MIAMI UNIVERSITY

PROJECT MANAGEMENT AND PARTNERING SEMINAR

PRESENTED BY:

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II. Miami University seminar handout list

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Section 01 - Project management and the role of the project manager

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THINKING PATTERNS

Why plan?.....to evaluate

Why translate?.....to communicate

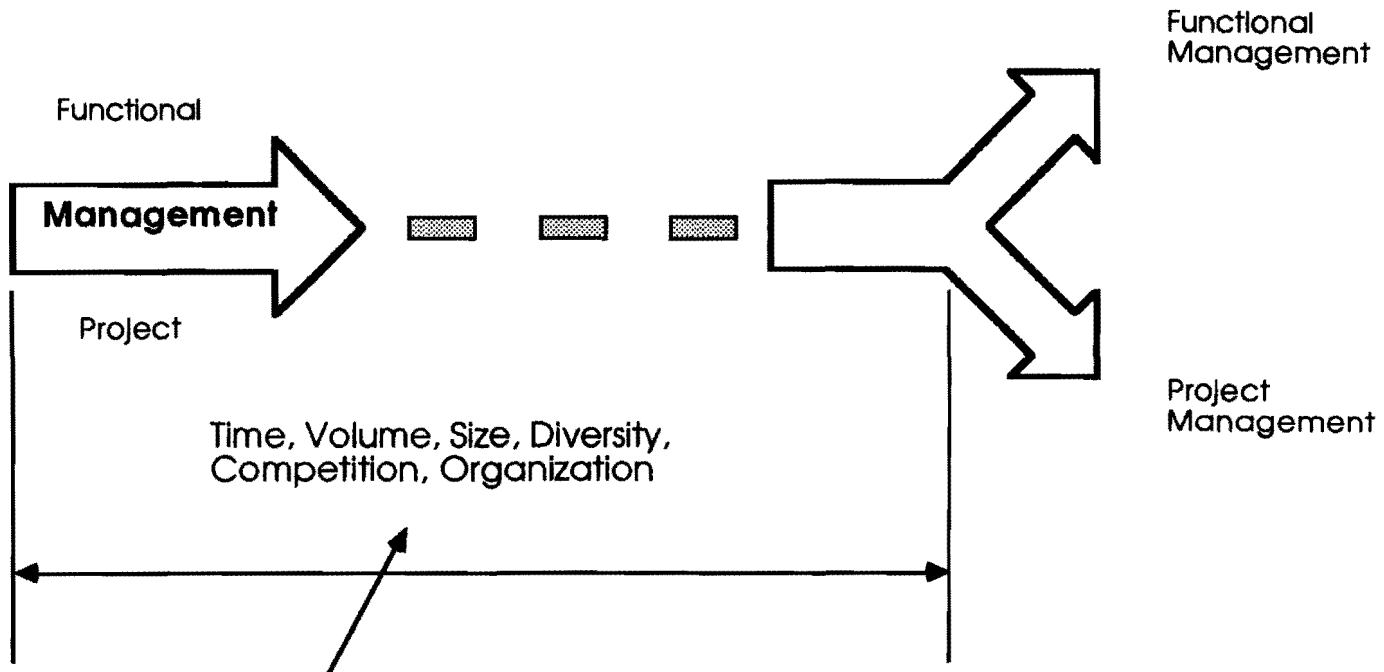
Why control?.....to achieve

Why correct?.....to maintain

Why learn?.....to improve

MANAGING COMPLEX CHANGE

VISION	+ SKILLS	+ INCENTIVES	+ RESOURCES	+ ACTION PLAN	=	EFFECTIVE CHANGE
	SKILLS	+ INCENTIVES	+ RESOURCES	+ ACTION PLAN	=	CONFUSION
VISION	+	INCENTIVES	+ RESOURCES	+ ACTION PLAN	=	ANXIETY
VISION	+ SKILLS	+	RESOURCES	+ ACTION PLAN	=	RESISTANCE
VISION	+ SKILLS	+ INCENTIVES	+	ACTION PLAN	=	FRUSTRATION
VISION	+ SKILLS	+ INCENTIVES	+ RESOURCES		=	TREADMILL



• These are some of the factors that initiate changes in the method by which a planning, design, construction organization is managed .

Relation between functional and project management in the evolving organization

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The Project Manager - d494

I. **Project related definitions**

A. **Project**
A set of work actions having identifiable objectives, and a specific beginning and end.

B. **Project team**
A specific management group assigned to achieve a set of objectives by accomplishing a group of related, discrete operations which have a defined beginning & end. Examples include the design team, the program team, the construction team, the tenant work team, and others similar in nature.

C. **Project component**
A set of related objectives achieved by a defined work group, and gained by accomplishing a set of related, discrete operations which have a defined beginning & end. Examples include designing the project, constructing the foundations, putting the building in the dry, closing out the job, and others similar in nature.

D. **Project director**
The individual responsible for implementation of several projects upon which his or her organization is engaged.

E. **Project operations**
Management and staff direction of resource use to accomplish overall project activities.

F. **Project organization**
The arrangement and interrelations of people charged with achieving project objectives.

G. **Project stages**
The groupings of actions that make up an entire project work sequence such as conception, programming, approval, design development, contract document preparation and other similar sequential operations.

II. **What does a project manager do?**

In conjunction with the project team, establishes objectives generated by a need, plans how these objectives are to be reached through a set of work actions, and then assembles and directs the application of available resources to achieve the objectives on one or more projects.

Usually the project manager is most concerned with supportive actions which bring resources to the point of effective use by team members.

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An Overview of Partnering

I. **Definitions**

A. ***Critical Transition Point***
The point in a project delivery system at which the responsibility and authority for the work passes from the supportive group to the ex'e'cutive group.

B. ***External project challenges***
Challenges to the functional or project integrity by those outside the parent organization that seek change or disruption.

C. ***Functional component***
A group designed or adapted to perform some specialized activity or duties, usually concerned with the continuous operation of the company.

D. ***Internal functional or project challenges***
Challenges to the functional or project integrity by those within the parent organization that seek change or disruption.

E. ***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.

F. ***Partnering charter***
The basic manual for operating a partnering system. Contains at a minimum, the mission of the project team, and their objectives for the project. Usually is signed by 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.

G. ***Project component.***
Project - as related to management
A group established to achieve a set of objectives by accomplishing a set of related, discrete operations which have a defined beginning & end.

H. ***Relations - Formal Functional***
Organizational connections that concern distribution and use of data, information and decisions that flow along formally defined transmission lines. Formal functional communications are usually written and are normally both from and to individuals and groups.

Formal relations are precisely defined and most day to day business is accomplished within the formal relation framework. The line expressing a formal functional relation usually has an arrowhead at each end to show a mutual exchange of responsibility and authority. If there is a higher authority to be implied a single arrowhead can be used pointing to the superior party.

I. ***Relations - Informal***
The natural channels along which organizationally related material is most easily and comfortably transmitted. The informal relation exists by mutual consent of the parties to the relation, and is stimulated to maximum effectiveness by a mutual profit gained from the relation.

Little, if any, authority normally is expressed in informal relations. Communications are usually oral and one to one. Often informal relations define the hidden organization structure. A line defining an informal relation is usually shown dotted with an arrowhead at each end.

J. ***Relations - Reporting***
The official channels through which each individual conveys, or is given raises, appraisals and evaluations; is fired, assigned or is provided professional, vocational and personal identity in the organization. The true organizational superior of an employee is usually that individual with whom he maintains a reporting relation. The line expressing reporting relations has an arrowhead at one end pointing to the superior.

K. ***Relations - Staff***
The business patterns through which a person or group provides consulting services necessary to achieve goals and objectives. Staff personnel usually have little or no authority over those outside the staff group. The line expressing staff relations has an arrowhead at each end.

L. ***Relations - Temporary***
Those relations created when extraordinary or unusual management demands must be met. The temporary relation is usually unstable and should be kept active for only short periods of time. The line expressing a temporary relation can have an arrowhead at one or both ends depending on the nature of the relations.

Extensive use of temporary relations creates business dysfunctions, breaks down morale and causes internal tensions.

M. ***Stakeholder***
An at-risk member of the charter writing team who has signed the charter.

II. **Project contract components**
- A. **Agreement premises**
- B. **Authority limits**
- C. **Payment methods**
- D. **Scope of services**

III. **Project organization components**
- A. **Relationships**
  1. **Formal**
  2. **Informal**
  3. **Reporting**
  4. **Staff**
  5. **Temporary**
- B. **Functional components**
- C. **Project components**
- D. **Authority**
- E. **Responsibility**
- F. **Internal project challenges**
- G. **External project challenges**

IV. **Partnering is a system of conducting business with minimal destructive conflict. Other names for partnering are:**
- A. **A handshake agreement.**
- B. **A gentleman's agreement.**
- C. **"Let's look at the drawings a bit more closely."**
- D. **"Let's tally up the favor score?"**
- E. **"Let's settle this over a beer."**

V. **Why is partnering applicable in today's construction industry?**
- A. **What value is added by partnering?**

1. **Lower costs to resolve conflicts.**
2. **Quicker settlement of conflicts.**
3. **Knowledgeable professionals make the resolution decisions.**
4. **Decision makers are closer to the resolution process.**
5. **Nature of decisions rendered lessen the probability of appeal.**
6. **Participants gain privacy in the resolution process.**
7. **Probability of fair resolution is increased by timely consideration of the dispute.**
8. **Helps cross critical transition points by setting the ground rules for the crossing.**

B. **Where and why has partnering been successful?**

1. **Comments on partnering from the Albuquerque District Corps of Engineers staff in a guide to partnering dated February, 1991.**

   "Our experience is positive based on six contracts with four of them substantially complete." Benefits include:

   a) Disputes reduced - no formal claims.
   b) Common objectives achieved (schedule, safety, etc.).
   c) Increased responsiveness.
   d) Higher trust levels.
   e) Improved communication.
   f) Excellent cooperation & teamwork.
   g) Increased value engineering proposals.
   h) Developed expedited process for tracking and resolving open items.

2. **Comments on partnering by Colonel Charles E. Cowen - Commander Portland District Corps of Engineers in a strategy for partnering in the public sector - April 15, 1991.**
   a) 80 to 100 % reduction in cost growth over the life of major contracts.
   b) Time growth in schedules virtually eliminated.
   c) Paper work reduced by 66%.
   d) All project engineering goals met or exceeded.
   e) Completion with no outstanding claims or litigation.
   f) Safety records significantly improved.
   g) Pleasure put back in the process for all participants.

3. **Combination partnering relationships surveyed & studied by the Construction Industry Institute and reported in the publication ("In Search of Partnering Excellence" - July 1991).**
   a) Shell Oil/SIP Engineering - 1984.
   b) DuPont/Fluor Daniel - 1986.
   c) Proctor & Gamble/Fluor Daniel - 1986.
   d) Proctor & Gamble/BGP - 1986.
   e) Shell Oil/Bechtel - 1987.
   f) DuPont/MK - Ferguson - 1987.
   g) Shell Oil/The Ralph M. Parsons Company - 1987.
   h) Alcan/Fluor Daniel - 1988.
   i) Union Carbide/Bechtel - 1988.
   j) DuPont/Day & Zimmerman - 1988.
   k) Great Northern Nekoosa/Rust International - 1988.
   l) Pillsbury/Fluor Daniel - 1989.

m) Hoffman-LaRoche/Day & Zimmerman - 1989.
n) Chevron/Bechtel - 1989.
o) Bethlehem Steel/United Engineers & Constructors - 1989.
p) Proctor & Gamble/M. W. Kellogg - 1989.
q) Chevron/Besteel - 1990.
r) DuPont/H. B. Zachry.

C. **Situations in which partnering may be difficult to use.**
1. **Where the parties intend to pay lip service only to the partnering effort.**
2. **Where individuals in key technical or management positions choose to resist intelligent discussion and fair decision making.**
3. **Where early commitments by the owner have made made good intercontract relationships difficult or impossible to maintain.**
4. **Where construction contracts are let as the documents are being released for field use.**
5. **Where several parties to the contract prefer to resolve disputes by contested claiming & binding resolution.**
6. **Where poor contract documents are made the basis of the partnering effort.**
7. **Where excessive, one sided conditions are placed on sub contractors by prime contractors.**
8. **Where unfair or obscure payment processing systems are specified and enforced.**
9. **Where risk has been poorly defined and unfairly allocated.**

VI. **What are some of the action ingredients of a successful partnering effort?**
A. **Generate and maintain a strong desire to achieve project success for all.**
B. **Make intelligent commitments.**
C. **Avoid accepting or imposing unreasonable risk.**
D. **Work and act ethically, morally, and with integrity.**
E. **Work and act from a position of fairness rather than a position of power.**
F. **Suppress greed.**
G. **Try to establish an honest feeling of trust among participants.**
H. **Gain support from the participants and stakeholders.**
I. **Assign experience, competent people to responsible management positions.**
J. **Have empathy.**
K. **Prepare a good charter, a good partnership evaluation system, and a good issue resolution process.**
L. **Allow time to make the partnering system work.**
M. **Recognize and celebrate success.**
N. **Gain the support and participation of higher management.**
O. **Develop and use guidelines and evaluation systems for measuring performance quality.**

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PARTICIPANTS IN DESIGNING & BUILDING ENVIRONMENTS

There are six basic participants in the process of designing and building environments. These are the conceiver, the translator, the constructor, the user, the operator and the regulator.

Conceivers - Those who conceive the idea and provide the wherewithal to bring the environmental program to a successful conclusion. The conceiver may be the owner but it also might be a governmental agency, a financial source, an architect, an engineer, a contractor, a vendor or a potential tenant looking for space. We identify the conceiver since he usually is the key person driving the project on to completion.

Translators - Those who translate the environmental program into construction language. Traditionally we think of the architect/engineer as the translator. However careful consideration of this matter shows there are many others who translate the conceiver's fundamental ideas into understandable, workable construction language. Subcontractors, suppliers, vendors, manufacturers, contractors and the conceiver may all play a role in translating.

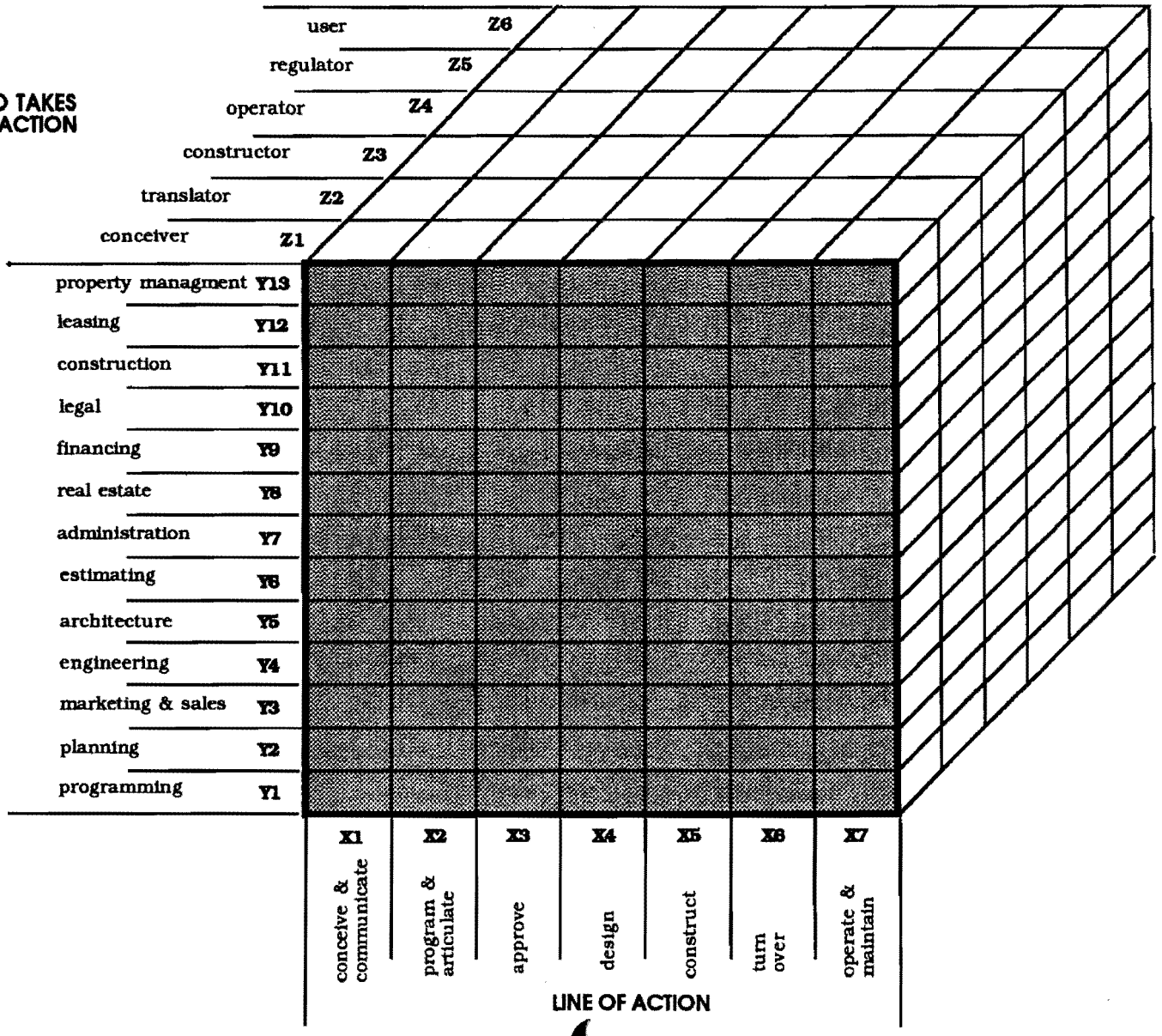
Constructors - Those who interpret the construction language and convert it to a actual physical environment. Occupying this role are general contractors, specialty contractors, vendors, suppliers, manufacturers, artists and others who actually put the materials into place in the field.

