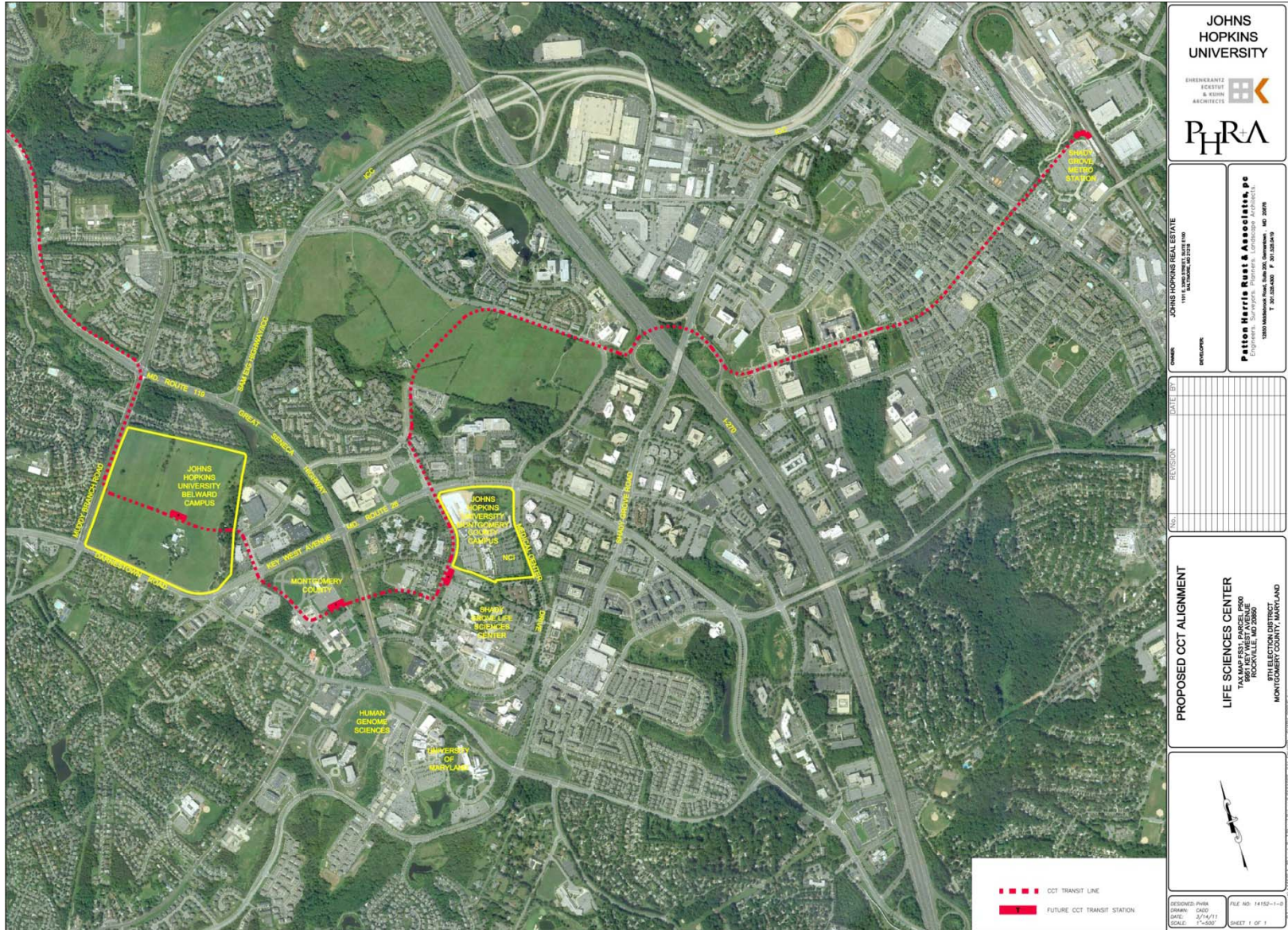


GSSC Advisory Committee

Johns Hopkins University
Belward Research Campus
Concept Plan and Preliminary Plan
Presentation

