Appendix C2
Updated Cultural Resources Identification Report

MASTER CASE NO. 20-073
INITIAL STUDY

Michael Baker
INTERNATIONAL

We Make a Difference

January 11, 2022
Mr. Steve Landis, President
MONTE VISTA ASSETS, INC.
8628 Hillside Road
Alta Loma, CA 91701

RE: UPDATED CULTURAL RESOURCES IDENTIFICATION REPORT FOR THE MONTE VISTA HOMES FONTANA 47 PROJECT, CITY OF FONTANA, SAN BERNARDINO COUNTY, CALIFORNIA

Dear Mr. Landis:

On April 6, 2021, Michael Baker International delivered to you the *Memorandum Cultural Resources Identification Report for the Monte Vista Homes Fontana 47 Project, City of Fontana, San Bernardino County, California*. The report was prepared in support of the Monte Vista Homes Fontana 47 Project (project), and reported the results of a South Central Coastal Information Center (SCCIC) records search, literature and historical map review, archaeological and built environment field survey, archaeological sensitivity analysis, and California Register of Historical Resources (California Register) evaluation of one building. These efforts were completed to determine whether the project area could result in significant adverse changes to historical resources in accordance with the California Environmental Quality Act (CEQA).

As detailed in our memo report, no historical resources were identified which may be impacted by the proposed project. Moreover, an analysis of the archaeological sensitivity of the project area indicated that the archaeological sensitivity of the project area is low, primarily because of past disturbances within the project area.

Subsequent to our April 6, 2021, memo report, the project description was altered. These changes, which are detailed below, required a reassessment of our cultural resources impacts analysis. As described below, the changes to the project description do not result in any impacts to cultural resources.

UPDATES TO THE PROJECT DESCRIPTION

The project area is approximately 12.8 acres located on the west side of Catawba Avenue at the terminus of Hibiscus Street, and on the east side of Poplar Street. The project proposes to develop single-family residential units with associated road, utility, and water quality management improvements. At the City's request, additional parcels (APNs 0233-22-28, 0233-22-29, 0233-22-60, 0233-22-63) have been included in the scope of the proposed General Plan Amendment and Zone Change, although these parcels would not be developed into residential units as part of this project. The project consists of two main components:

- Land use and zoning changes over approximately 12.8 acres
- Tentative tract map and design review for the construction of single-family dwellings on 9 acres

The remaining 3.8 acres would be left as-is with their respective dwellings. The residential development would be supported by internal private streets, sewer and water access, a six-foot-high perimeter block wall, six-foot-high white vinyl fencing and gates for interior lots, and the installation of right-of-way improvements, including curb, gutter, and streetlights.

The major changes to the project description are noted in the table below. The original project description included the construction of 47 residential units. The new project description calls for the construction of an additional six units, resulting in a total of 53 new residential units. In addition, a 0.4-acre park has been added to the design. The project footprint has not changed as a result of these additional features; instead, the density of housing in the new design has increased from 5.2 dwelling units (du) per acre to 6.0 du per acre.

Previous Project Description	New Project Description
47 residential units	53 residential units (additional 6 units)
Density of 5.2 du/ac	Density of 6.0 du/ac
Access on the west side of the site was provided on Poplar Avenue	Access on the west side of the site provided on Orchid Avenue
No parks/open space proposed	0.4-acre park proposed in the central portion of the site
Construction dates from summer 2021 to late 2022	Construction dates from summer 2022 to late 2023
Project was less than 52 units and would generate less than 50 peak hour traffic trips	Project is 53 units and may generate additional traffic scrutiny
Population increase of 194 persons	Population increase of 218 persons (difference of 24 persons)

The project requires a number of entitlements from the City of Fontana, including:

- General Plan Amendment No. 20-015 – request to change the land use from R-SF (single-family residential) to R-M (multi-family residential)
- Zone Change No. 20-015 – request to change the zone from R-1 (single-family residential) to R-2 (two-family residential)

