

Loyola Intercollegiate Athletic Complex Baltimore, MD

Technical Assignment # 2

Submitted: October 28, 2009

Dr. Riley



Steven Rogers
Construction Management

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Executive Summary

The Loyola Intercollegiate Athletic Complex is a project located in Baltimore, MD and owned by Loyola College in Maryland. It is designed to house the soccer, rugby and the up and coming lacrosse team. This addition to the campus will help the college grow.

The project started in January 2007 and is marked for substantial completion in December 2009. A detailed schedule shows all the important activities critical to the completion of the IAC. Several sequences were implemented to help the construction of the building. The detailed schedule concludes with all the necessary assumptions needed to complete it.

The new stadium will be built off campus and recently purchased land, which is 72 acres in size. A site logistics plan was created to help convey the process which was used during the 3rd phase of construction. The large, open site allows most of the temporary features to stay in the same place for the duration of the project.

The report also includes a detailed structural system estimate. This estimate was prepared using RS Means data. Since I had worked previously on this site a full structural systems estimate was able to be produced. Labor, materials, and unit costs were also included in the estimate.

A general conditions estimate is included for phases 1 & 2 of the project to show the costs incurred by the construction manager for general items. The temporary facilities, utilities, and project staffing costs are included and summarized. The project staff costs comprise the majority of the overall general conditions items.

The final section of the report discusses lessons learned from the PACE Roundtable seminar attended previously this year. This event was meant to give students an overview of critical industry issues. Breakout sessions were implemented where we were able to understand an industry view on a specific topic. I chose to attend the Energy breakout session. After the breakout session, a student panel commented on the current status of communication among recent graduates.

A. Detailed Project Schedule

A.1 Project Schedule Overview

Table 1: Key Project Start/ Completion Dates

Notice to Proceed	1/15/07
Complete Earthwork	1/16/08
Received Building Permit	3/13/08
Begin Building Construction	3/17/08
Foundations	3/6/09
Steel	6/2/09
Building Enclosure	8/26/09
Interiors	12/8/09
Substantial Completion	12/22/09
Occupancy	3/2/10

The Loyola Intercollegiate Athletic Complex detailed project schedule, refer to Appendix A, is a more detailed schedule that breaks the 3 phases of the project down into several different sequences. These sequences cover the critical construction process of each phase, which in turn makes the construction of the project go smoothly. Some of the main sequences are outlined below and other sequences can be found in more detail in Technical Assignment 1.

A.2 Building/ Lower Grandstand Foundations



Figure 1: Foundation Sequence

The construction crews started with the building foundations first and then began pouring the foundation for the lower grandstands. The sequencing for the building and the lower grandstands starts on the North side of the building and works its way to the south end, as shown in figure 1.

A.3 Steel Sequencing



Figure 2: Steel Sequence

The steel sequencing consisted of the six sequences. The sequences were based on the floor level and north end or south end of the building. All steel started in the north end of the building and worked its way to the south end. The amount of space allowed the project team to use a 70 and 90 ton crane.

A.4 Enclosure



Figure 3: Scaffolding

Again, during this stage the enclosure begin on the North end and worked its way to the south end. First, the metal stud backup was installed. After the metal backup was installed, the sheathing, air barrier, and cement board was put into place. Then the stucco finish was applied or the ground faced CMU was laid. Next, came the installation of the glass/ glazing. The installation of the roofing was the last step of the enclosure process but was being installed the same time as the facade. Standard scaffolding was utilized to install the building facade, as shown in figure 3.

A.4 Schedule Assumptions

The schedule includes all sequences for each phase but not all of the tasks. Therefore, I just stated which sequence it was similar to in the schedule. Activity durations were carefully determined; however, with limited experience in developing schedules, some durations were educated, knowledge based assumptions from the information provided by the project team. Also, being bound by activity limits, many activities were combined and may distort the actual duration of each detailed line item.

B. Site Layout Planning

B.1 Site and Planning Overview

The location for the Intercollegiate Athletic Complex is just outside of Baltimore, Maryland. The site is 72 acres in size and is very open which will allow for adequate laydown area, storage, parking, and other things that a small site cannot take advantage of. The following figures, Figure 1 and Figure 2, show aerial photographs of the existing site.



Figure 1: Existing Site



Figure 2: Existing Site w/ BLDG Outline

The site logistic plan created, as shown in Appendix B, are a combination of a final site layout and a site logistics plan.

B.2 Version 1 Common Items

Since the site is a large site, the temporary facilities, storage areas, and traffic patterns do not need to be moved throughout the duration of construction. Items that are common to all logistics plans are: Temporary offices, site fencing, parking, dumpsters, storage are, fire hydrant, entries, and temporary power.

B.3 Phase 3 Logistics Plan

During phase 3, steel was erected using two cranes. One crane was on the East side of the building and one was on the West side of the building as shown on the logistics plan. The larger of the two cranes was on the West side of the building because of the heights and lengths that

the crane had to reach. The smaller of the two cranes was on the East side of the building because it could reach the lower beams and the steel for the upper grandstands. The utilization of the truck cranes allows for access to all parts of the erection sequence.

C. Detailed Structural Systems Estimate

C.1 Structural System Estimate Summary

The structural estimate, see Appendix C, includes all the reinforced footings, reinforced piers, foundation walls, slab on grade, slab on metal deck and all the structural steel. The quantity takeoff for this estimate was prepared when I interned for the company two years ago and then updated as new bulletins came out. The values that I came up with for the concrete estimate came in high, which is normal when using RS Means. Due to my inexperience in estimating, I miscalculated some of my structural steel figures which caused my structural steel estimate to come in low.

C.2 Assumptions

Cast-In-Place Concrete:

- Reinforcement and formwork was included in the unit costs
- Estimate excludes soil excavation and removal for the foundations
- Waste factors for rebar were not considered in the estimate

Structural Steel:

- Pricing for wide flange beams and columns were rounded up to the closest column in RS Means 2009
- No waste factor was utilized for the steel decking

D. General Conditions Estimate

D.1 General Conditions Estimate Overview

The general conditions estimate, refer to Appendix D, provides costs for the general items covered by the construction manager for the project. In order to estimate the General Conditions cost for the IAC, a standard GCs items list was used to comprehend what type of items are typically included in this cost. RS Means was then used to determine the unit, duration and unit cost of each line item. This estimate is for Phase 1 & 2 of the project only. The general conditions for Phase 3 of the project are 7% of the total cost for phase 3, which comes out to be \$2,236,989.

Table 1: General Conditions Estimate Summary

General Conditions Estimate Summary	
Description	Total Costs
Project Staffing	\$1,257,036
Temporary Utilities	\$83,325
Field Office, Equipment, & Expenses	\$120,900
Total General Conditions Estimate	\$1,701,741

As Table 1 and Appendix D show, the majority of the estimate is made up of the project staffing costs.

E. Critical Industry Issues

E.1 Breakout Session

The break out session I decided to attend was “Energy and the Building Industry”. The session was broken down into two parts. The first part focused on identifying current problems in the industry to “spark” ideas among the group. Not only did the first part identify problems, it also highlighted some good products that are working well among the “green” community. The second part focused more on solving student’s thesis problems or to give the students ideas for thesis proposals.

The first part started off with a conversation about energy consumption and efficiency. During this conversation, new products were introduced to us from industry members, which could help save energy (i.e. lights and a new form of insulation). About half way through this discussion, a conversation came up about the push for green. Owners are now trying just to get the title green on their real estate for the increase in property value. This is known as “green-washing”.

The second part dealt with problems or ideas related to actual thesis projects of the students. This was good and bad at the same time. It was good to those students who actually got good feedback about their building from the current industry members or other students but it was very unbeneficial to those that got no feedback when they presented their building. I thought this time could have been used differently to give ideas to more students other than the ones who presented their projects.

