

APPENDIX II

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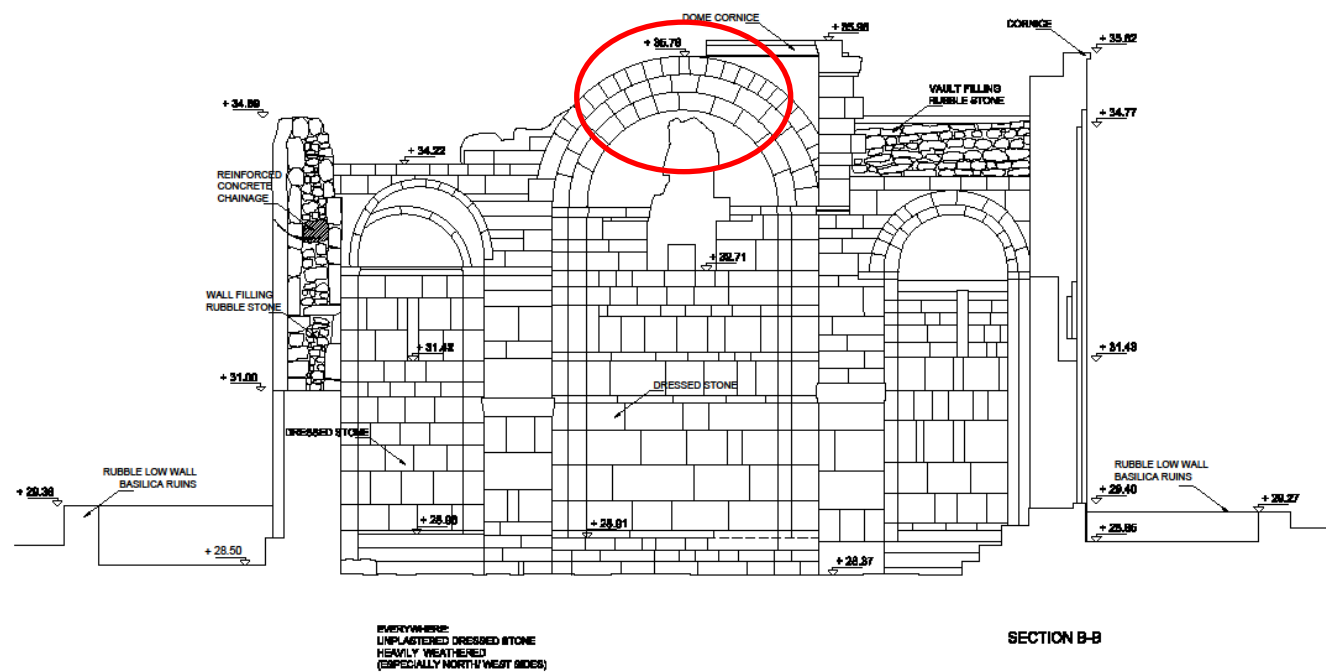
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Structural interventions

- Repair and consolidate the east and south arch of the church which initially were supporting the dome, now lost.

East Arch

- Consolidate by filling the voids between the stones with lime mortar to create structural unity.