- Tentative Tract Map No. 20358 (TTM20-006) – request to subdivide 9 gross acres into 47 single-family residential lots with private internal streets, streetlighting, sewer, water, and perimeter block wall
- Design Review No. 20-028 – request to approve the architectural design and layout of the proposed housing product

CULTURAL RESOURCES IDENTIFICATION

The methods and results of the SCCIC records search, literature and historical map review, archaeological and built environment field surveys, archaeological sensitivity analysis, and California Register evaluation are presented in detail in our April 6, 2021, memo. As described in that memo, archival and literature research identified no historical resources within the project area. One existing building that is historic in age was identified within the project area during the survey, but the resource was found ineligible for inclusion in the California Register. The effort identified no historical resources as defined by CEQA Section 15064.5(a) within the project area. Archaeological sensitivity of the project area is low.

As described above, the changes to the project description do not result in a change to the project footprint. More units and a park will be constructed within the project area, but these new elements will all be located within the original project area. Because there are no historical resources identified within the project area, there will be no impacts to known cultural resources.

FINDINGS AND RECOMMENDATIONS

The findings and recommendations of Michael Baker International's memo dated April 6, 2021, remain appropriate for the revised project description. No historical resources as defined by CEQA Section 15064.5(a) are located within the project area. In the unlikely event that any subsurface cultural resources are encountered during earth-moving activities, it is recommended that all work within 50 feet be halted until an archaeologist can evaluate the findings and make recommendations for treatment of the resource in compliance with Public Resources Code Section 21083.2(i). Any human remains encountered during ground-disturbing activities shall be treated in accordance with California Health and Safety Code Section 7050.5, which states that no further disturbance shall occur until the County coroner has made a determination of the origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County coroner shall be notified immediately. If the human remains are determined to be prehistoric, the coroner shall notify the Native American Heritage Commission, which shall determine and notify the most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

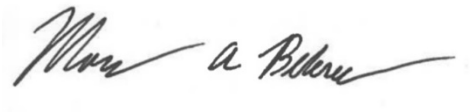
Michael Baker
INTERNATIONAL

We Make a Difference

PREPARER QUALIFICATIONS

Marc A. Beherec, PhD, Principal Investigator/Senior Archaeologist, is a registered professional archaeologist (#989598) and meets the Secretary of the Interior's Professional Qualification Standards for archaeology and history, and the Society for California Archaeology's professional qualification standards for Principal Investigator. Dr. Beherec has more than 20 years of experience in cultural resources management, including project management, personnel management, Native American consultation, archival research, laboratory analysis, ethnographic and historical research, field survey, prehistoric and historical excavation, laboratory analysis, and collections management. He has experience with cultural and tribal cultural resources issues as they relate to CEQA and the National Environmental Policy Act. He directs the preparation of cultural resources technical studies compliant with Section 106 of the National Historic Preservation Act and CEQA, including studies documenting research, survey, testing, excavation, monitoring, and evaluation for inclusion in the National and California Registers.

Sincerely,



Marc A. Beherec, PhD, RPA
Senior Archaeologist

Attachment:
Attachment 1 – Memorandum Cultural Resources Identification Report for the Monte Vista Homes Fontana 47 Project, City of Fontana, San Bernardino County, California

Appendix D
Field Infiltration Test Results

MASTER CASE NO. 20-073
INITIAL STUDY

ZS Engineering
113 Tomato Springs, Irvine, CA 92618
C: 949-331-3232
info@zs-engineering.com

July 9, 2020
ZS Engineering #200604

Steve Landis
Monte Vista Assets, Inc.
8628 Hillside Road
Alta Loma, CA 91701

Subject: **Field Infiltration Test Results**
Residential Tract of Single-Family Homes between Poplar Avenue and Catawba Avenue, Tentative Tract No. 18905, City of Fontana, CA 92336 (APNs 0233-122-60, -63, -28 and -29)

Dear Mr. Landis:

In response to your request, ZS Engineering has prepared this report on findings from the infiltration field tests at the proposed residential tract of single-family homes at the above location.

