

Heartland Corridor

Walton, VA to Columbus, OH

Double Stack Clearance Project Contractor Information Meeting

February 13, 2007

Safety Briefing

- ◆ Project Manager Structures
Joe Fowler

Federal Project Manager



Eastern Federal Lands Highway Division

US Department of Transportation - Federal Highway Administration



State Sponsoring Agencies



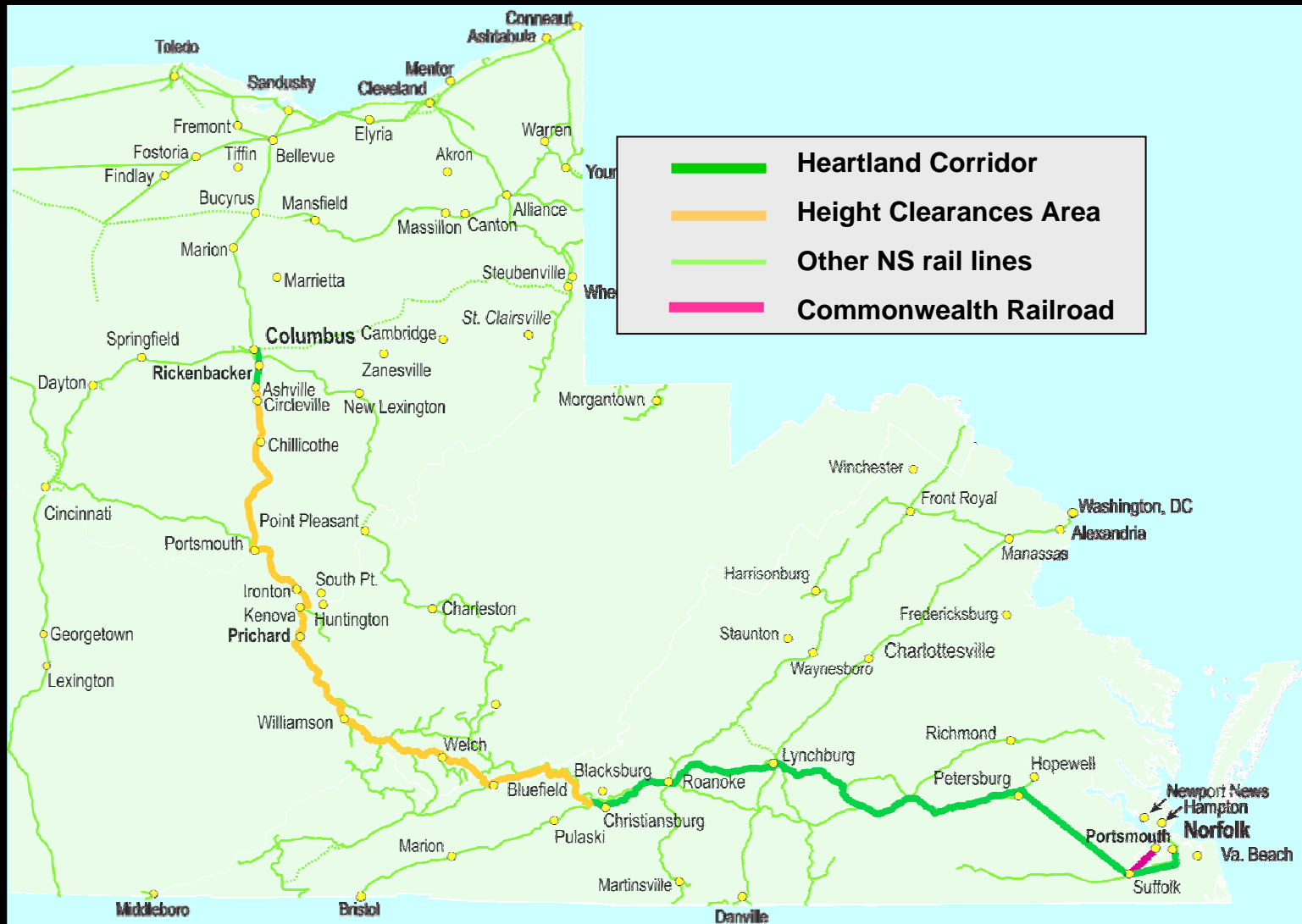
OHIO RAIL DEVELOPMENT COMMISSION



Heartland Corridor Norfolk to Chicago



Heartland Clearance Project



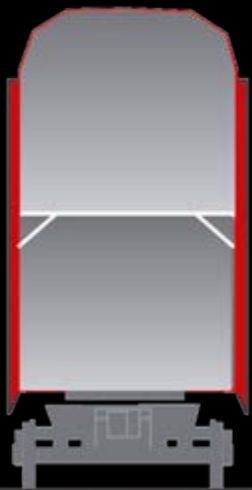
Double-Stack Project:

Current Clearance: 19'1" for multi-levels only

Proposed: 20'9" for high-cube double-stacks

Car Height
19'-1"

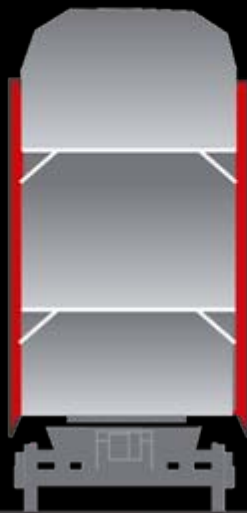
Required Clearance
19'-7"



Conventional Multi-level

Car Height
20'-2"

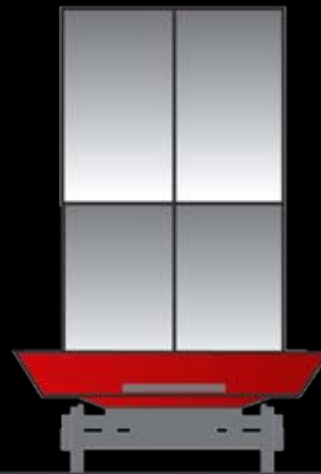
Required Clearance
20'-8"