March 15, 2011

LSC Context: Johns Hopkins Montgomery County and Belward Campuses



Montgomery County Entitlement Process: 3 Stages

- Stage 1: Master Plan
- Stage 2: Concept Plan & Preliminary Plan
- Stage 3: Site Plan

JOHNS HOPKINS UNIVERSITY BELWARD CAMPUS

PLAN PROCESS AND COMMUNITY PARTICIPATION

JANUARY 11, 2011

**EXISTING APPROVED PRELIMINARY PLAN (PLAN # 119961100). ORIGINALLY APPROVED IN 1997.
EXTENSION OF THE VALIDITY PERIOD FOR THE ADEQUATE PUBLIC FACILITIES APPROVED IN SEPTEMBER, 2010.**

**GSSC (GREAT SENECA SCIENCE
CORRIDOR) MASTER PLAN.
APPROVED ON 05/04/2010**

CONCEPT PLAN AND PRELIMINARY PLAN AMENDMENT TO IMPLEMENT GSSC MASTER PLAN

CONCEPT PLAN:

PLAN THAT SHOWS HOW TO ACHIEVE THE
LONG TERM VISION OF THE MASTER PLAN.

PRELIMINARY PLAN AMENDMENT:

PLAN THAT SHOWS STREETS, STORM WATER
MANAGEMENT, BUILDING PLACEMENT, AND
ROAD NETWORK.

SITE PLAN:

PLAN THAT SHOWS DETAILS FOR INDIVIDUAL
BUILDINGS.

PUBLIC MAILING
AND POSTING

PRE-
SUBMISSION
PUBLIC
MEETING
01/11/2011

ANTICIPATED SUBMITTAL
DATE: END OF JANUARY

PUBLIC MAILING
AND POSTING

PLANNING
BOARD HEARING

SITE PLAN

PUBLIC MAILING
AND POSTING

PRE-SUBMISSION
PUBLIC MEETING

PUBLIC MAILING
AND POSTING

PLANNING
BOARD
HEARING

June 2010
approved and adopted

great seneca science corridor master plan

The Life Sciences Center



 Montgomery County Planning Department
The Maryland-National Capital Park and Planning Commission

