

**PROPOSED MARINA CENTER'S
UTILITY IMPACT ANALYSIS**

December 2006

Prepared for:
Security National Properties
323 5th Street
Eureka, CA 95501



Prepared by:



633 Third Street
Eureka, CA 95501
(707) 443-8326

INTRODUCTION

This document summarizes an investigation into the potential utility impacts of the proposed Marina Center development at the Balloon Track in Eureka, California. In particular, the investigation focuses on the development's potential impact on the energy, water, wastewater, garbage, and communications utilities. This document is intended as support to an Environmental Impact Report on this subject matter.

The following project information was provided by Security National Properties of Eureka. The proposed Marina Center development is located in the northwest portion of Eureka, California. The site is an abandoned rail yard near the historic Eureka waterfront and is often referred to as the Balloon Track. The site is approximately thirty-two acres. The site has been cleared of almost all rails, the roundhouse, and other facilities. The remaining rails of the dormant Eureka Southern Railroad traverse the northern and western portions of the site. Just beyond the rail alignment, Water front Drive parallels the shoreline of Humboldt Bay and bounds the site on the north and west. The project's southern boundary is along Washington Street. The primary eastern boundary is along Broadway.

Security National Properties of Eureka is proposing to develop the rail yard and several additional parcels as a mixed-use development. Approximately 586,000 square feet of mixed uses are planned including 54 dwelling units (Table 1, Appendix A). Although the exact tenants of the development are not known, the possible tenants include a 104,000 ft² Home Depot with a 28,000 ft² home and garden center, 17,900 and 10,700 ft² apparel stores, 22,400 ft² book store, 26,900 ft² electronics store, 6,300 ft² foot apparel store, 14,000 ft² for restaurants, 97,300 ft² for other retail, 104,000 ft² of office space, 12,500 ft² for a Children's Museum, 70,000 ft² for light industrial, and 72,000 ft² for 54 multifamily housing units.

EXISTING CONDITIONS

Energy

Pacific Gas and Electric (PG&E) supplies the area with electrical services and natural gas services. PG&E is one of the largest utility companies in the United States. They serve approximately 15 million people in Northern and Central California including the entire vicinity surrounding the Marina Center Development. PG&E's letter in Appendix B states that all necessary electric and gas facilities exist in the project area and are available to service the project.

Water and Wastewater

The City of Eureka provides water and wastewater services within the city. Currently, all sides of the proposed development have water distribution infrastructure and wastewater collection infrastructure in place.

Solid Waste

The City of Eureka (City) currently contracts with City Garbage Company of Eureka (City Garbage Company) for all solid waste disposal. The City Garbage Company currently serves approximately 5,300 residents and approximately 1,300 commercial customers. The annual waste generation for residential customers is approximately 5,500 tons/year and for commercial customers it is 8,000 tons per year. The total collection of solid waste by the City Garbage Company is approximately 18,500 tons/year (Leggins, 2006).

The City Garbage Company collects the solid waste and transports it to the Humboldt Waste Management Authority's Eureka transfer station. Most of Humboldt County's solid waste stream (including the City of Eureka's contribution) is currently shipped under long-term contract to the Dry Creek Landfill, a permitted disposal site near Medford, Oregon.

Communications

The City of Eureka is currently served by multiple communications companies. The services include telephone lines, internet, satellite and cable television, and cell phone networks.

IMPACTS AND MITIGATIONS

Thresholds of Significance

The following significance criteria are based on Appendix G of the State CEQA Guidelines, modified for clarity and completeness. Would the project:

1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
2. Require or result in the construction of new facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, for any of the following utilities?
 - a) Water treatment or distribution facilities?
 - b) Wastewater collection, treatment, or disposal facilities?
 - c) Storm water drainage facilities?
 - d) Electric power or natural gas?
 - e) Communications systems?
3. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?
4. Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
5. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
6. Comply with federal, state and local statutes and regulations related to solid waste?

