



Montgomery County
Public Schools

PERKINS —
EASTMAN

Human by Design

NEELSVILLE MS



AGENDA

- Introductions & Overview
- Part 1: Creative Analysis
 - Site Analysis
 - Program Analysis
 - Existing Conditions Analysis
 - Design Principles
- Part 2: Preliminary Options



AGENDA

- Introducción y Resumen
- Parte 1: Análisis Creativo
 - Análisis del Terreno
 - Análisis del programa
 - Análisis de las Condiciones Existentes
 - Principios de Diseño
- Parte 2: Opciones Preliminares



PROJECT INFORMATION-INFORMACIÓN DEL PROYECTO

NEELSVILLE MIDDLE SCHOOL PROJECT SPECIFIC WEBSITE:

<https://www.montgomeryschoolsmd.org/departments/facilities/construction/project/neelsvillems.aspx>

PROJECT CONTACT:

Rob Badstibner

School Facilities Project Manager

Robbie_s_badstibner@mcpsmd.org

240-314-1018

The screenshot shows the Montgomery County Public Schools website. The header includes the district name, tagline, and navigation links for Languages, Emergency Info, School Calendar, and MCPS News Center. A search bar is also present. The main navigation menu lists various school-related categories. The main content area features a sidebar with 'More Navigation Options' and a central section titled 'NEELSVILLE MIDDLE SCHOOL REPLACEMENT'. This section includes the address: 11700 Neelsville Church Road, Germantown, MD 20876. To the right, it lists the Contractor as TBD and the Architect as Perkins Eastman. At the bottom right, it provides the MCPS Construction Contact: Rob Badstibner, with email Robbie_S_Badstibner@mcpsmd.org and phone 240-314-1018. A red 'back to top' button is visible in the bottom right corner.

NICE TO MEET YOU – VIA ZOOM!

1. Please Remain muted unless invited to speak – video is optional.
2. Sign in through the chat function. Provide the following information:
 1. Full name
 2. Email address
 3. Affiliation
3. Submit questions through the chat function. We'll pause periodically to address them.
4. Go to www.PollEv.com/seanodonnell999 to participate in our voting!
5. We do have Spanish speakers if you need help with translation.

ES UN GUSTO CONOCERLOS – ¡A TRAVÉS DE ZOOM!

1. Por favor permanezcan en modo silencio, a no ser que sean invitados a hablar – el uso de video es opcional.
2. Ingresen a través de la función del chat y suministren la siguiente información:
 1. Nombre Completo
 2. Dirección de Correo Electrónico
 3. Afiliación
3. Envíen sus preguntas a través de la función del chat. Vamos a pausar periódicamente para responderlas.
4. ¡Ingresen a www.PollEv.com/seanodonnell999 para participar en nuestra votación!
5. Tenemos gente que habla Español en el grupo, en caso que necesiten traducción.



NEELSVILLE MIDDLE SCHOOL

VISION

We are an IB World School embracing diversity, committed to demonstrating a passion for learning.

MISSION

At Neelsville Middle School:

We develop global citizens through **collaborative inquiry**.

We encourage **reflective critical thinking**.

We implement **well-planned instruction**.

We value everyone's **voice and culture**.

We nurture **social emotional well-being**.

VISION

PROJECT TEAM-EQUIPO



SEAN O'DONNELL
FAIA, LEED AP
Principal-in-Charge
PERKINS EASTMAN



OMAR CALDERON
AIA
Design Principal
PERKINS EASTMAN



KAREN GIOCONDA
NCIDQ, LEED AP ID+C
Project Manager
PERKINS EASTMAN



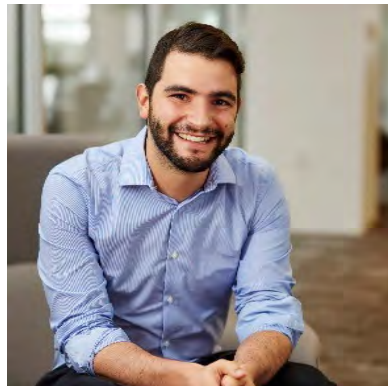
ANN NEERIEMER
AIA, LEED AP
Lead Programmer
PERKINS EASTMAN



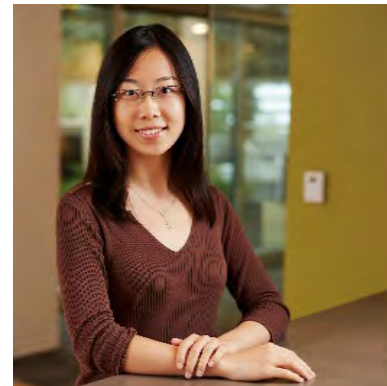
STEWART GREGORY
RA, LEED AP
Project Architect
PERKINS EASTMAN



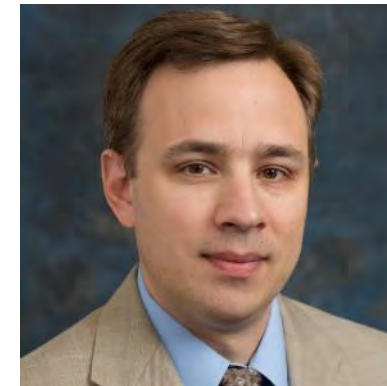
HEATHER JAUREGUI
LEED AP BD+C, O+M, CPHC
Sustainability Team
PERKINS EASTMAN



JUAN GUARIN
LEED AP BD+C, WELL AP
Sustainability Team
PERKINS EASTMAN



ANNE CHEN
LEED AP BD+C, WELL AP
Project Designer
PERKINS EASTMAN



SHAWN BENJAMINSON
PE
Civil Engineering Principal
ADTEK Engineering



JIM BARTO
PE
Civil Engineering PM
ADTEK Engineering

PROJECT TEAM-EQUIPO

Architect:

PERKINS EASTMAN

Civil Engineering:

ADTEK Engineers

Structural Engineering:

Yun Associates LLC

**Mechanical, Electrical, Plumbing,
Fire Protection, & Energy Modeling:**

CMTA, Inc

AV Design:

Polysonics

Food Service:

Nyikos-Garcia Foodservice Design, Inc

Specifications:

Heller & Metzger, PC

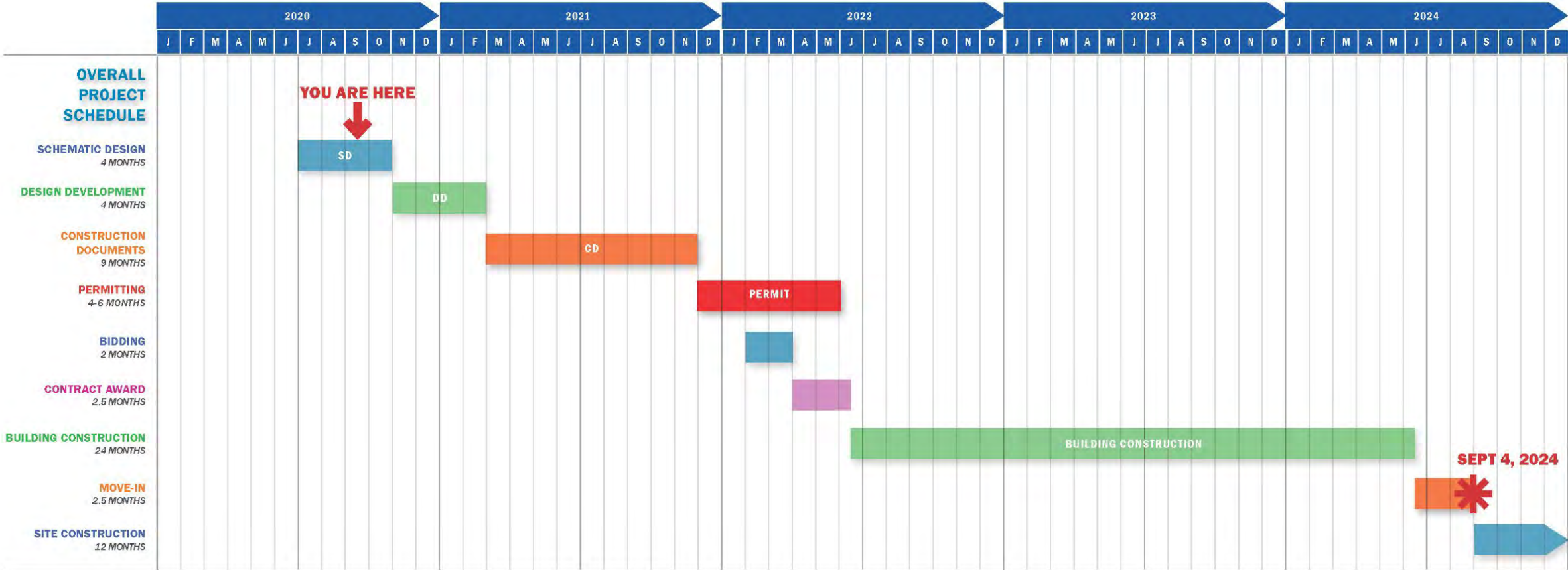
Cost Estimating:

TCT Cost Consultants, LLC

Traffic Consulting:

The Traffic Group, Inc (TTG)

PROCESS-PROCESO

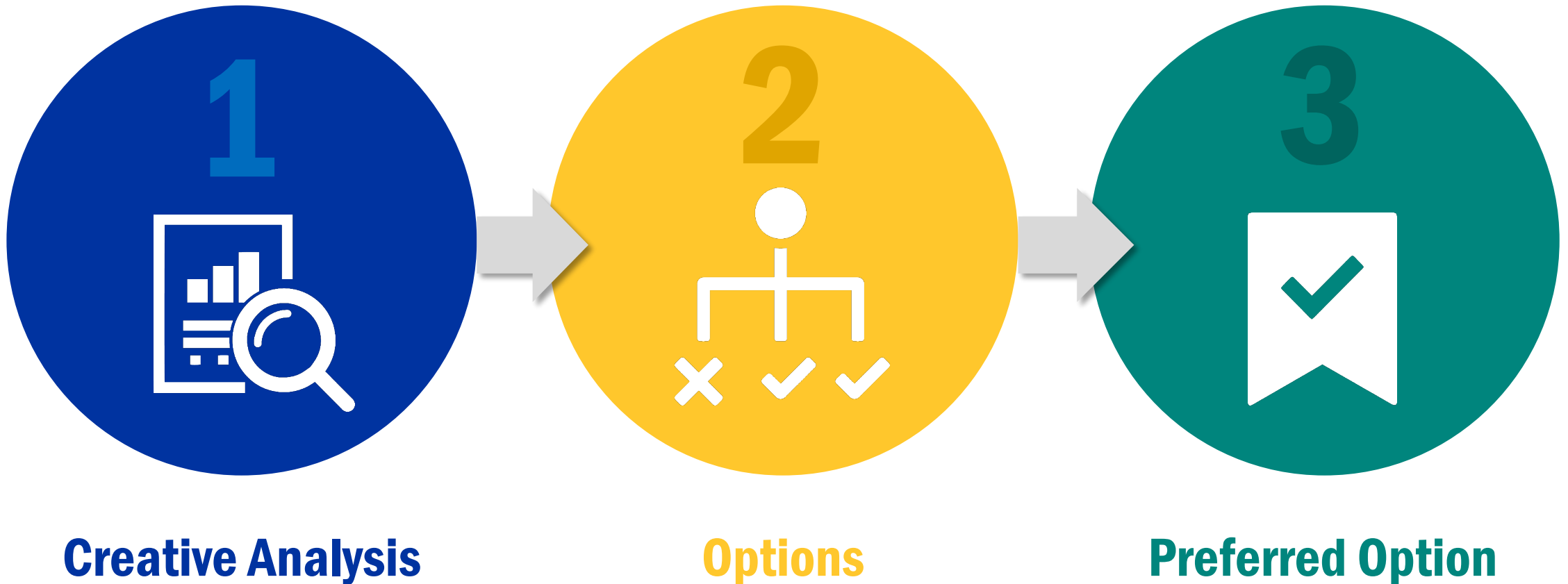


PROGRAM-PROGRAMA

- Replacement School: 156,000 GSF
- Capacity: 1,105 (Master Planned for 1,190)
- Site Area: 29.2 Acres/17.4 Acres Usable
- Parking: 125 spaces + 70 spaces for Infants & Toddlers program
- Site Circulation: Separate bus and car drop-off loops, parking, pedestrian accessibility



THREE-STEP PROCESS-PROCESO DE LOS TRES PASOS





CREATIVE ANALYSIS

WHO ARE WE DESIGNING FOR?-PARA QUIEN DISEÑAMOS

MIDDLE SCHOOL-SECUNDARIA

COGNITIVE

- Enjoy discovery through struggle
- Benefit from alternative assessments
- Learn from formative assessments/feedback
- Engage novelty and unconventional situations

SOCIAL-EMOTIONAL

- Desire validation of their emotions
- Benefit from being left to do things on their own
- Enjoy processes that enable them to discover for themselves
- Benefit from a social skills class

PHYSICAL/MOTOR

- NEED TO move every 10-20 minutes or so



MIDDLE SCHOOL

SITE ANALYSIS- ANÁLISIS DEL TERRENO

FIELDS & FOREST - CAMPOS Y BOSQUES



PERKINS EASTMAN NEELSVILLE MS (MCPS)



