



City of Lawrence

The Lawrence **Field Operations Campus**

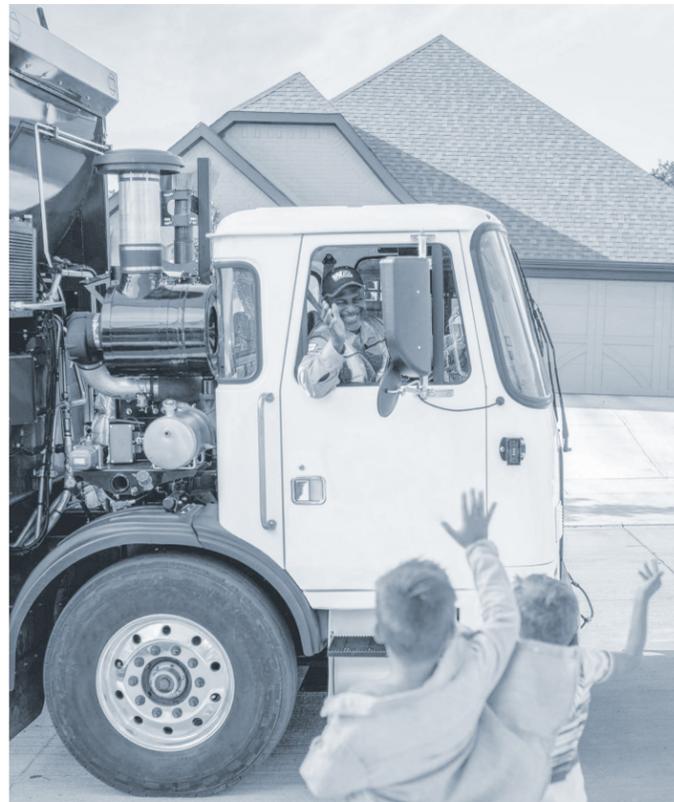


01 Introduction

The Lawrence Field Operations Campus. In recent years, the City of Lawrence Kansas has streamlined city services to create the Municipal Services and Operations Organization, commonly referred to as MSO. The Organization is divided into several Divisions that provide services to the collective of residents and businesses in Lawrence. It is the desire of the City to create a single campus-oriented facility that consolidates the field operations for MSO Divisions—along with a few Field Operations Divisions within the Parks and Recreation Department.

In 2019, a Design Team led by Dake Wells Architecture, Oertel Architects and CFS Engineers was retained to develop a Program and Conceptual Design for the Lawrence Field Operations Campus.

Brief summaries of the field operations for each Division are as follows:



CMG – Central Maintenance Garage

Central Maintenance provides service and repair to the entire fleet of City owned equipment. Maintenance staff are responsible for day to day preventative maintenance services, as well as detailed large scale repairs, including repairs of specialized equipment. Divisional leadership is responsible for all fleet asset management, including fuel management and fleet equipment purchase and replacement.

FAC – Facility Maintenance

Facility Maintenance is responsible for the maintenance and continued operation of the current 258 facilities owned and operated by the City of Lawrence. Services include HVAC, electrical, plumbing, building structure maintenance and grounds maintenance.

FOR – Forestry

Forestry works to protect and maintain street trees throughout the City of Lawrence, enhancing community image and pride through the beautification of public spaces. Forestry works closely with Streets, Water, Wastewater, Engineering, Traffic, Horticulture and other Parks and Recreation facilities to provide these services.

HOR – Horticulture

Horticulture staff provides maintenance and services which beautify and preserve parks, natural areas, municipal building exteriors, right of way landscaping, and traffic landscaping throughout the City of Lawrence to enhance community image and civic pride. Horticulture works closely with Forestry staff and Parks and Recreation facilities to provide these services.

HHW – Household Hazardous Waste

The Household Hazardous Waste Facility is a component of the Environmental Division for the City of Lawrence and is a joint venture between the City of Lawrence and Douglas County. The purpose is to provide residents a proper and easy way to dispose of common household hazardous waste and remove these dangerous items from traditional waste streams, reducing the threat to the environment and overall public health.

INS – Inspections

Inspections provide installation and repair oversight for all City of Lawrence infrastructure construction and repair activities.



Solid Waste has been a city service since 1946 and provides a valuable service to Lawrence residents. The collection services are provided to residential and commercial entities within the city. Collections include trash, recycling, yard waste, bulky items and tires. The Division maintains a stock of commercial dumpsters and an operational vehicle fleet that requires specialized work areas.

STWT – Stormwater

Stormwater staff oversee the construction and maintenance of stormwater infrastructure throughout the City of Lawrence and are closely integrated with the Streets Division.

STRT – Streets

The Streets Division provides day to day general maintenance of the network of roads and supports other Divisions in the maintenance of their respective responsibility for city infrastructure.

