CITY OF CORONA
MITIGATED NEGATIVE DECLARATION

NAME, DESCRIPTION AND LOCATION OF PROJECT:

GPA13-001: Application to amend the General Plan to change approximately 0.47 acres from UDR (Urban Density Residential) to GC (General Commercial); 4.76 acres from UDR to MU1 (Mixed Use I -Commercial/Residential); 1.29 acres from GC to MU1; and 1.84 acres from GC to UDR on the west side of North Main Street, north of Blaine Street and south of Rincon Street.

SPA12-007: Proposal to amend the North Main Street Specific Plan (SP-99-01) to change approximately 0.47 acres from UDR (Urban Density Residential) to CR (Commercial Retail); 4.76 acres from UDR to MU (Mixed Use); 1.29 acres from CR to MU; 1.84 acres from CR to UDR; allocate 1.1 acres for street right-of-way dedication extending Harrison Street from Main Street to Blaine Street on the west side of North Main Street, and revise specific plan text addressing Chapter 3 (Plan Elements), Chapter 4 (Development Regulations), and Chapter 5 (Design Guidelines) to enable a mixed use development as detailed in the associated Precise Plan 12-005 application.

TTM 36451: Application to subdivide 16.82 gross acres into eight lots for mixed use residential and commercial condominium purposes and six lettered lots for roadway purposes to accommodate development associated with the proposed mixed use residential/commercial development under Precise Plan 12-005 in the Urban Density Residential (UDR), Mixed Use (MU) and Commercial Retail (CR) designations of the North Main Street Specific Plan (SP99-01) located on the west side of North Main Street, north of Blaine Street and south of Rincon Street.

PP12-005: Precise Plan application for the phased redevelopment of an existing commercial center involving the review of the site layout, architecture, signage, and landscaping for a proposed mixed use development (residential/commercial) on 14.48 net acres with 464 multi-family residential units (171 units in the Urban Density Residential designation and 293 in the Mixed Use designation) and 77,256 square feet of new commercial and retail storefronts in the designations as proposed under SPA12-007 in the North Main Street Specific Plan (SP-99-01) on the west side of North Main Street, north of Blaine Street and south of Rincon Street.

ENTITY OR PERSON UNDERTAKING PROJECT:

Teck Loh, Watermarke Properties, 211 West Rincon Street, #108, Corona, CA 92880

The City Council, having reviewed the initial study of this proposed project and the written comments received prior to the public meeting of the City Council, and having heard, at a public meeting of the Council, the comments of any and all concerned persons or entities, including the recommendation of the City's staff, does hereby find that the proposed project may have potentially significant effects on the environment, but mitigation measures or revisions in the project plans or proposals made by or agreed to by the applicant would avoid or mitigate the effects to a point where clearly no significant effects will occur. **Therefore, the City Council hereby finds that the Mitigated Negative Declaration reflects its independent judgment and shall be adopted.**

The Initial Study and other materials which constitute the records of proceedings, are available at the office of the City Clerk, City of Corona City Hall, 400 South Vicentia Avenue, Corona, CA 92882.

Date:_____

_____
Mayor
City of Corona

Date filed with County Clerk:

_____

CITY OF CORONA
INITIAL STUDY / ENVIRONMENTAL CHECKLIST

PROJECT TITLE:

GPA13-001: Application to amend the General Plan to change approximately 0.47 acres from UDR (Urban Density Residential) to GC (General Commercial); 4.76 acres from UDR to MU1 (Mixed Use I -Commercial/Residential); 1.29 acres from GC to MU1; and 1.84 acres from GC to UDR on the west side of North Main Street, north of Blaine Street and south of Rincon Street.

SPA12-007: Proposal to amend the North Main Street Specific Plan (SP-99-01) to change approximately 0.47 acres from UDR (Urban Density Residential) to CR (Commercial Retail); 4.76 acres from UDR to MU (Mixed Use); 1.29 acres from CR to MU; 1.84 acres from CR to UDR; allocate 1.1 acres for street right-of-way dedication extending Harrison Street from Main Street to Blaine Street on the west side of North Main Street, and revise specific plan text addressing Chapter 3 (Plan Elements), Chapter 4 (Development Regulations), and Chapter 5 (Design Guidelines) to enable a mixed use development as detailed in the associated Precise Plan 12-005 application.

TTM 36451: Application to subdivide 16.82 gross acres into eight lots for mixed use residential and commercial condominium purposes and six lettered lots for roadway purposes to accommodate development associated with the proposed mixed use residential/commercial development under Precise Plan 12-005 in the Urban Density Residential (UDR), Mixed Use (MU) and Commercial Retail (CR) designations of the North Main Street Specific Plan (SP99-01).

PP12-005: Precise Plan application for the phased redevelopment of an existing commercial center involving the review of the site layout, architecture, signage, and landscaping for a proposed mixed use development (residential/commercial) on 14.48 net acres with 464 multi-family residential units (171 units in the Urban Density Residential designation and 293 in the Mixed Use designation) and 77,256 square feet of new commercial and retail storefronts in the designations as proposed under SPA12-007 in the North Main Street Specific Plan (SP-99-01).

PROJECT LOCATION:

West side of North Main Street, north of Blaine Street and south of Rincon Street in the North Main Street Specific Plan area (SP-99-01); APN's 119-290-008, 119-290-009, 119-290-053, 119-290-051, 119-290-034, 119-290-033

PROJECT PROPONENT:

Teck Loh, Watermarke Properties, 211 W. Rincon Street, Corona, CA 92880

PROJECT DESCRIPTION:

The collective applications of GPA13-001, SPA12-007, TTM 36451, and PP12-005 are related to the proposed development of a project that includes Mixed Use Commercial/Residential, Urban Density Residential (37-60 du/ac), and freestanding commercial. The overall project site is approximately 16.8 gross acres and accommodates an older underutilized strip shopping center with anchor spaces and some freestanding commercial buildings. Most of the existing structures on the site will be razed to enable the proposed development. Two freestanding commercial buildings (a bank and a restaurant) along the easterly perimeter will remain in the ultimate design.

The proposed project features a total of 464 apartment units in three buildings and 77,256 square feet of commercial use in the form of freestanding commercial buildings or in-line retail as part of a mixed use commercial/residential component of the project. The project is proposed in three main phases that will generally proceed from the southerly portion of the site northward. The phases of this project are identified as Phase A, 2A, 2B, and 2C. The reason that the phasing is numbered in the two's is because the first phase of the project consisted of the 404 multi-family units recently constructed by Watermarke on approximately 14 acres north of Rincon Street directly north of the subject site. At the time Phase 1 was processed, no development plan had yet been formulated for the then-future Watermarke phases to be located south of

Rincon Street.

Phase A consists of a 13,000 square foot two-story freestanding building (Building 5) that will accommodate a restaurant and office space. This building to be located on the south side of the future main entrance into the site from North Main Street will accommodate the relocation of an existing business in the center for an uninterrupted operational transition prior to the initiation of site demolition. This phase is referred to as Phase A because it, and its requisite exterior improvements including parking, precede all other aspects of the proposed project including demolition of existing buildings.

Phase 2A located at the southerly portion of the site consists of 171 apartment units in a four-story building on approximately 3 acres. The units will be situated in a modified wrap design with a parking structure at the southwest corner of the site and each level of the residential structure having secured access to each level of the parking structure, also to be secured. Phase 2B is situated centrally on the site on approximately 3.05 acres and consists of 131 apartment units in a five-story wrap design around a parking structure. First level in-line commercial approximating 7,200 square feet has been designed with this phase. An existing bank building (approximately 6,000 square feet) to remain is situated in this phase near North Main Street as well as the aforementioned Phase A building. Phase 2C constitutes the future final phase on approximately 3.7 acres that will feature 162 apartment units in a five-story wrap design around another parking structure in the same fashion as Phase 2A. First level in-line commercial in Phase 2C approximates 14,000 square feet, whereas, freestanding commercial buildings oriented closer to North Main Street and Rincon Street will total approximately 25,700 square feet.

Although economic conditions will dictate the pace at which the project will develop, it is proposed that both Phases 2A and 2B would occur together, with Phase 2C following in the future dependent upon market conditions. The existing commercial buildings on the northerly portion of the site to be future Phase 2C will remain operational in the interim until Phase 2C can be implemented. In the meantime, Phase 2B would be constructed and operational.

West Harrison Street exists adjacent to this site at the southeast corner in a dog-leg configuration turning southward off of North Main Street. This project will vacate that portion of the street which jogs between Phase 2A and the North Main Street overpass and will redesign the roadway to extend due westward from its current intersection with North Main Street to straighten out the substandard street design into a better functioning design to access the interior of the proposed project as well as turn southward to create an intersection with Blaine Street according to current intersection standards. An interior "Mini Main Street" will bisect the site in a north-south configuration between Blaine Street and Rincon Street with a central round-about located where the main entry from North Main Street will converge with the interior main drive. Surface parking is designed along the interior drive, and access to the parking structures is achieved from this drive access as well as another private drive access extending the full length of the west property line northward from West Harrison Street and Street A (Appendix Site Plan).

GENERAL PLAN \ ZONING:

Site: The subject site is currently designated UDR (Urban Density Residential, 37-60 du/ac) along the full length of the westerly 7 acres of the site. The full length of the easterly approximate 9.8 acres has a GC (General Commercial) designation. Consistent with the General Plan, the North Main Street Specific Plan designates the westerly half as UDR (Urban Density Residential) and the easterly half as CR (Commercial Retail). The General Plan Amendment and Specific Plan Amendment that are components of the project proposal establish land use revisions commensurate with the varied land uses that are proposed with the overall project plan. The portion of the site to accommodate the apartments combined with in-line commercial will receive the MU1 (Commercial/Residential) General Plan designation and corresponding Mixed Use District designation of the Specific Plan. The portion of the site to accommodate strictly commercial will remain commercial with an added adjustment of approximately one-half acre on the northerly portion to follow the commercial site design. The southerly portion to accommodate strictly multi-family apartments will reflect a UDR General Plan and Specific Plan designation corresponding to that part of the plan.

