



Department of
Toxic Substances
Control

Community Forum Berm Mitigation at Ascon Landfill

April 2, 2020
1:30 p.m. to 3:30 p.m.

SITE MITIGATION AND RESTORATION PROGRAM

DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC)



LOGISTICS

- <https://primetime.bluejeans.com/a2m/live-event/tjxabyex>

**Click on Join Meeting: Call
in: (415) 466-7000**

Enter Passcode: 4768832

- Community Forum is being recorded.
- After one week you may view it at: **YouTube channel
(DTSCGreen).**



Guidelines for Today's On-Line Community Forum

- All attendees' mics are muted
- Click icon on right hand side to post your questions
- We will respond to the questions during the Q&A session
- Technical difficulties – let us know



Agenda

Welcome and Introductions

- Maya Akula, DTSC Public Participation Supervisor

Ascon Project Overview

- Grant Cope, Deputy Director, Site Mitigation & Restoration Program

Why the Emergency Berm Repair Work?

- Ed Morelan, Branch Chief, Site Mitigation & Restoration Program

Next Steps & Closing Remarks: Grant Cope, Deputy Director

Questions and Answers Session, Maya Akula, DTSC Public Participation Supervisor

Wrap Up



Grant Cope

Deputy Director, DTSC Site Mitigation & Restoration Program



DTSC's Role

- DTSC's mission is to protect California's people and environment from harmful effects of toxic substances
- Responsible for overseeing the investigation and cleanup of contaminated properties
- Lead Agency for Ascon Landfill Project



Community Concerns and Enhanced Safeguards

Community Concerns

- Health concerns
- Dust
- Odors
- Storm water runoff

Additional Safeguards

- Constructed new fence height to 16 feet
- Additional off-site air monitoring
- Technical Advisor
- Concrete tested for asbestos
- Tenting and enclosure system at permitting stage with AQMD



Why DTSC Recommends Emergency Berm Repair to Protect Public Safety

- Berm (slope) on Hamilton Ave. showing signs of failure
 - Tension cracks
 - “Hummocky” surface at its base



Safety Threats of a Landslide

- Contaminated material could enter Hamilton Avenue
- Could result in uncontrolled release of VOCs, odors & dust
- Emergency response would be needed
- Rains increase chances of failure



Safety is Our Number One Priority

DTSC Recommends:

- Minimal rate of excavation – 92% smaller than last year's average
- Maximum amount of dust and odor controls
- Further reduction if odors affect people sheltering in place
- Stop excavation if odors cannot be controlled
- Work conducted while Edison High School is out of session



92% Smaller rate than last year

2019

600 Cubic Yards per Day

2020

50 Cubic Yards
per Day

200 Cubic Yards per Day



Ed Morelan, PG, CEG

Branch Chief, DTSC Cypress Cleanup Branch



Background

- Tension cracks on the embankment – December 31
- DTSC directed Project Navigator to monitor the tension cracks
- Monitoring found additional cracks – February 6
- DTSC directed Project Navigator to develop proposed actions – including emergency response
- Estimated a Medium to High Potential Risk of Slope Failure



Ascon Landfill Site Slope Inspection

NW Berm Geotechnical Observations on Dec 31, 2019



TENSION CRACKS IDENTIFIED (Looking West)



TENSION CRACKS IDENTIFIED (Looking East)



Interim Measures

- Slope covered with plastic when it rains
- Additional barriers on south side of Hamilton
- Initial visual observations of cracks
- Subsequent monitoring with electronic devices