TRAF – Traffic

The Traffic Division maintains and monitors signs and signals throughout the City of Lawrence. To accomplish this mission, the City makes and keeps street and traffic signs,

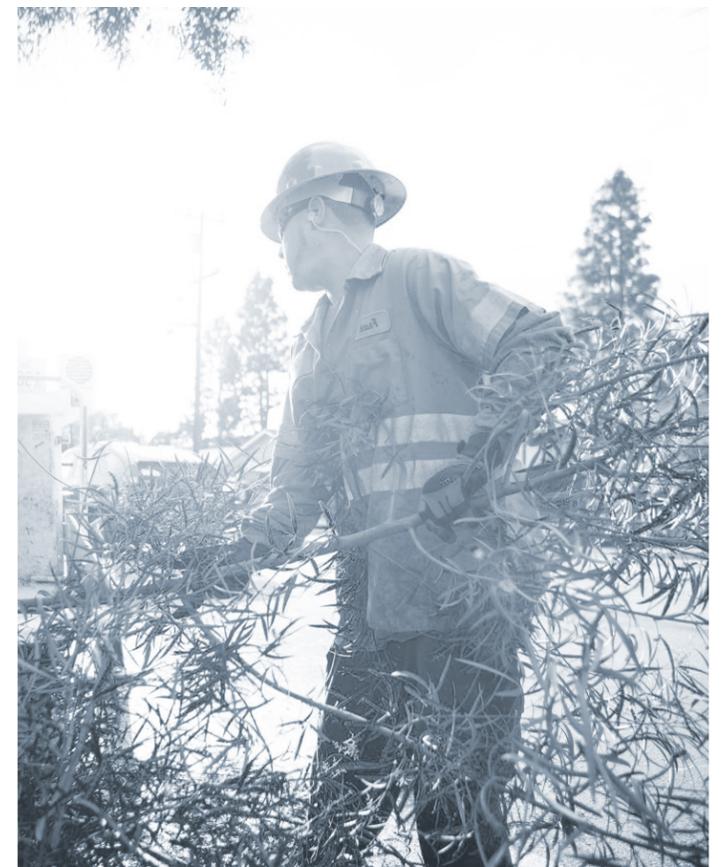
and stores and repairs signal equipment to maintain the entire traffic system with minimal downtime. The Division works closely with Streets, Distribution and Collection divisions for use of signs and coordinating maintenance activities.

WSWT – Wastewater Collections

Wastewater Collection staff is responsible for maintaining the city's sanitary sewer system. Their work efforts prevent sewer backups and overflows to homes and businesses within the City.

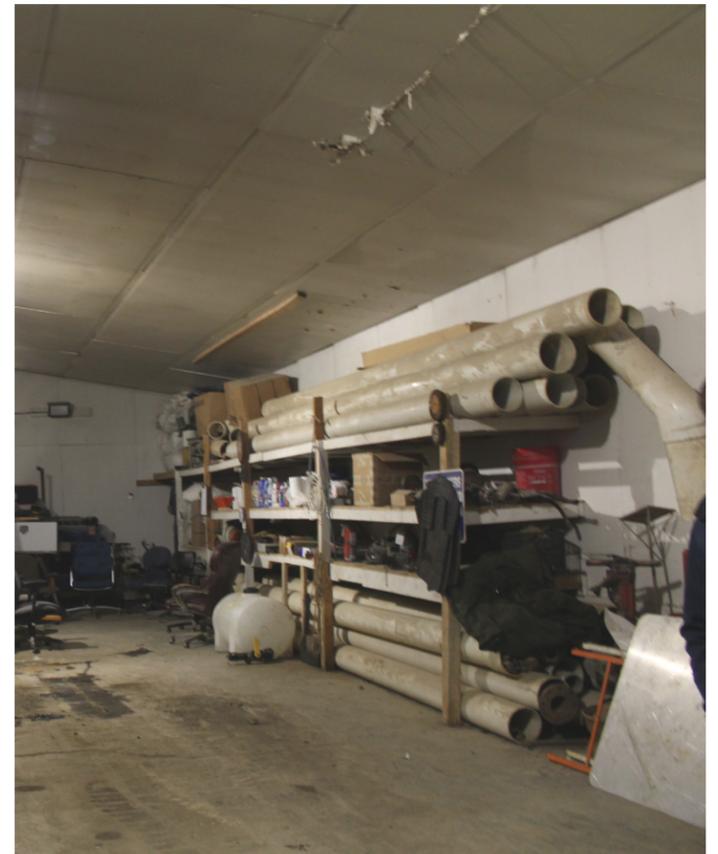
WTD – Water Distribution

Distribution staff is responsible for maintaining the water distribution system for the City of Lawrence. They ensure safe, clean water and fire protection to all customers. Distribution services include providing water meters, servicing and repairing the entire water distribution network. The Distribution Division operates closely with the Streets Division and Wastewater Collections Division.



02 Existing Conditions

The City of Lawrence currently operates nearly a dozen separate facilities to house field operations for Divisions within the Municipal Services and Operations Department (MSO) and the Parks and Recreation Department. The Divisions have done their very best to operate from these facilities over the years, but the poor condition of the existing facilities makes it difficult to be responsive to the operational needs of the City. Many of the buildings are undersized, or have design idiosyncrasies that result in poor operational flow. Most are in need of significant maintenance and infrastructural upgrades.

