



SCHULTZ

February 20, 2014

State of Vermont Agency of Transportation
Southwest Regional Construction Office
61 Valley View
Mendon, VT 05701

Attn: Chris Williams, P.E.

**Re: Rochester BRF 0162(16) & BRF 0162(17) & ER BRF 0162(18) & STP BRF 0162(19)
Critical Path Method (CPM) Schedule – Baseline Narrative**

Dear Mr. Williams:

Enclosed you will find WM Schultz Construction's (WMSCI) initial baseline schedule for the above referenced project. Although they have some influence on each other, each bridge is essentially an independent project and therefore we have separated the project schedule into groupings of the tasks related to each bridge. Project milestones are also separated into a grouping at the top of the schedule; and submittals (with an allotted 4 week review time) are listed below the project milestones. **It is our intention to provide all submittals early enough so that a normal review time will not have an influence the critical path, i.e. providing NEXT beam submittals in mid-march. We do realize though that some submittals will require an expeditious review to facilitate starting as currently scheduled; these include the bridge 19 EPS plan, the bridge 19 cofferdam plan, the bridge 19 footing design, stone/granular submittals. Also, any influence VTRANS has with other agencies to ensure prompt review of permit amendment submittals will be highly beneficial as delay on their parts could have a negative effect.** Resources (labor, equipment and subcontractors) required to complete the tasks in the specified durations are listed for each task. Although physical construction will not begin on site until weather breaks in the spring, we currently have our project team working on preparing submittals, meeting with subcontractors and vendors, engaging outside engineers for the various plans required and making periodic site visits to review means and methods. Aside from the bridge closure period (BCP) for bridges 13, 15 and 16 the schedule is based upon working 8 hours per day, 5 days per week with the implied notion that overtime will be required in some cases throughout the job to meet deadlines, but will not be the standard working hours unless later required and agreed upon between WMSCI and VTRANS. During each BCP for bridges 13, 15 and 16 our intent is to work continuously 24 hours per day, utilizing two 12 hour shifts. As each bridge can be looked at as an individual project, the scheduling logic, challenges, milestones and critical path of each will be described individually. **The major risk in this project is the tight timeframes of the bridge closure periods. There is a vast amount of work to accomplish within these periods and if any unfavorable act (i.e. weather, equipment breakdown, accident, etc) should occur during a BCP it would have a severely negative impact on the schedule. Another potential conflict getting going with the project is the proposed layout of the temporary bridge being in conflict with the existing and proposed footing/abutment of bridge 19 abutment #2. As the temporary bridge needs to be installed first it is imperative that this gets resolved as efficiently as possible. In addition to the conflict with the temporary bridge location, permit amendments need to be made for all bridges, but most importantly bridge 19 to expand the disturbance limits provided. As mentioned later in this narrative access down to the footings of bridge 19 abutment #2 needs to be constructed and in order to do so additional areas will need to be disturbed.**

Bridge 19 is the only bridge in which work will be ongoing throughout the entire duration of the contract and therefore that is where the schedule of physical work begins. The first challenge here will be with the spring thaw and how it affects the water levels and ground conditions. We currently show a 3/24/14 start with mobilization, job trailer setup, installation of erosion control measures and other items to setup the work site. Depending on weather conditions this may shift up or back and will have a positive or negative affect on the rest of the schedule. Our first major items will be building access to abutment #2, installing the new temporary bridge and removing the existing temporary bridge. **We feel that access from below must be installed in order to progress this work and that this work must happen early in the job. As such we will be submitting for a waiver of the restriction of in stream activities prior to 7/1/14.** Once complete the focus will shift to installing an excavation protection system at abutment #2 and forming and pouring both of the new abutments. The work for both abutments will occur simultaneously **with the use of multiple crews**, however abutment #2 will drive the critical path as there is more work and more pours there than at abutment #1. As with any concrete work there is a high likelihood of overtime being required to get ready for and or complete pours. Once cure time is complete on the substructures we will set steel, form and pour the deck and reconstruct the road to tie into the new bridge 19. The final major item will then be to remove the temporary bridge and re grade the slopes where it was. The only milestone shown for this bridge is the implementation of the detour on the new temporary bridge and the only constraint used is the start which is currently set as not earlier than 3/24/14. **A main concern for this phase of the project is the proximity of the temporary bridge abutment to the new proposed footer location at abutment # 2.**

Although separate, bridge 15 and 16 involve the removal and installation of almost identical structures so they will be described together. The schedules for both bridges are broken down into three sections: pre BCP work, BCP work and post BCP work. For each bridge it is our intent to submit a M&PT plan for a long duration single lane closure with temporary traffic signals which will be put in place approximately two weeks prior to the shutdown period. This single lane traffic pattern will aid in WMSCI's ability to install stream diversions, install piles, build crane pads and perform other tasks prior to each BCP. Updates and/or additions to pre BCP tasks may come as we are continuing to explore options that may be submitted on later to do more work in advance of the BCP periods if deemed feasible. **As allowed for in the contract it is our intention to reopen each bridge under one lane traffic and complete paving, guiderail, rock anchors (bridge 16 only) and final stabilization after the BCP.** In each bridges case milestones are shown for the shutdown and re-opening of each bridge, the BCP start date is controlled by a start no earlier than constraint. At this point the BCP start dates are shown as bridge 16 starting on the first weekend I/D period in the date range provided in the special provisions and bridge 15 starting on the second weekend I/D period. As things progress these may change due to weather, change in sequence, etc. Should this change, a schedule update will reflect these changes and the minimum advanced notification required per spec will be provided to VTRANS.

As with bridges 15 and 16, bridge 13 is also broken down into pre BCP, BCP and post BCP groups. For this bridge we will also be submitting a plan to setup a long term single lane closure to be in place for approximately 2 weeks prior to the BCP to facilitate work. The major items of work to be accomplished during the pre BCP phase are installing a pump around and completing portions of the excavation and pipe removal. During the BCP the logical sequence of excavation, rock removal, drill & grout, sub-footing, set precast and then backfill are followed. A separate line item for excavation protection is not shown at this bridge as we have not determined exactly what will work best here; however, we have allotted time in the excavation items to accommodate this. **As allowed for in the contract it is our intention to reopen bridge 13 under one lane traffic and complete paving, guiderail and final stabilization after the BCP.** As with bridges 15 and 16 the shutdown RT 73 is depicted as a milestone and is currently set so the I/D begins on the earliest possible time allowed by the special provisions; this may change as the project progresses and if so the required notification will be provided

to VTRANS. The only constraint used in this bridge is a start no earlier than placed on the start of the shutdown.

We welcome any and all comments or concerns that VTRANS has to offer on this baseline schedule. We understand that hourly schedules are required for each shutdown and we will be submitting them within the next two weeks under separate cover. If you have any questions about this schedule please contact me. Thank you.

Very truly yours,
W.M. Schultz Construction, Inc.

Prepared by Robert J. Hinman
On Behalf of Kevin Ture, Project Manager