Supporting Attachments — Electrical (Mock)

P4 supporting bundle | Date: 2026-01-29
EV Charging Site Project — Phase 4 Outputs (MOCK)

This file represents a compiled bundle of common electrical supporting attachments included with an AHJ permit submission (mock). It references Phase 1 and Phase 2 evidence pointers.

Included (mock):

- P2/Outputs/P2.1_LoadCalc_Summary_2026-01-22.pdf
- P2/Outputs/P2.2_Architecture_Decision_Record_2026-01-22.pdf
- P1/Inputs/P1-I04_EVSE_CutSheet_ElectriCharge_L2-7.6-G_revA.pdf
- P2/Inputs/P2-W04_EMS_TechnicalBrief_revB_2026-01-21.pdf
- P1/Inputs/P1-I05_AHJ_Electrical_Permitting_CodeBasis_2026-01-17.pdf

P2.1 Load Calculation Summary (Mock)

Prepared: 2026-01-22 (v1.0) | Basis: Phase 1 evidence pointers (mock)
EV Charging Site Project — Phase 2 Outputs (MOCK)

This summary captures the key results of the Phase 2 load calculation. Replace with an Engineer-of-Record signed calculation and jurisdiction-specific methodology where required.

Inputs (by evidence pointer, mock):

- Panel schedules: P1/Inputs/P1-I02_PanelSchedules_MDP_and_Subpanels_2026-01-16.pdf
- EVSE cut sheet: P1/Inputs/P1-I04_EVSE_CutSheet_ElectriCharge_L2-7.6-G_revA.pdf
- AHJ/code basis: P1/Inputs/P1-I05_AHJ_Electrical_Permitting_CodeBasis_2026-01-17.pdf
- EMS brief: P2/Inputs/P2-W04_EMS_TechnicalBrief_revB_2026-01-21.pdf

Key calculation results (mock):

Parameter	Value
Ports	8
EVSE continuous current / port	32A
Continuous factor	125%
Design current / port	40A
Total unmanaged EV current	320A
Headroom basis (screening)	250A
Result	Unmanaged exceeds headroom by 70A → EMS required

NOTE: Mock summary only; final engineering must be stamped where required.

P2.2 Architecture Decision Record (Mock)

Prepared: 2026-01-22 (v1.0) | Decision: Managed-load architecture
EV Charging Site Project — Phase 2 Outputs (MOCK)

This record documents the selected EV electrical architecture based on the Phase 2 load calculation and Phase 1 site constraints. Replace with an Engineer-of-Record signed decision where required.

Decision drivers (mock):

- Project constraint: avoid service upgrade unless unavoidable.
- Unmanaged EV load (320A) exceeds headroom basis (250A).
- Maintain 8-port scope without reducing EVSE count.
- Adopt listed EMS/load management to cap aggregate EV demand.

Selected architecture (mock):

- New EV subpanel: EVSP-1, 400A bus (mock).
- Feeder OCPD: 350A, 3-pole (mock).
- Branch circuits: (8) 40A OCPD for EVSE-01..EVSE-08 (mock).
- EMS: cap aggregate EV demand to ≤250A (setpoint documented on drawings).

Downstream impacts (mock):

- P3.1 one-line must depict EMS and cap logic; include fail-safe note placeholder.
- P3.4 schedules must reflect EVSP-1 and branch circuit IDs.
- P6 utility package should include EMS brief and cap statement.

NOTE: Mock decision record; replace with signed EOR memo and attachments.

EVSE Cut Sheet (Mock) — ElectriCharge L2-7.6-G (revA)

Installer/Vendor PDF (mock format) | Rev: A
EV Charging Site Project — Phase 1 Inputs (MOCK)

Key Electrical Ratings (mock)

Supply system:	208Y/120V, 3-phase (line-to-line load) (mock)
Nominal output power:	7.6 kW (nominal)
Continuous current:	32A
Recommended OCPD:	40A
Enclosure:	NEMA 3R (mock)
Communications:	OCPP 1.6J (mock)
Listing:	UL 2594 / UL 2231 (mock)

Installation Notes (mock)

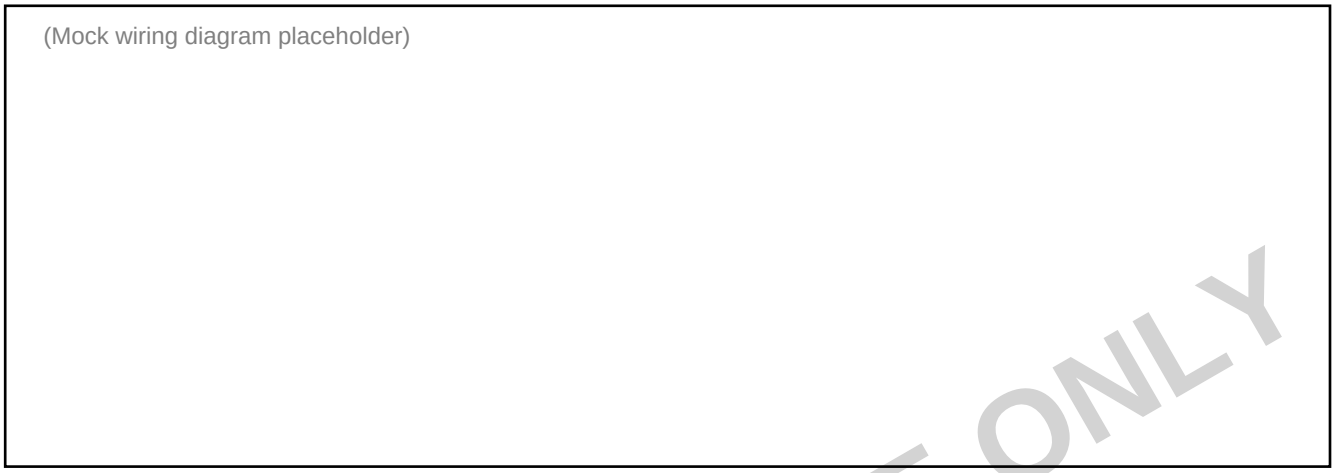
Branch circuit sizing shall comply with applicable NEC/CEC requirements for continuous loads. A 40A breaker is typical for 32A continuous output. Final breaker and conductor sizing per Engineer-of-Record.

