APPENDIX C
Fiscal Analysis of Development Scenario

October 2012

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consultants in planning, zoning, economic development,
urban design & landscape architecture

MEMORANDUM

TO: **Nora Beck and Jason Navota, CMAP**

FROM: **William James, Valerie Kretchmer & Tim Doron**

DATE: **October 9, 2012**

RE: **Final Memo; Lakemoor Development Scenario Analysis**

This memorandum presents our team's findings for the Lakemoor Development Scenario Analysis. This final memo outlines the methodology, assumptions and conclusions of our analysis. The project team recognizes the valuable participation of CMAP staff in collaborating with us in refining our approach to the analysis and reviewing our draft memo. CMAP's comments on our draft memo have been addressed and incorporated into this final memo.

I. Introduction

CMAP is preparing an update of the Village of Lakemoor's comprehensive plan. A key part of the plan is formulating policies for future residential development of vacant/agricultural land. An important policy consideration being examined in the plan is the role of conservation-oriented development practices and whether such an approach would offer financial/cost advantages over conventional forms of residential development. This project supports the formulation of development policy for the comprehensive plan by analyzing the development costs associated with these two forms of development. This comparative analysis has been done by creating prototypical development plans for each scenario and analyzing the cost implications of each.

A logical point of departure is defining the two scenarios. *Conventional development* is defined as the typical suburban form of residential development characterized by subdivisions of large/medium sized lots along curving streets. *Conservation development* is defined as a more compact form of development on considerably smaller lots allowing for the preservation of significant open space. Thus, the conservation development places a higher density of dwellings on a smaller area of the site, leaving a portion of the site undeveloped. The expectation is that the conservation scenario would result in lower infrastructure costs because the infrastructure improvements are concentrated into a smaller area.

The study uses an actual parcel of land for this comparative analysis. The parcel is approximately 304 acres in size and is located on the northeast corner of Chapel Hill Road and Route 120 on the western edge of Lakemoor. Most of the site is used for agriculture. The site contains a wetland and natural area adjacent to the wetland. The wetland area would be protected by regulation and both scenarios keep this

area undeveloped. In the conservation scenario, the additional open space would be allocated to maintaining a portion of the existing farm in agricultural production and keeping the buffer around the wetland.

It is important to note that a key control in the comparative analysis is keeping the total number of lots equal in each scenario. Depending on the development assumptions underlying the plans for each scenario, it is possible for either scenario to yield more lots than the other. In order to make a valid comparison of infrastructure costs, it is necessary to keep the number of lots equal in both scenarios. In this way, site design is taken out of the comparative analysis and per lot infrastructure costs represent a valid comparison because the number of lots is the same in each scenario.

II. Development Assumptions

In order to create the prototypical plans of each scenario, certain development assumptions need to be established in order to provide a rational and useful comparison of the two scenarios. Development plans based on false or illogical assumptions would not provide useful policy guidance.

A range of factors influence the form and program of residential development on any given site. In Lakemoor, the availability of sewer and water utilities plays a significant factor in determining lot size and the program of development. However, since the prototypical plans for the two scenarios are not intended to illustrate actual development on the site, but rather development policy implications, the development assumptions for the conventional and conservation scenarios are not based on how best to extend sewer and water utilities to the site.

The consideration of development assumptions for the two scenarios is represented in Table 1: Development Assumptions. This table examines the four most applicable residential zoning classifications for the two scenarios in the Lakemoor Zoning Ordinance. Each of the zoning classifications is assessed for their applicability to define the lot size requirements for either of the two scenarios.

The result of the assessment of scenario assumptions was that the R-2 Medium Density Single Family District would be used as the basis for the conventional development scenario and the RS-4 High Density Single Family would be used as the basis for the conservation development scenario. It should be noted that while the Village currently depends on the Planned Unit Development process, the draft comprehensive plan recommends updating the zoning ordinance to get the desired residential patterns.

While a case could be made for development assumptions different from those expressed on Table 1, minor differences in assumptions are unlikely to alter the major findings of this comparative analysis. For example, the lot size assumption for the conservation scenario calls for a minimum 5,500 square foot lot with dimensions of 55 feet wide by 100 feet deep. Five foot minimum side yards would provide a 45 foot building envelope. It could be argued that the lot width should be slightly larger, which may or may not be the case depending on the specific design of the houses to be built on these lots. However, minor modifications in the site plan could be made without changing the overall lot yield. The lot size in both the conventional and conservation scenario are large enough to accommodate houses of the size suitable for the local market.

