



# ALTERNATIVES COMPARISON MATRIX

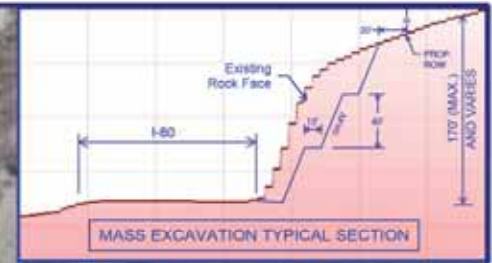
Alternative Number	Alternative Name	Description	Meets Purpose and Need	Right-of-Way Impact	Required Ongoing Maintenance	Construction Impact	Construction Duration (Years)	Requires Lane Closures	Visual Impact	Ecological Impact	Open Space/ Recreation Impact	Anticipated Construction Cost
1	Mass Excavation	Loose rocks, cobbles and debris collected, boulders broken up and scaled	Yes	Yes	Moderate	High	5-10	Yes	High	Moderate	High	\$150 Million
2	Temporary Right-of-Way Impacts	Rockfall source areas are temporarily mitigated on National Park Service lands without using permanent rock stabilization techniques	Yes	Yes	Low	Moderate	4-5	Yes	High	Moderate	Moderate	\$38 Million
3	Permanent Right-of-Way Impacts	Rockfall source areas are permanently mitigated and safely secured on National Park Service lands	Yes	Yes	Moderate	High	4-5	Yes	High	Moderate	High	\$60 Million
4	Double Fence	Construct double fence along portion of highway	Yes	No	Moderate	Low	4-5	Yes	Moderate	Low	Low	\$37 Million
5	Rockfall Berm	Construct large rockfall barrier along portion of highway	Yes	No	Low	Low	4-5	Yes	Moderate	Low	Low	\$47 Million
6	Retaining Wall	Construct large wall along portion of highway	Yes	No	Moderate	Low	4-5	Yes	Moderate	Low	Low	\$39 Million
7	Rockfall Shed over Highway	Construct structural shed over all 4 lanes of Route 80	Yes	Yes	Low	High	5-10	Yes	High	Moderate	Moderate	\$200 Million



# MASS EXCAVATION

ALT.  
1

MASS EXCAVATION  
1. 40' HIGH ROCK CUTS WITH 12' BENCHES  
2. ROW IMPACTS  
3. DETOUR REQUIRED  
4. CONSTRUCTION COST: \$150M







# TEMPORARY RIGHT-OF-WAY IMPACTS

ALT. 2

- TEMPORARY ROW IMPACTS
1. LOCALIZED SURFACE SCALING ON ESCARPMENT FACE
  2. HIGH STRENGTH ROCKFALL FENCE 50 FT HIGH TO BE INSTALLED AS SHOWN
  3. ESTIMATED IMPACT TO PARKLAND = 4 ACRES
  4. ANTICIPATED CONSTRUCTION COST: \$38M





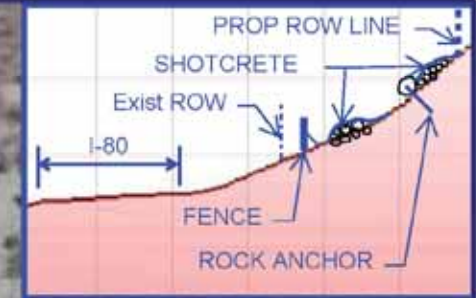


# PERMANENT RIGHT-OF-WAY IMPACTS

ALT. 3

**PERMANENT ROW IMPACTS**  
 1. ROCK DOWELS, SHOTCRETE AND/OR PINNED MESH TO BE USED TO SECURE ESCARPMENT FACE.  
 2. HIGH STRENGTH ROCKFALL FENCE 25 FT HIGH TO BE INSTALLED AS SHOWN.  
 3. ESTIMATED IMPACT TO PARKLAND = 4 ACRES  
 4. ANTICIPATED CONSTRUCTION COST: \$80M

COMBINATION OF SCALING, ROCK DOWELS, ANCHORED MESH AND SHOTCRETE







# ALTERNATIVES WITHIN NJDOT RIGHT-OF-WAY

ALT. 4

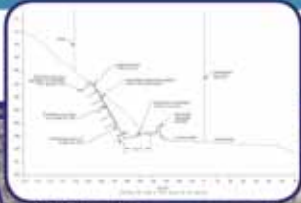
ALT. 5

ALT. 6

## Common Features



**Area A - 10 ft. High Roadside Barrier & 5 ft. High Rockfall Barrier Fence**



Dunfield Creek Natural Area



**Area C - Pinned Mesh System**

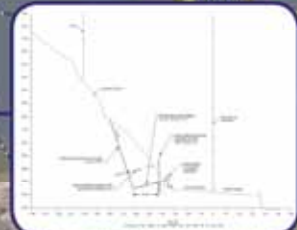
Delaware Water Gap National Park Service