MontgomeryPlanning.org

SITE LAYOUT AND BUILDING HEIGHTS FROM MASTER PLAN

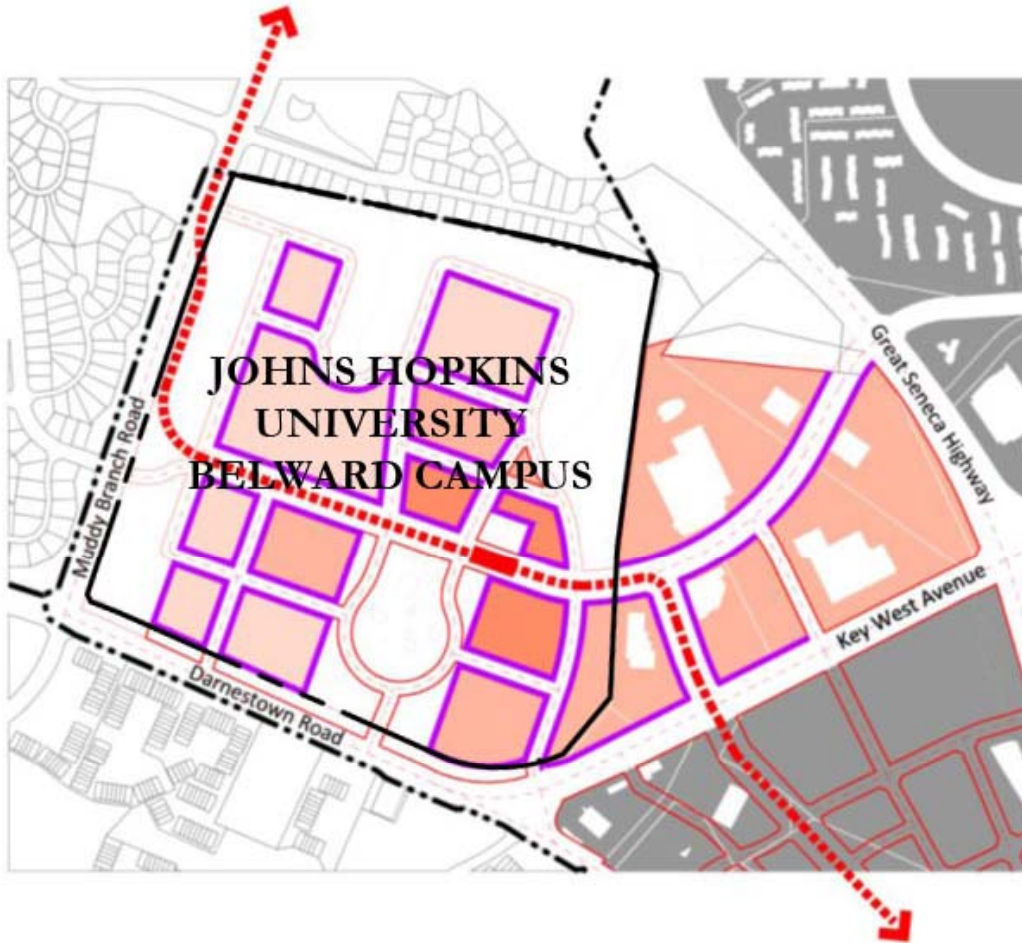
“Heights should transition from the highest (150 feet maximum) in the blocks immediately surrounding the CCT station to lowest at the edges of the property (50 feet maximum) and immediately adjacent to the historic area (60 feet maximum).”

–Page 15, Montgomery County Resolution Number 16-1325

LSC Belward District



LSC Belward District



- General**
- Proposed R.O.W.
 - Proposed Transit
 - Proposed Transit Stop
 - Planning Area Outside
 - Planning Area Bound
 - Built-to Lines
- Building Height**
- 150 ft Max.
 - 110 ft Max.
 - 50 - 100 ft Max.



Belward Research Campus
Concept Plan
Great Seneca Science Corridor
February 28, 2011