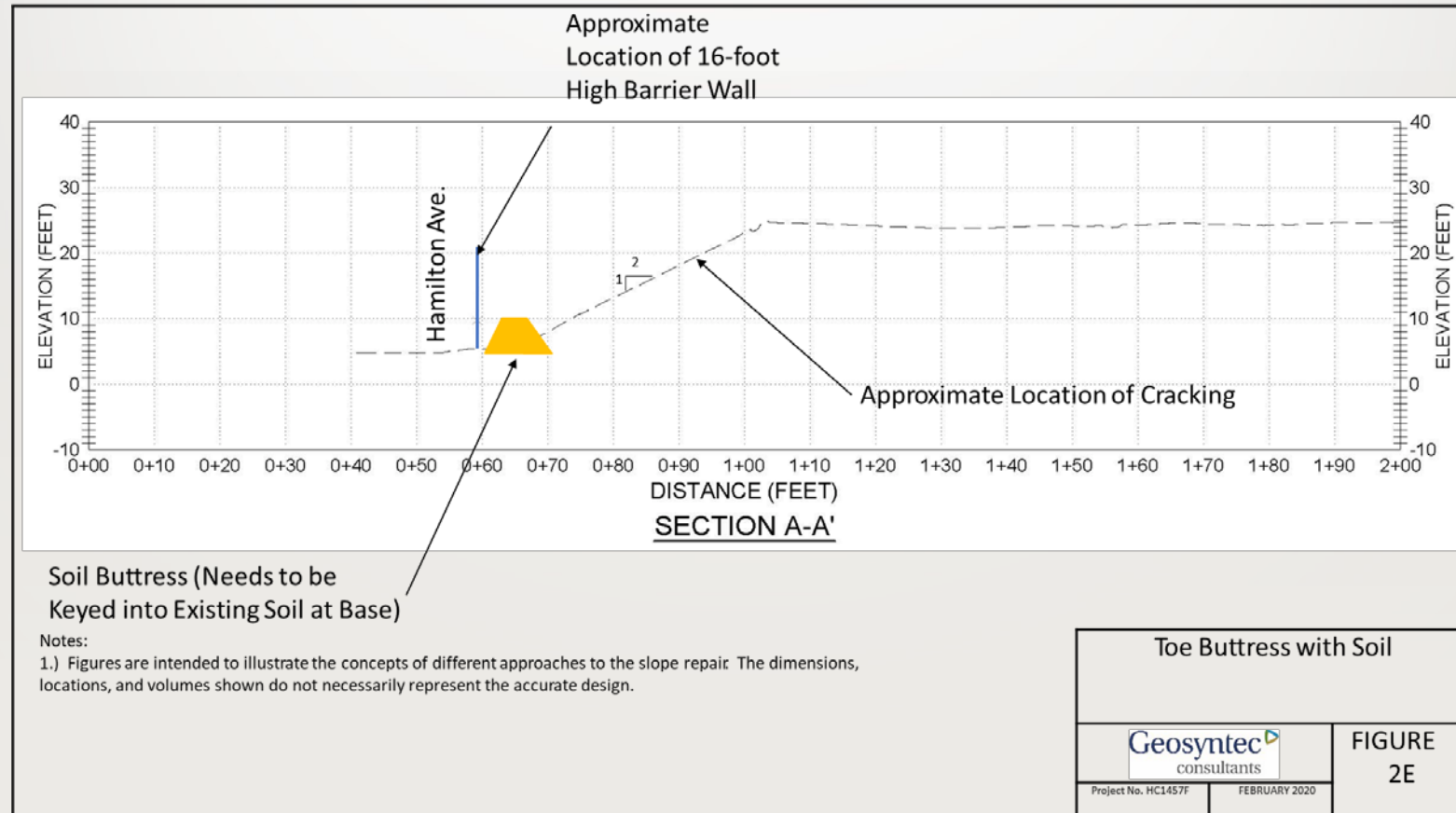


INITIAL OPTIONS EVALUATED

- Toe Buttress with Soil
- Slope Flattening with Soil
- Slope Flattening with Soil and Mechanically Stabilized Earth
- Toe Buttress with Retaining Wall
- Slope Flattening Under a Tent
- Slope Flattening by Managed Excavation