E.2 Communication Among Recent Graduates

After the breakout session, we had a student panel discuss current means of communication among the students. Two things were discussed here: the good and the bad. In the student’s eyes, “our” communication is better and more efficient but at times vague. Some of the older industry members did not like our means of communication for a couple of reasons:

- Different meanings of tasks (our era needs more direction because lack of experience)
- Where we would send an email (faster typers), they would get up and explain it in words or call

It was also interesting to hear the difference in mind sets regarding the definition of a work day. For example, we like to work 8 hour days because we can work faster but the older industry members get to work early and leave late. Overall, this was very beneficial for me so I know what to expect when I get out in to the work force.

E.3 Surprises

- Positive view on the economic situation by industry members
- Industry members' outlook on the communication era
- How eager everyone was to talk about their experiences and they were quick to give advice

E.4 Ideas that can be applied to My Project

When thinking about my project, some ideas that were discussed during the conference could be applied to my project. The idea of green is huge with Loyola College. I would like to see what the project team and owner could have done to have the project receive a LEED rating. In doing the research for LEED, I could also research sustainable products, such as different lighting systems and green materials for the façade and use throughout the building.

E.5 Contacts

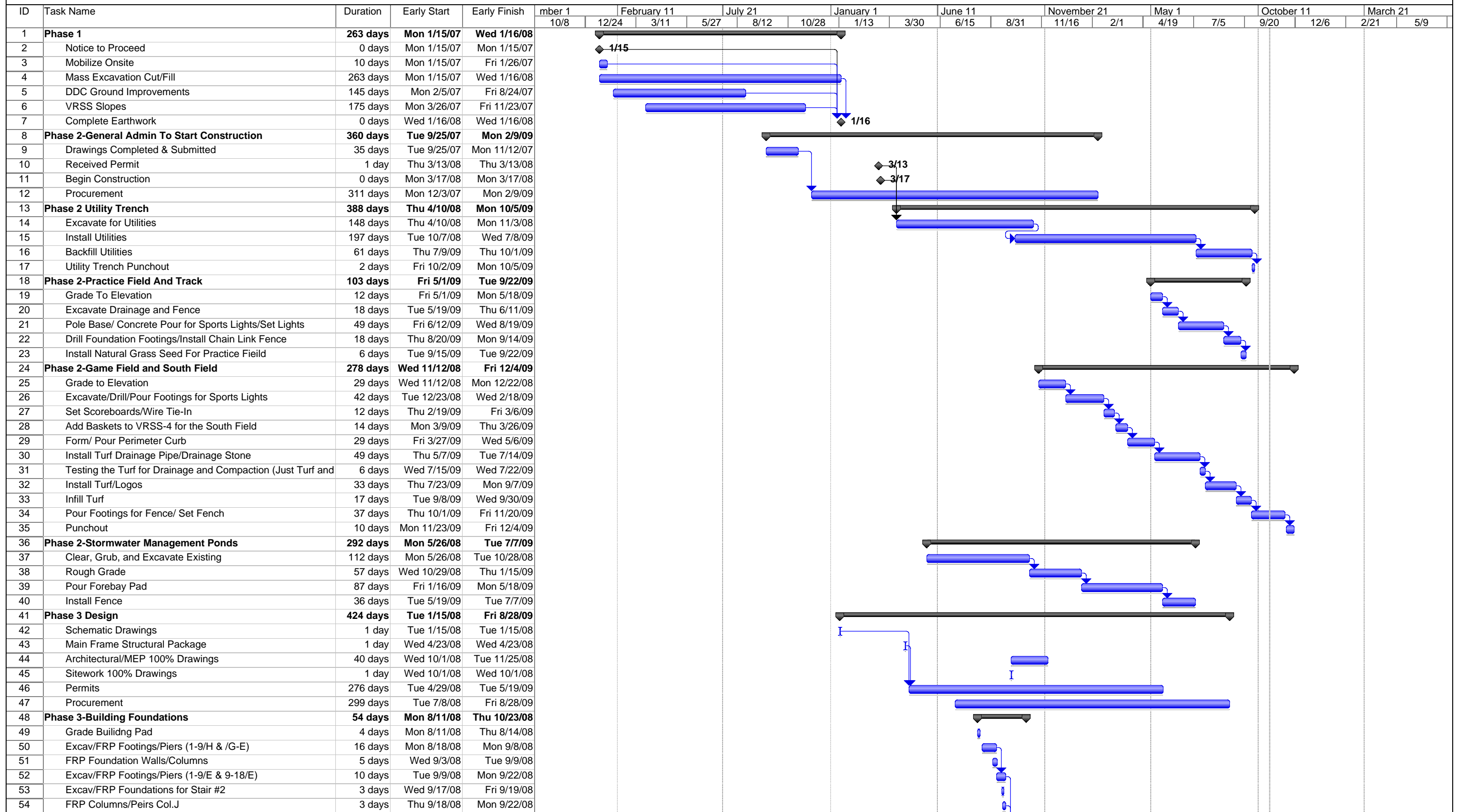
Mr. Chuck Tomasco, Jr., P.E.
Truland Systems

Mr. Daniel P. Kerr, P.E.
McClure Company

Appendix A

Detailed Project Schedule

Loyola IAC Detailed Project Schedule



Project: Detailed Project Schedule.mp
Date: Wed 10/28/09

Task		Progress		Summary		External Tasks		Deadline	
Split		Milestone		Project Summary		External Milestone			

