CITY OF LOMA LINDA
ENVIRONMENTAL CHECKLIST FORM AND INITIAL STUDY

Project Title: LOMA LINDA ALZHEIMER'S SPECIAL CARE CENTER
(GPA No. 11-165; ZC No. 11-166; PPD No. 11-164)

Lead Agency Name: City of Loma Linda Community Development Department
Address: 25541 Barton Road
Loma Linda, CA 92354

Contact Person: Guillermo Arreola
Phone Number: (909) 799-2839

Project Sponsor: JEA Senior Living
Address: Southwest Corner of New Jersey Street and Orange Avenue
Loma Linda, CA 92354
APN: 0292-162-10-0000

General Plan Designation: High Density Residential

Proposed General Plan Designation: Health-Care

Existing Zone: R-3

Proposed Zone: Institutional

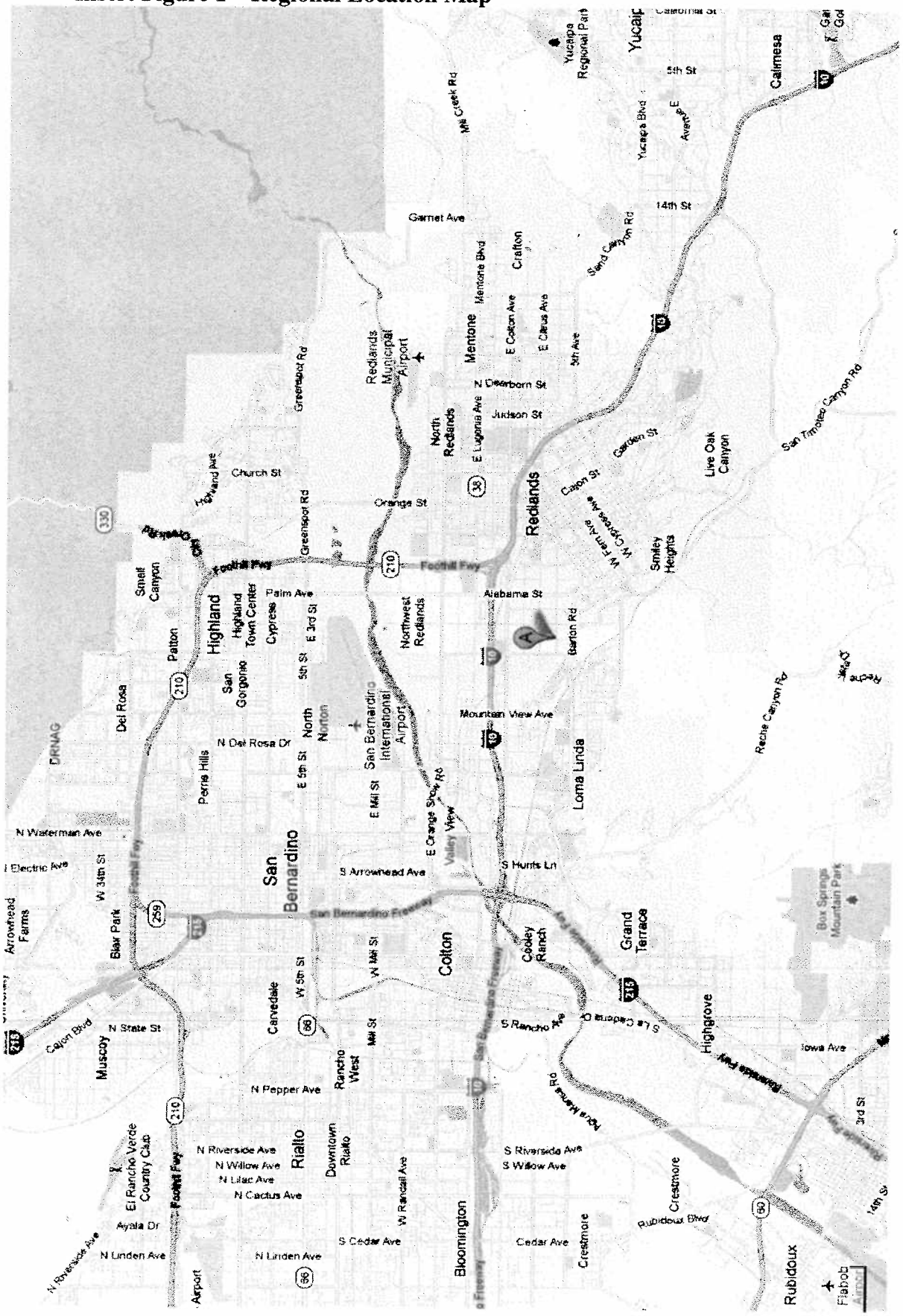
Project Location (Address/Nearest cross-streets): The 2.7 acre site is located at the southwest corner of New Jersey Street and Orange Avenue, adjacent to an existing church, across the street from the unincorporated area of the City of Loma Linda's Sphere of Influence (refer to Figure 1: Regional Location Map and Figure 2: Vicinity Map).

Project Description: JEA Senior Living is proposing to construct a 31,992 square foot, 24-hour, 66-bed, state of the art specialized memory care facility which focuses on Alzheimer's, dementia and related memory issues. The applicant is providing 41 parking spaces, and 48,946 square feet of landscaping/open space. The project also requires approval of a General Plan Amendment from High Density Residential to Health-Care, and a Zone Change from Multiple Family Residence (R-3) to Institutional. The property is currently partially developed with a single-family home and accessory structures, with the remaining portion of the lot being vacant. The dwelling unit and accessory structures will be demolished as a result of the proposed development.

Need for Project: The proposed 66-bed facility will provide around-the-clock care and attention to residents suffering from Alzheimer's, dementia, and related memory issues. The location of the proposed development is ideal to the proximity to other medical facilities in the area. The facility fulfills a need for dedicated Alzheimer's Housing.

Surrounding Land Uses and Setting (Briefly describe the project's surroundings): The Project Site is currently developed with a single family home and some accessory buildings. A church borders the property to the south, orange groves to the north and west, and vacant property to the east.

