

Mandatory Referral

Montgomery County Multi Agency Service Park

Presentation to Montgomery County Planning Board

January 6, 2011

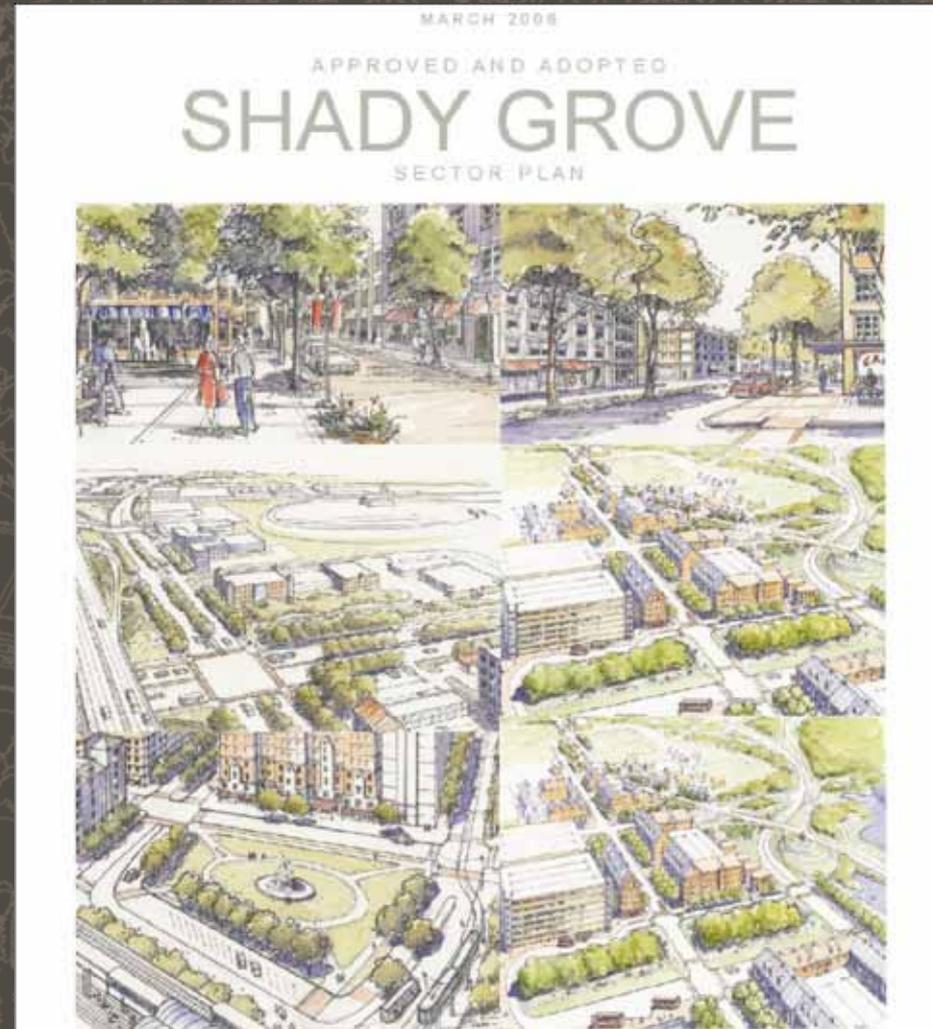


**Montgomery County
Government:**
Department of General Services
Office of Special Projects



Smart Growth Initiative

- Provide economic opportunities for the future growth of the Montgomery County
- Provide room for the implementation of the Shady Grove Sector Plan, a Transit Oriented Development
- Provide a replacement for the aging facilities



Facilities to be Relocated from CSP to Webb Tract



Facilities to be Relocated from CSP to Webb Tract



Public Service Training Academy



M-NCPPC Department of Park - Maintenance



MCPS - Division of Maintenance



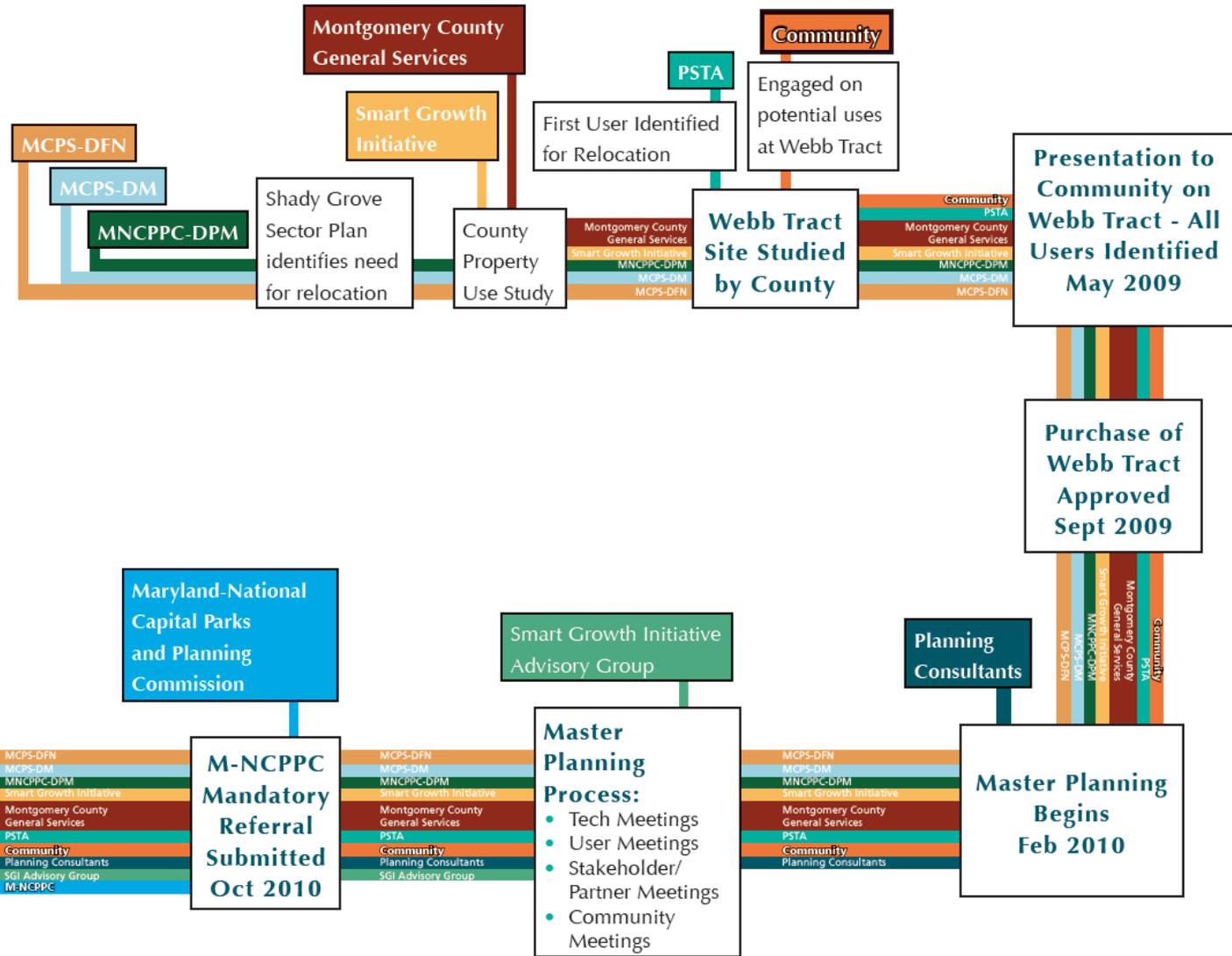
MCPS - Division of Food and Nutrition

Have Been Here Before - EMOC



Equipment Maintenance and Operation Center a LEED Gold Planned Project

Plan of Action



Meetings with The Community

Major Concerns

- Traffic
- Sound
- View Sheds

D PROCESS - BIG VISION VS. DETAILS
 E.G. - TRAFFIC CIRCULATION
 * - FUNDAMENTAL STRATEGY SMART GROWTH
 D HOW WILL ROAD PLANNING PROJECTS BE IMPACTED BY THIS PROJECT?
 D EAST VILLAGE NEIGHBORHOOD ADJACENT (N)
 D MONT. VILLAGE ASSOC. OPPORTUNITY TO MEET?
 * THERE IS SOME LIMITS ON THE NUMBER OF MEETINGS

