# Utility Rework Package (Mock)

P6.3 | Date: 2026-02-27 | Addresses utility deficiency (mock)
EV Charging Site Project — Phase 6 Outputs (MOCK)

This compiled package responds to the utility's deficiency notice by providing an EMS clarification memo (monitoring point + cap + fail-safe) and re-attaching key engineering evidence.

**Included sections (mock):**

- 1) Utility deficiency notice (reference)
- 2) EMS clarification memo (monitoring point + fail-safe cap)
- 3) Phase 2 load calc summary + architecture decision record
- 4) EMS technical brief + EVSE cut sheet (design basis)
- 5) Stamped permit set (reference, if requested by utility)

# EMS Clarification Memo (Mock)

Monitoring point + cap setpoint + fail-safe behavior
EV Charging Site Project — Phase 6 Outputs (MOCK)

This memo clarifies how the EMS enforces the aggregate cap to satisfy utility review. Replace with vendor/EOR letter as required.

**Clarifications (mock):**

- Monitoring point: EV feeder current measured at EVSP-1 feeder via CTs (mock).
- Setpoint: aggregate cap configured to 250A maximum (mock).
- Fail-safe: on comms loss/fault, cap remains enforced at or below setpoint (mock).
- Evidence: EMS brief revB attached; configuration export available at closeout (Phase 7).

# Utility Deficiency / Additional Information Required (Mock)

Issued: 2026-02-25 | Reference: UTIL-EV-2026-00831 (mock)
EV Charging Site Project — Phase 6 Inputs (MOCK)

| | |
|---|---|
| **Status:** | Incomplete / Additional Information Required |
| **Reason:** | EMS documentation insufficient for utility review (mock) |
| **Request:** | Clarify monitoring point and fail-safe cap behavior; provide EMS listing excerpt (mock) |
| **Submission method:** | Utility portal message (mock) |



NOTE: Mock deficiency notice; replace with actual portal letter/message export.

# 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.

# 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.

# 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)

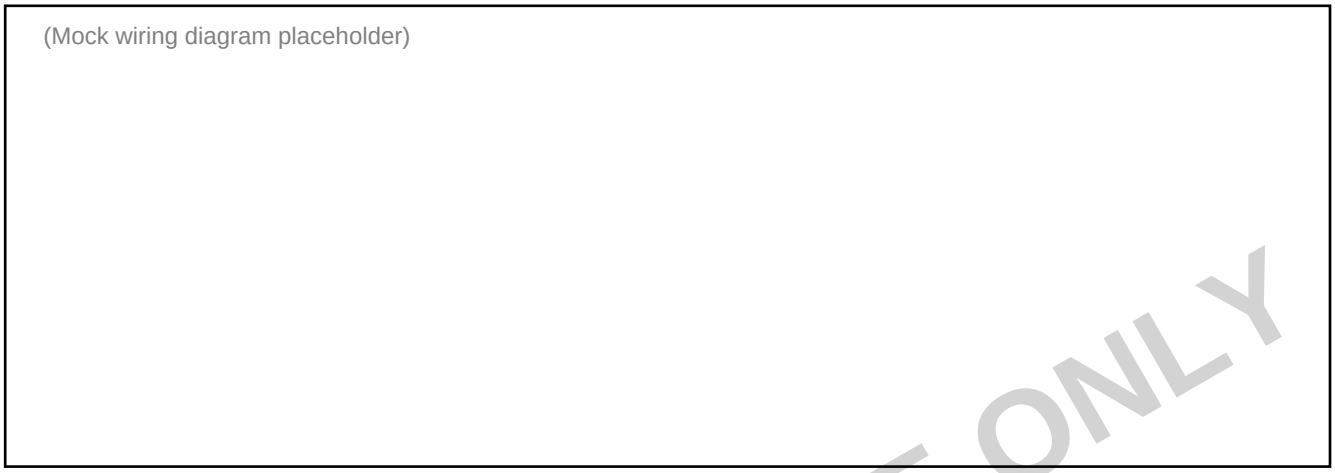
Branch circuit sizing shall comply with applicable NEC/CEC requirements for continuous loads. A 40A breaker is typical for 32A continuous output. Final breaker and conductor sizing per Engineer-of-Record.

# 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.

# Stamped Permit Drawings (Mock)

P4.1 | Stamp date: 2026-01-29 | Engineer-of-Record: Priya Shah, PE (mock)
EV Charging Site Project — Phase 4 Outputs (MOCK)

## STAMP BLOCK (mock)

Priya Shah, PE (mock)
CA PE ###### (mock)
Date: 2026-01-29

NOTE: This is not a real stamp. For mock documentation only.

