

## SUPPLEMENTAL BUILDER GUIDELINES FOR SOLID WASTE AND RECYCLING ENCLOSURES

The Supplemental Builder Guidelines (Guidelines) and Enclosure Standards (Standards) work together to provide information and resources for designing solid waste and recycling enclosures that will be used by building occupants in new developments or significant remodels. The Guidelines and Standards are written to be of assistance to builders and designers and minimize the time it will take to get a site permitted and operational.

Along with ensuring adequate capacity for solid waste, enclosures must be designed to have adequate capacity to accommodate single-stream recycling and green waste containers. The California Solid Waste Reuse and Recycling Access Act of 1991 requires new development projects which include commercial, industrial, or institutional building and multi-family developments of 5 units or more, to include adequate, accessible, and convenient areas for collecting and loading recyclable materials. This requirement was a result of the state mandate that each local government, including the City of Napa, reduce waste destined for landfills by 50 percent of the waste generated or risk a fine of \$10,000 per day.

The City of Napa has chosen to make compliance with these requirements as easy as possible for Builders by developing these Guidelines and Standards.

The *Builder Guidelines* (pages 3-4) include pre-construction, design, construction and operational phase of each project.

The *Enclosure Standards* detail the standard bin sizes and how to estimate the enclosure size and number needed for a project and offers direction on the dimensions, placement and construction of the solid waste enclosures so the trucks can easily access the enclosures without endangering the public or property. The Standard provides enclosure plans for the three enclosure sizes, but each applicant is free to develop and attach their own more detailed plans if they choose.

If you have any questions regarding the *Guidelines* or the *Standards* or have *recommendations for improvement*, please contact:

Kevin Miller  
Materials Diversion Administrator  
(707) 257-9200x7291  
E-mail: [kmiller@cityofnapa.org](mailto:kmiller@cityofnapa.org)

OR

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Materials Diversion Analyst  
(707) 257-9200x7667  
E-mail: [sgallegos@cityofnapa.org](mailto:sgallegos@cityofnapa.org)

# BUILDER GUIDELINES

The Guidelines are provided to assist in planning for construction of new facilities, or remodeling of existing facilities. These Guidelines will help you save money, time, and trouble while going through the permitting and approval process. They also provide you with ideas on how to reduce waste during your construction project saving money on disposal costs during the construction phase as well as operational considerations for waste reduction once the facility is open for business.

In addition to ensuring compliance with the State law regarding providing adequate enclosure space, the City of Napa "City" must meet other requirements which apply to enclosures. Some of those conditions are as follows:

- Design enclosures to minimize litter and related rodent problems;
- Design the enclosures to match the character of the City;
- Prevent rainwater contact with waste to reduce pollution of storm water; and
- Ensure the enclosures are secure enough to prevent "scavenging" which is when people go into the trash to collect recyclables and other materials.

Scavenging is a serious problem and costs the City and the Napa Recycling and Waste Services Company thousands of dollars a year in lost revenue from the sale of those recyclables. Over time, the City may need to increase solid waste service rates if scavenging is not reduced and therefore, designing the enclosures to keep scavengers out is important.

In 2005, the City upgraded the entire fleet of collection trucks so they are fully automated. The efficiency of the entire collection system, and what will keep rates lower, is if three objectives are met: 1) Minimize the use of carts and maximize the use of bins, 2) Drivers can "stab" the bins without moving them out of the enclosures, and 3) Collection is needed only once per week. By having well designed enclosures, the City can minimize truck routes and the impacts the trucks have on traffic and air quality while truck routes can collect from more sites in less time.

The attached check-list is provided to assist Builders in making decisions on enclosures throughout the site construction phase and into ongoing operations for those who occupy the building.

If you need help determining the size of your enclosure, please contact Steve Manasee with Napa Recycling and Waste Services at 707-255-5200x1185 email: [steve@naparecycling.com](mailto:steve@naparecycling.com).

## Guide for Builder

This is intended to be a tool to guide you through the enclosure design and permitting process. Just check the item when completed as you go through the project. The building tenant will need to consider the operational issues identified below.

