Network Screening Tools

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Overview

Provide the ability to screen and evaluate the safety and mobility of the entire Unincorporated Pima County road network to review system performance
DynusT

Dynamic traffic simulation and assignment software that allows for scenario planning and evaluation of potential solutions to address traffic congestion and capacity issues.
StreetLight Data

Analytic program that utilizes anonymized probe data to provide multi-modal trip quantities for various analysis types such as AADT, origin-destination, and zone activity
Miovision

Signalized intersection cameras and a cloud-based analytic program that provides tools for signal optimization, intersection counts, and performance measures among others.
Signalized Intersection Management Tool
Automated application that pulls data from Miovision to create data visualizations and allow for network screening
Travel time in the selected date range

Travel Time

07:00 AM
Time of Day

AVERAGE TRAVEL TIME
185 seconds
PAG Safety Explorer

- Predicted and expected crash data in alignment with the AASHTO Highway Safety Manual
- Level of Safety Service (LOSS) and Level of Service (LOS) are provided
- Allow crash data to be filtered by numerous metrics with an associated heat map
Network Analysis Application

Screening tool for safety and mobility analysis

• StreetLight Data traffic volume and congestion output

• usRAP safety ratings (VIDA Scores) based on existing roadway geometrics

• Statistical hotspot analysis of crash data
Statistically significant segment hotspots as processed and ranked by ESRI based on the number of crashes, crash rate and severity
RITIS/PDA

Cloud-based tool providing real-time congestion, traffic and bottleneck data
Summary

• Several tools are completed or under development to assess the network’s safety and mobility

• Safety and mobility is evaluated through a data-driven systematic approach that leverages technology and real-time traffic to more efficiently, proactively and comparatively assess network performance
What’s Next?

• Development of website dashboards to communicate safety and mobility data to the public

• Focus on advances in transportation technology and innovative strategies to provide an effective and sustainable transportation system
Questions?

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