

TESD New Elementary School

1200 Swedesford Road
Due Diligence Presentation

March 13, 2024



AGENDA

1	DUE DILIGENCE PROCESS AND FINDINGS	06
2	CONCEPT DESIGN	30
3	APPROVALS PROCESS	45
4	SCHEDULE AND COSTS	47



PROJECT TEAM



TREDYFFRIN EASTTOWN SCHOOL DISTRICT



HECKENDORN SHILES ARCHITECTS
PROJECT ARCHITECT



PENNONI ASSOCIATES INC.
CIVIL ENGINEER

A.W. LOOKUP CORPORATION
Structural Engineers

A.W. LOOKUP CORPORATION
STRUCTURAL ENGINEER



SCHILLER AND HERSH ASSOCIATES INC.
MEP ENGINEER



TERANET CONSULTING SERVICES
IT CONSULTANT

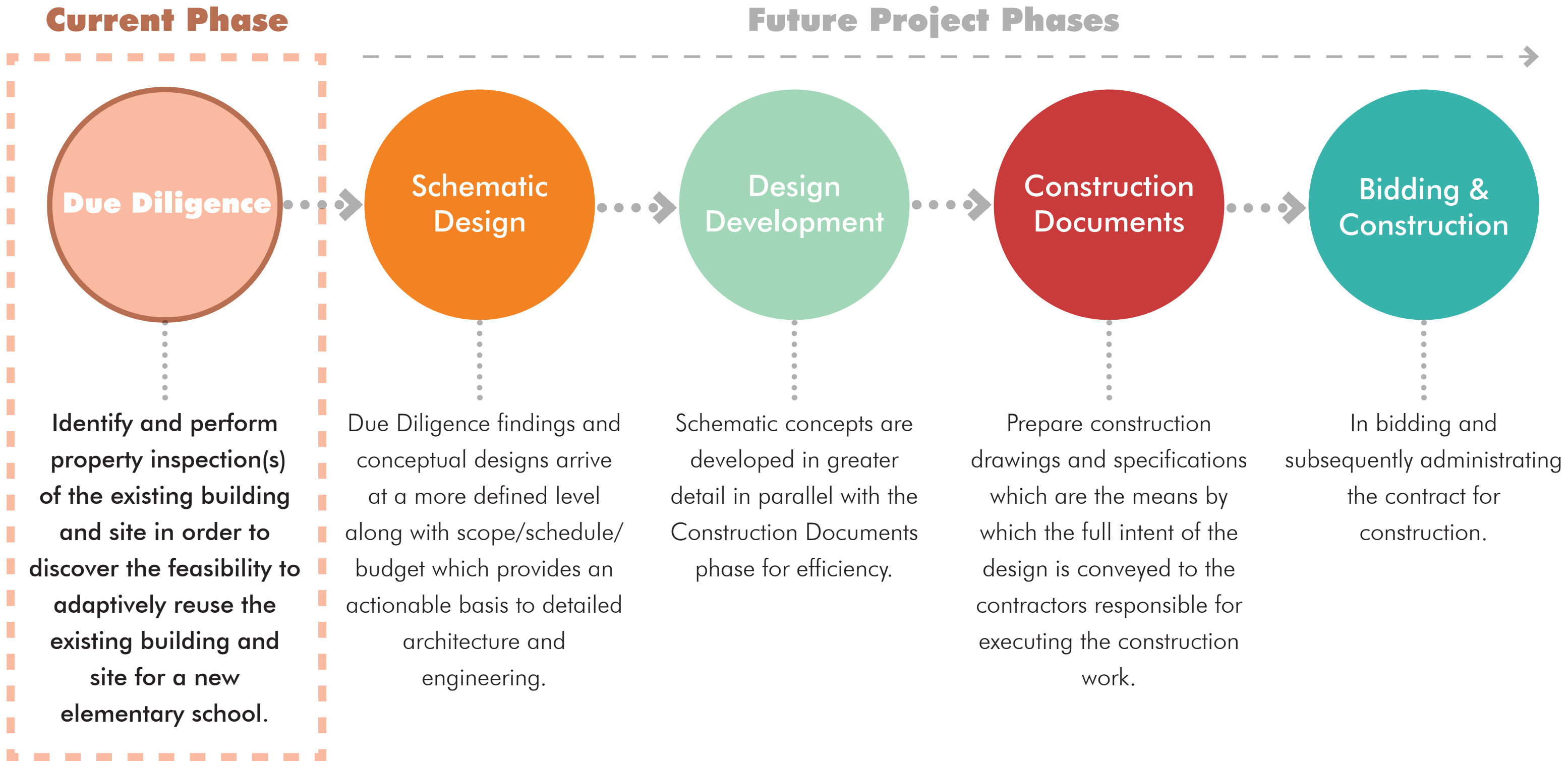


BECKER & FRONDORF
COST ESTIMATING

MARCH 13, 2024



DESIGN AND CONSTRUCTION PROCESS



1200 SWEDESFORD PLACEMENT WITHIN DISTRICT



- 1200 W. SWEDESFORD ROAD
- BEAUMONT ELEMENTARY SCHOOL
- DEVON ELEMENTARY SCHOOL
- HILLSIDE ELEMENTARY SCHOOL
- NEW EAGLE ELEMENTARY SCHOOL
- VALLEY FORGE ELEMENTARY SCHOOL
- T/E MIDDLE SCHOOL
- VALLEY FORGE MIDDLE SCHOOL
- CONESTOGA HIGH SCHOOL





DUE DILIGENCE PROCESS & FINDINGS

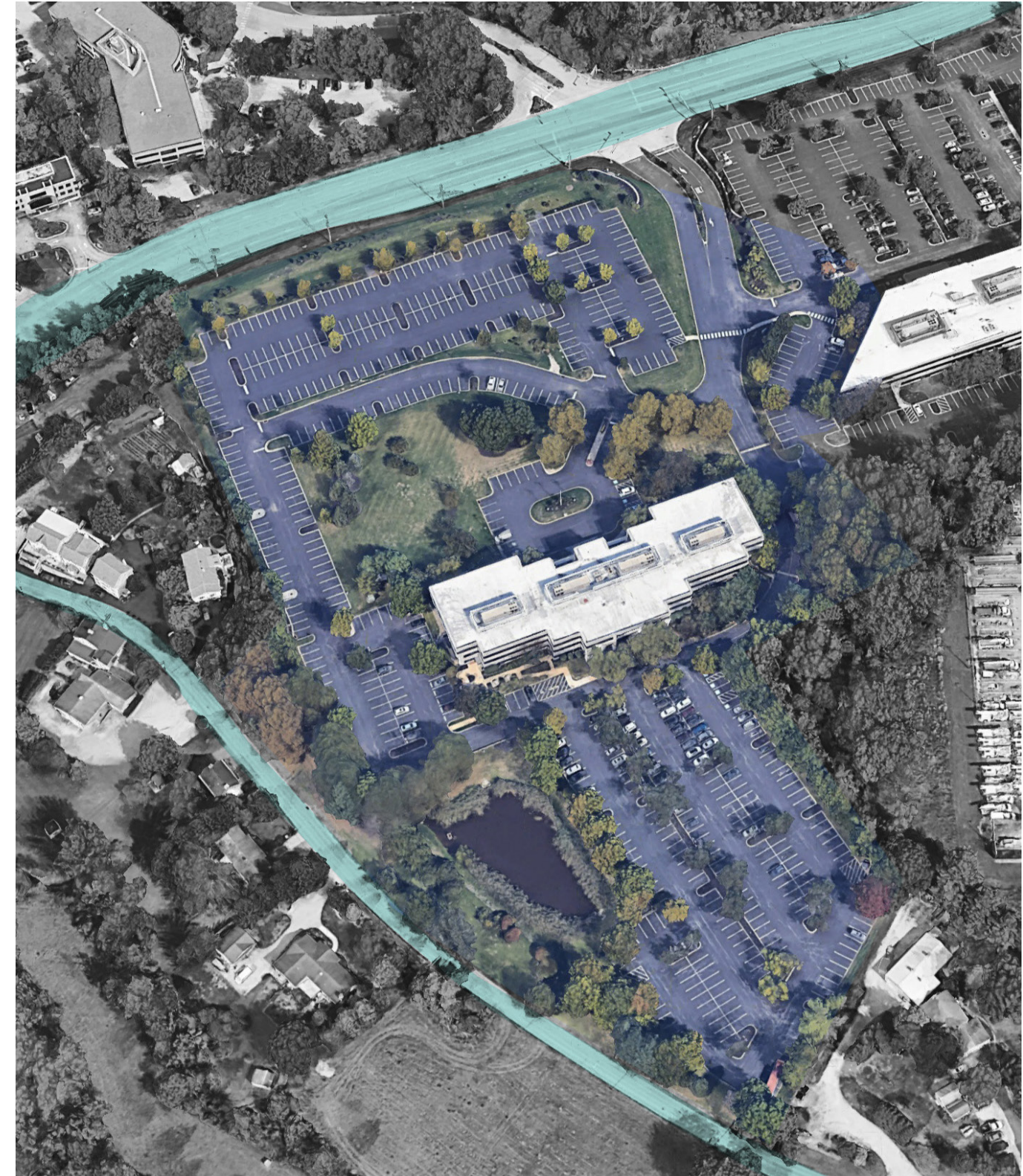
1200 SWEDESFORD ROAD DUE-DILIGENCE PRESENTATION

EXISTING SITE SUMMARY



EXISTING CONDITIONS

- **3 Story "Class A" Commercial Office Building**
- **Tenant Parking** at North, South, and West of Building
- **Entry loop** with handicap parking and loop around entire exterior of building
- **Stormwater management** features adjacent to Swedesford Road and dam southwest of building
- **Shared entry drive** from Swedesford with "Southpoint One" and "Southpoint Two" buildings
- **Outdoor tiered seating plaza & landscaping** at South West corner of building
- **Emergency Vehicle Access** over grass area accessed from Howellville Road



