

STATUS REPORT – AUGUST 11, 2016

Sunset Lake Dam

INTRODUCTION

- Dam is over 100 years old (Built in the early 1900's)
- 15 Acre Lake Area - 9 Foot Maximum Depth
- 10 Foot High Earth Dam
- 2 Spillways (12" pipe and 7.5 Ft wide concrete weir)
- Class I – High Hazard Dam
 - (Failure may cause probable loss of life or extensive property damage)
- Spillway Design Storm = PMP (34 inch rainfall in 24 hr)
- Dam is in Poor condition due to:
 - Lack of Spillway Capacity (Can only pass 100 yr storm)
 - Tree growth on embankment
 - Seepage near toe of embankment

DAM CREST



PRIMARY SPILLWAY



SPILLWAY
12" PIPE

DAM CREST



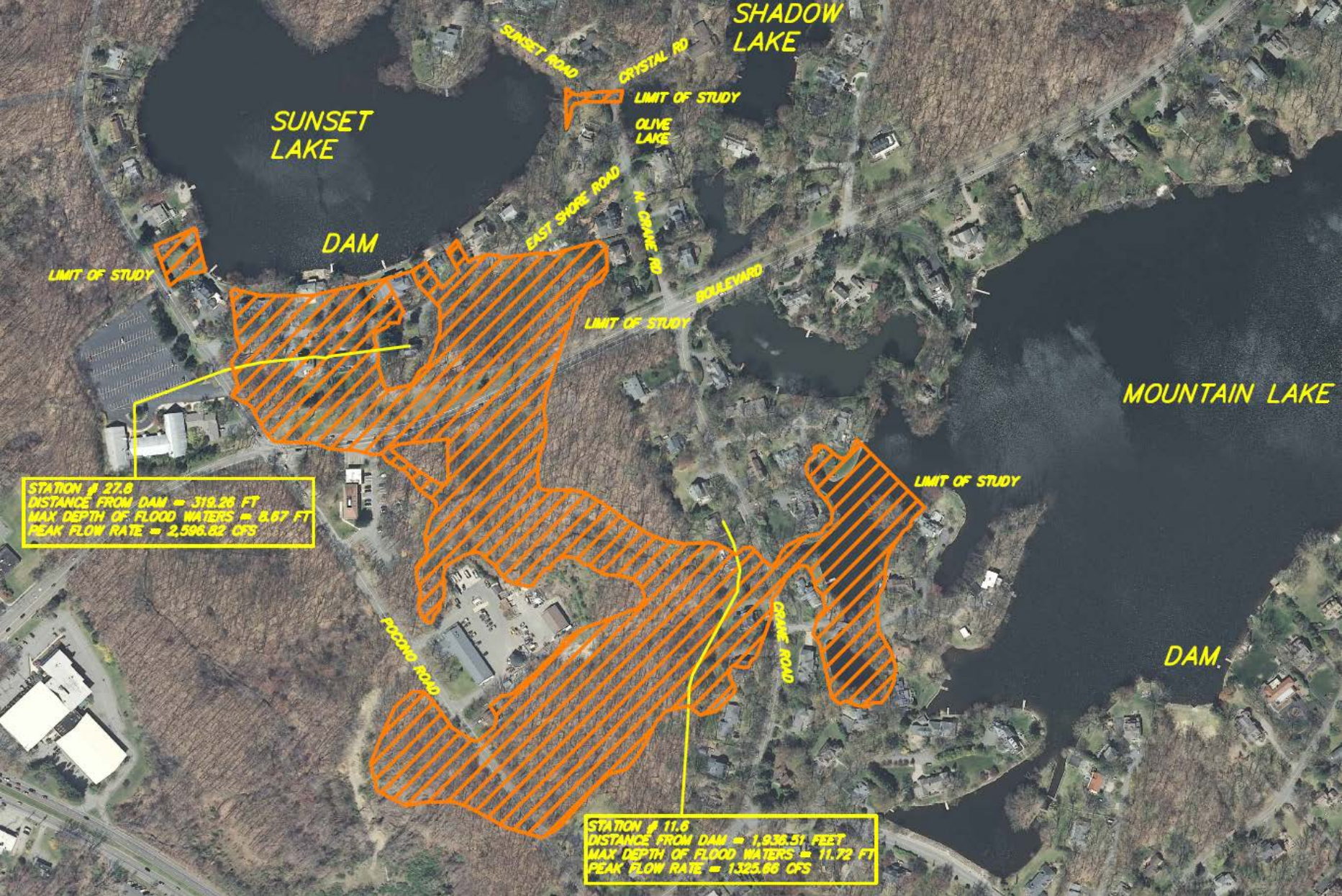
DOWNSTREAM EMBANKMENT



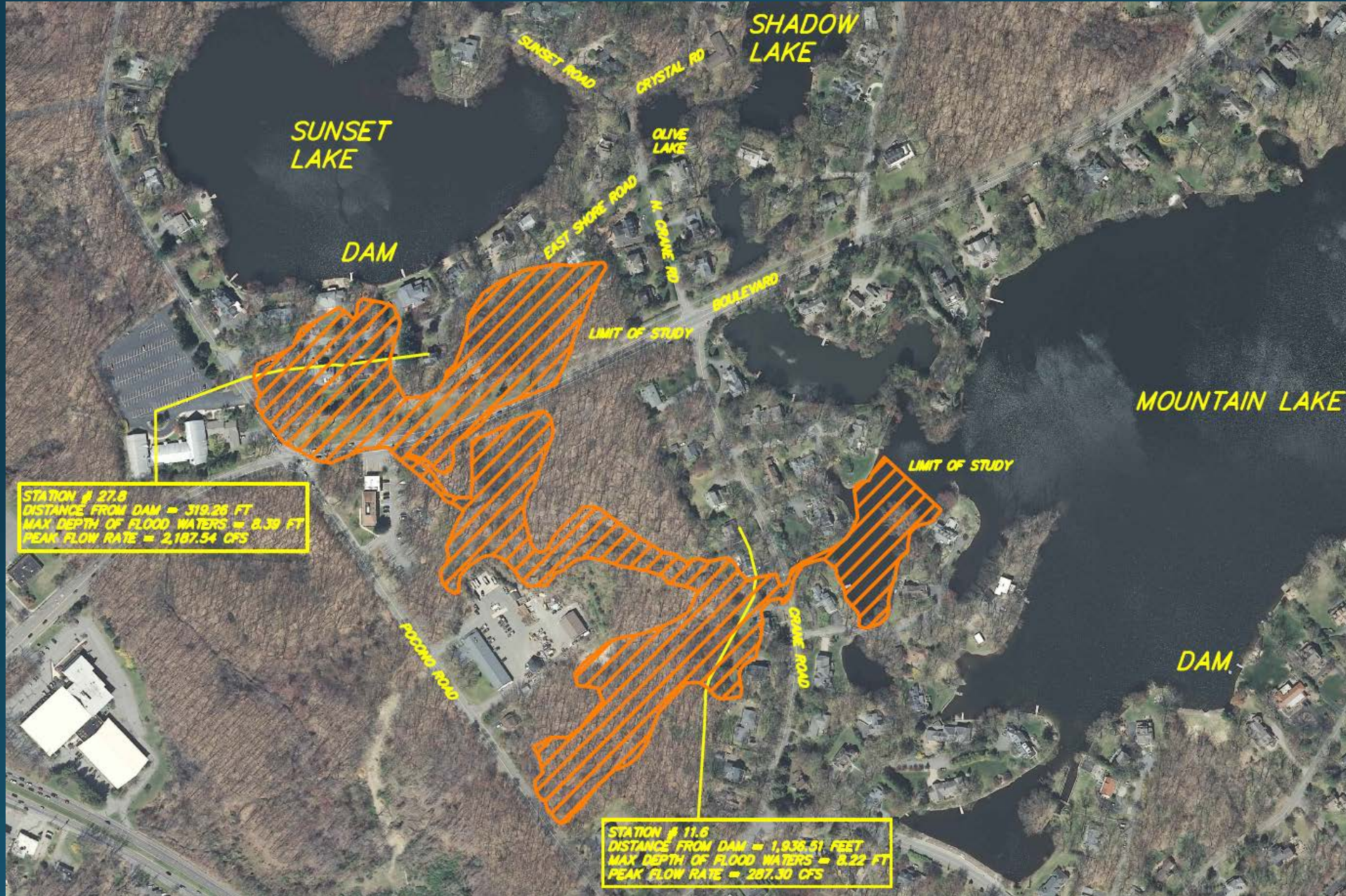
DOWNSTREAM EMBANKMENT



INUNDATION MAP – PMF With Dam Failure



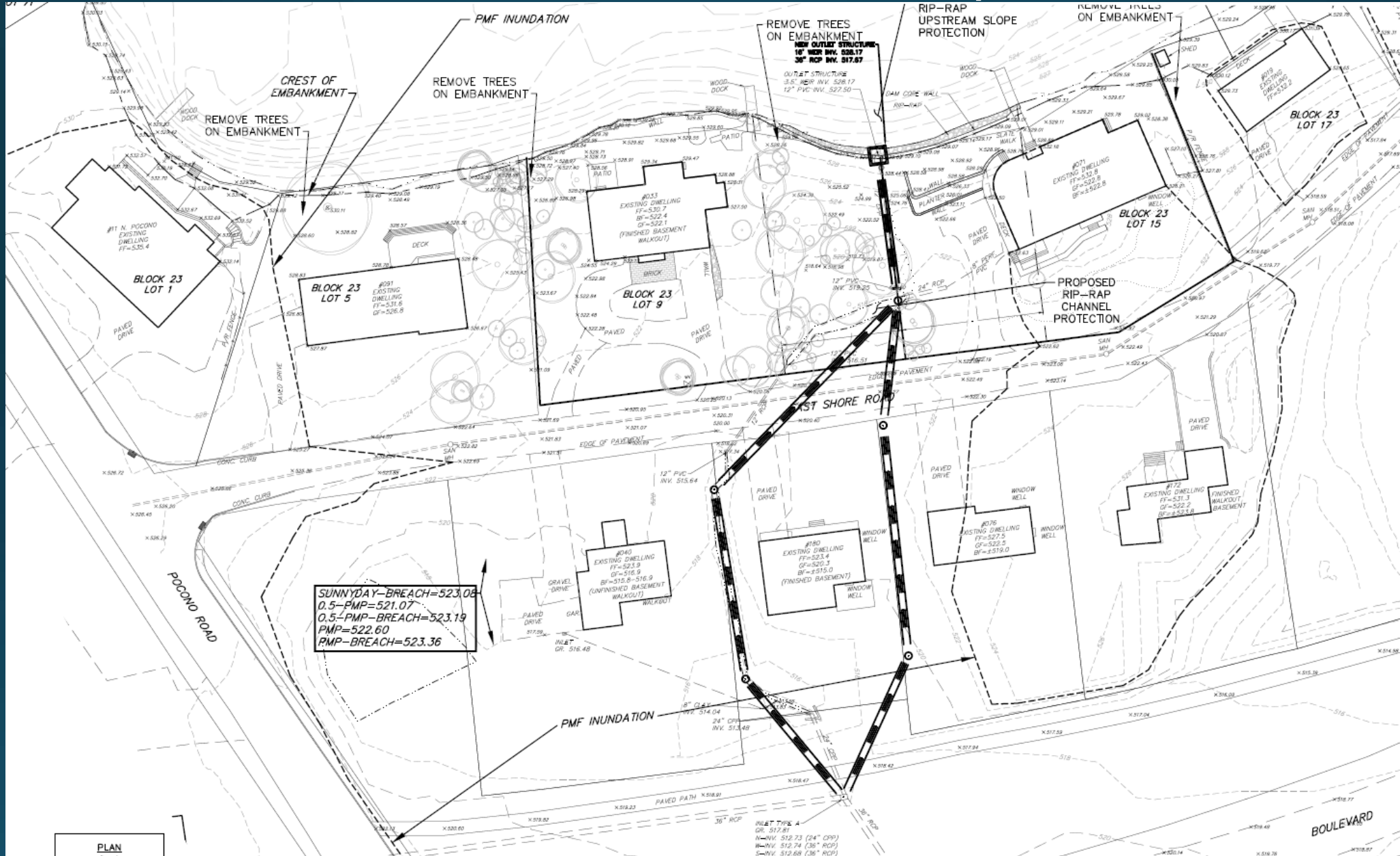
