



Michigan Chapter
Associated
General Contractors
of America, Inc.

2323 N. Larch

Box 27005

Lansing, Michigan

48909

517 371-1550 phone

517 371-1131 fax



Education and Training In The Construction Industry

Foundations For Our Future

Professional Education Series

New – Under Development in 1993

▶ **Target Groups**

Chief/Executive Officers

Management Employees

Management Development

Advanced Management

Field Employees/Support Staff

AGC Supervisory Training

Program (STP)

1st session Jan. 6 – March 10, 1993

Construction Users/Owners

Labor Relations Division

▶ **Hal Bell Labor Management
Lecture Series**

▶ **Negotiators Course**

▶ **Trustees Council**

▶ **Jobsite Labor Relations Course**

Education Committee

▶ **Higher Education Liaison**

Summer Work Program

Endowment Fund Scholarships

Civil Engineering Students

Construction Management Students

Resumé Book

▶ **Continuing Education**

▶ **Professional Education Series Oversight**

▶ **Construction Careers**

▶ **Resource Center**

Safety

▶ **Jobsite Safety Education Through
Project Safe Site**

▶ **Michigan Construction Safety Day**

▶ **MIOSHA Update**

▶ **First Aid (CPR)**

▶ **Substance Abuse Awareness**

Manpower & Training

▶ **Executive Development Program**

▶ **Craft Workers Certification Program**

▶ **Joint Apprenticeship and
Training Programs**

▶ **Joint Journeymen Upgrading Programs**

▶ **Careers in Construction Promotions**

▶ **Work Force Diversity**

▶ **Voc-Tech Liaison**

Seminars/Forums

▶ **Advanced Marketing**

▶ **TQM**

▶ **Partnering**

▶ **Insurance**

▶ **Owner/Contractor Relations**

▶ **Project Delivery Systems**

Proposed Agenda
Professional Education Series
for Advanced Management Employees
 Date???? MAY 27, 1993
 12:00 noon
 AGC Building, Lansing

- A. The Professional Education Series Overview
 - 1) Outline
 - 2) Reporting Procedure Through Education Committee
- B. Break into Four Task Force Groups to Develop Curriculum *(Smile Time/Outline)*

| | |
|----------------|-----------------------------------|
| Owners & Users | Middle Management |
| CEO's | Field Employees and Support Staff |

 - 1) Target Audience
 - 2) Format - Forum, seminar, other
 - 3) Topics, Guest Speakers
 - 4) Time and Place
- C. Seminars and Training Programs Currently Offered
- D. College and University Construction-Related Seminars/Forums/Training Programs
- E. Questions/Answers/Reactions
- F. Other Business
- G. Adjourn

April 1993

To: Task Force Members for AGC Professional Education Series --
Management Employees

Bruce Burgess, Muskegon Construction
Kip Cunningham, Cunningham Construction
Dan Emmenecker, J.R. Heineman & Sons
Glenn Granger, Granger Construction
Randy Jobin, Clark Construction
Bill Luginsland, Lansing Community College - See Pierre WCC
Mark Sands, The Christman Company
John Van Stratt, Miller-Davis Company
Ralph Shields, Ferris State University

From: Bart Carrigan

Gentlemen:

At the Michigan Chapter AGC Strategic Planning Session, it was agreed that AGC needed to develop a Professional Education Series for the construction industry in Michigan. What evolved was an exploratory meeting with the leaders of both the Detroit and Michigan Chapter Education Committee, key educators, contractors, staff and owners. They asked that four Task Forces be enlisted to help develop direction and support for this series.

These Task Forces have been selected to design seminars for the following distinct levels of people within the construction industry. Since you were each carefully selected to serve, we hope you can actively participate on the respective committee.

- 1) Owners and Users
- 2) Middle Management
- 3) Field employees and support staff
- 4) CEO's

Enclosed is the agenda for this meeting along with a copy of the entire proposed Professional Education Series for your review. It is hoped that this series would help avoid duplication of efforts and build a calendar for a Continuing Education Series for the construction industry.

