

Memorandum

City of Lawrence

Public Works

TO: David L. Corliss, City Manager
FROM: Charles F. Soules, Director of Public Works
CC: Diane Stoddard, Casey Toomay, Brandon McGuire
DATE: December 16, 2014
RE: Rock Chalk Park (RCP) Cost Comparison

On June 4, 2013 staff presented an update to the construction costs for Rock Chalk Park infrastructure. The proposed costs were found to be generally in line with recently bid projects of Iowa Street reconstruction and the Venture Park infrastructure.

When comparing costs for projects there are several variables that can affect unit prices:

- Overall size of the project – typically the larger the project the lower the final cost per foot however, the complexity of the project (carrying traffic or rock excavation) could have an effect.
- Quantity of a single item can affect the unit price. On a concrete pavement project if a small amount of asphalt is needed for temporary pavement, unit prices for asphalt may be higher.
- Complexity of project – coordination with other contractors, utilities, time of year, construction time/ schedule and site conditions.
- The amount of work the General Contractor has to hire a sub-contractor to complete.

When comparing RCP infrastructure to city projects such as 15th & Iowa or VenturePark one must understand what is and is not included in each item bid. Typical city projects try to identify every item needed to complete the work. With RCP it is our understanding that the contractor had a lump sum contract with RCP. Quantities were estimated for most of the measurable items and unit prices were established. Some items were for the whole project for example mobilization, seeding, and site grading. Others were unique to an infrastructure project i.e. site entry sign and tennis courts.

If you compare gross costs on a per linear foot basis:

➤ VenturePark – Project Number PW1224

Bid	Less Waterline	Less Seeding/Construction Signage/Common Excavation	\$3,112,594 for 6,852 Linear Feet of Road =
\$4,293,827	-\$310,737	-\$870,496	\$454/LF

Venture Park is a 2 lane road with bike lanes and sidewalks on both sides (2.83 lanes wide) (\$454/LF divided by 2.83 lanes = \$160/lane/ft.).

➤ Iowa, Yale to Irving Hill – Project Number PW1012

Bid	Less Traffic Control, Signal, Seeding, Pavement Marking (approximate cost)	\$4,100,000 for 4,750 Linear Feet of Road =
\$4,435,751	-\$335,751	\$863/LF

Iowa is a 5 lane section with sidewalks on both sides (\$863/LF divided by 5 lanes = \$173/lane/ft.).

➤ Rock Chalk Park – Project Number PW1315
(Rock Chalk Drive and George Williams Way)

Bid		\$944,654 for 3,128 Linear Feet of Road =
\$944,654		\$302/LF

These are 2 lane streets with sidewalk only on one side of Rock Chalk Drive and both on sides of George Williams Way (\$302/LF divided by 2 lanes = \$151/lane/ft.).

Attached are bid comparisons for Venture Park and Iowa Street Reconstruction projects. Also attached is a memorandum presented to the City Commission on July 8, 2014 with respect to the Natural Trail improvements and costs.

Line 1: Mobilization is a cost for the contractor to mobilize his equipment to the site, crews, set up of construction office, and other associated start-up costs. For RCP the price was \$400,000 which is reasonable as compared to the Iowa reconstruction project of \$375,000.

Line 3: Seeding is paid per acre. For RCP the price was \$1500/ ac as compared to Venture Park the low bid was \$1000/ acre. Sodding of areas was also completed with RCP for which there was not a separate bid item.

Line 5: Traffic Control was paid for as a Lump Sum when compared to Venture Park the City also paid signage fees in addition to the Lump Sum initial setup price.

Line 11: Professional Fees for engineering and testing is within City purchasing policy guidelines (attached memo on Professional Fees).

On July 8, 2014 a memorandum on the costs for the Natural Trails and Park Monument sign was provided to the City Commission.

The waterline unit prices for RCP (\$404,338) compared to the same unit prices for Venture Park (\$403,759) is \$579 apart.

Similarly for the sewer main, the unit prices for RCP (\$150,705) compared to the same unit prices for Venture Park (\$153,794). The sewer for similar bid items is less for RCP.

Storm Sewer:

Typically City projects use concrete pipe. HDPE is an acceptable material which is used more in the development community for private developments. The storm sewer materials for concrete pipe and inlets on a unit price basis, is less for RCP than the low bid for Venture Park or Iowa Street.

Rock Chalk Drive / George Williams Way

Line 77: Unclassified excavation has a unit cost of \$5/cy for RCP as compared to common excavation of Venture Park at a bid price of \$2.15/cy. However the quantity at RCP is approximately 16,000/cy versus at Venture Park the quantity was 310,000/cy.

Concrete pricing was +/- 10% more on pavement, curb & gutter, and sidewalk, as compared to VenturePark and 15th & Iowa Street. RCP is an additional 10 miles further from the concrete plant than Venture Park and almost 6 miles further than 15th & Iowa Street which may account for some of the difference in material delivery.

Actual cores of GWW show an average pavement thickness of 9¼". This is sufficient for the traffic loads and volumes. A 10% deduct for pavement thickness was charged to the project.

Actual cores of Rock Chalk Drive show an average of 10.5" of concrete. No additional payment for additional thickness was provided.

Line 83: 6" x 10' fiber reinforced concrete sidewalk – the low bid on the Bob Billings Parkway project was \$24.30 (and ranged up to \$43.50/LF) as compared to the \$40/LF for Rock Chalk Park. On Bob Billings Parkway the contractor used a slip form paver to complete the multi-use path.

Line 84: Access Ramps on Bob Billings Parkway were bid at \$650/ramp as compared to \$1000/ramp for Rock Chalk Park.

Line 89: City Standard Specifications would be 9" flyash treated subgrade. Rock Chalk Park plans called for 12" flyash and 4" AB-3 for subgrade. The compared to bids in the spread sheet for Venture Park is 9" flyash with 6" AB-3.

Parking Lot / Access Drives

Line 98: Concrete Parking Lot for RCP includes a 12" flyash with 4" AB-3 subgrade and 5" concrete surface. The concrete parking surface for RCP has a unit cost of \$44 /SY.

For comparison on the Iowa project a 6" concrete pavement was bid at a unit cost of \$45/ SY. Actual cores of parking area concrete thickness at RCP is 6".

Line 100: Concrete Parking and Bus Lane is an 8" Pavement. The RCP cost was \$50/ SY as compare to the bid price of \$42.50 and \$44.80/ SY at Venture Park.

Line 101: Fire Lane / Access Roads are 7" of concrete at RCP and have a price of \$44/ SY.

As noted above for comparison in Line 98 for Iowa Street 6" pavement was \$45/ sy and Line 100 for Venture Park 8" pavement was \$42.50 and \$44.80/ SY.

Landscaping:

Significant landscaping was complete in excess of the plan and what is being paid for. The Trees exceed the minimum size required. The City will pay from \$275 - \$585 per tree depending on the caliper (size of the tree). The trees planted at RCP would be at the upper end of the range. Similarly for the shrubs the City will pay between \$40 -\$120 depending on the size and type. The price for shrubs at RCP is \$60/ each.

A total of 647 trees and 791 shrubs were installed (plan quantity and what the City is paying for is only 450 trees and 710 shrubs).

Parking Lot Lighting:

For the 6th & Iowa Street project lighting costs included all conduit, electric service, poles and bases. The cost per light was \$9,000. There are 35 lights in the parking lots and along the roads at Rock Chalk Park. At the same unit cost of the 6th & Iowa project this would have cost \$315,000 however the lighting cost at Rock Chalk Park is \$210,000.

On November 18th the Commission received the final report on the infrastructure at Rock Chalk Park. The Final costs of the improvements installed including Change Orders (\$161,654.00) is \$11,598,439.03. On November 25, 2014 the Commission approved payment to RCP, LLC in an amount of \$10,359,633.23 for infrastructure at Rock Chalk Park retaining \$25,000 in retainage for items yet to be completed and amounts for financing and professional services pending additional supporting documentation.

The costs for the infrastructure at Rock Chalk Park are generally found to be in line with other projects bid by the City. The infrastructure at Rock Chalk Park was constructed in accordance with City specifications. The project was inspected by qualified City inspection staff. The final quantities were measured and the City is only paying for the quantities installed.

Respectfully Submitted,

A handwritten signature in black ink, reading "Charles F. Soules". The signature is written in a cursive style with a large initial "C" and a stylized "F".

Charles F. Soules, P.E.
Director of Public Works

CFS/ch

Memorandum
City of Lawrence
City Manager's Office

TO: Mayor and City Commission
FROM: David L. Corliss, City Manager
DATE: June 4, 2013
RE: Rock Chalk Park Update

At its meeting on May 21, the City Commission requested an update on Rock Chalk Park shared infrastructure and other associated costs prior to authorizing a contract on the recreation center construction. This update was scheduled for the June 4 City Commission meeting.