Surroundings:

To the north of the project site beyond Rincon Street is the recently constructed Watermarke apartment project of 404 units with a UDR General Plan and Specific Plan designation. Adjacent to that project is an existing commercial building on a parcel having a General Commercial General Plan designation and Commercial Retail Specific Plan designation. On the east side of North Main Street across from the subject site exist several commercial establishments including a restaurant, an office building, and the Fender museum. These parcels are all designated GC (General Commercial) by the General Plan and CR (Commercial Retail) by the Specific Plan. The Main Street overpass over the BNSF Railroad ascends adjacent to the southeast corner of the site beyond which lie another restaurant and the North Main Street Metrolink station in the Mixed Use Commercial/Residential designations of both the General Plan and the Specific Plan. To the south of the subject site is a lumber supply company on a site with a GC (General Commercial) General Plan designation. The Specific Plan has a TC (Transitional Commercial) designation on this site. To the west are existing light industrial buildings on land with a Light Industrial General Plan designation and I (Industrial District) Specific Plan designation. The proposed land use is compatible with the surrounding land uses and zoning and is further consistent with goals and policies established to intensify land uses proximate to transit facilities such as the North Main Street Metrolink station as this proposal would do.

PREVIOUS ENVIRONMENTAL ANALYSIS:

The subject site was part of a larger Specific Plan Amendment to the North Main Street Specific Plan approved in 2008 (SPA07-005) which affected approximately 75 acres in seven separate planning areas throughout the specific plan area of North Main Street. The subject site was re-zoned from an Entertainment Commercial land use designation to Urban Density Residential (UDR) along the westerly half of the site, and to Commercial Retail (CR) along the easterly half. A Program EIR was prepared and certified in November 2008 for the major amendment (SCH No: 1999011069). The PEIR identified potential impacts that could occur from the overall project that involved numerous other sites in the specific plan area. This analysis, however, identifies any project level impacts that could occur from the proposed development of the Mixed Use Commercial/Residential and Urban Density Residential land uses as proposed with the associated site plan. In quantified terms, the amendment proposed under SPA12-007 will not result in more intense land uses than that evaluated under the original PEIR.

ENVIRONMENTAL SETTING:

The environmental setting is an urbanized area with existing development on all sides. The existing commercial center on the site developed in the mid-to late 1960's originally accommodated a grocery store anchor among other large area retailers and smaller in-line commercial tenants in continuous development lined along the westerly half of the site. Four outlying commercial buildings are situated on the easterly half of the site closer to North Main Street. Two of those will remain, a bank and a restaurant, and the third and fourth buildings at the southeast corner of the site currently accommodating two restaurants will be demolished to enable the new site plan to be implemented over time. Most of the site is currently covered with paving for surface parking with some pockets of mature landscape including mature Eucalyptus and Evergreen trees mostly along the easterly half of the site. Existing landscaping would be removed and replaced under this proposal.

STAFF RECOMMENDATION:

The City's Staff, having undertaken and completed an initial study of this project in accordance with the City's "Local Guidelines for Implementing the California Environmental Quality Act (CEQA)," has concluded and recommends the following:

___ The proposed project could not have a significant effect on the environment. **Therefore, a NEGATIVE DECLARATION will be prepared.**

___ The proposed project could have a significant effect on the environment, however, the potentially significant effects have been analyzed and mitigated to below a level of significance pursuant to a previous EIR as identified in the Environmental Checklist attached. **Therefore, a NEGATIVE DECLARATION WILL BE PREPARED.**

XX The Initial Study identified potentially significant effects on the environment but revisions in the project plans or proposals made by or agreed to by the applicant would avoid or mitigate the effects to below a level of significance. **Therefore, a MITIGATED NEGATIVE DECLARATION will be prepared.**

___ The proposed project may have a significant effect on the environment. **Therefore, an ENVIRONMENTAL IMPACT REPORT is required.**

___ The proposed project may have a significant effect on the environment, however, a previous EIR has addressed only a portion of the effects identified as described in the Environmental Checklist discussion. As there are potentially significant effects that have not been mitigated to below significant levels, a **FOCUSED EIR will be prepared to evaluate only these effects.**

___ There is no evidence that the proposed project will have the potential for adverse effect on fish and wildlife resources, as defined in Section 711.2 of the Fish and Game Code.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following indicates the areas of concern that have been identified as "Potentially Significant Impact" or for which mitigation measures are proposed to reduce the impact to less than significant.

- ❑ Land Use Planning
- ❑ Population and Housing
- ❑ Geologic Problems
- ❑ Hydrology and Water Quality
- ❑ **Air Quality**
- ❑ **Transportation / Traffic**
- ❑ **Biological Resources**
- ❑ Mineral Resources
- ❑ Hazards / Hazardous Materials
- ❑ **Noise**
- ❑ Public Services
- ❑ Utilities
- ❑ Aesthetics
- ❑ **Cultural Resources**
- ❑ Agricultural Resources
- ❑ **Greenhouse Gases**
- ❑ Mandatory Findings of Significance

Date Prepared: June 20, 2013

Prepared By: Terri Manuel, AICP, Planning Manager

Contact Person: Terri Manuel

Phone: (951) 736-2299

AGENCY DISTRIBUTION
(check all that apply)

_____ Responsible Agencies

XX Trustee Agencies (**CDFW**, SLC, CDPR, UC)

XX State Clearinghouse (CDFG, USFWS, Redev. Projects)

XX AQMD

_____ WQCB

_____ Other_____

UTILITY DISTRIBUTION

XX Southern California Edison

Southern California Edison Co.
Local Governmental Affairs
Land Use / Environmental Coord.
2244 Walnut Grove Avenue
Rosemead, CA 91770

Note: This form represents an abbreviation of the complete Environmental Checklist found in the City of Corona CEQA Guidelines. Sources of reference information used to produce this checklist may be found in the City of Corona Community Development Department, 400 S. Vicentia Avenue, Corona, CA.

1. LAND USE AND PLANNING:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with any land use plan/policy or agency regulation (general plan, specific plan, zoning)	☐	☐	☒	☐
b. Conflict with surrounding land uses	☐	☐	☐	☒
c. Physically divide established community	☐	☐	☐	☒

Discussion:

The project involves amending the General Plan land use map and North Main Specific Plan (SP-99-01) to facilitate the development of a mixed use project consisting of 464 multi-family apartment units and 77,256 square feet of commercial uses. The overall site is approximately 16 acres.

Land use intensity is not changing with the proposed land use changes, but rather shifting within the site. The existing UDR provides for up to 60 du/acre on the westerly approximate one-half of the site and could accommodate up to 480 multi-family units. The project as proposed at 464 multi-family units with a density of 47.7 units per acre does not exceed the maximum density of the current designation. Although the MU1 land use will replace the UDR land use, and the MU1 designation is limited by Floor Area Ratio as opposed to density ranges, the project proposal is further contained by the development standards that apply to building envelope such as building height, landscape, and parking requirements that will further keep the density of the project commensurate with the existing allowable density. Furthermore, the commercial land area is being reduced by approximately three acres, so there is not an intensification of commercial uses beyond that provided for under the current land use plan.

The existing land uses were analyzed under a Program Environmental Impact Report certified in November 2008 for an area wide amendment to SP-99-01 that included the project site and the introduction of the UDR designation into the City's General Plan and the Specific Plan.

The project site is located in an urbanized area surrounded by existing development on all sides. No incompatibilities are created with the project proposal as the more intense land uses including Urban Density Residential were analyzed under the referenced EIR with proper mitigation applicable to project development that will carry forward to this development as appropriate. Furthermore, the project implements the General Plan and Specific Plan goals and policies directly related to the facilitation of transit related projects that will reduce vehicle miles traveled. No further mitigation is warranted in this regard.

2. POPULATION AND HOUSING:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Induce substantial growth	☐	☐	☐	☒
b. Displace substantial numbers of existing housing or people	☐	☐	☐	☒

Discussion:

The proposed project will result in 464 multi-family units. Using the current average household size of 3.45 persons per household (*DOF - E-5 City/County Population and Housing Estimates 1/1/2013*) for occupied housing in Corona, the population estimate for the project is 1,601 persons at 100 percent occupancy. With assumed vacancy which varies year to year, actual population numbers would be less. Without the project, the current zoning of UDR could result in up to 1,656 persons. The establishment of the UDR on this site was analyzed under the North Main Street Specific Plan Amendment EIR certified in November 2008 with the assumption of maximum intensity of the residential land use. The EIR concluded that project specific impacts related to population growth would be less than significant. The proposed project even with the amendment to a Mixed Use land use designation is within the parameters analyzed in that document, and therefore, the anticipated population growth with this project being within those parameters likewise is less than significant, and no mitigation is warranted.

Furthermore, the project will not displace existing housing or people as the project site does not currently contain residential housing of any type.

3. GEOLOGIC PROBLEMS:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Fault /seismic failures (Alquist-Priolo zone) /Landslide/Liquefaction	☐	☐	☐	☒
b. Grading of more than 100 cubic yards	☐	☐	☒	☐
c. Grading in areas over 10% slope	☐	☐	☐	☒
d. Substantial erosion or loss of topsoil	☐	☐	☐	☒
e. Unstable soil conditions from grading	☐	☐	☐	☒
f. Expansive soils	☐	☐	☐	☒

Discussion:

The project site is fully developed with older commercial buildings and surface parking. In preparation for future development involving multi-story structures, it is estimated that site grading will involve approximately 500,000 cubic yards of soil. According to a Geotechnical Study prepared for Phase 1 north of Rincon Street by GMU dated January 14, 2009, over-excavation of the site is recommended up to eleven feet below the existing grade to accommodate multi-story residential buildings (P. 19). Additional potholing during grading may be required in some areas to determine the depth of undocumented fill to be removed. A supplemental letter dated June 20, 2013 by GMU Geotechnical, Inc. establishes that the recommendations of the Phase 1 study likewise apply to Phase 2. The applicant is furthermore required to adhere to the city's grading regulations and ordinance as well as the recommendations in the GMU Geotechnical, Inc. study to reduce any impacts associated with the grading process. No additional mitigation measures are warranted.

Per correspondence received from the Pechanga Band of Luiseno Mission Indians and Soboba Band of Luiseno Indians, a cultural site once existed within the Property boundaries (CA-RIV-675). The site has historically been identified as containing a large scatter of lithic flakes which are the remains of producing working tools for every-day subsistence. The resource site is recorded to be south of the now channelized Temescal Wash (Pechanga e-mail dated 9/24/09). More detail is discussed under Number 14 below (Cultural Resources). However, site grading could potentially un-earth artifacts of historic value. While it is not expected that over-excavation would run deep enough to uncover the resources believed to be contained deep within the site soils, historic archeological monitoring of grading activities cannot be documented, and therefore, specific mitigation measures addressing this potential are enumerated under Number 14 below.

