



DANE COUNTY

ALLIANT ENERGY CENTER

CAMPUS MASTER PLAN

MADISON, WISCONSIN

OCTOBER 15, 2018

PERKINS+WILL

AGENDA

01 / Preferred Campus Master Plan

02 / Summary Transportation

03 / Summary Stormwater

04 / Next Steps

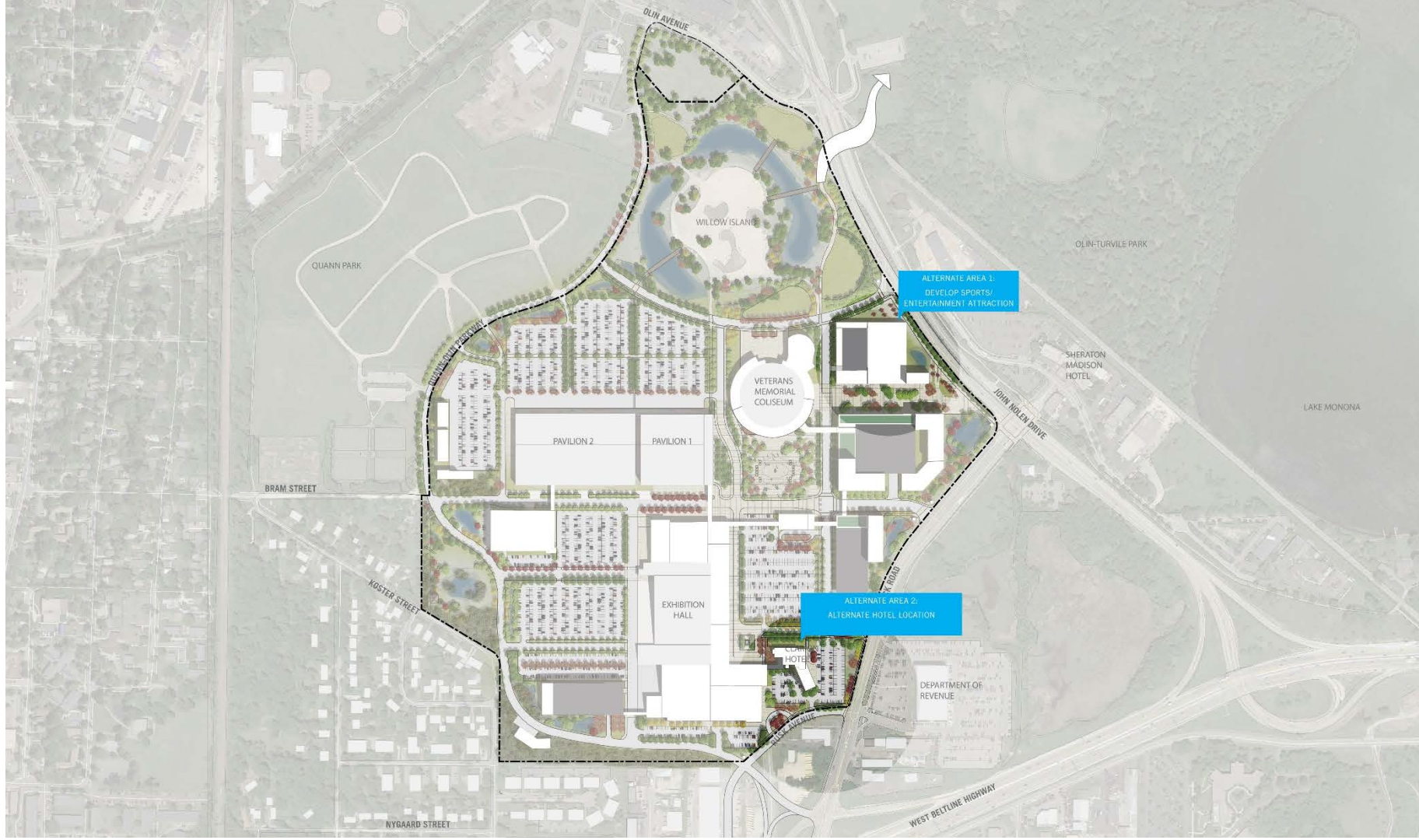
01/ PREFERRED CAMPUS MASTER PLAN

LEGEND

1. FUTURE DEVELOPMENT SITE
2. GREENWAY LINK TO LAKE
3. PEDESTRIAN CROSSING AT JOHN NOLAN
4. RESIDENTIAL MID-RISE
5. MIXED USE
6. URBAN PARK/PLAZA
7. RENOVATED COLISEUM
 - 7-A. PHASE 1 ENTRY EXPANSION
 - 7-B. PHASE 2 LOCKER ROOM AND LOADING DOCK EXPANSION
8. HOTEL
 - 8-A. HEADQUARTERS HOTEL
9. PARKING STRUCTURE
10. CENTRAL FESTIVAL/EVENTS PLAZA
 - 10-A. CONVERTIBLE STREET
11. SKYWAY CONNECTION
12. EXHIBITION HALL
 - 12-A. PHASE 1 MEETING ROOM/EXHIBITION HALL EXPANSION
 - 12-B. PHASE 2 NEW BALLROOM AND RENOVATIONS
 - 12-C. PHASE 3 EXHIBITION HALL EXPANSION
13. EXHIBITION HALL PLAZA & DROP-OFF
14. PROPOSED BELTLINE OFF-RAMP ACCESS
15. EXPANDED STORMWATER AREA AND LANDSCAPE BUFFER AREA
16. RELOCATED OUTDOOR ARENA
17. OUTDOOR STORAGE FACILITIES
18. FUTURE DEVELOPMENT SITE OR PARKING
19. ENHANCED OPEN SPACE
20. IMPROVED STORMWATER MANAGEMENT AREAS
21. RING ROAD IMPROVEMENTS

* AS FUTURE PROPERTIES BECOME AVAILABLE, THE COUNTY SHOULD CONSIDER PURCHASING LAND TO PROVIDE ADDITIONAL BUFFERING, PROGRAMMING AND STORMWATER MANAGEMENT IMPROVEMENTS

**When any private property comes available or presents itself, the County should consider acquiring properties to further serve as a buffer or for programing.*