Insert Figure 1 – Regional Location Map



Insert Figure 2 – Site Vicinity Map

City of Loma Linda

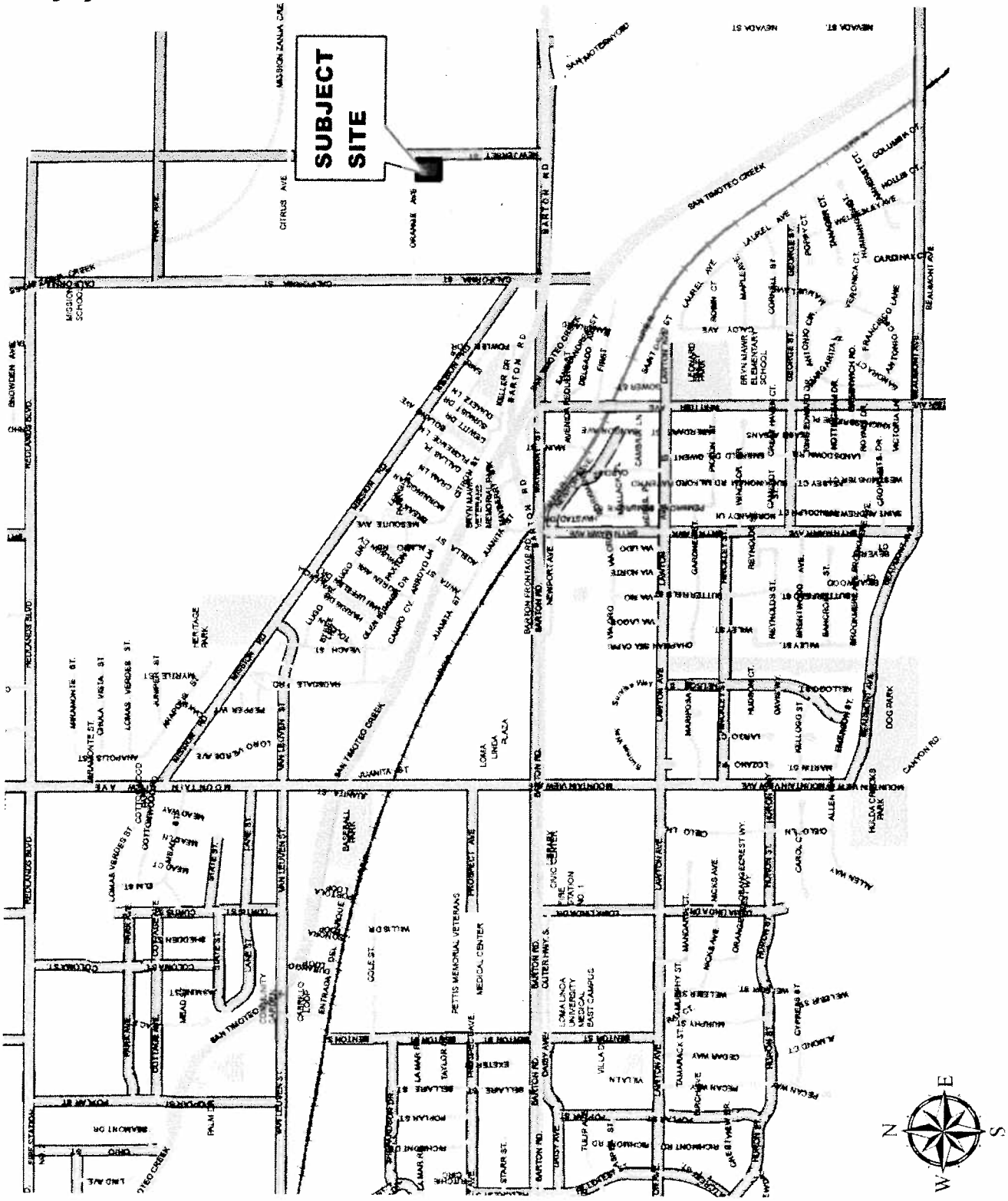


Figure 3 – Site Plan

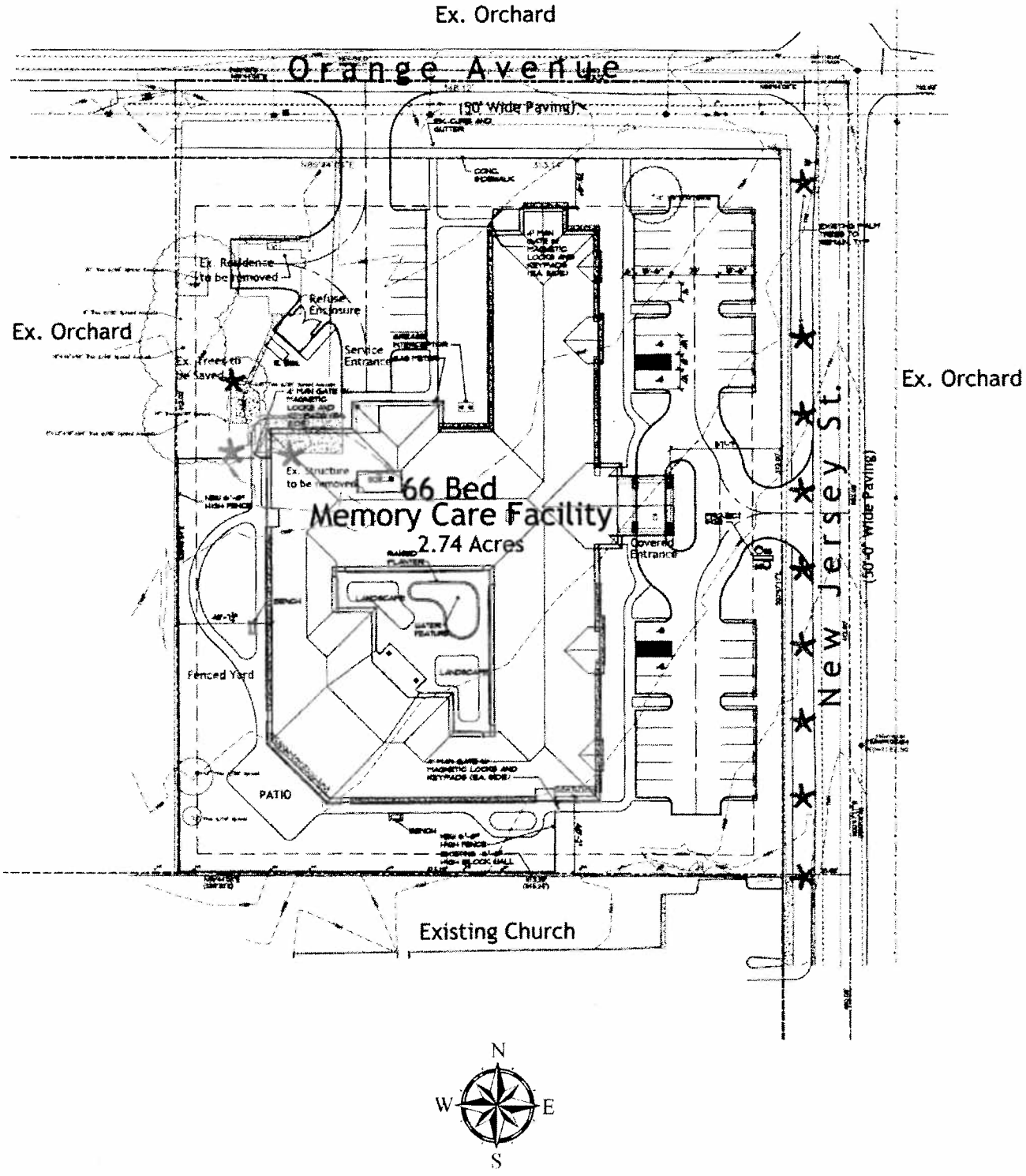


Figure 4 – Preliminary Landscape Plan

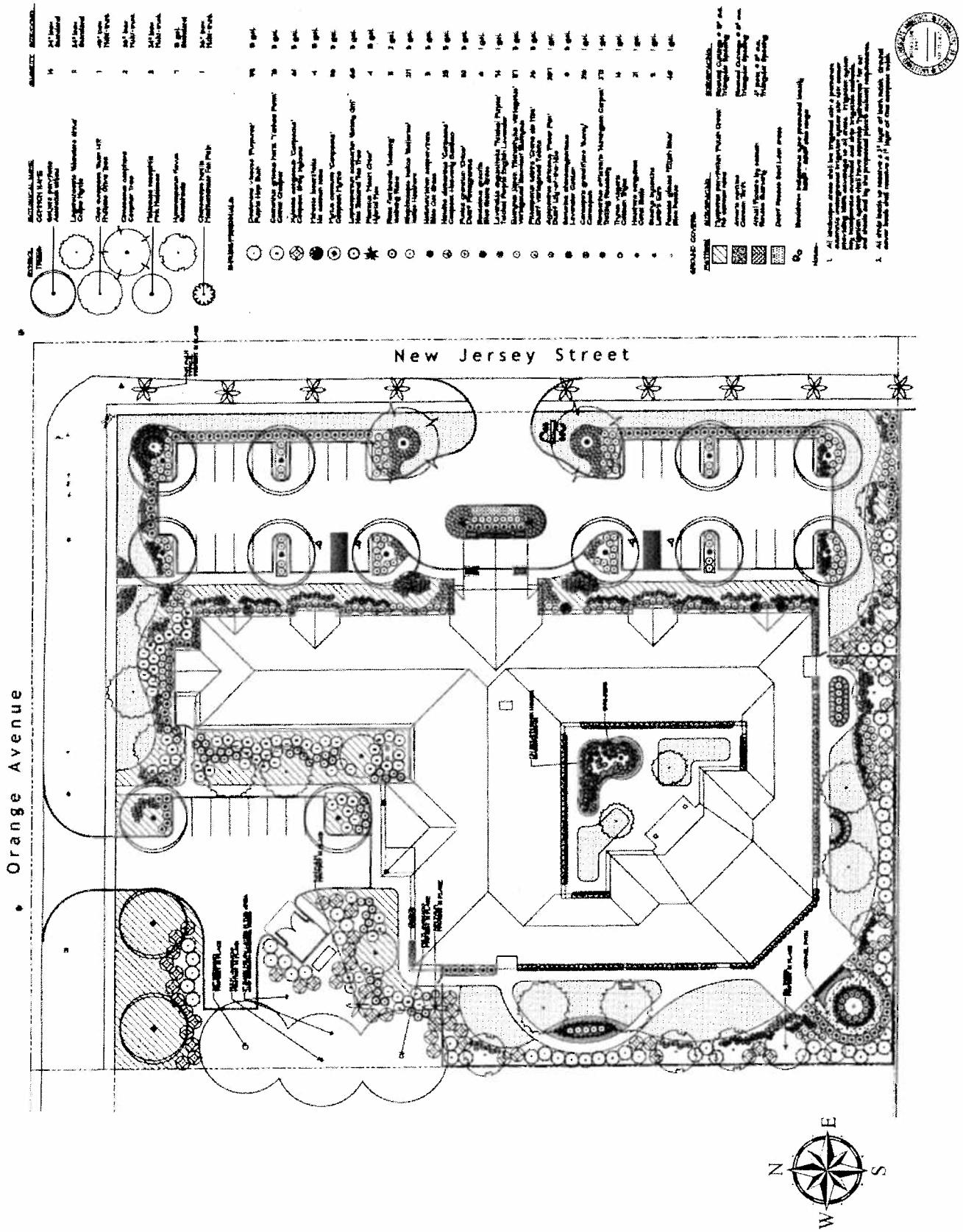


Figure 5 – Elevations

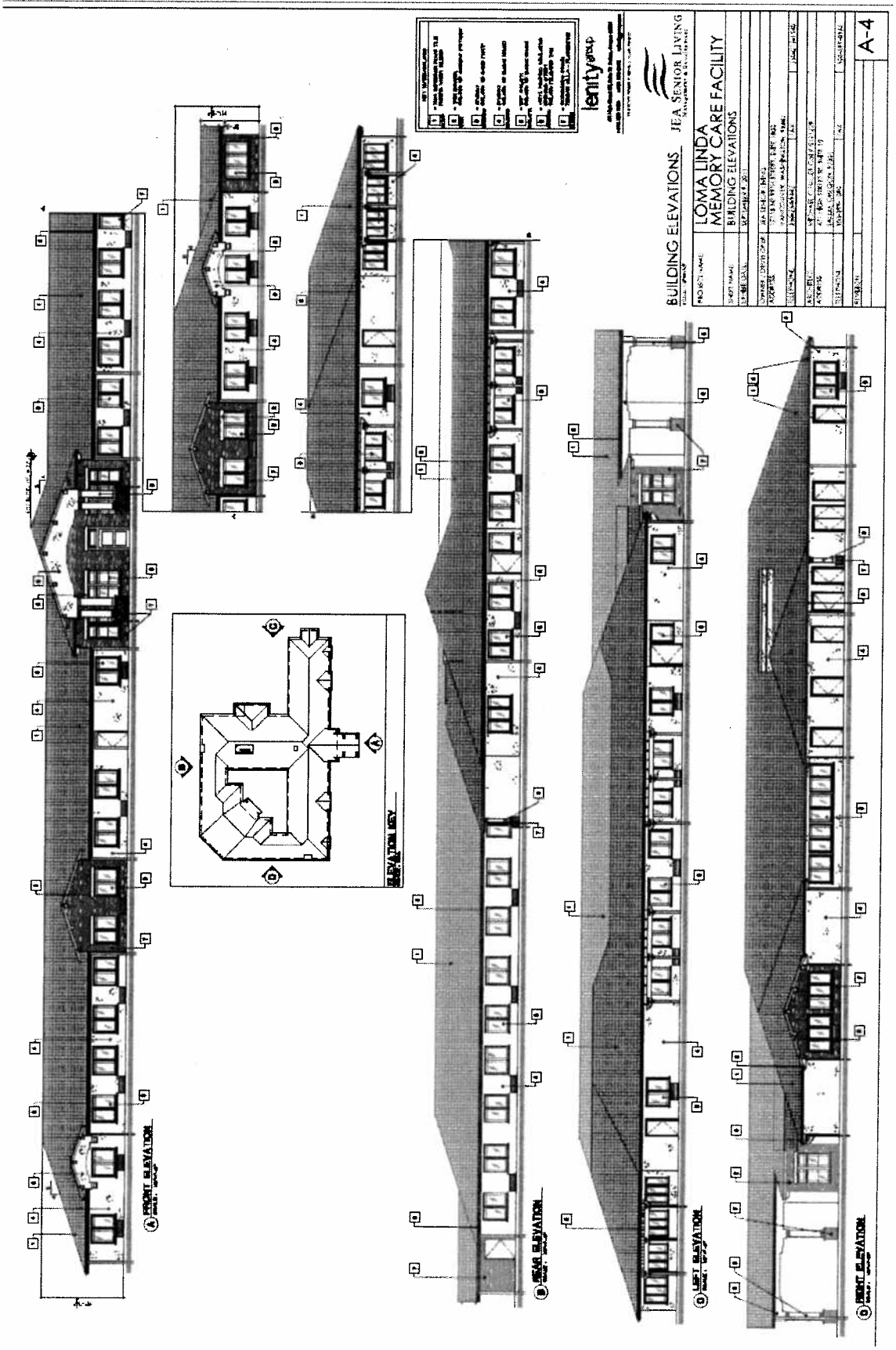


Figure 6 – Floor Plan

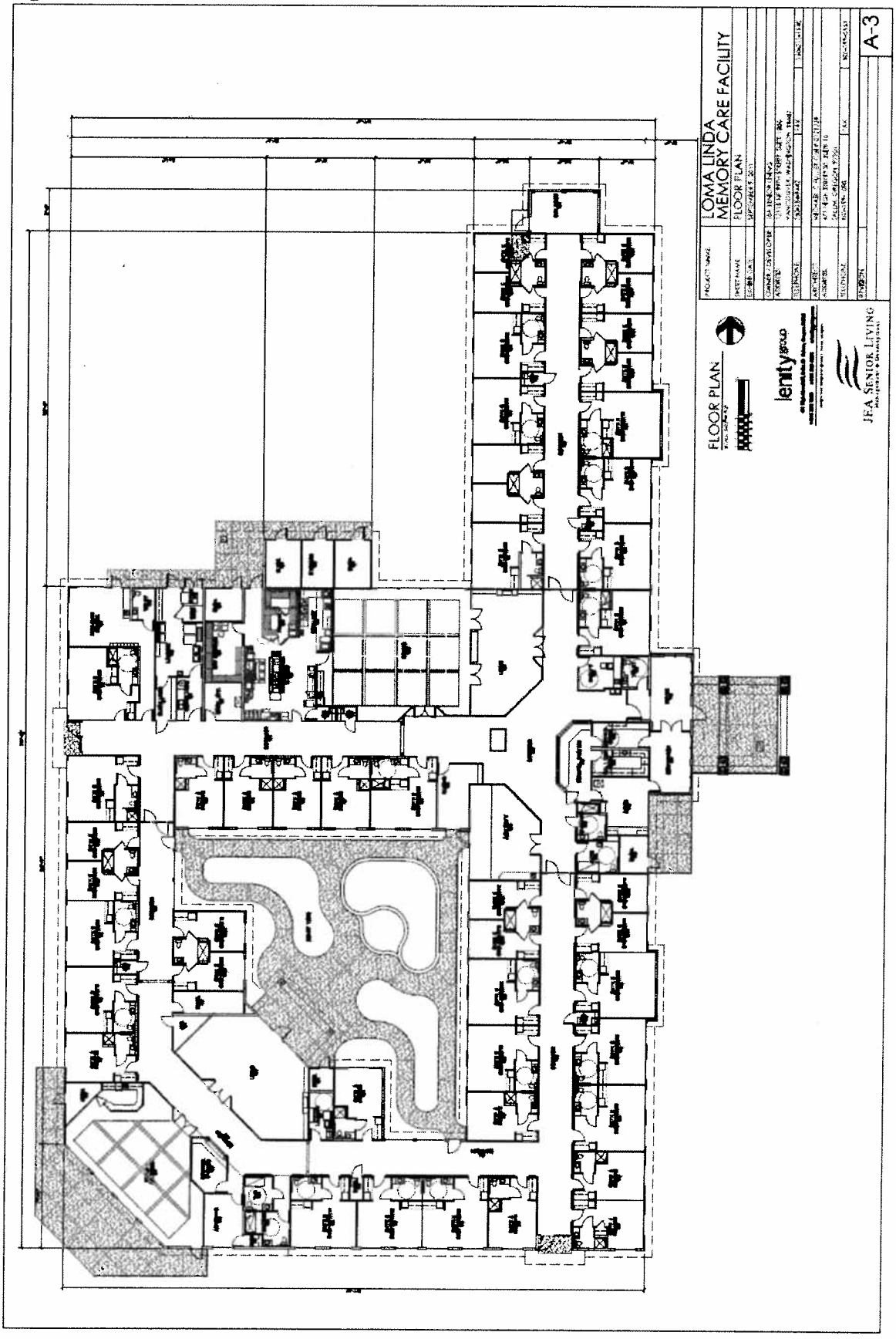
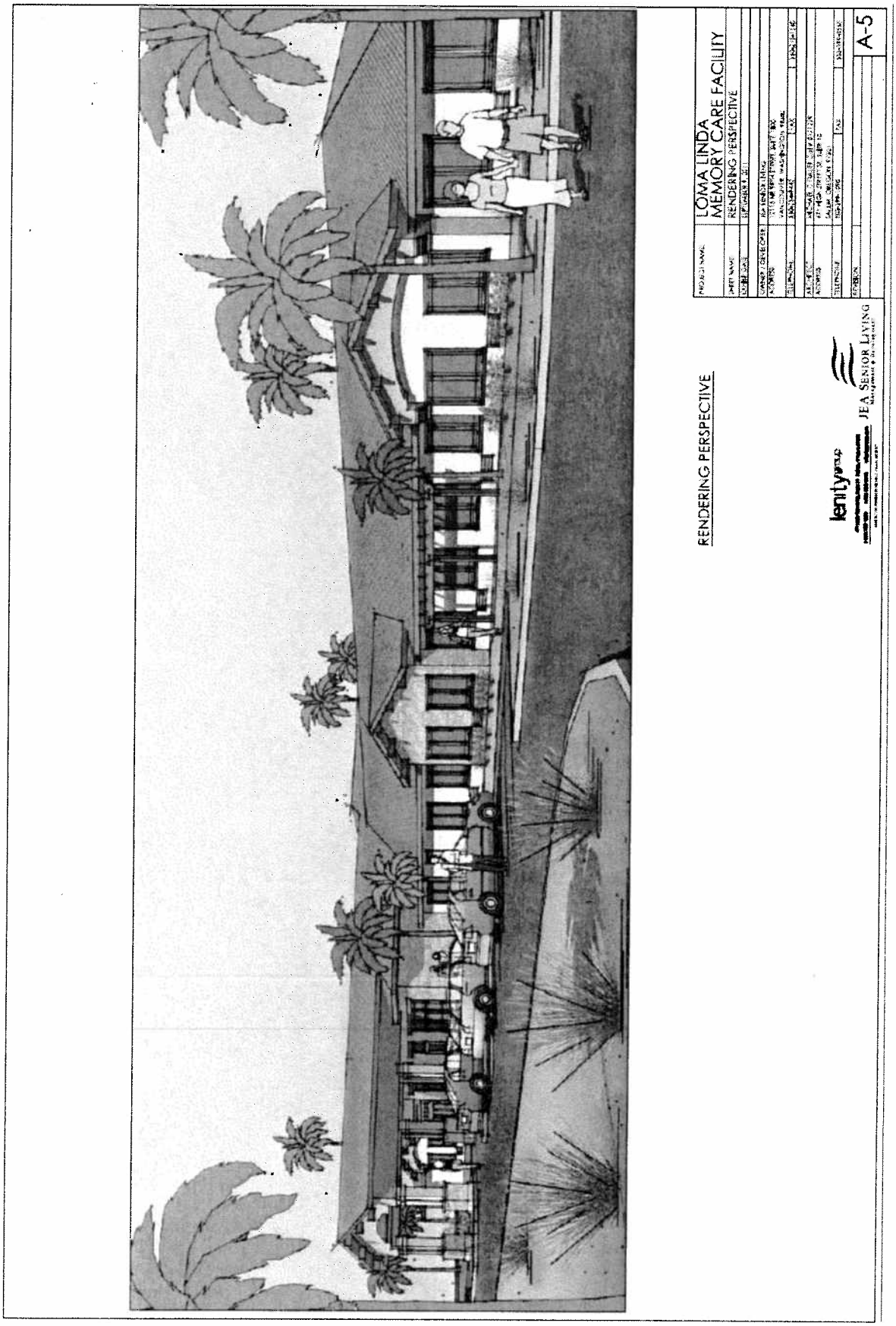


