

A blue decorative shape in the top right corner, consisting of a rectangle with a curved, tapered left side.

Appendix L

SEWER STUDY





Atkins North America, Inc.
9275 Sky Park Court, Suite 200
San Diego, California 92123

Telephone: +1.858.874.1810
Fax: +1.858.514.1001

www.atkinsglobal.com/northamerica

June 1, 2011

Ms. Bobbi Salvini
Senior Civil Engineer
Water & Sewer Development of the Public Utilities Department
City of San Diego
600 "B" Street, Suite 800, MS908A
San Diego, CA 92101-4502

SUBJECT: SAN DIEGO CORPORATE CENTER SEWER STUDY

Dear Ms. Salvini:

This letter constitutes a Sewer Study (study) for the San Diego Corporate Center project (Project), which is a proposed mixed use town center development in Carmel Valley by Kilroy Realty Corporation. The study is for your review and approval.

The purpose of the study is to evaluate the Project's wastewater generation rates, and to verify the City of San Diego (City) downstream facilities have adequate capacity to serve the project. The study is based on City of San Diego (City) planning and design criteria.

BACKGROUND

The project is a 23-acre mixed use town center project within the Carmel Valley Community Planning Area in the City of San Diego. The Project consists of 608 multi-family residential units, 806,000 square feet retail and office space, and a 150-room hotel. Kilroy Realty Corporation is currently processing a Planned Development Permit and Precise Plan Amendment for the Project with the City of San Diego. Sewer service will be provided to the Project by the City. The Project site is bounded by El Camino Real to the east, High Bluff Drive to the west, Townsgate Drive to the south, and Del Mar Heights Road to the north. **Exhibit 1** shows the proposed site layout.

The Project will provide private on-site sewer collection facilities sized to convey peak flows and designed in accordance with the California Plumbing Code (CPC). Wastewater from the Project site will drain by gravity to an existing 18-inch sewer main located in El Camino Real, referred to by the City as the El Camino Real Trunk Sewer (ECRTS). The points of discharge from the proposed project to the existing 18" sewer main in El Camino Real shall be at existing manholes. Accordingly, the purpose of this study is to document available downstream capacity in the City sewer system based on estimated wastewater generation.

EXISTING CITY FACILITIES

Wastewater generated from the Project site will drain into the City's ECRTS. The ECRTS consists of 18-inch Polyvinyl Chloride (PVC) and Vitrified Clay pipe (VCP). A deep section of the VCP was recently re-lined because of longitudinal cracking, resulting in a slight reduction in inside diameter and in flow capacity. Sewage generated from the Project will continue through the ECRTS to a permanent flow meter (SDT8-101) located on Carmel Valley Road. From there, sewage is conveyed through the City's regional conveyance and disposal system to the North

City Water Reclamation Plant via a system of trunk and interceptor sewers and pumping stations.

The City's Wastewater Modeling Department provided Atkins (formerly PBS&J) with hydraulic model results from the City's 2009 Capacity Report (2009 Capacity Report) for the ECRTS. The hydraulic results include dry weather and wet weather capacities for 2010 and 2020 build-out of the system. The results for the ECRTS extended from upstream of the project site down El Camino Real to SDT8-101. For the purposes of this study, available downstream capacity is analyzed to flow meter SDT8-101. This assumes existing facilities downstream of this location are part of the regional collection and disposal system, and as such are not adversely affected by the proportionately small increase in flows from the Project.

SEWAGE GENERATION RATES

Atkins estimated wastewater generation for the project description information provided by Kilroy Realty Corporation. **Table 1** summarizes the wastewater generated for the Project. Sewer generation estimates apply the City's equivalent population factors to commercial and office space and a unit generation rate of 80 gallons per day per capita, per the City's design standards. Residential wastewater generation rates assume 1.83 people per household¹, per SANDAG's 2000 census data report for the Carmel Valley Community Planning Area.

Table 1. Average Sewer Generation

| Component | Net Area/Units | Population Density | Equivalent Population | Unit Rate | Average Generation (mgd) |
|---------------------|----------------|--------------------|-----------------------|---------------|--------------------------|
| Retail / Commercial | 6.20 ac | 43.7 pop/n-acre | 271 | 80 gpd/person | 0.022 |
| Hotel | 2.30 ac | 43.7 pop/n-acre | 100 | 80 gpd/person | 0.008 |
| Office | 12.30 ac | 43.7 pop/n-acre | 538 | 80 gpd/person | 0.043 |
| Residential | 608 DU | 1.83 pop/DU | 1,113 | 80 gpd/person | 0.089 |
| Total | | | 2,022 | | 0.162 |

Notes:

Residential unit demands based on SANDAG multi-family residential density for Carmel Valley (1.83 pph).

Commercial and Office equivalent populations based on City Design Guidelines.

Non-residential areas are based on component floor space and are considered a net area

Atkins determined peak dry-weather and wet-weather generation for the Project by first applying a dry-weather peaking factor to the average sewer generation, and then applying a safety factor to the peak dry-weather flow (DWF) to account for potential inflow and infiltration (I&I) from the Project site resulting in peak wet weather flows (WWF). The dry weather peaking factor is normally estimated based upon the basin population at a given location within the collection system, recognizing that as the area being served gets larger, the peaking is dampened. However, the 2009 Capacity Report did not provide the tributary populations or the average sewage generation. As such, Atkins developed a conservative estimate for dry weather peaking at 2.29, based on the Project's equivalent population of 2,022. This results in a peak DWF of 0.37 mgd. We then applied a safety factor of 1.1 to account for potential I&I entering the collections system from the Project, which we believe is conservative for a newly constructed sewer system. This results in a peak WWF of 0.41 mgd. This calculation is intended to show the potential peak flow rates from the Project under current City design criteria.

¹ SANDAG Carmel Valley CPA 2000 census for MF 10+ units

CAPACITY ANALYSIS

The City's 2009 Capacity Report for the ECRTS showed no existing deficiencies under the projected 2010 and 2020 flow conditions. The 2020-Wet Weather Condition results are the worst-case and as such were utilized in the analysis to determine available capacity to serve the Project. Based on the results from the 2009 Capacity Report and a maximum depth-to-diameter ratio of 75 percent, as established by City design standards for gravity sewers, the ECRTS has an available wet weather capacity of approximately 1.18 mgd at 2020 build-out. Peak WWF for the Project were conservatively estimated at 0.41 mgd, and therefore the existing collection system has capacity to serve the Project. The Capacity Report results are included in **Appendix B** for reference.

PRIVATE ON-SITE SYSTEM ANALYSIS

As part of the planned development permit application, the proposed private on-site facilities for the Project have been preliminarily designed by Leppert Engineering to California Plumbing Code standards and include 6 and 8-inch gravity sewer pipelines.

Exhibit 1 shows the recommended on-site gravity pipeline sizes and indicates where Project flows are planned to enter the existing City system.

The proposed Project has two discharge points to the ECRTS at existing manholes: one at the intersection of El Camino Real and One Paseo and a second approximately 600 feet downstream of One Paseo. "Odorless" connections to the trunk sewer will be provided per Section 2.2.3.2 of the City's Sewer Design Guide.

CONCLUSIONS

Based upon the hydraulic analysis, the existing ECRTS can accommodate the proposed Project flows. No additional off-site improvements are required to serve the Project. The onsite system will be designed as a private sewer system, in conformance with the CPC.

We look forward to working with you and your staff toward the successful completion of the project. Please contact me at (715) 347-4635 with any questions or comments you may have.

Sincerely yours,

Atkins



Mark B. Elliott, P.E.
Project Manager

MBE:lma



c: Bob Little, Kilroy Realty Corporation
Tony Dieli, Leppert Engineering
Leanne Hammond, Atkins

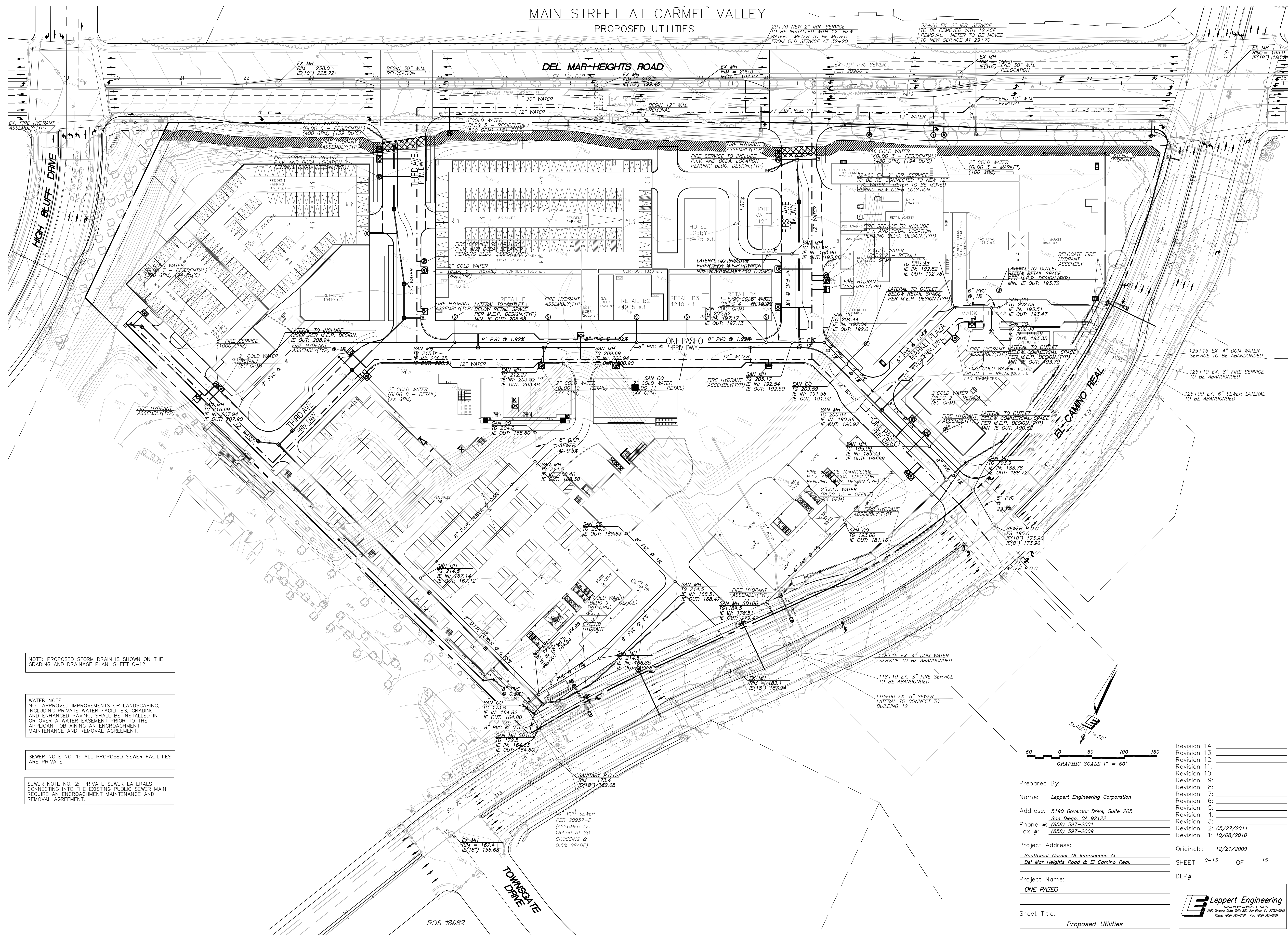
*H:\Waterres\Kilroy Realty\100008492_SDCC\Report\Sewer Study\June 2011\SDCC Sewer Study
053111.docx*

Enclosures: Figure 1 – Project Vicinity Map
Exhibit 1 – Project Site Utility Map
Appendix A – Correspondence
Appendix B – 2009 Capacity Report Hydraulic Results



FIGURE 1
SITE LOCATION

MAIN STREET AT CARMEL VALLEY
PROPOSED UTILITIES

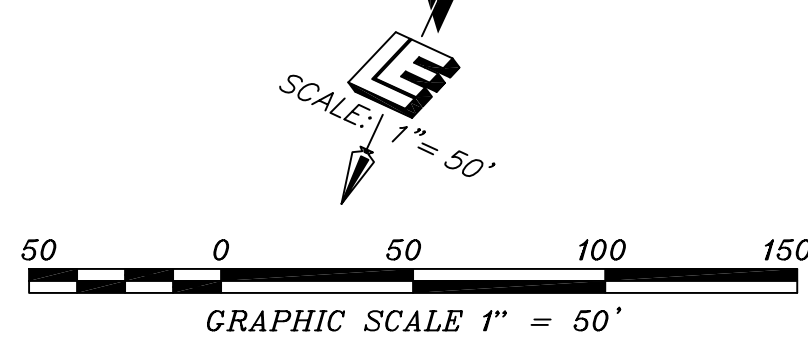


NOTE: PROPOSED STORM DRAIN IS SHOWN ON THE GRADING AND DRAINAGE PLAN, SHEET C-12.

WATER NOTE:
NO APPROVED IMPROVEMENTS OR LANDSCAPING, INCLUDING PRIVATE WATER FACILITIES, GRADING AND ENHANCED PAVING, SHALL BE INSTALLED IN OR OVER A WATER EASEMENT PRIOR TO THE APPLICANT OBTAINING AN ENCROACHMENT MAINTENANCE AND REMOVAL AGREEMENT.

SEWER NOTE NO. 1: ALL PROPOSED SEWER FACILITIES ARE PRIVATE.

SEWER NOTE NO. 2: PRIVATE SEWER LATERALS CONNECTING INTO THE EXISTING PUBLIC SEWER MAIN REQUIRE AN ENCROACHMENT MAINTENANCE AND REMOVAL AGREEMENT.



Prepared By:
Name: Leppert Engineering Corporation
Address: 5190 Governor Drive, Suite 205
San Diego, CA 92122
Phone #: (858) 597-2001
Fax #: (858) 597-2009


Project Address:
Southwest Corner Of Intersection At
Del Mar Heights Road & El Camino Real.

Project Name:
ONE PASEO

Sheet Title:
Proposed Utilities

| | |
|--------------|------------|
| Revision 14: | |
| Revision 13: | |
| Revision 12: | |
| Revision 11: | |
| Revision 10: | |
| Revision 9: | |
| Revision 8: | |
| Revision 7: | |
| Revision 6: | |
| Revision 5: | |
| Revision 4: | |
| Revision 3: | |
| Revision 2: | 05/27/2011 |
| Revision 1: | 10/08/2010 |

Original: 12/21/2009
SHEET C-13 OF 15

DEP# _____

5190 Governor Drive, Suite 205, San Diego, CA 92122-2848
Phone: (858) 597-2001 Fax: (858) 597-2009

APPENDIX A
CORRESPONDENCE



October 8, 2010

Mr. Mehdi Rastakhiz
City of San Diego Public Utilities Department
600 B Street, Suite 2210, MS 922
San Diego, CA 92101

SUBJECT: San Diego Corporate Center Sewer Study – Response to Comments

Dear Mr. Rastakhiz:

We have received and reviewed the City of San Diego Public Utilities (City) comments dated February 8, 2010 on the *San Diego Corporate Center Sewer Study*, January 2010. The following summarizes our response to your comments:

1. Provide a sewer exhibit the same size as the tentative map and show all proposed wet utilities with horizontal separations; clearly identify the property line.

A utility exhibit has been added as Exhibit 1 of the revised study to show existing and proposed utilities in more detail.

2. Provide pad elevations for the proposed development.
3. *An exhibit has been added as Exhibit 1 of the revised study to show pad elevations for the proposed development.*
4. The points of discharge from the proposed project to the existing 18" sewer main in El Camino Real shall be at existing manholes.

Comment noted. A statement has been added to the report text noting that points of discharge from the Project shall be at existing manholes.

We feel the attached September 2010 study, along with these responses and clarifications, adequately address sewer system issues for this development and we request that the City approve the revised study. Please feel free to contact me with any questions or comments you may have.

Respectfully submitted,

PBS&J

Mark B. Elliott, P.E.
Project Manager

MBE:lma

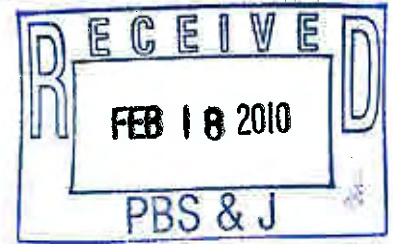


c: Bobbi Salvini, City of San Diego
Bob Little, Kilroy Realty Corporation
Tony Dieli, Rick Engineering
Leanne Abe, PBS&J
Kyle McCarty, PBS&J

H:\Waterres\Kilroy Realty\100008492_SDCC\Report\Sewer Study\September 2010\Sewer RTC letter 092410.doc



THE CITY OF SAN DIEGO



February 8, 2010

Mark B. Elliot, RCE
PBS&J
9275 Sky Park Court, Suite 200,
San Diego, CA 92123

Dear Mr. Elliot:

Subject: San Diego Corporate Center Sewer Study PTS # 193036

We have reviewed the subject sewer study dated January 11 2010, which was received by our office on January 27, 2010. The Public Utilities Department, Water and Sewer Development Section has the following comments:

1. Provide a sewer exhibit the same size as the tentative map and show all proposed wet utilities with horizontal separations; clearly identify the property line.
2. Provide pad elevations for the proposed development.
3. The points of discharge from the proposed project to the existing 18" sewer main in El Camino Real shall be at existing manholes.

At time of plan check:

4. Indicate that all on-site sewer systems will be private. Private mains with welded joints and clean-outs shall be designed to meet the standards of the California Plumbing Code and will require a Plumbing Permit. Under the self-certification program, the plans will be reviewed by an independent engineer and inspected by a qualified engineer who has knowledge of building codes. Private mains with manholes and push-on joints shall be designed per the Sewer Design Guide and shall meet State separation requirements. These will be shown on public improvement plans for review by the Water and Sewer Section. Inspection will be performed under the self-certification program.
5. No trees or shrubs exceeding three feet in height at maturity shall be installed within ten feet of any public sewer facilities. No trees shall be planted within ten feet of private sewer facilities. If the private mains have welded joints, and the private facilities are more than 30' from the public main, trees may be as close as 4' horizontal between the face of the sewer and the face of the tree, but no closer than one fourth the tree canopy, as defined by the Western Garden Book. For



Page 2

Mr. Mark B. Elliot, RCE

February 8, 2010

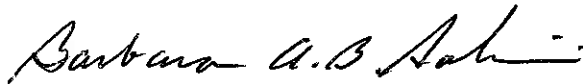
both public and private streets, sewer needs to be centered in 20' paving with a minimum 1% slope.

6. No approved improvements or landscaping, including private sewer facilities, shall be installed in or over any public right-of-way easement prior to the applicant obtaining approval for an Encroachment Maintenance and Removal Agreement (EMRA) from the Public Utilities Development Water and Sewer Section. The EMRA should be provided at time of plan check.

Please resubmit **three** bound copies **signed and stamped** by a California Licensed Civil Engineer, for our subsequent review. Two final studies and a PDF format CD shall be provided for our libraries.

If you have any questions or require any additional information, please call Assistant Engineer Irina Itkin at 619-533-4248 or my self at 619-533-5106.

Sincerely,



BARBARA A.B. SALVINI

Senior Civil Engineer

BABS/ixi

cc: Guann Hwang, Deputy Director, Public Utilities Department
Isam Hireish, Senior Civil Engineer, Public Utilities Department
Paul Buehler, Associate Engineer-Civil, Public Utilities Department
Mehdi Rastakhiz, Associate Engineer-Civil, Public Utilities Department
Alejandro Ruiz, Assistant Engineer-Civil, Public Utilities Department
Mezo Renee, DPM, Development Services Department

APPENDIX B
2009 CAPACITY REPORT HYDRAULIC RESULTS

**CITY OF SAN DIEGO
HYDRAULIC MODEL RESULTS TABLE
TRUNK SEWER 101 - EL CAMINO REAL
2010 DWF AS-BUILT**

| FACILITY SEQUENCE NUMBER | PIPE ID | DOWNSTREAM MH ID | UPSTREAM MH INV. EL. (FT) | DOWNSTREAM MH INV. EL. (FT) | DOWNSTREAM MH RIM EL. (FT) | PIPE SLOPE (FT/FT) | PIPE DIAMETER (IN) | PIPE LENGTH (FT) | MAX. VELOCITY (FT/SEC) | MAX. DEPTH (IN) | MAX. d/D (%) | MAX. HGL. EL. (FT) | MAX. EGL. EL. (FT) | HGL. DEPTH BELOW RIM (FT) | MAX. FLOW (MGD) | FULL CAPACITY (MGD) | MAX. Q/CAP (%) |
|--------------------------------------|-----------|---------------------|---------------------------------|-----------------------------------|-----------------------------------------|--------------------------|--------------------------|------------------------|------------------------------|-------------------------------------------|--------------------|--------------------------|--------------------------|---------------------------------|-----------------------|---------------------------|----------------------|
| 6558 | C02N71.1 | C01N127 | 235 | 232.28 | 251.3 | 0.006 | 17 | 453 | 3.44 | 5.38 | 31.6 | 232.73 | 232.91 | 18.57 | 0.95 | 4.52 | 21.1 |
| 6157 | C01N127.1 | C01N117 | 232.28 | 229.52 | 250.5 | 0.006 | 17 | 460 | 3.47 | 5.37 | 31.6 | 229.97 | 230.16 | 20.53 | 0.96 | 4.52 | 21.2 |
| 5200222 | C01N117.1 | C01N555 | 229.52 | 224.3 | 242 | 0.013 | 17 | 395 | 4.28 | 4.7 | 27.6 | 224.69 | 224.98 | 17.31 | 0.98 | 6.7 | 14.6 |
| 6159 | C01N555.1 | C01N116 | 224.3 | 221.73 | 234.8 | 0.013 | 18 | 195 | 4.19 | 4.69 | 26.1 | 222.12 | 222.39 | 12.68 | 0.98 | 7.79 | 12.6 |
| 6158 | C01N116.1 | C01N115 | 221.73 | 197.34 | 210.3 | 0.056 | 17 | 438 | 5.99 | 4.33 | 25.5 | 197.7 | 198.26 | 12.6 | 1.23 | 13.76 | 8.9 |
| 6154 | C01N115.1 | C01N112 | 197.34 | 188 | 199 | 0.031 | 17 | 301 | 4.88 | 5.02 | 29.5 | 188.42 | 188.79 | 10.58 | 1.23 | 10.27 | 11.9 |
| 6230 | C01N112.1 | C01N303 | 188 | 186.5 | 199.5 | 0.015 | 17 | 99 | 4.47 | 5.38 | 31.6 | 186.95 | 187.26 | 12.55 | 1.23 | 7.18 | 17.1 |
| 6090 | C01N303.1 | C01N62 | 186.5 | 183.89 | 198.9 | 0.014 | 17 | 192 | 4.06 | 6.17 | 36.3 | 184.41 | 184.66 | 14.5 | 1.33 | 6.8 | 19.6 |
| 6180 | C01N62.1 | C01N59 | 183.89 | 173.96 | 197 | 0.012 | 18 | 800 | 5.23 | 5.95 | 33 | 174.46 | 174.88 | 22.55 | 1.72 | 7.56 | 22.8 |
| 6178 | C01N59.1 | C01N57 | 173.96 | 167.34 | 197 | 0.015 | 18 | 456 | 5.33 | 5.89 | 32.7 | 167.83 | 168.27 | 29.17 | 1.73 | 8.18 | 21.2 |
| 6168 | C01N57.1 | C01N277 | 167.34 | 162.68 | 172.7 | 0.015 | 18 | 310 | 5.34 | 5.89 | 32.7 | 163.17 | 163.61 | 9.53 | 1.73 | 8.32 | 20.8 |
| 6182 | C01N277.1 | C01N35 | 162.68 | 156.68 | 166.7 | 0.03 | 17 | 200 | 5.62 | 5.82 | 34.2 | 157.16 | 157.66 | 9.54 | 1.73 | 10.1 | 17.1 |
| 6283 | C01N35.1 | C01S33 | 156.68 | 145.53 | 159.8 | 0.02 | 17 | 566 | 5.34 | 6.35 | 37.4 | 146.06 | 146.5 | 13.74 | 1.85 | 8.18 | 22.6 |
| 5046809 | C01S33.1 | C01S513 | 145.53 | 142.35 | 151.8 | 0.009 | 21 | 370 | 4.71 | 6.35 | 30.2 | 142.88 | 143.22 | 8.92 | 1.87 | 9.49 | 19.7 |
| 6279 | C01S513.1 | C01S28 | 142.35 | 137.6 | 147.6 | 0.012 | 21 | 398 | 4.97 | 6.17 | 29.4 | 138.11 | 138.5 | 9.49 | 1.89 | 11.19 | 16.9 |
| 6501 | C01S28.1 | C01S500 | 137.6 | 132.03 | 143.9 | 0.035 | 21 | 159 | 6.18 | 5.43 | 25.9 | 132.48 | 133.08 | 11.42 | 1.97 | 19.17 | 10.3 |
| 6273 | C01S500.1 | C01S25 | 132.03 | 118 | 129 | 0.024 | 21 | 577 | 5.86 | 5.64 | 26.9 | 118.47 | 119 | 10.53 | 1.97 | 15.97 | 12.3 |
| 6268 | C01S25.1 | C01S23 | 118 | 112.54 | 124.5 | 0.021 | 21 | 265 | 4.5 | 6.82 | 32.5 | 113.11 | 113.42 | 11.39 | 1.97 | 14.7 | 13.4 |
| 6264 | C01S23.1 | C01S214 | 112.54 | 103.68 | 116.7 | 0.011 | 20 | 797 | 5.07 | 6.79 | 33.9 | 104.25 | 104.65 | 12.45 | 2.14 | 9.48 | 22.5 |
| 6424 | C01S214.1 | C01S184 | 103.68 | 95.68 | 106.7 | 0.01 | 20 | 800 | 5.11 | 6.78 | 33.9 | 96.24 | 96.65 | 10.46 | 2.15 | 8.99 | 23.9 |
| 6739 | C01S184.1 | C02S73 | 95.68 | 85.67 | 99.7 | 0.014 | 21 | 718 | 5.49 | 6.32 | 30.1 | 86.2 | 86.66 | 13.51 | 2.16 | 12.09 | 17.9 |
| 5483531 | C02S73.1 | C02S576 | 85.67 | 58.1 | 68.6 | 0.049 | 21 | 562 | 8.33 | 4.71 | 22.4 | 58.49 | 59.57 | 10.11 | 2.17 | 22.68 | 9.6 |
| 5483532 | C02S576.1 | C02S72 | 58.1 | 45 | 52.4 | 0.055 | 21 | 239 | 8.36 | 4.7 | 22.4 | 45.39 | 46.48 | 7.01 | 2.17 | 23.97 | 9.1 |
| 6727 | C02S72.1 | C02S460 | 44.4 | 33.6 | 52.4 | 0.047 | 21 | 229 | 8.85 | 5.05 | 24.1 | 34.02 | 35.24 | 18.38 | 2.55 | 22.24 | 11.5 |
| 6795 | C02S460.1 | C02S64 | 33.6 | 20 | 39 | 0.056 | 21 | 243 | 9.92 | 4.68 | 22.3 | 20.39 | 21.92 | 18.61 | 2.57 | 24.23 | 10.6 |
| 6720 | C02S64.1 | C02S63 | 20 | 7.61 | 37.5 | 0.08 | 21 | 156 | 5.54 | 7.12 | 33.9 | 8.2 | 8.68 | 29.3 | 2.57 | 28.89 | 8.9 |
| 5526680 | C02S63.1 | C02S62 | 7.51 | 6.79 | 32.87 | 0.003 | 39 | 276 | 3.26 | 9.69 | 24.8 | 7.6 | 7.76 | 25.27 | 2.57 | 27.27 | 9.4 |
| 6718 | C02S62.1 | C02S450 | 6.67 | 6.49 | 31.4 | 0.004 | 39 | 50 | 1.93 | 13.03 | 33.4 | 7.58 | 7.63 | 23.83 | 2.56 | 32.02 | 8.0 |
| TOTAL LENGTH (MILES): | | | | 2.03 | LENGTH OF PIPE - d/D < 50% (MILES): | | | | 2.03 | LENGTH OF PIPE - Q/CAP < 50% (MILES): | | | | 2.03 | | | |
| LENGTH WEIGHTED Q/CAP: | | | | 17.2 | LENGTH OF PIPE - d/D 50 - 75% (MILES): | | | | 0 | LENGTH OF PIPE - Q/CAP 50 - 75% (MILES): | | | | 0 | | | |
| LENGTH WEIGHTED d/D: | | | | 30.3 | LENGTH OF PIPE - d/D 75 - 100% (MILES): | | | | 0 | LENGTH OF PIPE - Q/CAP 75 - 100% (MILES): | | | | 0 | | | |
| LENGTH WEIGHTED HGL. BELOW RIM (FT): | | | | 14.82 | LENGTH OF PIPE - d/D > 100% (MILES): | | | | 0 | LENGTH OF PIPE - Q/CAP > 100% (MILES): | | | | 0 | | | |

