

## Project Description/Narrative

The design team was challenged to incorporate seven (7) independent support service departments for the Greece Central School District into a single facility located on 15-acre parcel of land, which is located adjacent to one of the District's four (4) high schools. As part of The Reimagine Greece Capital Improvements Project, the design challenge confronting the team was to maintain secure separation of spaces or departments where required, as well as open, efficient communication as necessary to improve District operations and spaces uniquely designed to align with the standards each department required.

In addition to the new building, the project includes bus parking to accommodate over 200 buses, a fueling station, and a large loading dock for central warehouse and distribution, creating substantial site development while addressing over 40 feet of elevation change between Latta Road and the northern edge of the site. The significant change in elevation on the site became the catalyst for the design, enabling the design team to increase the total square footage of the facility without impacting parking, bus storage or circulation.

As one of the few new construction projects executed by the Greece Central School District, the design and execution of the building provided the best solution to align the needs of the departments within the restrictions of the site



## AIA's Framework for Design Excellence

As we are less than a decade away from the [AIA 2030 Commitment](#), AIA Rochester continues to include a focus on sustainability in our annual Design Awards this year and into the future.

Please choose a minimum of **three** of the ten measures of the [AIA's Framework for Design Excellence](#). In 300-500 words, please explain how your project addresses these three measures. You may duplicate this slide to accommodate your responses. **(The minimum font size should be 10pt/Arial.) DO NOT change the background of this slide.**

The name of the project can be mentioned generically. For example entrants can say “The education center was designed for the university.” Instead of “the John Johnson Educational Research Center was designed for the university.”

The ten measures in the Framework for Design Excellence are:

- 1. Design for Integration: What is the big idea behind this project and how did sustainability inform the design concept?**
2. Design for Equitable Communities: How does this project contribute to creating a walkable, human-scaled community inside and outside the property lines?
3. Design for Ecology: In what ways does the design respond to the ecology of its place?
4. Design for Water: How does the project relate to the regional watershed?
- 5. Design for Economy: How does the project efficiently meet the program and design challenges and provide “more with less”?**
- 6. Design for Energy: Is the project energy-efficient and sustainable while improving building performance, function, comfort, and enjoyment?**
- 7. Design for Wellness: How does the design promote the health of the occupants?**
8. Design for Resources: How did the design team optimize the amount and makeup of material used on the project?
9. Design for Change: Is the building resilient, and able to easily accommodate other uses in 50-100 years?
10. Design for Discovery: What lessons for better design have been learned through the process of project design, construction, and occupancy, and how have these been incorporated in subsequent projects?

## **AIA Rochester Community Impact Award**

As architects and designers our focus and priority are the pure aesthetics and functionality of the buildings and spaces we design. The color, materials, scale, and functionality of the client's needs drive the projects. After the pencils are put down and the construction dust has cleared, there sits a building/structure/space that now impacts the community where it has been placed. While the design may be added to, subtracted from, and ultimately give way to another, its impact is a permanent part of the community and site's history.

In that spirit, as part of the 2023 Design Awards, we are requesting that you include with each submission a brief summary explaining its "community-impact goals". Projects can affect communities in many ways: improving the housing stock, rejuvenating a neighborhood, adding a pedestrian or biking route, filling a gapped-tooth "street smile" with a parklet, steering the life of a business district in a previously unforeseen path, adding beauty and functionality, and more.

This information is intended to be used during and following the Design Awards event in promotion of the Design Awards via AIA Rochester's social, news outlets, and in promotion of AIA Rochester.

### **Community Impact Award summary (500 words or less):**

Critical to District Leadership, the design team was required to align with the context of the built environment. Traditionally more conservative, the character of the building's public face was designed to be inviting, providing clear wayfinding to building entrances associate with function. The northern half of the building housing the service functions for transportation and buildings and grounds were concealed by a 16'+ change in elevation, allowing free and secure operation without impacting the safety or aesthetic of those visiting the building for board meetings, training, or special events.