High "Q-Car" Multi-level

Car Height
18'-3"

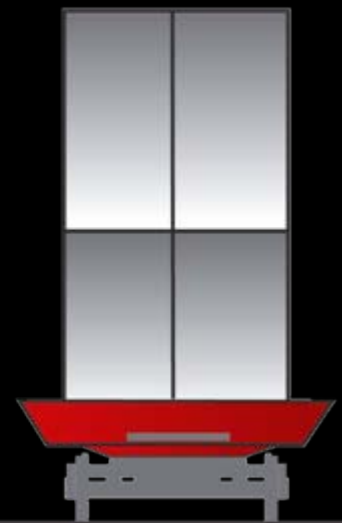
Required Clearance
18'-9"



Two 8.5' Doublestacks

Car Height
20'-3"

Required Clearance
20'-9"



Two 9.5' Doublestacks

Project Overview

- ◆ Double Stack Clearance Project – Federal Funding Portion
 - ◆ 25 Tunnels included (1–VA, 24–WV) – all lined
 - ◆ 4 Through Truss Modifications
 - ◆ 2 Overhead Bridges require track lowering/bridge raising
 - ◆ Slide Fence Modifications
8 locations



Project Overview

- ◆ Double Stack Clearance Project – non-Federal Funded Portion
 - ◆ 5 Tunnels included (3-VA, 2-KY) – 4 lined
 - ◆ 4 Through Truss Modifications – NS forces
 - ◆ 1 Overhead Bridge requires track shifting

Preliminary Engineering

- ◆ Hatch Mott MacDonald
- ◆ Link to reports:
<http://www.nscorp.com/nscorphtml/engineering/heartland.html>
- ◆ Password: Railroad06