Users - Those who occupy and use the completed facility to conduct their work, their recreation, their domestic living, or other activities for which the facility was specifically designed and built.

Operators - Those who operate and maintain the completed physical environment on a continuing basis. Usually the party responsible for this function is an owner or tenant working through a plant or facilities manager.

Regulators - Those who fill a review & inspection position to help insure protection of the health, safety & welfare of the people. This is usually done by enforcing regulations written and adopted by qualified public or private bodies. Examples of regulators include those who work for building departments, departments of natural resources, public health agencies, fire prevention organizations, technical societies and other such groups.

MACRO MATRIX BOUNDARIES OF DESIGN AND CONSTRUCTION



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ELEMENTS OF EFFECTIVE PROJECT MANAGEMENT

1. Technical competence
2. Proper project planning
3. Good project staff morale
4. Clearly defined authority lines
5. Clearly defined responsibility lines
6. Respected leadership
7. Clear understanding of the project mission
8. A sensitive monitoring system
9. Prompt and effective resolution of problems
10. Discerning points of view
11. Effective modes of action
12. A feeling for people
13. A project wide desire for excellence
14. Inquisitive minds
15. A sense of humor
16. Collective patience
17. Collective endurance

38 Elements of importance to success in design and construction - ho 341

- **Summary**

In the design and construction industry there exist many factors which influence the degree of success achieved on a project. They deal with project goals, profit types, project sequencing, the nature of the participants and the kinds of problems most likely to be encountered.

If the parties to a planning, design and construction program recognize the nature and importance of these factors, a major step will have been made toward their proper and effective combination and management.

Below are listed 38 basic influences on project delivery systems. Project management concerns how to combine these into a successful job of which all participants are proud.

- **Six major goals to meet for design & construction project success**

The client, owner & user must be assured upon completion of his job that:

1. The facility program and the facility design have met their needs, desires and wishes.

2. The planning, design and construction work on the project has been accomplished within the time and cost structure required and desired.

3. All relationships on the project have been maintained at a high technical and professional level, and have proven rewarding for those involved and affected.

4. The people involved at all levels of work on the job have realized a financial, professional and technical profit for themselves and their associates by being on the project.

5. The project has been closed out with little or no residual potential for major problems of maintenance or operation.

6. The entire process has been free of unresolved contested claims for additional money, additional time, damage payments, and of the potential for future financial demands after the job has been closed out.

- **Seven types of profit**
  1. **Financial** - an improvement in a money position
  2. **Social** - a gratifying experience contributing to society's well being
  3. **Self actualization** - a gain in personal non financial satisfaction by contributive work
  4. **Value system** - reward gained by application of values in which one believes
  5. **Technical** - acquisition of technical skill or technical data of value
  6. **Enjoyment** - personal enjoyment of a situation gained from involvement in it
  7. **Educational** - learning made possible only by efforts exerted in any given situation

- **Nine major elements in the design & construction sequence & how they are done**
  1. **Conceive the basic project**
     Visualize and state the fundamental nature of the proposed project, what purpose it is to serve, and its base characteristics.
  2. **Prepare the program**
     Set down the physical characteristics of the total project in written and graphic form so as to be able to translate these characteristics into approval documents from which the full design can proceed.
  3. **Articulate the program for approval**
     Merge the concept, and the written and graphic program into written and graphic construction language which can be reviewed and released by the ultimate decision makers for full design.
  4. **Approve the basic project**
     Approve the concept, the program, and the merging of the two. This approval by those in authority initiates the full design and construction process
  5. **Design the project**
     Prepare full contract documents for construction use.
  6. **Construct the project**
     Build the project and make it ready for turnover to the owner or user.
  7. **Turn over the project**
     Release the constructed project to the owner or user with full documentation needed to operated and maintain the completed environment.
  8. **Operate the project**
     Take over, run in, and make the new environment fully operational.
  9. **Maintain the project**
     Keep the new environment in proper operating condition by a well conceived and effectively managed maintenance effort.
- **Six major participants in the design & construction process**
  1. **Conceiver** - The ultimate decision making force behind the entire program
  2. **Translators** - The parties that translate the project concept into construction documents
  3. **Constructors** - Those who build the facility
  4. **Operators** - Those who operate the completed facility
  5. **Regulators** - Those who help assure project adherence to the cause of public good
  6. **Users** - Those who occupy and use the facility for the purpose for which it is intended
- **Ten major types of design & construction problems**
  1. **Constructive acceleration**
     An action by a party to the contract that forces more work to be done with no time extension, or the same amount of work and a shorter period of time in which to do it.
  2. **Constructive change**
     A construction action or inaction by a party to the contract that has the same effect as a written order.
  3. **Defective or deficient contract documents**
     Contract documents which do not adequately portray the true contract scope.
  4. **Delay**
     A situation, beyond the control and not the fault of a contract party, that causes a delay to the project

5. **Differing site condition**
   A situation in which the actual conditions at the site of a project differs from those represented on the contract documents, or from reasonable expectations of a site in that area.
6. **Directed change**
   A legitimate change within the contract scope for which the owner is obligated to pay.
7. **Impossibility of performance**
   A situation in which it is impossible to carry out the work within the contract requirements.
8. **Maladministration**
   The interference of one contract party with another contract party's rights, that prevents the latter party from enjoying the benefits of least cost performance within the contract provisions.
9. **Superior knowledge**
   The withholding of knowledge by one party to a contract from another party to the contract during the precontract period, and that, subsequent to contract execution, adversely affects the second party's construction operations in matters of importance.
10. **Termination**
    Dismissal of a party to the project contract for convenience or default.

Professional Service Contract Characteristics

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A. Agreement premises

1. Totally negotiated - broad multivalue competition
2. Partially qualified - moderate multivalue competition
3. Totally qualified - narrow multivalue value competition

B. Authority limits

1. As agent
2. As limited agent
3. As contractor

C. Payment methods

1. Fixed total including payroll + overhead + profit + (expenses)
   a. Expenses included
   b. Expenses separate
2. (Payroll costs) x multiplier + fixed fee + expenses
   a. Limit on
      1.) Payroll hours
      2.) Expenses
   b. No limit on
      1.) Payroll hours
      2.) Expenses
3. (Payroll costs) x multiplier for payroll costs & overhead
   a. Expenses included
   b. Expenses separate
4. % of total construction cost
   a. Expenses included
   b. Expenses separate

D. Scope of services

1. Single responsibility
   a. All in house
   b. In house & outside consultants
2. Split responsibility
   a. In house, client & other prime consultants
   b. In house & other prime consultants
   c. In house & client

Construction Contract Characteristics

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A. Agreement premises

1. Totally negotiated - broad multivalue competition
2. Partially qualified - moderate multivalue competition
3. Totally qualified - narrow multi valuevalue competition

B. Authority limits

1. As full agent
2. As limited agent
3. As contractor

C. Payment methods

1. Fixed cost (hard money)
2. Time & material + fixed fee
   a. Limit on
      1.) Time & material (gmp) with no shared savings
      2.) Time & material (gmp) with shared savings
   b. No limit on time & material
3. Time & material + % fee
   a. Limit on
      1.) Time & material (gmp) with no shared savings
      2.) Time & material (gmp) with shared savings
   b. No limit on time & material
4. Conditional payments or penalties
   a. Incentive/disincentive
   b. Liquidated damages

D. Scope of services

1. Single responsibility - in house & subcontractors
   - a. All trades
     1.) Provide management
     2.) Provide design
     3.) Provide construction labor
     4.) Provide construction materials
   - b. Limited trades
     1.) Provide management
     2.) Provide design
     3.) Provide construction labor
     4.) Provide construction materials
2. Split responsibility - in house, subcontractors & other primes
   - a. All trades in contract
     1.) Provide management
     2.) Provide design
     3.) Provide construction labor
     4.) Provide construction materials
   - b. Limited trades in contract
     1.) Provide management
     2.) Provide design
     3.) Provide construction labor
     4.) Provide construction materials

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Section 02 - Developing a systematic approach to managing design and construction projects

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- **The Project Program - summary outline**
  - **Definition of a project program**

    A narrative oriented statement of the needs and character of the proposed user operation, the requirements of the user and owner, the nature of the environment to be planned, designed and built, and the corresponding characteristics of the space that will satisfy these needs and requirements. Sometimes called the brief.

  - **Contents of the project program - listed alphabetically**

    The program for facility work contains specific information about the following items. For special uses the list below should be expanded to accommodate the unique needs of the facility.

1. **Addresses, and phone and fax numbers of key people.**
2. **Advertising needs.**
3. **Aesthetic needs.**
4. **Backup needs**
5. **Codes and ordinances applicable.**
6. **Communication needs.**
7. **Community needs.**
8. **Cost goals - pro forma**

   A financial model unusually built early in a design and construction program to show by projecting income and expenses, how the money flow to and from the project will occur. It is often used to establish the capital amount to be allocated to a project based on simulated operating conditions. The term pro forma means according to form.

9. **Dimensional needs - horizontal and vertical**
10. **Employee facilities and amenities**
11. **Expansion needs.**
12. **Functional needs - what design will make the project behave the way it is supposed to when it is built and in operation?**
13. **Handicapped needs.**
14. **Heating and air conditioning needs.**
15. **Horizontal transportation needs.**
16. **Lighting needs.**
17. **Location of project.**
18. **Logistical needs**

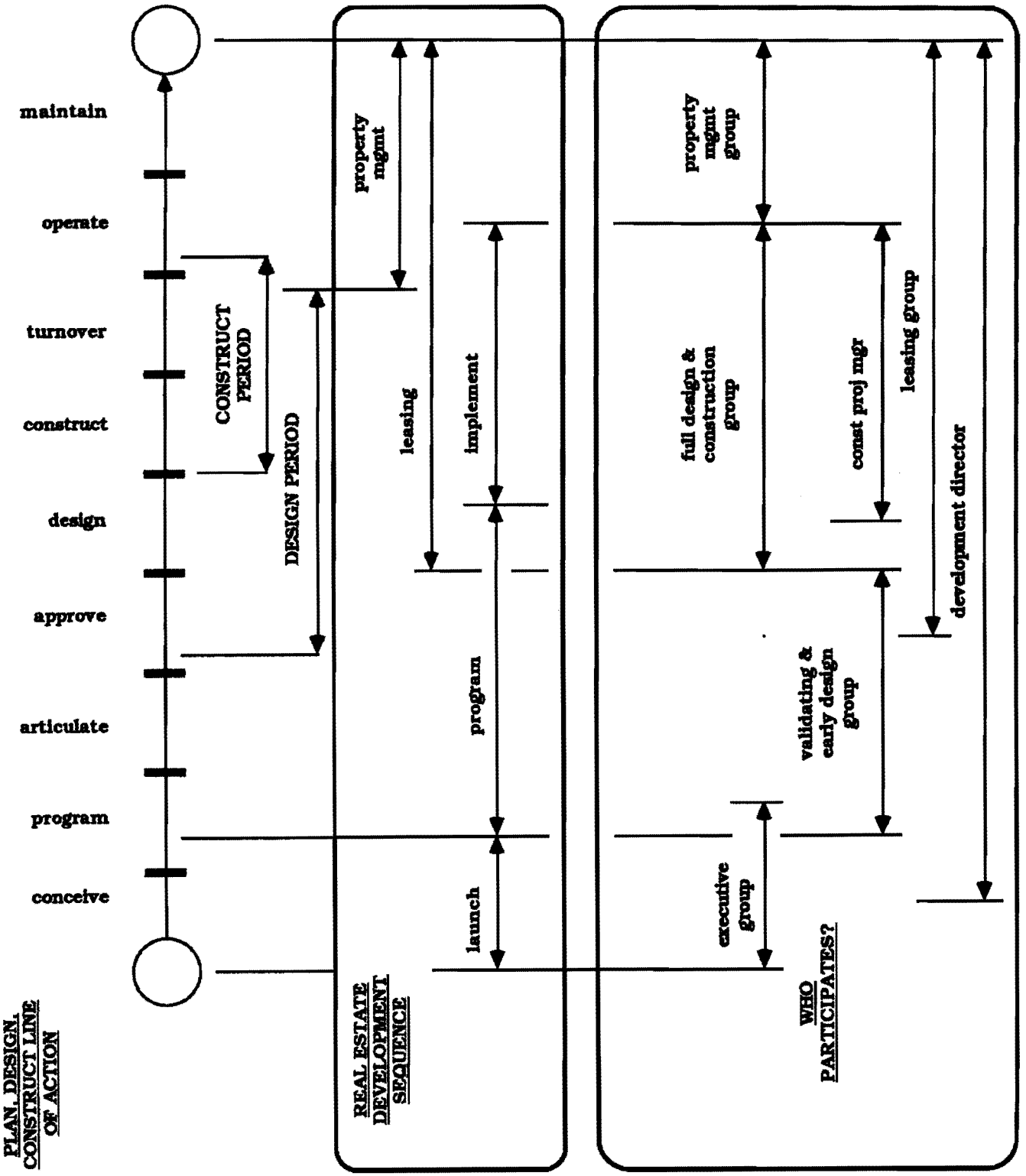
    Logistics - The design and implementation of operations that deal with the procurement, distribution, maintenance, and replacement of material and personnel.

19. **Name of project.**
20. **Nature of the project - what is it supposed to do when it is built and in operation?**
21. **Parking needs.**
22. **Participants - specifically, who are they now and in the future?**
    1. Conceivers

       Those who conceive the idea and provide the wherewithal to bring the environmental program to a successful conclusion. The conceiver may be the owner but it might also be a governmental agency, a financial source, an architect, an engineer, a contractor, a vendor or a potential tenant looking for space. We identify the conceiver since he usually is the key person driving the project on to completion.

