CITY OF SAN DIEGO
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT

Project Name: MBC Centrate Collection Upgrades
CIP No. 45- 982.0

Name of Project Presenter: Idalmiro Manuel da Rosa, Associate Engineer-Civil

Background:

The City of San Diego's Metropolitan Wastewater Department (MWWD) operates the Metro Biosolids Center (MBC), a regional biosolids processing facility located adjacent to the City's Miramar Landfill in Kearny Mesa.

MBC receives raw biosolids from the North City Water Reclamation Plant and digested biosolids from the Point Loma Wastewater Treatment Plant. These biosolids are dewatered by eight (8) dewatering centrifuges. The centrifuges discharge into two existing Centrate (CN) collection headers which are undersized. This results in surcharging at the individual centrate discharge chutes of the centrifuges and causes centrate overflows into the Foul Air (FA) vent connection of each chute and into the two foul air duct headers running along side the centrate headers. The centrate overflows are caused by backups due to flow restrictions at the header tee connections (no lateral wyes causing zero velocity), solids accumulation in the headers and inadequate header pipe slope. These centrate overflows into the foul air ducts result in solids accumulation and plugging problems in the foul air headers, damage to downstream ducting, dampers and fans, and reduced odor removal efficiencies. Also adding to the problem is the absence of cleanouts on the subject pipes necessary for periodic removal of centrate solids build-up.

The Phase 1 upgrade for this centrate collection system was completed in 2004. This upgrade connected the surcharged foul air header to the centrate main header at a downstream junction and installed an inverted U-pipe which separated and removed the centrate surcharge from the foul air headers.

In anticipation of increased biosolids load to MBC, the existing 8 dewatering centrifuges are planned for replacement with larger capacity units in 2010- 2011. As a result, larger sized centrate headers will be needed. To avoid interruption to the dewatering process, the centrate flow from a header must be diverted prior to upgrading the centrate header.

Project Description:

This project is a design/build project to upsize the existing foul air and centrate headers to permanently resolve the surcharge conditions and provide increased capacity for future centrate flows.

The new parallel centrate and foul air pipe headers will be provided with additional or upgraded pipe supports, including new seismic lateral braces as required. Valved hose connections for flushing and cleaning out the headers will also be provided. No new electrical, instrumentation or control equipment will be required.

HDR/Filanc was selected as the design/build contractor through the City's competitive selection process.

Cost:

The costs associated with this project are as following:

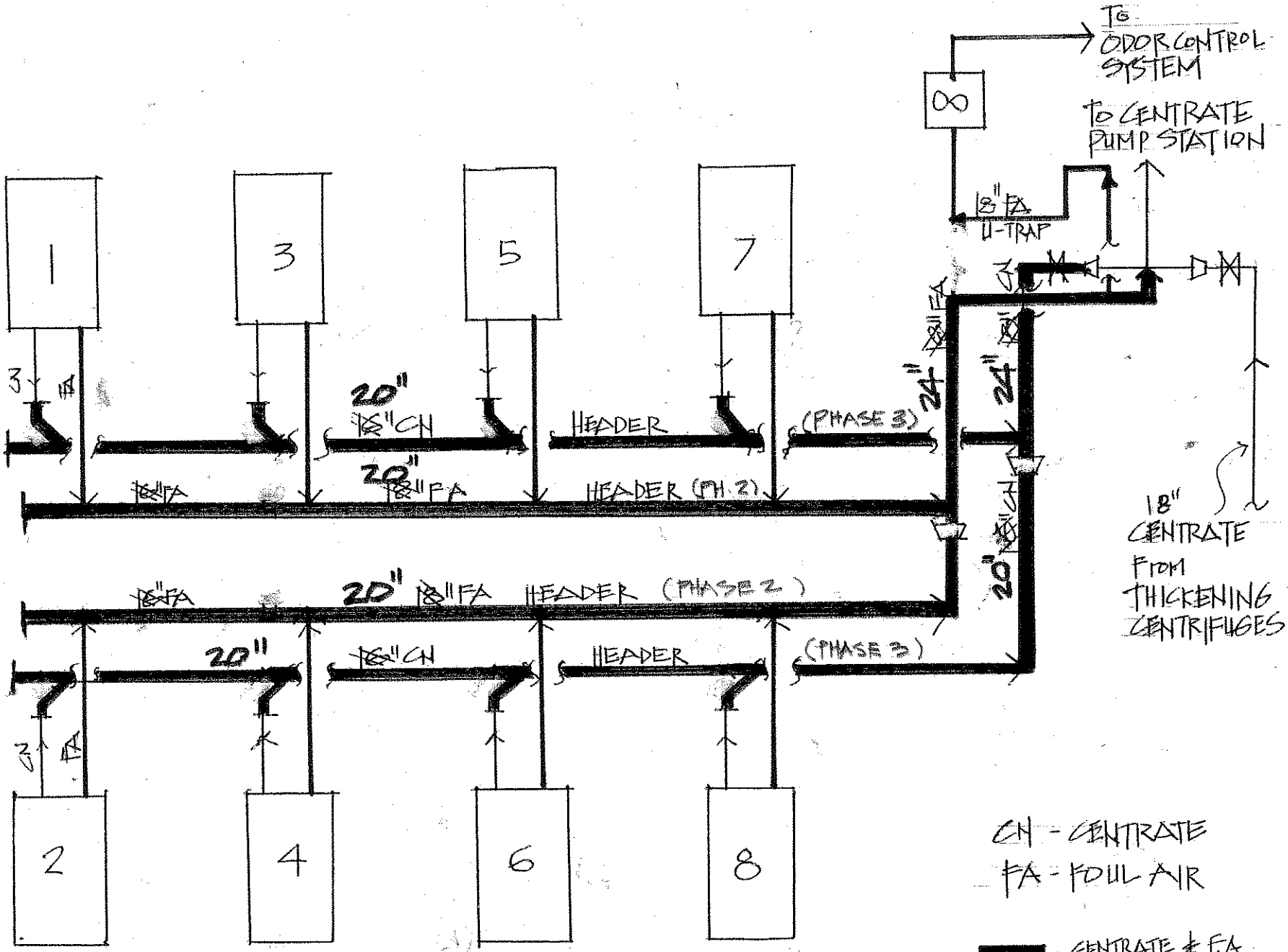
Administration	$ 165,000.00
Design /Build Costs	$ 1, 736,854.00
Field Orders	$ 40,000.00
Construction Management	$ 175,000.00
Contingency	$ 120,500.00
Total Projected Costs	$ 2,237,354.00

Funding will come from CIP No. 45-982.0 MBC Centrate Collection Upgrades.

Schedule:

The schedule for the MBC Centrate Collection Upgrades is as follows:

Contract Award Process	Present to January, 2009
Design	January 2009 to November, 2009
Construction	November 2009, to October, 2010
Construction Complete	October, 2010



MBC DEWATERING CENTRIFUGES (8 TOTAL)

MBC DEWATERING SYSTEM