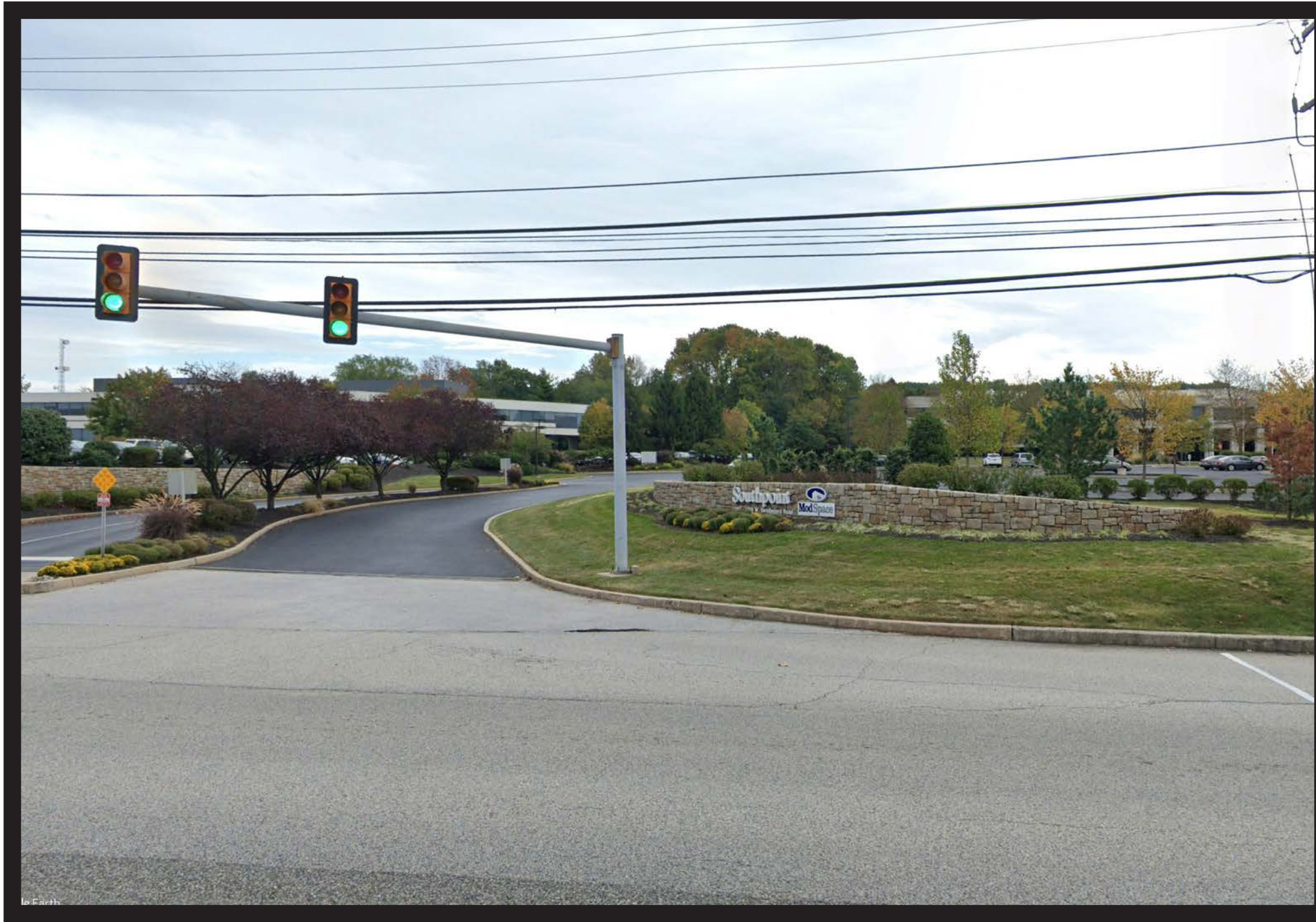
AERIAL VIEW OF EXISTING SITE



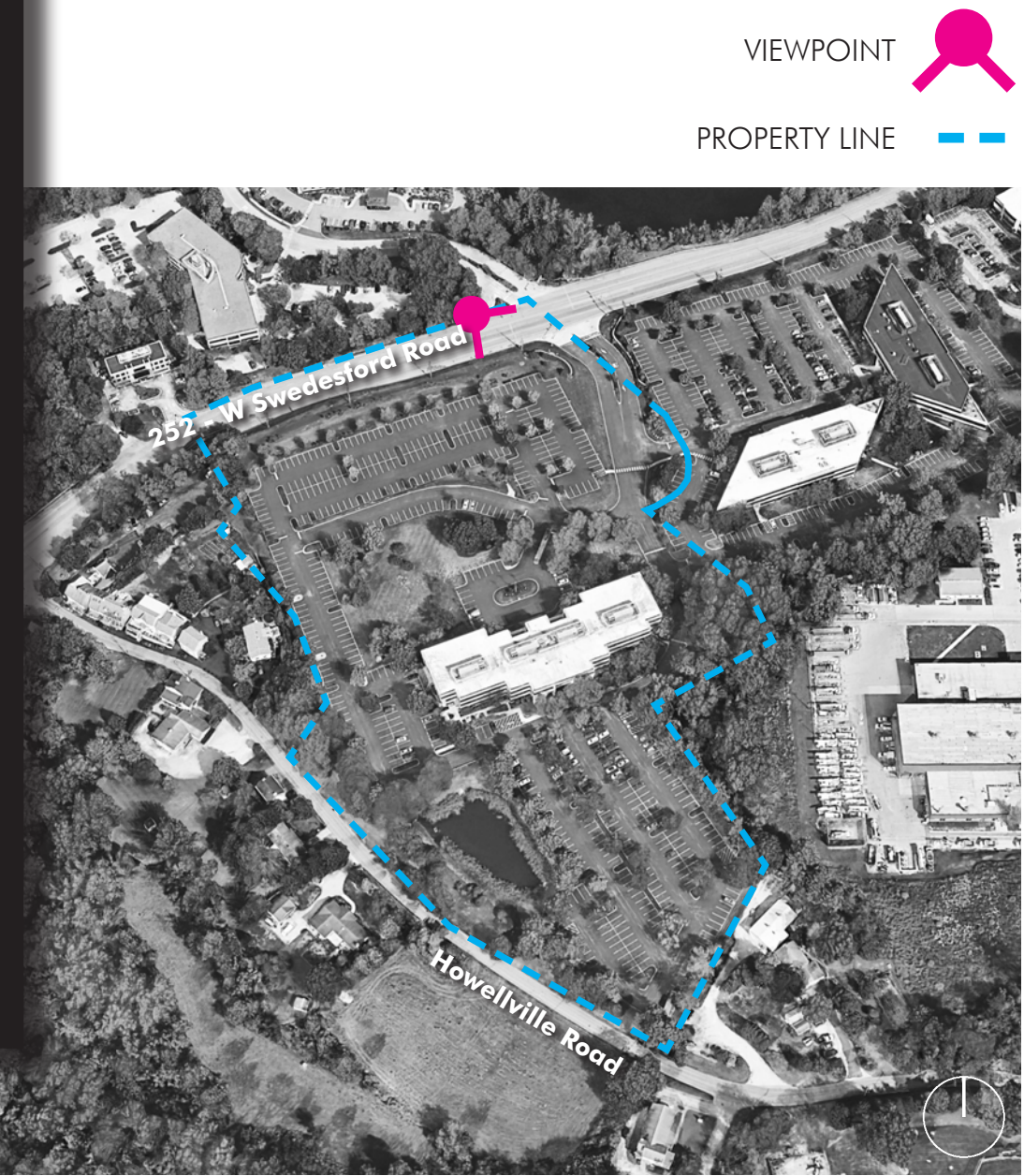
AERIAL VIEW OF EXISTING SITE



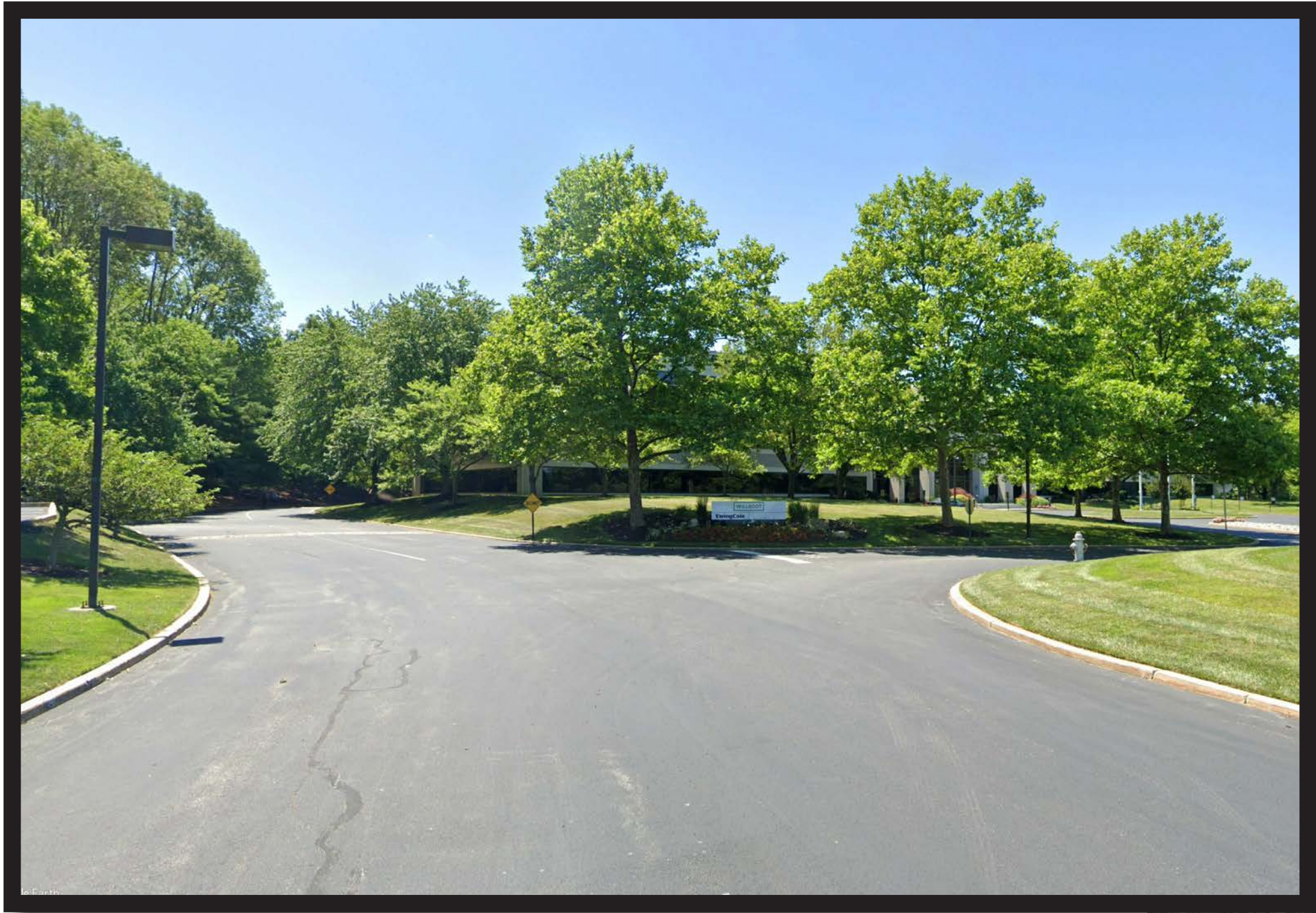
VIEW OF EXISTING SITE



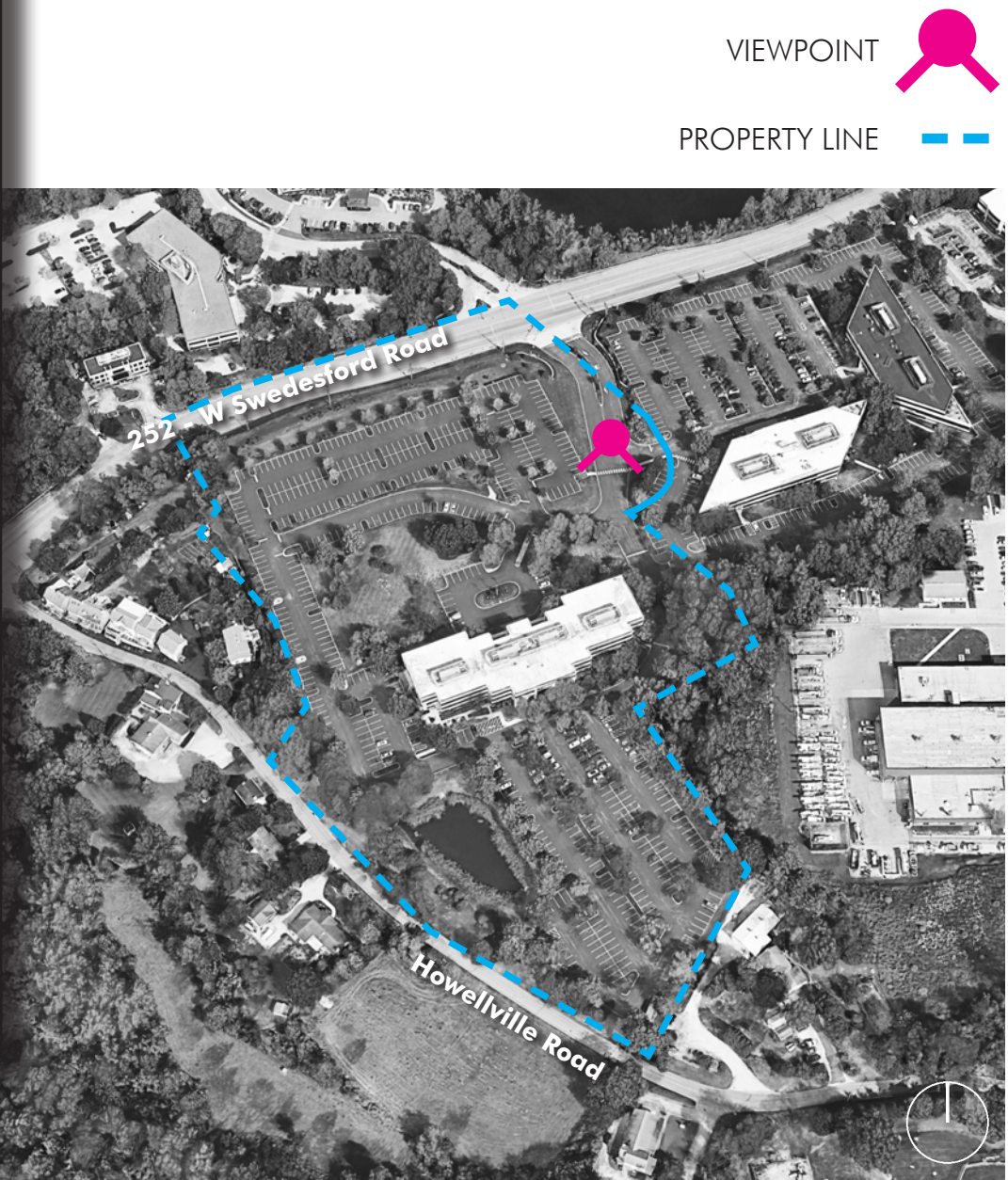
2023 GOOGLE EARTH

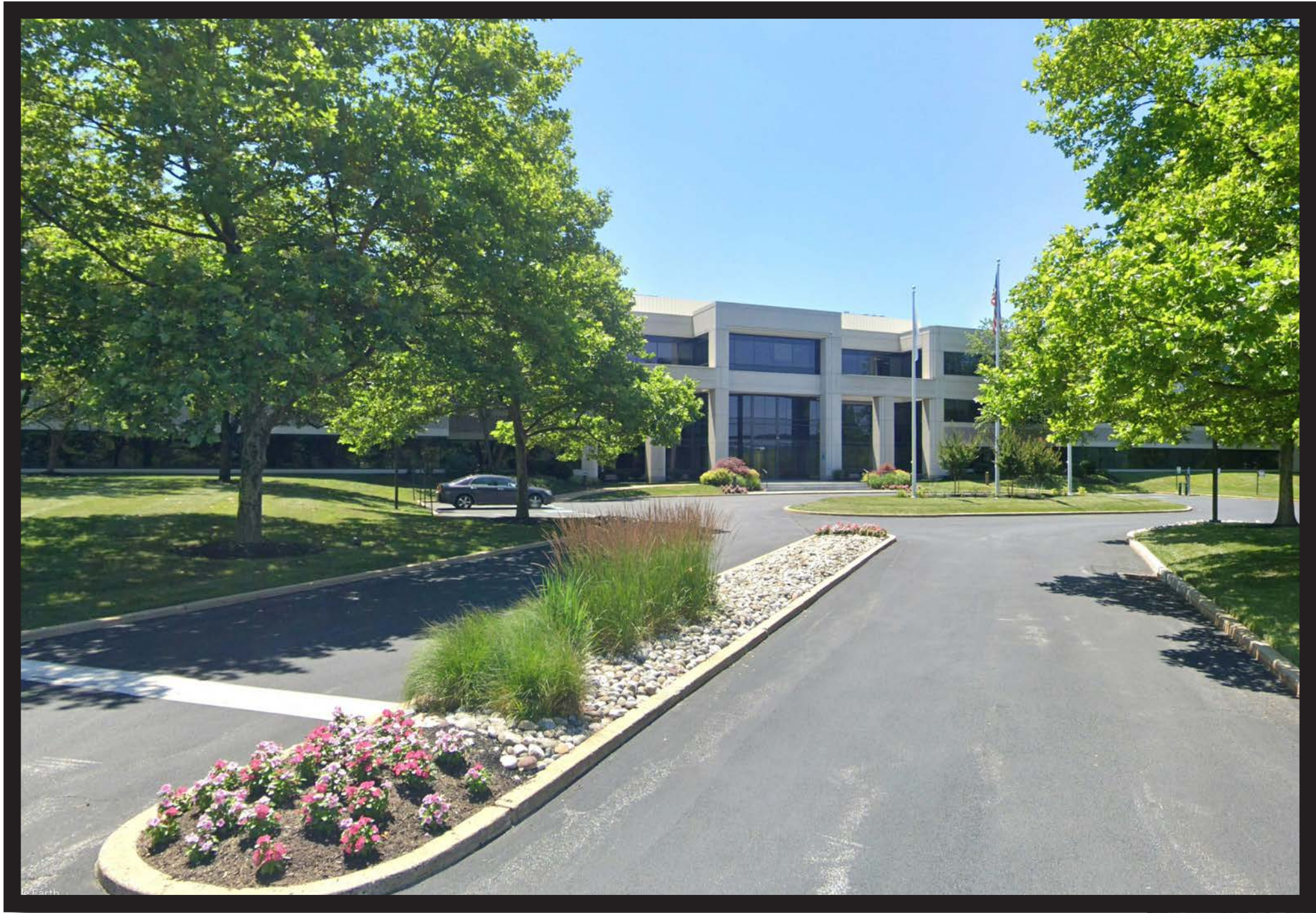


VIEW OF EXISTING SITE

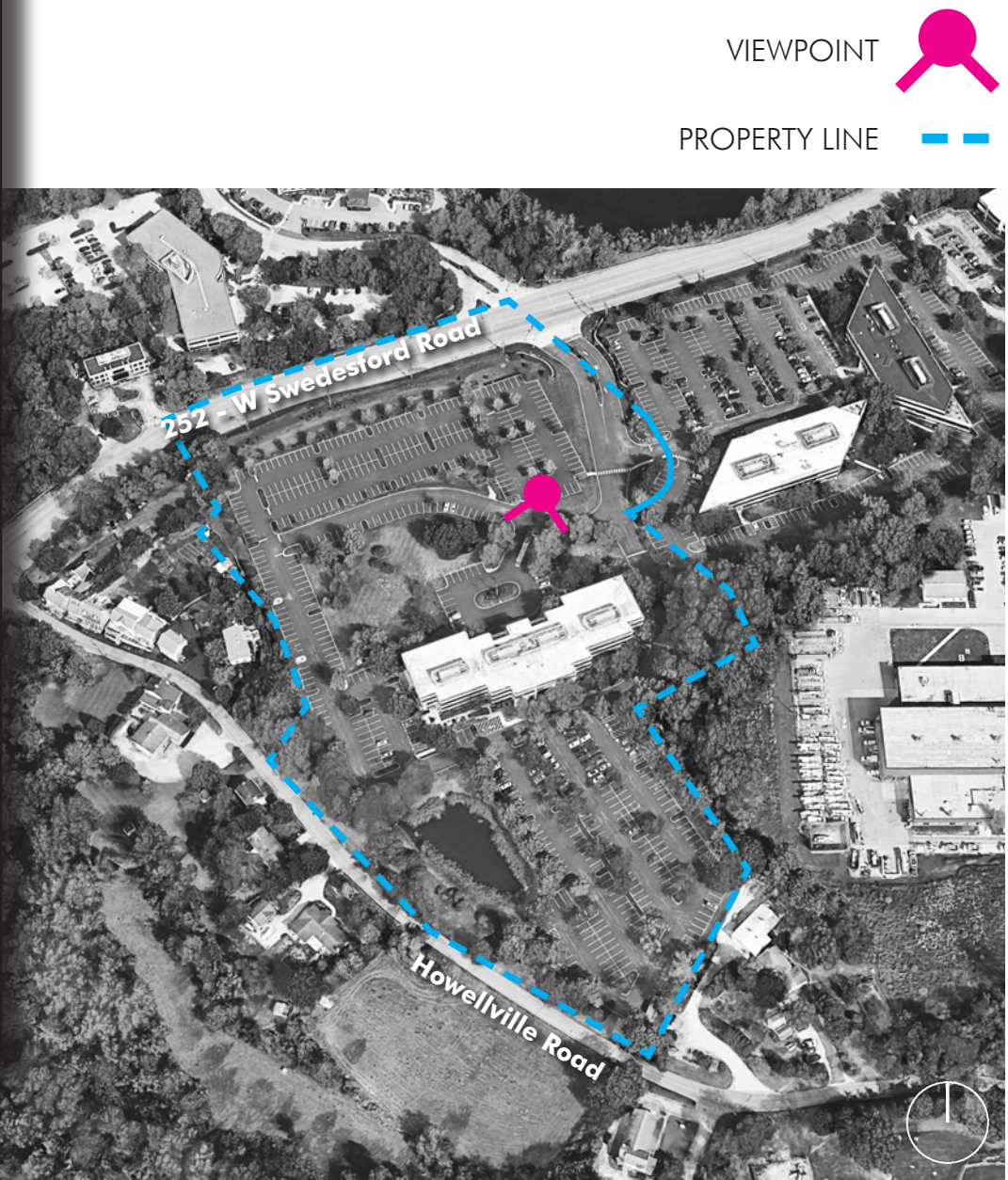


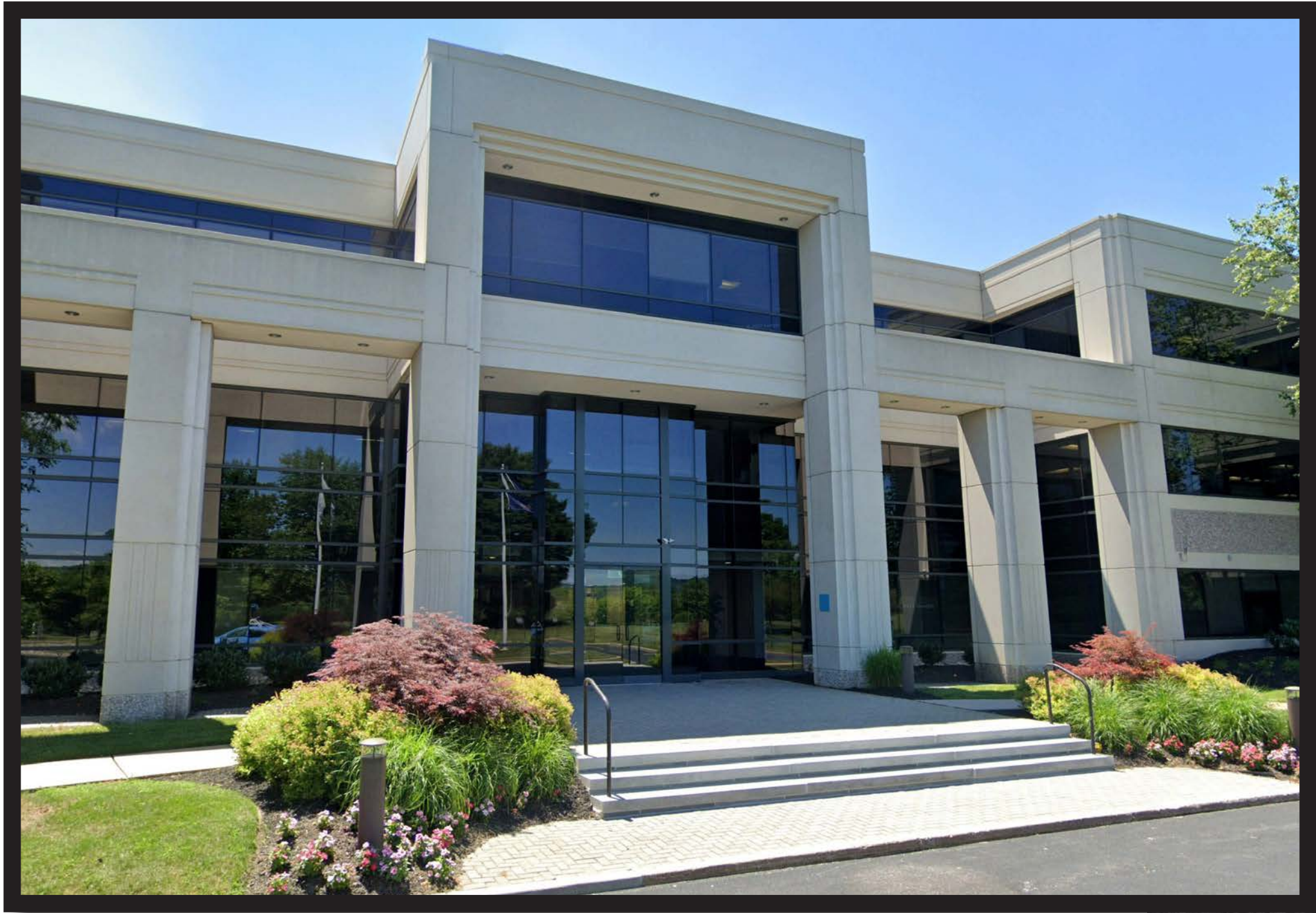
2023 GOOGLE EARTH