# TRANSPORTATION



# SUPPORT SERVICES



**INTEGRATION:** *What is the big idea behind this project and how did sustainability inform the design concept?*

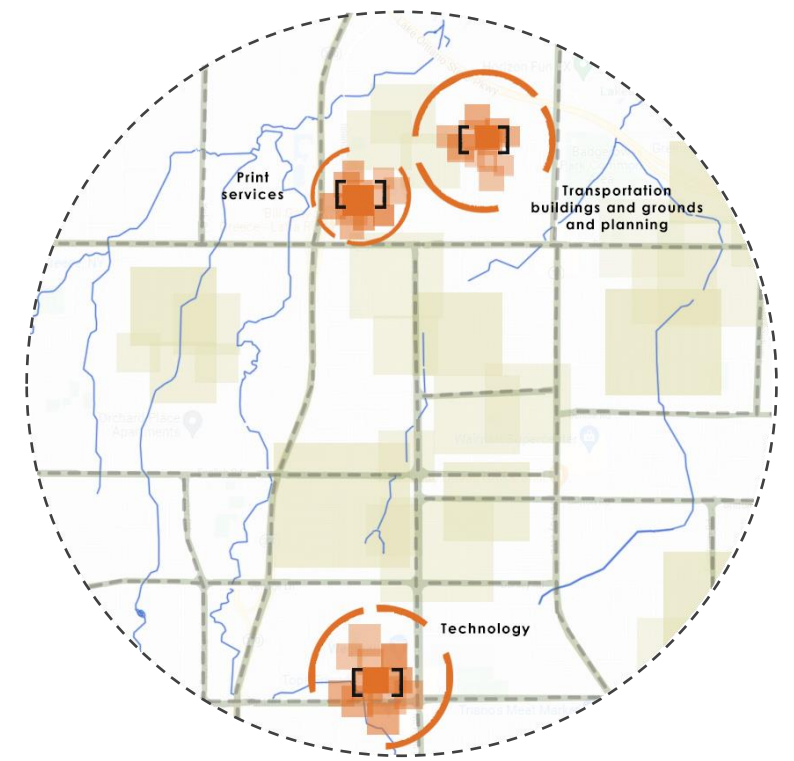
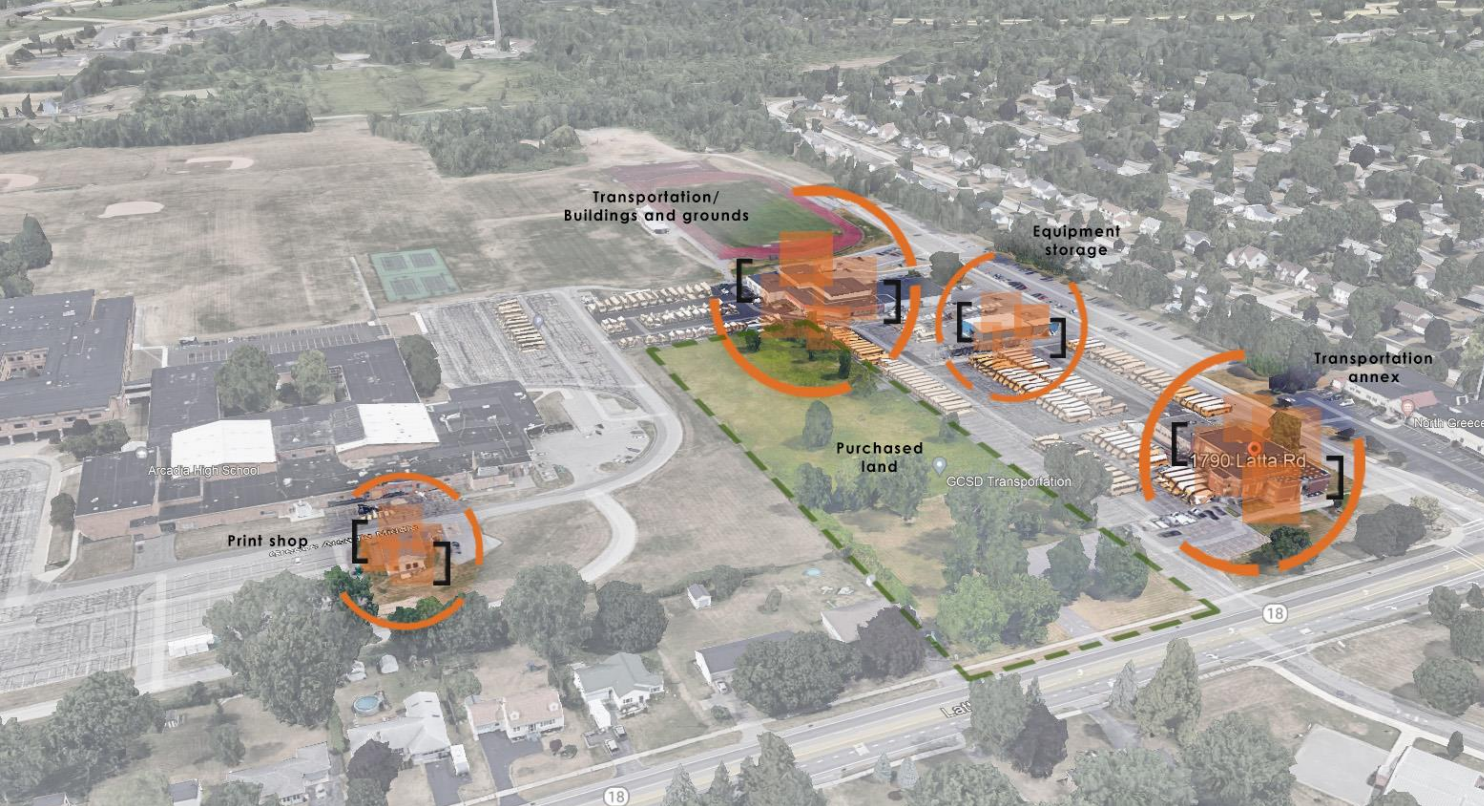


