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# MEMORANDUM

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Date: April 29, 2014

To: The Honorable Chair and Members  
Pima County Board of Supervisors

From: C.H. Huckelberry  
County Administrator *CHH*

Re: **Misinformation Regarding Facilities Management Projects**

I am enclosing an April 21, 2014 memorandum from Interim Facilities Management Director Lisa Josker regarding two projects: the Regional Wastewater Reclamation Laboratory Expansion and the proposed Animal Care Facility that will be on the November 2014 ballot for General Obligation Bond funding approval.

Wastewater Lab Addition Building and Lease

It has been stated that The University of Arizona is essentially occupying the expansion of the Wastewater Water Quality Lab at no cost. This is incorrect. The facilities lease agreement entered into between Pima County and the University in 2012 requires the University to pay capital costs associated with tenant improvements and the full operating and maintenance cost. The actual improvement is currently contracted as an addition that was planned as a future expansion that would have been built at a later date with inflated or future dollars. Although we anticipate using the entirety of the space at some point in the future, the University will be conducting critical research and development at the site until that time.

A partnership for early construction of the facility was entered into with The University of Arizona, which has, in the past, partnered with Pima County specifically in the area of water quality and water treatment. The current wastewater laboratory is a state-of-the-art water quality laboratory that is required for daily compliance testing to meet US Environmental Protection Agency and Arizona Department of Environmental Quality water quality standards. Our staff is responsible for compliance testing. There is also a great deal of water quality research that could be conducted at a joint facility in cooperation with The University of Arizona, particularly with scientific staff expertise in areas of emerging contaminants that we do not have to test for currently, such as pharmaceuticals, but that will be of increasing concern in the coming years. Research in this area will assist Pima County in meeting stringent new environmental standards in the future. The University team also has research expertise in treatment methods that can expand the direct use of effluent and which may similarly develop over time. This water quality research

The Honorable Chair and Members, Pima County Board of Supervisors  
**Re: Misinformation Regarding Facilities Management Projects**  
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component is now the subject of the lease between Pima County and The University of Arizona.

In reality, The University of Arizona will pay a lease rate of \$9.05 per square foot over the five-year term of the lease of the building with a potential five-year renewal option. Such is hardly a giveaway to the University and more than covers all operating and maintenance costs associated with the use of the space. In addition, the partnership will advance water quality testing, reuse, and adaptive conservation of water as an essential community asset while providing an important training ground for the future generation of scientists and assisting with the transfer of academic research to commercial applications. It is only through compliance and research testing that advances in treatment will produce higher quality water at a lower overall cost. In essence, the public has been and will continue to be the primary beneficiary of water quality treatment advances.

#### Pima Animal Care Facility

The Animal Care Facility cost model has been touted as the definitive source for a facility that will cost over \$500 per square foot. That estimate is simply a model, developed more than five years ago. Based on preliminary planning studies, the cost model has been updated to more current cost standards. Yes, quality animal care facilities cost more than offices, residential construction, or other housing facilities, including healthcare.

Animal care facilities must be constructed with durable and essentially indestructible interior finishes, mechanical and plumbing systems, and operate at high levels of activity on a continuous basis. As part of our follow-up and planning for this facility, and as indicated in previous correspondence, our Facilities Management staff has met with a representative of architects who specialize in the design of animal care facilities and have done so for the last 15 years. Page 3 of the attached memorandum is a listing of other animal care facilities and their total project cost per square foot using typical cost models. As can be seen, they are all very similar to the present cost model forecasted for a new Animal Care Facility in Pima County.

