

**Parsons-LIGO**   
100 West Walnut Street  
Pasadena, CA 91124

Main Operator Line #: (818) 440-2000  
Parsons-LIGO Fax #: (818) 440-2900  
Central Fax (Optional) #: (818) 440-2630  
Confirmation #: (818) 440-2376

LIGO-G950086-00-□

---

# Facsimile Cover Sheet

**To:** Mr. Fred Asiri  
**Company:** Caltech -- LIGO Project  
**Phone:** 818-395-2971  
**Fax:** 818-304-9834

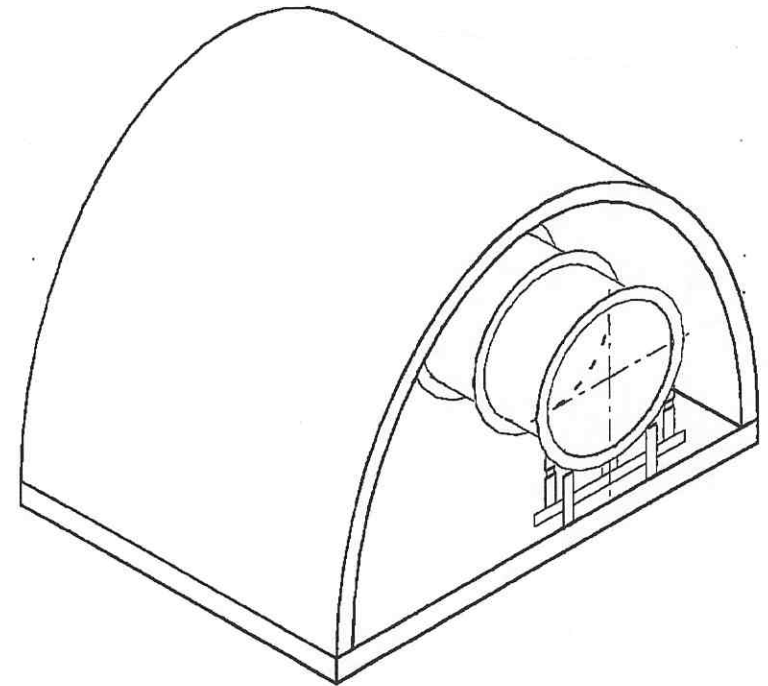
**From:** Jeff Hermann  
**Company:** Ralph M. Parsons Company  
**Phone:** (818) 440-2394  
**Fax:** (818) 440-2900

