

Ralph J. Stephenson, P.E., P.C.
Consulting Engineer

**CHARTER PARTNERING WORK
BOOK**

**MIT Chemistry Building
Renovation**

Ralph J. Stephenson, P.E., P.C.
Consulting Engineer

**CHARTER PARTNERING WORK
BOOK**

**Renovation of MIT Chemistry
Building**

Date: Tuesday January 30, 2001

Time: 8:30 A.M. to 12:00 P.M. and 1:00 P.M. to
4:30 P.M.

Table of Contents

PARTNERING CHARTER WORK BOOK

MIT Chemistry Building Renovation

Page 01	Title sheet
Page 02	Table of contents
Pages 03 & 04	What is partnering?
Page 05	Partnering definition - agc
Page 06	Charter definition
Page 07	Mission definition
Page 08	Components of a project partnering system
Pages 09 to 12	Meeting agenda
Pages 13 to 18	Partnering reference information
Pages 19 to 27	Sample partnering charter objectives
Pages 28 to 30	Sample partnering charter
Page 31	Destructive conflict
Page 32	People
Page 33	Positive conflict
Page 34	Workshop #1 - Problems others cause us
Page 35	Workshop #2 - Problems we cause others
Page 36	Workshop #4 - Objectives we should set
Page 37	Eight most commonly mentioned problems
Pages 38 & 39	Types of partnering systems in use today
Page 40	Dispute resolution steps
Page 41	Partnering evaluation
Page 42	Charter objective weighting
Page 43	Charter performance ratings
Pages 44 & 45	Typical individual mission statements
Pages 46 to 49	Typical problem statements
About rjs	

WHAT IS PARTNERING?

- 1. Partnering is a system of conducting business that maximizes the potential for:
 - a) Achievement of project intent.
 - b) Obtaining specified quality.
 - c) Encouraging healthy, ethical customer/supplier relationships.
 - d) Adding value.
 - e) Improving communication.
 - f) Providing methods of project condition measurement & feedback.

g) Providing methods of quickly **resolving conflicts** by non destructive means at optimal levels of management.

- 2. Partnering provides the basis for **preventive** methods of **dispute resolution**.

- 3. Partnering is an agreement in **principle**, and **must not supersede** or supplant the planning, design, and construction **contracts** in place or to be written and executed.

PA RTNERING

A way of achieving an optimum relationship between a customer and a supplier. A method of doing business in which a person's word is their bond and where people accept responsibility for their actions.

Partnering is not a business contract, but a recognition that every business contract includes an implied covenant of good faith.

PROJECT CHARTER

A set of goals and objectives that will help achieve an optimum relationship between a customer and a supplier. The charter outlines a method of doing business in which a person's word is their bond and where people accept responsibility for their actions.

Charter guidelines are not a business contract, but a recognition that every business contract carries an implied covenant of good faith.

WHAT IS A MISSION?

It is your answer to the question -

“What is the most important objective to be achieved by me, my department and my organization by this project being successfully completed.”

COMPONENTS OF A PROJECT PARTNERING SYSTEM

Charter - Defines the project mission, objectives, and guidelines of the project team in the management and implementation of the project.

Evaluation System - Describes how the project status will be measured, evaluated and maintained.

Issue Resolution System - Defines steps to be taken to resolve project disputes as they occur on the job.

MIT Chemistry Building Renovation

PARTNERING MEETING AGENDA

Date: Tuesday January 29, 2001

08:30 a.m. to 08:45 a.m. - Introduction of participants - self introductions.

08:45 a.m. to 09:00 a.m. - Brief review of MIT Chemistry Building Renovation Project - by project staff.

09:00 a.m. to 09:30 a.m. - Introduction to partnering, partnering methods, and workshops - Ralph J. Stephenson, chair.

09:30 a.m. to 09:45 a.m. - Identification of teams for break-out workshops.

09:45 a.m. to 10:00 a.m. - Break out workshops - comments to be recorded by team secretaries on flip charts.

- **Workshop #1** - "What actions do others take during design, construction and move-in that create problems for us on projects like the MIT Chemistry Building Renovation Program?"
- **Workshop #2** - "What actions do we take during design, construction and move-in that create problems for others on projects like the MIT Chemistry Building Renovation Program"
- Presentation of Workshops #1 & #2 problem statements by teams.

10:00 a.m. to 10:15 a.m. - Working coffee break - continue Workshops # 1 and #2 discussions

10:15 a.m. to 11:00 a.m. - Complete Workshop #1 and #2 discussions

11:00 a.m. to 11:15 a.m. - Write individual mission statements

- **Workshop #3** - "What is the single most important goal to be achieved for my organization and me by the MIT Chemistry Building Renovation

MIT Chemistry Building Renovation

PARTNERING MEETING AGENDA

Date: Tuesday January 30, 2001

08:30 a.m. to 08:45 a.m. - Introduction of participants - self introductions.

08:45 a.m. to 09:00 a.m. - Brief review of MIT Chemistry Building Renovation Project - by project staff.

09:00 a.m. to 09:30 a.m. - Introduction to partnering, partnering methods, and workshops - Ralph J. Stephenson, chair.

09:30 a.m. to 09:45 a.m. - Identification of teams for break-out workshops.

09:45 a.m. to 10:00 a.m. - Break out workshops - comments to be recorded by team secretaries on flip charts.

- **Workshop #1** - "What actions do others take during design, construction and move-in that create problems for us on projects like the MIT Chemistry Building Renovation Program?"

- **Workshop #2** - "What actions do we take during design, construction and move-in that create problems for others on projects like the MIT Chemistry Building Renovation Program

- Presentation of Workshops #1 & #2 problem statements by teams.

10:00 a.m. to 10:15 a.m. - Working coffee break - continue Workshops # 1 and #2 discussions

10:15 a.m. to 11:00 a.m. - Complete Workshop #1 and #2 discussions

11:00 a.m. to 11:15 a.m. - Write individual mission statements

- **Workshop #3** - "What is the single most important goal to be achieved for my organization and me by the MIT Chemistry Building Renovation

Program being successfully completed?"

After individual mission statements have been written by each of the stakeholders select three project mission task force members to write the initial draft of a proposed project mission statement.

11:15 to 12:00 P.M. - Prepare draft recommendations for achieving success on the MIT Chemistry Building Renovation Program.

- **Workshop #4** - "Considering your team's comments in Workshops #1 and #2, and the mission you wrote in Workshop #3 what can all of us do to encourage good relations and excellent performance on the MIT Chemistry Building Renovation Program?"

Begin preparing team recommendations to assist in achieving the individual missions of the stakeholders. As a starting point we should consider the following alphabetical listing of 21 subjects within which many current design and construction problems are found to originate.

- A. Approval Processes
- B. Being A Good Off/On Site Neighbor
- C. Closing Out the Project
- D. Communicating With Others
- E. Decision Making
- F. Documents and Documentation
- G. Financial Matters
- H. Inspection and Testing
- I. Issue, Conflict, and Problem Resolution
- J. Job Management
- K. Legal Matters
- L. Maintaining Regular Project Evaluations
- M. Organization, Authority, and Responsibility
- N. Planning and Scheduling
- O. Payment Processing
- P. Personnel Quality and Problems
- Q. Regulatory Agency Matters
- R. Revision Processing
- S. Staff Morale and Attitudes
- T. Submittal Processing
- U. Work-site Conditions

Note: See detailed list of charter objectives on pages 19 to 27.

12:00 p.m. to 01:00 p.m. - Lunch

12:45 p.m. to 01:30 p.m. - Special project mission task force (selected earlier).

- **Workshop #5** - Mission task force prepare first draft of project mission statement in separate breakout session. Twenty five words or less.

01:00 p.m. to 01:30 p.m. Full project team minus project mission task force - Introduction to project partnering evaluation and issue resolution systems - Ralph J. Stephenson

- What is a project partnering evaluation system?
- What is to be evaluated and how?
- Who prepares the evaluation system?
- Who makes the evaluations?
- How is the evaluation used to improve project performance?
- What is an issue resolution policy and how is it used?

01:30 p.m. to 01:45 p.m.

- **Workshop #6** - Full group prepare second draft of project mission statement, and continue identifying job design objectives for charter.

01:45 p.m. to 03:00 p.m.

- **Workshop #7** - Begin writing partnering charter for project.

03:00 to 03:15 p.m. - Working coffee break.

03:15 to 04:00 p.m.

- **Complete Workshop #7** - Write charter draft and review mission statement.

04:00 to 04:20 p.m.

