METHOD STATEMENT FOR PROPOSED RESTORATION WORKS ON QRENDI PARISH CHURCH

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QRENDI PARISH CHURCH

1.0 Short History of the Parish church

The Qrendi parish church, dedicated to the Assumption of Mary, was initially commenced in 1620, on a site where another two small chapels previously stood. The church was completed by 1655 however, by this time it was already felt that the church was too small and thus a decision was taken to enlarge the church. Works on the new church (alterations) began 1685 and were only terminated by 1712. The design and work is attributed to the Maltese renowned architect Lorenzo Gafa'. The church has a crucifix form with a dome and two belfries on each side. The church has also two sacristies, one on each side at the back of the transepts.

The main church fabric is in fairly good condition however it is reported that water infiltration is exhibited from the dome and in certain areas of the aisle whenever it rains.

2.0 Phasing of Project

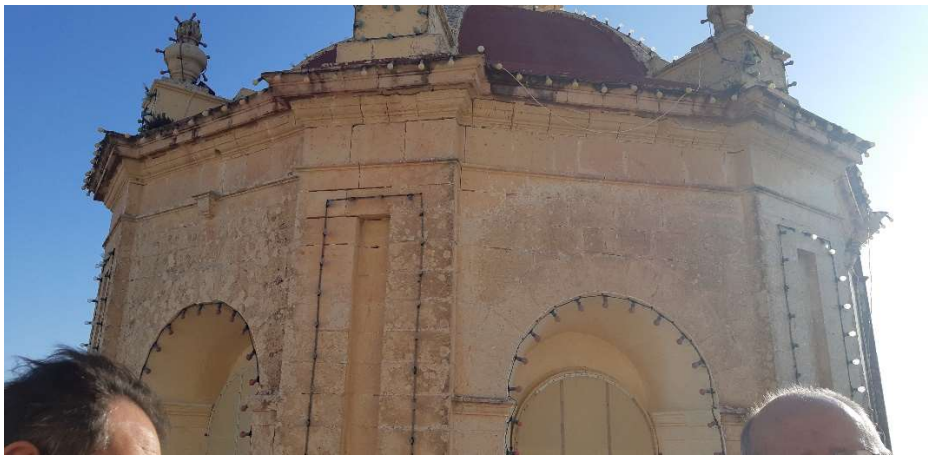
The main works are being phased as follows:

Phase 1: Restoration of the Main and side elevations of the church on South Side

Phase 2: Restoration of the cupola, Belfries and Roof area

Phase 3: Restoration of the North Elevations of the Sacristies and Back elevations of church.

2.1 Restoration of the Cupola, Belfries and Roof Area (Phase 1)



View of cupola West Elevation

View of cupola East Elevation

North Side Belfry

South Side Belfry

View of Roof area over main aisle

2.1.1 Condition of Dome and Bellfries

2.1.1.1 Superficial Deposits

The dome and the belltowers are both exhibiting extensive areas of light greyish layer of superficial deposits and in other areas even a yellowish layer. On the other hand two of the faces of the dome area also has a light reddish patina layer.

2.1.1.2 *Mortar Joints*

The joints on the dome and the bellfries are most of them in good condition apart from the areas just below the cornices and the cornice levels where some areas are exhibiting some open joints.

2.1.1.3 Biological Deterioration

Some areas of the dome and the bellfries have very slight biological staining.

