St. John's Church/Southbrook Drive Mixed Use Planned Development Project Initial Study/Mitigated Negative Declaration

ENV-01-15

CITY OF CLAYTON

Founded 1857 .. Incorporated 1964

City of Clayton
Community Development Department
6000 Heritage Trail
Clayton, California 94517
(925) 673-7340

September 2016

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INTRODUCTION

The City of Clayton, in concert with its environmental consultant for the project, prepared this Initial Study/Mitigated Negative Declaration (IS/MND) to evaluate the potential environmental impacts of the St. John's Church/Southbrook Drive Mixed Use Planned Development Project (proposed project). The proposed project site is located on 2.77 acres of land within the City of Clayton at 5555 Clayton Road. The parcel is identified as Assessor's Parcel Number (APN) 118-101-022. In addition to this IS/MND, consideration of the following discretionary actions by the City is required for the proposed project:

- General Plan Amendment (GPA-01-15);
- Re-zone (ZOA-03-15);
- Approval of a Tentative Parcel Map (MAP-01-15);
- Approval of a Development Plan (DP-01-15);
- Approval of a Site Plan Review Permit (SPR-07-16); and
- Approval of a Tree Removal Permit (TRP-37-15).

This IS/MND identifies potentially significant environmental impacts for the following environmental areas:

- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Hydrology and Water Quality; and
- Noise.

The environmental analysis determined that measures are available to mitigate potential adverse impacts to insignificant levels. As a result, this document serves as an MND, pursuant to Public Resources Code Sections 21064.5 and 21080(c) and Article 6 of the California Environmental Quality Act (CEQA) Guidelines.

In accordance with the requirements of CEQA Guidelines Section 15071, this IS/MND describes the proposed project, identifies, analyzes, and evaluates the potential significant environmental impacts that may result from the proposed project, and identifies measures to mitigate adverse environmental impacts. With the mitigation measures identified in this document, the project would not have a significant impact on the environment.

I. PROJECT / APPLICANT INFORMATION

1.	Project Title:	St. John's Church/Southbrook Drive Mixed Use Planned Development Project
2.	Lead Agency Name and Address:	City of Clayton Community Development Department 6000 Heritage Trail Clayton, CA 94517
3.	Contact Person and Phone Number:	Milan J. Sikela, Jr. Assistant Planner City of Clayton (925) 673-7340
4.	Project Location:	5555 Clayton Road Clayton, CA 94517
5.	Assessor Parcel Numbers:	APN 118-101-022
6.	Project Sponsor/Applicant:	Armand Butticci 2306 West St. Oakland, CA 94612
7.	Existing General Plan Designation:	Institutional Density (ID)
8.	Proposed General Plan Designation:	Institutional Density (ID), 2.36 acres Single-Family Medium Density Residential (MD), 0.41 acres
9.	Existing Zoning Designation:	Agricultural (A)
10.	Proposed Zoning Designation:	Planned Development (PD)

11. Project Description Summary:

The St. John's Church/Southbrook Drive Mixed Use Planned Development Project involves the subdivision of an approximately three-acre parcel of land, and the construction of two, two-story single-family homes. Currently, the parcel contains Saint John's Episcopal Parish (St. John's Church), three other buildings associated with church activities, 82 parking spaces, and vacant land. The proposed project would subdivide the existing parcel into three parcels. The largest parcel would consist of the existing structures and parking areas associated with St. John's Church; all existing structures and uses on the church parcel would remain unchanged by the proposed project's activities. The remaining two parcels would be used for the construction of single-family homes, with one two-story residential unit on each lot. Surrounding land uses include single-family residential units to the west, north, and east, and Eternal Life Lutheran Church and St. Bonaventure Catholic Church across Clayton Road in Concord to the south.

II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

☐	**Aesthetics**	☐	**Agriculture and Forestry Resources**	☐	**Air Quality**
✖	**Biological Resources**	✖	**Cultural Resources**	✖	**Geology and Soils**
☐	**Greenhouse Gas Emissions**	☐	**Hazards and Hazardous Materials**	✖	**Hydrology and Water Quality**
☐	**Land Use and Planning**	☐	**Mineral Resources**	✖	**Noise**
☐	**Population and Housing**	☐	**Public Services**	☐	**Transportation and Circulation**
☐	**Utilities and Service Systems**	☐	**Mandatory Findings of Significance**	☐	**Recreation**

III. DETERMINATION

On the basis of this initial evaluation:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

X I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case since the Project proponent has made revisions in the Project and has agreed to the mitigation measures listed in "Section V. List of Mitigation Measures". I further find that the mitigation measures and the information in this study constitute a MITIGATED NEGATIVE DECLARATION in accordance with Section 15071 of the State CEQA Guidelines.

☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature Date

Milan J. Sikela, Jr.
Assistant Planner

IV. BACKGROUND

This IS/MND provides an environmental analysis pursuant to CEQA for the proposed project. The applicant has submitted the respective project applications to the City of Clayton. This IS/MND relies on site-specific studies prepared for the project, as well as the City of Clayton General Plan in the determination of impacts.

V. PROJECT DESCRIPTION

Project Location and Setting

The proposed project site is in the City of Clayton, located between Southbrook Drive to the north, Clayton Road to the south, Tara Drive to the northwest, and North El Camino Drive to the southeast (see Figure 1 and Figure 2). Currently, the site contains St. John's Church, three other buildings associated with church activities, and 82 parking spaces. Vacant land exists on the site both to the north and southeast of the church building. The vacant land to the north of St. John's Church is the only portion of the project site that would be altered as part of the proposed project. The northern portion of the project site is undeveloped with an approximately ten-foot slope downgrading from St. John's Church towards Southbrook Drive. Currently, a dilapidated wooden retaining wall exists adjacent to the sidewalk along Southbrook Drive, and the portion of the project site between the retaining wall and St. John's Church is characterized by several trees, shrubs, and ruderal vegetation.

Surrounding Land Uses

Surrounding land uses include residential developments in Clayton to the north, east, and west, as well as the Eternal Life Lutheran Church and the St. Bonaventure Catholic Church in Concord to the south. The portion of Clayton Road bordering the proposed project site serves as the boundary between the City of Clayton and the City of Concord. Because the site is north of the planning boundary, the site is within the jurisdiction of the City of Clayton. Although jurisdiction over the surrounding area is split between the two cities, the land uses remain predominantly single-family residential in both cities.

General Plan Designations:

North: Single-Family Low Density Residential,
Rural Estate
South: Low Density Residential (LDR, City of Concord),
Community Office (CO, City of Concord)
East: Single-Family Low Density Residential
West: Single-Family Low Density Residential

Figure 1
Regional Location Map

Figure 2
Project Location Map

Zoning Designations:

North: Single-Family Residential (R-40-H, R-12)
South: Planned District (City of Concord),
Community Office (CO, City of Concord)
East: Single-Family Residential (R-12)
West: Single-Family Residential (R-12)

Project Components

The proposed project consists of the following components.

General Plan Amendment (GPA-01-15)

The entire 2.77-acre site is currently designated by the City of Clayton General Plan Land Use Element as Institutional Density (ID), which is intended for development of senior housing projects with densities ranging from 7.6 to 20 units per acre. Single-family dwellings are not consistent with the ID designation. Therefore, the proposed project includes a General Plan Amendment to change approximately 0.41-acre of the site from ID to Single-Family Medium Density (MD) to allow for construction of two single-family units.

Rezone (ZOA-03-15)

The project site is currently zoned Agriculture (A), which allows all types of agricultural land uses, as well as the construction of residences for the owner or lessee. The proposed project includes a request to rezone the entire site from Agriculture (A) to Planned Development (PD) in order to encompass the mix of the proposed residential uses and the incorporation of the existing church.

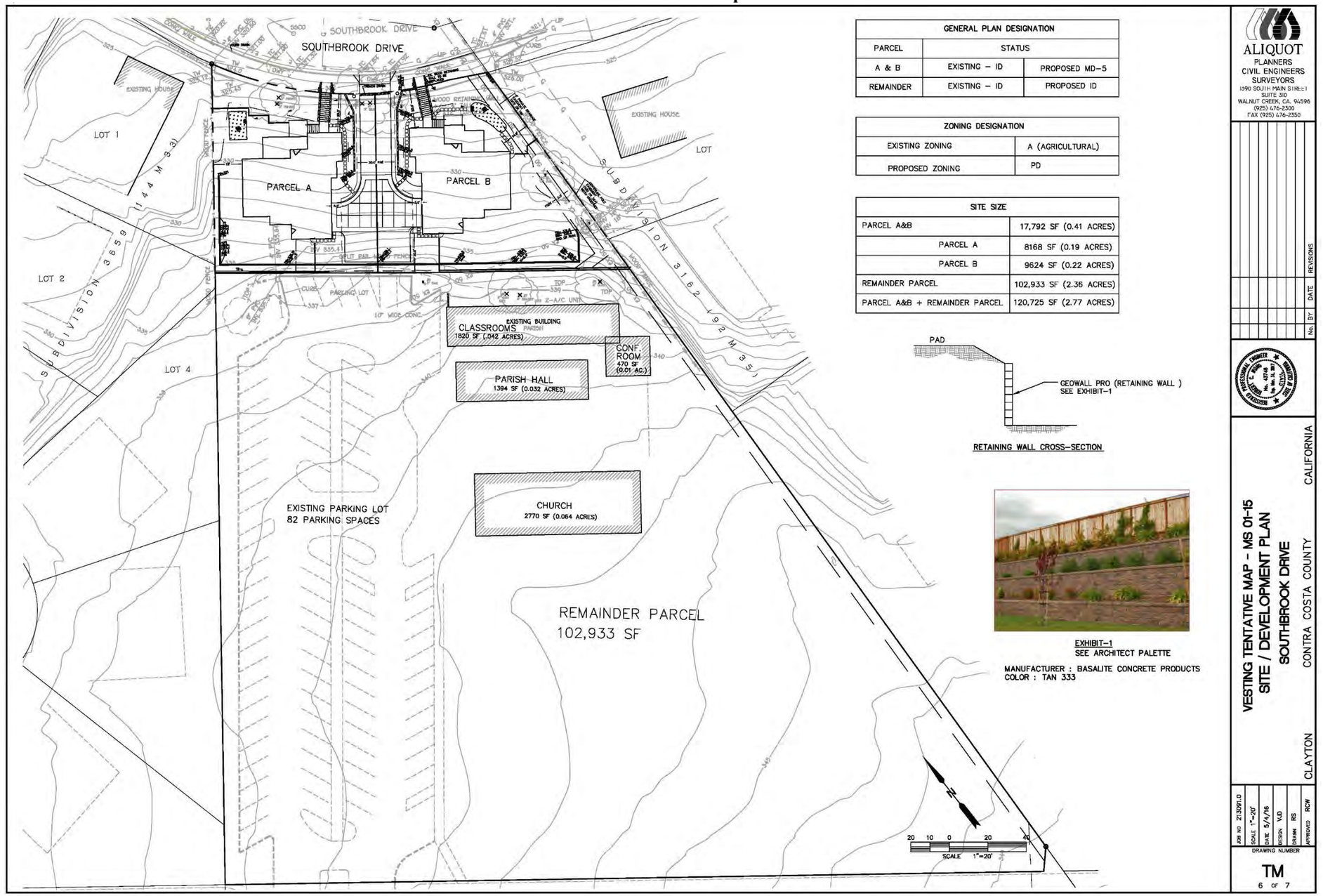
Tentative Parcel Map (MAP-01-15)

The applicant has submitted a Tentative Parcel Map (TPM) application to the City to subdivide the 2.77-acre property into three parcels (see Figure 3 for the TPM). The existing church buildings and ancillary uses would remain on the largest parcel (2.36 acres), while two smaller parcels (8,168 and 9,624 square feet) would be used for the development of one new single-family residence each.

Development Plan (DP-01-15)

Due to the proposed PD zoning, the proposed project requires the approval of a Development Plan. Section 17.44 of the Clayton Zoning Code sets forth the requirements for a Development Plan, including but not limited to site access, fencing and walls.

Figure 3
Tentative Parcel Map



GENERAL PLAN DESIGNATION		
PARCEL	STATUS	
A & B	EXISTING – ID	PROPOSED MD-5
REMAINDER	EXISTING – ID	PROPOSED ID

ZONING DESIGNATION	
EXISTING ZONING	A (AGRICULTURAL)
PROPOSED ZONING	PD

SITE SIZE	
PARCEL A&B	17,792 SF (0.41 ACRES)
PARCEL A	8168 SF (0.19 ACRES)
PARCEL B	9624 SF (0.22 ACRES)
REMAINDER PARCEL	102,933 SF (2.36 ACRES)
PARCEL A&B + REMAINDER PARCEL	120,725 SF (2.77 ACRES)

ALIQUOT
PLANNERS
CIVIL ENGINEERS
SURVEYORS
1390 SOUTH MAIN STREET
SUITE 310
WALNUT CREEK, CA. 94596
(925) 476-2300
FAX (925) 476-2350

NO. | BY | DATE | REVISIONS

VESTING TENTATIVE MAP – MS 01-15
SITE / DEVELOPMENT PLAN
SOUTHBROOK DRIVE
CLAYTON CONTRA COSTA COUNTY CALIFORNIA

JOB NO 2139910
SCALE 1"=20'
DATE 5/4/16
EDISON VLD
DRAWN RS
APPROVED RCW

DRAWING NUMBER
TM
6 OF 7

Access

The project site is currently used by St. John's Church; access to the church is provided from an existing driveway at Clayton Road. The proposed project does not include any changes to the internal circulation of the St. John's Church parking lot, nor would the project provide additional access between Clayton Road and Southbrook Drive. The two single-family residences proposed for the project would be accessed by way of a new shared driveway from Southbrook Drive.

Fencing/Walls

The proposed project includes construction of multiple retaining walls. The largest retaining wall would separate the St John's Church parking lot, at 337 feet above sea level, from the proposed backyards, which would be at 330 feet above sea level. The seven-foot grade would be retained along the property line separating the parcel containing St. John's Church from the parcels containing proposed residential units. Additional retaining walls would be placed on either side of the proposed shared driveway, as well as on either side of the entry stairway leading from each residence to the sidewalk along Southbrook Drive (see Figure 4 for cross-section). An existing retaining wall adjacent to the sidewalk along Southbrook Drive would be removed and replaced with a fill slope as part of the proposed project. Soil displacement between the removal of existing retaining walls and the construction of new retaining walls is expected to be essentially balanced and, as a result, the proposed project is not expected to require soil import or export.

