

# Jeremy Jewart

Construction Management Option



## Baldwin High School

Pittsburgh, PA

Dr. Riley  
October 30, 2006

## TECHNICAL ASSIGNMENT #2

*Construction Project Management*

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## ***Executive Summary***

This technical assignment encompasses a number of the actual construction management responsibilities that are required to adequately manage a construction project. Enclosed within, you will find a detailed schedule, site layout plan, assemblies estimate, detailed structural systems estimate, and a general conditions estimate. These were compiled to show the extensive level of detail and a summarized cost breakdown of some of the major building pieces that have and will be going into the facility.

To receive a better understanding of Baldwin High School's renovations and additions, we must first take a closer look at the project's detailed schedule. On the schedule, work picks up during Phase I of the project in September of 2006, and is accounted for until closeout of this section in January of 2007. Because the project has five phases and is currently in the middle of Phase I completion, illustrating this phase was used for the most up-to-date information available.

The schedule adequately serves as a reference base to complete activities on time, but a proper site layout plan also alleviates a vast number of schedule concerns. Accompanying the Phase I schedule will be further elaboration on the site orientation at this time. The site layout plan depicts proper material staging areas, temporary facilities, and access roadways during Phase I of the project. Implementation of the new gym, natatorium, and lock room areas will be examined here.

To give a better understanding of the cost budgeting on the project, a series of estimates have also been compiled. The first estimate is an assemblies estimate and it concentrates primarily on the equipment added during Phase I of construction. Take-offs of the equipment were performed for the sole purpose of elaboration on the innovative approaches that Baldwin School District is taking to comply with today's 21<sup>st</sup> century standards. The estimate accounts for 1.5% of the total building cost.

The second estimate performed was a detailed structural estimate. This provided primarily the superstructure and foundation materials that will be needed during Phase II & III of the renovation. An extensive curtain wall system will be introduced to the southern part of the building and its structural components were of great interest to examine further. Phase I has been discussed thoroughly during Technical Report #1 so a brief incite into the costs of upcoming activities in Phases II & III were thought to be a source for good comparison. Accumulating 9.5% of the total building cost, this estimate portrays one of the "big-ticket" items that will bring Baldwin High School to the forefront of modernization in high school facilities.

The last estimate assembled was a general conditions estimate. This estimate was used to accurately compare some of the up-front costs of the project to other building costs that were estimated as well. The general conditions estimate accounts for 3.6% of the total building cost, and plays a somewhat insignificant role in determination of the entire \$54,552,000.00 estimated budget.

### ***Detailed Project Schedule***

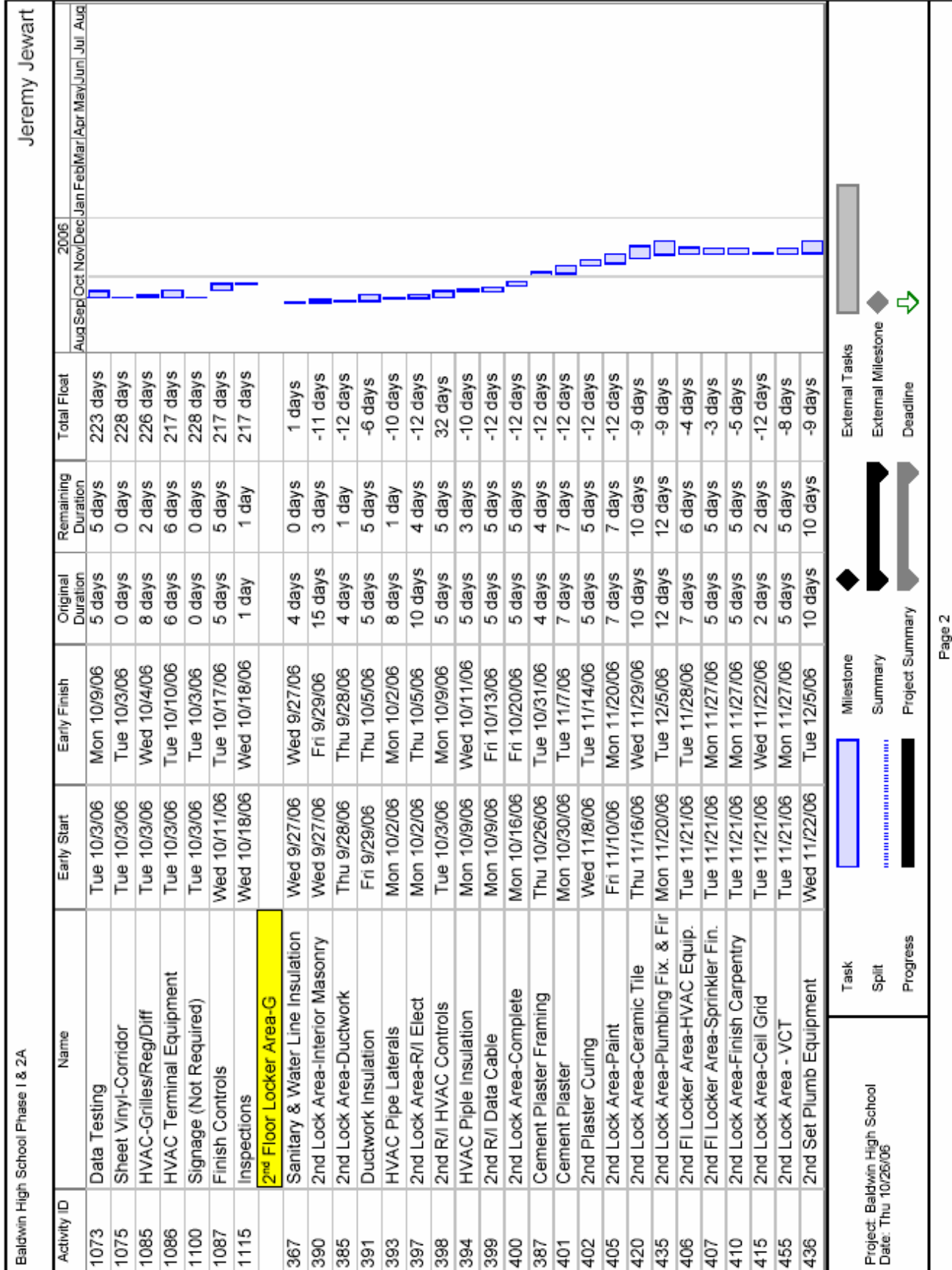
The detailed schedule of Baldwin High School's additions and renovations can be depicted below. The schedule adequately illustrates the project's sequencing process during the 1<sup>st</sup> Phase of construction. Demolition of the existing pool and locker room structure was initially started in January of 2006 and was completed by September of 2006. It has been omitted from the schedule however, due to brevity. The schedule's activities are shown from the end of September 2006 up until Phase I completion in April of 2007.

