasingly defined by emerging technologies. This has required retailers to evolve and become more innovative in how they sell their goods. Demand for retail goods is increasingly driven by e-commerce and demands for timely delivery of goods via free shipping have increased. Retail shoppers are increasingly seeking shopping that is directly tailored to their personal preferences and is delivered to their doors. An increasing percentage of shoppers are purchasing goods via social media instead of traditional e-commerce vendors. There is also the rise of experiential retail, with a preference of experience over things, where shoppers can try out a new product, then purchase it online and have it delivered directly to their home.

The increasing use of “Big Data” has also played a major role in transforming retail. Large datasets of consumer preferences and behaviors are used by retailers to monitor and analyze buying patterns and trends, manage inventory, and streamline delivery services has allowed retailers to be more flexible in their operations and more responsive to consumer preferences.

This has all had a dramatic effect on the future physical structure of retail. While traditional “brick and mortar” stores continue to decline, there is an increasing preference for new smaller retail stores, especially in highly urbanized areas. In 2009, the average retail space was around 124,000 square feet but by 2019 residential spaces had shrunk to just under 65,000 square feet. This reflects the overall transition of retail developments toward service-based, “internet-resistant” tenants. Retail developers are now considering more efficient use of their spaces and attracting different types of tenants with a focus on health/fitness, urgent/medical care, restaurants, and entertainment venues.
Increasingly, existing retail stores have limited inventories and are more geared for experiential retail, goods pickup, and customer service than traditional shopping activities. There is also the rise of temporary “pop-up” stores within existing facilities where consumers can try out a product and make limited purchases on site and make additional purchases online. Existing malls and big box stores are also being repurposed as mixed-use centers or subdivided into smaller retail spaces that cater to these new types of tenants.

The impact of the change in retail has also had a dramatic effect on the number of malls within Dallas-Fort Worth. In 1995, there were 25 malls in the region, by 2019 the number is down to 17 and is expected to fall even further in the future, although their performance has improved due to the elimination of weaker malls. Many of these malls have been demolished in favor of mixed-use developments, such as Collin Creek Mall in Plano and the Valley View Mall in Dallas with new smaller retail spaces that reflect changing consumer preferences.

While there is a great deal of change and uncertainty within the retail market, overall demand for retail space within the Dallas-Fort Worth region remains very strong. As shown in Figure 1, the region boasts over a 92 percent occupancy rate - the highest retail occupancy rate for the region in 40 years. Note that the recent decline in construction activity is associated with an increase in repurposing existing retail facilities, especially vacant big box retail properties.

![Figure 1: Occupancy Rates for Retail in Dallas-Fort Worth](image)

In the future, certain types of retail brick and mortar stores may continue to survive, but these may be limited to stores where the shopping experience has always been part of the visit, such as specialty/boutique stores, second-hand stores, souvenir shops, home décor and furniture stores, and home improvement/hardware stores.
Utilization Trends for Commercial Space

Commercial real estate is slowly moving again from the trend of “location, location, location” to “location, information, analytics”. Commercial businesses are increasingly invested in tenant technologies, with technological investments becoming increasingly important. Demand for commercial space will most likely be less volatile than that of retail space and may be more dependent upon the type of business and how changes in technology and consumer preferences affect its operation and viability. The increased use of e-commerce is changing demand for commercial spaces, increasing demand for distribution centers, warehouses, and refrigeration/cold storage facilities to support its associated logistics and operations.

Utilization Trends for Office Space

One of the biggest drivers for changes in office space will be the rise of millennials and Generation Z (those born after 1995) as the most populous age cohort in the workforce. These age groups are less inclined to commute to work and prefer flexible schedules and work locations. They also want more amenities in close proximity to their work, moving away from traditional office designs to include features such as golf simulators, dry cleaners, salons, games rooms, nursing rooms, and daycare facilities located within their offices or in close proximity to them. Additionally, younger generations are less enthusiastic about shared workspaces and demonstrate a preference for a mix that includes more traditional office designs. There is also a preference for mixed-use, walkable environments over the traditional business park and improved food delivery to their work locations.