2. Translators
   Those who translate the environmental program into construction language. Traditionally we think of the architect/engineer as the translator. However careful consideration of this matter shows there are many others who translate the conceiver's fundamental ideas into understandable, workable construction language. Subcontractors, suppliers, vendors, manufacturers, contractors, and the conceiver may all play a role in translating.
3. Constructors
   Those who interpret the construction language and convert it to an actual physical environment. Occupying this role are general contractors, specialty contractors, vendors, suppliers, manufacturers, artists and others who actually put the materials into place in the field.
4. Operators
   Those who operate and maintain the completed physical environment on a continuing basis. Usually the party responsible for this function is an owner or tenant working through a plant or facilities manager.
5. Regulators
   Those who fill a review & inspection position to help insure protection of the health, safety, & welfare of the people. This is usually done by enforcing regulations written and adopted by qualified public or private bodies. Examples of regulators include those who work for building departments, departments of natural resources, public health agencies, fire prevention organizations, technical societies and other such groups.
6. Users
   Those who use the facility either directly or remotely. Direct use is permanent or temporary occupancy of the facility. Indirect use is any interface with the building's occupants that is conducted from a location other than at the facility.

23. **Personnel special needs.**
24. **Plumbing needs.**
25. **Power needs.**
26. **Project delivery systems to be considered.**
    A method of assembling, grouping, organizing & managing project resources so as to best achieve project goals & objectives.
27. **Public transportation needs.**
28. **Receiving needs.**
29. **Recreational needs.**
30. **Security needs**
31. **Shipping needs.**
32. **Special hazards and environmental problems.**
33. **Stand by needs.**
34. **Storage needs.**
35. **Structural needs.**
36. **Surveillance needs**
37. **Trash disposal and recycling needs.**
38. **Vertical transportation needs.**


maintain
operate
turnover
construct
design
approve
articulate
program
conceive
CONSTRUCT PERIOD
DESIGN PERIOD
property mgmt
leasing
implement
program
launch
property mgmt group
full design & construction group
const proj mgr
leasing group
development director
validating & early design group
executive group
PLAN, DESIGN, CONSTRUCT LINE OF ACTION
REAL ESTATE DEVELOPMENT SEQUENCE
WHO PARTICIPATES?

Development phases - Ralph J. Stephenson P.E. - d 162

I. Phase A - Launching a project

The launch phase of the work is concerned primarily with locating & nurturing development opportunities or assets intended for long-term ownership and use. If the company's desire is to create negotiable development assets, the launch group works on the front edge of this effort. The launch group may call upon other functional elements of the organization as needed but the launch group must be independently creative, flexible, knowledgeable & understand and enjoy the development process.

The launch group is headed by the chief operating officer of the firm. Upper management members in charge of the other functional elements are members of his launch group. They are charged with locating high potential project opportunities, and screening and profiling them so as to maintain a high percentage of success probability.

The launch group should be relatively unstructured but must maintain a rigorous discipline relative to communication with others in Element A as well as those in their specific area of functional responsibility.

In addition, members of Element A are responsible for maintaining meticulous documentation of opportunities and related action.

II. Phase B - Developing the project program

In the project program work phase the development staff works closely with the launch group to take over the created and profiled opportunity and substantiate its validity, or justify its rejection. The programming group's job is to bridge the gap between the free wheeling creative actions necessary in the launch action and the project implementation action. They often are the cool voice of business reason.

It is critical to understand that the program phase is where development funds are actually committed. These funds are then spent during another phase. Thus projects that emerge from the program analysis must be those with the highest probability of success.

In a sense the program function forces the project to prove itself as a feasible course of action to produce a negotiable development, or a long-term ownership asset.

Where deficiencies are located in a created opportunity, but there appears to be some soundness to the project, the program function is responsible for effecting acceptable changes to the elements that are their responsibility so as to make the project a go!

In this sense the program group must be every bit as creative as is the launch group.

III. Phase C - Implementing the project

During the project implementation period the specific contract documentation is produced

and the project is built, leased and occupied. In essence, the majority of the funds commuted to the project during the launch and program phases are actually spent on design and construction during implementation.

Leasing during project implementation is basically rental work taking place that allows tenant improvements to proceed concurrently, sequentially and in harmony with owner work.

The project implementation staff also carries out major remodeling work to existing properties as compared to minor improvements made by the properties staff. Decisions on what is a major & minor project must be arrived at jointly by the functional groups with the aid of the executive staff.

IV. Phase D - Managing improved properties

In the property management phase the development staff exerts management control over improved properties to insure they are successful investments. The property management staff is also responsible for continuous evaluation of each property to determine the best future course of action relative to that property at any given time.

Minor improvements to existing properties in the portfolio are the responsibility of the property management group. Property management determines the scope of work, arrange for the design and construction, and sees that the necessary field work is done.

V. Phase E - Maintaining the ongoing organization

The ongoing organization is an essential supportive staff designed to permit effective functioning of project oriented elements of the organization. It is a relatively high overhead operation built to serve operations.

In a project oriented firm the individual programs or projects drive the company; as such the support or ongoing group must be kept lean but be given all the tools needed to properly buttress line activities.

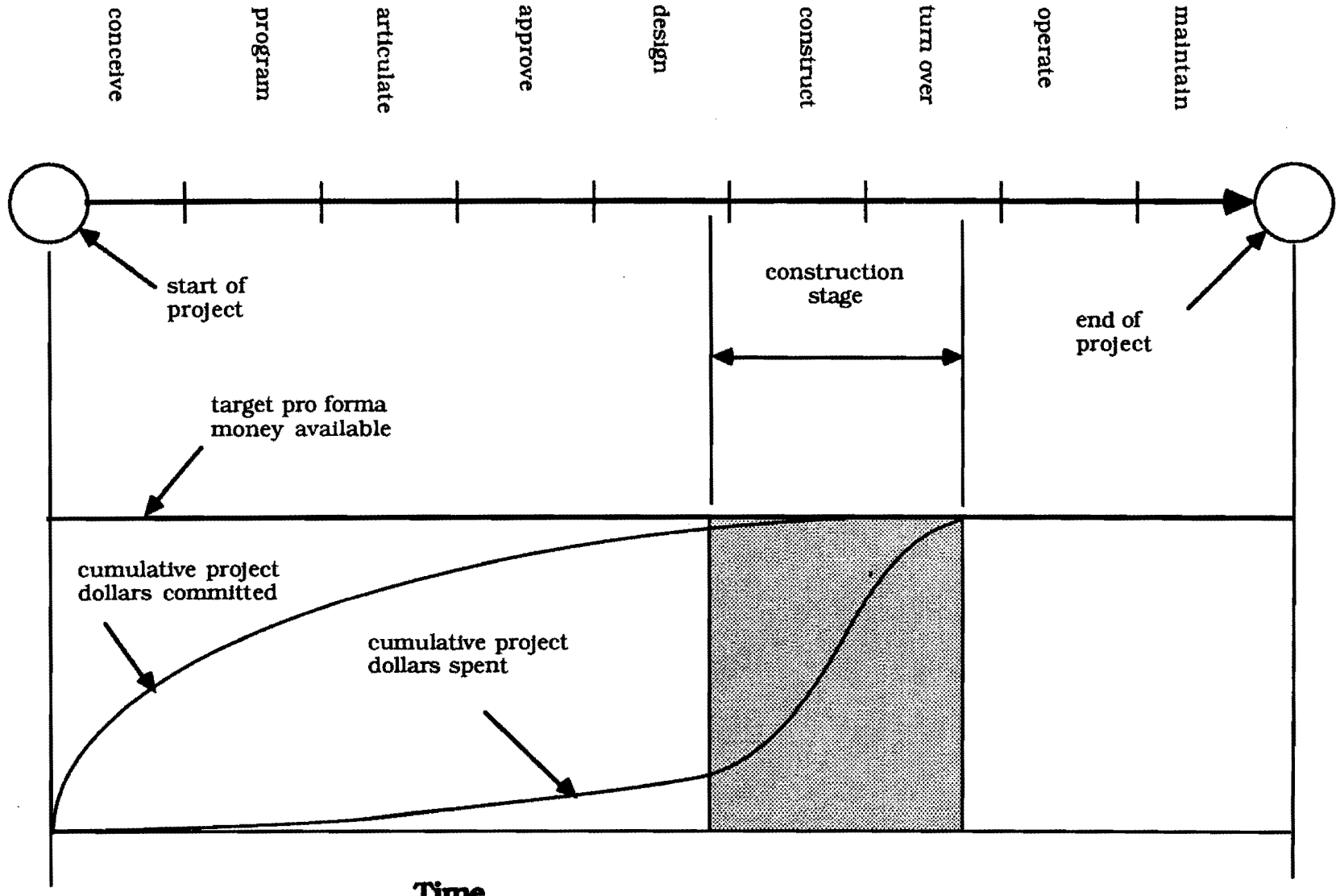
VI. Phase F - Leasing the asset

Leasing of an asset usually signals the start of income flow which can be used to retire outstanding indebtedness. Many of the actions of the leasing program are accomplished in close cooperation with work accomplished in Elements B, C & D. However, final responsibility for leasing results rests with the leasing department and those charged with its management.

The leasing program usually includes both lease negotiations, and design and construction of the tenant space within the tenant's demised premises.

Tenant design and construction is usually carried out at a different pace than the landlord design and construction. For this reason the design and construction of the space may be

assigned to a tenant coordinator who acts as the project manager for the tenant space work.



Costs Committed Compared to Money Spent on Construction Projects

Ralph J. Stephenson PE
Consulting Engineer

Costs Committed vs. Money Spent

Committed costs are promised funds for purposes, that if such purposes are aborted a penalty must be paid, and a loss is often incurred.

Penalties and losses may include such items as:

- OPTION COSTS
- RIGHT OF FIRST REFUSAL COSTS
- LEGAL FEES
- EARLY ENGINEERING FEES
- EARLY PLANNING FEES
- DISPLEASURE OF POLITICAL ENTITIES
- STAFF TIME EXPENDITURES
- LOSS OF CREDIBILITY
- LOSS OF OPPORTUNITY

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TYPES OF MANAGEMENT IN PROJECT ORIENTED BUSINESSES

• **FUNCTIONAL** - as related to continuous management

A business operation designed or adapted to perform a specialized activity or duty usually exerting a direct influence on the continuous operations of the company.

Examples are departments of estimating, accounting, legal, office administration and similar ongoing functions.

• **PROJECT** - as related to discrete management

A specific management assignment designed to achieve defined objectives by accomplishing a group of related, discrete project operations. Project operations have well defined beginning and ending points.

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TRADITIONAL PROJECT DELIVERY SYSTEM CHARACTERISTICS

1. Checks and balances normally built in from start

2. Construction decisions usually based on capital costs

3. Participant selection often made by cost competitive bidding

4. Job control is highly centralized in most stages

5. Project usually being built for owner/users

6. Contract documents completed before bidding

7. Bidders selected from short list derived from long list (occasionally use long list)

8. Bonding is often required

9. Site preparation and expense work often by owner before construction starts

Note - Expense work includes those costs that do not directly increase life or value of the facility.

10. Majority of attention given to the need and want list. Wish list usually considered a luxury.

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NON TRADITIONAL PROJECT DELIVERY SYSTEM CHARACTERISTICS

1. Checks and balances evolve as project proceeds and when need arises.

2. Construction decisions based on capital costs, maintenance costs, operating costs, project quality desired, and desired investment return.

3. Lead participant selection made on professional and technical abilities, and on reputation and past performance, along with estimated project cost.

4. Job control somewhat decentralized during early program and design stages with progressive centralization as the working document and construction phases are approached.

5. Project could be for a variety of conceivers and prime movers including owners, users, investors, developers, funds, syndicates, governmental agencies (privatisation), and groups assembling capital to gain desired returns on investment.

6. Construction is often closely dovetailed with design of the project. Design usually proceeds with construction guidance, and advice from a construction discipline.

7. Capital cost is often negotiated from the pro forma base and reduced in stages to a guaranteed maximum price (gmp).

8. Need for bonding is usually minimized or eliminated by careful selection procedures to maximize probability of success.

9. Site preparation and expense work often done by various members of the selected project or program team.

Note - Expense work includes those costs that do not directly increase life or value of the facility.

10. Design and construction is heavily influenced by consideration of the needs, wants and wishes of the participants.

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NINE MAJOR STEPS TO EFFECTIVE PROJECT MANAGEMENT

DEFINITIONS

- PROJECT - A set of work actions having identifiable objectives, and a beginning and an end.

- EFFECTIVE - Of a nature that achieves identifiable goals and objectives in accordance with an action plan, and reaches worthwhile peripheral goals through intermediate accomplishments.

- MANAGEMENT - The identification, assembly and direction of resources to achieve desired results.

QUESTION

- What is different about project organization compared to functional organization?

1. Project organization is usually temporary.

2. Project organization is usually based on a different rationale than is functional organization.

3. Project authority positions tend to be vested first and earned later.

STEPS TO GOOD PROJECT MANAGEMENT

- A good project seems to require 9 major steps, done well, to be successful.

1. Goals and objectives for the project are clearly identified, and starting, intermediate and ending measuring points established early in the project life.

2. A suitable project delivery system is selected as the goals & objectives are defined.

3. An action plan showing desired and necessary courses of action from beginning to end of the project is prepared.

4. The action plan is translated into schedules, and the resources needed are determined and balanced for most profitable performance.
5. A project organization is built under (not over) the resources required to provide resource management quality, continuity, and monitorbility.

6. A method of isolating, identifying and correcting deviations from desired performance standards is designed and put into action.

7. The needed resources are assembled and the project team gets to work.

8. Progress and performance of the project team is measured and evaluated using management by exception.

9. The project is closed out promptly, cleanly, and totally as work draws to a close.

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CREATIVITY AND HOW IT IS USED IN PROJECT MANAGEMENT

Creative thinking is an essential ingredient to successful project management. It helps the alert project manager to solve problems, establish management patterns, provide leadership and motivation, and to insure that design, quality and cost integrity of a project is maintained.

Creative thinking is applied to the management process on a routine basis by continuing to learn with an open mind; being among the first to accept something new while being among the last to discard the old.

There is also a special requirement for creative thinking that demands getting rid of what Roger von Oech in his book, A WHACK ON THE SIDE OF THE HEAD, calls mental locks. These mental locks are recognized by such familiar phrases as:

1. I'm looking for the right answer.
2. That isn't logical.
3. Be certain to follow the rules.
4. Let's be practical about this.
5. And don't make any mistakes.
6. Playing is a waste of time.
7. That's not my area of work.
8. Don't be silly.
9. But I'm not a creative person

The above statements indicate a set pattern of thinking, that when used blindly, get in the way of the creative process.

Other major obstacles to thinking creatively include making premature judgments, and excessive use of the self fulfilling prophecy. The self fulfilling prophecy usually indicates you have your mind made up before even starting any heavy thinking about the idea. You then never give your brain a chance to do any creative thinking.

Remember, it is nearly impossible to be creative and judgmental at the same time. So, in project management it is a good idea when creatively considering a complex matter to prepare a random, or non judgmental, laundry list of things that have to be done or thought about. The list should include all items within reason, whether or not you and the others involved think it should be included. Often the combination of a single idea of doubtful merit is a brilliant thought in league with other ideas.

Processes of creatively tackling a problem have been used for hundreds of years by many excellent thinkers. The creative procedure can be described in six major steps.

1. Gather all facts that time will allow, about the subject under consideration. Try not to be judgmental while you are collecting information.

2. Think hard about the data and the other information you have gathered in relation to the problem or situation you are involved with.

3. Forget about the problem! Let the material looked at so far, and the ideas you might have, get mulled over by your subconscious. This period is called gestation.

4. Ideas (illumination!) will usually start springing to mind soon after the gestation period starts. However, in some cases it might take several days, weeks, or even months. Be alert for the sudden revelation of the solution. When the solution or idea or lost thought appears grab it and write it down!

5. Act on the solution, idea or thought!

6. Follow up and check to see if the solution was a good one and if it has worked.

Creativity is a simple, elegant way of life. All you must do to enjoy it is to unlock your thinking, exercise your mind and use your imagination!

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Section 03 - Project conflict

3.01	Destructive Conflict
3.02	People
3.03	Positive Conflict
3.04 - 3.08	Conflict and risk in the design and construction profession
3.09 - 3.10	Claim prone job characteristics
3.11 - 3.14	Common causes of contested claims
3.15 - 3.16	Problems others cause us
3.17	Pogo
3.18	ADR definition

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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.