**ECONOMY:** *How does the project efficiently meet the program and design challenges and provide more with less?*

**ENERGY:** *Is the project energy efficient and sustainable while improving the building performance, function, comfort, and enjoyment?*



**WELLNESS:** *How does the design promote the health of the occupants?*



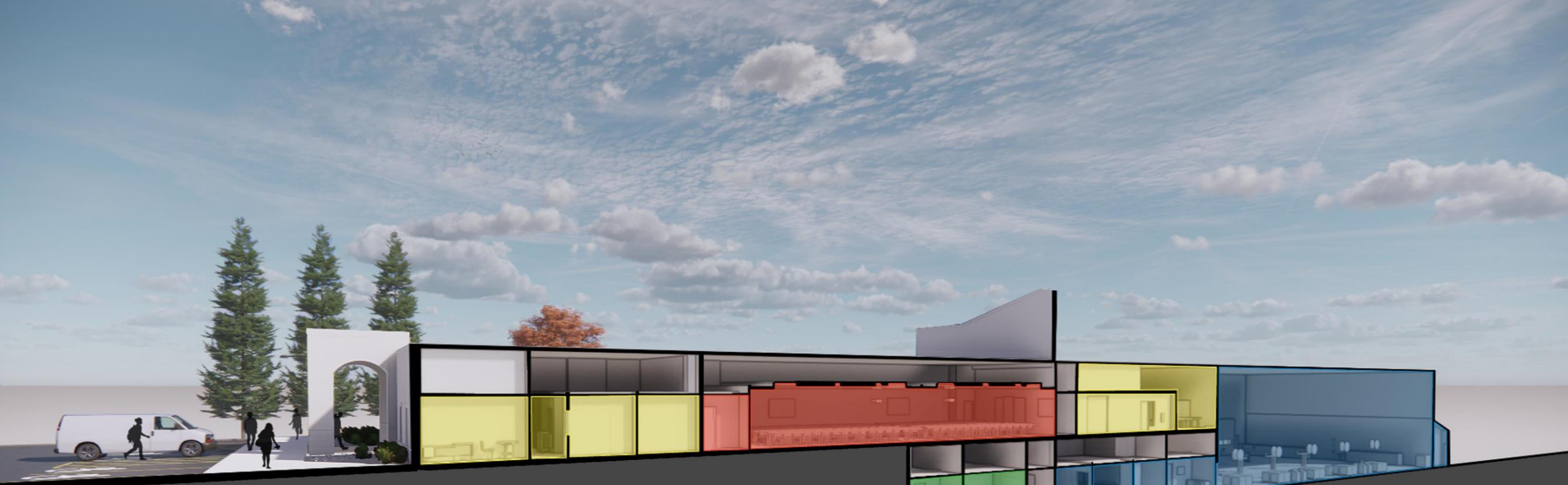
## DESIGN FOR



# INTEGRATION

Previously spread out over five (5) buildings, the departments supporting the operations and maintenance of the District's 16 buildings and academic programs were very limited by space constraints, the inability to service their bus fleet on a single shift, and restricted collaboration across departments. The sustained separation and limited space hampered efficiency of the Central Stores, Planning, Facilities/Buildings & Grounds, Transportation, Technology, Print Services, and Professional learning operations.

In addition to the operational impacts, the Transportation department has four critical functions now housed within the new facility: administration, maintenance, drivers and driver training. Space constraints resulted in multiple shifts for the maintenance staff, overlap between drivers and administration and driver training was held in one of the district's school auditoriums.



DESIGN FOR

# ECONOMY



Constrained by limitations of acreage, access, and significant elevation changes on the site, the design team was challenged during the program phase to incorporate all of the pre-referendum assessment department functions and also additional department functions and space requested by the District and identified during Bergmann's assessment of the existing departments. Confronted with a change in elevation of approximately 40 feet, the design team decided to separate the functions of the facility to take advantage of the significant grade change. This decision allowed the design team to increase the gross square footage of the facility to the needs of the District while decreasing the effective footprint of the building on the site.

This decision allowed the design team to increase the gross square footage of the facility to the needs of the District while decreasing the effective footprint of the building on the site. This allowed for all of the District buses to be parked on site with a larger and future fuel-flexible fuel island and space for the Building and Grounds often-used vehicles to be stored onsite. Administrative and professional service functions were located on the first floor with direct access for District staff and the public from south parking lot adjacent to Latta Road. The support services were located on the lower level with direct access to the secure bus storage lot and building and grounds vehicle enclosures. The effective gross square footage of the building increased by 5000 sf above the original scope, enabling the design team to account for critical space not previously accounted for by the District.