1.1 Field Infiltration Tests

On June 20, 2020, after drilling and field logging, bore holes P-1 and P-2, each drilled to a depth 15 feet below grade, were converted into infiltration test holes. Test locations are shown in the attached exhibit. About 2 inches thick layer of ¾-inch gravel were poured at the bottom of each hole and then a perforated 3-inch diameter (inside) HDPE pipe was placed inside each hole. Annular spaces between the HDPE pipes and the test holes were backfilled with ¾-inch gravel.

After preparation of the test holes, these were filled with water and two (2) consecutive readings of water drop were taken, each at 25 minutes interval and each time the hole being filled with water to the top. These initial readings yielded water level drops varying from 12 to 15 feet. This satisfied the Sandy Soil Criteria for infiltration test per the County guidelines. Accordingly, field tests were conducted on the same day without any need for overnight presoak.

Test readings for each hole were taken over one hour period with 6 consecutive readings, each reading at 10 minutes interval. Field tests began with each of the test holes filled with water to the top. Water level drop for each time interval was recorded to a measurement precision of 0.25 inch. Each hole was filled to the top after each 10-minute reading. The drop that occurred during the final 10-minute interval was used to determine the infiltration rate. Field infiltration test data sheets are presented hereafter. Evaluation of the design field infiltration rates is discussed in Section 3.4. Test hole preparation and test procedures were conducted in compliance with the San Bernardino County Guidelines for WQMP (see References). Field test data and calculations are presented in Appendix C. After completion of the infiltration test readings, the test holes were backfilled with the excavated soil spoils up to the surface.

1.2 Field Infiltration Rate

Percolation rate from the field test data is related to, but not equal to, the infiltration rate. While an infiltration rate is a measure of the speed at which water progresses downward into the soil, the percolation rate measures not only the downward progression but the lateral progression through the soil as well. This reflects the fact that the surface area for infiltration testing would include only the horizontal surface while the percolation test includes both the bottom surface area and the sidewalls of the test hole. In order to convert the percolation rate into infiltration rate, the following equation, known as Porchet Method, is recommended in the County Guidelines.

$$I_t = \frac{\Delta H \; 60 \; r}{\Delta t \; (r + 2H_{avg})}$$

Where, I_t = Infiltration Rate, inch/hr

ΔH = Water level drop over the time interval, inches

Δt = Time interval, minutes

r = Effective radius of the test hole (4 inches)

H_{avg} = Average water head over the time interval, inches

Summary of the field test data and infiltration rates, evaluated using the above equation, at both the test holes are presented in Table 1 below.

Table 1 - Summary of the Field Test Data

Test Hole #	Depth of Hole (ft)	Final ΔH (inch)	Δt (min)	Final H_{avg} (inch)	Infiltration Rate, I_t (inch/hr)
P-1	15	77.00	10	141.50	6.44
P-2	15	73.25	10	143.38	6.05

Infiltration rates at the test holes were found to fairly consistent, varying from 6.05 to 6.44 inch/hr. These rates are found to be within typical range of values for the sandy, gravelly soils that were encountered at the test locations. For a preliminary design estimate, we recommend a field infiltration rate of 6.0 inch/hr for subsurface soils for the proposed buried infiltration chambers at the target location with bottom of chambers at about 15 feet below the existing grade. Project Civil Engineer shall need to implement appropriate factor of safety to this field infiltration rate for design of the infiltration systems.

We appreciate this opportunity of service. If there are any questions, comments regarding this report, please contact our office.

Respectfully submitted,
ZS ENGINEERING

Zafar Ahmed, PE, GE
Geotechnical Engineer

Attachments:

Infiltration Test Hole Locations Map
Appendix A - Field Infiltration Test Data

IN THE CITY OF FONTANA, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA

TENTATIVE TRACT NO.