The sequencing depicts construction of the new electric and boiler rooms; alongside erection of the new gymnasium, natatorium, and locker room areas. Listed are 182 activities and their early starts, finishes, and allotments for float time. The sequencing of trades induced a decrease in the overall project time-frame of the renovation. This was a primary concern due to the opening day of school on August 22, 2006. Continual usage of this process will see Phase I completion by April 9, 2007. This will allow for summer 07' activities to be held in the gym, natatorium, and pool areas of the newly refurbished building.



Baldwin High School Phase 1 & 2A		Jeremy Jewart																		
Activity ID	Name	Early Start	Early Finish	Original Duration	Remaining Duration	Total Float	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	
	<b>Electric Room</b>																			
1405	Masonry to Roof Line	Fri 9/22/06	Fri 9/22/06	8 days	0 days	-18 days														
1439	Ductwork	Fri 9/22/06	Mon 9/25/06	2 days	2 days	-18 days														
1435	HVAC Pipe	Fri 9/22/06	Mon 9/25/06	2 days	2 days	-18 days														
1440	HVAC Insulation-Generator	Tue 9/26/06	Wed 9/27/06	2 days	2 days	-18 days														
1445	R/I Elect	Thu 9/28/06	Thu 9/28/06	2 days	1 day	-18 days														
1446	HVAC Controls - R/I	Thu 9/28/06	Wed 10/4/06	5 days	5 days	-18 days														
1450	Sprinkler Pipe & Finish	Thu 9/28/06	Fri 9/29/06	2 days	2 days	-17 days														
1465	Light Fixtures and Trim	Fri 9/22/06	Fri 9/22/06	0 days	1 day	-17 days														
1470	Doors and Hardware	Mon 10/2/06	Mon 10/2/06	1 day	1 day	-17 days														
1475	Sitchgear	Tue 10/3/06	Tue 10/3/06	10 days	1 day	-17 days														
1480	Generator	Tue 10/3/06	Tue 10/3/06	5 days	0 days	-16 days														
1481	HVAC-Complete Controls	Thu 10/5/06	Wed 10/11/06	5 days	5 days	-18 days														
	<b>Boiler Room</b>																			
1310	Boiler Room-Piping	Fri 9/22/06	Mon 9/25/06	15 days	2 days	-41 days														
1311	R/I Temp Controls	Fri 9/22/06	Thu 9/28/06	5 days	5 days	-39 days														
1325	Boiler Room Temporary Flue	Fri 9/22/06	Fri 9/22/06	2 days	0 days	-39 days														
1340	Boiler Room-Ductwork Insulation	Fri 9/22/06	Thu 10/5/06	10 days	10 days	-34 days														
1346	HVAC-Commissioning	Fri 9/22/06	Thu 10/19/06	20 days	20 days	-24 days														
1315	Boiler Room-Piping Insulation	Tue 9/26/06	Mon 10/16/06	15 days	15 days	-41 days														
1320	Boiler Room-Temp. Controls	Fri 9/29/06	Thu 10/12/06	10 days	10 days	-39 days														
1345	Boiler Testing & Startup	Tue 10/17/06	Mon 11/13/06	20 days	20 days	-41 days														
	<b>Existing Locker Area-Level 2</b>																			
1049	Control R/I	Fri 9/22/06	Fri 9/22/06	5 days	0 days	223 days														
1025	Ductwork	Wed 9/27/06	Thu 9/28/06	12 days	2 days	217 days														
1031	Ductwork Insulation	Fri 9/29/06	Fri 9/29/06	5 days	1 day	217 days														
1046	HVAC Pipe Laterals	Fri 9/29/06	Fri 9/29/06	5 days	1 day	217 days														
1048	HVAC Pipe Insulation	Mon 10/2/06	Mon 10/2/06	5 days	0 days	217 days														
1050	Complete Above Ceil. Controls	Mon 10/2/06	Mon 10/2/06	5 days	1 day	217 days														
1072	Data Drops & Term	Tue 10/3/06	Tue 10/3/06	5 days	0 days	223 days														

■ Task  
■ Split  
■ Progress  
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▬ Summary  
▬ Project Summary  
▬ External Tasks  
◆ External Milestone  
▬ Deadline



Baldwin High School Phase 1 & 2A		Jeremy Jewart																		
Activity ID	Name	Early Start	Early Finish	Original Duration	Remaining Duration	Total Float	2006													
							Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	
416	2nd Data Drops & Terminations	Thu 11/23/06	Mon 11/27/06	3 days	3 days?	-5 days														
425	2nd Lock Area-Light Fixtures & Tri	Mon 10/23/06	Fri 11/3/06	10 days	10 days	-12 days														
450	2nd Lock Area-HVAC Grilles	Thu 11/23/06	Fri 12/1/06	7 days	7 days	-9 days														
456	2nd Doors & Hardware	Thu 11/23/06	Wed 11/29/06	5 days	5 days	-8 days														
417	Data Testing	Tue 11/28/06	Wed 11/29/06	2 days	2 days	-5 days														
440	2nd Lock Area-Toilet Partitions	Tue 11/28/06	Mon 12/4/06	5 days	5 days	-8 days														
460	2nd Lock Area-Carpet	Tue 11/28/06	Wed 11/29/06	2 days	2 days	-5 days														
470	2nd Lock Area-Signage	Tue 11/28/06	Mon 12/4/06	5 days	5 days	-8 days														
445	2nd Lock Area-Lockers	Thu 12/7/06	Thu 12/7/06	0 days	0 days	-10 days														
475	2nd Lock Area-Ceiling Tiles	Thu 12/7/06	Fri 12/8/06	2 days	2 days	-12 days														
465	2nd Lock Area-Initial. Punchlist	Mon 12/11/06	Tue 12/12/06	2 days	2 days	-12 days														
	<b>3rd Floor Locker Area G</b>																			
380	Locker Area-Slab on Deck 3rd	Fri 9/22/06	Fri 9/22/06	5 days	1 day	-8 days														
386	Locker Area-Set Stairs	Fri 9/22/06	Thu 9/28/06	5 days	5 days	-12 days														
490	3rd Lock Area-Ductwork	Fri 9/29/06	Fri 10/6/06	8 days	6 days	-12 days														
495	3rd Lock Area-Interior Masonry	Fri 9/29/06	Tue 10/10/06	15 days	8 days	-8 days														
498	3rd A/G Sanitary Pipe	Fri 9/29/06	Wed 10/11/06	10 days	9 days	-8 days														
506	HVAC Pipe Laterals	Tue 10/3/06	Thu 10/12/06	8 days	8 days	-12 days														
500	3rd Lock Area-R/I Sanitation Pipe	Wed 10/4/06	Tue 10/24/06	15 days	15 days	15 days														
499	3rd A/G Water Pipe	Thu 10/5/06	Fri 10/20/06	12 days	12 days	-8 days														
505	3rd Lock Area-R/I Elect	Fri 10/6/06	Thu 10/26/06	15 days	15 days	-11 days														
496	Ducwork & Pipe Insulation	Mon 10/9/06	Wed 10/18/06	8 days	8 days	-6 days														
512	R/I HVAC Controls	Mon 10/9/06	Fri 10/13/06	5 days	5 days	-3 days														
507	Sprinkler Pipe-R/I	Fri 10/13/06	Wed 10/18/06	15 days	4 days	-12 days														
497	3rd Plumb Fixt Carriers	Mon 10/16/06	Tue 10/31/06	12 days	12 days	15 days														
487	3rd A/G San & Water Pipe Install	Wed 10/18/06	Fri 10/20/06	4 days	3 days	-8 days														
511	R/I Data Cable	Mon 9/25/06	Fri 9/29/06	5 days	5 days	-11 days														
510	Complete Above Ceil-Mech/Elect	Fri 10/27/06	Mon 10/30/06	2 days	2 days	-12 days														
501	Cement Plaster Framing	Tue 10/31/06	Mon 11/6/06	5 days	5 days	-12 days														
513	Cement Plaster	Thu 11/2/06	Wed 11/8/06	5 days	5 days	-12 days														