MAY 27, 1993

We are asking each of you to participate in the first meeting on ~~??????~~, Date, 1993 at 12:00 noon at the AGC Building in Lansing. A luncheon will be served. Ralph Stephenson will facilitate the meeting which will break into the four above groups to begin to develop curriculum.

The goal is to establish/develop the seminar offerings for 1994. It is intended that this professional education seminar series will be package into a pamphlet or brochure which will be distributed at the December Annual Meeting.

If you cannot make this meeting, please call the AGC office, 517/371-1550.

Each of the groups listed below will receive a copy of the meeting notice

Ralph Stephenson to be facilitator

Task Force Members for Management Employees -

Bruce Burgess, Muskegon Construction; Kip Cunningham, Cunningham Construction; Dan Emmenecker, J.R. Heineman & Sons; Glenn Granger, Granger Construction; Randy Jobin, Clark Construction; Bill Luginstand, Lansing Community College; Mark Sands, The Christman Company; John Van Stratt, Miller-Davis Company; and Ralph Shields, Ferris State University

Task Force Members for Owners and Users -

Chuck Clark, Clark Construction; Bill Verrette, Champion; Bob Carr, U OF M; Roger Lane, Detroit Edison; Dave Gregory, Gregory Construction; Herb Spence, Spence Bros; and one representative from MSPE, CEC, AIA, and CSI

Task Force Members for CEO's -

Phil Frederickson, The Christman Company; Chuck Clark, Clark Construction; Gary Post, Muskegon Construction; Pat Cunningham, Cunningham Construction; Frank Hatfield, MSU; and Ed Haltenhoff, MTU

Task Force Members for Field Employees and Support Staff -

Mike Emmenecker, J.R. Heineman & Sons; John Flook, Wagner-Flook Builders; Keith Smith, Cunningham Construction; Al Hardman, Hardman Construction; Rob Krueger, The Christman Company; Matt Pumford, Pumford Construction; representative from MPMCA, SMACNA, NECA and Chuck Matrosic, Ferris State University; Les Pierce, Washtenaw Community College; Dulcy Abraham, Western Michigan University

current as of 4/19/93

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PROFESSIONAL EDUCATION SERIES TASK FORCES MEETING REPORT
May 27, 1993, Michigan Chapter AGC

Attendees:

AGCM E193

Task Force Members for Management Employees --

Bruce Burgess, Muskegon Construction
Kip Cunningham, Cunningham Construction
Glenn Granger, Granger Construction
Randy Jobin, Clark Construction
Bill Luginsland, Lansing Community College
Ralph Shields, Ferris State University

Task Force Members for Owners and Users -

Bob Carr, U of M
Herb Spence, Spence Bros.
Joe Neussendorfer, Greater Detroit Chapter AGC
Jim Kolb, Michigan Society of Professional Engineers
Mike Nystrom, Builders Exchange of Lansing

Task Force Members for CEO's -

Chuck Clark, Clark Construction
Gary Post, Muskegon Construction
Pat Cunningham, Cunningham Construction
Ozzie Pfaffmann, Woods Construction
Frank Hatfield, MSU

Task Force Members for Field Employees and Support Staff -

Mike Emmenecker, J.R. Heineman & Sons
Keith Smith, Cunningham Construction
Jack Robbins, Michigan Plumbing and Mechanical Contractors Association
Dick Northrup, Sheet Metal and Air Conditioning Contractors Association
Les Pierce, Washtenaw Community College

Ralph Stephenson, Facilitator
Bart Carrigan, Staff
Claudia Jefcoat Staff
Barbara Strachan, Staff

AGC Executive Vice President Carrigan opened the meeting by welcoming everyone and asked for self introductions. Following the introductions, Executive Vice President Carrigan reported that the professional education series came about as a result of the AGC Board's Strategic Planning session. Four Task Forces were selected and members were chosen to serve. This series is also one of the top goals set by the Presidents and Vice Presidents of the Michigan Chapter and Greater Detroit Chapter. The reporting for this group will be through the Chapters' Education Committees and/or the new joint Education Committee.

