

Ret to RJS

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Mr. Dewey Little  
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2902 Glenview Avenue  
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ICM ICM

Dear Dewey:

*Re: Preconstruction activities of interest to designers and contractors*

It was a pleasure talking to you about preconstruction work by phone the other day. Enclosed is a handout I use in some of my classes, and occasionally with my clients to explain this relatively unexplored section of the construction business.

The items under Roman numeral III B through III F describe the various development phases most projects pass through. Within some of these I have identified specific construction-related jobs to be done in that element of the work.

Section IV is an idea list of possible duties the construction development team might perform during any planning, design and construction program. I believe this list is a good starting point for construction professionals seeking to expand their business horizon.

Use the material as you see appropriate.

Your very welcome card and travel alarm gift arrived Saturday. Betty and I are already making good use of it. Thank you.

Have a good holiday!

Regards

  
Ralph J. Stephenson P. E.

Development stages and actions to be taken - ho 322, disk 162

- I. *By Ralph J. Stephenson PE*
- II. *This material is designed to*
  - A. 1. *Provide a direct stimulus to thinking about real estate development services*
  - B. 2. *Identify the phases through which most development projects must run*
  - C. 3. *Describe some of the major activities conducted in each development phase*
  - D. 4. *Identify possible functional jobs for those involved in the development cycle*
- III. *Development phases in which professional development services play a role*

It should be recognized that Elements A through F are termed functional. This means the definition of activities is based on what the group does, rather than at what phase it does it. It is possible, for instance, to have a single project residing in one or more of the functional elements at a given time. This is particularly the case with elements A & B, the launch element and the program element.

- A. *All lists in the material that follows are at random*
- B. *Element A - Launching a project*

1. Summary of the launch function

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.

2. Activities of the launch group
  - Conceiving the opportunity - a visualization process
  - Selecting the site
  - Creating the opportunity - a doing process
  - Marketing the opportunity
  - Selling the opportunity
  - Budgeting and financing the opportunity
  - Controlling the site
  - Selecting the project team
3. Possible construction-related jobs to be done in the launch period
  - Evaluating sites
  - Representing the company in marketing & selling
  - Reviewing construction assumptions for financial feasibility
  - Reviewing construction assumptions for physical feasibility

Selecting the development implementation team

*C. Element B - Developing the project program*

1. Summary of the project program function

The project program 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.

2. Activities of the project program group (at random)

In the definition of program element activities those that are qualified in parentheses indicate the prime thrust for the action can come from either group.

Preparing market studies

Selecting the site (helping the launch group)

Controlling the site (helping the launch group)

Writing the project program

Preparing proforma analyses and project budgets (with the launch group)

Preparing traffic and site access studies

Locating & obtaining financing (helping the launch group)

Organizing the project team (with the launch group)

Preparing project conceptual design studies

Preparing project schematic studies

Preparing initial land use plans

Verifying site characteristics

Environmental

Soils

Demolition required

Mineral rights

Impact studies

Resolving initial political impacts

Zoning

PUD approval and treatment

Utility services

Waste and wastewater

Water supply

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- Gas
  - Sanitary sewer
  - Storm sewer
  - Power
  - Cable tv
  - Telephone
  - Off site improvements
  - Annexations
  - Public easements
  - Encumbrances
  - Encroachments
  - Rights of way definition
3. Possible construction-related jobs to be done in the program period
- Making detailed site reconnaissances of selected sites
  - Determining construction labor conditions in proposed areas
  - Determining construction material conditions in proposed area
  - Advising on construction systems to be used
  - Preparing preliminary conceptual estimates for budgeting
  - Helping to write project programs
  - Advising on potential code and environmental constraints
  - Finding and screening prospective field personnel

*D. Element C - Implementing the project*

1. Summary of the project implementation function
- 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 committed 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.

2. Activities of the project implementation group
- Retaining project staff for implementation
  - Preparing project schematic designs to validate conceptual studies
  - Preparing project contract documents
  - Prepare and monitor construction budgets
  - Prepare and monitor construction schedules
  - Constructing the project
    - Check contract documents for constructibility
    - Prepare contract document packages
    - Prepare construction proposal packages
    - Solicit construction proposals
    - Select contractors
    - Award contracts
    - Process submittals

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- Direct project construction operations
- Assisting with pre construction leasing
- Assisting with preselling units
- Assist in preparing lease documents
- Reviewing and approving tenant design
- Reviewing and approving layouts of owner-occupied facilities
- Controlling tenant construction through others
- Designing & constructing major improvements to existing properties
- Implementing a quality assurance plan for all activities of the group
- Meshing owner occupancy requirements with construction, facilities management and consultants

3. Possible construction-related jobs to be done in the implementation period

Note: This entire document was designed to relate to construction opportunities in the development cycle. Hence the detail in the following list.

During design and preparation of contract documents

- Preparing target cost estimates from schematics & design development dwgs
- Advising design team on effective construction techniques
- Advising design team on selection of construction materials
- Advising design team on relative cost analyses
- Assisting design team in construction systems selection

Site work

- Foundation work

- Structural frame

- Exterior building skin

- Interior rough building elements

- Interior finish building elements

- Vertical transportation

- Heating and air conditioning

- Electrical installation

- Security installation

- Underpinning and sheeting

- Hoisting

In recent years hoisting on large projects has become a very important part of the evaluations made of various types of prefabricated and in place construction processes. Having an expert on hoisting and hoisting equipment available could be of great value to owners, contractors and suppliers alike.

