

Wallace Library Renovations

May 2nd, 2014



Team Members:

Amanda Johnson, Amanda Gratton, Keith Poon,
Bruno Alves Maciel, Nick Morris.

Important People on the Project

- Rizk Sinada - Project Manager with FMS
- Shirley Bower - Director of RIT Libraries
- David Ciurzynski - Project Manager with Manning Squires

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1.1 Scope

RIT wished to undertake renovations to the main level of the Wallace Center which houses RIT's primary library. RIT wished to engage a construction manager to execute the project. Schedule is *very critical* as the facility's renovations need to be completed by 8/20/2013. The space will be available for construction work starting 5/27/2013.



- Changing scope:
 - Began as a relatively small project:
 - Topical fixes and replaced rugs
 - Became larger when structural damage was found.
 - Concrete underneath the entrance had been damaged by salt

1.2 Timeline

- Meant to be completed before the school year began
- Modified S type life-cycle
- Nov 2012- Request for new carpet.
- Dec 2012 - Decide for full renovation instead.
- Mar 2013 - Picked an architect.
- May 22, 2013 - Contract Awarded
- May 27th, 2013 - Contract Start Date
- July 2013 - Actual work started on the renovation.
- Aug 2013 - Salt Problem Discovered.
- Aug 20, 2013 - Project Completion (Failed)
- Oct 2013 - Actual project completion.



1.3 Budget and Cost

- Rizk met with Shirley and her team:
 - Better understanding of scope.
 - Better understanding of project's necessities.
- Rizk made an architectural model:
 - Not shared with outside architects.
 - Great cost savings.
 - Separate AutoCAD file made by architects.
- RIT's budget was \$596,000.



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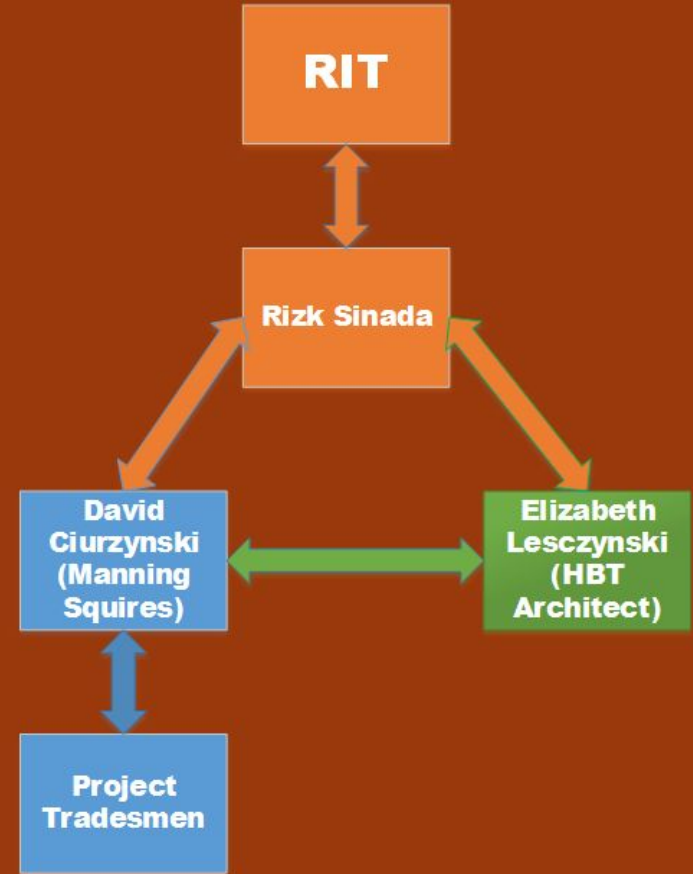


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2.1 Organization

- Construction Management Organization:
 - Gave a budget plus a contingency.
 - Altogether this was the guaranteed maximum price.
- Pure Project Organization:
 - PMs of specific skillsets.
 - Teams that change with each project.
 - Several projects at a time.



2.2 Human Resources Management

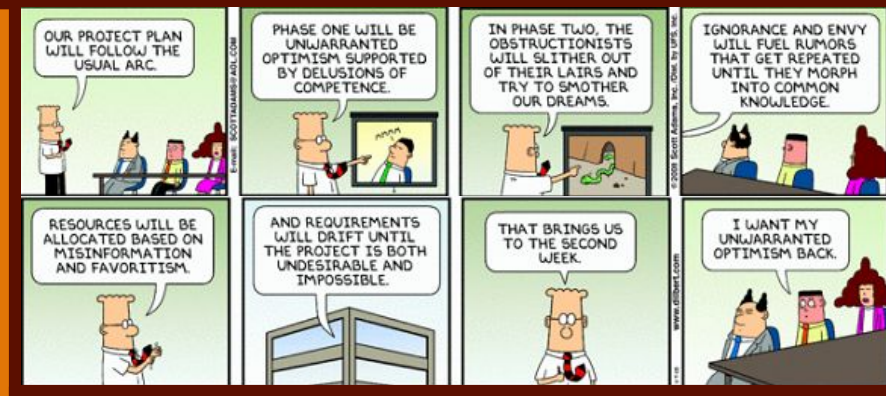
- PM for RIT:
 - Rizk had architectural experience.
 - Rizk was idle at the time.
- PM for Manning Squires:
 - PMs are divided in areas of expertise.
 - David has experience in renovations.
 - Right skills for the right project.
- Team building:
 - Every project has different teams:
 - Superintendent's style.
 - Subcontractors.
 - Build a team that can be trusted.

