

**AGENDA ITEM**

**TO:** Planning and Zoning Commission

**THROUGH:** Michael Quint, Director of Planning  
Jack Carr, PE, Director of Engineering

**FROM:** Alex Glushko, Planner II

**SUBJECT:** Conduct a Public Hearing to Consider/Discuss/Act on the Request by the City of McKinney to Amend the Comprehensive Plan, Including the Master Thoroughfare Plan Regarding the Proposed Alignment of the Intersection of Custer Road (F.M. 2478) and the Future Extension of Wilmeth Road.

**APPROVAL PROCESS:** The recommendation of the Planning and Zoning Commission will be forwarded to the City Council at the November 6, 2012 meeting.

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**STAFF RECOMMENDATION:** Staff recommends approval of the proposed amendment to the Comprehensive Plan, including the Master Thoroughfare Plan (MTP) regarding the proposed alignment of the intersection of Custer Road (F.M. 2478) and the future extension of Wilmeth Road.

**ITEM SUMMARY:** Custer Road (FM 2478) north of U.S. Highway 380 (University Drive) is currently a two-lane asphalt roadway (rural cross-section) and is designated in the McKinney MTP as a future principal arterial roadway.

In 2009, the City of McKinney initiated the design of Custer Road between US 380 and FM 1461. This section of Custer Road crosses Bloomdale Road (aka CR 123 or Prosper Trail) and Wilmeth Road. The Custer-Bloomdale intersection will be located at the existing intersection; however, the location of the Custer-Wilmeth intersection has not been determined. The current City of McKinney MTP shows Wilmeth crossing Custer at a point where Whitley Place (a residential subdivision in Prosper) has been constructed.

Since Wilmeth Road can no longer continue west of Custer at Whitley Place, the Custer design consultant was requested to complete a route study to determine the best alignment for Wilmeth Road. The Wilmeth Route Study developed potential routes and analyzed the options within a corridor that started approximately 4,000 feet west of Custer Road to a point approximately 7,000 feet east of Custer Road. The results of the Wilmeth Route Study have been presented and discussed at the following meetings:

- July 20, 2009 - City Council Work Session
- October 13, 2009 - Planning and Zoning Commission (Public Hearing)

- October 6, 2010 - Capital Assets Committee (City Council subcommittee)
- October 19, 2010 - City Council Work Session
- March 26, 2012 - City Council Work Session

Computer models prepared as a part of the study demonstrate the need for the capacity provided by Wilmeth Road for east-west movement through this corridor. These computer models are based on fully-developed conditions; therefore, the Wilmeth connection between Custer and Stonebridge Drive does not need to be completed immediately, but needs to be completed prior to reaching fully developed, built-out conditions. At that time there will be destinations (schools, retail, entertainment, recreation, etc.) that will generate traffic that can only be served by the arterial roadway.

The Wilmeth Route Study indicates the best alignment for the Custer-Wilmeth intersection is at a location that allows Wilmeth Road to be a continuation of First Street.

#### Reasons for Custer-Wilmeth Intersection at First Street

- Efficient Roadway Network
  - Arterial roadways are constructed for their capacity to move traffic.
  - Arterials are most effective when they are continuous through the corridor being served.
  - When an arterial route is compromised by two tee intersections, the combined traffic must travel along the section of arterial that connects the two intersections, thereby overloading that segment.
- Conformance with Master Thoroughfare Plans
  - The County MTP shows the alignment of Wilmeth Road crossing Custer Road at First Street.
  - The Prosper MTP shows the alignment of Wilmeth Road crossing Custer Road at First Street.
  - The McKinney MTP shows the alignment of Wilmeth Road crossing Custer Road at a point north of Wilson Creek; however, because of the construction of the residential development on the west side of Custer (Whitley Place), the alignment shown on the current McKinney MTP is not the appropriate location for Wilmeth Road.

#### Wilmeth Road Alignment East of Stonebridge Drive

- There has been a significant amount of discussion with the residents regarding the alignment of Wilmeth Road east of Stonebridge Drive and they have seen a variety of options for the alignment of Wilmeth Road, one of which shows the alignment east of Stonebridge Drive moving to a location north of CR 124.
- In 2006, the City entered into an agreement with the developer of the large tract of land north of Wilmeth that provides for the alignment to follow CR 124 as shown on the current McKinney MTP.

