Mitchell Park Domes Future State Planning and Construction Cost Estimating

Appendix A

Domes Alternatives 1 – 4 Visualizations

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Site Plan: Existing Conditions

S. LAYTON BLVD

W. PIERCE STREET

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Mitchell Park Domes Alternate #1: Demolition

BLVD

LAYTON

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W. PIERCE STREET

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Alternate #1: Demolition

Demolition of Domes, Transition Dome, Lobby and below ground mechanical spaces

Site is cleared and leveled and grass seed is planted

Greenhouses remain

Parking areas remain to serve Mitchell Park



BLVD

LAYTON

S.

Alternate #2: Repair Three Domes

%

0% TOTAL

W. PIERCE STREET

Standing to say of the second

Alternate #2: Repair Three Domes

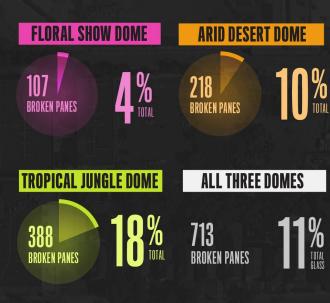
Replace the 713 broken panes of glass

Improvements to accessibility in Domes and Toilets

Repair of concrete structure (protective wire remains)

Critical building mechanical system upgrades

PERCENTAGES OF BROKEN GLASS



SITE PLAN

BLVD

LAYTON

5

Alternate #3: Restore Three Domes

FULL REPLACEMENT

FULL REPLACEMENT

FULL REPLACEMENT

State Transfer II BIT TANKS

Alternate #3: Restore Three Domes

Rebuild the exterior glass structure of all three domes with new tested assembly (see inset photo)

Improvements to accessibility in Domes, Toilets and Lobby

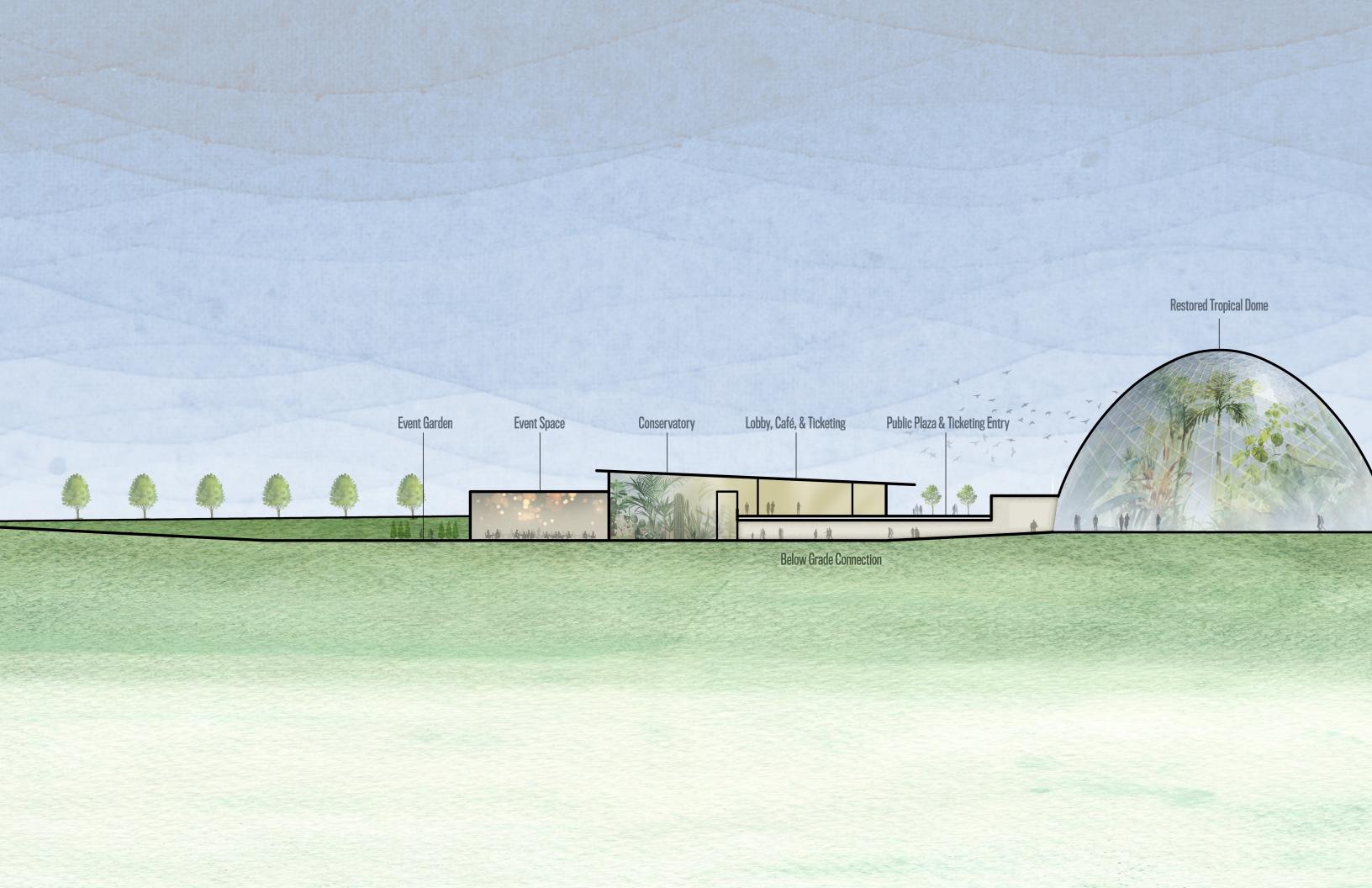
Repair, paint and reseal concrete structure (protective wire removed)

Critical building mechanical system upgrades

Improvements to building safety and emergency exiting



SITE PLAN



BLVD

LAYTON

5

Alternate #4: Restore One Dome & Build New Conservatory

12 1. ISA 201 1-211 -

W. PIERCE STREET

Alternate #4: Restore One Dome & Build New Conservatory

Rebuild the exterior glass structure of the Tropical Dome

Improvements to accessibility & building safety within the Tropical Dome

Repair, paint and reseal concrete structure within the Tropical Dome (protective wire removed)

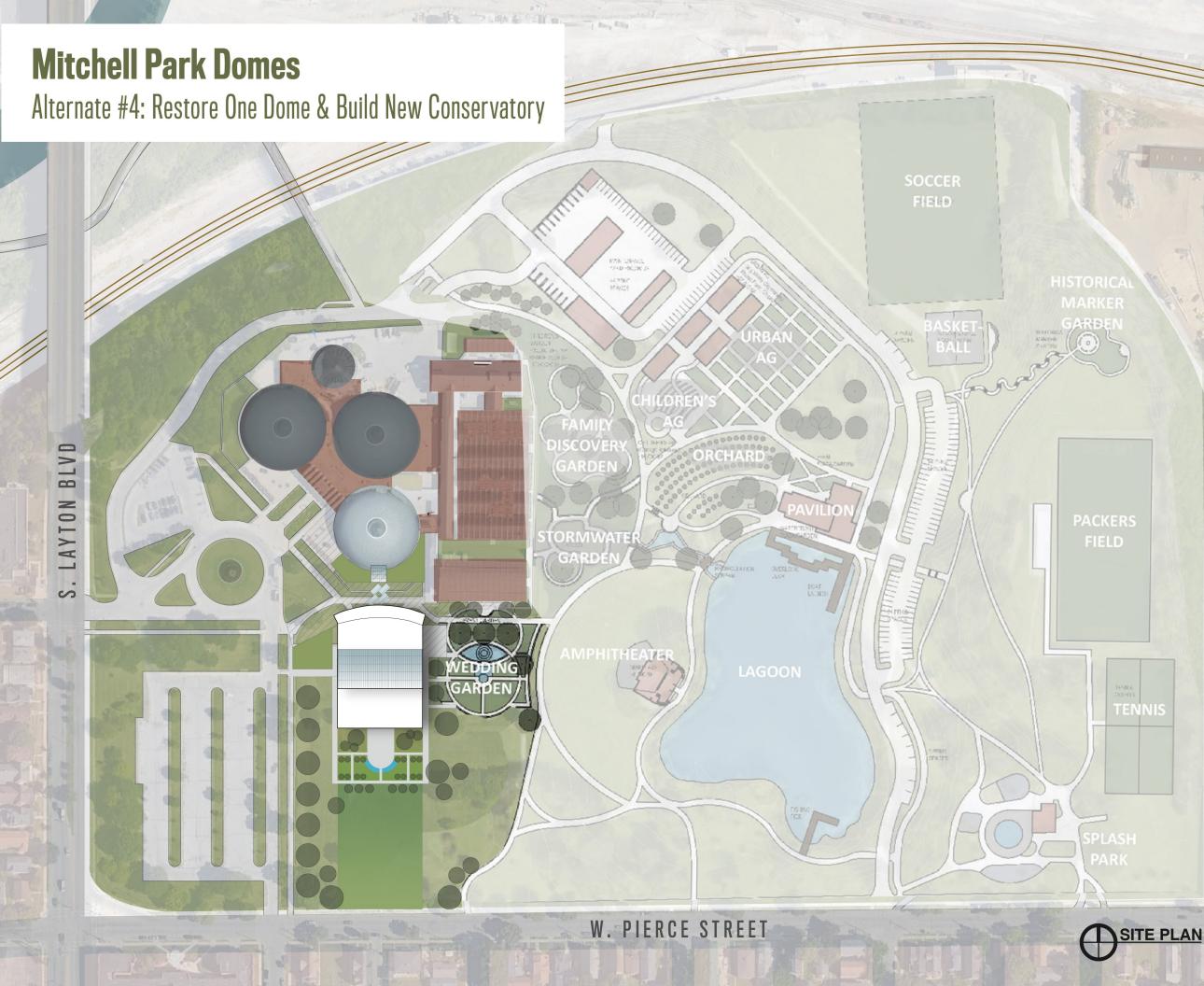
Two remaining domes are "mothballed" (no investment of repairs, and no public access)

New highly sustainable conservatory building constructed south of the Tropical Dome with a below grade connection

Conservatory building would include a cafe or small restaurant and an event space for rentals

New shared plaza to create stronger connection to Mitchell Park

SITE PLAN



Alternate #4: Restore One Dome & Build New Conservatory

Rebuild the exterior glass structure of the Tropical Dome

Improvements to accessibility & building safety within the Tropical Dome

Repair, paint and reseal concrete structure within the Tropical Dome (protective wire removed)

Two remaining domes are "mothballed" (no investment of repairs, and no public access)

New highly sustainable conservatory building constructed south of the Tropical Dome with a below grade connection

Conservatory building would include a cafe or small restaurant and an event space for rentals

New shared plaza to create stronger connection to Mitchell Park

Mitchell Park Domes Future State Planning and Construction Cost Estimating

Appendix B

Domes Alternatives 1 – 4 Construction Cost Estimates



55 East Monroe Street Suite 2850 Chicago, IL 60603 312.424.0250 T www.concord-cc.com

Milwaukee County

Mitchel Park Domes Future State Planning

524 S Layton Blvd. Milwaukee, WI 53215

Order of Magnitude Estimate August 29, 2023 DRAFT

Project: 2023B517

Prepared For: Milwaukee County Dept. of Administrative Services Facilities Management Division 633 W. Wisconsin Ave. Suite 1002 Milwaukee, WI 53203

DRAFT

NOTES REGARDING PREPARATION OF ESTIMATE

This estimate was prepared based on the following documents provided by Milwaukee County Parks:

- 1. Original Dome Drawings provided by Milwakee County Parks dated June 15, 1962.
- 2. Alternate #1 Scoping Exhibit prepared by The Concord Group received July 20, 2023.
- 3. Alternate #2 Scoping Exhibit prepared by Study Team received August 7, 2023.
- 4. Alternate #3 Scoping Exhibit prepared by Study Team received August 7, 2023.
- 5. Alternate #4 Scoping Exhibits prepared by Study Team received August 21-28, 2023.
- 6. Information regarding the project was also obtained via meetings, phone conversations, and email messages that clarified the project scope.

BIDDING PROCESS - MARKET CONDITIONS

This document is based on the measurement and pricing of quantities wherever information is provided and/or reasonable assumptions for other work not covered in the drawings or specifications, as stated within this document. Unit rates have been generated from current material/labor rates, historical production data, and discussions with relevant subcontractors and material suppliers. The unit rates reflect current bid costs in the area. All unit rates relevant to subcontractor work include the subcontractors overhead and profit unless otherwise stated.

Pricing reflects probable construction costs obtainable in the Milwaukee, Wisconsin area on the bid date. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all subcontractors with a minimum of 3 bidders for all items of subcontracted work and a with a minimum of 3 bidders for a general contractor. Experience indicates that a fewer number of bidders may result in higher bids, conversely an increased number of bidders may result in more competitive bids.

Since The Concord Group has no control over the cost of labor, material, equipment, or over the contractor's method of determining prices, or over the competitive bidding or market conditions at the time of bid, this statement of probable construction cost is based on industry practice, professional experience and qualifications, and represents The Concord Group's best judgment as professional construction cost consultants familiar with the construction industry. However, The Concord Group cannot and does not guarantee that the proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

CURRENT MARKET CONDITIONS

It should be noted that there is ongoing volatility in the construction materials market due to the effects of the pandemic on both the production and supply of materials. Due to the lack of in stock materials suppliers are struggling to fulfill orders in a timely manner, which in turn leads to much longer than normal lead times. The impact of ongoing global raw material shortages and fuel price increases adds to the overall spike in material pricing coupled with the increased demand for construction that the construction industry is now seeing. These factors should be considered when determining the bidding strategy and schedule for projects.

ASSUMED CONSTRUCTION PARAMETERS

The pricing is based on the following project parameters:

- 1. A construction notice to proceed date of Q2, 2025 for Alternatives 1-4.
- 2. A construction duration of 7-8 months for Alternative 1.
- 3. A construction duration of 12-15 months for Alternatives 2 & 3.
- 4. A construction duration of 15-18 months for Alternative 4.
- 5. The contract will be competitively bid to multiple contractors.
- 6. All contractors will be required to pay prevailing wages.
- 7. There are no phasing requirements.
- 8. The contractors will have full access to the site during normal working hours
- 9. Estimate detail includes pricing as of August 2023.

Milwaukee County Mitchel Park Domes Future State Planning

Order of Magnitude Estimate 08/29/2023 DRAFT

EXCLUSIONS

The following are excluded from the cost of this estimate:

- 1. Professional Design Fees
- 2. Testing Fees
- 3. Owner Contingencies/Scope Changes
- 4. Construction Contingency
- 5. Premium Time / Restrictions on Contractor Working Hours
- 6. Cost Escalation Beyond a Construction Mid-Point Date of Q3 2024
- 7. Finance and Legal Charges
- 8. Environmental Abatement Costs
- 9. Temporary Owner Facilities
- 10. Moisture Mitigation
- 11. Equipment (Owner Furnished/Installed)
- 12. Loose Furniture
- 13. Artwork
- 14. Work to Existing Greenhouses (Existing to Remain)
- 15. Dome Plant Material Removal
- 16. Fire Suppression for Alternative 2
- 17. Third Party Commissioning
- 18. Non-fixed Audio/Visual Equipment & Wiring
- 19. Telephone / Data Equipment
- 20. Contaminated Soil Removal
- 21. Structurally Unsuitable Soil Removal
- 22. Stormwater Retention (Surface Runoff Only)
- 23. Work to Exsting Show/Dessert Domes and Associated Space in Alternative 4
- 24. Unforeseen Future Cost Impacts Based on Supply Chain Impacts

GROUP	08/29/2023 DRAFT
COST SUMMARY	BUILDING TOTAL
ALTERNATIVE #1: DEMOLISH DOMES FACILITY	\$4,778,881
ALTERNATIVE #2: REPAIR THREE DOMES	\$21,720,595
ALTERNATIVE #3: RESTORE THREE DOMES	\$67,149,432
ALTERNATIVE #4	
ALTERNATIVE #4: RESTORE TROPICAL DOME	\$20,629,689

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ALTERNATIVE #4: CONSERVATORY & EVENT BUILDING		\$27,504,678
ALTERNATIVE #4: NORTH ENTRY COURTYARD		\$1,611,632
TOTAL ESTIMATED BASE CONSTRUCTION COSTS		\$49,746,000
ALTERNATIVE #4: EAST WEDDING GARDEN ALTERNATIVE #4: EAST CAFE GARDEN ALTERNATIVE #4: SOUTH EVENT GARDEN	ADD ADD ADD	\$2,049,748 \$135,417 \$1,145,972
TOTAL ESTIMATED CONSTRUCTION COSTS		\$53,077,137

ALTERNATIVE #1: DEMOLISH DOMES FACILITY

Order of Magnitude Estimate 08/29/2023 DRAFT

BUILDING TOTAL

01000 GENERAL REQUIREMENTS \$0 02000 EXISTING CONDITIONS \$2,022,289 03000 CONCRETE \$0 04000 MASONRY \$0 **05000** METALS \$0 06000 WOODS, PLASTICS & COMPOSITES \$0 07000 THERMAL & MOISTURE PROTECTION SYSTEM \$0 08000 OPENINGS \$0 09000 FINISHES \$0 10000 SPECIALTIES \$0 11000 EQUIPMENT \$0 12000 FURNISHINGS \$0 13000 SPECIAL CONSTRUCTION \$0 14000 CONVEYING EQUIPMENT \$0 21000 FIRE SUPPRESSION \$0 \$18,910 22000 PLUMBING 23000 HEATING, VENTILATING & AIR CONDITIONING \$24,100 26000 ELECTRICAL \$21,472 27000 COMMUNICATIONS \$0 28000 ELECTRONIC SAFETY AND SECURITY \$0 31000 EARTHWORK \$380,057 32000 EXTERIOR IMPROVEMENTS \$426,822 33000 UTILITIES \$95,531 SUBTOTAL \$2,989,181 20.00% \$597,836 DESIGN CONTINGENCY GENERAL CONDITIONS/BOND/INSURANCE 16.00% \$573,923 CONTRACTOR'S FEES 6.00% \$249,656 ESCALATION TO MID-POINT OF CONSTRUCTION 8.35% \$368,285 <u>\$4,778,881</u> TOTAL ESTIMATED CONSTRUCTION COSTS

Order of Magnitude Estimate 08/29/2023 DRAFT

BUILDING TOTAL

ALTERNATIVE #2: REPAIR THREE DOMES

01000	GENERAL REQUIREMENTS		\$0
02000	EXISTING CONDITIONS		\$225,462
03000	CONCRETE		\$2,361,775
04000	MASONRY		\$180,530
05000	METALS		\$7,742
06000	WOODS, PLASTICS & COMPOSITES		\$0
07000	THERMAL & MOISTURE PROTECTION SYSTEM		\$2,147,331
08000	OPENINGS		\$3,317,541
09000	FINISHES		\$595,169
10000	SPECIALTIES		\$0
11000	EQUIPMENT		\$0
12000	FURNISHINGS		\$0
13000	SPECIAL CONSTRUCTION		\$0
14000	CONVEYING EQUIPMENT		\$0
21000	FIRE SUPPRESSION		\$0
22000	PLUMBING		\$1,679
23000	HEATING, VENTILATING & AIR CONDITIONING		\$2,617,649
26000	ELECTRICAL		\$1,272,586
27000	COMMUNICATIONS		\$445,209
28000	ELECTRONIC SAFETY AND SECURITY		\$738,253
31000	EARTHWORK		\$0
32000	EXTERIOR IMPROVEMENTS		\$0
33000	UTILITIES		\$0
	SUBTOTAL		\$13,910,926
	DESIGN CONTINGENCY	20.0%	\$2,782,185
	GENERAL CONDITIONS/BOND/INSURANCE	12.0%	\$2,003,173
	CONTRACTOR'S FEES	6.0%	\$1,121,777
	ESCALATION TO MID-POINT OF CONSTRUCTION	9.60%	\$1,902,534
	TOTAL ESTIMATED CONSTRUCTION COSTS		\$21,720,595

Order of Magnitude Estimate 08/29/2023 DRAFT

\$0

\$0

\$0

\$0

\$0

\$0

\$796,792

\$445,209

\$738,253

\$0

\$0

\$0

\$1,741

\$175,027

\$327,700

\$27,867

\$343,058

ALTERNATIVE #3: RESTORE THREE DOMES BUILDING TOTAL 01000 GENERAL REQUIREMENTS 02000 EXISTING CONDITIONS 03000 CONCRETE \$5,116,646 04000 MASONRY **05000** METALS 06000 WOODS, PLASTICS & COMPOSITES 07000 THERMAL & MOISTURE PROTECTION SYSTEM 08000 OPENINGS \$27,860,543 09000 FINISHES \$3,202,603 10000 SPECIALTIES 11000 EQUIPMENT 12000 FURNISHINGS 13000 SPECIAL CONSTRUCTION \$1,684,585 14000 CONVEYING EQUIPMENT 21000 FIRE SUPPRESSION 22000 PLUMBING 23000 HEATING, VENTILATING & AIR CONDITIONING \$2,617,649 26000 ELECTRICAL \$1,272,586 27000 COMMUNICATIONS 28000 ELECTRONIC SAFETY AND SECURITY 31000 EARTHWORK 32000 EXTERIOR IMPROVEMENTS 33000 UTILITIES SUBTOTAL \$44,610,259 20.0% \$8,922,052 DESIGN CONTINGENCY GENERAL CONDITIONS/BOND/INSURANCE 9.0% \$4,817,908 CONTRACTOR'S FEES 5.0% \$2,917,511 ESCALATION TO MID-POINT OF CONSTRUCTION 9.60% \$5,881,702

TOTAL ESTIMATED CONSTRUCTION COSTS

\$67,149,432

Order of Magnitude Estimate 08/29/2023 DRAFT

BUILDING TOTAL

ALTERNATIVE #4: RESTORE TROPICAL DOME

01000	GENERAL REQUIREMENTS		\$0
02000	EXISTING CONDITIONS		\$58,342
03000	CONCRETE		\$1,705,879
04000	MASONRY		\$0
05000	METALS		\$0
06000	WOODS, PLASTICS & COMPOSITES		\$0
07000	THERMAL & MOISTURE PROTECTION SYSTEM		\$73,844
08000	OPENINGS		\$9,184,932
09000	FINISHES		\$162,731
10000	SPECIALTIES		\$0
11000	EQUIPMENT		\$0
	SPECIAL CONSTRUCTION		\$0 \$1,081,859 \$0
21000	FIRE SUPPRESSION		\$158,817
22000	PLUMBING		\$0
23000	HEATING, VENTILATING & AIR CONDITIONING		\$719,416
26000	ELECTRICAL		\$147,182
27000	COMMUNICATIONS		\$135,789
28000	ELECTRONIC SAFETY AND SECURITY		\$214,160
31000	EARTHWORK		\$0
32000	EXTERIOR IMPROVEMENTS		\$0
33000	UTILITIES		\$0
	SUBTOTAL		\$13,642,951
	DESIGN CONTINGENCY	20.0%	\$2,728,590
	GENERAL CONDITIONS/BOND/INSURANCE	9.0%	\$1,473,439
	CONTRACTOR'S FEES	5.0%	\$892,249
	ESCALATION TO MID-POINT OF CONSTRUCTION	10.10%	\$1,892,460
	TOTAL ESTIMATED CONSTRUCTION COSTS		\$20,629,689

ALTERNATIVE #4: CONSERVATORY & EVENT BUILDING

Order of Magnitude Estimate 08/29/2023 DRAFT

BUILDING TOTAL

01000 GENERAL REQUIREMENTS \$0 02000 EXISTING CONDITIONS \$200,000 03000 CONCRETE \$1,122,936 04000 MASONRY \$46,050 **05000** METALS \$2,057,798 06000 WOODS, PLASTICS & COMPOSITES \$72,789 07000 THERMAL & MOISTURE PROTECTION SYSTEM \$1,368,618 08000 OPENINGS \$6,758,049 09000 FINISHES \$639,635 10000 SPECIALTIES \$26,760 11000 EQUIPMENT \$125,000 12000 FURNISHINGS \$3,282 13000 SPECIAL CONSTRUCTION \$0 14000 CONVEYING EQUIPMENT \$175,000 21000 FIRE SUPPRESSION \$419,107 22000 PLUMBING \$209,660 23000 HEATING, VENTILATING & AIR CONDITIONING \$1,603,121 26000 ELECTRICAL \$1,943,677 27000 COMMUNICATIONS \$304,763 28000 ELECTRONIC SAFETY AND SECURITY \$188,217 \$456,960 31000 EARTHWORK 32000 EXTERIOR IMPROVEMENTS \$15,726 33000 UTILITIES \$452,414 SUBTOTAL \$18,189,561 DESIGN CONTINGENCY 20.0% \$3,637,912 GENERAL CONDITIONS/BOND/INSURANCE 9.0% \$1,964,473 CONTRACTOR'S FEES 5.0% \$1,189,597 ESCALATION TO MID-POINT OF CONSTRUCTION 10.10% \$2,523,136 TOTAL ESTIMATED CONSTRUCTION COSTS \$27,504,678

Project: 2023B517

	ALTERNATIVE #4: NORTH ENTRY COURTYARD		BUILDING TOTAL
01000 02000			\$0 \$0
03000 04000 05000	CONCRETE MASONRY METALS		\$0 \$0 \$0
	WOODS, PLASTICS & COMPOSITES THERMAL & MOISTURE PROTECTION SYSTEM OPENINGS		\$0 \$0 \$100,000
10000	FINISHES SPECIALTIES EQUIPMENT		\$0 \$0 \$0
12000 13000 14000	SPECIAL CONSTRUCTION		\$0 \$0 \$0
21000 22000 23000			\$0 \$0 \$0
27000	ELECTRICAL COMMUNICATIONS ELECTRONIC SAFETY AND SECURITY		\$80,000 \$0 \$0
32000	EARTHWORK EXTERIOR IMPROVEMENTS UTILITIES		\$200,283 \$685,532 \$0
	SUBTOTAL		\$1,065,814
	DESIGN CONTINGENCY GENERAL CONDITIONS/BOND/INSURANCE CONTRACTOR'S FEES ESCALATION TO MID-POINT OF CONSTRUCTION	20.0% 9.0% 5.0% 10.10%	\$213,163 \$115,108 \$69,704 \$147,843
	TOTAL ESTIMATED CONSTRUCTION COSTS		\$1,611,632

Order of Magnitude Estimate 08/29/2023 DRAFT

BUILDING TOTAL ALTERNATIVE #4: EAST WEDDING GARDEN 01000 GENERAL REQUIREMENTS \$0 02000 EXISTING CONDITIONS \$0 03000 CONCRETE \$0 04000 MASONRY \$0 **05000** METALS \$0 06000 WOODS, PLASTICS & COMPOSITES \$0 07000 THERMAL & MOISTURE PROTECTION SYSTEM \$0 08000 OPENINGS \$0 09000 FINISHES \$0 10000 SPECIALTIES \$0 11000 EQUIPMENT \$0 12000 FURNISHINGS \$0 13000 SPECIAL CONSTRUCTION \$0 14000 CONVEYING EQUIPMENT \$0 21000 FIRE SUPPRESSION \$0 22000 PLUMBING \$0 23000 HEATING, VENTILATING & AIR CONDITIONING \$0 26000 ELECTRICAL \$100,000 27000 COMMUNICATIONS \$0 28000 ELECTRONIC SAFETY AND SECURITY \$0 31000 EARTHWORK \$177,360 32000 EXTERIOR IMPROVEMENTS \$1,078,192 33000 UTILITIES \$0 SUBTOTAL \$1,355,552 20.0% DESIGN CONTINGENCY \$271,110 GENERAL CONDITIONS/BOND/INSURANCE 9.0% \$146,400 CONTRACTOR'S FEES 5.0% \$88,653 ESCALATION TO MID-POINT OF CONSTRUCTION 10.10% \$188,033 TOTAL ESTIMATED CONSTRUCTION COSTS \$2,049,748 ADD

CONCORD — GROUP—

Order of Magnitude Estimate 08/29/2023 DRAFT

\$0

\$0

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ALTERNATIVE #4: EAST CAFE GARDEN **BUILDING TOTAL** 01000 GENERAL REQUIREMENTS 02000 EXISTING CONDITIONS 03000 CONCRETE

	TOTAL ESTIMATED CONSTRUCTION COSTS		ADD	\$135,417
	DESIGN CONTINGENCY GENERAL CONDITIONS/BOND/INSURANCE CONTRACTOR'S FEES ESCALATION TO MID-POINT OF CONSTRUCTION	20.0% 9.0% 5.0% 10.10%		\$17,911 \$9,672 \$5,857 \$12,422
	SUBTOTAL			\$89,555
31000 32000 33000	EARTHWORK EXTERIOR IMPROVEMENTS UTILITIES			\$19,716 \$44,839 \$0
26000 27000 28000	ELECTRICAL COMMUNICATIONS ELECTRONIC SAFETY AND SECURITY			\$25,000 \$0 \$0
21000 22000 23000	FIRE SUPPRESSION PLUMBING HEATING, VENTILATING & AIR CONDITIONING			\$0 \$0 \$0
13000	FURNISHINGS SPECIAL CONSTRUCTION CONVEYING EQUIPMENT			\$0 \$0 \$0
09000 10000 11000	FINISHES SPECIALTIES EQUIPMENT			\$0 \$0 \$0
06000 07000 08000	WOODS, PLASTICS & COMPOSITES THERMAL & MOISTURE PROTECTION SYSTEM OPENINGS			\$0 \$0 \$0
03000 04000 05000	CONCRETE MASONRY METALS			\$0 \$0 \$0

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BUILDING TOTAL ALTERNATIVE #4: SOUTH EVENT GARDEN 01000 GENERAL REQUIREMENTS \$0 02000 EXISTING CONDITIONS \$0 03000 CONCRETE \$0 04000 MASONRY \$0 **05000** METALS \$0 06000 WOODS, PLASTICS & COMPOSITES \$0 07000 THERMAL & MOISTURE PROTECTION SYSTEM \$0 08000 OPENINGS \$0 09000 FINISHES \$0 10000 SPECIALTIES \$0 11000 EQUIPMENT \$0 12000 FURNISHINGS \$0 13000 SPECIAL CONSTRUCTION \$0 14000 CONVEYING EQUIPMENT \$0 21000 FIRE SUPPRESSION \$0 22000 PLUMBING \$5,227 23000 HEATING, VENTILATING & AIR CONDITIONING \$0 26000 ELECTRICAL \$100,000 27000 COMMUNICATIONS \$0 28000 ELECTRONIC SAFETY AND SECURITY \$0 31000 EARTHWORK \$106,765 32000 EXTERIOR IMPROVEMENTS \$495,870 33000 UTILITIES \$50,000 SUBTOTAL \$757,861 20.0% DESIGN CONTINGENCY \$151,572 GENERAL CONDITIONS/BOND/INSURANCE 9.0% \$81,849 CONTRACTOR'S FEES 5.0% \$49,564 ESCALATION TO MID-POINT OF CONSTRUCTION 10.10% \$105,126 TOTAL ESTIMATED CONSTRUCTION COSTS \$1,145,972 ADD

Milwaukee County Mitchel Park Domes Future State Planning

		QTY	UM	UNIT COST	TOTAL COS
LTERNA	TIVE #1: DEMOLISH DOMES FACILITY				
02000	EXISTING CONDITIONS				
02300	Building Demolition				
Remove con foundations	ncrete walls, 12" thk - 15" thk, avg reinforcing, to 4' below grade,	4,000	LNFT	102.76	411,04
Remove co walls	ncrete walls, 12" thk - 15" thk, avg reinforcing, to 4' below grade, si	ite 1,225	LNFT	102.76	125,88
Demolish co	oncrete superstructure	54,850	SQFT	6.27	344,13
Demolish co	oncrete structure & skylight, domes	97,500	SQFT	5.26	512,99
Demolish sł	ylight, transition house	5,675	SQFT	2.63	14,92
Demolish ex	xterior facade	18,000	SQFT	4.38	78,92
Miscellaneo	us salvage allowance	1	LSUM	100,002.40	100,00
Break up ex	isting slab	85,000	SQFT	0.41	34,94
Gut building	interior demolition	106,500	SQFT	2.14	228,31
Backfill with	imported clean fill at existing basements	8,350	CUYD	20.49	171,12
		SUBTOTAL: B	uilding De	emolition	\$2,022,28
AL: EXIS	TING CONDITIONS				\$2,022,28
22000	PLUMBING				
22000					
22100	Selective Demolition				
Cut, cap &	nake safe - plumbing	1	LSUM	18,910.40	18,9
	S	SUBTOTAL: Se	lective De	emolition	\$18,91
AL: PLU	MBING				\$18,91
23000	HEATING VENTILATION & AIR CONDIT	IONING			
23100	Selective Demolition				
Cut, cap &	make safe - HVAC	1	LSUM	24,100.00	24,10
	9	SUBTOTAL: Se	lective De	emolition	\$24,10
AL: HEA	TING VENTILATION & AIR CONDITIONING				\$24,10
26000	FLECTRICAL				
26000	ELECTRICAL				
26100	Selective Demolition			- /	
Cut, cap &	make safe - electrical	1	LSUM	21,472.00	21,47
		SUBTOTAL: Se	lective De	emolition	\$21,47
AL: ELEC	TRICAL				\$21,47
31000	EARTHWORK				
31200	Site Grading				
	-	180,000	SQFT	0.70	125,1
Site grading			· ·		
Site grading		CLIRTO	TAL . Cito	Grading	¢175 11
		SUBTO	TAL: Site	Grading	\$125,11
31800	Site Demolition	SUBTO 92,500	TAL: Site	Grading	\$125,11 254,93

Milwaukee County Mitchel Park Domes Future State Planning

ESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
	SUBTOTAL	Site De	emolition	\$254,939
OTAL: EARTHWORK				\$380,057
32000 EXTERIOR IMPROVEMENTS				
32600 Landscaping				
Topsoil, avg 12" deep overall	6,667	CUYD	43.68	291,210
Seeding, fertilizer and fine grading, machine	180,000	SQFT	0.75	135,612
	SUBTOT	AL: Lan	dscaping	\$426,822
OTAL: EXTERIOR IMPROVEMENTS				\$426,822
33000 UTILITIES				
33100 Selective Site Demolition				
Disconnect, cut and cap incoming water service	1	LSUM	12,444.80	12,445
Disconnect, cut and cap sanitary sewer	1	LSUM	28,862.00	28,862
Disconnect, cut and cap storm utilities	1	LSUM	41,779.20	41,779
Disconnect, cut and cap incoming gas service	1	LSUM	12,444.80	12,445
	SUBTOTAL: Selective	e Site De	emolition	\$95,531
DTAL: UTILITIES				\$95,531
OTAL: ALTERNATIVE #1: DEMOLISH DOMES FAC				\$2,989,181

SCRIPTION	QTY	UM	UNIT COST	TOTAL COS
ALTERNATIVE #2: REPAIR THREE DOMES				
02000 EXISTING CONDITIONS 02800 Temporary Construction				
Temporarily remove & reinstall existing wire mesh system as necessary to perform work, per dome	3	EACH	75,154.10	225,4
SUBTOTA	L: Tempo	rary Cons	struction	\$225,46
TAL: EXISTING CONDITIONS				\$225,46
03000 CONCRETE				
03700 Concrete Restoration				
Prep four sides of concrete skylight frame by removing loose material & correosion, all domes	21,600	LNFT	29.60	639,4
Repair joints at concrete skylight frame, allow 35%, all domes	7,560	LNFT	213.21	1,611,8
Chip, clean, prime & patch type of typical concrete restoration work, avg 2.5 SF/EA	60	EACH	1,015.70	60,9
Repair concrete spalls in precast concrete around louvers, avg 2 SF/EA	50	EACH	990.70	49,5
SUBTO	OTAL: Con	crete Res	storation	\$2,361,7
TAL: CONCRETE				\$2,361,77
04000 MASONRY				
04200 Exterior Masonry Restoration				
Remove and rebuild section brick & block wall at corner, approx 12'-0" long	1	EACH	20,499.73	20,5
Remove and rebuild brick facade, one wythe, single unit, North Loading Dock	10	EACH	228.50	2,2
Stabilize all brick areas with helical ties, stabilize 100% of $\ $ brick, assume 16" x 24" pattern, Transition House	2,300	EACH	25.62	58,9
Repair spalled stone and mortar areas of panels, avg 4 SF per location, Desert Dome	5	EACH	462.71	2,5
Remove pavement below, and in front of, the panels that end below grade to , add weep holes, rework curb/soil for proper drainage, Desert Dome	1	EACH	26,599.68	26,0
Repoint all cracked and deteriorated areas of brick. Assume 10% of brick façade area, Transition House	585	SQFT	20.87	12,:
Repoint all cracked and deteriorated areas of brick. multiple locations, North Loading Dock	50	SQFT	103.58	5,
Replace all steel lintels with new galvanized steel lintels, North Loading Dock	50	LNFT	509.99	25,5
Remove & replace deteriorated concrete window, door jambs & brick trim with new precast pieces, allow 50% of total, Transition House	200	LNFT	114.51	22,9
Remove and reset cast stone sills at louvers, approx 10LF/EA	6	EACH	684.86	4,:
SUBTOTAL: EX	cterior Ma	sonry Res	storation	\$180,5
TAL: MASONRY				\$180,53
05000 METALS				
05100 Structural Steel Remove & replace section of metal deck between loading dock and transition	1	EACH	7,742.04	7,7
house, approx 6'-0" x16'-0"				
20220517				D 2 (

Milwaukee County Mitchel Park Domes Future State Planning

CRIPTION	QTY	UM	UNIT COST	TOTAL COST
	SUBTOTAL	.: Structu	ıral Steel	\$7,742
TAL: METALS				\$7,742
07000 THERMAL & MOISTURE PROTECTION				
07100 Dampproofing & Waterproofing				
Replace waterproofing membrane in drain gutters, approx 12" high x 18" wide	1,950	LNFT	32.93	64,220
SUBTOTAL: Da	ampproofing	ı & Water	proofing	\$64,220
		,	proofing	<i>+•</i> .,==•
07400 Roofing	4 4 9 9	COFT	11.70	40.250
Replace membrane over basement/mechanical area with new pedestrian grade membrane	4,100	SQFT	11.79	48,358
Add flashing to the top of the wall, Transition House	260	LNFT	63.82	16,594
	SU	JBTOTAL:	Roofing	\$64,952
07800 Caulking & Sealants				
Remove, clean & reseal all sealant joints within dome glass panels including	15,800	LNFT	38.27	604,666
cleaning drain system, Tropic Dome				
Remove & replace all sealant joints within masonry, concrete, windows and doors,	1,500	LNFT	19.68	29,517
Transition House				
Remove & replace all sealant joints within masonry, concrete, windows and doors,	7,500	LNFT	19.68	147,587
all Dome bases				
Remove & replace joint sealants lower level Desert Dome precast joints	375	LNFT	19.68	7,379
Remove, clean & reseal all sealant joints within dome glass panels including	15,800	LNFT	38.27	604,666
cleaning drain system, Desert Dome				
Remove & replace all sealant joints within masonry, concrete, windows and doors,	1,000	LNFT	19.68	19,678
North Loading Dock	15 000		20.27	604.666
Remove, clean & reseal all sealant joints within dome glass panels including cleaning drain system, Show Dome	15,800	LNFT	38.27	604,666
		ulling 9	Coolonto	¢2 019 150
	BTOTAL: Ca		Sediditis	\$2,018,159
AL: THERMAL & MOISTURE PROTECTION				\$2,147,331
08000 OPENINGS				
08300 Exterior Doors, Frames, & Hardware				
Remove & replace existing HM door, frame & hardware, single	2	EACH	5,874.40	11,749
SUBTOTAL: Exterio	or Doors, Fra	ames, & F	lardware	\$11,749
08700 Special Glazing Systems	,	, -		1 / -
Remove existing damaged 1/4" wired glass panes & replace with 7/16" laminated	218	EACH	4,608.80	1,004,718
glass panes including aluminum trim piece & hub covers, Desert Dome	210	LACIT	+,000.00	1,004,718
Remove existing damaged 1/4" wired glass panes & replace with 7/16" laminated	107	EACH	4,608.80	493,142
glass panes including aluminum trim piece & hub covers, Show Dome	107		.,	
Remove existing damaged 1/4" wired glass panes & replace with 7/16" laminated	388	EACH	4,608.80	1,788,214
glass panes including aluminum trim piece & hub covers, Tropic Dome				
SUBTO	TAL: Specia	l Glazing	Systems	\$3,286,074
08800 Louvers & Vents	-			· - •
Remove & replace damaged existing storm proof screen at louvers, approx	56	EACH	352.10	19,718
4'-6"x4'-6" triangular, all domes	50		552.10	15,710

Milwaukee County Mitchel Park Domes Future State Planning

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
	SUBTOTAI	L: Louver	s & Vents	\$19,718
TOTAL: OPENINGS				\$3,317,541
09000 FINISHES				
09600 Paints & Coatings				
Coat exposed steel plates at precast joints and hub connections to glazing system, all domes	, 4,800	EACH	87.23	418,680
Coat interior surface of foundations with a breathable coating	2,550	LNFT	27.26	69,513
Clean, prep & paint concrete outcropping walls, Desert Dome	700	SQFT	8.10	5,672
Clean, prep & paint exposed lintels at overhead doors, 8" wide x approx 12LF/EA, North Loading Dock	2	EACH	227.60	455
Clean, prep & paint embedded vertical steel elements, 4" wide x approx 12LF/EA, Entry	12	EACH	179.45	2,153
	SUBTOTAL:	Paints &	Coatings	\$496,474
09900 Miscellaneous Finishes				
Cut/patch wall at lavatory relocation	1	EACH	2,566.82	2,567
Demolish & replace existing ticket booth in ADA compliant location/design including doors & millwork, approx 10'x10'	1	LSUM	77,252.27	77,252
Enlarge walkway opening to provide 42" wide path of travel including patching	1	EACH	3,975.23	3,975
Modify existing mirror & backsplash to ADA height, approx 12" LF/EA	2	EACH	4,837.84	9,676
Replace existing below counter apron with new code compliant apron	2	EACH	2,612.61	5,225
SUBT	OTAL: Misc	ellaneous	Finishes	\$98,695
TOTAL: FINISHES				\$595,169
22000 PLUMBING				
22100 Selective Demolition				
Remove existing wall-mount lavatories including carrier and roughin; salvage fixture and carrier	1	EACH	295.48	295
SU	BTOTAL: Se	elective D	emolition	\$295
22200 Plumbing Fixtures				
Relocate, re-rough, and reconnect existing lavatory	1	EACH	1,383.66	1,384
	SUBTOTAL:	Plumbing	Fixtures	\$1,384
TOTAL: PLUMBING				\$1,679
				. ,
23000 HEATING VENTILATION & AIR CONDITIO	ONING			
23100 Selective Demolition	100 500		0.45	17.000
Selective demolition - HVAC duct, piping, misc. units	106,500	SQFT	0.45	47,968
Disconnect and remove existing ASU's - 3,300 cfm w/steam coil	30	EACH	723.00	21,690
Remove ASU louvers, dampers, and ductwork Disconnect and remove wall exhaust fan, 48x48 centrifugal, VFD	30 15	EACH EACH	482.00 602.50	14,460 9,038
Remove wall exhaust louvers and dampers	15	EACH	482.00	7,230
Remove SAI (summer air intake) w/louvers and dampers	63	EACH	482.00	30,366
Disconnect and remove dome apex exhaust fans	30	EACH	602.50	18,075
Remove dome apex louvers and dampers	30	EACH	602.50	18,075
keniove dome apex louvers and dampers	30	EACH	602.50	18,075