Figure 7 – Preliminary Perspective



ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

DETERMINATION

On the basis of this initial evaluation:

( ) I find that the Proposed Project COULD NOT have a significant effect on the environment. A NEGATIVE DECLARATION will be prepared.

(✓) 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 because revisions in the project have been made by, or agreed to, by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

( ) 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" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standard 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 1) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and 2) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.

Prepared By: _____ Date: _____

EVALUATION OF ENVIRONMENTAL IMPACTS

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS. *Would the project:*				
a) Have a substantial affect on a scenic vista?	( )	( )	( )	(✓)
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway?	( )	( )	( )	(✓)
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	( )	( )	( )	(✓)
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	( )	(✓)	( )	( )

Comments:

a/b) **No Impact.** According to the City's General Plan, the Project Site is not within a scenic vista/scenic highway view corridor. Nearby streets including local portions of Barton Road, Orange Avenue and New Jersey Street are not considered scenic routes. There are no scenic vistas that would be impacted by the Proposed Project. While not located on the project site, the proposed project does not include plans to remove the existing palm trees along New Jersey Street.

c) **No Impact.** The existing visual character of the Project Site would change with construction of the Proposed Project; however, a substantial degradation of the site or its surroundings would not occur.

The Project Site also occurs within the City's Historic Mission Overlay District (HMOD). Design of the facility would have a modest residential design, with a combination of tan and taupe colors, stucco and stone finishes, and a clay tile roof. Therefore, no significant impacts to the existing visual character of the HMOD would occur.

d) **Less than Significant Impact with Mitigation Incorporated.** Potentially sensitive receptors to light and glare impacts to views within the area include single family dwelling unit to the west. The property to the north is developed with an orange grove, the property to the west with a single-family dwelling unit and orange grove, the property to the east is partially vacant and also developed with an orange grove, and the property to the south id developed with a church.

The properties located to the south and west of the subject site have a General Plan Designation of High Density Residential, and zoned Multi-Family Residence (R-3). The Property to the north has a General Plan Designation Business Park, and is located in the unincorporated portion of San Bernardino County. The property to the east has a General Plan designation of High Density Residential, and is located in the unincorporated area of San Bernardino County. The proposal includes an amendment to the General Plan Designation from High Density Residential to Health Care and a zone change from R-3 to Institutional. The property to the west is developed with a

single-family dwelling unit, the property to the south is developed with a church and associated parking lot, the property to the north is developed with an orange grove, and the property to the east is partially vacant, with some orange trees. Due to the residentially developed property to the west, and the possibility that there may be potential impacts to future multi-family residential development located west of the subject site, implementation of the following mitigation measure would ensure impacts to existing and potential residential development would be reduced to a less than significant level:

Mitigation Measure

1. **Prior to issuance of Certificate of Occupancy, the applicant shall submit a photometric plan and final lighting plan to City staff showing the exact locations of light poles and the proposed orientation and shielding of the fixtures to prevent glare onto existing residences to the east (existing residences within the City of Redlands and west across New Jersey Avenue, and for potential residential development to the north.**

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2. AGRICULTURAL RESOURCES. 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 Department 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 and Monitoring Program of the California Resources Agency, to non-agricultural use?	( )	()	( )	(✓)
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	( )	( )	( )	(✓)
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	( )	()	( )	(✓)
d) Result in the loss of forest land or conversion of forest land to non-forest use?	( )	( )	( )	(✓)

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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	( )	()	( )	(✓)

Comments:

a-e) **No Impact**. In 1982, under Legislative mandate (Government Code § 65570), the State Department of Conservation (DOC) was required to collect and/or acquire data on lands converted to/from agricultural use. The purpose for collecting such information was to provide decision makers with maps and statistical data on the conversion of farmland and grazing land that would assist in the land use planning process. Important Farmland maps are prepared biannually by the DOC Division of Land Resource Protection are heavily based on soil classification data from the U.S.D.A. Natural Resources Conservation Service (NRCS) and water availability determined by the State Department of Water Resources. Utilizing this information, land is classified into one of eight categories (five relating to farming and three associated with nonagricultural purposes) these include: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built-Up Land, and Other Land. According to maps prepared in 2008 by the California Department of Conservation, Division of Land Resources Protection, Farmland Mapping and Monitoring Program the Project Site is designated as Prime Farmland. Prime Farmland is defined as having the best combination of physical and chemical features able to sustain long-term agricultural production. Said land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. Based on the Cultural Resources Assessment conducted by Michael Brandman Associates (*Cultural Resources Assessment of the Loma Linda Memory Care Center Project),* the site was previously used for agricultural purposes since the late 1800's, but the orange trees on the property were cut down between 1980 and 1994. Therefore, because the site has not been used for irrigated agricultural production during the four years prior to the mapping date of December, 2011, the subject site is not considered Prime Farmland.

California Land Conservation (Williamson) Act of 1965 was adopted to regulate the conversion of farmland/agricultural land into non-agricultural use and control urban expansion. The Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or open space use. The landowners in turn incur tax benefits through a reduction in tax assessments (estimated to be a savings of between 20 to 99 percent in property tax liability each year). According to the California Land Conservation (Williamson) Act 2010 Status Report, San Bernardino County held Williamson Act Contracts totaling approximately 4,542 acres (including term and nonrenewal contracts).

No portion of the Project Site is contracted under the Williamson Act. Therefore the Proposed Project and its location would not impact any Williamson Act land conservation contract. Upon annexation, the Project Site would be pre-zoned Administrative Professional Office and an amendment to the City of Loma Linda General Plan would allow for the proposed uses. Approval of the Proposed Project would not conflict with current zoning or other uses surrounding the Project Site. No impacts would result.

The Project Site is zoned Multi-Family Residence (R-3) and developed with a single-family dwelling unit. The proposed zoning for the property will be Institutional, which would allow the development of the memory care facility. No portion of the Project Site occurs within forest land, and approval of the proposed GPA, Zone Change, Precise Plan of Development to allow for the construction of the 66-bed memory care facility would not result in the loss of forest land or convert forest land to a non-forest use. No impacts would result.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3. AIR QUALITY. *Would the project:*				
a) Conflict with or obstruct implementation of the applicable air quality plan?	( )	( )	( )	(✓)
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	( )	( )	(✓)	( )
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 (including releasing emissions, which exceed quantitative thresholds for ozone precursors?	( )	( )	(✓)	( )
d) Expose sensitive receptors to substantial pollutant concentrations?	( )	( )	(✓)	( )
e) Create objectionable odors affecting a substantial number of people?	( )	( )	(✓)	( )

Comments:

a) **No Impact:** The project site is within the South Coast Air Basin (SCAB) and under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is responsible for updating the Air Quality Management Plan (AQMP). The AQMP was developed for the primary purpose of controlling emissions to maintain all federal and state ambient air standards for the district. The proposed Project would not significantly increase local air emissions and therefore would not conflict with or obstruct implementation of the plan. No impact is anticipated.

b-c) **Less than Significant with Mitigation:**

Estimated Short-Term Construction Emissions

Construction activities associated with the proposed project would have the potential to generate air emissions, toxic air contaminant emissions, and odor impacts. Assumptions for the phasing, duration, and required equipment for the construction of the proposed project were obtained from the project applicant. The construction activities for the proposed project are anticipated to include: demolition of the existing home, site preparation and grading of approximately 2.74 acres, paving approximately .6 acres, construction of a 37,873 square foot memory care facility with 66 beds, and application of architectural coatings. The proposed project is anticipated to start construction mid-2012 and would be constructed over approximately 12 months.

The Air Quality and Global Climate Change Impact Analysis prepared by Kunzman Associates, Inc., found that the proposed project's construction-related air emissions from fugitive dust and on-site diesel emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The local air quality emissions from construction were analyzed using the SCAQMD's Mass rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold Methodology, prepared by SCAQMD, revised July 2008. The Look-up tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality.

The construction-related regional air quality impacts have been analyzed for both criteria pollutants and GHGs. SCAQMD, Rule 403 minimum requirement requires that the application of the best available dust control measures are used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the general of visible dust plumes. According to SCAQMD staff, application of the Rule 403 minimum requirements would provide a 55 percent reduction over the default calculated fugitive dust emission rates. The table below shows that with following mitigation measures, construction emissions can be reduced to less than significant.

Mitigation Measures

2. **The project applicant shall require that during grading operations all exposed surfaces are watered a minimum three times per day**

3. **The project applicant shall require that during grading operations all graders and dozers used on the project site meet Tier 2 or greater emission requirements. Any other heavy equipment used on the project site that is not mentioned shall meet the minimum allowable emissions standards set by the California Air Resources Board.**

Mitigated Local Construction Emissions

Phase	On-Site Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Demolition	40.86	24.57	2.56	2.51
Site Preparation	37.04	18.74	2.52	1.80
Grading	29.98	21.09	4.10	2.83
Building Construction	30.66	19.93	2.07	2.07
Paving	25.92	16.81	2.21	2.21
Architectural Coating	2.96	1.94	0.27	0.27
SCAQMD Threshold for 15 meters (50 feet)[2]	**84**	**618**	**5**	**3**
Exceeds Threshold?	No	No	No	No

2 The estimated distance from the proposed grading activities to the existing small chapel southwest of the project site is 50 feet.

The construction-related criteria pollutants emissions for each phase are shown in the table below. The table shows that VOC, NOx, CO, PM10, and PM2.5 emissions of the proposed project would not exceed the SCAQMD regional thresholds of significance levels. Therefore, less than significant regional air quality impacts would occur during construction of the proposed project.

