

Concept 16 Summary: Interchange 6 - Collector-Distributor Road – Center

DESCRIPTION

Concept 16 seeks to eliminate the existing North Street interchange (Interchange 6) and provide connection to North Street and Tamarack Avenue via Collector-Distributor (CD) Roads. Specific elements of Concept 16 include:

- On the north side of I-84, the CD Road is approximately 1,300 feet in length and will replace Walnut Street.
- On the south side of I-84, the CD Road is approximately 1,600 feet in length.
- CD Roads will be constructed parallel to I-84 between North Street and Tamarack Avenue.
- CD Roads are bidirectional and will consist of one travel lane in each direction and turn lanes at intersections
- I-84 will be connected to CD Roads using button-hook ramps in each direction. This interchange will be referred as Interchange 6.
- I-84 will be reconstructed within the concept limits.
- I-84 will maintain three lanes in each direction east of the button-hook ramps (Interchange 6).
- I-84 will have four lanes in each direction between the Main Street interchange (Interchange 5) and the button-hook ramps (Interchange 6). This provides an auxiliary lane on I-84 to allow entrance and exit ramp movements between the two interchanges.
- Acceleration and deceleration lane lengths will be provided to meet design standards at the CD Road interchanges with I-84 (Interchange 6).
- 5 existing bridges will be replaced, and 1 bridge will be removed.



PROS

- Improves connection to the Danbury Hospital.
- Improves connection to downtown.
- Provides connections to North Street and Tamarack Avenue to/from I-84 via the CD Road.
- Provides an opportunity for east/west pedestrian and bicycle travel along the CD Roads within the concept limits where there is none today.
- Provides an opportunity to enhance public transit use.
- Typical construction methods could be used.
- Interchange 6 becomes a full interchange.
- Improves east/west connections between North Street and Tamarack Avenue
- There are no impacts to known historic resources.

CONS

- Does not reduce congestion or improve mobility on I-84 during the weekday A.M. peak hour in the westbound direction.
- Does not reduce congestion or improve mobility on Route 7 during the weekday P.M. peak hour in the eastbound direction.
- CD Road will experience some congestion and delay.
- Does not address lane continuity on I-84.
- Does not address the left-hand entrance and exit ramps in the I-84 corridor.
- Lacks consistent design speed throughout the I-84 corridor.
- Introduces weaving between Interchanges 5 and 6.
- Does not propose changes to the existing interfaces to local streets at interchanges 1, 2, 3, 4, 5, 7, and 8.
- CD Road would largely be constructed outside of the existing highway right-of-way, resulting in property impacts, many of which would occur in an Environmental Justice community.
- Community cohesion is impacted by dead-ending 2 local streets.
- Modest increases in noise levels are likely to occur at some locations.
- Highway would be closer to certain residential properties as compared to existing conditions, thus impacting aesthetics.
- Water resource impacts are anticipated near stream crossings associated with bridge modifications and replacements.

RECOMMENDATION

This concept provides a partial solution. This concept does not reduce congestion or improve mobility on the highway. This concept will impact multiple properties many of which would occur in an EJ community. Anticipated environmental impacts associated are expected to be moderate, with mitigation alternatives available to offset most impacts. Therefore, it is recommended that C16 be advanced further and be combined with a concept that addresses congestion and mobility outside the limits of the concept.