SITE ANALYSIS - ANÁLISIS DEL TERRENO

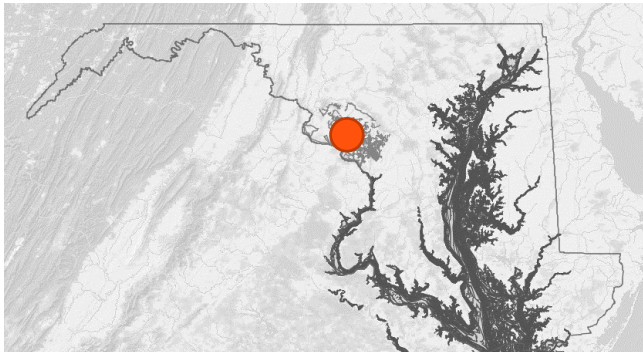
TOPOGRAPHY & VIEWS - TOPOGRAFÍA Y VISTAS



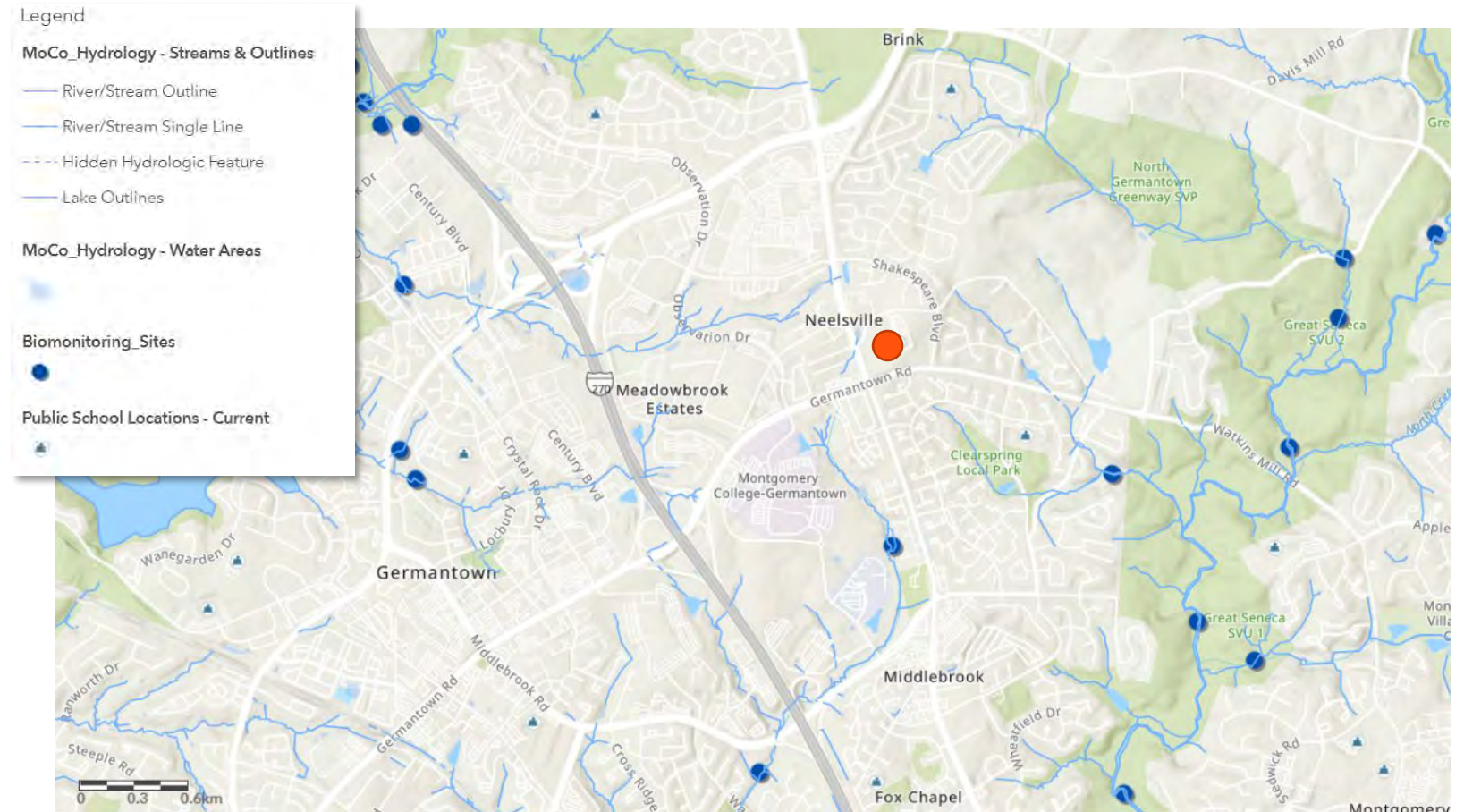
SITE ANALYSIS - ANÁLISIS DEL TERRENO

REGIONAL ANALYSIS – ANÁLISIS REGIONAL

- Ecological and economic importance of the Chesapeake bay to the region
- Biomonitoring sites in Montgomery county



100% of the streams in Montgomery County flow to the Chesapeake Bay.

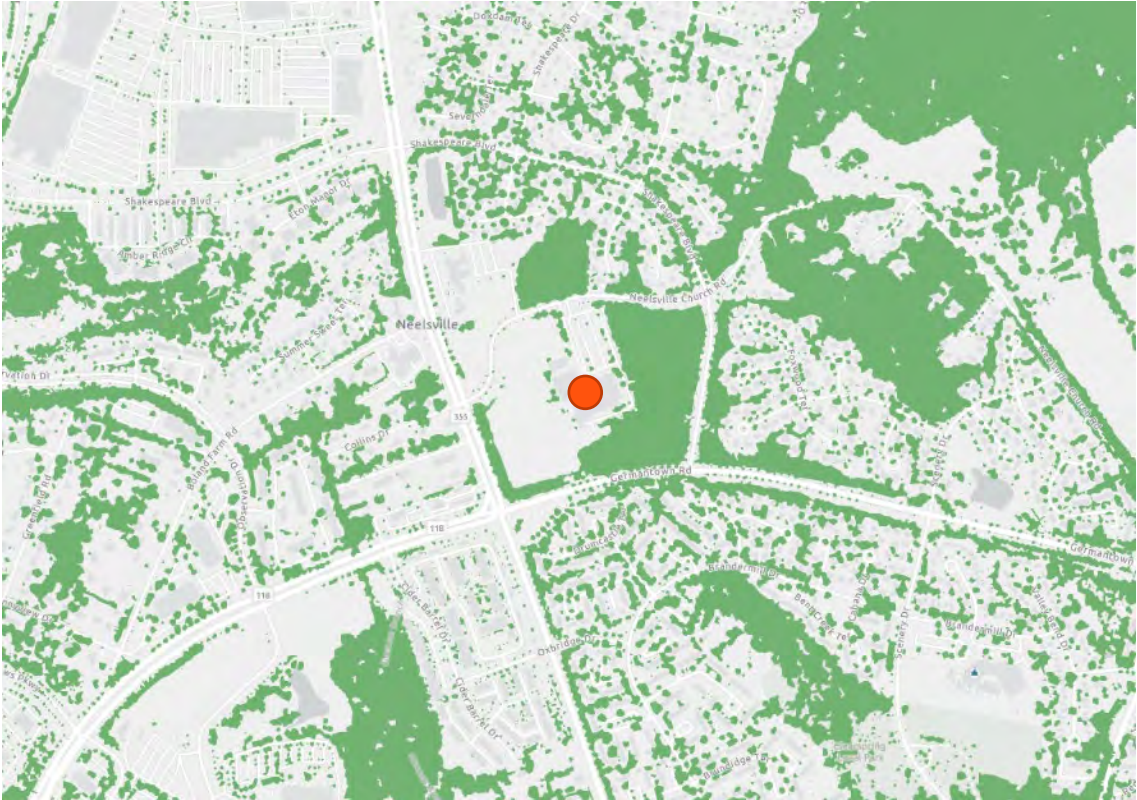
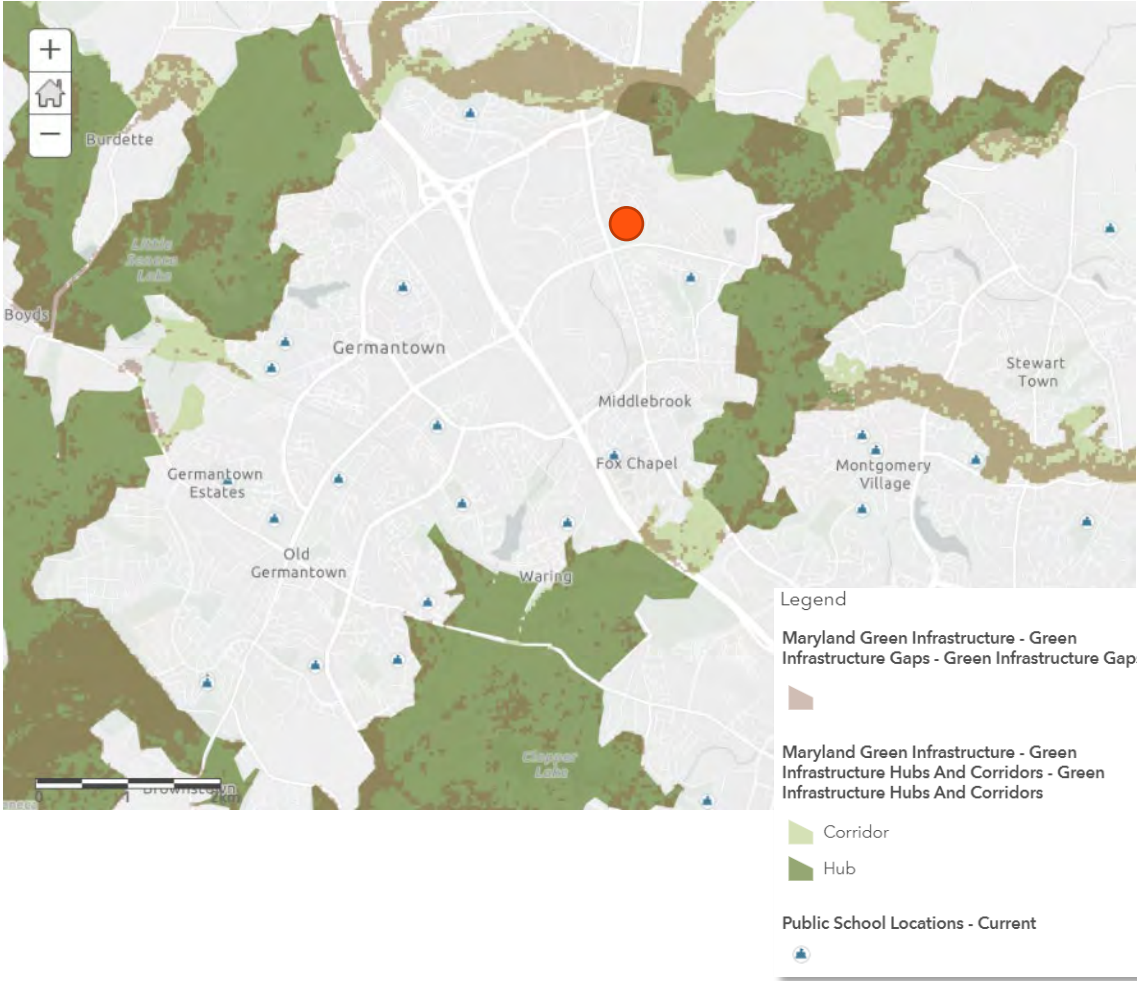


Biomonitoring Sites in Montgomery County, Maryland used by MCDEP and M-NCPPC. Benthic macroinvertebrate, fish, and stream habitat monitoring occur at these 75 meter reaches.