More biological staining is present on the north and east elevations of the dome and bellfry

2.1.1.4 Black Crusts

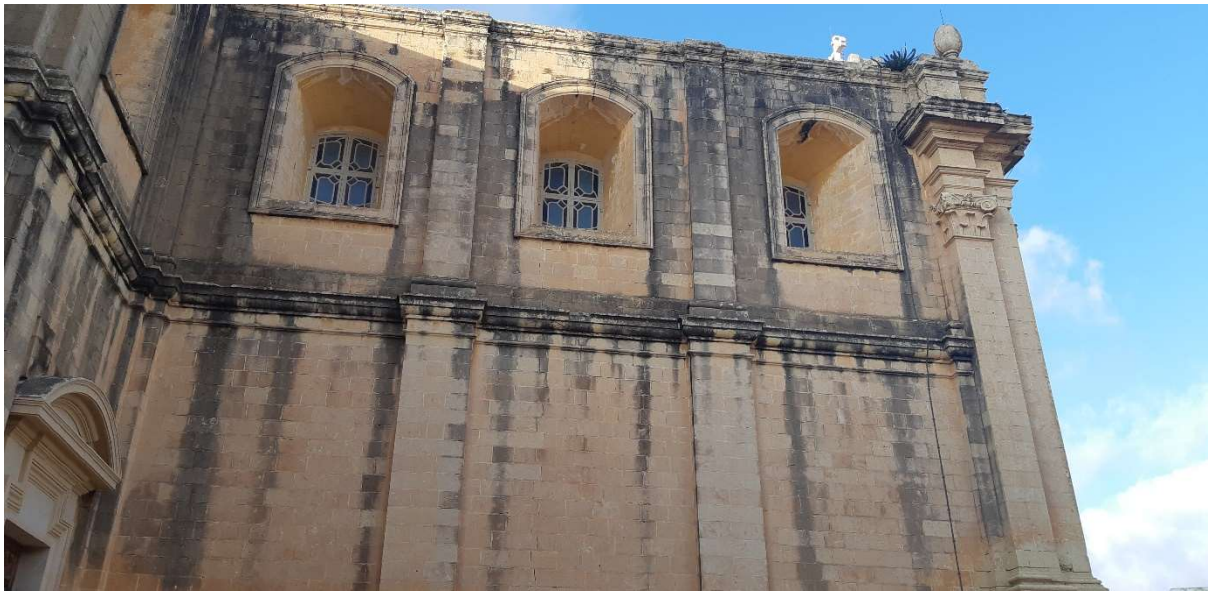
Black Crusts are only limited to the sheltered areas under the cornices. Some signs of black crusts are also visible within the belltower areas, especially under the arched opening within the belfries.

2.1.1.5 Highly Deteriorated Areas and Missing Stones

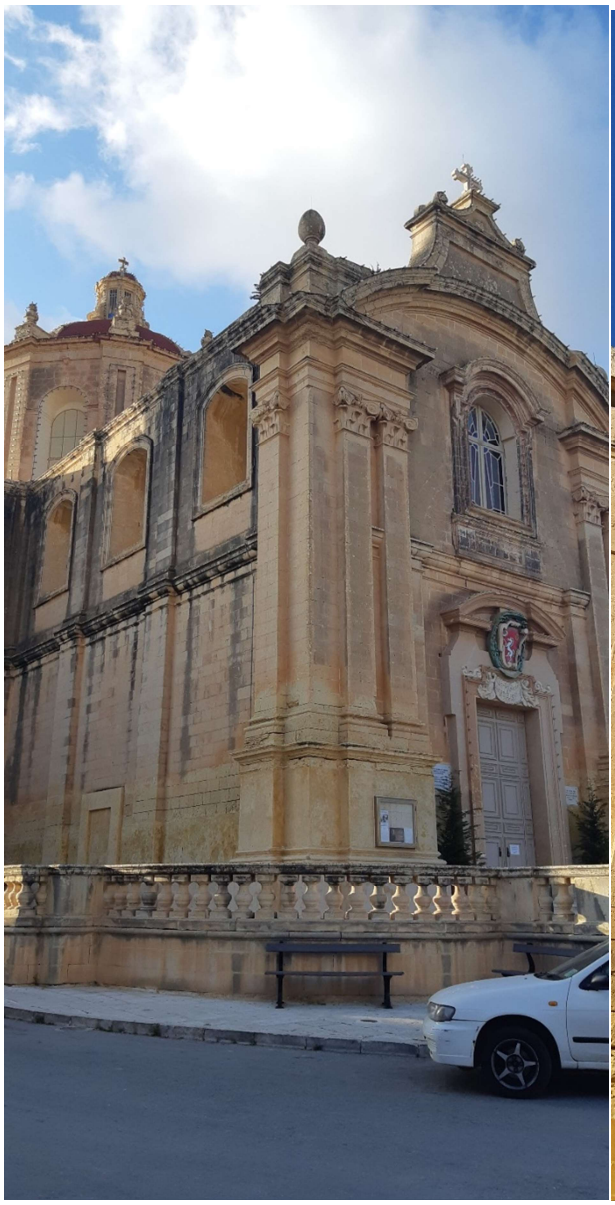
Areas of highly deteriorated stones are only limited certain areas within the cornice at the upper areas of the dome and belltowers.