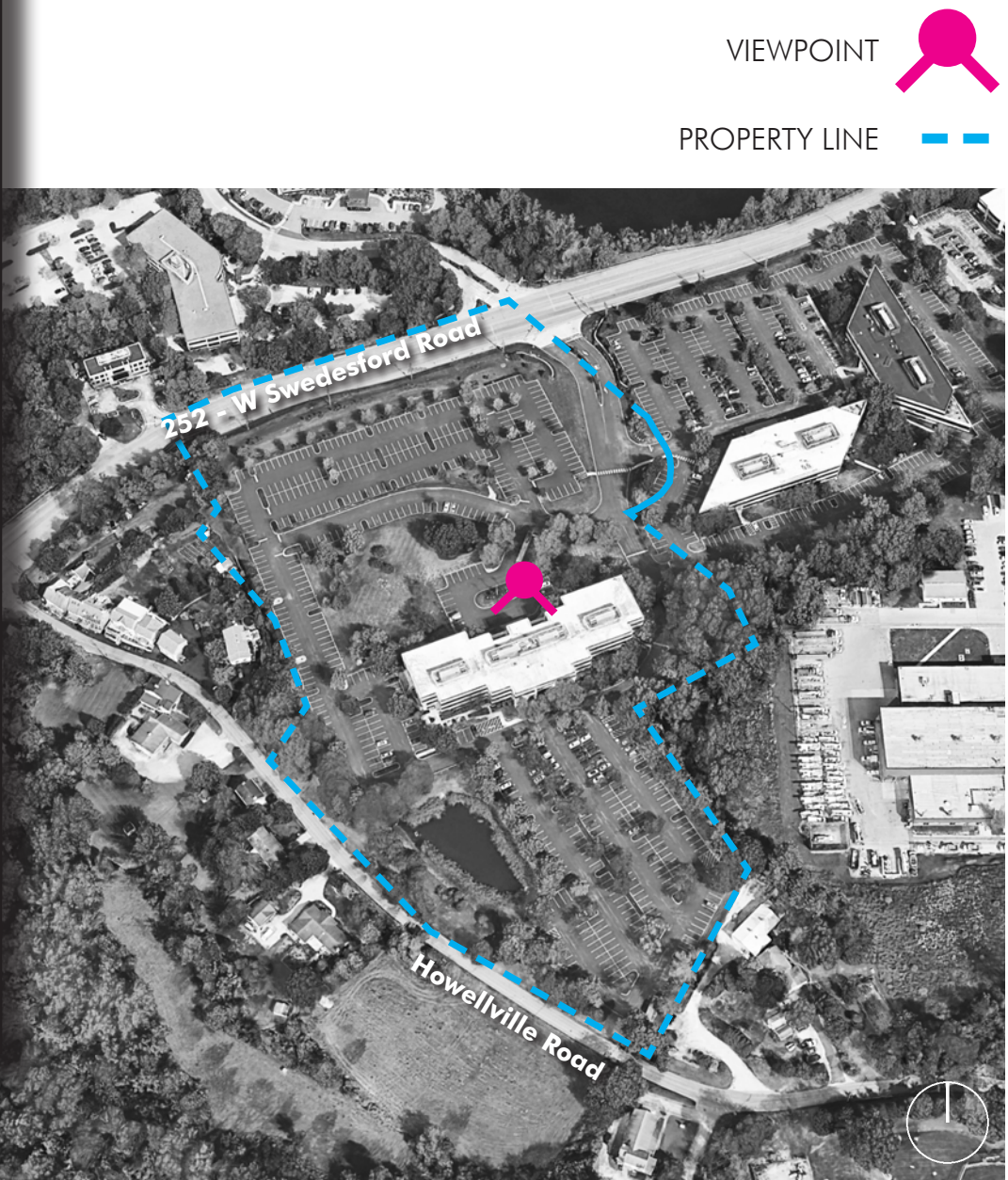


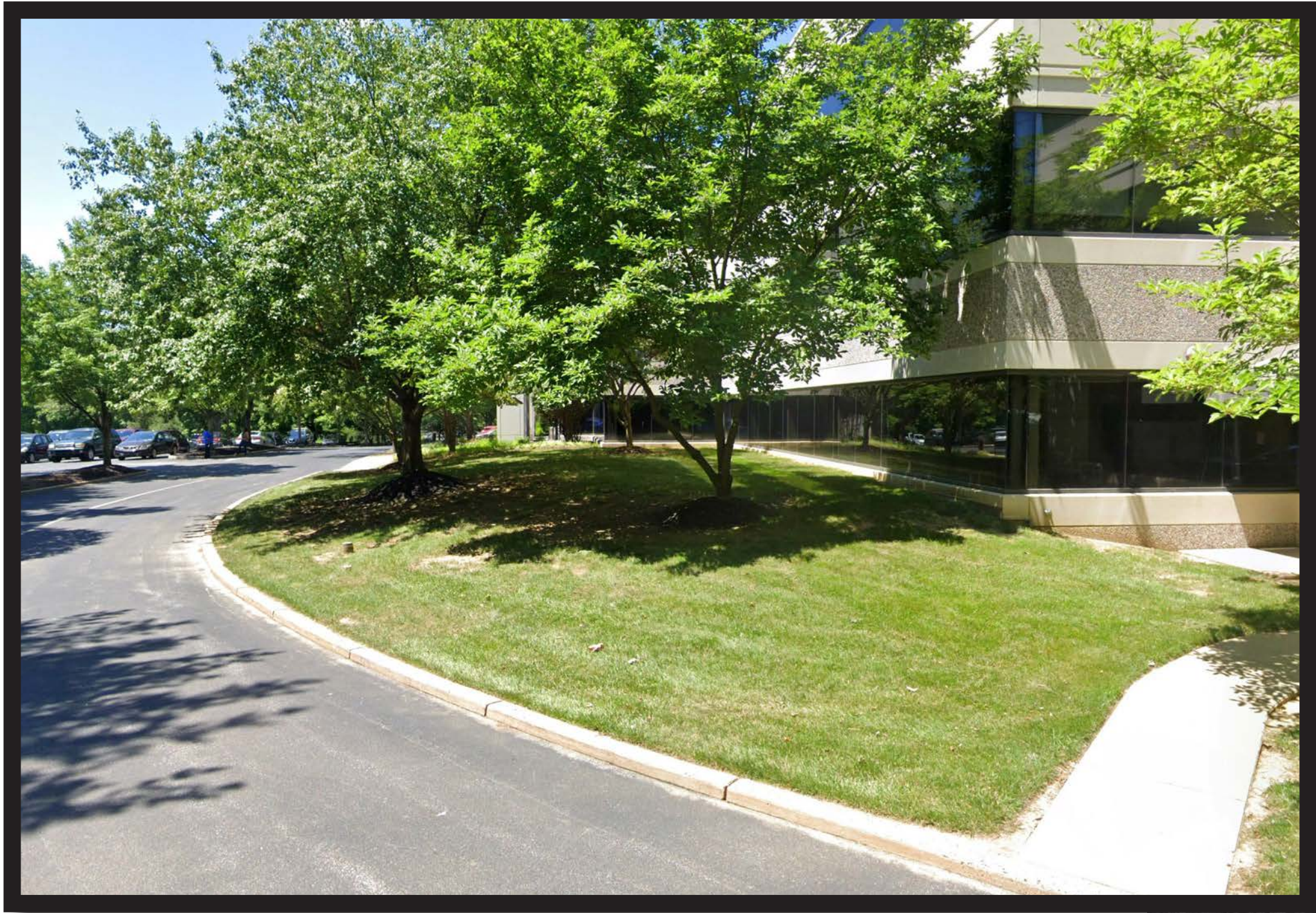
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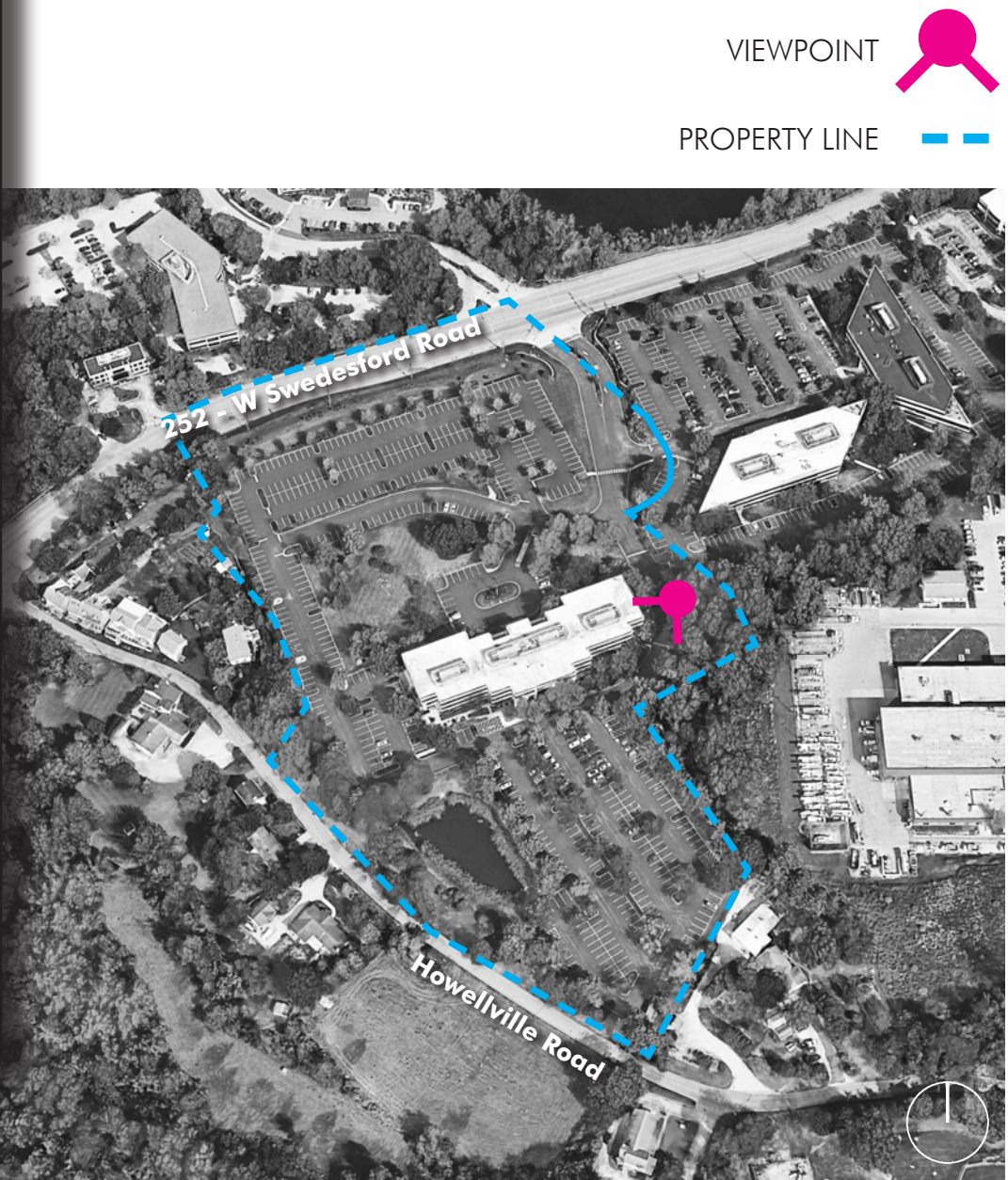


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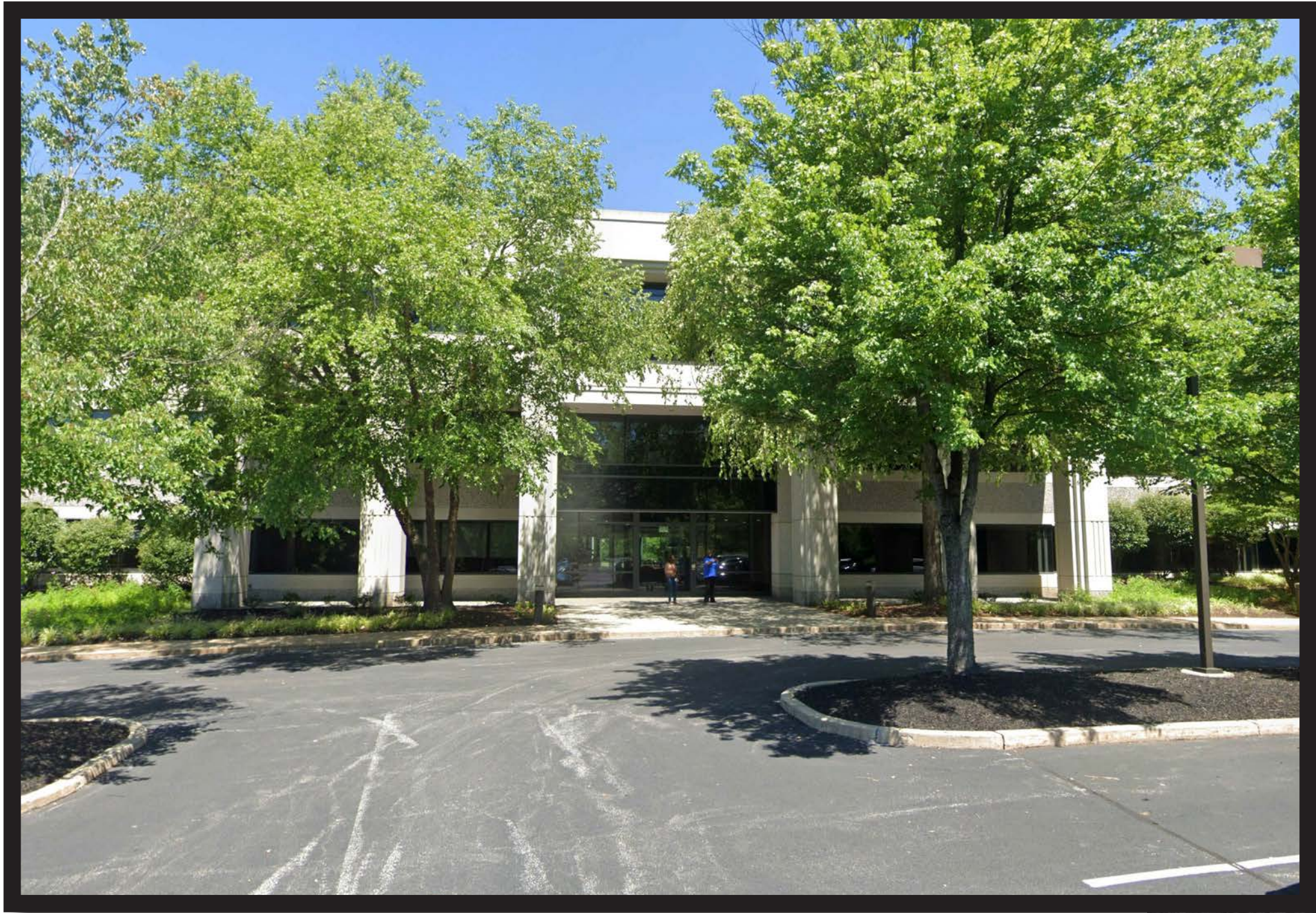
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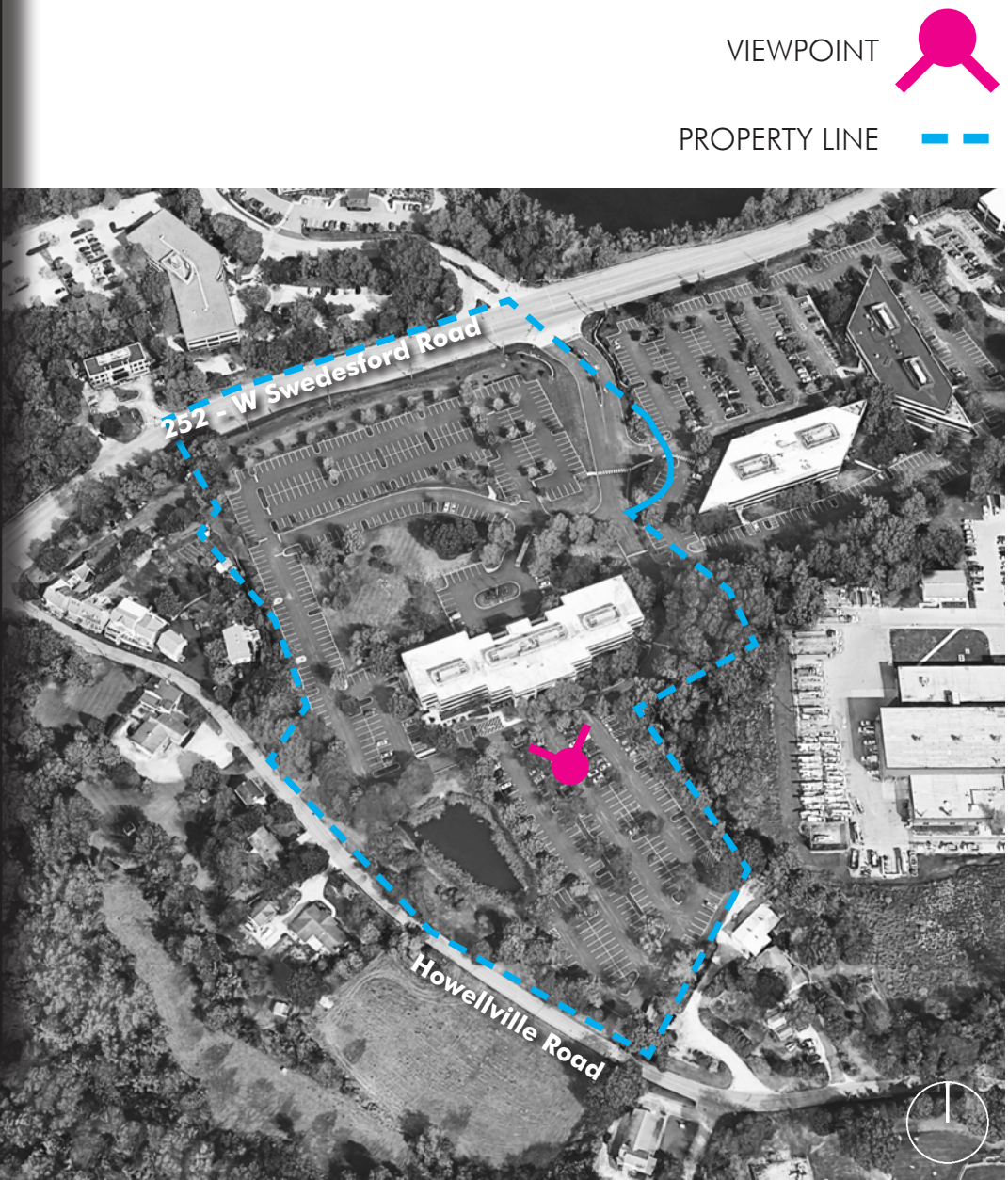


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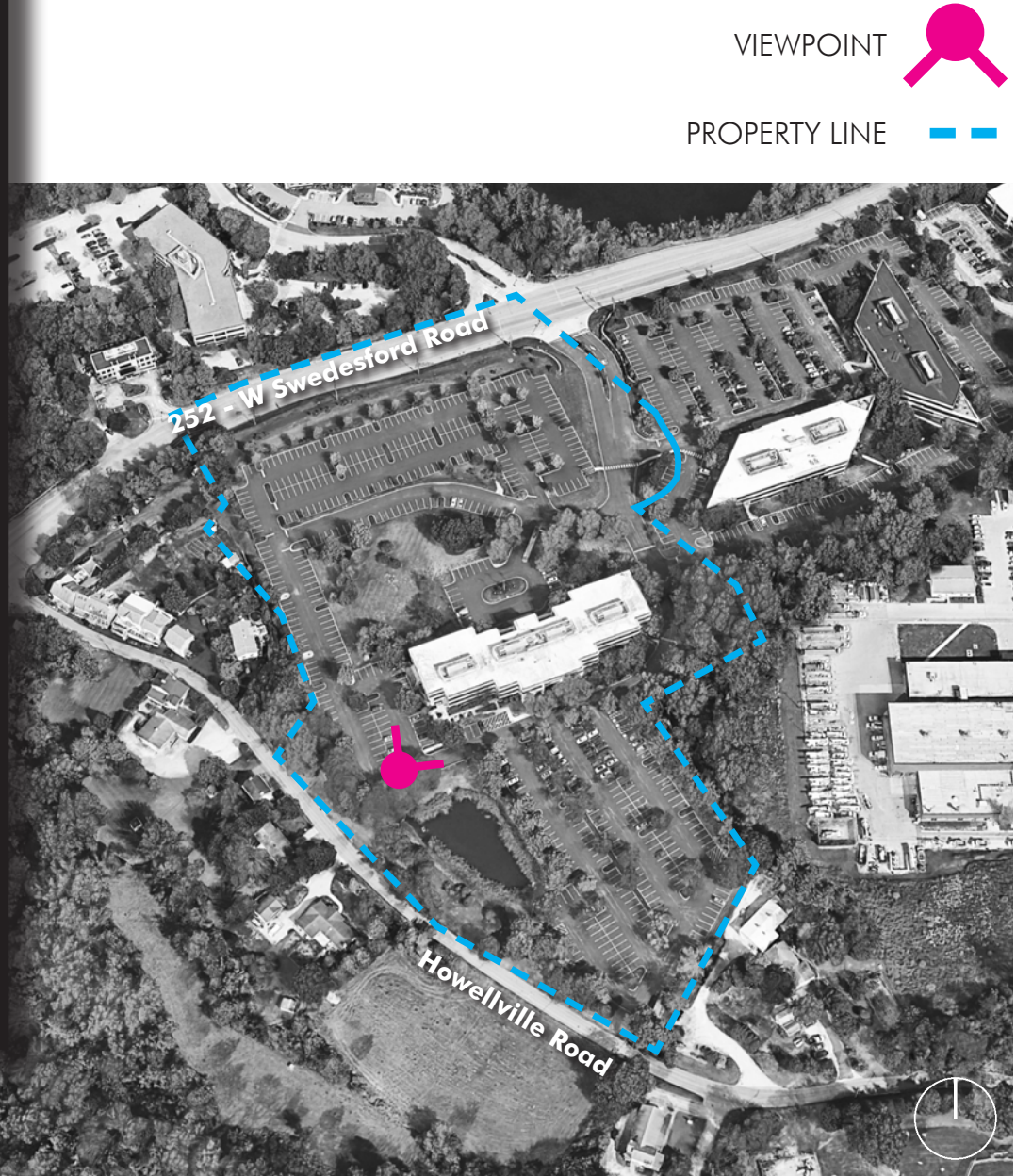


