The Palestinian Presidential Committee for the Restoration of the Church of the Nativity

Contract Number: NCRW-PI-13/1

Brief Construction Progress Report

September 15, 2013 – May 23, 2019

Restoration Strategy

The work methodology adopted in the restoration program aimed at maintaining the integrity of the church and assuring the conservation and protection of the site with all its cultural and religious values. These goals were achieved by following as much as possible the principles of restoration, stated in the various Charters of Restoration, ICOMOS and UNESCO documents, and by choosing and applying the most appropriate restoration techniques in the full respect of the importance and uniqueness of the monument. For this purpose, the outstanding universal value and authenticity of the Nativity church was deeply considered in all work stages, as the heritage to be preserved and transferred to future generations.

All elements inside the Church, regardless of the dating, starting from the roof and reaching down the floor mosaic that dates back to the fourth century, are considered delicate and of extreme importance, and were treated with extensive care by experienced and specialized restorers.

The restoration program has included the following tasks

- Roof & Windows
- Narthex and the related doors
- Wall mosaic, Internal plaster & Stone facades
- Wooden Architraves
- The installation of the electrical systems
- The restoration of the stone columns
- The restoration of the floor mosaic
- The restoration of the Marble floor

 Short film about the restoration works

Table of Contents

Brief Construction Progress Report

September 15, 2013 – May 23, 2019

1 EXECUTIVE SUMMARY

The committee has awarded “Piacenti spa” the contract of Phase I: Roof and windows restoration on July 25, 2013 since their submitted tender proposal on June 14, 2013 got the higher scores in both technical and financial offers throughout a competitive international bidding process of a total price of 1,925,707.57 Euro.

On August 26, 2013 an agreement has been signed between The Palestinian Presidential Committee for the Restoration of the Church of Nativity as "Employer" and Piacenti S.p.a. – Italy as the “Contractor” in the presence of his Excellency Prime Minister Dr. Rami Al-Hamadallah and representatives of the three churches.

Since the commencement of the restoration works on September 15, 2013, the Committee has been receiving generous donations from different donors, which encouraged the committee to start and complete other restoration tasks based on a list of priorities and according to the final study recommendations. These additional works included the restoration of the narthex, the narthex eastern wooden door, the external stone façades, internal wall plastering, wall mosaics, the Basilica metal doors, wooden architraves, the installation of the electrical systems “lighting and smoke detection systems”, the 50 stone columns and 75% of the floor mosaic. Recently, during February 2019, the presidential committee gave the authorization to start the restoration of the marble floor at transept north.

According to the plan of restoration program for 2019, the remaining works related to the floor mosaic and the marble floor are planned to be completed by the end of June 2019.

2 LIST OF RESTORATION PROGRAM ACHIEVEMENTS

1. **The roof works:**
   a. The whole roof was covered with new lead sheets with a total area of 1625m^2.
   b. Less than 8% of the wood trusses have been replaced with ancient wood brought from Italy.
   c. The seismic performance of the basilica had been improved by adding seismic steel connectors.

The lead roof before and after restoration

2. Wooden windows:

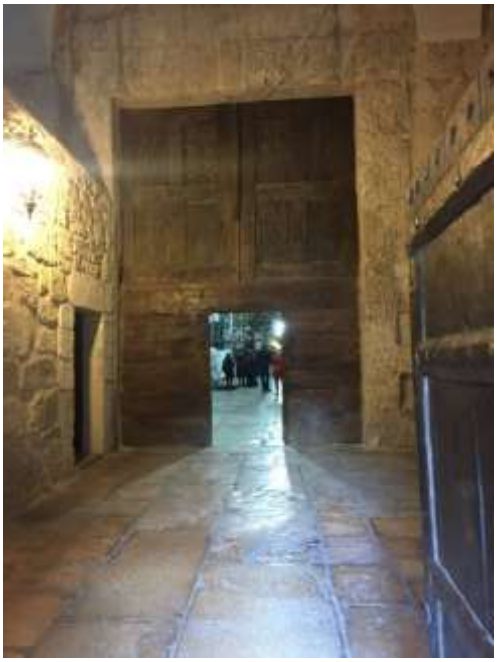
All Church's 42 deteriorated wooden windows were replaced with new wooden windows with UV double glass.

The damaged wooden windows

The new wooden windows

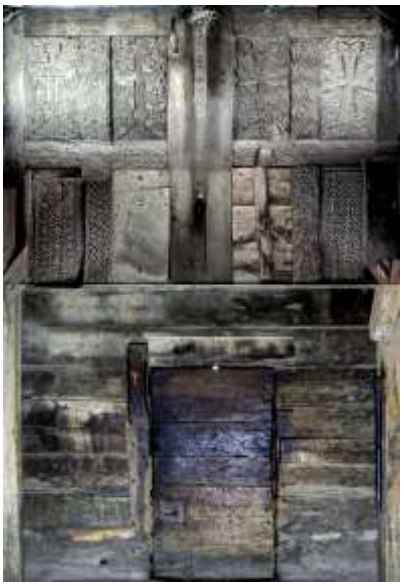
3. **Narthex works:**
   a. The three damaged cross vaults of the Narthex area were restored and consolidated and a new steel structure was installed to bear the new roof floor and to connect the opposite facades (The Basilica & the Narthex facades)
   b. By the completion of the consolidation of the Narthex cross vaults, it was possible to remove the huge wooden propping placed inside the Narthex since 1930s duration the British mandate.

Narthex before restoration



Narthex after restoration

4. **The Narthex eastern door and the Basilica metal doors:**
   a. The carved Narthex eastern wooden door has been renovated and consolidated.
   b. The metal doors of the basilica have been restored including the main church access door "The door of Humility", and the three doors leading to the three convents.



Narthex wooden door before restoration

Narthex wooden door after restoration

5. The consolidation of the internal plastering:

3365m^2 of the internal plastering have been consolidated including the replacement of the cement patches with a compatible lime plastering layers.

The internal plastering surfaces before restoration

The internal plastering surfaces after restoration

6. Wall mosaics:

The whole wall mosaic with a total area of 125m^2 was renovated including consolidation and cleaning works. (92m^2 at the central nave & 33m^2 at the transepts and apse).

One of the wall mosaic angels before and after restoration

7. The restoration of the external stone facades:

The total area is 3076m2

i. 928 m^2 already renovated (about 30%) Urgent areas.
ii. 595 m^2 already renovated related to the front façade "western elevation"
iii. 440 m^2 already renovated at the Northern facade
iv. 521 m^2 already renovated at the Eastern façade.
v. 592 m^2 already renovated at the Western façade.

The Basilica western facade before restoration

The Basilica western facade before restoration

8. Wooden Architrave over the stone capitals:

52 segments of the wooden architraves with a total length of 154m were renovated. The works include the replacement of the most deteriorated inner parts and the consolidation of all decorative outer surfaces.

The wooden Architraves before restoration

The wooden Architraves after restoration

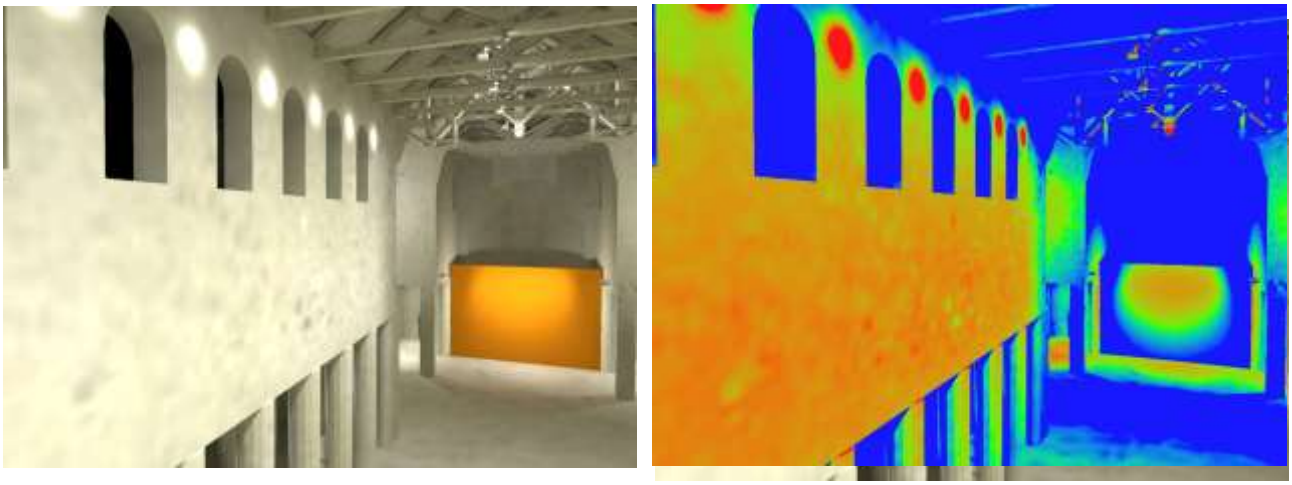
9. Stone columns and the paints on columns:

The Church consists of 50 stone columns, 33 of which have paints representing one of the saints.

One of the columns before and after restoration

10. Electrical works:

The electrical works include the installation of the smoke detection and the lighting systems. The works were completed by the end of December 2017.