D NEIGHBOR INPUT CRITICAL TO PROCESS
 - SPECIFIC ELEMENTS OF SITE PLAN AND PLACEMENT ON SITE
 - SCREENING, NOISE, TRAFFIC, ETC.
 D PSTA CAN PRODUCE CONSIDERABLE NOISE AS PART OF THEIR OPERATION
 * THE ISSUE OF NOISE WILL BE ADDRESS WITH COMPL. EARLY AND THROUGHOUT PROCESS.
 D CAN YOU PROVIDE AN ANALYSIS OF EXISTING FACILITIES AND HOW IT CAN INFORM SITE DESIGN
 D IMPACT OF SU SCHOOL ROAD IMPROVEMENTS - NEXT TIME
 D SWM - WHAT ARE THE DESIGN STANDARDS?

D IMPACT OF BURN BLDG ON ADJACENT (N)
 D SWM - PROACTIVE APPROACH TO CLIMATE CHANGE, FLOODING CONDITIONS
 D IS HEIGHT LIMITED TO TWO STORIES - BEHIND BERMS
 D PROCESS HAS FIVE-YEAR HISTORY
 - SELF-CONTAINED BURN BLDG.
 - HEIGHT
 - LOT OF OUTSTANDING ISSUES
 - LOTS 6+7
 - SWM
 - TRAFFIC WILL BE LESS THEN PREVIOUS PLAN
 - REQUESTS WANT INPUT ON PLACEMENT OF PSTA PROGRAM ELEMENTS
 - CONCERN ON STREAM LOAD (SWM)
 - GREEN SPACE
 - APPEARANCE FROM ROAD

D HAVE YOU VISITED THE SITE?
 * YES
 IS THE SITE CURRENTLY MAINTAINED
 D PUBLIC UTILITIES - WILL THEY BE UNDERGROUND?
 * YES
 * POINT - THIS IS ONE PROJECT IN LARGER SYSTEM - CANNOT SOLVE ALL PROBLEMS
 D EFFECT ON AREA MASTER PLAN
 D WHY IS AIRPARK ROAD NOT BEING EXTENDED TO SERVE SITE, RATHER THAN PUT MORE TRAFFIC ON EXISTING ROADS
 PLEASE PASS THIS ISSUE TO THE RESPONSIBLE PARTIES



