

Electric Vehicle Infrastructure 2023

Installations, Opportunities and Future Planning

Solar Alternatives
Jeff Cantin

Solar Alternatives

- ▶ Distributed Generation
 - ▶ Energy Storage
 - ▶ Electric Vehicle Infrastructure and Planning
 - ▶ Commercial/Residential Energy Efficiency
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- ▶ 2300 Energy and EVSE Projects
 - ▶ LA, MS, TX, AL
 - ▶ Since 2008



SOLAR 
ALTERNATIVES





Time to add 32 kilometres



Range added per 10 minute charge



EV Standard Charging 2–20kW

▶ Level 1



Standard 120V wall plug
Portable units
GFCI Protection
Included with vehicles

▶ Level 2

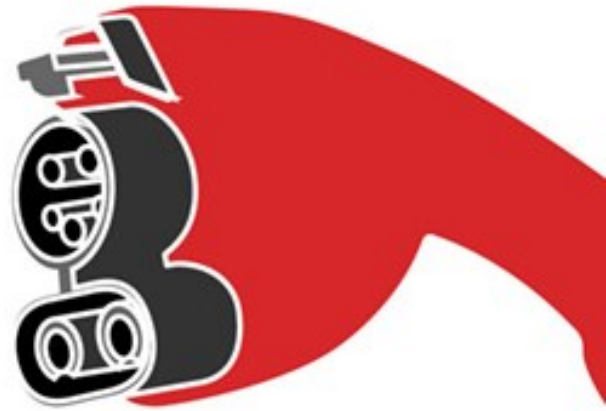


Hardwired 240V
4–8 hour charge for BEVs
Includes GFCI
Networked: \$5000 per port
Non-networked \$2000 per port

Fast EV Charging Systems



Chademo



CCS



Tesla

Fast Charge: 20–25kW



- ▶ 45–90 min charge time to 80%
- ▶ Often called “Fast DC Wallbox”
- ▶ 208V/240V/480V 3P or 2P
- ▶ One or two connectors
- ▶ One port (one car charging)
- ▶ \$18–24k turnkey installation

Fast Charge: 50–60kW



- ▶ 20–50 charge time to 80%
- ▶ 480V Three phase service 100A
- ▶ 1–3 FCDC connectors
- ▶ \$50–75k turnkey installation



Fast Charge: 150–350kW



- ▶ 5–30 min charge time to 80%
- ▶ 480V 3P service 600A
- ▶ 1–3 FCDC connectors
- ▶ “Futureproof” fast charger
- ▶ Shared Power Cells
- ▶ \$120–200k installation

Louisiana Fast Charge Networks

▶ Tesla

- I-10, I-49, I-20 corridors
- Tesla only
- 250kW, 4–8 stations
- 30 minutes to 80% charge



▶ ElectrifyAmerica

- I-10 corridor
- CCS and Chademo (non-Tesla FCDC vehicles)
- 50–350kW, 6–8 stations
- 20–50 minutes to 80% charge

