

Knox County

**S.R. 115 (U.S. 129), Alcoa Highway
From North of Maloney Rd to Woodson Dr.**

Pre-Bid Meeting

January 26, 2016

Agenda

1. Staff Introduction
2. General Overview of the Project
3. Discussion of Critical Areas
 - a) Utilities
 - b) Retaining Walls
 - c) Deep Drainage Structures
 - d) Paving
 - e) Ingress/Egress
 - f) Smart Work Zone
4. Questions

Project Staff

TDOT Headquarters

- Jay Norris - Assistant Director, Construction Division
- Cabrina Dieters – Civil Engineering Manager 1, Structures Division

TDOT Region 1 Staff

Design Consultant – Vaughn & Melton Consultant Engineers

- Jim Miller
- Daniel Foster

Utility Coordinator Consultant - Gresham, Smith And Partners

- Rick Yeager
- Jeff Sampson

SWPPP Consultant – Arcadis

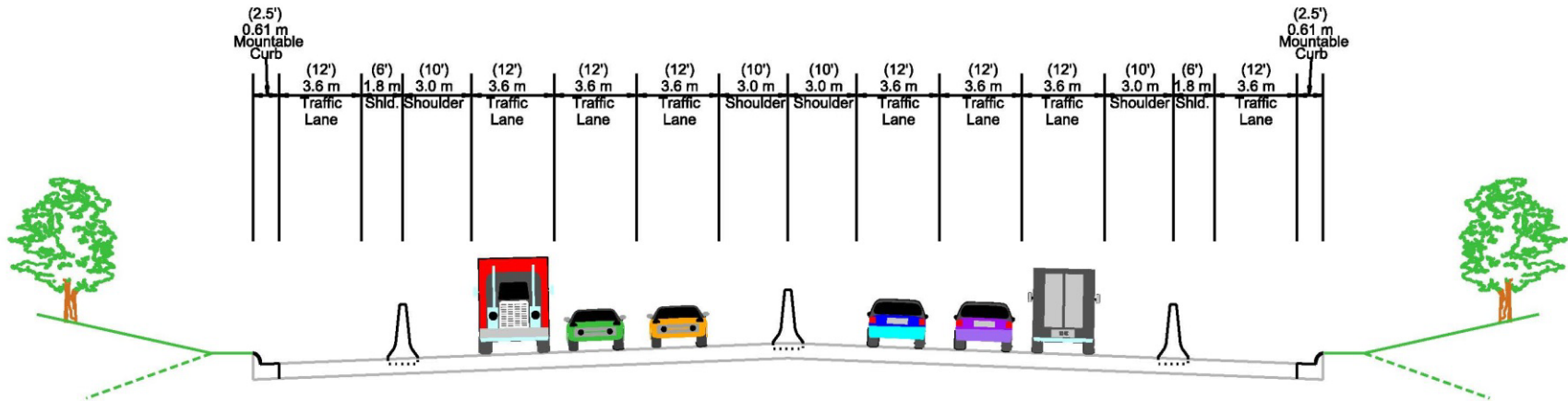
- Jeff Hoilman

General Overview



Existing SR 115 (US 129) Alcoa Hwy

General Overview



Proposed Typical Section

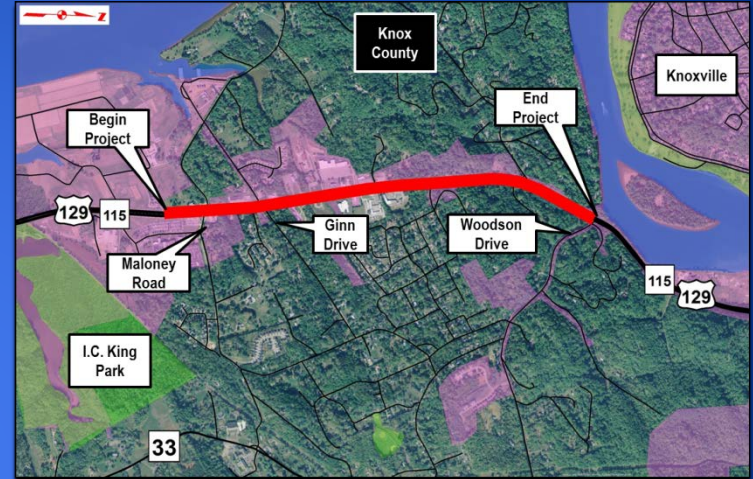
General Overview



Proposed SR 115 (US 129) Alcoa Hwy

General Overview

- Project Length:
 - 2.72 kilometers (1.69 miles)
- Typical section:
 - Six-lane highway w/ median barrier
 - Collector (frontage) roads
- Structures:
 - Three Overhead Bridges
- Retaining walls:
 - 10 total
 - 2 major walls (#7 and #8)
- Metric plans
 - English standard drawings



General Overview