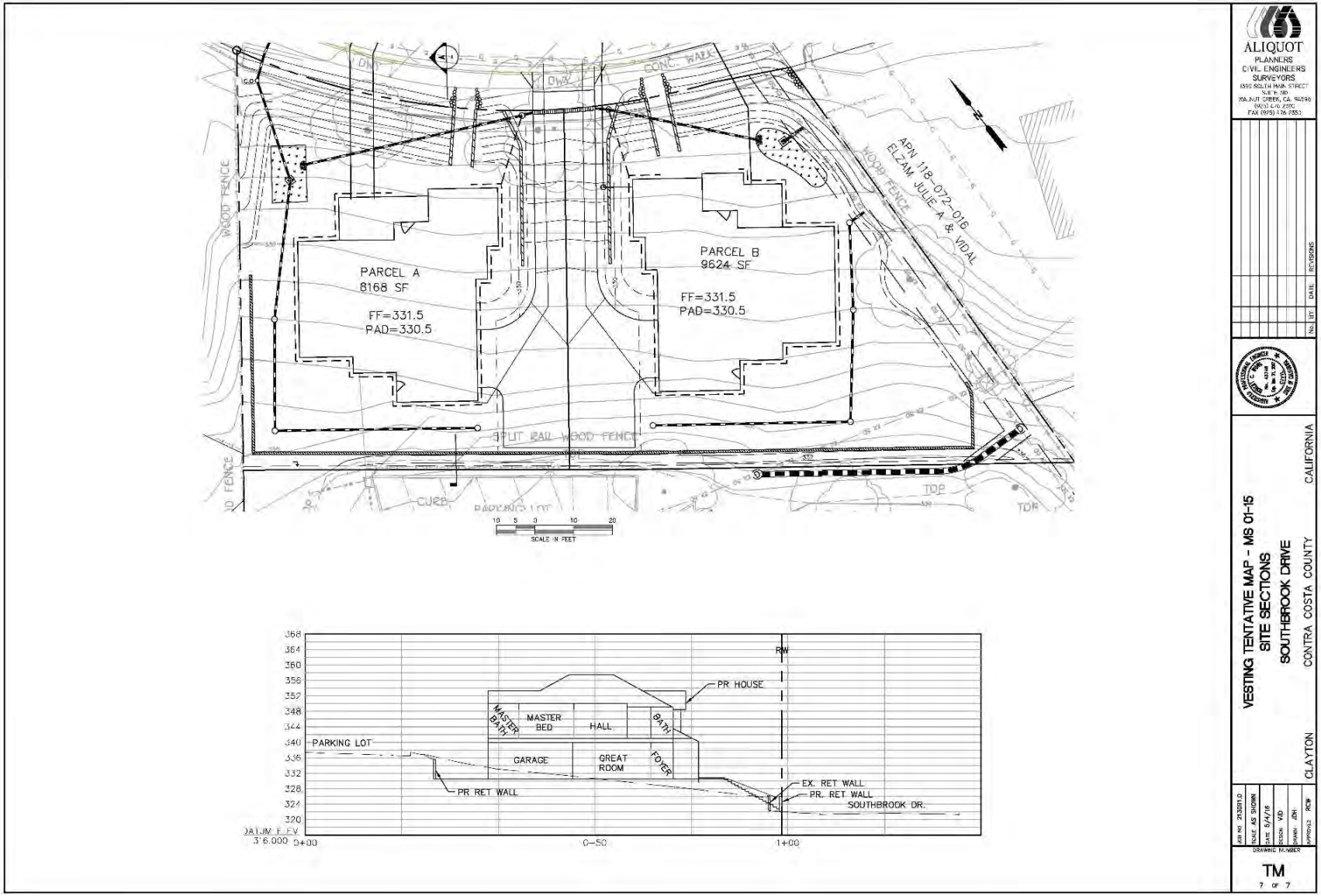
Water, Sewer, and Stormwater Infrastructure

Water, sewer, and stormwater infrastructure for the portion of the project site currently developed as St. John's Church would remain unchanged with the implementation of the proposed project. The proposed project would only alter the undeveloped northern portion of the project site with the construction of two new single-family residences.

Water service is currently provided to the project site by the Contra Costa Water District; and the project would include connection of the proposed residential units to existing water lines located on Southbrook Drive. Sewer service is currently provided to the project site by the City of Concord; and the project would include the connection of the proposed residential units to existing infrastructure on Southbrook Drive by way of a new eight-inch sewer line.

For storm drainage, the project design includes measures to capture runoff created by proposed impervious surfaces. Stormwater from the proposed impervious surfaces would be collected and directed, by way of sump pumps, to bioretention areas on each of the proposed residential lots. During storm events, if the bioretention areas become fully saturated, excess water would be directed through the bioretention areas and into existing City stormwater infrastructure along the eastern edge of the property line and on Southbrook Drive.

Figure 4
Site Plan and Elevations



Site Plan Review Permit (SPR-07-16)

Section 17.28.050 of the City of Clayton Municipal Code requires that proposed projects within areas zoned Planned Development (PD), which involve less than four residential lots and less than four dwelling units, obtain the approval of a Site Plan Review Permit by the City for review of proposed architecture and landscaping.

Architectural Design

The structures included in the proposed project would be detached, two-story single-family residences. Each residence would include four bedrooms and three bathrooms along with a great room, kitchen, and dining room. While the front entrance to each residence faces Southbrook Drive, the shared driveway would allow for access to each of the two-car garages located on the side of each building. The proposed residences include articulated designs, which would help break up the building massing as seen from Southbrook Drive. The maximum height of both buildings would be 26 feet and nine inches.

Tree Removal Permit (TRP-37-15)

The proposed project requires the approval of a Tree Removal Permit by the City for the removal of on-site trees within the proposed development site. In compliance with the City of Clayton Municipal Code, Chapter 15.70, an arborist report was prepared to identify trees within the proposed residential parcels (i.e., northern portion of the project site). According to the report, ten trees are located within the residential portion of the project, seven of which would be removed as part of the proposed project. One of the trees slated for removal is protected under the City of Clayton's Municipal Code, Chapter 15.70, and would require a permit prior to removal. The Tentative Subdivision Map, presented in Figure 3, depicts the trees to be removed and protected.

Project Entitlements

The proposed project requires consideration for approval of the following discretionary actions by the City:

- IS/MND and Mitigation Monitoring and Reporting Program (MMRP)
- General Plan Amendment to change the land use designation from ID to MD for the two residential lots;
- Rezone of the entire project site from A to PD;
- Tentative Parcel Map for the subdivision of the site into three (3) lots;
- Approval of a Development Plan;
- Site Plan Review Permit; and
- Tree Removal Permit.

VI. LIST OF MITIGATION MEASURES

Biological Resources

Mitigation Measure 1. *Removal of trees shall occur between September 1st and January 31st, outside the bird nesting season, to the extent feasible. If tree removal must occur during the avian breeding season (February 1st to August 31st), a qualified biologist shall conduct a survey for nesting birds of all trees and shrubs within 75 feet of the entire project site 14 days prior to the commencement of construction, and submit the findings of the survey to the Community Development Department. If nesting passerines are identified during the survey within 75 feet of the project site, a 75-foot buffer around the nest tree shall be fenced with orange construction fencing. If the nest tree is located off the project site, then the buffer shall be demarcated as per above. The size of the buffer may be altered if a qualified biologist conducts behavioral observations and determines the nesting passerines are well acclimated to disturbance. If acclimation has occurred, the biologist shall prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting passerines. Construction or earth-moving activity shall not occur within the established buffer until a qualified biologist has determined that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones, which typically occurs by July 15th. However, the date may be earlier or later, and would have to be determined by a qualified biologist. If a qualified biologist is not hired to watch the nesting passerines, then the buffers shall be maintained in place through the month of August and work within the buffer may commence September 1st.*

Mitigation Measure 2. *Prior to issuance of a grading permit, in accordance with the City's Tree Protection Ordinance, the applicant shall submit to the Community Development Department a Tree Replacement Plan identifying the protected tree that would be removed during project construction. Based upon the current tentative parcel map, the arborist report indicates that one protected tree is proposed for removal, and is rated by the Arborist Report as being of moderate health (Tree #6). Protected trees rated as being in fair or good health shall be replaced at the ratios specified in City of Clayton Municipal Code Section 15.70.040. The Tree Replacement Plan shall be submitted for review and approval by the Community Development Director prior to issuance of a grading permit.*

Mitigation Measure 3. *The following construction policies and guidelines for tree preservation and protection for the existing trees put forth by the City of Clayton shall be followed during project implementation:*

- *The applicant shall submit for the review and approval of the Community Development Director a tree protection plan to identify the location of the tree trunk and dripline of all protected oaks subject to City of Clayton Municipal Code Section 15.70.020.*
- *A protective fence shall be installed around all oaks subject to the tree protection plan. The protective fence shall be installed prior to commencement of any construction activity and shall remain in place for the duration of construction.*
- *Grading, excavation, deposition of fill, erosion, compaction, and other construction-related activities shall not be permitted within the dripline or at locations which may damage the root system of trees subject to the tree protection plan, unless such activities*

are specifically allowed by the tree protection plan. Tree wells may be used if specifically allowed by the tree protection plan.

- *Oil, gas, chemicals, vehicles, construction equipment, machinery, and other construction materials shall not be allowed within the dripline of trees subject to the tree protection plan.*

Cultural Resources

Mitigation Measure 4. *Prior to the issuance of a grading permit, the grading plan shall include a requirement (via notation) indicating that if cultural resources, or human remains are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the area of discovery and the contractor shall immediately notify the City of the discovery. In such case, the City, at the expense of the project applicant, shall retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the City for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the vicinity of the discovery, as identified by the qualified archaeologist, shall not be allowed until the preceding steps have been taken.*

Mitigation Measure 5. *Pursuant to State Health and Safety Code §7050.5(c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. Additional work is not to take place in the immediate vicinity of the find, which shall be identified by the qualified archaeologist at the applicant's expense, until the preceding actions have been implemented.*

Geology & Soils

Mitigation Measure 6. *Prior to the issuance of a grading permit, the project applicant shall prepare to the satisfaction of the City Engineer, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to:*

- *Hydro-seeding;*
- *Placement of erosion control measures within drainage ways and ahead of drop inlets;*
- *The temporary lining (during construction activities) of drop inlets with "filter fabric";*
- *The placement of straw wattles along slope contours;*
- *Use of a designated equipment and vehicle "wash-out" location;*
- *Use of siltation fences;*
- *Use of on-site rock/gravel road at construction access points; and*
- *Use of sediment basins and dust palliatives.*

Mitigation Measure 7. *During construction, the project contractor, at the expense of the project applicant, shall completely remove and re-compact the existing non-engineered fill on-site under the supervision of a registered geotechnical engineer, according to the recommendations presented in the Geotechnical Investigation. The contractor shall remove the upper undocumented fill soil from the area extending at least five feet beyond the edge of the planned building envelopes and also below the planned rear retaining wall. Once removed, subsequent engineered fill may be used as approved by a licensed geotechnical engineer. A written summary of the operations shall be submitted to the City Engineer.*

Hydrology and Water Quality

Mitigation Measure 8. *The applicant shall submit a Final Stormwater Control Plan (including an Operations and Maintenance Manual) fully addressing the requirements of the City's recently amended Municipal Regional Stormwater NPDES Permit (Permit No. CAS612008, as amended November 19, 2015), and including an alternative to the use of sump pumps, such as dry wells, to the satisfaction of the City Engineer.*

Noise

Mitigation Measure 9. *During grading and construction, the project contractor shall ensure that the following measures are implemented, consistent with the recommendations in the Environmental Noise and Vibration Analysis:*

- *Grading and construction activities shall be limited to the daytime hours between 7:00 AM to 5:00 PM Monday through Friday, as specified in Section 15.01.101 of the Clayton Municipal Code. Any such work beyond said hours and days is strictly prohibited unless previously specifically authorized in writing by the City Engineer or designee or by project conditions of approval;*
- *The distances between on-site construction and demolition staging areas and the nearest surrounding residences shall be maximized to the extent possible; and*
- *All construction and demolition equipment that utilizes internal combustion engines shall be fitted with manufacturer's mufflers or equivalent.*

VII. EVALUATION OF ENVIRONMENTAL IMPACTS

1. AESTHETICS.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Have a substantial adverse effect on a scenic vista?	□	□	X	□
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	□	□	□	X
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?	□	□	X	□
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	□	□	X	□

a. Would the project have a substantial adverse effect on a scenic vista? ..... Less-Than-Significant Impact

Discussion (a.)

The City of Clayton is located at the base of the north slope of Mount Diablo. The City of Clayton General Plan identifies the protection of scenic resources as a core concern for future development and planning. Impacts to the views of open spaces or vistas would diminish the rural character of the City, and should be avoided. However, the City's General Plan does not contain any policies that specifically address scenic vistas, nor does the General Plan define or identify any specific scenic vistas. Examples of typical scenic vistas would include views of Mount Diablo or the surrounding foothills, ridgelines, or valleys. The proposed project would impact such a scenic vista if the project substantially blocked or altered an available view.

The proposed project site is not located on a ridgeline, hillside or in an open space where project construction would block or alter the view of a scenic vista. The single-family residences proposed as part of the project would be two-stories tall, and would therefore extend further into the skyline than the surrounding single-story residences. However, the project is not located on a ridgeline, hillside, or in an open space, and the minor extension into the skyline would not create a significant disruption to any known scenic vistas. Additionally, prominent views of Mount Diablo or open spaces do not currently exist from the project site, and construction of the single-family residences would not adversely affect any existing vistas. Consequently, the proposed project would not alter, block, or have a significant adverse effect on an identified scenic vista resulting in a ***less-than-significant*** impact.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? ..... No Impact

Discussion (b.)

According to the California Scenic Highway Mapping System, two highways in Contra Costa County are officially-designated State scenic highway corridors: Interstate 680 (I-680), from the Alameda County line to the junction with State Route (SR) 24; and SR 24 from the east portal of the Caldecott tunnel to I-680 near Walnut Creek.[1] Neither of the aforementioned corridors provides views of Clayton or the project site. Accordingly, the proposed project is not expected to substantially damage scenic resources, including but not limited to, trees, rock outcroppings, or historic buildings within a State scenic highway. Therefore, the project would result in ***no impact***.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings? ..... Less-Than-Significant Impact

Discussion (c.)

The project site is predominantly occupied by structures and parking associated with St. John's Church. The southern perimeter of the project site is heavily landscaped, and the remainder of the site is characterized by three structures totaling 6,454 square feet (sf), as well as 82 parking spaces and ruderal vegetation where landscaping is absent. The project includes development of 0.41-acre of vacant land on the northern portion of the project site with two, two-story single-family residences.

