



October 16, 2018

The Special Investigative Committee in connection with the
Rebuilding of St. Nicholas Greek Orthodox Church and National Shrine
c/o George A. Stamboulidis, Esq.
BakerHostetler LLP
45 Rockefeller Plaza
New York, NY 10111

**Re: Rebuilding of St. Nicholas Greek Orthodox Church and National Shrine – Phase II
Investigative Procedures**

Dear Mr. Stamboulidis and the Members of the Special Investigative Committee,

Following please find the second PricewaterhouseCoopers Advisory Services LLC (“PwC”) investigative report with regard to the rebuilding of St. Nicholas Greek Orthodox Church and National Shrine (“SNCNS”). This report discusses the PwC Phase II procedures and our observations regarding (a) the baseline costs of the SNCNS construction; (b) the causes of significant cost increases and SNCNS design changes to December 31, 2017; and (c) potential undisclosed relationships between Greek Orthodox Archdiocese of America (“GOA”) SNCNS project management and certain vendors paid from SNCNS funds.

I. Executive Summary

His Eminence Archbishop Demetrios, Geron of America (“His Eminence”), informed BakerHostetler and PwC that SNCNS would not be just another church, but a national shrine that represents the Greek Orthodox community in America. According to a September 2015 New York Times article, His Eminence stated “[w]e have to have a masterpiece of architecture.”¹ The documents analyzed and interview responses generally indicated that the SNCNS design and appearance took precedence over costs.

In early 2013, the GOA announced that an Architectural Review Committee assembled by the GOA selected Santiago Calatrava’s SNCNS design. From 2013 to September 2017, His Eminence and Jerry Dimitriou, former GOA Executive Director of Administration, oversaw SNCNS design and construction on the GOA’s behalf. The GOA accounting staff processed and paid amounts on behalf of SNCNS and tracked such construction costs in the GOA

¹ Article by David W. Dunlap, which appeared in the September 9, 2015 issue of the New York Times and the GOA reprinted on November 11, 2016 in its entirety with permission from New York Times. See Appendix 1-a: New York Times Article – Church, Rising at Trade Center Site, Will Glow Where Darkness Fell.



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general ledger. Mr. Dimitriou worked with the GOA's owner's representatives to monitor and oversee the anticipated SNCNS construction costs, including the total costs to complete the SNCNS construction and the costs incurred to date. In the SNCNS pre-construction stage, Mr. Michael Jaharis, the former GOA Executive Committee Vice President,² and Emanuel "Manny" Demos, the former GOA General Counsel,³ worked with His Eminence and Mr. Dimitriou on SNCNS related matters.

Beginning in 2013, His Eminence worked with Mr. Calatrava to make SNCNS design changes. Some interviewed characterized such changes as "refinements." The most significant individual design modification (adding approximately \$14 million to the project cost) arose from changing the appearance and engineering of the curtain wall and the rain screen covering SNCNS from a metal mesh to a custom glass/marble/glass rain screen. This design modification commenced before Mr. Calatrava was formally engaged as the SNCNS design architect and generated incremental costs until design and engineering finalization.

Initial media reports indicated \$20 million to construct SNCNS,⁴ however, (a) no construction proposals support the \$20 million;⁵ (b) His Eminence subsequently approved changes or refinements that increased the SNCNS construction cost estimate to more than \$58.4 million as of September 2017;⁶ (c) construction plans included price caps and placeholders for SNCNS elements yet to be designed; and (d) the \$20 million estimate excluded pre-construction costs such as legal fees arising from the Port Authority of New York and New Jersey ("PANYNJ") litigation, architectural and other costs of approximately \$7.9 million⁷ as well as the balance of the "soft costs" (e.g., architect fees, owners representatives) needed to complete construction. While internal documents show an increase in expected SNCNS construction costs from \$20.6 million in 2013 to more than

² We understand that due to health issues, in 2014, Mr. Jaharis needed to step away from the SNCNS construction. Unfortunately, Mr. Jaharis passed away on February 17, 2016.

(<http://www.legacy.com/obituaries/nytimes/obituary.aspx?n=michael-jaharis&pid=177756341>).

³ Mr. Demos passed away in July 2014.

⁴ See Appendix 1-b: New York Post Article - Don't Count on new St. Nicholas Church to be ready by 2016.

⁵ While design proposals were submitted and reviewed, including Mr. Calatrava's initial design proposal that included the \$20.6 Construction Cost Budget, no construction vendors submitted a formal bid of \$20.6 million.