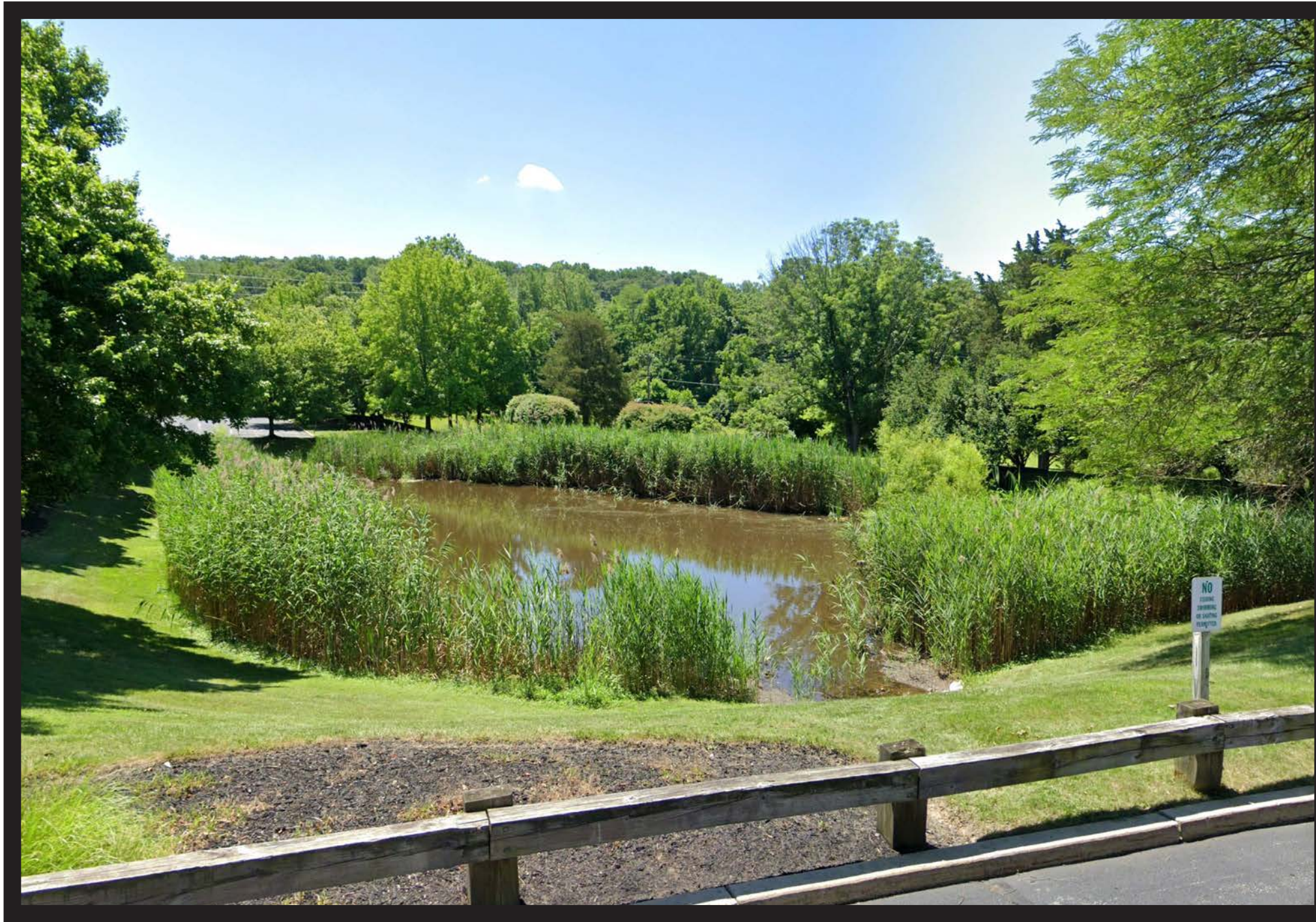
VIEWPOINT 
PROPERTY LINE 



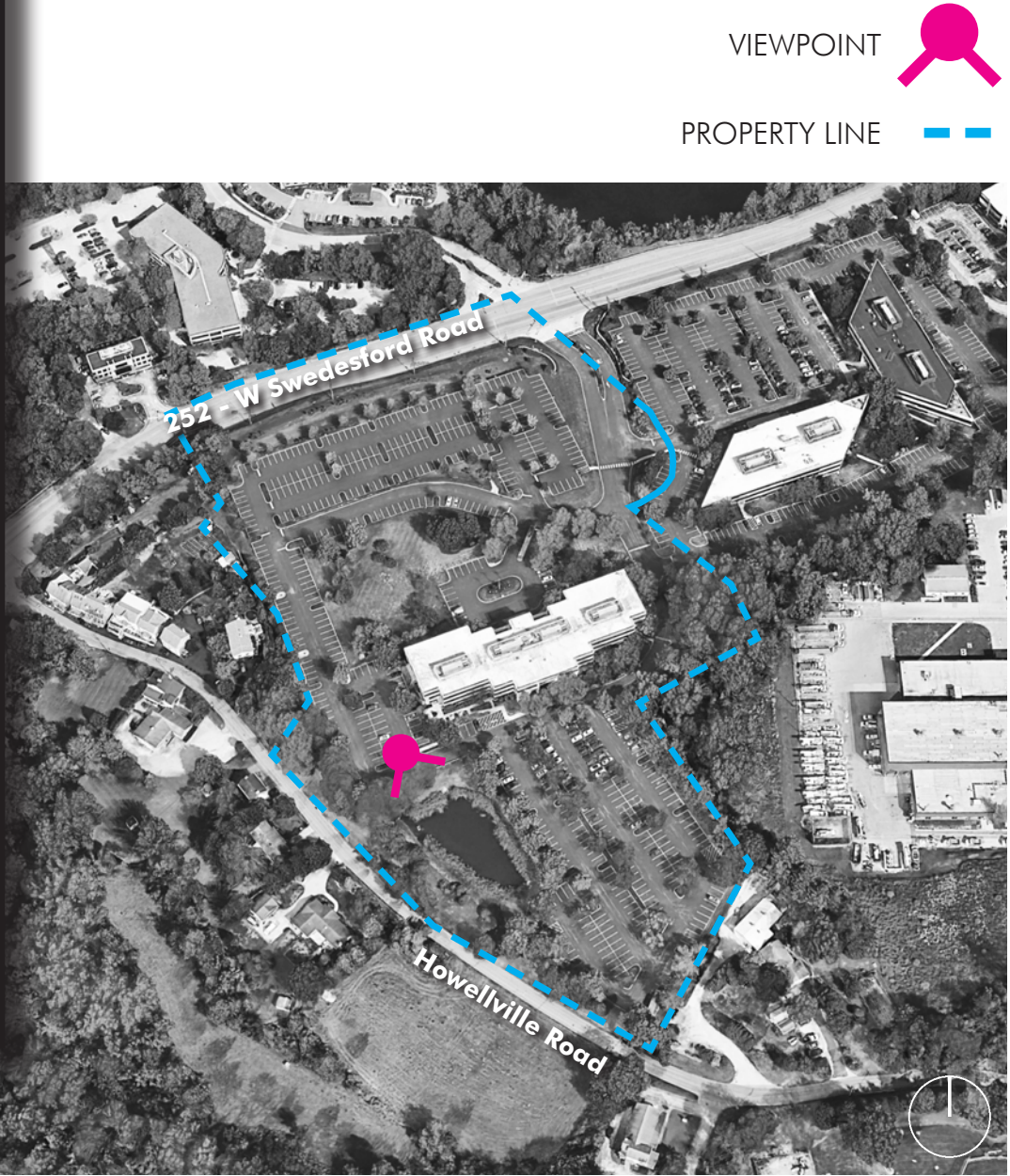


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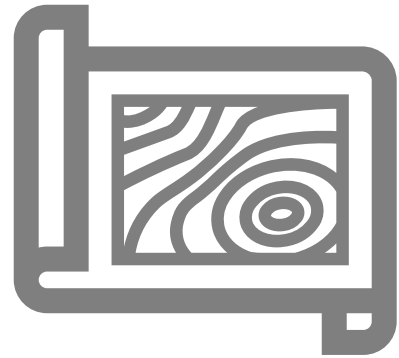




2023 GOOGLE EARTH



SITE INVESTIGATIONS



- Environmental Phase 1 Assessment
- American Land Title Association (ALTA) Survey
- Pennsylvania Natural Diversity Inventory (PNDI)
- Geotechnical
- Sanitary Equivalent Dwelling Units (EDUs)



Existing Site Plan
Not to Scale



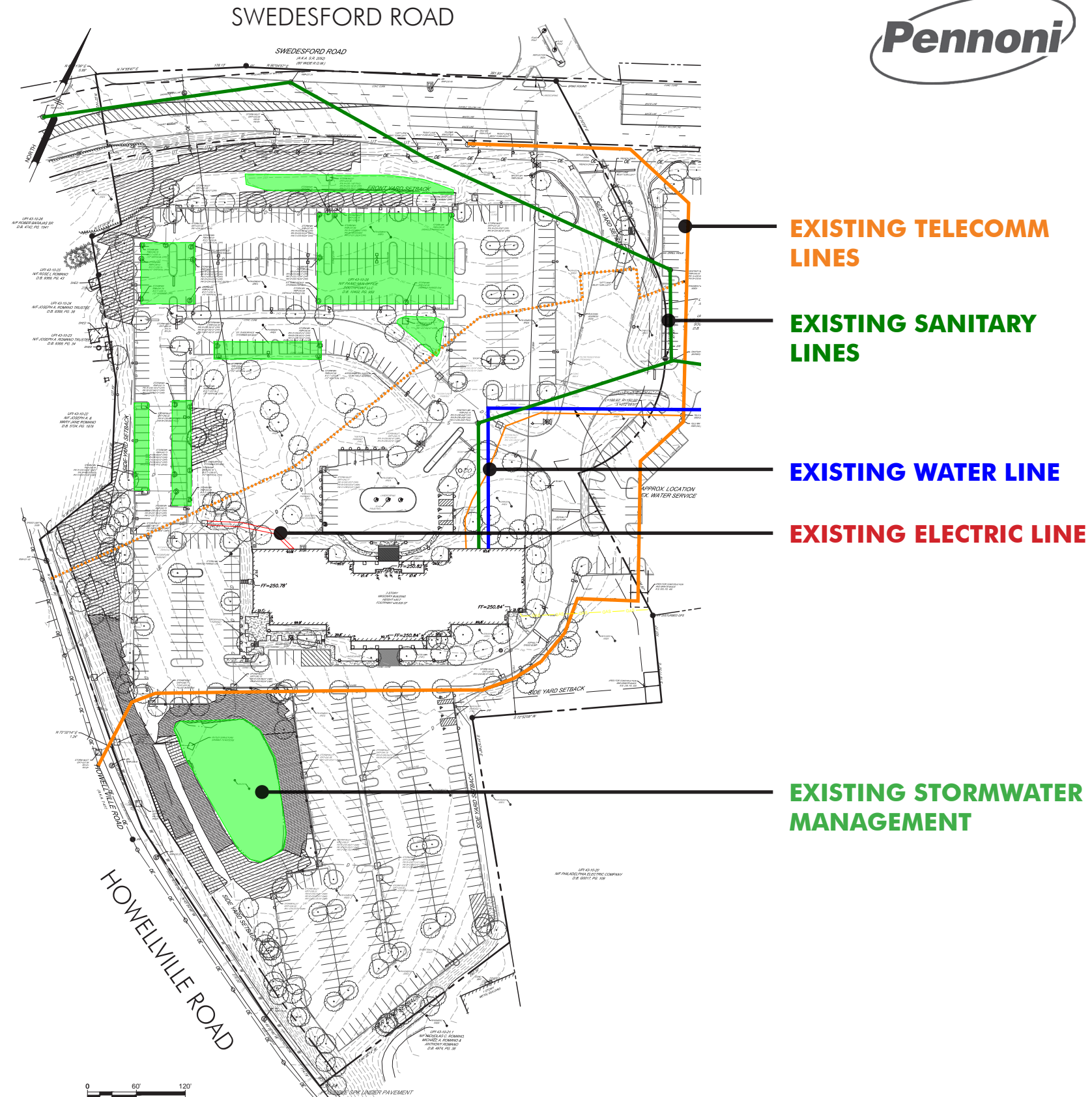
EXISTING SITE UTILITIES & STORMWATER MANAGEMENT

EXISTING UTILITIES

- **Existing overhead wires** along Howellville Road feed the underground electric service for the existing building
- **The existing building is serviced by natural gas** at the southeast corner of the building
- **The existing sanitary is serviced by a 6" gravity line**
- **The existing water connection connects to the northeastern corner of the building**

EXISTING STORMWATER MANAGEMENT

- **Existing stormwater facilities** located at the site
- **Additional stormwater management facilities are expected** to meet the minimum township code requirements



EXISTING FACILITY SUMMARY



EXISTING BUILDING

- **ORIGINALLY CONSTRUCTED IN 1994**

- **Structural Steel Frame** (30'x30' column grid)
- **Fully Sprinklered, 1 hr rated shafts**

- **3 STORY OFFICE BUILDING**

- **35'** from mean grade to top of roof
- **12'-1"** Floor-to-Floor height

- **NON-COMBUSTIBLE EXTERIOR WALLS**

- **Smooth Finish Precast Concrete**, with exposed aggregate finish between first and second floor
- **Insulated Ribbon Window System**

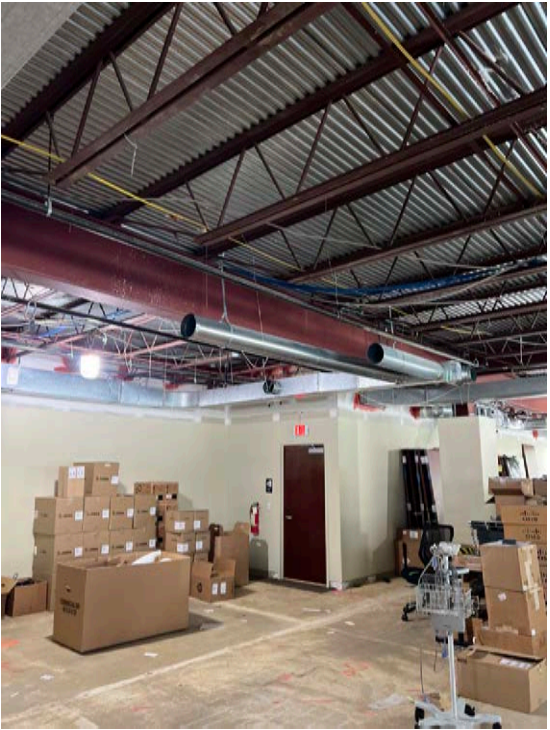
- **TOTAL SQUARE FOOTAGE: +/- 86,622 SF**



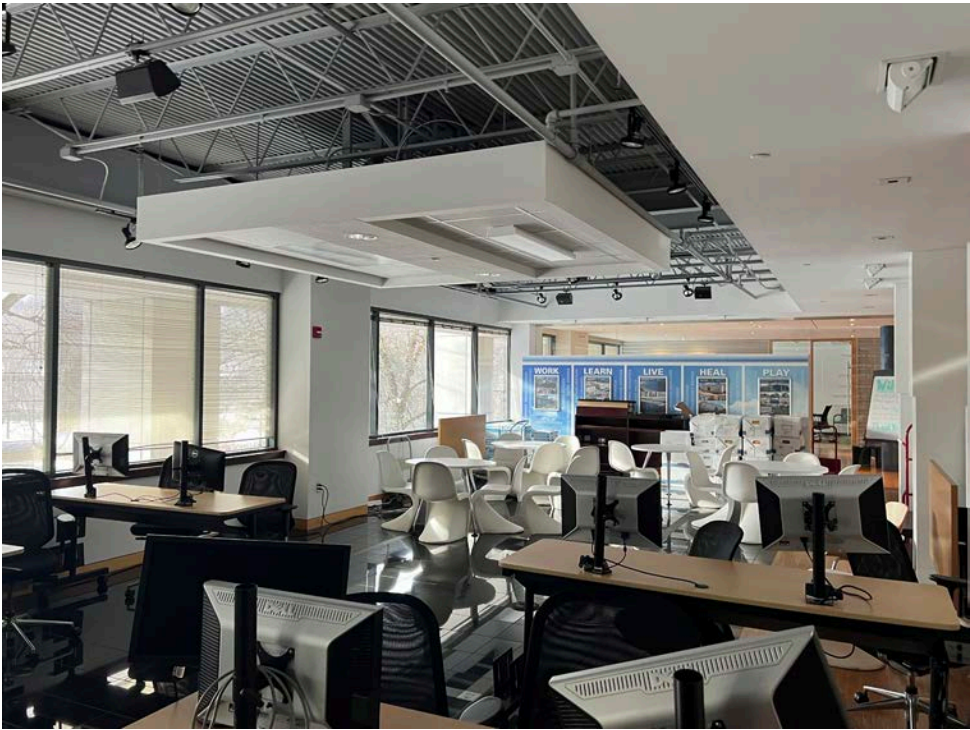
View of existing building lobby



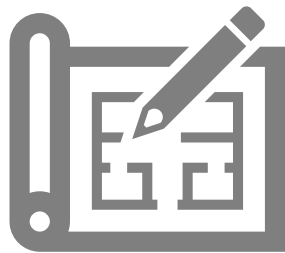
EXISTING FACILITY IMAGERY - FIRST FLOOR



EXISTING FACILITY IMAGERY - 2ND AND 3RD FLOOR

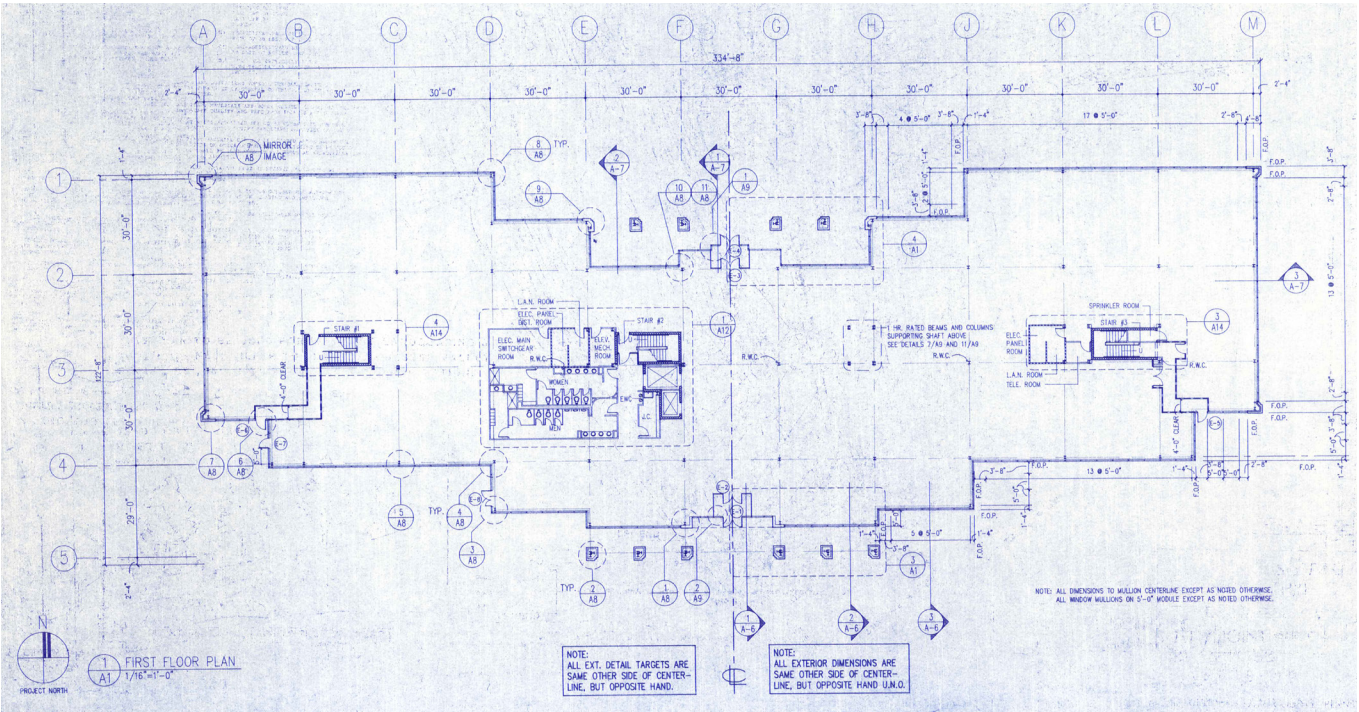


EXISTING FACILITY FIRST FLOOR PLAN



EXISTING CONDITIONS AT FIRST FLOOR

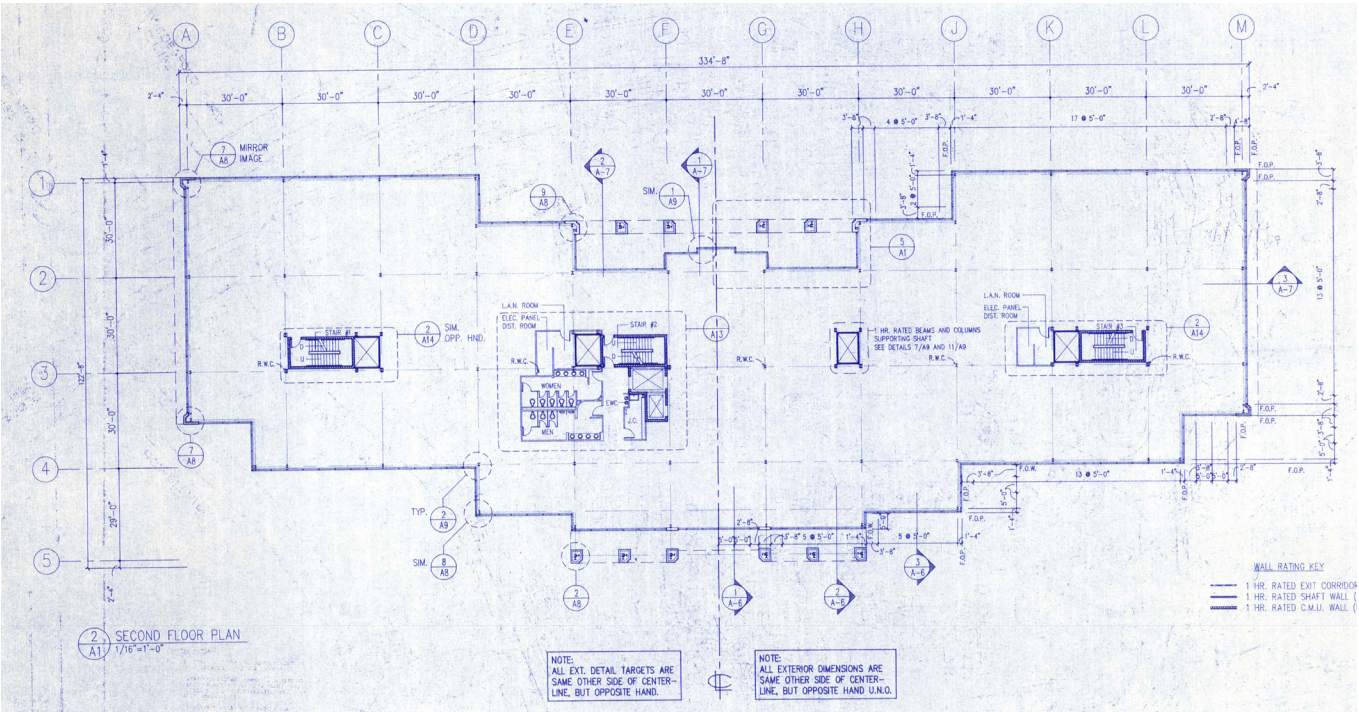
- **Through lobby**
at center of the building with entry points to North and South
- **(2) Elevators**
(1 passenger, 1 service)
- **Multi-user Restrooms**



