

Mercer Island Public Safety and Maintenance Facility



Presentation Agenda

- I. PSM Facility Initial Planning**
- II. City Staff & Design Team Work Sessions and Input**
- II. Input Summary**
- III. Reorganizing the plan to manage costs, work better, and serve the city longer**
- IV. Strategic question for council response**

Following this review, and facility revisions based on staff and team input, the design team will assemble comparative building areas for review.

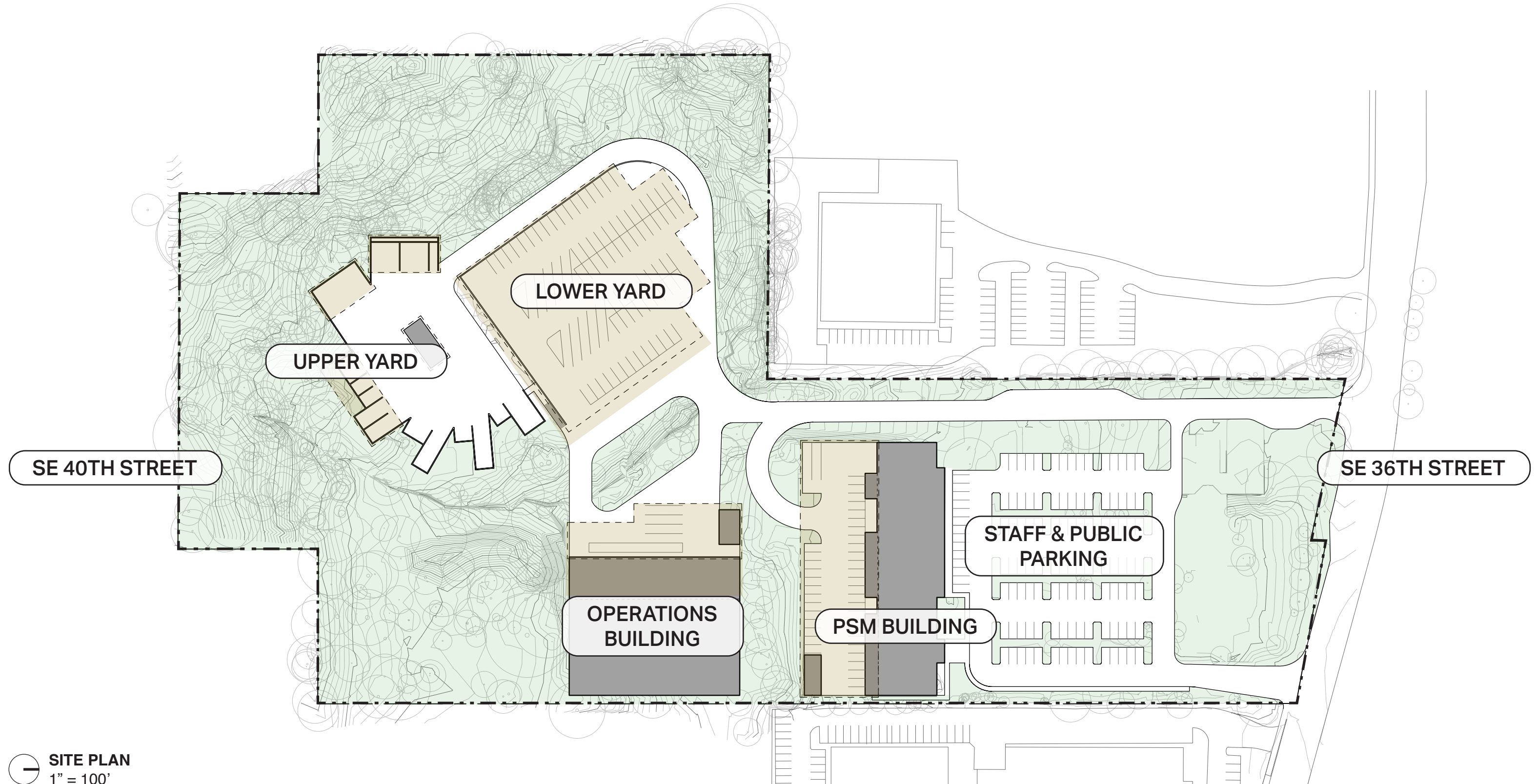
AERIAL PHOTOGRAPH OF THE EXISTING SITE

This photograph illustrates the existing city-owned site, with the property line indicated in yellow. This slide is provided for orientation purposes.



INITIAL FACILITY SITE PLAN

This site plan represents the initial facility layout reviewed in prior council sessions, and with city staff, for facility program and operational organization.

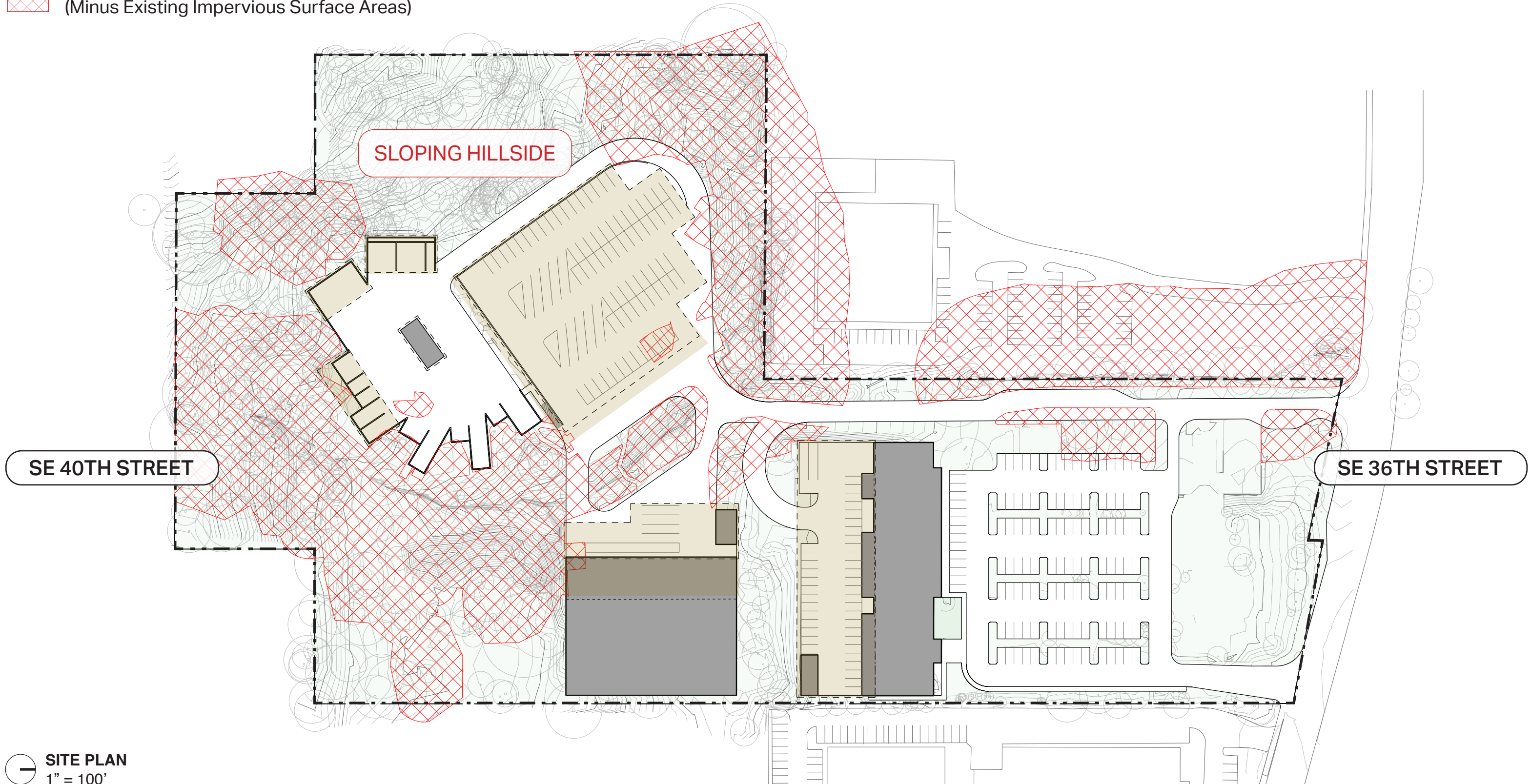



SITE PLAN
1" = 100'

A LAYOUT BOUNDED BY SITE CONSTRAINTS

The initial plan is tightly bounded by surrounding critical areas and sloping topography.

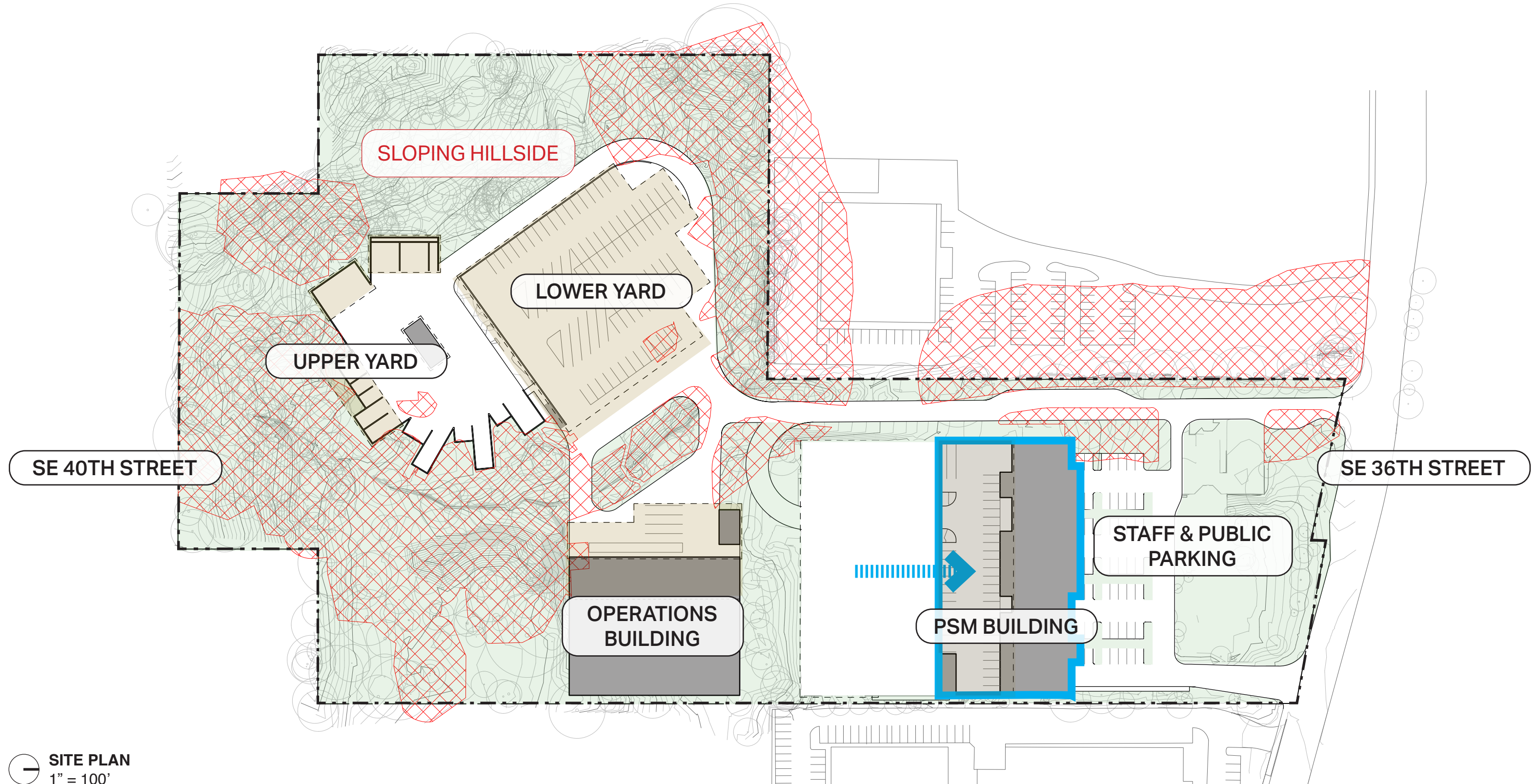
 Critical Area Buffers
(Minus Existing Impervious Surface Areas)



 SITE PLAN
1" = 100'

PSM BUILDING LOCATION

At the March 4th council meeting, a question was posed about shifting the PSM building to the north as a way to provide capacity on the site for future needs, and longevity in the plan.



 **SITE PLAN**
1" = 100'

Council Direction Needed

This presentation will review a reorganization of the site layout made possible by a change in the location of the PSM Building.

The Design Team and city staff believe that the change in PSM Building siting is worthwhile. This layout change would reduce costs, increase operational effectiveness, and leave room for potential future operational capacity or changing needs to ensure that this facility is positioned for long-term service.

The Design Team and city staff are seeking Council approval of this design

City Staff Worksessions

To review the conditions that shape reorganization of the plan, it is important to review key input from city staff and design team worksessions.

March 5th

Public Works Staff Meeting to review PSM Building, Operations Building, Lower Yard and Upper Yard program and operational relationships.

March 11th & 13th

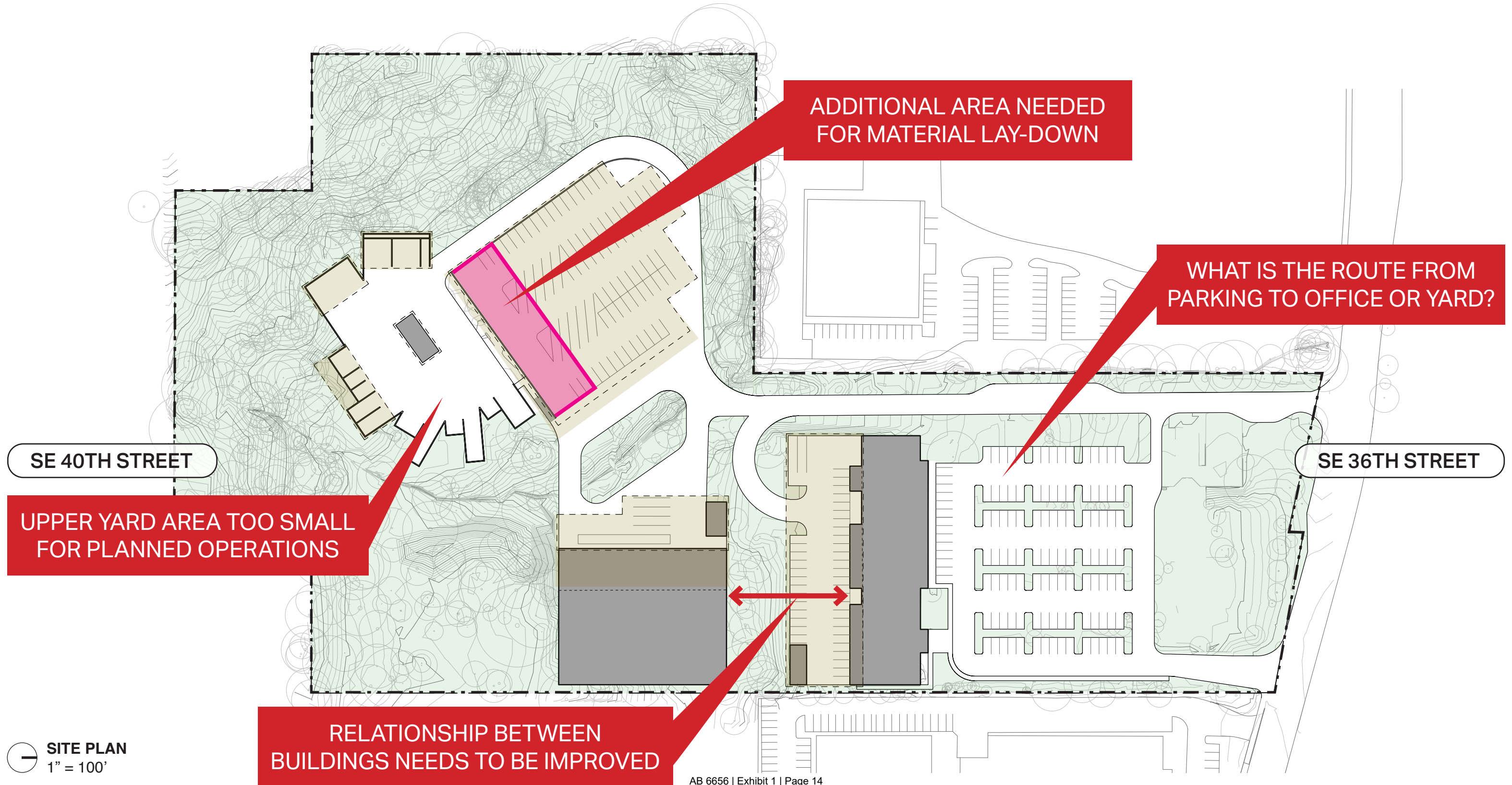
MIPD Staff Meetings to review PSM Building and site plan program and operational relationships.

March 13th

EOC Staff Meeting to review PSM Building and site plan program and operational relationships.

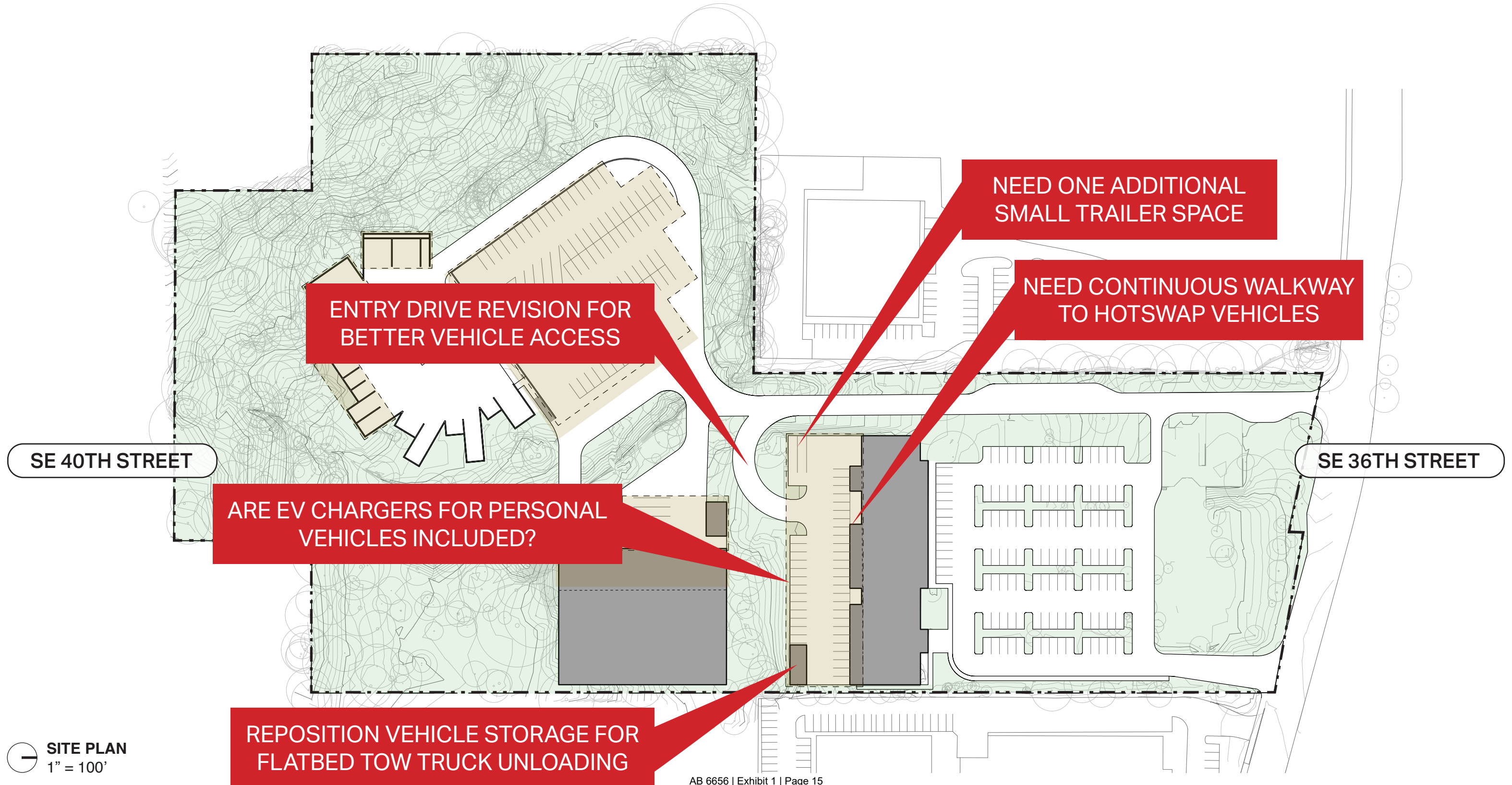
PUBLIC WORKS DEPARTMENT SITE PLAN INPUT

This site plan diagram illustrates input received from Public Works staff that inform layout adjustments to the site plan.



