



# What is an Electric Vehicle (EV)?

An electric vehicle (EV) is a vehicle that is either partially or fully powered on electric power. Electric vehicles have low running costs as they have less moving parts to maintain and are environmentally friendly as they use little or no fossil fuels (petrol or diesel).

# CHARGING INTO FUTURE

With Kindred residents and the environment top of mind, you can rest assured we've got you and your electric vehicle (EV) covered with our EV charging offerings. Make the decision today and charge up at home in the future!





### What is an Electric Vehicle (EV) Charger?

Both electric vehicles and plug-in hybrid electric vehicles require an EV charger to keep the battery full, just like any chargeable device.

#### What is an Electric Vehicle (EV) Rough-In?

An EV rough-in offers a conduit from your parking stall which facilitates future installation of EV charging capabilities.

# - Jegen

# **PRODUCT OPTIONS**

In order to install the required physical infrastructure to support electric vehicle (EV) charging, our team needs to plan for it in advance of the design and construction process. The following two upgrade options ensures we can offer EV charging to Kindred residents in the most cost-effective way. With limited EV charging parking stalls available, you don't want to miss your opportunity to charge up at home.



**Option A:** Turnkey Electric Vehicle Charging Station Package

# Fully installed electric vehicle service equipment (Level 2).

- Supports charging of any North American EV via universal connection (SAE J1772).
- Embedded billing-grade electricity meter with consumption metered and billed to the purchasers owner directly, separately from suite electrical consumption through Electric Vehicle Energy Management System (EVEMS).
- Anticipated to be available at Residential Suite Occupancy Date (and no later than final closing).

**Option B:** Electric Vehicle Charging Rough-In Only

# Roughed-in infrastructure to facilitate future installation of EV charging capabilities.

- Typically consists of electrical conduit that runs through the concrete to a designated sub-electrical room. The designated sub-electrical room is not required to contain the common electrical elements for future service of Rough-In Only parking stalls.
- Future installation of Electric Vehicle Supply Equipment (EVSE) and common element electrical infrastructure will be managed through Property Management and the Condominium Corporation post-closing. The owner and Condominium Corporation will require an agreement to outline the costs and terms for the purchase and install of the EVSE.

The deadline to future-proof your parking stall is December 1<sup>st</sup>, 2021. If you are unsure which package to purchase, we have a tip for you!



Selecting **at least** Option B: Electric Vehicle Charging Rough-In Only ensures that you future-proof your parking stall to have maximum flexibility in the future. Subject to availability, you can choose to upgrade to Option A: Turnkey Electric Vehicle Charging Station Package for a premium at any point up to 6 months prior to first residential suite occupancy.



Accessible EV charging parking stalls are available. Simply specify when purchasing!





# ANSWERS TO IMPORTANT QUESTIONS

#### **PURCHASING EV CHARGING**

# Why do I have to decide to purchase EV charging capabilities at point of sale?

Our team needs to know as early as possible in the design and construction process in order to install the required physical infrastructure to support EV charging. EV chargers require an electrical conduit to house the wiring which runs through the concrete structure of the parking garage. Therefore, having an indication of how many EV rough-ins to provide prior to pouring the concrete ensures we can offer EV charging to future residents in the most cost-effective way. If you decline both options, it will not be possible to future-proof your parking stall past the deadlines.

# What is the difference between the two EV charging product options available for purchase?

Option A: Turnkey Electric Vehicle Charging Station Package includes a fully installed electric vehicle service equipment with Level 2 charging. Option B: Electric Vehicle Charging Rough-In Only includes the roughed-in infrastructure to facilitate future installation of EV charging capabilities.

#### Can I get an accessible parking stall with EV charging capabilities?

Yes! When purchasing either EV charging options, please let our team know if you require an accessible parking stall.

#### Will I be able to utilize the EV charger upon occupancy?

If you purchase Option A: Turnkey Electric Vehicle Charging Station Package upon initial offering or upgrade to it, our team anticipates that your charger will be ready for use by your Residential Suite Occupancy Date and no later than your Unit Transfer Date (final closing).

**EV Charging** 

at Kindred

#### When will I be able to install my EV charger if I purchase Option B: Electric Vehicle Charging Rough-In Only?

You will have to wait until completion of the final closing (Unit Transfer Date) and manage the installation through the Property Management and Condominium Corporation. Daniels makes no representation of availability, costs, electrical capacity, charging speeds or billing rates at that time.