SITE ANALYSIS - ANÁLISIS DEL TERRENO

REGIONAL ANALYSIS - ANÁLISIS REGIONAL

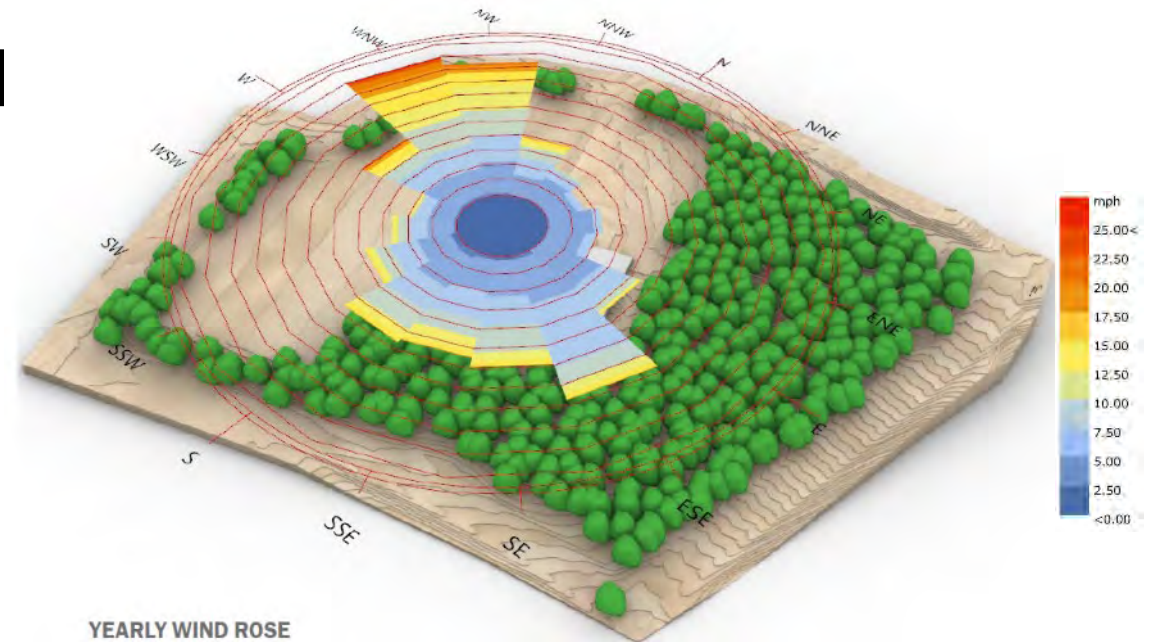
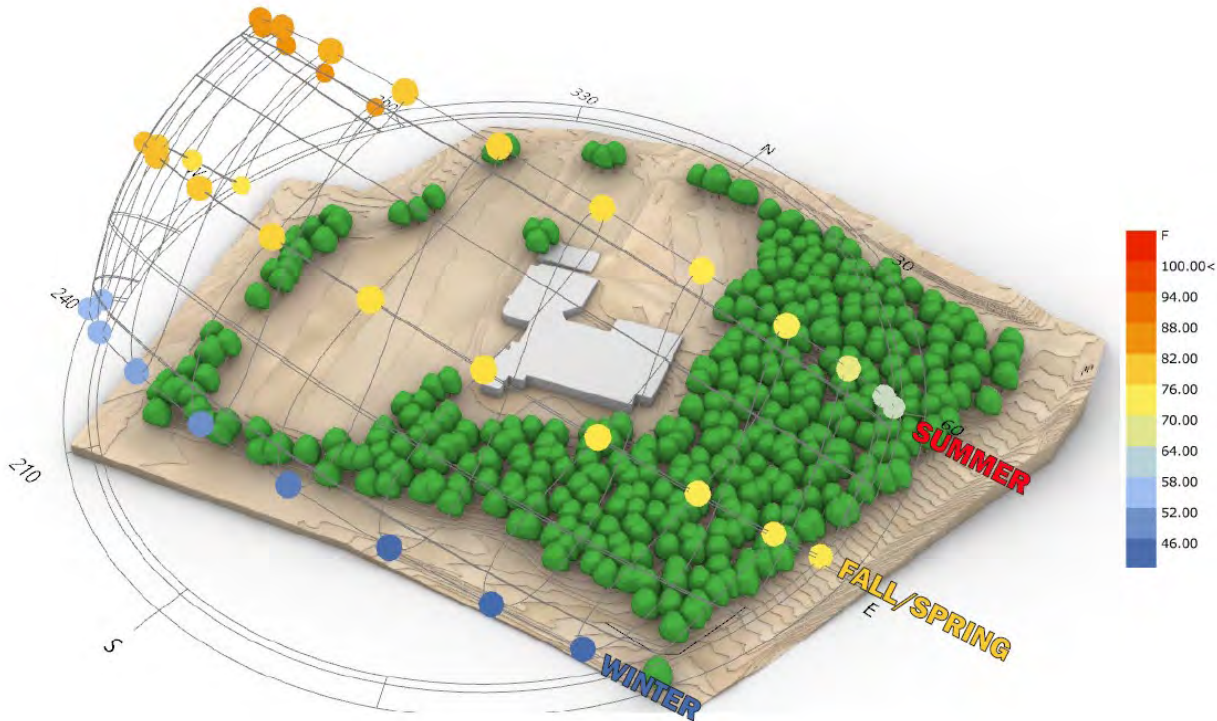
Adjacency to green infrastructure network



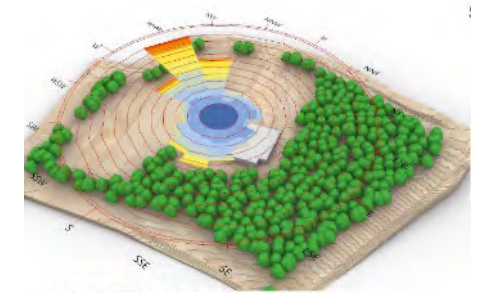
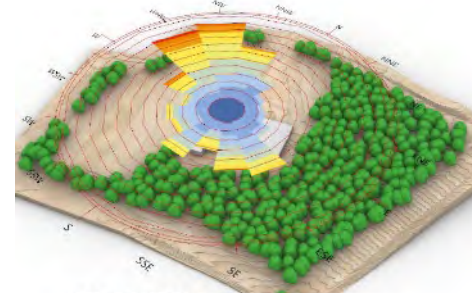
SITE ANALYSIS - ANÁLISIS DEL TERREN

SOLAR AND WIND INCIDENCE - INCIDENCIA SOLAR Y DEL VIENTO

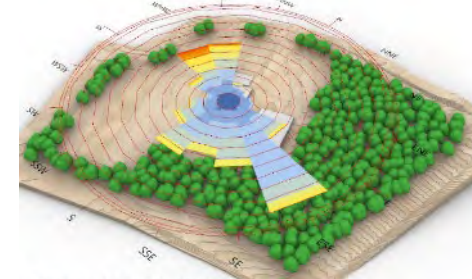
- Montgomery County experiences extreme weather swings with hot humid summers and cold dry winters
- Winter: Cold, high-velocity winds make north-facing areas relatively inhospitable
- Summer: Winds from the south and southeast are suitable for natural ventilation strategies and help increase outdoor thermal comfort



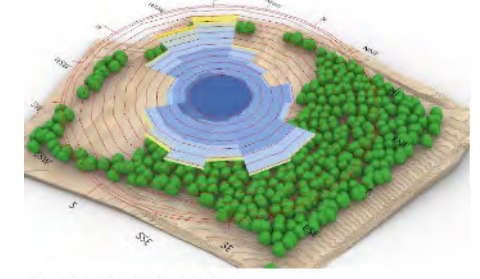
YEARLY WIND ROSE



WINTER WIND ROSE



FALL WIND ROSE



SPRING WIND ROSE

SUMMER WIND ROSE

SITE ANALYSIS - ANÁLISIS DEL TERRENO

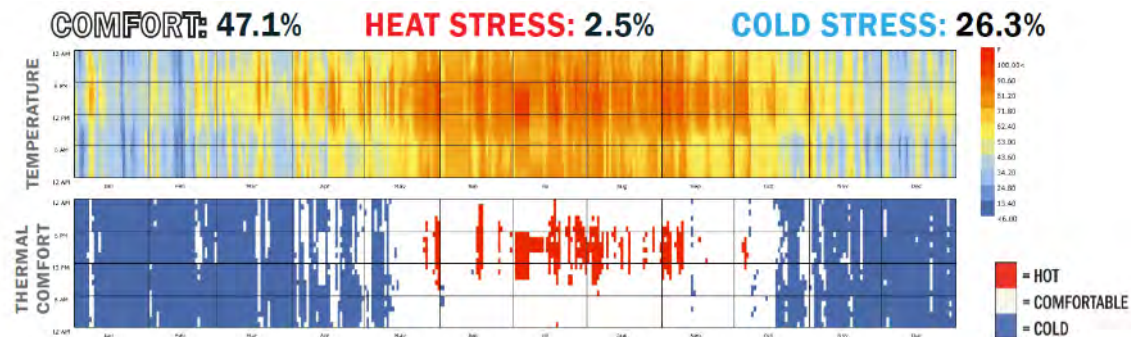
LOCAL CLIMATE TRENDS – TENDENCIAS DEL CLIMA LOCAL

- The effects of climate change will increase heat stress in Montgomery County leading to much warmer temperatures
- Passive cooling and architectural design strategies, combined with a highly efficient HVAC system, are recommended to maintain thermal comfort

1920



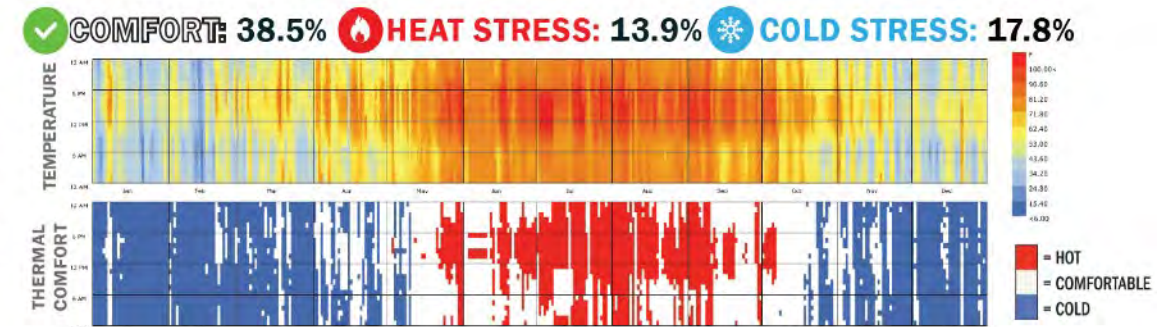
1950



NOW



2050



2080



HOLISTIC WELLNESS – BIENESTAR HOLISTICO

PROVIDING STUDENT WELLNESS – PROPORCIONANDO BIENESTAR ESTUDIANTIL

- Features of a HEALTHY and POSITIVE school environment include stairs, accessible sidewalks, playing fields, and access to daylight and fresh air
- These features play a proven role in determining critical health behaviors, such as rates of daily physical activity and dietary choices, and factors that impact health such as social capital



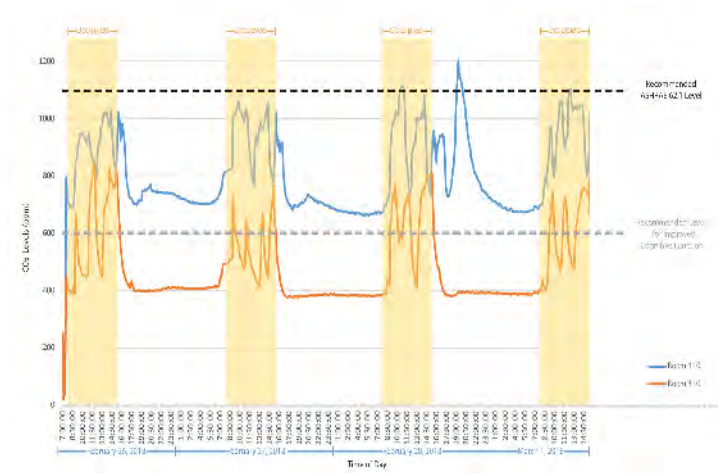
COVID-19

DESIGNING FOR THE NEW NORMAL – DISEÑANDO PARA LA NUEVA NORMALIDAD

- As we move to re-enter our schools, there is an increased focus on health and wellness and an opportunity to update school systems and processes to improve Indoor Environmental Quality
- We can improve ventilation, track building performance, provide daylight, and use healthy materials in core learning spaces to reduce the spread of air borne spread diseases and enhance occupant health in the building

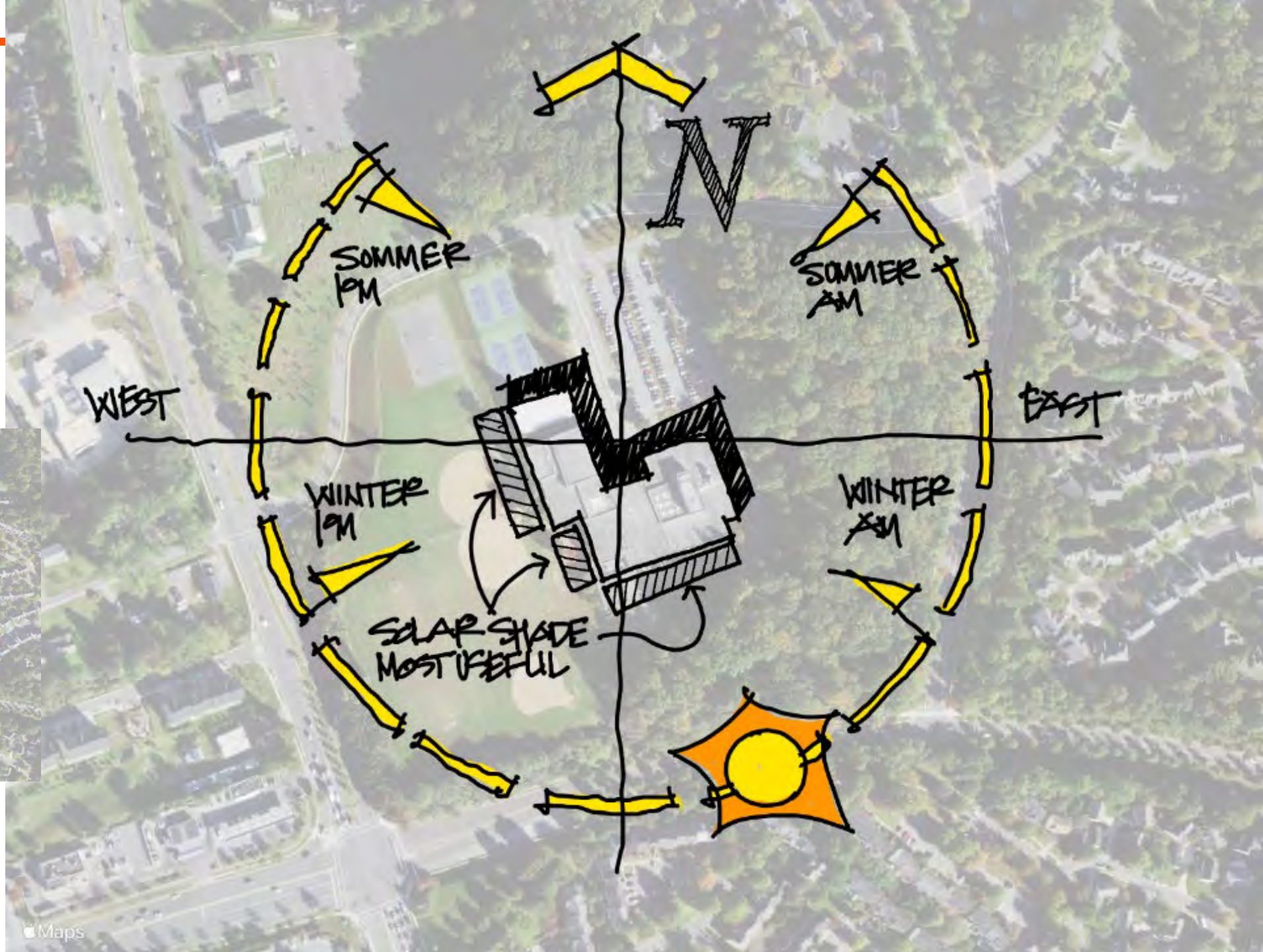
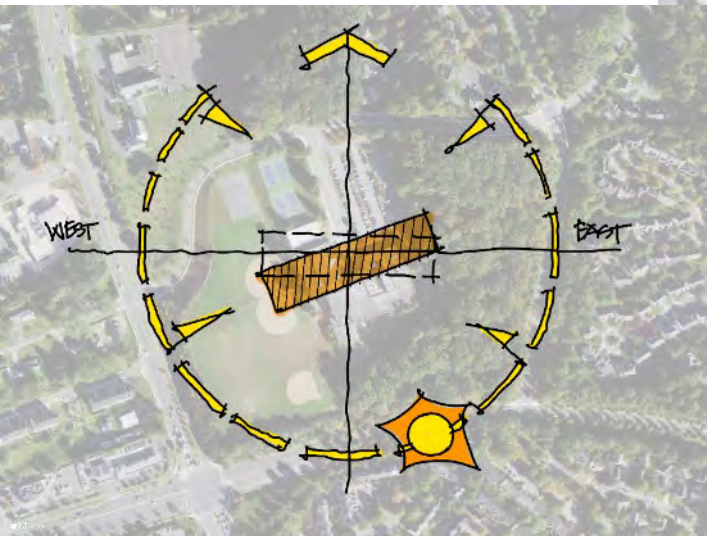