Sample of notes taken at community meetings

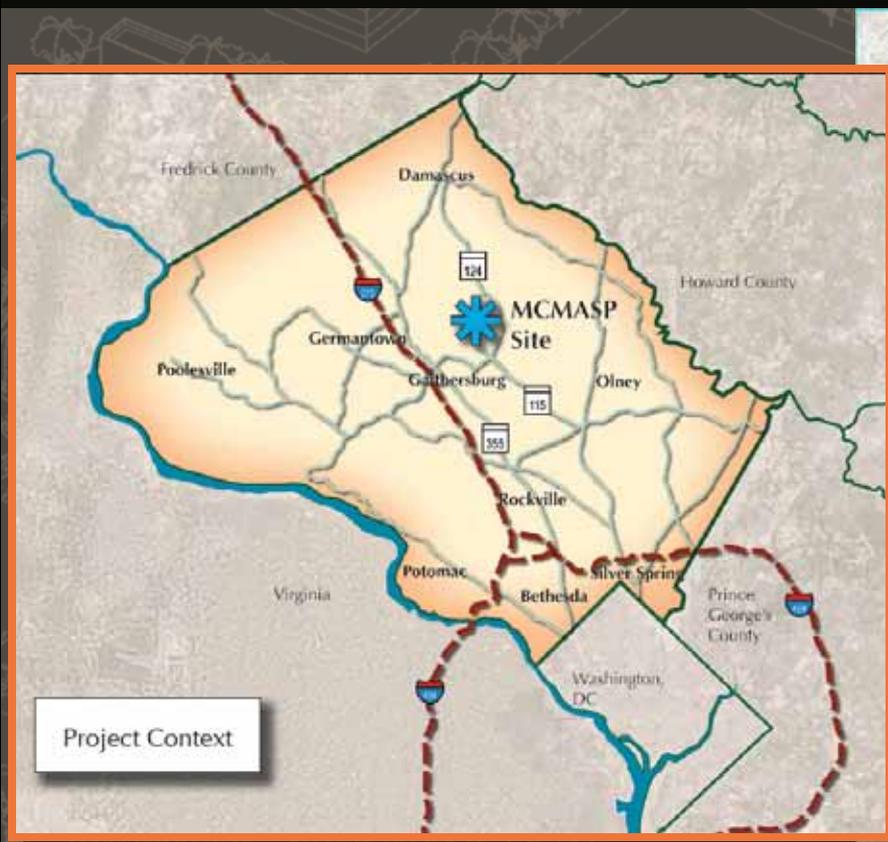
Project Overall Schedule

Webb Tract Site Master Planning
Master Schedule
4/30/2010

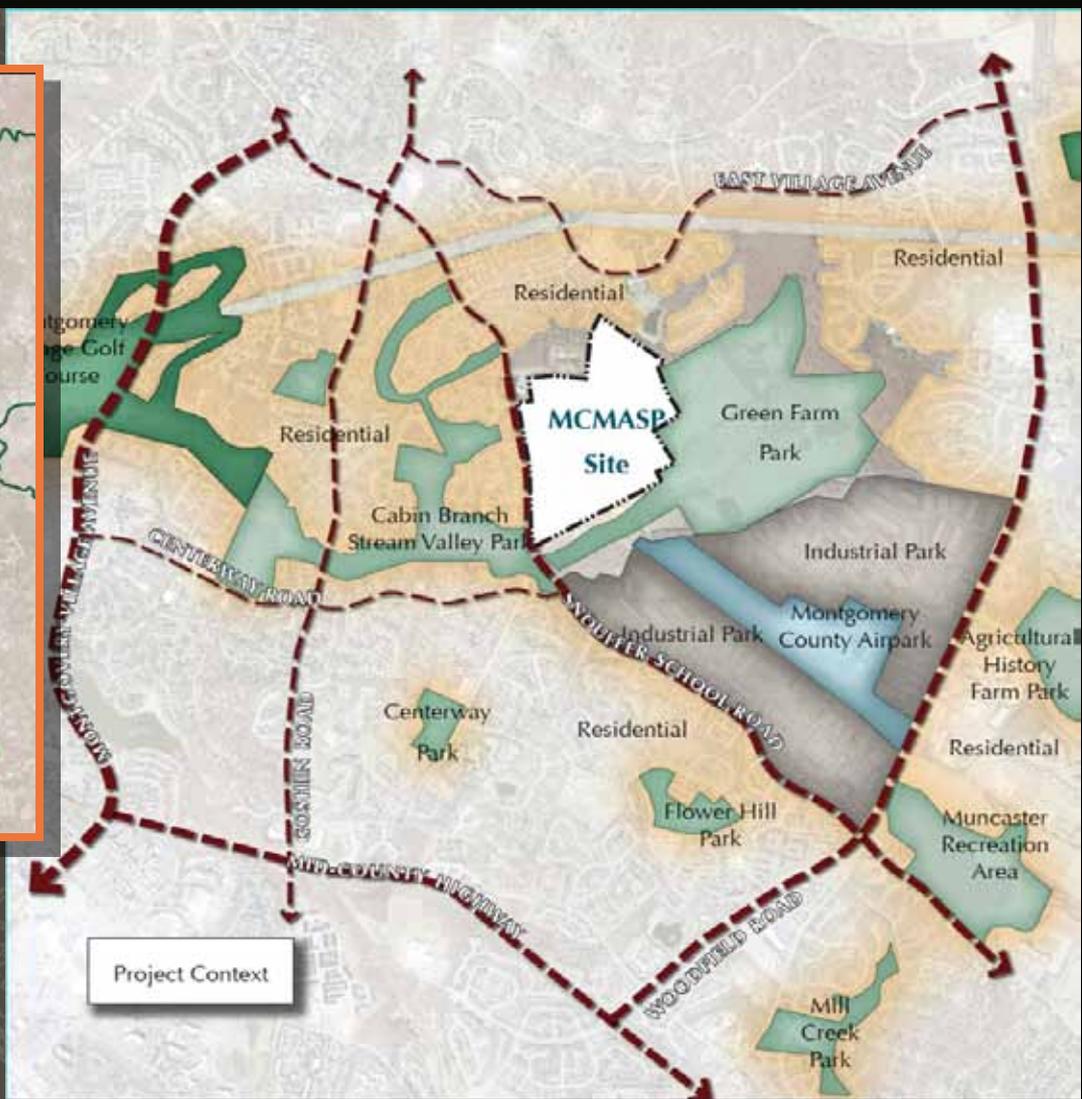
Phase	Meeting	Date	Goals
1- POR validation	Kick off – POR validation	5/6/2010	Review of POR, site characteristics and community parameters
	User agencies review	5/25/2010	
	Community design workshop	6/2/2010	
2-Site Concept Development	Technical internal consultants meeting with PMs	6/24/2010	Development of site concept layouts including building locations, site circulation, sustainability issues, civil requirements. A single layout concept will be approved.
	User agencies review	7/1//2010	
	Community presentation & design workshop	7/7/2010	
3-Draft- Site Master Plan	Technical internal consultants meeting with PMs	8/12/2010	Refinement of the chosen layout. More attention to details. A detailed site layout will be approved. Design guideline draft will be generated and discussed.
	User agencies review	8/19/2010	
	Community presentation & design workshop	8/25/2010	
4- Final Site Master Plan	Technical internal consultants meeting with PMs	9/16/2010	The site layout will be finalized for Mandatory Referral. Design guideline for the further development of the site will be finalized and approved.
	Technical internal consultants meeting with PMs	9/30/2010	
	User agencies review	10/7/2010	
	Community presentation and input	10/13/2010	
5- Final Production	Delivery of the final package	11/3/2010	Consultant will produce the final Site Master Plan package.

Note: the above schedule is tentative and may be updated during the design process.

