

## Report on completed design of St. John's Church Launceston

**General Plan** as shown on drawing M3732A is drawn to the full length of original design.

Walls are already built shown in black ink.

New walls are tinted red.

Increased length of nave is tinted yellow and narthex, porches, baptistery etc blue.

It has been my object not to increase the space allotted to general congregation, but to provide room for overflow congregations.

If the Council should decide that the length of present nave is ample, then the proposed new bay measuring 14' 6" in length and coloured yellow on plan, may be omitted. Still from an architectural point of view, as well as for the desirability in exceptional circumstances for a large congregation, I think the matter should receive full consideration. Already the church is narrow in proportion to its width, and a perfect view of the interior cannot be obtained without the enlargement.

If the enlarged church could be viewed from the narthex, or better still from the gallery over narthex, the interior would have an enhanced beauty.

Apart from the architectural effect, I look forward to the time when St. John's will have an increased influence on the spiritual life of northern Tasmania.

The time will assuredly come when the space needed for an ordinary congregation will not be sufficient for a large diocesan or sub-diocesan gathering, or perhaps a united gathering.

I notice in the papers that 5000 people attended the memorial service of the late Mr Lyons in the Melbourne Roman Catholic cathedral.

Nothing is more distressing than the sight of a church heart filled with empty seats, yet provision should be made for expansion in the leading city church. I think it undesirable the whole of the space tinted yellow on plan should be filled with permanent seating. I can call to mind a large church with vacant space at the west end - larger than that now provided - which was reserved for overflow congregations.

**Narthex Screen: M3731** under ordinary conditions a curtain would be hung on the outside of this screen. When extra space might be required for an overflow congregation, the curtain could be drawn aside and the narthex used for seating purposes.

**West gallery M3732B** The whole of western gallery would be available for seating purposes when required.

**Outside Pulpit: M3732B** Above the baptistery and entered from the West gallery, space has been provided for an outside pulpit.

When I designed the Methodist peace memorial church, east Malvern, there was an influenza epidemic in Melbourne. Many people objected to indoor gatherings, and I was instructed to make provision for an outside pulpit. This proved so satisfactory, that on hot evenings, the people sat on the ground outside the church. Further, from a missionary point of view, many many passing people stopped to listen, and the church got into touch with some people not accustomed to church going.

**Chancel Screen: K2316** there are two echoes in the church, but I am convinced both may be overcome. On the opening day of the eastern part of the church, the sound was perfect. I remember Mr Perrin coming to me during the service and saying the building is splendid for sound; I could hear every syllable. The chancel and dome windows were not then glazed, and the return sound escaped through the openings. I realised the problem and fixed the dome windows on thumb screws, so they could be moved backward a few inches, and leave an escape for the return sound. At that time this could not be done as the dome was not then covered; but, as the dome is now roofed, the glazing may be moved a little backward or perhaps better a little forward. Care must be taken that the glazing covers the visible space as seen from the floor level.

The other echo comes from the chancel. Many years ago, I prepared drawing K2316 on my own initiative, but the wardens would not consider the matter. This drawing was prepared solely to improve the acoustic properties of the building. It is a chancel screen, not a rood screen, and has no spiritualistic significance. Old Holy Trinity Church was the worst building for hearing I ever endured. There were sounding wires in every direction. A chancel screen was built, and a service took place before the wires were re-fixed. The late Archdeacon Hales said to me, "I don't think we will re-fix the wires because everybody said they could hear clearly every word I spoke."

A chancel screen would, I believe, have the same effect at St. John's.

**Canopies over Choir Stalls M3730 A-B-C** the choir stalls look ugly in their present unfinished site. Canopies would improve the appearance and at the same time would improve the acoustic properties of the building. I am not however, prepared to say they would absorb the whole of the return sound to the same extent as a chancel screen. Still, they would be an improvement and might be sufficient.

**Central tower M3733 A-B-C-D-E-F-G** new line also amended drawing **M-A-A**

I also send the following old drawings:

- **M2022** Reinforced concrete beams in N & S walls
- **3635** showing the tower as present built
- **1076** foundation plans and sections

The foundations were built by Messrs C. Adams & Sons about two years before the walls of the eastern portion of the church were commenced by day labour. They have therefore been built for 40 years and the bottom has been well consolidated. The west side of the tower abuts the original wall which has been built for 114 years, and no signs of settlement are discernible. The subsoil consists of soil and a treacherous fat clay which shrinks in dry weather and swells in wet. At a depth of about 5 feet the character of the subsoil changes and becomes a hard gritty clay. As may be seen from drawings, the foundations are taken down to a depth of six feet. All the walls of central tower are what maybe could called internal walls, and are thus protected from outside influence.

I however strongly urge that for a distance of from 12' to 15', on the south side of building, that the surface should be asphalted. All exposed ground should thus be covered, and no shrubs or other plants placed on this strip, as their roots let down water in wet weather, and suck up moisture in dry. They thus cause the subsoil to shrink and expand. It is better to be sure than sorry. A building cannot be repaired when once it has cracked, and a considerable load will be added to tower.

The height of tower as shown on design not submitted is 98 feet above pavement outside N entrance.

The design I previously prepared was 8' 6" higher but the saving in height will reduce the weight by 80 tonnes, give a safer factor and provide a ample space for a carillon of bells.

Consequently, I consider the saving desirable.

When I visited Launceston to discuss the matter with the rector and wardens, the whole of central tower was shown in concrete faced with stone coloured cement. The remark was made: why not build with brick to match the remainder of the church?

At first i could not see how this could be done without adding to the weight. I have given the matter much consideration, and an amended drawing M3 733AA shows how the alteration may be made and at the same time actually reducing the weight.

On this amended design the whole of tower is faced with brickwork set in cement compo, and instead of being backed with ordinary concrete, I propose that it should be backed with what I call cindercrete, mixed as follows:

- 4 parts sifted coke or cinders
- 2 parts clean quartz sand
- 1 part cement

A sample block should be made and tested.

More or less cinders or sand may be used as necessary to make a compact body, but the matrix and aggregate must remain the same: 6 to 1.

I have found Newcastle coke satisfactory, but Dulverton should not be used as it contains sulphur.

The weight of ordinary metal concrete is 144 pounds per cubic foot. I have no data concerning the weight of cindercrete, but I think it would be safe to reckon it at 70 to 80 pounds per cubic foot. Much would depend on the character of material employed. In any case it would be much lighter than ordinary metal concrete.

The central tower has been a difficult and perplexing problem. As you are aware, a central tower or oven dome formed no part of the original design, and I have tried many methods to fit a square tower on an area which is longer from n to S, than from E to W.

Stability is the first consideration and I believe the design now submitted will give better results than any other.

I never venture on constructional problems of this nature without having computations checked by a competent engineer.

As actual building is far distant, that duty must be reserved for the supervising architect. By that time different methods of reinforced concrete construction may have been evolved.

*Alex North*

20<sup>th</sup> October 1939