Milwaukee County Mitchel Park Domes Future State Planning

	QTY	UM	UNIT COST	TOTAL COS
Disconnect and remove steam boilers including flue/breeching and piping	4	EACH	9,752.00	39,00
SUBT	FOTAL: Sel	ective De	molition	\$205,909
23200 Ventilation & Exhaust				
Provide new air supply units, steam heat	30	EACH	6,723.00	201,69
ASU steam coil connections - valves, steam traps, strainers, fittings, and insulation	30	EACH	1,794.20	53,82
Louvers - ASU, fixed blade/stormproof, 4" D x 15" x 15"	30	EACH	441.00	13,23
Var. volume motorized dampers - ASU, 15" x 15"	30	EACH	961.50	28,84
Provide new wall exhaust fan, 48"x48" centrifugal w/VFD	15	EACH	6,464.00	96,96
Provide new louvers and dampers for wall exhaust	15	EACH	1,723.00	25,84
Dome apex exhaust fan, 36"x36 centrifugal, w/supports, VFD	30	EACH	6,946.00	208,38
Provide new louvers and dampers for dome exhaust	30	EACH	2,064.00	61,92
Galvanized steel duct, rectangular at new ASU's - allowance	6,000	LBS	14.54	87,24
Var. volume motorized dampers - SAI, 60" x 24"	30	EACH	1,552.50	46,57
Louvers - SAI, fixed blade/stormproof, 4" D x 60" x 24"	30	EACH	811.50	24,34
Duct insulation	4,500	SQFT	8.23	37,04
SUBT	OTAL: Ven	tilation &	Exhaust	\$885,903
23300 Central Hydronic & Steam Equipment & Specialties				
Steam boilers, based on 5000 pph	4	EACH	91,501.54	366,00
CA duct	200	LNFT	38.98	7,79
Boiler flue/breeching	200	LNFT	181.42	36,28
SUBTOTAL: Central Hydronic & Ste	eam Equipn	nent & Sp	ecialties	\$410,08
23400 Heating & Ventilating Terminals				
Fintube radiators, HW - allowance	4,800	LNFT	125.95	604,56
SUBTOTAL: Hea	ting & Ven	tilating T	erminals	\$604,56
23500 HVAC Piping				
Provide new steam, condensate, natural gas, and tertiary piping - allowance	106,500	SQFT	1.37	14E 00
Towace new steam, condensate, natural gas, and tendary piping anowance	100,500			145,99
novice new steam, concensule, natural gas, and tertainy piping - anowinee		TAL: HVA	C Piping	
		-	C Piping	
23600 Temperature Controls		-	C Piping 3,000.00	\$145,99
23600 Temperature Controls DDC controls - air supply units	SUBTO	TAL: HVA		\$145,99 90,00
23600 Temperature Controls DDC controls - air supply units DDC controls - exhaust fans	SUBTO 30	FAL: HVA	3,000.00	\$145,99 90,00 135,00
23600 Temperature Controls DDC controls - air supply units DDC controls - exhaust fans DDC controls - steam boilers	SUBTO 30 45	EACH EACH	3,000.00 3,000.00	\$145,99 90,00 135,00 12,00
23600 Temperature Controls DDC controls - air supply units DDC controls - exhaust fans DDC controls - steam boilers Thermostats/temperature sensors	SUBTO 30 45 4	EACH EACH EACH EACH	3,000.00 3,000.00 3,000.00	\$145,99 90,00 135,00 12,00 15,00
23600 Temperature Controls DDC controls - air supply units DDC controls - exhaust fans DDC controls - steam boilers Thermostats/temperature sensors CO sensors	SUBTO 30 45 4 30	EACH EACH EACH EACH EACH EACH	3,000.00 3,000.00 3,000.00 500.00	\$145,99 90,00 135,00 12,00 15,00 1,50
23600 Temperature Controls DDC controls - air supply units DDC controls - exhaust fans DDC controls - steam boilers Thermostats/temperature sensors CO sensors Emergency boiler shutoff switch	30 45 4 30 3	EACH EACH EACH EACH EACH EACH	3,000.00 3,000.00 3,000.00 500.00 500.00	\$145,99 90,00 135,00 12,00 15,00 1,50 4,20
23600 Temperature Controls DDC controls - air supply units DDC controls - exhaust fans DDC controls - steam boilers Thermostats/temperature sensors CO sensors Emergency boiler shutoff switch Miscellaneous points & devices	30 45 4 30 3 4	FAL: HVA EACH EACH EACH EACH EACH EACH	3,000.00 3,000.00 3,000.00 500.00 500.00 1,050.00	\$145,99 90,00 135,00 12,00 15,00 1,50 4,20 25,00
23600 Temperature Controls DDC controls - air supply units DDC controls - exhaust fans DDC controls - steam boilers Thermostats/temperature sensors CO sensors Emergency boiler shutoff switch Miscellaneous points & devices Engineer's station	30 45 4 30 3 4 1	FAL: HVA EACH EACH EACH EACH EACH EACH EACH LSUM	3,000.00 3,000.00 3,000.00 500.00 1,050.00 25,000.00	\$145,99 90,00 135,00 12,00 15,00 1,50 4,20 25,00 20,00
23600 Temperature Controls DDC controls - air supply units DDC controls - exhaust fans DDC controls - steam boilers Thermostats/temperature sensors CO sensors Emergency boiler shutoff switch Miscellaneous points & devices Engineer's station Programming, testing, and training	30 45 4 30 3 4 1 1	FAL: HVA EACH EACH EACH EACH EACH EACH LSUM LSUM	3,000.00 3,000.00 500.00 500.00 1,050.00 25,000.00 25,000.00	\$145,99 90,00 135,00 12,00 15,00 1,50 4,20 25,00 20,00 25,00
23600 Temperature Controls DDC controls - air supply units DDC controls - exhaust fans DDC controls - steam boilers Thermostats/temperature sensors CO sensors Emergency boiler shutoff switch Miscellaneous points & devices Engineer's station Programming, testing, and training	30 45 4 30 3 4 1 1 1	FAL: HVA EACH EACH EACH EACH EACH EACH LSUM LSUM	3,000.00 3,000.00 500.00 500.00 1,050.00 25,000.00 25,000.00	\$145,99 90,00 135,00 12,00 15,00 1,50 4,20 25,00 20,00 25,00
23600 Temperature Controls DDC controls - air supply units DDC controls - exhaust fans DDC controls - steam boilers Thermostats/temperature sensors CO sensors Emergency boiler shutoff switch Miscellaneous points & devices Engineer's station Programming, testing, and training SUBTC 23700 Testing, Balancing, & Commissioning	30 45 4 30 3 4 1 1 1 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	EACH EACH EACH EACH EACH EACH EACH LSUM LSUM LSUM	3,000.00 3,000.00 500.00 500.00 1,050.00 25,000.00 25,000.00 25,000.00	\$145,990 90,00 135,00 12,00 15,00 1,50 4,20 25,00 20,00 25,00 \$327,70
23600 Temperature Controls DDC controls - air supply units DDC controls - exhaust fans DDC controls - steam boilers Thermostats/temperature sensors CO sensors Emergency boiler shutoff switch Miscellaneous points & devices Engineer's station Programming, testing, and training	30 45 4 30 3 4 1 1 1	FAL: HVA EACH EACH EACH EACH EACH EACH LSUM LSUM	3,000.00 3,000.00 500.00 500.00 1,050.00 25,000.00 25,000.00	90,00 135,00 12,00 15,00 4,20 25,00 20,00 25,00 \$327,70 15,00 10,00

Milwaukee County Mitchel Park Domes Future State Planning

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
SUBTOTAL: Testing, B	alancing,	& Commi	ssioning	\$37,500
TOTAL: HEATING VENTILATION & AIR CONDITIONING				\$2,617,649
26000 ELECTRICAL				
26500 Lighting				
Disconnect and remove light fixture	250	EACH	234.72	58,680
Disconnect and remove rusted and decayed conduit	1	LSUM	50,000.00	50,000
Light fixture, interior, L.E.D. mounting hardware and connections -	250	EACH	672.08	168,020
Exit lighting, L.E.D. standard, single face, ceiling or wall mount	40	EACH	449.72	17,989
Add new exterior building mounted lights	8	EACH	1,192.08	9,537
Add new exterior pole mounted lights and associated feeder	8	EACH	7,500.00	60,000
Occupancy sensors, passive infrared, ceiling mounted	80	EACH	446.72	35,738
Dimming local station	50	EACH	169.36	8,468
Convenience receptacles	30	EACH	166.58	4,997
Lighing control, devices, cabling, connections and testing	1	LSUM	34,999.90	35,000
Branch wiring installation 600 V, including 3/4" EMT conduit and THWN wire, 20A	1	LSUM	180,000.00	180,000
Replace entire system; lights, and backbone software controlling lights	1	LSUM	22,000.00	22,000
New lighting control system hardware and software	1	LSUM	176,000.00	176,000
LED color changing up-light panels	8	EACH	8,200.00	65,600
LED color changing puck lights	750	EACH	187.00	140,250
Lighing control, devices, cabling, connections and testing	1	LSUM	135,000.00	135,000
Testing and engineering	1	LSUM	50,000.00	50,000
	SU	BTOTAL:	Lighting	\$1,217,278
26600 Branch Power Distribution & Devices				
Remove and reinstall electrical to allow masonry repairs	1	LSUM	10,000.00	10,000
SUBTOTAL: Branch Po	wer Distr	ibution &	Devices	\$10,000
26700 Mechanical Equipment Connections & Feeders				
Disconnect HVAC equipment, feeders to remain - Air Handling Units	30	EACH	154.20	4,626
Disconnect HVAC equipment, feeders to remain - Boilers and, pumps	4	EACH	288.40	1,154
Disconnect HVAC equipment, feeders to remain - dome exhaust fans	30	EACH	234.72	7,042
Disconnect HVAC equipment, feeders to remain - Wall exhaust fans	15	EACH	154.20	2,313
Connect new HVAC equipment to existing feeders - Air Handling Units	30	EACH	299.72	8,992
Connect new HVAC equipment to existing feeders - Boilers and, pumps	4	EACH	514.44	2,058
Connect new HVAC equipment to existing feeders - dome exhaust fans	30	EACH	487.60	14,628
Connect new HVAC equipment to existing feeders - Wall exhaust fans	15	EACH	299.72	4,496
SUBTOTAL: Mechanical Equipm				\$45,307
TOTAL: ELECTRICAL				\$1,272,586
27000 COMMUNICATIONS				
27200 Tele/Data Systems				
Provision for IT room, plywood, cable tray, grounding, sleeves	1	EACH	7,000.00	7,000
MDF rack assembly 2 racks, switching equipment by Owner	1	EACH	12,200.00	12,200
Provide Fiber from roadway into building's main IT/Data closet (assumed lenght)	350	LNFT	68.60	24,010
Tomae riber from roduway into building 5 main 17/Data closet (assumed lelight)	000		00.00	24,010

Milwaukee County Mitchel Park Domes Future State Planning

CRIPTION	QTY	UM	UNIT COST	TOTAL COS
Voice/Data wall outlet, back box and plate, 1 gang, 2-port	32	EACH	163.00	5,21
Wireless Access Point and mounting hardware	24	EACH	1,709.44	41,02
Cable supports provisions	1	LNFT	65,001.35	65,00
Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6	6 15,000	LNFT	2.38	35,69
Terminations and testing	1	SQFT	32,177.60	32,17
	SUBTOTAL: T	ele/Data	Systems	\$222,32
27300 Intercom & Public Address Systems				
PA/Sound system, cabinet, amplifier and power supply	1	EACH	19,605.00	19,6
New recessed, surface, and pendant mounted speakers	240	EACH	472.00	113,2
Conduit and PA/Intercommunication wiring	1	LSUM	75,000.00	75,0
Terminations and testing	1	LSUM	15,000.00	15,0
SUBTOTAL: In	ntercom & Public	Address	Systems	\$222,88
AL: COMMUNICATIONS				\$445,20
28000 ELECTRONIC SAFETY & SECURITY				
28200 Fire Alarm Systems				
Upgrade/expand existing fire alarm control panel	1	EACH	19,294.40	19,2
Miscellaneous FA devices	250	EACH	412.88	103,2
Fire alarm wiring installation, including 3/4" EMT conduit and FA cable wire	9,800	LNFT	18.87	184,9
Disconnect and remove existing system	1	LSUM	35,000.00	35,0
Testing and engineering	1	LSUM	15,000.00	15,0
	SUBTOTAL: F	ire Alarm	Systems	\$357,44
28300 Intrusion Detection & Access Control Systems				
Detection systems control panels, power supply and software	1	EACH	26,300.00	26,3
Card reader, flush type, standard	16	EACH	934.72	14,9
Electric door strike connection	16	EACH	181.14	2,8
Door rough in	16	EACH	520.00	8,3
Conduit and security wiring	1	LSUM	48,000.00	48,0
Terminations and testing	1	SQFT	10,000.00	10,0
SUBTOTAL: Intrusion De	etection & Acces	s Control	Systems	\$110,47
28400 CCTV System				
Control panel, switcher and recording device assembly	1	EACH	32,321.68	32,3
Interior dome camera, color,	20	EACH	2,341.14	46,8
Exterior dome camera, color,	8	EACH	4,299.44	34,3
Interior camera back box	20	EACH	44.84	8
Exterior camera back box	8	EACH	112.49	9
Conduit and CCTV wiring	1	LSUM	125,000.00	125,0
Terminations, testing and engineering	1	LSUM	30,000.00	30,0
	SUBTO	AL: CCT	/ System	\$270,33
				+700.05
AL: ELECTRONIC SAFETY & SECURITY				\$738,25

Milwaukee County Mitchel Park Domes Future State Planning

CRIPTION		QTY	UM	UNIT COST	TOTAL COS
LTERNA	TIVE #3: RESTORE THREE DOMES				
02000	EXISTING CONDITIONS				
02100	Selective Demolition				
Remove exte	erior door and frame at loading dock, single	3	EACH	397.24	1,1
		SUBTOTAL: S	elective De	emolition	\$1,19
02800	Temporary Construction				
Remove exis	sting wire mesh system, per dome	3	EACH	42,945.20	128,8
		STOTAL: Temp	orarv Con	struction	\$128,8
02900	Miscellaneous Existing Conditions				
	vance for HVAC scope per dome	3	LSUM	15,000.00	45,0
Access allow		Aiscellaneous			\$45,0
AI · FYTS	TING CONDITIONS	Hiscenaneous			\$175,02
					φ175,02
03000	CONCRETE				
03700	Concrete Restoration				
	& recoat four sides of concrete skylight frame, all domes	21,600	LNFT	157.14	3,394,
	s at concrete skylight frame, allow 35%, all domes	7,560	LNFT	213.21	1,611,
Chip, clean, SF/EA	prime & patch type of typical concrete restoration work, avg 2.5	60	EACH	1,015.70	60,
Repair conci	rete spalls in precast concrete around louvers, avg 2 SF/EA	50	EACH	990.70	49,
	5	SUBTOTAL: Co	oncrete Re	storation	\$5,116,6
AL: CON	CRETE				\$5,116,64
04000	MASONRY				
04200	Exterior Masonry Restoration				
Remove and	rebuild section brick & block wall at corner, approx 12'-0" long	1	EACH	20,499.73	20,
Remove and	I rebuild brick facade, one wythe, single unit, North Loading Dock	10	EACH	228.50	2,
	brick areas with helical ties, stabilize 100% of brick, assume 16" > nsition House	24" 2,300	EACH	25.62	58,
Repair spalle Dome	ed stone and mortar areas of panels, avg 4 SF per location, Desert	5	EACH	462.71	2,
	rement below, and in front of, the panels that end below grade to	, 1	EACH	26,599.68	26,
add weep ho	oles, rework curb/soil for proper drainage, Desert Dome				
Chemically c	lean existing brick facade, Transition House	5,850	SQFT	7.93	46,
Chemically c	lean existing precast facade at lower level Desert Dome	1,500	SQFT	5.95	8,9
Repoint all c area, Transit	racked and deteriorated areas of brick. Assume 10% of brick faça tion House	nde 585	SQFT	20.87	12,7
Repoint all c Loading Doc	cracked and deteriorated areas of brick. multiple locations, North	50	SQFT	103.58	5,
_	steel lintels with new galvanized steel lintels, North Loading Dock	50	LNFT	509.99	25,
Replace all s					-

Milwaukee County Mitchel Park Domes Future State Planning

Order of Magnitude Estimate 08/29/2023 DRAFT

CRIPTION	QTY	UM	UNIT COST	TOTAL COS
Replace deteriorated steel base angles with new galvanized or stainless steel angles, North Loading Dock	50	LNFT	437.50	21,875
Replace deteriorated steel base angles with new galvanized or stainless steel angles, Transition House	150	LNFT	437.50	65,624
Remove & replace deteriorated concrete window, door jambs & brick trim with new precast pieces, allow 50% of total, Transition House	200	LNFT	114.51	22,903
Remove and reset cast stone sills at louvers, approx 10LF/EA	6	EACH	684.86	4,109
SUBTOTAL:	Exterior Ma	sonry Re	storation	\$327,700
AL: MASONRY				\$327,700
05000 METALS 05100 Structural Steel				
Remove & replace section of metal deck between loading dock and transition house, approx 6'-0" \times 16'-0"	1	EACH	7,742.04	7,74
	SUBTOTAL	: Structu	Iral Steel	\$7,742
05400 Metal Fabrications	60	LNFT	335.41	20.12
Stainless steel hardrails, floor mounted, Show Dome	SUBTOTAL: N			20,12 \$20,12
AL: METALS	JOBIOTALI I			\$27,862
				Ψ27,007
07000 THERMAL & MOISTURE PROTECTION				
07100 Dampproofing & Waterproofing Replace waterproofing membrane in drain gutters, approx 12" high x 18" wide	1,950	LNFT	32.93	64,22
SUBTOTAL: D	,			\$64,220
07400 Roofing				
Replace membrane over basement/mechanical area with new pedestrian grade membrane	4,100	SQFT	11.79	48,35
Add flashing to the top of the wall, Transition House	260	LNFT	63.82	16,59
Provide sheet metal protection for concrete at drain locations from new glazing system, 12" wide x 36" high	24	EACH	405.20	9,72
	SU	BTOTAL:	Roofing	\$74,67
07800 Caulking & Sealants				
Remove & replace all sealant joints within masonry, concrete, windows and doors, all Dome bases	, 7,500	LNFT	19.68	147,58
Remove & replace all sealant joints within masonry, concrete, windows and doors, North Loading Dock	, 1,000	LNFT	19.68	19,67
Remove & replace all sealant joints within masonry, concrete, windows and doors,	, 1,500	LNFT	19.68	29,51
Transition House				
	375	LNFT	19.68	7,37

08000 OPENINGS

08300 Exterior Doors, Frames, & Hardware

Milwaukee County Mitchel Park Domes Future State Planning

Order of Magnitude Estimate 08/29/2023 DRAFT

	QTY	UM	UNIT COST	TOTAL COS
Remove & replace existing HM door, frame & hardware, single	2	EACH	5,874.40	11,749
Fiberglass door, frame & hardware - double	3	EACH	7,155.80	21,46
Provide emergency egress hardware, per leaf	28	EACH	2,106.82	58,99
SUBTOTAL: Exterior	· Doors, Fra	mes, & H	ardware	\$92,207
08600 Special Doors, Frames, & Hardware				
Horizontal fire door, WonDoor, 19'-0" wide x 12'-0" high, 2 hr rated	6	EACH	53,822.79	322,93
Fire curtain dome/lobby connection, 10'-0" long x 12'-0" high	2	EACH	24,092.79	48,18
Fire curtain dome/lobby connection, 26'-0" long x 12'-0" high	2	EACH	55,556.98	111,11
Fire curtain dome/lobby connection, 60'-0" long x 12'-0" high	2	EACH	116,113.96	232,22
SUBTOTAL: Special	Doors, Fra	mes, & H	ardware	\$714,464
08700 Special Glazing Systems				
Replace existing dome skylight with new 7/16" laminated glass with low emissivity	3	EACH	9,000,000.00	27,000,000
coating including new aluminum extrusion onto existing aluminum frame				
SUBTOT	AL: Specia	l Glazing	Systems	\$27,000,000
08800 Louvers & Vents				
Remove & replace all existing storm proof screen at louvers, approx 4'-6"x4'-6" triangular, all domes	153	EACH	352.10	53,87
	SUBTOTAL	Louvers	& Vents	\$53,872
AL: OPENINGS				\$27,860,543
09600 Paints & Coatings				
Coat exposed steel plates at precast joints and hub connections to glazing system, all domes Coat interior surface of foundations with a breathable coating Clean, prep & paint concrete outcropping walls, Desert Dome Clean, prep & paint exposed lintels at overhead doors, 8" wide x approx 12LF/EA, North Loading Dock	4,800 2,550 700 2 12	EACH LNFT SQFT EACH EACH	87.23 27.26 8.10 227.60 179.45	69,51 5,67 45
Coat exposed steel plates at precast joints and hub connections to glazing system, all domes Coat interior surface of foundations with a breathable coating Clean, prep & paint concrete outcropping walls, Desert Dome Clean, prep & paint exposed lintels at overhead doors, 8" wide x approx 12LF/EA,	2,550 700 2	lnft Sqft Each	27.26 8.10 227.60	69,51 5,67 45
Coat exposed steel plates at precast joints and hub connections to glazing system, all domes Coat interior surface of foundations with a breathable coating Clean, prep & paint concrete outcropping walls, Desert Dome Clean, prep & paint exposed lintels at overhead doors, 8" wide x approx 12LF/EA, North Loading Dock Clean, prep & paint embedded vertical steel elements, 4" wide x approx 12LF/EA, Entry	2,550 700 2	LNFT SQFT EACH EACH	27.26 8.10 227.60 179.45	69,51 5,67 45 2,15
Coat exposed steel plates at precast joints and hub connections to glazing system, all domes Coat interior surface of foundations with a breathable coating Clean, prep & paint concrete outcropping walls, Desert Dome Clean, prep & paint exposed lintels at overhead doors, 8" wide x approx 12LF/EA, North Loading Dock Clean, prep & paint embedded vertical steel elements, 4" wide x approx 12LF/EA, Entry	2,550 700 2 12	LNFT SQFT EACH EACH	27.26 8.10 227.60 179.45	69,51 5,67 45 2,15
Coat exposed steel plates at precast joints and hub connections to glazing system, all domes Coat interior surface of foundations with a breathable coating Clean, prep & paint concrete outcropping walls, Desert Dome Clean, prep & paint exposed lintels at overhead doors, 8" wide x approx 12LF/EA, North Loading Dock Clean, prep & paint embedded vertical steel elements, 4" wide x approx 12LF/EA, Entry SI 09900 Miscellaneous Finishes	2,550 700 2 12	LNFT SQFT EACH EACH	27.26 8.10 227.60 179.45	69,51 5,67 45 2,15 \$496,47 4
Coat exposed steel plates at precast joints and hub connections to glazing system, all domes Coat interior surface of foundations with a breathable coating Clean, prep & paint concrete outcropping walls, Desert Dome Clean, prep & paint exposed lintels at overhead doors, 8" wide x approx 12LF/EA, North Loading Dock Clean, prep & paint embedded vertical steel elements, 4" wide x approx 12LF/EA, Entry SI 09900 Miscellaneous Finishes Cut/patch wall at lavatory relocation Demolish & replace existing ticket booth in ADA compliant location/design	2,550 700 2 12 UBTOTAL:	LNFT SQFT EACH EACH Paints &	27.26 8.10 227.60 179.45 Coatings	69,51 5,67 45 2,15 \$496,47 2,56
Coat exposed steel plates at precast joints and hub connections to glazing system, all domes Coat interior surface of foundations with a breathable coating Clean, prep & paint concrete outcropping walls, Desert Dome Clean, prep & paint exposed lintels at overhead doors, 8" wide x approx 12LF/EA, North Loading Dock Clean, prep & paint embedded vertical steel elements, 4" wide x approx 12LF/EA, Entry SI 09900 Miscellaneous Finishes Cut/patch wall at lavatory relocation Demolish & replace existing ticket booth in ADA compliant location/design including doors & millwork, approx 10'x10'	2,550 700 2 12 UBTOTAL: 1	LNFT SQFT EACH EACH Paints & EACH	27.26 8.10 227.60 179.45 Coatings 2,566.82	69,51 5,67 45 2,15 \$496,47 2,56 77,25
Coat exposed steel plates at precast joints and hub connections to glazing system, all domes Coat interior surface of foundations with a breathable coating Clean, prep & paint concrete outcropping walls, Desert Dome Clean, prep & paint exposed lintels at overhead doors, 8" wide x approx 12LF/EA, North Loading Dock Clean, prep & paint embedded vertical steel elements, 4" wide x approx 12LF/EA, Entry O9900 Miscellaneous Finishes Cut/patch wall at lavatory relocation Demolish & replace existing ticket booth in ADA compliant location/design including doors & millwork, approx 10'x10' Enlarge walkway opening to provide 42" wide path of travel including patching	2,550 700 2 12 UBTOTAL: 1 1	LNFT SQFT EACH EACH Paints & EACH LSUM	27.26 8.10 227.60 179.45 Coatings 2,566.82 77,252.27	69,51 5,67 45 2,15 \$496,47 2,56 77,25 3,97
Coat exposed steel plates at precast joints and hub connections to glazing system, all domes Coat interior surface of foundations with a breathable coating Clean, prep & paint concrete outcropping walls, Desert Dome Clean, prep & paint exposed lintels at overhead doors, 8" wide x approx 12LF/EA, North Loading Dock Clean, prep & paint embedded vertical steel elements, 4" wide x approx 12LF/EA, Entry SI 09900 Miscellaneous Finishes Cut/patch wall at lavatory relocation Demolish & replace existing ticket booth in ADA compliant location/design including doors & millwork, approx 10'x10' Enlarge walkway opening to provide 42" wide path of travel including patching Miscellaneous finish upgrade in non-dome spaces	2,550 700 2 12 UBTOTAL: 1 1 1	LNFT SQFT EACH EACH Paints & EACH LSUM EACH	27.26 8.10 227.60 179.45 Coatings 2,566.82 77,252.27 3,975.23	69,51 5,67 45 2,15 \$496,47 2,56 77,25 3,97 2,607,43
Coat exposed steel plates at precast joints and hub connections to glazing system, all domes Coat interior surface of foundations with a breathable coating Clean, prep & paint concrete outcropping walls, Desert Dome Clean, prep & paint exposed lintels at overhead doors, 8" wide x approx 12LF/EA, North Loading Dock Clean, prep & paint embedded vertical steel elements, 4" wide x approx 12LF/EA, Entry	2,550 700 2 12 UBTOTAL: 1 1 1 59,000	LNFT SQFT EACH EACH Paints & EACH LSUM EACH SQFT	27.26 8.10 227.60 179.45 Coatings 2,566.82 77,252.27 3,975.23 44.19	418,68 69,51 5,67 45 2,15 \$496,474 2,56 77,25 3,97 2,607,43 9,67 5,22
Coat exposed steel plates at precast joints and hub connections to glazing system, all domes Coat interior surface of foundations with a breathable coating Clean, prep & paint concrete outcropping walls, Desert Dome Clean, prep & paint exposed lintels at overhead doors, 8" wide x approx 12LF/EA, North Loading Dock Clean, prep & paint embedded vertical steel elements, 4" wide x approx 12LF/EA, Entry O9900 Miscellaneous Finishes Cut/patch wall at lavatory relocation Demolish & replace existing ticket booth in ADA compliant location/design including doors & millwork, approx 10'x10' Enlarge walkway opening to provide 42" wide path of travel including patching Miscellaneous finish upgrade in non-dome spaces Modify existing mirror & backsplash to ADA height, approx 12" LF/EA Replace existing below counter apron with new code compliant apron	2,550 700 2 12 UBTOTAL: 1 1 59,000 2	LNFT SQFT EACH EACH Paints & EACH LSUM EACH SQFT EACH EACH	27.26 8.10 227.60 179.45 Coatings 2,566.82 77,252.27 3,975.23 44.19 4,837.84 2,612.61	69,51 5,67 45 2,15 \$496,474 2,56 77,25 3,97 2,607,43 9,67

TOTAL: FINISHES

13000 SPECIAL CONSTRUCTION

Milwaukee County Mitchel Park Domes Future State Planning

CRIPTION	QTY	UM	UNIT COST	TOTAL COS
13300 Fabricated Engineered Structures				
Provide emergency exit stair to the loading dock, assume 18 risers including	2	EACH	27,766.04	55,53
aluminum gate at top of stair with emergency exit hardware				
Elevated boardwalk, aluminum decking incl galv steel structure & cable railing,	350	LNFT	1,916.53	670,78
varying widths 5' - 14' wide, Desert Dome				
Elevated boardwalk, aluminum decking incl galv steel structure & cable railing,	500	LNFT	1,916.53	958,2
varying widths 5' - 14' wide, Tropic Dome				
SUBTOTAL: Fabric	cated Engi	neered St	ructures	\$1,684,58
AL: SPECIAL CONSTRUCTION				\$1,684,58
21000 FIRE SUPPRESSION				
21200 Fire Sprinkler Equipment & Specialties				
Fire sprinkler system - lobby/central building - retrofit to existing	59,000	SQFT	5.44	320,8
Fire sprinkler system - domes	47,500	SQFT	10.02	475,9
SUBTOTAL: Fire Sprink	der Equipn	nent & Sp	ecialties	\$796,79
AL: FIRE SUPPRESSION				\$796,79
22000 PLUMBING				
22100 Selective Demolition				
Remove existing wall-mount lavatories including carrier and roughin; salvage	1	EACH	295.48	2
fixture and carrier				
SUBT	OTAL: Sel	ective De	molition	\$29
22200 Plumbing Fixtures				
Relocate, re-rough, and reconnect existing lavatory	1	EACH	1,445.52	1,4
SU	BTOTAL: I	Plumbing	Fixtures	\$1,44
AL: PLUMBING				\$1,74
23000 HEATING VENTILATION & AIR CONDITIO	NING			
23100 Selective Demolition				
Selective demolition - HVAC duct, piping, misc. units	106,500	SQFT	0.45	47,9
Disconnect and remove existing ASU's - 3,300 cfm w/steam coil	30	EACH	723.00	21,6
Remove ASU louvers, dampers, and ductwork	30	EACH	482.00	14,4
Disconnect and remove wall exhaust fan, 48x48 centrifugal, VFD	15	EACH	602.50	9,0
Remove wall exhaust louvers and dampers	15	EACH	482.00	7,2
Remove SAI (summer air intake) w/louvers and dampers	63	EACH	482.00	30,3
Disconnect and remove dome apex exhaust fans	30	EACH	602.50	18,0
Remove dome apex louvers and dampers	30	EACH	602.50	18,0
Disconnect and remove steam boilers including flue/breeching and piping	4	EACH	9,752.00	39,0
	OTAL: Sel	ective De	emolition	\$205,9
SUBI				
23200 Ventilation & Exhaust				
	30	EACH	6,723.00	201,6
23200 Ventilation & Exhaust	30 30	EACH EACH	6,723.00 1,794.20	201,6 53,8

Milwaukee County Mitchel Park Domes Future State Planning

CRIPTION	QTY	UM	UNIT COST	TOTAL COS
Var. volume motorized dampers - ASU, 15" x 15"	30	EACH	961.50	28,84
Provide new wall exhaust fan, 48"x48" centrifugal w/VFD	15	EACH	6,464.00	96,90
Provide new louvers and dampers for wall exhaust	15	EACH	1,723.00	25,84
Dome apex exhaust fan, 36"x36 centrifugal, w/supports, VFD	30	EACH	6,946.00	208,3
Provide new louvers and dampers for dome exhaust	30	EACH	2,064.00	61,92
Galvanized steel duct, rectangular at new ASU's - allowance	6,000	LBS	14.54	87,2
Var. volume motorized dampers - SAI, 60" x 24"	30	EACH	1,552.50	46,5
Louvers - SAI, fixed blade/stormproof, 4" D x 60" x 24"	30	EACH	811.50	24,3
Duct insulation	4,500	SQFT	8.23	37,0
SUB	TOTAL: Ven	tilation &	Exhaust	\$885,90
23300 Central Hydronic & Steam Equipment & Specialties				
Steam boilers, based on 5000 pph	4	EACH	91,501.54	366,0
CA duct	200	LNFT	38.98	7,7
Boiler flue/breeching	200	LNFT	181.42	36,2
SUBTOTAL: Central Hydronic & S	team Equipr	nent & Sp	ecialties	\$410,08
23400 Heating & Ventilating Terminals		-		
Fintube radiators, HW - allowance	4,800	LNFT	125.95	604,5
SUBTOTAL: He		tilating T	erminals	\$604,5
23500 HVAC Piping		-		
Provide new steam, condensate, natural gas, and tertiary piping - allowance	106,500	SQFT	1.37	145,9
	SUBTO	TAL: HVA	C Piping	\$145,9
23600 Temperature Controls				
DDC controls - air supply units	30	EACH	3,000.00	90,0
DDC controls - exhaust fans	45	EACH	3,000.00	135,0
DDC controls - steam boilers	4	EACH	3,000.00	12,0
Thermostats/temperature sensors	30	EACH	500.00	15,0
CO sensors	3	EACH	500.00	1,5
Emergency boiler shutoff switch	4	EACH	1,050.00	4,2
Miscellaneous points & devices	1	LSUM	25,000.00	25,0
Engineer's station	1	LSUM	20,000.00	20,0
Programming, testing, and training	1	LSUM	25,000.00	25,0
SUB	TOTAL: Tem	perature	Controls	\$327,7
23700 Testing, Balancing, & Commissioning				
Airflow system testing and balancing - allowance	1	LSUM	15,000.00	15,0
Pipe system testing and balancing - allowance	1	LSUM	10,000.00	10,0
HVAC system commissioning assistance - allowance	1	LSUM	12,500.00	12,5
SUBTOTAL: Testing	, Balancing,	& Commi	issioning	\$37,5
AL: HEATING VENTILATION & AIR CONDITIONING			-	\$2,617,64
26000 ELECTRICAL				
26500 Lighting	250	EACU	224 22	F0 /
Disconnect and remove light fixture	250	EACH	234.72	58,6

Milwaukee County Mitchel Park Domes Future State Planning

RIPTION	QTY	UM	UNIT COST	TOTAL COS
Disconnect and remove rusted and decayed conduit	1	LSUM	50,000.00	50,00
Light fixture, interior, L.E.D. mounting hardware and connections -	250	EACH	672.08	168,02
Exit lighting, L.E.D. standard, single face, ceiling or wall mount	40	EACH	449.72	17,98
Add new exterior building mounted lights	8	EACH	1,192.08	9,53
Add new exterior pole mounted lights and associated feeder	8	EACH	7,500.00	60,00
Occupancy sensors, passive infrared, ceiling mounted	80	EACH	446.72	35,73
Dimming local station	50	EACH	169.36	8,46
Convenience receptacles	30	EACH	166.58	4,99
Lighing control, devices, cabling, connections and testing	1	LSUM	34,999.90	35,00
Branch wiring installation 600 V, including 3/4" EMT conduit and THWN wire, 20A	1	LSUM	180,000.00	180,00
Replace entire system; lights, and backbone software controlling lights	1	LSUM	22,000.00	22,00
New lighting control system hardware and software	1	LSUM	176,000.00	176,00
LED color changing up-light panels	8	EACH	8,200.00	65,60
LED color changing puck lights	750	EACH	187.00	140,25
Lighing control, devices, cabling, connections and testing	1	LSUM	135,000.00	135,00
Testing and engineering	1	LSUM	50,000.00	50,00
	SU	BTOTAL:	Lighting	\$1,217,27
26600 Branch Power Distribution & Devices				
Remove and reinstall electrical to allow masonry repairs	1	LSUM	10,000.00	10,0
SUBTOTAL: Branch P	ower Distr	ibution &	Devices	\$10,00
26700 Mechanical Equipment Connections & Feeders				
Disconnect HVAC equipment, feeders to remain - Air Handling Units	30	EACH	154.20	4,62
Disconnect HVAC equipment, feeders to remain - Boilers and, pumps	4	EACH	288.40	1,15
Disconnect HVAC equipment, feeders to remain - dome exhaust fans	30	EACH	234.72	7,04
Disconnect HVAC equipment, feeders to remain - Wall exhaust fans	15	EACH	154.20	2,3
Connect new HVAC equipment to existing feeders - dome exhaust fans	30	EACH	487.60	14,62
Connect new HVAC equipment to existing feeders - Wall exhaust fans	15	EACH	299.72	4,49
Connect new HVAC equipment to existing feeders - Air Handling Units	30	EACH	299.72	8,99
Connect new HVAC equipment to existing feeders - Boilers and, pumps	4	EACH	514.44	2,05
SUBTOTAL: Mechanical Equipr	nent Conn	ections &	Feeders	\$45,30
AL: ELECTRICAL				\$1,272,58
27000 COMMUNICATIONS				
27200 Tele/Data Systems				
Provision for IT room, plywood, cable tray, grounding, sleeves	1	EACH	7,000.00	7,0
MDF rack assembly 2 racks, switching equipment by Owner	1	EACH	12,200.00	12,2
Provide Fiber from roadway into building's main IT/Data closet (assumed lenght)	350	LNFT	68.60	24,0
Voice/Data wall outlet, back box and plate, 1 gang, 2-port	32	EACH	163.00	5,2
Wireless Access Point and mounting hardware	24	EACH	1,709.44	41,0
Cable supports provisions	1	LNFT	65,001.35	65,0
Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6	15,000	LNFT	2.38	35,6
	1	SQFT	32,177.60	32,12
Terminations and testing				

Milwaukee County Mitchel Park Domes Future State Planning

CRIPTION	QTY	UM	UNIT COST	TOTAL COST
27300 Intercom & Public Address Systems				
PA/Sound system, cabinet, amplifier and power supply	1	EACH	19,605.00	19,605
New recessed, surface, and pendant mounted speakers	240	EACH	472.00	113,280
Conduit and PA/Intercommunication wiring	1	LSUM	75,000.00	75,000
Terminations and testing	1	LSUM	15,000.00	15,000
SUBTOTAL: Inte	rcom & Public	Address	Systems	\$222,885
AL: COMMUNICATIONS				\$445,209
28000 ELECTRONIC SAFETY & SECURITY				
28200 Fire Alarm Systems				
Upgrade/expand existing fire alarm control panel	1	EACH	19,294.40	19,294
Miscellaneous FA devices	250	EACH	412.88	103,220
Fire alarm wiring installation, including 3/4" EMT conduit and FA cable wire	9,800	LNFT	18.87	184,92
Disconnect and remove existing system	1	LSUM	35,000.00	35,000
Testing and engineering	1	LSUM	15,000.00	15,000
	SUBTOTAL: Fi	re Alarm	Systems	\$357,442
28300 Intrusion Detection & Access Control Systems				
Detection systems control panels, power supply and software	1	EACH	26,300.00	26,30
Card reader, flush type, standard	16	EACH	934.72	14,950
Electric door strike connection	16	EACH	181.14	2,898
Door rough in	16	EACH	520.00	8,320
Conduit and security wiring	1	LSUM	48,000.00	48,000
Terminations and testing	1	LSUM	10,000.00	10,000
SUBTOTAL: Intrusion Dete	ction & Acces	s Control	Systems	\$110,474
28400 CCTV System				
Control panel, switcher and recording device assembly	1	EACH	32,321.68	32,322
Interior dome camera, color,	20	EACH	2,341.14	46,823
Exterior dome camera, color,	8	EACH	4,299.44	34,39
Interior camera back box	20	EACH	44.84	89
Exterior camera back box	8	EACH	112.49	90
Conduit and CCTV wiring	1	LSUM	125,000.00	125,000
Terminations, testing and engineering	1	LSUM	30,000.00	30,000
	SUBTOT	AL: CCT\	/ System	\$270,337
AL: ELECTRONIC SAFETY & SECURITY				\$738,253

CRIPTION		QTY	UM	UNIT COST	TOTAL COST
LTERNA	TIVE #4: RESTORE TROPICAL DOME				
02000	EXISTING CONDITIONS				
02100	Selective Demolition				
Remove ext	erior door and frame at loading dock, single	1	EACH	397.24	392
		SUBTOTAL: Se	elective De	emolition	\$397
02800	Temporary Construction				
Remove exis	sting wire mesh system, Tropic Dome	1	EACH	42,945.20	42,94
	S	SUBTOTAL: Temp	orary Con	struction	\$42,945
02900	Miscellaneous Existing Conditions				. ,
	vance for HVAC scope, Tropic Dome	1	LSUM	15,000.00	15,00
		.: Miscellaneous I			\$15,000
	TING CONDITIONS	. Miscenaneous		Sharcions	
AL: EXIS	TING CONDITIONS				\$58,342
03000	CONCRETE				
03700	Concrete Restoration				
Clean, prep	& recoat four sides of concrete skylight frame, Tropic Dome	7,200	LNFT	157.14	1,131,42
Repair joints	s at concrete skylight frame, allow 35%, Tropic Dome	2,520	LNFT	213.21	537,29
• · · · ·	prime & patch type of typical concrete restoration work, avg 2.	.5 20	EACH	1,015.70	20,31
SF/EA		17	FACU	000 70	16.04
Repair conc	rete spalls in precast concrete around louvers, avg 2 SF/EA	17	EACH	990.70	16,84
		SUBTOTAL: Co	oncrete Re	storation	\$1,705,879
AL: CON	CRETE				\$1,705,879
07000	THERMAL & MOISTURE PROTECTIO	N			
07100	Dampproofing & Waterproofing				
Replace wat	terproofing membrane in drain gutters, approx 12" high x 18" v	vide 650	LNFT	32.93	21,40
	SUBTOT	AL: Dampproofin	ig & Watei	rproofing	\$21,407
07400	Roofing				
	et metal protection for concrete at drain locations from new gla wide x 36" high	azing 8	EACH	405.20	3,24
		S	UBTOTAL:	Roofing	\$3,242
07800	Caulking & Sealants				
Remove & r Tropic Dom	eplace all sealant joints within masonry, concrete, windows and	d doors, 2,500	LNFT	19.68	49,19
		SUBTOTAL: C	aulking &	Sealants	\$49,196
AL: THEF	RMAL & MOISTURE PROTECTION				\$73,844
A0AAA	OPENINGS				
	EVICTION DOORS FRAMES & Hardward				
08000 08300	Exterior Doors, Frames, & Hardware			7 4 5 5 0.0	
08300	oor, frame & hardware - double	1 Exterior Doors, Fr	EACH	7,155.80	7,156 \$7,156

Milwaukee County Mitchel Park Domes Future State Planning

CRIPTION	QTY	UM	UNIT COST	TOTAL COST
08600 Special Doors, Frames, & Hardware				
Fire curtain dome/lobby connection, 40'-0" long x 12'-0" high	2	EACH	79,909.31	159,819
SUBTOTAL: Special I	Doors, Fra	ames, & H	lardware	\$159,819
08700 Special Glazing Systems				
Replace existing dome skylight with new 7/16" laminated glass with low emissivity coating including new aluminum extrusion onto existing aluminum frame	1	EACH	9,000,000.00	9,000,000
SUBTOTA	L: Specia	l Glazing	Systems	\$9,000,000
08800 Louvers & Vents				
Remove & replace all existing storm proof screen at louvers, approx 4'-6"x4'-6" triangular, Tropic Dome	51	EACH	352.10	17,957
SI	UBTOTAL	: Louvers	& Vents	\$17,957
AL: OPENINGS				\$9,184,932
09000 FINISHES				
09600 Paints & Coatings				
Coat exposed steel plates at precast joints and hub connections to glazing system, Tropic Dome	1,600	EACH	87.23	139,560
Coat interior surface of foundations with a breathable coating	850	LNFT	27.26	23,171
SUI	BTOTAL:	Paints &	Coatings	\$162,731
AL: FINISHES				\$162,731
13000 SPECIAL CONSTRUCTION				
13300 Fabricated Engineered Structures				
Provide emergency exit stair to the loading dock, assume 18 risers including	1	EACH	27,766.04	27,766
aluminum gate at top of stair with emergency exit hardware	550		1 016 53	1 054 003
Elevated boardwalk, aluminum decking incl galv steel structure & cable railing, varying widths 5' - 14' wide, Tropic Dome	550	LNFT	1,916.53	1,054,093
SUBTOTAL: Fabrica	ated Engi	neered St	ructures	\$1,081,859
AL: SPECIAL CONSTRUCTION				\$1,081,859
21000 FIRE SUPPRESSION				
21200 Fire Sprinkler Equipment & Specialties				
Fire sprinkler system - domes	15,850	SQFT	10.02	158,817
SUBTOTAL: Fire Sprinkl	er Equipn	nent & Sp	ecialties	\$158,817
AL: FIRE SUPPRESSION				\$158,817
23000 HEATING VENTILATION & AIR CONDITION	ING			
23100 Selective Demolition				
Selective demolition - HVAC duct, piping, misc. units	15,850	SQFT	0.45	7,139
Disconnect and remove existing ASU's - 3,300 cfm w/steam coil	10	EACH	723.00	7,230
Remove ASU louvers, dampers, and ductwork	10	EACH	482.00	4,820
Disconnect and remove wall exhaust fan, 48x48 centrifugal, VFD	5	EACH	602.50	3,013
Remove wall exhaust louvers and dampers	5	EACH	482.00	2,410