Impacts and Mitigations

Energy

Based on the anticipated tenants, the projected utility usage is summarized in Table 1, Appendix A. The average electrical usage is calculated to be approximately 23,000 kilo-Watt-hour/day. The calculated peak power is expected to be approximately 3.5 MW. The calculated average gas usage for the entire development is anticipated to be approximately 600 Therms per day and the peak is approximately 3,000 Therms per day.

In a letter dated June 14, 2006, PG & E determined that the proposed project is located in an area where all necessary electrical and gas facilities exist and are available to service the proposed development. (Appendix B) It is anticipated that the current electrical and gas distribution system will need to be reinforced in order to meet the additional demands of the Marina Center Development. The reinforcement specifics will not be determined until a formal application process has been completed. However, modifications to the existing distribution system are not expected have any significant impacts, and no mitigation is warranted. (See Appendix B)

Water and Wastewater

In a letter dated, July 28, 2006, the City of Eureka has determined that the current water distribution and wastewater collection systems can incorporate the Marina Center development (Appendix B). The developers will need to design and construct the development's distribution and collection systems and connect to the City's infrastructure in accordance with City of Eureka standards and adopted codes. No impact associated with the city's existing systems is expected, and no mitigation is warranted.

Solid Waste

The Marina Center is expected to produce an approximate average of 2.6 tons per day (tpd) which is 950 tons/year. All estimates were produced using figures provided on the California Integrated Waste Management Board's website (CIWMB, 2006). The estimated peak waste generation for the Marina Center development is estimated to be 10,248 lbs/day, but this total is unlikely since all tenants would need to produce their peak production at the same time (Table 1, Appendix A). The largest solid waste producer is the proposed Home Depot (2,600 lbs/day). This figure reflects items that may or may not enter the City Garbage Company's waste stream. Items that might not enter the City Garbage Company's waste stream include cardboard or other recyclables that are often removed and handled separately for recycling.

In a letter dated April 25, 2006, the City Garbage Company of Eureka stated that it is willing and able to provide garbage service to the development. According to the company's general manager, the proposed development will not have an adverse impact on their current system. There will be no need for additional trucks or other capital improvements. The only impact will be the additional time needed to collect the waste which will be integrated into the routing strategy (Leggins, 2006). The development will be designed in such a manner to allow easy access for City Garbage Company's trucks and therefore, will minimize additional collection time.

The project's projected solid waste tonnage is approximately 1% of the transfer station's tonnage. The transfer station operates well below its capacity, so an increase of 1% is insignificant. In addition, the Dry Creek Landfill is not currently restricted to a maximum capacity. It is a regional landfill that accepts waste from northern California and Oregon. Dry Creek Landfill is contractually bound to accept the solid waste generated in Humboldt County for the next 25 years. Therefore, the additional quantity of waste generated by the Marina Center development must also be accepted by the landfill and is not expected to create a significant impact on the landfill, and no mitigation is warranted.

Communications

Letters indicating that communication services will be provided were received on July 28, 2006 from AT&T and an undated letter from Cox Communications (Appendix B). Both companies are willing and able to serve the development. The developers will need to design and construct the development's infrastructure so as to connect with the existing infrastructure. No impact associated with either communication company's existing system is expected, and no mitigation is warranted.

Resources:

CIWMB, 2006; California Integrated Waste Management Board; *Estimated Solid Waste Generation for Service Establishments*; Updated December 7, 2004;
<http://www.ciwmb.ca.gov/wastechar/WasteGenRates/Service.htm>; Visited July 20, 2006.

Leggins, Mike; 2006; Phone conversation with Mike Leggins, General Manager, of City Garbage Company of Eureka; Conversation on July 18, 2006.