INUNDATION MAP – Sunny Day Dam Failure



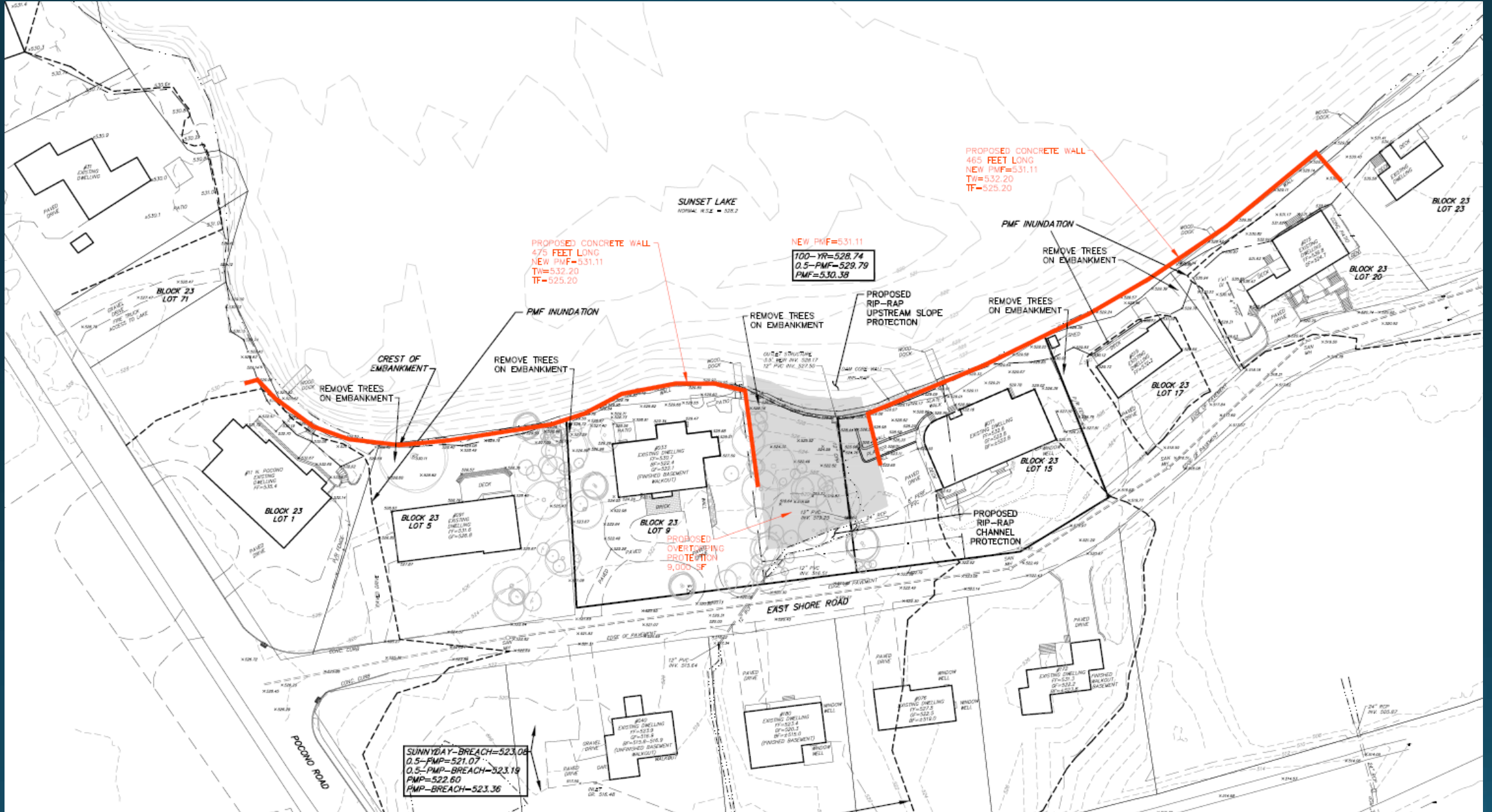
DAM REHABILITATION OBJECTIVES

- Protect embankment from erosive overtopping flows
- Protect downstream homes from dam failure
- **Analyze several alternate options for increasing spillway capacity**

