

Concept 14 Summary: Collector Distributor (CD) Road Eastbound - East

DESCRIPTION

Concept 14 seeks to improve congestion and mobility by constructing an eastbound collector distributor (CD) road between Interchanges 7 and 8 to eliminate the weaving condition. I-84 will be three lanes in each direction between Interchanges 7 and 8. Other elements of Concept 14 include:

- CD Road will be a one-way roadway which runs parallel to I-84 and will consist of one travel lane in the eastbound direction.
- CD Road is approximately 0.8 miles in length in the eastbound direction and will begin at the off ramp from I-84 to Route 7 (Interchange 7) and end at the on-ramp to I-84 near Interchange 8.
- Existing left-hand ramps to/from Route 7 will be replaced with right-hand ramps at Interchange 7.
- Acceleration and deceleration lanes will be extended on I-84 at Interchanges 7 and 8.
- Horizontal curve on I-84 westbound at Interchange 7 will be improved to increase design speed.
- Shoulder improvements will be made along the mainline between Interchanges 7 and 8 (i.e. widen shoulder and upgrade guide rails).
- I-84 eastbound on-ramp is relocated approximately 1,000 feet east of its current location on U.S. Route 6.
- Route 6 westbound traffic can get direct access to I-84 eastbound via a slip ramp.
- I-84 westbound off-ramp is relocated approximately 700 feet west of its current location on U.S. Route 6.
- Local street improvements are proposed on Newtown Road (SR 806) and U.S. Route 6.
- 5 new bridges, replace 9 existing bridges, and remove 4 bridges.



Pros

- Lane continuity is maintained within the study limits.
- Left-hand ramps are replaced with right-hand ramps at Interchange 7.
- Peak hour delay will be reduced within concept limits.
- Addresses traffic weaving between Interchanges 7 and 8 in the eastbound direction.
- Addresses traffic circulation at Newtown Road and U.S. Route 6.
- Horizontal curve is improved on I-84 in the westbound direction at Interchange 7.
- Stopping sight distance is improved on I-84 in the westbound direction at Interchange 7.
- Acceleration and deceleration lane lengths are improved at Interchanges 7 and 8.
- Typical construction methods could be used.
- No impacts to Section 4(f) properties.
- No impacts to known historic resources.

Cons

- Does not address traffic weaving between Interchanges 7 and 8 in the westbound direction.
- Lacks consistent design speed throughout the I-84 corridor.
- Does not propose improvements at interchanges 1, 2, 3, 4, 5, and 6.
- Interchange 6 remains a partial interchange.
- Does not improve access to the Danbury Hospital.
- Unfamiliar and may create confusion for drivers.
- Does not provide an opportunity to enhance pedestrian, bicycle, and public transit use.
- Potential direct impacts to natural gas pipeline.
- Substantial utility relocations on Route 6.
- Water resource impacts are anticipated near stream crossings associated with bridge modifications and replacements.
- Highway will be closer to certain residential properties as compared to existing conditions, thus potentially impacting aesthetics.

RECOMMENDATION

This concept provides a partial solution. This concept reduces travel time and delays within the limits of the proposed improvement, but it pushes the congestion from one end of the project corridor to the other. This concept is feasible from an engineering and constructability standpoint. This concept has a moderate probability of causing significant or irreparable harm to the natural or human environment.

It is recommended that this concept be combined with a concept that addresses congestion and mobility adjacent to the highway.