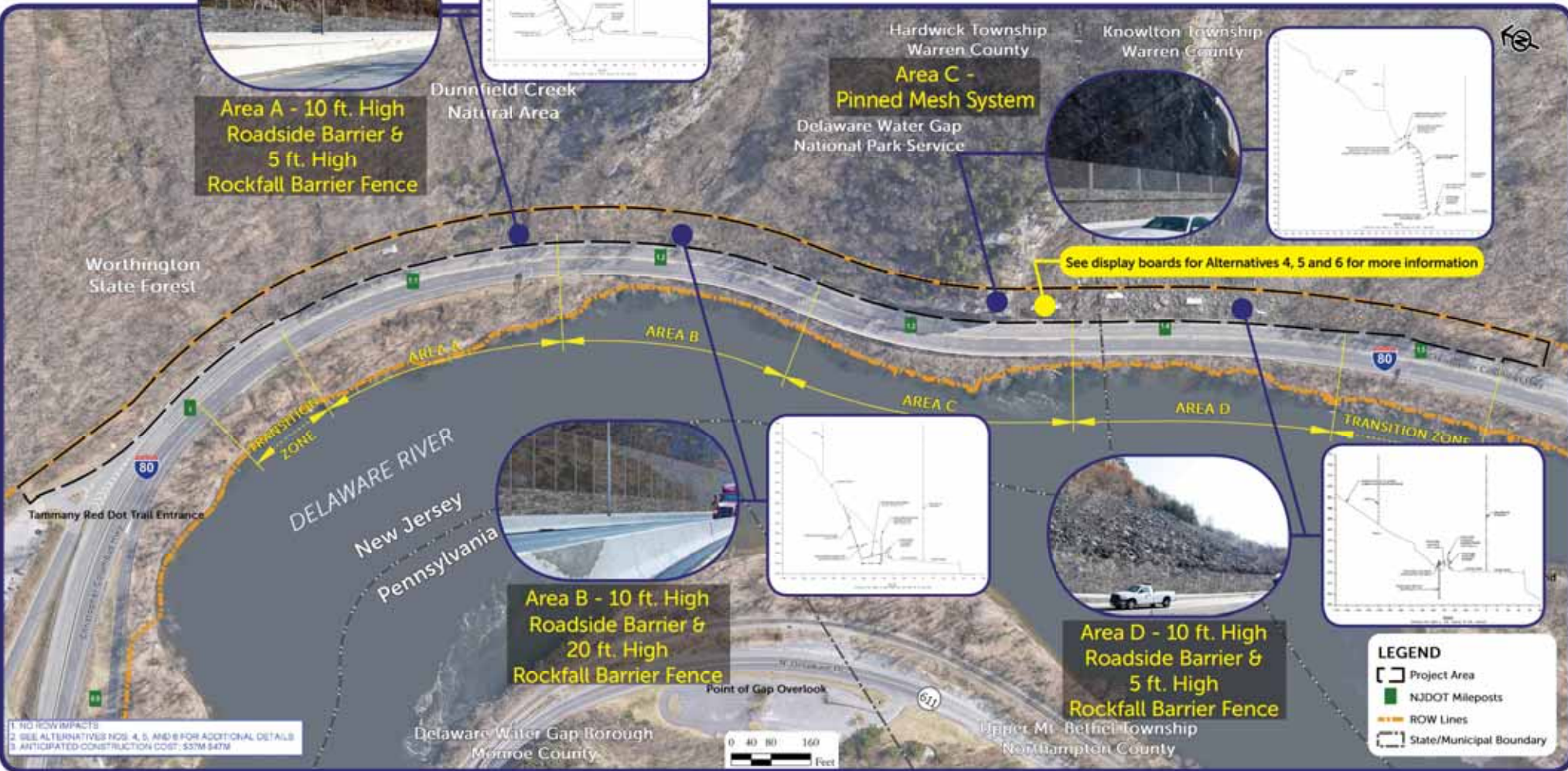
See display boards for Alternatives 4, 5 and 6 for more information



