RALPH J. STEPHENSON, P. E. CONSULTING ENGINEER

MM.

May 24, 1975

Subject: Monitoring Report #1

The Registry Hotel, Irvine, California

Kraus-Anderson of Texas, Inc. - contractors

Project:

75:41

Date of Monitoring: May 12, 1975 (working day 93)

Monitored from Issue P2 dated May 2, 1975 and Issue P3 dated May 12, 1975

Actions taken:

- Reviewed previous diagrams prepared for early administrative work, early fabrication items, building structure and close-in
- Prepared network for typical hotel floor interior work
- Evaluated current job status
- Prepared 2 sheet summary network model of job

On May 12, 1975 (working day 93) I met with Mr. John Sheef, Mr. Dean Winquist, Mr. Charles Glenn and Mr. Dave Thies to continue preparing the network model for the Registry Hotel in Irvine, California.

We first reviewed progress of the job compared to our earlier Issue P2 diagram dated May 2, 1975 (working day 87). The major delay item at present is the revision of the structural and architectural drawings to allow obtaining permits and getting authentic proposals on early critical items. The entire early network was re-evaluated and as of May 12, 1975 it was now expected that the foundation permit could be obtained by June 17, 1975 (working day 118) if structural drawings are revised to reflect the architectural changes by June 2, 1975 (working day 107).

The most critical item is fabrication and delivery of resteel package #1. Our Issue P3 network anticipated that we could prepare and submit resteel package #1 shop drawings which includes all work up to the second level starting June 2, 1975

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(working day 107) which would get our resteel package #1 delivered to the job by July 15, 1975 (working day 137). This is a very critical item in order to get the job underway and heavy expediting efforts will be required to make these dates.

It was also anticipated that the negotiations with the owner could be conducted so as to have a notice to proceed by June 2, 1975 (working day 107). Very important to the job is to have field activity underway no later than May 28, 1975 (working day 104). Therefore, using the current authorisation for early mobilisation, it is expected that the tower crane footing will be constructed starting on that date and that construction of the building access road could also begin, if required. Due to the later delivery of resteel package #1, building foundation work is currently scheduled to begin on July 15, 1975 (working day 137).

A complete re-evaluation was made of the structural floor pours and changes indicated on the tracings in red pencil. Sheets P1, P2, P3, P4, P5, P6 and P7 were re-calculated manually to reflect the latest revisions. Under this revised schedule, it is expected to be able to pour out the main roof deck at the east third by January 15, 1976 (working day 265), and to complete the stair tower roof decks by February 4, 1976 (working day 279).

Construction of the commercial area (low rise) footings was expected to be put into work following completion of foundation construction for the tower. Presently the plan is to begin foundations at the low rise units by August 25, 1975 (working day 166). This matter should be restudied since it appears presently that this date may be too late to allow comfortable completion of the commercial area by our current target.

Of critical importance in the commercial area is underground plumbing work, particularly at the kitchen. The Issue P3 network dated May 12, 1975 anticipates underground plumbing starting no later than September 22, 1975 (working day 185). However, this is a very late start and I strongly recommend that an earlier resolution of kitchen layout be made and that rough-in drawings along with full electrical and mechanical underground work be issued as quickly as possible so that work can start prior to the current target September date. Usually kitchen underground work is a major source of delay and disruption and should be resolved now.

As part of our planning work May 12, 1975 we prepared a typical interior room plan for early analysis. This information is shown on sheet P8. It was assumed that from the point at which the west third of the structure was stripped, rough work could proceed including risers and horizontal runs, along with study at the exterior wall.

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It was agreed that ceiling drywall materials should not be installed until either a permanent or temporary roof could be placed on the structure to prevent water coming down from above. From the time ceiling drywall began it will take approximately 44 working days to complete finish work at one floor. We worked with this figure and established a point at which it would be necessary to install a temporary horizontal closure to act as a construction roof to start the second floor ceiling. This point was not set finally at our meeting but probably will be about when the sixth or seventh floors have been poured out. Mr. Sheef and Mr. Winquist are to give this matter additional thought and establish if, at what point, and how the temporary horizontal protection will be placed.

To complete our planning work, we prepared a two sheet summary network model which showed construction of the total building in very broad terms but relating as closely as possible to information obtained off of the detailed diagrams. This summary diagram was given to Mr. Sheef and is presently being processed for use in completing negotiations with the owner.

Ralph J. Stephenson, P. E.