Webb Tract Location Map



Project Context



Project Context

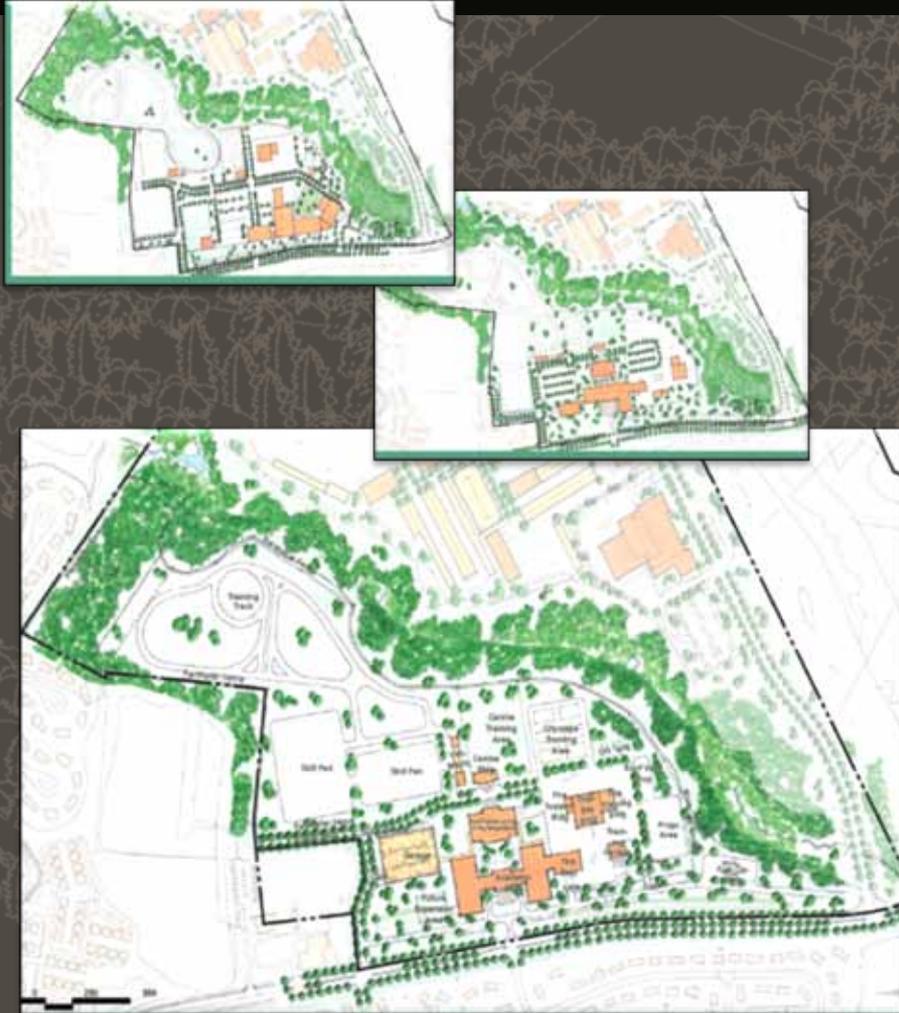
MCMASP Site



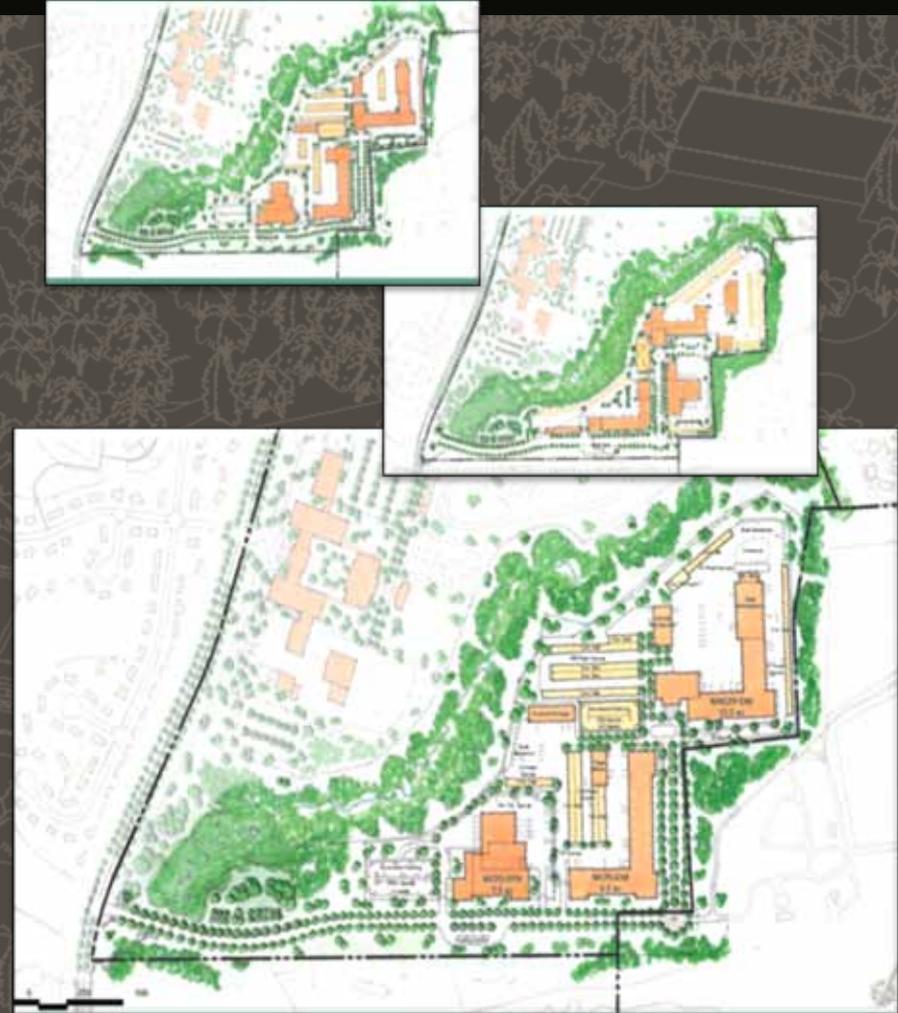
Design Goals and Philosophy

- Contextual Design
 - Present an attractive campus-like perimeter to the outside
 - Mask the ‘service areas’
 - Contribute to the ‘Public Realm’ of streetscapes, sidewalks, and trails
- Sustainable Design
 - Manage the stormwater at the source
 - Reforest and Conserve as much as possible
 - Achieve LEED Silver Certification

Process: Initial Schemes



West Side



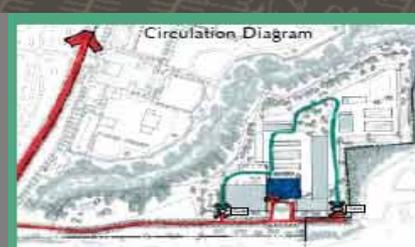
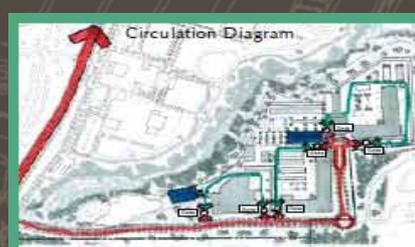
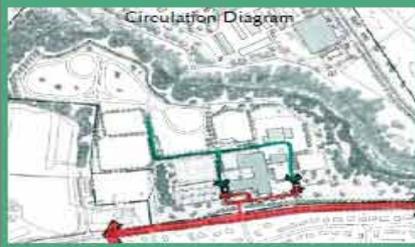
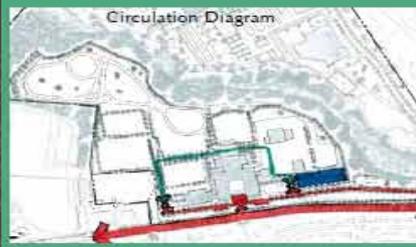
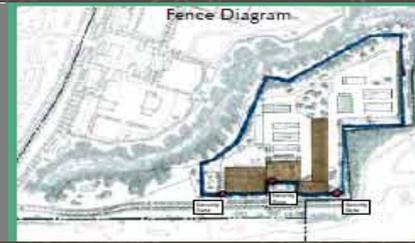
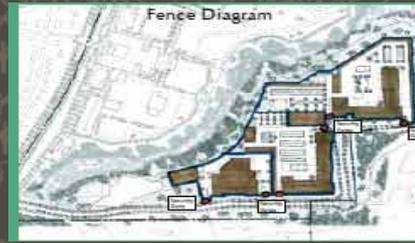
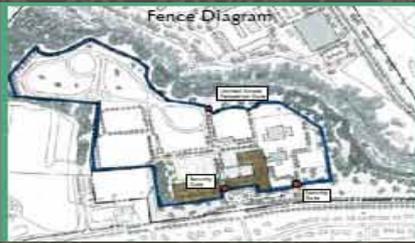
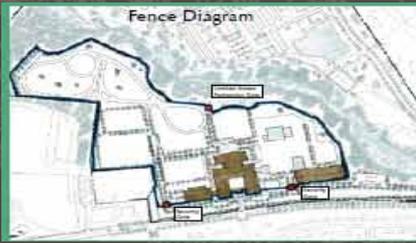
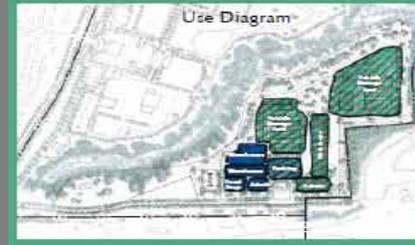
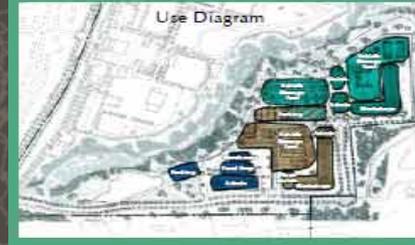
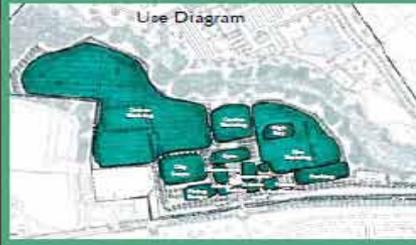
East Side

SGAIC Direction

After viewing the initial site schemes, SGIAC challenged us to make the following changes:

- Reduce the Overall Development Footprint
- Consolidate and Share Operations Between Users
- Retain More Green Area
- Be More Sustainable

Process: Comparative Analysis



Before SGIAG

After SGIAG

Before SGIAG

After SGIAG

West Side

East Side

Diagrammatic studies showing impact of SGIAG comments

Combined Master Plan



Combined Master Plan Layout

East Side Plan

East Side Location Key

1. MCPS-DFH	Admin.
2. MCPS-DFH	Production/Warehouse
3. MCPS-DM	Admin.
MNCPFC-DFM	Admin.
4. MCPS-DM	Lower Level Shop
MNCPFC-DFH	Upper Level Shop
5. Secured Parking Garage	
6. MCPS Covered Large Truck Parking	
7. MCPS Covered Storage	
8. Bulk Materials Storage	
9. Fleet Maintenance	
10. Horticultural Services	
11. Covered Trailer Parking	
12. Covered Fleet Parking	
13. Uncovered Fleet Parking	
14. Gates	
15. Staging	
16. Compost Bins	
17. Fast Booth	
18. Optional Central Plant	

Note: Accessory Structures Are 3 Story Unless Noted



East Side Floor Plans



MNCPPC-DPM/MCPS-DM In-use Building Gross Square Footage: +/- 176,000 SF
 GENERAL NOTES: Architectural concept plans are in support of Master Plan design and provided User PWBs. Internal configuration is subject to change in later design phases.
MNCPPC-DPM/MCPS-DM - Level 1
© 2014 Montgomery County Planning Department



MNCPPC-DPM/MCPS-DM - Level 2
 GENERAL NOTES: Architectural concept plans are in support of Master Plan design and provided User PWBs. Internal configuration is subject to change in later design phases.
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MNCPPC-DPM/MCPS-DM Vehicle Bays Building Gross Square Footage: +/- 14,500 SF
 MNCPPC-CERT Warehouse Building Gross Square Footage: +/- 11,775 SF
 Shared Vehicle Bays +/- 1,000 SF
MNCPPC-DPM/MCPS-DM - Vehicle Bays
 GENERAL NOTES: Architectural concept plans are in support of Master Plan design and provided User PWBs. Internal configuration is subject to change in later design phases.
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MCPS-DFS Gross Square Footage: +/- 103,000 SF
 GENERAL NOTES: Architectural concept plans are in support of Master Plan design and provided User PWBs. Internal configuration is subject to change in later design phases.
MCPS-DFS - Level 1
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West Side Plan