- Scope of Work
 - Grading (excavation and borrow)
 - Bridges and box culverts
 - Utilities
 - Paving with base and pavement and underdrains,
 - Pavement marking
 - Greenway
 - Retaining walls (tie-back walls and other), gravity, and cantilever
 - Side roads, driveways, and field entrances
 - Fencing
 - Guardrail
 - Proposed storm drainage, ditches, and the removal or abandonment of existing storm and other drainage
 - Graded solid rock fill
 - 3 roundabouts
 - Removal of structures and obstructions
 - Application of EPSC devices
 - Median barrier wall
 - Signing (on and off project)
 - Lighting
 - Sidewalks and islands
 - Traffic control devices and traffic safety devices
 - Stream relocation with trees
 - Mowing

Utilities

In Contract

- Gas (KUB)
- Water (KUB)
- Sewer (KUB)

Not in Contract

- Electric (KUB)
- Phone (AT&T)
- Comcast (Cable)

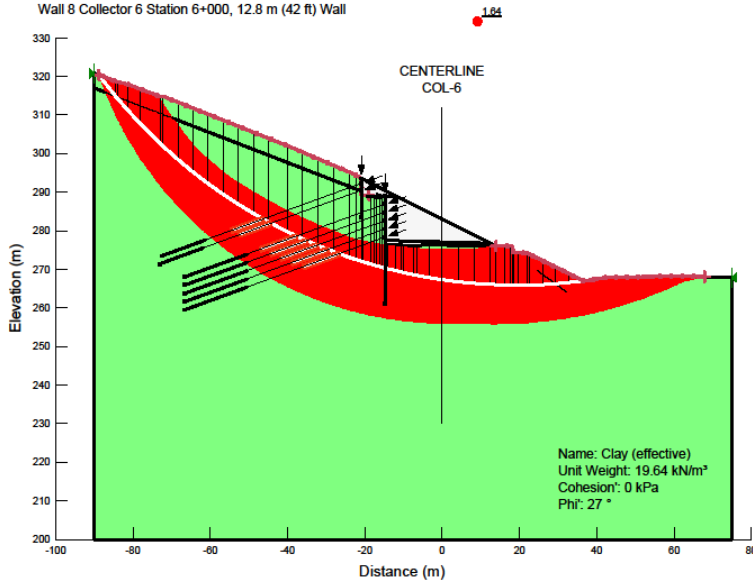
Retaining Walls

- 10 retaining walls
- Walls #1 – Walls #6 – Conventional (gravity or cantilevered)
- Wall #7 and Wall #8 – Designed by AMEC
 - Pour-in Place Tie-Back Walls (soil and rock anchors)
 - Wall #7 – 12,550 square feet
 - Wall #8 – 75,795 square feet
- Wall #9 – Shored (MSE) wall to accommodate greenway and utilities
- Wall #10 – Soil-nailed wall added to protect existing billboard
- Ashlar-stone finish (all walls)