RJS m

> To: Mr. Sheef Mr. Winquist

> > Mr. Svee

RALPH J. STEPHENSON, P. E. CONSULTING ENGINEER

M

August 6, 1975

Subject:

Monitoring Report #2

The Registry Hotel, Irvine, California

Kraus-Anderson of Texas, Inc. - contractor

Projecti

75:41

Date of Monitoring: July 30, 1975 (working day 148)

Monitored from Issues P3 dated May 12, 1975 and P4 dated July 30, 1975

Target End Date: Morning of July 29, 1976 (working day 403)

Actions takens

- Reviewed current job status with Mr. John Scheef and Mr. Dean Winquist

Reviewed previous network diagrams and made appropriate revisions

- Revised summary network model on sheet P9

 Prepared detailed diagrams of restaurant and bar areas (RB) and kitchen and coffee shop areas (KC) in the commercial area

On July 30, 1975 (working day 148) I met with Mr. John Scheef and Mr. Dean Winquist to continue planning the work sequence and to evaluate progress. Presently the project is severely hampered by work delays and on July 30, 1975 was stopped completely by a strike of reinforcing steel fabricators which resulted in picketing of the job site according to reports from California. This stopped all activity and a review is now being made to determine what can be done to get the job underway in the field once again.

Footing work started on July 21, 1975 (working day 141) which was about four days behind the original target date. The delay to the start was due to a series of factors revolving around working drawings and building permits. However, it has been impossible to continue very far with the jeb since the supply of reinforcing steel has been

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rapidly reduced to below a level that would maintain job continuity. There was some investigation made of the possibility of fabricating resteel on the job site but this presently has been abandoned.

In respect to the building permit, working drawings were submitted on July 29, 1975 (working day 147) and it is expected to have a full permit no later than August 11, 1975 (working day 156). Mr. Scheef, in further reviewing the project history, said that Kraus Anderson of Texas received their notice to proceed on July 3, 1975 (working day 130). As noted above, foundation work began on July 21, 1975 (working day 141).

Presently it is critical to once again resume resteel production and equally important to expedite fabrication of wall and deck forms for early pours. Heavy attention is being given these items. Some revisions were made to the construction planning of footings, grade and tie beams and shear walls to the second floor which resulted in some reductions in construction time. The revised sequence is shown on sheets P2 and P3. The revised calculations were not carried out in detail for the total structure since it would be wise to wait until the end of the fabricators' strike before these are completed.

We spent a portion of the diagramming session preparing network plans for the low mass commercial area. The close-in diagram on sheet P7 was reviewed and interior finish diagrams for restaurant, bar, kitchen and coffee shop were prepared on sheets P10 and P11. Presently it is expected that work on wall and column footings in the commercial area will begin as soon as the kitchen rough-in locations are fixed and a full building permit has been obtained. Also necessary, of course, will be receipt of the low rise resteel which, again, depends upon the fabricators' strike being brought to a close. Preliminary evaluations indicate that work at the low mass will be critical and that it should be given careful attention, particularly at the kitchen area. Footings are being held at the low rise until the location of rough-in can be set so as to avoid interferences with underground plumbing work to the greatest extent possible.

At the conclusion of our planning work for the day, Mr. Scheef, Mr. Winquist and I redid the summary model on sheet P9. This diagram shows on one drawing the complete project for the tower unit (T) and the commercial area and lobby. Mr. Scheef requested that I draft this single sheet, P9, into final form and date it with early and late starts and finishes for summary field and office use. Prints were obtained of this diagram and Mr. Thies will prepare a computer run for the summary plan.

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Meanwhile Mr. Winquist will take the detail diagrams for the floor pours and for the interior floor work to the job site and review them in detail for accuracy and conformance to current job thinking.

Our next session should complete a review of the typical floor diagrams for each of the tower units, along with the low mass areas, so these can be put into final form for final issue. Also, we should complete our work at the lobby and first floor areas. It may also be desirable to do some planning on the swimming pool area although this is a matter to be decided at a later date.

In summary, the project started at close to the beginning target date but has now been stopped completely by a strike of reinforcing steel fabricators. It is hoped this strike can be resolved soon. Of critical importance during this period is to continue work on forms and expediting that can be proceeding while the strike is in effect. Also very important to the job is expediting approval and fixing of underground utility work in the low mass area so that foundations there can be put into work as soon as possible.

I again urge that a careful evaluation be made of the logistics involved in the hoisting operations for the various sectors of this building. As everyone is well aware, proper and effective movement of men, materials and equipment is of prime importance to maintaining the tight target schedule that has been established. Therefore, the material handling system should be given close attention. We discussed this briefly in our planning session and Mr. Scheef and Mr. Winquist are very conscious of this matter.

The point of installation of the temporary roof was also reviewed and presently it still appears desirable to install the temporary horizontal weather protection at the 6th floor level. We have assumed in the summary model that the temporary horizontal weather protection will be laid on the sixth floor level. We have assumed in the summary model that the temporary horizontal weather protection will be laid on the sixth floor surface when that surface is poured out on or about November 14, 1975 (working day 224).