Milwaukee County Mitchel Park Domes Future State Planning

RIPTION	QTY	UM	UNIT COST	TOTAL COS
Remove SAI (summer air intake) w/louvers and dampers	21	EACH	482.00	10,12
Disconnect and remove dome apex exhaust fans	10	EACH	602.50	6,02
Remove dome apex louvers and dampers	10	EACH	602.50	6,02
SUBT	OTAL: Sel	ective De	molition	\$46,783
23200 Ventilation & Exhaust				
Provide new air supply units, steam heat	10	EACH	6,723.00	67,23
ASU steam coil connections - valves, steam traps, strainers, fittings, and insulation	10	EACH	1,794.20	17,94
Louvers - ASU, fixed blade/stormproof, 4" D x 15" x 15"	10	EACH	441.00	4,41
Var. volume motorized dampers - ASU, 15" x 15"	10	EACH	961.50	9,61
Provide new wall exhaust fan, 48"x48" centrifugal w/VFD	5	EACH	6,464.00	32,32
Provide new louvers and dampers for wall exhaust	5	EACH	1,723.00	8,61
Dome apex exhaust fan, 36"x36 centrifugal, w/supports, VFD	10	EACH	6,946.00	69,46
Provide new louvers and dampers for dome exhaust	10	EACH	2,064.00	20,64
Galvanized steel duct, rectangular at new ASU's - allowance	2,000	LBS	14.54	29,08
Var. volume motorized dampers - SAI, 60" x 24"	10	EACH	1,552.50	15,52
Louvers - SAI, fixed blade/stormproof, 4" D x 60" x 24"	10	EACH	811.50	8,11
Duct insulation	1,500	SQFT	8.23	12,34
Provide fire damper/shutters to isolate Tropical dome from other domes	2	EACH	692.00	1,38
	TAL: Ven	tilation &	Exhaust	\$296,68
23400 Heating & Ventilating Terminals				. ,
Fintube radiators, HW - allowance	1,600	LNFT	125.95	201,52
SUBTOTAL: Hea	ting & Ven	tilating T	erminals	\$201,52
23500 HVAC Piping				
Provide new steam, condensate, natural gas, and tertiary piping - allowance	15,850	SQFT	1.37	21,72
	SUBTO ⁻	TAL: HVA	C Piping	\$21,72
23600 Temperature Controls				
DDC controls - air supply units	10	EACH	3,000.00	30,00
DDC controls - exhaust fans	15	EACH	3,000.00	45,00
Thermostats/temperature sensors	10	EACH	500.00	5,00
CO sensors	1	EACH	500.00	50
Emergency boiler shutoff switch	4	EACH	1,050.00	4,20
Miscellaneous points & devices	1	LSUM	10,000.00	10,00
Engineer's station	1	LSUM	20,000.00	20,00
Programming, testing, and training	1	LSUM	25,000.00	25,00
	TAL: Tem			\$139,70
23700 Testing, Balancing, & Commissioning			-	,
Airflow system testing and balancing - allowance	1	LSUM	5,000.00	5,00
Pipe system testing and balancing - allowance	1	LSUM	3,500.00	3,50
HVAC system commissioning assistance - allowance	1	LSUM	4,500.00	4,50
SUBTOTAL: Testing, I	Balancing	& Commi	ssioning	\$13,00

Milwaukee County Mitchel Park Domes Future State Planning

CRIPTION	QTY	UM	UNIT COST	TOTAL COS
26000 ELECTRICAL				
26500 Lighting				
LED color changing up-light panels	2	EACH	8,200.00	16,40
LED color changing puck lights	250	EACH	187.00	46,75
Lighing control, devices, cabling, connections and testing	1	LSUM	45,000.00	45,00
Testing and engineering	1	LSUM	20,000.00	20,00
	SU	BTOTAL:	Lighting	\$128,150
26600 Branch Power Distribution & Devices				
Remove and reinstall electrical to allow masonry repairs	1	LSUM	5,000.00	5,00
SUBTOTAL: Branch	Power Dist	ibution &	Devices	\$5,000
26700 Mechanical Equipment Connections & Feeders				
Disconnect HVAC equipment, feeders to remain - Air Handling Units	10	EACH	154.20	1,542
Disconnect HVAC equipment, feeders to remain - dome exhaust fans	10	EACH	234.72	2,34
Disconnect HVAC equipment, feeders to remain - Wall exhaust fans	5	EACH	154.20	77
Connect new HVAC equipment to existing feeders - Air Handling Units	10	EACH	299.72	2,99
Connect new HVAC equipment to existing feeders - dome exhaust fans	10	EACH	487.60	4,87
Connect new HVAC equipment to existing feeders - Wall exhaust fans	5	EACH	299.72	1,49
SUBTOTAL: Mechanical Equi	pment Conn	ections &	Feeders	\$14,032
AL: ELECTRICAL				\$147,182
27000 COMMUNICATIONS				
27000 COMMUNICATIONS				
27200 Tele/Data Systems	12	EACH	163.00	1,95
27200Tele/Data SystemsVoice/Data wall outlet, back box and plate, 1 gang, 2-port	12 8	EACH EACH	163.00 1,709.44	
27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware				13,67
27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions	8	EACH	1,709.44	13,67 22,00
27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6	8 1	EACH LSUM	1,709.44 22,000.00	13,670 22,000 11,890
27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6 Terminations and testing	8 1 5,000	each Lsum LNFT SQFT	1,709.44 22,000.00 2.38 10,000.00	13,67 22,00 11,89 10,00
27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6 Terminations and testing	8 1 5,000 1	each Lsum LNFT SQFT	1,709.44 22,000.00 2.38 10,000.00	13,67 22,00 11,89 10,00
 27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6 Terminations and testing 27300 Intercom & Public Address Systems 	8 1 5,000 1	each Lsum LNFT SQFT	1,709.44 22,000.00 2.38 10,000.00	13,67 22,00 11,89 10,00 \$59,529
 27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6 Terminations and testing 27300 Intercom & Public Address Systems PA/Sound system, cabinet, amplifier and power supply 	8 1 5,000 1 UBTOTAL: T	EACH LSUM LNFT SQFT ele/Data	1,709.44 22,000.00 2.38 10,000.00 Systems	13,67 22,00 11,89 10,00 \$59,52 8,50
 27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6 Terminations and testing 27300 Intercom & Public Address Systems PA/Sound system, cabinet, amplifier and power supply New recessed, surface, and pendant mounted speakers 	8 1 5,000 1 UBTOTAL: T	EACH LSUM LNFT SQFT ele/Data EACH	1,709.44 22,000.00 2.38 10,000.00 Systems 8,500.00	13,67 22,00 11,89 10,00 \$59,529 8,50 37,76
27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6 Terminations and testing	8 1 5,000 1 UBTOTAL: T 1 80	EACH LSUM LNFT SQFT ele/Data EACH EACH	1,709.44 22,000.00 2.38 10,000.00 Systems 8,500.00 472.00	13,670 22,000 11,890 10,000 \$59,529 8,500 37,760 25,000
 27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6 Terminations and testing 27300 Intercom & Public Address Systems PA/Sound system, cabinet, amplifier and power supply New recessed, surface, and pendant mounted speakers Conduit and PA/Intercommunication wiring 	8 1 5,000 1 UBTOTAL: T 1 80 1 1	EACH LSUM LNFT SQFT ele/Data EACH EACH LSUM LSUM	1,709.44 22,000.00 2.38 10,000.00 Systems 8,500.00 472.00 25,000.00 5,000.00	13,67 22,00 11,89 10,00 \$59,529 8,50 37,76 25,00 5,00
 27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6 Terminations and testing 27300 Intercom & Public Address Systems PA/Sound system, cabinet, amplifier and power supply New recessed, surface, and pendant mounted speakers Conduit and PA/Intercommunication wiring Terminations and testing 	8 1 5,000 1 UBTOTAL: T 1 80 1 1	EACH LSUM LNFT SQFT ele/Data EACH EACH LSUM LSUM	1,709.44 22,000.00 2.38 10,000.00 Systems 8,500.00 472.00 25,000.00 5,000.00	13,67 22,00 11,89 10,00 \$59,529 8,50 37,76 25,00 5,00
27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6 Terminations and testing 27300 Intercom & Public Address Systems PA/Sound system, cabinet, amplifier and power supply New recessed, surface, and pendant mounted speakers Conduit and PA/Intercommunication wiring Terminations and testing SUBTOTAL: Intercom AL: COMMUNICATIONS	8 1 5,000 1 UBTOTAL: T 1 80 1 1	EACH LSUM LNFT SQFT ele/Data EACH EACH LSUM LSUM	1,709.44 22,000.00 2.38 10,000.00 Systems 8,500.00 472.00 25,000.00 5,000.00	13,67 22,00 11,89 10,00 \$59,52 8,50 37,76 25,00 5,00 \$76,26
27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6 Terminations and testing 27300 Intercom & Public Address Systems PA/Sound system, cabinet, amplifier and power supply New recessed, surface, and pendant mounted speakers Conduit and PA/Intercommunication wiring Terminations and testing SUBTOTAL: Intercom AL: COMMUNICATIONS 28000 ELECTRONIC SAFETY & SECURITY	8 1 5,000 1 UBTOTAL: T 1 80 1 1	EACH LSUM LNFT SQFT ele/Data EACH EACH LSUM LSUM	1,709.44 22,000.00 2.38 10,000.00 Systems 8,500.00 472.00 25,000.00 5,000.00	13,67 22,00 11,89 10,00 \$59,52 8,50 37,76 25,00 5,00 \$76,26
27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6 Terminations and testing 27300 Intercom & Public Address Systems PA/Sound system, cabinet, amplifier and power supply New recessed, surface, and pendant mounted speakers Conduit and PA/Intercommunication wiring Terminations and testing SUBTOTAL: Intercom AL: COMMUNICATIONS	8 1 5,000 1 UBTOTAL: T 1 80 1 1	EACH LSUM LNFT SQFT ele/Data EACH EACH LSUM LSUM	1,709.44 22,000.00 2.38 10,000.00 Systems 8,500.00 472.00 25,000.00 5,000.00	13,67 22,00 11,89 10,00 \$59,52 8,50 37,76 25,00 5,00 \$76,260 \$135,789
27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6 Terminations and testing SI 27300 Intercom & Public Address Systems PA/Sound system, cabinet, amplifier and power supply New recessed, surface, and pendant mounted speakers Conduit and PA/Intercommunication wiring Terminations and testing SUBTOTAL: Interco AL: COMMUNICATIONS 28000 ELECTRONIC SAFETY & SECURITY 28200 Fire Alarm Systems Miscellaneous FA devices	8 1 5,000 1 UBTOTAL: T 1 80 1 1 2 com & Public	EACH LSUM LNFT SQFT ele/Data EACH EACH LSUM LSUM	1,709.44 22,000.00 2.38 10,000.00 Systems 8,500.00 472.00 25,000.00 Systems	13,67 22,00 11,89 10,00 \$ 59,529 8,50 37,76 25,00 5,00 \$ 76,260 \$ 135,789
27200 Tele/Data Systems Voice/Data wall outlet, back box and plate, 1 gang, 2-port Wireless Access Point and mounting hardware Cable supports provisions Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category 6 Terminations and testing 27300 Intercom & Public Address Systems PA/Sound system, cabinet, amplifier and power supply New recessed, surface, and pendant mounted speakers Conduit and PA/Intercommunication wiring Terminations and testing SUBTOTAL: Intercom AL: COMMUNICATIONS 28000 ELECTRONIC SAFETY & SECURITY 28200 Fire Alarm Systems	8 1 5,000 1 UBTOTAL: T 1 80 1 1 2 com & Public	EACH LSUM LNFT SQFT ele/Data EACH LSUM LSUM Address	1,709.44 22,000.00 2.38 10,000.00 Systems 8,500.00 472.00 25,000.00 Systems	1,950 13,670 22,000 11,890 10,000 \$59,529 8,500 37,760 25,000 \$76,260 \$135,789 6,190 13,200 6,000

Milwaukee County Mitchel Park Domes Future State Planning

Order of Magnitude Estimate 08/29/2023 DRAFT

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
	SUBTOTAL: F	ire Alarm	Systems	\$27,902
28300 Intrusion Detection & Access Control Systems				
Detection systems control panels, power supply and software	1	EACH	26,300.00	26,300
Card reader, flush type, standard	5	EACH	934.72	4,674
Electric door strike connection	5	EACH	181.14	906
Door rough in	5	EACH	520.00	2,600
Conduit and security wiring	1	LSUM	16,000.00	16,000
Terminations and testing	1	LSUM	6,500.00	6,500
SUBTOTAL: Intrusion Do	etection & Acces	s Control	Systems	\$56,979
28400 CCTV System				
Control panel, switcher and recording device assembly	1	EACH	12,000.00	12,000
Interior dome camera, color,	8	EACH	2,341.14	18,729
Exterior dome camera, color,	3	EACH	4,299.44	12,898
Interior camera back box	7	EACH	44.84	314
Exterior camera back box	3	EACH	112.49	337
Conduit and CCTV wiring	1	LSUM	75,000.00	75,000
Terminations, testing and engineering	1	LSUM	10,000.00	10,000
	SUBTOT	AL: CCT	/ System	\$129,279
OTAL: ELECTRONIC SAFETY & SECURITY				\$214,160
OTAL: ALTERNATIVE #4: RESTORE TROPICAL DOME				\$13,642,951

Milwaukee County Mitchel Park Domes Future State Planning

Order of Magnitude Estimate 08/29/2023 DRAFT

CRIPTION	QTY	UM	UNIT COST	TOTAL CO
LTERNATIVE #4: CONSERVATORY & EV	ENT BUILDING			
02000 EXISTING CONDITIONS				
02100 Selective Demolition				
Create opening in Tropic Dome Facade for Connection	1	LSUM	200,000.00	200,
	SUBTOTAL: Sel	ective De	molition	\$200,0
AL: EXISTING CONDITIONS				\$200,0
03000 CONCRETE				
03100 Concrete Formwork				
Formwork for strip footings	2,300	SQFT	10.17	23
Formwork for isolated column footings	1,800	SQFT	11.49	20
Formwork for piers	1,200	SQFT	13.43	16
Formwork for foundation walls	4,100	SQFT	10.98	45
Formwork for basement walls	15,850	SQFT	17.18	272
Formwork for elevated slabs	1,100	SQFT	12.85	14
	SUBTOTAL: Co	oncrete Fo	rmwork	\$391,2
03200 Concrete Reinforcement				
Reinforcement in strip footings, avg 65 lbs/cy	9,700	LBS	1.82	17
Reinforcement in isolated column footings, avg 85 lbs/cy	9,700	LBS	1.82	17
Reinforcement in piers, avg 200 lbs/cy	4,400	LBS	2.09	9
Reinforcement in foundation walls, avg 130 lbs/cy	13,200	LBS	1.92	25
Reinforcement in basement walls, avg 150 lbs/cy	58,700	LBS	2.07	121
Reinforcement in elevated slabs, avg 300 lbs/cy	12,300	LBS	2.07	25
	SUBTOTAL: Concre	ete Reinfo	rcement	\$216,!
03300 Cast in Place Concrete				
Concrete in strip footings	149	CUYD	238.62	35
Concrete in isolated column footings	114	CUYD	249.34	28
Concrete in piers	22	CUYD	292.24	6
Concrete in foundation walls	101	CUYD	246.28	24
Concrete in basement walls	391	CUYD	262.94	102
Concrete in elevated slabs	41	CUYD	253.45	10
Elevator pit	1	EACH	13,847.09	13
Concrete slab on grade, 5" thk	21,575	SQFT	7.35	158
Aggregate base at slab on grade	400	CUYD	50.53	20
Vapor barrier at slab	21,575	SQFT	1.31	28
	SUBTOTAL: Cast	in Place C	oncrete	\$429,3
03400 Cementitious Decks				
Concrete on metal deck	10,375	SQFT	8.22	85
	SUBTOTAL: Ce	ementitiou	s Decks	\$85,3
AL: CONCRETE				\$1,122,9

Milwaukee County Mitchel Park Domes Future State Planning

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
04300 Interior Masonry				
Elevator shaft partition, 12" CMU, 1-hr rated	1,020	SQFT	45.15	46,050
	SUBTOTAL:	Interior	Masonry	\$46,050
TOTAL: MASONRY				\$46,050
05000 METALS				
05100 Structural Steel				
Structural steel beams, joists & columns, floor structure, assumes 15 lbs/sf	78	TONS	7,060.51	550,720
Structural steel beams, joists & columns, roof structure, assumes 10 lbs/sf	119	TONS	7,060.51	840,201
Composite metal floor deck	10,375	SQFT	8.62	89,482
Metal roof deck	23,800	SQFT	7.53	179,283
	SUBTOTAL	.: Structu	ural Steel	\$1,659,686
05200 Structural Metal Stud Framing				
Structural metal studs, 6" thk	4,780	SQFT	26.80	128,123
SUBTOT	AL: Structural M	etal Stud	Framing	\$128,123
05300 Stairs				
Monumental/grand open stair	1	EACH	110,702.00	110,702
	9	SUBTOTA	L: Stairs	\$110,702
05400 Metal Fabrications				
Glazed metal guardrail at open to below	130	LNFT	581.25	75,562
	SUBTOTAL: N	Metal Fab	rications	\$75,562
05900 Miscellaneous Metals				
Miscellaneous angles, channels, lintels, etc.	42,130	SQFT	1.99	83,725
	SUBTOTAL: Mis	cellaneou	us Metals	\$83,725
TOTAL: METALS				\$2,057,798
06000 WOODS, PLASTICS & COMPOSITES				
06200 Rough Carpentry				
Miscellaneous wood blocking & rough carpentry	42,130	SQFT	1.20	50,430
Exterior gypsum sheathing	4,780	SQFT	4.68	22,359
	SUBTOTAL:	Rough C	Carpentry	\$72,789
TOTAL: WOODS, PLASTICS & COMPOSITES				\$72,789
07000 THERMAL & MOISTURE PROTECTION	I			
07100 Dampproofing & Waterproofing				
Vapor/air barrier	4,780	SQFT	5.35	25,566
Waterproofing at pits	210	SQFT	16.58	3,482
Waterproofing at tunnel wall/lid	3,050	SQFT	13.20	40,251
SUBTOTA	L: Dampproofing	y & Wate	rproofing	\$69,298
07200 Thermal Insulation			-	· · ·
	4,780	SQFT	3.99	19,067
Rigid insulation	4,/00	3011	J. J. J. J.	10,007

Milwaukee County Mitchel Park Domes Future State Planning

			QTY	UM	UNIT COST	TOTAL COS
			SUBTOTAL: T	hermal Ir	nsulation	\$39,40
07400	Roofing					
TPO roofing	including insulation		23,100	SQFT	30.03	693,67
Flashing & o	counterflashing		900	LNFT	47.79	43,00
Metal copin	g		600	LNFT	68.49	41,09
			SU	BTOTAL:	Roofing	\$777,78
07500	Roofing Specialties					
Roof hatch	& ships ladder, 3'-0" x 6'-0"		2	EACH	6,440.96	12,88
			SUBTOTAL: R	oofing Sp	oecialties	\$12,882
07600	Metal Panel Systems					
Metal panel	system - 80% of total		1,480	SQFT	83.49	123,55
Metal panel	soffit system at roof		3,300	SQFT	86.65	285,94
			SUBTOTAL: Me	tal Panel	Systems	\$409,504
07700	Fireproofing & Firestopping					
Fireproof st	eel structure		10,375	SQFT	4.59	47,64
		SU	BTOTAL: Fireproofi	ng & Fire	stopping	\$47,6 42
07800	Caulking & Sealants					
Miscellaneo	us caulking & sealants		42,130	SQFT	0.29	12,11
			SUBTOTAL: Ca	ulking &	Sealants	\$12,11
AL: THE	RMAL & MOISTURE PROTEC	TION				\$1,368,618
						+-//
08000	OPENINGS					+-,,,
08000	OPENINGS Curtainwall & Storefront					<i>,_,_,_,_</i> ,,
08000 08200			370	SQFT	104.71	
08000 08200 Exterior sto	Curtainwall & Storefront		370 13,250	SQFT SQFT	104.71 163.39	38,74
08000 08200 Exterior sto High perform	Curtainwall & Storefront refront / windows - 20% of total			-		38,74 2,164,85
08000 08200 Exterior sto High perform	Curtainwall & Storefront refront / windows - 20% of total mance curtainwall system		13,250	SQFT SQFT	163.39 362.61	38,74 2,164,85 1,813,07
08000 08200 Exterior sto High perfor High perfor	Curtainwall & Storefront refront / windows - 20% of total mance curtainwall system		13,250 5,000	SQFT SQFT	163.39 362.61	38,74 2,164,85 1,813,07
08000 08200 Exterior sto High perfor High perfor	Curtainwall & Storefront refront / windows - 20% of total mance curtainwall system mance curtainwall system, operable		13,250 5,000	SQFT SQFT	163.39 362.61	38,74 2,164,85 1,813,07 \$4,016,67 (
08000 08200 Exterior sto High perfor High perfor	Curtainwall & Storefront refront / windows - 20% of total mance curtainwall system mance curtainwall system, operable Exterior Doors, Frames, & Ha	rdware	13,250 5,000 SUBTOTAL: Curtain	SQFT SQFT wall & St	163.39 362.61 torefront 8,874.40	38,74 2,164,85 1,813,07 \$4,016,67(70,99
08000 08200 Exterior sto High perfor High perfor 08300 AL/GL door,	Curtainwall & Storefront refront / windows - 20% of total mance curtainwall system mance curtainwall system, operable Exterior Doors, Frames, & Ha frame & hardware - double	rdware SUBTOTAL:	13,250 5,000 SUBTOTAL: Curtain	SQFT SQFT wall & St	163.39 362.61 torefront 8,874.40	38,74 2,164,85 1,813,07 \$4,016,67(70,99
08000 08200 Exterior sto High perfor High perfor 08300 AL/GL door, 08400	Curtainwall & Storefront refront / windows - 20% of total mance curtainwall system mance curtainwall system, operable Exterior Doors, Frames, & Ha frame & hardware - double Interior Doors, Frames, & Ha	rdware SUBTOTAL:	13,250 5,000 SUBTOTAL: Curtain	SQFT SQFT wall & St	163.39 362.61 torefront 8,874.40 lardware	38,74 2,164,85 1,813,07 \$4,016,67(70,99 \$70,99
08000 08200 Exterior sto High perfor High perfor 08300 AL/GL door, 08400 Door, frame	Curtainwall & Storefront refront / windows - 20% of total mance curtainwall system mance curtainwall system, operable Exterior Doors, Frames, & Ha frame & hardware - double	rdware SUBTOTAL:	13,250 5,000 SUBTOTAL: Curtain 8 Exterior Doors, Fra	SQFT SQFT wall & St EACH mes, & H	163.39 362.61 torefront 8,874.40	38,74 2,164,85 1,813,07 \$4,016,67(70,99 \$70,99! 22,52 28,45
08000 08200 Exterior sto High perfor High perfor 08300 AL/GL door, 08400 Door, frame	Curtainwall & Storefront refront / windows - 20% of total mance curtainwall system mance curtainwall system, operable Exterior Doors, Frames, & Ha frame & hardware - double Interior Doors, Frames, & Ha & hardware, double	rdware SUBTOTAL: rdware	13,250 5,000 SUBTOTAL: Curtain 8 Exterior Doors, Fra 5	SQFT SQFT Wall & St EACH Mes, & H EACH EACH	163.39 362.61 torefront 8,874.40 lardware 4,504.35 2,845.75	38,74 2,164,85 1,813,07 \$4,016,67 70,99 \$70,99 22,52 28,45
08000 08200 Exterior sto High perfor High perfor 08300 AL/GL door, 08400 Door, frame	Curtainwall & Storefront refront / windows - 20% of total mance curtainwall system mance curtainwall system, operable Exterior Doors, Frames, & Har frame & hardware - double Interior Doors, Frames, & Har & hardware, double & hardware, single	rdware SUBTOTAL: rdware	13,250 5,000 SUBTOTAL: Curtain 8 Exterior Doors, Fra 5 10	SQFT SQFT Wall & St EACH Mes, & H EACH EACH	163.39 362.61 torefront 8,874.40 lardware 4,504.35 2,845.75	38,74 2,164,85 1,813,07 \$4,016,67(70,99 \$70,99! 22,52 28,45
08000 08200 Exterior sto High perfor High perfor 08300 AL/GL door, 08400 Door, frame Door, frame	Curtainwall & Storefront refront / windows - 20% of total mance curtainwall system mance curtainwall system, operable Exterior Doors, Frames, & Ha frame & hardware - double Interior Doors, Frames, & Ha & hardware, double & hardware, single Special Glazing Systems	rdware SUBTOTAL: rdware	13,250 5,000 SUBTOTAL: Curtain 8 Exterior Doors, Fra 5 10 Interior Doors, Fra	SQFT SQFT EACH EACH EACH EACH EACH Mmes, & H	163.39 362.61 torefront 8,874.40 lardware 4,504.35 2,845.75	38,74 2,164,85 1,813,07 \$4,016,670 70,99 \$70,99 22,52 28,45 \$50,97
08000 08200 Exterior sto High perfor High perfor 08300 AL/GL door, 08400 Door, frame Door, frame	Curtainwall & Storefront refront / windows - 20% of total mance curtainwall system mance curtainwall system, operable Exterior Doors, Frames, & Har frame & hardware - double Interior Doors, Frames, & Har & hardware, double & hardware, single	rdware SUBTOTAL: rdware	13,250 5,000 SUBTOTAL: Curtain 8 Exterior Doors, Fra 5 10 Interior Doors, Fra 11,200	SQFT SQFT Wall & St EACH EACH EACH EACH EACH SQFT	163.39 362.61 torefront 8,874.40 lardware 4,504.35 2,845.75 lardware 231.97	38,74 2,164,85 1,813,07 \$4,016,67 70,99 \$70,99 \$70,99 \$70,99 \$70,99 \$70,99 \$70,99 \$70,99 \$70,99 \$70,99 \$70,99 \$70,99
08000 08200 Exterior sto High perfor High perfor 08300 AL/GL door, 08400 Door, frame 08700 Greenhouse	Curtainwall & Storefront refront / windows - 20% of total mance curtainwall system mance curtainwall system, operable Exterior Doors, Frames, & Ha frame & hardware - double Interior Doors, Frames, & Han & hardware, double & hardware, single Special Glazing Systems glazed skylight system	rdware SUBTOTAL: rdware	13,250 5,000 SUBTOTAL: Curtain 8 Exterior Doors, Fra 5 10 Interior Doors, Fra	SQFT SQFT Wall & St EACH EACH EACH EACH EACH SQFT	163.39 362.61 torefront 8,874.40 lardware 4,504.35 2,845.75 lardware 231.97	38,74 2,164,85 1,813,07 \$4,016,67(70,99 \$70,99! 22,52 28,45 \$50,97! 2,598,06
08000 08200 Exterior sto High perfor High perfor 08300 AL/GL door, 08400 Door, frame 08700 Greenhouse 08800	Curtainwall & Storefront refront / windows - 20% of total mance curtainwall system mance curtainwall system, operable Exterior Doors, Frames, & Ha frame & hardware - double Interior Doors, Frames, & Ha & hardware, double & hardware, single Special Glazing Systems	rdware SUBTOTAL: rdware	13,250 5,000 SUBTOTAL: Curtain 8 Exterior Doors, Fra 5 10 Interior Doors, Fra 11,200	SQFT SQFT Wall & St EACH EACH EACH EACH EACH SQFT	163.39 362.61 torefront 8,874.40 lardware 4,504.35 2,845.75 lardware 231.97	38,74 2,164,85 1,813,07 \$4,016,67(70,99 \$70,99 22,52

Milwaukee County Mitchel Park Domes Future State Planning

DESCRIPTION		QTY	UM	UNIT COST	TOTAL COST
TOTAL: OPEN	VINGS				\$6,758,049
09000	FINISHES				
09100	Plaster & Gypsum Board				
Gypboard so	offit/cloud - quantity allowance	1,500	SQFT	46.24	69,360
Drywall part	ition	12,800	SQFT	17.93	229,464
Gyp board b	back up	1,480	SQFT	6.47	9,570
		SUBTOTAL: Plaste	r & Gypsı	ım Board	\$308,394
09200	Floor Finishes				
Ceramic tile	base at toilet rooms	285	LNFT	24.28	6,921
Rubber base	2	1,500	LNFT	3.46	5,186
Polished cor	ncrete sealer	31,950	SQFT	4.50	143,877
		SUBTOT	AL: Floor	Finishes	\$155,985
09300	Wall Finishes				
Ceramic wal	ll tile at toilet rooms	2,600	SQFT	19.21	49,936
		SUBTOT	AL: Wall	Finishes	\$49,936
09400	Ceiling Finishes				. ,
	, 2'-0" × 2'-0"	3,950	SQFT	9.17	36,229
, ter system	, 2 0 , 2 0	SUBTOTAL	-		\$36,229
		SUBICIAL	cenng	FIIIISIICS	\$30,229
09600	Paints & Coatings			. ==	
Paint walls	1. 50	24,000	SQFT	1.58	37,862
Paint ceiling		1,500	SQFT	2.11	3,163
Paint expose	ed structure	17,650	SQFT	2.72	48,064
		SUBTOTAL:	Paints &	Coatings	\$89,090
TOTAL: FINI	SHES				\$639,635
10000	SPECIALTIES				
10400	Toilet Accessories				
Toilet partiti	on, accessible	4	EACH	1,134.30	4,537
Toilet partiti	on, standard	6	EACH	887.44	5,325
Urinal scree	n	2	EACH	467.77	936
Toilet paper	dispenser, double roll	12	EACH	114.05	1,369
Paper towel	dispenser, surface mounted	6	EACH	103.58	621
Napkin dispo	osal, stainless steel, surface mounted	8	EACH	128.58	1,029
Baby diaper	changing station	2	EACH	786.26	1,573
Soap dispen	ser	10	EACH	93.58	936
Electric hand	d dryer	10	EACH	567.15	5,672
Utility mop I	holder & shelf, stainless steel	1	EACH	194.05	194
Grab bar set	t, three piece	6	EACH	290.73	1,744
Mirror at sin	k, 18"x24"	10	EACH	161.15	1,612
		SUBTOTAL:	Toilet Ac	cessories	\$25,546
10500	Fire Protection Specialties				

Milwaukee County Mitchel Park Domes Future State Planning

SCRIPTION	QTY	UM UM	UNIT COST	TOTAL COST
Fire extinguisher & cabinet, wall mounted	4	EACH	303.51	1,214
	SUBTOTAL: Fire Pr	otection Sp	oecialties	\$1,214
OTAL: SPECIALTIES				\$26,760
11000 EQUIPMENT				
11300 Food Service Equipment				
Food service equipment allowance	1	LSUM	125,000.00	125,000
	SUBTOTAL: Food	Service Ec	uipment	\$125,000
DTAL: EQUIPMENT				\$125,000
12000 FURNISHINGS				
12100 Window Treatment				
Window treatment	370	SQFT	8.87	3,282
	SUBTOTAL:	Window T	reatment	\$3,282
DTAL: FURNISHINGS				\$3,282
14000 CONVEYING EQUIPMENT				
14200 Electric Traction Elevators				
Passenger elevator, 2 stop	1	EACH	175,000.00	175,000
	SUBTOTAL: Electri	c Traction I		\$175,000
DTAL: CONVEYING EQUIPMENT				\$175,000
21000 FIRE SUPPRESSION				
21200 Fire Sprinkler Equipment & Specialties				
Fire sprinkler system - convservatory addition	41,827	SQFT	10.02	419,107
	AL: Fire Sprinkler Equi	-		\$419,107
DTAL: FIRE SUPPRESSION				\$419,107
22000 PLUMBING				
22200 Plumbing Fixtures				
Water closet, wall hung, manual flush valve	6	EACH	1,781.97	10,692
Lavatory, wall hung, manual faucet	7		1,807.66	12,654
Urinal, wall hung, manual flush valve	1	EACH	1,818.16	1,818
Drinking fountain, ADA bi-level w/ bottle filler	2	EACH	2,985.87	5,972
Hose bibbs	4	EACH	499.10	1,996
Wall hydrant, nonfreeze	4	EACH	1,418.19	5,673
In-ground hydrant at conservatory, nonfreeze	4	EACH	1,418.19	5,673
Rough-ins and connections for cafeteria and kitchen equipment	1	LSUM	14,455.20	14,455
	SUBTOTAL:	Plumbing	Fixtures	\$58,932
22300 Plumbing Equipment & Specialties				
Domestic water heater, gas-fired	1	EACH	10,945.52	10,946
DHW recirculating pump	1	EACH	2,178.21	2,178

Milwaukee County Mitchel Park Domes Future State Planning

1		UNIT COST	TOTAL CO
1	EACH	4,472.76	4,4
7	EACH	344.98	2,4
3	EACH	162.28	4
1	EACH	1,822.76	1,8
1	EACH	497.74	4
4	EACH	707.59	2,8
4	EACH	404.55	1,6
5	EACH	952.40	4,7
2	EACH	372.40	-
g Equipn	nent & Sp	ecialties	\$34,1
	-		
1,000	LNFT	39.54	39,
•	LNFT	10.17	10,
300	LNFT	59.36	17,
450	LNFT	41.28	18,
			15,
			2,
			-,
			-,-
		,	1,
-			2,9
-	20011	2,555.15	<i>-</i> ,
:, & Storn	n Drainag	e Piping	\$116,5
			\$209,66
ING			
2	EACH	202,712.00	405,
1	EACH	30,784.00	30,
3	EACH		18,
			9,
20	EACH	1,217.00	24,7
20	EACH	1,082.00	21,
42,130	SQFT	12.28	517,
50	LNFT	400.00	20,
		100.00	20,
	EACH	111 20	11
100	EACH	111.20 Exhaust	
100	EACH		
100 AL: Vent	ilation &	Exhaust	\$1,058,8
100 *AL: Vent 2	EACH	Exhaust 57,876.00	\$1,058,8 115,
100 AL: Vent	ilation &	Exhaust	11, \$1,058,8 115, 1,1
	4 4 5 2 g Equipm 1,000 1,000 300 450 170 50 80 1 1,000 1 :, & Storn ING 2 1 3 2	4 EACH 4 EACH 5 EACH 2 EACH 2 EACH 3 Equipment & Spectrum 1,000 LNFT 1,000 LNFT 1,000 LNFT 300 LNFT 450 LNFT 170 LNFT 50 LNFT 1000 LNFT 1 EACH 1,000 LNFT 1 EACH 1 LSUM 2 EACH 1 EACH 3 EACH 2 EACH	4 EACH 707.59 4 EACH 404.55 5 EACH 952.40 2 EACH 372.40 g Equipment & Specialties 1,000 LNFT 39.54 1,000 LNFT 10.17 300 LNFT 59.36 450 LNFT 41.28 170 LNFT 88.32 50 LNFT 50.29 80 LNFT 19.75 1 EACH 7,012.71 1,000 LNFT 1.37 1 LSUM 2,955.15

Milwaukee County Mitchel Park Domes Future State Planning

CRIPTION	QTY	UM	UNIT COST	TOTAL COST
Water heater flue/vent	50	LNFT	116.95	5,848
HW pumps, secondary, base-mount	2	EACH	5,668.23	11,336
HW boiler primary pumps, inline	2	EACH	1,696.90	, 3,394
Variable frequency drive, HW secondary pumps, (MC supply, EC install)	2	EACH	2,900.36	5,801
Vibration isolation, pumps	2	EACH	1,818.80	3,638
Isolation valves, pumps, butterfly, 6"	2	EACH	1,190.15	2,380
Flexible pump connections, 6"	4	EACH	411.80	1,647
Suction diffuser, 6"	2	EACH	2,184.50	4,369
Triple duty valve, 6"	2	EACH	3,759.50	7,519
Pump strainer, Y-type, 6"	2	EACH	1,215.35	2,431
Expansion tank	1	EACH	6,225.20	6,225
Air separator, 6"	1	EACH	4,198.23	4,198
Chemical pot feeder	1	EACH	2,275.20	2,275
Sidestream filters - new	1	EACH	2,975.20	2,975
Pressure fill/makeup water system	1	EACH	7,627.60	7,628
SUBTOTAL: Central Hydronic & Ste	am Equipn	nent & Sp	ecialties	\$199,387
23500 HVAC Piping				
HHWS/R mains, std. wgt. blk. steel pipe, fittings, and supports, welded/flanged,	500	LNFT	114.92	57,462
HHWS/R runouts, type L copper pipe, fittings, and supports	700	LNFT	28.08	19,654
Natural gas piping, std. wgt. blk. steel pipe, fittings, and supports, threaded, 1-1/2"	150	LNFT	38.38	5,757
Pipe insulation, HHWS/R mains	500	LNFT	17.16	8,581
Pipe insulation, HHWS/R runouts	700	LNFT	10.07	7,052
Pipe and valve tagging - interior bldg HVAC piping	1,350	LNFT	1.32	1,787
		TAL: HVA	C Piping	\$100,293
23600 Temperature Controls				
DDC controls - rooftop units	2	EACH	15,000.00	30,000
DDC controls - makeup air units	1	EACH	5,000.00	5,000
DDC controls - exhaust fan, general, toilet	2	EACH	3,000.00	6,000
DDC controls - VAV terminals w/reheat coil	20	EACH	2,000.00	40,000
DDC controls - HW boilers	2	EACH	3,000.00	6,000
DDC controls - hydronic pumps, constant speed	2	EACH	3,000.00	6,000
DDC controls - hydronic pumps, variable speed	2	EACH	7,500.00	15,000
Thermostats/temperature sensors	20	EACH	500.00	10,000
CO sensors	1	EACH	500.00	500
Emergency boiler shutoff switch	1	EACH	1,050.00	1,050
Miscellaneous points & devices	1	LSUM	15,000.00	15,000
Engineer's station	1	LSUM	20,000.00	20,000
Programming, testing, and training	1	LSUM	15,000.00	15,000
SUBT	OTAL: Tem	perature	Controls	\$169,550
23700 Testing, Balancing, & Commissioning				
Airflow system testing and balancing	1	LSUM	45,000.00	45,000
Pipe system testing and balancing	1	LSUM	10,000.00	10,000
HVAC system commissioning assistance	1	LSUM	20,000.00	20,000

Milwaukee County Mitchel Park Domes Future State Planning

CRIPTION	QTY	UM	UNIT COST	TOTAL COS
SUBTOTAL: Testing, I	Balancing,	& Commi	ssioning	\$75,00
AL: HEATING VENTILATION & AIR CONDITIONING				\$1,603,12
26000 ELECTRICAL				
26200 Main Power Distribution				
New service assembly Switchboard 208/120V 3ph 4w 2000A and feeder	1	EACH	150,000.00	150,00
Branch panelboards and associated feeders	41,827	SQFT	2.25	94,08
New generator assembly, docking station, ATS, panel and feeder	1	EACH	125,023.46	125,0
Grounding system per code	1	LSUM	20,000.20	20,0
SUBTOTA	L: Main P	ower Dis	tribution	\$389,10
26500 Lighting				
Miscellaneous LED fixtures	41,827	EACH	17.50	731,9
Decorative and specialty light fixtures - allowance	1	LSUM	100,119.96	100,1
Lighing control, devices, cabling, connections and testing	41,827	SQFT	2.50	104,5
Branch wiring installation 600 V, including 3/4" EMT conduit and THWN wire, 20A	41,827	SQFT	5.50	230,0
	SU	BTOTAL:	Lighting	\$1,166,70
26600 Branch Power Distribution & Devices				
Dedicated NEMA 6-20R duplex receptacle	12	EACH	150.54	1,8
Duplex receptacle, Ground Fault Interrupting, 20 amp	10	EACH	145.36	1,4
Duplex receptacle, backbox, grounded, 120 volt, 20 amp (assumed quantities)	170	EACH	122.13	20,7
Duplex receptacle, Ground Fault Interrupting, 20 amp with Waterproof Cover	22	EACH	150.56	3,3
Duplex receptacle, grounded, 120 volt, 20 amp - floor mounted	4	EACH	298.64	1,1
Quadruplex receptacle, backbox, grounded, 120 volt, 20 amp	10	EACH	130.02	1,3
Junction Box and hardwired connection	36	EACH	96.24	3,4
Branch Power - Branch wiring installation 600 V, including 3/4" EMT conduit and THWN wire, 20A	41,827	SQFT	6.85	286,5
SUBTOTAL: Branch P	ower Distr	ibution &	Devices	\$319,81
26700 Mechanical Equipment Connections & Feeders				
Motors connection, disconnect switches and associated feeders - Elevator sump pump	1	EACH	1,100.00	1,1
Motors connection, disconnect switches and associated feeders - elevator	1	EACH	8,000.00	8,0
Motors connection, disconnect switches and associated feeders - DHW recirculating pump	1	EACH	850.00	8
Motors connection, disconnect switches and associated feeders - Exhaust fan, rooftop	2	EACH	4,000.00	8,0
Motors connection, disconnect switches and associated feeders - HW pumps, secondary	2	EACH	4,800.00	9,6
Motors connection, disconnect switches and associated feeders - HW boilers, 2,000 mbh	2	EACH	3,500.00	7,0
Motors connection, disconnect switches and associated feeders - HW boiler primary pump	2	EACH	4,800.00	9,6
Motors connection, disconnect switches and associated feeders - Makeup air unit	1	EACH	5,500.00	5,5
Motors connection, disconnect switches and associated feeders - Rooftop unit, 80 tons	2	EACH	9,200.00	18,4

Milwaukee County Mitchel Park Domes Future State Planning

CRIPTION	QTY	UM	UNIT COST	TOTAL COST
SUBTOTAL: Mechanical	Equipment Conn	ections &	Feeders	\$68,050
AL: ELECTRICAL				\$1,943,677
27000 COMMUNICATIONS				
27200 Tele/Data Systems				
Provision for IT room, plywood, cable tray, grounding, sleeves	1	EACH	10,200.00	10,200
MDF rack assembly 3 racks, switching equipment by Owner	1	EACH	16,300.00	16,300
Back bone cables distribution to MDF room (fiber optic, multipair cable)	1	LNFT	20,000.00	20,000
Voice/Data wall outlet, back box and plate, 1 gang, 2-port (assumed quantiti	ies) 110	EACH	147.00	16,170
Voice/Data outlet, back box and plate, 1 gang, 2-port - floor mounted (assum quantities)	med 4	EACH	376.72	1,507
Wireless access points	20	EACH	870.00	17,400
J-Hooks and cable tray above ceilings to provide cabling supports.	1	LNFT	85,699.91	85,700
Unshielded twisted pair (UTP) cable, solid, PVC jacket, #24, 4 pair, category	6a 35,000	LNFT	2.50	, 87,486
Terminations and testing	. 1	SQFT	50,000.31	50,000
	SUBTOTAL: T	-	,	\$304,763
AL: COMMUNICATIONS				\$304,763
28300 Intrusion Detection & Access Control Systems Provide rough ins for card readers, key pads, cameras and intercoms. SUBTOTAL: Intrusion D	SUBTOTAL: Fi 41,827	EACH	1.25	\$135,934 52,284 \$52,284
AL: ELECTRONIC SAFETY & SECURITY	election & Access	scontrol	Systems	\$52,284
				<i><i><i>q</i>=00<i>/</i>==<i>/</i></i></i>
				<i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>q</i><i>qq.</i></i>
31100 Site Preparation & Excavation	35,000	SQFT	4.42	154,819
31100 Site Preparation & Excavation Site prep & demo allowance	35,000	SQFT		154,819
31100 Site Preparation & Excavation Site prep & demo allowance SUBTOT	35,000 TAL: Site Prepara	-		
31100 Site Preparation & Excavation Site prep & demo allowance SUBTOT 31200 Site Grading	AL: Site Prepara	tion & Ex	cavation	154,819 \$154,819
31100 Site Preparation & Excavation Site prep & demo allowance SUBTOT	TAL: Site Prepara	tion & Ex	cavation 0.91	154,819 \$154,819 31,724
31100 Site Preparation & Excavation Site prep & demo allowance SUBTOT 31200 Site Grading	TAL: Site Prepara	tion & Ex	cavation 0.91	154,819 \$154,819
31100 Site Preparation & Excavation Site prep & demo allowance SUBTOT 31200 Site Grading	TAL: Site Prepara	tion & Ex	cavation 0.91	154,819 \$154,819 31,724
31100 Site Preparation & Excavation Site prep & demo allowance SUBTOT 31200 Site Grading Site grading including rough & final	TAL: Site Prepara	tion & Ex	cavation 0.91	154,819 \$154,819 31,724
31100 Site Preparation & Excavation Site prep & demo allowance SUBTOT 31200 Site Grading Site grading including rough & final 31300 Foundation Excavation & Fill	TAL: Site Prepara 35,000 SUBTO	SQFT TAL: Site	cavation 0.91 Grading	154,819 \$154,819 31,724 \$31,724
31100 Site Preparation & Excavation Site prep & demo allowance SUBTOT 31200 Site Grading Site grading including rough & final 31300 Foundation Excavation & Fill Excavate for foundations & slab	TAL: Site Prepara 35,000 SUBTO 3,662	SQFT TAL: Site	0.91 Grading 11.94	154,819 \$154,819 31,724 \$31,724 43,707
31100 Site Preparation & Excavation Site prep & demo allowance SUBTOT 31200 Site Grading Site grading including rough & final Site grading including rough & final 31300 Foundation Excavation & Fill Excavate for foundations & slab Backfill with imported granular fill Haul off excavated material as CCDD	Site Prepara 35,000 SUBTO 3,662 2,045	SQFT TAL: Site CUYD CUYD CUYD	0.91 Grading 11.94 43.55 35.56	154,819 \$154,819 31,724 \$31,724 43,707 89,054
31100 Site Preparation & Excavation Site prep & demo allowance SUBTOT 31200 Site Grading Site grading including rough & final Site grading including rough & final 31300 Foundation Excavation & Fill Excavate for foundations & slab Backfill with imported granular fill Haul off excavated material as CCDD	Site Prepara 35,000 SUBTO 3,662 2,045 3,662	SQFT TAL: Site CUYD CUYD CUYD	0.91 Grading 11.94 43.55 35.56	154,819 \$154,819 31,724 \$31,724 43,707 89,054 130,211
31100 Site Preparation & Excavation Site prep & demo allowance SUBTOT 31200 Site Grading Site grading including rough & final Site grading including rough & final 31300 Foundation Excavation & Fill Excavate for foundations & slab Backfill with imported granular fill Haul off excavated material as CCDD SUBTOR	Site Prepara 35,000 SUBTO 3,662 2,045 3,662	SQFT TAL: Site CUYD CUYD CUYD	0.91 Grading 11.94 43.55 35.56	154,819 \$154,819 31,724 \$31,724 43,707 89,054 130,211