Field Investigations

- ◆ 2005 Study to Identify Clearance Issues
- ◆ Tunnels
- ◆ Thru Truss Bridges
- ◆ Highway Overpasses
- ◆ Slide fences, utilities and other facilities
- ◆ Total of 67 sites

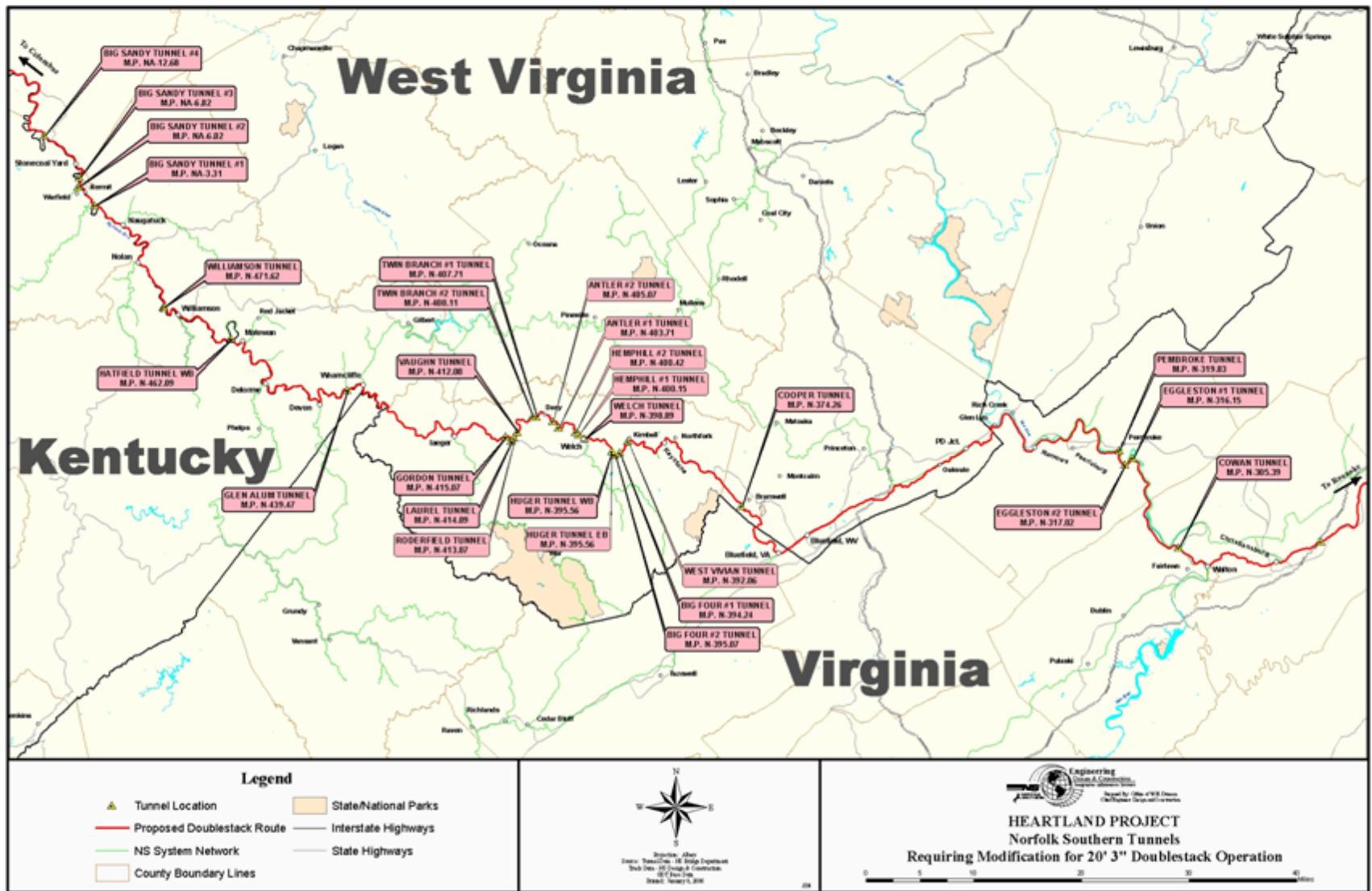
Field Investigations

- ◆ 30 Tunnels Along Corridor
- ◆ Lengths from 170' to 3,300' (4.5 Mi)
- ◆ Field Investigation to identify:
 - ◆ Clearance Deficiencies (laser car)
 - ◆ Verify Structural Conditions
 - ◆ Geology & Geotechnical Parameters