Construction-related Regional Criteria Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	ROG	N0x	CO	SO2	PM10	PM2.5
Demolition						
On-Site	5.41	40.86	24.57	0.05	2.56	2.51
Off-Site	0.12	0.39	1.19	0.00	0.46	0.02
Total	**5.53**	**41.25**	**25.76**	**0.05**	**3.02**	**2.53**
Site Preparation						
On-Site	4.43	37.04	18.74	0.04	2.52	1.80
Off-Site	0.06	0.06	0.65	0.00	.013	0.01
Total	**4.49**	**37.10**	**19.39**	**0.04**	**2.65**	**1.81**
Grading						
On-Site	4.97	39.40	23.00	0.04	5.07	3.61
Off-Site	0.07	0.07	.81	0.00	0.16	0.01
Total	**5.04**	**39.47**	**23.81**	**0.04**	**5.23**	**3.62**
Building Construction						
On-Site	5.66	30.66	19.93	0.04	2.07	2.07
Off-Site	.44	1.60	4.55	0.01	0.87	0.10
Total	**6.10**	**32.26**	**24.48**	**0.05**	**2.94**	**2.17**
Paving						
On-Site	4.32	25.92	16.81	0.03	2.21	2.21
Off-Site	0.10	0.10	1.11	0.00	0.24	0.02
Total	**4.42**	**26.02**	**19.92**	**0.03**	**2.45**	**2.23**
Architectural Coating						
On-Site	30.09	2.96	1.94	0.00	0.27	0.27
Off-Site	0.06	0.06	0.74	0.00	0.16	0.01
Total	**30.15**	**3.02**	**2.68**	**0.00**	**0.43**	**0.28**
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Thresholds	No	No	No	No	No	No

Operations-Related Regional Air Quality Impacts

The on-going operation of the proposed project would result in a long-term increase in air quality emission. This increase would be due to emissions from the project-generated vehicle trips and through operational emission of the on-going use of the proposed project.

The data provided in the table below shows that for on-going operations activities for the proposed project, the VOC, NOx, CO, SO2, PM10, and PM2.5 emissions would not exceed the SCAQMD regional thresholds of significance. Therefore, operation of the proposed project would result in a less than significant regional air quality impact.

Operational Criteria Pollutants Regional Air Emissions

Activity	Pollutant Emissions (pounds/day)					
	ROG	NOx	CO	SO2	PM10	PM2.5
Area Sources	1.02	0.07	5.68	0.00	0.03	0.03
Energy Usage	0.03	0.25	0.11	0.00	0.02	0.02
Mobile Sources	1.85	5.37	18.34	0.03	3.33	0.31
Total Emissions	2.90	5.69	24.13	0.03	3.38	0.36
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Operations-Related Local Air Quality Impacts

Project-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The proposed project has been analyzed for the potential local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from on-site operations. The project, with the off-site improvements of sidewalk, curb and gutters, would not decrease the Level of Service at any analyzed intersection and no analyzed intersection would operate at a Level of Service E or worse for either the opening year 2013 or cumulative year 2035 scenarios. Therefore, no CO "hot spot" modeling was performed and no significant long term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

The CalEEMod model was used to provide the data in the table below. The data shows that the on-going operations of the proposed project would not exceed the local NOx, CO, PM10, and PM2.5 thresholds of significance. Therefore, the on-going operations of the proposed project would create a less than significant operations-related impact to local air quality.

Local Operational Emission Levels

Activity	On-Site Pollutant Emissions (punds/day)			
	Nox	CO	PM10	PM2.5
On-Site Vehicle Emissions	0.54	1.83	0.33	0.03
Natural Gas Appliances	0.25	0.11	0.02	0.02
Landscape Maintenance Equipment	0.07	5.68	0.03	0.03
Total Emissions	**0.86**	**7.62**	**0.38**	**0.08**
SCAQMD Threshold for 15 meters	**84**	**618**	**1**	**1**
Exceeds Threshold	No	No	No	No

d) **Less than Significant with Mitigation**

The proposed project's construction-related air emissions from fugitive dust and on-site diesel emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The nearest off-site sensitive receptor that may be impacted by the proposed project is a small chapel located approximately 10 feet southwest of the project site and approximately 50 feet from the nearest proposed improvements on the project site. The data in the table below shows that NOx and CO emissions would not exceed the allowable limits for any phase of construction. The table also shows that PM10 and PM2.5 would exceed the local emissions thresholds during grading activities and would be within the thresholds for all other construction phases. This would be considered a significant impact.

Mitigated Local Construction Emissions

Phase	On-Site Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Demolition	40.86	24.57	2.56	2.51
Site Preparation	37.04	18.74	2.52	1.80
Grading	29.98	21.09	4.10	2.83
Building Construction	30.66	19.93	2.07	2.07
Paving	25.92	16.81	2.21	2.21
Architectural Coating	2.96	1.94	0.27	0.27
SCAQMD Threshold for 15 meters (50 feet)[2]	**84**	**618**	**5**	**3**
Exceeds Threshold?	No	No	No	No

2 The estimated distance from the proposed grading activities to the existing small chapel southwest of the project site is 50 feet.

As stated above, mitigation will be required that requires the grading contractor to water all exposed surfaces a minimum of 3 times per day and require that all graders and dozers meet Tier 2 or greater emission requirements. With the mitigation measures, the impacts to sensitive receptors would be reduced to less than significant.

e) **Less than Significant Impact**

Potential sources that may emit odors during the on-going operations of the proposed project would include odor emissions from diesel truck emissions and trash storage areas. Due to the distance of the nearest receptor from the project site and through compliance with SCAQMD's Rule 402, no significant impact related to odors would occur during the on-going operations of the proposed project.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
4. BIOLOGICAL RESOURCES. *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?	( )	( )	( )	(✓)
b) Have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	( )	( )	( )	(✓)
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, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	( )	( )	( )	(✓)
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	( )	( )	( )	(✓)
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	( )	( )	( )	(✓)
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community conservation Plan, or other approved local, regional, or State habitat conservation plan?	( )	( )	( )	(✓)

Comments:

a) **No Impact**. Critical habitat identifies specific areas that are essential to the conservation of a listed species and, with respect to areas within the geographic range occupied by the species. As shown on Figure 4.4.2 within the City's General Plan EIR, the Project Site does not occur within the proposed critical habitat for the California gnatcatcher. According to Figure 4.4.1 within the EIR, the project site is located within ruderal areas, which consist of weedy areas that have been previously cleared of brush for agricultural land. The dominant plant species previously located on-site were orange trees, however, the property has not been used for agricultural purposes since approximately 1994.

The San Bernardino Kangaroo rat is listed as endangered by the United States Fish and Wildlife Service. This species is found in scattered, isolated patches of alluvial scrub habitat throughout San Bernardino and Riverside Counties. However the project site is located adjacent to an urban area, south of the project site and has been vacant since 1994.

In addition, in August 2004, a Phase One Kangaroo Rat and Sensitive Small Mammal Evaluation was performed for the existing LLU heart and Surgical Hospital, located southeast of the Project Site. A biologist certified to conduct kangaroo rat surveys and trappings conducted the habitat evaluation of the site and found no signs (i.e., burrows, scat, dust baths and track/tail drags) of the three kangaroo rat species that could potentially occur on the site. The report also concluded that due to the absence of suitable sandy soils and vegetative cover, no sensitive small mammal species occur on-site. Given that the Project Site is located across the street from that subject site, the subject site contains the same soils type; it is unlikely that the area would be occupied by sensitive small mammal species. Therefore, development of the Project Site would not impact these species.

Critical habitat identifies specific areas that are essential to the conservation of a listed species and, with respect to areas within the geographic range occupied by the species. According to Figure 9.3 of the General Plan, the Project Site and surrounding area is developed and includes urban landscaping. No impacts to 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 would result.

b) **No Impact.** According to Figure 9.3 of the City's General Plan, no riparian habitat occurs on or near the Project Site. Therefore, the Project would not 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 U.S. Fish and Wildlife Service. The Project Site is currently developed as an orange grove and contains no such habitats.

c) **No Impact.** The Project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means, because the Project Site is developed as an orange grove and is not within an identified protected wetland, nor near any drainage.

d) **No Impact.** The Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, because the area surrounding the Project Site is currently developed, limiting wildlife corridors or nursery sites within or near the Project Site.

e) **No Impact.** The Project would not conflict with any local policies or ordinances that protect biological resources, as the Project Site was previously developed as an orange grove, but were removed between 1980 and 1994. The northwest corner of the site is developed with a single family dwelling unit and accessory structures, but a majority of the site is vacant. There are no identified significant biological resources that are subject to such regulation.

f) **No Impact.** 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, because no such plan has been adopted for the Project Site or surrounding area.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5. CULTURAL RESOURCES. *Would the project:*				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	( )	(✓)	()	( )
b) Cause a substantial adverse change in the significance of an archeological resource pursuant to § 15064.5?	( )	(✓)	( )	( )
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	( )	(✓)	( )	( )
d) Disturb any human remains, including those interred outside of formal cemeteries?	( )	(✓)	( )	( )

Comments:

a-d) **Less than Significant Impact with mitigation.**

In accordance with Ordinance No. 623, a project-specific cultural resource investigation was prepared by Michael Brandman Associates for the Project Site. The investigation was required by the City as part of the overall environmental studies for compliance with CEQA. The following information is excerpted from that report.

Michael Brandman Associates prepared a Cultural Assessment (Dated 10/10/11) of the property, and contacted the Native American Heritage Commission (NAHC) on September 14, 2011 requesting a Sacred Lands File search for traditional cultural properties. The NAHC response, dated September 28, 2011 indicated that no sacred lands or traditional cultural properties are known for the project area nor are any indicated within ½ mile of the project area. To ensure that Native American concerns are addressed, the NAHC recommended that letters to each of the ten listed tribal contacts be sent. An information letter was sent to each of the tribal contacts on September 29, 2011. At the time of printing of this report, staff has not received any comments from any of the tribal contacts.

The property does not exhibit any significant cultural resources on the modern ground surface. Many archaeological surveys have occurred in this area and buried resources are expected to be common in and only if the disturbed plow zone soil horizon is removed. The row of aging palm trees along the eastern side of the project area is within the right-of-way of the street. This is a historically significant run of palms planted before 1938, but they cannot be saved or moved due to their size.

The Cultural Assessment analysis determined:

- The property does not exhibit any significant cultural resources on the ground surface
- Buried resources are expected to be common in and only if the disturbed plow zone soil horizon is removed.
- There is a historically significant run of palm trees in the right-of-way that cannot be saved or moved due to size.

Based on this information, the Loma Linda Historical Committee approved a Certificate of Appropriateness for the demolition of the existing structure, but required that mitigation measures be implemented, as shown below.

For these reasons, the potential for impacts to significant cultural resources during construction should be considered moderate, but only within the confines of the proposed Memory Care Center structural foundation and any ground that will be excavated more than four feet below grade. Grading on the project site should be monitored by a qualified archaeologist once a depth of 4-feet below grade has been reached.

In the event of the accidental discovery or recognition of any human remains, California State Health and Safety Code Section 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and Public Resources Code (PRC) Section 5097.98.

In the event that buried cultural resources are discovered during construction, operations shall stop in the immediate vicinity of the find and a qualified archaeologist shall be consulted to determine whether the resource required further study. The qualified archeologist shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of, but are not limited to stone, bone, fossils, wood or shell artifacts or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of CEQA criteria.