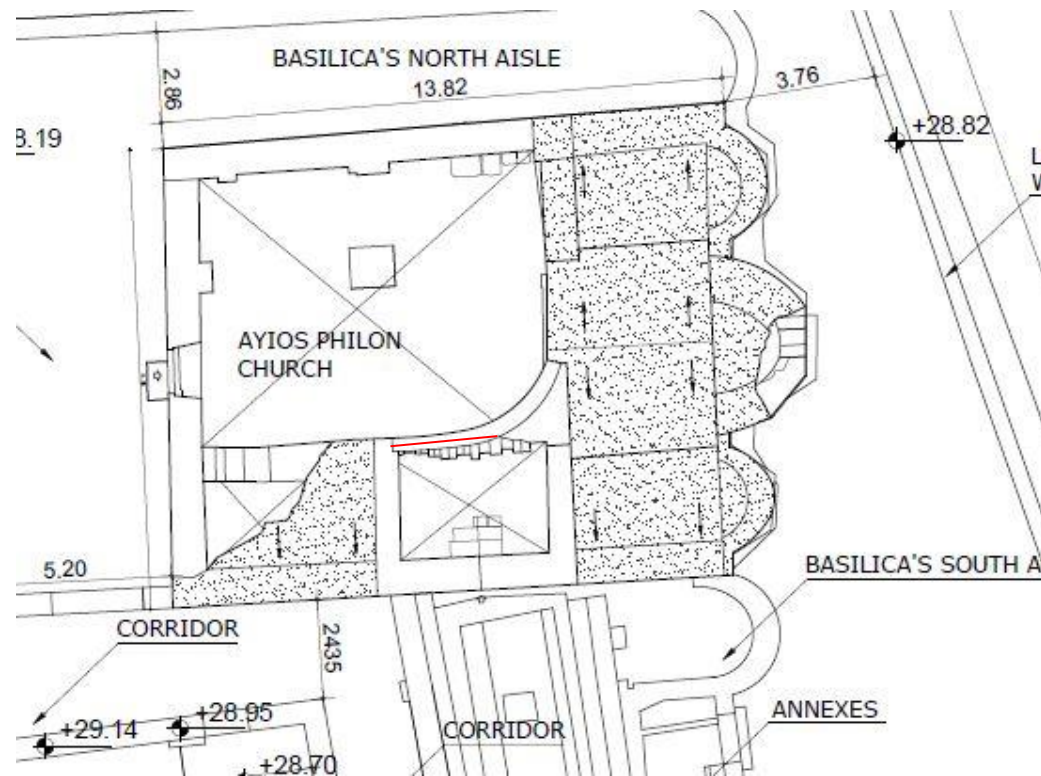


	UNDP Partnership for the Future		TECHNICAL COMMITTEE OF CULTURAL HERITAGE	DIMITRIOS M. MYLIANTHAKIS ARCHITECT LILIA N. DIMOPOULOU ARCHITECT	NIKOS KALITAKIS CIVIL ENGINEER SECOND REGISTRATION CIVIL ENGINEER EMMA ENPA, CIVIL ENGINEER	CHRISTOS MAURIS, QUANTITY SURVEYOR DORA NICKOLAKI, ARCHAEOLOGIST	PROJECT KARPASSIA LOTIS-AYIOS PHELOS CHURCH & BASILICA PROJECT NAME SURVEY DRAWINGS DRAWING TITLE SECTION B-B	DATE REV. MAR-2016 JAN. 2016 DRAWN BY Paraskevi Spanakidou SCALE 1:50	PROJECT CODE C20115 (AP1) DESIGNED BY E 06
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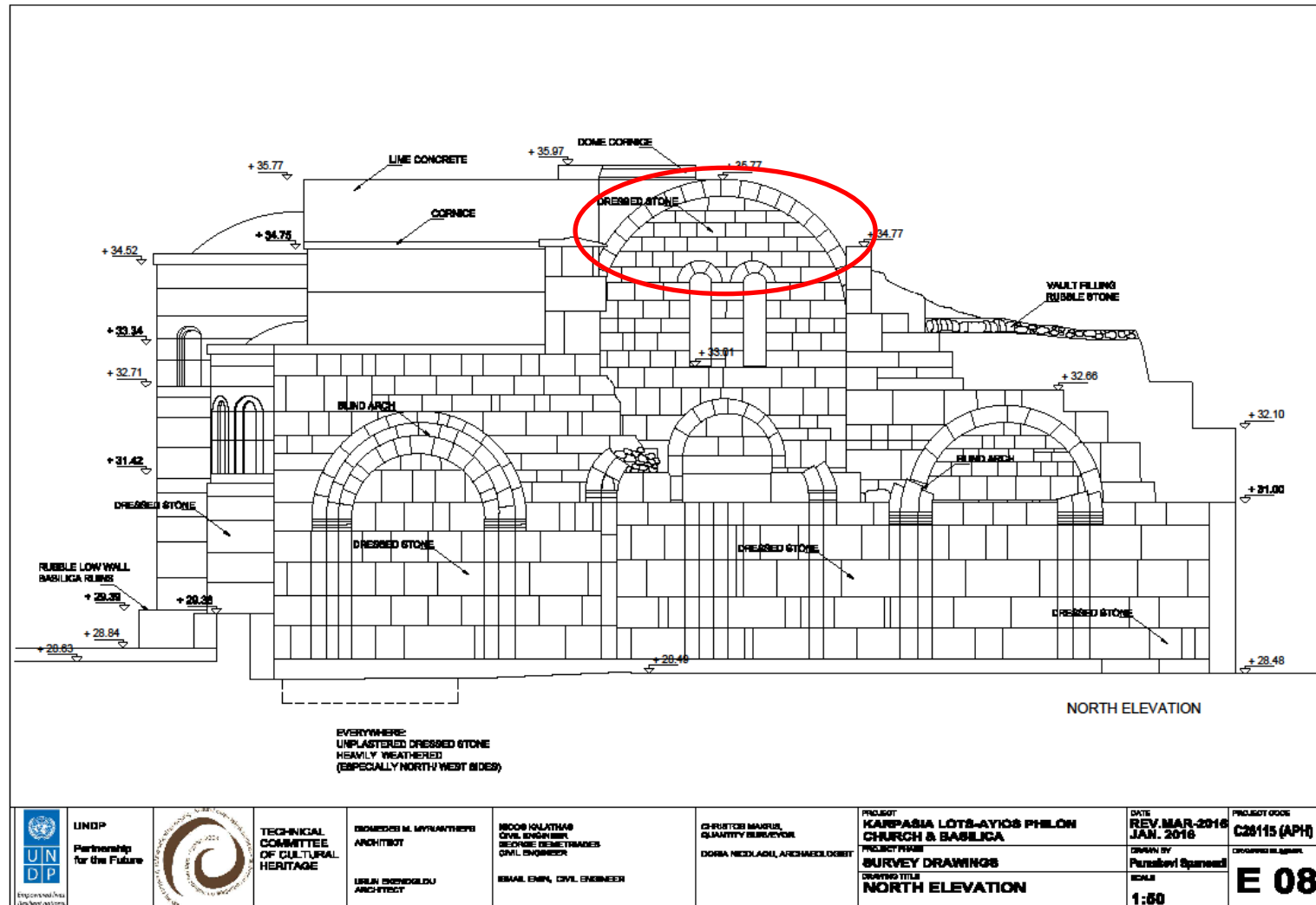
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South Arch