Design Engineering



Heartland Tunnel Work



BIG SANDY TUNNEL #4
M.P. NA.12.68

BIG SANDY TUNNEL #3
M.P. NA.6.82

BIG SANDY TUNNEL #2
M.P. NA.6.82

BIG SANDY TUNNEL #1
M.P. NA.3.31

WILLIAMSON TUNNEL
M.P. N.473.62

NATHFIELD TUNNEL WB
M.P. N.462.89

GLEN ALUM TUNNEL
M.P. N.439.47

TWIN BRANCH #1 TUNNEL
M.P. N.487.71

TWIN BRANCH #2 TUNNEL
M.P. N.488.11

WALDIGH TUNNEL
M.P. N.412.88

GORDON TUNNEL
M.P. N.415.87

LAUREL TUNNEL
M.P. N.414.89

RODERFELD TUNNEL
M.P. N.413.87

ANTLER #2 TUNNEL
M.P. N.495.87

ANTLER #1 TUNNEL
M.P. N.493.71

HEMPHILL #2 TUNNEL
M.P. N.488.42

HEMPHILL #1 TUNNEL
M.P. N.488.15

WELCH TUNNEL
M.P. N.398.89

HUGER TUNNEL WB
M.P. N.395.56

HUGER TUNNEL EB
M.P. N.395.56

COOPER TUNNEL
M.P. N.374.26

WEST VIRGIN TUNNEL
M.P. N.392.86

BIG FOUR #1 TUNNEL
M.P. N.394.24

BIG FOUR #2 TUNNEL
M.P. N.395.87

PEMBROKE TUNNEL
M.P. N.319.83

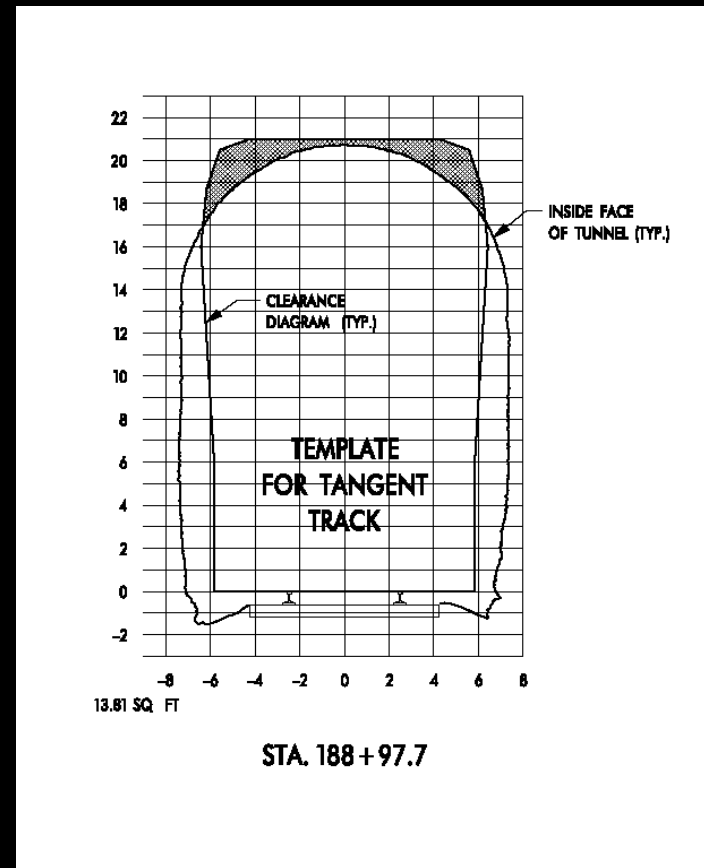
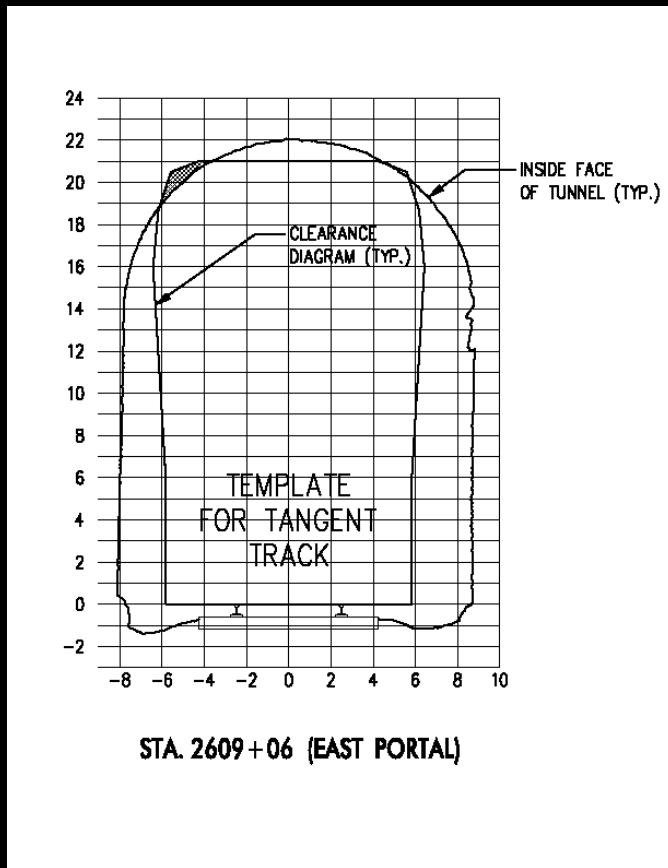
EGGLESTON #1 TUNNEL
M.P. N.356.15

