

Farmington High School

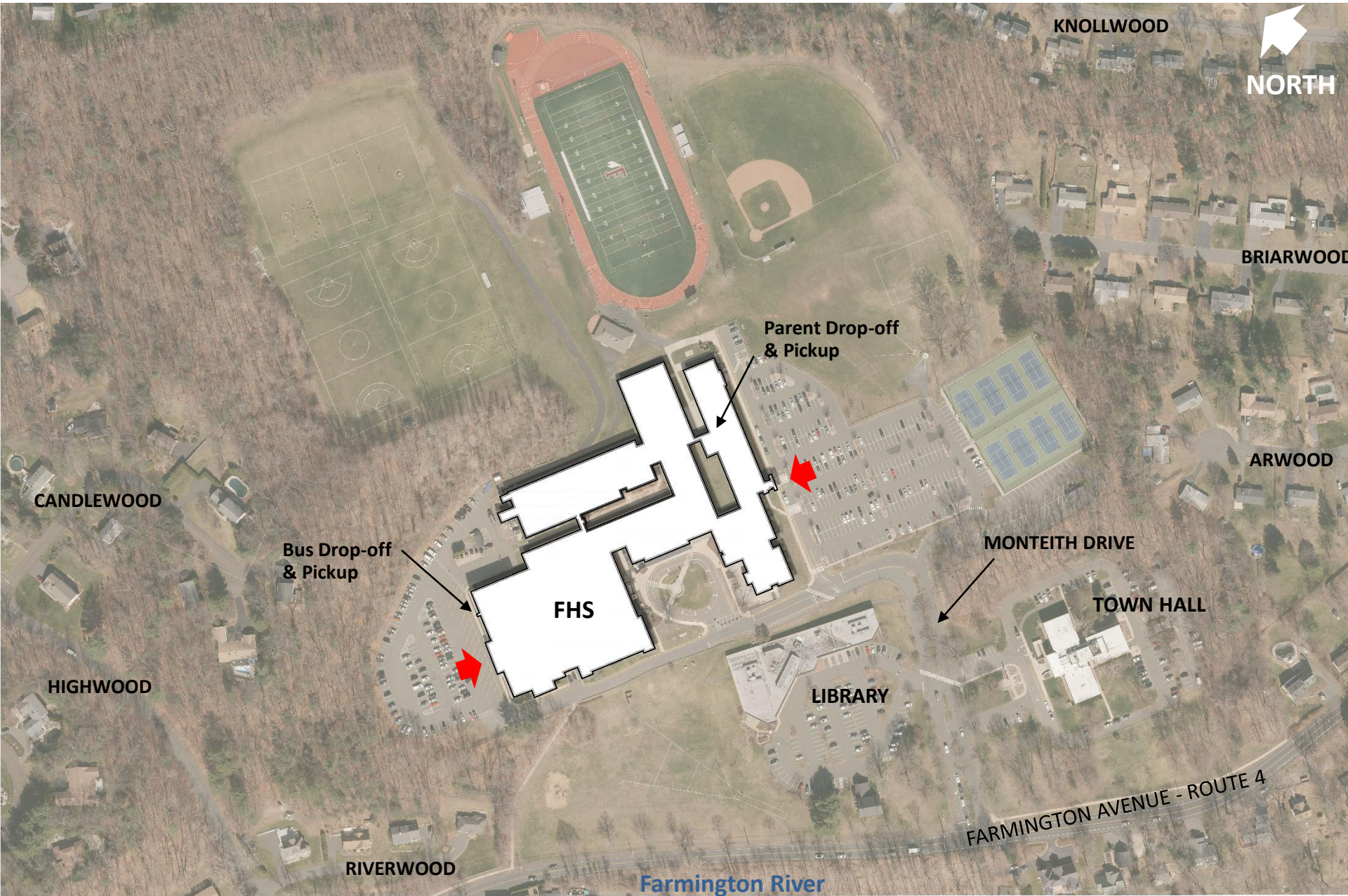
Creating New Possibilities | Option 3



QA+M
architecture

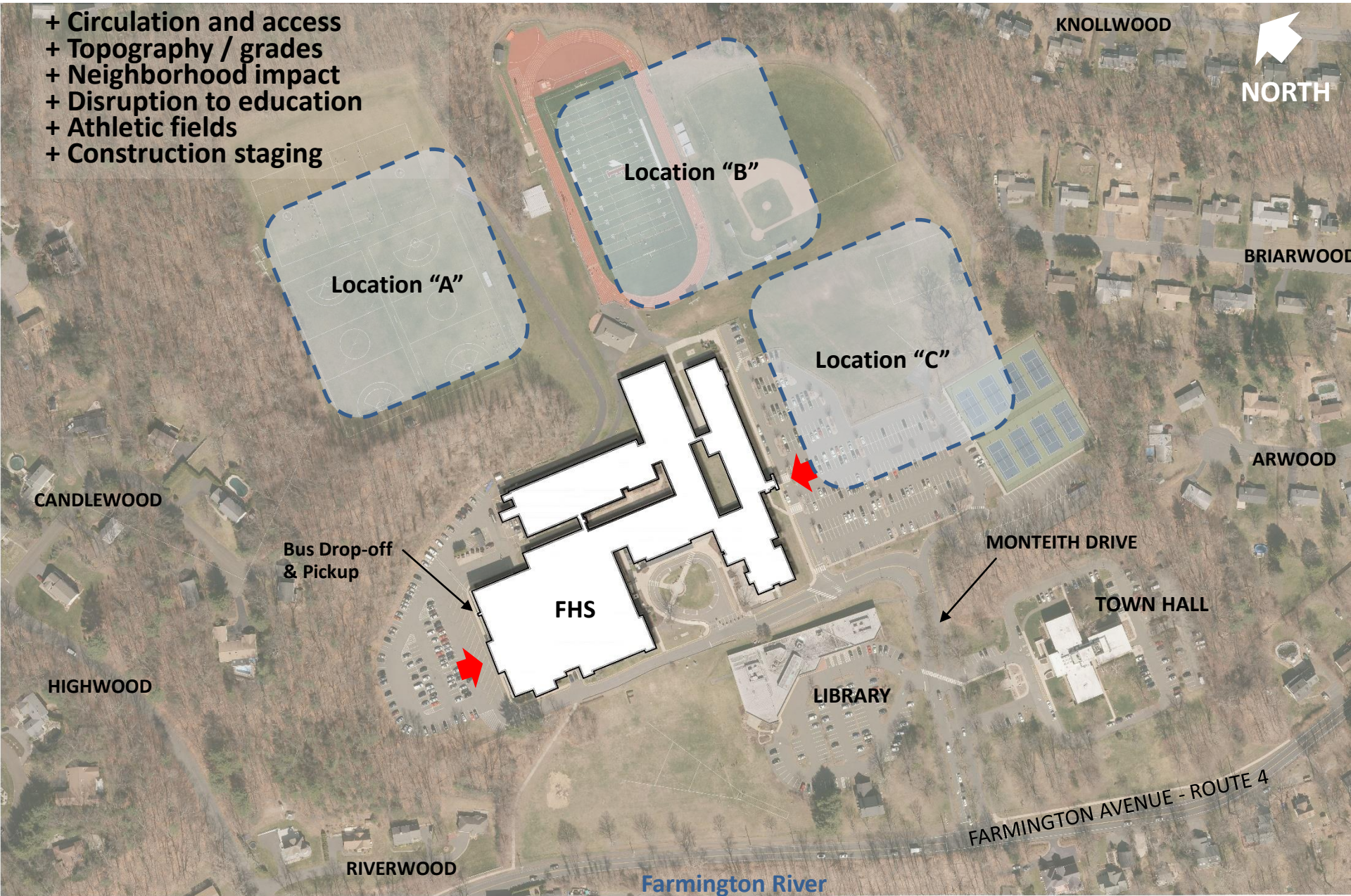
 BSC GROUP  VANZELM
ENGINEERS

Existing Site



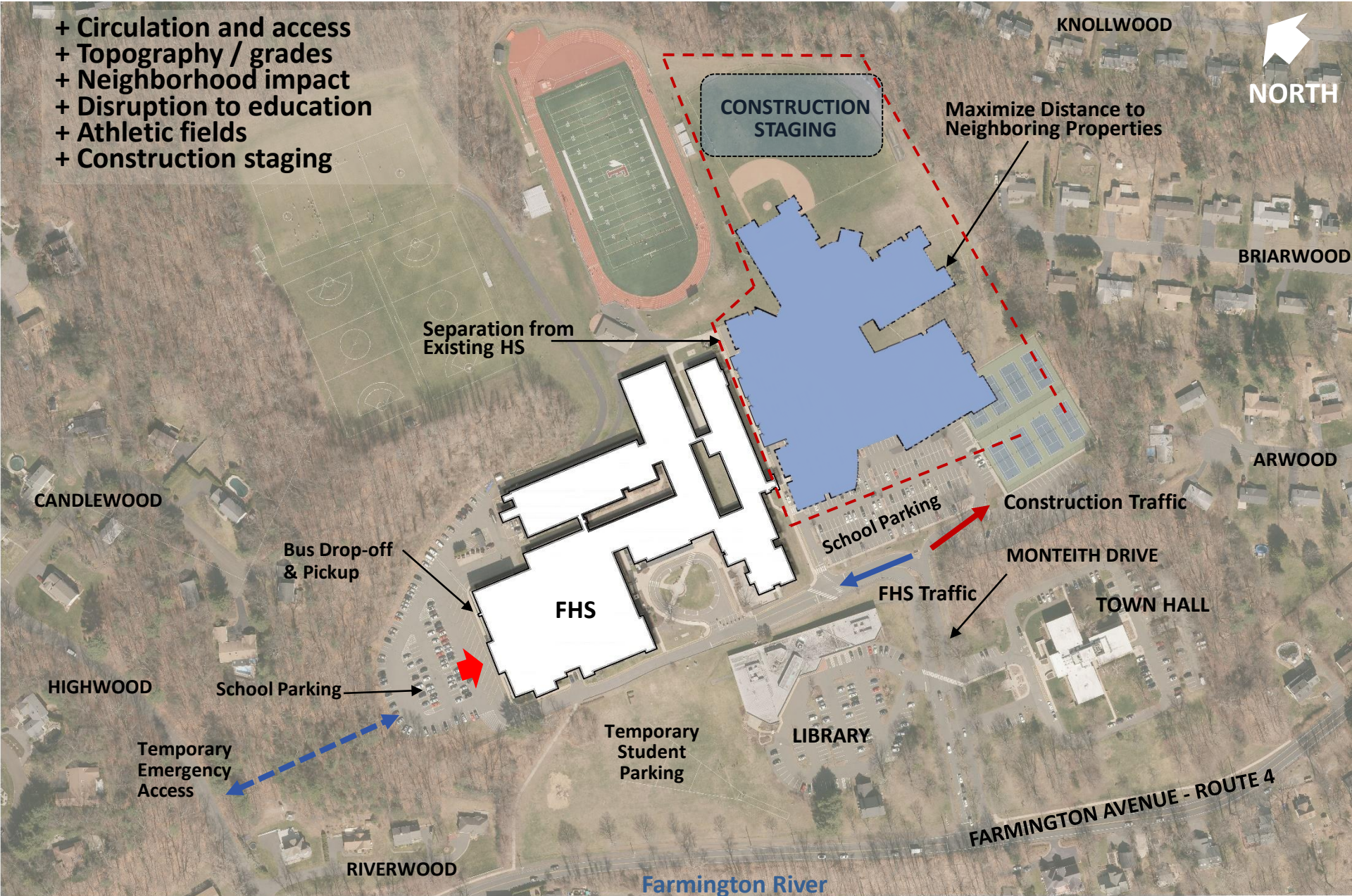
Potential Building Locations

- + Circulation and access
- + Topography / grades
- + Neighborhood impact
- + Disruption to education
- + Athletic fields
- + Construction staging

