

October 9, 1974

**Subject: Monitoring Report #1**

**Schickler Elementary School, Lapeer, Michigan**

**Project: 74:85**

**Date of Monitoring: October 7, 1974 (working day 196)**

**Monitored from Issue P1 dated October 7, 1974**

**Target Completion Date: Evening of July 15, 1975 (working day 393)**

**Actions taken:**

- Diagrammed building work with Mr. Larry Goodrich of Sorensen Gross
- Reviewed long lead time items with contractors

**General Summary**

Currently footings are nearly complete for the entire project and masonry foundation walls are in work. In a portion of the A and B units, exterior masonry bearing walls are now above grade. Work will continue generally in the sequence of B unit first, moving next to C unit and finishing out at the A unit. It was decided in our meeting, after analysis of the considerations involved, that the slab on grade would be poured out this fall and early winter, and that the thickened slab on grade would be used to support the interior non-bearing masonry partitions.

It is anticipated that the mechanical contractor will be on the job installing underground utilities immediately and closely following him will be the sub grade preparation for the slab on grade and pouring of the slab itself. Concurrently with this, exterior bearing masonry will continue with structural steel presently due on the job November 18, 1974 (working day 226).

There are some long lead time delivery items that may pose some problems. These include the following:

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- Electrical transformer - presently due on the job March 27, 1975  
(working day 316)
- Electrical switchgear - due on job December 24, 1974  
(working day 251)
- Electric unit heaters - due on job December 19, 1974  
(working day 248)
- Detroit Edison temporary power installation - due to be started  
on November 4, 1974  
(working day 216)

**Note:** There is some question as to whether the present specified temporary power requirements will be needed for the early part of the job. A review of this matter should be made at an early construction meeting.

- Exterior sash and louver units - no delivery set as yet
- Exterior doors and entries - no delivery set as yet
- Unit ventilators and cabinets - shop drawings should be in within ten working days and fabrication is expected to take 80 working days after approval
- Heating and ventilating units at the multi purpose room - same as for unit ventilators and cabinets
- Air handling units - shop drawings expected in ten working days, fabrication 80 working days after approval

There are several other major items on the job that will have to be given early attention since they are, in some cases, built directly into masonry walls. I suggest that a complete list of all of the potential delivery problem items be made now.

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Mr. Goodrich will take the preliminary network diagram, sheets P1, P2 and P3, and make a review of the logic and durations for possible revisions and additions. It would be appreciated if mechanical and electrical contractors would also make this review at the earliest possible time. Meanwhile, I shall draft the network into final form but will not issue it for approved field use until all parties have had an opportunity to review and give their general approval to the logic and times.

The general sequence of moves on the project, both rough and finish work, is from B to C unit with the A unit proceeding somewhat independently once the structure is erected. Thus, the A unit which is the most complex of the three will be worked upon as space becomes available at the interior.

Responsibility codes were assigned to the various parties to the contract. These are as follows:

Code 1	Lapeer Board of Education
Code 2	Tomblinson, Harburn and Hanouté
Code 3	Sorensen Gross
Code 4	Clare Electric
Code 5	Quibell Mechanical
Code 6	Mississippi Valley Structural Steel
Code 7	Detroit Edison
Code 8	Short Roofing

I shall plan to begin monitoring the job in the field sometime in the near future. Presently the work to be accomplished, however, can be evaluated from our present plan of field work quite simply. Over the next three weeks it is expected that the major thrust will continue on interior and exterior masonry bearing walls, with concurrent work on underground installation and slab on grade.

Presently according to Mr. Goodrich, the project is moving extremely well and it is anticipated by him that this progress will continue well into the winter months as masonry and concrete work proceed. To be especially noted here is the importance of close-in of the building relative to construction of the slab on grade. It will be essential to close the building in as the floor slab is poured to avoid cold weather damage potential. This matter will be reviewed carefully over the next few weeks.

Ralph J. Stephenson, P. E.

