

JUNCTION CITY COUNCIL AGENDA ITEM SUMMARY



Transportation System Plan Draft Review #2

Meeting Date: September 18th, 2014
Department: Planning
www.junctioncityoregon.gov

Agenda Item Number: 2
Staff Contact: Jordan Cogburn
Contact Telephone Number: 541.998.4763

ISSUE STATEMENT

Before Council is an overview for the second review of the compiled Draft Transportation System Plan and responses to questions raised at the July 16th, 2014 City Council work session. The material contains a Staff memo and the associated appendix.

BACKGROUND

At the October 22nd Council meeting, Contracted Planning Staff provided a scope of work that included an estimate of remaining costs to complete the remaining known project elements in the TSP.

At the November 12th Council meeting, Council reviewed initial research provided by the City Recorder from Council and Committee minutes and materials on the topic of the Transportation System Plan Update. Council additionally was presented with a copy of the primary framework for Transportation Planning and Transportation System Plans as "Oregon Administrative Rules, Department of Land Conservation and Development, Division 12". Legal counsel and City staff identified areas of the material that were most related to Junction City in process consideration.

At both the October 22nd and the November 12th Council review of the project, the Council asked questions. Staff summarized questions asked by the Council and provided answers at the December 10th meeting from LCOG, ODOT, Legal Counsel, and DKS (Project Consultant contracted by ODOT).

At the December 10, 2013 Council Meeting, Council gave the Administrator the authority to spend the money for the tasks that were outlined, all of them if necessary, at her discretion. *The funding source offered at the meeting was the Streets Fund.* The approved Council motion did not include the convening of the CAC (Citizen Advisory Committee), nor the endorsement of the original timeline. After further discussion, the Council consensus was for the Administrator to contact the consultants and find out if a draft document was available and if it was not available, what steps needed to be taken to make it available.

At the January 14, 2014 Council meeting Administrator Bowers reviewed that DKS and ODOT provided an updated timeline with various options and indicated that they would defer to Council direction on how to proceed. The Council consensus was to have DKS finish the draft TSP and to bring back to the Council for first review. It was requested that the Council receive the draft TSP at least a week prior to the Council meeting where it will be reviewed. After first review, Council indicated it would provide direction on further review and comments by the Citizen Advisory Committee, Planning Commission, and the public.

Staff contacted LCOG and requested a planner with TSP experience to work on the scope of work for the TSP project as previously presented by LCOG Contracted Planner, Nicole Peterson. The IGA and scope of work for only preparation of the first draft for Council review was presented at the March 25, 2014 Council meeting. At the April 8th Council meeting staff approved proceeding with the scope of work for preparing and reviewing the draft TSP.

In subsequent Council Staff Reports, staff indicated that DKS anticipated a draft being ready by June 2, 2014. Future review of code changes based on approving the TSP will need to occur as adoption of the TSP would result in a variety of potential changes to the Code.

At the July 16, 2014 City Council work session draft materials were provided in the packet for initial review. Questions were raised regarding a variety of issues within the Draft TSP, at which time the Council consensus was to have Staff work on getting feedback on specific Council questions, as well as prepare a list of new questions that might come up. Staff was asked to bring the information back to the Council for another work session after late August/early September with Council and staff only.

COMMITTEE REVIEW AND/OR RECOMMENDATION

No committee review. This is a continued Council level discussion.

RELATED CITY POLICIES

None.

LEGAL REVIEW

This item was reviewed as a part of packet.

CITY ADMINISTRATOR'S COMMENT

[Comment]

COUNCIL OPTIONS

Provide direction to Staff on the next steps of review for the draft TSP, and/or providing the draft to the Citizen Advisory Committee and/or Planning Commission and if the Council wants to have DKS and

ODOT attend a meeting.

ATTACHMENTS

A. Memo from Planning Staff, Jordan Cogburn

FOR MORE INFORMATION

Staff Contact: Jordan Cogburn
Telephone: 541.998.4763
Staff E-Mail: jcogburn@ci.junction-city.or.us

ATTACHMENT A

To: Melissa Bowers – City Administrator, City of Junction City

From: Jordan Cogburn - City Planner, City of Junction City

Date: 9/16/2014

Re: Draft Transportation System Plan Council Questions

Context

As requested for the September 18th, 2014 City Council work session, the following document contains a summary of responses regarding the Draft TSP and the questions raised by the City Council at the July 15th work session.

Overview

The following questions were taken from the meeting minutes and delivered to DKS Associates and ODOT for review. Responses from DKS and ODOT can be found in Appendix I.

1. Chapter 2.
 - a. What are the assumptions for traffic going north as the Prison is likely not being built in the next 20 years, and the hospital traffic is likely to travel south?
 - b. Did the trip count data account for the UGB expansion and plans for the southern area of town? If so, what measurement was used for southern trip counts and do those numbers reflect the worst case scenario traffic?
 - c. Is it feasible to refine the TSP to reference a Junction City access management plan as a stay alone plan.
2. Chapter 4.
 - a. What is the justification for not including bicycle facilities west on 1st Ave. and north on Oaklea as shown in the Junction City Parks and Paths Master Plan?
3. Major deficiencies identified through public and Council input.
 - a. Should the TSP include language on the City annexing or taking custody of County roads within the City limits?
 - b. ODOT - Are the best parts of the Highway 99 Refinement Plan included in the TSP Draft?
4. Rail and Transit.
 - a. Can paving of Holly Street be added to the TSP?
5. TDM Strategies.
 - a. What are the implications of the language regarding a reduction in vehicle miles traveled? Would new employers be discouraged from locating in Junction City because of this language? Could the broadly written policy create interpretation problems from larger agencies? It seems the language is almost informational and could use clarification.