Based on these assumptions, a comparison of the program elements in each scenario is shown on Table 2: Comparison of Scenario Program Elements.

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Table 1: Development Assumptions Lakewood Development Scenario Analysis	
General Assumptions	
The subject site is unincorporated and could be annexed to either Lakemoor or McHenry	
McHenry has sewer service immediately to the west of the subject site	
Amending the FPA Boundary is needed to obtain sewer service from McHenry	
Adjacent land in Lakemoor is zoned RE-1	
Zoning Classification	**Key Assumptions**
RE-1: Estate Single Family	An unlikely choice for a developer due to low density
	Land costs per unit are relatively high
	1 acre minimum lot size; ave. lot size 50,000 - 52,000 s.f.
	typical lot dimensions: 150' x 290' to 175' x 300'
	Adjacent land in Lakemoor zoned RE-1
	lower street improvement costs; swale drain; no curbs and gutter
RS-2: Medium Density SF	Logical classification for "conventional" development scenario
	10,000 s.f. min. lot size; ave. lot size 12,000 - 14,000 s.f.
	typical lot dimensions: 60' x 170' to 80' x 175'
	full urban/suburban street improvement; curb, gutter storm drain.
RS-3: Medium/High Density SF	too small for conventional; too large for conservation
	does not relate to surrounding zoning in Lakemoor
	7,500 s.f. min. lot size; ave. lot size 9,000 - 10,000 s.f.
	typical lot dimensions: 50' x 150' to 60' x 170'
	full urban/suburban street improvement; curb, gutter storm drain.
RS-4: High Density Single Family	right lot size for conservation development
	5,000 min. lot size can accommodate same size house as RS-2
	5,000 s.f. min. lot size; ave. lot size 6,000 - 7,500 s.f.
	typical lot dimensions: 55' x 100 to 65' x 120'
	full urban/suburban street improvement; curb, gutter storm drain.
	SFR district w/planned development approval

Source: Camiros, Ltd.

Table 2: Comparison of Scenario Program Elements		
Program Elements	**Conventional Scenario**	**Conservation Scenario**
Site Area	304 acres	304 acres
Number of Residential Lots	656	656
Minimum Lot Size	10,000 sq. ft.	5,500 sq. ft.
Minimum Lot Width	60 ft.	55 ft.
Acres in Open Space/Percentage	95.6 acres/31%	161.0/53%
Gross Density	2.2 du/ac	2.2 du/ac
Net Density; Excluding Open Space	3.0 du/ac	4.0 du/ac
Linear Feet of Street	29,902 lin. ft.	32,399 lin. ft.

Source: Camiros, Ltd.

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III. Existing Site Conditions

The relative merits of the two scenarios can be better understood by presenting the existing site conditions, as shown on Figure 1, Existing Site Conditions. The subject site is currently an operating farm. Most of the site is allocated for crop production. However, the northeastern corner of the site is used as pasture. In addition, the eastern portion of the site contains a wetland and wooded area. Windbreaks and other uncultivated strips of land are located adjacent to perimeter roads and between crop fields.