Mitigation Measures

4. **A qualified archaeologist inspector shall be present during once project-related excavations reach 4-feet below current grade. Should any cultural resources be discovered by the inspector during project-related earthmoving, all earthmoving in the immediate areas of the discovery shall cease. The inspector shall examine the find and make recommendations to the lead agency (City of Loma Linda) on the measures that shall be implemented to protect to the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines.**

5. **If during the implementation of Mitigation Measure 4, the resources are determined to be "unique historic resources" as these terms are defined under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in greenspace, parks or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study.**

6. **Should paleontological resources be uncovered during grading, a qualified vertebrate paleontologist shall be contracted to perform a field survey to determine and record any nonrenewable paleontological resources found on-site. The paleontologist will determine the significance, and make recommendations to the City of Loma Linda for appropriate mitigation measures in compliance with the guidelines of the California Environmental Quality Act.**

7. **If human remains of any kind are found during excavation and construction activities, all activities must cease immediately and the San Bernardino County Coroner and a qualified archaeologist must be notified. The Coroner will examine the remains and determine the next appropriate action based on his or her findings. If the coroner determines the remains to be of Native American origin, he or she will notify the Native American Heritage Commission. The Native American Heritage Commission will then identify the most likely descendants to be consulted regarding treatment and/or reburial of the remains. If a most likely descendant cannot be identified, or the most likely descendant fails to make a recommendation regarding the treatment of the remains within 48 hours after gaining access to them, the contractor shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.**

8. **The applicant shall protect the existing run of palm trees located along New Jersey Street to the greatest extent possible.**

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6. GEOLOGY AND SOILS. *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 or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	( )	( )	(✓)	()

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
ii) Strong seismic ground shaking?	( )	( )	(✓)	( )
iii) Seismic-related ground failure, including liquefaction?	( )	( )	(✓)	()
iv) Landslides?	( )	( )	( )	(✓)
b) Result in substantial soil erosion or the loss of topsoil?	( )	( )	(✓)	( )
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?	( )	( )	(✓)	( )
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	( )	( )	( )	(✓)
e) 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?	( )	( )	( )	(✓)

Comments:

a) **No Impacts and Less than Significant Impact.** The City of Loma Linda is situated within the northern Peninsular Ranges Geomorphic Province of California. Locally, the City lies near the transition zone between the Transverse Ranges Geomorphic Province to the north and the Peninsular Ranges Geomorphic Province to the south. The Peninsular Ranges are a northwest-southeast oriented complex of blocks separated by similarly trending faults which extend 125 miles from the Transverse Ranges to south of the California/Mexican border and beyond another 775 miles to the tip of Baja California.

i) According to Figure 10.1 of the City of Loma Linda General Plan, the Project Site and surrounding area are located within an Alquist-Priolo Earthquake Fault Zone or special study zone. The nearest fault to the Project Site is the Loma Linda fault, which was formerly included as an Alquist-Priolo Zone, but trenching showed no evidence of Holocene rupture of the fault, and it was removed from the Alquist-Priolo Zone. The Loma Linda fault displaces the Plio-Pleistocene San Timoteo Formation south of the City of Loma Linda and has been traced along a northwest trend by magnetic and seismic evidence. The elevated topography of Loma Linda Hill, located northeast of the Project Site, in relation to surrounding areas is apparently the result of ancient movement along this fault. South of Loma Linda, the Loma Linda fault displaces the sediments of the Pleistocene-age San Timoteo. North of Loma Linda, this fault forms a partial barrier to groundwater movement but is apparently overlain by more than 100 feet of unfaulted alluvial sediments. The Loma Linda fault does not represent a significant seismic hazard to the Project Site. No impacts from fault rupture are anticipated.

ii) The main trace of the San Jacinto fault is located approximately one-mile southwest of the Project Site. The San Jacinto fault zone is a system of northwest-trending, right-lateral, strike-slip faults, and is the closest known active fault to the Project Site, and is considered the most important fault to the Project Site with respect to the hazard of seismic shaking and ground rupture. More large historic earthquakes have occurred on the San Jacinto fault than any other fault in Southern California. Severe seismic shaking can be expected during the lifetime of the proposed structure. Construction of the MOB's and potential Central Plant in accordance with applicable requirements for development within Seismic Zone 4 as listed within the California Building Code would ensure that potential impacts are reduced to the maximum extent possible.

Design and construct of the memory care facility would be required to comply with all applicable regulations including Title 24 of the California Building Code.

iii) Liquefaction occurs primarily in saturated, loose, fine to medium grained soils in areas where the groundwater table is within 50 feet of the surface. According to the City's General Plan EIR, moderate to moderately high susceptibility for liquefaction hazards occurs in the northwestern portion of the city and the southern portion of the City near Reche Canyon. The Project Site is located within the northeastern central portion of the City, and as shown on Figure 10.1 of the City's General Plan, occurs outside of the liquefaction hazard zone. Given the depth to groundwater in the area, greater than 50 feet below the surface at the Project Site, and density of the underlying soils, liquefaction and other shallow groundwater-related hazards are not expected at the Project Site. No significant impacts from liquefaction are anticipated.

iv) The occurrence of landslides is considered minimal because the Project Site is relatively flat and is not on or near a geologic formation that would cause landslides.

b) **Less than Significant Impact.** The State of California is authorized to administer various aspects of the National Pollutant Discharge Elimination System (NPDES). Construction activities covered under the State's General Construction permit include removal of vegetation, grading, excavation, or any other activity that causes the disturbance of one acre or more.

The General Construction permit requires developments of one-acre or more to reduce or eliminate non-storm water discharges into storm water systems, and to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The Regional Water Quality Control Board (RWQCB), Santa Ana Region has issued an area-wide NPDES Storm Water Permit for the County of San Bernardino, the San Bernardino County Flood Control District, and the incorporated cities of San Bernardino County within the Santa Ana Region. The City of Loma Linda then requires implementation of measures for a project to comply with the area-wide permit requirements. The SWPPP would include Best Management Practices (BMP's) to prevent construction of the project to pollute surface waters. This is a standard condition of approval applicable to this project. BMP's would include, but would not be limited to street sweeping of adjacent roads during construction, and the use of hay bales or sand bags to control erosion during the rainy season. These are discussed in greater detail in Section 9, Hydrology and Water Quality, of this Initial Study.

Compliance with the NPDES permit requirements, implementation of a SWPPP, and compliance with the mitigation measure as outlined in Section 8, Hydrology and Water Quality of this Initial Study would protect the Project Site from the loss of topsoil and off-site sedimentation.

c-d) **Less than Significant Impact and No Impact.** The mechanism of land subsidence due to aquifer compaction is not likely to be present at the Project Site. No impacts from soil that is unstable, or that would become unstable as a result of the project, and that could potentially result in a landslide, lateral spreading, subsidence, liquefaction or collapse are anticipated.

e) **No Impact.** No septic tanks or alternative wastewater disposal is proposed. Upon approval of the Project, the MOBs would connect to the City's sewer collection system that currently serves the immediate vicinity. No impacts from soils incapable of adequately supporting septic tanks or alternative wastewater disposal systems would result. Septic tanks and leach lines may be present due to the presence of the residence and accessory structure on the property.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
7. GREENHOUSE GAS EMISSIONS. *Would the project:*				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	( )	( )	(✓)	( )
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	( )	( )	(✓)	( )

Comments:

According to CEQA Guidelines section 15064.4, when making a determination of the significance of greenhouse gas emissions, the "lead agency shall have discretion to determine, in the context of a particular project, whether to (1) use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use and/or (2) rely on a qualitative analysis or performance based standards." Moreover, CEQA Guidelines section 15064.7(c) provides that "a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts" on the condition that "the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

The City of Loma Linda has not adopted its own thresholds of significance for greenhouse gas emissions. However, the City finds persuasive and reasonable the approach to determining significance of greenhouse gas emissions established by South Coast Air Quality Management District (SCAQMD).

a-b) **Less than Significant Impact.** In September 2006 Governor Schwarzenegger signed Assembly Bill 32, The Global Warming Solutions Act of 2006. The Act requires that by the year 2020, the Greenhouse Gas (GHG) emissions generated in California be reduced to the levels of 1990. This is part of a larger plan in which California's objective for the year 2050 is to reduce state-wide emissions by 80% below 1990 levels.

The proposed project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste, water and construction equipment. CalEEMod Version 2011.1.1 was used to calculate the GHG emissions from the proposed project. The threshold developed by the September 28, 2010 SCAQMD Working Group of 3,500 $MTCO_2e$ was used in the analysis of Greenhouse Gas Emissions. The project will generate 655.49 metric tons of CO_2e per year. The cumulative global climate change impact would occur if the GHG emissions created from the on-going operations would exceed 3,500 metric tons per year of CO_2e.

Project Related Greenhouse Gas Emissions[1]

	Greenhouse Gas Emissions (Metric Tons/Year)					
Category	Bio-CO2	NonBio-CO2	CO2	CH4	N2O	CO2e
Area Sources	0.00	1.64	1.64	0.00	0.00	1.68
Energy Usage	0.00	134.13	134.13	0.00	0.00	134.96
Mobile Sources	0.00	466.06	466.06	0.02	0.00	466.46
Waste	6.11	0.00	6.44	.36	0.00	13.70
Water	0.00	20.08	20.08	.11	0.00	23.21
Construction	0.00	15.44	15.44	0.00	0.00	15.48
Total Emissions	6.11	621.91	601.83	.49	0.00	**655.49**
SCAQMD Threshold						**3,500**
Exceeds Threshold?						**No**

[1] Source: CalEEMod Version 2011.1.1

As shown in the above table, development of the Proposed Project would not exceed SCAQMD interim GHG emissions threshold. Therefore, a less than significant impact is anticipated.

The proposed project would have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Since neither CARB nor the OPR nor the City has developed a GHG emission threshold of 3,500 $MTCO_2e$ for residential uses. Although SQAQMD is not the lead agency the proposed project is within the SCAQMD regulatory area. Therefore, the SCAQMD's proposed residential GHG emission threshold is applicable to the proposed project.

According to the project GHG emissions calculations, implementation of the proposed project would result in 655.49 $MTCO_2e$ per year. The proposed project would be below the SCAQMD's proposed residential threshold of 3,500 $MTCO_2e$. Therefore, the proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
8. HAZARDS AND WASTE MATERIALS. *Would the project:* a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	( )	( )	(✓)	( )
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident considerations involving the release of hazardous materials into the environment?	( )	( )	(✓)	( )

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4 mile of an existing or proposed school?	( )	( )	(✓)	( )
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?	( )	( )	( )	(✓)
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?	( )	( )	( )	(✓)
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?	( )	( )	( )	(✓)
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	( )	( )	( )	(✓)
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	( )	( )	( )	(✓)

Comments:

a-b) Less than Significant Impact. The Proposed general Plan Amendment from High Density Residential to Health Care, and proposed zone change from Multi-Family Residence (R-3) to Institutional will not create a significant hazard to the public or the environment, as development of the site will have to comply with the associated respective development standards. In complying with the respective development standards, the project will create a less than significant impact with respect to creating a significant hazard to the public or the environment.

The applicant shall comply with all applicable State and federal requirements for the memory care facility, including the appropriate procedures for disposal and transport of bio-medical wastes. Therefore, operation of the memory care facility would not create a significant hazard to the public or the environment with the facility complying with federal and State regulations regarding the disposal and transport of bio-medical wastes.

The Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The memory care facility is residential and will generate some medical facility wastes as part of the day-to-day operations. The waste materials would not create a significant hazard to the public because they would be handled and disposed of in accordance with applicable regulations.

c) **Less than Significant Impact.** No school currently exists within a ¼ mile radius from the project site. Bryn Mawr Elementary School on Whittier Avenue, located southwest of the project site, and the historic Mission School, located at the corner of Redlands Boulevard at California Street, located north of the subject site, are located approximately .6 miles away from the project site. The Loma Linda Academy High School and Loma Linda University are approximately two and a half miles west of the project site. The memory care facility is not expected to result in the emission of hazardous materials that would impact existing schools.

d-f) **No Impact.** The Project Site is not located on a site that is included on a list of hazardous material sites as compiled pursuant to Government Code Section 65962.5, and as a result, would not create a significant hazard to the public or the environment. Therefore, the project proposes no potential threat to introduce any significant adverse impacts with relation to this issue.

The Project Site is not located within an airport land use plan and is not within two miles of a public airport. The nearest airports are the San Bernardino International Airport, located approximately three miles north of the Project Site, and the Redlands Municipal Airport, is located approximately six miles northeast of the Project Site. According to Figure 10.4 of the City of Loma Linda General Plan, the Project Site is located outside of the San Bernardino International Airport influence area. The proposed project will not create a safety hazard to people or aircraft. No impacts are anticipated.

There are no private airstrips within the vicinity of the Project Site. Therefore approval of the proposed Zone Change, GPA, and Precise Plan of Design to allow for the development of the 66-bed memory care facility would not result in a safety hazard for people residing or working in the Project area. No impacts are anticipated.

The project would not impair implementation of an adopted emergency response plan or emergency evacuation plan. The development would comply with all City requirements for fire and other emergency access. The project would not expose people or structures to a risk of loss, injury or death involving wildland fires, as the proposed project site is not located in a wildland fire hazard area.

g) **No Impact.** The California Emergency Services Act requires the City to manage and coordinate the overall emergency and recovery activities within its jurisdictional boundaries. The City's Emergency Operations Plan includes policies and procedures to be administered by the City in the event of a disaster. During disasters, the City of Loma Linda is required to coordinate emergency operations with the County of San Bernardino. Review of the proposed site plan by the City Engineer and Fire Marshal would ensure adequate access (e.g. widths, turning radius) is provided at the Project Site. No impact is anticipated.

h) **No Impact.** The City of Loma Linda has defined areas susceptible to wildland fires by a boundary identified as the Urban Wildland Interface division line. According to Figure 10.3 of the City's General Plan, the greatest fire hazard can be expected to come from the adjacent hills and canyons in the southern portion of the City. The Project Site is located over 4,000 feet north of the nearest identified hazardous fire area. The Project Site is located north of Barton Road and currently occupied by an orange grove. Adjacent streets and proposed development on-site would provide sufficient barriers for any existing/future development adjacent to the Project Site. Therefore, the Proposed Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
9. HYDROLOGY AND WATER QUALITY. *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 (e.g., 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)?	( )	( )	( )	(✓)
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	( )	(✓)	( )	( )
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	( )	(✓)	( )	( )
e) 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?	( )	(✓)	( )	( )
f) Otherwise substantially degrade water quality?	( )	( )	(✓)	( )
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	( )	( )	( )	(✓)
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	( )	( )	( )	(✓)
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?	( )	( )	( )	(✓)
j) Inundation by seiche, tsunami, or mudflow?	( )	( )	( )	(✓)

Comments:

a,f) **Less than Significant with Mitigation Incorporated and Less than Significant Impact.** The Proposed Project would disturb approximately 3 acres and is therefore subject to the National Pollution Discharge Elimination System (NPDES) permit requirements. The State of California is authorized to administer various aspects of the NPDES. Construction activities covered under the State's General Construction permit include removal of vegetation, grading, excavating, or any other activity that causes the disturbance of one acre or more. The General Construction permit requires recipients to

reduce or eliminate non-storm water discharges into stormwater systems, and to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The purpose of a SWPPP is to: 1) identify pollutant sources that may affect the quality of discharges of stormwater associated with construction activities; and 2) identify, construct and implement stormwater pollution control measures to reduce pollutants in stormwater discharges from the construction site during and after construction.