PBS&J CALCULATIONS

| 75% FULL CAPACITY (MGD) | AVAIL. CAPACITY (MGD) |
|-------------------------------|-----------------------------|
| 3.39 | 2.44 |
| 3.39 | 2.43 |
| 5.03 | 4.05 |
| 5.84 | 4.86 |
| 10.32 | 9.09 |
| 7.70 | 6.47 |
| 5.39 | 4.16 |
| 5.10 | 3.77 |
| 5.67 | 3.95 |
| 6.14 | 4.41 |
| 6.24 | 4.51 |
| 7.58 | 5.85 |
| 6.14 | 4.29 |
| 7.12 | 5.25 |
| 8.39 | 6.50 |
| 14.38 | 12.41 |
| 11.98 | 10.01 |
| 11.03 | 9.06 |
| 7.11 | 4.97 |
| 6.74 | 4.59 |
| 9.07 | 6.91 |
| 17.01 | 14.84 |
| 17.98 | 15.81 |
| 16.68 | 14.13 |
| 18.17 | 15.60 |
| 21.67 | 19.10 |
| 20.45 | 17.88 |
| 24.02 | 21.46 |

**CITY OF SAN DIEGO
HYDRAULIC MODEL RESULTS TABLE
TRUNK SEWER 101 - EL CAMINO REAL
2010 WWF AS-BUILT**

| FACILITY SEQUENCE NUMBER | PIPE ID | DOWNSTREAM MH ID | UPSTREAM MH INV. EL. (FT) | DOWNSTREAM MH INV. EL. (FT) | DOWNSTREAM MH RIM EL. (FT) | PIPE SLOPE (FT/FT) | PIPE DIAMETER (IN) | PIPE LENGTH (FT) | MAX. VELOCITY (FT/SEC) | MAX. DEPTH (IN) | MAX. d/D (%) | MAX. HGL. EL. (FT) | MAX. EGL. EL. (FT) | HGL. DEPTH BELOW RIM (FT) | MAX. FLOW (MGD) | FULL CAPACITY (MGD) | MAX. Q/CAP (%) |
|--------------------------------------|-----------|---------------------|---------------------------------|-----------------------------------|-----------------------------------------|--------------------------|--------------------------|------------------------|------------------------------|-------------------------------------------|--------------------|--------------------------|--------------------------|---------------------------------|-----------------------|---------------------------|----------------------|
| 6558 | C02N71.1 | C01N127 | 235 | 232.28 | 251.3 | 0.006 | 17 | 453 | 3.9 | 7.01 | 41.2 | 232.86 | 233.1 | 18.44 | 1.54 | 4.52 | 34.2 |
| 6157 | C01N127.1 | C01N117 | 232.28 | 229.52 | 250.5 | 0.006 | 17 | 460 | 3.95 | 7 | 41.2 | 230.1 | 230.35 | 20.39 | 1.56 | 4.52 | 34.6 |
| 5200222 | C01N117.1 | C01N555 | 229.52 | 224.3 | 242 | 0.013 | 17 | 395 | 5.17 | 5.89 | 34.7 | 224.79 | 225.21 | 17.21 | 1.62 | 6.7 | 24.2 |
| 6159 | C01N555.1 | C01N116 | 224.3 | 221.73 | 234.8 | 0.013 | 18 | 195 | 5 | 5.89 | 32.7 | 222.22 | 222.61 | 12.58 | 1.62 | 7.79 | 20.8 |
| 6158 | C01N116.1 | C01N115 | 221.73 | 197.34 | 210.3 | 0.056 | 17 | 438 | 7.52 | 5.79 | 34.1 | 197.82 | 198.7 | 12.48 | 2.3 | 13.76 | 16.8 |
| 6154 | C01N115.1 | C01N112 | 197.34 | 188 | 199 | 0.031 | 17 | 301 | 5.92 | 6.92 | 40.7 | 188.58 | 189.12 | 10.42 | 2.3 | 10.27 | 22.4 |
| 6230 | C01N112.1 | C01N303 | 188 | 186.5 | 199.5 | 0.015 | 17 | 99 | 5.39 | 7.43 | 43.7 | 187.12 | 187.57 | 12.38 | 2.3 | 7.18 | 32.1 |
| 6090 | C01N303.1 | C01N62 | 186.5 | 183.89 | 198.9 | 0.014 | 17 | 192 | 4.8 | 8.98 | 52.8 | 184.64 | 185 | 14.26 | 2.57 | 6.8 | 37.8 |
| 6180 | C01N62.1 | C01N59 | 183.89 | 173.96 | 197 | 0.012 | 18 | 800 | 6.32 | 8.97 | 49.8 | 174.71 | 175.33 | 22.29 | 3.59 | 7.56 | 47.5 |
| 6178 | C01N59.1 | C01N57 | 173.96 | 167.34 | 197 | 0.015 | 18 | 456 | 6.72 | 8.59 | 47.7 | 168.06 | 168.76 | 28.95 | 3.62 | 8.18 | 44.2 |
| 6168 | C01N57.1 | C01N277 | 167.34 | 162.68 | 172.7 | 0.015 | 18 | 310 | 6.73 | 8.58 | 47.7 | 163.4 | 164.1 | 9.3 | 3.62 | 8.32 | 43.4 |
| 6182 | C01N277.1 | C01N35 | 162.68 | 156.68 | 166.7 | 0.03 | 17 | 200 | 7.03 | 8.57 | 50.4 | 157.39 | 158.16 | 9.31 | 3.62 | 10.1 | 35.8 |
| 6283 | C01N35.1 | C01S33 | 156.68 | 145.53 | 159.8 | 0.02 | 17 | 566 | 6.74 | 9.57 | 56.3 | 146.33 | 147.03 | 13.47 | 3.98 | 8.18 | 48.6 |
| 5046809 | C01S33.1 | C01S513 | 145.53 | 142.35 | 151.8 | 0.009 | 21 | 370 | 5.82 | 9.55 | 45.5 | 143.14 | 143.67 | 8.66 | 4.01 | 9.49 | 42.2 |
| 6279 | C01S513.1 | C01S28 | 142.35 | 137.6 | 147.6 | 0.012 | 21 | 398 | 6.39 | 9.04 | 43 | 138.35 | 138.99 | 9.25 | 4.09 | 11.19 | 36.5 |
| 6501 | C01S28.1 | C01S500 | 137.6 | 132.03 | 143.9 | 0.035 | 21 | 159 | 8.32 | 7.73 | 36.8 | 132.67 | 133.75 | 11.23 | 4.32 | 19.17 | 22.5 |
| 6273 | C01S500.1 | C01S25 | 132.03 | 118 | 129 | 0.024 | 21 | 577 | 7.83 | 8.09 | 38.5 | 118.67 | 119.62 | 10.33 | 4.32 | 15.97 | 27.0 |
| 6268 | C01S25.1 | C01S23 | 118 | 112.54 | 124.5 | 0.021 | 21 | 265 | 5.75 | 10.22 | 48.7 | 113.39 | 113.91 | 11.11 | 4.32 | 14.7 | 29.4 |
| 6264 | C01S23.1 | C01S214 | 112.54 | 103.68 | 116.7 | 0.011 | 20 | 797 | 6.4 | 10.42 | 52.1 | 104.55 | 105.19 | 12.15 | 4.75 | 9.48 | 50.1 |
| 6424 | C01S214.1 | C01S184 | 103.68 | 95.68 | 106.7 | 0.01 | 20 | 800 | 6.49 | 10.37 | 51.9 | 96.54 | 97.2 | 10.16 | 4.79 | 8.99 | 53.2 |
| 6739 | C01S184.1 | C02S73 | 95.68 | 85.67 | 99.7 | 0.014 | 21 | 718 | 7.11 | 9.44 | 44.9 | 86.46 | 87.24 | 13.25 | 4.82 | 12.09 | 39.8 |
| 5483531 | C02S73.1 | C02S576 | 85.67 | 58.1 | 68.6 | 0.049 | 21 | 562 | 11.15 | 6.77 | 32.3 | 58.66 | 60.6 | 9.93 | 4.83 | 22.68 | 21.3 |
| 5483532 | C02S576.1 | C02S72 | 58.1 | 45 | 52.4 | 0.055 | 21 | 239 | 11.21 | 6.75 | 32.1 | 45.56 | 47.52 | 6.84 | 4.83 | 23.97 | 20.2 |
| 6727 | C02S72.1 | C02S460 | 44.4 | 33.6 | 52.4 | 0.047 | 21 | 229 | 11.98 | 7.46 | 35.5 | 34.22 | 36.45 | 18.18 | 5.93 | 22.24 | 26.7 |
| 6795 | C02S460.1 | C02S64 | 33.6 | 20 | 39 | 0.056 | 21 | 243 | 12.13 | 7.43 | 35.4 | 20.62 | 22.91 | 18.38 | 5.97 | 24.23 | 24.6 |
| 6720 | C02S64.1 | C02S63 | 20 | 7.61 | 37.5 | 0.08 | 21 | 156 | 6.69 | 11.81 | 56.2 | 8.6 | 9.29 | 28.9 | 5.98 | 28.89 | 20.7 |
| 5526680 | C02S63.1 | C02S62 | 7.51 | 6.79 | 32.87 | 0.003 | 39 | 276 | 3.17 | 16.41 | 42.1 | 8.16 | 8.31 | 24.71 | 5.95 | 27.27 | 21.8 |
| 6718 | C02S62.1 | C02S450 | 6.67 | 6.49 | 31.4 | 0.004 | 39 | 50 | 2.34 | 19.74 | 50.6 | 8.13 | 8.22 | 23.27 | 5.94 | 32.02 | 18.6 |
| TOTAL LENGTH (MILES): | | | | 2.03 | LENGTH OF PIPE - d/D < 50% (MILES): | | | | 1.5 | LENGTH OF PIPE - Q/CAP < 50% (MILES): | | | | 1.72 | | | |
| LENGTH WEIGHTED Q/CAP: | | | | 35.8 | LENGTH OF PIPE - d/D 50 - 75% (MILES): | | | | 0.52 | LENGTH OF PIPE - Q/CAP 50 - 75% (MILES): | | | | 0.3 | | | |
| LENGTH WEIGHTED d/D: | | | | 44.2 | LENGTH OF PIPE - d/D 75 - 100% (MILES): | | | | 0 | LENGTH OF PIPE - Q/CAP 75 - 100% (MILES): | | | | 0 | | | |
| LENGTH WEIGHTED HGL. BELOW RIM (FT): | | | | 14.59 | LENGTH OF PIPE - d/D > 100% (MILES): | | | | 0 | LENGTH OF PIPE - Q/CAP > 100% (MILES): | | | | 0 | | | |

PBS&J CALCULATIONS

| 75% FULL CAPACITY (MGD) | AVAIL. CAPACITY (MGD) |
|-------------------------------|-----------------------------|
| 3.39 | 1.85 |
| 3.39 | 1.83 |
| 5.03 | 3.41 |
| 5.84 | 4.22 |
| 10.32 | 8.02 |
| 7.70 | 5.40 |
| 5.39 | 3.09 |
| 5.10 | 2.53 |
| 5.67 | 2.08 |
| 6.14 | 2.52 |
| 6.24 | 2.62 |
| 7.58 | 3.96 |
| 6.14 | 2.16 |
| 7.12 | 3.11 |
| 8.39 | 4.30 |
| 14.38 | 10.06 |
| 11.98 | 7.66 |
| 11.03 | 6.71 |
| 7.11 | 2.36 |
| 6.74 | 1.95 |
| 9.07 | 4.25 |
| 17.01 | 12.18 |
| 17.98 | 13.15 |
| 16.68 | 10.75 |
| 18.17 | 12.20 |
| 21.67 | 15.69 |
| 20.45 | 14.50 |
| 24.02 | 18.08 |

**CITY OF SAN DIEGO
HYDRAULIC MODEL RESULTS TABLE
TRUNK SEWER 101 - EL CAMINO REAL
2020 DWF AS-BUILT**

| FACILITY SEQUENCE NUMBER | PIPE ID | DOWNSTREAM MH ID | UPSTREAM MH INV. EL. (FT) | DOWNSTREAM MH INV. EL. (FT) | DOWNSTREAM MH RIM EL. (FT) | PIPE SLOPE (FT/FT) | PIPE DIAMETER (IN) | PIPE LENGTH (FT) | MAX. VELOCITY (FT/SEC) | MAX. DEPTH (IN) | MAX. d/D (%) | MAX. HGL. EL. (FT) | MAX. EGL. EL. (FT) | HGL. DEPTH BELOW RIM (FT) | MAX. FLOW (MGD) | FULL CAPACITY (MGD) | MAX. Q/CAP (%) |
|--------------------------------------|-----------|---------------------|---------------------------------|-----------------------------------|-----------------------------------------|--------------------------|--------------------------|------------------------|------------------------------|-------------------------------------------|--------------------|--------------------------|--------------------------|---------------------------------|-----------------------|---------------------------|----------------------|
| 6558 | C02N71.1 | C01N127 | 235 | 232.28 | 251.3 | 0.006 | 17 | 453 | 3.85 | 6.44 | 37.9 | 232.82 | 233.05 | 18.48 | 1.36 | 4.52 | 30.1 |
| 6157 | C01N127.1 | C01N117 | 232.28 | 229.52 | 250.5 | 0.006 | 17 | 460 | 3.87 | 6.44 | 37.9 | 230.06 | 230.29 | 20.44 | 1.37 | 4.52 | 30.3 |
| 5200222 | C01N117.1 | C01N555 | 229.52 | 224.3 | 242 | 0.013 | 17 | 395 | 4.97 | 5.41 | 31.8 | 224.75 | 225.14 | 17.25 | 1.39 | 6.7 | 20.7 |
| 6159 | C01N555.1 | C01N116 | 224.3 | 221.73 | 234.8 | 0.013 | 18 | 195 | 4.81 | 5.41 | 30.1 | 222.18 | 222.54 | 12.62 | 1.39 | 7.79 | 17.8 |
| 6158 | C01N116.1 | C01N115 | 221.73 | 197.34 | 210.3 | 0.056 | 17 | 438 | 6.79 | 4.9 | 28.8 | 197.75 | 198.46 | 12.55 | 1.65 | 13.76 | 12.0 |
| 6154 | C01N115.1 | C01N112 | 197.34 | 188 | 199 | 0.031 | 17 | 301 | 5.31 | 5.86 | 34.5 | 188.49 | 188.93 | 10.51 | 1.65 | 10.27 | 16.1 |
| 6230 | C01N112.1 | C01N303 | 188 | 186.5 | 199.5 | 0.015 | 17 | 99 | 5.01 | 6.12 | 36 | 187.01 | 187.4 | 12.49 | 1.65 | 7.18 | 23.0 |
| 6090 | C01N303.1 | C01N62 | 186.5 | 183.89 | 198.9 | 0.014 | 17 | 192 | 4.66 | 6.76 | 39.7 | 184.45 | 184.79 | 14.45 | 1.75 | 6.8 | 25.7 |
| 6180 | C01N62.1 | C01N59 | 183.89 | 173.96 | 197 | 0.012 | 18 | 800 | 5.7 | 6.53 | 36.3 | 174.5 | 175.01 | 22.5 | 2.13 | 7.56 | 28.2 |
| 6178 | C01N59.1 | C01N57 | 173.96 | 167.34 | 197 | 0.015 | 18 | 456 | 5.79 | 6.48 | 36 | 167.88 | 168.4 | 29.12 | 2.14 | 8.18 | 26.2 |
| 6168 | C01N57.1 | C01N277 | 167.34 | 162.68 | 172.7 | 0.015 | 18 | 310 | 5.8 | 6.48 | 36 | 163.22 | 163.74 | 9.48 | 2.14 | 8.32 | 25.8 |
| 6182 | C01N277.1 | C01N35 | 162.68 | 156.68 | 166.7 | 0.03 | 17 | 200 | 6.19 | 6.37 | 37.5 | 157.21 | 157.81 | 9.49 | 2.14 | 10.1 | 21.2 |
| 6283 | C01N35.1 | C01S33 | 156.68 | 145.53 | 159.8 | 0.02 | 17 | 566 | 5.6 | 7.19 | 42.3 | 146.13 | 146.62 | 13.67 | 2.29 | 8.18 | 28.0 |
| 5046809 | C01S33.1 | C01S513 | 145.53 | 142.35 | 151.8 | 0.009 | 21 | 370 | 4.92 | 7.18 | 34.2 | 142.95 | 143.32 | 8.85 | 2.31 | 9.49 | 24.3 |
| 6279 | C01S513.1 | C01S28 | 142.35 | 137.6 | 147.6 | 0.012 | 21 | 398 | 5.27 | 6.89 | 32.8 | 138.17 | 138.6 | 9.43 | 2.34 | 11.19 | 20.9 |
| 6501 | C01S28.1 | C01S500 | 137.6 | 132.03 | 143.9 | 0.035 | 21 | 159 | 6.72 | 5.92 | 28.2 | 132.52 | 133.23 | 11.38 | 2.42 | 19.17 | 12.6 |
| 6273 | C01S500.1 | C01S25 | 132.03 | 118 | 129 | 0.024 | 21 | 577 | 6.44 | 6.1 | 29.1 | 118.51 | 119.15 | 10.49 | 2.42 | 15.97 | 15.1 |
| 6268 | C01S25.1 | C01S23 | 118 | 112.54 | 124.5 | 0.021 | 21 | 265 | 4.92 | 7.42 | 35.3 | 113.16 | 113.53 | 11.34 | 2.42 | 14.7 | 16.4 |
| 6264 | C01S23.1 | C01S214 | 112.54 | 103.68 | 116.7 | 0.011 | 20 | 797 | 5.47 | 7.43 | 37.2 | 104.3 | 104.77 | 12.4 | 2.61 | 9.48 | 27.5 |
| 6424 | C01S214.1 | C01S184 | 103.68 | 95.68 | 106.7 | 0.01 | 20 | 800 | 5.52 | 7.43 | 37.1 | 96.3 | 96.77 | 10.4 | 2.63 | 8.99 | 29.3 |
| 6739 | C01S184.1 | C02S73 | 95.68 | 85.67 | 99.7 | 0.014 | 21 | 718 | 5.77 | 7.06 | 33.6 | 86.26 | 86.78 | 13.44 | 2.65 | 12.09 | 21.9 |
| 5483531 | C02S73.1 | C02S576 | 85.67 | 58.1 | 68.6 | 0.049 | 21 | 562 | 8.95 | 5.16 | 24.6 | 58.53 | 59.78 | 10.07 | 2.66 | 22.68 | 11.7 |
| 5483532 | C02S576.1 | C02S72 | 58.1 | 45 | 52.4 | 0.055 | 21 | 239 | 8.99 | 5.15 | 24.5 | 45.43 | 46.69 | 6.97 | 2.66 | 23.97 | 11.1 |
| 6727 | C02S72.1 | C02S460 | 44.4 | 33.6 | 52.4 | 0.047 | 21 | 229 | 9.36 | 5.51 | 26.2 | 34.06 | 35.42 | 18.34 | 3.04 | 22.24 | 13.7 |
| 6795 | C02S460.1 | C02S64 | 33.6 | 20 | 39 | 0.056 | 21 | 243 | 10.61 | 5.07 | 24.1 | 20.42 | 22.17 | 18.58 | 3.07 | 24.23 | 12.7 |
| 6720 | C02S64.1 | C02S63 | 20 | 7.61 | 37.5 | 0.08 | 21 | 156 | 5.77 | 8.06 | 38.4 | 8.28 | 8.8 | 29.22 | 3.07 | 28.89 | 10.6 |
| 5526680 | C02S63.1 | C02S62 | 7.51 | 6.79 | 32.87 | 0.003 | 39 | 276 | 3.02 | 12.98 | 33.3 | 7.87 | 8.01 | 25 | 3.06 | 27.27 | 11.2 |
| 6718 | C02S62.1 | C02S450 | 6.67 | 6.49 | 31.4 | 0.004 | 39 | 50 | 1.81 | 16.43 | 42.1 | 7.86 | 7.91 | 23.54 | 3.06 | 32.02 | 9.6 |
| TOTAL LENGTH (MILES): | | | | 2.03 | LENGTH OF PIPE - d/D < 50% (MILES): | | | | 2.03 | LENGTH OF PIPE - Q/CAP < 50% (MILES): | | | | 2.03 | | | |
| LENGTH WEIGHTED Q/CAP: | | | | 21.8 | LENGTH OF PIPE - d/D 50 - 75% (MILES): | | | | 0 | LENGTH OF PIPE - Q/CAP 50 - 75% (MILES): | | | | 0 | | | |
| LENGTH WEIGHTED d/D: | | | | 34 | LENGTH OF PIPE - d/D 75 - 100% (MILES): | | | | 0 | LENGTH OF PIPE - Q/CAP 75 - 100% (MILES): | | | | 0 | | | |
| LENGTH WEIGHTED HGL. BELOW RIM (FT): | | | | 14.76 | LENGTH OF PIPE - d/D > 100% (MILES): | | | | 0 | LENGTH OF PIPE - Q/CAP > 100% (MILES): | | | | 0 | | | |