BEING A SUBDIVISION OF A PORTION OF LOT 783, ACCORDING TO MAP SHOWING SUBDIVISION OF LANDS BELONGING TO THE SEMI-TROPIC LAND AND WATER COMPANY, IN THE CITY OF FONTANA, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 11 PAGE 12 OF MAPS, IN THE OFFICE OF THE RECORDER OF SAID COUNTY.

S.D. ENGINEERING AND ASSOCIATES

FEBRUARY, 2020

APPLICANT/DEVELOPER

MONTEVISTA HOMES
8628 HILLSIDE ROAD
ALTA LOMA, CA 91701
ATTN: MR. STEVE LANDIS
PH: (951) 231-7206

PROPERTY ADDRESS

9092 CATAWBA AVENUE
FONTANA, CA 92335

ENGINEER

S.D. ENGINEERING AND ASSOCIATES
ATTN.: MR. SURESH DODDIAH, P.E.
242 E. AIRPORT DRIVE, STE. 212
SAN BERNARDINO, CA. 92408
PH: (909) 215-3451
EMAIL: SURESH@SDENGINEERING.NET

UTILITY PROVIDERS

SEWER
CITY OF FONTANA
8353 SIERRA AVENUE
FONTANA, CA 92335
(909) 350-6632

WATER
FONTANA WATER COMPANY
15966 ARROW ROUTE
FONTANA, CA 92335
(909) 822-2201

ELECTRICITY
SOUTHERN CALIFORNIA EDISON COMPANY
300 N. PERPOLI STREET
RIALTO, CA 92376
(909) 357-6233 -- UNDERGROUND
(909) 875-5100 -- TRANSMISSION
(213) 637-1233 -- PIPELINES

GAS
SOUTHERN CALIFORNIA GAS COMPANY
1981 W. LUGONIA AVENUE
REDLANDS, CA 92374
(909) 335-7547
EMERGENCIES: (800) 427-2200

TELEPHONE
AT&T
3630 E. CORONADO STREET
ANAHEIM, CA 92807
(714) 666-5454

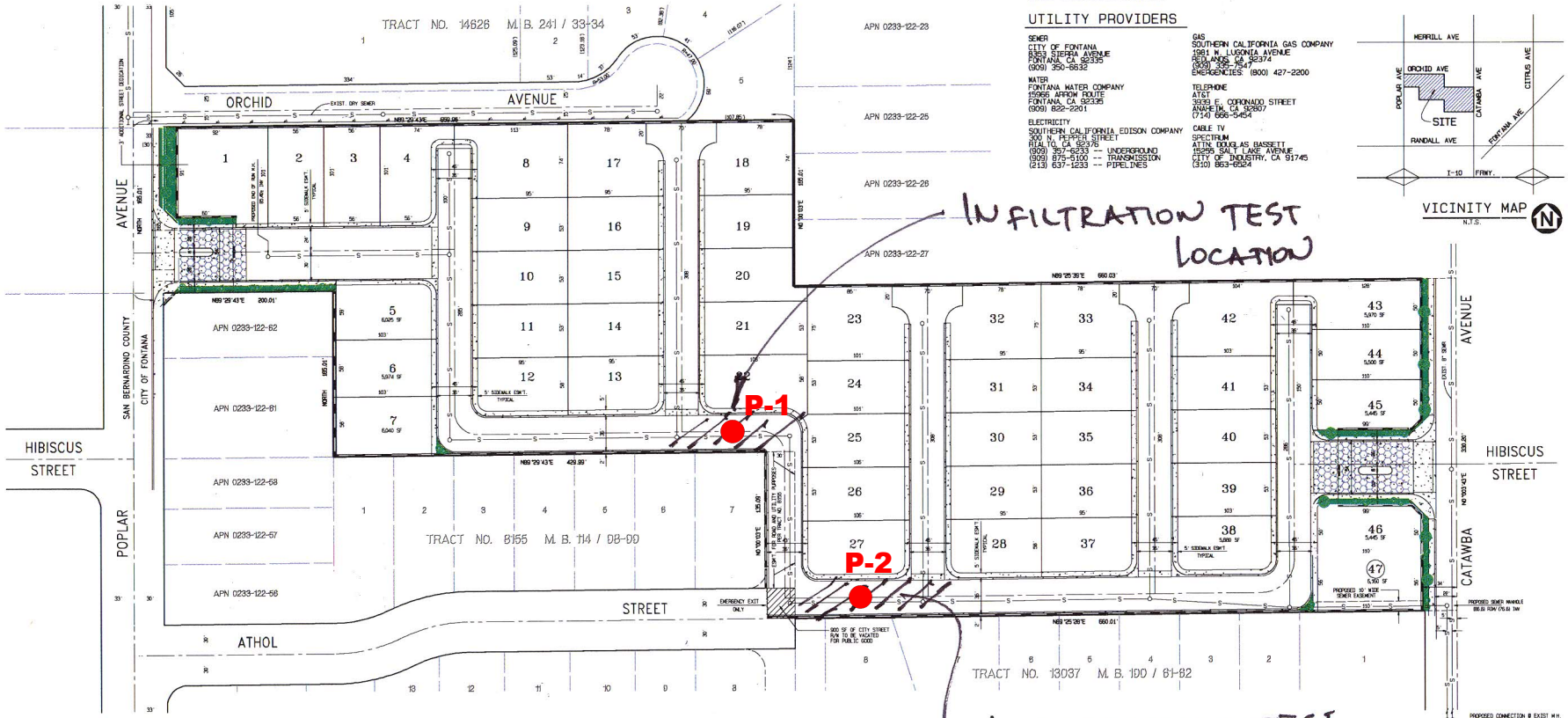
CABLE TV
SPECTRUM
ATTN: DOUGLAS BASSETT
15295 SALT LAKE AVENUE
CITY OF INDUSTRY, CA 91745
(310) 883-6264