Johns Hopkins University

Ehrenkrantz Eckstut & Kuhn Architects
Patton Harris Rust & Associates



EXISTING SITE CONDITIONS

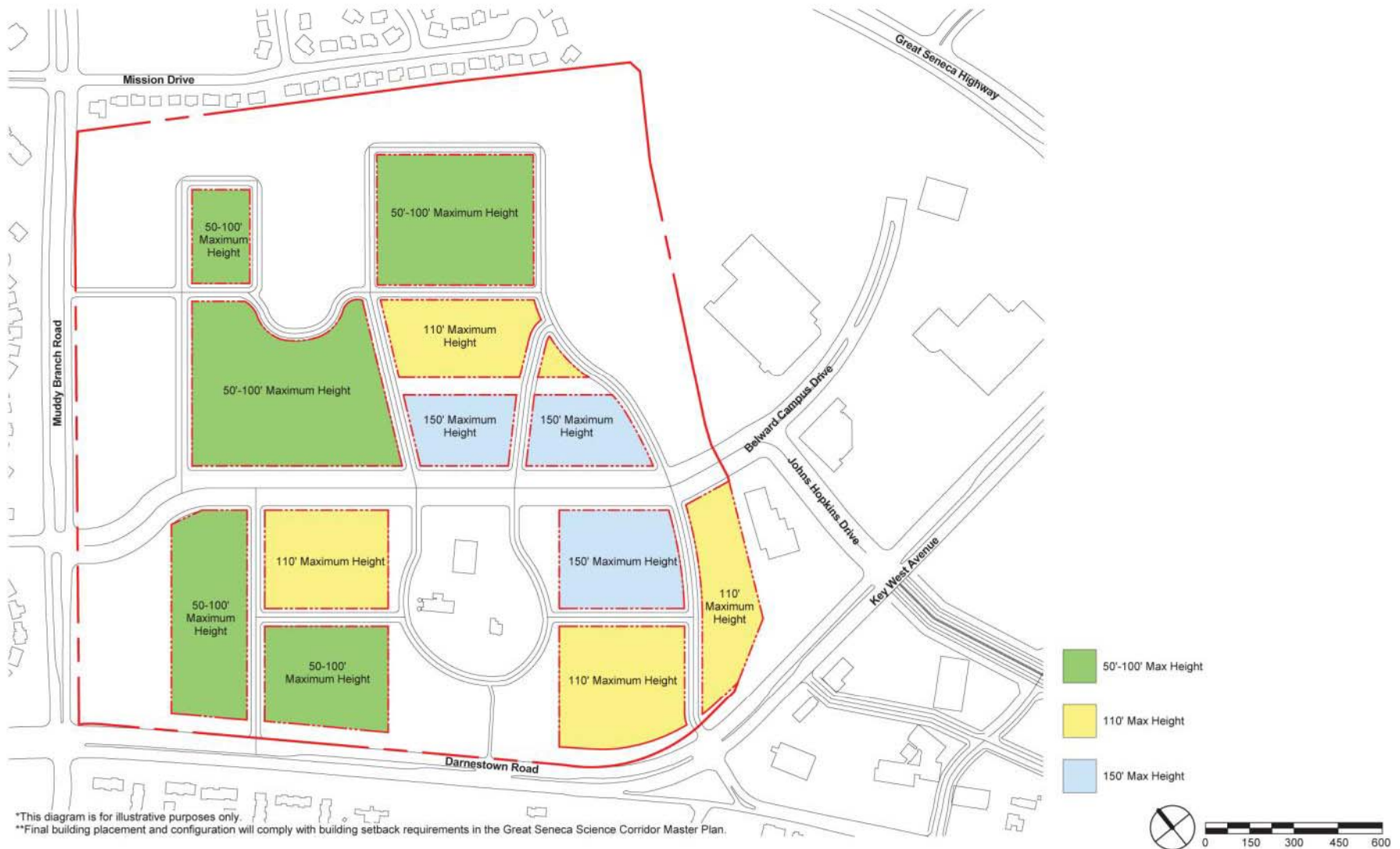
Existing Zoning	LSC (Life Sciences Center)
Site Acreage	108.76 Acres 4,737,777 sf
Tax Map Designation	Map No. FS31, Parcel P500

PROPOSED SITE DEVELOPMENT

Zoning	LSC (Life Sciences Center)
Site Acreage	108.76 Acres 4,737,777 sf
Proposed F.A.R.	1.0
Proposed Building Height	50' - 150'
Proposed Building Area	4,737,777 sf

CURRENT PRELIMINARY PLAN APPROVAL

Permitted F.A.R.	0.3
Approved Building Area	1,410,000 sf
Maximum Building Height:	4 Stories





* Massing diagram illustrates potential building configuration for full build condition (1.0 FAR; 4.7 MSF)
 ** This diagram is for illustrative purposes only. Actual parcel and building configurations, locations, sizes, heights, parking and roads will be determined at site plan for each phase covered by that site plan.
 ***Final building placement and configuration will comply with building setback requirements in the Great Seneca Science Corridor Master Plan.