- Directing the design team in contract document packaging

- Prepare summary construction network plans for design use

- Prepare summary schedules for design use

- Prepare value engineering studies

During construction contract award period

- Prepare list of acceptable contractors to propose on project

- Preparing construction contract packages for issuing to contractors

- Assisting to evaluate proposals and construction awards

- Issue purchase orders

- Obtain commitments on submittals and deliveries

- Tabulate actual buy out information

- Provide field with accurate procurement data to start up project

During construction period

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- See that all permits needed are obtained
- Develop and issue start up procedures
- Provide all project management and field management start up data
- Assist in preparing detailed project plans
- Assist in preparing detailed project schedules
- Assist in preparing summary network plans & schedules
- Evaluate worth and value of proposed changes
- Establish field organizational structures
- Lay out construction site plans
- Advise project manager on procurement constraints
- Assist in designing and installing construction hoisting
- Prepare procurement and expediting program for all projects
- Process bulletins and change orders
- Inspect and report on field progress relative to
  - Conformance to job plan
  - Quality of workmanship
  - Quality of field management
  - Cost targets

During close out period

- Insure that proper punch out is done by the organization
- Insure that proper warranties are obtained
- Insure that operating and maintenance manuals are provided the client
- Assist in obtaining certificate of occupancy
- Follow up with client to insure he is happy with the project - post occupancy evaluation

*E. Element D - Managing improved properties*

1. Summary of the property management function

The property management group actually 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 see that the necessary field work is done.

Post construction leasing is done totally by the property management staff. If help is needed by project implementation during pre construction leasing the property management group acts in a staff advisory position to the project implementation group as requested by the implementation or executive staff.

2. Activities of the property management group

Guiding and directing pre constructional leasing

Pre construction leasing is conducted prior to the initial construction being completed in the implementation stage. There are those who feel this operation should be under the direction of the property management organization.

Doing post construction leasing

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- Maintaining property values
- Designing minor property improvements
- Constructing minor property improvements
- Helping implement tenant association action
- Advising other elements of the company in respect to leasing
- 3. Possible construction-related jobs to be done in the property management period
  - Inspect properties for maintenance needs
  - Implement maintenance work needed on properties

**F. Element E - Maintaining the ongoing organization**

1. Summary of the ongoing function

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.

2. Activities of the ongoing organization group

- Personnel
- Administration
- Accounting
- Legal
- Office management
- Filing
- Documentation
- Office systems

**G. Element F - Leasing - note: this section yet to be completed**

Some of the elements of leasing are accomplished in close cooperation with activities in Elements B, C & D. However the responsibility for the leasing result rests in Element F and those charged with its management.

- 1. Activities of the leasing group (at random) - list to be continued
  - Locate prospective major tenants and obtaining commitments
  - Preleasing
  - Presales of residential units

2. Summary of the ongoing function

3. Activities of the ongoing organization group

**IV. Idea list of possible duties (at random) for the development professional to perform**

**A. Plan & schedule all phases of work for**

- 1. Owners
- 2. Developers
- 3. Planners
- 4. Architects
- 5. Engineers
- 6. Specialty contractors
- 7. General contractors
- 8. Construction managers

**B. Manage facility maintenance operations including**

- 1. Preparation of facility inspection checklist
- 2. Periodic inspection of facility
- 3. Maintenance of facility record drawings for reference

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4. Advising on routine maintenance of buildings and building equipment
  5. Advising on building or building system modifications
  6. Advising on building expansion programs
  7. Doing force account work for companies without in house staff
- C. Provide construction consulting on fee basis to**
1. Owners
  2. Developers
  3. Planners
  4. Architects
  5. Engineers
  6. Specialty contractors
  7. General contractors
  8. Construction managers
- D. Manage spun off specialty contractor operations**
- E. Manage equipment rental operations**
- F. Manage yard and shop operations**
- G. Manage small jobs department**
- H. Trouble shoot construction work on fee basis**
- I. Conduct training programs on**
1. Small tools use
  2. Equipment selection and usage
  3. Hoisting
  4. Safety
  5. Planning & scheduling
  6. Conceptual estimating
- J. Provide conceptual estimating services to**
1. Owners
  2. Developers
  3. Planners
  4. Architects
  5. Engineers
  6. Specialty contractors
  7. General contractors
  8. Construction managers
- K. Provide tax credit consulting**
- L. Provide project documentation services**
- M. Conduct quality assurance programs for owners and A/E's**
- N. Make building code checks**
- O. Assist in preparing developer, landlord and tenant criteria specifications**
- P. Assist in purchasing and storing mass purchased items**
- Q. Provide construction draw confirmation inspection services**
- R. Punch out jobs for others**
- S. Consult and participate in turning over and closing out project for others**
- T. Consult on construction site planning and materials handling**
- U. Manage facility maintenance division**
- V. Locate and assemble financing**
- W. Assemble & manage specialty contract design/build services**
- X. Train foremen and superintendents in effective office & field practices**