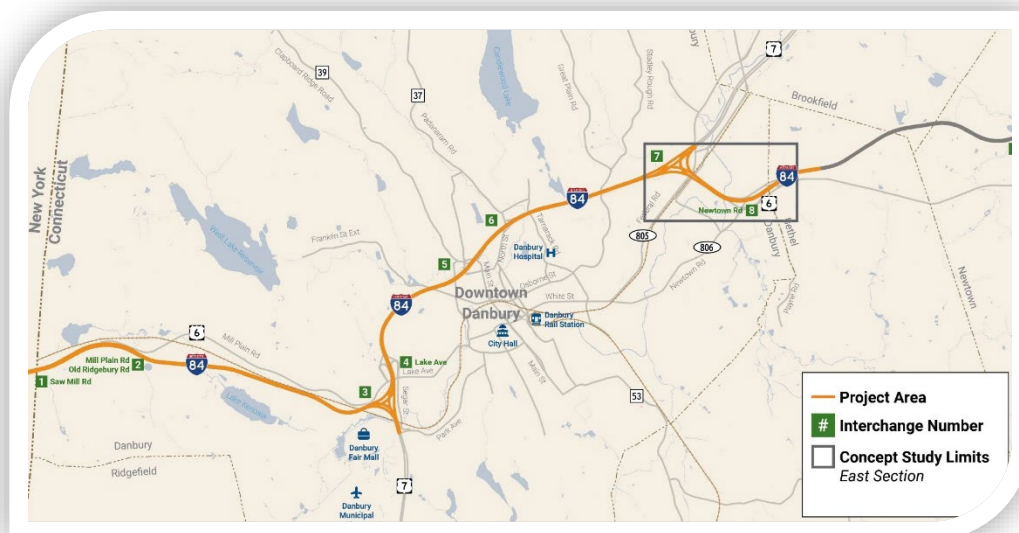


Concept 15 Summary: Collector-Distributor Roads – East

DESCRIPTION

Concept 15 seeks to provide three lanes in each direction on I-84 between Interchanges 7 and 8. Collector-Distributor (CD) Roads are provided in each direction between Interchanges 7 and 8 to eliminate the weaving condition. The CD Roads will be a one-way pair parallel to I-84 and will consist of two travel lanes in each direction. Specific elements of Concept 15 include:

- 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.
- CD Road is approximately 1.0 mile in length in the westbound direction and will begin at the Newtown Road (SR 806) on-ramp (Interchange 8) and end at the merge with I-84 near Interchange 7.
- Route 7 northbound does not have direct access from I-84 westbound and access is provided via the CD Road in the westbound direction.
- 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.
- I-84 eastbound on-ramp will be relocated approximately 1,000 feet east of its current location on U.S. Route 6.
- I-84 westbound off-ramp will be 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.
- Shoulder improvements will be made along the mainline between Interchanges 7 and 8 (i.e., widen shoulder and upgrade guide rails).
- 7 new bridges, replace 8 existing bridges, and remove 5 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 on I-84 between Interchanges 7 and 8.
- 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.
- Residential impacts largely occur within properties along one street.
- There are no impacts to any cemeteries.
- No impacts to Section 4(f) properties.
- No impacts to known historic resources.

CONS

- Creates a weave on the eastbound CD Road between Interchanges 7 and 8
- 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 advanced into the Concept Combination Screening process.