First floor construction plan provided by seller

EXISTING CONDITIONS AT SECOND FLOOR

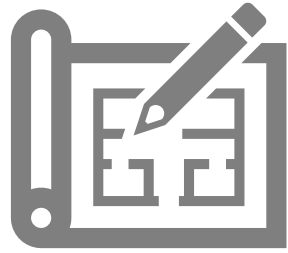
- **Multi-user Restrooms**



Second floor construction plan provided by seller

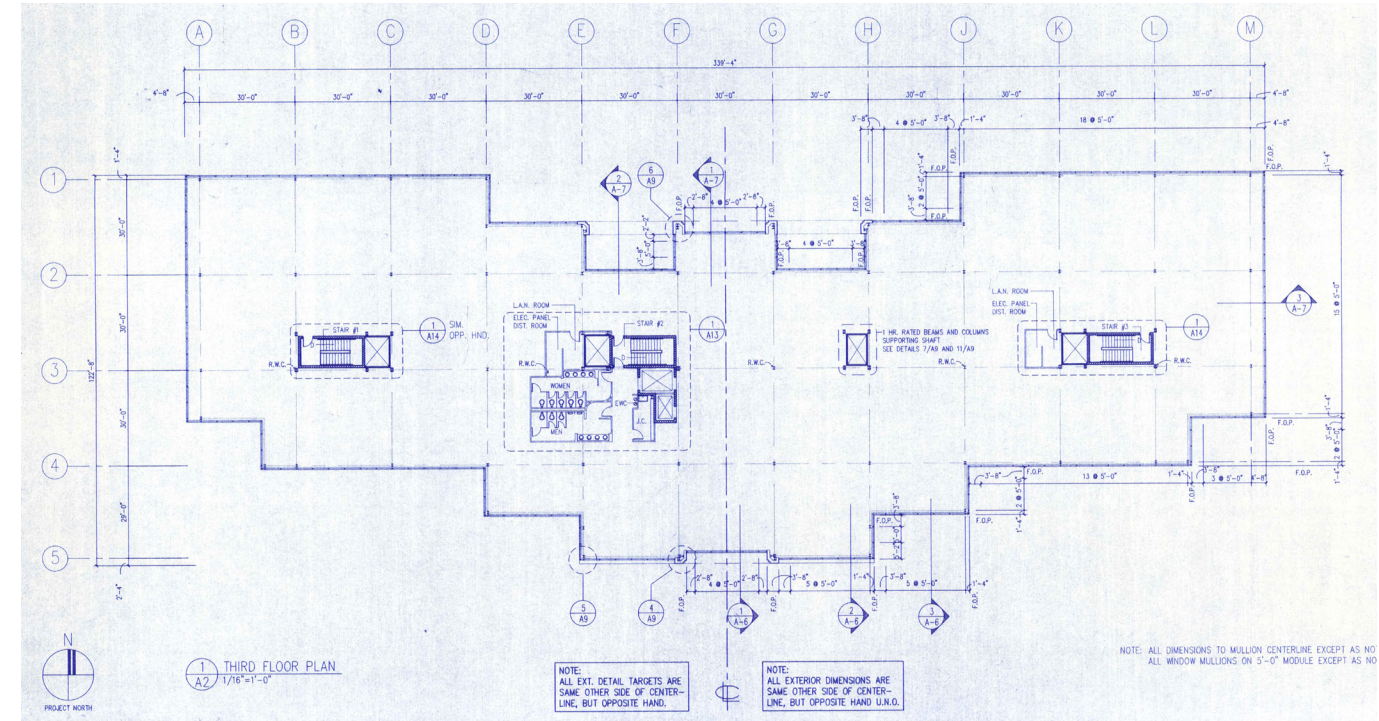


EXISTING FACILITY THIRD FLOOR PLAN + ROOF



EXISTING CONDITIONS AT THIRD FLOOR

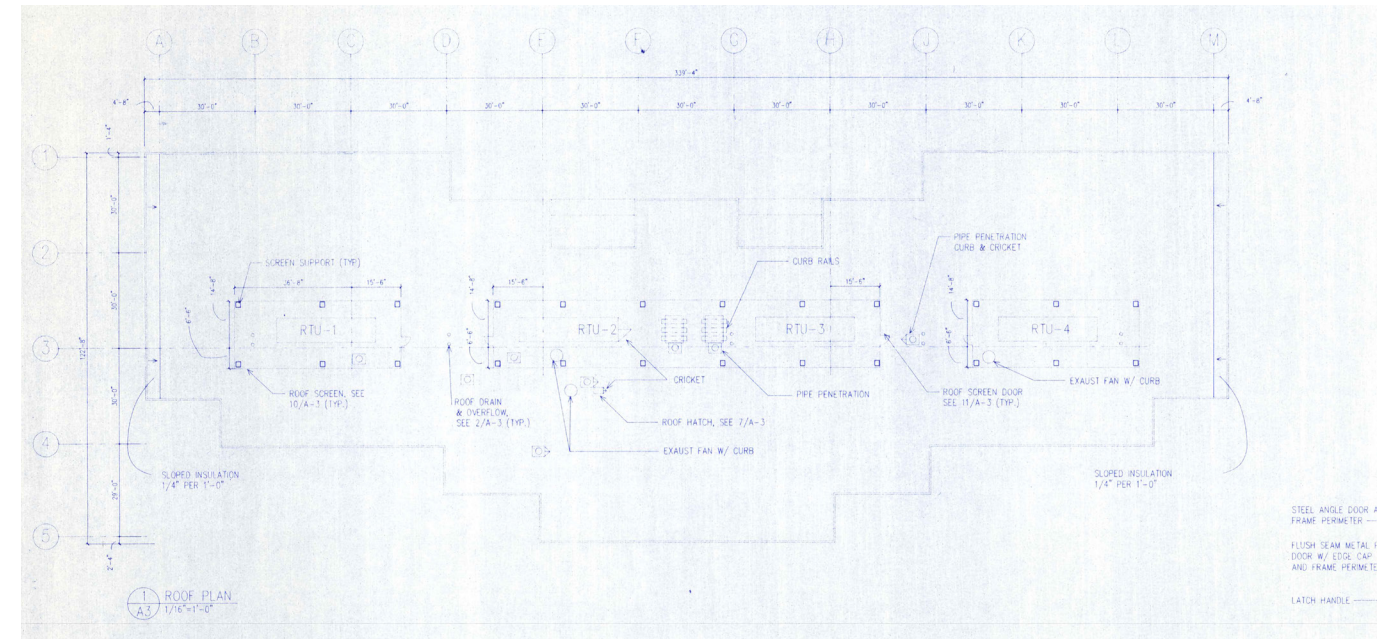
- **Floor plate cantilever +/- 5 ft at West and East** exterior wall, creates *slightly larger floorplate*.
- **Floor Plate cantilever at N/S** facade between grid lines E & H, creates *overhang at entry*.
- **Multi-user Restrooms**



Third floor construction plan provided by seller

EXISTING CONDITIONS AT ROOF

- Membrane Roof
- 4 Rooftop units behind 3 roof screens
- Roof access hatch



Roof construction plan provided by seller



EXISTING FACILITY STRUCTURAL SUMMARY



EXISTING STRUCTURE

- Consists of:

- **Steel beams and girders following 30' spaced column lines with open web steel joists** for balancing of floor and roof framing.
- **4" concrete slab on grade.**
- **3.5" concrete on metal decking flooring.**

- **No existing seismic design.** Codes have since updated the requirements for seismic design.

- **Shear velocity testing for site soils confirms the project will be able to meet seismic design Category A.**

- **The library will require floor reinforcement at the book stack areas due to load weight.**

Floor structure currently accommodates 100 pounds/square foot, 150 pounds/square foot required.

- **10-25% Higher lateral loads required for educational use** compared to business use.

- **New stair towers and several additional new masonry sheer walls will accomodate increased lateral loads.**

A.W. LOOKUP CORPORATION
Structural Engineers





EXISTING SYSTEMS

- The existing HVAC system consists of four rooftop units providing heating and cooling. The units are served by natural gas. “Supply” air travels via ductwork from the rooftop units, via fan-powered VAV (Variable Air Volume) boxes. While “return” air travels above all ceilings as a plenum return system (negatively impacting interior acoustics.)

- Assuming the school opens in Fall 2027, the units will have about 5 to 8 years of service life remaining.

- Existing cold water service is shared between the buildings on site. Water heaters are located on each floor near the main toilets.

- Adequate pressure is existing. No domestic water boosting pump will be needed.

- The current 3-phase electrical service has adequate capacity for the school’s addition and renovation.

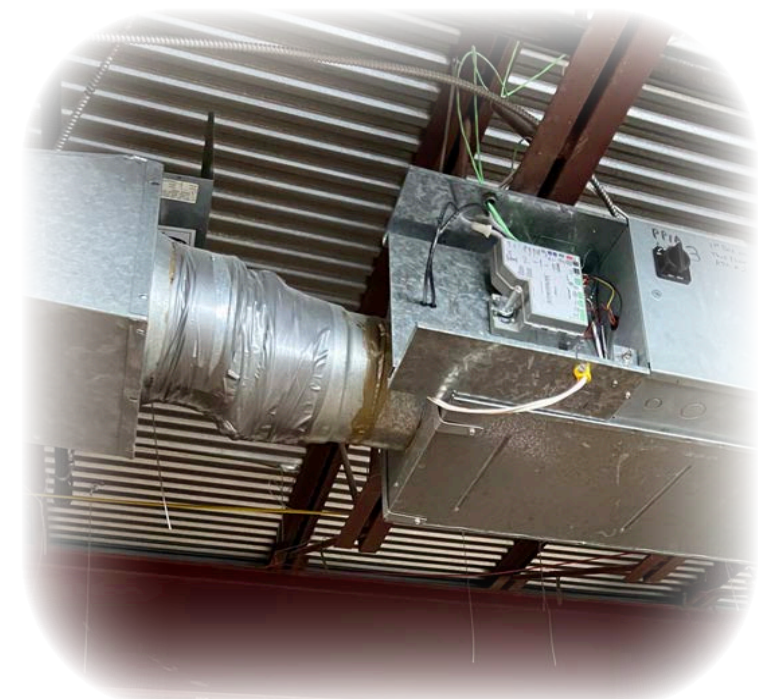
- The existing electrical equipment is in good condition.

- Although, modern high-efficiency transformers are a recommended upgrade given the 4-6 year payback.

- Lighting:

- Existing interior lighting is a mix of fluorescent and LED fixtures.
- Existing site lighting is retrofit LED lamps in older fixtures.
- Emergency lighting is battery operated .

- This is a fully sprinklered building with an addressable horn/strobe firm alarm system. Sprinkler service is shared with other buildings on site.



EXISTING BASIN CONSIDERATIONS



- The basin is not naturally occurring and was constructed around 1998-1999.
- The basin is a registered dam and regularly inspected as required by DEP.
- The liner has a manufacturer warranty of 25 years.
- The basin is currently functioning as designed.
- Maintenance and inspections would be required yearly.
- Replacement would include dredging the pond, removing vegetation and then replacing the liner.
- The presence of a basin in an elementary school setting would require high fencing and could potentially increase insurance costs.





- Lease Agreements
- Property Line Considerations
 - Shared Access Roadway
 - Shared Utility Lines
 - Parking
- Separation from Existing Corporate Campus





CONCEPT DESIGN

1200 SWEDESFORD ROAD DUE-DILIGENCE PRESENTATION

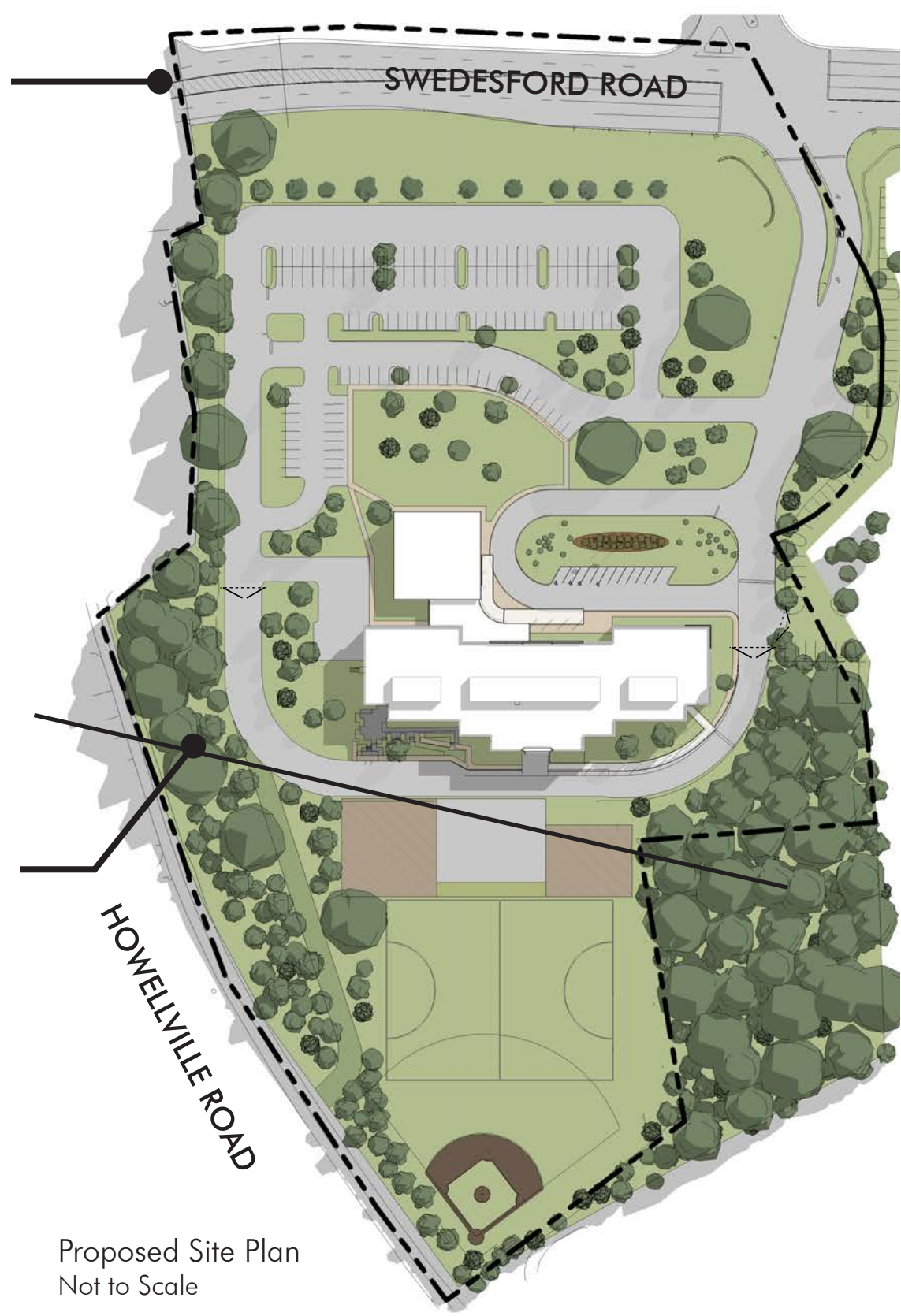
EXISTING AND PROPOSED SITE



Existing Site Plan
Not to Scale

PROPERTY
LINE

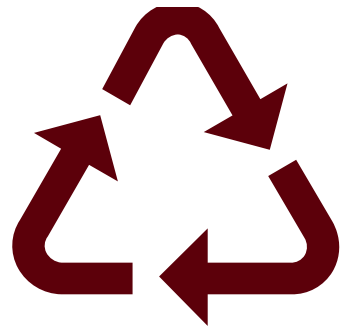
ZONING
DISTRICT
LINES



Proposed Site Plan
Not to Scale



PROPOSED SITE SUMMARY



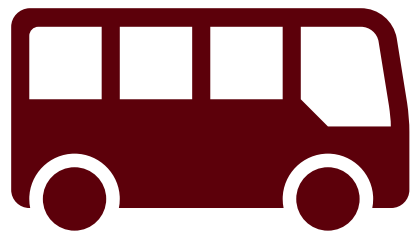
Reuse of Existing

- Exterior Tiered Patio Adjacent to Kindergarten Playground
- Parking Layout in Front of Building (North)
- Stormwater Management Features at Various Locations
- Shared Entrance Drive from Swedesford



Passenger Vehicle Parking & Queuing Space

- Bypass Lane and Stacking Lane in Queue
- Access Gates, Full Building Loop
- Canopy at Drop Off & Pick Up Points