QUANN PARK

WILLOW ISLAND

OLIN-TURVILLE PARK

LAKE MONONA

BRAM STREET

KOSTER STREET

NYGAARD STREET

PAVILION 2

PAVILION 1

VETERANS
MEMORIAL
COLISEUM

EXHIBITION
HALL

JOHN A.
HOLMES
HOTEL

ALTERNATE AREA 1:
DEVELOP SPORTS/
ENTERTAINMENT ATTRACTION

ALTERNATE AREA 2:
ALTERNATE HOTEL LOCATION

SHERATON
MADISON
HOTEL

JOHN A. HOLMES DRIVE

DEPARTMENT OF
REVENUE

WEST BELTLINE HIGHWAY

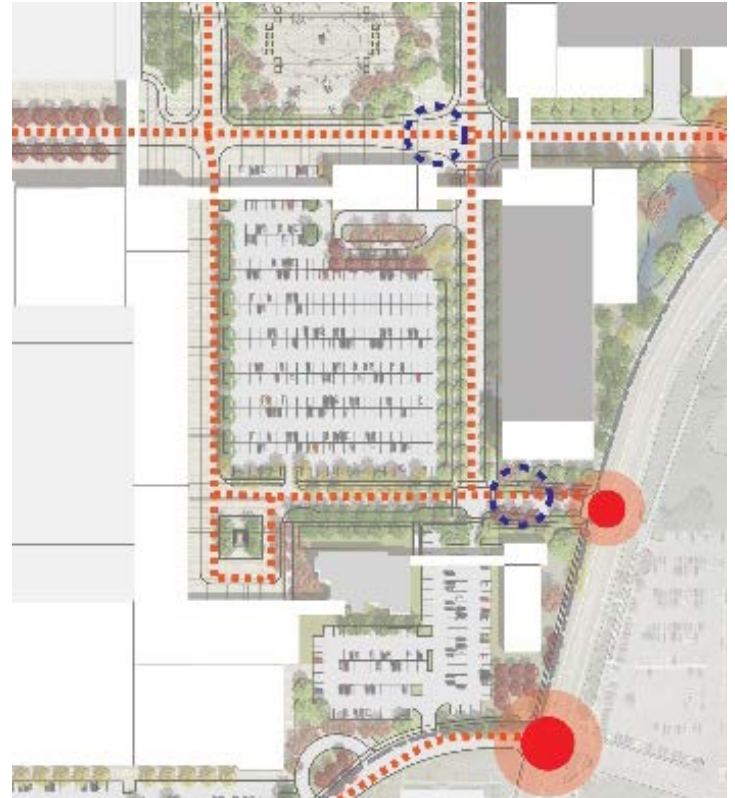


02/ SUMMARY TRANSPORTATION

AEC MULTI-MODAL INTERNAL CIRCULATION

NEXT STEPS

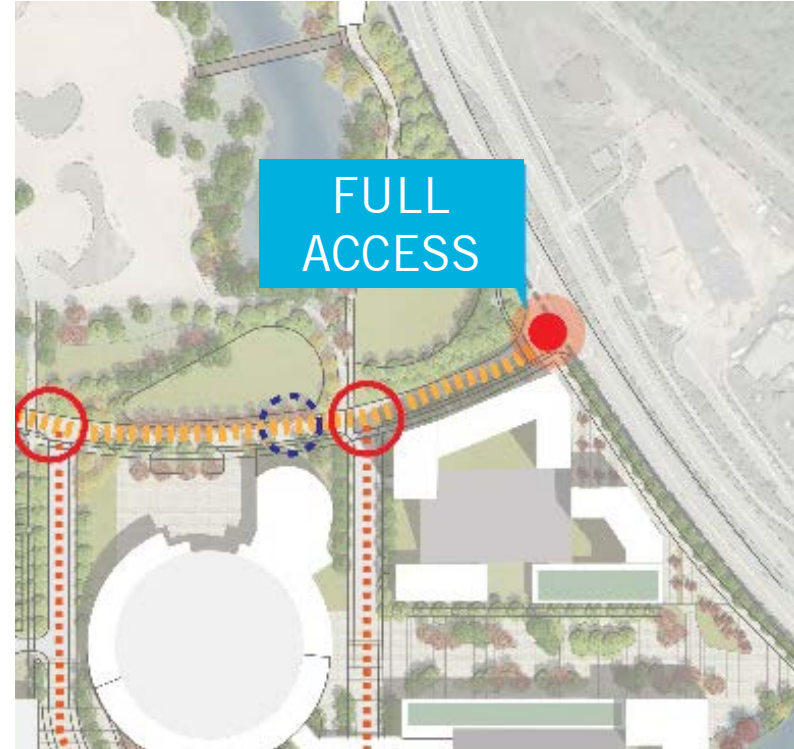
- Evaluate phasing of Ring Road implementation with future developments
- Work with developments on parking and drop-off circulation
- Site developments should consider:
 - ADA parking and access
 - Bike Parking & Bike Share
 - Bus Transit
 - Car Share / Taxi
 - Electric vehicle charging
 - Shuttles



AEC JOHN NOLAN INTERSECTION

NEXT STEPS

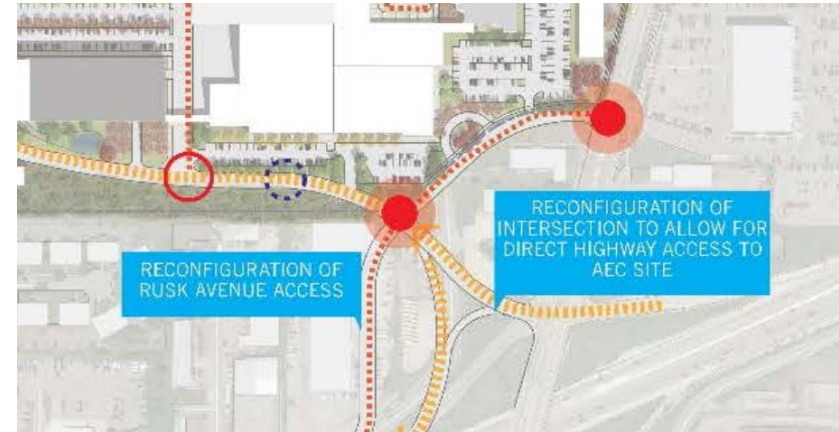
- Feasibility Study
 - John Nolan is under jurisdiction of Dane County. Traffic signals are owned and operated by City of Madison
 - Develop traffic forecasts for the AEC site and adjacent roadways
 - Complete Traffic Study for John Nolan Drive from Rimrock Rd. to Olin Ave. for both non-event and event traffic scenarios
 - Creating conceptual design plans for proposed changes



AEC RIMROCK INTERSECTION MODIFICATIONS

NEXT STEPS

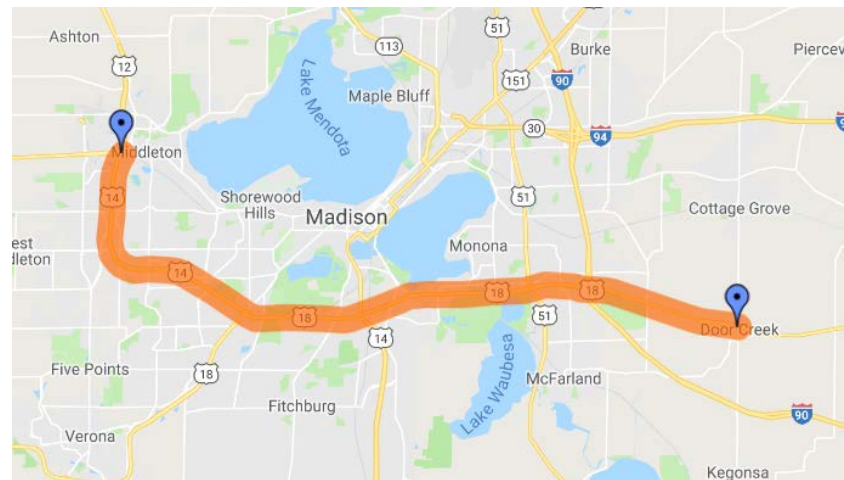
- Feasibility Study
 - Coordinate with WisDOT Beltline PEL Study
 - Coordinate AEC Master Plan traffic projections with Madison Area Transportation Planning Board (MATPB) Land Use plan and projections
 - Develop traffic forecasts for the AEC site and adjacent roadways
 - Complete Traffic Study of both the intersections, interchanges and ramp weaving on the Beltline
 - Creating conceptual design plans for proposed interchange modifications