Council also requested that staff look into various issues and provide feedback. The following issues and responses reflect the concerns from Council:

Chapter 2: Transportation Mission, Goals, and Policies.

E. The trip count data seemed dated and related to a previous vision which was before the UGB expansion and new plan for the area south of town. Staff could check on the assumptions for this.

G. Staff to double check on what measurement DKS used for the trip count numbers to the south (units, number, etc.) and confirm if those numbers will handle the most intense scenario traffic in the UGB expansion area.

Research of technical memos showed that the data was in fact current and that the forecasting methodology was confirmed by Peter Schuytema on February 26th, 2013 as being acceptable for moving forward with the Draft STP. Tech Memo #3 (TM#3) pertaining to the issues stated above can be found in Appendix: B.

Chapter 4: Bicycle Plan

4. Are City needs adequately captured?

It was asked if the City's Parks Master Plan referenced any bike paths that could be included in the TSP. Administrator Bowers responded that there was some language in the Parks Master Plan and staff could look into this further.

Staff reviewed the Parks and Paths Master Plan (2010) in comparison with TSP and found that the majority of the bicycle network within the PPMP was included in the TSP. Responses from ODOT and DKS regarding the inclusion of West 1st Avenue and Oaklea Street can be found in response 2(a) of Appendix: A

APPENDIX I

Responses from ODOT and DKS regarding the Draft TSP questions raised by City Council on July 16th, 2014

1. Chapter 2.

a. What are the assumptions for traffic going north as the Prison is likely not being built in the next 20 years, and the hospital traffic is likely to travel south?

The hospital site is expected to generate approximately three times more trips than the prison site. So even if the prison does not get built for 20 years, there could still be a significant amount of traffic generated by this area. The Traffic Impact Analysis for the Hospital/Prison (DKS Associates, March 2009) indicated that at least 40% of the hospital trips are expected to travel north. This represents a fair amount of trips (just over 200 weekday p.m. peak hour trips), but it can be handled by the transportation system.

Following the completion of the Traffic Impact Study for the hospital and prison, a new travel forecasting model was developed for the Junction City TSP Update, which was based on the City's Comprehensive Plan Amendment and updated regional growth assumptions. The trip generation potential of the hospital and prison sites were matched to those assumed in the Traffic Impact Analysis, but new assumptions for local and regional growth potential affected where those trips would likely go. These new assumptions attracted even more trips to the north (over 300 weekday p.m. peak hour trips). However, both the hospital and prison sites were included in the same model zone so their trips cannot be separated out, making it impossible to know which trips came specifically from the hospital or the prison. Even with this higher number of trips heading north from the site, our analysis of future conditions shows the transportation system will function acceptably. This analysis does include the prison traffic, so if the prison gets built sooner than expected, its impact has already been accounted for.

b. Did the trip count data account for the UGB expansion and plans for the southern area of town? If so, what measurement was used for southern trip counts and do those numbers reflect the worst-case scenario traffic?

Yes. Future traffic projections are based on future growth assumptions in the adopted Comprehensive Plan, including the UGB expansion. Traffic forecasts are developed for peak conditions, reflecting the "design hour" where traffic demand is highest. This reflects the weekday p.m. peak hour with adjustments made for seasonality, to reflect the 30th highest hour of demand during the year. Worst-case growth for land use is generally not used for large-scale, long-range planning. Doing so would likely result in the

APPENDIX I

construction of costly, oversized transportation infrastructure. Instead, “typical” or “average” build-out assumptions are often applied to buildable land, with the common result being that some properties end up developing at higher intensities, while others end up developing at lower intensities.

For the Junction City TSP, forecasted growth in housing and employment was allocated to buildable lands based on the new Comprehensive Plan zoning and estimates of reasonable development density. City Planning staff assisted in the assumptions related to how much growth would occur on buildable lands within the UGB. As noted above, trip generation assumptions for the hospital and prison sites were matched to those used in the Traffic Impact Analysis.

c. Is it feasible to refine the TSP to reference a Junction City access management plan as a stay alone plan?

As part of the TSP development process, we revisited issues that the current access management plan from the OR 99 Highway Refinement Plan created for new development. Since the development of that plan, Oregon Administrative Rules and ODOT policies governing access to state highways have undergone significant changes. In light of these changes, the access management plan for OR 99 has been replaced with less restrictive policy statements that document a shared interest of ODOT, the City, and the County in both preserving safe and efficient highway operation and supporting economic development needs. The resulting outcome is that future decisions regarding access to OR 99 will be made on a case-by-case basis, in accordance with the governing rules at that time (see Policy 6h). Under the current rules/regulations, this allows for a collaborative discussion between ODOT and the City when making decisions regarding new access to the highway.

2. Chapter 4.

a. What is the reasoning for not including bicycle facilities west on 1st Ave. and north on Oaklea as shown in the Junction City Parks and Paths Master Plan?

