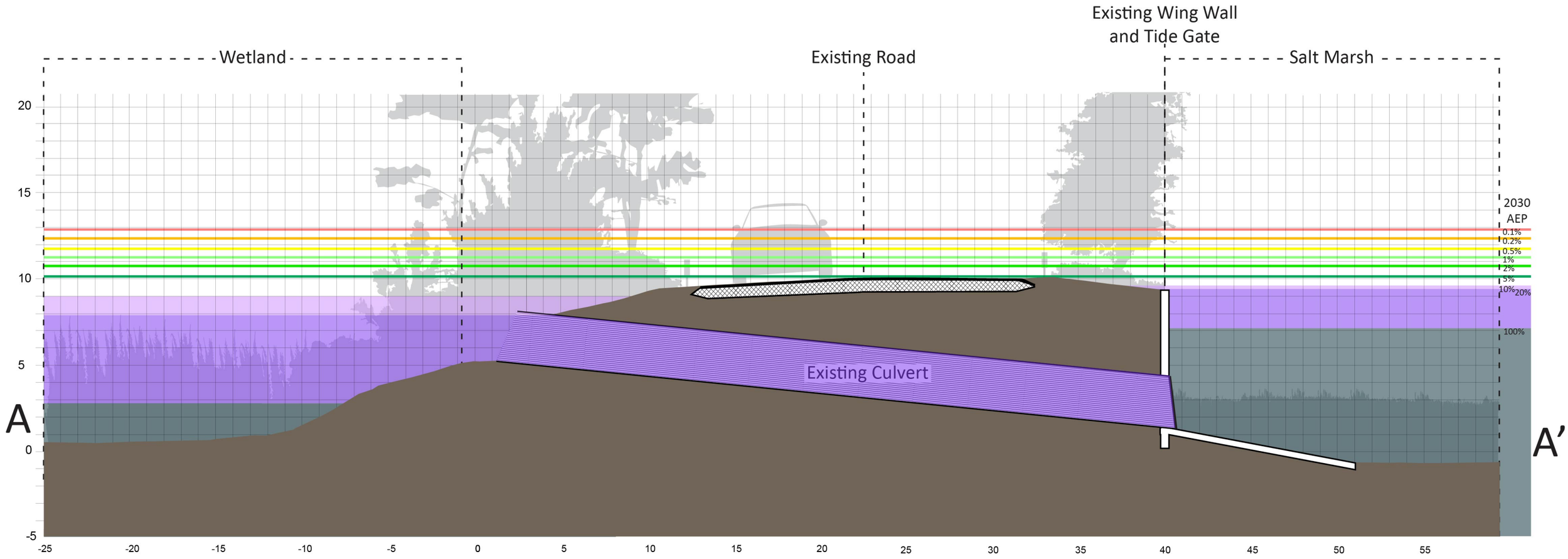
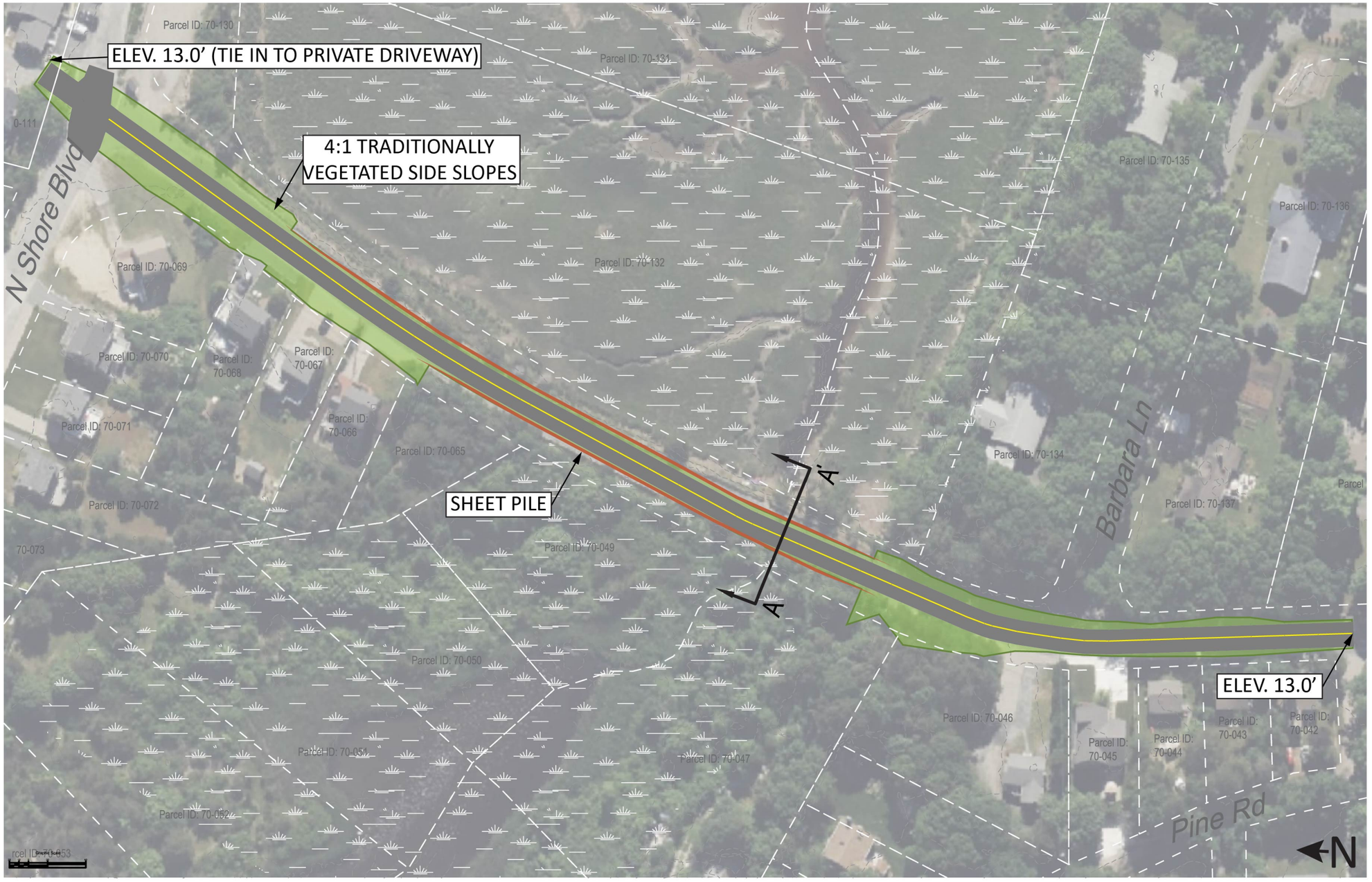
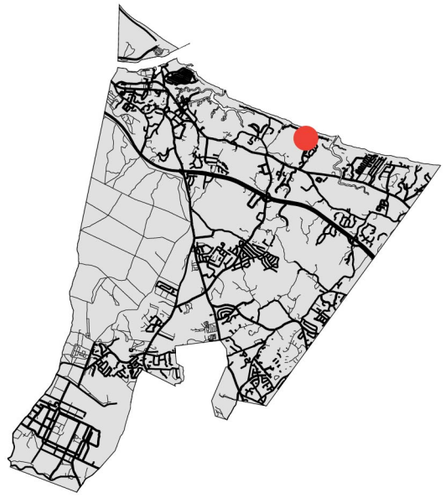