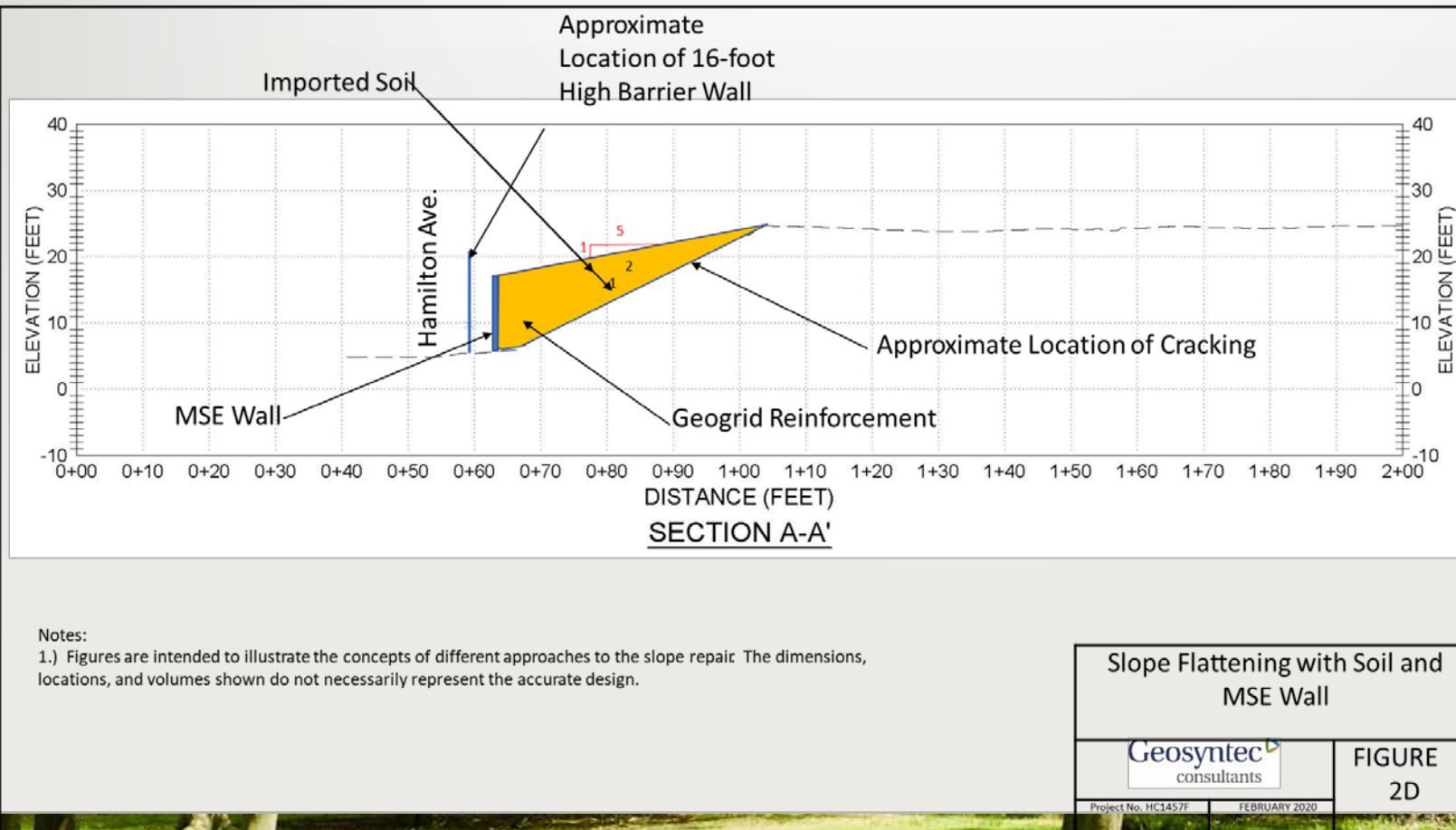
Toe Buttress with Soil



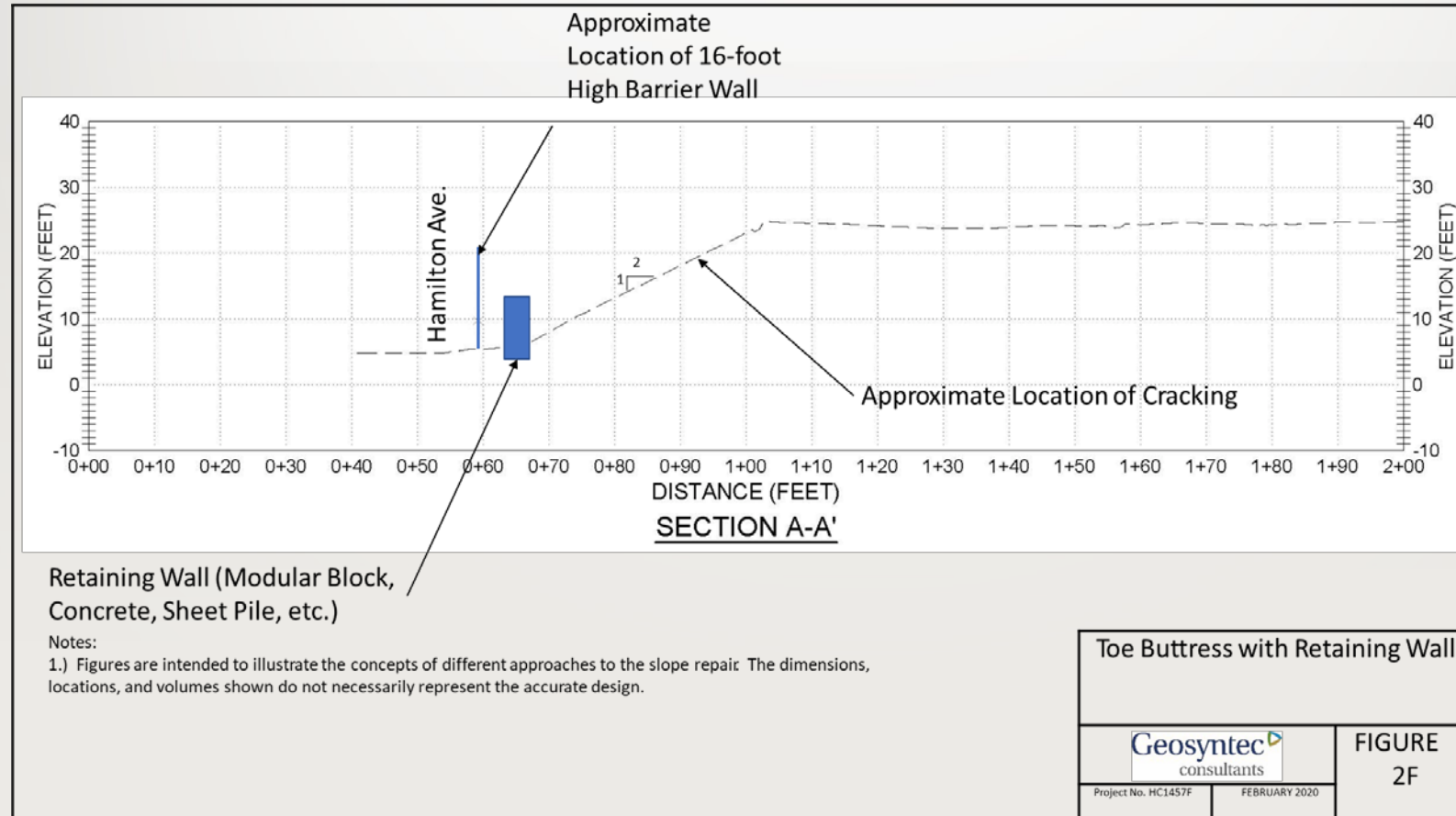