PBS&J CALCULATIONS

| 75% FULL CAPACITY (MGD) | AVAIL. CAPACITY (MGD) |
|-------------------------------|-----------------------------|
| 3.39 | 2.03 |
| 3.39 | 2.02 |
| 5.03 | 3.64 |
| 5.84 | 4.45 |
| 10.32 | 8.67 |
| 7.70 | 6.05 |
| 5.39 | 3.74 |
| 5.10 | 3.35 |
| 5.67 | 3.54 |
| 6.14 | 4.00 |
| 6.24 | 4.10 |
| 7.58 | 5.44 |
| 6.14 | 3.85 |
| 7.12 | 4.81 |
| 8.39 | 6.05 |
| 14.38 | 11.96 |
| 11.98 | 9.56 |
| 11.03 | 8.61 |
| 7.11 | 4.50 |
| 6.74 | 4.11 |
| 9.07 | 6.42 |
| 17.01 | 14.35 |
| 17.98 | 15.32 |
| 16.68 | 13.64 |
| 18.17 | 15.10 |
| 21.67 | 18.60 |
| 20.45 | 17.39 |
| 24.02 | 20.96 |

**CITY OF SAN DIEGO
HYDRAULIC MODEL RESULTS TABLE
TRUNK SEWER 101 - EL CAMINO REAL
2020 WWF AS-BUILT**

| FACILITY SEQUENCE NUMBER | PIPE ID | DOWNSTREAM MH ID | UPSTREAM MH INV. EL. (FT) | DOWNSTREAM MH INV. EL. (FT) | DOWNSTREAM MH RIM EL. (FT) | PIPE SLOPE (FT/FT) | PIPE DIAMETER (IN) | PIPE LENGTH (FT) | MAX. VELOCITY (FT/SEC) | MAX. DEPTH (IN) | MAX. d/D (%) | MAX. HGL. EL. (FT) | MAX. EGL. EL. (FT) | HGL. DEPTH BELOW RIM (FT) | MAX. FLOW (MGD) | FULL CAPACITY (MGD) | MAX. Q/CAP (%) |
|--------------------------------------|-----------|---------------------|---------------------------------|-----------------------------------|-----------------------------------------|--------------------------|--------------------------|------------------------|------------------------------|-------------------------------------------|--------------------|--------------------------|--------------------------|---------------------------------|-----------------------|---------------------------|----------------------|
| 6558 | C02N71.1 | C01N127 | 235 | 232.28 | 251.3 | 0.006 | 17 | 453 | 4.34 | 8.47 | 49.8 | 232.99 | 233.28 | 18.31 | 2.2 | 4.52 | 48.7 |
| 6157 | C01N127.1 | C01N117 | 232.28 | 229.52 | 250.5 | 0.006 | 17 | 460 | 4.37 | 8.46 | 49.8 | 230.23 | 230.52 | 20.27 | 2.21 | 4.52 | 49.0 |
| 5200222 | C01N117.1 | C01N555 | 229.52 | 224.3 | 242 | 0.013 | 17 | 395 | 5.86 | 6.88 | 40.5 | 224.87 | 225.41 | 17.13 | 2.26 | 6.7 | 33.8 |
| 6159 | C01N555.1 | C01N116 | 224.3 | 221.73 | 234.8 | 0.013 | 18 | 195 | 5.65 | 6.87 | 38.2 | 222.3 | 222.8 | 12.5 | 2.26 | 7.79 | 29.0 |
| 6158 | C01N116.1 | C01N115 | 221.73 | 197.34 | 210.3 | 0.056 | 17 | 438 | 8.26 | 6.38 | 37.5 | 197.87 | 198.93 | 12.43 | 2.88 | 13.76 | 21.0 |
| 6154 | C01N115.1 | C01N112 | 197.34 | 188 | 199 | 0.031 | 17 | 301 | 6.43 | 7.71 | 45.3 | 188.64 | 189.28 | 10.36 | 2.88 | 10.27 | 28.1 |
| 6230 | C01N112.1 | C01N303 | 188 | 186.5 | 199.5 | 0.015 | 17 | 99 | 5.8 | 8.36 | 49.2 | 187.2 | 187.72 | 12.31 | 2.88 | 7.18 | 40.2 |
| 6090 | C01N303.1 | C01N62 | 186.5 | 183.89 | 198.9 | 0.014 | 17 | 192 | 5.31 | 9.83 | 57.8 | 184.71 | 185.15 | 14.19 | 3.12 | 6.8 | 45.9 |
| 6180 | C01N62.1 | C01N59 | 183.89 | 173.96 | 197 | 0.012 | 18 | 800 | 6.54 | 9.74 | 54.1 | 174.77 | 175.44 | 22.23 | 4.12 | 7.56 | 54.5 |
| 6178 | C01N59.1 | C01N57 | 173.96 | 167.34 | 197 | 0.015 | 18 | 456 | 7.1 | 9.21 | 51.2 | 168.11 | 168.89 | 28.89 | 4.18 | 8.18 | 51.0 |
| 6168 | C01N57.1 | C01N277 | 167.34 | 162.68 | 172.7 | 0.015 | 18 | 310 | 7.13 | 9.18 | 51 | 163.45 | 164.24 | 9.25 | 4.18 | 8.32 | 50.2 |
| 6182 | C01N277.1 | C01N35 | 162.68 | 156.68 | 166.7 | 0.03 | 17 | 200 | 7.34 | 9.44 | 55.6 | 157.47 | 158.3 | 9.23 | 4.18 | 10.1 | 41.4 |
| 6283 | C01N35.1 | C01S33 | 156.68 | 145.53 | 159.8 | 0.02 | 17 | 566 | 6.93 | 10.41 | 61.3 | 146.4 | 147.15 | 13.4 | 4.52 | 8.18 | 55.3 |
| 5046809 | C01S33.1 | C01S513 | 145.53 | 142.35 | 151.8 | 0.009 | 21 | 370 | 5.98 | 10.39 | 49.5 | 143.21 | 143.77 | 8.59 | 4.58 | 9.49 | 48.3 |
| 6279 | C01S513.1 | C01S28 | 142.35 | 137.6 | 147.6 | 0.012 | 21 | 398 | 6.61 | 9.71 | 46.2 | 138.41 | 139.09 | 9.19 | 4.64 | 11.19 | 41.5 |
| 6501 | C01S28.1 | C01S500 | 137.6 | 132.03 | 143.9 | 0.035 | 21 | 159 | 8.55 | 8.29 | 39.5 | 132.72 | 133.86 | 11.18 | 4.87 | 19.17 | 25.4 |
| 6273 | C01S500.1 | C01S25 | 132.03 | 118 | 129 | 0.024 | 21 | 577 | 8.02 | 8.69 | 41.4 | 118.72 | 119.72 | 10.28 | 4.87 | 15.97 | 30.5 |
| 6268 | C01S25.1 | C01S23 | 118 | 112.54 | 124.5 | 0.021 | 21 | 265 | 5.79 | 11.3 | 53.8 | 113.48 | 114 | 11.02 | 4.87 | 14.7 | 33.2 |
| 6264 | C01S23.1 | C01S214 | 112.54 | 103.68 | 116.7 | 0.011 | 20 | 797 | 6.45 | 11.53 | 57.7 | 104.64 | 105.29 | 12.06 | 5.43 | 9.48 | 57.3 |
| 6424 | C01S214.1 | C01S184 | 103.68 | 95.68 | 106.7 | 0.01 | 20 | 800 | 6.65 | 11.39 | 56.9 | 96.63 | 97.31 | 10.07 | 5.51 | 8.99 | 61.3 |
| 6739 | C01S184.1 | C02S73 | 95.68 | 85.67 | 99.7 | 0.014 | 21 | 718 | 7.32 | 10.34 | 49.2 | 86.53 | 87.36 | 13.17 | 5.58 | 12.09 | 46.1 |
| 5483531 | C02S73.1 | C02S576 | 85.67 | 58.1 | 68.6 | 0.049 | 21 | 562 | 11.67 | 7.31 | 34.8 | 58.71 | 60.83 | 9.89 | 5.61 | 22.68 | 24.7 |
| 5483532 | C02S576.1 | C02S72 | 58.1 | 45 | 52.4 | 0.055 | 21 | 239 | 11.73 | 7.28 | 34.7 | 45.61 | 47.75 | 6.79 | 5.61 | 23.97 | 23.4 |
| 6727 | C02S72.1 | C02S460 | 44.4 | 33.6 | 52.4 | 0.047 | 21 | 229 | 12.53 | 7.78 | 37.1 | 34.25 | 36.69 | 18.15 | 6.57 | 22.24 | 29.5 |
| 6795 | C02S460.1 | C02S64 | 33.6 | 20 | 39 | 0.056 | 21 | 243 | 12.7 | 7.75 | 36.9 | 20.65 | 23.15 | 18.35 | 6.62 | 24.23 | 27.3 |
| 6720 | C02S64.1 | C02S63 | 20 | 7.61 | 37.5 | 0.08 | 21 | 156 | 6.79 | 13.19 | 62.8 | 8.71 | 9.43 | 28.79 | 6.63 | 28.89 | 22.9 |
| 5526680 | C02S63.1 | C02S62 | 7.51 | 6.79 | 32.87 | 0.003 | 39 | 276 | 3.22 | 19.9 | 51 | 8.45 | 8.61 | 24.42 | 6.6 | 27.27 | 24.2 |
| 6718 | C02S62.1 | C02S450 | 6.67 | 6.49 | 31.4 | 0.004 | 39 | 50 | 2.34 | 23.31 | 59.8 | 8.43 | 8.52 | 22.97 | 6.6 | 32.02 | 20.6 |
| TOTAL LENGTH (MILES): | | | | 2.03 | LENGTH OF PIPE - d/D < 50% (MILES): | | | | 1.11 | LENGTH OF PIPE - Q/CAP < 50% (MILES): | | | | 1.32 | | | |
| LENGTH WEIGHTED Q/CAP: | | | | 42.3 | LENGTH OF PIPE - d/D 50 - 75% (MILES): | | | | 0.92 | LENGTH OF PIPE - Q/CAP 50 - 75% (MILES): | | | | 0.71 | | | |
| LENGTH WEIGHTED d/D: | | | | 48.9 | LENGTH OF PIPE - d/D 75 - 100% (MILES): | | | | 0 | LENGTH OF PIPE - Q/CAP 75 - 100% (MILES): | | | | 0 | | | |
| LENGTH WEIGHTED HGL. BELOW RIM (FT): | | | | 14.51 | LENGTH OF PIPE - d/D > 100% (MILES): | | | | 0 | LENGTH OF PIPE - Q/CAP > 100% (MILES): | | | | 0 | | | |

PBS&J CALCULATIONS

| 75% FULL CAPACITY (MGD) | AVAIL. CAPACITY (MGD) |
|-------------------------------|-----------------------------|
| 3.39 | 1.19 |
| 3.39 | 1.18 |
| 5.03 | 2.77 |
| 5.84 | 3.58 |
| 10.32 | 7.44 |
| 7.70 | 4.82 |
| 5.39 | 2.51 |
| 5.10 | 1.98 |
| 5.67 | 1.55 |
| 6.14 | 1.96 |
| 6.24 | 2.06 |
| 7.58 | 3.40 |
| 6.14 | 1.62 |
| 7.12 | 2.54 |
| 8.39 | 3.75 |
| 14.38 | 9.51 |
| 11.98 | 7.11 |
| 11.03 | 6.16 |
| 7.11 | 1.68 |
| 6.74 | 1.23 |
| 9.07 | 3.49 |
| 17.01 | 11.40 |
| 17.98 | 12.37 |
| 16.68 | 10.11 |
| 18.17 | 11.55 |
| 21.67 | 15.04 |
| 20.45 | 13.85 |
| 24.02 | 17.42 |



Appendix M

WASTE MANAGEMENT PLAN

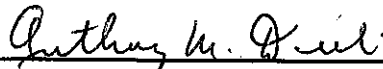


WASTE MANAGEMENT PLAN
for
One Paseo
PTS No. 193036 / VTM No. 714401

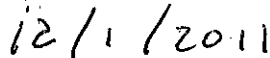
Date: April 8, 2011
Revised November 29, 2011
LEC Job No. NCW 14.01-09.08

Prepared For:
KILROY REALTY
3611 Valley Centre Drive
San Diego, CA 92139

Prepared By:
LEPPERT ENGINEERING CORPORATION
5190 Governor Drive, Suite 205
San Diego, CA 92122
(858) 597-2001



By: Anthony M. Dieli, RCE 31615
Exp. 12/31/12



Date

TABLE OF CONTENTS

| | |
|---------------------------------------------------------------------------------------------|----|
| INTRODUCTION | 1 |
| BACKGROUND | 2 |
| EXISTING CONDITIONS | 2 |
| PROPOSED PROJECT | 2 |
| WASTE MANAGEMENT IMPLEMENTATION | 4 |
| Demolition Phase | 5 |
| Grading Phase | 6 |
| Construction Phase | 10 |
| <i>LEED Certification or Equivalent</i> | 10 |
| <i>Construction and Demolition Debris Diversion Deposit Program (O-19420 & O-19694)</i> | 10 |
| <i>Calculating Anticipated Waste Generated</i> | 12 |
| <i>Source Separation</i> | 15 |
| <i>Buy Recycled</i> | 16 |
| <i>Construction Report</i> | 18 |
| Occupancy Phase | 19 |
| <i>Recycling Ordinance (O-19678)</i> | 19 |
| <i>Quantity of Waste</i> | 22 |
| CONCLUSIONS | 26 |
| Exhibit “A” - Location Map | 27 |
| Exhibit “B” - Project Location on Aerial Photograph | 29 |
| Exhibit “C” - Site Plan | 31 |
| Exhibit “D” -Waste Management Form | 33 |
| Appendix I | 36 |
| Appendix II | 46 |
| Appendix III | 49 |
| Appendix IV | 65 |
| Appendix V | 71 |
| Appendix VI | 73 |

LIST OF TABLES

| | |
|-------------------------------------------------------------------------------------------------------------------------------|----|
| <i>Table 1: Demolition Phase - Waste Management Elements</i> | 5 |
| <i>Table 2: Grading Phase - Waste Management Elements</i> | 7 |
| <i>Table 3: C&D Debris Recycling Deposit Table</i> | 11 |
| <i>Table 4: Construction Phase - Waste Management Elements</i> | 16 |
| <i>Table 5: Minimum Exterior Refuse and Recyclable Material Storage Areas for Multiple Unit Residential Development</i> | 20 |
| <i>Table 6: Minimum Exterior Refuse and Recyclable Material Storage Areas for NonResidential Development</i> | 21 |
| <i>Table 7: Occupancy Phase – Residential Waste Generation</i> | 22 |
| <i>Table 8: Occupancy Phase – Nonresidential Waste Generation</i> | 24 |
| <i>Table 9: Waste Reduction Goals</i> | 26 |

INTRODUCTION

The One Paseo property is a roughly trapezoid-shaped parcel of land consisting of 3 existing parcels with a gross area of approximately 23.6 acres, located at the Southwest corner of Del Mar Heights Road and El Camino Real in the Carmel Valley Community of the City of San Diego (*See Exhibit "A" - Location Map*).

The applicant, Kilroy Realty, is currently processing a Planned Development Permit, Site Development Permit, Vesting Tentative Map No. 714401, a Street Vacation, an Easement Abandonment, a Community Plan Amendment and a Rezone, for the subdivision of land to develop a mixed use project with 536,000 square feet of Commercial Office use, 220,000 square feet of Retail use, 50,000 square feet of Cinema use, a 150 room Hotel, and 608 multi-family residential dwelling units.

The purpose of this Waste Management Plan is to identify the potential waste generated and diverted from the One Paseo project, the waste reduction percentage achieved, and how that goal can be achieved. This report also documents how the project will comply with all solid waste and recycling laws and regulations, including: City of San Diego Ordinance O-19678, which requires that the applicant provide recycling services as part of the project; and Ordinance O-19420, which requires the applicant to pay a deposit prior to construction. This deposit shall be redeemable only upon receipt of proof that the applicant recycled over 50% of the construction waste.

The Waste Management Plan (WMP) is used to provide an analysis of the solid waste impacts of a proposed project and identify how these impacts can be mitigated. The WMP addresses the following elements for grading, construction, and Occupancy Phases of the project, as applicable:^{1, 2}

- Tons of waste anticipated to be generated
- Amount of waste anticipated to be diverted
- Project features that will reduce the amount of waste generated
- Project features that will divert or limit the generation of waste
- Material/type of waste to be generated
- Source separation techniques for waste generated
- How materials shall be reused on site
- Name and location of recycling, reuse, or landfill facilities where waste shall be taken if not reused on site
- A "buy recycled" program
- How the project shall aim to reduce the generation of construction/ demolition debris
- A plan of how waste reduction and recycling goals shall be communicated to subcontractors
- A timeline for each of the three main phases of the project as stated above
- A list of required progress and final inspections by City staff

¹ Mitigation Monitoring and Reporting Program

² Mitigation Monitoring and Reporting Program

BACKGROUND

Solid waste disposal in the project area is provided by the combined services of the City of San Diego Environmental Services Department (ESD) and private collectors. The City provides refuse collection for single-family residences on dedicated public streets and private hauling companies service multi-family residences, commercial and office uses. One Paseo will contract with private hauling companies. Refuse from the surrounding area is generally taken to the Miramar Landfill which is operated by the ESD.

According to the City's ESD, the Miramar Landfill is expected to reach capacity and close by 2022. The Assembly Bill (AB) 939: Integrated Waste Management Act, passed in 1989, requires a 50 percent reduction in solid waste generation from all jurisdictions in California by 2000. In 2011, AB 341 by the State legislature increased the requirement to 75% by the year 2020. The City satisfied the original goal and is currently working to achieve the new, higher goal.³

In order to reduce waste and achieve the City's target reduction goals, the ESD requires all new development projects of commercial construction of 40,000 square feet of more and/or 50 or more residential units to prepare a WMP.⁴

EXISTING CONDITIONS

The project site is a rough trapezoid-shaped parcel of land consisting of 3 existing parcels with a gross area of approximately 23.6 acres; located at the Southwest corner of Del Mar Heights Road and El Camino Real in the Carmel Valley Community of the City of San Diego (*see Exhibit "A" - Location Map*).

The project is surrounded by urban development. It is bounded on the west and south by commercial office uses, on the east by El Camino Real and the Del Mar Highlands Town Center, and on the north by Del Mar Heights Road and residential development. The existing site is vacant and undeveloped and was previously graded by the prior property owner. Therefore, the site does not currently generate waste.

PROPOSED PROJECT

The One Paseo project consists of the construction of five blocks of development in 13 buildings (Blocks A through E) (*see Exhibit "C" - Site Map*). Each block includes a parking structure that will be below the proposed buildings, except for a portion of the parking in Blocks D and E, which will be both below and above grade.

The project will include the construction of the following, with the estimated Phase of the project the building will be constructed shown:

³ City of San Diego Recycling Ordinance O-19678

⁴ City of San Diego Development Services Department Website: *Significance Determination Thresholds*. Accessed March 22, 2011. <http://www.sandiego.gov/development-services/news/pdf/sdtceqa.pdf>

Multi-Family Residential Units

| | | |
|----------------------------|------------------|---------|
| Building 2 = | 194 units | Phase 2 |
| Building 5 = | 181 units | Phase 2 |
| Building 6 = | 139 units | Phase 3 |
| Building 7 = | 94 units | Phase 3 |
| Total Residential = | 608 units | |

Office Uses

| | | |
|-----------------------|-------------------|---------|
| Building 9 = | 245,000 SF | Phase 1 |
| Building 10 = | 21,000 SF | Phase 1 |
| Building 12 = | 270,000 SF | Phase 1 |
| Total Office = | 536,000 SF | |

Retail

| | | |
|-----------------------|-------------------|---------|
| Building 1a = | 5,400 SF | Phase 2 |
| Building 1b = | 8,850 SF | Phase 2 |
| Building 2 = | 64,050 SF | Phase 2 |
| Building 3 = | 13,000 SF | Phase 2 |
| Building 4 = | 19,900 SF | Phase 2 |
| Building 6 = | 9,400 SF | Phase 3 |
| Building 7 = | 10,000 SF | Phase 3 |
| Building 8 = | 8,200 SF | Phase 1 |
| Building 9 = | 11,000 SF | Phase 1 |
| Building 10 = | 8,200 SF | Phase 1 |
| Building 11 = | 33,790 SF | Phase 1 |
| Building 12 = | 39,460 SF | Phase 1 |
| Total Retail = | 220,000 SF | |

Cinema

| | | |
|-----------------------|------------------|---------|
| Building 8 = | 50,000 SF | Phase 1 |
| Total Cinema = | 50,000 SF | |

Hotel

| | | |
|----------------------|-------------------------|---------|
| Building 3 = | 100,000 SF 150 rooms | Phase 2 |
| Total Hotel = | 100,000 SF | |

Parking Garages

| | | |
|------------------------|-------------------------------|---------|
| Garage 1 = | a min. of 659 spaces | Phase 2 |
| Garage 2 = | a min. of 675 spaces | Phase 2 |
| Garage 3 = | a min. of 525 spaces | Phase 3 |
| Garage 4 = | a min. of 2,230 spaces | Phase 1 |
| Total Parking = | a min. of 4,089 spaces | |

The applicant, Kilroy Realty, is requesting a Planned Development Permit, Site Development Permit, Vesting Tentative Map No. 714401, a Street Vacation, an Easement Abandonment, a Community Plan Amendment and a Rezone, for the subdivision of land to develop a mixed use project with 536,000 square feet of Commercial Office use, 220,000 square feet of Retail use, 50,000 square feet of Cinema use, a 150 room Hotel, and 608 multi-family residential dwelling units.

Construction practices will comply with local, state, and federal regulations regarding the handling of building materials to ensure that waste minimization requirements are met.

WASTE MANAGEMENT IMPLEMENTATION

The City of San Diego Environmental Services Department considers projects that are proposing construction of 40,000 square feet or more, to have cumulative impacts on solid waste facilities.⁵ Since the One Paseo project implements a change in zoning from CVPD -- EC to CVPD -- MC and the construction of 608 multi-family residential units and the construction of 546,000 square feet of office use and 220,000 square feet of retail use, the project is considered to have a significant cumulative impact to area landfills. While all projects in the City of San Diego are required to comply with the City's waste management ordinances, the cumulative impacts are mitigation through the implementation of this Waste Management Plan which reduces solid waste impacts to below a level of significance.

The City of San Diego Environmental Services Department also considers projects that include the construction of 1,000,000 square feet or more of building space to have direct impacts on solid waste facilities, as they may generate 1,500 tons of waste or more.

- Direct impacts result from generation of large amounts of waste which stresses existing facilities. Waste management planning is based on a steady rate of waste generation and doesn't assume increase waste generation due to growth.
- While all projects are required to comply with the City's waste management ordinances, direct and cumulative impacts are mitigated by the implementation of project-specific Waste Management Plans which may reduce solid waste impacts to below a level of significance.
- For projects over 1,000,000 square feet, a significant direct and cumulative solid waste impact would result if the compliance with the City's ordinances and the Waste Management Plan fail to reduce the impacts of such projects to below a level of significance and/or if a Waste Management Plan for the project is not prepared and conceptually approved by the Environmental Services Department prior to distribution of the draft environmental document for public review. The preparation and implementation of this Waste Management Plan will mitigate the impacts of this project.

The One Paseo Mitigation Monitoring and Reporting Program (MMRP) directs the permittee to notify the City of San Diego's Mitigation Monitoring Coordination (MMC) and the City of San Diego's Environmental Services Department (ESD) when:

⁵ City of San Diego Development Services Department Website: *Significance Determination Thresholds*. Accessed March 22, 2011. <http://www.sandiego.gov/development-services/news/pdf/sdtceqa.pdf>

- A grading permit is issued
- Grading begins on site
- Inspections are needed

The permittee shall arrange for progress inspections and a final inspection as specified in the plan and shall contact both MMC and ESD to perform these periodic site visits during grading and construction to inspect the progress of the project's waste diversion efforts.⁶

Prior to issuance of any grading or building permit, release of the grading bond and/or issuance of any Certificate of Occupancy, the permittee shall provide documentation to the Assistant Deputy Director (ADD) of the Entitlements Division that the Waste Management Plan has been effectively implemented.⁷

Demolition Phase

The One Paseo project site is currently vacant and undeveloped land (*see Exhibit "B" – Project Location on Aerial Photograph*). Since there are no existing structures or any hardscape improvements on the property, no demolition will be required for this project and therefore no demolition waste will be generated. Therefore, no demolition permit will be issued and there will not be a Demolition Phase for the One Paseo development.