### **PRE-CONSTRUCTION**

There are two local recycling facilities that reuse and recycle dirt, concrete, asphalt, wood, green waste, metals, etc. They are:

Napa Recycling & Composting Facility

820 Levitin Way

American Canyon

(707) 255-5200

Open Daily 8am to 4pm

Accepted Materials: Yardwaste, Wood, Clean dirt, Concrete, Scrap Metal, Tires, E-waste

Steel Mill Supply of Napa

659 Napa Junction Rd

American Canyon

(707) 226-3950

Open M-F 8-4, Sat 8-11:30am

Accepts various scrap metal

Divert unused dirt, concrete, asphalt, wood, green waste, metals etc. to a recycling facility – do not landfill these reusable materials!

### **DESIGN**

#### Outdoor Space

Incorporate space for recycling containers inside the enclosure where they will be stored for collection. (Please refer to Enclosure Standards). Design in a manner that facilitates recycling of all recyclable materials. **Do not plan or allow storing any other items in this enclosure!**

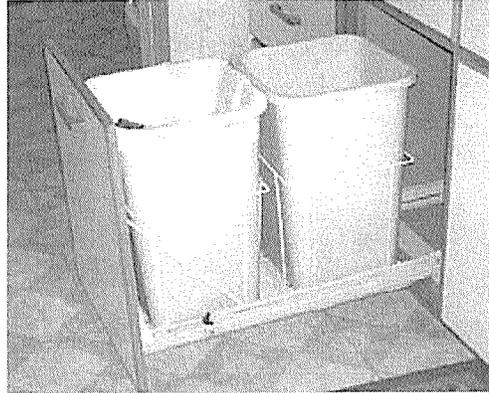
Recyclable materials that are currently recycled in the single-stream containers include:

- Plastic bottles and containers (#1-7), no bags or polystyrene peanuts;
- Glass bottle and jars, no ceramics, plate glass or windows;
- Aluminum & tin cans, pie tins, small metal items;
- Mixed paper including junk mail, colored paper, office paper & magazines; and
- Newspaper and cardboard boxes, including cereal boxes, phone books.

#### Indoor Space

Incorporate adequate space for trash and recycling containers inside the facilities where the waste and recyclables will be generated. Collection containers should be located side by side especially in kitchens as shown in the picture below.

## EXHIBIT A: KITCHEN RECYCLING AND TRASH



### **CONSTRUCTION**

Reuse dirt, concrete, asphalt, wood, green waste, etc. on site whenever possible.

Divert unused dirt, concrete, asphalt, wood, green waste, etc. to the two recycling facilities mentioned on page 3 in “pre-construction”— do not landfill these reusable and recyclable materials!

### **OPERATIONAL**

After construction, it is prudent to consider how the facility will operate to most efficiently collect recyclables and waste. This section provides guidance to facility operators as to ways to ensure that it happens.

Include solid waste and recycling information in employee orientations, policy manuals, lease agreements and Covenants, Codes, & Restrictions.

Color code building interior containers and provide graphic signs that instruct your employees and/or customers to separate materials in the containers used to transport recyclables and refuse to the outdoor enclosures. Compliance is easier for employees if interior containers are the same colors as the exterior containers (brown=organics, blue=single-stream recycling, etc.)

If you have any questions on how much solid waste a facility might generate, a general set of Solid Waste Generation Guidelines are presented in Table A by generator type such as apartments, restaurants, and schools.

Review your operations at least annually, contact the City for a free waste assessment to help you reduce waste and keep your solid waste services cost effective and up to date.

**TABLE A**  
**TABLE A - Solid Waste Generation Guidelines**

<u>Classification</u>	<u>Building Type</u>	<u>Quantities Generated</u>
Apartments	No kitchen facilities	.25 - .50 cu.yd./unit/month
	Single/No Children	1.50 – 2.00 cu.yd./unit/month
	Family	2.00 – 2.50 cu.yd./unit/month
Commercial Buildings	Office	1.00 cu.yd./10,000 sq.ft./day
	Department Store	1.00 cu.yd./2,500 sq. ft./day
	Supermarkets	1.00 cu.yd./1,250 sq. ft./day
	Drugstores	1.00 cu.yd./2,000 sq. ft./day
Hotels & Motels w/restaurant	High Occupancy (90%)	0.50 cu.yd./room/week
	w/o restaurant	High Occupancy (90%)
Institutions	Nursing Homes	1.00 cu.yd./20 persons/day
	Retirement Homes	1.00 cu.yd./20 persons/day
Restaurants	Family Style	1.00 cu.yd./250 meals/week
Schools	Grade Schools	1.00 cu.yd./8 rooms/day
	High Schools	1.00 cu.yd./10 rooms/day
	Universities	Assessment required