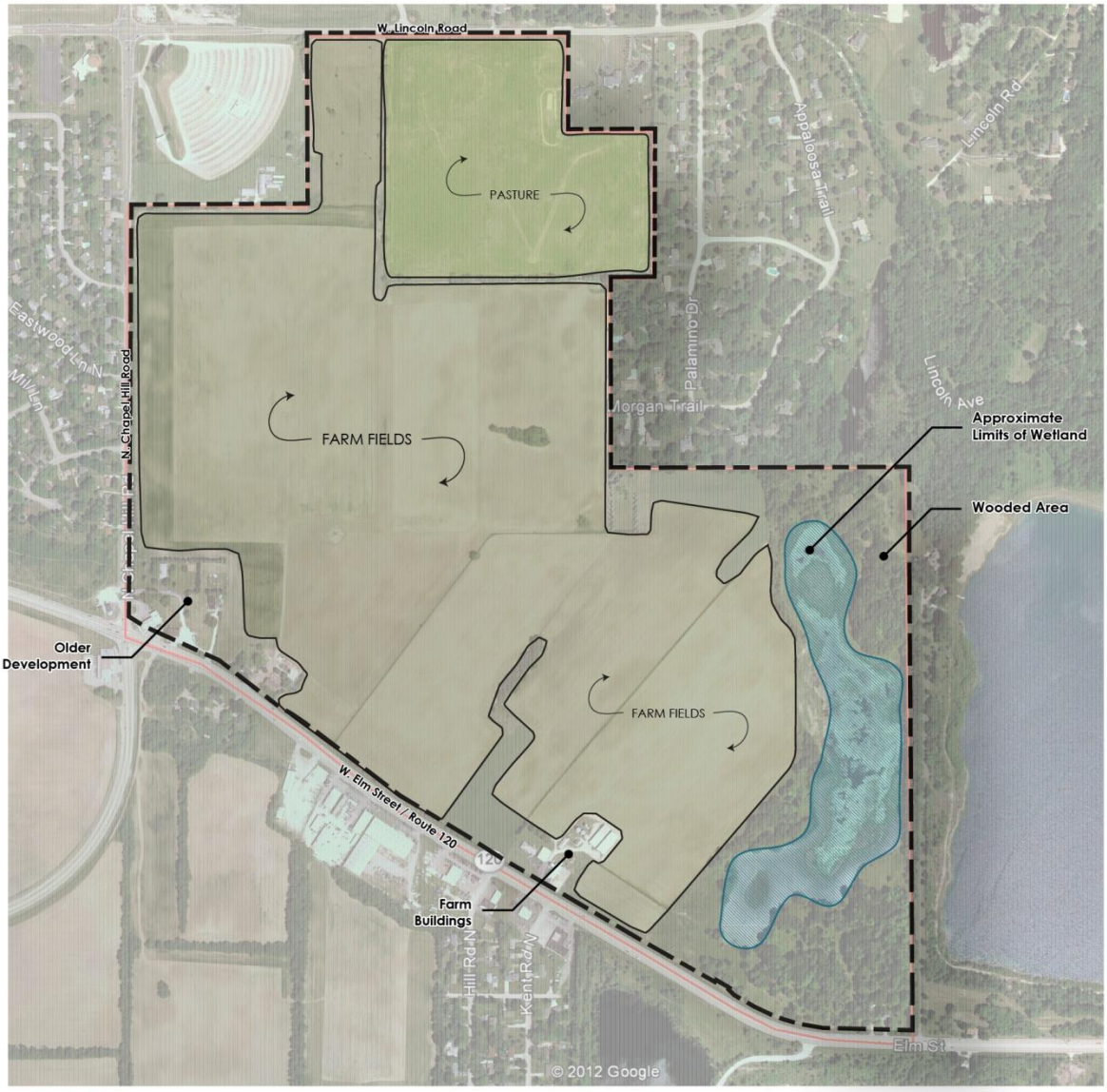

Figure 1: Existing Site Conditions

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IV. Conventional Development Scenario

The conventional development scenario is presented on Figure 2: Conventional Development Scenario. This plan is based on 10,000 square foot lots with typical minimum dimensions of 60' x 170'. Figure 2 depicts a subdivision layout consistent with suburban norms. There is an internal hierarchy of streets, rational access points onto external streets, open areas suitable for stormwater detention distributed around the site and protection of the wetland area. The development program consists of a total of 656 lots yielding a gross density of 2.2 dwellings units per acre. While additional refinement of the site plan might result in a slightly increased number of lots, this total is within range of that consistent with suburban density at this lot size.

Figure 2: Conventional Development Scenario

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V. Conservation Development Scenario

The site plan for the conservation scenario is presented on Figure 3: Conservation Development Scenario. This plan produces the same number of lots as the Conventional Development Scenario (656), but uses far less of the site to achieve the same lot yield. The entire southeast portion of the site, approximately 115 acres, is maintained in open space. Of this open space area, the eastern portion is preserved as wetland and associated buffer while the western portion is maintained as a working farm, possibly operated for local food production.

The overall design of the site plan evokes a "traditional neighborhood" character, consistent with the "new urbanism" movement. While other design motifs could be successfully used, the "traditional neighborhood" motif produces a strong sense of community and public spaces that could be used for parks or neighborhood facilities.

Figure 3: Conservation Development Scenario

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The design of the site plan also promotes environmental sustainability and "green infrastructure." Twenty-foot bio-swales are provided in the backs of almost every lot, facilitating the capture of stormwater into natural facilities for groundwater percolation and conveyance into larger storage ponds. This site plan design could easily accommodate a "zero-discharge" stormwater management system. Similar to the Conventional Development Scenario, this plan provides for logical connections to the perimeter street system and a distinct hierarchy of internal streets. Landscape buffers are also provided along Chapel Hill Road and along the eastern site boundary where the smaller conservation lots abut larger rural estate lots.