PERKINS EASTMAN NEELSVILLE MS (MCPS)



SITE ANALYSIS- ANÁLISIS DEL TERRENO

BUILDING ORIENTATION-
ORIENTACIÓN DEL EDIFICIO



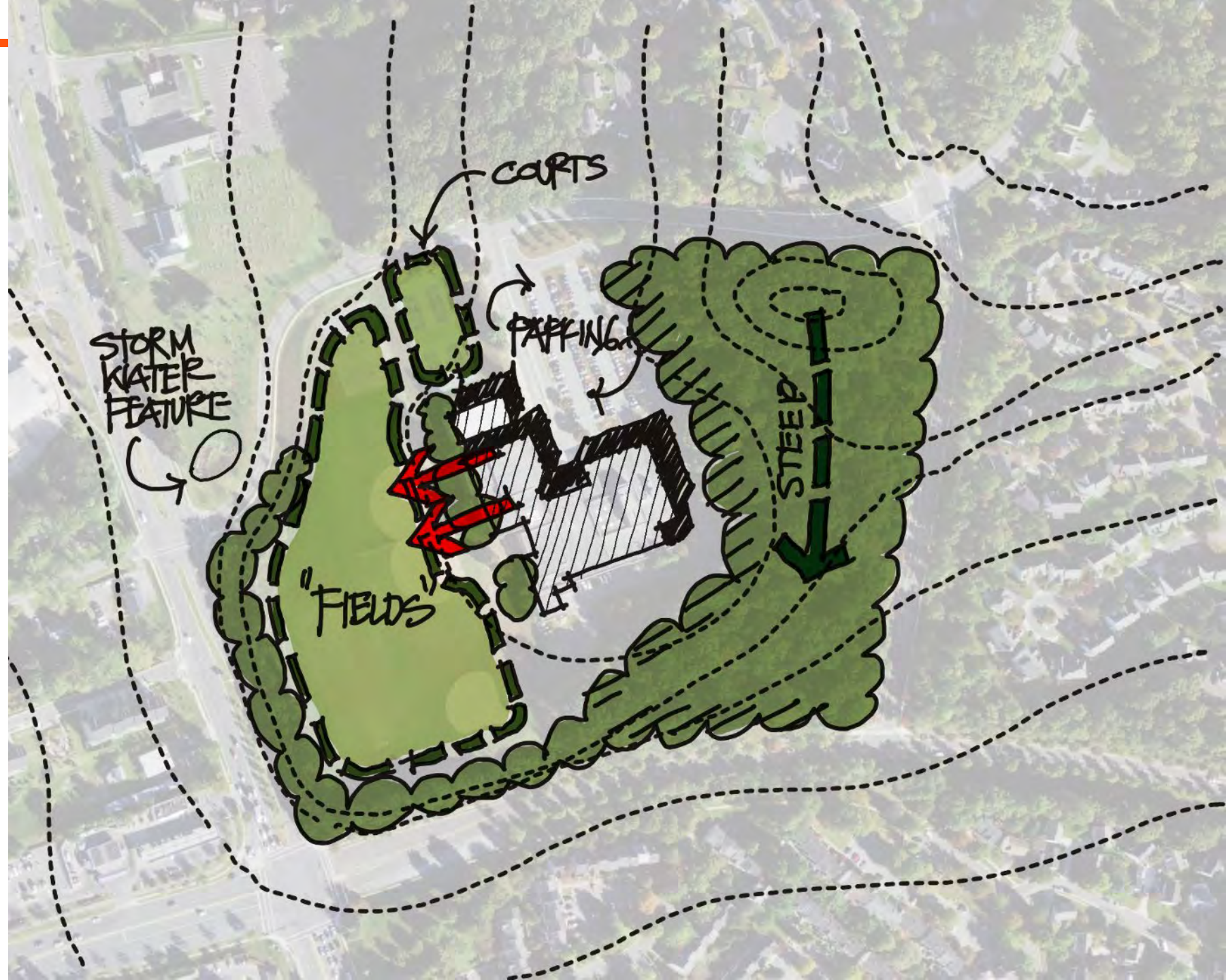
SITE ANALYSIS- ANÁLISIS DEL TERRENO

TOPOGRAPHY-
TOPOGRAFÍA



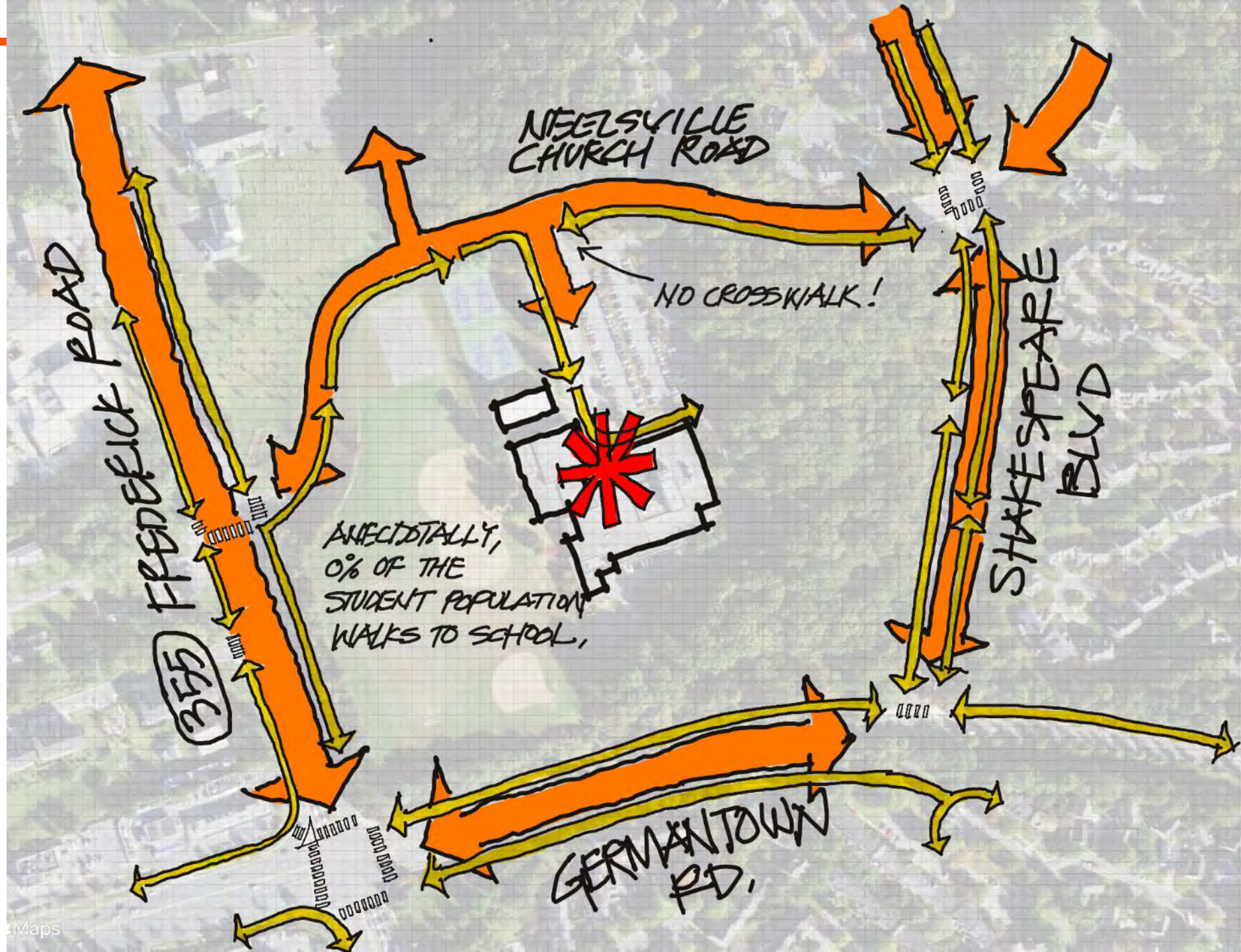
SITE ANALYSIS- ANÁLISIS DEL TERRENO

NATURAL FEATURES-
CARACTERÍSTICAS NATURALES



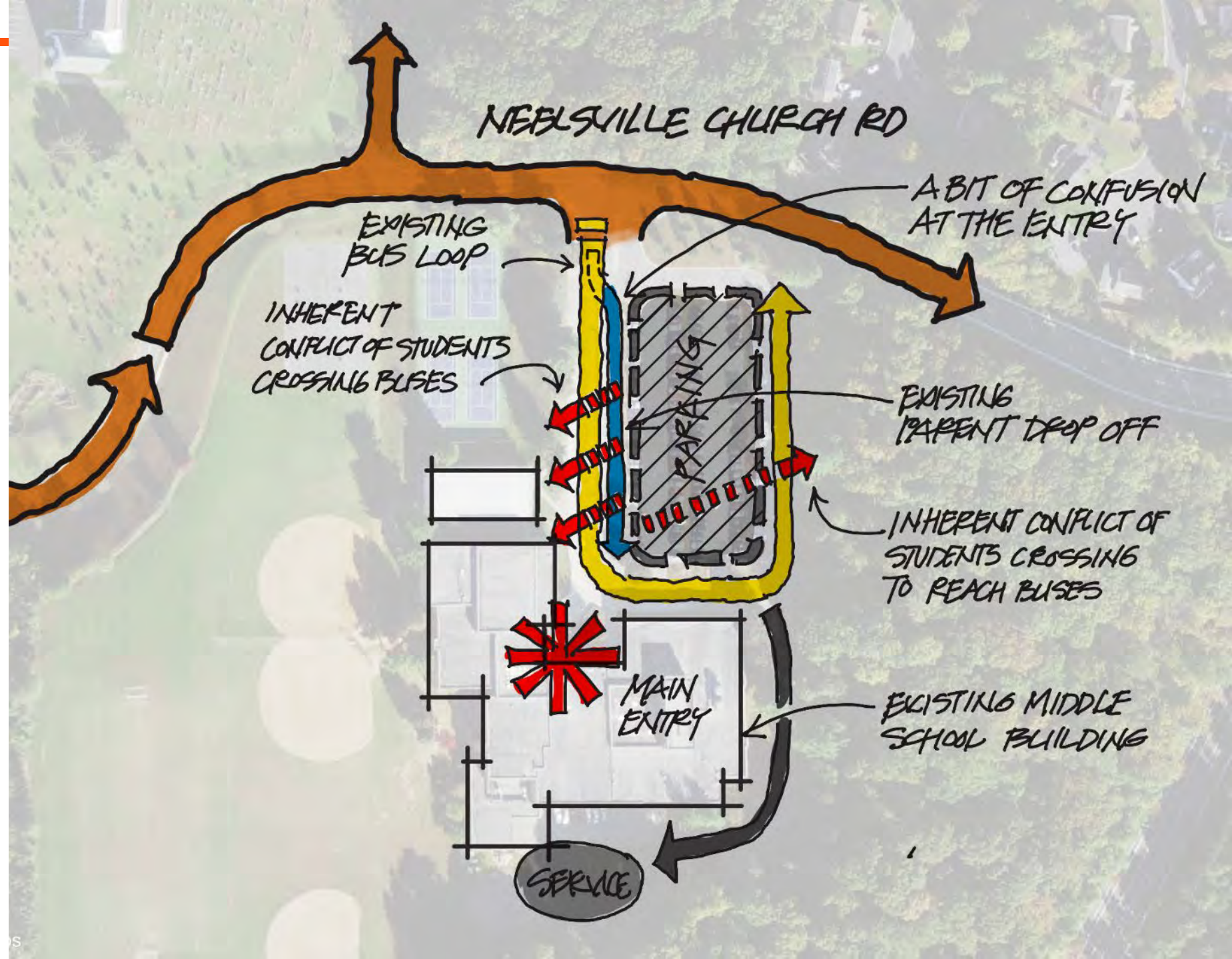
SITE ANALYSIS- ANÁLISIS DEL TERRENO

PEDESTRIAN MOVEMENT-
MOVIMIENTO PEATONAL



SITE ANALYSIS- ANÁLISIS DEL TERRENO

VEHICULAR MOVEMENT-
MOVIMIENTO VEHICULAR



PROGRAM SUMMARY



GENERAL CLASSROOMS
27,700 SF
29 Classrooms, four shelled expansion classrooms



SCIENCE
15,000 SF
9 Labs, Prep Rooms, Chemical Storage



MP TECH., MPR & COMPUTER SUPPORT
5,250 SF
Multipurpose Tech Lab, Multipurpose Lab, Equipment Closet, Telecomm Closet