RJS/m

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

**To: - Mr. Jerry Harburn**

*orig* **(Please distribute this report to your staff, the consulting  
engineers and the owner - thank you)**

**- Mr. Larry Goodrich**

*let cc* **(Please distribute this report to Sorensen Gross and all major  
contractors - thank you)**

November 5, 1974

**Subject: Monitoring Report #2**

**Schickler Elementary School, Lapeer, Michigan**

**Project: 74:85**

**Date of Monitoring: October 30, 1974 (working day 213)**

**Monitored from Issue P1 dated October 7, 1974**

**Target Completion Date: Evening of July 15, 1975 (working day 393)**

**Actions taken:**

- Inspected project
- Conferred with Mr. Fall, job superintendent
- Participated in construction conference
- Evaluated job progress

**General Summary**

Currently bearing masonry is moving well and will require 20 to 25 additional working days to complete. Underground utility work is complete in the B Unit and about 50% along in the A Unit. The slab on grade is completed in the B Unit and filling and fine grading have moved well in the C Unit with the slab expected to be poured by the end of this week. It will be critical to continue the good work on slab on grade installation to get all slabs down prior to the onset of cold weather.

Structural steel is still due to be delivered some time between November 15 (working day 225) and November 20, 1974 (working day 228). There have been some problems getting reinforced corrugated metal deck for the mechanical equipment room. However, a substitution can be made of normal metal deck and should be no problem.

Temporary electrical service should be available within the next week and this will provide adequate power for most tools and other construction operations. Some hollow metal frames are on the job and exterior sash units and doors and entries are presently in fabrication.

December 9, 1974

**Subject: Monitoring Report #3**

**Schickler Elementary School, Lapeer, Michigan**

**Project: 74:85**

**Date of Monitoring: December 5, 1974 (working day 238)**

**Monitored from Issue P1 dated October 7, 1974**

**Target Completion Date: Evening of July 15, 1975 (working day 393)**

**Actions taken:**

- Inspected project
- Conferred with Mr. Fall, job superintendent
- Conferred with mechanical and electrical contractors
- Participated in construction conference
- Evaluated job progress

**General Summary**

Currently structural steel lags the Issue P1 network by 10 working days. Erection of steel was due to begin on November 20, 1974 (working day 228). It is starting December 5, 1974 (working day 238). There has been some difficulty with delivery of structural steel and joists although most of the problems now seem to be ironed out. There is still some uncertainty as to whether bridging and bolts are on the job. I suggest that this matter be followed very carefully and that all elements of the roof structural system be expedited continuously to prevent any additional delays.

The present delay is not excessively serious and can be overcome if work is moved ahead immediately. The important action here is to get structural steel erection started in the B and C Units followed by A so that metal deck can be erected and roofing can follow. This unlocks start of sheet metal ductwork which is presently scheduled to start in A on a critical date of

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January 8, 1975 (working day 260). By some overlapping it appears possible to recapture a part or all of the current lag. However, it is going to be necessary to give the job extra careful attention to all close-in and structural items for the next two or three weeks.

Another lagging item that has been forced behind primarily by snow and bad weather is interior and exterior bearing masonry. Presently masonry lags by 4 to 8 working days but should not, unless additional bad weather is encountered, force a longer delay on erection of structural steel.

Deliveries of equipment still are uncertain enough so it should be followed carefully. Following is a brief summary of the status of major long lead time equipment.

- Electrical transformer - Due on job March 26, 1975  
(working day 315)  
*1/2/75 SK*
- Electrical switchgear - Some elements have arrived,  
remainder due on job late in December.  
*1/2/75 Feb 7, 75*
- Electrical unit heaters - This date has been moved to a later  
delivery of early February. The  
date on electric unit heaters should  
be checked carefully since it has  
changed once or twice since the  
original targets were set. Presently  
it does not appear to be a major  
problem but should be watched  
carefully. *1/2/75 Some on job 1/15/75*
- Exterior sash - Material is in fabrication presently  
and should be available whenever needed.  
*1/2/75 - On job ~~at~~ Jan*
- Exterior doors and entries - Material is in fabrication now and  
should be available whenever needed.  
*1/2/75 - On job Jan.*
- Light fixtures - Due in over a period of time through  
January and to mid-February.  
Should pose no problems.  
*1/2/75 Shipped - will be here shortly*
- Unit ventilators and cabinets - Due in February 26, 1975 (working day 295)  
*1/2/75 Possibly ~~2/1/75~~ (units)  
2/14/75 (con. in)*
- Heating and ventilating units  
at multi purpose room - Due in February 26, 1975 (working day 295)  
*1/2/75 Possibly 2/7/75*

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

- Air handling units** - **Due in February 17, 1975 (working day 288)**  
*1/2/75 Possibly 2/7/75*
- Bradley fixtures** - **No delivery dates set presently. This could be a problem item and should be watched carefully.**  
*1/2/75 No word as yet*

So far as site work is concerned, the road to the site is still being maintained adequately to assure access. The parking area is relatively dry and presently is frozen. A decision has been requested regarding substitution of a gravel sub-base for asphalt. This decision would be wise to make as soon as possible in the event it becomes necessary to gravel the sub-base to maintain parking. The matter will be considered in the very near future.