AEC RIMROCK INTERSECTION MODIFICATIONS

WisDOT Beltline Planning and Environment Linkages study

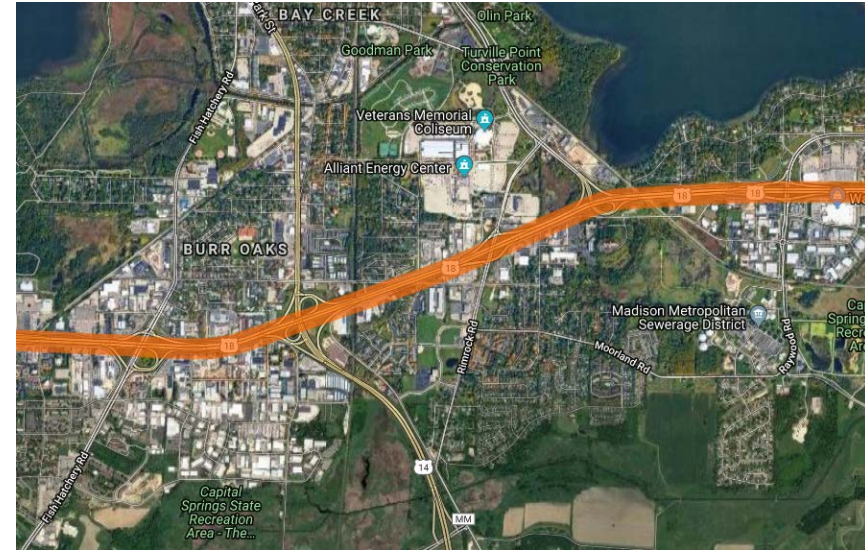
- PEL Study includes 19 miles of Madison Beltline (US 12, 14, 18 and US 151) from Middleton to Cottage Grove, in Dane County
- Purpose of PEL study is to analyze improvement concepts for travel to, from and across the Beltline by all ground-based modes.
- Concepts are evaluated based on if and to what extent they have the potential to address existing and future safety, congestion and pavement and structures issues.
- Enhancing and integrating multi-modal accommodations is also a study goal.
- The Beltline mainline, interchanges and potential new and existing crossings are all being studied. The scope of the analysis also incorporates cross-road intersections near the interchanges to ensure effects on and compatibility with the local system is understood and addressed where needed.



AEC RIMROCK INTERSECTION MODIFICATIONS

From WisDOT Beltline PEL study:

- Existing Traffic JND = 126,900 ADT (2015)
- Future Traffic (no build) at JND = 153,500 ADT (2030)
- WisDOT studied Rimrock Road/John Nolen individually, as a pair and as part of the Park Street to West Broadway
- Both Rimrock road ramp intersections and the Rusk Road/Rimrock Road intersection operated at LOS C or better in 2012.
- Some improvements to turn lanes would allow the current Rimrock Road diamond configuration to remain and provide LOS C or better at these intersections in 2050, based upon current approved land use plans for Dane County.
- Existing Beltline weaving issues east and west of the two interchanges contribute to mainline congestion in the Park Street to West Broadway section of the Beltline. Reducing weaving issues could require ramp configuration changes or even elimination of specific ramps.



AEC TRIP GENERATION

Phase 1

Trip Generation

AEC Site	ITE Code	ITE Land Use		Weekday Daily Trips	AM Peak			PM Peak			Sat Peak		
					In	Out	Total	In	Out	Total	In	Out	Total
H2	310	Hotel 300 Rooms	Trip Rates and Directional Trips	8.36 2510	59% 85	41% 55	0.47 140	51% 90	49% 90	0.6 180	56% 120	44% 95	0.72 215
Total Trips				2,510	85	55	140	90	90	180	120	95	215

Phase 1A

Trip Generation

AEC Site	ITE Code	ITE Land Use		Weekday Daily Trips	AM Peak			PM Peak			Sat Peak		
					In	Out	Total	In	Out	Total	In	Out	Total
R3	221	Multifamily Housing (Mid-Rise) 180 Dwelling Units	Trip Rates and Directional Trips	5.44 980	26% 15	74% 50	0.36 65	61% 50	39% 30	0.44 80	49% 40	51% 40	0.44 80
H1	310	Hotel 180 Rooms	Trip Rates and Directional Trips	8.36 1505	59% 50	41% 35	0.47 85	51% 55	49% 55	0.6 110	56% 75	44% 55	0.72 130
	710	General Office Building 38,500 Square Feet GFA	Trip Rates and Directional Trips	9.74 375	86% 40	14% 5	1.16 45	16% 5	84% 40	1.15 45	54% 10	46% 10	0.53 20
	820	General Retail (Shopping Center) 23,470 Square Feet	Trip Rates and Directional Trips	37.75 885	62% 10	38% 10	0.94 20	48% 45	52% 45	3.81 90	52% 55	48% 50	4.5 105
2 Total	930	Fast Casual Restaurant 8,000 Square Feet	Trip Rates and Directional Trips	315.17 2520	67% 10	33% 5	2.07 15	55% 65	45% 50	14.13 115	55% 150	45% 120	34.02 270
1 Total	931	Quality Restaurant 12,000 Square Feet	Trip Rates and Directional Trips	84.84 1020	50% 5	50% 5	0.73 10	67% 65	33% 30	7.8 95	59% 75	41% 55	10.68 130
2 Total	932	High-Turnover (Sit-Down) Restaurant 16,000 Square Feet	Trip Rates and Directional Trips	112.18 1795	55% 90	45% 70	9.94 160	50% 80	50% 75	9.77 155	51% 90	49% 90	11.19 180
1 Total	936	Coffee Shop 2,000 Square Feet	Trip Rates and Directional Trips	754.55 1510	51% 100	49% 100	101.14 200	50% 40	50% 35	36.31 75	49% 60	51% 60	59.01 120
Total Trips				10,590	320	280	600	405	360	765	555	480	1,035

