



Town of Hanover, Massachusetts
Hanover High School



PMA Construction Services
Owner's Project Manager

HANOVER HIGH SCHOOL PROJECT *April 2010 – Monthly Status Report*

Project:	Hanover High School	Building Size:	157,000	Ph1 Substantial Completion:	June 2011
Current Phase:	Construction	Enrollment Projection:	800 Students	Ph2 Substantial Completion:	May 2012
Construction Type:	NEW	Facility Type:	High School	Project Total Duration:	32-months
Construction Start Date:	28Sep09	Reimbursement Rate:	48.21%	Day 214 of 611 to Ph1 Substantial:	35.0%

Open Scope / Potential Issues

- Hollow metal frame submittal & approval process
- Skylight submittal & approval process
- Building façade mockup construction
- Athletic field irrigation submittal & approval
- Terrazzo contract procurement & schedule integration
- Replacement of existing asbestos containing water main under future driveway
- Completion of electrical ductbank
- Construction of athletic field drainage system
- Procurement of athletic field turf
- Implementing Schedule Saving Ideas Such as:
 - Early Site Packages/Utility work
 - Double Shifts / Weekend Work
- Reviewing Schedule Saving Ideas Such as:
 - Early Partial Abatement of Existing Building
 - Stored Materials

Budget Status

Total Project Budget: \$50,076,069* as of 4/30/10
Actual Incurred to Date: \$9,100,042 as of 4/30/10 (18.2%)
Contingency Remaining: \$2,579,044 (98%)
**Subject to Final Revised PFA Agreement*

Construction Cost Summary:

Award Value (Callahan):	\$38,652,255.00
Previously Executed CO's (Net)	\$0.00
Previous Contract Value:	\$38,652,255.00
CO's Executed this Month:	\$0.00
Current Contract Value:	\$38,652,255.00

Construction Payment Summary:

Previous Gross Amount:	\$6,698,004.21
This Month's Gross Amount:	\$2,105,263.16*
Gross Amount to-Date:	\$8,803,267.37*
Retainage To-Date @ 5%:	\$440,163.37*
Retainage Released	\$0.00
Current Retainage	\$440,163.37*
Total Net Payable To-Date:	\$8,363,104.00*

Remaining Balance to Finish (gross): **\$29,848,987.63**

*Note: April Requisition Value is Approximate

Project Status

April 2010 Progress

- Structural Steel Erection Complete, Top-off Ceremony Held on 4/8
- Site Drainage System Installation Progressing
- Utility Ductbank Installed from Cedar Street
- Slab on Deck Concrete Placement 90% Complete
- 50% of Bldg Footprint Prepped for Slab on Grade Placement
- UG Electric Conduit in Bldg Approximately 90% Installed
- UG Plumbing Approximately 95% Complete & Backfilled
- Maintenance Bldg Exterior CMU Walls 95% Completed
- Interior Wall Layout Started 4/6, Currently 40% Complete
- Newton Roofing Mobilized 4/26
- Exterior Light Gauge Metal Framing Started 4/26
- Spray on Fireproofing Started 4/27