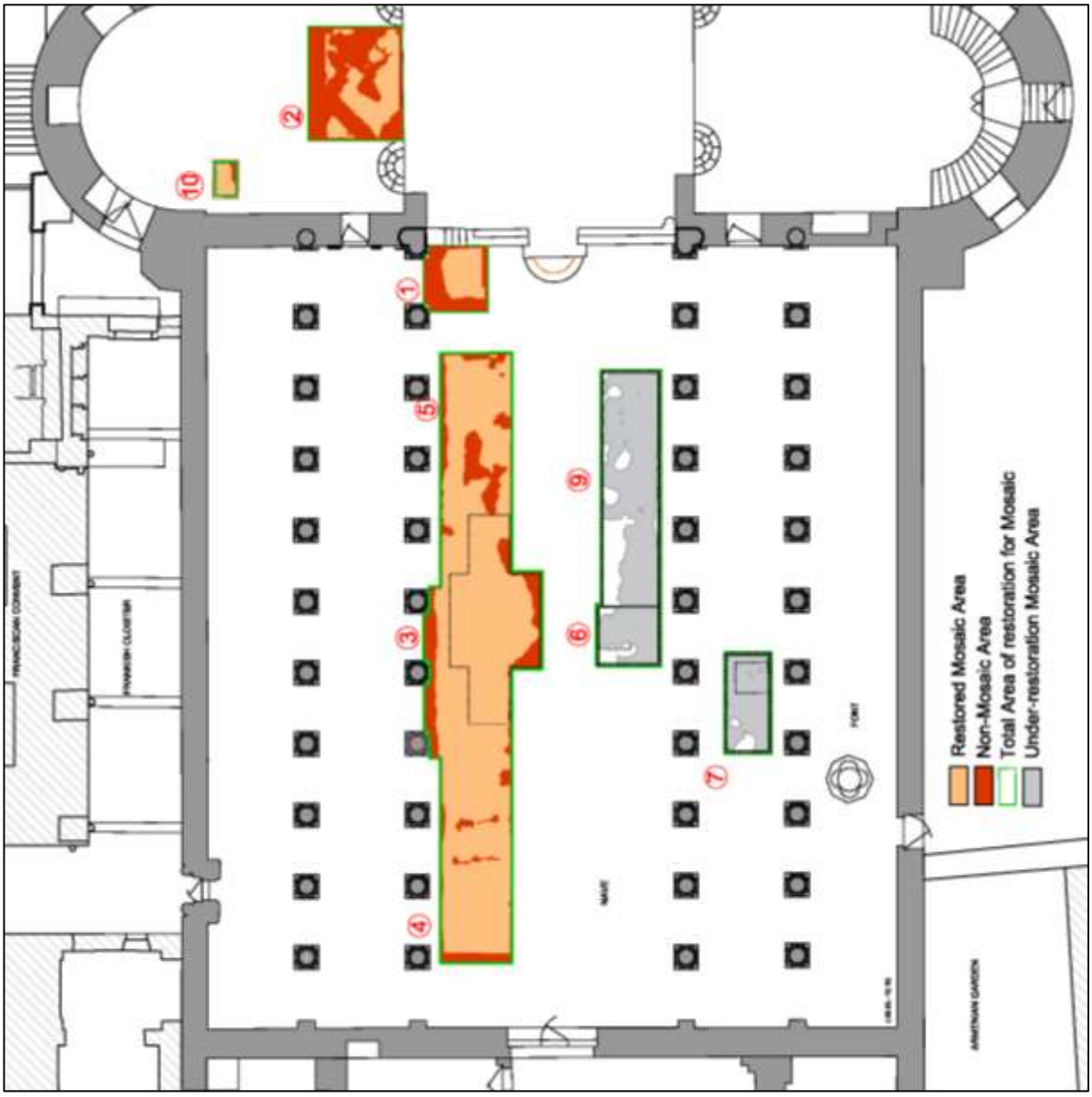
Lighting model and simulation

The new lighting system at the central nave

3 THE RESTORATION OF THE FLOOR MOSAIC:

According to the available funds, in the mid of January 2018, the presidential Committee has authorized the restoration of part of the floor mosaic area (area #1, 2, 3, 4, 5 and 10). Area #1 located at the Central Nave beside the Bema, Area 2 & 10 located at Transept North beside the stairs leading to the Bema while areas 3, 4 and 5 located at the North side of the Central nave. The restoration of all these areas was completed in December 2018.

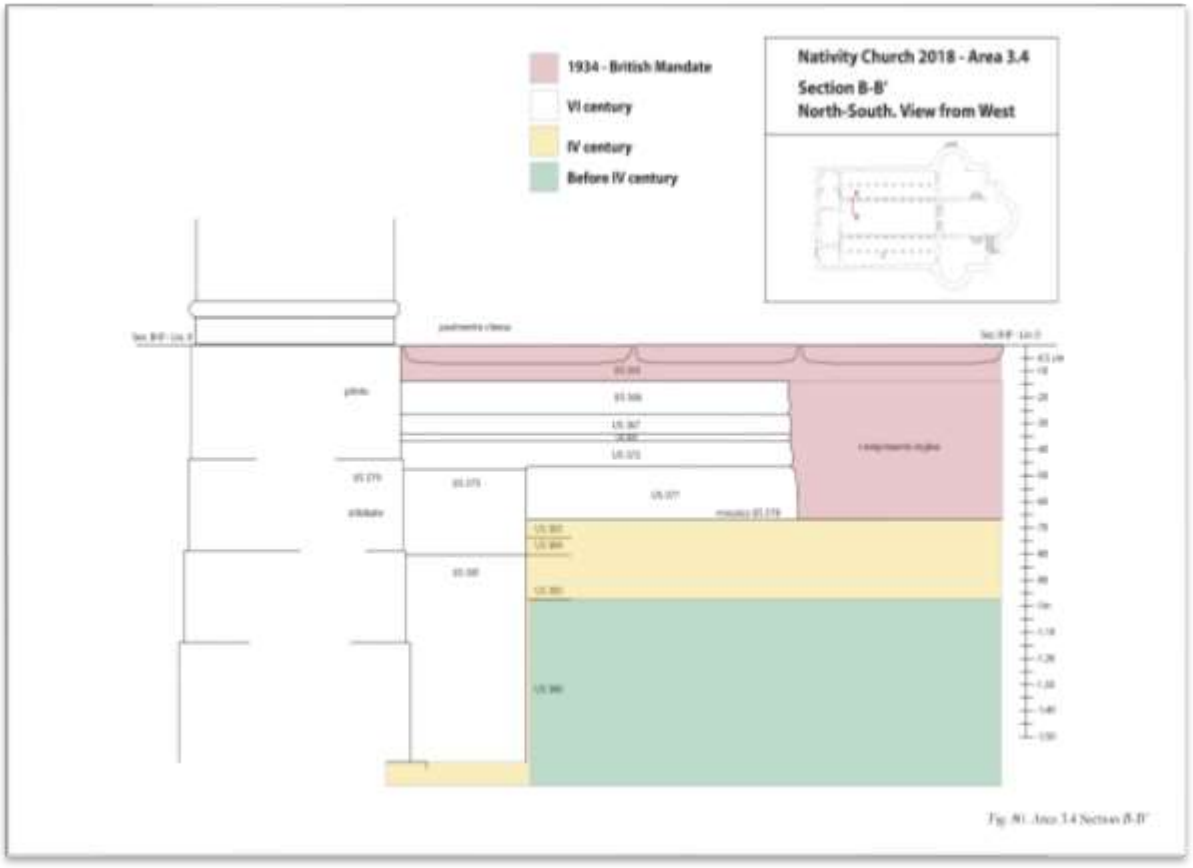
The works will not only restore the already exposed and foreseen floor mosaic, which is currently covered with wooden covers, but will also perform an archaeological excavation to uncover portions of the remaining hidden floor mosaic as documented during the British excavations made at the Church of Nativity in the 1930's. The rest of the floor mosaic areas were also authorized and planned to be completed by the end of June 2019.



Careful archeological excavation was carried out on the uncovered mosaics during 2018, by an experienced archeologist and a team of specialized restorers. The archeological excavation made represented an ideal and unmissable opportunity to understand the right architectural and chronological context of the fragments of mosaics to be exhibited. In the northern part of the nave, it is now possible to see the mosaics dating back to the Constantinian-era basilica with the walls of the same period and also shows the cut in the floor mosaic made to allow for the construction of the new Justinian-era basilica.

The archeological excavation has been performed as follows:

- Numbering and photo-mapping of tiles;
- Removal of tiles, using hand chisels to loosen and cut the joints;
- Demolition of the substrate of the tiles in lime mortar;
- Identifying a portion of the original stratigraphy along the columns of the nave, about 40 cm away;
- Graphic and photographic documentation;
- Starting the stratigraphic excavation of the individual layers.



One of the cross sections created based on the Archeological excavation and analysis

Photos for the ongoing floor mosaic restoration works (Area # 6, 7 & 9)

Floor mosaic area #6 & 9

Floor mosaic area #7

Stone tiles numbering & documentation

Careful archaeological excavation

Uncovering the floor mosaic

Restoration and consolidation

Photos for the floor mosaic already restored

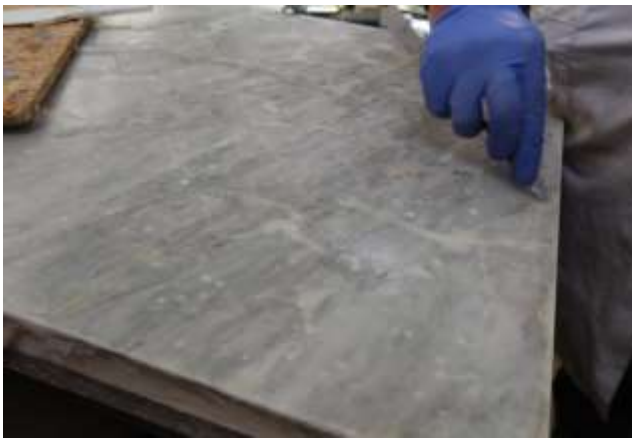
Floor mosaic: Area #1 – Before, during and after restoration

Floor mosaic: Area #2 – Before, during and after restoration

Floor mosaic: Area # 3, 4 & 5– Before, during and after restoration

4 THE RESTORATION OF THE MARBLE TILES:

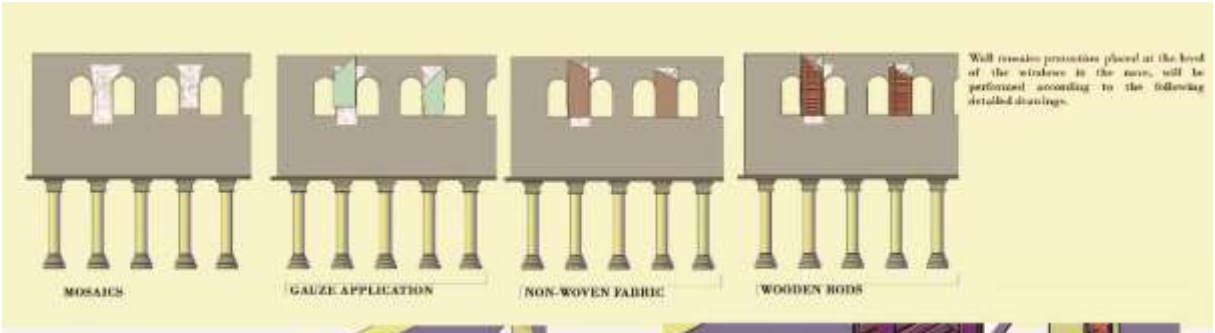
According to the available funds, During February 2019, the presidential Committee authorized the restoration of the most damaged marble tiling located at transept north. The general scope of work is to restore, protect and preserve as much as possible the existing tiles by restoring the cracks and other medium damages while some is completely damaged that will be replaced with new suitable and compatible tiles. The works started on February 5, 2019 and planned to be completed by the end of June 2019.

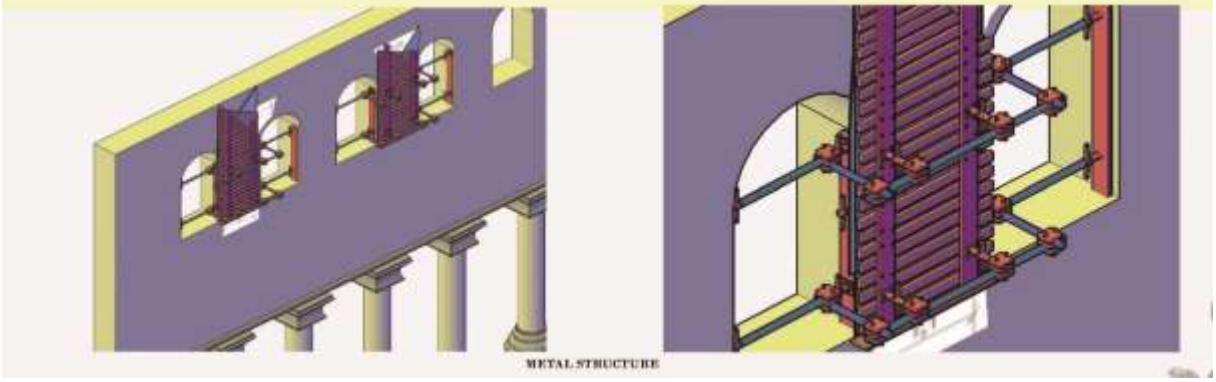


5 PROTECTION OF COLUMNS AND WALL MOSAICS:

Before starting the assembly, work for the scaffolding inside the church the contractor protected the columns of the church using a special layer of geotextile with vertical wooden rods to achieve the maximum protection level. Prior protection works, dilapidation survey was performed to capture all existing conditions of the church elements including columns, floor, walls, mosaics, paints … etc by high quality still photos and video so that existing site condition can be easily and accurately defined and determined.

