MEMORANDUM

Public Works Department

Date: September 1, 2016

To: Tempe City Council

From: Don Bessler, Public Works Director (350-8205)
Jon Creer, Assistant Vice President Real Estate, Arizona State University (965-7616)
Dawn Cartier, CivTech (659-4250)

Thru: Steven Methvin, Deputy City Manager – Chief Operating Officer (350-8811)

Subject: Small Area Transportation Study
September 15, 2016 Issue Review Session

PURPOSE

The purpose of this memo is to present the City Council with the methodology and status of the Small Area Transportation Study which will create an interactive model to help the City Council understand impacts of potential developments.

BACKGROUND

The downtown and stadium district transportation system network is an important part of the continued success and economic health and vitality of downtown Tempe. As businesses choose to locate in Tempe, the question of how the transportation system will operate is an important factor. All economic development models and the success of commerce and quality of life necessitate that the transportation system is well planned and accommodates generational solutions.

Throughout the *Tempe Transportation Master Plan* and the *Tempe General Plan*, multi-modal strategies and solutions were identified, and Tempe's commitment to public transit has been a model in the Valley. As Tempe continues to attract infill high density projects, the city needs a holistic and interactive model to better understand the full range of modal issues, from pedestrian movements, to vehicles, to the coming streetcar rather than the traditional review development impacts on the transportation system, which focused solely on vehicular movement. Increased density in the urban core will continue to create conflict, inconvenience and pressure on the transportation system.

Currently, Tempe requires each development that generates a minimum number of peak hour trips procure a Transportation Impact Analysis (TIA) individually. This technique works well for an individual project, but not for an interconnected system as reviewing these developments in isolation leads to spot improvements that may not be in the best interest of the city in the future. It may also disproportionality burden individual developments with infrastructure improvements that were not identified in isolation, but cumulatively have a significant impact and should be accounted for in the city's Infrastructure Improvement Plan (IIP) which ensures that growth pays its proportional fair share.

In order to gather information needed to answer these questions, ASU and Tempe in a joint effort commissioned a "Small Area Transportation Study" with *CivTech*, who offers expertise in network transportation modeling in order to examine the existing and future conditions of downtown and the facilities district. The Small Area Traffic Study will take a more holistic approach to understanding the effects of development on the area, the surrounding neighborhoods and the regional network. As the two largest public institutions in the downtown core, who both influence or develop public policy and infrastructure, the city and ASU share a mutual responsibility to ensure their actions do not adversely affect the economic, social and environmental welfare of the core area.

METHODOLOGY

Over the last six months, city, ASU and CivTech staff have met regularly to discuss the elements of the modelling and provide input on the data collected to date. Tasks included:

- Identifying the study area, which has been defined as the SR202 Red Mountain Freeway on the north to Apache Boulevard on the south, from Priest Drive to Price Road as illustrated in Exhibit 1.
- Collecting existing traffic data as shown in Exhibit 2.
- Analyzing the needs of the network areas as illustrated in Exhibit 3.
- Modelling all modes of transportation allowing the city and ASU to pin-point areas that need attention and identifying short term and longer term strategies to ensure the system is operating as efficiently as possible given the Council's vision for growth and prosperity.
- Identifying areas in need of pedestrian treatments, additional mode transfer beyond that already predicted to occur by 2040, and roadway limitations with regional solutions considered.
- Evaluating traffic and pedestrian trips using the current entitlements, parking locations, future masterplans (where provided) and future transit improvements planned by 2040. This provides information about the needs in the area and where the roadways and sidewalks may no longer meet the needs of the city.

Options to address these needs were evaluated and included both small improvements and larger regional roadway and transit solutions. Each option will be evaluated separately to determine the level of improvement realized in the area. The model is an organic tool and can be updated routinely to accommodate Council decisions, General Plan amendments and proposals that need additional evaluation.

A final document will include recommended improvements and a projected level of vehicular, pedestrian and transit trips in the study area with the improvements in place. The report will also include the feasibility of the alternatives given known constraints such as topography, right-of-way, and engineering criteria.

