Partnership for Excellence in Rail Construction

1993

M E T R O

RAIL CONSTRUCTION CORPORATION   TEA**M**ETRO

A PROJECT FOCUSED MATRIX ORGANIZATION

PROJECTS

| Red Line 1 | Red Line 2 | Red Line 3 | Green Line | Pasadena Line |

FUNCTIONAL
Program Mgmt.
Engineering
Construction
Contracts
Quality
Safety
Public Affairs
Admin. Support
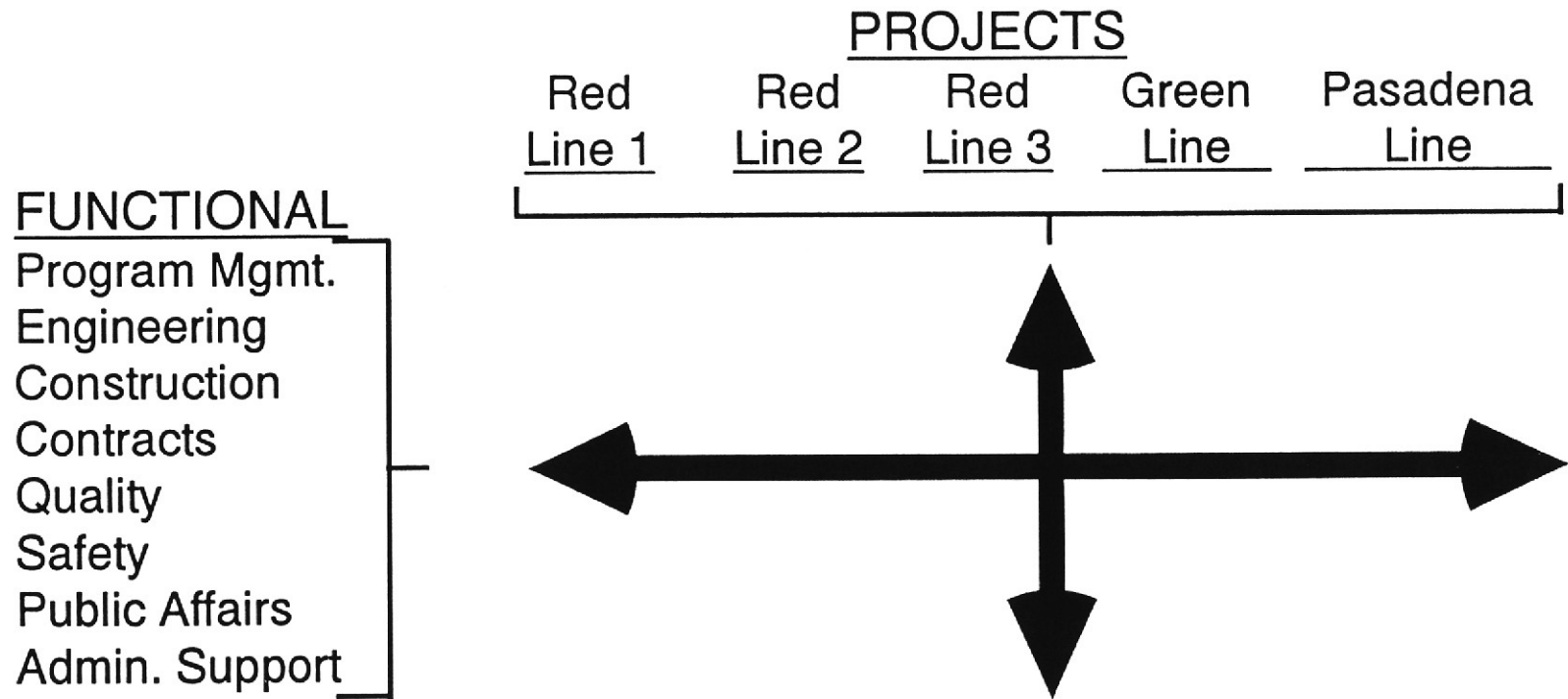
TEAMETRO IS THE PARTNERSHIP FOR EXCELLENCE IN RAIL CONSTRUCTION (PERC)   TEA(M)ETRO

Charter Members

- Rail Construction Corporation (RCC)
- Engineering Management Consultant (EMC)
- Project Management Oversight Consultants (PMOC)
- Construction Management Consultants (CM)
- Other Supporting Agencies

Associate Members

- Contractors
- Subcontractors

Partnering

$$+ \quad \text{TQM}$$

PERC

The concentric circles, from innermost to outermost, are labeled:

- RCC MANAGEMENT TEAM
- PROJECT TEAMS
- RCC FUNCTIONAL DEPTS
- CONSULTANTS
- CONTRACTORS/MAJOR SUPPLIERS
- SUBCONTRACTORS/SUPPLIERS
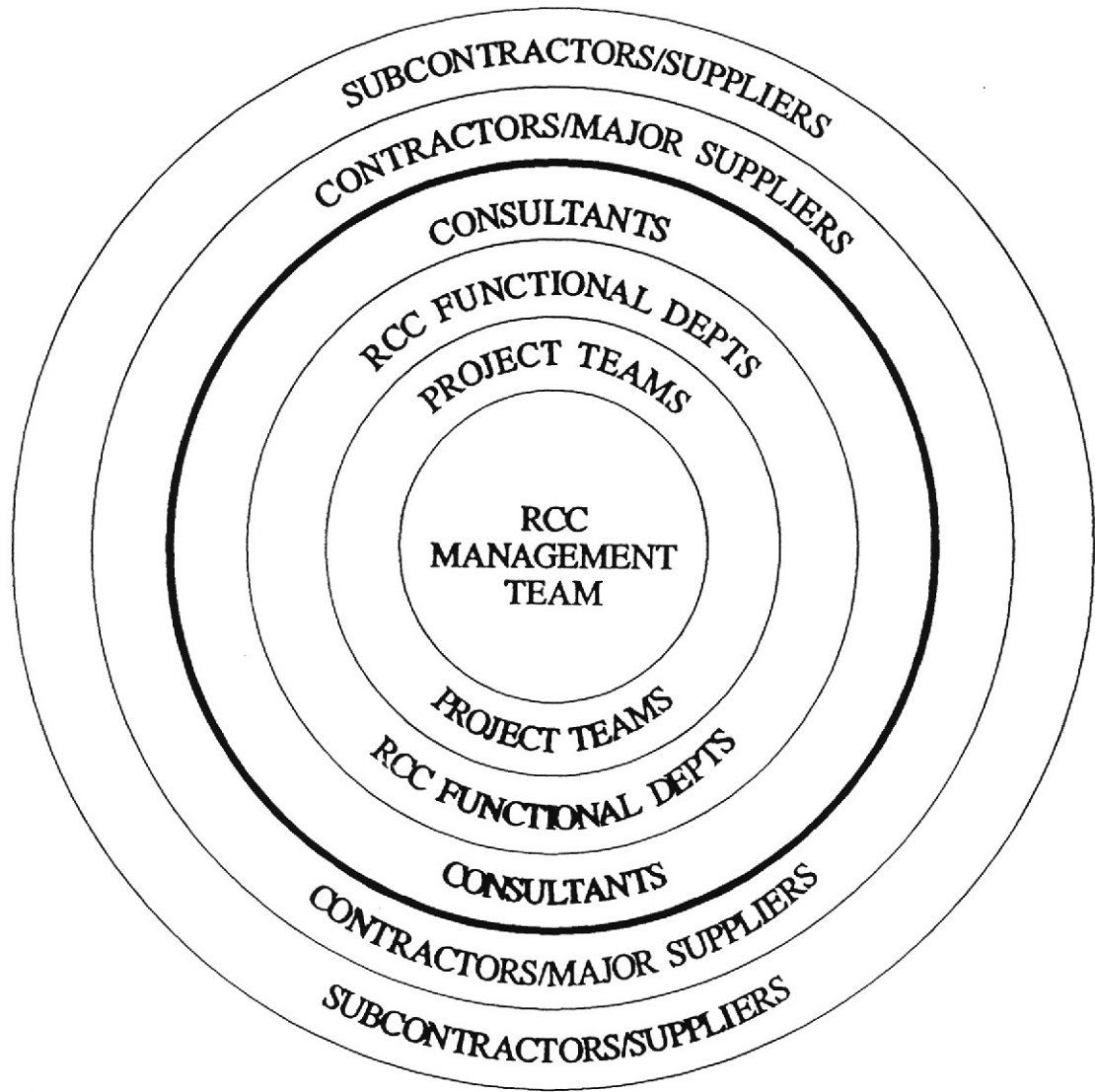
PERC - The Growing Circle
of Influence for
Continuous Improvement
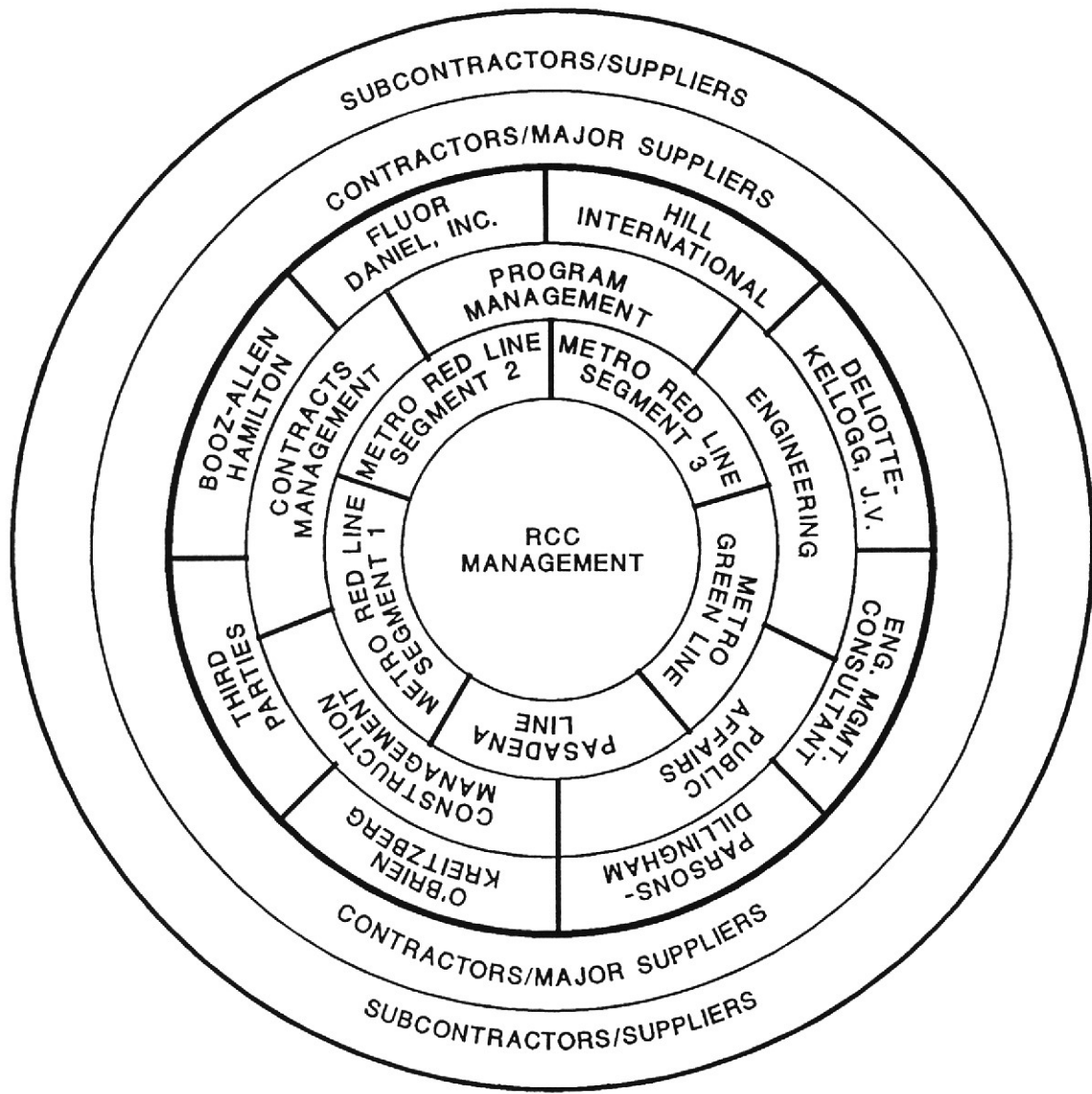
**PERC – The Growing Circle
of Influence for
Continuous Improvement**