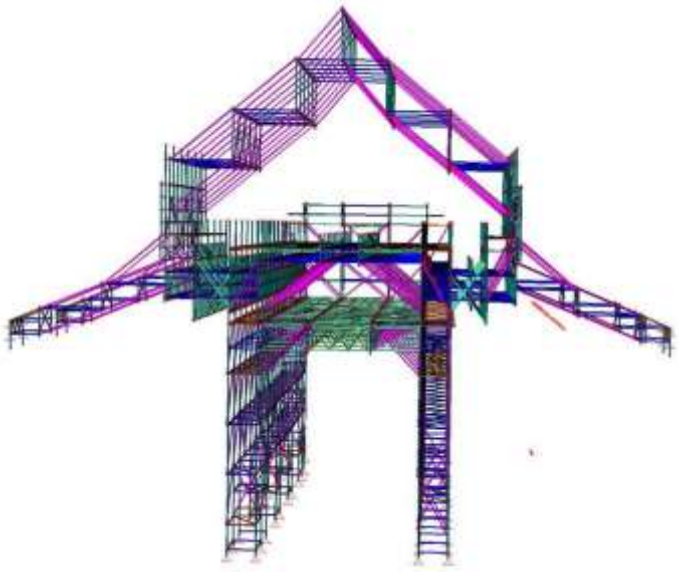
By the completion of the scaffolding platform at the windows level, the contractor was able to start installing temporary protection system for the wall mosaic using special materials and wooden cover to avoid any damage during the restoration works.





6 ASSEMBLING THE INTERNAL SCAFFOLDING:

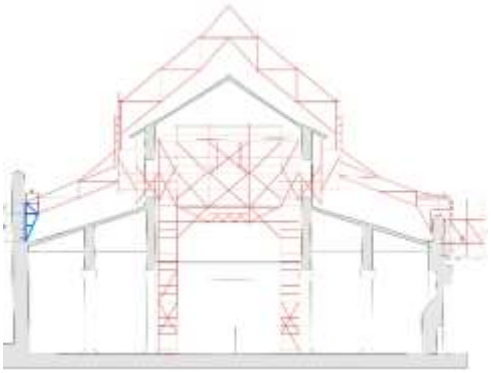
After the completion of the protection works for the columns and the architrave beam, assembling of the scaffolding started at the central nave area keeping proper spaces for the safe movements of pilgrims and visitors. Actually; this type of scaffolding is the first time used in the region which allows a high flexibility in assembling. The proposed scaffolding includes two platforms, the lower level form a protection platform and the upper platform forms a floor for the restorers to work at the level of the wooden structures of the church. During May 2014, the contract continued to erect the scaffolding system to cover the transept area and the Altar. Currently the internal scaffolding system is covering the entire church.



It's worth mentioning that before the erection of the scaffolding system, intensive studies, calculations and analysis were made, checked and approved to make sure that the loads transferred to the Church stone flooring are within the permissible limits and taking into consideration the location of the Nativity Grotto and cavities.

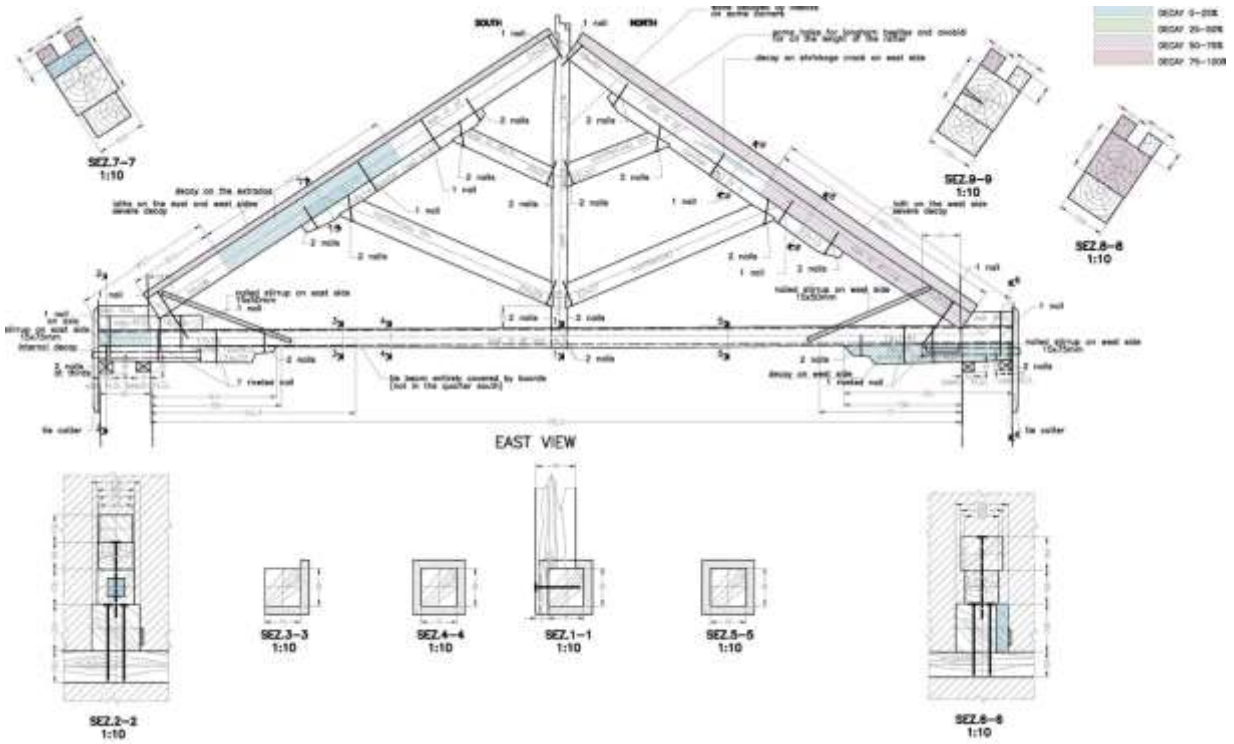
7 TEMPORARY ROOF STRUCTURE:

After dismantling the existing wooden windows which are intended to be replaced by new ones, the contractor started the assembly of the roof structure at the central naves and aisles which were supported by the internal scaffolding through the windows. A layer of special PVC was installed on the roof structure as a protection from the rainwater during the restoration works as part of the church roof materials will be removed to allow for the evaluation of the roof condition and start the intervention according to the tender documents.



8 DETAILED WOOD EVALUATION:

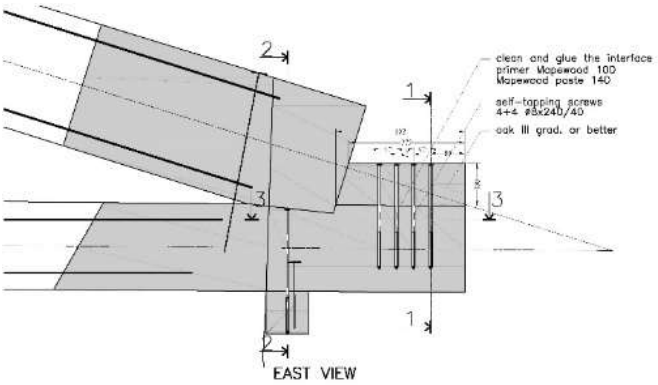
Starting from December 2, 2013 until December 11, 2013 and from January 27, 2014 until February 16, 2014 wood experts have evaluated the current condition of the existing wooden structure supporting the roof and performed several non-destructive tests for the central nave and the aisles to provide information regarding geometry, dimensions, characteristics of connections, wood species, humidity and class of mechanical quality of the wood to prepare the design and shop drawings with respect to the tender documents. The same evaluation process onsite for the transept area and the Altar has started again since 2 June 2014 and completed on July 6, 2014. All the information, notes, observations and tests results were the reference to prepare the design and shop drawings for each truss.

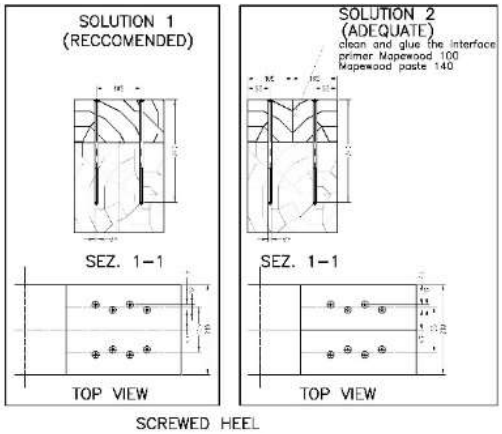


9 TRUSSES RESTORATION WORKS:

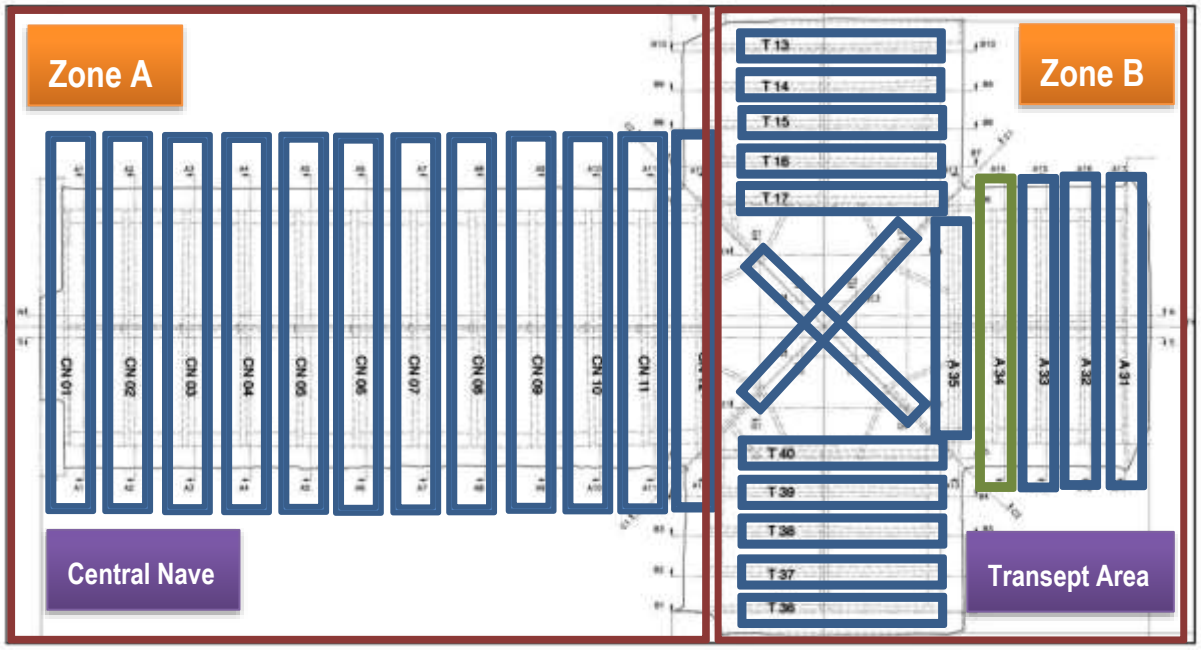
The wooden pieces that were used in the interventions of the roof structure were gathered, tested and shipped from Italy. Two shipments reached Bethlehem on January 2, 2014 and May 12, 2014 and stored in a suitable place were humidity ratio is controlled.