Ralph L. Stephenson, P. E.

R.B/m

To: Mr. C. J. School

Mr. Dean Winquist

Mr. Jerry Svee

RALPH J. STEPHENSON, P. E. CONSULTING ENGINEER

October 9, 1975

Subject: Monitoring Report #3

Registry Hotel, Irvine, California

Kraus-Andersen of Texas, Inc. - Centracter

Project:

75: 41 `

Date of Monitoring: September 29, 1975 (working day 190)

Monitored from Issue P4 dated July 30, 1975

Target End Date: Norning of July 29, 1976 (working day 403)

Note: This end date is to be modified as the initial requirements of the letter of intent and the impact of work steppages subsequent to the letter of intent are analyzed. Thus, the above currently represents an interim target point.

Actions taken:

- Reviewed current job status with Mr. John School and Mr. Dean Winquist
- Revised and updated networks to Issue P5 dated September 29, 1975 (working day 190) where appropriate
- Completed diagramming first floor tower close-in, tower public areas and meeting rooms

General Summery

On September 29, 1975 (working day 190) I met with Mr. John School and Mr. Dean Winquist to bring the network diagram up to date and ready it for final issue. Our early efforts concentrated on monitoring the tower unit. Presently work is in progress on construction of shear walls to the second floor. It was expected that forming for the west third of the second floor dock would start on September 29, 1975 (working day 190). The target date for start of this supported dock was, in our Issue P4 network dated July 30, 1975, September 5, 1975 (working day 174).

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An analysis of the 16 day lag indicates much of it was due to starting up the project after the resteel strike. However, it is expected by Mr. School that some of this time will be regained in the early stages of the deck forming. It is to be cautioned that early work on the decks must be expedited continually since it is here that the work patterns for the entire project are set. It is still the intent to provide a temporary horizontal weather protection at the sixth floor surface so interior finish work can begin at the lower levels prior to completion of the total tower unit. So that Mr. School and Mr. Vinguist could use the present P5 issue dated September 29, 1975 rough diagrams, I reviewed with them the computation adjustments that should be made to utilize the diagrams on a centinuing basis. Of importance is to clearly establish that the base network to be used in all evaluations is the Issue P4 dated July 30, 1975 (working day 148).

Reviewing the commercial area, footings are planned to start there on October 13, 1975 (working day 200). This is 29 working days later than originally intended. The date had been set for September 2, 1975 (working day 171). It should be emphasized that this commercial area and connecting link are a complex portion of the facility and should be given a high priority of attention.

One of the reasons for the delay is a structural review being made of the roof slope. This, in turn, affects anchor belt shep drawings, built-in column shop drawings and all ether structural steel shop drawings. Because of the nature of the structure, it will be necessary to have available very early, hopefully before masenry gets underway, these columns that are to be built into the masenry walls. Because of special fabrication problems and late start on this fabrication, it is possible that the job will be as much as 40 working days behind as masenry erection starts. This is a critical lag and may impact upon the sequence of installation of feed service equipment in the kitchen.

Other areas of the connecting link and commercial low rise units appear to be able to be completed within our current desired target dates. This will only be possible, however, if prompt decisions are made and approvals given on all design elements. This will be the key to bringing this section of the building home on time.

It should be noted that elevator shop drawings were received on September 10, 1975 (working day 177). These were due to be checked and sent back by September 19, 1975 (working day 184).

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As of September 29, 1975 (working day 190) monitoring they had not yet been returned. Delivery of elevator components was expected to start on February 2, 1976 (working day 277). Color schedules for the elevator are expected by October 10, 1975 (working day 199).

At the close of our session it was decided that the appropriate sheets would be redrafted and previded to Mr. Schoof, Mr. Vinquist and Mr. Thies for computer processing.

Ralph J. Stephenson, P.B.

RJS

To: Mr. C. J. Schoof Mr. Dean Winquist Mr. Jerry Svee

RALPH J. STEPHENSON, P. E. CONSULTING ENGINEER

February 26, 1976

Subject:

Monitoring Report #4

Registry Hotel, Irvine, California

Kraus-Anderson of Texas, Inc. - Contractor

Project:

75:41

Date of Monitoring: February 20, 1976 (working day 291 and

February 21, 1976

Monitored from Issue #1 dated November 6, 1975

Target End Date:

The target completion date is presently being reassessed and will be established by a joint decision of the contractor and the owner in the near future. A re-evaluation of the project is necessary based upon delays that have caused revisions to the original sequencing and intent.