This cover page is added to represent an EOR stamped set. The remainder of the set is the compiled P3.6 unstamped permit set (mock).

# Permit Drawing Set — Unstamped (Compiled) (Mock)

P3.6
EV Charging Site Project — Phase 3 Outputs (MOCK)

This file represents the compiled unstamped electrical permit drawing set assembled from P3.1–P3.5. In a real project this compilation is performed under document control with sheet indexing and QA logs.

**Included sheets (mock):**

- P3.1_OneLine_Prelim_Unstamped_2026-01-26.pdf
- P3.2_SitePlan_EVSE_Locations_Prelim_2026-01-26.pdf
- P3.3_Conduit_Trenching_Details_ElectricalImpacting_2026-01-26.pdf
- P3.4_PanelSchedules_Updated_MDP_and_EVSP_2026-01-26.pdf
- P3.5_ElectricalNotes_CodeSheets_2026-01-26.pdf



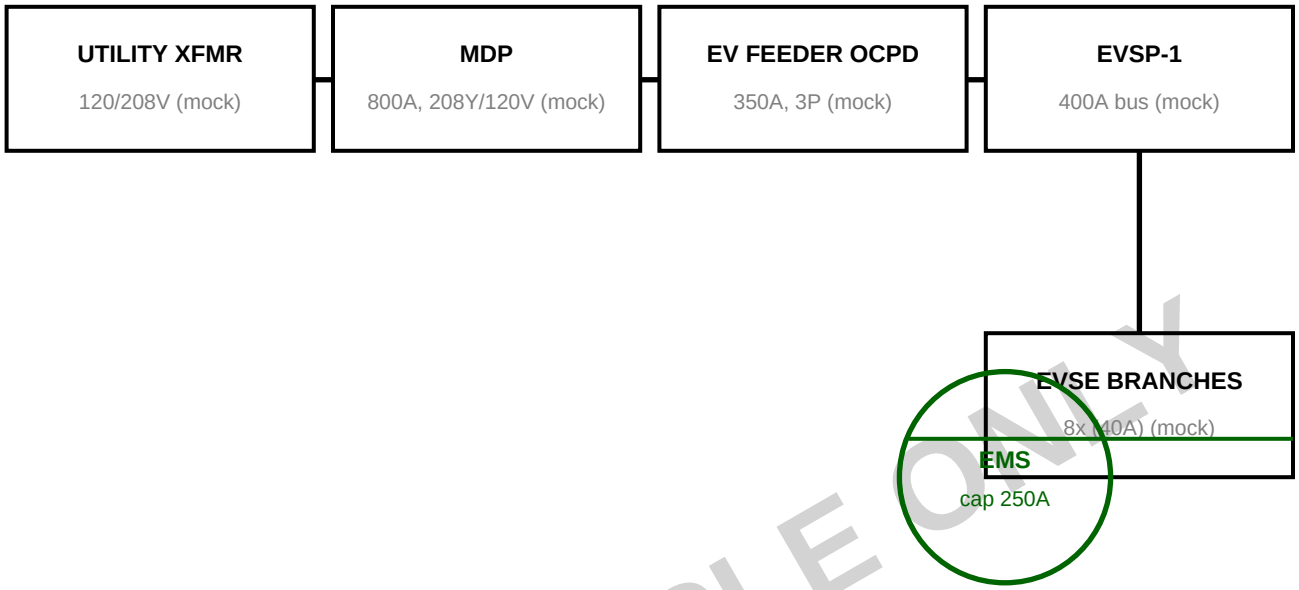
NOTE: This compilation is a mock artifact; replace with real CAD/PDF exports and stamps.

# E-001 — One-Line Diagram (Preliminary, Unstamped) (Mock)

P3.1

EV Charging Site Project — Phase 3 Outputs (MOCK)

## ONE-LINE DIAGRAM (mock)






**NOTES (mock):**

1. Existing service basis: 800A, 208Y/120V, 3Ø (verify in Phase 1 evidence).
2. EVSE loads treated as continuous; branch OCPD basis 40A per 32A continuous (mock).
3. EMS/load management shown to cap aggregate EV demand to ≤250A (mock basis).
4. Final conductor sizing, AIC, and coordination to be confirmed in stamped set.