- Consolidate by filling the voids between the stones with lime mortar to create structural unity
- Apply 1mm thick carbon fiber sheet 12cm in width on the extrados of the arch in order to counteract the forces created by the weight of pendantive. Apply on lime based plaster as per manufacturers instructions and cover with lime based plaster. In order to achieve reversibility. (Sika Carbo-dur or equivalent)



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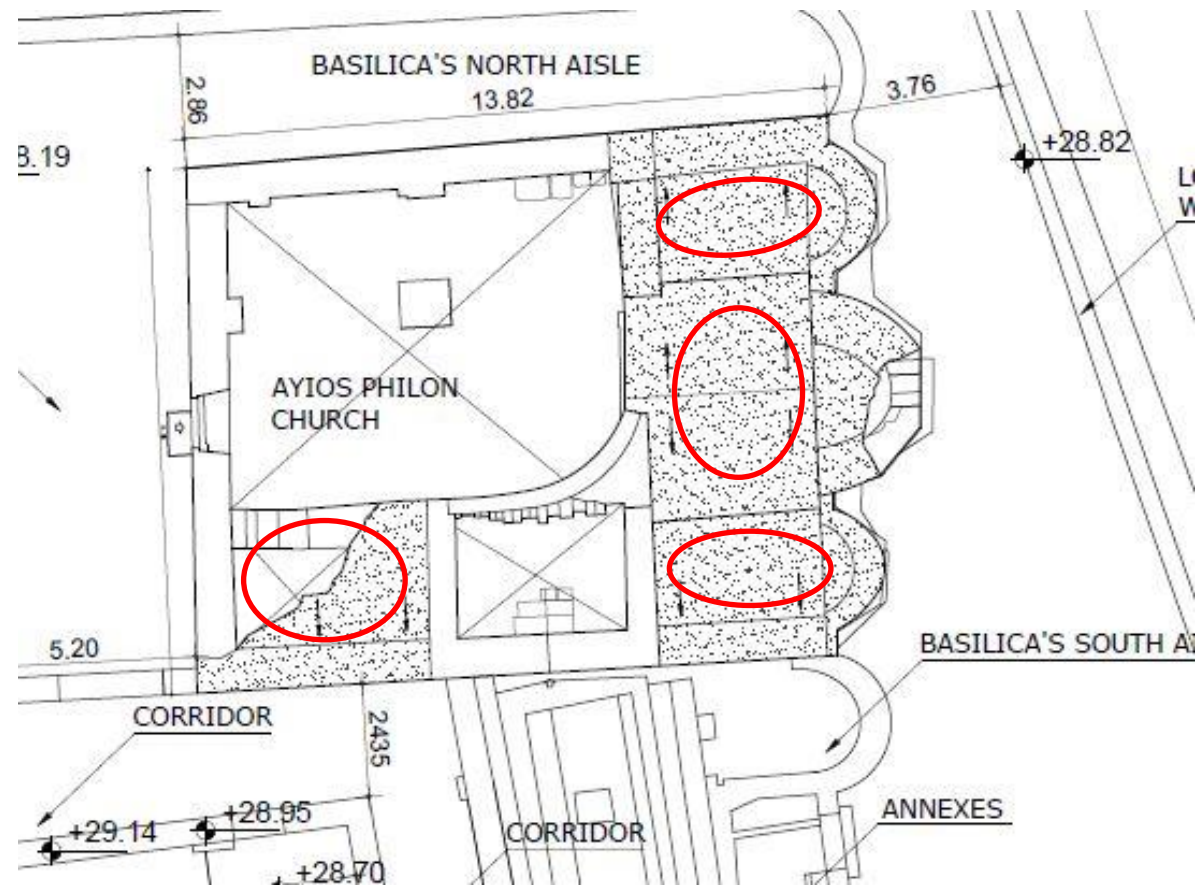


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- Repair and consolidate the deteriorated areas of the vaults as shown on the drawing.

Eastern Vaults (north/central/south) + Southwestern Vault

- Re-point the areas shown and use lime mortar and same size rubble stones where missing.



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South vault. Re-pointing.

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North vault. Re-pointing.

