

Dummer-Cambridge-Errol 16304B NH 16 Alternative Matrix

Project Purpose and Need: The purpose of the project is to address the poor condition of the pavement and road base and provide a sustainable roadway that maintains the connectivity of the corridor, minimizes long-term maintenance and risk resulting from the proximity of the Androscoggin River, and preserves the scenic quality of the surrounding area. It is needed because the NH 16 is in poor condition and frost heaves impede the winter maintenance activities. Additionally, slope stabilization is needed to maintain the integrity of the existing roadway in its current location.

CORRIDOR OPTIONS SUMMARY - 06/05/2020

Online	BENEFITS	CONCERNS	IMPACTS	ESTIMATED COST	
11-4 TYP (SHIFT 2') 2:1 - 6:1 SLOPES GUARDRAIL NEEDED ~ 5000 LF PURPOSE AND NEED NOT ADDRESSED	FITS WITHIN EXISTING ROW MINIMAL MUCK EXCAVATION	MAY NOT BE PERMITTABLE LIMITED BOX W/ CROSS DRAINAGE ONLY AOT NOT MET - NO TREATMENT POSSIBLE BANK STABILIZATION NEEDED FUTURE ROAD IMPROVEMENTS LIKELY MAJOR RIVER IMPACT MAJOR TRAFFIC CONTROL ISSUES NO SPACE TO ADD FLOOD STORAGE	PERM. WETLAND IMPACT: 1.8 ACRES PERM. BANK/CHANNEL IMPACTS: ~ 5800 LF FLOODPLAIN IMPACT : 2970 CY FILL WITHIN REGULATORY FLOODWAY ROW REQUIRED: NONE	\$6,400,000 ROADWAY \$1,700,000 ARM FUND \$8,100,000 TOTAL	
Partial Alignment Shift 11-4 TYP (SHIFT 15') 2:1 - 6:1 SLOPES GUARDRAIL NEEDED ~ 1500 LF PURPOSE AND NEED PARTIALLY ADDRESSED	FULL BOX W/ LIMITED DRAINAGE MINIMAL MUCK EXCAVATION FITS WITHIN EXISTING ROW	MAY NOT BE PERMITTABLE AOT NOT MET - NO TREATMENT POSSIBLE FUTURE BANK STABILIZATION LIKELY MINOR RIVER IMPACT TRAFFIC CONTROL ISSUES LIMITED SPACE TO ADD FLOOD STORAGE	PERM. WETLAND IMPACT: 2.6 ACRES PERM. BANK/CHANNEL IMPACTS: ~ 1000 LF FLOODPLAIN IMPACT : 2560 CY FILL WITHIN REGULATORY FLOODWAY ROW REQUIRED: DRAINAGE EASEMENTS	\$6,400,000 ROADWAY \$650,000 ARM FUND \$7,050,000 TOTAL	
Full Alignment Shift (Offline) 11-4 TYP(50' Offset) 4:1 - 6:1 SLOPES (OR Flatter) NO GUARDRAIL PURPOSE AND NEED MET	FULL BOX W/ DRAINAGE NO RIVER IMPACT MINIMAL RIVER BANK IMPACT ROAD MOVED BEYOND RIVER'S INFLUENCE MINOR TRAFFIC CONTROL AOT MET	MUCK EXCAVATION REQUIRED WATER QUALITY CERTIFICATION NEEDED APPROVAL FROM GENERAL COURT DUE TO IMPACTS TO LCHIP PROPERTY	PERM. WETLAND IMPACT: 5.8 ACRES PERM. BANK/CHANNEL IMPACTS: ~1200 LF FLOODPLAIN IMPACT : 4450 CY NO FILL IN FLOODWAY ROW REQUIRED: 9.7 ACRES	\$6,800,000 ROADWAY \$1,200,000 ARM FUND \$8,000,000 TOTAL	
Full Shift Variation (Preferred) 11-4 TYP 4:1 - 6:1 SLOPES (OR Flatter) NO GUARDRAIL PURPOSE AND NEED MET	FULL BOX W/ DRAINAGE NO RIVER IMPACT NO RIVER BANK IMPACT ROAD MOVED BEYOND RIVER'S INFLUENCE MINOR TRAFFIC CONTROL AOT MET	MUCK EXCAVATION REQUIRED WATER QUALITY CERTIFICATION NEEDED APPROVAL FROM GENERAL COURT DUE TO IMPACT TO LCHIP PROPERTY	PERM. WETLAND IMPACT: 5.1 ACRES PERM. BANK/CHANNEL IMPACTS: ~1200 LF FLOODPLAIN IMPACTS: 1920 CY NO FILL IN FLOODWAY ROW REQUIRED: 11.0 ACRES	\$6,700,000 ROADWAY \$1,100,000 ARM FUND \$7,800,000 TOTAL	