



Date: February 7, 2024

RFI Title: Zero Emission Shuttle Bus Services at Philadelphia International Airport

Department: Department of Aviation

Addendum 1

TO ALL RESPONDENTS:

You are hereby notified of the following changes to the above RFI:

1. The deadline to submit responses to the RFI has been extended by two (2) weeks. Responses to this RFI are due February 29, 2024, before 5:00 pm (Local Philadelphia Time).
2. Contact information gathered from the Informational Session
3. Presentation shared at the Informational Session
4. Questions and Answers

Please sign, date, and attach this sheet with your response. This addendum and any attachments are now incorporated into the RFI.

SIGNATURE

NAME (Print)

COMPANY NAME

TITLE (Print)

DATE

Name	Title	Company	Phone	Email	M/WBE
Robert Tuttle	VP, Rail and Transit Market Leader	Urban Engineers, Inc.	412-335-9975	rtuttle@urbanengineers.com	
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Randy Premo	Regional Sales Manager for the Northeast	RIDE	213-880-3770	Randy.premo@ride.co	
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Jeff Crosby	Chief Operating Officer	AvAirPros Services, Inc.	(773) 491-8262	j.crosby@avairprosservices.com	
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Latarsha Watson	General Manager – PHL	Transdev Services, Inc.	215.907.8366	Latarsha.watson@transdev.com	
Amaan Laheri	Vice-President	Coral EV	630-999-4008	amaan@coralev.com	
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Marcus L. Gilmore	Senior Advisor, Clean Mobility Strategy	ENGIE North America	713-677-1909	marcus.gilmore@engie.com	

INFORMATIONAL SESSION



Zero Emission Shuttle Bus Service RFI

January 26, 2024 at 1:30 p.m.



City of Philadelphia,
Department of Aviation



PHILADELPHIA INTERNATIONAL AIRPORT
NORTHEAST PHILADELPHIA AIRPORT

Agenda



- Opening Remarks
- Introductions
- Purpose of RFI
- Project Background
- Response Calendar
- Submission Guidelines
- How to Submit Responses
- Reminders

Opening Remarks



- Welcome and thank you for joining us at this Informational Session
- The purpose of the meeting is to gather contact information and review the RFI
- Attendance at this meeting is optional for any firm interested in submitting a response to this opportunity
- No contract will be awarded pursuant to this RFI. Anyone who does not respond to this RFI is not precluded from responding to any future solicitation issued by the City.
- Oral responses made by any City employee or agent of the City in response to questions or requests for information or clarification related to this RFI are not binding and shall not in any way be considered as a commitment by the City.

Opening Remarks



- Please email the following information to Alec.Gever@phl.org by close of business today:
 - Your full name
 - Job title
 - Company name
 - Phone number
 - Email Address
 - Is your firm a **registered M/W/DSBE** with the City's Office of Economic Opportunity (OEO) at <https://phila.mwdsbe.com>
- Contact information will be posted with the opportunity as an Addendum with the Q&A
- Questions regarding this RFP must be submitted in writing to David.Wilson@phl.org and Alec.Gever@phl.org no later than Wednesday, January 31, 2024 before 5:00pm Local Time

Introductions



- Operations
 - Chris Dougherty, VP Operations & Security
 - Judi Wright, Terminal Landside Superintendent
 - Mike Pavesi, Operations Officer Supervisor
- Sustainability
 - Jessica Noon, Airport Sustainability Manager
 - James Clarkin, Energy Supervisor
 - Alex Skowron, Energy and Emissions Data Analyst
- Purchasing
 - Alec Gever, Contract & Planning Administrator
 - Dave Wilson, Procurement Technician
- Vendors
 - Let's go around the room

Purpose of the RFI



Purpose of the RFI



- PHL wishes to transition its current fleet of passenger and employee shuttle buses from compressed natural gas (CNG) to a zero-emission alternative such as electric or hydrogen.
- This transition would support the Airport's broader efforts around sustainability, carbon management, and air quality.
- To facilitate planning and developing a potential Request for Proposals (RFP) in the future, this RFI seeks to acquire industry feedback on zero-emission bus technologies, feasible phasing approaches, potential ownership/maintenance models for fueling/charging infrastructure and associated cost estimates.
- Additionally, a zero-emission shuttle bus fleet would fulfill key initiatives identified in PHL's 2022 Sustainability Management Plan and the PHL Vehicle & Equipment Electrification Strategic Plan.