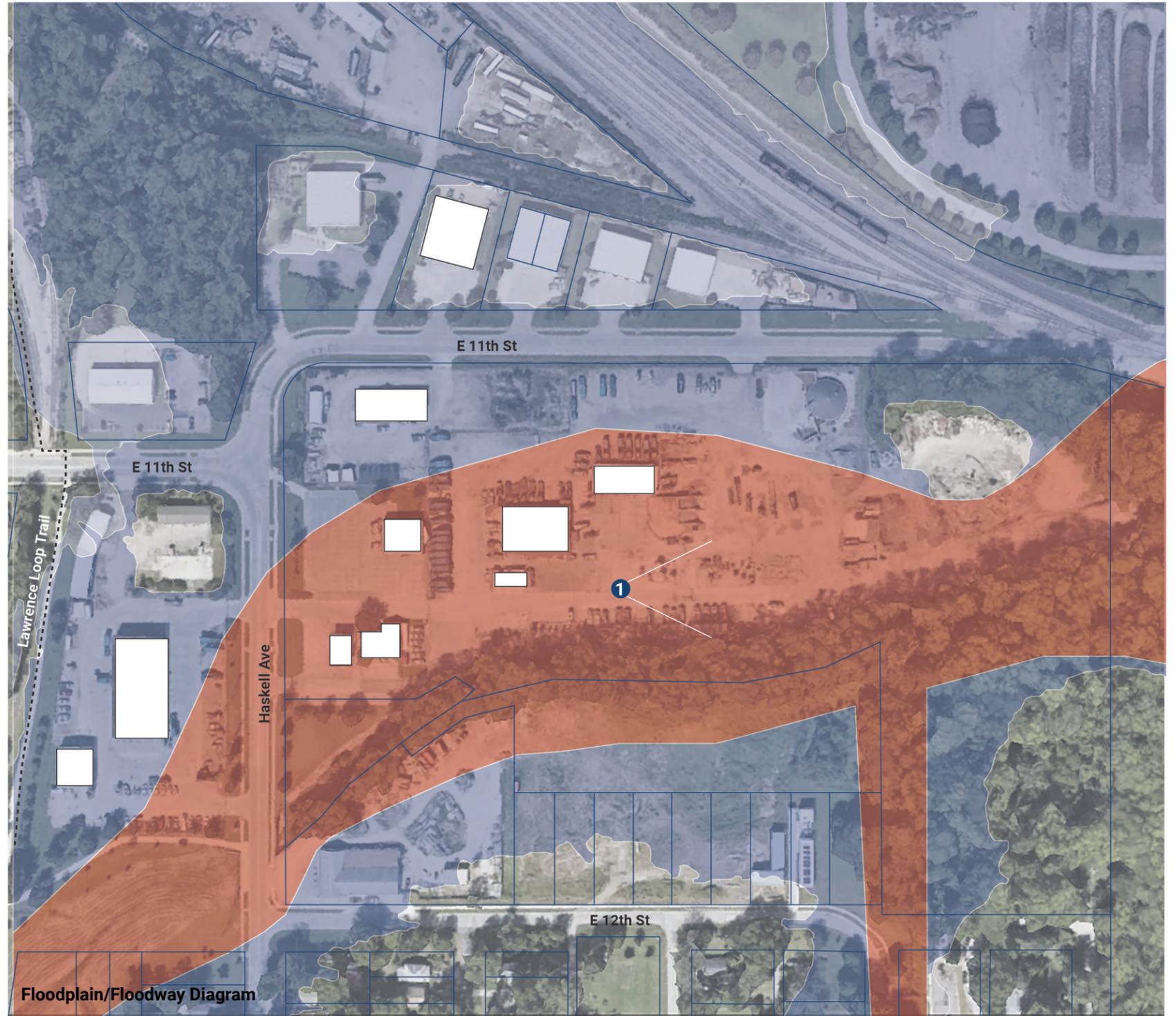




02 Existing Conditions - Floodway

Aside from deferred maintenance issues, many of the buildings exist in the 500 year floodplain, some of them in the 100 year floodplain, and some of them are located directly in the floodway. According to the Lawrence City Code (Chapter 20 Article 12), new construction or improvements are prohibited in the floodway. Many of the facilities located at the corner of 11th St and Haskell Ave do not comply with this requirement.

Rather than invest funds to improve these under-performing structures, the City is exploring the potential of consolidating the operations into a single campus-oriented facility, called the Lawrence Field Operations Campus.



- Floodway
- 100 yr floodplain
- 500 yr floodplain
- Current Field Operations Facilities
- Trail



Image 1: 11th and Haskell site looking East

03 The Farmland Site

The Design Team was tasked with looking into fitting the program on a 169 acre site which formerly housed a fertilizer operation for Farmland Industries. Site features include three structures -- a 132,100 sf warehouse previously used for bagging product and two large tanks. A fourth structure used for the storage is a 32,300 sf warehouse located South of the project boundary. The two tanks are located on land that has been cleared and graded relatively flat compared to much of the Northwest portion of the site, which is sloped and vegetated. The fertilizer operation resulted in nitrogen-based soil contamination around these structures, which the City will remediate.

There are two primary benefits of locating a Field Operations Campus on the Farmland site. First, locating Divisions together will increase connectivity, productivity and spatial efficiency. And Second, remediating the contaminated site will rectify a decades-old environmental and safety issue.