CHH/anc

Attachment

c: Jan Leshar, Deputy County Administrator for Medical and Health Services  
Lisa Josker, Interim Director, Facilities Management



**PIMA COUNTY**  
**FACILITIES MANAGEMENT**  
**MEMORANDUM**

**DATE:** April 21, 2014  
**TO:** Chuck Huckelberry, County Administrator  
**FROM:** Lisa Josker,   
Facilities Management Interim Director  
**SUBJECT:** Requested Additional Information Regarding Several Projects and  
Response to CHH Memo Dated April 16, 2014

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Facilities Management continues to read contorted information and inapplicable comparisons pertaining to several building projects. Following is a response to your request for clarification and updated information regarding the projects in question:

**Wastewater Lab Addition Building and Lease**

Addressing the assertion that Pima County is "building a building for the University of Arizona"; A November 13, 2012 Memo sent to the Board of Supervisors along with the lease clearly states that the lab addition is to be utilized by the University of Arizona only until such time as lab functions for the RWRD need to expand their analysis and testing to meet federal regulations and the current wastewater treatment expansion. The lease is for an initial 5 years with a 5 year renewal option. The building addition in question had been planned in the initial building project for future RWRD needs and would have been built at a later date with future (inflated) dollars. Construction material and labor costs have been stable and low these past few years and constructing this addition at the present time makes economic sense.

Leasing this space to the University of Arizona until such time as the RWRD's operation grows into this space allows for much more than an economic building solution. It also recognizes and captures the synergistically compatible missions between the two operations and provides a collocated mechanism for two publicly funded agencies to work in a collaborative regional partnership on water-related research, testing, treatment and monitoring.

- The building addition shell and infrastructure is designed for future use by RWRD and the UofA is responsible for all capital costs for the interior tenant improvement build out estimated at **\$194,400**. The interior systems build out will be specific to the UofA operation and all direct costs will be monitored and tracked by both Facilities Management and the General Contractor and will to be billed back to the UofA according to the lease and the drawing documents.
- Because this building is a RWRD building it is not intended for the U of A lease to pay for the cost of the building construction per se but to pay not only for the tenant improvement costs but also the U of A's proportionate share of the operating expenses.

- This lease provides for a mutually beneficial relationship both in efficiency of cost and productivity to all water-related community stakeholders involved which includes the University of Arizona Water and Sustainability (WEST) Center activities, UA faculty and graduate students, and the RWRD testing laboratory.
- Proportionate share of Operating Expenses -  $\$7.23 \times 21,455 \text{ SF} = \$155,119.65$  per year; **\$775,598.25**
- Estimated expenses to the University of Arizona are as follows:

Actual Construction Bid for 21,455 SF addition	\$4,155,366
Tenant Improvement costs to the University of Arizona:	\$194,400
<u>Estimated building addition operating costs 5 years:</u>	<u>\$775,598</u>
<b>Total cost for 5 years to the U of A:</b>	<b>\$970,398</b>
<b>Total SF cost per year to the U of A</b>	<b>\$9.05/SF</b>

### **Pima Animal Care Facility**

The 2009 Project Cost Model was developed more than 5 years ago and based on a Preliminary Planning Study. Comparing a budget estimate cost model with actual project costs is ripe for misinterpretation. The estimated cost model summary is a highly flexible number which incorporates contingency and inflationary factors and is a valid method for planning all probable financial budget impacts and projecting those costs into an unknown future date. If however, a comparison is necessary to actual and completed projects the estimated contingency and inflation factors need to be removed.

Following the public presentation of the 2009 Project Model, Facilities Management has been studying both current construction costs and costs applicable to other animal care facilities. Attached are two Project Cost Models with both the inflation and contingency factors removed. The first Project Cost Model with the "Origin Date" of "9/15/2009" is the originally published estimate which has been updated by simply taking out the design and construction contingencies as well as the inflation factors. This modified both the Total Construction Cost and Total Project Cost numbers. The second attachment with the "Origin Date" of "3/18/2014" is a revised Project Cost Model based on current construction costs.

According to representatives of Swatt Miers Architects whose project design specialty for the past 15 years is Animal Care facilities, the average Construction Cost per square foot for this building type is estimated to cost from \$250 - \$320 per square foot. Each project comes with its own individual set of special circumstances and site considerations and drives the additional costs which finalize the Total Project Cost.