VI. Infrastructure Costs

A conceptual estimate for the on-site work required for the proposed development based on the conventional plan and the conservation plan was conducted to determine the rough costs of on-site work. In general the conventional plan has larger lots, more site disturbance and larger detention requirements. The conservation plan utilizes smaller lots, bio-swales and engineered wetlands to reduce the stormwater flow decreasing the cost for both the storm sewers and the detention requirements. A separate analysis determining the costs of offsite utility improvements should be done as these costs could vary greatly. Offsite utility improvements would include installation of sanitary sewer and/or water main outside the limits of the site boundaries. Below are our assumptions for all on-site work for both the typical conventional land use plan and the conservation land use plan utilizing green stormwater practices.

Conventional Plan

Earthwork – To simplify calculations it was assumed the entire site would have 1' of topsoil stripped, stockpiled on site and later re-used for restoration. In addition to topsoil excavation 1.5' of clay excavation was assumed over the entire site during the mass grading operations.

Stormwater Management– The detention requirement for the larger conventional lots was assumed to be 0.34 acre-ft/acre. This is slightly lower than the detention requirement per acre for the conservation plan because of the lower density. A wet bottom detention pond will be utilized for detaining the storm water runoff. Wet bottom basins typically cost more as more excavation is involved. It appears from aerial imagery and the flood maps that there is a large low wetland area on the east end of the site. Although the development stays out of the majority of this wetland there will be the need for mitigation requirements. Wetland mitigation is very costly and would have to be analyzed further as the final build out plan is developed. A rough estimate of the mitigation costs has been included in the estimate.

Watermain - The on-site water main was assumed to be along all streets and be 8" in size. If some lines were required to be 12" the cost increase would be minimal

Sanitary Sewer - The ultimate grading of the site and the need for on-site forcemains or deep sanitary sewers (10' or deeper) was not analyzed. If deep sewer or forcemains were required for the ultimate build out plan the cost for the on-site sanitary sewer would increase.

Storm Sewer - All sewers were sized based on discharge of 1.5-2CFS/Acre for the conventional plan. It was also assumed all sewers will be able to reasonably reach the proposed detention areas in the final build out plan.

Roadway – A conventional residential roadway cross section was used for estimating the roadway costs. This includes 24' wide roadways, curb & gutter, sidewalk, landscaping, signage and lighting at intersections and other various locations.

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Conservation Plan

Earthwork – To simplify calculations it was assumed the disturbed area would have 1' of topsoil stripped, stockpiled on site and later re-used for restoration. In addition to topsoil excavation 1.5' of clay was assumed over the disturbed area to be moved in the mass grading operations.

Stormwater Management – The detention requirement for the smaller conservation lots was assumed to be 0.36 acre-ft/acre. This is slightly higher than the detention requirement per acre for the conventional plan because of the higher density. It is anticipated the detention basin for the conservation plan would be a infiltration/wetland basin promoting infiltration. It appears from aerial imagery and the flood maps that there is a large low wetland area on the east end of the site. The conservation plan stays completely out of this area resulting in no need for wetland mitigation.

Watermain - The on-site water main was assumed to be along all streets and be 8" in size. If some lines were required to be 12" the cost increase would be minimal

Sanitary Sewer - The ultimate grading of the site and the need for on-site forcemains or deep sanitary sewers (10' or deeper) was not analyzed. If deep sewer or forcemains were required for the ultimate build out plan the cost for the on-site sanitary sewer would increase.

Storm Sewer - All sewers were sized based on discharge of 1.5-2CFS/Acre for the conservation plan. Although the flows appear the same as the conventional plan the majority of the discharges for the conservation plan were closer to 1.5 CFS/Acre. It was also assumed all sewers will be able to reasonably reach the proposed detention areas in the final build out plan. The lower discharge reflects the longer retention time and slower velocities during storms from water traveling through bio-swales rather than storm sewers. Storm sewers were not able to be removed entirely because of the need for culverts and other storm sewers to get the stormwater to the bio-swales.

Roadway – A conventional residential roadway cross section was used for estimating the roadway costs. This includes 24' wide roadways, curb & gutter, sidewalk, landscaping, signage and lighting at intersections and other various locations.