In summary, the project continues to move reasonably well although it has encountered a ten working day lag in structural steel due to a late delivery of joists. Joists arrived on the job December 5, 1974 (working day 238) and erection is expected to start immediately. There are still some trim items that may be missing and an immediate check is to be made on these. Remaining roof framing members will be shipped on December 10, 1974 (working day 241) and should arrive on the job soon after. Every effort should be made to pick up the current ten working day lag on structural steel so as to get the building totally closed in.

Slab on grade work has moved well and most of the floor slab has been poured with the exception of a small section in the A Building. Masonry currently lags by 4 to 8 working days. It does not appear, however, that this will cause a major delay to steel erection.

At the construction meeting I explained the use of the network plan and the computer printout. These control documents have been issued to all concerned.

Reviewing tasks due to start, continue or complete over the next month we find the following, read directly from the late start/late finish sequence:

- Erect, plumb and weld all structural steel and joists
- Complete pouring out all floor slabs
- Erect Units A, B and C roof metal deck and nailers
- Lay insulation and roofing in Units B and C



RALPH J. STEPHENSON, P. E.  
CONSULTING ENGINEER

January 6, 1975

**Subject: Monitoring Report #4**

**Schickler Elementary School, Lapeer, Michigan**

**Project: 74:85**

**Date of Monitoring: January 2, 1975 (working day 256)**

**Monitored from Issue P1 dated October 7, 1974**

**Target Completion Date: Evening of July 15, 1975 (working day 393)**

**Actions taken:**

- Inspected project
- Conferred with Mr. Moyer, general job superintendent
- Conferred with mechanical and electrical contractors
- Participated in construction conference
- Evaluated job progress

**General Summary**

As of January 2, 1975 (working day 256) exterior bearing masonry is still not complete in the A Unit with about 5 to 7 working days remaining, providing the weather stays workable. Structural steel in the A Unit is also not yet complete, with joists not on the job for the media room. These joists, according to latest information, are to be shipped January 6, 1975 (working day 258). They should be on the job January 8, 1975 (working day 259). If we assume that progress can be maintained as discussed at the construction meeting, metal deck for the entire job should be practically complete within the next ten working days or by January 16, 1975 (working day 266).

Roofing is due to start in Unit C on Monday morning, January 6, 1975 (working day 258). Roofing was originally due to start in B and move to C. However, because of the need to keep masonry crews working, it was decided to put metal deck on the C Unit first to allow interior masonry

to move ahead. The interchanging of these two units should not seriously affect the schedule. Roofing was due to start on the job at the B Unit December 27, 1974 (working day 253). Therefore, the lag is approximately five working days. It will be important to keep roofing moving in a continuous sequence so as to progressively close the building in to vertical weather.

The present formal lag on bearing masonry is about 22 working days. However, because erection of roof structural members and deck has been overlapped with masonry, the actual lag on the job ranges from 7 to 10 working days - about what the lag was at the last monitoring, December 9, 1974 (working day 240)

Checking equipment deliveries as reported in the last monitoring report, we now find the following.

- |                                   |          |  |
|-----------------------------------|----------|--|
| <b>Electrical transformers</b>    | <b>-</b> | <b>Due on job March 26, 1975<br/>(working day 315)</b>   |
| <b>Electrical switchgear</b>      | <b>-</b> | <b>Some elements have arrived,<br/>remainder due on job February 7,<br/>1975 (working day 282)</b>                                     |
| <b>Electrical unit heaters</b>    | <b>-</b> | <b>A few are presently on the job<br/>with the remainder due in on<br/>January 15, 1975 (working day 265)</b>                          |
| <b>Exterior sash</b>              | <b>-</b> | <b>Material is available, when needed.<br/>Presently it is reported that it<br/>will be on the job late in January<br/>or earlier.</b> |
| <b>Exterior doors and entries</b> | <b>-</b> | <b>Material is available, when needed.<br/>Presently it is reported that it<br/>will be on the job late in January<br/>or earlier.</b> |
| <b>Light fixtures</b>             | <b>-</b> | <b>According to the latest information,<br/>light fixtures have been shipped<br/>and should be on the job momentarily.</b>             |