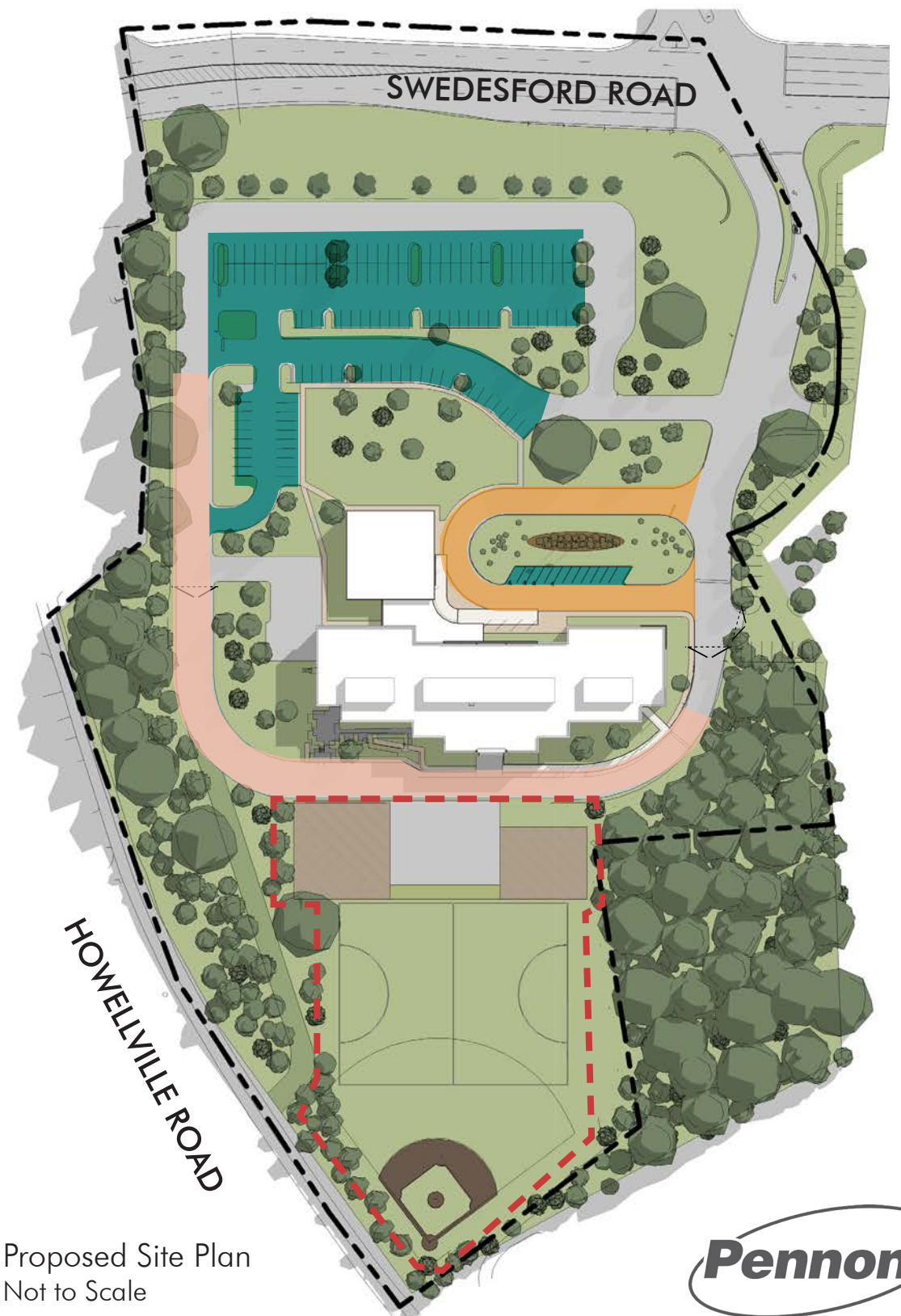
Bus Drop Off/Pickup Loop

- Separated from Passenger Vehicles
- Handicap Parking
- Entry Canopy



Playing Fields & Playgrounds

- Asphalt Play Area
- Turf Play Area
- Playground (Grades 1-4) Rubberized Surface
- Kindergarten Playground Rubberized Surface
- Soccer Field
- Baseball Field



Pennonni



PROPOSED SITE SUMMARY

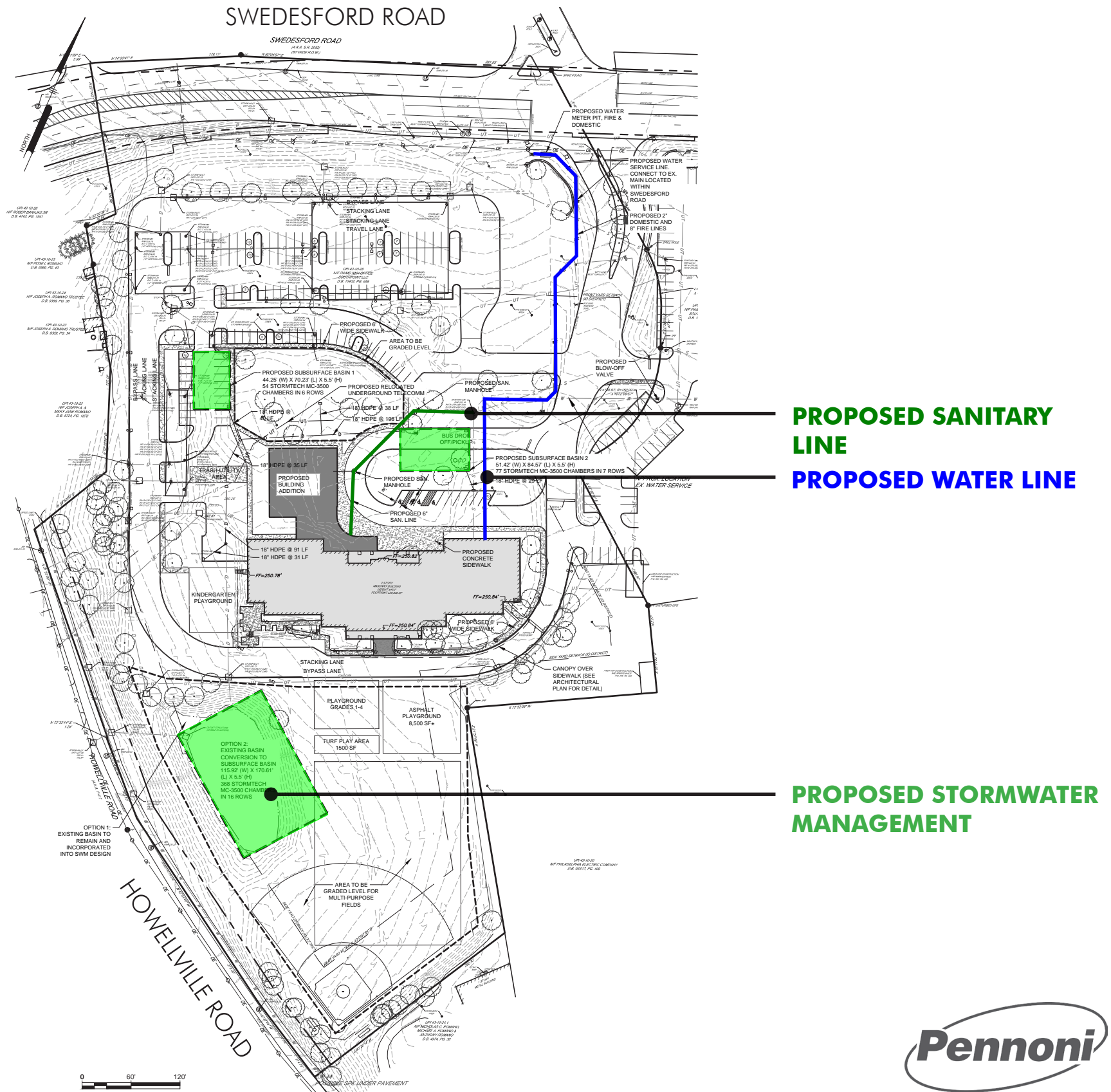


Proposed Utilities

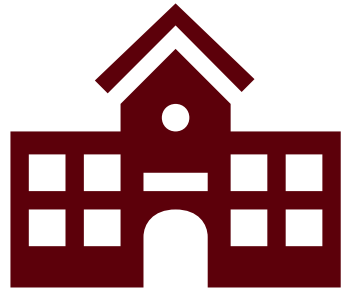
- New fire and water service to be installed along with a meter pit
- New sanitary line from northern portion of the building

Proposed Stormwater Management

- Additional stormwater management facilities will be necessary to meet the minimum requirements of the township stormwater code
- Existing On-Site stormwater management to largely remain concurrent with the additional proposed stormwater management

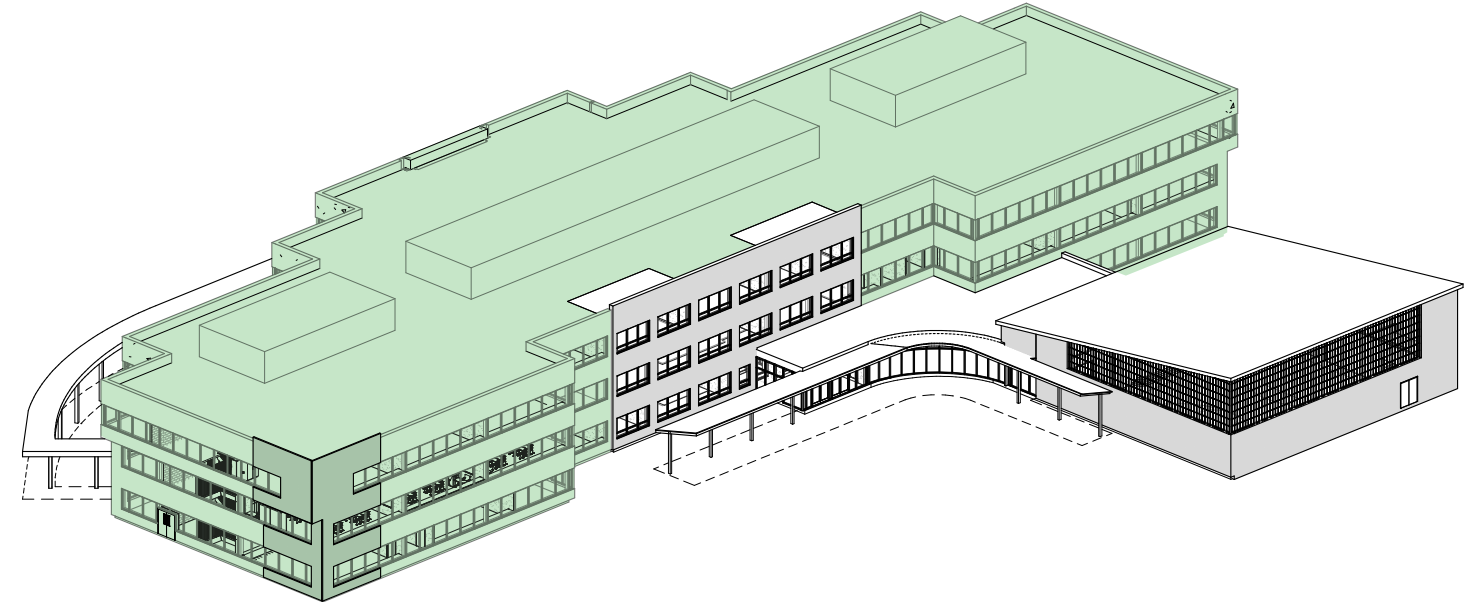
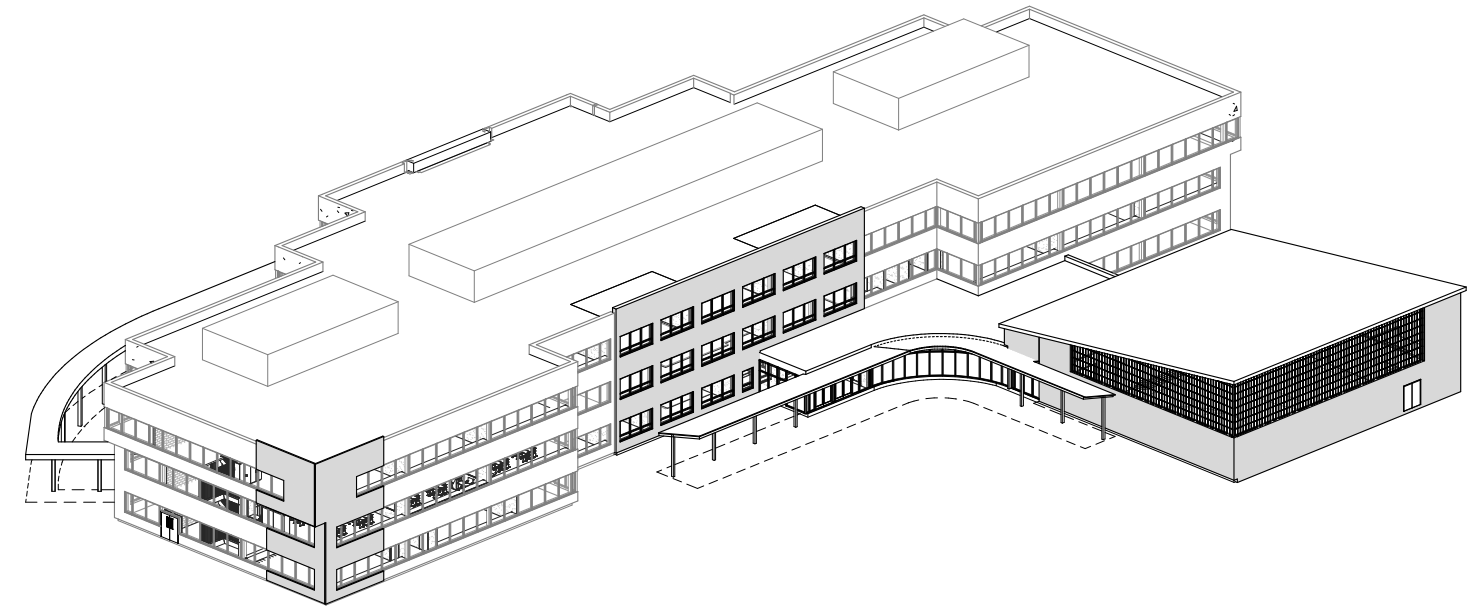


PROPOSED DESIGN PROGRAM



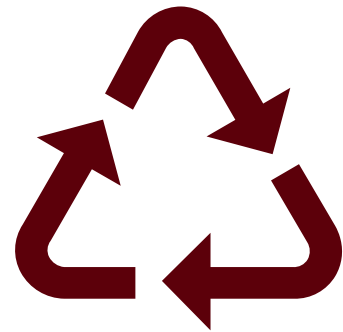
Proposed Program

- 30** Classrooms
- 14** Seminar / Teacher Prep Rooms
- 2** Science Classrooms
- 1** Kitchen
- 1** Cafeteria
- 1** Faculty Dining Space
- 1** Gymnasium / Stage
- 1** Administration / Guidance / Nurse
- 1** Library
- 1** Art Room
- 1** Music Room / Practice Room
- 1** Large Group Room
- Storage Rooms
- MDF and IDF Rooms
- MEP/FP, Mechanical/Utility Rooms



Proposed View of New Elementary School
Not to Scale

Existing Building / Structure

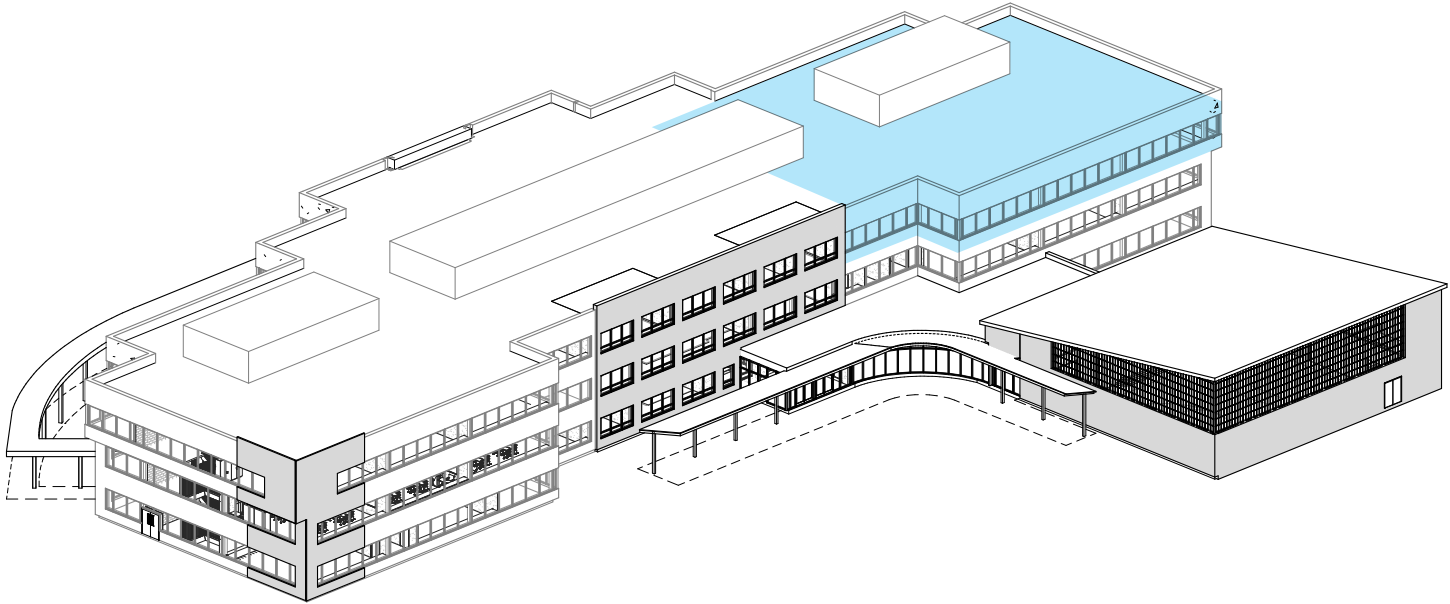
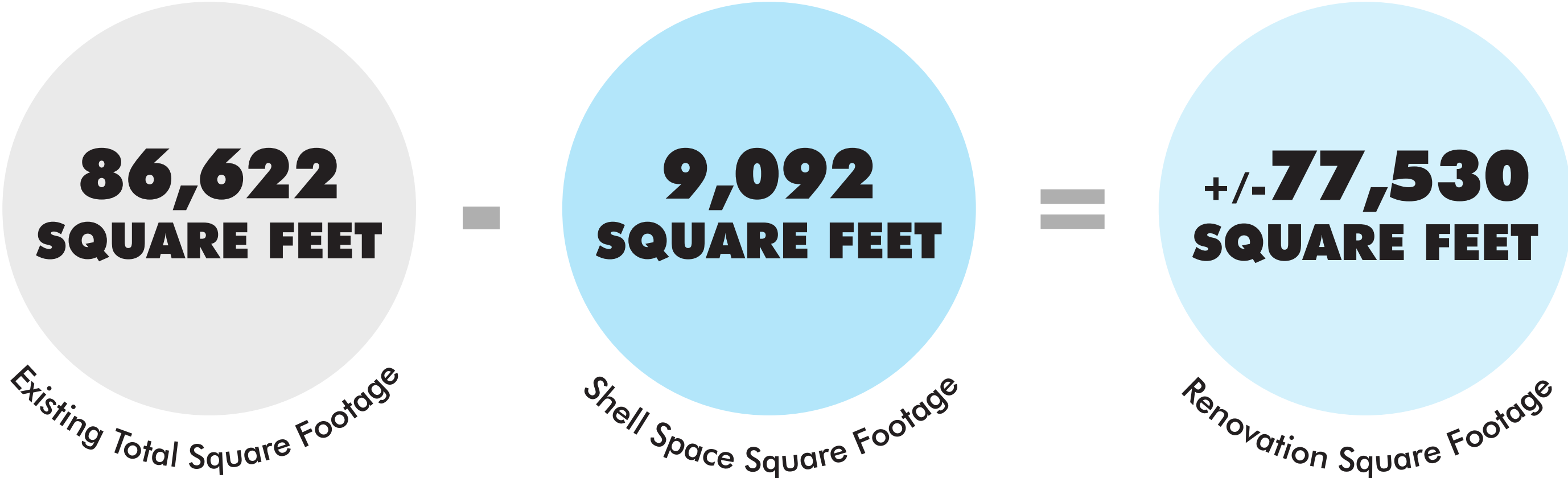


Reuse of Existing

- Existing Ribbon Windows
- Existing Pre-Cast Concrete 'Shell'
- Existing Floor Plates
- Existing Structural Components of Building



