

Concrete Placement										
South Section Grade Beams & Retaining Walls (3500 psi)										
CSI #			Length (in)	Width (in)	Height (in)	Volume (ft3)	Volume (CY)	R.S. Means R/F/P Cost (\$)	R.S. Means Unit	Total Including O&P (\$)
03310	240	0350	216	39	48	234	8.67	860	C.Y.	7,453.33
03310	240	0350	204	39	48	221	8.19	860	C.Y.	7,039.26
03310	240	0350	192	39	48	208	7.70	860	C.Y.	6,625.19
03310	240	0350	192	39	72	312	11.56	860	C.Y.	9,937.78
03310	240	0350	192	39	60	260	9.63	860	C.Y.	8,281.48
03310	240	0350	192	39	48	208	7.70	860	C.Y.	6,625.19
03310	240	0350	192	39	48	208	7.70	860	C.Y.	6,625.19
03310	240	0350	192	39	72	312	11.56	860	C.Y.	9,937.78
03310	240	0350	192	39	60	260	9.63	860	C.Y.	8,281.48
03310	240	0350	192	39	48	208	7.70	860	C.Y.	6,625.19
West Section Grade Beams & Retaining Walls										
CSI #			Length in	Width in	Height in	Volume ft^3	Volume CY	R.S. Means R/F/P Cost (\$)	R.S. Means Unit	Total Including O&P (\$)
03310	240	0350	180	20	48	100.00	3.70	860	C.Y.	3,185.19
03310	240	0350	192	18	48	96.00	3.56	860	C.Y.	3,057.78
03310	240	0350	96	18	48	48.00	1.78	860	C.Y.	1,528.89
03310	240	0350	312	20	48	173.33	6.42	860	C.Y.	5,520.99
03310	240	0350	204	22	48	124.67	4.62	860	C.Y.	3,970.86
03310	240	0350	312	22	48	190.67	7.06	860	C.Y.	6,073.09
03310	240	0350	288	22	48	176.00	6.52	860	C.Y.	5,605.93
03310	240	0350	288	22	48	176.00	6.52	860	C.Y.	5,605.93
03310	240	0350	360	18	24	90.00	3.33	860	C.Y.	2,866.67
03310	240	0350	276	18	24	69.00	2.56	860	C.Y.	2,197.78
03310	240	0350	228	18	24	57.00	2.11	860	C.Y.	1,815.56
03310	240	0350	576	18	24	144.00	5.33	860	C.Y.	4,586.67
03310	240	0350	288	18	24	72.00	2.67	860	C.Y.	2,293.33
East Section Grade Beams & Retaining Walls										
CSI #			Length in	Width in	Height in	Volume ft^3	Volume CY	R.S. Means R/F/P Cost (\$)	R.S. Means Unit	Total Including O&P (\$)
03310	240	0350	100	22	120	152.78	5.66	860	C.Y.	4,866.26
03310	240	0350	100	20	120	138.89	5.14	860	C.Y.	4,423.87
03310	240	0350	144	22	120	220.00	8.15	860	C.Y.	7,007.41
03310	240	0350	100	22	120	152.78	5.66	860	C.Y.	4,866.26

CSI #			Length in	Width in	Height in	Volume ft^3	Volume CY	R.S. Means R/F/P Cost (\$)	R.S. Means Unit	Total Including O&P (\$)
03310	240	0350	216	22	120	330.00	12.22	860	C.Y.	10,511.11
03310	240	0350	292	22	120	446.11	16.52	860	C.Y.	14,209.47
03310	240	0350	298	20	120	413.89	15.33	860	C.Y.	13,183.13
03310	240	0350	124	18	120	155.00	5.74	860	C.Y.	4,937.04
03310	240	0350	298	22	120	455.28	16.86	860	C.Y.	14,501.44

