

FEMA Hazard Mitigation Grant: Seismic Retrofit of Steel Standpipes



Previous Anchoring



Opportunity to Rehab Interior & Exterior



Under Hatch Lid



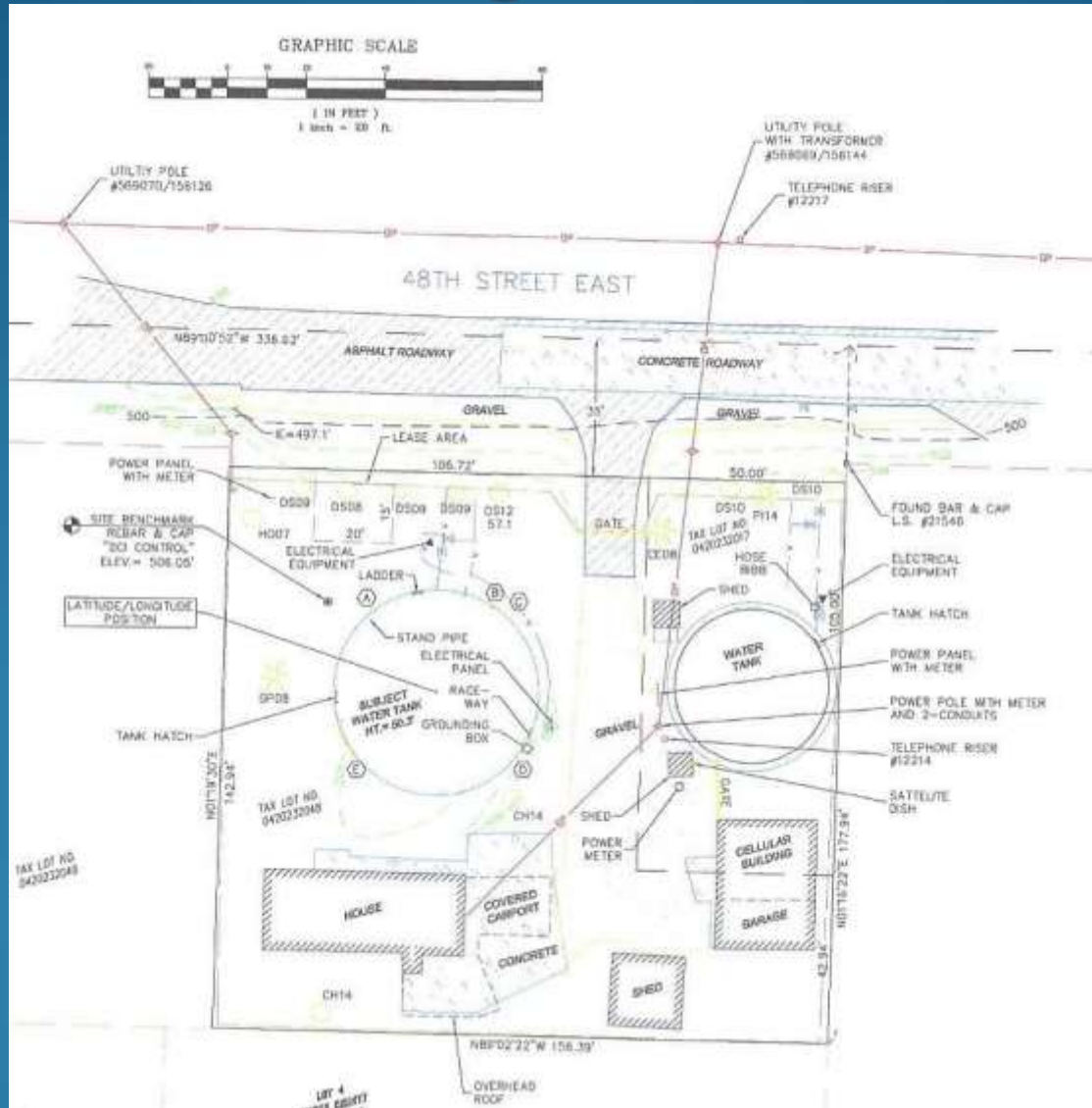
Grant Application Process

- Regional Hazard Mitigation Plan
- Growth Management Act Compliance
- National Flood Insurance Program Compliance
- Project Description
 - (include alternatives considered)
- Scope of Work
- Environmental Data
- Budget and Funding

Project Funding

FEMA Grant	(75%)	\$783,439
State Match	(12.5%)	\$130,573
Local Match	(12.5%)	\$130,573
TOTAL PROJECT COST		\$1,044,585

Existing Site Plan



Locates of Underground Utilities



Underground Conduits



Old Tank Footings



1940s Tanks



More Hidden Problems!