CONCORD GROUP GROUP

CRIPTION	QTY	UM	UNIT COST	TOTAL COS
AL: EARTHWORK				\$456,960
32000 EXTERIOR IMPROVEMENTS				
32600 Landscaping				
Landscaping grass area - quantity allowance	3,500	SQFT	2.77	9,69
Topsoil, 6" thk at sod	65	CUYD	52.65	3,42
Irrigation system at grass areas - Allowance	3,500	SQFT	0.74	2,60
		TAL: Land	lscaping	\$15,726
AL: EXTERIOR IMPROVEMENTS				\$15,726
33000 UTILITIES				
33100 Selective Site Demolition				
Disconnect, cut and cap incoming water service	1	LSUM	12,444.80	12,44
Disconnect, cut and cap sanitary sewer	1	LSUM	28,862.00	28,86
Disconnect, cut and cap storm utilities	1	LSUM	41,779.20	41,77
Excavate and remove existing drainage structures	1	LSUM	38,601.28	38,60
Disconnect, cut and cap incoming gas service	1	LSUM	12,444.80	12,44
	TOTAL: Selectiv	ve Site De		\$134,132
33200 Site Water Service				
Domestic water service pipe and fittings, DIP, 8" w/2-layer PE wrap	105	LNFT	94.46	9,91
Fire hydrant	2	EACH	30,028.23	60,05
Gate valve, 8"	1	EACH	2,050.00	2,05
/alve vault	1	EACH	13,073.19	13,07
Thrust blocks	1	LSUM	2,121.39	2,12
Trench excavation, pipe bedding, and backfill	105	LNFT	67.84	7,12
ine flushing, cleaning, and testing	1	LSUM	2,407.52	2,40
	SUBTOTAL: S			\$96,750
33300 Site Sanitary & Storm Sewer				
PVC storm sewer pipe, SDR 35, 12"	1,000	LNFT	45.96	45,95
PVC sanitary sewer pipe, SDR 35, 6"	100	LNFT	22.98	2,29
Catch basins	10	EACH	4,828.80	48,28
Grease basin, 3-compartment precast concrete, w/ frame & covers	1	EACH	26,924.53	26,92
Connect new sewer to existing	1	EACH	1,988.68	1,98
Trench excavation, pipe bedding, and backfill	1,100	LNFT	68.55	75,40
Line flushing, cleaning, and testing	1	LSUM	11,917.20	11,91
SUBTO	AL: Site Sanita	ry & Stori	n Sewer	\$212,77
33400 Natural Gas Service				
Coordinate gas service provision with local utility	1	LSUM	2,407.52	2,40
	SUBTOTAL: N	atural Gas	s Service	\$2,408
33800 Site Electrical				
Utility company provisions and coordination - Transformer service	1	LSUM	6,347.20	6,34
			lectrical	\$6,347

Milwaukee County Mitchel Park Domes Future State Planning

Order of Magnitude Estimate 08/29/2023 DRAFT

DESCRIPTION **UNIT COST TOTAL COST** QTY UM **TOTAL: UTILITIES**

TOTAL: ALTERNATIVE #4: CONSERVATORY & EVENT BUILDING



\$452,414

\$18,189,561

CRIPTION			QTY	UM	UNIT COST	TOTAL COS
TERNA	TIVE #4: NORTH ENTRY COU	IRTYARD				
08000	OPENINGS					
08700	Special Glazing Systems					
Drivable sky	light allowance		1	LSUM	100,000.00	100,00
		SUBTOT	AL: Specia	l Glazing S	Systems	\$100,00
AL: OPE	NINGS					\$100,000
26000	ELECTRICAL					
26500	Lighting					
Lighting and	l power provisions - allowance		1	LSUM	80,000.00	80,0
			SU	BTOTAL: L	.ighting	\$80,00
AL: ELEC	TRICAL					\$80,00
31000	EARTHWORK					
31100	Site Preparation & Excavation					
Site prep &	demo allowance		34,000	SQFT	4.42	150,3
		SUBTOTAL: Si	te Prepara	tion & Exc	avation	\$150,39
31200	Site Grading		-			
Site grading	including rough & final		34,000	SQFT	0.91	30,8
5 5			SUBTO	TAL: Site (Grading	\$30,81
31600	Erosion & Sedimentation Control				3	1 / -
	edimentation control allowance		34,000	SQFT	0.21	7,2
		SUBTOTAL: Erosi		-		\$7,23
31700	Pavement Bases			incincution		Ψ7/25
	pase, 6" thk at concrete paving		213	CUYD	55.58	11,8
Aggregate t	ase, of the at concrete paving	c	SUBTOTAL:			\$11,83
AL: EAR	THWORK	5	OBIOTAL.	Paveillei	it bases	\$200,28
						<i>\</i> 100 /10
32000 32100	EXTERIOR IMPROVEMENTS					
	Pavement vement, 8" thk		11,500	SQFT	10.79	124,0
concrete pa				OTAL: Pa		\$124,03
22600	Landaranina		3001	UTAL: Pa	vement	φ124,0 3
32600	Landscaping		22 500	COLT	17.00	400.4
	g planting bed area - quantity allowance I, 24" thk at beds		22,500 1,667	SQFT CUYD	17.80 62.99	400,4 104,9
-	stem at planting beds - Allowance		22,500	SQFT	1.60	36,0
ingation sy	stem at planting beds - Allowance			FAL: Land		\$541,50
22700	Site Europickings		50010		scaping	φυτιμος
32700 Site Amoniti	Site Furnishings es - Allowance		1	LSUM	20 000 00	20.0
Site Ameniti	es - Alluwalice				20,000.00	20,00
		9	SUBTOTAL	Site Furn	lisnings	\$20,00

Future State Planning Order of Magnitude Estimate 08/29/2023 DRAFT

Milwaukee County Mitchel Park Domes

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
TOTAL: EXTERIOR IMPROVEMENTS				\$685,532

TOTAL: ALTERNATIVE #4: NORTH ENTRY COURTYARD

\$1,065,814

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
ALTERNATIVE #4: EAST WEDDING GARDEN				
26000 ELECTRICAL 26500 Lighting				
Lighting and power provisions - allowance	1 Sue	lsum Btotal:	100,000.00 Lighting	100,000 \$100,000
TOTAL: ELECTRICAL				\$100,000
31000EARTHWORK 31100Site Preparation & Excavation				
Site prep & demo allowance	32,000	SQFT	4.42	141,549
SUBTOTAL: Site	Preparat	tion & Ex	cavation	\$141,549
31200 Site Grading				
Site grading including rough & final	32,000	SQFT	0.91	29,005
	SUBTOT	AL: Site	e Grading	\$29,005
31600 Erosion & Sedimentation Control				
Erosion & sedimentation control allowance	32,000	SQFT	0.21	6,806
SUBTOTAL: Erosion	& Sedin	nentatio	n Control	\$6,806
TOTAL: EARTHWORK				\$177,360
32000 EXTERIOR IMPROVEMENTS 32900 Miscellaneous Exterior Improvements				
Wedding Garden - allowance	32,000	SQFT	33.69	1,078,192
SUBTOTAL: Miscellaneou	us Exteri	or Impro	ovements	\$1,078,192
TOTAL: EXTERIOR IMPROVEMENTS				\$1,078,192
TOTAL: ALTERNATIVE #4: EAST WEDDING GARDEN				\$1,355,552

DESCRIPTION	QTY	UM	UNIT COST	TOTAL COST
ALTERNATIVE #4: EAST CAFE GARDE	EN			
26000 ELECTRICAL 26500 Lighting				
Lighting and power provisions - allowance	1	LSUM	25,000.00	25,000
	S	UBTOTAL:	Lighting	\$25,000
TOTAL: ELECTRICAL				\$25,000
31000 EARTHWORK				
31100 Site Preparation & Excavation				
Site prep & demo allowance	3,000	SQFT	4.42	13,270
	SUBTOTAL: Site Prepa	ration & E	xcavation	\$13,270
31200 Site Grading				
Site grading including rough & final	3,000	SQFT	0.91	2,719
	SUBT	OTAL: Site	e Grading	\$2,719
31600 Erosion & Sedimentation Control				
Erosion & sedimentation control allowance	3,000	SQFT	0.21	638
	SUBTOTAL: Erosion & Sec	limentatio	n Control	\$638
31700 Pavement Bases				
Aggregate base, 6" thk at concrete paving	56	CUYD	55.58	3,088
	SUBTOTA	L: Pavem	ent Bases	\$3,088
TOTAL: EARTHWORK				\$19,716
32000 EXTERIOR IMPROVEMENTS	S			
32100 Pavement	-			
Concrete walk, 5" thk - quantity allowance	3,000	SQFT	7.49	22,482
Premium for colored concrete - quantity allowance	3,000	SQFT	7.45	22,358
	SU	BTOTAL: F	Pavement	\$44,839
TOTAL: EXTERIOR IMPROVEMENTS				\$44,839
TOTAL: ALTERNATIVE #4: EAST CAFE GARDE	N			\$89,555

CRIPTION			QTY	UM	UNIT COST	TOTAL COST
LTERNA	TIVE #4: SOUTH EVENT GA	RDEN				
22000	PLUMBING					
22300	Plumbing Equipment & Specialties	1				
RPZ backflow	w preventer, 3/4", lead free		1	EACH	1,385.76	1,386
Air gap for b	ackflow preventer testing		1	EACH	409.10	409
		SUBTOTAL: Plumbin	g Equipm	ent & Sp	ecialties	\$1,795
22400	Domestic Water, Waste & Vent, &	Storm Drainage Piping				
UG water se	rvice pipe and fittings to water feature, type I	C copper, 3/4"	300	LNFT	10.96	3,288
Shutoff/isola	tion valve, ball, 3/4"		1	EACH	143.43	143
	SUBTOTAL: Domest	ic Water, Waste & Vent	t, & Storn	n Drainag	e Piping	\$3,432
AL: PLUN	1BING					\$5,227
26000	ELECTRICAL					
26500	Lighting					
Lighting and	power provisions - allowance		1	LSUM	100,000.00	100,000
			SUI	BTOTAL:	Lighting	\$100,000
AL: ELEC	TRICAL					\$100,000
31000	EARTHWORK					
31100	Site Preparation & Excavation					
	demo allowance		18,000	SQFT	4.42	79,621
		SUBTOTAL: Site	-	-		\$79,621
31200	Site Creding	SOBIOTAL: SIC	ricpuru		cavation	<i>\$75,</i> 021
	Site Grading including rough & final		18,000	SOFT	0.91	16,315
Site grading			,			
			SUBIU	AL: Site	Grading	\$16,315
31600	Erosion & Sedimentation Control		10.000	60FT	0.04	2 0 2 0
Erosion & se	dimentation control allowance		18,000	SQFT	0.21	3,829
		SUBTOTAL: Erosio	n & Sedin	nentation	Control	\$3,829
31700	Pavement Bases					
	ase, 6" thk at concrete paving		67	CUYD	55.58	3,706
Aggregate b	ase, 6" thk at concrete paver base		59	CUYD	55.58	3,294
		SU	BTOTAL:	Paveme	nt Bases	\$7,000
AL: EART	HWORK					\$106,765
32000	EXTERIOR IMPROVEMENT	S				
32100	Pavement					
Concrete pa	ver base, 4" thk		3,200	SQFT	6.27	20,062
Concrete wa	lk, 5" thk - quantity allowance		3,600	SQFT	7.49	26,978
Precast cond	crete pavers		3,200	SQFT	19.98	63,936
			SUBT	OTAL: Pa	avement	\$110,976
32600	Landscaping					

Milwaukee County Mitchel Park Domes Future State Planning

Order of Magnitude Estimate 08/29/2023 DRAFT

SCRIPTION		QTY	UM	UNIT COST	TOTAL COST
Landscaping planting bed area - quantity allowance		11,200	SQFT	17.80	199,322
Trees - quantity allowance		10	EACH	1,534.70	15,347
Planting soil, 24" thk at beds		830	CUYD	62.99	52,259
Irrigation system at planting beds - Allowance		11,200	SQFT	1.60	17,966
		SUBTO	TAL: Land	lscaping	\$284,894
32900 Miscellaneous Exterior Improve	ements				
Water feature - allowance		1	LSUM	100,000.00	100,000
	SUBTOTAL: Miscellaned	ous Exteri	ior Improv	vements	\$100,000
AL: EXTERIOR IMPROVEMENTS					\$495,870
33000 UTILITIES					
33300 Site Sanitary & Storm Sewer					
Allowance for storm drainage provisions		1	LSUM	50,000.00	50,000
	SUBTOTAL: S	ite Sanita	ry & Storr	n Sewer	\$50,000
AL: UTILITIES					\$50,000
AL: ALTERNATIVE #4: SOUTH EVENT	GARDEN				\$757,861

Mitchell Park Domes Future State Planning and Construction Cost Estimating

Appendix C

Domes Alternatives 1 – 4 Project Feasibility Budget (PFB)

Milwaukee County Domes Alternate #1 - DEMOLITION **Project Feasability Budget**

CONCORD GROUP

ITEMS	NOTE# ASSUMPTION	%	Estimate
1.0 CONTRACTOR CONSTRUCTION		\$	5,017,825
Preconstruction			
Construction	4	\$	4,778,881
General Conditions/Bond/Insurance (16%)		\$	573,923
Contractors Fees (6%)		\$	249,656
Escalation to Mid-Point of Construction (8.35%)		\$	368,285

Construction Contingency		5%	\$	238,944
		SUBTOTAL CONTRACTOR CONSTRUCTIO	DN \$	5,017,825
2.0 OWNER CONSTRUCTION			\$	550,891
Building Permit		Included in 01.02 Construction	\$	-
Temporary / Relocation	1	Excluded	\$	-
Hazardous Material Removal	2	Allowance	\$	250,000
Permanent Interior & Exterior Signage		Excluded	\$	-
Temporary Utilities / Utility Connection Fee	3	Allowance	\$	50,000
Other		Excluded	\$	-
Change Order Allowance		% of Construction (#01.01- #01.10) 5%	\$	250,891
		SUBTOTAL OWNER CONSTRUCTIO	DN \$	550,891

TOTAL CONTRACTOR &	OWNER CONSTRUCTION	\$ 5,568,716

3.0 EQUIPMENT		\$	-
Artwork	Excluded	\$	-
Existing Movable Equipment	Excluded	\$	-
Furnishings	Excluded	\$	-
New Major Equipment	Excluded	\$	-
New Minor Equipment	Excluded	\$	-
Security Systems	Excluded	\$	-
Telecommunications	Excluded	\$	-
Other (Contingency)	Excluded	\$	-
		\$	-
	TC	DTAL EQUIPMENT \$	-

4.0 DESIGN			\$	208,768
BASE SERVICES				
Architectural Design	% of Construction (#01.01- #01.10)	3%	\$	167,061
Architectural Test Fit / Mock Up	Excluded		\$	-
Mech / Electrical / Plumbing / Fire Protection Design	Included in Arch.Design (#03.02)		\$	-
Structural Design	Included in Arch.Design (#03.02)		\$	-
Civil Design	Included in Arch.Design (#03.02)		\$	-
Landscape Design	Excluded		\$	-
Programming / Program Validation	Excluded		\$	-
Architectural Add Services	Excluded		\$	-
Architectural Reimbursable Expenses	% Total Cost	10%	\$	16,706
—	SUBTOTAL BASE SE	RVICES	\$	183,768
Design Supplemental Services	SUBTOTAL BASE SE	RVICES	\$	183,768
Design Supplemental Services Multiple Preliminary Designs	SUBTOTAL BASE SE	RVICES	\$ \$	183,768
• • • •		RVICES	\$ \$ \$	183,768 - -
Multiple Preliminary Designs	Excluded	RVICES	\$ \$ \$	183,768 - -
Multiple Preliminary Designs Measured Drawings	Excluded Excluded	RVICES	\$ \$ \$ \$	183,768 - - -
Multiple Preliminary Designs Measured Drawings Existing Facilities Survey	Excluded Excluded Excluded	RVICES	\$ \$ \$ \$ \$	183,768 - - - - -
Multiple Preliminary Designs Measured Drawings Existing Facilities Survey Site Evaluation and Planning	Excluded Excluded Excluded Excluded Excluded	RVICES	\$ \$ \$ \$ \$ \$	183,768 - - - - - - -
Multiple Preliminary Designs Measured Drawings Existing Facilities Survey Site Evaluation and Planning Building Information Model Management Responsibilities	Excluded Excluded Excluded Excluded Excluded	RVICES	\$ \$ \$ \$ \$ \$ \$ \$ \$	183,768 - - - - - - - - - - - -
Multiple Preliminary Designs Measured Drawings Existing Facilities Survey Site Evaluation and Planning Building Information Model Management Responsibilities Development of Building Information Models for Post Construction Us	Excluded Excluded Excluded Excluded Excluded se (* Excluded	RVICES	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	183,768 - - - - - - - - - - - - - - - - - - -
Multiple Preliminary Designs Measured Drawings Existing Facilities Survey Site Evaluation and Planning Building Information Model Management Responsibilities Development of Building Information Models for Post Construction Us On-Site Project Representation	Excluded Excluded Excluded Excluded Excluded se (< Excluded Excluded	RVICES	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	183,768 - - - - - - - - - - - - - - - - - - -

Post-Occupancy Evaluation	Excluded	\$ -
Facility Support Services	Excluded	\$ -
Tenant-Related Services	Excluded	\$ -
Architect's Coordination of the Owner's Consultants	Excluded	\$ -
Architectural Renderings	Excluded	\$ -
Master Planning	Excluded	\$ -
Other Misc Services	Excluded	\$ -

—	SUBTOTAL DESIGN SPECIALITY SERV	ICES S	-
Other Independent Services			
Abatement/Hazardous Material Consultant	Allowance	\$	25,000
Activation	Excluded	\$	-
Commissioning	Excluded	\$	-
Environmental Study (Phase 1 with a potential for Phase 2)	Excluded	\$	-
Physicist	Excluded	\$	-
Process Improvement	Excluded	\$	-
Structural/Material Testing	Excluded	\$	-
Geotechnical Engineering	Excluded	\$	-
Surveys	Included in Arch.Design (#03.02)	\$	-
Value Analysis (4.1.1.12)	Excluded	\$	-
Cost Estimating (4.1.1.13)	Included in 05.09	\$	-
Telecommunications/Data Design (4.1.1.22)	Excluded	\$	-
Information Systems Consultant/Security Evual and Planning	Excluded	\$	-
Sustainability Services (ESG)	Excluded	\$	-
Furniture, Furnishings, and Equipment Design (4.1.1.27)	Excluded	\$	-
Equipment planning and procurement consultant	Excluded	\$	-
Other Independent Services	Excluded	\$	-

SUBTOTAL INDEPENDENT SERVICES \$

25,000

	TOTAL DESIGN		208,768
	TOTAL DESIGN .	Ŷ	200,700
5.0 ADMINISTRATIVE COSTS		\$	275,592
LEGAL & PROFESSIONAL		Ŧ	2/ 0/0/ 2
Deposits	Excluded	5	-
Developer Fee	Excluded	5	-
Lease Fees/Costs	Excluded	5	-
Legal & Accounting	Excluded	5	-
Operating Costs	Excluded	5	-
Personnel Impact	Excluded	5	-
Plan Exam Fees	Included in Arch.Design (#03.02)	5	-
Planning	Excluded	5	-
Project Management	% of Construction (#01.01- #01.10) 4.5%	5	250,592
Zoning Process	Excluded	5	-
Moving	Excluded	5	-
Participation Consultant (DBE/TBE/SBE)	Allowance	5	25,000
Expeditor	Excluded	5	-
Other Legal & Professional	Excluded	Ş	-
	SUBTOTAL LEGAL & PROFESSIONAL	\$	275,592
ACQUISITION			
Land Acquisition	Excluded	\$	-
Building Acquisition	Excluded	5	-
Extension Fee	Excluded	5	-
Realtors/Agents Commissions	Excluded	Ş	-
		5	-
	SUBTOTAL ACQUISTION	\$	-
FINANCING			
Capitalized Interest	Excluded	\$	-
Loan Interest	Excluded	\$	-
Loan Fee	Excluded	5	-
Underwriting Fee	Excluded	5	-
Origination Fee	Excluded	5	-
Other Financing	Excluded	5	-
		5	-
	SUBTOTAL FINANCING	\$	-
TAXES & INSURANCE			

Builders Risk Insurance Draw Requests Liability Insurance Real Estate Taxes Title Insurance	Excluded Excluded Excluded Excluded Excluded		
Other Insurance Costs	Excluded		
	SUBTOTAL TAXES & INSURANCE	\$	-
MARKETING			
Marketing Public Outreach	Excluded Allowance	\$ \$	- 50,000
	SUBTOTAL MARKETING	\$	50,000
	TOTAL ADMINISTRATION	\$	325,592
	SUBTOTAL BEFORE CONTINGENCY	Ş	6,103,076
	Owner Contingency		305,153.81
	GRAND TOTAL	\$6	5,408,230

Milwaukee County Domes Alternate #2 - REPAIR THREE DOMES Project Feasability Budget

CONCORD GROUP

TOTAL EQUIPMENT \$

-

NOTE# ASSUMPTION	%	Estimate
	\$	22,806,625
1	\$	21,720,595
	\$	2,003,173
	\$	1,121,777
	\$	1,902,534
	NOTE# ASSUMPTION	NOTE# ASSUMPTION % 1 \$ 1 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Construction Contingency		5%	\$	1,086,030
		SUBTOTAL CONTRACTOR CONSTRUCTION	Ş	22,806,625
2.0 OWNER CONSTRUCTION			¢	1 100 221
2.0 OWNER CONSTRUCTION			\$	1,190,331
Building Permit		Included in 01.02 Construction	\$	-
Temporary / Relocation	2	Excluded	\$	-
Hazardous Material Removal	3	Allowance	\$	50,000
Permanent Interior & Exterior Signage		Excluded	\$	-
Temporary Utilities / Utility Connection Fee		Excluded	\$	-
Other		Excluded	\$	-
Change Order Allowance		% of Construction (#01.01- #01.10) 5%	\$	1,140,331
		SUBTOTAL OWNER CONSTRUCTION	\$	1,190,331

	TOTAL CONTRACTOR & OWNER O	CONSTRUCTION \$	23,996,956
3.0 EQUIPMENT		\$	-
Artwork	Excluded	\$	-
Existing Movable Equipment	Excluded	\$	-
Furnishings	Excluded	\$	-
New Major Equipment	Excluded	\$	-
New Minor Equipment	Excluded	\$	-
Security Systems	Excluded	\$	-
Telecommunications	Excluded	\$	-
Other (Contingency)	Excluded	\$	-
		•	

4.0 DESIGN			\$ 2,829,665
BASE SERVICES			
Architectural Design	% of Construction (#01.01- #01.10)	10%	\$ 2,399,696
Architectural Test Fit / Mock Up	Excluded		\$ -
Mech / Electrical / Plumbing / Fire Protection Design	Included in Arch.Design (#03.02)		\$ -
Structural Design	Included in Arch.Design (#03.02)		\$ -
Civil Design	Included in Arch.Design (#03.02)		\$ -
Landscape Design	Excluded		\$ -
Programming / Program Validation	Excluded		\$ -
Architectural Add Services	Excluded		\$ -
Architectural Reimbursable Expenses	% Total Cost	10%	\$ 239,970

		SUBTOTAL BASE SERVICES	\$ 2,639,665
Design Supplemental Services			
Multiple Preliminary Designs	Excluded		\$ -
Measured Drawings	Excluded		\$ -
Existing Facilities Survey	Excluded		\$ -
Site Evaluation and Planning	Excluded		\$ -
Building Information Model Management Responsibilities	Excluded		\$ -
Development of Building Information Models for Post Construction Use (4.1.1.8)	Excluded		\$ -
On-Site Project Representation	Excluded		\$ -
Conformed Documents for Construction	Excluded		\$ -
As-Designed Record Drawings	Excluded		\$ -
As-Constructed Record Drawings	Excluded		\$ -
Post-Occupancy Evaluation	Excluded		\$ -
Facility Support Services	Excluded		\$ -
Tenant-Related Services	Excluded		\$ -
Architect's Coordination of the Owner's Consultants	Excluded		\$ -

Architectural Renderings Master Planning	Excluded \$ Excluded \$	-
Other Misc Services	Excluded \$	-
	SUBTOTAL DESIGN SPECIALITY SERVICES \$	
Other Independent Services		
Abatement/Hazardous Material Consultant	Allowance \$	15,000
Activation	Excluded \$	-
Commissioning	4 Allowance \$	100,000
Environmental Study (Phase 1 with a potential for Phase 2)	Excluded \$	-
Physicist Process Improvement	Excluded \$ Excluded \$	-
Structural/Material Testing	Allowance \$	- 75,000
Geotechnical Engineering	Excluded \$	
Surveys	Included in Arch.Design (#03.02) \$	-
Value Analysis (4.1.1.12)	Excluded \$	-
Cost Estimating (4.1.1.13)	Included in 05.09 \$	-
Telecommunications/Data Design (4.1.1.22)	Included in Arch.Design (#03.02) \$	-
Information Systems Consultant/Security Evual and Planning	Excluded \$	-
Sustainability Services (ESG) Furniture, Furnishings, and Equipment Design (4.1.1.27)	Excluded \$ Excluded \$	-
Equipment planning and procurement consultant	Excluded \$	-
Other Independent Services	Excluded \$	_
	SUBTOTAL INDEPENDENT SERVICES \$	190,000
	TOTAL DESIGN \$	2,829,665
5.0 ADMINISTRATIVE COSTS	\$	773,921
LEGAL & PROFESSIONAL		
Deposits	Excluded \$	-
Developer Fee	Excluded \$	-
Lease Fees/Costs	Excluded \$	-
Legal & Accounting Operating Costs	Excluded \$ Excluded \$	-
Personnel Impact	Excluded \$	-
Plan Exam Fees	Included in Arch.Design (#03.02) \$	-
Planning	Excluded \$	-
Project Management	% of Construction (#01.01- #01.10) 2.6% \$	623,921
Zoning Process	Excluded \$	-
	Excluded \$	-
Participation Consultant (DBE/TBE/SBE)	Allowance \$ Excluded \$	150,000
Expeditor Other Legal & Professional	Excluded \$ Excluded \$	-
	SUBTOTAL LEGAL & PROFESSIONAL S	773.921
ACQUISITION		
Land Acquisition	Excluded \$	-
Building Acquisition	Excluded \$	-
Extension Fee	Excluded \$	-
Realtors/Agents Commissions	Excluded \$	-
	SUBTOTAL ACQUISTION \$	-
FINANCING Capitalized Isterast	Evolution *	
Capitalized Interest Loan Interest	Excluded \$ Excluded \$	-
Loan Fee	Excluded \$	-
Underwriting Fee	Excluded \$	-
Origination Fee	Excluded \$	-
Other Financing	Excluded \$	-
	SUBTOTAL FINANCING \$	-
TAXES & INSURANCE		
Builders Risk Insurance	Excluded	
Draw Requests	Excluded	
Liability Insurance Real Estate Taxes	Excluded Excluded	
	Excluded	
Title Insurance		
Title Insurance Other Insurance Costs	Excluded	
	Excluded SUBTOTAL TAXES & INSURANCE \$	_

Marketing Public Outreach	Excluded Allowance	\$ \$	- 100,000
	SUBTOTAL MARKE	TING \$	100,000
	TOTAL ADMINISTRA	ION \$	873,921
	SUBTOTAL BEFORE CONTINGE	NCY \$	27,700,542
	Owner Conting	ency \$	1,385,027.10
	GRAND TO	TAL \$ 2	29,085,569

Milwaukee County Domes Alternate #3 - RESTORE THREE DOMES Project Feasability Budget

CONCORD GROUP

ITEMS	NOTE#	ASSUMPTION	%	Estimate
1.0 CONTRACTOR CONSTRUCTION			\$	73,864,375
Preconstruction				
Construction	1		\$	67,149,432
General Conditions/Bond/Insurance (9%)			\$	4,817,908
Contractors Fees (5%)			\$	2,917,511
Escalation to Mid-Point of Construction (9.6%)			\$	5,881,702

Construction Contingency			10%	\$ 6,714,943
		SUBTOTAL CONTRACTOR CONSTRU	CTION	\$ 73,864,375
2.0 OWNER CONSTRUCTION				\$ 3,793,219
Building Permit		Included in 01.02 Construction		\$ -
Temporary / Relocation	2	Excluded		\$ -
Hazardous Material Removal	3	Allowance		\$ 100,000
Permanent Interior & Exterior Sinage		Excluded		\$ -
Temporary Utilities / Utility Connection Fee		Excluded		\$ -
Other		Excluded		\$ -
Change Order Allowance		% of Construction (#01.01- #01.10)	5%	\$ 3,693,219
		SUBTOTAL OWNER CONSTRU	CTION	\$ 3,793,219

TOTAL CONTRACTOR 8	OWNER CONSTRUCTION	5 77,657,594

3.0 EQUIPMENT		\$	-
Artwork	Excluded	\$	-
Existing Movable Equipment	Excluded	\$	-
Furnishings	Excluded	\$	-
New Major Equipment	Excluded	\$	-
New Minor Equipment	Excluded	\$	-
Security Systems	Excluded	\$	-
Telecommunications	Excluded	\$	-
Other (Contingency)	Excluded	\$	-
		\$	-
	тс	DTAL EQUIPMENT \$	-

4.0 DESIGN			\$	7,098,868
BASE SERVICES				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Architectural Design	% of Construction (#01.01- #01.10)	8%	\$	6,212,608
Architectural Test Fit / Mock Up	Excluded		\$	-
Mech / Electrical / Plumbing / Fire Protection Design	Included in Arch.Design (#03.02)		\$	-
Structural Design	Included in Arch.Design (#03.02)		\$	-
Civil Design	Included in Arch.Design (#03.02)		\$	-
Landscape Design	Excluded		\$	-
Programming / Program Validation	Excluded		\$	-
Architectural Add Services	Excluded		\$	-
Architectural Reimbursable Expenses	% Total Cost	10%	\$	621,261
	SUBTOTAL BASE SE	RVICES	\$	6,833,868
Design Supplemental Services				
Multiple Preliminan/ Designs	Excluded		¢	

Design Supplemental Services		
Multiple Preliminary Designs	Excluded	\$ -
Measured Drawings	Excluded	\$ -
Existing Facilities Survey	Excluded	\$ -
Site Evaluation and Planning	Excluded	\$ -
Building Information Model Management Responsibilities	Excluded	\$ -
Development of Building Information Models for Post Construct	ion Use (4 Excluded	\$ -
On-Site Project Representation	Excluded	\$ -
Conformed Documents for Construction	Excluded	\$ -
As-Designed Record Drawings	Excluded	\$ -
As-Constructed Record Drawings	Excluded	\$ -

Post-Occupancy Evaluation	Excluded	\$ -
Facility Support Services	Excluded	\$ -
Tenant-Related Services	Excluded	\$ -
Architect's Coordination of the Owner's Consultants	Excluded	\$ -
Architectural Renderings	Excluded	\$ -
Master Planning	Excluded	\$ -
Other Misc Services	Excluded	\$ -

-		SUBTOTAL DESIGN SPECIALITY SERVI	CES \$	-
Other Independent Services				
Abatement/Hazardous Material Consultant		Allowance	\$	15,000
Activation		Excluded	\$	-
Commissioning	4	Allowance	\$	100,000
Environmental Study (Phase 1 with a potential for Phase 2)		Excluded	\$	-
Physicist		Excluded	\$	-
Process Improvement		Excluded	\$	-
Structural/Material Testing		Excluded	\$	150,000
Geotechnical Engineering		Excluded	\$	-
Surveys		Included in Arch.Design (#03.02)	\$	-
Value Analysis (4.1.1.12)		Excluded	\$	-
Cost Estimating (4.1.1.13)		Included in 05.09	\$	-
Telecommunications/Data Design (4.1.1.22)		Included in Arch.Design (#03.02)	\$	-
Information Systems Consultant/Security Evual and Planning		Excluded	\$	-
Sustainability Services (ESG)		Excluded	\$	-
Furniture, Furnishings, and Equipment Design (4.1.1.27)		Excluded	\$	-
Equipment planning and procurement consultant		Excluded	\$	-
Other Independent Services		Excluded	\$	-

SUBTOTAL INDEPENDENT SERVICES \$

TOTAL DESIGN \$

265,000 7,098,868

		• •	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
5.0 ADMINISTRATIVE COSTS		\$	1,953,152
LEGAL & PROFESSIONAL			
Deposits	Excluded	\$	-
Developer Fee	Excluded	\$	-
Lease Fees/Costs	Excluded	\$	-
Legal & Accounting	Excluded	\$	-
Operating Costs	Excluded	\$	-
Personnel Impact	Excluded	\$	-
Plan Exam Fees	Included in Arch.Design (#03.02)	\$	-
Planning	Excluded	\$	-
Project Management	% of Construction (#01.01- #01.10) 2.0%	\$	1,553,152
Zoning Process	Excluded	\$	-
Moving	Excluded	\$	-
Participation Consultant (DBE/TBE/SBE)	Allowance	\$	400,000
Expeditor	Excluded	\$	-
Other Legal & Professional	Excluded	\$	-
	SUBTOTAL LEGAL & PROFESSIONAL	\$	1,953,152
ACQUISITION			
Land Acquisition	Excluded	\$	-
Building Acquisition	Excluded	\$	-
Extension Fee	Excluded	\$	-
Realtors/Agents Commissions	Excluded	\$	-
		\$	-
	SUBTOTAL ACQUISTION	\$	-
FINANCING			
Capitalized Interest	Excluded	\$	-
Loan Interest	Excluded	\$	-
Loan Fee	Excluded	\$	-
Underwriting Fee	Excluded	\$	-
Origination Fee	Excluded	\$	-
Other Financing	Excluded	\$	-
		\$	-
	SUBTOTAL FINANCING	\$	-
TAXES & INSURANCE			

Builders Risk Insurance	Excluded		
Draw Requests	Excluded		
Liability Insurance	Excluded		
Real Estate Taxes	Excluded		
Title Insurance	Excluded		
Other Insurance Costs	Excluded		
	SUBTOTAL TAXES & INSURANCE	\$	-
MARKETING			
Marketing	Excluded	\$	-
Public Outreach	Allowance	\$	100,000
	SUBTOTAL MARKETING	\$	100,000
	TOTAL ADMINISTRATION	\$	2,053,152
	SUBTOTAL BEFORE CONTINGENCY	Ş	86,809,614
	Owner Contingency	\$	4,340,480.71
	GRAND TOTAL	\$ 9	91,150,095

Milwaukee County Domes Alternate #4 - RESTORE TROPICAL DOME/CONSERVATORY ADDITION Project Feasibility Budget

<u>CONCORD</u> GROUP

ITEMS	NOTE#	ASSUMPTION	%	Estimate
1.0 CONTRACTOR CONSTRUCTION			\$	50,506,141
Preconstruction				
Construction - Restore Tropical Dome			\$	19,947,542
General Conditions/Bond/Insurance (9%)			\$	1,473,439
Contractors Fees (5%)			\$	892,249
Escalation to Mid-Point of Construction (10.1%)			\$	1,892,460
Construction - Conservatory & Event Building			\$	26,595,202
General Conditions/Bond/Insurance (9%)			\$	1,964,473
Contractors Fees (5%)			\$	1,189,597
Escalation to Mid-Point of Construction (10.1%)			\$	2,523,136
Construction - North Entry Courtyard			\$	1,558,342
General Conditions/Bond/Insurance (9%)			\$	115,108
Contractors Fees (5%)			\$	69,704
Escalation to Mid-Point of Construction (10.1%)			\$	147,843
Construction Contingency			5% \$	2,405,054
		SUBTOTAL CONTRACTOR CO	ONSTRUCTION \$	50,506,141

2.0 OWNER CONSTRUCTION		\$	2,525,307
Building Permit	Excluded	\$	-
Temporary / Relocation	Excluded	\$	-
Hazardous Material Removal	Excluded	\$	-
Permanent Interior & Exterior Sinage	Excluded	\$	-
Temporary Utilities / Utility Connection Fee	Excluded	\$	-
Other	Excluded	\$	-
Change Order Allowance	% of Construction (#01.01- #01.10)	5% \$	2,525,307
	SUBTOTAL OWNER CONSTRUCT	TON \$	2,525,307

TOTAL CONTRACTOR & OWNER CONSTRUCTION \$

53,031,448

3.0 EQUIPMENT		\$	400,000
Artwork	Allowance	\$	150,000
Existing Movable Equipment	Excluded	\$	-
Furnishings	Allowance	\$	250,000
New Major Equipment	Excluded	\$	-
New Minor Equipment	Excluded	\$	-
Security Systems	Included in 01.02 Construction	\$	-
Telecommunications	Included in 01.02 Construction	\$	-
Other (Contingency)	Excluded	\$	-
		\$	-
	TOTAL EQUIPI	AENT \$	400,000

4.0 DESIGN BASE SERVICES		\$	4,928,767
Architectural Design Architectural Test Fit / Mock Up Mech / Electrical / Plumbing / Fire Protection Design Structural Design Civil Design Landscape Design Programming / Program Validation Architectural Add Services Architectural Reimbursable Expenses	% of Construction (#01.01- #01.10) 85 Excluded Included in Arch.Design (#04.01) Included in Arch.Design (#04.01) Included in Arch.Design (#04.01) Included in Arch.Design (#04.01) Excluded % Total Cost 10	% \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4,242,516 - - - - - 424,252
Design Supplemental Services Multiple Preliminary Designs Measured Drawings	Excluded Included in Arch.Design (#04.01)		4,666,767

Existing Facilities Survey	Excluded	\$ -
Site Evaluation and Planning	Excluded	\$ -
Building Information Model Management Responsibilities	Excluded	\$ -
Development of Building Information Models for Post Construction Us	e (• Excluded	\$ -
On-Site Project Representation	Excluded	\$ -
Conformed Documents for Construction	Excluded	\$ -
As-Designed Record Drawings	Excluded	\$ -
As-Constructed Record Drawings	Excluded	\$ -
Post-Occupancy Evaluation	Excluded	\$ -
Facility Support Services	Excluded	\$ -
Tenant-Related Services	Excluded	\$ -
Architect's Coordination of the Owner's Consultants	Excluded	\$ -
Architectural Renderings	Included in Arch.Design (#04.01)	\$ -
Master Planning	Excluded	\$ -
Other Misc Services	Excluded	\$ -

	SUBTOTAL DESIGN SPECIALITY SERV	ICES S	
Other Independent Services	SUBICIAL DESIGN SI ECIALITI SERV		_
Abatement/Hazardous Material Consultant	Excluded	\$	-
Activation	Excluded	\$	-
Commissioning	Allowance	\$	200,000
Environmental Study (Phase 1 with a potential for Phase 2)	Excluded	\$	-
Physicist	Excluded	\$	-
Process Improvement	Excluded	\$	-
Structural/Material Testing	Allowance	\$	50,000
Geotechnical Engineering	Allowance	\$	12,000
Surveys	Excluded	\$	-
Value Analysis (4.1.1.12)	Excluded	\$	-
Cost Estimating (4.1.1.13)	Excluded	\$	-
Telecommunications/Data Design (4.1.1.22)	Included in Arch.Design (#04.01)	\$	-
Information Systems Consultant/Security Evual and Planning	Excluded	\$	-
Sustainability Services (ESG)	Excluded	\$	-
Furniture, Furnishings, and Equipment Design (4.1.1.27)	Excluded	\$	-
Equipment planning and procurement consultant	Excluded	\$	-
Other Independent Services	Excluded	\$	-

SUBTOTAL INDEPENDENT SERVICES \$

262,000

TOTAL DESIGN \$

5.0 ADMINISTRATIVE COSTS		\$	1,154,566
LEGAL & PROFESSIONAL			
Deposits	Excluded	\$	-
Developer Fee	Excluded	\$	-
Lease Fees/Costs	Excluded	\$	-
Legal & Accounting	Excluded	\$	-
Operating Costs	Excluded	\$	-
Personnel Impact	Excluded	\$	-
Plan Exam Fees	Excluded	\$	-
Planning	Excluded	\$	-
Project Management	% of Construction (#01.01- #01.10)	1.8% \$	954,566
Zoning Process	Excluded	\$	-
Moving	Excluded	\$	-
Participation Consultant (DBE/TBE/SBE)	Allowance	\$	200,000
Expeditor	Excluded	\$	-
Other Legal & Professional	Excluded	\$	-
	SUBTOTAL LEGAL & PROFESS	IONAL \$	1,154,566
ACQUISITION			
Land Acquisition	Excluded	\$	-
Building Acquisition	Excluded	\$	-
Extension Fee	Excluded	\$	-
Realtors/Agents Commissions	Excluded	\$	-
		\$	-
	SUBTOTAL ACQU	ISTION \$	-

FINANCING		
Capitalized Interest	Excluded	\$ -
Loan Interest	Excluded	\$ -

Loan Fee Underwriting Fee Origination Fee Other Financing	Excluded Excluded Excluded Excluded	\$ \$ \$	- - -
		\$	
	SUBTOTAL F	INANCING \$	
TAXES & INSURANCE			
Builders Risk Insurance	Excluded		
Draw Requests	Excluded		
Liability Insurance	Excluded		
Real Estate Taxes	Excluded		
Title Insurance	Excluded		
Other Insurance Costs	Excluded		
	SUBTOTAL TAXES & I	NSURANCE \$	-
MARKETING			
Marketing	Excluded	\$	-
Public Outreach	Allowance	\$	100,000
	SUBTOTAL I	MARKETING \$	100,000
	TOTAL ADMIN	IISTRATION \$	1,254,566
	SUBTOTAL BEFORE CON	TINGENCY \$	59,614,781
	Owner C	ontingency \$	2,980,739.05
		D TOTAL \$	62,595,520

Milwaukee County Domes Alternate #4 - POTENTIAL ADD AREAS OF GARDEN SITE IMPROVEMENTS Project Feasability Budget

<u>CONCORD</u> GROUP

ITEMS	NOTE#	ASSUMPTION	%	Estimate
1.0 CONTRACTOR CONSTRUCTION				3,543,089
Preconstruction				
Construction - East Wedding Garden			9	5 1,981,971
General Conditions/Bond/Insurance (9%)			9	5 146,400
Contractors Fees (5%)			4	88,653
Escalation to Mid-Point of Construction (10.1%)			9	188,033
Construction - East Café Garden				130,939
General Conditions/Bond/Insurance (9%)			9	9,672
Contractors Fees (5%)			4	5,857
Escalation to Mid-Point of Construction (10.1%)			9	5 12,422
Construction - South Event Garden			9	1,108,080
General Conditions/Bond/Insurance (9%)			4	81,849
Contractors Fees (5%)			4	6 49,564
Escalation to Mid-Point of Construction (10.1%)			9	5 105,126
Construction Contingency			10% \$	322,099
		SUBTOTAL CONTRACTOR CONSTR	UCTION	3,543,089

2.0 OWNER CONSTRUCTION		\$	182,154
Building Permit	Allowance	\$	5,000
Temporary / Relocation	Excluded	\$	-
Hazardous Material Removal	Excluded	\$	-
Permanent Interior & Exterior Sinage	Excluded	\$	-
Temporary Utilities / Utility Connection Fee	Excluded	\$	-
Other	Excluded	\$	-
Change Order Allowance	% of Construction (#01.01- #01.10) 5%	\$	177,154
	SUBTOTAL OWNER CONSTRUCTIO	N \$	182,154

TOTAL CONTRACTOR & OWNER CONSTRUCTION \$

3,	/	2	5	, 2	44	ŧ.