Future Phases

Trip Generation

AEC Site	ITE Code	ITE Land Use		Weekday Daily Trips	AM Peak			PM Peak			Sat Peak		
					In	Out	Total	In	Out	Total	In	Out	Total
R1 & R2	221	Multifamily Housing (Mid-Rise) 295 Dwelling Units	Trip Rates and Directional Trips	5.44 1605	26% 25	74% 80	0.36 105	61% 80	39% 50	0.44 130	49% 65	51% 65	0.44 130
H3	310	Hotel 180 Rooms	Trip Rates and Directional Trips	8.36 1505	59% 50	41% 35	0.47 85	51% 55	49% 55	0.6 110	56% 75	44% 55	0.72 130
	710	General Office Building 38,000 Square Feet GFA	Trip Rates and Directional Trips	9.74 370	86% 40	14% 5	1.16 45	16% 5	84% 40	1.15 45	54% 10	46% 10	0.53 20
	820	General Retail (Shopping Center) 55,830 Square Feet	Trip Rates and Directional Trips	37.75 2110	62% 30	38% 20	0.94 50	48% 105	52% 110	3.81 215	52% 130	48% 120	4.5 250
1 Total	932	High-Turnover (Sit-Down) Restaurant 8,000 Square Feet	Trip Rates and Directional Trips	112.18 895	55% 45	45% 35	9.94 80	50% 40	50% 40	9.77 80	51% 45	49% 45	11.19 90
Total Trips				6,485	190	175	365	285	295	580	325	295	620

MASTER PLAN GRAND TOTAL

19,585 595 510 1,105 780 745 1,525 1,000 870 1,870

03/ SUMMARY STORMWATER

STORMWATER ANALYSIS

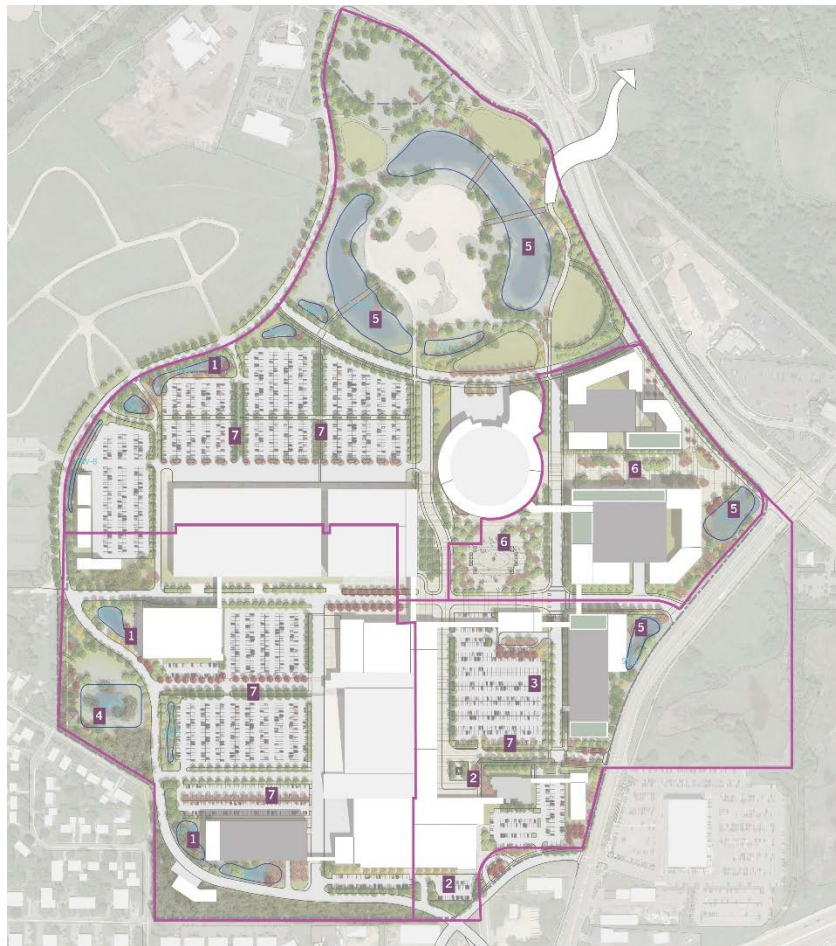
BACKGROUND

- Statewide Standards (Wisconsin Administrative Code) – 2005
 - 20% Reduction of “Total Suspended Solids” (TSS) by March 10, 2008
 - 40% Reduction of TSS by March 10, 2013
- Dane County Study – 2009
 - Sitewide evaluation of 161-acres of land
 - AEC is achieving 42% reduction of TSS

STORMWATER ANALYSIS

2018 CAMPUS MASTER PLANNING

- Site Planning
 - Proposed Land Uses
 - Stormwater Treatment Locations
- Conceptual Stormwater Analysis
 - Modeled Concept Master Plan
 - Sitewide TSS Reduction Approx. 70%

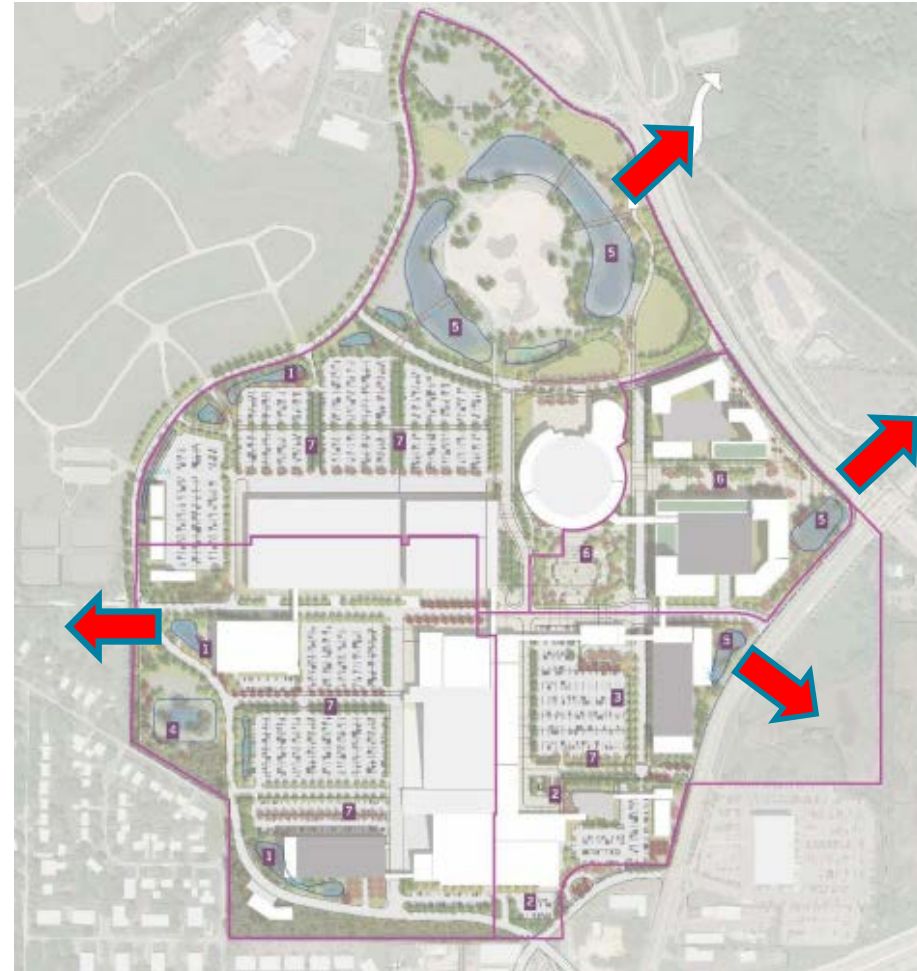


STORMWATER ANALYSIS

2018 CAMPUS MASTER PLANNING

- Conceptual Stormwater Analysis
 - Four Drainage Areas:

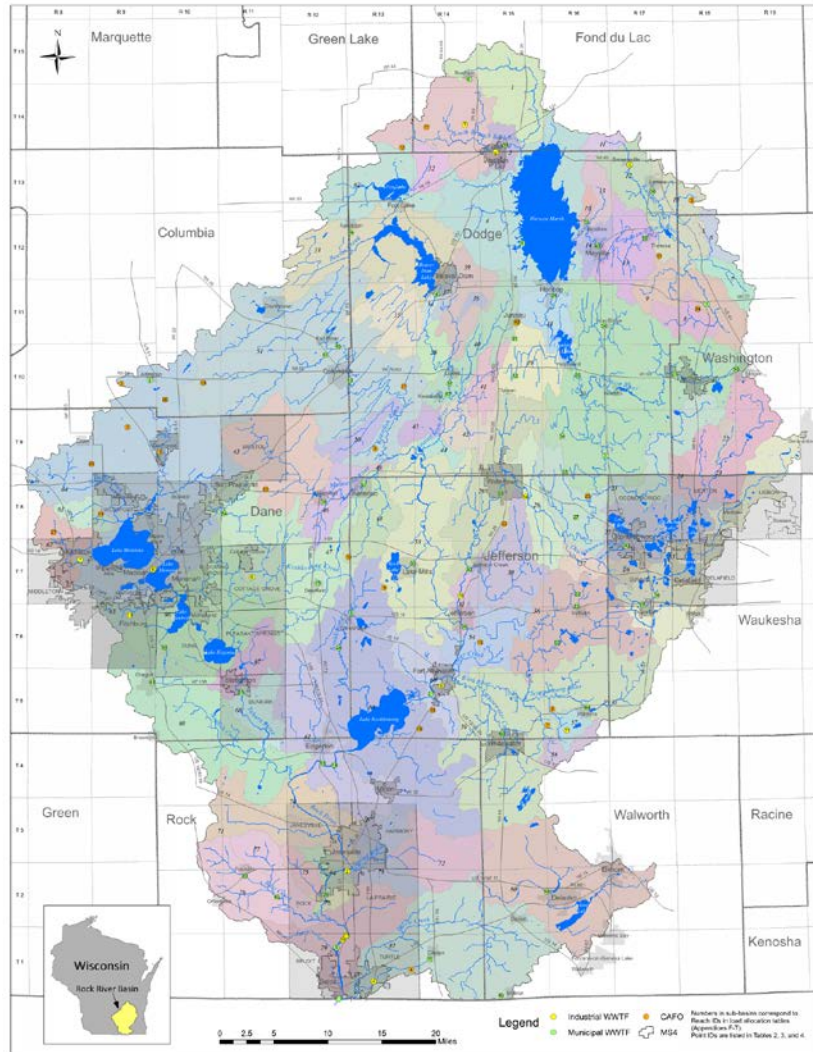
		<u>Existing</u>	<u>Proposed</u>
1.	NW	97%	90%
2.	NE	67%	70%
3.	SE	0%	45%
4.	SW	0%	70%
SITEWIDE		42%	70%



STORMWATER ANALYSIS

ADDITIONAL CONSIDERATIONS

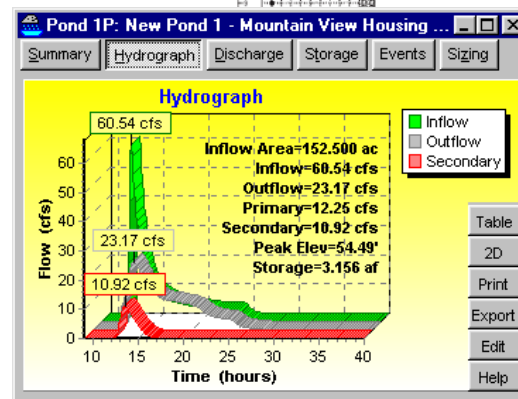
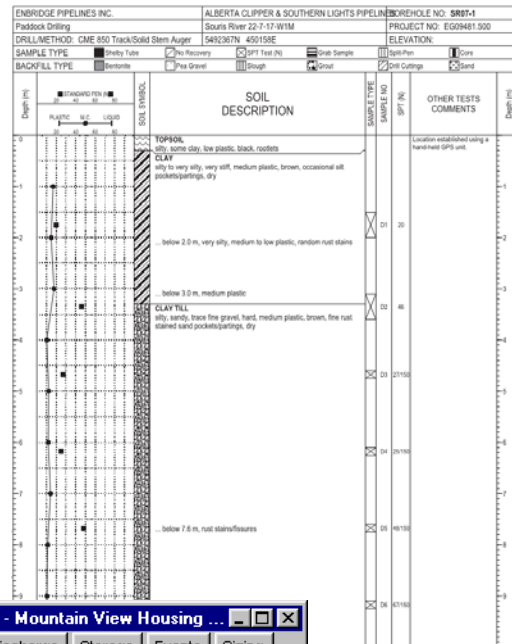
- Rate Control
 - Requires Further Design Development
 - Maintain Post-Development at or Below Existing Rates
- Stricter Regulations
 - Higher TSS Removal Rates (Rock River TMDL – Annexation)
- Other Goals
 - Volume Reduction
 - Phosphorus Reduction



STORMWATER ANALYSIS

NEXT STEPS

- Design Development
 - Geotechnical Data (Soil Types)
 - Groundwater Elevations
 - Grading Design
 - Routing Confirmation
 - Design Outlet Structures
 - Model Runoff Rates