External Tasks  
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Baldwin High School Phase 1 & 2A		Jeremy Jewart																
Activity ID	Name	Early Start	Early Finish	Original Duration	Remaining Duration	Total Float	2006					Aug						
							Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
514	3rd Plaster Curing	Thu 11/9/06	Wed 11/15/06	5 days	5 days	-12 days												
515	3rd Lock Area-Paint	Thu 11/16/06	Wed 11/22/06	5 days	5 days	-12 days												
525	3rd Lock Area-Ceiling Grid	Mon 11/20/06	Fri 11/24/06	5 days	5 days?	-12 days												
526	Data Drops & Terminations	Mon 11/20/06	Wed 11/22/06	3 days	3 days?	0 days												
560	3rd Lock Area-HVAC Grilles	Tue 11/21/06	Mon 11/27/06	5 days	5 days	-12 days												
561	Phase 1-HVAC Start-up	Tue 11/21/06	Mon 12/4/06	10 days	10 days	-12 days												
516	3rd Fl. Locker Aea-HVAC Term Eq	Thu 11/23/06	Wed 11/29/06	5 days	5 days	-5 days												
520	3rd Lock Area-Finish Carpentry	Thu 11/23/06	Wed 12/6/06	10 days	10 days	-11 days												
527	Data Testing	Thu 11/23/06	Fri 11/24/06	2 days	2 days	0 days												
530	3rd Lock Area-Ceramic Tile	Thu 11/23/06	Thu 11/23/06	0 days	0 days	-1 days												
545	3rd Lock Area-Plumbing Fix. & Fin	Thu 11/23/06	Thu 11/23/06	0 days	0 days	-1 days												
550	3rd Lock Area-Toilet Partitions	Thu 11/23/06	Thu 11/23/06	0 days	0 days	-1 days												
555	3rd Lock Area-Lockers	Thu 11/23/06	Thu 11/23/06	0 days	0 days	-1 days												
535	3rd Lock Area-Light Fixt. & Trim	Fri 11/24/06	Thu 12/7/06	10 days	10 days	-12 days												
565	3rd Lock Area-VCT	Fri 12/1/06	Thu 12/7/06	5 days	5 days	-12 days												
562	Phase 1 HVAC Testing	Tue 12/5/06	Mon 12/18/06	10 days	10 days	-12 days												
579	3rd Doors & Hardware	Fri 12/8/06	Tue 12/12/06	3 days	3 days	-12 days												
580	3rd Lock Area-Signage	Mon 12/11/06	Tue 12/12/06	2 days	2 days	-12 days												
585	3rd Lock Area-Ceiling Tiles	Mon 12/11/06	Tue 12/12/06	2 days	2 days	-12 days												
590	3rd-Cleanup & Punch List	Mon 12/11/06	Tue 12/12/06	2 days	2 days	-12 days												
600	Finish 2nd & 3rd Locker Areas-G																	
605	2nd & 3rd Lock Area -Arch Inspect	Wed 12/13/06	Thu 12/14/06	2 days	2 days	-12 days												
615	2nd & 3rd Lock Area-Final Punch I	Fri 12/15/06	Mon 12/18/06	2 days	2 days	-12 days												
	2nd & 3rd Lock Area-Acceptance	Tue 12/19/06	Tue 12/19/06	1 day	1 day	-12 days												
	Gym																	
347	Gym-Pain Ceiling/Trusses/Walls	Wed 9/27/06	Tue 10/3/06	6 days	5 days	-9 days												
702	Gym-Ductwork	Mon 10/2/06	Tue 10/10/06	13 days	7 days	-9 days												
712	Wall Framing Over Block	Wed 10/4/06	Thu 10/5/06	2 days	2 days	-8 days												
713	Drywall & Finish	Fri 10/6/06	Wed 10/11/06	4 days	4 days	-8 days												
717	HVAC Lateral Pipe	Mon 10/9/06	Mon 10/9/06	7 days	1 day	-1 days												