- Final approve, and print signature copy of project charter

04:20 to 04:30 p.m.

Ralph J. Stephenson, P.E., P.C.
Consulting Engineer

- Sign MIT Chemistry Building Renovation Program Project charter and award mementos

04:30 P. M. - Adjourn

Renovation of the MIT Chemistry Building

Reference Information for Charter Meeting

Date: Tuesday January 30, 2001

Purpose of meeting:

To prepare and adopt a partnering charter for the guidance of the MIT Chemistry Building Renovation project team.

Reference information:

- **Workshops #1 and 2** - "What actions do others take that create problems for us?", and "What actions do we take that create problems for others?"

Examples of specific answers within the above categories to these questions are listed below. These are sample responses taken from actual charter meeting.

- Giving directions to proceed without a timely change order.
- Failing to establish clear chain of command.
- Lack of timely acceptance of work.
- Lack of timely responses.
- Slow payment.
- Closed mind (preconceived solution).
- Failure to solicit subdesign expertise.
- Design without feedback.
- Failure to understand goals.
- Not thinking hard enough; using easy choice instead of best choice.
- Lack of support for value engineering, sometimes fail to seek out value.
- Inaccurate estimated.
- Inaccurate schedules.
- Clear definition of must, wants, and wishes.
- Challenge too late.
- Clear definition of what approval means.

- Thoughtful/meaningful review and participation in design/program process.
- Timely delivery information on owner supplied equipment.
- Be available.
- Surprises.
- Sharing goals and vision at early stage.
- Firm budget (*proforma*).
- Space squeeze.
- Clear understanding of design criteria.
- Second guessing after decisions.
- Lack of understanding of owner's goals.
- Weak or late code research.
- Willingness to consider constructibility.
- Must be candid in our review and assessment of design information.
- Give equal consideration to all design disciplines.

• **Workshop #3** - Example of responses to the question -" In light of the results of Workshops #1 and #2, what do I think my organization's mission is for this project?" (edited samples from actual charter meetings)

- To be able to be told we were an important and key player in helping accomplish the completion of this project as a "partner".
- It is the project stakeholder's mission to deliver a quality project on time through close cooperation of all parties realizing anticipated profit with no lost-time accidents.
- To provide a quality building within the budgeted time & cost - earning a fair profit & having fun doing it.
- Health wealth and friends when done!
- To provide prompt, professional, service and to insure the execution of our work is carried out with a team concept in mind.
- To complete this project in a way that all parties involved can be proud to say they had a part in it.
- To have a successful and enjoyable project for all parties involved while providing a quality product for the owner and a profitable one for all trades.
- Project completion to the satisfaction of the owner along with continued success of all involved. In short - get the job done and survive to go on to whatever the future has in store for us.
- We recognize the common goal to finish this project with the highest quality, on time, and within budget, & agree to work together safely, as a team with trust and cooperation.
- To bring the project to completion on schedule in a safe and cost effective manner, with a quality of workmanship that we can be proud of being identified

with.

- To complete a high quality, efficient project that meets design team's expectations and is completed on time and within the budget constraints of all parties.
 - To furnish to the owner a quality installed system in a timely manner, considering all people involved, at a profit.
 - To provide a complete project! One which we can be proud of both professionally and personally.
 - The professional recognition in the geotechnical engineering and construction industry for the design and completion of a complex permanent earth retention system.
 - To build a quality project with the total commitment of all involved from owner to tradesperson, and finish the project with pride and satisfaction to all.
 - To complete the project within budget, on time, to the quality standards desired by the owners. To develop a prequalified team that can be used on future projects.
 - Our *mission* is to complete the project safely, on time, and within budget, working in a spirit of cooperativeness & respect for all parties involved.
 - We seek to work together as a team to produce a quality project on time, safely, and within budget, with a fair profit realized by all parties involved.
 - Complete the project with the highest level of quality, on time, and within the budget so that all of the team members want to do the next project together.
 - To work in harmony with all team players to provide a project that everyone can be proud of.
 - Work together as a team to build a quality building in a safe and cost effective way.
 - To have the customer delighted with the project at its completion.
- **Workshop #4** - Example of responses to the question - "Considering your team's comments in Workshops #1, #2, and #3 what can all of us do to help promote good relations and excellent performance on this specific project?" (below are listed some edited samples from an actual charter meeting)
- Exhibit less defensiveness/more openness.
 - Resolve disputes fast.
 - Don't take issues personally.
 - Be willing to propose/suggest solutions.
 - Prioritize submittals.
 - Recognize owner's need to eventually occupy, operate and maintain the facility and systems.
 - Recognize the importance of paper work.

- Allow necessary contract time for training.
- Prepare & publish FFE budget.
- Prepare & publish preconstruction guidelines.
- Make decisions promptly.
- Prepare & publish payment policy.
- Prepare, publish and update schedule for entire project.
- Maintain an effective mode of communication on project.
- Provide approvals promptly from proper management level.
- Provide forum for periodic total project review by entire preconstruction team.
- Do it right the first time.
- Define community image to be projected by project team and the facility.
- Establish an issue resolution process.
- Resolve issue promptly at originating level
- Strive to avoid litigation.
- Generate and maintain high levels of project morale
- Exhibit and expect others to exhibit good partnering practices

Definitions:

- *Alternative dispute resolution*

A method of resolving disputed construction claims outside the courtroom.

- *Issue resolution*

A method of reaching agreement and closing out disputes at the originating management level, in the shortest possible time, and with the lowest potential for residual hard feelings.

- *Mission*

The single most important goal to achieve by being successful in the project organization's principal efforts.

- *Must list*

Those items that must be included in the scope of work to make the project a go. If any of the items in the must list are not able to be included the project is abandoned.

- *Objectives*

Quantified targets derived from the established *mission* and goals.

- *Partnering*

A way of achieving an optimum relationship between a customer and a supplier. A method of doing business in which a person's word is their bond, and where people

accept responsibility for their actions.

Partnering is not a business contract, but a recognition that every business contract includes an implied covenant of good faith - from AGC definition

- *Partnering*

A method of conducting business in the planning, design, and construction profession without unnecessary, excessive, or disruptive external party involvement.

- *Partnering charter*

The basic manual for operating a partnering system. Contains the mission statement of the project team, and their objectives for the project. Usually is signed by all those writing the document.

The charter is an agreement in principle and *must not supersede or supplant the design and construction contracts in place or to be written.*

- *Stakeholders*

The parties at risk financially and legally or in an extended sense, those affected and potentially put at risk during the execution of a planning, design or construction contract. Stakeholders are also those who participate in writing a partnering charter and are a signatory to the charter.

- *Task force*

A temporary grouping of forces and resources designed to achieve a specific objective.

- *UDM*

Ultimate decision maker - the individual or group at the lowest management level that has the authority to make a final binding decision in any job related matter.

- *Want list*

Those items that are wanted and can be included in the scope of work, over and above the must list items, since they provide a definable and acceptable rate of return on their cost.

- *Wish list*

Those items that the owner and the user wish they could include but might not be able to due to budgetary or other reasons. Wish list items are best added, not deleted, as the project moves into construction.

Ralph J. Stephenson, P.E., P.C.
Consulting Engineer

- *Workshop*

The meeting structure through which table or full partnering discussions are conducted. Usually participation is required of all attending.

Partnering Charter Objectives

The list of objectives below is designed to assist stakeholders to write a sound, well expressed charter. If a numbered objective fits a particular recommendation your team wishes to make, note the number of the objective and any revisions you wish to make to it. We will then consider the objective for inclusion as we write the project charter. Don't hesitate to change wordings since it is entirely possible that your expression of a desired objective may be better than that of the original.

Major topics appearing below include:

- A. Approval Processes
- B. Being A Good Off/On Site Neighbor
- C. Closing Out the Project
- D. Communicating With Others
- E. Decision Making
- F. Documents and Documentation
- G. Financial Matters
- H. Inspection and Testing
- I. Issue, Conflict, and Problem Resolution
- J. Job Management
- K. Legal Matters
- L. Maintaining Regular Project Evaluations
- M. Organization, Authority, and Responsibility
- N. Planning and Scheduling
- O. Payment Processing
- P. Personnel Quality and Problems
- Q. Regulatory Agency Matters
- R. Revision Processing
- S. Staff Morale and Attitudes
- T. Submittal Processing
- U. Work-site Conditions

A. Approval Processes

1. Provide required documentation and approvals within the mutually agreed upon time frame.
2. Make and document all decisions, and provide all approvals at their management level promptly, fairly and with consideration of the requirements of the project.