Retaining Walls

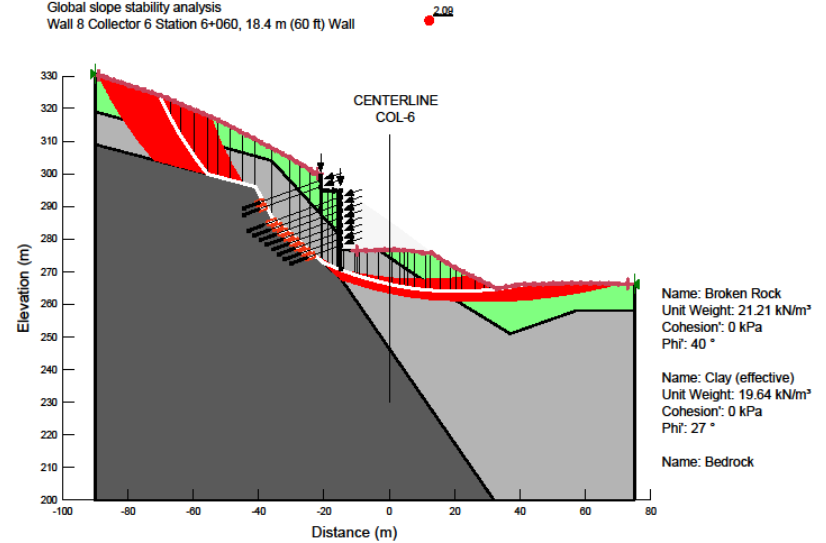
RETAINING WALL NO. 8
Alcoa Highway (S.R. 115)

Global slope stability analysis
Wall 8 Collector 6 Station 6+000, 12.8 m (42 ft) Wall



RETAINING WALL NO. 8
Alcoa Highway (S.R. 115)

Global slope stability analysis
Wall 8 Collector 6 Station 6+060, 18.4 m (60 ft) Wall

