



Union County Electric Vehicles Infrastructure Study

Public Outreach Meeting
April 25, 2023



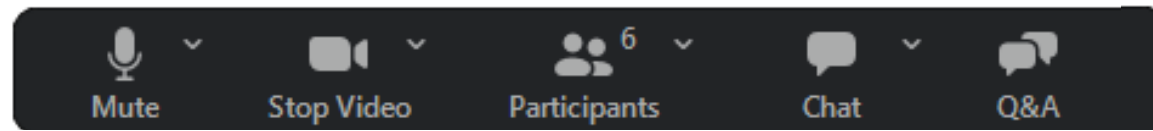
How to Participate

All attendees are muted during the presentation

Polling and Discussion will follow

Three ways to participate

- *Raise your hand to speak*
- *Type your comment or question in the Zoom Q&A button*
- *Respond to the polling questions*



Set your audio channel to English or Spanish

En esta reunión habrá intérpretes de español. Si desea escuchar la reunión en español, cambie su canal de audio a español.



Tech Issues?

Email:

rcharkowsky@ucnj.org

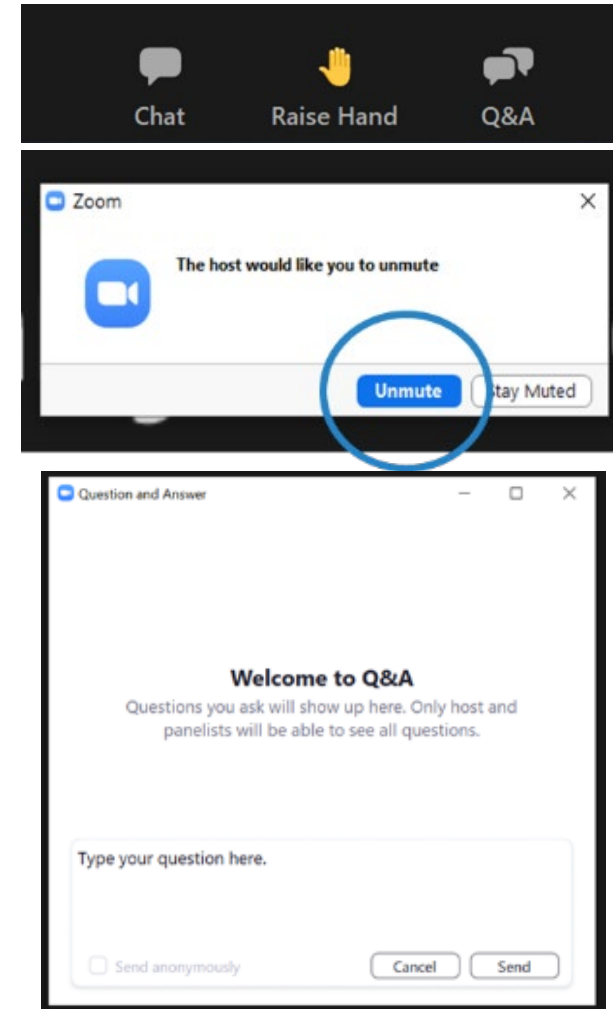
How to Comment

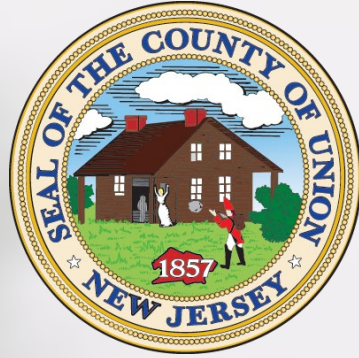
Verbal Comments

- *To comment, use the 'raise hand' button in Zoom (or *9 for phone-only participants)*
- *We will call on speakers in the order that hands are raised*
- *When you are called upon, the facilitator will invite you to unmute your line*
- *Please state and spell your full name when you begin*
- *Please limit comments to 3 minutes*

Written Comments

- *If you have a question throughout the presentation, type it in Q&A box at bottom of your screen*





Union County Electric Vehicles Infrastructure Study

Public Outreach Meeting
April 25, 2023



Agenda

- *EV Charging Background*
- *Study Methodology*
- *Poll Questions*
- *How to use the study*
- *Site Suitability Mapping*
- *Discussion*



Westfield Train Station

ucnj.org/ev-study

Electric Vehicle Popularity Continues to Rise



4,001 EV's registered in Union County as of June 2022

Addressing EV Charging in Union County

NJ NEVI plan sets goals for EV adoption

*330,000 (New Jersey, 2025)**



by population

>20,000 (Union County, 2025)