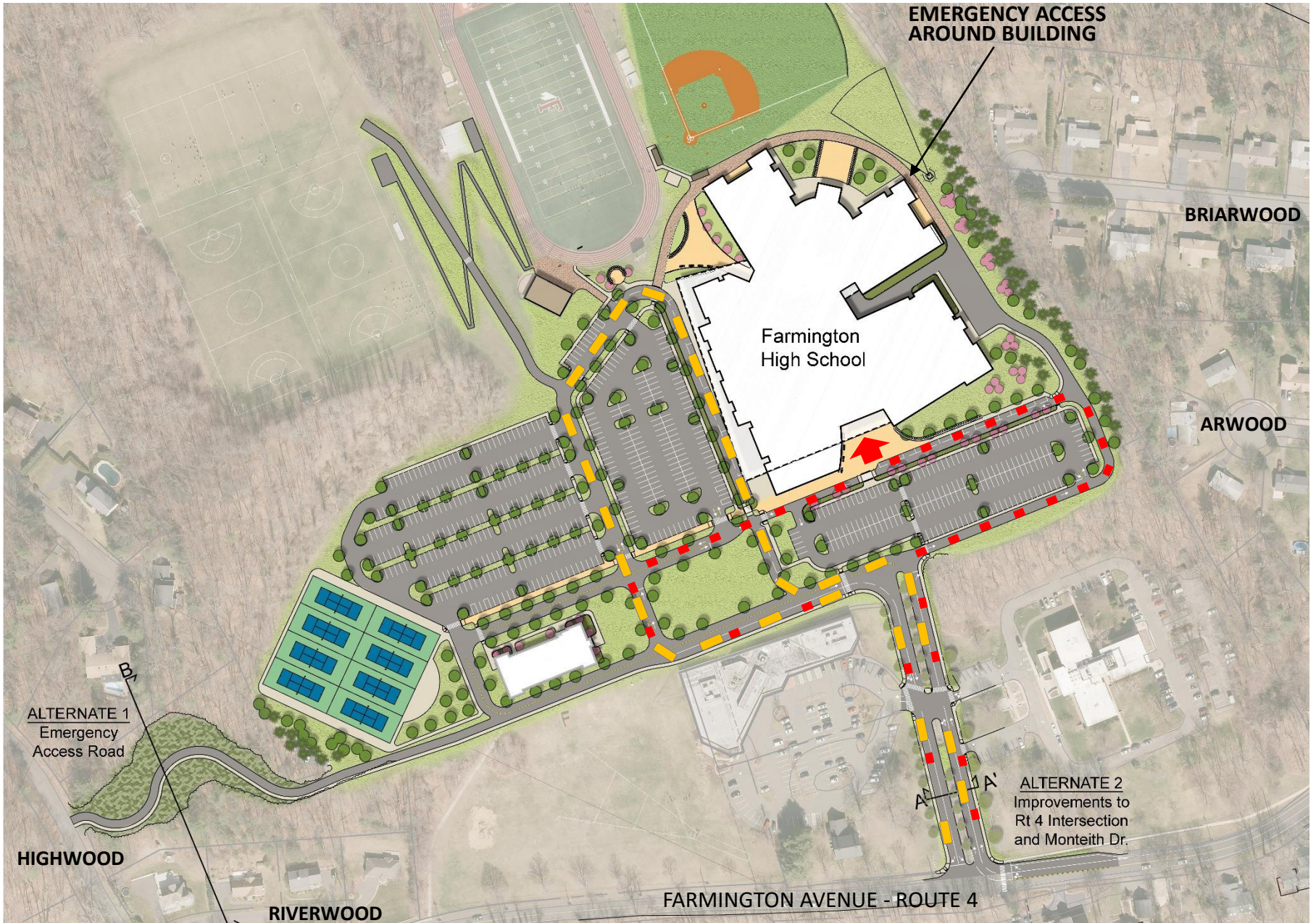


Potential Building Locations

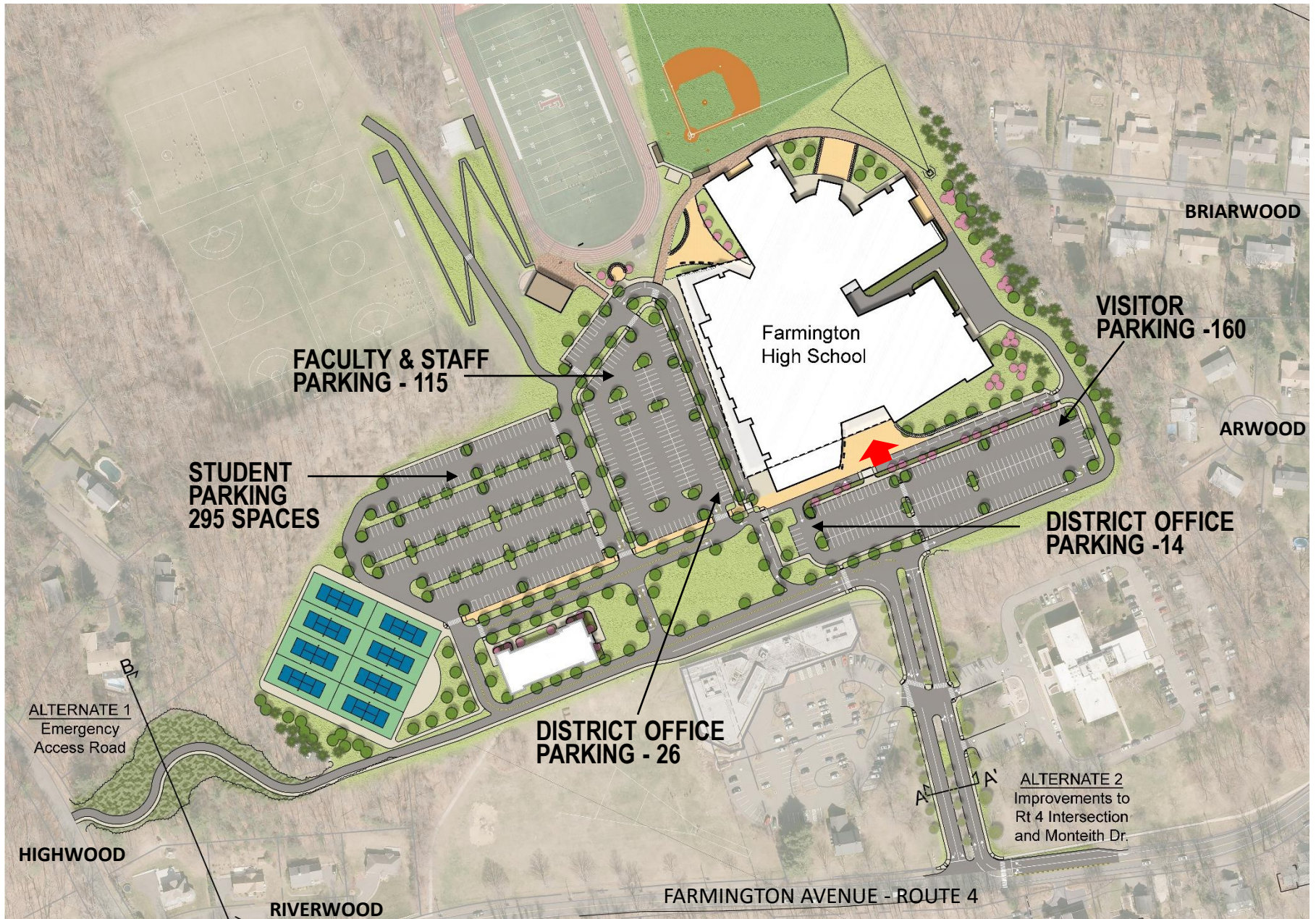
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Vehicular Traffic