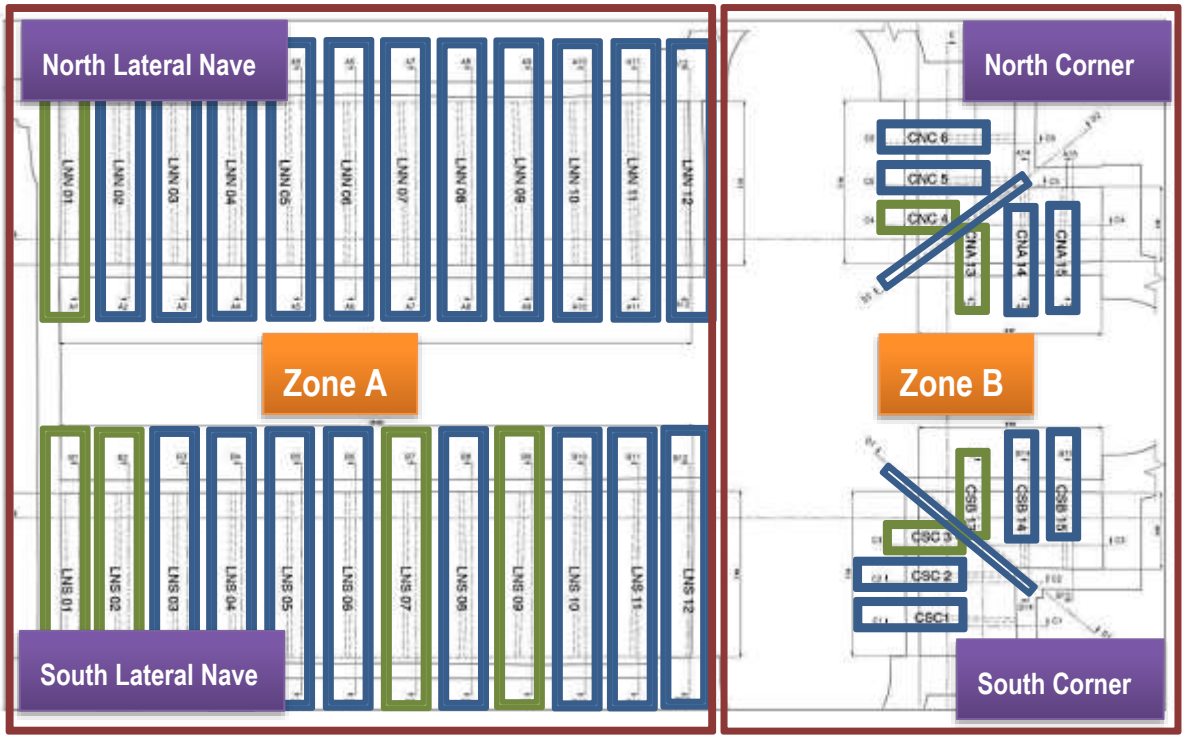
After submitting the evaluation report and the shop drawings for the trusses intervention, all documents where approved after carful check by the consortium team and inspection on site. Each truss intervention started after approving a proper and safe propping system. The contractor has completed all the required restoration works of the trusses for the entire roof. All deteriorated parts of the trusses which were already replaced by the new ancient wood were documented, labeled and stored in a suitable place.





Progress Diagram





Completed

No intervention was required

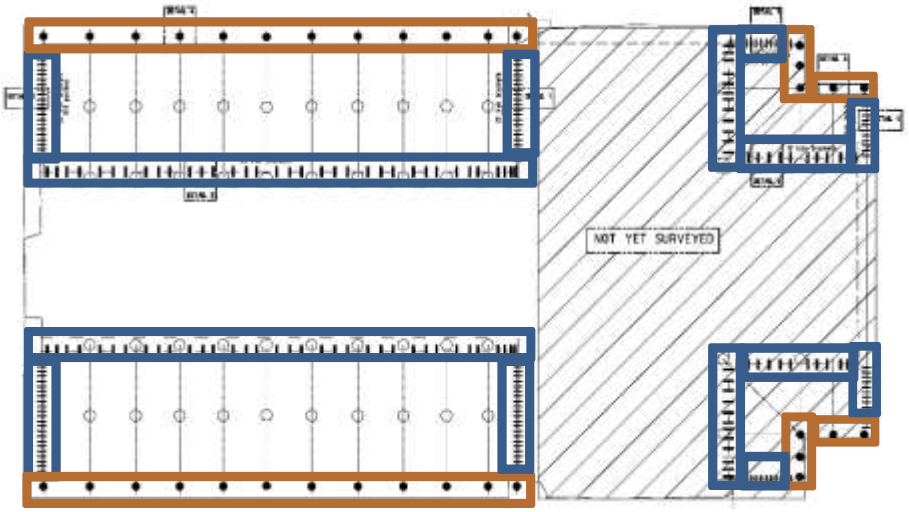

LNN 08

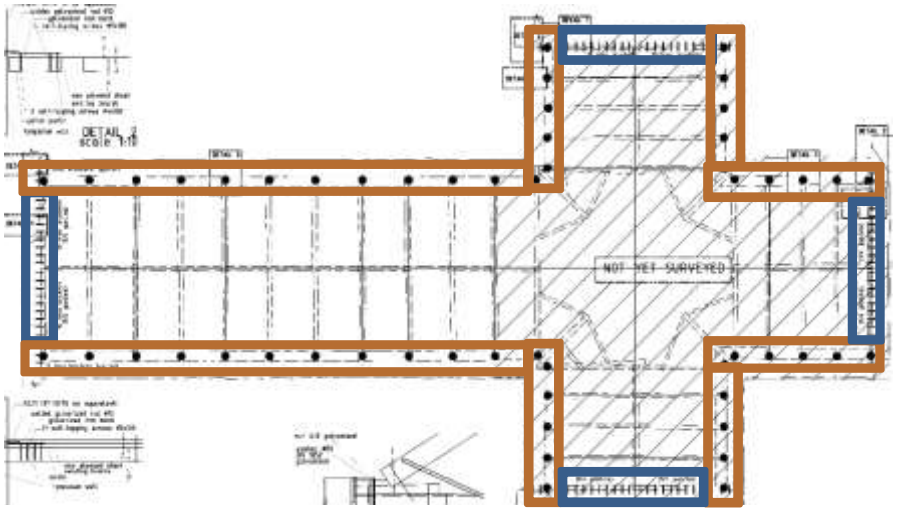
10 PURLINS AND BOARDS:

Purlins and boards are part of the existing roofing layers. Purlins are connected directly to the wooden trusses by ancient nails and covered by the wood boards which are connected to the purlins by ancient nails as well. The proposed works are to replace the decayed purlins or boards and consolidate and save as much as possible the existing ancient elements. The replacement elements were also ancient wood brought from Italy. The contractor has completed the restoration / consolidation of the purlins and boards for the entire roof.

11 SEISMIC REINFORCEMENT

The restoration project is not only limited to the repair and restoration of the roof but also includes the seismic performance improvement since Bethlehem is in a seismic area and therefore there was also a danger due to the seismic vulnerability of the Church. Accordingly, roof-masonry connectors were required to be installed to connect the roof structure to the masonry wall in order to transfer the seismic load. The design included two types of seismic connectors: 1) Steel bars connectors to transfer the seismic loads from the end of trusses to the walls 2) Purlins connectors' that will connect the roof structure especially the purlins to the masonry walls. The contractor has completed the installation of the purlins connectors for the entire roof and the required steel bars insertion for all trusses.





Completed purlins seismic connectors Completed seismic bars insertion





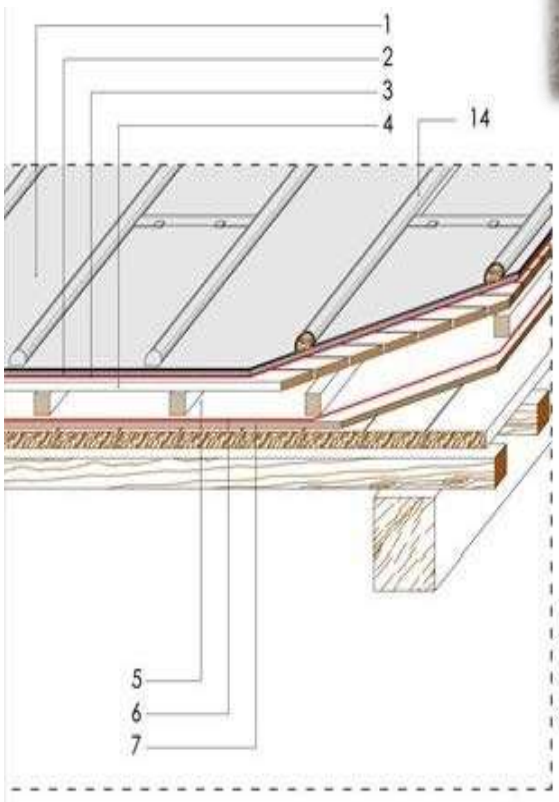



12 ROOF LAYER & VENTILATION SYSTEM

After the restoration of the boards and purlins and the replacement of the decayed parts, the roof layers were installed according to the below detail to create a ventilation system and a durable waterproofing coverage. The roof layers included the installation of phenolic plywood layer, vapor control waterproofing membrane, ventilation gaps joists, wooden planks deck, high vapor permeability waterproofing membrane, natural sheep wool layer and the lead sheets.

The contractor has already completed the installation of the specified layers including the lead sheets for the entire upper roof while the installation of the lead sheets for the lateral naves and the two corners were postponed to allow for the restoration of the external facades and to avoid any damage for the new lead sheets that could occur during the stone restoration works.

By the completion of the stone works at the two corners and the lateral naves the contractor was able to complete 100% of the roof surfaces.