North Section Grade Beams & Retaining Walls

CSI #			Length in	Width in	Height in	Volume ft^3	Volume CY	R.S. Means R/F/P Cost (\$)	R.S. Means Unit	Total Including O&P (\$)
03310	240	0350	342	22	120	522.50	19.35	860	C.Y.	16,642.59
03310	240	0350	86	22	120	131.39	4.87	860	C.Y.	4,184.98
03310	240	0350	480	18	120	600.00	22.22	860	C.Y.	19,111.11
03310	240	0350	384	18	96	384.00	14.22	860	C.Y.	12,231.11
03310	240	0350	384	18	96	384.00	14.22	860	C.Y.	12,231.11
03310	240	0350	202	18	72	151.50	5.61	860	C.Y.	4,825.56
03310	240	0350	262	18	72	196.50	7.28	860	C.Y.	6,258.89
03310	240	0350	151	18	72	113.25	4.19	860	C.Y.	3,607.22
03310	240	0350	154	18	72	115.50	4.28	860	C.Y.	3,678.89
03310	240	0350	238	18	72	178.50	6.61	860	C.Y.	5,685.56
03310	240	0350	238	18	72	178.50	6.61	860	C.Y.	5,685.56
03310	240	0350	238	18	72	178.50	6.61	860	C.Y.	5,685.56

Mechanical Room

CSI #			Length in	Width in	Height in	Volume ft^3	Volume CY	R.S. Means R/F/P Cost (\$)	R.S. Means Unit	Total Including O&P (\$)
03310	240	0350	170	18	48	85.00	3.15	860	C.Y.	2,707.41
03310	240	0350	201	28	48	156.33	5.79	860	C.Y.	4,979.51
03310	240	0350	142	18	48	71.00	2.63	860	C.Y.	2,261.48
03310	240	0350	201	18	48	100.50	3.72	860	C.Y.	3,201.11
									TOTAL:	\$317,224.09

Assumptions:

1.) Costs given by R.S. Means includes reinforcement, formwork, placement and finishing.

Assemblies Estimate For Fire Suppression System

CSI #			Description	R.S. Means Given Size	R.S. Means	R.S. Means	Quantity	Total Cost (\$)
D4010	410	1080	Ordinary Hazard, Wet Sprinkler	10,000	S.F.	2.05	10,000	20,500.00
D4010	410	1220	Additional Floor	10,000	S.F.	1.66	9,794	16,258.04
D4020	310	0560	4", 1 Floor Riser	10'	Floor	4,825.00	1	4,825.00
D4020	410	7050	Siamese, Sidewalk	4"x2-1/2"x2-1/2"	Each	700.00	1	700.00
D4090	910	0040	Fixed Heat Detector	-----	Each	91.50	10	915.00
D4090	910	0470	Control System	Multi Zone	Each	3,670.00	1	3,670.00
							TOTAL:	\$46,868.04

Assumptions:

1.) The fire system used at Rec Hall is classified as an ordinary hazard system.

General Conditions Estimate

CSI #			Description	R,S, Neans Cost (\$)	R.S. Means Unit	Quantity	Total Cost
01310	700	0140	Project Executive	1,800.00	Week	30	\$54,000.00
01310	700	0200	Project Manager	2,525.00	Week	84	\$212,100.00
01310	700	0260	Superintendant	2,325.00	Week	78	\$181,350.00
01310	700	0140	Accountant	1,800.00	Week	48	\$86,400.00
01310	700	0100	Intern	680.00	Week	36	\$24,480.00
01500	050	0230	Transformer	2,275.00	Each	1	\$2,275.00
01520	500	0350	Trailer	180.00	Month	18	\$3,240.00
01510	550	0120	Office Supplies	93.50	Month	18	\$1,683.00
01510	550	0140	Phone Bill	224.00	Month	18	\$4,032.00
01510	550	0160	Field Office Lights & HVAC	108.00	Month	18	\$1,944.00
01560	250	0100	Site Fence	7.10	L.F.	500	\$3,550.00
01590	400	6410	Portable Toilets	159.00	Month	54	\$8,586.00
SUBTOTAL:							\$583,640.00
01310	200	10	Performance Bond	0.60%	Job	13,000,000	\$78,000.00
01310	350	10	Insurance	0.24%	Job	13,000,000	\$31,200.00
TOTAL:							\$692,840.00

Assumptions:

- 1.) Each Subcontractor will provide own dumpster for general trash and recyclables.
- 2.) Temporary Heat will not be required because building will be enclosed, if it is required Mechanical subcontractor will provide it.

