National Charter School Resource Center

at American Institutes for Research

Predevelopment and Construction Management for Charter School Facilities

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About the Resource Center

The **U.S. Department of Education** is committed to promoting effective practices, providing technical assistance, and disseminating the resources critical to ensuring the success of charter schools across the country. To that end, the Education Department, under a contract with American Institutes for Research, has developed the **National Charter School Resource Center**.

Webinar Presenters

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Today's Agenda

- **Predevelopment.** Sources, uses, and proformas
- **Creating a team.** Overview of roles and responsibilities
- **Cost control.** Useful tools and checklists
- **Construction management.** Key elements and tools

What Is Predevelopment?

- For the purposes of this presentation, we consider the predevelopment process to be the period from the moment a site has been selected to the start of actual construction.

Why Is Predevelopment Important?

- Facilities planning is the single most important business issue that many charter schools face.
- Financial viability is dependent on smart facility planning decisions.
- The quality of a facility is linked to student performance.
- Errors and missteps in planning and construction can significantly impact the quality and the cost of a facility.

Sources, Uses, and Proformas

Creating a Team

- Establish an in-house planning team before issuing a request for proposal (RFP) for services.
- Create a planning committee that includes key board members and staff representatives.
- Communicate specific roles and responsibilities for all team members to minimize confusion and ensure that all parties are available to perform their roles.

Creating a Team: Who Is on the Team?

- School owner
- Project manager or owner's representative
- Attorney
- Architect
- Consultants
  - Mechanical, electrical, and plumbing (MEP); structural; and civil engineers
  - Permit expeditor
  - Testing company
  - LEED (Leadership in Energy and Environmental Design) commissioning agent
  - Others as needed
- General contractor (GC)

Creating a Team: The School's Role

- Executive director:
  - Defines and leads the process.
  - Manages the facility project manager.
- Staff:
  - Provides input on layout and design considerations.
  - Should be updated regularly on progress.
- Board:
  - As fiduciaries for the school, the board should be aware of all key decisions.
  - Provides guidance, oversight, and support.

Creating a Team: Owner's Representative or Project Manager's Role

- Coordinates all aspects of the project.
- Manages the project team.
- Oversees and maintains the project budget.
- Monitors the project schedule.
- Keeps a close eye on the quality of construction.
- Negotiates requests for change orders with GC.
- Troubleshoots and works through challenges that arise during construction.

Creating a Team: Attorney's Role

- Executes the acquisition of the property.
- Creates license agreements with neighboring properties.
- Develops and negotiates contracts for architects, consultants, and GC.
- Works through any project-specific legal issues.

Creating a Team: Architect's Role

- Partners with the school to design a building that reflects the school's vision, mission, and programmatic needs.
- Understands and works within the confines of the school's budget.
- Prepares drawings and materials for all necessary zoning and permitting.
- Coordinates experts and consultants to prepare construction documents.
- Remains involved throughout construction to ensure that the building is built as designed.
- Develops the final punch list.

Creating a Team: Other Project Consultants

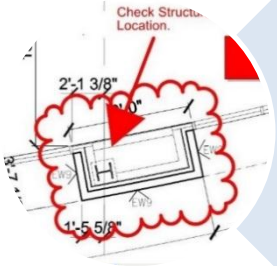
- MEP engineer
- Structural engineer
- Civil engineer
- Environmental and/or geotechnical engineer
- LEED professional
- Commissioning authority or agent
- Testing company
- Other experts: kitchen, audiovisual, technology, and security consultants

Creating a Team: General Contractor's Role

- Serves as on-site manager of all construction.
- Hires and manages all subcontractors and coordinates their activities to build the project.
- Develops and maintains the construction schedule.
- Coordinates necessary municipal inspections.
- Collects and submits close-out documents, completes the punch list, and arranges for various system trainings.

Cost Control: Addressing a Triple Threat

Hidden Conditions



Drawing Omissions

Owner Decisions

Cost Control: First Threat—Hidden Conditions

- Understand the time and the costs of due diligence activities, such as the following:
  - Geotechnical and environmental reports
  - Structural and property condition assessments
  - Land use reviews for zoning compliance
- Read the executive summaries: Know what your team should know.
- Quantify your risk.
  - Request remediation estimates from the consultant team.
  - Hold appropriate hard and soft contingency values.