Chargers to be installed in Union County to support this goal

NJ NEVI Goal also sets a goal of 2M EVs by 2035

NEW JERSEY'S NATIONAL ELECTRIC VEHICLE INFRASTRUCTURE (NEVI) DEPLOYMENT PLAN

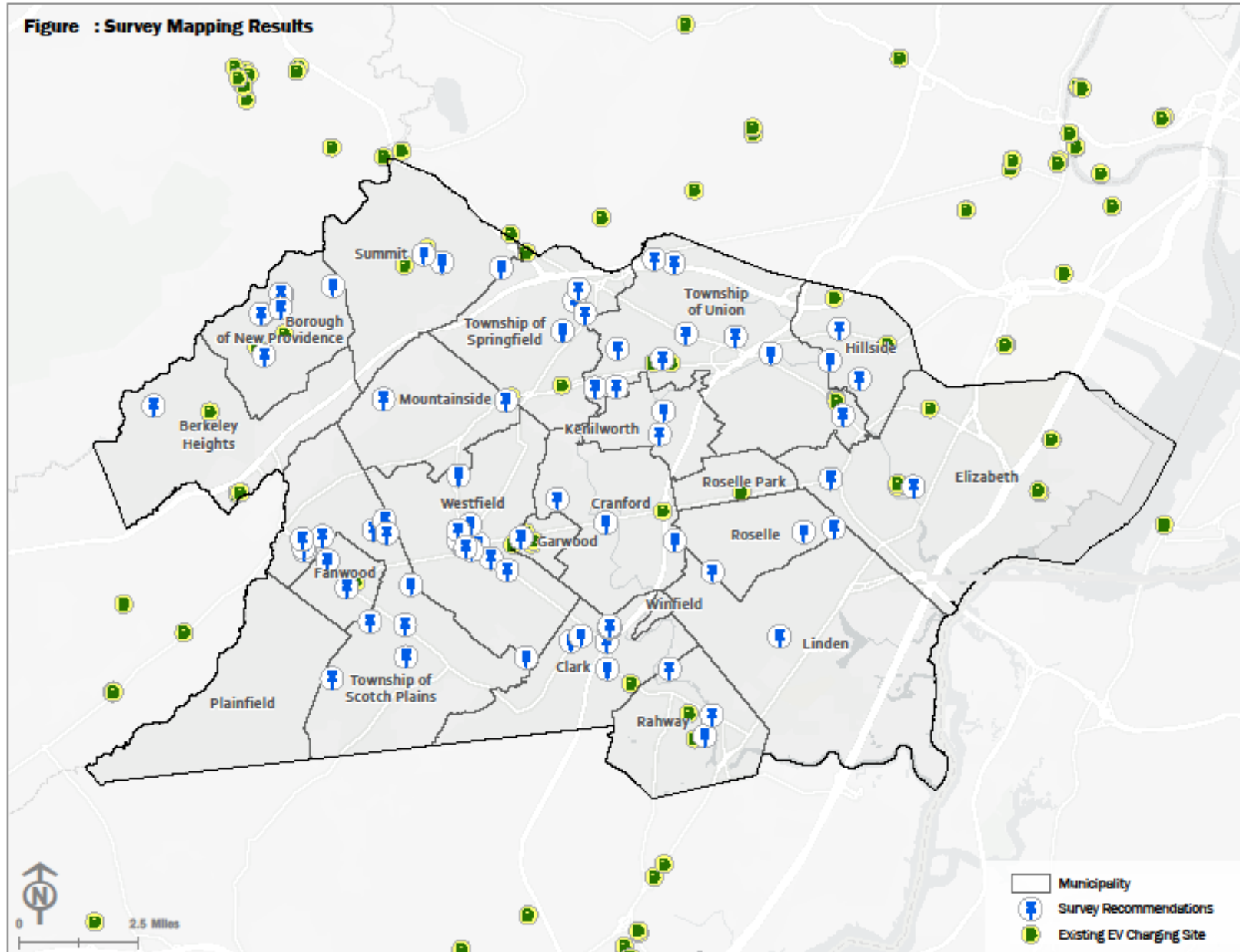
August 1, 2022



Outreach & Partnerships

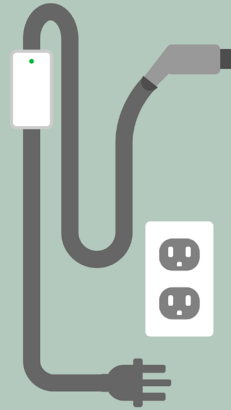
- *Technical Advisory Committee*
- *Interactive map and survey*
- *Website ucnj.org/ev-study*
- *Public Meeting*