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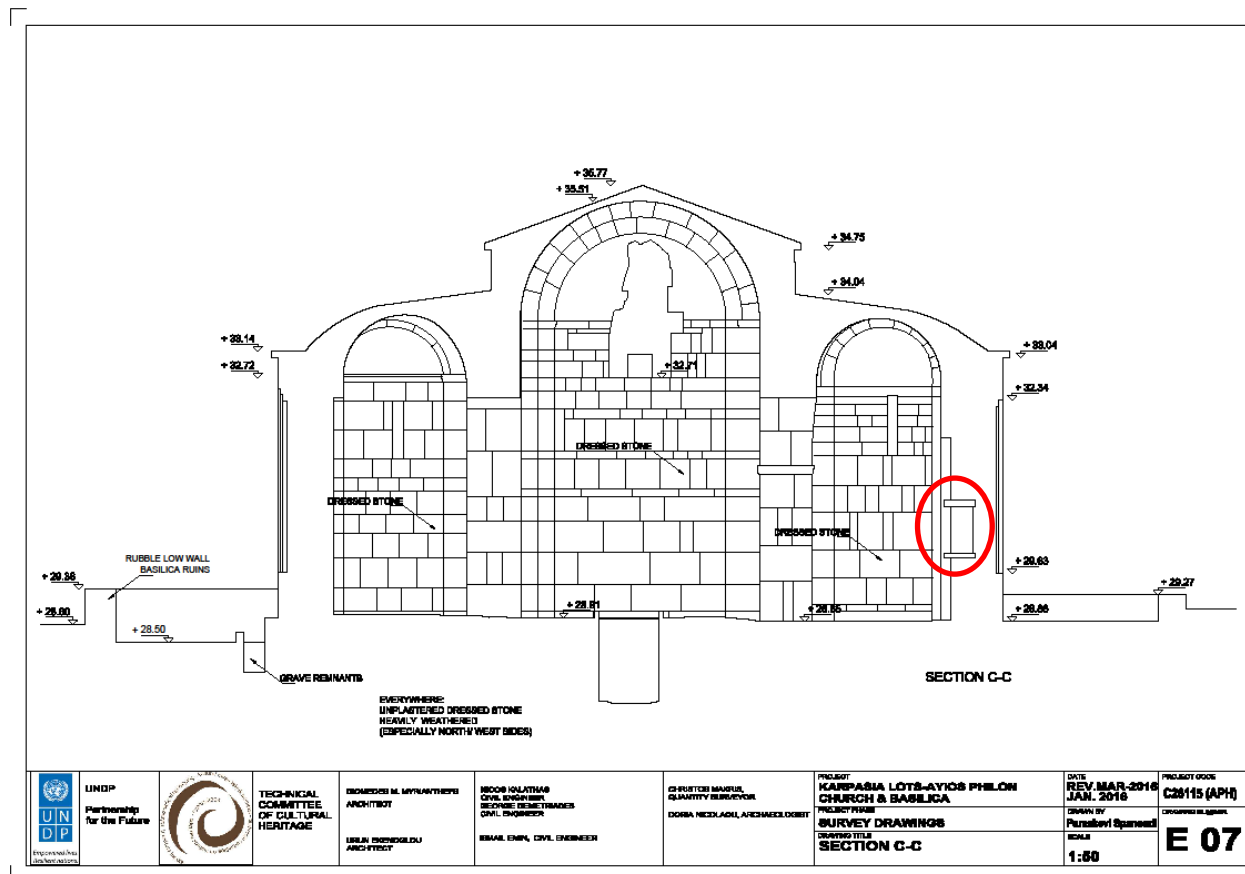
Central Vault. Re-pointing.



Southwest vault. Re-pointing.