3.0 EQUIPMENT		\$	50,000
Artwork	Excluded	\$	-
Existing Movable Equipment	Excluded	\$	-
Furnishings	Allowance	\$	50,000
New Major Equipment	Excluded	\$	-
New Minor Equipment	Excluded	\$	-
Security Systems	Excluded	\$	-
Telecommunications	Excluded	\$	-
Other (Contingency)	Excluded	\$	-
		\$	-
	ΤΟ	TAL EQUIPMENT \$	50,000

4.0 DESIGN			\$ 429,777
BASE SERVICES			
Architectural Design	% of Construction (#01.01- #01.10)	10%	\$ 372,524
Architectural Test Fit / Mock Up	Excluded		\$ -
Mech / Electrical / Plumbing / Fire Protection Design	Included in Arch.Design (#04.01)		\$ -
Structural Design	Included in Arch.Design (#04.01)		\$ -
Civil Design	Included in Arch.Design (#04.01)		\$ -
Landscape Design	Included in Arch.Design (#04.01)		\$ -
Programming / Program Validation	Included in Arch.Design (#04.01)		\$ -
Architectural Add Services	Included in Arch.Design (#04.01)		\$ -
Architectural Reimbursable Expenses	% Total Cost	10%	\$ 37,252
	SUBTOTAL BASE SE	RVICES	\$ 409,777
Design Supplemental Services			
Multiple Preliminary Designs	Excluded		\$ -
Measured Drawings	Excluded		\$ -

Existing Facilities Survey	Excluded	\$ -
Site Evaluation and Planning	Excluded	\$ -
Building Information Model Management Responsibilities	Excluded	\$ -
Development of Building Information Models for Post Construction Us	e (4Excluded	\$ -
On-Site Project Representation	Excluded	\$ -
Conformed Documents for Construction	Excluded	\$ -
As-Designed Record Drawings	Excluded	\$ -
As-Constructed Record Drawings	Excluded	\$ -
Post-Occupancy Evaluation	Excluded	\$ -
Facility Support Services	Excluded	\$ -
Tenant-Related Services	Excluded	\$ -
Architect's Coordination of the Owner's Consultants	Excluded	\$ -
Architectural Renderings	Included in Arch.Design (#04.01)	\$ -
Master Planning	Excluded	\$ -
Other Misc Services	Excluded	\$ -

—	SUBTOTAL DESIGN SPECI	ALITY SERVICES \$	-
Other Independent Services			
Abatement/Hazardous Material Consultant	Excluded	\$	-
Activation	Excluded	\$	-
Commissioning	Excluded	\$	-
Environmental Study (Phase 1 with a potential for Phase 2)	Excluded	\$	-
Physicist	Excluded	\$	-
Process Improvement	Excluded	\$	-
Structural/Material Testing	Allowance	\$	15,000
Geotechnical Engineering	Allowance	\$	5,000
Surveys	Excluded	\$	-
Value Analysis (4.1.1.12)	Excluded	\$	-
Cost Estimating (4.1.1.13)	Excluded	\$	-
Telecommunications/Data Design (4.1.1.22)	Excluded	\$	-
Information Systems Consultant/Security Evual and Planning	Excluded	\$	-
Sustainability Services (ESG)	Excluded	\$	-
Furniture, Furnishings, and Equipment Design (4.1.1.27)	Excluded	\$	-
Equipment planning and procurement consultant	Excluded	\$	-
Other Independent Services	Excluded	\$	-

SUBTOTAL INDEPENDENT SERVICES \$

20,000 429,777

TOTAL DESIGN \$

5.0 ADMINISTRATIVE COSTS		\$	149,010
LEGAL & PROFESSIONAL			
Deposits	Excluded	\$	-
Developer Fee	Excluded	\$	-
Lease Fees/Costs	Excluded	\$	-
Legal & Accounting	Excluded	\$	-
Operating Costs	Excluded	\$	-
Personnel Impact	Excluded	\$	-
Plan Exam Fees	Excluded	\$	-
Planning	Excluded	\$	-
Project Management	% of Construction (#01.01- #01.10)	4.0% \$	149,010
Zoning Process	Excluded	\$	-
Moving	Excluded	\$	-
Participation Consultant (DBE/TBE/SBE)	Excluded	\$	-
Expeditor	Excluded	\$	-
Other Legal & Professional	Excluded	\$	-
	SUBTOTAL LEGAL & PROFESS	IONAL \$	149,010
ACQUISITION			
Land Acquisition	Excluded	\$	-
Building Acquisition	Excluded	\$	-
Extension Fee	Excluded	\$	-
Realtors/Agents Commissions	Excluded	\$	-
-		\$	-

		φ	-
	SUBTOTAL	ACQUISTION \$	-
FINANCING			
Capitalized Interest	Excluded	\$	-
Loan Interest	Excluded	\$	-

Loan Fee Underwriting Fee Origination Fee Other Financing	Excluded Excluded Excluded Excluded	\$ \$ \$	- - -
		<u>\$</u>	-
TAXES & INSURANCE	SUBTOTAL FINANC	ING \$	
Builders Risk Insurance Draw Requests Liability Insurance Real Estate Taxes Title Insurance Other Insurance Costs	Excluded Excluded Excluded Excluded Excluded Excluded		
	SUBTOTAL TAXES & INSURA	NCE S	
MARKETING		, TOL V	
Marketing Public Outreach	Excluded Allowance	\$ \$	- 1 <i>5,</i> 000
	SUBTOTAL MARKE	TING \$	15,000
	TOTAL ADMINISTRAT	ION \$	164,010
	SUBTOTAL BEFORE CONTINGE	NCY \$	4,369,030
	Owner Conting		218,451.52
	GRAND TO	<u>IAL 🤇 🕯</u>	4,587,482

Mitchell Park Domes Future State Planning and Construction Cost Estimating

Appendix D

Domes Alternatives 2 – 4 Life Cycle Cost Analysis



1000 N Water St Suite 1550 Milwaukee, WI 53202 414.225-5305 www.concord-cc.com

Milwaukee County

Mitchell Park Domes Future State Planning

524 S Layton Blvd. Milwaukee, WI 53215

Life Cycle Cost Analysis September 01, 2023 DRAFT

Project: 2023B517

Prepared For: Milwaukee County Dept. of Administrative Services Facilities Management Division 633 W. Wisconsin Ave. Suite 1002 Milwaukee, WI 53203

Life Cycle Cost Analysis 09/01/2023 DRAFT

EXECUTIVE SUMMARY

CONCORD

GROUP⁻

The life cycle cost analysis was developed based on the elements of ownership for an operating facility based on the first 20 years of occupancy. The cost of ownership includes maintenance, repairs, and replacement only. It was assumed the facility has standard use and no extraneous factors impact the intended use of the facility.

The cost of ownership for year 2 was adjusted based on an escalation factor of 6% compounded annually. Furthermore, the cost of ownership for years 3 through 20 was adjusted based on an escalation factor of 4% compounded annually. It should be fully understood that the life cycle cost analysis only accounted for assets and systems included within the specific scope of work and does not include existing assets not specifically called out in the project scope of work and described in the Scope Documents.

Rehabilitating the Domes, as defined in Alternative 2, leaves many of the issues with the facility still unresolved. Additionally, as previously noted, the life cycle cost does not account for areas that were not evaluated and included in the Scope Documents. However, Alternative 2 was calculated to have a total estimated life cycle cost of over \$30 million, where many of the various assets and systems in the building will be repaired, but not fixed. Of these necessary repairs, the Domes' glass roof systems present the largest issues and overhead costs made of continual maintenance and rehabilitation. This alternative life cycle cost analysis shows the effect of bolstering the current facility with millions of dollars of funding while not improving the facility.

The Alternative 3 option provides a steady path forward for routine maintenance and repairs to the Domes. Over the next 20 years, the life cycle cost following the restoration of the Domes is estimated to be about \$11.5 million. The initial capital investment as outlined in the Alternative 3 project scope provides significantly less recurring life cycle costs than presented in Alternative 2. Similar to Alternate 2, the Alternative 3 life cycle cost analysis only accounts for the assets and systems identified in the project scope of work as outlined in the Scope Documents.

Alternative 4 provides a similar path to Alternative 3 for only the Tropical Dome. The required capital investment will provide the necessary path forward for more reliability and less recurring life cycle cost for the Tropical Dome than presented in Alternative 2. In addition to the tropical dome rehabilitation, the new building, garden areas, and courtyard should expect to see steady maintenance costs and typical replacement life cycles for encompassing assets.

The total life cycle cost for Alternative 4 was evaluated in two parts to align with the overall Project Feasibility Budget (PFB) and Construction Cost Estimate. The first was the Base Scope, that included the Tropical Domes Restore, the new Conservatory and Event buildings, and the North Entry Courtyard entrance improvements. The life cycle cost over a 20-year period with inflation was calculated at approximately \$10 million. The second was the various Add-on Garden spaces that included the South Event Garden, Wedding Garden, and the East Cafe Garden. The Add-on Garden areas will generate a life cycle cost of approximately \$1 million, and if implemented with the Base Scope of work the total will be just under \$11 million.

NOTES REGARDING COSTS INCLUDED IN LIFE CYCLE COST ANALYSIS

This cost estimates were prepared based on the following documents provided by Milwaukee County:

- 1. Original Dome Drawings provided by Milwaukee County Parks dated June 15, 1962.
- 2. Alternative #1 Scoping Exhibit prepared by The Concord Group received July 20, 2023.
- 3. Alternative #2 Scoping Exhibit prepared by Study Team received August 7, 2023.
- 4. Alternative #3 Scoping Exhibit prepared by Study Team received August 7, 2023.
- 5. Alternative #4 Scoping Exhibit prepared by Study Team received August 21-28, 2023.
- 6. Information regarding the project was also obtained via meetings, phone conversations, and email messages that clarified the project scope.

BIDDING PROCESS - MARKET CONDITIONS

This document is based on the measurement and pricing of quantities wherever information is provided and/or reasonable assumptions for other work not covered in the drawings or specifications, as stated within this

Life Cycle Cost Analysis 09/01/2023 DRAFT

document. Unit rates have been generated from current material/labor rates, historical production data, and discussions with relevant subcontractors and material suppliers. The unit rates reflect current bid costs in the area. All unit rates relevant to subcontractor work include the subcontractors overhead and profit unless otherwise stated.

Pricing reflects probable construction costs obtainable in the Milwaukee, Wisconsin area on the bid date. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all subcontractors with a minimum of 3 bidders for all items of subcontracted work and a with a minimum of 3 bidders for a general contractor. Experience indicates that a fewer number of bidders may result in higher bids, conversely an increased number of bidders may result in more competitive bids.

Since The Concord Group has no control over the cost of labor, material, equipment, or over the contractor's method of determining prices, or over the competitive bidding or market conditions at the time of bid, this statement of probable construction cost is based on industry practice, professional experience and qualifications, and represents The Concord Group's best judgment as professional construction cost consultants familiar with the construction industry. However, The Concord Group cannot and does not guarantee that the proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

CURRENT MARKET CONDITIONS

CONCORD

GROUP

It should be noted that there is ongoing volatility in the construction materials market due to the effects of the pandemic on both the production and supply of materials. Due to the lack of in stock materials suppliers are struggling to fulfill orders in a timely manner, which in turn leads to much longer than normal lead times. The impact of ongoing global raw material shortages and fuel price increases adds to the overall spike in material pricing coupled with the increased demand for construction that the construction industry is now seeing. These factors should be considered when determining the bidding strategy and schedule for projects.

APPENDICES

Exhibit A – Life Cycle Cost Analysis of Alternative #2: Repair Three Domes Exhibit B – Life Cycle Cost Analysis of Alternative #3: Restore Three Domes Exhibit C – Life Cycle Cost Analysis of Alternative #4: Summary – Base Scope Exhibit D – Life Cycle Cost Analysis of Alternative #4: Restore Tropical Dome Exhibit E – Life Cycle Cost Analysis of Alternative #4: Conservatory & Event Building Exhibit F – Life Cycle Cost Analysis of Alternative #4: North Entry Courtyard Exhibit G – Life Cycle Cost Analysis of Alternative #4: East Wedding Garden Exhibit H – Life Cycle Cost Analysis of Alternative #4: East Café Garden Exhibit I – Life Cycle Cost Analysis of Alternative #4: South Event Garden



Exhibit A — Life Cycle Cost Analysis of Alternative #2: Repair Three Domes

	QTY	SUM	UNIT COST	TOTAL COST
FE CYCLE COST ANALYSIS				
TERNATIVE #2: REPAIR THREE DON 03000 CONCRETE	1ES			
Year 5 Recurring Cost				
Concrete repair allowance - clean, prime, patch, recoat	1	LSUM	\$339,427.40	\$339,4
Concrete repair allowance - joint repair at concrete skylight frame	1	LSUM	\$46,054.14	\$46,0
	Subtotal:	Year 5 Recu	urring Cost	\$385,4
04000 MASONRY				
Year 5 Recurring Cost				
Repair spalled stone and mortar areas of panels, avg 4 SF per location, Desert Dome	5	EACH	\$462.71	\$2,3
	Subtotal:	Year 5 Recu	urring Cost	\$2,3
Year 10 Recurring Cost				
Repoint all cracked and deteriorated areas of brick, Assume 5% of brick façade area, Transition House	292	SQFT	\$20.87	\$6,0
Repoint all cracked and deteriorated areas of brick, North Loading Dock	10	SQFT	\$103.58	\$1,0
	Subtotal:	Year 10 Re	curring Cost	\$6,0
AZAAA TUEDMAL A MATCTURE				
07000 THERMAL & MOISTURE PROTECTION				
07000 THERMAL & MOISTURE PROTECTION Year 1 Recurring Cost				
PROTECTION	1	LSUM	\$7,500.00	\$7,5
PROTECTION Year 1 Recurring Cost		LSUM Year 1 Recu		\$7,5 \$7,5
PROTECTION Year 1 Recurring Cost				
PROTECTION Year 1 Recurring Cost Clean and maintain gutters, hubs and drainage piping				
PROTECTION Year 1 Recurring Cost Clean and maintain gutters, hubs and drainage piping Year 2 Recurring Cost	Subtotal: `	Year 1 Recu	s15,000.00	\$7,5 \$15,0
PROTECTION Year 1 Recurring Cost Clean and maintain gutters, hubs and drainage piping Year 2 Recurring Cost	Subtotal: `	Year 1 Recu	s15,000.00	\$7,5 \$15,0
PROTECTION Year 1 Recurring Cost Clean and maintain gutters, hubs and drainage piping Year 2 Recurring Cost Gasket replacement allowance Year 5 Recurring Cost Remove, clean & reseal all sealant joints within dome glass panels, Tropic Dome	Subtotal: `	Year 1 Recu	s15,000.00	\$7,5 \$15,0 \$15,0
PROTECTION Year 1 Recurring Cost Clean and maintain gutters, hubs and drainage piping Year 2 Recurring Cost Gasket replacement allowance Year 5 Recurring Cost Remove, clean & reseal all sealant joints within dome	Subtotal: ` 1 Subtotal: `	Year 1 Recu LSUM Year 2 Recu	string Cost \$15,000.00	\$7,5 \$15,0 \$15,0 \$604,6
PROTECTION Year 1 Recurring Cost Clean and maintain gutters, hubs and drainage piping Year 2 Recurring Cost Gasket replacement allowance Year 5 Recurring Cost Remove, clean & reseal all sealant joints within dome glass panels, Tropic Dome Remove, clean & reseal all sealant joints within dome	Subtotal: Y 1 Subtotal: Y 15,800	Year 1 Recu LSUM Year 2 Recu LNFT	\$15,000.00 urring Cost \$38.27	\$7,5
PROTECTION Year 1 Recurring Cost Clean and maintain gutters, hubs and drainage piping Year 2 Recurring Cost Gasket replacement allowance Year 5 Recurring Cost Remove, clean & reseal all sealant joints within dome glass panels, Tropic Dome Remove, clean & reseal all sealant joints within dome glass panels, Show Dome Remove, clean & reseal all sealant joints within dome	Subtotal: 1 Subtotal: 1 15,800 15,800 15,800	Year 1 Recu LSUM Year 2 Recu LNFT LNFT	\$15,000.00 arring Cost \$38.27 \$38.27 \$38.27 \$38.27	\$7,5 \$15,0 \$15,0 \$604,6 \$604,6

Deduction of cost for "Remove, Clean, & Reseal Joints"				
for new laminated glass panes not needed as cost already included in new pane, Tropic Dome	744	LNFT	(\$38.27)	(\$28,473)
Deduction of cost for "Remove, Clean, & Reseal Joints" for new laminated glass panes not needed as cost already included in new pane, Show Dome	744	LNFT	(\$38.27)	(\$28,473)
Deduction of cost for "Remove, Clean, & Reseal Joints" for new laminated glass panes not needed as cost already included in new pane, Desert Dome	744	LNFT	(\$38.27)	(\$28,473)
Year 15				
Remove & replace joint sealants lover level Desert Dome precast joints	375	LNFT	\$19.68	\$7,380
Remove & replace joints within masonry, concrete windows and doors, all Dome bases	7500	LNFT	\$19.68	\$147,600
Remove & replace joints within masonry, concrete windows and doors, Transition House	1500	LNFT	\$19.68	\$29,520
Remove & replace joints within masonry, concrete windows and doors, North Loading Dock	1000	LNFT	\$19.68	\$19,680
	Subtotal:	Year 15 Re	curring Cost	\$204,180
Year 20 Recurring Cost				
Replace membrane over basement/mechanical area with new pedestrian grade membrane	4,100	SQFT	\$11.79	\$48,339
Replace waterproofing membrane in drain gutters, approx 12" high x 18" wide	1,950	LNFT	\$32.93	\$64,214
Replace roof flashing	260	LNFT	\$12.76	\$3,318
	Subtotal:	Voor 20 Do	curring Cost	\$115,870
			curring cost	\$115,670
				\$115,870
08000 OPENINGS				\$115,670
				\$115,870
Year 10 Recurring Cost Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including		EACH	\$4,608.80	\$691,320
08000 OPENINGS Year 10 Recurring Cost Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Desert Dome Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Show Dome	150			
Year 10 Recurring Cost Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Desert Dome Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including	150 150	EACH	\$4,608.80	\$691,320
Year 10 Recurring Cost Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Desert Dome Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Show Dome Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including	150 150 150	EACH EACH EACH	\$4,608.80 \$4,608.80	\$691,320 \$691,320
Year 10 Recurring Cost Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Desert Dome Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Show Dome Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Show Dome	150 150 150	EACH EACH EACH	\$4,608.80 \$4,608.80 \$4,608.80	\$691,320 \$691,320 \$691,320
Year 10 Recurring Cost Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Desert Dome Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Show Dome Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Thomas Panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Tropic Dome Year 15 Recurring Cost Remove & replace damaged existing storm proof screen at louvers, approx 4'-6"x4'-6" triangular, all	150 150 150	EACH EACH EACH	\$4,608.80 \$4,608.80 \$4,608.80	\$691,320 \$691,320 \$691,320
Year 10 Recurring Cost Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Desert Dome Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Show Dome Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Show Dome Remove anticipated damaged 1/4" wired glass panes & replace with 7/16" laminated glass panes including aluminum trim piece & hub covers, Tropic Dome Year 15 Recurring Cost Remove & replace damaged existing storm proof	150 150 150 Subtotal: 7 56	EACH EACH EACH Year 10 Re EACH	\$4,608.80 \$4,608.80 \$4,608.80 \$4,608.80	\$691,320 \$691,320 \$691,320 \$691,320 \$1,382,640

Year 20 Recurring Cost

Remove & replace existing HM door, frame & hardware, single	2	EACH	\$5,874.40	\$11,74
	Subtotal:	Year 20 Recu	Irring Cost	\$11,74
09000 FINISHES				
Year 10 Recurring Cost				
Repaint exposed concrete outcropping walls, Desert	700	00FT	10.10	
Dome	700	SQFT	\$8.10	\$5,67
Repaint embedded vertical steel elements, 4" wide x approx 12LF/EA, Entry	12	EACH	\$179.45	\$2,15
Repaint exposed lintels at overhead doors, 8" wide x approx 12LF/EA, North Loading Dock	2	EACH	\$227.60	\$45
	Subtotal:	Year 10 Recu	Irring Cost	\$8,27
23000 HEATING VENTILATION & AIR CONDITIONING				
Year 1 Recurring Cost				
HVAC Service and Annual Inspection	1	LSUM	\$5,000.00	\$5,00
	Subtotal:	Year 1 Recur	ring Cost	\$5,00
Year 2 Recurring Cost				
Replace steam traps - assume 20% replacement	6	EACH	\$1,200.00	\$7,20
	Subtotal:	Year 2 Recur	ring Cost	\$7,20
Year 5 Recurring Cost				
Replace CO sensors	3	EACH	\$500.00	\$1,50
	Subtotal:	Year 5 Recur	ring Cost	\$1,50
Year 15 Recurring Cost				
Replace wall exhaust fan, 48"x48" centrifugal w/VFD	15	EACH	\$6,464.00	\$96,96
Replace louvers and dampers for wall exhausts	15	EACH	\$1,723.00	\$25,8 <u>4</u>
Replace louvers and dampers for dome exhausts	30	EACH	\$2,064.00	\$61,92
Replace dome apex exhaust fan, 36"x36" centrifugal, w/supports, VFD	30	EACH	\$6,946.00	\$208,38
Retrofit DDC controls - exhaust fans	45	EACH	\$3,000.00	\$135,00
Replace thermostats & temperature sensors	30	EACH	\$500.00	\$15,00
Replace Engineer's Station	1	LSUM	\$20,000.20	\$20,00
DDC Points & Devices	1	LSUM	\$6,250.06	\$6,2
Programming, testing, and training	1	LSUM	\$6,250.06	\$6,2
	Subtotal:	Year 15 Recu	irring Cost	\$575,60
Year 20 Recurring Cost				
Replace air supply units, steam heat	30	EACH	\$6,723.00	\$201,69
Replace ASU steam coils connections - valves steam traps, strainers, fittings, and insulation	30	EACH	\$1,794.20	\$53,82

X-3 Replace variable volume motorized dampers - SAL, G0*X24'' 30 EACH \$1,552.50 \$46,57 Replace clowers SAL, fixed blade/stormproof, 4"D x 30 EACH \$811.50 \$224,32 Replace clowers SAL, fixed blade/stormproof, 4"D x 30 EACH \$811.50 \$224,32 Replace clowers ASU, fixed blade/stormproof, 4"D x 30 EACH \$91,501.54 \$37,03 Replace clowers ASU, fixed blade/stormproof, 4"D x 30 EACH \$91,501.54 \$36,00 Replace Steam Bollers 4 EACH \$91,501.54 \$36,00 \$36,27 Replace Steam Bollers Couct 200 LNFT \$181.42 \$36,22 Retroft DDC Controls - Steam Bollers 4 EACH \$3,000.00 \$10,00 DDC Points & Devices 1 LSUM \$18,750.19 \$18,75 Programming, testing, and balancing 1 LSUM \$11,000.00 \$10,00 Proy extem testing and balancing 1 LSUM \$12,000.00 \$42,00 Statotal: Year 10 Recurring Cost 8 EACH \$25,00 \$22 <	Replace variable volume motorized dampers - ASU, 15'	30	EACH	\$961.50	\$28,845
Replace galvanized steel duct, rectangular 6,000 LBS \$14.54 \$87,22 Replace Louvers SAI, fixed blade/stormproof, 4"D x 30 EACH \$811.50 \$247 Replace Louvers ASU, fixed blade/stormproof, 4"D x 30 EACH \$414.00 \$13.22 T5 x 15" TS SG FF \$8.23 \$37.00 Replace Catom Boilers CA Duct 200 LNFT \$18.42 \$36.60 Replace Steam Boilers CA Duct 200 LNFT \$18.42 \$36.20 Retroft DOC controls - Steam Boilers 4 EACH \$3,000.00 \$90.00 DC Points & Devices 1 LSUM \$18.70.19 \$18.72 Retroft DOC controls - steam Boilers 1 LSUM \$10.000.00 \$10.00 Programming, testing, and training 1 LSUM \$18.77 \$18.77 Airflow system testing and balancing 1 LSUM \$18.70.19 \$18.77 Airflow system testing and balancing 1 LSUM \$1.000.00 \$10.00 Replace LDI amps - interior 250 <	x 15" Replace variable volume motorized dampers - SAI, 60"x24"	30	EACH	\$1,552.50	\$46,575
Replace Louvers SAL, fixed blade/stormproof, 4"D x 30 EACH \$\$11.50 \$\$243.37 Replace Louvers ASU, fixed blade/stormproof, 4"D x 30 EACH \$\$41.100 \$\$13.22 Replace Louvers ASU, fixed blade/stormproof, 4"D x 30 EACH \$\$41.100 \$\$13.22 Replace Steam Boilers CA Duct 200 LNFT \$\$8.23 \$\$37.03 Replace Steam Boilers CA Duct 200 LNFT \$\$38.98 \$\$7.77 Replace Steam Boilers CA Duct 200 LNFT \$\$3.000.00 \$\$12.00 Retrofit DDC Controls - Steam Boilers 4 EACH \$\$3,000.00 \$\$10.00 Retrofit DDC Controls - air supply units 30 EACH \$\$3,000.00 \$\$10.00 Programming, testing, and blancing 1 LSUM \$\$18,750.19 \$\$18,75 Pipe system testing and blancing 1 LSUM \$\$1,000.00 \$\$10.00 Replace LED lamps interior 250 EACH \$\$25.00 \$\$27 Replace LED lamps - exterior building mounted 8 EACH \$\$25.00 \$\$22 Replace LED l	Replace galvanized steel duct, rectangular	6,000	LBS	\$14.54	\$87,240
15° x 15° 30 EACH \$PH1.00 \$P.3.22 Replace duct insulation 4,500 SQFT \$8.23 \$37,02 Replace Steam Boilers CA Duct 200 LNFT \$181.42 \$36,62 Replace Steam Boilers CA Duct 200 LNFT \$181.42 \$36,62 Retrofft DC controls - Stam Boilers 4 EACH \$3,000.00 \$90,00 Retrofft DC controls - air supply units 30 EACH \$3,000.00 \$90,00 DC Points & Devices 1 LSUM \$18,75,750.19 \$18,77 Airflow system testing and balancing 1 LSUM \$18,750.19 \$18,77 Airflow system testing and balancing 1 LSUM \$18,750.19 \$18,77 Airflow system testing and balancing 1 LSUM \$18,750.19 \$18,77 Airflow system testing and balancing 1 LSUM \$18,750.00 \$10,00 Programming, usetsing and balancing 1 LSUM \$10,000.00 \$10,00 Replace LED lamps - exterior pole mounted & EACH \$25			EACH		\$24,345
Replace Steam Boilers 4 EACH \$91,501.54 \$366,00 Replace Steam Boilers CA Duct 200 LNFT \$38.98 \$7,75 Replace Steam Boilers CA Duct 200 LNFT \$181.42 \$36,28 Retroft DDC Controls - Steam Boilers 4 EACH \$3,000.00 \$90,00 Retroft DDC controls - air supply units 30 EACH \$3,000.00 \$90,00 DDC Points & Devices 1 LSUM \$18,757 \$18,72 Programming, testing, and balancing 1 LSUM \$11,000.00 \$10,00 Pipe system testing and balancing 1 LSUM \$11,000.00 \$10,00 Replace ECD Commissioning 1 LSUM \$11,000.00 \$41,00 Replace LED lamps - interior 250 EACH \$25.00 \$22 Replace LED lamps - interior 250 EACH \$25.00 \$22 Replace LED lamps - olor changing up-light panels 8 EACH \$25.00 \$22 Replace LED lamps - color changing up-light panels 8 EACH \$40.00		30	EACH	\$441.00	\$13,230
Replace Steam Boilers CA Duct 200 LNFT \$38,98 \$7,75 Replace Steam Boilers Boiler Flue/Breeching 200 LNFT \$181,42 \$35,25 Retrofit DDC Controls - Steam Boilers 4 EACH \$3,000.00 \$12,00 Retrofit DDC controls - air supply units 30 EACH \$3,000.00 \$12,00 Programming, testing, and training 1 LSUM \$18,750.19 \$18,75 Airflow system testing and balancing 1 LSUM \$15,000.00 \$15,00 Pipe system testing and balancing 1 LSUM \$10,000.00 \$10,00 Replace Ede TRTICAL Year 20 Recurring Cost \$1,081,57 Z6000 ELECTRICAL Year 20 Recurring Cost \$1,081,57 Replace LED lamps - interior 250 EACH \$25.00 \$22 Replace LED lamps - exterior building mounted 8 EACH \$25.00 \$22 Replace LED lamps - scherior building mounted 8 EACH \$40.00 \$33.00 Replace LED lamps - color changing puck lights 750 EACH \$40.00	Replace duct insulation	4,500	SQFT	\$8.23	\$37,035
Replace Steam Boilers Boiler Flue/Breeching 200 LNFT \$181.42 \$36,22 Retrofit DDC Controls - Steam Boilers 4 EACH \$3,000.00 \$12,00 Retrofit DDC Controls - air supply units 30 EACH \$3,000.00 \$90,00 DDC Points & Devices 1 LSUM \$18,750.19 \$18,75 Programming, testing and balancing 1 LSUM \$10,000.00 \$10,000 Pipe system testing and balancing 1 LSUM \$10,000.00 \$10,000 Replace emergency boiler shutoff switch 4 LSUM \$1,050.00 \$41,081,57 Replace LED lamps - interior 250 EACH \$25.00 \$22 Replace LED lamps - interior 250 EACH \$25.00 \$22 Replace LED lamps - exterior building mounted 8 EACH \$240.00 \$330,00 Replace LED lamps - exterior building mounted 8 EACH \$40.00 \$30,00 Replace LED lamps - exterior building mounted 8 EACH \$40,00 \$30,00	Replace Steam Boilers	4	EACH	\$91,501.54	\$366,006
Retrofit DDC Controls - Steam Boilers 4 EACH \$3,000.00 \$12,00 Retrofit DDC controls - air supply units 30 EACH \$3,000.00 \$90,00 DDC Points & Devices 1 LSUM \$18,750.19 \$18,75 Airflow system testing and balancing 1 LSUM \$15,000.00 \$10,00 Pipe system testing and balancing 1 LSUM \$10,000.00 \$10,00 Replace emergency boiler shutoff switch 4 LSUM \$12,500.00 \$10,00 Replace LED lamps - interior 250 EACH \$25.00 \$42,20 Subtotal: Year 20 Recurring Cost Replace LED lamps - interior 250 EACH \$25.00 \$22 Replace LED lamps - exterior building mounted 8 EACH \$25.00 \$22 Replace LED lamps - exterior building mounted 8 EACH \$25.00 \$22 Replace LED lamps - color changing up-light panels 8 EACH \$40.00 \$30 \$30 Replace LED lamps - color changing puck lights 750 EACH	Replace Steam Boilers CA Duct	200	LNFT	\$38.98	\$7,796
Retrofit DDC controls - air supply units 30 EACH \$3,000.00 \$90,00 DDC Points & Devices 1 LSUM \$18,750.19 \$18,75 Programming, testing, and training 1 LSUM \$18,750.19 \$18,75 Programming, testing, and training 1 LSUM \$10,000.00 \$10,00 Pipe system testing and balancing 1 LSUM \$10,000.00 \$10,00 Replace emergency boiler shutoff switch 4 LSUM \$1,050.00 \$4,20 Subtotal: Year 20 Recurring Cost \$1,081,57 Cost Subtotal: Year 20 Recurring Cost Replace LED lamps - enterior pole mounted 8 EACH \$25.00 \$26 Replace LED lamps - enterior pole mounted 8 EACH \$25.00 \$26 Replace LED lamps - enterior pole mounted 8 EACH \$40.00 \$30.00 Replace LED lamps - color changing up-light panels 8 EACH \$449.00 \$30.00 Replace LED lamps - color changing puck lights 750 EACH	Replace Steam Boilers Boiler Flue/Breeching	200	LNFT	\$181.42	\$36,284
DDC Points & Devices 1 LSUM \$18,750.19 \$18,75 Programming, testing, and training 1 LSUM \$18,750.19 \$18,75 Airflow system testing and balancing 1 LSUM \$18,700.00 \$15,000.00 Pipe system testing and balancing 1 LSUM \$10,000.00 \$10,00 Replace emergency boiler shutoff switch 4 LSUM \$10,500.00 \$42,00 Replace emergency boiler shutoff switch 4 LSUM \$10,500.00 \$42,00 Subtotal: Year 20 Recurring Cost \$1,081,57 Replace LED lamps - interior 250 EACH \$25.00 \$6,22 Replace LED lamps - exterior pole mounted 8 EACH \$25.00 \$20 Replace LED lamps - color changing up-light panels 8 EACH \$25.00 \$20 Replace LED lamps - color changing puck lights 750 EACH \$40.00 \$30,00 Replace LED lamps - color changing puck lights 750 EACH \$449.72 \$17,96 Subtotal: Year 10 Recurring Cost \$54,95	Retrofit DDC Controls - Steam Boilers	4	EACH	\$3,000.00	\$12,000
Programming, testing, and training 1 LSUM \$18,750.19 \$18,75 Airflow system testing and balancing 1 LSUM \$15,000.00 \$15,000 Pipe system testing and balancing 1 LSUM \$10,000.00 \$10,000 Replace demergency boiler shutoff switch 4 LSUM \$10,500.00 \$4,200 Replace emergency boiler shutoff switch 4 LSUM \$1,081,57 Zed000 ELECTRICAL Year 20 Recurring Cost \$1,081,57 Replace LED lamps - interior 250 EACH \$25.00 \$6,22 Replace LED lamps - exterior building mounted 8 EACH \$25.00 \$22 Replace LED lamps - exterior pole mounted 8 EACH \$25.00 \$22 Replace LED lamps - color changing up-light panels 8 EACH \$440.00 \$330,00 Replace LED lamps - color changing puck lights 750 EACH \$449.72 \$17,95 Subtotal: Year 10 Recurring Cost Year 20 Recurring Cost Replace interior light fixture 250 EACH \$1,92.08 \$9,55	Retrofit DDC controls - air supply units	30	EACH	\$3,000.00	\$90,000
Airflow system testing and balancing1LSUM\$15,000.00\$15,00Pipe system testing and balancing1LSUM\$10,000.00\$10,00HVAC Commissioning1LSUM\$12,500.00\$10,00Replace emergency boiler shutoff switch4LSUM\$1,050.00\$4,20Subtotal: Year 20 Recurring Cost\$1,081,57Z6000 ELECTRICALYear 10 Recurring CostReplace LED lamps - interior250EACH\$25.00\$6,25Replace LED lamps - exterior building mounted8EACH\$25.00\$20Replace LED lamps - color changing up-light panels8EACH\$40.00\$30,00Replace LED lamps - color changing up-light panels8EACH\$440.00\$30,00Replace LED lamps - color changing puck lights750EACH\$449.72\$17,96Subtotal: Year 10 Recurring CostSubtotal: Year 10 Recurring CostReplace interior light fixture250EACH\$1,192.08\$9,53Replace exterior pole mounted lights8EACH\$7,500.00\$60,00Replace interior light fixture250EACH\$1,192.08\$9,53Replace exterior pole mounted lights8EACH\$7,500.00\$60,00Replace color changing up-light panels8EACH\$1,192.08\$9,53Replace color changing up-light panels8EACH\$2,00.00\$22,00Replace color changing up-li	DDC Points & Devices	1	LSUM	\$18,750.19	\$18,750
Pipe system testing and balancing 1 LSUM \$10,000.00 \$10,00 HVAC Commissioning 1 LSUM \$12,500.00 \$10,00 Replace emergency boiler shutoff switch 4 LSUM \$1,050.00 \$4,20 Subtotal: Year 20 Recurring Cost \$1,081,57 Comparison of the system seture seture of the system seture of the system seture of the system seture of the system seture seture of the system seture seture of the system seture seture seture of the system seture seture seture seture setur	Programming, testing, and training	1	LSUM	\$18,750.19	\$18,750
HVAC Commissioning1LSUM\$12,500.00\$10,00Replace emergency boiler shutoff switch4LSUM\$1,050.00\$4,20Subtotal: Year 20 Recurring Cost\$1,081,57Z6000 ELECTRICALYear 10 Recurring CostReplace LED lamps - interior250EACH\$25.00\$6,25Replace LED lamps - exterior building mounted8EACH\$25.00\$22Replace LED lamps - exterior pole mounted8EACH\$25.00\$32Replace LED lamps - color changing up-light panels8EACH\$40.00\$30,00Replace LED lamps - color changing puck lights750EACH\$440.00\$30,00Replace LED lamps - color changing puck lights750EACH\$440.00\$30,00Replace LED lamps - color changing puck lights750EACH\$449.72\$17,96Subtotal: Year 10 Recurring CostSubtotal: Year 10 Recurring CostReplace interior light fixture250EACH\$1,192.08\$19,52Replace interior light fixture250EACH\$1,192.08\$19,52Replace dimming local station50EACH\$1,192.00\$60,00Replace color changing puck lights750EACH\$187.00\$140,22Replace color changing puck lights750EACH\$187.00\$22,00Replace lighting backSome software1LSUM\$12,000.00\$22,00Replace lighting backSome software <td< td=""><td>Airflow system testing and balancing</td><td>1</td><td>LSUM</td><td>\$15,000.00</td><td>\$15,000</td></td<>	Airflow system testing and balancing	1	LSUM	\$15,000.00	\$15,000
Replace emergency boiler shutoff switch4LSUM\$1,050.00\$4,200Subtotal: Year 20 Recurring Cost\$1,081,57Cost\$1,081,57Cost\$2500\$2500\$6,29Replace LED lamps - interior250EACH\$25.00\$6,29Replace LED lamps - exterior building mounted8EACH\$25.00\$20Replace LED lamps - exterior pole mounted8EACH\$25.00\$20Replace LED lamps - exterior pole mounted8EACH\$40.00\$33Replace LED lamps - color changing up-light panels8EACH\$440.00\$30,00Replace LED lamps - color changing puck lights750EACH\$449.72\$17,96Subtotal: Year 10 Recurring Cost\$54,95Year 20 Recurring CostSubtotal: Year 10 Recurring Cost\$54,955Year 20 Recurring Cost\$672.08\$168,00Replace interior light fixture250EACH\$672.08\$168,00Replace exterior building mounted lights8EACH\$1,192.08\$9,53Replace color changing puck lights750EACH\$187.00\$140,25Replace color changing up-light panels8EACH\$2,200.00\$22,00Replace color changing up-light panels8EACH\$187.00\$140,25Replace color changing up-light panels8EACH\$1,200.00\$22,00Replace color changing up-light panels8EACH<	Pipe system testing and balancing	1	LSUM	\$10,000.00	\$10,000
Subtotal: Year 20 Recurring Cost \$1,081,57 Subtotal: Year 20 Recurring Cost 26000 ELECTRICAL Year 10 Recurring Cost Replace LED lamps - interior 250 EACH \$25.00 \$20 Replace LED lamps - exterior building mounted 8 EACH \$25.00 \$20 Replace LED lamps - exterior pole mounted 8 EACH \$25.00 \$20 Replace LED lamps - color changing up-light panels 8 EACH \$40.00 \$30,00 Replace LED lamps - color changing puck lights 750 EACH \$449.72 \$17,96 Subtotal: Year 10 Recurring Cost Subtotal: Year 10 Recurring Cost Year 20 Recurring Cost Replace interior light fixture 250 EACH \$1,192.08 \$9,53 Replace exterior pole mounted lights 8 EACH \$1,92.08 \$9,53 Replace color changing puck lights 750 EACH \$168,00 \$60,00 Replace interior light fixture 250 EACH \$1,92.08 \$9,53 Replace dimming local station 50 EACH \$1	HVAC Commissioning	1	LSUM	\$12,500.00	\$10,000
250 EACH \$25.00 \$6,25 Replace LED lamps - interior 250 EACH \$25.00 \$20 Replace LED lamps - exterior building mounted 8 EACH \$25.00 \$20 Replace LED lamps - exterior pole mounted 8 EACH \$25.00 \$20 Replace LED lamps - exterior pole mounted 8 EACH \$25.00 \$20 Replace LED lamps - color changing up-light panels 8 EACH \$40.00 \$30,00 Replace LED lamps - color changing puck lights 750 EACH \$40.00 \$30,00 Replace LED lamps - color changing puck lights 750 EACH \$40.00 \$30,00 Replace LED lamps - color changing puck lights 750 EACH \$40.00 \$30,00 Replace iterior light fixture 250 EACH \$449.72 \$17,96 Subtotal: Year 10 Recurring Cost \$54,95 Year 20 Recurring Cost Replace interior light fixture 250 EACH \$672.08 \$168,00 Replace exterior pole mounted lights 8 EACH \$1,192.08 \$9,55 Replace exterior pole mounted lights 750 EACH \$169.36 \$8,46 Replace color changing puck lights 750 EACH \$187.00 \$140,25 Replace color changing puck lights 750 EACH \$8,200.00 \$65,66 Replace color changing puck lights 750 EACH \$8,200.00 \$22,00 Replace lighting backbone software 1 LSUM \$	Replace emergency boiler shutoff switch	4	LSUM	\$1,050.00	\$4,200
Year 10 Recurring CostReplace LED lamps - interior250EACH\$25.00\$6,25Replace LED lamps - exterior building mounted8EACH\$25.00\$20Replace LED lamps - exterior pole mounted8EACH\$25.00\$20Replace LED lamps - color changing up-light panels8EACH\$40.00\$33Replace LED lamps - color changing puck lights750EACH\$40.00\$30,00Replace LED lamps - color changing puck lights750EACH\$449.72\$17,96Replace exit lighting, LED standard, single face40EACH\$449.72\$17,96Subtotal: Year 10 Recurring Cost\$54,95Year 20 Recurring Cost\$54,95Replace interior light fixture250EACH\$672.08\$168,02Replace exterior pole mounted lights8EACH\$1,192.08\$9,53Replace color changing puck lights750EACH\$616,00\$60,00Replace color changing puck lights750EACH\$169.36\$8,46Replace color changing puck lights750EACH\$169.36\$8,40Replace lighting backbone software1LSUM\$22,000.00\$22,00Replace lighting control system hardware and software1LSUM\$135,000.00\$135,00Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$30,00Testing and Engineering1LSUM\$50,000.00\$50		Subtotal:	Year 20 R	ecurring Cost	\$1,081,573
Replace LED lamps - interior250EACH\$25.00\$6.25Replace LED lamps - exterior building mounted8EACH\$25.00\$20Replace LED lamps - exterior pole mounted8EACH\$25.00\$20Replace LED lamps - color changing up-light panels8EACH\$40.00\$32Replace LED lamps - color changing puck lights750EACH\$40.00\$30,00Replace LED lamps - color changing puck lights750EACH\$449.72\$17,96Replace exit lighting, LED standard, single face40EACH\$449.72\$17,96Subtotal: Year 10 Recurring Cost\$54,95Year 20 Recurring CostReplace exterior building mounted lights8EACH\$1,192.08\$9,53Replace exterior pole mounted lights8EACH\$1,790.00\$60,00Replace dimming local station50EACH\$169.36\$8,46Replace color changing puck lights750EACH\$187.00\$140,25Replace color changing up-light panels8EACH\$2,00.00\$22,00Replace lighting backbone software1LSUM\$176,000.00\$176,00Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$135,00Testing and Engineering1LSUM\$50,000.00\$50,000	26000 ELECTRICAL				
Replace LED lamps - exterior building mounted8EACH\$25.00\$20Replace LED lamps - exterior pole mounted8EACH\$25.00\$20Replace LED lamps - color changing up-light panels8EACH\$40.00\$33.00Replace LED lamps - color changing puck lights750EACH\$40.00\$30.00Replace LED lamps - color changing puck lights750EACH\$449.72\$17.96Subtotal: Year 10 Recurring Cost\$54.95\$449.72\$17.96Replace interior light fixture250EACH\$672.08\$168.02Replace exterior building mounted lights8EACH\$1,192.08\$9.53Replace exterior pole mounted lights8EACH\$1,69.36\$8.46Replace exterior pole mounted lights8EACH\$169.36\$8.46Replace color changing puck lights750EACH\$169.36\$8.46Replace color changing puck lights750EACH\$187.00\$140.25Replace color changing up-light panels8EACH\$8,200.00\$22.00Replace lighting backbone software1LSUM\$22,000.00\$22.00Replace lighting control system hardware and software1LSUM\$135,000.00\$135,00Lighting control, devices, cabling, connections, and testing1LSUM\$50,000.00\$135,00Testing and Engineering1LSUM\$50,000.00\$0.00\$0.00	Year 10 Recurring Cost				
Replace LED lamps - exterior pole mounted8EACH\$25.00\$26Replace LED lamps - color changing up-light panels8EACH\$40.00\$32Replace LED lamps - color changing puck lights750EACH\$40.00\$30,00Replace exit lighting, LED standard, single face40EACH\$449.72\$17,98Subtotal: Year 10 Recurring CostYear 20 Recurring CostSubtotal: Year 10 Recurring CostReplace interior light fixture250EACH\$672.08\$168,02Replace exterior pole mounted lights8EACH\$1,192.08\$9,53Replace exterior pole mounted lights8EACH\$169.36\$8,46Replace color changing puck lights750EACH\$169.36\$8,46Replace color changing puck lights750EACH\$169.36\$8,46Replace color changing puck lights750EACH\$169.36\$8,46Replace color changing puck lights750EACH\$169.36\$8,46Replace color changing puck lights750EACH\$187.00\$140,25Replace lighting backbone software1LSUM\$22,000.00\$22,00Replace lighting control system hardware and software1LSUM\$135,000.00\$135,00Lighting control, devices, cabling, connections, and testing1LSUM\$50,000.00\$50,00Testing and Engineering1LSUM\$50,000.00\$50,00\$50,00	Replace LED lamps - interior	250	EACH	\$25.00	\$6,250
Replace LED lamps - color changing up-light panels8EACH\$40.00\$32Replace LED lamps - color changing puck lights750EACH\$40.00\$30,00Replace exit lighting, LED standard, single face40EACH\$449.72\$17,96Subtotal: Year 10 Recurring Cost\$54,95Year 20 Recurring Cost\$54,95Replace interior light fixture250EACH\$672.08\$168,02Replace interior building mounted lights8EACH\$1,192.08\$9,53Replace exterior pole mounted lights8EACH\$1,69.36\$8,46Replace color changing puck lights750EACH\$169.36\$8,46Replace color changing puck lights750EACH\$169.36\$8,46Replace color changing puck lights750EACH\$169.36\$8,46Replace color changing puck lights750EACH\$187.00\$140,25Replace lighting backbone software1LSUM\$12,000.00\$22,000Replace lighting control system hardware and software1LSUM\$135,000.00\$135,000Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$135,000Testing and Engineering1LSUM\$50,000.00\$50,000	Replace LED lamps - exterior building mounted	8	EACH	\$25.00	\$200
Replace LED lamps - color changing puck lights750EACH\$40.00\$30,00Replace exit lighting, LED standard, single face40EACH\$449.72\$17,96Subtotal: Year 10 Recurring Cost\$54,95Year 20 Recurring Cost\$54,95Year 20 Recurring Cost\$54,95\$672.08\$168,02Replace interior light fixture250EACH\$672.08\$168,02Replace exterior building mounted lights8EACH\$1,192.08\$9,53Replace exterior pole mounted lights8EACH\$1,500.00\$60,00Replace dimming local station50EACH\$169.36\$8,46Replace color changing puck lights750EACH\$187.00\$140,25Replace color changing up-light panels8EACH\$2,000.00\$22,000Replace lighting control system hardware and software1LSUM\$176,000.00\$176,000Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$135,000Testing and Engineering1LSUM\$50,000.00\$50,000	Replace LED lamps - exterior pole mounted	8	EACH	\$25.00	\$200
Replace exit lighting, LED standard, single face40EACH\$449.72\$17,98Subtotal: Year 10 Recurring Cost\$54,95Year 20 Recurring Cost250EACH\$672.08\$168,02Replace interior light fixture250EACH\$1,192.08\$9,53Replace exterior building mounted lights8EACH\$1,192.08\$9,53Replace exterior pole mounted lights8EACH\$1,000.00\$60,00Replace dimming local station50EACH\$169.36\$8,46Replace color changing puck lights750EACH\$187.00\$140,25Replace color changing up-light panels8EACH\$8,200.00\$22,00Replace lighting backbone software1LSUM\$176,000.00\$176,000Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$135,000Testing and Engineering1LSUM\$50,000.00\$50,000	Replace LED lamps - color changing up-light panels	8	EACH	\$40.00	\$320
Subtotal: Year 10 Recurring Cost\$54,95Year 20 Recurring CostReplace interior light fixture250EACH\$672.08\$168,02Replace exterior building mounted lights8EACH\$1,192.08\$9,53Replace exterior pole mounted lights8EACH\$7,500.00\$60,00Replace dimming local station50EACH\$169.36\$8,46Replace color changing puck lights750EACH\$187.00\$140,25Replace color changing up-light panels8EACH\$8,200.00\$65,60Replace lighting backbone software1LSUM\$126,000.00\$176,000Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$135,000Testing and Engineering1LSUM\$50,000.00\$50,000	Replace LED lamps - color changing puck lights	750	EACH	\$40.00	\$30,000
Year 20 Recurring CostReplace interior light fixture250EACH\$672.08\$168,02Replace exterior building mounted lights8EACH\$1,192.08\$9,53Replace exterior pole mounted lights8EACH\$7,500.00\$60,00Replace dimming local station50EACH\$169.36\$8,46Replace color changing puck lights750EACH\$187.00\$140,25Replace color changing up-light panels8EACH\$8,200.00\$65,60Replace lighting backbone software1LSUM\$22,000.00\$22,000Replace lighting control system hardware and software1LSUM\$135,000.00\$135,000Lighting control, devices, cabling, connections, and testing1LSUM\$50,000.00\$50,000Testing and Engineering1LSUM\$50,000.00\$50,000	Replace exit lighting, LED standard, single face	40	EACH	\$449.72	\$17,989
Replace interior light fixture250EACH\$672.08\$168,02Replace exterior building mounted lights8EACH\$1,192.08\$9,53Replace exterior pole mounted lights8EACH\$1,7500.00\$60,00Replace dimming local station50EACH\$169.36\$8,46Replace color changing puck lights750EACH\$187.00\$140,25Replace color changing up-light panels8EACH\$8,200.00\$22,00Replace lighting backbone software1LSUM\$22,000.00\$22,00Replace lighting control system hardware and software1LSUM\$176,000.00\$176,00Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$135,00Testing and Engineering1LSUM\$50,000.00\$50,00\$50,00		Subtotal:	Year 10 R	ecurring Cost	\$54,959
Replace exterior building mounted lights8EACH\$1,192.08\$9,53Replace exterior pole mounted lights8EACH\$7,500.00\$60,00Replace dimming local station50EACH\$169.36\$8,46Replace color changing puck lights750EACH\$187.00\$140,25Replace color changing up-light panels8EACH\$8,200.00\$65,60Replace lighting backbone software1LSUM\$22,000.00\$22,00Replace lighting control system hardware and software1LSUM\$176,000.00\$176,00Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$135,00Testing and Engineering1LSUM\$50,000.00\$50,000	Year 20 Recurring Cost				
Replace exterior pole mounted lights8EACH\$7,500.00\$60,00Replace dimming local station50EACH\$169.36\$8,46Replace color changing puck lights750EACH\$187.00\$140,25Replace color changing up-light panels8EACH\$8,200.00\$65,60Replace lighting backbone software1LSUM\$22,000.00\$22,00Replace lighting control system hardware and software1LSUM\$176,000.00\$176,000Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$135,000Testing and Engineering1LSUM\$50,000.00\$50,000\$50,000	Replace interior light fixture	250	EACH	\$672.08	\$168,020
Replace dimming local station50EACH\$169.36\$8,46Replace color changing puck lights750EACH\$187.00\$140,25Replace color changing up-light panels8EACH\$8,200.00\$65,60Replace lighting backbone software1LSUM\$22,000.00\$22,00Replace lighting control system hardware and software1LSUM\$176,000.00\$176,000Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$135,000Testing and Engineering1LSUM\$50,000.00\$50,000	Replace exterior building mounted lights	8	EACH	\$1,192.08	\$9,532
Replace color changing puck lights750EACH\$187.00\$140,25Replace color changing up-light panels8EACH\$8,200.00\$65,60Replace lighting backbone software1LSUM\$22,000.00\$22,00Replace lighting control system hardware and software1LSUM\$176,000.00\$176,000Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$135,000Testing and Engineering1LSUM\$50,000.00\$50,000	Replace exterior pole mounted lights	8	EACH	\$7,500.00	\$60,000
Replace color changing up-light panels8EACH\$8,200.00\$65,60Replace lighting backbone software1LSUM\$22,000.00\$22,000Replace lighting control system hardware and software1LSUM\$176,000.00\$176,000Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$135,000Testing and Engineering1LSUM\$50,000.00\$50,000		50	EACH	\$169.36	\$8,468
Replace lighting backbone software1LSUM\$22,000.00\$22,000Replace lighting control system hardware and software1LSUM\$176,000.00\$176,000Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$135,000Testing and Engineering1LSUM\$50,000.00\$50,000	Replace color changing puck lights	750	EACH	\$187.00	\$140,250
Replace lighting control system hardware and software1LSUM\$176,000.00\$176,000Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$135,000Testing and Engineering1LSUM\$50,000.00\$50,000	Replace color changing up-light panels			\$8,200,00	
Lighting control, devices, cabling, connections, and testing1LSUM\$135,000.00\$135,000Testing and Engineering1LSUM\$50,000.00\$50,000		8	EACH	\$0,200.00	\$65,600
testing 1 LSUM \$135,000.00 \$135,000 Testing and Engineering 1 LSUM \$50,000.00 \$50,000	Replace lighting backbone software				
Testing and Engineering1LSUM\$50,000.00\$50,000		1	LSUM	\$22,000.00	\$22,00
Subtotal: Year 20 Recurring Cost \$834,87	Replace lighting control system hardware and software Lighting control, devices, cabling, connections, and	1 1	LSUM LSUM	\$22,000.00 \$176,000.00	\$22,000 \$176,000
	Replace lighting backbone software Replace lighting control system hardware and software Lighting control, devices, cabling, connections, and testing Testing and Engineering	1 1 1	lsum Lsum Lsum	\$22,000.00 \$176,000.00 \$135,000.00	\$65,600 \$22,000 \$176,000 \$135,000 \$50,000

