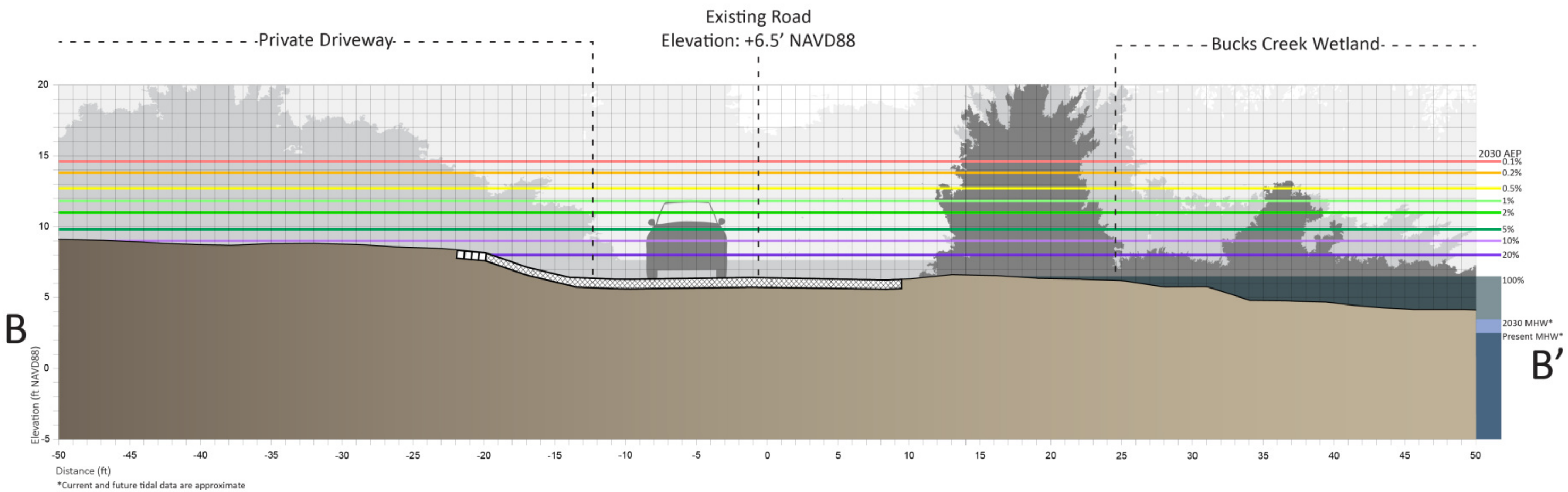


# EXISTING CONDITIONS

Ridgevale Road, Chatham



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Ridgevale Road, Chatham





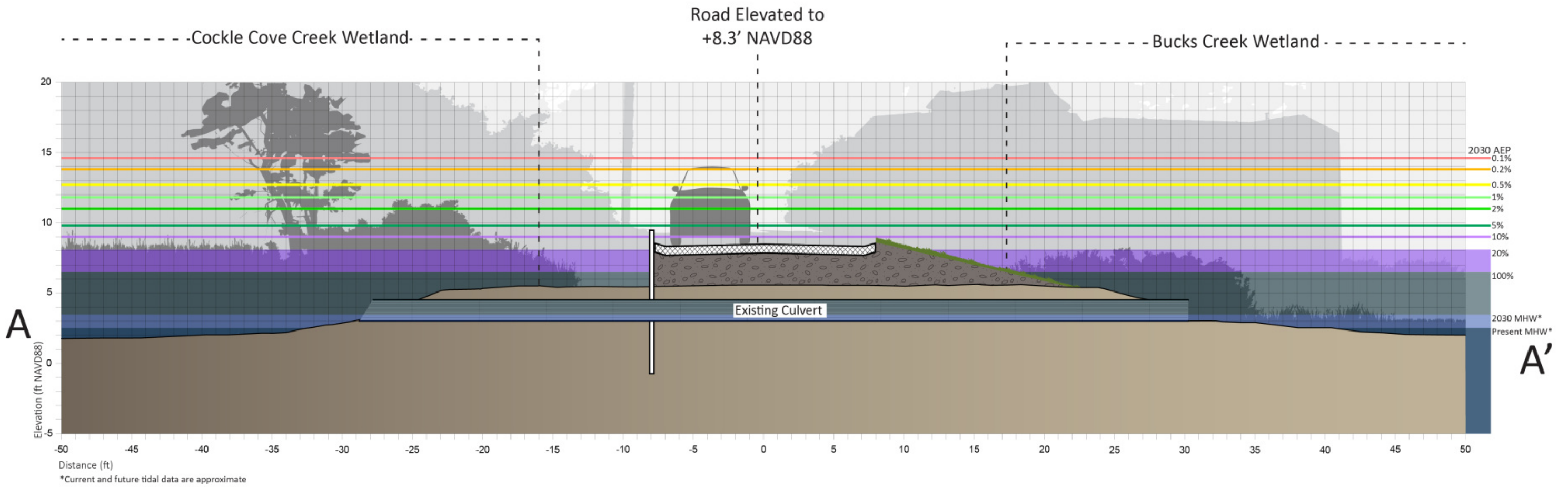
Note: Project overlap with wetland areas, rights of way and property lines is approximate and needs confirmation with a site survey