4. HYDROLOGY AND WATER QUALITY:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than significant Impact	No Impact
a. Violate water quality standards/waste discharge requirements	☐	☐	☒	☐
b. Deplete groundwater supplies	☐	☐	☐	☒
c. Alter existing drainage pattern	☐	☐	☒	☐
d. Increase flooding hazard	☐	☐	☐	☒
e. Degrade surface or ground water quality	☐	☐	☒	☐
f. Within 100-year flood hazard area	☐	☐	☐	☒
g. Increase exposure to flooding	☐	☐	☐	☒
h. Exceed capacity of storm water drainage system	☐	☐	☐	☒

Discussion:

Site development will alter existing drainage patterns. A Preliminary Hydrology Study/Water Quality Analysis was prepared by K & A Engineering (March 2012). The analysis asserts that the entire site is designed to generally maintain existing drainage patterns and methods of low through treatment for water quality purposes will be implemented (p. 3). Based upon existing storm drains in the area, surface flows are designed with this project to properly convey surface drainage to proper collection points accommodating up to a 100 year storm event (p. 3). The on-site system will include surface drainage as well as an on-site storm drain to intercept flows and convey to an existing storm 36 inch storm drain inlet on the west property boundary. A portion of the flows will be infiltrated on-site with water quality treatment facilities such as self-treating drainage management areas, bio-retention and infiltration, infiltration trenches, permeable pavement, and fossil filters in catch basins (pp. 7-8). The percentage of impervious surface will be reduced from the current ratio of 94.6 percent to 82 percent with the proposed project design (p. 6). Implementation of the recommendations of the Hydrology Study will ensure compliance with the new 2010 State

MS-4 Permit and new guidelines by the County of Riverside making any impacts from surface drainage less than significant.

Further details regarding the prescribed methods of management of storm water run-off from the project and on-site surface drainage treatment are presented in a Preliminary Water Quality Management Plan prepared by K & A Engineering (August 2012, Revised January 2013) for this project. A final WQMP must be submitted by the developer and approved by the Public Works Department prior to the issuance of grading permits. Implementation of the recommendations of this plan will result in less than significant impacts, and no further mitigation is required.

Per the North Main Street Specific Plan Amendment EIR certified in November 2008 which analyzed the intensified land uses in the North Main Street area established that the project would be subject to the requirements of the Federal Clean Water Act, National Pollutant Discharge Elimination System, the Regional Water Quality Control Board, the State Water Resource Control Board, the National Flood Insurance Program, and the City development standards. Compliance with all of the respective agency requirements ensures that impacts to hydrology and water quality are reduced to less than significant levels.

5. AIR QUALITY:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with air quality plan	☐	☐	☐	☒
b. Violate air quality standard	☐	☐	☒	☐
c. Net increase of any criteria pollutant	☐	☐	☒	☐
d. Expose sensitive receptors to pollutants	☐	☒	☐	☐
e. Create objectionable odors	☐	☐	☐	☒

Discussion:

The subject site was part of a larger Specific Plan Amendment to the North Main Street Specific Plan approved in 2008 (SPA07-005) which affected approximately 75 acres in seven separate planning areas throughout the specific plan area of North Main Street. The subject site was re-zoned from an Entertainment Commercial land use designation to Urban Density Residential (UDR) along the westerly portion of the site, and to Commercial Retail (CR) along the easterly portion. The Program EIR identified potential impacts that could occur from the overall project that involved numerous other sites in the specific plan area. This analysis, however, focuses on any project level impacts that could occur from the proposed development of the Mixed Use Commercial/Residential and Urban Density Residential land uses as proposed with the associated site plan (PP12-005). The project is required to comply with the mitigation measures identified in the North Main Street Specific Plan Amendment EIR relating to air quality as outlined further below.

The proposed project involves land use amendments (GPA13-001 and SPA12-007) that do not intensify the land uses beyond that analyzed in the referenced EIR, but rather simply shifts land uses within the project planning area. The EIR analyzed regional and local emissions from construction and long-term operations resulting from implementation of the land use amendments approved under the prior specific plan amendment. The EIR also evaluated air quality impacts for each planning area and anticipated emissions from possible overlap from construction and cumulative operational emissions. The EIR also evaluated the worst case scenario based on the maximum allowed density under the UDR designation and the maximum FAR of the Commercial Retail designation. The proposed project does not increase the maximum number of units that were previously analyzed. The existing UDR provides for up to 60 du/acre on the westerly portion of the site and could accommodate up to 480 multi-family units. The project as proposed at 464 multi-family units with a density of 47.7 units per acre does not exceed the maximum density of the current designation. Although the MU1 land use will replace the UDR land use, and the MU1 designation is limited by Floor Area Ratio as opposed to density ranges, the project proposal is further contained by the development standards that apply to building envelope such as building height, landscape, and parking requirements that will further keep the density of the project commensurate with the existing allowable density. Furthermore, the commercial land area is being reduced by approximately three acres, so neither is there an intensification of commercial uses beyond that provided for under the current land use plan. Therefore, the project is not expected to exceed the operational and construction emissions evaluated in the EIR.

A project level analysis was prepared by Mestre Greve Associates (March 13, 2013) for Diesel Particulate Matter Health Risk Assessment as the proposed project will locate sensitive receptors (multi-family residential units) in closer proximity to the BNSF Railroad that runs freight trains as well as Metrolink passenger trains east-west approximately 350 feet south of the southerly boundary of the project site. Diesel Particulate Matter (DPM) has been identified by the California Air Resources Board (ARB) as a Toxic Air Contaminant. ARB's Office of Environmental Health Hazard Assessment posits that exposures to DPM results in increased risks of cancer and chronic non-cancer conditions (p. 1). Based on dispersion modeling, the report assesses the potential impacts from concentrations of DPM emitted from diesel locomotives operating on the referenced rail line near the project site and also calculates the increased cancer risk that residents of the proposed project would be exposed to as a result. The methodology follows ARB's Air Toxics Hot Spots Program Risk Assessment Guidelines and Guidance

Manual for its calculations (p. 5). The analysis took into account the current rail line usage by both freight and passenger trains and their frequency during certain periods within 24 hours. Projections are also made for rail line use to 2025 accounting for future emission reductions based on tiered locomotive emission reduction standards over time. The dispersion model takes the total pollutant emissions along with area geometrics, weather conditions and exposure time (accounting for indoor versus outdoor exposure) and determines the concentrations at the sensitive receptors (p. 6). Although threshold criteria exist for air standards, at this time, there is no current standard or threshold of significance by which to judge health risks (p. 10). However, for comparison, the risks are quantified in terms of estimated incidents of cancer per million compared to the risk due to exposure to air toxics in the greater South Coast Air Basin. The concluding comparison in this analysis is the estimated cancer risk due to exposure *in the vicinity of* the project is 1,155 per million whereas in the South Coast Air Basin it is between 501 and 1,200 per million for most of the region. The risk in the vicinity of the project is at the high end of most of the South Coast Air Basin (p. 10). The analysis notes that there are areas in East Ontario and a larger area of Los Angeles and East Los Angeles and near the Ports of Los Angeles and Long Beach that have cancer risks greater than 1,200 per million and as high as 3,600 per million (p. 10.). The study concludes that *on-site risks*, however, are calculated between 5% and 11% of the overall risk with an average of 8%. At the very southwest and southeast corners on-site, the risk is calculated between 121 and 125 per million (p. 14). The study also calculates the percent chance that one resident will contract cancer based on the DPM exposure. For the entire project, there is a 3.4% chance that one resident will contract cancer due to their exposure to DPM at the project site, and this is with every resident spending 24 hours a day outside for 70 years, based on the calculation methodology. According to the study, the locomotive DPM concentrations at the project site increase the risk of cancer by a minimal amount. The calculated *non-cancer* health risks are concluded to be so remote that the study states the occupants of the project will not be subject to any significant non-cancer health effects from the rail line DPM (p. 15).

The mitigation measures enumerated below have been carried forward from the EIR to apply to the project level impacts related to general air quality expected with this current multi-family and commercial development proposal. The mitigation measures would reduce construction emissions for all pollutants; therefore, the project is not anticipated to have additional impacts from that already analyzed under the North Main Street Specific Plan Amendment EIR.

Mitigation Measures:

1. ***All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications. NOx control technologies shall be installed for on-site equipment. Such technologies include diesel oxidation catalysts, cooled exhaust gas recirculation, fuel injection timing retard and air-to-air cooling, as feasible.***

2. ***General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues would turn their engines off when not in use to reduce vehicle emissions. Construction emissions should be phased and scheduled to avoid emissions peaks and discontinued during second-stage smog alerts.***

3. ***Electricity from power poles rather than temporary diesel or gasoline-powered generators shall be used to the extent feasible.***

4. ***All construction vehicles shall be prohibited from idling in excess of five minutes, both on-and off-site.***

5. ***At least one track-out prevention device as specified under SCAQMD Rule 403 subparagraph (d)(5) shall be installed for each individual project. Such devices may include wheel washers, wheel shaker devices or gravel pads.***

6. ***The project shall include air filtration systems for all newly introduced residential dwelling units as part of the project, designed to have a minimum efficiency reporting value (MERV) of 12 as indicated by the American Society of Heating Refrigerating and Air Conditioning Engineers (ASHRAE) Standard 52.2. The air handling systems shall be maintained on a regular basis per manufacturer's recommendations by a qualified technician employed or contracted by the project proponent or successor. Operation and maintenance of the system shall ensure that it performs above the minimum reporting value.***

7. ***During project operation, idling time for all diesel vehicles in proximity to sensitive receptors, including residential uses, shall be limited to five minutes in order to minimize exposure to TACs.***

6. TRANSPORTATION/TRAFFIC:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system	☐	☐	☒	☐
b. Conflict with an applicable congestion management program	☐	☐	☐	☒
c. Change in air traffic patterns	☐	☐	☐	☒

d. Traffic hazards from design features	☐	☐	☐	☒
e. Emergency access	☐	☐	☐	☒
f. Conflict with alternative transportation policies (adopted policies, plans or programs for public transit, bicycle or pedestrian facilities)	☐	☐	☐	☒