⁶ See Appendix 1-c: The St. Nicholas National Shrine Project Briefing September 26, 2017 (updated 10/4/17). The changes or refinements included both estimated design element construction costs as well as estimated overhead amounts for anticipated schedule extensions.

⁷ For purposes of this report, we defined "pre-construction" as prior to the SNCNS groundbreaking ceremony, which, according to the GOA website, occurred on October 18, 2014. While the GOA engaged numerous vendors for the SNCNS construction, the fee provisions within the respective vendor contracts generally provided for milestone payments. We quantified the \$7.9 million presented above, a subset of the \$32.8 million in SNCNS costs paid to December 31, 2017 (see the PwC Phase I report dated May 15, 2018), using the "paid" dates in the QuickBooks SNCNS records. See Appendix 1-d: Pre-Construction Cost Overview – Inception to October 18, 2014.



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\$58.4 million in September 2017,⁸ interviews and analysis of publicly available information indicated minimal public disclosures and internal information sharing on the expected and actual costs to build SNCNS. SNCNS fundraising literature and fundraising newsletters indicated a \$40 million to \$50 million fundraising target and a mention of \$40 million in hard construction costs.⁹

SNCNS construction halted in December 2017. In July 2018, the GOA presented an approximately \$38 million estimated cost to complete SNCNS construction to the GOA Clergy-Laity Congress attendees,¹⁰ bringing the total estimated cost to construct SNCNS to approximately \$79.7 million.¹¹

While interviews and documentation indicate professional relationships between certain vendors (e.g., common prior projects), documentation and interviews revealed that GOA executives knew about such relationships prior to the GOA hiring such vendors for the SNCNS construction. Interviews conducted and documents analyzed did not surface allegations of kickbacks or improper payments to GOA employees or representatives.

II. Procedures Performed

During Phase II, PwC:

- A. Interviewed His Eminence and 21 GOA clergy, officers, employees and SNCNS vendors.
- B. Performed media searches.
- C. Searched e-mails and GOA files for relevant information.
- D. Analyzed GOA documents.

While BakerHostetler and PwC conducted over 20 interviews during the course of the investigation,¹² some individuals and vendors declined or otherwise did not make themselves available to be interviewed. Jerry Dimitriou, former GOA Executive Director of Administration, and George Papadakos, former GOA Director of Finance, declined an interview¹³ and did not respond to our meeting requests, respectively. Additionally,

⁸ Based on documentation Skanska shared with the GOA, this estimate does not include pre-construction and other “soft” costs (e.g., architects, owner’s representatives).

⁹ See Appendix 1-e: SNCNS Father Alex Monthly Update.

¹⁰ See Appendix 1-w: SNCNS Estimated Building-related Costs to complete, June, 2018.

¹¹ The balance consists of (a) the \$38 million estimated cost to complete plus (b) the \$32.8 million in costs paid to December 31, 2017 plus (c) the \$8.9 million accounts payable at December 31, 2017 (see the PwC Phase I report dated May 15, 2018).

¹² A list of interviews may be found in Appendix 1-f: SNCNS Procedures – List of Interviews.

¹³ Mr. Dimitriou spoke to BakerHostetler and PwC on a phone call about certain administrative matters (e.g., the computer the GOA allowed him to retain, scheduling), but he would not meet BakerHostetler and PwC for an interview.



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representatives from Skanska USA Building, Inc. (“Skanska”) and Turner Construction Company (“Turner”) did not respond to our interview requests.

The following sections of this report discuss PwC’s impressions and observations arising from our procedures. Readers of this report should understand that PwC presents historical financial information in the sections that follow. While historical costs should remain constant, the total SNCNS construction costs will change due to the passage of time and design changes (both additions and/or deletions, if any). Furthermore, interviews indicated that since the GOA shut down construction in December 2017, the GOA will need to negotiate new construction agreements and faces potential cost increases in both materials and prevailing construction wages.

III. The SNCNS Design Proposal Process

According to interviews and available documentation, in or about 2013, the GOA formed an architectural design committee to solicit, then review design proposals and select the SNCNS design.¹⁴ Based on our inquiries, we understand that the Architectural Review Committee did not maintain meeting minutes.

The GOA invited 13 architects to submit proposals for the SNCNS design, including Mr. Calatrava. Mr. Calatrava did not recall the specifics of his invitation to participate in the SNCNS design proposal process, but he assumed that he received a letter from the GOA inviting him to participate in the design proposal process.