Updated Cost Estimates:

[Attached](#) is an updated itemization of shared infrastructure and other project costs provided by KU Endowment. This document provides details on unit quantity and unit costs of items such as general construction, site grading, retention ponds, trails and tennis courts, waterline, sanitary sewer, storm sewer, parking lot lights, landscaping, Rock Chalk Drive & George Williams Way construction, overflow parking lot, parking lot and access drives, Rock Chalk Lane and Rock Chalk Parkway construction, chip and seal on the County Road, and the preparation of the recreation center pad. The total of these items is \$12,290,952.65.

Staff has reviewed the updated cost estimates provided by KU Endowment and has found them to be generally in line with costs the City has seen on other recent projects, such as Iowa Street reconstruction and the Farmland infrastructure. Differences between the updated estimates and earlier City cost estimates for infrastructure of \$8.3 million can be identified primarily in the area of several items- the addition of landscaping (+\$583,850), parking lot paving includes the entire site and has been enhanced to provide durability and longevity of the infrastructure (+ approximately \$895,000), the inclusion in the infrastructure figure of tennis courts and a retaining wall required for the tennis court construction (+\$810,000), the inclusion of the recreation center pad in the infrastructure estimate (\$432,250), site grading (+\$850,500), and soft costs (legal, loan origination, loan interest, construction management fee of 2.5% (+\$914,851). There were also various cost reductions, such as a reduction for the waterline and sanitary sewer costs (-\$451,696) and a reduction in the estimated costs of Rock Chalk Drive/George Williams Way construction (-\$197,000).

As the City Commission is aware, other cost items related to the project are the construction of the recreation center, architecture fees and land acquisition for the recreation center site. These items total \$12,209,050. These items, along with the itemization of the shared infrastructure and other project costs are listed below:

<u>Item</u>	<u>Total Estimated Project Cost</u>
Recreation Center Bid	\$ 10,500,000.00
Architecture Fees	\$ 925,000.00
Land	\$ 784,050.00
Shared Infrastructure, tennis courts, pad site and other costs*	\$ 12,290,952.65
TOTAL	\$ 24,500,002.65
<i>*itemized on KU Endowment list</i>	

Assist Foundation Contribution to Project:

Earlier today, Bill and Cindy Self's Assists Foundation announced a major gift to the Lawrence community of up to \$2 million. This gift will be provided to enhance wellness and physical activity in the community by contributing to the project. This is one of the largest gifts ever received by the City.

Resulting Reduction in Maximum Cost to the City from \$25 million to \$22.5 million:

Under the agreement between KU Athletics, the City of Lawrence, KU Endowment and Bliss Sports, the city's contribution to the Rock Chalk Park project, including the city's Recreation Center, shared infrastructure and related costs, was capped at \$25 million. The total project costs are now estimated at \$24.5 million. As a result of the approximately \$2 million donation from the Assists Foundation, representatives of the parties have agreed to recommend a reduction in the city's maximum cost from \$25 million to \$22.5 million. The city's actual costs for the project will be set forth as follows: \$10.5 million for the recreation center bid, \$925,000 for architect fees and \$784,000 for land acquisition, with a remaining maximum amount of \$10,290,950 for tennis courts, walking/running trails, recreation center site preparation, and other shared site infrastructure. Additionally, pursuant to the development agreement, these costs will all be based on actual expenses. Below is a chart of estimated City project costs reflecting the Assists Foundation Donation and the total project cap of \$22.5 million.

<u>Item</u>	<u>Total estimated City cost</u>
Recreation Center Bid	\$ 10,500,000.00
Architecture Fees	\$ 925,000.00
Land	\$ 784,050.00
Shared Infrastructure, tennis courts, pad site and other costs*	Cap of \$10,290,950 after Assists Foundation Donation of up to \$2 million
TOTAL	\$ 22,500,000 Maximum City Cost
<i>*itemized on KU Endowment list</i>	

Conclusion:

Staff believes that the updated total cost estimate of \$24.5 million for the project is a valid estimate. With the generous gift of the Assist Foundation reducing these costs to the City to a maximum of \$22.5 million, the City will be able to realize a first-class recreational facility, lighted tennis courts and shared site improvements with the Kansas Athletics facilities at a cost that is at least 10% less than the original \$25 million project maximum.

Requested Action:

Provide direction to staff regarding the project and direct staff to finalize agreements for City Commission action, if appropriate.

Rock Chalk Site Work

General	Unit	Quantity	Unit Cost		Total
Mobilization	LS	1	\$ 400,000.00	\$	400,000.00
Construction Staking	AC	90	\$ 2,500.00	\$	225,000.00
Seeding, Mulching & Fertilizing	LS	1	\$ 30,000.00	\$	30,000.00
Utilities Connection fees and expenses	LS	1	\$ 55,000.00	\$	55,000.00
Traffic Control	LS	1	\$ 5,000.00	\$	5,000.00
Erosion & Sediment Control	LS	1	\$ 40,000.00	\$	40,000.00
Legal Fees per Development Agreement	LS	1	\$ 167,836.00	\$	167,836.00
Loan origination fees for project financing	LS	1	\$ 150,000.00	\$	150,000.00
Loan interest for project financing	LS	1	\$ 309,515.00	\$	309,515.00
Construction Management fee 2.5% on \$11.5M	LS	1	\$ 287,500.00	\$	287,500.00
Professional Engineering Fees	LS	1	\$ 525,000.00	\$	525,000.00

General Total: \$ 2,194,851.00

Site Grading	Unit	Quantity	Unit cost		Total
Site strip	CY	32,000	\$ 2.25	\$	72,000.00
Site Excavation	CY	180,000	\$ 2.25	\$	405,000.00
Compaction	CY	160,000	\$ 1.10	\$	176,000.00
Topsoil Replacement/fine grade	CY	10,000	\$ 10.00	\$	100,000.00
Rock Excavation	CY	9,750	\$ 10.00	\$	97,500.00

Site Grading Total: \$ 850,500.00

Retention Ponds	Unit	Quantity	Unit cost		Total
Rock Excavation	CY	10,000	\$ 10.00	\$	100,000.00
Dirt Excavation	CY	5,000	\$ 2.25	\$	11,250.00
Faircloth skimmers	LS	3	\$ 10,000.00	\$	30,000.00
Storm structure	LS	3	\$ 5,000.00	\$	15,000.00

Site Grading Total: \$ 156,250.00

Natural Trails and Eight Lighted Tennis Courts	Unit	Quantity	Unit cost		Total
Tennis Courts	LS	1	\$ 640,000.00	\$	640,000.00
Retaining Walls at Tennis Courts	LS	1	\$ 170,000.00	\$	170,000.00
Natural trail 10' Approx. 5 + miles	SY	33,710	\$ 12.00	\$	404,520.00

Eight Lighted Tennis Courts: \$ 1,214,520.00

Waterline	Unit	Quantity	Unit Cost		Total
Connect to Existing water line	1	1	\$ 750.00	\$	750.00
12" C900 DR14 Water line	LF	7,642	\$ 36.87	\$	281,760.54
8" PVC C900 DR14 Water line	LF	472	\$ 29.00	\$	13,688.00
3" M.J. Gate Valve	EACH	2	\$ 500.00	\$	1,000.00
6" M.J. Gate Valve	EACH	2	\$ 825.00	\$	1,650.00
8" M.J. Gate Valve	EACH	2	\$ 1,300.00	\$	2,600.00
12" MJ Gate Valve	EACH	33	\$ 1,500.00	\$	49,500.00
Fire Hydrant Assembly	EACH	17	\$ 3,300.00	\$	56,100.00
Private Fire Hydrant Assembly (Painted Red)	EACH	2	\$ 3,300.00	\$	6,600.00
Flowable Fill	LS	1	\$ 26,910.00	\$	26,910.00
2" Curb Stop with Auto Flusher and RIPRAP	LS	1	\$ 6,000.00	\$	6,000.00
Water Meter Pits	LS	1	\$ 20,303.11	\$	20,303.11
Concrete Encasement	LF	20	\$ 60.00	\$	1,200.00
Waterline Total:					\$ 468,061.65

