

August 25, 1975

**Subject:** Monitoring Report #1

Physical Education Building for Flint Central  
Community High School, Flint, Michigan

**Project:** 75:70

**Date of Monitoring:** August 21, 1975 (working day 164)

**Starting Date:** Approximately July 29, 1975 (working day 147)

**Current Contract Target Completion Date:** mid-June 1976

**Note:** This date is to be re-evaluated.

**Actions taken:**

- Completed preliminary network plan for foundations and major slabs on grade
- Evaluated probability of completing project on present target completion dates.

**General Summary**

As of August 21, 1975 (working day 164) wall footings have been completed at the east side of the gym building and are being installed at the pool area. Present plans are to continue constructing pool footings, moving generally counterclockwise and completing the west gym building footings concurrently with walls at the pool tunnel and bleacher area. The pool is a very complex area and must be brought up to grade so that all engineered fill can be placed and compacted at as early a date as possible. It was originally intended that an access route would be left from the south end of the gym building through to the pool area so that fill could be hauled across this route. However, at our planning meeting, because of the greater urgency of completing engineered fill at the gym building, it was decided that the two areas would be filled and compacted independently of each other. It is presently planned to start fill at the gym building on Monday, August 25, 1975 (working day 166). It is anticipated this operation will take approximately 30 working days to bring the fill grade to elevation 730<sup>1</sup>.

**Monitoring Report #1  
Physical Education Building for  
Flint Central Community High School  
Page two**

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

After 29 working days of filling, it is expected to start the north half gym interior column and wall footings and to proceed to complete these and the related backfilling at the footings as quickly as possible. Upon completion of all backfilling up to rough elevation 730', underground utility work can start probably about October 15, 1975 (working day 202). This late start is caused by the need to complete all backfilling of all column footings, piers, wall footings and stub walls prior to start of underground installation.

Gym building slab on grade should begin about November 12, 1975 (working day 222) and is expected to be completed on or about December 9, 1975 (working day 240). Construction of this slab on grade prior to the onset of cold weather is absolutely critical to the job since interior masonry walls at the locker room, perhaps the most complex part of the entire structure, rest on the slab on grade. If the trades are to have a place to work this winter, it will be essential to get this slab on grade in. This will allow exterior masonry to be erected and precast deck at the first floor placed so a full area of work will be available to the rough trades.

There is serious concern about when exterior masonry can begin. This matter has not been resolved and will be studied further. Presently, however, it appears it might be risky to begin laying up extensive amounts of masonry while the engineered fill is being placed, particularly since a vibrating compactor is to be utilized. Engineered fill will begin on August 25, 1975 (working day 166) and continue on through to October 7, 1975 (working day 196). At some intermediate point it might be possible to start exterior masonry. It is agreed this will be essential since there is a large amount of masonry work to be done on the project.

Then, too, precast deck at the main level and at the mezzanine levels depends upon masonry bearing. Masonry above the decks cannot proceed until the decks are in place. The roof structural steel at the gym is also supported on bearing masonry and steel must be in place with the metal deck complete and roofed before the building can be considered closed in. Some very rough projections were made as to the close-in point. However, it would be better to further study this entire sequence before setting any target close-in dates.

We completed sheets 1 and 2, Issue P1, dated August 21, 1975 at this diagramming session. This brought the project to the point where the rough pool was complete, bleacher girders at the pool cast, the utility tunnel backfilled to rough grade and the gym building slab on grade poured out.

At our next diagramming session we should make every effort to bring the job up through close-in and begin diagramming interior rough and finish work.

**Monitoring Report #1  
Physical Education Building for  
Flint Central Community High School  
Page three**

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

Several critical delivery items were isolated. A brief review of these is given below.

- The owner must provide hydrotherapy and washer/dryer rough-in data for utilities to proceed at the gym building lower level slab on grade.
- Color schedules are expected to be submitted and approved by October 3, 1975 (working day 194). Following submission and approval of the color schedules, terrazzo color and range, paint chips, locker shop drawings, ceramic tile samples and quarry tile samples will be submitted. These are all critical and should be expedited.
- Pool wall lights must be on the job as the swimming pool walls are constructed. These are fastened integrally and grounded in the wall. Presently it is expected these lights should be available by September 12, 1975 (working day 179). However, this date should be checked.
- Transformers and switchgear are presently expected to be delivered to the job in mid-December 1975.
- Pool filtration equipment shop drawings are approved and this equipment is now in fabrication.
- Stainless pool gutter has been approved and is now in fabrication - no word on delivery.
- Water heaters are presently being fabricated - no current word on delivery.
- Hollow metal frames shop drawings are submitted and approved. Presently fabrication for the special frames is running as high as 14 - 16 weeks. This item is a very critical element since it is hoped to begin exterior masonry at an early date. If frames are not on the job, tooting which is both expensive and difficult probably will be resorted to.
- Built-in plumbing fixtures will require approximately 90 working days bringing their delivery to the job about December 30, 1975 (working day 254).
- Air handling fans - fans 1, 9 and 10 are due on the job December 8, 1975 (working day 239). Fans 2 through 8 and 11 through 16 will be on the job November 3, 1975 (working day 215).