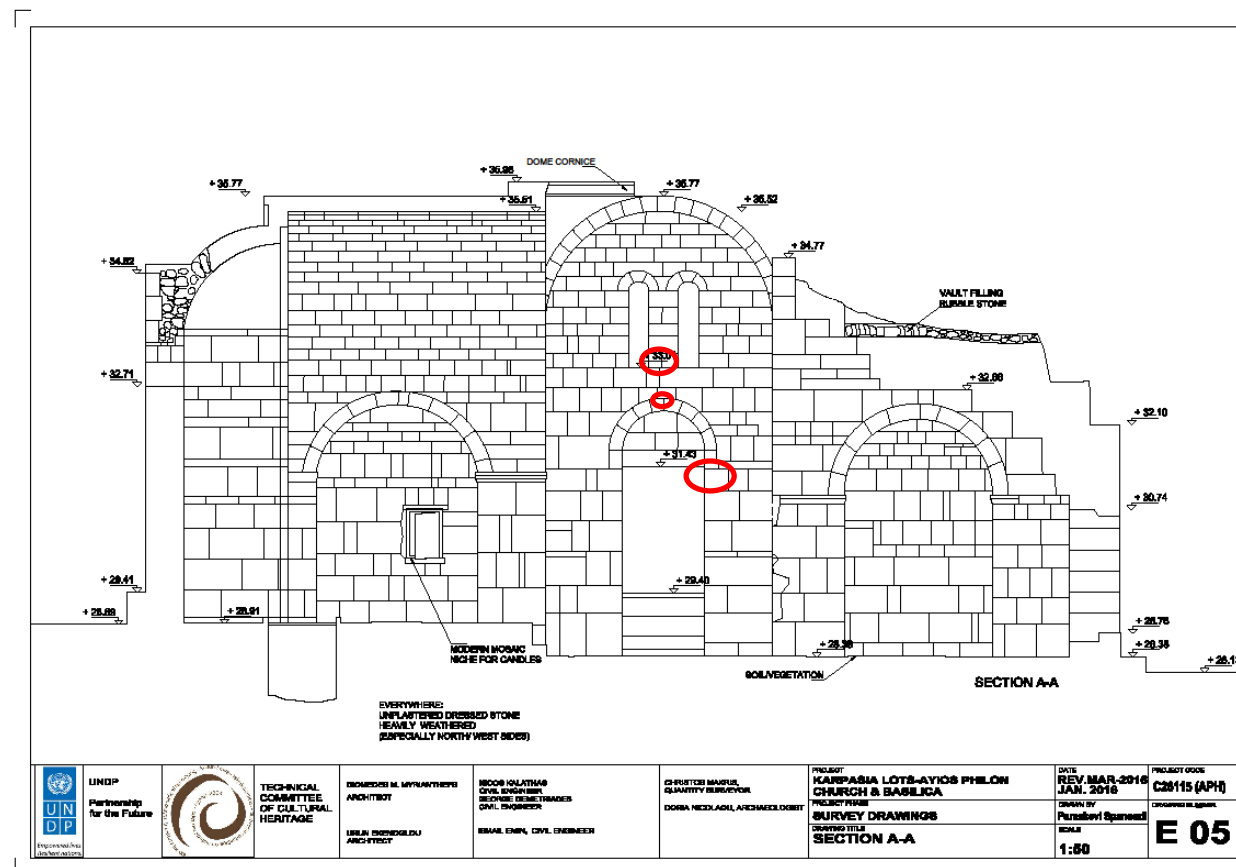
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- Rebuilding the gap created by the removal of the concrete niche in the southern wall of the Holy Bema.
 - Use similar size of stones with an indent of 2 cm. New stones should be of similar characteristics as the stone to be replaced i.e. similar mechanical and physical properties