B. Being A Good Off/On Site Neighbor

3. Maintain a clean, safe, accessible , and well-planned work site.
4. Recognize that project conditions and decisions affect other partners in achieving the overall design intent.
5. Maintain, in conjunction with other stakeholders, a work area plan to be implemented by affected stakeholders.

C. Closing Out the Project

6. Establish close-out guidelines that provide clearly understood direction for punching out the job, issuing Certificates of Substantial Completion, establishing intermediate occupancy dates, and maintaining and transmitting contract record documents.
7. Prepare and specify a close out plan.
8. Prepare and specify a rolling punch list and close out procedure.
9. Establish and implement guidelines that provide direction for accepting the work and closing out the job.
10. Do it right the first time and strive to achieve a minimal punch list.

D. Communicating With Others

11. Prepare, publish, keep current and respect a chart of channels of communication, responsibility, and authority.
12. Limit the release of public information through the owner's designated representative only.
13. Anticipate, identify, and accurately communicate potential job problems.
14. Ask questions and request information clearly and accurately
15. Be sensitive to the informational needs of the design and construction team partners.
16. Communicate all issues in a timely fashion to all those affected by the issues.
17. Communicate clearly, accurately and in a timely manner through appropriate project channels.
18. Communicate effectively in an open, honest manner with all appropriate stakeholders.
19. Anticipate and communicate the conditions and disruptive circumstances inherent in demolition and construction activities, to the staffs of the various facilities that are a part of this total program.
20. Communicate the principles of partnering on this project to all participating organizations and individuals.

21. Identify planned and required shut downs, and outages from and to the designers, builders, and the Capitol Complex operations staffs.
22. Ensure the design is understood and acknowledged by all the partners.
23. Maintain open lines of communication.
24. Make progress and technical meetings productive and brief by preparing well, and bringing both problems and solutions to the table.
25. Prepare and publish a communications flow chart showing roles and responsibilities of all project team members.
26. Prepare well for progress meetings and make them brief and productive.
27. Promptly prepare and respond to requests for information, substitutions, and clarifications of project documents.
28. Provide adequate data re: user-furnished equipment for construction to proceed as desired.
29. Provide timely communications, responses, decisions... and be available.
30. Recognize that project conditions and decisions affect other partners in achieving the overall design intent.
31. Regularly monitor and discuss, all anticipated outages with utility company and subcontractor input and provide maximum possible notice to the user of anticipated outages.
32. Respond promptly to requests for information and clarifications of contract documents.
33. Stay in touch with the project, i.e. reading meeting minutes, attending meetings as needed, and being available for input.
34. Prepare, publish and adhere to the lines of communication, authority, and responsibility for the school building partnering team.
35. Prepare and respond promptly and completely to requests for information and clarification of contract documents.

E. Decision Making

36. Make decisions in a timely manner and stand by the agreements you have made.
37. Make timely decisions in all project related matters.
38. Provide adequate backup data, within expectations, to allow timely and accurate decisions to be made by members of the project team.
39. Recognize that project conditions and decisions affect other partners in achieving the overall design intent.

F. Documents and Documentation

40. Accurately prepare and properly distribute project documentation in a timely

manner.

G. Financial Matters

41. Practice fairness in price proposals, backcharges, and all other financial matters.

H. Inspection and Testing

42. Provide for timely and professional technical inspection services with appropriate documentation and feedback to those affected.

I. Issue, Conflict, and Problem Resolution

43. Maintain the current issue resolution policy. (The current policy stresses the resolution of conflict at the originating or lowest possible working level.)

44. Minimize disputes and resolve conflicts quickly and at the lowest possible management level.

45. Prepare and publish an issue resolution policy which stresses the timely resolution of conflict at the originating or lowest possible management level and seeks to avoid litigation.

46. Prepare, publish, and implement a dispute resolution system designed to resolve conflicts at the lowest possible management level.

47. Strive to resolve job conflicts quickly and at the originating or lowest possible level.

J. Job Management

48. Anticipate events - be proactive.

49. Avoid surprises!

50. Be familiar with the contract documents.

51. Carefully evaluate and be sensitive to the impact that construction activities may have on the environmental integrity and safety of all ongoing hospital operations.

52. Continue to implement the partnering evaluation system (involving new participants).

53. Continue to improve and implement agreed-upon project procedures that provide all stakeholders guidelines for:

54. Time commitments for procedures.

55. Prioritizing assignments.

56. Design and construct a facility that is built so as to recognize the need for the

- builders and the designers to achieve a reasonable financial profit on their work.
57. Design and construct a facility that is built within the time and cost terms of the lease-purchase documents.
 58. Develop a organizational matrix showing lines of communication and responsibility to be maintained on the project.
 59. Encourage the participation of all parties at all project levels in the partnering process and the partnering spirit.
 60. Enforce the construction traffic and parking plans.
 61. Foster understanding of construction documents
 62. Identify and remedy incorrect performance in a timely manner.
 63. Insure that each of their management team members is fully aware of the requirements of the project.
 64. Keep current with project status and requirements.
 65. Keep paperwork to a minimum.
 66. Maintain a close relationship between expectations and reality
 67. Maintain a continuous and efficient work force and effective procurement to ensure quality, sequence, and schedule
 68. Maintain an adequate management and work force to fulfill contract commitments.
 69. Maintain client safety and user satisfaction during construction.
 70. No surprises
 71. Plan for and meet the human resource requirements of the project, and maximize opportunities for women and minorities.
 72. Plan for future service access to equipment during mechanical, electrical and plumbing installation.
 73. Plan for the future not for the past.
 74. Prepare and publish a calendar of project events indicating when key personnel are required to participate in project management activities. Partners will attend and participate in all required meetings and provide backup management where necessary.
 75. Preplan work recognizing the impact plans have on achieving the design intent.
 76. Properly staff and maintain competent personnel, and equipment required on the project.
 77. Provide proper resources to support the agreed-upon plan and schedule of work.
 78. Provide resources to fulfill contract & charter obligations.
 79. Recognize and be sensitive to the needs of other stakeholders on the project.
 80. Strive for a zero punch list.
 81. Use human and technological resources to their maximum effectiveness.
 82. Meet individual and organizational obligations.

83. Maintain a clean, safe, accessible and well-planned job site.
84. Maintain a clean, secure, accessible and well-planned job site.
85. Work to improve submittal and request for information (rfi) processing, including agreed-upon schedules and response times to meet the needs of all parties.
86. Work to maintain prompt payment processing including retention.
87. Work to improve revision and change order processing, including a streamlined process for minor changes (\$1000 or less).

K. Legal Matters

88. Strive to avoid litigation.
89. No litigation.

L. Maintaining Regular Project Evaluations

90. Prepare, publish, and implement a partnering evaluation system by which the effectiveness of the system is regularly monitored. (stakeholders task force)
91. Prepare, publish and implement a project partnering evaluation system.

M. Organization, Authority and Responsibility

92. Be accountable for your actions.
93. Fulfill respective responsibilities and commitments to permit on-time completion of the project.
94. Maintain continuity of key job personnel.
95. Prepare and publish a project directory showing people, work category, position and alternate contact.
96. Prepare, publish, and use a project chain of command
97. Prepare, publish, and keep current a chart of channels for communication, responsibility, and authority.

N. Planning and Scheduling

98. Adhere to agreed upon schedules and resource commitments.
99. Adhere to the current master construction schedule in effect on the project.
100. Develop a realistic plan of work and project schedule and honor it.
101. Distribute and regularly monitor and discuss, with subcontractor input, a master project schedule, and update schedules as required.
102. Mutually prepare, publish, implement, and keep current a project action plan and schedule of work that is useful to all stakeholders.

103. Prepare, distribute and regularly monitor and discuss, with subcontractor input, a master project schedule, and update schedule as required.
104. Solicit all team member's input for planning and scheduling

Q. Payment Processing

105. Promptly prepare, submit, and process all payment requests.
106. Submit properly prepared requests for payment.

P. Personnel Quality and Problems

107. Do it right the first time and strive to achieve a zero punch list.
108. Prepare, publish, promote, and adhere to standards of work place conduct.

