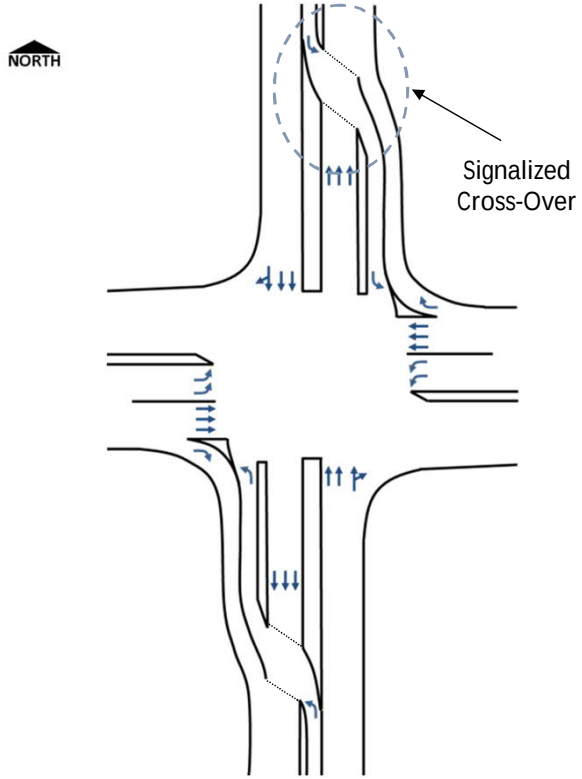
Capacity Analysis for Planning of Junctions (CAP-X) Analysis Alternatives

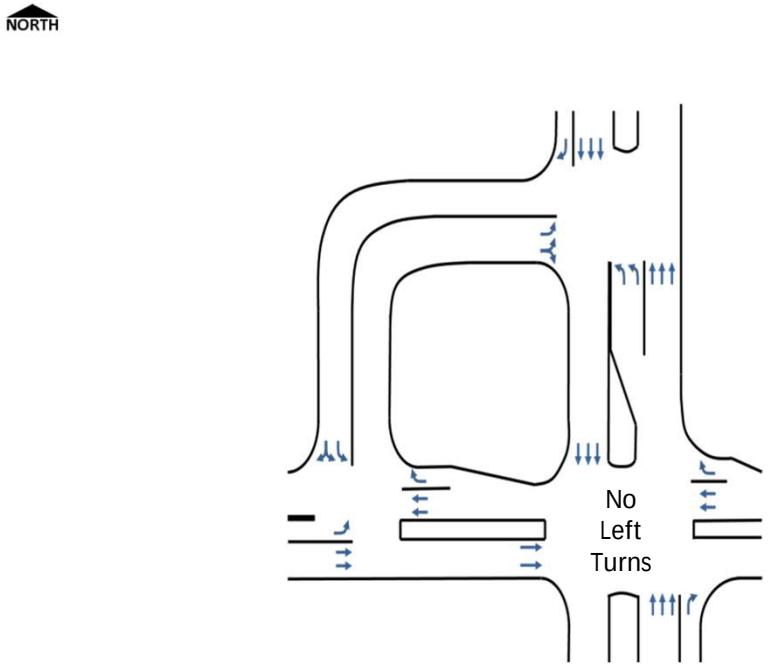
(Research Forest Dr/Grogans Mill Rd and Lake Woodlands Dr/Grogans Mill Rd)
Montgomery County Precinct 3

Potential At-Grade Non-Traditional Intersections



Displaced Left-Turn (Partial N-S Shown)

- Also known as a Continuous Flow Intersection.
- Allows left-turning vehicles and opposing through vehicles to go through the main intersection at the same time.
- Left-turning vehicles "cross over" at new signal before reaching the main intersection.
- Can be used on two legs of the intersection (partial) or all four legs (full).



Quadrant Roadway (N-W shown)

- Also known as a "Jughandle" intersection.
- No left-turns allowed in the main intersection.
- Left-turning vehicles use newly constructed quadrant road.
- Removing left-turns allows more green-time for through vehicles at the main intersection.
- Introduces two new intersections at ends of quadrant roadway.