Sanitary Sewer	Unit	Quantity	Unit Cost		Total
8" SDR26 PVC granular embedment	LF	2,019	\$ 44.00	\$	88,836.00
<i>STD Manhole 4" DIA, 6' Depth</i>	EACH	8	\$ 2,000.00	\$	16,000.00
Extra Depth 4' DIA Manhole	VF	12.46	\$ 100.00	\$	1,246.00
Drop Manhole 5' DIA 6' Depth	EACH	1	\$ 2,970.00	\$	2,970.00
Extra Depth 5' DIA Manhole	VF	6.3	\$ 110.00	\$	693.00
6" Service Line	EACH	4	\$ 500.00	\$	2,000.00
Connect to Existing Manhole	EACH	1	\$ 500.00	\$	500.00
Concrete Collars	EACH	7	\$ 570.00	\$	3,990.00
Flowable Mortar Backfill	CY	403	\$ 70.00	\$	28,210.00
Seed, Fertilize, Mulch and Erosion Netting	LS	1	\$ 5,500.00	\$	5,500.00
Construction Staking	no bid	no bid			
Rip Rap Erosion Protection	LS	1	\$ 2,500.00	\$	2,500.00
Concrete Encasement	LF	45	\$ 50.00	\$	2,250.00
Impervious Ditch Check	LS	1	\$ 750.00	\$	750.00
Polyurethane Manhole Lining	LS	1	\$ 7,397.50	\$	7,397.50
Sanitary Sewer Total:					\$ 162,842.50

Storm Sewer	Unit	Quantity	Unit Cost		Total
15" HDPE	LF	38	\$ 23.75	\$	902.50
15" Reinforced Concrete Pipe	LF	79	\$ 24.75	\$	1,955.25
18" HDPE	LF	87	\$ 24.00	\$	2,088.00
18" Reinforced Concrete Pipe	LF	76	\$ 25.00	\$	1,900.00
24" HDPE	LF	706	\$ 30.00	\$	21,180.00
24" Reinforced Concrete Pipe	LF	38	\$ 32.00	\$	1,216.00
30" HDPE	LF	19	\$ 39.00	\$	741.00
48" Reinforced Concrete Pipe	LF	103	\$ 105.00	\$	10,815.00
15" RCP End Section	EACH	1	\$ 450.00	\$	450.00
30" RCP End Section	EACH	1	\$ 450.00	\$	450.00
48" RCP End Section	EACH	2	\$ 1,900.00	\$	3,800.00
5'x4' Curb Inlet	EACH	6	\$ 2,025.00	\$	12,150.00
10'x4' Curb Inlet	EACH	3	\$ 3,252.00	\$	9,756.00
4'x4' Junction Box	EACH	1	\$ 2,185.00	\$	2,185.00
18"NOM DIA Rip Rap	SY	84	\$ 25.00	\$	2,100.00
Flowable fill	LS	1	\$ 11,000.00	\$	11,000.00
Storm Sewer Total					\$ 82,688.75

Parking Lot Lights	Unit	Quantity	Unit Cost		Total
LED - Dual Fixtures	LS	1	\$ 120,000.00	\$	120,000.00
Pole Bases	LS	1	\$ 25,000.00	\$	25,000.00
Conduit	LS	1	\$ 40,000.00	\$	40,000.00
Conduit Westar	LS	1	\$ 25,000.00	\$	25,000.00
Conduit for Fiber	LF	0	\$ -	\$	-
Electric Service - labor	LS	1	\$ 30,000.00	\$	30,000.00
Parking Lot Lights Total:				\$	240,000.00

Landscaping	Unit	Quantity	Unit Cost		Total
Trees	EACH	450	\$ 425.00	\$	191,250.00
Shrubs	EACH	710	\$ 60.00	\$	42,600.00
Site Entry signs	LS	1	\$ 150,000.00	\$	150,000.00
Irrigation	LS	1	\$ 100,000.00	\$	100,000.00
Misc	LS	1	\$ 100,000.00	\$	100,000.00
Landscaping Total:				\$	583,850.00

Rock Chalk Drive & George Williams	Unit	Quantity	Unit Cost		Total
Unclassified excavation	CY	15,934	\$ 5.00	\$	79,670.00
Compacted fill	CY	1,790	\$ 1.00	\$	1,790.00
Site restoration	LS	1	\$ 5,000.00	\$	5,000.00
10" NRDJ Portland cement conc pave	SY	9,758	\$ 55.00	\$	536,690.00
Type CG-1 Concrete curb & gutter	LF	6,257	\$ 16.00	\$	100,112.00
4" x 5' Concrete sidewalk	SY	40	\$ 30.00	\$	1,200.00
6" x 10' Fiber reinforced conc sdwk	SY	4,078	\$ 40.00	\$	163,120.00
Access ramps	EACH	13	\$ 1,000.00	\$	13,000.00
Compaction tests street	LS	5	\$ 100.00	\$	500.00
Construction Staking	No Bid	No Bid	No Bid		No Bid
Seed, Fertilize & Mulch	LS	1	\$ 4,000.00	\$	4,000.00
Clearing, Grubbing & Tree Removal	LS	1	\$ 1,250.00	\$	1,250.00
Treatment of subgrade 12" fly ash & 4"AB3	SY	11,825	\$ 9.33	\$	110,327.25
Erosion Control	LS	1	\$ 2,670.00	\$	2,670.00
Section Corner Monument Box	LS	1	\$ 1,000.00	\$	1,000.00
2" Conduit	LF	1,701	\$ 2.00	\$	3,402.00
4" Conduit	LF	997	\$ 2.00	\$	1,994.00
Traffic Control Signage	LS	1	\$ 500.00	\$	500.00
Rock Chalk Drive & George Williams Total:				\$	1,026,225.25

Overflow Parking Lot	Unit	Quantity	Unit Cost		Total
Concrete access ramps	SY	667	\$ 50.00	\$	33,350.00
Lot Grading	LS	1	\$ 25,000.00	\$	25,000.00
Temporary Gravel Laydown	LS	1	\$ 20,000.00	\$	20,000.00
Overflow Parking Lot Total:				\$	78,350.00

Parking Lot / Access Drives	Unit	Quantity	Unit Cost		Total
Concrete parking lot	SY	52,362	\$	44.00	\$ 2,303,928.00
CG-1 curb and gutter	LF	17,230	\$	18.00	\$ 310,140.00
Fire lane / Access roads	SY	8,845	\$	44.00	\$ 389,180.00
Storm Sewer	LS	1	\$	157,000.00	\$ 157,000.00
Trim Subgrade	SY	65,393	\$	1.25	\$ 81,741.25
Treatment of subgrade - 12"Fly ash & 4" AB3	SY	65,425	\$	9.33	\$ 610,415.25

Parking Lot / Access Drives Total: \$ 3,852,404.50

Rock Chalk Lane and Rock Chalk Parkway	Unit	Quantity	Unit Cost		Total
Unclassified excavation	CY	3,017	\$	5.00	\$ 15,085.00
Compacted fill	CY	2,920	\$	1.00	\$ 2,920.00
Site restoration	LS	1	\$	5,000.00	\$ 5,000.00
8" NRDJ Portland cement	SY	9,675	\$	50.00	\$ 483,750.00
CG-1 curb and gutter	LF	5,100	\$	16.00	\$ 81,600.00
6" x 10' Fiber rec path	SY	4,706	\$	40.00	\$ 188,240.00
4" x 5' Sidewalk	SY	60	\$	30.00	\$ 1,800.00
Access ramps	EACH	51	\$	1,000.00	\$ 51,000.00
Treatment of subgrade - 12" fly ash & 4"AB3	SY	10,800	\$	9.33	\$ 100,764.00

Rock Chalk Lane and Rock Chalk Parkway Total: \$ 930,159.00

Chip and Seal County Road	Unit	Quantity	Unit Cost		Total
Chip and Seal	SY	10,000	\$	1.80	\$ 18,000.00

Chip and Seal County Road \$ 18,000.00

Rec Center Pad	Unit	Quantity	Unit cost		Total
Rock Excavation	CY	18,000	\$	10.00	\$ 180,000.00
Dirt Excavation	CY	10,000	\$	2.25	\$ 22,500.00
Compaction	CY	8,500	\$	1.10	\$ 9,350.00
Fly Ash 18"	SY	12,000	\$	8.00	\$ 96,000.00
AB3 Entire building Pad	SY	20,100	\$	4.00	\$ 80,400.00
AB3 Additional depth rock area	SY	8,000	\$	5.50	\$ 44,000.00