MIPD SITE PLAN INPUT

This plan provides an example of the input received from MIPD Chief-of-Police, Commanders, Sergeants, Corporals, and Officers that inform layout adjustments to the site plan.



SITE PLAN
1" = 100'

MIPD PSM BUILDING INPUT

This plan provides an example of the input received from MIPD Chief-of-Police, Commanders, Sergeants, Corporals, and Officers that inform layout adjustments to the building plan.

CHANGE LAYOUT OF REPORT WRITING AREA TO PROMOTE EASIER COLLABORATION

REMOVE THROUGH-HALLWAY FROM LOCKER AREA

PROVIDE DIVE LOCKER ACCESS TO EXTERIOR

PROVIDE EXTERIOR AREA FOR CLEANING OFF BEFORE ENTERING

BREAK ROOM SHOULD INCLUDE FULL KITCHEN AND CAN DOUBLE AS BRIEFING ROOM

REVISE LAYOUT TO BETTER ALIGN WITH DEPLOYMENT SEQUENCE OF ACTIVITIES

MIPD PSM BUILDING INPUT

This plan provides an example of the input received from MIPD Chief-of-Police, Commanders, Sergeants, Corporals, and Officers that inform layout adjustments to the building plan.

REVISE HOLDING AREA LAYOUT FOR MORE STORAGE AND STAFF BOOKING SPACE

IMPROVE RECORDS AREA CIRCULATION. INCLUDE ADDITIONAL SPACE FOR BODY CAMERA FOOTAGE REVIEW

PROVIDE MORE DIRECT ACCESS TO FITNESS AREA, WITH SPACE TO SECURELY STORE DUTY GEAR

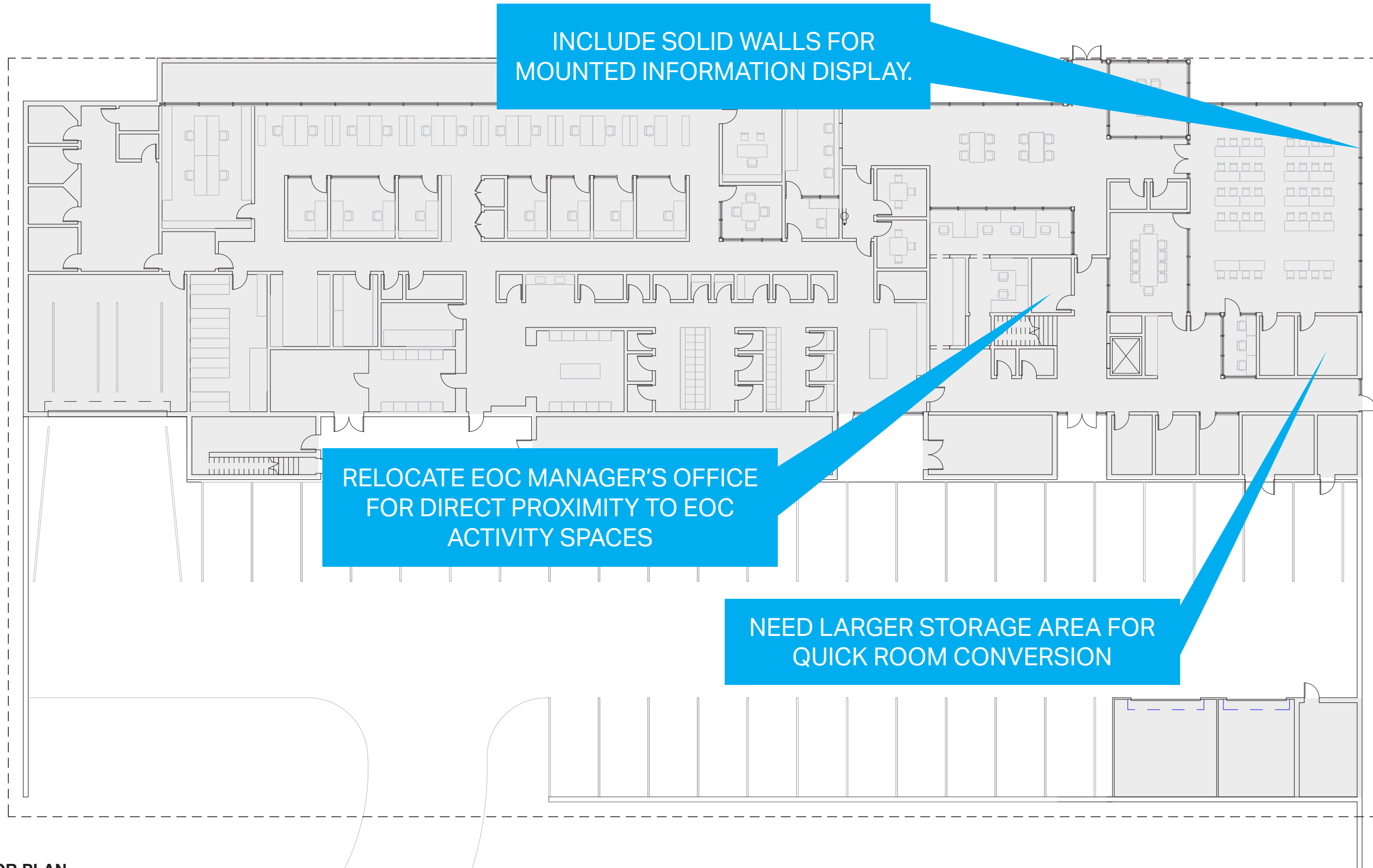
INCLUDE ADDITIONAL INTERVIEW ROOMS THAT COULD BE SHARED WITH OTHER DEPARTMENTS

PROVIDE DIRECT EXTERIOR ACCESS FROM EVIDENCE. ADDITIONAL OFFICE AREA NEEDED.

RELOCATE SPECIAL OPS ROOM TO IMPROVE DEPLOYMENT ROUTE

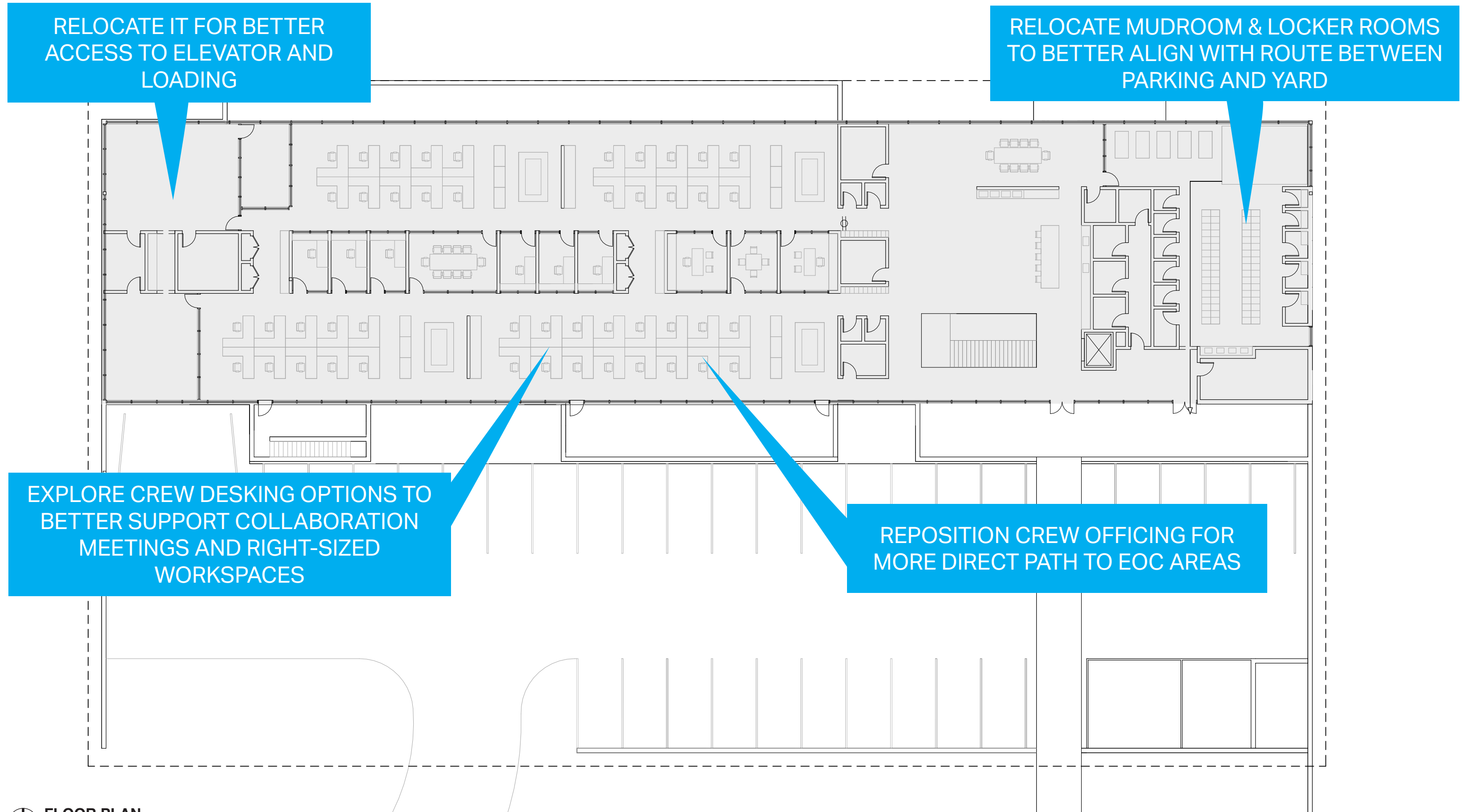
EOC PSM BUILDING INPUT

This plan provides an example of the input received from Emergency Operations Center manager that inform layout adjustments to the building plan.



PUBLIC WORKS STAFF INPUT

This plan provides an example of the input received from Public Works staff that inform layout adjustments to the building plan.



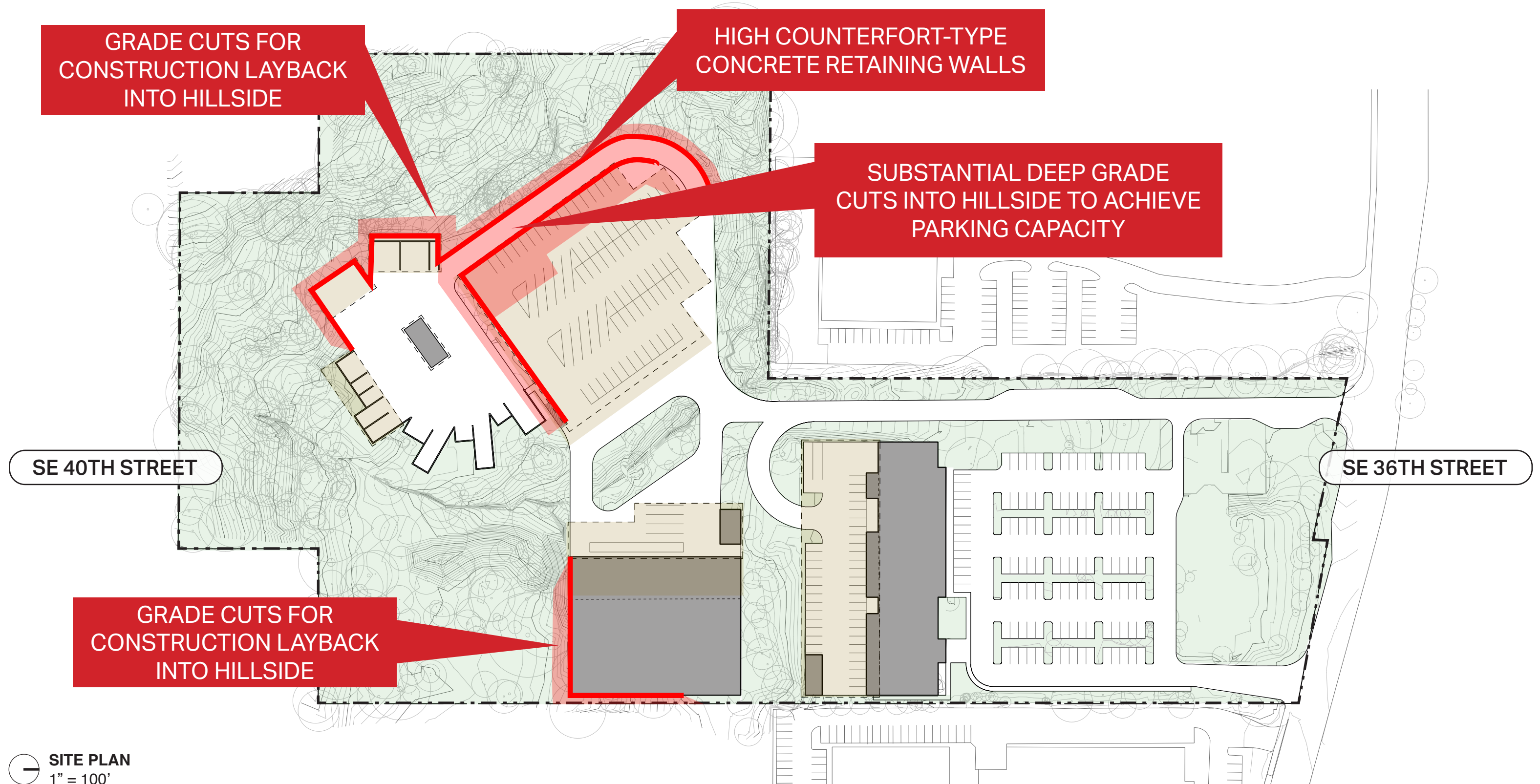
Design Team Worksessions

March 5th - March 21st

Design team session reviews with Civil Engineering, Structural Engineering, Building Systems (Mechanical, Plumbing, Electrical, and IT), and Landscape Architecture, were focused on value engineering synergies with plan revisions that address staff input.

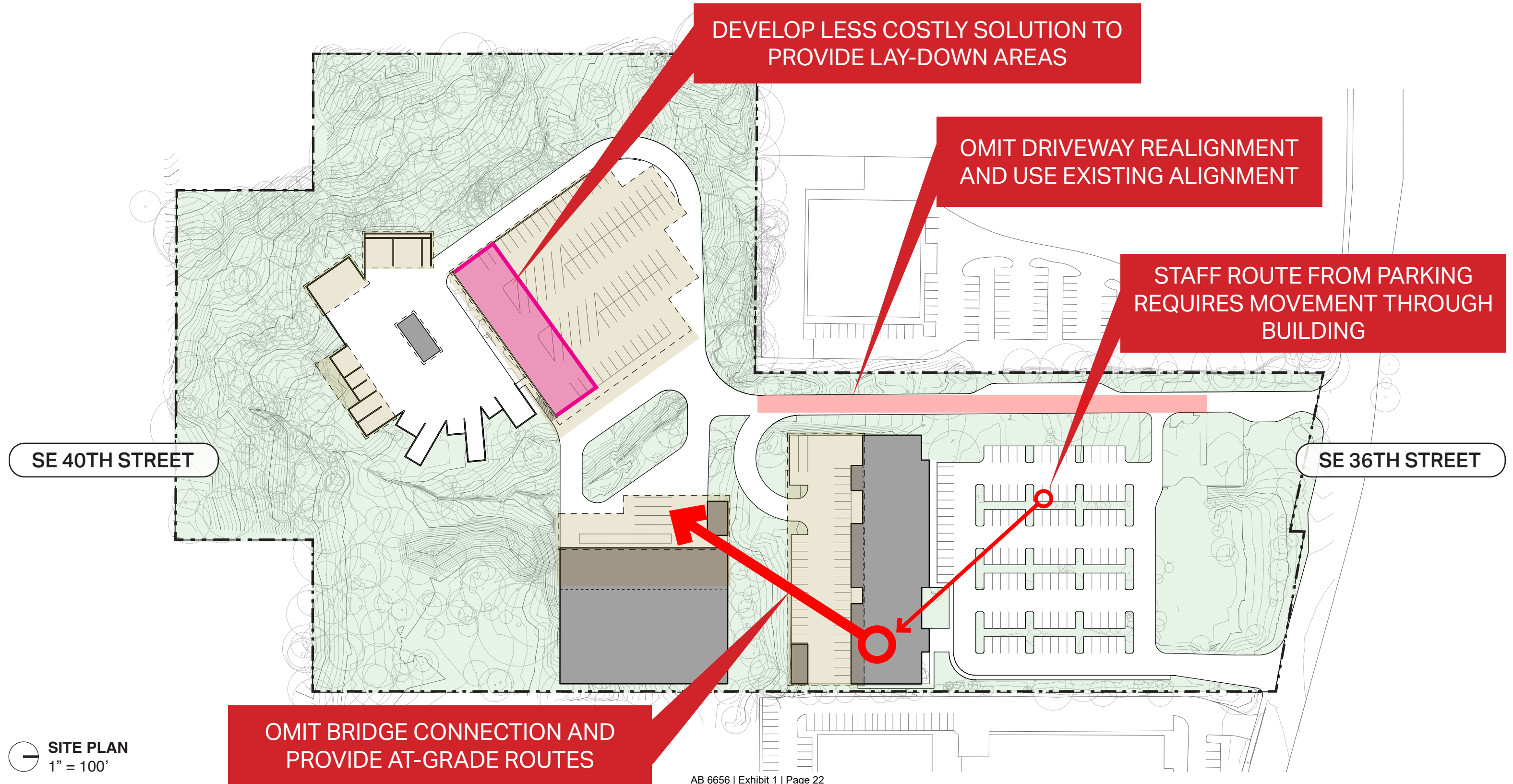
DESIGN TEAM WORK SESSION INPUT

This plan provides an example of the input received from Design Team work sessions focused on value engineering and addressing staff input.



