

SYSTEM LAYOUT

- 1 WALL CONNECTOR
- 2 POWERWALL
- 3 SOLAR INVERTER
- 4 MAIN PANEL
- 5 BACKUP GATEWAY
- 6 UTILITY METER



PRE-WIRING NEW HOMES FOR THE TESLA PRODUCT SUITE

GENERAL NOTES

Builder's electrician shall install conduit and boxes with proper support in a "neat and workman-like manner" to allow Tesla to pull wires completely through the conduit run.

Tesla shall not be responsible for any cost related to removal and replacement of drywall, conduit, or any other tradeswork required to correct substandard solar rough electrical work or materials installed by others.

Additional equipment not pictured may be installed by Tesla (disconnects, meters, etc.)

The builder shall install a J-box in the wall for each piece of Tesla equipment to avoid surface-mounted conduit.

No J-box shall be installed greater than 4'-6" from finished floor.

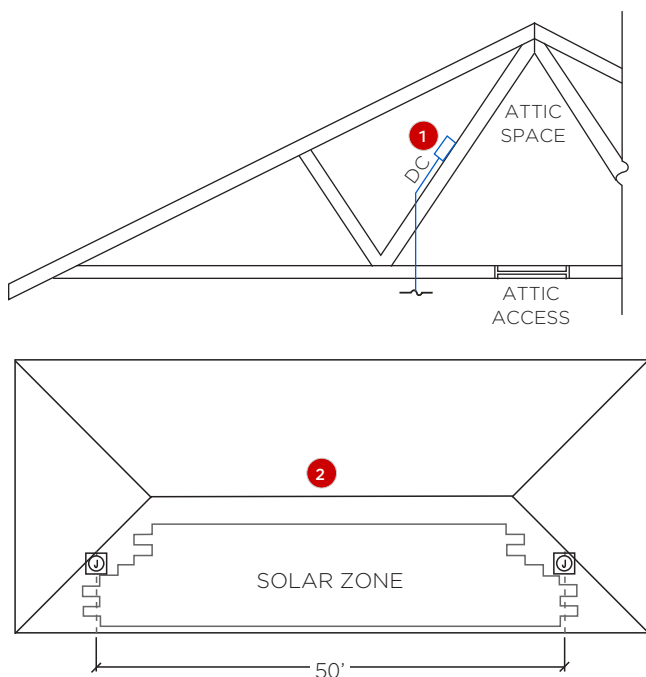
P-ring / Mud-ring must be left at all J-box terminations.

Cat5e cable shall be terminated at the home's communication center and future router location.

Abide by all NEC 110.26(A) (1) Clear Space Requirements.

Abide by NEC 705.12 Backfeed Requirements.

SOLAR PV & SOLARGLASS PRODUCT NOTES



- 1 4S deep electrical box - metallic 4" square box with hanging bracket (3/4" and 1" KOs).

Attic J-box must be easily accessible from attic access point.

Install (1) J-box under each separate roof plane where solar will be installed.

J-box must be located minimum 10" from shear roof per fire code.

- 2 For any mounting plane that exceeds 50' in length, multiple j-boxes and conduit runs required (see diagram).

All conduit must be labeled at 10'0" O.C. (per NEC) for solar. All labeling shall be provided by builder's electrician.

No conduit run shall exceed 360 degrees of bend and each conduit shall contain pull rope / jet line for wire pull later by solar contractor.

Min 1" flex or EMT conduit to inverter location.

POWERWALL PRODUCT NOTES

Backup Loads

Any loads installed in the Backup Loads panel will be powered by Powerwall during a grid outage. Low demand loads (<30A) should be installed in the Backup Loads panel; for high demand loads (>30A):

- Each individual load breaker in backup must be less than or equal to the sum of the Powerwall breakers.
- 30A/2P breaker per Powerwall, e.g. 40A range breaker requires 2 Powerwalls.
- For motor loads (AC units, well pumps, etc.), the motor locked rotor amps (LRA) must be less than the Powerwall inrush supply of 28A per Powerwall.
- 40A air conditioner with compressor LRA of 75A requires 3 Powerwalls.

All dedicated branch circuits to be installed by electrician.

Tesla will adjust the loads in the Backup and Non-Backup panels to be compatible with the customer's requested Powerwall quantity at cost to the customer.

Tesla Backup Gateway

The Tesla Gateway is placed between the utility meter and the Backup Loads panel. The Gateway is limited to 200A of Backup Load draw; for >200A of Backup Load draw, multiple Gateways can be installed on a single site.

If a generator is to be installed, the Gateway must be installed upstream of the generator transfer switch. Loads in the generator backup circuit must follow the sizing requirements noted above.

Tesla recommends running an Ethernet cable with slack in the vicinity of the main panel to connect to the Backup Gateway. While the Powerwall system may run off of Wi-Fi, the customer may incur additional costs due to network transitions to cellular usage and operational interruptions.