Executive Vice President Carrigan then introduced staff members who summarized programs and seminars their committees have held.

Staff Reports

Pete Anderson detailed his five areas of responsibility as Safety Director:

PROJECT SAFE SITE
Michigan Construction Safety Day
MIOSHA Updates
First Aid Training
Substance Abuse

Barbara Strachan outlined her job responsibilities:

- Joint Apprenticeship and Training
- Craftworker Certification
- Journeymen Upgrading
- Workforce Diversity
- Voc-Tech Liaison
- Executive Development

Claudia Jefcoat summarized Education Committee activities:

- Professional Education Series
- Supervisory Training Programs
- Liaison with Higher Education
- Summer Work Program
- Educational Endowment Fund
- AGC Student Chapters
- Construction Career Promotion with Manpower & Training Committee
- Resume Book
- Resource Center

Bart Carrigan reported that the following seminars have been held this last year: ADA, Bidding Game, Construction Management, Advanced Marketing, Workers Compensation, Insurance, and TQM.

Bart Carrigan also reported that the Labor Relations Division will be scheduling the following programs: Negotiator Training, Fringe Benefit Fund Trustee Seminar and Jobsite Labor Relations.

Education Representatives Reports

The educators then reported on construction-related seminars and training programs.

Frank Hatfield reported on the lifelong engineering program. He said that MSU has a tv studio available for interactive seminars. Seminar services are also available such as planning, budgeting, on-site coordination and evaluations.

Bob Carr said that U of M has 17 courses in construction toward their Masters of Services in Construction Engineering Management. He also said that U of M does not have a continuing education series because they lack a strong marketing arm.

Ralph Shields reported that Ferris has seminars available on the following topics: TQM, Productivity Improvement, Asphalt Technicians-Managers, Sanitations, Aggregate, Bituminous, and HVAC.

Les Pierce and Bill Luginsland reported on the success of the STP Programs at the community colleges and other technical courses.

Education and Training Needs

President Chuck Clark said that the current construction industry has a significantly increased educational level. The level of educational needs and sophistication is much higher as is the quality and difficulty of the projects. All employees need to be able to read a spec and understand the complexity of the project. We need to establish a framework to develop curriculum and identify student customers. With only 60 general contractor members as an audience, AGC needs to reach out for more potential students. The Builders Exchanges in Michigan offers more prospects for students and are likely partners for the AGC.

Executive Director Carrigan said that AGC will be partnering with the Builders Exchanges in Michigan to develop and use an electronic plan room project.

Executive Vice President Carrigan then introduced the facilitator, Dr. Ralph Stephenson. Dr. Stephenson distributed and reviewed the agenda and the enclosures. Enclosure #1.

Responsibilities of the Task Forces

Mr. Stephenson then asked each of the four Task Forces to meet, nominate a captain and report back results of the following questions to the full committee.

- 1) Prepare a mission statement answering the question, what is the single most important result to be achieved by this task force in a one year time frame.
- 2) Determine the target audiences so that the mission statement will be achieved.
- 3) List what the topics are that would best achieve the mission with the target audience. Consider options to the program format -- seminar, training program, symposium, task force, workshop, presentation, forum, etc. See Enclosure #2.
- 4) Give consideration to the instructors, trainers and educators to best address the topics.

Results of Task Force Meetings

The results of the four Task Forces are attached as Enclosure #3. On the back of the page is a listing of each individual's mission statement.

Several Task Force Members made comments on the basic idea of training. It was agreed that target audiences need to be addressed from the bottom up. The hardest problem is the people who are unpromotable in field operation, the good working superintendents. Special incentives need to be set up for them to encourage them to attend education and training programs. Support staff and field management are two separate areas.