THE PAYOFF

- Nearly everything we do can be defined as a process.

- Processes can be described by flow diagrams.

- Once understood, processes can be continuously improved.

- Those most involved in the process are best qualified to improve the process.

- Improvements should be measured.

- Results should be recognized and rewarded.

ELEMENTS ESSENTIAL TO THE SUCCESS
OF TOTAL QUALITY AND PARTNERING   TEA(M)ETRO

- Leadership
- Alignment
- Focus
- Innovation
- Initiative
- Recognition
- Measurement

THE LEADERSHIP ROLE   TEAⓂETRO

1. Commit to a continuing, long-term initiative.
2. Communicate and demonstrate the commitment.
3. Encourage participation in work process improvement activities.
4. Encourage innovation and initiative.
5. Demonstrate and encourage team spirit and a win-win attitude.
6. Recognize and reward fairly and often.
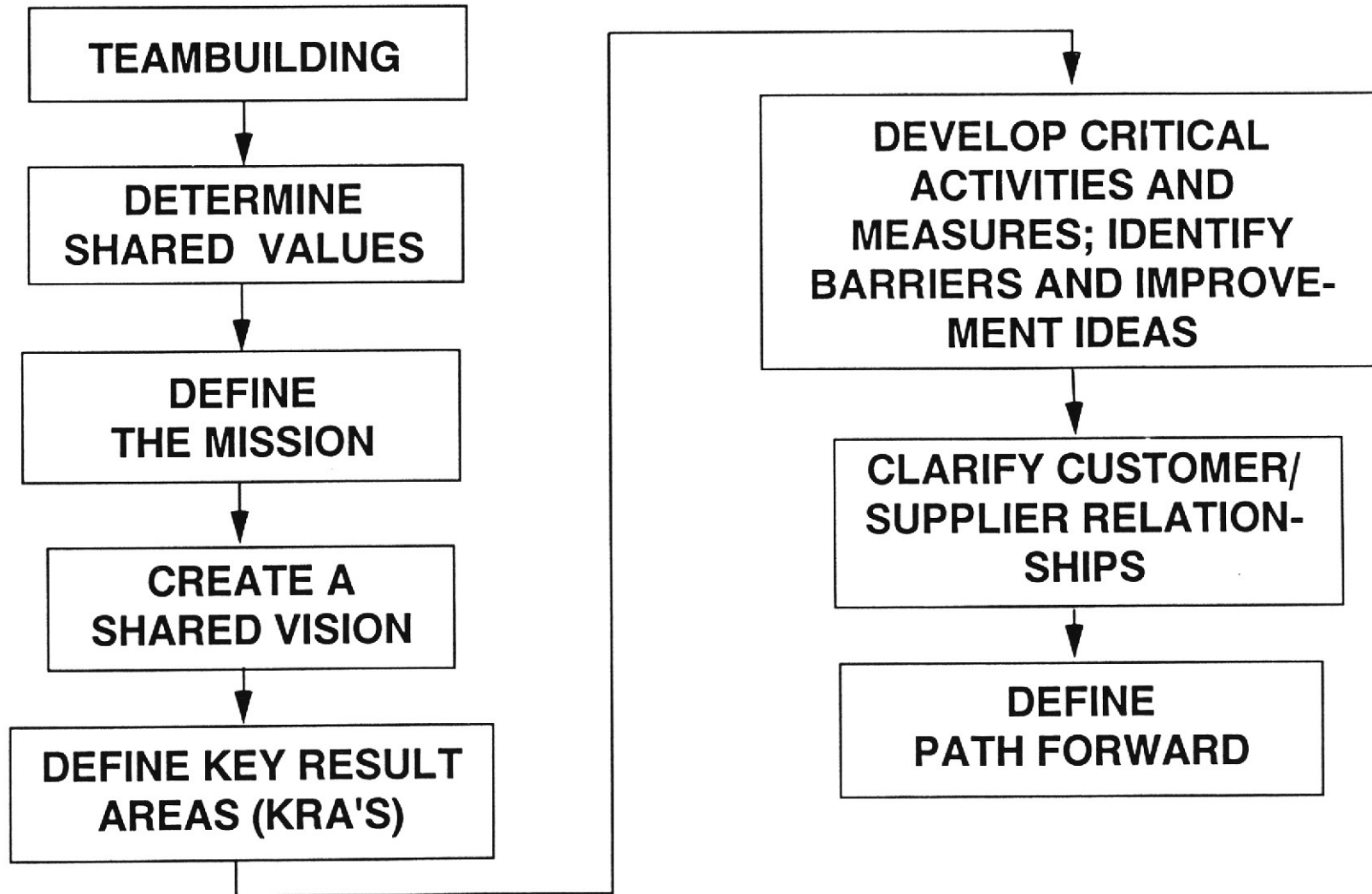7. Celebrate successes.