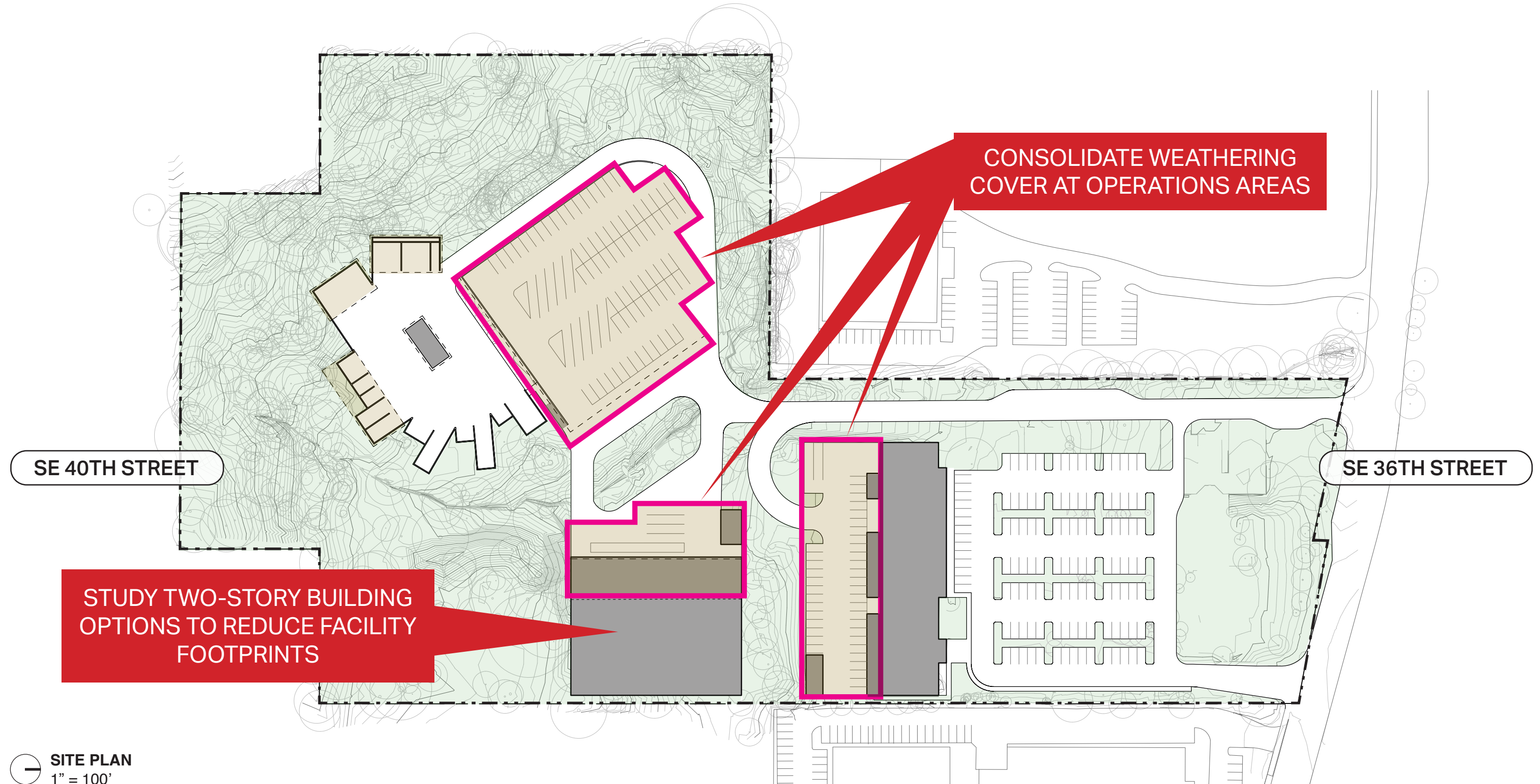
DESIGN TEAM WORK SESSION INPUT

This plan provides an example of the input received from Design Team work sessions focused on value engineering and addressing staff input.



DESIGN TEAM WORK SESSION INPUT

This plan provides an example of the input received from Design Team work sessions focused on value engineering and addressing staff input.



SITE PLAN
1" = 100'

Input Summary and the location of the PSM Building

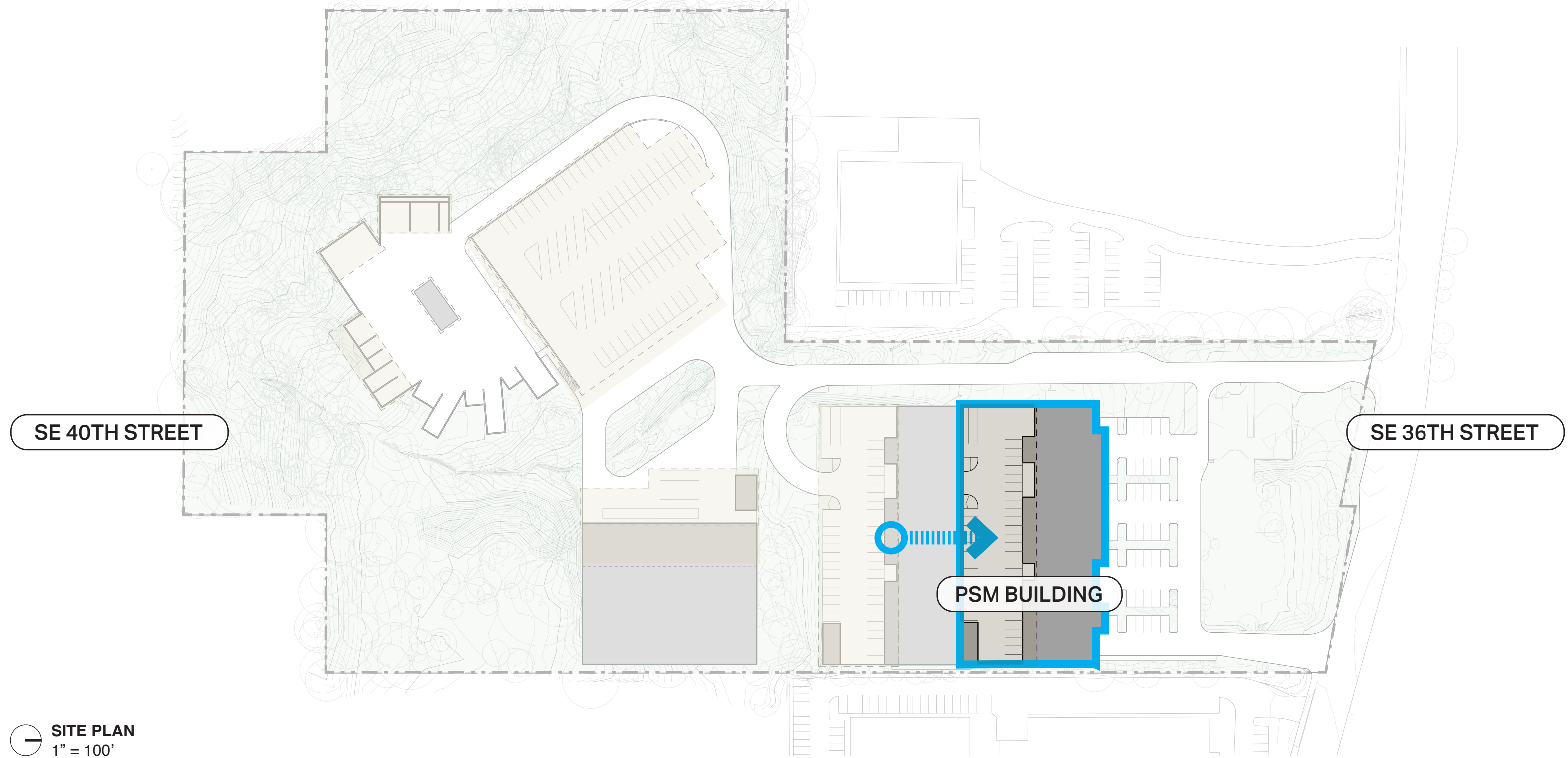
WORK SESSION SUMMARY AND VALUE ENGINEERING STRATEGIES

- 1. Consolidate buildings, operational areas, and weathering cover to realize cost savings and increase operational efficiency.**
- 2. Reconfigure yard areas to reduce or eliminate high concrete retaining structures and associated substantial grade cuts to realize cost savings.**
- 3. Improve site circulation and lower related costs by retaining the existing entry drive alignment and designing at-grade staff circulation between parking areas and site facilities.**
- 4. Increase yard areas to accommodate planned operations and lay-down capacities without constructing costly a elevated concrete podium.**
- 5. Revise MIPD parking area to accommodate additional equipment, maneuverability, and operational area changes.**
- 6. Incorporate areas for facility expansion for long-term viability and service to the City of Mercer Island.**

THE LOCATION OF THE PSM BUILDING

Locating the PSM Building at the southernmost end of the city hall parking lot constrains site redevelopment, with operational and programmatic challenges identified by staff and design and engineering challenges identified by the design team.

Shifting the PSM Building to the north enables site reorganization to realize cost savings, increase and improve areas for operations, and provide long-term flexibility.



 **SITE PLAN**
1" = 100'

Reorganizing the plan



PSM FACILITY SITE PLAN

This site plan illustrates the reconfigured layout for facilities and operational areas. Buildings and covered operations areas are relocated and consolidated on the eastern portion of the site, opening the western portions of the site for Yard functions.



SITE PLAN
1" = 100'



SE 40TH STREET

UPPER YARD

LOWER YARD

OPERATIONS BUILDING

COVERED VEHICLES & EQUIPMENT

PSM BUILDING

PUBLIC & STAFF PARKING

SE 36TH STREET

Improved Capacities

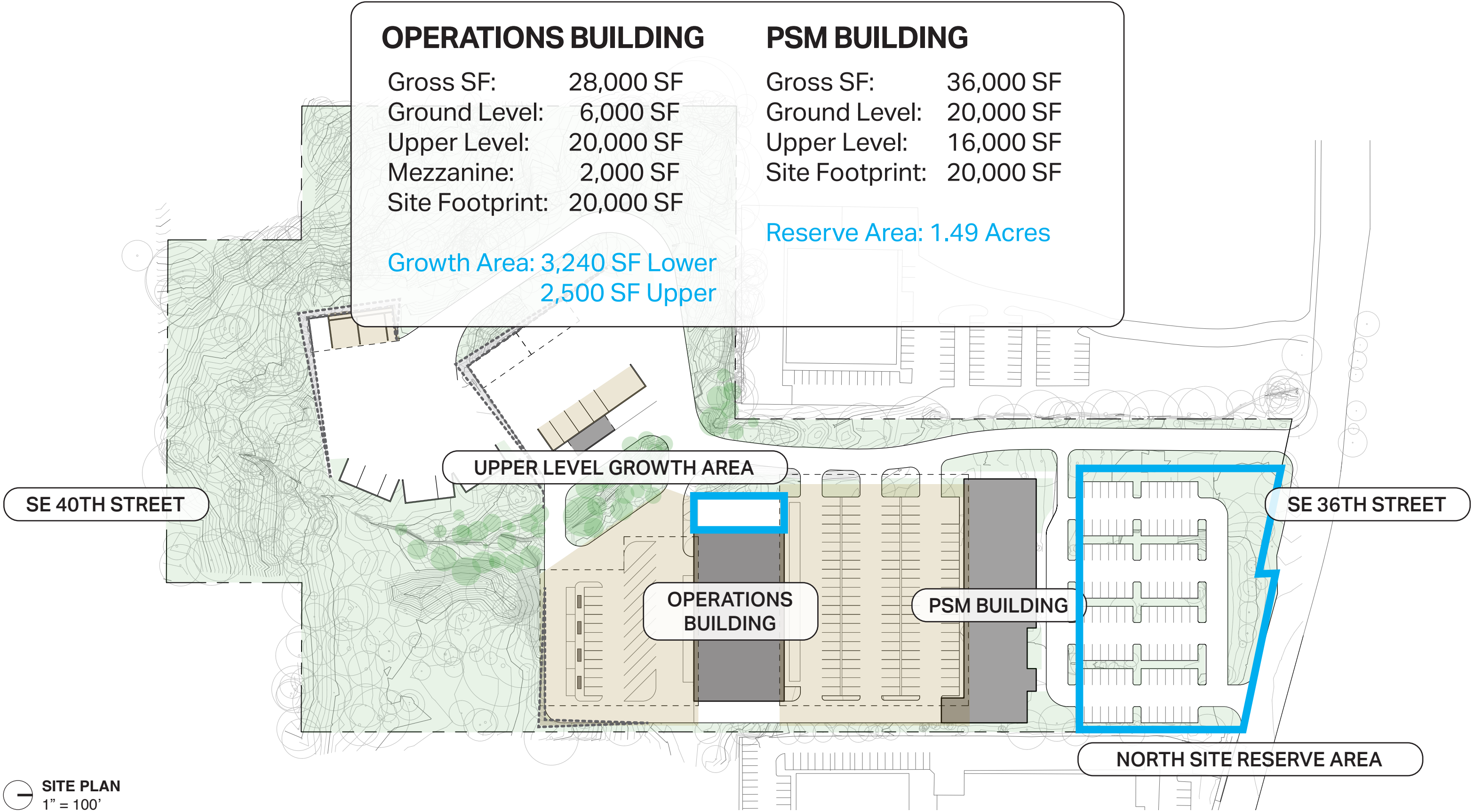


BUILDING AREAS ON SITE MEET PROGRAM FORECASTS WITH ROOM FOR FUTURE NEEDS

The layout maintains initial program square footages while providing adjacent areas for future needs.

OPERATIONS BUILDING		PSM BUILDING	
Gross SF:	28,000 SF	Gross SF:	36,000 SF
Ground Level:	6,000 SF	Ground Level:	20,000 SF
Upper Level:	20,000 SF	Upper Level:	16,000 SF
Mezzanine:	2,000 SF	Site Footprint:	20,000 SF
Site Footprint:	20,000 SF	Reserve Area: 1.49 Acres	

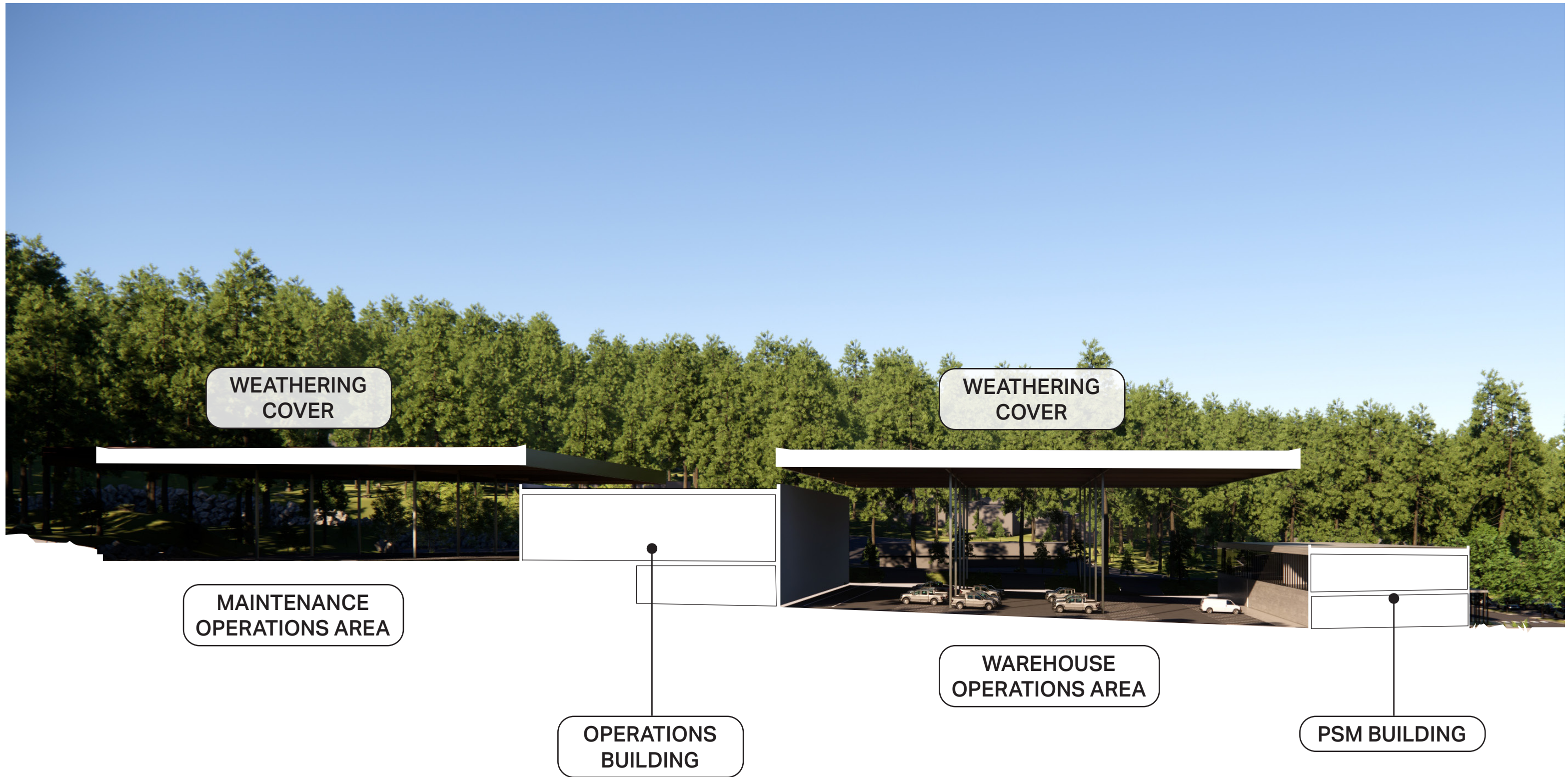
Growth Area: 3,240 SF Lower
2,500 SF Upper



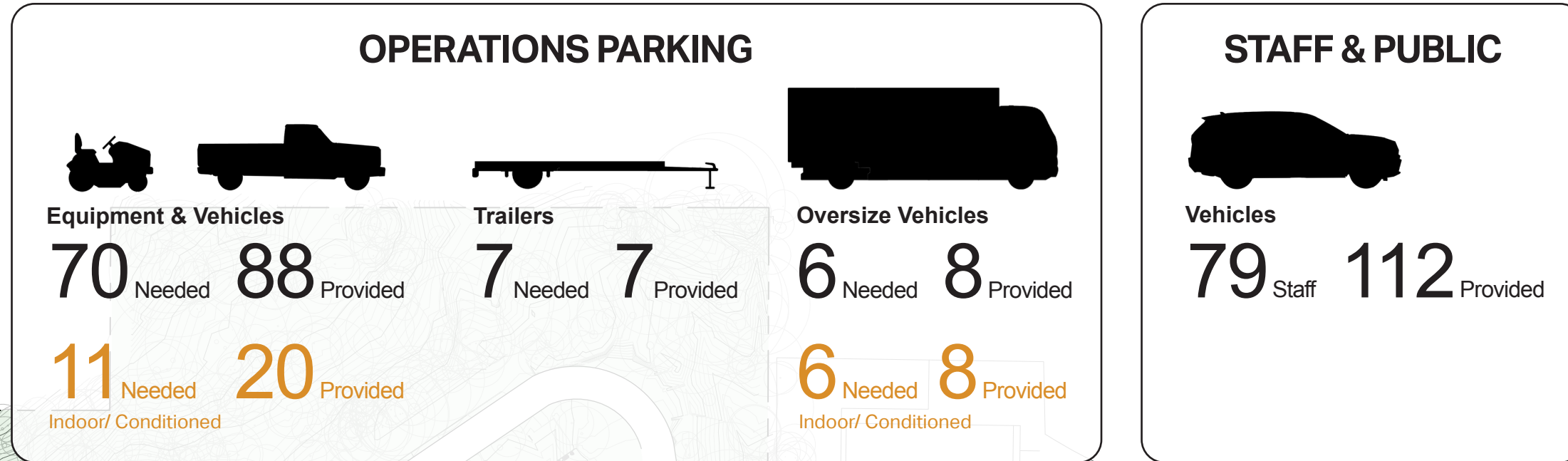
SITE PLAN
1" = 100'

WORKING WITH THE SLOPE OF THE SITE

The layout takes advantage of the site's grade change to reorganize the Operations Building into two stories, rather than a single story, consolidating the building's footprint and providing more site area for vehicles and equipment.