Steven Rogers

Loyola IAC Detailed Project Schedule

ID	Task Name	Duration	Early Start	Early Finish	November 1		February 11		July 21		January 1		June 11		November 21		May 1		October 11		March 21	
					10/8	12/24	3/11	5/27	8/12	10/28	1/13	3/30	6/15	8/31	11/16	2/1	4/19	7/5	9/20	12/6	2/21	5/9
55	FRP Foundation Walls/Columns	3 days	Thu 9/18/08	Mon 9/22/08																		
56	Excav/FRP Footings/Piers (18/E-H & 9-18H)	6 days	Tue 9/23/08	Tue 9/30/08																		
57	FRP Foundation Walls/Columns	8 days	Tue 9/23/08	Thu 10/2/08																		
58	Excav/FRP Footings/Col. Elevator Pit	3 days	Mon 10/6/08	Wed 10/8/08																		
59	FRP Foundation Walls Stair #2	12 days	Wed 10/8/08	Thu 10/23/08																		
60	Phase 3-Lower Grandstand Foundations	150 days	Mon 9/15/08	Fri 4/10/09																		
61	Excav/FRP Footings/ Columns	20 days	Mon 9/15/08	Fri 10/10/08																		
62	FRP Foundation End Walls/Columns	7 days	Thu 10/9/08	Fri 10/17/08																		
63	Erect Scaffolding Col 1-9	3 days	Thu 10/16/08	Mon 10/20/08																		
64	FRP Foundation End Walls Col. 18/A-G	6 days	Thu 10/16/08	Thu 10/23/08																		
65	Erect Scaffolding col. 9-18	4 days	Mon 10/20/08	Thu 10/23/08																		
66	Pour Spandrel Beams Col. 1-9	4 days	Tue 10/21/08	Fri 10/24/08																		
67	Pour Raker Beams Col. 1-9	6 days	Fri 10/24/08	Fri 10/31/08																		
68	Pour Spandrel Beams Col. 9-18	3 days	Fri 10/31/08	Tue 11/4/08																		
69	Pour Main Deck Riser 1	10 days	Fri 10/31/08	Thu 11/13/08																		
70	Pour Raker Beams Col. 9-18	3 days	Wed 11/5/08	Fri 11/7/08																		
71	Pour Main Deck Riser 2-9	95 days	Mon 12/1/08	Fri 4/10/09																		
72	Pour Stairs Beyond 1-9	3 days	Wed 3/4/09	Fri 3/6/09																		
73	Phase 3-Superstructure Steel Sequence 1-6	132 days	Mon 12/1/08	Tue 6/2/09																		
74	Seq #1	42 days	Mon 12/1/08	Tue 1/27/09																		
75	Erect Steel 2nd and 3rd Concourse North Side	10 days	Mon 12/1/08	Fri 12/12/08																		
76	Bolt up 2nd	5 days	Mon 12/8/08	Fri 12/12/08																		
77	Misc Detailing 2nd	6 days	Mon 12/8/08	Mon 12/15/08																		
78	Bolt up 3rd	5 days	Tue 12/9/08	Mon 12/15/08																		
79	Metal Deck 2nd	7 days	Mon 12/22/08	Tue 12/30/08																		
80	Welding 2nd	5 days	Tue 12/23/08	Mon 12/29/08																		
81	Welding 3rd	4 days	Tue 1/13/09	Fri 1/16/09																		
82	Misc. Detailing 3rd	5 days	Tue 1/13/09	Mon 1/19/09																		
83	Metal Deck 3rd	6 days	Tue 1/13/09	Tue 1/20/09																		
84	Shear Studs 2nd	4 days	Mon 1/19/09	Thu 1/22/09																		
85	Shear Studs 3rd	3 days	Fri 1/23/09	Tue 1/27/09																		
86	Seq #2	31 days	Thu 1/8/09	Thu 2/19/09																		
87	Similar Seq but for 4th floor and Upper North Side	31 days	Thu 1/8/09	Thu 2/19/09																		
88	Seq #3	35 days	Wed 1/14/09	Tue 3/3/09																		
89	Similar Seq but for Pressbox & Roof North Side	35 days	Wed 1/14/09	Tue 3/3/09																		
90	Seq #4-6	73 days	Fri 2/20/09	Tue 6/2/09																		
91	Similar to Seq's 1-3 but for the South Side	73 days	Fri 2/20/09	Tue 6/2/09																		
92	Phase 3-Structural Slabs	88 days	Wed 2/4/09	Fri 6/5/09																		
93	Pour 2nd Floor North	4 days	Wed 2/4/09	Mon 2/9/09																		
94	Pour 3rd Floor North	4 days	Tue 2/10/09	Fri 2/13/09																		
95	Pour 4th Floor North	4 days	Mon 2/16/09	Thu 2/19/09																		
96	Pour Press Box Floor North	4 days	Fri 2/20/09	Wed 2/25/09																		
97	Pour 2nd Floor South	4 days	Thu 2/26/09	Tue 3/3/09																		
98	Pour 3rd Floor South	4 days	Wed 3/4/09	Mon 3/9/09																		
99	Pour 4th Floor South	4 days	Tue 3/10/09	Fri 3/13/09																		
100	Pour SOG North and South	12 days	Mon 3/16/09	Tue 3/31/09																		
101	Pour Stairs	4 days	Wed 4/1/09	Mon 4/6/09																		
102	Pour Topping Slabs	5 days	Tue 4/7/09	Mon 4/13/09																		
103	Install WP/Drainage Board	11 days	Fri 5/22/09	Fri 6/5/09																		
104	Phase 3- Metal Bleachers	59 days	Mon 4/6/09	Thu 6/25/09																		
105	Lower Grandstands	31 days	Mon 4/6/09	Mon 5/18/09																		
106	Upper Grandstands	36 days	Tue 4/21/09	Tue 6/9/09																		
107	Upper Grandstand Railings	14 days	Mon 6/8/09	Thu 6/25/09																		
108	Punchlist	5 days	Mon 6/8/09	Fri 6/12/09																		

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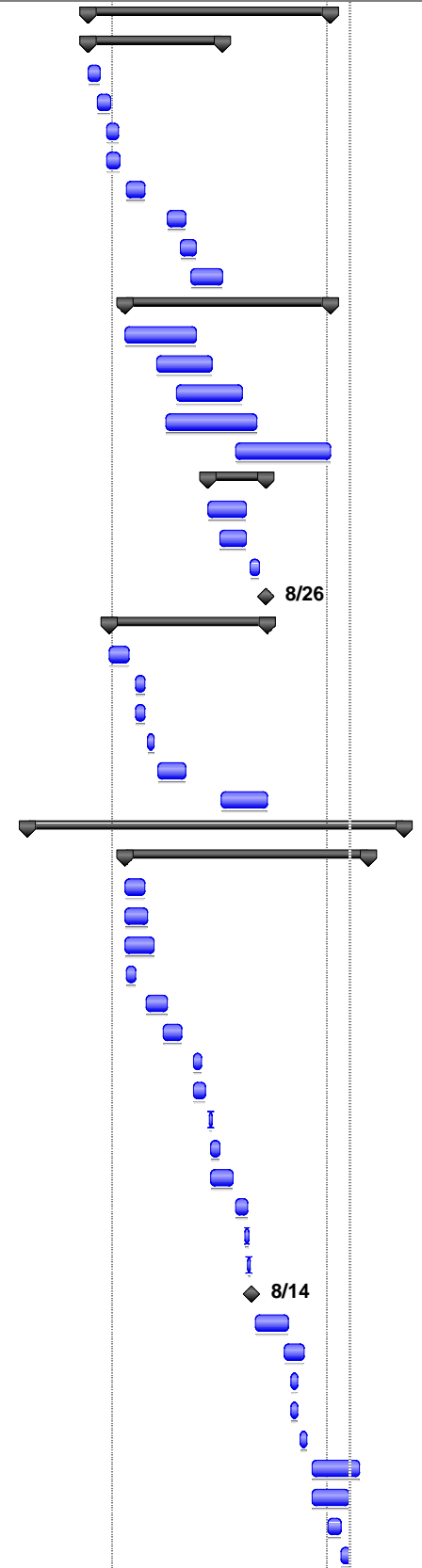
Task: Progress Summary External Tasks Deadline

Split: Milestone Project Summary External Milestone

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Loyola IAC Detailed Project Schedule