Staffing Chart

	Pre-Construction (6 months)	Construction (18 months)
Project Executive	50%	25%
Project Manager	50%	100%
Superintendent	25%	100%
Accountant	50%	50%
Intern	0%	50%

Pile Caps Estimate

CSI #			Pile Cap	Length (in)	Width (in)	Height (in)	Volume (ft3)	Volume (CY)	Quantity	Total Volume (CY)	R.S. Means Cost (\$)	R.S. Means	Total Including	
03310	240	5900	PC 1	28	28	36	16.33	0.60	10	6.05	222	C.Y.	1342.963	
03310	240	5900	PC 2	64	28	36	37.33	1.38	44	60.84	222	C.Y.	13506.37	
03310	240	5900	PC 3	3472 (SA)		36	72.33	2.68	6	16.07	222	C.Y.	3568.444	
													TOTAL:	18417.78

Pile Estimate									
CSI #			Pile	Quantity	Vertical Linear Feet (VLF)	R.S. Means Cost (\$)	R.S. Means Unit	Total Cost Including O & P (\$)	
02455	600	0190	P-1	17	1020	15.50	VLF	15,810.00	
02455	600	0190	P-2	9	540	15.50	VLF	8,370.00	
02455	600	0190	P-3	1	60	15.50	VLF	930.00	
02455	600	0190	P-4	1	60	15.50	VLF	930.00	
02455	600	0190	P-5	1	60	15.50	VLF	930.00	
02455	600	0190					TOTAL:		\$26,970.00

STRUCTURAL STEEL TAKE OFF FOR REC HALL

Description	Number of Items	Total Length (FT)	Average Length (FT)	R.S. Means Estimate (\$)	R.S. Means Unit	Cost for Member (\$)
HSS 6X6X3/8	18	228	12.67	29.58	L.F.	\$6,744.24
HSS8x8x1/4	5.00	65.00	13.00	47.50	L.F.	\$3,087.50
HSS8x8x1/4	30.00	780.00	26.00	47.50	L.F.	\$37,050.00
HSS 8X8X1/2	4	104	26.00	47.50	L.F.	\$4,940.00
HSS 10X10X1/2	11	286	26.00	71.88	L.F.	\$20,557.68

BEAMS (Addition Area)

Description	Number of Items	Total Length (FT)	Average Length (FT)	R.S. Means Estimate (\$)	R.S. Means Unit	Cost for Member (\$)
HSS 10X10X1/4	13	217	16.69	71.88	L.F.	\$15,597.96
HSS 10X10X5/16	3	71	23.67	71.88	L.F.	\$5,103.48
W 10x12	6	95.00	15.83	20.50	L.F.	\$1,947.50
W 12x14	7	133.00	19.00	20.50	L.F.	\$2,726.50
W 12x16	8	176.00	22.00	20.50	L.F.	\$3,608.00
W 12x19	3	53.00	17.67	29.00	L.F.	\$1,537.00
W 12X26	6	99	16.50	33.00	L.F.	\$3,267.00
W 14x22	30	610.00	20.33	32.50	L.F.	\$19,825.00
W 16x26	9	219.00	24.33	32.50	L.F.	\$7,117.50
W 16x31	25	582.00	23.28	38.50	L.F.	\$22,407.00
W 18x35	9	192.00	21.33	44.00	L.F.	\$8,448.00
W 18x40	1	25.00	25.00	49.50	L.F.	\$1,237.50
W 18X46	1	32	32.00	55.50	L.F.	\$1,776.00
W 21x44	5	122.00	24.40	53.00	L.F.	\$6,466.00
W 21X48	1	37	37.00	59.50	L.F.	\$2,201.50
W 24X55	5	168	33.60	64.00	L.F.	\$10,752.00
W 24x68	2	68.00	34.00	78.00	L.F.	\$5,304.00
W 8x10	89	1407.00	15.81	18.90	L.F.	\$26,592.30
W 8x31x1'-0"	5	5.00	1.00	42.00	L.F.	\$210.00
W24X62	1	32	32.00	71.50	L.F.	\$2,288.00