Purpose of the RFI



- The current fleet of shuttle buses at PHL are fueled with CNG at the Clean Energy station located on Tinicum Island Road.
- While the shuttle bus fleet is owned and operated by a third party, the emissions from the shuttle buses fall under PHL Scope 1 emissions because the Airport purchases the fuel.
- In the prior shuttle bus procurement, PHL requested pricing for several low- and zero-emission options, including CNG and electric. At that time, the Clean Energy fueling station already existed and provided the Airport with an opportunity to move away from diesel without investing significant capital in new infrastructure (such as electric charging stations).
- Since that time, the Airport has completed additional analysis on charging infrastructure and electrical capacity at PHL and is better equipped to plan and execute a conversion to zero-emission shuttle buses.

Purpose of the RFI



- Moving forward, PHL wishes to pursue additional reductions in greenhouse gas (GHG) emissions and improvements in air quality with electric or hydrogen buses.
- According to the Union of Concerned Scientists, battery electric buses represent an approximately 69% and 65% reduction in GHGs compared to diesel and natural gas, respectively (when factoring in emissions produced when generating the electricity in PHL's grid region).
- Depending on the source of hydrogen used, the reduction could be as much as 100%.
- These technologies would significantly reduce the Airport's GHG footprint and support continued advancement within the Airport Carbon Accreditation (ACA) Program.

Purpose of the RFI



- Companies submitting information should have substantial experience implementing, operating, and maintaining electric shuttle buses on a commercial scale and in the following areas:
 - Zero-emission shuttle bus technologies (including electric)
 - Electric charging infrastructure
 - Options for ownership/maintenance of the buses and chargers
 - Grants or other funding sources to offset transition costs to zero-emission shuttle buses
 - Hydrogen fueling and emissions based on production means