The City of Clayton General Plan designates scenic routes within the City that provide views of Mt. Diablo, the foothills surrounding Mt. Diablo, or the surrounding vegetation. The portion of Clayton Road from Kirker Pass Road to Marsh Creek Road is designated as a scenic route by the City of Clayton, and a portion of that scenic route constitutes the southern border of the project site. Currently, views from Clayton Road looking north, towards the proposed location of the single-family residences, are largely obstructed by site landscaping and structures. The portions of the site that are visible from Clayton Road are mainly comprised of paved parking areas, and structures associated with St. John's Church. The site topography and landscaping obscure the northern portion of the project site where the single-family residences are proposed. The proposed project would not physically alter the portion of the site occupied by St. John's Church or the parking area, and therefore would not substantially degrade the visual character or quality of the site visible from the City designated scenic route.

With respect to the northern, residential portion of the project site, a visual simulation of the proposed project was prepared by VizF/x. Figure 5 shows the existing view of the proposed residential lots, looking southeast from Southbrook Drive. Figure 6 shows the proposed project view from this same vantage point. As seen in Figure 5, the project site contains scattered trees as well as annual, ruderal grasses. A wood retaining wall is located adjacent to the sidewalk along Southbrook Drive, and the project site slopes upward to the parking area associated with St. John's Church. The construction of the

[1] California Department of Transportation. *California Scenic Highway Mapping System*. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed June 2016.

proposed single-family residences would involve the removal of existing vegetation and subsequent grading of the project site. The two proposed residences would be two-story, whereas most of the surrounding residences are one-story units. However, as discussed in question 'a' of this section, the proposed project's increased height would not block any existing views of nearby ridgelines, open spaces, or hillsides. Additionally, two-story residences would not be considered to significantly conflict with the surrounding single-story residences, as the building height would not be significantly different from the surrounding residential character of the area, and the highly articulated architecture would help to reduce the building mass as seen from Southbrook Drive. Although the project would change the visual character of the site, the quality of the proposed residences and the general consistency of the project with surrounding developments would avoid any significant degradation to the visual character of the site. It should be noted that the adjacent homes to the east along Southbrook Drive are zoned R-12, which allows for a maximum building height of 35 feet. The maximum height of the proposed buildings is 26 feet and nine inches, well below the 35-foot maximum.

Therefore, because the proposed project would not substantially degrade the visual character or quality of the project site, the proposed project would result in a ***less-than-significant*** impact.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? ..... Less-Than-Significant Impact

Discussion (d.)

The project site currently contains St. John's Church, associated parking areas, and vacant land. Structures and parking areas of the project site include scattered light fixtures, which provide some nighttime illumination. The proposed project would not alter the existing lighting or glare associated with St. John's Church.

Construction of two new single-family homes would result in new sources of light and glare on the northern portion of the project site. The single-family residences located adjacent to the project site would be considered sensitive to any increases in light and glare emanating from the project site. The project would be required to comply with the City of Clayton Municipal Code Section 8.09, which prohibits the installation or maintenance of outdoor light fixtures that would cause an undue annoyance to persons on neighboring parcels in residential zoning districts. Compliance with Section 8.09 would ensure that the new residences would be designed such that lighting would be directed away from the nearby residences. Thus, the proposed project would not be expected to create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, and would result in a ***less-than-significant*** impact.

Figure 5
Current Site Condition

Figure 6
Project Visual Simulation

2. AGRICULTURE RESOURCES.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:					
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping Program of the California Resources Agency, to non-agricultural use?	□	□	X	□
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	□	□	X	□
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	□	□	□	X
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	□	□	□	X
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	□	□	X	□

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use? ..... Less-Than-Significant Impact

Discussion (a.)

The State of California Department of Conservation prepared the *Contra Costa County Important Farmland 2012* map in accordance with the Farmland Mapping and Monitoring program.[2] The map delineates areas of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland, as well as Urban and Built-Up Land. The map designates the proposed project site as Urban and Built-Up Land. Therefore, the proposed project site is not designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and the proposed project would not convert such Farmland to non-agricultural uses. As such, the proposed project would result in a ***less-than-significant*** impact related to the conversion of state designated Farmland to non-agricultural uses.

[2] California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. *Contra Costa County Important Farmland 2012.* Published April 2014.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract? ..... Less-Than-Significant Impact

Discussion (b.)

The project site is currently zoned by the City of Clayton as Agricultural (A). Despite the site's current agricultural zoning, most of the project site is developed by St. John's Church and agricultural activities have not historically occurred on the northern portion of the site, where the proposed single-family residences would be constructed. Moreover, the project site is not well-suited for agricultural activities, as it is surrounded in its entirety by residential development. Agricultural uses may be considered incompatible with residential uses as agricultural activities could create noise, odors, and dust, which would be disruptive to nearby residences. In addition, while the project site is currently zoned Agricultural (A), the General Plan Land Use Designation for the site is Institutional Density which is intended for senior housing under sponsorship of public agencies or quasi-public agencies. Additionally, the project site is not currently under a Williamson Act contract, and rezoning of the site from Agricultural (A) to Planned Development (PD) would not conflict with any existing Williamson Act contracts.

Although the proposed project would rezone the project site from Agricultural (A) to Planned Development (PD), the site is not suitable for agricultural activities. Furthermore, the current General Plan Land Use designation for the site is not intended for agricultural activities. The Clayton General Plan has a separate Agriculture land use designation. Therefore, the proposed rezone to Planned Development (PD) would establish greater conformity between the existing General Plan Land Use designation for the site and the current and proposed uses. As a result, the proposed project would have a ***less-than-significant*** impact in regards to conflicting with existing zoning for agricultural use, or a Williamson Act contract.

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? ..... No Impact

d. Result in the loss of forest land or conversion of forest land to non-forest use? ..... No Impact

Discussion (c. and d.)

The project site is not considered forest land (as defined in Public Resources Code section 12220[g]) or timberland (as defined by Public Resources Code section 4526), and the site is not zoned Timberland Production (as defined by Government Code section 51104[g]). Therefore, the proposed project would have ***no impact*** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? ..... Less-Than-Significant Impact

The proposed project site is located within the City of Clayton, and is completely surrounded by residential development. Agricultural activities do not currently occur on the site, nor do they occur in any areas adjacent to or near the project site. Therefore, constructing two new residences on the northern portion of the project site would not result in conflicts between existing agricultural activities and the proposed residential land uses, which could impair existing agricultural operations or lead to induced conversion of agricultural lands due to incompatible uses. Given the above discussion, the proposed project would not individually or cumulatively result in the loss of Farmland or forest land to non-agricultural or non-forest uses and the proposed project would therefore have a ***less-than-significant*** impact.

3. AIR QUALITY.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a.	Conflict with or obstruct implementation of the applicable air quality plan?	□	□	X	□
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	□	□	X	□
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	□	□	X	□
d.	Expose sensitive receptors to substantial pollutant concentrations?	□	□	X	□
e.	Create objectionable odors affecting a substantial number of people?	□	□	X	□

a. Would the project conflict with or obstruct implementation of the applicable air quality plan? ..... Less-Than-Significant Impact

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?..... Less-Than-Significant Impact

c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? ..... Less-Than-Significant Impact

Discussion (a., b., and c.)

The City of Clayton is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), who regulates air quality in the San Francisco Bay Area. The SFBAAB area is currently designated as a nonattainment area for the State and federal ozone, State and federal particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State particulate matter 10 microns in diameter (PM_{10}) standards. The SFBAAB is designated attainment or unclassified for all other ambient air quality standards (AAQS). It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (EPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the EPA, and the EPA approves the proposed redesignation.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions via regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG). The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the EPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2010 Clean Air Plan (CAP), adopted on September 15, 2010. The 2010 CAP was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM_{10} standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2010 CAP. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures (TCMs) to be implemented in the region to attain the State and federal standards within the SFBAAB.

Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD's established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as for PM_{10}, and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr), are listed in Table 1.[3] Thus, by exceeding the BAAQMD's mass emission thresholds for operational emissions of ROG, NO_X, or PM_{10}, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

[3] Due to recent court cases, the BAAQMD has withdrawn the recommended quantitative significance thresholds included in the May 2012 BAAQMD CEQA Air Quality Guidelines, for the time being, but continues to provide direction on recommended analysis methodologies. The May 2012 BAAQMD CEQA Air Quality Guidelines state that lead agencies may reference the Air District's 1999 Thresholds of Significance available on the Air District's website. Lead agencies may also reference the Air District's CEQA Thresholds Options and Justification Report developed by staff in 2009. The CEQA Thresholds Options and Justification Report, available on the District's website, outlines substantial evidence supporting a variety of thresholds of significance. The City, as lead agency, has determined that the air quality and GHG analysis in this IS/MND use the previously-adopted 2010 thresholds of significance to determine the potential impacts of the proposed project, as the thresholds are supported by substantial evidence.

Table 1 BAAQMD Thresholds of Significance			
	Construction	Operational	
Pollutant	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82	82	15
$PM_{2.5}$	54	54	10
Source: BAAQMD, CEQA Guidelines, May 2010.			

The proposed project would involve the construction of two new single-family residences. The proposed improvements and change in operations would not be expected to generate construction or operational emissions that would substantially contribute to the region's air quality issues or obstruct implementation of the BAAQMD's air quality planning efforts. In order to verify the aforementioned expectations, a comparison of the proposed project's estimated emissions to the BAAQMD thresholds of significance has been conducted.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2013.2.2 - a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, trip generation rates based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information should be applied in the model. As such, the proposed project's modeling assumed the following:

- An average daily trip rate of 9.52 was assumed, based on the Transportation/Circulation section of this IS/MND; and
- Compliance with the current California Building Energy Efficiency Standards Code.

The proposed project's estimated emissions associated with construction, operations, and cumulative conditions are presented and discussed in further detail below.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum construction criteria air pollutant emissions as shown in Table 2. As shown in the table, the proposed project's construction emissions would be below the applicable thresholds of significance.

Table 2 Maximum Unmitigated Construction Emissions (lbs/day)				
	ROG	**NO_X**	**PM_{10}**	**$PM_{2.5}$**
Project Construction Emissions	22.9	12.7	1.57	1.13
Thresholds of Significance	54	54	82	54
Exceeds Threshold?	**NO**	**NO**	**NO**	**NO**
Source: CalEEMod, June 2016.				

In addition, all projects under the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's Basic Construction Mitigation Measures, which include the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

As such, the proposed project would implement the BAAQMD's Basic Construction Mitigation Measures listed above. Compliance with the aforementioned measures would help to further minimize any construction-related emissions.

Because the proposed project would be below the applicable thresholds of significance for construction emissions, the proposed project would not be considered to result in a significant air quality impact during construction.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum operational criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project's operational emissions would be well below the applicable thresholds of significance.

Table 3
Maximum Unmitigated Operational Emissions

	ROG	NO_X	PM_{10}	$PM_{2.5}$
Average Daily Emissions (lbs/day)				
Project Operational Emissions	4.14	0.22	0.76	0.69
Thresholds of Significance	54	54	82	54
Exceeds Threshold?	**NO**	**NO**	**NO**	**NO**
Maximum Annual Emissions (tons/year)				
Project Operational Emissions	0.04	0.03	0.02	0.007
Thresholds of Significance	10	10	15	10
Exceeds Threshold?	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod, June 2016.

Because the proposed project's operational emissions would be below the applicable thresholds of significance, the proposed project would not be considered to result in a significant air quality impact during operations.

Cumulative Emissions

Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 1, the proposed project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions.

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2010 CAP. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be considered to conflict with or obstruct implementation of regional air quality plans.

Because the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, violate any air quality standards or contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in any criteria air pollutant, impacts would be considered ***less than significant***.

d. Would the project expose sensitive receptors to substantial pollutant concentrations? ..... Less-Than-Significant Impact

Discussion (d.)

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest existing sensitive receptors to the site would be the single-family residences surrounding the project site.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and toxic air contaminants (TAC) emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood. CO emissions are particularly related to traffic levels.

In order to provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, the BAAQMD has established screening criteria for localized CO emissions. According to

BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

According to the Contra Costa Transportation Authority (CCTA) Congestion Management Plan (CMP), any land development application generating less than 100 peak hour trips is not required to prepare a study of its traffic impacts on the CMP network as such projects are expected to have minimal impacts on the CMP network.[4] As discussed in further detail in the Transportation/Circulation section of this IS/MND, the proposed project would result in an estimated 19 new daily vehicle trips, with two new AM and two new PM peak hour vehicle trips. Because the project is anticipated to only generate four total peak hour trips, the project would be well below the CCTA CMP threshold of 100 new peak hour trips, and would thus be considered to be consistent with the CCTA CMP.

The main roadways in the project vicinity would be Clayton Road and Kirker Pass Road. The most heavily traveled of the aforementioned roadways is Clayton Road, which is a four-lane roadway capable of handling approximately 4,000 vehicles per hour.[5] Because Clayton Road is the main road in the area and is only capable of handling 4,000 vehicles an hour, it is unlikely that any nearby intersections would experience hourly traffic volumes in excess of 24,000 vehicles per hour. As such, the proposed project's increase of a maximum of four new peak hour trips, would not increase traffic volumes at nearby intersections to more than the hourly traffic volumes set forth in the BAAQMD's localized CO screening criteria. Therefore, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB

[4] Contra Costa Transportation Authority. *2013 Update of the Contra Costa Congestion Management Program [page 64]*. Adopted December 18, 2013.

[5] LSA Associates, Inc. *Clayton Community Church Project EIR*. May 2011.

has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer.

The proposed project would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the proposed project would not generate any substantial pollutant concentrations near existing sensitive receptors.

Short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project, particularly so for the proposed project, as the construction activities would likely occur over less than one-year (based on CalEEMod). All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources.

According to BAAQMD, research conducted by CARB indicates that DPM is highly dispersive in the atmosphere and is reduced by 70 percent at a distance of approximately 500 feet. In addition, per the City of Clayton Municipal Code Section 15.01.101, construction activities would be limited to daytime hours only.

Because construction equipment on-site would not operate for any long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, sensitive receptors in the area would not be exposed to pollutants for a permanent or substantially extended period of time.

Considering the short-term nature of construction activities, the regulated and intermittent nature of the operation of construction equipment, and the highly dispersive nature of DPM, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low. For the aforementioned reasons, project construction would not be expected to expose sensitive receptors to substantial pollutant concentrations.

Conclusion

Based on the above considerations, the proposed project would not cause or be exposed to substantial pollutant concentrations, including localized CO or TACs, and impacts related to such would be ***less-than-significant***.

e. Would the project create objectionable odors affecting a substantial number of people? ..... Less Than Significant Impact

Discussion (e.)

Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses and is not located in the vicinity of any such existing or planned land uses.

