0080032 INDUSTRY REVIEW COMMENTS

****

Bob Graham

COMMENT:

I know this is not a change but, in 8-3.2.1, the initial submittal time frame of 30 days after execution is not nearly enough time on a good sized project. Submittal at the precon should be soon enough. BG

****

Robert Robertson

COMMENT:

There are numerous sentences that are not in "active voice". I do not have the time to point out each individually.

****

Bob Burleson (from Internal Review)

A comment I received:

I have sent this proposed spec out to my Project Managers for their input. We will not be able to respond within 5 days. I can tell you we will have plenty of comments. It appears this specification will require a full-time scheduler on most projects that we build. There is a requirement to cost load the schedule, and to keep this balanced, which will be a full-time job by itself with changing quantities, extra work, etc. This is especially difficult as schedule items do not match bid items, so as the scope of work changes it is very hard to keep the cost loading balanced. The spec is very one sided as it does not allow the Contractor to resource load the schedule. Many of our issues with utility impacts or design errors result in resource problems later in the project as the same type of work gets crowded into one time frame. And FDOT wonders why bid prices are escalating! I will forward the comments I get as soon as I can, hopefully sometime next week.

****

J.C. Miseroy
Granite Construction Company
4-25-2006

COMMENTS:

Introduction – There has been much discussion recently about the ever increasing costs of construction bids and the impact this will have on the work program. This proposed specification is just one more example of why contract costs are increasing. The specification will require additional project staff to maintain the schedule, assigns increased risks and responsibilities to the contractor and remains a tool for the

Department rather than the contractors. Specific issues with this specification are given below.

8-3.2.1 Contract Schedule – On large complex projects it is not reasonable to expect that a cost loaded schedule with durations less than 20 days per activity can be developed within 30 days. This may work for some simple resurfacing projects but not for multi-phased, multi-year contracts with extensive utility relocation. It is interesting that the Department gave themselves as much time to review the schedule as the Contractor gets to build the schedule. We suggest that 90 days is more appropriate for large complex projects.

8-3.2.2 Schedule Submissions – Requiring that these schedules be submitted on 3.5" diskettes is totally outdated. File formats are limited to P3 and Suretrak. Primavera is stopping support of Suretrak and developing alternate software. This section requires the week to start on Monday. On most projects now, the week starts with the Sunday night shift. Requiring a color print of the schedule on Size D or E paper will require that each project office have a plotter. Most of the time these plots will not be used for review of the schedule updates. The schedule narrative report submitted with each monthly update must indicate whether the project is ahead or behind schedule. If behind schedule, the report must include a detailed recovery plan to put the project back on schedule or a properly supported request for a time extension. Does this mean that FDOT will give time extensions for delays relating to aggregate shortages if supported by the schedule? If they deny time extensions for this type of impact, they will force the contractor to accelerate. In this report the Contractor is to identify specific activities that may impact the critical path. In addition to a plotter, each project will also now require a crystal ball. (See also comments on resource loading). Not everything is fixable, especially not month by month. Solutions to impacts and delays may require meetings, approval of submittals, delivery of materials beyond the control of the contractor, etc. We suggest that an item indicating a delay be added to the schedule. This would be a place holder that could be adjusted as the situation is resolved. 3d requires that we identify all activities that require Department participation, review, approval, etc. What is the purpose of this? Typically FDOT is involved in every aspect of the project. If we fail to identify something will that be used against us? Isn't this something that should be picked up by whoever is reviewing this schedule? Making corrections to a complex schedule and resubmitting it in 7 days may not be reasonable.

8-3.2.3 Schedule Content – The schedule should include the ordering of major materials and equipment. Is this where we include asphalt aggregates, liquid asphalt, cement, structural steel, etc? How do we show impacts from design errors or omissions? Do we add a schedule activity for each RFI or design revision to show schedule impacts? Item b requires that we include estimated procurement costs for major items for which stored materials will be requested. We might be able to estimate these materials, but the schedule for submission will be hard to pin down. Detailed schedule data requirements include showing defined holidays and suspension days as non-work days. How does this work when we can request to work some of these days? How do we allow for events at venues or local events with unknown dates for future years that restrict work activities? Many projects allow FDOT to restrict lane closures on X nights during the project. How

would this be shown on the schedule? The Specification requires that we cost load the schedule consistent with the bid breakdown. Typically schedule activities may be part of a bid item or a combination of several bid items. Keeping the cost equal with the current contract value will be a very difficult task for major projects. One of our current projects has more than 2000 activities. This is one of the requirements that will necessitate a full-time schedule engineer on our projects. Each schedule activity will include the activity number, description, original duration, remaining duration, ES, EF, TF, % complete, budget, responsibility, MOT Phase, quantity and unit. There won't be any room left for the schedule bars. Showing quantity and unit will be difficult for activities made up of combinations of bid items. If FDOT requires the cost loading to be updated, there should be a reasonable level of accuracy applied to this. Why does FDOT want the schedule to be cost loaded? There may be a simpler, more accurate way to give them what they need. All changes to activities shall be recorded. The log shall include reference to a document wherein the Engineer acknowledges and accepts the change. This is getting the cart ahead of the horse. Changes will be submitted with the schedule update for review and acceptance. Once accepted, we could go back and add reference to acceptance of the change by the Engineer.