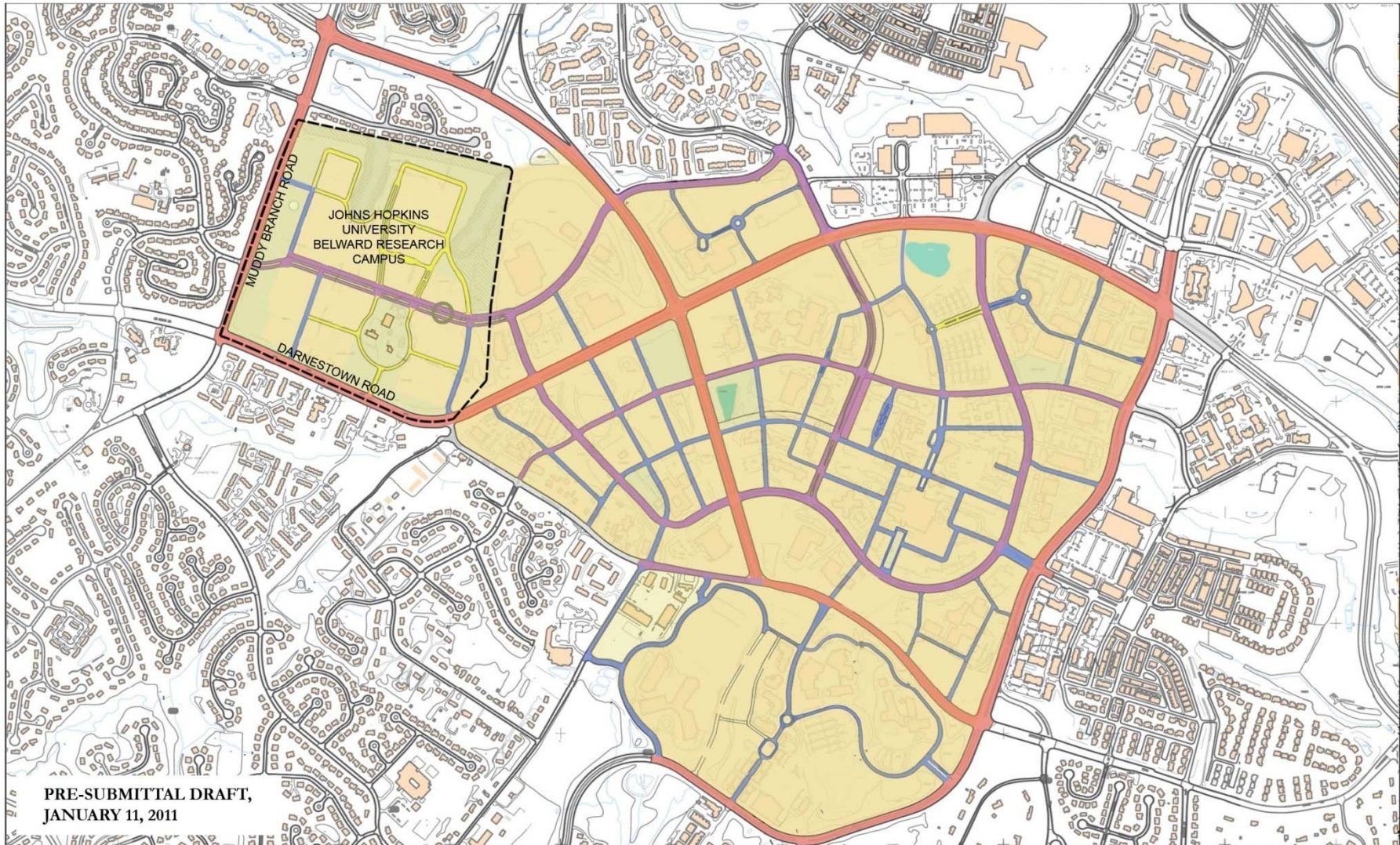


-  CCT Transit Station
-  CCT Transit Line
-  Farm Building Views



*This diagram is for illustrative purposes only. Actual parcel and building configurations, locations, sizes, heights, parking and roads will be determined at site plan for each phase covered by that site plan.