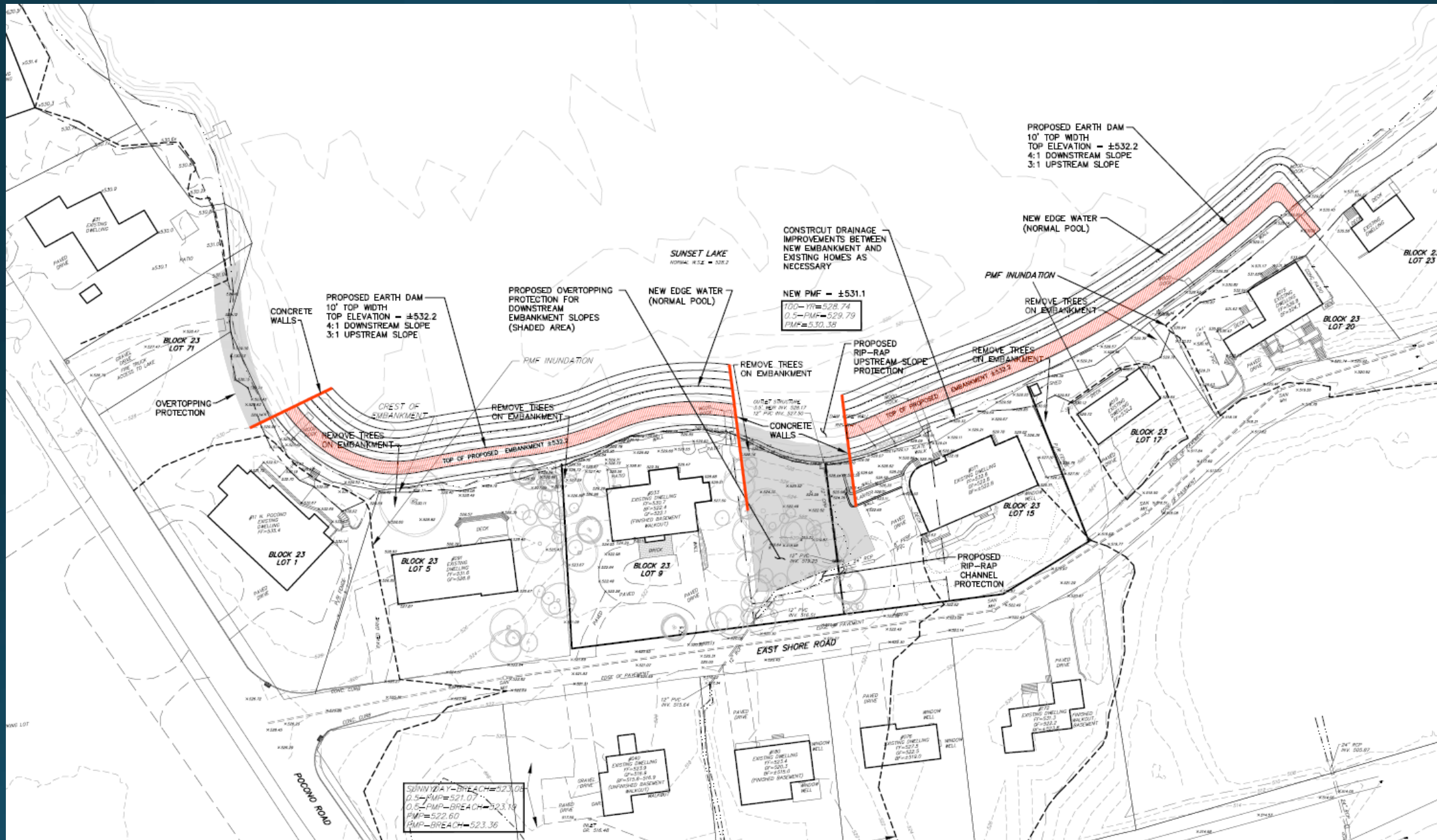
ALTERNATE 'A' – Increase Pipe Size



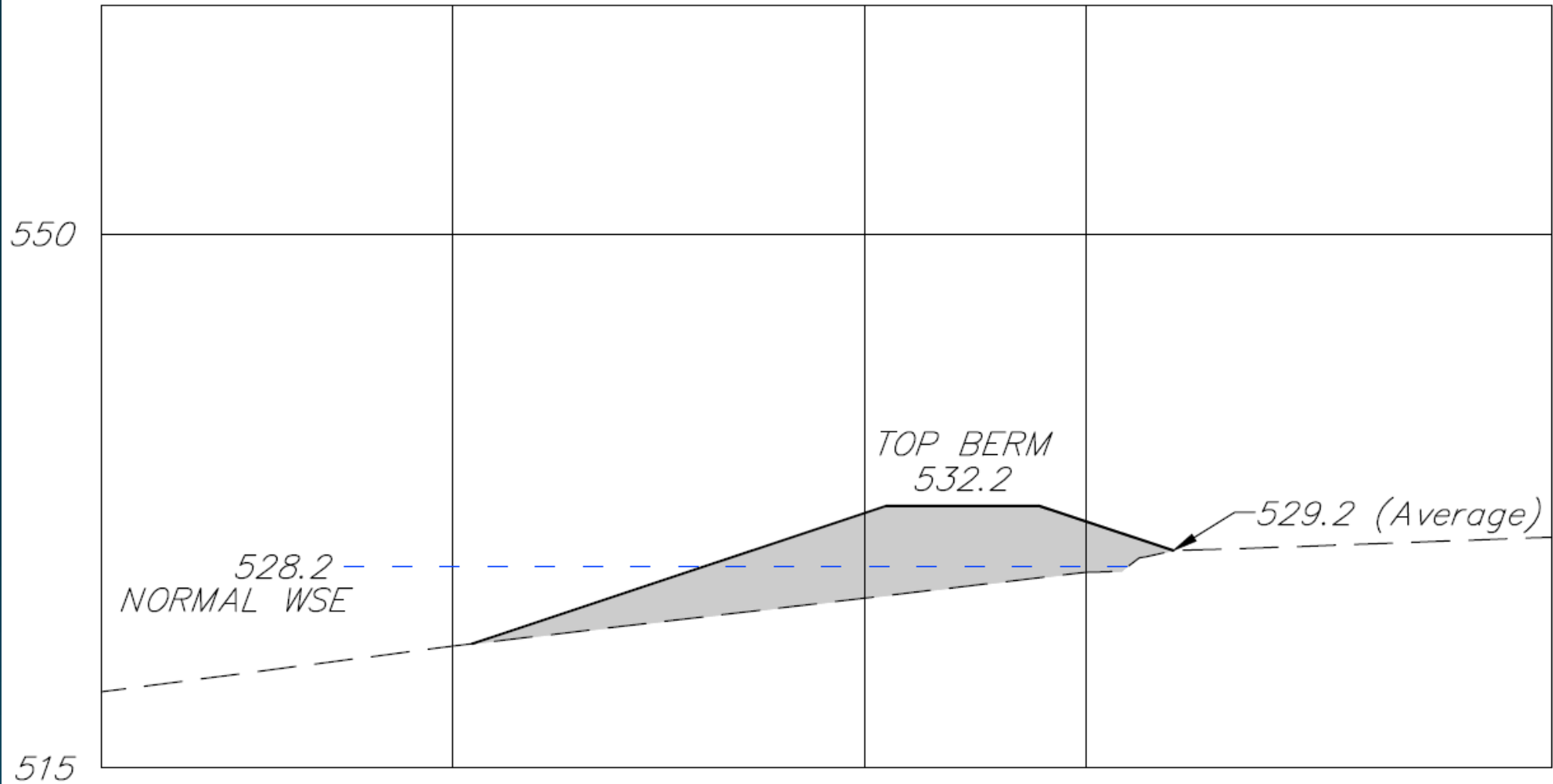
Alternate 'D' – Vertical Wall



ALTERNATE 'E' – Earth Embankment



ALTERNATE 'E' – Earth Embankment Profile



PROFILE OF NEW EMBANKMENT

AUXILLIARY SPILLWAY



AUXILLIARY SPILLWAY CHANNEL



AUXILLIARY SPILLWAY STABILIZATION