Actions taken:

- Inspected project
- Reviewed current job status with Mr. John Scheef, Mr. Deen Vinquist and Mr. Charles Glenn
- Revised and updated networks to Issue #2 dated February 20, 1976 sheets 5 through 19

A letter "A" was placed above the sheet number on these revised sheets and the seplas were left with Mr. Glenn

Participated in meeting with Mr. Martin O'Toole and Mr. Roger Grulke re current scheduling and revisions

General Summary

On February 20, 1976 (working day 291) I met with Mr. John Scheef, Mr. Dean Winquist and Kr. Charles Glenn to review current job status and to update the Issue #1 network dated November 6, 1975 to reflect conditions that have been imposed upon the project during the ensuing period. The result was a manually computed set of networks showing early start/early finish working day dates from February 20 (working day 291) on through to the end of the project.

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To review current field status at the tower unit, the main roof deek is presently being poured out, stud work is proceeding at upper floors, followed closely by drywall, and plastering is substantially complete at the second floor. Our analysis of the project indicates that from here on out we can expect an approximate ten working day floor turnover cycle based upon the durations presently being experienced on the project. In conversations with Hr. O'Toole, he urged that the contractors make every effort to reduce this floor turnover cycle time and asked the field managers to carefully examine all dates to assure that they are realistic and reasonable. This is being done.

It should be pointed out that during the job planning we did make strong efforts to keep durations to what would be considered, based upon current project characteristics, a reasonable length.

Preliminary calculations (to be checked and reviewed) show that excluding life support device installation that it probably will be possible to complete the tower unit on or about September 21, 1976 (working day 440).

A major unknown at the present time is this life support safety system which is apparently now being required in new hotels in California. We discussed the system in detail and Mr. O'Toole mentioned that at the present time there are very few suppliers and contractors whose LSS systems are acceptable in Orange County. There is a possibility, however, that this list of acceptable contractor systems may be extended in the near future.

Therefore, some time assumptions were made in our discussion. It was agreed that an outline specification for the LSSS along with a rough-in layout would be completed by March 1, 1976 (working day 297) by the architect in conjunction with the general and the electrical subcontractor. This would be released for proposals due back on March 15, 1976 (working day 307), while concurrently approval was being gained of the proposed vendors. If a contract is awarded on March 17, 1976 (working day 309) it is anticipated shop drawings might be back in as little as four weeks (20 working days), and approved by the Orange County Fire Marshall in another 15 working days. This brings the date for approved shop drawings being available to May 5, 1976 (working day 344). Indicated delivery time on LSSS equipment is 4 to 6 months. Assuming 88 working days or four months brings material to the job by approximately September 9, 1976 (working day 432). At this time installation and final hookup can begin.

Meanwhile we are proceeding with rough-in for the life support safety systems in order to continue work on boarding, plastering and other related finishes. The LSSS is perhaps one of the most important items presently pending on the project and it is recommended that an early resolution be obtained.

Tower Unit

Reviewing pending matters in the high rise, we find the following listed at random.

- Revisions to the air conditioning unit electrical bases are presently in work. This does not appear to be a major problem and it should be resolved within the next week.
- The life support safety system was discussed in detail above. This item is relisted here because of its critical nature. The owner and the other members of the project team are working to resolve the matter.
- A bathroom light fixture change order will be processed and these fixtures will then be ordered and delivered to the job site. They do not appear to be a major difficulty although again if delays extend much past another week, it could disrupt some sequencing.
- A shower rod field work order is to be issued soon.
- The owner stated that he will be able to provide vinyl wallcovering as needed on the job. It appears that the target date for delivery has been agreed at March 19, 1976 (working day 311).
- The ceramic tile system is still awaiting full approval although there is some question as to whether this has been provided or not. It is felt desirable to obtain a field work order from the owner for this item. (Note: Processing of revisions and requests for changes is working relatively well although there are some local breakdowns in communication. Because the project is approaching a critical point where decisions, particularly relating to interior finishes and equipment, must be made quickly, delays due to communication problems must be eliminated to the greatest degree possible.)
- Strong interest was shown by the owner in the elevators. It is his desire to have a working service elevator available to him by June 15, 1976 (working day 372). This would be used for hoisting furnishings. I recommend that a clearcut agreement relative to take-over of the elevator and its operation be spelled out in detail, preferably in writing, before the elevator turnover is accomplished.

Rails for the elevators are due in next Tuesday, February 24, 1976 (working day 293) with elevator machinery arriving in the early part of March. Mr. Glenn reports that there should be no major difficulty in achieving the target operational date for the service elevator. This matter will be reviewed and a plan of work developed to establish accurate completion points.