Animal Care facilities' higher costs are primarily in the areas of durable interior finishes and mechanical/plumbing distribution systems. When the facility is programmed and designed with a medical care aspect those related building systems and equipment combined with a 24/7 operation contribute to a unique building type whose building material, equipment and system components must support the activities and operational aspects. This building type specialty is not comparable to other building types such as offices and retail.

Keeping in mind that the comparison of estimated costs to actual costs is similar to comparing apples to oranges and comparing dissimilar building types is unrealistic, the following spreadsheet is a summary of both Construction Cost and Total Project Cost comparisons between the PACC Project Cost Models, other animal care facility projects and miscellaneous people-centric facilities stated in the media. Where quantities are unknown it is shown as "UNK".

I have included the Green Valley Hospital, San Hughes Court and the Elder Care Center projects using the costs and square footage from media reports although none of those facilities is a comparable building type either through operational function, hours of operation, materials used or required building systems.

### Spreadsheet

	Bldg Type	Project Phase or Complete Date	Project SF.	Construction Cost	Total Const. Per S.F.	Additional Project Costs	Project Total	Total Project Per S.F.
<b>PACC Cost Models</b>								
PACC Revised 2009 Cost Model	Animal Care	Planning	44,400	11,086,000	\$ 250	5,730,000	\$16,816,000	\$ 379
PACC Updated 2014 Cost Model	Animal Care	Planning	44,400	13,028,000	\$ 293	4,767,500	\$17,795,500	\$ 401
<b>COMPARISONS</b>								
Downtown Court Complex	Office/Courts	Const.	288,363	113,750,328	\$ 394	29,749,278	\$143,499,606	\$ 498
El Rio Santa Cruz Neighborhood Health Center	Medical Office Bldg	Const.	54,000	10,116,652	\$ 187	4,035,261	\$14,151,913	\$ 262
Green Valley Hospital	Hospital	Const.	146,635	35,000,000	\$ 239	21,000,000	\$56,000,000	\$ 382
Sam Hughes Court	Residential	2012	9,652	2,300,000	\$ 238	UNK	0	UNK
Elder Care Center (no FF&E's Inc.)	Elder Care Housing	Const.	24,000	4,014,000	\$ 167	400,000	\$4,414,000	\$ 184
Sacramento County Animal Care and Regulation	Animal Care	2013	44,200	14,500,000	\$ 328	9,240,000	\$23,740,328	\$ 537
Kern County Animal Shelter	Animal Care	Planning	49,379	20,212,492	\$ 409	1,333,233	\$21,545,725	\$ 436
Denver Municipal Animal Shelter	Animal Care	2011	36,000	11,001,374	\$ 306	5,219,236	\$16,220,610	\$ 451
Maricopa Animal Care and Control Center	Animal Care	2009	43,520	UNK	UNK		16,088,900	\$ 370
City of Irvine Animal Care	Animal Care	Planning	28,000	9,800,000	\$ 350	3,920,000	\$13,720,000	\$ 490
Peninsula Regional Animal Care Center	Animal Care	Const.	30,000	8,200,000	\$ 273	UNK	0	UNK

### Summary Cost Comparison Spreadsheet

Both the Revised 2009 PACC Cost Model and the updated 2014 PACC Cost Model estimated construction cost per square foot and estimated project cost per square foot compare closely to the \$/SF

**Pima County Facilities Management PROJECT COST MODEL**

PROJECT NAME: **Pima Animal Care Center / New Facilities** ORIGIN DATE: **9/15/2009**  
 DESCRIPTION: **New building additions and renovations for PACC to include a "New Front Door", Adoptions, Animal Welfare Clinic, Isolation Unit and other buildings to replace modular buildings. Additions and new construction approx 23,700 GSF plus 1,000 SF of new enclosed space in existing building and approx 8,000 SF of renovation and remodel in existing structure. work will also included 5.21 Acres of site development, landscaping and parking. Plan also includes the possibility of 3 additional kennel buildings to be added as need and funding dictate. NO INFLATION / NO CONTINGENCY**