VEHICLE AND EQUIPMENT AREAS MEET PROGRAM FORECASTS WITH ROOM FOR FUTURE NEEDS

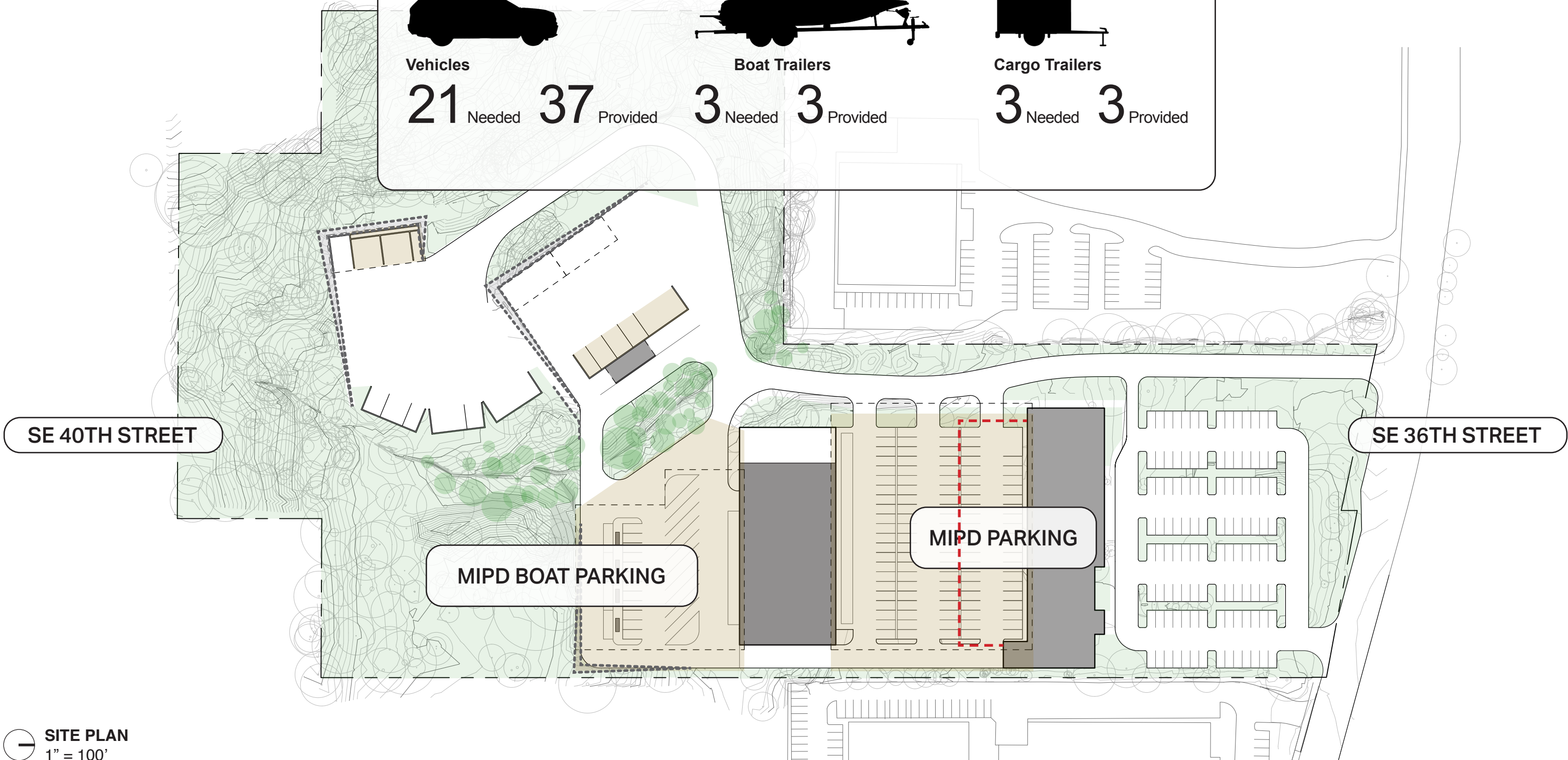


SITE PLAN
1" = 100'

VEHICLE AND EQUIPMENT AREAS MEET PROGRAM FORECASTS WITH ROOM FOR FUTURE NEEDS

MIPD PARKING

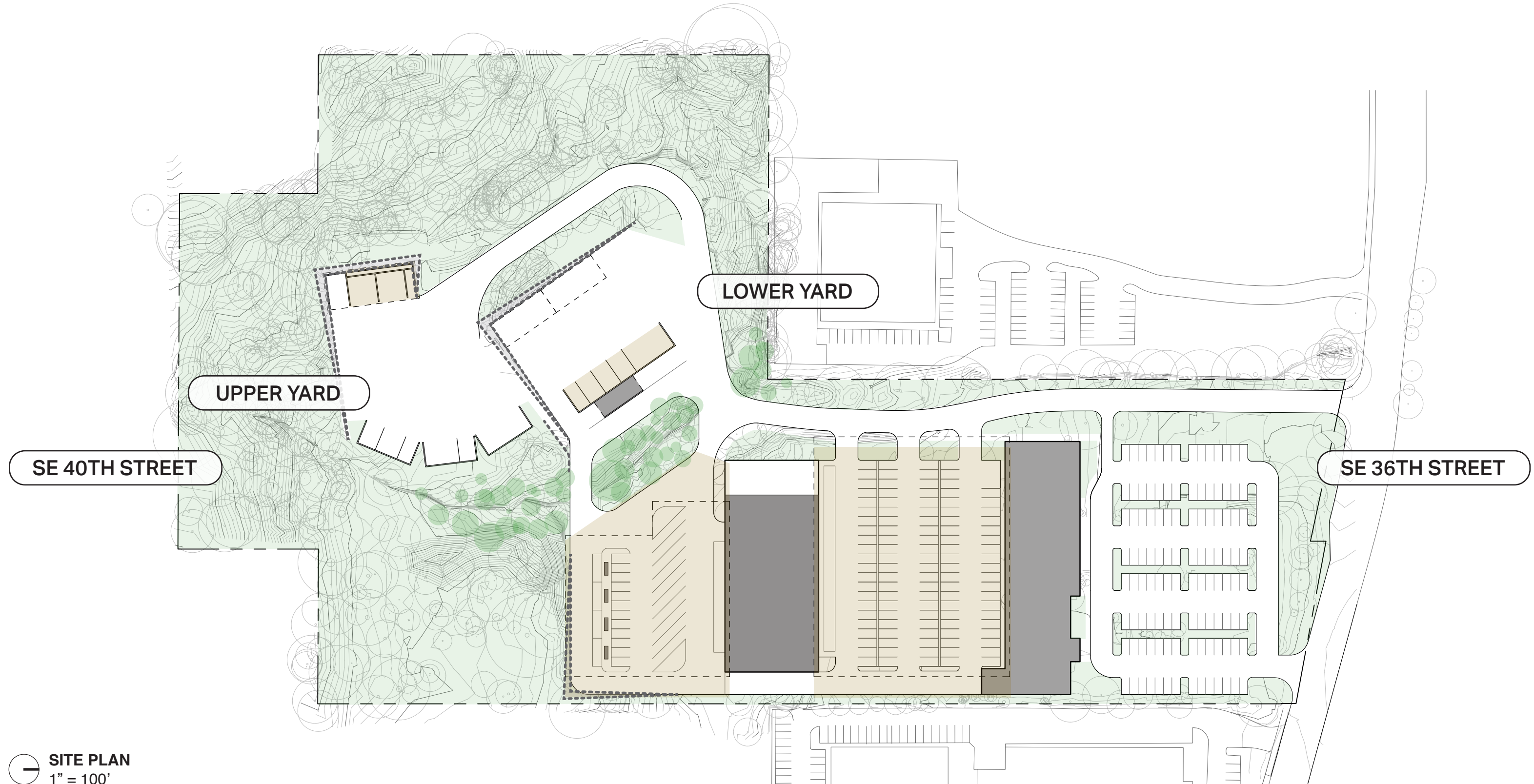
Vehicle Type	Needed	Provided
 Vehicles	21	37
 Boat Trailers	3	3
 Cargo Trailers	3	3



SITE PLAN
1" = 100'

LOWER AND UPPER YARD AREAS

This diagram illustrates the proposed Upper and Lower Yard areas located on the western, and southwestern, portions of the site.

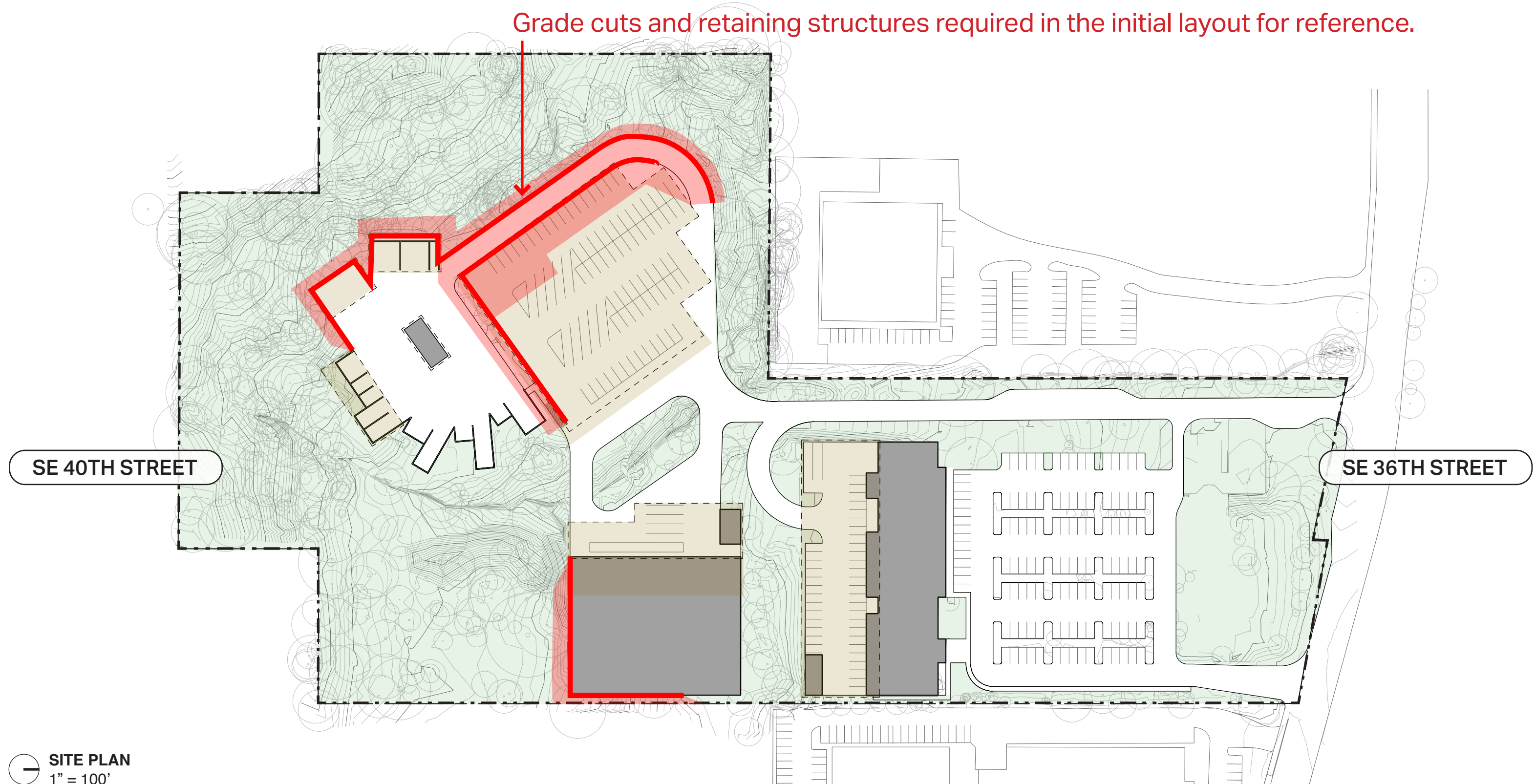


SITE PLAN
1" = 100'

INITIAL YARD SITEWORK

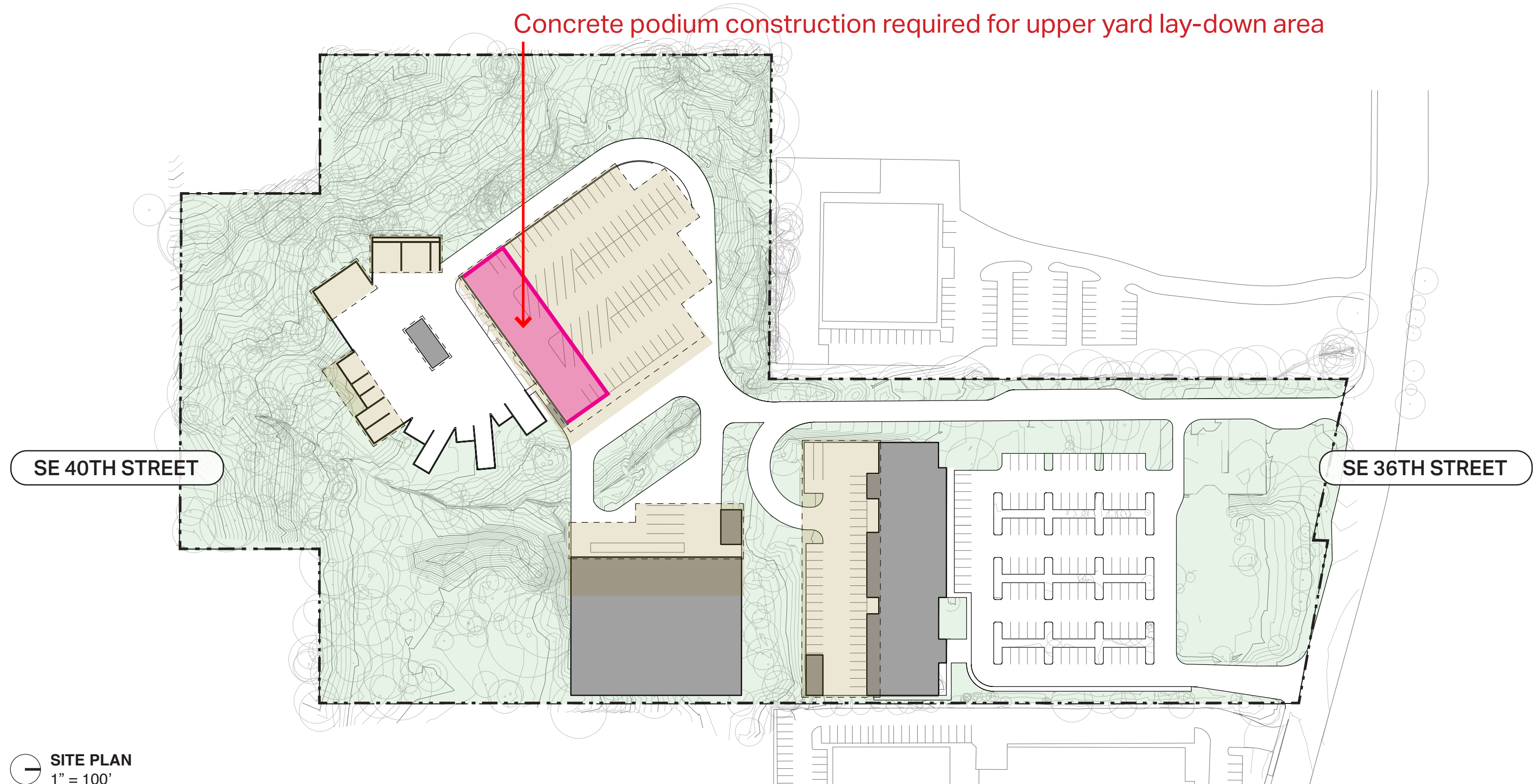
This diagram illustrates the grade cuts required in the initial site plan layout. Initial plan grade cuts and retaining structures achieved an additional +/- 14,000 SF in required usable area at a cost of +/- \$2,500,000.

Grade cuts and retaining structures required in the initial layout for reference.



ADDITIONAL LAY-DOWN

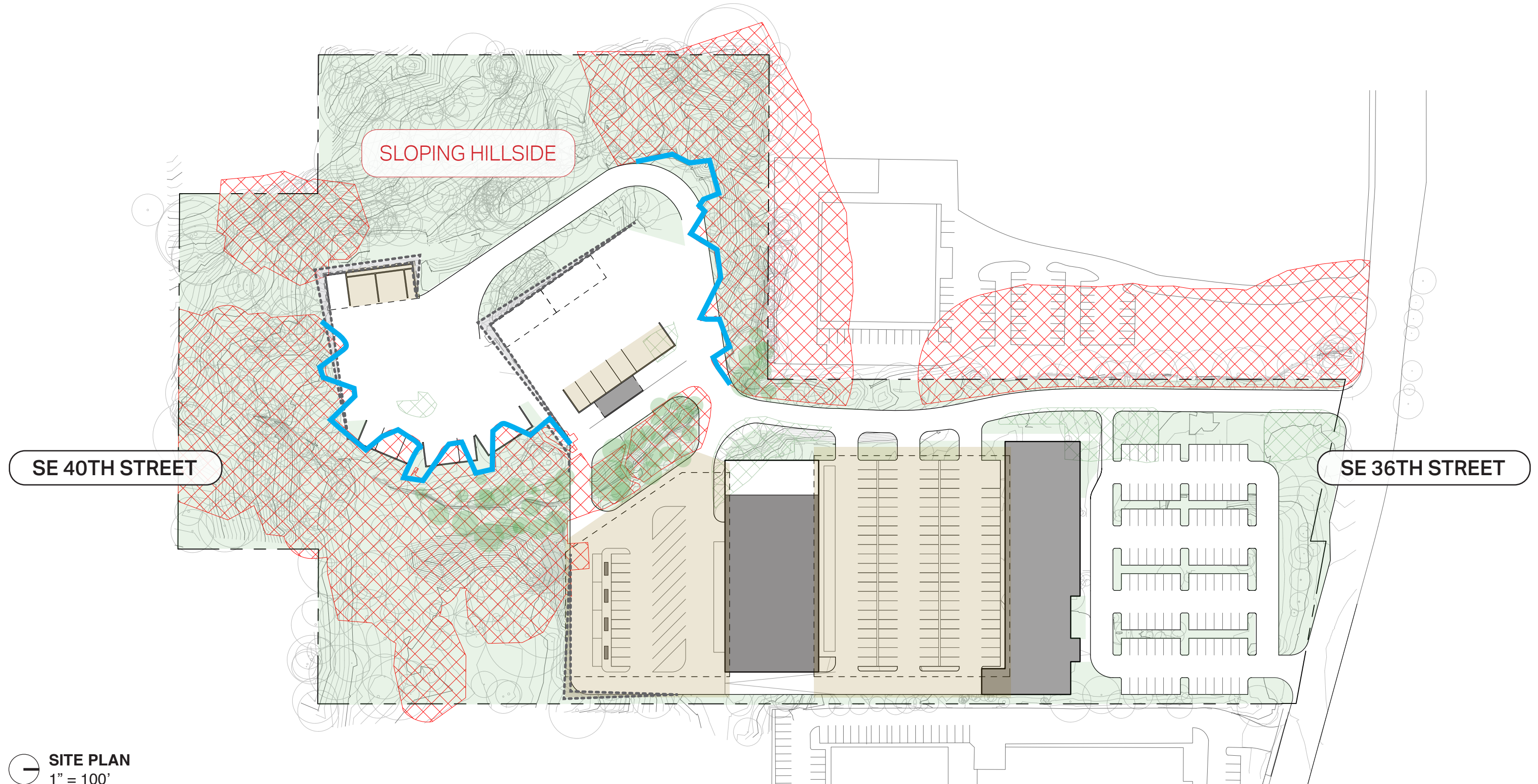
This site plan illustrates a load bearing structure designed to provide approximately 8,000 Square Feet to site storage capacity for Upper Yard lay-down needs. The cost of this concrete structure may range between +/- \$1,000,000 to \$2,000,000.