ATTACHMENTS

- PowerPoint

Exhibit 1 – Downtown and Stadium District Study Area

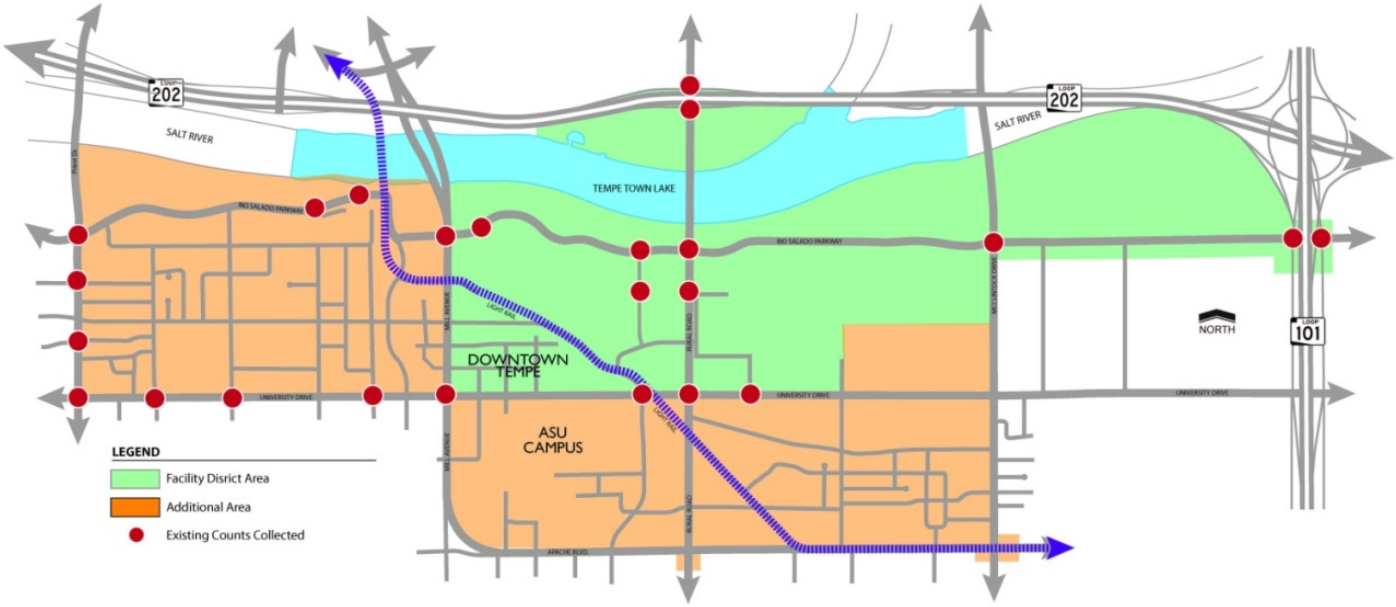
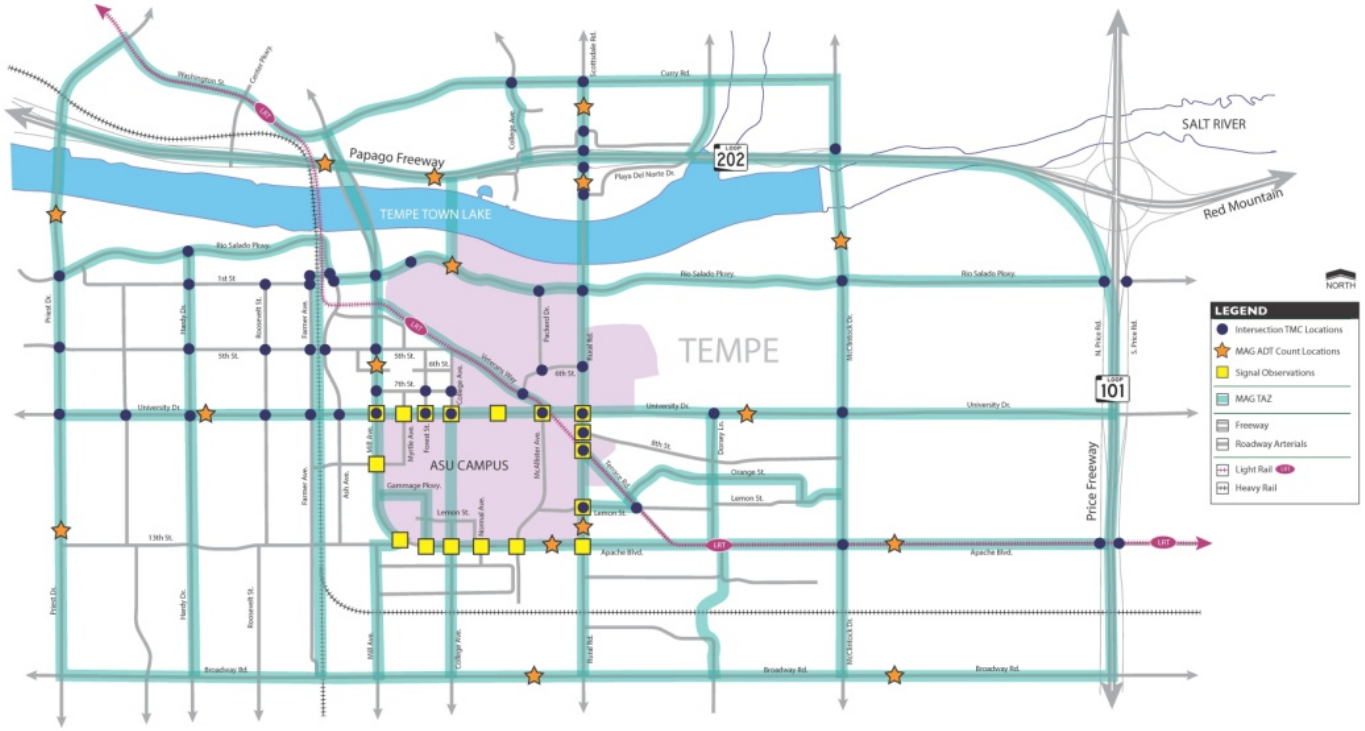