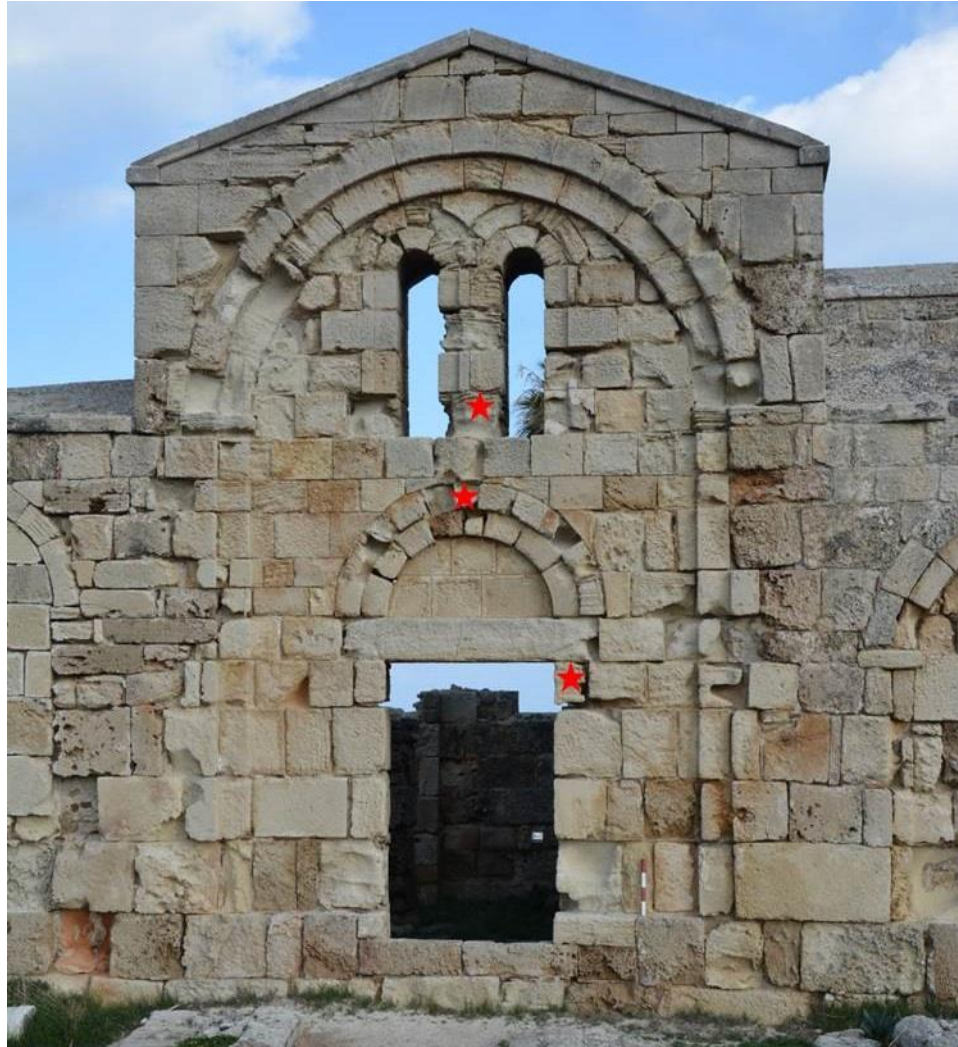


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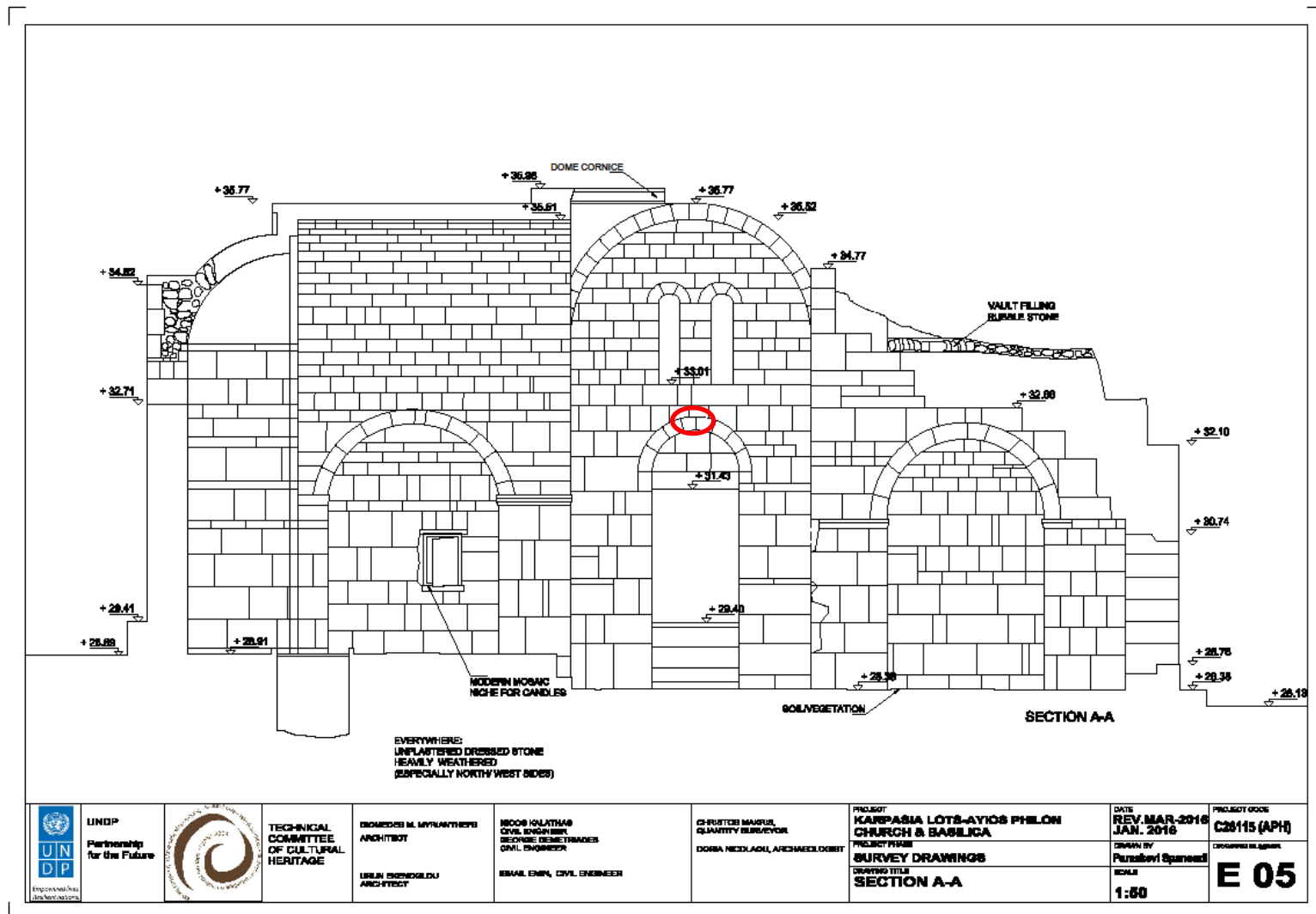
- Stone replacements
 - 5 heavily weathered stones that are posing danger to the structural stability of the building have to be replaced as shown. New stones should be of similar characteristics as the stone to be replaced i.e. similar mechanical and physical properties