Table 1: Demolition Phase - Waste Management Elements

| | |
|----------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Tons of waste anticipated to be generated | <i>Not applicable for Demolition Phase</i> |
| Material/type of waste to be generated | <i>Not applicable for Demolition Phase</i> |
| Source separation techniques for waste generated | <i>Not applicable for Demolition Phase</i> |
| How materials shall be reused on site | <i>Not applicable for Demolition Phase</i> |
| Name and location of recycling, reuse, or landfill facilities where waste shall be taken if not reused on site | <i>Not applicable for Demolition Phase</i> |
| A "buy recycled" program | <i>Not applicable for Demolition Phase</i> |
| How the project shall aim to reduce the generation of construction/ demolition debris | <i>Not applicable for Demolition Phase</i> |
| A plan of how waste reduction and recycling goals shall be communicated to subcontractors | <i>Not applicable for Demolition Phase</i> |
| A timeline for each of the three main phases of the project as stated above | <i>Not applicable for Demolition Phase</i> |
| A list of required progress and final inspections by City staff | <i>Not applicable for Demolition Phase</i> |

⁶Mitigation Monitoring and Reporting Program

⁷Mitigation Monitoring and Reporting Program

Grading Phase

A total of ± 23.0 acres (94 percent) of the 23.6 acre project site will be graded in three phases. Approximately 518,800 cubic yards of cut and 30,400 cubic yards of fill are proposed in association with this project. 498,400 cubic yards of dirt is planned to be exported from the site during the grading process. The dirt is indicated in the project soils report as being a sandy material. The dirt is being tested for compatibility of being used for beach replenishment in the Solana Beach area. Any material that is deemed unsuitable for beach replenishment will be exported to another site.

It will be the responsibility of the Grading Contractor to find other sites where the exported material could be reused. The Grading Contractor must pursue all options to reuse dirt at another site. Options for reusing dirt include:

- Other construction sites that need fill dirt.
- Regional landfills that need fill dirt.
- Advertising the availability of dirt on the Internet, especially websites that specialize in dirt exchange.

The goal is to reuse 100% of the exported dirt (approximately 498,400 cubic yards, or 647,920 tons) on another site within San Diego County. Any remaining clean fill dirt that cannot be reused in the options outlined above will be recycled at the Vulcan Carroll Canyon Recycle Site in San Diego. This recycling center has a 100% diversion rate.

The perimeter slopes along Del Mar Heights Road and El Camino Real were landscaped at the time of the original rough grading of the site and that landscaping will be removed during the grading for the project. We have approximated a 30 foot width of landscaping to be removed.

Greenery Waste Calculation:

Greenery waste will be generated by the removal of vegetation along the frontage of the perimeter streets. Green waste will be recycled at the Miramar Greenery, which allocates a 100% diversion waste.

Del Mar Heights Road frontage removal = 1,500 LF x 30' average = 45,000 SF = 1.03 acres

Total acres = 1.03 acres x 0.35 tons / acre = 0.36 tons

El Camino Real frontage removal = 1,400 LF x 30' average = 42,000 SF = 0.96 acres

Total acres = 0.96 acres x 0.35 tons / acre = 0.34 tons

High Bluff Drive frontage removal = 315 LF x 30' average = 9,450 SF = 0.22 acres

Total acres = 0.22 acres x 0.35 tons / acre = 0.08 tons

A negligible amount of trash will be generated by contractors working onsite during the grading process. Trash generated onsite will be collected by a commercial trash collection company and taken to the Miramar Landfill.

Prior to the issuance of any grading permit, the applicant shall receive approval, in writing, from the ADD of Entitlements Division, that this Waste Management Plan has been prepared, approved, and that the appropriate steps have been taken to implement the Plan.⁸

⁸ Mitigation Monitoring and Reporting Program

Since there will not be a Demolition Phase for the One Paseo project, the first permits pulled for construction of the One Paseo project will occur during the Grading Phase. This means the first pre-construction meeting will occur at the beginning of the Grading Phase. Therefore, the initial steps prescribed in the One Paseo Mitigation Monitoring and Reporting Program (MMRP) will be satisfied during the Grading Phase of the project.

At the Pre-Construction Meeting, the Permittee will submit three (3) reduced copies of the approved Waste Management Plan, which two (2) copies are to be distributed to the MMC and one (1) to ESD. Prior to the start of grading, the Permittee and / or the Construction Manager shall submit a construction schedule to MMC and ESD.⁹

Table 2: Grading Phase - Waste Management Elements

| | |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tons of waste anticipated to be generated | <p><i>647,920 tons</i></p> <ul style="list-style-type: none"> <i>Dirt: 647,920 tons (498,400 CY)</i> <i>Trash: negligible; to be determined</i> <i>Greenery: 0.78 tons</i> |
| Material/type of waste to be generated | <ul style="list-style-type: none"> <i>Dirt</i> <i>Miscellaneous trash</i> <i>Greenery</i> |
| Source separation techniques for waste generated | <p><i>During grading, bins will be designated for collection of:</i></p> <ul style="list-style-type: none"> <i>Miscellaneous Trash</i> <i>Greenery</i> <p><i>Trash bins will be located in areas easily accessible to the subcontractors.</i></p> <p><i>Dirt will be trucked offsite for recycling or reuse (see below).</i></p> <p><i>Greenery will be trucked offsite for recycling.</i></p> |
| How materials shall be reused on site | <p><i>Dirt: Approximately 30,400 CY will be reused onsite as fill. Additionally, dirt will be used as wall backfill material after the construction of the subterranean parking structures.</i></p> <p><i>The Grading Contractor will be responsible for finding other construction sites, landfills, etc. where the dirt could be reused. Remaining dirt that cannot be reused at another site will be recycled.</i></p> |

⁹ Mitigation Monitoring and Reporting Program

| | |
|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name and location of recycling, reuse, or landfill facilities where waste shall be taken if not reused on site | <p><i>Reuse</i></p> <ul style="list-style-type: none"> <i>Dirt: Efforts are underway to determine the suitability of the export material as beach restoration sand in the City of Solana Beach. All efforts will be made to reuse other dirt as fill on other construction site that needs dirt. It is the responsibility of the Grading Contractor to find other construction sites that need dirt. The Grading Contractor may also offer excess dirt to regional landfills as fill dirt or advertise the availability of dirt to the public on the Internet in an effort to recycle or reuse the dirt. Site to be determined. Diversion rate: 100%.</i> |
| A “buy recycled” program | <i>Not applicable for Grading Phase</i> |
| How the project shall aim to reduce the generation of construction/ demolition debris | <i>The immediate trucking of the dirt and greenery offsite for recycling or reuse and the use of trash bins for contractor’s trash should reduce the amount of debris that has to be taken to the landfill.</i> |
| A plan of how waste reduction and recycling goals shall be communicated to subcontractors | <ul style="list-style-type: none"> <i>The waste reduction and recycling goals shall be communicated to the subcontractors in their contract documents.</i> <i>The Solid Waste Management Coordinator will be designated by the Permittee and/or Construction Manager. The Coordinator will communicate waste reduction and recycling goals to the all contractors and subcontractors, and ensure material separation and coordinate proper disposal and diversion of waste generated.</i> <i>The Grading Contractor will be responsible for locating sites where dirt could be reused.</i> |
| A timeline for each of the three main phases of the project as stated above | <p><u><i>Phase 1 Grading:</i></u></p> <p><i>Grading is currently scheduled to commence in June of 2012. The first phase of grading</i></p> |

| | |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p><i>should take approximately 12 months to complete.</i></p> <p><u><i>Phase 2 Grading:</i></u></p> <p><i>The timing of second phase of grading will be contingent on the completion of the first phase of building construction and the market needs for additional retail and housing uses.</i></p> <p><u><i>Phase 3 Grading:</i></u></p> <p><i>The timing of third phase of grading will be contingent on the completion of the second phase of construction.</i></p> <p><i>All grading is anticipated to be completed by 2015 but will be market driven.</i></p> |
| A list of required progress and final inspections by City staff | <p><i>-Pre-construction meeting w/ Field Engineering Division</i></p> <p><i>-Inspection of storm drain improvements</i></p> <p><i>-Inspection of Grading</i></p> <p><i>-Inspection of Improvements</i></p> <p><i>-Final inspection and Permit sign-off</i></p> |

Construction Phase

LEED Certification or Equivalent

Sustainability will be incorporated into the design and construction of the One Paseo project. This effort will be measured by Leadership in Energy and Environmental Design (LEED) certification, SDG&E's Sustainable Communities Program, or an equivalent program. The project is currently targeting a LEED silver rating. Some of the project's sustainable features pertaining to waste management during the Construction Phase of the project include:

- 10% of building materials manufactured regionally within a radius of 500 miles
- 5% of building materials will be made up from recycled content
- Additional building system commissioning performed by an Independent Commissioning Agent
- Construction Recycle Bins (lowering the impact on local landfills)

Construction and Demolition Debris Diversion Deposit Program (O-19420 & O-19694)

Starting on July 1, 2008, all new construction projects are required to pay a refundable solid waste deposit on construction waste. This ordinance requires the applicant to do the following:¹⁰

- All applicants for a Building Permit or a Demolition/Removal Permit shall submit a properly completed *Waste Management Form Part I* with the Building Permit or Demolition/Removal Permit application, in accordance with the requirements set forth in the Land Development Manual (*see Exhibit "D" – Waste Management Form*)
- All applicants shall pay a refundable deposit at the time the Building Permit or Demolition/Removal Permit is issued
- No Building Permit or Demolition/Removal Permit shall be issued unless the applicant has submitted a properly completed *Waste Management Form Part I* and paid the required deposit

Calculating the Deposit:

New Construction projects are now required to pay a recycling deposit at the time each qualifying building, combination and demolition permit is issued.¹¹ The refundable recycling deposit is calculated based on square footage thresholds of the permitted work. Table 3 below shows the deposit requirements for construction and demolition projects.

¹⁰ City of San Diego Municipal Code §66.0604

¹¹ City of San Diego Information Bulletin 119: Construction and Demolition Debris, dated August 2008.

Table 3: C&D Debris Recycling Deposit Table

| | Deposit /Sq. Ft. | Minimum Sq. Ft. Subject to Deposit | Maximum Sq. Ft. Subject to Deposit | Range of Deposits |
|------------------------------------------|-----------------------------|-------------------------------------------------------|-------------------------------------------------------|------------------------------|
| Residential New Construction - Detached | \$0.40 | 500 | 125,000 | \$200-\$50,000 |
| Residential New Construction - Attached | \$0.40 | 500 | 100,000 | \$200-\$40,000 |
| Non-Residential New Constr. - Commercial | \$0.20 | 1,000 | 25,000 | \$200-\$5,000 |
| Non-Residential New Constr. - Industrial | \$0.20 | 1,000 | 75,000 | \$200-\$15,000 |
| Non-Residential Alterations | \$0.70 | 286 | No Max. | \$200 and up |
| Residential Demolition | \$0.70 | 286 | No Max. | \$200 and up |
| Non-Residential Demolition | \$0.20 | 1,000 | No Max. | \$200 and up |

SOURCE: City of San Diego Information Bulletin No. 119 (dated August 2008)

Completing the Waste Management Form:

A *Waste Management Form Part I* must be filled out for every qualifying permit¹² (see *Exhibit “D” – Waste Management Form*). Construction and Demolition debris estimates are to be provided in tons. Certified Recycling Facilities must be used in order to be eligible for a deposit refund. It is important to retain a copy of this form as it will be required as part of the documentation for the refund request.¹³

Recycling Requirement:

The diversion rate is currently 50% by weight of the total Construction and Demolition (C&D) debris generated by the project.¹⁴ Once a certified recycling facility is operating within 25 miles of the City Administration Building, which is located at 202 “C” Street, San Diego, the diversion rate shall increase to 75%.¹⁵ This recycling requirement can be met by one or more of the following methods:¹⁶

- On-site or off-site reuse of the C&D debris
- Recycling of C&D debris at Certified Recycling Facilities; or
- Other donation or reuse of the C&D debris acceptable to the Environmental Services Director

The goal of the project will be to target the City’s goal of diverting 75% by weight of the total C & D debris generated by the project.

¹² City of San Diego Information Bulletin 119: Construction and Demolition Debris, dated August 2008.

¹³ City of San Diego Information Bulletin 119: Construction and Demolition Debris, dated August 2008.

¹⁴ City of San Diego Information Bulletin 119: Construction and Demolition Debris, dated August 2008.

¹⁵ City of San Diego Information Bulletin 119: Construction and Demolition Debris, dated August 2008.

¹⁶ City of San Diego Municipal Code §66.0606

Requesting a Refund:

In order to be eligible for a refund of the deposits paid, the applicant must submit the following to the Director of the Environmental Services Department within 180 days from the passing final inspection date of the permit for which the deposit was paid:

- A properly completed *Waste Management Form Part II* (see Exhibit “D” – *Waste Management Form*)
- A copy of the completed *Waste Management Form Part I* submitted at the time the permit was issued
- Evidence satisfactory to the Director that the C&D debris generated by the development was diverted at the applicable diversion rate

To provide evidence to the Director, the applicant will save all recycling, reuse and disposal receipts from project related debris for requesting a refund. Photos proving donation and reuse of materials may be accepted, subject to the Director’s approval, in certain cases as proof of evidence of reuse of the project debris. Photos must be accompanied by written estimates.¹⁷

Calculating Anticipated Waste Generated

Off-Site Improvements

In order to provide access for the buildings being constructed on the One Paseo site, some construction work will be done in the surrounding streets, Del Mar Heights Road, El Camino Real and High Bluff Drive. Improvements to Del Mar Heights Road will include the widening of the south side, the reconstruction of median improvements for two new signalized intersections and the extension and replacement of water lines. Improvements to El Camino Real will include the widening of the west side, and the extension of sewer, water and storm drains to existing lines in El Camino Real. Improvements to High Bluff Drive will include the widening of the east side for the construction of a right turn pocket at Del Mar Heights Road.

Del Mar Heights Road

Asphalt Waste Calculation:

Asphalt waste in Del Mar Heights Road will be generated by the removal of the existing 6” AC berm and 5’ wide existing AC sidewalk across the project frontage. Also portions of the median will be reconfigured for two new intersections. Finally, 865 lineal feet of 30” waterline and 870 lineal feet of 12” waterline will be relocated. Asphalt will be recycled at the Vulcan Carroll Canyon Recycle Site.

Remove 1,517 LF of AC Berm – $1517 \text{ lf} \times 0.025 \text{ ton / lf} = 38 \text{ tons}$

Remove 2,503 CF of AC Sidewalk – $2503 \text{ CF} \times 150 \text{ \#/ CF} / 2,000 \text{ \#/ ton} = 188 \text{ tons}$

Remove 3,403 CF of AC in median – $3403 \text{ CF} \times 150 \text{ \#/ CF} / 2,000 \text{ \#/ ton} = 255 \text{ tons}$

Remove 4,553 CF of AC for Waterline relocations – $4553 \text{ CF} \times 150 \text{ \#/ CF} / 2,000 \text{ \#/ ton} = 41 \text{ tons of AC.}$

Total AC Removal = **822 tons**

¹⁷ City of San Diego Information Bulletin 119: Construction and Demolition Debris, dated August 2008.

Concrete Waste Calculation:

Concrete waste in Del Mar Heights Road will be generated by the median reconfiguration for the two new intersections, and the storage requirements for the left turn moves. Concrete will be recycled at the Vulcan Carroll Canyon Recycle Site.

Remove 2,475 LF median curb – $2,475 \text{ lf} \times 1.29 \text{ CF} / \text{lf} \times 150 \text{ \#} / \text{CF} / 2,000 \text{ \#} / \text{ton} =$
239.5 tons

Greenery Waste Calculation:

Greenery waste will be generated by the reconfiguration of the median of Del Mar Heights Road to accommodate the two new intersections. Green waste will be recycled at the Miramar Greenery, which allocates a 100% diversion waste.

Median reconfiguration = $990 \text{ LF} \times 13' = 12,870 \text{ SF} = 0.30 \text{ acres}$
Total acres = $0.30 \text{ acres} \times 0.35 \text{ tons} / \text{acre} =$ **0.11 tons**

Spoil Waste Calculation:

Extra soil will be generated from the reconfiguration of the medians, by the removal of soil under the areas to receive new pavement, and in the pipeline trenches for the pipe material and select backfill material for the waterline relocations. Spoil will either be reused at a job that needs import, or will be recycled at the Vulcan Carroll Canyon Recycle Site in San Diego. This recycling center has a 100% diversion rate.

Extra soil from subgrade removal on South Side = $41,320 \text{ CF} \times 120 \text{ \#} / \text{CF} / 2,000 \text{ \#} / \text{ton} =$
2,479 tons

Extra soil from median reconfiguration = $31,433 \text{ CF} \times 120 \text{ \#} / \text{CF} / 2,000 \text{ \#} / \text{ton} =$
1,886 tons

Extra soil from waterline relocations = $14,730 \text{ CF} \times 120 \text{ \#} / \text{CF} / 2,000 \text{ \#} / \text{ton} =$ **884 tons**

Total spoil = **5,249 tons**

El Camino Real

Asphalt Waste Calculation:

Asphalt waste in El Camino Real will be generated by the reconfiguration of portions of the median for a dual left turn configuration into Market Street. Asphalt will be recycled at the Vulcan Carroll Canyon Recycle Site.

Remove 1,125 CF of AC in median – $1,125 \text{ CF} \times 150 \text{ \#} / \text{CF} / 2,000 \text{ \#} / \text{ton} =$ **84.4 tons**

Concrete Waste Calculation:

Concrete waste in El Camino Real will be generated by the widening of the west side of El Camino Real, and the median reconfiguration for the dual left into Market Street. Concrete will be recycled at the Vulcan Carroll Canyon Recycle Site.

Remove 1,260 LF of curb – $1,260 \text{ lf} \times 1.61 \text{ CF} / \text{lf} \times 150 \text{ \#} / \text{CF} / 2,000 \text{ \#} / \text{ton} =$ **152 tons**

Remove 850 LF median curb – $850 \text{ lf} \times 1.29 \text{ CF} / \text{lf} \times 150 \text{ \#} / \text{CF} / 2,000 \text{ \#} / \text{ton} =$ **82.3 tons**

Remove 1,475 LF of sidewalk – $2,434 \text{ CF} \times 150 \text{ \#} / \text{CF} / 2,000 \text{ \#} / \text{ton} = 182.5 \text{ tons}$
Total Concrete removal = **416.8 tons**

Spoil Waste Calculation:

Extra soil will be generated from the reconfiguration of the median and by the removal of soil under the areas to receive new pavement. Spoil will either be reused at a job that needs import, or will be recycled at the Vulcan Carroll Canyon Recycle Site in San Diego. This recycling center has a 100% diversion rate.

Extra soil from subgrade removal on West Side = $35,280 \text{ CF} \times 120 \text{ \#} / \text{CF} / 2,000 \text{ \#} / \text{ton} = 2,117 \text{ tons}$

Extra soil from median reconfiguration = $2,500 \text{ CF} \times 120 \text{ \#} / \text{CF} / 2,000 \text{ \#} / \text{ton} = 150 \text{ tons}$

Total spoil = **2,269 tons**

High Bluff Drive

Asphalt Waste Calculation:

No asphalt waste is anticipated from High Bluff Drive.

Concrete Waste Calculation:

Concrete waste in High Bluff Drive will be generated by the widening of the east side of High Bluff Drive. Concrete will be recycled at the Vulcan Carroll Canyon Recycle Site.

Remove 315 LF of curb – $315 \text{ lf} \times 1.34 \text{ CF/lf} \times 150 \text{ \#} / \text{CF} / 2,000 \text{ \#} / \text{ton} = 32.3 \text{ tons}$.

Remove 315 LF of sidewalk – $520 \text{ CF} \times 150 \text{ \#} / \text{CF} / 2,000 \text{ \#} / \text{ton} = 39 \text{ tons}$

Total Concrete removal = **71.3 tons**

Spoil Waste Calculation:

Extra soil will be generated from the removal of soil under the areas to receive new pavement. Spoil will either be reused at a job that needs import, or will be recycled at the Vulcan Carroll Canyon Recycle Site in San Diego. This recycling center has a 100% diversion rate.

Extra soil from subgrade removal on East Side = $4,500 \text{ CF} \times 120 \text{ \#} / \text{CF} / 2,000 \text{ \#} / \text{ton} = 270 \text{ tons}$

Building Construction

From City of San Diego ESD provided waste factors, we estimate the following building construction waste:

Construction Waste Calculation:

Per waste generation factor of 3 pounds per square foot used by the City for new construction, estimates of the amount of waste have been calculated, including all buildings and parking structures, for a total waste tonnage of **4,875.9 tons**.

Phase I: 1,574,705 square feet yields 2,362.1 tons of waste

Phase II: 883,622 square feet yields 1,325.4 tons of waste

Phase III: 792,224 square feet yields 1,188.4 tons of waste

Source Separation

Construction activities will generate construction debris such as dry wall, concrete and miscellaneous trash. Construction debris will be separated on-site into material specific containers to facilitate reuse and recycling of these materials. Reuse of building materials will be utilized to the maximum extent possible.

The goal of this project will be the diversion of 75% of the construction debris from new construction waste.

In a 2006 study for the State of California Integrated Waste Management Board of new residential construction waste, about 76% of this waste was estimated to be recoverable.¹⁸ The following are identified as the top disposed materials that are divertible:

- Clean Gypsum Board
- Clean Engineered Wood
- Clean Dimensional Lumber
- Dirt & Sand
- Other Aggregates
- Composition Roofing
- Small Concrete without Re-bar

¹⁸ Contractor's Report: *Detailed Characterization of Construction and Demolition Waste*, June 2006. Accessed January 21, 2009. <http://ciwmb.ca.gov/Publications/default.asp?pubid=1185>

Buy Recycled

A “buy recycled” approach will also be implemented that will require five (5) percent of the total value of materials purchased for project construction activities to be either post-consumer recycled or pre-consumer recycled materials. Some of these recycled construction materials include recycled OSB wood, which will be used in all the roofs and all the shear panels of the buildings.