ALIGNMENT

TEA(M)ETRO

Where the initiative begins

Step 1   RCC Senior Management Alignment

Step 2   RCC Project Teams' Alignments

Step 3   RCC Functional Departments' Alignments

Step 4   Alignment of TEAMETRO Entities, Contract Execution Teams, and Other Groups Sharing Common Objectives

THE ALIGNMENT WORKSHOP

TEA(M)ETRO

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┌─────────────────────┐
│    TEAMBUILDING     │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐              ┌──────────────────────────┐
│     DETERMINE       │              │    DEVELOP CRITICAL      │
│   SHARED VALUES     │              │    ACTIVITIES AND        │
└─────────────────────┘              │   MEASURES; IDENTIFY     │
          │                          │  BARRIERS AND IMPROVE-   │
          ▼                          │       MENT IDEAS         │
┌─────────────────────┐              └──────────────────────────┘
│      DEFINE         │                          │
│   THE MISSION       │                          ▼
└─────────────────────┘              ┌──────────────────────────┐
          │                          │   CLARIFY CUSTOMER/      │
          ▼                          │  SUPPLIER RELATION-      │
┌─────────────────────┐              │        SHIPS             │
│     CREATE A        │              └──────────────────────────┘
│   SHARED VISION     │                          │
└─────────────────────┘                          ▼
          │                          ┌──────────────────────────┐
          ▼                          │        DEFINE            │
┌─────────────────────┐              │    PATH FORWARD          │
│  DEFINE KEY RESULT  │              └──────────────────────────┘
│   AREAS (KRA'S)     │
└─────────────────────┘
```

DEFINING SHARED VALUES

TEA M ETRO

What are Shared Values?

- They are the ethics and principles, both personal and professional, that are shared by team members.

- Values are the basis for <u>how</u> the team reacts to issues and decisions.

- Values often become the team's philosophy statement.

DEVELOPING THE MISSION STATEMENT TEA**M**ETRO

What is a Mission Statement?

- It is a brief statement of the organization's expected results and its reason for existence.

- It is requirement driven.

- It is customer focused.

- It is long-term oriented.

- It is the framework for all activities.

- It reduces aimless behavior.

DEVELOPING THE MISSION STATEMENT TEA**M**ETRO

Why do we want a Mission Statement?

- It supports the overall purpose of the team - why we are in the business.

- It provides a common direction for the team.

- It provides a basis for evaluating long and short-term decisions.

- It links the direction of the team with each of its interrelated teams and the larger organization.

- It provides direction for setting strategic, operational and improvement goals.

DEVELOPING THE VISION STATEMENT   TEA(M)ETRO

What is a Vision Statement?