Conflict and risk in the design and construction profession

I. **Why has construction become so adversarial?**
   A. The process of dispute resolution is not well understood.
   B. We are having increasing difficulty controlling the indirect predictable, and the unpredictable impacts on our jobs.
   C. Professional success requires we consider the following:
      1. Our obligations as professional planners, designers, and constructors -- hierarchy of professional obligations as formulated by Dean Freund.
         a) First - Protection of the public health, welfare, and safety.
         b) Second - Your employer or client.
         c) Third - Your peers.
      2. The design and construction professional is obliged, above all, to protect the health, welfare and safety of the public.
      3. The legal professional is obliged, above all, to protect the interest of his or her client. These interests are defined by the body of law. Thus the body of law, not the law professional, is depended upon in legal resolutions to protect the health, welfare & safety of the public.
      4. The legal process has moved too far outside the control of those depending on its proper use to fairly resolve damaging conflict.
   D. Business success requires we take these business actions.
      1. Profitably produce services and facilities.
      2. Provide solutions.
      3. Measure the quality of the process we provide.
      4. Help manage destructive conflict.
      5. Encourage early action on potentially damaging events.
      6. Reduce professional liability costs.
      7. Provide a quality management process leading to a well constructed facility.

II. **Some categories of conflict in planning, design, and construction.**
   A. Approval processes
   B. Backcharges
   C. Being a good off-site neighbor
   D. Being a good on-site neighbor
   E. Closing out the project
   F. Communicating with others
   G. Constructibility
   H. Construction document quality
   I. Contract interpretation
   J. Cost growth
   K. Decision making
   L. Documents and documentation
   M. Equipment and material problems
   N. Financial matters
   O. Inspecting and testing
   P. Issue, conflict, and problem resolution
   Q. Job management
   R. Labor conditions
   S. Legal matters

T. Maintaining regular project evaluations
U. Organization, authority, and responsibility
V. Paper work and administrative work
W. Payment processing
X. Personnel quality and problems
Y. Planning and scheduling
Z. Policies and procedures
AA. Procurement of materials and equipment
AB. Program conditions
AC. Project cost structure
AD. Quality management
AE. Regulatory agency matters
AF. Revision processing
AG. Safety
AH. Staff morale & attitudes
AI. Staffing and personnel
AJ. Submittal processing
AK. Substitutions and alternates
AL. Time growth
AM. Timely action
AN. Training
AO. User group interaction
AP. Value engineering
AQ. Warranty conditions
AR. Weather conditions
AS. Work site conditions

III. **Some causes of conflict in construction**
A. Lack of understanding that conflicts lead directly to results, bad or good
B. Frustration over a lack of control of events affecting performance
C. Differences in goals and objectives of parties in the project
D. Lack of understanding about the needs of others also involved in the planning, design, and construction process
E. Resentment or dislike resulting from a perceived lack of value being added to projects by those responsible for adding value
F. Excessive technical and legal delays to resolution of conflict
G. Excessive demands on resources normally depended on to assist in the resolution of conflict
H. Greed
I. Incorrect assumptions made from biased perceptions
J. Demands for higher quality than specified
K. Failure to meet commitments
L. Insufficient time to make required decisions
M. Lack of ability to do the job
N. Poor or inadequate training
O. Inadequate credentials to do the job
P. Indifferent leadership
Q. Actual or perceived overwork
R. Bad blood among participants

S. Desire to take advantage of those in weaker positions
T. Misplaced attempts to demonstrate who is in charge
U. and many, many others.

IV. **Why are disputes often not resolved promptly and fairly.**
A. Differences in goals and objectives of parties to the project.
B. Lack of clear understandings about the design and construction industry needs.
C. Lack of value-added for third party interests through prompt and fair settlements.
D. Excessive resort to legal based delays and road blocks to resolution.
E. Excessive demands on resolution resources (courts, arbitrators, judges and other agencies involved).
F. Greed.

V. **Seven actions to help resolve potentially destructive conflict.**
A. Understand the cause of the conflict.
B. Put yourself in the other person's shoes.
C. Understand the relative importance of resolution versus nonresolution.
D. Become competent in proper application of the technical and professional tools of our profession.
E. Don't lie - always tell the full truth.
F. Understand thoroughly the obligations you have to society and to your clients, your employer, and your peers.
G. Understand everything you can -not just your own field-and work to be effective in managing intersections of diverse interests.

VI. **How to recognize risk on a project (adapted from Mr. Papageorge, R. A.'s comments on risk)**
A. Identify as many potential threats to project success as early as possible.
B. Identify where problems will be caused by taking risks to help assure project success.
C. Evaluate and analyze the project team's ability to take the risks identified.
D. Evaluate and analyze the project team member's abilities to take the needed risks.
E. Identify the impact of legal contractual obligations on the risks being considered.
F. Evaluate and analyze existing project conditions and the restraints they exert on the project.
G. Establish and implement a systematic procedure for identifying and adjusting risk to acceptable levels to assure a high probability of project success.

VII. **Hints to help manage risk properly-these apply to all phases of the line of action, to all functions, and to all participants expected to encounter and assume risk:**
A. Start the job at the right time.
B. Profile the job before committing resources.
C. Remember--good management is risk control.
D. Don't lose your personal and intellectual grasp of risk on your job.
E. Evaluate the quality of the total contract documents.
F. Obtain and read all pertinent contract documents.
G. Match your price to the project delivery system being used.
H. Avoid being made a limited agent on a hard money job.
I. Avoid over-the-wall management.
J. Keep abreast and aware of current industry trends, particularly organizational patterns.
K. Be aware of your client's must, want, and wish list and respect it.
L. Understand and account for other project participant's profit needs and desires.
M. Don't hesitate to scrub your proposal if the risk is excessive relative to the rewards.
N. Negotiate deadlines of high-risk tasks to accommodate potential slippage.

O. Schedule tasks that can be postponed or canceled, if necessary, to later in the project.
P. Be conservative in estimating task durations and costs.
Q. Insert contingencies as recognizable elements of the plan and schedule.
R. Assign strong staff to high-risk jobs.
S. Assign back-up staff, however minimal, to any task where the loss of a team member would be damaging.
T. Plan preventive actions that will be taken to reduce or remove risk.
U. Plan contingency actions that can be implemented if a problem occurs.
V. Identify circumstances that might trigger each contingency plan into action.
W. Retain your optimism, solve problems, and keep morale strong despite setbacks caused by the winds of risk. This is your job as a leader and a manager.

VIII. **Definitions**

A. ***Adversarial***
Taking the position of an opponent or enemy. Opposing another's interests or desires.

B. ***Authority***
The prerogatives, either vested or acquired over a long period of time, that allow an individual to carry out their responsibilities and duties. This includes the right to determine, adjudicate, or otherwise settle issues or disputes; the right to control, command, or determine.

C. ***Conflict***
A state of disagreement and disharmony.

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

E. ***Dispute***
To engage in argument or discussion. To quarrel or fight. An expressed disagreement.

F. ***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.

G. ***Positive conflict***
Hostility that is managed so its resolution raises the potential for well intentioned individuals or organizations to succeed at being excellent.

H. ***Program***
A narrative oriented statement of the needs and character of the proposed user operation, the requirements of the user and owner, the nature of the environment to be planned, designed and built, and the corresponding characteristics of the space that will satisfy these needs and requirements. Sometimes called the brief.

I. ***Quality***
A characteristic of superior excellence.

J. ***Responsibility***
The assignment, spoken or understood, that a person in an organization has as their part in maintaining the organization's health and vitality.

K. ***Resolution***
A course of action determined or decided upon that can result in clearing conflict or dispute.

L. ***Risk***
Any exposure to the possibility of harm, danger, loss or damage to people, property, or other interest. To expose to a chance of loss or damage.

M. ***Third party***
An individual or group that is not primarily engaged in facilities programming, design, construction, or operations.

Claim Prone Job Characteristics

During the profiling, proposing and negotiating period, it is often possible to gain a good insight into the expected nature of the job if one is fortunate (or unfortunate) enough to be the successful proposer. The problem job is becoming increasingly serious in our business and professional lives and it should be identified early. The problem job generally results in increased costs during the construction period and quite often requires arbitration or litigation to achieve resolution of costs and damages.

Thus, it is good policy for the perceptive owner, architect/engineer and contractor to become familiar with those characteristics that early identify a job as having potential for being a trouble project.

This list of characteristics is by no means complete, nor is it meant to imply that a job having these features will necessarily be claim prone. It is, on the other hand, an honest effort to state certain unique job features that have been identified in projects that have ended in litigation of arbitration. The list is at random with no attempt to classify or characterize the features.

Claim prone job characteristics may include:

a. A wide spread in proposal prices.

b. Issuance of a large number of pre-bid addenda and instructions.

c. For subcontractors, a poor general contractor reputation if the project is being built by one prime.

d. For projects with separate primes, poor other prime contractor reputations.

e. More than four to six prime contractors involved (applicable on normal building work only).

f. Poor reputation of architect/engineer preparing contract documents.

g. Excessive how-to-do-it emphasis in contract drawings and specifications.

h. Non liable party involvement in responsible positions, i.e. non-liable construction manager.

i. Large numbers of allowance items.

j. Zero (or excessively small) tolerance specifications.

k. Poorly defined authority and responsibility patterns in the offices of the architect/engineer, the owner, the general contractor or other prime contractors.

l. Inexperienced specialty contractors.

m. Excessive number of pre-selected suppliers for key material and equipment.

n. Large dollar amount or numbers of owner purchased equipment.

o. Location in strike prone areas.

p. Location in jurisdictionally sensitive areas.

q. Heavy use specified for untried products and equipment.

r. Non-liable party involvement in establishing delivery commitments, i.e. construction manager, architect/engineer, owner representative.

s. Involvement of politically accountable owners, architect/engineers or other contractors.

t. Multi responsibility payment structures.

u. Excessively long time periods to award contracts after a proposal.

v. Poor owner reputation.

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COMMON CAUSES OF CONTESTED CLAIMS

Contested construction claims have increased over the past few years and now must be recognized as a serious road block to proper and profitable construction procedures.

The reasons for the increase in contested claims are many and must be understood in the sense that our society has become somewhat legalistic. That is to say, the recourse to legal resolution, as opposed to interpersonal, technical, or administrative resolution of problems has become a common fortunately shows some signs of diminishing as costs and time involvement in legal matters have increased astronomically.

However, there are claims, there always have been claims, and there will probably always will be contested claims. Those in construction should however, thoroughly understand the structure of the contested claim.

Specifically, contested claims lead to resolution by an administrative settlement, litigation, arbitration, or mediation. There are some common causes of conflict and it is these that stimulate the parties to go to a formal settlement by outsiders. It is important for those in construction to understand how to avoid the mistakes that cause wasteful contested claims.

Several years ago a firm specializing in construction claims and their settlements studied some of the most common causes of disputes. Of two hundred occurrence of contested claims the following percentages were found.

1. Directed Change - 48%

A legitimate change within the contract scope for which the owner must pay.

Examples
- Owner changes the door color after the door is painted.
- Owner revises size of electrical room door opening

Advice
- Required extensions of time should be stated in writing.
- Costs for extended general conditions should be agreed upon early.
- The client or owner is obligated to pay for the change, if there is a charge.
- Payment for the work should be explicitly agreed upon before starting.

2. Constructive change - 42%

An owner's action or inaction that has the same effect as a written order.

Examples
- Shop drawing corrections, showing additional work not covered in contract documents.
- Owner's representative tells a superintendent to relocate a wall with no payment intended.

Advice
- Don't assume changes will be free. Find out if there is a cost.

- Don't enrich contract documents.
- Don't enrich shop drawings.
- Make certain the scope and costs of additional work is clearly understood.

3. Defective or deficient contract documents - 41%

Contract documents which do not adequately portray the true contract scope.

Examples
- A retaining wall shown dotted on the contract documents and expected by the architect/engineer and the owner to be built as part of the contract.
- Dimensional errors that cannot be resolved by verbal clarification.
- Contract documents that expect performance by default. For instance, specifying a miscellaneous iron ladder but not showing it on the drawings.

Advice
- Expect to pay your architect and engineer for good quality assurance in the production of contract documents.
- Select your design team on the basis of performance not cost.
- Clearly define design and construction delivery methods to be used.
- Don't expect your contractor to design the job unless it is a design/build project.
- Don't make unrecorded corrections to contract documents.

4. Delays - 41%

A delay situation beyond the control and not the fault of the contractor.

Examples
- Rock encountered that delays the job but was not shown on the contract documents.

Advice
- Be as thorough as possible in defining physical conditions of the site upon which the facility is to be constructed.
- Specify weather standards when it is necessary to clarify time extensions that might be caused by inclement weather.
- Determine delay costs quickly and eliminate them as soon as possible.
- Don't stop field work without proper authority and a very good reason.

5. Constructive acceleration - 35%

More work with no time extensions, or the same work and a shorter time period in which to do it.

Examples
- Owner refuses to grant time extension for work that will take longer to perform.
- Owner makes unauthorized use of critical path time without extension.
- Owner makes use of float time with the expectation that the contractor will not request or require a

time extension.

Advice
- Never assume the contractor will do extra work within the contract time.
- Work out an early agreement on the use of float time in the network model.
- Never assume a field order is a no cost, no time extension change.

6. Maladministration - 35%

Owner interference with the contractor's right to enjoy least cost performance.

Examples
- Owner directs contractor to provide a certain space in a facility early without such early turn over having been specified in contract documents.
- Owner directs contractor to start work on an encumbered site.
- Architect/engineer unresponsive to legitimate requests for information.

Advice
- Always allow the contractor to select construction methods and means.
- Make certain the site is fully available to the contractor before the job begins.
- Process submittals promptly.
- Clearly define the time frame and the sequence by which submittals are to be processed, and do it early in the job.

7. Differing site conditions - 31%

The actual site differs from that represented on the contract documents, or deviates from ordinary or normal expectations of such a site in that area.

Examples
- Artesian water encountered in sand seam outside of where soil borings were taken.
- Existing basements encountered but not indicated on contract documents.
- Restrictive easements or assessments on the property not made known to the contractor before contract execution.

Advice
- Expect to pay for and get a good site survey
- Make certain soil borings are adequate to show any unusual conditions.
- Locate and define all easements.
- Check the site history for unusual or restricted conditions.
- Take photos of any unusual conditions encountered.

8. Impossibility of performance - 18%

A situation where it is impossible to carry out the contract work.

Examples
- Expecting a contractor to work on an encumbered site.
- Owner refuses to move interfering utilities he is supposed to relocate by contract.
- Specifying installation of above ceiling work that won't fit in the space provided.

Advice
- Expect the design team to check their work thoroughly for interferences.
- Accept your legitimate design and administrative duties and responsibilities and take care of them.
- Resolve dimensional difference early.
- Do your homework to presolve expected problems and interferences.

9. Superior knowledge - 18%

Withholding data or information during the pre contract period, that affects construction on matters of importance.

Examples
- On a steel erection contract not telling the bidders that the steel had been refabricated from a previous job.
- Failing to tell bidders that there is a cost cap on the first two months costs
- Not telling bidders that there is a high pressure gas line through the site that must be accommodated during construction.

Advice
- Be certain all bidders know as much as they must know to propose properly.
- Be certain demolition contract documents specify all work to be done.
- Locate, to the best of your ability, all site obstructions before bidding.
- Don't expect the contractor or the architect and engineer to read your mind.

10. Termination - 7%

Dismissal from the project for convenience or default.

Examples
- The section of the project is no longer needed and is removed from the contract.
- The contractor is behind schedule.
- The contractor's performance is unsatisfactory.
- The owner doesn't like the way the superintendent talks back to him.
- The contractor doesn't manage submittals promptly and accurately.

Advice
- Be certain the cause for dismissal is legitimate and well defined.
- Don't dismiss for minor reasons. Dismissal is serious business.
- If dismissing, be certain proper notice is given.
- Insure the contract documents give you the right to dismiss.