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- Also of interest to the owner was dismantling of personnel hoist and the tower crane. These dates will be set by field conditions and Hr. Glenn will give them careful attention over the next few days. The reason for concern is so as to accurately establish points at which full floors are available including those floor areas that must be held out to accommodate construction hoisting and lifting.
- Mr. O'Toole said that Mr. Charles Lamphere will be on the job site next week to inspect the sample room and provide comments and approvals as appropriate. If any field orders are required following inspection of the model, these will be immediately provided by the owner.
- Presently there exists a hold on the first floor of the tower unit. Some decuments have been provided which cover the revisions to be made and discussions are in work as to whether they are sufficient to complete all pricing and processing of the change order.
- The basic landscaping layout for the exterior is being issued currently. It is intended to have all site utility drawings approved and issued by April 1, 1976 (working day 320). The work will then be priced by the contractor, approved by the owner and field installation can then proceed. It is expected site work will continue during the months of May, June and July.

Low Rise Units (CA/LO)

The slab on grade at the low rise is substantially complete, bearing walls are erected and the job is ready for structural steel. Structural steel is due on the job February 24, 1976 (working day 293) and erection is expected to begin the next day. Close-in of the building will then proceed with spray-on fireproofing being a critical item.

The discussion points below for the low rise area are listed at random.

- A field order is being awaited by the contractor regarding the ballroom HVAC units. There is some confusion as to whether this authorisation was adequately covered in neeting minutes at a conference held February 6, 1976. Mr. Scheef will investigate. This change is important since it affects fabrication of ballroom HVAC curbs.
- The contractor requires more detailed working drawings for the skylight installation than are apparently available now. These have been requested and the matter is under consideration. It will be necessary, after obtaining adequate working drawings, to prepare shop drawings, have these approved, and then to fabricate and deliver the skylight. Since skylights are normally long lead

time items, I suggest that every effort be made to expedite this entire process.

- Kitchen equipment is due on the job, according to Mr. O'Toole, by June 1, 1976 (working day 362). This includes all food service equipment, as well as kitchen hoods. Some discussion was held regarding logic and durations in the kitchen area, and Mr. Glenn will review the logic plan, sheet Al? for possible compression of time.
- The owner is reviewing the fire door change order at the tower public area on the first floor. When this has been released, it will be necessary to prepare and approve a fire door shop drawing after which fabrication and delivery can proceed. This item should be cleared as quickly as possible.
- Hr. O'Toole was very interested in reviewing the logic plans for the various elements of the low rise area and asked that the contractor make a complete check of the logic and durations by the field and office managers to insure that they have provided as much reasonable compression of time as is possible. Hr. Glenn plans to review these drawings with Hr. Winquist over the next week to insure that the durations are reasonable and that the logic is substantially correct. The final network will not be processed until these reviews have taken place.
- Reflected ceiling plans should be completed quickly since these are needed by the sprinkler contractor to complete his working shop drawings. Extensive approvals are normally needed on fire protection systems followed by relatively long lead fabrication and delivery times.
- The finish schedule will be complete and issued, according to Nr. O'Toole, by Harch 1, 1976 (working day 297).
- There was some discussion about the revised layout to the mechanical equipment room at the first floor of the tower unit. This matter will be checked by Mr. Scheef.

Ralph J. Stephenson, P.E.

RJS/n

To: Mr. C. J. Scheef Mr. Dean Winquist

Mr. Jerry Svee

RALPH J. STEPHENSON. P. E. CONSULTING ENGINEER

June 15, 1976

Subject:

Monitoring Report #5

Registry Hotel, Irvine, California

Kraus-Anderson of Texas, Inc. - Contractor

Project:

75:41)

Dates of Monitoring: June 11, 1976 (working day 370 and June 12, 1976 (working day 371)

Monitored from Issue #4 dated March 25, 1976

Note:

Issue #4 was the diagram drafted on Kraus-Anderson titleblock paper and issued with a computer run as a result of the previous monitoring on February 20, 1976 (working day 291) and revised as required by Mr. Glenn and Mr. Winquist

Target End Dates:

Target end dates vary within the project. The various dates will be discussed below, and range from August 18, 1976 (working day 418) for a major share of the tower unit through to September 28, 1976 (working day 445) in tower public areas and low rise. Various portions of the low rise are expected to be completed during this interval.

Actions taken:

- Inspected project
- Reviewed current job status with Mr. John Scheef, Mr. Dean Winquist and Mr. Charles Glenn
- Revised and updated low rise networks, sheets A15, A16, A17, A18 and A19 to Issue #5 dated June 11, 1976 (working day 370)
- Prepared network diagram for site work, sheet A20, Issue #5 dated June 11, 1976 (working day 370)

Tower Unit

On June 11, 1976 (working day 370) I met with Mr. John Scheef, Mr. Dean Winquist and Mr. Charles Glenn to monitor the project and attempt to establish realistic target end dates for the entire project. Evaluation of the tower network shows

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that the second through tenth floors of the tower are in good condition and presently far enough along so it should be possible if the life, safety and support system (LSSS) elements arrive as presently scheduled to complete by the desired target of August 18, 1976 (working day 417). It will take close cooperation and a well controlled and cooperative punching out procedure to achieve this. I believe if the top management of the organisations involved can get together with their staffs and agree upon a suitable method of turning over and accepting the spaces that the present target date is realistic for upper tower areas.