Aerial of Farmland Site



Site Context



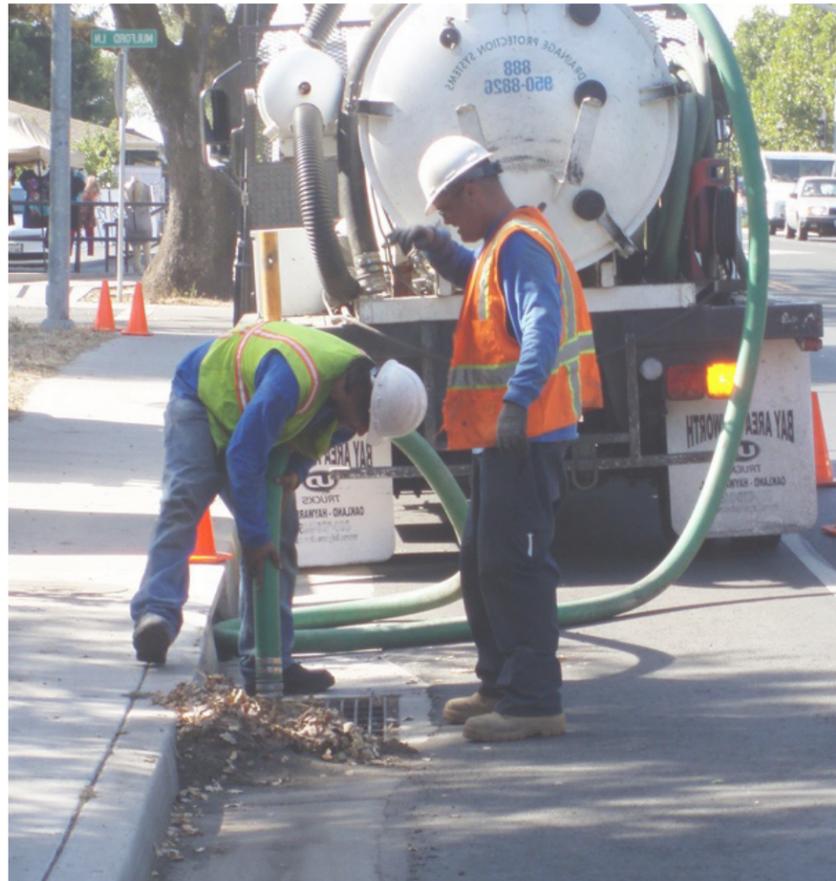
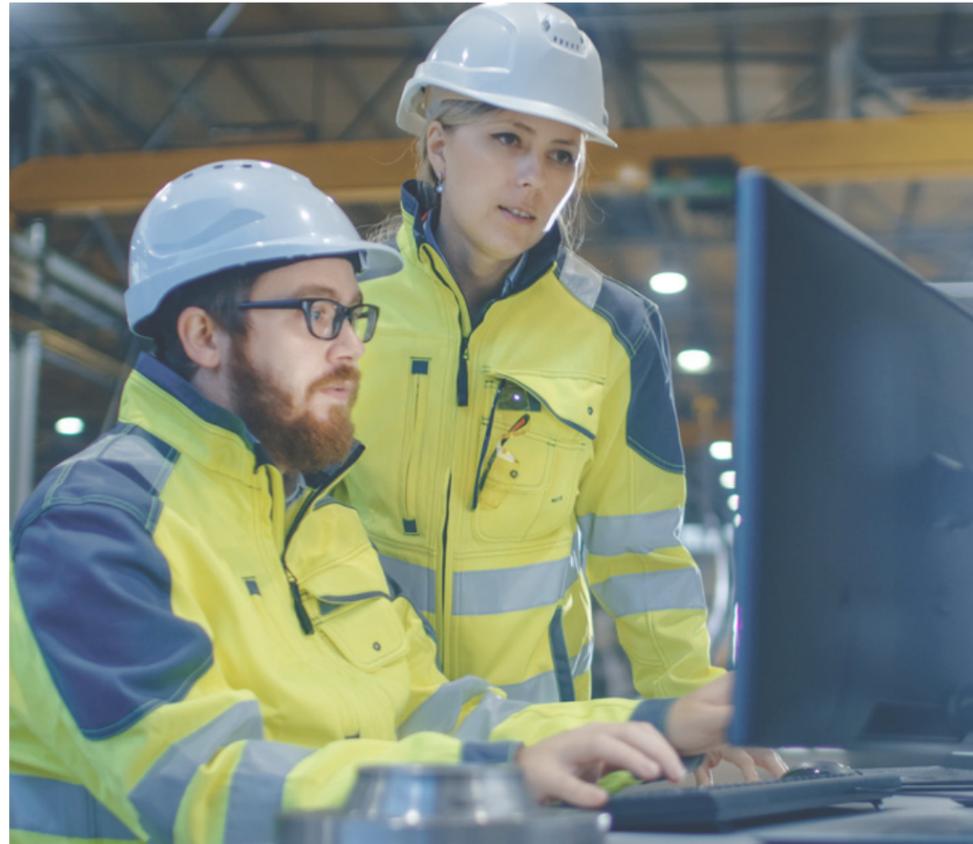
Drone image looking West



Historic photo of Farmland Site

04 Project Imperatives

Based on feedback from MSO staff, the Design team developed a series of Project Imperatives that embody the spirit and goals of this project. Aside from addressing Divisional needs, creating operational efficiencies, and developing safe and healthy work environments, remediating the contaminated Farmland Site, enhancing the local ecosystem, and showing respect to the surrounding community have been key priorities of the project thus far. Although these imperatives may continue to adapt and change, they will remain at the forefront of the design process in the Master Planning phase.