Bicycle facilities are included for those corridors, but they show up as part of Motor Vehicle projects because these corridors have multimodal improvement needs, so significant road reconstruction will be required (see MV12 and MV 11). In cases such as these, it is generally more economical to combine all improvements (road widening, bike lanes, and sidewalks) into one project.

APPENDIX I

3. Major deficiencies identified through public and Council input.

a. Should the TSP include language on the City annexing or taking custody of County roads within the City limits?

It is not essential, but can be done if the City wants to establish a policy regarding the treatment of roads at the time of annexation. This can be a general policy related to agency coordination that reminds the City to consider taking action at the time of annexation, or could be more specific if the Council has something else in mind.

b. ODOT - Are the best parts of the Highway 99 Refinement Plan included in the TSP Draft?

New traffic forecasts for the TSP planning horizon (out to the year 2035) were much lower than forecasts created for the earlier OR 99 Highway Refinement Plan. This was largely due to the national recession, which has resulted in 10-15% reductions in traffic volumes across the state, and the loss of a major employer near the center of the city (Country Coach). As a result, the need for substantial highway improvements, such as those recommended in the OR 99 Highway Refinement Plan, was no longer present. Those improvements have not been identified as being needed by the year 2035 in the Draft TSP.

It is possible that the need for the OR 99 Highway Refinement Plan improvements could return as the economy recovers. Therefore, to avoid losing track of the decisions made regarding desired highway improvements, the Preferred Alternative from the OR 99 Highway Refinement Plan has been documented in the TSP appendix for future reference. In that respect, the work put into the OR 99 Highway Refinement Plan has been preserved and will be available when needed.

4. Rail and Transit.

a. Can paving of Holly Street be added to the TSP?

Specific maintenance projects are generally not included in TSPs. General funding for maintenance is assumed in the allocation of transportation funding, but TSP projects are focused on adding infrastructure to the transportation system.

APPENDIX I

5. TDM Strategies.

a. What are the implications of the language regarding a reduction in vehicle miles traveled? Would new employers be discouraged from locating in Junction City because of this language? Could the broadly written policy create interpretation problems from larger agencies? It seems the language is almost informational and could use clarification.

The language regarding strategies to reduce vehicle miles traveled provides recommendations, but does not require the city to do anything. This provides the city the ability to consider travel reduction options in the future, and to make the best decisions on a case-by-case basis.

With no required actions, it is unlikely that new employers would be discouraged from locating in Junction City. In fact, such policies are becoming very common and may already be in place in competing cities. The guidance for use of Travel Demand Management (TDM) strategies to help avoid costly infrastructure improvements can also be seen as a benefit to prospective new employers because such actions could be far more affordable than the alternative of constructing road improvements.

We can consider some clarifications to avoid confusion if specific references to language of concern are provided.

AMENDED TECHNICAL MEMORANDUM #3

TO: Project Management Team

FROM: John Bosket, P.E.
Mat Dolata, P.E.

DATE: February 26, 2013

**SUBJECT: Junction City TSP Update
Travel Forecasting Tool Development**

P09042-010-003

This memorandum documents the land use and transportation network assumptions used as a basis for forecasting with the enhanced cumulative analysis tool. This tool has been developed in conjunction with the Junction City Transportation System Plan (TSP) update to provide traffic volume forecasts for the 2035 TSP horizon year.

Forecast Development Process

The development of the enhanced cumulative analysis tool was completed incrementally, with PMT review and approval sought at the conclusion of each stage. This process is described in the project Statement of Work and summarized below. The Project Management Team (PMT) has previously reviewed and approved Technical Memorandum #2 (Traffic Forecasting Methods and Assumptions) and reviewed and provided commentary on Draft Technical Memorandum #3 (Travel Forecasting Tool Development). Draft Technical Memorandum #3 identified network assumptions and 2010 land use, however future year land use assumptions could not be provided due to the ongoing Junction City Comprehensive Plan Amendment process. The Revised Technical Memorandum #3 incorporated the Junction City Comprehensive Plan Amendment into the 2035 land use assumptions, including adopted expansion areas. The estimated trips and calibration results of the enhanced cumulative analysis tool were summarized and the resulting 2035 volume forecasts were reviewed and approved by the PMT.

Table 1: Traffic Forecasting Documents and Status

Document / Deliverable for Review	Purpose / Subject	Status
Technical Memorandum #2	Gain approval for general methods and assumptions proposed for the development of the enhanced cumulative analysis tool to be used for traffic forecasting.	Approved
Technical Memorandum #3	Gain approval of transportation network assumptions, transportation analysis zone boundaries, and	Revised &

	household/employment allocations for the existing (2010) and future (2035) year scenarios.	Approved
Revised / Expanded Technical Memorandum #3	Gain approval of existing (2010) and future (2035) year trip assumption and verification of existing year scenario calibration.	Revised & Approved
Amended Technical Memorandum #3	Revise future (2035) year land use, trip tables, and traffic volume forecasts.	Approved

The Amended Technical Memorandum #3 reflects revisions made to the Junction City Comprehensive Plan in 2012. The revisions result in updated land use assumptions that form the basis of traffic volume forecasts. The following sections of this memorandum detail each component of the proposed travel forecast methodology associated with the enhanced cumulative analysis tool, as was defined in Technical Memorandum #2.