In early 2013, the GOA announced that the architectural design committee selected Mr. Calatrava’s SNCNS design¹⁵ and, thereafter, entered into a June 28, 2013 Design Architect Agreement with Festina Lente, LLP for Mr. Calatrava’s services (the “Design Architect Agreement”).¹⁶

IV. SNCNS Construction Oversight

According to a December 2014 Frequently Asked Questions (“FAQ”) document, SNCNS “...construction will be overseen and managed by Archbishop Demetrios, Bishop Andonios and Jerry Dimitriou....”¹⁷ We also understand that during the early stages of design, vendor selection and pre-construction (e.g., 2012 to early 2014), Michael Jaharis, the former GOA Executive Committee Vice President,¹⁸ and Emanuel “Manny” Demos, the former GOA

¹⁴ See Appendix 1-g: Architectural Review Committee Contact Information.

¹⁵ See Appendix 1-i: FAQs Tailored for Philoptochos about St. Nicholas National Shrine.

¹⁶ See Appendix 1-h: Festina Lente, LLP Design Architect Agreement.

¹⁷ See Appendix 1-i: FAQs Tailored for Philoptochos about St. Nicholas National Shrine.

¹⁸ We understand that due to health issues, in 2014 Mr. Jaharis needed to step away from SNCNS matters. Unfortunately, Mr. Jaharis passed away on February 17, 2016.

(<http://www.legacy.com/obituaries/nytimes/obituary.aspx?n=michael-jaharis&pid=177756341>).



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General Counsel,¹⁹ worked with His Eminence and Jerry Dimitriou on the SNCNS rebuilding efforts.²⁰

According to interviews and available documentation, in or about December 2014, the GOA formed a SNCNS rebuilding committee (the “Rebuilding Committee”). We interviewed certain members of the former Rebuilding Committee who indicated that the GOA never sought their input on SNCNS construction related matters and the committee ultimately disbanded.

From inception of construction to about September 2017, Mr. Dimitriou and the owner’s representatives oversaw the financial aspects of the SNCNS construction. When interviewed, GOA clergy and executives indicated limited to no visibility into SNCNS expected construction costs and no recollection of Mr. Dimitriou sharing interim cost information.

Initially, the GOA selected Gorton & Associates (“Gorton”) and Turner as the owner’s representative and the construction manager,²¹ respectively. The GOA selected Turner over Rail Road Construction Co. and Barr & Barr.²² We understand that Robert Gorton, the Gorton & Partners principal, assisted the GOA during the legal proceedings with the PANYNJ regarding the SNCNS location at the World Trade Center site.²³ After settling the PANYNJ litigation, the GOA selected Mr. Gorton as the initial owner’s representative.²⁴

According to the Construction Management Agreement between the GOA and Turner dated as of February 5, 2014, (the “Turner Agreement”), the GOA engaged Turner to “...provide, perform and supervise all of the labor, equipment and materials necessary for the construction and completion of the [SNCNS] ...”²⁵

According to a June 11, 2014 e-mail from Mr. Dimitriou to Fr. Alex Karloutsos, Alice Keurian, Roni Feldblum, Bishop Andonios, Fr. Mark Arey and Manny Demos (the “June 11, 2014 Dimitriou E-Mail”), Mr. Dimitriou recommended that the GOA replace Gorton

¹⁹ Mr. Demos passed away in July 2014.

²⁰ Both Mr. Jaharis and Mr. Demos volunteered their time in their respective roles as Executive Committee Vice President and GOA General Counsel.

²¹ PwC observed documentation indicating the Turner and other construction companies submitted bids to construct SNCNS. However, the GOA documentation does not indicate why the GOA selected Turner over the other construction companies that submitted lower construction bids. The GOA ultimately replaced Turner with Skanska in December 2015.

²² Mr. Puza and Mr. Karamitsanis participated in the initial construction manager bid process on behalf of Railroad Construction Co. and Barr & Barr, respectively.

²³ See Appendix 1-j: Robert Gorton Feasibility Proposal.

²⁴ See Appendix 1-k: Gorton Partners Project Management Agreement. The GOA agreement with Gorton & Partners LLC did not get completed and executed.

²⁵ See Appendix 1-l: Construction Management Agreement between the Greek Orthodox Archdiocese of America and Turner Construction Company dated as of February 5, 2014.



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with Merritt Construction Services (“Merritt”) and Lighthouse Advisors (“Lighthouse”) (hereinafter collectively referred to herein as the “Owners Representatives”).²⁶ The GOA accepted Mr. Dimitriou’s recommendations and, shortly after Mr. Dimitriou’s e-mail, the GOA replaced Gorton with Merritt and Lighthouse. In addition, the GOA replaced Turner with Skanska in December 2015. While the documentation indicates that the GOA replaced Gorton and Turner in order to reduce costs,²⁷ the GOA continued to change designs and expected SNCNS costs rose from 2015 to September 2017.