Mounting Powerwall

Each Powerwall weighs approximately 251 lbs. If mounted to wall studs, builder must reinforce studs as necessary.

Powerwall can be wall-mounted side-by-side, or floor-mounted in a stacked configuration.

Do not mount Powerwall on back wall of garage in the path of vehicular traffic.

EV WALL CONNECTOR PRODUCT NOTES

Tesla EV Wall Connector

All wire runs for the Tesla EV wall connector must be copper and sized appropriately for the breaker.

The recommended minimum circuit sizing is 60A for a single vehicle or 100A for multiple vehicles.

Panel schedules and load calculations are required for all electrical panels in the home for load justification when EV wall connector is present.

Tesla EV wall connectors may be purchased and installed by an electrician rather than by Tesla. The electrician then assumes all load justification and permitting responsibilities required.

The Tesla EV wall connector can be furnished with either 8.5' or 24' length connection cable.

Backing Up EV Charging

Tesla Wall Connector or high voltage (HV) outlet intended for Tesla vehicle charging circuits should be placed inside the Backup Loads panel when Powerwall is selected. Controlled charging allows the vehicle to charge during an outage without exceeding the power or energy capabilities of the Powerwall and solar system. This can be configured in the Tesla app to meet the homeowner's needs.

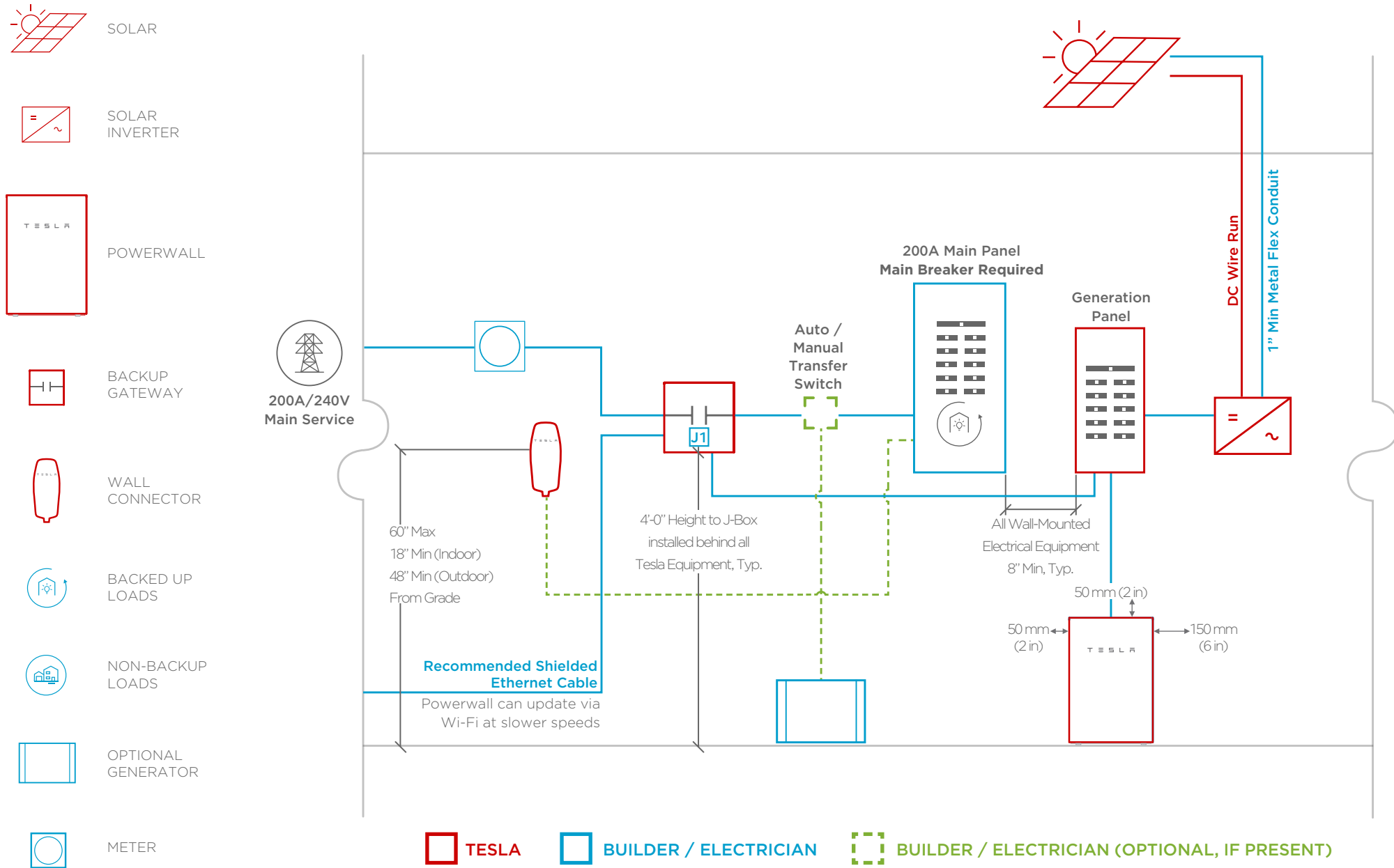
It is typically recommended to place non-Tesla EV charging circuits in the Non-Backup Loads panel when Powerwall is selected, as vehicle charging will drain Powerwalls very quickly.