Cost Control:
Tool: Utilizing a Risk Exposure Analysis

Item	Cost	Funding Source			
		Owner Contingency	Design Contingency	Insurance	Development Budget
1. Building permits and related costs, including bonds required for public space work					X
2. Excavation, sheeting & shoring, and dewatering permits					X
3. Security and/or access control equipment and cabling for residential units, common areas, retail businesses, and parking garage	$45,000				X
4. Hazardous materials remediation	$25,000	X			
5. Permissions and permits from adjacent property owners and municipalities for offsite work or access required, including fees, associated with sheeting tiebacks, batch plants, street closures, meter removal, and swing agreements					X
6. Testing and inspection services	$50,000				X
7. Removal of contaminated materials (asbestos, lead, storage tanks, and so on, are excluded)	$25,000	X			
8. Additional six months of dewatering operation and maintenance	$15,000	X			
9. Interior foundation drainage system	$30,000		X		X
10. Additional test piles		X			
11. Adjustment and/or repairs to existing utility structures	$25,000	X			
12. Repair/relocation of existing utilities	$35,000	X			

Cost Control: Second Threat—Drawing and Scope Omissions

- Provide comprehensive RFP scopes of work.
  - Solicit organizations with a strong history of relevant performance.
  - Include a fee template to ensure “apples-to-apples” scopes of work.
  - Use a matrix to reveal and plug gaps in the scope early.
- Trust but verify.
  - Peer review and code consultation
  - Building information modeling
  - Waterproofing and envelope consultation
  - Preliminary design review with permitting authority

Cost Control:
Tool: Consultant Fee Templates

BASIC SERVICES				
FEE SCHEDULE				
	Architectural	MEP	Structural	HOURLY RATES
Phases One: Programming	Fee	Fee	Fee	Partner
Phase Two: Schematic design				Principal
Phase Three: Design development	Fee	Fee	Fee	Project manager/architect
Phase Four: Construction documents	Fee	Fee	Fee	Interior designer
Phase Five: Bidding	Fee	Fee	Fee	Consultant
Phase Six: Construction administration	Fee	Fee	Fee	Job captain
	Fee			Support Drafter Estimator
		Fee	Fee	Specification writer
				Computer-aided design operator
TOTAL COMPENSATION	Fee $	Fee $	Fee $	

NOTES:

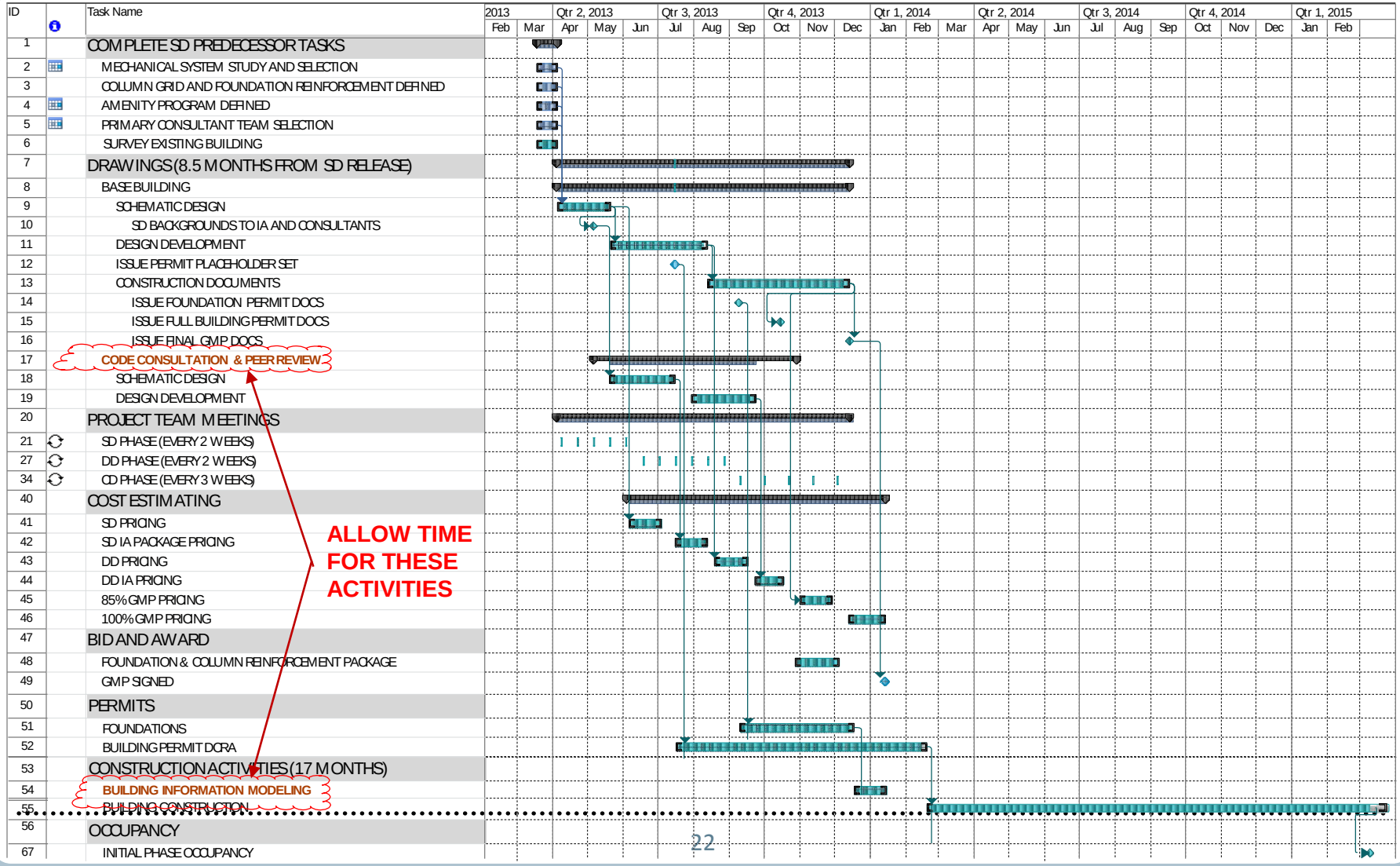
1. Provide not to exceed estimate for reimbursables.
2. List/include pricing for additional consultants believed to be necessary for comprehensive scope.