GENERAL NOTES

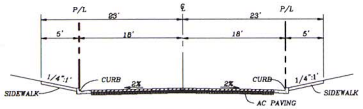
1.	ASSESSOR'S PARCEL NO.:	0233-122-60, 63, 28 and 29
2.	PROPERTY ADDRESS:	9092 CATAWBA AVENUE, FONTANA, CA 92336
3.	GROSS ACREAGE:	9.24 ACRES
4.	NET ACREAGE:	8.81 ACRES
5.	NUMBER OF PROPOSED LOTS:	47 LOTS
6.	PROJECT DENSITY:	5.4 UNITS/ ACRE
7.	ZONING:	EXISTING R1-6000 PROPOSED R-2
8.	GENERAL PLAN DESIGNATION	EXISTING RESIDENTIAL 6

SPECIAL NOTES

1. ALL INTERIOR STREETS SHOWN ON THIS MAP ARE PRIVATE.
2. ALL ON-SITE SEWER AND WATER LINES WILL BE MAINTAINED PRIVATELY.
3. KNOX BOXES TO BE INSTALLED AT ALL GATES.



VICINITY MAP
N.T.S.



TYPICAL SECTION
INTERIOR STREETS
N.T.S.

GRAPHIC SCALE 1"=50'
50 0 50 100 150

REGISTERED PROFESSIONAL ENGINEER SURESH DODDIAH NO. 36361 EXP. 6-30-20 CIVIL STATE OF CALIFORNIA

S.D. ENGINEERING AND ASSOCIATES
LAND PLANNING AND CIVIL ENGINEERING
242 E. AIRPORT DRIVE, STE. 212 - SAN BERNARDINO, CA 92408
PHONE (909) 215-3451 EMAIL: suresh@sdengineering.net

SURESH DODDIAH
DATE _____

R.C.E. NO. 36361
EXP. DATE: 06-30-20

APPENDIX A
Field Infiltration Test Data

Infiltration Test Data Sheet for P-1

Project Name: Residential Tract betn Poplar Ave & Catawba Ave, Fontana, CA Job No.: 200604

Test Hole No.: P-1 (see Fig. 2, Site Plan & Exploration Map)

Depth of Test Hole (ft): 15 Soil Description: 0 - 2': Silty f-c Sand (SM) w/ some fine gravel (up to 1/2")

2' - 10': Silty Sand to Sand, gravel size up to 1", less silts.

