

## Diamond D General Engineering, Woodland, California

### Engineered to Be Eco-Friendly

For this contractor, construction and demolition are environmentally-friendly activities.

Diamond D General Engineering's owner, Spencer Defty, set out to reduce greenhouse gas (GHG) emissions at his company by changing the way he ran his business. Defty implemented environmentally-friendly product and material uses as well as solid waste reduction strategies, energy efficiency measures, recycling policies, and vehicle pollution prevention policies.

In addition to these policies, Diamond D has planted over 500 trees in Woodland since 2002. The company has donated its services to both the Cache Creek Conservancy and Yolo Basin Foundation. Through these conservation programs, Diamond D helps combat erosion, re-grow vegetation, restore natural habitats, and replace rundown systems.

The addition of a 12.8 kW solar system to the building's headquarters exemplifies Diamond D's eco-friendly practices. This energy efficient and cost effective system saves the company over \$7,050 a year in PG&E electricity bills. The system alone prevents 700,000 pounds of CO<sub>2</sub> from entering the atmosphere each and every year.



Photo Credit: Diamond D

Diamond D General Engineering uses higher Tier, clean air equipment to complete engineering jobs. Though the equipment is more expensive, the reduced environmental impact is worth the cost.

### Business Snapshot

Heavy civil general engineering construction company that uses environmentally friendly equipment and practices sustainability efforts

### Actions to Recycle & Use Renewable Energy

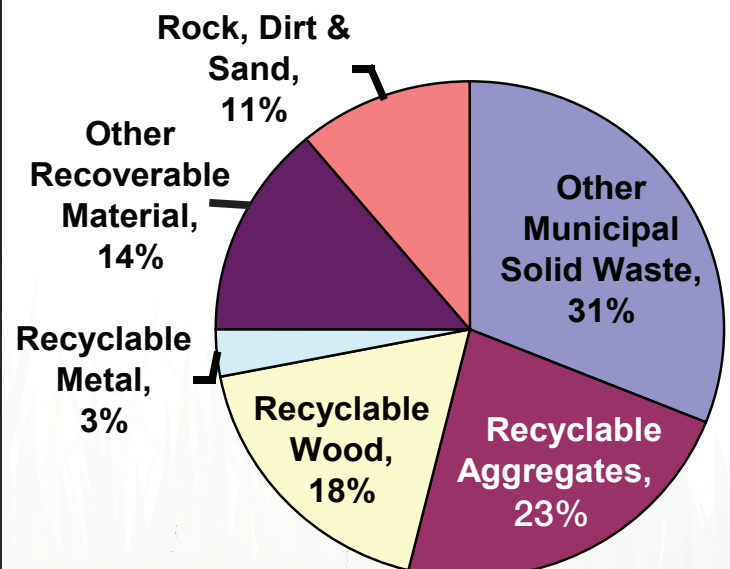
- Going paperless for all project documents
- Implemented recycling policies on all applicable job sites
- Installed a 12.8 kW solar system
- Planted over 500 trees in Woodland since 2002
- Purchased higher tier equipment
- Installed a water filter to replace bottled water
- Uses eco-friendly maintenance degreaser

### Estimated Yearly

- Cost Savings: \$7,050 from solar system
- Greenhouse Gas Emission Reductions: 700,000 pounds of CO<sub>2</sub> from solar system

### Waste Divertibility in Demolitions

Most construction and demolition sites waste 58% of materials that could otherwise be diverted from landfills. Many recyclable aggregates, (23%), are trashed instead of saved. This data is from a 2005 study conducted by the California Integrated Waste Management Board (CIWMB).



### What Actions Did Diamond D Take to Cut Waste?

Diamond D is in the process of going paperless with all project documents by scanning and saving documents on their server. On job sites, Diamond D has implemented an impressive recycling policy. Instead of hauling demolition items to the landfill without checking for recyclable materials, Diamond D spends the time and money to sort through the rubble. This greatly reduces the use of landfill space and trucking costs.

### What Actions Did Diamond D Take to Buy Green?

In an effort to save water and reduce waste, Diamond D substituted its drinking water supply to its employees from water bottle services to a water filter system that pulls from natural resources. In 2008 the company purchased a Morbark "Predator" shredder to use in demolition projects. This machine not only met the clean air diesel requirements (Tier 2 engine) but also separates metal for recycling from other demolition materials.

### What Actions Did Diamond D Take to Use Renewable Energy?

After doing an analysis of the impact solar energy could have in reducing their greenhouse gas (GHG) emissions, Diamond D installed a 12.8 kW solar panel system to their office building and maintenance facility. The system annually saves the company over \$7,050 a year in PG&E electricity bills and prevents 700,000 pounds of CO<sub>2</sub> from entering the atmosphere each year.

### What Actions Did Diamond D Take to Drive Clean?

Over the past eight years, Diamond D has upgraded old equipment to Tier 1, 2, or 3 clean air equipment. The company only rents Tier equipment and replaced old company vehicles with newer, high-mileage models. Diamond D has implemented the use of a natural degreaser instead of solvents to maintain equipment. Though it is more costly, the natural option is less harmful to the environment.

Diamond D General Engineering has taken a refreshing approach to construction and engineering, making it possible for such a business to be environmentally-friendly. The company's willingness to put environmental concerns above cheap and easy methods makes them a true friend to the earth.



**"Diamond D has demonstrated much care toward the environment and conscientiously moved toward lowering GHG emissions through their operational practices. "**

**-Lynnel Pollock  
Executive Director, Cache Creek Conservancy**



Photo Credit: Diamond D

Diamond D uses a Morbark "Predator" Shredder to break large material into eight inch or smaller pieces, reducing the space needed to house this material in landfills.

### Contact Information

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