Exhibit 2 – Existing Traffic Data Collection



Source: CivTech 2016

Existing Data

CivTech

Exhibit 3 –Analysis Network

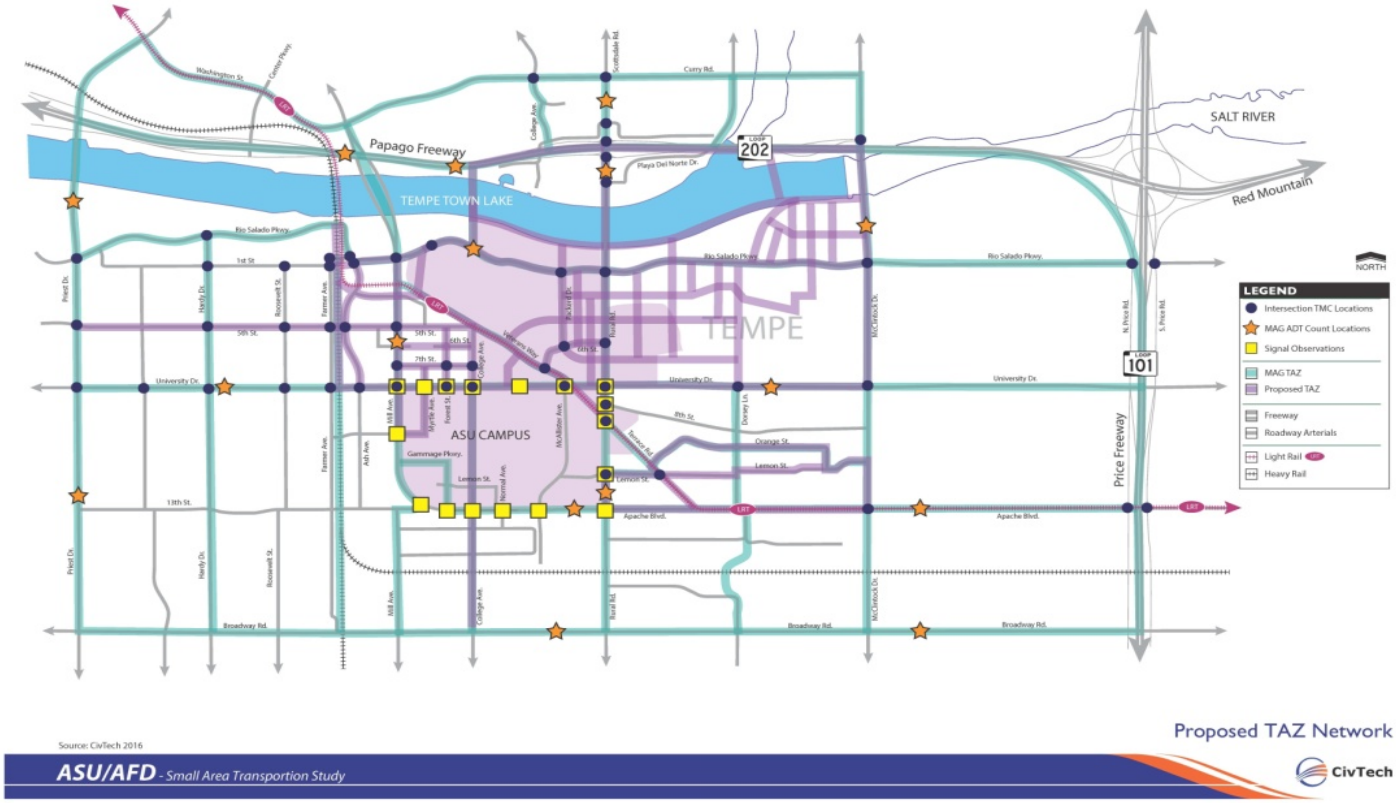