27000 COMMUNICATIONS

Year 10 Recurring Cost I EACH \$12,200.00 \$12,200.00 equipment by Owner 1 LSUM \$32,177.60 \$32,178 Subtotal: Year 10 Recurring Cost \$44,378 Year 15 Recurring Cost \$44,378 Replace PA/Sound system, cabinet, and amplifier 1 EACH \$19,605.00 \$113,280 Replace Speakers 240 EACH \$472.00 \$113,280 Terminations and testing 1 LSUM \$15,000.00 \$15,000 Subtotal: Year 15 Recurring Cost \$147,885 Year 20 Recurring Cost Replace voice/data wall outlet, back box and plate, 1 32 EACH \$163.00 \$5,216 Subtotal: Year 20 Recurring Cost \$5,216 Subtotal: Year 20 Recurring Cost \$32,322 Replace interior dome camera, color 20 EACH \$4,299,44 \$34,396 Subtotal: Year 10 Recurring Cost \$115,337 Replace interior camera back box 20 EACH \$4,299,440	27000 COMMUNICATIONS				
Subtotal: Year 1 Recurring Cost \$1,000 Year 5 Recurring Cost 24 EACH \$1,709.44 \$41,027 Subtotal: Year 5 Recurring Cost \$441,027 Year 10 Recurring Cost \$41,027 Replace MDF rack assembly 2 racks, switching equipment by Owner 1 EACH \$12,200.00 \$12,200 Terminations and testing 1 LSUM \$32,177.60 \$32,177 Subtotal: Year 10 Recurring Cost \$44,378 \$44,378 Year 15 Recurring Cost \$44,378 \$44,378 Replace PA/Sound system, cabinet, and amplifier 1 EACH \$19,605.00 \$19,605 Replace speakers 240 EACH \$472.00 \$113,280 Terminations and testing 1 LSUM \$15,000.00 \$15,000 Terminations and testing 32 EACH \$163.00 \$5,216 Subtotal: Year 10 Recurring Cost \$1247,885 \$242 \$2000 ELECTRONIC SAFETY & \$200 \$21,220 Subtotal: Year 20 Recurring Cost \$21,21,68 \$32,321,68 \$32,321,68 \$32,322,322 Replace	Year 1 Recurring Cost				
Year 5 Recurring Cost 24 EACH \$1,709.44 \$41,027 Subtotal: Year 5 Recurring Cost \$41,027 Year 10 Recurring Cost \$41,027 Replace MDF rack assembly 2 racks, switching equipment by Owner 1 EACH \$12,200.00 \$12,200. Terminations and testing 1 LSUM \$32,177.60 \$32,177. Subtotal: Year 10 Recurring Cost \$44,376 Year 15 Recurring Cost \$44,376 Replace PA/Sound system, cabinet, and amplifier 1 EACH \$19,605.00 \$19,605.00 Replace PA/Sound system, cabinet, and amplifier 1 EACH \$472.00 \$113,280 Terminations and testing 1 LSUM \$15,000.00 \$15,000 Subtotal: Year 10 Recurring Cost \$147,885 Year 20 Recurring Cost Subtotal: Year 20 Recurring Cost \$5,216 Subtotal: Year 20 Recurring Cost \$32,321.68 Subtotal: Year 20 Recurring Cost \$32,321.68 Subtotal: Year 20 Recurring Cost	Telecommunications Maintenance	1	LSUM	\$1,000.00	\$1,000
Replace wireless access point 24 EACH \$1,709.44 \$41,027 Subtotal: Year 5 Recurring Cost \$41,027 Year 10 Recurring Cost \$41,027 Replace MDF rack assembly 2 racks, switching equipment by Owner 1 EACH \$12,200.00 \$12,200. Terminations and testing 1 LSUM \$32,177.60 \$32,177. Subtotal: Year 10 Recurring Cost \$44,378 Year 15 Recurring Cost \$44,378 Replace PA/Sound system, cabinet, and amplifier 1 EACH \$19,605.00 \$113,286 Replace speakers 240 EACH \$472.00 \$113,286 Terminations and testing 1 LSUM \$15,000.00 \$15,000 Subtotal: Year 15 Recurring Cost \$147,885 Year 20 Recurring Cost \$147,885 Year 20 Recurring Cost Subtotal: Year 20 Recurring Cost \$142,321.68 \$32,321.68 Secourtry Subtotal: Year 20 Recurring Cost \$5,210.63 \$32,321.68 Secourtry Subtotal: Year 20 Recurring Cost \$32,321.68 \$32,321.68 Replace exterior dome camera, color		Subtotal:	Year 1 Recu	ring Cost	\$1,000
Subtotal: Year 5 Recurring Cost \$41,027 Year 10 Recurring Cost Replace MDF rack assembly 2 racks, switching equipment by Owner 1 EACH \$12,200 \$12,200 Terminations and testing 1 LSUM \$32,176 \$32,176 Subtotal: Year 10 Recurring Cost \$44,378 Year 15 Recurring Cost \$44,376 Replace PA/Sound system, cabinet, and amplifier 1 EACH \$19,605.00 \$113,280 Terminations and testing 1 LSUM \$15,000.00 \$113,280 Subtotal: Year 15 Recurring Cost \$147,885 Year 20 Recurring Cost \$147,885 Replace voice/data wall outlet, back box and plate, 1 32 EACH \$163.00 \$5,216 Subtotal: Year 20 Recurring Cost \$147,885 Year 10 Recurring Cost Replace control panel, switcher and recording device assembly \$240 \$163.00 \$32,321.68 \$32,322.82 Replace control panel, switcher and recording device assembly \$241 \$44,434 \$957 Replace	Year 5 Recurring Cost				
Year 10 Recurring Cost Replace MDF rack assembly 2 racks, switching equipment by Owner 1 EACH \$12,200 \$12,200 Terminations and testing 1 LSUM \$32,177.60 \$32,276 Subtotal: Year 10 Recurring Cost \$44,376 Year 15 Recurring Cost \$44,376 Replace PA/Sound system, cabinet, and amplifier 1 EACH \$19,605.00 \$113,280 Terminations and testing 1 LSUM \$15,000.00 \$113,280 Terminations and testing 1 LSUM \$15,000.00 \$113,280 Subtotal: Year 15 Recurring Cost \$147,885 Year 20 Recurring Cost \$147,885 Replace voice/data wall outlet, back box and plate, 1 32 EACH \$163.00 \$5,216 Subtotal: Year 20 Recurring Cost Subtotal: Year 20 Recurring Cost Replace control panel, switcher and recording device assembly \$240 \$ACH \$32,321.68 \$32,321.68 \$32,321.68 \$32,322.68 \$32,321.68 \$32,321.68 \$32,322.68 \$34,396	Replace wireless access point	24	EACH	\$1,709.44	\$41,027
Replace MDF rack assembly 2 racks, switching equipment by Owner 1 EACH \$12,200 \$12,200 Terminations and testing 1 LSUM \$32,177.60 \$32,178 Subtotal: Year 10 Recurring Cost \$44,378 Year 15 Recurring Cost \$12,200 \$112,200 Replace PA/Sound system, cabinet, and amplifier 1 EACH \$19,605.00 \$113,280 Replace speakers 240 EACH \$4472.00 \$113,280 Terminations and testing 1 LSUM \$15,000.00 \$15,000 Subtotal: Year 15 Recurring Cost \$147,885 Year 20 Recurring Cost \$147,885 Year 10 Recurring Cost \$147,885 Subtotal: Year 20 Recurring Cost \$147,885 Subtotal: Year 20 Recurring Cost \$147,885 Subtotal: Year 20 Recurring Cost \$12,200 Subtotal: Year 20 Recurring Cost \$32,322 Subtotal: Year 20 Recurring Cost \$32,326 Subtotal: Year 10 Recurring Cost \$32,326 Replace interior dome camera		Subtotal:	Year 5 Recu	ring Cost	\$41,027
equipment by Owner S12,200,000 S12,200,000,00 S12,200,000 S12,200,000<	Year 10 Recurring Cost				
Bequipment by Owner 1 LSUM \$32,177.60 \$32,177.60 Terminations and testing 1 LSUM \$32,177.60 \$32,177.60 Subtotal: Year 10 Recurring Cost \$44,378 Year 15 Recurring Cost \$44,378 Replace speakers 240 EACH \$19,605.00 \$19,605 Subtotal: Year 10 Recurring Cost \$113,280 Terminations and testing 1 LSUM \$15,000.00 \$15,000 Cost Subtotal: Year 15 Recurring Cost \$147,885 Year 20 Recurring Cost \$163.00 \$5,216 Subtotal: Year 20 Recurring Cost \$5,216	Replace MDF rack assembly 2 racks, switching	1	ЕЛСН	¢12 200 00	¢12 200
Subtotal: Year 10 Recurring Cost \$44,378 Year 15 Recurring Cost Replace PA/Sound system, cabinet, and amplifier 1 EACH \$19,605.00 \$19,605 Replace PA/Sound system, cabinet, and amplifier 1 EACH \$19,605.00 \$113,280 Replace speakers 240 EACH \$472.00 \$113,280 Terminations and testing 1 LSUM \$15,000.00 \$15,000 Subtotal: Year 15 Recurring Cost \$147,885 Year 20 Recurring Cost Replace voice/data wall outlet, back box and plate, 1 32 EACH \$163.00 \$5,216 Za0000 ELECTRONIC SAFETY & Securring Cost \$15,000 \$5,216 Za000 ELECTRONIC SAFETY & Securring Cost \$32,322 Subtotal: Year 20 Recurring Cost \$32,321.68 \$32,322 Replace interior dome camera, color 8 EACH \$2,341.14 \$46,6823 Replace enterior dome camera, color 8 EACH \$44,894 \$997 Replace interior camera back box 20 EACH \$412.48 \$990 <td></td> <td>_</td> <td>-</td> <td></td> <td></td>		_	-		
Year 15 Recurring Cost Replace PA/Sound system, cabinet, and amplifier 1 EACH \$19,605.00 \$19,605 Replace speakers 240 EACH \$472.00 \$113,200 Terminations and testing 1 LSUM \$15,000.00 \$15,000 Subtotal: Year 15 Recurring Cost \$147,885 Year 20 Recurring Cost \$163.00 \$5,216 Subtotal: Year 20 Recurring Cost \$5,216 Subtotal: Year 20 Recurring Cost \$5,216 28000 ELECTRONIC SAFETY & Securring Cost \$5,216 Subtotal: Year 20 Recurring Cost Subtotal: Year 20 Recurring Cost \$5,216 28000 ELECTRONIC SAFETY & Securring Cost \$163.00 \$5,216 Subtotal: Year 20 Recurring Cost \$32,321.68 \$32,322.68 Replace control panel, switcher and recording device 1 EACH \$32,321.68 \$32,322.68 Replace interior dome camera, color 8 EACH \$4,299.44 \$43,396 Replace interior camera back box 20 EACH \$412.4		_			
Replace PA/Sound system, cabinet, and amplifier 1 EACH \$19,605.00 \$19,605 Replace speakers 240 EACH \$472.00 \$113,280 Terminations and testing 1 LSUM \$15,000.00 \$15,000 Subtotal: Year 15 Recurring Cost \$147,885 Year 20 Recurring Cost \$147,885 Replace voice/data wall outlet, back box and plate, 1 32 EACH \$163.00 \$5,216 Subtotal: Year 20 Recurring Cost Replace control panel, switcher and recording device Subtotal: Year 20 Recurring Cost Replace control panel, switcher and recording device 1 EACH \$32,321.68 \$32,322.82 Replace interior dome camera, color 20 EACH \$4,299.44 \$34,396 Replace exterior dome camera, color 8 EACH \$4,299.44 \$34,396 Replace exterior camera back box 20 EACH \$4,299.44 \$34,396 Replace interior camera back box 8 EACH \$112.49 \$900 Subtotal: Year 10 Recurring Cost Replace fire alarm control		Subtotal:	rear 10 Reci	Irring Cost	\$44,378
Replace speakers 240 EACH \$472.00 \$113,280 Terminations and testing 1 LSUM \$15,000.00 \$15,000 Subtotal: Year 15 Recurring Cost \$147,885 Year 20 Recurring Cost Replace voice/data wall outlet, back box and plate, 1 32 EACH \$163.00 \$5,216 Subtotal: Year 20 Recurring Cost \$5,216 Z8000 ELECTRONIC SAFETY & SECURITY Year 10 Recurring Cost \$5,216 Replace control panel, switcher and recording device assembly \$28,232,232,321,68 \$32,322,321,68	Year 15 Recurring Cost				
Terminations and testing 1 LSUM \$15,000.00 \$15,000 Subtotal: Year 15 Recurring Cost \$147,885 Year 20 Recurring Cost \$147,885 Replace voice/data wall outlet, back box and plate, 1 32 EACH \$163.00 \$5,216 Subtotal: Year 20 Recurring Cost \$5,216 Subtotal: Year 20 Recurring Cost \$5,216 Replace voice/data wall outlet, back box and plate, 1 32 EACH \$163.00 \$5,216 Subtotal: Year 20 Recurring Cost \$5,216 Subtotal: Year 20 Recurring Cost Replace control panel, switcher and recording device assembly \$46,823 Replace interior dome camera, color 20 EACH \$4,29,44 \$43,396 Replace exterior dome camera, color 8 EACH \$412.49 \$900 Subtotal: Year 10 Recurring Cost \$115,337 Year 13 Recurring Cost \$115,337 Year 15 Recurring Cost \$115,337 Replace fire alarm control panel 1 EACH \$19,29	Replace PA/Sound system, cabinet, and amplifier	1	EACH	\$19,605.00	\$19,605
Subtotal: Year 15 Recurring Cost\$147,885Year 20 Recurring CostReplace voice/data wall outlet, back box and plate, 1 gand, 2-port32EACH\$163.00\$5,216Subtotal: Year 20 Recurring Cost\$5,216Cost\$5,216Cost\$5,216Cost\$5,216Cost\$5,216Cost\$5,216Cost\$5,216Cost\$5,216Cost\$5,216Cost\$5,216Cost\$5,216Cost\$5,216Cost\$5,216Cost\$5,216Cost\$5,216Cost <t< td=""><td>Replace speakers</td><td>240</td><td>EACH</td><td>\$472.00</td><td>\$113,280</td></t<>	Replace speakers	240	EACH	\$472.00	\$113,280
Year 20 Recurring Cost Replace voice/data wall outlet, back box and plate, 1 32 EACH \$163.00 \$5,216 Subtotal: Year 20 Recurring Cost \$5,216 28000 ELECTRONIC SAFETY & SECURITY Subtotal: Year 20 Recurring Cost \$5,216 Page 10 Recurring Cost EACH \$32,321.68 \$32,322 Replace control panel, switcher and recording device assembly 1 EACH \$32,321.68 \$32,322 Replace interior dome camera, color 20 EACH \$2,341.14 \$46,823 Replace interior camera back box 20 EACH \$4,299.44 \$43,396 Replace exterior camera back box 20 EACH \$112.49 \$900 Subtotal: Year 10 Recurring Cost \$115,337 Year 15 Recurring Cost \$115,337 Replace fire alarm control panel 1 EACH \$19,294.40 \$19,294 Replace Difter alarm control panel 1 EACH \$19,294.40 \$19,294 \$10,200 Replace Interior system control panels, power su	Ferminations and testing	1	LSUM	\$15,000.00	\$15,000
Replace voice/data wall outlet, back box and plate, 1 gana, 2-port32EACH\$163.00\$5,216Subtotal: Year 20 Recurring Cost\$5,216 28000 ELECTRONIC SAFETY & SECURITYYear 10 Recurring CostReplace control panel, switcher and recording device assembly1EACH\$32,321.68\$32,322Replace interior dome camera, color20EACH\$2,341.14\$46,823Replace interior dome camera, color8EACH\$4,299.44\$34,396Replace exterior dome camera, color8EACH\$4112.49\$900Replace exterior camera back box20EACH\$112.49\$900Cubtotal: Year 10 Recurring Cost\$15 Recurring CostReplace fire alarm control panel1EACH\$119,294.40\$19,294Replace fire alarm control panel1EACH\$112,88\$103,220Testing and engineering1LSUM\$15,000.00\$15,000Replace Detection System control panels, power supply and software Replace Detection System card reader, flush type, standard16EACH\$934.72\$14,956		Subtotal:	Year 15 Recu	urring Cost	\$147,885
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Subtotal: Year 15 Recurring Cost

A	LTERNATIV	E #2: REPA	IR THREE DO	OMES	
Division	Year 1	Year 2	Year 3	Year 4	Year 5
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$385,481.54
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$2,313.55
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION	\$7,500.00	\$22,500.00	\$7,500.00	\$22,500.00	\$1,821,498.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$5,000.00	\$12,200.00	\$5,000.00	\$12,200.00	\$6,500.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$42,026.56
28000 ELECTRONIC SAFETY & SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$13,500.00	\$35,700.00	\$13,500.00	\$35,700.00	\$2,257,819.65
Annual Total Cost with Inflation	\$13,500.00	\$37,842.00	\$14,601.60	\$40,157.64	\$2,641,329.65

A	LTERNATIV	E #2: REPA	IR THREE DO	OMES	
Division	Year 6	Year 7	Year 8	Year 9	Year 10
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$385,481.54
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$8,407.59
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$22,500.00	\$7,500.00	\$22,500.00	\$7,500.00	\$1,751,079.36
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$1,382,640.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$8,278.60
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$12,200.00	\$5,000.00	\$12,200.00	\$5,000.00	\$13,700.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$54,958.80
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$86,404.16
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$115,336.72
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$35,700.00	\$13,500.00	\$35,700.00	\$13,500.00	\$3,806,286.77
Annual Total Cost with Inflation	\$43,434.51	\$16,424.81	\$45,171.89	\$17,765.08	\$5,209,166.27

A	LTERNATIV	E #2: REPA	IR THREE DO	OMES	
Division	Year 11	Year 12	Year 13	Year 14	Year 15
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$385,481.54
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$2,313.55
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$7,500.00	\$22,500.00	\$7,500.00	\$22,500.00	\$2,040,678.00
08000 OPENINGS	\$0.00	\$3,456,600.00	\$0.00	\$0.00	\$19,717.60
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$5,000.00	\$12,200.00	\$5,000.00	\$12,200.00	\$589,305.33
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$189,911.56
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$181,668.16
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$13,500.00	\$3,492,300.00	\$13,500.00	\$35,700.00	\$3,409,075.74
Annual Total Cost with Inflation	\$19,214.71	\$5,376,235.40	\$19,983.30	\$54,958.51	\$5,458,040.09

	ALTERNATIV	/E #2: REPA	IR THREE D	OMES	
Division	Year 16	Year 17	Year 18	Year 19	Year 20
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$385,481.54
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$8,407.59
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$22,500.00	\$7,500.00	\$22,500.00	\$7,500.00	\$1,866,949.46
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$1,394,388.80
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$8,278.60
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$12,200.00	\$5,000.00	\$12,200.00	\$5,000.00	\$1,095,272.54
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$889,833.44
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$91,620.16
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$115,336.72
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$35,700.00	\$13,500.00	\$35,700.00	\$13,500.00	\$5,855,568.85
Annual Total Cost with Inflation	\$59,443.12	\$23,377.63	\$69,540.05	\$24,312.74	\$10,967,370.64

ALIERNALIVE ·	#2: REPAIR THREE DOMES Totals
02000 EXISTING CONDITIONS	\$0.00
03000 CONCRETE	\$1,541,926.17
04000 MASONRY	\$21,442.28
05000 METALS	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$7,720,204.82
08000 OPENINGS	\$6,253,346.40
09000 FINISHES	\$16,557.20
10000 SPECIALTIES	\$0.00
11000 EQUIPMENT	\$0.00
12000 FURNISHINGS	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00
21000 FIRE SUPPRESSION	\$0.00
22000 PLUMBING	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$1,842,377.86
26000 ELECTRICAL	\$944,792.24
27000 COMMUNICATIONS	\$425,962.44
28000 ELECTRONIC SAFETY AND SECURITY	\$412,341.60
31000 EARTHWORK	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00
33000 UTILITIES	\$0.00
Annual Total Cost w/o Inflation	\$19,178,951.01
Annual Total Cost with Inflation	\$30,151,869.64



Exhibit B — Life Cycle Cost Analysis of Alternative #3: Restore Three Domes

	QTY	SUM	UNIT COST	TOTAL COST
FE CYCLE COST ANALYSIS				
TERNATIVE #3: RESTORE THREE DO	OMES			
03000 CONCRETE				
Year 5 Recurring Cost				
Concrete repair allowance - clean, prime, patch, recoat	1	LSUM	\$67,885.48	\$67,8
Concrete repair allowance - joint repair at concrete	1	LSUM	\$46,054.14	\$46,0
skylight frame	Subtotal	Voor E Boo	urring Cost	\$113,9
	Subtotal.			\$113/3·
04000 MASONRY				
Year 5 Recurring Cost				
Repair spalled stone and mortar areas of panels, avg 4 SF per location, Desert Dome	5	EACH	\$462.71	\$2,3
	Subtotal:	Year 5 Rec	urring Cost	\$2,3
Year 10 Recurring Cost				
Repoint all cracked and deteriorated areas of brick, Assume 5% of brick façade area, Transition House	292	SQFT	\$20.87	\$6,0
Repoint all cracked and deteriorated areas of brick, North Loading Dock	10	SQFT	\$103.58	\$1,0
	Subtotal: Year 10 Recurring Cost			
	Subtotal:	Year 10 Re	curring Cost	\$7,13
	Subtotal:	Year 10 Re	curring Cost	\$7,1
07000 THERMAL & MOISTURE PROTECTION	Subtotal:	Year 10 Re	curring Cost	\$7,1
PROTECTION	Subtotal: `	Year 10 Re	curring Cost	\$7,1
PROTECTION Year 1 Recurring Cost	Subtotal: ` 1	Year 10 Re	curring Cost \$5,000.00	\$7,1 \$5,0
PROTECTION Year 1 Recurring Cost	1	LSUM		
PROTECTION Year 1 Recurring Cost Clean and maintain gutters, hubs and drainage piping	1	LSUM	\$5,000.00	\$5,0
PROTECTION Year 1 Recurring Cost Clean and maintain gutters, hubs and drainage piping Year 5 Recurring Cost Joint sealant repair within masonry, concrete, windows and doors, all Domes	1 Subtotal: ` 375	LSUM	\$5,000.00	\$5,0 \$5,0
PROTECTION Year 1 Recurring Cost Clean and maintain gutters, hubs and drainage piping Year 5 Recurring Cost Joint sealant repair within masonry, concrete, windows and doors, all Domes Joint sealant repair within masonry, concrete, windows and doors, North Loading Dock	1 Subtotal: 375 50	LSUM Year 1 Rec	\$5,000.00	\$5,0 \$5,0 \$7,3
PROTECTION Year 1 Recurring Cost Clean and maintain gutters, hubs and drainage piping Year 5 Recurring Cost Joint sealant repair within masonry, concrete, windows and doors, all Domes Joint sealant repair within masonry, concrete, windows and doors, North Loading Dock Joint sealant repair within masonry, concrete, windows	1 Subtotal: 375 50	LSUM Year 1 Rec LNFT	\$5,000.00 urring Cost \$19.68	\$5,0 \$5,0 \$7,3 \$9
PROTECTION Year 1 Recurring Cost Clean and maintain gutters, hubs and drainage piping Year 5 Recurring Cost Joint sealant repair within masonry, concrete, windows and doors, all Domes Joint sealant repair within masonry, concrete, windows and doors, North Loading Dock Joint sealant repair within masonry, concrete, windows and doors, Transition House	1 Subtotal: 7 375 50	LSUM Year 1 Rec LNFT LNFT	\$5,000.00 urring Cost \$19.68 \$19.68	\$5,0
 PROTECTION Year 1 Recurring Cost Clean and maintain gutters, hubs and drainage piping Year 5 Recurring Cost Joint sealant repair within masonry, concrete, windows and doors, all Domes Joint sealant repair within masonry, concrete, windows and doors, North Loading Dock 	1 Subtotal: 7 375 50 75 1	LSUM Year 1 Rec LNFT LNFT LNFT LNFT LSUM	\$5,000.00 urring Cost \$19.68 \$19.68 \$19.68	\$5,0 \$5,0 \$7,3 \$9 \$1,4
PROTECTION Year 1 Recurring Cost Clean and maintain gutters, hubs and drainage piping Year 5 Recurring Cost Joint sealant repair within masonry, concrete, windows and doors, all Domes Joint sealant repair within masonry, concrete, windows and doors, North Loading Dock Joint sealant repair within masonry, concrete, windows and doors, Transition House	1 Subtotal: 7 375 50 75 1	LSUM Year 1 Rec LNFT LNFT LNFT LNFT LSUM	\$5,000.00 urring Cost \$19.68 \$19.68 \$19.68 \$19.68 \$5,000.00	\$5,0 \$5,0 \$7,3 \$9 \$1,4 \$5,0

Remove, clean & reseal all sealant joints within dome glass panels including cleaning drain system, Show Dome (Assume 50%)	7900	LNFT	\$38.27	\$302,333
Remove, clean & reseal all sealant joints within dome glass panels including cleaning drain system, Desert Dome (Assume 50%)	7900	LNFT	\$38.27	\$302,333
Deduction of cost for "Clean and maintain gutters, hubs and drainage piping" not needed as cost is already included in "Remove, clean & reseal"	1	LSUM	\$ (2,500.00)	\$ (2,500.00)
	Subtotal:	Year 15 Re	ecurring Cost	\$904,499
Year 20 Recurring Cost				, ,
Replace membrane over basement/mechanical area with new pedestrian grade membrane	4,100	SQFT	\$23.09	\$94,669
Replace waterproofing membrane in drain gutters, approx 12" high x 18" wide	1,950	LNFT	\$32.93	\$64,214
Replace roof flashing	260	LNFT	\$12.76	\$3,318
Remove, clean & reseal all sealant joints within dome glass panels including cleaning drain system, Tropic Dome (Assume 50%)	7900	LNFT	\$38.27	\$302,333
Remove, clean & reseal all sealant joints within dome glass panels including cleaning drain system, Show Dome (Assume 50%)	7900	LNFT	\$38.27	\$302,333
Remove, clean & reseal all sealant joints within dome glass panels including cleaning drain system, Desert Dome (Assume 50%)	7900	LNFT	\$38.27	\$302,333
Deduction of cost for "Clean and maintain gutters, hubs and drainage piping" not needed as cost is	1	LSUM	\$ (2,500.00)	\$ (2,500.00)
already included in "Remove, clean & reseal"				
already included in "Remove, clean & reseal"	Subtotal:	Year 20 Re	ecurring Cost	\$1,066,699
already included in "Remove, clean & reseal"	Subtotal:	Year 20 Re	ecurring Cost	\$1,066,699
08000 OPENINGS	Subtotal:	Year 20 Re	ecurring Cost	\$1,066,699
	Subtotal:	Year 20 Re	ecurring Cost	\$1,066,699
08000 OPENINGS	Subtotal:	Year 20 Re	ecurring Cost \$5,000.00	\$1,066,699 \$5,000
08000 OPENINGS Year 1 Recurring Cost	1	LSUM		
08000 OPENINGS Year 1 Recurring Cost	1	LSUM	\$5,000.00	\$5,000
08000 OPENINGS Year 1 Recurring Cost Laminated glass maintenance	1	LSUM	\$5,000.00	\$5,000
08000 OPENINGS Year 1 Recurring Cost Laminated glass maintenance Year 10 Recurring Cost Remove & replace damaged existing storm proof screen at louvers, approx 4'-6" triangular, all	1 Subtotal: 153	LSUM Year 1 Rec EACH	\$5,000.00	\$5,000 \$5,000
O8000 OPENINGS Year 1 Recurring Cost Laminated glass maintenance Year 10 Recurring Cost Remove & replace damaged existing storm proof screen at louvers, approx 4'-6"x4'-6" triangular, all domes	1 Subtotal: 153	LSUM Year 1 Rec EACH	\$5,000.00 curring Cost \$352.10	\$5,000 \$5,000 \$53,871
O8000 OPENINGS Year 1 Recurring Cost Laminated glass maintenance Year 10 Recurring Cost Remove & replace damaged existing storm proof screen at louvers, approx 4'-6"x4'-6" triangular, all domes	1 Subtotal: 153 Subtotal:	LSUM Year 1 Rec EACH Year 10 Re	\$5,000.00 curring Cost \$352.10 ecurring Cost	\$5,000 \$5,000 \$53,871 \$53,871
O8000 OPENINGS Year 1 Recurring Cost Laminated glass maintenance Year 10 Recurring Cost Remove & replace damaged existing storm proof screen at louvers, approx 4'-6"x4'-6" triangular, all domes	1 Subtotal: 153 Subtotal: 28	LSUM Year 1 Rec EACH Year 10 Re EACH	\$5,000.00 curring Cost \$352.10 ecurring Cost \$2,106.82	\$5,000 \$5,000 \$53,871 \$53,871 \$58,991
OBOOD OPENINGS Year 1 Recurring Cost Laminated glass maintenance Year 10 Recurring Cost Remove & replace damaged existing storm proof screen at louvers, approx 4'-6"x4'-6" triangular, all domes Year 12 Recurring Cost Replace emergency egress hardware	1 Subtotal: 153 Subtotal: 28	LSUM Year 1 Rec EACH Year 10 Re EACH	\$5,000.00 curring Cost \$352.10 ecurring Cost	\$5,000 \$5,000 \$53,871 \$53,871
OBOOO OPENINGS Year 1 Recurring Cost Laminated glass maintenance Year 10 Recurring Cost Remove & replace damaged existing storm proof screen at louvers, approx 4'-6"x4'-6" triangular, all domes Year 12 Recurring Cost Replace emergency egress hardware	1 Subtotal: 153 Subtotal: 28	LSUM Year 1 Rec EACH Year 10 Re EACH	\$5,000.00 curring Cost \$352.10 ecurring Cost \$2,106.82	\$5,000 \$5,000 \$53,871 \$53,871 \$58,991
OBOOD OPENINGS Year 1 Recurring Cost Laminated glass maintenance Year 10 Recurring Cost Remove & replace damaged existing storm proof screen at louvers, approx 4'-6"x4'-6" triangular, all domes Year 12 Recurring Cost Replace emergency egress hardware	1 Subtotal: 153 Subtotal: 28	LSUM Year 1 Rec EACH Year 10 Re EACH	\$5,000.00 curring Cost \$352.10 ecurring Cost \$2,106.82	\$5,000 \$5,000 \$53,871 \$53,871 \$58,991
OBOOD OPENINGS Year 1 Recurring Cost Laminated glass maintenance Year 10 Recurring Cost Remove & replace damaged existing storm proof screen at louvers, approx 4'-6"x4'-6" triangular, all domes Year 12 Recurring Cost Replace emergency egress hardware Year 20 Recurring Cost Remove & replace existing HM door, frame &	1 Subtotal: 153 Subtotal: 28 Subtotal: 2	LSUM Year 1 Rec EACH Year 10 Re EACH Year 12 Re EACH	\$5,000.00 curring Cost \$352.10 ecurring Cost \$2,106.82 ecurring Cost	\$5,000 \$5,000 \$53,871 \$53,871 \$58,991 \$166,734

09000 FINISHES

Year 10 Recurring Cost

Repaint exposed concrete outcropping walls, Desert Dome Repaint embedded vertical steel elements, 4" wide x approx 12LF/EA, Entry Repaint exposed lintels at overhead doors, 8" wide x approx 12LF/EA, North Loading Dock	700 12 2	SQFT EACH EACH	\$8.10 \$179.45 \$227.60	\$5,670 \$2,153 \$455
	Subtotal: \	(ear 10 R	ecurring Cost	\$8,279
Year 15 Recurring Cost				
Repair miscellaneous finishes	2950	SQFT	\$44.19	\$130,361
	Subtotal: \	\$130,361		

23000 HEATING VENTILATION & AIR CONDITIONING

Year 1 Recurring Cost				
HVAC Service and Annual Inspection	1	LSUM	\$5,000.00	\$5,000
	Subtotal:	Year 1 Recu	rring Cost	\$5,000
Year 2 Recurring Cost				
Replace steam traps - assume 20% replacement	6	EACH	\$1,200.00	\$7,200
	Subtotal:	Year 2 Recu	rring Cost	\$7,200
Year 5 Recurring Cost				
Replace CO sensors	3	EACH	\$500.00	\$1,500
	Subtotal:	Year 5 Recu	rring Cost	\$1,500
Year 15 Recurring Cost				
Replace wall exhaust fan, 48"x48" centrifugal w/VFD	15	EACH	\$6,464.00	\$96,960
Replace louvers and dampers for wall exhausts	15	EACH	\$1,723.00	\$25,845
Replace louvers and dampers for dome exhausts	30	EACH	\$2,064.00	\$61,920
Replace dome apex exhaust fan, 36"x36" centrifugal, w/supports, VFD	30	EACH	\$6,946.00	\$208,380
Retrofit DDC controls - exhaust fans	45	EACH	\$3,000.00	\$135,000
Replace thermostats & temperature sensors	30	EACH	\$500.00	\$15,000
Replace Engineer's Station	1	LSUM	\$20,000.20	\$20,000
DDC Points & Devices	1	LSUM	\$6,250.06	\$6,250
Programming, testing, and training	1	LSUM	\$6,250.06	\$6,250
	Subtotal:	Year 15 Rec	urring Cost	\$575,605
Year 20 Recurring Cost				
Replace air supply units, steam heat	30	EACH	\$6,723.00	\$201,690