Easement Mitigation



Old Roof Vent



New Tank Vent



Column Problems



After Repair



Interior Problems



Interior Problems



Dealing with the Depression



Grout Port



Floor Grouting



Exterior Steel Work



Interior Steel Work



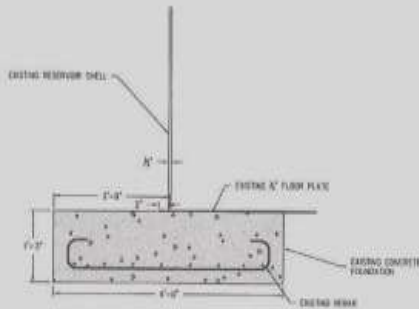
Old Inlet/Outlet Valve



Inlet/Outlet & Overflow Pipes

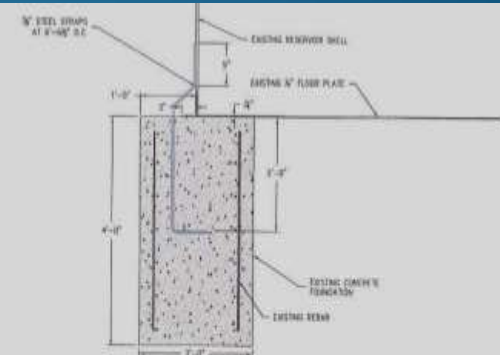


Foundation Upgrade Plan



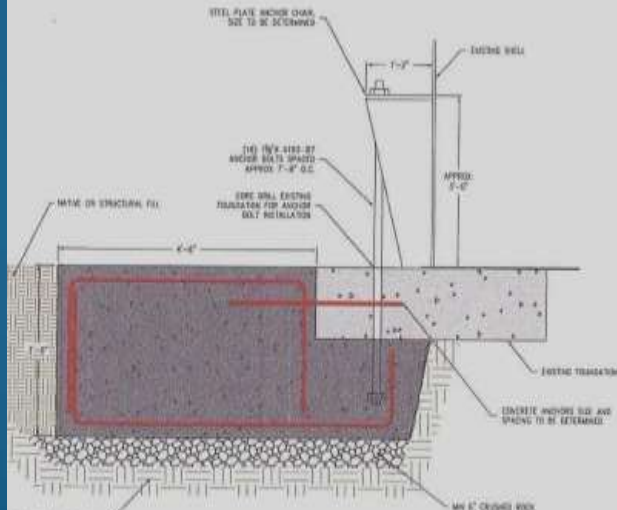
EXISTING EAST RESERVOIR SECTION

1" = 1'-0"