EXISTING CONDITIONS

Ploughed Neck Road, Sandwich

WOODS HOLE GROUP
A CLS COMPANY





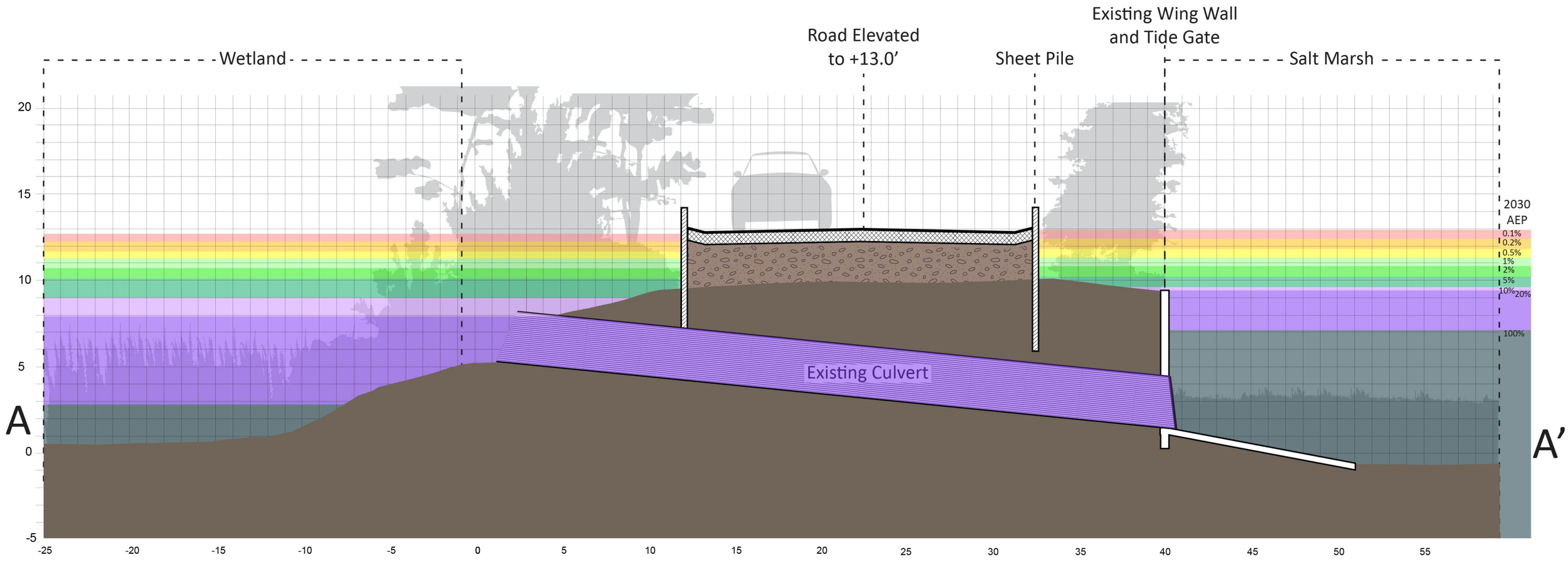
Ploughed Neck Road
SANDWICH

ALTERNATIVE 1: GRAY

1088 linear feet of Town-owned road are elevated from a lowest point of 9.6 feet to a lowest point of 13.0 feet. Sheet pile is used near the culvert crossing to minimize impacts to wetlands.