Roadway Network

The roadway network included in the Junction City TSP VISUM model consists of all local, collector, and arterial streets within the existing Junction City UGB. In addition, because there are routing alternatives outside of the Junction City UGB, the model includes roadways surrounding Junction City that serve local traffic.

The purpose of the existing conditions network is to configure the model and act as a base in the development of the future model. The existing roadway network was built using NAVTEQ files as the initial base, with modifications made to match real world conditions based on an existing conditions inventory. Elements of that inventory will be provided in the TSP Existing Conditions chapter and include posted speeds, traffic controls, lane geometries, and number of travel lanes. The existing conditions (2010) network is depicted in Figure 1.

The 2035 future year baseline roadway network has been developed to include identified capacity-related improvements that are already planned for construction in the near future. These projects, as well improvements to be added as part of known development plans, will be included in the future No-Build network. The 2035 future year network will be further adjusted and used to perform analysis of the various transportation alternatives and improvements analyzed for the Junction City TSP update.

All modifications to the Junction City 2035 roadway network were identified from the Junction City State Hospital/Correctional Facility Transportation Impact Analysis¹. The projects include traffic signals and additional turn lanes at the intersections of OR 99 & Miliron Road and OR 99 & Meadowview Road. Other future projects identified for Junction City are bicycle, pedestrian,

¹ Junction City State Hospital/Correctional Facility Transportation Impact Analysis, DKS Associates, March 2009

or roadway modernization projects. These projects are not incorporated into the model because they are not expected to increase motor vehicle capacity or travel speeds relative to existing conditions.

Transportation Analysis Zones

For transportation modeling purposes, the Junction City UGB was divided into transportation analysis zones (TAZs), representing the sources of vehicle trip generation within the city. The TAZ structure is based on a combination of the existing roadway network, land use data, UGB, zoning, and comprehensive plan designations. The TAZ system was developed by using the previous Junction City travel demand model² as a starting point. However, significant modifications were made to create a more detailed TAZ structure. The TAZ system defined for the network includes 74 zones within the current UGB and 7 zones identified for future expansion. The Junction City TSP VISUM network also includes eight external TAZs at the key gateways into and out of the city (as well as outlying residential areas) to account for vehicle trips that enter and exit the Junction City UGB. The 81 zone system and external zones are illustrated in Figure 2.

Land Use

Land use is a key factor affecting the traffic demands placed on Junction City's transportation system. The location, density, type, and mixture of land uses have a direct impact on traffic levels and patterns. An inventory of existing land uses and future (2035) land use projections identifies existing and future land uses for each TAZ in the Junction City UGB.

Existing and future land use totals for Junction City were obtained from several sources. The household estimates are based on the Lane County coordinated population forecasts for the Junction City UGB,³ the estimated growth in households, the number of residents in households and group quarters,⁴ and average household size.⁵ The employment totals for 2010 and 2035 are scaled based on employment estimates for 2009, 2029, 2039, and 2059.⁶ The scaling is performed by calculating rates of annual growth between base and future years⁷. Land use totals for the Junction City UGB are identified below.

² 2006 base model and 2026 future model developed by LCOG

³ Population Forecasts for Lane County, its Cities, and Unincorporated Area 2008-2035, Portland State University Population Research Center, May 2009 as adopted by Lane County, Ordinance PA 1255 (June 17, 2009).

⁴ Draft Housing Element, Junction City Comprehensive Plan, City of Junction City, June 2012

⁵ Although the most recent Draft Housing Element assumes 2.43 persons per household in existing households, 2.47 persons per household was assumed in the 2010 land use allocation. The difference is insignificant to traffic growth projections, therefore the 2.47 persons per household assumption was retained for the base year housing estimate. Data Source: U.S. Census Bureau, 2010 Census Redistricting Data. Retrieved April 2011.

⁶ Draft Commercial and Industrial Buildable Lands Inventory and Economic Opportunities Analysis, ECONorthwest & Winterbrook Planning, June 2009.

⁷ Employment in 2010 is estimated based on compound growth rates calculated between 2009 and 2029 for various employment types (Industrial, Office, Retail, Other Service, and Government). The estimates took into consideration an anticipated increase of 1,800 employees between 2012 to 2019 from the State Prison and Hospital. Employment in 2035 is estimated by modifying identified growth rates by employment type calculated between 2029 and 2059 to match the employment total identified for 2039

Table 2: Land Use Totals (UGB)

Year	Households	Employment
2010	2,582	3,545
2035*	4,455	7,240
Growth (2035-2010)	1,862	3,695

*2035 UGB includes Comprehensive Plan expansion areas.

Using 2008 aerial photography and 2011 tax assessor data, Winterbrook Planning allocated the land use totals for the 2010 base model to the identified TAZ system. The employment total is composed of government employment, retail employment, office employment, industrial employment, and other services employment. The households total is classified into single family housing units, multi-family housing units, and apartments.

The future 2035 land use allocation estimates the amount of each land use that each TAZ will accommodate based on expected build-out of vacant or underdeveloped lands and assuming Comprehensive Plan zoning. The future year land use allocations were developed by Winterbrook Planning with revisions provided by the PMT to reflect local knowledge. The household and employment totals for TAZs are consistent with the citywide forecasts identified in Table 2. Detailed land use data by TAZ is attached in the Appendix.