Q. Regulatory Agency Matters

109. Work closely with all regulatory agencies to assure compliance to their current standards and regulations.

R. Revision Processing

110. Accurately price changes to the project in a timely, reasonable and fair manner.
111. Approve and process changes in a timely manner.
112. Approve changes in a timely manner including formal issuance of supplemental agreements.
113. Control revisions being considered for the project to maintain the planned budget.
114. Prepare and implement guidelines for screening proposed changes to the project prior to requesting formal pricing of the changes. (owner, user, designers)
115. Provide accurate data and adequate time to ensure pricing changes that are fair and timely.
116. Provide reasonable change request budgets and identify insufficient budgets promptly.
117. Provide reasonable field change orders and change issue budgets, and accurately price changes to the project in a timely, reasonable, and fair manner.

S. Staff Morale and Attitudes

118. Be available.
119. Be cooperative.

120. Be willing to suggest and consider cost and time effective options.
121. Establish a trustful work environment with other stakeholders.
122. Establish and maintain good informal working relations on the job.
123. Extend the spirit of partnering to all project participants.
124. Have fun!
125. Have fun and celebrate the successful completion of the project.
126. Maintain high job morale and cooperative attitudes among all project participants.
127. Make the project a fun place to work and to meet new friends.
128. Promote and adhere to acceptable standards of conduct by the project team on the site.
129. Recognize individual and team accomplishments.
130. Respect all project participants and their work.
131. Respect and treat other's and their work as you wish you and your work to be treated; accept responsibility for damage to other's work.
132. Respect design and construction excellence as a fundamental goal to be achieved.
133. Respect financial profit as an incentive for private sector stakeholders.
134. Respect other team members' work and abilities.
135. Take pride in our work, respect the ideas and work of others and treat others as you would have them treat you.
136. Treat others as you would have them treat you.
137. Practice fairness in price proposals, back charges, and all other financial matters.

T. Submittal Processing

138. Prepare, package, and process submittals in a timely, fair, and considerate manner consistent with the priorities of the contractors, designers, and owner.
139. Promptly review and determine the merit of properly submitted requests for extensions of time.

U. Work-site Conditions

140. Continue to maintain continuity of work points between trades. (Work points refer to building control coordinates and elevations.)
141. Maintain a safe, orderly, well organized work site.
142. Maintain a well planned and clean work site.
143. Maintain continuity of work points between trades.
144. Maintain, in conjunction with other stakeholders, a work area plan to be implemented by affected stakeholders.

Ralph J. Stephenson, P.E., P.C.
Consulting Engineer

145. Prepare and publish a construction traffic and parking plan.
146. Prepare, publish, and implement a project clean up program for contractors on site.
147. Promote a clean and safe job environment.
148. Provide complete and unencumbered access to needed work areas in accordance with the project schedule.
149. Respect and treat others and their work as you wish you and your work to be treated. Take responsibility for damage to other's work. Amen!

Sample Charter

I. Charter for new Detroit, Michigan Post Office, Area P

A. Mission

This partnering team commits to deliver a quality project on time, within budget, safely, profitably for all, and of the intended quality, through mutual cooperation among the participants.

B. Objectives

1. Maintain a clean and well maintained work site
 - a) Experience no lost time from accidents.
 - b) Be a good neighbor.
 - c) Use good construction site housekeeping practices.
2. Effectively administer the project
 - a) Prepare & publish an acceptable payment procedure.
 - b) All parties submit complete, accurate & timely billings.
 - c) Prepare & publish an acceptable submittal processing procedure.
 - d) Treat each other fairly
3. Close out the project in a proper & timely fashion
 - a) Prepare & publish acceptable close out guidelines.
 - b) Establish clearly defined punch out procedures and standards early in the project.
4. Maintain effective lines of communication.
 - a) Recognize the need for quality information.
 - b) Minimize response times in all matters.
 - c) Maintain an appropriate level of documentation.
 - d) Be available.
5. Resolve problems effectively
 - a) Develop, approve, and implement a responsive conflict resolution system
 - b) Resolve disputes and conflicts at the originating level if at all possible.
 - c) Resolve disputes and conflicts as quickly as possible.
 - d) Eliminate the need for third party legal involvement
6. Limit cost growth
 - a) Maintain objective attitude toward constructability.
 - b) Develop cost effective measures to apply to all job related activities.
 - c) Recognize owner's needs in occupation and operation of project.
7. Maintain technical excellence in all program, design & construction work.
 - a) Owner abate promptly as required
 - b) Define and clearly communicate quality standards expected
 - c) Maintain constructability of the project.
 - d) Properly plan and schedule the work.
 - e) Do it right the first time.
8. Maintain good job morale & attitudes
 - a) Promote partnering attitudes at all levels of contract administration.
 - b) Have pride in your work.
 - c) Have fun.
9. Maintain partnering effectiveness
 - a) Prepare and publish a partnering effectiveness measurement system.

- b) Meet on a scheduled, regular bases and formally evaluate the partnering effectiveness.
- c) Take prompt steps to correct any deterioration of partnering effectiveness on the project.

II. Partnering evaluation

Each objective in the Charter is to initially be given a par weight as indicated below. The par weight indicates how important the item is in relation to achieving the project mission. Weights are assigned from 1 to 5. A weight of 5 indicates that the objective is of critical importance in achieving the project mission. A weight of 1 indicates that the objective is of least importance when evaluated against the highest weighted objectives.

The weight of the objectives remains constant throughout the project. Therefore care must be taken in assigning them properly at the onset of the evaluation process.

The quality of the project performance in relation to the Partnering Charter objectives is to be measured once per month by representatives of all organizations participating in writing the Charter. Partnering performance quality ratings are to be from 1 to 5.

A quality rating of 1 indicates very poor performance and little adherence to the standards set out by the objective. A quality rating of 5 indicates high and excellent adherence to standards set by the objectives.

The total evaluation of the objective is the constant weight multiplied by the quality for each objective for each evaluation. The total partnering performance is measured at each evaluation.

Total partnering performance = total of the (objective weights x the objective quality) for the period.

III. Issue resolution

A. Policy

It is the objective of the Area P Post Office project team management to first and foremost avoid unnecessary disputes and conflict on the job. It is the intent to do this by achieving the objectives of the charter, particularly to resolve an issue promptly and at the level at which it originates. If this is not possible the issue will be referred promptly to the next highest level for resolution.

In all cases, individuals who are involved in a difference should be businesslike and not resort to personal attack. The principles outlined in the Partnering Charter mission and charter should be followed at all times in resolving differences.

Upon request, site meetings will be convened to discuss any unresolved issue and to attempt to reach resolution. Any issue presented should be clearly defined and alternative solutions suggested. The resolution process is to work through open communication and looking at the other side's point of view. In addition, issues are to be kept in the forefront to ensure resolution in a timely manner. A log of unresolved issues will be maintained from meeting to meeting.

if resolution cannot be reached at the job site, the principals of the involved firms or agencies should attempt to reach resolution through informal discussion before the formal process outlined in the contract documents is used.

In seeking resolution to an issue, involved parties will attempt to:

- Thoroughly understand the issues.
- Maintain empathy for the other point of view.
- Communicate thoughts openly and clearly.
- Clearly document the issue resolution.

B. Methodology

Goal - To encourage and provide a forum for resolution of issues at the lowest possible level, but to provide a mechanism to elevate the issue if needed.

If resolution is not achieved at the lowest level forum, the principals in the firms in conflict will attempt to reach resolution through informal discussion.

DESTRUCTIVE CONFLICT

**Animosity or disagreement
which results in lowering
the potential for an
individual or organization
to succeed.**

PEOPLE

Most people are honest,
concerned, desirous of
challenge, need attention,
and welcome help in times
of turmoil.

POSITIVE CONFLICT

Hostility that is managed so that its resolution raises the potential for individuals or organizations to succeed at being excellent.

ws #1
sht #1

team #
???

WORKSHOP #1

**What problems do others
cause us on projects like
the MIT Chemistry
Building Renovation
Program**

ws #2
sht #1

Team #
???

WORKSHOP #2

**What problems do we
cause others on projects
like the MIT Chemistry
Building Renovation
Program?**

ws #4
sht #1

Team #
???