- |  |  |
|--|--|
| <b>Unit ventilators and cabinets -</b> | <b>Unit ventilators are due in on January 17, 1975 (working day 267). Cabinets are due in February 21, 1975 (working day 292).</b> |
| <b>Heating and ventilating units -</b> | <b>Due in February 7, 1975 (working day 282)</b>   |
| <b>Bradley fixtures -</b>              | <b>Still no delivery date set on this item. It should be followed carefully.</b>   |

**Relative to exterior paving, there have been two methods proposed and this matter is now in the general contractor's hands for consideration. His decision should be forthcoming soon.**

**Looking ahead over the next month, the work that can be expected to start, continue or be completed includes the following read directly from the late start/late finish printouts.**

- complete erection of all structural steel**
- complete all roofing**
- complete all exterior and interior bearing masonry**
- continue erect interior non-bearing masonry**
- start or continue installation of fiberglass ductwork, above ceiling mechanical piping and rough electrical conduit at the A Unit**

**One point brought up by the general contractor at the construction meeting regarded deliveries of lockers. So far no commitment has been able to be obtained from the locker supplier and this matter may get serious. I suggest if possible, the architect/engineer exert influence to gain commitments for lockers on the job. This matter will be taken under advisement.**

**Presently all colors and finishes have been selected and are in the hands of the various contractors.**

**In respect to updating the network, the project is presently running slightly behind but still shows signs that the lag can be recaptured in part or totally. Structural steel was delivered late to the job being due on November 20, 1974 (working day 228) but being delivered in part on December 5, 1974 (working day 238). However fair work progress has been maintained and all contractors have worked very well around the late delivery. Therefore, I recommend we hold off any updating on the project until another two to four weeks of job progress is under our belts.**

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

**Presently, it appears that in the month of January if most major close-in can be accomplished and interior rough work started, that there will be a good chance of recapturing the lag and bringing the job pretty well back on schedule. The key to this is the arrival of the remainder of the structural steel, completion of exterior bearing masonry and completion of metal deck and roofing.**

**An important date to zero in on next will be the start of prime painting which follows insulation and roofing in Unit A. This painting has a late start of February 24, 1975 (working day 293) and restrains the beginning of acoustic ceiling suspension and grid which has a late start of February 28, 1975 (working day 297). These dates are critical and will be key milestones along the interior finish path. I suggest if they can be beaten, that every effort be made to do so.**

**In summary, the project currently lags from 7 to 10 working days, about the same as the lag as of the last monitoring on December 5, 1974 (working day 238). The delay is still basically in closing in the building and has been caused by the late delivery of structural steel and delays to masonry erection. However, every effort is still being made to recapture the lag and presently it appears that there is a good chance of doing so. I shall plan to again inspect the job and evaluate job progress during January, probably the latter part of the month.**

**Ralph J. Stephenson, P. E.**

**RJS/m**

**To: Mr. Larry Goodrich (Orig.)  
Tomblinson, Harburn & Hancock (2 copies)  
Mr. Richard Henderson (1 copy)**

RALPH J. STEPHENSON, P. E.  
CONSULTING ENGINEER

January 29, 1975

**Subject: Monitoring Report #5**

**Schickler Elementary School, Lapeer, Michigan**

**Project: 74:85**

**Date of Monitoring: January 24, 1975 (working day 272)**

**Monitored from Issue P1 dated October 7, 1974**

**Target Completion Date: Evening of July 15, 1975 (working day 393)**

**Actions taken:**

- Inspected project
- Conferred with Mr. Moyer, general job superintendent
- Conferred with mechanical and electrical contractors
- Evaluated job progress
- Color coded networks

**General Summary**

As of January 24, 1975 (working day 272) all exterior bearing masonry is complete, structural steel is complete, metal deck is complete, Unit B and Unit C are nearly in the dry except at roof conductors and Unit A is presently being roofed. It is expected that the building should be in the dry totally by early next week - probably Monday or Tuesday evening, January 27 or 28, 1975 (working days 273 and 274). Thawing for the slab on grade in the kitchen should begin this weekend and it is expected to pour out the remaining slab areas at the kitchen by the end of next week. The remaining corridor slabs on grade will be built as weather permits. They are not presently holding any major construction operation.