Although less common, diesel fumes associated with substantial diesel-fueled equipment and heavy-duty trucks, such as from construction activities, freeway traffic, or distribution centers, could be found to be objectionable. The proposed project activities could cause diesel fumes, which could be considered objectionable, during the temporary construction period. Although diesel fumes from construction equipment are often found to be objectionable, construction is temporary and construction equipment would operate intermittently throughout the course of a day, would be restricted to daytime hours per the City of Clayton Municipal Code Section 15.01.101, and would likely only occur over portions of the improvement area at a time. In addition, all construction equipment and operation thereof would be regulated per the statewide In-Use Off-Road Diesel Vehicle Regulation. Construction equipment would also be required to comply with applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions as well as any associated odors. Considering the short-term nature of construction activities and the regulated and intermittent nature of the operation of construction equipment, construction of the proposed project would not be expected to create objectionable odors affecting a substantial number of people.

Residential land uses are not typically associated with the creation of substantial objectionable odors. As a result, the proposed project operations would not create any objectionable odors that would affect a substantial number of people.

For the aforementioned reasons, construction and operation of the proposed project would not create objectionable odors, nor would the project site be affected by any existing sources of substantial objectionable odors; and a ***less-than-significant*** impact related to objectionable odors would result.

4. GREENHOUSE GAS EMISSIONS

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	□	□	X	□
b.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	□	□	X	□

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? ..... Less-Than-Significant Impact

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? ..... Less-Than-Significant Impact

Discussion (a. and b.)

Emissions of greenhouse gases (GHGs) contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr).

The proposed project is located within the jurisdictional boundaries of the BAAQMD. The BAAQMD threshold of significance for project-level operational GHG emissions is 1,100 $MTCO_2e$/yr. BAAQMD's approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be

expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. If a project would generate GHG emissions above the threshold level, the project would be considered to generate significant GHG emissions and conflict with applicable GHG regulations. The BAAQMD thresholds of significance are used for the analysis within this IS/MND, as the thresholds of significance are supported by substantial evidence.[6]

The proposed project's GHG emissions were quantified with CalEEMod using the same assumptions as presented in the Air Quality section of this IS/MND, and compared to the 1,100 $MTCO_2e$/yr threshold of significance. According to the CalEEMod results, the proposed project would result in operational GHG emissions of 25.09 $MTCO_2e$/yr, which is well below the 1,100 $MTCO_2e$/yr threshold of significance. Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has an adopted a threshold of significance for construction-related GHG emissions. However, even if the proposed project's total construction GHG emissions of 58.38 $MTCO_2e$/yr are included with the annual operational GHG emissions, the resultant total GHG emissions of 83.47 $MTCO_2e$/yr would still be well below the 1,100 $MTCO_2e$/yr threshold of significance. Therefore, the proposed project would not be expected to result in a significant impact related to GHG emissions.

Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs; and impacts would be considered ***less-than-significant***.

[6] A further discussion of the BAAQMD's thresholds is provided in questions a-c of the Air Quality section in this IS/MND.

5. BIOLOGICAL RESOURCES.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	□	X	□	□
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	□	□	X	□
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marshes or vernal pools) through direct removal, filling, hydrological interruption, or other means?	□	□	X	□
d.	Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	□	□	X	□
e.	Conflict with any local policies or ordinances protecting biological resources, including trees?	□	X	□	□
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	□	□	X	□

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? ..... Less-Than-Significant With Mitigation Incorporated

Discussion (a.)

Special-status species are plants and animals that are legally protected under the State and/or Federal Endangered Species Act (FESA) or other regulations. The FESA of 1973 declares that all federal departments and agencies shall utilize their authority to conserve endangered and threatened plant and animal species. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California species.

Special-status species also include other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. The presence of species with legal protection under the Endangered Species Act often represents a major constraint to development, particularly when the species are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a take of these species. The California Department of Fish and Wildlife Natural Diversity Database (CNDDB) was used to determine what special-status species are known to have occurred within the United States Geological Survey Quadrangle containing the project area. The CNDDB query returned 49 total species of special-status plants and animals within the Clayton quadrangle. To determine the likelihood of any of the identified species occurring on the project site the habitat requirements of all 49 species were compared to the habitat available at the project site.

The project site consists of heavily disturbed land associated with structures and parking around St. John's Church. The vacant land to the north of the church is dominated by ruderal vegetation with scattered shrubs and trees. According to Figure 3-3: *Landcover in the Inventory Area* of the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (ECCCHCP), the entire project site is classified as Urban. Urban sites are defined by the ECCCHCP as being cleared of native vegetation, disturbed by development, and therefore of low habitat quality. Because the site is classified as Urban and consists of disturbed urban land the project site is not likely to provide habitat for special-status species recorded within the Clayton Quadrangle, with the possible exception of burrowing owls.[7] The nearest recorded burrowing owl occurrences were recorded in 1999 and 1991 and are located approximately 2.75-miles to the west and north of the project site. The occurrences were located outside of the City of Clayton in open grassland areas away from urbanized portions of the City. Burrowing owls rely on burrows created by other animals, mostly ground squirrels. The project site currently contains several active ground squirrel burrows on the northern portion of the site. At the time of Raney's site visit, April 20, 2016, no evidence of burrowing owl sign was observed at any of the burrows (e.g., feathers, owl pellets, whitewash, prey remains). In addition to burrows, burrowing owls also need sufficient habitat for foraging. Typically burrowing owls use open areas with short, sparse vegetation to forage. The northern portion of the project, which would be developed with two residences as part of the project, contains only a small amount of open area, surrounded by taller vegetation as well as residential developments to the north, east, and west, and St. John's Church to the south. Given the small size of the potential habitat area and the isolation of the project site from other potential habitat areas, the project site does not provide suitable habitat for burrowing owls.

[7] Of the 49 special-status species identified in the Clayton quadrangle, three species occur in aquatic or wetland habitats, 11 occur in forests, 24 occur in chaparral or scrubland, one occurs in dunes, and seven occur in native, annual grassland; none of the necessary habitats occur on the project site, as the project site consists of Urban land types. Additionally, three special status-species rely on the presence of host species, none of which are located on-site.

Despite the low habitat value of the project site there is a possibility that migratory birds protected by the Migratory Bird Treaty Act (MBTA) could nest in the trees and shrubs on the northern portion of the project, where development is proposed. Without implementation of a preconstruction survey, and if necessary, protection measures, the project could cause substantial adverse effects through habitat modification to migratory birds, resulting in a ***potentially significant*** impact.

Mitigation Measure(s)

Implementation of the following mitigation measure would ensure that the above impact is reduced to a *less-than-significant* level.

Mitigation Measure 1. *Removal of trees shall occur between September 1st and January 31st, outside the bird nesting season, to the extent feasible. If tree removal must occur during the avian breeding season (February 1st to August 31st), a qualified biologist shall conduct a survey for nesting birds of all trees and shrubs within 75 feet of the entire project site 14 days prior to the commencement of construction, and submit the findings of the survey to the Community Development Department. If nesting passerines are identified during the survey within 75 feet of the project site, a 75-foot buffer around the nest tree shall be fenced with orange construction fencing. If the nest tree is located off the project site, then the buffer shall be demarcated as per above. The size of the buffer may be altered if a qualified biologist conducts behavioral observations and determines the nesting passerines are well acclimated to disturbance. If acclimation has occurred, the biologist shall prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting passerines. Construction or earth-moving activity shall not occur within the established buffer until a qualified biologist has determined that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones, which typically occurs by July 15th. However, the date may be earlier or later, and would have to be determined by a qualified biologist. If a qualified biologist is not hired to watch the nesting passerines, then the buffers shall be maintained in place through the month of August and work within the buffer may commence September 1st.*

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations,

or by the California Department of Fish and Game or US Fish and Wildlife Service? ..... Less-Than-Significant Impact

c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marshes or vernal pools) through direct removal, filling, hydrological interruption, or other means? ..... Less-Than-Significant Impact

Discussion (b. and c.)

The site is located in a developed area with residential and institutional developments surrounding the site on all sides. Wetland, riparian, or other sensitive natural communities do not exist on the proposed project site. Therefore, physical changes to the site would not involve filling, removal, degradation, or hydrological interruption of federally protected wetlands, riparian habitats, or sensitive communities. Given the absence of wetlands, riparian areas, or sensitive natural communities on-site, the project would not have a substantial adverse effect on any riparian habitat, or other sensitive natural community or on federally protected wetlands. Consequently, a ***less-than-significant*** impact related to such natural resources would occur.

d. Would the project interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites? ..... Less-Than-Significant Impact

Discussion (d.)

The proposed project is located within the City of Clayton and is surrounded on all sides by residential and institutional development. Because the project site is isolated from significant wildlife habitats by the surrounding development, the project site is not currently used as a movement corridor for any wildlife species. Additionally, as discussed above, water features do not exist on the project site and as such the project site does not act as a movement corridor for any migratory fish. The project site is not suitable as a significant wildlife nursery site, and any impacts to special-status species possibly nesting on the project site would be reduced to less-than-significant levels by Mitigation Measure 1. As such, the proposed project would not interfere with the movement of any fish or wildlife species, nor would the project impede the use of a wildlife nursery site resulting in a ***less-than-significant*** impact.

e. Would the project conflict with any local policies or ordinances protecting biological resources, including trees? ..... Less-Than-Significant With Mitigation Incorporated

Discussion (e.)

The proposed project would be required to comply with all relevant policies and ordinances of the City of Clayton, including the Tree Protection Ordinance (Chapter 15.70 of the Municipal Code). The Tree Protection Ordinance calls for the protection of certain species of trees, and a Tree Removal Permit when removal of any tree with a trunk diameter of six inches or greater is proposed. A Consulting Arborist Report was prepared by ValleyCrest Tree Care Services for the project site to inventory all on-site trees and make recommendations regarding tree preservation and removal based on tree health, structural condition, and location. The site currently contains ten trees, four of which are protected under the City of Clayton Tree Ordinance due to their size and species. The project site plans currently indicate that three existing oaks would be retained, all of which are protected under the City Municipal Code. The remainder of the trees, including a six-inch diameter protected Ash tree of moderate health, would be removed as part of the site development. Removal of the protected tree could result in a ***potentially significant*** impact related to ordinances protecting biological resources.

Mitigation Measure(s)

The following mitigation measures would reduce the impact from the proposed project to a *less-than-significant* level.

Mitigation Measure 2. *Prior to issuance of a grading permit, in accordance with the City's Tree Protection Ordinance, the applicant shall submit to the Community Development Department a Tree Replacement Plan identifying the protected tree that would be removed during project construction. Based upon the current tentative parcel map, the arborist report indicates that one protected tree is proposed for removal, and is rated by the Arborist Report as being of moderate health (Tree #6). Protected trees rated as being in fair or good health shall be replaced at the ratios specified in City of Clayton Municipal Code Section 15.70.040. The Tree Replacement Plan shall be submitted for review and approval by the Community Development Director prior to issuance of a grading permit.*

Mitigation Measure 3. *The following construction policies and guidelines for tree preservation and protection for the existing trees put forth by the City of Clayton shall be followed during project implementation:*

- *The applicant shall submit for the review and approval of the Community Development Director a tree protection plan to identify the location of the tree trunk and dripline of all protected oaks subject to City of Clayton Municipal Code Section 15.70.020.*

- *A protective fence shall be installed around all oaks subject to the tree protection plan. The protective fence shall be installed prior to commencement of any construction activity and shall remain in place for the duration of construction.*
- *Grading, excavation, deposition of fill, erosion, compaction, and other construction-related activities shall not be permitted within the dripline or at locations which may damage the root system of trees subject to the tree protection plan, unless such activities are specifically allowed by the tree protection plan. Tree wells may be used if specifically allowed by the tree protection plan.*
- *Oil, gas, chemicals, vehicles, construction equipment, machinery, and other construction materials shall not be allowed within the dripline of trees subject to the tree protection plan.*

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan? ..... Less-Than-Significant-Impact

Discussion (f.)

The ECCCHCP was prepared in 2007 and the City of Clayton became a signatory in January 2008. The ECCCHCP is intended to provide a coordinated, regional approach to special-status species conservation and development regulation. A total of 28 species are covered under the ECCCHCP, including California red-legged frog, California tiger salamander, Alameda whipsnake, San Joaquin kit fox, vernal pool tadpole shrimp, and burrowing owl, among others. The ECCCHCP provides streamlined permits from the USFW and CDFWS for covered species for new urban development projects and a variety of public infrastructure projects.

Development fees within the ECCCHCP area are assessed based on fee zones and land cover types. The proposed project site is designated as the Urban land use type within fee Zone II. The ECCCHCP assumes all areas designated as Urban are of low habitat value, and any development on such areas would be considered redevelopment, and pose little threat to covered species. However, because the proposed project is mapped by the ECCCHCP as Urban, the project is not subject to development fees or survey requirements.[8] Therefore, the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, and a ***less-than-significant*** impact

[8] East Contra Costa County Habitat Conservation Plan Association. Final *East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan [p. 9-17]*. As updated October 2007.

would result from the proposed project.

6. CULTURAL RESOURCES.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	□	X	□	□
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	□	X	□	□
c.	Directly or indirectly destroy a unique paleontological resource on site or unique geologic features?	□	X	□	□
d.	Disturb any human remains, including those interred outside of formal cemeteries.	□	X	□	□
e.	Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?	□	□	X	□

a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? ..... Less-Than-Significant With Mitigation Incorporated

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? ... Less-Than-Significant With Mitigation Incorporated

c. Directly or indirectly destroy a unique paleontological resource on site or unique geologic features? ..... Less-Than-Significant With Mitigation Incorporated

d. Disturb any human remains, including those interred outside of formal cemeteries.. .... Less-Than-Significant With Mitigation Incorporated

Discussion (a.-d.)

The proposed project site is currently characterized by structures and parking associated with St. John's Church, as well as vacant land to the north and southeast of the existing structures. The vacant land on the project site is characterized by annual grasses and scattered trees. The project site does not include any of the Historical Buildings or Historical Sites listed by the City of Clayton General Plan or indicated in Exhibit V-3 of the General Plan Community Design Element. Additionally, the proposed project does not include any physical alterations to the existing structures on the project site.

The proposed project site was further investigated through a records search of the California Historical Resources Information System (CHRIS) at the Northwest Information Center (NWIC). The NWIC records search included review of pertinent reports, historic-period maps, and literature relating to historical and archaeological

resources in Contra Costa County. The records search did not discover any past cultural resource studies that covered the project area, nor did the NWIC records search find any recorded archaeological or historical resources recorded at the project site. Furthermore, a *Sacred Lands File* search, performed by the Native American Heritage Commission (NAHC), was completed and returned negative results for any sacred lands or known burial sites in the project area.

Because the project site does not contain any known historic, cultural, archaeological, or paleontological resources identified by the City of Clayton, the CHRIS, or the NAHC, the proposed project site is unlikely to contain any such resources. However, archaeological sites have been found elsewhere within the City of Clayton, thus the possibility exists that buried archaeological deposits could be present on-site, and accidental discovery could occur during construction of the project. Therefore, the proposed project could have a ***potentially significant*** impact to archaeological resources.