The Owners/users and the field employees need basic education on the construction process. The project manager's relationship with owners and the owner's relationship with the project manager has the greatest impact on the project. Mentoring should be a one-on-one coaching experience with the superintendent and the field owners rep. The super rubs against the user every day and can be an education experience. The architects and engineers also need to be included in the users group.

The owners/users group could be operational, purchasing, legal, project manager, architect, engineer, supplier, buyers, and staff. Risk sharing can be a mutual effort.

Possibly a group of 2-5 people could have the group dynamics to be neutral involvers on a dispute resolution board. They would be trained to be neutral and reason through problems.

It is important to promote our education and training efforts for the industry.

Recommendations

Ralph Stephenson asked attendees to make recommendations on the proposed educational series. The recommendations follow. We should:

Prepare an inventory of education and training programs currently available and assess their impact.

Identify and quantify target audiences.

Survey target audiences as to needs and interests.

With the input from these recommendations and the Task Forces, develop an initial curriculum by the end of the year.

Proceed organizationally by meeting with entire group within the next two months and schedule more time to work with the individual Task Forces.

Between now and the next meeting, prepare a list of target audiences that is not too broad. List the specific level of employee we will be targeting by defining positions well.

In addressing the owners and users seminars, go beyond the normal relationships with owners. Should owner reps and field reps be present?

Determine how subcontractor groups will utilize series. Clearly define role of specialty sub in AGC.

Identify what we can win with and do it!

Copies of the newest resource publication, "AGC Resource Center Periodicals Index" were distributed.

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

Agenda for task forces meeting

12:00 noon to 01:00 pm - lunch

01:00 to 01:10 pm - Professional Education overview - by AGC staff & educators

- Staff reports on seminars & training programs currently offered
- Educators report on college & university construction related seminars, forums & training programs
- Reporting procedures through AGC Education Committee

01:10 to 01:15 pm - Introduction of program for afternoon

01:15 to 01:35 pm - Introduction to program and review assignments for task force break out sessions

- What is our mission? - What is the single most important result to be achieved by the work of this task force?
- What is our target audience? - Who is it that should attend so that the mission of the task force's education and training efforts will be achieved?
- What are the topics that might best achieve our mission with our target audience? - What topics are needed and/or wanted by the audience we are expecting to attract to achieve our mission?
- What program formats would be most suitable?
- Who are the trainers and educators that can best present the topics?

Beginning list of subjects to consider for education and training

- A. Alternative dispute resolution - resolving conflict on construction projects
- B. Applying situational thinking - thinking effectively for good decisions
- C. Basic project management software tools for the designer & constructor
- D. Better understanding yourself - improving your personal skills
- E. Business principles of the architectural/engineering business - what are the elements of successful business practices - non financial
- F. Claim prone job characteristics - what are the signals of a bad job?
- G. Closing out the project - how do you get out of the project once you have built it?
- H. Collections, retention & final payment - the methods and reasons for proper payment practices, and the effects of retention on project performance
- I. Common causes of contested claims - what are the most common construction troubles?
- J. Conflict resolution - design and construction conflict resolution and effective ways of achieving it
- K. Construction contract characteristics - what are the various methods by which design and construction projects can be placed under contract and managed
- L. Construction management. what it is, and what it is not - the liable, non liable, agency, contractor types of CM and what they mean to the owner and others
- M. Contract document packaging on dovetailed projects - assembling bid packages on fast track projects
- N. Costs committed vs. money spent - how committed and actual money flows on a project
- O. Creativity and how it is achieved - the six basic elements of being