Electrical rough work in all three units is moving very well and is substantially in line with Issue P1 dated October 7, 1974.

The delay in getting the roof on in A has forced a delay of fiberglass ductwork and the present lag on ductwork in the A Unit is about 15 working days.

It is expected to begin sheet metal ductwork on Wednesday, January 29, 1975 (working day 275). It was due to begin on January 8, 1975 (working day 260). However, the mechanical contractor expects that he will be able to install ductwork in less time than had been originally anticipated. Thus, he feels he will be able to recapture part or most of that time. If the lag in ductwork can be recaptured, the project will be brought back substantially in line with early and late starts and finishes as shown on the Issue P1 network model. Presently the project appears to be in relatively good shape.

It will soon be necessary to provide heat to the job and Mr Meyer reports that when the building is in the dry, two one million B. T. U unit heaters will be put in the facility for temporary heat. This should allow good work continuity with interior finish work.

Reviewing equipment deliveries as reported in the last monitoring, we now find the following:

<b>Electrical transformers</b>	<b>-</b>	<b>Will be shipped February 3, 1975 (working day 278)</b>
<b>Electrical switchgear</b>	<b>-</b>	<b>Will be shipped February 7, 1975 (working day 282)</b>
<b>Electrical unit heaters</b>	<b>-</b>	<b>Some are on the job presently with the remainder due to be shipped the last week in January</b>
<b>Exterior sash</b>	<b>-</b>	<b>On job and installed</b>
<b>Exterior doors and entries</b>	<b>-</b>	<b>Some delay on this item due to difficulty in getting hardware. However, where necessary, exterior openings will be protected with temporary doors.</b>
<b>Light fixtures</b>	<b>-</b>	<b>On job</b>
<b>Unit ventilators and cabinets</b>	<b>-</b>	<b>Were due to be shipped on January 17, 1975 (working day 267) and be on the job sometime the week of January 20, 1975. They are still not on the job and I suggest an immediate check be made on these. It should be pointed out that there is no problem presently but we should firm up the actual delivery date so as to avoid later problems when they are actually needed.</b>

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

- |                                      |   |  |
|--------------------------------------|---|--|
| <b>Heating and ventilating units</b> | - | <b>Should be shipped shortly.<br/>This item should be checked.</b> |
| <b>Bradley fixtures</b>              | - | <b>Still no delivery date set.</b>                                 |
| <b>Lockers</b>                       | - | <b>This matter is not resolved<br/>but is being followed.</b>      |

In relation to exterior paving, 9" of limestone has been laid and the surface is presently suitable for parking. It should cause no major problem for winter trades to use the lot. The access road is showing some signs of wear and careful attention should be given it to make certain it is usable at all times and in all weather. This access road will continue to be an important link to the main road.

We discussed at a previous meeting the possibility of updating the current network diagram. Because work has moved relatively well over the past three weeks, I suggest we continue utilizing the Issue P1 network model and defer an updating at this time. If at the next monitoring it appears there is difficulty aligning the job with the work plan, we should consider an updating of the network.

Looking ahead over the next month the work that can be expected to start, continue or be completed, includes the following, read directly from the late start/late finish sequences:

- complete all drying-in of the building
- complete all interior masonry
- begin above ceiling mechanical work at Unit A
- begin prime painting required interior surfaces in Unit A  
(This is a critical item and is presently scheduled to start on a late date of February 24, 1975 (working day 293)  
Priming interior walls releases start of acoustic ceiling grid, a key interior finish point.)
- continue, install above ceiling rough electrical work
- set and connect exhaust fans
- complete glazing exterior sash panels
- install unit heaters at ceiling
- have on job all major mechanical and electrical equipment

In summary, the project continues to move fairly well, although the late closing in point has delayed some interior work, primarily above ceiling

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

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**fiberglass ductwork. This work is now due to start next Wednesday, January 29, 1975, and if the time for installation can be shortened as expected, the project should regain much of the present formal lag that is being caused by this particular item. Most other major work on the job is meeting dates between early and late starts and finishes.**

