FBA, Inc.
1675 Sabre Street
Hayward, CA 94545
Tel: (510) 265-1888

March 17, 2023

Mr. Brian Scott
SCS Development Company
404 Saratoga Avenue, Suite 100
Santa Clara, CA 95050

Re: **Structural Observation Summary**
1957 Pruneridge Avenue – Church Structure
Santa Clara, CA

Dear Mr. Scott:

The following paragraphs summarize the scope and resulting comments of our structural observation of the church structure located at 1957 Pruneridge Avenue in Santa Clara, California on 3/2/23.

Structural Observation Intent
Our observation efforts are restricted to the primary concrete structural elements of the single story church building. Our intent was to observe the areas of concern described by the property owner and assess the extent and types of issues present.

Responsibilities
Our observation was undertaken only to assist in defining the types of issues present and assist our client in defining possible solutions. FBA has not performed any analysis or confirmation of the adequacy of the original design.

Documents Available
Vesting Tentative Map – CBG Civil Engineers Dated August 2022 (1 page)
Application for Building Permit – City of Santa Clara Dated 1964

Description of Structure
The structure consists of a single-story at grade church structure including a wood framed roof supported by 8 equally spaced precast concrete arch frames in the transverse direction. The interior space is approximately 65’ x 100’ with a covered entry on the West side. The precast arches are spaced approximately 16’-0” on center and are 14” thick. The perimeter walls are a combination of stained glass and wood framing with partial height battered concrete walls on the long sides of the building. The precast arches appear to serve as the lateral system in the transverse direction and there are two concrete walls in the long direction that are approximately 16’ long and of unknown thickness that appear to serve as the lateral system in the long direction. The foundation system is unknown.

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Description of Observed Conditions

1. Pitting and cracking of exposed precast concrete arches was observed at the noted locations at the West side of the building and periodically elsewhere.
   - See Photo 7 in ***Attachment B***.
2. Cracking at the partial height battered retaining wall was observed periodically along the North and South sides of the building.
   - See Photo 8 in ***Attachment B***.
3. Web pattern cracking of exposed precast concrete arches was observed at the noted locations at the East side of the building and periodically elsewhere.
   - See Photos 9 & 10 in ***Attachment B***.
4. Cracking across exposed precast concrete arches was observed at the noted locations at the East side of the building and periodically elsewhere.
   - See Photos 11 & 12 in ***Attachment B***.
5. Pitting and cracking of interior precast concrete arches was observed at the noted locations and periodically elsewhere.
   - See Photo 14 in ***Attachment B***.

The locations for all photos included in ***Attachment B*** are indicated in the reference plan in ***Attachment A***. Any photos included in ***Attachment B*** that aren't referenced above are views provided for general reference only.

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Conclusions

In general, with the exception of the items listed above, the observed structural elements appear to be in serviceable condition. The extent of observed issues is expected for structures of this age due to potential causes such as seismic events, site settlement, or long-term exterior exposure to the elements. The observed conditions can be repaired cosmetically, but to upgrade the structure to a performance level similar to that of new construction would require a significant investment in a seismic retrofit. The condition of other non-structural building components such as mechanical, electrical, plumbing, and exterior finishes are outside of the scope of this letter, but may require similar assessment. If there are pressing reasons to extend the service life of this structure, we would recommend the structural improvements noted above, but otherwise it is our professional opinion that demolition would be appropriate.

As mentioned above, the intent of our observation was to help define the type and extent of the issues observed and provide resolution alternatives to the property owner. If we can be of any further service or if there are any questions related to the contents of this letter, please do not hesitate to call or email.

Limitations:

The independent review, provided by this office, is limited to the following items:

1) Visual observation:
3/2/23

2) Documents reviewed:
Vesting Tentative Map – CBG Civil Engineers Dated August 2022 (1 page)
Application for Building Permit – City of Santa Clara Dated 1964

The evaluation and conclusion provided in this letter are based on documents supplied, the best information currently available, and our experience on concrete projects with similar conditions. If additional data becomes available or is generated, indicating conditions different than those observed and described by this report, our firm should be notified so that any necessary modifications may be made to our conclusion.