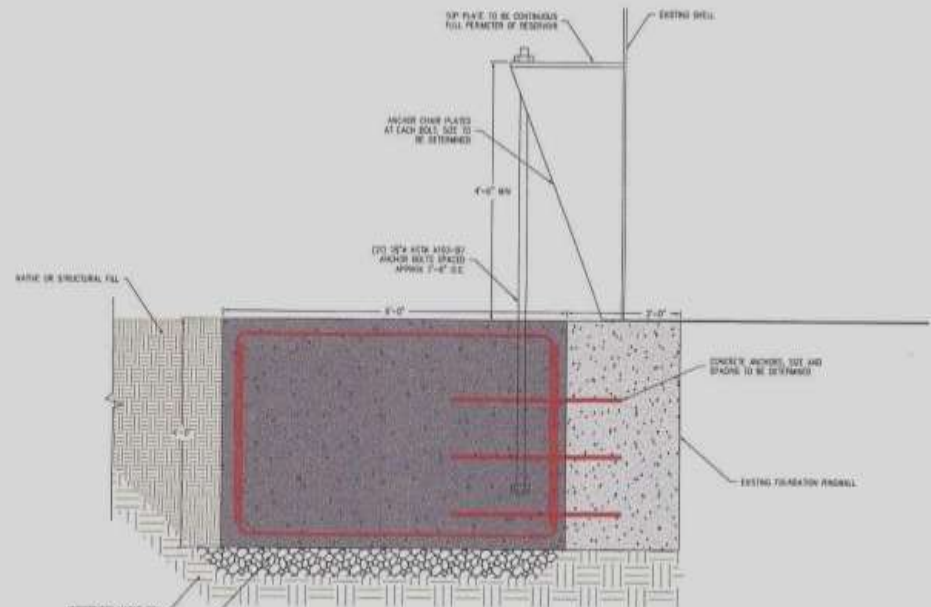
EXISTING WEST RESERVOIR SECTION

1" = 1'-0"



PROPOSED EAST RESERVOIR FOUNDATION

1" = 1'-0"



PROPOSED WEST RESERVOIR FOUNDATION

1" = 1'-0"

Excavation Under Foundation



Completed Excavation



New Foundation Forms and Rebar



Starting Concrete Pour



Pouring New Foundation



Space Constraints



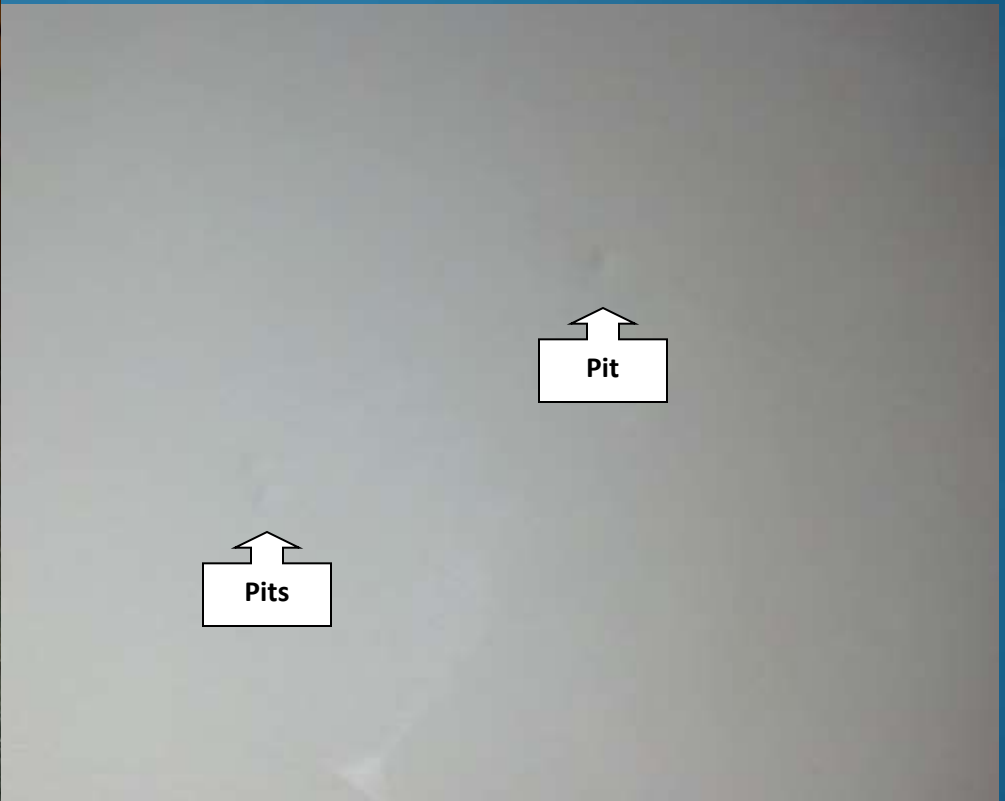
Sand Blasting Bottom 8'



Primer (temporary)



Interior Paint Prep



Interior Paint



Exterior Paint



Foundation Easement



Time Schedule

DATE	ACTION
Jul-11	MTVE Starts Move of Power for Site.
Mar-12	MTVE Preps Reservoirs (Welding and Cutting).
Apr-12	Drain West Tank and Begin Seismic Retrofit.
Sep-12	West Tank Back In Service.
Oct-12	Drain East Tank and Begin Seismic Retrofit.
May-13	East Tank Back In Service.
Jul-13	Completed Seismic Retrofit and Renovation Project!

The Finished Product!