Discussion:

A project level traffic analysis was prepared for the proposed project by Urban Crossroads (April 13, 2012). This study focused on traffic impacts from the proposed project in three scenarios: Existing 2012 Conditions, Existing plus Project Conditions, and Opening Year (2014) Conditions With and Without the Project. Long range (2035) traffic impacts and mitigation measures were previously identified in the *Corona North Main Street Residential Development Traffic Impact Analysis* (Urban Crossroads, Inc. December 2011) and the *North Main Street District Specific Plan Amendment Environmental Impact Report* certified August 2008 (EIR SCH No. 1999011069). Mitigation that will carry forward to this project established in the subject EIR includes contribution of fair share costs associated with long range area build-out (Mitigation Measure 9 below). Based on trip generation rates collected by the Institute of Transportation Engineers (ITE) and presented in ITE's most recent edition of *Trip Generation* (8th Edition, 2008), the project is estimated to generate a net total of approximately 7,086 trip-ends per day on a typical weekday with approximately 333 AM peak hour trips and 602 PM peak hour trips (p. 3). Seven intersections and fifteen roadway segments were analyzed along with site access. Cumulative growth between 2012 and 2014 was factored at four percent per year for AM peak hours and two percent per year for PM peak hours based on projected regional growth (p. 54). The analysis concludes that, with the circulation improvements warranted for this project for Existing Condition plus Project and Opening Year (2014) Conditions, study area intersections and roadway segments will experience "less than significant" impacts based on the City's Level of Service (LOS) thresholds[1]. Project level roadway improvements include construction of the full width of the new West Harrison Street extending westward from North Main Street and then southward to meet Blaine Street at the southwest site boundary. The study area roadways include North Main Street, Rincon Street, Blaine Street and Grand Boulevard all of which are currently built to their ultimate roadway cross-sections. In order to accommodate project level traffic, however, some turn pockets in the area will need to be lengthened to increase vehicle storage capacity at traffic signals. The turn pockets that will need to be lengthened are located on North Main Street at Rincon, at the main project entry from North Main Street, North Main Street at Harrison Street, and North Main Street at Grand Boulevard (p. 78, et seq). A new signal will be installed at the project's main entry off of North Main Street, and this signal must be systematically coordinated with other traffic signals along the North Main Street corridor.

Because the subject site is located very near the North Main Street Metrolink station and bus routes for the City's Corona Cruiser as well as RTA bus routes, and with the mixed use commercial/residential component of the project, a degree of internal capture (already in the project site for other business), pass-by traffic (in the area already) and residential pedestrian traffic are factored into the analysis. The daily trip count of 7,086 accounts for a 10 percent internal capture, 10 percent pass-by (commercial), and 10 percent trip reduction based on residents close enough to the commercial to more conveniently walk. These trip discounts are based on ITE Trip Generation Handbook (2nd Edition) methodologies (p. 49).

The overall fair-share costs for all of the area build-out circulation improvements were part of an original traffic study prepared for the North Main Street Specific Plan Amendment Program EIR certified in November 2008. The City of Corona Public Works Department issued a Memorandum dated October 13, 2009 as an addendum to the traffic study prepared for the Watermarke Phase 1 project located north of the subject project site. That memorandum established the amount of fair-share contribution that the developer must make to properly mitigate cumulative traffic impacts of both the Phase 1 project north of Rincon Street and Phase 2, the subject site. Whereas, the Phase 1 contribution was 19.3% of the cost of area roadway build-out improvements, Phase 2 was specified in the memorandum as having 80.7% of the fair-share burden. Mitigation Measure No. 9 below carries forward that obligation to this project

Mitigation Measure:

8. All site access, roadway segments, and intersections shall be improved with the Phase 2 project as recommended in the Urban Crossroads Traffic Impact Analysis dated April 13, 2012 prior to the issuance of the first Certificate of Occupancy for either residential or commercial use.

9. Based on the proposed project trip generation, and whereas Phase 1 was responsible for approximately 19.3% of the PA-2 (project area north of Rincon Street) fair-share cost burden that was formulated in the Program EIR traffic analysis (SPA07-005), Phase 2 (south of Rincon Street) will be responsible for the estimated remaining 80.7% fair-share cost burden prior to the approval of the street improvement plans.

[1] LOS "C" or better shall be maintained for local intersections in residential/industrial areas; LOS "D" or better shall be maintained on collector and arterial intersections (City of Corona General Plan 2004).

7. BIOLOGICAL RESOURCES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Endangered or threatened species/habitat	☐	☐	☐	☒
b. Riparian habitat or sensitive natural community	☐	☐	☐	☒
c. Adversely affects federally protected wetlands	☐	☐	☐	☒
d. Interferes with wildlife corridors or migratory species	☐	☒	☐	☐
e. Conflicts with local biological resource policies or ordinances	☐	☐	☐	☒
f. Conflicts with any habitat conservation plan	☐	☐	☐	☒

Discussion:

Although the site does not contain natural vegetation or waterways that would accommodate fish, wildlife, or native plant species, it does contain mature landscaping that includes some Eucalyptus and Evergreen trees that could accommodate nesting birds or raptors. In order to reduce the potential impact of interference with any protected bird species, mitigation is recommended to ensure that when existing trees are removed, any presence of nesting birds will be protected through the nesting season.

Mitigation Measure:

10. Prior to the removal, clearing, and/or grubbing of vegetation that would occur during the nesting season (February 1 – August 31), a nesting bird survey shall be conducted by a qualified biologist five days prior to any vegetation disturbance activities. If nests are found or there is evidence of nesting behavior inside the impact area, proper buffering shall be implemented according to recommendations of a wildlife biologist, and the biologist shall monitor the nests until nesting has ceased and the young have fledged.

8. MINERAL RESOURCES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Loss of mineral resource or recovery site	☐	☐	☐	☒

Discussion:

Mineral resources present in the City of Corona include deposits of clay and construction aggregates located along the City's eastern periphery. According to the City of Corona Technical Background Report (TBR), Figures 2.1-12 and 2.1-13, no mineral resources have been identified on the project site, nor has it been designated a valuable mineral resource recovery site. Therefore, no impacts associated with the loss of mineral resources or of a recovery site would result from the development of the proposed project. No mitigation is required.

9. HAZARDS AND HAZARDOUS MATERIALS:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Transport, use or disposal of hazardous materials	☐	☐	☐	☒
b. Risk of accidental release of hazardous materials	☐	☐	☐	☒
c. Hazardous materials/emissions within ¼ mile of existing or proposed school	☐	☐	☐	☒
d. Located on hazardous materials site	☐	☐	☐	☒
e. Conflict with Airport land use plan	☐	☐	☐	☒
f. Impair emergency response plans	☐	☐	☐	☒
g. Increase risk of wildland fires	☐	☐	☐	☒

Discussion:

Based on information contained in Figrure 4.5-7 and Table 5.4-1 & 5.4-2 of the General Plan Technological Background Report, the project site does not contain hazardous subsurface materials nor is it identified as a hazardous materials site. The site is fully developed with commercial buildings and paved surface parking. All future demolition is subject to regulation by the South Coast Air Quality Management District and demolition permitting through the City's Building Division of the Community Development Department. No further mitigation is warranted.

10. NOISE:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Exceed noise level standards	☐	☒	☐	☐
b. Exposure to excessive noise levels/vibrations	☐	☒	☐	☐
c. Permanent increase in ambient noise levels	☐	☐	☐	☒
d. Temporary increase in ambient noise levels	☐	☐	☒	☐
e. Conflict with Airport Land Use Plan noise contours	☐	☐	☐	☒

Discussion:

A project level Noise Analysis was prepared for the project by Mestre Greve Associates (May 28, 2013). The study analyzed exterior and interior noise impacts related to construction and operations of the project as well as impacts upon the residential units from traffic and railroad noise exposure. The project will be impacted by traffic noise from North Main Street and Rincon Street and also by the BNSF Railroad line to the south which runs freight lines and passenger lines. City standards for interior and exterior residential areas are used as the standard of measure against which anticipated noise levels are calculated and compared. Interior standards are 45 CNEL (Community Noise Level Equivalent), which is a 24-hour time weighted annual average noise level. The exterior standard is 65 CNEL. Traffic noise was modeled based upon the federal Highway Noise Model standards allowing for distance from roadway centerlines to sensitive receptors with a two percent per year increase in traffic using 2009 and 2010 traffic level baselines for North Main Street and Rincon Street, respectively (pp. 3-4).

Railroad noise impacts are evaluated using the Wyle Train Model (p. 5) which assumes approximately 120 freight trains and 62 passenger trains in a 24 hour period (p. 6). Railroad noise is from the locomotive (engine noise) as well as rail car wheel contact with metal rails, and from whistles that sound for safety reasons per federal standards. Existing and projected rail use volumes are considered based on regional freight and passenger train activity which is random over a 24 hour period (p. 5). The nearest living space to the rail line is 375 feet. With no shielding, a 73 CNEL exterior noise level can be expected (p. 6). The study accounts for a degree of shielding that exists between the project site and the railroad with an intervening large lumber supply building which lowers the CNEL to 70 for part of the site. Coupled with roadway noise from North Main Street estimated at 66.1 CNEL at the project's southeast corner, combined noise levels at this location are projected at 71.5 CNEL.

The analysis prescribes noise barriers ranging from six to seven feet high for the private exterior space of all east facing units on each of the four levels of Building 1 at the southeast corner of the project site in order to mitigate noise levels to the standard 65 CNEL. Likewise to mitigate rail noise, barriers ranging from 5 to 5.5 feet high are prescribed for the private exterior areas of those south facing units at the project's southeast corner (p. 7). To meet the interior 45 CNEL standard, the buildings must provide sufficient outdoor to indoor building attenuation with building elements such as the roof, walls, windows, doors, attic configuration and insulation. With 71.5 CNEL being the maximum noise level expected on the exterior, the rooms will require at least 26.5 decibel noise reduction. Based on the project architectural drawings for the roofs, walls, and windows, the worst-case room will achieve an outdoor to indoor noise reduction of 26.6 decibels which exceeds the required reduction of 26.5, and therefore, all rooms are projected to meet the 45 CNEL interior noise standard without building upgrades (p. 9) with windows closed and adequate ventilation per the California Building Code for all units, and specifically for those units identified in the study to require exterior noise barriers.