Project Background



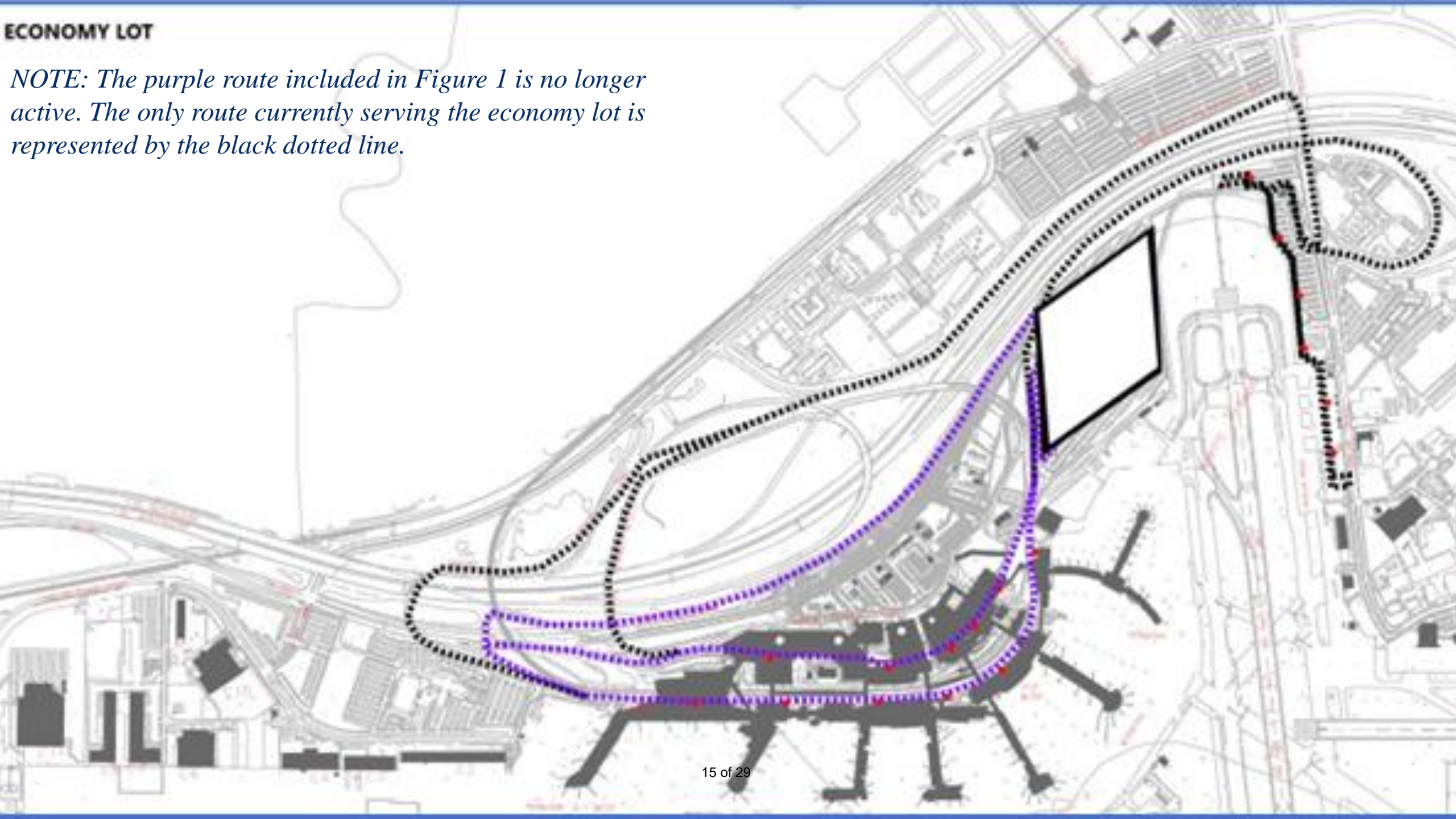
Project Background



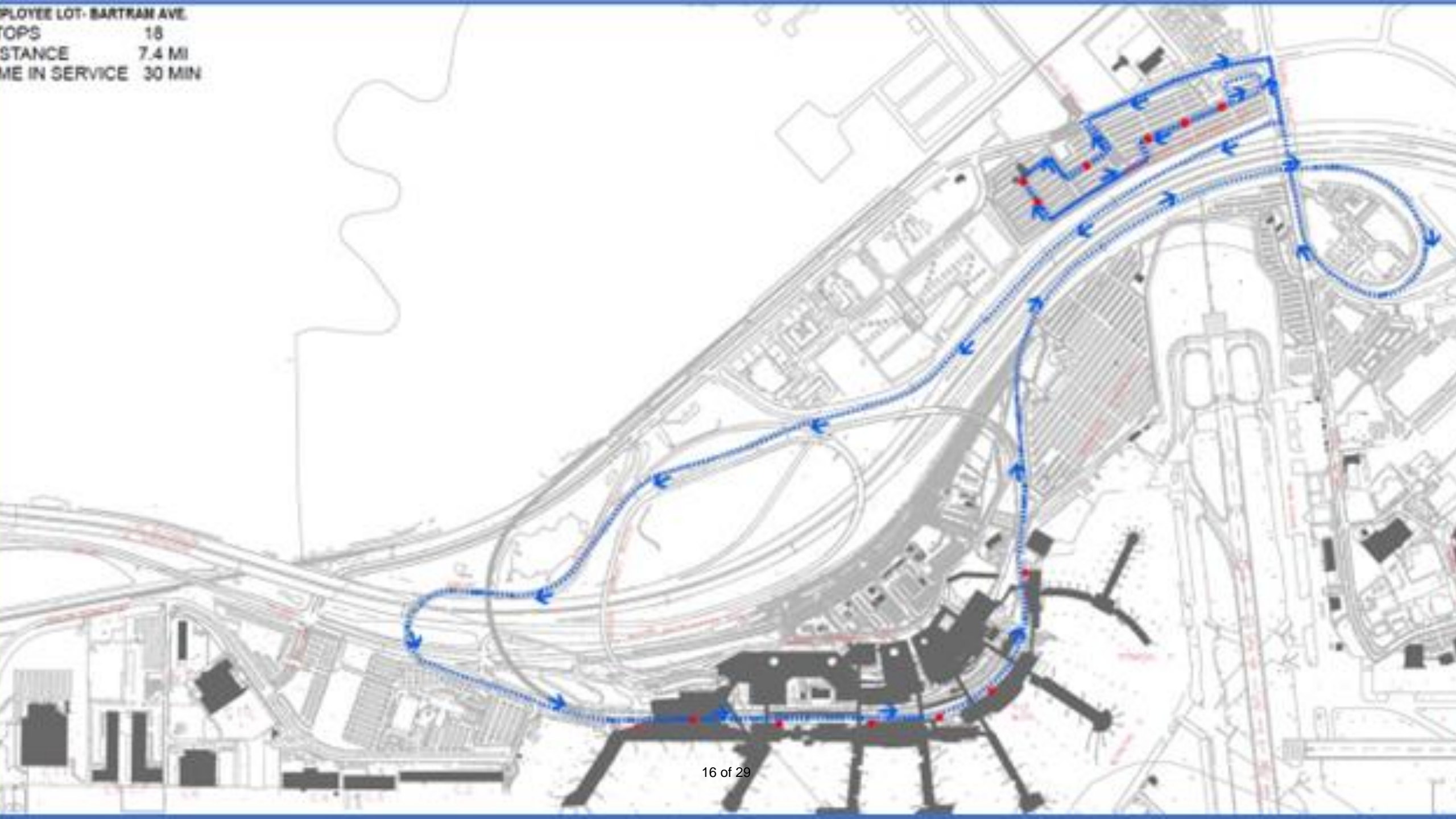
- The Airport has historically contracted with a third party to own and operate a fleet of shuttle buses at PHL that serves the Economy Lot and the employee lots on Bartram Avenue and at Cargo City.
- In total, 36 shuttle buses currently serve these routes.
- The fleet currently includes Glaval cutaway buses (23 total) that service the Economy Lot, and 41-Foot Gillig buses (13 total) operating on the employee lot routes.
- One of the cutaway buses serves Cargo City between 3:00 AM and midnight daily, which is sometimes swapped for a Gillig bus depending on needs/availability.
- These buses average 1,350 miles daily on the Employee Lot; 230 miles Cargo City; and approximately 1,800 miles on the Economy Lot.
- Roundtrip distance for the Employee Lot route is 7.2 miles; Cargo City roundtrip is 5.4 miles; and Economy Lot roundtrip is approximately 10 miles.
- Due to heavy demand from Airport employees during peak times and shift changes, PHL anticipates that a minimum of two (2) to three (3) articulated buses will need to be added to the Employee Lot bus route in the near future.