**Ralph J. Stephenson, P. E.**

**RJS/m**

**To: Mr. Larry Goodrich (Orig )**  
**Tomblinson, Harburn & Hanouté (2 copies)**  
**Mr. Richard Henderson (1 copy)**



RALPH J. STEPHENSON, P.E.  
CONSULTING ENGINEER

March 4, 1975

**Subject: Monitoring Report #6**

**Schickler Elementary School, Lapeer, Michigan**

**Project: 74:85**

**Date of Monitoring: February 27, 1975 (working day 296)**

**Monitored from Issue P1 dated October 7, 1974**

**Target Completion Date: Evening of July 15, 1975 (working day 393)**

**Actions taken:**

- Inspected project
- Conferred with Mr. Moyer, general job superintendent
- Conferred with mechanical/electrical contractors
- Evaluated job progress
- Participated in job conference
- Color coded networks

**General Summary**

**As of February 27, 1975 (working day 296) the building is substantially in the dry and interior finish work is moving well in all three units.**

**In the B Unit, prime painting has been completed and the ceiling grid is installed. Light fixtures are being placed.**

**In the C Unit sweeping is underway with some priming being completed. Most above ceiling work in the C Unit appears to be complete and ceilings are ready to start in the near future.**

**In the A Unit rough above ceiling work is being completed, some ceiling grid is being installed and black iron and lath for plaster ceilings is in work.**

**As of February 27, 1975 (working day 296) the project is meeting all major target dates between early and late starts and finishes.**

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

There are some minor difficulties, one of which is installation of ceramic tile at the kitchen and corridor. It was hoped that this ceramic could be installed prior to completion of the acoustic ceiling suspension and grid. Ceramic is due in about 3 weeks or sooner, and much of the grid in the A Unit areas should be well in work at that time. This change in sequence should cause no major difficulties.

At the roof exhaust fans have not arrived on the job although they are reported to be on the road in transit. When these arrive, they will be set immediately.

The electrical contractor mentioned during the meeting that he would appreciate some assistance in encouraging the power company to install their primary metering equipment. The architect/engineer said that he would check into this matter.

Reviewing equipment and material deliveries as reported in the previous monitorings, we now find the following:

- Electrical transformers - on job
- Electrical switchgear - on job
- Electrical unit heaters - on job
- Exterior doors and entries - expected on the job in March, should pose no problem
- Unit ventilators and cabinets - on job
- Heating and ventilating units - on job
- Bradley fixtures - still no delivery date set - this item should be rechecked for delivery by mid-April
- Lockers - this matter is now resolved
- Kitchen equipment - the contract has been let for kitchen equipment and presently our late start for installation is May 1, 1975 (working day 341). I strongly urge that everything possible be done to insure that that date be met so that any mechanical or electrical hookup required can be completed within our

**current target completion program. Those involved did not feel there would be any major problem getting the equipment on the job by that time.**

**The access road to the site is still passable although there are deep ruts that make it difficult to travel the road with all vehicles. However, efforts are being made to maintain a passable situation. This is critical since over the next few days considerable amounts of essential materials and equipment will be arriving on the job. The road is the life line of the project and every effort must be bent toward keeping it open.**

**Looking ahead over the next month, work that can be expected to start, continue or be completed includes the following, read directly from the late start/late finish sequences:**

- Continue installation of acoustic ceiling suspension and grid**
- Continue installation of light fixtures and conduit**
- Continue painting required interior surfaces**
- Install and glaze exterior doors and entires**
- Install all cement plaster ceilings**
- Start installing and finishing millwork, case work and sinks**
- Continue expediting remaining critical items of equipment and material**

**In summary, the project has moved very well over the past month and has now been pulled back substantially in line with the early and late starts and finishes. This has been a very good performance and all involved are to be complimented. I strongly urge that this good work be kept up since the project is now moving into the final phase of work where careful attention to finishing details are essential.**

**In light of this we discussed at the construction meeting a general punching out procedure. It would be wise to establish the procedure early and to lock the units and clean them up as they are finished.**

**Ralph J. Stephenson, P. E.**

**RJS/m**

**To: Mr. L. Goodrich (Orig); Tomblinson, Harburn & Hanout (2 copies)  
Mr. Richard Henderson (1 copy)**

April 1, 1975

**Subject: Monitoring Report #7**

**Schickler Elementary School, Lapeer, Michigan**

**Project: 74:85**

**Date of Monitoring: March 27, 1975 (working day 316)**

**Monitored from Issue P1 dated October 7, 1975**

**Target Completion Date: Evening of July 15, 1975 (working day 393)**

**Actions taken:**

- Inspected project
- Evaluated job progress
- Participated in job conference
- Color coded field networks

**General Summary**

As of March 27, 1975 (working day 316) the project is moving relatively well in the B and C Units, but is beginning to show some signs of dropping behind in finish trades in the A Unit. In A, ceramic tile at the toilet rooms, kitchen and corridor is not yet started and is causing some delays to trades that adjoin it. However, according to a phone call made after the construction meeting, the ceramic tile contractor will be on the project tomorrow, Friday, March 28, 1975 (working day 317). This will be of considerable help in expediting interior finish work.

