

Austin Transportation Department P.O. Box 1088 Austin, TX 78767 rightofway@austintexas.gov

# TRAFFIC CONTROL PLAN SUBMITTALS

When the normal function of a public right of way (i.e. street, sidewalk, alley, behind the curb) is interrupted, **Temporary Traffic Control (TTC)** provides for the safe and

efficient movement of motor vehicles, bicycles, pedestrians, workers, transit operations and access to property and utilities.



#### A Traffic Control Plan (TCP)

prescribes the necessary

measures to maintain continuity of traffic movement and provide accessible passage while protecting the public and workers.

# CORE PRINCIPLES OF TTC

- Training Train each person whose actions affect TTC and tailor the training to the decisions they are required to make.
- Safety Safety is an integral and high priority element and is developed in consideration of motorists, cyclists, pedestrians, workers, enforcement/ emergency personnel and equipment.
- 3. Mobility— Inhibit mobility as little as possible.
- 4. Guidance Provide adequate and clear warning and instruction.
- 5. Inspection Inspect routinely and frequently.

# TCP OPTIONS

STANDARD SCENARIO – Pre-approved Standard Scenarios for traffic control can be found in the <u>Texas Manual on Uniform Traffic</u> <u>Control Devices (TMUTCD)</u> or <u>City Standard</u> <u>Details</u>. Site conditions must be such that, when applied, the standard can be used without modification. Requests to utilize a

# Mobility Guideline

http://www.austintexas.gov/department/right-of-waymanagement

Standard must specify the name and number (e.g. Collector/Residential Lane Closures, 804S-1, sheet 5) along with the scope of work. OR

**ENGINEERED PLAN** — Where Standard Scenarios do not apply, an Engineered Plan is required to determine appropriate signs, devices or measures to facilitate traffic movement and safety.

# ENGINEERED TCP REQUIREMENTS

Engineered Plans are reviewed to ensure they satisfy Plan Fundamentals, Regulatory Issues, City Requirements and Engineering Concerns. Your Plan Reviewer will provide examples of requirements upon request.

**PLAN FUNDAMENTALS** — The TCP must consider/include the following foundational elements:

- Plan Legibility
- Existing/Current Conditions
- Component Parts of TTC Zone
- Duration of Activity and Work Hours

#### PLAN LEGIBILITY

- North arrow (uniform throughout)
- Matchlines (properly aligned)
- Drawn to scale
- Page numbering
- Plan legend/symbols
- Street names (including intersecting streets)
- Title page with standard formatting convention
- Developmental permit number
- First generation document
- Unnecessary element levels removed (e.g. contour lines)
- Reflect ALL approaches to a road closure

#### **EXISTING/CURRENT CONDITIONS**

It is crucial to visit the site to ensure you have current information. Conditions to consider include:

- ROADWAY CLASSIFICATION AND GEOMETRY—Identify if the roadway is classified as <u>Arterial</u>, <u>Collector or</u> <u>Residential</u> as defined in Section 8 of the Transportation Criteria Manual. Determine areas where roadway geometry could pose problems, such as blind curves, hills or limited sight-distance.
- LANE CONFIGURATIONS—Show current lane width and existing pavement markings when designing TCPs. This information may help determine:
  - Distance needed for planned vehicle maneuvers
  - Roadway capacity for detours
  - Presence of bike lanes
- POSTED SPEED LIMIT—Traffic speeds may affect the length of the TTC zone.
- PEDESTRIAN FACILITIES—Show existing sidewalks and/or beaten pedestrian paths in the right of way. If an activity will in any way impact pedestrian facilities the plan must provide ADA compliant paths and protect pedestrians through the area. Mobility Guideline—02, Pedestrian Considerations covers the appropriate scenarios for detours, partial sidewalk closures, covered walkways, bypasses, and midblock crosswalks.
- DRIVEWAY LOCATIONS—Show existing AND proposed driveway locations. Proposed locations shall be signed and permitted accordingly so that ingress/egress issues can be addressed and pedestrian access maintained.
- CONSTRUCTION ENTRANCES/EXITS—Show existing AND proposed construction entrances/exits. Sign and permit proposed locations accordingly so that ingress/egress issues can be addressed and pedestrian access maintained.
- UTILITY LOCATIONS—Show proposed utility locations and existing OR proposed tie-ins. Stub-out behind the curb prior to installing pedestrian facilities.
- FINAL RESTORATION PLANS—Show final

paving, landscaping, and pavement markings.

#### COMPONENT PARTS OF TTC ZONE

Each TCP must reflect all component parts of the TTC zone. See Figure-1 for a diagram of a TTC zone.