Rec Center Pad: \$ 432,250.00

Total: \$ 12,290,952.65

ESTIMATE OF WORK COMPLETE

DATE: October 31, 2014

ESTIMATE No.: 13 & Final

PROJECT LOCATION: Rock Chalk Site Work

FOR PERIOD: Final

MEASURED

ESTIMATE ON ITEMS

ITEM	DESCRIPTION	UNIT	QUANTITY	CONTRACTED		COMPLETED TO DATE		Percent Complete	RDJ Venture Park Unit Bid		Kings Venture Park Unit Bid		Kings Iowa Unit Bid		ESS Iowa Unit Bid	
				UNIT PRICE	AMOUNT	UNIT	AMOUNT		UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
	General	Unit	Quantity	Unit cost	Total											
1	Mobilization	LS	1	\$ 400,000.00	\$ 400,000.00	1.00	\$ 400,000.00	100%		\$ -		\$ -	375,000.00	\$ 375,000.00	165,500.00	\$ 165,500.00
2	Construction Staking	LS	1	\$ 225,000.00	\$ 225,000.00	0.72	\$ 161,700.00	72%		\$ -		\$ -		\$ -		\$ -
3	Seeding, Mulching & Fertilizing	AC	20	\$ 1,500.00	\$ 30,000.00	20.00	\$ 30,000.00	100%	1,000.00		1,200.00			\$ -		\$ -
4	Utilities Connection fees and expenses	LS	1	\$ 55,000.00	\$ 55,000.00	0.72	\$ 39,750.00	72%		\$ -		\$ -		\$ -		\$ -
5	Traffic Control	LS	1	\$ 5,000.00	\$ 5,000.00	1.00	\$ 5,000.00	100%	2,000.00		5,500.00			\$ -		\$ -
6	Erosion & Sediment Control	LS	1	\$ 40,000.00	\$ 40,000.00	1.00	\$ 40,000.00	100%		\$ -		\$ -		\$ -		\$ -
7	Legal Fees per Development Agreement	LS	1	\$ 167,836.00	\$ 167,836.00	1.27	\$ 212,535.81	127%		\$ -		\$ -		\$ -		\$ -
8	Loan origination fees for project financing	LS	1	\$ 150,000.00	\$ 150,000.00	1.06	\$ 158,643.75	106%		\$ -		\$ -		\$ -		\$ -
9	Loan interest for project financing	LS	1	\$ 309,515.00	\$ 309,515.00	1.45	\$ 449,081.54	145%		\$ -		\$ -		\$ -		\$ -
10	Construction Management fee 2.5% on \$11.5M	LS	1	\$ 287,500.00	\$ 287,500.00	0.86	\$ 247,059.22	86%		\$ -		\$ -		\$ -		\$ -
11	Professional Fees	LS	1	\$ 525,000.00	\$ 525,000.00	1.06	\$ 555,198.70	106%		\$ -		\$ -		\$ -		\$ -
	General Sub Total				\$ 2,194,851.00		\$ 2,298,969.02	105%		\$ -		\$ -				

	Site Grading	Unit	Quantity	Unit cost	Total											
12	Site strip	CY	32,000	\$ 2.25	\$ 72,000.00	32,000.00	\$ 72,000.00	100%	2.15	\$ 68,800.00	1.65	\$ 52,800.00	13.50	\$ 432,000.00	5.50	\$ 176,000.00
13	Site Excavation	CY	180,000	\$ 2.25	\$ 405,000.00	180,000.00	\$ 405,000.00	100%	2.15	\$ 387,000.00	1.65	\$ 297,000.00	13.50	\$ 2,430,000.00	5.50	\$ 990,000.00
14	Compaction	CY	160,000	\$ 1.10	\$ 176,000.00	160,000.00	\$ 176,000.00	100%	0.42	\$ 67,200.00	0.65	\$ 104,000.00	2.50	\$ 400,000.00	22.90	\$ 3,664,000.00
15	Topsoil Replacement/line grade	CY	10,000	\$ 10.00	\$ 100,000.00	10,000.00	\$ 100,000.00	100%		\$ -		\$ -		\$ -		\$ -
16	Rock Excavation	CY	9,750	\$ 10.00	\$ 97,500.00	9,750.00	\$ 97,500.00	100%		\$ -		\$ -	14.00	\$ 136,500.00	14.85	\$ 144,787.50
	Site Grading Sub Total				\$ 850,500.00		\$ 850,500.00	100%								

	Retention Ponds	Unit	Quantity	Unit cost	Total											
17	Rock Excavation	CY	10,000	\$ 10.00	\$ 100,000.00	10,000.00	\$ 100,000.00	100%		\$ -		\$ -	14.00	\$ 140,000.00	14.85	\$ 148,500.00
18	Dirt Excavation	CY	5,000	\$ 2.25	\$ 11,250.00	5,000.00	\$ 11,250.00	100%	2.15	\$ 10,750.00	1.65	\$ 8,250.00	13.50	\$ 67,500.00	5.50	\$ 27,500.00
19	Faircloth skimmers	LS	3	\$ 10,000.00	\$ 30,000.00	3.00	\$ 30,000.00	100%		\$ -		\$ -		\$ -		\$ -
20	Storm structure	LS	3	\$ 5,000.00	\$ 15,000.00	3.00	\$ 15,000.00	100%		\$ -		\$ -		\$ -		\$ -
	Retention Ponds Sub Total				\$ 156,250.00		\$ 156,250.00	100%								

	Natural Trails and Eight Lighted Tennis Courts	Unit	Quantity	Unit cost	Total											
21	Tennis Courts	LS	1	\$ 640,000.00	\$ 640,000.00	1.00	\$ 640,000.00	100%		\$ -		\$ -		\$ -		\$ -
22	Retaining Walls at Tennis Courts	LS	1	\$ 170,000.00	\$ 170,000.00	1.00	\$ 170,000.00	100%		\$ -		\$ -		\$ -		\$ -
23	Natural trail 10' Approx. 5 = miles	SY	33,710	\$ 12.00	\$ 404,520.00	33,483.75	\$ 401,805.00	99%		\$ -		\$ -		\$ -		\$ -
	Trails and Tennis Courts Sub Total				\$ 1,214,520.00		\$ 1,211,805.00	100%		\$ -		\$ -		\$ -		\$ -

	Waterline	Unit	Quantity	Unit cost	Total											
22	Connect to Existing water line	EACH	1	\$ 750.00	\$ 750.00	1.00	\$ 750.00	100%	\$ 2,700.00	\$ 2,700.00		\$ -		\$ -		\$ -
23	12" C900 DR14 Water line	LF	7,642	\$ 36.87	\$ 281,760.54	7,654.00	\$ 282,202.98	100%	\$ 35.00	\$ 267,470.00	36.00	\$ 275,112.00		\$ -		\$ -
24	8" PVC C900 DR14 Water line	LF	472	\$ 29.00	\$ 13,688.00	486.00	\$ 14,094.00	103%	\$ 26.00	\$ 12,272.00	34.00	\$ 16,048.00		\$ -		\$ -
25	3" M.J. Gate Valve	EACH	2	\$ 500.00	\$ 1,000.00	2.00	\$ 1,000.00	100%	Not in Bid			\$ -		\$ -		\$ -
26	6" M.J. Gate Valve	EACH	2	\$ 825.00	\$ 1,650.00	2.00	\$ 1,650.00	100%	Not in Bid			\$ -		\$ -		\$ -
27	8" M.J. Gate Valve	EACH	2	\$ 1,300.00	\$ 2,600.00	2.00	\$ 2,600.00	100%	\$ 1,110.00	\$ 2,220.00	1,500.00	\$ 3,000.00		\$ -		\$ -
28	12" MJ Gate Valve	EACH	33	\$ 1,500.00	\$ 49,500.00	33.00	\$ 49,500.00	100%	\$ 1,960.00	\$ 64,680.00	2,750.00	\$ 90,750.00		\$ -		\$ -
29	Fire Hydrant Assembly	EACH	17	\$ 3,300.00	\$ 56,100.00	18.00	\$ 59,400.00	106%	\$ 3,201.04	\$ 54,417.68	4,350.00	\$ 73,950.00		\$ -		\$ -
30	Private Fire Hydrant Assembly (Painted Red)	EACH	2	\$ 3,300.00	\$ 6,600.00	2.00	\$ 6,600.00	100%	Not in Bid		4,350.00	\$ 8,700.00		\$ -		\$ -
31	Flowable Fill	LS	1	\$ 26,910.00	\$ 26,910.00	0.64	\$ 17,222.40	64%	\$ 105.00			\$ -		\$ -		\$ -
32	2" Curb Stop with Auto Flusher and RIPRAP	LS	1	\$ 6,000.00	\$ 6,000.00	1.00	\$ 6,000.00	100%	Not in Bid			\$ -		\$ -		\$ -
33	Water Meter Pits	LS	1	\$ 20,303.11	\$ 20,303.11	1.00	\$ 20,303.11	100%	Not in Bid			\$ -		\$ -		\$ -
34	Concrete Encasement	LF	20	\$ 60.00	\$ 1,200.00	20.00	\$ 1,200.00	100%	Not in Bid			\$ -		\$ -		\$ -
	Waterline Sub Total				\$ 468,061.65		\$ 462,522.49	99%		\$ 403,759.68				\$ -		\$ -