CAFETERIA / NUTRITION
11,243 SF
Dining, Serving, Kitchen, Services, Faculty Dining



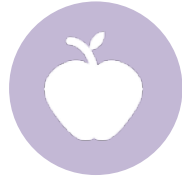
ESOL/METS
4,940 SF
Classrooms, Team Room, Storage



INSTRUCTIONAL SUPPORT & STAFF FACILITIES
5,270 SF
Workrooms, Book Storage, Intervention Rooms, Staff Lounge, Restroom



MUSIC
3,428 SF
Instrumental Music, Gen Music/Choral, Sm Ensemble, Practice



ADMINISTRATION, CLINIC & COUNSELING
6,015 SF
Offices, Reception, Health, Records, Conference, Security, Clinic



SPECIAL & ALTERNATIVE EDUCATION
1,680 SF
Team Locker, Resource Room, Speech & Language, OT/PT, Accommodations Room



VISUAL ARTS
1,740 SF
Art Studio, Kiln, Storage



MEDIA CENTER
6,565 SF
Main Learning, Work Area, Media Specialist, Multimedia Production

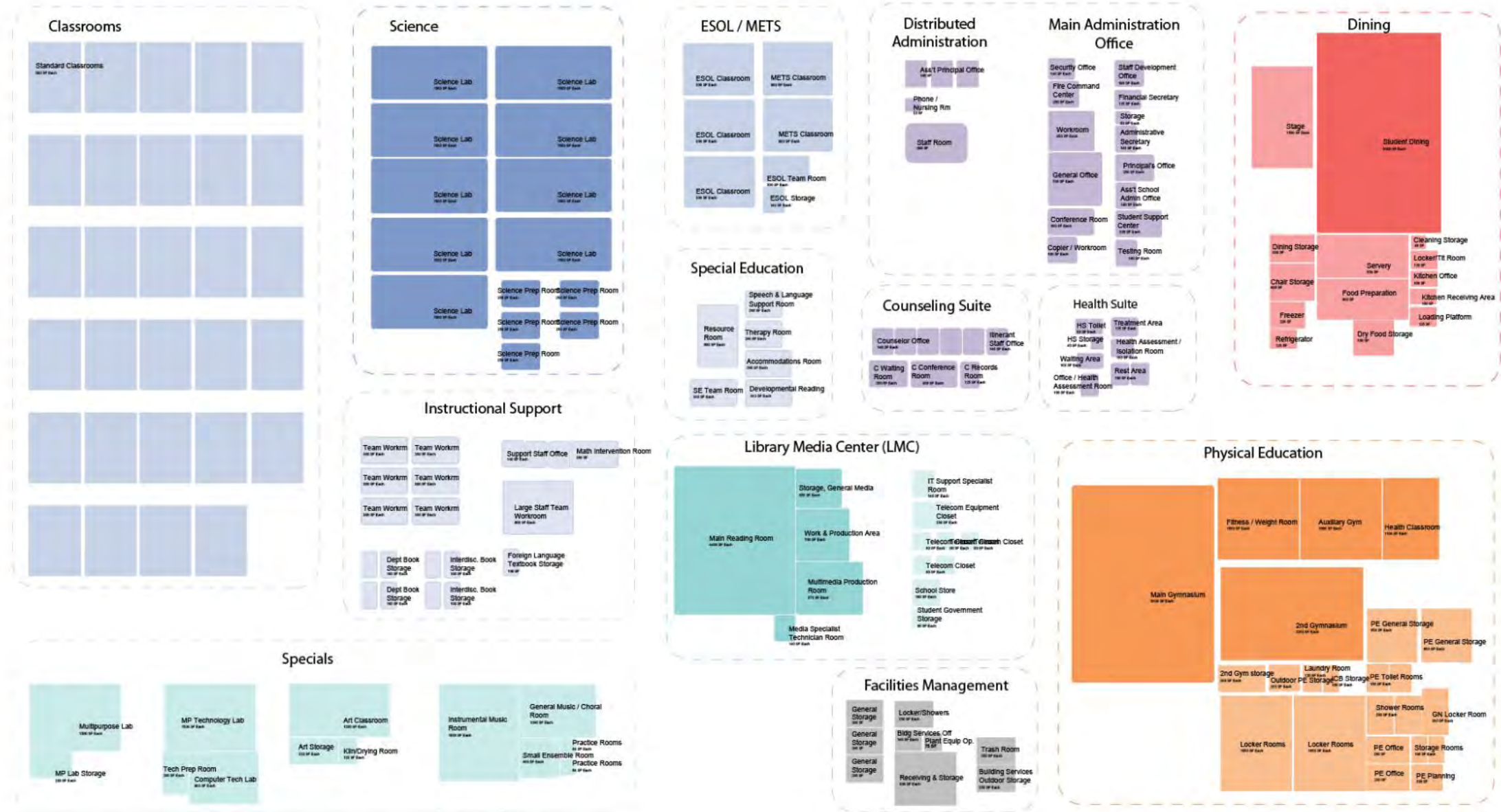


PHYS. ED / ATHLETICS
21,680 SF
Gym, Aux. Gym, Storage, Fitness/Weight Room, Health room, Lockers

The site is also being considered for **LINKAGES TO LEARNING** and for continuation of the **INFANTS AND TODDLERS PROGRAM**

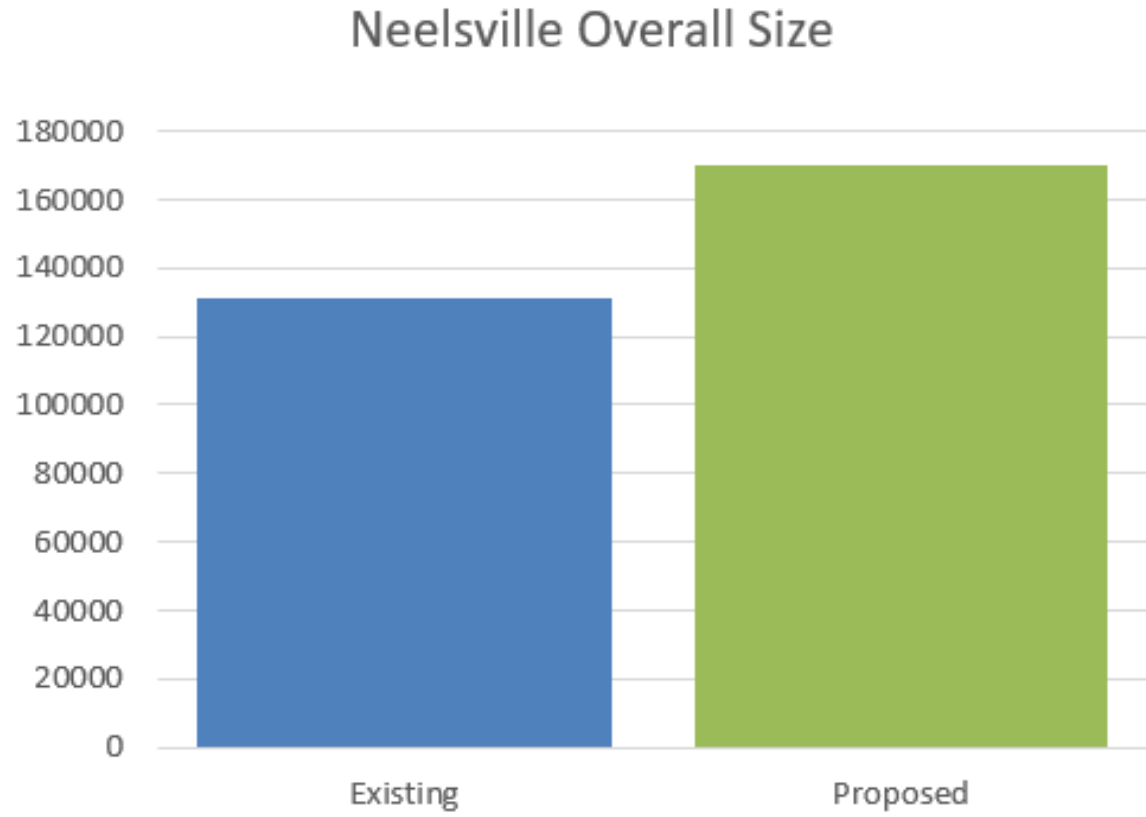
PROGRAM ANALYSIS - ANÁLISIS DEL PROGRAMA

GRAPHIC PROGRAM



PROGRAM ANALYSIS

SIZE COMPARISON TO CURRENT



EXISTING CONDITIONS – CONDICIONES EXISTENTES

NEELSVILLE TODAY – NEELSVILLE HOY



INSTITUTIONAL ENTRY



INSUFFICIENT SECURITY; INACCESSIBLE RAMP; LACK OF ELEVATOR



NARROW STAIRWELLS



NARROW, DIM (SOMETIMES ONE-WAY) CORRIDORS

EXISTING CONDITIONS – CONDICIONES EXISTENTES

NEELSVILLE TODAY – NEELSVILLE HOY



INTERIOR CLASSROOMS WITH NO DAYLIGHT AND VIEWS



CLASSROOMS WITH LIMITED DAYLIGHT OR VIEWS

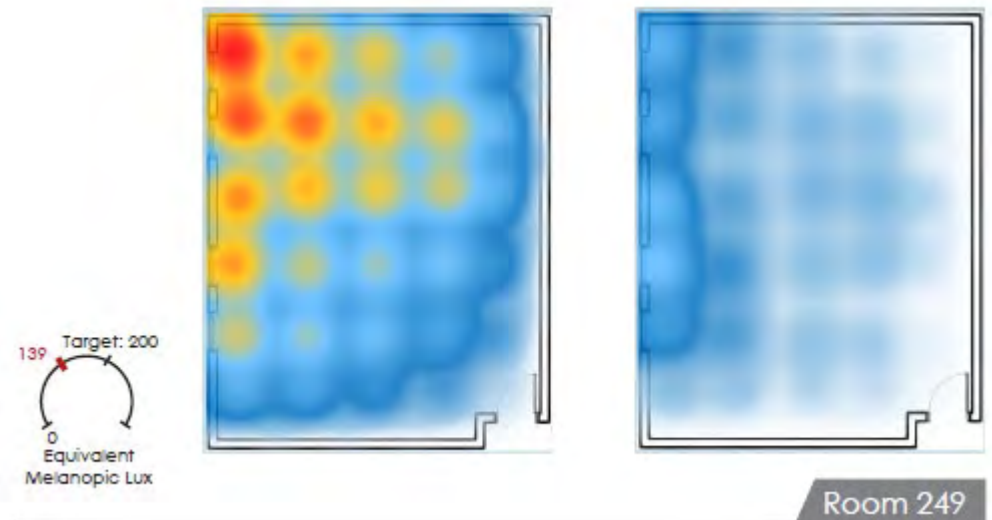
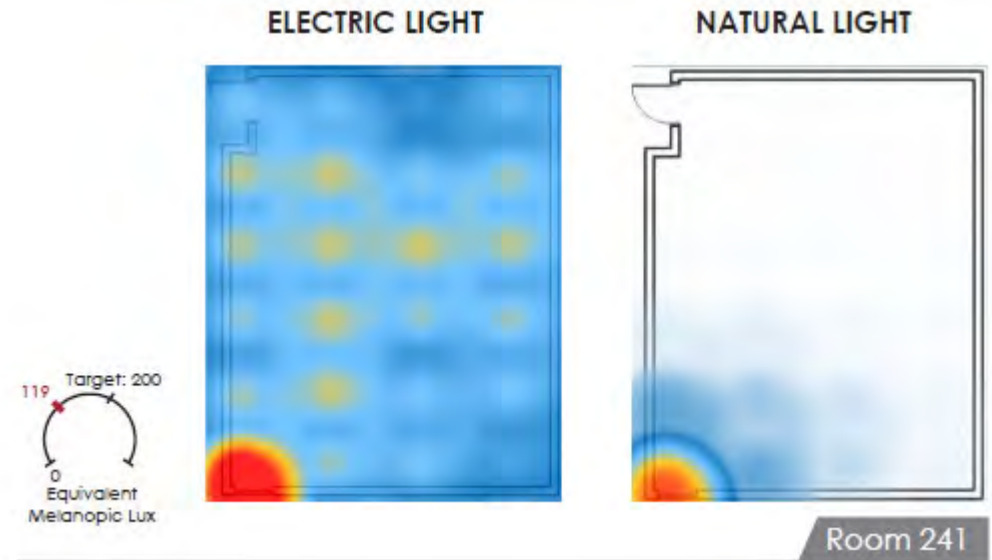
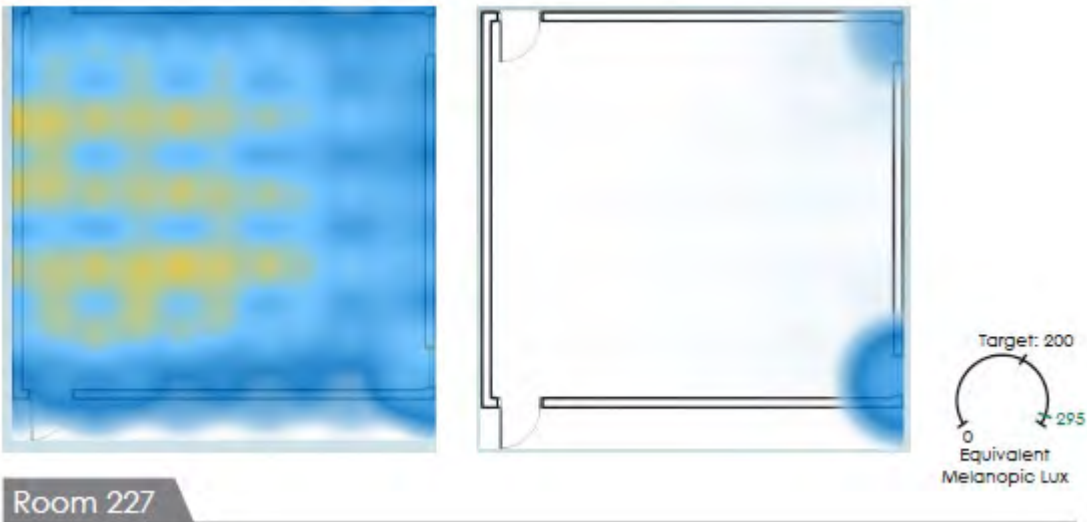


LARGE, UNDERUTILIZED SPACES

EXISTING CONDITIONS – CONDICIONES EXISTENTES

NATURAL AND ELECTRIC LIGHT – LUZ NATURAL Y ELÉCTRICA

- 5 existing classrooms were studied around noon on a sunny day
- Daylight levels (measured in footcandles) were taken with lights on and off to illustrate evenness of light in the classrooms
- Additionally, a reading for Equivalent Melanopic Lux (EML) was taken to show the distribution of light frequencies in the spaces



DRAFT DESIGN PRINCIPLES – PRINCIPIOS DE DISEÑO INICIALES

CELEBRATE DIVERSITY & HERITAGE



Provide opportunities for gathering, artwork display, and other means of sharing and celebrating a variety of ideas.

