

Section 4B:

Preferred Refined Option:

Description:

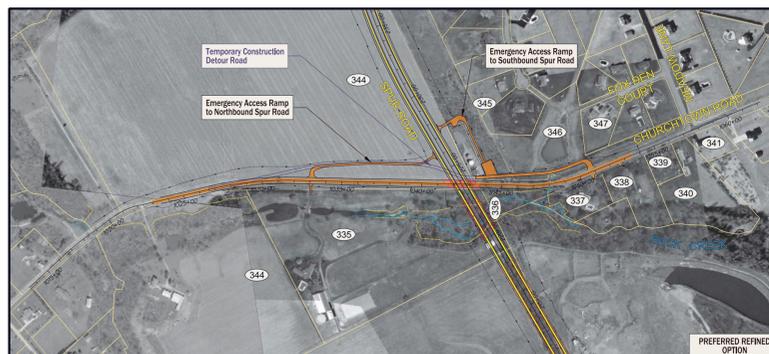
- The refined option would construct the Churchtown Road overpass slightly to the south of the existing roadway location, with Tidewater Utility access drive located to the north of the new Churchtown Road overpass.
- A temporary extension of this access drive would provide through access during construction for emergency services only (Much of the drive will remain after the overpass is completed for use by authorized vehicles to access the US 301 Spur Road.)

Advantages:

- Churchtown Road located farther from Chesapeake Meadow community, when compared to FEIS/ROD Option
- Reduces project costs by over \$2 million, by reducing the length of Churchtown Rd. Bridge (does not span the access drive to Tidewater Utilities).
- Reduces the number of bridge spans from three to two which reduces construction and long term maintenance costs.
- Reduces temporary construction impacts to Chesapeake Meadow's open space by 2,000 s.f.
- Provides a road to maintain emergency services traffic during construction, located on the westerly side of the US 301 Spur Road, will be used as a permanent access road after construction for use by emergency and police vehicles thus reducing temporary pavement costs.
- Eliminates need for a retaining wall proposed by the ROD alignment between Tidewater Utilities access drive and the adjacent stream and parcels on the south side of Churchtown Road, which reduces construction and long-term maintenance costs.
- Eliminates impacts of ROD Option to Carter (parcel 337) and Bailey (parcel 338) parcels. The ROD impacts eliminated include:
 - ▶ Edge of Tidewater Utilities access drive would have been approximately thirty feet from the edge of the house on the Bailey parcel, which could have resulted in a possible relocation. However, it is unclear if condemnation may be used to relocate a commercial access drive.
 - ▶ In order to intersect with Churchtown Road, the profile of the access drive would have been approximately two feet above existing ground on the Bailey parcel.
 - ▶ There are currently two large Japanese Red Maple trees located on each corner of the house on the Bailey parcel. The tree located closest to the access drive would have to be removed.
 - ▶ Potential impacts to wells and septic systems.
- Eliminates the need for a shared commercial and residential access.
- Improves access and maneuverability to Tidewater Utilities facility (preferred alternative of Tidewater Utilities).
- Improves access for other utility companies crossing the US 301 Spur Road to utilities at right-of-way denial of access line.
- Improves vertical geometry of Churchtown Road overpass. The vertical approach grades are less steep since roadway only needs to pass over the US 301 Spur Road and not the Tidewater Utilities access drive (approximately 1.5' of height reduction in vertical profile).
- The Refined Option would:
 - ▶ Require almost 2.65 acres less total area
 - ▶ Reduce forest impacts (-0.11 acre)

Disadvantages:

- Tidewater Utilities' access drive on the north side of Churchtown Road has greater impacts to Chesapeake Meadow's open space including:
 - 125 s.f. permanent easement
 - 13,800 s.f. Right-of-Way
 - Greater number of trees impacted/removed in open space. However these trees will be replaced.
- The proposed Churchtown Road alignment closely follows the existing roadway alignment and as a result is shifted closer to the Zapata parcel (parcel 335). At Zapata's westerly property limits the proposed baseline is shifted approximately 25 feet north of the existing baseline compared to an approximately 100 feet northerly shift on the ROD alignment.
- The Refined Option would:
 - ▶ Increase impacts to wetlands (0.01 acre)
 - ▶ Increase impacts to streams (8.8 linear feet)
 - ▶ Increase impacts to hydric soils (0.46 acre)



PREFERRED REFINED OPTION



FEIS/ROD Option:

Description:

- The ROD Option proposes the Churchtown Road overpass slightly to the north of the existing roadway, with the existing roadway serving as access during construction and ultimately for access to the Tidewater Utilities.
- propose the Churchtown Road overpass slightly to the north of the existing roadway, with the existing roadway serving as access during construction and ultimately for access to the Tidewater Utilities.

Advantages:

- Reduced impacts to Chesapeake Meadow's open space.
- The FEIS/ROD Option:
 - ▶ Decreases impacts to wetlands (0.01 acre)
 - ▶ Decreases impacts to streams (8.8 linear feet)
 - ▶ Decreases impacts to hydric soils (0.46 acre)
 - ▶ Decreases impacts to prime farmland soils (0.49 acre)

Disadvantages:

- Increases project costs by over \$2 million, when compared to the Preferred Refined Option, as a result of increased length of Churchtown Rd. Bridge (spans the access drive to Tidewater Utilities).
- Increases the number of bridge spans from two to three which increases construction and long term maintenance costs.
- Requires a retaining wall between Tidewater Utilities access drive and the adjacent stream and parcels on the south side of Churchtown Road, which increases construction and long-term maintenance costs.
- Significant increases impacts to Carter (parcel 337) and Bailey (parcel 338) parcels located on the south side of Churchtown Road due to Tidewater Utilities access drive.
- Provides a shared commercial and residential access.



FEIS/ROD OPTION