- ADVANCE WARNING AREA— This is the area in advance of an upcoming work or incident zone that conveys a message about the changing conditions and what right of way users should expect.
- TRANSITION AREA—When the driver's normal path is impacted, traffic must be redirected to a new path. This redirection occurs at the beginning of the transition area. In mobile operations, the transition area moves with the work space. Transition areas involve strategic use of tapers:
  - Merging—Merging traffic with an adjacent lane; requires the longest taper calculated using the Width of the lateral shift (due to the partial or full lane closure) and the Speed of travel; L
  - Shifting—Shifting traffic laterally, without a merge; **1/2 L**
  - One-Lane, Two-Way (Flagging)— Alternating road use between each direction of traffic on two-way roadways; L = 50-100 feet

The true test of a successful taper length is driver performance.

- ACTIVITY AREA—This is the area of roadway where the work takes place. It is composed of the work space, the traffic space, and may contain one or more buffer spaces.
- TERMINATION AREA—This is the section of the roadway where motorists are returned to their normal driving path. To help clearly indicate this return, include a taper:
   Downstream—L = 50-100 feet

The TTC zone must also accurately illustrate criteria outlined in the <u>804S Series</u>, including:

- Transition Type.
- Device and Signage type.
- Device and Signage spacing.
- Positioning of Flaggers (when applicable).

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#### DURATION OF ACTIVITY AND WORK HOURS

- Provide an activity schedule containing the estimated duration and hours of operation.
  - Long-term stationary—Activity lasting more than 72 consecutive hours (3 days). Contractor should remove or cover conflicting signage, markings, and signals and replace with temporary controls.
  - Intermediate-term stationary— Activity ranging from overnight to 3 days.
  - Short-term stationary—Daytime activity ranging from 1 to 12 hours.
  - Short duration—Activity lasting up to 1 hour.
  - Mobile—Activity that moves intermittently or continuously.

**REGULATORY ISSUES** — The design, application, and implementation of traffic control is regulated by federal, state and local laws, rules, and policies.

#### **FEDERAL REGULATION**

- The Federal Highway Administration adopts and establishes the National, State, and other Federal Manuals on Uniform Traffic Control Devices as the standard.
- The United States Department of Justice adopts and establishes the Americans with Disabilities Act (ADA). On March 15, 2012, compliance with the 2010 Standards was required for new construction and alterations under <u>Titles II</u> and <u>III</u>.

#### **STATE REGULATION**

All Engineered Plans must be signed and sealed by an engineer licensed in the state of Texas. On May 19, 2005, The Texas Board of Professional Engineers determined that transportation planning activities that require detailed cost estimates, designs, comparisons, or the application of engineering principles and the interpretation of engineering data, must be designed AND/OR supervised by a licensed engineer for public work and designed by a licensed engineer for private work.

#### **CITY REGULATION**

 Municipalities may go above and beyond the baseline requirements of the higher priority manuals. Reference the <u>Transportation Criteria Manual</u> to ensure that the designing engineer is familiar with any local requirements.

**CITY REQUIREMENTS** — The Director of Transportation, as the City Traffic Engineer, may impose requirements necessary to ensure proper right of way management, enhance mobility (vehicular, bicycle, and pedestrian), and/or improve safety. Examples of special requirements include but are not limited to:

- The use of additional barricades, signals, signs, flaggers, police officers, other traffic control devices or safety measures.
- Specified hours, days of the week or time of month/year that an activity may be performed.
- Specified areas or specified number of traffic lanes, parking meters, parking lanes, sidewalks and/or crosswalks that may be blocked or closed at the same time.
- Equipment and material, including excavated material, be located somewhere outside of the right of way when not in use.

#### **MOBILITY GUIDELINES (MGs)**

Mobility Guidelines are informational bulletins published by the Austin Transportation Department. MGs clarify regulations, codes, and processes. These guidelines outline permitting procedures and activity performance in the right of way. All plan sets must satisfy:

- □ MG-02, <u>Pedestrian Considerations</u>.
- □ MG-03, <u>Closures and Detours</u>.
- MG-04, <u>Providing Notification</u>.

# STANDARD NOTES, DETAILS & BARRICADING SUMMARY TABLE

Plan sets must include the City:

- Standard notes. See Figure-2a.
- Standard Details.
- Barricading Summary Table. See Figure-2b.