May 2010 Forecasted Items

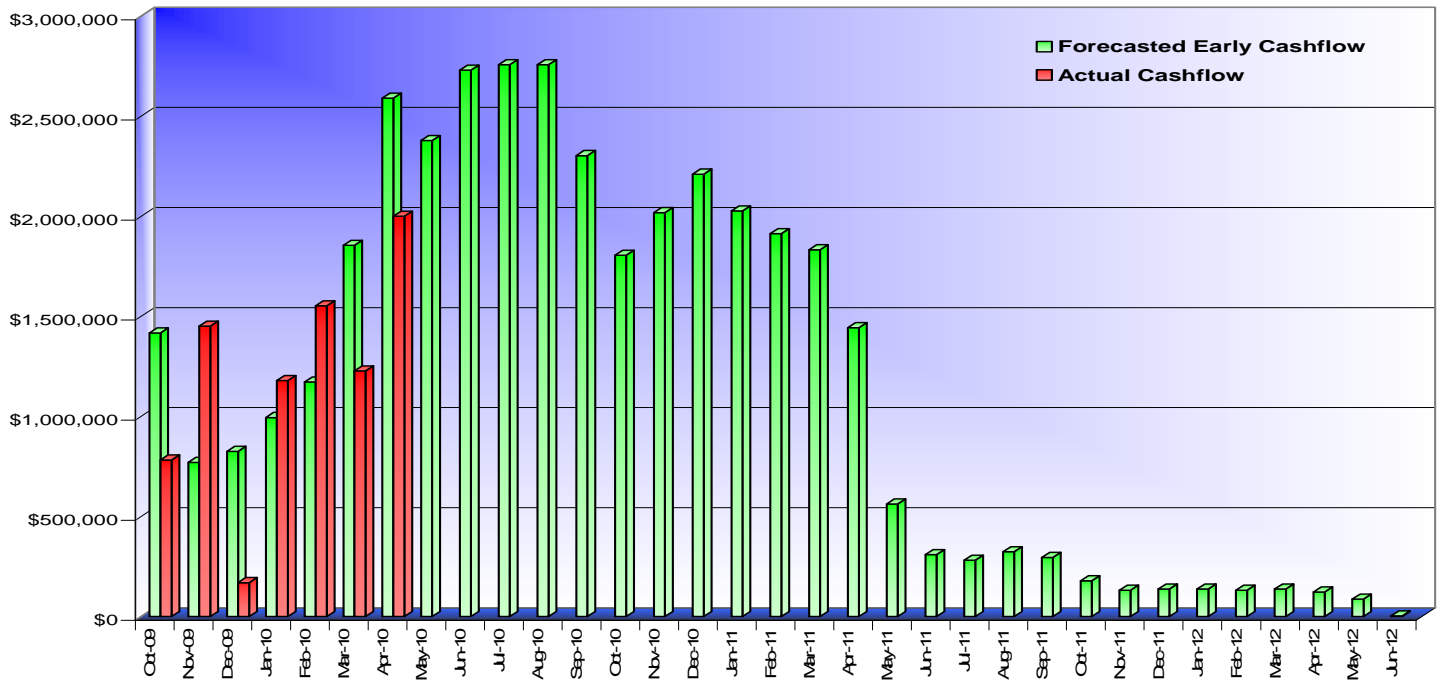
- Begin Slab on Grade Placement
- Continue Slab on Deck Placement
- Continue Installation of Underground Plumbing
- Continue Installation of Underground Electric
- Continue Installation of Site Drainage
- Continue Construction of Outbuildings
- Complete Layout & Begin Athletic Field Construction
- Continue Roof Installation
- Continue Spray Fireproofing
- Submit/Approve Critical Path Product Submittals



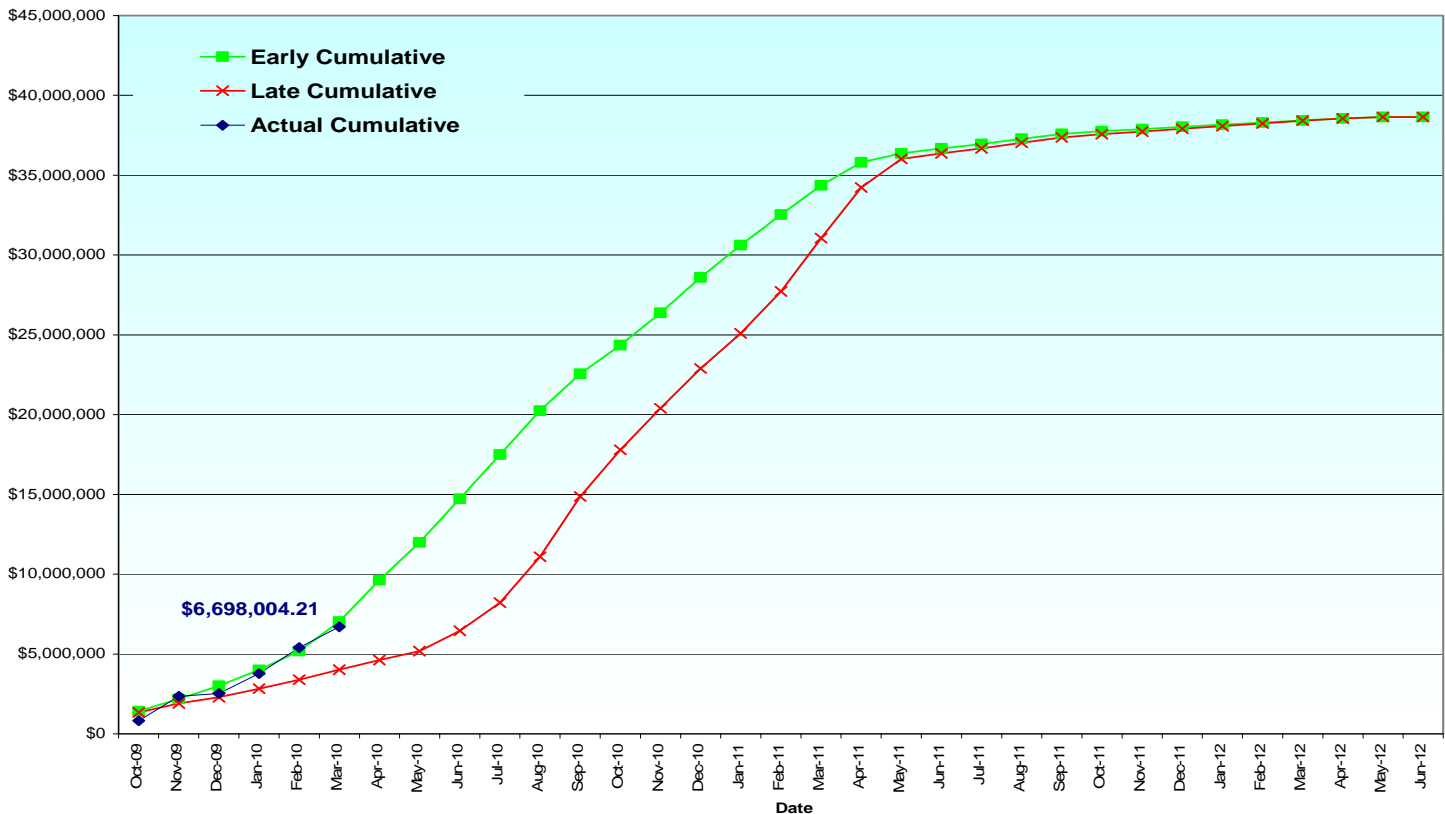
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Monthly Cashflow Projection