Appendix A
Utility Usage Estimates

Table 1
 Estimate Utility Usage
 for
 Marina Center Development
 Revised 11/2/06

Anticipated Development	Square Footage ¹	Electrical ^{2,3,4,5}		Gas (Therms/day) ^{6,7,8,9}		Water	Wastewater	Garbage (lb/day) ¹⁰	
		Ave (kWh/day)	Peak (KVA)	Ave	Peak	Average	Average	Average	Peak
Home Depot	104,000	6,779	1,153	28	140	City is issuing will serve letters	City is issuing will serve letters	2,600	5,200
Garden Center	28,000	678	115	3	14			260	520
Apparel Store	17,900	598	97	3	17			107	215
Apparel Store	10,700	357	22	2	10			64	128
Book Store	22,400	748	105	4	21			134	269
Electronics Store	26,900	994	161	5	26			161	323
Foot Apparel	6,300	210	34	1	6			38	76
Restaurants	14,000	1,270	143	71	353			70	140
Other Retail	97,300	3,250	467	19	93			584	1,168
Office	104,000	4,778	468	68	342			520	1,040
Children's Museum	12,500	437	59	8	41			75	150
Light Industrial	70,000	2,450	714	353	1,764			350	700
Multifamily Residential (54 units)	72,000	648	41	64	319			216	432
Total	586,000	23,198	3,579	629	3,147			5,180	10,360

1. Square footage was obtained from email communication with the developer, Security National (SN).
2. Average electrical data for Home Depot (HD) was based on the usage records of the store at 4602 S Center St. Tacoma, WA. The average usage was normalized by square footage and applied to the new store. The square footage of the Tacoma store was obtained by phone conversation with store manager.
3. The peak HD usage was based on the connection load summation provided by HD with a demand factor of 0.8.
4. The non-HD space's average electrical usage was based on the *Commercial End Use Study* or the *California Statewide Residential Appliance Saturation Study* both prepared for the California Energy Commission and obtained from the Pacific Energy Center.
5. The non-HD space's peak electrical usage is based on information obtained from PG&E.
6. The HD average gas usage is based on 1335 N 205th St, Shoreline, WA store's usage. The data was normalized per area and applied to the total above. The Shoreline store area was determined from a phone conversation with the manager. The manager was making an approximation, but seemed confident.
7. The HD Peak gas usage is simply five times the average. A more rigorous approach was researched, but no standard exists.
8. The non-HD space's average gas usage is based on the *Commercial End Use Study* or the *California Statewide Residential Appliance Saturation Study* both prepared for the California Energy Commission and obtained from the Pacific Energy Center.
9. The non-HD space's peak gas is five times the average. A more rigorous approach was researched, but no standard was found.
10. The average garbage values are based on waste generation rates by type from the *Estimated Solid Waste Generation Rates for Service Establishments* found on the California Integrated Waste Management Board's website. The peak garbage values are simply double the average garbage values.

Appendix B
Correspondence



**Pacific Gas and
Electric Company®**

**Humboldt District
2555 Myrtle Avenue
Eureka, CA 95501-3494**

June 14, 2006

Mr. Ethan Edwards, Senior Planner
Baysinger Partners Architecture
1006 SE Grand Ave., Suite 300
Portland, OR 97214

Re: **Marina Center
Eureka, California**

Project Location: APN Numbers
 001-014-002
 003-021-009
 003-031-003
 003-031-006
 003-031-007
 003-031-005
 003-041-005
 003-041-006
 003-041-007
 003-051-001

Dear Mr. Edwards

Please be advised that your proposed project is located in an area where all necessary electric and gas facilities exist and are available to service your development. Detailed project improvement plans are required before service to your facilities can be designed. Be advised that depending on how much electrical load you are planning to connect there may be a long lead time due to facility reinforcements to serve your project.

If you have any further questions regarding this matter please contact me at (707) 445-5594.

Regards,

Alex Mossman
Senior New Business Representative
Pacific Gas & Electric Company



People • Service • Environment
CITY GARBAGE COMPANY OF EUREKA

April 25, 2006

Mr. Ethan Edwards, Senior Planner
Baysinger Partners Architecture
1006 SE Grand Avenue, Suite 300
Portland, OR 97214

Dear Mr. Edwards:

City Garbage Company of Eureka has a franchise agreement with the City of Eureka to provide garbage collection service for Eureka. The Parcel Numbers (following) mentioned in Chris Ruecker's email are within the City Limits of Eureka, and within our Franchise Area.

