Appendix K

Utilities Analysis

LONG BEACH MEMORIAL MEDICAL CENTER EXPANSION

UTILITIES SECTION

EXISTING CONDITION

Information relating to existing utility systems discussed in this section was derived from research maps obtained from the City of Long Beach. Each of the utility systems is described below.

EXISTING UTILITIES

Sanitary Sewer

The Long Beach Water Department operates and maintains nearly 765 miles of sanitary sewer line, safely and expeditiously delivering over 40 million gallons per day to Los Angeles County Sanitation District facilities. Currently, a majority of the City's wastewater is delivered to the Joint Water Pollution Control Plant (JWPCP) of the Los Angeles County Sanitation District. The remaining portion of the City's wastewater is delivered to the Long Beach Water Reclamation Plant of the Los Angeles County Sanitation District.

JWPCP is located at 24501 S. Figueroa Street, Carson, California. The plant occupies approximately 350 acres to the east of the Harbor (110) Freeway. The JWPCP is the largest of the Los Angeles County Sanitation Districts' wastewater treatment plants. It provides advanced primary and partial secondary treatment for 350 million gallons of wastewater per day. The plant serves a population of approximately 3.5 million people, including most of the 460,000 residents of the City of Long Beach. At JWPCP, the treated wastewater is disinfected with chlorine and

sent to the Pacific Ocean through networks of outfalls that extend two miles off the Palos Verdes Peninsula to a depth of 200 feet.

The Long Beach Water Reclamation Plant is located at 7400 E. Willow Street in Long Beach. The plant occupies 17 acres west of the San Gabriel River (605) Freeway. The plant provides primary, secondary, and tertiary treatment for 25 million gallons of wastewater per day. The plant serves a population of approximately 250,000 people, including a portion of the 460,000 residents of Long Beach. Almost 5 million gallons per day of the purified water is reused at over 40 reuse sites.

Sanitary Sewer service for the Long Beach Memorial Medical Center is provided by the City of Long Beach Water Department. In Atlantic Avenue, from 28th Street north to Columbia Street, there is an existing 18-inch trunk sewer line east of the Atlantic Avenue centerline that connects to an existing 21-inch trunk sewer line located approximately at the centerline of Columbia Street that flows west to Long Beach Boulevard then flows south in an 18-inch trunk sewer line that connects to a manhole west of Long Beach Boulevard centerline and north of Patterson Street. This trunk sewer system connects to the Los Angeles County Sanitation District trunk sewer system as noted above.

Water

Water service is provided by the City of Long Beach Water Department. An existing 12-inch water line located approximately 15 feet east of Long Beach Boulevard centerline between Willow Street and Spring Street. At Patterson Street, an 8-inch waterline connects from the Long Beach Boulevard 12-inch water line to the Atlantic Avenue 8-inch water line.

There are existing Fire Hydrants and water service vaults behind the existing curb line. Valves are located on the main lines, fire hydrant laterals are present on larger water service lines.

Electrical Power

Electrical power service is provided by the Southern California Edison Company (SCE). Electrical duct banks are located on the east side of Atlantic Avenue between Willow Street and Spring Street.

Natural Gas

Natural gas distribution is provided by Long Beach Energy Department. The depth of cover on the gas line is not known. The gas lines are located as follows:

- 4-inch gas line in Spring Street 10 feet north of the centerline between Long Beach Boulevard and Atlantic Avenue.
- 4-inch gas line in Spring Street 12 feet north of the centerline and connects to Atlantic Avenue.
- 3-inch gas line westerly in 29th Street from Atlantic Blvd to Pasadena Avenue that connects to a 6-inch gas line at Pasadena Avenue.
- 4-inch diameter gas line north of the centerline of Columbia Street.

Telephone

Telephone lines distribution is provided by Verizon. The only record of telephone duct in Atlantic Avenue is approximately 50 feet east of Atlantic Avenue centerline from Patterson Street south to Willow Street. The depth of cover over the telephone duct is not known.

Underground fiber optic lines exist in Long Beach Boulevard which is the primary point of connection supplying the Long Beach Memorial Hospital's telecommunication needs. A second point of connection has been identified on the north side of the hospital along Twenty-ninth Street and Pasadena Avenue. Verification of underground telephone lines within the project site is needed.

Oil

There are active and abandoned Oil lines in the public streets and easements around the Long Beach Memorial Medical Hospital which are under permits issued by the City of Long Beach. There are existing abandoned oil lines in Atlantic Avenue and Columbia Street. Some of the old abandoned oil lines in the public streets may not be clearly defined in the city records.