#### ALTERNATIVE 1: GRAY

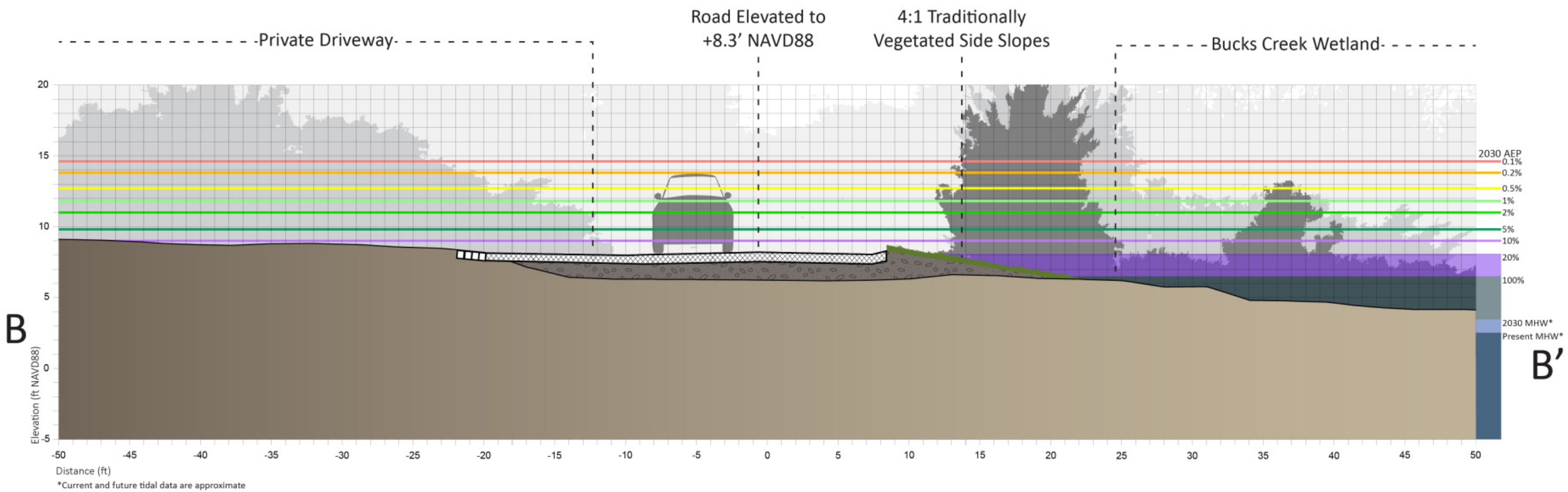
844 linear feet of town-owned road are elevated from a lowest point of +5.5' NAVD88 to a lowest point of +8.3' NAVD88 using 4:1 traditionally vegetated side slopes and sheet pile. The road slopes to meet the existing road elevation near Nantucket Drive.