The RWQCB has issued an area-wide NPDES Storm Water Permit for the County of San Bernardino, the San Bernardino County Flood Control District, and the incorporated cities of San Bernardino County. The City of Loma Linda then requires implementation of measures for a project to comply with the area-wide permit requirements. A SWPPP is based on the principles of Best Management Practices (BMPs) to control and abate pollutants. The SWPPP must include (BMPs) so that construction of the Project would not pollute surface waters. BMPs may include, but are not limited to street sweeping of paved roads around the Project Site during construction, and the use of hay bales or sand bags to control erosion during the rainy season. BMPs may also include or require:

- The contractor to avoid applying materials during periods of rainfall and protect freshly applied materials from runoff until dry.
- All waste to be disposed of in accordance with local, state and federal regulations. The contractor to contract with a local waste hauler or ensure that waste containers are emptied weekly. Waste containers cannot be washed out on-site.
- All equipment and vehicles to be serviced off-site.

Implementation of the following mitigation measure would reduce the potential for stormwater discharges during grading and construction:

Mitigation Measure

9. **Prior to issuance of grading permits, the applicant shall submit to the City Engineer a Notice of Intent (NOI) to comply with obtaining coverage under the National Pollutant Discharge Elimination System (NPDES) General Construction Storm Water Permit from the State Water Resources Control Board. Evidence that this has been obtained (i.e., a copy of the Waste Dischargers Identification Number) shall be submitted to the City Engineer for coverage under the NPDES General Construction Permit.**

b) **No Impact.** The City obtains all of its water from groundwater wells in the Bunker Hill Basin, an aquifer underlying the San Bernardino Valley. Groundwater in the Bunker Hill Basin is replenished from rainfall and snowmelt from the San Bernardino Mountains. The Project Site is currently developed with an orange grove and in the past there was a single-family residence that has since been demolished. The construction of the facility would include the construction of a 31,992 square foot special care center and would include 66 beds. Daily water usage at this facility will average 7,733 gallons per day, which includes facility and irrigation uses. This average is based upon increased water use during the summer months. The addition of 66 beds and employees is estimated to be substantially less than the demands of the estimated household use (if developed under the existing General Plan Designation of High Density Residential (0-13 du/ac) of 109 acre-feet/year (based on 13 dwelling units per acre). The applicant has provided water usage numbers for three other facilities that involve 66 beds, and are of a similar size. On average, a 66 bed facility uses 2,822,476 gallons per year for facility and irrigation purposes. This equates to approximately 8.66 acre feet per year. This is a negligible amount of water use and while the proposed General Plan Amendment from

High Density Residential to Health Care, and a zone change from Multi Family Residence (R-3) to Institutional (I), the impacts to the City would be less than at full residential development under the existing zoning designation, and is thus consistent with the planned growth of Loma Linda; therefore no significant impact is expected. The proposed project would not deplete groundwater supplies nor would it interfere with recharge since it is not within an area designated as a recharge basin or spreading ground.

c-e) **Less than Significant with Mitigation Incorporated.** The State of California is authorized to administer various aspects of the NPDES. Construction activities covered under the State's General Construction permit include removal of vegetation, grading, excavating, or any other activity that causes the disturbance of one acre or more. The General Construction permit requires recipients to reduce or eliminate non-storm water discharges into stormwater systems, and to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The purpose of a SWPPP is to: 1) identify pollutant sources that may affect the quality of discharges of stormwater associated with construction activities; and 2) identify, construct and implement stormwater pollution control measures to reduce pollutants in stormwater discharges from the construction site during and after construction.

The RWQCB has issued an area-wide NPDES Storm Water Permit for the County of San Bernardino including the incorporated cities of San Bernardino County. The City of Loma Linda then requires implementation of measures for a project to comply with the area-wide permit requirements. A SWPPP is based on the principles of Best Management Practices (BMPs) to control and abate pollutants. The SWPPP must include (BMPs) to prevent project-related pollutants from impacting surface waters. These would include, but are not limited to street sweeping of paved roads around the site during construction, and the use of hay bales or sand bags to control erosion during the rainy season. BMPs may also include or require:

- The contractor to avoid applying materials during periods of rainfall and protect freshly applied materials from runoff until dry.
- All waste to be disposed of in accordance with local, state and federal regulations. The contractor to contract with a local waste hauler or ensure that waste containers are emptied weekly. Waste containers cannot be washed out on-site.
- All equipment and vehicles to be serviced off-site.

Proposed on-site development would include more paved areas and building coverage than what is currently on-site; however, the Project would not alter the course of any stream or river. Since the City's storm water system has not been extended to the eastern portion of the City, the project proponent would be required to comply with NPDES requirements, to submit a hydrology study, along with grading and drainage plans to the City for review and approval during the submittal of grading and drainage plans.

To ensure potential impacts are reduced implementation of the following mitigation measure shall be implemented:

Mitigation Measure

10. **The Project Proponent shall submit a hydrology study for review and approval by the City prior to the issuance of building permits.**

g) **No Impact.** No evidence of recent significant flooding at the Project Site was observed during the recent site visit. The Project would not place proposed project within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, because no housing is proposed as part of the Project. Additionally, no housing would be placed at the Project Site as a result of the proposed Pre Zone or Annexation. No impacts are anticipated.

h) **No Impact.** According to General Plan Figure 10.2, the Project Site is located within the Zone X flood zone. The Zone X designation identifies areas determined to be outside of the 500 year floodplain. The Project site is within a large area of Zone X that covers the majority of the City as a result of recent improvements to channelize the San Timoteo Creek. The improvements extend from Waterman Avenue in the City of San Bernardino southeast and into the San Timoteo Canyon in the City of Redlands. The Federal Emergency Management Agency (FEMA) issued map revisions for the Flood Insurance Rate Maps (FIRM) that cover the City of Loma Linda. The subject property is located within the area covered by FIRM Panel 8711 or 9400, Map Number 06071C8711H (Map Revised August 28, 2008).

i) **No Impact.** The San Bernardino County Flood Control District covers the entire County (including the incorporated cities), and provides planning, design, construction, and operation of flood control facilities. Storm drain systems have been constructed throughout the City of Loma Linda to accommodate both the increased runoff resulting from development and to protect developed areas within the City from potential localized flooding. The San Bernardino County Flood Control District has developed an extensive system of facilities, including dams, conservation basins, channels and storm drains to intercept and convey flood flows away from developed areas.

No portion of the City, including its Sphere of Influence, occurs within the inundation area of the Seven Oaks Dam. No impacts would result.

j) **No Impact.** Due to the inland distance from the Pacific Ocean and any other significant body of water, tsunamis and seiching are not potential hazards; therefore impacts from seiche and tsunami are not anticipated.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
10. LAND USE AND PLANNING. *Would the project:*				
a) Physically divide an established community?	( )	( )	( )	(✓)
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	( )	( )	(✓)	( )
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	( )	( )	( )	(✓)

Comments:

a) **No Impact.** The 2.7-acre Project Site is currently developed with a single-family dwelling unit along the northwest portion of the site. A majority of the site remains vacant. It was previously used as an orange grove, but the orange trees were removed around 1994. The Project Site is surrounded by a mixture of uses, such as orange groves, an institutional (church) use, a single-family dwelling to the immediately west of the subject site. Both adjacent west and south properties are located adjacent to a larger multi-family residential development (Barton Vineyards). The Loma Linda Heart and Surgical Hospital is located on the southeast corner of Barton Road and New Jersey Street. Approval of the Proposed Project would not physically divide an established community. No significant impacts would result.

b) **Less than Significant Impact.** The project requires the approval of a General Plan Amendment from High Density Residential to Health Care and a Zone Change from Multi-Family Residence (R-3) to Institutional. As presently zoned, the 2.7 acre site could be developed with approximately 35 dwelling units. Under the existing City of Loma Linda General Plan, the Project Site has a designation of High Density Residential (0 to 13 dwelling units per acre). Upon City Council approval of the Zone Change and General Plan Amendment, the site's current land use designation and Zoning would be changed. The location of the proposed development is located at the southwest corner of New Jersey Street and Orange Avenue, and is located adjacent to a relatively new church. Furthermore, the Loma Linda Heart and Surgical Hospital is located southeast of the project site, so the proposed memory care facility use will blend in with the institutional uses in the immediate area. Upon approval of the amendments to the General Plan, the proposed development would be consistent with uses permitted within the proposed Health Care land use designation, and Institutional zoning designation.

c) **No Impact.** The Project would not conflict with any applicable habitat conservation plan or natural community conservation plan, because there is no habitat conservation plan or natural community conservation plan within the area surrounding the Project Site and no habitat conservation lands are required to be purchased as mitigation for the Proposed Project.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
11. MINERAL RESOURCES. *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?	( )	( )	( )	(✓)
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?	( )	( )	( )	(✓)

Comments:

a) **No Impact.** According to the California Department of Conservation, Division of Mines and Geology, the Project Site and surrounding area are designated Mineral Resource Zone 3 (MRZ-3). This designation is given for areas containing mineral deposits; the significance of which cannot be evaluated from available data due to urbanization. The Proposed Project would not 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; the Project Site occurs within an urbanized area, and has limited accessibility for mining.

b) **No Impact.** The Project would not 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, because there are no identified locally important mineral resources within the Project area.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
12. NOISE. *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?	( )	(✓)	( )	( )
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	( )	( )	(✓)	()
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	( )	( )	(✓)	( )
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	( )	(✓)	( )	( )
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?	( )	( )	( )	(✓)
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?	( )	( )	( )	(✓)

Comments:

a,c) **Less than Significant with Mitigation Incorporated and Less than Significant Impact.** Noise can be measured in the form of a decibel (dB), which is a unit for describing the amplitude of sound. The predominant rating scales for noise in the State of California are the Equivalent-Continuous Sound Level (L_{eq}), and the Community Noise Equivalent Level (CNEL), which are both based on the A-weighted decibel (dBA). L_{eq} is defined as the total sound energy of time-varying noise over a sample period. CNEL is defined as the time-varying noise over a 24-hour period, with a weighting factor of 5 dBA applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and 10 dBA applied to events occurring between 10:00 p.m. and 7:00 a.m. defined as sleeping hours). The State of California's Office of Noise Control has established standards and guidelines for acceptable community noise levels based on the CNEL and L_{dn} rating scales. The purpose of these standards and guidelines is to provide a framework for setting local standards for human exposure to noise. Residential development, schools, churches, hospitals, and libraries have a normally acceptable community noise exposure range of 60 dBA CNEL to 70 dBA CNEL.

Development of the Project would require site preparation (i.e., demolition, grading, excavation), and construction. These activities require the use of heavy equipment such as graders, backhoes, and cranes. This equipment would generate noise that would be heard both on and off the Project Site.

The most proximate residential area that is subject to potential construction noise impacts is the church located immediately adjacent to the subject site, and the the Barton Vineyard Apartments approximately 300 feet south of the Project Site. Although the construction noise levels may exceed the 65 dBA standard for residential properties; according to the Loma Linda Municipal Code (LLMC), all temporary construction activities are exempt from the noise standards as long as construction activities are limited to daytime hours from 7:00 a.m. to 8:00 p.m. on Mondays through Fridays. Construction activities are not permitted on weekends, or national holidays. Construction equipment shall be properly maintained with standard noise muffling apparatus specifically for such equipment. In order to reduce these impacts to less than significant, the following mitigation measures shall be required:

Mitigation Measures

11. **The developer shall be limited to between the hours of 7:00 a.m. and 8:00 p.m. Monday through Friday. Construction activities shall not occur on weekends or national holidays.**
12. **All construction equipment shall use noise-reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.**
13. **Construction staging and heavy equipment maintenance activities shall be performed a minimum distance of 300 feet from any offsite residence, unless safety or technical factors/feasibility take precedence.**

Implementation of the above mitigation measure would ensure potential impacts are reduced to a less than significant level.