SITE PLAN
1" = 100'

CRITICAL AREAS AND SLOPING HILLSIDES

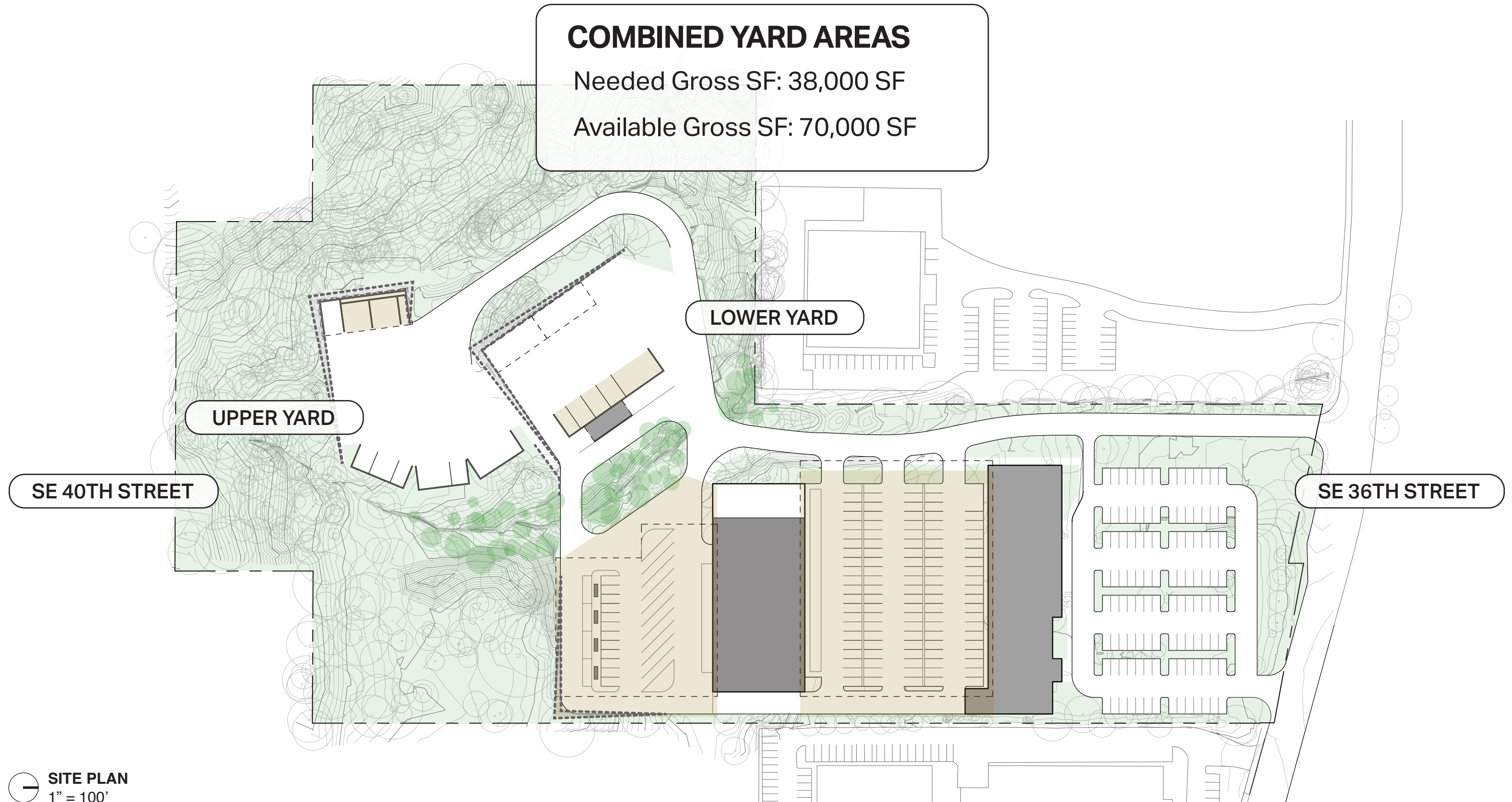
The proposed Lower and Upper Yards will review buffer averaging in select areas, working towards whole-site improvement and mitigation strategies, and work to refrain from making deep grade cuts into adjacent hillsides.



SITE PLAN
1" = 100'

VALUE ENGINEERING TO MEET PROGRAM FORECASTS WITH ROOM FOR FUTURE NEEDS

Consolidating facilities relieves capacity pressures that drove grade cuts and retaining structures. For the Upper and Lower Yards, reconfiguring the site to spend +/- \$3,500,000 less, realizes 2.4-times the required yard area for current use and future needs.



SITE PLAN
1" = 100'

SE 36th St Reserve Area

SE 40TH STREET

RESERVE AREA

SE 36TH STREET

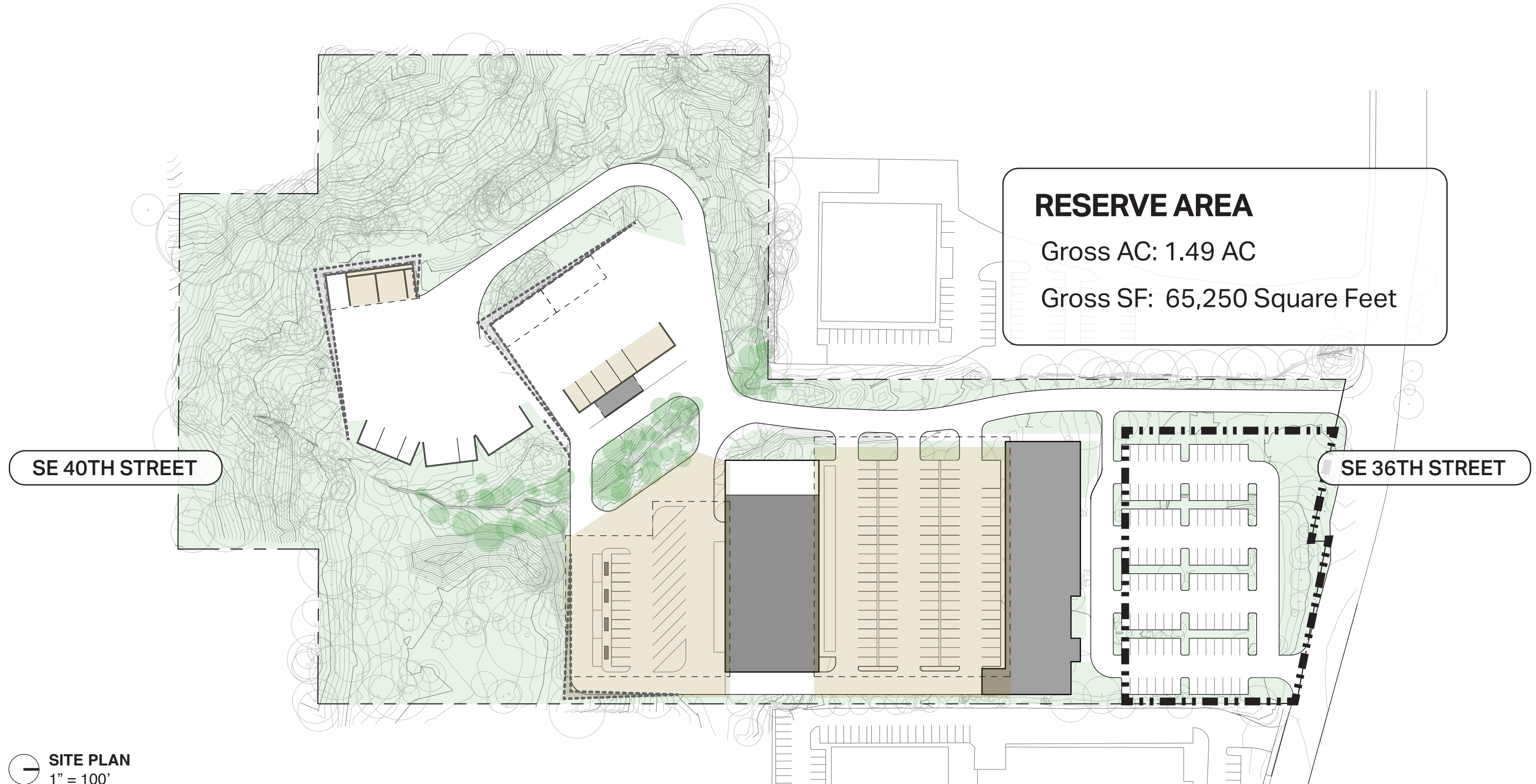
PARCELS IN TOWN CENTER

This aerial photograph depicts buildings and parcel lines located in Mercer Island's Town Center. Many parcels in Town Center range between 36,000 SF and 42,000 SF, with several larger parcels exceeding that range.



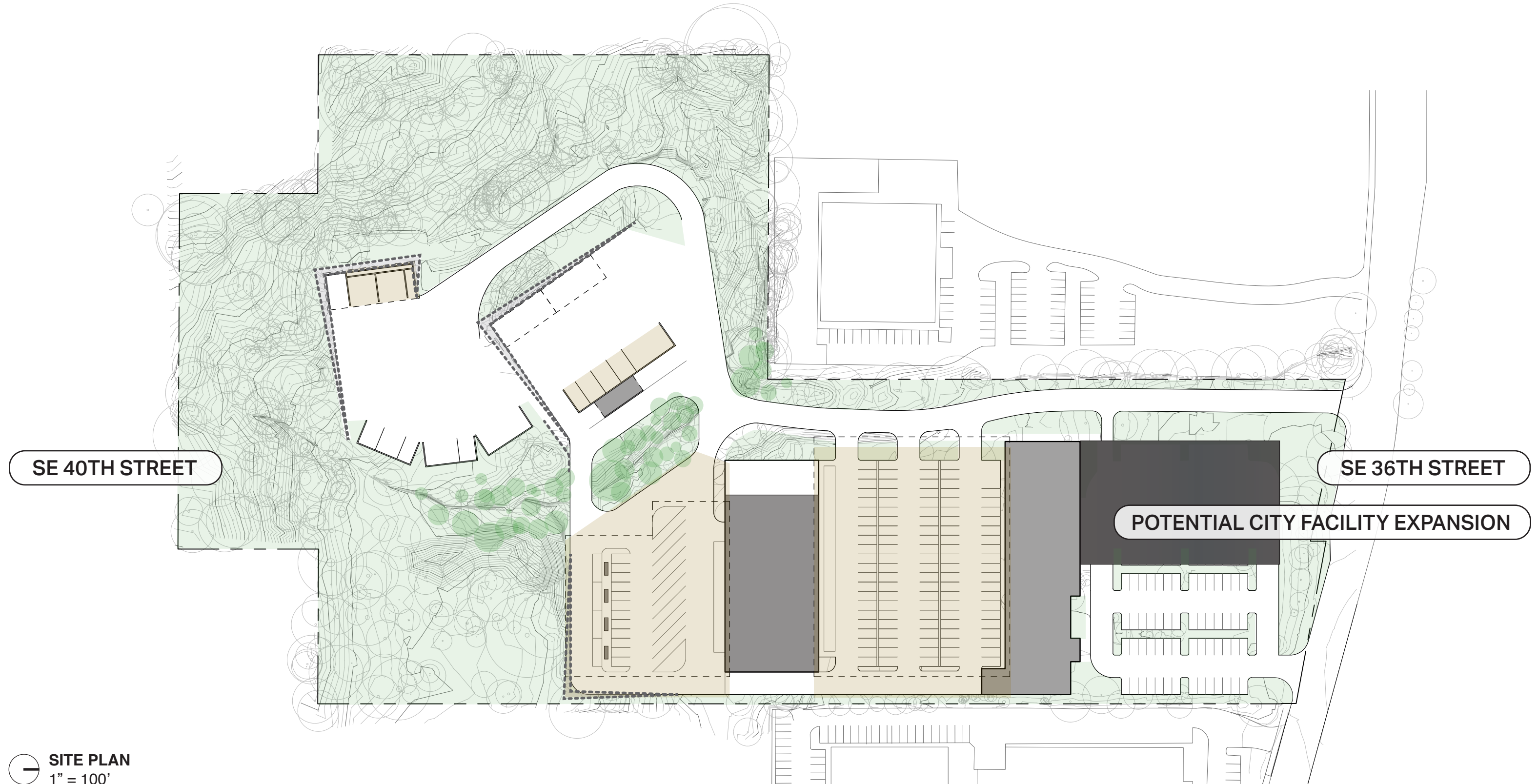
RESERVE AREA ALONG SE 36TH STREET

The facility site layout maintains a large develop-able area on the northern end of the site, along SE 36th Street, for future needs. This reserve area is comparable in size to many larger parcels in Town Center.



POTENTIAL FACILITY EXPANSION AREA

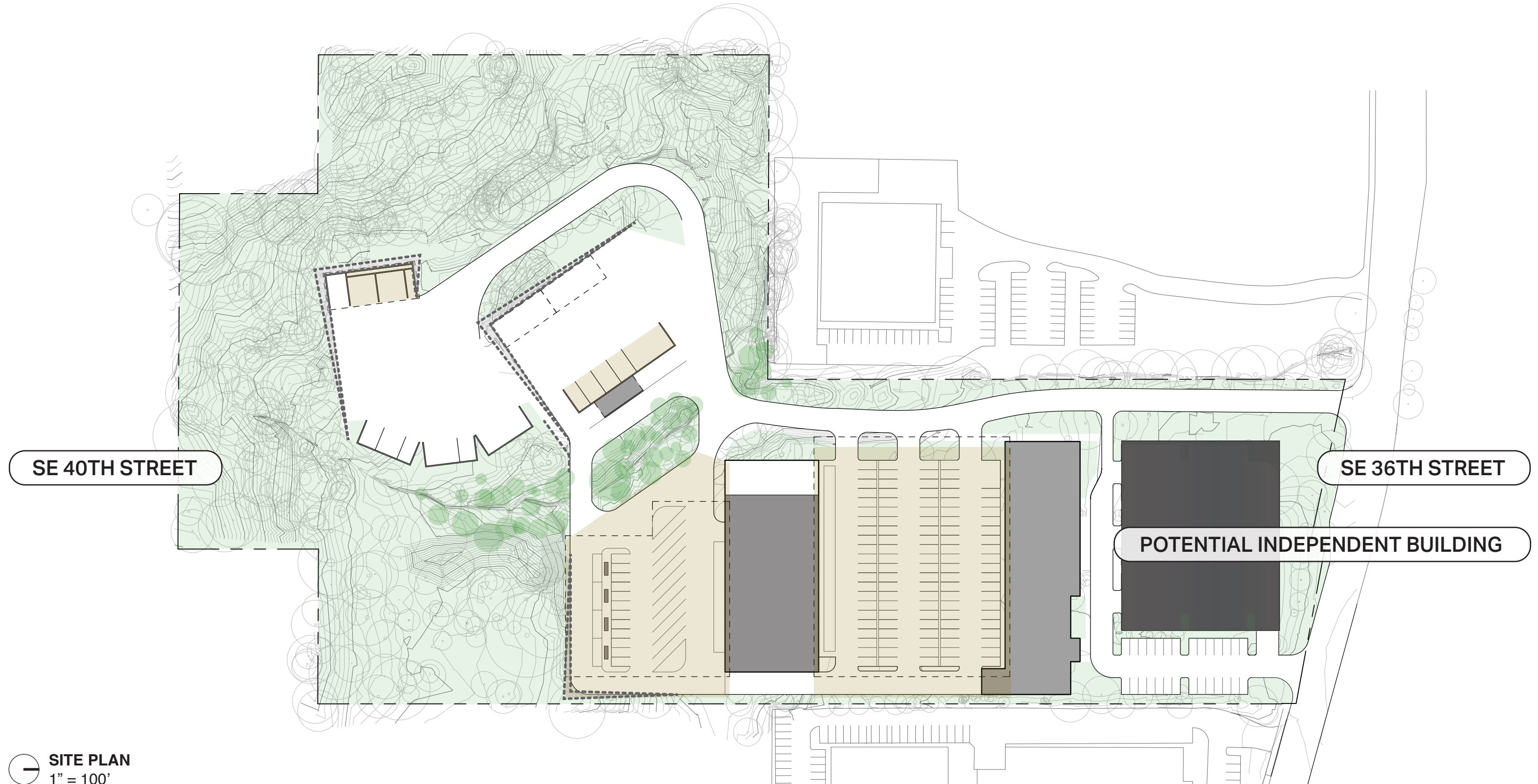
The northern reserve area is well positioned for expansion of the proposed PSM Building or for the development of an independent structure. A potential City of Mercer Island facility expansion is depicted on this slide.



SITE PLAN
1" = 100'

POTENTIAL AREA FOR AN INDEPENDENT BUILDING

The northern reserve area is well positioned for expansion of the proposed PSM Building or for the development of an independent structure. A potential independent building is depicted on this slide.