External Tasks

External Milestone

Deadline

Milestone

Summary

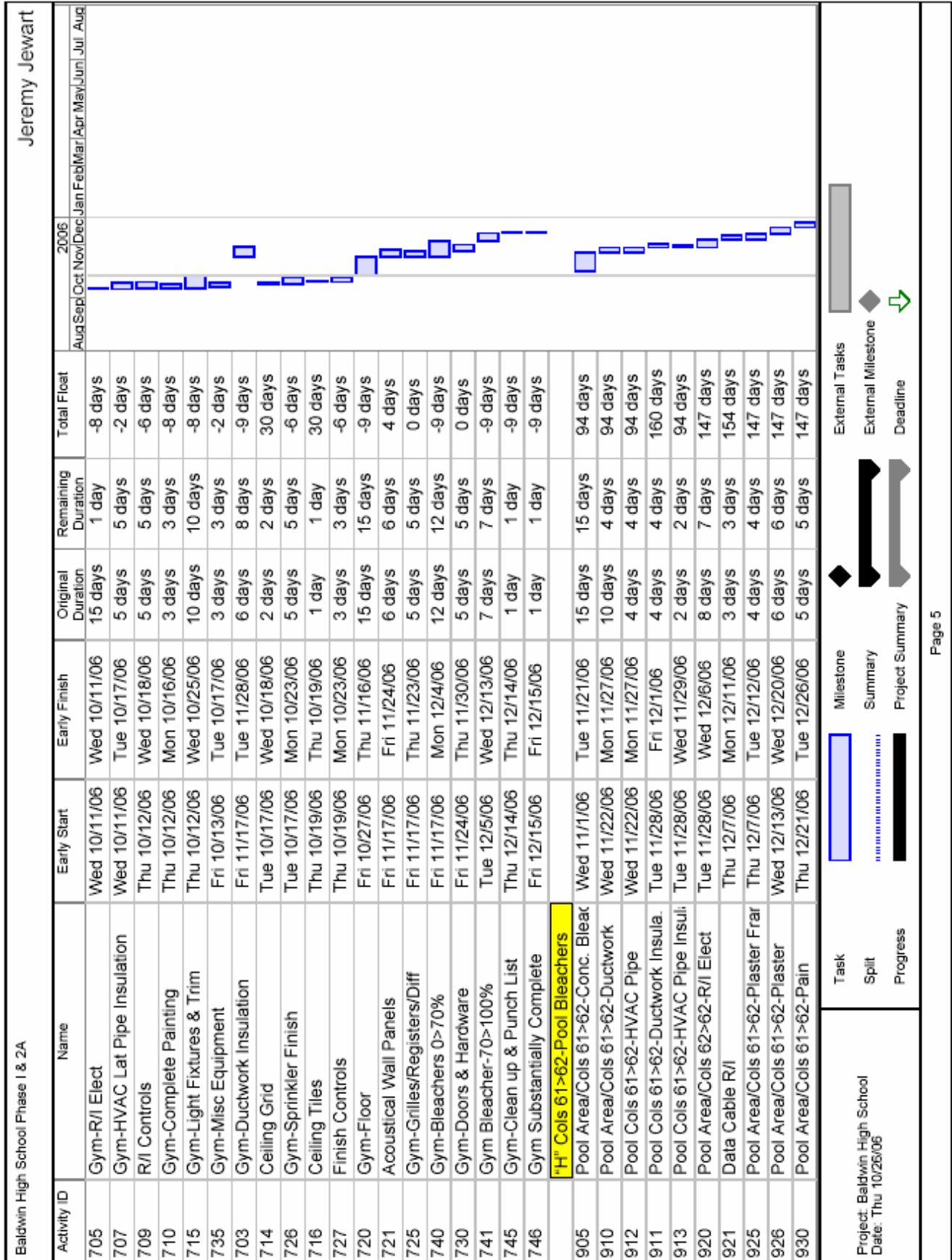
Project Summary

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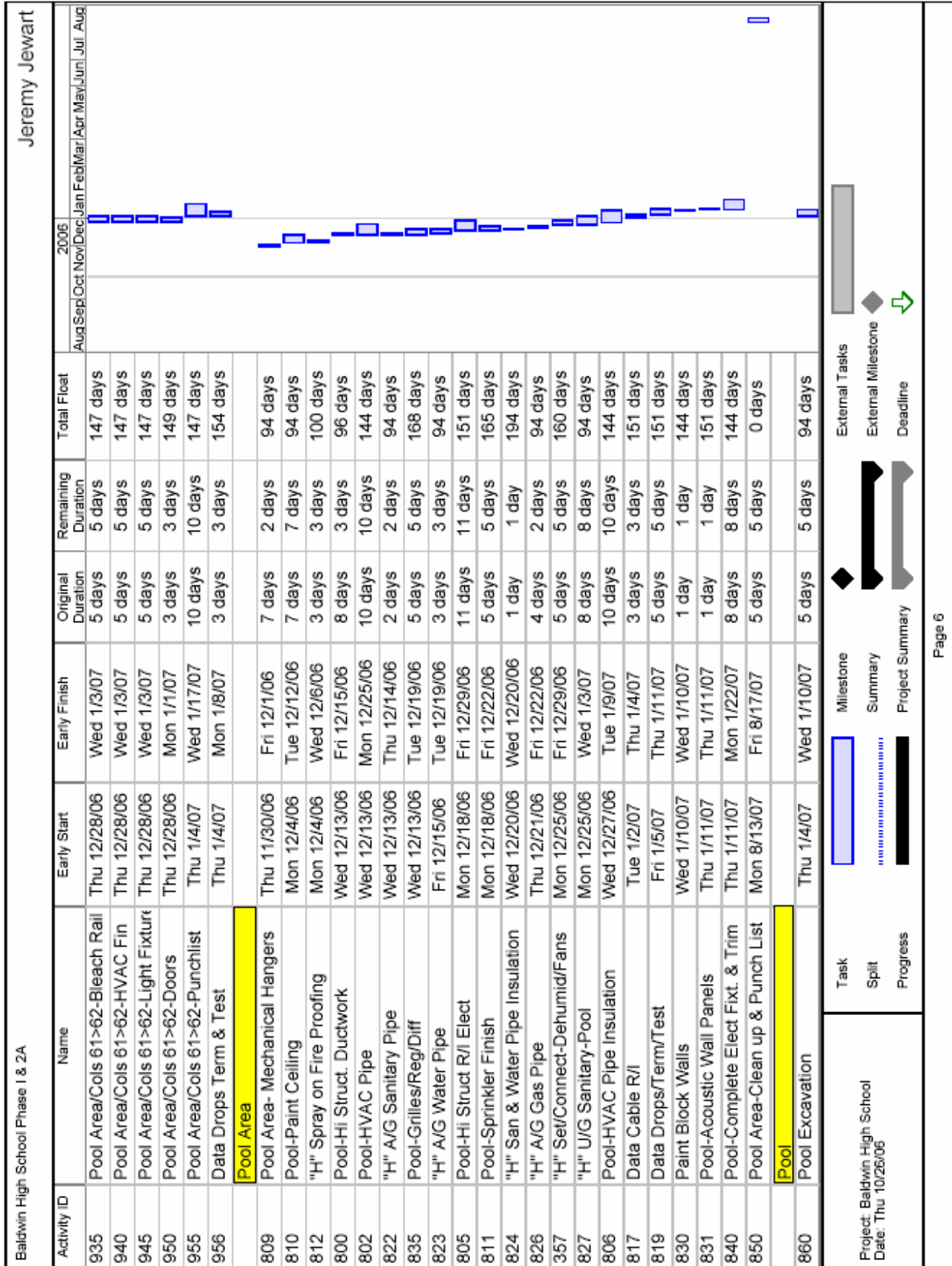
Split