** "Views of the farm buildings from Darnestown Road and residential neighborhoods to the south and west, as well as other vantage points within the site, should be preserved to the extent practicable, consistent with other Master Plan objectives." (P 16; Montgomery County Council Resolution #16-1325)



PRE-SUBMITTAL DRAFT,
JANUARY 11, 2011

PRIMARY PUBLIC ROAD

SECONDARY PUBLIC ROAD

TERTIARY PUBLIC LOCAL BUSINESS STREET

PRIVATE LOCAL BUSINESS STREET

JOHNS HOPKINS UNIVERSITY



Vision 2030 for the Shady Grove Research University

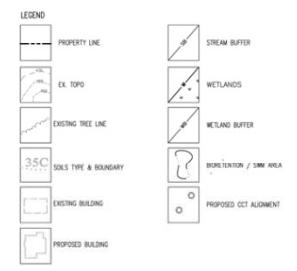
Gaithersburg / Maryland

LSC Road Network



DATE: OCTOBER, 2010

Patton Harris Rust & Associates
Engineers, Surveyors, Planners, Landscape Architects
13820 Rockwood Road, Ste. 200
Gaithersburg, Maryland 20878
1-301-253-4300 • 1-301-253-6119



PROPOSED PARCEL TABLE

GRID TRACT AREA	ACRES
PROPOSED DESIGNATION	1.49
PARCEL A	4.59
PARCEL B	52.36
PARCEL C	8.45
PARCEL D	27.42
PARCEL E	3.04



PRELIMINARY PLAN AMENDMENT

JOHNS HOPKINS BELWARD CAMPUS

THOMAS HOPKINS REAL ESTATE
100 E. 33RD STREET, SUITE 400
BALTIMORE, MD 21208

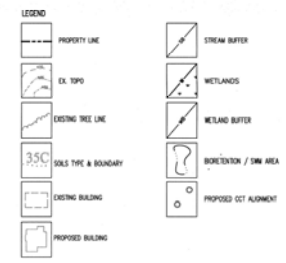
DESIGNED: PHRA
DRAWN: AHJ/CON
DATE: 03/14/11
SCALE: 1"=100'

FILE NO: 14152-1-0
SHEET 1 OF 2

PHRA

DESIGNED: PHRA
DRAWN: AHJ/CON
DATE: 03/14/11
SCALE: 1"=100'

FILE NO: 14152-1-0
SHEET 1 OF 2



PROPOSED PARCEL TABLE

PARCEL	ACRES
GROSS TRACT AREA	108.76
WETLANDS DEDICATION	1.43
PROPOSED DEDICATION	14.43
PARCEL A	4.59
PARCEL B	52.34
PARCEL C	8.45
PARCEL D	27.42
PARCEL E	3.04

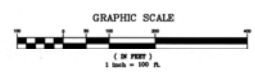
TOTAL SITE AREA:
108.76 ACRES

TOTAL PARKING & ROAD AREA:
615,000± S.F.

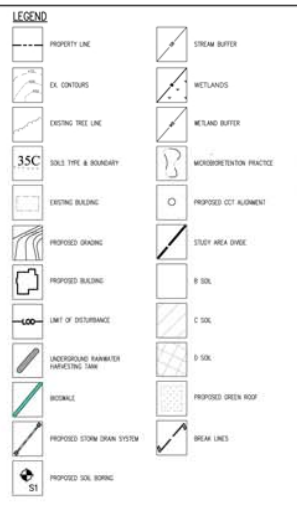
TOTAL BUILDING FOOTPRINT AREA:
1,180,000± S.F.

TOTAL IMPERVIOUS AREA:
1,795,000± S.F.
37.89% OF TOTAL AREA

ENGINEER'S CERTIFICATE
I HEREBY CERTIFY TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, EXPERIENCE AND BELIEF THAT THE INFORMATION IS TRUE AND CORRECT AND THAT THE ENGINEERING PROVIDED BY ME IS IN ACCORDANCE WITH THE PROFESSIONAL ENGINEERING AND SURVEYING ACT, TITLE 88, SUBTITLE 10, OF THE MARYLAND CODE, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER IN MARYLAND.
[Signature]
DATE: 2-25-11



