BUILDING COMMITTEE MEETING #1

OCTOBER 17TH 2019

GMU - BULL RUN HALL ADDITION

EYP/.

BLOCKING & STACKING - PRELIMINARY

THIRD FLOOR

CLASSROOMS INSTRUCTIONAL LABS (FLUIDS, MATERIALS, MECHATRONICS, SUSTAINABLE ENERGY) WORKSPACE (GTA & ADJUNCT DROP IN, CONFERENCE ROOMS)

SECOND FLOOR

CLASSROOMS CADAVER SUITE INSTRUCTIONAL LABS – BIO/CHEM (CHEMISTRY, DNA, & SEQUENCING) HUMAN PERFORMANCE (THERAPEUTIC INTERVENTION, EMERGENCY CARE, EVALUATION & ANATOMY)

FIRST FLOOR

EVENT

HUMAN PERFORMANCE (BIOMECHANICS, STRENGTH & CONDITIONING & PHYS. ASSESSMENT)

STUDENT DESIGN (DESIGN COMPETITION, PRODUCT REALIZATION & DIGITAL DESIGN)

FAB LAB (metal shop, wood shop, prototyping, electronics, paint booth, finishing room, fume hood & BSC)

SERVICE & BUILDING UTILITIES (CADAVER INTAKE, CHEMICAL STORAGE, ELECTRICAL, MECH & PLUMBING)

BLOCKING & STACKING - PRELIMINARY



FIRST FLOOR - 28,655 NSF (72%)

BLOCKING & STACKING – PRELIMINARY

PROS	CONS		
1. FORCE PLATES AT GRADE	1. COLUMNS IN BIOMECHANICS		
2. ACCESS FOR HUMAN	2. HP SPLIT ON 2 LEVELS		
PERFORMANCE VISITORS	3. CADAVER SPLIT ON 2 LEVELS		
3. EVENT SPACE ACCESS	4. COST – ROOFING @ LOW LEVEL,		
4. GENERALLY ALL USER REQUESTS FOR 1 ST FLOOR	ADDITIONAL STRUCTURE, ADDITIONAL FACADE		
ACCESS ARE MET	5. VIEW OF LOW ROOF FROM IABR		
	6. LARGER FOOTPRINT IMPACTS TO SITE: CIRCULATION, BIORETENTION		



PROS	CONS		
 FORCE PLATES AT GRADE EVENT SPACE DRAMATIC VIEWS 	 COLUMNS IN BIOMECHANICS HP SPLIT ON 2 LEVELS 		
3. EVENT SPACE PROXIMITY TO LABS FOR USE AS STUDENT PROJECT SPACE (WHEN EVENTS NOT IN PROGRESS)	 CADAVER SPLIT ON 2 LEVELS INFORMAL SPACE & CONFERENCE ROOMS ON UPPER LEVELS ONLY 		

THIRD FLOOR

HUMAN PERFORMANCE ACTIVE LEARNING CLASSROOMS EVENT

SECOND FLOOR

INSTRUCTIONAL LABS - ENG (FLUIDS, MATERIALS, MECHATRONICS, SUSTAINABLE ENERGY) INSTRUCTIONAL LABS - BIO/CHEM (CHEMISTRY, DNA, & SEQUENCING) WORKSPACE (GTA & ADJUNCT DROP IN, CONFERENCE ROOMS) CLASSROOMS

FIRST FLOOR

STUDENT DESIGN (DESIGN COMPETITION, PRODUCT REALIZATION & DIGITAL DESIGN) FAB LAB (METAL SHOP, WOOD SHOP, PROTOTYPING, ELECTRONICS, PAINT BOOTH, FINISHING ROOM, FUME HOOD & BSC) CADAVER SUITE SERVICE & BUILDING UTILITIES



FIRST FLOOR - 23,290 NSF (68.5%)

PROS	CONS
1. HP ALL TOGETHER	1. FORCE PLATES ON ELEVATED SLAB
 CADAVER SPACES CONTIGUOUS @ GRADE 	2. ACCESS TO EVENT SPACE
3. 1ST FLOOR EFFICIENCY IS MORE REALISTIC	
4. UTILIZE STEEL STRUCTURE FOR LONGER SPANS FOR BIOMECHANICS, EVENT, AND ACTIVE LEARNING	
5. EVENT SPACE MAXIMIZE VIEWS TO NATURE	
6. SHAPE ROOF FORM FOR HIGHER CEILINGS AT THIRD FLOOR	

BLOCKING & STACKING – COMPARISON

		PROS	C	ONS
<u>PRELIMINARY</u>	1. 2. 3. 4.	FORCE PLATES AT GRADE ACCESS FOR HUMAN PERFORMANCE VISITORS EVENT SPACE ACCESS @ 1 st floor GENERALLY ALL USER REQUESTS FOR 1 st floor ACCESS ARE MET	1. 2. 3. 4. 5. 6.	COLUMNS IN BIOMECHANICS HP SPLIT ON 2 LEVELS CADAVER SPLIT ON 2 LEVELS COST – ROOFING @ LOW LEVEL, ADDITIONAL STRUCTURE, ADDITIONAL FACADE VIEW OF LOW ROOF FROM IABR LARGER FOOTPRINT IMPACTS TO SITE: CIRCULATION, BIORETENTION
OPTION 1	1. 2. 3.	FORCE PLATES AT GRADE EVENT SPACE DRAMATIC VIEWS EVENT SPACE PROXIMITY TO LABS FOR USE AS STUDENT PROJECT SPACE (WHEN EVENTS NOT IN PROGRESS)	1. 2. 3. 4.	COLUMNS IN BIOMECHANICS HP SPLIT ON 2 LEVELS CADAVER SPLIT ON 2 LEVELS INFORMAL SPACE & CONFERENCE ROOMS ON UPPER LEVELS ONLY
OPTION 2	1. 2. 3. 4. 5. 6.	HP ALL TOGETHER CADAVER SPACES CONTIGUOUS @ GRADE 1ST FLOOR EFFICIENCY IS MORE REALISTIC UTILIZE STEEL STRUCTURE FOR LONGER SPANS FOR BIOMECHANICS, EVENT, AND ACTIVE LEARNING EVENT SPACE MAXIMIZE VIEWS TO NATURE SHAPE ROOF FORM FOR HIGHER CEILINGS AT THIRD FLOOR	1. 2.	FORCE PLATES ON ELEVATED SLAB ACCESS TO EVENT SPACE



ENGAGE NATURAL FEATURES CREATE IDENTITY DEFINE ENTRIES LOCATE SERVICE ESTABLISH PLACEMAKING



GMU | BULL RUN HALL ADDITION

MANASSAS, VA

MASSING STUDIES

BLOCKING & STACKING TABULATIONS



GMU | BULL RUN HALL ADDITION



CAMPUS CIRCULATION ---DIRECT ACCESS ---CANOPY VIEW ---SERVICE --MAIN ENTRANCE ---0" 59" 100 200" ())

EXISTING BUILDING

GMU | BULL RUN HALL ADDITION MANASSAS, VA

2019 October 17

MASSING STUDIES



GMU | BULL RUN HALL ADDITION MANASSAS, VA

MASSING STUDIES

MAIN ENTRANCE 📫

0' 25' 50'

EXISTING BUILDING 🗖 BULL RUN HALL ADDITION

> FUTURE QUAD 📖 CAMPUS CIRCULATION -----DIRECT ACCESS → CANOPY VIEW -----

> > SERVICE 🔴

100'





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GMU | BULL RUN HALL ADDITION MANASSAS, VA



Welcome

Main Entrance
Entrada Principal

Conference Center
Centro de Conferencias