PROPOSED CONDITION

Sanitary Sewer

Sewer laterals serving the Miller Children's Hospital, Outpatient Center, and Link Building will connect to a 8-inch City of Long Beach sewer main in Patterson Street (Vacated) in the center of

the campus. The sewer lateral serving the Central Plant will connect to the City of Long Beach 8-inch sewer main in Atlantic Avenue north of 27th Street. Within the project construction area the sewer manholes will be adjusted to the surface design grade.

Sewer laterals serving Todd Cancer Institute will connect to the 15-inch City of Long Beach sewer line in an easement running north and south through the Memorial Medical Center property east of the Todd Cancer Institute proposed building. Capacity of the 15-inch sewer line in the adjacent easement will require further study and discussions with the City of Long Beach Water Department. The 15-inch sewer line traversing the parking lot in a north-south direction from Spring Street to Columbia Street is anticipated to be relocated on the ultimate build out of Todd cancer Institute.

Water

Implementation of the proposed project would not have a significant impact on the water quality of the area. The site usage of medical facilities and parking lots does not deviate from the existing pattern of land uses. As stated above, incorporation of new BMPs would be capable of reducing the amount of polluted runoff from parking lots and landscaped areas, therefore making the runoff from the site less polluted than the existing condition.

The existing 8-inch water line in Long Beach Memorial Drive is in conflict with the proposed location of the Acute Care Building. The 8-inch water line will be relocated to the realigned

Patterson Street and connect to an existing 8 inch water line east of centerline of Atlantic Avenue. Additional 6 inch fire water will be installed to new fire hydrant locations.

The depth of cover of the existing waterlines is unknown. Potholing of the existing main should be performed to verify depth of cover. If the depth of cover over the waterline is shallow and the total street pavement section is thick (around 24-inches), then the temporary cover over the water line during construction may be reduced to 12 inches or less. Under these circumstances, protective measures should be implemented to prevent damage or breakage of the water line during the pavement sub-grade preparation process.

Electrical Power

The Long Beach Memorial Medical Center Expansion project should not impact the existing electrical power duct banks. The access manhole covers to the existing vaults will require adjustment to meet the proposed finished surface grades. Consultation between the utility company and the project consultants will determine the required electrical power needs and the feed point locations.

Natural Gas

The Long Beach Memorial Medical Center Expansion project should not impact the existing gas line. The exact location of the gas line should be determined by potholing prior to start of construction to confirm the horizontal location and depth of cover. As with the water line, special protection measures may be required for the gas line if the line is shallow and the total pavement

section is thick. Consultation between the utility company and the project consultants will determine the natural gas requirements for the proposed buildings.

Telephone

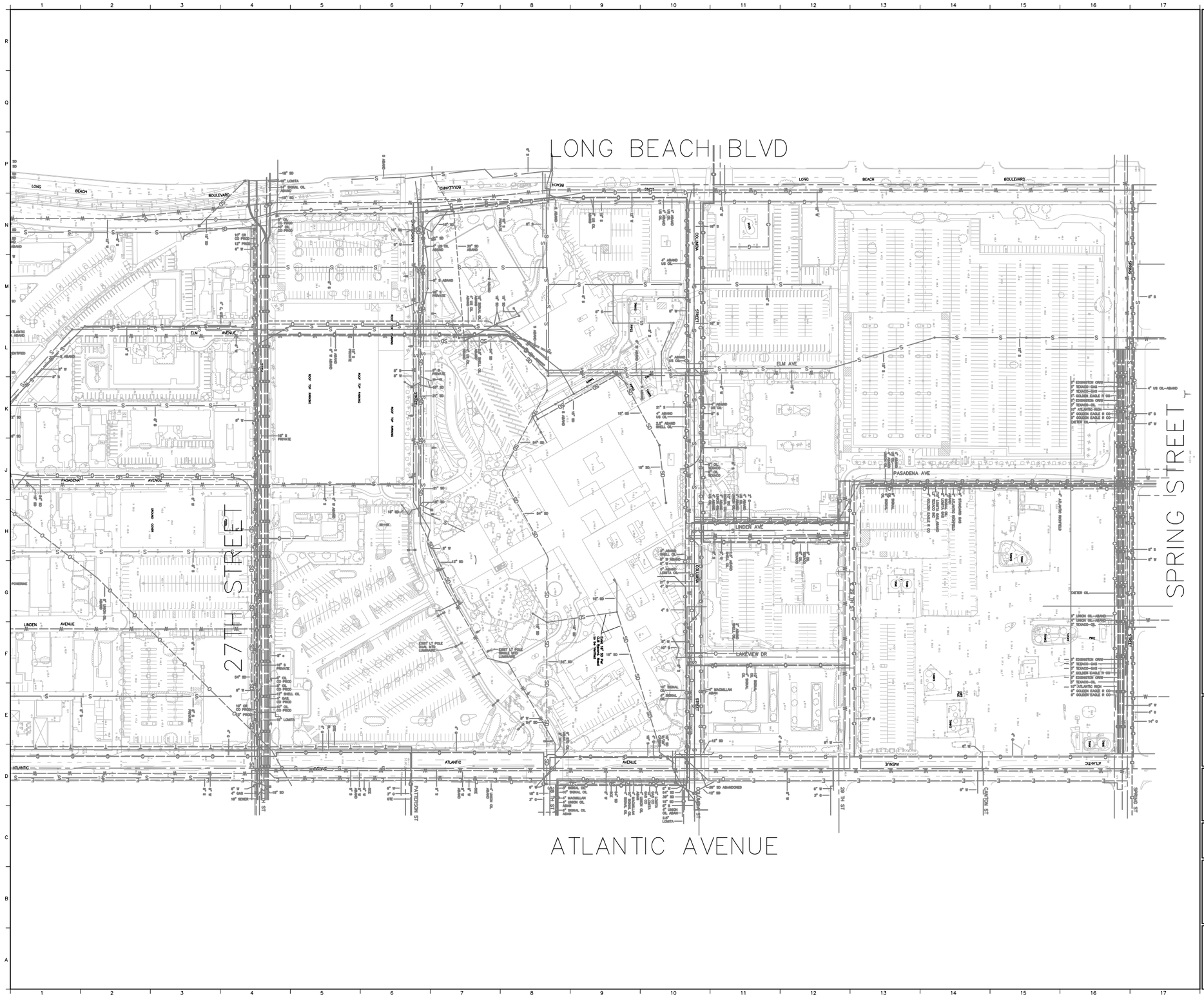
The Long Beach Memorial Medical Center Expansion project should not impact the existing telephone duct banks. The access manhole covers to the existing vaults will require adjusting to meet the proposed finished surface grades. Consultation between the utility company and the project consultants will determine the telecommunication requirements and feed point locations.