ECONOMY LOT

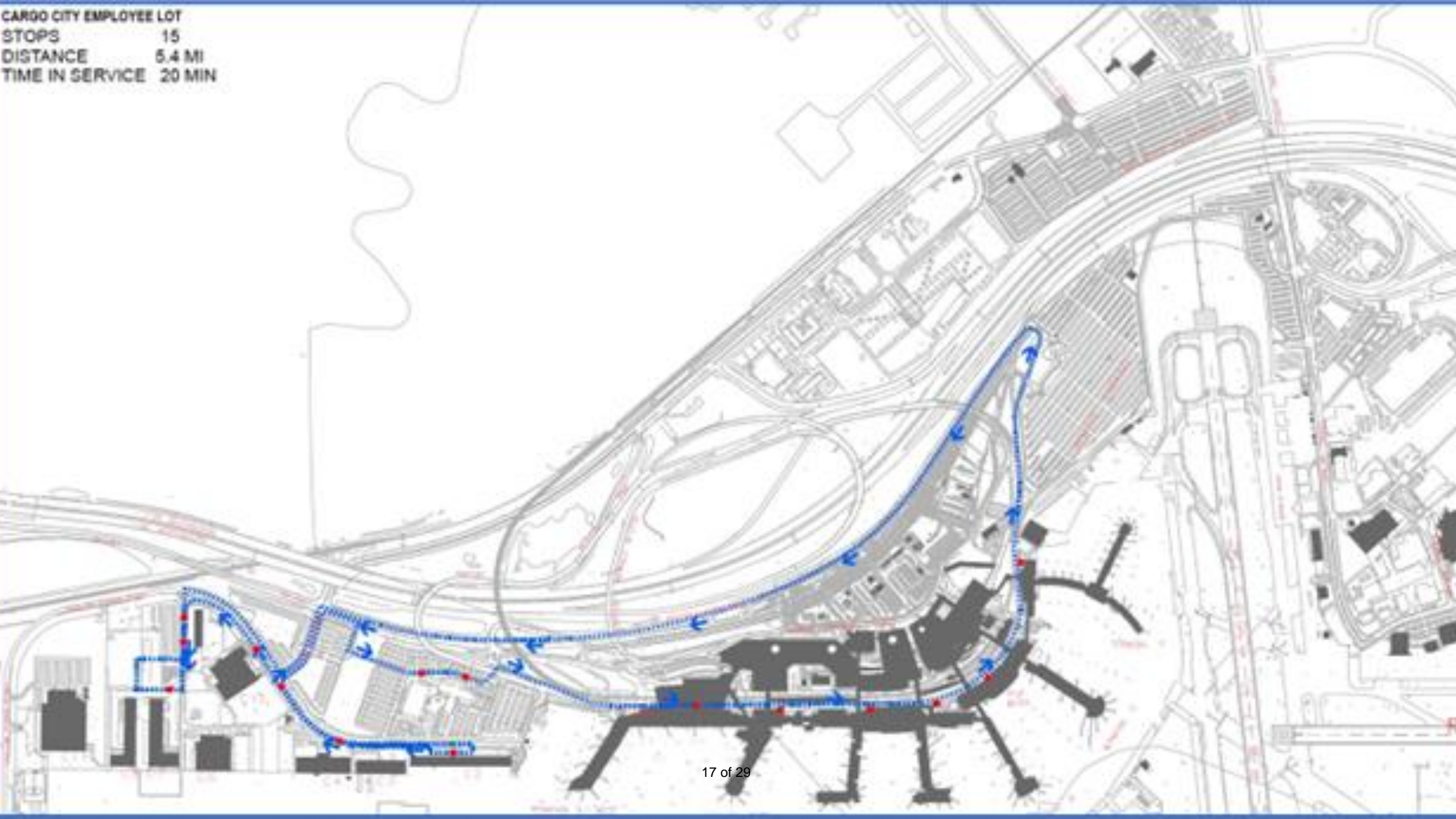
NOTE: The purple route included in Figure 1 is no longer active. The only route currently serving the economy lot is represented by the black dotted line.



EMPLOYEE LOT - BARTRAM AVE.
STOPS 18
DISTANCE 7.4 MI
TIME IN SERVICE 30 MIN



CARGO CITY EMPLOYEE LOT
STOPS 15
DISTANCE 5.4 MI
TIME IN SERVICE 20 MIN



Response Calendar and Submission



Response Calendar



Milestone	Date
Post Request for Information (RFI)	January 10, 2024
Informational Session (Virtual)	January 26, 2024 1:30 pm – 2:00 pm (Local Philadelphia Time)
Deadline for questions, requests for clarification, or requests for additional information via email to David.Wilson@phl.org and Alec.Gever@phl.org	January 31, 2024 before 5:00 pm (Local Philadelphia Time)
City Responds to Questions on https://www.phila.gov/departments/office-of-the-chief-administrative-officer/contract-opportunities-with-special-application-processes/	February 7, 2024
Responses to RFI Due via email to David.Wilson@phl.org and Alec.Gever@phl.org	February 15, 2024 before 5:00 pm (Local Philadelphia Time)

These dates are estimates only and the City reserves the right, in its sole discretion, to alter this schedule as it deems necessary or appropriate. Notice of changes will be posted on the City's Website

Submission Guidelines



The City expects each Respondent to include in their response to this RFI the following items in the order listed, and any information the Respondents believe are related to the subject matter of this RFI:

Company Overview: Identify the company, contract information and any subcontractor partners

Experience: Describe your company's relevant experience (and that of partners, when applicable)

Recommended Deployment Model for PHL: The Respondent shall provide information outlining what it believes is the best path forward to deploy zero-emission shuttle buses at PHL. The recommended deployment model shall assume the following:

- A third party shall own and operate the shuttle buses
- PHL is open to owning related fueling/charging infrastructure but also seeks Respondent input on other ownership models/approaches that may be beneficial
- PHL is interested in leveraging available federal and state grant funding to offset the costs of transitioning to zero-emission shuttle buses. The Airport is open to scenarios in which either the operator or PHL is the recipient of grant funding.