<p>OWNER: JOHN HOPKINS REAL ESTATE 1100 BELWARD CAMPUS DRIVE BALTIMORE, MD 21218</p> <p>DEVELOPER:</p>	<p>Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects 12000 Middlebrook Road, Suite 200, Ocean Springs, MD 20759 T 410.224.2400 F 410.224.2410</p>
<p>PRELIMINARY PLAN AMENDMENT 11996110A</p> <p>JOHN HOPKINS BELWARD CAMPUS THOMAS HOPKINS BUILDING 6901 KEY WEST AVENUE ROCKVILLE, MD 20850 WISSEY ELECTORAL DISTRICT 11 MONTGOMERY COUNTY, MARYLAND</p>	<p>DATE BY:</p> <p>REVISION:</p> <p>NO.:</p>
<p>SCALE:</p> <p>BY: <i>[Signature]</i></p> <p>DATE: 02/25/11</p>	<p>PHRA</p> <p>DESIGNED: PHRA DRAWN: AM/JAN DATE: 02/25/11 SCALE: 1"=100'</p> <p>FILE NO: 14152-1-0 SHEET 2 OF 3</p>



NOTES:

- TOTAL SITE AREA = 127.27 AC
- ZONING = LSC

STORMWATER MANAGEMENT TABULATION

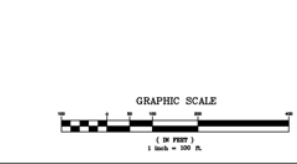
GREEN ROOF AREA = 706,880 SF OR 10.22 AC
 NUMBER OF RAINWATER HARVESTING TANKS = 18
 NUMBER OF WIND-ORIENTATION PRACTICES WITH = 30
 MAXIMUM SURFACE AREA = 3,000 FT²

STORMWATER MANAGEMENT NARRATIVE

STORMWATER MANAGEMENT FOR THE PROJECT SHALL BE DESIGNED IN ACCORDANCE WITH THE STORMWATER MANAGEMENT ACT OF 2001 AND 2006 HANDBOOK (STORMWATER DESIGN MANUAL VOLUME 1 & 2) FOR THE PURPOSE OF IMPROVING ENVIRONMENTAL SITE DESIGN (SDD) TO THE MAXIMUM EXTENT PRACTICABLE (MEP). THE PRIMARY KEY STRATEGY IS TO USE TO REDUCE PORE DEVELOPMENT RATHER TO EXPOSE FOREWATER NATURAL FORESTED CONDITIONS. WHEN THIS GOAL IS MET, THE WATER QUALITY VOLUME (WQV) INCREASES VOLUMINOSITY AND CHANGES PREVENTION STORAGE REQUIREMENTS ARE ADJUSTED.

STORMWATER MANAGEMENT WILL BE ACCOMPLISHED BY THE USE OF WATERSHED CDD PRACTICES AND STANDARD BEST MANAGE PRACTICES (BMP) THROUGHOUT THE DEVELOPMENT. ALTERNATIVE SURFACES AND MICRO-SCALE CDD PRACTICES WILL BE SELECTED TO PROVIDE A PORTION OF THE CDD TREATMENT. WASTE STORAGE STORMWATER TO BE BMP SYSTEMS WILL PROVIDE THE REMAINING TREATMENT STORAGE TO MEET THE DRAINAGE SITE COORDINATE MANAGEMENT (CDM) REQUIREMENTS.