Operational Noise:

Potential noise impacts associated with the operations of the proposed project are a result of project generated vehicular traffic on the project vicinity roadways and from stationary noise sources such as rooftop mechanical equipment and automobile parking lot areas associated with the proposed project.

Forty-one parking spaces are proposed, which are designed to be adjacent to Orange Avenue and New Jersey Street. A parking lot is not considered to be a serene environment but the traffic noise from the adjacent streets will provide a masking effect over the short-term, single-event noise occurrences common to parking lots. Furthermore, the Memory Care Center is not a high turn-over facility and parking lot activity is expected to be relatively low.

Per the Preliminary Noise Impact Analysis prepared by Michael Brandman Associates, noise impacts from rooftop mechanical equipment are anticipated to be at a level of 59.5 dBA L_{eq} at a distance of 10 feet. As there are no sensitive receptors within 50 feet of the building, impacts from noise generated by the rooftop forced air units are considered to be less than significant.

b) **Less than Significant Impact.** Construction activities can produce vibration that may be felt by adjacent uses. The construction of the proposed project would not require the use of equipment such as pile drivers, which are known to generate substantial construction vibration levels. The primary source of vibration during construction would be from bulldozers. The closest receptors to the project site include the orchard to the west of the project site, which as a small building located approximately 90 feet from the western edge of the proposed project's boundary; and a church building located approximately 115 feet from the southern boundary of the project site. It is anticipated that the vibration levels caused by a large bulldozer operating on the edge of the area to be disturbed during construction of the proposed project at the nearest structure (90 feet away) will be less than .02 inch per second RMS. This vibration level would not exceed the .05 inch per second significance threshold and the impact is considered to be less than significant.

d) **Less than Significant Impact.** Construction activities would temporarily increase ambient noise levels for the surrounding area. Residential development occurs east of the Project Site. The City's noise ordinance requires construction activities to be limited to the hours between 7:00 a.m. to 6:00 p.m. on Mondays through Saturdays, with no heavy construction occurring on weekends or national holidays. Additionally, all equipment is required to be properly equipped with standard noise muffling apparatus. Adhering to the City's noise ordinance and Mitigation Measures 11-13 would ensure impacts from temporary construction noise would be less than significant.

e) **No Impact.** The Project Site is not located within an airport land use plan and is not within two miles of a public airport. The nearest airports are the San Bernardino International Airport, located approximately three miles north of the Project Site and the Redlands Municipal Airport located approximately six miles northeast of the Project Site. According to Figure 10.4 of the City's General Plan, the Project Site is located outside of the San Bernardino International Airport influence area.

f) **No Impact.** There are no private airstrips within the vicinity of the Project Site. No significant impacts from aircraft noise are anticipated.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
13. POPULATION AND HOUSING. *Would the project:*				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	( )	( )	( )	(✓)
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	( )	( )	(✓)	( )
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	( )	( )	(✓)	( )

Comments:

a) **No Impact.** Construction at the Project Site would be short-term and would not create any new long-term construction jobs. Operation of the memory care center would result in a total of 45 new full-time employees, during three time shifts, 24 hours a day. According to Table 4.12 F of the City's General Plan EIR, the City's projected population; housing and employment levels upon build out would be less than the SCAG projections for the year 2025. The Proposed Project would be consistent with the General Plan, and therefore would not induce substantial population growth in an area, either directly or indirectly.

b) **Less than Significant Impact.** The Proposed Project will not displace substantial numbers of existing housing. As a result of the project, the existing dwelling unit on the subject site will be demolished in order to accommodate the Proposed Project.

c) **Less than Significant Impact.** The Proposed Project would not displace a substantial number of people, or necessitate the construction of replacement housing elsewhere, because the Project will only require the demolition of the existing dwelling unit.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
14. PUBLIC SERVICES. *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?	( )	(✓)	( )	( )
b) Police protection?	( )	( )	(✓)	()
c) Schools?	( )	(✓)	( )	()
d) Parks?	( )	(✓)	( )	()
e) Other public facilities? [Roads and Infrastructure]	( )	( )	( )	(✓)

Comments:

a) **Less than Significant with Mitigation Incorporated.**

Fire Protection – Fire protection for this area is provided by the City of Loma Linda, Fire Department, Fire and Rescue Division. Fire Station 251 serves the southern sectors of the City and is located at 11325 Loma Linda Drive approximately two miles west of the Project Site. The Community Development Department and the Fire Department enforce fire standards during review of building plans and inspections. The City maintains a joint response/automatic aid agreement with the fire departments in neighboring cities including Colton, Redlands, and San Bernardino. The Department also participates in the California Master Mutual Aid Agreement. The project includes the construction of the 37,873 memory care facility with 66 beds. The building would be required to comply with City fire suppression standards including building sprinklers and adequate fire access. Implementation of the following mitigation measure would ensure that the Proposed Project would not create a fire hazard or endanger the surrounding area.

To ensure fire safety requirements are met, the following mitigation measure shall be implemented:

Mitigation Measures

14. **The developer shall submit a Utility Improvement Plan showing the location of fire hydrants for review and approval by the Fire Department, and provide the following information:**
    - **Provide additional fire hydrants at each point of entry**
    - **Provide Fuel 13D sprinkler protection**

b) **Less than Significant Impact** - The Project Site is currently serviced by the San Bernardino County Sheriff's Department (SBSD); Calls to the site are responded to by the Central Station located at 655 East Third Street, San Bernardino approximately seven miles northwest of the Project Site. The SBSD is currently staffed with 56 deputies. The City of Loma Linda currently under contract with the SBSD and has a total of 14 sworn officers assigned to the City, with approximately 5 support staff. With an estimated population of 21,912 people, the ratio of officers to citizens is approximately 1:1,826.

The proposed memory care facility would generate approximately 45 jobs. Assuming all employees were new residents to the City, this would result in a demand increase of significantly less than a one percent in total officers to maintain the City's current level of service. Since the Department strives to maintain an emergency response time of five minutes, no change in police protection services would result upon development of the site. The impact is considered less than significant.

c) **Less than Significant with Mitigation Incorporated.** Schools – The Redlands Unified School District (RUSD) is the current school service provided for the annexation area. Upon annexation, the Project Site would continue to be served by RUSD). The proposed development of the 66-bed memory care facility would generate approximately 45 new jobs for the area. The following mitigation measure would ensure impacts are reduced to a less than significant level:

Mitigation Measure

15. **Prior to issuance of building permits, the developer shall pay school impact fees as required by the Redlands Unified School District.**

d) **Less than Significant with Mitigation Incorporated.** Parks – Development of the memory care facility requires a General Plan Amendment from High Density Residential to Institutional, and a zone change from Multi-Family Residence (R-3) to Health Care. The City of Loma Linda would provide parkland services for the Project Site. At this time, the City owns and administers nine parks. Over 73 acres of parks and open space areas are located within the City, of which 64 acres are developed. The City has adopted a population to parkland acreage ratio of five acres per 1,000 population. With an estimated population of 21,912 people and a total of 64.16 acres of parkland, the City currently has a park ratio of approximately three acres per 1,000 population and therefore, falls short of the park ratio of five acres per 1,000 population. The creation of 45 would not significantly impact the existing resident-to-park ratio. While relatively insignificant, the Proposed Project would contribute to the City's current insufficient parkland acreage. Implementation of the following mitigation measures would ensure impacts are reduced to a less than significant level:

Mitigation Measure

16. **Prior to the issuance of building permits, the developer shall pay development impact fees established for development within the City of Loma Linda.**

e) **No Impact.** The Proposed Project would not create a significant amount of additional demand on other public facilities, but would incrementally increase traffic within the area (see Section 15 Transportation/Traffic). In accordance with the City of Loma Linda General Plan, the applicant would pay appropriate local and regional development impact fees as adopted by the City Council.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
15. RECREATION. *Would the project:*				
a) 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?	( )	( )	( )	(✓)
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?	( )	( )	( )	(✓)

Comments:

a-b) **No Impact.** The City of Loma Linda provides parkland services for the Project Site. The City currently owns and administers nine parks. Over 73 acres of parks and open space areas are located within the City, of which 64 acres are developed. The City has adopted a population to parkland acreage ratio of five acres per 1,000 population. With an estimated population of 21,912 people and a total of 64.16 acres of developed parkland, the City currently has a park ratio of approximately three acres per 1,000 population and therefore, falls short of the General Plan park ratio of five acres per 1,000 population. However, it is notable that the City also owns over 1,700 acres of land in the South Hills area that provides open space for local residents and visitors. The property, which is called the Loma Linda South Hills Preserve, is laced with trails that are used primarily for hiking, mountain biking, and equestrian. The City's shortfall of parkland is ameliorated by the availability of the Preserve for recreational and open space uses.

The creation of approximately 45 new jobs within the area would require an insignificant amount of additional parkland, if all jobs were filled by new residents, for the City to maintain its policy of five acres of parkland per 1,000 residents.

The site includes 43,443 square feet of landscaping, with a large portion of the landscape area dedicated for private use by the memory care facility. While relatively insignificant, the Proposed Project would contribute to the City's insufficient parkland ratio, however parkland and recreational facilities would continue to be available by the County Regional Parks Department, as the City of Loma Linda is located within the County. In addition, the City's South Hills Preserve is available for recreation and open

spaces uses. Finally, the City also imposes a Parks Facilities Development Impact Fee on new development and implementation of Mitigation Measure 22, as provided in Section 14 of this Initial Study, would ensure that potential impacts are reduced to a less than significant impact.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
16. TRANSPORTATION/TRAFFIC. *Would the project:*				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	( )	( )	(✓)	( )
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	( )	(✓)	( )	( )
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?	( )	( )	( )	(✓)
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	( )	( )	( )	(✓)
e) Result in inadequate emergency access?	( )	( )	( )	(✓)
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety facilities?	( )	( )	( )	(✓)

Comments:

a-b **Less than Significant Impact with Mitigation Incorporated.** The analysis of traffic impacts from the proposed development and the assessment of the required mitigation measures were conducted by Kunzman Associates Inc. The required mitigation measures were based on an evaluation of the existing and forecast traffic conditions in the vicinity of the site with and without the project. The following analysis years were considered:

- Existing conditions (2011)
- Project Opening Year Conditions (2013)
- Horizon Year Conditions (2035)

Existing intersection traffic conditions were established through morning and evening peak hour traffic counts obtained by Kunzman Associate Inc. from December 2010. Project traffic volumes for all future projections and trip generation has been based upon rates obtained from the Institute of Transportation Engineers, Trip Generation, 8th Edition, 2008.

The proposed development is projected to generate approximately 287 daily vehicle trips, 21 of which will occur during the morning peak hour and 28 of which will occur during the evening peak hour.

The following tables list different scenarios for development with and without improvements and Year 2035, with and without improvements. The numbers indicate the average total delay per vehicle at the particular locations during peak a.m. and p.m. hours. A Level of Service (LOS) A-C is considered acceptable, while LOS D-F is considered unacceptable, where high volume to capacity ratios exist and exceed the capacity of the intersections and point of access.

Level of Service (LOS) – Opening Year (2013) without Project

	Morning Peak	Evening Peak
Project Access @ Orange Avenue	N/A	N/A
New Jersey St. @ Orange Ave.	6.5 LOS A	6.7 LOS A
New Jersey St @ Project Access	N/A	N/A

Opening Year (2013) with Project (Unsignalized)

	Morning Peak	Evening Peak
Project Access @ Orange Avenue	.1 LOS A	.2 LOS A
New Jersey St. @ Orange Ave.	6.7 LOS A	6.9 LOS A
New Jersey St @ Project Access	.2 LOS A	.4 LOS A

Year 2035 without Project (Unsignalized)

	Morning Peak	Evening Peak
Project Access @ Orange Avenue	N/A	N/A
New Jersey St. @ Orange Ave.	LOS F	LOS F
New Jersey St @ Project Access	N/A	N/A

Year 2035 with Improvements

	Morning Peak	Evening Peak
Project Access @ Orange Avenue	13.5 LOS B	19.0 LOS B
New Jersey St. @ Orange Ave.	LOS F	LOS F
New Jersey St @ Project Access	N/A	N/A

Year 2035 with Project (Unsignalized)

	Morning Peak	Evening Peak
Project Access @ Orange Avenue	.0 LOS A	.1 LOS B
New Jersey St. @ Orange Ave.	LOS F	LOS F
New Jersey St @ Project Access	21.9 LOS C	26.0 LOS D

Year 2035 with Improvements (Signalized)

	Morning Peak	Evening Peak
Project Access @ Orange Avenue	13.6 LOS B	19.2 LOS B
New Jersey St. @ Orange Ave.	13.6 LOS B	19.2 LOS B
New Jersey St @ Project Access	16.8 LOS C	16.5 LOS C

The LOS at the New Jersey Street and Orange Avenue intersection is currently at LOS A. The proposed project without mitigation measures will not drop the LOS below C, which is considered acceptable. However, without mitigation measures, in year 2035, the LOS will drop to LOS F, which is considered to be unacceptable to most drivers. This condition occurs with oversaturation, i.e, when arrival flow rates exceed the capacity of the intersection.