#### **CRITICAL ARTERIAL ROADWAYS**

- Critical Arterials, see Figure-3, carry the most commuter and vehicular traffic and provide essential connections to the transportation network. Therefore, limitations are placed on both partial and full closures of critical arterials. These limitations include:
  - No full road closures Monday through Friday.
  - No double lane closures in the <u>Downtown Austin Project</u> <u>Coordination Zone</u> (DAPCZ) Monday through Friday. Other double lane closures will be reviewed on a caseby-case basis.
  - No bus lane operation restrictions without prior approval.
  - No work within 5 blocks along the same block face of an established long-term closure.

#### **PEAK HOUR RESTRICTIONS**

- Except in event of an emergency, weekday traffic obstructions are not permitted on:
  - Arterial/Collector roadways, 6:00

     a.m.-9:00
     a.m. & 4:00
     p.m.
  - Critical Arterial roadways, 6:00 a.m. -10:00 a.m. & 3:00 p.m.-7 p.m.
  - Installation or removal of pavement markings must only be performed on the weekends.

#### **AFTER HOURS PROTECTIONS**

- When daily construction activities conclude, it is important to ensure that the area is safe and serviceable. Review the City's standards for pavement markings, work area protection and channelizing devices. Backfill or plate excavations:
  - <u>Standard plates</u> cannot be utilized for excavations greater than 5 feet in width, parallel to the roadway. Plating that runs parallel to the curb line cannot exceed 30 feet. <u>See</u> Figure-4.
  - The desirable maximum edge drop off is 2 inches. Larger drop offs may require an engineered plan.

**ENGINEERING CONCERNS** — Even minor TTC usage may significantly impact the roadway system. Engineers are expected to apply the techniques and measures needed to address safety, mobility, and the full affects on upstream, downstream, and cross-street traffic of all modes. When construction/event conflicts exist, Engineers should coordinate TCP design and implementation accordingly.

#### **ACTIVITY CONFLICTS**

- Activity conflicts must take project phasing into consideration. Activities include:
  - Capital Improvement Projects (CIPs).
  - Construction.
  - Special events.
  - Work moratoriums.

#### **DESTINATION CONFLICTS**

- Destinations of importance will require varying levels of notification and coordination. Destinations include:
  - Schools.
  - Emergency service access (i.e. EMS, Police, Fire, Hospitals).
  - Bike routes/trails/stations.
  - Entertainment venues.
  - Restricted parking zones (e.g. valet, taxi, residential only)

#### SITE VISIT/TRAVEL DETOUR

- Travel the detour prior to implementation:
  - Check detours for movement restrictions (e.g. no left turns, tree overhang issues).
  - Ensure detours do NOT route traffic onto lower classification roadways (e.g. Arterials to Collectors).

### **REVIEW PROCESS**

Plan reviews are performed as either In Process, Out of Process or Certified (PENDING).

IN PROCESS REVIEW – Conducted during the Development Services Department (DSD) review (e.g. Site Plan, General Permit).

#### **OUT OF PROCESS REVIEW** – Deferred during the DSD review. Call 512-974-1150 to schedule with a Traffic Control Reviewer.

## **PENDING - CERTIFIED REVIEW** – To

qualify for an certified review:

- Complete the "Traffic Control" course.
- Receive an "A" rating on **3 consecutive** submittals within a 12-month period.
- Submittals must impact vehicular traffic on collector or arterial roadways.

"A" ratings have no more than 2 errors in Plan Fundamentals and only 1 in other categories at initial review and are error-free upon second review. TCPs that impact Critical Arterial roadways CANNOT receive certified review.

	Review Timeframe	Review Fees
In Process	28 Work Days (initial reviews). 2 weeks (subsequent reviews).	Collected by DSD
Out of Process	9 Work Days	\$50 per hour, 2 hour minimum
Certi- fied— PENDING	<ol> <li>Schedule certified review at 100% completion.</li> <li>Address comments.</li> <li>Submit finalized plan for automatic acceptance.</li> </ol>	\$50 per hour, 2 hour minimum

#### **FIGURE-1**



## **RESOURCES**

Standard Scenarios for TTC: City Standard Details and TMUTCD

#### **Compliance Information:**

Americans with Disabilities Act City of Austin Transportation Criteria Manual

#### Related Mobility Guidelines (MG):

MG-02, Pedestrian Considerations MG-03, Closures & Detours MG-04, Providing Notification MG-07, What to Expect When You're Inspected