In addition to the project level analysis, the North Main Street Specific Plan Amendment EIR of November 2008 evaluated on a program level construction noise, operational impacts, and off-site impacts such as roadway and railroad noise. The analysis concluded that construction related noise has the potential to result in temporary impacts to sensitive uses, and mitigation measures were recommended to minimize construction noise. In terms of operational noise, on- and off-site noise levels will increase with cumulative development in the area, and although no sensitive receptors such as residential exist on the project site at this time, as the project is phased residential will be developed and occupied when future phases come on-line. Mitigation measures were established in the EIR to ensure that proper noise attenuation is designed into building construction to ensure compliance with the City's noise standards. Those measures specifically relate to multi-family residential development within the overall North Main Street area. Those that would apply to this project are carried forward with this project as outlined further below.

Mitigation Measures:

11. Disclosure to all leaseholders and renters within Building 1, Phase 2A, that the BNSF Rail line is located approximately 375 feet south of the project site and runs freight trains on a 24 hour basis and passenger trains throughout the day. Evidence of such disclosure document shall be provided for the City record.

12. The project shall incorporate all of the noise attenuation measures for the specific residential units fronting North Main Street and facing the BNSF Railroad to the south as established in the Noise Analysis dated May 28, 2013.

13. Noise-generating equipment operated at the project site shall be equipped with effective noise control devices, i.e., mufflers, noise suppressor devices, and/or motor enclosures. All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated.

14. Construction truck routes and equipment shall, to the extent feasible, avoid residential areas and roadways adjacent to noise sensitive receptors.

11. PUBLIC SERVICES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Fire protection	☐	☐	☒	☐
b. Police protection	☐	☐	☒	☐
c. Schools	☐	☐	☒	☐
d. Parks & recreation facilities	☐	☐	☒	☐
e. Other public facilities or services	☐	☐	☒	☐

Discussion:

The North Main Street Specific Plan Amendment EIR of November 2008 evaluated the potential impacts of the previous program amendment on public services such as fire protection, police protection, schools, parks and recreation facilities, and libraries. In terms of fire protection including facilities, emergency response, and fire flow requirements, the EIR concluded that all development within the project area would be required to implement applicable building and fire code requirements, would be responsible for paying development impact fees to ensure continuing adequate service, and be designed in a manner that conveys the necessary water flows for fire protection to all new construction. A project level analysis was prepared for the proposed project by K & A Engineering (July 24, 2012) that analyzed water pressure and fire flow for the project. Based on the water supply and delivery systems in the area, the report concludes that the proposed on-site water system can adequately supply the proposed development with the required maximum day domestic water demands as well as provide required fire flows for every phase of the project (p. 5).

The EIR also analyzed impacts on police services in light of the City's goal of maintaining 1.3 officers per 1,000 residents. Since the project does not result in population growth in excess from that already evaluated in the EIR, no additional impacts to Police services are anticipated and no additional mitigation is warranted.

In terms of school impacts, the project would increase the impacts to Corona Norco Unified School District public schools. Mitigation for school impacts is likewise implemented through the payment of impact fees to the CNUSD to fund facilities as determined by the district. Impacts to library facilities also are mitigated through the payment of bond and development impact fees, and no additional mitigation measures would be required.

The project is responsible for either dedicating land for development of parks and recreational facilities or pay commensurate impact fees, or a combination thereof, to meet the Municipal Code requirement of three acres per 1,000 residents. This impact fee will be paid by the developer in accordance with DIF collection processes at the time of permit issuance or Certificate of Occupancy, as applicable.

Southern California Edison and Southern California Gas will provide power and natural gas services to the project site. At the time of project grading, the gas and power lines will be extended to the project site by the developer, as per other commercial developments throughout the city. The amount of natural gas, power and waste generated by the development is not expected to impact these services. Therefore, no further analysis is warranted. AT&T will provide telephone service on demand to the project site. The developer's coordination with AT&T will ensure timely service to the project site.

12. UTILITIES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Exceed wastewater treatment requirements	☐	☐	☐	☒
b. Involve construction/expansion of water or wastewater treatment facilities	☐	☐	☐	☒
c. Involve construction/expansion of storm drains	☐	☐	☒	☐
d. Sufficient water supplies/compliance with Urban Water Management Plan.	☐	☐	☐	☒
e. Adequate wastewater treatment capacity	☐	☐	☐	☒
f. Adequate landfill capacity	☐	☐	☐	☒
g. Comply with solid waste regulations	☐	☐	☐	☒

Discussion:

The North Main Street Specific Plan Amendment EIR of November 2008 analyzed cumulative project impacts to Utilities and Service Systems specifically including impacts to water supply, wastewater facilities, and solid waste facilities resulting from the area wide amendment. The analysis concluded that although future development in the project area, including the project site, will increase existing water demands, the City's water supply based on the 2005 Urban Water Management Plan (UWMP) is sufficient to provide service to the development anticipated in the program level amendment at that time. The proposed project does not increase land use intensities beyond that evaluated in the subject EIR as discussed in detail under Land Use above, and therefore, no additional impacts are anticipated to the city's water supply. No further mitigation is warranted.

A project level Sewer Study was prepared by K & A Engineering (July 24, 2012) that analyzes and demonstrates the adequacy of the on-site and off-site public sewer system to serve the proposed project. The study analyzes the sewer generation, flow characteristics of the system, and the need for any special design considerations due to physical constraints of the existing sewers to receive the discharge.

Storm drains will be designed and constructed to receive the storm water flows anticipated from the project. As detailed under the prior section for Hydrology, adequate provision is made for storm water flows by the proposed project including Low Impact Development and on-site water infiltration.

Waste Management of California will provide waste collection and disposal services.

The project has been designed to accommodate the necessary provisions for utilities, and no special mitigation is required.

13 AESTHETICS:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Scenic vista or highway	☐	☐	☐	☒
b. Degrade visual character of site & surroundings	☐	☐	☐	☒
c. Light or glare	☐	☐	☐	☒
d. Scenic resources (forest land, historic buildings within state scenic highway	☐	☐	☐	☒

Discussion:

The North Main Street Specific Plan Amendment EIR evaluated the potential impacts of the proposed project on aesthetics, views, scenic resources, light and glare, and shade and shadow. Two areas of concern were established in the EIR that warranted mitigation measures at the program level to be carried through as applicable to the project level. The first mitigation measure required evaluation of any proposal that would affect the significance of the Corona Depot or detract from the historic significance by obstructing any existing visual access to the historic Corona Depot located at Grand Boulevard and Railroad Street south of the BNSF Railroad. The Corona Depot is a state registered historic resource (North Main EIR, Page IV.K-17) and by virtue of that listing is by default also part of the City's Historic Landmark Registry. It dates back to the 1930's when the railroad industry had prominence in the Inland Empire. The proposed project is located a significant distance north of the subject historic resource. An existing lumber supply building is located on much of the intervening area between the subject site

and the historic depot as well as the railroad line itself frequently occupied with trains that themselves obstruct the view of the depot from any point north of the railroad tracks. The proposed project would not create a visual barrier that would obstruct the view of the historic depot from any significant vista or vantage point, but rather may create enhanced views of the structure from some elevated portions of the project.

The second measure called for a shade and shadow analysis for any proposed structures 50 feet or five stories in height or higher that may need to include design modifications to reduce the impact on nearby shade-sensitive uses. The building heights across the subject site will vary by phase. The first phase of the project (Phase 2A) on the southerly site portion will reach a prevailing height of 52 feet. The second building identified as Phase 2B will reach a prevailing height of 58 on the east elevation and less on the west elevation. Occasional tower elements accenting the architecture will reach heights of up to 72 feet. The third building identified as Phase 2C will reach approximately 44 feet in prevailing height with accent towers of up to 54 feet. The subject site is not located near sensitive receptors that would be affected by these building heights. Therefore, a shade/shadow analysis was not warranted. Industrial land uses exist to the west of the project site, and commercial land uses exist to the east. To the north across Rincon Street is an existing multi-story apartment project (Watermarke Phase 1). These units are not particularly sensitive receptors as they are removed from the project site due to the building orientations, setbacks, and also a multi-story design. To the south is the existing lumber supply building which also is not considered sensitive and being situated to the south would not receive shadow from this project lying to the north. Land uses that would be sensitive to shade and shadow would include single family or low rise residential, and these do not exist in proximity to the subject site. Therefore, the project will not have additional impacts to aesthetics from that originally analyzed in the EIR, and mitigation is not warranted.

The standard practice of requiring exterior lighting to be shielded in a manner that prevents light glare and spillover onto adjacent properties will ensure that on-site lighting is appropriately contained on-site. Therefore, no further mitigation is warranted in this regard.

14. CULTURAL RESOURCES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Historical resource	☐	☐	☐	☒
b. Archaeological resource	☐	☐	☒	☐
c. Paleontological resource or unique geologic feature	☐	☐	☒	☐
d. Disturb human remains	☐	☐	☒	☐

Discussion:

The North Main Street Specific Plan Amendment EIR cited potential impacts to land use changes near the historic Corona Depot off of Grand Boulevard and Railroad Street and also the Grand Boulevard Streetscape. As discussed under the previous Aesthetics section, no impacts upon these resources result from the proposed project.

At the time the Watermarke Phase 1 project was proposed, SB 18 consultations took place with the Pechanga Band of Luiseno Indians and with the Soboba Band of Luiseno Indians. Correspondence received at that time indicated the historic presence of a cultural site in the area of Phase 1 (CA-RIV-675). The correspondence stated that the site had historically been identified as containing a large scatter of lithic flakes which are the remains of producing working tools for every-day subsistence, reportedly located south of the now channelized Temescal Wash (Pechanga e-mail dated 9/24/09). A Luiseno plant gathering area is also believed to have been located nearby. In the course of consultations with the two Native American Tribes on Phase 1, and based on the over-excavation that was necessary to accommodate the multi-story buildings in that phase, mitigation measures were applied to Phase 1 (Precise Plan 09-003) that ensured the involvement of Native American monitors from both Tribes during ground disturbance. The developer entered into Treatment Agreements with both tribes that established the terms of the monitoring process as well as the disposition of any finds unearthed during grading.

