7th April, 1967.

Mr. John P. Purcell, 28 St. James Crescent, WARRNAMBOOL VIC.,

Dear Jack,

A load of steel will be going to Warrnambool on Tuesday 11th April. The bottom crown plate and probably the rest of the steel will follow a few days later. They won't get much done until the crown plate arrives.

I am enclosing a copy of Metlab X-Ray Pty. Ltd's, version of the welding procedures. J. F. Thomson Pty. Ltd., are arranging to send their more detailed version in a few days. I don't think they will want to start welding until they have the sphere completely stitched together which will be some time yet.

Until then I think the main thing to do is to ensure that the job starts smoothly.

Please arrange to see Neil Symons (or George Doreian if Neil isn't back yet) and explain that you would like him to know that you will be keeping an eye on the job and would like him to refer any approach made by the sub-contractor on contractural matters to you. Naturally matters of a domestic nature, such as toilets, meals, power supply, could be handled by themselves if they wish.

Once this has been settled please make sure that the contractor understands the lines of communications. I understand that they will be arriving Monday - hence the special delivery of this letter.

As far as communication between ourselves is concerned, please feel free to phone me, preferably at night. The F.J. organization have a rule that all trunk line messages should first be written out telegram style beforehand. Since using this system myself I can strongly recommend it and pass it on as a suggestion, as the calls will be at my expense!

I want to bring you up to date on all matters, so other letters will follow shortly.

Kind regards.

Yours sincerely.

Ralph Jones.

08-05-61 RFJ to VICARS RUWOLT 8th May, 1967. Mr. J. R. Colbourne, Manager, Structural Department. Vickers Rawolt Pty. Ltd., 530 Victoria Road. RICHMOND VIC. Dear Sir, Fletcher Jones and Staff Pty. Ltd., Elevated Water Tower. Thank you for your letter of 5th May. Extra Work Order No. 1. This is to confirm your verbal advice that there will be no change in the contract price due to this Extra Work order in view of Amendment No. 6. Overhead Site Weld. Detail No. 6 on your Drawing No. 6F specifies that one and the same welder would be responsible for welding this joint and preparing the test plate, as a result of a preference expressed in our letter of 28th October, 1966. Mr. Leo Maher has indicated that it would be advantageous to use more than one welder for this work, none of whom were responsible for the test plate. In view of this J. F. Thomson Pty. Itd., offered to x-ray every second "T" joint. This proposal has been accepted. The X-Ray work required in the specifications will be carried out at the expense of the Principal, and will be additional to the above. 1000 060

10th May, 1967.

Mr. D. N. Symons,
Administrative Director,
Fletcher Jones and Staff Pty. Ltd.,
P. O. Box 100,
WARRNAMBOOL VIC.,

Dear Neil,

Elevated Water Tower.

Grouting.

It is necessary to pack a high class layer of mortar between the steel base plate of the columns and the top of the concrete base.

This is commonly known as "grout". In order to eliminate shrinkage, a special quality of sand is used to make the mortar, which is rammed under the base plate with considerable force in a barely damp condition.

In their tender Viokers Ruwolt specifically mentioned that grouting was not included in their price. Their reason is that their Boiler Maker tradesmen are not allowed to handle concrete work.

Whoever does this work will have to have the right sand, and I have no doubt that it will be possible to obtain the right sand in Melbourne. I have asked Jack Purcell to make some enquiries to see if such sand is available locally.

This sand should be on hand at the end of the month and I am writing to ask for authorization on your behalf to get a bag of it sent down to Warrnambool in the event that it is not available locally. The main cost will be transportation.

The grouting operation is covered in Clauses S3 to S10 of the Specifications. I believe that the grouting operation would take two men one day, and the roughening of the concrete surface (presumably also classed as a "concreting operation"), would take about two men one day.

- 2 -10th May, 1967. Mr. D. N. Symons This work is very important as the whole of the sideways thrust on the tower legs and the downward load has to pass through this grout layer. In view of this I think it would be advisable for either Jack or I to keep an eye on this week. I suggest that your own men could do this work. If you like the idea, please ask Charlie or whoever would be concerned to read the Specifications. The preliminary work in roughening the concrete has to be done before the legs are raised. Jack Purcell will give any necessary guidance here. Progress. Jack Purcell phoned today when in Melbourne to say that most of the welding of the sphere should be complete on 19th May if the weather continues to hold. This seems to be on schedule. Rejection of Work. As a matter of interest most of the welded joints of the pipework has had to be rejected due to incomplete weld penetration on the inside of the pipe. This would cause accelerated local corrosion due to various reasons. Although an "A" Grade welder was used, this is most unfortunate for the subcontractor concerned, W. R. Skinner Pty. Ltd., Their Works Manager, Mr. Testro (who used to work for Harry Duggan) was most concerned and has graciously agreed to give J. F. Thomsons an open order to undertake all repair work necessary. Kind regards, Yours sincerely, Ralph F. Jones.

17th May, 1967.

Mr. D. N. Symons,
Administrative Director,
Fletcher Jones and Staff Pty. Ltd.,
P. O. Box 100,
WARENAMBOOL VIC.,

Dear Neil,

Water Tower.

Painting. & Growting .

The enclosed amendment takes care of the alterations as advised in your telegram of 16th May.

E. H. Johns advised that he feels that an "extra" will be involved. I am hoping that J. F. Thomson will talk them out of this as they have had a particularly good deal in being allowed to paint on the ground.