ESTIMATE OF WORK COMPLETE

DATE: October 31, 2014

ESTIMATE No.: 13 & Final

PROJECT LOCATION: Rock Chalk Site Work

FOR PERIOD: Final

MEASURED

ESTIMATE ON ITEMS

ITEM	DESCRIPTION	UNIT	QUANTITY	CONTRACTED		COMPLETED TO DATE		Percent Complete	RDJ Venture Park Unit Bid		Kings Venture Park Unit Bid		Kings Iowa Unit Bid		ESS Iowa Unit Bid	
				UNIT PRICE	AMOUNT	UNIT	AMOUNT		UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
	Sanitary Sewer	Unit	Quantity	Unit cost	Total											
35	8" SDR26 PVC granular embedment	LF	2,019	\$ 44.00	\$ 88,836.00	2,019.00	\$ 88,836.00	100%	\$ 34.10	\$ 68,847.90		\$ -		\$ -		\$ -
36	STD Manhole 4" DIA, 6' Depth	EACH	8	\$ 2,000.00	\$ 16,000.00	8.00	\$ 16,000.00	100%	\$ 2,696.00	\$ 21,568.00		\$ -		\$ -		\$ -
37	Extra Depth 4' DIA Manhole	VF	12.46	\$ 100.00	\$ 1,246.00	16.05	\$ 1,605.00	129%	\$ 135.00	\$ 1,682.10		\$ -		\$ -		\$ -
38	Drop Manhole 5' DIA 6' Depth	EACH	1	\$ 2,970.00	\$ 2,970.00	1.00	\$ 2,970.00	100%	\$ 3,613.00	\$ 3,613.00		\$ -		\$ -		\$ -
39	Extra Depth 5' DIA Manhole	VF	6.3	\$ 110.00	\$ 693.00	6.30	\$ 693.00	100%	\$ 178.00	\$ 1,121.40		\$ -		\$ -		\$ -
40	6" Service Line	EACH	4	\$ 500.00	\$ 2,000.00	4.00	\$ 2,000.00	100%	\$ 771.00	\$ 3,084.00		\$ -		\$ -		\$ -
41	Connect to Existing Manhole	EACH	1	\$ 500.00	\$ 500.00	1.00	\$ 500.00	100%	\$ 1,807.00	\$ 1,807.00		\$ -		\$ -		\$ -
42	Concrete Collars	EACH	7	\$ 570.00	\$ 3,990.00	7.00	\$ 3,990.00	100%	Not in Bid			\$ -		\$ -		\$ -
43	Flowable Mortar Backfill	CY	403	\$ 70.00	\$ 28,210.00	560.00	\$ 39,200.00	139%	\$ 87.85	\$ 35,403.55		\$ -		\$ -		\$ -
44	Seed, Fertilize, Mulch and Erosion Netting	LS	1	\$ 5,500.00	\$ 5,500.00	1.00	\$ 5,500.00	100%	\$ 13,077.00	\$ 13,077.00		\$ -		\$ -		\$ -
45	Construction Staking	No Bid	No Bid	No Bid	No Bid				\$ 4,317.00							
46	Rip Rap Erosion Protection	LS	1	\$ 2,500.00	\$ 2,500.00	1.00	\$ 2,500.00	100%	\$ 39.60	\$ 39.60		\$ -		\$ -		\$ -
47	Concrete Encasement	LF	45	\$ 50.00	\$ 2,250.00	45.00	\$ 2,250.00	100%	\$ 78.90	\$ 3,550.50		\$ -		\$ -		\$ -
48	Impervious Ditch Check	LS	1	\$ 750.00	\$ 750.00	1.00	\$ 750.00	100%		\$ -		\$ -		\$ -		\$ -
49	Polyurethane Manhole Lining	LS	1	\$ 7,397.50	\$ 7,397.50	1.00	\$ 7,397.50	100%	Not in Bid			\$ -		\$ -		\$ -
	Sanitary Sewer Sub Total				\$ 162,842.50		\$ 174,191.50	107%		\$ 153,794.05		\$ -		\$ -		\$ -
	Storm Sewer	Unit	Quantity	Unit cost	Total											
50	15" HDPE	LF	38	\$ 23.75	\$ 902.50	38.00	\$ 902.50	100%		\$ -		\$ -		\$ -		\$ -
51	15" Reinforced Concrete Pipe	LF	79	\$ 24.75	\$ 1,955.25	79.00	\$ 1,955.25	100%	26.00	\$ 2,054.00	34.60	\$ 2,733.40	30.00	\$ 2,370.00	36.50	\$ 2,883.50
52	18" HDPE	LF	87	\$ 24.00	\$ 2,088.00	87.00	\$ 2,088.00	100%		\$ -		\$ -		\$ -		\$ -
53	18" Reinforced Concrete Pipe	LF	76	\$ 25.00	\$ 1,900.00	76.00	\$ 1,900.00	100%	26.00	\$ 1,976.00	37.10	\$ 2,819.60	33.00	\$ 2,508.00	33.00	\$ 2,508.00
54	24" HDPE	LF	706	\$ 30.00	\$ 21,180.00	706.00	\$ 21,180.00	100%		\$ -		\$ -		\$ -		\$ -
55	24" Reinforced Concrete Pipe	LF	38	\$ 32.00	\$ 1,216.00	38.00	\$ 1,216.00	100%	36.00	\$ 1,368.00	47.20	\$ 1,793.60	42.00	\$ 1,596.00	42.00	\$ 1,596.00
56	30" HDPE	LF	19	\$ 39.00	\$ 741.00	19.00	\$ 741.00	100%		\$ -		\$ -		\$ -		\$ -
57	48" Reinforced Concrete Pipe	LF	103	\$ 105.00	\$ 10,815.00	103.00	\$ 10,815.00	100%	90.00	\$ 9,270.00	118.40	\$ 12,195.20		\$ -		\$ -
58	15" RCP End Section	EACH	1	\$ 450.00	\$ 450.00	1.00	\$ 450.00	100%	470.00	\$ 470.00	425.00	\$ 425.00		\$ -		\$ -
59	30" RCP End Section	EACH	1	\$ 450.00	\$ 450.00	1.00	\$ 450.00	100%	653.00	\$ 653.00	700.00	\$ 700.00		\$ -		\$ -
60	48" RCP End Section	EACH	2	\$ 1,900.00	\$ 3,800.00	2.00	\$ 3,800.00	100%		\$ -		\$ -		\$ -		\$ -
61	5'x4' Curb Inlet	EACH	6	\$ 2,025.00	\$ 12,150.00	6.00	\$ 12,150.00	100%	2,865.00	\$ 17,190.00	2,875.00	\$ 17,250.00	2,975.00	\$ 17,850.00	4,220.00	\$ 25,320.00
62	10'x4' Curb Inlet	EACH	3	\$ 3,252.00	\$ 9,756.00	3.00	\$ 9,756.00	100%		\$ -		\$ -		\$ -		\$ -
63	4'x4' Junction Box	EACH	1	\$ 2,185.00	\$ 2,185.00	1.00	\$ 2,185.00	100%	3,200.00	\$ 3,200.00	3,475.00	\$ 3,475.00	5,300.00	\$ 5,300.00	5,522.00	\$ 5,522.00
64	18"NOM DIA Rip Rap	SY	84	\$ 25.00	\$ 2,100.00	84.00	\$ 2,100.00	100%	25.00	\$ 2,100.00	59.50	\$ 4,998.00		\$ -		\$ -
65	Flowable fill	LS	1	\$ 11,000.00	\$ 11,000.00	1.00	\$ 11,000.00	100%		\$ -		\$ -		\$ -		\$ -
	Storm Sewer Sub Total				\$ 82,688.75		\$ 82,688.75	100%								
	Parking Lot Lights	Unit	Quantity	Unit cost	Total											
66	LED - Dual Fixtures	LS	1	\$ 120,000.00	\$ 120,000.00	1.00	\$ 120,000.00	100%		\$ -		\$ -		\$ -		\$ -
67	Pole Bases	LS	1	\$ 25,000.00	\$ 25,000.00	1.00	\$ 25,000.00	100%		\$ -		\$ -		\$ -		\$ -
68	Conduit	LS	1	\$ 40,000.00	\$ 40,000.00	1.00	\$ 40,000.00	100%		\$ -		\$ -		\$ -		\$ -
69	Conduit Westar	LS	1	\$ 25,000.00	\$ 25,000.00	1.00	\$ 25,000.00	100%		\$ -		\$ -		\$ -		\$ -
70	Conduit for Fiber	LF	1	\$ -	\$ -	-	\$ -	0%		\$ -		\$ -		\$ -		\$ -
71	Electric Service - labor	LS	1	\$ 30,000.00	\$ 30,000.00	0.73	\$ 22,000.00	73%		\$ -		\$ -		\$ -		\$ -
	Parking Lot Lights Sub Total				\$ 240,000.00		\$ 232,000.00	97%		\$ -		\$ -		\$ -		\$ -
	Landscaping	Unit	Quantity	Unit cost	Total											
72	Trees	EACH	450	\$ 425.00	\$ 191,250.00	450.00	\$ 191,250.00	100%		\$ -		\$ -		\$ -		\$ -
73	Shrubs	EACH	710	\$ 60.00	\$ 42,600.00	710.00	\$ 42,600.00	100%		\$ -		\$ -		\$ -		\$ -
74	Site Entry signs	LS	1	\$ 150,000.00	\$ 150,000.00	0.36	\$ 53,200.00	36%		\$ -		\$ -		\$ -		\$ -
75	Irrigation	LS	1	\$ 100,000.00	\$ 100,000.00	1.00	\$ 100,000.00	100%		\$ -		\$ -		\$ -		\$ -
76	Misc	LS	1	\$ 100,000.00	\$ 100,000.00	1.00	\$ 100,000.00	100%		\$ -		\$ -		\$ -		\$ -
	Landscaping Sub Total				\$ 583,850.00		\$ 487,050.00	83%		\$ -		\$ -		\$ -		\$ -