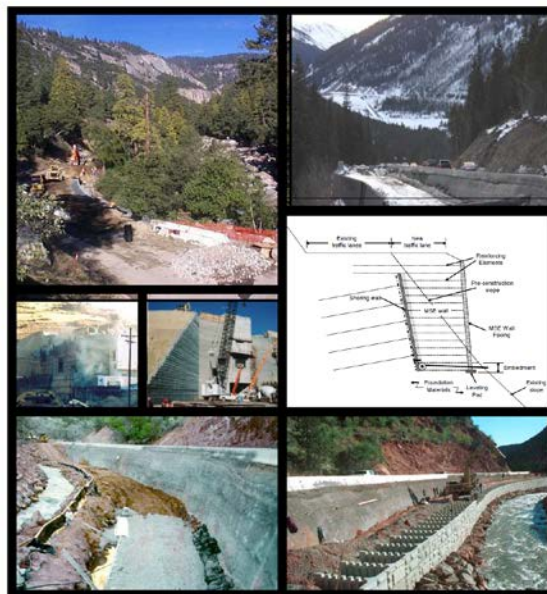


Retaining Walls

Shored Mechanically Stabilized Earth (SMSE) Wall Systems Design Guidelines

Publication No. FHWA-CFL/TD-06-001

February 2006



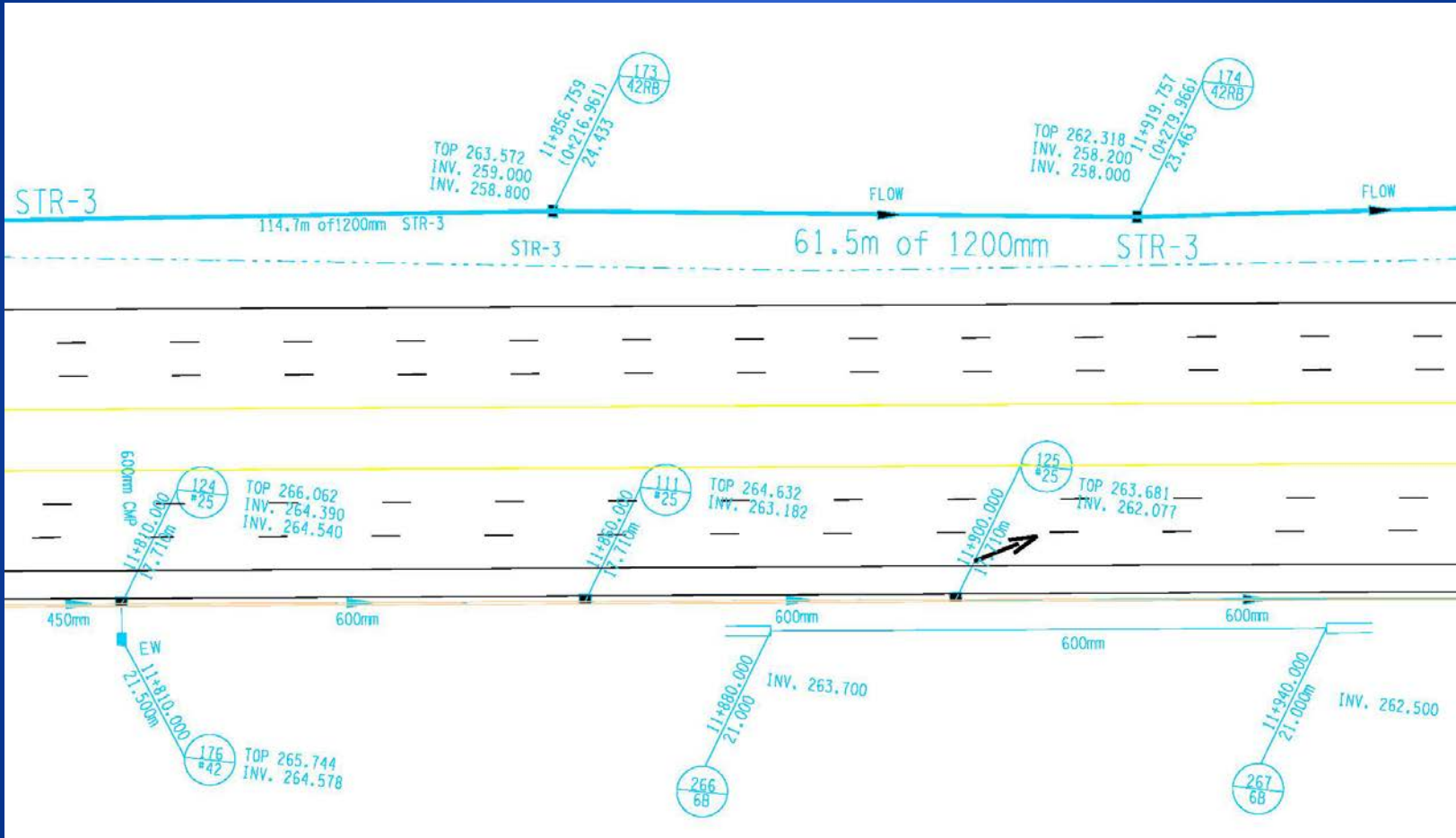
U.S. Department
of Transportation
Federal Highway
Administration



Central Federal Lands Highway Division
12300 West Dakota Avenue
Lakewood, CO 80228