#### Can I select the brand of the EV charger in my parking stall if I purchase Option A: Turnkey Electric Vehicle Charging Station Package?

Unfortunately, we are unable to take requests to select brand-specific chargers or greater power service to your parking stall. Our team will select all universal connection, Open Charge Point Protocol (OCPP)-Compliant chargers, to ensure that any North American EV can be charged. In addition, the hardware is open source so any EVEMS Provider may offer their services to the Condominium to manage the system. Due to technology advancements and future availability, we are unable to commit to a specific EV charger at point of sale.

#### I have a Tesla Electric Vehicle. What does this mean for me if I purchase Option A: Turnkey Electric Vehicle Charging Station Package?

We will ensure that the charger we select to install is compatible and can charge a Tesla Electric Vehicle. With the universal charging adapter which comes with the purchase of a Tesla, you will be able to use the universal plug (SAE J1772) on the installed charger provided. Although a Tesla may be able to accept a faster charge, we are unable to upgrade the 32-amp service to higher power requirements. The 32-amp service that will be provided has sufficient power to charge an EV for the average user and supports Level 2 charging.

#### Can I install my own Tesla charger in future?

Unfortunately, you cannot install a Tesla charger as they are not Open Charge Point Protocol (OCPP)-Compliant. Only OCPP-Compliant chargers are compatible with the Electric Vehicle Energy Management Service (EVEMS) Provider. The EVEMS manages not only the metering and billing of the chargers, but also offers load management as a safety feature to ensure that the power supplied to all the EV chargers at any given time does not surpass the capacity of the building electrical infrastructure. In order for the EVEMS to perform load management, the chargers must be able to communicate to each other.

#### EQUIPMENT

#### What is EVSE?

EVSE is an acronym for Electric Vehicle Supply Equipment and refers to the physical hardware used to charge an electric vehicle.

#### Will I own my EV charging equipment? Will I be responsible for repairs?

Yes, you will own the EV charger itself. Any maintenance or repairs will be the responsibility of the owner; however, any service or maintenance must be performed by a certified Electrician/Technician as per the Condominium rules.





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#### What is Level 2 charging?

Level 2 charging is the most common way to charge at home. EV chargers use a higher-output 208-volt power source. Level 2 charging times are much faster than a Level 1 EV charging station. The power supply offered is a 32-Amps/208V service which is sufficient power to charge an EV for the average user and supports Level 2 charging.

# How fast will my electric vehicle charge with the installed EV charger?

There are a few factors that determine how long it will take to charge your electric vehicle and the range you can add per hour of charging, however most vehicles will provide this information through the dashboard interface once you plug into an EVSE.

#### 1. The electric vehicle being charged.

- Electric vehicles have battery packs in varying sizes. The battery pack size determines the amount of energy stored in the vehicle.
- 2. The power going into the electric vehicle is dependent on two factors:
- The power 'acceptance rate' of the EV.
- The power output of the charger. We are offering a Level 2 charger with 32-Amps/208V service.

# EV Charging at Kindred

If the EV charging station offers less power than the vehicle's maximum acceptance rate, the EV charging station is the limiting factor in charge time. If the vehicle's acceptance rate is lower than the EV charging station's power output, the vehicle is the limiting factor.

#### How durable are EV chargers? What will happen if it gets wet?

All EV chargers have a NEMA rating, which is a standard rating system that defines the types of environments in which an electrical enclosure can be used, and frequently signifies a fixed enclosure's ability to withstand certain environmental conditions. The EV charger that we will supply will be a minimum 3R and rated for outdoor use and cleaning.

#### **BILLING & SERVICE**

#### What is EVEMS?

EVEMS is an acronym for Electric Vehicle Energy Management System and refers to a third party which provides a software solution used to manage metering, billing, user accounts and Property Management dashboards. The EVEMS is also a safety and control feature used to monitor and regulate the electric vehicle supply equipment loads through the process of connecting, disconnecting, increasing, or reducing electric power to the chargers.

If the total load of all installed chargers at a property surpass the capacity of the property, load management will regulate the charge speeds for all EV chargers active at a given time. This allows for future

expansion of EV charging structure and reducing the need to upsize electrical infrastructure.