Oil

The Long Beach Memorial Medical Center Expansion project should not impact the existing oil lines. The existing oil lines in areas of construction should be potholed prior to construction to confirm their horizontal location and depth of cover.

General

Prior to performing any construction activity at the project site, the Contractor is required to call DIG-ALERT, to identify and mark on the ground surface the locations of existing underground utilities.



MOFFATT & NICHOL
250 WARDLOW ROAD
LONG BEACH, CALIFORNIA, 90807
562-426-9551

PROJECT:
MILLER CHILDREN'S HOSPITAL
2801 Atlantic Avenue, Long Beach, CA 90801

ACUTE CARE ADDITION AND CENTRAL PLANT

SHEET TITLE:
EXISTING UTILITY PLAN

REVISIONS/SUBMITTALS:	DATE:
25% DESIGN DEVELOPMENT PROGRESS SET	09-27-04

AGENCY APPROVALS:

PROJECT NUMBER:	2251.10
PROJECT ARCHITECT:	R. SAVELY
DRAWN BY:	
AGENCY SUBMITTAL DATE:	
ISSUED FOR BIDS:	
ISSUED FOR CONSTRUCTION:	
SCALE:	1"=40'
SHEET NUMBER:	U-1

PROJECT: MILLER CHILDREN'S HOSPITAL ACUTE CARE ADDITION AND CENTRAL PLANT

DWG INFO: P:\J4521\CADD\J4521000U01.DWG, JUL 15 2004 - 08:14 AM; (C) MOFFATT AND NICHOL

LONG BEACH WATER DEPARTMENT
A Class 1 Water Utility

KEVIN L. WATTIER, General Manager

January 6, 2005

Mr. Jim D. Faul, P.E. – Chief Civil Engineer
Moffatt & Nichol
250 W. Wardlow
P.O. Box 7707
Long Beach, CA 90807

Dear Mr. Faul:

Subject: Will Serve Letter for Water and Sewer Service at the Long Beach Memorial Medical Center (LBMMC) Expansion

This letter is in response to your letter dated January 4, 2005 requesting a "Will Serve Letter" for the LBMMC 2005 Expansion, located at 2801 Atlantic Avenue, Long Beach, California, 90806. The Long Beach Water Department (LBWD) is prepared to provide potable water and sewer services to your development contingent on approval of the final plans and specifications and in accordance with our Rules and Regulations for Potable, Sewer and Reclaimed Water Service.

If you have any questions, please call me at 562-570-2340.

Sincerely,

Robert Villanueva

Robert Villanueva, P.E.
Division Engineer

cc: Isaac C. Pai, Director of Engineering, LBWD
Jerry Benton, Capital Projects Coordinator, LBWD

RV:rc
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