MD-09, Certified Review - PENDING

Critical Arterial	Limits
5 <sup>th</sup> St.	MoPac to I-35
6 <sup>th</sup> St.	MoPac to I-35
7 <sup>th</sup> St.	I-35 to Airport Blvd.
15 <sup>th</sup> St.	MoPac to I-35
26 <sup>th</sup> St.	Guadalupe St. to I-35
35th St./38th St./38th ½ St.	MoPac to I-35
45 <sup>th</sup> St.	Burnet Rd. to Lamar Blvd.
Airport Blvd.	Lamar Blvd. to FM 969/MLK
Anderson Mill Rd.	FM 620 to Parmer Ln.
Barton Springs Rd.	MoPac to Congress Ave.
Braker Ln.	US 183 to Dessau Rd.
Brodie Ln.	US 290 to Slaughter Ln.
Burnet Rd./FM 1325	US 183 to 45 <sup>th</sup> St.
Cameron Rd./Dessau Rd.	Parmer Ln. to 51 <sup>st</sup> St.
Cesar Chavez St.	MoPac to I-35
Congress Ave.	11 <sup>th</sup> St. to Wasson Rd.
Guadalupe St./Lavaca St./S 1st St.	Lamar Blvd. to Slaughter Ln.
Howard Ln./McNeil Dr./Wells Branch Pkwy.	US 183 to Dessau Rd.
Lake Austin Blvd.	Exposition Blvd. to MoPac
Lamar Blvd.	US 183 to Panther Trl.
Manchaca Rd./FM 2304	Lamar Blvd. to Matthews Ln.
MLK/FM 969	Lamar Blvd. to Airport Blvd.
Pleasant Valley Rd.	7 <sup>th</sup> St. to Oltorf St.
Pleasant Valley Rd./Todd Ln.	Ben White Blvd. to William Cannon Dr.
Riverside Dr.	Lamar Blvd. to Ben White Blvd.
Rundberg Ln.	Metric Blvd. to Cameron Rd./Dessau Rd.
Slaughter Ln.	MoPac to I-35
Southwest Pkwy.	William Cannon Blvd. to MoPac
Springdale Rd.	US 290 to Cesar Chavez St.
William Cannon Dr.	Southwest Pkwy. to McKinney Falls Pkwy.

FIGURE-4



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#### FIGURE-2a

#### RIGHT OF WAY MANAGEMENT STANDARD NOTES

- 1. For Right of Way violations including but not limited to working without a permit or an expired permit within the City of Austin ROW an investigation fee will be assessed for each offense until the violation is corrected. Following is the investigation fee schedule for violations of public safety:
  - a. No or Expired Permit
  - Equal to the cost of the permit b. Violation of permit conditions, restriction limits, times and locations on ROW Permit - \$250 c. Improper Advance Warning Sign - \$250 d. Improper Use of Device - \$250 e. Failure to Correct Deficiency - \$500 1. Restricting Traffic During Peak Hours - Equal to the cost of the permit g. Multiple Violations - Up to a 4 day Suspension of work
- 2. Contractors and their subcontractors must be licensed by the City of Austin for conducting work within the Right Of Way.
- 3. Contractor must obtain Right Of Way excavation permits from Right of Way Management Division, for each street prior to commencement of work. Please call (512) 974-1150 for additional information regarding permitting process and the most current right of way permitting fee schedule.
- 4. For work at signalized intersections Contractor must dial 311 or (512) 974-2000 to initiate a Citizens Service Request (CSR) for the Traffic Signals Group; to coordinate and gain approval a minimum of 1 week prior to change of project location or phase.
- Contractor shall have an approved Right of Way permit on site at all times when working in the ROW. 5
- Contractor must dial 311 or (512) 974-2000 to Initiate a Citizens Service Request (CSR) for Right of Way Management a minimum of 1 week prior to start of Б.
- 7. Contractor must provide training certification of competent person that will be responsible for the traffic control placement, to Right of Way inspector, prior to start of work.
- Storage of Equipment and/or Material within the ROW. 8.
  - a. Storage of equipment in the ROW is permissible only within the current limits of long-term or intermediate-term closures and shall be limited to the equipment required for the current work activity. This equipment shall be protected behind barricades.
  - b. Storage of malerial in the ROW is permissible only within the current limits of long-term or intermediate-term closures and shall be limited to no more than the malerial required for three days of production. This malerial shall be protected behind water-filled barrier.
  - c. Equipment or material stored in the ROW shall not create a visual barrier to traffic.
- 9. No more than one work zone location may be set at one time.
- 10. Peak Hours for arterial and collector streets are 6am to 9am and 4pm to 6 pm, Monday through Friday. No disruption or reduction of active roadway or pedestrian route capacity shall occur during these times, unless allowed by traffic control plan.
- 11. Excavations shall be backfilled or plated when required to open impacted traffic lanes. For excavations exceeding a transverse width of 5 feet, the Contractor shall provide an engineered plating plan to the Owner's Representative for review by Right of Way Management Division.
- 12. Existing sidewalks and beaten paths shall be maintained as ADA compliant throughout the project duration with the exception of final flatwork and utility tieins. Any work overhead within 25 feet of existing pedestrian pathways will require pedestrian covered walkways. Sidewalk closures for major sidewalk improvements have a 14-day maximum period and shall be completed in phases as to not close more than one block at a time.
- 13. "Road Work Ahead" and "Construction Entrance Ahead" signs must be placed at all approaches to Stabilized Construction Entrance. See the City of Austin standard details for sign spacing.
- 14. Driveways shall not be closed for more than 3 consecutive calendar days
- 15. ADA compliance shall be maintained through Stabilized Construction Entrance.
- 16. Barrier shall be placed within guidelines set forth by the TMUTCD crash testing requirements (NCHRP Report 350) for that particular barrier used. Any modifications to that testing application shall be approved by the Engineer of Record.
- 17. For overnight protection of work zones within the ROW, refer to City of Austin Standard 804S-4 Series Details.
- 18. All temporary paving shall conform to City of Austin Standard Detail 11005-4.
- 19. Initial and phase change traffic control changes shall be installed on the weekends.
- 20. The name and leightone number of the Contractor or Supplier shall be shown on the non-reflective surface of all channelizing devices in accordance with the City of Austin Standard 800 Series Details. FIGURF-2b