METER SELECTION NOTES

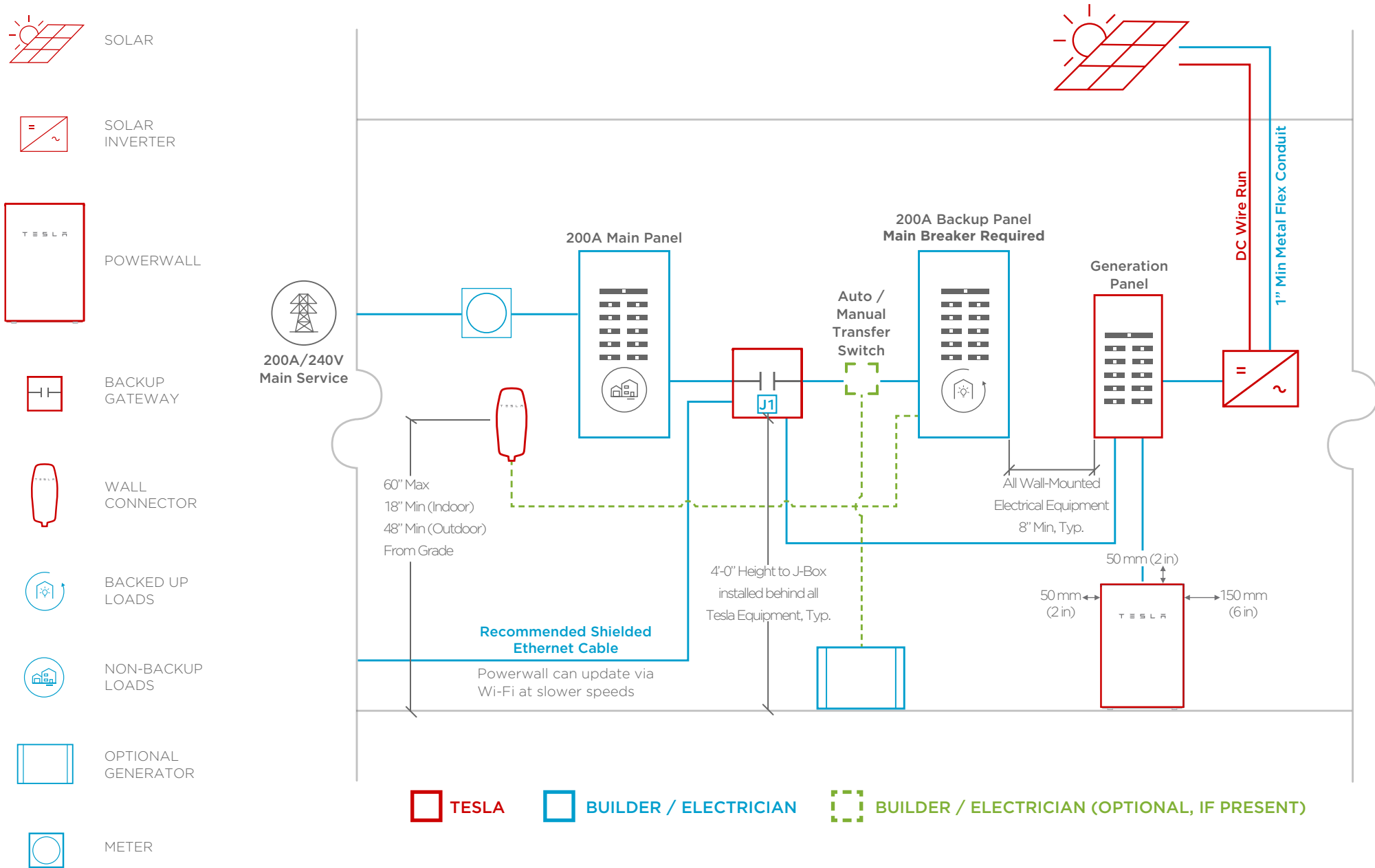
If a combination service entrance device is required, the panel should have no distribution section. Recommended panels of this type include:

- Eaton MBEB200BTF
- Siemens MM0202B1200

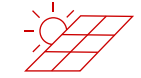
It is the builder's responsibility to abide by all local utility requirements.