Submission Guidelines



- Recommendations on the zero-emission shuttle bus technology most appropriate for PHL's shuttle bus operations (e.g., electric, hydrogen), including a discussion of costs and lifespan of the technology as compared to diesel or CNG alternatives.
- A description of the quantity, size, and suggested location of fueling/charging infrastructure that would be necessary to accommodate our current fleet with cost estimates.
- Recommended ownership models of fueling/charging infrastructure (i.e., operator-owned vs. PHL-owned), including recommended approaches/responsibilities for maintenance of said infrastructure under the proposed ownership model.
- Recommended contracting approaches for maintenance and upkeep of the zero-emission vehicle fleet.
- Approaches to leveraging grant funding (state or federal) to minimize PHL's costs associated with the proposed deployment model.
- Proposed phasing approach for transitioning from the current fleet of CNG buses to a zero-emission alternative over time, including the potential timeline for achieving 100% zero-emission shuttle buses given operational and contractual constraints.
- Anticipated delivery timelines for vehicles and fueling/charging infrastructure, including a description of any anticipated delays caused by supply chain issues.
- Outline any other high-level suggestions, concerns, or fatal flaws associated with the deployment of zero-emission shuttle buses at PHL.

How to Submit Responses



- Respondents should submit their responses electronically (hard copies are unacceptable) in MS Word or Adobe PDF format to David.Wilson@phl.org and Alec.Gever@phl.org
- Response document(s) are limited to 15 MB and preferably submitted as a single document; if necessary, please submit multiple files or zip/compress the file(s)
- Responses are due February 15, 2024 before 5:00 pm, Local Philadelphia Time.

Reminders



- Please email the following information to Alec.Gever@phl.org by close of business today:
 - Your full name
 - Job title
 - Company name
 - Phone number
 - Email Address
 - Is your firm a **registered M/W/DSBE** with the City's Office of Economic Opportunity (OEO) at <https://phila.mwdsbe.com>
- Contact information will be posted with the opportunity as an Addendum with the Q&A
- Questions regarding this RFP must be submitted in writing to David.Wilson@phl.org and Alec.Gever@phl.org no later than Wednesday, January 31, 2024 before 5:00pm Local Time

Thank You!



SharePoint Support Consulting Services

Wednesday, January 24, 2024, at 1:30 p.m.

City of Philadelphia,
Department of Aviation



#	Question	Response
1	Will PHL provide the dimension requirement of the target vehicle, including length, width and height, and operating range.	Currently, PHL uses a mix of 41-foot Gillig buses and 34-foot Glaval cutaway buses. See Section II.B of the RFI for more information. PHL is open to your suggestions regarding the vehicle specifications that would be sufficient to meet or exceed our current operational needs.
2	Will PHL provide the operation range requirement of the target vehicle.	See Section II.B of the RFI for mileage per day of the current bus operation. Figures 1, 2 and 3 provide additional detail.
3	Will PHL clarify that the 2-3 Articulated Buses indicate a 60ft length bus?	Standard articulated buses are typically 59 ft in length.
4	Will PHL clarify the charging requirement of the target vehicle, including plug-in charging, overhead charging and inductive charging?	PHL is open to all types of charging and are looking for your input.
5	Will PHL confirm if there is a luggage rack requirement? If so, can customer provide any current product or desired product?	Yes, all buses on all routes must have luggage racks.
6	If PHL wishes to use their own charger, can customer provide the current charger data, including brand, power, function, etc?	PHL is open to providing chargers or vendors to provide chargers, per your recommendation.
7	Is PHL seeking information on Standard warranty and training?	Yes.
8	Can PHL provide guidance on submission format (structure) , i.e. Tab 1: Cover Letter, Tab2: Company Overview, etc?	Please follow the guidelines stated in the RFI Section VI.
9	What is the size of your current cutaway bus?	2018 Glaval Entourage 96" Width X 120" Height X 34' length.
10	Would you entertain a 30ft transit bus instead of a cutaway?	Yes.
11	Will Altoona be required for the required vehicles?	Yes.
12	Will Buy American be required for this procurement?	Unknown at this time.