Summarized Costs - Conventional Site Plan

Earthwork	$3,350,000
Stormwater Management	$2,250,000
Detention	*$1,250,000*
Wetland Mitigation	*$1,000,000*
Watermain	$3,500,000
Sanitary Sewer	$3,800,000
Storm Sewer	$2,000,000
Roadway	$5,750,000
Contingency (15%)	$3,100,000
Total Cost	$23,750,000
Cost per Lot	$36,200

Summarized Costs - Conservation Site Plan

Earthwork	$2,525,000
Stormwater Management	$420,000
Detention	*$420,000*
Wetland Mitigation	*$0*
Watermain	$3,750,000
Sanitary Sewer	$4,050,000
Storm Sewer	$1,200,000
Roadway	$5,750,000
Contingency (15%)	$2,650,000
Total Cost	$20,345,000
Cost per Lot	$31,000

Analysis – The difference in cost from the conservation plan and the conventional plan is attributed to the stormwater and mitigation costs. Leaving a large portion of the site undeveloped drastically lowers the stormwater detention requirements and the cost associated with installing the infrastructure needed. Overall the conservative plan provides the same number of lots at a lower cost. Although the lots are smaller the increased open area will be a draw to prospective buyers for recreational use.

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VII. Market Considerations

A key consideration in the economic impact of conventional development versus conservation development is whether the homes/property in each scenario will have comparable value market. This question is particularly relevant to the conservation scenario: Will homebuyers pay an equal price for a house in a conservation development when they are getting less land with the house? This is a complex question and is influenced by the amenities included with the conservation development house and the overall community. A broad level assessment of the local housing market is presented below.

In the past seven months (February through August 2012), there have been 31 residential home sales in Lakemoor at prices ranging from $1,000 to $252,500 with a median of $78,000 (excluding three sales that were for less than $10,000) according to data from the Chicago Tribune. As of September 2012, there are 114 homes listed for sale in Lakemoor with prices ranging from $26,000 to $470,900 and a median asking price of $152,239. Of these, 79 or 69% are foreclosures with asking prices of $44,923 to $285,398 with a median of $143,428. Thirty-five non-foreclosed homes are for sale at prices of $26,000 to $470,900 with a median of $176,450. In total, 19 homes are listed for more than $200,000, three of which are waterfront properties. The small number of sales and the large number of foreclosures indicate that this is a highly price sensitive area.

Based on cursory discussions with developers of residential housing, exurban homebuyers are willing to accept smaller lots as long as they are reasonable in size and the size and quality of the house is the same as in a conventional subdivision. Reductions in lot size in front yard setbacks, narrower right-of-way, narrower street pavement and smaller rear yards are likely to be acceptable as long as the homes are not right on top of each other. If well done, buyers are likely to pay the same price for a house in a conservation community as in a conventional subdivision. However, the development must have real open space amenities that are valued by homeowners.

Prairie Crossing is the closest example of a true conservation community in Lake County. While well received, it took longer for the homes to sell compared to conventional subdivisions nearby. This was due in part to higher home prices, somewhat smaller homes for the money, higher real estate taxes and the presence of a Waste Management landfill behind the site. Those who bought initially were drawn to Prairie Crossing because of its special conservation features and sense of community.

Homes in Prairie Crossing have not been immune to the drop in prices over the past five years. Original Prairie Crossing homeowners had a guaranteed buyback by Waste Management if they couldn't sell their homes within 6 months; that guarantee expired in 2009. (This was to protect buyers from potential negative impacts of the landfill.) As a result, when the market started to decline (which was unrelated to the landfill's presence), approximately 50 of the 300 homeowners put their homes on the market to take advantage of the guarantee. This distorted the re-sale market, and Waste Management has been slowly selling these homes or renting them in the interim.

VIII. Conclusions

A number of conclusions can be drawn from the comparative analysis of the conventional development scenario versus the conservation development scenario, as outlined below:

- The two scenarios would yield a comparable number of lots, given the assumptions used in this analysis. This said, the conservation scenario would inherently have more flexibility to increase lot yield slightly due to a smaller lot size.
- The conservation scenario has the capability of preserving meaningful amounts of open space while generating a lot yield comparable to the conventional scenario.