Formula Derived				Project GSF: 44,400	
%	Percent of Bare Construction				
%	Percent of Total Construction				
<b>COSTS:</b>					
		<b>% Const</b>	<b>% Proj</b>		
1.	<b>Land Acquisition</b>				
A.	Right of Way / Easement Record	0.0%	0.0%	0	
B.	Land Acquisition	0.0%	0.0%	0	
	<b>Subtotal Land Acquisition</b>			<b>\$ 0</b>	
2.	<b>Construction Cost</b>				
A.	New Construction (Buildings)			5,760,000	
B.	New Construction (Kennels)			2,282,000	
C.	Renovation & Remodel			1,080,000	
D.	Special Fixed Equipment			0	
E.	Modular Building Removal (2 each)			40,000	
F.	Site Work (site dev/parking/landscape)	20.0%		1,824,000	
G.	Site Utilities Extensions	3.0%		100,000	
H.	Other Define as Required			0	
I.	Abatement (Hazardous Materials)			0	
	<b>Subtotal Construction Cost</b>			<b>\$ 11,086,000</b>	
3.	<b>Consultant Fees</b>				
A.	Const Manager Fees	0.0%	0.0%	0	Agency CM/CM@Risk Pre-Const Services
B.	Master Planning Fees	0.0%	0.0%	0	Arch/Planner
C.	Architect/Engineering Fees (A/E)	14.0%	9.2%	1,553,000	A / E / Civil / LS / Interior / LEED
D.	Water Meters	0.4%	0.2%	40,000	Tucson Water (Meters in place)
E.	Project Due Diligence	5.9%	3.9%	650,000	Survey/Soils/Archology/Struct/Air Balance
F.	Construction Testing & Inspection Fees	0.3%	0.2%	30,000	Allowance
G.	Project Commissioning LEED (3rd Party)	1.6%	1.1%	178,000	LEED Commissioning
H.	FM Project Management Services	4.0%	2.6%	444,000	All FM Services Through Project Completion
	<b>Subtotal Fees</b>			<b>\$ 2,895,000</b>	
4.	<b>Additional Project Costs</b>				
A.	Furniture, Fixtures & Equipment (FF&E)	10.0%	6.8%	1,109,000	Allowance
B.	Technology/Data/Telecom/AV/Security	10.0%	6.8%	1,109,000	Allowance
C.	Other Define as Required	0.0%	0.0%	0	
D.	Other Define as Required	0.0%	0.0%	0	
E.	Close-Out Costs	0.9%	0.6%	100,000	Allowance / Unforeseen closing items
F.	Outside Moving	0.1%	0.1%	10,000	Allowance
G.	Public Art (art objects & displays)	1.3%	0.8%	140,000	B.O.S. Mandated (1% of items 2, 3 & 5)
H.	Advertising & Printing	0.1%	0.1%	10,000	Allowance
I.	Permit Fees	3.2%	2.1%	357,000	Permits and WW Fees
	<b>Subtotal Additional Costs</b>			<b>\$ 2,836,000</b>	
5.	<b>Owner's Reserve</b>				
A.	Owner's Contingency-Design Phase	0.0%	0.0%	0	<b>Owner's Reserve: Overall Contingency Total is 0%</b>
B.	Owner's Contingency-Construction Phase	0.0%	0.0%	0	
	<b>Subtotal Owner's Reserve</b>			<b>\$ 0</b>	
<b>TOTAL PROJECT COST</b>				<b>\$ 16,816,000</b>	<b>Total Project \$/SF \$378.74</b>

Construction Cost Calculation	
New Construction GSF Bldgs	23,700
Est. Bldg \$/GSF	\$243.00
Direct Const Cost	\$5,759,100
New Const (Rounded)	\$5,760,000
Construction Cost Calculation	
New Construction GSF / Kennels	11,700
Est. Bldg \$/GSF	\$195.00
Direct Const Cost	\$2,281,500
New Const (Rounded)	\$2,282,000
Bldg Renov GSF	9,000
Est. Bldg \$/GSF	\$120.00
Const. Cost	\$1,080,000
Other Costs (if any)	\$0
Direct Const Cost	\$1,080,000
Renovation (Rounded)	\$1,080,000