**Area B - 10 ft. High Roadside Barrier & 20 ft. High Rockfall Barrier Fence**



**Area D - 10 ft. High Roadside Barrier & 5 ft. High Rockfall Barrier Fence**



- 1. NO 100V IMPACTS
- 2. SEE ALTERNATIVES NOS. 4, 5, AND 6 FOR ADDITIONAL DETAILS
- 3. ANTICIPATED CONSTRUCTION COST: \$37M-\$47M



**LEGEND**

- Project Area
- NJDOT Mileposts
- ROW Lines
- State/Municipal Boundary



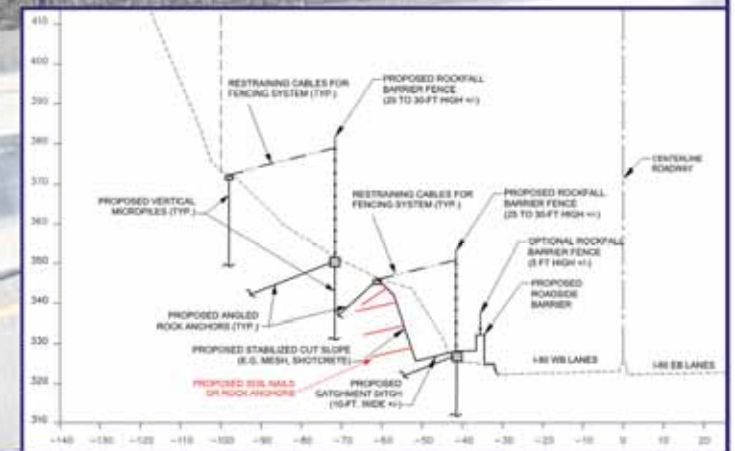
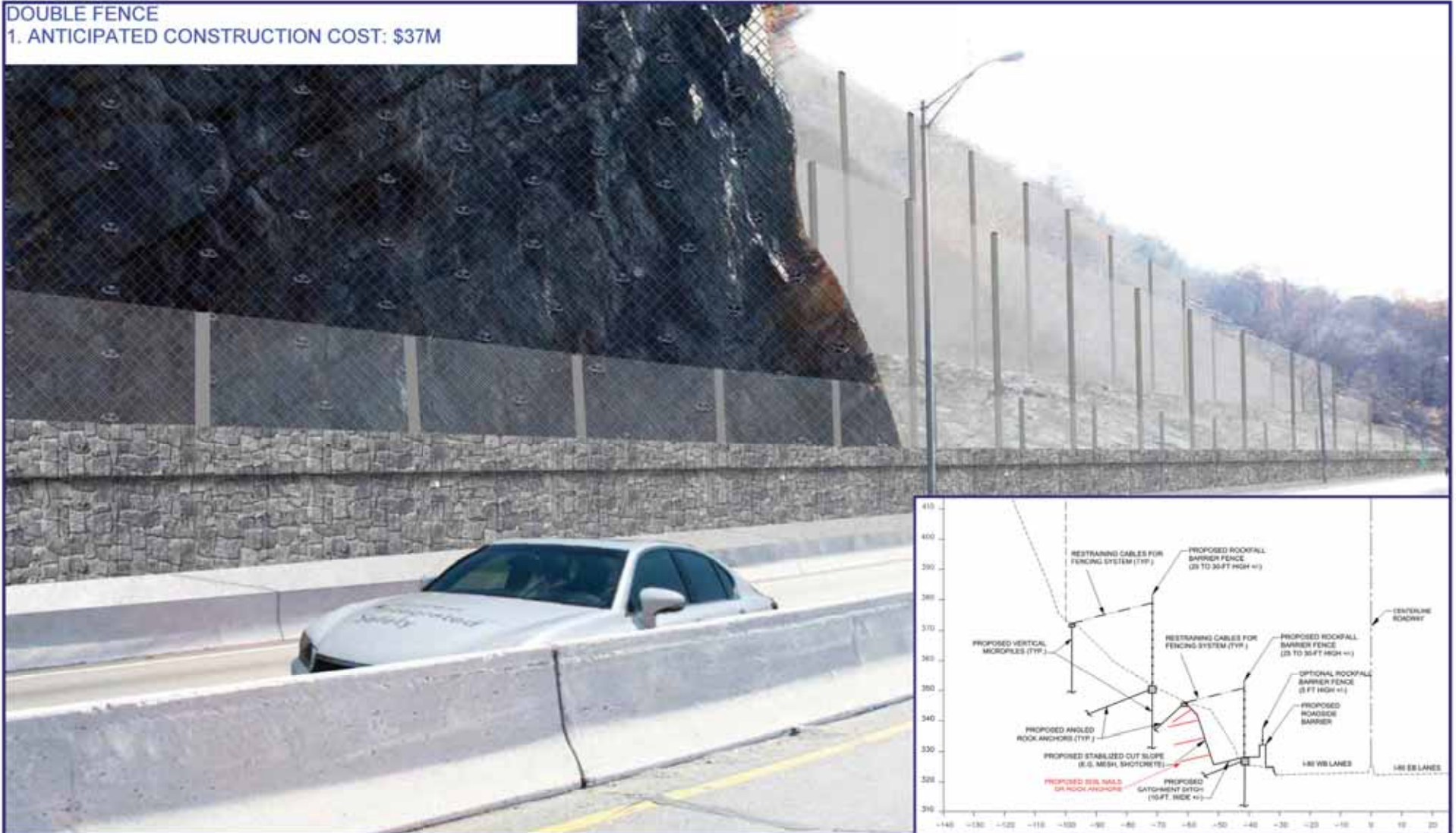