DESIGN FOR



# ENERGY

The design team challenged themselves to design the building's systems and building envelope better than the minimum code requirements. Working to minimize thermal bridging, minimize potential for air leaks by detailing a continuous air barrier, and providing mechanical systems specifically suited to the performance required by the different space or department programs, the design team was able to achieve a design more than 24% better than code. In support of the building's efficient equipment, the design incorporates a building management system that is tied to the mechanical and electrical systems supporting the building and its systems to maximize efficiency.

In addition to the performance specified for the mechanical systems and detail provided for the building envelope, the project incorporated a rooftop solar array with a solar power capacity during daytime equivalent to 200 KW. Given the efficiency of the panels selected, the district can expand the size of the roof top solar array in the future should operations demand the additional capacity and savings. Accompanying the solar array, the district was provided with an onsite Battery Energy Storage System (BESS) with an estimated 250 kWh for Peak Power demand reduction. The BESS enables energy from the solar array to be stored and released when the district's operations need power the most. The system uses algorithms to coordinate energy production for the transportation and support facility, which calculate when to release power to the grid and when to store to bolster reserves.



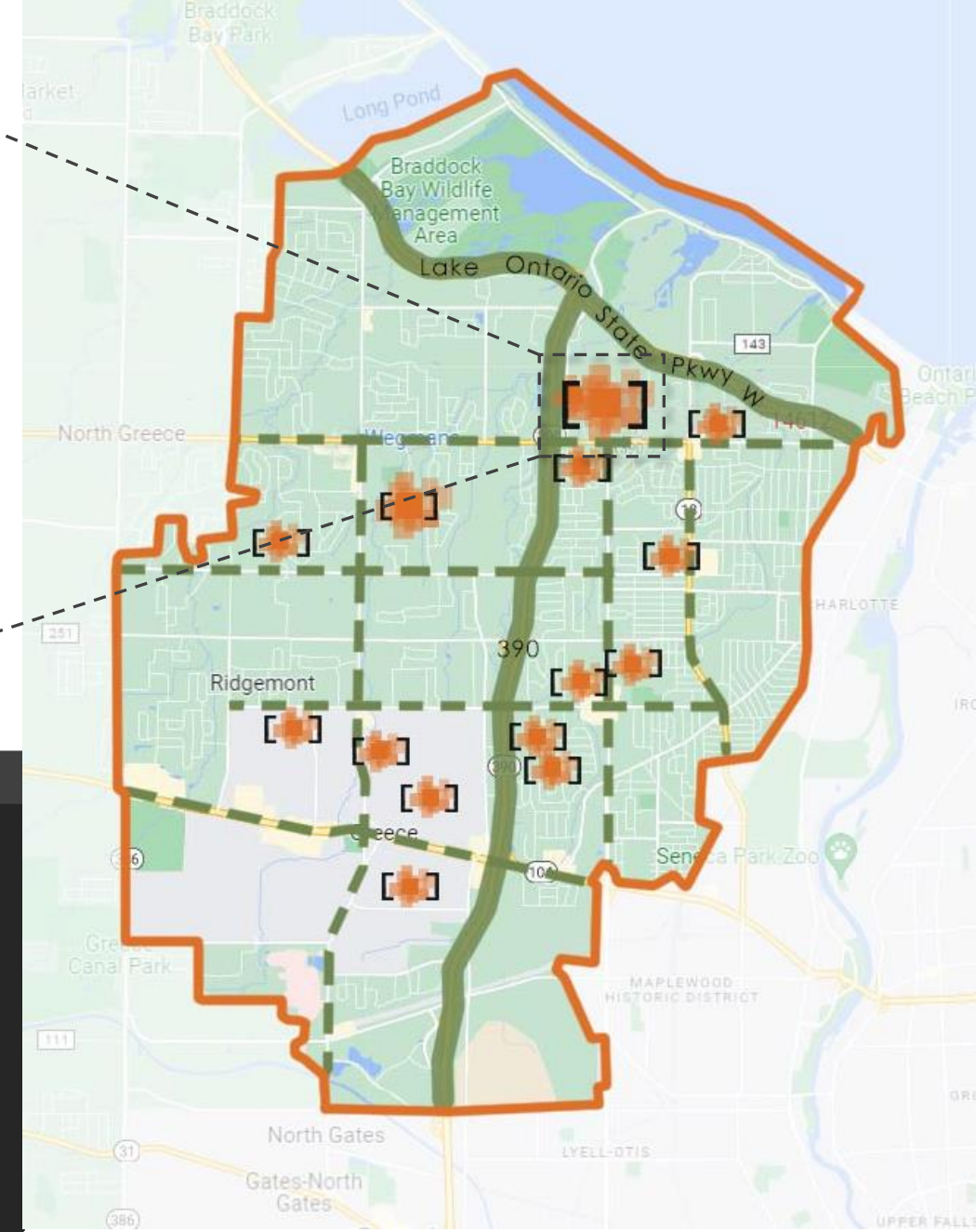


DESIGN FOR

# WELLNESS

The design team provided clear physical and mechanical delineation between maintenance associated with District bus fleet and the building and grounds vehicles, carpentry, welding, paint, as well as for the building occupants. The systems provide for healthy work environment while enabling critical functions to operate efficiently in the service of the District.