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Problems other cause us - number of times mentioned in 21 charter workshop meetings from a total of 1501 problem statements (problems may be mentioned more than once)

1. **493 cwo - Communicating with others.**
2. **413 jma - Job management.**
3. **224 pas - Planning and scheduling.**
4. **173 sma - Staff morale & attitudes.**
5. **173 oar - Organization, authority & responsibility.**
6. **171 pqp - Personnel quality and problems.**
7. **166 rev - Revision processing.**
8. **141 tac - Timely action**
9. **141 onn - Being a good on-site neighbor.**
10. **135 cdq - Construction document quality.**
11. **109 prg - Program conditions.**
12. **108 wsc - Work site conditions.**
13. **098 spr - Submittal processing.**
14. **083 doc - Documents & documentation.**
15. **073 emp - Equipment and material problems.**
16. **069 dma - Decision making.**
17. **068 prc - Procurement of materials and equipment.**
18. **060 ofn - Being a good off-site neighbor.**
19. **058 ire - Issue, conflict, and problem resolution.**
20. **058 clo - Closing out the project.**
21. **056 pco - Project cost structure.**
22. **055 paw - Paper and administrative work.**
23. **052 ppr - Payment processing.**
24. **051 qma - Quality management.**
25. **050 ite - Inspecting and testing.**
26. **050 apv - Approval processes.**
27. **044 tgr - Time growth.**
28. **044 coi - Contract interpretation.**
29. **036 ugi - User group interaction.**
30. **030 saf - Safety**
31. **030 pop - Policies and procedures.**
32. **025 sal - Substitutions and alternates.**

Ralph J. Stephenson, P. E.
Consulting Engineer

33. **023 stf - Staffing and manpower**
34. **019 reg - Regulatory agency matters.**
35. **018 cgr - Cost growth.**
36. **013 ven - Value engineering**
37. **009 tng - Training**
38. **009 leg - Legal matters.**
39. **009 cbl - Constructibility.**
40. **005 war - Warranty conditions**
41. **004 wea - Weather conditions**
42. **004 lab - Labor conditions**
43. **004 bch - Backcharges.**
44. **002 mpe - Maintaining regular project evaluations.**
45. **001 fin - Financial problems**

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WE HAVE MET THE ENEMY AND HE IS US.

From Walt Kelly and Pogo

Ralph J. Stephenson, P.E.
Consulting Engineer

Alternative dispute resolution - ADR

In its basic form, ADR is a method of resolving disputed construction claims outside the courtroom.

ADR includes systems of resolving disputes in planning, design and construction by cooperative, internal, or external third party assistance methods that are alternatives to conventional dispute resolution methods currently in common use. Conventional methods are usually considered to be litigation and binding arbitration.

Alternative dispute resolution may make use of non traditional combinations of conventional dispute methods.

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Section 04 - An overview of project planning and scheduling

Ralph J. Stephenson PE PC
Consulting Engineer

JOB PLANNING - WHAT IS IT ?

1. PLANNING is to formulate a sequence of actions leading to an end goal.

2. NETWORK PLANNING is to graphically depict this sequence of action.

3. CRITICAL PATH PLANNING is a technique of establishing resource limits on each plan component.

PLAN VISIBLY !

Act from a Plan - If you can't plan it, you can't manage it. Good plans shape good decisions.

I. **Five essential planning questions for the manager to ask and answer.**
   A. What?
   B. Where?
   C. When?
   D. How?
   E. Who?

II. **Five essential planning actions for the manager to take.**
   A. Set goals and objectives.
   B. Prepare and action plan.
   C. Organize the work.
   D. Assemble the resources needed.
   E. Do the job.

III. **Set goals and objectives.**
   A. Definitions
      1. Goals - Targets, desires, wishes and aims expressed without a time scale.
      2. Objectives - Expressed goals upon which a time frame has been imposed.
   B. The DIG/DEG/DOG
   C. Be specific when setting objectives.
   D. Set objectives so that movement toward their achievement can be measured.

IV. **Prepare and action plan.**
   A. May be verbal, written, or visual.
   B. May be strategic or tactical, detailed or summary.
   C. May be short, medium, or long range (the manager must set the planning time scale.
      1. The shorter the time interval covered by the plan, the greater is the chance the plan will succeed. However, the shorter the time interval, the greater the probability that longer range needs, which truly measure the manager's effectiveness, will remain unfulfilled.
      2. The higher you are in the management structure the larger and longer the planing scale you must use.
      3. The concepts of decision to action time span.
   D. Plan the work and work the plan!

V. **Organize the work**
   A. Plans should be build upon maximum integration of management viewpoints.
   B. Establish relationships through functional diagraming of interconnections.
      1. Formal.
      2. Informal.
      3. Reporting.

4. Staff.
5. Temporary.

C. Mack clear cut assignments.
   1. The manager should not assume a person will automatically know his full pattern of responsibilities.
   2. Don't leave definition of authority and responsibility to chance. Be specific.

D. Build a feedback system.
   1. Grapevine often used in informal feedback.
   2. Formal feedback system should be built by specific assignment (must have a standard of performance for the feedback system to work well).

E. Organize to accomplish goals and objectives.
   1. Keep organization lean - avoid unnecessary overhead.
   2. Make provisions in the organization to delegate and train.
   3. Tend to build around targets and needs rather than people (there are major exceptions to this, watch carefully)
   4. Provide for proper grading of decision to action time spans.

VI. **Common planning failures**

A. Not touching all organizational bases - what, where, when, how, and who.
B. Committing to too many goals ad objectives at one time.
C. Underestimating the value and need for good forward planning.
D. failure to challenge plans and actions at the right time.
E. Not providing proper escape hatches and safeguards.
F. Failure to encourage timely, knowledgeable participation.
G. Not obtaining higher level approvals of goals and objectives.
H. Inadequate monitoring and control of costs, progress, documentation and resource loading.
I. Poor assignment of duties, responsibilities, and actions.
J. Failure to understand that planning is a major task of the manager.

ADVANTAGES OF GOOD PLANNING

1. Provides accurate simulation of the project.

2. Provides early statement of intent.

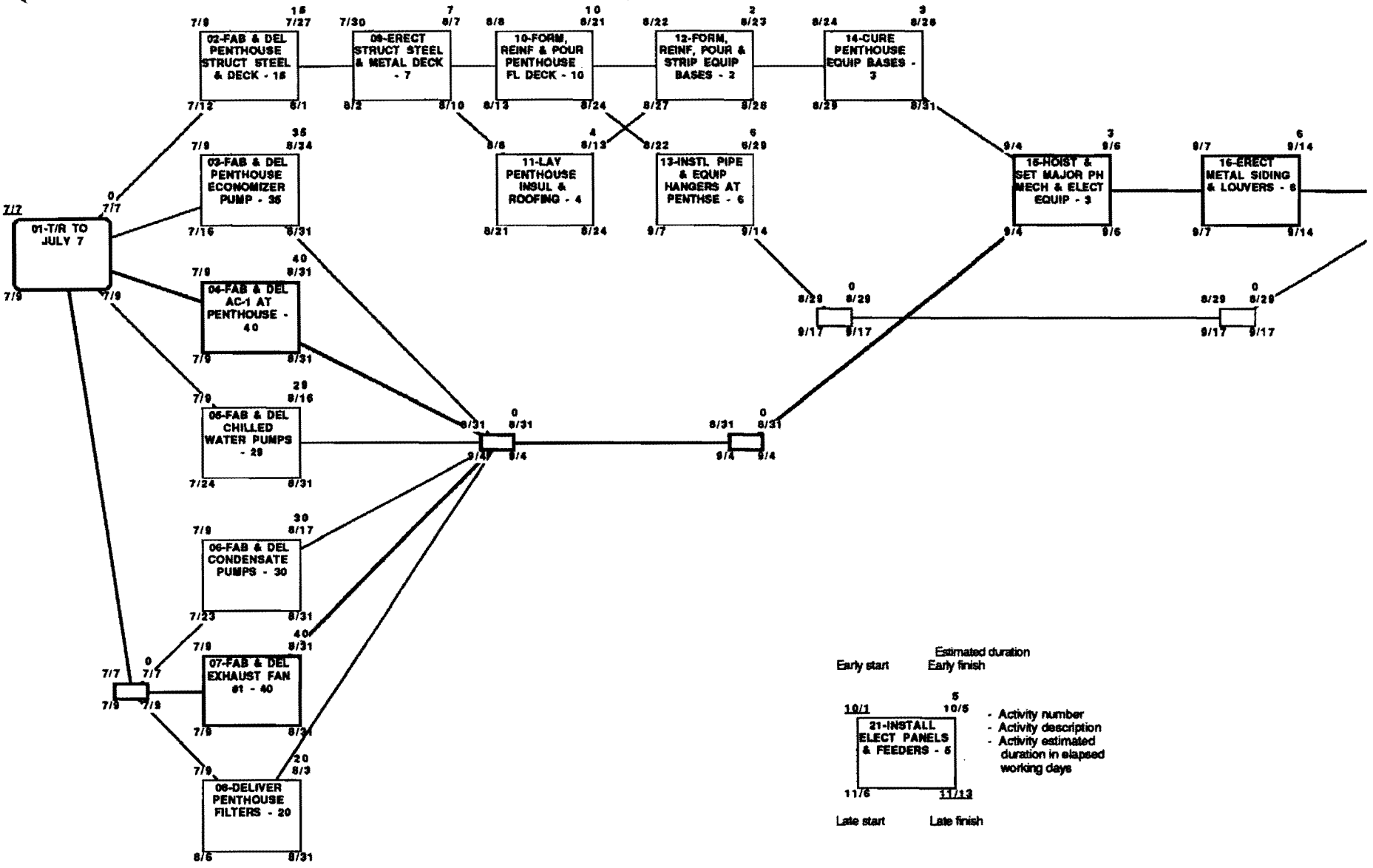
3. Encourages good communication on the project.

4. Provides management by exception potential.

5. Allows accurate tracking of project progress.

6. Allows accurate performance evaluation.

7. Provides accurate project history.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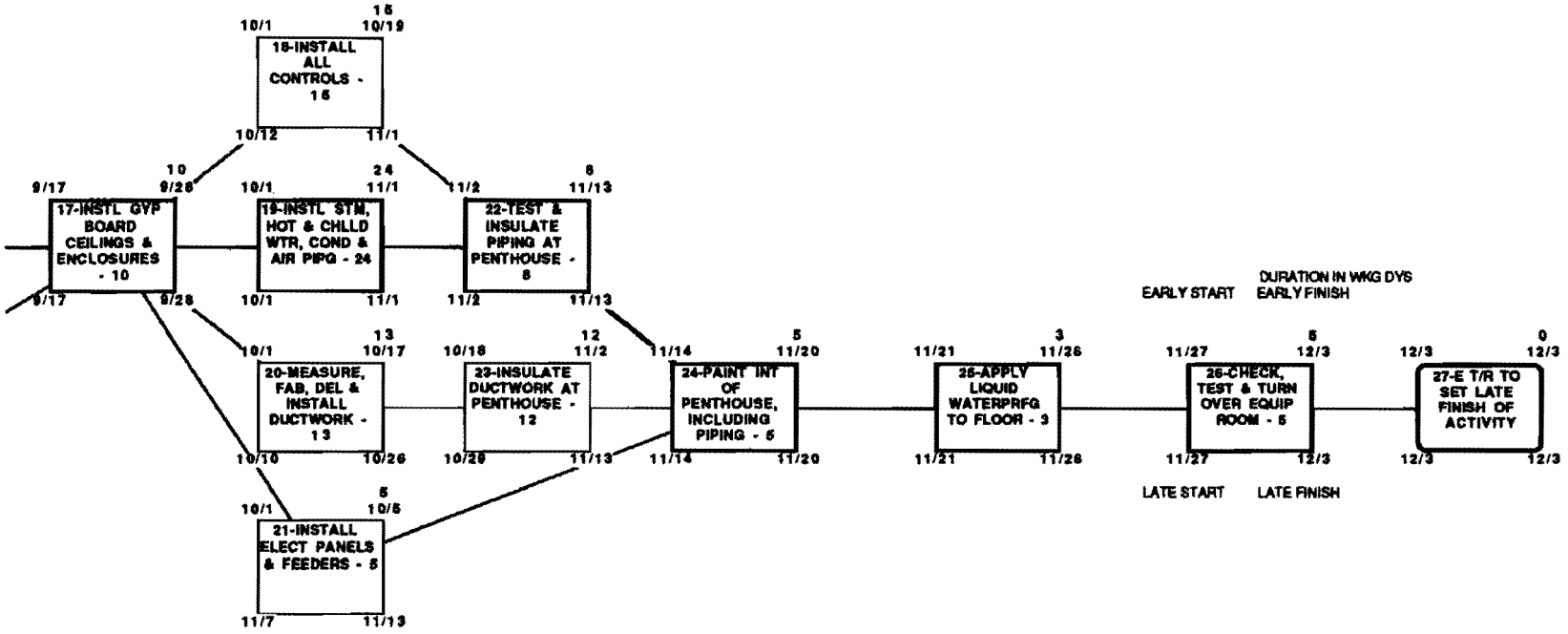
02-FAB & DEL PENTHOUSE STRUCT STEEL & DECK - 15
03-FAB & DEL PENTHOUSE ECONOMIZER PUMP - 35
04-FAB & DEL AC-1 AT PENTHOUSE - 40
05-FAB & DEL CHILLED WATER PUMPS - 29
06-FAB & DEL CONDENSATE PUMPS - 30
07-FAB & DEL EXHAUST FAN #1 - 40
08-DELIVER PENTHOUSE FILTERS - 20
09-ERECT STRUCT STEEL & METAL DECK - 7
10-FORM, REINF & POUR PENTHOUSE FL DECK - 10
11-LAY PENTHOUSE INSUL & ROOFING - 4
12-FORM, REINF, POUR & STRIP EQUIP BASES - 2
13-INSTL PIPE & EQUIP HANGERS AT PENTHSE - 6
14-CURE PENTHOUSE EQUIP BASES - 3
15-HOIST & SET MAJOR PH MECH & ELECT EQUIP - 3
16-ERECT METAL SIDING & LOUVERS - 6
Estimated duration
Early start
Early finish
Activity number
Activity description
Activity estimated duration in elapsed working days
Late start
Late finish
ACTIVITY DATA KEY



Base Plan of Action

NETWORK MODEL FOR CLARION OFFICE BUILDING PENTHOUSE MECHANICAL EQUIPMENT ROOM #1

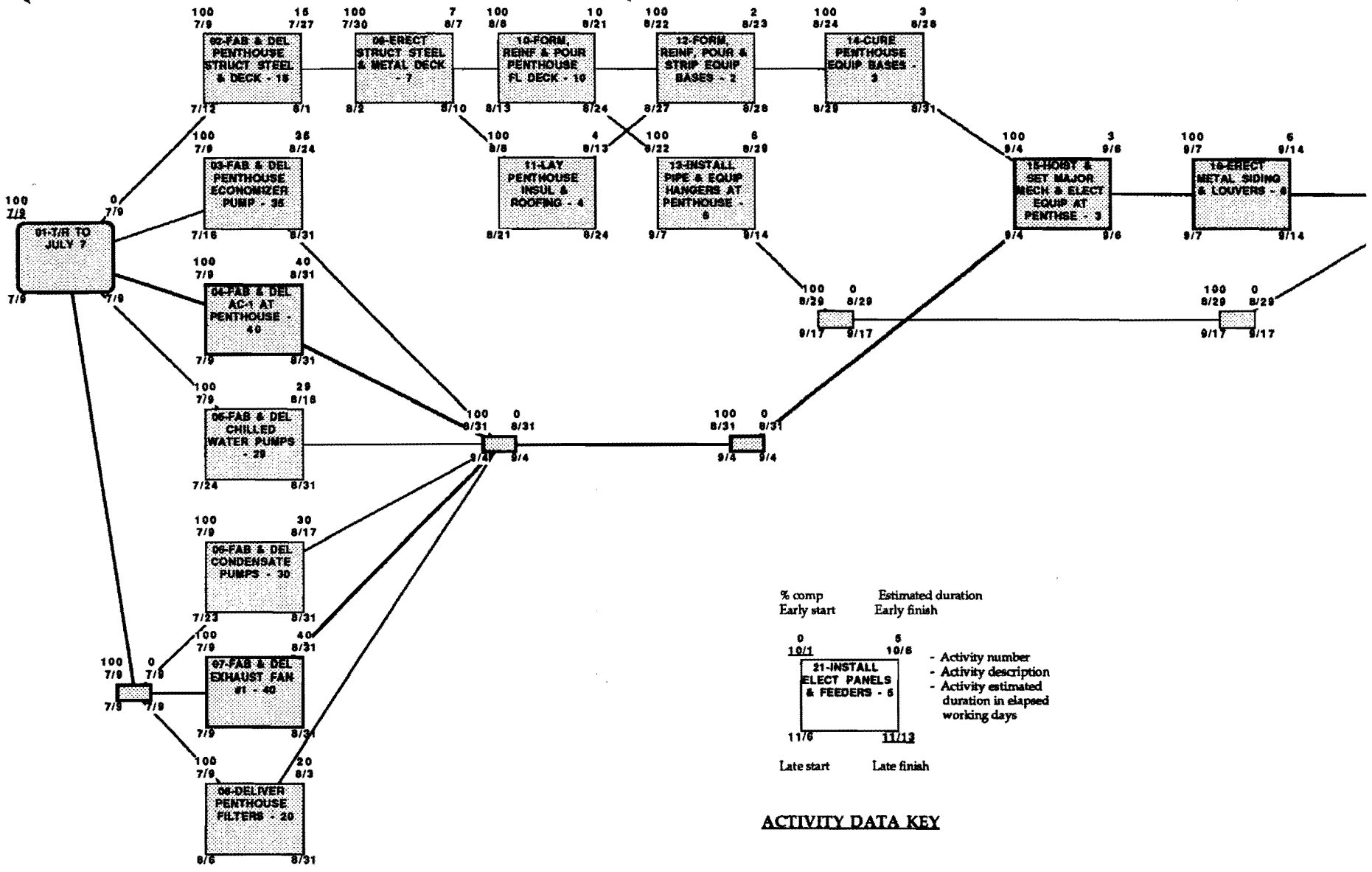
Luther Mechanical Contractors
Washington D.C.