2.2 Restoration of the Main Elevation of Church and side on Left Belfry (Phase 2)

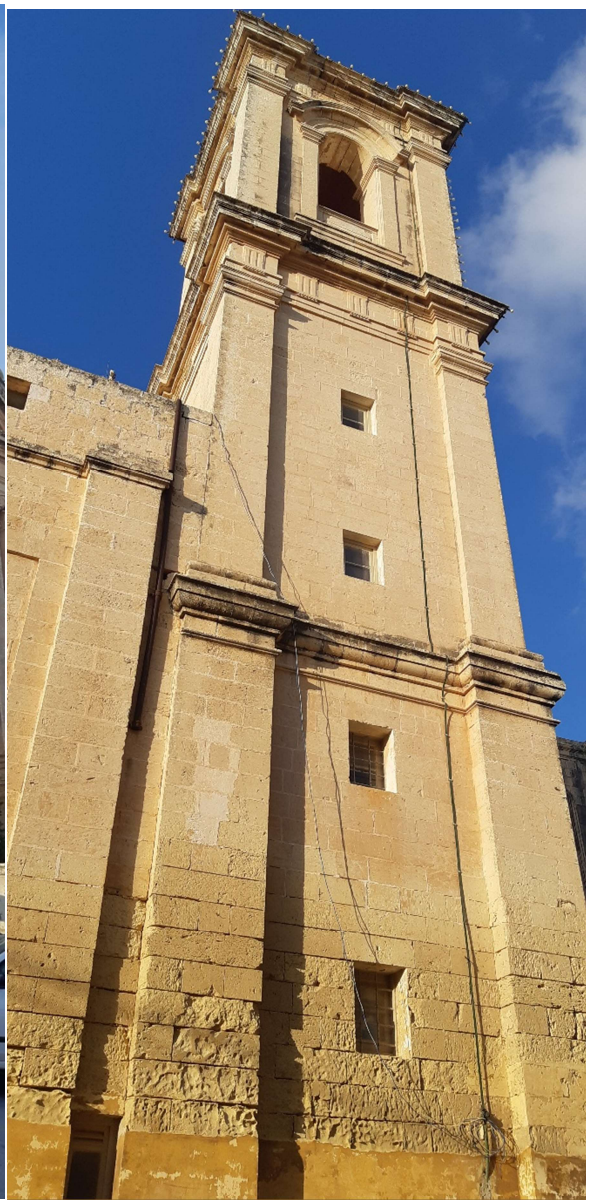
Areas of Main elevation and side on left belfry under consideration



View of the front south elevation of the church



View of the main façade



View of the left belfry (South Side)

View of the south side elevation of the sacristy

2.2.1 Condition of Main elevation and Side elevation (on south)

2.2.1.1 Superficial Deposits

The main elevation and the side elevations are both exhibiting extensive areas of light greyish layer of superficial deposits and in the North elevations even more dark in colour, and are more prominent of the higher areas of the elevations. The superficial deposits are mainly of biological origin.