In early 2017, the GOA faced a financial crisis. As the GOA executives worked to remediate the GOA’s financial challenges, the GOA borrowings from SNCNS came to light, prompting the GOA executives and leaders to ask questions and seek information about the SNCNS construction costs. In September 2017, Merritt and Lighthouse worked with the GOA to prepare a detailed SNCNS cost and budget analysis (the “September 2017 SNCNS Project Briefing”).²⁸ The 2017 SNCNS Project Briefing indicated that, as of September 2017, the estimated total hard costs to construct SNCNS approximated \$58.4 million and that certain design elements had not yet been priced.

V. Cost

Overall, we observed minimal public communication from the GOA as to both the overall cost to build SNCNS and construction cost payments. From 2014 to September 2017, the GOA publicly released only limited information to the faithful with regard to the estimated total costs of the SNCNS construction and the SNCNS amounts paid to third parties for SNCNS construction.²⁹

For the SNCNS construction, we observed two categories of costs reported by the Owners Representatives and discussed by the GOA (1) hard constructions costs (e.g., labor and materials) and (2) soft construction costs (e.g., architects’ fees, owner’s representatives fees, legal fees, and overhead). The initial \$20.6 million construction amount cited in the media and included in the Design Architect Agreement³⁰ represented estimated *hard construction*

²⁶ See Appendix 1-m: St. Nicholas Construction Meeting Email.

²⁷ Certain documents and interviews indicated tension between Mr. Calatrava, on the one hand, and Mr. Gorton and Turner, on the other hand. Since Mr. Dimitriou did not agree to the BakerHostetler interview request, he did not provide the GOA rationale for replacing Mr. Gorton and Turner with the Owner’s Representatives and Skanska, respectively, or why the GOA selected Skanska over the other construction bids.

²⁸ See Appendix 1-c: The St. Nicholas National Shrine Project Briefing September 26, 2017 (updated 10/4/17).

²⁹ The audited GOA financial statements included disclosures in the notes to the financial statements about the total SNCNS funds released to third parties for the respective annual periods audited. An undated “Frequently Asked Questions” document from the GOA website indicated “38 million dollars in hard construction costs” and a February 16, 2015 fundraising letter from the Greek Orthodox Metropolis of New Jersey stated [t]he cost of rebuilding [SNCNS] ... shall be approximately 40 million dollars.” (see Appendix 1-i and Appendix 1-n)

³⁰ See Appendix 1-h: Festina Lente, LLP Design Architect Agreement.



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costs to transform Mr. Calatrava's initial SNCNS design to a physical structure.³¹ However, only citing hard construction costs does not paint a complete picture of the initial total anticipated SNCNS construction costs. As quantified in the PwC report dated May 15, 2018 (the "Phase I Report"), the SNCNS related cash outflows from September 12, 2001 to December 31, 2017 totaled \$32.8 million, which included approximately \$14.4 million of what could be considered soft construction costs³² and approximately \$2.7 million of SNCNS PANYNJ litigation costs associated with securing the land swap at the World Trade Center site.³³ As such, the *initial* SNCNS project cost (i.e., \$20.6 million of hard costs and \$17.1 million of soft costs) approximated at least \$37.7 million and this amount excludes contractual soft costs not yet incurred or paid.³⁴

The balance of this Section V discusses the initial SNCNS hard construction cost estimates, increases to such costs and SNCNS soft costs.

Initial SNCNS hard construction cost estimates

In 2013, Mr. Calatrava engaged a third party consultant to calculate hard construction costs based on his concept drawings. The consultant initially estimated \$20.6 million in such hard construction costs.³⁵ The GOA and Mr. Calatrava included the \$20.6 million amount as the Construction Cost Budget, as defined, in the Design Architect Agreement.³⁶ The Design Architect Agreement indicated that such estimate only considered hard construction costs (e.g., labor, materials) and did not include actual or estimates for the following soft costs the GOA paid on behalf of SNCNS:³⁷

³¹ September 2017 SNCNS Project Briefing, p. 4, indicates that Mr. Calatrava's estimate for his original design proposal approximated \$31 million.