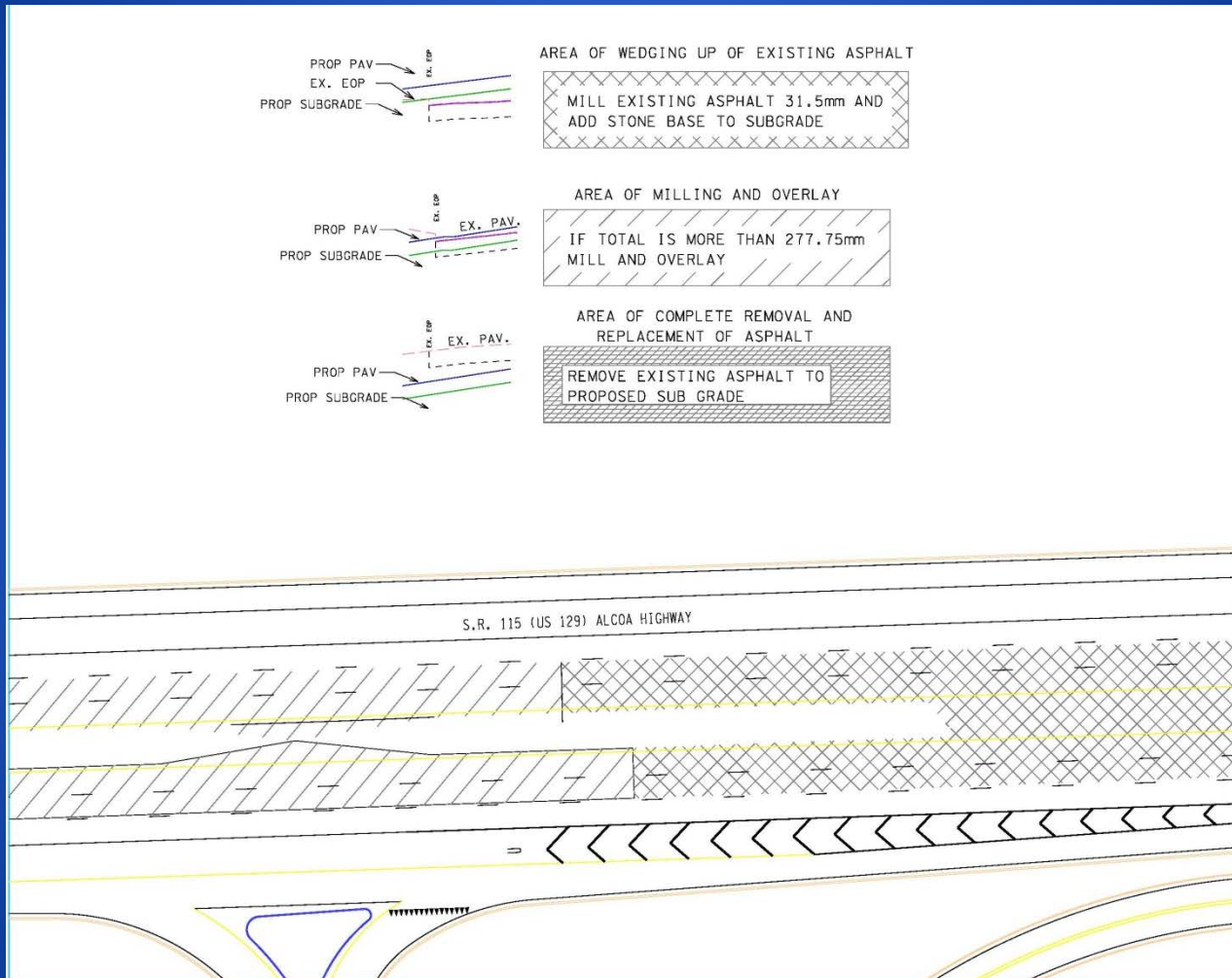
Deep Drainage Structures



Deep Drainage Structures

- 695 meters (2280 feet) of 1800 mm pipe
 - Equivalent to 72" pipe
- 823 meters (2700 feet) of 1200 and 1500 mm pipe combined
 - Equivalent to 48" and 60" pipe
- 16 drainage structures over 20' in depth.
- Designated as stream, must maintain flow during construction
- Payment for shoring is only included for box culvert and pipe extension at approx. Sta. 10+880 on Sht. 6A.
- Other areas deemed necessary for shoring shall be included in the bid for other items as means and methods.