Mitigation Measure(s)

The following mitigation measures would reduce the impact from the proposed project to a *less-than-significant* level.

Mitigation Measure 4. *Prior to the issuance of a grading permit, the grading plan shall include a requirement (via notation) indicating that if cultural resources, or human remains are encountered during site grading or other site work, all such work shall be halted immediately within 100 feet of the area of discovery and the contractor shall immediately notify the City of the discovery. In such case, the City, at the expense of the project applicant, shall retain the services of a qualified archaeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit to the City for review and approval a report of the findings and method of curation or protection of the resources. Further grading or site work within the vicinity of the discovery, as identified by the qualified archaeologist, shall not be allowed until the preceding steps have been taken.*

Mitigation Measure 5. *Pursuant to State Health and Safety Code §7050.5(c) State Public Resources Code §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the Contra Costa County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. Additional work is not to take place in the immediate vicinity of the find, which shall be*

identified by the qualified archaeologist at the applicant's expense, until the preceding actions have been implemented.

e. Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074? ..... Less-Than-Significant-Impact

Discussion(e.)

Tribal cultural resources are generally defined by Public Resources Code 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. In compliance with AB 52 consultation requirements, the Ione Band of Miwok Indians were notified of the project via a letter dated March 18, 2016. The Ione Band of Miwok Indians did not request consultation within the required 30-day time period; and a response has not been received to date. In the absence of information supplied by the tribe, the City relied on other sources of information to determine whether the project could cause a substantial adverse change in the significance of a tribal cultural resource.

A Sacred Lands File search, performed by the NAHC for the immediate project area, failed to indicate the presence of Native American cultural resources in the project area. Additionally, a search of the CHRIS was completed at the NWIC. As discussed earlier in this section. the CHRIS search did not identify any cultural resources on the site. Given the negative results of the NAHC sacred lands file search, and the CHRIS search, as well as the City's compliance with AB 52, the project would result in a ***less-than-significant*** impact to tribal cultural resources.

7. GEOLOGY AND SOILS.

Issues			Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:						
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
	i.	Rupture of a known earthquake fault, as delineated on the most recent Alquist - Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault?	□	□	X	□
	ii.	Strong seismic ground shaking?	□	□	X	□
	iii.	Seismic-related ground failure, including liquefaction?	□	□	X	□
	iv.	Landslides?	□	□	X	□
b.	Result in substantial soil erosion or the loss of topsoil?		□	X	□	□
c.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		□	X	□	□
d.	Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial risks to life or property?		□	□	X	□
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?		□	□	□	X

The following discussions are based on a Geotechnical Investigation conducted for the project site by Adobe Geotech, prepared on June 27, 2016.

a-i. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist - Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault? ..... Less-Than-Significant Impact

a-ii. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking? ..... Less-Than-Significant Impact

Discussion (ai. and aii.)

The City of Clayton is included in the *Clayton Quadrangle* Alquist-Priolo Fault Zone Map.[9] However, the project site is not located within the special study area of the Concord-Green Valley fault. Active faults near the project site include the Greenville fault, which is 1.2 miles northeast of the site, the Concord fault, which is 3.3 miles southwest of the site, and the Calaveras fault, which is 6.7 miles southwest of the site. None of the aforementioned faults are known to cross the project site, and the risk of earthquake-induced ground rupture is remote. If a major earthquake were to occur with an epicenter location close to the proposed project site, ground shaking at the site could be severe. In recognition of this potential, all structures proposed for the project would be designed in accordance with the adopted edition of the California Building Code (CBC) requirements in place at the time of construction. Structures built according to the seismic design provisions of current building codes should be able to: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage but with some nonstructural damage; and 3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Consequently, as the proposed project would comply with all applicable CBC recommendations, the project would not be anticipated to be substantially affected by ground shaking.

Therefore, the proposed project would not expose people or structures to substantial adverse effects including the risk of loss, injury, or death involving the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Map, and strong seismic ground shaking, resulting in a ***less-than-significant*** impact.

aiii. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, liquefaction and landslides? ..... Less-Than-Significant Impact

aiv. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related landslides? ..... Less-Than-Significant Impact

Discussion (aiii. and aiv.)

Soil liquefaction results from loss of strength during cyclic loading, such as imposed by earthquakes. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded fine sands below the groundwater table. Empirical evidence indicates that loose silty sands are also potentially liquefiable. When seismic ground shaking occurs, the soil is subjected to cyclic shear stresses that can cause excess hydrostatic pressures to develop. The Geotechnical Investigation concluded that the soils underlying the site are generally dense and no groundwater was found within 25 feet of the ground surface.

[9] State of California, Department of Conservation. *Clayton Quadrangle*. Effective July 1, 1993.

Therefore, liquefaction would not be expected to cause a significant risk at the project site.

The Safety Element of the City of Clayton General Plan identifies areas of high concern for landslides as those areas with slopes approaching or exceeding 15 percent. The ground surface on the project site slopes toward Southbrook Drive, but slopes are not steep enough to pose landslide hazards. Because significant slopes do not exist on the project site the proposed project would not create a danger of landslide on- or off-site.

Therefore, the proposed project would not expose people or structures to substantial adverse effects including risk of loss, injury, or death involving landslides or liquefaction. Consequently, a ***less-than-significant*** impact would result from the proposed project.

b. Would the project result in substantial soil erosion or the loss of topsoil? .. Less-Than-Significant With Mitigation Incorporated

Discussion (b.)

Construction of the proposed project would involve the disturbance and relocation of topsoil on the northern portion of the project site where the two single-family residences would be constructed. After grading and leveling, but prior to the overlaying of the ground surface with structures, topsoil of the disturbed portion of the site would be exposed, and the earth surfaces would be susceptible to erosion from wind and water. During the grading and excavation phases of construction, appropriate measures consistent with the Clayton Stormwater Management Ordinance and other applicable regulations (e.g., C.3 standards) would be required to be implemented in order to control erosion on the site and minimize the impacts related to loss of topsoil. See Section 9, Hydrology and Water Quality, of this IS/MND for further discussion regarding the relationship of erosion to water quality. Because the proposed project could result in soil erosion or the loss of topsoil associated with grading and excavation of the project site during construction, a ***potentially significant*** impact could occur.

Mitigation Measure(s)

The following mitigation measure would reduce the impact from the proposed project to a *less-than-significant* level.

Mitigation Measure 6. *Prior to the issuance of a grading permit, the project applicant shall prepare to the satisfaction of the City Engineer, an erosion control plan that utilizes standard construction practices to limit the erosion effects during construction of the proposed project. Actions should include, but are not limited to:*

- *Hydro-seeding;*
- *Placement of erosion control measures within drainage ways and ahead of drop inlets;*
- *The temporary lining (during construction*

activities) of drop inlets with "filter fabric";

- *The placement of straw wattles along slope contours;*
- *Use of a designated equipment and vehicle "wash-out" location;*
- *Use of siltation fences;*
- *Use of on-site rock/gravel road at construction access points; and*
- *Use of sediment basins and dust palliatives.*

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? Less-Than-Significant Impact With Mitigation Incorporated

Discussion (c.)

Lateral spreading is a failure within weak soils, typically due to liquefaction, which causes a soil mass to move along a free face, such as an open channel, or down a gentle slope. As such, reduction of liquefaction risk reduces the potential for lateral spreading. As discussed above, liquefaction is not expected to impact the proposed project, and as a result lateral spreading is not expected to create a substantial risk on- or off-site.

However, the Geotechnical Investigation did identify that much of the existing soil on-site is undocumented fill, which is unsuitable as a foundation for structures built with shallow foundations. The Geotechnical Investigation included recommendations for site preparation, which included that the upper undocumented fill soil be removed from any areas planned for buildings as well as from a five-foot buffer around the building envelopes, and from the area below the retaining wall which is proposed along the southern edge of the proposed single family lots. The retaining wall in the southern portion of the residential lots would support a portion of the paved parking area associated with St. John's Church, and would be required to be designed to proper specifications to ensure adequate support of the parking area. In addition to the proposed retaining wall on the southern edge of the site, the proposed project also includes retaining walls on either side of the shared driveway.

Given the above discussion, the proposed project would not be located on a geologic unit susceptible to subsidence, lateral spreading, liquefaction, or landslides. However, the proposed project would be placed on a potentially unstable soil unit if the undocumented fill is not properly excavated or the retaining walls are not properly designed. Therefore, the proposed project could create a possibility of collapse due to unstable soils, resulting in a ***potentially significant*** impact.

Mitigation Measure(s)

The following mitigation measure would reduce the impact from the proposed project to a *less-than-significant* level.

Mitigation Measure 7. *During construction, the project contractor, at the expense of the project applicant, shall completely remove and re-compact the existing non-engineered fill on-site under the supervision of a registered geotechnical engineer, according to the recommendations presented in the Geotechnical Investigation. The contractor shall remove the upper undocumented fill soil from the area extending at least five feet beyond the edge of the planned building envelopes and also below the planned rear retaining wall. Once removed, subsequent engineered fill may be used as approved by a licensed geotechnical engineer. A written summary of the operations shall be submitted to the City Engineer.*

d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial risks to life or property? ..... Less-Than-Significant Impact

Discussion (d.)

The Geotechnical Investigation included soil sampling of the upper soil layers. The soil sampling also included plasticity testing and particle size determination to determine the expansive potential of on-site soils. Using the information from the soil sampling and analysis the Geotechnical Investigation determined that the on-site soil has a low to moderate expansive potential. Additionally, the proposed project would comply with CBC requirements, which would address any potential risks from expansive soils. Therefore, the proposed project would have a ***less-than-significant*** impact related to the creation of a substantial risk to life or property due to the presence of expansive soil.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? ..... No Impact

Discussion (e.)

The proposed residences would be connected to the City of Clayton's sewer system and would not require the installation or use of septic tanks. Therefore, the proposed project would have ***no impact*** regarding having soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems.

8. HAZARDS AND HAZARDOUS MATERIALS.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	□	□	X	□
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	□	□	X	□
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	□	□	X	□
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	□	□	□	X
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	□	□	□	X
f.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	□	□	□	X
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	□	□	X	□
h.	Expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	□	□	X	□

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? ..... Less-Than-Significant Impact

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment? ..... Less-Than-Significant Impact

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? ..... Less-Than-Significant Impact

Discussion (a-c.)

On April 20, 2016 Raney performed a site visit and inspected the portion of the project site proposed for the construction of the single-family residences. Signs of hazardous materials such as discolored soil or pavement and chemical containers (i.e. paint cans, gasoline cans) were not identified. Additionally, the project site is not known to have been historically used for agricultural purposes, which can lead to pesticide contamination. As such, it is unlikely that the project site currently contains hazardous materials, which would pose a threat to construction workers or future residents.

The proposed project would consist of operations associated with the proposed residential uses. The residential uses would not involve the routine transport, use, or disposal of hazardous materials. Thus, during operations, the proposed project would not create any hazards to the public or the environment through routine transport, use, disposal, or reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.

Construction activities would involve the use of heavy equipment, which would contain fuels, oils, and various other products such as concrete, paints, and adhesives. However, the project contractor would be required to comply with all California Health and Safety Codes and local ordinances regulating the handling, storage, and transportation of hazardous and toxic materials, as overseen by the California EPA and DTSC. Should an accidental release of hazardous materials occur during construction, the City (or City crews) and/or contractor, is required to notify the Contra Costa Fire Protection District (CCCFPD), who would then monitor the conditions and recommend appropriate remediation measures.

The nearest existing or proposed school facility is Highlands Elementary School, which is located approximately 0.6-miles southwest of the project site. Therefore, the proposed project would result in a ***less-than-significant*** impact associated with hazards to the public or the environment through routine transport, use, disposal, or reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment or within one-quarter mile of a school.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? ..... No Impact

Discussion (d.)

The proposed project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5,[10] and would not create a significant hazard to the public or the environment. Therefore, ***no impact*** would occur.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? ..... No Impact

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? ..... No Impact

Discussion (e. and f.)

The proposed project site is not located within an airport land use plan or within two miles of a public airport or public airport use. The closest airport to the project site is Buchanan Airport, located northwest of the City of Concord in unincorporated Contra Costa County, which is approximately six miles away. Because the proposed project site is not within the vicinity of a private airstrip, and the project would not result in a safety hazard for people residing or working in the project area, the proposed project would have ***no impact***.

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ..... Less-Than-Significant Impact

Discussion (g.)

The City of Clayton has an adopted Emergency Operations Plan, dated January 2012, which identifies the City's emergency planning, organizational, and response policies and procedures. The Emergency Operations Plan addresses how the City would respond to extraordinary events or disasters, including departmental Standard Operating Procedures. The primary exit routes out of the City to the north are Pine Hollow Road, Clayton Road, and Concord Boulevard. To the south, the primary exit route out of the City is Marsh Creek Road.

The proposed project includes the subdivision of the parcel currently occupied by St. John's Church and the construction of two single-family homes on Southbrook Drive. Modifications to the City's emergency exit routes would not occur as a result of the

[10] California Department of Toxic Substances Control. *EnviroStor*. Available at: http://www.envirostor.dtsc.ca.gov. Accessed June 2016.

proposed project. In addition, construction equipment would be staged on the project site to avoid interruption of traffic along Southbrook Drive. Thus, development of the project site would not be expected to interfere with or impair any of the primary exit routes out of the City. In addition, the project site would be easily accessible from Southbrook Drive or by the shared driveway (see Figure 3). As such, adequate emergency access to the site would be provided. Therefore, the proposed project would result in a ***less-than-significant*** impact associated with impairing implementation of, or physically interfering with, an adopted emergency response plan or evacuation plan.

h. Would the project expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? ..... Less-Than-Significant Impact

Discussion (h.)

Wildfire is a serious hazard in the City of Clayton. According to the Diablo Fire Safe Council, the City of Clayton is located within a wildland urban interface (WUI). The WUI is defined as an area in which wildlands and communities are sufficiently close to each other to present a credible risk of fire spreading from one to another.[11] Fire services to the Clayton area are provided by the Contra Costa County Fire Protection District (CCCFPD), with the nearest station to the site located on Center Street, approximately one mile southeast of the project site. The risk of wildfire to the project site is reduced by the proposed project's location within an already developed area. Additionally, the development of the northern portion of the project site from annual grasses, trees, and shrubs to residential land uses may reduce the project site's fire hazard to surrounding residences. The proposed residential units are required to be designed in compliance with all applicable State and local standards and recommendations for new development, such as the CCCFPD's requirements for providing a water supply system for fire protection, and providing adequate emergency and fire access. In addition, per State and local adopted Fire Code, all residential units must be equipped with internal fire sprinklers. Therefore, the likelihood is low that the project would expose people or structures to the risk of loss, injury or death involving wildland fires, and the project's impact would be ***less-than-significant***.