In the A Unit acoustic ceiling grid is well along and painting is moving quite well. Plastering has been delayed in this unit pending installation of a valve at the toilet room. This valve is due in next week and when it has been hooked up, plastering can begin. The plasterer is already lathing

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Exterior entries are scheduled in on March 31, 1975 (working day 318) and once these are installed, ceilings abutting them can be completed.

Interior millwork has begun arriving on the job. This work was due for a late start of March 27, 1975 (working day 316) Millwork will be installed along with case work, sinks and tack boards.

In the A Unit, all work except ceramic tile and exterior doors and entries is presently meeting targets between early and late starts and finishes. There is some slight lag on the acoustic ceiling grid in those areas where its installation cannot be completed because of other work adjoining. However, presently this is not critical. Roof mounted equipment has now been set and hooked up. Equipment at the fan room is available and will be brought on the job as soon as road access for heavy equipment is better. Electrically, most work is moving very well.

Reviewing equipment and material deliveries, as reported in previous monitorings, we find the following:

- |   |                              |   |
|---|------------------------------|---|
| - | Exterior doors and entries - | will be on the job March 31, 1975 (working day 318)   |
| - | Bradley fixtures -           | due on the job in early April   |
| - | Lockers -                    | due on the job April 28, 1975 (working day 338)   |
| - | Case work -                  | due on the job April 11, 1975 (working day 327)   |
| - | Tack boards -                | due on the job April 14, 1975 (working day 328)   |
| - | In-wall table pockets -      | due on the job April 30, 1975 (working day 340)   |
| - | Millwork -                   | according to the general contractor, 75% of the millwork is here and ready for installation |

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- |                                |   |
|--------------------------------|---|
| - Multi purpose room tables    | - no confirmation on delivery date  |
| - Kitchen equipment (by owner) | - presently waiting for shop drawings - no information on fabrication dates |
| - Rolling shutter door         | - ready for shipping, however, approvals should be cleared                  |
| - Carpeting                    | - material is available when needed   |

The access road to the site is still being maintained reasonably well although very heavy equipment does have problems getting into the job. There is still no decision on the permanent road location.

Paving on the site is expected to start about April 15, 1975 (working day 329). It was cautioned by the electrical contractor that in installation of exterior utilities and other site work that caution should be taken regarding buried underground electrical lines.

Looking ahead over the next month, work that can be expected to start, continue or be completed, read directly from the late start/late finish sequences includes:

- Complete acoustic ceiling suspension and grid
- Complete light fixtures and conduit
- Substantially complete most painting
- Install all plaster ceiling areas
- Complete all ceramic tile
- Substantially complete all mill and case work and sinks
- Install tack and chalk boards
- Install miscellaneous architectural trim items
- Install miscellaneous mechanical and electrical trim items
- Install electric baseboard and unit heaters
- Complete installation of unit ventilators
- Install equipment at mechanical equipment room

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- Install rolling shutter at kitchen
- Start installing toilet room plumbing fixtures
- Start installing corridor gate
- Complete all interior doors and hardware
- Start exterior site work

In summary, the project has continued to move very well in the B and C Units, while showing some signs of slowing in the A Unit. However, with constant expediting, it is expected that this temporary slowing will be picked up quickly. The areas to watch are ceramic tile, plastering and installation of doors and entries.

We continued our discussion of moving out of the various areas and locking up, ready for punching out. It is still the intent to finish the B and C areas as completely as possible, to clean them as thoroughly as they can be cleaned so that the permanent heat can be turned on and then to lock the areas against occupancy by trades except where they do have finishing work. This should allow a progressive moving out of the building which would help in punching the job and turning it over.

Although the official target completion is July 15, 1975 (working day 393), efforts are being made to improve this date by all parties concerned. This, of course, will be to the advantage of everyone on the job. Another month's work should give us a better handle on the possibility of meeting the early targets. Presently it appears feasible to consider that they can be achieved.

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RJS/m

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