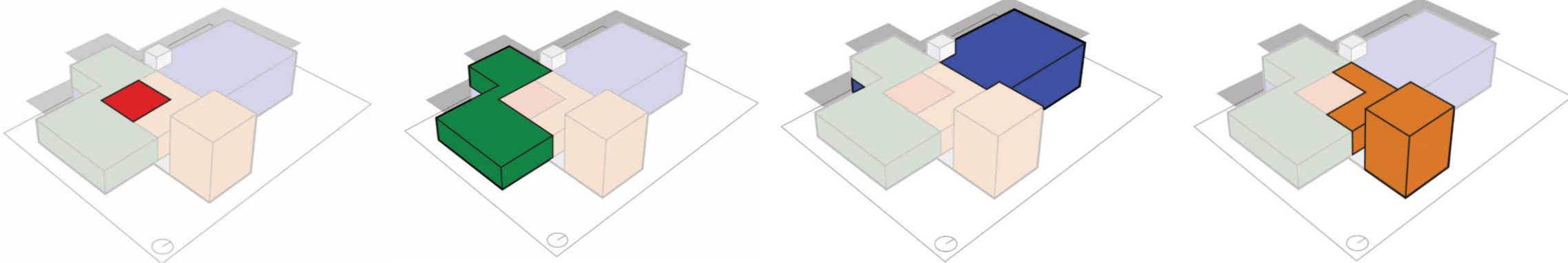
In the service bays, maintenance staff have been provided with clear and safe access aisles independent of the vehicle lifts within each bay. Columns have been positioned between the service bays at the center span to allow free movement throughout and allow for through-traffic of buses being maintained. Required toolbox and equipment locations have been taken into account to ensure access aisles are maintained at all times for staff safety and efficiency.



## THE INFLUENCE OF SITE



The Transportation and Support Services Facility was constructed on the same site as the existing bus garage and bus lot. The site is at a critical junction within the district boundary, providing access to Latta Road, Mt. Read Boulevard, route 390, and Long Pond Road. From this point the district's support services, planning staff, facilities, buildings and grounds, technology support staff and buses can travel efficiently through the community to the district's 16 school buildings. Points of entry for drivers, service staff, teachers, and visitors have been considered to ensure safe access to and from adjacent parking lots supporting the facility. Vehicle circulation for building visitors no longer crosses bus circulation lanes, which provides for safe access to, and egress from, the building at each level



## THE INFLUENCE OF



# OPERATIONS



In addition to the effective increase of the building area, the program was laid out to create synergy between departments, and improve the delivery and execution of support services for the District. Throughout the building, economy of space was considered within each department.

The most critical improvements to the operational efficiency of the District are incorporated into the layout and position of Central Stores. Central Stores has been equipped with adequate loading dock space that is independent of school bus traffic, double row racking, a cooler for pre-distribution food storage, mezzanine space, plus direct access to storage for technology and to the print service department.

District stock, technology, and print material are all housed, moved, processed, and distributed efficiently through Central Stores to the District's facilities. Double row racking and the mezzanine space within central stores allowed the design team to meet the storage requirements of the District within a reduced footprint. The design of the new facility enhances the centralized receiving and distribution point for all services associated with the background functions of the District.

The Technology Department is fully located on the first floor and includes office and IT support space, District and building server room, and secure storage space for equipment. The high-security storage was positioned on axis with Central Stores enabling the department to accept sensitive equipment on the pallets, move them into technology high security storage, and lift the pallets onto racks until techs are able to prep the equipment for distribution to District buildings.



## THE IMPORTANCE OF



# FLEXIBILITY



Flexibility is built into both of the first floor training rooms, which is a critical component of the building's overall program. Each of the rooms is equipped with a moveable wall partition, providing the professional development department with the means to host small and large group functions. The largest training room is located within the heart of the building and is the feature space of the building. It provides easy access by all staff using the building as well as other District staff and visitors, and it's primary function is to provide ample space to provide training for the District's 200 plus drivers.



When not in use by Transportation or Professional Services for training, the Training Room provides clean lines, laminate panels, writeable board, and coffered ceilings to host the District's board meetings and conferences.

Finally, administrative and service staff operating out of the first floor have accessible means of egressing the building through the two primary entrances located on the south face of the building. This is a significant improvement across each department, previously hampered by different building locations or multiple level changes between or within office spaces.