³² For purposes of this analysis, we subtracted the Skanska, Turner, VM Marble and Vermont Quarries payments (\$14.4 million, \$1.2 million, \$100,000 and \$36,000, respectively) from the total SNCNS related cash outflows (\$32.8 million). See the PwC May 15, 2018 SNCNS Phase I report.

³³ The original St. Nicholas Church stood at 155 Cedar Street. As a result of an agreement with PANYNJ, the SNCNS was moved to its current location at 130 Liberty Street. While such expenses may reasonably be considered soft costs, PwC presented these amounts separately as such costs arose due to a unique circumstance (i.e., changing the location of SNCNS from its original location to its current location).

³⁴ The \$37.8 may reflect SNCNS incremental soft costs arising from design changes and timing delays.

³⁵ See Appendix 1-o: Festina Lente Cost Breakdown.

³⁶ See Appendix 1-h: Festina Lente, LLP Design Architect Agreement, p. 21. The language in the agreement indicates that the Construction Costs "...do not include (w) fees and expenses of the Design Architect, the Architect of Record, the Project Manager, Owner's Consultants or any other consultants engaged by or for the [GOA] or any subconsultants of any of the forgoing; (x) land, permitting and approval costs; (y) financing costs and (z) iconography and religious art."

³⁷ The amounts presented are actual costs from inception to December 31, 2017. The initial SNCNS construction cost estimate disclosed should have considered known costs as of 2013 as well as estimates for other SNCNS related construction costs (e.g., insurance, webcam, groundbreaking ceremonies) or clearly



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Category	Amount
Construction	\$ 5.4 million
Architect fees	6.3 million
Construction management	1.7 million
Legal	1.9 million
Insurance	0.9 million
Other miscellaneous costs	0.6 million
Allocated GOA costs	0.3 million
Total	\$ 17.1 million

The costs above include the following SNCNS PANYNJ litigation costs associated with securing the land swap at the World Trade Center:

Architect fees	\$ 1.1 million
Legal	0.8 million
Construction Consultants	0.5 million
Other miscellaneous costs	0.3 million
Total	\$ 2.7 million

In September 2013, Turner estimated that the cost of construction based on Mr. Calatrava's concept drawings would be \$49 million in hard costs. Gorton, the Owner's Representatives at the time, estimated that the cost would be \$40.4 million.³⁸

The GOA hired Lighthouse Construction and Merritt Construction in late 2014 to replace Gorton. In September 2014, Turner submitted a proposal that included a \$40.2 million gross maximum price (the "GMP"), which Merritt and Lighthouse questioned.³⁹ Ultimately, the GOA declined to accept Turner's GMP proposal.

In April 2015, the GOA interviewed three new construction managers and selected Skanska to replace Turner. Documents provided included no rationale for why the GOA selected Skanska, who bid \$38.6 million, rather than other bidders who tendered \$33.8 million (Railroad Construction Company) and \$37.2 million (Barr & Barr, Inc.) bids.⁴⁰

indicated that the estimate did not include such amounts. See Appendix 1-p: SNCNS Costs from Inception to December 31, 2017 Schedule.

³⁸ See Appendix 1-q: Gorton & Partners Anticipated Cost Report Summary.

³⁹ See Appendix 1-r: Turner Draft GMP.

⁴⁰ See Appendix 1-s: Merritt Construction Manager Bid Comparison.



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The rain screen

Based on our analysis of available documentation and interviews of GOA employees, from 2013 to 2017, Mr. Calatrava worked with the GOA to modify the SNCNS design. The GOA requested certain design changes and Mr. Calatrava suggested other design changes, some of which His Eminence accepted and other changes he rejected. The most significant individual design change was the engineering and appearance of the curtain wall and rain screen. The June 11, 2014 Dimitriou E-Mail indicates that the curtain wall and rain screen accounted for \$12 million of the estimated \$37 million in SNCNS hard construction costs.

The SNCNS exterior evolved from Mr. Calatrava's first design concept of a metal mesh⁴¹ rain screen, which was presented at the design competition in February 2013, to the current anticipated custom glass/marble/glass rain screen design. The rain screen, a decorative component of the SNCNS exterior, protects the building structure from the elements.