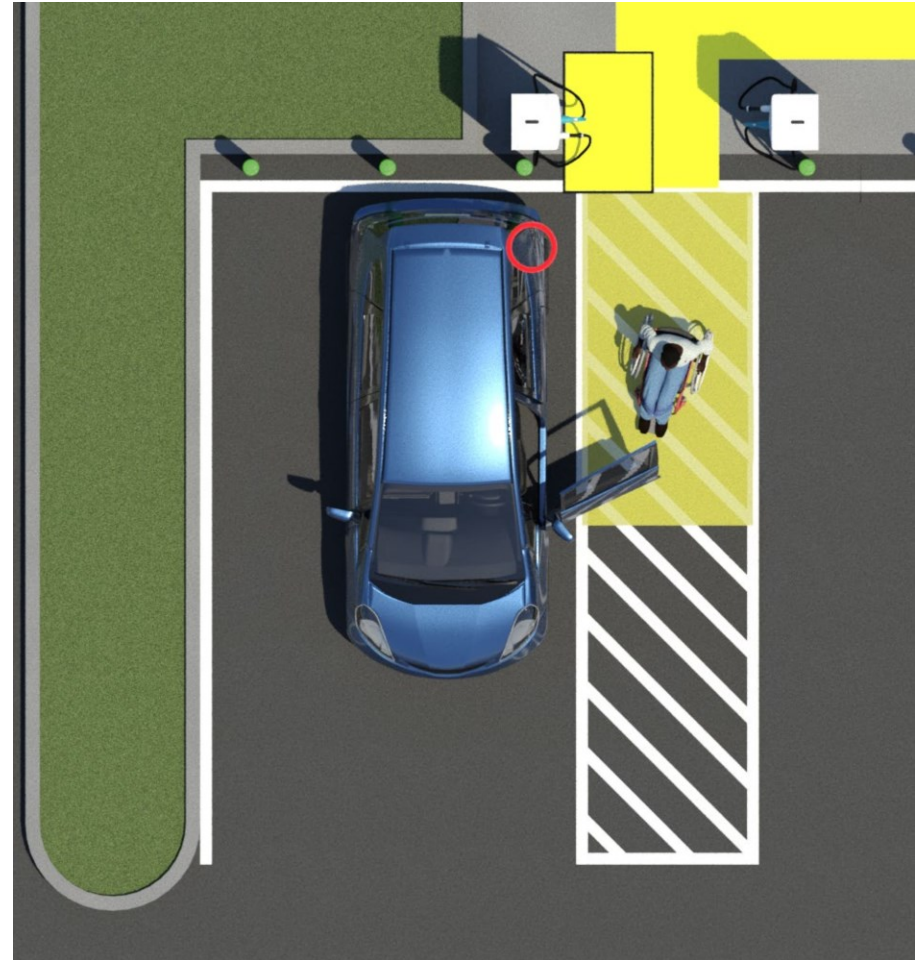
Why Add EV Charging?

- ▶ Retail:
 - Increase dwell time
 - Attract more affluent customer base
 - Enhance brand value
- ▶ Multifamily
 - Attract and retain tenants
 - Generate revenue
- ▶ Workplace
 - Attract and retain talent
 - Employee amenity



ADA and Accessibility

- ▶ Minimum space size
- ▶ Access aisles
- ▶ User Interface
- ▶ Screen/text
- ▶ Speech/braille