- BELOW SUMMARIZES HOW CDD AND BMP PRACTICES PROVIDE STORMWATER MANAGEMENT THROUGHOUT THE DEVELOPMENT:
- PROPOSED BUILDINGS AND PARKING STRUCTURES**
 - EXTENDED GREEN ROOF ALTERNATIVE SURFACE FOR PAVEMENT
 - MINIMIZE THE USE OF THE PROPOSED BUILDING ROOF AND TOPS OF PARKING STRUCTURE ROOF SURFACE
 - SURFACE CONSISTS OF 4" THICK PLAYING MEDIA, VEGETATION, AND A PROTECTIVE MEMBRANE.
 - PERMEABLE INTERLOCKING MICRO-SCALE CELL STRUCTURES
 - PRACTICE COLLECTS ROOF RUNOFF FROM BUILDINGS AND PARKING STRUCTURES INTO UNDERGROUND STORAGE TANKS FOR FUTURE IRRIGATION OR OTHER NON-POTABLE WATER USES WITHIN THE BUILDING. SUBJECT TO MECP APPROVAL.
 - PROVIDE THE REMAINING CDD STORAGE REQUIREMENT FOR CONTRIBUTING DRAINAGE AREAS OF UP TO 3,000 SQUARE FEET PER PRACTICE.
 - PROPOSED PRIVATE AND PUBLIC ROAD ROOF OF WAYS**
 - WIND-ORIENTATION, BIO-DRAINAGE, AND LANDSCAPE INFILTRATION MICRO-SCALE CDD PRACTICES
 - PRACTICE COLLECTS SURFACE RUNOFF FROM THE PUBLIC SIDEWALKS AND PEDESTRIAN PARKING
 - PRACTICE PRACTICES WILL CAPTURE AND FILTER THE RUNOFF THROUGH A FILTER BED BEFORE CONSISTING OF EITHER SAND, SOIL, OR ORGANIC MATTER WHICH WILL BE LANDSCAPED WITH ATTRACTIVE PLANTS AND MATERIALS. THE FILTERED WATER WILL BE COLLECTED BY UNDERGROUND MICRO-ORIENTATION AND BIO-DRAINAGE AREAS INTO STORAGE SYSTEMS. CURRENTLY, ONLY MICRO-ORIENTATION AND BIO-DRAINAGE AREAS ARE ALLOWED FOR CONTRIBUTING DRAINAGE AREAS.
 - PERMEABLE PAVEMENT ALTERNATIVE SURFACE CDD PRACTICES
 - UTILIZED FOR PRIVATE ALLEYS AND PEDESTRIAN PARKING
 - SURFACE CONSISTS OF PERVIOUS CONCRETE OR PERMEABLE INTERLOCKING PAVING WITH AN OPEN GRADED STONE SUBGRADE AND UNDERDRAIN DRAINAGE SYSTEM
 - PROVIDES A PORTION OF THE CDD CDD EQUIPMENT FOR THESE SURFACES
 - PERVIOUS CONCRETE OR PERMEABLE INTERLOCKING PAVING PRACTICES
 - PERVIOUS CONCRETE OR PERMEABLE INTERLOCKING PAVING PRACTICES
 - PRACTICE COLLECTS RUNOFF FROM PUBLIC AND PRIVATE SIDEWALKS TO DRAINAGE SYSTEMS
 - PROVIDES THE REMAINING STORAGE REQUIREMENT FOR THE CONTRIBUTING DRAINAGE AREA.



JOHNS HOPKINS REAL ESTATE
1101 S. LANE STREET, SUITE 1100
BALTIMORE, MD 21228

Patton Harris Rust & Associates, PC
Engineers - Surveyors - Planners - Landscape Architects
12000 HANOVER ROAD, SUITE 200
JACKSONVILLE, FL 32216

NO.	DATE	BY	REVISION

STORMWATER MANAGEMENT CONCEPT PLAN

JOHNS HOPKINS BELWARD CAMPUS
 TAX MAP ESST. PARCEL PHOTO
 8901 KEY WEST AVENUE
 WISSE CDD 2200 N.W. 10 & 22ND AVE 11
 9TH ELECTION DISTRICT
 MONTGOMERY COUNTY, MARYLAND

DESIGNED: SCM
 DRAWN: CAD
 DATE: 12/28/19
 SCALE: 1"=100'

PHRA

FILE NO: 14152-1-0
 SHEET 1 OF 2

Summary

- **Master Plan:** Provides Framework for Roads and Infrastructure, Mass Transit, Mixed Uses, and Building Heights
- **Concept Plan:** The Belward Concept Plan provides further details, at the conceptual design level, on roads, building heights, building massing, and urban design places on the Campus
- **Preliminary Plan:** The Belward Preliminary Plan provides even more detail, at the civil engineering level on roads and SWM plans for the Hopkins Belward Campus.