POWERWALL SYSTEM DIAGRAM | PARTIAL HOME BACKUP* WITH 200 A MAIN



*A partial home backup configuration is used when large home loads exceed what the selected Powerwall quantity can support, resulting in some high-demand loads remaining in the main panel and not being backed up.



SOLAR



SOLAR
INVERTER



POWERWALL



BACKUP GATEWAY

WALL
CONNECTOR

BACKED UP LOADS



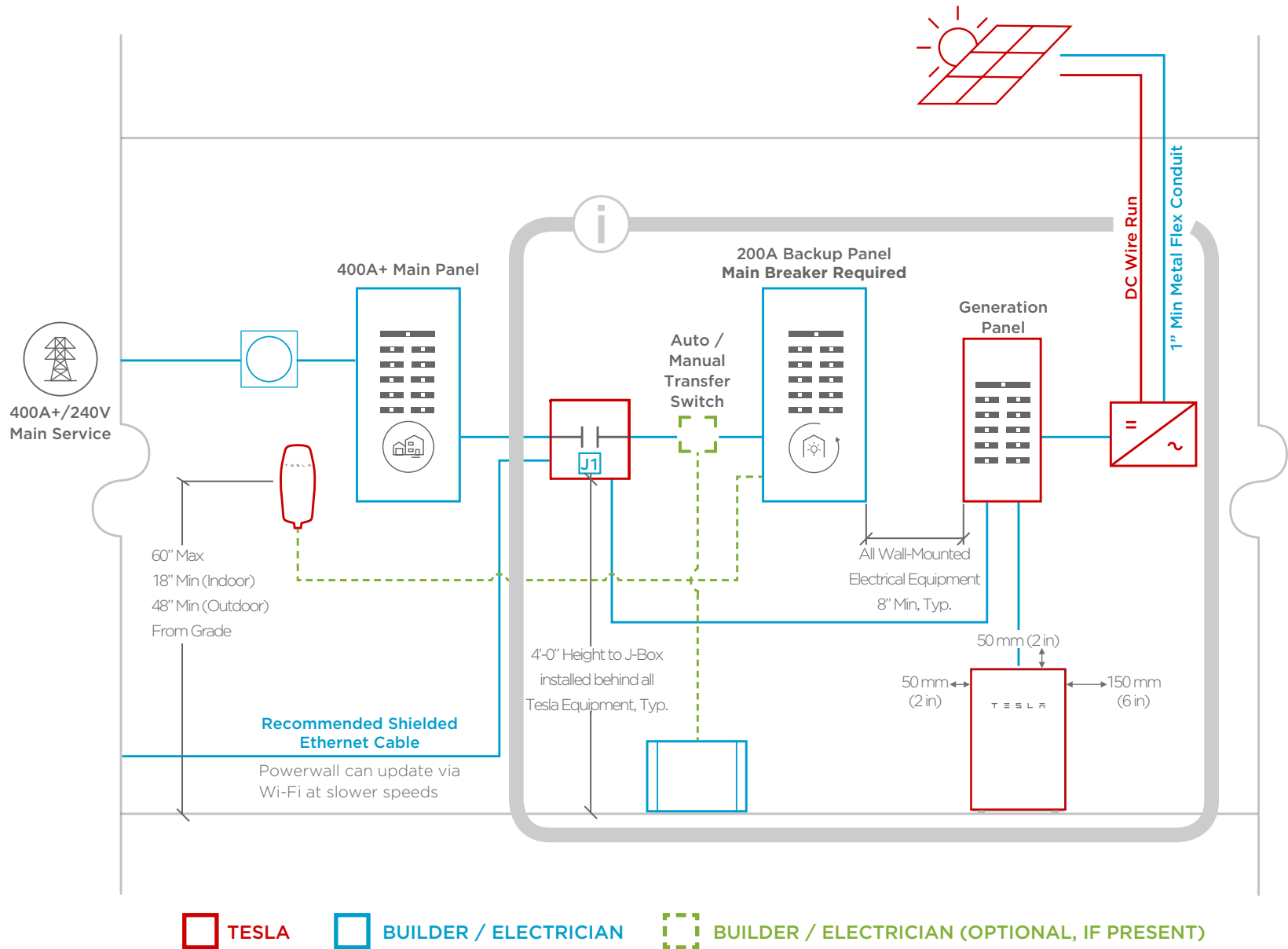
NON-BACKUP LOADS



OPTIONAL
GENERATOR



METER



*A partial home backup configuration is used when large home loads exceed what the selected Powerwall quantity can support, resulting in some high-demand loads remaining in the main panel and not being backed up.



A single Backup Gateway can connect to up to 10 Powerwalls; a site with a 400A+ main service can have multiple Backup Gateways to support additional Powerwalls by repeating the Gateway, generation panel, and inverter for each 200A subpanel to be backed up.