#	Question	Response
13	Will PHL allow for a site visit and demo for both assessment of routes, charging requirements and to see how buses and manufacturers technologies perform?	A site visit is not being provided for this RFI.
14	Has PHL applied for any FAA grants that are aimed at meeting the goal of net zero-emission by 2050? FAA Invests Nearly \$92 Million to Help Airports Reach President's Goal of Net Zero-Emissions by 2050 Federal Aviation Administration	Yes but none for zero emission buses nor charging infrastructure.
15	Upon release of future RFP is PHL considering awarding to multiple bidders for Cut-Away & Transit Style Buses?	Unknown at this time.
16	Can PHL please elaborate on the option for ownership and maintenance of the vehicle and chargers?	The RFI is seeking information on models for ownership and/or maintenance of the vehicles and the chargers, to maintain both in working order. For instance, some EV charging vendors offer a model wherein the vendor continues to own and maintain the charger, to relieve responsibility from the airport.
17	Does PHL has a specific timeline when they would like to transition their entire fleet?	Unknown at this time.
18	When does PHL anticipate release the RFP?	Unknown at this time. This RFI process will help the Airport determine direction and next steps.
19	Has PHL done an electricity assessment to see if they have ample electricity to transition fleet right now?	PHL has discussed the needs with the utility. PHL expects to need a dedicated service for any new chargers. If the service is above 1,500 kW, PECO will require a High Tension service.
20	Can PHL better define their three (3) service route requirements? Daily range and hours in-service.	See Section II.B of the RFI
21	Does PHL have an estimated date for RFP release and fleet transition?	No.
22	Would PHL consider procuring these vehicles from a state cooperative instead of an RFP?	PHL is open to your suggestions for the best method to procure buses, which could include a cooperative contract.
23	Will PHL consider extending the submission due date for an additional week?	The due date is being extended by 2 weeks. Responses are now due February 29, 2024 before 5:00PM.
24	Is there an official RFI number for this? I don't see one on the RFI document.	No.

#	Question	Response
25	On page 4 of the RFI Document, it states “The Airport has historically contracted with a third party to own and operate a fleet of shuttle buses at PHL...”. Could you provide me with details of the incumbent contract(s) such as Contract #, value, and expiration date? Or alternatively, is this considered a new requirement by the department?	The incumbent shuttle bus provider is First Transit (Transdev) which has renewal options through May 31, 2025. New requirements are anticipated for a new contract.
26	We would like to request a 2–3-week extension for additional input from vendors/utilities.	The due date is being extended by 2 weeks. Responses are now due February 29, 2024 before 5:00PM.
27	With electric/hydrogen bus deliveries currently being 24 months out, is PHL willing to supply the necessary power to charge buses to the parking site, or would the airport prefer it be vendor-provided?	PHL expects to work with the utility and the vendor to supply the necessary power to charge buses. In your response to the RFI, please describe how you have worked with utilities on other projects and if the deployment model included the vendor working with the utility directly to supply the electricity needed.
28	Has PHL conducted an engineering study for the potential EV charging/hydrogen sites, including but not limited to power needs on the site, identifying any additional power needed, transformer needs, or trenching? a. If this has been performed, can we be provided with a summary of this initial analysis and results?	No engineering study has been performed, but PHL is prepared to conduct one. With a new service needed, the transformer needs would be sized for the new service.
29	Has it been determined that the site currently has enough power for the EV infrastructure for the battery-electric buses?	No because a new PECO service is needed. PHL is willing to undertake that.
30	Has the airport determined if it would fund this expense directly or as a pass-through at actual cost to the vendor?	To be determined.
31	With electric buses 24 months out, we presume PHL is open to a phased-in approach where buses are implemented through the contract term to help reduce cost, or would you prefer 100% phase-in as manufacturing capacity permits?	PHL is open to a phased-in approach.
32	Knowing the lengthy permit process with the City of Philadelphia, will the airport assist in expediting that process, or should the proposers plan to handle that solely?	Airport will assist where possible, but PHL has no expedited process for City permits. PHL is subject to the same permit procedures as any other entity.
33	How long does PHL anticipate this permitting process to take based on the current knowns of the project?	This cannot be anticipated at this time. Dependent on the permit types and the requirements of PECO.