Existing/Planned Chargers and Suggestions



EVs and Charging

*Public charging
Addressing range
anxiety, equity, and
multi-family
housing*



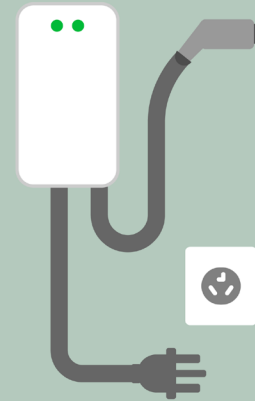
Level One

120V

Electrical source from a regular home outlet.

Charge Time

2-5 miles of range
per 1 hour of charging.



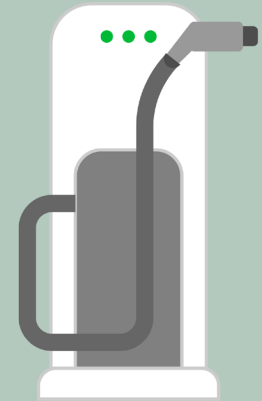
Level Two

220V

Electrical source from a regular home dryer outlet, home hardwire, or public station.

Charge Time

10-20 miles of range
per 1 hour of charging.



DC Fast Charge

208 or 480V 3-Phase AC

Electrical source from a public station.

Charge Time

60-80 miles of range
per 20 minutes of charging.

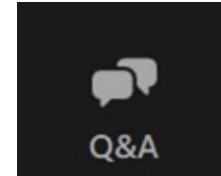
Developing a Network of Chargers

Workplace (Level 2)	Public (Level 2)	Public (DCFC)
Schools Hospitals Office Buildings Office Parks Heavy Industrial/Port	Commercial Corridors Shopping Centers/Strip Malls Commuter Parking Lots Town Halls Public Parks Recreation Centers Public Libraries Other Popular Destinations/Origins Nearby to Multifamily Residential	NEVI Corridors Popular Locations with Public L2

Poll Questions

Poll questions will pop-up.

Throughout the presentation, please add questions and comments via the Q&A feature. These will be responded to periodically throughout the presentation



polls

Polls

— □ ×

Poll Sample

1. Favorite food (Single Choice) *

☐ taco

☐ burger

SUBMIT

Poll 1

- *Do you own an electric vehicle, or know someone who owns an electric vehicle in New Jersey?*
 - *Yes*
 - *No, but considering it for my next purchase*
 - *No*
 - *Unsure*

Poll 2

- *If you own an EV, what are the top reasons you chose an EV?*
 - *Environmental benefits*
 - *Reduced reliance on fossil fuels*
 - *Reduced maintenance costs*
 - *Incentives available*
 - *Reliability*
 - *Available of a home charger*

Poll 3

- *If you do not own an EV, what are your concerns about purchasing one?*
 - *Cost to own/lease*
 - *Reliability, dependability, longevity of the vehicle*
 - *Charge capacity*
 - *Number of chargers available publicly*
 - *Length of time to charge*

Poll 4

- *If you had an EV, where would be your preferred location to charge?*
 - *Private driveway*
 - *Private/Shared Garage*
 - *Work/Office Building*
 - *Shopping center*
 - *Public parking lot/garage*
 - *Grocery store*
 - *Other/Don't know*

Poll 5

- *Choose 1-2 which are most important to you for the placement of EV infrastructure*
 - *Charging speed*
 - *Affordability (low cost to charge)*
 - *Ability to charge multiple vehicles simultaneously*
 - *Access to amenities and /or recreational sites when charging*
 - *Proximity (Close to an off/on ramp) to a highway/interstate*
 - *Safety*
 - *Other*