Paving Plan



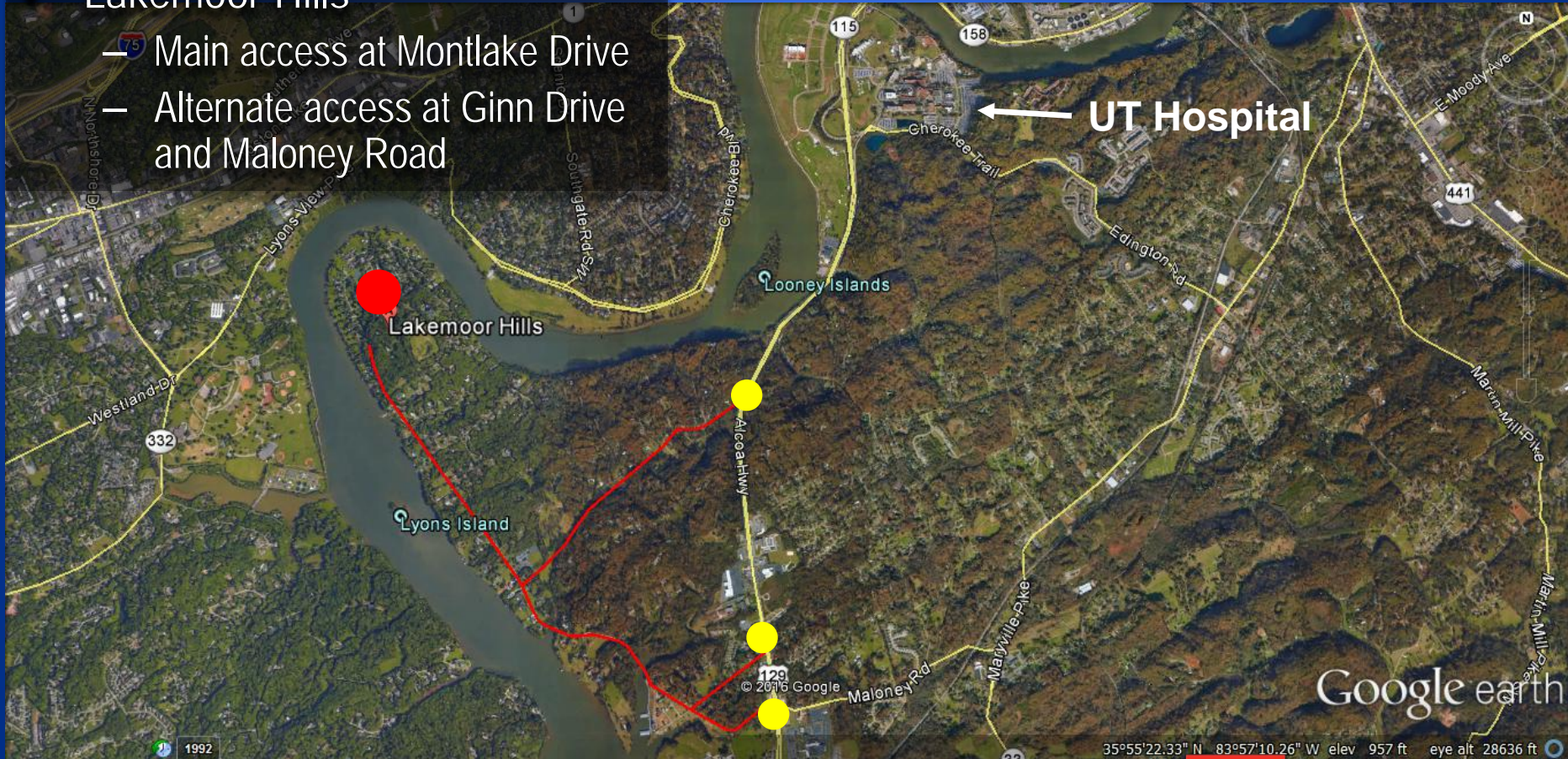
- Detailed Layouts including in plans
- Coring will be required to determine appropriate procedure needed.