STORMWATER ANALYSIS

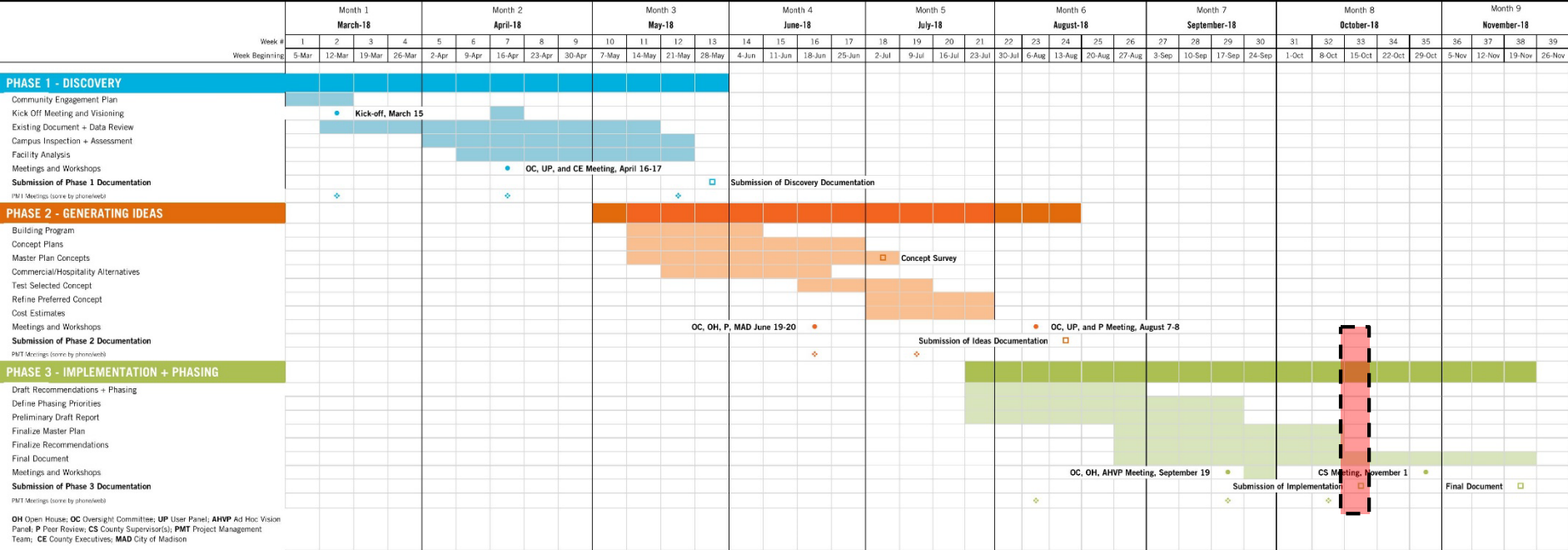
NEXT STEPS (cont.)

- Stormwater Features/Best Management Practices
 - Wet Ponds
 - Infiltration Basins
 - Bioswales / Bioretention
 - Pervious Pavement
 - Underground Storage
 - Maintenance (Street Sweeping, Periodic Cleaning of Stormwater Conveyance/Retention Features)



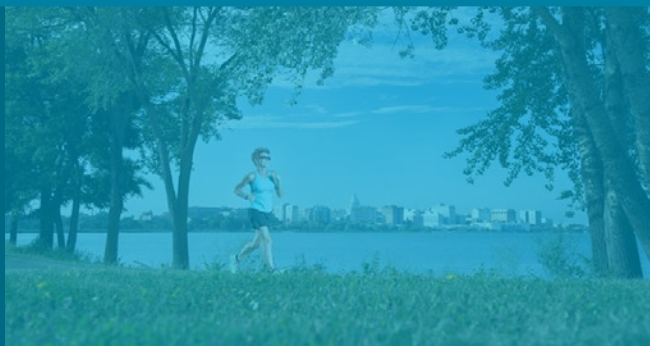
04/ NEXT STEPS

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AEC DANE COUNTY MASTER PLAN - SCHEDULE



SCHEDULE

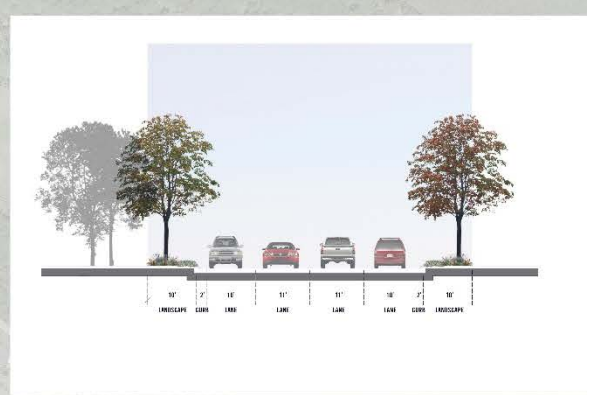
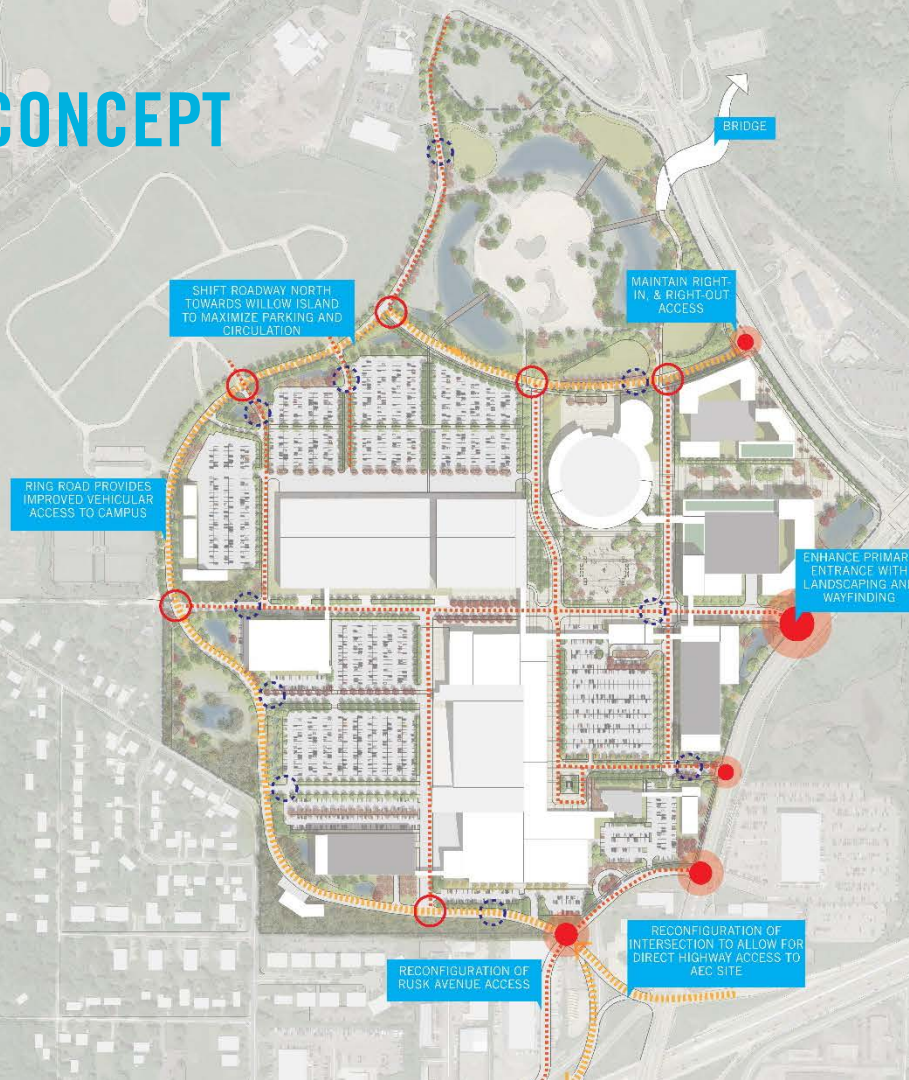
- Oversight Committee Meeting/Joint Open House
 - *October 15th*
- Draft Master Plan Document
 - *November 5th*
- County Board Meeting
 - *December 20th*







QUESTIONS?