**Date:** 10/06/95  
**Pages including this cover page:** 6

**Comments:**

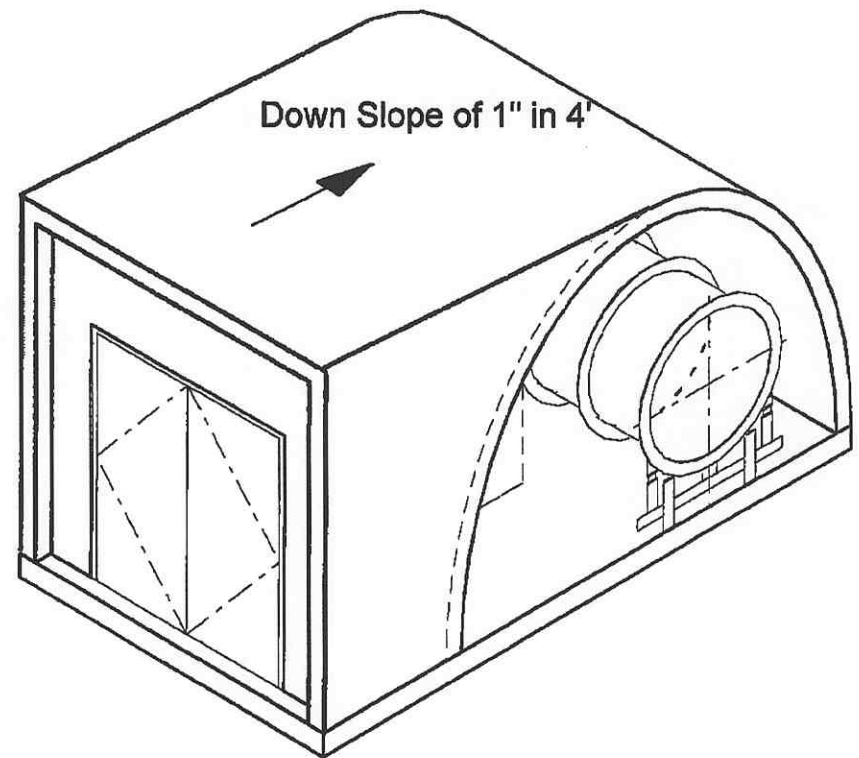
# Precast Enclosure Segments

- 6” Thick Precast Concrete
- Inherently Stable & Water Repellent Ellipse Shape
- Sealed at Base and End Surfaces



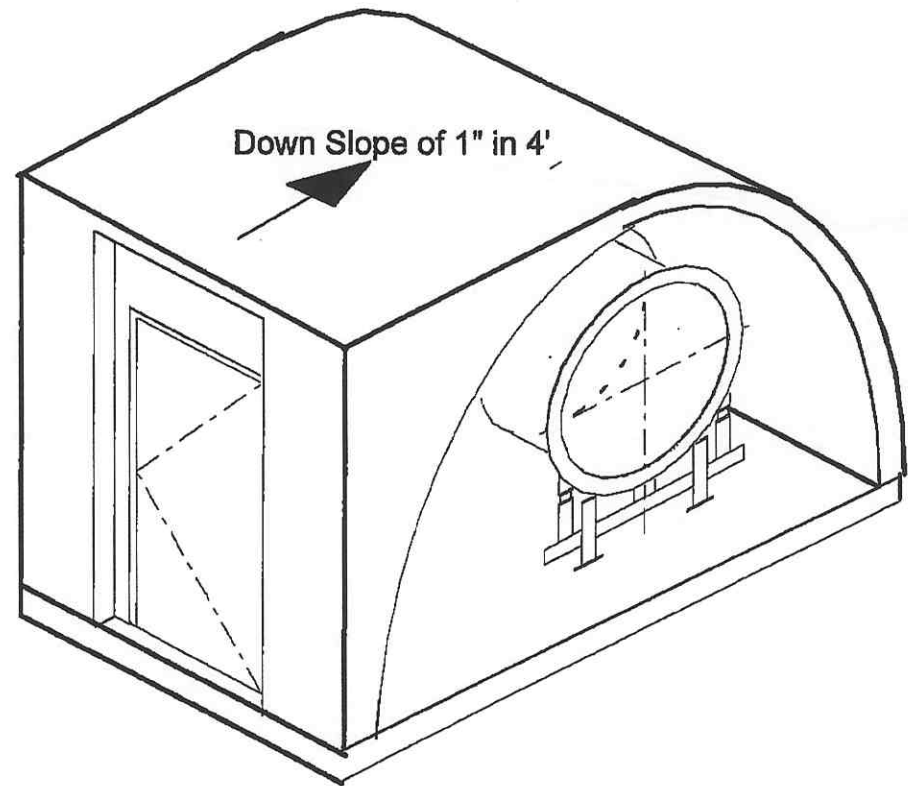
# Service Entrances

- Located at 780 Foot Intervals
- 28 Service Entrances
- 10 feet long, and approximately 28,900 pounds
- Double self-sealing bullet-proof doors
- 9' x 9' Vestibule Space