# DOUBLE FENCE

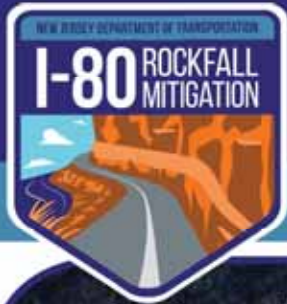
ALT.  
4

## DOUBLE FENCE

1. ANTICIPATED CONSTRUCTION COST: \$37M







# DOUBLE FENCE VIEWS

ALT.  
4



Existing

Area C and D Looking East



Existing

Vista - Looking Across from Pennsylvania



Existing

Area C and D Looking West



Proposed

Area C and D Looking East



Proposed

Vista - Looking Across from Pennsylvania



Proposed

Area C and D Looking West



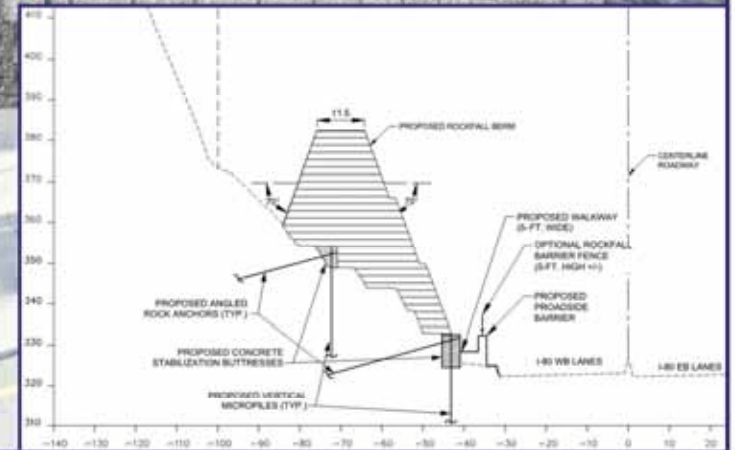
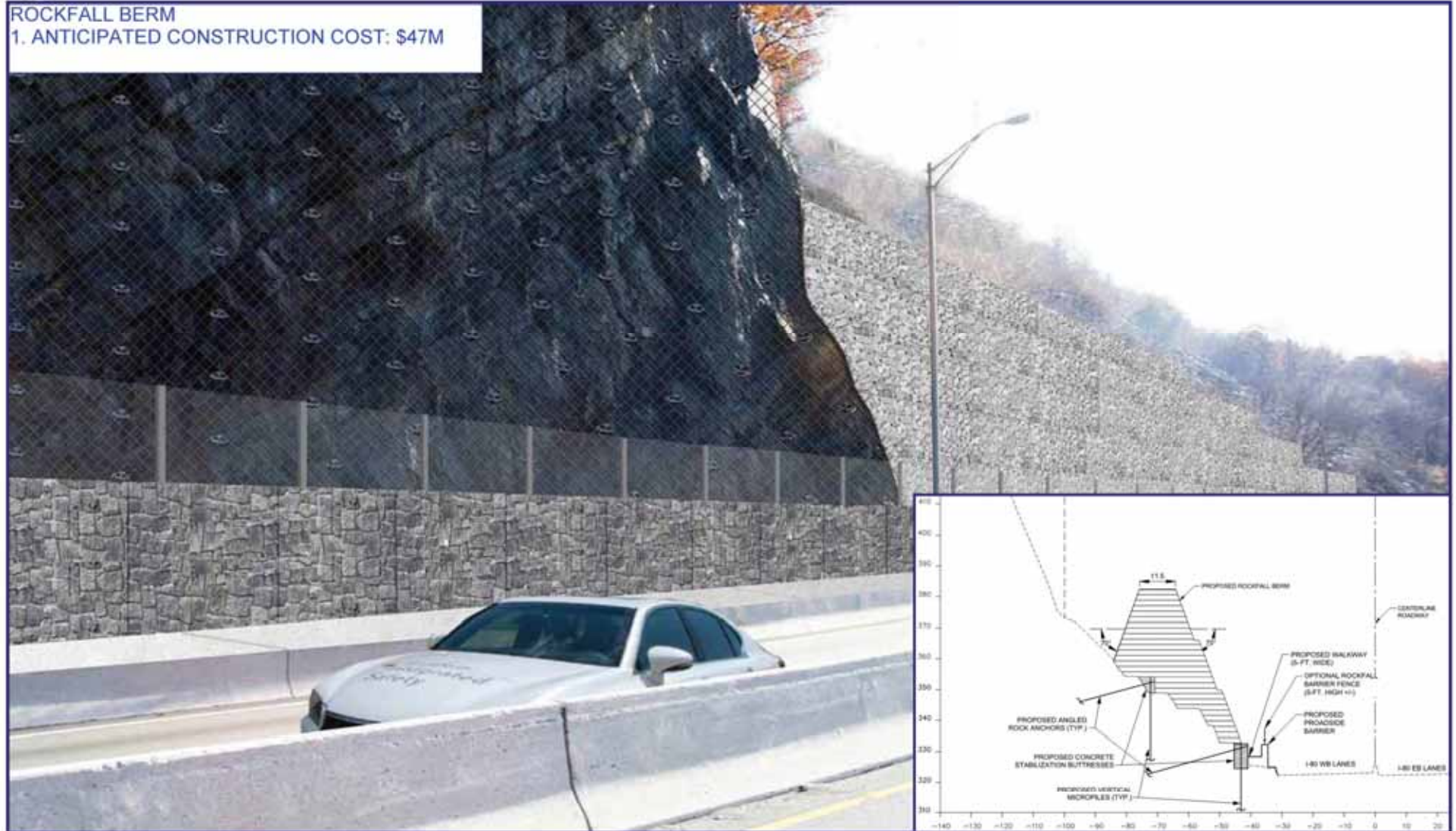