A point of caution here....owner's carpet will probably be installed sometime considerably prior to actual occupancy. Careful lockup and access precautions must be taken to avoid potential damage to finished units. Apparently all rooms can be locked and I also strongly suggest that as corridors are finished, methods of blocking off the entire floor from any casual construction traffic be devised.

The sequence of obtaining approvals and getting life support safety system equipment on the project has moved considerably better than had been anticipated. Approval of the life support safety system was obtained from the Orange County fire marshall on May 18, 1976 (working day 353) and noted on a drawing issued to Kraus-Anderson. Meanwhile K-A had solicited proposals in accordance with field order 35 dated March 10, 1976 (working day 304) and selected a contractor. The contractor has proceeded to procure all necessary materials, and delivery of the LSSS equipment is presently scheduled for July 15, 1976 (working day 393).

The electrical contractor feels he can install the entire LSSS system in the upper tower areas by August 2, 1976 (working day 405) and in the low rise area by that date if the various sectors of the building are available to him.

The only other major outstanding delivery item in the upper tower areas is vinyl wallcovering for corridors. Vinyl for the rental rooms was delivered in timely fashion and is well along. However, corridor vinyl is still not on the job. This caused some difficulty in installing door frames. However, close cooperation between the contractor and the architect facilitated installation of frames by permitting adjoining short sections of walls to be painted, allowing early installation. Thus, the corridor vinyl problem has been alleviated to some extent. I recommend, however, it be brought on the job and installed as soon as possible.

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Elevator work at the tower unit has moved quite well and the service elevator is ready for final testing and takeover as soon as permanent power can be provided. Presently there are some business arrangements between the owner and the power company that must be cleared before this can be done. Passenger elevators are also in excellent shape and it is anticipated they will be completed by the morning of July 28, 1976 (working day 402). This is in conformance with the planned schedule.

The personnel hoist will probably be removed from the building sometime in mid-July. This should give adequate time to finish off the interior of the building for the August 18th turnover of the upper tower floors.

At the first floor of the tower, there has been some problem maintaining work continuity due to delays in installing sprinkler piping. The reasons for the delay are quite complex but are presently being resolved and the sprinkler contractor is expected to substantially increase his manpower on the job by Monday, June 14, 1976 (working day 371).

We made a projection of work necessary to complete tower public areas and the adjoining link. This indicated completion on September 28, 1976 (working day 445). The updated schedule, Issue #5, dated June 11, 1976 (working day 370), may be possible to compress but right now it would be wise to consider that it represents a realistic target.

Low Rise Units (CA/LO)

Exterior walls and close-in of the low rise unit at the roof is now underway. Some interior work has been started that had been shown as restrained until the building was completely closed in. Generally work at the low rise has moved reasonably well except for those areas where additional technical information has been required to process the work in the field.

A discussion of points considered at the low rise is given below at random.

- Baliroom HVAC units were due on the job according to the Issue #4 network as early as March 17, 1976 (working day 309) but no later than April 15, 1976 (working day 330). Current delivery schedules indicate they will now be here on June 16, 1976 (working day 373). The units are in transit but I recommend that Kraus-Anderson check to see if a pro number has been assigned to insure they are actually being delivered. Work has proceeded around the areas where these units are to set.

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- Skylight drawings have been issued and material is currently expected on the job by June 21, 1976 (working day 376).
- At the kitchen, work is proceeding on interior walls and as soon as piping at masonry walls can be enclosed, ceramic tile and skim ceating can start. A critical element will be delivery of kitchen hoods. These were planned to be delivered by June 1, 1976 (working day 362) but presently will not be here until July 15, 1976 (working day 393). This is a critical item and if an improvement can be made in the delivery, it is strongly suggested it be done.
- Food service equipment is expected on the job starting July 1, 1976 (working day 384).
- Now that ceilings are starting, it is critical that all reflected ceiling plans be brought up to date. Continuing cooperation between the contractors and the owner is presently being maintained to insure that all information required will be provided so no interruption in work continuity will be experienced. Mr. Winquist is following this closely.
- The finish schedule is being reviewed by the architect to insure it is preperly correlated with current and projected job activities. It is important that the finish schedule be brought into final form as quickly as possible since it does affect materials now being readied for installation.
- A hold still exists on the registration area. It is planned, however, to release it within a week. This is important since work in this part of the building should be proceeding rapidly from here on out.
- The current target end date for each area of the low rise and commercial area is given below as shown on Issue #5 dated June 11, 1976 (working day 370). These dates were calculated in accordance with the updated network logic. Naturally field efforts are being made to better them.