- A vision is the positive image of the team's future. It has the power to shape the future and determine the team's destiny.

- The vision statement reflects what the team would like to accomplish or become over and above achieving the mission.

- The key ingredients of a vision statement are that it is:
    - Shared and supported by all team members.
    - Positive and inspiring.

What are Key Result Areas and Critical Activities?

- **Key Result Areas** are the elements that determine the team's success in making the mission and vision a reality. They can make or break the success of the team. Each should be devoted to one issue. They are measurable.

- **Critical Activities** are the actions/work processes necessary to succeed in result areas. They are specific and action oriented.

Why do we want to identify Key Result Areas and Critical Activities?

- Key Result Areas and Critical Activities are the first steps in defining opportunities for improvement. They help us make our Mission and Vision a reality by focusing us on specific actions.

- After we have defined the Key Result Areas and Critical Activities, we determine the relative priorities of our actions based on potential gains and risks.

PHILOSOPHY

"We will achieve our mission and realize our vision by embracing the Guiding Principles of the LACTC and through unyielding commitments to:

- *Safety and Security*
- *Total Quality*
- *Fairness*
- *Individual Initiative*
- *Fiscal Responsibility*
- *Teamwork*
- *Honesty*
- *Timeliness*
- *Creativity*
- *Clear and Open Public Dialogue*
- *The Environment and Communities Served."*

THE MISSION STATEMENT

TEA🄼ETRO

"To build a world-class Metro Rail System for the Los Angeles Community."

THE VISION STATEMENT

TEA Ⓜ ETRO

"To be the model of excellence in public works design and construction through our TEAMETRO partnership."

WORK PROCESS IMPROVEMENT (WPI) TEA(M)ETRO

Work Process Improvement at the Rail Construction Corporation

- <u>PAST</u>: Individuals and managers (mostly managers) used variety of strategies to make improvements in work process. Some measurements were made but not every process.

- <u>PRESENT</u>: Structured work process performance by all employees, measurement/improvement just beginning to take root at RCC.

- <u>FUTURE</u>: Widespread and in-depth performance measuring and routine use of structured work process improvement teams as well as individuals.
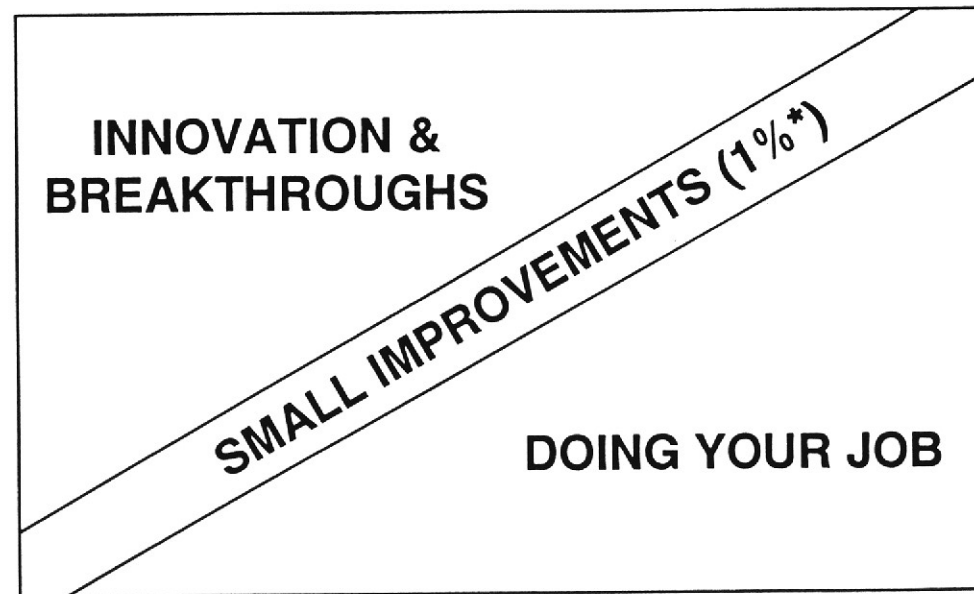
WORK PROCESS IMPROVEMENT   TEA(M)ETRO

Individual Initiatives - Improve those processes totally within an individual's span of influence and control.

Team Initiatives - Improve those processes that involve and/or impact multiple functional areas and ensuring that each area is involved in developing, implementing and supporting all improvements.

- Look for small improvements in everything you do, day-after-day.

- Don't wait for the big breakthroughs.

INNOVATION & BREAKTHROUGHS

SMALL IMPROVEMENTS (1%*)

DOING YOUR JOB

*Opportunities for Improvement

WORK PROCESS IMPROVEMENT (WPI) TEA🅜ETRO

