TRANSPORTATION ENGINEERING DIVISION
SUMMARY OF WORK RESPONSIBILITIES
(as of June 15, 2020)

DIVISION MANAGEMENT

Coordinate and Respond to FixIT Requests
- Traffic Signal Timing Request Types
  + Provide Signal Coordination
  + Capacity Issues (not enough green time)
- Neighborhood/Business Request Types
  + Fix Construction Traffic Control Signing
  + Install New Traffic Signals
  + Install "No Parking" Signs
  + Install "Stop" Signs
  + Provide Speed Reduction Signing
  + Remove Abandoned Bike/Scooter Vehicles

Expert Witness Testimony
Respond to Open Records Requests
Participation with Regional Committees (5)
Personnel Reviews/Guidance
Training (big list)

Budgeting
- Federal and State Grants
- Infrastructure Improvements
- Personnel
- Software/Hardware

Major Project Coordination
- Silver Line Regional Rail (DART)
- Streetcar Feasibility Study (DART)
- SH 121 Widening Project (NTTA and TxDOT)
- CCTV Video Sharing (NTTA and TxDOT)
- NCTCOG Grants
  + WAZE and Data Sharing
  + Legacy Area Communications Pilot (Frisco)
- LegacyConnect Traffic Management Association (TMA) Coordination (Various)
- Plano Website Update (internal)
- Citywide Fiber Upgrade (Internal)
- Citywide CCTV Video Expansion (Internal)
- Citywide Traffic Signal Retiming (Internal)
- Update Thoroughfare Standards (Internal)
- Develop Traffic Calming Standards (Internal)
- Traffic Management Center Upgrade (Internal)

CURRENT TRANSPORTATION PROGRAMS

Bike/Scooter Share Program (BSSP)
- Address/Coordinate FixIT Requests
- Administer Permit Requirements
- Coordinate BSSP with other City Departments
- Coordinate with Bike Share Companies
- Review Home Zone Requests

School Coordination
- Circulation Analysis
- Conduct Safe Routes to School Studies
- Ordinance Review and Preparation
- Parking Restrictions
- Prepare and Host Annual Safety Meeting
- Review and Revise Existing SZ Signing
- School Zone (SZ) Limits Analysis
- Signing/Striping Work Orders
- Turn Restrictions

High Accident Location/High Accident Roadway Segment (HAL/HARS) Program
- Documentation of Historical Data
- Review/Analysis of 3-Year Crash Data
- Identification of Crash Trends
- Operational/Crash Rate Analysis
- Development of High Accident Locations
- Develop List of Intersection Improvements
- Cost Benefit Analysis
- Preparation of Annual Traffic Safety Report
- Develop Priority List of CIP Projects

Traffic Count/Data Collection Program
- Collect Origin-Destination Data
- Collect Travel Time Data
- Collect Turning Movement Counts
- Collect Vehicle Speed Data
- Conduct 24-Hour and Multi-Day Counts
- Conduct Ball Bank Studies
- Conduct Queuing Field Collection
- Conduct Vehicle Gap Field Collection
- Review/Document of In-Field TCPs
- Update Annual 24-Hour Traffic Count Map

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- Update Annual Thoroughfare Speed Limit Map
- Verify/Coordinate Removal of LOS Restrictions

Other Programs
- Alley Speed Hump Program
- Alley Speed Limit Signage Program
- Downtown Employee Parking Program
- Downtown Parking Special Event Day Pass
- Parking Ordinances for Sub Areas
- Valet Parking Program

TRAFFIC ANALYSIS/STUDIES

Graphics Development
- ArcGIS Maps
- AutoCAD Graphics and Plans
- Cartegraph Asset Inventory (signs/signals)
- Google Earth Maps
- Synchro Graphics and Plans
- TransCAD Maps

Modeling
- Illumination Modeling
- TransCAD Subarea Modeling
- VISSIM Simulation Modeling
  + Animations
  + Site Development Circulation
  + Special Intersection Operations
  + Traffic Signal Operations
- Traffic Volume Forecasting

Traffic Studies
- Accident Analysis
- Alternative Intersection Analysis
- "Before/After" Data Analysis
- Bicycle and Pedestrian Needs Analysis
- Corridor/Driveway Access Studies
- Freeway Access Studies
- Gap Acceptance Analysis
- HAWK Pedestrian Signal Analysis
- Intersection Capacity Analysis
- Intersection Safety Analysis
- Lane Assignment Analysis
- Neighborhood Cut-thru Traffic Studies
- No Parking Analysis
- Origin-Destination Studies
- Pedestrian Crossing Warrant Analysis
- Railroad Grade Separation Analysis
- Railroad Quiet Zone Compliance Study
- Road Diet Evaluations
- Saturation Flow Rate Analysis
- Signal Warrant Analysis
- Speed Zone Analysis
- Stop Sign Warrant Analysis
- Traffic Impact Studies
- Traffic Signing Compliance Study
- Travel Time Analysis
- Vehicle Delay Analysis
- Vehicle Queue Analysis

INFRASTRUCTURE DESIGN AND REVIEW

Signing and Marking Plans Development

Traffic Control Plan (TCP) Reviews
- Development/Site Plans
- NTTA, TxDOT, and Other Agency Projects
- Parks Projects
- Plano CIP Projects
- Traffic Signal Projects - New
- Traffic Signal Projects - Upgrades
- Utility Permits

Traffic Signal Plans Development
- Temporary
- Permanent

Traffic Signal System and Intelligent Transportation Systems Plans Development

TRAFFIC SIGNAL AND TRAFFIC MANAGEMENT CENTER OPERATIONS

- Advance Detection Roll-Out
- Analyze and Review Split Timings
- Coordinate Traffic Signal Timing Needs with Adjacent Cities, NTTA, and TxDOT Projects

TRANSPORTATION ENGINEERING DIVISION
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(as of June 15, 2020)

- Coordinate Traffic Signal Timing Needs with Plano CIP Projects
- Develop, Implement, and Fine-tune New Coordinated Timing Plans
- Emergency Preemption System Management
- Evaluate and Program Adaptive Signal Timings
- Evaluate System Performance Metrics
- Incident Management Coordination
- School Zone Flashers Management
- Upgrade 1C Cards for ATSPMs
- V76 Traffic Controller Firmware Upgrade

FUTURE PROGRAMS/INITIATIVES

- AV/CV Coordination and Deployment
- AV/CV Standards Development
- Citywide Access Management Plan
- Complete Streets Standards Development
- Incident Management Alternative Route Timing Plans
- Performance Monitoring Development
- Rush Hour Traffic Monitoring
- Transportation Systems Management and Operations (TSMO) Implementation
- Traffic Management Strategies Development and Implementation
  + Active Transportation Demand Management
  + Active Transportation Management
  + Geometric Improvements
  + Incident Management
  + Integrated Corridor Management
  + Intelligent Transportation Systems
  + Regional Traffic Signal Operations
  + Special Event Transportation Management
  + Weather Responsive Transportation Management
- Utilize WAZE, HERE, Google, and Other Big Data Resources for Traffic Management
- Traffic Signal Hardware Standards Update
- Traffic Signal Cabinet and Controller Update