Parking – 610 spaces



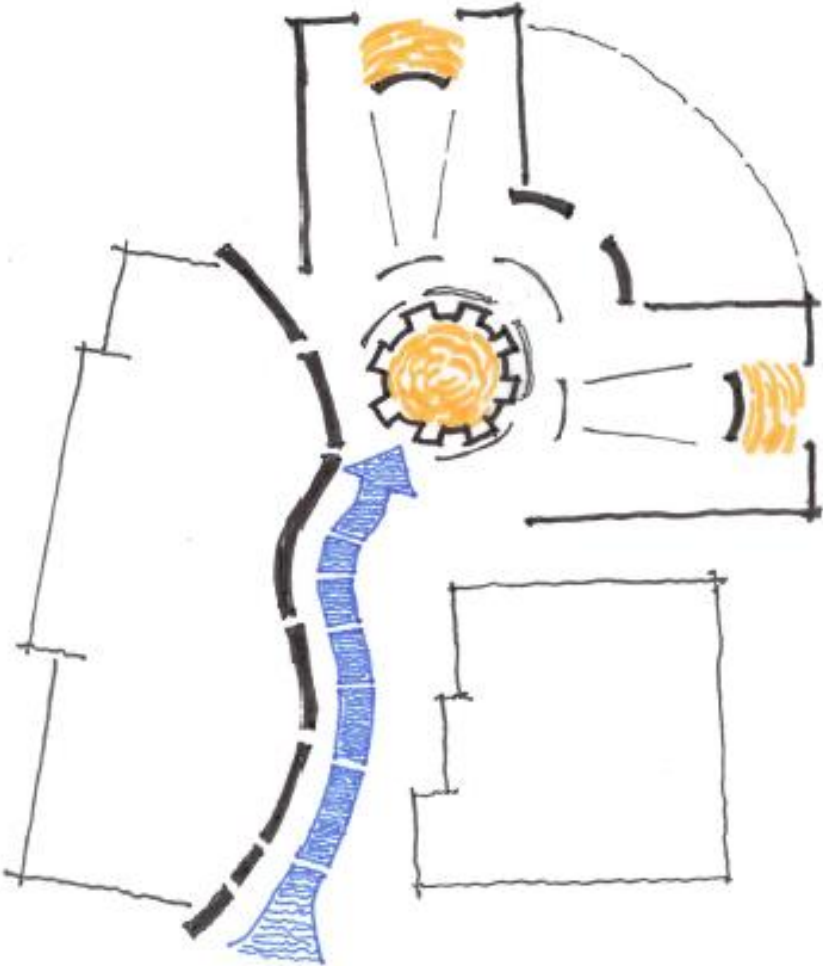
Site Improvements







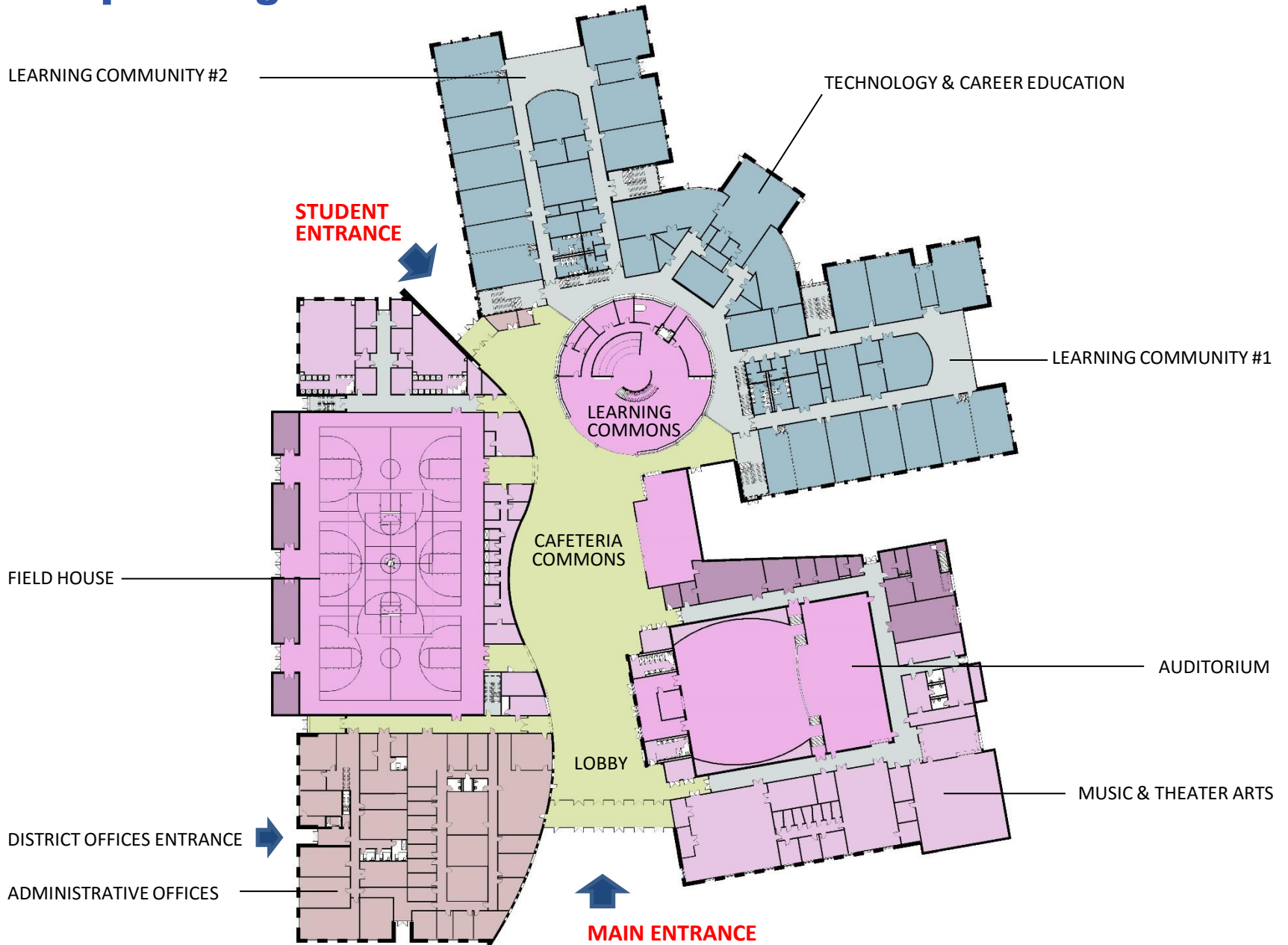
Concept



Main Entrance



Concept Design



Entrance | Student Commons

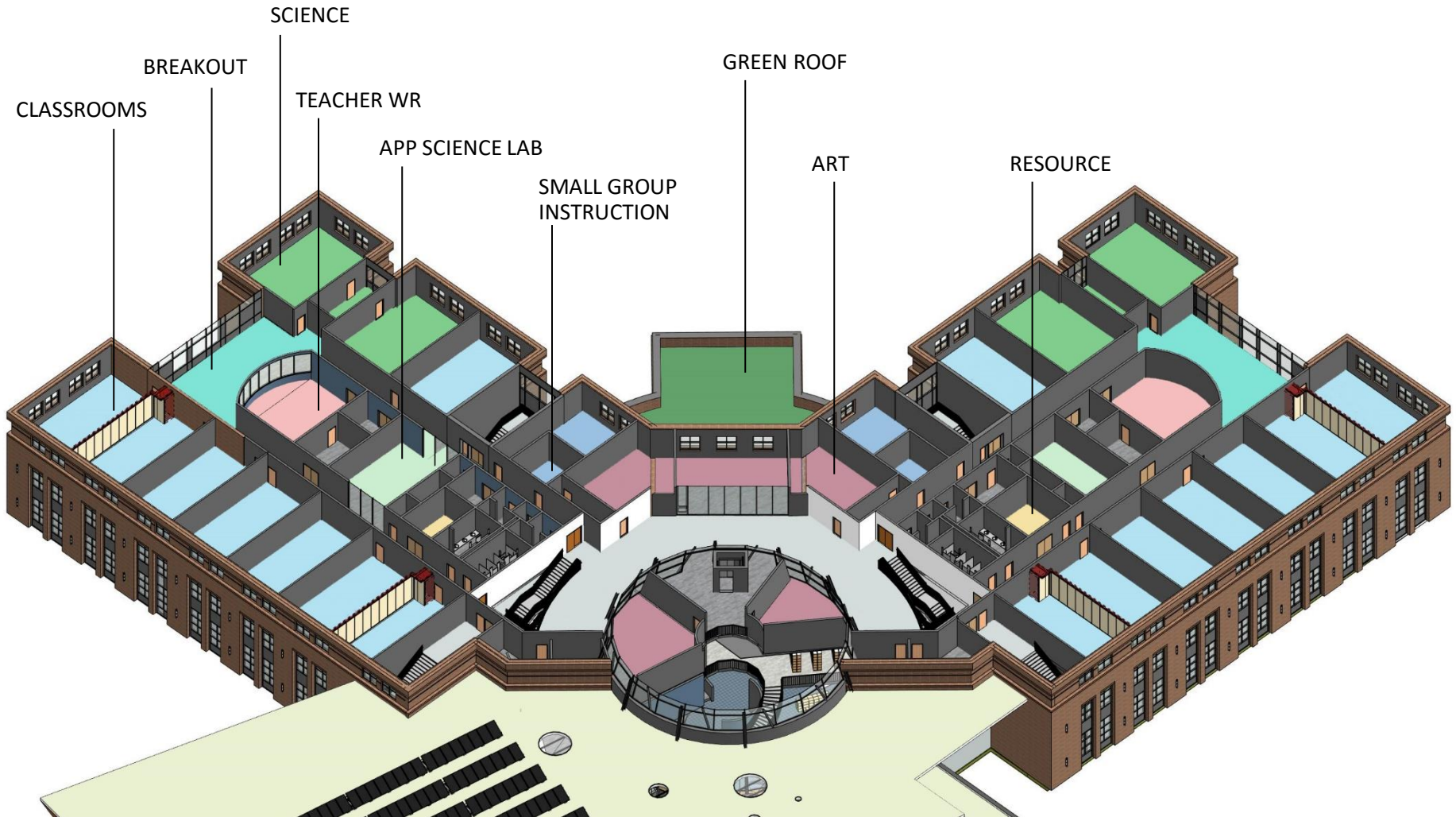




Media Center | Cafe



Concept Design



THIRD FLOOR PLAN - LEARNING COMMUNITIES 5 & 6

Learning Community | Breakout / Collaboration



Learning Community | Green Roof





qamarch.com/fhsvideo

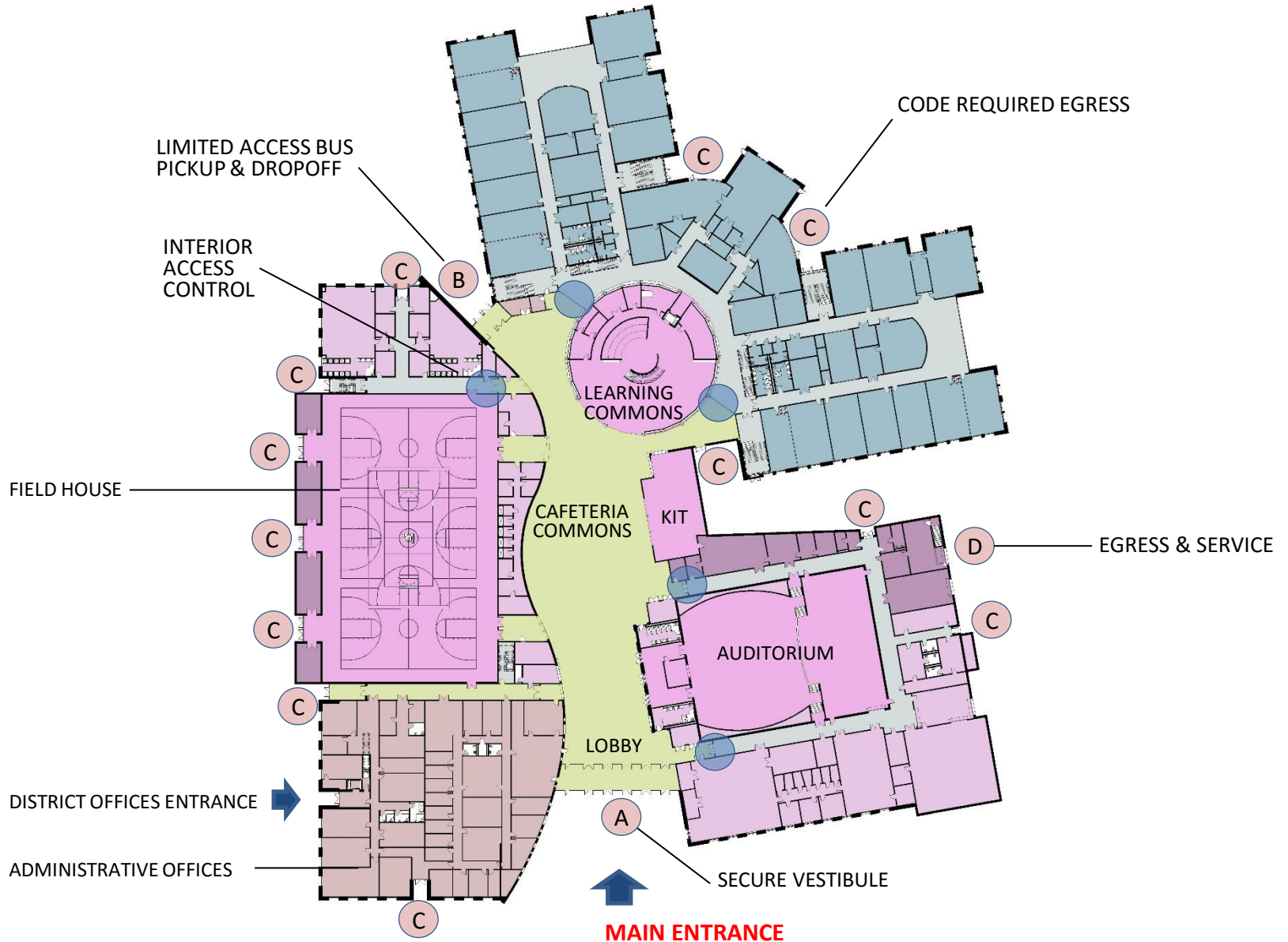