SB 18 invitations to consult on Phase 2 were extended to the Tribes through the Native American Heritage Commission and its recommended list. Because of the interest in Phase 1 by the two referenced Tribes and the executed agreements between each and the developer, a special invitation was made to these two Tribes in regard to Phase 2. The Pechanga Tribe representative expressed agreement to the same mitigation for Phase 2 as applied to Phase 1 involving the requirement for the developer to enter into a Treatment Agreement with the Pechanga Tribe. Although no response was received from Soboba, the same mitigation measure is being applied to require that the developer enter into a Treatment Agreement also with Soboba similar to the Phase 1 project. It is estimated that it was the intent of Soboba to follow through with this process for Phase 2 in like manner as Phase 1, and that unavoidable circumstances prevented their timely response.

Therefore, the same mitigation measure pertaining to Treatment Agreements with the two Native American Tribes is likewise being applied to Phase 2 south of Rincon Street because of the proximity of historic finds in the area as well as the need to over-excavate to approximately 15 feet in likely previously undisturbed soil to accommodate the deeper foundations for the

multi-story structures. This mitigation is warranted to reduce any potential impacts to historical resources to less than significant.

Mitigation Measures:

15. Prior to the issuance of grading permits, the project applicant/developer shall enter into an agreement and provide to the City evidence of such agreement with both the Pechanga Band of Luiseno Mission Indians and with the Soboba Band of Luiseno Indians. This agreement shall address the grading monitoring provisions as well as the disposition of any finds.

16. If human remains are unearthed, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources, Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within a reasonable timeframe. Subsequently, the Native American Heritage Commission shall identify the "most likely descendant." The most likely descendant shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in the Public Resources Code.

17. In the event that paleontological resources are unearthed during grading, the developer shall immediately cease operation and retain a qualified and trained paleontologist who shall recover and salvage all fossils according to modern paleontological techniques and oversee proper placement with the appropriate repository, and provide to the City a report documenting all results of these activities.

15. AGRICULTURE RESOURCES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Williamson Act contract	☐	☐	☐	☒
b. Conversion of farmland to nonagricultural use	☐	☐	☐	☒

Discussion:

The project site is not located within a Williamson Act contract area for the preservation of agricultural lands. No mitigation is warranted.

16. GREENHOUSE GAS:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Generate greenhouse gases	☐	☒	☐	☐
b. Conflict with a plan, policy or regulation	☐	☐	☐	☒

Discussion:

The City of Corona adopted a Climate Action Plan (CAP) in 2012 which utilizes the *Greenhouse Gas Emissions CEQA Thresholds and Screening Tables* to determine whether or not a project would have a significant impact from greenhouse gas emissions. The screening tables establish options that result in certain levels of greenhouse gas emission reductions attributable to certain design and construction measures incorporated into development projects. Projects that garner at least 100 points will be consistent with the reduction quantities anticipated in the City's CAP and would thus be considered less than significant. Utilizing the screening tables would also contribute to the City's meeting its GHG emissions reductions target for the year 2020. The developer has the option to utilize the tables or prepare a separate project specific GHG analysis. The applicant chose to show project conformance with the CAP by using the screening tables. Per the project's screening tables, the applicant is proposing to implement a total of 19 measures to reduce GHG emissions for the residential component of the project and 19 separate measures for the commercial components of the project. With these measures the minimum 100 points are being met. Some of the measures include, for example, installation of enhanced building insulation, windows, doors, duct insulation, high efficiency appliances, among others at a level at least 15% above Title 24 standard requirements. Low water use landscape and irrigation are also among the measures chosen. Of note is the provision of 10% of the power needs of the project through solar photovoltaic panels to augment total power demand (Screening Tables and supporting analysis by Urban Crossroads, May 31, 2013). Special calculations demonstrating points for the Diversity of Complementing Land Uses and Increased Transit Accessibility are also provided in the same analysis. Compliance with the measures will be verified at the time plans are checked prior to permit issuance. Mitigation Measure 18 ensures that this commitment and verification are carried through the implementation of the project.

It should be noted that the proposed project is consistent with regional goals and policies for sustainable development as it concentrates residential near transit facilities and supporting commercial uses, reducing vehicle miles traveled and consequently GHG emissions. The project concept is consistent with the state's adopted AB 32 which established the goal of GHG emission reductions to 1990 levels by 2020.

Mitigation Measure:

18. The building and landscape plans submitted for plan check for this project shall include Title 24 Compliance Forms that reflect the selected components of the GHG screening tables to which the project will be held. (See Appendix for completed Screening Tables.)

17. MANDATORY FINDING OF SIGNIFICANCE:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Fish/ wildlife population or habitat or important historical sites	☐	☐	☐	☒
b. Cumulatively considerable impacts	☐	☐	☐	☒
c. Substantial adverse effects on humans	☐	☐	☐	☒
d. Short-term vs. long-term goals	☐	☐	☐	☒

Discussion:

The subject site is currently fully developed with commercial uses and surface parking. A very limited amount of mature landscaping exists; however, the site does not contain natural vegetation or waterways that would accommodate fish, wildlife, or native plant species. There is no evidence before the City that the project will have an adverse effect on such resources.

18. PREVIOUS ENVIRONMENTAL ANALYSIS:

Earlier analysis may be used when one or more of the environmental effects have been adequately analyzed in an earlier EIR or Negative Declaration (Section 15063).

A Program EIR was certified in November 2008 for a major amendment to the North Main Street Specific Plan and accompanying General Plan Amendment that affected approximately 75 acres in seven separate planning areas throughout the specific plan area, including the project site, plus 9.7 additional acres outside of identified planning areas (east side of North Main Street from Entertainment to Commercial Retail). The amendment re-designated 29.2 acres as Mixed Use I (Commercial/Residential), 17.3 acres as Urban Density Residential, 22.4 acres as Commercial, and15.9 acres as TC/CR (Transit Center). The project site was part of the amendment that established the Urban Density Residential land use designation on the westerly half of the site and Commercial Retail on the easterly half. The Program EIR identified potential impacts that could occur from the overall project that involved numerous other sites in the specific plan area. This analysis, however, identifies any project level impacts that could occur from the proposed development of the subject site with the development proposed with Precise Plan 12-005 and associated applications of GPA13-001, SPA12-007, and TTM 36451.

DOCUMENTS INCORPORATED BY REFERENCE:

Agency Resources:

City of Corona, General Plan, March 2004
City of Corona, General Plan Technical Background Report, December 2003
North Main Street Specific Plan Amendment (SPA07-005), Environmental Impact Report, certified November 2008.
California Department of Finance, E-5 City/County Population and Housing Estimates 1/1/2013

Technical Studies:

Geotechnical Supplemental Letter, GMU Technical, Inc., June 20, 2013
Preliminary Hydrology Study and Water Quality Analysis, K & A Engineering, March 2012
Preliminary Water Quality Management Plan, K & A Engineering, January 2013
Diesel Particulate Matter Health Risk Assessment, Mestre Greve Associates, March 2013
Traffic Impact Analysis, Urban Crossroads, April 2012
City of Corona, Public Works Department, Traffic Division, Fair Share Memorandum (TIA Addendum), October 2009
Noise Analysis, Mestre Greve Associates, May 2013
Preliminary Water Pressure and Fire Flow Analysis, Corona North Main Phase 2, K & A Engineering, July 2012
Sewer Study, Corona North Main Phase 2, K & A Engineering, July 2012
Corona North Main Phase 2 Greenhouse Gas Emissions Screening Tables with Urban Crossroads Supplemental Quantification Analysis, May 2013
Corona North Main Phase 2 Renewable Energy Calculations, May 2013

ITIGATION MONITORING AND REPORTING PROGRAM
CITY OF CORONA

No.	Mitigation Measures	Implementation Phasek	Method of Verification	Timing of Verification	Responsible Party	Verification Date
1	*All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications. NOx control technologies shall be installed for on-site equipment. Such technologies include diesel oxidation catalysts, cooled exhaust gas recirculation, fuel injection timing retard and air-to-air cooling, as feasible.*	Grading and construction	Site inspection	Grading and construction	Cal ARB	
2	*General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues would turn their engines off when not in use to reduce vehicle emissions. Construction emissions should be phased and scheduled to avoid emissions peaks and discontinued during second-stage smog alerts.*	Grading and construction	.Site inspection	Grading and construction	Cal ARB Public Works	
3	*Electricity from power poles rather than temporary diesel or gasoline-powered generators shall be used to the extent feasible.*	Grading and construction	Site inspection	Grading and construction	Community Dev. Planning Building inspection	
4	*All construction vehicles shall be prohibited from idling in excess of five minutes, both on-and off-site.*	Grading and construction	Site inspection	Grading and construction	Public Works and Building inspection	
5	*At least one track-out prevention device as specified under SCAQMD Rule 403 subparagraph (d)(5) shall be installed for each individual project. Such devices may include wheel washers, wheel shaker devices or gravel pads.*	Grading construction	Site inspection	Grading and construction	Public Works and SCAQMD	

6	*The project shall include air filtration systems for all newly introduced residential dwelling units as part of the project, designed to have a minimum efficiency reporting value (MERV) of 12 as indicated by the American Society of Heating Refrigerating and Air Conditioning Engineers (ASHRAE) Standard 52.2. The air handling systems shall be maintained on a regular basis per manufacturer's recommendations by a qualified technician employed or contracted by the project proponent or successor. Operation and maintenance of the system shall ensure that it performs above the minimum reporting value.*	Operation	Building plan check and inspection	Construction	Community Dev Planning Building inspection	
7	*During project operation, idling time for all diesel vehicles in proximity to sensitive receptors, including residential uses, shall be limited to five minutes in order to minimize exposure to TACs*	Grading and construction	Site inspection	Grading and construction	Public Works and Building Inspection	
8	***All** site access, roadway segments, and intersections shall be improved with the Phase 2 project as recommended in the Urban Crossroads Traffic Impact Analysis dated April 13, 2012 prior to the issuance of the first Certificate of Occupancy for either residential or commercial use.*	Public Improvements	Street improvement plan check	Prior to approval of improvement plans	Public Works	
9	***Based** on the proposed project trip generation, and whereas Phase 1 was responsible for approximately 19.3% of the PA-2 (project area north of Rincon Street) fair-share cost that was formulated in the Program EIR traffic analysis (SPA07-005), Phase 2 (south of Rincon Street) will be responsible for the estimated remaining 80.7% at the time it is proposed in the future.*	Public improvements	Plan check and permit issuance	Prior to approval of improvement plans	Public Works	
10	***Prior** to the removal, clearing, and/or grubbing of vegetation that would occur during the nesting season (February 1 – August 31), a nesting bird survey shall be conducted five days prior to any*	Demolition	Report from application biologist to Community Development Dept.	Prior to demolition permit	Community Dev. Planning Building	