BEAMS (TRELLIS)						
Description	Number	Total Length (FT)	Average	R.S. Means Estimate (\$)	R.S. Means Unit	Cost for Member (\$)
HSS 8X8X1/4	34	386	11.35	47.50	L.F.	\$18,335.00
JOISTS						
Description	Number of Items	Total Length	Average Length (FT)	R.S. Means Estimate (\$)	R.S. Means Unit	Cost for Member (\$)
10K1	2	14.00	7.00	9.05	L.F.	\$126.70
12K1SP	3	48.00	16.00	8.40	L.F.	\$403.20
14K1	6	109.00	18.17	8.60	L.F.	\$937.40
14K3SP	2	36.00	18.00	8.60	L.F.	\$309.60
16K2	3	48.00	16.00	8.05	L.F.	\$386.40
18K3	8	141.00	17.63	18.60	L.F.	\$2,622.60
18K3	2	50.00	25.00	18.60	L.F.	\$930.00
18K3SP	3	58.00	19.33	18.60	L.F.	\$1,078.80
18K4	1	19.00	19.00	18.60	L.F.	\$353.40
18K5	3	59.00	19.67	18.60	L.F.	\$1,097.40
18K7	1	25.00	25.00	10.30	L.F.	\$257.50
20K3	1	22.00	22.00	8.85	L.F.	\$194.70
20K4	1	32.00	32.00	8.85	L.F.	\$283.20
20K5	2	22.00	11.00	8.85	L.F.	\$194.70
22K4	3	96.00	32.00	9.25	L.F.	\$888.00
22K6	1	32.00	32.00	9.25	L.F.	\$296.00
22K9	1	32.00	32.00	10.90	L.F.	\$348.80
22K9SP	14	338.00	24.14	10.90	L.F.	\$3,684.20
24K10SP	3	101.00	33.67	11.75	L.F.	\$1,186.75
24K5	1	25.00	25.00	9.50	L.F.	\$237.50
24K5SP	3	160.00	53.33	9.50	L.F.	\$1,520.00
24K5SP(2)	3	75.00	25.00	9.50	L.F.	\$712.50
24K6	16	568.00	35.50	9.50	L.F.	\$5,396.00
24K6SP	1	33.00	33.00	9.50	L.F.	\$313.50
24K6SP(2)	1	32.00	32.00	9.50	L.F.	\$304.00
24K7	2	25.00	12.50	9.50	L.F.	\$237.50
24K7	2	64.00	32.00	9.50	L.F.	\$608.00
24K8SP	2	64.00	32.00	11.75	L.F.	\$752.00

Description	Number of Items	Total Length	Avarage Length (FT)	R.S. Means Estimate (\$)	R.S. Means Unit	Cost for Member (\$)
24K8SP(2)	2	50.00	25.00	11.75	L.F.	\$587.50
26K10SP	3	96.00	32.00	12.20	L.F.	\$1,171.20
26K10SP	7	224.00	32.00	12.20	L.F.	\$2,732.80
26K5	8	256.00	32.00	10.10	L.F.	\$2,585.60
26K9SP	4	128.00	32.00	10.10	L.F.	\$1,292.80
26K9SP	7	224.00	32.00	10.10	L.F.	\$2,262.40
26K9SP(2)	2	64.00	32.00	10.10	L.F.	\$646.40
28K10SP	1	38.00	38.00	14.15	L.F.	\$537.70
28K6	2	64.00	32.00	11.25	L.F.	\$720.00
28K7	2	64.00	32.00	11.25	L.F.	\$720.00
28K9	1	37.00	37.00	11.25	L.F.	\$416.25
28K9SP	5	190.00	38.00	11.25	L.F.	\$2,137.50
30K9	2	74.00	37.00	11.55	L.F.	\$854.70
GIRDERS						
Description	Number of Items	Total Length	Avarage Length (FT)	R.S. Means Estimate (\$)	R.S. Means Unit	Cost for Member (\$)
44G12N14KSP	1	42.00	42.00	19.40	L.F.	\$814.80
48G12N14KSP	1	44.00	44.00	34.00	L.F.	\$1,496.00
44G12N13KSP	2	85.00	42.50	19.40	L.F.	\$1,649.00
					TOTAL:	\$285,411.66
Assumptions:						
1.) Costs given for tube steel members can be broken into cost/FT						
2.) Members who R.S. Means does not give a cost for can be assumed to cost the same as the most similar member.						