## ALTERNATIVE 1: GRAY

Ridgevale Road, Chatham



# ALTERNATIVE 1: GRAY

Ridgevale Road, Chatham





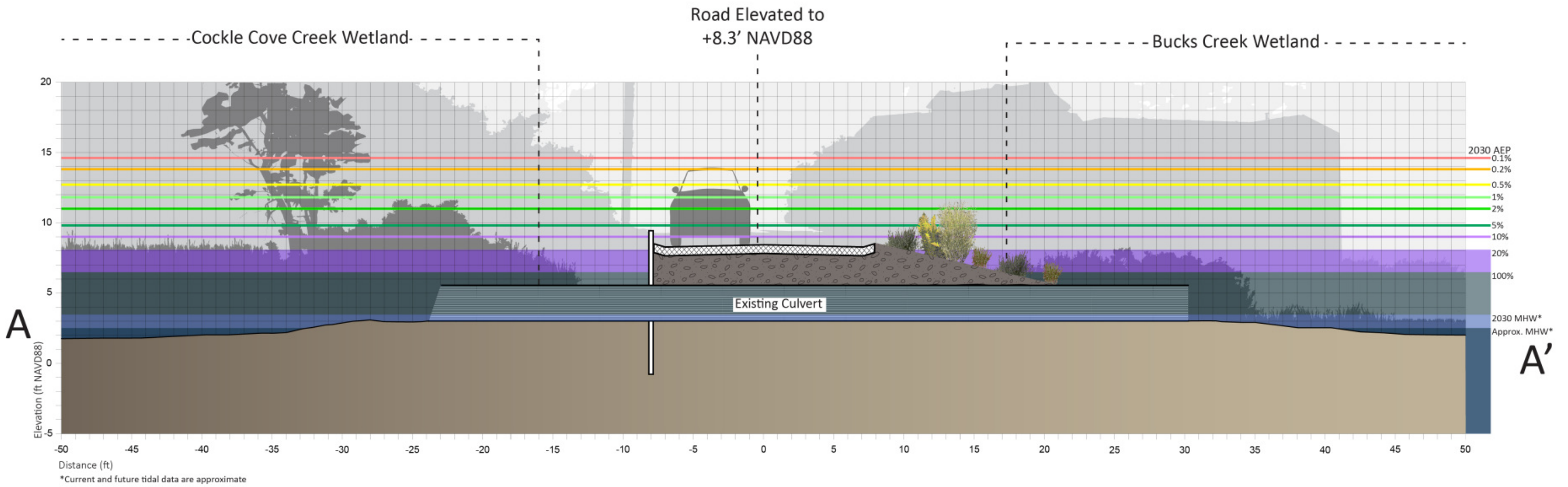
Note: Project overlap with wetland areas, rights of way and property lines is approximate and needs confirmation with a site survey