Note: These guidelines are approximate and can be helpful in pre-construction planning or when it is not possible to observe the current service level. Recycling services may reduce the above volumes.

**Table B**  
**Helpful Conversion Table for Various Containers**

1 gallon	0.134 cu. ft.
27 cu. ft	1.00 cu. yd.
1 cu. yd.	203 gallons or 150 lbs

One cubic yard is approximately six (6) 35-gallon carts

One cubic yard is approximately three (3) 64-gallon carts

One cubic yard is approximately two (2) 95-gallon carts

**It is important to provide enough service as to prevent material from overflowing from the bins or being stored on the ground!!**

**Uncontainerized debris is a violation of Chapter 8.36, Stormwater Pollution Control, of the City of Napa’s municipal code and will not be serviced.**

*Be sure to indicate on the enclosure plans the number and size of bins.*

**Table C  
Bin sizes**

<u>SIZE</u>	<u>HEIGHT</u>	<u>WIDTH</u>	<u>LENGTH</u>	<u>FOOTPRINT (rounded)</u>
35 gallon cart	38.50 inches	18.88 inches	22.50 inches	3 sq. feet
65 gallon cart	42.12 inches	25.25 inches	26.38 inches	5 sq. feet
95 gallon cart	46.50 inches	26.38 inches	33.62 inches	6 sq. feet
1 yard front-load bin	36.00 inches	30.00 inches	80.00 * inches	15 sq. feet
2 yard front-load bin	41.50 inches	29.50 inches	80.00 * inches	15 sq. feet
3 yard front-load bin	50.50 inches	34.50 inches	80.00 * inches	17 sq. feet
4 yard front-load bin	57.00 inches	41.50 inches	80.00 * inches	21 sq. feet
5 yard front-load bin	62.00 inches	50.50 inches	80.00 * inches	25 sq. feet
6 yard front-load bin	71.00 inches	58.00 inches	80.00 * inches	29 sq. feet
10 yard roll-off box	3.25 feet	8.00 feet	12.00 feet	96 sq. feet
20 yard roll-off box	4.00 feet	8.00 feet	18.00 feet	144 sq. feet
30 yard roll-off box	5.50 feet	8.00 feet	20.00 feet	160 sq. feet
40 yard roll-off box	7.25 feet	8.00 feet	20.00 feet	160 sq. feet

(\*) The 80 inches includes the eight (8) inches added to the overall length of front-load bins to include 4-inch pockets on each side.

Some of the above measurements are approximated due to variations from manufacturers. Therefore, if you need a precise measurement, please call our office.

**A. TRASH, RECYCLING, AND GREEN WASTE COLLECTION: HOW IT WORKS**

The City’s contracted franchise waste hauler, Napa Recycling and Waste Services (NRWS) provides collection service for trash, recycling and green waste in separate containers. Customers can have carts (pictured in Exhibit B), bins (pictured in Exhibit C) and roll-off boxes (pictured in Exhibit D) for materials and compactors for trash and recycling. NRWS provides all containers with the only exception being that businesses can use their own compactors. Carts of all sizes can be used for green waste (brown cart), recyclables (blue cart), or trash (black cart). For businesses in areas with limited space, such as in downtown locations, they may need to choose carts, such as those pictured below, which can be easily maneuvered in alleys and small enclosures. Also, businesses that generate large quantities of cardboard can get a separate bin just for cardboard such as that pictured in Exhibit C. Garbage truck dimensions are provided in

Exhibit D for use by architects and designers when calculating necessary truck access.