# ROCKFALL BERM

ALT.  
5

ROCKFALL BERM  
1. ANTICIPATED CONSTRUCTION COST: \$47M







# ROCKFALL BERM VIEWS

ALT.  
5



Existing

Area C and D Looking East



Existing

Vista - Looking Across from Pennsylvania



Existing

Area C and D Looking West



Proposed

Area C and D Looking East



Proposed

Vista - Looking Across from Pennsylvania



Proposed

Area C and D Looking West





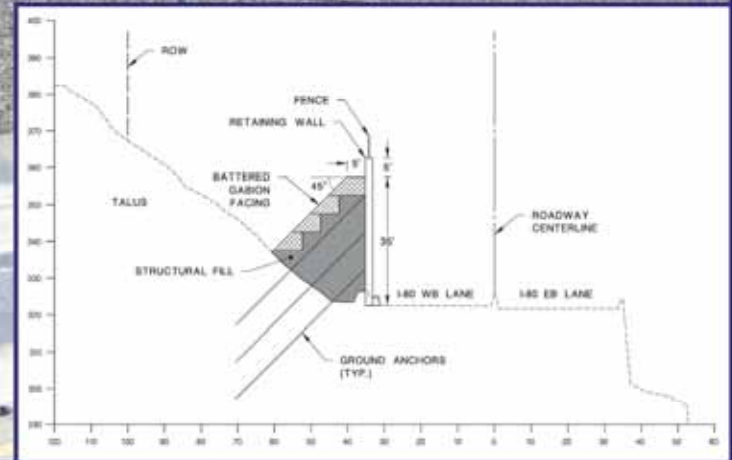
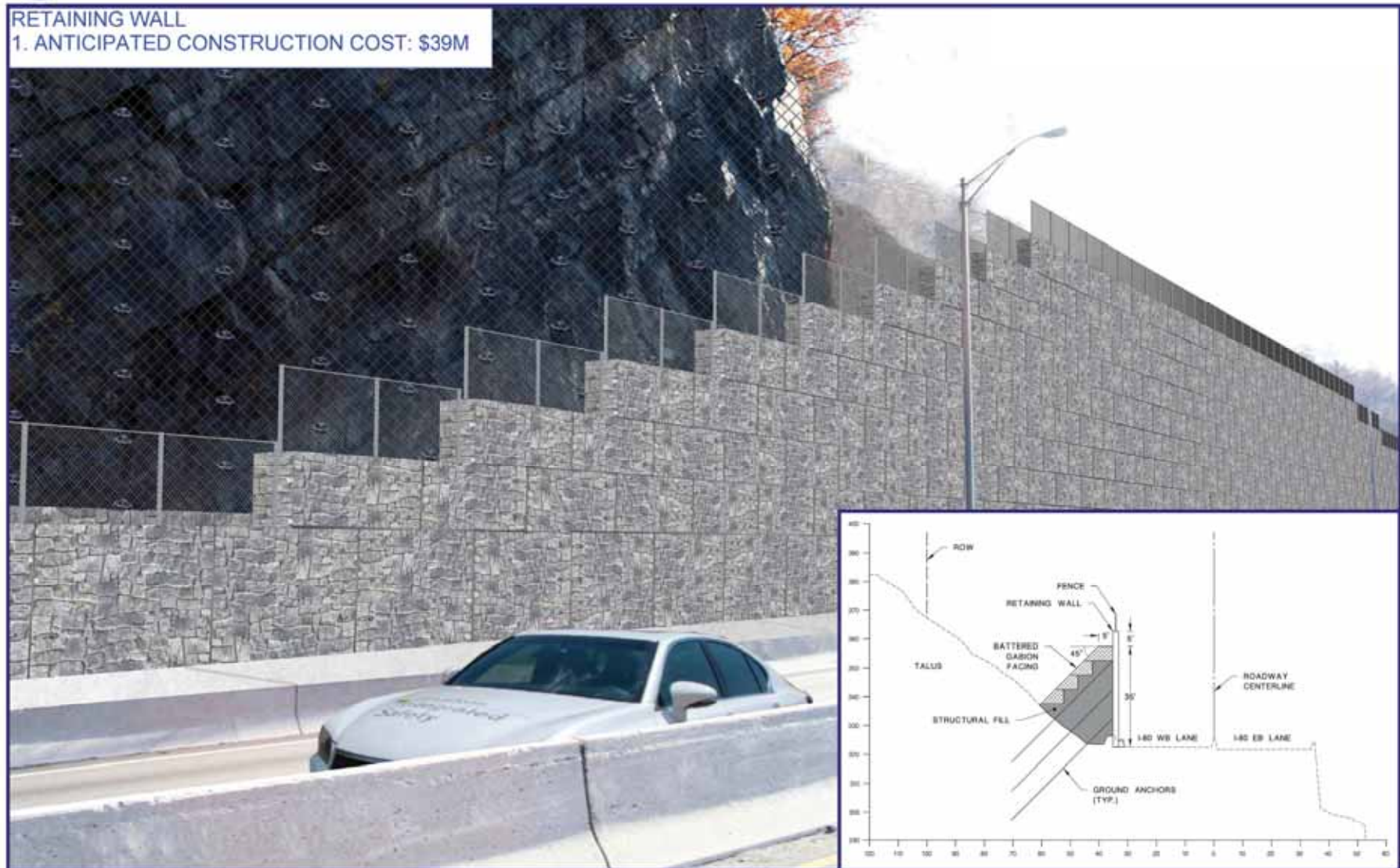


# RETAINING WALL

ALT.  
6

## RETAINING WALL

1. ANTICIPATED CONSTRUCTION COST: \$39M







# RETAINING WALL VIEWS

ALT.  
6



Existing

Area C and D Looking East



Existing

Vista - Looking Across from Pennsylvania



Existing

Area C and D Looking West



Proposed

Area C and D Looking East



Proposed

Vista - Looking Across from Pennsylvania



Proposed

Area C and D Looking West







# ROCKFALL SHED OVER HIGHWAY

ALT.  
7

ROCK SHED  
1. APPROXIMATELY 0.75 MILES  
2. MAJOR DETOUR REQUIRED  
3. CONSTRUCTION COST: \$200M