Building Exterior



Criteria

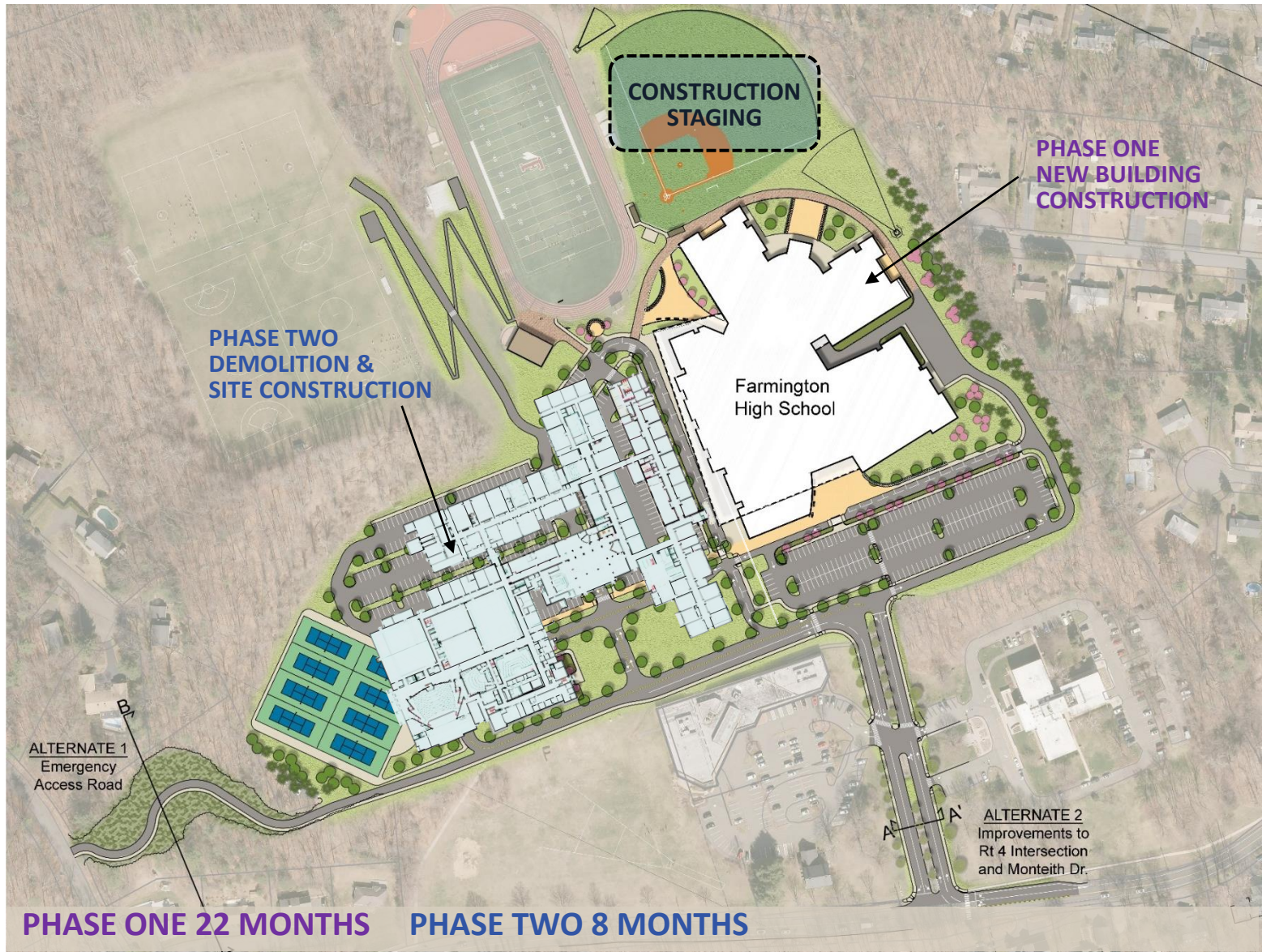
1 Local, State and Federal Requirements

- + ADA Compliance
- + Security Needs
- + Public / Private Separation
- + NEASC Requirements



2 Programmatic Needs

- + Education Disruption + Satisfies Ed Specs + Undersized Learning Spaces + Collaborative Learning
- + Space for New or Enhanced Educational Programming



3 Consolidation of Space

- + Reduce Sprawl and Improve Circulation + Utilization of Space + Robotics + Alternate High School
- + School District Administration Offices

PROJECT DATA

Projected Enrollment: 1,405 students
State OSCGR Allowable: 253,602 Net SF
1928 Building Bonus Area: 6,000 Net SF
Total Allowable Area: 259,602 Net SF
District Offices Area: 9,626 Net SF*
Total Area: 269,228 Net SF
Total Area Gross: 278,651 GSF

NEW BUILDING OPTION DATA

District Office Area: 9,600 Net SF
Total Area HS & ALT ED: 257,730 Net SF
Total Area: 267,330 Net SF