Structural Steel Estimate				
CSI #		Description		Cost For Member
5120	260	4550	HSS 6X6X3/8	\$6,744.24
5120	260	4600	HSS8x8x1/4	\$3,087.50
5120	260	4600	HSS8x8x1/4	\$37,050.00
5120	260	4600	HSS 8X8X1/2	\$4,940.00
5120	260	4650	HSS 10X10X1/2	\$20,557.68
5120	260	4650	HSS 10X10X1/4	\$15,597.96
5120	260	4650	HSS 10X10X5/16	\$5,103.48
5120	640	0600	W 10x12	\$1,947.50
5120	640	1100	W 12x14	\$2,726.50
5120	640	1100	W 12x16	\$3,608.00
5120	640	1300	W 12x19	\$1,537.00
5120	640	1500	W 12X26	\$3,267.00
5120	640	1900	W 14x22	\$19,825.00
5120	640	2700	W 16x26	\$7,117.50
5120	640	2900	W 16x31	\$22,407.00
5120	640	3300	W 18x35	\$8,448.00
5120	640	3500	W 18x40	\$1,237.50
5120	640	3520	W 18X46	\$1,776.00
5120	640	4100	W 21x44	\$6,466.00
5120	640	4300	W 21X48	\$2,201.50
5120	640	4900	W 24X55	\$10,752.00
5120	640	5300	W 24x68	\$5,304.00
5120	640	0300	W 8x10	\$26,592.30
5120	640	0500	W 8x31x1'-0"	\$210.00
5120	640	5100	W24X62	\$2,288.00
5120	260	4600	HSS 8X8X1/4	\$18,335.00
5210	600	0140	10K1	\$126.70
5210	600	0160	12K1SP	\$403.20
5210	600	0180	14K1	\$937.40
5210	600	0180	14K3SP	\$309.60
5210	600	0200	16K2	\$386.40
5210	600	0240	18K3	\$2,622.60
5210	600	0240	18K3	\$930.00
5210	600	0240	18K3SP	\$1,078.80
5210	600	0240	18K4	\$353.40
5210	600	0240	18K5	\$1,097.40
5210	600	0260	18K7	\$257.50
5210	600	0500	20K3	\$194.70
5210	600	0500	20K4	\$283.20
5210	600	0500	20K5	\$194.70
5210	600	0540	22K4	\$888.00
5210	600	0540	22K6	\$296.00
5210	600	0560	22K9	\$348.80
5210	600	0560	22K9SP	\$3,684.20
5210	600	0600	24K10SP	\$1,186.75
5210	600	0580	24K5	\$237.50
5210	600	0580	24K5SP	\$1,520.00
5210	600	0580	24K5SP(2)	\$712.50

CSI #		Description	Cost For Member
5210	600	0580 24K6	\$5,396.00
5210	600	0580 24K6SP	\$313.50
5210	600	0580 24K6SP(2)	\$304.00
5210	600	0580 24K7	\$237.50
5210	600	0580 24K7	\$608.00
5210	600	0600 24K8SP	\$752.00
5210	600	0600 24K8SP(2)	\$587.50
5210	600	0640 26K10SP	\$1,171.20
5210	600	0640 26K10SP	\$2,732.80
5210	600	0620 26K5	\$2,585.60
5210	600	0640 26K9SP	\$1,292.80
5210	600	0640 26K9SP	\$2,262.40
5210	600	0640 26K9SP(2)	\$646.40
5210	600	0680 28K10SP	\$537.70
5210	600	0660 28K6	\$720.00
5210	600	0660 28K7	\$720.00
5210	600	0660 28K9	\$416.25
5210	600	0660 28K9SP	\$2,137.50
5210	600	0700 30K9	\$854.70
5210	600	2480 44G12N14KSP	\$814.80
5210	600	2520 48G12N14KSP	\$1,496.00
5210	600	2480 44G12N13KSP	\$1,649.00
TOTAL:			\$285,411.66