2.2.1.2 *Mortar Joints*

The joints on the main façade and side elevations of the church are most of them in good condition apart from the areas just above the existing cement plastering and at cornice levels.

2.2.1.3 Cement Plastering

The lower area of approximately eight courses height of the main elevation and the side elevations is completely plastered with a cement based plastering. This plastering is very tightly adhered to the substate and is creating large problems with rising damp.

2.2.1.4 Powdering and Alveolar deterioration

The area just above where the cement plastering is present is exhibiting powdering and in areas alveolar deterioration and in certain areas even back weathering. This is due to the fact that the cement is not allowing the substrate to breathe resulting in movement of water (with soluble salts) from the band just above the cement plastering. This is creating large pressure with the presence of salts which in turn deteriorates rapidly the underlying stones.

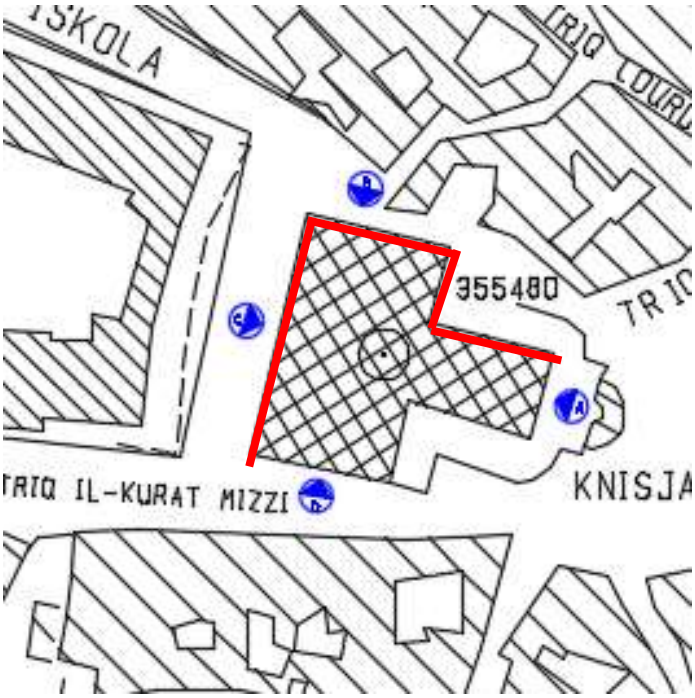
2.2.1.5 Black Crusts

Black Crusts are only limited to the sheltered areas under the cornices.

2.2.1.6 Highly Deteriorated Areas and Missing Stones

Areas of highly deteriorated stones are only limited certain areas just above where the cement plastering stops.

2.3 Restoration of the North Side Elevations and back elevations of the Sacristies (Phase 3)



View of the North Elevation

View of the North Elevation of sacristy

View of the North side elevation of belfry

View of area on back elevation

View of the several back elevations

2.3.1 Condition of North Side and back elevations of Sacristies

2.3.1.1 Superficial Deposits

The side elevations of the sacristies are both exhibiting extensive areas of light greyish layer of superficial deposits and in the North elevations even more dark in colour, and are more prominent of the higher areas of the elevations. The superficial deposits are mainly of biological origin.

2.3.1.2 *Mortar Joints*

The joints on the main façade and side elevations of the church are most of them in good condition apart from the areas just above the existing cement plastering and at cornice levels.

2.3.1.3 Cement Plastering

The lower area of approximately eight courses height of the main elevation and the side elevations is completely plastered with a cement based plastering. This plastering is very tightly adhered to the substate and is creating large problems with rising damp.

2.3.1.4 Powdering and Alveolar deterioration

The area just above where the cement plastering is present is exhibiting powdering and in areas alveolar deterioration and in certain areas even back weathering. This is due to the fact that the cement is not allowing the substrate to breathe resulting in movement of water (with soluble salts) from the band just above the cement plastering. This is creating large pressure with the presence of salts which in turn deteriorates rapidly the underlying stones.