According to interview responses and documents provided, Mr. Calatrava's initial SNCNS design concept contained a metal mesh exterior dome wall with lights that would shine from under the metal mesh exterior, causing SNCNS to "glow" at night.⁴² According to documents provided, the metal mesh exterior wall was initially estimated to cost approximately \$1.9 million.⁴³ However, at a meeting attended by His Eminence, His Grace Bishop Andonios, Mr. Calatrava, Mrs. Calatrava, Mr. Michael Jaharis, Fr. Mark Arey, Mr. Nick Koutsomitis, and Deacon Chrysostomos Gilbert, His Eminence expressed his desire for the removal of Mr. Calatrava's proposed metal mesh exterior wall in favor of an alternative design. After the April 2013 meeting, Mr. Calatrava worked with the GOA on the rain screen design. His Eminence ultimately approved a custom translucent glass/marble/glass rain screen design as an alternative to the metal mesh design. When approved as a concept, however, the cost of the new design was not known. The cost of the design change from the metal mesh to the current glass/marble/glass developed over time. According to September 2017 Skanska construction cost documents, the glass/marble/glass rain screen was estimated to cost at least \$15.7 million, which is well in excess of the \$1.9 million metal mesh design cost estimate.

In transforming Mr. Calatrava's glass/marble/glass rain screen design concepts to a component of the SNCNS structure, the engineers and construction team found that the translucent panels would need customized design and fabrication in order to withstand the elements and environment in lower Manhattan, in particular the temperature fluctuations,

⁴¹ In simplistic terms, the "metal mesh" may be described as a linked or louvered metal structure, similar in appearance to chainmail or a fishnet.

⁴² For example, see Appendix 1-x: Santiago Calatrava - Technical Proposal 1.

⁴³ See Appendix 1-o: Festina Lente Cost Breakdown.



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precipitation and air pollution. A May 30, 2017 GOA article⁴⁴ described the manufacturing process for the SNCNS exterior as follows:

The exterior “rain screen” is made of glass and stone panels, fused together in a unique and original process taking the Pentelic marble from Greece, the same vein of marble used to build the Parthenon some 2,450 years ago.

This unique process of fusing glass to stone has never been fabricated to this magnitude on the exterior of a building and will create unique look [for SNCNS]. During the day, [SNCNS] will look like a solid marble structure however, in the evening when the sun sets, a unique and custom designed lighting system will illuminate the 2,500 glass panels from behind the rain screen and [SNCNS] will glow like a candle over Liberty Park and the World Trade Center Memorial.

It will become a shining beacon of light and hope overlooking the place [where] 2,996 people lost their lives and over 6,000 were wounded on Sept. 11, 2001, the most horrific terrorist attack on the United States in our history.

These 2,500 panels not only go through a unique process to be fabricated, they also have a unique journey to arrive on-site for installation on the new St. Nicholas Church and National Shrine.

The Pentelic Marble used in the panels is quarried from northeast of Athens, Greece where it is shipped to locations in Germany and Austria. There, the stone is “honed” down to 3mm and 1mm slices in a unique and patented process and thereafter, inspected for any imperfections or occlusions in the stone.

The stone slices are then shipped to another location in Austria where another company “fuses” two glass panels on both sides of the stone.

One clear glass panel on the interior and another etched glass panel on the exterior as to not reflect sunlight off the church during the day.

These panels are created with a unique sealing process as well as go through months of testing with extreme cold and hot temperatures to make sure they will withstand the weather fluctuations in New York City. The entire exterior of the church must also be “hardened” to blast specifications set forth by the Port Authority of New York and New Jersey, required for all buildings on the 15-acre World Trade Center Site.

Once the panels are fabricated in Austria, they are loaded into special crates created uniquely for this project, to protect them on their next journey from Austria to Minneapolis.

⁴⁴ See Appendix 1-u: GOA Article - Construction Team Finalizes Fabrication Process for Unique Glass and Stone Rain Screen.



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There, yet another company mounts the individual panels onto a cartridge like system creating much larger panels for the rain screen, where they will be ready for installation on the exterior of the Church.⁴⁵

Documents indicate an evolution of the rain screen from 2015 to October 2016.⁴⁶ The engineering and material costs of the curtain wall and rain screen approximated \$15.9 million as of September 2017.⁴⁷

While the custom glass/marble/glass rain screen may be stunning upon completion, and perhaps befitting of a national shrine, the complexity of the design was not initially appreciated⁴⁸ and the resultant construction costs (approximately \$15.9 million as of September 2017) account for approximately one-quarter of the \$58.4 million September 2017 estimated SNCNS hard costs.

SNCNS estimated construction costs

The initial construction documents bear a June 30, 2014 date.⁴⁹ Subsequently, the GOA approved changes resulting in new construction documents bearing an August 31, 2015 date. Thereafter, the GOA approved SNCNS design changes and between October 2015 and December 2016, issued eight addenda to the SNCNS construction plans. These changes added construction time and materials to the project, thereby increasing costs.⁵⁰ As of September 2017, Skanska projected that SNCNS construction would cost \$58.4 million in hard costs.⁵¹

The following table sets forth the increase in the SNCNS construction costs:

⁴⁵ See Appendix 1-u: GOA Article - Construction Team Finalizes Fabrication Process for Unique Glass and Stone Rain Screen.