The Impact of COVID-19 on Commercial and Retail Activity

While currently there is a great deal of uncertainty about the impact of COVID-19, there are several economic recovery scenarios being discussed (see Figure 2). The “V” shaped scenario shows a sharp dip in economic activity quickly followed by an equally quick increase back to the previous level of economic activity. Both the “U” and “L” shapes show a steep decline with a longer recovery period, one showing a return to previous levels while the “L” shape shows an open-ended recovery. The “W” shape shows a steep economic decline followed by an uneven and open-ended recovery.

In the future, commercial and retail industries will have to pay greater attention to the health and safety of its employees. This may fundamentally change the space requirements for both retail and commercial employees and clients due to potential social distancing requirements. How and to what extent these changes will affect the space requirements of commercial, retail, and office spaces is uncertain at this time.

End of Memo.
MEMORANDUM

TO: Plano Comprehensive Plan Review Committee (CPRC)

CC: Mike Bell, AICP; Daniel Harrison, AICP; Dan Sefko, FAICP; Eddie Haas, AICP

FROM: Brian Crooks

SUBJECT: Travel Demand Model Processes, Inputs, and Assumptions

DATE: May 5th, 2020

PROJECT: Plano Comprehensive Plan Update

This memo was created in a response to a request by the City of Plano for an overview of travel demand model processes and inputs in support of the Plano Comprehensive Plan Update. Information included in this memo is sourced from the 2009 NCTCOG Regional Travel Demand Model Description report.

Key Data Sources:

To develop the regional model, NCTCOG collects data from numerous sources. For roadway network data, NCTCOG staff collaborates with the following agencies:

- NCTCOG member cities
- TxDOT
- FHWA
- FTA
- DART
- DCTA
- Trinity Metro

NCTCOG uses the collected network data to create a GIS database of roadway, transit, and rail networks for the AM and PM peak periods and the off-peak periods. Transit networks are developed for the AM period and the mid-day off-peak.

For population and other demographic information, NCTCOG collects and refines data from the following sources:

- US Census
- Texas State Data Center (migration patterns and population projections)
- NCTCOG Regional Data Center (refines Census data in collaboration with the model group)
Information from other studies and organizations help NCTCOG staff determine mode share preferences, transit usage, and act as a baseline to determine the accuracy of the model outputs. These sources include:

- Dallas-Fort Worth household surveys
- Automatic Traffic Count Stations
- TxDOT Traffic Saturation Counts
- DFW Airport Survey
- DART onboard transit survey
- Trinity Metro onboard transit survey
- Workplace Surveys
- External Stations Survey

**Trip Generation**
The first step in the modeling process, trip generation, uses demographic inputs to generate person trip tables by trip purpose for each traffic survey zone. There are a total of 4,874 travel survey zones in the regional model, including 61 external zones that represent “gateways” to and from the modeling area. Demographic inputs include employment, population, number of households, household size, household income distribution, and household size distribution. Trip generation produces person trips for four trip purposes: Home-Based Work, Home-Based non-Work, Non-Home Based, and internal truck trips. Home-Based Work trips are then separated into four income groups defined by the model.

**Trip Distribution**
The second stage of the modeling process determines how trips will be distributed by the model through the study area. This process is designed to find the shortest paths between traffic survey zones for auto modes and generates a set of matrices (often referred to as “skims” or skim matrices) to represent distribution between travel survey zones. The number and types of travel time matrices/skims needed are determined by the number trip purposes, the number of peak periods, and traffic assignment vehicle classes, which are determined by the mode choice model.