Table 4: Construction Phase - Waste Management Elements

| | |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tons of waste anticipated to be generated | <u>Site Improvements:</u> 1,323.2 tons of Asphalt 727.6 tons of Concrete 7,788 tons of Spoil Dirt 0.11 tons of Greenery <u>Building Construction:</u> 4,875.9 tons |
| Material/type of waste to be generated ¹⁹ | <ul style="list-style-type: none"> • Asphalt • Concrete • Brick • Dirt • Wood • Metal • Wallboard • Roofing and insulation materials • Plastics • Cardboard • Glass • Misc. trash |
| Source separation techniques for waste generated | <p><i>During construction, separate bins will be designated for the collection of:</i></p> <ul style="list-style-type: none"> • Dry wall • Concrete • Clean Wood • Trash • Metal <p><i>This separation technique will help to facilitate the reuse and recycling of these materials.</i></p> |

¹⁹ Composition of construction and demolition debris list taken from the United States Environmental Protection Agency website, accessed February 3, 2009. <http://www.epa.gov/region09/waste/solid/pdf/cd1.pdf>

| | |
|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <i>These bins will be located in areas that are readily accessible to the subcontractors and in areas that will minimize misuse and contamination. These construction recycle bins will reduce the impact of the construction on the local landfill.</i> |
| How materials shall be reused on site | <i>Where possible scarp pieces of material will be utilized onsite in the construction of the buildings.</i> |
| Name and location of recycling, reuse, or landfill facilities where waste shall be taken if not reused on site | <i>Recycling: Miramar Recycling Center Landfill: Miramar Landfill</i> |
| A “buy recycled” program | <i>Five (5) percent of the total value of materials purchased for project construction activities to be either post-consumer recycled or pre-consumer recycled materials. Some of these materials include the following:</i> <ul style="list-style-type: none"> <i>• All roof sheathing will be made from recycled OSB wood</i> <i>• All exterior shear panels will be made from recycled OSB wood</i> <i>• Grading Phase will be recycled for construction as described above</i> |
| How the project shall aim to reduce the generation of construction/ demolition debris | <i>By separating construction waste into designated bins, the project should be able to reduce the generation of construction debris that has to be taken to the landfill. In addition to the sorting techniques, ten (10) percent of all the building materials will be manufactured regionally within a radius of 500 miles. This will reduce fuel consumption and may reduce the generation of construction debris.</i> |
| A plan of how waste reduction and recycling goals shall be communicated to subcontractors | <i>The waste reduction and recycling goals shall be communicated to subcontractors in their respective Construction Contract Documents.</i> |
| A timeline for each of the three main phases of the project as stated above | <i><u>Phase 1 Construction:</u></i> <ul style="list-style-type: none"> <i>• Parking Garage 4</i> <i>• Perimeter Roads widening</i> <i>• Private On-site Driveways</i> <i>• Front Slope Landscaping</i> <i>• Buildings # 8, 9, 10, 11 & 12</i> |

| | |
|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p><i>The construction of this project will commence with the building of the first parking garage. It is forecasted that the permit for this work will be issued in June of 2012. Permits for the first building are anticipated in September of 2012. While it is anticipated that the first phase of construction should take approximately 1 to 1-1/2 years to complete, the timing of the construction of the balance of project will be market driven.</i></p> <p><u><i>Phase 2 Construction:</i></u></p> <ul style="list-style-type: none"> • <i>Parking Garage 1 & 2</i> • <i>Private Driveways</i> • <i>Landscaping</i> • <i>Buildings # 1a, 1b, 2, 3, 4 & 5</i> <p><u><i>Phase 3 Construction:</i></u></p> <ul style="list-style-type: none"> • <i>Parking Garage 3</i> • <i>Private Driveways</i> • <i>Landscaping</i> • <i>Buildings # 6 & 7</i> <p><i>All construction is anticipated to be completed by 2017.</i></p> |
| A list of required progress and final inspections by City staff ²⁰ | <p><i>-Pre-construction meeting w/ Field Engineering Division</i></p> <p><i>-Underground Inspection</i></p> <p><i>-Foundation Inspection</i></p> <p><i>-Frame Inspection</i></p> <p><i>-Insulation Inspection</i></p> <p><i>-Lath and Drywall Inspection</i></p> <p><i>-Final Inspection and Permit sign-off</i></p> |

Construction Report

Prior to the sign off of the Construction Permit, the applicant shall submit written evidence to the ADD that the final Construction Report has been approved by MMC and ESD. This Construction Report shall summarize the results of implementing the Waste Management Plan elements, including: the actual waste generated and diverted from the project, the waste reduction percentage achieved, and how that goal was achieved, etc.^{21,22}

²⁰ See City of San Diego Information Bulletin 120: Project Inspections, dated September 2007

²¹ Environmental Impact Report.

²² Mitigation Monitoring and Reporting Program.

Occupancy Phase

Unlike the Construction Phase, occupancy is an on-going process. Therefore, it requires an ongoing plan to manage and reduce waste in order to meet the waste reduction goals established by local and state policy.

Recycling Ordinance (O-19678)

As of February 11, 2008, occupants of majority commercial mixed use complexes with a residential component are required to provide on-site recycling services, including recycling bins, storage space, and facilities on site, and private haulers.²³

Residential Component

The requirements for Apartment and Condominium Complexes set forth in the Recycling Ordinance states that property managers and owners are responsible for providing the following:²⁴

- Recycling services including:
 - Collection of recyclables at least twice a month
 - Collection of at least plastic and glass bottles and jars, paper, newspaper, metal containers, and cardboard
 - Designated recycling collection areas
 - Appropriate recycling containers and signage
- Education including:
 - Types of materials accepted in recycling program
 - Location of the recycling containers
 - Tenant's responsibility to comply with the City ordinance(Education must be provided annually to all tenants, upon move-in, and when there are changes to the program)

In addition to the above, in order to meet the 75% diversion target for residential uses, common area landscaping will be maintained by professional landscape contractors who will be required to divert all landscape greenery directly to a greenery recycling yard.

The residential portion of the project will be operated and managed by possibly multiple residential builders. They each will be responsible for implementing the recycling and education requirements outlined above within their portions of the project.

The One Paseo project will provide recycling bins and storage on-site, and use one or more private companies to haul the solid waste generated at the site for both landfill disposal and recycling services. Table 5 below shows the minimum exterior storage area requirements for residential development projects. Since the One Paseo Project will construct 608 residential units, the project will be required to provide a minimum of approximately 1,165 square feet of refuse storage area and a minimum of approximately 1,165 square feet of recyclable material storage. This makes the total exterior refuse/recyclable material storage an area of approximately 2,330 square feet. In addition to the required exterior refuse/recyclable material

²³ City of San Diego Municipal Code §66.0701-§66.00718

²⁴ City of San Diego Environmental Services Department Website: *Recycling Ordinance – Residential*. Accessed January 20, 2009. <http://www.sandiego.gov/environmental-services/recycling/ro/residential/index.shtml#apt>

storage areas, the design for One Paseo incorporates separate interior refuse and recycling trash rooms on each floor of each of the four buildings.

Table 5: Minimum Exterior Refuse and Recyclable Material Storage Areas for Multiple Unit Residential Development

| Number of Dwelling Units Per Development | Minimum Refuse Storage Area Per Development (Square Feet) | Minimum Recyclable Material Storage Area Per Development (Square Feet) | Total Minimum Storage Area Per Development (Square Feet) |
|------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------------|
| 2-6 | 12 | 12 | 24 |
| 7-15 | 24 | 24 | 48 |
| 16-25 | 48 | 48 | 96 |
| 26-50 | 96 | 96 | 192 |
| 51-75 | 144 | 144 | 288 |
| 76-100 | 192 | 192 | 384 |
| 101-125 | 240 | 240 | 480 |
| 126-150 | 288 | 288 | 576 |
| 151-175 | 336 | 336 | 672 |
| 176-200 | 384 | 384 | 768 |
| 201 + | 384 plus 48 square feet for every 25 dwelling units above 201 | 384 plus 48 square feet for every 25 dwelling units above 201 | 768 plus 96 square feet for every 25 dwelling units above 201 |

SOURCE: City of San Diego Municipal Code Table 142-08B²⁵

Nonresidential Uses

The requirements for Business Complexes set forth in the Recycling Ordinance states that property managers and owners are responsible for providing the following:²⁶

- Recycling services including:
 - Collection of recyclables as frequently as necessary
 - Collection of at least plastic and glass bottles and jars, paper, newspaper, metal containers, and cardboard
 - Designated recycling collection areas
 - Appropriate recycling containers and signage
- Education including:
 - Types of materials accepted in recycling program
 - Location of the recycling containers
 - Employee / Tenant's responsibility to comply with the City ordinance (Education must be provided annually to all tenants, upon move-in, and when there are changes to the program)

²⁵ City of San Diego Municipal Code §142.0810-§142.0830

²⁶ City of San Diego Environmental Services Department Website: *Recycling Ordinance – Residential*. Accessed April, 2011. <http://www.sandiego.gov/environmental-services/recycling/ro/residential/index.shtml#apt>

In addition to the above, in order to help meet the 75% trash diversion goal, food waste separation will be encouraged by the restaurant and bar uses in the project. The initial goal will be to divert 50% of nonresidential food waste generated by the restaurant and bar uses in the project. Separate collection and handling areas will be required in the design of those uses. Also, common area landscaping will be maintained by professional landscape contractors who will be required to divert all landscape greenery directly to a greenery recycling yard.

The office and retail portion of the project will be operated and managed by Kilroy Realty and possibly multiple retail operators and a hotel operator. They each will be responsible for implementing the recycling and education requirements outlined above within their portions of the project.

The One Paseo project will provide recycling bins and storage on-site, and use one or more private companies to haul the solid waste generated at the site for both landfill disposal and recycling services. Table 5 below shows the minimum exterior storage area requirements for the nonresidential development component of the project. Since the One Paseo Project will construct 536,000 square feet of office uses, 220,000 square feet of retail uses, 50,000 square feet of cinema uses and 100,000 square feet of hotel use with 150 rooms, the project will be required to provide a minimum of approximately 1,932 square feet of refuse storage area and a minimum of approximately 1,932 square feet of recyclable material storage. This makes the total exterior refuse/recyclable material storage an area of approximately 3,864 square feet. This requirement may be reduced through the use of trash compactors for the nonresidential uses.

Table 6: Minimum Exterior Refuse and Recyclable Material Storage Areas for NonResidential Development

| Gross Floor Area per Development (Square Feet) | Minimum Refuse Storage Area Per Development (Square Feet) | Minimum Recyclable Material Storage Area Per Development (Square Feet) | Total Minimum Storage Area Per Development (Square Feet) |
|------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 0 - 5,000 | 12 | 12 | 24 |
| 5,001 – 10,000 | 24 | 24 | 48 |
| 10,001 – 25,000 | 48 | 48 | 96 |
| 25,001 – 50,000 | 96 | 96 | 192 |
| 50,001 – 75,000 | 144 | 144 | 288 |
| 75,001 – 100,000 | 192 | 192 | 384 |
| 100,001 + | 192 plus 48 square feet for every 25,000 square feet of building area above 100,001 | 192 plus 48 square feet for every 25,000 square feet of building area above 100,001 | 384 plus 96 square feet for every 25,000 square feet of building area above 100,001 |

SOURCE: City of San Diego Municipal Code Table 142-08C²⁷

²⁷ City of San Diego Municipal Code §142.0810-§142.0830

Quantity of Waste

Residential Component

During occupancy and after build out of the entire project, the expected annual waste to be generated from the 608 multi-family residential units will be approximately 729.6 tons, based on a multi-family residential waste generation rate of 1.2 / tons / year / unit.²⁸

Table 7: Occupancy Phase – Residential Waste Generation

| | |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tons of waste anticipated to be generated | <i>729.6 tons/unit/year</i> |
| Material/type of waste to be generated | <p><i>According to a 2008 study for the State of CA Integrated Waste Management Board, the following are the ten most prevalent material types in residential disposed waste:²⁹</i></p> <ul style="list-style-type: none"> • <i>Food</i> • <i>Remainder/Composite Organics</i> • <i>Lumber</i> • <i>Leaves and Grass</i> • <i>Remainder/Composite Paper</i> • <i>Other Misc. Paper</i> • <i>Textiles</i> • <i>Remainder/Composite Inerts and Other</i> • <i>Uncoated Corrugated Cardboard</i> • <i>Mixed Residue</i> |
| Source separation techniques for waste generated | <p><i>The project site will have interior and exterior refuse and recycling collection areas, offering the recycling of the following items:</i></p> <ul style="list-style-type: none"> • <i>plastic bottles and jars</i> • <i>glass bottles and jars</i> • <i>paper</i> • <i>newspaper</i> • <i>metal containers</i> • <i>cardboard</i> <p><u><i>Interior Collection:</i></u> <i>Separate refuse and recycling trash chutes or bins on each floor of each building</i></p> |

²⁸ City of San Diego, ESD Waste Generation Factors, as of April 4, 2011

²⁹ Contractor's Report: *Statewide Waste Characterization Study*, December 2004. Accessed January 21, 2009.

| | |
|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p><u>Exterior Collection:</u> <i>Minimum of 1,165 SF of refuse storage area and a minimum of 1,165 SF of recycling storage area</i></p> <p><u>Leaves and Grass:</u> <i>Professional landscapers will maintain all common areas and take all leaves and grass to greenery recycling locations</i></p> <p><i>Kilroy Realty and the residential builders will be responsible for implementing and managing the recycling and education programs for the One Paseo residents.</i></p> |
| How materials shall be reused on site | <i>Not applicable for Occupancy Phase</i> |
| Name and location of recycling, reuse, or landfill facilities where waste shall be taken if not reused on site | <p><i>Recycling: Miramar Recycling Center</i></p> <p><i>Landfill: Miramar Landfill</i></p> |
| A “buy recycled” program | <i>Not applicable for Occupancy Phase</i> |
| How the project shall aim to reduce the generation of construction/ demolition debris | <i>Not applicable for Occupancy Phase</i> |
| A plan of how waste reduction and recycling goals shall be communicated to subcontractors | <i>Not applicable for Occupancy Phase</i> |
| A timeline for each of the three main phases of the project as stated above | <p><u>Phase 2 Occupancy:</u> <i>Occupancy of the first two residential buildings is anticipated to occur upon the completion of the second phase of construction.</i></p> <p><u>Phase 3 Occupancy:</u> <i>Occupancy of the third and fourth residential building is anticipated to occur upon the completion of the third phase of construction.</i></p> |
| A list of required progress and final inspections by City staff | <i>Prior to occupancy of each of the four residential buildings, the City of San Diego will issue a Certificate of Occupancy.</i> |

Nonresidential Uses

During occupancy and after build out of the entire project, the expected annual waste to be generated from the nonresidential development will be approximately 2,626.4 tons, based on a nonresidential waste generation rate provided by the City of San Diego ESD.³⁰

Office uses – 536,000 SF @ 0.0017 tons / SF / year = 911.2 tons / year
General Retail uses – 154,910 SF @ .0028 tons / SF / year = 433.7 tons / year
Restaurant & Bar use – 29,850 SF @ 0.0122 tons / SF / year = 364.2 tons / year
Cinema use (Unclassified) – 50,000 SF @ 0.0042 tons / SF / year = 210.0 tons / year
Food Market use– 35,240 SF @ 0.0073 tons / SF / year = 257.3 tons / year
Hotel use – 100,000 SF @ 0.0045 tons / SF / year = 450.0 tons / year
Total – 2,626.4 tons / year

Table 8: Occupancy Phase – Nonresidential Waste Generation

| | |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tons of waste anticipated to be generated | 2,626.4 tons/year |
| Material/type of waste to be generated | <p><i>According to a 2008 study for the State of CA Integrated Waste Management Board, the following are the ten most prevalent material types in nonresidential disposed waste:³¹</i></p> <ul style="list-style-type: none"> • <i>Lumber</i> • <i>Food</i> • <i>Uncoated Corrugated Cardboard</i> • <i>Remainder/Composite Paper</i> • <i>Remainder/Composite Inert and Other</i> • <i>Remainder/Composite Plastic</i> • <i>Carpet</i> • <i>Prunings and Trimmings</i> • <i>Remainder/Composite Organic</i> • <i>Other Misc. Paper</i> |
| Source separation techniques for waste generated | <p><i>The project site will have interior and exterior refuse and recycling collection areas, offering the recycling of the following items:</i></p> <ul style="list-style-type: none"> • <i>plastic bottles and jars</i> • <i>glass bottles and jars</i> • <i>paper</i> • <i>newspaper</i> • <i>metal containers</i> • <i>cardboard</i> |

³⁰ City of San Diego Waste Generation Factors – Occupancy Phase

³¹ Contractor's Report: *Statewide Waste Characterization Study*, December 2004. Accessed January 21, 2009.

| | |
|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p><u><i>Interior Collection:</i></u> <i>Separate trash rooms on each floor of office building</i></p> <p><u><i>Exterior Collection:</i></u> <i>Minimum of 3,552 SF of refuse storage area and a minimum of 3,552 SF of recycling storage area</i></p> <p><u><i>Pruning and Trimmings:</i></u> <i>Professional landscapers will maintain all common areas and take all pruning and trimmings to greenery recycling location</i></p> <p><i>Kilroy Realty and the retail builders will be responsible for implementing and managing the recycling and education programs for the One Paseo residents.</i></p> |
| How materials shall be reused on site | |
| Name and location of recycling, reuse, or landfill facilities where waste shall be taken if not reused on site | <p><i>Recycling: Miramar Recycling Center</i> <i>Landfill: Miramar Landfill</i> <i>Greenery: Miramar Greenery</i></p> |
| A “buy recycled” program | <i>Not applicable for Occupancy Phase</i> |
| How the project shall aim to reduce the generation of construction/ demolition debris | <i>Not applicable for Occupancy Phase</i> |
| A plan of how waste reduction and recycling goals shall be communicated to subcontractors | <i>Not applicable for Occupancy Phase</i> |
| A timeline for each of the three main phases of the project as stated above | <p><u><i>Phase 2 Occupancy:</i></u> <i>Occupancy of the first two residential buildings is anticipated to occur upon the completion of the second phase of construction.</i></p> <p><u><i>Phase 3 Occupancy:</i></u> <i>Occupancy of the third and fourth residential building is anticipated to occur upon the completion of the third phase of construction.</i></p> |
| A list of required progress and final inspections by City staff | <i>Prior to occupancy of each of the four residential buildings, the City of San Diego will issue a Certificate of Occupancy.</i> |

CONCLUSIONS

This Waste Management Plan was prepared in compliance with a mandate from the City of San Diego's Environmental Services Department and as satisfaction of PDP No. / SDP No. Environmental/Mitigation requirements condition number.

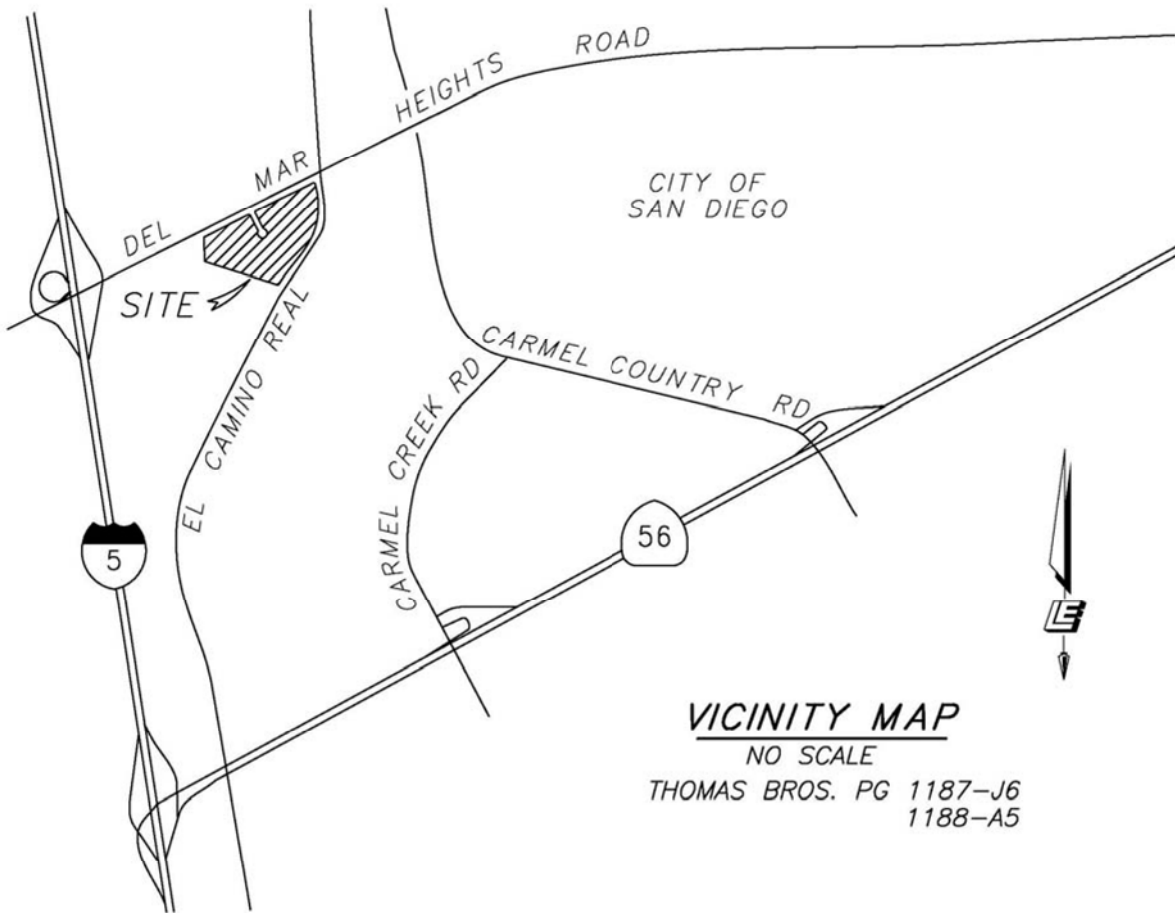
The following table summarizes the waste impacts and the waste reduction goals for each project phase.

Table 9: Waste Reduction Goals

| C&D Phases | Material | Tons Generated | Tons Diverted | Tons Disposed | Diversion Target |
|------------------------|---------------------------|----------------|---------------|---------------|------------------|
| Demolition | N/A | 0 | 0 | 0 | 0 |
| Construction & Grading | Dirt | 647,920 | 647,920 | 0 | 100% |
| | Greenery | 0.78 | 0.78 | 0 | 100% |
| | Asphalt | 1,323.2 | 992.4 | 330.8 | 75% |
| | Concrete | 727.6 | 545.7 | 181.9 | 75% |
| | Spoil Dirt | 7,788 | 5,841 | 1,947 | 75% |
| | Greenery | 0.11 | 0.11 | 0 | 100% |
| | New Building Construction | 4,875.9 | 3,657 | 1,218.9 | 75% |
| Total | | 662,635.6 | 658,957.0 | 3,678.6 | 99% |

| Occupancy Phase | Material | Annual Tons | Tons Diverted | Tons Disposed | Diversion Target |
|-----------------|-------------|-------------|----------------------------------------|--------------------------------------|--------------------------------|
| | Residential | 729.6 | 364.8 – current 547.2 – by 2020 | 364.8 – current 182.4 – by 2020 | 50% - current 75% - by 2020 |
| | Commercial | 2,626.4 | 1,313.2 – current 1,969.8 – by 2020 | 1,313.2 – current 656.6 – by 2020 | 50% - current 75% - by 2020 |

Exhibit “A” - Location Map



VICINITY MAP

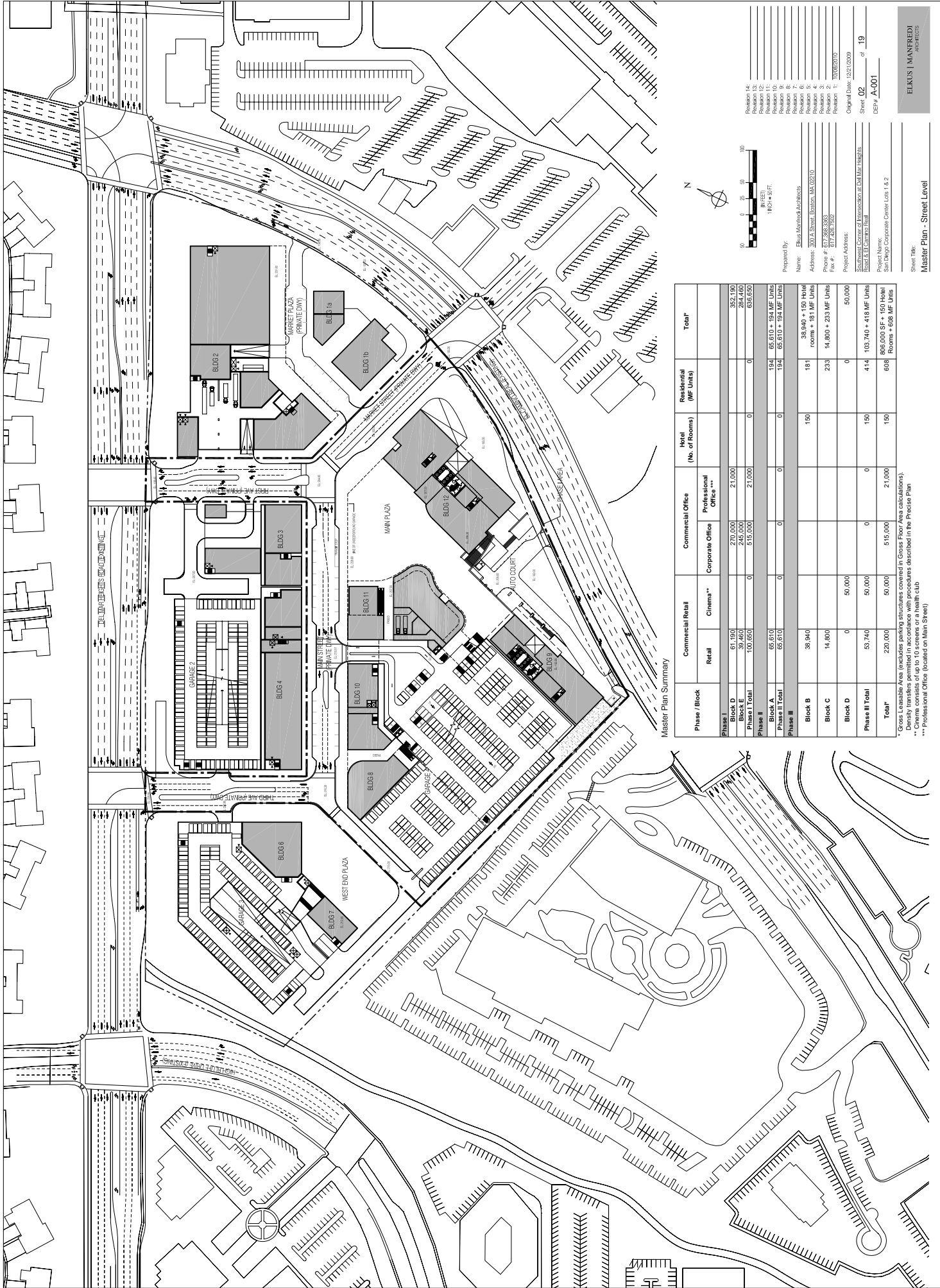
NO SCALE

THOMAS BROS. PG 1187-J6
1188-A5

Exhibit “B” - Project Location on Aerial Photograph



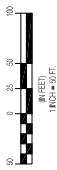
Exhibit “C” - Site Plan



Master Plan Summary

| Phase / Block | Commercial Retail | | Commercial Office | | Hotel (No. of Rooms) | Residential (MF Units) | Total* |
|-----------------|-------------------|----------|-------------------|-------------------------|-------------------------|---------------------------|-----------|
| | Retail | Cinema** | Corporate Office | Professional Office *** | | | |
| Phase I | | | | | | | |
| Block D | 51,190 | | 270,000 | 21,000 | | | 352,190 |
| Block E | 100,850 | | 515,000 | 21,000 | | | 636,850 |
| Phase I Total | 152,040 | | 785,000 | 42,000 | | | 979,040 |
| Phase II | | | | | | | |
| Block A | 65,610 | | | | | | 65,610 |
| Block B | 38,940 | | | | | | 38,940 |
| Block C | 14,800 | | | | | | 14,800 |
| Block D | 0 | 50,000 | | | | | 50,000 |
| Phase II Total | 119,350 | 50,000 | | | | | 169,350 |
| Phase III | | | | | | | |
| Block A | 65,610 | | | | | | 65,610 |
| Block B | 38,940 | | | | | | 38,940 |
| Block C | 14,800 | | | | | | 14,800 |
| Block D | 0 | 50,000 | | | | | 50,000 |
| Phase III Total | 119,350 | 50,000 | | | | | 169,350 |
| Total* | 271,390 | 50,000 | 785,000 | 42,000 | 150 | 414 | 1,043,690 |

* Gross Leasable Area (excludes parking structures covered in Gross Floor Area calculations).
** Cinema consists of up to 10 screens or a health club.
*** Professional Office (located on Main Street)



Revision 14:
Revision 13:
Revision 12:
Revision 11:
Revision 10:
Revision 9:
Revision 8:
Revision 7:
Revision 6:
Revision 5:
Revision 4:
Revision 3:
Revision 2:
Revision 1:
Original Date: 12/21/2009
Sheet 02 of 19
DEP A-001

Prepared By:
Name: Elkus Manfredi Architects
Address: 300 A Street, Suite 100, San Diego, CA 92101
Phone: 619.238.3500
Fax: 619.238.3505
Project Address:
San Diego Center of Innovation at 1st Main Highway
Project Name:
San Diego Corporate Center Lot 1 & 2

Exhibit “D” -Waste Management Form



Waste Management Form for Construction & Demolition (C&D) Debris

Required for projects described in Municipal Code §66.0601-66.0610. Please see Information Bulletin 119 for more information.