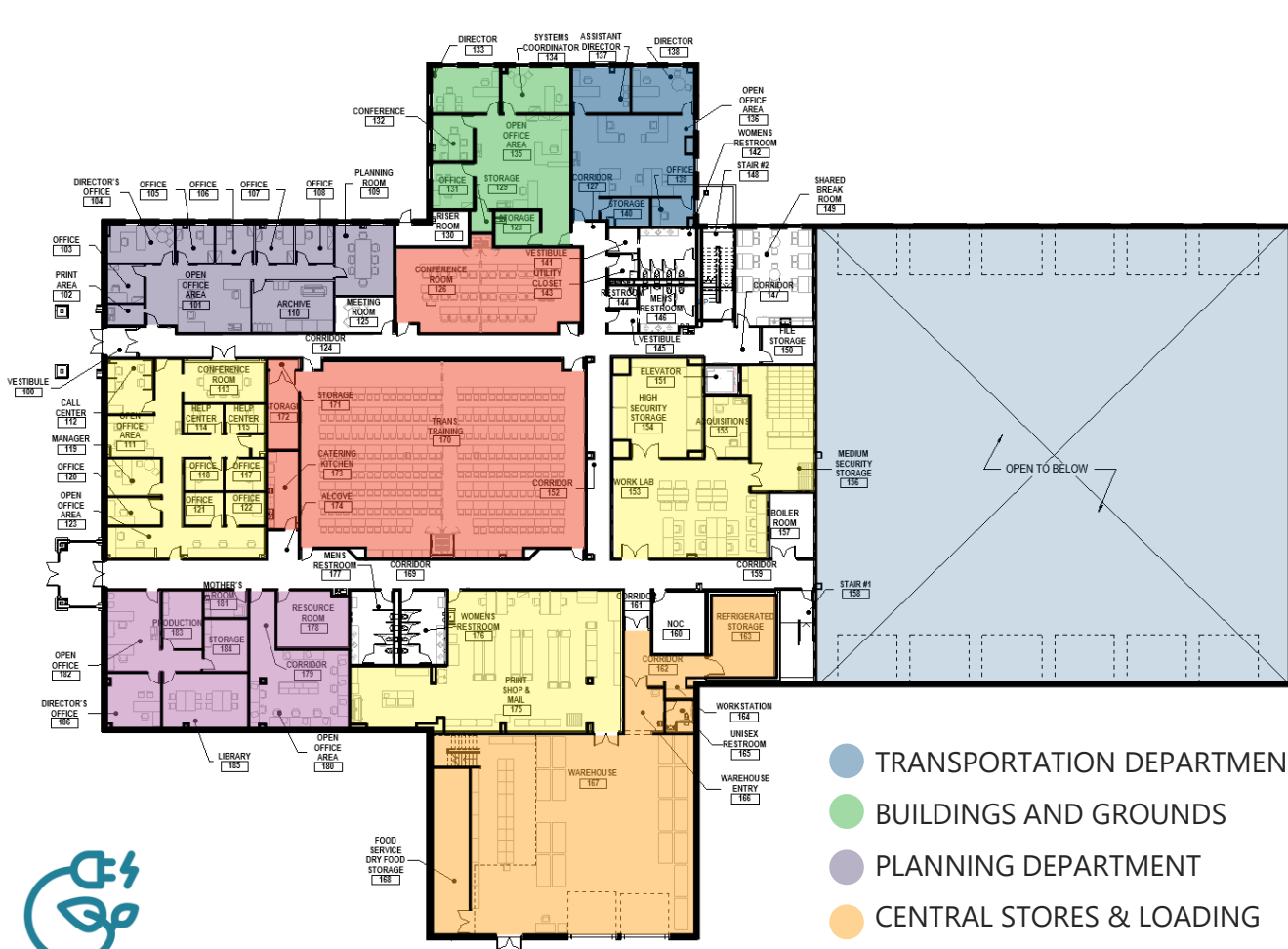
## THE INFLUENCE

# LOCAL CLIMATE



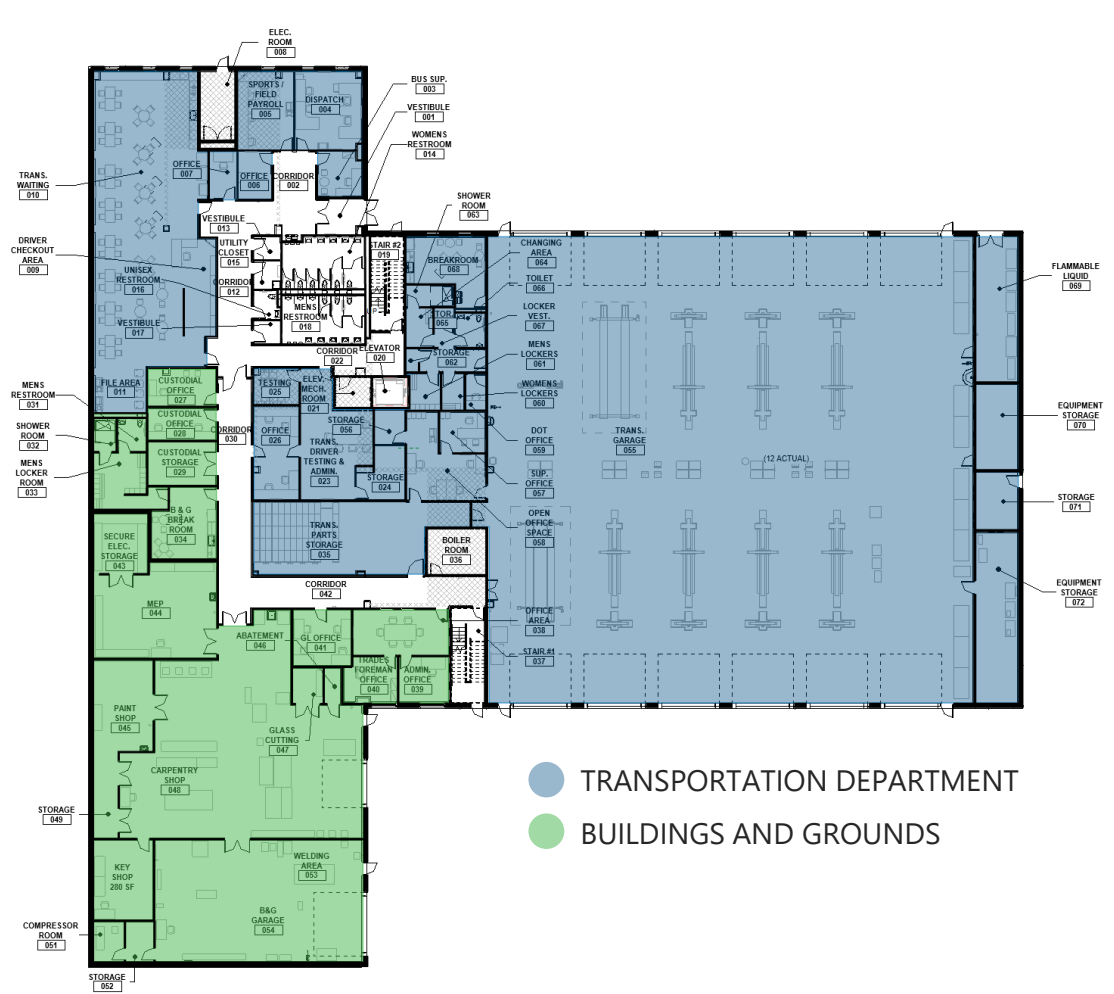
Given the duration of winter in our climate and the potential for damp floors due to snow and ice melt, the design team incorporated a radiant heat system in the floor and adequate trench drains to maintain a safe walking surface and comfortable interior temperature. Unit heaters are in place to provide make up heat when overhead doors open for buses to enter for service and exhaust capture systems are positioned at the opening of each bay to maintain minimize exhaust fumes within the service bays.

During the summer months, the west and east facing bay doors in the garage can be left open to take advantage of prevailing winds to condition the service bays. Throughout the year, the high bay space, clearstory Kalwall panels above overhead doors and white interiors provides for a well-lit work area.



# FIRST FLOOR

- TRANSPORTATION DEPARTMENT
- BUILDINGS AND GROUNDS
- PLANNING DEPARTMENT
- CENTRAL STORES & LOADING
- TECHNOLOGY/PRINT SHOP/MAIL
- PROFESSIONAL LEARNING
- TRAINING