Travel Demand

Travel demand on roadways and at intersections in Junction City has been estimated using methodology similar to that specified by the ODOT Procedures Manual for cumulative analysis models (often referred to as Level 2 models).⁸ Adjustments made to the methodology included modeling all vehicle trips (not just growth increment), adjusting the trip distribution to reduce household-to-household trips, and using VISUM modeling software to perform the trip assignment. Travel demand has been estimated at 30th highest hour conditions for the years 2010 and 2035. The purpose of the 2010 model is to calibrate the network in preparation for developing the 2035 model network, which will be used for the future analysis.

The travel demand analysis includes the translation of City land use information into motor vehicle trips. This was done for each of the Junction City TAZs based on the existing and projected land uses described previously in the Land Use section of this memorandum. Trips traveling to and from the external TAZs were estimated for both the 2010 and 2035 analysis years.

(employment by type was undefined for 2039). The calculation sheet used to interpolate employment totals by year is attached in the Appendix.

⁸ *Analysis Procedures Manual (APM)*, Oregon Department of Transportation (ODOT) Transportation Planning Analysis Unit (TPAU), Last Updated January 2011, pgs. 4-31 to 4-43

Trip Types

Travel demand projections involve the determination of three distinct types of trips:

- **External-External (E-E) Trips** do not have an origin or destination in Junction City and either do not stop or only make a very minor stop while passing through the Junction City UGB. These trips are typically referred to as through traffic.
- **Internal-External (I-E) Trips** originate in Junction City and are traveling to a location outside of the Junction City UGB and **External-Internal (E-I) Trips** originate outside of the Junction City UGB and are traveling to a location within Junction City.
- **Internal-Internal (I-I) Trips** travel from one location within the Junction City UGB to another location within the UGB.

External Trip Ends

External trip ends consist of through trips (i.e., E-E trips) as well as trips that enter or leave Junction City (i.e., I-E and E-I trips). The number of 2010 external trip ends was based on existing traffic volumes (30th highest hour conditions) at key gateways to the City, which include OR 99W and OR 99E to the north, OR 99 to the south, OR 36 and High Pass Road to the west, and River Road to the east (as well as additional roads connecting to outlying residential areas).

The proportion of each external trip type, specifically determining the portion of E-E through trips, was estimated based on the collection of origin-destination Bluetooth device data, the traffic counts, and the previous Junction City travel demand model. The Bluetooth device data was collected at the major gateways (OR 99W north of Oaklea Drive, OR 99E north of Link Lane, OR 99 south of Meadowview Road, and OR 36 west of Dorsey Lane) in April, 2011. The process for converting blue-tooth data into external trip distributions is illustrated in the Appendix. The previous Junction City travel demand model was used to verify the blue tooth results and supplement data for external locations where blue-tooth data was not collected.

Future external trip end quantities were estimated based on the existing traffic volumes and forecasted growth at the external gateways. Forecasted external growth was primarily based on the ODOT (2030) Highway Future Volume Table. The volumes and annual growth rates applied to entering and exiting trips at external locations are included in the Appendix.

Internal Trip Ends

The number of internal trip ends in Junction City was determined using land use trip generation methodology, which translates land use quantities (number of dwelling units or number of employees) into vehicle trip ends (number of vehicles entering or leaving a TAZ) using land use-specific trip generation rates. These rates were initially based on national rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation, 8th Edition*⁹, with adjustments made to trip rates to reflect local travel patterns based on existing vehicle count data.

⁹ *Trip Generation Manual, 8th Edition*, Institute of Transportation Engineers, 2010.

By applying the trip generation rates to the TAZ land uses, the number of trips entering and exiting each TAZ was estimated for both the existing year 2010 land uses and the projected year 2035 land uses. Trip generation for each TAZ in 2010 and 2035 is summarized in the Appendix.

Trip Distribution

Trip distribution determines how many trips travel between each of the internal and external TAZs. The external trips passing through Junction City were distributed based on the O-D survey and the Junction City travel demand model, as discussed previously in the External Trip Ends section of this memorandum. Distribution for trips traveling to and from internal zones (i.e., trips having at least one internal trip end) was based on weighting the attractiveness of each zone, as measured by the number of trip ends generated by the zone. Separate weighting percentages were used for household and non-household trip ends to avoid yielding a disproportionate number of household-to-household trips during the PM peak hour.

Trip Assignment

Trip assignment involves the determination of the specific travel routes taken by all of the trips within the transportation network. This step was performed using VISUM modeling software. The forecast tool inputs include the transportation network (i.e., road and intersection locations and characteristics, as determined from maps and field inventories) and a trip distribution table (determined using methodology described previously in this memorandum). Iterated assignment was then performed using estimated travel times along roadways and delays at intersection movements.¹⁰ The path choice for each trip was based on minimal travel times between locations.

Calibration

Calibration was performed on the 2010 base year forecasting tool by comparing modeled volumes at the Junction City TSP study intersections with existing 2010 traffic volumes (i.e., 30th highest hour conditions). A plot comparing the existing traffic counts and the base year forecast tool volumes for all study intersection turn movements is attached in the Appendix. The slope of the fitted curve is 1.097 and R² value of the plotted data is 0.983. These measures indicate that the forecasting tool reasonably represents existing traffic volume patterns in Junction City.