Improvements that will eliminate all anticipated roadway operational deficiencies throughout the study area have been identified for Opening Year 2013 and year 2035 traffic conditions.

While no one development is responsible for the total cost associated with the required improvements of the intersection, the project fair share contributions have been calculated for Year 2035 improvement locations. The project share of cost has been based on the proportion of project peak hour traffic contributed to the improvement location relative to the total new peak hour Year 2035 traffic volume.

Summary of Intersection Improvements and Costs

Intersection	Improvement	Total Cost
New Jersey Street (NS) at:	Install Traffic Signal	$250,000
Orange Avenue (EW) - #2	Construct NB Left Turn Lane	$50,000
	Construct SB Left Turn Lane	$50,000
	Construct EB Left Turn Lane	$50,000
	Construct WB Left Turn Lane	$50,000
Project Access (EW) #3	Stripe Two Way Left Turn Lane	$10,000
Total		$460,000

Therefore the following table was prepared in order to assess the fair share cost to the project applicant.

Project Fair Share Intersection Traffic Contributions

Intersection	Total Cost	Existing Traffic	Year 2035 with Project Traffic	Project Traffic	Total New Traffic	Project % of New Traffic	Project Cost Share
New Jersey (NW) at: Orange Avenue (EW) - #2	$460,000	509	2,502	14	1,993	.07%	$3,231

Therefore, no substantial increases in traffic in relation to the existing traffic load and capacity of the street system is anticipated during the opening year of the project. However, with or without the development of the proposed project, future traffic conditions (2035) will result in a Level of Service F, and as a result, the applicant will be required to pay the fair share cost indicated in the table above.

As indicated in the Traffic Analysis, based on worst-case analysis, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours for Opening Year (2012) with project traffic conditions and improvements. Traffic signals are projected to be warranted at the intersection of New Jersey Street (North/South)and Orange Avenue (East/West).

To ensure impacts to traffic are reduced to less than significant levels in Year 2035, the following mitigation measures (proposed improvements) shall be required:

Mitigation Measures

17. **Construct landscaping and parkway improvements in conjunction with development.**
18. **On-site traffic signing and striping shall be implemented in conjunction with detailed construction plans for the project.**
19. **Sight distance at each project access shall be reviewed with respect to California Department of Transportation/City of Loma Linda standards in conjunction with the preparation of final grading, landscaping, and street improvement plans.**
20. **The Proposed Project shall contribute on a fair share basis, through an adopted traffic impact fee program, in the implementation of the recommended intersection lane improvements, or in dollar equivalent in lieu mitigation contributions, or in the implementation of additional capacity on parallel routes to offset potential impacts to study area intersections.**
21. **As is the case for any roadway design, the City of Loma Linda shall periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.**

c) **No Impact.** The Project Site is not located within an airport land use plan and is not within two miles of a public airport. The nearest airports are the San Bernardino International Airport, located approximately three miles north of the Project Site, and the Redlands Municipal Airport, located approximately six miles northeast of the Project Site. According to Figure 10.4 of the City's General Plan, the Project Site is located outside of the San Bernardino International Airport influence area. The Proposed Project would not change air traffic patterns or create a safety hazard to people or aircraft. No impacts would result.

d) **No Impact.** The Proposed Project would not create or substantially increase hazardous conditions due to its design. There are no sharp curves, dangerous intersections, or incompatible uses that would interfere with traffic flow. Access to the Project Site would be provided at an existing drive-way along New Jersey Street

e) **No Impact.** The proposed site plan includes sufficient emergency access to facilitate the needs of the Proposed Project. No impact is anticipated.

f) **No Impact.** An existing bus stop occurs along the south side of Barton Road, which is located approximately 800 feet south of the project site. There is also a bicycle lane and a public sidewalk on the north side of Barton Road. It is not anticipated that the project will negatively impact adopted plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety facilities. No impact would result.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
17. UTILITIES AND SERVICE SYSTEMS. *Would the project:*				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	( )	( )	( )	(✓)
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?	( )	( )	( )	(✓)
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?	( )	( )	( )	(✓)
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	( )	( )	( )	(✓)
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?	( )	( )	( )	(✓)
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	( )	( )	( )	(✓)

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Comply with Federal, State, and local statutes and regulations related to solid waste?	( )	(✓)	( )	( )

Comments:

a) **No Impact.** The proposed project is not anticipated to cause or contribute to a violation of wastewater treatment requirements of the Regional Water Quality Control Board. Implementing Best Management Practices and policies of the City regarding wastewater would protect water quality. No impacts are projected.

b) **No Impact.** The development of the proposed memory care center, General Plan Amendment and Zone change, would not 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. The waste from City of Loma Linda sewers is transported to the San Bernardino treatment plants and will be able to accommodate the proposed project. The Project Site and surrounding area is currently served by existing City of Loma Linda sewer lines located along Barton Road. The Proposed Project includes connection to the existing system and no new or expanded water systems would be required.

c) **No Impact.** The Project Site and surrounding area is currently served by existing storm drains. Although no significant amount of additional stormwater is anticipated, drainage plans would still be reviewed by the City Engineer to ensure the system will have sufficient carrying capacity. No impact is anticipated.

d) **No Impact.** The production and distribution of water within the City of Loma Linda is provided by the City's Department of Public Works, Water Division. The Project Site is currently serviced by the City, as there are no privately-owned wells on-site. The City's groundwater is supplied from six production wells. The total production capacity of these wells totals 10,000 gallons per minute. The applicant provided staff with facility water usage information of six other, 66 bed memory care facilities. Daily water usage at this facility will average 7,733 gallons per day, which includes facility and irrigation uses. This average is based upon increased water use during the summer months. The Project will require a significant amount of additional water than what is currently being used at the Project Site, but significantly less than the previous agricultural use. In addition to the groundwater wells, the City has two emergency connections with the City of San Bernardino and one with the City of Redlands. The City has the ability to finance and construct required facilities necessary to obtain the water supply to meet planned growth through the collection of development fees and the use of other funding methods.

e) **No Impact.** The development of the project site, general plan amendment and zone change is not anticipated to 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. The waste from Loma Linda sewers is transported to the San Bernardino treatment plants. The San Bernardino treatment plan will be able to accommodate the project. There is a 12' sewer line located north of the Orange and New Jersey intersections. Therefore, no significant impacts are anticipated.

f) **No Impact.** The City contracts with Republic Services of Southern California to provide solid waste collection services. The proposed memory care facility will most likely utilize the bin system. The memory care facility is not anticipated to generate enough refuse for an on-site incinerator, compactors or burners. Solid waste that is not diverted to recycling or composting facilities is transported to the San Timoteo Sanitary Landfill located in the City of Redlands. The San Timoteo Sanitary Landfill is permitted to receive up to 1,000 tons per day, and has an estimated closure date of May 2016. The applicant has indicated that the other similar memory care facilities, with the same number of beds, use a typical bin, which requires weekly service, which is typical of a residential use. The Proposed Project would not place a significant demand on solid waste services and would not be served by a landfill with insufficient permitted capacity. No significant impacts are anticipated.

g) **Less than Significant Impact with Mitigation Incorporated.** As required by Assembly Bill 939 (AB939) of the California Integrated Waste Management Act, all cities and counties within the state must divert 50 percent of their wastes from landfills by the year 2000. According to tonnage reports, the City has not yet met the 50 percent diversion mandate. Construction and Demolition (C&D) debris represents a large portion of materials being disposed of at landfills. To achieve the State-mandated diversion goal, the City has implemented a variety of programs that seek to reduce the volume of solid waste generated, encourage reuse, and support recycling efforts. City programs include the distribution of educational materials to local schools and organizations. The City also requires all applicable projects to comply with Resolution No. 2129 Construction and Demolition Recycling/Reuse Policy as adopted by the City Council. To ensure the Proposed Project contributes towards the diversion mandate, the following mitigation measure shall be implemented:

22. The Project proponent shall comply with City adopted policies regarding the reduction of construction and demolition (C&D) materials. Removal of vegetation and concrete foundations, as observed during preparation of the Cultural Resources Investigation, shall be in accordance with application City policies.

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
18. MANDATORY FINDINGS OF SIGNIFICANCE				
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?	( )	(✓)	( )	()

Issues and Supporting Information Sources:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?	( )	()	(✓)	()
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	( )	(✓)	()	( )

Comments:

a) **No Impact.** Critical habitat identifies specific areas that are essential to the conservation of a listed species and, with respect to areas within the geographic range occupied by the species. As shown on Figure 9.4 of the City's General Plan, the Project Site does not occur within the proposed critical habitat for the California gnatcatcher or any other species of concern or listed species. The project site is partially developed and the surrounding area is developed and includes urban landscaping.

According to Figure 9.3 of the City's General Plan, no riparian habitat occurs on or near the Project Site. The Project Site is currently partially developed with a single family home, and a vacant area that was previously used as an orange grove up until 1994 and contains no such habitats. Therefore, the Project would not 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 U.S. Fish and Wildlife Service.

In accordance with Ordinance No. 623, a project-specific cultural resource investigation was prepared by Michael Brandman Associates for the Project Site. In assessing the resources Michael Brandman Associates determined that the existing single-family dwelling unit and any physical remains within the project area do not meet any of the CEQA criteria for recognition as an historic resource, including 1) the association with a significant event in local or regional history; 2) a unique activity (the existing single-family dwelling unit and accessory structures and the previous on-site agricultural use reflects similar activities known for the general area); 3) association with a significant individual; and 4) absence of extant structures. Therefore although the Project Site is within an area sensitive for prehistoric archaeological resources, the potential or identifying such resources is unlikely. However, as a precautionary measure, Mitigation Measures 4-6 contained within this Initial Study would ensure potential impacts are reduced to a less than significant level.

b) **No Impact.** Although not significant on its own, the Project, which includes a General Plan Amendment from High Density Residential to Health Care, and a Zone Change from Multi-Family Residence (R-3), would contribute minimally to cumulative air emissions in the region, as would all future development in the region. The Loma Linda General Plan EIR was prepared in March 2004 to determine if any significant adverse environmental effects would result with implementation of the General Plan (May 26, 2009). The change in land use designation and zoning to allow the proposed project will

actually create less of an environmental impact than if the property was permitted and fully developed as a multi-family development of up to 13 units per acre. The EIR concluded that the General Plan would result in unavoidable significant impacts to air quality, biological resources, water supply, traffic and circulation and (loss of) open space. Mitigation measures were adopted for each of these resources; however they would not reduce impacts to less than significant levels. As such, the City adopted findings and a statement of overriding considerations to balance the benefits of development under the General Plan against the significant unavoidable adverse impacts (CEQA Guidelines Section 15092 and 15096(h)). No further discussion or evaluation of cumulative impacts is required.

c) **Less than Significant Impact.** Proposed development at the Project Site would not cause substantial long-term adverse effects on human beings, either directly or indirectly. Construction activities would temporarily increase ambient noise levels for the surrounding area. The City's noise ordinance requires construction activities to be limited to the hours between 7:00 a.m. to 8:00 p.m. Monday through Friday, with no heavy construction occurring on weekends or national holidays. Additionally, all equipment is required to be properly equipped with standard noise muffling apparatus. Adhering to the City's noise ordinance and implementation of mitigation measures within this Initial Study would ensure that any impacts from construction of the Project Site would be less than significant.

EARLIER ANALYSES

Earlier analyses may be used where, pursuant to the tiering program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or Negative Declaration per Section 15063(c)(3)(D). The effects identified above for this Project were within the scope of and adequately analyzed in the following earlier document(s) pursuant to applicable legal standards, and such effects were addressed by mitigation measures based on this and earlier analyses. The following earlier and current analyses were utilized in completing this Initial Study and are available for review in the City of Loma Linda, Planning Department:

- City of Loma Linda General Plan, (May 26, 2009)
- City of Loma Linda General Plan Final Program Environmental Impact Report, LSA Associates
- City of Loma Linda Municipal Code (LLMC), Title 17 Zoning, Chapters 17.60 (I) Institutional Zone, 17.80 Historic Preservation, and 17.82 Historic Mission Overlay District
- Cultural Resource Assessment of the Loma Linda Memory Care Center, City of Loma Linda, CA: Michael Brandman Associates, October 10, 2011.
- Preliminary Noise Impact Analysis, Loma Linda Memory Care Facility, City of Loma Linda, San Bernardino County, CA, October 3, 2011.
- Loma Linda Memory Care Facility, Focused Traffic Analysis, Kunzman Associates, Inc., October 11, 2011.
- Loma Linda Memory Care Facility, Air Quality and Global Climate Change Impact Analysis, Kunzman Associates, Inc., December 16, 2011