



ASSOCIATED TRANSPORTATION ENGINEERS

100 N. Hope Avenue, Suite 4, Santa Barbara, CA 93110 • (805) 687-4418 • FAX (805) 682-8509

Since 1978

Richard L. Pool, P.E.
Scott A. Schell, AICP, PTP

April 10, 2009

07001L07.WP

Brad Hess
Assistant Administrator
Cancer Center of Santa Barbara
540 West Pueblo Street
Santa Barbara, CA 93105

TRAFFIC ASSESSMENT FOR THE CANCER CENTER MASTER PLAN - CITY OF SANTA BARBARA

Associated Transportation Engineers (ATE) has prepared the following traffic assessment for the Cancer Center of Santa Barbara Master Plan. The traffic assessment is based on the operational information provided by the Cancer Center and accounts for population growth in the region, as requested by City staff. It is our understanding that this study will be submitted to the City of Santa Barbara as part of the project's application package.

PROJECT DESCRIPTION

Existing Cancer Center Operations

For years the Cancer Center has been functioning beyond the walls of their original location within Cottage Hospital, and has spread to several other buildings in the Oak Park neighborhood, including 540 W. Pueblo Street (and the adjacent buildings at 524 W. Pueblo, 526 W. Pueblo and 601 W. Junipero Street) and leased space at 2320 Bath Street. The existing locations occupied by the Cancer Center are presented on Figure 1 (attached). Table 1 summarizes the existing Cancer Center facilities.

Table 1
Existing Cancer Center Facilities

Location	Uses	Size
540 W. Pueblo Street	Medical Oncology, Administration, Patient Services	18,085 SF
524 W. Pueblo Street	Administration, Patient Services	1,786 SF
526 W. Pueblo Street	Administration, Patient Services	1,401 SF
601 W. Junipero Street	Administration, Patient Services	1,498 SF
300 W. Pueblo Street	Nuclear Medicine, Radiation Therapy, Administration	18,680 SF
2320 Bath Street	Nuclear Medicine	2,568 SF
Total		44,018 SF

Proposed Cancer Center Operations

The goal of the Master Plan is to allow the Cancer Center to be, for the most part, contained all under one roof. The existing Cottage Hospital location will be remodeled and will continue to be used by the Cancer Center, as the Cancer Center serves as Cottage Hospital's Radiation Oncology "Department" for in-patient treatment. The Cancer Center will continue to treat all in-patients at Cottage Hospital. The outpatient Radiation Oncology functions will be relocated from Cottage Hospital to 540 W. Pueblo Street. The Nuclear Medicine Department will primarily be located at its current location in Cottage Hospital. In an effort to be as effective and efficient as possible, the Nuclear Medicine Department will see approximately 25% of its out-patients at the new location at 540 W. Pueblo Street and the rest at Cottage. The 2,568 SF of medical office space leased by the Cancer Center at 2320 Bath Street would be vacated. This location is used for overflow PET scans and special procedures on the PET Mammography. Those uses would be moved back to Cottage Hospital. The uses within the 524 W. Pueblo and 526 W. Pueblo Street buildings would be consolidated within 540 W. Pueblo Street location.

The relocation of the Radiation Oncology Department and a portion of the Nuclear Medicine Department to 540 W. Pueblo Street will free up some of the Cancer Center's space within Cottage Hospital. The space for the Nuclear Medicine Department has for many years been inadequate to accommodate the desired new equipment and state-of-the-art technologies. The evolution of regulations in the medical industry pertaining to patient privacy and related matters have increased the space requirements on a per patient and per physician basis. The vacated space will therefore be remodeled in order to enlarge the area dedicated to Nuclear Medicine. With the remaining space, the Cancer Center will continue to provide patient support services and some administration functions. It is noted that no

additional uses or employees would be added to the vacated space in Cottage Hospital, and the Cancer Center has no plans to increase the overall number of employees as a result of the relocation of existing functions.

Operational Changes

The following text summarizes the proposed changes that would occur at the sites as a result of the Master Plan.

300 W. Pueblo Street. The changes proposed at the Cottage Hospital site include:

- ▶ Transfer Radiation Therapy outpatients (1,640/yr) to 540 W. Pueblo Street.
- ▶ Transfer 25% of Nuclear Medicine outpatients (605/yr) to 540 W. Pueblo Street.
- ▶ Transfer 30 staff members to 540 W. Pueblo Street.
- ▶ Remodel existing space for Radiation Oncology (in-patient only), Nuclear Medicine and administration uses.

524 W. Pueblo Street and 526 W. Pueblo Street. These buildings would be relocated by a third party or demolished and the functions would be incorporated into the new 540 W. Pueblo Street building.

601 W. Junipero Street. The functions at this building would not change as a result of the proposed Master Plan project.

2320 Bath Street Site. The Cancer Center would vacate this leased building as part of the Master Plan. This space accommodates overflow PET scans and special procedures on the PET Mammography. Staff from 300 W. Pueblo are used for these procedures and these patients and staff functions would return to Cottage Hospital.

540 W. Pueblo Street. The proposed Master Plan would:

- ▶ Demolish the existing Cancer Center building and construct a new Cancer Center facility.
- ▶ Accept transfer of patients and staff from 300 W. Pueblo Street. All Radiation Therapy outpatients (1,640 outpatients/yr) plus 25% of the Nuclear Medicine outpatients (605 outpatients/yr) and 30 staff members would be transferred from Cottage Hospital to 540 W. Pueblo Street. The functions that currently occupy the buildings at 524 and 526 W. Pueblo Street would also move to 540 W. Pueblo Street.

- ▶ Demolish 6 existing residential units located on the site and construct 6 housing units to be used by Cancer Center employees and/or other healthcare employees.

