



Modernization Logistics and Disruptions

Stop Reacting and Start Managing

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District Planning: Budget

- **State Allowance: 60%**
 - Additional state funding for 50 year old buildings
- **District Contribution 40%**
- **District Augmentation**



District Planning: Budget Allocation

- District Priority List
 - Abatement of hazardous materials
 - ADA access
 - Can be a high percentage of budget
 - Restroom counts
- Change order allowance- Higher than new construction
- Modernization vs. replacement of portables



District Planning: Scheduling

- Application
 - Eligibility
 - 20 years for relocatables
 - 25 years for permanent construction
 - Lack of available funding at State
 - 18 month deadline to issue NTP after funding
- Construction
 - Take advantage of summer and other breaks
 - Small Projects
 - Core spaces
 - Coordination with Maintenance and Operations



District Planning: Selection of Consultants

- Architect
- Abatement Consultant
- Inspector
- Construction Manager vs. General Contractor
 - Size of job
 - Combination of multiple sites



Planning & Design

- Identify the Budget
 - Budget vs. Cost
 - Make it Part of the Process
 - Contingencies and Allowances
- Define the Decision Process
 - Design Committees
 - Site vs. District Issues
 - The Cost of Deferred Decisions



Planning & Design

- What's in the Project?
 - Site Needs
- Instruction Goals
 - Life Safety
 - Codes
 - Vehicles
 - Building Material Standards
 - Furniture and Equipment
 - Maintenance Needs



Planning & Design

- Existing Conditions
 - Record Drawings
 - Surveys
- Insurance for Success
 - Start Early
 - Communicate Decisions and Progress
 - DSA Closeouts and Approvals
 - Plan for Construction during Design



Scoping Your Modernization Project

- Construction Cost Considerations
- Classroom Space vs. Kitchen Space
- Site Needs and Disruptions
- Addition Work
- Existing Conditions



Contractor Issues

- Mod. Contractor Generally Smaller
- School Building Experience Can Be a Concern
- Workforce Likely Doing a Variety of Unlike Projects
- Will Have Access to Trade Renovation Contractors



Construction Management Considerations

- Construction Management Often Utilized for Mod. Work
- CM Staff Should Possess Mod. Or Addition Experience
- Particularly Important for Field Personnel – Must be Experienced, Detail Oriented, and Pro-Active



Architect Considerations

- Project Architect Familiar With Level of Detail and Volume of RFI's
- Examine Consultant and Architect Response Times
- Must Allow for Sufficient Consultant Site Visits
- Diplomatic Approach to Site Requests



Access and Interim Housing Issues

- Cost of In/Out/Setup vs. Modular Rental and G.C.'s
- Examine the Logical Progression of the Work
- Admin. Space Requires Special Systems
- Site Can Restrict Access/Interim Housing
- Look for Alternatives



Construction Administration

■ Scheduling

- What to Consider
 - Realize that it will take longer than you think
 - It will be disruptive / inconvenient
 - State testing coordination
 - Allow time for unknowns



Construction Administration

■ Scheduling

□ What to Consider (continued)

■ District Related Work

- Final Cleaning
- Salvaging
- Permits / Fees
- Interim Housing
- Self-Performed Work
- Abatement Coordination
- Staff / Student Relocation



Construction Administration

■ Scheduling

□ What to Consider (continued)

■ Electrical Upgrade

■ System Upgrade: Communication, Phones, Data & Fire Alarm

- Possibility of Two Systems versus
alternate Temporary System



Construction Administration

■ Scheduling

- What to Consider (continued)
 - Number of Classrooms & Restrooms versus available Interim Housing
 - Punchlist Work Criteria
 - Summer Work



Construction Administration

■ Scheduling

- Responsibility Matrix
 - Contractor or Owner
 - Remove / Salvage
 - Remove / Replace
 - Remove / Discard
 - Remove / Relocate



Construction Administration

■ Scheduling

- How to Mitigate Potential Schedule “Busters”
 - Timely Responses
 - Frequent Architect/Engineer Walks
 - Preparatory Phase Meetings
 - Readily available Architect/Engineer Representatives
 - Define / Confirm Scope & Limits of Work



Construction Administration

■ Scheduling

- How to Mitigate Potential Schedule “Busters”
(continued)
 - Perform thorough Walks of each Building, Room & Site:
 - Owner M & O Work / Requisitions
 - Proactive investigating of unknown conditions
 - Confirm existing conditions before starting



Construction Administration

■ Coordination with Site Campus - Minimize Negative Impacts

- Facilities | Site Administration
 - Communication
 - Safety / Signage
 - Phase Sequencing
 - Limits of Temporary Fencing
 - Site Administrator in Field / 3-D Walks



Construction Administration

■ Coordination with Site Campus - Minimize Negative Impacts

- Facilities | Site Administration
 - Communication (continued)
 - Weekly / Periodic Meetings with Facilities & Site Administrator
 - Emergency Protocol: Unearthing Unknowns, Known Underground Utilities



Construction Administration

- **Coordination with Site Campus - Minimize Negative Impacts**

- Staggered Warranty
 - Warranty begins when Building or Room is Occupied



Construction Administration

- **Unknown Conditions**

Situation	Antidote
Known/Unknown Underground Utilities	Pothole
Corroded Waste Lines (Restrooms & Kitchens)	Video
Undersized Supply Water Lines (Restroom & Kitchens)	Destructive Testing
Undersized Gas Supply Lines (Kitchen & Mechanical)	Destructive Testing



Construction Administration

■ Unknown Conditions

Situation	Antidote
Shallow Waste Lines (Restrooms & Site)	Video
Interior – Overhead Utilities	Research above Ceiling
Existing Construction not to Current Code	Hope it is Minimal
Asbestos / Lead	Consultant / District



Questions?