ID	Task Name	Duration	Early Start	Early Finish	November 1		February 11		July 21		January 1		June 11		November 21		May 1		October 11		March 21	
					10/8	12/24	3/11	5/27	8/12	10/28	1/13	3/30	6/15	8/31	11/16	2/1	4/19	7/5	9/20	12/6	2/21	5/9
109	Phase 3-Exterior Skin	132 days	Mon 4/13/09	Tue 10/13/09																		
110	Metal Stud Backup	74 days	Mon 4/13/09	Thu 7/23/09																		
111	Install EXT. Metal Stud 2nd Floor North	7 days	Mon 4/13/09	Tue 4/21/09																		
112	Install EXT. Metal Stud 3rd Floor North	8 days	Mon 4/20/09	Wed 4/29/09																		
113	Install EXT. Metal Stud 2nd Floor South	7 days	Mon 4/27/09	Tue 5/5/09																		
114	Install EXT. Metal Stud 3rd Floor South	8 days	Mon 4/27/09	Wed 5/6/09																		
115	Install EXT. Metal Stud 1st Floor North & South	10 days	Tue 5/12/09	Mon 5/25/09																		
116	Install EXT. Metal Stud 5th Floor	10 days	Fri 6/12/09	Thu 6/25/09																		
117	Install EXT. Metal Stud 4th & 5th Floor	10 days	Mon 6/22/09	Fri 7/3/09																		
118	Frame EXT Soffits Roof North & South	18 days	Tue 6/30/09	Thu 7/23/09																		
119	Masonry/Stucco Backup (Floor Sequencing is the same as)	112 days	Mon 5/11/09	Tue 10/13/09																		
120	Install Sheathing	40 days	Mon 5/11/09	Fri 7/3/09																		
121	Install Air Barrier	30 days	Thu 6/4/09	Wed 7/15/09																		
122	Install Cement Board	36 days	Fri 6/19/09	Fri 8/7/09																		
123	Install GFCMU	49 days	Thu 6/11/09	Tue 8/18/09																		
124	Apply Stucco	52 days	Mon 8/3/09	Tue 10/13/09																		
125	Glass/Glazing	32 days	Mon 7/13/09	Wed 8/26/09																		
126	Install Storefront	21 days	Mon 7/13/09	Mon 8/10/09																		
127	Install Punch Windows	14 days	Wed 7/22/09	Mon 8/10/09																		
128	Install Curtain Wall	5 days	Fri 8/14/09	Thu 8/20/09																		
129	Pressbox Water Tight	0 days	Wed 8/26/09	Wed 8/26/09																		
130	Roofing	86 days	Wed 4/29/09	Wed 8/26/09																		
131	Install Roof Drains	11 days	Wed 4/29/09	Wed 5/13/09																		
132	Metal Framing	5 days	Tue 5/19/09	Mon 5/25/09																		
133	Install Roof Curbs	5 days	Tue 5/19/09	Mon 5/25/09																		
134	Plywood Blocking	3 days	Thu 5/28/09	Mon 6/1/09																		
135	Metal Panels	15 days	Fri 6/5/09	Thu 6/25/09																		
136	Install Roofing	25 days	Thu 7/23/09	Wed 8/26/09																		
137	Phase 3-Interiors	204 days	Thu 2/26/09	Tue 12/8/09																		
138	LV1 North	133 days	Mon 5/11/09	Wed 11/11/09																		
139	Install Ductwork	11 days	Mon 5/11/09	Mon 5/25/09																		
140	Electrical Conduit R/I	13 days	Mon 5/11/09	Wed 5/27/09																		
141	Install Plumbing	16 days	Mon 5/11/09	Mon 6/1/09																		
142	Interior Wall Framing	5 days	Tue 5/12/09	Mon 5/18/09																		
143	Pull Wire (tele/data/audio visual/ security)	12 days	Wed 5/27/09	Thu 6/11/09																		
144	Pull Wire (fire alarm/ light & power)	10 days	Tue 6/9/09	Mon 6/22/09																		
145	Insulate Plumbing Pipe	4 days	Thu 7/2/09	Tue 7/7/09																		
146	Install Fire Protection	7 days	Thu 7/2/09	Fri 7/10/09																		
147	Hydrotest Fire Protection	2 days	Tue 7/14/09	Wed 7/15/09																		
148	Insulate Ductwork	5 days	Wed 7/15/09	Tue 7/21/09																		
149	Install HVAC	13 days	Wed 7/15/09	Fri 7/31/09																		
150	Frame Ceilings/ Bulkheads	7 days	Mon 8/3/09	Tue 8/11/09																		
151	Electrical R/I @ Ceilings	3 days	Mon 8/10/09	Wed 8/12/09																		
152	Install Insulation/Plywood/ Drywall	2 days	Wed 8/12/09	Thu 8/13/09																		
153	Ceiling Close-In Inspection	2 days	Thu 8/13/09	Fri 8/14/09																		
154	Hang, Finish, and Paint Drywall Walls	19 days	Tue 8/18/09	Fri 9/11/09																		
155	Install Ceiling Grid/Tile	11 days	Wed 9/9/09	Wed 9/23/09																		
156	Install Sprinkler Heads	5 days	Mon 9/14/09	Fri 9/18/09																		
157	HVAC G/R/D's	5 days	Mon 9/14/09	Fri 9/18/09																		
158	Install Light Fixtures	5 days	Mon 9/21/09	Fri 9/25/09																		
159	Install Flooring	26 days	Wed 9/30/09	Wed 11/4/09																		
160	Final Paint	20 days	Wed 9/30/09	Tue 10/27/09																		
161	Install Tiolet Partitions	8 days	Mon 10/12/09	Wed 10/21/09																		
162	Install Doors & Hardware	5 days	Thu 10/22/09	Wed 10/28/09																		



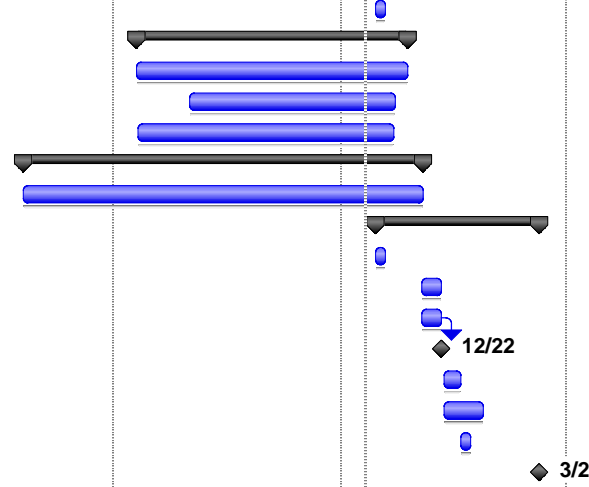
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Task Progress Summary External Tasks Deadline

Split Milestone Project Summary External Milestone

Loyola IAC Detailed Project Schedule

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163	Final Trimout	5 days	Thu 10/22/09	Wed 10/28/09																		
164	Punchlists	5 days	Thu 11/5/09	Wed 11/11/09																		
165	LV1 South	140 days	Mon 5/18/09	Fri 11/27/09																		
166	Similar Seq. as LV1 North	140 days	Mon 5/18/09	Fri 11/27/09																		
167	Main Electrical Room	105 days	Thu 6/25/09	Wed 11/18/09																		
168	Main Mechanical Room	131 days	Tue 5/19/09	Tue 11/17/09																		
169	LV2 North & South, LV3 North & South, LV4 North & Sou	204 days	Thu 2/26/09	Tue 12/8/09																		
170	Similar Seq. as LV1 North	204 days	Thu 2/26/09	Tue 12/8/09																		
171	Phase 3-Final Completion	83 days	Thu 11/5/09	Tue 3/2/10																		
172	Sitework & EXT Work	5 days	Thu 11/5/09	Wed 11/11/09																		
173	Final Inspections	10 days	Tue 12/8/09	Mon 12/21/09																		
174	Final Commissioning	10 days	Tue 12/8/09	Mon 12/21/09																		
175	Substantial Completion	0 days	Tue 12/22/09	Tue 12/22/09																		
176	Final Building Clean	8 days	Thu 12/24/09	Mon 1/4/10																		
177	Final Punchlist	20 days	Thu 12/24/09	Wed 1/20/10																		
178	Owner Training	5 days	Tue 1/5/10	Mon 1/11/10																		
179	Occupancy	0 days	Tue 3/2/10	Tue 3/2/10																		