ESTIMATE OF WORK COMPLETE																
DATE: October 31, 2014					FOR PERIOD: Final											
ESTIMATE No.: 13 & Final					MEASURED											
PROJECT LOCATION: Rock Chalk Site Work					ESTIMATE ON ITEMS											
ITEM	DESCRIPTION	UNIT	QUANTITY	CONTRACTED		COMPLETED TO DATE		Percent Complete	RDJ Venture Park Unit Bid		Kings Venture Park Unit Bid		Kings Iowa Unit Bid		ESS Iowa Unit Bid	
				UNIT PRICE	AMOUNT	UNIT	AMOUNT		UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
	Rock Chalk Drive & George Williams	Unit	Quantity	Unit cost	Total											
77	Unclassified excavation	CY	15,934	\$ 5.00	\$ 79,670.00	15,934.00	\$ 79,670.00	100%		\$ -		\$ -		\$ -		\$ -
78	Compacted fill	CY	1,790	\$ 1.00	\$ 1,790.00	1,790.00	\$ 1,790.00	100%	0.42	\$ 751.80	0.65	\$ 1,163.50	2.50	\$ 4,475.00	22.90	\$ 40,991.00
79	Site restoration	LS	1	\$ 5,000.00	\$ 5,000.00	1.00	\$ 5,000.00	100%		\$ -		\$ -		\$ -		\$ -
80	10" NRDJ Portland cement conc pave	SY	9,758	\$ 55.00	\$ 536,690.00	9,493.00	\$ 522,115.00	97%	48.00	\$ 468,384.00	47.14	\$ 459,992.12	49.00	\$ 478,142.00	49.55	\$ 483,508.90
81	Type CG-1 Concrete curb & gutter	LF	6,257	\$ 16.00	\$ 100,112.00	6,005.00	\$ 96,080.00	96%	15.00	\$ 93,855.00	13.20	\$ 82,592.40	15.70	\$ 98,234.90	18.50	\$ 115,754.50
82	4" x 5' Concrete sidewalk	SY	40	\$ 30.00	\$ 1,200.00	17.00	\$ 510.00	43%	22.00	\$ 880.00	24.00	\$ 960.00	28.50	\$ 1,140.00	35.00	\$ 1,400.00
83	6" x 10' Fiber reinforced conc sdwk	SY	4,078	\$ 40.00	\$ 163,120.00	3,993.00	\$ 159,720.00	98%		\$ -		\$ -	37.00	\$ 150,886.00	41.00	\$ 167,198.00
84	Access ramps	EACH	13	\$ 1,000.00	\$ 13,000.00	14.00	\$ 14,000.00	108%		\$ -		\$ -		\$ -		\$ -
85	Compaction tests street	LS	5	\$ 100.00	\$ 500.00	5.00	\$ 500.00	100%		\$ -		\$ -		\$ -		\$ -
86	Construction Staking	No Bid	No Bid	No Bid	No Bid											
87	Seed, Fertilize & Mulch	LS	1	\$ 4,000.00	\$ 4,000.00	1.00	\$ 4,000.00	100%		\$ -		\$ -		\$ -		\$ -
88	Clearing, Grubbing & Tree Removal	LS	1	\$ 1,250.00	\$ 1,250.00	1.00	\$ 1,250.00	100%		\$ -		\$ -		\$ -		\$ -
89	Treatment of subgrade 12" fly ash & 4"AB3	SY	11,825	\$ 9.33	\$ 110,327.25	-	\$ -	0%	8.90	\$ 105,242.50	10.25	\$ 121,206.25		\$ -		\$ -
90	Erosion Control	LS	1	\$ 2,670.00	\$ 2,670.00	1.00	\$ 2,670.00	100%		\$ -		\$ -		\$ -		\$ -
91	Section Corner Monument Box	LS	1	\$ 1,000.00	\$ 1,000.00	-	\$ -	0%		\$ -		\$ -		\$ -		\$ -
92	2" Conduit	LF	1,701	\$ 2.00	\$ 3,402.00	-	\$ -	0%		\$ -		\$ -		\$ -		\$ -
93	4" Conduit	LF	997	\$ 2.00	\$ 1,994.00	2,698.00	\$ 5,396.00	271%		\$ -		\$ -		\$ -		\$ -
94	Traffic Control Signage	LS	1	\$ 500.00	\$ 500.00	1.00	\$ 500.00	100%		\$ -		\$ -		\$ -		\$ -
	Rock Chalk Drive & George Williams Sub Total				\$ 1,026,225.25		\$ 893,201.00	87%								
	Overflow Parking Lot	Unit	Quantity	Unit cost	Total											
95	Concrete access ramps	SY	464	\$ 50.00	\$ 23,200.00	408.00	\$ 20,400.00	88%		\$ -		\$ -		\$ -		\$ -
96	Lot Grading	LS	1	\$ 25,000.00	\$ 25,000.00	1.00	\$ 25,000.00	100%		\$ -		\$ -		\$ -		\$ -
97	Temporary Gravel Laydown	LS	1	\$ 20,000.00	\$ 20,000.00	1.00	\$ 20,000.00	100%		\$ -		\$ -		\$ -		\$ -
	Overflow Parking Lot Sub Total				\$ 68,200.00		\$ 65,400.00	96%		\$ -		\$ -		\$ -		\$ -
	Parking Lot/ Access Drives	Unit	Quantity	Unit cost	Total											
98	Concrete parking lot	SY	44,356	\$ 44.00	\$ 1,951,664.00	42,662.00	\$ 1,877,128.00	96%		\$ -		\$ -	45.00	\$ 1,996,020.00	45.00	\$ 1,996,020.00
99	CG-1 curb and gutter	LF	15,338	\$ 18.00	\$ 276,084.00	14,549.00	\$ 261,882.00	95%	15.00	\$ 230,070.00	13.20	\$ 202,461.60	15.70	\$ 240,806.60	18.50	\$ 283,753.00
100	Concrete parking and Bus lane	SY	7,337	\$ 50.00	\$ 366,850.00	6,645.00	\$ 332,250.00	91%	42.50	\$ 311,822.50	44.80	\$ 328,697.60	48.00	\$ 352,176.00	57.00	\$ 418,209.00
101	Fire lane / Access roads	SY	8,593	\$ 44.00	\$ 378,092.00	3,445.00	\$ 151,580.00	40%		\$ -		\$ -		\$ -		\$ -
102	Storm Sewer	LS	1	\$ 157,000.00	\$ 157,000.00	0.66	\$ 104,232.30	66%		\$ -		\$ -		\$ -		\$ -
103	Trim Subgrade	SY	65,393	\$ 1.25	\$ 81,741.25	63,760.00	\$ 79,700.00	98%		\$ -		\$ -		\$ -		\$ -
104	Treatment of subgrade - 12"Fly ash & 4" AB3	SY	65,425	\$ 9.33	\$ 610,415.25	49,645.00	\$ 463,187.85	76%		\$ -		\$ -		\$ -		\$ -
	Parking Lot/ Access Drives Sub Total				\$ 3,821,846.50		\$ 3,269,960.15	86%								
	Rock Chalk Lane and Rock Chalk Parkway	Unit	Quantity	Unit cost	Total											
105	Unclassified excavation	CY	3,017	\$ 5.00	\$ 15,085.00	3,017.00	\$ 15,085.00	100%		\$ -		\$ -		\$ -		\$ -
106	Compacted fill	CY	2,920	\$ 1.00	\$ 2,920.00	2,920.00	\$ 2,920.00	100%	0.42	\$ 1,226.40	0.65	\$ 1,898.00	2.50	\$ 7,300.00	22.90	\$ 66,868.00
107	Site restoration	LS	1	\$ 5,000.00	\$ 5,000.00	1.00	\$ 5,000.00	100%		\$ -		\$ -		\$ -		\$ -
108	8" NRDJ Portland cement	SY	9,524	\$ 50.00	\$ 476,200.00	8,556.00	\$ 427,800.00	90%	42.50	\$ 404,770.00	44.80	\$ 426,675.20	48.00	\$ 457,152.00	57.00	\$ 542,868.00
109	CG-1 curb and gutter	LF	5,109	\$ 16.00	\$ 81,744.00	4,646.00	\$ 74,336.00	91%	15.00	\$ 76,635.00	13.20	\$ 67,438.80	15.70	\$ 80,211.30	18.50	\$ 94,516.50
110	6" x 10' Fiber rec path	SY	5,163	\$ 40.00	\$ 206,520.00	5,267.00	\$ 210,680.00	102%		\$ -		\$ -		\$ -		\$ -
111	4" x 5' Sidewalk	SY	195	\$ 30.00	\$ 5,850.00	88.00	\$ 2,640.00	45%	22.00	\$ 4,290.00	24.00	\$ 4,680.00	28.50	\$ 5,557.50	35.00	\$ 6,825.00
112	Access ramps	EACH	51	\$ 1,000.00	\$ 51,000.00	51.00	\$ 51,000.00	100%		\$ -		\$ -		\$ -		\$ -
113	Treatment of subgrade - 12" fly ash & 4"AB3	SY	10,800	\$ 9.33	\$ 100,764.00	9,192.00	\$ 85,761.36	85%		\$ -		\$ -		\$ -		\$ -
	Rock Chalk Lane and Rock Chalk Pkwy Sub Total				\$ 945,083.00		\$ 875,222.36	93%								
	Chip and Seal County Road	Unit	Quantity	Unit cost	Total											
114	Chip and Seal	SY	10,000	\$ 1.80	\$ 18,000.00	9,000.00	\$ 16,200.00	90%		\$ -		\$ -		\$ -		\$ -
	Chip and Seal County Road Sub Total				\$ 18,000.00		\$ 16,200.00	90%		\$ -		\$ -		\$ -		\$ -