1 - LEAD ROOF - thickness mm 2
2 - 100% SHEEP'S WOOL BLANKET
high density 100 kg/mc - thickness mm 10
3 - HIGH VAPOUR PERMEABILITY WATERPROOF MEMBRANE - SD<0,04
4 - WOODEN PLANK'S DECK WITH GAP FOR MICRO VENTILATION
PLANK'S DIMENSIONS:
20 (thickness) x 120 (width) x 3500≈5500(lenght) (m.u. = mm)
DIMENSION OF THE GAP BETWEEN THE BOARD = 5 mm
5 - VENTILATION GAP'S JOISTS 50x60 mm
6 - VAPOUR CONTROL WATERPROOF MEMBRANE - SD>2
7 - PLYWOOD - DIMENSIONS 2440 x 1220 x 20 mm
8 - EXISTING WOODEN PLANK'S DECK, TO BE RESTORED
9 - EXISTING PURLINS, TO BE RESTORED
13 - COPPER CLIPS - thickness 1,0 mm
14 - WOOD CORED ROLL
21 - COPPER SCREWS 5 x 35 (Ø x L) mm
22 - LEAD PLATED COPPER CLIPS - thickness 0,8 mm
TO PREVENT LIFTING AND DISTORTION OF FREE EDGES OF
ROOFING LEAD SHEET





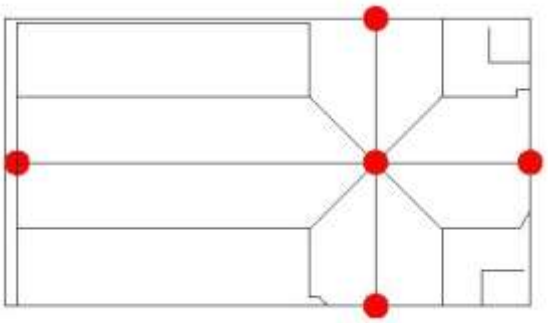



13 INSTALLATION OF NEW WOODEN WINDOWS

The original contract (phase I) includes the replacement of existing damaged and decayed wooden windows with new cypress wood windows with low emissivity double glazing and special specification to reduce the lighting in the church and to be more suitable for the mosaic, paintings and other delicate decorative surfaces. The new windows have been fabricated in Italy and brought to the site and 42 windows were already installed.

14 ROOF CROSSES AND LIFELINE SYSTEM:

Roof Crosses:

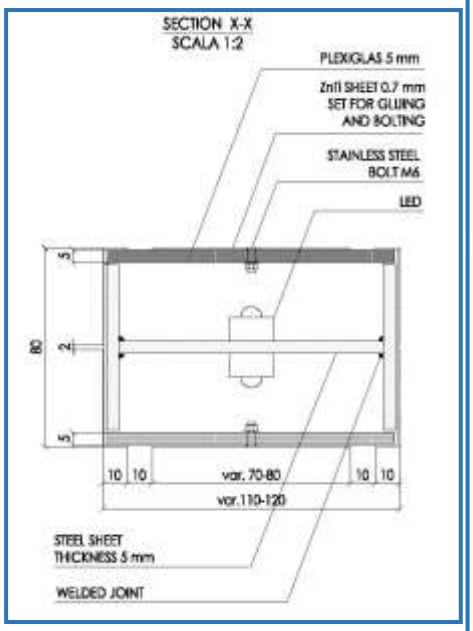


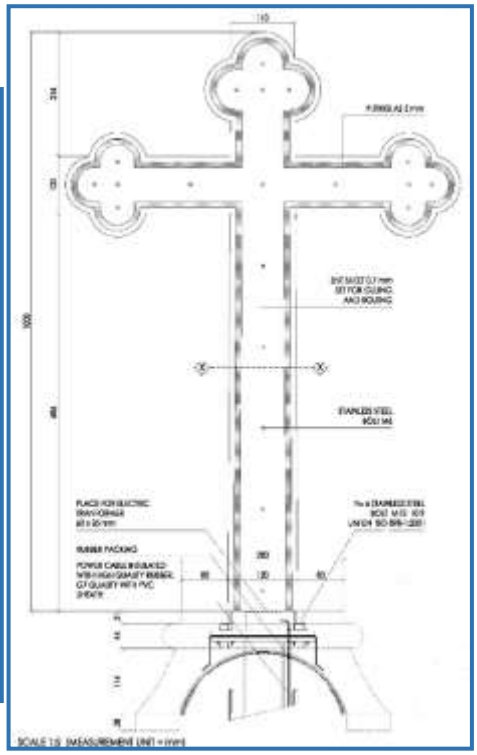
The original contract with the contractor includes the replacement of the existing four crosses at the four sides of the basilica and one cross at the center of the crossing area.

The main parts of the proposed crosses are as follows:

1. The main support of the crosses are made of welded hot dipped galvanized steel plates with a thickness of 5mm forming an I section.
2. The steel structure will be cladded with aged Zn-Ti (Zinc & Titanium) sheets 0.7mm thick that will be fixed with stainless steel bolts and a special glue. At both faces of the cross (front & back) a thin slot will be created which will have the same shape of the crosses and will be covered by a white sheet (semi-transparent) of PlexiGlass that will allow for the light to be visible from both sides of the crosses.
3. Inside the cross, a special waterproofing led lighting system will be installed on both side.

The crosses were fabricated in Italy and already delivered to the site and installed at the four sides of the top roof in addition to the fifth cross at the crossing area where the original crosses were installed.

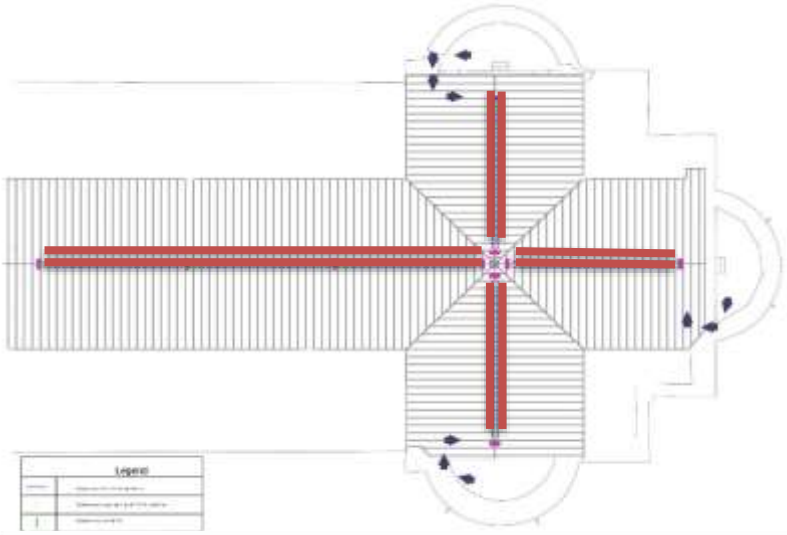


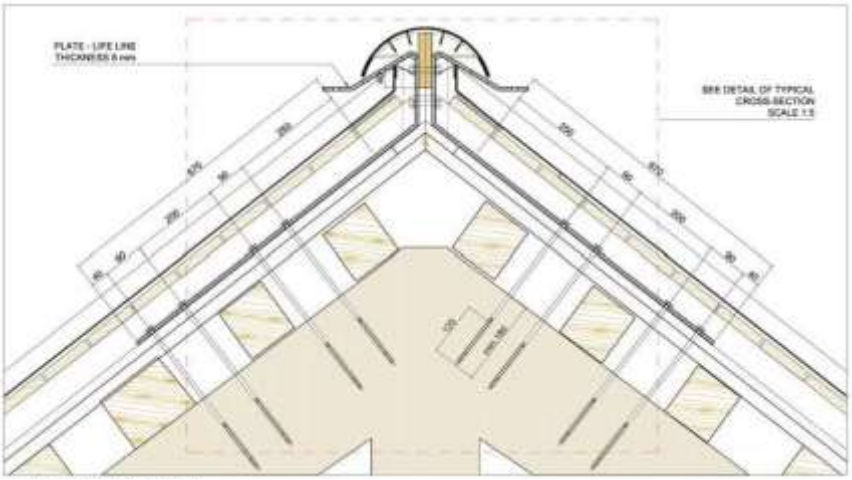


Roof Lifeline System:

The new lifeline system will be used by the Church maintenance team for their safety during any future maintenance on the roof. The system covers the roof central nave area, the transepts and the apse. The system is composed of twenty hot dipped galvanized steel plates “brackets” that have been fixed at the ridge of the roof and connected by stainless steel wires.

The brackets were fabricated in Italy and already delivered to the site and installed at the specified location.





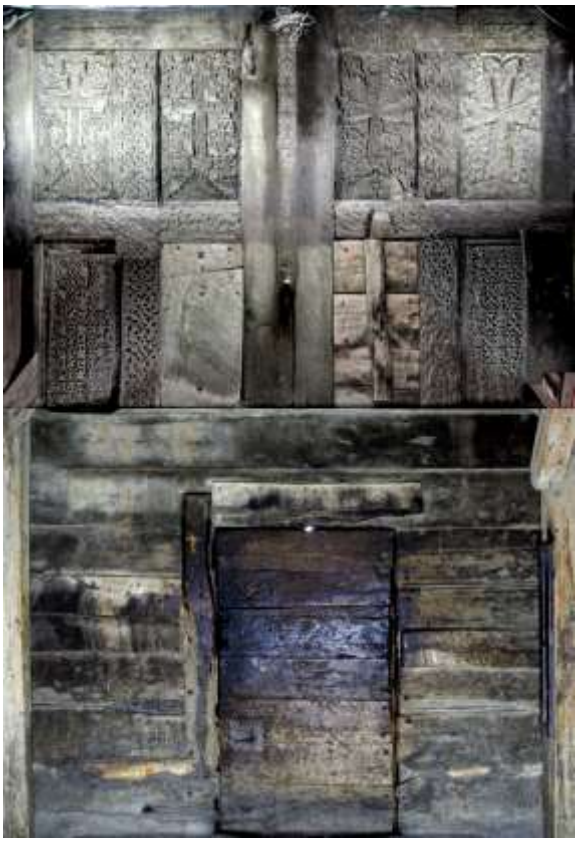
15 NARTHEX EASTERN DOOR (ADDITIONAL WORKS #1):

The restoration works for the narthex eastern wooden door has started in September 2014 by erecting a suitable scaffolding system and performing high-resolution digital photographic documentation and diagnostic research. Then followed with a carful consolidation and treatment process by wood restoration specialists.

During the restoration works, it was found that the upper part of the door from the eastern side has wooden boards that hide the original wooden door, while the western part has also some part that have been uncovered to show the original carving art work. After the completion of the necessary restoration and consolidation works in December 2014, the visitors and pilgrims can see the original door and the wood carving art on the other side.

The Narthex eastern door during the restoration works

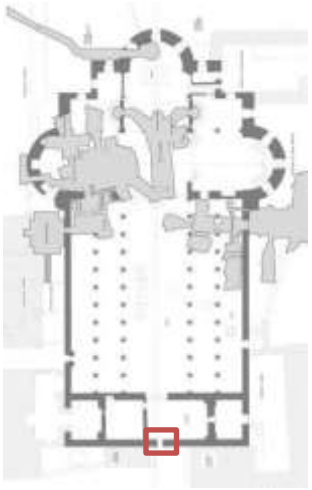
The two sides of the narthex door before and after restoration works

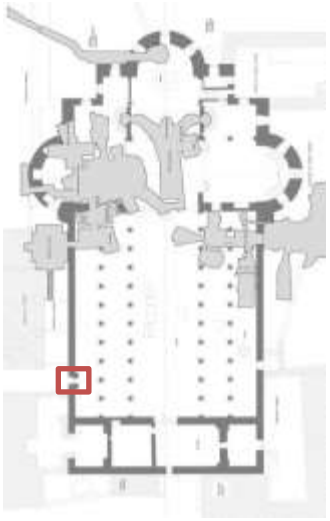


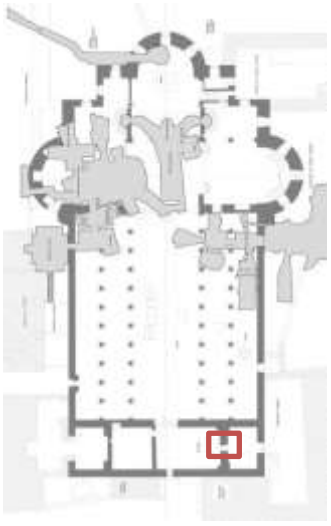
16 RESTORATION OF THE WOODEN AND IRON DOORS OF THE BASILICA AND NARTHEX

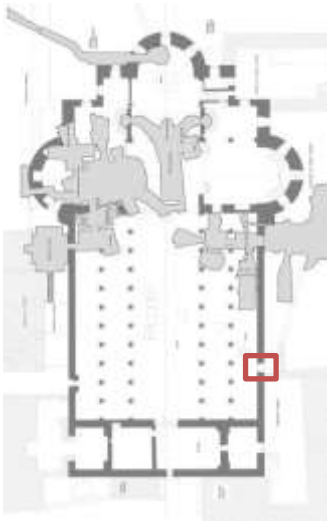
The works includes the restoration of the humility iron door; narthex southern iron door; lateral nave northern iron-wooden door; lateral nave southern iron door and lateral nave north iron window. The surfaces show in many cases erosions and exfoliations due to the oxidation of the iron and degradation of the wooden elements of the lateral nave northern door.