### EXHIBIT B: CART SIZES 35, 65, AND 95 GALLONS



For larger customers, NRWS can also provide dumpsters in sizes 1 thru 6 cubic yards and roll-offs sized 10, 20, 30 or 40 cubic yards for trash, recycling, or green waste. Compactor service is available for both trash and recyclables.

### EXHIBIT C: EXAMPLES OF BINS



4-YARD GARBAGE



6-YARD CARDBOARD

**B. BIN SIZES**

1. Commercial bins for recycling or waste come in sizes ranging from 1 cubic yard (cu yd) to 6 cu. yd. (see Table C for actual dimensions). Sizes 1 cu. yd. – 4 cu. yd. are equipped with wheels for maneuvering, while sizes 5 cu. yd. – 6 cu. yd. are stationary (no wheels). If a stationary bin is used, the bin MUST be directly accessible by our collection truck. (See Enclosure Standards)
2. Smaller 96-gallon carts are available also for greater flexibility, for limited-sized lots or for low-volume generators of refuse or recycling (see Table C – Bin Sizes).

**C. ROLL-OFF CONTAINERS (DEBRIS BOXES)**

1. Container Placement:

This type of container is most frequently used at construction sites, but it is also designed for high volume users.

- Roll-off containers may be placed directly behind a building where space is available at a loading dock to allow loading from above;
- Loading docks should be equipped with bumper pads to avoid undue dock damage from heavy container. Contact NRWS or City staff before designing any bumper rails for container;
- Container should be on a level surface. If placed on an incline, roll-away protection is required. NRWS will provide on site inspections before final container placement;
- In-street placement generally requires a minimum of two parking spaces plus room for the truck to maneuver while servicing. 75' minimum is required; and
- In-street placement may require user to obtain a permit.

2. Required Clearances for Roll-Off Vehicle:

Vertical (Approach and exit)	14' high
Vertical (Rails raised with bin)	25' high
Lateral	10' wide
Service Area Length	75' long (direct approach and bin)

3. Container Dimensions:

	<u>Width</u>	<u>Depth</u>	<u>Height</u>
25 to 30 cubic yard (low side)	22'	8'	4'
(Low sided containers are used for concrete and other heavy material)			
25 to 30 cubic yard high side	18'	8'	7'
40 cubic yard high side	22'	8'	7'

4. Compacting Units:

There are several reasons that businesses may choose to have a compactor, including to reduce volume before transport and to minimize any scavenging. Contact NWRS before installing compaction units. Compactors

vary in size and the manufacturer should provide capacity and the dimensions. For a simple check-list for compactors and roll-offs, use the following and see Exhibit D.

\_\_\_\_\_ Rail Inside Dimension (ID) is 28"