Issue #1 - July 7
330 clarion base plan
disk 162

Reserved Activity Numbers

041	046
042	047
043	048
044	049
045	050

sheet ph-1



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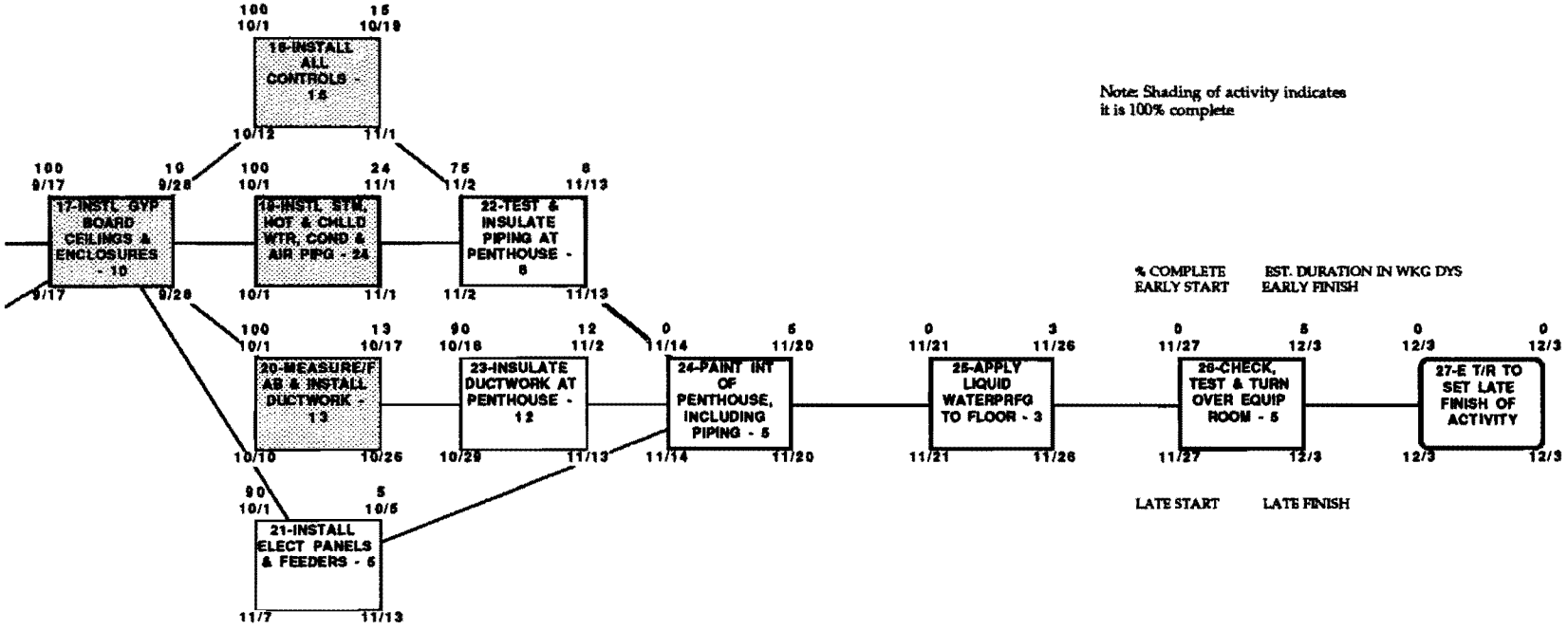


Note: Shading of activity indicates it is 100% complete

Project Status as of November 5

NETWORK MODEL FOR CLARION OFFICE BUILDING PENTHOUSE MECHANICAL EQUIPMENT ROOM #1

Luther Mechanical Contractors
Washington, D.C.

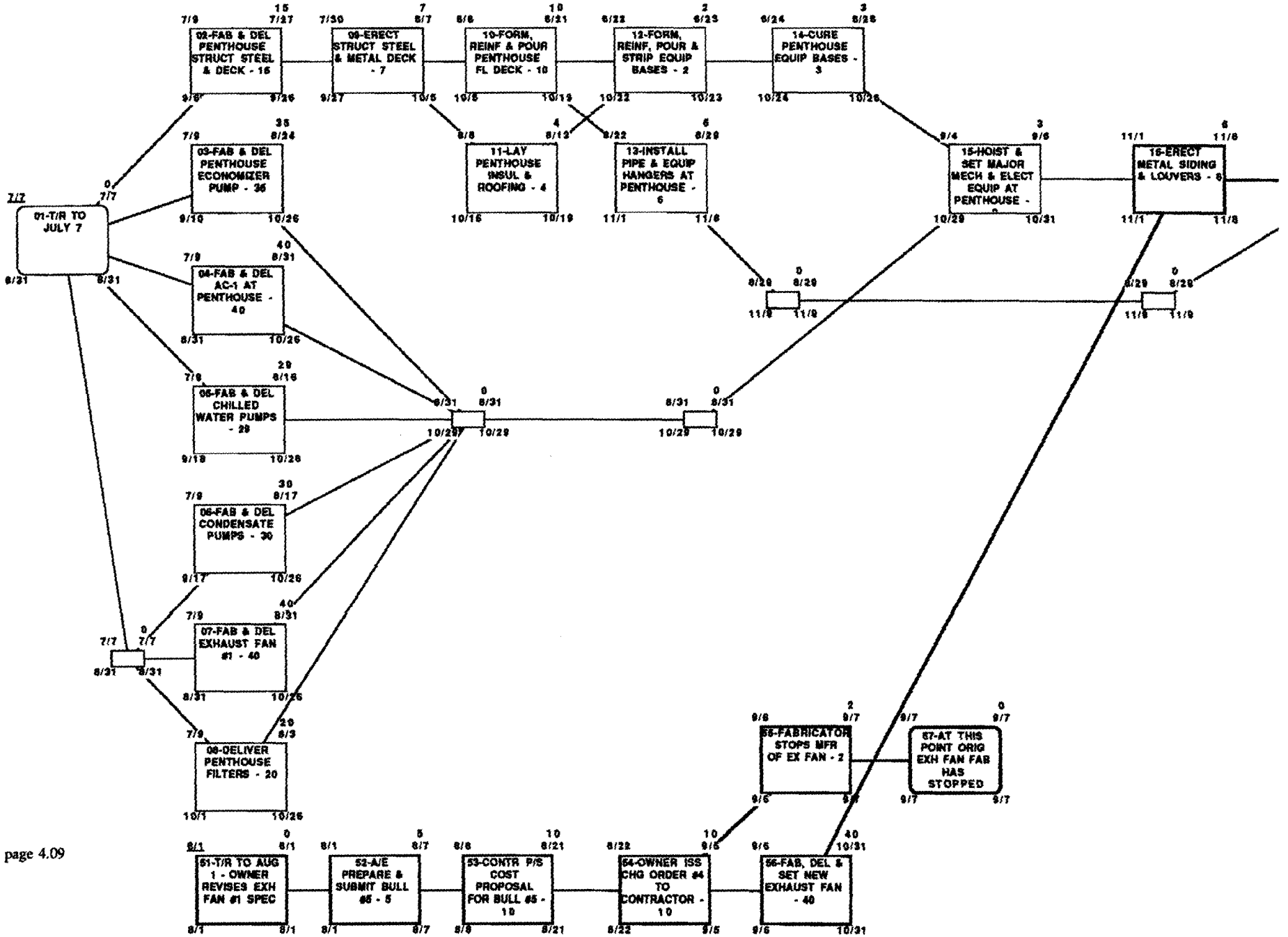
Issue #1 - July 7
Issue #1 - monitor 11/5
332 11/5 mtr phl i1ahtph1
disk 162

Reserved Activity Numbers

041 046
042 047
043 048
044 049
045 050

ho 332 - December, 1993

sheet
ph-1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02-FAB & DEL PENTHOUSE STRUCT STEEL & DECK - 15
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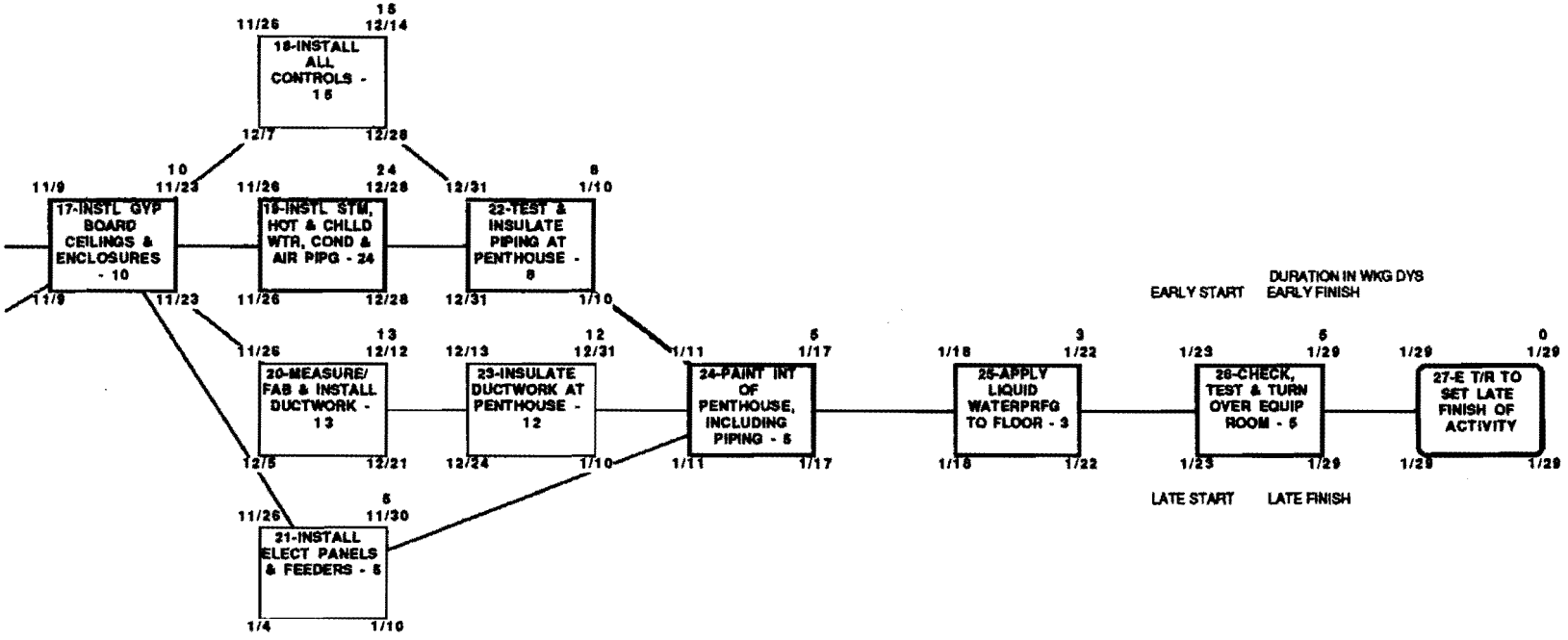
13-INSTALL PIPE & EQUIP HANGERS AT PENTHOUSE - 6
14-CURE PENTHOUSE EQUIP BASES - 3
15-HOIST & SET MAJOR MECH & ELECT EQUIP AT PENTHOUSE -
16-ERECT METAL SIDING & LOUVERS - 6
51-T/R TO AUG 1 - OWNER REVISES EXH FAN #1 SPEC
52-A/E PREPARE & SUBMIT BULL #5 - 5
53-CONTR P/S COST PROPOSAL FOR BULL #5 - 10
54-OWNER ISS CHG ORDER #4 TO CONTRACTOR - 10
55-FABRICATOR STOPS MFR OF EX FAN - 2
56-FAB, DEL & SET NEW EXHAUST FAN - 40
57-AT THIS POINT ORIG EXH FAN FAB HAS STOPPED



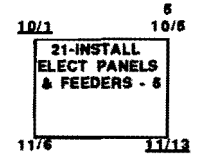
Change order impact on base plan of action

NETWORK MODEL FOR CLARION OFFICE BUILDING PENTHOUSE MECHANICAL EQUIPMENT ROOM #1

Luther Mechanical Contractors
Washington, D.C.

