

I-74/Dry Fork Road Interchange



Existing Conditions

Functional Classification	I-74 – Interstate
	Dry Fork Road – Minor Arterial
Posted and Design Speed Limits	I-74 – Posted 70 mph, Design 75 mph
	Dry Fork Road – Posted 25 mph, Design 35 mph
Existing Interchange Configuration	Diamond
Existing Lane Configurations	2 lanes on Bridge, 1 lane EB On and Off Ramp and WB On Ramp, 2 lanes WB OffRamp
Deficient Geometric Components	Lack of capacity for AM SB Traffic to EB I-74 and PM WB I-74 Traffic to NB Dry Fork
Traffic Control/Signal Spacing	550' between EB and WB Ramps; both signalized

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An Interchange Modification Study was completed by TEC Engineering, and approved by ODOT, in October of 2019. The study details the impact of existing and future traffic patterns on I-74 at the Dry Fork Road interchange. A growth rate applied to existing traffic volumes and generated volumes for proposed developments were combined to determine design year volumes.

IMS Recommendations:

The area is experiencing growth causing failing levels of service for 2045 on the interstate. The proposed design will improve delay on Dry Fork Road. Following are the recommendations from the IMS:

- Install additional northbound and southbound lane on the bridge to allow for left turn lanes onto I-74
- Increase storage lane lengths to calculated values presented in *Table 6.1*
- Install additional lane on I-74 EB On ramp for NB right turning traffic from Dry Fork Road
- Add NB Right turn lane from Dry Fork Road to I-74 EB
- Add EB Right turn lane on I-74 EB Off ramp
- Add SB Right turn lane from Dry Fork Road to I-74 WB
- Widen shoulders to 13' on bridge and 8' elsewhere
- Rebuild signals to accommodate new lane configurations
- Provide ramp metering at Dry Fork Rd to I-74 Eastbound
- Provide ramp metering at Dry Fork Road to I-74 Westbound

The 2019 Cost Estimate for the aforementioned improvements was \$14.3 million.

Safety Study:

A subsequent Safety Study was completed by TEC Engineering in August 2020. The observations and analysis from this study showed:

- Congestion at signals appears to be a cause for rear end crashes.
- The WB IR-74 off-ramp has long queues during the PM hours.
- Vehicles making the westbound left movement from the WB ramp are often forced to slow down to make the sharp turn.
- Queue blocking occurs on southbound Dry Fork from the IR-74 EB off-ramp.

Countermeasures were included for analysis, and were all identified and prioritized as proposed recommendations from the completed 2019 IMS for the Dry Fork Road interchange. It is possible to complete some of these countermeasures as phased improvements in order to expedite the project if necessary.