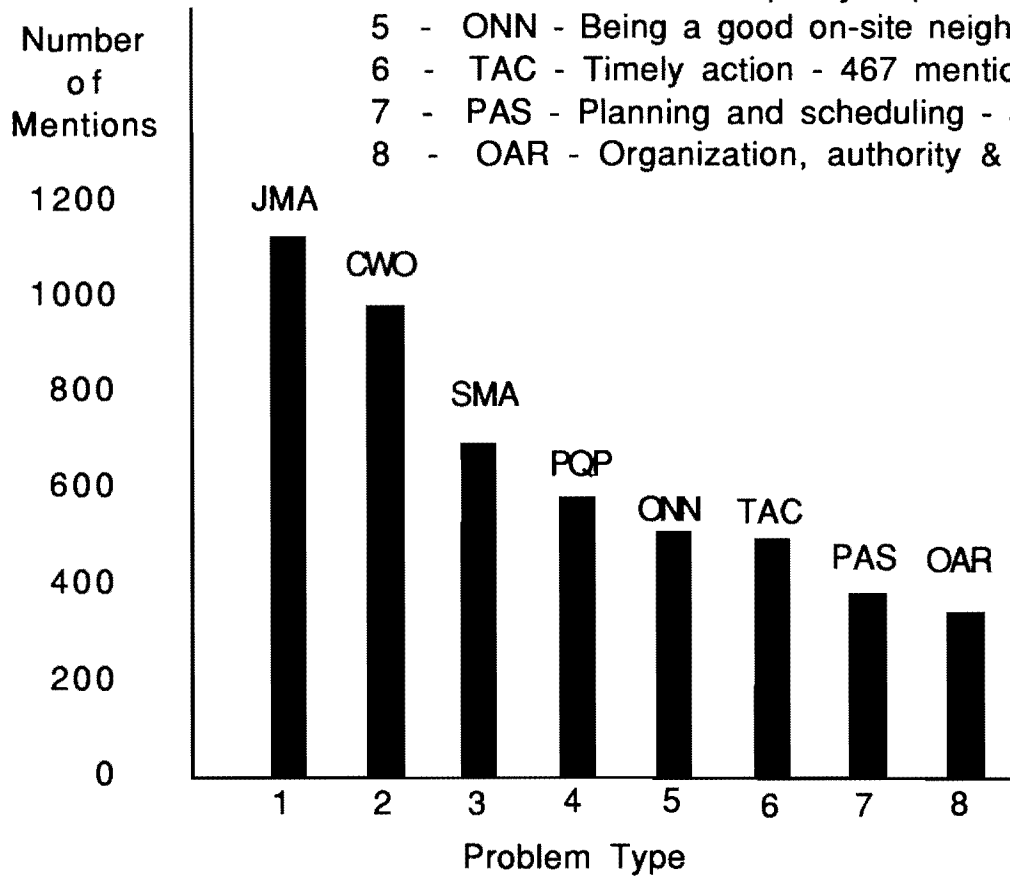
WORKSHOP #4

Considering the comments produced in Workshops #1 and #2, and the mission statements you each wrote, what objectives should we strive to achieve so as to encourage good relations and excellent performance on the MIT Chemistry Building Renovation Project?

- The eight most frequently mentioned design & construction problems. From a total of 2,855 responses to the question "what job difficulties are caused by us and by others?"

Problem Type

- 1 - JMA - Job management - 1146 mentions
- 2 - CWO - Communicating with others - 984 mentions
- 3 - SMA - Staff morale & attitudes - 684 mentions
- 4 - PQP - Personnel quality & problems - 593 mentions
- 5 - ONN - Being a good on-site neighbor - 475 mentions
- 6 - TAC - Timely action - 467 mentions
- 7 - PAS - Planning and scheduling - 396 mentions
- 8 - OAR - Organization, authority & responsibility - 371 mentions



Partnering systems in use today

- Project partnering

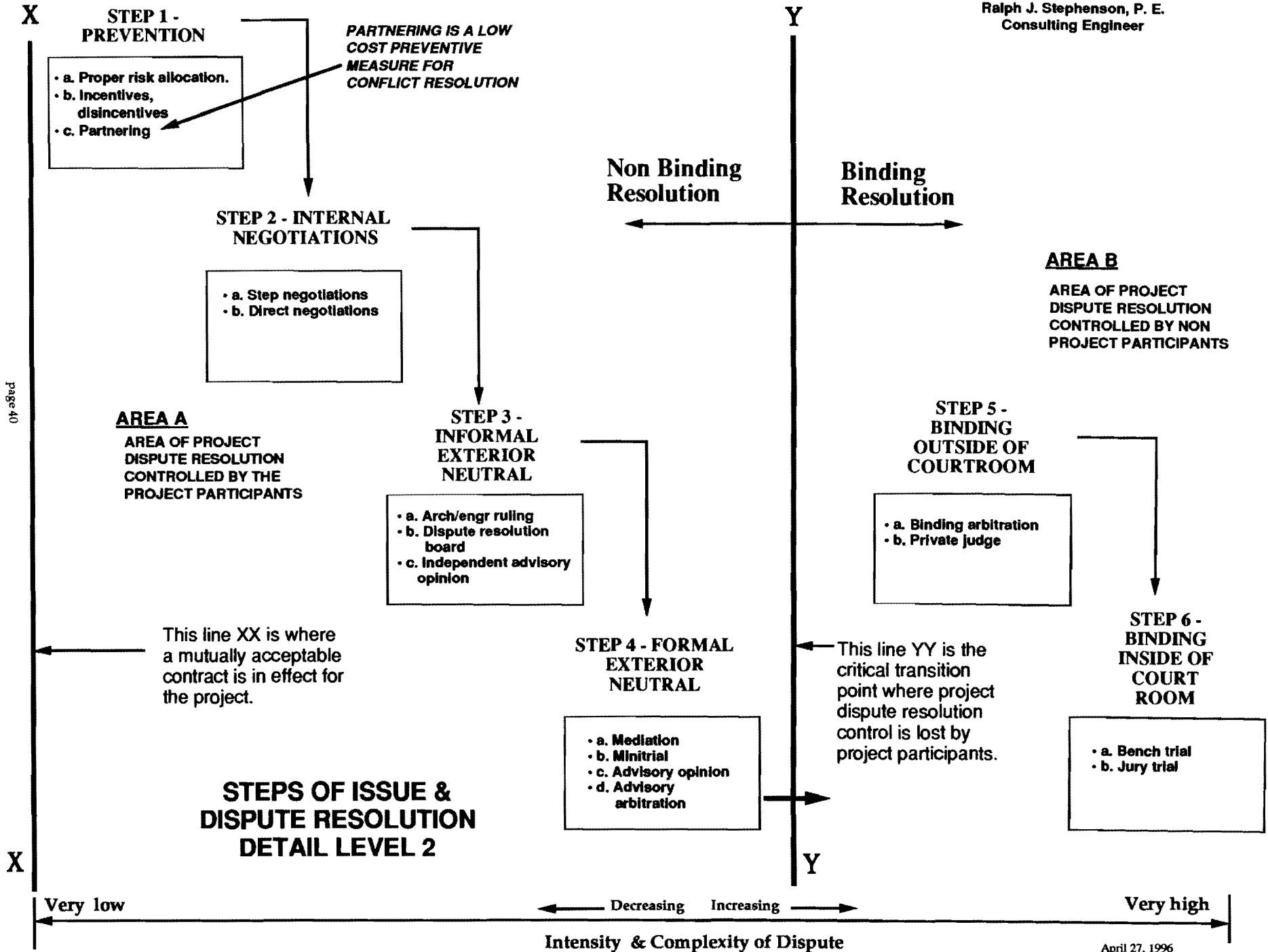
A method of conducting business in the planning, design, and construction profession without the need for unnecessary, excessive and/or debilitating external party involvement. Mainly used project-by-project, and tailored to specific job conditions. It addresses a moral agreement in non contract matters.

- Strategic partnering

A formal partnering relationship specifically designed to enhance the success of multi-project experiences on a long term basis. Just as each individual project partnering system must be maintained, strategic partnerships must also be maintained by periodic review of all projects currently being performed.

- **Organizational partnering**

A system of internal relationships established when the spirit of project partnering is incorporated into the total operating mode of an organization. Organizational partnering, well done, is designed to improve the probability of short and long term operating success. Often organizational partnering is applied with little awareness of it being in use. Organizational partnering should be made an integral part of project and strategic partnering applications for it to add its full value to the organization.



