

IMPROVEMENTS TO LEVEE CONSTRUCTION STANDARDS

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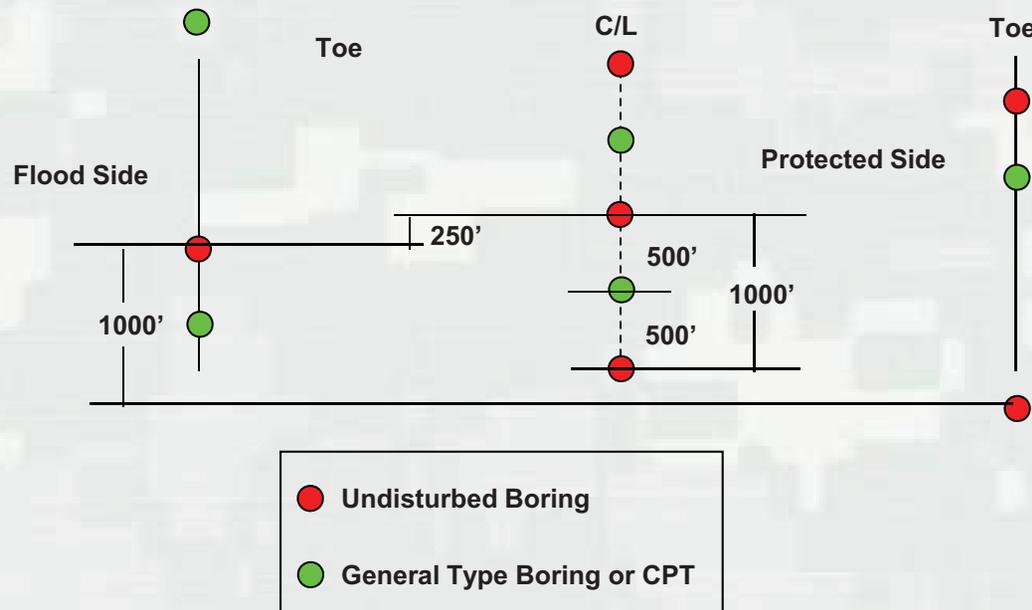
NGO BRIEFING

September 25, 2012



SUBSURFACE PROFILING

- Investigations Spaced Every 500 ft (EM 1913 allowed 1000 ft or greater)
- Borings Taken Along Levee C/L and Toes (PS and FS)
- 5" Borings: 1000 ft Spacing
- 3" Borings or CPTs: 1000 ft Spacing (between 5" borings)



EM 1913 VS HSDRRS CRITERIA

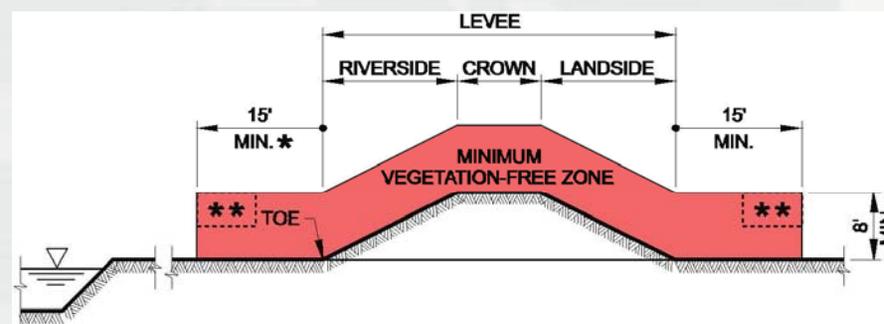
- Contractor's Quality Control Requirements
 - ▶ Classification
 - EM 1913: clays, silts, and sands allowed – MVN specs did not allow sands
 - HSDRRS: only clays allowed, no silts or sands
 - ▶ Moisture Content (must be within +5 to -3% of optimum - no change)
 - ▶ Organic Content
 - EM 1913 : cautioned against using highly organic soil
 - HSDRRS : < 9% (ensure erosion resistance and reduce compressibility)
 - ▶ Sand Content
 - EM 1913 : no specific restrictions
 - HSDRRS : < 35% (ensures true clays are used in construction)
 - ▶ Density (requirement – 90% Standard Proctor Density)
 - EM 1913 : stability berms uncompacted
 - HSDRRS : entire levee meets compaction requirements
- Post Construction Borings – verify design assumptions



VEGETATION POLICY

- Based on USACE primary goal – life safety
- Guides flood risk management decisions
- Ensures vegetation will not compromise
 - ▶ Levee Integrity
 - ▶ O&M, Inspections, & Flood Fight Activities
- Vegetation Free Zone (VFZ)
 - ▶ Earliest 1971, Updated 2009
 - ▶ 15 ft from each levee toe
 - ▶ 8 ft vertically
- Single exception:
 - An existing project where the width of the existing real estate interest for the project is less than 15 feet.

Inspections and Maintenance



Root Penetration