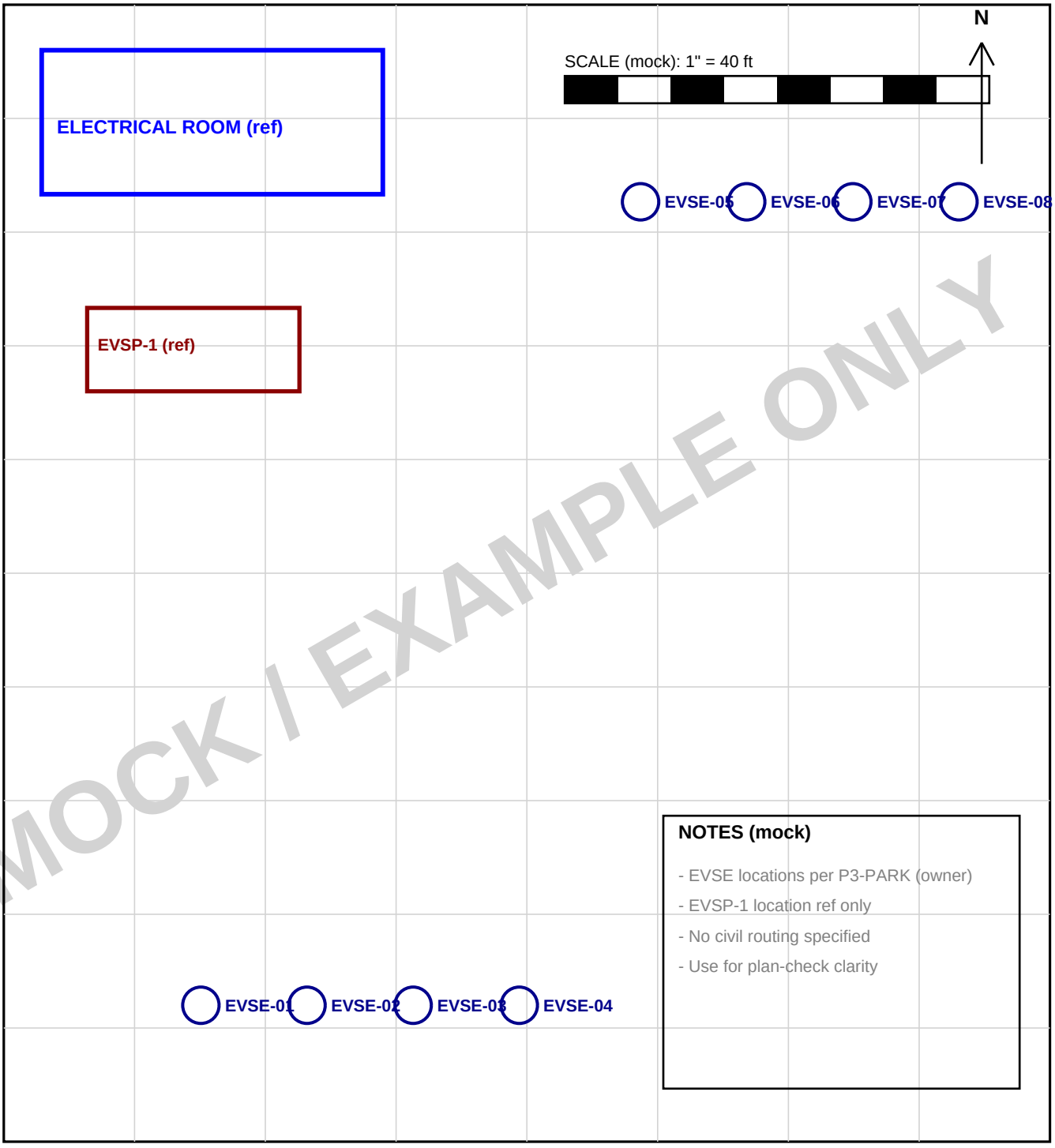
| | | | | | |
|---|---|---|---|---|---|
| **PROJECT (mock):** | EV Charging Site Project | **SHEET:** | E-001 | **ISSUED FOR:** | |
| **SHEET TITLE:** | One-Line Diagram (Preliminary) | **REV:** | 0 | UNSTAMPED | |
| **ADDRESS:** | Place (Palo Alto, CA) (mock) | **DATE:** | 2026-01-26 | (electrical-only) | |

# E-002 — Site Plan with EVSE Locations (Preliminary) (Mock)

P3.2

EV Charging Site Project — Phase 3 Outputs (MOCK)

## GARAGE PLAN — EVSE LOCATION OVERLAY (mock)




| | | | | | |
|---|---|---|---|---|---|
| **PROJECT (mock):** | EV Charging Site Project | **SHEET:** | E-002 | **ISSUED FOR:** | |
| **SHEET TITLE:** | Site Plan — EVSE Locations | **REV:** | 0 | UNSTAMPED | |
| **ADDRESS:** | Place (Palo Alto, CA) (mock) | **DATE:** | 2026-01-26 | (electrical-only) | |

# E-003 — Conduit & Trenching Details (Electrical-Impacting) (Mock)

P3.3

EV Charging Site Project — Phase 3 Outputs (MOCK)

This sheet documents electrical-impacting routing assumptions, transition points, and typical details. It is not a civil/constructability plan.