There are four roadway skim matrices produced for time periods (AM Peak, AM-PM Off-Peak, PM Peak, PM-AM Off-Peak). Additional matrices are created for HOV travel. They are Peak-HOV, Peak No HOV, Off-Peak HOV, and Off-Peak No HOV. Matrices include travel distance along the shortest travel time path determined by various mathematical algorithms. Separate skim matrices are developed for transit and include peak period with park and ride, peak period with no park and ride, and off-peak period with no park and ride. Each matrix has tables describing costs and times for travel. These skims, along with other inputs, are used in the mode choice module to calculate mode share.
Mode Choice
The mode choice component of the travel demand model determines what portion of trips use different modes. Modes considered are drive alone, shared ride with 2 occupants, shared ride with 3 or more occupants, transit with walk access, transit with auto access.

Trip Assignment
Roadway assignment is the final stage of the travel demand modeling process. Trips are “assigned” or “loaded” onto the electronic roadway networks for three time of day periods – AM Peak, PM Peak, and Off Peak. Four vehicle classes are considered during the assignment: drive alone vehicles, shared ride with HOV access, shared ride with no HOV access, and trucks. These vehicle classes have different sets of roadway networks to access and different parameters for value of time.

Transit assignment is run separately from roadway assignment and has four assignments. Home-Based Work walk and drive access to the peak transit network with and without park and ride and Home Non-Work walk and drive access to the off-peak transit network with and without park and ride.

These trips are loaded incrementally onto the regional roadway networks until they achieve equilibrium, where origins and destinations to and from each traffic survey zone are almost, if not exactly, equal. These volumes are then used as a decision support tool for transportation experts and officials to determine strategies for optimal transportation network development.

Further Information
Any additional questions regarding the NCTCOG regional travel demand model can be sent to Hua Yang, Principal Transportation System Modeler at hyang@nctcog.org.

End of Memo.
Plano Comprehensive Plan Review: Educational Articles and Studies

Meeting #10 | May 5, 2020 | CPRC No. 10
Purpose

The following are summaries of educational articles the CPRC can review to learn more about transportation-related topics and themes.

To download all articles/studies, please use the following link: https://files2.freese.com/message/Vnf2ut7pn6lHG0zJJ7GTG

Roadway and Traffic Theme

1. Mitigating Traffic Congestion: The Role of Demand-Side Strategies (Federal Highway Administration)
   - Published in 2004
   - **Transportation Issue:** How does the Federal Highway Administration (FHA) and other entities appropriately manage traffic demand in the future?
     - Please note that the second half of the publication describes numerous case studies used to justify the FHA's conclusions.
   - **Conclusions:**
     - Demand-side programs can be a critical factor in “decoupling” the link between economic growth and transportation growth. Economic growth creates new demands for travel and not all of this new demand can be accommodated on current or future roads.
     - In the new millennium, managing demand extends to all types of travel, be it parents walking a group of kids to school in a “walking bus,” visitors to a National Park leaving their cars off-site and using clean shuttles, new residents opting to live in “transit-oriented developments” to avoid the need for an extra car, or shippers coordinating deliveries to avoid congested roads and clogged city streets.
     - Many of the tools used today by transportation planners, traffic engineers, and traffic operations managers are designed to modulate the demand for travel (by mode, route, location or time) rather than provide more capacity in the system to accommodate more trips.

2. Suburban Traffic Congestion, Land Use and Transportation Planning Issues: Public Policy Options (University of California Transportation Center)
   - **Transportation Issue:** Heavy congestion is occurring in the suburbs, both on local streets and on the circumferential highways that a decade ago provided for high speed travel.
   - **Conclusions:**
o Increased employment opportunities have been the impetus for increased traffic congestion in U.S. suburbs.
o Competition among local governments for tax dollars and economic growth works against proposals to rationalize both transportation and land use planning.
o Emphasize strategies that are consistent with consumer behavior and emerging economic and social trends.
o Support efforts to look beyond local boundaries at area wide impacts and opportunities.
o If land developments are approved until and beyond the point when available transportation capacities are exhausted, congestion will be inevitable.
o Unless new technologies emerge or economic conditions take a sharp turn for the worse, reducing congestion will likely prove difficult, even with well-conceived and extensive strategies.
Land Use/Transportation Relationship Theme