10' -15': Sandy Gravel (GP-GM), f-c sand, gravel up to 2"

Sandy Soil Criteria Test By: ZA Date: 6/20/20 Presoak: No

Percolation Test By: ZA Date: 6/20/20

Sandy Soil Criteria Test Data (Test Date 6/20/20)

Trial No.	Time	Time Interval (min)	Water Level from Top			Passed Sandy Soil Criteria
			Initial	Final	Δ (inch)	
1	11:46 AM 12:11 PM	25	0 ft 0.0 in	10 ft 0.00 in	120.00	Yes
2	12:21 PM 12:46 PM	25	0 ft 0.0 in	9 ft 2.00 in	110.00	Yes

Infiltration Test Data (Test Date 6/20/20)

Time	Time Interval, Δt (min)	Total Elapsed Time (min)	Water Level from Top		
			Initial	Final	ΔH (inch)
12:50 PM 1:00 PM	10	10	0 ft. 0.00 in	8 ft. 6.00 in	102.00
1:00 PM 1:10 PM	10	20	0 ft. 0.00 in	7 ft. 11.00 in	95.00
1:10 PM 1:20 PM	10	30	0 ft. 0.00 in	7 ft. 5.00 in	89.00
1:20 PM 1:30 PM	10	40	0 ft. 0.00 in	6 ft. 11.25 in	83.25
1:40 PM 1:50 PM	10	50	0 ft. 0.00 in	6 ft. 8.50 in	80.50
1:50 PM 2:00 PM	10	60	0 ft. 0.00 in	6 ft. 5.00 in	77.00

Infiltration Test Data Sheet for P-2

Project Name: Residential Tract betn Poplar Ave & Catawba Ave, Fontana, CA Job No.: 200604

Test Hole No.: P-2 (see Fig. 2, Site Plan & Exploration Map)

Depth of Test Hole (ft): 15 Soil Description: 0 - 2': Silty f-c Sand (SM) w/ some fine gravel (up to 1/2")
2' - 10': Silty Sand to Sand, gravel up to 1", less silts.
10' -15': Sandy Gravel (GP-GM), f-c sand, gravel up to 2"

Sandy Soil Criteria Test By: ZA Date: 6/20/20 Presoak: No

Percolation Test By: ZA Date: 6/20/20

Sandy Soil Criteria Test Data (Test Date 6/20/20)

Trial No.	Time	Time Interval (min)	Water Level from Top			Passed Sandy Soil Criteria
			Initial	Final	Δ (inch)	
1	11:36 AM 12:01 PM	25	0 ft 0.0 in	9 ft 8.00 in	116.00	Yes
2	12:05 PM 12:30 PM	25	0 ft 0.0 in	9 ft 0.50 in	108.50	Yes

Infiltration Test Data (Test Date 6/20/20)

Time	Time Interval, Δt (min)	Total Elapsed Time (min)	Water Level from Top		
			Initial	Final	ΔH (inch)
12:55 PM 1:05 PM	10	10	0 ft. 0.00 in	8 ft. 2.00 in	98.00
1:05 PM 1:15 PM	10	20	0 ft. 0.00 in	7 ft. 6.00 in	90.00
1:15 PM 1:25 PM	10	30	0 ft. 0.00 in	7 ft. 0.50 in	84.50
1:25 PM 1:35 PM	10	40	0 ft. 0.00 in	6 ft. 7.00 in	79.00
1:37 PM 1:47 PM	10	50	0 ft. 0.00 in	6 ft. 4.25 in	76.25
1:47 PM 1:57 PM	10	60	0 ft. 0.00 in	6 ft. 1.25 in	73.25