IMPLEMENT UNIVERSAL DESIGN



Ensure an inclusive facility that is barrier-free, encourages active service learning, and creates spaces for community engagement and interaction.

PROVIDE SEAMLESS INDOOR-OUTDOOR CONNECTION



All classrooms will have access to natural light. Strong connections ensure the active use of outdoor spaces. Shape the outdoor environment to support activities such as local food production, weather stations, or composting.

DRAFT DESIGN PRINCIPLES – PRINCIPIOS DE DISEÑO INICIALES

CREATE A HIGH-PERFORMANCE
LEARNING ENVIRONMENT



Provide quality daylight, acoustics, thermal comfort, and air quality to support wellness and learning.

CREATE A WELCOMING &
SECURE ARRIVAL



A welcoming arrival is inviting for students, staff, and the broader community, while including subtle security strategies that ensure the safety of all.

A LEARNING COMMONS WILL FORM THE
HEART OF THE SCHOOL



The library and learning commons is a place where students and teachers build connection and community with each other.

DRAFT DESIGN PRINCIPLES – PRINCIPIOS DE DISEÑO INICIALES

BUILD DYNAMIC SPACES TO CREATE
NEW MEMORIES



Through the library, common spaces, outdoor learning environments, and meaningful display, the new campus will ensure pride of place where students and families will create positive memories for years to come.

DESIGN A PLACE FOR
MIDDLE SCHOOLERS



Middle school students learn collaboratively, need frequent feedback and movement, and enjoy the journey of discovery. Provide small, medium, and large spaces throughout the school, and create team neighborhoods to build community.

CURATE A PROFESSIONAL WORK
ENVIRONMENT



Integrated staff work spaces and small meeting rooms throughout the school foster collaboration and development among teachers, and ease their ability to address individual student needs effectively throughout the day.

DRAFT DESIGN PRINCIPLES – PRINCIPIOS DE DISEÑO INICIALES

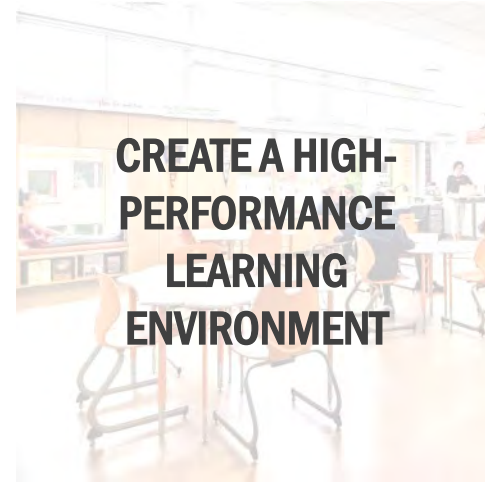
CREATE A POSITIVE CIVIC PRESENCE

The redesign of the campus provides an opportunity to create a new first and lasting impression for the school and the community. Through the siting of the building and its front door, the coordinated design of the building's facades, and its landscaped open spaces, the building can represent the value that the community places on the education of the next generation.



DRAFT DESIGN PRINCIPLES – PRINCIPIOS DE DISEÑO INICIALES

www.PollEv.com/seanodonnell999



QUESTIONS AND PRIORITIZATIONS- PREGUNTAS Y PRIORIZACIÓN

www.PollEv.com/seanodonnell999





PRELIMINARY OPTIONS

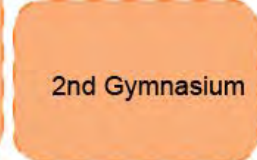
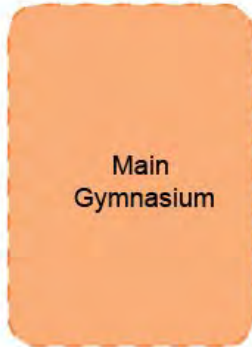
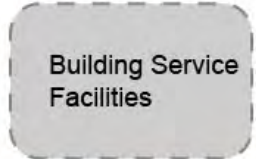
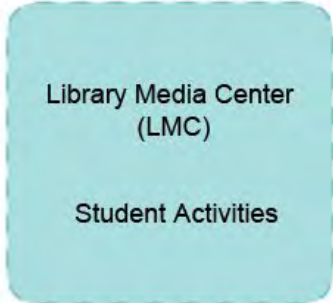
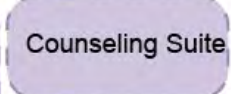
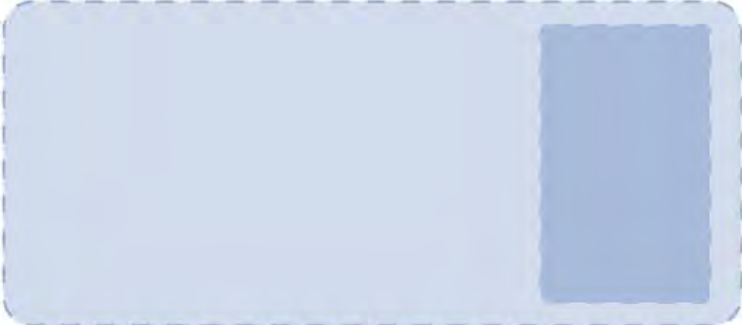
PROPOSED SITE DESIGN GUIDELINES

GUÍAS PARA EL DISEÑO DEL TERRENO

- Create a **positive civic presence**, being mindful of the appearance and view of the building upon approach to the site from the major roadways
- **Enhance and maximize access to the natural features of the site**, including the forest, for educational opportunities. Service areas or large parking spaces should not need to be traversed to access these natural features from the school
- **Recreation fields easily accessed** from physical education (PE) spaces and from parking areas.
- **Parking will provide easy access to the building and fields** and incorporate landscaping or other features to reduce perceived size.
- There will be clear **separation between vehicular and pedestrian pathways** to ensure student safety. Bus and car drop-off will be arranged so students have a separate path to each.
- Building **service access** will be located to minimize visibility and noise.
- **Building and vehicular areas will be designed efficiently** to reduce the need for costly stormwater management facilities

PROGRAM ANALYSIS – ANÁLISIS DEL PROGRAMA

GRAPHIC PROGRAM – PROGRAMA GRÁFICO



EXISTING SITE- TERRENO EXISTENTE

NATURAL FEATURES-
CARACTERÍSTICAS NATURALES



SITE ANALYSIS - ANÁLISIS DEL TERRENO

TOPOGRAPHY-
TOPOGRAFÍA



EXISTING SITE - TERRENO EXISTENTE



north



BUILDING LOCATION POSSIBILITIES – POSIBLES LOCALIZACIONES DEL EDIFICIO



NORTH



MIDDLE



SOUTH

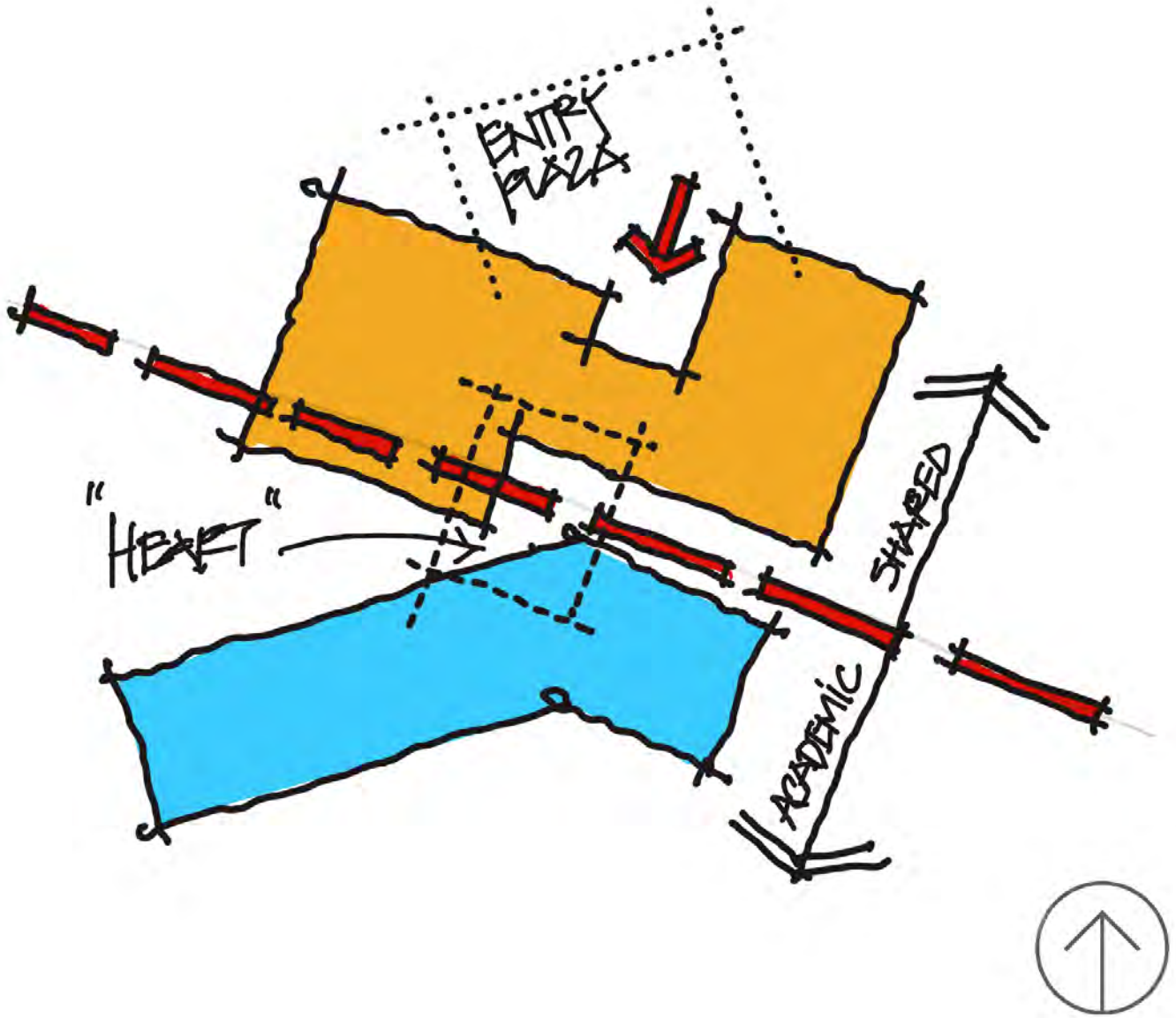
“PLAZA” SCHEME - ESQUEMA DE “LA PLAZA”