3. The Transportation/Land Use Connection (PAS Report 546-547)
   - Published in 2007
   - **Transportation Issue:** Many planners view the coordinated implementation of land use and transportation as critical to solving urban problems like congestion, air pollution, the decay of central areas, and a multitude of other ills they believe result from the pattern of development broadly defined as “sprawl.” How do we preserve the benefits of growth while reducing its costs?
   - **Conclusions:**
     - If the question is about what should lead (transportation or land use) our answer is still equivocal. Ideally, they should happen together.
       - In a metropolitan area where the responsibility for the planning resides in multiple agencies, land use is the more logical nexus than transportation for an integrated view of regional development.
     - Transportation must help support a larger vision for quality of life in a metropolitan area.
     - We phrase the question immediately above (Why can’t we build our way out of urban congestion?) in the way we do instead of, “Can we build our way out of congestion?”, because even highway departments now say, We can’t build our way out of congestion.
     - Scarce and valuable transportation capacity should be rationed, and probably to the users who are willing to pay to show how much they value it.
     - Working on highway capacity without working on demand is not going to solve congestion.
     - The purpose of policy should be to ration capacity efficiently and to encourage innovation that reduces the full costs of transportation.
     - Land-use and transportation planners should work to adopt policies that approximate the kinds of transportation and land-use patterns that would exist if prices were more in line with marginal costs.

   - Published in 2013
   - Study evaluated interaction effects between gasoline prices and land use variables for areas of the U.S. between 2002 and 2010.
   - **Transportation Issue:** A shift toward more sustainable transportation requires both adequate pricing of externalities from driving and supportive land use policies. However, proponents of each approach often under-estimate the complementarity and potential synergy between them.
• **Conclusions:**
  - It was found that while doubling the average gasoline price would increase transit ridership by 8.4% in an urbanized area with mean density and no regional containment policy, in areas with slightly higher density and a regional containment policy, the impact of higher gasoline prices would rise ridership to 21%.
  - In communities that had adopted a package of smart growth land use options, the impact of higher gasoline prices on transit use is even greater.
  - Pricing schemes will be more effective where alternatives to automobility and supportive land use policies exist.

5. **Transit-Oriented Development: Creating Communities with More Commuting Choice for North Texas (NCTCOG)**

   **Transportation Issue:** Are there benefits to Transit-Oriented Development (TOD)?

   **Conclusions:**
   - Investments around transit stations have high returns for businesses and taxpayers.
   - Compact TOD is more fiscally-efficient and reduces long-term public service costs, saving taxpayers money.
   - Individuals can save close to $10,000 a year using transit in place of car ownership.
   - Rent on office space near stations in North Texas has a 13.9% premium versus offices elsewhere.
   - More destinations near transit mean more mode choices for more commuters. The cost of congestion delay for North Texas is forecast to reach $25 billion by 2040.
   - TOD can improve air quality by providing opportunities for more transit trips that generally emit less pollution on a per person basis.

6. **Transit-Oriented Development in the States (National Conference of State Legislatures)**

   **Transportation Issue:** How does the United States deal with increased traffic congestion and increasing demand for more transit options?

   **Conclusions:**
   - A solution to increased traffic congestion and increasing demand for transit is the development of TODs.
   - A TOD project should “Increase ‘location efficiency’ so people can walk and bike and take transit; boost transit ridership and minimize traffic;
provide a rich mix of housing, shopping and transportation choices; generate revenue for the public and private sectors and provide value for both new and existing residents; and create a sense of place.

- Transit is much more likely to enhance the overall transportation network if a neighborhood’s or city’s development patterns encourage transit ridership.

- From 1995-2012, transit ridership increased by nearly 4 million persons.

- Mixed-use neighborhoods such as TODs that offer safer, denser and more walkable streets also have been linked to increased physical activity.

- Transit use also can decrease the number of vehicles on the road and reduce exposure to harmful air emissions from motor vehicles that can contribute to and exacerbate conditions such as asthma, respiratory illness, lung cancer and heart disease, among others.
Works Cited