Page 41-Partnering Evaluation for current period

1 - objective	2 - par weight (w)	3 - par quality (q)	4 - par (w) x (q)	current quality	current (w) x (q)
01. Maintain a clean and well arranged work site	3.00	2.50	7.50	2.25	6.75
02. Effectively administer the project	4.50	3.75	16.88	3.50	15.75
03. Close out project in a proper and timely fashion	4.00	3.50	14.00	2.00	8.00
04. Maintain effective lines of communication	4.25	3.75	15.94	3.00	12.75
05. Resolve problems effectively	4.50	4.00	18.00	4.00	18.00
06. Limit cost growth	2.50	2.25	5.63	2.25	5.63
07. Maintain technical excellence in all program, design and construction work	3.50	3.00	10.50	3.25	11.38
08. Maintain good job morale and attitudes	2.50	2.25	5.63	2.00	5.00
09. Maintain partnering effectiveness	4.00	3.75	15.00	3.25	13.00
Average :	3.64	3.19	12.12	2.83	10.69

Area P Post office, Detroit, Michigan - 100%

Charter objective weighing

Charter objective weight = 5

Charter objective is of extremely high importance to achieving the mission of the project. If the objective is achieved, its potential contribution to the success of the affected project work is very significant.

Charter objective weight = 4

Charter objective is of above-average importance to achieving the mission of the project. If the objective is achieved, its potential contribution to the success of the affected project work is somewhat over-average but not at the top level of contribution.

Charter objective weight = 3

Charter objective is of average importance to achieving the mission of the project. If the objective is achieved, its potential contribution to the success of the affected project work is at the average for successful similar projects.

Charter objective weight = 2

Charter objective is just below average importance to achieving the mission of the project. If the objective is achieved, its potential contribution to the success of the affected project work is below average but is still of some value to the project.

Charter objective weight = 1

Charter objective is of little or no importance to achieving the mission of the project. If the objective is achieved, its potential value added to the affected project work is minimal and has little impact on overall project success.

Charter performance ratings

Performance quality = 5 - the best possible performance.

The potential for successfully achieving the objective is very high due to the excellent performance of the project team and stakeholders over the evaluation period. Their excellence-in-action has either maintained a previous very high level of value-added or has considerably raised a previous lower level of contribution.

Performance quality = 4 - a good performance, with the potential for doing better.

The potential for successfully achieving the objective is higher than average due to the good performance of the project team and the stakeholders over the evaluation period. Their work has either maintained a previous moderate level of contribution, or has raised a previous lower level of contribution. There remains room for some performance improvement.

Performance quality = 3 - an average performance.

The potential for successfully achieving the objective is average and comes from a moderately competent performance of the project team and the stakeholders over the evaluation period. Their work has not significantly raised lower performance in previous evaluations, nor has it seriously damaged previous moderately higher levels of contribution. There remains room for considerable performance improvement.

Performance quality = 2 - performance slightly below average and slightly above being unacceptable.

The potential for successfully achieving the objective by this level of performance being continued is below average and comes from a marginal operation of the project team and the stakeholders over the evaluation period. Their work has not significantly raised lower performance levels in previous evaluations and may seriously damage previous higher levels of contribution. There is an important need for sizable performance improvement.

Performance quality = 1 - the worst possible performance.

Little, if any, potential exists for successfully achieving the objective by this level of performance. It results from a poor performance of the project team and the stakeholders over the evaluation period. Their work has significantly damaged the likelihood of success and negated previous higher levels of contribution. There is an urgent need for immediate corrective attention and action.

Individual mission statements - from recent charter meetings - some mission statements edited slightly

117 - The most important objective for us is to be a proud contractor on this project. We want to have our name recognized as being a contractor who cares about the work that we do. Quality and safety.

211 - To provide the owner with a quality product in compliance with specifications and on time.

521 - Receiving a letter of commendation from the owner and/or user for a project well done and commissioning the company for the next project.

600 - To provide the client with a first class project, complying with the design intent, constructed within the budget, and allowing all participants a fair profit margin for the work expended.

76u - Construct the new ----- safely, on time, on budget, profitably, leaving a lasting legacy that we all can be proud of.

838 - My mission is to provide the owner with a building in a timely fashion with minimum conflict that he will be proud of for years to come.

856 - To organize and maintain a schedule throughout the project.

ann - My most objective to be achieved for myself and my company is to progress professionally and to develop the right experience for future projects.

dej - Complete the project on time, within budget, without causing delay or unnecessary problems to the other contractors for this project.

hrr - To provide the owner a quality building environment which meets their needs, wants and plans within the schedule and budget restraints.

jbh - Provide a first class ----- for the university community through proper and fair administration of the design and construction contracts.

jmh - To better understand the partnering process & to learn how I can make it useful for the other trades & my company to make a profit.

kah - To assist in the successful construction of the project, working with the owner, contractors and the design team.

kmh - Construct a quality building within budget & on time with no lost time accidents, profitable to all.

lim - The University, has in place, by the summer of 2000, a fully functional ----- which has met the design requirements within budget.

mfw - To be a partner in completing on time and within budget, a building meeting the requirements of the contract documents.

mmt - To supply a product meeting or exceeding design specifications for an agreed-upon price in a timely manner. Completion of the project should bring a positive reputation for all involved.

rbc - To do our work in a manner that would benefit us and not hinder other trades as we build this job.

Ralph J. Stephenson, P.E., P.C.
Consulting Engineer

se1 - To positively reflect on this project, knowing we met scheduling and established positive working relationships with other contractors that would inspire future work.

slt - Proper and timely management of highly engineered shop drawings and installation for optimum coordination between trades. For a good working stage rigging system.

sme - My first objective is to make a profit for our company. Second, we want to build a quality building.

tdp - To stay on top of the project as a whole to the best of my ability, so that the university will have the most efficient and safe environment for student learning.

tsp - To have safely & profitably put the work, defined in the contract documents, in place causing the owner, subcontractor and suppliers to think favorably towards GCI.

wmb - Providing a ----- meeting the needs and desires of the ----- community and citizens of the western U.P. on time and on budget.

Problems that they and we cause to others - a collection of problem statements from recent charter meetings - some edited slightly - d722

1. *Request payment
2. Failure to consider University activities and operations (construction zone is not an island).
3. Delivery of material not properly identified to University.
4. Poor contractor-project coordination resulting in contractor looking to others to bail him out. Crisis mentality.
5. Schedule not allowing sufficient time for building commissioning before completion date.
6. Sub and skilled trades supervisors not reading specifications.
7. Failure to coordinate and control subcontractors.
8. Not getting everyone on the job to take safety seriously.
9. Lack of clean up (daily clean up needed).
10. Insufficient staffing of job at critical times - resulting in not meeting schedule.
11. General contractor not directing subs regarding substandard work.
12. Parking - lack of discipline with own employees and subs.
13. *Unrealistic budget.
14. Unrealistic schedule, for design and construction.
15. Difficult small construction site.
16. Design changes - caused by changed priorities or dreams.
17. Lack of flexibility.
18. Failure to articulate needs in design.
19. Untimely or late decisions.
20. Public ownership - public right to know all details of construction and design process (federal and state laws require this) operation in a fish bowl.
21. Bringing in other contractors to the site to perform additional work.
22. *Lack of timely shop drawings.
23. Space limitations.
24. Dirt and dust.
25. Coordination - sequencing of work.
26. Timely responses to RFI's.
27. Start up of payment process.
28. Single point to send in paper work.
29. Multiple punch lists.
30. Scheduling with acceptable time frames.
31. Conflicts about scope of work.
32. Accessibility to do work.
33. *Work not completed in a timely manner.

34. Scheduling of delivery of materials.
35. Generation of shop drawings.
36. Clean up materials and trash.
37. Inflexibility of placement of materials.
38. Completion of punch list items.
39. Failure to review drawings and specs.
40. Clearly stating questions on rfi's.
41. Proper manpower.
42. *Unclear documents (lack of information).
43. Prompt response to questions - rfi's
44. Timely return of submittals.
45. Smoking.
46. Incomplete submittals.
47. Owners and designers are inflexible.
48. Subs and suppliers are too informal.
49. Schedules not treated seriously by subs.
50. Subs not taking safety seriously.
51. Lack of cooperation in "partnering".
52. Payment requests from subs not timely.
53. Owner's visitors don't follow safety guidelines.
54. Change order process - authorization before doing the work.
55. Failure to understand the role of the multiple prime system..
56. Constructibility.
57. Unclear definition of quality.
58. * Not researching "all" documents prior to submittal of rfi's.
59. Don't review shop drawings prior to submittal to a/e.
60. Timely responses.
61. Lack submittal schedule.
62. Insufficient management of subs.
63. Completion of project not timely.
64. Lack of properly sequencing work activities to maximize safety.
65. Clear communications
66. *Unscheduled (highly requested) demand for material.
67. Willingness to consider constructibility (steel).
68. Storage and space squeeze (siding).
69. Cleanliness of work site (glass).
70. Other's schedule conforming/conflicting with own.
71. Plumb and square window openings.
72. Clear definition of want, wish, need (concrete)