#	Question	Response
34	Articulated buses – were mentioned as potential for the Employee lot. Battery electric technology is not readily available for this type of bus presently. Would the airport be open to CNG for the articulated buses required? If so, what percentage of the fleet would be anticipated?	2 buses out of a fleet of 13; approximately 15% of the fleet.
35	Normally, bus providers did not undertake large EV or Hydrogen projects at airport-owned sites in the past. Has PHL considered making the infrastructure project a separate RFP and the vendor provides the vehicles as they have in years past? a. The reasons are issues related to overall project management, permitting, utility coordination and consulting, engineering, and prevailing wage considerations on airport construction projects. Would PHL reconsider making this a separate RFP for the needed infrastructure?	This will be a consideration.
36	Would PIA consider responses from entities that focus on developing and managing fueling infrastructure used by vehicles owned and operated by other parties?	Yes.
37	What is the airport's target date for the RFP to be released?	Unknown at this time. This RFI process will help the Airport determine direction and next steps.
38	What is the breakdown of mileage for each individual vehicle?	Mileage for each route is provided in Section II.B of the RFI
39	Has the airport predetermined the location for the facility to house this new fleet?	Currently buses are staged on the Economy Lot and Employee Lot. It is anticipated that this will remain the same, but PHL is also open to other options.
40	Will the site be located on airport or government owned property?	It will be located on airport owned property.
41	Does the airport intend for respondents to supply the vehicles as part of the RFP? If not, will specifications of vehicles be outlined in the RFP?	To be determined.
42	Was the informational session recorded and, if so, are you able to share the recording with the group who was not able to attend?	The meeting was not recorded.
43	Who is the current service provider at PHL?	The incumbent shuttle bus provider is First Transit (Transdev).
44	How long has the current service provider been providing services? Were they under contract prior to the current contract they're operating under?	30+ years under multiple contracts.
45	Can you please confirm that the current contract has option years that extend through May 31, 2025?	The incumbent shuttle bus contract has renewal options through May 31, 2025.

#	Question	Response
46	Does PHL anticipate any additional growth – i.e. increase in headways, increase in number of vehicles on route, number of routes, etc. – in the near future? This would be above and beyond the implementation of articulated buses in place of 40' transit buses which was already mentioned in the RFI.	Growth may occur as the Airport returns to pre-pandemic passenger levels.
47	Are there any known restrictions on the Economy Lot route that would prevent the use of transit buses? If so, might there be a way to alter the current route to accommodate a larger bus? Due to the limited quantity, and limited range of battery electric vehicles in this class, it'd be beneficial to have the option of using a transit bus on this route.	Restrictions are not anticipated at this time as full size Gillig buses could operate the Economy Lot route. Routes are subject to change.
48	Most battery electric transit buses have lesser seating capacity than their diesel equivalents. Given this information, does PHL feel as though additional buses may be necessary to keep up with increased rider demand?	If there is less seating capacity, the Airport would have to consider additional buses to maintain the current ridership level.
49	Is there any additional information you could share with the group related to the following statement: Since that time, the Airport has completed additional analysis on charging infrastructure and electrical capacity at PHL and is better equipped to plan and execute a conversion to zero emission shuttle buses.	Not at this time.
50	Does PHL have an area on site that may be utilized for storing, charging, maintaining, and/or managing the bus fleet?	Currently buses are staged on the Economy Lot and Employee Lot. It is anticipated that this will remain the same, but PHL is also open to other options.