**DETAIL 1 — Feeder Path (mock)**



MDP → EVSP-1 assumed path length: 165 ft (basis)

**DETAIL 2 — Typical Raceway Notes (mock)**

- Raceway sized per NEC/CEC Chapter 9 (mock).
- Parallel conductors permitted as designed (mock).
- Provide EGC with feeder conductors.
- Maintain separation from comms wiring (as applicable).

**DETAIL 3 — EVSE Branch Typical (mock)**

- Branch: 40A OCPD for 32A continuous (mock basis).
- Conductor sizing per terminal temp rating + derating.
- Provide disconnecting means as required by code/AHJ.
- Label EVSE circuit ID at equipment and panel.

**DETAIL 4 — Grounding/Bonding Intent (mock)**

- Bond raceways where required (mock).
- EGC sized per code basis (final by EOR).
- Panel ground bars bonded to GES (reference).
- Provide bonding jumpers at transitions.



| | | | | | |
|---|---|---|---|---|---|
| **PROJECT (mock):** | EV Charging Site Project | **SHEET:** | E-003 | **ISSUED FOR:** | |
| **SHEET TITLE:** | Conduit & Trenching Details (Electrical- | **REV:** | 0 | UNSTAMPED | |
| **ADDRESS:** | Place (Palo Alto, CA) (mock) | **DATE:** | 2026-01-26 | (electrical-only) | |

# E-004 — Updated Panel Schedules (MDP + EVSP-1) (Mock)

P3.4

EV Charging Site Project — Phase 3 Outputs (MOCK)

### MDP — Updated (excerpt) (mock)

| Slot | Breaker | Load | Notes |
|---|---|---|---|
| 40/42/44 | 350A 3P | EVSP-1 feeder | Managed to 250A (mock) |
| 17 | 200A 3P | SUBP-1 | Existing |
| 57 | Spare | Spare/Space | Available 3-pole |

### EVSP-1 — New (excerpt) (mock)

| Slot | Breaker | Load | Notes |
|---|---|---|---|
| 1 | 40A 3P | EVSE-01 | 32A cont (mock) |
| 2 | 40A 3P | EVSE-02 | 32A cont (mock) |
| 3 | 40A 3P | EVSE-03 | 32A cont (mock) |
| 4 | 40A 3P | EVSE-04 | 32A cont (mock) |
| 5 | 40A 3P | EVSE-05 | 32A cont (mock) |
| 6 | 40A 3P | EVSE-06 | 32A cont (mock) |
| 7 | 40A 3P | EVSE-07 | 32A cont (mock) |
| 8 | 40A 3P | EVSE-08 | 32A cont (mock) |



NOTE: schedules are mock excerpts; full schedules included per P1 evidence in real project.

| | | | | | |
|---|---|---|---|---|---|
| **PROJECT (mock):** | EV Charging Site Project | **SHEET:** | E-004 | **ISSUED FOR:** | |
| **SHEET TITLE:** | Panel Schedules (MDP + EVSP-1) | **REV:** | 0 | UNSTAMPED | |
| **ADDRESS:** | Place (Palo Alto, CA) (mock) | **DATE:** | 2026-01-26 | (electrical-only) | |

# E-005 — Electrical Notes & Code Sheet (Mock)

P3.5

EV Charging Site Project — Phase 3 Outputs (MOCK)

## GENERAL NOTES (electrical-only, mock)

1. Applicable code basis: 2022 California Electrical Code (CEC) (mock). Verify AHJ amendments.
2. EVSE loads treated as continuous; size OCPD and conductors accordingly (125% basis).
3. EMS/load management (if used) shall be listed and configured to enforce aggregate cap (mock: 250A).
4. Provide identification labeling for EV equipment and circuits; coordinate with panel schedules.
5. Provide grounding and bonding per code; bond raceways as required.
6. Verify available fault current and minimum AIC ratings in final stamped set.

## SYMBOLS / LEGEND (mock)

EVSE location marker

**EMS / Load management annotation**



| | | | | | |
|---|---|---|---|---|---|
| **PROJECT (mock):** | EV Charging Site Project | **SHEET:** | E-005 | **ISSUED FOR:** | |
| **SHEET TITLE:** | Electrical Notes & Code Sheet | **REV:** | 0 | UNSTAMPED | |
| **ADDRESS:** | Place (Palo Alto, CA) (mock) | **DATE:** | 2026-01-26 | (electrical-only) | |