Model Volumes

Model output volume plots are provided in the Appendix for the 2010 base year, for the 2035 future year, and the increment of traffic growth between 2010 and 2035 during the PM peak hour. Future year design hour volumes consider the model for both the base year 2010 and forecast year 2035 scenarios. A “post processing” technique following NCHRP 255 methodology¹¹ was utilized to refine model travel forecasts to the volume forecasts utilized for

¹⁰ Roadway travel times were calculated based on distance and travel speed. Intersection movement delays were calculated using Highway Capacity Manual (HCM) methodology for signalized and unsignalized intersections. Detailed lane geometry, traffic control, roadway cross-section, and roadway travel speed information is required for model accuracy.

¹¹ *Highway Traffic Data for Urbanized Area Project Planning and Design - National Cooperative Highway Research Program Report 255*, Transportation Research Board, Washington D.C., 1982.

2035 intersection analysis. Revised future 2035 turn movement projections are provided in the attached Appendix.

APPENDIX III

TRANSPORTATION SYSTEM PLAN UPDATE-TRANSFER TO JC PLANNER

AUGUST 18, 2014

The City Council for the City of Junction City, held a work session at 6:30 p.m. on Wednesday, July 16, 2014, in the Council Chambers of City Hall, 680 Greenwood Street, Junction City, Oregon.

PRESENT: Mayor, David Brunscheon; Councilors Karen Leach, Bill DiMarco, Jim Leach, Randy Nelson, Steven Hitchcock, and Herb Christensen; City Administrator, Melissa Bowers; Public Works Director, Jason Knope; LCOG Planner, Denise Walters; and City Recorder, Kitty Vodrup.

The City Council provided feedback on questions raised by LCOG Planner Denise Walters, Administrator Bowers, and Director Knope:

Chapter 2: Transportation Mission, Goals, and Policies.

1. Does Chapter 2 reflect input and City vision for transportation system?

- A. Current TSP needed to be consistent with the UGB (Urban Growth Boundary) amendment and bringing in new commercial properties to the south. Study area appears to incorporate new commercial areas but should confirm with DKS.
- B. The TSP draft had prison and hospital traffic allocated to the north, which was not applicable as the prison would probably not be built within 20 years and hospital staff would probably be going south. Council members wondered what assumptions were used for traffic going north. Also check on trip counts based on anticipated number of bed count.
- C. Concerns were expressed on relinquishing access management to the state. Planner Walters noted that for Junction City to have its own access management plan, it would be a refinement to the TSP and could be implemented as a stay alone plan or built into the standards and codes.
- D. A concern with Chapter 2 was that in general, the policies had too much flexibility in them and were written in broad terms. If it came down to interpretation of a broadly written policy, the City could lose in a dispute with the state or regional government over what that means. A local layer of protection and the City's own access management plan would be important.
- E. The trip count data seemed dated and related to a previous vision which was before the UGB expansion and new plan for the area south of town. Staff could check on the assumptions for this. Planner Walters added that the information could be in the tech memos.
- F. In addition to prison plan changes, hospital bed counts had initially been higher and there had been plans for geriatric prisoner care. Grain Millers development plans also changed.
- G. Staff to double check on what measurement DKS used for the trip count numbers to the south (units, number, etc.) and confirm if those numbers will handle the most intense scenario traffic in the UGB expansion area.

Planner Walters noted that when the Council was considering the language that they would like to fine tune in some of the TSP policies that they also remember the other tools the Council has that are in the implementing ordinances, such as the development code or Public Works Design Standards.

Chapter 3: Pedestrian Plan.

2. Are all major deficiencies identified through public and Council input included?

- From what could be remembered, the list seemed to include the projects. Sidewalks were noted.
- Crossings on Highway 99 at 1st, 6th, and 10th were significant issues.
- Since this was prepared a few years ago, would be a good idea to review items at a public workshop to see if these projects still hold true and/or use the Citizen Advisory Committee as the litmus.
- Since this was a 20 year plan, should the TSP include language on the City taking custody of county roads (High Pass, Oaklea, and 18th) that are in the City limits and putting in sidewalks for pedestrian

safety and quality of life? It was noted that the City does not request road surrender from the county when properties are annexed into the City. Planner Walters stated that this could be a policy change the City could begin to do and build from there.

- It was noted that the Highway 99 Refinement Plan had included a lot of work and public participation that had produced good ideas on pedestrian crossings and other items. Why was this plan thrown out and were the good ideas from that plan captured in the TSP draft? Planner Walters responded that staff could ask ODOT if the best parts of that plan were captured in the TSP draft.
- 3. Are any constructions projects prioritized earlier missing from Tables 1 – 3 and Figure 2?**
- Planner Walters noted that she wanted to make sure projects were captured here, as this is where the City would draw from for the CIP and would provide back up for grants and things like that.
 - From what Council and staff could remember, nothing to add.
 - It was noted that there were high costs associated with many projects and that in reality, many projects in a TSP do not happen. Planner Walters stated that this was typical for all cities and reiterated that having projects in the plan could make them eligible for grants, etc. She added that there was the full meal deal plan and then DKS had suggested the Financially Constrained Plan that would include the priority projects that align with anticipated funding.
 - Reference was made to the intersection project at 1st and Prairie Road and that at one time there was supposed to be a turn lane on Oaklea Drive; neither happened. Projects like those would need county cooperation.