[11] Diablo Fire Safe Council. *Clayton Morgan Territory Wildfire Action Plan: Public Review Draft*. January 25, 2016.

9. HYDROLOGY.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Violate any water quality standards or waste discharge requirements?	□	□	□	□
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	□	□	X	□
c.	Substantially alter the existing drainage pattern of the site or area, including alteration of the course of a stream, in a manner which would result in substantial erosion or siltation on- or off-site	□	□	X	□
d.	Substantially alter the existing drainage pattern of the site or area, including alteration of the course of a stream, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	□	□	X	□
e.	Otherwise substantially degrade water quality?	□	□	X	□
f.	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	□	□	X	□
g.	Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	□	□	X	□
h.	Place within a 100-year floodplain structures which would impede or redirect flood flows?	□	□	X	□
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	□	□	X	□
j.	Inundation by seiche, tsunami or mudflow?	□	□	□	X

a. Would the project violate any water quality standards or waste discharge requirements? ..... Potentially Significant Impact

e. Would the project otherwise substantially degrade water quality? ..... Potentially Significant Impact

Discussion (a. and e.)

The City has been issued a National Pollutant Discharge Elimination System (NPDES) permit (MRP 2.0: Municipal Regional Stormwater Permit No. CAS612008, as amended November 19, 2015), and this project is subject to various regulations and requirements contained therein.

The residential land uses proposed for the northern portion of the project site would not involve operations typically associated with the generation or discharge of polluted water. Thus, typical operations on the project site would not violate any water quality standards or waste discharge requirements, nor degrade water quality. However, addition of the proposed impervious surfaces on the site, such as driveway pavement and roofing, would result in the generation of urban runoff, which could contain pollutants if the runoff comes into contact with vehicle fluids on parking surfaces and/or landscape fertilizers and herbicides. The Preliminary Stormwater Control Plan (SWCP) for the project site indicates that the project would include 6,624 sf of new impervious surfaces (see Figure 7). Pursuant to Section C.3.i or MRP 2.0, projects creating between 2,500 and 10,000 sf of impervious surfaces are required to install features to help collect and treat runoff prior to discharge from the site, such as one or more of the following design measures:

- Direct roof runoff into cisterns or rain barrels for reuse;
- Direct roof runoff into vegetated areas;
- Direct runoff from sidewalks, walkways, and/or patios into vegetated areas;
- Direct runoff from driveways and/or uncovered parking lots into vegetated areas;
- Construct sidewalks, walkways, and/or patios with permeable surfaces; or
- Construct bike lanes, driveways and/or uncovered parking lots with permeable surfaces.

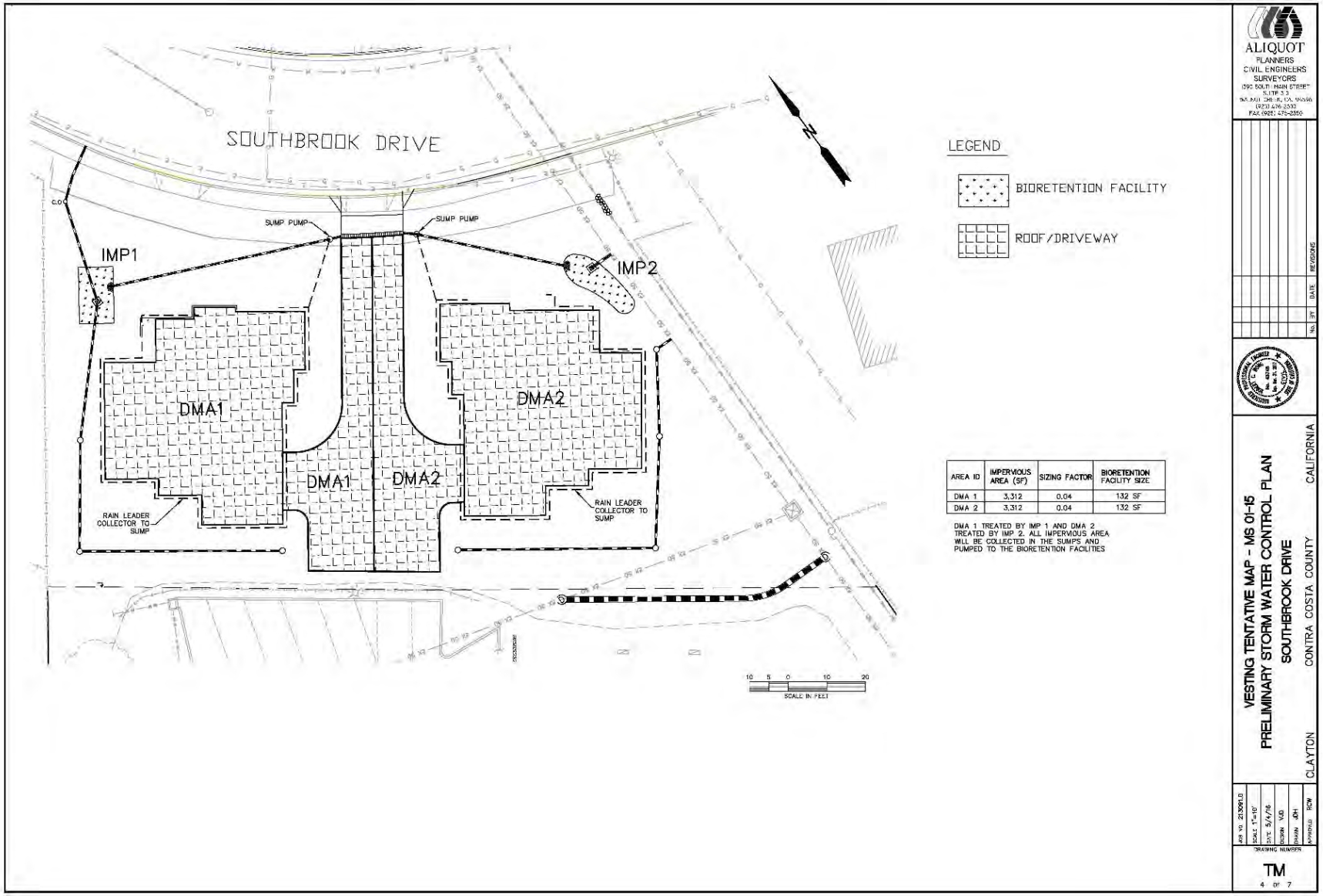
In order to comply with C.3 Standards, the portion of the project site proposed for development has been divided in two drainage management areas corresponding with the two residential units proposed as part of the project. Stormwater runoff from both drainage management areas would be directed to separate bioretention areas, with one bioretention area on each lot. Per C.3 Guidebook instructions, the proposed bioretention areas would be sized with adequate capacity to receive and treat all runoff from the impervious areas of the project. Runoff entering the bioretention areas would move through permeable soil layers, which would slow the stormwater while also removing pollutants that may be contained in the runoff. Stormwater that exceeds the bioretention facilities' infiltration capacity, such as in the case of heavy storm events, would be directed to existing stormwater infrastructure on the eastern portion of the project site and on Southbrook Drive.

However, the project applicant currently proposes the use of sump pumps as a component of the on-site storm drain system, which would not be reliable. As a result, the proposed project could substantially degrade water quality if sump pumps remain part of the drainage design, resulting in a ***potentially significant*** impact.

Mitigation Measure(s)

The following mitigation measure requires modification of the plans so that sump pumps are not needed. This mitigation measure would reduce the impact from the proposed project to a *less-than-significant* level.

Figure 7
Stormwater Control Plan



Mitigation Measure 8. *The applicant shall submit a Final Stormwater Control Plan (including an Operations and Maintenance Manual) fully addressing the requirements of the City's recently amended Municipal Regional Stormwater NPDES Permit (Permit No. CAS612008, as amended November 19, 2015), and including an alternative to the use of sump pumps, such as dry wells, to the satisfaction of the City Engineer.*

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? ..... Less-Than-Significant Impact

Discussion (b)

The Contra Costa Water District (CCWD) provides domestic water service to Clayton. The major source of CCWD water is the Sacramento River Contra Costa Water District Canal, not pumped groundwater. The construction of two new residential buildings, and a shared driveway would result in a net increase in impervious surfaces; however, the surface area would not be large enough to significantly affect groundwater recharge. Additionally, the bioretention areas would allow for stormwater to infiltrate into the surrounding soil, thereby allowing the continued contribution to groundwater recharge at the site. As such, the proposed project would not substantially deplete groundwater supplies or recharge at the site such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level, and a ***less-than-significant*** impact would result.

c. Would the project substantially alter the existing drainage pattern of the site or area, including alteration of the course of a stream, in a manner which would result in substantial erosion or siltation on- or off-site? ..... Less-Than-Significant Impact

d. Would the project substantially alter the existing drainage pattern of the site or area, including alteration of the course of a stream, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? ..... Less-Than-Significant Impact

f. Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? ..... Less-Than-Significant Impact

Discussion (c., d., and f.)

Development of the proposed project would result in an increase in impervious surfaces on the project site, which would alter the existing drainage pattern of the site. However, as discussed above, the project is required to comply with C.3 Standards and is proposed to include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures to ensure that the rate or amount of runoff associated with the site would be equal to or less than existing levels.

As discussed above, runoff from the impervious areas of the site would be collected and conveyed to one of the two proposed bioretention areas. The SWCP prepared for the proposed project includes calculations for the required treatment area to offset increases in runoff created by the proposed impermeable surfaces. Using these calculations, the bioretention areas have been sized appropriately to treat and control runoff from all proposed impervious surfaces (see Figure 7). Despite the proposed project's increase in impermeable surfaces, the proposed project would not result in an increase in stormwater runoff leaving the site as compared to runoff that currently occurs. The only expected runoff leaving the site would occur in the case of heavy storms, where excess runoff not captured by the bioretention areas would be discharged to existing City infrastructure on the eastern portion of the project site and in Southbrook Drive. Consequently, runoff from the site would only occur in select circumstances and the proposed project would not result in a net increase in the amount of runoff from the site. Due to the absence of a net increase in runoff, the capacity of existing stormwater drainage infrastructure would not be exceeded, and alterations to the existing City of Clayton infrastructure would not be needed.

In order to ensure that the proposed project's stormwater treatment facilities remain adequate, long-term maintenance would be required. To ensure the adequacy of long-term maintenance of the bioretention areas a Stormwater Operation & Maintenance Plan (SOMP) was submitted by Aliquot Associates, Inc. The SOMP indicates that responsibility for upkeep of the bioretention areas would be held by the owners of the proposed residences. Each owner would be responsible for routine inspection and maintenance activities of the bioretention areas. All inspections and remedial actions would be logged in a Stormwater BMP Inspection and Maintenance Log. Mitigation Measure 8 requires the applicant to submit a final SOMP to the City for review and approval.

In accordance with Clayton Municipal Code Section 13.12.050, implementation of an approved SWCP and submittal of an approved SOMP by the applicant shall be a condition precedent to a final building inspection or the issuance of a certificate of occupancy.

In conclusion, the proposed project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in erosion or siltation on- or off-site, increase the rate or amount of surface runoff, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. Consequently, the proposed project would result in a ***less-than-significant*** impact.

g. Would the project place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? ..... Less-Than-Significant Impact

h. Would the project place within a 100-year floodplain structures which would impede or redirect flood flows? ..... Less-Than-Significant Impact

i. Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? ..... Less-Than-Significant Impact

Discussion (g., h., and i.)

Based on the FEMA Flood Insurance Rate Map (FIRM), (Map Number ID: 06013C0304F), the project site is within Zone X, which is described by FEMA as an area determined to be outside the 0.2 percent annual chance floodplain. In addition, dams or levees are not located upstream of the proposed project site; thus, flooding due to dam or levee failure would not occur. Because the project site is not within a 100-year floodplain, the proposed project would not place housing or structures within a 100-year floodplain or expose people or structures to risks involving flooding. Therefore, impacts would be ***less-than-significant***.

j. Would the project expose people or structures to a significant risk of loss, injury or death involving seiche, tsunami, or mudflow? ..... No Impact

Discussion (j.)

A seiche is defined as a wave generated by rapid displacement of water within a reservoir or lake, due to an earthquake that triggers land movement within the water body or land sliding into or beneath the water body. The project site is not located near a water body that is susceptible to seiche hazard. Furthermore, due to the distance from the project site to the nearest coastline the project site would not be subject to tsunami hazards. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving seiche, tsunami, or mudflow, and ***no impact*** would occur.

10. LAND USE.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Physically divide an established community?	□	□	X	□
b.	Conflict with any applicable land use plans, policies, or regulations of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	□	□	X	□
c.	Conflict with any applicable habitat conservation plan or natural communities conservation plan?	□	□	X	□

a. Would the project physically divide an established community? ..... Less-Than-Significant Impact

Discussion (a.)

The proposed project would include the subdivision of the lot currently containing St. John's Church and subsequent construction of two new single-family residences on a vacant portion of the project site to the north of St. John's Church, adjacent to Southbrook Drive. Residential land uses occur to the north, west and east of the project site, and the project site is currently the only vacant lot on Southbrook Drive. Because the proposed project site is essentially surrounded by residential development, development of the project site for single-family residences would be considered infill. The project site does not contain an existing community, and because the project is considered infill the proposed project would not divide the surrounding community. Therefore, the proposed project would have a ***less-than-significant*** impact with respect to dividing an existing community.

b. Would the project conflict with any applicable land use plans, policies, or regulations of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? ..... Less-Than-Significant Impact

Discussion (b.)

The proposed project includes a request for a General Plan Amendment (GPA-01-15) to amend the land use designation for the northern portion of the project site from Institutional Density (ID) to Single-Family Medium Density Residential (MD), as well as a request to Rezone (ZOA-03-15) the entire site from Agricultural (A) to Planned Development (PD). The project site currently contains St. John's Church structures, associated parking areas and vacant land. Agricultural activities do not currently occur on

the project site, and, due to the noise and dust that agricultural activities create, such activities would be seen as incompatible with the nearby residential developments that surround the project site.

The project site is identified in Appendix B, *Residential Land Inventory*, of the City of Clayton General Plan Housing Element Update as Site U-4, and designated an Underdeveloped Site. Along with the Underdeveloped designation, the City of Clayton Housing Element assigns the project site a realistic unit capacity of 42 units over the entire site. The project site and other underdeveloped, planned, or vacant sites are included in Table 45 of the City of Clayton Housing Element, *Capacity to Accommodate the 2014-2022 RHNA*. Table 45 of the Housing Element shows a Regional Housing Needs Allocation (RHNA) of 141 total units for the City of Clayton, and a total housing capacity of 275 units throughout the City. Therefore, a 134-unit capacity surplus exists in the City of Clayton's ability to attain the RHNA assigned unit total. Of the City's 275-unit capacity, 129 units are available in Underdeveloped Sites, which includes the 42 possible units from the project site. While the project only includes the development of two residential units, the remaining vacant land south of St. John's Church, approximately 35,400 sf, could be developed with additional residential units in the future under the proposed PD zoning, subject to additional entitlements and environmental review by the City. This, coupled with the fact that the City's Housing Element identified as 134-unit surplus capacity after meeting its RHNA numbers, supports the conclusion that the proposed project would not conflict with the City's Housing Element.