Ingress/Egress Lakemoor Hills

Neighborhoods

- Lakemoor Hills
 - Main access at Montlake Drive
 - Alternate access at Ginn Drive and Maloney Road

↑ To Knoxville



To Alcoa ↓

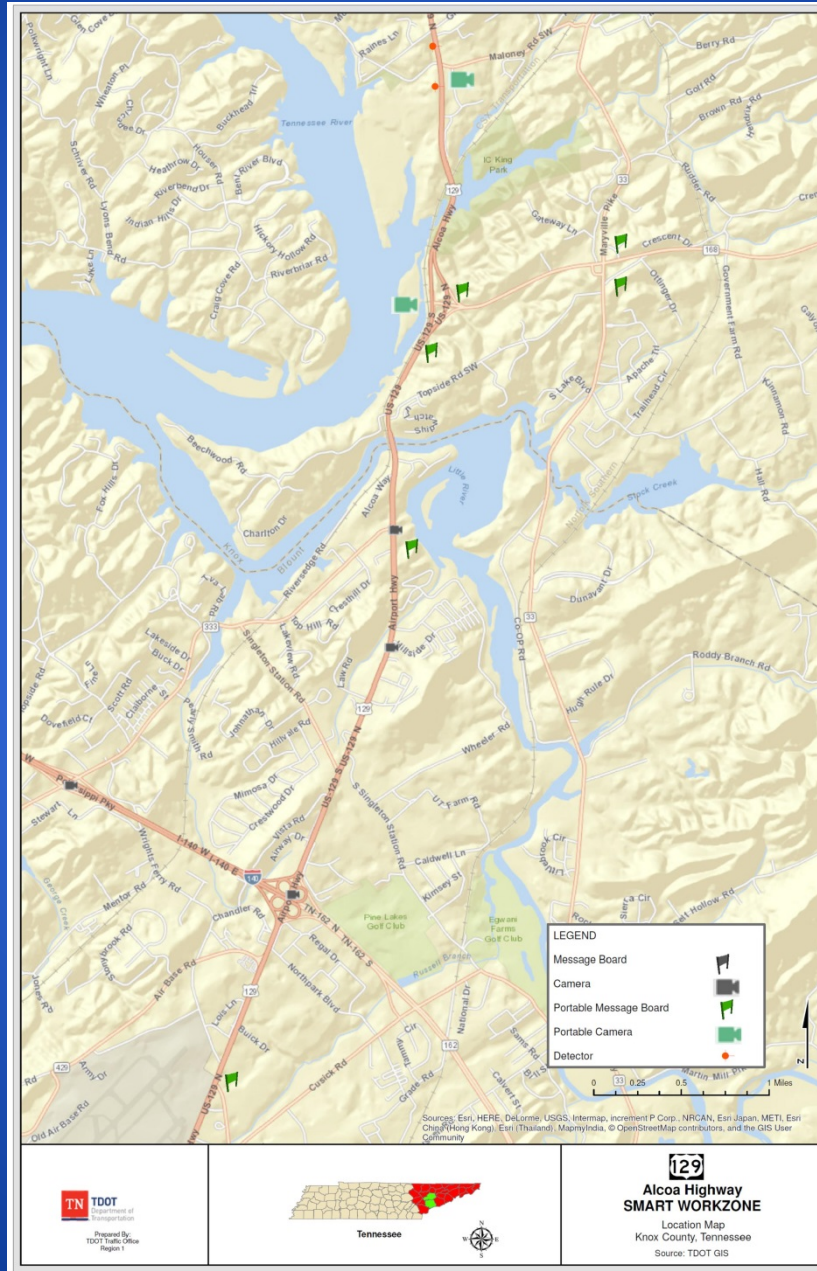


TDOT
Department of
Transportation

General Items of Interest

- Contractor must maintain physical access to all residences and business during construction.
- Additional Paving Quantities included for maintaining access to driveways and side roads.
- Prior to closure of side road; contractor must give seven (7) days notice to the following:
 - Local Law Enforcement
 - Local Fire Department
 - Ambulance Service
 - Local School Superintendent
 - Local Road Superintendent
 - United State Postal Service
 - Additional Entities as required by TDOT Operations Engineer
- CPM Schedule Required
- Field Office Requirement

Smart Work Zone



Prepared By:
TDOT Traffic Office
Region 1



129
Alcoa Highway
SMART WORKZONE
Location Map
Knox County, Tennessee
Source: TDOT GIS

Questions ?