PART I Complete this section before obtaining a building or demolition permit. Submit this form and your recycling deposit to the Development Services Department when paying permit fees.

Approval No. _____ Project Title (if applicable) _____

Project Address _____ Zip Code _____

Property Owner _____ Contact Name _____ Title _____

Signature _____ Date _____

Phone _____ Fax _____ Email _____

Contact Mailing Address (if different than project address) _____

City _____ State _____ Zip Code _____

Project Type (check all that apply): New Construction ☐ Addition/Alteration ☐ Demolition ☐

Commercial ☐ Residential ☐ Single Family ☐ Multi-Family ☐

Estimated Square Feet _____

Estimated Start Date ____/____/____

Estimated Completion Date ____/____/____

TO BE FILLED OUT BY DSD STAFF

Recycling Deposit Paid \$ _____

By _____

Fill out the following table with estimated waste tonnage that will be generated by your project.
Goal : Reduce quantity of materials disposed at landfills by percentage noted in Municipal Code §66.0601-66.0610

Indicate quantities in tons for each material listed. Note: A = B + C (Please use the *City Construction and Demolition Debris Conversion Rate Tables* if converting from volume to tonnage.)

| Material Type | A Estimated Waste Quantity | B Estimated Salvage Reuse OR Recycled | C Estimated Disposal | D Hauler | E Facility Destination(s) |
|---------------------------------------------------------------|-------------------------------------|------------------------------------------------|----------------------------|-------------|------------------------------|
| Asphalt & Concrete | | | | | |
| Brick / Masonry / Tile | | | | | |
| Dirt | | | | | |
| Mixed Inerts | | | | | |
| Mixed C&D Debris | | | | | |
| Cabinets, Doors, Fixtures, Windows (circle all that apply) | | | | | |
| Carpet | | | | | |
| Carpet Padding / Foam | | | | | |
| Cardboard | | | | | |
| Ceiling Tile (acoustic) | | | | | |
| Drywall (Used, new, unpainted sheets or scrap) | | | | | |
| Landscape Debris | | | | | |
| Unpainted Wood & Pallets | | | | | |
| Roofing Materials | | | | | |
| Scrap Metal | | | | | |
| Stucco | | | | | |
| Garbage / Trash | | | | | |
| Other (please describe) | | | | | |
| Other (please describe) | | | | | |
| TOTAL | | | | | |

PART I Continued

Refer to the table on the previous page and fill in the blanks below to determine your estimated diversion rate.

(Total Column B / Total Column A : _____) x 100 = _____ %

For Multi-Family, Commercial and Industrial Projects ONLY (Single family projects do not need to answer this question):

☐ **My project complies with Municipal Code §142.0805 which requires certain space allocation for trash and recyclable material storage.**

PART II Complete this section after final inspection. Submit with a copy of all diversion and disposal receipts, written statements or photographs documenting on-site reuse or other reuse or donation, and a copy of PART I of this form to apply for your refund.

Send completed form and all documentation to:

**City of San Diego
Environmental Services Department
Attn: C&D Diversion Coordinator
9601 Ridgehaven Court, Suite 320
San Diego, CA 92123**

Applicants must submit refund requests within 180 days following project final inspection. Requests submitted after 180 days will not be eligible for a refund. Refunds will not be issued if all requested information and documentation is not provided. Refunds will be mailed within 45 days following receipt of all proper forms and documentation.

Applicant is advised of San Diego Municipal Code section 11.0401(b) which states: "No person willfully shall make a false statement or fail to report any material fact in any application for City license, permit, certificate, employment or other City action under the provisions of the San Diego Municipal Code."

Section A

I certify under penalty of perjury under the laws of the State of California that the information provided in and with this form pertains to construction and demolition debris generated only from the project listed in PART I, that I have reviewed the accuracy of the information, and that the information is true and correct to the best of my knowledge and belief.

Name _____ Title _____

Signature _____ Date _____

Final Inspection Date _____

Section B

Please fill in this part only if the refund check is to be sent to a different person and address than that listed in PART I. By signing my name, I hereby direct the C&D refund for this project to be sent to the person listed in Section C below

Name _____ Signature _____

Section C

Please send refund to:

Name _____ Address _____

City _____ State _____ Zip Code _____

**For more information please call City of San Diego Environmental Services Department
(858) 694-7000 or visit www.sandiego.gov/environmental-services/recycling/cdrecycling.shtml**

Appendix I
San Diego Municipal Code:
Construction and Demolition Debris Diversion
Deposit Program

Article 6: Collection, Transportation and Disposal of Refuse and Solid Waste**Division 6:****Construction and Demolition Debris Diversion Deposit Program**

(“Construction and Demolition Debris Diversion Deposit Program” added 10-10-2005 by O-19420 N.S.; effective until a certified recycling facility which accepts mixed construction and demolition debris is operating in the City at a 50% diversion rate.)

(Amended 12-18-2007 by O-19694 N.S; effective 1-17-2008.)

§66.0601 Findings

The Council of the City of San Diego finds and declares that:

- (a) The City operates the Miramar Landfill, which is currently the only municipal landfill in the City. The Miramar Landfill currently is expected to close between 2011 and 2013. Preserving landfill capacity at the Miramar Landfill in order to extend the useful life of the Miramar Landfill for the citizens of the City is a paramount concern.
- (b) The City has made and continues to make progress in meeting the waste *diversion* requirements imposed by AB 939, but additional efforts, particularly in the *diversion* of *construction and demolition debris*, will assist the City in continuing to meet the goal of *diverting* 50% of its waste from landfill *disposal*.
- (c) Studies show that approximately 35% of the waste generated in the City of San Diego delivered for *disposal* is *construction and demolition debris*, which could be *diverted* from landfill *disposal*.
- (d) Efforts by the City and the private sector to encourage voluntary *construction and demolition debris diversion* have not been as successful as the City had hoped and additional efforts are necessary to ensure continued compliance with AB 939 requirements.

(12-2007)

- (e) *Construction and demolition debris diversion* deposit programs in other jurisdictions in the State, similar to the one implemented by this Division, have proven successful in increasing *diversion of construction and demolition debris* and have been favorably received by the California Integrated Waste Management Board.

(Added 10-10-2005 by O-19420 N.S; effective 1-17-2008.)

(Amended 12-18-2007 by O-19694 N.S; effective 1-17-2008.)

§66.0602 Purpose of Construction and Demolition Debris Diversion Deposit Program

The purpose of this Division is to establish the Construction and Demolition Debris Diversion Deposit Program. This program is intended to increase the *diversion of construction and demolition debris* from landfill *disposal*, conserve the capacity and extend the useful life of the Miramar Landfill, and avoid the potential financial and other consequences to the City of failing to remain in compliance with AB 939 requirements.

(Added 10-10-2005 by O-19420 N.S; effective 1-17-2008.)

(Amended 12-18-2007 by O-19694 N.S; effective 1-17-2008.)

§66.0603 Definitions

All defined terms in this Division appear in *italics* and are found in sections 11.0210, 66.0102, and 113.0103 of this Code, except for the terms Building Permit and Demolition/Removal Permit which refer to those terms respectively as used in the Land Development Code and which, consistent with the Land Development Code, are not italicized in this Division. In addition, whenever the following words or phrases are used in this Division, they mean:

AB 939 means the California Integrated Waste Management Act, codified at California Public Resources Code sections 40000 et seq.

Certified recycling facility means a recycling, composting, materials recovery or reuse facility which accepts *construction and demolition debris* and which has been certified by the *Director* pursuant to rules promulgated by the *Director*.

(12-2007)

Construction and demolition debris means the waste building materials, packaging, and rubble resulting from construction, remodeling, repair, alteration, and/or demolition operations on pavements, houses, commercial buildings, and other *structures* and may include, but is not limited to, concrete, asphalt, wood, metals, bricks, dirt, rocks, and other inert waste.

Director means the Director of the Environmental Services Department (and its successor) or the designee of the Director of the Environmental Services Department (and its successor).

Disposal means the final deposition of *solid waste* at a permitted landfill.

Diversion or *Divert* means the reduction or elimination of *solid waste* from landfill *disposal*.

Hazardous waste has the same meaning as set forth in section 66.0102 of this Code.

Solid Waste means all putrescible and nonputrescible solid, semisolid, and liquid wastes, including, but not limited to, garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, *construction and demolition debris*, abandoned vehicles and parts thereof, discarded home and industrial appliances, dewatered, treated, or chemically fixed sewage sludge which is not hazardous waste, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes. *Solid Waste* does not include hazardous waste, hazardous substances or medical wastes, as those terms are defined in this Chapter 6 or in State or Federal law.

Waste Management Form Part I means the form prepared by the City Manager on which an *applicant* for a Building Permit or Demolition/Removal Permit shall provide information including, but not limited to, the types and amounts of *construction and demolition debris* the *applicant* anticipates the *development* will generate and the expected *construction and demolition debris diversion* the *applicant* expects to achieve for that *development*.

Waste Management Form Part II means the form prepared by the City Manager on which the *applicant* for a Building Permit or Demolition/Removal Permit shall provide information including, but not limited to, the name and address of the *person* to whom a deposit refund, if any, shall be issued, as well as documentary evidence in a form satisfactory to the *Director* demonstrating the *construction and demolition debris diversion* the *applicant* achieved for the *development*.

(Added 10-10-2005 by O-19420 N.S; effective 1-17-2008.)

(12-2007)

§66.0604 Submittal of Waste Management Form and Diversion Deposit

Beginning on the 45th day after the City has notified the public, in the manner described in section 66.0606(e), that a *certified recycling facility* which accepts mixed *construction and demolition debris* is operating at a 50% *diversion* rate, within 25 miles of the City Administration Building located at 202 “C” Street, San Diego, or beginning on July 1, 2008, whichever is later:

- (a) All *applicants* for a Building Permit or a Demolition/Removal Permit, including the City of San Diego, shall submit a properly completed *Waste Management Form Part I* with the Building Permit or Demolition/Removal Permit application, in accordance with the requirements set forth in the Land Development Manual; and
- (b) All *applicants*, including the City of San Diego, shall pay a refundable deposit at the time the Building Permit or Demolition/Removal Permit is issued; and
- (c) No Building Permit or Demolition/Removal Permit shall be issued unless the *applicant* has submitted a properly completed *Waste Management Form Part I* and paid the required deposit.

(Added 10-10-2005 by O-19420 N.S; effective 1-17-2008.)

(Amended 12-18-2007 by O-19694 N.S; effective 1-17-2008.)

§66.0605 Establishment of Construction and Demolition Debris Diversion Deposits

The City Council shall establish by resolution a schedule of *construction and demolition debris diversion* deposits applicable to Building Permits and to Demolition/Removal Permits. The schedule shall be reviewed and adjusted periodically to ensure the purposes of this Division are met.

(Added 10-10-2005 by O-19420 N.S; effective 1-17-2008.)

§66.0606 Entitlement to Refund of Diversion Deposit

- (a) An *applicant* is eligible for a refund of the deposit paid pursuant to Section 66.0604(b) provided the *applicant* submits the following directly to the *Director* within 180 days of the final inspection date for the *development* for which the deposit was paid:
 - (1) A properly completed *Waste Management Form Part II*, in accordance with the requirements set forth in the Land Development Manual, which demonstrates the *construction and demolition debris diversion* the *applicant* achieved for the *development*.
 - (2) Evidence satisfactory to the *Director* that the *construction and demolition debris* generated by the *development* was *diverted*, at the applicable *diversion* rate set forth in Section 66.0606(d) below, by one or more of the following methods:
 - (a) on-site reuse of the *construction and demolition debris*;
 - (b) acceptance of the *construction and demolition debris* by a *certified recycling facility*; or
 - (c) other donation or reuse of the *construction and demolition debris* acceptable to the *Director*.

For a commercial *development*, such as a shopping center, with a master developer which manages solid waste generated by the *development* as a whole and which has multiple commercial or retail tenants who may construct their own tenant improvements, the evidence satisfactory to the *Director* described in section 66.0606(a)(2) may include receipts from a *certified recycling facility(ies)* showing the cumulative weight or volume of *construction and demolition debris diverted* from the *development* within the 30 calendar days prior to the final inspection date referred to in section 66.0606(a).

- (b) *Construction and demolition debris* shall be measured by weight or by volume, whichever is most accurate and practicable. To the extent practicable, all *construction and demolition debris* shall be weighed on a scale.
 - (1) For *construction and demolition debris* which is weighed, the *applicant* shall use a scale which is in compliance with all federal, state, and local regulatory requirements for accuracy and maintenance of such scale.

(12-2007)

- (2) For *construction and demolition debris* for which measurement by weight is not practicable, the *applicant* shall measure by volume and convert the volumetric measurements to weight using the standardized rates established in the City Construction and Demolition Debris Conversion Rate Tables.
- (3) The *Director* reserves the right, when appropriate, to establish standard weights for various types of *construction and demolition debris* items based upon accepted average weights for such items. These standard weights shall be listed in the City Construction and Demolition Debris Conversion Rate Tables.
- (c) Refunds will be based on proof, satisfactory to the *Director*, of the *construction and demolition debris diversion* the *applicant* achieved for the *development* for which the deposit was paid.
- (d) If the *Director* determines the applicant is entitled to a refund, the amount of the refund shall be in the same proportion to the deposit paid by the *applicant* as the *diversion* rate achieved for the *development* is to the applicable *diversion* rate set forth below:
- (1) For Building Permits or Demolition/Removal Permits issued on or after the actual effective date of Section 66.0604 through and including 180 calendar days from the actual effective date of Section 66.0604, the *diversion* rate shall be 50% by weight of the total *construction and demolition debris* generated by the *development*; and
- (2) For Building Permits or Demolition/Removal Permits issued after 180 calendar days from the actual effective date of Section 66.0604, the *diversion* rate shall be 75% by weight of the total *construction and demolition debris* generated by the *development*, provided that a *certified recycling facility* which accepts mixed *construction and demolition debris* is operating within 25 miles of the City Administration Building located at 202 "C" Street, San Diego, at a 75% *diversion* rate as of 181 calendar days from the actual effective date of Section 66.0604. If such a facility is not in operation as of 181 calendar days from the actual effective date of Section 66.0604, the *diversion* rate shall remain as set forth in Section 66.0606(d)(1) until 30 days after the City has notified the public that such a facility is available, at which time the *diversion* rate shall increase to 75% by weight of the total *construction and demolition debris* generated by the *development*

(12-2007)

- (e) Notice under this Division may be given by placing a display advertisement of at least one-eighth page in a newspaper of general daily circulation within the City.
- (f) The *Director* shall determine whether a *certified recycling facility* has reached a certain *diversion* rate.
- (g) The *Director* shall refund a deposit paid or collected in error.
- (h) If a Building Permit or Demolition/Removal Permit, for which a deposit has been paid, is subsequently cancelled, abandoned or expires before work on the *development* has commenced, the *Director* shall refund the deposit paid by the *applicant* upon the *applicant's* submittal to the *Director* of satisfactory proof of the cancellation, abandonment or expiration of the permit.
- (i) The *Director* shall issue the refund to the *applicant* within the time established by City Council resolution.
- (j) In no event shall the refund be in an amount greater than the deposit paid by the *applicant*.

(Added 10-10-2005 by O-19420 N.S; effective 1-17-2008.)

(Amended 12-18-2007 by O-19694 N.S; effective 1-17-2008.)

§66.0607 Certified Recycling Facilities

- (a) After at least one public hearing, the *Director* shall establish rules and regulations for certifying facilities inside or outside the City for purposes of this Division including, but not limited to, criteria for determining the *diversion* rate achieved by the facility and for verifying that the facility has obtained all applicable permits and licenses. The *Director* shall publish in the official City newspaper a notice of the adoption or amendment of these rules and regulations. The *Director* shall certify facilities in accordance with those rules and regulations.

(12-2007)

- (b) Within ten working days after publication of the notice adopting the proposed rules and regulations pursuant to Section 66.0607(a), any person in disagreement with the proposed rules and regulations may request in writing to the *Director* that proposed rules and regulations be considered by the City Manager or designee. The proposed rules and regulations shall be considered by the City Manager or designee, who shall issue a written decision respecting the proposed rules and regulations within thirty days of the *Director's* receipt of the written request. The decision of the City Manager or designee with respect to the rules and regulations shall be final.

(Added 10-10-2005 by O-19420 N.S; effective 1-17-2008.)

(Amended 12-18-2007 by O-19694 N.S; effective 1-17-2008.)

§ 66.0608 Diversion Deposit Program Exemptions

- (a) The following activities, alone or in combination with one another, are exempt from this Division, except if the activity or activities is/are undertaken in conjunction with *development* which otherwise is subject to this Division:
- (1) Roofing projects that do not include the tear-off of the existing roof.
 - (2) Installation, replacement, or repair of a *retaining wall*.
 - (3) Installation, replacement, or repair of a carport, patio cover, balcony, trellis, or fireplace.
 - (4) Installation, replacement, or repair of a deck.
 - (5) Installation, replacement, or repair of a *fence*.
 - (6) Installation, replacement, or repair of a swimming pool or a spa.
 - (7) Installation, replacement, or repair of a pre-fabricated *sign* which does not require modification to the *structure* to which the *sign* is attached.
 - (8) Installation, replacement, or repair of storage racks.
 - (9) *Development* which requires only an electrical permit, only a plumbing permit, or only a mechanical permit.

(12-2007)

(b) The following activities are exempt from this Division:

- (1) *Development* which is expected to generate only *hazardous waste* and/or *hazardous substances*.
- (2) *Development* for which the *construction and demolition debris* deposit is less than \$200 as calculated by the Development Services Department or its successor.

(Added 10-10-2005 by O-19420 N.S; effective 1-17-2008.)

(Amended 12-18-2007 by O-19694 N.S; effective 1-17-2008.)

§66.0609 Unrefunded Diversion Deposits and Accrued Interest

A deposit which is not refunded or claimed in accordance with this Division is the property of the City. For purposes of each and every deposit and all interest accrued thereon, the relationship between the *applicant* and the City is that of debtor-creditor, respectively. All interest accruing on each deposit is the property of the City, and the *applicant* shall have no claim upon the interest.

(Added 10-10-2005 by O-19420 N.S; effective 1-17-2008.)

§66.0610 Use of Diversion Deposits and Accrued Interest

All deposits and accrued interest thereon shall be deposited into the Recycling Fund created pursuant to section 66.0135 of this Code. All deposits and accrued interest thereon shall be used solely and exclusively for the following purposes:

- (a) payment of deposit refunds, as determined by the *Director*;
- (b) payment of administrative costs of the Construction and Demolition Debris Diversion Program established by this Division;
- (c) payment of costs of programs designed to encourage *diversion* of *solid waste* from landfill *disposal*;
- (d) payment of costs of programs designed to develop or improve the infrastructure to *divert solid waste* from landfill *disposal*; or
- (e) payment of costs to develop or improve infrastructure to *divert solid waste* from landfill *disposal*.

(Added 10-10-2005 by O-19420 N.S; effective 1-17-2008.)

Appendix II
Information Bulletin 119: *Construction and Demolition*
Debris



THE CITY OF SAN DIEGO

REQUIREMENTS FOR RECYCLING AND DISPOSAL OF Construction and Demolition Debris

CITY OF SAN DIEGO DEVELOPMENT SERVICES
1222 FIRST AVENUE, MS 301 SAN DIEGO, CA 92101-4101
CALL (619) 446-5300 FOR APPOINTMENTS AND (619) 446-5000 FOR INFORMATION

INFORMATION
BULLETIN

119

August 2008

This Information Bulletin describes the Construction and Demolition (C&D) debris recycling requirements and refundable recycling deposit amounts for qualifying new construction, addition/alteration and demolition projects requiring permits in the City of San Diego.

I. QUALIFYING PROJECTS

Effective July 1, 2008, new construction, addition/alteration and demolition projects requiring building, combination and demolition permits are required to complete a Waste Management Form and pay a refundable recycling deposit at the time the permit is issued. Projects that do not meet the minimum square footage are not required to pay the recycling deposit. See C&D Debris Recycling Deposit Table for square footage thresholds. For other exempt project types, refer to Section IV.

II. COMPLETING WASTE MANAGEMENT FORM, PART I (WMF I)

A WMF I must be filled out for every qualifying permit. It includes the front side and the top portion of the back side. All the fields must be completely filled out at the planning stages of the project, before any work is done.

Forms are located in lobby of Development Services Department or on the web at www.sandiego.gov/environmental-services/recycling/cdre-cycling.shtml

Contact's name, signature and information refer to the Refundable Party, the applicant who will pay for the invoice and whose name will be listed on the paid invoice.

C&D debris estimates shall be provided in tons. For C&D debris for which measurement by weight is not practicable, the applicant shall measure to weight using the standardized rates established in the *City's Construction and Demolition Debris Conversion Rate Table*. If any of the materials generated do not have a conversion factor listed, determine the quantity of the particular material and provide an estimate of the weight of the material.

Specify the Certified Recycling Facilities where the C&D debris will be taken for recycling. Certified Recycling Facilities must be used in order to be eligible for a deposit refund. Donating reusable goods is also acceptable with appropriate documentation, such as receipts and photos.

The completed WMF I is required at permit issuance. Be sure to keep a copy of the completed

Documents referenced in this Information Bulletin

- [Waste Management Form](#)

WMF I before it is turned in. It will be required as part of the documentation for your refund request.

III. RECYCLING REQUIREMENT

The recycling rate is currently 50% by weight of the total C&D debris generated by the project. After 180 calendar days, the diversion rate shall be 75%, provided that a certified recycling facility is operating within 25 miles of the City Administration Building, which is located at 202 "C" Street, San Diego, at a 75% diversion rate as of 181 calendar days from the actual effective date.