Cumulative Cashflow Projection





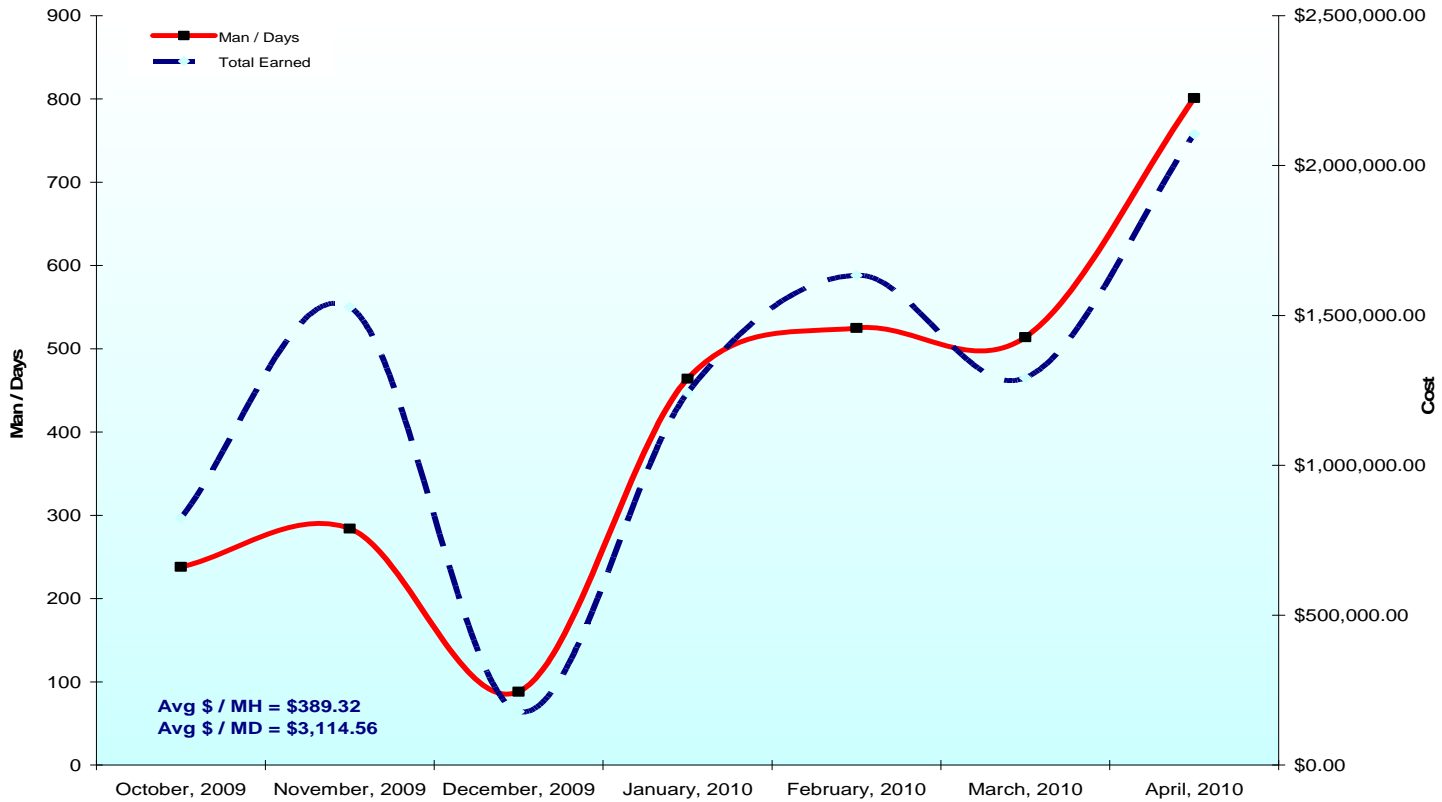
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Manpower vs Cost Analysis