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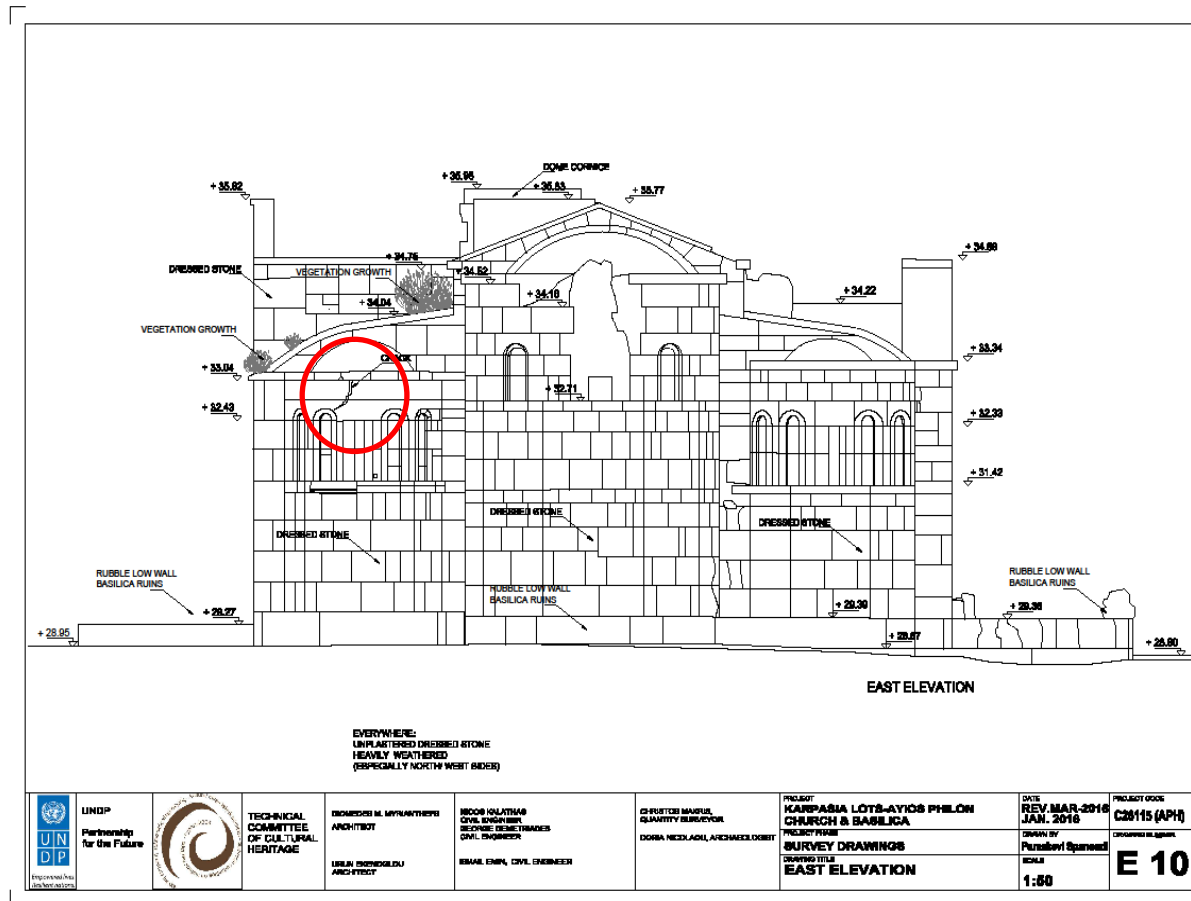
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- Fill the crack of the south apse with mortar (internally and externally), to prevent water penetration and erosion.



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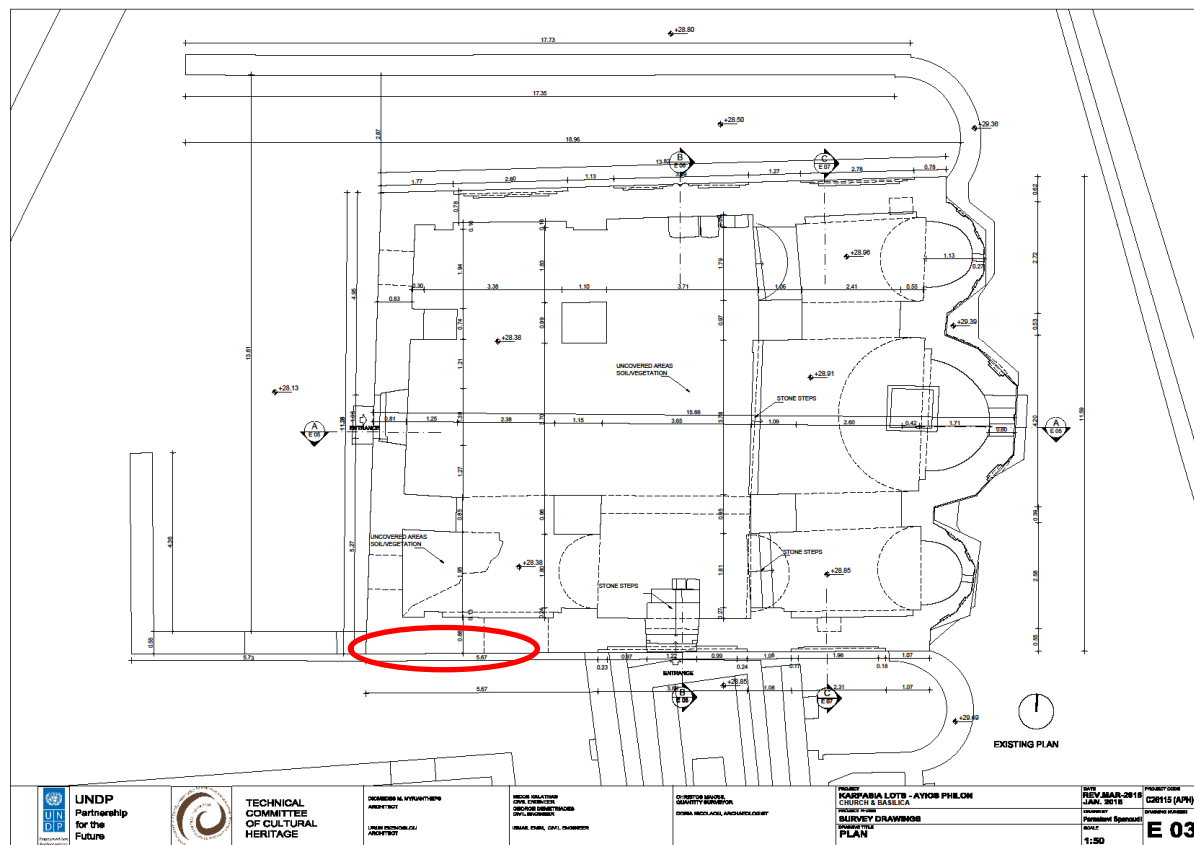
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- Protect the horizontal parts of the walls from rainwater stagnating there and penetrating the wall. This could be achieved by applying a thin layer of mortar with a slight slope. The mortar should be ca. 2 cm in thickness at the highest part and the thickness should decrease gradually to 0.5-1.cm to achieve the slope.