How to get Started With Work Process Improvement

1. Thoroughly understand the objective

- <u>What</u> can be improved?
- <u>Who</u> is involved?
- <u>How</u> can it be improved?
- <u>When</u> can it be improved?

2. Thoroughly analyze the process

- Get help from PERC coordinator.
- Use tools for analysis.
- Identify barriers.
- Identify positive forces.
- Seek out benchmarks/comparisons.
- Outline plan for improvement.

WORK PROCESS IMPROVEMENT (WPI) TEA(M)ETRO

How to get Started with Work Process Improvement

3. Review plan with supervisor

- Agree on opportunity for improvement.
- Review possible solutions.
- Agree with on approach to be taken.
- Write down goals, objectives, schedules, etc.
- Have supervisor co-sign the plan.

4. Review and give copy of plan to PERC Coordinator

- PERC Coordinator shares plan with steering committee

WORK PROCESS IMPROVEMENT (WPI)   TEA**M**ETRO

How to get Started with Work Process Improvement

5. Identify others involved in the process and who should participate

- Solicit an executive sponsor.
- Contact affected supervisors/managers to support the plan.
- Identify the sponsoring PERC Coordinator.

6. Work with sponsoring PERC Coordinator to set up WPI team meetings, training, etc.

7. Keep the PERC Coordinator and Supervisors informed of progress on continuous basis

WORK PROCESS IMPROVEMENT (WPI)   TEA(M)ETRO

How to get Started with Work Process Improvement

8. Present recommended improvements to appropriate supervision and/or management

   - Get help from PERC Coordinator(s).
   - Present findings and recommendations.
   - Present path forward - who does <u>what</u>, <u>when</u>.
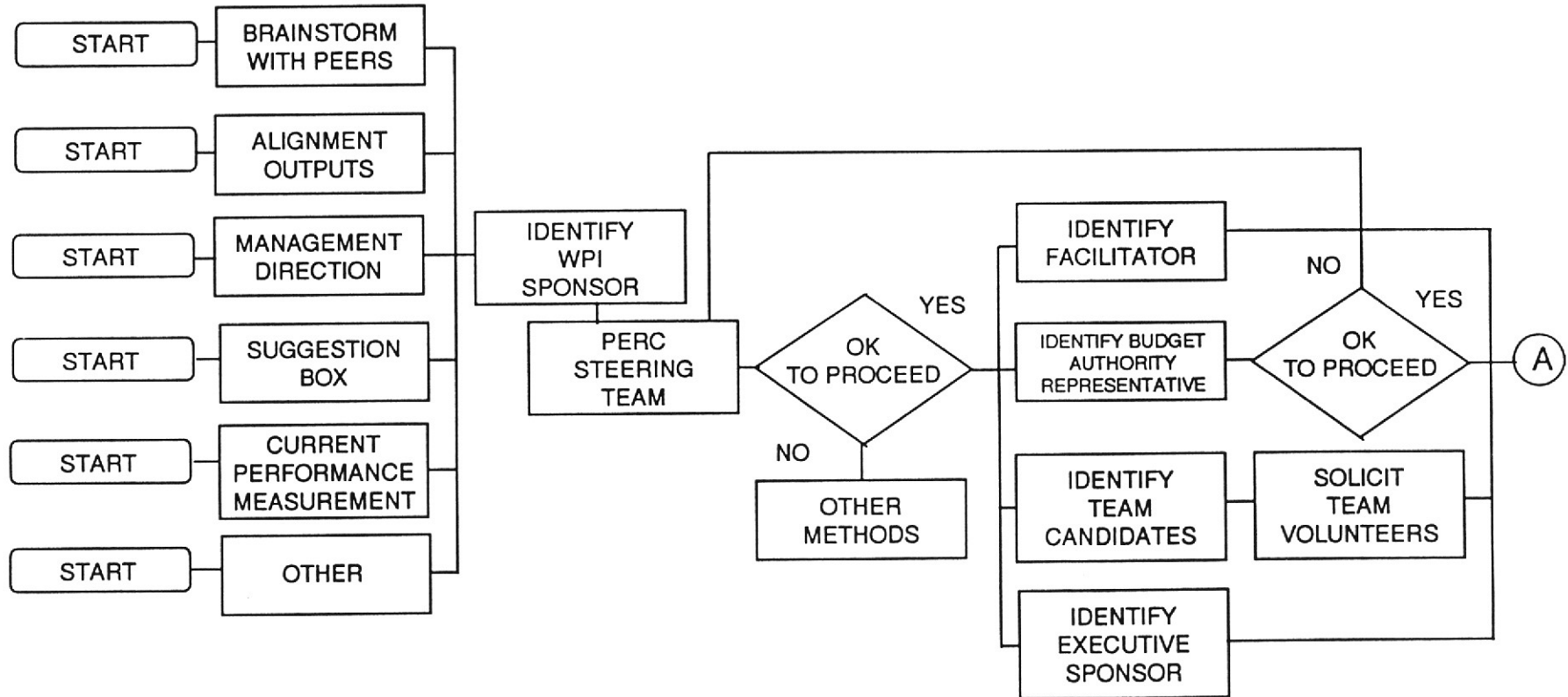   - Agree on methods for measuring improvements.

9. Monitor improvement(s) and report results to PERC Coordinator, Supervisors and/or Management on regular basis

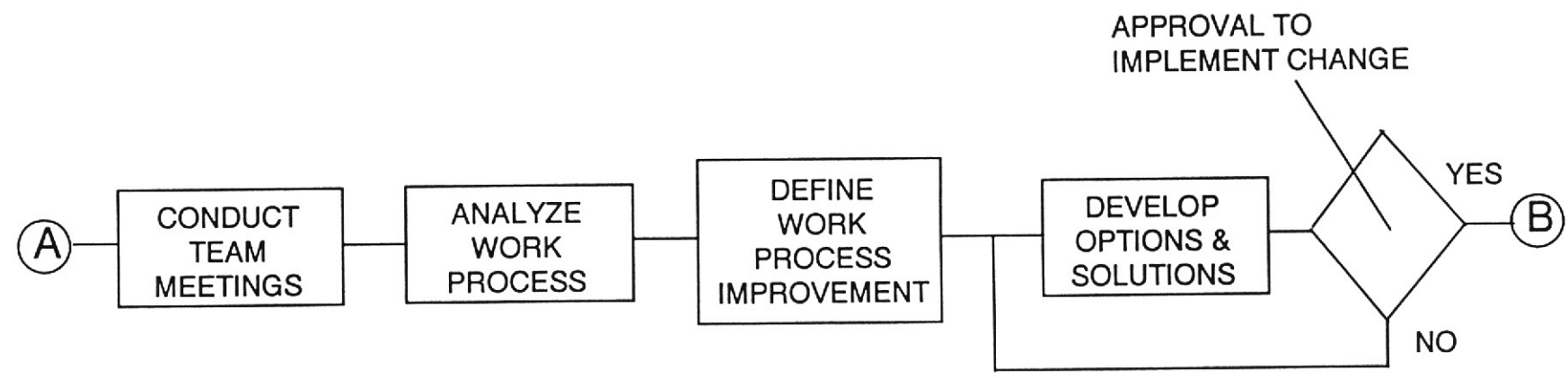# WORK PROCESS IMPROVEMENT (WPI)   TEA**M**ETRO

Tools Typically used in Work Process Improvement

- Flow Chart.
- Check Sheet.
- Brainstorming.
- Nominal Group Technique.
- Pareto Chart.
- Cause and Effect (Fishbone Diagrams).
- Histogram.
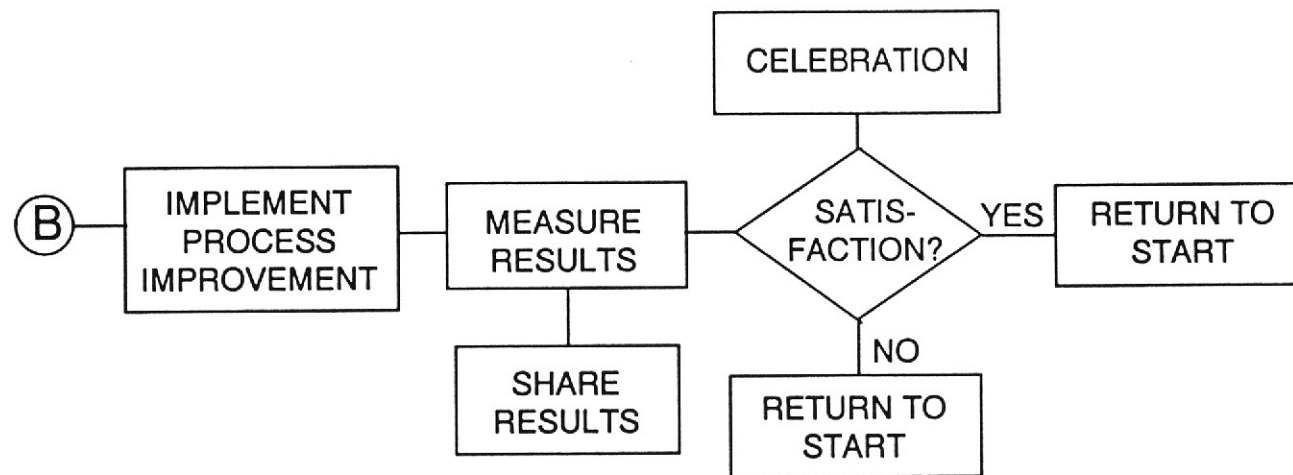- Control Chart.
- Force Field Analysis.

WORK PROCESS IMPROVEMENT (WPI)
FLOW DIAGRAM

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```
START ──── BRAINSTORM
           WITH PEERS ──┐
                        │
START ──── ALIGNMENT    │
           OUTPUTS ─────┤
                        │
START ──── MANAGEMENT   │──── IDENTIFY
           DIRECTION ───┤     WPI
                        │     SPONSOR
START ──── SUGGESTION   │        │
           BOX ─────────┤     PERC
                        │     STEERING ──── OK          ──YES──
START ──── CURRENT      │     TEAM          TO PROCEED
           PERFORMANCE  │                      │
           MEASUREMENT ─┤                      NO
                        │
START ──── OTHER ───────┘                   OTHER
                                            METHODS
```