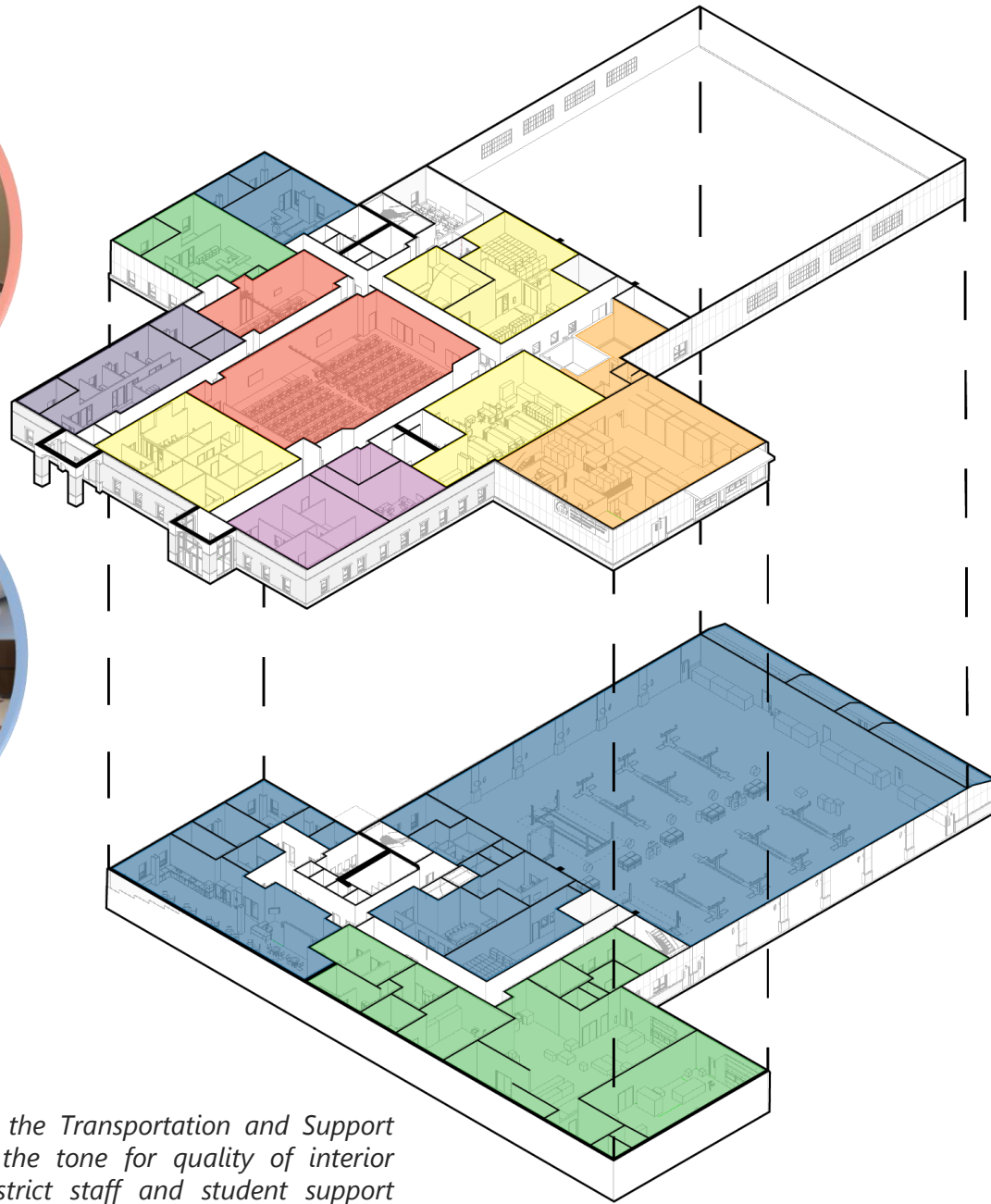


# LOWER LEVEL

- TRANSPORTATION DEPARTMENT
- BUILDINGS AND GROUNDS



Office spaces are positioned along the exterior of the wall to allow natural light into the workspaces through fixed windows with operable lower sashes. Individual offices are equipped throughout with glass sidelights, permitting natural light to filter into the center of each office suite. In addition to the prevalence of natural light within the office suites, access to the building's exterior is possible from each floor.



The District administration departments are located on the first floor of the building with direct access to the visitor vehicle lot at the south end of the site. These administration departments include Transportation, Buildings and Grounds, Planning, Technology, and Professional learning, enabling cross collaboration among departments. The departments that require more guest and teaching staff access are located closest to the main entries. Buildings and Grounds and Transportation is located at the northwest corner of the first floor to provide more direct access by the department staff from the functions on the lower level. The director of transportation office space is positioned to have visual control of operations to the exterior spaces. With the Transportation administration located on the first floor, that staff is not affected by bus drivers coming and going on their routes, since that function was located on the lower level immediately below the administrative area.

*"The complete design for the Transportation and Support Services Facility has set the tone for quality of interior environment that the district staff and student support spaces can expect moving forward."*





## THE INFLUENCE OF LOGISTICS



The maintenance functions of the Buildings and Ground and Transportation departments operate in the north end of the facility, on the lower level. This provides direct access to the buses and equipment necessary for District maintenance. Parts storage, office space, lockers, and a breakroom dedicated to maintenance staff are directly accessed off the transportation maintenance garage. The increase in service bays has allowed the district to integrate full service into a single shift, in lieu of two shifts being required previously. The high bay space allows sufficient clearance to lift and service 10 vehicles simultaneously, if required.

The Buildings and Grounds shops, office space, and restrooms are also provided on the lower level. This provides them with direct access to a majority of their large equipment and providing easy access to and from the shop areas for maintenance to all the District facilities. The facilities provided well exceed the previous space available to this department and provides for a single location for staff to access when needed.