COWAN TUNNEL
M.P. N.305.39

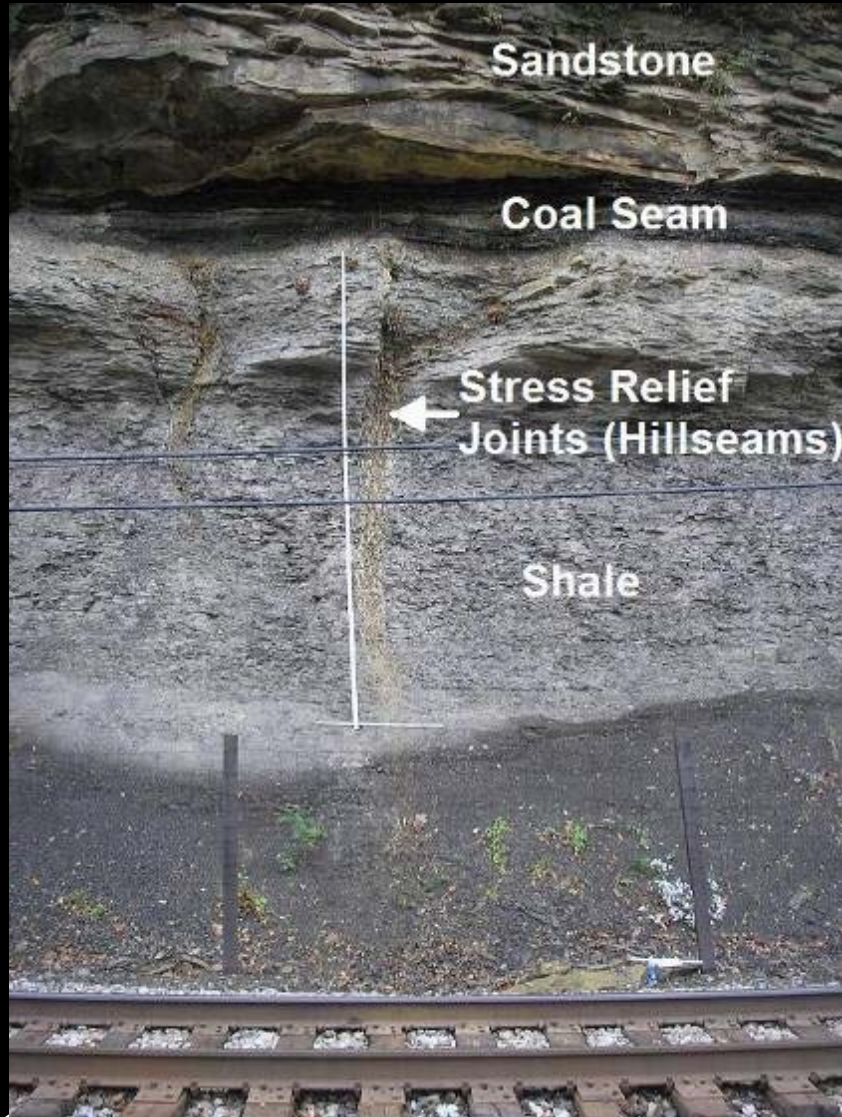
EGGLESTON #2 TUNNEL
M.P. N.317.87

Design Considerations

◆ Extent of Encroachment



Design Conditions

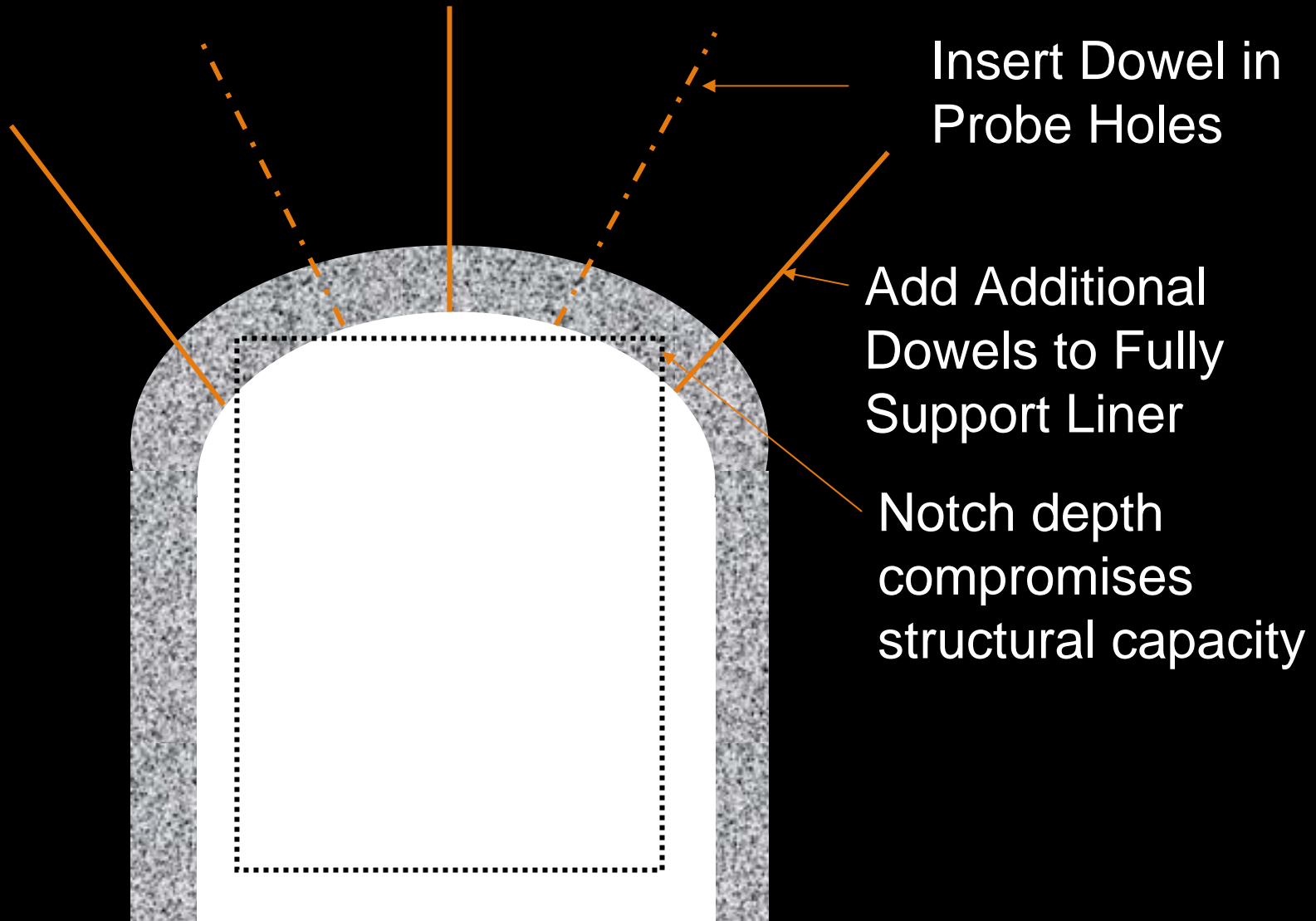


- ◆ Geotechnical Parameters

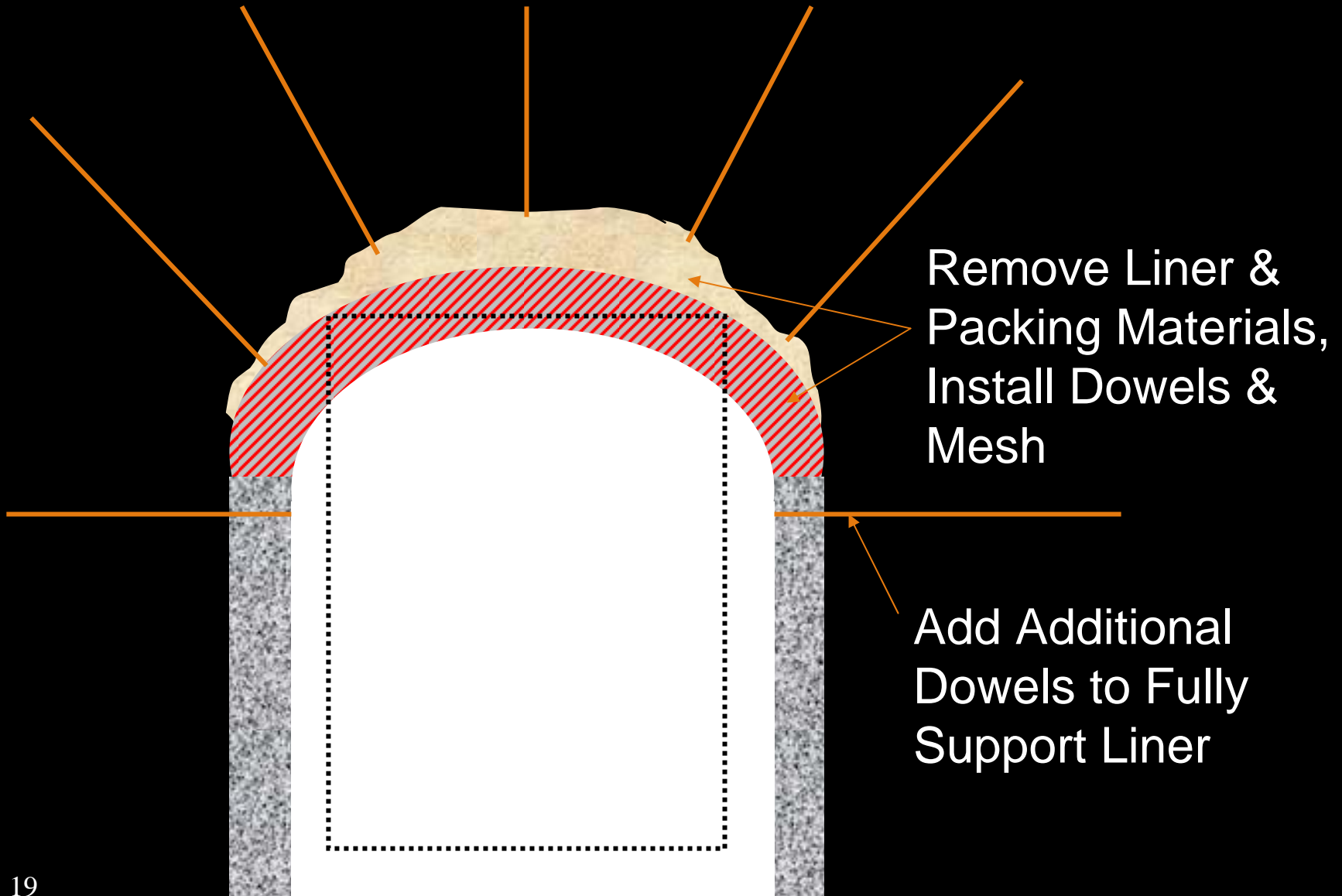
Clearance Improvement Methods

- ◆ Notching
 - ◆ Minor Notching
 - ◆ Deep Notching
- ◆ Lining Replacement
- ◆ Daylighting

Deep Notching (7 Tunnels)



Liner Replacement (17 Tunnels)



Daylighting (1 Tunnel)

- ◆ Limited applications



Special Requirements



- ◆ FRA Roadway Worker and Bridge Worker Safety