Assessors Parcel Numbers for Marina Center:

001-017-002
003-021-009
003-031-003
003-031-006
003-031-007
003-031-005
003-041-005
003-041-006
003-041-007
003-051-001

City Garbage Company of Eureka is willing and able to provide garbage service to this site.

Please let us know if we may be of further assistance.

Sincerely,

Claudine Springman

Claudine Springman
Office Manager



CITY OF EUREKA

531 K Street • Eureka, California 95501-1146

December 4, 2006

Ethan Edwards
Baysinger Partners Architecture
1006 SE Grand Ave, Suite 300
Portland, OR 97214

Subject: Marina Center "Will Serve Letter"

This letter is a revised "Will Serve Letter" for the Marina Center Development based on our recent conversation requesting a letter adding an additional 14 residential equivalent dwelling units (EDU's) to the 600 EDU's described in the July 28, 2006, "Will Serve Letter."

By this letter, I acknowledge that the City of Eureka can and will provide wastewater and water services required for the proposed multi-use Marina Center Development. This "Will Serve Letter" is based on the City's ability to provide water and sewer service for approximately 625 EDU's as described in the memorandum from Brian Freeman and Allison Kelly, SHN Consulting Engineers & Geologists, Inc. dated July 11, 2006, plus an additional 25 EDU's.

The City of Eureka has adequate capacity in its wastewater and potable water systems to support this project. Be advised that it is the developer's responsibility to design and construct the development's distribution and collection systems and to connect to the City's infrastructure in accordance with City of Eureka standards and adopted codes.

If you have any further questions contact me at (707) 441-4207.

Sincerely,

Michael Knight
Assistant City Manager-Operations

cc: City Manager
Utility Manager
Community Development Director

PUBLIC WORKS/BUILDING DEPARTMENT • (707) 441-4192 Public Works Fax: (707) 441-4202
(707) 441-4155 Building



Memorandum

Reference: 006025.00
Date: July 11, 2006
To: Ethan Edwards, Baysinger Partners Architecture
From: Brian Freeman, Allison Kelly
Subject: Marina Center Equivalent Dwelling Unit Estimate

SHN has prepared an estimate of the equivalent dwelling units (EDU) for the proposed Marina Center Development. The City of Eureka (COE) has requested the estimate to evaluate the service demand of the development.

The accepted practice for estimating the typical demand is to evaluate each customer account in terms of its equivalence to a typical residential unit. The relationship establishes a customer count and an associated population equivalence based on the concept of an EDU (a typical single-family residential household within the service area). For the COE service area, one EDU is approximately 243 gallons per day of water usage. The EDU was determined from COE residential water usage accounts for the year 2001 (SHN, March 2003).

From Table 1 of the "SB 610 Water Supply Assessment for the Marina Center," (SHN, May 2006), 144,050 gallons per day is the estimated water demand for the development. The resulting number of EDU's is $144,050/243 = 593$ EDU's.

Please contact me if you have any questions.

**Civil • Environmental • Geotechnical • Surveying
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911 W. WABASH AVE
EUREKA, CA 95501
(707) 268-5380



To Mr. Ethan Edwards,

Re: The Marina Center Project on Waterfront Dr.

Cox Communications is willing and able to serve this project with our full line of communications services. If you provide the substructure system to our specifications, we will provide the cables, the electronics and the signals. I'm sure that the details will be worked out at later meetings. If you have any questions call me at 707 268-5333.

Included parcels are:

001-017-002
003-021-009
003-031-003
003-031-006
003-031-007
003-031-005
003-041-005
003-041-006
003-041-007
003-051-001

Thank you, Mark Larsen
Planner

A handwritten signature in black ink that reads "Mark Larsen". The signature is written in a cursive, flowing style.