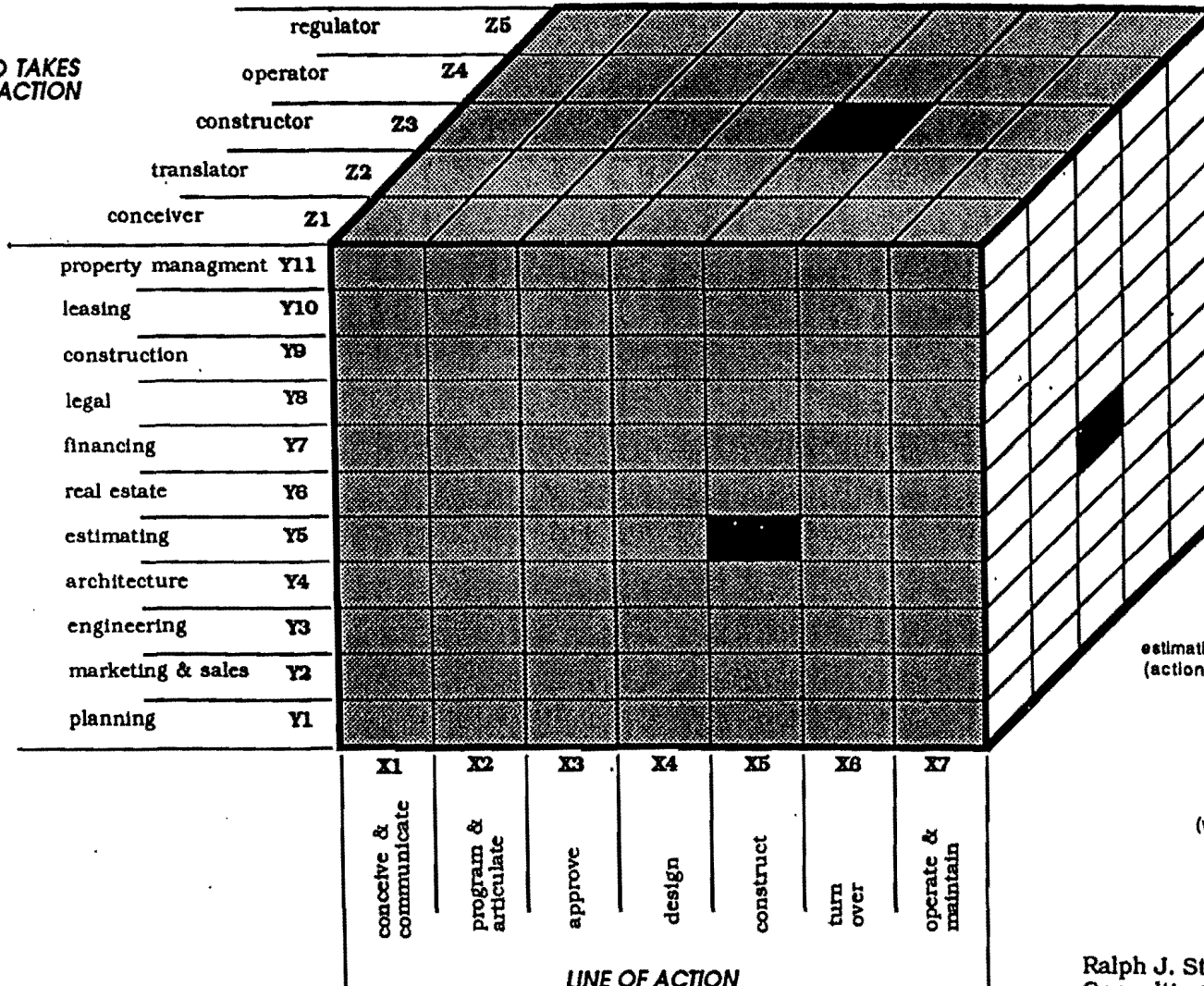
- **AG. Improving your people skills - general methods of improving your abilities to work effectively with people**
- **AH. Iterative estimating to a guaranteed maximum price (gmp) - estimating to a cap price by controlling the cost through proper design and continuous value engineering**
- **AI. Keeping accurate records - the importance of record keeping and how to balance record keeping with the needs for the records**
- **AJ. Kinds of estimates and how they're used - the various methods of estimating available to the construction professional**
- **AK. Management styles and their relation to success in the owner, designer or construction organization**
- **AL. Managing by exception - a method of managing to the actual needs of a project**
- **AM. Marketing design and construction services - various methods of finding markets, developing your place in the market, and working effectively in the developed market area**
- **AN. Measuring and monitoring performance - how to measure your progress toward defined goals and objectives**
- **AO. Network planning & critical path method - basic and advanced methods of planning and scheduling design and construction work**
- **AP. Nine steps to becoming a good project manager - the nine essentials thinking practices of good managers**
- **AQ. Organizational structures used by general contractors**
- **AR. Owner and user training in how to most effectively use their general contractors and others on the design and construction team**
- **AS. Partnering - how to use it as a preventive technique in avoiding or lessening construction related destructive disputes and conflict**
- **AT. Planning and scheduling the architectural and engineering production process - how to apply effective tools and techniques to properly model the design process and simulate impacts on the job**
- **AU. Preparing and using check lists - what are some of the methods of using data files to insure ongoing attention to important details of managing**
- **AV. Preparing and using contract document matrixes - how to**