How To Use This Study



Selection and Placement of Chargers

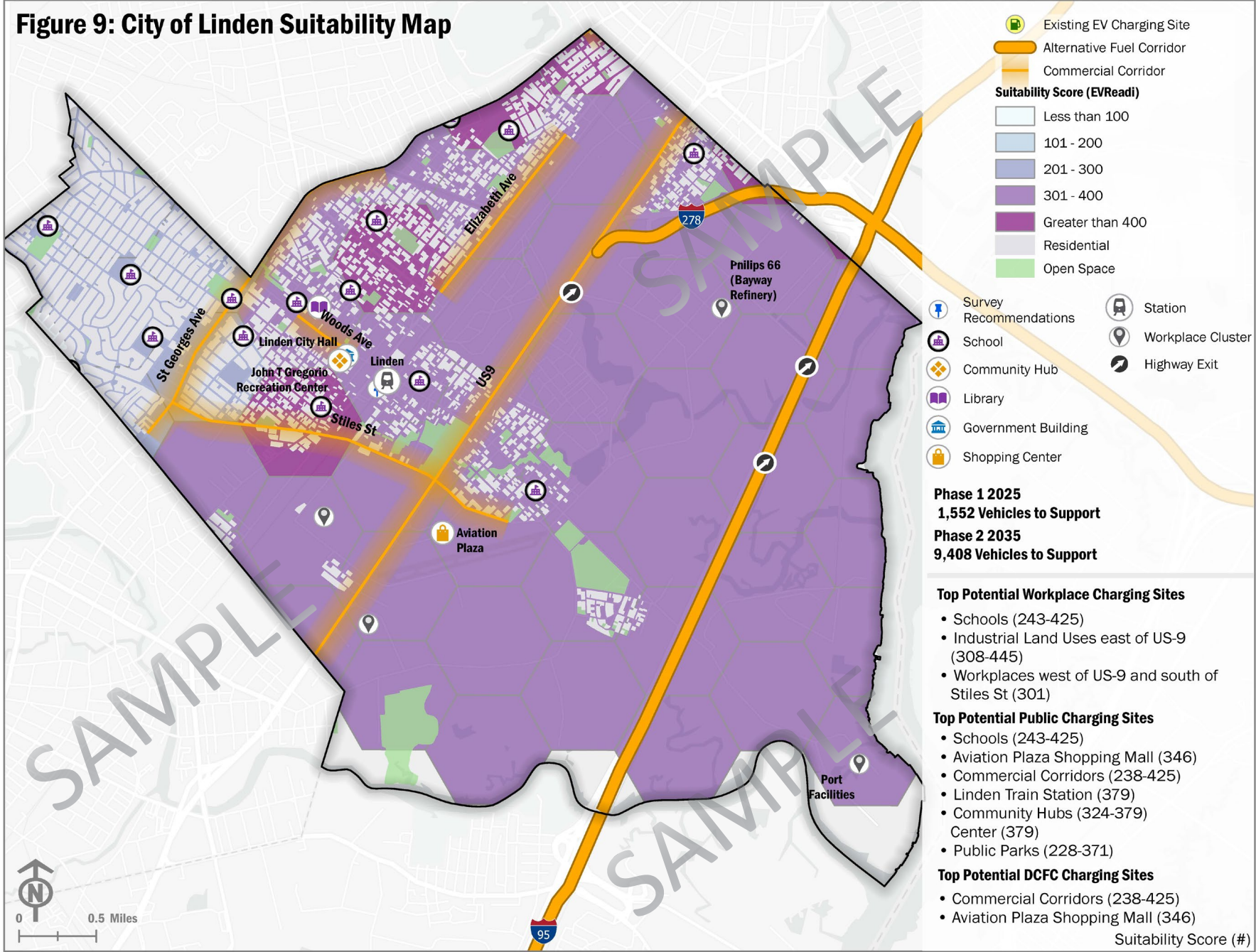
- *Charger Requirements*
- *Electrical Service*
- *Networked or Not Networked*
- *How to Find a Charger*
- *Selecting a Charger Type*
- *Accessibility*

Securing Funding

- *Federal Grants*
- *State Grants*
- *Utility Grants*
- *Sample Language for Applications*
- *How this study gives your application an advantage*

