



Individual Facility Retrofit Highlights/Notes

Brea's Energy Efficiency Project included upgrades to heating, ventilation, and air conditioning systems at seven City facilities. Such upgrades **improve the reliability and efficiency** of the HVAC systems, providing a more comfortable environment for staff and patrons while reducing energy costs. Plus, all facilities underwent a detailed audit conducted on a room-by-room basis to capture every potential lighting savings.

- 1. City Service Yard - 7 re-use controllers**
- 2. Pump House- 1 re-use**
- 3. Fire Station #1**
- 4. Fire Station #2**
- 5. Fire Station #3**
- 6. Fire Station #4**
- 7. Senior Center – 8 re-use**
- 8. Scout Center**
- 9. Pioneer Hall -2 re-use**
- 10. The Plunge**
- 11. Brea Community Center – 19 new HVAC units**
- 12. Civic & Cultural Center – re-commissioned air handlers**
- 13. Downtown Parking Structure #1**
- 14. Downtown Parking Structure #2**



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Data logging for indoor lighting included:

- ◇ Recording of amount of time fixture was on and off during day
- ◇ Placed in random fixtures at Community Center, Civic and Cultural Center, Senior Center, Scout Center, and Fire Stations 1-4 for two weeks
- ◇ Daily averages were derived from data and classified by type of space :
(meeting room, office room, break room, etc.)
- ◇ Extrapolated over a 52 week period and compared to the lighting audit estimation

Chevron Energy Solutions was able to adjust the lighting audit savings numbers to reflect actual use.

Proposal recommended replacing and/or re-lamping of existing 5,267 interior and exterior lighting fixtures throughout City's buildings, affecting 14 facilities in total. Over 900 occupancy sensors were also installed, where appropriate. ***The ECM saves the City 1,089,569 kWh of electricity and \$121,259 annually with improved lighting quality.***