The restoration process included accurate photographic documentation, before, during and after restoration, tests execution for the various phases of the operation, stratigraphic tests for identification of the finishing coats sequence of the varnishes, mechanical removal of incoherent deposits, chemical removal of superficial coherent deposits, treatment aimed to stop the oxidation and to protect metallic surfaces, visual and aesthetic interference reduction of the surfaces and protective surface treatment as final operation of the restoration. The restoration works were completed in March 2015.









17 RESTORATION OF THE EXTERNAL STONE FACADES (ADDITIONAL WORKS #2):

In accordance with the list of priority restoration works, additional works #2 was awarded to the contractor on July 17, 2014, which includes wall mosaic, the internal wall plastering, and the external facade restoration works. The priority has been given to the restoration of the stone facades at the two corners and the lateral naves just above the new proposed lead roofing to avoid any damages in future. The works included cleaning works, replacing the cement pointing with lime pointing and stone substitution where the existing stones were already eroded or severely deteriorated. This work was completed in October 2014; the rest of the stone facades restoration works has been postponed to concentrate on priority tasks while waiting for other funds.

On September 15, 2016 with the availability of the needed fund the Presidential Committee has authorized the restoration of the rest of the external stone façade at the western, northern, eastern and southern elevations. The works on western, northern, eastern and southern façades were completed in December 2016 & March 2017 & June 2017 and October 2017 respectively.

Northern corner – Before restoration

Northern corner – After restoration








The External Stone Northern & Eastern Facades – Before & After Restoration








18 RESTORATION OF THE WALL MOSAICS (ADDITIONAL WORKS #2):

During March 2015, a group of mosaic specialists have started the survey of the wall mosaics at the central nave and performed a preliminary evaluation and tests. During the survey, a new fragment of an angel figure on the north wall between the fourth and the fifth window was uncovered. All wall mosaic restoration works were completed on June 24, 2016.

The restoration of the wall mosaic at central nave:











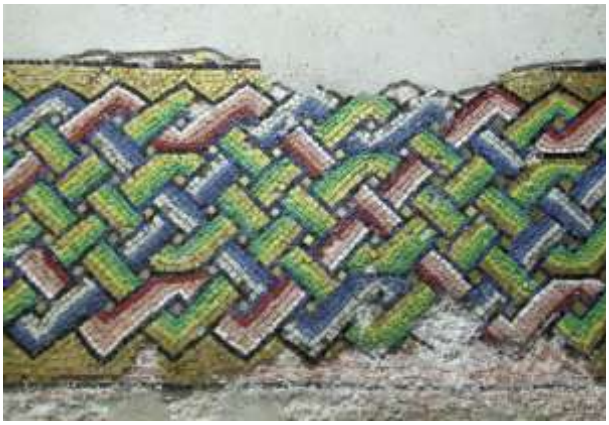


The restoration of the wall mosaic at transepts:









19 RESTORATION OF THE THREE TERRACES (THE TWO TRANSEPTS AND APSE):

The Presidential Committee has authorized the works on the three terraces (Transept North, Transept South and the Apse), the work aims to insure a perfect waterproofing system to prevent any water leakage that could reach the recently restored plaster inside the church. The works included the dismantling of the existing stone tiles after numbering preparing for re-installation in the same location after the completion of the waterproofing layers and the restoration of the external plastering of the parapets. The works were completed by the middle of June 2016.








20 NARTHEX CONSOLIDATION (ADDITIONAL WORKS #1):

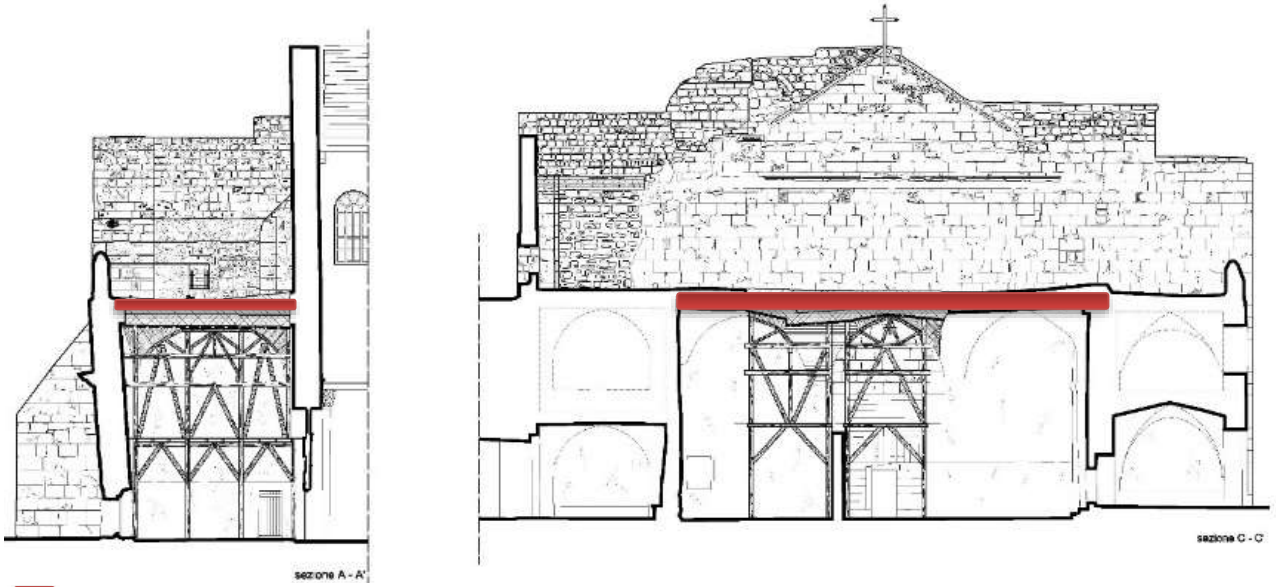
In accordance with the list of priority restoration works, additional works #1 were awarded to the contractor on March 28, 2014 which includes the restoration of the narthex and the narthex eastern wooden door.
The works has started after installing the required temporary roof and the necessary propping system from below. The archeological excavations on the damaged vault was started after numbering and dismantling of the narthex roof stone tiling. All the works were performed under a comprehensive documentation system and archeological stratification and analysis.





The excavated materials include numerous fragments of pottery, animal bones and two coin. The findings will be useful to trace the date of construction of the vaults and the socio-economic context of the builders themselves.

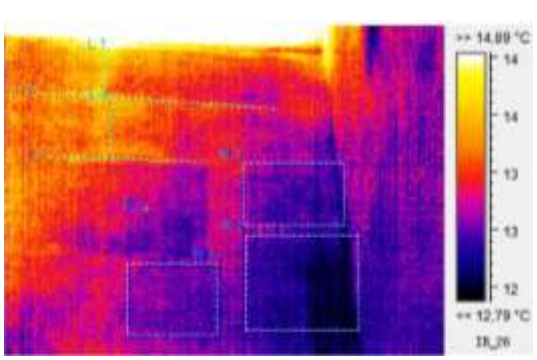
The preliminary structural reports showed that the existing cracks on the roof actually extend from the damaged vault to the adjacent vaults. This fact made it necessary to excavate the two vaults next to the damaged one to uncover the vaults stones for better understanding of the structural stability of the narthex and to make the structural simulations, modeling and analysis more realistic in order to identify the most suitable solution.

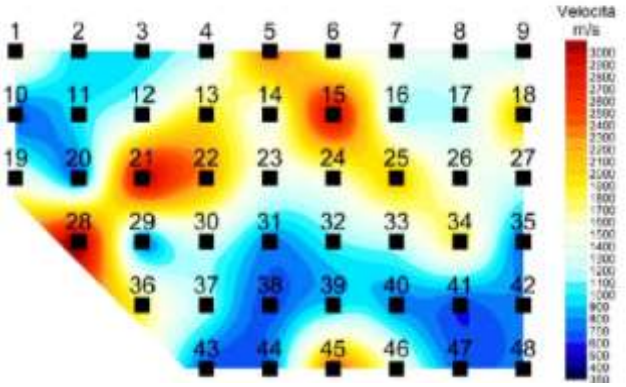


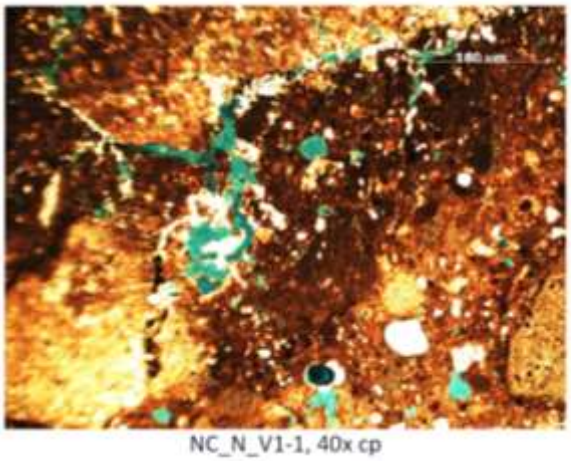
The location of the archaeological excavations

Additional nondestructive tests and analysis were also needed for the same reason including sonic test, microscopic analysis, thermographic survey and core test to realize the details of the structural system and the components of the deferent structural elements which have been carried out during January 2015.