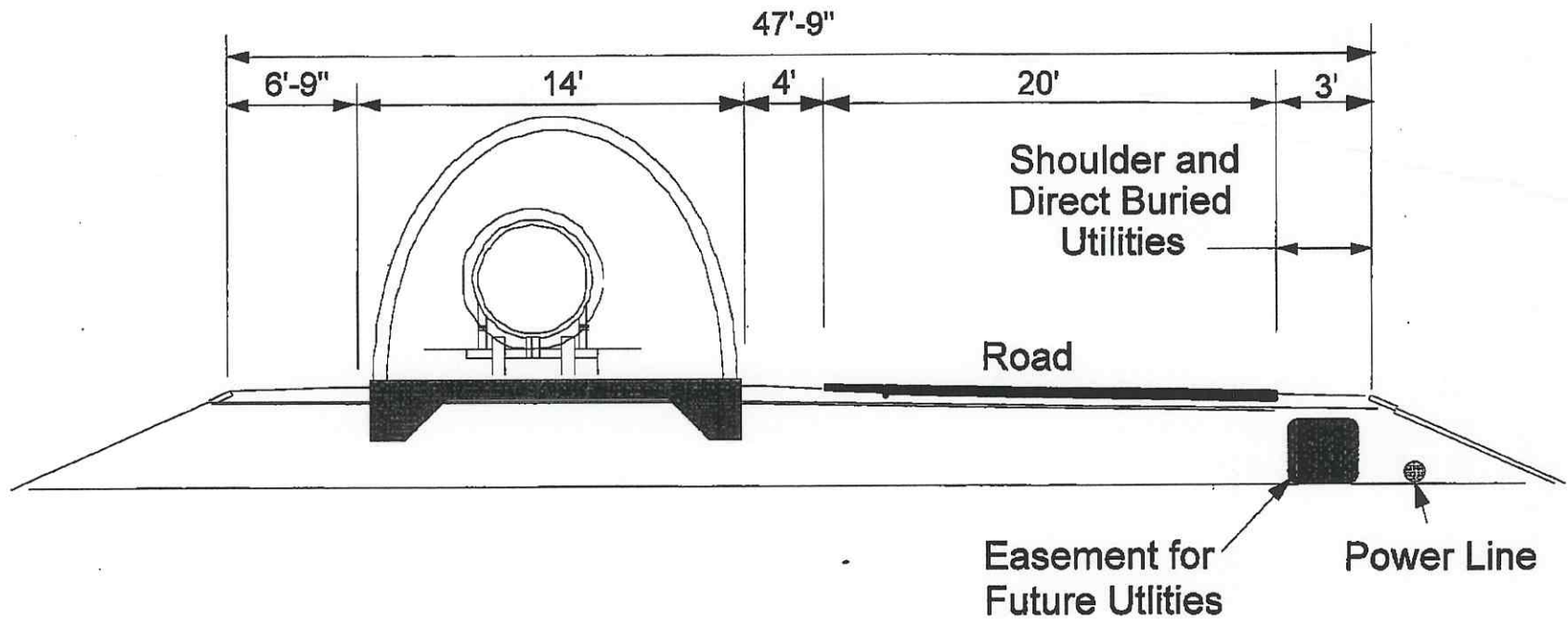


# Emergency Egresses

- 1 Between Each Pair of Service Entrances
- Meets UBC, NFPA, Fed-OSHA, & Local Fire Marshal Criteria
- Single self-sealing bullet-proof door
- 10 feet long and approx. 22,000 lbs.



# BTE and Embankment



Cross Section (Hanford)

# LVEA Features

- Cleanroom Compatible Finishes
- Air Supplied through Ceiling Mounted HEPA filters (No cleanroom air rating)
- Air Returned at Floor Level via Wall Plenums
- Controlled Environment
  - 22 +/- 2 degrees C
  - 30 to 70% Relative Humidity

# LVEA Features

- Foundation Vibration Criteria
  - 4 times LIGO Standard PSD
  - For 0.1 to 50 Hz the RMS Displacement from all Narrow Band Excitations is Less Than  $3 \times 10^{-7}$  Meters
- Acoustics -- 2.5 Second Reverberation Time
- 5 Ton Crane System Throughout