Estimated duration

Early start — Early finish



- Activity number
- Activity description
- Activity estimated duration in elapsed working days

Late start — Late finish

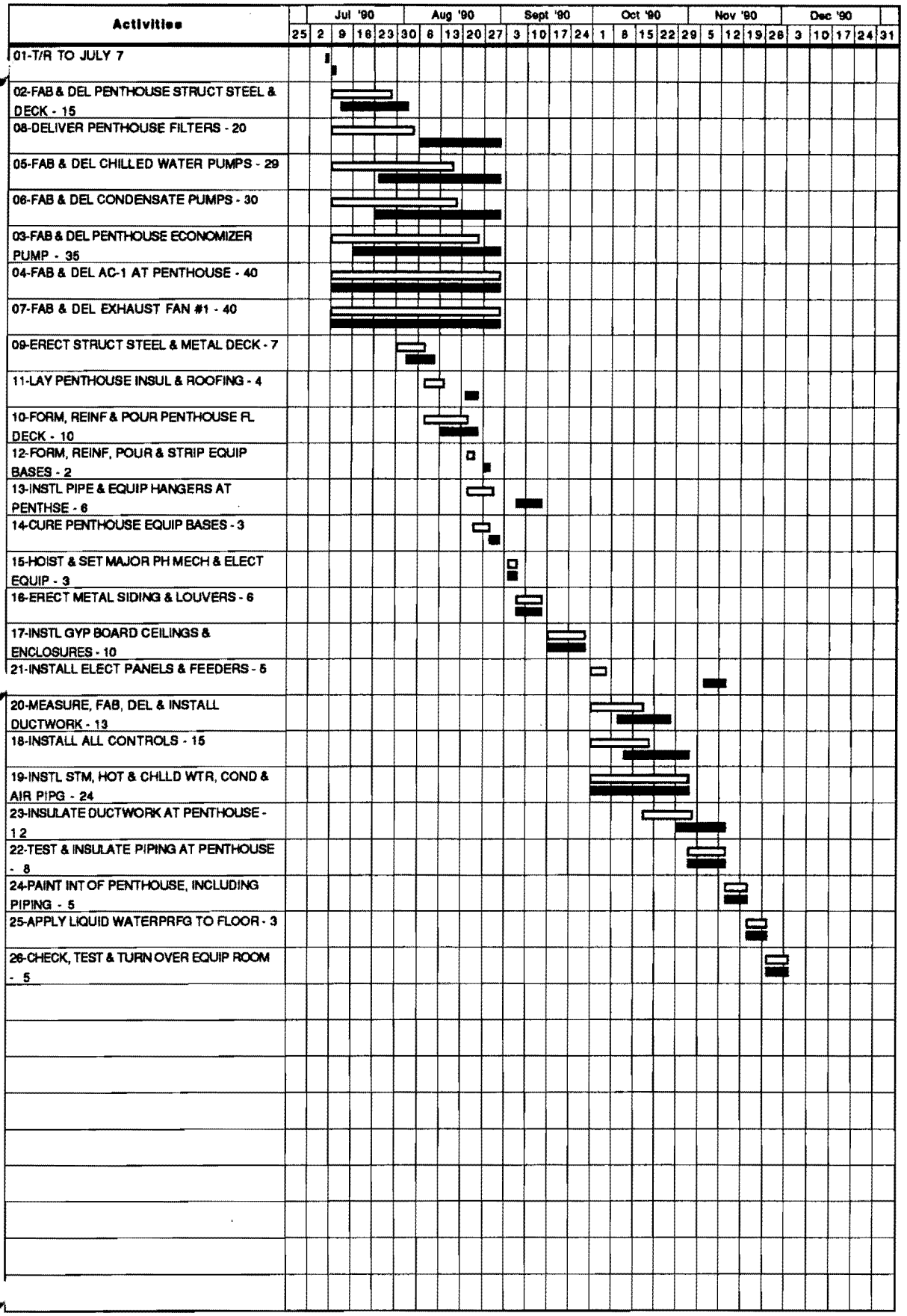
ACTIVITY DATA KEY

Issue #1 - July 9
Issue #2 - August 1
333 clarion chg order
disk 162

Reserved Activity Numbers

041	046
042	047
043	048
044	049
045	050

sheet
ph-1


Activities
Jul '90
Aug '90
Sept '90
Oct '90
Nov '90
Dec '90
25 2 9 16 23 30 6 13 20 27 3 10 17 24 1 8 15 22 29 5 12 19 26 3 10 17 24 31
01-T/R TO JULY 7
02-FAB & DEL PENTHOUSE STRUCT STEEL & DECK - 15
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14-CURE PENTHOUSE EQUIP BASES - 3
15-HOIST & SET MAJOR PH MECH & ELECT EQUIP - 3
16-ERECT METAL SIDING & LOUVERS - 6
17-INSTL GYP BOARD CEILINGS & ENCLOSURES - 10
21-INSTALL ELECT PANELS & FEEDERS - 5
20-MEASURE, FAB, DEL & INSTALL DUCTWORK - 13
18-INSTALL ALL CONTROLS - 15
19-INSTL STM, HOT & CHLLD WTR, COND & AIR PIPG - 24
23-INSULATE DUCTWORK AT PENTHOUSE - 12
22-TEST & INSULATE PIPING AT PENTHOUSE - 8
24-PAINT INT OF PENTHOUSE, INCLUDING PIPING - 5
25-APPLY LIQUID WATERPRFG TO FLOOR - 3
26-CHECK, TEST & TURN OVER EQUIP ROOM - 5

Ralph J. Stephenson, P.E.
Consulting Engineer

Section 05 - Effective project communication

Manage by Exception

To manage by exception (MX) means to build and use an alarm system that goes off when something is wrong but otherwise remains silent.

I. **MX provides management leverage**
   A. MX payoff comes from forcing the manager to use forethought and self discipline.
   B. Allows multiplying manager's energies and resources (the manager is a multiplier of work of others).
   C. Allows use of input/output zones (modification of Pareto's Law).
      1. Zone 1 - A relatively small input of managerial resources gives control of a large part of the total results (critical zone for the manager).
      2. Zone 2 - A relatively large input contributes a small portion of the results (good delegation zone).
      3. Zone 3 - The zone where managerial input generates about the same corresponding amount of results (zero leverage, high frustration zone).

II. **Examples of MX.**
   A. Thermostat.
   B. Sprinkler system.
   C. To do list.
   D. Network model (CPM).

III. **Questions to answer in MX.**
   A. What can I as a manager do that will contribute to achieving objectives. (planning)
   B. How can I determine if I am concentrating on the key items? (controlling and correcting)

IV. **Watch for the dangers in MX.**
   A. May require excessive observation and data collection.
   B. Tends to increase paperwork.
   C. If used correctly can give false sense of security and well being.
   D. Is silent only on items predetermined not to be critical. Conditions may change.

V. **The big advantage of MX is that much of the decision making is done in advance. (much like a trouble shooter's manual, a decision tree or decision table)**

VI. **The manager must understand that once freed by a good MX system from the demands of routine work, he must dill his time with creative effort directed toward improving his plans, organization, staff, and decisions.**

VII. **MX is always invaluable in detecting trends - movements toward or away from objectives.**

VIII. **Beware of overreaction to am MX alert. Remember MX is a tool of the manager, not the manager.**

IX. **Four MX alert levels.**
- A. No unusual difficulties - everything OK.
- B. Moderate deviations - the situation needs the managers attention and analysis.
- C. Above average deviations - the performance is unacceptable and needs corrective action, or is excellent and may be desirable to sustain.
- D. Unusually large deviations - the performance is vitally disturbed or is so good as to demand investigation by the manager now.

X. **Methods of reporting with MX.**
- A. Word of mouth.
  1. Fast.
  2. No record left.
  3. Listener may appear to comprehend, but might not.
- B. Written.
  1. Permanent record available.
  2. Can be studied anytime.
  3. Easily systematized.
  4. Irregular reports may allow critical factors to go unnoticed.
- C. Charted.
  1. Good for presentation to large numbers of people with limited amounts of time.
  2. Subject to scale misinterpretation.
  3. Requires special resources and talents to do well.
- D. Electronically reported.
  1. Easily used on selective basis.
  2. Data available quickly.
  3. High processing error potential.

- Volume of material generated by electronic processing.

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HOW TO SPRING THE TIME TRAP

Adapted from R. Alec Mackenzie's book "The Time Trap"

A. Time waster
1. Possible causes
   a. Solutions

A. Lack of planning
1. Failure to see the benefit
   a. Recognize that planning takes time but saves time in the end
2. Action orientation
   a. Emphasize results, not activity
3. Success without it
   a. Recognize that success is usually enhanced by planning

B. Lack of priorities
1. Lack of goals and objectives
   a. Write out goals and objectives
   b. Discuss priorities with subordinates

C. Over commitment
1. Wide span of interests
   a. Say no
2. Confusion in priorities
   a. Put first things first
3. Failure to set priorities
   a. Develop a personal philosophy of time
   b. Relate priorities to a schedule of events

D. Management by crisis
1. Lack of planning
   a. Apply the same solution as for lack of planning (see A above)
2. Unrealistic time estimates
   a. Allow more time
   b. Allow for interruptions
3. Problem orientation

a. Be opportunity oriented

4. Reluctance of subordinates to break bad news

a. Encourage fast flow of important information as essential for timely corrective action

E. Haste

1. Impatience with detail
   a. Take time to get it right. Save the time required to do it again
2. Responding to the urgent
   a. Distinguish between the urgent and the important
3. Lack of planning ahead
   a. Take time to plan. It repays itself many times over
4. Attempting too much in too little time
   a. Attempt less
   b. Delegate more

F. Paperwork and reading

1. Knowledge explosion
   a. Read selectively
   b. Learn speed reading
2. Computeritis
   a. Manage computer data by exception
3. Failure to screen material
   a. Remember Pareto's law
   b. Delegate reading to subordinates

G. Routine and trivia

1. Lack of setting and adhering to priorities
   a. Set and concentrate upon goals and objectives
   b. Delegate non essentials
2. Over surveillance of subordinates
   a. Delegate; then give subordinates their head
   b. Look to results, not details or methods
3. Refusal to delegate

a. Recognize that without delegation nothing can get done through others

H. Visitors

1. Enjoyment of socializing
   a. Do it elsewhere

b. Meet visitors outside
c. Suggest lunch if necessary
d. Hold stand up conferences

2. Inability to say no
   a. Screen
   b. Say no
   c. Be unavailable
   d. Modify your open door policy

I. Telephone

1. Lack of self discipline
   a. Screen and group calls
   b. Be brief
2. Desire to be informed and involved
   a. Stay uninvolved with all but essentials
   b. Manage by exception

J. Meetings

1. Fear of responsibility for decisions
   a. Make decisions without meetings
2. Indecision
   a. Make decisions even when some facts are missing
3. Over communication
   a. Discourage unnecessary meetings
   b. Convene only those people needed for matters at hand
4. Poor leadership
   a. Use agendas
   b. Stick to the subject
   c. Prepare and distribute minutes immediately after the meeting

K. Indecision

1. Lack of confidence in the facts
   a. Improve fact finding
   b. Improve validating procedures
2. Insistence on all the facts - paralysis by analysis
   a. Accept risks as inevitable
   b. Decide without all the facts
3. Fear of the consequences of a mistake
   a. Delegate the right to be wrong
   b. Use mistakes as a learning process

4. Lack of a rational decision making process
   a. Get facts
   b. Set goals and objectives
   c. Check alternatives
   d. Check negative consequences
   e. Make decision
   f. Implement decision

L. Lack of delegation

1. Fear of subordinate inadequacy
   a. Train
   b. Allow for mistakes
   c. Replace if necessary
2. Fear of subordinates' competence
   a. Delegate fully, but within the subordinate's competence
   b. Give credit
   c. Plan corporate growth to maintain challenge
3. Work overload on subordinates
   a. Balance workloads
   b. Staff up
   c. Reorder priorities

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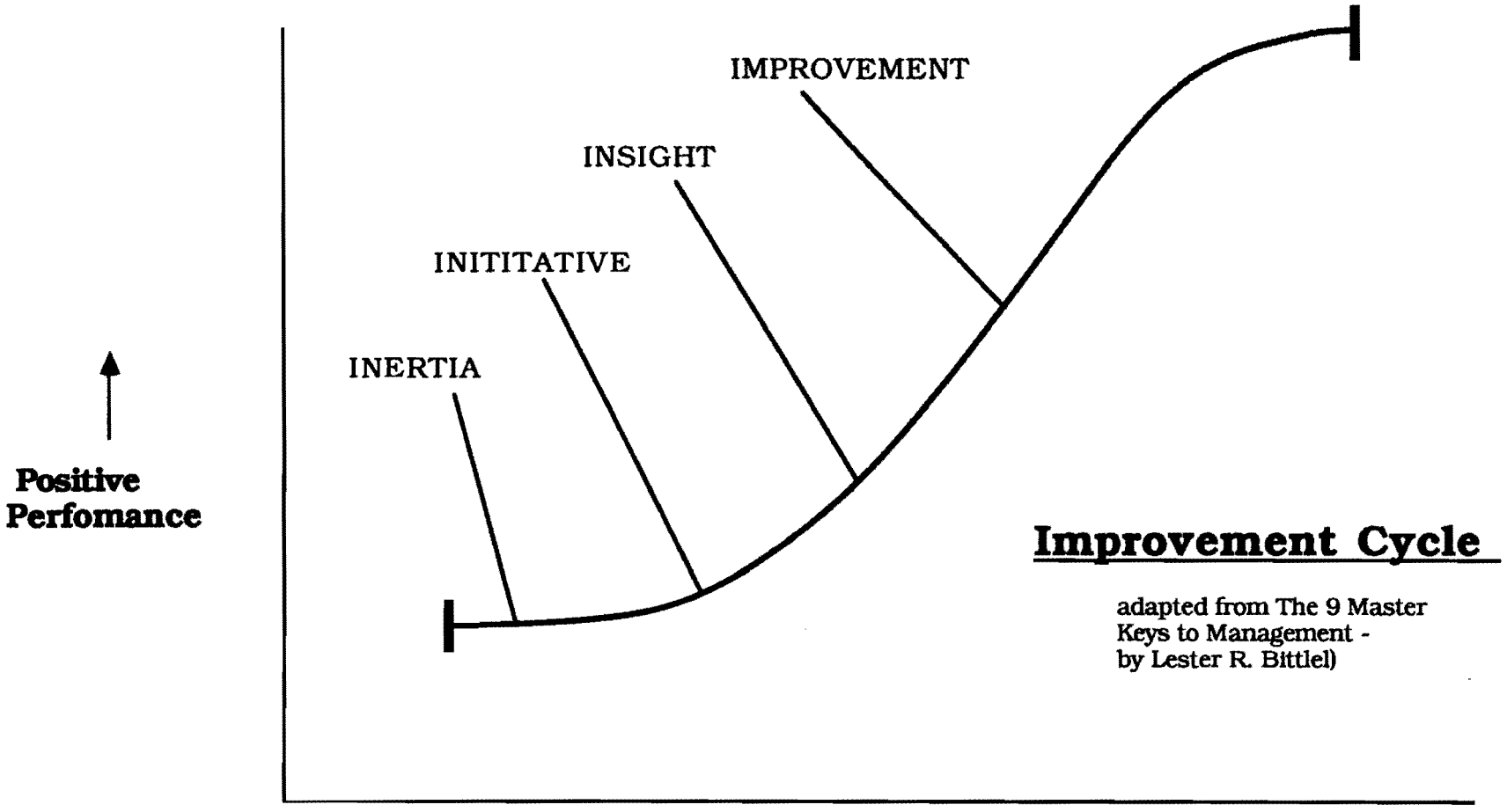

Improvement Cycle

adapted from The 9 Master
Keys to Management -
by Lester R. Bittlel)

QUESTIONS TO CONSIDER

Guides to Ethical Decision Making

1. Is my decision legal?

- Does it violate civil law or company policy?

2. Is my decision balanced?

- Is it fair to all concerned in the short and long term situation. Does it avoid sum zero situations?

3. How will my decision make me feel about myself?

- Will it make me proud?
- Will I feel good if it is published in the newspaper?
- Will I feel good if my family finds out about it?

Adapted from "The Power of Ethical Management"
by Kenneth Blanchard & Norman Vincent Peale

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WHERE DO WE GO FROM HERE?

Qitain University, a small private engineering, science, liberal arts school in the northwest United States city of Qitain, is about to embark on a major (for them) expansion plan. It involves the planning, design, and construction of a new university activities building, a modest athletic facility having a gym and indoor pool, along with support facilities, and a small combined library and book store.

The expansion program has been written, the desired planners, architect, and engineers have been selected, and the Board of Regents of the school has given the project a go ahead.

An organizational meeting is in progress with the following people in attendance:

- Frank Carlton - Vice President for University Planning and Operations
- James Tea - Program consultant for the university
- Fred Link - President of the planning/architectural firm of Link and Associates, the possible architects of record for the entire project
- Charles Redrock - Associate, chief architect, and project manager on the project for Link and Associates
- Robert Hagel - President of Hagel Mechanical Engineering Company, the possible mechanical engineers for the project
- Stan Weissman - President of Weissman Electric, the possible electrical engineers for the project
- Richard Goldmark - A wealthy alumnus and key mover in assembling the total funding for the program

The site of the new building group extends across two city public rights of way (ROW), Francis Avenue and Fourth Avenue. Preliminary negotiations have been conducted with the City of Qitain by Mr. Carlton, of the University, and with the city manager, George Dell. It appears that vacation of the ROW's can be accomplished on a reasonable basis. Several live utilities are known to be in the two streets but exact sizes and locations have not yet been determined.

The discussion has generated several questions now being addressed. Some of these include:

1. The only available survey map of the area is an in-house student survey prepared ten years ago as a semester project. A new survey has not been budgeted and might be challenged as an excessive cost by the Board of Regents.