record keeping

- BL. The function and role of construction business participants
“What do all of these people we know and deal with, do for a living, and what do they have to do with my project?”
- BM. The macro matrix of the design & construction industry - the large picture of the design and construction profession and why it is important to understand
- BN. Thinking & reasoning effectively - improving your thought processes for improved performance
- BO. Time management - how to manage time as a resource
- BP. Tracking project cash flow - the use of planning and scheduling tools as applied to the financial resources available for project financing
- BQ. Translating the project network model - various methods of translating information about a project into different graphic languages for better management and control potential
- BR. Understanding and working well in front end project activities
 1. Real estate
 2. Financing
 3. Leasing
 4. Other
- BS. Using intelligent questioning - the how and why of questioning techniques and how they help achieve project success
- BT. Vertical and horizontal diversification - basic methods of expanding and diversifying your business efforts
- BU. Weather and its impact on construction - what are the criteria for adding weather considerations into a project plan and schedule
- BV. What is total quality management (TQM) - really?
- BW. Writing good project programs - the role of the early, well written project program - what it is and how it affects project success
- BX. Writing good reports - how to effectively translate & convey your mental imaging to others in writing they can understand
- BY. Yardsticks by which to measure project success - how do you know when you've done a good job, and how do you develop a set of standards by which success is determined

MACRO MATRIX BOUNDARIES OF DESIGN & CONSTRUCTION

WHO TAKES THE ACTION



ACTIONS TO BE TAKEN

1/11

one sector in the matrix

constructor (who?)

estimating (action?)

construct (work phase?)

LINE OF ACTION

Michigan Chapter AGC
Education Task Force

Ralph J. Stephenson, P. E., P. C.
Consulting Engineer
May 27, 1993

VIII. Glossary of terms

A. Program

1. A listing of the order of events and other pertinent information for a public presentation.
2. The presentation itself

B. Seminar

1. A small group of advanced students in a college or graduate school engaged in original research under the guidance of a professor who meets regularly with them for reports and discussions.
2. A course of study so pursued.

3. A scheduled meeting of such a group.

C. Symposium

1. A meeting or conference for discussion of some topic.
2. A collection of writings on a particular topic, as in a magazine.
3. A convivial meeting for drinking, music, and intellectual discussion among the ancient Greeks.

D. Forum

A public meeting or presentation involving a discussion usually among experts and often including audience participation

E. Task force

A temporary grouping of forces and resources for the accomplishment of a specific objective.

F. Curriculum

A particular course of study, often in a special field.