Total Const \$/SF	
Total Const \$/SF	\$249.68

6.	<b>Inflation</b>				
A.	Inflation to mid-point of Construction	0.0%		0	<b>Inflation: NO INFLATION</b>
	<b>Subtotal Inflation</b>			<b>\$ 0</b>	
<b>TOTAL PROJECT COST w/ INFLATION</b>				<b>\$ 16,816,000</b>	<b>Total Project \$/SF \$378.74</b>

Percent Construction to Total Project Cost	65.9%	<b>Percentage split:</b> Compares Construction to Indirects as percentages. Total is 100%
Percent Indirects to Total Project Cost	34.1%	
<b>Total</b>	<b>100.0%</b>	
Percent of Indirects to Construction Cost*	51.7%	<b>Multplier:</b> Defines the indirect (soft) costs as a percentage of Construction. *Multiply const cost by this factor equals Total Project Cost [(1+ %) x CCost = TPCost](less inflation)

Revision Date	9/15/2009
Print Date	4/18/2014

Escalation Schedule			
Assumed Inflation Rate per Year		5.00%	
Original Total Project Cost Before Inflation			\$16,816,000
#	0 Year	No Added Cost of Inflation	0.0%
	1 Year	Added Cost of Inflation	5.0%
	2 Years	Added Cost of Inflation	5.3%
	3 Years	Added Cost of Inflation	5.5%
	4 Years	Added Cost of Inflation	5.8%
	5 Years	Added Cost of Inflation	6.1%
	6 Years	Added Cost of Inflation	6.4%
	7 Years	Added Cost of Inflation	6.7%
	8 Years	Added Cost of Inflation	7.0%
	9 Years	Added Cost of Inflation	7.4%
	10 Years	Added Cost of Inflation	7.8%
Total at 4 year(s)			0.0%

**NOTES:**  
 Land Cost is not included in the construction cost calculation. Land cost is considered an indirect cost. Land cost will generally boost ratio of indirect cost to construction cost. No Land cost associated with this project.  
 Owner's Reserve should generally be 15% to 20% for smaller projects and can be reduced to 10% to 15% for larger projects.  
 Inflation is the effect of time on Total Project Cost. Escalation Schedule compounds the assumed inflation rate on an annual basis only.

**Building Cost Estimator:**  
 Construction Cost breakdown for Projects with multiple construction types and SF calculator for the various areas involved.

Calculators	
New Bldg GSF	
7,300	Clinic
8,200	Lic/Adopt
2,600	Admin
2,900	ACO Unit
4,700	Isolation Unit
0	
23,700	Total

Kennel GSF	
3,900	30 kennels
3,900	30 kennels
3,900	30 kennels
0	
0	
0	
11,700	Total

Construction Cost breakdowns	
Project GSF: 32,700	
<b>Construction Cost Calculation</b>	
New Const GSF / General Bldgs	5,500
Est. Bldg \$/GSF	\$200.00
Direct Const Cost	\$1,100,000
New Const (Rounded)	\$1,100,000
New Const GSF / Adoption Bldgs	8,200
Est. Bldg \$/GSF	\$290.00
Direct Const Cost	\$1,550,000
New Const (Rounded)	\$1,550,000
New Const GSF / Clinic Bldgs	7,300
Est. Bldg \$/GSF	\$270.00
Direct Const Cost	\$1,971,000
New Const (Rounded)	\$1,971,000
New Const GSF / Isolation	4,700
Est. Bldg \$/GSF	\$240.00
Direct Const Cost	\$1,128,000
New Const (Rounded)	\$1,128,000
New Const GSF / Kennels	11,700
Est. Bldg \$/GSF	\$195.00
Direct Const Cost	\$2,281,500
New Const (Rounded)	\$2,282,000
Bldg Renov GSF	9,000
Est. Bldg \$/GSF	\$120.00
Const. Cost	\$1,080,000
Other Costs (if any)	\$0
Direct Const Cost	\$1,080,000
Renovation (Rounded)	\$1,080,000
<b>New Construction Average \$/SF</b>	
Total New Const. w/o Kennels GSF	23,700
Total Const. Cost	\$5,749,000.00
Est. Bldg \$/GSF	\$243
<b>\$/SF All Construction</b>	<b>\$243</b>