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- The conservation scenario can facilitate "green infrastructure" amenities such as bio-swales and zero-discharge stormwater management systems, which would reduce the development impact on the natural environment.
- The infrastructure costs associated with the conservation scenario would be considerably less, about 9% less, than those in the conventional scenario. The reduced cost is roughly $5,200 per lot. It is possible that this differential could be increased through more detailed engineering of the infrastructure and more focused construction methods. While this differential is not likely to provide a great financial incentive, developers are quick to seize any advantage. If they feel they can use the conservation approach as an effective marketing tool, the cost savings will be a valued extra benefit.
- If well designed, the conservation development should produce homes that have an equal market value to those in larger-lot conventional developments. While hard market data to substantiate this finding are scarce, there is a great deal of anecdotal evidence to support the claim that homebuyers are increasingly conscious of green building practices and this awareness does affect buying decisions.
- It is doubtful that development using the conservation approach will have any negative fiscal impact. Theoretically, developers could sell the same conservation house for $5,200 less than the conventional house, due to lower infrastructure costs. In reality, developers will price the house at what the market will bear. The lower cost of infrastructure would likely be less than 2% of the total hard costs of construction, which would translate into a minimal difference in property tax revenue.

This comparative analysis was conducted from a value neutral perspective to assess the development patterns produced from a conventional and conservation approach. The analysis suggests that the conservation development scenario offers considerable environmental and quality-of-life benefits. This approach would reduce the infrastructure costs of development, albeit by a modest degree. Available market data suggest that homebuyers would be willing to pay an equal price for a home in a well-designed conservation development. These findings suggest that the conservation development approach is a viable alternative to conventional suburban development. Ultimately, home-buyers will determine whether the benefits of the conservation approach are more valuable than the larger lot produced by the conventional approach. Given local market conditions, the appeal of conservation development may warrant a shift in planning/development policy to facilitate more conservation-oriented development.

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Appendix A
Lakemoor Subdivision
Project Name
CONCEPTUAL ENGINEER'S OPINION OF PROBABLE COST
September 12, 2012

Conventional Site Plan

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	COST
	Earthwork				
1	strip topsoil	cy	484,000.00	1.00	$484,000.00
2	clay excavation	cy	726,000.00	2.50	$1,815,000.00
3	spread topsoil	cy	150,083.00	7.00	$1,050,581.00
				cost:	**$3,349,581.00**
	Stormwater				
1	detention basin	cy	355,000.00	3.50	$1,242,500.00
2	wetland mitigation	acre	5.00	200,000.00	$1,000,000.00
				cost:	**$2,242,500.00**
	Watermain				
1	8" DIP CL 52 watermain	linft	30,250.00	115.00	$3,478,750.00
				cost:	**$3,478,750.00**
	Sanitary				
1	8"-12" PVC SDR26 sanitary	linft	30,250.00	125.00	$3,781,250.00
				cost:	**$3,781,250.00**
	Storm Sewer				
1	12" RPC storm sewer	linft	4,755.00	40.00	$190,200.00
2	15" RPC storm sewer	linft	3,585.00	44.00	$157,740.00
3	18" RPC storm sewer	linft	2,810.00	48.00	$134,880.00
4	21" RPC storm sewer	linft	2,575.00	52.00	$133,900.00
5	24" RPC storm sewer	linft	3,050.00	55.00	$167,750.00
6	27" RPC storm sewer	linft	1,495.00	65.00	$97,175.00
7	30" RPC storm sewer	linft	2,220.00	80.00	$177,600.00
8	33" RPC storm sewer	linft	1,900.00	87.50	$166,250.00
9	36" RPC storm sewer	linft	2,030.00	95.00	$192,850.00
10	42" RPC storm sewer	linft	1,300.00	105.00	$136,500.00
11	48" RPC storm sewer	linft	1,025.00	115.00	$117,875.00
12	54" RPC storm sewer	linft	350.00	125.00	$43,750.00
13	60" RPC storm sewer	linft	1,625.00	135.00	$219,375.00
14	72" RPC storm sewer	linft	300.00	150.00	$45,000.00
				cost:	**$1,980,845.00**
	Roadway				
1	asphalt pavement: fabric,10" stone, 2.5" binder, 2" surface	sqyd	80,667.00	26.00	$2,097,342.00
2	M3-12 curb & gutter	linft	60,500.00	15.00	$907,500.00
3	concrete walk	sqft	302,500.00	4.00	$1,210,000.00
4	street signage	allowance	1.00	100,000.00	$100,000.00
5	street lights	ea	125.00	5,000.00	$625,000.00
6	parkway trees	ea	1,008.00	300.00	$302,400.00
7	topsoil parkway, 6"	sqyd	100,833.00	1.00	$100,833.00
8	sod, parkway	sqyd	100,833.00	4.00	$403,332.00
				cost:	**$5,746,407.00**