ADA and Accessibility

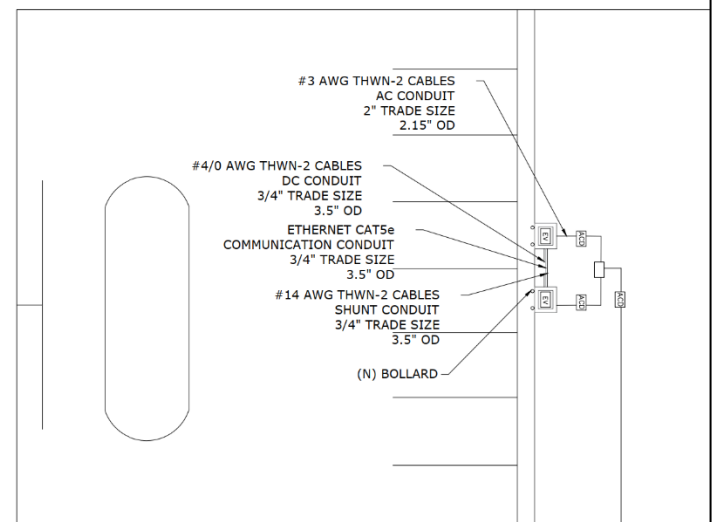
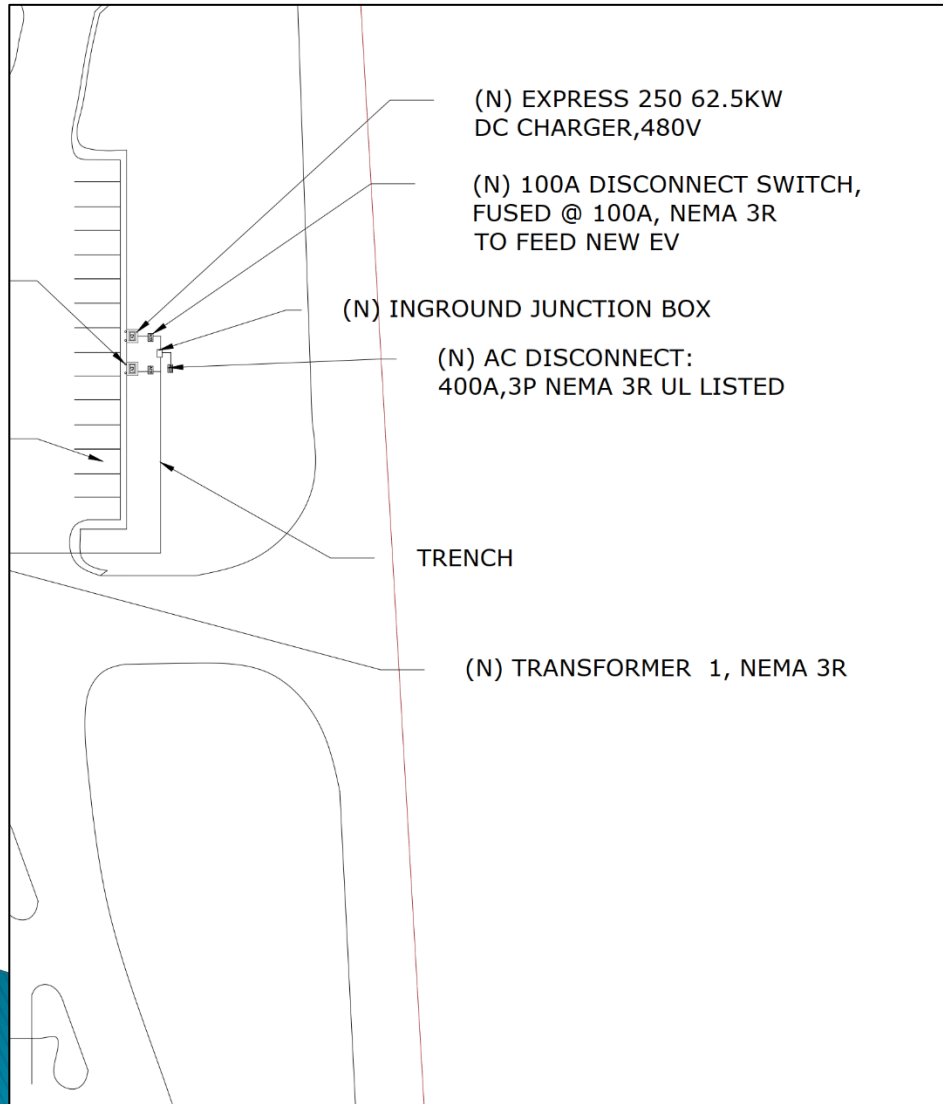
- ▶ Maximum handle heights
- ▶ Bollard locations
- ▶ Curb cuts



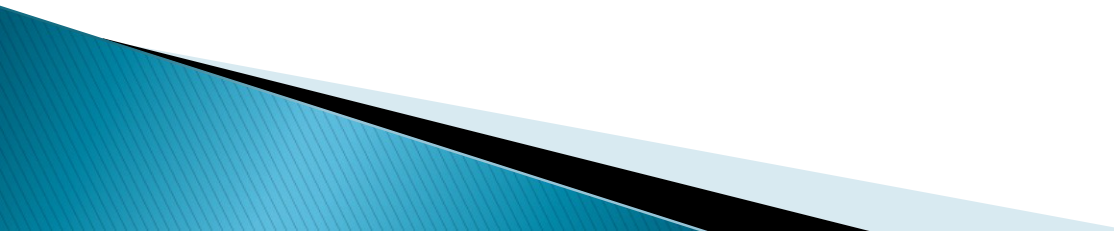
Example: Chevron Alexandria



Example: Jackson Fast DC



EVSE Permitting Considerations

- ▶ Local Codes and Historic Requirements
 - ▶ Zoning/Planning Hearings
 - ▶ Building Department Reviews
 - ▶ ADA accessibility pathways and heights
 - ▶ Fire Department reviews
 - ▶ Landscaping and irrigation requirements
 - ▶ Parking Count studies
 - ▶ Signage, space markings
 - ▶ Lengthy processes and expediting options
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Thank You

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