Close-in and completion of exterior trim, paint and millwork

August 25, 1976 (working day 422)

Restaurant and bar area

 August 31, 1976 (working day 426) Monitoring Report #5
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- September 7, 1976 (working day 430)

Meeting room area

 September 2, 1976 (working day 428)

Tower public areas

- September 28, 1976 (working day 445)

These dates represent studied estimates of the completion times based upon present information.

There have been some recent problems with weather which is somewhat unusual but it is not anticipated that weather will be a problem from here on.

Site Work

As part of our monitoring, we prepared a site work network, Issue #5, dated June 11, 1976. This showed construction of the pool and installation of parking and landscaped areas. It appears the pool could be installed, ready for plastering as early as July 27, 1976 (working day 401). However, plastering and filling of the pool should be deferred to about 3 working days before it is turned over so that no attractive nuisance danger is present on the site. It is desirable to plaster the pool and fill it immediately with water to cure the plaster, according to Mr. Glenn.

Paving work, striping and light poles should be completely installed by August 19, 1976 (working day 418). Owner's underground sprinker work at landscaped areas will follow completion of asphalt paving. Any underground sprinkler work by the owner at the paved areas will have to be installed early prior to installation of sidewalks and paving subbase. This is noted on the network plan.

General Summary

Overall, the project is moving in good fashion and should be available on a successive occupancy basis from August 18, 1976 (working day 417) on through August and part of September. Presently it looks as if the job can be totally complete by late September and with good fortune and Monitoring Report #5
The Registry Hotel
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continuing cooperation of the owner and contractors, possibly some improvement in that date can be achieved. However, to be realistic, it would be wise to consider the late September completion as the present target.

I recommend that the top management of the organizations involved meet with their staffs and agree upon a method by which the job is to be inspected and turned over. Some preliminary ideas are presented in the attached appendix. A detailed procedure should be prepared from discussions refining these ideas.

Ralph L. Stephenson, P.E.

RJS m

To: Mr. C. J. Scheef

Mr. Dean Winquist

Mr. Jerry Svee

Mr. R. Patterson

June 15, 1976

Suggested Preliminary Punching Out Procedure for Registry Hotel, Irvine,

California

Introduction - Appendix to Monitoring Report #5

On June 11, 1976 Mr. Dean Winquist, Mr. John Scheef, Mr. Charles Glenn and I monitored the Registry Irvine project. Presently it is the intent to complete this complex jeb within the next three to four months. To insure an orderly turnover of the project, so the owner can complete his necessary finish work, it is felt essential by the Kraus-Anderson staff that a specific punchout procedure be established that would be of mutual benefit to both the owner and the contractors.

The following considerations entered into the punchout discussion:

- The owner's carpet should be installed only after every item has been installed that might conceivably cause damage to the carpet if installed after carpet is laid.
- Once an area has been carpeted, it should be locked to everyone except the owner and the contractor's field managers.
- It is understood that some miscellaneous trim items such as mirrors, hardware, grab bars, life support and safety devices and other similar small items may not be totally available before it would be desirable to lay down carpet.
- A consistent method of evaluating the completeness of an area should be set by some standard of performance or measure of acceptance agreed upon by all concerned.
- Individuals to participate in punching out the project and representing the various organizations should be clearly identified and their authority defined. They then should be the only ones allowed to participate in making punchout listings.
- Clearly defined procedures for communicating corrections to be made should be set so corrections can be made quickly and with a minimum of return inspections.

- A clearly defined sequence of punching out should be set by the owner's representative in close conjunction with the contractor.

Presently it appears there are ten well defined areas that could be punched out in groupings. These are:

- Group A

Second, third and fourth floors of tower

- Group B

Fifth, sixth and seventh floors of tower

- Group C

Eighth, ainth and tenth floors of tower

- Group D

First floor public areas and office of the tower

- Group E

Service areas at the first floor of the tower

- Group F

Low rise link and coffee shop

- Group G

Kitchen of the low rise

- Group H

Bar and restaurant at the low rise

- Group J

Meeting rooms at the low rise

- Group K

Site and exterior building work

Appendix to Monitoring Report #5 Page three

Through definition of areas the punching out and correction process can be clearly identified and scheduled so the owner can achieve maximum benefit as he moves into the project. This geographic definition should assist the people actually punching out the job and making corrections to more effectively schedule their work.

- Warranties and their dates of start should be set as the job is punched out and the areas taken over by the owner.
- A method of reducing the retainage should be established as the areas are punched out and taken over by the owner.
- Agreement should be reached first at the top levels of the owner's and contractor's organisations as to the policies they wish to have followed in the turnover and takeover of the building. Procedures should then be worked out in detail by the staffs in cooperation with each other.