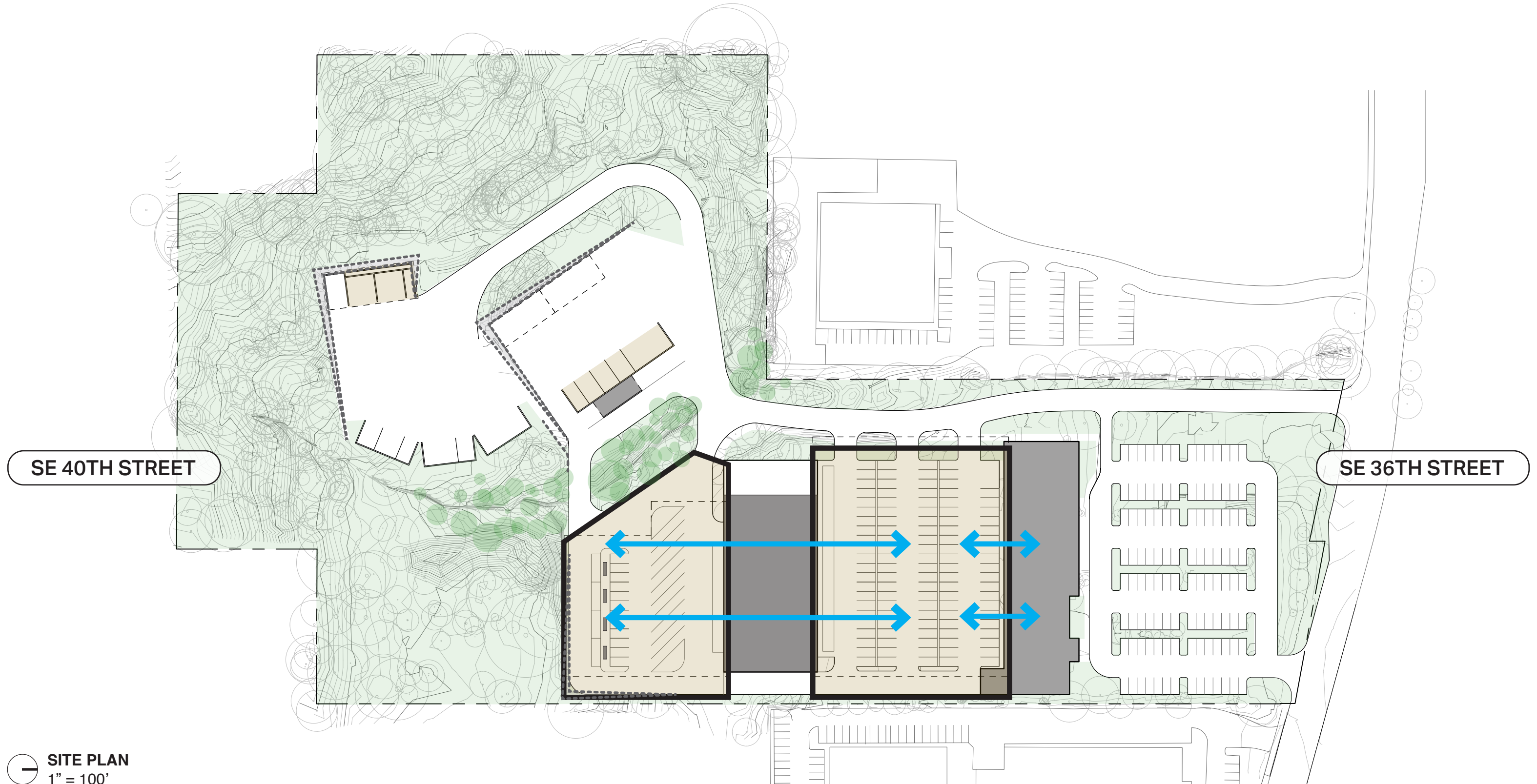
 **SITE PLAN**
1" = 100'

Weathering Cover



CONSOLIDATING WEATHERING COVER

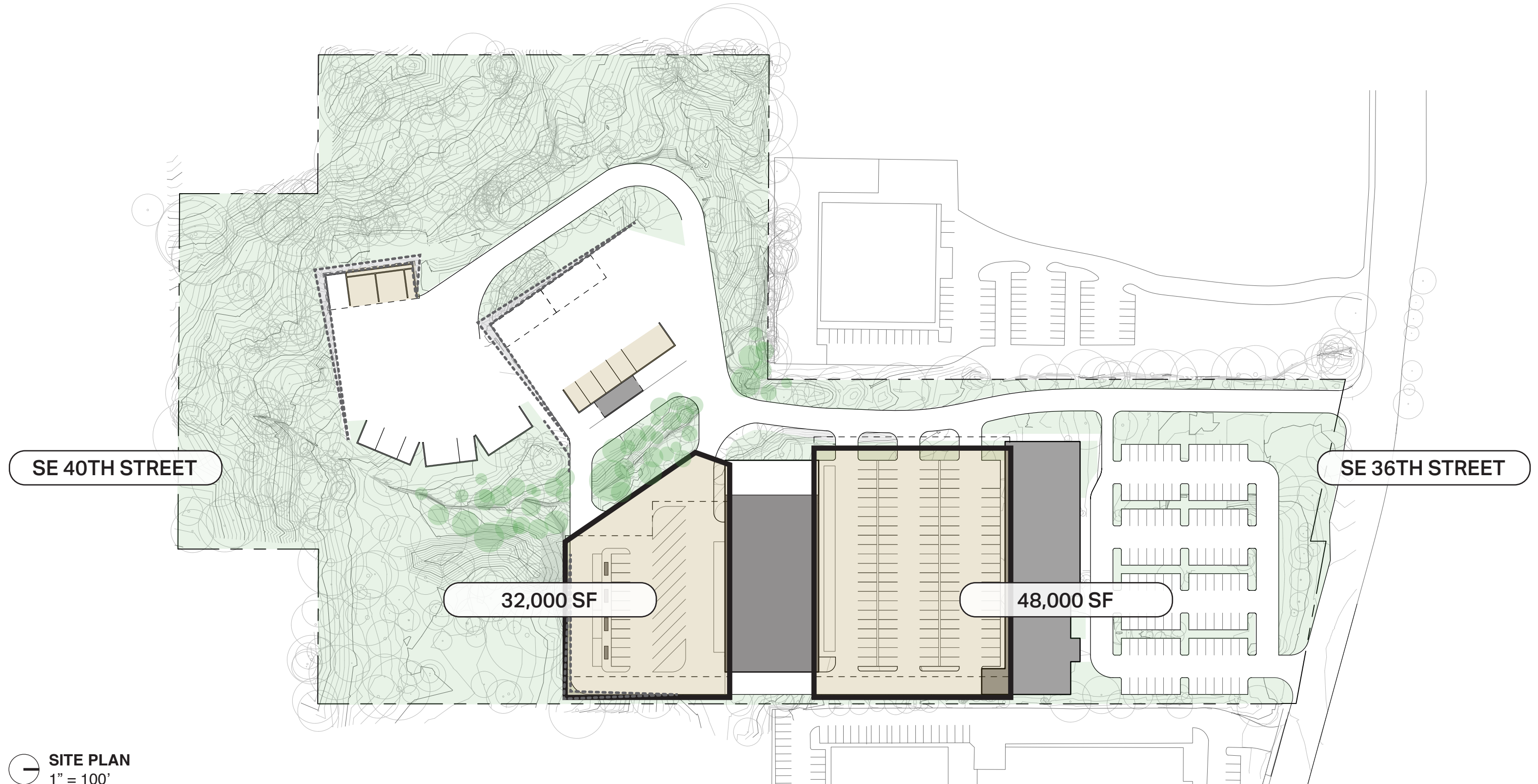
This diagram illustrates the location of proposed weathering cover. Consolidating vehicle parking, equipment storage, and operations areas alongside facilities on the eastern portion of the site streamlines daily workflow underneath covered areas.



SITE PLAN
1" = 100'

REDUCING THE SQUARE FOOTAGE OF PRIMARY COVERED AREAS

Initial planning included +/- 84,000 SF of primary weathering cover. Consolidating facilities on the eastern portion of the site results in a proposed +/- 80,000 SF, reducing primary covered areas by +/- 4,000 SF with a cost savings of +/- \$500,000.

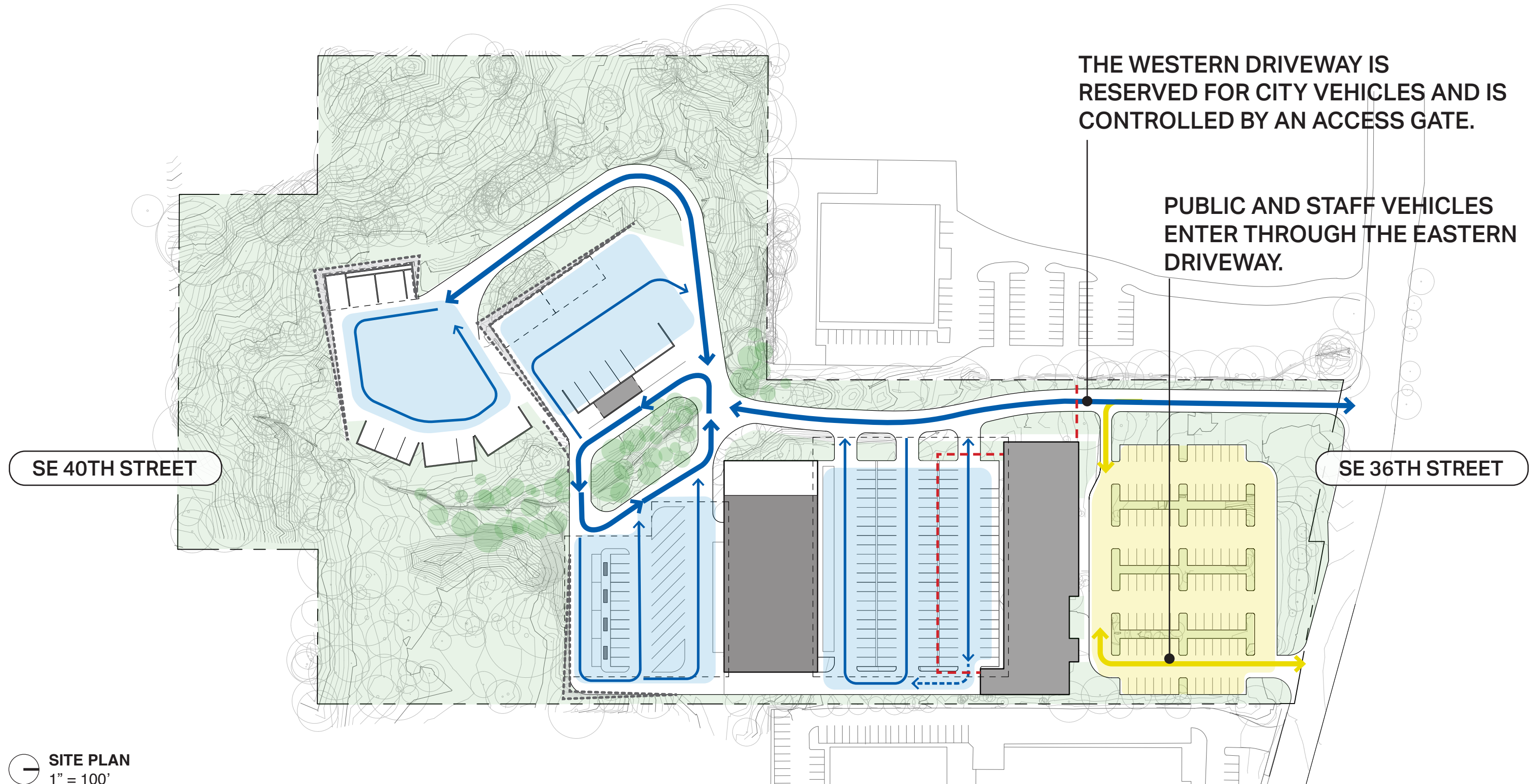




Site Circulation

VEHICULAR CIRCULATION OVERVIEW

This site plan illustrates vehicular circulation for City of Mercer Island vehicles, and staff and public personal vehicles.



SITE PLAN
1" = 100'

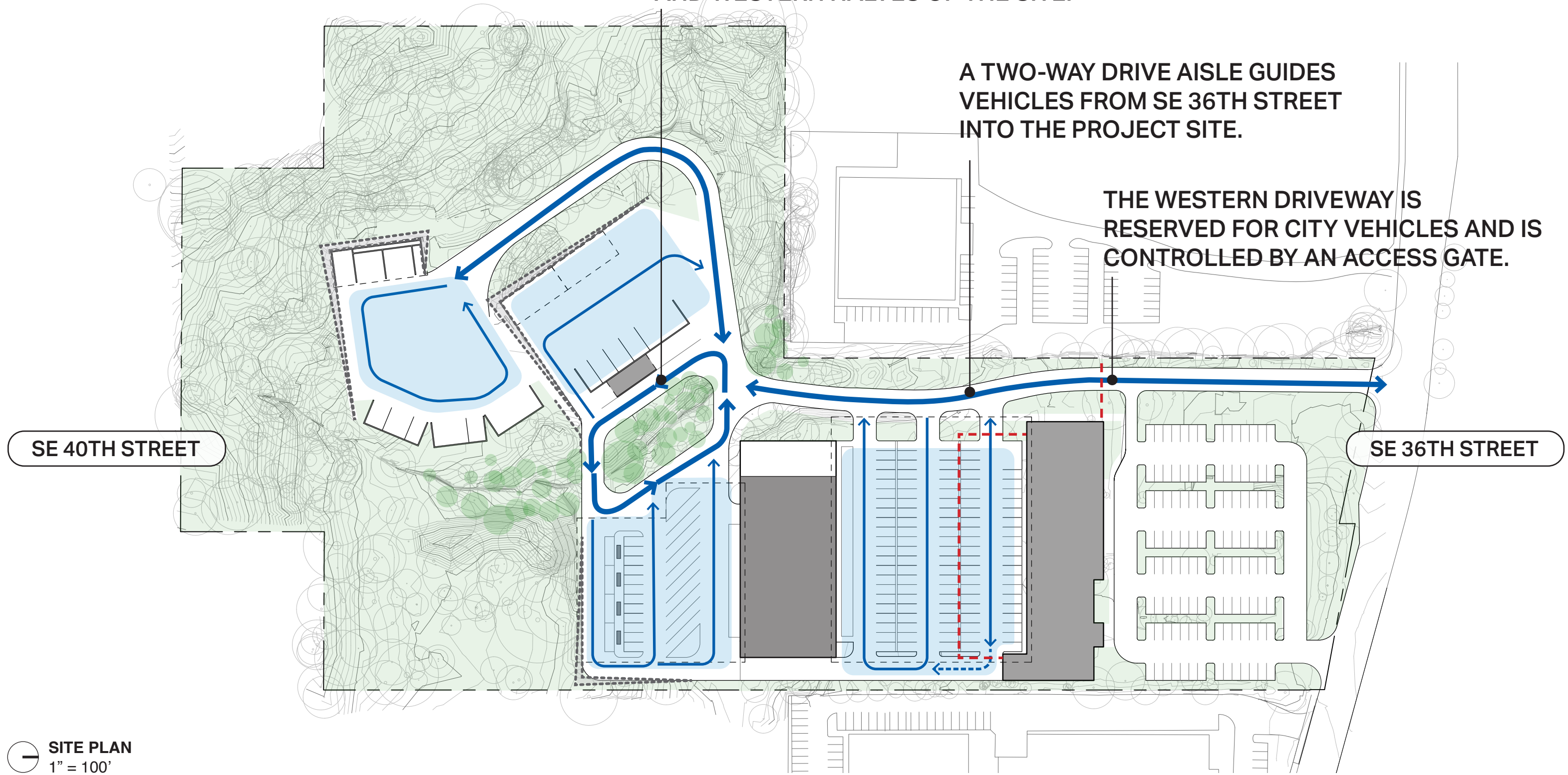
MAP OF CITY VEHICLE CIRCULATION

This site plan illustrates vehicular circulation for City of Mercer Island vehicles.

A ONE-WAY LOOP IS USED TO MANAGE CIRCULATION BETWEEN THE EASTERN AND WESTERN HALVES OF THE SITE.

A TWO-WAY DRIVE AISLE GUIDES VEHICLES FROM SE 36TH STREET INTO THE PROJECT SITE.

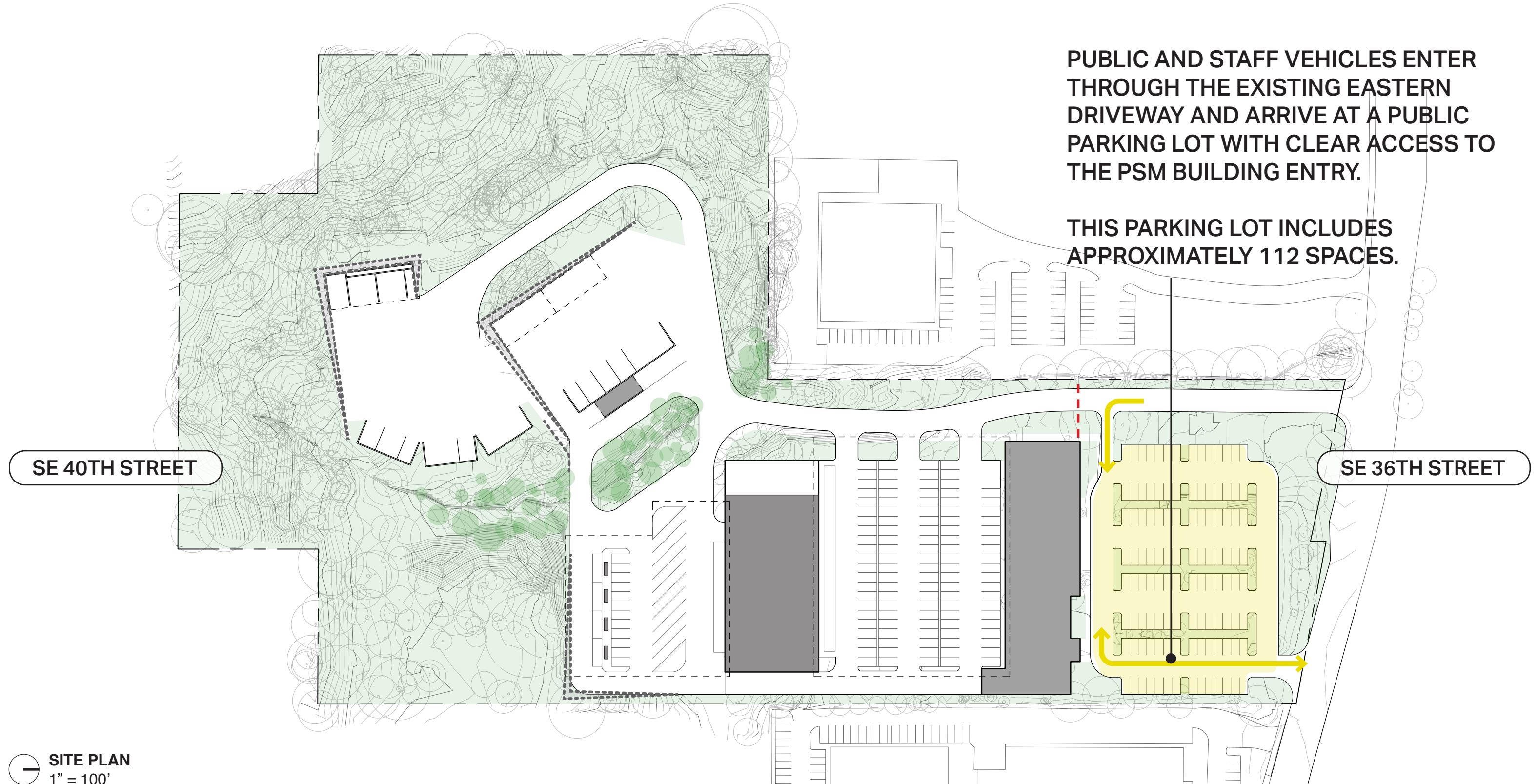
THE WESTERN DRIVEWAY IS RESERVED FOR CITY VEHICLES AND IS CONTROLLED BY AN ACCESS GATE.



 **SITE PLAN**
1" = 100'

MAP OF PUBLIC AND STAFF CIRCULATION

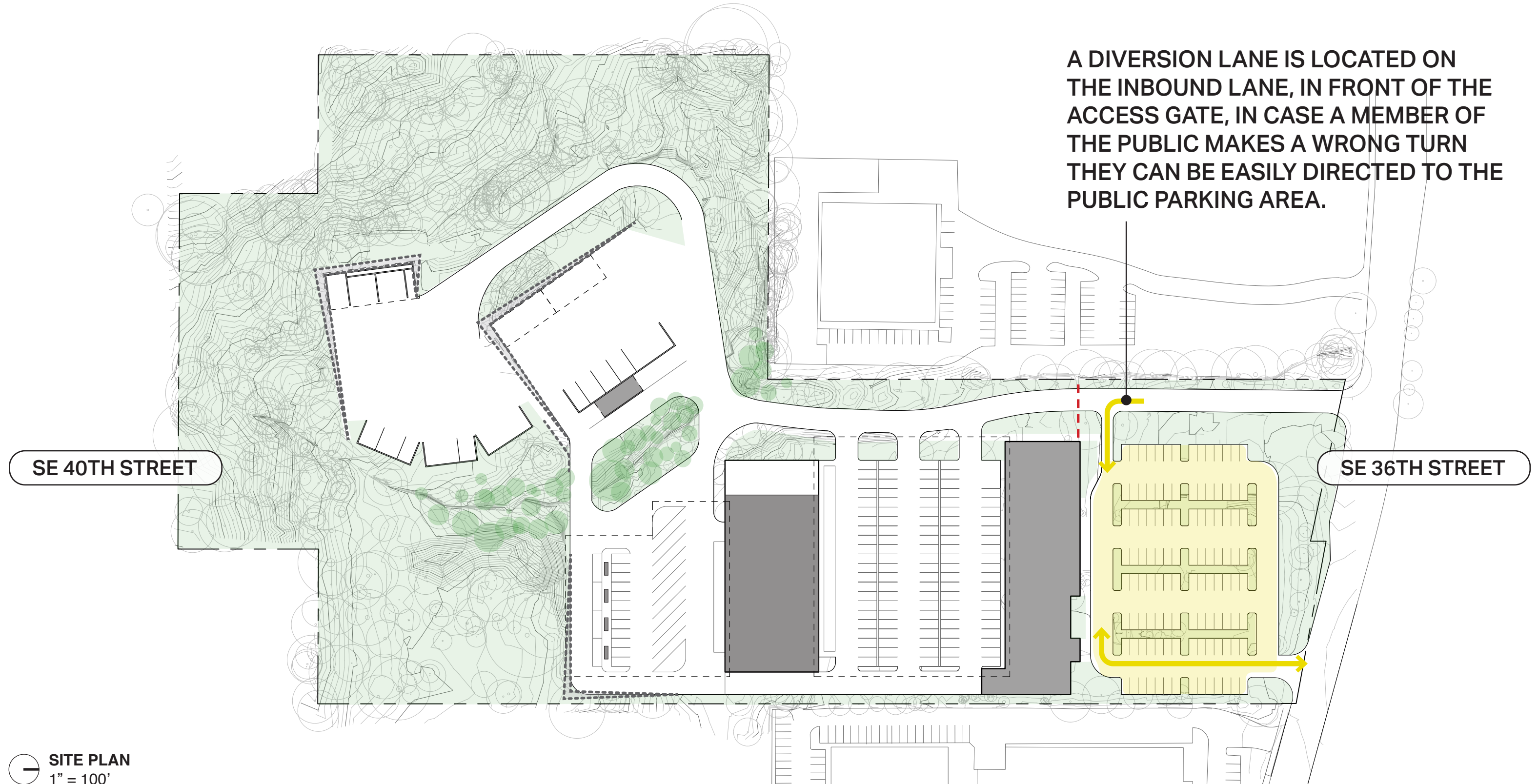
This site plan illustrates vehicular circulation for staff and public personal vehicles.