Cost Control:
Tool: Consultant Coordination Matrix

Scope Performed By:	Architect/MEP/Structural	Lighting Consultant	IT/AV Consultant	Food-Service Consultant	Security Consultant
General					
Utility demand letters	X				
Utility coordination					
Specifications for telecommunications	X		X		
Telecommunications: service agreements					
PA (public address) system design and integration			X		
Backbone and distribution design	X				
Backbone and distribution integration			X		
Base building lighting design		X			
Backboxes and conduit abv clg.	X				
Lighting control system (design)		X			
Temperature controls	X		X		
Administration/Classrooms/Multipurpose					
Lighting design		X			
AV (audiovisual) equipment and integration			X		
Conduit location and specifications	X	X	X		X
Security locations and infrastructure					X
Kitchen / Food Service					
Food service equipment design				X	
HVAC/exhaust design specifications	X				
Lighting design		X			
Conduit location and specifications	X				
Security locations and infrastructure					X
Rooftop and Grounds					
Lighting control system (design)		X			

WHO PERFORMS THIS SCOPE?

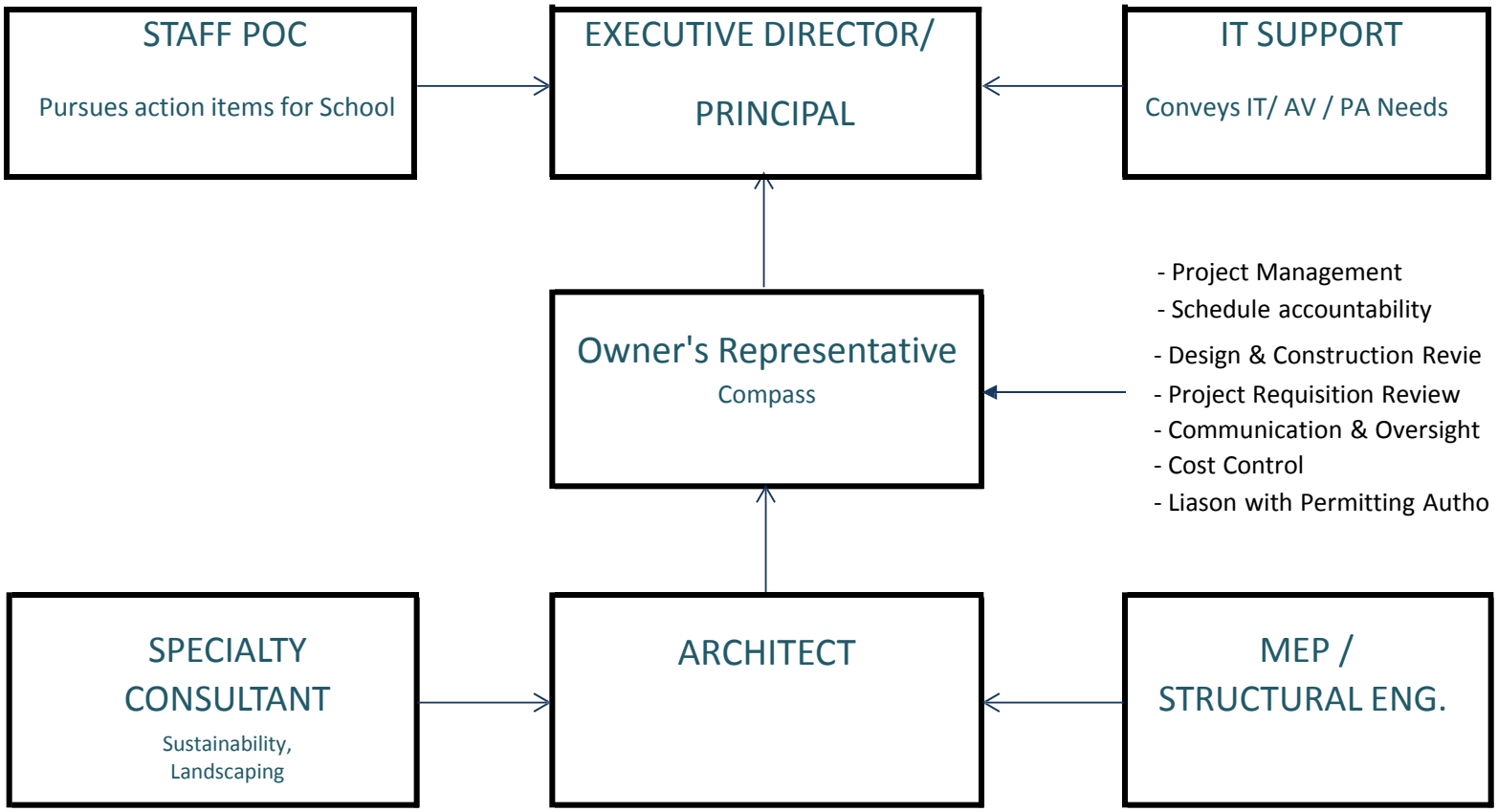
Cost Control:
Tool: Schedule Time for Drawing Review



Cost Control: Third Threat—Owner Decisions

- Programming restraint:
  - Request input from key staff (principal, teachers, information technology [IT], administration, and maintenance).
  - Assess and separate program needs from desires.
  - Adhere to long-term goals.
- Communicate with the design team:
  - Design to cost (include in architect's agreement).
  - Create affordable, sustainable, and constructible designs.
- Maintain clear lines of communication. Designate points of contact for key scopes of work.

Establish Clear Points of Contact



Cost Control: Design With Value Engineering in Mind

- Request value engineering (VE) options early.
  - Level 1: Examples of three- to four-week disruptions: finishes, mothballing space, alternate appliances, and hardware
  - Level 2: Examples of six-week disruptions: relaxed HVAC specification or smaller generator