RALPH J. STEPHENSON, P. E.  
CONSULTING ENGINEER

Monitoring Report #1  
Physical Education Building for  
Flint Central Community High School  
Page four

Much of the major mechanical equipment is large and bulky. Setting it will require access considerations and I strongly urge that the three prime contractors review with each other the entry needs so that equipment can be set expeditiously and in a timely fashion. There should be no difficulty since apparently the three primes on this project are accustomed to working closely with each other. All gave assurances that every cooperation would be exerted.

In summary, network planning has been completed for most major reinforced concrete work up through slabs on grade and pool bleacher girders. A brief review of the entire job indicates it is going to be extremely difficult to meet the current target completion dates. However, before making any further decisions on this, it would be wise for all contractors to re-study their general sequencing and at our next meeting we will analyze the close-in point and the completion date of the project as projected from the current data. There are several critical delivery items and close attention should be paid to expediting these heavily.

Overall, the project plan presently indicates that heavy effort should be concentrated on the gym building, although as this work is proceeding, there will be considerable amounts of time available for concrete crews to work in the pool area as the engineered fill is placed. Therefore, it is expected that the entire substructure for both the gym and the pool area will be brought up to grade about the same time.

Ralph J. Stephenson, P.E.

RJS/m

To: Mr. Charles Towar  
Flint Board of Education  
923 E. Kearsley  
Flint, Michigan 48503

October 6, 1975

**Subject:** Monitoring Report #2

Physical Education Building for Flint Central Community  
High School, Flint, Michigan

**Project:** 75:70

**Date of Monitoring:** October 2, 1975 (working day 193)

**Monitored from Issue P1** dated August 21, 1975 (working day 164)

**Starting Date:** Approximately July 29, 1975 (working day 147)

**Current Contract Target Completion Date:** mid-June 1976

**Note:** This date is to be re-evaluated

**Actions taken:**

- Reviewed current job status with major contractors
- Rediagrammed work up through erection of precast over locker room and exterior masonry to roof level at pool
- Evaluated current job status

**General Summary**

As of October 2, 1975 (working day 193) foundation work is proceeding in both the pool and gym along with placing of engineered fill at both areas. The work currently lags the Issue P1 network dated August 21, 1975 (working day 164) by from 7 to 15 working days. This lag is over early start/early finish dates. One major cause for the lag has been heavy rains which have made it difficult to place and compact fill. Steps have been taken to improve this situation and currently work is moving much better.

A major part of our planning today concentrated on a re-evaluation of foundation work along with a study of how best to place the interior slab on grade at the locker room level. It was decided that once most engineered fill is placed and all gym foundations, stub masonry walls and

Monitoring Report #2  
Physical Education Building for  
Flint Central Community High School  
Page two

RALPH J. STEPHENSON, P. E.  
CONSULTING ENGINEER

column piers are in place and backfilled, underground mechanical utilities at the locker room area will be placed concurrently with erection of bearing masonry to the precast level over the locker room. When the west half precast is erected, hoisting equipment will be removed from the east half of the building (if this is necessary), and east half work is then to proceed in a similar manner to that at the west half.

Meanwhile, the west half slab on grade would be placed so that a hard surface relatively dry working space would be available for trades to start rough work. A similar slab on grade procedure would be followed at the east half of the locker room with present expectations that the entire slab on grade at the locker rooms will be poured out by January 5, 1976 (working day 257).

Concurrent with erection of interior bearing masonry, exterior masonry at the north and east of the pool and east and south of the gymnasium will be erected to bearing levels. Once this masonry is complete around to the south side of the gym it will then be completed to roof level at the pool, along with the concrete supporting structure at the intersection of the pool and the gym.

Thus, by early January several enclosed areas will be available for rough trades to begin work, primarily in the gym locker room section. It is also anticipated that at a relatively early date, probably about the same time, the pool area can be closed in for the start of similar rough work. This would give trades ample room to build up crews and maintain operations throughout colder weather with little disruption from weather. All present agreed that this would be a suitable plan of action. The new sequence is shown on Issue P2 dated October 2, 1975, sheet 2. I have sent Mr. Towar five sets of the revised sheets, 1 and 2, for distribution to those concerned.

Concurrently with construction at the gym and pool, utility tunnel installation will also proceed.

If appropriate, I shall redraft the rough network into more readable form for field use. However, for the present, I shall distribute only the rough network.

RALPH J. STEPHENSON, P. E.  
CONSULTING ENGINEER

Monitoring Report #2  
Physical Education Building for  
Flint Central Community High School  
Page three

A brief review was made of the critical delivery items and it appears presently that there are no major delay potentials. This matter should be reviewed continually.

A rough analysis was made of when it might be anticipated the project could be completed and present patterns of work indicate that the current mid-June target date is not a probably completion point. In all likelihood, planning should consider that an early fall date might be more feasible. However, because of the difficult nature of the current construction operation, it has been decided to hold off additional planning and setting of target end goals until a better feel for the current sequence is obtained.

I shall be in touch with Mr. Towar regarding our next planning session.

Ralph J. Stephenson, P. E.

RJS  
m

To: Mr. Charles Towar  
Flint Board of Education  
923 E. Kearsley  
Flint, Michigan 48503