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Conservation Site Plan

	Earthwork				
1	strip topsoil	cy	363,000.00	1.00	$363,000.00
2	clay excavation	cy	550,000.00	2.50	$1,375,000.00
3	spread topsoil	cy	112,550.00	7.00	$787,850.00
				cost:	**$2,525,850.00**
	Stormwater				
1	detention basin	cy	120,000.00	3.50	$420,000.00
				cost:	**$420,000.00**
	Watermain				
1	8" DIP CL 52 watermain	linft	32,350.00	115.00	$3,720,250.00
				cost:	**$3,720,250.00**
	Sanitary				
1	8"-12" PVC SDR26 sanitary	linft	32,350.00	125.00	$4,043,750.00
				cost:	**$4,043,750.00**
	Storm Sewer				
1	12" RPC storm sewer	linft	3,975.00	40.00	$159,000.00
2	15" RPC storm sewer	linft	14,410.00	44.00	$634,040.00
3	18" RPC storm sewer	linft	1,100.00	48.00	$52,800.00
4	21" RPC storm sewer	linft	950.00	52.00	$49,400.00
5	24" RPC storm sewer	linft	1,000.00	55.00	$55,000.00
6	27" RPC storm sewer	linft	450.00	65.00	$29,250.00
7	30" RPC storm sewer	linft	925.00	80.00	$74,000.00
8	33" RPC storm sewer	linft	720.00	87.50	$63,000.00
9	36" RPC storm sewer	linft	300.00	95.00	$28,500.00
10	42" RPC storm sewer	linft	100.00	105.00	$10,500.00
11	48" RPC storm sewer	linft	100.00	115.00	$11,500.00
12	54" RPC storm sewer	linft	100.00	125.00	$12,500.00
13	60" RPC storm sewer	linft	125.00	135.00	$16,875.00
14	72" RPC storm sewer	linft		150.00	$0.00
				cost:	**$1,196,365.00**
	Roadway				
1	asphalt pavement: fabric,10" stone, 2.5" binder, 2" surface	sqyd	82,267.00	26.00	$2,138,942.00
2	M3-12 curb & gutter	linft	64,700.00	15.00	$970,500.00
3	concrete walk	sqft	323,500.00	4.00	$1,294,000.00
4	street signage	allowance	1.00	100,000.00	$100,000.00
5	street lights	ea	75.00	5,000.00	$375,000.00
6	parkway trees	ea	1,078.00	300.00	$323,400.00
7	topsoil parkway, 6"	sqyd	107,833.00	1.00	$107,833.00
8	sod, parkway	sqyd	107,833.00	4.00	$431,332.00
				cost:	**$5,741,007.00**

Summary	**Conventional Plan**	**Conservation Plan**
Earthwork	**$ 3,349,581.00**	**$ 2,525,850.00**
Stormwater	**$ 2,242,500.00**	**$ 420,000.00**
Watermain	**$ 3,478,750.00**	**$ 3,720,250.00**
Sanitary	**$ 3,781,250.00**	**$ 4,043,750.00**
Storm Sewer	**$ 1,980,845.00**	**$ 1,196,365.00**
Roadway	**$ 5,746,407.00**	**$ 5,741,007.00**
Subtotal;	**$ 20,579,333.00**	**$ 17,647,222.00**
Conctingency(15%):	**$ 3,086,899.95**	**$ 2,647,083.30**
Total:	**$ 23,666,232.95**	**$ 20,294,305.30**

*Since Gewalt-Hamilton Associates Inc. Has No Control Over the Cost of Labor, Materials, or Equipment, or Over the Contractor's Methods of Determining Prices, or Over Competitive Bidding of Market Conditions, Opinions of Probable Costs, as Provided for Herein, Are to be Made on the Basis of Experience and Qualifications and Represent the Best Judgement as a Design Professional Familiar with the Construction Industry. Gewalt-Hamilton Associates, Inc., Cannot and Does Not Guarantee That Proposals, Bids, or The Construction Costs Will Not Vary From Opinions of Probable

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