- This agreement eliminates a modification of the Wilmeth alignment east of Stonebridge Drive, therefore, this MTP amendment changes the alignment of the section of Wilmeth Road between Custer Road and Stonebridge Drive and does not affect the alignment of the section of Wilmeth Road east of Stonebridge Drive.
- The current McKinney MTP shows Wilmeth Road east of Stonebridge Drive will follow the existing roadway (County Road 124).

#### Reasons to Make the Decision Now

- Complete the Design of Custer Road
  - Currently, the design of Custer Road (from US 380 to FM 1461) is on hold, awaiting the determination of the location of the Custer-Wilmeth intersection.
  - The design consultant for Custer Road is currently developing a schematic (general layout) which will need to be approved by the Texas Department of Transportation (TxDOT).
  - After the schematic has been approved by TxDOT and after the design has been finalized, the acquisition of right-of-way will begin.
  - The acquisition is currently scheduled in the FY 2015 City of McKinney Capital Improvements Program.
  - Construction of Custer Road has not been scheduled and cannot begin until funds have been identified. Upon completion of the design and the acquisition of the right-of-way, funding for construction will be identified.
- Dedication of Right-of-Way During Platting / Development
  - Development of property along Custer Road will need to know the footprint of the right-of-way required for Custer Road. If the amount of right-of-way is not known, there is a good chance that the design will be complicated by the addition of retaining walls where a slope would have been more appropriate. This scenario delayed the design and construction of the recently completed section of Custer Road south of US 380 .
  - Owners of two large tracts along the Wilmeth Road alignment have initiated discussion with staff regarding the development of their property. The consultants working for the developers will need to know the location of Wilmeth Road in order to incorporate the arterial and then layout the remainder of their development.
  - The existing McKinney MTP shows Wilmeth Road crossing through the Clark tract (located on the east side of Custer just north of Wilson Creek). Prior to the approval of a plat for the Clark property, the need for Wilmeth ROW must be resolved (dedicate the ROW for Wilmeth Road if it crosses through that tract).

- The existing McKinney MTP also shows Wilmeth Road crossing through the Billingsley tract located north of Wilson Creek between the Clark Tract and Stonebridge Drive. Prior to the approval of a plat for the Billingsley property the need for Wilmeth ROW must be resolved (dedicate the ROW for Wilmeth in the correct location).
- Minimize Inconvenience to Motorists Using Custer Road
  - The existing section of Custer Road has no shoulders and has roadside ditches.
  - The rural nature of this roadway has been appropriate for the lower traffic volumes; however, as was experienced on the section of Custer Road south of US 380, as the traffic volume increased the difficulty of construction increased, resulting in protracted design and construction periods and significant disruption to the adjacent properties.
  - Completion of the design (and construction as soon as possible) is needed to avoid these same issues.
- Traffic Safety and Accident Rate on Custer Road
  - The number of accidents occurring along this section of Custer Road has increased.
  - Residents have asked for the speed limit along Custer Road to be lowered to address the accident issue. While lowering the speed limit will provide some relief, the positive answer to this issue is the widening of the roadway to accommodate the traffic associated with the development.

**PROPOSED AMENDMENTS:** Staff is proposing to amend the Comprehensive Plan by changing the City's Master Thoroughfare Plan to reflect a new alignment of Wilmeth Road from its intersection with Custer Road to the existing planned intersection with Stonebridge Drive. Specifically, the new alignment aligns future Wilmeth Road (a 6-lane, major arterial as shown on the City of McKinney's Master Thoroughfare Plan) with First Street in Prosper (a 4-lane, minor arterial as shown on the City of Prosper's Master Thoroughfare Plan) where they intersect with Custer Road thus creating an appropriate intersection profile and roadway transition. The proposed intersection of Wilmeth Road, Custer Road, and First Street will help to efficiently move large volumes of vehicular traffic as the area continues to develop. All of the other alignments that were considered for Wilmeth Road resulted in traffic congestion and less than preferred levels of service.

**OPPOSITION TO OR SUPPORT OF REQUEST:** Staff has received two letters indicating support for the proposed amendment. No other comments or phone calls in support of or opposition to this request have been received.

**ATTACHMENTS:**

- Proposed Master Thoroughfare Plan
- Existing Master Thoroughfare Plan
- Location Map and Aerial Exhibit

- Letters of Support
- PowerPoint Presentation