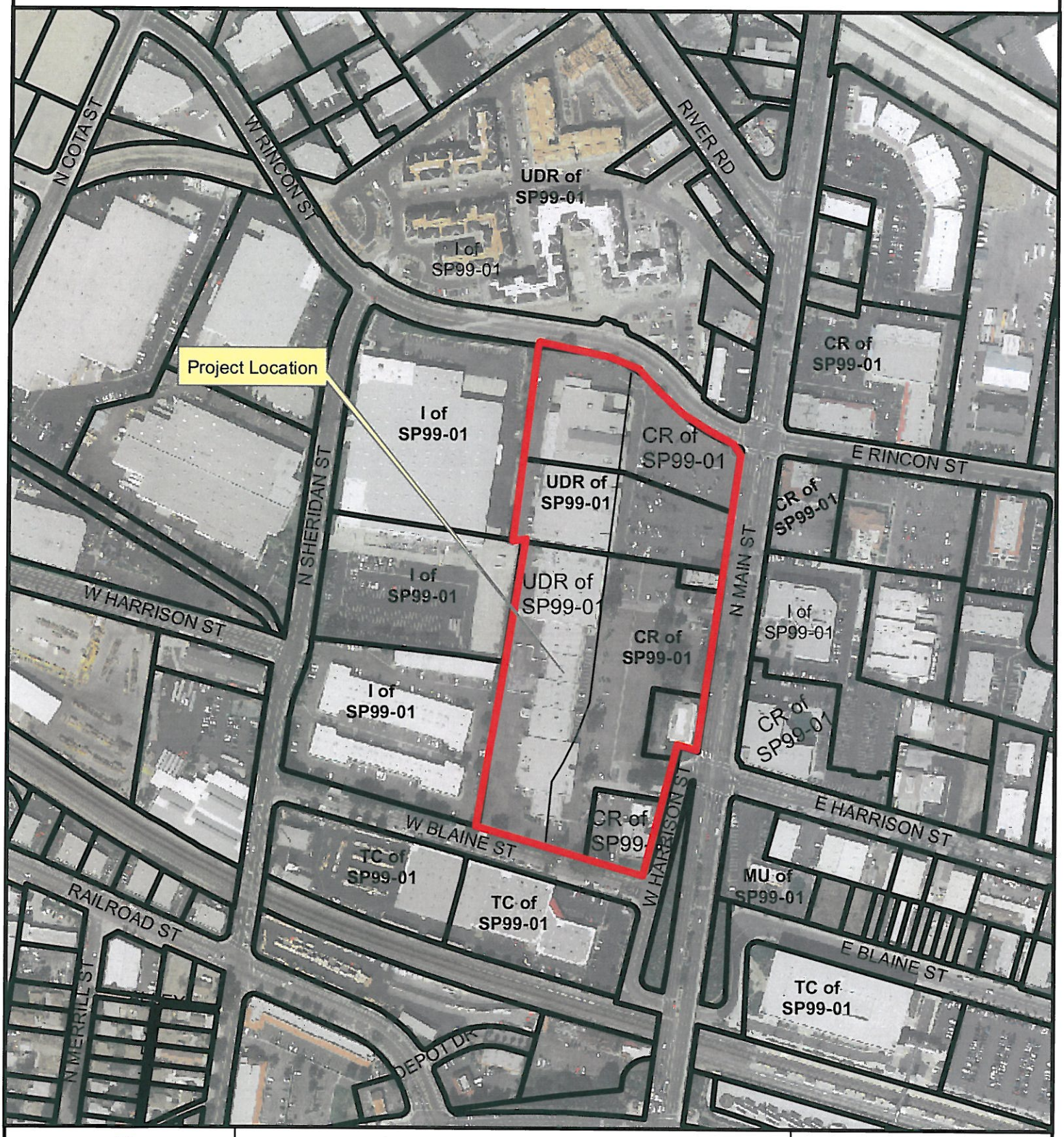
	vegetation disturbance activities. If nests are found or there is evidence of nesting behavior inside the impact area, proper buffering shall be implemented according to recommendations of a wildlife biologist, and the biologist shall monitor the nests until nesting has ceased and the young have fledged.		Planning Div.			
11	*Disclosure to all leaseholders and renters within Building 1, Phase 2A, that the BNSF Rail line is located approximately 375 feet south of the project site and runs freight trains on a 24 hour basis and passenger trains throughout the day. Evidence of such disclosure document shall be provided for the City record.*	Building plan check	Copy of disclosure to Community Development Dept. Planning Div.	Prior to demolition permit issuance	Community Dev. Planning Building	
12	***The** project shall incorporate all of the noise attenuation measures for the specific residential units fronting North Main Street and facing the BNSF Railroad to the south as established in the Noise Analysis dated May 28, 2013.*	Building plan check	Building plan check	Prior to sign off of Building plans	Community Dev. Planning	
13	***Noise**-generating equipment operated at the project site shall be equipped with effective noise control devices, i.e., mufflers, noise suppressor devices, and/or motor enclosures. All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated.*	Grading	Field inspection	Upon regular inspection or special inspection due to any complaint	Community Dev. Planning Building	
14	*Construction truck routes and equipment shall, to the extent feasible, avoid residential areas and roadways adjacent to noise sensitive receptors.*	Grading and construction	Field inspection	Upon regular or special inspection due to any complaints	Public Works and Building	
15	*Prior to the issuance of grading permits, the project applicant/developer shall enter into an agreement and provide to the City evidence of such agreement with both the Pechanga Band of Luiseno Mission Indians and with the Soboba*	Grading plan check	Evidence of signed agreement – copy to Community Dev Planning	Prior to issuance of grading permit	Community Dev. Planning	

	Band of Luiseno Indians. This agreement shall address the grading monitoring provisions as well as the disposition of any finds.					
16	***If** human remains are unearthed, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources, Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within a reasonable timeframe. Subsequently, the Native American Heritage Commission shall identify the "most likely descendant." The most likely descendant shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in the Public Resources Code.*	Grading	Updates and final reports by monitors	Site inspection	Community Dev. Planning	
17	***In the** event that paleontological resources are unearthed during grading, the developer shall immediately cease operation and retain a qualified and trained paleontologist who shall recover and salvage all fossils according to modern paleontological techniques and oversee proper placement with the appropriate repository, and provide to the the City a report documenting all results of these activities.*	Grading	Updates and final reports by monitors	Site inspection	Community Dev. Planning	
18	*The building and landscape plans submitted for plan check for this project shall include Title 24 Compliance Forms that reflect the selected components of the GHG screening tables to which the project will be held. (See Appendix for completed Screening Tables.)*	Plan check	Building and Landscape plans	Prior to permit issuance	Community Dev. Planning Building.	

APPENDIX

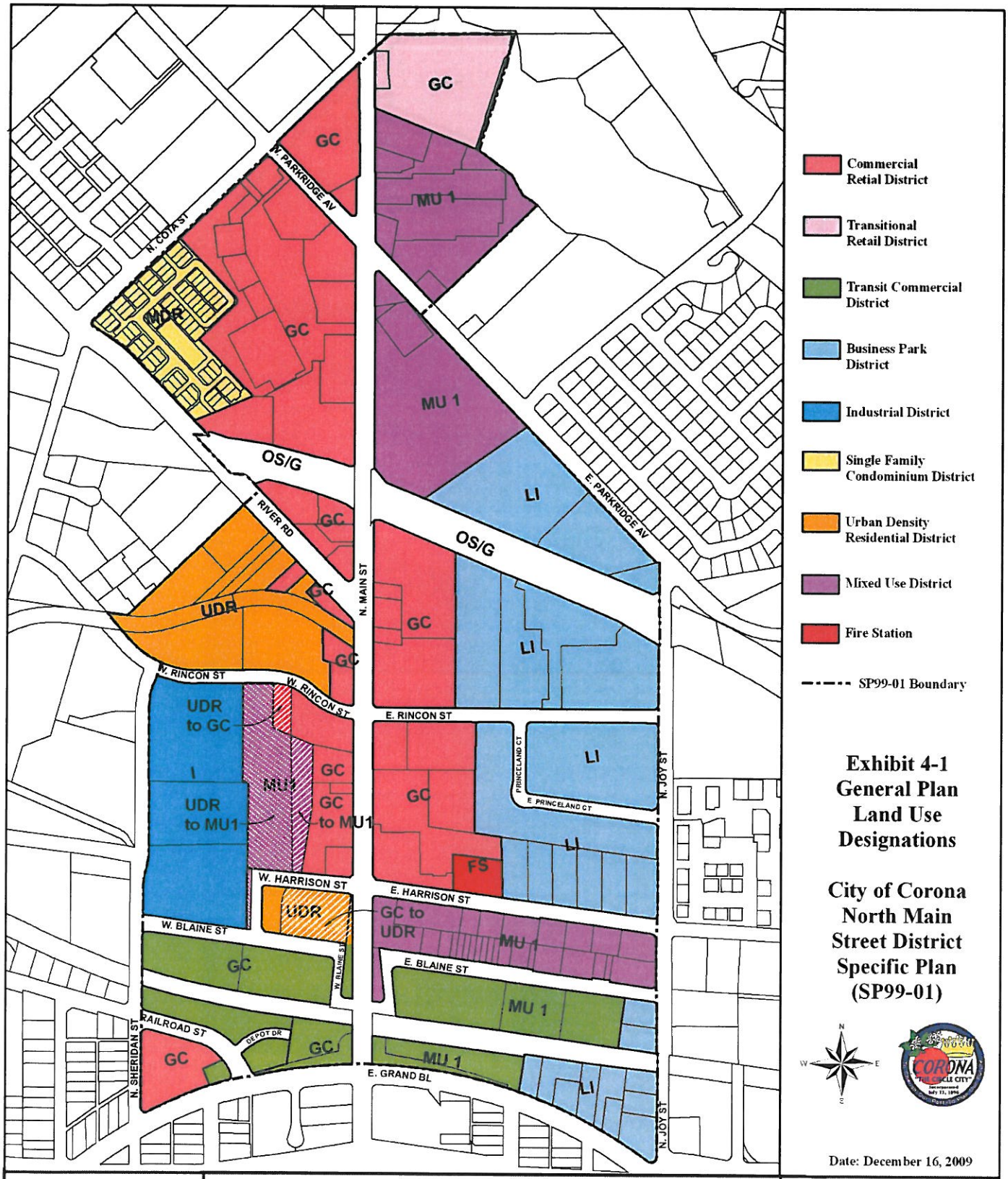
- Aerial Exhibit
- GPA07-003
- SPA12-007
- Site Plan
- TTM 36451
- Site Photographs
- City of Corona, Public Works, Traffic Division, TIA Addendum Memorandum, Oct. 13, 2009
- Corona Climate Action Plan Screening Tables dated May 31, 2013 with Supplemental Calculations by Urban Crossroads completed for project
- Compact Disk with Technical Studies as listed hereinbefore on Page 18