In conclusion, should the City Council amend the land use designation of the northern portion of the property to MD, and rezone the entire project site PD, the project would not conflict with any applicable land use plans, policies, or regulations and would result in a ***less-than-significant*** impact.

c. Would the project conflict with any applicable habitat conservation plan or natural communities conservation plan? .....Less-Than-Significant Impact

Discussion (c.)

As discussed in question f in Section 5, Biological Resources, of this IS/MND the proposed project site is located within the ECCCHCP boundaries. The ECCCHCP designates the project site as Urban and within Fee Zone II. However, because the project is located within an Urban area of the ECCCHCP the project is not subject to development fees or biological survey requirements. Therefore, the project would not conflict with any applicable habitat conservation plan or natural communities conservation plan and would result in a ***less-than-significant*** impact.

11. MINERAL RESOURCES.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	□	□	□	X
b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	□	□	□	X

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? ..... No Impact

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? ..... No Impact

Discussion (a. and b.)

According to the Contra Costa County General Plan, the most important mineral resources that are mined in the County include crushed rock near Mt. Zion at the Cemex Quarry, west of Mitchell Canyon Road (approximately two miles south of the project site), shale in the Port Costa area, and sand and sandstone deposits, mined in several other, distant locations.

Because the project site is not within the immediate vicinity of the Cemex Quarry or any of the other identified areas of important mineral deposits, the project would not interfere with existing operations or access to these deposits. Therefore, the proposed project would have ***no impact*** to mineral resources.

12. NOISE.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project result in:					
a.	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	□	□	X	□
b.	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	□	□	X	□
c.	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	□	□	X	□
d.	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	□	X	□	□
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	□	□	X	□
f.	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	□	□	X	□

a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or noise ordinance, or applicable standards of other agencies? ..... Less-Than-Significant Impact

c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? ..... Less-Than-Significant Impact

Discussion (a. and c.)

As discussed in the Transportation/Circulation section of this IS/MND, operation of the project would result in a minor increase to traffic to the local roadway network, which would result in a slight increase in the ambient noise environment. The City's noise standards for outdoor and indoor spaces are set forth in Policy 2a of the Clayton General Plan, as follows: 45 Ldn for indoor noise level uses, and 60 Ldn for outdoor noise level. The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 PM. to 7:00 AM) hours. A total of 19 new vehicle trips spread over a 24-hour period would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Furthermore, noise level increases

would not be perceptible until they reach 3 dB or above, as compared to ambient noise levels.

As recently confirmed by the California Supreme Court, impacts of the environment on a project (as opposed to impacts of a project on the environment) are beyond the scope of required CEQA review. (*California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 392.) "[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project." (*Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473.)

The impact discussion in the following paragraph is related to the effects of traffic noise onto the project's future residents, and therefore does not relate to environmental impacts under CEQA and cannot support an argument that the effects of the environment on the project must be analyzed. (Ballona, supra, 201 Cal.App.4th at p. 475.) Nonetheless, a qualitative analysis of this impact is provided for informational purposes.

The primary source of noise at the proposed project site is related to vehicle noise along Clayton Road. The City of Clayton General Plan Noise Element identifies the southern portion of the project site, currently used by St. John's Church, as being within the 1995 projected 60dB noise contour from Clayton Road. It is important to note that the noise contours did not take into account site structures, topography or landscaping. Extensive landscaping along Clayton Road, and throughout the parking area associated with St. John's Church, along with the church structures would block some of the noise produced by Clayton Road from reaching the proposed single-family residences. Additionally, the proposed residences are seven feet below grade relative to the church parking lot. The reduction in elevation between the parking area and the backyards of the proposed residences would further attenuate the amount of noise reaching the outdoor space of the residences. Therefore, it is anticipated that the exterior noise levels at the proposed residential backyards would be at or below the City's exterior noise level standard of 60 dB. In addition, typical construction practices and materials result in a reduction of exterior noise levels by 25-30 dB. As a result, indoor noise levels at the two new residences would be less than 45 dB Ldn. It should be noted that existing single-family residences that surround the project site on Clayton Road, Southbrook Drive, Westbrook Court, Marquette Court, and North El Camino Drive, are currently subject to similar noise levels, and the proposed project would develop the site in a manner consistent with the existing residences.

Therefore, the proposed project would not result in exposure of persons to or generation of noise levels in excess of standards established in the local General Plan, nor would the project result in a permanent increase in ambient noise levels in the project vicinity, and impacts would be considered ***less-than-significant***.

b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? ..... Less-Than-Significant Impact

Discussion (b.)

Groundborne vibrations would be generated during construction of the proposed project. The northern portion of the site, where construction would take place, is bordered by residential land uses to the north, east, and west as well as structures associated with St. John's Church. For structural damage, the California Department of Transportation (Caltrans) uses a vibration limit of 0.5 inches/second, peak particle velocity (in/sec, PPV), for buildings structurally sound and designed to modern engineering standards; 0.2 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern; and a conservative limit of 0.08 in/sec PPV for ancient buildings or buildings that are documented to be structurally weakened. All surrounding structures are assumed to be structurally sound, but damage would be a concern so the 0.2 in/sec PPV will be used as a threshold of significance for structural damage. The threshold of 0.2 in/sec PPV is also used by Caltrans as the threshold for human annoyance caused by vibration. Therefore, activities creating vibrations exceeding 0.2 in/sec PPV would impact sensitive receptors in nearby residences.[12] Table 4 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet.

Project construction activities, such as drilling, the use of jackhammers, and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate groundborne vibration in the immediate vicinity. As shown in the table, jackhammers typically generate vibration levels of 0.035 in/sec PPV, and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Given the proposed project's residential nature, construction activities are not expected to require the use of vibratory rollers.

Table 4
Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 ft (in/sec)
Vibratory Roller	0.210
Large Bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

Source: Caltrans, Transportation and Construction Vibration: Guidance Manual. September 2013.

Therefore, the maximum PPV that could occur during construction of the proposed project would be 0.1 in/sec PPV or less, which is below the 0.2 in/sec PPV significance

[12] Caltrans. *Transportation and Construction Vibration Guidance Manual*. September 2013.

threshold utilized for this analysis. The nearest vibration-sensitive receptors would be the existing surrounding residential uses. Although vibration generated by construction activities associated with the proposed project could be perceptible at nearby residences, the construction-generated vibrations would not be expected to result in structural damage to the residences or the structures associated with St. John's Church.

The primary vibration-generating activities associated with development of the proposed project would occur during grading, placement of infrastructure, and construction of foundations. Vibration generated by such construction activities at the project site could at times be perceptible at the nearby residences; however, the construction-generated vibrations would not be expected to result in architectural damage to the nearby residential structures. Furthermore, construction is temporary and construction equipment would operate intermittently throughout the course of a day; would be restricted to daytime hours per the City of Clayton Municipal Code Section 15.01.101; and would likely only occur over portions of the improvement area at a time.

Therefore, the project would not involve the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels, resulting in a ***less-than-significant*** impact.

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? ..... Less-Than-Significant With Mitigation

Construction of the project would also result in temporarily increased noise levels from grading and construction activities on the project site. Such noise would include mechanical equipment such as earthmovers, dump trucks, and similar equipment which would be used to grade the site. After grading is complete, construction noise would include delivery of construction materials, construction of foundations, framing, roofing, and similar operations that would temporarily generate noise. Based on the Federal Highway Administration's Construction Noise Handbook, activities involved in typical construction would generate maximum noise levels up to 90 dB at a distance of 50 feet.[13] The nearest sensitive receptors to the construction noise would be the residences surrounding the project site. Construction activity would likely only occur over portions of the improvement area at a time. Because noise levels dissipate with distance from the source, noise levels received by the surrounding sensitive receptors would fluctuate depending on the distance of the noise source on the project site from the fixed location of the receptor. Although construction activities would only occur for a limited duration, project construction activities could generate noise levels that would result in temporary increases in ambient noise levels in the project vicinity. Therefore, the proposed project's impact would be considered ***potentially significant***.

[13] Federal Highway Administration. *Highway Traffic Noise: Construction Noise Handbook*. Updated 11/30/2015.

Mitigation Measure(s)

Implementation of the following mitigation measure would ensure that the above potential impact is reduced to a *less-than-significant* level.

Mitigation Measure 9. *During grading and construction, the project contractor shall ensure that the following measures are implemented, consistent with the recommendations in the Environmental Noise and Vibration Analysis:*

- *Grading and construction activities shall be limited to the daytime hours between 7:00 AM to 5:00 PM Monday through Friday, as specified in Section 15.01.101 of the Clayton Municipal Code. Any such work beyond said hours and days is strictly prohibited unless previously specifically authorized in writing by the City Engineer or designee or by project conditions of approval;*
- *The distances between on-site construction and demolition staging areas and the nearest surrounding residences shall be maximized to the extent possible; and*
- *All construction and demolition equipment that utilizes internal combustion engines shall be fitted with manufacturer's mufflers or equivalent.*

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? ..... Less-Than-Significant Impact

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? ..... Less-Than-Significant Impact

Discussion (e. and f.)

The project site is not located near an existing airport and is not within an area covered by an existing airport land use plan. The nearest airport is over six miles away in unincorporated Contra Costa County northwest of the City of Concord. Aircraft-related noise, if audible at the project site, would be extremely minimal. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with air traffic and a ***less-than-significant*** impact would occur.

13. POPULATION AND HOUSING.

ISSUES		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	□	□	X	□
b.	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	□	□	□	X
c.	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	□	□	□	X

a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)? ..... Less-Than-Significant Impact

Discussion (a.)

The proposed project involves the subdivision of the land currently occupied by St. John's Church and the construction of two new housing units on a vacant portion of the project site. The proposed project does not include physical changes to the existing structures on the project site, or the construction of new businesses. The average household in Clayton houses 2.72 persons per household.[14] Rounding this figure and considering that the project proposes to construct two units, creates an estimated population growth of six residents. Such population growth would not be considered "substantial" population growth. The project would connect to existing infrastructure and would not require the extension of infrastructure. The area surrounding the project site consists of existing development and the project is therefore considered an infill development. Consequently, a ***less-than-significant*** impact would occur in regards to the project inducing substantial population growth.

b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? ..... No Impact

[14] City of Clayton. *City of Clayton General Plan Section IV: Housing Element [p.7]*. Available at http://ci.clayton.ca.us/?page_id=212. Adopted November 18, 2014.

c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? ..... No Impact

Discussion (b. and c.)

The project site is currently occupied by St. John's Church and vacant land. The project does not include any physical changes to existing structures associated with St. John's Church, and residences are not located on any portion of the project site. Proposed construction activities would only take place on the northern vacant portion of the project site, where two new single-family residences would be constructed. Because the project site does not currently contain any housing or residences the proposed project would not displace substantial numbers of existing housing units or people and would not necessitate the construction of replacement housing elsewhere, therefore the proposed project would result in ***no impact***.

14. PUBLIC SERVICES.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
a.	Fire protection?	□	□	X	□
b.	Police protection?	□	□	X	□
c.	Schools?	□	□	X	□
d.	Parks and recreation?	□	□	X	□
e.	Other public facilities and services?	□	□	X	□

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection? ..... Less-Than-Significant Impact

b. Police protection? ..... Less-Than-Significant Impact

Discussion (a. and b.)

The Contra Costa County Fire Protection District (CCCFPD) provides fire prevention, suppression, and emergency medical response for advanced and basic life support to nine cities, including Clayton, and much of the unincorporated territory in the central and western portions of Contra Costa County. The CCCFPD operates 23 stations throughout its jurisdictional area and has a staff of 262 uniformed personnel. CCCFPD Station 11, located at 6500 Center Street in the City of Clayton, is currently fully staffed. Police protection services would be provided for the project by the City of Clayton Police Department. The Police Department is located at 6000 Heritage Trail, which is approximately one mile from the proposed project site. The Clayton Police Department is currently budgeted for 13 full-time sworn officers and two civilian employees.

The proposed project would result in a slight increase (six residents) in the City's population; thus, the increase in demand for police and fire services attributable to the project would be proportionately minor. The increased emergency services required by the two new units would not result in the need for the expansion of existing facilities or the construction of new facilities to maintain acceptable service ratios. Moreover, the City of Clayton Municipal Code Chapter 3.18 establishes development fees to off-set any potential impacts on fire services from new developments. The developer is required to pay the fire protection fee at the time of or prior to the issuance of an occupancy permit

for each unit.

Because the project would not necessitate new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire or police protection, a ***less-than-significant*** impact would result.

c. Schools?..... Less-Than-Significant Impact

Discussion (c.)
The City of Clayton is located within the Mt. Diablo Unified School District (MDUSD). Mt. Diablo Elementary and Diablo View Middle Schools serve the City of Clayton.

Because the proposed project would involve the construction of residential units, the project could add students to the MDUSD. However, the construction of two new housing units would not create a significant number of K-12 students. However, Senate Bill (SB) 50 requires the payment of impact fees to avoid potential impacts to school facilities. The proposed project would be subject to SB 50, and therefore, with the payment of school impact fees, the proposed project would have a ***less-than-significant*** impact on schools in the area.

d. Parks and recreation?..... Less-Than-Significant Impact

Discussion (d.)
The proposed project site does not contain on-site parks or recreational facilities. Mount Diablo State Park is located approximately 2.5 miles south of the project site. In addition, the City owns and maintains several parks including Lydia Lane Park, as well as an extensive system of pedestrian and recreational trails throughout the community, many of which link with regional trails.

The City of Clayton Municipal Code Section 16.12 requires all new subdivisions to dedicate land, pay a fee in-lieu thereof, or both for park or recreational purposes. For projects involving 50 parcels or less, the proposed subdivision is required to pay a fee equal to the land value of the portion of the local park required to serve the needs of the residents of the proposed subdivision. Because the proposed project requests a rezone of the entire project site to Planned Unit Development (PD), all sections of the City of Clayton Municipal Code Section 17.28 would apply to the project including Section 17.28.100 Open Space. As such the proposed project would be required to acquire and dedicate off-site land for open space or make an in-lieu contribution for the dedication of Open Space. Payment of in-lieu fees would result in a ***less-than-significant*** impact to parks and recreation facilities.

e. Other public facilities and services? ..... Less-Than-Significant Impact

Discussion (e.)

