• CRITICAL PATH PLANNING

• LAND PLANNING

• MANAGEMENT CONSULTING

• PLANT LOCATION

RALPH J. STEPHENSON, P.E., P.C.
CONSULTING ENGINEER

15064 WARWICK ROAD
DETROIT, MICHIGAN 48223
PHONE 273-5026

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Abstract of Paper on Corridor Analysis and the Construction Profession - by Ralph J. Stephenson, P.E. - Consulting Engineer

Every idea, every process, every action, every project follows directional lines from beginning to end. Understanding how these lines are best, and most effectively established and followed, is one key that helps unlock good managerial skills.

The lines to be followed can be called paths, patterns, routes, tracks - but whatever called, they have the fundamental functions of providing reliable guidance, and of forcing the manager to think hard about how to get from here to there!

Visualize the lines as a floor plan of three dimensional corridors with doors, branches, openings, gates and windows, all located somewhere between the entrances to the corridors and their exits.

If the project manager and the team move unhindered along the corridors, at an optimum rate of speed, in a proper vehicle, and under fully controlled conditions, the trip will probably be a success.

If however, as they travel the corridors, gates are unexpectedly closed, trap doors are quietly opened to drop them into unknown dangers, or the windows are do dirty that they aren't able to see outside, the trip suffers, and the manager and the team may not be successful.

CORRIDOR ANALYSIS is a forward project planning method designed to identify potential detractions. It is a simulation that enables perceptive managers to see and neutralize future troubles and traps before the problems become destructive.

Let's examine a typical construction corridor problem:

- A major theme park facility is to open on July 4. The visitor vehicular entrance is located on A Street just south of a new office complex, also under construction.

- The plan for the office complex requires installation of an open cut storm sewer across A Street in X Avenue, just north of the entrance to the theme park.

- The office developer has scheduled the sewer to be installed from July 1 through July 10.

Two physical corridors exist, the traffic flow into the theme park, and the installation route of the new sewer.

There is a conflict between these corridors - the sewer is being installed in a location and at a time that will interfere with opening day entry to the theme park.

How is the conflict discovered early and resolved?

Corridor analysis is a tool that has proven helpful in such situations. It uses simple tabulation methods coupled with planning and scheduling to provide the perceptive manager a snapshot of conditions at the entrance to the theme park on July 4.

The result is that the problem is acted out or simulated long before it happens. The manager is then able to make timely decisions as to how to effectively solve the problem before it occurs.

What are some of the actions that might come from such a corridor study?

- Reschedule the pipe crossing to an earlier date
- Temporarily relocate the main entrance to the theme park
- Enter the theme park entrance temporarily from the south only
- Reschedule the theme park opening
- Jack the sewer pipe under A Street

Another situation:

- A piece of switchgear 10 feet by 4 feet by 6 feet is to be brought into a 1st floor electrical room on September 23. (Corridor - the route of access)

- Exterior masonry at the electrical room is to start September 20. The only opening available is a door three feet by seven feet. (Corridors - the masonry erection sequence and the entrance to the electrical room)

The masonry erection and the setting of the switchgear are apparently to be done under conditions that will prevent either or both from being accomplished within the cost and time budget.

RALPH J. STEPHENSON, P.E., P.C.
CONSULTING ENGINEER

A study of the corridor analysis shows that we might eliminate the problem by:

- Rescheduling switchgear delivery to an earlier date
- Delaying masonry erection at the electrical room to a later date
- Having switchgear delivered in smaller components
- Leaving an unframed opening in the electrical room wall
- Installing a larger door opening in the wall of electrical room

These two simplistic but often encountered situation types indicate a management need for workable and logical approaches to presolving corridor interference problems long before they become disruptive.

This paper on corridor analysis presents methods of modeling, evaluating, identifying and eliminating physical and non-physical interferences found in the planning, design, and construction of facilities.