⁴⁶ See Appendix 1-c: The St. Nicholas National Shrine Project Briefing September 26, 2017 (updated 10/4/17).

⁴⁷ See Appendix 1-v: Skanska Draft Cost Summary.

⁴⁸ We understand from interviews that the initial rain screen prototypes delaminated during weather testing. As such, the GOA and the SNCNS construction advisors found new vendors to construct the rain screen.

⁴⁹ See Appendix 2-a: Initial Construction Documents.

⁵⁰ See Appendix 2-b: Addendum Cost Impact.

⁵¹ See Appendix 1-v: Skanska Draft Cost Summary.



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Date	Construction cost category	Estimated construction costs	Source
2013	Hard costs	\$20.6 million	Design Architect Agreement
2013	Hard costs	\$31.0 million	September 2017 SNCNS Project Briefing
April 2014	Hard costs	\$30.6 to \$46.8 million	September 2017 SNCNS Project Briefing
October 2014	Hard costs	\$40.0 million	Turner GMP
April 2015	Hard costs	\$33.8 to \$38.6 million	September 2017 SNCNS Project Briefing
June 2016	Hard costs	\$49.9 million	Skanska
March 2017	Hard costs	\$55.4 million	Skanska
September 2017	Hard costs	\$58.4 million	Skanska

During the July 2018 GOA Clergy-Laity Congress in Boston, MA, the GOA presented an estimated \$38.0 million cost to complete the SNCNS construction. The estimated cost to complete assumed: (a) a 22 month construction period; (b) excluding the North Stair stone cladding (approximately \$1.8 million); (c) excluding the interior stone trim (\$1.3 million); and (d) Skanska and its subcontractors continued on the project. In October 2018, the GOA provided PwC a summary document indicating the \$38.0 million estimated cost to complete the SNCNS construction. However, this document did not detail the GOA efforts to reduce estimated construction costs. PwC offers no opinion or analysis on the completeness, reasonableness or attainability of the GOA's estimated cost to complete the SNCNS construction and the underlying assumptions.

The SNCNS hard costs increased over time as the GOA made design changes, but the documents and interviews also indicate certain efforts to reduce costs.⁵² For example, the GOA explored various options for the rain screen vendors.⁵³ Additionally, for the SNCNS

⁵² For example, see Appendix 1- y: October 17, 2017 letter from Bishop Andonios of Phasiane, GOA Chancellor, to Dr. Santiago Calatrava.

⁵³ See Appendix 1-m: St. Nicholas Construction Meeting Email.



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iconography, His Eminence ultimately decided to hire the world renowned iconographers from the monastery of Mount Athos. The GOA advised us that the iconography would cost \$300,000, which was \$900,000 less than the initial \$1.2 million cost estimate. The GOA also benefitted from various materials and services donations.

VI. Design Change Process

As mentioned earlier, based on information learned through interviews and document analysis, from 2013 to September 2017, His Eminence and Mr. Calatrava regularly discussed changes to the SNCNS design. While Mr. Calatrava made design suggestions, His Eminence made final SNCNS design decisions. Mr. Calatrava reflected design changes in the SNCNS plans. Mr. Koutsomitis incorporated design changes into the construction documents and the Owner’s Representatives worked with Turner, then Skanska, to prepare change orders and addenda to the construction agreements. From 2013 to 2017, design changes resulted in 8 addenda⁵⁴ and over 70 change orders⁵⁵ to the construction documents. Individual design changes, whether minor or major, often impacted other design elements causing an increase in total project cost and pushing back completion dates.

The following table presents identified cost increases from certain approved design changes:⁵⁶

Design Change Element	Estimated Financial Impact (Millions)
Curtain wall and rain screen	\$13.8
Skylights in the Nave	1.8
North staircase façade stone and plinth stone	1.8
Interior ornamental stone trim	1.3
Interior stone walls and floors	1.1
	\$19.8

The table above presents examples of design change elements and estimated financial impact associated with such approved design changes. The estimated financial impact presented in the table does not include overhead estimates arising from schedule extensions and other tangential costs arising from such changes. The September 2017 SNCNS Project

⁵⁴ See Appendix 2-c: Email from Koutsomitis Architects regarding Addendums.