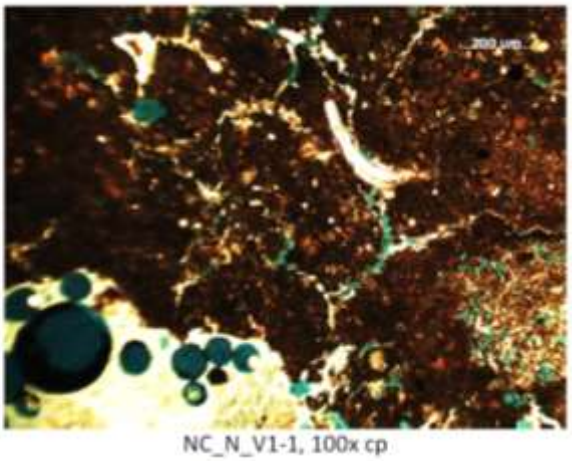
Sonic velocities distribution for transparency





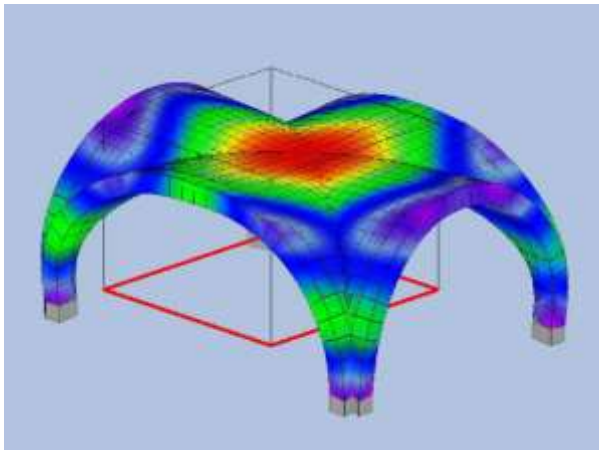


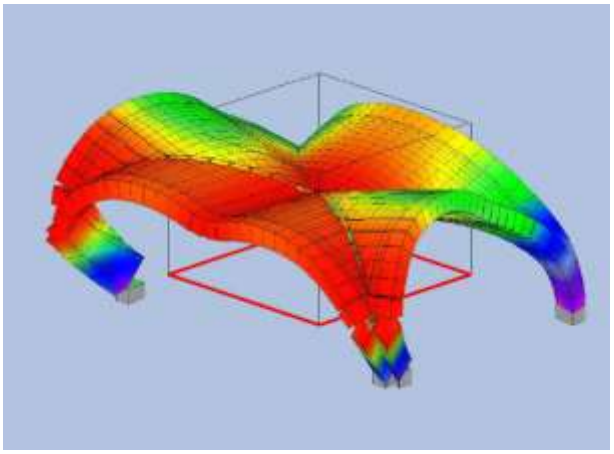
NC_N_V1-1, 40x cp

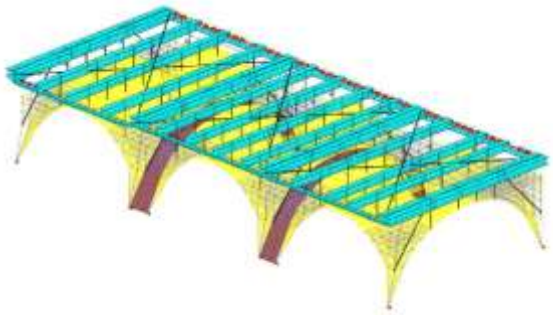


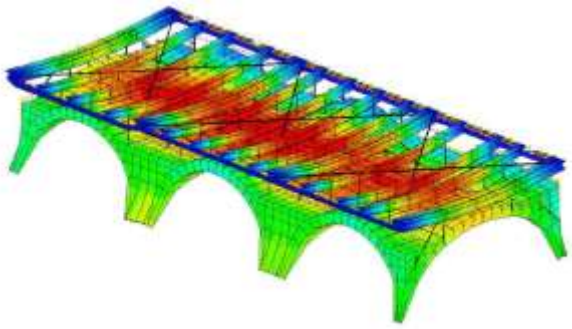
NC_N_V1-1, 100x cp

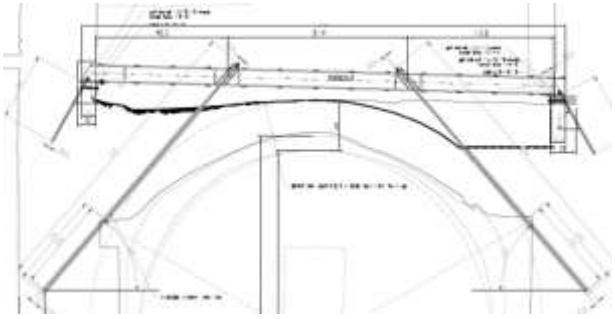
Based on the results of these tests, the model, structural analysis and the shop drawings were adjusted and submitted with the financial offer for review and approval.

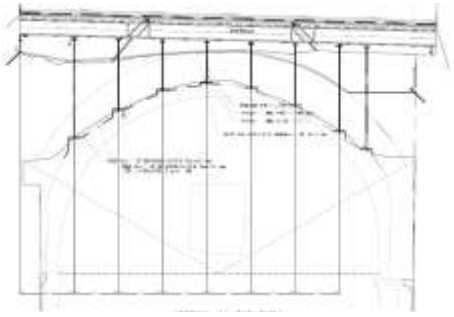






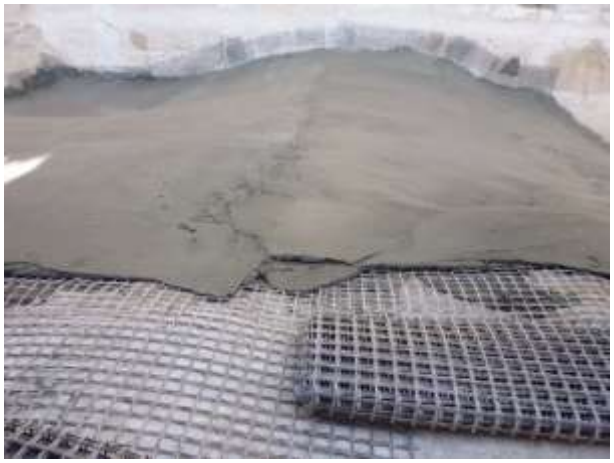


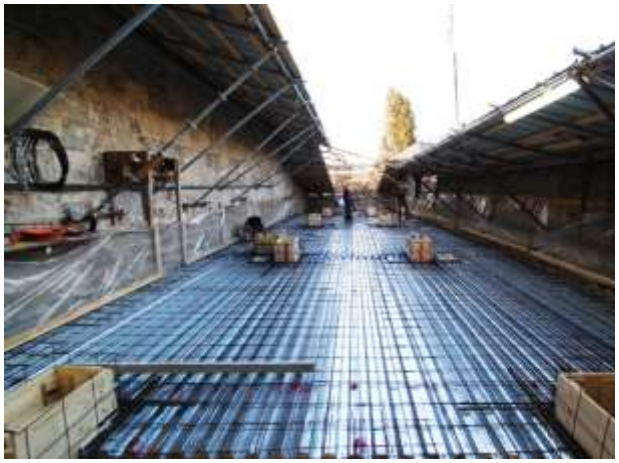




The new technical and financial offers were studied carefully and approved on June 6, 2015. The consolidation works started on June 19, 2015 and completed in April 2016 which includes the installation of the supporting steel structure on the extrados of the narthex vaults, the installation of the corrugated sheets with the steel reinforcement, casting 10 cm of concrete slab, casting the slopping foamed concrete, installing two layers of bituminous membrane and installing back the reserved dismantled old tiles.

By the completion of consolidation of the Narthex vaults and the restoration of the internal stone facades and reaching a safe structural conditions, the contractor was able to remove the old wooden propping system that was supporting the damaged vaults since 1935 during the British mandate.





The restoration of the Narthex internal stone:








The Narthex area before and after the consolidation and restoration works

21 RESTORATION OF THE INTERNAL PLASTERING (ADDITIONAL WORKS #2):

By the completion of the roof works, the contractor has started the restoration of the plastering surfaces at the central nave and the counter façade. Thermographic survey was made as a first step to be sure that no hidden mosaics are present under the plasters, then a comprehensive evaluation for the existing plastering layers was made to prepare the mapping and shop drawings for the restoration works. The works includes the consolidation of the existing plastering, replacing the cement patches with a lime plastering, and refill the damaged or missing parts of the plastering layers. The contractor has completed the restoration of the plastering layers for all walls exc in October, 2016.

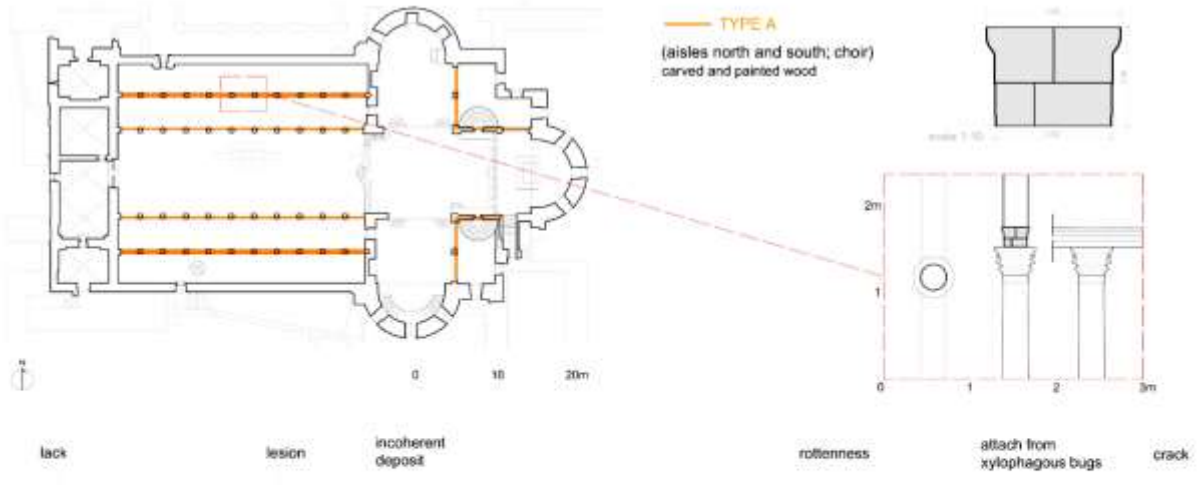


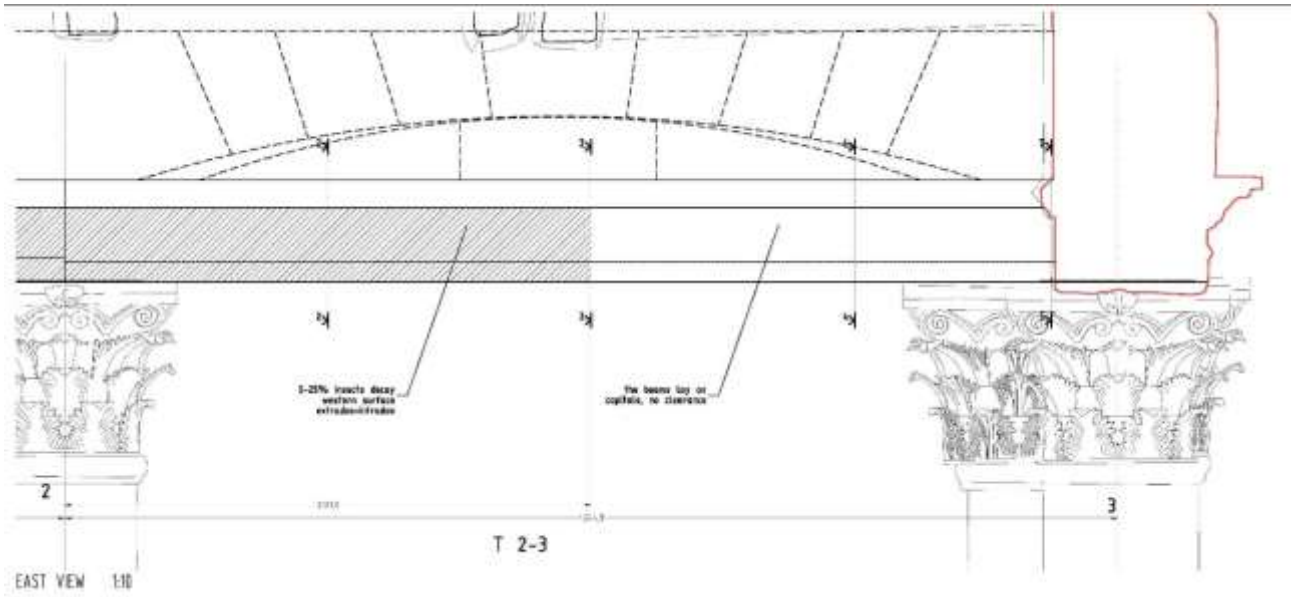





22 RESTORATION OF THE WOODEN ARCHITRAVES (ADDITIONAL WORKS #3):

Since November 26, 2015 the contractor's specialized team has started with the survey and the detection of the state of conservation for the wooden Architraves located above the stone column capitals using specialized x-ray scanner, resistograph machine and by also visual and sound tests. The diagnoses results were the base to specify the best method to be adopted for the restoration of these wooden elements. The works were completed in October 2016.