**Overall Building Cost:**  
 Calculates Average Construction Cost per SF for all types listed  
 Total Cost / Total GSF = Total \$/SF

**Formula Derived**

PROJECT NAME: **Pima Animal Care Center / New Facilities REVISED**

ORIGIN DATE: **3/18/2014**

DESCRIPTION:

New building additions and renovations for PACC to include a "New Front Door", Adoptions, Animal Welfare Clinic, Isolation Unit and other buildings to replace modular buildings. Additions and new construction approx 23,700 GSF plus 1,000 SF of new enclosed space in existing building and approx 8,000 SF of renovation and remodel in existing structure. work will also included 5.21 Acres of site development, landscaping and parking. Plan also includes the possibility of 3 additional kennel buildings to be added as need and funding dictate. **NO INFLATION / NO CONTINGENCY**

- Percent of Bare Construction
- Percent of Construction &/or Project

Project GSF: **44,400**

**COSTS:**

**1. Land Acquisition**

	% Const	% Proj	
A. Right of Way / Easement Record	0.0%	0.0%	0
B. Land Acquisition	0.0%	0.0%	0
<b>Subtotal Land Acquisition</b>			<b>\$ 0</b>

**2. Construction Cost**

	% Const	% Proj	
A. New Construction	49.5%		8,815,000
B. Renovation, Remodel & T.I.	10.1%		1,800,000
C. Special Fixed Equipment (Vet Clinic)	0.6%		100,000
D. Building Demolition	0.0%		0
E. Site Work (site dev/parking/landscape)	20.0%	11.9%	2,123,000
F. Site Utilities Extensions	1.4%	0.8%	150,000
G. Modular Building Removal (2 each)	0.4%	0.2%	40,000
H. Other Define as Required	0.0%	0.0%	0
I. Abatement (Hazardous Materials)	0.0%	0.0%	0
<b>Subtotal Construction Cost</b>			<b>\$ 13,028,000</b>

Construction Cost Calculation	
New Construction GSF	35,400
Est. Bldg \$/GSF	\$248.00
Direct Const Cost	\$8,814,800
<b>New Const (Rounded)</b>	<b>\$8,815,000</b>
Bldg Renov & T.I. GSF	9,000
Est. Bldg \$/GSF	\$200.00
Const. Cost	\$1,800,000
Other Costs (if any)	\$0
Direct Const Cost	\$1,800,000
<b>Renovation (Rounded)</b>	<b>\$1,800,000</b>
Allowance	
Allowance	
<b>Total Const \$/SF</b>	<b>\$293.42</b>

**3. Consultant Fees / Project Management**

	% Const	% Proj	
A. Master Planning Fees	0.0%	0.0%	0
B. Architect/Engineering Fees (A/E)	14.0%	10.2%	1,824,000
C. Const Manager Fees	0.0%	0.0%	0
D. Other Define as Required	0.0%	0.0%	0
E. Project Due Diligence	1.0%	0.7%	130,000
F. Construction Testing & Inspection Fees	0.2%	0.1%	20,000
G. Project Commissioning (3rd Party)	1.5%	1.1%	196,000
H. FM Project Management Services	4.0%	2.9%	522,000
I. Permit Fees	1.6%	1.2%	211,500
J. Advertising & Printing	0.1%	0.1%	10,000
<b>Subtotal Fees</b>			<b>\$ 2,913,500</b>