PMA CONSULTANTS MANPOWER VS COST ANALYSIS



PMA Change Management

Potential Change Orders											
	Issued By / For	Scope	Proposed Cost (A)	PMA Analysis (B)	Approved Cost (C)	DELTA (A - C)	Pending Costs	PMA Notes	Proposed Time Extension (Days)	Granted Time Extension (Days)	CO #
		TOTALS:	\$235,060.42	\$178,450.90	\$115,000.00	\$56,609.52	\$211,661.99				
PCO #1	Callahan / Elevator	Elevator Substitution	(\$7,500.00)	(\$7,500.00)	(\$7,500.00)	\$0.00	(\$7,500.00)		0	0	
PCO #2	Lopes / Sitework	Water Main - Add'l Valves	\$4,481.94	\$3,997.47		\$484.47	\$4,481.94	OH/Profit 30% Markup is too high	0	0	
PCO #3	Callahan / Winter Conditions	Unexpected Cold Weather Procedures	\$145,896.43	\$122,500.00	\$122,500.00	\$23,396.43	\$122,500.00				
PCO #4	Lopes / Sitework	R&R Unsuitables @ Drain w/ Stone	\$4,146.14	\$3,601.83		\$544.51	\$4,146.14	OH/Profit 30% Markup is too high	0	0	
PCO #5	Lopes / Sitework	R&R Existing DMH in Poor Condition	\$3,526.40	\$3,144.90		\$381.50	\$3,526.40	OH/Profit 30% Markup is too high	0	0	
PCO #6	Lopes / Sitework	Waterline Replacement Option #1 (Lopes)	\$84,507.51	\$52,706.90		\$31,800.61	\$84,507.51	Option #1 Under Review - Lopes recommended route - Cost appears high and assumes 8 days to install. PMA believes installation can be done in ~4 days. PCO does not include Callahan costs to repair fence & other incidentals. May proceed on T&M with NTE \$77k.	0	0	
PCO #7	Lopes / Sitework	Force Main Repair	TBD	TBD		TBD	TBD	PCO not yet rec'd	0	0	
PCO #8	Lopes / Sitework	Add'l MH & Wider Ductbank for NGRID	TBD	TBD		TBD	TBD	PCO not yet rec'd	0	0	



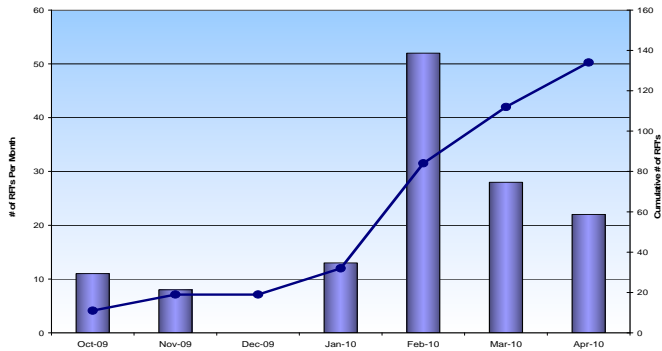
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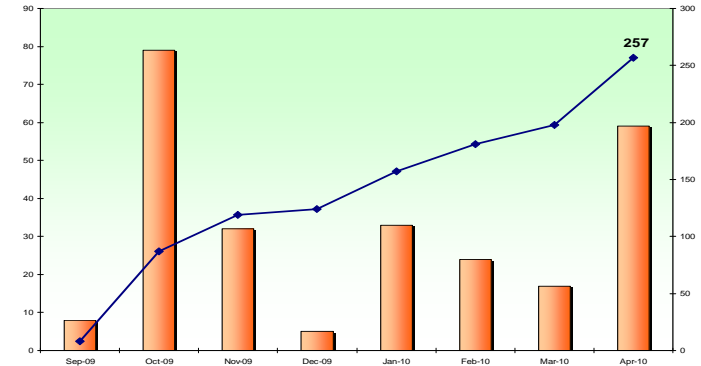
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Graphs & Data