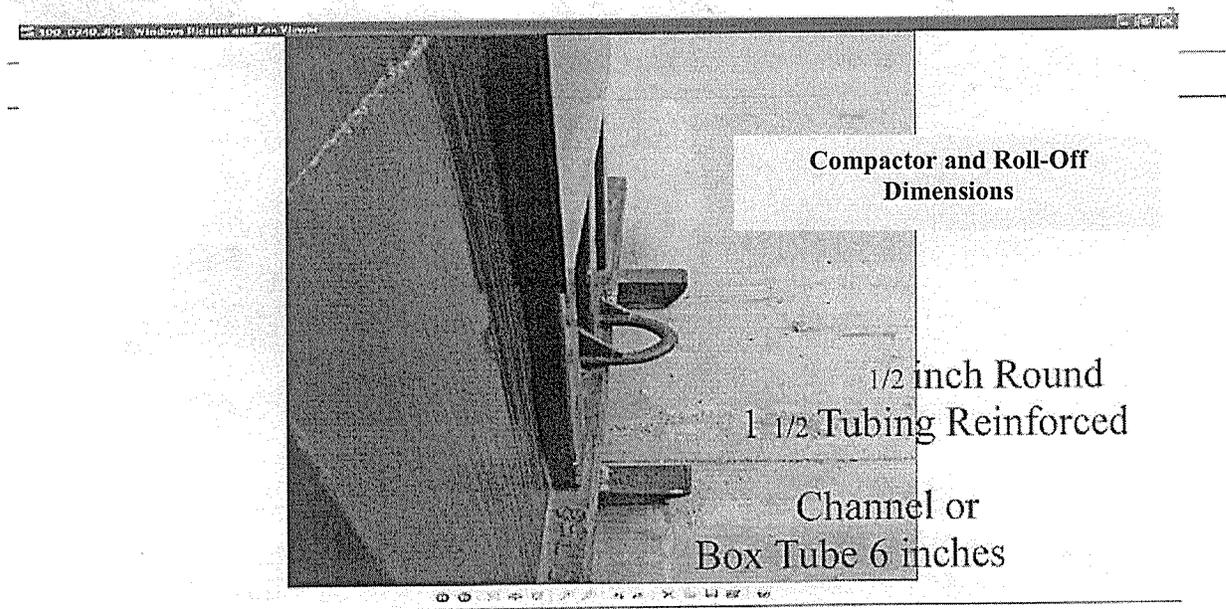
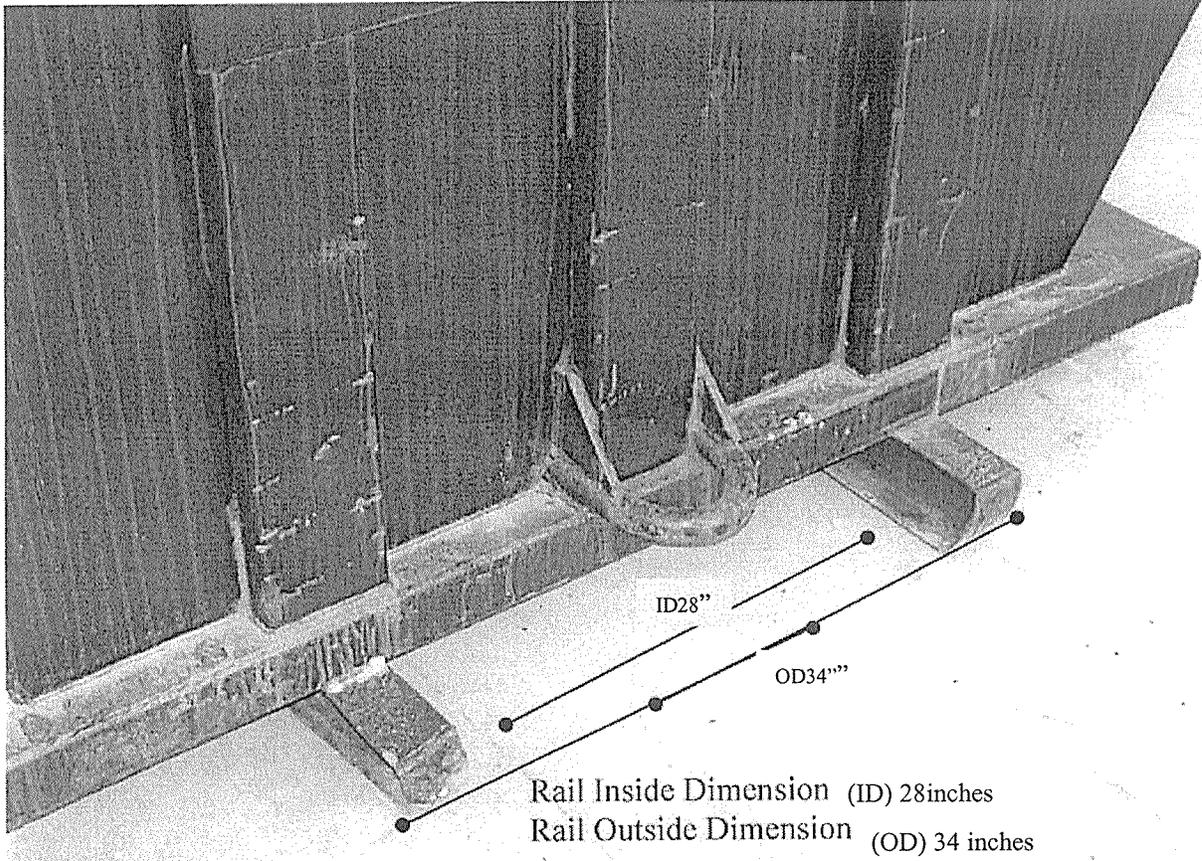
\_\_\_\_\_ Rail Outside Dimension (OD) is 34"

\_\_\_\_\_ Direct Approach is 50 ft.