Progress

Project: Baldwin High School  
Date: Thu 10/26/06



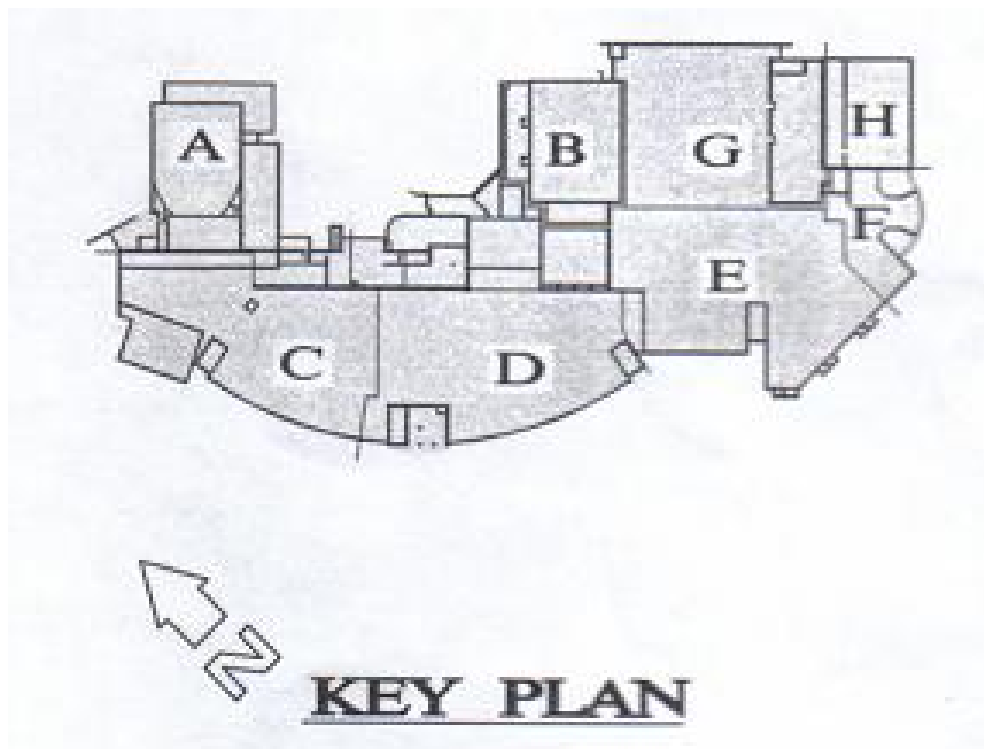


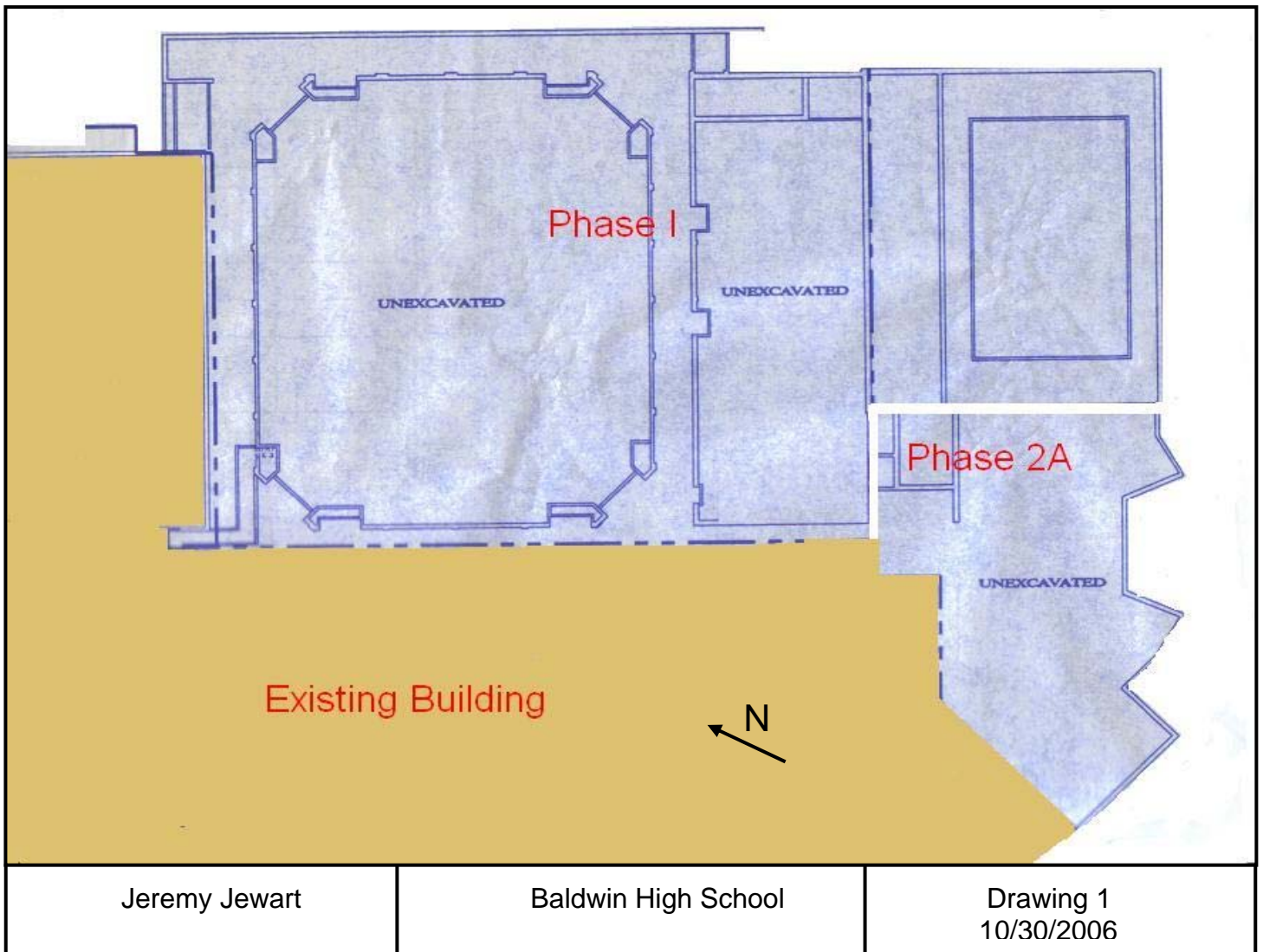


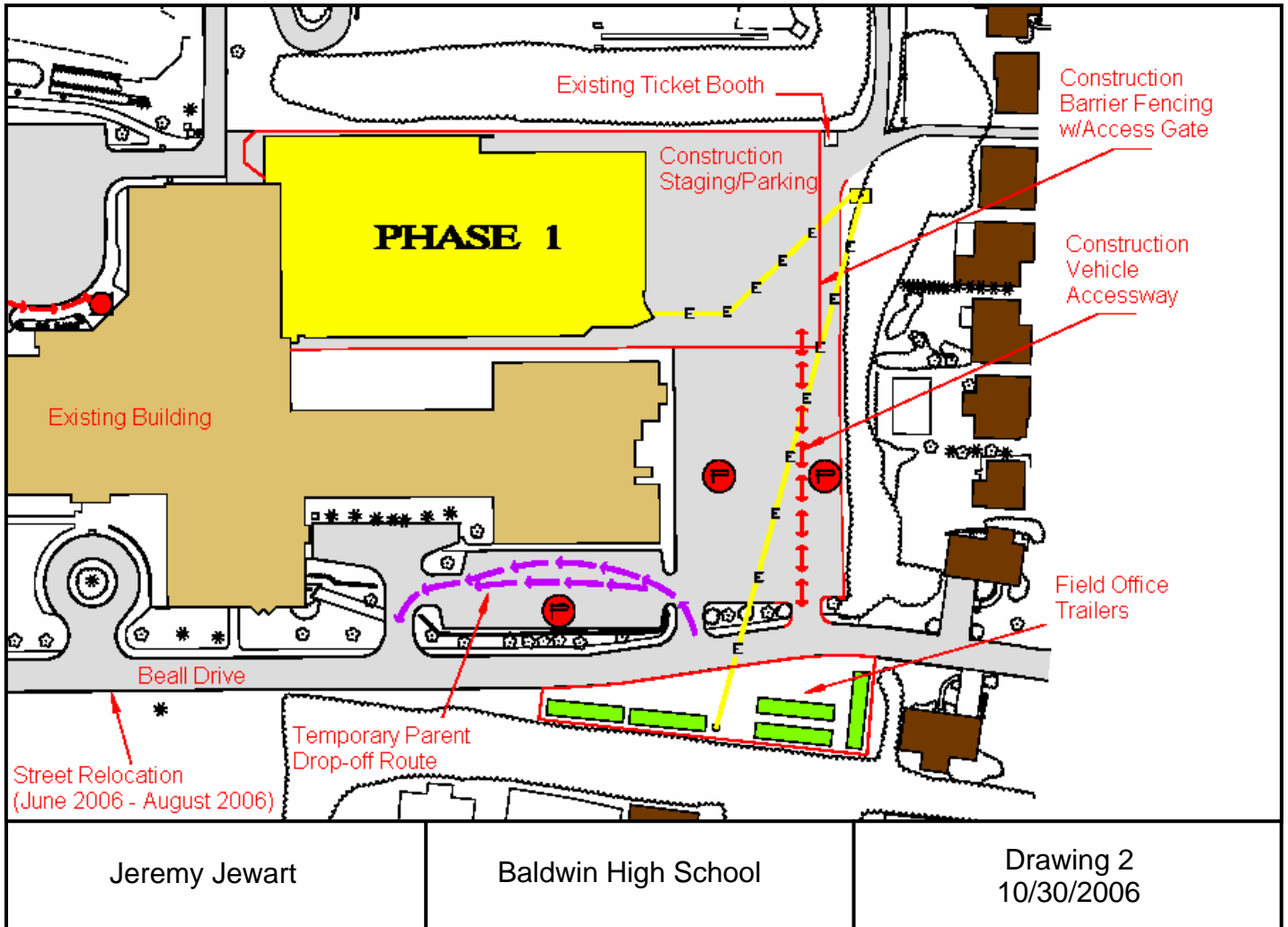


### ***Site Layout Planning***

The site layout devised for this technical assignment focuses primarily on Phase I of construction. Temporary facilities, staging areas, and paths of egress have been properly noted and can help to visualize movement on the site. A more elaborate sequencing and phasing site model has also been included. This was incorporated to alleviate any uncertainties that were posed by activities on the schedule that were not properly assigned to one of the five phasing spots on previous sequencing plans.



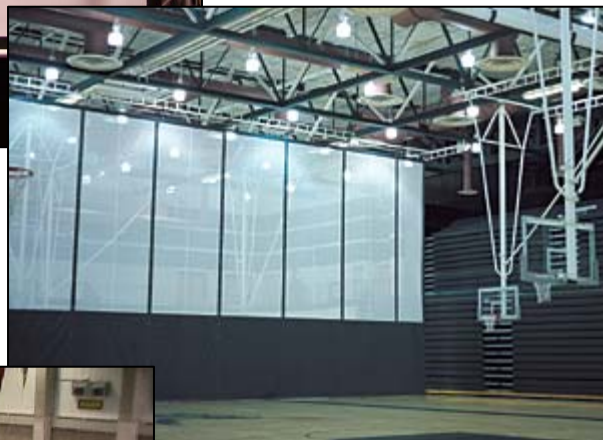
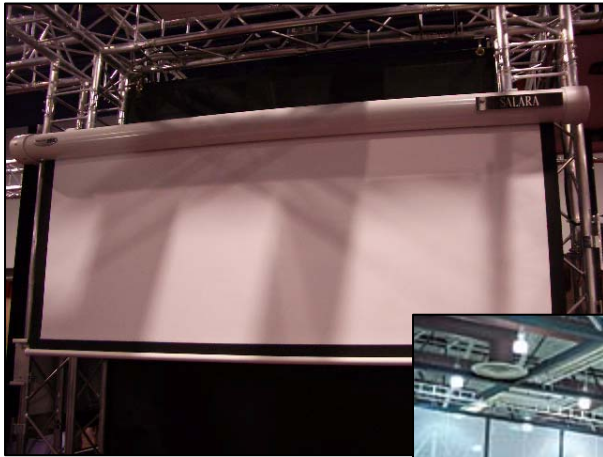




## *Assemblies Estimate*

Baldwin High School is currently performing construction in the 2<sup>nd</sup> phase of its sequencing process. Completion of Phase I included additions and renovations of the gym, swimming, and natorium areas of the facility. To further elaborate on the project's complexity and initial cost breakdown, an assemblies estimate was performed for the equipment installed at this time. Take-offs were taken in order to illustrate some of the new audio/visual equipment that students are currently utilizing in these areas.

The total equipment cost shows the dollar amount of new technological features added in just the 1<sup>st</sup> Phase of this three year long project. It also illustrates how "small" this figure is (\$821,300.00), 1.5% of the total building construction cost of \$54,552,000.00.



## ASSEMBLIES ESTIMATE *Detailed Worksheet*

**Project Name: Baldwin High School**

**Dates of Construction: September 2005 - February 2006**

Theater and Stage Equipment		Qty	Unit	Price	Amount
11060.000	TY Curtains & Equipment	1	allw	\$25,000.00	\$25,000.00