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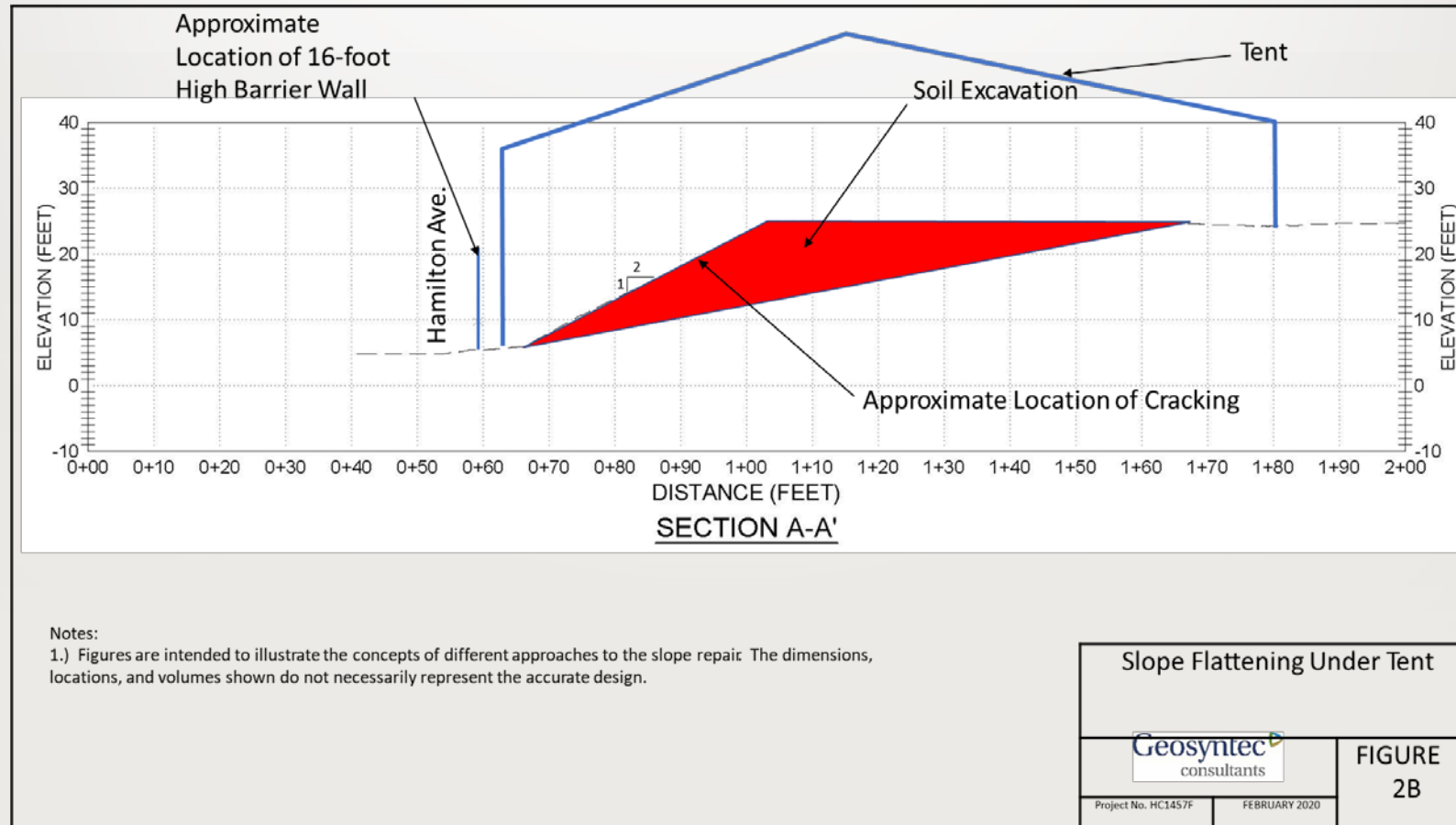
Slope Flattening with Soil and Mechanically Stabilized Earth