23 THE INSTALLATION OF THE ELECTRICAL SYSTEMS (SMOKE DETECTION AND LIGHTING)

The main objective for the installation of the electrical systems (Smoke detection and the lighting system) is to protect the Church from any fire hazard, safe movements for pilgrims and visitors and to highlight the important art elements inside the Church.

The presidential Committee has hired a specialized international consortium to perform a detailed study for the Church need regarding the smoke detection and the lighting systems. The consortium has made all necessary models, studies, plans and details and selected the most appropriate systems for such an important monument. The actual works on site has started in April 2017 and already completed by the end of December 2017.

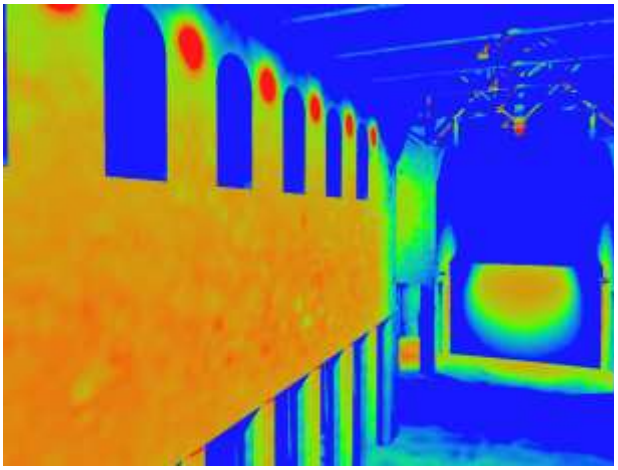
1. Smoke detection system (Optical linear smoke barriers):

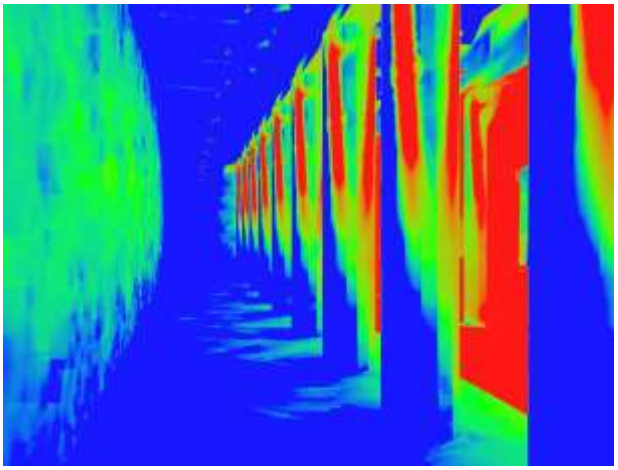
The aim of the fire alarming system is to reveal and signal a fire as soon as possible, the presence of a fire or of a potentially dangerous situation. The design of this specific plant has been strictly correlated to the environmental conditions of the Church, the potential sources of combustion phenomena and the peculiarities of the areas to be protected *(irreparable damages to non-recoverable historical art crafts)*.

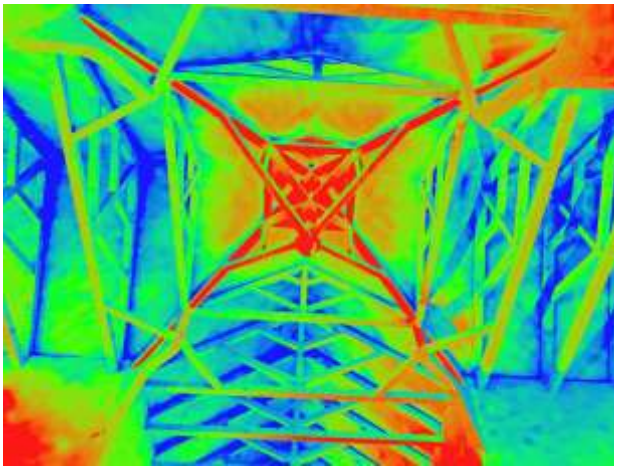
The systems installed to the roof in two levels, the lower roof at the north and south lateral naves and at the upper roof of the Central nave, transepts and apse. The device generates two infrared with different angles. Theses beams reflect themselves on the reflector and come back to the receiver. If a fire with flame and smoke cut the beams with known characteristics related to the dynamic of a fire in terms of intensity and timings, an alarm will be generated. This is possible even if the fire has a starting point within a distance of 7.5m on the left or on the right of the detector.

2.Lighting system:

The aim of lighting system is to provide a safe movement for the visitors and pilgrims inside the church and to highlight the historical art elements like wall and floor mosaic, paints on columns, inscriptions and decorative carving on wooden doors and Architraves, the wooden iconostasis and some religious symbols on the stonewalls.





24 THE RESTORATION OF THE STONE COLUMNS:

The Presidential Committee has authorized the restoration of the Basilica 50 columns and 10 capitals (no column shaft or base). The restoration of 48 columns and the 10 capitals were completed. This achievement enabled the Church pilgrims and visitors to enjoy the beauty of the restored columns and their paints, graffiti and ancient inscriptions.

The restoration includes the cleaning and consolidation of the capitals, shaft and the bases, which consists the removing of the coherent and incoherent deposits, consolidation of the existing cracks and holes, and also the cleaning and retouching of the existing paintings.

According to the restoration schedule, the restoration of the remaining columns located at altar are planned to be completed by the end of March 2019.



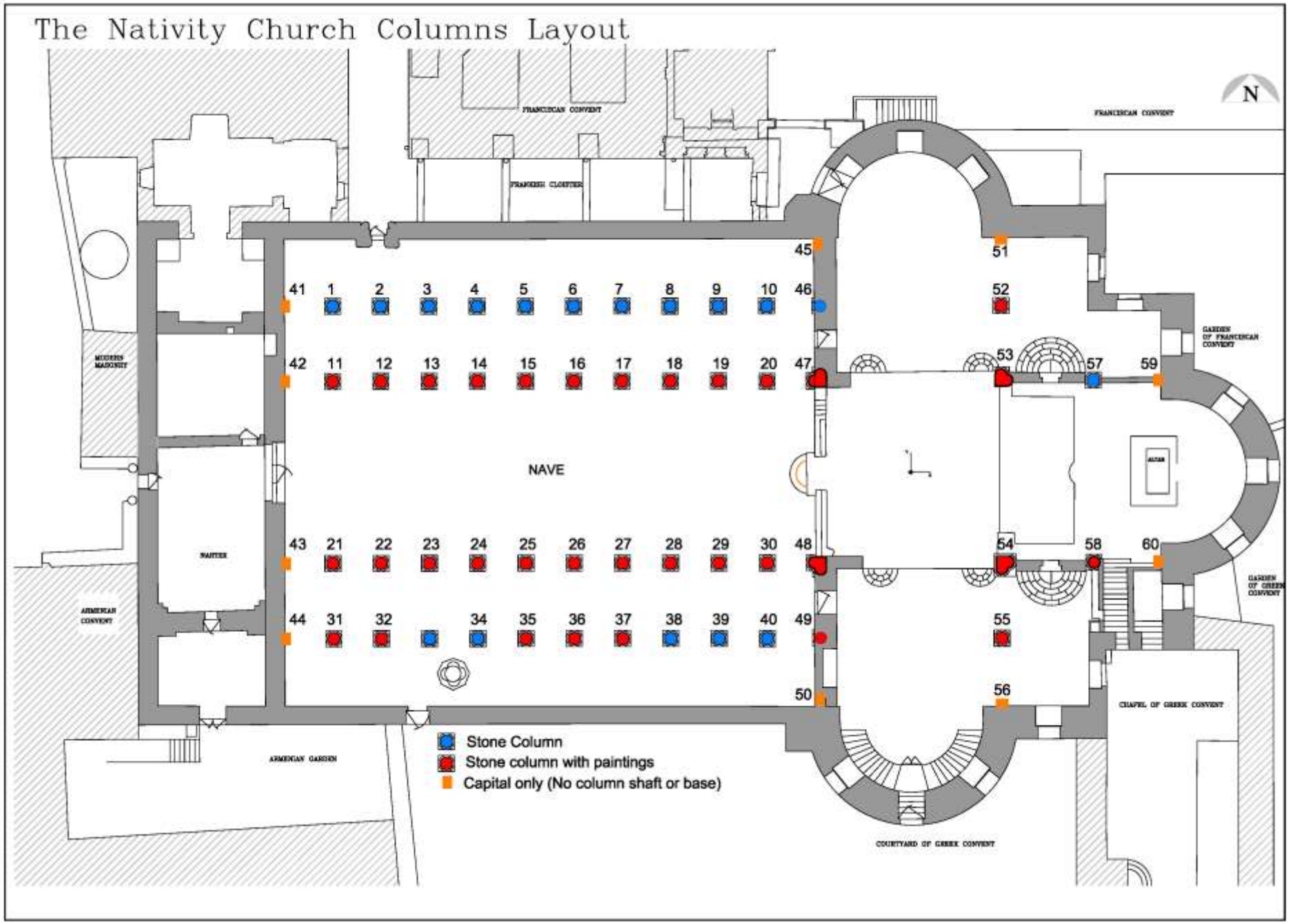












The Nativity Church Columns Layout
N
FRANCISCAN CONVENT
FRANCISCAN CLOISTER
FRANCISCAN CONVENT
MODERN MASONRY
NAVE
NARTHEX
ARMENIAN CONVENT
ARMENIAN GARDEN
GARDEN OF FRANCISCAN CONVENT
ALTAR
GARDEN OF GREEK CONVENT
CHAPEL OF GREEK CONVENT
COURTYARD OF GREEK CONVENT
41 1 2 3 4 5 6 7 8 9 10 46
42 11 12 13 14 15 16 17 18 19 20 47
43 21 22 23 24 25 26 27 28 29 30 48
44 31 32 34 35 36 37 38 39 40 49
45 51 52 53 57 59 54 58 60 55 56 50
Stone Column
Stone column with paintings
Capital only (No column shaft or base)