EVSE Cut Sheet (Mock) — Wiring/Dimensions (revA)

ElectriCharge — Product Data Sheet (mock)
EV Charging Site Project — Phase 1 Inputs (MOCK)

Wiring (mock excerpt)

Input: L1, L2, L3, G (no neutral required). Optional control wiring per network kit (mock).



Dimensions (mock)

- Height: 18.5 in
- Width: 12.0 in
- Depth: 6.0 in
- Mounting: wall or pedestal (mock accessory)

NOTE: Generated mock cut sheet for documentation format realism only.

EVSE Cut Sheet (Mock) — Labeling / Installation Checklist (revA)

Field-install notes (mock)
EV Charging Site Project — Phase 1 Inputs (MOCK)

This page summarizes common electrical-only installation considerations typically included in manufacturer documentation or installer checklists. Final requirements must follow the AHJ-adopted code basis and the EOR permit set.

Labeling / placarding (mock):

- Circuit identification label at EVSE and at panel schedule.
- If an EMS/load management system is used, label the controlled system and setpoint.
- Mark EVSE as continuous load; confirm breaker sizing basis (125%).

Electrical notes (mock):

- No neutral required for line-to-line EVSE supply (if configured as such).
- Provide equipment grounding conductor with branch circuit conductors.
- Verify maximum OCPD per manufacturer listing.
- Final conductor sizing per terminal temperature ratings and derating factors.

NOTE: This checklist is illustrative for mock documentation realism.

EMS Technical Brief (revB) — Load Management for EVSE (Mock)

Vendor brief (mock) | Rev: B | Date: 2026-01-21
EV Charging Site Project — Phase 2 Inputs (MOCK)

This document is a mock technical brief for a listed Energy Management System (EMS) used to cap aggregate EV charging demand. Replace with actual vendor documentation and listing evidence.

Key capabilities (mock):

- Aggregate current cap setpoint (mock): 250A at EV feeder.
- Per-port load allocation across up to 16 ports (mock).
- Fail-safe behavior: on comms loss, enforce conservative cap (mock).
- Listed to applicable standards (mock listing placeholders).
- Provides configuration export for as-built documentation (Phase 7).

Integration points (mock):

- Measures feeder current via CTs at EVSP-1 feeder (monitoring point).
- Controls EVSE output via network interface (OCPP) or hardwired control (mock).
- Setpoint documented on one-line and notes sheet (Phase 3).

EMS Technical Brief (revB) — Configuration + Compliance Notes (Mock)

Appendix: configuration fields (mock)
EV Charging Site Project — Phase 2 Inputs (MOCK)

Configuration fields (mock):

Project ID:	EV-PA-001 (mock)
Cap setpoint:	250A
Monitoring point:	EV feeder at MDP/EVSP-1
Fail-safe mode:	Cap enforced on fault
Export format:	PDF + JSON (mock)

NOTE: This is a generated mock EMS brief for documentation realism only.

AHJ Electrical Permitting + Code Basis Evidence Capture (Mock)

Capture date: 2026-01-17 | Source: AHJ website (mock capture)
EV Charging Site Project — Phase 1 Inputs (MOCK)

This PDF represents a mock evidence capture of the Authority Having Jurisdiction (AHJ) electrical permitting page and adopted code basis. Replace with an actual screenshot/capture and preserve metadata.

City of Palo Alto — Building Division (Electrical Permits) (mock)

https://www.cityofpaloalto.example/building/electrical-permits (mock)

AHJ (electrical permitting):	City of Palo Alto — Building Division (Electrical Permits)
Adopted electrical code:	2022 California Electrical Code (CEC) (mock)
Amendments noted:	Local amendments may apply (mock note)
Permit submittal method:	Online portal upload (mock)
Plan check contact:	electricalpermits@paloalto.example (mock)

Metadata: captured_by=Jordan Lee (mock) | method=PDF print | timezone=PT | browser=Chrome (mock)

AHJ Electrical Permitting — Submittal Requirements Excerpt (Mock)

Source: AHJ checklist page (mock capture)
EV Charging Site Project — Phase 1 Inputs (MOCK)

This page captures a mock summary of common AHJ electrical submittal requirements, preserved as evidence for Phase 1 intake and Phase 4 application packaging.

Requirements checklist (mock):

- Stamped electrical plans (PDF) with title blocks and sheet index.
- Load calculation summary (where applicable).
- Equipment cut sheets (EVSE + EMS if used).
- Site/address and applicant/contractor information.
- Single-line / one-line diagram included in plan set.

Code adoption excerpt (mock):

> The City has adopted the 2022 California Electrical Code (CEC). Project documents shall reference the adopted code edition and any local amendments as applicable. (Mock excerpt.)