Please call your Napa Recycling and Waste Services (NRWS) staff Steve Manassee at (707) 255-5200 if you have any questions!

## EXHIBIT D: COMPACTOR AND ROLL-OFF PICTURES

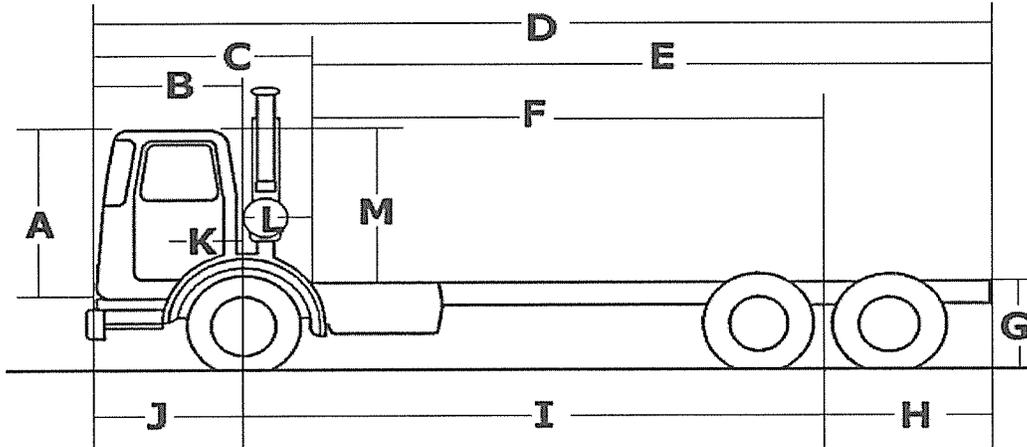
If your organization is looking to purchase a compactor for service within the City of Napa, please ensure your container meets these specifications.



# ROLL-OFF



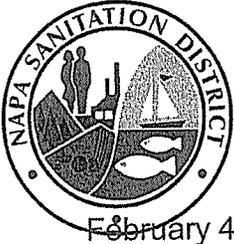
## EXHIBIT E - GARBAGE TRUCK DIMENSIONS



Overall truck height requiring driving clearance is 13 feet 5 inches.

Dimension(in)	Description
A	52.00 CAB HEIGHT
B	56.50 BUMPER TO BACK OF CAB
C	90.50 EFFECTIVE BUMPER TO BACK OF CAB
D	379.50 OVERALL LENGTH
E	289.00 EFFECTIVE CAB TO END OF FRAME
F	167.00 EFFECTIVE CAB TO REAR AXLE
G	42.55 UNLADEN FRAME HEIGHT
H	122.00 OVERHANG
I	185.00 WHEELBASE
J	72.50 BUMPER TO FRONT AXLE
K	-28.00 DRIVER CENTER OF GRAVITY
L	18.00 EFFECTIVE FRONT AXLE TO BACK
M	52.00 OVERALL HEIGHT
N	0.00 FRONT FRAME EXTENSION

EXHIBIT F – NAPA SANITATION LETTER 2/4/08



Dedicated to Preserving the Napa River for Generations to Come

935 HARTLE COURT  
P.O. BOX 2480  
NAPA, CALIFORNIA 94558-0522  
TELEPHONE (707) 258-6000  
FAX (707) 258-6048

February 4, 2008

RECEIVED

FEB - 7 2008

COMMUNITY DEVELOPMENT  
DEPARTMENT

Michael Allen  
City of Napa Planning Department  
P.O. Box 660  
Napa, CA 94559

Re: Napa Trash Enclosure Standards

The Napa Sanitation District has reviewed the proposed Trash Enclosure Standards that will be discussed at the Inter-Departmental Review Meeting on 2/5/08. Following are NSD's guidelines regarding wastewater drains installed in trash enclosure areas. The standards shall be modified to conform to these requirements.