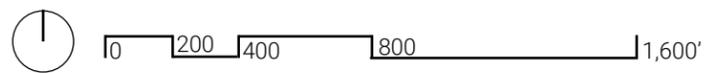
- 1 Consolidate municipal operations onto a single campus.** Create a Master Plan for an efficient campus environment, encouraging spaces shared by multiple Divisions.
- 2 Remediate the Farmland site through phased construction.** Develop a phasing strategy that allows for the site to be methodically remediated over time.
- 3 Improve working conditions and safety.** Conditions in some existing facilities do not meet current standards with regard to operation, ventilation, safety and flood mitigation. It is imperative that the staff that provide critical services are allowed to work in an efficient, safe facility.
- 4 Be a great neighbor.** The Farmland site is adjacent to a residential neighborhood. Carefully study impacts and design to control traffic, sound, visual and light impacts on this community through careful design.
- 5 Contribute to the surrounding ecosystem.** Plant three new trees for every mature tree removed during construction. Remediate site to establish 5 feet of fertile soil over 50% of the buildable site within 5 years, and fully remediate the soil on the entire site within 50 years.
- 6 Reduce water usage.** Benchmark indoor water use and develop strategies to reduce by 20%, without reducing functionality. Explore capturing water from roofs, and using it to wash vehicles and irrigate landscaped areas.
- 7 Reduce stormwater impacts.** Design the site to capture stormwater run-off so as to not burden the municipal stormwater system, and to not allow contaminated run-off to flow beyond site perimeter.
- 8 Design for the present...and the future.** Consider current needs in context of predicted future industry trends, and design to create facilities that are flexible enough to adapt. Use Life Cycle Analysis tools to balance initial construction costs with longer term operational costs. LCA also includes understanding the costs and benefits of protecting vehicles from the elements.
- 9 Show leadership in energy efficient design.** Use energy modeling and analysis in early stages to make wise decisions on energy HVAC systems, daylighting strategies and insulation levels. Use 100% renewable energy and ensure that all buildings contribute to renewable energy goal, or at a minimum are "PV ready".
- 10 Promote the health and well being of staff.** Focus on glare free daylighting, acoustic controls, access to ventilation and fresh air, soil vapor intrusion and other environmental components that contribute to workers feeling healthy and productive.
- 11 Be resilient.** Design to maintain continuous operation in the midst of and aftermath of disasters. Design to adapt, should future emergencies dictate temporary uses for the project. Design to meet typical social distancing requirements of future pandemics. Additionally--address resiliency of some existing facilities. Although some are obsolete and located in flood-prone areas, some have the potential to be repurposed to address community needs.

05 The Vision

After thoroughly reviewing the operational needs of each Division, the Design Team developed a series of test fit options for the Farmland Site. The topographic conditions, adjacency to the surrounding community, and the remediation of contaminated soil were taken into consideration when determining placement of buildings on site. After thorough analysis and consideration of the complexities of this site, a Master Plan concept was developed.

- 1. Fuel Island
- 2. MSO Building: Water, Wastewater, Streets, Stormwater, Traffic & Inspections Divisions
- 3. Central Maintenance Garage
- 4. Solid Waste Division
- 5. Facility Maintenance Division
- 6. Forestry & Horticulture Divisions
- 7. Household Hazardous Waste Division
- 8. Rainwater Collection Tank
- 9. Existing Bag Warehouse
- 10. Existing Bulk Warehouse
- 11. Stormwater Retention Pond

- ▲ - Primary Entry - O'Connell Rd & E 19th Street
All MSO traffic to travel on O'Connell Road only
- ▽ - Secondary Entry - Emergency Use Only
- === - Railroad Spur Easement
- - Property Line



Phase 01

Final phasing for the Lawrence Field Operations Campus will be determined. It is likely that either the Central Maintenance Garage, or the MSO Building, which would include Water, Wastewater, Streets, Stormwater, Traffic and Inspections Divisions. The following phasing analysis assumes the MSO Building would be developed first. If it is determined that Central Maintenance Garage should go first, an alternate phasing analysis will be developed--although later phases in both instances are similar.

Phase 01 is proposed to include the construction of an entry road to the site as well as a fuel island for use of City vehicles. Additionally, construction would include Administrative spaces, Division Operation Critical spaces, and necessary site paving for the public works building which houses MSO Building. Site paving for the MSO Divisions would be covered as part of Phase 2.



■ Built in previous phase

□ Under construction

■ Construction involves moving contaminated soil

⋯ Contaminated Soil Remediation Zone

⋯ Construction traffic

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Phase 02

Phase 02 is proposed to include the construction of the MSO Conditioned Storage Building for MSO fleet vehicles. It would attach to Phase 01 Construction, which included the Administration and Division Operation Critical spaces for the MSO Divisions.