PROPOSED & EXISTING SQUARE FOOTAGES

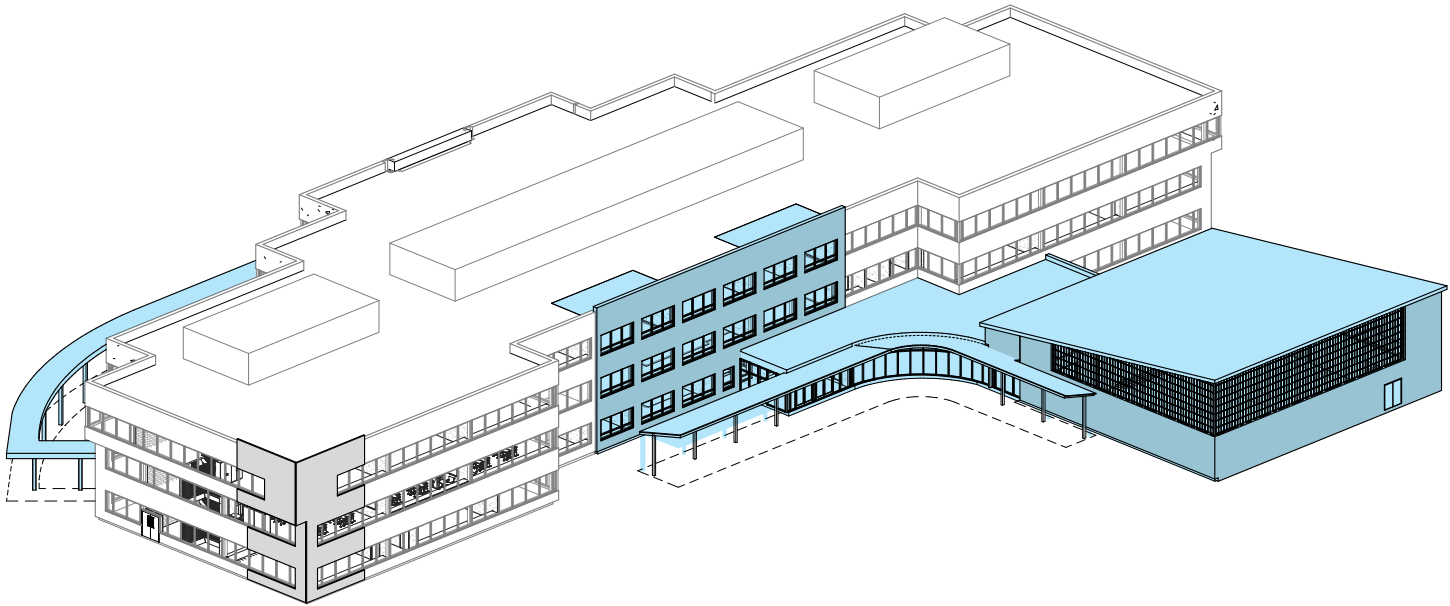
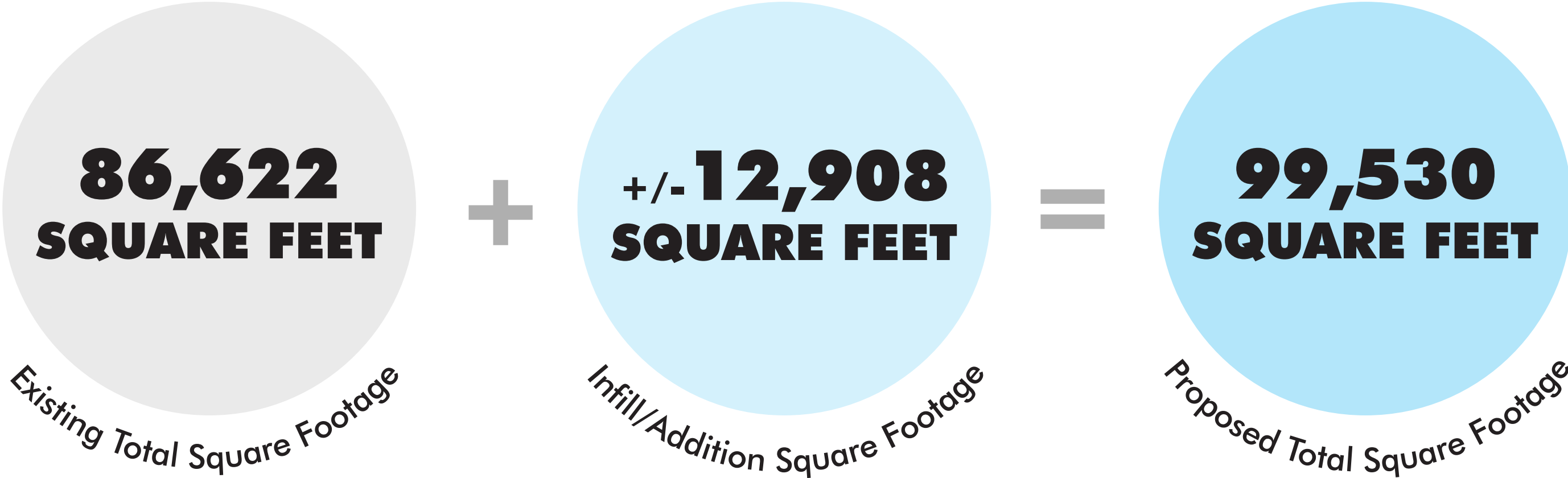


Proposed View of New Elementary School
Not to Scale

Proposed Shell Space



PROPOSED & EXISTING SQUARE FOOTAGES

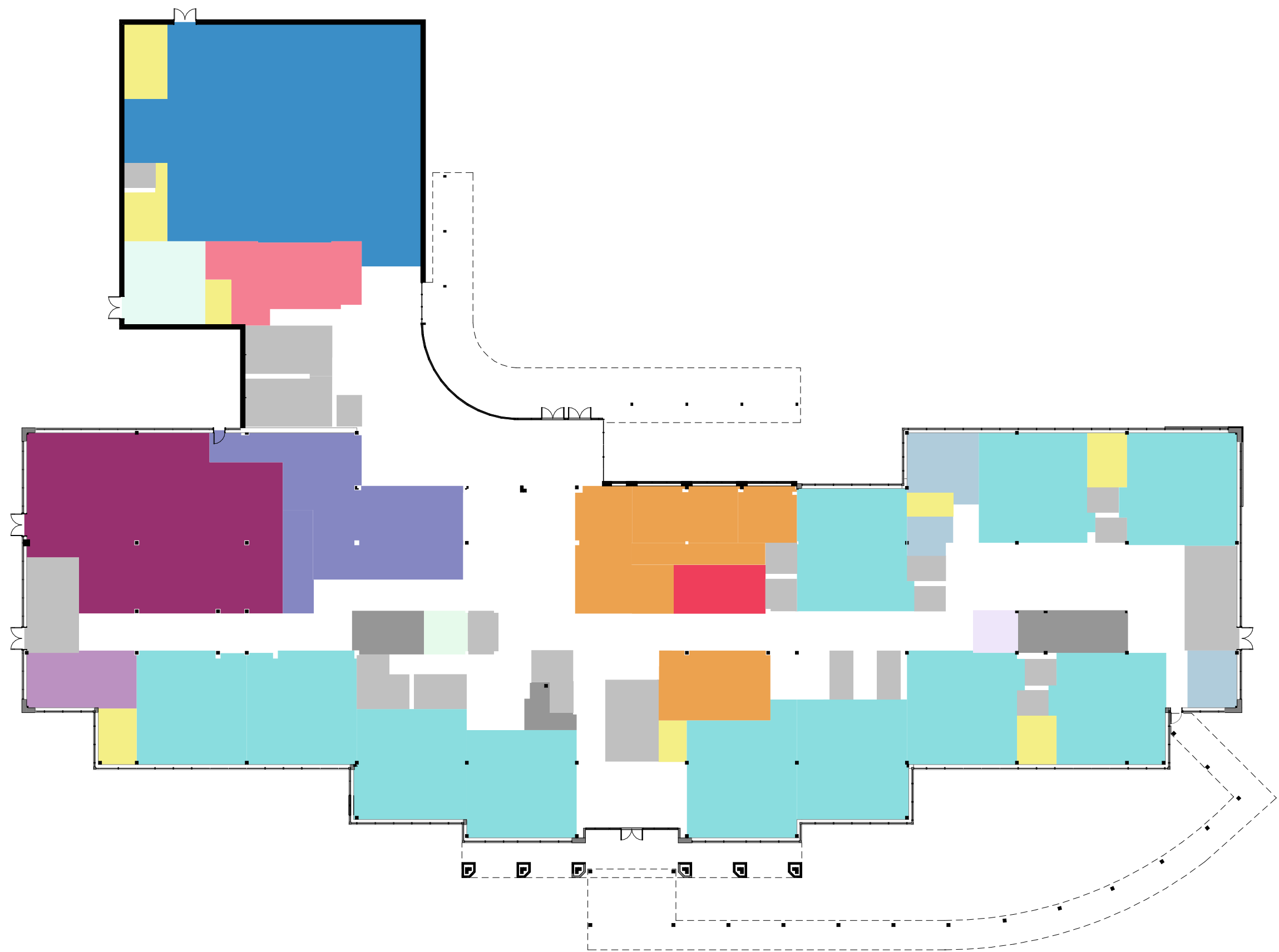


Proposed View of New Elementary School
Not to Scale

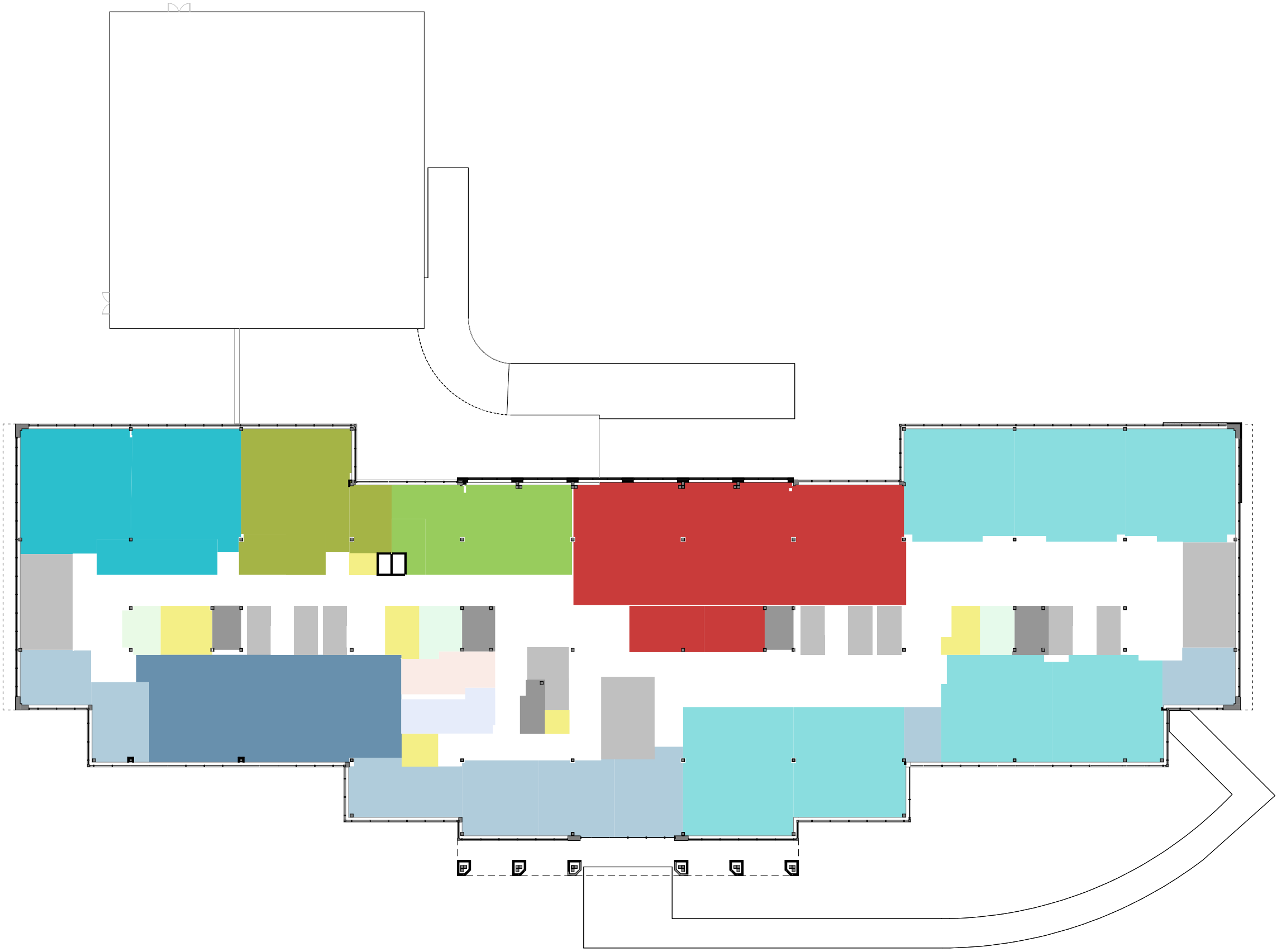
Proposed Infill/Addition/Canopies



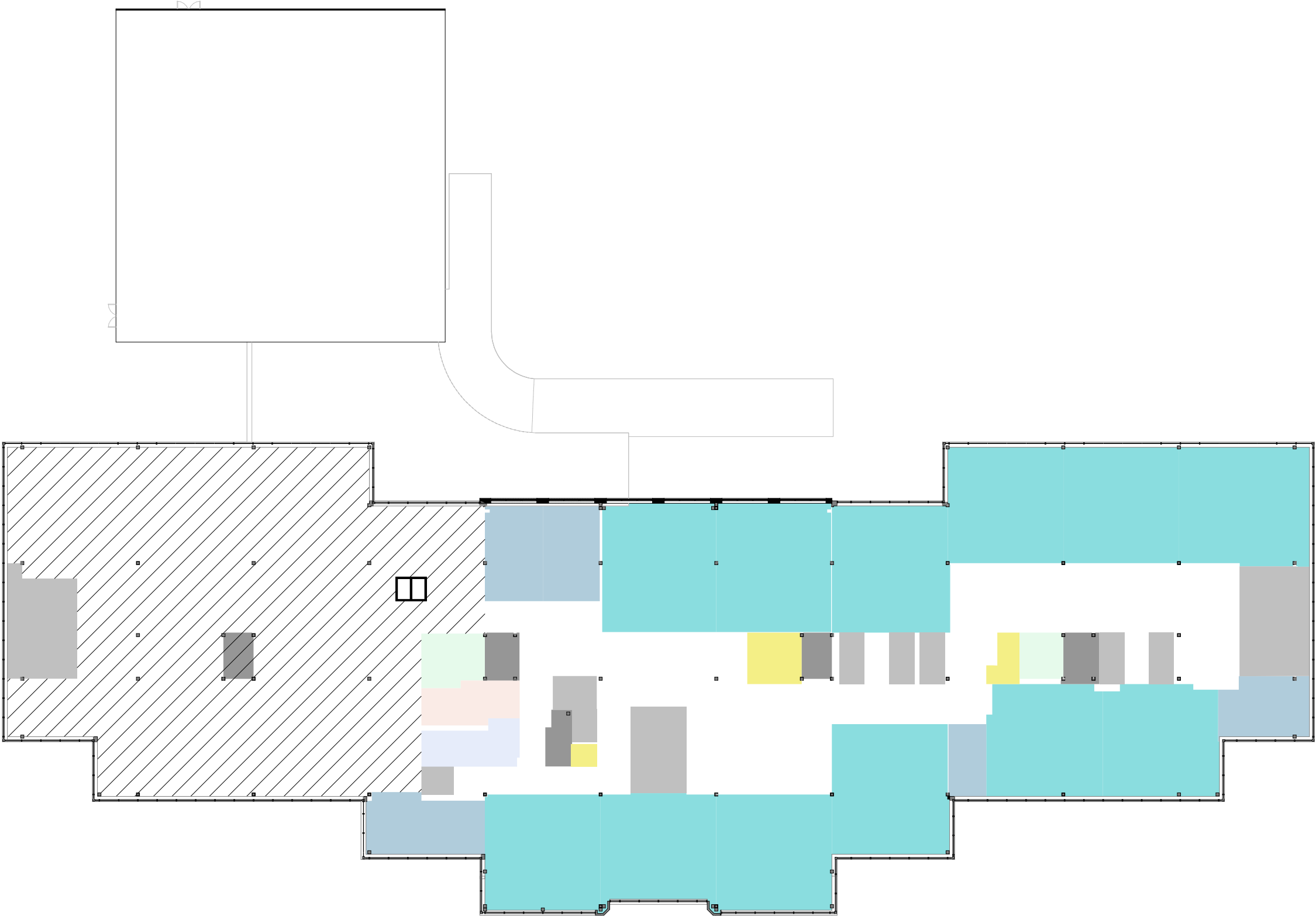
PROPOSED DESIGN FIRST FLOOR



PROPOSED DESIGN SECOND FLOOR



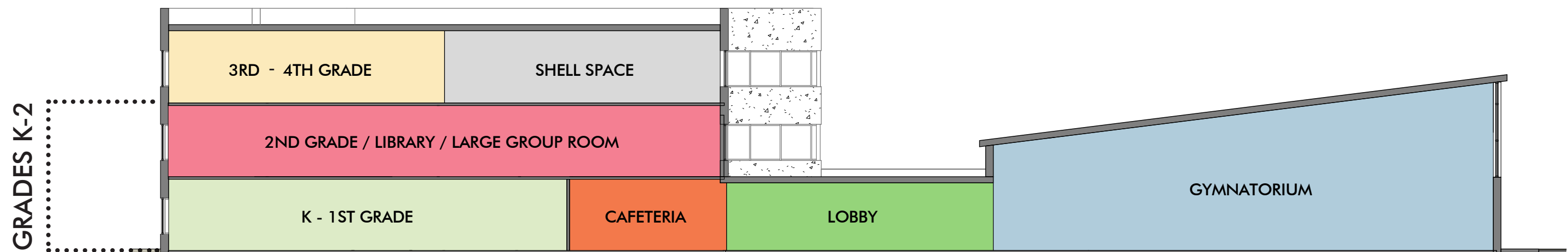
PROPOSED DESIGN THIRD FLOOR



PROPOSED DESIGN BUILDING SECTION

Concentrated Program

- For **Kindergarteners through 2nd Grade**, all relevant program areas are on the **1st and 2nd floors**.
- For **3rd and 4th Graders**, all relevant program areas are on the **1st through 3rd floors**.