West Side Location Key

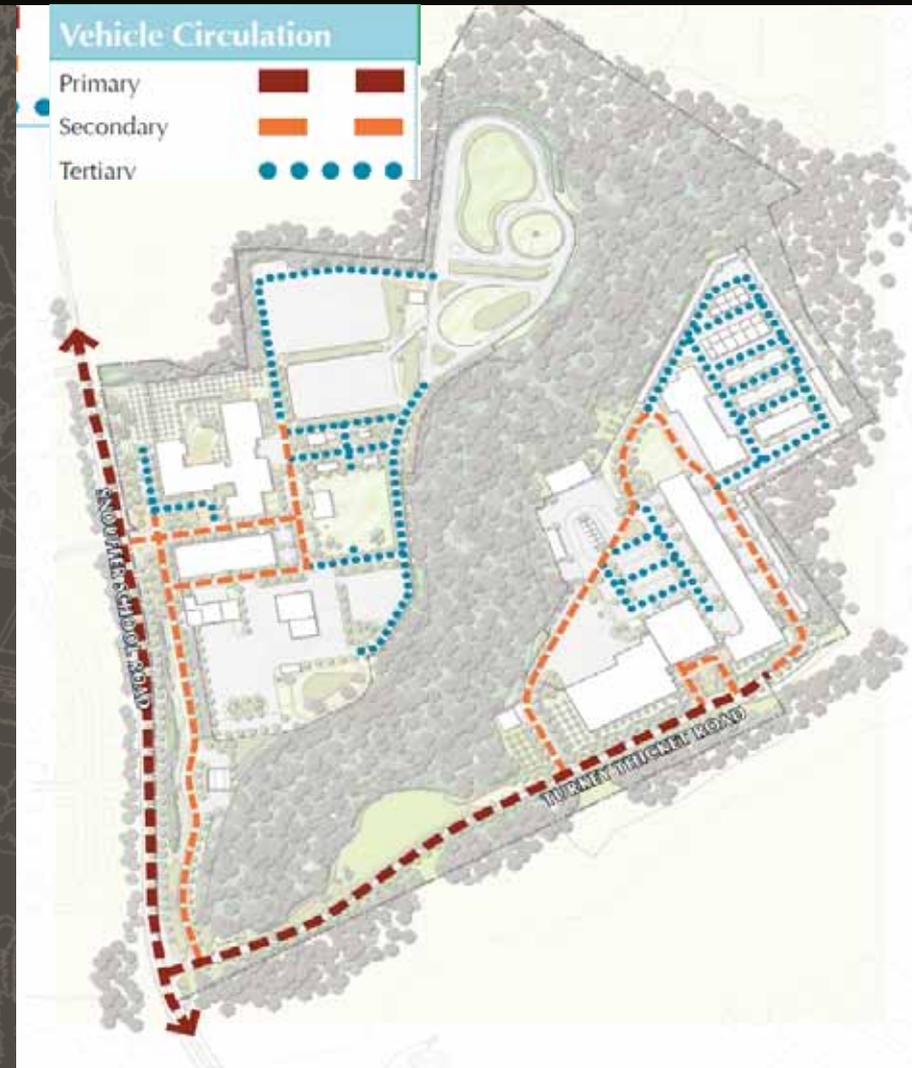
- 1. PSTA Academic Building
- 2. Gym/Clubhouse
- 3. Firing Range
- 4. Future Expansion
- 5. Secured Parking Garage
- 6. High Bay
- 7. Fire Training Building
- 8. Fire Training Support Building
- 9. Training Activities Garage
- 10. Apparatus Bay
- 11. Fire Training Area
- 12. Special Ops Prep Area
- 13. Roof Vent Prep Area
- 14. Underground Water Tank
- 15. Command Center
- 16. Canine Training Building
- 17. Outdoor Grayscale Area
- 18. Multi-Use Cityscape Structure Test
- 19. Skill Pad
- 20. Skill Pad
- 21. Driving Track
- 22. Vehicle Training Support Building
- 23. Vehicle Maintenance Building
- 24. Fuel Facility
- 25. Sales
- 26. Frontage Road
- 27. Future Frontage Road Expansion
- 28. Canine Training Area
- 29. Loading
- 30. Access Easement