2.3.1.5 Black Crusts

Black Crusts are only limited to the sheltered areas under the cornices.

2.3.1.6 Highly Deteriorated Areas and Missing Stones

Areas of highly deteriorated stones are only limited certain areas just above where the cement plastering stops.

3.0 Method Statement for Proposed Works

Due to the nature of the damage it is being suggested that the following restoration works are carried out:

3.1 Removal of metal fixtures

All metal fixtures such as nails, hooks, electricity cables , etc, will be removed from the façade. These will be removed using small chisels to free the stone from the mortars around the metal objects. Otherwise, corers can be used at low speed in order to extract the metal fixtures without the risk of breaking the stone. Then the holes will be plastered over.

During the process all the lighting system attached to the façade on metal conduit pipe will also be removed and replaced. Any fittings for the lighting system will be fixed with stainless steel dowels.

3.2 Cleaning of Façade

The façade will all the cleaned with dry brushing and wet brushing if needed in order to remove black deposits and dirt, without damaging the existing patina. Particular attention will be given in order to limit the water trickling marks from the areas that will be washed down.

3.3 Poulticing to remove black crusts

The areas where black crusts are evident and where these will not be removed with wet and dry brushing, a poultice with paper pulp will be applied in order to be able to soften down the crusts and in turn these are removed by means of surgical knives and brushes.

3.4 Replacing of Stone

The areas which are marked on the drawing will be replaced using new stone. The decayed stone will be cut back not less than 230mm and replaced by the best quality stone from selected quarries. The dimensions of the new stone must be identical to the existing, and will be carefully isolated from adjacent stone by a good waterproofing material. All newly reinstated masonry shall be grouted to the original wall with an appropriate lime based grout

3.5 *Repointing of Joints*

On completion of the cleaning and stone repair, repointing works will be taken in hand. The process will involve:

- Removal of existing mortar joints
- Wash down
- Repointing

The existing pointing of all the defective joints will be raked out to a depth of not less than 15mm. Where joints are defective to a greater depth, then all loose mortar will be removed, irrespective of the depth. Once the raking is complete the joints will be

flushed with clean water to remove all loose material for pointing. One of the following mixes are recommended for the pointing:

- 1 part hydraulic lime + 3 parts sand with stone dust as colour additive
- 1 part slaked lime + 1 part pozzolana + 3 parts sand with an addition of stone dust

Mixing of pointing mortar will be done by means of gauging vessel to ensure consistency of mix at all times. The pointing will be then completed by introducing the mortar to the joints using mason trowels.

Fresh pointing should be adequately protected from excessive heat and direct sunshine and should be occasionally wetted to avoid cracking. A minimum of 24hrs shall be permitted between the application of each layer of pointing.

The colour of the new mortar joints will be as homogenous as possible in order to blend with the stone patina of the façade.

3.6 *Restoration of Apertures*

The existing timber apertures present in the dome and the lantern will be restored by cleaning the timber frames from the existing excessive paints and flaking paints and will be sanded down and repainted.

Addendum to Method Statement

The time gained biological patina present on the façade will be retained.
Following the erection of the scaffolding test patches will be carried out on the excessive dark patches which will be approved or otherwise from the PA/SCH representatives, prior to the cleaning of further areas. The extent of the cleaning of the black soiling areas will be agreed upon between the parties.

Since the excessive biological/water stains area due to the lack of water drip element from cornices, the upper parapet wall will be covered with a flashing in order to create a water drip to avoid water trickling down the façade.

As explained further within the method statement the excessive light fittings present especially present on the cupola and belfries, will be removed. It is being proposed that a new festa lighting system is designed for the church which will not be left in place permanently but could be easily removed and reinstated when needed. Moreover, the light fittings will be fixed with stainless steel fittings and be as unobtrusive as possible.