Replace ASU steam coils connections - valves steam traps, strainers, fittings, and insulation	30	EACH	\$1,794.20	\$53,826
Replace variable volume motorized dampers - ASU, 15' x 15"	30	EACH	\$961.50	\$28,845
Replace variable volume motorized dampers - SAI, 60"x24"	30	EACH	\$1,552.50	\$46,575
Replace galvanized steel duct, rectangular	6,000	LBS	\$14.54	\$87,240
Replace Louvers SAI, fixed blade/stormproof, 4"D x 60 x 24"	30	EACH	\$811.50	\$24,345
Replace Louvers ASU, fixed blade/stormproof, 4"D x 15" x 15"	30	EACH	\$441.00	\$13,230
Replace duct insulation	4,500	SQFT	\$8.23	\$37,035
Replace Steam Boilers	4	EACH	\$91,501.54	\$366,006
Replace Steam Boilers CA Duct	200	LNFT	\$38.98	\$7,796
Replace Steam Boilers Boiler Flue/Breeching	200	LNFT	\$181.42	\$36,284
Retrofit DDC Controls - Steam Boilers	4	EACH	\$3,000.00	\$12,000
Retrofit DDC controls - air supply units	30	EACH	\$3,000.00	\$90,000
DDC Points & Devices	1	LSUM	\$18,750.19	\$18,750
Programming, testing, and training	1	LSUM	\$18,750.19	\$18,750
Airflow system testing and balancing	1	LSUM	\$15,000.00	\$15,000
Pipe system testing and balancing	1	LSUM	\$10,000.00	\$10,000
HVAC Commissioning	1	LSUM	\$12,500.00	\$10,000
Replace emergency boiler shutoff switch	4	LSUM	\$1,050.00	\$4,200
	Subtotal:	Year 20 Re	curring Cost	\$1,081,573
26000 ELECTRICAL Year 10 Recurring Cost				
Year 10 Recurring Cost				
Year 10 Recurring Cost Replace LED lamps - interior	250	EACH	\$25.00	
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted	8	EACH	\$25.00	\$20
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted	8 8	EACH EACH	\$25.00 \$25.00	\$200 \$200
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted Replace LED lamps - color changing up-light panels	8 8 8	EACH EACH EACH	\$25.00 \$25.00 \$40.00	\$200 \$200 \$320
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted Replace LED lamps - color changing up-light panels Replace LED lamps - color changing puck lights	8 8 8 750	EACH EACH EACH EACH	\$25.00 \$25.00 \$40.00 \$40.00	\$200 \$200 \$320 \$32,000
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted Replace LED lamps - color changing up-light panels Replace LED lamps - color changing puck lights	8 8 750 40	EACH EACH EACH EACH EACH	\$25.00 \$25.00 \$40.00 \$40.00 \$449.72	\$6,250 \$200 \$200 \$320 \$30,000 \$17,985
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted Replace LED lamps - color changing up-light panels Replace LED lamps - color changing puck lights Replace exit lighting, LED standard, single face	8 8 750 40	EACH EACH EACH EACH EACH	\$25.00 \$25.00 \$40.00 \$40.00	\$200 \$200 \$320 \$30,000
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted Replace LED lamps - color changing up-light panels Replace LED lamps - color changing puck lights Replace exit lighting, LED standard, single face Year 20 Recurring Cost	8 8 750 40 Subtotal: Y	EACH EACH EACH EACH EACH Year 10 Re	\$25.00 \$25.00 \$40.00 \$40.00 \$449.72 curring Cost	\$200 \$200 \$320 \$30,000 \$17,989 \$54,959
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted Replace LED lamps - color changing up-light panels Replace LED lamps - color changing puck lights Replace exit lighting, LED standard, single face Year 20 Recurring Cost Replace interior light fixture	8 8 750 40 Subtotal: 7 250	EACH EACH EACH EACH EACH Year 10 Re	\$25.00 \$25.00 \$40.00 \$40.00 \$449.72 curring Cost \$672.08	\$200 \$200 \$320 \$30,000 \$17,989 \$54,959 \$168,020
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted Replace LED lamps - color changing up-light panels Replace LED lamps - color changing puck lights Replace exit lighting, LED standard, single face Year 20 Recurring Cost Replace interior light fixture Replace exterior building mounted lights	8 8 750 40 Subtotal: 7 250 8	EACH EACH EACH EACH EACH Year 10 Re EACH EACH	\$25.00 \$25.00 \$40.00 \$449.72 curring Cost \$672.08 \$1,192.08	\$200 \$200 \$320 \$30,000 \$17,989 \$54,959 \$168,020 \$9,533
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted Replace LED lamps - color changing up-light panels Replace LED lamps - color changing puck lights Replace exit lighting, LED standard, single face Year 20 Recurring Cost Replace interior light fixture Replace exterior building mounted lights Replace exterior pole mounted lights	8 8 750 40 Subtotal: 7 250 8 8	EACH EACH EACH EACH EACH Year 10 Re EACH EACH EACH	\$25.00 \$25.00 \$40.00 \$40.00 \$449.72 curring Cost \$672.08 \$1,192.08 \$7,500.00	\$200 \$200 \$320 \$30,000 \$17,989 \$54,959 \$168,020 \$9,531 \$60,000
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted Replace LED lamps - color changing up-light panels Replace LED lamps - color changing puck lights Replace exit lighting, LED standard, single face Year 20 Recurring Cost Replace interior light fixture Replace exterior building mounted lights Replace exterior pole mounted lights Replace dimming local station	8 8 750 40 Subtotal: 7 250 8 8 8 50	EACH EACH EACH EACH EACH Year 10 Re EACH EACH EACH EACH	\$25.00 \$25.00 \$40.00 \$449.72 curring Cost \$672.08 \$1,192.08 \$7,500.00 \$169.36	\$200 \$200 \$320 \$30,000 \$17,985 \$54,955 \$168,020 \$9,533 \$60,000 \$8,468
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted Replace LED lamps - color changing up-light panels Replace LED lamps - color changing puck lights Replace exit lighting, LED standard, single face Year 20 Recurring Cost Replace interior light fixture Replace exterior building mounted lights Replace exterior pole mounted lights Replace dimming local station Replace color changing puck lights	8 8 750 40 Subtotal: 7 250 8 8 8 50 750	EACH EACH EACH EACH EACH Year 10 Re EACH EACH EACH EACH EACH	\$25.00 \$25.00 \$40.00 \$449.72 curring Cost \$672.08 \$1,192.08 \$7,500.00 \$169.36 \$187.00	\$20 \$20 \$32 \$30,00 \$17,98 \$54,95 \$168,02 \$9,53 \$60,00 \$8,46 \$140,25
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted Replace LED lamps - color changing up-light panels Replace LED lamps - color changing puck lights Replace exit lighting, LED standard, single face Year 20 Recurring Cost Replace interior light fixture Replace exterior building mounted lights Replace exterior pole mounted lights Replace dimming local station Replace color changing puck lights Replace color changing up-light panels	8 8 750 40 Subtotal: 250 8 8 8 50 750 8	EACH EACH EACH EACH EACH Year 10 Re EACH EACH EACH EACH EACH EACH EACH	\$25.00 \$25.00 \$40.00 \$449.72 curring Cost \$672.08 \$1,192.08 \$7,500.00 \$169.36 \$187.00 \$8,200.00	\$200 \$200 \$320 \$30,000 \$17,989 \$54,959 \$168,020 \$9,533 \$60,000 \$8,460 \$140,250 \$65,600
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted Replace LED lamps - color changing up-light panels Replace LED lamps - color changing puck lights Replace exit lighting, LED standard, single face Year 20 Recurring Cost Replace interior light fixture Replace exterior building mounted lights Replace exterior pole mounted lights Replace dimming local station Replace color changing puck lights Replace color changing up-light panels Replace lighting backbone software	8 8 750 40 Subtotal: 250 8 8 50 750 8 1	EACH EACH EACH EACH EACH Year 10 Re EACH EACH EACH EACH EACH EACH EACH EACH	\$25.00 \$25.00 \$40.00 \$40.00 \$449.72 curring Cost \$672.08 \$1,192.08 \$7,500.00 \$169.36 \$187.00 \$8,200.00 \$22,000.00	\$200 \$200 \$320 \$30,000 \$17,989 \$54,959 \$168,020 \$9,537 \$60,000 \$8,468 \$140,250 \$65,600 \$22,000
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted Replace LED lamps - color changing up-light panels Replace LED lamps - color changing puck lights Replace exit lighting, LED standard, single face Year 20 Recurring Cost Replace interior light fixture Replace exterior building mounted lights Replace exterior pole mounted lights Replace dimming local station Replace color changing puck lights Replace color changing up-light panels Replace lighting backbone software Replace lighting control system hardware and software	8 8 750 40 Subtotal: 250 8 8 50 750 8 1	EACH EACH EACH EACH EACH Year 10 Re EACH EACH EACH EACH EACH EACH EACH	\$25.00 \$25.00 \$40.00 \$449.72 curring Cost \$672.08 \$1,192.08 \$7,500.00 \$169.36 \$187.00 \$8,200.00	\$200 \$200 \$320 \$30,000 \$17,989 \$54,959 \$168,020 \$9,537 \$60,000 \$8,468 \$140,250 \$65,600
Year 10 Recurring Cost Replace LED lamps - interior Replace LED lamps - exterior building mounted Replace LED lamps - exterior pole mounted Replace LED lamps - color changing up-light panels Replace LED lamps - color changing puck lights Replace exit lighting, LED standard, single face Year 20 Recurring Cost Replace interior light fixture Replace exterior building mounted lights Replace exterior pole mounted lights Replace dimming local station	8 8 750 40 Subtotal: 250 8 8 50 750 8 1	EACH EACH EACH EACH EACH Year 10 Re EACH EACH EACH EACH EACH EACH EACH EACH	\$25.00 \$25.00 \$40.00 \$40.00 \$449.72 curring Cost \$672.08 \$1,192.08 \$7,500.00 \$169.36 \$187.00 \$8,200.00 \$22,000.00	\$200 \$200 \$320 \$30,000 \$17,989 \$54,959 \$168,020 \$9,533 \$60,000 \$8,468 \$140,250 \$65,600 \$22,000

1

Testing and Engineering

LSUM

\$50,000.00

\$50,000

\$834,875

27000 COMMUNICATIONS

and software

Year 1 Recurring Cost				
Telecommunications Maintenance	1	LSUM	\$1,000.00	\$1,000
	Subtotal:	Year 1 Rec	urring Cost	\$1,000
Year 5 Recurring Cost				
Replace wireless access point	24	EACH	\$1,709.44	\$41,027
	Subtotal: \		urring Cost	\$41,027
V 10	Subtotan			φ τι ,027
Year 10				
Replace MDF rack assembly 2 racks, switching equipment by Owner	1	EACH	\$12,200.00	\$12,200
Terminations and testing	1	LSUM	\$32,177.60	\$32,178
	Subtotal:	Year 10 Re	curring Cost	\$44,378
Year 15			-	
		FACIL	±10 COE 00	
Replace PA/Sound system, cabinet, and amplifier Replace speakers	1 240	EACH EACH	\$19,605.00 \$472.00	\$19,605 \$113,280
Terminations and testing	240	LSUM	\$15,000.00	\$15,000
			curring Cost	
	Subtotal	Teal 15 Ke	curring cost	\$147,885
Year 20				
Replace voice/data wall outlet, back box and plate, 1 gang, 2-port	32	EACH	\$163.00	\$5,216
	Subtotal:	Year 20 Re	ecurring Cost	\$5,216
28000 ELECTRONIC SAFETY &				
SECURITY				
Year 10 Recurring Cost				
Replace control panel, switcher and recording device	1	EACH	\$32,321.68	\$32,322
assembly Replace interior dome camera, color	20	EACH	\$2,341.14	\$46,823
Replace exterior dome camera, color	8	EACH	\$4,299.44	\$34,396
Replace interior camera back box	20	EACH	\$44.84	\$897
Replace exterior camera back box	8	EACH	\$112.49	\$900
	Subtotal:	Year 10 Re	curring Cost	\$115,337
Year 15 Recurring Cost				
Replace fire alarm control panel	1	EACH	\$19,294.40	\$19,294
Replace miscellaneous FA devices	250	EACH	\$412.88	\$103,220
Testing and engineering	1	LSUM	\$15,000.00	\$15,000
Replace Detection System control panels, power supply	, 1	EACH	\$26,300.00	\$26,300

Replace Detection System card reader, flush type, standard	16	EACH	\$934.72	\$14,956
Replace electric door strike connection	16	EACH	\$181.14	\$2,898
	Subtotal: Year 15 Recurring Cost			\$181,668

A	LTERNATIVE	: #3: RESTO	RE THREE D	OMES	
Division	Year 1	Year 2	Year 3	Year 4	Year 5
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$113,939.62
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$2,313.55
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$14,840.00
08000 OPENINGS	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$5,000.00	\$12,200.00	\$5,000.00	\$12,200.00	\$6,500.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$42,026.56
28000 ELECTRONIC SAFETY & SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$16,000.00	\$23,200.00	\$16,000.00	\$23,200.00	\$184,619.73
Annual Total Cost with Inflation	\$16,000.00	\$24,592.00	\$17,305.60	\$26,096.84	\$215,978.97

A	LTERNATIVE	: #3: RESTO	RE THREE D	OMES	
Division	Year 6	Year 7	Year 8	Year 9	Year 10
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$113,939.62
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$9,443.39
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$14,840.00
08000 OPENINGS	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$58,871.30
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$8,278.60
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$12,200.00	\$5,000.00	\$12,200.00	\$5,000.00	\$13,700.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$54,958.80
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$86,404.16
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$115,336.72
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$23,200.00	\$16,000.00	\$23,200.00	\$16,000.00	\$475,772.59
Annual Total Cost with Inflation	\$28,226.35	\$19,466.45	\$29,355.40	\$21,054.91	\$651,127.65

A	LTERNATIVE	: #3: RESTO	RE THREE D	OMES	
Division	Year 11	Year 12	Year 13	Year 14	Year 15
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$113,939.62
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$2,313.55
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$919,339.00
08000 OPENINGS	\$5,000.00	\$171,733.56	\$5,000.00	\$5,000.00	\$5,000.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$130,360.50
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$5,000.00	\$12,200.00	\$5,000.00	\$12,200.00	\$589,305.33
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$189,911.56
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$181,668.16
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$16,000.00	\$189,933.56	\$16,000.00	\$23,200.00	\$2,131,837.72
Annual Total Cost with Inflation	\$22,772.99	\$292,393.99	\$23,683.91	\$35,715.33	\$3,413,140.87

A	LTERNATIVE	: #3: RESTO	RE THREE D	OMES	
Division	Year 16	Year 17	Year 18	Year 19	Year 20
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$113,939.62
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$9,443.39
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$1,081,539.10
08000 OPENINGS	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$70,620.10
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$8,278.60
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$12,200.00	\$5,000.00	\$12,200.00	\$5,000.00	\$1,095,272.54
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$889,833.44
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$91,620.16
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$115,336.72
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$23,200.00	\$16,000.00	\$23,200.00	\$16,000.00	\$3,475,883.67
Annual Total Cost with Inflation	\$38,629.71	\$27,706.82	\$45,191.29	\$28,815.10	\$6,510,264.92

Division	: RESTORE THREE DOMES Totals
02000 EXISTING CONDITIONS	\$0.00
03000 CONCRETE	\$455,758.49
04000 MASONRY	\$23,513.88
05000 METALS	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$2,110,558.10
08000 OPENINGS	\$386,224.96
09000 FINISHES	\$146,917.70
10000 SPECIALTIES	\$0.00
11000 EQUIPMENT	\$0.00
12000 FURNISHINGS	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00
21000 FIRE SUPPRESSION	\$0.00
22000 PLUMBING	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$1,842,377.86
26000 ELECTRICAL	\$944,792.24
27000 COMMUNICATIONS	\$425,962.44
28000 ELECTRONIC SAFETY AND SECURITY	\$412,341.60
31000 EARTHWORK	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00
33000 UTILITIES	\$0.00
Annual Total Cost w/o Inflation	\$6,748,447.27
Annual Total Cost with Inflation	\$11,487,519.10



Exhibit C — Life Cycle Cost Analysis of Alternative #4: Summary — Base Scope

	ALTER	NATIVE #4:	SUMMARY		
Division	Year 1	Year 2	Year 3	Year 4	Year 5
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$41,150.97
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$5,681.77
08000 OPENINGS	\$4,200.00	\$4,200.00	\$4,200.00	\$4,200.00	\$7,200.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$935.54	\$935.54	\$935.54	\$935.54	\$1,871.34
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$3,200.00	\$5,600.00	\$3,200.00	\$5,600.00	\$7,175.20
26000 ELECTRICAL	\$750.00	\$750.00	\$750.00	\$750.00	\$750.00
27000 COMMUNICATIONS	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$49,864.32
28000 ELECTRONIC SAFETY & SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$1,600.00
32000 EXTERIOR IMPROVEMENTS	\$7,572.25	\$7,572.25	\$7,572.25	\$7,572.25	\$8,147.25
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$22,657.79	\$25,057.79	\$22,657.79	\$25,057.79	\$125,440.85
Annual Total Cost with Inflation	\$22,657.79	\$26,561.26	\$24,506.67	\$28,186.61	\$146,748.05

	ALTER	NATIVE #4:	SUMMARY		
Division	Year 6	Year 7	Year 8	Year 9	Year 10
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$41,150.97
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$5,681.77
08000 OPENINGS	\$4,200.00	\$4,200.00	\$4,200.00	\$4,200.00	\$25,157.10
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$89,093.00
10000 SPECIALTIES	\$935.54	\$935.54	\$935.54	\$935.54	\$1,871.34
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$3,281.90
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$500.00	\$500.00	\$500.00	\$500.00	\$7,512.71
23000 HEATING, VENTILATING & AIR CONDITIONING	\$5,600.00	\$3,200.00	\$5,600.00	\$3,200.00	\$9,575.20
26000 ELECTRICAL	\$750.00	\$750.00	\$750.00	\$750.00	\$25,830.00
27000 COMMUNICATIONS	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$126,164.32
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$44,278.79
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$1,600.00
32000 EXTERIOR IMPROVEMENTS	\$7,572.25	\$7,572.25	\$7,572.25	\$7,572.25	\$8,147.25
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$25,057.79	\$22,657.79	\$25,057.79	\$22,657.79	\$390,844.35
Annual Total Cost with Inflation	\$30,486.63	\$27,566.67	\$31,706.10	\$29,816.11	\$534,897.48

	ALTER	NATIVE #4:	SUMMARY		
Division	Year 11	Year 12	Year 13	Year 14	Year 15
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$41,150.97
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$309,014.77
08000 OPENINGS	\$4,200.00	\$99,105.16	\$4,200.00	\$4,200.00	\$7,200.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$179,996.50
10000 SPECIALTIES	\$935.54	\$2,149.58	\$935.54	\$935.54	\$6,462.58
11000 EQUIPMENT	\$0.00	\$125,000.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$121,500.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$500.00	\$500.00	\$500.00	\$500.00	\$23,745.35
23000 HEATING, VENTILATING & AIR CONDITIONING	\$3,200.00	\$5,600.00	\$3,200.00	\$5,600.00	\$1,037,041.30
26000 ELECTRICAL	\$750.00	\$750.00	\$750.00	\$750.00	\$750.00
27000 COMMUNICATIONS	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$101,124.32
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$176,510.25
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$1,600.00
32000 EXTERIOR IMPROVEMENTS	\$7,572.25	\$7,572.25	\$7,572.25	\$7,572.25	\$8,147.25
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$22,657.79	\$246,176.99	\$22,657.79	\$25,057.79	\$2,014,243.29
Annual Total Cost with Inflation	\$32,249.10	\$378,978.17	\$33,539.06	\$38,575.32	\$3,224,868.40

	ALTER	NATIVE #4:	SUMMARY		
Division	Year 16	Year 17	Year 18	Year 19	Year 20
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$41,150.97
	φ 0.00	\$0.00	φ 0.00	\$0.00	ų 11/150.57
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$330,419.27
08000 OPENINGS	\$4,200.00	\$4,200.00	\$4,200.00	\$4,200.00	\$34,581.26
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$89,093.00
10000 SPECIALTIES	\$935.54	\$935.54	\$935.54	\$935.54	\$15,283.11
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$3,281.90
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$500.00	\$500.00	\$500.00	\$500.00	\$72,833.57
23000 HEATING, VENTILATING & AIR CONDITIONING	\$5,600.00	\$3,200.00	\$5,600.00	\$3,200.00	\$939,399.91
26000 ELECTRICAL	\$750.00	\$750.00	\$750.00	\$750.00	\$1,105,640.00
27000 COMMUNICATIONS	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$145,797.20
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$44,278.79
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$1,600.00
32000 EXTERIOR IMPROVEMENTS	\$7,572.25	\$7,572.25	\$7,572.25	\$7,572.25	\$44,147.25
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$25,057.79	\$22,657.79	\$25,057.79	\$22,657.79	\$2,869,006.23
Annual Total Cost with Inflation	\$41,723.06	\$39,235.96	\$48,810.08	\$40,805.40	\$5,373,594.87

	IVE #4: SUMMARY
Division	Totals
02000 EXISTING CONDITIONS	\$0.00
03000 CONCRETE	\$164,603.89
04000 MASONRY	\$0.00
05000 METALS	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$682,797.58
08000 OPENINGS	\$236,243.52
09000 FINISHES	\$358,182.50
10000 SPECIALTIES	\$41,671.05
11000 EQUIPMENT	\$125,000.00
12000 FURNISHINGS	\$6,563.80
13000 SPECIAL CONSTRUCTION	\$0.00
14000 CONVEYING EQUIPMENT	\$150,000.00
21000 FIRE SUPPRESSION	\$0.00
22000 PLUMBING	\$112,591.63
23000 HEATING, VENTILATING & AIR CONDITIONING	\$2,063,591.61
26000 ELECTRICAL	\$1,144,970.00
27000 COMMUNICATIONS	\$454,950.16
28000 ELECTRONIC SAFETY AND SECURITY	\$265,067.83
31000 EARTHWORK	\$6,400.00
32000 EXTERIOR IMPROVEMENTS	\$189,745.00
33000 UTILITIES	\$0.00
Annual Total Cost w/o Inflation	\$6,002,378.57
Annual Total Cost with Inflation	\$10,155,512.78



Exhibit D – Life Cycle Cost Analysis of Alternative #4: Restore the Tropical Dome

SCRIPTION	QTY	SUM	UNIT	COST	тот	AL COST
FE CYCLE COST ANALYSIS						
TERNATIVE #4: RESTORE TROPICA	L DOME					
03000 CONCRETE						
Year 5 Recurring Cost						
Concrete repair allowance - clean, prime, patch, recoat	: 1	LSUM	\$	22,628.50		\$22,629
Concrete repair allowance - joint repair at concrete skylight frame	1	LSUM	\$	515,351.37		\$15,351
	Subtotal:	Year 5 Rec	urring Co	st		\$37,980
07000 THERMAL & MOISTURE PROTECTION						
Year 1 Recurring Cost						
Clean and maintain gutters, hubs and drainage piping	1	LSUM		\$2,000.00		\$2,000
	Subtotal:	Year 1 Rec	urring Cos	st		\$2,000
Year 5 Recurring Cost						
Joint sealant repair within masonry, concrete, windows	125	LNFT		\$19.68		\$2,460
and doors, Tropic Dome Visual inspection of sealant joints	1	LSUM		\$1,000.00		\$1,00
	Subtotal:	Year 5 Rec	urring Co	st		\$2,460
Year 15 Recurring Cost						
Remove, clean & reseal all sealant joints within dome glass panels including cleaning drain system, Tropic Dome (Assume 50%)	7900	LNFT		\$38.27		\$302,333
Deduction of cost for "Clean and maintain gutters, hubs and drainage piping" not needed as cost is already included in "Remove, clean & reseal"	1	LSUM	\$	1,000.00	\$	1,000.00
	Subtotal:	Year 15 Re	curring C	ost		\$303,333
Year 20 Recurring Cost						
Replace waterproofing membrane in drain gutters, approx 12" high x 18" wide Remove, clean & reseal all sealant joints within dome	650	LNFT		\$32.93		\$21,40
glass panels including cleaning drain system, Tropic Dome (Assume 50%)	7900	LNFT		\$38.27		\$302,33
Deduction of cost for "Clean and maintain gutters, hubs and drainage piping" not needed as cost is already included in "Remove, clean & reseal"	1	LSUM	\$	1,000.00	\$	1,000.00
	Subtotal:	Year 20 Re	curring Co	ost		\$324,738

08000 OPENINGS

Year 1 Recurring Cost

Laminated glass maintenance	1	LSUM	\$1,700.00	\$1,700
	Subtotal:	Year 1 Recu	rring Cost	\$1,700
Year 10 Recurring Cost				
Remove & replace damaged existing storm proof screen at louvers, approx 4'-6"x4'-6" triangular, all domes	51	EACH	\$352.10	\$17,957
Year 20 Recurring Cost	Subtotal:	Year 10 Rec	urring Cost	\$17,957
-				
Remove & replace existing HM door, frame & hardware, single	1	EACH	\$5,874.40	\$5,874
	Subtotal:	Year 20 Rec	urring Cost	\$5,874
23000 HEATING VENTILATION & AIR CONDITIONING				
Year 1 Recurring Cost				
HVAC Service and Annual Inspection	1	LSUM	\$1,700.00	\$1,700
	Subtotal: Year 1 Recurring Cost		rring Cost	\$1,700
Year 2 Recurring Cost				
Replace steam traps - assume 20% replacement	2	EACH	\$1,200.00	\$2,400
	Subtotal:	Year 2 Recu	rring Cost	\$2,400
Year 5 Recurring Cost				
Replace CO sensors	1	EACH	\$500.00	\$500
	Subtotal:	Year 5 Recu	rring Cost	\$500
Year 15 Recurring Cost				
Replace wall exhaust fan, 48"x48" centrifugal w/VFD	5	EACH	\$6,464.00	\$32,320
Replace louvers and dampers for wall exhausts	5	EACH	\$1,723.00	\$8,615
Replace louvers and dampers for dome exhausts	10	EACH	\$2,064.00	\$20,640
Replace dome apex exhaust fan, 36"x36" centrifugal, w/supports, VFD	10	EACH	\$6,946.00	\$69,460
Retrofit DDC controls - exhaust fans	15	EACH	\$3,000.00	\$45,000
Replace thermostats & temperature sensors	10	EACH	\$500.00	\$5,000
Replace Engineer's Station	1	LSUM	\$20,000.00	\$20,000
DDC Points & Devices	1	LSUM	\$2,500.00	\$2,500
Programming, testing, and training	1 Cubtotolu	LSUM	\$6,250.00	\$6,250
Year 20 Recurring Cost	Subtotal:	Year 15 Rec	unnig Cost	\$209,785
Replace air supply units, steam heat	10	EACH	\$6,723.00	\$67,230
Replace ASU steam coils connections - valves steam traps, strainers, fittings, and insulation	10	EACH	\$1,794.20	\$17,942

Replace wireless access point	8	EACH	\$1,709.44	\$13,676
Year 5 Recurring Cost				
	Subtotal: `	Year 1 Recu		\$1,000
Telecommunications Maintenance	1	LSUM	\$1,000.00	\$1,000
Year 1 Recurring Cost				
27000 COMMUNICATIONS				
	Subtotal: `	Year 20 Reci	urring Cost	\$128,150
Testing and Engineering	1	LSUM	\$20,000.00	\$20,00
Lighting control, devices, cabling, connections, and testing	1	LSUM	\$45,000.00	\$45,00
Replace color changing up-light panels	2	EACH	\$8,200.00	\$16,40
Replace color changing puck lights	250	EACH	\$187.00	\$46,75
Year 20 Recurring Cost	Jabeutan			\$10,000
		Year 10 Reci	·	\$10,08
Replace LED lamps - color changing up-light panels Replace LED lamps - color changing puck lights	250	EACH	\$40.00	عو \$10,00
Replace LED lamps - color changing up-light panels	2	EACH	\$40.00	\$8
Year 10 Recurring Cost				
26000 ELECTRICAL				
	Subtotal: `	Year 20 Reci	urring Cost	\$239,01
HVAC Commissioning	1	LSUM	\$4,500.00	\$10,00
Pipe system testing and balancing	1	LSUM	\$3,500.00	\$3,50
Airflow system testing and balancing	1	LSUM	\$5,000.00	\$5,00
Programming, testing, and training	1	LSUM	\$18,750.00	\$18,75
DDC Points & Devices	10	LSUM	\$7,500.00	\$7,50
Replace duct insulation Retrofit DDC controls - air supply units	1,500 10	SQFT EACH	\$8.23 \$3,000.00	\$12,34 \$30,00
15" x 15"	10	EACH	\$441.00	\$4,41
x 24" Replace Louvers ASU, fixed blade/stormproof, 4"D x	10	EACH	\$011.50	\$0,11
Replace Louvers SAI, fixed blade/stormproof, 4"D x 60"	2,000	EACH	\$811.50	\$8,11
60"x24" Replace galvanized steel duct, rectangular	2,000	LBS	\$14.54	\$29,08
x 15" Replace variable volume motorized dampers - SAI,	10	EACH	\$1,552.50	\$15,52
Replace variable volume motorized dampers - ASU, 15"	10	EACH	\$961.50	\$9,61

Year 10

Terminations and testing	1	LSUM	\$10,000.00	\$10,000

Subtotal: Year 10 Recurring Cost \$10,000

Year 15				
Replace PA/Sound system, cabinet, and amplifier	1	EACH	\$8,500.00	\$8,500
Replace speakers	80	EACH	\$472.00	\$37,760
Terminations and testing	1	LSUM	\$5,000.00	\$5,000
	Subtotal:	Year 15 Rec	urring Cost	\$51,260
Year 20				
Replace voice/data wall outlet, back box and plate, 1 gang, 2-port	12	EACH	\$163.00	\$1,956
	Subtotal:	Year 20 Rec	urring Cost	\$1,956
28000 ELECTRONIC SAFETY &				
SECURITY				
Year 10 Recurring Cost				
Replace control panel, switcher and recording device assembly	1	EACH	\$12,000.00	\$12,000
Replace interior dome camera, color	8	EACH	\$2,341.14	\$18,729
Replace exterior dome camera, color	3	EACH	\$4,299.44	\$12,898
Replace interior camera back box	7	EACH	\$44.84	\$314
Replace exterior camera back box	3	EACH	\$112.49	\$337
	Subtotal:	Year 10 Rec	urring Cost	\$44,279
Year 15 Recurring Cost				
Replace miscellaneous FA devices	15	EACH	\$412.88	\$6,193
Testing and engineering	1	LSUM	\$2,500.00	\$2,500
Replace Detection System control panels, power supply and software	1	EACH	\$26,300.00	\$26,300
Replace Detection System card reader, flush type, standard	5	EACH	\$934.72	\$4,674
Replace electric door strike connection	5	EACH	\$181.14	\$906
	Subtotal:	Year 15 Rec	urring Cost	\$40,573

AL	TERNATIVE	#4: RESTOR	E TROPICAL	DOME	
Division	Year 1	Year 2	Year 3	Year 4	Year 5
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	40100	φ0.00	φ0.00	φ 0.00	φ0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$37,979.87
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$4,460.00
08000 OPENINGS	\$1,700.00	\$1,700.00	\$1,700.00	\$1,700.00	\$1,700.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$1,700.00	\$4,100.00	\$1,700.00	\$4,100.00	\$2,200.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$14,675.52
28000 ELECTRONIC SAFETY & SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$6,400.00	\$8,800.00	\$6,400.00	\$8,800.00	\$61,015.39
Annual Total Cost with Inflation	\$6,400.00	\$9,328.00	\$6,922.24	\$9,898.80	\$71,379.38

AL	TERNATIVE	#4: RESTOR	E TROPICAL	DOME	
Division	Year 6	Year 7	Year 8	Year 9	Year 10
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$37,979.87
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$4,460.00
08000 OPENINGS	\$1,700.00	\$1,700.00	\$1,700.00	\$1,700.00	\$19,657.10
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$4,100.00	\$1,700.00	\$4,100.00	\$1,700.00	\$4,600.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$10,080.00
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$24,675.52
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$44,278.79
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$8,800.00	\$6,400.00	\$8,800.00	\$6,400.00	\$145,731.28
Annual Total Cost with Inflation	\$10,706.55	\$7,786.58	\$11,134.81	\$8,421.96	\$199,443.32

AL	TERNATIVE	#4: RESTOR	RE TROPICA	L DOME	
Division	Year 11	Year 12	Year 13	Year 14	Year 15
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$37,979.87
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$307,793.00
08000 OPENINGS	\$1,700.00	\$96,605.16	\$1,700.00	\$1,700.00	\$1,700.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$1,700.00	\$4,100.00	\$1,700.00	\$4,100.00	\$214,385.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$65,935.52
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$40,572.50
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$6,400.00	\$103,705.16	\$6,400.00	\$8,800.00	\$668,365.89
Annual Total Cost with Inflation	\$9,109.20	\$159,649.33	\$9,473.56	\$13,547.20	\$1,070,075.33

AL	TERNATIVE	#4: RESTOR	RE TROPICA	L DOME	
Division	Year 16	Year 17	Year 18	Year 19	Year 20
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$37,979.87
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$329,197.50
08000 OPENINGS	\$1,700.00	\$1,700.00	\$1,700.00	\$1,700.00	\$25,531.50
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$4,100.00	\$1,700.00	\$4,100.00	\$1,700.00	\$243,612.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$138,230.00
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$26,631.52
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$44,278.79
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$8,800.00	\$6,400.00	\$8,800.00	\$6,400.00	\$845,461.18
Annual Total Cost with Inflation	\$14,652.65	\$11,082.73	\$17,141.52	\$11,526.04	\$1,583,532.94

ALTERNATIVE #4	: RESTORE TROPICAL DOME
Division	Totals
02000 EXISTING CONDITIONS	\$0.00
03000 CONCRETE	\$151,919.49
04000 MASONRY	\$0.00
05000 METALS	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$677,910.50
08000 OPENINGS	\$170,693.76
09000 FINISHES	\$0.00
10000 SPECIALTIES	\$0.00
11000 EQUIPMENT	\$0.00
12000 FURNISHINGS	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00
21000 FIRE SUPPRESSION	\$0.00
22000 PLUMBING	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$511,197.00
26000 ELECTRICAL	\$148,310.00
27000 COMMUNICATIONS	\$147,918.08
28000 ELECTRONIC SAFETY AND SECURITY	\$129,130.08
31000 EARTHWORK	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$0.00
33000 UTILITIES	\$0.00
Annual Total Cost w/o Inflation	\$1,937,078.91
Annual Total Cost with Inflation	\$3,241,212.12



Exhibit E – Life Cycle Cost Analysis of Alternative #4: Conservatory & Event Building

ESCRIPTION	QTY	SUM	UNIT COST	TOTAL COST
IFE CYCLE COST ANALYSIS				
ALTERNATIVE #4: Conservatory & EVE	NT BUIL	DING		
03000 CONCRETE				
Year 5 Recurring Cost				
Concrete repair allowance - clean, prime, patch, recoat	: 1	LSUM	\$3,171.10	\$3,171
	Subtotal:	Year 5 Rec	urring Cost	\$3,171
			-	
07000 THERMAL & MOISTURE PROTECTION				
Year 5 Recurring Cost				
Caulk and sealant repair - 10%	42,130	SQFT	\$0.03	\$1,222
	Subtotal:	Year 5 Rec	urring Cost	\$1,222
08000 OPENINGS				
Year 1 Recurring Cost				
Storefront/window cleaning and maintenance	1	LSUM	\$2,500.00	\$2,500
	Subtotal:	Year 1 Rec	urring Cost	\$2,500
Year 5 Recurring Cost				
Door hardware maintenance	1	LSUM	\$500.00	\$500
	Subtotal:	Year 5 Rec	urring Cost	\$500
Year 20 Recurring Cost				
Repair AL/GL door, frame & hardware - double	8	EACH	\$443.72	\$3,550
	Subtotal:	Year 20 Re	curring Cost	\$3,550
09000 FINISHES				
Year 10 Recurring Cost				
Interior Paint - Walls	24,000 1,500	SQFT SQFT	\$1.58 \$2.11	\$37,920
Interior Paint - Ceiling Exterior Paint	17,650	SQFT	\$2.11	\$3,165 \$48,008
	Subtotal:	Year 10 Re	curring Cost	\$89,093
Year 15 Recurring Cost				
Replace ACT system, 2'-0"x2'-0"	3,950	SQFT	\$9.17	\$36,222
Reseal polished concrete	31,950	SQFT	\$4.50	\$143,775
	Subtotal:	Year 15 Re	curring Cost	\$179,997

10000 SPECIALTIES

Year 1 Recurring Cost				
Replace urinal screens	2	EACH	\$467.77	\$93
	Subtotal:	Year 1 Recur	ring Cost	\$93
Year 5 Recurring Cost				
Replace soap dispenser	10	EACH	\$93.58	\$93
Replace electric hand dryer	10	EACH	\$567.15	
	Subtotal:	Year 5 Recur	ring Cost	\$93
Year 12 Recurring Cost				
Replace fire extinguisher & cabinet, wall mounted	4	EACH	\$303.51	\$1,21
	Subtotal:	Year 12 Recu	Irring Cost	\$1,21
Year 15 Recurring Cost				
Replace toilet paper dispenser, double roll	12	EACH	\$114.05	\$1,36
Replace paper towel dispenser, surface mounted	6	EACH	\$103.58	\$62
Replace napkin disposal, stainless steel, surface	8	EACH	\$128.58	\$1,02
mounted Replace baby diaper changing station	2	EACH	\$786.26	\$1,57
		Irring Cost	\$4,59	
Year 20 Recurring Cost	Subtotan			Ψισσ
Replace toilet partition, accessible	4	EACH	\$1,134.30	\$4,53
Replace toilet partition, accessible	т 6	EACH	\$887.44	\$5,32
Replace grab bar set, three piece	6	EACH	\$290.73	\$1,74
Replace mirror at sink, 18"x24"	10	EACH	\$161.15	\$1,61
Replace utility mop holder & shelf	1	EACH	\$194.05	\$19
	Subtotal:	\$13,41		
11000 EQUIPMENT				
Year 12 Recurring Cost				
Food service equipment - replacement allowance	1	LSUM	\$125,000.00	\$125,00
	Subtotal:	Year 12 Recu	ırring Cost	\$125,00
12000 FURNISHINGS				
Year 10 Recurring Cost				
Replace window treatment	370	SQFT	\$8.87	\$3,28
	Cubtotal	Year 10 Recu	in a Calat	\$3,28

14000 CONVEYING EQUIPMENT

			14 800 55	
Elevator Service and Annual Inspection	1	LSUM	\$1,500.00	\$1,50
Year 15 Recurring Cost	Subtotal:	Year 1 Recu	rring Cost	\$1,500
-				
Refurbish/Modernize Elevator Cab Interior and Replace Call Station and Controller	1	EACH	\$120,000.00	\$120,00
	Subtotal:	Year 15 Rec	urring Cost	\$120,000
22000 PLUMBING				
Year 1 Recurring Cost				
Plumbing Service and Annual Inspection	1	LSUM	\$500.00	\$50
	Subtotal:	Year 1 Recu	rring Cost	\$500
Year 10 Recurring Cost				
Replace backflow preventer	1	EACH	\$7,012.71	\$7,01
	Subtotal:	Year 10 Rec		\$7,01
Vor 15 Docurring Cost				Ψ7,01
Year 15 Recurring Cost				
Replace domestic water heater, gas-fired Replace DHW recirculating pump	1	EACH EACH	\$10,945.52 \$2,178.21	\$10,94 \$2,17
Replace expansion tank	1	EACH	\$1,411.24	\$2,17 \$1,41
Replace thermostatic mixing valve - central	1	EACH	\$4,472.76	\$4,47
Replace thermostatic mixing valve - 3/4", point of use	7	EACH	\$344.98	\$2,41
Replace elevator sump pump	1	EACH	\$1,822.76	\$1,82
	Subtotal:	Year 15 Rec	urring Cost	\$23,24
Year 20 Recurring Cost				
Replace water closet, wall hung, manual flush valve	6	EACH	\$1,781.94	\$10,69
Replace lavatory, wall hung, manual faucet	7	EACH	\$1,807.66	\$12,65
Replace urinal, wall hung, manual flush valve	1	EACH	\$1,818.16	\$1,81
Replace drinking fountain, ADA bi-level w/bottle filler	2	EACH	\$2,985.84	\$5,97
Replace hose bibbs	4	EACH	\$499.10	\$1,99
Replace wall hydrant, nonfreeze	4	EACH	\$1,418.19	\$5,67
Replace in-ground hydrant at conservatory, nonfreeze	4	EACH	\$1,418.19	\$5,67
Repair/Renovate Domestic water pipe, fittings, and	100	LNFT	\$39.54	\$3,95
supports - 10% assumed Replace pipe insulation, domestic water piping	1000	LNFT	\$10.17	\$10,17
Repair/Renovate sanitary/waste pipe, fittings, and	30	LNFT	\$59.36	\$1,78
supports - 10% assumed Repair/Renovate vent pipe, fittings, and supports - 10% assumed	45	LNFT	\$41.28	\$1,85
Repair/Renovate storm drainage pipe, fittings, and supports - 10% assumed	17	LNFT	\$88.32	\$1,50

Replace storm drainage insulation	80	LNFT	\$19.75	\$1,580
	Subtotal: Year 20 Recurring Cost			\$65,321
23000 HEATING VENTILATION & AIR				
CONDITIONING				
Year 1 Recurring Cost				
HVAC Service and Annual Inspection	1	LSUM	\$1,500.00	\$1,50
	Subtotal:	Year 1 Recur	ring Cost	\$1,50
Year 5 Recurring Cost				
Replace sidestream filters	1	EACH	\$2,975.20	\$2,97
Replace CO sensors	1	EACH	\$500.00	\$50
	Subtotal: `	Year 5 Recur	ring Cost	\$3,47
Year 15 Recurring Cost				1 - 7
Replace HW boilers, condensing 2,000 mbh	2	EACH	\$57,876.00	\$115,75
Replace CA duct, HW boilers	60	LNFT	\$30.46	\$1,82
Replace CA duct ,domestic water heater	50	LNFT	\$15.49	\$77
Replace boiler flue/breeching, 10" dia.	60	LNFT	\$156.15	\$9,36
Replace water heater flue/vent	50	LNFT	\$116.95	\$5,8 <u>4</u>
Replace HW pumps, secondary, base-mount	2	EACH	\$5,668.23	\$11,33
Replace HW boiler primary pumps, inline	2	EACH	\$1,696.90	\$3,39
Replace variable frequency drive, HW secondary pumps	2	EACH	\$2,900.36	\$5,80
Replace vibration isolation, pumps	2	EACH	\$1,818.80	\$3,63
Replace exhaust fan, rooftop, w/curb, backdraft	2	EACH	\$4,601.21	\$9,20
damper Replace glavanized steel duct & insulation	42,130	SQFT	\$12.28	\$517,35
Replace kitchen grease duct, welded black iron w/ 2-	50	LNFT	\$400.00	\$20,00
layer fire wrap Replace expansion tank	1	EACH	\$6,225.20	\$6,22
Replace chemical pot feeder	1	EACH	\$2,275.20	\$2,27
Replace isolation valves, pumps, butterfly, 6"	2	EACH	\$1,190.15	\$2,38
Replace flexible pump connections, 6"	4	EACH	\$411.80	\$1,64
Replace suction diffuser, 6"	2	EACH	\$2,184.50	\$4,36
Replace triple duty valve, 6"	2	EACH	\$3,759.50	\$7,51
Replace pump strainer, Y-type, 6"	2	EACH	\$1,215.35	\$2,43
Replace pressure fill/makeup water system	1	EACH	\$7,627.60	\$7,62
Replace air separator, 6"	1	EACH	\$4,192.23	\$4,19
Replace DDC controls - HW boilers	2	EACH	\$3,000.00	\$6,00
Replace DDC controls - hydronic pumps, constant speed	2	EACH	\$3,000.00	\$6,00
Replace DDC controls - hydronic pumps, variable speed	2	EACH	\$7,500.00	\$15,00
Replace boiler shutoff switch	1	EACH	\$1,050.00	\$1,05
Replace Engineer's station	1	LSUM	\$20,000.00	\$20,00
Miscellaneous points & devices	1	LSUM	\$5,000.00	\$5,00
Programming, testing, and training	- 1	LSUM	\$5,000.00	\$5,00