IDENTIFY
FACILITATOR ──── NO

IDENTIFY BUDGET
AUTHORITY   OK   ──YES── (A)
REPRESENTATIVE   TO PROCEED

IDENTIFY   SOLICIT
TEAM   TEAM
CANDIDATES   VOLUNTEERS

IDENTIFY
EXECUTIVE
SPONSOR

PERC 14 -- REV. 0

WORK PROCESS IMPROVEMENT (WPI)
FLOW DIAGRAM

TEA Ⓜ **ETRO**

APPROVAL TO
IMPLEMENT CHANGE

Ⓐ — CONDUCT TEAM MEETINGS — ANALYZE WORK PROCESS — DEFINE WORK PROCESS IMPROVEMENT — DEVELOP OPTIONS & SOLUTIONS — ◇ — YES — Ⓑ

NO

WORK PROCESS IMPROVEMENT (WPI)
FLOW DIAGRAM

TEA(M)ETRO

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                              ┌──────────────┐
                              │ CELEBRATION  │
                              └──────────────┘
                                     │
      ┌───────────┐  ┌──────────┐    ◇
 (B)──│ IMPLEMENT │──│ MEASURE  │── SATIS-  ──YES──┌───────────┐
      │ PROCESS   │  │ RESULTS  │   FACTION?       │ RETURN TO │
      │IMPROVEMENT│  └──────────┘    ◇             │  START    │
      └───────────┘       │          │NO           └───────────┘
                     ┌──────────┐ ┌───────────┐
                     │  SHARE   │ │ RETURN TO │
                     │ RESULTS  │ │  START    │
                     └──────────┘ └───────────┘
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It All Comes Down to Measurement

- Once a WPI is implemented - the team tracks the results.

- The improvements will be charted and prominently displayed.

- All charts will be updated monthly.

- Displays will include key indicators of each project.

- Senior Management support and input into measurements criteria and results is a key prerequisite to success of the Partnership for Excellence in Rail Construction.

PERC STRATEGIES

TEA(M)ETRO

CONTINUOUS PERFORMANCE IMPROVEMENT	TOTAL EMPLOYEE INVOLVEMENT	PROMOTE PARTNERING CONCEPTS
● PERC coordinators & management constantly promote & encourage participation in PERC	● Keep employees informed of strategic direction through the alignment process, newsletters, etc.	● Project alignments upfront to define partnering agreements
● PERC concepts become part of RCC culture	● Promote and recognize employee participation in work process improvement activities	● Joint resolution of conflicts at lowest possible level to avoid potential claims
● Include consultant and other personnel when appropriate	● Provide training and other resources as needed	● Win-win relations with consultants and sponsors
● Constantly improve, measure and adjust work processes	● Ensure the sharing of knowledge gained with all employees	● All parties become accountable and accept responsibility
● PERC Coordinators/ Steering Team are focal point & clearing house for WPI activities		

SUBCONTRACTORS/SUPPLIERS
CONTRACTORS/MAJOR SUPPLIERS
CONSULTANTS
RCC FUNCTIONAL DEPTS
PROJECT TEAMS
RCC MANAGEMENT TEAM
PROJECT TEAMS
RCC FUNCTIONAL DEPTS
CONSULTANTS
CONTRACTORS/MAJOR SUPPLIERS
SUBCONTRACTORS/SUPPLIERS

PERC - The Growing Circle
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Continuous Improvement