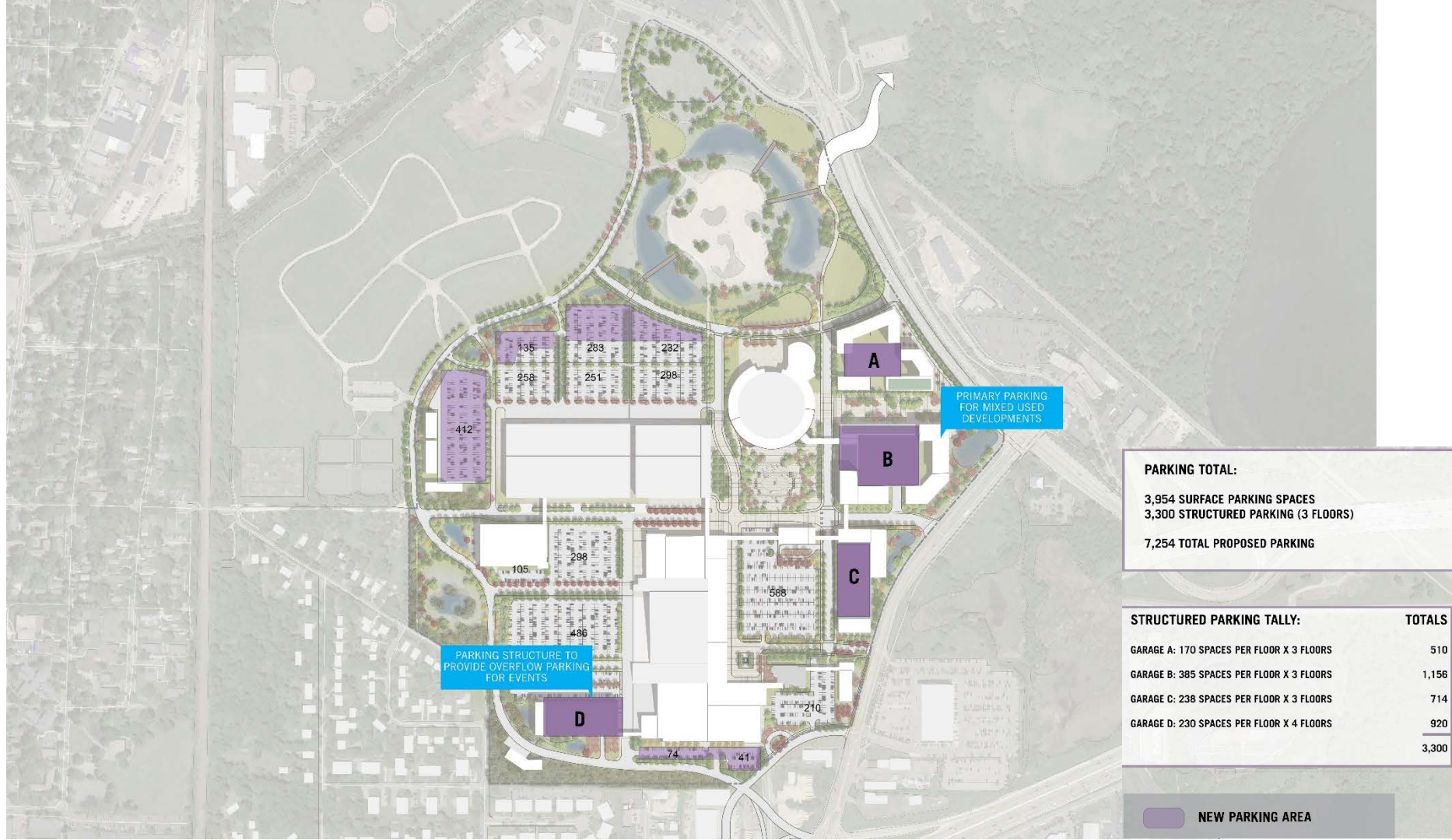
EXTRAS

REVISED CONCEPT



PRIMARY CIRCULATION "RING" ROAD: TYPICAL SECTION

-  PRIMARY CIRCULATION
-  SECONDARY CIRCULATION
-  VEHICULAR ENTRY
-  IMPROVED INTERSECTIONS



PARKING TOTAL:

3,954 SURFACE PARKING SPACES
3,300 STRUCTURED PARKING (3 FLOORS)

7,254 TOTAL PROPOSED PARKING

STRUCTURED PARKING TALLY:

TOTALS

GARAGE A: 170 SPACES PER FLOOR X 3 FLOORS	510
GARAGE B: 385 SPACES PER FLOOR X 3 FLOORS	1,156
GARAGE C: 238 SPACES PER FLOOR X 3 FLOORS	714
GARAGE D: 230 SPACES PER FLOOR X 4 FLOORS	920
	3,300

NEW PARKING AREA

All Mixed Use

General Land Use Classification	Weekdays			Weekends		
	2:00am-7:00am	7:00am - 6:00pm	6:00pm - 2:00am	2:00am-7:00am	7:00am - 6:00pm	6:00pm - 2:00am
Office	5%	100%	5%	0%	10%	0%
	14	276	14	0	27	0
Retail Sales and Services	0%	90%	80%	0%	100%	60%
	0	56	50	0	63	38
Restaurant (Not 24 Hours)	10%	70%	100%	20%	70%	100%
	15	102	146	30	102	146
Residential	100%	60%	100%	100%	75%	90%
	522	313	522	522	391	469
Hotel	100%	55%	100%	100%	55%	100%
	536	244	536	536	294	536
Conference/Convention Facilities	0%	100%	100%	0%	100%	100%
	0	0	0	0	0	0
	1087	991	1268	1088	877	1189

Remove 1218 stalls

Phase 1 Mixed Use

General Land Use Classification	Weekdays			Weekends		
	2:00am-7:00am	7:00am - 6:00pm	6:00pm - 2:00am	2:00am-7:00am	7:00am - 6:00pm	6:00pm - 2:00am
Office	5%	100%	5%	0%	10%	0%
Retail Sales and Services	0%	90%	80%	0%	100%	60%
	0	18	16	0	20	12
Restaurant (Not 24 Hours)	10%	70%	100%	20%	70%	100%
	5	31	45	9	31	45
Residential	100%	60%	100%	100%	75%	90%
	324	194	324	324	243	291
Hotel	100%	55%	100%	100%	55%	100%
	0	0	0	0	0	0
Conference/Convention Facilities	0%	100%	100%	0%	100%	100%
	0	0	0	0	0	0
	329	243	385	333	294	348