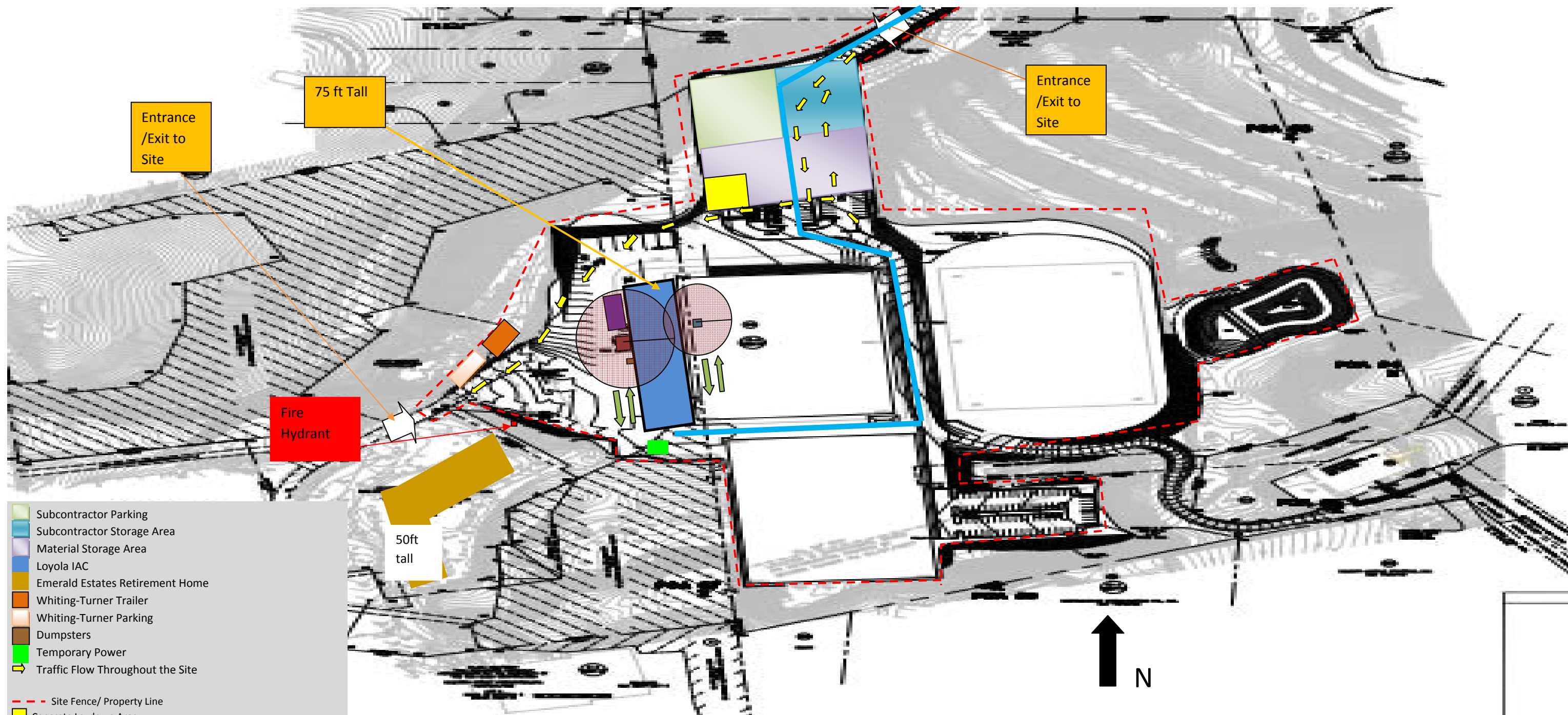


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Date: Wed 10/28/09

Task		Progress		Summary		External Tasks		Deadline	
Split		Milestone		Project Summary		External Milestone			

Appendix B

Site Logistics Plan



- Subcontractor Parking
 - Subcontractor Storage Area
 - Material Storage Area
 - Loyola IAC
 - Emerald Estates Retirement Home
 - Whiting-Turner Trailer
 - Whiting-Turner Parking
 - Dumpsters
 - Temporary Power
 - Traffic Flow Throughout the Site
-
- Site Fence/ Property Line
 - Concrete Laydown Area
 - Steel Shakedown Area
 - 90 Ton Truck Crane
 - 70 Ton Truck Crane
 - Arrows Indicating the Cranes can move back and forth
 - New Utility Trench

Steven Rogers
October 27, 2009

Loyola Intercollegiate Athletic Complex

Phase 3 of
Construction

Appendix C

Detailed Structural Systems Estimate

Loyola Intercollegiate Athletic Complex

Detailed Structural System Estimate for IAC

Division 03 Concrete

Spread Footings

Item	Quantity (CY)	Unit Price (\$/CY)	Unit Labor Cost	Labor Cost	Unit Mat'l Cost	Mat'l Cost	Total Cost
3000 PSI C	1515	\$ 470.00	\$ 13.90	\$ 21,058.50	\$ 1.46	\$ 2,211.90	\$ 735,320.40
3500 PSI C	1208	\$ 450.00	\$ 13.90	\$ 16,791.20	\$ 1.46	\$ 1,763.68	\$ 562,154.88
4000 PSI C	1305	\$ 490.00	\$ 13.90	\$ 18,139.50	\$ 1.46	\$ 1,905.30	\$ 659,494.80
*reinforcement and formwork included						Subtotal	\$ 1,956,970.08
	Quantity (SF)	Unit Price (\$/SF)	Unit Labor Cost	Labor Cost	Unit Mat'l Cost	Mat'l Cost	Total Cost
WWF	24021	\$ 13.25	\$ 13.25	\$ 318,278.3	-	-	\$ 636,556.50
						Subtotal	\$ 636,556.50
Structural Concrete Total							\$ 2,593,526.58

Division 05 Steel

All Columns

Structural Steel Takeoff

	Quantity	Unit Labor Cost	Labor Cost	Unit Mat'l Cost	Mat'l Cost	SubTotal Cost	Total Cost
1st Floor							
Type							
W12X14	358	\$ 2.23	\$ 798.34	\$ 16.65	\$ 5,960.70		
W14X22	1491	\$ 2.01	\$ 2,996.91	\$ 26.65	\$ 39,735.15		
W16X26	1334	\$ 2.34	\$ 3,121.56	\$ 31.50	\$ 42,021.00		
W16X31	385	\$ 2.44	\$ 939.40	\$ 29.50	\$ 11,357.50		
W12X19	84	\$ 2.31	\$ 194.04	\$ 20.00	\$ 1,680.00		
W10X12	95	\$ 2.13	\$ 202.35	\$ 14.45	\$ 1,372.75		
W18X35	44	\$ 3.53	\$ 155.32	\$ 42.50	\$ 1,870.00		
W18X50	47	\$ 4.43	\$ 208.21	\$ 50.50	\$ 2,373.50		
W16X36	18	\$ 2.34	\$ 42.12	\$ 37.50	\$ 675.00		
W18X55	23	\$ 3.06	\$ 70.38	\$ 56.50	\$ 1,299.50		
W8X10	55	\$ 3.91	\$ 215.05	\$ 12.10	\$ 665.50		
W12X16	19	\$ 2.76	\$ 52.44	\$ 18.95	\$ 360.05		
W18X60	18	\$ 4.62	\$ 83.16	\$ 57.75	\$ 1,039.50	\$ 119,489.43	
S2.02 A&B							
W14X22	1955	\$ 2.01	\$ 3,929.55	\$ 26.65	\$ 52,100.75		
W16X31	829	\$ 2.44	\$ 2,022.76	\$ 29.50	\$ 24,455.50		
W16X26	426	\$ 2.34	\$ 996.84	\$ 31.50	\$ 13,419.00		
W12X14	171	\$ 2.23	\$ 381.33	\$ 16.65	\$ 2,847.15		
W24X84	130	\$ 3.46	\$ 449.80	\$ 92.50	\$ 12,025.00		
W24X55	118	\$ 3.06	\$ 361.08	\$ 66.50	\$ 7,847.00		
W18X76	150	\$ 3.06	\$ 459.00	\$ 60.00	\$ 9,000.00		
W18X50	304	\$ 4.43	\$ 1,346.72	\$ 50.50	\$ 15,352.00		