1. NSD only allows wastewater drains in trash enclosure areas that are servicing restaurants or other types of food service facilities (i.e. grocery stores).
2. The drain is required to be connected to the facilities grease interceptor.
3. A roof shall be placed on the trash enclosure to prevent rainwater from entering the sanitary sewer system. The roof shall extend past any open sides a distance equal to 1/2 the height of the opening (i.e. if the roof is 10 feet above the ground it is required to extend 5 feet past the wall).
4. On the open side, a grade break line shall be constructed at the inside edge of the wall with the slab sloping inwards on the inside of the structure and away from the structure on the outside.
5. The ground shall be sloped away from the structure on all other sides.

Please feel free to call if you have any questions.

Sincerely,

Timothy B. Healy, P.E.  
Assistant General Manager/  
District Engineer

by: Todd Herrick  
Senior Engineering Technician

07-trash enclosures

## EXHIBIT G – FIRE CODE REQUIREMENTS

**== City of Napa == Inter-Office Memo ==**  
**Project Evaluation and Review Committee (PERC)**

Ø

From: Michael Allen, Associate Planner (mallen@cityofnapa.org)

Date: 1/28/08

To: Dlypmnt Eng. (2)	Community Res.	Fire	Police
PW – Eng. (2)	Environ. Health	Napa Sanitation	Redevelopment
PW – Water	Planning (9 copies)	Housing Authority	NVUSD
PW – BUD	Building	PERC file	RWQCB
		Napa Recycling & Waste Services	

Subject: **Inter-Departmental** meeting on 2/5

NOTE: \* = FULL SIZE PLANS

File Number: N/A

Previous #s: N/A

Date Filed: 01/28/08

**Project Name:** Napa Trash Enclosure Standards

**Applicant:** City of Napa  
(Kevin Miller)

**RECEIVED**

**Site Address:**

**APN #:**

**Zoning:**

**General Plan:**

**Request:**

**Phone:** (707) 257-9200

FEB 27 2008

COMMUNITY DEVELOPMENT  
DEPARTMENT

**Project Description:** The City of Napa Materials Diversion Manager requests the IDR committee review the proposed draft solid waste enclosure standards and provide input and comments to the City Solid Waste and Recycling staff and representatives from Napa Recycling and Waste Services (NRWS) at the February 5, 2008 meeting. It is critical that the team review the proposed draft standards and provide detailed comments to ensure the Standard will be as "tight" as possible before moving on to the Development Advisory Committee.

**Project Issues:** The current enclosure standards for the City were drafted in 1993 and do not provide adequate space and access for the new collection trucks and are not being followed by builders. This presents a problem for NRWS in collecting the recyclables and waste. This project attempts to address many issues related to the enclosure standards including water quality, green building, and code enforcement in addition to the truck access and ensuring there is adequate space for both recycling and waste containers.

**Attachments:** Draft Napa Enclosure Standards (including drawings) and Builder Guidelines and current Enclosure Standards as reference.

**Important Due Dates:** The IDR Committee comments on the draft standards are requested at the meeting 2/5/08. Any changes agreed on by the group will be made to the standards and presented to the Development Advisory Committee in late February or March 2008 before going to City Council for final approval.

*"Refer to attached Fire Code requirements"*

The \_\_\_\_\_ department/district has **NO** comments.

D. Drake  
(signed)

2-26-08  
(date)

(If your department has no comments, please sign, date, and return a copy of this sheet by the comment due date.)

The Project Evaluation Review Committee (PERC) meeting is held each **Tuesday at 10:00 A.M.** in the Public Works Conference Room, 1600 First Street. All interested agencies are invited to attend. We suggest you call the project planner prior to attending to confirm that a project is still on the agenda.

the premises. Vegetation clearance requirements in urban-wildland interface areas shall be in accordance with the *International Wildland-Urban Interface Code*.

**304.1.3 Space underneath seats.** Spaces underneath grandstand and bleacher seats shall be kept free from combustible and flammable materials. Except where enclosed in not less than 1-hour fire-resistance-rated construction in accordance with the *California Building Code*, spaces underneath grandstand and bleacher seats shall not be occupied or utilized for purposes other than means of egress.