73. \$ - honesty on time frame for payment - notification of unapproved payment request.
74. Timeliness of field verification.
75. Damage of installed material, i.e. doorways.
76. *Taking large amount of space for storage - space squeeze.
77. Clear definition of approval process.
78. Scheduling - realistic? - honest?
79. Generation of shop drawings.
80. Availability to proceed with work - time/material.
81. Smooth flow of steel delivery (by areas) for other trades to follow per schedule.
82. *Installation of equipment in our spaces.
83. Completion of rough-in (no going back).
84. Lack of sequencing trades.
85. Lack of timely change orders.
86. Damage of other contractor's work.
87. Impact of schedule changes and changes to completion schedule.
88. Quick turn around of rfi - 24 to 48 hours.
89. Clean up.
90. Verification of work areas that are ready.
91. Designation of responsibility for work scope.
92. *Finish or complete work before other subs finish their work.
93. Material storage.
94. Finish work per plans and specs.
95. Clean up.
96. Too much or not enough man power.
97. *Unrealistic schedules - shop drawings
98. Improper submittals - shop drawings
99. Expecting responses as if this was the only project we are involved with.
100. By passing chain of command when requesting info.
101. Lack of field coordination resulting in excessive rfi's.
102. Failure to submit list of proposed manufacturers prior to shop dwg. submission.
103. Design without feedback.
104. Payment requests not clearly defined or itemized.
105. Subcontractor submittals not reviewed by general contractor prior to submission.
106. Failure to give equal consideration to all design disciplines.
107. Failure of subs/general contractor to review documents prior to rfi submission.
108. Excessive requests for extras for nickel and dime items.
109. *Enforcement of contract documents without regard to field conditions.
110. Closed minds to alternate methods that accomplish the design intent.

Ralph J. Stephenson, P. E.
Consulting Engineer

111. Lack of timely response to truly urgent problems.
112. Lack of backup personnel to answer questions/rfi's in a timely manner.
113. Second guessing decisions.

MIT Chemistry Building Renovation

I. Charter for MIT Chemistry Building Renovation

A. Mission of the MIT Chemistry Building Renovation Team

To renovate the MIT Chemistry Building.....

B. Charter objectives for the MIT Chemistry Building Renovation Team

In recognition of the importance of achieving their mission all Chemistry Building Renovation Team members will strive to:

1. provide access to needed work areas in accordance with the project schedule
2. communicate clearly, accurately and in a timely manner through appropriate project channels
3. communicate goals and objectives effectively in an open, honest manner with all appropriate stakeholders through all phases of the project
4. make decisions in a timely manner and stand by the agreements we have made
5. prepare and implement guidelines for screening proposed changes to the project prior to requesting formal pricing of the changes (guidelines to be prepared by the owner and designers jointly)
6. solicit all team members' input for planning, scheduling and pricing
7. practice fairness in price proposals and all other financial matters
8. prepare, publish, and keep current a chart of channels for communication, responsibility, and authority (to be prepared by)
9. provide timely communications, responses, decisions... and be available
10. maintain an adequate management and work force to fulfill contract commitments
11. maintain high job morale and cooperative attitudes among all project participants
12. respect design and construction excellence as a fundamental goal to be achieved
13. anticipate, identify, and accurately communicate potential job problems
14. maintain continuity of key job personnel
15. promote plant staff input to all design, operation and maintenance actions
16. promote and adhere to standards of work place conduct as defined by current MIT policy.
17. mutually prepare, publish, implement, and keep current a project action plan and schedule of work that is useful to all stakeholders (prepared by project manager in conjunction with all members of the MIT Chemistry Building project team)
18. work closely with all regulatory agencies to comply with their current standards and regulations and to consider their anticipated standards and regulations

19. carefully evaluate and be sensitive to the impact that investigation and design activities may have on water plant operations
20. maintain a clean, safe, accessible, and well-planned work site
21. resolve job conflicts quickly and at the originating or lowest possible level
22. prepare, publish, and implement a partnering evaluation system by which the effectiveness of the system is regularly monitored. (stakeholders task force)
23. promptly prepare, submit, and process all payment requests.
24. communicate among the stakeholders the differing degrees of risk between competing design alternatives and building user's decisions

II. Project information

- A. Name of project - MIT Chemistry Building Renovation Team
- B. Location of project - ??
- C. Date of Meeting - Tuesday January 30, 2001
- D. Location of Meeting - ??
- E. Summary of scope of work
 1. General ??
 2. Description of work to be done ??
 3. Description of design and construction phases ??

III. Attendance information

- A. Those invited to attend
 - 1.
- B. Those attending - from sign-in sheets
 - 1.
- C. Team members listed by actual working groups
 1. Team #1 members
 2. Team #2 members
 3. Team #3 members
 4. Team #4 members
 5. Team #5 members

IV. Summary of workshop discussions

- A. Team 1 -
 1. Team members (5)
 - a) David P. Bratt, P.E., Project Manager (FTC&H)
 - b) Thomas C. Gavin, P.E., Process Project Engineer (FTC&H)
 - c) Bruce K. Elenbaas, P.E., Principal, Structural Department Head (FTC&H)
 - d) Steven Elliott, P.E., President (MTC)
 - e) Paul L. Kelley, P.E., Principal (SGH)
 2. Workshop #1 - "What actions do others take during design, construction and move-in that create problems for us on projects like the Repairs &

Improvements to the Lake Michigan Filtration Plant?"

- a) Access - Reliable and timely scheduling of access.
 - b) Cooperation - What are processes of finding out what the plant people know?- i.e. where are underground utilities, what has been repaired - what works and what does not?
 - c) Hard definition of goals - How/what will determine if water quality is "highest quality attainable", or what is "original intended design life"
 - d) Expectations on construction cost control - Is the City prepared for variable budget projections as investigation proceeds and actual scope is discovered? - will unit price systems and contingency philosophy be accepted?
 - e) Prompt payment - especially affects subconsultants.
 - f) Uniformity of goal setting from the multiple owner groups - city administration, engineering, operations.
 - g) Fair and timely adjustment of engineering scope and fees - there have been statements by the City that they understand need for adjustments - what process will be fair to owner and consultant to adjust scope and fee in preliminary phase?
 - h) Comprehensive effort by owner to make a full and timely evaluation of the reports & recommendations.
 - i) Preconceptions of owner about solutions.
 - j) Need timely input from MDEQ.
3. Workshop #2 - "What actions do we take during design, construction and move-in that create problems for others on projects like the Repairs & Improvements to the Lake Michigan Filtration Plant?"
- a) Responsiveness - Within design team and between team members and owners - timely and frequent communication.
 - b) Engineering budget and scope control.
 - c) Poor construction cost estimates.
 - d) Honest and frank lines of communications about scope/budget problems; expectations/projections; problems (when they are 1st known).
 - e) Responsibility - Clear lines of assignment and authority
 - f) Coordination with plant operations.
 - g) Timely discovery of governing codes and regulations.
 - h) Unconventional solutions that may not conform to ten states standards or "borderline" situation make make MDEQ evaluation difficult.
 - i) Engineers need to communicate risks to be assumed by owner. Repairs/rehabilitation will not be perfect in many cases, it will not be as good as if it were done correctly the first time. Reasonable assumption of risks will lower the costs.

B. Team 2 -

1. Team 2 members (5)
 - a) Timothy W. Porritt, P.E., Structural Project Engineer (FTC&H)
 - b) Wayne Jernberg, P.E., Structural Engineer (FTC&H)
 - c) Richard F. Sageman, P.E., Structural Engineer (FTC&H)
 - d) Michael L. Peters, P.E., Principal In Charge (FTC&H)
 - e) Matthew R. Sherman, P.E., Staff Engineer (SGH)
2. Workshop #1 - "What actions do others take during design, construction and move-in that create problems for us on projects like the Repairs & Improvements to the Lake Michigan Filtration Plant?"
 - a) Timely review of suggestions/proposals.
 - b) Not disseminating new or evolving information.
 - c) Access to facility /scheduling access in advance.
 - d) Expectations change and exceed scope - expanding scope.
 - e) Procurement.
 - f) Material substitution requests.
 - g) Not understanding the evolving /trial nature of repair work.
 - h) Chain of communications breaks down, phone tag delays, no "person" to talk to.
 - i) Unclear assignment of decision- making responsibilities.
 - j) Unclear construction responsibilities defined in documents.
 - k) Not understanding special nature of repair work (if techniques, materials, speed change based on observed effectiveness).
 - l) Safety not respected/not planned for/supply of equipment - assumptions not communicated between parties.
3. Workshop #2 - "What actions do we take during design, construction and move-in that create problems for others on projects like the Repairs & Improvements to the Lake Michigan Filtration Plant?"
 - a) Slow response/lack of availability.
 - b) Not asking questions/relying on assumptions.
 - c) Not properly considering other's suggestions.
 - d) Revising techniques/materials late in process.
 - e) Not being clear and firm with recommendations/indecisiveness.
 - f) Not incorporating process/day-to-day operation in design.
 - g) Lack of control over vendors/suppliers.
 - h) Not communicating our technical recommendations in a way that allows others to make a complete decision - Not being sensitive to political, budgetary, scheduling, and process issues that also must be included in decision process.
 - i) Design changes.
 - j) Lack of understanding of owner's goals.