Traffic Generation

As reviewed above, the Master Plan project consists of consolidating the existing Cancer Center facilities under one roof to relieve congestion at the currently over crowded locations. No new employees are anticipated as a result of the project. City staff requested, however, that the study include some growth in Cancer Center staff and patient services to account for future population growth in the area. Based on demographic data, a 1% per year growth factor was assumed for a 5-year period. Based on Cancer Center data for 2008, the 5% growth equates to 6 new employees (112 existing employees x 5% = 6 new employees) and 219 patients/year (4,385 patients/year x 5% = 219 new patients/year).

The traffic and circulation affects of the Master Plan will be twofold. First, there would be some new traffic generated in the study area by the increase in patients and staff related to general population growth in the region (6 new staff and 219 new patients per year). Second, the Master Plan will cause a change in traffic patterns in the area as a result of transferring the existing Radiation Oncology and Nuclear Medicine patients and staff from Cottage Hospital to 540 W. Pueblo Street. This traffic would not be new to the study area but would shift from the parking areas located adjacent to Cottage Hospital to the new parking structure at 540 W. Pueblo Street.

Trip generation estimates were developed for the new staff and patients based on the rates listed in the ITE Trip Generation Manual¹ for Medical Buildings (Land Use Code #720). Table 2 presents the trip generation estimates developed for the new Cancer Center staff and patients.

**Table 2
Project Trip Generation - Patient and Staff Growth**

Land Use	Size	Average Daily		A.M. Peak Hour		P.M. Peak Hour	
		Rate	Trips	Rate	Trips	Rate	Trips
540 W. Pueblo Street 5% Growth	6 Staff	8.91	53	0.53	3	1.06	6

As shown in Table 2, the 5% growth in patients and staff would generate 53 ADT, 3 A.M. peak hour trips and 6 P.M. peak hour trips.

¹ Trip Generation, Institute of Transportation Engineers 8th Edition, 2008.

The traffic that would shift in from Cottage Hospital to the new Cancer Center buildings is quantified in Table 3.

Table 3
Project Trip Generation - Relocation from Cottage Hospital to 540 W. Pueblo

Land Use	Size	Average Daily		A.M. Peak Hour		P.M. Peak Hour	
		Rate	Trips	Rate	Trips	Rate	Trips
300 W. Pueblo Street Radiation Therapy/Nuc. Medicine	30 Staff	8.91	267	0.53	16	1.06	32

The data presented in Table 3 indicate that Master Plan will result in a shift of 267 ADT, 16 A.M. and 32 P.M. peak hour trips from Cottage Hospital to 540 W. Pueblo Street.

Trip Distribution

The net affect of the project on the surrounding street network was assessed by distributing the new traffic generated that would be generated by the Master Plan and redistributing the existing traffic that would shift from Cottage Hospital to 540 W Pueblo Street. The traffic generated by the 5% growth in patient services was distributed to the surrounding street network based on the percentages developed for the Santa Barbara Cottage Hospital (SBCH) Compliance and Modernization Plan EIR.² Table 4 shows the trip distribution patterns developed for the project.

² SBCH Compliance and Modernization Plan EIR, LSA Associates, March 2006.

Table 4
Project Trip Distribution

Origin/Destination	Direction	Percentage
U.S. Highway 101	North (West)	30%
	South (East)	25%
Las Positas Road	North	10%
	South	5%
Calle Real	West	5%
Alamar Street	North	5%
Los Olivos Street	North	5%
Bath Street	East	5%
Castillo Street	East	5%
Mission Street	South	5%
Total		100%

Potential Traffic Impacts

The City of Santa Barbara's practice of assessing traffic impacts involves following 5 or more vehicle trips through intersections within the project study area. This practice provides a statistical certainty for determining project-generated traffic additions at critical intersections on a day-to-day basis. Table 5 shows the net change in peak hour trips at the key intersections in the study area.

Table 5
Project Trip Additions to Key Intersections

Intersection	Project-Added Trips	
	A.M. Peak	P.M. Peak
U.S. 101 NB On/Calle Real	< 5	< 5
Las Positas/U.S. 101 NB Off/Calle Real	< 5	< 5
Las Positas/U.S. 101 SB	< 5	< 5
Mission/Bath	< 5	< 5
Mission/Castillo	< 5	< 5
Mission/U.S. 101 NB	< 5	< 5
Mission/U.S. 101 SB	< 5	< 5
Bath/Juniper	< 5	< 5
Bath/Pueblo	< 5	< 5
Calle Real/Juniper	< 5	< 5
Calle Real-U.S. 101 NB Off/Pueblo	< 5	< 5

As shown, the proposed project would result in the addition of less than 5 peak hour trips to the intersections located in the study area.

Construction Impacts

Project construction is anticipated to last for a period of 18 to 24 months and construction traffic could potentially impact the area intersections and neighborhoods. It is recommended that a construction management plan be developed after project approval when the project's construction phasing is defined. The construction management plan should consider limiting the hours of construction so that impacts are not generated during the A.M. and P.M. peak commuter periods at the key intersections in the project area. The plan should also consider routing of traffic in order to minimize construction traffic in the adjacent residential neighborhoods.

This concludes our traffic assessment for the Cancer Center Master Plan Project.

Associated Transportation Engineers

A handwritten signature in black ink, appearing to read 'Scott A. Schell'.

Scott A. Schell, AICP, PTP
Principal Transportation Planner

SAS/DLD/MMF

Attachments: Figure 1 - Existing Street Network and Cancer Center Locations



N
NOT TO SCALE



ASSOCIATED
TRANSPORTATION
ENGINEERS

EXISTING STREET NETWORK AND CANCER CENTER LOCATIONS

FIGURE 1

MMF - #07001