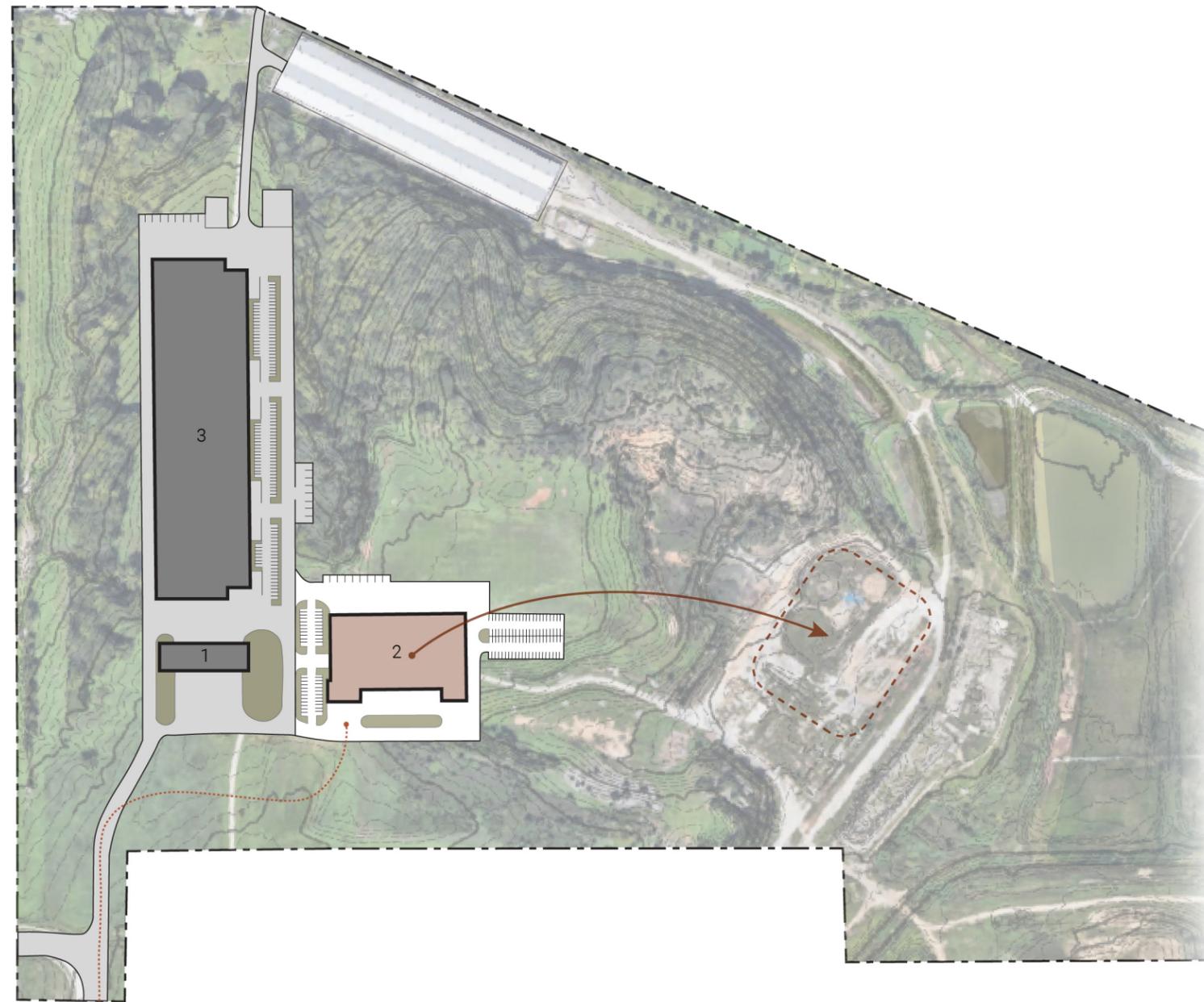


- Built in previous phase
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Phase 03

Phase 03 is proposed to include the construction of the Central Maintenance Garage as well as site paving for staff vehicles and staging of city vehicles in need of maintenance. The Central Maintenance Garage will be constructed on contaminated soil that will need remediation. The soil removed during construction will be moved to the contaminated soil remediation area.



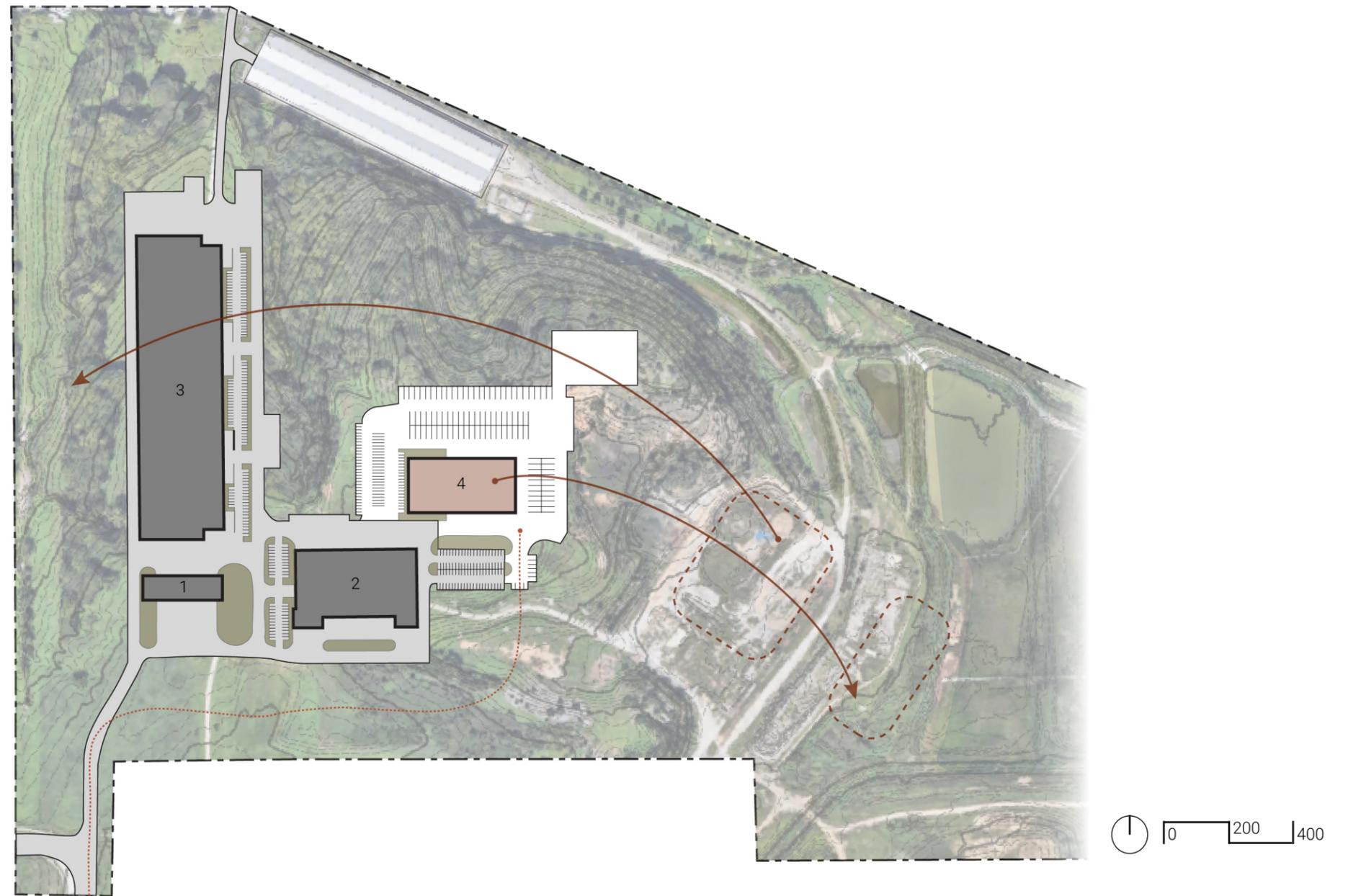
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Phase 04