2.2 Human Resources Management

- Word “conflict” is avoided.
- Many stressful moments:
 - Speed difference:
 - Manning squires make quick changes.
 - RIT is slow to move the whole organization.
 - Concrete identified early by Manning Squires.
 - Decisions were taken slowly, during several meetings.
- David met with the customer daily.
- Both PMs and the the architects met weekly:
 - Daily e-mail and cell phone communication.
- Smooth turnover.
- Small punch-list.

2.3 Planning

- Manning Squires:
 - Had one week to present his proposal.
 - After winning, another week to plan.
- Phasing Plan:
 - Since it would stay open, had to alternate tasks:
 - Replacing carpeting, writing center, etc.
 - Planning each phase ahead of time.
- Make or buy:
 - Wood door frames:
 - Learned from a previous project.
 - Had to be milled and build into the walls.
 - Specific technique.



2.3 Planning (cont.)

- Had to keep work flexible and clean:
 - Constant interruptions.
 - Cycling through tasks in progress.
- WBS:
 - Only used for schedules.
 - Keep track of small things between phases.
 - Broken down:
 - People only had access to the necessary pieces.
- Critical path was created in his head first
 - The critical path was then verified by software.
- Milestone schedules:
 - For each phase.
 - For architect, furniture delivery, etc.

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3. Procurement

- Suppliers were selected through a bidding war.

Selection Criteria:

Section A: Pricing

Section B: Operating Requirements

Section C: Quality and Performance Metrics

Section D: Evidence of Business Performance

Section E: Sustainability (Green Strategy)

Section F: Terms and Conditions

1. Request for Proposal Issued March 13, 2013
2. Proposal Due Date April 6, 2013
3. Contract Awarded (tentative) May 22, 2013
4. Contract Start Date May 27, 2013



- David had the opportunity to choose their subcontractors, not being stuck with the lowest bidder.

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4.1 Quality

- Library team participated directly.
- Rizk assured contractor's quality.
- The criteria for contractors was specified for the bidding process:
 - Only companies that had already worked for RIT.
 - Metrics:
 - Defined in the pre-bidding document.
- Issues with some of the deliverables:
 - Decorations with wrong size or color.
 - Resolved with pressure and complaints.

4.2 Risk Management

- Handled by a different department at RIT:
 - The Project Manager at FMS actually has no idea of what was done in the risk management process.
 - No special measures were taken.
- For Manning Squires, too small:
 - No formal process for documentation.
 - Only safety risks associated with the concrete were quantified:
 - The entrance had to be remade immediately, as a different project.
 - Partial solution on the tunnels.
 - Engineer included on the team (Data Gathering).
 - E-mails are the only record of those risks.

4.2 Risk Management (cont.)

- For Manning Squires:
 - Obvious Risks:
 - Aggressive schedule.
 - Tried to foresee risks in their bidding proposal.
 - Working around furniture.
 - No risk log, only safety document.
- Companies didn't appreciate Summer.
- Behavior issues between worker and students.
- Constant interruptions and WIP.
- Much coordination needed.

4.2 Risk Management (cont.)

- For the library team:
 - Risks of injuries or annoyances for students and employees.
 - Skeleton crew.
 - Send fatigued people home early.
 - Constantly making directional signs as the renovation moved.
 - Plan bulk of the work during Summer.
 - Pressure companies to meet schedule.
- Concrete was made into a different project:
 - No impact on budget.
 - Senior management involved.

4.3 Control

- Excel was the main software.
 - Used software that was comfortable.
- Spreadsheets shared with Rizk and Shirley.
 - Effective for communicating with everyone.
- Specific software to keep track of different things.
- Take notes every time they visit the site.
- Pictures.
- No Earned Value methods used.
- Tracking doesn't take size of the project into account
 - Would have written down estimations.

4.3 Control (cont.)

- No great deviations from baseline.
- Rizk and David were responsible for controlling.
- 2 spreadsheets:
 - One for RIT with progress.
 - One for Manning Squires, with profit.
- In case of discrepancies from the plan, both PMs would meet:
 - E-mails, phone calls, etc.
- The entryway was the greatest intervention:
 - Update all stakeholders on new schedule.
 - Overtime
 - Off-shifts.

4.3 Control (cont.)

- Under budget.
- Late.
- Customer was satisfied nonetheless.
- No rework situations.
- The customer actively controlled the progress:
 - Press companies for timely deliveries.
 - All staff reported to Shirley.
 - Informal and undocumented.
- From the library's perspective:
 - The scope changed thoroughly in the first few months.
 - No rework required.

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Communications

- The salt problem:
 - People at RIT had pieces of information.
 - Still, the problem was not put together.
- There was a formal command, and thus communications, structure within the project.
 - It was set down by FMS.
 - It was ignored except in the case of making changes to the project:
 - Direct communication with the client preferred.
 - Consisted of Rizk to the Architect or Contractor
- Within Manning Squires, formal structure was observed
 - David communicated with the superintendent.
 - Superintendent with workers.

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Ethical Concerns

- Library staying open
- Students/employees circulating between workers
- Behaviour issues (language, etc, from David).
- Safety issues for the concrete:
 - Keep to the schedule and risk a disaster.
 - Delay the whole thing but avoid possible accidents.
- Skip over RIT's PM despite communication process.



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Lessons Learned

- Contractor's:
 - More in depth estimates
 - Press harder for information
 - Better risk management planning (even for “small” projects)
- RIT's:
 - Less informal communication
 - Close the library next time
 - Better planning
 - Storage of art and books
 - New long-term and temporary furniture
 - Window issue
 - Unexpected entrance closures

Lessons Learned

- Ours:
 - Don't depend on one contact/resource
 - Do your research ahead of time
 - Evaluate information for usability immediately after a meeting
 - Keep track of goals and progress
 - Setting a constant meeting time was helpful





The End