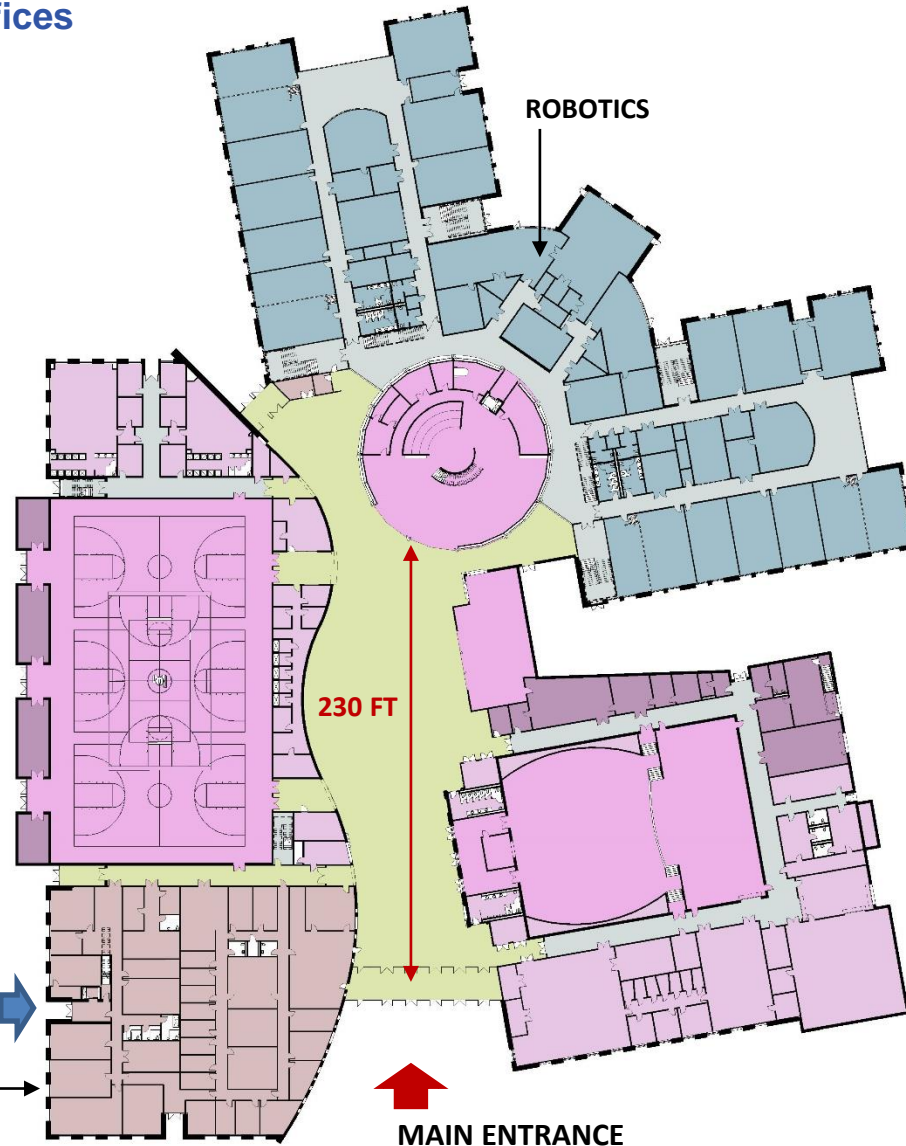
Total Area Gross: 274,000 GSF

Original Building Footprint: 187,947 SF
Option One Footprint: 162,445 SF

THE ORIGINAL 1928 BUILDING STRUCTURE IS REMAINING

BOE District Offices – 2nd Floor

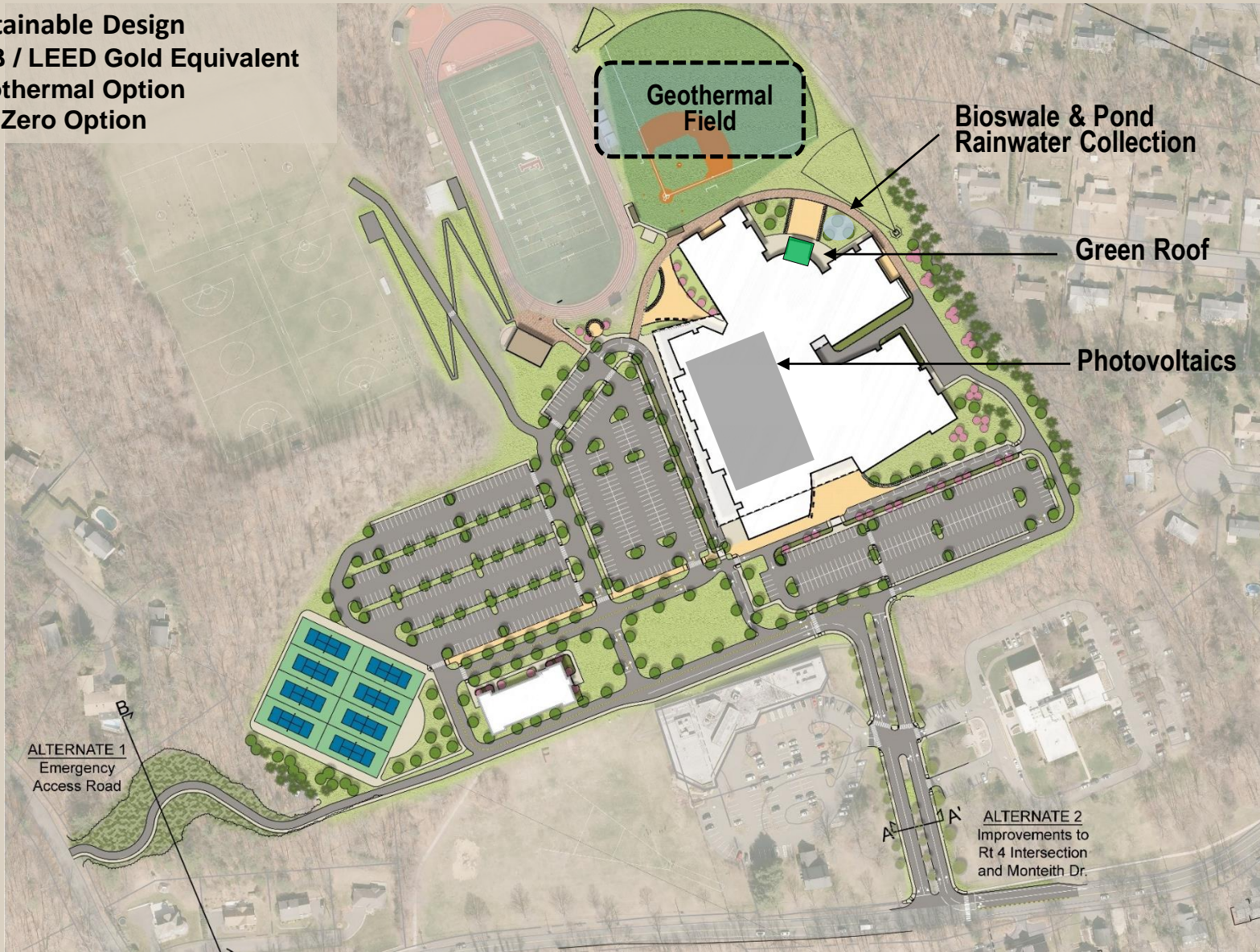
ALT Education – 2nd Floor



4 Building Systems – Low Energy HVAC Systems Approach

+ Energy Efficiency + Mechanical, Electrical, Plumbing + Building Envelope + Green Design

- + Sustainable Design
- + HPB / LEED Gold Equivalent
- + Geothermal Option
- + Net Zero Option