#### ALTERNATIVE 2: HYBRID

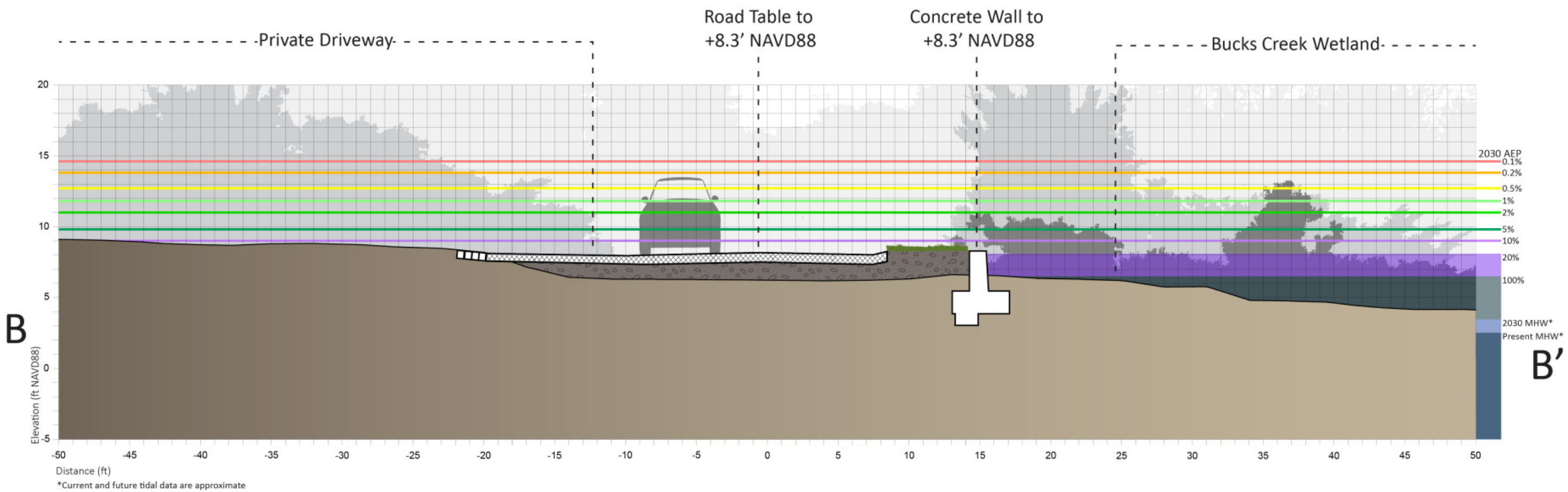
415 linear feet of town-owned road between Cranberry Lane and Ridgevale Rd S are elevated from a lowest point of +5.5' NAVD88 to a lowest point of +8.3' NAVD88 using 4:1 native vegetated side slopes and sheet pile. The culvert under the road is upsized. A 250 linear foot wall reaching elevation +8.3' NAVD88 is constructed on the eastern side of the road south of Ridgevale Road S. A road table ties the wall elevation in to a driveway and maintains access to the southernmost house on Ridgevale Road.





## ALTERNATIVE 2: HYBRID

Ridgevale Road, Chatham



## ALTERNATIVE 2: HYBRID

Ridgevale Road, Chatham



# RIDGEVALE ROAD, CHATHAM

## Summary of alternatives

	Description	Critical Elevation (NAVD88)	Annual Exceedance Probability			Vulnerable to Tidal Flooding†	Wetland Impacts	Impacts to Private Property	Estimated Cost*
			2030	2050	2070				
<b>EXISTING</b>	A segment of 18 foot wide road leading to a neighborhood and beach.	5.5 feet	100%	100%	100%	2070	N/A	N/A	N/A
<b>ALTERNATIVE 1: GRAY</b>	844 linear feet of town-owned road are elevated from a lowest point of +5.5' NAVD88 to a lowest point of +8.3' NAVD88 using 4:1 traditionally vegetated side slopes and sheet pile. The road slopes to meet the existing road elevation after the southernmost house.	8.3 feet	10%	20%	100%	No	Minimal	Moderate	\$1,660,000
<b>ALTERNATIVE 2: HYBRID</b>	415 linear feet of town-owned road are elevated to +8.3' NAVD88 using 4:1 native vegetated side slopes and sheet pile. The culvert under the road is upsized. A 250 linear foot wall reaching elevation +8.3' NAVD88 is constructed on the eastern side of the road south of Ridgevale Road South. A road table ties the wall elevation in to a driveway and maintains access to the southernmost house on Ridgevale Road.	8.3 feet	10%	20%	100%	No	Possible benefits from larger culvert	Moderate	\$1,440,000

\*2023 installed material cost +40% escalation (through 2029) and 15% contingency. Excludes design, permitting, mobilization, stormwater and wastewater infrastructure, and site controls. Costs based on experienced contractor opinion and MassDOT costing data.

†Future tidal datums are approximate.