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

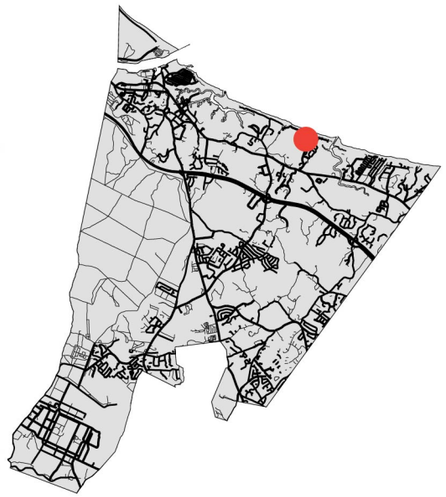
WOODS HOLE GROUP
A CLS COMPANY



ALTERNATIVE 1: GRAY

Ploughed Neck Road, Sandwich

WOODS HOLE GROUP
A CLS COMPANY



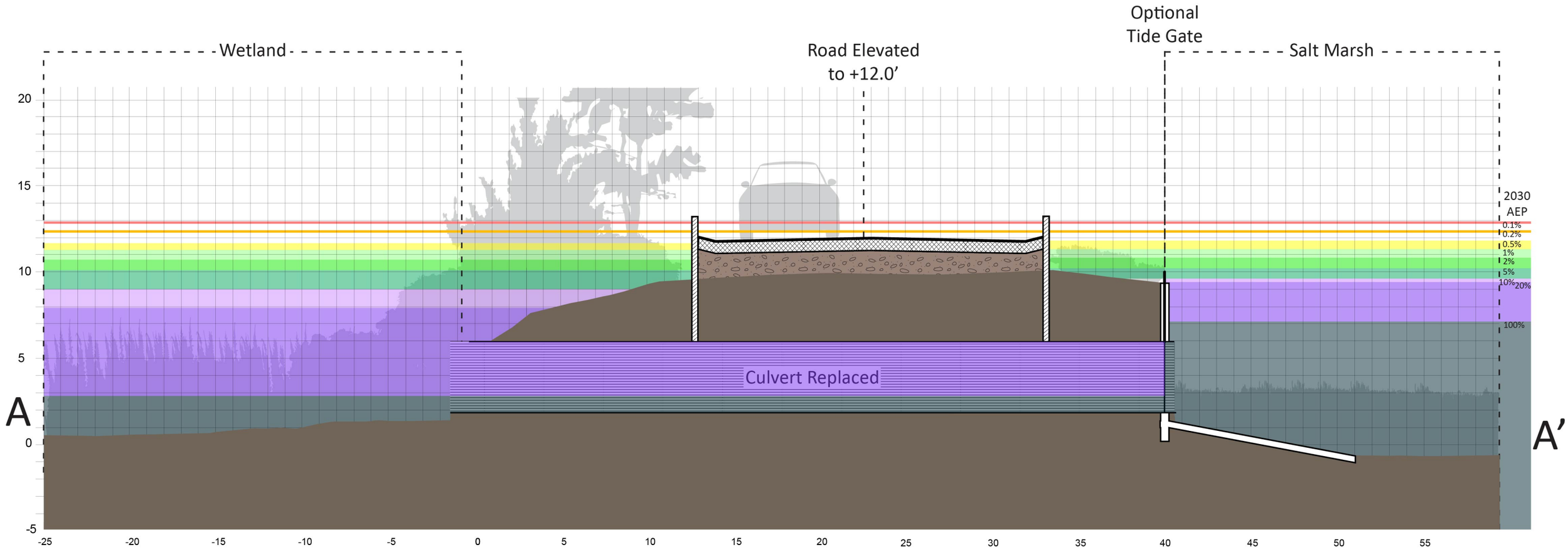
Ploughed Neck Road
SANDWICH

ALTERNATIVE 2: HYBRID

9488 linear feet of Town-owned road are elevated from a lowest point of 9.6 feet to a lowest point of 12.0 feet. Sheet pile is used near the culvert crossing to minimize impacts to wetlands. The culvert is replaced to allow for tidal flow, and there is the option to add a tide gate.

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

WOODS HOLE GROUP
A CLS COMPANY



ALTERNATIVE 2: HYBRID

Ploughed Neck Road, Sandwich

WOODS HOLE GROUP
A CLS COMPANY

PLOUGHED NECK ROAD, SANDWICH

Summary of alternatives

	Description	Critical Elevation	Annual Exceedance Probability			Vulnerable to Tidal Flooding	Impacts to Wetlands	Impacts to Private Property	Estimated Cost*
			2030	2050	2070				
EXISTING	A segment of 20ft wide road with a sidewalk and culvert crossing.	9.6 feet	10%	20%	100%	N/A	N/A	N/A	N/A
ALTERNATIVE 1: GRAY	1088 linear feet of Town-owned road are elevated from a lowest point of 9.6 feet to a lowest point of 13.0 feet. Sheet pile is used near the culvert crossing to minimize impacts to wetlands.	13.0 feet	0%	0.5%	10%	N/A	Minimal	Yes	$428,000
ALTERNATIVE 2: HYBRID	9488 linear feet of Town-owned road are elevated from a lowest point of 9.6 feet to a lowest point of 12.0 feet. Sheet pile is used near the culvert crossing to minimize impacts to wetlands. The culvert is replaced to allow for tidal flow, and a tide gate is added.	12.0 feet	0.2%	5%	20%	N/A	Potential Positive	Minimal	$397,000

*Installed material cost +20% contingency. Excludes design, permitting, mobilization, stormwater and wastewater infrastructure, and site controls. Costs based on RSMeans 2021 cost book and adjusted for inflation and region.