north

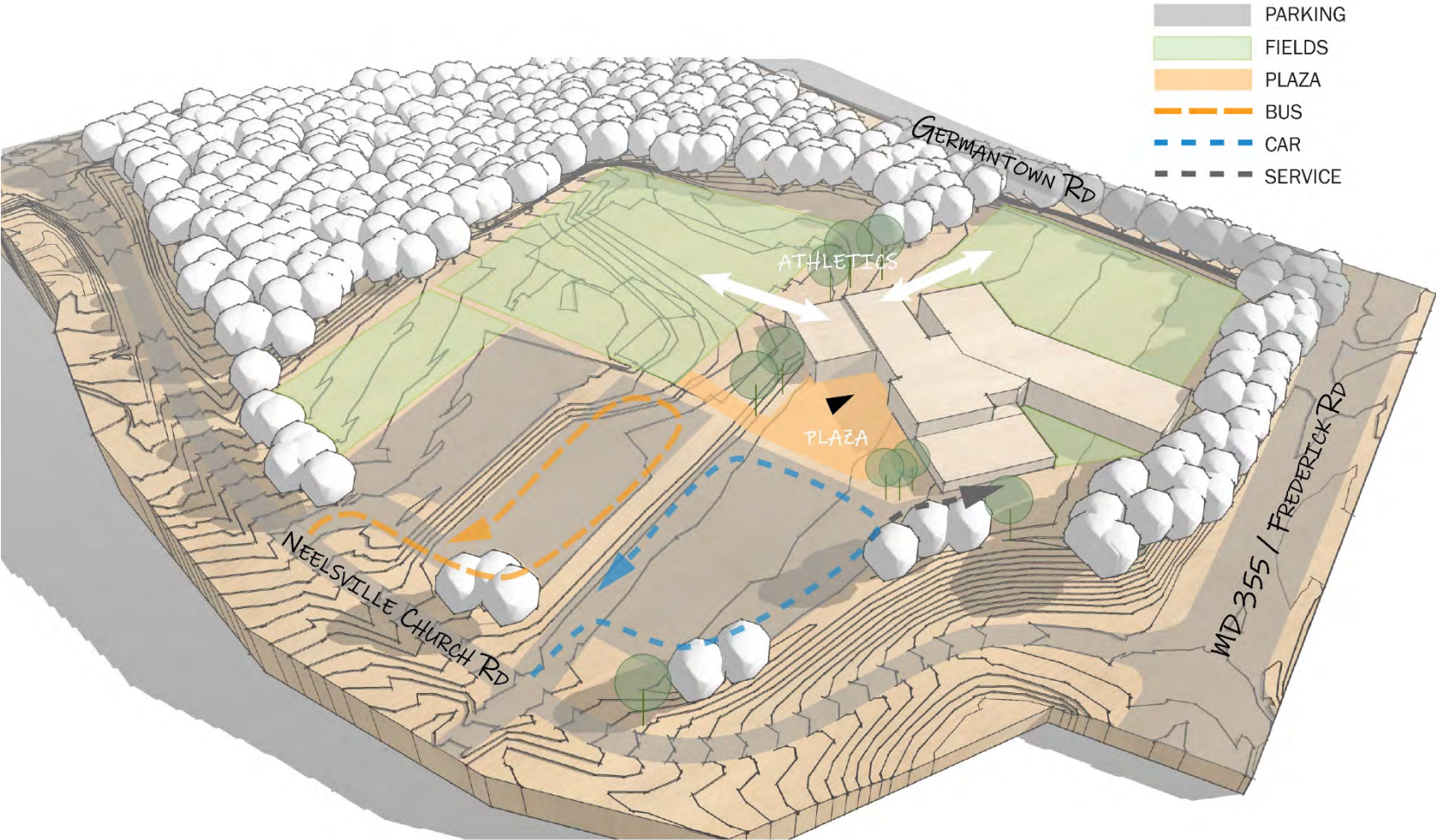


“PLAZA” SCHEME - ESQUEMA DE “LA PLAZA”



“PLAZA” SCHEME - ESQUEMA DE “LA PLAZA”

3D VIEW- VISTA 3D



“CROSSROADS” SCHEME -

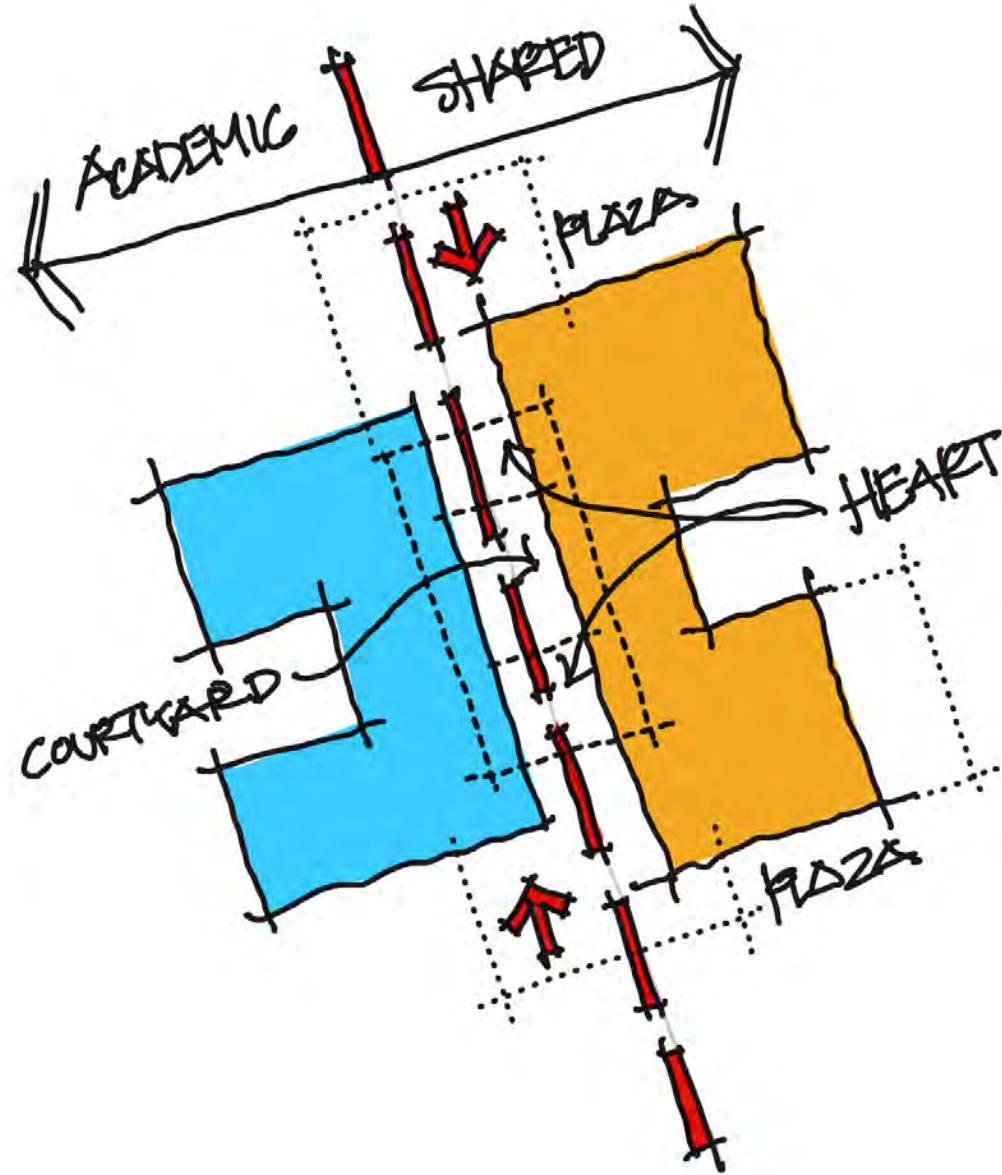
ESQUEMA DE “CRUCE DE CAMINOS”



north

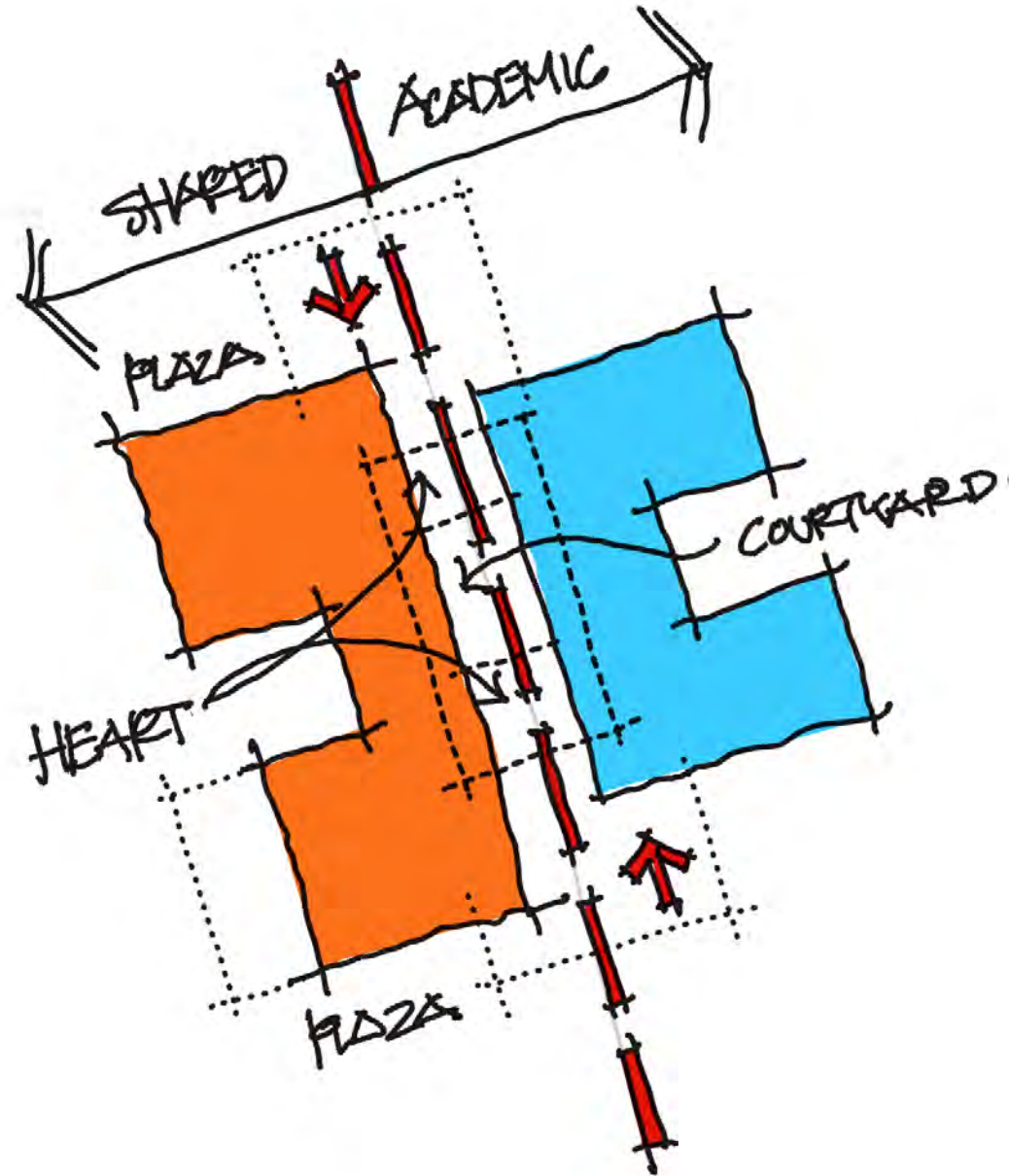


“CROSSROADS” SCHEME - ESQUEMA DE “CRUCE DE CAMINOS”



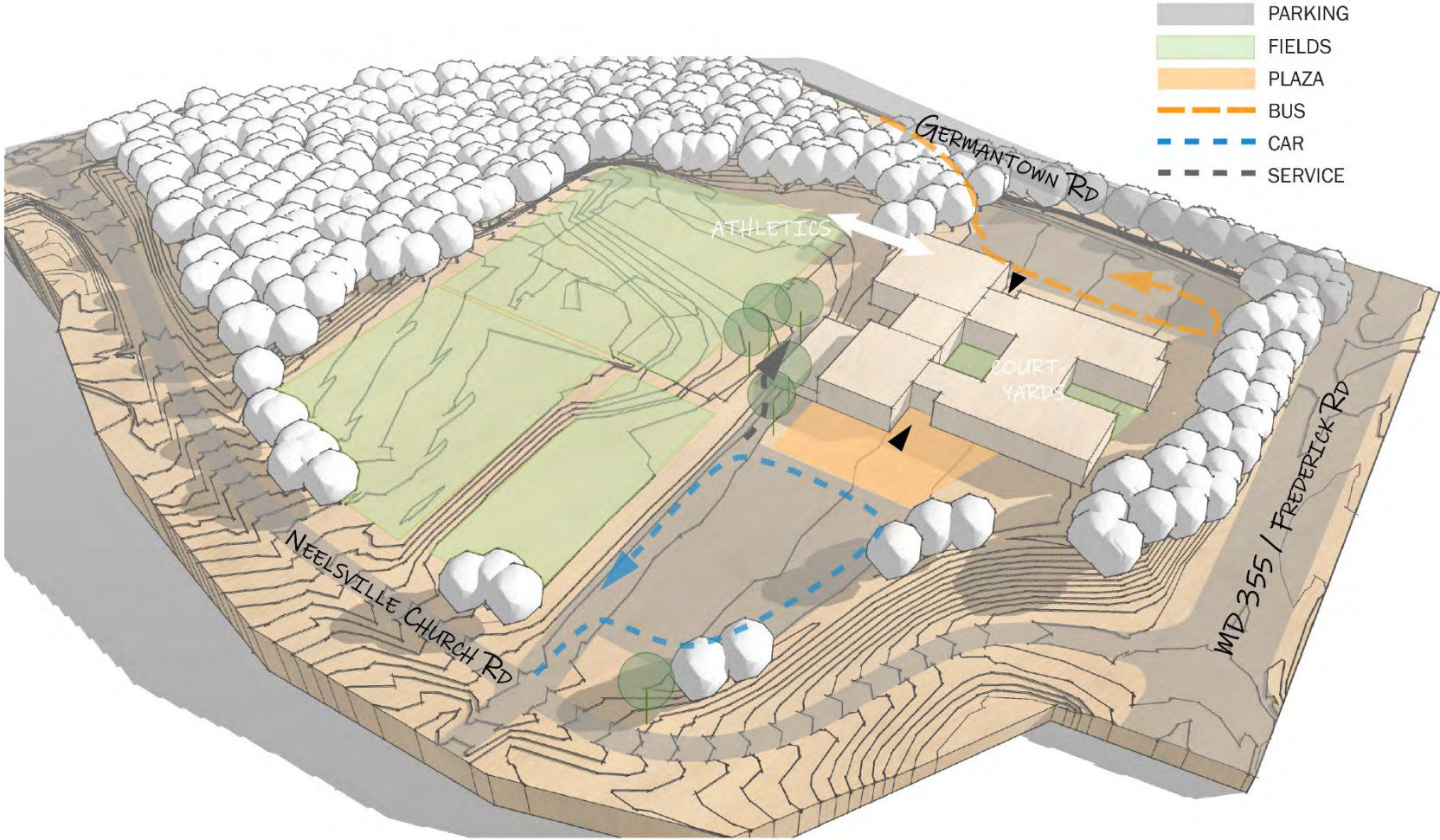
“CROSSROADS” SCHEME - REVERSED

ESQUEMA DE “CRUCE DE CAMINOS” - REVERSADO



“CROSSROADS” SCHEME- ESQUEMA DE “CRUCE DE CAMINOS”