*Note: Accessory Structures Are 1 Story unless noted

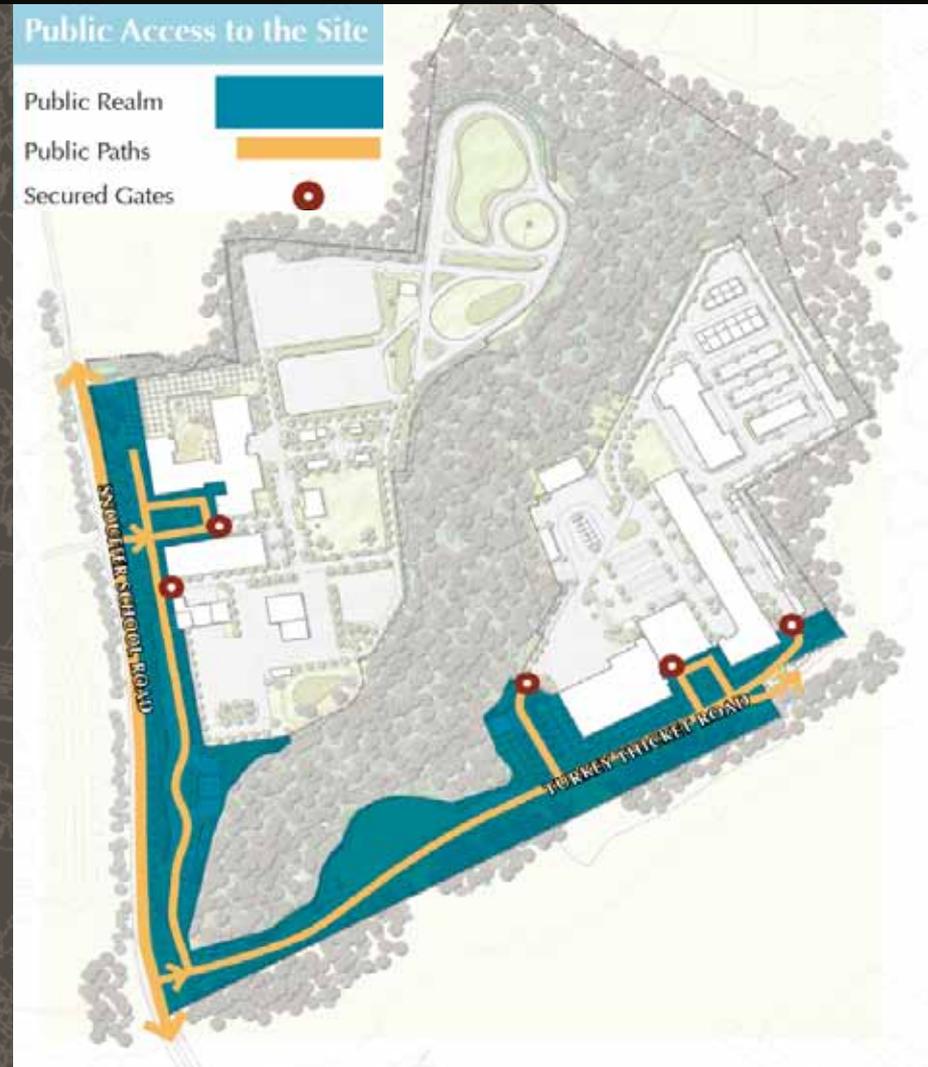
West Side Floor Plans



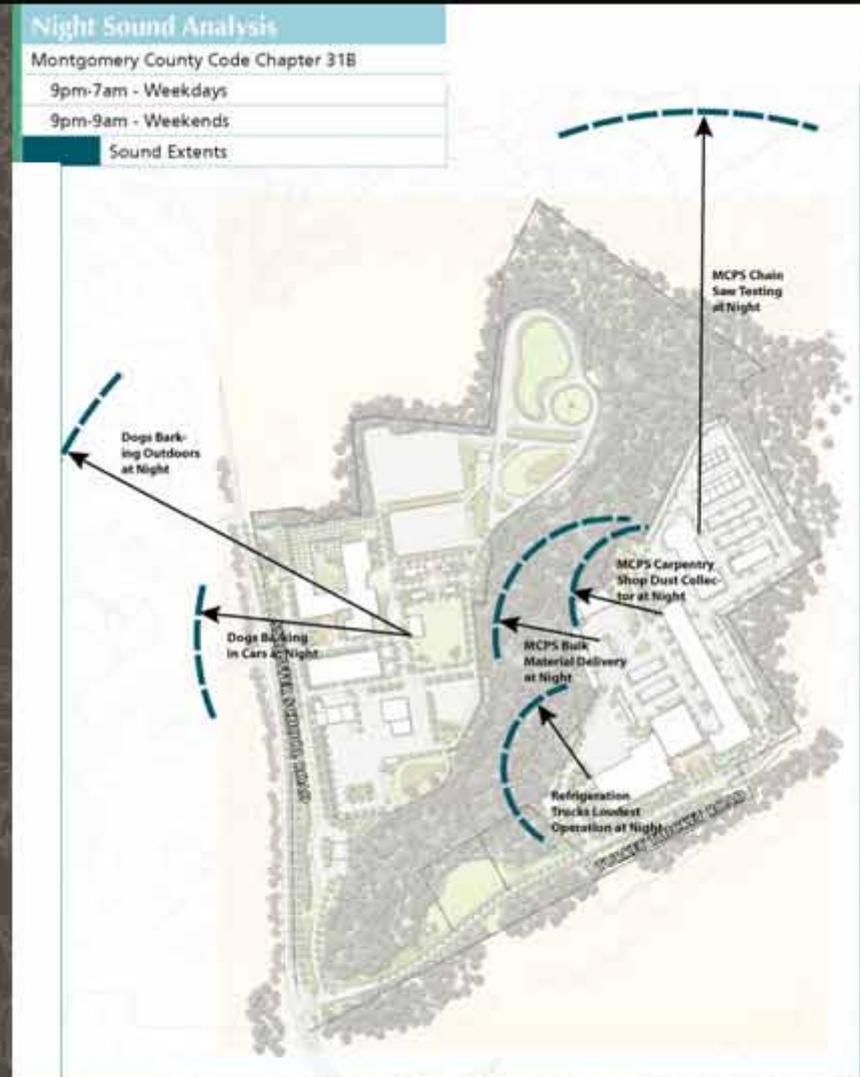
- Helps traffic on the Snouffer School Road
- Service road provided on West Side
- Make circulations internal
- Minimize paved areas



- Secure the campus
- Fenced areas are minimized
- Provide office park appearance on the public realm
- Provides access to Green Farm Park

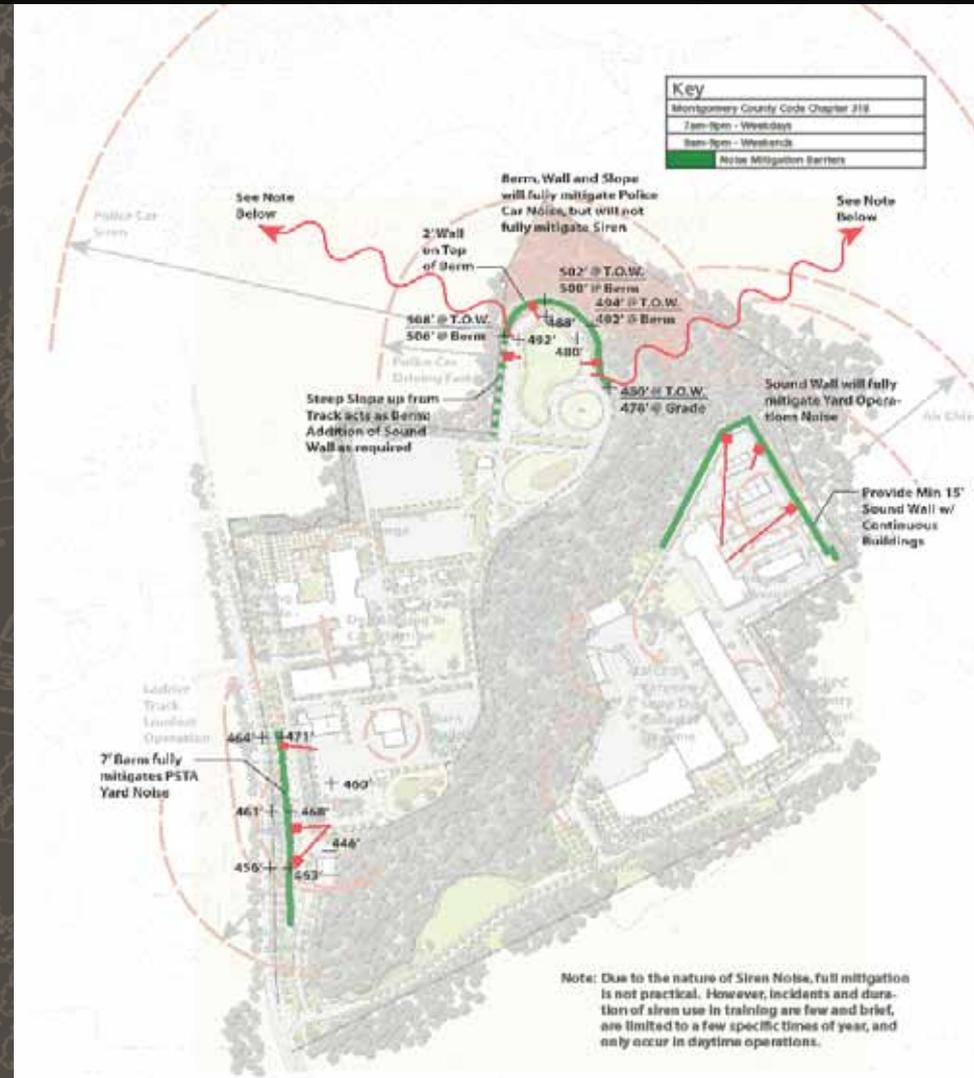


Contextual & Sustainable Design: Sound Analysis



Sound mitigated using:

- Berms and Sound Barriers
- Arrangement of Buildings
- Operations Management Procedures