⁵⁵ See Appendix 1-v: Skanska Draft Cost Summary.

⁵⁶ See Appendix 1-c: The St. Nicholas National Shrine Project Briefing September 26, 2017 (updated 10/4/17), p. 5. The Curtain wall and rain screen estimated financial arises from the Skanska documents referenced earlier in this report.



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Briefing indicated more than \$4.0 million in estimated overhead for a 24 month schedule extension.

PwC did not perform an item-by-item reconciliation of the initial \$20.6 hard cost budget with the \$58.4 million Skanska September 2017 cost estimate. Further, we understand that the GOA value engineered the SNCNS design from October 2017 to fall 2018. As discussed above, the estimate to complete SNCNS construction excludes the North Stair stone cladding (approximately \$1.8 million) and excludes the interior ornamental stone trim (\$1.3 million). Ultimately, the GOA reduced the estimated cost to complete the SNCNS construction from \$58.4 million at September 2017 to the current \$38.0 million estimated cost to complete the SNCNS construction.

Interviews and records reveal numerous examples of design changes giving rise to the increased SNCNS construction costs. Further, the GOA took measures to value engineer the SNCNS design, which served to reduce costs. His Eminence confirmed that he approved significant design changes.

VII. Potential Undisclosed Relationships

Following is a list of the top ten SNCNS vendors, based on payments from inception to December 31, 2017 (amounts in millions):

Skanska USA	\$ 14.4
MG McGrath	2.8
Festina Lente (Mr. Calatrava's firm)	2.8
Koutsomitis Architects PC (Mr. Koutsomitis' firm)	2.0
Thornton Tomasetti	1.4
Turner Construction	1.2
RKK & G Museum & Cultural (Mr. Koutsomitis' firm) ⁵⁷	1.1
Dentons	0.8
Simpson Thatcher	0.8
Lighthouse Advisors (Mr. Karamitsanis' firm)	0.7
Total	\$ 28.0

⁵⁷ Mr. Koutsomitis' explained and the respective invoices support that the work performed by Koutsomitis Architects PC (the SNCNS Architect of Record) and RKK&G Museum & Cultural (litigation support) differed.



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PwC conducted procedures to identify relationships between His Eminence and Mr. Dimitriou that could have impacted vendor selection and generated potential benefits for His Eminence and Mr. Dimitriou (“Undisclosed Relationships”).

His Eminence and Jerry Dimitriou principally oversaw SNCNS on behalf of the GOA. Our media search, interviews and other procedures identified no Undisclosed Relationships between His Eminence or Jerry Dimitriou and the vendors listed above. The interviews conducted and the documents analyzed did not surface allegations of kickbacks or improper payments to GOA employees or representatives (e.g., officers, committee members, volunteers).

Other relationships

Mr. Gorton served as an independent neutral consultant in the GOA litigation with the PANYNJ. Because of his credibility with the GOA, PANYNJ and the New York State Governor’s office, the GOA selected Gorton as the initial owner’s representative.

According to the June 11, 2014 Dimitriou E-Mail, Mr. Calatrava and Pete Karamitsanis (Lighthouse Advisors) previously worked together. According to their interviews and publicly available information, Mr. Calatrava and Mr. Karamitsanis both worked on the Florida Polytechnic University Innovation, Science and Technology (IST) Building. According to the Skanska website, Skanska built the Calatrava designed IST building.⁵⁸ According to the MG McGrath website, MG McGrath also worked on the IST Building. The documents do not indicate why the GOA selected Skanska or MG McGrath for the SNCNS construction project.

The June 11, 2014 Dimitriou E-Mail indicates that Steven Plate, Deputy Chief of Capital Planning / Director, WTC Construction Department, recommended Mr. David E. Puza (Merritt)⁵⁹ to the GOA. Mr. Puza succeeded Mr. Gorton as an owner’s representative.

* * *

⁵⁹ From inception to December 31, 2017, the GOA paid Merritt approximately \$300,000 for its work on SNCNS.




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VIII. End Notes

Our Services were performed and this Deliverable was prepared for the sole use and benefit of, and pursuant to a client relationship exclusively with, The Special Investigative Committee in connection with the Rebuilding of St. Nicholas Church and National Shrine (“Client”). PwC is providing no opinion, attestation or other form of assurance and disclaims any contractual or other responsibility to others based on their access to or use of the Deliverable. Accordingly, the information in this Deliverable may not be relied upon by anyone other than the Client.

Respectfully submitted,

PricewaterhouseCoopers Advisory Services LLC

By: 
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