W21X44	232	\$ 3.19	\$ 740.08	\$ 53.00	\$ 12,296.00		
W12X19	234	\$ 2.31	\$ 540.54	\$ 20.00	\$ 4,680.00		
W10X12	133	\$ 2.13	\$ 283.29	\$ 14.45	\$ 1,921.85		
W27X94	58	\$ 2.55	\$ 147.90	\$ 78.50	\$ 4,553.00		
W27X129	40	\$ 2.75	\$ 110.00	\$ 83.00	\$ 3,320.00		
W18X40	122	\$ 3.53	\$ 430.66	\$ 48.50	\$ 5,917.00		
W21X68	22	\$ 2.96	\$ 65.12	\$ 72.50	\$ 1,595.00		
W12X16	44	\$ 2.76	\$ 121.44	\$ 18.95	\$ 833.80		
W16X57	16	\$ 3.03	\$ 48.48	\$ 55.50	\$ 888.00		
W18X35	430	\$ 3.53	\$ 1,517.90	\$ 42.50	\$ 18,275.00		
W21X48	20	\$ 3.49	\$ 69.80	\$ 56.00	\$ 1,120.00		
W12X35	32	\$ 2.74	\$ 87.68	\$ 26.00	\$ 832.00		
W8X10	7	\$ 3.91	\$ 27.37	\$ 12.10	\$ 84.70		
W21X62	110	\$ 3.46	\$ 380.60	\$ 71.50	\$ 7,865.00		
W18X65	106	\$ 4.32	\$ 457.92	\$ 60.00	\$ 6,360.00		
W21X83	44	\$ 4.30	\$ 189.20	\$ 72.00	\$ 3,168.00	\$ 225,920.81	
Fourth Level Concourse							
W16X26	425	\$ 2.34	\$ 994.50	\$ 31.50	\$ 13,387.50		
W12X19	330	\$ 2.31	\$ 762.30	\$ 20.00	\$ 6,600.00		
W14X22	84	\$ 2.01	\$ 168.84	\$ 26.65	\$ 2,238.60		
W12X16	330	\$ 2.76	\$ 910.80	\$ 18.95	\$ 6,253.50		
W16X31	234	\$ 2.44	\$ 570.96	\$ 29.50	\$ 6,903.00		
W18X40	176	\$ 3.53	\$ 621.28	\$ 48.50	\$ 8,536.00		
W10X12	226	\$ 2.13	\$ 481.38	\$ 14.45	\$ 3,265.70		
W12X14	152	\$ 2.23	\$ 338.96	\$ 16.65	\$ 2,530.80		
W14X22	22	\$ 2.01	\$ 44.22	\$ 26.65	\$ 586.30		
W21X83	19	\$ 4.30	\$ 81.70	\$ 72.00	\$ 1,368.00		
W12X35	113	\$ 2.74	\$ 309.62	\$ 26.00	\$ 2,938.00		
W8X10	50	\$ 3.91	\$ 195.50	\$ 12.10	\$ 605.00		
W12X26	44	\$ 2.45	\$ 107.80	\$ 26.00	\$ 1,144.00		
W24X55	22	\$ 3.06	\$ 67.32	\$ 66.50	\$ 1,463.00		
W18X35	18	\$ 3.53	\$ 63.54	\$ 42.50	\$ 765.00		
W24X68	52	\$ 3.06	\$ 159.12	\$ 82.50	\$ 4,290.00	\$ 68,752.24	
S 2.04 A&B							
W21X62	724	\$ 3.46	\$ 2,505.04	\$ 71.50	\$ 51,766.00		
W18X40	422	\$ 3.53	\$ 1,489.66	\$ 48.50	\$ 20,467.00		
W18X50	274	\$ 4.43	\$ 1,213.82	\$ 50.50	\$ 13,837.00		
W18X76	286	\$ 3.06	\$ 875.16	\$ 60.00	\$ 17,160.00		
W24X76	54	\$ 3.30	\$ 178.20	\$ 72.00	\$ 3,888.00		
W27X84	18	\$ 3.53	\$ 63.54	\$ 42.50	\$ 765.00		
W27X94	18	\$ 2.55	\$ 45.90	\$ 78.50	\$ 1,413.00		
W18X65	54	\$ 4.32	\$ 233.28	\$ 60.00	\$ 3,240.00		
W21X50	66	\$ 3.86	\$ 254.76	\$ 52.00	\$ 3,432.00		
W24X84	170	\$ 3.46	\$ 588.20	\$ 92.50	\$ 15,725.00	\$ 139,140.56	
Press Box Low Framing Plan (S 2.05)							
W18X35	221	\$ 3.53	\$ 780.13	\$ 42.50	\$ 9,392.50		
W10X12	80	\$ 2.13	\$ 170.40	\$ 14.45	\$ 1,156.00		

W16X26	44	\$ 2.34	\$ 102.96	\$ 31.50	\$ 1,386.00	\$ 12,987.99	
Press Box Framin Plan (S 2.05)							
W12X14	100	\$ 2.23	\$ 223.00	\$ 16.65	\$ 1,665.00		
W16X22	22	\$ 2.51	\$ 55.22	\$ 37.50	\$ 825.00		
W16X26	355	\$ 2.34	\$ 830.70	\$ 31.50	\$ 11,182.50		
W10X12	292	\$ 2.13	\$ 621.96	\$ 14.45	\$ 4,219.40		
W18X40	61	\$ 3.53	\$ 215.33	\$ 48.50	\$ 2,958.50		
W12X19	176	\$ 2.31	\$ 406.56	\$ 20.00	\$ 3,520.00		
W8X10	105	\$ 3.91	\$ 410.55	\$ 12.10	\$ 1,270.50		
W27X94	24	\$ 2.55	\$ 61.20	\$ 78.50	\$ 1,884.00		
W24X76	49	\$ 3.30	\$ 161.70	\$ 72.00	\$ 3,528.00		
W16X31	21	\$ 2.44	\$ 51.24	\$ 29.50	\$ 619.50		
W18X35	91	\$ 3.53	\$ 321.23	\$ 42.50	\$ 3,867.50		
W24X55	22	\$ 3.06	\$ 67.32	\$ 66.50	\$ 1,463.00		
W14X22	88	\$ 2.01	\$ 176.88	\$ 26.65	\$ 2,345.20		
W18X55	33	\$ 3.06	\$ 100.98	\$ 56.50	\$ 1,864.50		
W21X44	22	\$ 3.19	\$ 70.18	\$ 53.00	\$ 1,166.00		
W27X94	35	\$ 2.55	\$ 89.25	\$ 78.50	\$ 2,747.50		
W21X48	38	\$ 3.49	\$ 132.62	\$ 56.00	\$ 2,128.00	\$ 51,250.02	
S 2.06 A&B							
W10X12	333	\$ 2.13	\$ 709.29	\$ 14.45	\$ 4,811.85		
W12X14	836	\$ 2.23	\$ 1,864.28	\$ 16.65	\$ 13,919.40		
W16X26	19	\$ 2.34	\$ 44.46	\$ 31.50	\$ 598.50		
W14X22	94	\$ 2.01	\$ 188.94	\$ 26.65	\$ 2,505.10		
W18X40	389	\$ 3.53	\$ 1,373.17	\$ 48.50	\$ 18,866.50		
W40X167	72	\$ 3.48	\$ 250.56	\$ 176.90	\$ 12,736.80		
W18X76	104	\$ 3.06	\$ 318.24	\$ 60.00	\$ 6,240.00		
W18X86	71	\$ 2.55	\$ 181.05	\$ 101.87	\$ 7,232.77		
W18X97	29	\$ 2.65	\$ 76.85	\$ 113.56	\$ 3,293.24		
W18X158	62	\$ 3.03	\$ 187.86	\$ 135.30	\$ 8,388.60		
W12X16	18	\$ 2.76	\$ 49.68	\$ 18.95	\$ 341.10		
W18X55	44	\$ 3.06	\$ 134.64	\$ 66.50	\$ 2,926.00		
W18X175	33	\$ 3.21	\$ 105.93	\$ 148.52	\$ 4,901.16		
W18X119	33	\$ 2.78	\$ 91.74	\$ 121.73	\$ 4,017.09		
W18X130	157	\$ 2.91	\$ 456.87	\$ 129.54	\$ 20,337.78		
W18X65	28	\$ 4.32	\$ 120.96	\$ 60.00	\$ 1,680.00	\$ 118,950.41	
VT-1							
W21X44	43	\$ 3.19	\$ 137.17	\$ 53.00	\$ 2,279.00		
W12X65	110	\$ 3.51	\$ 386.10	\$ 78.55	\$ 8,640.50		
W8X28	109	\$ 3.91	\$ 426.19	\$ 23.14	\$ 2,522.26	\$ 14,391.22	
VT-2							
W21X44	44	\$ 3.19	\$ 140.36	\$ 53.00	\$ 2,332.00		
W12X65	110	\$ 3.51	\$ 386.10	\$ 78.55	\$ 8,640.50		
W8X28	109	\$ 3.91	\$ 426.19	\$ 23.14	\$ 2,522.26	\$ 14,447.41	
VT-3							
W8X28	151	\$ 3.91	\$ 590.41	\$ 23.14	\$ 3,494.14		
W12X65	110	\$ 3.51	\$ 386.10	\$ 78.55	\$ 8,640.50		