The proposed project would increase demands for other general governmental services, including libraries and general City maintenance services. However, these demands would be considered minimal for a two-unit residential project and because payment of user fees or taxes to the appropriate service providers is expected to off-set potential impacts to such service providers, the additional demands for other governmental services would result in a ***less-than-significant*** impact.

15. RECREATION.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	□	□	X	□
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	□	□	X	□

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? ..... Less-Than-Significant Impact

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? ..... Less-Than-Significant Impact

Discussion (a. and b.)

The proposed project would not include recreational facilities. Mount Diablo State Park is located approximately 2.5-miles south of the project site. In addition, the City owns and maintains several parks including Lydia Lane Park, as well as an extensive system of pedestrian and recreational trails throughout the community, many of which link with regional trails.

The proposed project would add two new housing units in the City of Clayton, and the relatively small amount of population growth induced by the proposed project would not be expected to lead to the substantial acceleration in the deterioration of recreational facilities nor would it require the expansion of existing recreational facilities. As discussed in the Public Services section of this IS/MND payment of an in-lieu fee in accordance with the City of Clayton Municipal Code Section 16.12 would avoid any deterioration of existing recreational facilities. Because the project would not increase the use of existing parks or recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated and the project would not include or require the construction or expansion of recreational facilities a ***less-than-significant*** impact would occur.

16. TRANSPORTATION/CIRCULATION.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	□	□	X	□
b.	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	□	□	X	□
c.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	□	□	□	X
d.	Substantially increase hazards due to a design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	□	□	X	□
e.	Result in inadequate parking capacity?	□	□	X	□
f.	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	□	□	X	□

a. Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? ..... Less-Than-Significant Impact

b. Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? ..... Less-Than-Significant Impact

Discussion (a. and b.)

The project site is located south of Southbrook Drive and north of Clayton Road, with North El Camino Drive to the east of the project site and Marquette Court to the west. Currently St. John's Church is accessed by Clayton Road. The proposed residences on the north portion of the site would be accessed by a shared driveway from Southbrook Drive.

Weekday AM, PM, and daily trip generation forecasts were made for the project using the Single-Family Dwelling Unit (Land Use 210) rate identified in the Institute of Transportation Engineers Trip Generation Manual. As shown in Table 5, implementation

of the proposed project would be expected result in 19 new daily vehicle trips, with two new AM and two new PM peak hour vehicle trips.

Table 5
Weekday Project Trip Generation Rates and Estimates

Units	Rate	Daily Trips	AM Peak Hour				PM Peak Hour			
			Rate	In	Out	Total	Rate	In	Out	Total
2	9.52	19	0.75	0	1	2	1.00	1	1	2

Source: Institute of Transportation Engineers, Trip Generation Manual, 9th Edition 2012.

According to the Contra Costa Transportation Authority (CCTA) Congestion Management Plan (CMP), any land development application generating less than 100 peak hour trips is not required to prepare a study of its traffic impacts on the CMP network.[15] Because the proposed project would generate less than 100 peak hour trips, a traffic impact study is not required to be prepared.

Due to the low number of project-generated trips, the project would not be expected to adversely impact levels of service at nearby signalized intersections or roadways. The proposed project would not substantially increase traffic in relation to the existing traffic load and capacity of the nearby roadways, nor would the project individually or cumulatively exceed a level of service standard established by the county congestion management agency for designated roads or highways. Consequently, a ***less-than-significant*** impact would result from implementation of the proposed project.

It should be noted that the passage of Senate Bill (SB) 743 (Steinberg, 2013) will change the way that public agencies evaluate the transportation impacts of projects under CEQA. It directs the California Office of Planning and Research (OPR) to revise the CEQA Guidelines to establish "alternative metrics" for identifying transportation impacts. These changes are intended to further the Legislature's commitment to encouraging land use and transportation planning decisions and investments that reduce vehicle miles traveled and contribute to reductions in greenhouse gas emissions. The term "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project.

OPR's revised draft CEQA Guidelines, released on January 20, 2016, reflect an across-the-board elimination of congestion-based metrics as a threshold of significance in CEQA and replaces them with a new Vehicle Miles Travelled (VMT) metric. The City of Clayton notes, however, that these revisions are presently in draft format only. They will not have the force of law until and unless they are adopted. Furthermore, the provisions of OPR's proposed new CEQA Guidelines Section 15064.3, *Determining the Significance of Transportation Impacts*, apply prospectively as described in CEQA Guidelines Section 15007. After two years from expected adoption date, the provisions of this new section shall apply statewide, and not just to projects located within one-half mile of major transit stops or high quality transit corridors, as will be the case initially.

[15] Contra Costa Transportation Authority. *2011 Contra Costa Congestion Management Program [page 62]*. Adopted November 16, 2011.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?..... No Impact

Discussion (c.)

The proposed project would not require or result in any changes to existing air traffic activity and the project site is not located in the vicinity of an airport. Therefore, ***no impact*** would occur associated with a change in air traffic patterns including either an increase in traffic levels or a change in location that would result in substantial safety risks.

d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? ..... Less-Than-Significant Impact

e. Would the project result in inadequate emergency access? ..... Less-Than-Significant Impact

Discussion (d. and e.)

The proposed project involves the subdivision of the lot currently occupied by St. John's Church, and the subsequent construction of two single-family residences on the vacant northern portion of the project site. St. John's Church is currently accessed from Clayton Road, and the proposed project does not include any changes to site access from Clayton Road.

The two proposed residences are located on the south side of Southbrook Drive. Both residences would be accessed by a shared private driveway. The aforementioned access points would provide adequate emergency access to the site and all proposed units. Major modifications to the existing area roadways and circulation system would not occur as a result of the proposed project, and emergency vehicle access to the area would, therefore, remain unchanged. Therefore, the project would not substantially increase hazards due to a design feature or incompatible use, nor would the project result in inadequate emergency access resulting in a ***less-than-significant*** impact.

f. Would the project conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)? ..... Less-Than-Significant Impact

Discussion (f.)

The project area is currently provided transit service by the Central Contra Costa Transit Authority. Bus Route 10 provides service within Clayton and in the vicinity of the project site along Clayton Road and Marsh Creek Road, directly south of the project site. The construction of two residences would not result in the need for expanded bus service in

Clayton. The project does not include changes to existing bicycle infrastructure, or changes that would conflict with the use of bicycles as an alternative means of transportation. Additionally, the proposed project does not include any changes to the existing pedestrian infrastructure. The project site is located less than a half mile away from the Clayton Station shopping area. The project site's proximity to the Clayton Station shopping area and associated commercial services could encourage walking and biking by the future residents of the proposed project. Therefore, the proposed project would not conflict with adopted policies supporting alternative transportation resulting in a ***less-than-significant*** impact.

17. UTILITIES AND SERVICE SYSTEMS.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:					
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	□	□	X	□
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	□	□	X	□
c.	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	□	□	X	□
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	□	□	X	□
e.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	□	□	X	□
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	□	□	X	□
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	□	□	X	□

a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? ..... Less-Than-Significant Impact

e. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?..... Less-Than-Significant Impact

Discussion (a. and e.)

The wastewater collection system within the City of Clayton is owned by Clayton and maintained by the City of Concord. Concord has a contract with Central Contra Costa Sanitary District (CCCSD) to treat wastewater. The CCCSD treatment plant currently treats an average of 31.8 million gallons per day (MGD).[16] The CCCSD treatment plant's permitted physical capacity is 53.8 MGD. According to the Growth Management Element

[16] Central Contra Costa Sanitary District: Protecting Public Health and the Environment. http://www.centralsan.org/index.cfm?navId=154. Accessed June 2016.

of the City of Clayton's General Plan, the plant's maximum capacity of 53.8 MGD is projected to accommodate buildout until the year 2040.[17, 18]

Both residences included in the proposed project would be connected to a proposed extension to the existing sewer line in Southbrook Drive. Given the CCCSD treatment plant's current surplus capacity, and the fact that the project would result in a minimal increase in the demand for wastewater treatment capacity, adequate capacity exists to accommodate the slight increase in sewer demand created by the two residential units. Therefore, the proposed project would result in a ***less-than-significant*** impact to existing wastewater facilities and infrastructure.

b. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?..... Less-Than-Significant Impact

d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?..... Less-Than-Significant Impact

Discussion (b. and d.)

Potable water service for the project is required and would be made available by Contra Costa Water District (CCWD) upon completion of financial arrangements and installation of all necessary water facilities to meet the requirements of residential use and fire protection, in accordance with current CCWD and CCCFPD standards. The project would connect to existing water infrastructure on Southbrook Drive.

According to the comparison of available supply with projected demands from the 2010 Urban Water Management Plan (UWMP) for the CCWD, the CCWD does not anticipate any supply deficits in normal years through 2035. In future years, multiple-year drought conditions could cause supply shortfalls; however, any potential supply shortfalls experienced during a drought would be met through a combination of a short-term conservation program or short-term water purchases. Accordingly, the CCWD's currently available and planned supplies are sufficient to meet estimated water demands during normal, single dry, and multiple dry years during the next 25 years.[19] The CCWD's demand estimates were based off information from past usage trends as well as growth estimates from ABAG. As discussed previously, the General Plan Housing Element and the ABAG RHNA allocation included the proposed housing units in their overall growth analysis. Because the project was included in the regional growth estimates the project

[17] City of Clayton. *City of Clayton General Plan Section XI: Growth Management Element* [page 16]. Available at: http://www.ci.clayton.ca.us/index.php?section=52. As amended February 5, 2008.
[18] Email communication with Russell B. Leavitt. Engineering Assistant III. Central Contra Costa Sanitary District. May 04, 2016.
[19] Contra Costa Water District. *Urban Water Management Plan*. June 2011.

would be considered consistent with the growth assumptions utilized to estimate the CCWD's projected water demands. Thus, the project's associated increase in water demand is accounted for in the CCWD's UWMP.

In addition, the project design would be required to adhere to State Building Code standards for water conservation, such as low-flow plumbing fixtures, as well as the City's water-conserving guidelines for landscaping, as set forth in Chapter 17.80 of the Municipal Code. Given the current capacity of CCWD and the project's compliance with the State Building Code and the City of Clayton Municipal Code, Chapter 17.80, the proposed project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, and the project would have sufficient water supplies available to serve the project from existing resources. Therefore, the proposed project would have a ***less-than-significant*** impact related to water and wastewater facilities and water supply.

c. Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? ..... Less-Than-Significant Impact

Discussion(c.)

Development of the proposed project would result in an increase in impervious surfaces on the project site, which would alter the existing drainage pattern of the site. However, as discussed in the Hydrology section of this IS/MND, the project would be required to comply with C.3 Standards and include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures. As a result, no net increase in stormwater drainage runoff from the site would be expected. In the absence of an increase in storm water drainage leaving the site, the proposed project would not require the construction of new off-site stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, resulting in a ***less-than-significant*** impact.

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? ..... Less-Than-Significant Impact

g. Comply with federal, state, and local statutes and regulations related to solid waste? ..... Less-Than-Significant Impact

Discussion (f. and g.)

Solid waste from the City of Clayton is disposed of at the nearest landfill, which is the Keller Canyon Landfill, over four miles north from the site. According to the California Department of Resources Recycling and Recovery (CalRecycle), the Keller Canyon Landfill has a remaining capacity of 63,408,410 cubic yards out of a total permitted

capacity of 75,018,280 or 85 percent remaining capacity.[20] According to CalRecycle, single-family residential developments have estimated solid waste generation rates ranging from 7.8 pounds per dwelling unit per day to 12.23 pounds per unit per day.[21] Utilizing the higher generation rate, the project could generate a total of approximately 24.46 pounds of solid waste per day (or 0.01 tons per day). Therefore, the landfill serving the proposed project would have adequate capacity to accommodate the project's solid waste needs. Due to the project's small relative solid waste generation and the lack of impact on the landfill's lifespan, the project is not expected to have a significant impact on solid waste services.

In addition, the City is required by AB 939 to ensure that it achieves and maintains the diversion and recycling mandates of the State. Construction of the project would comply with the construction and demolition debris recycling requirements of Chapter 15.80 of the City's Municipal Code, which requires that a waste management plan be prepared for both demolition and new construction. The waste management plan must address all materials that would not be acceptable for disposal in the sanitary landfill. Therefore, as the project is required to comply with the City's Municipal Code, and sufficient capacity exists at the Keller Canyon Landfill, implementation of the proposed project would result in a ***less-than-significant*** impact related to solid waste services.

[20] California department of Resources Recycling and Recovery (CalRecycle); http://www.calrecycle.ca.gov/SWFacilities/Directory/07-AA-0032/; accessed June 13, 2016.

[21] California Department of Resources Recycling and Recovery (CalRecycle). Waste Characterization Residential Developments: Estimated Solid Waste Generation Rates. Available at: http://www.calrecycle.ca.gov/WASTECHAR/WasteGenRates/Residential.htm. Accessed June 2016.

18. MANDATORY FINDINGS OF SIGNIFICANCE.

Issues		Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	□	□	X	□
b.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	□	□	X	□
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	□	□	X	□

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? ..... Less-Than-Significant Impact

Discussion (a.)

Development of the proposed project has the potential to affect nesting passerine birds, protected by the Migratory Bird Treaty Act. In addition, although unlikely, the possibility exists for subsurface excavation of the site during grading and other construction activities to unearth deposits of cultural significance. However, this IS/MND includes mitigation measures that would reduce any potential impacts to less-than-significant levels (see Mitigation Measures 1, 2, and 3). Therefore, the proposed project would have ***less-than-significant*** impacts related to degradation of the quality of the environment, reduction of habitat, threatened species, and/or California's history or prehistory.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?? ..... Less-Than-Significant Impact

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? ..... Less-Than-Significant Impact

Discussion (b. and c.)

The proposed project site is primarily surrounded by existing similar development. Significant hazards to human health are not currently known at the project site and substantial adverse effects on human beings are not anticipated with implementation of the proposed project. It should be noted that during construction activities, the project could result in potential impacts related to noise. However, this IS/MND includes mitigation measures that would reduce any potential impacts to a less-than-significant level. In addition, the proposed project would be designed in accordance with all applicable building standards and codes to ensure adequate safety is provided for the future residents of the proposed project. Therefore, impacts related to environmental effects that could cause adverse effects on human beings would be ***less-than-significant***.

VII. STAFF AND SOURCES

Raney

Cindy Gnos, Senior Vice President
Nick Pappani, Vice President
Angela DaRosa, Senior Associate
Jacob Byrne, Associate

City of Clayton

Mindy Gentry, Community Development Director
Milan J. Sikela, Jr., Assistant Planner
Rick Angrisani, P.E., City Engineer
Laura Hoffmeister, Assistant to the City Manager

The following documents are referenced information sources utilized for this analysis:

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