- Arch/Planner
- A/E/Civil/LS/Int/LEED
- Agency CM/CM@Risk Pre-Const Services
- Survey/Soils/Archeology/Struct/Air Bal
- Allowance
- LEED Commissioning
- All FM Services Through Project Completion
- DSD / RWRD / Water Meters
- Allowance

**4. Additional Project Costs**

	% Const	% Proj	
A. Furniture, Fixtures & Equipment (FF&E)	10.0%	7.3%	1,303,000
B. Technology/Data/Telecom/AV/Security	3.0%	2.2%	381,000
C. Collection (Libraries)	0.0%	0.0%	0
D. Other Define as Required	0.0%	0.0%	0
E. Outside Moving	0.0%	0.0%	0
F. Public Art (art objects & displays)	1.2%	0.9%	160,000
<b>Subtotal Additional Costs</b>			<b>\$ 1,864,000</b>

- Allowance
- Allowance
- B.O.S. Mandated (1% of Items 2, 3 & 5)

**6. Owner's Reserve**

	% Const	% Proj	
A. Owner's Contingency-Design Phase	0.0%	0.0%	0
B. Owner's Contingency-Construction Phase	0.0%	0.0%	0
<b>Subtotal Owner's Reserve</b>			<b>\$ 0</b>

Owner's Reserve: Overall Contingency Total is 0%

**TOTAL PROJECT COST \$ 17,795,500**

**Total Project \$/SF \$400.80**

**6. Inflation**

A. Inflation to mid-point of Construction	0.0%	0
<b>Subtotal Inflation</b>		<b>\$ 0</b>

Inflation: NO INFLATION

**TOTAL PROJECT COST w/ INFLATION \$ 17,795,500**

**Total Project \$/SF \$400.80**

Percent Construction to Total Project Cost	73.2%
Percent Indirects to Total Project Cost	26.8%
<b>Total</b>	<b>100.0%</b>

Percentage split: Compares Construction to Indirects as percentages. Total is 100%

Percent of Indirects to Construction Cost	136.6%
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Multiplier: Defines the indirect (soft) costs as a percentage of Construction. \*Multiply const cost by this factor equals Total Project Cost [% x CCost = TPCost](less inflation)

Revision Date	
Print Date	4/18/2014

Escalation Schedule			
Assumed Inflation Rate per Year		5.00%	
Original Total Project Cost Before Inflation		\$17,795,500	
0 Year	No Added Cost of Inflation	0.0%	\$0
#1 1 Year	Added Cost of Inflation	5.0%	\$889,775
2 Years	Added Cost of Inflation	5.3%	\$934,264
3 Years	Added Cost of Inflation	5.5%	\$980,977
4 Years	Added Cost of Inflation	5.8%	\$1,030,026
5 Years	Added Cost of Inflation	6.1%	\$1,081,527
6 Years	Added Cost of Inflation	6.4%	\$1,135,603
7 Years	Added Cost of Inflation	6.7%	\$1,192,384
8 Years	Added Cost of Inflation	7.0%	\$1,252,003
9 Years	Added Cost of Inflation	7.4%	\$1,314,603
10 Years	Added Cost of Inflation	7.8%	\$1,380,333
<b>Total at 6 year(s)</b>		0.0%	\$0

**NOTES:**  
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 Inflation is the effect of time on Total Project Cost. Escalation Schedule compounds the assumed inflation rate on an annual basis only.

**Project Calculators**

**Building Cost Estimator:**  
 Construction Cost breakdown for Projects with multiple construction types and SF calculator for the various areas involved.