Chapter 4: Bicycle Plan

4. Are City needs adequately captured?

- This was an area that people dreamed big.
- There was a lot of opposition, as people did not want to give up parking on streets for a bike path.
- Discussion had included removing the diagonal parking on 6th Street and possibly having a bike lane on one side of the street. Director Knope added this first came to light during the Safe Routes to School study.
- Discussion had included kids crossing Oaklea from the Reserve. Director Knope responded that this would link to the discussion on the City taking county roads and bring able to link crosswalk and other improvements. Planner Walters referred to the maintenance costs, once the City requests surrender of county roads and takes in the right of ways. Director Knope responded that is one of the reasons the City does not take control of county roads in current City policy, because of those costs and impact to the Street Fund. He added there are certain instances where the City takes a county road, such as the recent taking of a portion of 6th Street which aligned with current development.

5. Do Table 4 and Figure 4 reflect input from prior discussions/priority projects?

- Projects seem to be reflect, but there were some things included that some people did not support.
- It was asked if the bike plan reflected the internal needs of the citizens of Junction City or if it was a regional template design, specifically with lanes going to Eugene? Examples were given that not many people seemed to commute on bicycles from Junction City to Eugene and that priorities would seem more in line with citizens being able to safely ride to and from areas within the City. Planner Walters responded that the table reflected local network and Safe Routes to School as the main justification.

Chapter 5: Motor Vehicle Plan

6. Do the functional classifications of streets reflect prior discussions particularly related to collector status (Figure 5) and federal funding eligibility?

- Planner Walters reviewed that DKS had suggested changing the classification on some streets such as Birch, Deal, Front, Holly, Juniper, Kalmia, and Unity from their current classification as “collector” streets to “local” streets because of traffic volumes. Director Knope stated that collector streets were eligible for federal funding, whereas local streets were only eligible for state and local funding. Staff

recommended keeping the classifications as collector streets at this time, as the streets experienced high use and to keep the additional funding option. Planner Walter added that just because a street doesn't meet an engineer's standpoint on collector trip counts does not mean that it could not be defined as one; it really depends on how the street is used.

- The Council consensus was to leave the streets as collectors.
- It was noted that the recommendation for classifying as local streets could dovetail with the concept of local neighborhood streets, with narrower streets, etc.

City Staff Question from AIS

Does the City want to incorporate the concept of Neighborhood Local Street (see Figure 9) in the Draft TSP? This concept does not exist in Public Works Design Standards.

- Planner Walters noted that this concept would include streets with less pave width and parking on only one side.
- Director Knope stated that he flagged this because this would be a philosophical change from the way the community has done things. The standards were originally created in 1996 and the street widths have not changed since then, even with 3 or 4 revisions being done per year. Part of the intent of the TSP update was to bring the TSP, Planning Codes, and Public Works Design Standards into alignment. He cited the example of Oak Street being a narrower street and the problems that have occurred because of that. He noted that having wider streets allowed more flexibility for things like bike lanes, etc. in the future.
- Concerns were expressed on the congestion and other problems that are associated with narrower streets.
- Comments included that local traffic caters to larger agricultural vehicles which need more street room. Director Knope added that even with current street widths there were tight spaces for the garbage trucks. Smaller streets would make it even more difficult for sanitation and fire vehicles.
- It was noted that Chapel Creek had the narrowest streets and that wasn't something that should be repeated. Comments were expressed to keep wider streets to align with the City's agricultural past and future and to add to the livability of Junction City.
- The Council consensus was to keep the current street width standards policy.

Chapter 5: Motor Vehicle Plan

7. Do the cross sections reflect the desired network design?

- Comments included that this did not reflect the desired design. One comment was planter strips did not make sense and someone would have to take care of the trees. Planner Walters noted that the intent and idea behind those was some buffer between the pedestrians and the cars.
- Planner Walter asked if the City's development code had a street tree requirement section. She added that if this were to be changed, Planner Cogburn or another staff person would need to track for the domino effect. Director Knope responded that the Planning Code included street tree requirements; nothing in PW code.
- Options could include the flexibility to put in a buffer such as a bike lane or something different than a planter strip.

Chapter 5: Motor Vehicle Plan

8. Access Management: On page 32 new spacing requirements are proposed to improve the function of minor arterials and collectors which are designed for longer trips at higher speeds. Are there any issues with the proposed spacing?

- Planner Walters asked if this matched current PW Design Standards. Director Knope responded that PW standards did not dictate access as far as spacing. That was in the planning code and he was fine with that. From what he remembered from the planning aspect, it appeared to meet what was done in the past.

- It was asked if the City had a documentable access management plan from the past or current and if the City's Code required or enabled one. Administrator Bowers responded that the City did not have an access management plan. Director Knope stated that the City's Code had a brief reference to spacing requirements and there was some flexibility to modify on local City owned streets, but there was not a comprehensive plan.
- Planner Walters noted that DKS referenced a plan...“following adoption of the access management plan, ODOT's access management regulations change and some elements of the plan prove to be impractical to implement. In response, the adoption of the access management plan has been repealed with policies 6H from this TSP adopted in its place.” Director Knope responded that this was for non-City streets. It was noted that ODOT had a plan that included reference to Highway 99. Director Knope added that at one point the Council had a discussion about the City creating its own access management plan.
- Council was concerned about exactly what the City would be committing to in Table 10-Potential Transportation Demand Management Strategies.

City Staff Question from AIS

Is it the intent of the City to develop its own access management policy?