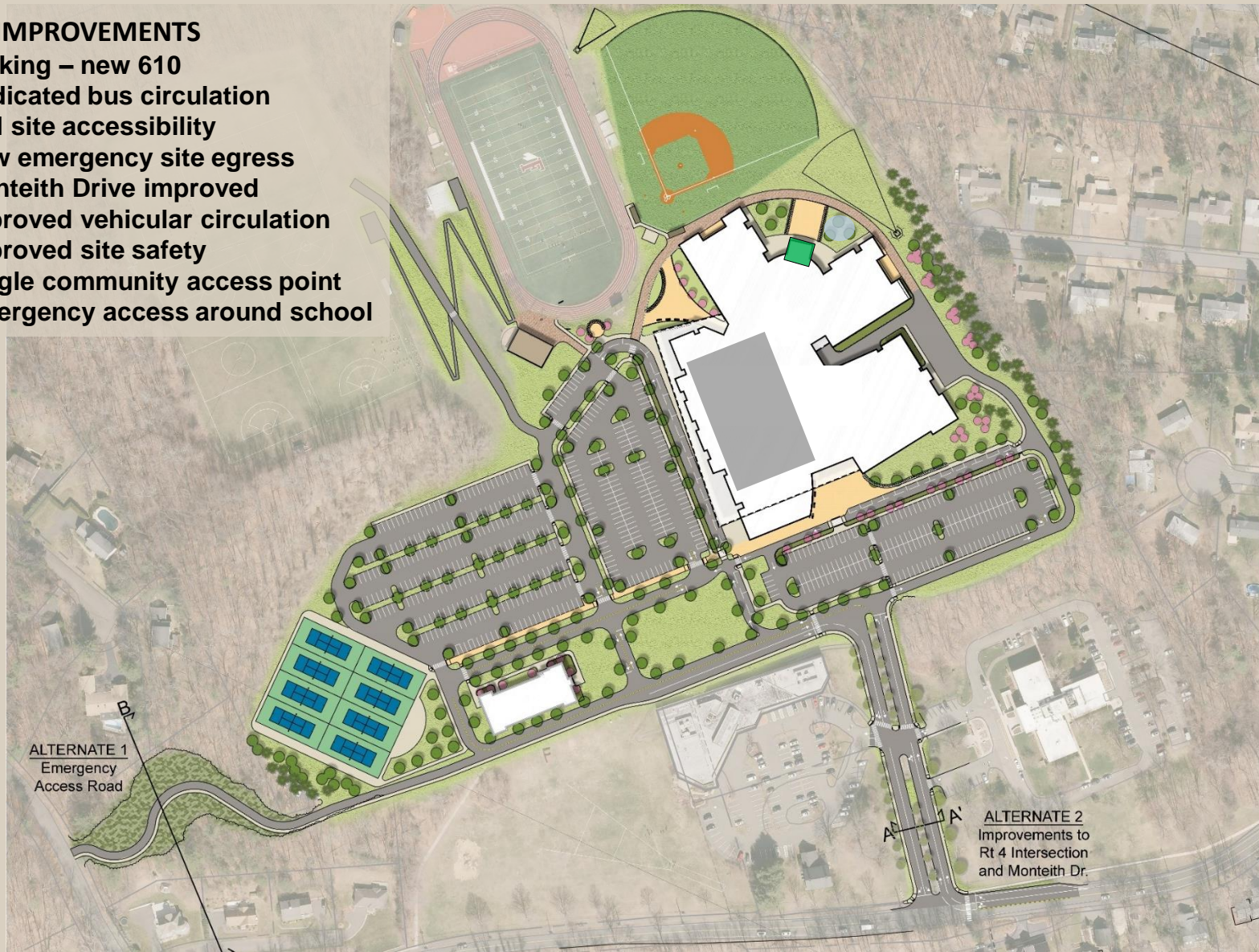


5 Site Improvements

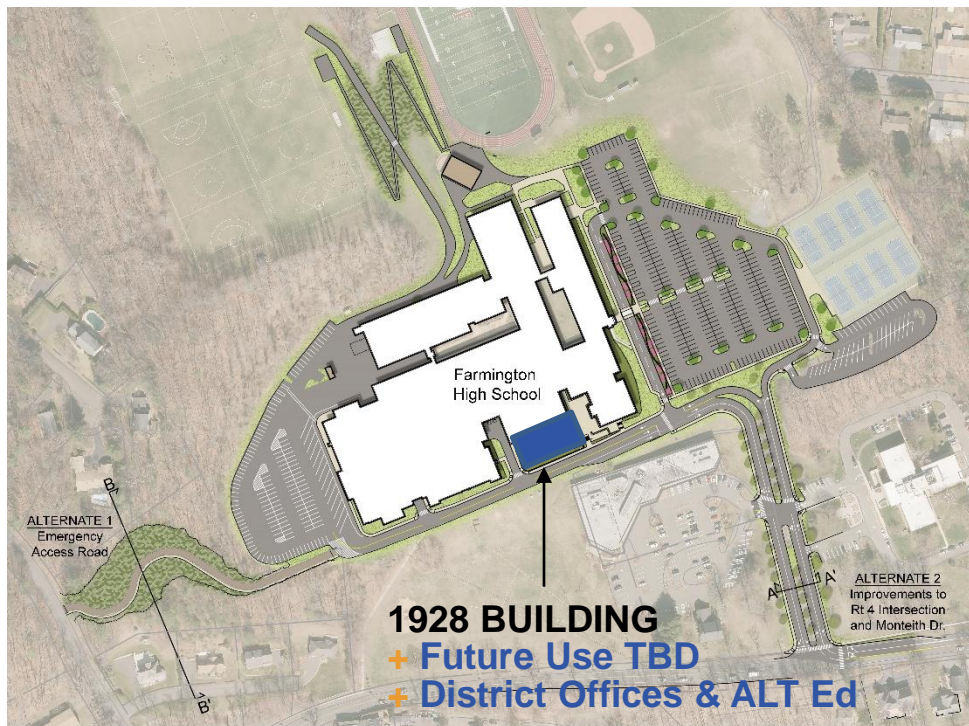
+ Athletic Fields + ADA Compliance + Site Layout Plan + Traffic Flow, Pedestrian Safety + Parking

SITE IMPROVEMENTS

- + Parking – new 610
- + Dedicated bus circulation
- + Full site accessibility
- + New emergency site egress
- + Monteith Drive improved
- + Improved vehicular circulation
- + Improved site safety
- + Single community access point
- + Emergency access around school

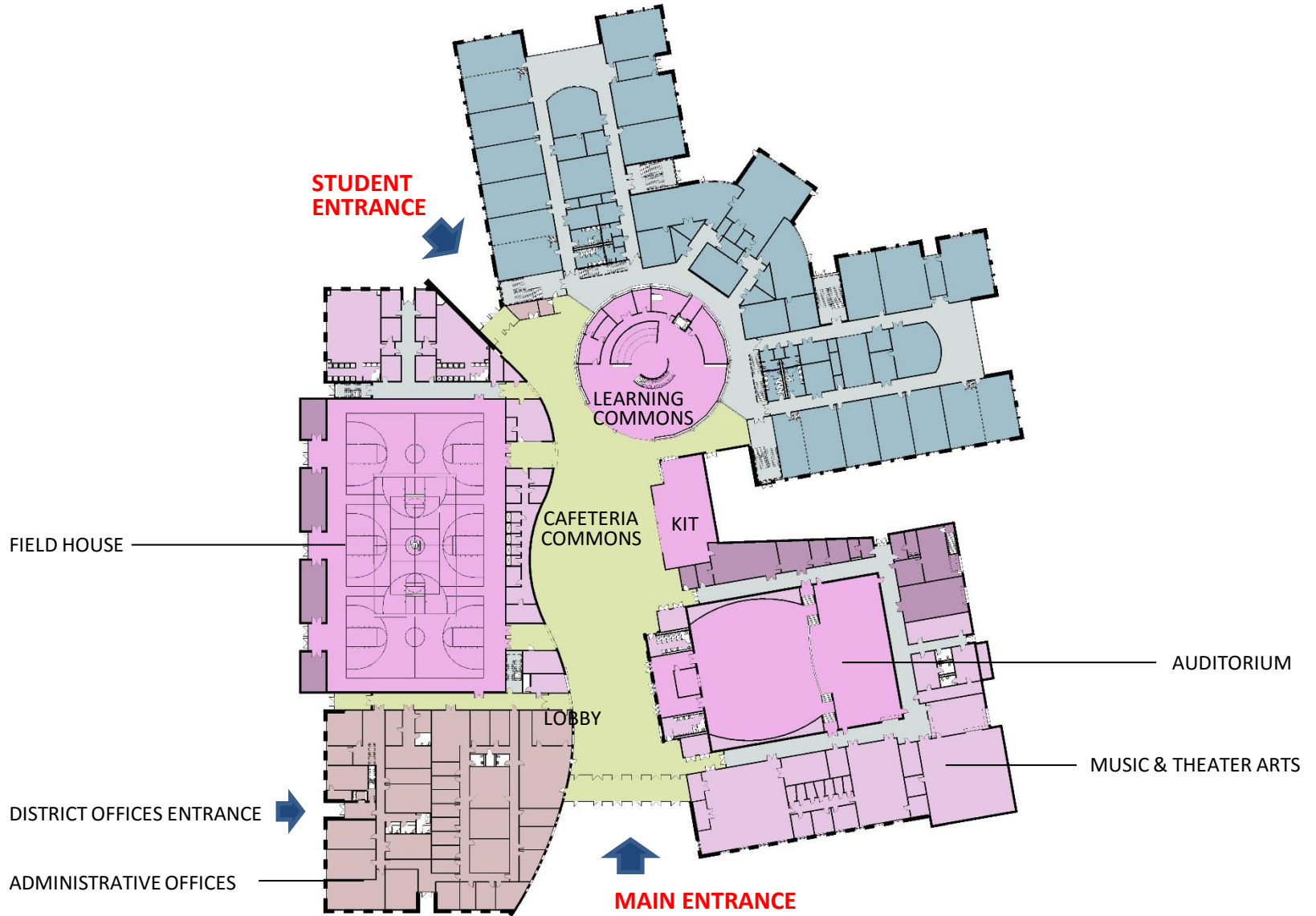


Alternates



6 Benefits to the Community

+ Community Use of the Building + Shelter in Place



7 Fit and Feel For Farmington

+ Internal Design

+ External Design

+ Overall Fit + Feel



7 Fit and Feel For Farmington

+ Internal Design

+ External Design

+ Overall Fit + Feel



Your Farmington High School Design Team

Principals

Dave
Rusty
Tom

Architecture

Angela Kent
Dan Lan
Mike Julie
Carson Erin
Victoria Dinea
Alex

Interior Design

Rebecca
Erika

Marketing

Cynthia
Sharon





qamarch.com/fhsvideo

Farmington High School- New Option

Mechanical and Electrical Systems

January 22, 2020

FHS – NEW OPTION - HVAC Systems

Central Cooling and Heating Systems

GENERATION

- Air Condition Entire Building
- High Efficiency Water Cooled Chillers/Heat Pump Chiller Option/Condensing Boilers
- Adiabatic Condensers in lieu of Cooling Towers for water savings
- Geothermal and Photovoltaic Options

DISTRIBUTION

- Air Handling Units with Dedicated Outside Air System (DOAS) and Air to Air Heat Recovery
- Minimize Ductwork to Just Serve Ventilation Requirements
- Maximize Use of Piping for Energy Transport Efficiency

TERMINAL DEVICES

- Chilled Beams
- Radiant Ceiling Panels

FHS – NEW OPTION - Electrical Systems

Proposed System – Power Distribution

GENERATION

- **Main Electrical Service, Switchboards & Distribution**
- **Emergency Power**
 - **Generator: To Serve Emergency Power Loads And Standby Loads**
 - **Include Cooling and Heating System Components**

LOW ENERGY HVAC SYSTEM APPROACH