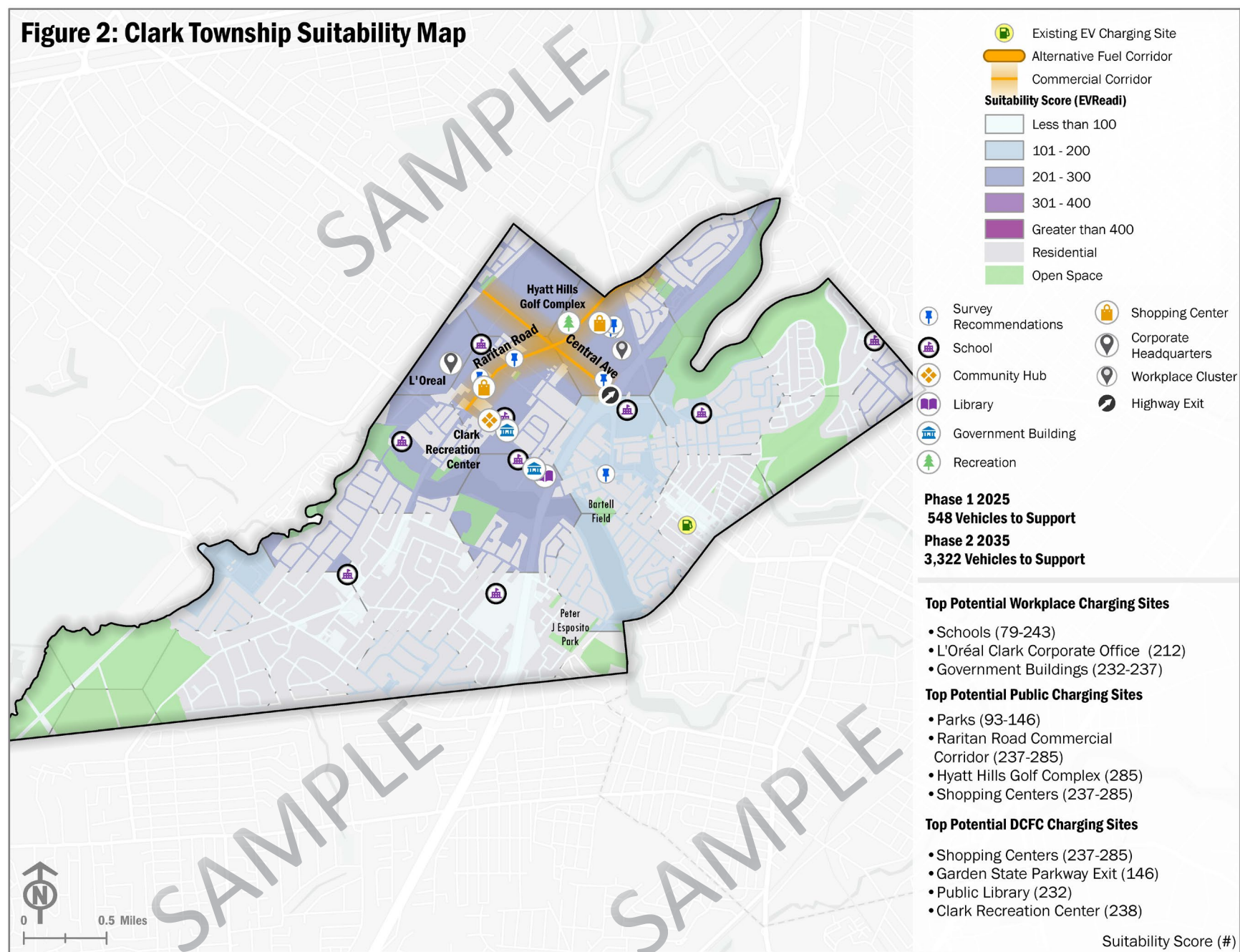
Site Suitability and Mapping

www.fpaengineers.com/union-countyevstudy

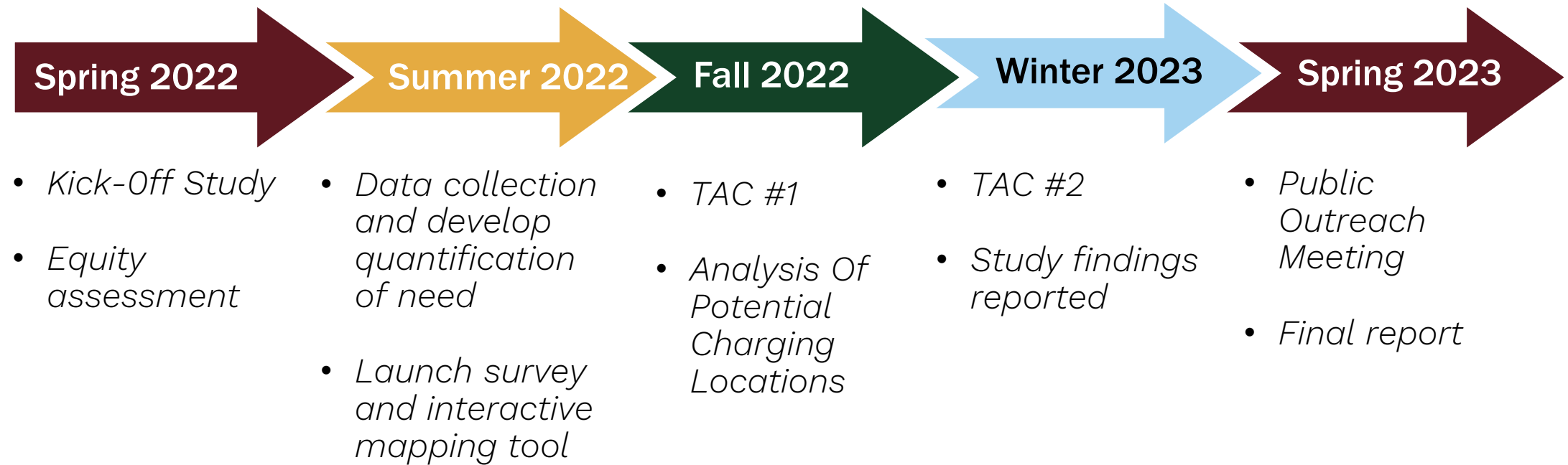


Example Results

Figure 2: Clark Township Suitability Map



Work Plan & Schedule



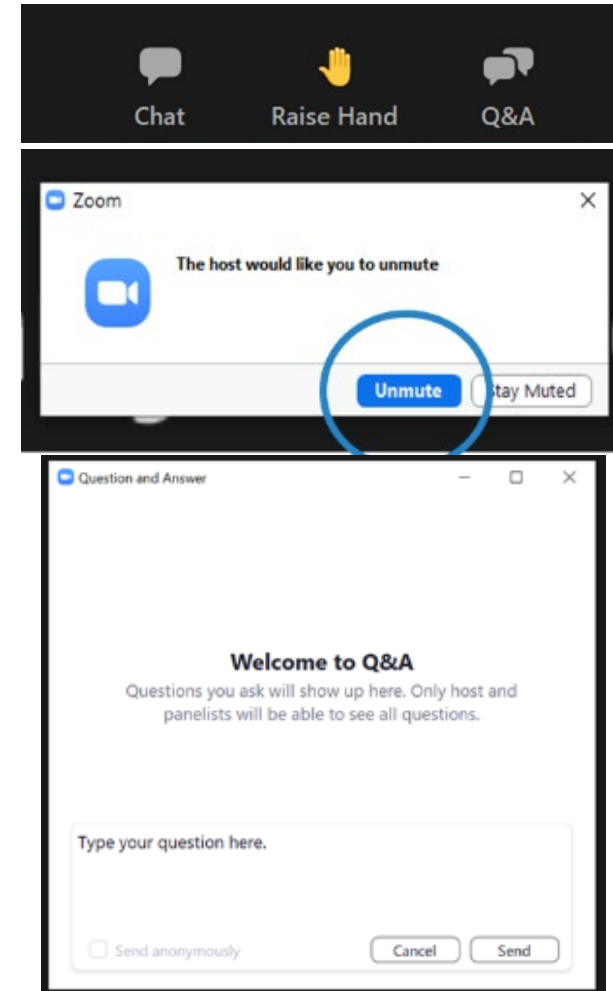
How to Comment

Verbal Comments

- *To comment, use the 'raise hand' button in Zoom (or *9 for phone-only participants)*
- *We will call on speakers in the order that hands are raised*
- *When you are called upon, the facilitator will invite you to unmute your line*
- *Please state and spell your full name when you begin*
- *Please limit comments to 3 minutes*

Written Comments

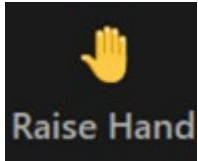
- *If you have a question throughout the presentation, type it in Q&A box at bottom of your screen*



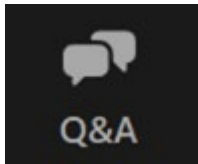
Discussion Prompt – Enter Responses into Chat

- *Do you have specific location suggestions?*
Include location names, addresses and/or cross streets, and municipalities
 - *E.g. Trader Joe's on Elm Street in Westfield*

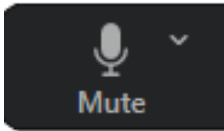
Discussion



Raise hand



Use Q&A



Unmute when called on





NJTPA

NORTH JERSEY
TRANSPORTATION
PLANNING AUTHORITY

Thank you!

For more information, contact:

Liza Betz, AICP, PP

Union County

Department of Economic Development/

Division of Strategic Planning

ebetz@ucnj.org

(908) 558-2273

To review the draft final report:

[http //www.UCNJ.org/ev-study](http://www.UCNJ.org/ev-study)