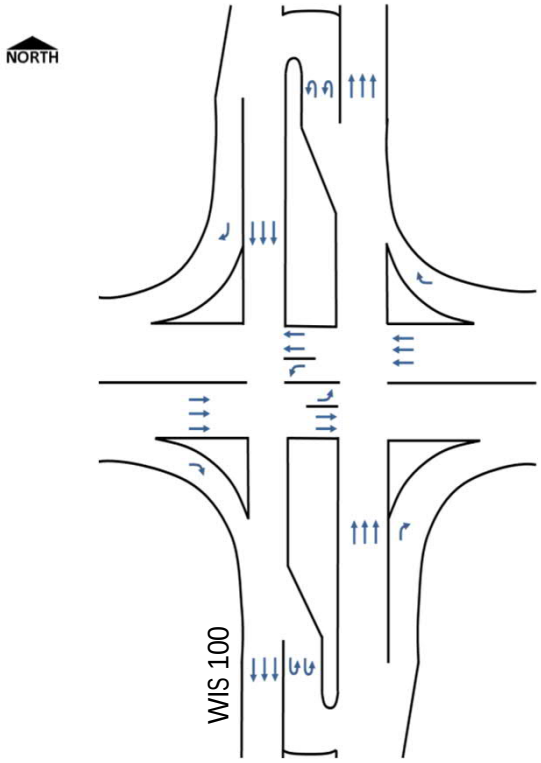
THE STATE OF TEXAS · Montgomery County

STRAND ASSOCIATES®

Capacity Analysis for Planning of Junctions (CAP-X) Analysis Alternatives

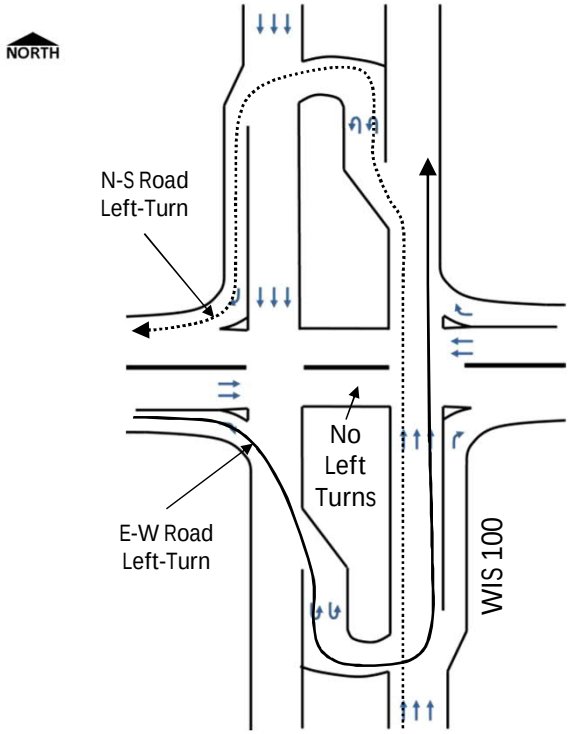
(Research Forest Dr/Grogans Mill Rd and Lake Woodlands Dr/Grogans Mill Rd)
Montgomery County Precinct 3

Potential At-Grade Non-Traditional Intersections



Partial Median U-Turn (N-S Shown)

- Left-turns are allowed for only one of the crossing roadways at the main intersection.
- Left-turns on the other roadway are performed by making a U-turn and a right-turn (similar to Median U-Turn shown on right).
- U-turn locations are recommended to be more than 500 feet from the main intersection.



Median U-Turn (N-S Shown)

- Also known as a Michigan Left-Turn.
- Left-turns are not allowed at the main intersection.
- Left-turns from the major road are performed by making a U-turn and a right-turn (see dashed arrow).
- Left-turns from the minor road are performed by making a right-turn and a U-turn (see solid arrow).
- U-turn locations are recommended to be more than 500 feet from main intersection.