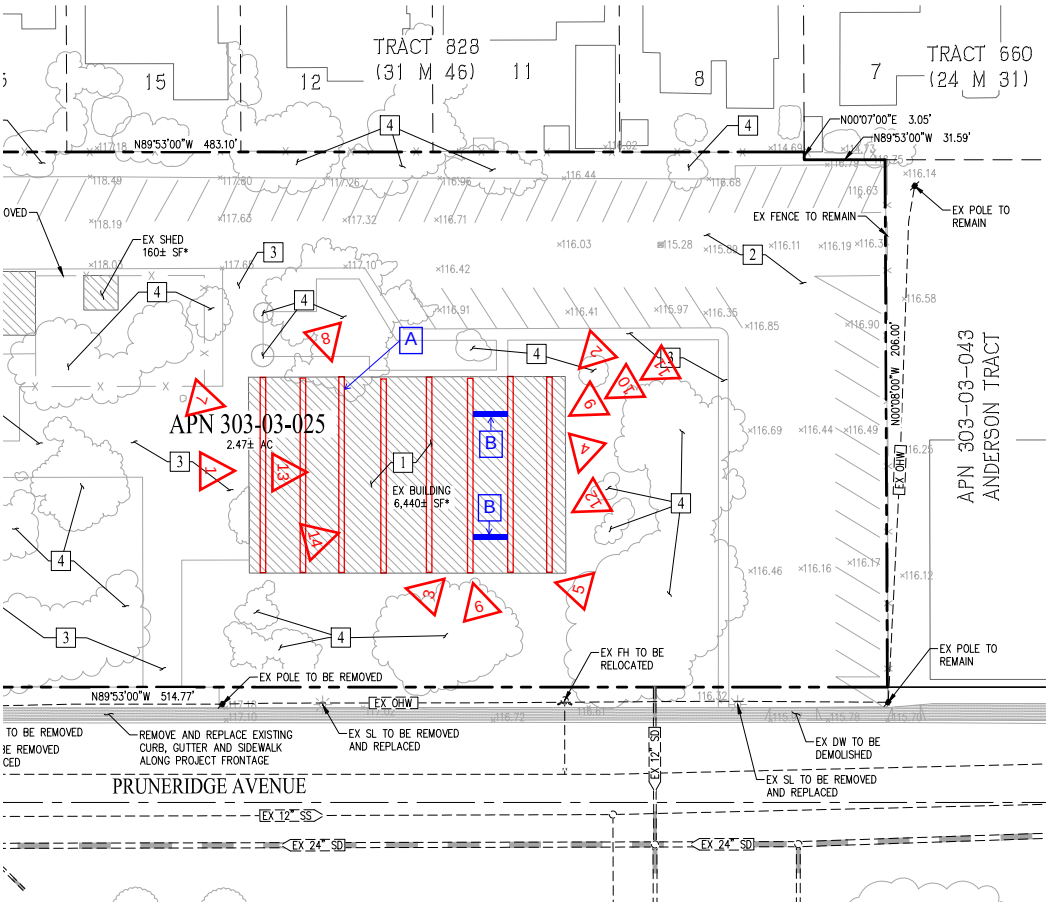
Sincerely,

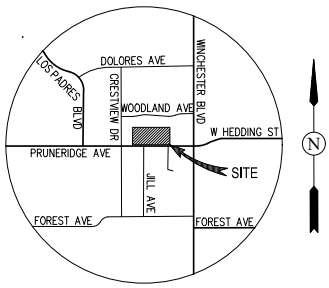
FBA, Inc.
Structural Engineers

Adam O'Dea, S.E.

Attachment A

Reference Plan
(not to scale)





VICINITY MAP
(NOT TO SCALE)

SHEET INDEX	
Sheet Number	Sheet Title
TM1	EXISTING CONDITIONS
TM2	SITE PLAN
TM3	GRADING PLAN
TM4	UTILITY PLAN
TM5	STORMWATER CONTROL PLAN
TM6	FIRE ACCESS PLAN

ABBREVIATIONS

DW	DRIVEWAY
EX	EXISTING
FC	FACE OF CURB
JT	JOINT TRENCH
OHW	OVERHEAD WIRE
PL	PROPERTY LINE
PUE	PUBLIC UTILITY EASEMENT
RW	RIGHT-OF-WAY
SD	STORM DRAIN
SL	STREETLIGHT
SS	SANITARY SEWER
SW	SIDEWALK
TYP	TYPICAL
W	WATER

LEGEND:

Indicates photo # and orientation

A 14" thick precast arches (8 total)

B Potential shear walls of unknown thickness

Attachment B
Site Photos

Photo 1: West side main entrance

Photo 2: Exterior view from Southeast corner

Photo 3: Battered partial height concrete wall along South face (North same)

Photo 4: Typical wood roof framing

Photo 5: South face view

Photo 6: Typical precast arch exterior extension

Photo 7: Localized pitting and cracking of exterior arch at West side

Photo 8: Periodic cracking at partial height battered concrete walls

Photo 9: Webbed cracking at South side exposed precast arch

Photo 10: Webbed cracking at South side exposed precast arch

Photo 11: Cracking across exposed precast arch at South side

Photo 12: Cracking across exposed precast arch at South side

Photo 13: Interior view of roof framing and precast arches

Photo14: Cracking and pitting at interior precast arch