C. Team 3 -

1. Team 3 members (6)
 - a) Donald Spencer, Water System Manager (CGR)
 - b) Bill Chapman, Utility Maintenance Supervisor (CGR)
 - c) Karl Koster, P.E., Assistant City Engineer (CGR)
 - d) Greg Krcmarik, P.E., Facility Project Engineering Coordinator (CGR)
 - e) David Timm, P.E., Supervising District Engineer (MDEQ)
 - f) Joellen Thompson, P.E., Hydraulic Engineer (CGR)
2. Workshop #1 - "What actions do others take during design, construction and move-in that create problems for us on projects like the Repairs & Improvements to the Lake Michigan Filtration Plant?"
 - a) People not being available at critical/necessary time.
 - b) Lack of proper communication.
 - c) Failure to pass on necessary information.
 - d) Operational and maintenance people not providing all the information necessary for good decision making.
 - e) Design proceeding without basic information and feedback from City staff.
 - f) Lack of asking appropriate questions of the right people.
 - g) Loss of commitment by consultants.
 - h) Reassigning work to less experienced personnel which results in loss of continuity.
 - i) Loss of cooperation by ticked-off plant personnel.
 - j) Designers not taking full responsibility for decisions and not standing behind them.
 - k) Not following owner's directions.
3. Workshop #2 - "What actions do we take during design, construction and move-in that create problems for others on projects like the Repairs & Improvements to the Lake Michigan Filtration Plant?"
 - a) Change scope of work without informing the consultants.
 - b) Conflicting direction from owner's representatives.
 - c) Timeliness in responding to questions from the consultants.
 - d) Being close-minded regarding innovative solutions.
 - e) Conservative approach to allowing access for observations and inspections.
 - f) Expectations higher than can be achieved.
 - g) Lack of clear and defined schedule of priorities.
 - h) Inflexible City policies that make hiring specialized contractors difficult.
 - i) Second-guessing decisions that have been finalized.
 - j) Timeliness of processing documents through the City system.

- k) Lack of availability.
- l) Re-prioritization of City staff by others.
- m) Changing rules and regulations.

D. Team 4 -

1. Team members (6)
 - a) John Wierenga, Water Filtration Plant Superintendent (SGH)
 - b) Mark Ross, Utility Maintenance Supervisor (SGH)
 - c) Terry Francik - Lake Filtration (FTCH)
 - d) Patty Chapman, Chemist II (SGH)
 - e) Carl Palma, Chemist II (CGR)
 - f) Joseph J. Pardini, P.E., Area Engineer (MDEQ)
2. Workshop #1 - "What actions do others take during design, construction and move-in that create problems for us on projects like the Repairs & Improvements to the Lake Michigan Filtration Plant?"
 - a) Design
 - (1) Design - lack of adequate operator input in the design.
 - (2) Design - not allowed adequate time for review of plans.
 - (3) Listening - input is provided for but is not listened to, not acted upon.
 - (4) Use of expertise - proper use of available expertise. The team must search for the best person(s) to include in a decision.
 - (5) Comment must be given and received in an organized, chain-of-command procedure which guarantees discussion, feedback, and results/decisions which are known to all parties.
 - (6) Important decisions to be made by the team in consultation with those persons most expert. Most decisions should not be made by the person of highest rank.
 - (7) Scheduling - planning is required in the design phase to insure coordination with plant operations and all potential conflicts.
 - b) Construction
 - (1) Lack of proper inspection and supervision during construction.
 - (2) Lack of operator involvement during construction.
 - (3) Scheduling - coordinate with plant operations.
 - (4) Avoidance of unintended operational emergencies caused by accidents, failures, shutdowns, etc.
 - (5) Start up - timely completion of punch list items.
3. Workshop #2 - "What actions do we take during design, construction and move-in that create problems for others on projects like the Repairs & Improvements to the Lake Michigan Filtration Plant?"
 - a) We interfere with construction scheduling due to operational needs.

- b) We are cautious in our operational decisions and this slows the the project. We are cautious because of fear of getting whacked with the newspaper. Recognition of necessary risk-taking must be present at all levels.
- c) We insist on following all safety procedures.
- d) We choose an easy, comfortable, or historical way of doing something which may not be the best way.
- e) We fail to properly review prints & plans due to time constraints, and problems result.
- f) We get obstinate or reactionary as problems mount.
- g) We are not as good at seeing problems we cause others.

E. Team 5 -

- 1. Team members (5)
 - a) Paul Panzegrau - Lake Filtration (FTCH)
 - b) David Wheeler, Utility Maintenance Mechanic III (CGR)
 - c) Greg Kneibel, Administrative Analyst (CGR)
 - d) Peter D. Gausewitz, P.E., Project Manager (MTC)
 - e) Chris Cudworth, Safety Training Coordinator (CGR)
- 2. Workshop #1 - "What actions do others take during design, construction and move-in that create problems for us on projects like the Repairs & Improvements to the Lake Michigan Filtration Plant?"
 - a) Disregard for policies & procedures & regulations applicable to this project.
 - b) Lack of coordinating site visits.
 - c) Untrained personnel (Confined space, Hazmat, First Aid, Fall Protection.
 - d) Lack of communication.
 - e) Poor housekeeping.
 - f) Improper selection of equipment/components.
- 3. Workshop #2 - "What actions do we take during design, construction and move-in that create problems for others on projects like the Repairs & Improvements to the Lake Michigan Filtration Plant?"
 - a) Failure to specify quality with respect to materials and workmanship.
 - b) Failure to enforce specifications.
 - c) Failure to coordinate access to the site.
 - d) Poor communication.
 - e) Lack of definition of chain of command.

V. Project mission notes

- A. Members of the charter mission task force
 - 1.

- B. Individual project missions - as defined in workshop #4 - "What is your individual mission on the MIT Chemistry Building Renovation Team?"
1. msg - The completion of this project will make the Grand Rapids Lake Michigan Filtration Plant a facility that has optimally improved water treatment and water quality.
 2. etc.
- C. Operative words contained in individual mission statements
1. Lake Michigan Filtration Plant
 2. Water quality
 3. Improvements
 4. Reliable/durable
 5. Repair
 6. Professionalism/pride/reputation
 7. Cost effective
 8. Customers
 9. Safety
 10. Operations
 11. Efficient
 12. Profit
 13. Timely
 14. Team
 15. Communication
 16. Properly constructed
 17. Challenging
 18. Appearance
 19. Original expectations
 20. Showcase
 21. Diagnose
 22. Owner's goals
 23. Regulations
 24. Best practices/state of the art
 25. Accurate
- D. Draft #4 of the project mission (used in final project mission adopted)
Our mission is to repair and to improve the Lake Michigan Filtration Plant to a reliable long term operating condition capable of providing continued excellent water quality at a reasonable cost to our customers.

Charter for MIT Chemistry Building Renovation 1
Mission of the MIT Chemistry Building Renovation Team, 1
Charter objectives for the MIT Chemistry Building Renovation Team, 1

Project information 2
Name of project - MIT Chemistry Building Renovation Team, 2
Location of project - ??, 2
Date of Meeting - Tuesday January 30, 2001, 2
Location of Meeting - ??, 2
Summary of scope of work, 2

Attendance information 2
Those invited to attend, 2
Those attending - from sign-in sheets, 2
Team members listed by actual working groups, 2

Summary of workshop discussions 2
Team 1 - , 2
Team 2 - , 4
Team 3 - , 5
Team 4 - , 6
Team 5 - , 7

Project mission notes 7
Members of the charter mission task force, 7
Individual project missions - as defined in workshop #4 - "What is your, 8
Operative words contained in individual mission statements, 8
Draft #4 of the project mission (used in final project mission adopted), 8