The recycling requirement could be met by one or more of the following methods:

1. On-site or off-site reuse of the C&D debris;
2. Recycling of C&D debris at Certified Recycling Facilities; or
3. Other donation or reuse of the C&D debris acceptable to the Environmental Services Director (Director).

Save all recycling, reuse and disposal receipts from project related debris for requesting a refund. Photos proving donation and reuse of materials may be accepted, subject to the Director's approval, in certain cases as proof of evidence of reuse of the project debris. Photos must be accompanied by written volume estimates.

IV. EXEMPTIONS

The following projects, alone or in combination with one another, are exempt from the requirements, except if the project(s) is/are undertaken in conjunction with a project which otherwise is subject to the requirements:

- A. Roofing projects that do not include the tear-off of the existing roof;
- B. Installation, replacement or repair of: retaining wall; carport, patio cover, balcony, trellis or fireplace; deck; fence; swimming pool or spa; pre-fabricated sign which does not require modification to the structure to which

- the sign is attached; storage racks;
- C. Projects which require only an electrical, only a plumbing or only a mechanical permit;
- D. Projects which are expected to generate only hazardous waste and/or hazardous substances; and
- E. Projects for which the C&D debris deposit is less than \$200.

V. REQUESTING C&D DEPOSIT REFUND

The applicant (Refundable Party) may be eligible for a refund of the deposit paid provided that the debris from the project was recycled at the applicable rate and that the applicant submits the following directly to the Director within 180 days from the passing final inspection date of the permit for which the deposit was paid:

- A. A properly completed Waste Management Form II (WMF II) filled out on the back side of the copy of the completed WMF I, which was submitted when the permit was issued.
- B. A copy of the completed WMF I, if not already submitted with WMF II.
- C. Evidence, including all recycling, reuse and disposal receipts, photographs and other documentation, which clearly demonstrates that the C&D debris generated by the project was recycled at the applicable recycling rate.

Mailing address for the completed WMF II and all documentation:

City of San Diego
[Environmental Services Department](#)
 Attn.: C&D Diversion Coordinator
 9601 Ridgehaven Court, Suite 320
 San Diego, CA 92123

Refunds will be based on proof, satisfactory to the Director, of the C&D debris recycling rate

the applicant achieved for the permit for which the deposit was paid.

Refunds for projects recycling less than the required amount will be pro-rated according to the recycling rate achieved by the specific project.

Requests submitted after 180 days from the passing final inspection date will not be eligible for a refund. Incomplete requests, for which additional documentation or proof has not been submitted by the 180 days, will not be eligible for a refund.

If a permit, for which a deposit has been paid, is subsequently cancelled, abandoned or expires *before* any work on the project has commenced, the deposit paid by the applicant will be returned upon the applicant's submittal to the Director satisfactory proof of the cancellation, abandonment or expiration of the permit.

If a permit, for which a deposit has been paid, is subsequently cancelled, abandoned or expires *after* work on the project has commenced, the recycling requirement will apply to any and all work performed on the project.

VI. RECYCLING RESOURCES

Different projects generate different wastestreams. For example, debris from a demolition phase of a project is very different from debris from the construction phase. There is also a variety of hazardous waste found at any construction and demolition site. Knowing the type of debris your project will generate will help you better manage the proper recycling of each material, saving you time and money.

For additional information, a listing of certified recycling facilities, and/or technical assistance, contact the City of San Diego Environmental Services Department at (858) 694-7000 or visit the web site at: <http://www.sandiego.gov/environmental-services/recycling/cdrecycling.shtml>

C&D DEBRIS RECYCLING DEPOSIT TABLE

| | DEPOSIT/ Sq. Ft. | MINIMUM Sq. Ft. SUBJECT TO DEPOSIT | MAXIMUM Sq. Ft. SUBJECT TO DEPOSIT | RANGE OF DEPOSITS |
|-----------------------------------------------|---------------------|---------------------------------------------|---------------------------------------------|----------------------|
| RESIDENTIAL NEW CONSTRUCTION -DETACHED | \$0.40 | 500 | 125,000 | \$200 - \$50,000 |
| RESIDENTIAL NEW CONSTRUCTION - ATTACHED | \$0.40 | 500 | 100,000 | \$200 - \$40,000 |
| NON-RESIDENTIAL NEW CONSTRUCTION - COMMERCIAL | \$0.20 | 1,000 | 25,000 | \$200 - \$5,000 |
| NON-RESIDENTIAL NEW CONSTRUCTION - INDUSTRIAL | \$0.20 | 1,000 | 75,000 | \$200 - \$15,000 |
| NON-RESIDENTIAL ALTERATIONS | \$0.70 | 286 | NO MAXIMUM | \$200 AND UP |
| RESIDENTIAL DEMOLITION | \$0.70 | 286 | NO MAXIMUM | \$200 AND UP |
| NON-RESIDENTIAL DEMOLITION | \$0.20 | 1,000 | NO MAXIMUM | \$200 AND UP |
| FLAT RATE | | | | |
| ROOF PROJECT WITH TEAR-OFF | -- | ALL PROJECTS | -- | \$200 |
| RESIDENTIAL ALTERATIONS | -- | 500 & ABOVE | -- | \$1,000 |

Appendix III
San Diego Municipal Code: *Recycling Ordinance*

Article 6: Collection, Transportation and Disposal of Refuse and Solid Waste**Division 7: Recycling Ordinance***("Recycling Ordinance"**Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)***§66.0701 Findings**

The Council of the City of San Diego finds and declares that:

- (a) The City operates the Miramar Landfill, which is currently the only municipal landfill in the City. The Miramar Landfill currently is expected to close between 2011 and 2013. Preserving landfill capacity at the Miramar Landfill in order to extend the useful life of the Miramar Landfill for the citizens of the City is a paramount concern.
- (b) The City has met (for 2004 and 2005) and continues to make progress in maintaining the waste *diversion* requirements imposed by AB 939, but additional efforts, particularly in the *recycling* of paper, cardboard, and other *recyclable materials*, will assist the City in maintaining and exceeding the goal of *diverting* 50% of its waste from landfill *disposal*.
- (c) Studies show that approximately 21% of the waste generated in the City of San Diego and delivered for landfill *disposal* is paper and 16% is compostable organics, all of which could be *diverted* from landfill *disposal*.
- (d) Efforts by the City and the private sector to encourage voluntary *diversion* of residential, commercial, and special event waste have not been as successful as the City had hoped and additional efforts are necessary to ensure continued compliance with AB 939 requirements.
- (e) *Recycling* programs in other jurisdictions in the State, similar to the one implemented by this Division, have proven successful in increasing *diversion* of *recyclable materials* and have been favorably received by the California Integrated Waste Management Board.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

(11-2007)

§66.0702 Purpose

The purpose of this Division is to establish requirements for *recycling* of *recyclable materials* generated from residential facilities (both single family and multi-family), commercial facilities (including City buildings), and special events. These requirements are intended to increase the *diversion* of *recyclable materials* from landfill *disposal*, conserve the capacity and extend the useful life of the Miramar Landfill, reduce greenhouse gas emissions, and avoid the potential financial and other consequences to the City of failing to meet AB 939 requirements.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

§66.0703 Definitions

All defined terms in this Division appear in *italics*. For purposes of this Division, the following definitions apply:

AB 939 has the same meaning as set forth in Section 66.0102 of this Article.

Certified Recyclable Materials Collector means a *Recyclable Materials Collector* which has been issued a certificate by the City pursuant to this Division.

Collect or *Collection* shall mean to take physical possession of and remove *solid waste* or *recyclable materials* at the place of generation.

Commercial facilities means any facilities that are not *residential facilities* or *mixed use facilities*. *Commercial facilities* includes City buildings for which the *responsible person* is a City of San Diego employee.

Department means the City of San Diego Environmental Services Department or its successor.

Director has the same meaning as set forth in Section 66.0102 of this Article.

Disposal means the final deposition of waste at a permitted landfill or other permitted waste facility.

Diversion or *Divert* means the reduction or elimination of *solid waste* from landfill *disposal*.

Franchisee has the same meaning as set forth in Section 66.0102 of this Article.

Mixed use facilities means facilities which include both residential and commercial uses.

(11-2007)

Person has the same meaning as set forth in Section 66.0102 of this Article.

Recyclable has the same meaning as set forth in Section 66.0102 of this Article.

Recyclable Materials has the same meaning as set forth in Section 66.0102 of this Article.

Recyclable Materials Collector has the same meaning as set forth in Section 66.0102 of this Article.

Recycling or *Recycle* has the same meaning as set forth in Section 66.0102 of this Article.

Recycling facility means a *recycling*, composting, or materials recovery or reuse facility.

Refuse has the same meaning as set forth in Section 66.0102 of this Article.

Residential facility has the same meaning as set forth in Section 66.0127(a)(4) of this Article.

Responsible person has the same meaning as set forth in Section 11.0210 of the San Diego Municipal Code including, but not limited to, the individual or entity responsible for the management of *solid waste* at the *residential, commercial* or *mixed use facility* or special event for *disposal* or *recycling*.

Self-haul means the process of personally, or through one's own full-time employees, *collecting*, transporting, and delivering one's own *solid waste* or *recyclable materials*.

Solid waste has the same meaning as set forth in Section 66.0102 of this Article.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

§66.0704 Unlawful Acts

It is unlawful for any *person* to fail to comply with any provision or requirement set forth in this Division which is applicable to such *person*.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

§66.0705 Recycling Requirement for Persons Serviced by City of San Diego

Effective January 1, 2008, *persons* who are provided with curbside *recycling collection* services by the City of San Diego shall participate in the City curbside *recycling* program by separating *recyclable materials* from other *solid waste* and depositing the *recyclable materials* in the approved *recycling* container.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

| Ch. | Art. | Div. | |
|-----|------|------|---|
| 6 | 6 | 7 | 3 |

§66.0706 Recycling Requirement for Residential Facilities Serviced by Franchisee

- (a) **Occupants of Single Family *Residential Facilities*.** Effective on the 90th day after the date of final passage of the ordinance adopting this Division, occupants of single-family *residential facilities* which receive *solid waste collection* service from a *Franchisee* shall participate in a curbside *recycling* program, offered by the *Franchisee* or a *Recyclable Materials Collector*, by separating *recyclable materials* from other *solid waste* and depositing the *recyclable materials* in the *recycling* container provided by the *Franchisee* or *Recyclable Materials Collector*.
- (b) **Single Family *Residential Facilities* Managed by Association.** For single family *residential facilities*, whose *solid waste collection* services are managed by an association or other organization responsible for providing for *solid waste collection* services to multiple single family *residential facilities* within a housing development, the *responsible person* for the association or other organization shall provide curbside *recycling* services to each single family *residential facility* in compliance with the requirements in sections 66.0706(e) and 66.0706(f), beginning on the 90th day after the date of final passage of the ordinance adopting this Division.
- (c) **Multi-Family *Residential Facilities*.** For multi-family *residential facilities* which receive *solid waste collection* service from a *Franchisee*, the *responsible person* shall provide on-site *recycling* services to occupants as required by this Division, by the following dates:
- (1) The 90th day after the date of final passage of the ordinance adopting this Division, for multi-family *residential facilities* with 100 *residential* units or more;
 - (2) January 1, 2009, for multi-family *residential facilities* with at least 50 but not more than 99 *residential* units; and
 - (3) January 1, 2010, for multi-family *residential facilities* with up to 49 *residential* units.
- (d) **Occupants of Multi-Family *Residential Facilities*.** Occupants of multi-family *residential facilities* which receive *solid waste collection* service from a *Franchisee* shall participate in a *recycling* program by separating *recyclable materials* from other *solid waste* and depositing the *recyclable materials* in the *recycling* container provided by the *Franchisee* or *Recyclable Materials Collector*, beginning on the applicable dates specified in Section 66.0706(c).

(11-2007)

- (e) *Recycling Services.* The *recycling* services required by this Section 66.0706 shall include, at a minimum, all of the following:
- (1) *collection of recyclable materials* at least two times per month;
 - (2) *collection* of plastic bottles and jars, paper, newspaper, metal containers, cardboard, and glass containers;
 - (3) utilization of *recycling* receptacles which comply with the standards in the Container and Signage Guidelines established by the *Department*;
 - (4) designated *recycling collection* and storage areas; and
 - (5) signage on all *recycling* receptacles, containers, chutes, and/or enclosures which complies with the standards described in the Container and Signage Guidelines established by the *Department*.
- (f) *Occupant Education.* For multi-family *residential facilities*, the *responsible person* shall ensure that occupants are educated about the *recycling* services as follows:
- (1) Information, including the types of *recyclable materials* accepted, the location of *recycling* containers, and the occupants responsibility to *recycle* pursuant to this Division, shall be distributed to all occupants annually;
 - (2) All new occupants shall be given information and instructions upon occupancy; and
 - (3) All occupants shall be given information and instructions upon any change in *recycling* service to the facility.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

§66.0707 Recycling Requirements for Commercial Facilities Serviced by Franchisee

- (a) *Commercial facilities.* For *commercial facilities* which receive *solid waste collection* services from a *Franchisee*, the *responsible person* shall provide on-site *recycling* services to occupants as required by this Division, by the following dates:
- (1) The 90th day after the date of final passage of the ordinance adopting this Division, for *commercial facilities* of 20,000 square feet or more;

- (2) January 1, 2009, for *commercial facilities* of 10,000 square feet or more, but less than 20,000 square feet; and
 - (3) January 1, 2010, for *commercial facilities* under 10,000 square feet.
- (b) Occupants of *Commercial Facilities*. Occupants of *commercial facilities* which receive *solid waste collection* service from a *Franchisee*, shall participate in a *recycling* program by separating *recyclable materials* from other *solid waste* and depositing the *recyclable materials* in the *recycling* container provided by the *Franchisee* or *Recyclable Materials Collector*, beginning on the applicable dates specified in Section 66.0707(a).
- (c) *Recycling Services*. The *recycling* services required by this Section 66.0707 shall include, at a minimum, all of the following:
 - (1) *collection of recyclable materials* as frequently as necessary to meet demand;
 - (2) *collection* of plastic bottles and jars, paper, newspaper, metal containers, cardboard, and glass containers;
 - (3) *collection* of other *recyclable materials* for which markets exist, such as scrap metal, wood pallets, and food waste, as determined by the *Director*, with *collection* of such *recyclable materials* required beginning on the 181st day after the City gives public notice thereof by placing a display advertisement of at least one-eighth page in a newspaper of general daily circulation within the City and posting a notice including such *recyclable materials* on a list maintained on the *Department's* website;
 - (4) utilization of *recycling* receptacles or containers which comply with the standards in the Container and Signage Guidelines established by the *Department*;
 - (5) designated *recycling collection* and storage areas; and
 - (6) signage on all *recycling* receptacles, containers, chutes, and/or enclosures which complies with the standards described in the Container and Signage Guidelines established by the *Department*

(11-2007)

- (d) Occupant Education. For *commercial facilities*, the *responsible person* shall ensure that occupants are educated about the *recycling* services as follows:
- (1) Information, including the types of *recyclable materials* accepted, the location of *recycling* containers, and the occupants responsibility to *recycle* pursuant to this Division, shall be distributed to all occupants annually;
 - (2) All new occupants shall be given information and instructions upon occupancy; and
 - (3) All occupants shall be given information and instructions upon any change in *recycling* service to the *commercial facility*.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

§66.0708 Recycling Requirements for Mixed Use Facilities

- (a) Majority Residential. For a *mixed use facility* which has the majority of its square footage devoted to residential uses, the *responsible person* shall comply with the *recycling* requirements set forth in Section 66.0706 of this Division.
- (b) Majority Commercial. For a *mixed use facility* which has the majority of its square footage devoted to commercial uses, the *responsible person* shall comply with the *recycling* requirements set forth in Section 66.0707 of this Division.
- (c) Occupants of Majority Residential *Mixed Use Facility*. Occupants of a *mixed use facility* which has the majority of its square footage devoted to residential uses, shall comply with the *recycling* requirements applicable to occupants set forth in Section 66.0706 of this Division.
- (d) Occupants of Majority Commercial *Mixed Use Facility*. Occupants of a *mixed use facility* which has the majority of its square footage devoted to commercial uses, shall comply with the *recycling* requirements applicable to occupants set forth in Section 66.0707 of this Division.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

(11-2007)

§66.0709 Delivery of Recyclable Materials to Recycling Facility

Franchisees and Recyclable Materials Collectors who collect recyclable materials generated within the City shall deliver those recyclable materials to a recycling facility. Persons who self-haul recyclable materials must deliver those recyclable materials to a recycling facility. The recycling facility may be located at a landfill, but recyclable materials generated within the City shall not be delivered to a landfill or other site for disposal.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

§66.0710 Recycling Containers

- (a) **Container Signage.** Automatic lift containers, bins, roll-offs, and other containers provided by *Franchisees and Recyclable Materials Collectors* to collect and store *recyclable materials* pending collection shall be clearly identified as a *recyclable materials* container, shall display the name and phone number of the *Franchisee or Recyclable Materials Collector* to whom the container belongs, and shall display a list of the *recyclable materials* which may be deposited into the container.
- (b) **Container Features.** Automatic lift containers, bins, roll-offs, and other containers used to collect and store *recyclable materials* pending collection shall be equipped with close-fitting lids and be leak-proof and rodent-proof.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

§66.0711 Annual Reports from Franchisees and Recyclable Materials Collectors

- (a) *Franchisees and Certified Recyclable Materials Collectors* shall submit an annual report by August 15 of each year, beginning August 15, 2008, to the *Department*, on a form or using a format prescribed by the *Director*. Annual reports shall include the following information for each facility serviced within the City for the period June 30 through July 1 of the immediately preceding twelve month period:
 - (1) The name of the *person(s)* responsible for *solid waste* and/or *recyclable materials* management at the facility serviced;
 - (2) The name and address of the facility serviced;
 - (3) The volume in cubic yards or gallons, measured by the size of the applicable containers in use at the facility, of *solid waste* and *recyclable materials* collected per week from the facility;

(11-2007)

- (4) The frequency of *solid waste* and *recyclable materials* collection service provided to the facility; and
 - (5) Additional information as required by the *Director*.
- (b) *Franchisees* and *Recyclable Materials Collectors* also shall include in the annual reports for the time period specified in section 66.0711(a) the following information:
 - (1) The total amount of *recyclable materials*, measured in tons, *collected* by the *Franchisee* or *Recyclable Materials Collector* within the City; and
 - (2) The names and addresses of the *recycling facilities* to which the *recyclable materials* collected within the City were delivered for *recycling*.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

§66.0712 Special Events Recycling

- (a) For a community special event requiring an event permit from the City of San Diego, the *responsible person* shall provide *recycling* receptacles throughout the event venue, effective beginning on the 90th day after the date of final passage of the ordinance adopting this Division.
- (b) The number of *recycling* receptacles shall equal the number of *solid waste* receptacles.
- (c) The *solid waste* and *recycling* receptacles shall be placed next to one another throughout the event venue.
- (d) The types of *recyclable materials* suitable for deposit into each *recycling* receptacle shall include, at a minimum, aluminum and metal cans, and glass and plastic bottles and jars.
- (e) Each *recycling* receptacle shall be clearly identified as a *recycling* receptacle and shall display a list of the types of *recyclable materials* which may be deposited into the *recycling* receptacle.
- (f) The *responsible person* shall ensure that the *recyclable materials* deposited into the *recycling* receptacles are delivered to a *recycling facility*. The *recycling facility* may be located at a landfill, but *recyclable materials* shall not be delivered to a landfill for *disposal*.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

§66.0713 Exemptions

- (a) Six cubic yard exemption. *Multi-family residential facilities, commercial facilities, and mixed use facilities* which generate 6 cubic yards or less per week of *solid waste*, including *recyclable materials* mixed with *solid waste*, are exempt from the requirements of this Division. The 6 cubic yard threshold may be decreased at the discretion of the City Manager effective 90 days after the City has notified the public thereof by placing a display advertisement of at least one-eighth page in a newspaper of general daily circulation within the City and posting a notice on the *Department's* website.
- (b) Other Exemptions. Other exemptions to some or all of the requirements of this Division may be granted at the discretion of the *Director's* designee. Applications for exemptions may be granted upon consideration of the following factors: available markets for *recyclable materials*, available space for *recycling* containers, alternative *recycling* efforts, and the amount and type of *solid waste* or *recyclable materials* generated. To be effective, an exemption must be in writing and signed by the *Director's* designee. An exemption may be revoked at any time at the discretion of the *Director's* designee if one or more of the factors justifying the exemption no longer exist, or other change in circumstances warrant revocation. Unless earlier revoked, an exemption shall be effective for a period of one year from the date it was granted. Subsequent applications for exemptions may be granted at the discretion of the *Director's* designee upon consideration of the factors listed in this section 66.0713(b).
- (c) Application for Exemption. Applications for an exemption shall be submitted to the *Department* in writing, on a form approved by the *Director*, together with a cost-recovery processing fee. The processing fee shall be reviewed annually by the City Manager and adjusted accordingly to ensure full cost-recovery for processing the application for exemption.
- (d) If the *Director's* designee denies an application for an exemption, the *Director's* designee shall notify the applicant in writing of the reasons for the denial. The denial of an application for an exemption or the revocation of an exemption may be appealed to the *Director*, whose decision shall be final.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

§66.0714 Certified Recyclable Materials Collector

- (a) *Certified Recyclables Materials Collector.* A *Recyclable Materials Collector* may apply to the *Director* to become a *Certified Recyclable Materials Collector*. The certification will be valid for no more than two years after the date it is issued by the *Director*. The *Director* shall maintain a current list of *Certified Recyclable Materials Collectors* on the *Department's* website and in other educational materials published by the *Department*.
- (b) Application Form and Fee. Applicants for a *recyclable materials collector* certificate shall complete and submit to the *Director* a written application, on a form approved by the *Director*, together with a cost-recovery processing fee. The processing fee shall be reviewed annually by the City Manager and adjusted accordingly to ensure full cost-recovery for processing the application for certification. The application shall include, at a minimum, all of the following:
- (1) name, address, and telephone number of the applicant;
 - (2) name, address, and telephone number of an individual contact for the applicant;
 - (3) description of each vehicle the applicant will use to provide *recyclable materials collection* services within the City including, but not limited to make, model, serial or vehicle identification number, and license number;
 - (4) address where all vehicles and operating equipment used to provide *recyclable materials collection* services within the City will be stored and maintained;
 - (5) the applicant's agreement to defend, with counsel to be agreed upon by both parties, indemnify, and hold harmless, City and its agents, officers, servants, and employees from and against any and all claims asserted or liability established for damages or injuries to any person or property, including injury to City's employees, agents, or officers which arise from, or are connected with, or are caused or claimed to be caused by acts or omissions of the applicant, or its agents, officers or employees, in the performance of the *recyclable materials collection* services, and all costs and expenses of investigating and defending against same; provided, however, that the applicant's duty to indemnify and hold harmless shall not include any claims or liability arising from the established active negligence, sole negligence, or sole willful misconduct of the City, its agents, officers, or employees;

- (6) without limiting the indemnification obligation above, the applicant's agreement to obtain and maintain in full force and effect throughout the term of the *recyclable materials collector* certificate, and any extensions or modifications thereof, insurance coverage which meets or exceeds the requirements established by the *Director*; and
 - (7) A written statement certifying that the applicant has reviewed and will comply with the requirements of this Division and in the certificate.
- (c) Insurance. The *Director*, in consultation with the City's Risk Management Department, shall establish minimum reasonable insurance requirements for *Certified Recyclable Materials Collectors*. Simultaneously with the submittal of its application, the applicant shall furnish proof satisfactory to the *Director* that the applicant has obtained the required insurance coverage. Annually on each anniversary of the issuance of the certificate, the applicant shall furnish proof satisfactory to the *Director* that the applicant maintains at least the minimum required insurance coverage.
- (d) Vehicles and Equipment. All vehicles, containers, and other equipment used to provide the *recyclable materials collection* services shall be kept in a clean and well-maintained condition.
- (e) Container Signage. Automatic lift containers, bins, roll-offs, and other containers used to *collect* and store *recyclable materials* pending *collection* shall be clearly identified as a *recyclable materials* container, shall display the name and phone number of the *Certified Recyclable Materials Collector* to whom the container belongs, and shall display a list of the *recyclable materials* which may be deposited into the container.
- (f) Container Features. Automatic lift containers, bins, roll-offs, and other containers used to *collect* and store *recyclable materials* pending *collection* shall be equipped with close-fitting lids and be leak-proof and rodent-proof.
- (g) Compliance with Law. *Certified Recyclable Materials Collectors* shall conduct all of their activities in compliance with all applicable federal, state, and local laws, regulations, ordinances, and requirements and shall be responsible for obtaining all applicable permits, licenses, certifications, and registrations.
- (h) Application Verification. The *Director* may independently verify any and all statements made or implied in the application or any accompanying documents. The *Director* may also request clarification from the applicant of any such statements or information.