Should a new survey be made?

Why?

What should a new survey contain?

2. Should the University retain a construction manager?

If not, why?

If yes, why?

3. How should the project be organized and what should be the role of the various parties involved?

4. Who should be the ULTIMATE DECISION MAKER (udm) on the project?

5. Should the University appoint a staff representative to the project?

If so, what should be his title, authority, responsibilities and his activities?

6. The contract for architectural, mechanical, and electrical design services are not yet awarded, but all agree that the three firms at the meeting are the ones to do the job. With whom should the architectural, mechanical and electrical engineering contracts be executed?

7. How do answers to the above question affect the claim potential for the project?

8. If you were an alumnus, and a local general contractor serving on the Board of Regents of the University, and acting as an ex officio advisor to the program group, how would you have answered questions 1 through 7 so as to maximize the potential for claim avoidance (cav)?

9. What role would you recommend Mr. Goldmark be requested to play in the project?

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Section 06 - Partnering work book - The Ditler County Community College

case study pages 1 - 3

1 - 41 Partnering Construction Charter Work Book

Ralph J. Stephenson, P. E.
Consulting Engineer

WEX Partnering Case Study #2 - The Split Management Community College

I. **Client - Ditler Community College - Ditler County, New Mexico**
A predominately urban county in New Mexico, with an aggressive community education program funded locally with grant money furnished on a 60% county, 40% state basis.

The Department of Facilities of the State manages the project for the State. The facilities departments for the community colleges manage the project at the user level.

II. **Facility type**
- A. **New physical education, classroom, and book store building for Ditler Community College (DCC)**
  1. **115,000 square feet on one floor.**
  2. **Olympic size indoor, outdoor swimming pool.**
  3. **Handball and racket ball courts.**
  4. **Full gymnasium.**
  5. **6 lane bowling alley**
  6. **Classrooms**
  7. **Book store to serve entire campus**
- B. **Site work for new building**
  1. **Construct new parking for 200 cars.**
  2. **Construct 10 new lighted tennis courts.**
  3. **Construct three new lighted softball diamonds.**
  4. **Construct four new basketball semi courts for basket practice.**

III. **Those involved**
- A. **From Ditler Community College staff**
  1. **Vice President for Business**
  2. **Facilities director**
  3. **Book store manager**
  4. **Department head for physical education**
- B. **From State Department of Facilities staff**
  1. **Director of new construction**
  2. **Project manager**
  3. **Field inspector**
- C. **From architect/engineers - Antswerd & Bolling**
  1. **President and chief operating officer - architect**
  2. **Architectural designer - architect**
  3. **Project Manager - architect**
  4. **Field Inspector - architect**
  5. **Interior designer - interiors design**
  6. **Project Manager - structural**
  7. **Project Manager - mechanical and electrical**
  8. **Project Manager - civil engineer**
- D. **From testing agencies - Geologic, Inc. - testing and Balmoral - balancing**
  1. **Geotechnical - Vice president**

2. Geotechnical - Field and project engineer
3. Mechanical balancing - Project engineer

E. From general contractor - Kretkowski, Inc.
1. President
2. Vice president of operations
3. Project manager
4. Field superintendent

F. From specialty contractors - Weyand & Sons, Inc. - mechanical and Ranoldi Electrical, Inc. - electrical (E) (M)
1. President
2. Project manager
3. Field superintendent

G. From athletic equipment contractor - Stretch, Ltd.
1. Project manager
2. Field superintendent

H. From swimming pool contractor - Bluewater Pools, Inc.
1. Project manager
2. Field superintendent

IV. Contract types

A. Architect engineer - with DCC
1. Partially qualified - selected and negotiated from prequalified list prepared by DCC and State.
2. Authority limits - as contractor
3. Payment method - Fixed fee including time and expenses
4. Single responsibility - in house and outside consultants

B. Testing agencies - with general contractor
1. Partially qualified - selected and negotiated from prequalified list prepared by State and architect/engineer.
2. Authority limits - as contractor.
3. Payment method - time and material with fixed fee and guaranteed maximum price
4. Single responsibility - provide all labor, materials, testing for building and site work.

C. General contractor - with DCC
1. Partially qualified - selected by competitive bids from prequalified list prepared by State and DCC.
2. Authority limits - as contractor.
3. Payment method - fixed price
4. Single responsibility - manage all subs to provide and install labor and materials for building and site work.

D. Specialty contractors - with general contractor
1. Partially qualified - selected by competitive bids from prequalified list prepared by general contractor.
2. Authority limits - as contractor.
3. Payment method - fixed price
4. Single responsibility - provide and install labor and materials for building and site work according to purchase order from general contractor.

E. **Athletic equipment contractor - with State**
   1. **Partially qualified - selected by competitive bids from prequalified list prepared by DCC.**
   2. **Authority limits - as contractor.**
   3. **Payment method - fixed price**
   4. **Single responsibility - manage all subs to provide labor, materials and equipment, and install materials & equipment for all athletic equipment.**

F. **Swimming pool contractor - with State - to be assigned to general contractor**
   1. **Partially qualified - selected by competitive bids from prequalified list prepared by State.**
   2. **Authority limits - as contractor.**
   3. **Payment method - fixed price**
   4. **Single responsibility - manage all staff and subs to provide labor, materials and equipment, and install materials & equipment for swimming pool.**

V. **Current status of project**
   A. **Contract documents for new building and site work complete.**
   B. **Construction contracts for new building and site work awarded.**
   C. **Specialty contracts for new building and site work awarded**
   D. **Testing contracts awarded.**
   E. **Athletic equipment contract - Proposals received by State - successful contractor identified - contract to be executed in two weeks.**
   F. **Swimming pool contract - Proposals received by State - successful contractor identified - contract to be executed in two weeks.**

Ralph J. Stephenson, P. E.
Consulting Engineer

PARTNERING CONSTRUCTION CHARTER WORK BOOK

Ditler County Community College - Physical education, classroom, and book store building Ditler County, New Mexico

Date: Friday May 28, 1999

Location: Memorial Union Building
Ditler Community College
Ditler County, New Mexico

Time: 7:30 A.M. to 4:30 P.M.

Table of Contents

CONSTRUCTION PARTNERING CHARTER WORK BOOK

Ditler County Community College

Physical education, classroom and book store building

Ditler County, New Mexico

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.

Ralph J. Stephenson, P. E.
Consulting Engineer

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.

Associated General Contractors of America

date printed: 5/10/99

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.

Ditler County Community College

CONSTRUCTION PARTNERING MEETING AGENDA

Memorial Union Building

Friday May 28, 1999

08:00 a.m to 09:00 a.m. - Coffee for attendees.

09:00 a.m. to 09:10 a.m. - Introduction of participants - By principals for key stakeholder organizations.

09:10 a.m. to 09:20 a.m. - Brief review of DCC physical education, classroom and book store building project characteristics and current status - by project staff.

09:20 a.m. to 09:45 a.m. - Introduction to partnering, partnering methods, and workshops - Ralph J. Stephenson, chair.

09:45 a.m. to 10:00 a.m. - Identification of teams for break-out workshops.

10:00 a.m. to 10:30 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 DCC physical education, classroom and book store building program?"

- **Workshop #2** - "What actions do we take during design, construction and move-in that create problems for others on projects like the DCC physical education, classroom and book store building program?"

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

10:30 a.m. to 10:45 a.m. - Coffee break

10:45 a.m to 11:30 a.m. - Complete Workshop #1 and #2 discussions

11:30 a.m. to 11:45 a.m. - Mission statement

• **Workshop #3** - "What is the single most important goal to be achieved for my organization and me by the DCC physical education, classroom and book store building 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.

11:45 to 12:15 P.M. - Introduction to preparing recommendations for achieving success on the DCC physical education, classroom and book store building.

• **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 DCC physical education, classroom and book store building?

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.

12:15 p.m. to 01:00 p.m. - Lunch

12:45 p.m. to 01:20 p.m. - Special project mission task force (selected earlier).

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

01:00 p.m. to 01:20 p.m.
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?

01:20 p.m. to 01:45 p.m.

- **Workshop #6** - Full group prepare second draft of project mission statement, and continue identifying job construction 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. - Coffee break.

03:15 to 04:30 p.m.

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

04:30 to 04:50 p.m.

- Final approve, and print signature copy of project charter

04:50 to 05:00 p.m.

- Sign DCC physical education, classroom and book store building charter and award mementos

05:00 P. M. - Adjourn

Ditler County Community College

Reference information for new physical education, classroom and book store building construction charter meeting

Memorial Union Building
Friday May 28, 1999

Purpose of meeting:

To prepare and adopt a partnering construction charter for the guidance of the Ditler County Community College design and construction 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.

- *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 the 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.

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

Don't hesitate to change wordings since it is entirely possible that your expression of a desired objective may be different than that of the original.

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

O. 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.
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 thorough 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 #
5/28/99

WORKSHOP #1

What problems do others cause us on projects like the DCC physical education, classroom and book store building?

ws #2
sht #1

Team #
5/28/99

WORKSHOP #2

What problems do we cause others on projects like the DCC physical education, classroom and book store building?

ws #4
sht #1

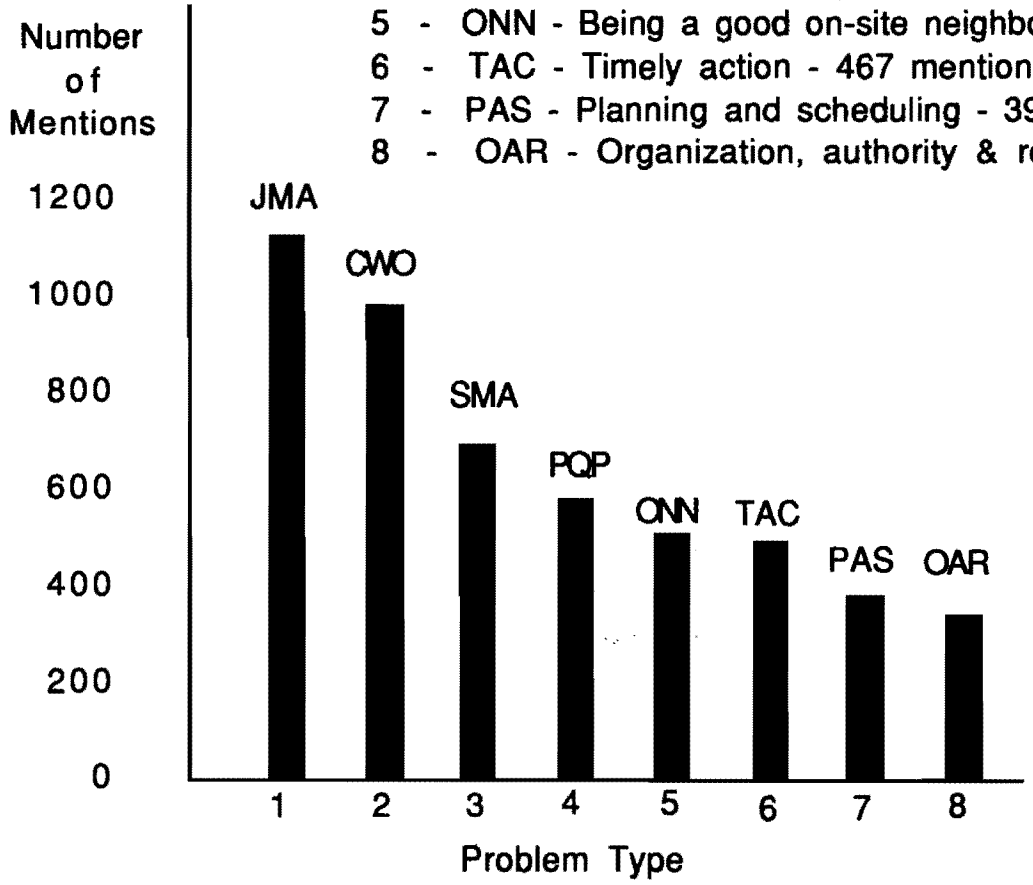
Team #
5/28/99

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 the DCC physical education, classroom and book store building?

- 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



04/27/96

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**

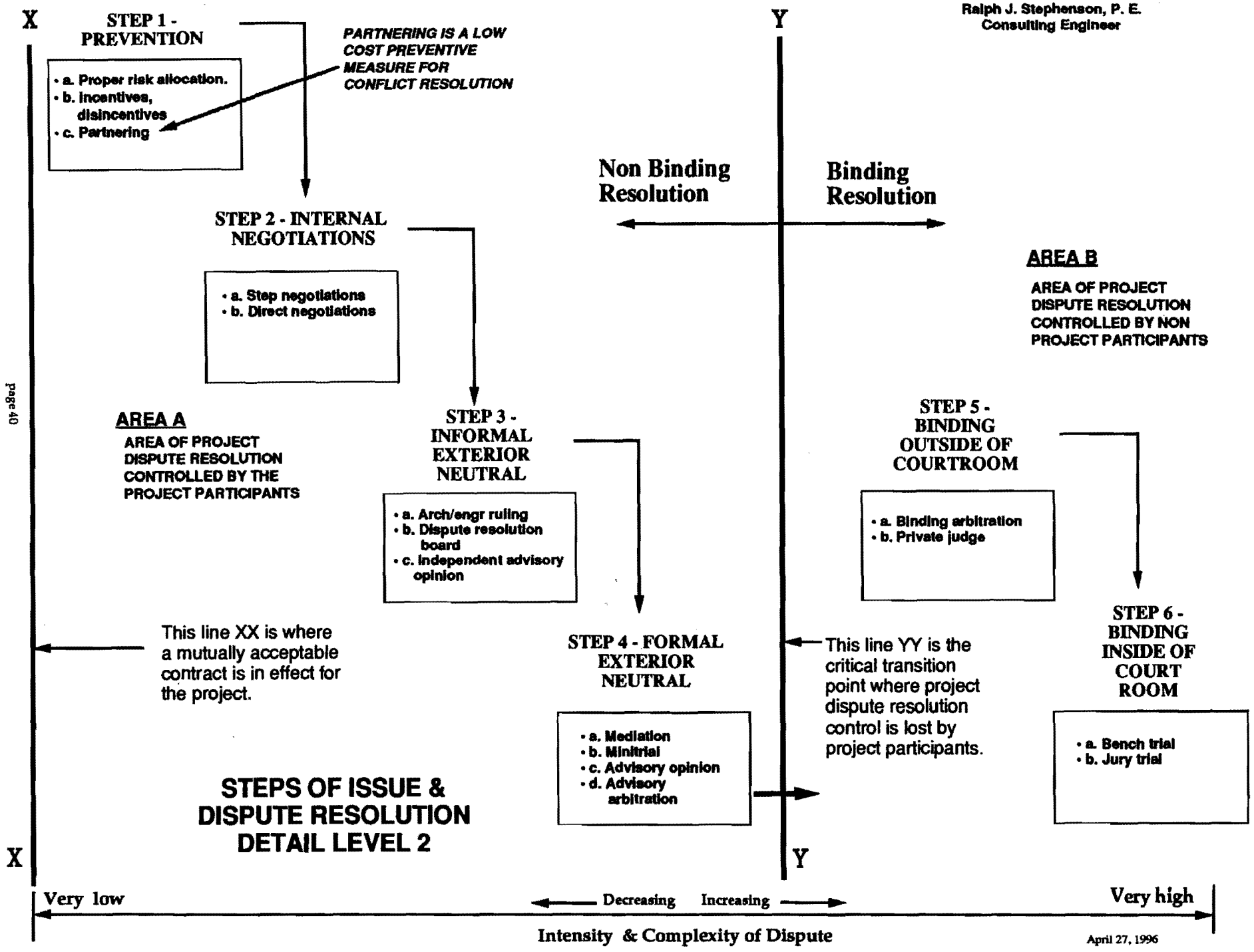
A formal partnering relationship specifically designed to enhance the success of multi-project experiences on a long term basis. Just as each individual project partnering system must be maintained, strategic partnerships must also be maintained by periodic review

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.

Ralph J. Stephenson, P. E.
Consulting Engineer



April 27, 1996

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