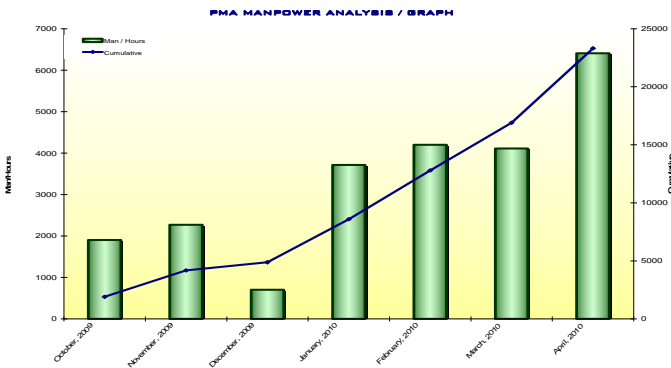
Requests for Information (RFIs)



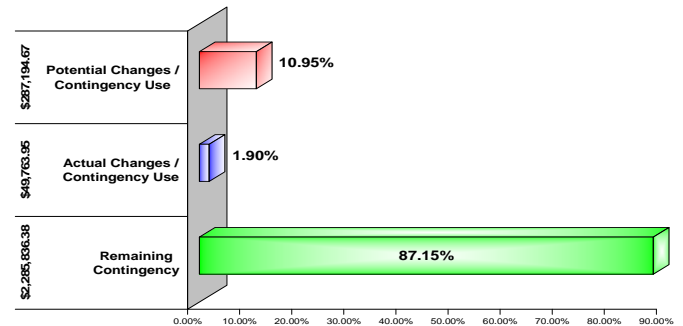
Economic Impact – Work Force Employed To-Date



Monthly Manpower



Contingency Utilization



Milestone Dates

Milestone Dates	Baseline	Forecast	Actual	Status	Schedule Notes
Construction Start - NTP	01Oct09		28Sep09	✓	On Schedule
Foundation Placement Start Milestone	09Nov09		30Oct09	✓	On Schedule
UG MEP Work	15Jan10		20Jan10	✓	Delayed due to injunction – mitigated by recovery schedule
Steel Erection Start Milestone	04Jan10		02Feb10	✓	Delayed due to injunction – mitigated by recovery schedule
Bldg Interior Start Milestone (Layout & Control)	31Mar10		06Apr10	✓	Not critical (had 10 weeks TF)
OH MEP Work Start Milestone	20Apr10		12Apr10	✓	On Schedule
Building Envelope Start Milestone	28Apr10		26Apr10	✓	On Schedule
Begin Slab on Grade Placement	02Feb10	05May10			Not a Critical Path Activity (has 12 weeks TF)
Ph1 Substantial Completion	01Jun11	07Jul11			Driven by hollow metal frame and skylight submittals. If Callahan is unable to expedite submittals, other workarounds are available to mitigate any potential impact on the contract milestone deadline

HS05 Schedule Submission

Contract Milestone Analysis

Phase	Contract	HS04	HS05	Float
Ph1 Substantial	01Jun11	14Jun11	07Jul11	-25
Ph1A Substantial	01Jun11	07Dec10	04Jan11	105
Ph2 Substantial	01May12	14May12	06Jun12	-9

- Callahan's HS04 schedule submission neglects to maintain an anticipated on-time completion for all contract milestones. Please refer to PMA's monthly schedule report for a detailed critical path analysis.

- The primary critical path to Ph1 Substantial Completion currently runs through the Hollow Metal frame submittal & approval process and is showing -25 days of Total Float. This path continues to interior framing, in-wall electrical, plumbing, GWB, equipment start-up, and testing/inspections. An expedited submittal review and/or shipping for the HM Frames could mitigate this critical path's impact on the Contract Milestones.
- The secondary critical path to Ph1 Substantial Completion currently flows through procurement of Skylights and uses Finish-to-Start successor logic which drives the Cafeteria Weathertight milestone and subsequently Spray Fireproofing. This logical relationship will likely be re-evaluated to mitigate the -16 days of Total Float in this critical path.



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Progress Photos

Structural Steel Topping Off Ceremony April 8, 2010



Bioclere Unit Prior to Installation



Loam Stockpile Relocated & Hydroseeded



2nd Floor Spray Applied Fireproofing



2nd Floor Exterior Framing



Maintenance Building Construction Underway