**304.2 Storage.** Storage of combustible rubbish shall not produce conditions that will create a nuisance or a hazard to the public health, safety or welfare.

**304.3 Containers.** Combustible rubbish, and waste material kept within a structure shall be stored in accordance with Sections 304.3.1 through 304.3.3.

**304.3.1 Spontaneous ignition.** Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed disposal container. Contents of such containers shall be removed and disposed of daily.

**304.3.2 Capacity exceeding 5.33 cubic feet.** Containers with a capacity exceeding 5.33 cubic feet (40 gallons) (0.15 m<sup>3</sup>) shall be provided with lids. Containers and lids shall be constructed of noncombustible materials or approved combustible materials.

**304.3.3 Capacity exceeding 1.5 cubic yards.** Dumpsters and containers with an individual capacity of 1.5 cubic yards [40.5 cubic feet (1.15 m<sup>3</sup>)] or more shall not be stored in buildings or placed within 5 feet (1524 mm) of combustible walls, openings or combustible roof eave lines.

**Exceptions:**

1. Dumpsters or containers in areas protected by an approved automatic sprinkler system installed throughout in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3.
2. Storage in a structure shall not be prohibited where the structure is of Type I or IIA construction, located not less than 10 feet (3048 mm) from other buildings and used exclusively for dumpster or container storage.

**SECTION 305  
IGNITION SOURCES**

**305.1 Clearance from ignition sources.** Clearance between ignition sources, such as luminaires, heaters, flame-producing devices and combustible materials, shall be maintained in an approved manner.

**305.2 Hot ashes and spontaneous ignition sources.** Hot ashes, cinders, smoldering coals or greasy or oily materials subject to spontaneous ignition shall not be deposited in a combustible receptacle, within 10 feet (3048 mm) of other combustible material including combustible walls and partitions or within 2 feet (610 mm) of openings to buildings.

**Exception:** The minimum required separation distance to other combustible materials shall be 2 feet (610 mm) where

the material is deposited in a covered, noncombustible receptacle placed on a noncombustible floor, ground surface or stand.

**305.3 Open-flame warning devices.** Open-flame warning devices shall not be used along an excavation, road, or any place where the dislodgment of such device might permit the device to roll, fall or slide on to any area or land containing combustible material.

**305.4 Deliberate or negligent burning.** It shall be unlawful to deliberately or through negligence set fire to or cause the burning of combustible material in such a manner as to endanger the safety of persons or property.

**SECTION 306  
MOTION PICTURE PROJECTION ROOMS  
AND FILM**

**306.1 Motion picture projection rooms.** Electric arc, xenon or other light source projection equipment which develops hazardous gases, dust or radiation and the projection of ribbon-type cellulose nitrate film, regardless of the light source used in projection, shall be operated within a motion picture projection room complying with Section 409 of the *California Building Code*.

**306.2 Cellulose nitrate film storage.** Storage of cellulose nitrate film shall be in accordance with NFPA 40.

**SECTION 307  
OPEN BURNING AND RECREATIONAL FIRES**

**307.1 General.** A person shall not kindle or maintain or authorize to be kindled or maintained any open burning unless conducted and approved in accordance with this section.

**307.1.1 Prohibited open burning.** Open burning that is offensive or objectionable because of smoke or odor emissions or when atmospheric conditions or local circumstances make such fires hazardous shall be prohibited.

**307.2 Permit required.** A permit shall be obtained from the fire code official in accordance with Appendix Chapter 1, Section 105.6 prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, or a bonfire. Application for such approval shall only be presented by and permits issued to the owner of the land upon which the fire is to be kindled.

**307.2.1 Authorization.** Where required by state or local law or regulations, open burning shall only be permitted with prior approval from the state or local air and water quality management authority, provided that all conditions specified in the authorization are followed.

**307.3 Extinguishment authority.** The fire code official is authorized to order the extinguishment by the permit holder, another person responsible or the fire department of open burning that creates or adds to a hazardous or objectionable situation.

**307.4 Location.** The location for open burning shall not be less than 50 feet (15 240 mm) from any structure, and provisions