11060.005	Pipe Grid 1/2"	365	lnft	\$30.00	\$10,950.00
11060.010	Cycloramia Curtain & Track	70	lnft	\$25.00	\$1,750.00
<b>Total</b>					<b>\$37,700.00</b>
Audiovisual Equipment		Qty	Unit	Price	Amount
11130.001	Projection Screens 8'	5	each	\$2,500.00	\$12,500.00
11130.002	Projection Screens 10'	2	each	\$3,000.00	\$6,000.00
11130.003	Projection Screens 11'	2	each	\$3,300.00	\$6,600.00
11130.004	Projection Screens 16'	2	each	\$5,000.00	\$10,000.00
<b>Total</b>					<b>\$35,100.00</b>
Loading Dock Equipment		Qty	Unit	Price	Amount
11160.001	Loading Dock Bumpers	5	each	\$200.00	\$1,000.00
<b>Total</b>					<b>\$1,000.00</b>
Athletic and Therapeutic Equipment		Qty	Unit	Price	Amount
11480.001	Gym Divider Curtain	240	lnft	\$75.00	\$18,000.00
11480.001	Scoreboard Existing Gym	2	each	\$14,000.00	\$28,000.00
11480.002	Basket Ball Goals Competition	2	each	\$7,500.00	\$15,000.00
11480.002	Basket Ball Goals Competition- ETR		each	\$7,500.00	
11480.003	Basket Ball Goals Practice	4	each	\$5,000.00	\$20,000.00
11480.003	Basket Ball Goals Practice- ETR		each	\$5,000.00	
11480.004	Scoreboards Pool	1	allw	\$29,000.00	\$29,000.00
11480.004	Volleyball Equipment	1	lpsm	\$5,000.00	\$5,000.00
11480.005	Scoreboards Gym	1	allw	\$28,000.00	\$28,000.00
11480.006	Mats	1	lpsm	\$25,000.00	\$25,000.00
11481.000	Pool Equipment	1	allw	\$400,000.00	\$400,000.00
<b>Total</b>					<b>\$568,000.00</b>
Laboratory Equipment		Qty	Unit	Price	Amount
11480.004	Acid Storage Cabinet	1	each	\$8,500.00	\$8,500.00
11480.004	Emergency Showers	3	each	\$7,500.00	\$22,500.00
11480.005	Fume Hoods	10	each	\$10,000.00	\$100,000.00
11480.006	Spray Booth	4	each	\$10,000.00	\$40,000.00
11481.000	Flammable Storage Cabinet	1	each	\$400,000.00	\$8,500.00
<b>Total</b>					<b>\$179,500.00</b>
<b>Total Equipment:</b>					<b>\$821,300.00</b>
<b>% of Project Cost:</b>					<b>1.51</b>