PROPOSED CONCEPT DESIGN



1200 SWEDESFORD ROAD DUE-DILIGENCE PRESENTATION | **CONCEPT DESIGN**
MARCH 13, 2024



PROPOSED CONCEPT DESIGN



PROPOSED CONCEPT DESIGN



PROPOSED MECHANICAL ELECTRICAL PLUMBING CONCEPT APPROACH



HVAC

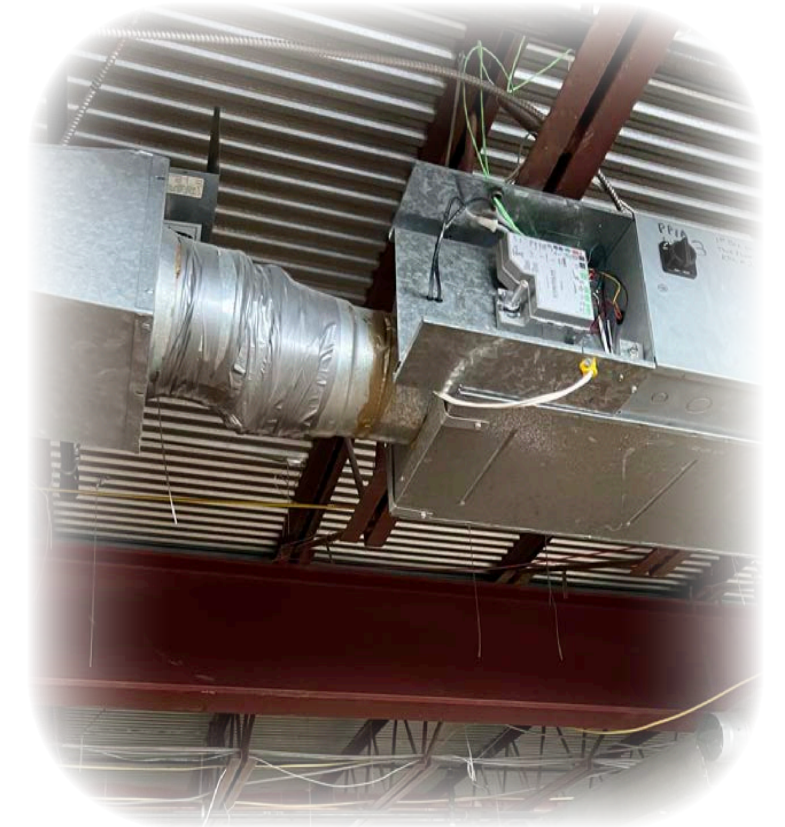


SCHILLER AND HERSH ASSOCIATES, INC.
Consulting M/E/P Engineers

- **Replace existing HVAC system** with new high efficiency system, such as **VRF (Variable Refrigerant Flow)**

This approach:

- Will resolve the acoustic shortcomings of the existing HVAC system
- **Allow for MERV 13 filtration**, consistent with the other District schools





APPROVALS PROCESS

1200 SWEDESFORD ROAD DUE-DILIGENCE PRESENTATION



Zoning Relief

- With Township Zoning Hearing Board

Conditional Use

- With Township Board of Supervisors

Land Development Approvals

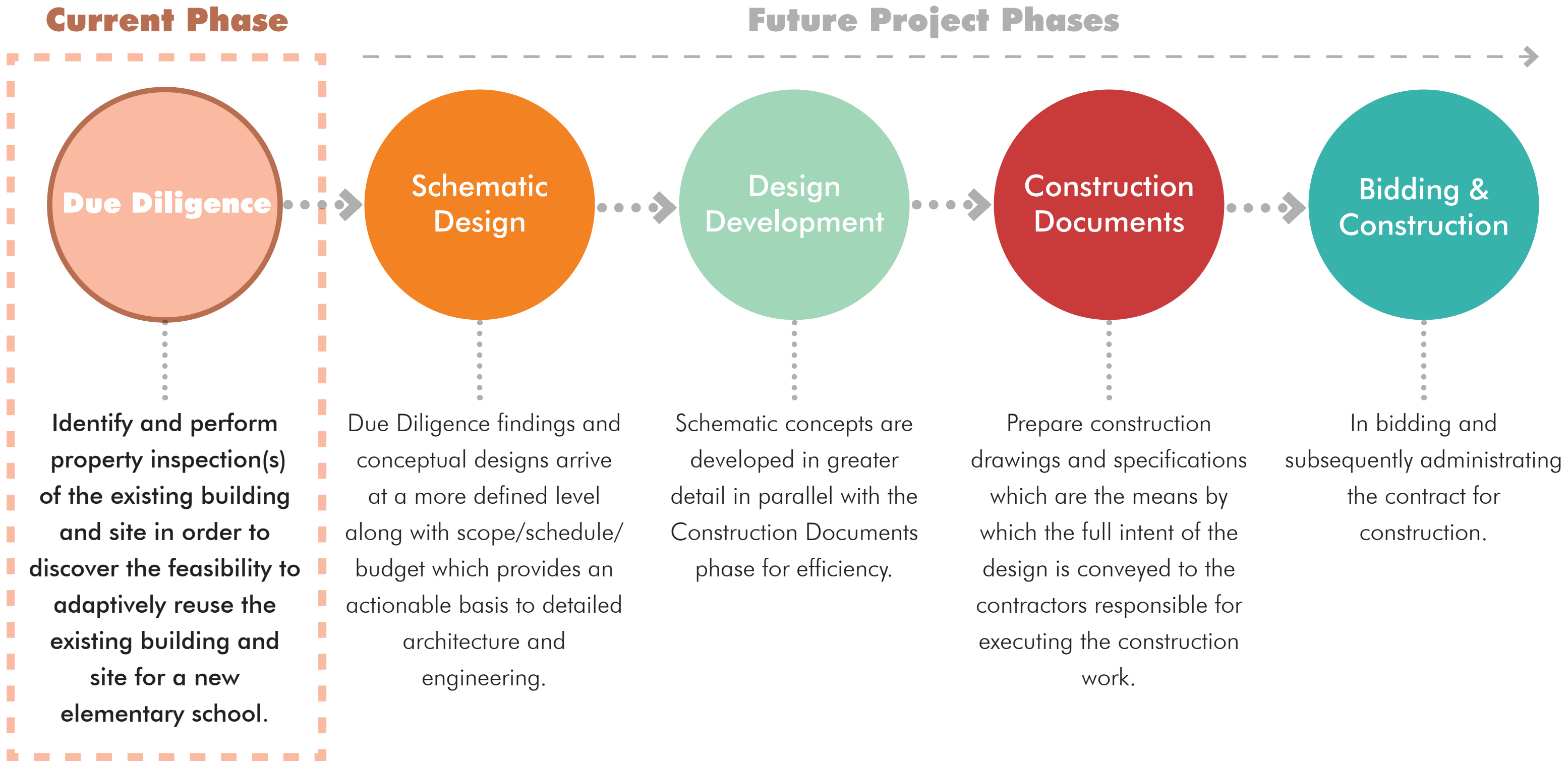
- With Township Planning Commission



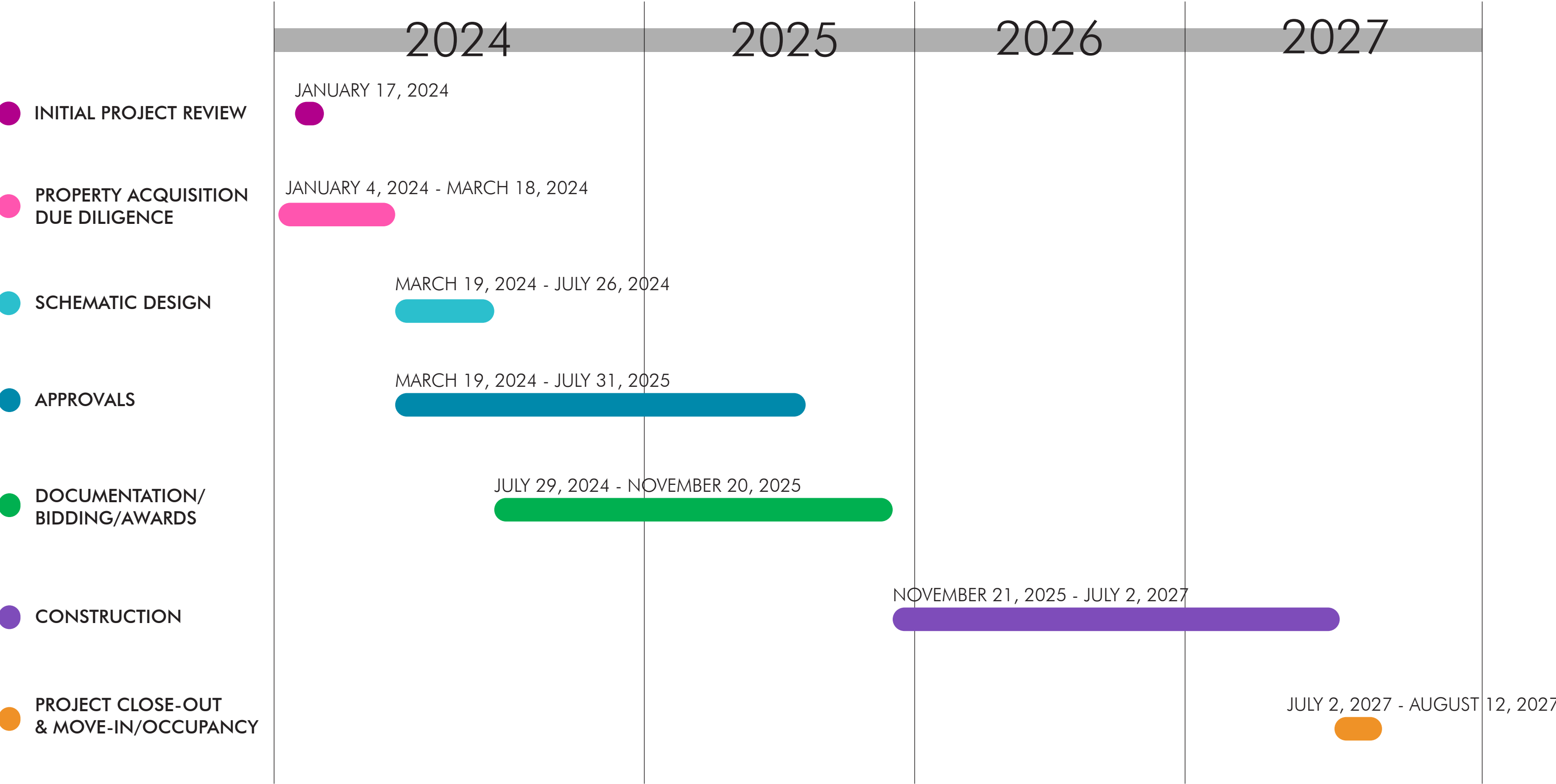
SCHEDULE AND COSTS

1200 SWEDESFORD ROAD DUE-DILIGENCE PRESENTATION

DESIGN AND CONSTRUCTION PROCESS



GRAPHIC SCHEDULE



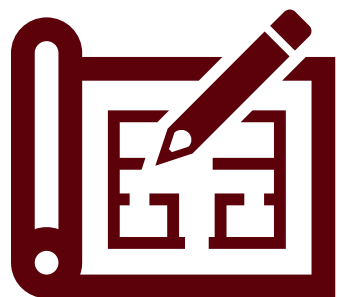
PROJECT BUDGET

Rough-Order-of-Magnitude (ROM) Budgeting Summary

	First Avenue January 17, 2024	Jefferson Lane January 17, 2024	Swedesford Road January 17, 2024	Swedesford Road March 4, 2024
Property Acquisition	\$0	\$0	\$15,950,000	\$15,950,000
New Construction	\$42,911,563	\$43,133,600	\$5,901,840	\$7,899,250
Adaptive Reuse Construction	\$0	\$0	\$26,678,679	\$24,237,500
Site Work Construction	\$5,887,188	\$7,871,200	\$5,054,503	\$6,146,250
Total Construction	\$48,798,750	\$51,004,800	\$37,635,022	\$38,283,000
Professional Services	\$4,566,919	\$4,710,312	\$3,847,500	\$3,826,867
Furniture, Fixtures, Equipment and Technology	\$4,050,000	\$4,050,000	\$4,050,000	\$3,032,341
Permits, Fees, Regulatory	\$738,900	\$738,900	\$678,900	\$696,900
Project Contingency	\$2,907,728	\$3,025,201	\$2,310,571	\$2,291,955
Project Totals	\$61,062,297	\$63,529,213	\$64,471,993	\$64,081,063
ROM Range Low	\$54,900,000	\$57,100,000	\$58,000,000	
ROM Range High	\$67,100,000	\$69,800,000	\$70,900,000	
		Add for HVAC VRF System (ROM Budget)		\$3,654,000
		Add for Pond Infill (ROM Budget)		\$1,550,000
Adjusted Project Budget				\$69,285,063

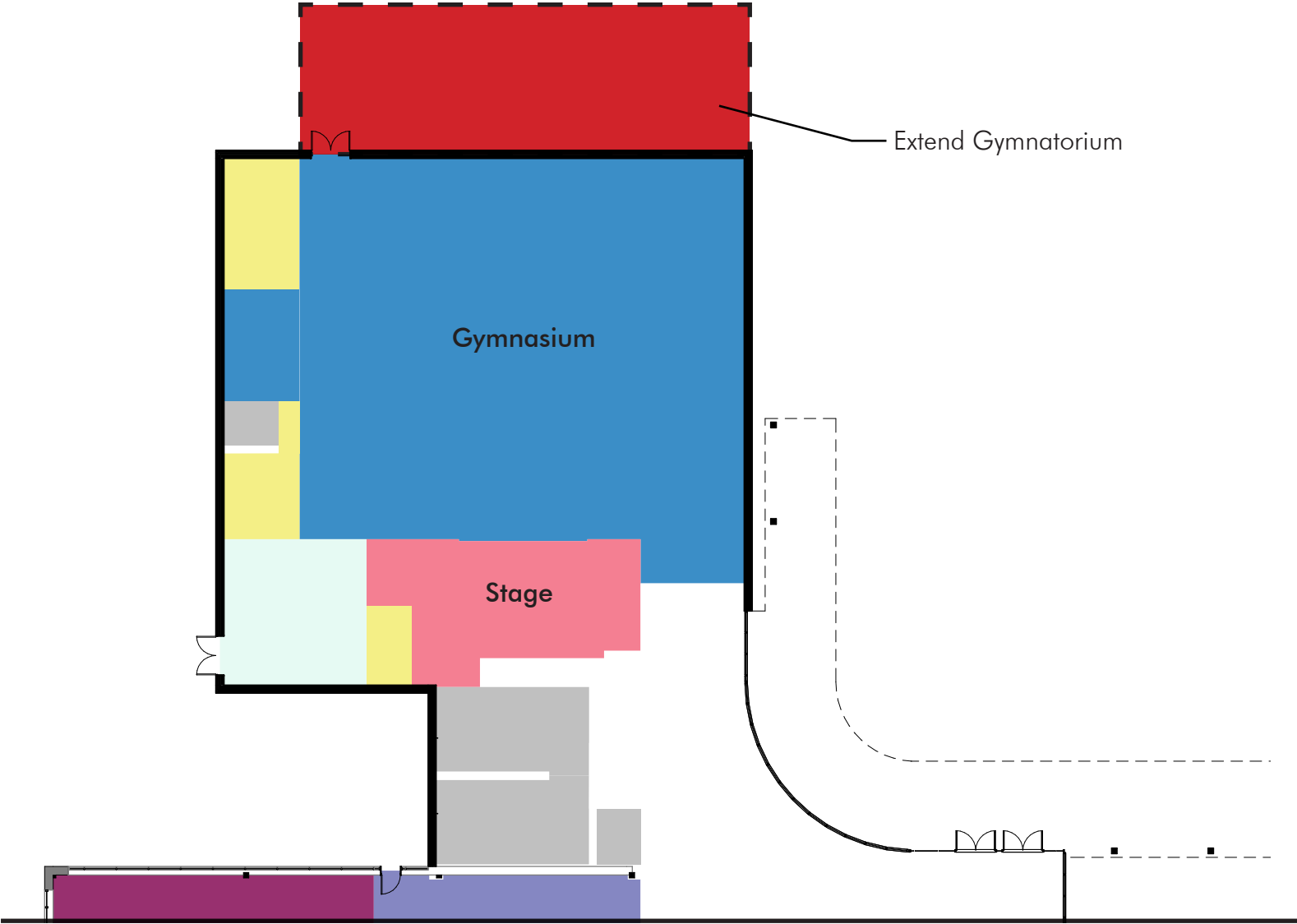
Options To Be Investigated During Design Phases	Preliminary ROM Add
High-Performance HVAC Systems	\$5,908,000
Gymnasium Expansion	\$616,000
Solar Panels at New Construction	\$195,840





Gymnatorium Expansion

- Expanding “Base” Gymnasium to create Middle School sized Gymnasium



First Floor Proposed Alternate Option Plan
Not to Scale



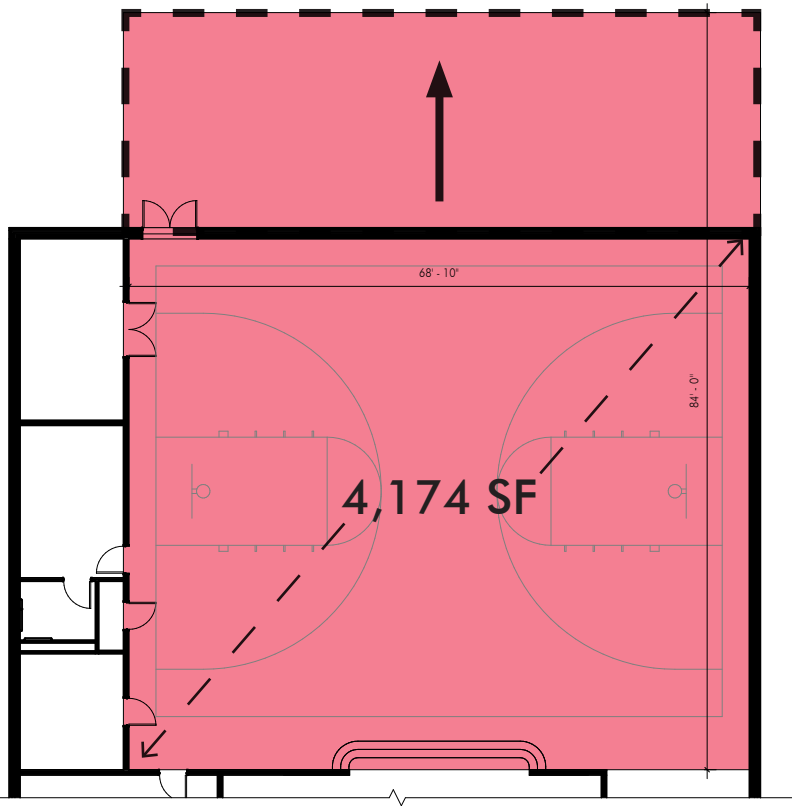
PROPOSED DESIGN OPTIONS - COMPARISON



Gymnatorium Expansion

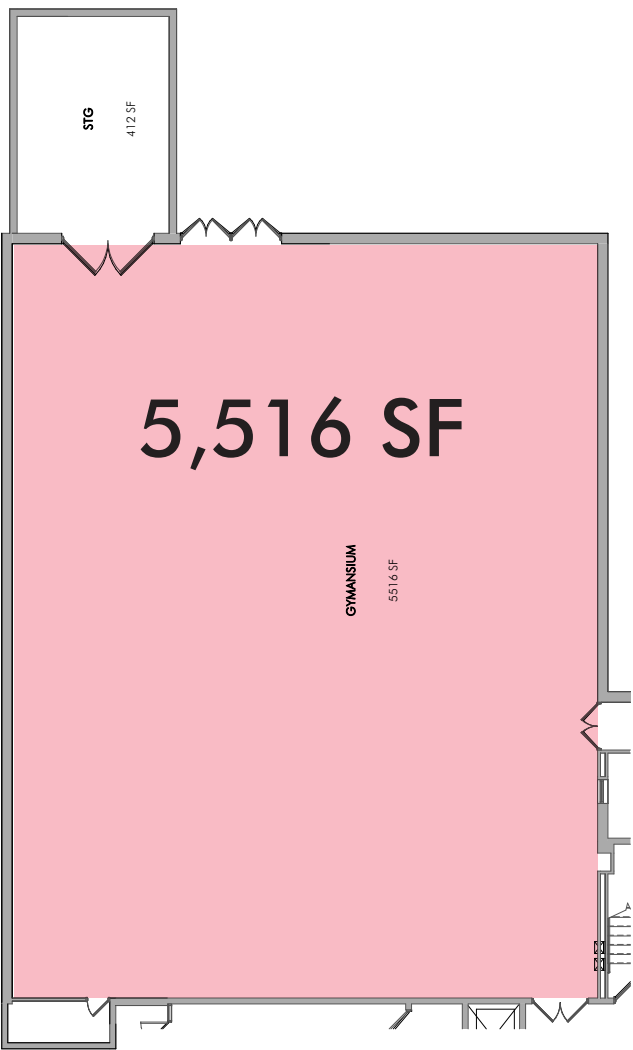
- Expanding “Base” Gymnasium to create Middle School sized Gymnasium

5,700 SF



1200 Swedesford
First Floor Proposed Alternate Option Plan

5,516 SF



Valley Forge Middle School
Main Gymnasium Plan

5,711 SF



Tredyffrin/Easttown Middle School
Main Gymnasium Plan





END OF PRESENTATION

1200 SWEDESFORD ROAD DUE-DILIGENCE PRESENTATION