Exhibit 4 –Future Entitlements & Development Areas

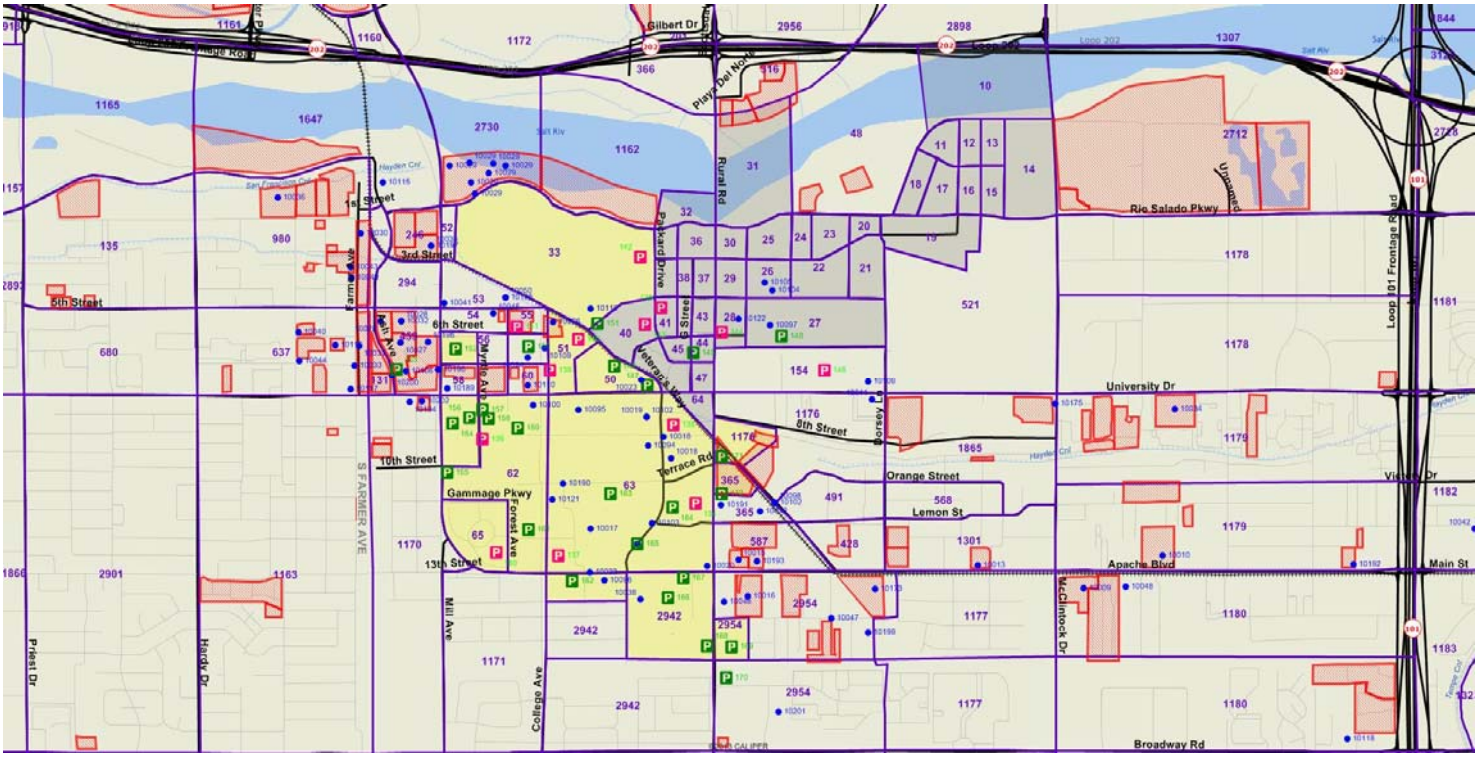


Exhibit 5 – Identified Problem Areas within the Model