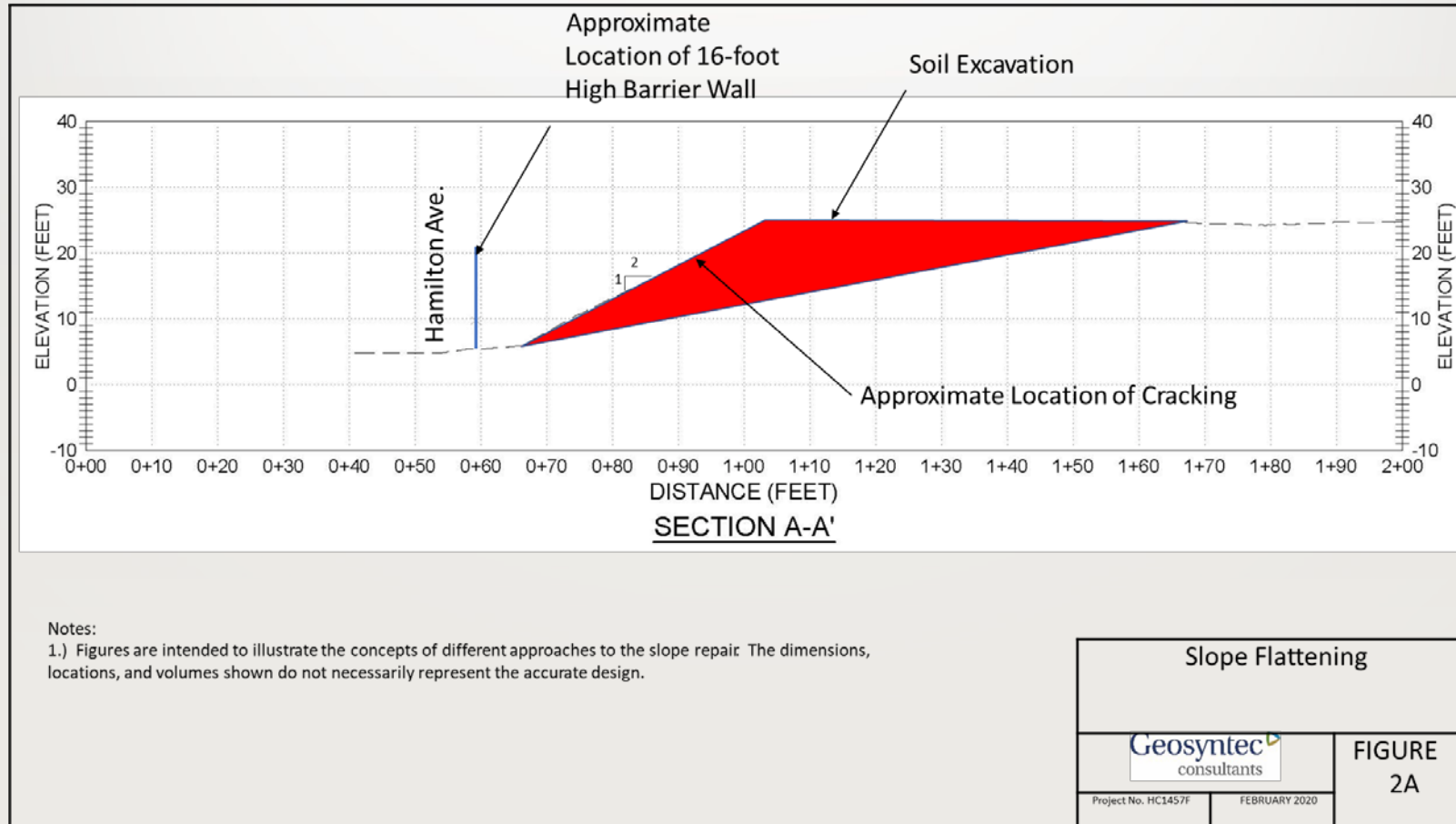
Toe Buttress with Retaining Wall



Slope Excavation Under a Tent/Enclosure



Managed Slope Excavation



Limitations of Initial Six Options

- Any disturbance to the slope could trigger a failure
- Engineered structures (retaining walls, buttresses, MSE walls) require geotechnical study and engineering design
- Tent fabrication and permitting review could delay work for several months (assuming that permit is approved)



Subsequent Options Identified

- DTSC directed that additional options be evaluated -
 - Especially those that involve limited slope disturbance
- Additional options reviewed included soil “nailing”, in-place soil stabilization, and hybrids of the initial options



Soil Nailing

- Utilizes a tie-back system to hold back the slope from collapsing
- Requires stable and uniform soil to anchor the “nails” or tie backs
- Ascon soils are low-strength and very likely unable to support “nails”
- Concrete and asphalt could prevent driving of “nails”
- Extended time frame required for Design and Mobilization



In-Place Soil Stabilization

- Strengthening the soils by mixing with cement
- Drill boreholes within landfill materials to create concrete “columns”
- Added weight and vibration while the concrete/soil mixture is placed increases failure risk
- Extended time frame required for Design and Mobilization



Combined or Partial Options

- Project Consultant directed to evaluate partial performance of the original options, or combinations of them
- Combinations were considered viable, but still subject to geotechnical evaluation / engineering design
- Decreased volume of excavation reduces the risk of slope failure – but doesn't eliminate it



Limiting Factors of Additional Options

- All require geotechnical and engineering evaluations
- In-place Stabilization could actually increase the risk of slope failure
- Partial excavation before getting to a 5:1 slope angle:
- Still involves excavation, and does not definitively eliminate the risk of a slide



Slope Stabilization Recommendation

- All options evaluated have drawbacks – but we do need to act
- Quickest and most certain approach: minimized excavation rate – “Managed Slope Excavation”
- Would only be approved with a dramatically slower rate of excavation
- Maximum amount of controls over odors and dust (foam, soil, and plastic covering)



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DTSC's Recommendation: What you can expect

- Conduct minimized excavation rate
- Ensures a maximum amount of controls over odor and dust
- Barring any additional information - limited excavation would be authorized very soon



Critical Differences from Past Excavations

- Dramatically limit daily excavation rate
- Close down the excavation if odors cannot be controlled
- Get as close to the 5:1 angle as possible to reduce risk of a slope failure
- Direct the work to occur while Edison High School is closed



Safety Measures to Protect the Community

- ❖ **Controlled rate** of excavation
- ❖ DTSC staff on-site when work is conducted
- ❖ Real-time Dust and Odor Monitoring
- ❖ Multiple Approaches to Odor Control



Future Considerations



For More Information on Ascon Project

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➤ **DTSC website:**

<https://dtsc.ca.gov/smrp-projects/ascon-landfill-site/>

➤ **DTSC EnviroStor:**

https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=30490018



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4/2/2020

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Questions & Answers