The painters are due on 25th May.

Leo Maher said that he would prefer to refund the amount allowed in his estimate for grouting work if you go ahead with the original arrangements to do it yourself. He appeared to prefer this after I explained to him that as far as I was concerned he was under absolutely no obligation to do this work in view of the wording of the main contract.

In view of this I am going ahead with the procurement of sand, and will leave it to you to decide whether to get Charlie to do the work or E. S. Harris. Personally I think it is well within your own capacilities. The only real problem is getting the grout into the pipe sleeves. For this I am ordering a slightly finer well rounded natural sand, and there should be no problem feeding this in by means of some plastic tube and a funnel attached to the end of the tube.

J. F. Thomsons want to roughen up the top surface of the concrete the selves.

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02/06/67 DNS to RFJ

"Pleasant Hill" Warrnambool. 2nd June, 1967.

Mr.Ralph Jones, 62 The Boulevard, CHADSTONE.

Dear Ralph,

062A

re Water Tower

Further to your letter of 29th May, Wally Pearce has discussed the supply of water for testing purposes with Thompson's foreman and with the Fire Brigade, and arrangements have been made for the latter to supply water as and when required. They will be happy to do this on reasonable notice, so all should be well.

I understand that Bob Currer/Charlotte Jones's sign has arrived. I haven't seen it yet but will arrange for you to get a photograph as soon as possible.

I am trying to arrange with Robert Suggett for a co-operative venture with BTV-6 so that we can have, for our records, and viewing by interstate stores etc., a moving picture coverage of the actual lift of the tank. The exercise might prove a bit too expensive for us, but I have my fingers crossed.

4

Best wishes,



16th June, 1967.

Mr. John P. Purcell, 7 Ross Street, WARRNAMBOOL Victoria.

Dear Jack,

Leo Maher advised that he wants Netlab X Ray on site Wednesday and that he plans to jack up the inside tank Thursday morning.

I propose to travel to Warrnambool Wednesday morning. I have suggested to Neil that a start could be made on Wednesday afternoon on the 2nd stage grouting. It will also enable me to check with Metlab X Ray regarding any matters as this will be their final inspection.

I am hoping that the jacking of the inside tank can be completed Thursday morning to enable me to leave after lunch. Thomsons want me to make a thorough check of the tank during this visit.

Incidentally the danger zone for the Gamma Ray source used by Metlab X Ray is 45 ft. so the grouting operation will be outside this limit.

Tower Column Brace.

Leo Maher said that he plans to leave the steel braces and the platform in place for use of the painters. I don't know what arrangements they will be making for taking it down.

I asked Vickers Ruwolt if Fletcher Jones can keep the brace as it might be useful for forming a platform for repainting purposes. They are quite agreeable to leave it behind at no charge. Please make sure that it is not removed at the time of final clean up and that it is suitably labelled and stored so that it is not tossed out as scrap in later years when people forget or don't know what it is. I am sure Charlie Ryan will appreciate this point.

1000

- 2 -16th June, 1967. Mr. John P. Purcell During my visit I plan to see if a suitable small loop can be welded under the sphere to make it easy to re-erect the brace and platform in future years. Kind regards, Yours sincerely, Ralph Jones. c.c. D. N. Symons.

7th July, 1967.

Mr. D. N. Symons, Administrative Director, Fletcher Jones and Staff Pty. Ltd., P. O. Box 100, WARRNAMBOOL Victoria.

Dear Neil,

Elevated Tank.

Filling Tank.

This has been postponed i week as the painters aren't ready.

Stan Littlepage of Wormalds and John Hamilton of the Underwriters have been notified and will travel to Warrnambool on the morning of July 17 for the inspection.

I suggest that filling should take place after the factory has closed down on July 17th.

Misalignment of Legs.

Leo Maher advised today that his company is prepared to accept full responsibility for the safety of the tower, and intend to get Dr. Len Stevens of the University of Melbourne to check same.

Dr. Stevens and I have worked together before and this arrangement should work well if he is available.

With best wishes,

Yours sincerely,

Ralph Jones.

c.c. John Purcell.

COPY

LKS/BD

Department of Civil Engineering

12th July, 1967.

Mr. L. Maher, J. F. Thomson Pty. Ltd., Currajong Street, WEST FOOTSCRAY.

Dear Mr. Maher,

re: Elevated Water Tower for Fletcher Jones and Staff
Effect of Eccentricites in Columns.

I have considered the possible effects of the imperfections in the column-to-tank connexions described to me by yourself and according to the values provided by Mr. Ralph Jones (10 July 1967).

It is my opinion that these imperfections should not produce effects which would render the structure unsafe or unserviceable. The additional stresses induced in the columns and supports should still lead to acceptable values when combined with the original design values. The distribution of stresses in the crown plate is more difficult to assess but I believe that any local high stresses will be dissipated by yielding, and the moments redistributed, if necessary, into the relatively stiff central pipe through the column extension plates. This forms a torsionally and flexurally stiff section which should be capable of absorbing the induced moments.

Although I am generally in agreement with the approach to design adopted by Mr. Ralph Jones as shown in his computations, I have not attempted to check these in detail. My assessment of the effects of the imperfections is therefore based on a reliance on the accuracy of these calculations. A thorough check on the detailed calculations would take considerable time, but I would, of course, undertake this if you wished me to do so.

Yours sincerely,

L.K. Stevens Reader in Civil Engineering