- ◆ e-Railsafe at e-Verifile.com background checks and identification badges
- ◆ Norfolk Southern Safety Rules

Project Schedule

- ◆ **Completion Mid 2010**
 - ◆ Environmental Studies
 - ◆ FHWA Handling
 - ◆ 70 % Final Design
 - ◆ Concurrent with Environmental Studies
 - ◆ Due March 2007 for first packages
 - ◆ Start Construction June 2007
 - ◆ Multi-Tunnel Packages
 - ◆ Scheduled to Minimize Track Time Requirements



Federal Funding Requirements

- ◆ Davis–Bacon Act
- ◆ Small Business Concerns
- ◆ Buy American Act

Federal Funding Requirements

Davis–Bacon Act

- ◆ Required for Projects receiving Federal Funds
- ◆ Applies to Contractors and Subcontractors
- ◆ Sets minimum wages for various classes of laborers and mechanics
- ◆ General wage determinations reflect rates for a specific geographic location
- ◆ Website – <http://www.gpo.gov/davisbacon>

Federal Funding Requirements

Small Business Concerns

- ◆ It is the policy of the US that small business has the maximum practicable opportunity to participate in contracts
- ◆ The contractor and its subcontractors shall submit a subcontracting plan that addresses subcontracting with small business concerns
- ◆ Requirements of Subcontracting Plan can be found in the Federal Acquisition Regulation (FAR) Section 52.219-9
- ◆ FAR Website – www.arnet.gov/far/

Federal Funding Requirements

Buy American Act: Only domestic construction materials shall be used unless:

- ◆ Cost of domestic construction material would be unreasonable
- ◆ The application of the Buy America Act to a particular material would be impracticable
- ◆ The material is not mined, produced, or manufactured in the US in sufficient quantity or satisfactory quality

Requirements of Buy American Act can be found in the FAR Section 52.225-9 (www.arnet.gov/far/)

Heartland Corridor



Thank you for coming!



Questions?

Heartland Corridor