### Detailed Structural Systems Estimate

The Detailed Structural Systems Estimate was compiled using RS Means unit/cost data. Items that were included make up most of the superstructure and foundation components of the building for its southern wing. Take-offs were documented, so that a cost comparison could be utilized to compare costs with a major structural section of the facility. The southern most face of the building encompasses the new construction of a curtain wall, which will span its entirety. This unique feature is what led to compiling an estimate of this specific nature for this particular part of the building. A detailed analysis was performed and an estimated building cost of \$5,153,147.00 was achieved. This is 9.5% of the total building construction cost.

<b>Detailed Structural Systems Estimate</b>					
<i>Worksheet</i>					
<b>Project Name: Baldwin High School</b>					
<b>Dates of Construction: September 2005 - February 2006</b>					
<b>Foundations</b>		<b>Qty</b>	<b>Unit</b>	<b>Price</b>	<b>Amount</b>
02450.001	Caissons 30" Dia	24	Inft	\$65.00	\$1,560.00
02450.002	Caissons 36" Dia	161	Inft	\$92.00	\$14,812.00
02450.003	Caissons 40" Dia	11	Inft	\$114.00	\$1,254.00
02450.004	Caissons 42" Dia	183	Inft	\$125.00	\$22,875.00
02450.005	Caissons 48" Dia	392	Inft	\$163.00	\$63,896.00
02450.006	Caissons 54" Dia	36	Inft	\$206.00	\$7,416.00
02450.007	Caissons 60" Dia	16	Inft	\$255.00	\$4,080.00
02450.008	Caissons 66" Dia	53	Inft	\$308.00	\$16,324.00
02450.009	Caissons 72" Dia	9	Inft	\$367.00	\$3,303.00
02450.010	Rock Sockets (2'/Caisson)	67	cuyd	\$500.00	\$33,500.00
<b>Total</b>					<b>\$169,020.00</b>
<b>Cast-in-Place Concrete</b>		<b>Qty</b>	<b>Unit</b>	<b>Price</b>	<b>Amount</b>
03300.039	Grade Beams GB 1- 5	150.00	Inft	\$96.00	\$14,400.00
03300.040	Grade Beams GB 6- 9	60.00	Inft	\$98.00	\$5,880.00
03300.041	Grade Beams GB 10- 14	145.00	Inft	\$96.00	\$13,920.00
03300.042	Grade Beams GB 15- 23	170.00	Inft	\$98.00	\$16,660.00
03300.043	Grade Beams GB 24- 39	380.00	Inft	\$84.00	\$31,920.00
03300.044	Grade Beams GB 40- 52	190.00	Inft	\$74.00	\$14,060.00
03300.045	Grade Beams GB 53	15.00	Inft	\$125.00	\$1,875.00
03300.039	Spread Footing 4'x4'x1'	99.00	each	\$270.00	\$26,730.00
03300.040	Spread Footing 4'x4'x1.5'	14.00	each	\$390.00	\$5,460.00
03300.041	Spread Footing 4'x4'x1'	1.00	each	\$185.00	\$5,980.00
03300.042	Spread Footing 3'x3'x1'	13.00	each	\$460.00	\$22,790.00
03300.043	Spread Footing 5'x5'x1.33'	43.00	each	\$530.00	\$32,430.00
03300.044	Spread Footing 5'x5'x1.5'	47.00	each	\$690.00	\$13,920.00
03300.045	Spread Footing 6'x6'x1.5'	16.00	each	\$870.00	\$6,540.00
03300.046	Spread Footing 7'x7'x1.5'	6.00	each	\$1,090.00	\$1,395.00
03300.047	Spread Footing 8'x8'x2'	1.00	each	\$1,395.00	\$1,130.00
03300.048	Spread Footing 8'x8'x1.5'	1.00	each	\$1,130.00	\$2,590.00
03300.049	Spread Footing 5'x5'x1'	7.00	each	\$370.00	\$2,410.00
03300.050	Spread Footing 8'x8'x1.75'	2.00	each	\$1,205.00	\$1,205.00
03300.051	Spread Footing 9'x9'x2'	1.00	each	\$1,600.00	\$1,600.00
03300.075	Concrete Walls 10"	2070.00	sqft	\$27.35	\$56,614.50
03300.076	Concrete Walls 12"	2840.00	sqft	\$28.75	\$81,650.00
03300.077	Concrete Walls 14"	1400.00	sqft	\$30.00	\$42,000.00
03300.078	Concrete Walls 15"	1715.00	sqft	\$30.65	\$52,564.75
03300.079	Concrete Walls 18"	2365.00	sqft	\$32.50	\$76,862.50
03300.080	Concrete Walls 20"	250.00	sqft	\$34.00	\$8,500.00
<b>Total</b>					<b>\$541,086.75</b>