3D VIEW- VISTA 3D



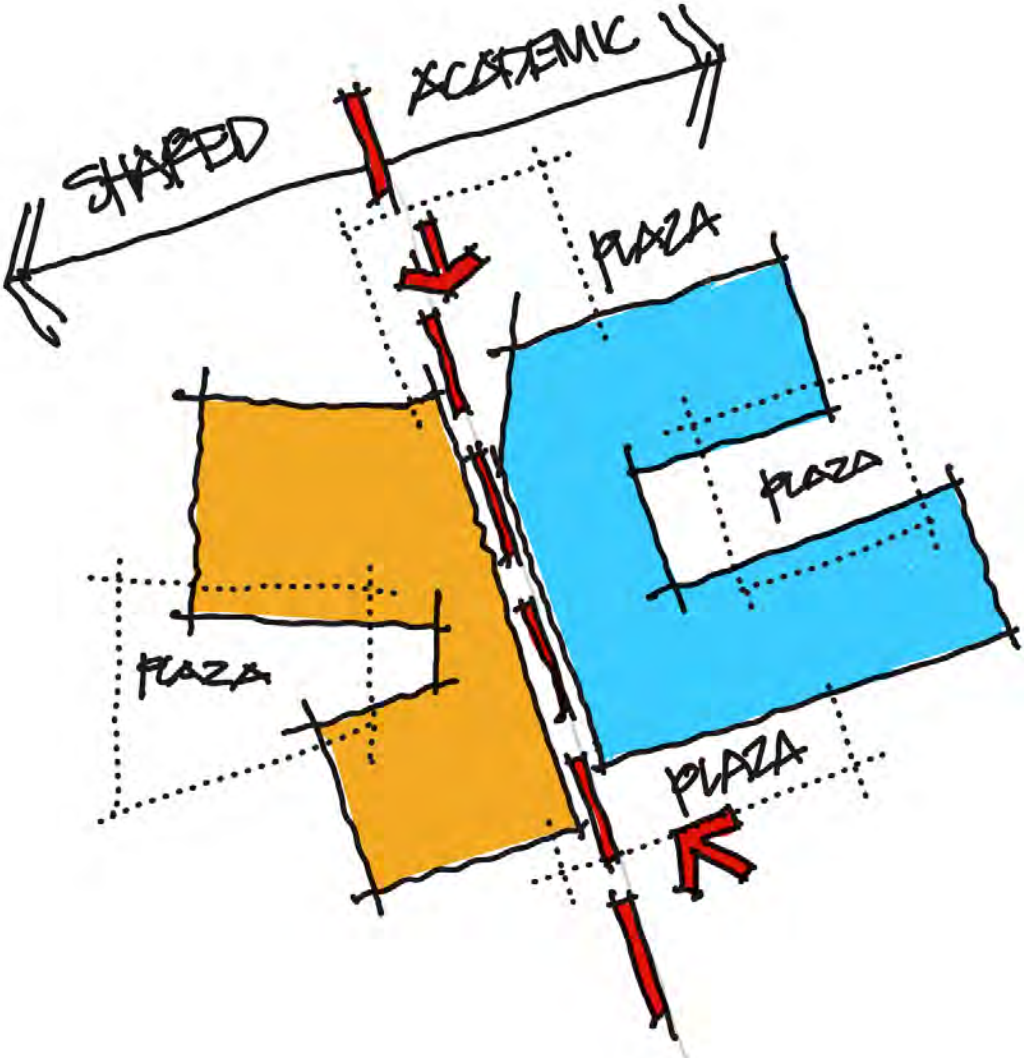
“CASCADES” SCHEME - ESQUEMA DE “CASCADAS”



north

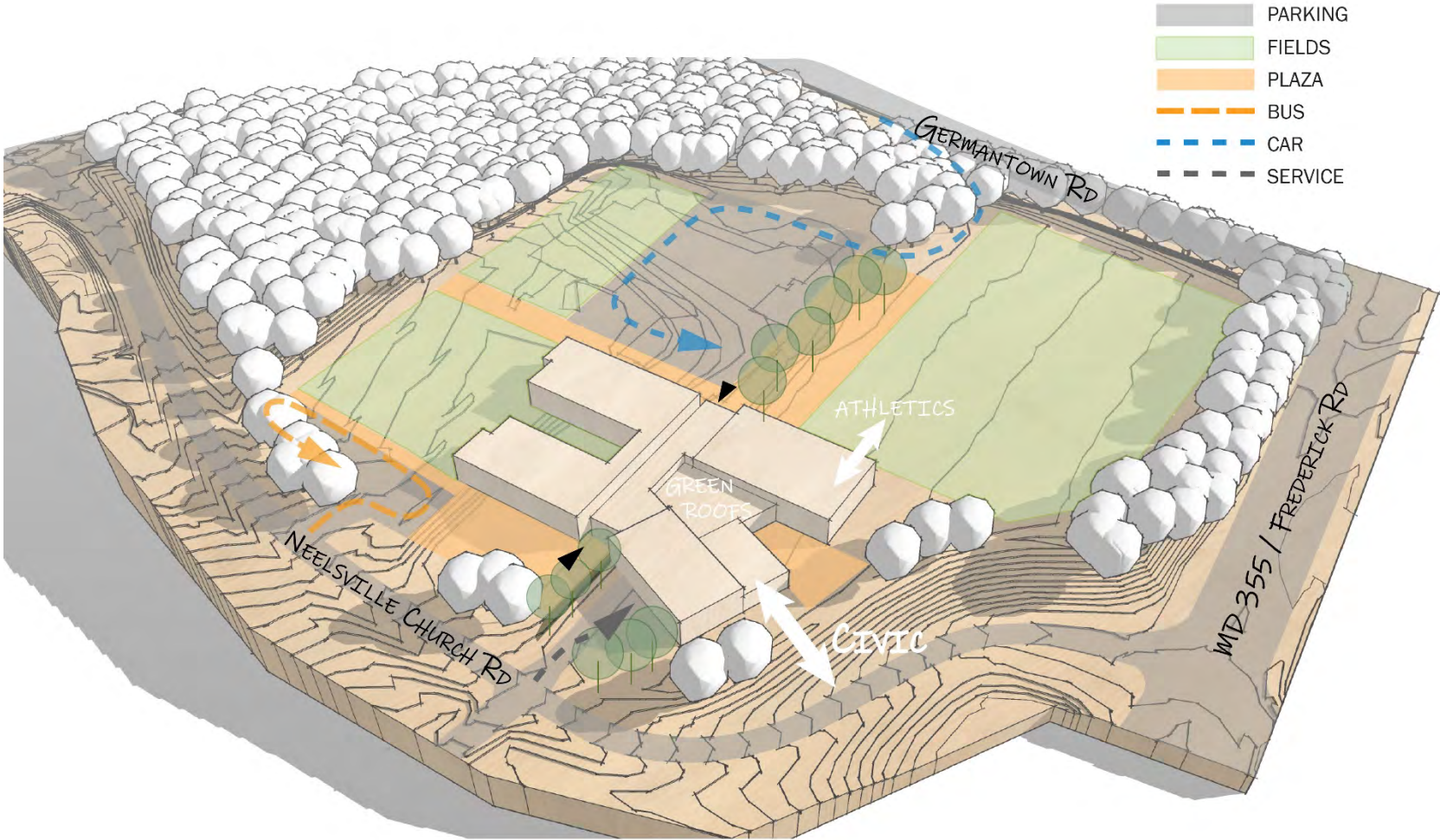


“CASCADES” SCHEME - ESQUEMA DE “CASCADAS”

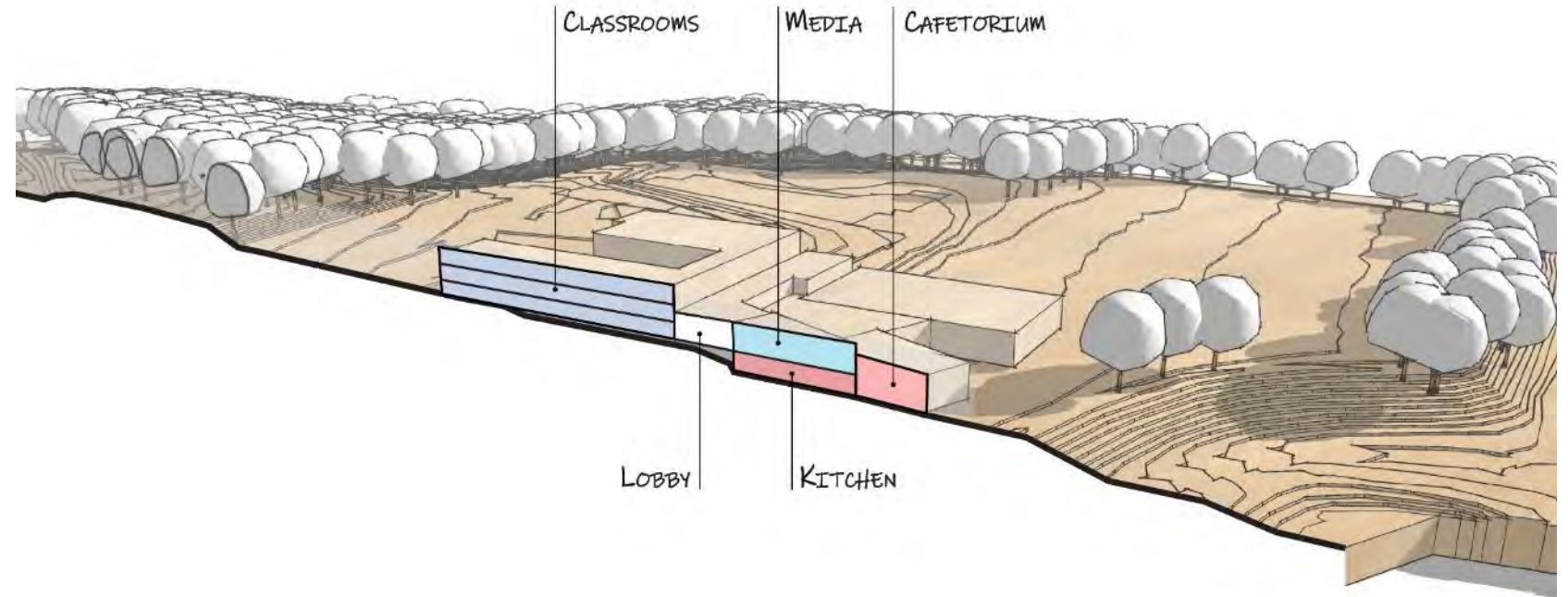


“CASCADES” SCHEME - ESQUEMA DE “CASCADAS”

3D VIEW- VISTA 3D



“CASCADES” SCHEME - ESQUEMA DE “CASCADAS”



SUMMARY SLIDE – PÁGINA DE RESUMEN

3 OPTIONS – 3 OPCIONES



PLAZA – LA PLAZA



CROSSROADS – CRUCE DE CAMINOS



CASCADES - CASCADAS

OPTION ASSESSMENT MATRIX – MATRIZ DE OPCIONES



		PLAZA	CROSSROADS	CASCADES
SITE DESIGN GUIDELINES	POSITIVE CIVIC PRESENCE	BETTER	BETTER	BEST
	ENHANCES AND MAXIMIZES ACCESS TO THE NATURAL FEATURES OF THE SITE	BEST	BETTER	BEST
	EASILY ACCESSIBLE RECREATION FIELDS	BEST	BEST	BEST
	PARKING IS APPROPRIATELY SCALED TO THE SITE	BEST	BEST	BETTER
	CLEARLY SEPARATED TRAFFIC PATTERNS	BETTER	BETTER	BETTER
	UNOBTRUSIVE BUILDING SERVICE	BETTER	BEST	BETTER
	COMPACT BUILDING AND VEHICULAR AREAS	BEST	BEST	BEST
SUSTAINABILITY	BUILDING ORIENTATION	BETTER	BEST	BEST
	ACCESS TO NATURAL LIGHT	BETTER	BEST	BEST
	OUTDOOR THERMAL COMFORT	BETTER	BEST	BEST
CONSTRUCTION	EASE OF CONSTRUCTION PHASING	BETTER	BEST	GOOD
	PLAY FIELDS DURING CONSTRUCTION	BETTER	GOOD	BEST
ORG.	ACADEMIC ORGANIZATION	BETTER	BEST	BETTER

SUMMARY SLIDE – PÁGINA DE RESUMEN

3 OPTIONS – 3 OPCIONES

www.PollEv.com/seanodonnell999



PLAZA – LA PLAZA



CROSSROADS – CRUCE DE CAMINOS



CASCADES – CASCADAS

QUESTIONS AND PRIORITIZATIONS- PREGUNTAS Y PRIORIZACIÓN

www.PollEv.com/seanodonnell999



NEXT STEPS - PRÓXIMOS PASOS

COMMUNITY MEETING #2

SEPTEMBER 24, 2020

4:00PM



Human by Design