SITE PLAN
1" = 100'

MAP OF PUBLIC AND STAFF CIRCULATION

This site plan illustrates vehicular circulation for staff and public personal vehicles.



 **SITE PLAN**
1" = 100'

PSM and Operations Areas

SE 40TH STREET

OPERATIONS BUILDING

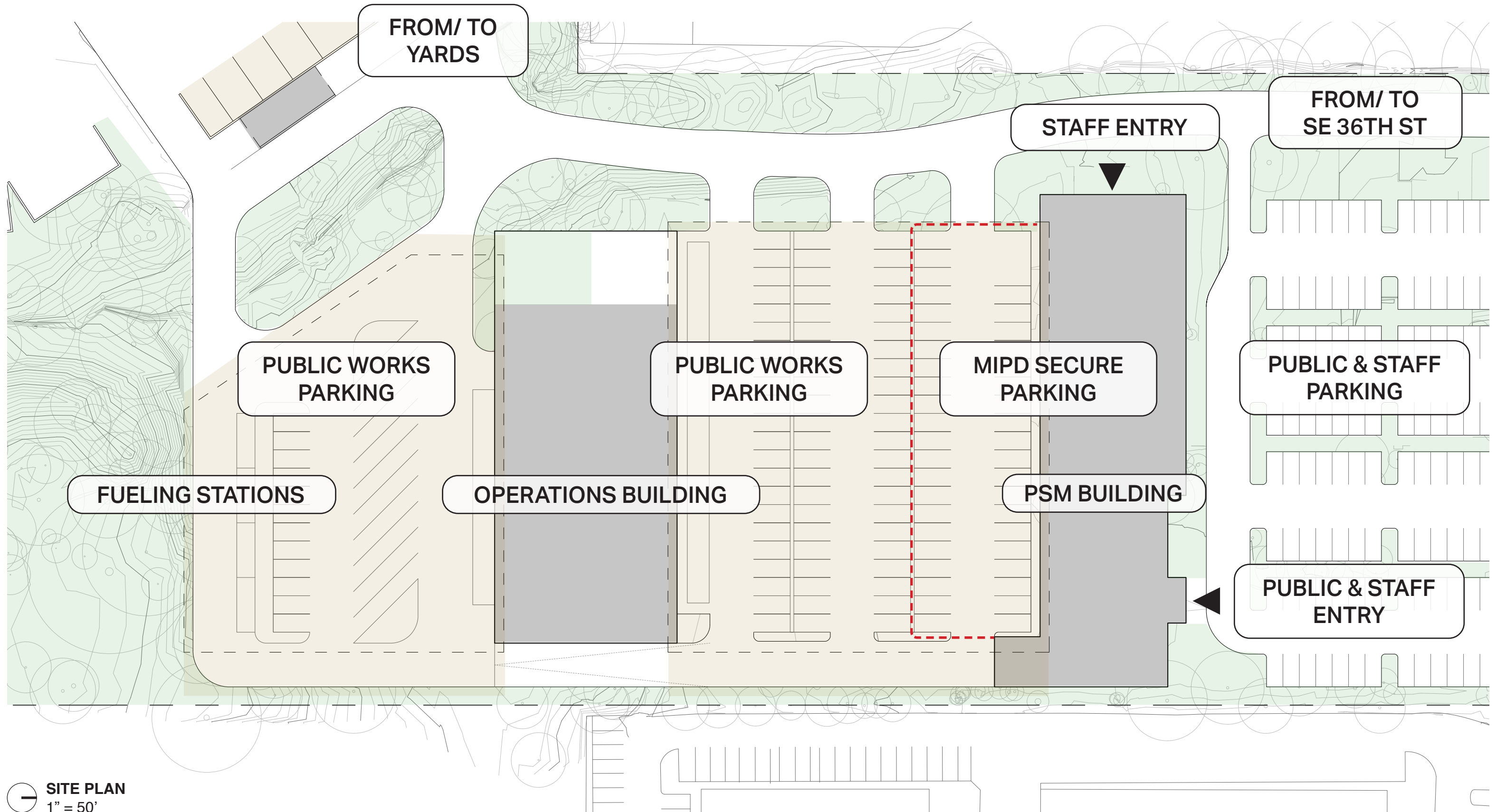
PSM BUILDING


PUBLIC & STAFF PARKING

SE 36TH STREET

PSM AND OPERATIONS AREA

This plan illustrates the layout of the PSM and Operations area.

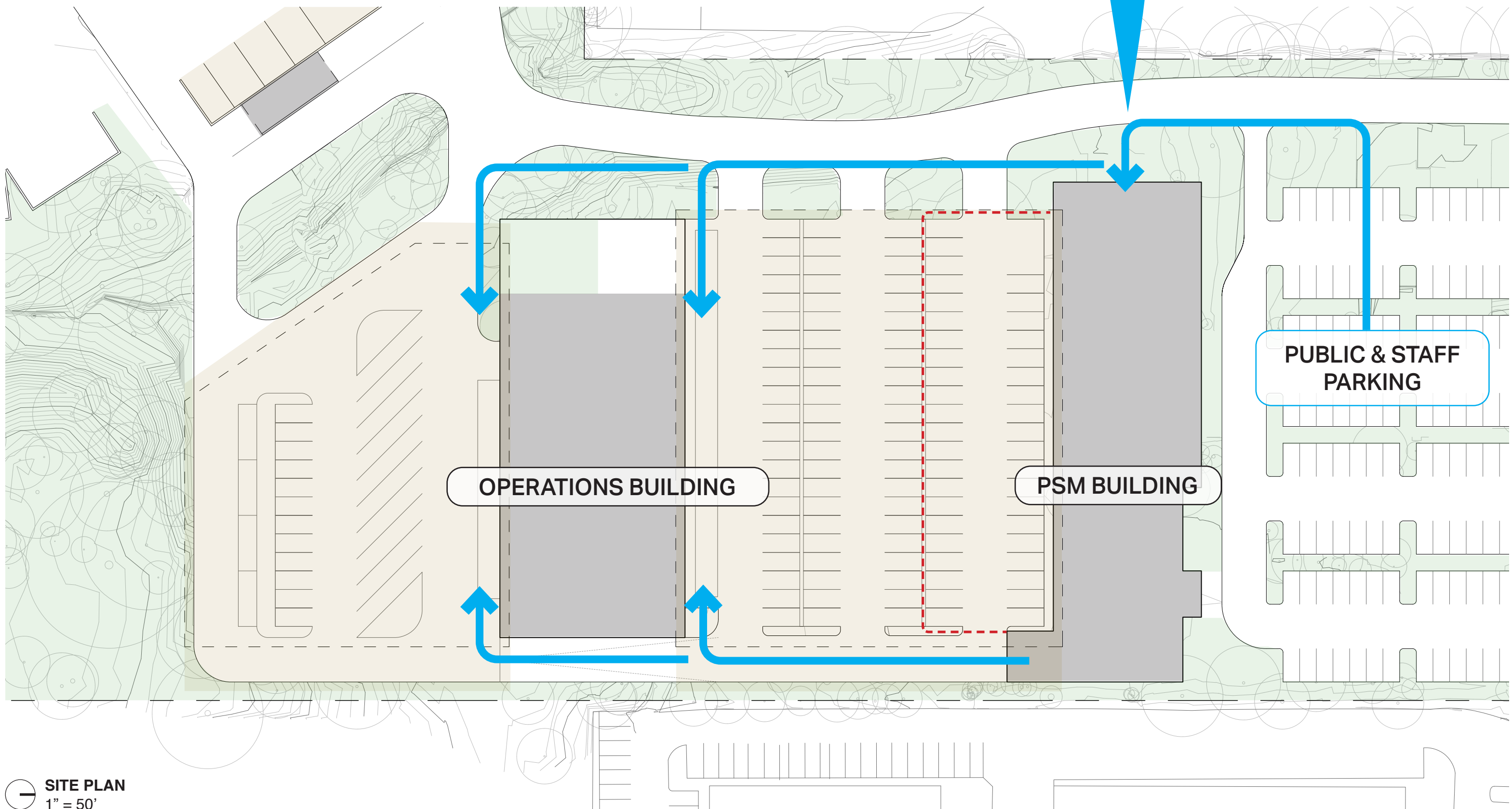


 **SITE PLAN**
1" = 50'

STAFF ROUTES FROM PARKING TO OFFICE OR YARD

The reorganization of the plan, and select building program, supports more effective staff circulation to and from work areas each day.

MUDROOM & LOCKER ROOMS RELOCATED IN THE PSM BUILDING TO BETTER ALIGN WITH ROUTE BETWEEN STAFF PARKING AND YARD



SITE PLAN
1" = 50'

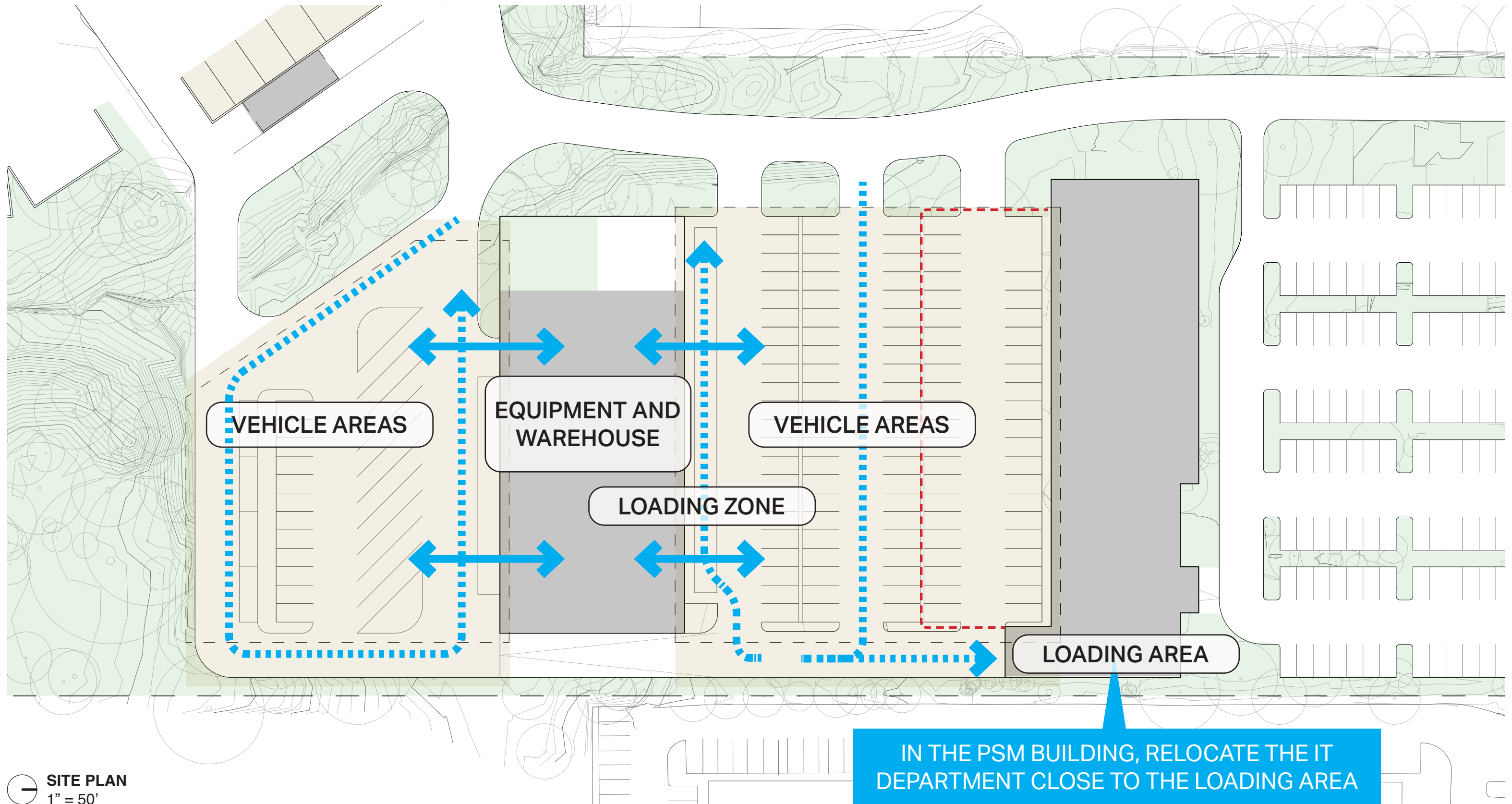
A VIEW OF A COVERED OPERATIONS AREA

This view illustrates the covered operations area located south of the Operations Building.



CONSOLIDATING OPERATIONS FLOWS

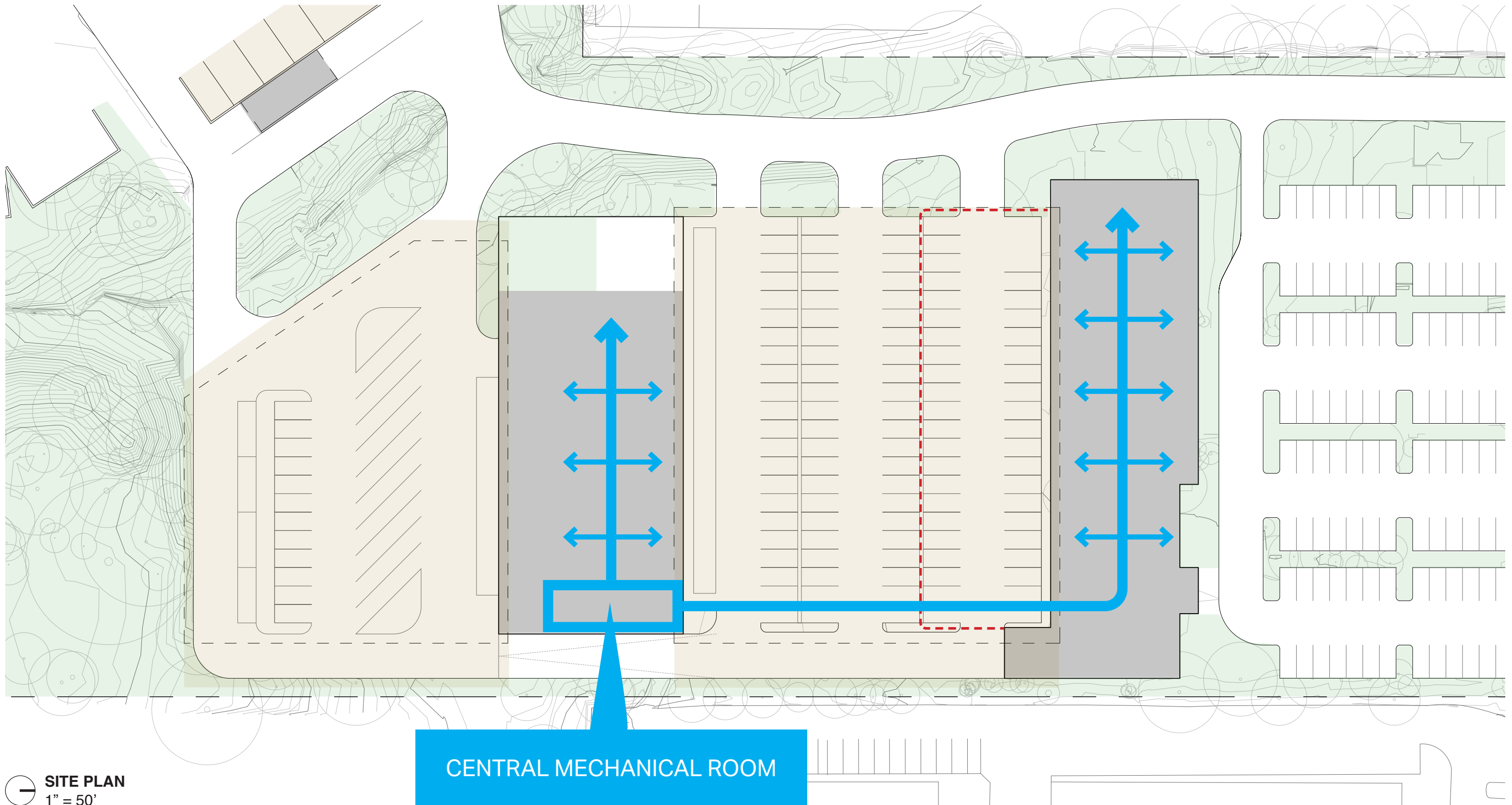
The reorganization of the plan supports more efficient operations flows on a daily basis, offering clearer routes for loading and unloading activities as well as daily crew activities between the warehouse, equipment and material areas, and vehicles.



SITE PLAN
1" = 50'

CONSOLIDATING BUILDING SYSTEMS

Site reorganization opens new opportunities for system efficiency and cost savings. Centralizing heat-pump systems in the Operations Building removes that square footage from the PSM Building and lowers the overall area required, lowering costs.