ESTIMATE OF WORK COMPLETE

FOR PERIOD: Final

MEASURED

ESTIMATE ON ITEMS

DATE: October 31, 2014

ESTIMATE No.: 13 & Final

PROJECT LOCATION: Rock Chalk Site Work

ITEM	DESCRIPTION	UNIT	QUANTITY	CONTRACTED		COMPLETED TO DATE		Percent Complete	RDJ Venture Park Unit Bid		Kings Venture Park Unit Bid		Kings Iowa Unit Bid		ESS Iowa Unit Bid	
				UNIT PRICE	AMOUNT	UNIT	AMOUNT		UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
	Rec Center Pad	Unit	Quantity	Unit cost	Total											
115	Rock Excavation	CY	18,000	\$ 10.00	\$ 180,000.00	18,000.00	\$ 180,000.00	100%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
116	Dirt Excavation	CY	10,000	\$ 2.25	\$ 22,500.00	10,000.00	\$ 22,500.00	100%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
117	Compaction	CY	8,500	\$ 1.10	\$ 9,350.00	8,500.00	\$ 9,350.00	100%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
118	Fly Ash 18"	SY	12,000	\$ 8.00	\$ 96,000.00	12,000.00	\$ 96,000.00	100%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
119	AB3 Entire building Pad	SY	20,100	\$ 4.00	\$ 80,400.00	20,100.00	\$ 80,400.00	100%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
120	AB3 Additional depth rock area	SY	8,000	\$ 5.50	\$ 44,000.00	8,000.00	\$ 44,000.00	100%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Rec Center Pad Sub Total				\$ 432,250.00		\$ 432,250.00	100%		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DEVELOPMENT AGREEMENT TOTAL	\$ 12,265,168.65		\$ 11,508,210.27	94%		
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DEVELOPMENT AGREEMENT TOTAL	\$ 12,265,168.65		\$ 11,508,210.27	94%		\$ -
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CHANGE ORDERS (Within Development Agreement):				CONTRACTED		COMPLETED TO DATE		Percent Complete	COMPLETED THIS PAY PERIOD	
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT	UNIT	AMOUNT		UNIT	AMOUNT
1	3" Conduit for Security Cameras	LF	600	\$ 10.00	\$ 6,000.00	600	\$ 6,000.00	100%		\$ -
2	Treatment of subgrade 9" flyash RCD & GWW	SY	11434	\$ 4.50	\$ 51,453.00	11434	\$ 51,453.00	100%		\$ -
3	12" HDPE Storm Pipe	LF	42	\$ 23.00	\$ 966.00	42	\$ 966.00	100%		\$ -
4	12" CMP End Section	EA	1	\$ 450.00	\$ 450.00	1	\$ 450.00	100%		\$ -
5	Subgrade 12" Crushed Conc. Parking Lot	SY	5998	\$ 9.33	\$ 55,961.34	5998	\$ 55,961.34	100%		\$ -
6	Design for Low water crossing (deduct)	LS	1	\$ (12,960.00)	\$ (12,960.00)	1	\$ (12,960.00)	100%		
7	GWW Pavement Thickness (deduct)	SY	2116.65	\$ (5.50)	\$ (11,641.58)	\$ 2,116.65	\$ (11,641.58)	100%		
CHANGE ORDERS TOTAL (Within Development Agreement):					\$ 90,228.76		\$ 90,228.76			\$ -

DEVELOPMENT AGREEMENT GRAND TOTAL	\$ 12,355,397.41		\$ 11,598,439.03			\$ -
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CHANGE ORDERS (Additions Requested by City):				CONTRACTED		COMPLETED TO DATE		Percent Complete	COMPLETED THIS PAY PERIOD	
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT	UNIT	AMOUNT		UNIT	AMOUNT
8	4" Conduit (GWW, 6th Street to RCD)	LF	5200	\$ 10.00	\$ 52,000.00	5200	\$ 52,000.00	100%		\$ -
9	Tennis Courts Post Tension Concrete	LS	1	\$ 58,765.00	\$ 58,765.00	1	\$ 58,765.00	100%		\$ -
10	Contract Performance and Payment Bond	LS	1	\$ 50,889.00	\$ 50,889.00	1	\$ 50,889.00	100%		\$ -
CHANGE ORDERS (Additions Requested by City):					\$ 161,654.00		\$ 161,654.00			\$ -

Memorandum

City of Lawrence

Public Works

TO: David L. Corliss, City Manager
FROM: Charles F. Soules, Director of Public Works
CC: Diane Stoddard, Casey Toomay, David Cronin
DATE: December 2, 2014
RE: Rock Chalk Park Professional Fees_PW1315

At the City Commission meeting on November 18, 2014 the Commission discussed several fees with respect to the request for payment for Rock Chalk Park infrastructure.

The amount requested for Professional Fees (Engineering) is \$555,198.70 of this, documents received from RCP include \$470,995.98 for professional services related to infrastructure and site design and \$84,242,72 paid to Alpha Omega for geotechnical and testing services (this is typically an additional cost when looking @ the design fee as a percentage of the construction cost).

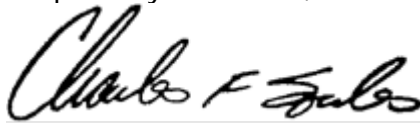
The Construction cost for infrastructure not including legal fees, loan origination fee, interest, professional fees, and change orders is:
\$10,222,979.23 TOTAL CONSTRUCTION COST

Therefore professional fees for the design of this project are 4.6%.

According to the City's Purchasing Policy (Sec 5.3), Architectural and Engineering Design Fee Guidelines for contracts greater than \$5,000,000 the fee could be +/- 6.99%. Attached are some of the more recent City projects for comparison.

Therefore, the professional fees requested does meet the City Purchasing Policy Guideline.

Respectfully Submitted,



Charles F. Soules, P.E.
Director of Public Works

CFS/ch

<u>PROJECT</u>	<u>ENGINEERING DESIGN FEE</u>	<u>BID</u>	<u>% Engineering Fee</u>
PW1224 – VenturePark – Street Improvement	Bartlett & West - \$438,356.62	R. D. Johnson Excavating Co., Inc. - \$4,984,556.03	9%
PW1135 – 6 th & Iowa Intersection	Landplan - \$120,900.00	Bettis Asphalt & Construction - \$1,933,426.50	7%
PW1208 – 23 rd Street & Iowa – Intersection	BG Consultants - \$181,386.00	Amino Brothers Company, Inc. - \$3,736,377.47	5%
PW1133 – Maple Street Pump Station	Bartlett & West - \$399,370.00	Engineer's Estimate - \$4,500,000.00	9%
PW1134 – 23 rd & Ousdahl, SM Improvements	BG Consultants - \$89,702.00	Engineer's Estimate - \$	

Memorandum

City of Lawrence

Public Works

TO: David L. Corliss, City Manager
FROM: Charles F. Soules, Director of Public Works
CC: Diane Stoddard, Cynthia Wagner, Casey Toomay, Mark Thiel, Mark Hecker,
Ernie Shaw, Scott McCullough, David Cronin
DATE: July 2, 2014
RE: RCP Trail

The Development Agreement contains a cost estimate for the Natural Trails of \$404,520.