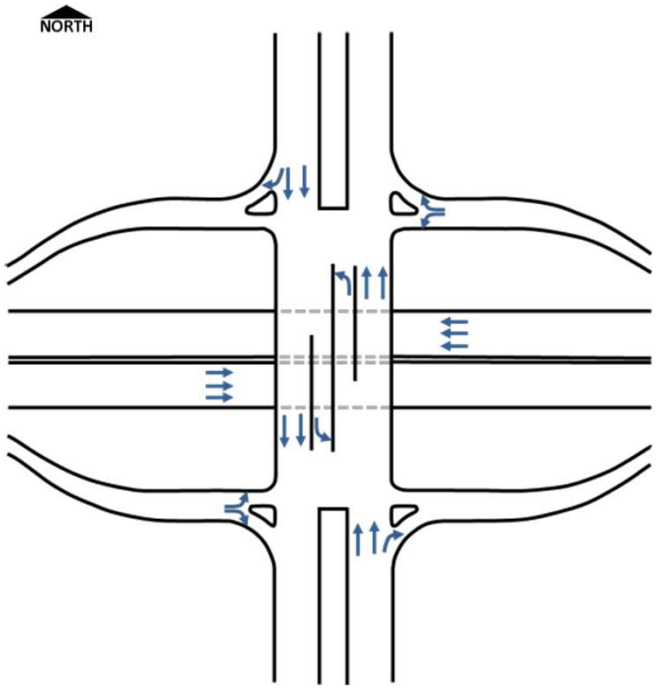
THE STATE OF TEXAS · Montgomery County

STRAND ASSOCIATES®

Capacity Analysis for Planning of Junctions (CAP-X) Analysis Alternatives

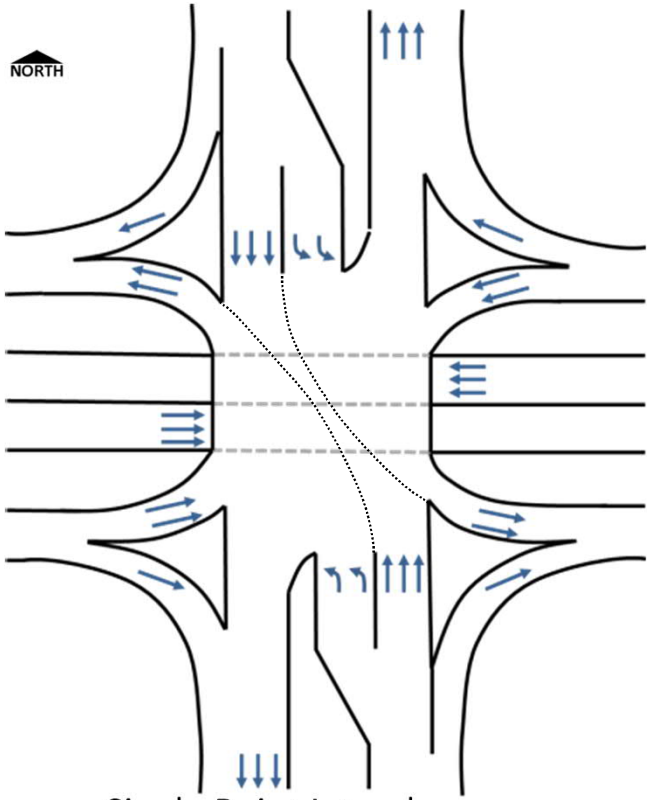
(Research Forest Dr/Grogans Mill Rd and Lake Woodlands Dr/Grogans Mill Rd)
Montgomery County Precinct 3

Potential Grade Separated Interchanges



Tight Diamond Interchange

- One crossing roadway is elevated above the other and ramps are used to connect them.
- Similar to a traditional interchange, but with shorter distance between on and off ramp intersections.



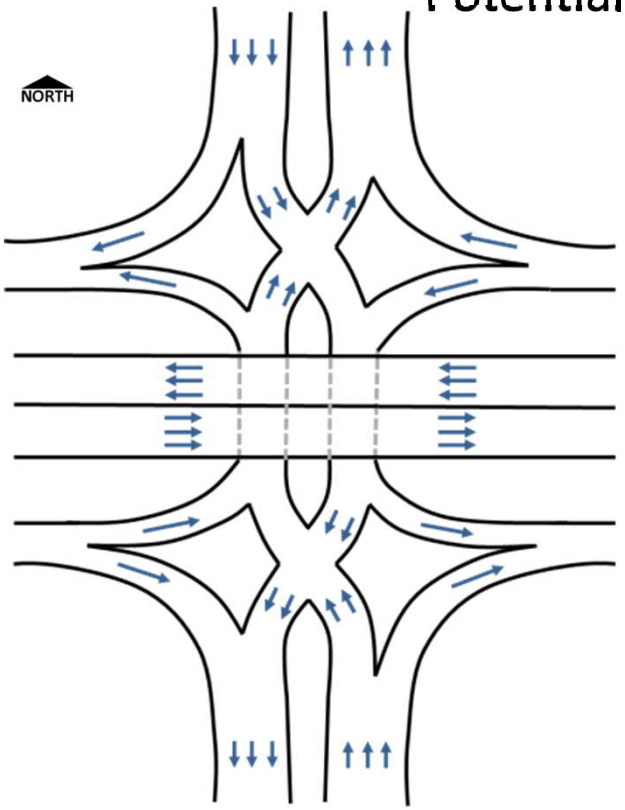
Single Point Interchange

- All on and off ramp traffic travels through one intersection.
- Opposing left turns occur at the same time which moves traffic through faster than a normal interchange.

Capacity Analysis for Planning of Junctions (CAP-X) Analysis Alternatives

(Research Forest Dr/Grogans Mill Rd and Lake Woodlands Dr/Grogans Mill Rd)
Montgomery County Precinct 3

Potential Grade Separated Interchanges



Diverging Diamond Interchange

- Also known as a Double Crossover Diamond Interchange.
- Through and left-turning traffic “crosses over” between the ramp terminals.
- Eliminates conflicting through movements for left-turns.
- Traffic signals allow more vehicles per hour through the intersection.

Intentionally Left Blank

Intentionally Left Blank