As a result of considering the above, a preliminary recommended punchout procedure covering some of the more important of the above items was discussed. It would be wise to further review these procedures in the near future and to adopt a standard set of guidelines for the activities which will be starting very shortly.

It is pointed out that probably the second, third and fourth tower floors will be ready for punching out within the next week.

Recommended General Procedures

A. Kraus-Anderson will complete an area to be used as a measure of acceptance (MOA). Presently this area is planned to be, if recommendations are accepted, the west half of the second floor, not including the elevator lobby. It is suggested Kraus-Anderson bring this portion of the building to as complete a degree as possible, hopefully up to the point where carpet could be laid with nothing to be installed subsequently. It is recognised this is probably, at this time, difficult since there are several miscellaneous trim items that will be delivered over the next one or two months. Nevertheless the area to be used as a measure of acceptance should be as complete as possible.

Recommended General Procedures (continued)

- B. When completed, Kraus-Anderson and owner representatives will mutually inspect and punch out the MOA area jointly agreeing on a standard of work that is acceptable.
- C. Kraus-Anderson and its contractors will make corrections agreed upon to bring the MOA up to the owner's required level of quality and completeness. It should be remembered that to this point the carpet has not been installed.
- D. The owner then will formally accept the MOA area and indicate in writing to Kraus-Anderson that this does represent an acceptable level of quality by which they are willing to gage other areas to be punched and of a similar nature in the building.
- E. The owner will then officially take over the MOA area, lay his carpet and lock the area to all traffic other than that authorized by the owner.
- F. Concurrently with A, B, C, D and E above, Kraus-Anderson will complete remaining areas of the building according to a schedule prepared in conjunction with the owner.
- G. The areas will be punched out according to the MOA in groupings as noted above and upon correction, turned over to the owner for his occupancy.
- H. Upon receipt of miscellaneous items not installed prior to punching out, they will be installed in the spaces under careful supervision adequate to insure that the accepted space is kept acceptable.

Adoption of the above recommendations, of course, should be subject to a careful review of the suggested procedure by those directly concerned with the punching out procedure. Punching out should be carried on within the agreed upon procedures and only by those parties officially designated by the management of the respective firms involved.

Mutual cooperation and efforts channeled in the same direction will insure an optimum facility turned over correctly in timely fashion.

Raiph J. Stephenson, P. E.

RIS / m

To: Mr. C. J. Scheef
Mr. Dean Winquist
Mr. Jerry Svee

Mr. R. Patterson

/m.

75:41

RALPH J. STEPHENSON, P.E. CONSULTING ENGINEER

June 15, 1976

Mr. Jerry R. Svee Kraus-Anderson of Minneapolis, Inc. 501 South 8th Street Minneapolis, Minnesota 55404

Dear Jerry:

On June 11, 1976 I monitored the Registry Hotel project in Irvine with John Scheef, Chuck Glenn and Dean Winquist. In my opinion there is every possibility the majority of the tower unit, particularly rental areas above the first floors can be completed and turned over in fine shape by August 18, 1976 (working day 417). This, I believe, is in line with or perhaps even better than the date anticipated.

However, I want to caution that because of many factors, some of which are outlined in Monitoring Report #5 dated June 11, 1976 that the first floor of the tower unit and the adjoining low rise work will probably not be fully completed till near the end of September. There have been many reasons for delays there, most of with which you are familiar.

I should qualify the projection of turnover points by saying that at this point in time, a point usually critical to most jobs of this type, it will take close cooperation and well defined ground rules to insure that punching out, acceptance and installation of owner's work is brought off well. It would be wise, and this feeling, I believe, is echoed by your field management team if the top executives of the organizations involved, Kraus-Anderson and Hospitality Management, meet together and in consultation with their staffs establish turnover procedures.

Mr. Jerry R. Svee Page two

A start has been made on suggested punching out processes in my memo accompanying Monitoring Report #5. However, this memo does not cover in detail the methodology by which the work will be done.

I believe that close cooperation under proper and legitimate pressures which are realistic and attempt to improve the probability of success will help achieve a proper and perhaps even an enthusiastic turnover and acceptance of the facility. The Registry is a good looking building and the management for Kraus-Anderson has done an excellent job in bringing it this far. It is entirely appropriate now that the project is so close to being successfully completed that the top management of all major parties to the contract agree fully among themselves and with their staffs the proper methods of completing the project from here out.

If you would like to talk to me about this matter in more detail, I would be pleased to do so at any time.

Ralph J. Stephenson, P. E.

RJS/m

cc - Mr. Dean Winquist Mr. John Scheef Mr. R. Patterson