- If this is something the City would like to do, this should be referenced in the TSP.
- Council consensus was to have the City development its own access management plan and to put it on the project list.
- Planner Walters added that the county and ODOT would need to review and sign off on the plan, before they would co-adopt the TSP.

Chapter 5: Motor Vehicle Plan

9. Access Management: The old access management plan for state facilities will be repealed because Oregon Administrative Rules have changed.

10. Speed: On page 35 a list of potential speed reductions is included. Does the list reflect discussion? Are any missing?

- Planner Walters noted that DKS listed the following areas to be studied for possible speed reductions at Prairie Road between 1st and 99, Bailey Lane, Pitney Lane, 1st Avenue between Prairie and Oaklea, 18th between 99 and Oaklea. This was based on police and community input.
- Council members noted that the traffic signals throughout town needed to be recalibrated, as there were long wait times during certain times of the day and the signals did not seem to be based on traffic.
- Also noted was finding out if the left turn signal going west at the intersection of 99 and 1st could be changed to solid green. Also look at the timing of crosswalk buttons and citizens having to wait too long.
- Questions were raised on why there were speed concerns on some of these roads. Planner Walters responded that they could find out what the citizen and PD comments were.
- It was noted that if there were sidewalks on some of the noted roads, there wouldn't be a problem. The speeding issued seemed to be more of a pedestrian and bicycle issue.

11. Do the projects in Table 9 and Figure 10 reflect expressed project priorities?

- It was noted that traffic signal optimization was on the list.
- It was noted that page 41 referenced Pitney Lane from High Pass to Bailey Lane; the Highway 99 Refinement Plan had included a different plan for people working in Eugene to go south on Pitney to Highway 36.
- A question was asked on if the TSP included detail that the City would be doing x, y, and z, would that restrict the City in having the flexibility to change some of the project and still be able to receive funding? Planner Walters responded that the City could do a refinement of the project, based on new

information that would necessitate a change. Director Knope added there was less flexibility to make fairly significant changes on more specific grants, but others like the RO fund allow more flexibility in going from concept to design.

- A question was asked if a project could be broken up into phases. Planner Walters responded that it could and sometimes the City might only have funding for part of a project.

Chapter 6: Other Modal Plans

12. Are the City actions related to rail and transit consistent with previous discussions?

- It was noted that in the past Union Pacific had talked about fencing off both sides along the railway so people could not get up to the tracks, but that did not come to pass.
- Planner Walters noted that a lot of this looked like ADA safety so wheelchairs didn't tip when crossing the tracks and other items related to pedestrian movement.
- Council members did not remember having much discussion on this and that it would be beneficial to have more public input and further discussion on topic. Planner Walters added that they could ask the Citizen Committee if they had anything specific on these pieces.
- It was noted that there was local history as to why the City did not have ride source that the engineers were not aware of.
- It was noted that Portland and Western had put in some new crossings and repaired some of the rail beds along Holly Street, which created a hump in the middle of the road, and the asphalt on either side was still in poor condition. Director Knope stated that Portland and Western was just responsible for 1 ½ feet on either side of the rail. The remainder of the street was under the City's jurisdiction.
- The paving of Holly Street could be added to the TSP.

Chapter 7: Funding and Implementation

13. Does the financially constrained plan (page 49) and Tables 13 -1 7 match public and Council input/priorities to date?

14. Are there any concerns about the project on (or not on) the financially constrained list?

- Planner Walters stated that she wanted to make sure the priority projects showed up on the financially constrained plan, but this was something they could discuss later, if the Council needed more time to discuss.
- Planner Walters noted that it might be worth it to address some of the other items they've identified tonight, as that could change the Council's perspective on the table.
- The Council consensus was to wait to discuss.

Entire Plan

15. What specific questions or concerns do you have for DKS? For the Citizen Advisory Committee? For the Planning Commission?

- Page 44 reads, "Transportation Demand Management describes actions intended to remove single occupancy vehicle trips from the roadway network during peak travel demand periods. The goal is to reduce vehicle miles traveled and promote alternative modes of travels...a wide variety of TDM strategies exist and it's important to tailor those strategies to meet the needs of a smaller urban community. The implementation of appropriate TDM strategies shall be considered for all employers of 100 workers or more." What are the implications of this language? Would new employers be discouraged from locating in Junction City because of this language? What would the Council be getting into by adopting a broadly written policy where there is a lot of room for interpretation by bigger agencies? Council members expressed their objections to forcing businesses to have a plan for carpooling.
- Planner Walters noted that as she looked at the draft more, some of the language such as on potential trip reduction needed to be worked on; it's almost informational and should the City choose to offer something like a certain percent of SDC reduction based on if they demonstrate this that's one thing, but it seemed like the voluntary component would be very important. Council members

asked if the language could be stricken. Planner Walters responded that she would have to check the TPR, because transportation planning would require you to address it somehow. It was noted that a more thorough discussion was needed on this.

Next Steps

The Council consensus was to do the following:

- Staff will work on getting feedback on Council questions, as well as prepare a list of new questions that might come up.
- Staff will bring that information back to the Council for another Work Session after late August/early September with Council and staff only. At that Work Session, the Council can discuss the next steps of providing the draft to the Citizen Advisory Committee and/or Planning Commission and if the Council wants to have DKS and ODOT to attend a meeting.