Resource Loading – At some point, the Department must acknowledge that there are limited resources available in the construction industry in Florida. This limitation includes materials and personnel and in many cases equipment and subcontractors. If we are going to use schedules to truly manage our projects (as indicated by this proposed specification) it will only work if we are allowed to resource load and resource level our schedules. We estimate projects with assumed resources, and often have trouble actually realizing these resources on the project. Projects are frequently impacted by design errors, utility conflicts, added work and other external (Department caused) factors beyond the control of the contractor. This is in addition to weather, delays on other projects, MOT restrictions and other impacts. These impacts effect the utilization of our limited resources, and yet we cannot show these impacts in our schedule updates. Until this is changed, the scheduling specification will remain a one sided tool for the exclusive benefit of the FDOT. One of the main uses of resource loading for contractors is to add logic to a schedule that truly reflects the limitations on how many places we can work on a project at one time. "Float suppression techniques such as preferential sequencing will be cause for rejection of the schedule or updates". We are not quite sure what this phrase means, but think it takes away our right to restrain activities that might be available for work, but for which there are no resources available.

8-3.2.4 Weekly Meetings – The proposed specification will require that the schedule be updated for each weekly meeting. In most cases we could be progressing a schedule update that is under review by the Department three or four times prior to receiving approval of the update. This will create extensive added work, especially when an update is rejected for some reason.

8-3.2.5 Float – (See comments above on resource loading). Without the right to impose limitations on float due to resource limitations, the Department can impact the project without having to provide a time extension. This will require the contractor to accelerate,

add resources or subcontract out work in order to maintain the schedule. This section also gives the Department the right to withhold payments when the schedule indicates the project is in negative float. This will be a battle every month on every project from day 1.

8-3.2.6 Time Extensions – This section states that time extension requests must be submitted in accordance with sub-article 8-7.3.2. Requests must be submitted within 10 days after the commencement of a delay to a controlling item of work. However, extensions of time will only be considered for a delay to an activity that exceeds the total float of the project. Does this mean we have to update the schedule for each impact to determine if it exceeds the total float? This whole section is inequitable. FDOT preaches about completing projects ahead of schedule, and awards extra points on Contractor evaluations for early completion. To walk-the-walk FDOT should allow project schedules and updates to reflect early completion, and should treat impacts to these schedules the same as a schedule with zero or negative float. The contractor is disincented to submit a schedule showing early completion. This means that CPM schedules will almost always show zero float for project completion, which means that every month the contractor will have to submit a recovery plan to show how time will be made up, and will be fighting with the Department about withholding progress payments.

8-3.2.7 Performance of Work – "By submitting a schedule, the Contractor is making a positive assertion that the project will be constructed in the order indicated on the schedule". Will this limit our ability to adjust the construction sequence? We often adjust construction sequence due to utility conflicts, design issues, subcontractor and material availability, contractor issues, weather, resources and numerous other reasons. This sub-article appears to take away that right, and will lead to more claims, time extension requests and ultimately the increased cost of the projects.

8-3.2.8 As-Built Schedule – What is the purpose of this schedule? The Department already has schedule updates for the project. Who is going to use these as-built schedules and for what purpose?

****

Jack Knowlton, P.E.
EISMAN & RUSSO, INC.

COMMENTS:

1) Are we having a problem with the bolting as it is performed now? The proposed spec requires a lot of work by the CEI if we are not having a problem. If the sign is over traffic, this would require that the CEI be present at the time of the installation (tying up an inspector for the entire duration of the installation) or a separate lane closure.

2) What is the purpose of the lubrication? The spec does not specify what type of lubrication. A light oil like WD 40 would be fine if the intent is just to lubricate the bolt to reduce friction during hand tightening. If the intent is to lubricate and provide corrosion protection, a heavier lubricant (like a grease) would be required.

****

David O'Hagan

COMMENT:

8-3.2.2 :
In 1) and 2), why aren't we also asking for late start and early finish for each activity in the CPM diagrams and report? P3 gives them to us anyway. Late start is particularly important.

Nice work.

****

Ronda Daniell

COMMENTS:

8-3.2.1 Contract Schedule- What teeth do we have if they do not submit in a the time frame requested? Need something to make them submit with enough time for the Department to review before they start construction.

8-3.2.2 Schedule Submissions- number 4 or by CD

8-3.2.7 Performance of Work- something to get the contractor to work with their personnel in the field on how they intend the project to be built. Most times the Schedule never makes it to the field. The field personnel build it as they see it in the plans and could really care less about the schedule or how to read it

****

Andrew F. Penny

COMMENT:

The problem with the current spec is, and has been, (ever since Richard Helms retired), that the FDOT nor any CEI under contract with the FDOT has no one employed that evens understands what a CPM is or what it is used for. It is very apparent that your intentions are to place all liability on the contractor. Please have the courtesy to either hire competent people or CEI's, or at very least, train them so they understand what they are analyzing and criticizing. The road ahead for all contractors is rocky enough with the escalating prices for trucking and materials, and the supplier's unwillingness to hold prices. Why do we need the FDOT throwing more boulders in the way? This is just another example of the one-way partnering the FDOT has become so proficient at. The CPM, when used correctly, is a tool, not a whip.