Phase 04 is proposed to include the construction of the Solid Waste Division building and required site paving for staff and fleet vehicles. Additionally, overhead canopies will be constructed over fleet parking areas.

The Solid Waste Division building will be constructed on contaminated soil that is in need of remediation. The soil removed during construction will be transferred to the contaminated soil remediation area. Additionally, The soil removed from the Central Maintenance garage site during phase 3 will have concluded the remediation process and can be used for landscaping on or off site.



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□ Under construction

■ Construction involves moving contaminated soil

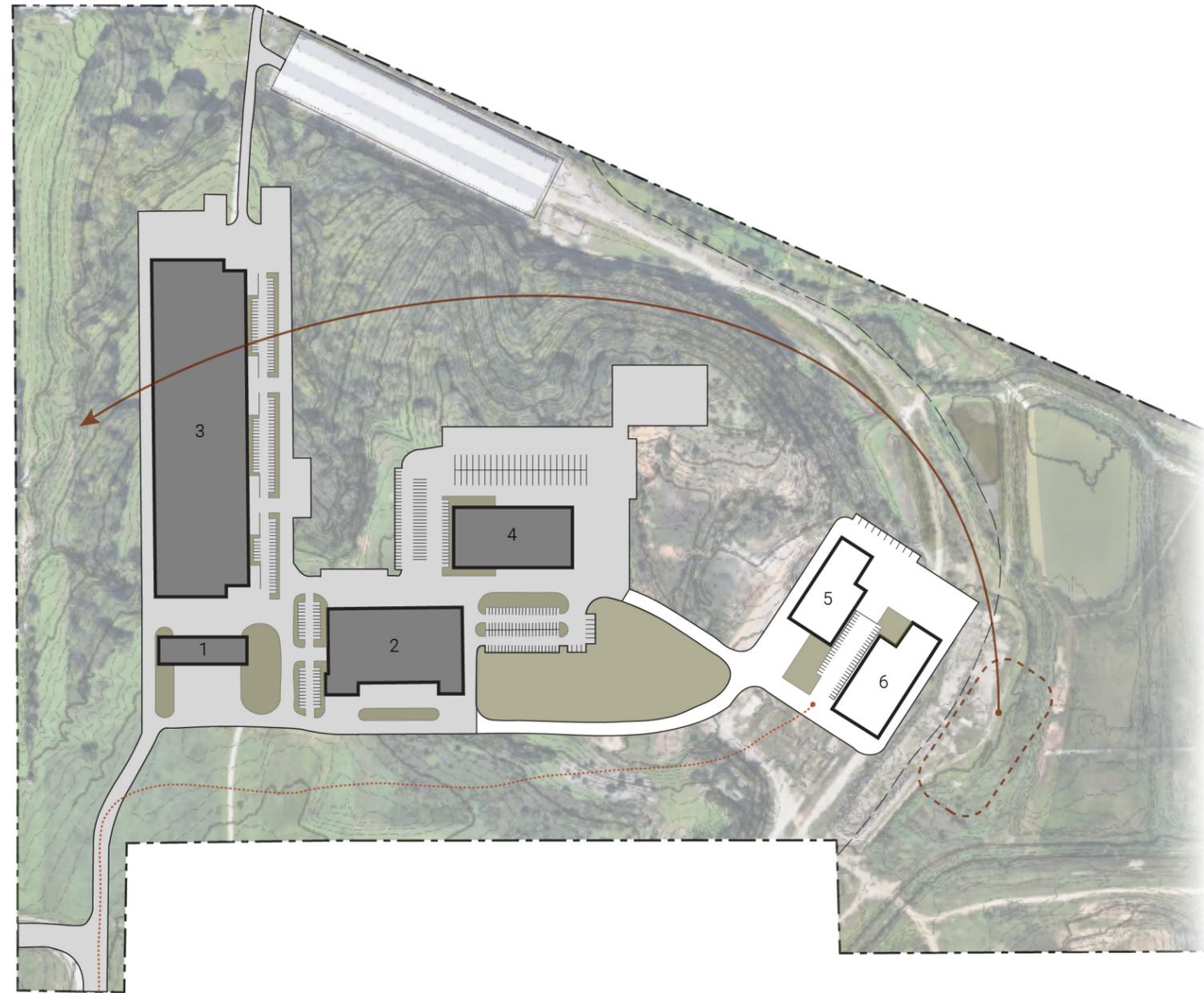
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Phase 05