W21X44	25	\$ 3.19	\$ 79.75	\$ 53.00	\$ 1,325.00		
W21X62	50	\$ 3.46	\$ 173.00	\$ 71.50	\$ 3,575.00	\$ 18,263.90	
VT-4							
W12X65	110	\$ 3.51	\$ 386.10	\$ 78.55	\$ 8,640.50		
W21X44	50	\$ 3.19	\$ 159.50	\$ 53.00	\$ 2,650.00		
W21X62	50	\$ 3.46	\$ 173.00	\$ 71.50	\$ 3,575.00		
W8X28	117	\$ 3.91	\$ 457.47	\$ 23.14	\$ 2,707.38		
W8X31	30	\$ 3.95	\$ 118.50	\$ 25.74	\$ 772.20	\$ 19,639.65	
VT-5							
W12X65	62	\$ 3.51	\$ 217.62	\$ 78.55	\$ 4,870.10		
W8X31	72	\$ 3.95	\$ 284.40	\$ 25.74	\$ 1,853.28		
W21X62	24	\$ 3.46	\$ 83.04	\$ 71.50	\$ 1,716.00	\$ 9,024.44	
VT-6							
W12X65	62	\$ 3.51	\$ 217.62	\$ 78.55	\$ 4,870.10		
W21X62	48	\$ 3.46	\$ 166.08	\$ 71.50	\$ 3,432.00		
W8X31	27	\$ 3.95	\$ 106.65	\$ 25.74	\$ 694.98		
W8X40	27	\$ 4.10	\$ 110.70	\$ 34.59	\$ 933.93	\$ 10,532.06	
VT-7							
W21X106	102	\$ 3.56	\$ 363.12	\$ 90.12	\$ 9,192.24		
W21X62	46	\$ 3.46	\$ 159.16	\$ 71.50	\$ 3,289.00		
W21X44	23	\$ 3.19	\$ 73.37	\$ 53.00	\$ 1,219.00		
W21X50	23	\$ 3.86	\$ 88.78	\$ 52.00	\$ 1,196.00		
W8X28	96	\$ 3.91	\$ 375.36	\$ 23.14	\$ 2,221.44		
W8X31	27	\$ 3.95	\$ 106.65	\$ 25.74	\$ 694.98	\$ 18,979.10	
VT-8							
W18X65	33	\$ 4.32	\$ 142.56	\$ 60.00	\$ 1,980.00		
W14X120	94	\$ 5.24	\$ 492.56	\$ 202.69	\$ 19,052.86		
W12X79	42	\$ 4.02	\$ 168.84	\$ 95.50	\$ 4,011.00		
W12X65	24	\$ 3.51	\$ 84.24	\$ 78.55	\$ 1,885.20		
W8X48	18	\$ 4.06	\$ 73.08	\$ 32.91	\$ 592.38		
W8X58	26	\$ 4.04	\$ 105.04	\$ 35.33	\$ 918.58		
W21X44	69	\$ 3.19	\$ 220.11	\$ 53.00	\$ 3,657.00		
W8X40	34	\$ 4.10	\$ 139.40	\$ 34.59	\$ 1,176.06		
W8X28	23	\$ 3.91	\$ 89.93	\$ 23.14	\$ 532.22		
W8X35	23	\$ 3.94	\$ 90.62	\$ 26.64	\$ 612.72		
W14X120	72	\$ 5.24	\$ 377.28	\$ 202.69	\$ 14,593.68	\$ 50,995.36	
VT-9							
W21X44	48	\$ 3.19	\$ 153.12	\$ 53.00	\$ 2,544.00		
W12X96	30	\$ 4.88	\$ 146.40	\$ 116.00	\$ 3,480.00		
W12X65	30	\$ 3.51	\$ 105.30	\$ 78.55	\$ 2,356.50		
W8X48	36	\$ 4.06	\$ 146.16	\$ 32.91	\$ 1,184.76		
W10X68	26	\$ 3.96	\$ 102.96	\$ 20.10	\$ 522.60	\$ 10,741.80	
VT-10							
W8X40	103	\$ 4.10	\$ 422.30	\$ 34.59	\$ 3,562.77		
W12X120	31	\$ 6.73	\$ 208.63	\$ 163.21	\$ 5,059.51		
W14X132	72	\$ 4.08	\$ 293.76	\$ 195.40	\$ 14,068.80		
W14X99	24	\$ 3.81	\$ 91.44	\$ 171.30	\$ 4,111.20		

W12X79	24	\$ 4.02	\$ 96.48	\$ 95.50	\$ 2,292.00		
W24X55	24	\$ 3.06	\$ 73.44	\$ 66.50	\$ 1,596.00		
W24X68	24	\$ 3.06	\$ 73.44	\$ 82.50	\$ 1,980.00		
W24X76	24	\$ 3.30	\$ 79.20	\$ 72.00	\$ 1,728.00		
W8X58	22	\$ 4.04	\$ 88.88	\$ 35.33	\$ 777.26		
W24X76	30	\$ 3.06	\$ 91.80	\$ 92.00	\$ 2,760.00		
W12X65	10	\$ 3.51	\$ 35.10	\$ 78.55	\$ 785.50	\$ 40,275.51	
VT-11							
W12X96	33	\$ 4.88	\$ 161.04	\$ 116.00	\$ 3,828.00		
W12X65	33	\$ 3.51	\$ 115.83	\$ 78.55	\$ 2,592.15		
W21X44	33	\$ 3.19	\$ 105.27	\$ 53.00	\$ 1,749.00		
W24X55	33	\$ 3.06	\$ 100.98	\$ 66.50	\$ 2,194.50		
W8X48	38	\$ 4.06	\$ 154.28	\$ 32.91	\$ 1,250.58		
W10X60	26	\$ 3.82	\$ 99.32	\$ 19.40	\$ 504.40	\$ 12,855.35	
VT-12							
W12X65	126	\$ 3.51	\$ 442.26	\$ 78.55	\$ 9,897.30		
W21X44	68	\$ 3.19	\$ 216.92	\$ 53.00	\$ 3,604.00		
W18X65	38	\$ 4.32	\$ 164.16	\$ 60.00	\$ 2,280.00		
W8X31	27	\$ 3.95	\$ 106.65	\$ 25.74	\$ 694.98		
W8X28	57	\$ 3.91	\$ 222.87	\$ 23.14	\$ 1,318.98		
W8X40	40	\$ 4.10	\$ 164.00	\$ 34.59	\$ 1,383.60	\$ 20,495.72	
VT-13							
W21X44	144	\$ 3.19	\$ 459.36	\$ 53.00	\$ 7,632.00		
W12X120	83	\$ 6.73	\$ 558.59	\$ 163.21	\$ 13,546.43		
W12X65	54	\$ 3.51	\$ 189.54	\$ 78.55	\$ 4,241.70		
W8X28	144	\$ 3.91	\$ 563.04	\$ 23.14	\$ 3,332.16		
W8X31	72	\$ 3.95	\$ 284.40	\$ 25.74	\$ 1,853.28		
W12X87	31	\$ 4.42	\$ 137.02	\$ 105.13	\$ 3,259.03	\$ 36,056.55	
VT-14							
W12X87	31	\$ 4.42	\$ 137.02	\$ 105.13	\$ 3,259.03		
W12X65	54	\$ 3.51	\$ 189.54	\$ 78.55	\$ 4,241.70		
W8X28	129	\$ 3.91	\$ 504.39	\$ 23.14	\$ 2,985.06		
W21X44	93	\$ 3.19	\$ 296.67	\$ 53.00	\$ 4,929.00		
W24X68	62	\$ 3.06	\$ 189.72	\$ 82.50	\$ 5,115.00		
W24X62	31	\$ 3.00	\$ 93.00	\$ 80.50	\$ 2,495.50		
W8X31	40	\$ 3.95	\$ 158.00	\$ 25.74	\$ 1,029.60		
W8X67	20	\$ 4.32	\$ 86.40	\$ 43.81	\$ 876.20		
W10X60	40	\$ 3.82	\$ 152.80	\$ 19.40	\$ 776.00	\$ 27,514.63	
Columns							
W14X120	692	\$ 5.24	\$ 3,626.08	\$ 202.69	\$ 140,261.48		
W12X96	720	\$ 4.88	\$ 3,513.60	\$ 116.00	\$ 83,520.00		
W12X65	422	\$ 3.51	\$ 1,481.22	\$ 78.55	\$ 33,148.10		
W12X120	84	\$ 6.73	\$ 565.32	\$ 163.21	\$ 13,709.64		
W12X87	42	\$ 4.42	\$ 185.64	\$ 105.13	\$ 4,415.46	\$ 284,426.54	
Misc							
HSS 6X6X	1356	\$ 3.23	\$ 4,379.88	\$ 35.83	\$ 48,585.48		
HSS 8X8X	866	\$ 3.23	\$ 2,797.18	\$ 58.93	\$ 51,033.38		