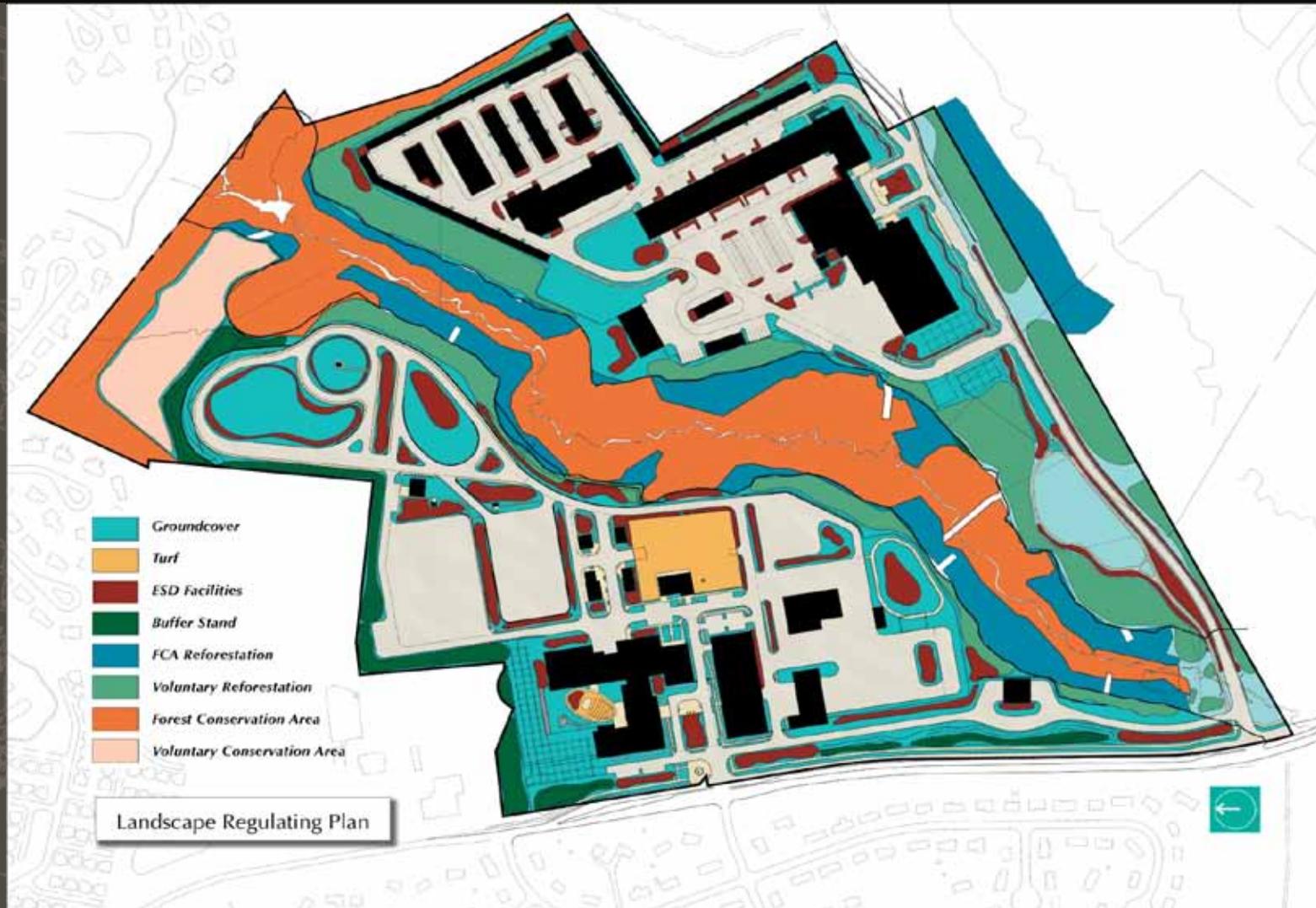


Landscape Goals

Create a Landscape that is:

- Attractive
- Overtly Sustainable
- Functional
- Secure
- Context Sensitive
- Low Maintenance
- Consistent with accumulating appropriate LEED points from landscape design
- Consistent with the guidelines established in the “Montgomery County Manual for Planning, Design, and Construction of Sustainable Buildings

Contextual & Sustainable Design: Landscape Regulating Plan



Contextual & Sustainable Design: LEED Score Card

- 50 Pts Minimum for LEED Silver Certification
- Potential for Gold Certification

LEED® Credit Scorecard		Webb Tract		LEED	
LEED-2009 Green Building Rating System, version 3.0		Client: Montgomery County		Possible Points 110	
PRELIMINARY SCORE CARD					
50 28 32 Total Project Score					
Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 or more points					
11 9 0 Sustainable Sites Possible Points 26		6 2 0 Materials & Resources Possible Points 14		12 2 1 Indoor Environmental Quality Possible Points 18	
Y T N	Prereq 1 Construction Activity Pollution Prevention P	Y T N	Prereq 1 Storage & Collection of Recyclables P	Y T N	Prereq 1 Minimum IAQ Performance P
1	1 Credit 1.1 Site Selection 1	1	1 Credit 1.1 Building Reuse: Maintain 55% of Existing Walls, Floors & Roof 1	1	1 Prereq 2 Environmental Tobacco Smoke (ETS) Control P
	5 Credit 2 Development Density & Community Connectivity 5	1	1 Credit 1.2 Building Reuse: Maintain 75% of Existing Walls, Floors & Roof 1	1	1 Credit 1 Outdoor Air Delivery Monitoring 1
	1 Credit 3 Brownfield Redevelopment 1	1	1 Credit 1.3 Building Reuse: Maintain 95% of Existing Walls, Floors & Roof 1	1	1 Credit 1 Increased Ventilation 1
	6 Credit 4.1 All, Transportation: Public Transportation Access 6	1	1 Credit 1.4 Building Reuse: Maintain 50% of Interior Non-Structural Elements 1	1	1 Credit 1.1 Construction IAQ Management Plan: During Construction 1
1	1 Credit 4.2 All, Transportation: Bicycle Storage & Changing Rooms 1	1	1 Credit 2.1 Construction Waste Management: Divert 50% from Disposal 1	1	1 Credit 1.2 Construction IAQ Management Plan: Before Occupancy 1
3	1 Credit 4.3 All, Transportation: Low Emitting & Fuel Efficient Vehicles 3	1	1 Credit 2.2 Construction Waste Management: Divert 75% from Disposal 1	1	1 Credit 1.1 Low Emitting Materials: Adhesives & Sealants 1
	2 Credit 4.4 All, Transportation: Parking Capacity 2	1	1 Credit 2.3 Materials Reuse: 5% 1	1	1 Credit 1.2 Low Emitting Materials: Paints & Coatings 1
1	1 Credit 5.1 Site Development: Protect or Restore Habitat 1	1	1 Credit 2.4 Materials Reuse: 10% 1	1	1 Credit 1.3 Low-Emitting Materials: Flooring Systems 1
1	1 Credit 5.2 Site Development: Maximize Open Space 1	1	1 Credit 2.5 Recycled Content: 10% (post-consumer + 1/2 pre-consumer) 1	1	1 Credit 1.4 Low-Emitting Materials: Composite Wood & Agrifiber Products 1
1	1 Credit 6.1 Stormwater Design: Quantity Control 1	1	1 Credit 2.6 Recycled Content: 20% (post-consumer + 1/2 pre-consumer) 1	1	1 Credit 1 Indoor Chemical & Pollutant Source Control 1
1	1 Credit 6.2 Stormwater Design: Quality Control 1	1	1 Credit 3.1 Regional Materials: 10% Extracted, Processed & Manufactured Regionally 1	1	1 Credit 1.2 Controllability of Systems: Lighting 1
1	1 Credit 7.1 Heat Island Effect: Non-Roof 1	1	1 Credit 3.2 Regional Materials: 20% Extracted, Processed & Manufactured Regionally 1	1	1 Credit 1.3 Controllability of Systems: Thermal Comfort 1
1	1 Credit 7.2 Heat Island Effect: Roof 1	1	1 Credit 4.1 Rapidly Renewable Materials 1	1	1 Credit 1.1 Thermal Comfort: Design 1
1	1 Credit 8.1 Light Pollution Reduction 1	1	1 Credit 5.1 Certified Wood 1	1	1 Credit 1.2 Thermal Comfort: Verification 1
				1	1 Credit 1.3 Daylight & Views: Daylight 75% of Spaces 1
				1	1 Credit 1.4 Daylight & Views: Views for 90% of Spaces 1
6 4 4 Water Efficiency Possible Points 10		2 4 1 Innovation & Design Process Possible Points 8		2 2 2 Regional Priority Credits Possible Points 4	
Y T N	Prereq 1 Water Use Reduction: 20% Reduction P	Y T N	Prereq 1 Innovation in Design: Reduced Footprint 1	Y T N	Prereq 1 Regional Priority 55 c5.1 1
2	1 Credit 1.1 Water Eff. Landscaping: Reduce by 60% 2	1	1 Credit 1.2 Innovation in Design: Demonstration Farm? 1	1	1 Credit 1.2 Regional Priority WE c2 1
2	1 Credit 1.2 Water Eff. Landscaping: No Potable Use or No Irrigation 2	1	1 Credit 1.3 Innovation in Design: Educational Displays? 1	1	1 Credit 1.3 Regional Priority EA c2 (1%) 1
2	1 Credit 2 Innovative Wastewater Technologies 2	1	1 Credit 1.4 Innovation in Design: LEED™ Accredited Professional 1	1	1 Credit 1.4 Regional Priority MR c2.1 1
2	1 Credit 3.1 Water Use Reduction: 30% Reduction 2				
1	1 Credit 3.2 Water Use Reduction: 35% Reduction 1				
1	1 Credit 3.3 Water Use Reduction: 40% Reduction 1				
11 9 15 Energy & Atmosphere Possible Points 35					
Y T N	Prereq 1 Fundamental Comm. of the Building Energy Systems P				
Y	1 Prereq 2 Minimum Energy Performance P				
Y	1 Prereq 3 CFC Reduction in HVAC&R Equipment P				
2	1 Credit 1 Opt. Energy Perf.: 12%, 14% New / 10% Existing 2				
2	1 Credit 1 Opt. Energy Perf.: 16%, 18% New / 14% Existing 2				
2	1 Credit 1 Opt. Energy Perf.: 20%, 22% New / 10% Existing 2				
2	1 Credit 1 Opt. Energy Perf.: 24%, 26% New / 22% Existing 2				
2	1 Credit 1 Opt. Energy Perf.: 28%, 30% New / 20% Existing 2				
2	1 Credit 1 Opt. Energy Perf.: 32%, 34% New / 30% Existing 2				
2	1 Credit 1 Opt. Energy Perf.: 36%, 38% New / 34% Existing 2				
2	1 Credit 1 Opt. Energy Perf.: 40%, 42% New / 38% Existing 2				
3	1 Credit 1 Opt. Energy Perf.: 44%, 46%, 48% New / 44% Existing 3				
1	1 Credit 2 On-Site Renewable Energy: 1% 1				
1	1 Credit 2 On-Site Renewable Energy: 3% 1				
1	1 Credit 2 On-Site Renewable Energy: 6% 1				
1	1 Credit 2 On-Site Renewable Energy: 7% 1				
1	1 Credit 2 On-Site Renewable Energy: 9% 1				
1	1 Credit 2 On-Site Renewable Energy: 11% 1				
1	1 Credit 2 On-Site Renewable Energy: 13% 1				
2	1 Credit 3 Enhanced Commissioning 2				
2	1 Credit 4 Enhanced Refrigerant Management 2				
3	1 Credit 5 Measurement & Verification 3				
2	1 Credit 6 Green Power 2				