Phase 05 is proposed to include the construction of Facilities, Forestry and Horticulture Divisions. The soil removed from the Solid Waste site during phase 4 will have concluded the remediation process and can be used for landscaping on or off site.



 Built in previous phase

 Under construction

 Construction involves moving contaminated soil

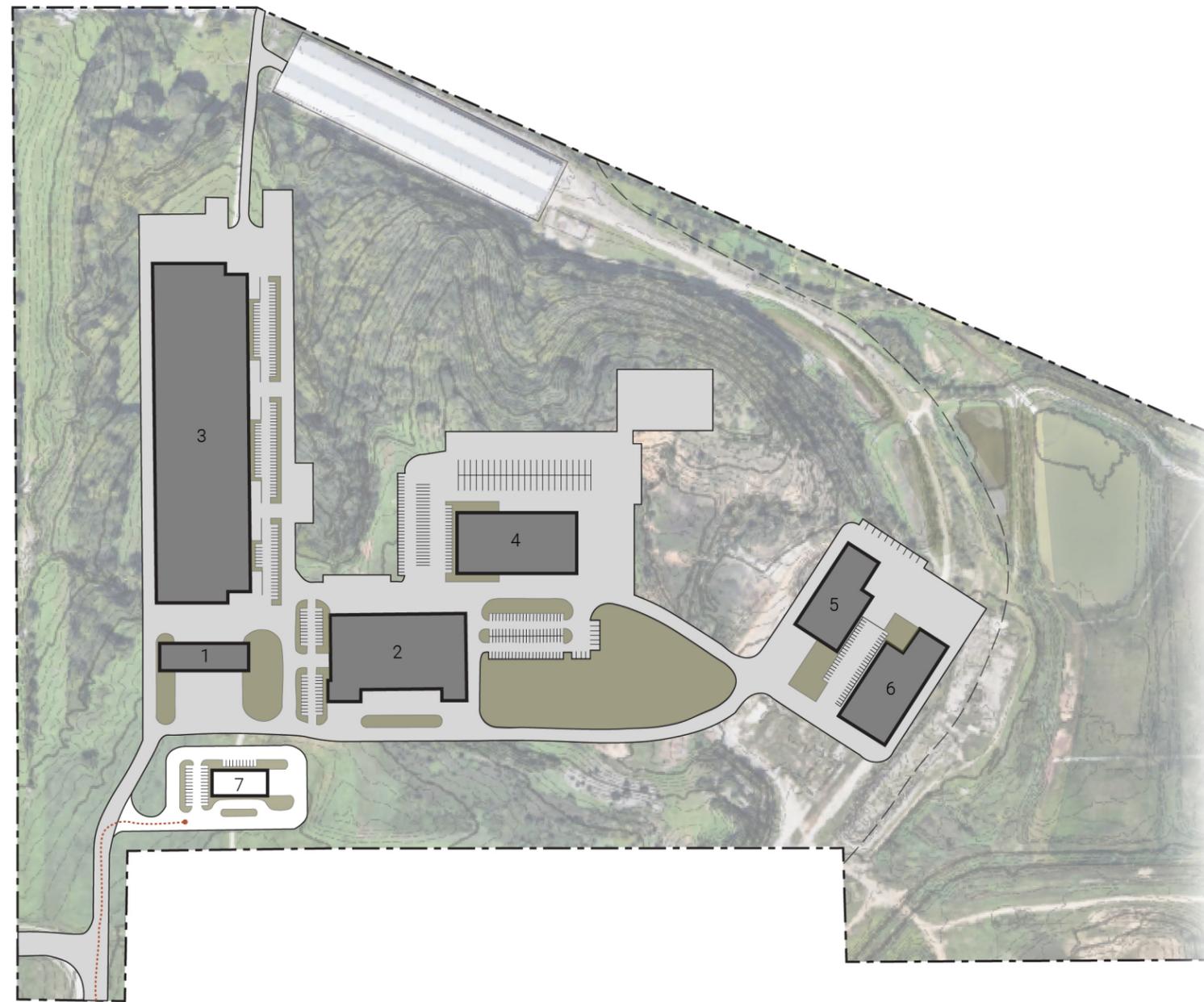
 Contaminated Soil Remediation Zone

 Construction traffic

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Phase 06

Phase 06 is proposed to include the construction of a Household Hazardous Waste Facility and required site paving. The building is located near the entry to the site, stemming directly from the main entry drive. Due to the public nature of the facility, it is critical that this building be located in a area that is easily accessible to the public, while still providing security to the rest of the campus.



-  Built in previous phase
-  Under construction
-  Construction involves moving contaminated soil
-  Contaminated Soil Remediation Zone
-  Construction traffic

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Lawrence Field Operations Facility Master Plan

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