HSS 18X6	50	\$ 3.23	\$ 161.50	\$ 78.34	\$ 3,917.00	\$ 110,874.42	\$ 1,436,005.12
Steel Decking Take Off							
	Quantity	Unit Labor Cost	Labor Cost	Unit Mat'l Cost	Mat'l Cost	SubTotal Cost	Total Cost
3" 20 Guage Galvanized Composite metal deck	29520	\$ 0.56	\$ 16,531.20	\$ 4.42	\$ 130,478.40	\$ 147,009.60	\$ 147,009.60
						Cast-In-Place Concrete	\$ 2,593,526.58
						Structural Steel	\$ 1,436,005.12
						Steel Decking	\$ 147,009.60
						Estimated Structural System Total	\$ 4,176,541.30

Appendix D

General Conditions Estimate

GENERAL CONDITIONS

Loyola College - Athletic Complex

CODE	DESCRIPTION	DURATION	UNIT COST	Budget TOTAL	General Conditions
100000	Mobilization	2 Ea	\$ 3,500.00	\$ 7,000	
100002	Move Trailer In/Out	6 Ea	\$ 500.00	\$ 3,000	
100007	Misc. Charges-Yard	12 Mos	\$ 500.00	\$ 6,000	
110001	Small Tools & Equipment	12 Mos	\$ 750.00	\$ 9,000	
110002	Miscellaneous Supplies	12 Mos	\$ 750.00	\$ 9,000	
110005	Computer Equipment	12 Mos	\$ 300.00	\$ 3,600	
110007	Office Equipment	12 Mos	\$ 650.00	\$ 7,800	
110009	Computer Supplies	1 Is	\$ 3,500.00	\$ 3,500	
120001	Drawings & Specs.	12 Mos	\$ 450.00	\$ 5,400	
120006	Shop Drawings & Samples	12 Mos	\$ 350.00	\$ 4,200	
120008	As-Built Drawings	1 Is	\$ 15,000.00	\$ 15,000	
120013	Pest Control	12 Mos	\$ 450.00	\$ 5,400	
122000	Postage	12 Mos	\$ 250.00	\$ 3,000	
123100	Equipment Rental	12 Mos	\$ 500.00	\$ 6,000	
123150	Trailer Rental	12 Mos	\$ 1,200.00	\$ 14,400	
123500	PC Rental	12 Mos	\$ 2,500.00	\$ 30,000	
123600	PC support	12 Mos	\$ 250.00	\$ 3,000	
130003	Superintendent 4	12 Mos	\$ 16,521.00	\$ 198,252	
130003	Superintendent 2	12 Mos	\$ 10,500.00	\$ 126,000	
130004	Superintendent 1	8 Mos	\$ 9,620.00	\$ 76,960	
130006	QC Coordinator	12 Mos	\$ 9,620.00	\$ 115,440	
130008	Secretary	12 Mos	\$ 5,600.00	\$ 67,200	
130009	Guard Service	12 Mos	\$ 7,000.00	\$ 84,000	
130013	Sr PM	12 Mos	\$ 16,207.00	\$ 194,484	
130016	Labor Charges - Yard	12 LS	\$ 250.00	\$ 3,000	
130024	PM	12 Mos	\$ 10,835.00	\$ 130,020	
130024	PM	8 Mos	\$ 10,835.00	\$ 86,680	
130025	PE	12 Mos	\$ 9,620.00	\$ 115,440	
130025	PE	8 Mos	\$ 9,620.00	\$ 76,960	
130026	Intern	12 Mos	\$ 5,800.00	\$ 69,600	
140001	Access Road/Traf. Mt.	1 Is	\$ 12,500.00	\$ 12,500	
140002	Safety & Barricades	12 Mos	\$ 400.00	\$ 4,800	
140004	Temp. Ladders/Stairs	1 Is	\$ 5,500.00	\$ 5,500	
140007	Weather/Dust Protect	1 Is	\$ 6,500.00	\$ 6,500	
140008	Project Signs	1 Ls	\$ 6,500.00	\$ 6,500	
140009	Construction Fence	12 Mos	\$ 750.00	\$ 9,000	
140010	Mucking & Pumping	12 Mos	\$ 650.00	\$ 7,800	
140011	Maintenance Of Traffic	1 Is	\$ 3,500.00	\$ 3,500	
150001	Progress Photos	24 Mos	\$ 200.00	\$ 4,800	
150002	Completion Photos	1 Ls	\$ 5,000.00	\$ 5,000	
150003	Schedules & Reports	1 Is	\$ 12,500.00	\$ 12,500	
150008	NEXTELS	12 Mos	\$ 90.00	\$ 1,080	
150010	C.M. Reimbursable	1 Ls	\$ 3,500.00	\$ 3,500	
160006	Telephone Charges	27 Mos	\$ 175.00	\$ 4,725	
160007	Temporary Electric Service	1 Is	\$ 20,000.00	\$ 20,000	
160008	Temporary Electric Charges	1 s	\$ 40,000.00	\$ 40,000	
160009	Temporary Water	12 Mos	\$ 150.00	\$ 1,800	

CODE	DESCRIPTION	DURATION	UNIT COST	Budget TOTAL	General Conditions
160011	Sanitary Facilities	12 Mos	\$ 600.00	\$ 7,200	
160021	Temporary Lighting	12 Mos	\$ 350.00	\$ 4,200	
160023	Security/Alarm System	12 Mos	\$ 450.00	\$ 5,400	
170001	Daily Clean Up (Laborer FT)	12 mos	\$ 3,700.00	\$ 44,400	
170004	Snow Removal	1 ls		\$ 7,500	
180000	Travel & Subsistence	12 Mos	\$ 350.00	\$ 4,200	
Total			\$	1,701,741	