#### BARRICADING SUMMARY TABLES

Street	Classsification	Protection	Street From	Street To	Planned improvements	Traffic Control Plan Sheet / Detail	Allowed Barricading Hours	Duration	Comments
40th Street	Collector	7 Year	Ramsey Ave.	Rosedale Ave.	Water Line and Meter Install	TC10	9am-4pm Mon-Frit; 7am-7pm Weekends	1 Week	
40th Street	Collector	7 Year	Ramsey Ave.	Rosedale Ave.	Electrical Work	8045-2, 6 of 8	9am-4pm Mon-Frl; 7am-7pm Weekends	3 Days	
40th Street	Collector	7 Year	Ramsey Ave.	Rosedale Ave.	Storm Drain Installation	8045-2, 6 of 9	9am-4pm Mon-Fri; 7am-7pm Weekends	1 Week	
Lowts Ln.	Local	5 Year	40th St.	42nd 51	Waslewater Line, Manholes & Connections	8045-2, 6 of 8	7am-7pm Mon-Frit, 7am-7pm Weekends	3 Weeks	
40th Street	Collector	7 Year	Ramsey Ave.	Rosedale Ave.	Flat Work, Driveway & Sidewalk	TC11	7am-7pm Mon-Fri; 7am-7pm Weekends	2 W00ks	
45th St.	Arlerial	Not Protected	Burnet Rd.	Sinclair Ave.	Electric Manhole	TC12	7am-7pm Mon-Frl; 7am-7pm Weekends	1 Week	
Lewis Ln.	Local	5 Year	40th SL	42nd St.	Deliverles, Concrete Pours	TC14	7am-7pm Mon-Frit 7am-7pm Weekends	13 Months	
40th Street	Collector	7 Year	Ramsey Ave.	Rosedale Ave.	Crane Install & or Removal	TC09	Friday 7pm - Sunday Midnight	1 Weekend	
40th Street	Collector	7 Year	Ramsey Ave.	Rosedale Ave.	Pedestrian Walkway	TC13	24-7 Long-Term	13 Months	

	Intersections				
Sweet Intersection	Planned Improvements	Traffic Control Plan Sheet / Detail	Allowed Barricading Hours	Duration	Comments
40th SL/Ramsey Ave.	Water, Wastewater, & Storm Installation	TC13 & TC14	9am-4pm Mon-Fri; 7am-6pm Weekends		
40th St./Bally Ln.	Water, Wastewater, & Storm Installation	TC15 & TC16	9am-4pm Mon-Frit; 7am-6pm Weekends		
40th St/Medical Parkway	Water, Wastewater, & Storm Installation	TC17 & TC18	9am-4pm Mon-Fri; 7am-6pm Weekends	2 · · · · ·	
41st SL/Lewis Ln	Water, Wastewater, & Storm Installation	TC19 & TC20	7am-7pm SunSat.		
42nd St/Lewis Ln.	Water, Wastewater, & Storm Installation	TC21 & TC22	7am-7pm SunSat.		
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