AT&T California
1818 F St.
Room 202
Eureka, CA 95501

April 24, 2006

Baysinger Partners Architecture
Attn. Mr. Eathan Edwards, Senior Planner
1006 SE Grand Ave. Suite 300
Portland, Or 97214

Re: Will Serve Notice

Dear Mr. Edwards,

This letter is written to confirm that the proposed project Marina Center located at APNs 001-014-002, 003-021-009, 003-031-003, 003-031-005, 003-031-006, 003-031-007, 003-041-005, 003-041-006, 003-041-007, 003-051-001 in Eureka, California is within the Base Rate Area of the AT&T California serving area in the Eureka Main Exchange. AT&T expects to be in a position to provide telephone service to applicants in the above-referenced development upon request in accordance with requirements of, and at the rates and charges specified in, its Tariffs that are on file with the California Public Utilities Commission.

This offer to provide service will terminate 24 months after the date of this letter unless both of the following first occur: 1) you, in your capacity as the developer, enter into a written service agreement with AT&T; and, 2) you, in your capacity as developer, pay all charges you are required by AT&T's Tariffs to pay.

If you have any questions I can be contacted on 707-445-4069.

Sincerely,

Marlene Allen
Engineer

RECEIVED

MAY 01 2006

BAYSINGER PARTNERS
ARCHITECTURE PC



SITE DATA

RETAIL/ SERVICE
 BUILDING AREA = 285,500 SF
 PARKING REQ = 942 SPACES (3.3/1000)

NURSERIES/ GARDEN/ FURNITURE
 BUILDING AREA = 28,000 SF
 PARKING REQ = 56 SPACES (2/1000)

OFFICE
 BUILDING AREA = 104,000 SF
 PARKING REQ = 343 SPACES (3.3/1000)

RESTAURANT
 BUILDING AREA = 14,000 SF
 PARKING REQ = 70 SPACES (5/1000)

MULTI FAMILY
 TOTAL UNITS = 72,000 SF (54 UNITS)
 PARKING REQ = 54 SPACES (1/UNIT)

MUSEUM
 BUILDING AREA = 12,500 SF
 PARKING REQ = 22 SPACES (1.7/1000)

INDUSTRIAL
 BUILDING AREA = 70,000 SF
 PARKING REQ = 98 SPACES (1.4/1000)

TOTAL DEVELOPMENT = 558,000 SF
 EXCLUDING GARDEN CENTER

TOTAL MINIMUM REQUIRED PARKING BY THE CITY
 54 UNITS RESIDENTIAL = 1,585 SPACES

TOTAL PROVIDED PARKING ON SITE
 = 1,590 SPACES

RIGHT OF WAY = 1.35 AC
 (4TH STREET EXTENSION AND ACCESS FROM 6TH STREET)

TOTAL DEVELOPED SITE AREA = 29.01 AC
 EXCLUDING 50'/100' BUFFER AREA AND WETLAND WITH BUFFER
 SOUTHWEST CORNER OF THE SITE. (13.59 AC)

UNDEVELOPED WETLAND AND BUFFER AROUND = 10.77 AC
 50' AND 100' BUFFER = 2.55 AC

On-Site Mitigation Summary for the Marina Center Project, Eureka, California

CCC Wetlands Habitat	Current Acreage	Project Wetlands Fill Impacts	Unimpacted Wetlands Habitat	Created Wetlands Mitigation	Wetlands Creation Ratio for Project Impacts Mitigation	Additional Restoration of Wetlands Habitat	Wetlands Restoration Mitigation Ratio	Established Protective Upland Buffer
Tidal Wetlands (Clark Slough Channel)	1.06 ac	0	1.06 ac	0	0	1.06	1:1	NA
Palustrine Emergent Wetlands	6.03 ac	5.22 ac	0.81 ac	5.22 ac	1:1	0.81	1:1	NA
Upland Protective Buffer	None	NA	NA	NA	NA	NA	NA	4.16 ac
Totals	7.09 ac	5.22 ac	1.87 ac	5.22	1:1	6.61 ac	1:1	4.16 ac

Notes: NA= Not Applicable



BAYSINGER PARTNERS ARCHITECTURE PC
 1000 SE Grand Ave., Suite 300, Portland, OR 97214 503-546-1600
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 Project Number: SNO550 Scheme 7

SECURITY NATIONAL
 Marina Center