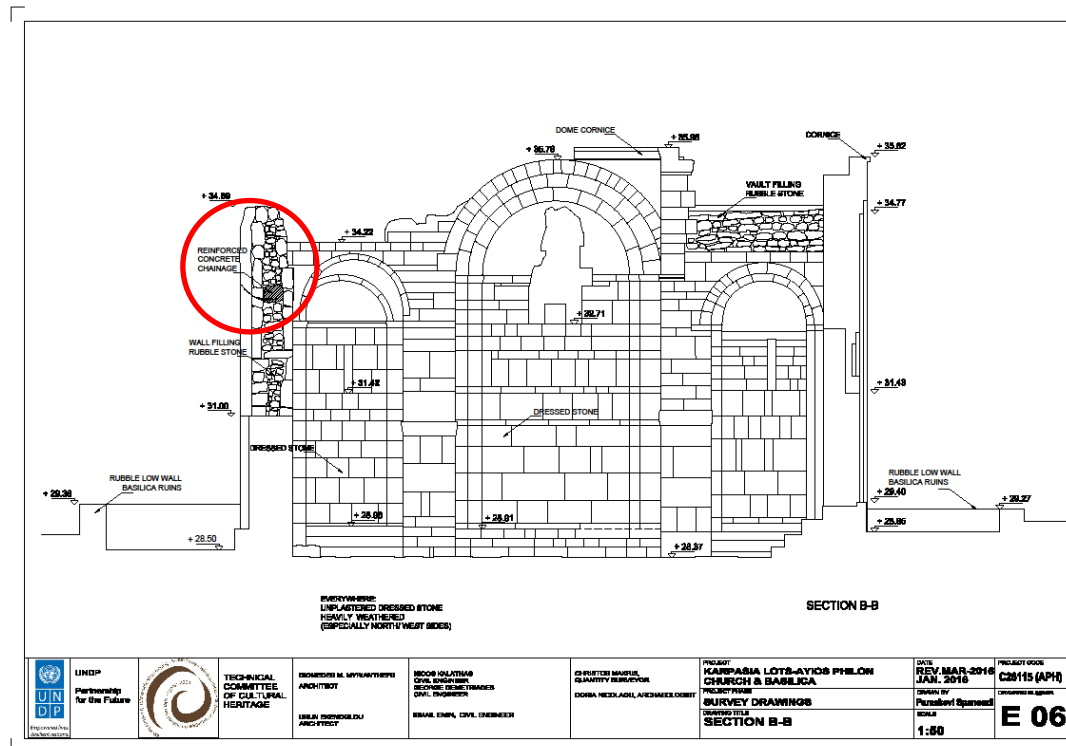
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- Outer side of the south wall: Check and repair (repoint, fill the gaps) of the base of the wall which will be covered by the reburial of the access corridor.



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- Removal of the iron on RC beam after inspection
 - There are remains of RC Beam as shown in pictures. Carefully chissel to see if the beam is continuing towrds inside. If not remove and replace with stone. If it is continuing cut the tips of the rotten irons and paint with anti rust (Sika Armatec or equivalent)



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- Careful removal of all electric fittings and past rusted iron fittings, repairing the voids with specified mortar.



- Use of compatible mortar (lime mortar) and stones
 - o In all areas where mortar is going to be used the following has to be followed:
New mortars should be mixed according to manufacturer's specifications and should not be used after one hour, or when the mix is no longer workable without the addition of water. **Albaria Allettamento** lime mortar or other approved or equivalent can be used.