Report from Task Force Members for CEO's -

Chuck Clark, Clark Construction
Gary Post, Muskegon Construction
Pat Cunningham, Cunningham Construction
Ozzie Pfaffmann, Woods Construction
Frank Hatfield, MSU

Mission Statement: How to do our Jobs Better

1. Support the educational objectives of the other three groups.
2. Direct CEOs' attention to broader issues impacting the construction industry.
3. Facilitate CEO discussion groups.

(over)

Individual Mission Statements from CEO Task Force Members

Develop a control plan that recognizes all programs in place and potential programs that will benefit AGC to manage service for members and industry at large. How does the the CEO become aware of needs to use his forces efficiently?

Learn from other CEOs how to better perform as a CEO for my company and develop leaders.

Propose a feasible plan by which AGC can help CEOs achieve their perceived educational objectives.

To develop a continuing training program for CEOs and to steer the entire curriculum.

Establish the format and curriculum (course outline) for continuing educational opportunities for top officials in Michigan's construction industry.

Report from Task Force Members for Management Employees --

Bruce Burgess, Muskegon Construction
Kip Cunningham, Cunningham Construction
Glenn Granger, Granger Construction
Randy Jobin, Clark Construction
Bill Luginsland, Lansing Community College
Ralph Shields, Ferris State University
Barbara Strachan, Staff

Mission Statement: Develop a program which addresses educational needs of construction industry managers.

Target Audience: Superintendents, Project Managers, Estimators, Department heads up to and including company vice presidents

Topics: Marketing Strategies
Risk Management
Organizational Structure

Leave Executive Development Program as is

Individual Mission Statements from Management Employees Task Force Members

To provide specific skills training required to assist in the technical, managerial and professional development of AGC customers.

Understand the training and educational needs of construction employees at management levels. Develop and implement a program to address those needs.

Create a plan or curriculum to train personnel to become leaders and managers of the construction site and the effective administration of the job.

Provide a forum for discussion of problems and solutions for day to day operations at the construction office and job trailer.

Provide outline for program to help middle managers understand the "big picture" of how a top notch construction organization operates.

Report from Task Force Members for Owners and Users -

Bob Carr, U of M
Herb Spence, Spence Bros.
Joe Neussendorfer, Greater Detroit Chapter AGC
Jim Kolb, Michigan Society of Professional Engineers
Mike Nystrom, Builders Exchange of Lansing
Bart Carrigan, Staff

Mission Statement: To educate constructin buyers and their support staff about the construction process.

Target Audience: Primary decision-maker
Support staff (legal, finance, etc.)

Topics: Project Delivery Systems
Risk Allocation
Partnering
Contract Documents
Successful Projects for both owner and contractor

Individual Mission Statements from Owners and Users Task Force Members

Identify organization company classes and positions that need training/education and the topics they should receive, who can provide in what format.

Getting the more sophisticated owners and users (older, more aggressive companies who know construction) to be less arrogant and more flexible in their relationships with the construction industry, especially general contractors and construction managers.

Define, plan and assist with the implementation of education programs.

Report from Task Force Members for Field Employees and Support Staff -

Mike Emmenecker, J.R. Heineman & Sons
Keith Smith, Cunningham Construction
Jack Robbins, Michigan Plumbing and Mechanical Contractors Association
Dick Northrup, Sheet Metal and Air Conditioning Contractors Association
Les Pierce, Washtenaw Community College
Claudia Jefcoat Staff

Mission Statement: To provide to targeted audiences regularly scheduled training on the following topics presented in a workshop format.

Target Audience: Journeymen, Draftsmen, Foremen, General Superintendents, Superintendents, Office Managers, Receptionists, Secretaries

Topics:

- Substance Abuse & Safety
- Productivity & Quality
- Scheduling
- Documentation & paperwork skills
- Communication Skills
- Management of a Construction Company
 - Construction Economics (bidding process)
 - Employment vs. unemployment
 - Overhead (fixed cost)
 - Collective bargaining

Format: Workshops, possibly video presentations