DEVELOPING PARTNERING
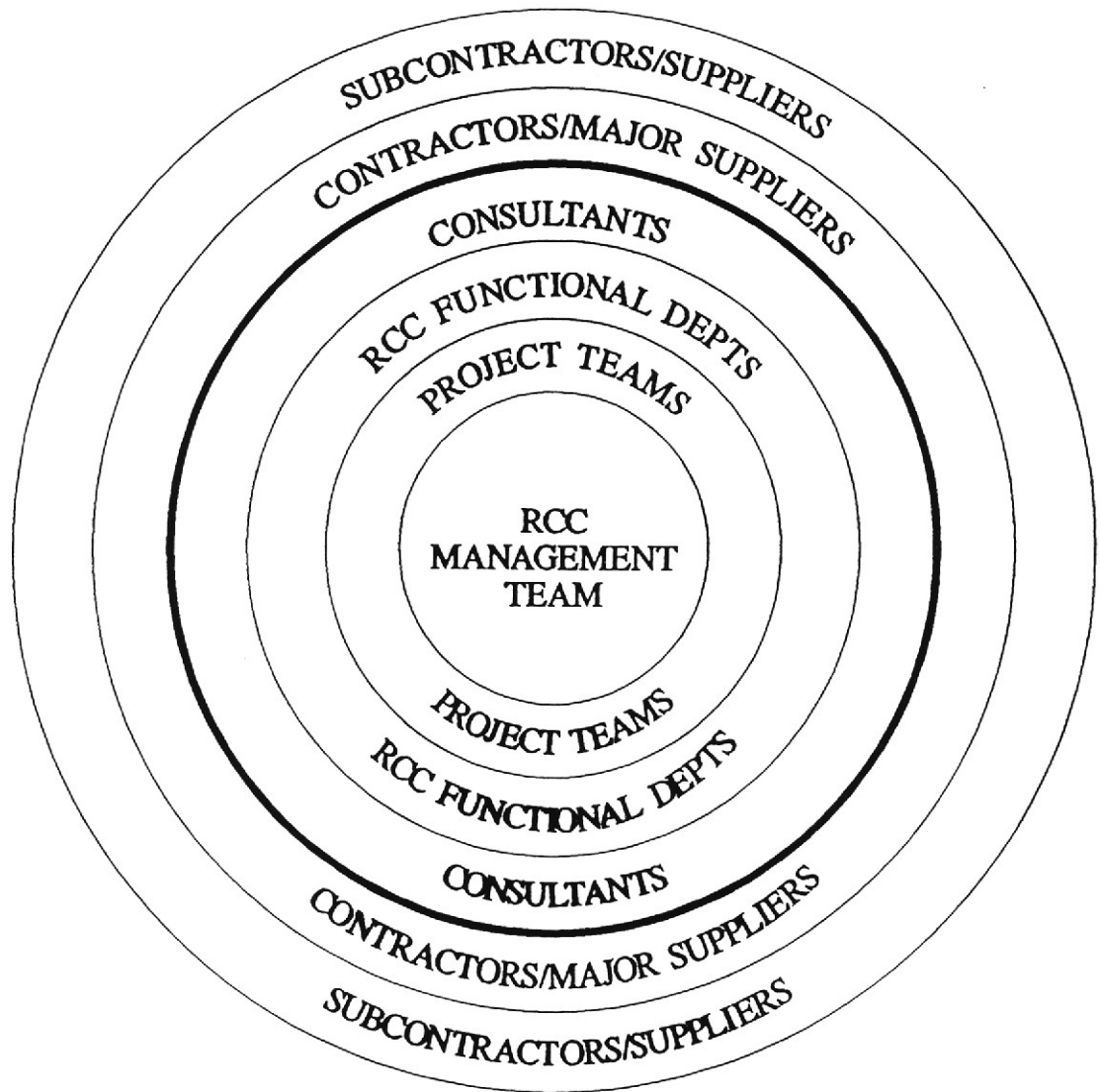
Partnering/Alignment Process Objectives

- A single, effective project management team.

- Improved productivity and quality within a single culture.

- Common goals and objectives leading to a win-win relationship.

- Principle-based leadership and joint relationships based on honor and shared values.

- A strategic focus on a process that is everyone's responsibility.

- Acceptance by all parties of the inherent shared risk.

DEVELOPING PARTNERING

Ranking of elements and principles critical to successful Partnering*

RANK	PRINCIPLES
1	Trust
2	Professionalism
3	Honesty
4	Safety
5	Quality
6	Continuous Improvement

*BASED ON A SURVEY OF A & E FIRMS, CM'S, E & C'S AND CONSTRUCTORS

DEVELOPING PARTNERING

TEA M ETRO

Ranking of elements and principles critical to successful Partnering*

RANK	CRITICAL ELEMENTS
1	Management's Support
2	Alignment Workshop
3	Problem Solving Process
4	Develop Partnering Staff
5	Established Common Goals
6	Roles & Responsibilities Defined
7	Schedules for Partnering Events
8	Evaluation Instruments

*BASED ON A SURVEY OF A & E FIRMS, CM'S, E & C'S AND CONSTRUCTORS

Senior Management Can Support PERC By:

- Making PERC a primary topic at project/department staff meetings.

- Using the WPI to resolve issues originating at management levels.

- Empowering your employees to improve processes.

- Acting as executive sponsors for WPI's.

- Constantly promoting the PERC culture of total quality and partnering.

Why Management Should Invest Resources

- WPI actions will improve overall efficiency.

- More time will be available for doing it right the first time.

- Management will be able to allocate available resources.

- PERC concepts promote better planning, reduce rework and crisis management.