For example, Electric Vehicle A is charging at a property with a maximum electrical capacity at 32-amp service. Another user arrives and plugs in Electric Vehicle B. The EVEMS will automatically adjust the power supply to 16-amps per electric vehicle while both are charging. After Electric Vehicle A finishes charging or is unplugged, Electric Vehicle B will resume charging at 32-amps.

Load management is anticipated to have minimal impact on the typical EV driver due to the fact that most users charge their cars overnight and do not require a full charge every day, mitigating the risk that your EV would not have sufficient charge available when you need it.

#### How will billing & payment be managed?

Billing will be managed through the EVEMS. Your energy consumption will be metered separately from your suite-electricity consumption using an electricity meter that is integrated into the EV charger itself. You will be required to create an account with the EVEMS Provider and supply billing and payment information.

#### How will I be able to start charging my electric vehicle?

To start charging, you will need to download and login to the EVEMS Provider's app on your smartphone or use an RFID card to activate the charger. The electricity consumption will be metered by the charger itself and charged through the EVEMS Provider.



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#### Who sets the rates and what are they?

The Condominium Board will set the rate through the EVEMS Provider dashboard. The rate should be set to recoup electricity costs and cover ongoing maintenance of the common electrical infrastructure. A typical rate recommended by EVEMS Providers is \$1/hour charging.

#### Are there any annual fees?

Since an EVEMS Provider is considered a service, there may be a subscription and/or transaction fees associated with EV charging. This may vary based on the service provider.

#### Can anyone use my charger or electricity?

Since this is managed through the EVEMS Provider, only you can authorize charges through your account and login credentials. The charger will remain inactive until authorized to charge.

#### Who will be the EVEMS Provider at Kindred?

Since the EV industry is undergoing a period of a rapid growth in technology and innovation, the EVEMS Provider will be determined closer to the date of install. By not committing to an EVEMS Provider now, we can ensure that we offer the most up-to-date technology and services available at the time. The EVEMS Provider will:

- Be compatible with any Open Charge Point Protocol (OCPP)-Compliant EVSE
- Offer Load Management Services
- Offer metering and direct billing services to the end-user
- Offer flexibility for the Condominium Corporation to determine their own rate structure

# EV & THE CONDOMINIUM

CORPORATION

#### Will an EV charger increase my maintenance fees?

We do not recommend for the Condominium Corporation to increase the maintenance fees to account for EV charging. Any maintenance or replacement costs to common elements is recommended to be be recouped through the cost-per-use rate set by the Condominium Corporation through the EVEMS dashboard.

EV Charging at Kindred

# Is it possible to purchase and install a different EV charger in future?

Any modifications to the EVSE will need to be managed through the Condominium Corporation. The universal plug will be able to charge any North American EV, including a Tesla. Any charger installed will need to be Open Charge Point Protocol (OCPP)-Compliant and configured by the EVEMS Provider which excludes Tesla chargers.

# If I purchase Option B: Electric Vehicle Charging Rough-In Only, how can I install my EVSE in the future?

A rough-in conduit is typically a plastic pipe installed within the concrete of the parking garage floor and wall. There will be a pullstring in the conduit that enables wiring to be pulled to your stall at a later date to hardwire the charging equipment. The owner and the Condominium Corporation will need to enter into an agreement which outlines the costs and terms for the purchase and install of the EVSE. The sub-electrical room is not necessarily equipped with the common electrical elements required to service EVSE. Installation of the EVSE and common element electrical infrastructure are managed through Property Management and the Condominium Corporation postclosing. Daniels makes no representation as to the costs required to do so at that time.

#### How will future expansion of EV impact my charging?

As EV becomes increasingly popular, the electrical capacity of the property will become the limiting factor for supplying additional EV chargers. By using EVEMS with load management, more residents will be able to install chargers with the existing electrical capacity of the site. However, load management charging speeds may vary based on the number of vehicles being charged at one given time.

If the total load of all installed chargers at a property surpass the capacity of the property, load management performed by the EVEMS will regulate the charge speeds for all EV chargers that are active. This allows for future expansion of EV charging infrastructure so more residents will be able to access these services and reduces the need to upsize electrical infrastructure.