Remove 262 stalls

Phase 2 Mixed Use

General Land Use Classification	Weekdays			Weekends		
	2:00am-7:00am	7:00am - 6:00pm	6:00pm - 2:00am	2:00am-7:00am	7:00am - 6:00pm	6:00pm - 2:00am
Office	5%	100%	5%	0%	10%	0%
	6	123	6	0	12	0
Retail Sales and Services	0%	90%	80%	0%	100%	60%
	0	22	20	0	25	15
Restaurant (Not 24 Hours)	10%	70%	100%	20%	70%	100%
	6	42	60	12	42	60
Residential	100%	60%	100%	100%	75%	90%
	198	118	198	198	148	178
Hotel	100%	55%	100%	100%	55%	100%
	176	97	176	176	97	176
Conference/Convention Facilities	0%	100%	100%	0%	100%	100%
	0	0	0	0	0	0
	386	402	460	386	324	429

Remove 534 stalls

Phase 3 Mixed Use

General Land Use Classification	Weekdays			Weekends		
	2:00am-7:00am	7:00am - 6:00pm	6:00pm - 2:00am	2:00am-7:00am	7:00am - 6:00pm	6:00pm - 2:00am
Office	5%	100%	5%	0%	10%	0%
	8	157	8	0	16	0
Retail Sales and Services	0%	90%	80%	0%	100%	60%
	0	0	0	0	0	0
Restaurant (Not 24 Hours)	10%	70%	100%	20%	70%	100%
	3	22	32	6	22	32
Residential	100%	60%	100%	100%	75%	90%
	0	0	0	0	0	0
Hotel	100%	55%	100%	100%	55%	100%
	153	84	153	153	84	153
Conference/Convention Facilities	0%	100%	100%	0%	100%	100%
	0	0	0	0	0	0
	164	263	193	159	122	185

Remove 422 stalls

PHASING

PHASE 1

- EXPO HALL EXPANSION
- EXPO HALL STREET FRONTAGE AND DROP-OFF AREA
- PUBLIC REALM/STREETSCAPE IMPROVEMENTS TO MAIN ENTRANCE DRIVE OFF OF RIM ROCK ROAD



- NEW HEADQUARTERS HOTEL WITH SITE, STREETSCAPE, LANDSCAPING AND PARKING IMPROVEMENTS

PHASE 1A

- NEW ARENA BUILDING W/ EXPANDED PARKING
- NEW GATEWAY PLAZA W/ LANDSCAPING, LIGHTING, SEATING AND PEDESTRIAN AMENITIES
- REALIGN RING ROAD AND EXPANDED PARKING ON NORTH END OF CAMPUS



- NEW PRIVATE MIXED-USE DEVELOPMENT TO INCLUDE HOTEL, RESIDENTIAL, OFFICE AND COMMERCIAL USES



Phase 1 Developments			
	QTY	COST	FINAL
Private Development			
Removals	1	373700	\$ 373,700.00
Grading + Site Improvements	1	267900	\$ 267,900.00
Parking Ramp	1	24276000	\$ 24,276,000.00
Public Road with streetscape	1	28450	\$ 28,450.00
Public Plaza	1	192150	\$ 192,150.00
Public Plaza landscape	1	117400	\$ 117,400.00
Residential Development	1	27000000	\$ 27,000,000.00
Hotel Development	1	46750000	\$ 46,750,000.00
Retail Development	1	2702400	\$ 2,702,400.00
Mixed Use Development	1	15300000	\$ 15,300,000.00
Contingency 8%		\$ 9,360,640.00	\$ 9,360,640.00
TOTAL			\$ 126,368,640.00

Gateway Plaza			
Removals	1	74600	\$ 74,600.00
Grading + Site Improvements	1	142900	\$ 142,900.00
Landscape Improvements	1	551700	\$ 551,700.00
Paving	1	1650300	\$ 1,650,300.00
Stormwater Management	1	31700	\$ 31,700.00
Lighting + Electrical	1	64700	\$ 64,700.00
Contingency 8%		\$ 201,272.00	\$ 201,272.00
TOTAL			\$ 2,717,172.00

Arena			
Removals	1	38450	\$ 38,450.00
Grading + Site Improvements	1	42800	\$ 42,800.00
Building Expansion	1	6435300	\$ 6,435,300.00
Parking Lot	1	168000	\$ 168,000.00
Stormwater Improvements	1	3800	\$ 3,800.00
Landscape Improvements	1	16800	\$ 16,800.00
Contingency 8%		\$ 536,412.00	\$ 536,412.00
TOTAL			\$ 7,241,562.00

Headquarters Hotel (300 rooms)			
Removals	1	45300	\$ 45,300.00
Grading + Site Improvements	1	61400	\$ 61,400.00
Building Expansion	1	82547600	\$ 82,547,600.00
Parking Lot	1	18700	\$ 18,700.00
Streetscape	1	33500	\$ 33,500.00
Landscape Improvements	1	14800	\$ 14,800.00
Contingency 8%		\$ 6,617,704.00	\$ 6,617,704.00
TOTAL			\$ 89,339,004.00

Ring Road and Parking			
Removals	1	268700	\$ 268,700.00
Grading + Site Improvements	1	67800	\$ 67,800.00
Road Improvements	1	1559000	\$ 1,559,000.00
Parking Lot	1	1012500	\$ 1,012,500.00
Streetscape	1	68000	\$ 68,000.00
Stormwater Improvements	1	74900	\$ 74,900.00
Landscape Improvements	1	96800	\$ 96,800.00
Contingency 8%		\$ 251,816.00	\$ 251,816.00
TOTAL			\$ 3,399,516.00

PHASE 1 - Expo Expansion			
Removals	1	386900	\$ 386,900.00
Grading + Site Improvements	1	347100	\$ 347,100.00
Building Expansion	1	69429300	\$ 69,429,300.00
Parking Lot	1	189700	\$ 189,700.00
Entry Drive +Landscape	1	193500	\$ 193,500.00
Stormwater Improvements	1	68700	\$ 68,700.00
Road and Drop-off	1	2729250	\$ 2,729,250.00
Public Realm/Streetscape	1	251800	\$ 251,800.00
Landscape Improvements	1	112900	\$ 112,900.00
Contingency 5%		\$ 3,685,457.50	\$ 3,685,457.50
TOTAL			\$ 77,394,607.50

ADDITIONAL PROJECTS

- Coliseum – NW locker/dressing room addition
 - *Approx. \$1.7 million*
- Coliseum – Expanded loading dock
 - *Approx. \$460k*
- Coliseum - Remodel existing locker room
 - *Approx. \$850k*
- Feasibility study for Phase 1 Expo Hall Expansion
 - *Approx. \$200k*
- Others?