

Hart Rd (SR 1534) Flood Mitigation

from Everett Rd (SR 1533) to Eagles Nest Ln

Local ID: TRAN0057-H

Purpose: Facility Deficiencies

Improvement: Improve Existing

Identified Need

Hart Rd (SR 1534) flooded multiple times in 2018, again in 2020 and twice in 2021. At least one event saw major erosion that left the road closed for months. When the flooding occurs, access is limited to a narrow gravel road creating an additional 20-30 minutes of travel time.

Recommendation

Raise the grade on Hart Road, replace 48" CMP carrying unnamed tributary under Hart Road with 137" x 87" CSPA, install equalizer pipes, right of way, utilities, grade and pave road, erosion control, and traffic control.



Proposal At A Glance

Highway Class	Other
Facility Type	Minor Thoroughfare
Typical Section	02 C
Section Options	-
Length (miles)	0.53
Existing ROW (feet)	
Safety Risk Score	-

Proposal Data: 2017 Base Year 2045 Future Year

Improved Route	2017 Base Year		2045 Future Year	
	Existing	Without Proposal	Without Proposal	With Proposal
Facility Type	Minor Thoroughfare	-	-	Minor Thoroughfare
Travel Lanes	2	2	2	2
Volume (vpd)	2000	2500	2500	2500
Capacity (vpd)	9000	9000	9000	9000

Capacity Data: Year

Facility will be Approaching Capacity (>80%)	-
Facility will be Over Capacity (>=100%)	-

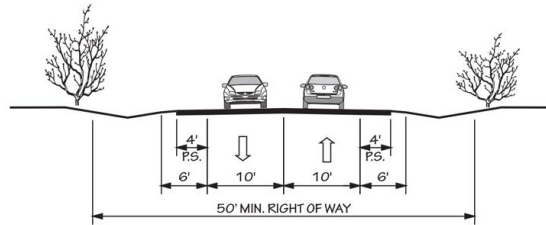


Typical Section Options:

None

TYPICAL SECTION No. 2C

2 LANE UNDIVIDED WITH PAVED SHOULDERS



POSTED SPEED 25-35 MPH

Current Conditions

FEMA published Water Surface Elevation (WSEL) for this location are

- 10 Year - 2090.0 ft
- 50 Year - 2091.5 ft
- 100 Year - 2093.2 ft

The existing condition has the overtopping elevation of Hart Rd. at elevation 2088.5 ft. The current level of service is the 2 year event. To achieve the target 25 year level of service the NCDOT Hydraulics Unit recommends a combination of replacing the existing CMP and raising the minimum elevation to 2092 ft.