Due-Diligence Calculator (line 3.E.)	
\$12,000	Survey
\$12,000	Soils Report
\$6,000	Phase 1 Site Assessment
\$100,000	Archeology Oversight
<b>\$130,000</b>	<b>Total (to line 3.E.)</b>

**13,028,000** Total Construction Cost

Permits Calculator (line 3.I.)	
\$40,600	WW Fees
\$131,000	DSD Permit
\$40,000	Water Meters
<b>\$211,600</b>	<b>Total (to line 3.I.)</b>

**Permit Estimator:**  
 Average DSD Permit Fee = 1% Const Cost  
 Average WW Fees based on Pipe Size (see below)  
 Average Water Meter Fee (assume min. 2" meter @ \$4,000 ea. X 2 meters (water + Irrigation))

Water Meter Size	Fee
1 5/8" or 3/4"	\$4,068.00
2 1"	\$8,480.00
3 1 1/2"	\$27,030.00
4 2"	\$69,790.00
5 3"	\$162,510.00
6 4"	\$363,690.00

**Building Cost Estimator:**  
 Calculates Average Construction Cost per SF for all types listed  
 Total Cost / Total GSF = Total \$/SF

**Building Cost Estimator:**  
 Calculates Average Renovation Cost per SF for all types listed  
 Total Cost / Total GSF = Total \$/SF

Calculators	
New Bldg GSF	
7,300	Clinic
8,200	Lic/Adopt
2,600	Admin
2,900	ACO Unit
4,700	Isolation
0	
23,700	Total

Calculators	
New Kennels GSF	
3,900	30 Kennels
3,900	30 Kennels
3,900	30 Kennels
0	
0	
0	
11,700	Total

Calculators	
Renovation SF	
9,000	Renov Existing
0	Description
9,000	Total

**Construction Cost breakdowns**  
 Project New GSF: 35,400

Construction Cost Calculation	
New Const GSF / Clinic	7,300
Est. Bldg \$/GSF	\$300.00
Direct Const Cost	\$2,190,000
<b>New Const (Rounded)</b>	<b>\$2,190,000</b>
New Const GSF / Lic/Adopt	6,200
Est. Bldg \$/GSF	\$270.00
Direct Const Cost	\$1,674,000
<b>New Const (Rounded)</b>	<b>\$1,674,000</b>
New Const GSF / Admin & ACO	5,500
Est. Bldg \$/GSF	\$250.00
Direct Const Cost	\$1,375,000
<b>New Const (Rounded)</b>	<b>\$1,375,000</b>
New Const GSF / Isolation	4,700
Est. Bldg \$/GSF	\$270.00
Direct Const Cost	\$1,269,000
<b>New Const (Rounded)</b>	<b>\$1,269,000</b>
New Const GSF / Kennel Units	11,700
Est. Bldg \$/GSF	\$195.00
Direct Const Cost	\$2,281,500
<b>New Const (Rounded)</b>	<b>\$2,282,000</b>
<b>New Construction Average \$/SF</b>	
Total New Const GSF	35,400
Const. Cost	\$8,790,000.00
Est. Bldg \$/GSF	\$248
<b>\$/SF All Construction</b>	<b>\$248</b>

Project Renov GSF: 9,000

Renovation Cost Calculator	
Bldg Renov & T.I. GSF	9,000
Est. Bldg \$/GSF	\$200.00
Const. Cost	\$1,800,000
<b>Renovation (Rounded)</b>	<b>\$1,800,000</b>
Bldg Renov & T.I. GSF	0
Est. Bldg \$/GSF	\$0.00
Const. Cost	\$0
<b>Renovation (Rounded)</b>	<b>\$0</b>
Bldg Renov & T.I. GSF	0
Est. Bldg \$/GSF	\$0.00
Const. Cost	\$0
<b>Renovation (Rounded)</b>	<b>\$0</b>
Bldg Renov & T.I. GSF	0
Est. Bldg \$/GSF	\$0.00
Const. Cost	\$0
<b>Renovation (Rounded)</b>	<b>\$0</b>
<b>Renov Construction Average \$/SF</b>	
Total Renov Const GSF	9,000
Const. Cost	\$1,800,000.00
Est. Bldg \$/GSF	\$200.00
<b>\$/SF All Renovation</b>	<b>\$200</b>