On March 31st, KU Endowment provided the city with bid from Bliss Sports to construct the trails part of the Rock Chalk Park project.

Costs were as follows:

Concrete trails - 1500 SY @ \$40/yd	\$62,000.00
Low water crossings - 3 @ \$25,000/each	\$75,000.00
Fire Pit	\$17,500.00
<u>Non-compacted crushed asphalt - 16,487 SY @ \$15/yd</u>	<u>\$247,305.60</u>
Total	\$410,805.00

Staff Review of costs are as follows:

Concrete trails - The quantity of 1500 SY is 0.26 miles of 10' wide path. The unit cost of \$40/yd for 6" Concrete Shared-use path is the same as like bid item in development agreement. Staff agrees with the unit costs for approval provided work meets city specifications.

Low water crossings - Information on work and materials to be used for crossing have not been provided to the city. Based on the city design submittal to regulating agencies for approval of the low water crossings the work will include: installation of three 36" diameter 20 foot long HDPE stormwater pipes at each low water crossing location. Both the up and downstream ends of each of the pipes will be mitered to conform with a 6" thick concrete encasement. Each low water crossing will carry a 10 foot wide multiuse path. Toe walls will be used on both the up and down stream pipe ends. In addition to the toe walls, riprap will be placed on the downstream end of each low water crossing. The cost of \$25,000/each is acceptable based on meeting the city design information.

Fire Pit Fire Pit - There is not a detailed design however discussions indicate that limestone will be used. The City has bid pricing for limestone blocks 18" wide at:

- Locally \$36/LF
- A harder stone hauled from St. Marys at \$63/LF

Non-compacted crushed asphalt - The quantity of 16,487 SY is the approximate distance of trail located on City and KU Athletics property; 2.81 miles of 10' wide path. Additionally it has been proposed to construct 3267 SY of trail located on KU Endowment property; 0.54 miles of 10' wide path. The total amount of non-compacted crushed asphalt trail is now proposed at 19,755 SY (3.35 miles) for \$247,305.60; based on this revised quantity the unit cost is \$12.52/yd.

City staff has recently received a quote to install a similar asphalt milling trail along the river through Burcham Park. The quote was \$5.85 SY for delivered and compacted asphalt millings.

City staff in April received a bid to install a 6" asphalt milling trail at the dog park - 1500 LF and 10' wide including grading at a total unit cost of \$6.98/SY.

These prices did not include subgrade work, estimated for this site, that cost would be approximately \$3 per SY.

An estimate of \$10/ yd would place the cost of the non-compacted crushed asphalt @ \$197,000.

Due to the topography Bliss Sports has agreed to install an additional 1500 -1600 sy of concrete trail on steep slopes @ an estimated cost of \$45,000- \$60,000.

The total costs for the Natural Trails is acceptable.

Action

Authorize notice to proceed for the trails (the low water crossings will proceed pending state/regulatory department approvals).

Memorandum

City of Lawrence

City Manager's Office

TO: Mayor and City Commission
FROM: David L. Corliss, City Manager
DATE: July 1, 2014
RE: Rock Chalk Park Monument Sign

Background

The Development Agreement for the development of Rock Chalk Park and the City's new recreation center – Sports Pavilion Lawrence – provides, in part, the following:

"Section 8.05 Park Entrance Signage. The City, Bliss Sports and RCP will negotiate in good faith concerning the design and construction, for a cost included in the Infrastructure Improvement Costs, of a possible monument entrance sign for the Property, which, if approved by all three parties, shall comply with all applicable City codes and requirements and all design criteria, approval and other provisions of the Stadium Lease."

The attached [drawing for a park entrance sign](#) has been approved and provided by Bliss Sports and RCP. The sign will be placed at the entrance to the park near George Williams Way and Rock Chalk Drive. The sign will be illuminated. City staff has reviewed the sign and determined that it complies with all applicable City codes. Bliss Sports has provided the [attached](#) cost estimate for the sign. City staff recommends approval of the sign by the City Commission.

Recommendation: Approve proposed Rock Chalk Park entrance signage, as proposed by Bliss Sports and RCP.

Staff Recommendation and Action

Approve proposed Rock Chalk Park entrance signage, as proposed by Bliss Sports and RCP.

Memorandum

City of Lawrence

Public Works

TO: Charles Soules, P.E., Public Works Director
 CC: David Corliss, City Manager
 FROM: David P. Cronin, P.E., City Engineer
 DATE: November 11, 2014
 RE: Rock Chalk Park Infrastructure Completion

Background

In July 2013, Bliss Sports II/RCP, LLC began construction of the infrastructure project at Rock Chalk Park. Infrastructure included all grading, waterline, sanitary sewer, parking lots, streets, landscaping, storm sewer, tennis courts, trails, etc. at the site. The total estimated construction cost of infrastructure before construction was \$12,265,168.55. The cost was based on estimated quantities and unit prices the city agreed were acceptable (see [attached Final Infrastructure Report](#) for line items and unit costs). City staff met with Bliss Sports II/RCP, LLC bi-weekly about infrastructure throughout the project. City staff inspected the construction of the infrastructure and provided 12 Monthly Infrastructure Progress Reports from July 2013 through July 2014. A Final Infrastructure Progress Report including the City's estimated costs is [attached](#).

The infrastructure project is now substantially complete with a few remaining punch list items to finish. Punch list items include reconstruction of a low water crossing on the trail, cleaning sediment from the retention ponds, repairing concrete crack in Rock Chalk Lane and general site cleanup of construction debris. Work to complete punch list items will continue into the winter.

Summary of Infrastructure Project Costs

The maximum city participation for the Rock Chalk Park project was capped at \$22,500,000. With construction costs for Sports Pavilion Lawrence, architect fees, and land the total city cost for infrastructure cap became \$10,290,950. Any costs exceeding the \$10,290,950 not including change orders are to be funded by the Assists Foundation's \$1,000,000 donation per the development agreement.

Bliss Sports II/RCP, LLC and city staff agree that three (3) change orders totaling \$161,654 were added to the scope of the project outside of the original development agreement:

- 1) City requested to add trenching two 4" conduits along George Williams Way from 6th Street to Rock Chalk Drive. The conduit cost was \$52,000 based on city estimate of \$10/LF.
- 2) City requested change to construct tennis court surface with post tension concrete instead of asphalt. This will result in long term durability of the tennis courts, the additional cost was \$58,765.
- 3) City requested a contract performance and payment bond in the amount of \$10,290,950 to ensure completion of the public improvements. The performance and payment bond cost \$50,889.

The total final city infrastructure cost with three (3) additional change orders is \$10,452,604. Bliss Sports II/RCP, LLC and city staff agree that to date the total cost of infrastructure improvements under the development agreement is \$11,598,439.03. The costs in excess of \$10,452,604 will be paid from the Assists Foundation's \$1,000,000 donation. City staff is recommending withholding \$25,000 in retainage to complete infrastructure punch list items. Supporting documentation for costs and fees is [attached](#).

City Maximum Cost Per Development Agreement	\$22,500,000.00
Lawrence Sports Pavilion building*	\$10,500,000.00
Architect Fees	\$925,000.00
Land	\$784,050.00
Total available funds for infrastructure	\$10,290,950.00

Infrastructure Change Orders (Addition to agreement)	
4" Conduit (GWW, 6th Street to Rock Chalk Drive – see memo)	\$52,000.00

Tennis Courts Post Tension Concrete	\$58,765.00
Contract Performance Bond	\$50,889.00
Total Change Orders	\$161,654.00

Infrastructure Cost	\$10,290,950.00
Total Change Orders	\$161,654.00
Total City Infrastructure Cost	\$10,452,604.00

Final Total Cost of Infrastructure	\$11,598,439.03
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*Does not include change orders to building.

Action Item

Pending City Commission approval of infrastructure costs and supporting documentation, make payment to RCP, LLC in the amount of \$10,427,604; withholding \$25,000 in retainage until punch list items are complete.

Pending City Commission approval of infrastructure costs and supporting documentation, make payment to RCP, LLC for costs exceeding the total city infrastructure cost in the amount of \$1,000,000 from the Assists Foundation's donation.

Authorize staff to make payment of \$25,000 to RCP, LLC when infrastructure punch list items are completed.