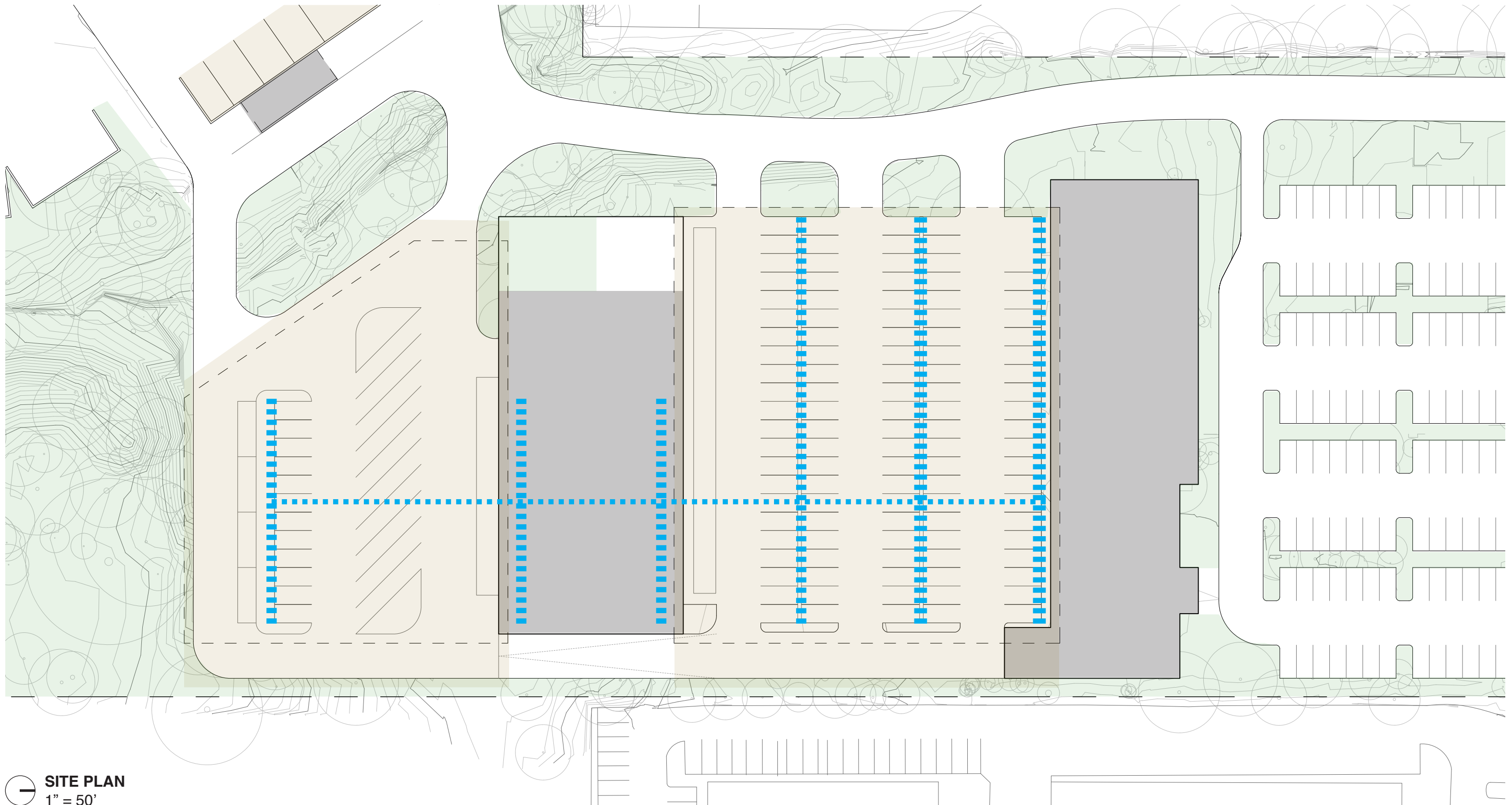


CENTRAL MECHANICAL ROOM

SITE PLAN
1" = 50'

CONSOLIDATING INFRASTRUCTURE

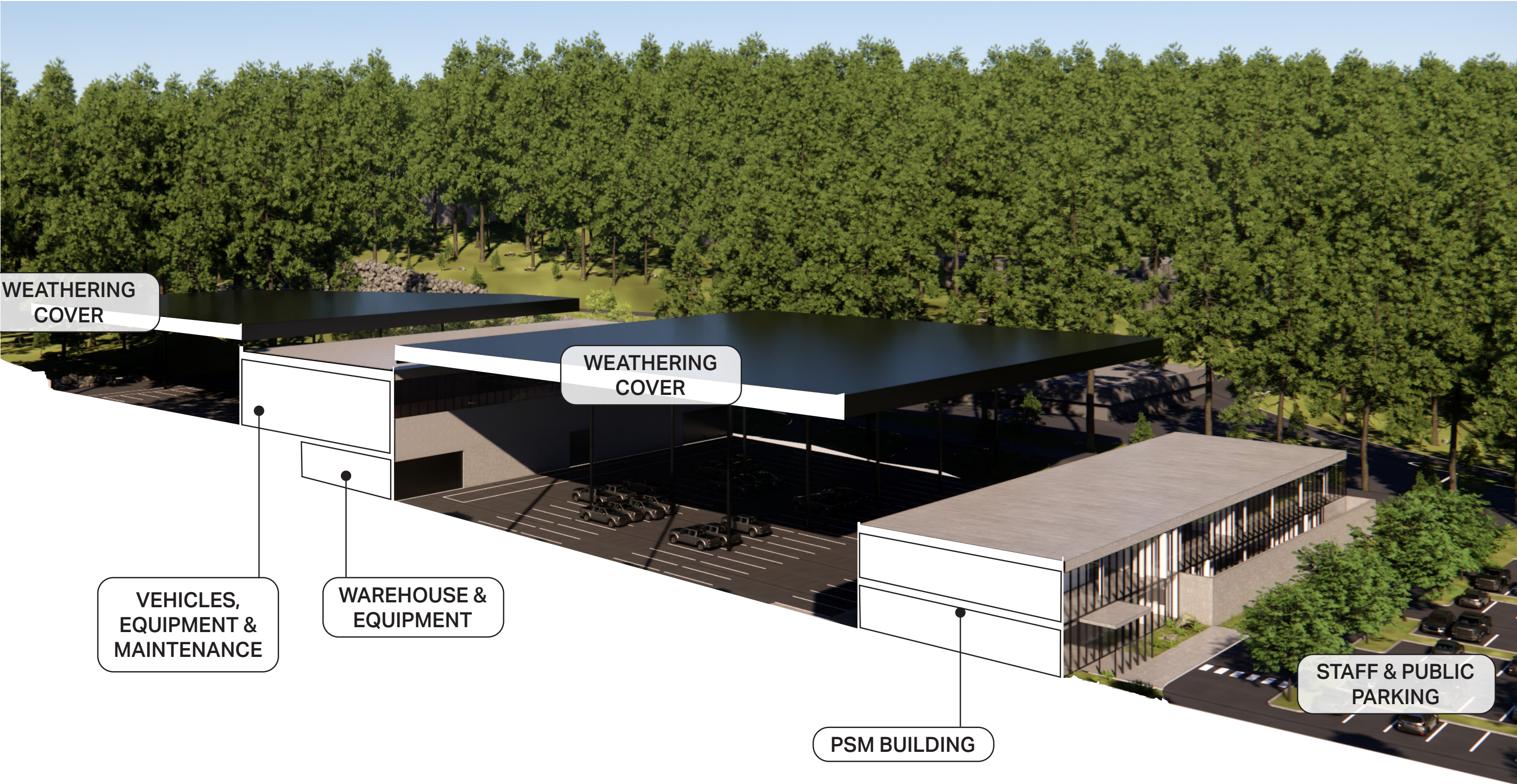
The provision for future systems, such as electric vehicle charging (EV), are simplified. This diagram illustrates potential routing for EV conduit. Consolidating this infrastructure may also result in a cost savings when compared to a more distributed layout.



SITE PLAN
1" = 50'

MINIMIZING BUILDING FOOTPRINTS

The proposed layout leverages the sloping site to reorganize the Operations Building on two levels, rather than one. This revision reduces the facility's site footprint and reduces superstructure and envelope areas by +/- 5,000 SF.



PROVIDING SITE AREA FOR FUTURE FACILITY NEEDS

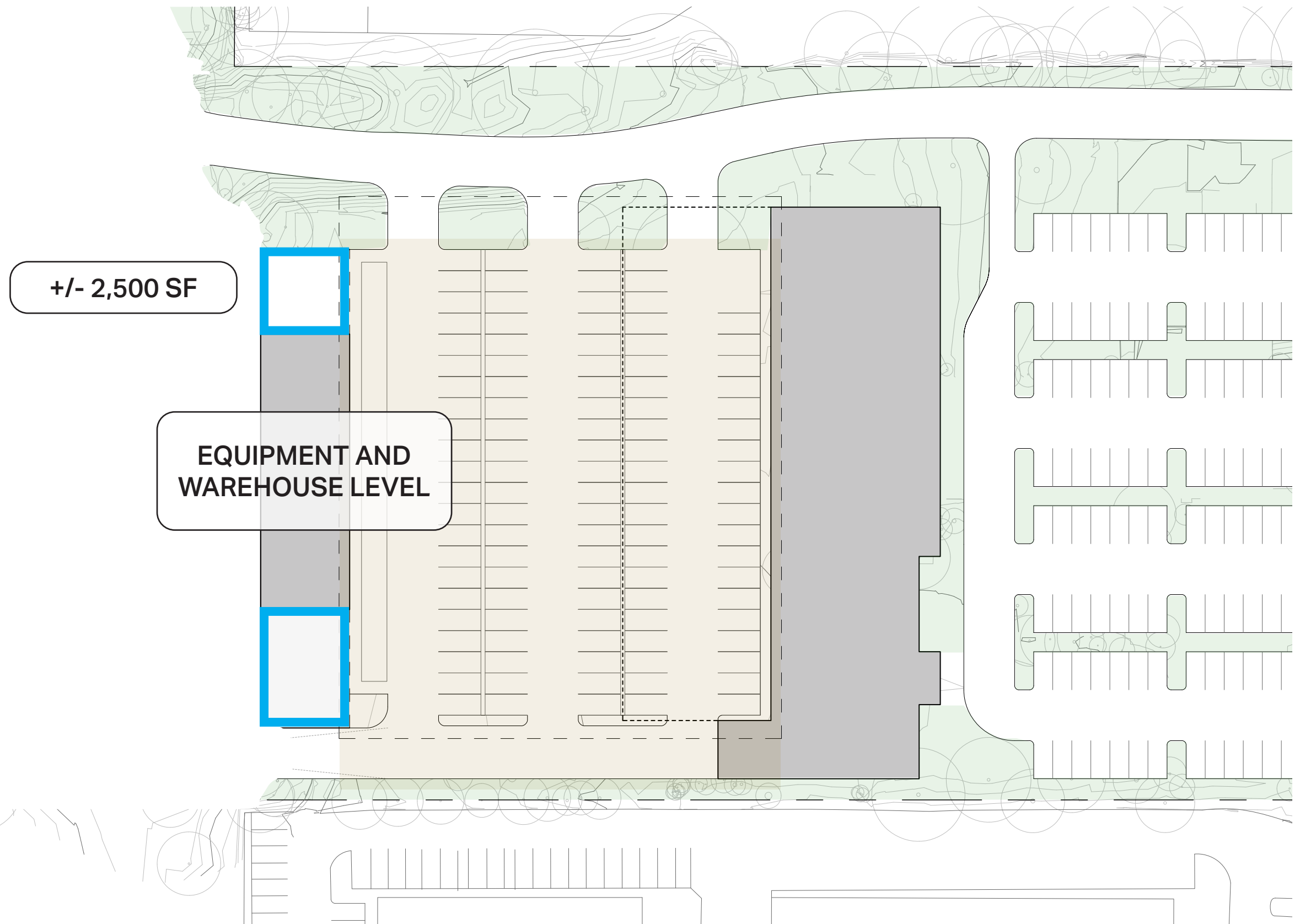
This diagram illustrates the location of reserve area on the upper level of the Operations Building site, for future facility needs.



SITE PLAN
1" = 50'

PROVIDING SITE AREA FOR FUTURE FACILITY NEEDS

This diagram illustrates the location of reserve area on the lower level of the Operations Building site, for future facility needs.



 **SITE PLAN**
1" = 50'

Lower and Upper Yards

SE 40TH STREET

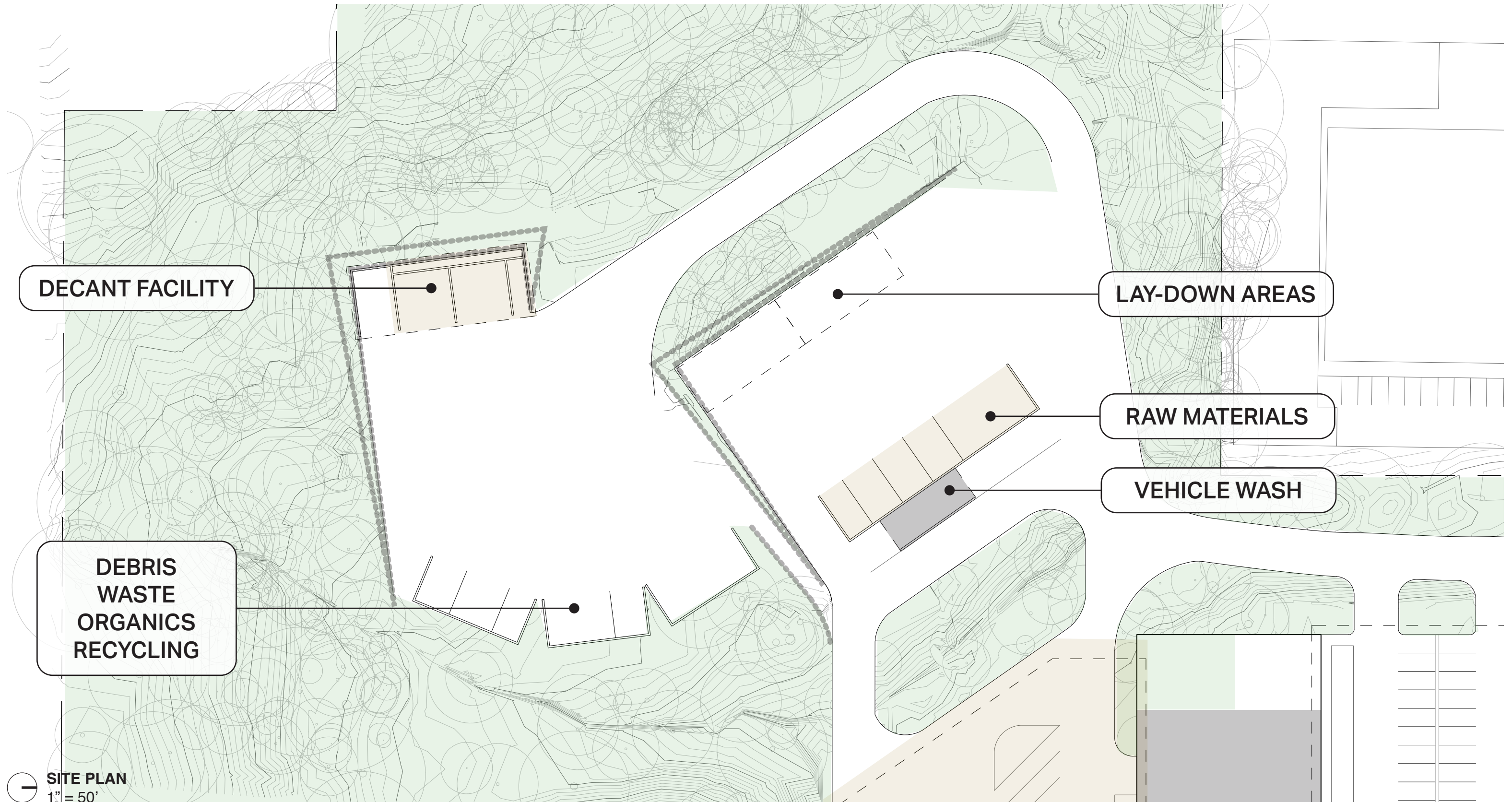
UPPER YARD

LOWER YARD

SE 36TH STREET

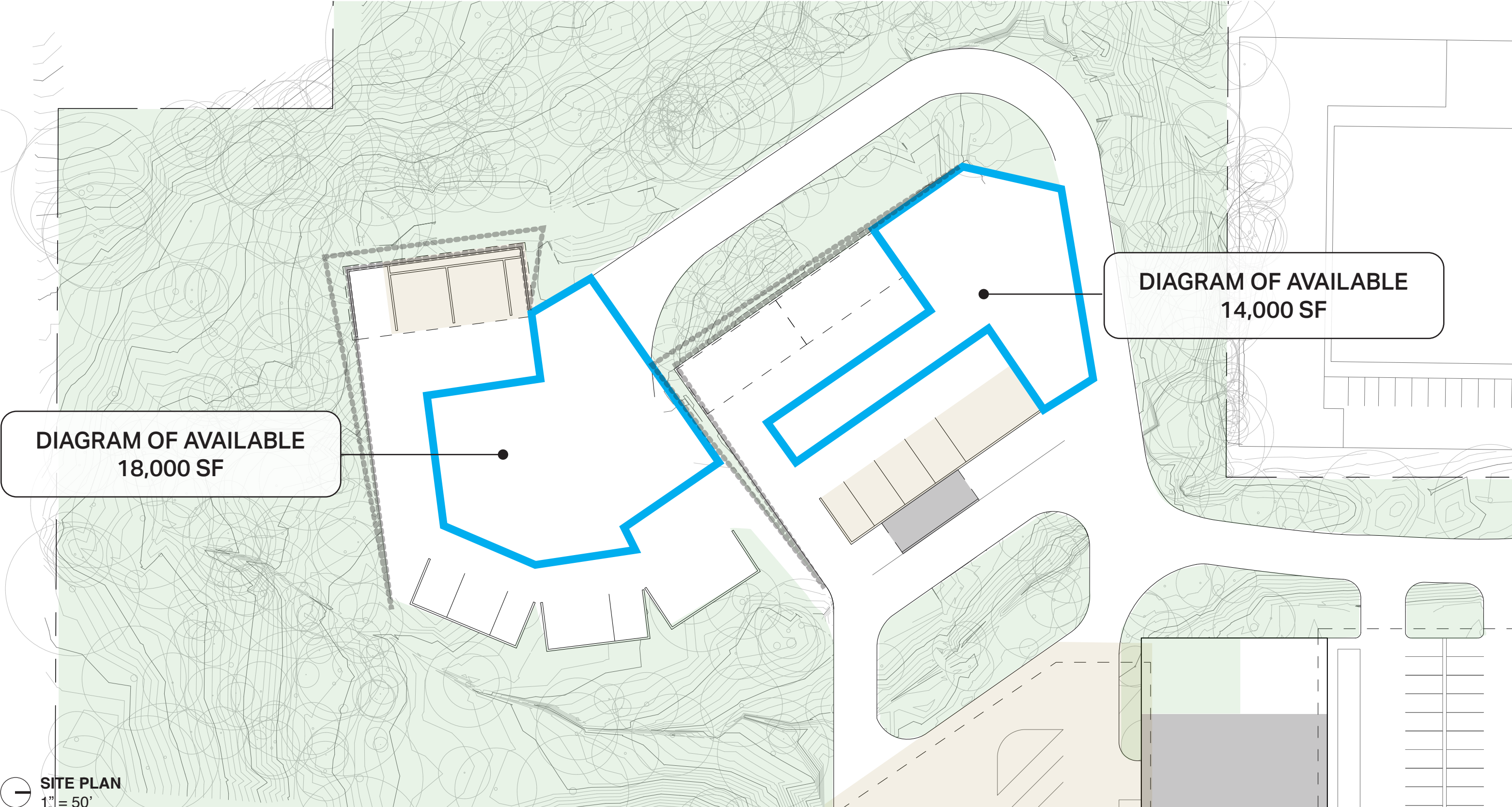
LOWER AND UPPER YARD AREAS

This plan illustrates a capacity test layout on the Lower and Upper Yard areas. Initial capacity layouts have been organized around the perimeter of yard areas and are to be further consolidated through review with city staff.



PROVIDING SITE AREA FOR FUTURE NEEDS

The layout capacity test illustrates the site area that remains available for future needs. Initial program layouts are to be further consolidated in order to clearly delineate reserve areas.



SITE PLAN
1" = 50'

Mercer Island Public Safety and Maintenance Facility



Council Direction Needed

This proposed revision to the site layout will reduce construction costs, increase operational effectiveness, and leave room for potential future operational capacity to ensure that this facility is positioned to serve the city over the next 50-plus years.

The Design Team and city staff are seeking Council approval of this design strategy.

Recommended Action

Approve the revised PSM Facility site layout and direct the City Manager to continue project design work in anticipation of having a schematic design and revised cost estimate ready for City Council review and approval in June