Sustainable Design Highlights

- Cleans up an Existing Open Landfill Site in the County
- Provides a Handsome Entry to an Important County Park
- Minimizes Impervious Footprint
- Minimize Surface Parking by Providing Parking Structures
- Manages Stormwater at the Source
- Provides Green Roofs to assist SWM and mitigate Heat-Island Effect
- Minimal Cut and Fill (no embodied energy in the moving of earth)
- Maximizes Reforestation and Conservation
- No Irrigation Beyond the First Year
- High Performance Buildings conserve resources
- Controllable Building Systems (Optimizes Energy Performance to 18%)
- Low-Emitting and Regional Materials
- Manage Construction Waste

Architecture Goals

Create an Architecture that is:

- Attractive
- Overtly Sustainable
- Functional
- Secure
- Context Sensitive
- Low Maintenance
- Consistent with accumulating the targeted LEED points from architectural design
- Characterized by a 'Contemporary Sustainable' architectural language; solar shading devices, vegetated roofs, natural materials, etc.

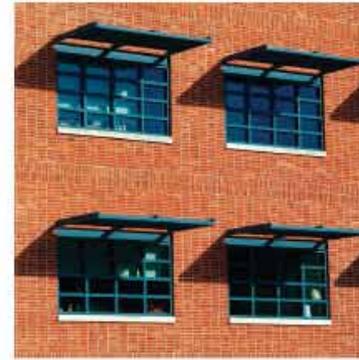
Architectural Motifs



Vegetated vehicle canopies



Photovoltaic Wall Panels



Brise-Soleils



Tensile shading devices



Solar vehicle canopies



Green Screen



Shading devices as canopies for entries and courtyards

Façade Regulating Plan

- Primary Facades front on the Public Realm
- Secondary Facades front on Interior Yards
- Utilitarian Facades for Special Uses and/or Maximum Economy
- Architectural Features provided for Civic Presence
- Placement of Shading Devices based on Solar Orientation

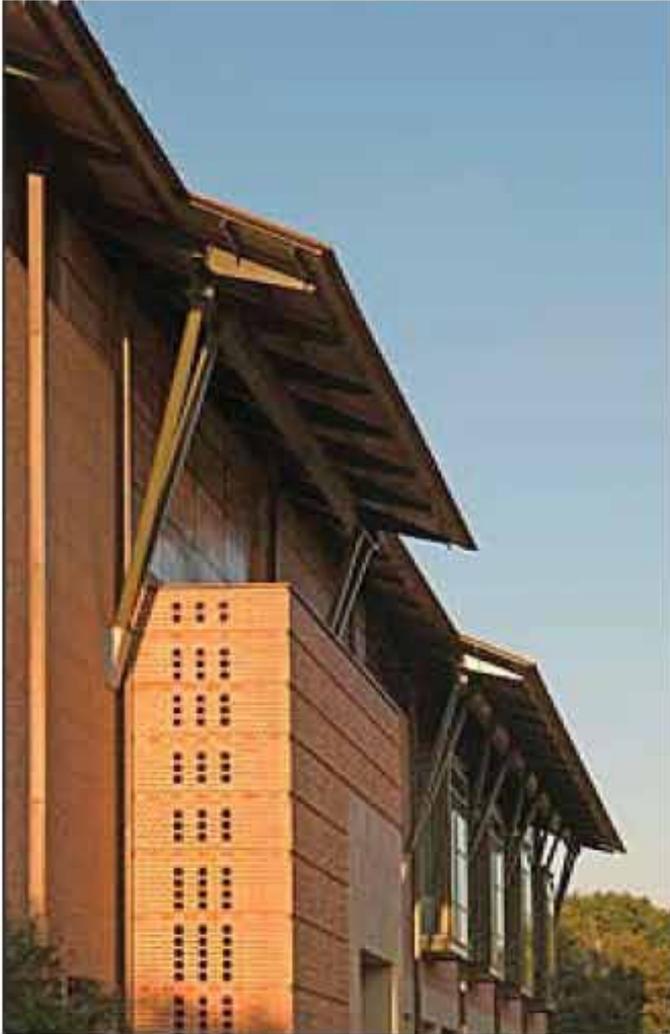
FACADE REGULATING PLAN

Note: Façade types specified represent minimums. Façades can be of a higher grade than specified.

-  Primary Façade
-  Secondary Façade
-  Utilitarian Façade
-  Façade with Shading Devices
-  Architectural Feature



Façade Detail Precedents



Visual heirarchy and organized composition



Overall View of Site from the South



Thank You