Masonry		Qty	Unit	Price	Amount
04200.020	Block 6"	1900.00	sqft	\$8.00	\$15,200.00
04200.021	Block 8"	26250.00	sqft	\$10.00	\$262,500.00
04200.022	Block 10"	2190.00	sqft	\$12.00	\$26,280.00
04200.023	Block 12"	4850.00	sqft	\$14.00	\$67,900.00
04200.024	Block 14"	4770.00	sqft	\$16.00	\$76,320.00
04200.025	Block 16"	6380.00	sqft	\$18.00	\$114,840.00
04200.026	Block 18"	1870.00	sqft	\$20.00	\$37,400.00
04200.027	Block 20"	10540.00	sqft	\$26.00	\$5,184.00
04200.030	Foundation Block 8"	3265.00	sqft	\$12.00	\$39,180.00
04200.031	Foundation Block 12"	6543.00	sqft	\$16.00	\$104,688.00
04200.032	Foundation Block 14"	2245.00	sqft	\$18.00	\$40,410.00
04200.033	Foundation Block 16"	1205.00	sqft	\$20.00	\$24,100.00
04200.034	Foundation Block 18"	5740.00	sqft	\$22.00	\$126,280.00
04200.035	Foundation Block 20"	3715.00	sqft	\$26.00	\$96,590.00
<b>Total</b>					<b>\$1,036,872.00</b>
Metals		Qty	Unit	Price	Amount
05100.002	Columns	340.00	tons	\$3,000.00	\$1,020,000.00
08900.003	ACC Column (Curtain Wall)	10.00	each	\$2,500.00	\$25,000.00
05200.001	Gym & Pool Trusses	110.00	tons	\$3,000.00	\$330,000.00
05300.001	Metal Deck	150000.00	sqft	\$2.00	\$300,000.00
05300.002	Roof Deck	133475.00	sqft	\$2.00	\$266,950.00
05300.003	Acoustic Deck	26640.00	sqft	\$3.50	\$93,240.00
08900.001	Curtainwall Spandrel and Vision	14750.00	sqft	\$43.00	\$634,250.00
<b>Total</b>					<b>\$2,669,440.00</b>
2nd & 3rd Floor Beams and Girders		Length	Qty	lbs	Amount
05100.001	W 8x10	8.00	220	17,600.00	(\$3000/ton)
05100.002	W 8x10	12.00	18	2,160.00	
05100.003	W 10x12	6.00	26	1,872.00	
05100.004	W 10x12	8.00	24	2,304.00	
05100.005	W 10x12	20.00	16	3,840.00	
05100.006	W 10x71	22.00	6	9,372.00	
05100.007	W 12x30	12.00	8	2,880.00	
05100.008	W 18x26	12.00	14	4,368.00	
05100.009	W 18x35	16.00	70	39,200.00	
05100.010	W 18x35	40.00	2	2,800.00	
05100.011	W 18x35	46.00	2	3,200.00	
05100.012	W18x40	20.00	8	6,400.00	
05100.013	W18x46	22.00	4	4,048.00	
05100.014	W18x50	22.00	84	92,400.00	
05100.015	W18x55	24.00	4	5,280.00	
05100.016	W18x60	26.00	38	59,280.00	
05100.017	W18x71	22.00	6	9,372.00	
05100.018	W18x76	24.00	62	113,088.00	

05100.019	W12x14	12.00	64	10,752.00		
05100.020	W12x16	12.00	52	9,984.00		
05100.021	W12x18	12.00	8	1,728.00		
05100.022	W12x19	12.00	24	5,472.00		
05100.023	W12x26	12.00	8	2,496.00		
05100.024	W 14x22	8.00	26	4,576.00		
05100.025	W 14x22	10.00	24	5,280.00		
05100.026	W 16x26	12.00	10	3,120.00		
05100.027	W 16x31	20.00	8	4,960.00		
05100.028	W 16x40	16.00	4	2,560.00		
05100.029	W 16x50	16.00	4	3,200.00		
05100.030	W 16x57	16.00	8	7,296.00		
05100.031	W 21x44	18.00	28	22,176.00		
05100.032	W 21x50	18.00	20	18,000.00		
05100.033	W 21x57	14.00	26	20,748.00		
05100.034	W 24x55	24.00	44	58,080.00		
05100.035	W 24x55	32.00	32	56,320.00		
05100.036	W 24x62	26.00	20	32,240.00		
05100.037	W 24x68	26.00	4	7,072.00		
05100.038	W 24x76	30.00	6	13,680.00		
05100.039	W 27x55	12.00	2	1,320.00		
05100.040	W 27x84	12.00	4	4,032.00		
05100.041	W 30x99	22.00	22	47,916.00		
05100.042	W 30x108	22.00	6	14,256.00		
				<b>Total</b>	<b>736728 lbs</b>	<b>\$736,728.00</b>
				<b>Total</b>	<b>245.56 tons</b>	
					<b>Total Estimate</b>	<b>\$5,153,147.00</b>

### General Conditions Estimate

The general conditions estimate was calculated using current industry unit/cost figures, provided through RS Means Estimating Software. The total cost for general conditions is \$1,984,778.00 which is approximately 3.6% of the total construction cost of the project. Because this is a renovation project, the already existing building provided adequate utility tie-ins and alleviated some of the stress of having to rent a large number of temporary facilities. Many of the temporary utilities were accounted for by sub-contractor contracts and were not used to compile this estimate.

<b>General Conditions Estimate Worksheet</b>					
<b>Project Name: Baldwin High School</b>					
<b>Dates of Construction: September 2005 - February 2006</b>					
<b>Supervision &amp; Project Management</b>		<b>Qty</b>	<b>Unit</b>	<b>Price</b>	<b>Amount</b>
	Superintendent	52	weeks	\$1,313.00	\$68,276.00
	Project Executive	44	weeks	\$1,495.00	\$65,780.00
	Project Manager	52	weeks	\$1,395.00	\$72,540.00
	Project Manager	52	weeks	\$1,395.00	\$72,540.00
	Assitant Project Manager	52	weeks	\$1,005.00	\$52,260.00
<b>Total</b>					<b>\$331,396.00</b>
<b>Site Preparation</b>		<b>Qty</b>	<b>Unit</b>	<b>Price</b>	<b>Amount</b>
02200.001	Building Demolition	4,144,000.00	cuft	\$0.35	\$1,450,400.00
02200.002	Remove Guard Rail	230.00	lnft	\$5,000.00	\$1,150.00
02200.003	Remove Asphalt	86,200.00	sqft	\$0.50	\$43,100.00
02200.004	Remove Roadway	20,400.00	sqft	\$0.85	\$17,340.00
02200.005	Strip Topsoil	620.00	cuyd	\$8.00	\$4,960.00
02200.006	Remove Chain Link Fence	230.00	lnft	\$4.00	\$920.00
02200.008	Clear & Grubb Slope	0.33	acres	\$5,500.00	\$1,815.00
02200.009	Remove Retaining Wall	70.00	lnft	\$250.00	\$17,500.00
02200.010	Remove Slab- On- Grade	3,240.00	sqft	\$4.00	\$12,960.00
<b>Total</b>					<b>\$1,550,145.00</b>
<b>Temporary Utilities</b>		<b>Qty</b>	<b>Unit</b>	<b>Price</b>	<b>Amount</b>
01510.800	Temporary Power Hookups	52	weeks	\$3.14	\$163.28
01510.800	Office Trailer	1	50'x10'	\$20,450.00	\$20,450.00
01510.800	Office Trailer (modular classroom)	1	68'x28'	\$50,000.00	\$50,000.00
02800.001	Chain Link Fence	1170	lnft	\$10.00	\$11,700.00
02800.002	Chain Link Gate	3	each	\$600.00	\$1,800.00
01520.550	Office Supplies	12	months	\$165.00	\$1,980.00
01520.550	Office Telephone	12	months	\$224.00	\$2,688.00
15010.000	Copy Machine	12	months	\$160.00	\$1,920.00
01520.550	Computer Equipment	12	months	\$220.00	\$2,640.00
15010.000	Fax Machine	12	months	\$100.00	\$1,200.00
01520.550	Furniture	12	months	\$600.00	\$7,200.00
12080.000	Drinking Water & Cups	52	weeks	\$20.00	\$1,040.00
01510.800	Portable Toilet	4	each	\$114.00	\$456.00
<b>Total</b>					<b>\$103,237.00</b>
<b>Total General Cond.</b>					<b>\$1,984,778.00</b>