Pipe system testing and balancing HVAC system commissioning assistance	1 1	LSUM LSUM	\$10,000.00 \$6,666.67	\$10,000 \$6,667
	Subtotal:	Year 15	Recurring Cost	\$817,681
Year 20 Recurring Cost				
Replace variable air volume terminals HW reheat coils,	20	EACH	\$1,568.80	\$31,376
valves, fittings, and insulation Replace registers, grilles, and diffusers	100	EACH	\$111.20	\$11,120
Replace rooftop unit, 80 tons (32,000 cfm), DX coil, gas heat, fans, filters, condenser section	2	EACH	\$202,712.00	\$405,424
Replace make-up air unit, packaged, DX coil, HW heat, fans, filters, condenser section	1	EACH	\$30,784.00	\$30,784
Replace HW coil connections, RTU - valves, fittings, specialties, and pipe insulation	3	EACH	\$6,286.36	\$18,859
Repair HHWS/R mains, std. wgt. blk. steel pipe, fittings, and supports - 10% assumed	50	LNFT	\$114.92	\$5,746
Repair HHWS/R runouts, type L copper pipe, fittings, and supports - 10% assumed	70	LNFT	\$28.08	\$1,966
Repair natural gas piping, std. blk. steel pipe, fittings, and supports, threaded, 1-1/2" - 10% assumed	15	LNFT	\$38.38	\$576
Replace pipe insulation, HHWS/R mains	500	LNFT	\$17.16	\$8,580
Replace pipe insulation, HHWS/R runouts	700	LNFT	\$10.07	\$7,049
Replace DDC controls - rooftop units	2	EACH	\$15,000.00	\$30,000
Replace DDC controls - makeup air units	1 2	EACH EACH	\$5,000.00	\$5,000 ¢C 000
Replace DDC controls - exhaust fan, general, toilet Replace DDC controls - VAV terminals w/reheat coil	20	EACH	\$3,000.00 \$2,000.00	\$6,000 \$40,000
Replace thermostats/temperature sensors	20	EACH	\$500.00	\$10,000
Miscellaneous points & devices	1	LSUM	\$10,000.00	\$10,000
Programming, testing, and training	1	LSUM	\$10,000.00	\$10,000
Air system testing and balancing	1	LSUM	\$45,000.00	\$45,000
HVAC system commissioning assistance	1	LSUM	\$13,333.33	\$13,333
	Subtotal:	\$690,813		
26000 ELECTRICAL				
Year 1 Recurring Cost				
Generator Service and Annual Inspection	1	LSUM	\$750.00	\$750
	Subtotal:	Year 1 R	ecurring Cost	\$750
Year 10 Recurring Cost				
Replace LED lamps - LED Fixtures Allowance	1	LSUM	\$5,000.00	\$5,000
Replace lamps - decorative and specialty light fixtures allowance	1	LSUM	\$5,000.00	\$5,000
	Subtotal:	Year 10	Recurring Cost	\$10,000
Year 20 Recurring Cost				
Replace miscellaneous LED fixtures	41,827	SQFT	\$17.50	\$731,973
Replace decorative and specialty light fixtures - allowance	1	LSUM	\$100,120.00	\$100,120

Replace lighting control, devices, connections, and testing	41,827	SQFT	\$2.50	\$104,568
	Subtotal:	Year 20 Rec	urring Cost	\$936,660
27000 COMMUNICATIONS				
Year 1 Recurring Cost				
Telecommunications Maintenance	1	LSUM	\$1,000.00	\$1,000
	Subtotal:	Year 1 Recu	rring Cost	\$1,000
Year 5 Recurring Cost				
Replace wireless access point	20	EACH	\$1,709.44	\$34,189 \$(
	Subtotal:	Year 5 Recu	rring Cost	\$34,189
Year 10 Recurring Cost				
Replace MDF rack assembly 3 racks, switching	1	EACH	\$16,300.00	\$16,30
equipment by Owner Terminations and testing	1	LSUM	\$50,000.00	\$50,000
-	Subtotal:	Year 10 Rec		\$66,300
Year 20 Recurring Cost				
Replace voice/data wall outlet, back box and plate, 1 gang, 2-port	110	EACH	\$147.00	\$16,170
Replace voice/data outlet, back box and plate, 1 gang, 2-port - floor mounted	4	EACH	\$376.72	\$1,50
	Subtotal:	\$17,677		
28000 ELECTRONIC SAFETY &				
SECURITY				
Year 15 Recurring Cost				
Replace fire alarm system	41,827	SQFT	\$3.25	\$135,938
	Subtotal:	Year 15 Rec	urring Cost	\$135,938
32000 EXTERIOR IMPROVEMENTS				
Year 1 Recurring Cost				
Irrigation system maintenance allowance	3,500	SQFT	\$0.19	\$64
Landscape maintenance	1	LSUM	\$2,424.75	\$2,425
	Subtotal:	Year 1 Recu	rring Cost	\$3,072

ALTERM	NATIVE #4: (CONSERVAT	ORY & EVEN		G
Division	Year 1	Year 2	Year 3	Year 4	Year 5
02000 EXISTING CONDITIONS	¢0.00	¢0.00	¢0.00	¢0.00	¢0.00
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$3,171.10
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION	\$0.00	\$0.00	\$0.00	\$0.00	\$1,221.77
08000 OPENINGS	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$3,000.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$935.54	\$935.54	\$935.54	\$935.54	\$1,871.34
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$4,975.20
26000 ELECTRICAL	\$750.00	\$750.00	\$750.00	\$750.00	\$750.00
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$35,188.80
28000 ELECTRONIC SAFETY & SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$3,072.25	\$3,072.25	\$3,072.25	\$3,072.25	\$3,072.25
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$11,757.79	\$11,757.79	\$11,757.79	\$11,757.79	\$55,250.46
Annual Total Cost with Inflation	\$11,757.79	\$12,463.26	\$12,717.23	\$13,225.91	\$64,635.22

ALTERM	NATIVE #4: (CONSERVAT	ORY & EVEN	T BUILDING	G
Division	Year 6	Year 7	Year 8	Year 9	Year 10
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	çoloo	φ0100	çeree	çoioo	çoloo
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$3,171.10
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$1,221.77
08000 OPENINGS	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$3,000.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$89,093.00
10000 SPECIALTIES	\$935.54	\$935.54	\$935.54	\$935.54	\$1,871.34
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$3,281.90
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$500.00	\$500.00	\$500.00	\$500.00	\$7,512.71
23000 HEATING, VENTILATING & AIR CONDITIONING	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$4,975.20
26000 ELECTRICAL	\$750.00	\$750.00	\$750.00	\$750.00	\$10,750.00
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$101,488.80
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$3,072.25	\$3,072.25	\$3,072.25	\$3,072.25	\$3,072.25
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$11,757.79	\$11,757.79	\$11,757.79	\$11,757.79	\$230,938.07
Annual Total Cost with Inflation	\$14,305.15	\$14,305.15	\$14,877.36	\$15,472.45	\$316,054.70

	NATIVE #4:		FORY & EVE	NT BUILDIN	G
Division	Year 11	Year 12	Year 13	Year 14	Year 15
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$3,171.10
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	+0.00	to 00	+0.00	+0.00	+0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COMPOSITES	φ 0.00	φ 0.00	φ 0.00	ş0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$1,221.77
	10.00	1	1	4000	+- /
08000 OPENINGS	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$3,000.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$179,996.50
10000 SPECIALTIES	\$935.54	\$2,149.58	\$935.54	\$935.54	\$6,462.58
11000 EQUIPMENT	\$0.00	\$125,000.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL					
CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	¢1 E00 00	¢1 E00 00	¢1 E00 00	¢1 500 00	¢121 500 00
14000 CONVEYING EQUIPMENT	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$121,500.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	1	1	1	4000	1
22000 PLUMBING	\$500.00	\$500.00	\$500.00	\$500.00	\$23,745.35
23000 HEATING, VENTILATING					
& AIR CONDITIONING	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$822,656.30
26000 ELECTRICAL	\$750.00	\$750.00	\$750.00	\$750.00	\$750.00
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$35,188.80
28000 ELECTRONIC SAFETY					
AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$135,937.75
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
STOOD EAKTHWORK	\$U.UU	\$0 . 00	\$U.UU	\$U.UU	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$3,072.25	\$3,072.25	\$3,072.25	\$3,072.25	\$3,072.25
	45,072.25	40,07 2.20	40,072.20	<i>45,072.25</i>	<i>40,072.20</i>
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$11,757.79	\$137,971.83	\$11,757.79	\$11,757.79	\$1,336,702.40
Annual Total Cost with					
Inflation	\$16,735.00	\$212,401.29	\$17,404.40	\$18,100.58	\$2,140,103.60

ALTERI	NATIVE #4:	CONSERVAT	FORY & EVE	NT BUILDIN	G
Division	Year 16	Year 17	Year 18	Year 19	Year 20
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$3,171.10
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$1,221.77
08000 OPENINGS	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$6,549.76
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$89,093.00
10000 SPECIALTIES	\$935.54	\$935.54	\$935.54	\$935.54	\$15,283.11
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$3,281.90
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$500.00	\$500.00	\$500.00	\$500.00	\$72,833.57
23000 HEATING, VENTILATING & AIR CONDITIONING	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$695,787.91
26000 ELECTRICAL	\$750.00	\$750.00	\$750.00	\$750.00	\$947,410.00
27000 COMMUNICATIONS	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$119,165.68
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$3,072.25	\$3,072.25	\$3,072.25	\$3,072.25	\$3,072.25
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$11,757.79	\$11,757.79	\$11,757.79	\$11,757.79	\$1,958,370.05
Annual Total Cost with Inflation	\$19,577.58	\$20,360.69	\$22,903.00	\$21,175.12	\$3,667,990.38

ALTERNATIVE #4:	CONSERVATORY & EVENT BUILDING
Division	Totals
02000 EXISTING CONDITIONS	\$0.00
03000 CONCRETE	\$12,684.40
04000 MASONRY	\$0.00
05000 METALS	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$4,887.08
08000 OPENINGS	\$55,549.76
09000 FINISHES	\$358,182.50
10000 SPECIALTIES	\$41,671.05
11000 EQUIPMENT	\$125,000.00
12000 FURNISHINGS	\$6,563.80
13000 SPECIAL CONSTRUCTION	\$0.00
14000 CONVEYING EQUIPMENT	\$150,000.00
21000 FIRE SUPPRESSION	\$0.00
22000 PLUMBING	\$112,591.63
23000 HEATING, VENTILATING & AIR CONDITIONING	\$1,552,394.61
26000 ELECTRICAL	\$971,660.00
27000 COMMUNICATIONS	\$307,032.08
28000 ELECTRONIC SAFETY AND SECURITY	\$135,937.75
31000 EARTHWORK	\$0.00
32000 EXTERIOR IMPROVEMENTS	\$61,445.00
33000 UTILITIES	\$0.00
Annual Total Cost w/o Inflation	\$3,895,599.66
Annual Total Cost with Inflation	\$6,646,565.86



Exhibit F – Life Cycle Cost Analysis of Alternative #4: North Entry Courtyard

SCRIPTION	QTY	SUM	UNIT COST	TOTAL COST
IFE CYCLE COST ANALYSIS				
LTERNATIVE #4: NORTH ENTRY COU	URTYARD			
08000 OPENINGS				
Year 5 Recurring Cost				
Clean skylight panes and replace sealant allowance	1	LSUM	\$2,500.00	\$2,5
	Subtotal:	Year 5 Rec	urring Cost	\$2,5
26000 ELECTRICAL				
Year 10 Recurring Cost			+= 000 00	
Lighting lamp replacement - allowance	1	LSUM	\$5,000.00	\$5,0
	Subtotal:	Year 10 Re	curring Cost	\$5,0
Year 20 Recurring Cost				
Light fixture replacement - allowance	1	LSUM	\$15,000.00	\$15,0
	Subtotal:	Year 20 Re	curring Cost	\$15,0
31000 EARTHWORK				
Year 5 Recurring Cost				
Erosion & sedimentation maintenance allowance	32,000	SQFT	\$0.05	\$1,6
	Subtotal:	Year 5 Rec	urring Cost	\$1,6
32000 EXTERIOR IMPROVEMENTS				
Year 1 Recurring Cost				
Landscape maintenance	1	LSUM	\$4,500.00	\$4,!
	Subtotal:	Year 1 Rec	urring Cost	\$4,5
Year 5 Recurring Cost			-	
Concrete crack repair and patching	1	LSUM	\$575.00	\$!
	Subtotal:	Year 5 Rec	urring Cost	\$5
			-	1 -
Year 20 Recurring Cost				
Year 20 Recurring Cost Irrigation system at planting beds - Allowance	22,500	SQFT	\$1.60	\$36,0

AL		#4: NORTH	ENTRY COUF	RTYARD	
Division	Year 1	Year 2	Year 3	Year 4	Year 5
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 CONCRETE	φ 0. 00	\$0.00	φ 0.00	φ 0. 00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS &					
COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	10.00	1	1	1	1
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$2,500.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	10.00	1	1		1
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	±0.00	±0.00	+0.00	+0.00	10.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING					
& AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	¢0.00	¢0.00	¢0.00	¢0.00
20000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY &					
SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$1,600.00
32000 EXTERIOR IMPROVEMENTS	\$4,500.00	\$4,500.00	\$4,500.00	\$4,500.00	\$5,075.00
	φ 1,500.00	φ 1,500.00	φ 1,500.00	φ η 300.00	<i>43,073.00</i>
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$4,500.00	\$4,500.00	\$4,500.00	\$4,500.00	\$9,175.00
Annual Total Cost with					
Inflation	\$4,500.00	\$4,770.00	\$4,867.20	\$5,061.89	\$10,733.45

ALT	TERNATIVE :	#4: NORTH	ENTRY COUF	RTYARD	
Division	Year 6	Year 7	Year 8	Year 9	Year 10
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		1	1		
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	¢0.00	¢0.00	¢0.00	¢0.00	¢0.00
	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$2,500.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	.00 .00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	4	1	1	,	,
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING	¢0.00	¢0.00	¢0.00	¢0.00	¢0.00
& AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$5,000.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY					
AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$1,600.00
	φ0.00		φ 0.00		φ <u>1</u> ,000.00
32000 EXTERIOR IMPROVEMENTS	\$4,500.00	\$4,500.00	\$4,500.00	\$4,500.00	\$5,075.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Appual Tatal Cast w/s Tafali	** 500.00	** 500.00	** 500.00	44 F00 00	*1 / 175 ~~
Annual Total Cost w/o Inflation	\$4,500.00	\$4,500.00	\$4,500.00	\$4,500.00	\$14,175.00
Annual Total Cost with Inflation	\$5,474.94	\$5,474.94	\$5,693.94	\$5,921.69	\$19,399.47

AL		#4: NORTH	ENTRY COUF	RTYARD	
Division	Year 11	Year 12	Year 13	Year 14	Year 15
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE	\$0.00	\$6.66	\$0.00	\$0.00	\$0.00
PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$2,500.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SFECIAL TES	\$0.00	φυ.υυ	\$ 0. 00	φ υ. υυ	φ υ. υυ
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	\$0.00	\$6.66	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	<i>40.00</i>	4000	÷	÷	40.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$1,600.00
32000 EXTERIOR IMPROVEMENTS	\$4,500.00	\$4,500.00	\$4,500.00	\$4,500.00	\$5,075.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$4,500.00	\$4,500.00	\$4,500.00	\$4,500.00	\$9,175.00
Annual Total Cost with Inflation	\$6,404.90	\$6,927.54	\$6,661.10	\$6,927.54	\$14,689.47

ALT		#4: NORTH	ENTRY COUF	RTYARD	
Division	Year 16	Year 17	Year 18	Year 19	Year 20
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$2,500.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$20,000.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$1,600.00
32000 EXTERIOR IMPROVEMENTS	\$4,500.00	\$4,500.00	\$4,500.00	\$4,500.00	\$41,075.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$4,500.00	\$4,500.00	\$4,500.00	\$4,500.00	\$65,175.00
Annual Total Cost with Inflation	\$7,492.83	\$7,792.54	\$8,765.55	\$8,104.25	\$122,071.55

ALTERNATIVE #4:	NORTH ENTRY COURTYARD
Division	Totals
02000 EXISTING CONDITIONS	\$0.00
03000 CONCRETE	\$0.00
04000 MASONRY	\$0.00
05000 METALS	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00
08000 OPENINGS	\$10,000.00
09000 FINISHES	\$0.00
10000 SPECIALTIES	\$0.00
11000 EQUIPMENT	\$0.00
12000 FURNISHINGS	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00
21000 FIRE SUPPRESSION	\$0.00
22000 PLUMBING	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00
26000 ELECTRICAL	\$25,000.00
27000 COMMUNICATIONS	\$0.00
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00
31000 EARTHWORK	\$6,400.00
32000 EXTERIOR IMPROVEMENTS	\$128,300.00
33000 UTILITIES	\$0.00
Annual Total Cost w/o Inflation	\$169,700.00
Annual Total Cost with Inflation	\$267,734.80



Exhibit G – Life Cycle Cost Analysis of Alternative #4: East Wedding Garden

DESCRIPTION	QTY	SUM	UNIT COST	TOTAL COST
LIFE CYCLE COST ANALYSIS				
ALTERNATIVE #4: EAST WEDDING GA	RDEN			
26000 ELECTRICAL				
Year 10 Recurring Cost				
Lighting lamp replacement - allowance	1	LSUM	\$5,000.00	\$5,000
	Subtotal:	Year 10 Re	curring Cost	\$5,000
Year 20 Recurring Cost				
Light fixture replacement - allowance	1	LSUM	\$15,000.00	\$15,000
	Subtotal:	Year 20 Re	curring Cost	\$15,000
31000 EARTHWORK				
Year 5 Recurring Cost				
Erosion & sedimentation maintenance allowance	32,000	SQFT	\$0.05	\$1,600
	Subtotal:	Year 5 Rec	urring Cost	\$1,600
32000 EXTERIOR IMPROVEMENTS				
Year 1 Recurring Cost				
Wedding garden maintenance - allowance	1	LSUM	\$16,000.00	\$16,000
	Subtotal:	Year 1 Rec	urring Cost	\$16,000

Α	LTERNATIVE	: #4: EAST V	VEDDING GA	RDEN	
Division	Year 1	Year 2	Year 3	Year 4	Year 5
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE					
PROTECTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	4	+	1	,	
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	·				
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING					
& AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	·				
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY &					
SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$1,600.00
	11,00	-1100			+-,
32000 EXTERIOR IMPROVEMENTS	\$16,000.00	\$16,000.00	\$16,000.00	\$16,000.00	\$16,000.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$16,000.00	\$16,000.00	\$16,000.00	\$16,000.00	\$17,600.00
Annual Total Cost with	410/000100	<i>410,000.00</i>	410,000,00	<i>q_0,000.00</i>	<i>q</i> 17,000.00
Inflation	\$16,000.00	\$16,960.00	\$17,305.60	\$17,997.82	\$20,589.51

Α	LTERNATIVE	: #4: EAST V	VEDDING GA	RDEN	
Division	Year 6	Year 7	Year 8	Year 9	Year 10
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
02000 EXISTING CONDITIONS	\$0.00	40.00	\$0.00	40.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$5,000.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$1,600.00
32000 EXTERIOR IMPROVEMENTS	\$16,000.00	\$16,000.00	\$16,000.00	\$16,000.00	\$16,000.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$16,000.00	\$16,000.00	\$16,000.00	\$16,000.00	\$22,600.00
Annual Total Cost with Inflation	\$19,466.45	\$19,466.45	\$20,245.10	\$21,054.91	\$30,929.66

Α	LTERNATIVE	: #4: EAST V	VEDDING GA	RDEN	
Division	Year 11	Year 12	Year 13	Year 14	Year 15
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	1		1		
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS &					
COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE					
PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	*0.00	*0.00	±0.00	±0.00	±0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
0,000 1 1.120.120	çoroq	φ0100	\$0.00	ţ0.00	ţ0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	+0.00	to oo	to 00	to 00	10.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	çoioo	ţ.i.u	ţ	ţoiou	ţoiou
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING					
& AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	¢0.00	¢0.00	¢0.00	¢0.00	¢0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	1				
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$1,600.00
32000 EXTERIOR					
IMPROVEMENTS	\$16,000.00	\$16,000.00	\$16,000.00	\$16,000.00	\$16,000.00
33000 UTILITIES	¢0.00	¢0.00	¢0.00	¢0.00	¢0.00
	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$16,000.00	\$16,000.00	\$16,000.00	\$16,000.00	\$17,600.00
	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,,			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Annual Total Cost with Inflation	\$22,772.99	\$24,631.26	\$23,683.91	\$24,631.26	\$28,178.17

A	LTERNATIVE	: #4: EAST V	VEDDING GA	RDEN	
Division	Year 16	Year 17	Year 18	Year 19	Year 20
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$20,000.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$1,600.00
32000 EXTERIOR IMPROVEMENTS	\$16,000.00	\$16,000.00	\$16,000.00	\$16,000.00	\$16,000.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$16,000.00	\$16,000.00	\$16,000.00	\$16,000.00	\$37,600.00
Annual Total Cost with Inflation	\$26,641.18	\$27,706.82	\$31,166.41	\$28,815.10	\$70,424.09

	AST WEDDING GARDEN
Division	Totals
02000 EXISTING CONDITIONS	\$0.00
03000 CONCRETE	\$0.00
04000 MASONRY	\$0.00
05000 METALS	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00
08000 OPENINGS	\$0.00
09000 FINISHES	\$0.00
10000 SPECIALTIES	\$0.00
11000 EQUIPMENT	\$0.00
12000 FURNISHINGS	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00
21000 FIRE SUPPRESSION	\$0.00
22000 PLUMBING	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00
26000 ELECTRICAL	\$25,000.00
27000 COMMUNICATIONS	\$0.00
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00
31000 EARTHWORK	\$6,400.00
32000 EXTERIOR IMPROVEMENTS	\$320,000.00
33000 UTILITIES	\$0.00
Annual Total Cost w/o Inflation	\$351,400.00
Annual Total Cost with Inflation	\$508,666.69



Milwaukee County Mitchell Park Domes Future State Planning

Exhibit H — Life Cycle Cost Analysis of Alternative #4: East Café Garden

DESCRIPTION	QTY	SUM	UNIT COST	TOTAL COST
LIFE CYCLE COST ANALYSIS				
ALTERNATIVE #4: EAST CAFÉ GARDEN				
26000 ELECTRICAL				
Year 10 Recurring Cost				
Lighting lamp replacement - allowance	1	LSUM	\$1,500.00	\$1,500
	Subtotal:	Year 10 Re	curring Cost	\$1,500
Year 20 Recurring Cost				
Light fixture replacement - allowance	1	LSUM	\$5,000.00	\$5,000
	Subtotal:	Year 20 Re	curring Cost	\$5,000
31000 EARTHWORK				
Year 5 Recurring Cost				
Erosion & sedimentation maintenance allowance	3,000	SQFT	\$0.05	\$150
	Subtotal:	Year 5 Rec	urring Cost	\$150
32000 EXTERIOR IMPROVEMENTS				
Year 5 Recurring Cost				
Concrete crack repair and patching	1	LSUM	\$450.00	\$450
	Subtotal:	\$450		

	ALTERNATI	IVE #4: EAS	T CAFÉ GAR	DEN	
Division	Year 1	Year 2	Year 3	Year 4	Year 5
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY & SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$150.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$450.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$0.00	\$0.00	\$0.00	\$0.00	\$600.00
Annual Total Cost with Inflation	\$0.00	\$0.00	\$0.00	\$0.00	\$701.92

	ALTERNATI	IVE #4: EAS	T CAFÉ GARI	DEN	
Division	Year 6	Year 7	Year 8	Year 9	Year 10
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$1,500.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$150.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$450.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$0.00	\$0.00	\$0.00	\$0.00	\$2,100.00
Annual Total Cost with Inflation	\$0.00	\$0.00	\$0.00	\$0.00	\$2,874.00

	ALTERNATI	IVE #4: EAS	T CAFÉ GARI	DEN	
Division	Year 11	Year 12	Year 13	Year 14	Year 15
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$150.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$450.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$0.00	\$0.00	\$0.00	\$0.00	\$600.00
Annual Total Cost with Inflation	\$0.00	\$0.00	\$0.00	\$0.00	\$960.62

	ALTERNATI	IVE #4: EAS	T CAFÉ GAR	DEN	
Division	Year 16	Year 17	Year 18	Year 19	Year 20
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$6,500.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$150.00
32000 EXTERIOR IMPROVEMENTS	\$0.00	\$0.00	\$0.00	\$0.00	\$450.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$0.00	\$0.00	\$0.00	\$0.00	\$7,100.00
Annual Total Cost with Inflation	\$0.00	\$0.00	\$0.00	\$0.00	\$13,298.17

LTERNATIVE #4: E	AST CAFÉ GARDEI
Division	Totals
02000 EXISTING CONDITIONS	\$0.00
03000 CONCRETE	\$0.00
04000 MASONRY	\$0.00
05000 METALS	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00
08000 OPENINGS	\$0.00
09000 FINISHES	\$0.00
10000 SPECIALTIES	\$0.00
11000 EQUIPMENT	\$0.00
12000 FURNISHINGS	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00
21000 FIRE SUPPRESSION	\$0.00
22000 PLUMBING	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00
26000 ELECTRICAL	\$8,000.00
27000 COMMUNICATIONS	\$0.00
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00
31000 EARTHWORK	\$600.00
32000 EXTERIOR IMPROVEMENTS	\$1,800.00
33000 UTILITIES	\$0.00
Annual Total Cost w/o Inflation	\$10,400.00
Annual Total Cost with Inflation	\$25,024.14



Milwaukee County Mitchell Park Domes Future State Planning

Exhibit I — Life Cycle Cost Analysis of Alternative #4: South Event Garden

ALTERNATIVE #4: SOUTH EVENT GARDEN 22000 PLUMBING Year 10 Recurring Cost Replace backflow preventer, 3/4", lead free 1 EACH \$1,385.76 \$1,386 Subtotal: Year 10 Recurring Cost Replace shutoff/solation valve, ball, 3/4" 1 EACH \$143.43 \$143 Subtotal: Year 10 Recurring Cost 26000 ELECTRICAL Year 10 Recurring Cost Lighting lamp replacement - allowance 1 LSUM \$5,000.00 \$5,000 Subtotal: Year 10 Recurring Cost Light fixture replacement - allowance 1 LSUM \$15,000.00 \$15,000 Subtotal: Year 20 Recurring Cost Subtotal: Year 5 R	DESCRIPTION	QTY	SUM	UNIT COST	TOTAL COST
22000 PLUMBING Year 10 Recurring Cost Replace backflow preventer, 3/4", lead free 1 EACH \$1,385.76 \$1,386.76 Year 15 Recurring Cost Subtotal: Year 10 Recurring Cost \$1,386.76 Preplace shutoff/isolation valve, ball, 3/4" 1 EACH \$143.43.3 \$143.50 26000 ELECTRICAL Year 15 Recurring Cost \$143.50 \$5,000.00 Year 10 Recurring Cost Subtotal: Year 10 Recurring Cost \$5,000.00 Year 20 Recurring Cost Subtotal: Year 10 Recurring Cost \$5,000.00 Year 20 Recurring Cost Subtotal: Year 20 Recurring Cost \$1,000 Subtotal: Year 20 Recurring Cost \$1,000 \$1,000 Subtotal: Year 20 Recurring Cost \$1,000 \$20.00 Subtotal: Year 20 Recurring Cost \$1,000 \$20.00 Subtotal: Year 20 Recurring Cost \$1,000 \$20.00 Subtotal: Year 5 Recurring Cost \$900 \$2000 Subtotal: Year 5 Recurring Cost \$900 \$2000 Year 1 Recurring Cost \$1,000 \$5,600.00 \$5,600.00 Subtotal: Year 5 Recurring Cost \$2000 \$5,600.00 \$5,600.00 Year 5 Recurring Cost	LIFE CYCLE COST ANALYSIS				
Year 10 Recurring Cost 1 EACH \$1,385.76 \$1,386 Replace backflow preventer, 3/4", lead free 1 EACH \$1,385.76 \$1,386 Year 15 Recurring Cost \$1,386 \$1,386 Year 15 Recurring Cost \$143.43 \$143.43 Replace shutoff/isolation valve, ball, 3/4" 1 EACH \$143.43 \$143.43 Z6000 ELECTRICAL Year 15 Recurring Cost \$143 Year 10 Recurring Cost \$5,000.00 \$5,000.00 Subtotal: Year 10 Recurring Cost \$5,000.00 \$5,000 Year 20 Recurring Cost \$1 LSUM \$5,000.00 \$5,000 Year 20 Recurring Cost \$1 LSUM \$15,000.00 \$15,000 Subtotal: Year 20 Recurring Cost \$15,000 \$15,000 Subtotal: Year 20 Recurring Cost \$1000 SQFT \$0.05 \$900 Subtotal: Year 5 Recurring Cost \$900 \$2000 EXTERIOR IMPROVEMENTS \$900 Year 5 Recurring Cost \$1 LSUM \$5,600.00 \$5,600 Year 5 Recurring Cost \$900 \$900 Year 5 Recurring Cost \$5,600 \$5,600 Year 5 Recurring Cost \$1 LSUM \$1,176.00 \$1,176 Year 20 Recurring Cost \$1 LSUM \$5,000.00 \$5,000	ALTERNATIVE #4: SOUTH EVENT GA	RDEN			
Replace backflow preventer, 3/4", lead free 1 EACH \$1,385,75 \$1,386 Year 15 Recurring Cost Subtotal: Year 10 Recurring Cost \$1,386 Replace shutoff/isolation valve, ball, 3/4" 1 EACH \$143,43 \$143 Subtotal: Year 15 Recurring Cost \$143 \$143 \$143 Z6000 ELECTRICAL Year 15 Recurring Cost \$143 Year 10 Recurring Cost 1 LSUM \$5,000.00 Year 20 Recurring Cost \$1 LSUM \$5,000.00 Year 20 Recurring Cost \$1 LSUM \$15,000.00 Year 5 Recurring Cost \$1 \$15,000 \$15,000 Subtotal: Year 20 Recurring Cost \$10,000 \$0,FT \$0.05 \$900 Subtotal: Year 5 Recurring Cost \$900 \$900 \$900 \$900 \$900 Subtotal: Year 1 Recurring Cost \$900 \$900 \$900 \$900 \$900 Subtotal: Year 1 Recurring Cost \$900 \$900 \$900 \$900 \$900 Year 5 Recurring Cost \$900 \$900 \$900	22000 PLUMBING				
Subtotal: Year 10 Recurring Cost \$1,386 Year 15 Recurring Cost 1 EACH \$143.43 \$143 Subtotal: Year 15 Recurring Cost \$143 Z6000 ELECTRICAL Year 10 Recurring Cost \$143 Year 10 Recurring Cost \$5,000.00 \$5,000 Lighting lamp replacement - allowance 1 LSUM \$5,000.00 \$5,000 Year 20 Recurring Cost \$15,000.00 \$15,000 Year 20 Recurring Cost \$1 LSUM \$15,000.00 \$15,000 Subtotal: Year 20 Recurring Cost \$15,000 \$15,000 Subtotal: Year 20 Recurring Cost \$15,000 \$15,000 Subtotal: Year 5 Recurring Cost \$1000 \$0,05 \$9000 Subtotal: Year 5 Recurring Cost \$9000 \$15,000.00 \$5,600 Subtotal: Year 5 Recurring Cost \$9000 \$9000 \$9000 \$9000 Subtotal: Year 5 Recurring Cost \$9000 \$90	Year 10 Recurring Cost				
Year 15 Recurring Cost 1 EACH \$143.43 \$143.43 Z6000 ELECTRICAL Year 15 Recurring Cost \$143 Ughting lamp replacement - allowance 1 LSUM \$5,000,00 \$5,000,00 Year 20 Recurring Cost 1 LSUM \$5,000,00 \$5,000,00 Year 20 Recurring Cost 1 LSUM \$5,000,00 \$5,000,00 Year 20 Recurring Cost 1 LSUM \$15,000,00 \$15,000,00 Year 20 Recurring Cost 1 LSUM \$15,000,00 \$15,000,00 Subtotal: Year 20 Recurring Cost \$15,000,00 \$15,000,00 \$15,000,00 Subtotal: Year 20 Recurring Cost \$15,000,00 \$15,000,00 \$15,000,00 Subtotal: Year 5 Recurring Cost \$9000 \$100,00 \$0,017 \$0,005 \$9000,000 Subtotal: Year 5 Recurring Cost \$1000 \$0,071 \$0,005 \$0,600 Subtotal: Year 1 Recurring Cost \$2000 \$5,600,00 \$5,600,00 \$5,600,00 \$5,600,00 \$5,600,00 \$5,600,00 \$5,600,00 \$5,600,00 \$5,600,00	Replace backflow preventer, 3/4", lead free	1	EACH	\$1,385.76	\$1,386
Replace shutoff/isolation valve, ball, 3/4" 1 EACH \$1433 \$143 Subtotal: Year 15 Recurring Cost \$143 Z6000 ELECTRICAL Year 10 Recurring Cost \$5,000 Lighting lamp replacement - allowance 1 LSUM \$5,000.00 Year 20 Recurring Cost Subtotal: Year 10 Recurring Cost \$5,000 Year 20 Recurring Cost 1 LSUM \$15,000.00 \$15,000 Year 20 Recurring Cost 1 LSUM \$15,000.00 \$15,000 Subtotal: Year 20 Recurring Cost \$1000 SQFT \$0.05 \$900 Subtotal: Year 5 Recurring Cost \$900 Subtotal: Year 5 Recurring Cost \$900 Subtotal: Year 5 Recurring Cost \$900 Subtotal: Year 5 Recurring Cost \$900 Subtotal: Year 1 Recurring Cost \$900 \$900 \$900 Subtotal: Year 1 Recurring Cost \$900 \$900 \$900 Subtotal: Year 5 Recurring Cost \$900 \$900 \$900 \$900 Subtotal: Year 5 Recurring Cost \$900 \$900 \$900 \$900 \$900 <t< td=""><td></td><td>Subtotal: `</td><td>Year 10 Re</td><td>curring Cost</td><td>\$1,386</td></t<>		Subtotal: `	Year 10 Re	curring Cost	\$1,386
Subtotal: Year 15 Recurring Cost \$143 Z6000 ELECTRICAL Year 10 Recurring Cost \$5,000 Lighting lamp replacement - allowance 1 LSUM \$5,000 Year 20 Recurring Cost \$1 LSUM \$15,000.00 \$15,000 Year 20 Recurring Cost 1 LSUM \$15,000.00 \$15,000 Year 20 Recurring Cost 1 LSUM \$15,000.00 \$15,000 Subtotal: Year 20 Recurring Cost \$15,000 \$2000 \$15,000 \$15,000 Subtotal: Year 20 Recurring Cost \$16,000 \$QFT \$0.05 \$900 Subtotal: Year 5 Recurring Cost \$900 \$2000 \$2000 \$2000 \$2000 \$2000 \$5,600.00 \$5,600 Subtotal: Year 5 Recurring Cost \$900 \$2000 \$2000 \$5,600.00 \$5,600 \$5,600 Subtotal: Year 1 Recurring Cost \$900 \$900 \$900 \$5,600 \$5,600 \$5,600 Year 5 Recurring Cost \$900 \$900 \$900 \$900 \$900 \$900 \$900 \$900 \$900 \$900 \$900 \$900 \$900 \$900 \$900	Year 15 Recurring Cost				
26000 ELECTRICAL Year 10 Recurring Cost Lighting lamp replacement - allowance 1 LSUM \$5,000.00 \$5,000.00 Year 20 Recurring Cost Subtotal: Year 10 Recurring Cost \$5,000.00 \$15,000.00 Year 20 Recurring Cost 1 LSUM \$15,000.00 \$15,000.00 Year 20 Recurring Cost 1 LSUM \$15,000.00 \$15,000.00 Subtotal: Year 20 Recurring Cost \$15,000.00 \$15,000.00 \$15,000.00 Subtotal: Year 20 Recurring Cost \$1000 EARTHWORK \$1,000 \$0,005 \$10,000 Subtotal: Year 5 Recurring Cost \$2000 EXTERIOR IMPROVEMENTS \$9000 \$2000 EXTERIOR IMPROVEMENTS \$5,600.00 \$5,600.00 Year 5 Recurring Cost 1 LSUM \$5,600.00 \$5,600.00 Year 5 Recurring Cost \$2000 EXTERIOR IMPROVEMENTS \$5,600.00 \$5,600.00 Year 5 Recurring Cost 1 LSUM \$1,176.00 \$1,176 Water feature - repair and maintenance allowance 1 LSUM \$5,000.00 \$5,000.00 Subtotal: Year 5 Recurring Cost \$2000.00 \$5,000.00 \$5,000.00 \$5,000.00 \$5,000.00	Replace shutoff/isolation valve, ball, 3/4"	1	EACH	\$143.43	\$143
Year 10 Recurring Cost1LSUM\$5,000.00\$5,000Lighting lamp replacement - allowance1LSUM\$5,000.00\$5,000Year 20 Recurring Cost1LSUM\$15,000.00\$15,000Subtotal: Year 20 Recurring Cost\$1LSUM\$15,000.00\$15,000Subtotal: Year 20 Recurring Cost\$1LSUM\$1000\$15,000Subtotal: Year 5 Recurring Cost\$2000\$2000\$2000\$2000\$2000Subtotal: Year 5 Recurring Cost\$2000\$2000\$2000\$2000\$2000\$2000Subtotal: Year 5 Recurring Cost\$2000\$2000\$2000\$2000\$5,600.00\$5,600Subtotal: Year 1 Recurring Cost\$2000\$2000\$5,600.00\$5,600.00\$5,600Year 20 Recurring Cost1LSUM\$1,176.00\$1,176Concrete crack repair1LSUM\$1,176.00\$1,176Water feature - repair and maintenance allowance1LSUM\$1,176.00\$1,176Subtotal: Year 5 Recurring Cost\$2000\$2000\$5,000.00\$5,000.00Concrete crack repair1LSUM\$1,176.00\$1,176Water feature - repair and maintenance allowance1LSUM\$1,176.00\$1,176Concrete crack repair1LSUM\$1,176.00\$5,000.00\$5,000.00Concrete crack repair1LSUM\$1,176.00\$1,176Water feature - repair and maintenance allowance1LSUM\$1,600\$5,000.00Concrete crack rep		Subtotal: `	Year 15 Re	curring Cost	\$143
Year 10 Recurring Cost1LSUM\$5,000.00\$5,000Lighting lamp replacement - allowance1LSUM\$5,000.00\$5,000Year 20 Recurring Cost1LSUM\$15,000.00\$15,000Subtotal: Year 20 Recurring Cost\$1LSUM\$15,000.00\$15,000Subtotal: Year 20 Recurring Cost\$1LSUM\$1000\$15,000Subtotal: Year 5 Recurring Cost\$2000\$2000\$2000\$2000\$2000Subtotal: Year 5 Recurring Cost\$2000\$2000\$2000\$2000\$2000\$2000Subtotal: Year 5 Recurring Cost\$2000\$2000\$2000\$2000\$5,600.00\$5,600Subtotal: Year 1 Recurring Cost\$2000\$2000\$5,600.00\$5,600.00\$5,600Year 20 Recurring Cost1LSUM\$1,176.00\$1,176Concrete crack repair1LSUM\$1,176.00\$1,176Water feature - repair and maintenance allowance1LSUM\$1,176.00\$1,176Subtotal: Year 5 Recurring Cost\$2000\$2000\$5,000.00\$5,000.00Concrete crack repair1LSUM\$1,176.00\$1,176Water feature - repair and maintenance allowance1LSUM\$1,176.00\$1,176Concrete crack repair1LSUM\$1,176.00\$5,000.00\$5,000.00Concrete crack repair1LSUM\$1,176.00\$1,176Water feature - repair and maintenance allowance1LSUM\$1,600\$5,000.00Concrete crack rep					
Lighting lamp replacement - allowance 1 LSUM \$5,000.00 \$5,000 Subtotal: Year 10 Recurring Cost \$5,000 Year 20 Recurring Cost 1 LSUM \$15,000.00 \$15,000 Subtotal: Year 20 Recurring Cost \$15,000 Subtotal: Year 20 Recurring Cost \$15,000 Subtotal: Year 5 Recurring Cost \$900 Subtotal: Year 1 Recurring Cost \$900 Year 5 Recurring Cost \$900 Subtotal: Year 1 Recurring Cost \$900 Subtotal: Year 1 Recurring Cost \$900 Year 20 Recurring Cost \$900 Subtotal: Year 5 Re					
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Year 20 Recurring Cost Irrigation system at planting beds - Allowance 11,200 SQFT \$1.60 \$17,920	Water feature - repair and maintenance allowance	1	LSUM	\$5,000.00	\$5,000
Irrigation system at planting beds - Allowance 11,200 SQFT \$1.60 \$17,920		Subtotal:	Year 5 Rec	urring Cost	\$6,176
	Year 20 Recurring Cost				
Subtotal: Year 20 Recurring Cost \$17,920	Irrigation system at planting beds - Allowance	11,200	SQFT	\$1.60	\$17,920
		Subtotal:	Year 20 Re	curring Cost	\$17,920

l l	ALTERNATIV	E #4: SOUTI	H EVENT GAI	RDEN	
Division	Year 1	Year 2	Year 3	Year 4	Year 5
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	çoloo	ţoloo	ţ	çulu	÷
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY & SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$900.00
32000 EXTERIOR IMPROVEMENTS	\$5,600.00	\$5,600.00	\$5,600.00	\$5,600.00	\$11,776.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$5,600.00	\$5,600.00	\$5,600.00	\$5,600.00	\$12,676.00
Annual Total Cost with Inflation	\$5,600.00	\$5,936.00	\$6,056.96	\$6,299.24	\$14,829.13

4	ALTERNATIV	E #4: SOUTI	H EVENT GAI	RDEN	
Division	Year 6	Year 7	Year 8	Year 9	Year 10
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		·	·	·	·
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS &	*0.00	±0.00	*0.00	+0.00	*0.00
COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	¢0.00	¢0.00	¢0.00	¢0.00	¢0.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 1 01013/11/03	40.00	\$0.00	φ υ. υυ	φ ι. υυ	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$1,385.76
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$5,000.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY	40.00	\$0.00	\$0.00	φ υ.υυ	\$0.00
AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$900.00
32000 EXTERIOR IMPROVEMENTS	\$5,600.00	\$5,600.00	\$5,600.00	\$5,600.00	\$11,776.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$5,600.00	\$5,600.00	\$5,600.00	\$5,600.00	\$19,061.76
Annual Total Cost with Inflation	\$6,813.26	\$6,813.26	\$7,085.79	\$7,369.22	\$26,087.33

4	ALTERNATIV	E #4: SOUTI	H EVENT GAI	RDEN	
Division	Year 11	Year 12	Year 13	Year 14	Year 15
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$143.43
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$900.00
32000 EXTERIOR IMPROVEMENTS	\$5,600.00	\$5,600.00	\$5,600.00	\$5,600.00	\$11,776.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$5,600.00	\$5,600.00	\$5,600.00	\$5,600.00	\$12,819.43
Annual Total Cost with Inflation	\$7,970.55	\$8,620.94	\$8,289.37	\$8,620.94	\$20,524.32

l l	ALTERNATIV	E #4: SOUTI	H EVENT GAI	RDEN	
Division	Year 16	Year 17	Year 18	Year 19	Year 20
02000 EXISTING CONDITIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
03000 CONCRETE	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
04000 MASONRY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
05000 METALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
08000 OPENINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
09000 FINISHES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
10000 SPECIALTIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
11000 EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12000 FURNISHINGS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
21000 FIRE SUPPRESSION	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22000 PLUMBING	\$0.00	\$0.00	\$0.00	\$0.00	\$1,385.76
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
26000 ELECTRICAL	\$0.00	\$0.00	\$0.00	\$0.00	\$20,000.00
27000 COMMUNICATIONS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
31000 EARTHWORK	\$0.00	\$0.00	\$0.00	\$0.00	\$900.00
32000 EXTERIOR IMPROVEMENTS	\$5,600.00	\$5,600.00	\$5,600.00	\$5,600.00	\$29,696.00
33000 UTILITIES	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual Total Cost w/o Inflation	\$5,600.00	\$5,600.00	\$5,600.00	\$5,600.00	\$51,981.76
Annual Total Cost with Inflation	\$9,324.41	\$9,697.39	\$10,908.24	\$10,085.28	\$97,360.86

ALIERNALIVE #4 Division	: SOUTH EVENT GARDEN Totals
DIVISION	Totals
02000 EXISTING CONDITIONS	\$0.00
03000 CONCRETE	\$0.00
04000 MASONRY	\$0.00
05000 METALS	\$0.00
06000 WOODS, PLASTICS & COMPOSITES	\$0.00
07000 THERMAL & MOISTURE PROTECTION SYSTEM	\$0.00
08000 OPENINGS	\$0.00
09000 FINISHES	\$0.00
10000 SPECIALTIES	\$0.00
11000 EQUIPMENT	\$0.00
12000 FURNISHINGS	\$0.00
13000 SPECIAL CONSTRUCTION	\$0.00
14000 CONVEYING EQUIPMENT	\$0.00
21000 FIRE SUPPRESSION	\$0.00
22000 PLUMBING	\$2,914.95
23000 HEATING, VENTILATING & AIR CONDITIONING	\$0.00
26000 ELECTRICAL	\$25,000.00
27000 COMMUNICATIONS	\$0.00
28000 ELECTRONIC SAFETY AND SECURITY	\$0.00
31000 EARTHWORK	\$3,600.00
32000 EXTERIOR IMPROVEMENTS	\$154,624.00
33000 UTILITIES	\$0.00
Annual Total Cost w/o Inflation	\$186,138.95
Annual Total Cost with Inflation	\$465,206.07