(11-2007)

- (i) **Application Review.** In reviewing each application, the *Director* shall take into consideration all components of the application including, but not limited to:
 - (1) the ability of the applicant to meet the requirements of this Division and the certificate;
 - (2) any history of criminal or civil violations that may compromise the public's interest; and
 - (3) the completeness, accuracy, and validity of the application.
- (j) **Application Determination.** After a reasonable review period, the *Director* shall grant or deny the application. If the *Director* fails to grant an application after thirty days from the receipt of a complete application, including accompanying documentation, the applicant may at the applicant's option deem the application denied. If the *Director* denies an application, the *Director* shall notify the applicant in writing of the reasons for the denial.
- (k) **Certificate Revocation.** The *Director* may revoke a certificate if the *Director* determines, after providing notice and an opportunity for a hearing, that a *Certified Recyclable Materials Collector* has violated the provisions in the certificate or any applicable law. If the *Director* revokes a certificate, the *Director* shall notify the applicant in writing of the reasons for the revocation.
- (l) **Appeal Upon Denial of Application or Revocation of Certificate.** Within thirty days after the issuance of a written notice of the denial of an application or the revocation of a certificate, the applicant or *Certified Recyclable Materials Collector* may request in writing to the *Director* that the City Manager review the *Director's* decision. Within thirty days of the Department's receipt of such a request, a meeting with the City Manager or designee shall be scheduled to review the items cited in the written notice. At that meeting, the applicant or *Certified Recyclable Materials Collector* may provide any additional information in support of their position. Within thirty days of such a meeting, the City Manager will issue a written decision on the application or revocation, which shall include the reasons for the decision. The City Manager's decision shall be final. A copy of the City Manager's written decision shall be provided to the applicant or *Certified Recyclable Materials Collector* and the *Director*.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

§66.0715 Self-Haul and Use of Non-Certified Recyclable Materials Collector

- (a) Nothing in this Division shall preclude any *person* from *self-hauling recyclable materials* generated by that *person* to a *recycling* facility.
- (b) The *responsible person* for a multi-family *residential facility*, *commercial facility*, *mixed use facility*, or association or organization described in section 66.0706(b), which *self-hauls solid waste* to a *disposal* facility shall comply with the *recycling* requirements in this Division applicable to that multi-family *residential facility*, *commercial facility*, *mixed use facility*, or association or organization described in section 66.0706(b).
- (c) Except for occupants of single family *residential facilities*, a *person* who *self-hauls solid waste* to a *disposal* facility and/or *self-hauls recyclable materials* to a *recycling* facility shall comply with the reporting requirements set forth in section 66.0711(a).
- (d) Except for occupants of single family *residential facilities*, a *person* who uses the services of a *recyclable materials collector*, which is neither a *Franchisee* nor a *Certified Recyclable Materials Collector*, to collect, transport, and deliver *recyclable materials* generated by that *person* to a *recycling* facility, shall comply with the reporting requirements set forth in section 66.0711(a).

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

§66.0716 Selling or Donating Recyclable Materials

Nothing in this Division shall preclude any *person* from selling or exchanging at fair market value, for reuse or *recycling*, source-separated *recyclable materials* generated by that *person* or from donating to another entity, for reuse or *recycling*, source-separated *recyclable materials* generated by that *person*.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

§66.0717 Scavenging of Recyclable Materials Prohibited

- (a) No *person* other than the *person* under contract with the generator of the *recyclable materials* to collect the *recyclable materials*, shall remove or otherwise interfere with *recyclable materials* which have been placed at a designated *recycling* or *recyclable materials collection* location.

(11-2007)

- (b) No *person* shall be guilty of a violation of this section 66.0717 unless the *person* knew or reasonably should have known that the *recyclable materials* were set out for purposes of *collection* by another *person* authorized to *collect* the *recyclable materials*.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

§66.0718 Enforcement

- (a) Authority. The *Director* is authorized to administer and enforce the provisions of Chapter 6, Article 6, Division 7 of this Code. The *Director* or anyone designated by the *Director* to be an *enforcement official* may exercise any enforcement powers as provided in Chapter 1 of this Code.
- (b) Remedies. It is unlawful to violate any provision or requirement of Division 7. The failure to comply with any requirement of Division 7 constitutes a violation of Division 7. Each instance of a violation of Division 7 is a separate offense. Violations of the provisions or requirements of Division 7 may be prosecuted as misdemeanors subject to the penalties provided in section 12.0201 of this Code. The *Director* or designee may seek injunctive relief or civil penalties in the Superior Court pursuant to section 12.0202 of this Code or may pursue any administrative remedy provided in Chapter 1, Article 2, Divisions 3 through 10 inclusive, of this Code.
- (c) Remedies Cumulative. Remedies under section 66.0718 are in addition to and do not supersede or limit any and all other remedies, civil or criminal. The remedies provided for herein shall be cumulative and not exclusive.
- (d) Strict liability. Except as otherwise set forth in section 66.0717, violations of Division 7 shall be treated as strict liability offenses regardless of intent.

(Added 11-20-2007 by O-19678 N.S.; effective 12-20-2007.)

Appendix IV
San Diego Municipal Code: *Refuse and Recyclable*
Materials Storage Regulations

Article 2: General Development Regulations

Division 8: Refuse and Recyclable Materials Storage Regulations

(Added 12-9-1997 by O-18451 N.S.; effective 1-1-2000.)

§142.0801 Purpose of Refuse and Recyclable Materials Storage Regulations

The purpose of these regulations is to provide permanent, adequate, and convenient space for the storage and collection of refuse and *recyclable material*. The intent of these regulations is to encourage recycling of solid waste to reduce the amount of waste material entering landfills and to meet the recycling goals established by the City Council and mandated by the state of California.

(Added 12-9-1997 by O-18451 N.S.; effective 1-1-2000.)

§142.0805 When Refuse and Recyclable Materials Storage Regulations Apply

Refuse and recyclable materials storage shall be provided for the following types of *development* as indicated in Table 142-08A:

- (a) New residential *development* projects involving two or more *dwelling units*,
- (b) New nonresidential *development*, or
- (c) Additions to existing *multiple dwelling unit* residential, commercial or industrial *development* where the *gross floor area* would be increased by 30 percent or more.

Table 142-08A
Refuse and Recyclable Material Storage Regulations
Applicability

| Type of <i>Development</i> Proposal | Applicable Regulations | Required Permit Type/Decision Process |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------------|
| <i>Development</i> - of a <i>single dwelling unit</i> | Exempt from this division | Exempt from this division |
| New residential <i>development</i> involving two or more <i>dwelling units</i> | Sections 142.0810 and 142.0820 | No permit required by this division |
| <i>New nonresidential development</i> | Sections 142.0810 and 142.0830 | No permit required by this division |
| Additions to existing <i>multiple dwelling unit</i> residential, commercial, or industrial <i>development</i> where the <i>gross floor area</i> would be increased by 30 percent or more | Sections 142.0810, 142.0820 and 142.0830 | No permit required by this division |

(Added 12-9-1997 by O-18451 N.S.; effective 1-1-2000.)

(Amended 11-13-08 by O-19799 N.S; effective 12-13-2008.)

§142.0810 General Regulations for Refuse and Recyclable Material Storage

New residential *development* as indicated in Section 142.0805 shall provide on-site areas for the storage of refuse and *recyclable material* that meet the following standards:

- (a) Size of Material Storage Areas. The size of required material storage areas shall meet or exceed the minimum requirements in Tables 142-08B and 142-08C.
- (b) Location of Material Storage Areas
 - (1) Material storage areas may be located in a designated interior area that is not in a *dwelling unit*.

- (2) Material storage areas may be located outside a *structure* in required rear *yards* or in required side *yards*. Exterior material storage areas shall not be located in any front *yard*, street side yard, *street yard* area, parking area, landscaped area, or any other area required by the Municipal Code to be constructed or maintained unencumbered according to fire or other applicable building or public safety laws.
 - (3) Material storage areas shall be accessible to occupants and haulers.
 - (4) *Premises* served by an *alley* shall provide material storage areas that are directly accessible from the *alley*.
 - (5) One *sign* identifying the material storage area is required for each area and shall be posted on the exterior of the material storage area near the point of access. The maximum *sign copy area* permitted for each *sign* shall be one square foot.
 - (6) For commercial *development* on *premises* not served by an *alley*, material storage areas shall be located at least 25 feet from any *street* or sidewalk.
- (c) *Screening* of Material Storage Areas. Material storage areas located outside any *structure* shall be *screened* with a minimum 6-foot-high solid *screening* enclosure that is designed to be architecturally consistent with the primary *structure*. Refuse, *recyclable material*, and material storage containers shall not exceed the height of the solid *screening* enclosure.

(Added 12-9-1997 by O-18451 N.S.; effective 1-1-2000.)

(Amended 11-28-2005 by O-19444 N.S.; effective 2-9-2006.)

(Amended 11-13-08 by O-19799 N.S; effective 12-13-2008.)

§142.0820 Refuse and Recyclable Materials Storage Regulations for Residential Development

Applicable residential *development* in accordance with Section 142.0805, shall provide interior and exterior refuse and recycling storage areas as specified below:

- (a) Interior Refuse and *Recyclable Material* Storage. Each *dwelling unit* shall be equipped with an interior refuse and *recyclable material* storage area.
- (b) Exterior Refuse and *Recyclable Material* Storage. Each *structure* that contains *dwelling units* shall provide at least one exterior storage area. The total storage areas requirement is based on the number of *dwelling units* in the *development* as shown in Table 142-08B and includes the sum of all residential material storage areas located outside of individual *dwelling units*.

**Table 142-08B
Minimum Exterior Refuse and
Recyclable Material Storage Areas for
Residential Development**

| Number of Dwelling Units Per Development | Minimum Refuse Storage Area Per Development (Square Feet) | Minimum <i>Recyclable Material</i> Storage Area Per Development (Square Feet) | Total Minimum Storage Area Per Development (Square Feet) |
|------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------|
| 2-6 | 12 | 12 | 24 |
| 7-15 | 24 | 24 | 48 |
| 16-25 | 48 | 48 | 96 |
| 26-50 | 96 | 96 | 192 |
| 51-75 | 144 | 144 | 288 |
| 76-100 | 192 | 192 | 384 |
| 101-125 | 240 | 240 | 480 |
| 126-150 | 288 | 288 | 576 |
| 151-175 | 336 | 336 | 672 |
| 176-200 | 384 | 384 | 768 |
| 201+ | 384 plus 48 square feet for every 25 dwelling units above 201 | 384 plus 48 square feet for every 25 dwelling units above 201 | 768 plus 96 square feet for every 25 dwelling units above 201 |

(Added 12-9-1997 by O-18451 N.S.; effective 1-1-2000.)

(Amended 3-1-2006 by O-19468 N.S.; effective 4-1-2006.)

(Amended 11-13-08 by O-19799 N.S; effective 12-13-2008.)

§142.0830 Refuse and Recyclable Material Storage Regulations for Nonresidential Development

- (a) All new nonresidential *development*, or additions to existing commercial or industrial *development* where the *gross floor area* would be increased by 30 percent or more, shall provide at least one exterior refuse and *recyclable material* storage area for each building. The total storage area requirement is based on the *gross floor area* of the nonresidential buildings on the *premises*, as shown in Table 142-08C and includes the sum of all nonresidential refuse and recyclable material storage areas.
- (b) Where a *development* includes residential as part of a mixed use project, the *development* shall provide refuse and *recyclable material* storage for the residential portion of the project in accordance with Table 142-08B, in addition to the storage areas required by Table 142-08C for the nonresidential *development*.

Table 142-08C
Minimum Exterior Refuse and Recyclable Material Storage Areas
for Nonresidential Development

| Gross Floor Area Per Development (Square Feet) | Minimum Refuse Storage Area Per Development (Square Feet) | Minimum <i>Recyclable</i> Material Storage Area Per Development (Square Feet) | Total Minimum Area Per Development (Square Feet) |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 0-5,000 | 12 | 12 | 24 |
| 5,000-10,000 | 24 | 24 | 48 |
| 10,001-25,000 | 48 | 48 | 96 |
| 25,001-50,000 | 96 | 96 | 192 |
| 50,001-75,000 | 144 | 144 | 244 |
| 75,001-100,000 | 192 | 192 | 384 |
| 100,001+ | 192 plus 48 square feet for every 25,000 square feet of building area above 100,001 | 192 plus 48 square feet for every 25,000 square feet of building area above 100,001 | 384 plus 96 square feet for every 25,000 square feet of building area above 100,001 |

(Added 12-9-1997 by O-18451 N.S.; effective 1-1-2000.)

(Amended 11-13-08 by O-19799 N.S; effective 12-13-2008.)

Appendix V
City of San Diego Waste Generation Factors
Occupancy Phase



THE CITY OF SAN DIEGO

Waste Generation Factors – Occupancy Phase

The following factors are used by the City of San Diego Environmental Services Department to estimate the expected waste generation in a new residential or commercial development.

Residential Uses

Residential Unit = 1.6 tons/year/unit

Multi-family Unit = 1.2 tons/year/unit

Example: To calculate the amount of waste that will be generated from a project with 100 new homes, multiply the number of homes by the generation factor.

100 single family homes x 1.6 = 160 tons/year

100 multi-family units x 1.2 = 120 tons/year

Commercial/Industrial Uses

| | |
|-----------------------|--------|
| General Retail | 0.0028 |
| Restaurants & Bars | 0.0122 |
| Hotels/Motels | 0.0045 |
| Food Stores | 0.0073 |
| Auto/Service/Repair | 0.0051 |
| Medical Offices | 0.0033 |
| Hospitals | 0.0055 |
| Office | 0.0017 |
| Transp/Utilities | 0.0085 |
| Manufacturing | 0.0059 |
| Education | 0.0013 |
| Unclassified Services | 0.0042 |

Example: To calculate the amount of waste that could be generated from a new building with 10,000 square feet for offices and 10,000 square feet for manufacturing, multiply the square footage for each use by the generation factor.

10,000 square feet x 0.0017 = 17 tons/year

10,000 square feet x 0.0059 = 59 tons per year

Total estimated waste generation for building = 76 tons/year

Appendix VI
City of San Diego
Certified Construction & Demolition
Recycling Facilities Directory



2011 Certified Construction & Demolition Recycling Facility Directory

These facilities are certified by the City of San Diego to accept materials listed in each category. Hazardous materials are not accepted. The diversion rate for these materials shall be considered 100%, except mixed C&D debris which updates quarterly. The City is not responsible for changes in facility information. Please call ahead to confirm details such as accepted materials, days and hours of operation, limitations on vehicle types, and cost. For more information visit: www.recyclingworks.com.

| <i>Please note: mixed C&D debris must be recorded on facility receipts as mixed C&D debris in order to be eligible to receive recycling credit.</i> | Mixed C&D Debris | Asphalt / Concrete | Asphalt Shingles | Brick/Block/Rock | Building Materials for Reuse | Cardboard | Carpet | Carpet Padding | Ceiling Tile | Ceramic Tile / Porcelain | Clean Fill Dirt | Clean Wood / Green Waste | Drywall | Industrial Plastics | Lamps / Light Fixtures | Metal | Mixed Inerts | Styrofoam Blocks |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------|------------------|------------------|------------------------------|-----------|--------|----------------|--------------|--------------------------|-----------------|--------------------------|---------|---------------------|------------------------|-------|--------------|------------------|
| EDCO Recovery & Transfer 3660 Dalbergia St, San Diego, CA 92113 619-234-7774 www.edcodisposal.com/public-disposal | 65% | | | | | | | | | | | | • | | | | | |
| EDCO Station Transfer Station & Buy Back Center 8184 Commercial St, La Mesa, CA 91942 619-466-3355 www.edcodisposal.com/public-disposal | 65% | | | | | • | | | | | | | • | | | • | | |
| EDCO CDI Recycling & Buy Back Center 224 S. Las Posas Rd, San Marcos, CA 92078 760-744-2700 www.edcodisposal.com/public-disposal | 64% | | | | | • | | | | | | | | | | • | | |
| Escondido Resource Recovery 1044 W. Washington Ave, Escondido 760-745-3203 www.edcodisposal.com/public-disposal | 65% | | | | | | | | | | | | | | | | | |
| Fallbrook Transfer Station & Buy Back Center 550 W. Aviation Rd, Fallbrook, CA 92028 760-728-6114 www.edcodisposal.com/public-disposal | 65% | | | | | • | | | | | | | | | | • | | |
| Otay C&D/Inert Debris Processing Facility 1700 Maxwell Rd, Chula Vista, CA 91913 619-421-3773 www.sd.disposal.com | 86% | | | | | | | | | | | | | | | | | |
| Ramona Transfer Station & Buy Back Center 324 Maple St, Ramona, CA 92065 760-789-0516 www.edcodisposal.com/public-disposal | 65% | | | | | • | | | | | | | | | | • | | |
| SANCO Resource Recovery & Buy Back Center 6750 Federal Blvd, Lemon Grove, CA 91945 619-287-5696 www.edcodisposal.com/public-disposal | 65% | | | | | • | | | | | | | | | | • | | |
| Waste Management, Inc. - El Cajon Transfer Station 1001 W. Bradley Ave, El Cajon, CA 92020 619-596-5100 | 70% | | | | | | | | | | | | | | | | | |
| A+ Carpet Recycling 8585 Production Ave, San Diego, CA 92121 619-941-8201 www.apluscarpetrecycling.com | | | | | | | • | • | | | | | | | | | | |
| All American Recycling 10805 Kenney St, Santee, CA 92071 619-508-1155 (Must call for appointment) | | | | | | | • | | | | | | | | | | | |
| Allan Company 6733 Consolidated Wy, San Diego, CA 92121 858-578-9300 www.allancompany.com/facilities.htm | | | | | | • | | | | | | | | | | • | | |
| Allan Company Miramar Recycling 5165 Convoy St, San Diego, CA 92111 858-268-8971 www.allancompany.com/facilities.htm | | | | | | • | | | | | | | | | | • | | |
| Allan Company 8514 Mast Blvd, Santee, CA 92701 619-448-4295 www.allancompany.com/facilities.htm | | | | | | • | | | | | | | | | | • | | |
| AMS 4674 Cardin St, San Diego, CA 92111 858-541-1977 www.a-m-s.com | | | | | | | | | • | | | | | | | | | |
| AMS 1120 West Mission Ave, Escondido, CA 92025 858-541-1977 www.a-m-s.com | | | | | | | | | • | | | | | | | | | |
| Armstrong World Industries, Inc. 300 S. Myrida St, Pensacola, FL 32505 877-276-7876 (Press 1, Then 8) www.armstrong.com/commceilingsna | | | | | | | | | • | | | | | | | | | |

| | Mixed C&D Debris | Asphalt / Concrete | Asphalt Shingles | Brick/Block/Rock | Building Materials for Reuse | Cardboard | Carpet | Carpet Padding | Ceiling Tile | Ceramic Tile / Porcelain | Clean Fill Dirt | Clean Wood / Green Waste | Drywall | Industrial Plastics | Lamps / Light Fixtures | Metal | Mixed Inerts | Styrofoam Blocks |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------|------------------|------------------|------------------------------|-----------|--------|----------------|--------------|--------------------------|-----------------|--------------------------|---------|---------------------|------------------------|-------|--------------|------------------|
| Cactus Recycling 8710 Avenida De La Fuente, San Diego, CA 92154 619-661-1283 www.cactusrecycling.com | | | | | | • | | | | | | | | • | | • | | • |
| DFS Flooring 8828 Complex Dr, San Diego, CA 92123 858-630-5200 www.dfsflooring.com | | | | | | | • | • | | | | | | | | | | |
| Enniss Incorporated 12421 Vigilante Rd, Lakeside, CA 92040 619-443-9024 www.enniss.net | | • | | • | | | | | | • | • | | | | | | | |
| Escondido Sand and Gravel 500 N. Tulip St, Escondido, CA 92025 760-432-4690 www.weirasphalt.com/esg | | • | | | | | | | | | | | | | | | | |
| Habitat for Humanity ReStore 10222 San Diego Mission Rd, San Diego, CA 92108 619-516-5267 www.sdhfh.org/restore.php | | | | | • | | | | | | | | | | | | | |
| Hanson Aggregates West – Carlsbad Plant 3701 Haymar Dr, Carlsbad, CA 92010 760-729-2090 | | • | | | | | | | | | | | | | | | | |
| Hanson Aggregates West – Lakeside Plant 12560 Highway 67, Lakeside, CA 92040 858-547-2141 | | • | | | | | | | | | | | | | | | | |
| Hanson Aggregates West – Miramar 9229 Harris Plant Rd, San Diego, CA 92126 858-974-3849 | | • | | | | | | | | | • | | | | | | | |
| Hidden Valley Steel & Scrap, Inc. 1342 Simpson Wy, Escondido, CA 92029 760-747-6330 | | | | | | | | | | | | | | | | • | | |
| HVAC Exchange 2675 Faivre St, Chula Vista, CA 91911 619-423-1855 www.thehvacexchange.com | | | | | | | | | | | | | | | | • | | |
| IMS Recycling Services 2740 Boston Ave, San Diego, CA 92113 619-231-2521 www.imsrecyclingservices.com | | | | | | • | | | | | | | | • | | • | | |
| IMS Recycling Services 2697 Main St, San Diego, CA 92113 619-231-2521 www.imsrecyclingservices.com | | | | | | • | | | | | | | | • | | • | | |
| Inland Pacific Resource Recovery 12650 Slaughterhouse Canyon Rd, Lakeside, CA 92040 619-390-1418 | | | | | | | | | | | | • | | | | | | |
| Inland Valley Materials 14080 San Pasqual Valley Rd, Escondido, CA 92027 760-432-0671 | | • | | | | | | | | | | | | | | | • | |
| J.Cloud Inc./Hester's Granite Company 2094 Willow Glen Dr, El Cajon, CA 92019 619-593-9020 www.jcloudinc.com | | • | | | | | | | | | • | | | | | | • | |
| Lakeside Land Co., Inc. 10101 Riverford Rd, Lakeside, CA 92040 619-449-9083 www.lakesideland.com | | • | | | | | | | | | • | | | | | | • | |
| LEED Recycling 8725 Miramar Pl, San Diego, CA 92121 858-550-0919 www.rooftoroad.com | | | • | | | | | | | | | | | | | | | |
| Lights Out Disposal 1097 Palm Ave, Ste 100, El Cajon, CA 92020 619-438-1093 www.lightsoutdisposal.com | | | | | | | | | | | | | | | • | | | |
| Los Angeles Fiber Company 4920 S. Boyle Ave, Vernon, CA 90058 323-589-5637 www.lafiber.com | | | | | | | • | • | | | | | | | | | | |
| Miramar Greenery, City of San Diego 5180 Convoy St, San Diego, CA 92111 858-694-7000 www.sandiego.gov/environmental-services/miramar/greenery.shtml | | | | | | | | | | | | • | | | | | | |
| Moody's – El Corozon Reclamation 3210 Oceanside Blvd., Oceanside, CA 92056 | | • | | | | | | | | • | • | | | | | | • | |

| | Mixed C&D Debris | Asphalt / Concrete | Asphalt Shingles | Brick/Block/Rock | Building Materials for Reuse | Cardboard | Carpet | Carpet Padding | Ceiling Tile | Ceramic Tile / Porcelain | Clean Fill Dirt | Clean Wood / Green Waste | Drywall | Industrial Plastics | Lamps / Light Fixtures | Metal | Mixed Inerts | Styrofoam Blocks |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------|------------------|------------------|------------------------------|-----------|--------|----------------|--------------|--------------------------|-----------------|--------------------------|---------|---------------------|------------------------|-------|--------------|------------------|
| Otay Valley Rock, LLC 2041 Heritage Rd, Chula Vista, CA 91913 619-591-4717 www.otayrock.com | | • | | | | | | | | | | | | | | | | |
| Pacific Steel, Inc. 1700 Cleveland Ave, National City, CA 91950 619-474-7081 | | | | | | | | | | | | | | | | • | | |
| Reclaimed Aggregates Chula Vista 855 Energy Wy, Chula Vista, CA 91913 619-656-1836 | | • | | | | | | | | | • | | | | | | • | |
| Romero General Construction Corp. 8354 Nelson Wy, Escondido, CA 92026 760-749-9312 www.romerogc.com/crushing/nelsonway.htm | | • | | | | | | | | | | | | | | | | |
| The Carpet Recyclers 14209 Gannet St, La Mirada, CA 90638 877-714-9490 www.thecarpetrecyclers.com | | | | | | | • | | | | | | | | | | | |
| Vulcan Carol Canyon Landfill and Recycle Site 10051 Black Mountain Rd, San Diego, CA 92126 858-530-9465 www.vulcanmaterials.com/carrollcanyon | | • | | | | | | | | | • | | | | | | • | |