



COLLIN COUNTY

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MEMO

Date: September 29, 2015
To: Commissioners Court
From: Clarence Daugherty, P.E., Director of Engineering
Subject: Update on Regional Transportation Projects in the Prosper/Celina Area

As you know several projects have been discussed for some time north of US 380 and west of Preston Road. This item is provided to update the Commissioners Court on the status of these projects and to allow the Commissioners Court to determine if it concurs with progressing with these projects. These projects include Frontier Parkway, the future Dallas North Tollway (DNT) between FM 428 and the County line, the existing DNT east service road, and the future Outer Loop between the DNT and Preston Road.

Judge Self received a letter (attached) from Michael Morris, NCTCOG Director of Transportation and staff support for the Regional Transportation Council (RTC), dated September 10, 2015, in regard to several of these projects. This letter is in response to many discussions between Collin County and the NCTCOG staff about these projects. The following are updates on the projects listed in this letter:

DNT, FM 428 to County line:

Denton County has provided funding to the North Texas Tollway Authority (NTTA) to design and build the west (or future southbound) service road for the future DNT extension from the Collin County line north to the Grayson County line. That leaves a gap between FM 428 and the Collin/Denton County line. Denton County has proposed to provide \$5M in RTR funds to design and build the west (future southbound) service road from FM 428 to the County line to fill in the gap of the extension of the DNT. Michael Morris concurs with this proposal and recommends submitting a revision to the Transportation Improvement Program (TIP) for consideration by the RTC. From the perspective of the Collin County Engineering Department, this appears to be of great benefit to Collin County since it relieves the County of the cost of extending the service road as the County has done in the past.

DNT, US 380 to FM 428:

NCTCOG proposes to fund and conduct traffic signal studies along the existing DNT east (future northbound) service road to determine if replacing current stop signs with traffic signals will improve the traffic flow on this roadway. NCTCOG further proposes to recommend that the RTC fund the installation of any signals that are warranted. Traffic is building quickly along this roadway. While Collin County has initiated the design and construction of the west (future southbound) service road, the improvement of traffic flow with signals in the interim would be of benefit to the travelers along this roadway.

Frontier Parkway, grade separation:

NCTCOG proposes to provide \$4M to help close the funding gap for the grade separation over the BNSF Railroad. NCTCOG's interest is in assisting in the mobility of traffic in the area between DNT and Preston as well as assisting in the development of a principal arterial that will ultimately connect US 75 to the DNT parallel to US 380. The addition of the COG funding brings the funding available to \$16M. There are several options for the first stage development of Frontier Parkway. When inflation of construction prices is taken into account, building the ultimate size of a roadway is the lowest life cost option. However, when current availability of funds and traffic for the mid-term future are taken into account, it is difficult to justify the cost of the full thoroughfare now. It is the judgment of the Engineering Department that two options are worthy of the Court's deliberation:

- (1) Build 4 lanes of the ultimate 6-lane roadway and build one-half of the grade separation bridge structure. Building only half of the ultimate bridge would save money now, but would limit the traffic flow in the immediate area to just two lanes (a third lane could be used for special events, like football games). This leaves a funding gap of about \$2.7M.
- (2) Build 4 lanes and build all of the grade separation so that 4 lanes are available all through the project. The funding gap would be about \$5M.

Prosper and Celina have asked the County manage the Frontier Parkway project. We have requested resolutions of support for this project from Celina and Prosper. Assuming those resolutions are forthcoming, it appears to the Engineering Department that the second option is the most cost effective and the best option for mobility. This will get all of the grade separation (which has been controversial) built as soon as possible and will allow adequate traffic flow for a long period of time without having to return to the project soon to build the other half of the grade separation.

Construction of the Outer Loop from DNT to Preston Road with a Grade Separation at the BNSF Railroad:

The County is already in design for the service road. The grade separation will come when the main lanes are constructed at a later time.

Explore the Concept of the Outer Loop Being a Bypass for US 380:

It is recommended that the County cooperate fully with NCTCOG in such a study, since the 2014 Mobility Study indicates that US 380 will not have adequate capacity for the demand in the future.

It is recommended that the Commissioners Court authorize the Judge to send a letter to Michael Morris indicating the Court's agreement with the transfer of the \$5M in RTR funds for DNT, accepting NCTCOG's offer to study the need for signals along the current service road of the DNT between US 380 and FM 428, acknowledging the need for the Outer Loop connection between DNT and Preston Road and acknowledging the need for further study of the effect of the Outer Loop on the future US 380 traffic. At such time that Prosper and Celina pass resolutions supporting the Frontier Parkway project and the Court determines the County's involvement in the project, a letter could be sent to Michael Morris accepting the \$4M contribution to the Frontier Pkwy grade separation.