  - Level 3: Examples of eight- to 10-week disruptions with permit and program revisions: reducing extent of excavation and omitting a roof deck and/or an elevator
- Save time: Price VE as alternates.
  - Interview and bring on a preconstruction GC early in process.
  - Price early drawing phases (include time for this).
  - Know the value of your VE so you can move quickly.

Construction Management: Key Elements:

- Review and approve the project schedule.
- Monitor submittals and requests for information.
- Conduct weekly meetings with GC and consultants:
  - Review project progress.
  - Address and resolve issues that arise.
  - Review pay applications.
  - Review change orders and scope changes.
- Oversee requirements necessary for municipalities.
- Work to obtain the certificate of occupancy.
- Oversee punch list completion.
- Oversee turnover of documents, manuals, and trainings.

Construction Management: The Punch List

- The school schedules a punch list walk-through with the architect and GC during the final stages of construction.
- The school should include the owner's representative and members of the school's leadership team.
- During the walk-through, the team identifies defects, missing items, substandard finishes, or other concerns.
- The school works with GC to ensure that these items are addressed.

Construction Management: The Final Closeout

After municipal inspections are completed, the project is almost closed out:

- GC should provide the school with copies of all warranties and systems manuals.
- Confirm all as-built drawings have been submitted by GC and approved by architect.
- GC or representatives should walk owner through systems access and training for HVAC and so on.
- Finalize terms of final payments to key vendors and have final requisition submitted by GC.

Questions?

Raise your hand or enter your question in the chat box on the left side of your screen.

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Thank you for participating.

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