Locational Exhibit

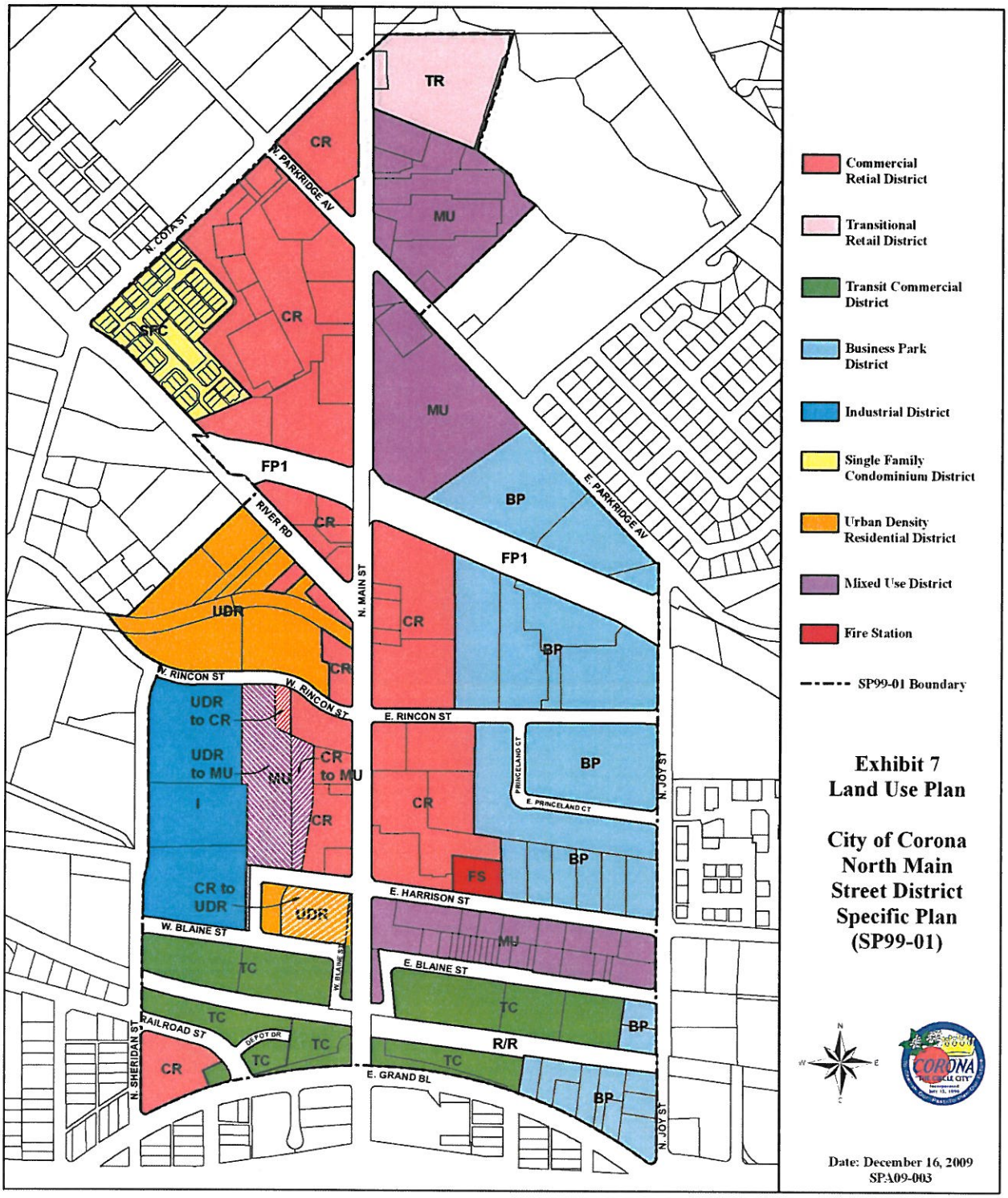


Date: 06/24/2013

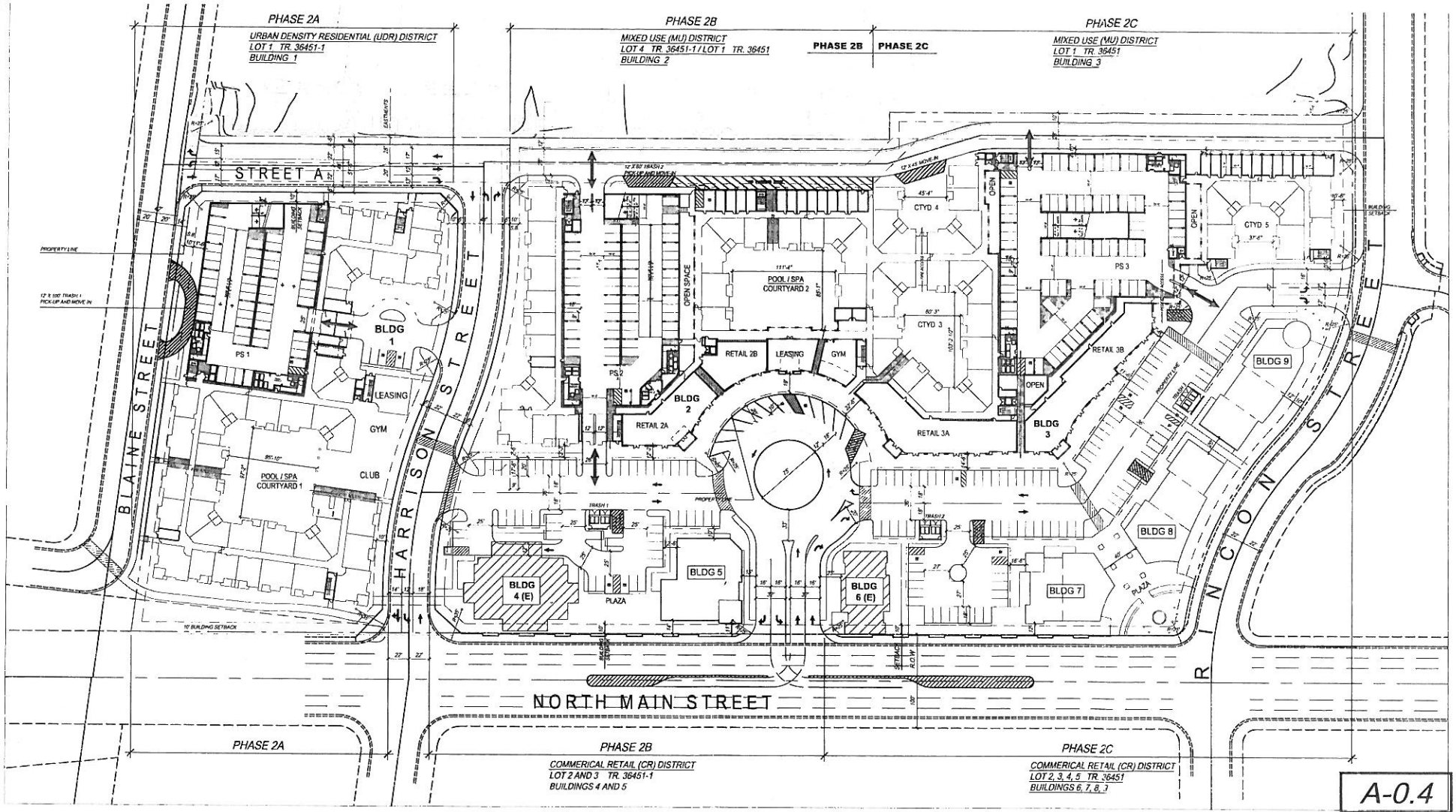
GPA13-001, SPA12-007
PP12-005 and TTM 36451



Proposed
General Plan Land Use Designations
per GPA07-003


TR
CR
MU
N. PARKRIDGE AV
N. COTA ST
SFC
FP1
RIVER RD
BP
E. PARKRIDGE AV
N. MAIN ST
UDR
W. RINCON ST
E. RINCON ST
UDR to CR
UDR to MU
CR to MU
I
CR to UDR
PRINCELAND CT
E. PRINCELAND CT
N. JOY ST
FS
E. HARRISON ST
W. BLAINE ST
E. BLAINE ST
TC
RAILROAD ST
DEPOT DR
R/R
N. SHERIDAN ST
E. GRAND BL
Commercial Retial District
Transitional Retail District
Transit Commercial District
Business Park District
Industrial District
Single Family Condominium District
Urban Density Residential District
Mixed Use District
Fire Station
SP99-01 Boundary
Exhibit 7
Land Use Plan
City of Corona
North Main
Street District
Specific Plan
(SP99-01)
Date: December 16, 2009
SPA09-003

DPR12 - 0



A-0.4

ULTIMATE SITE PLAN - ALL PHASES

MAIN STREET METRO

CORONA, CA

NORTH

SCALE: 1"=100'-0"

2010-245 JANUARY 18, 2013

WATERMARKE PROPERTIES, INC.

410 NORTH MAIN STREET, CORONA, CALIFORNIA 92879 (951) 372-2422

ARCHITECTS ORANGE

144 NORTH ORANGE ST., ORANGE, CALIFORNIA 92866 (714) 639-9860

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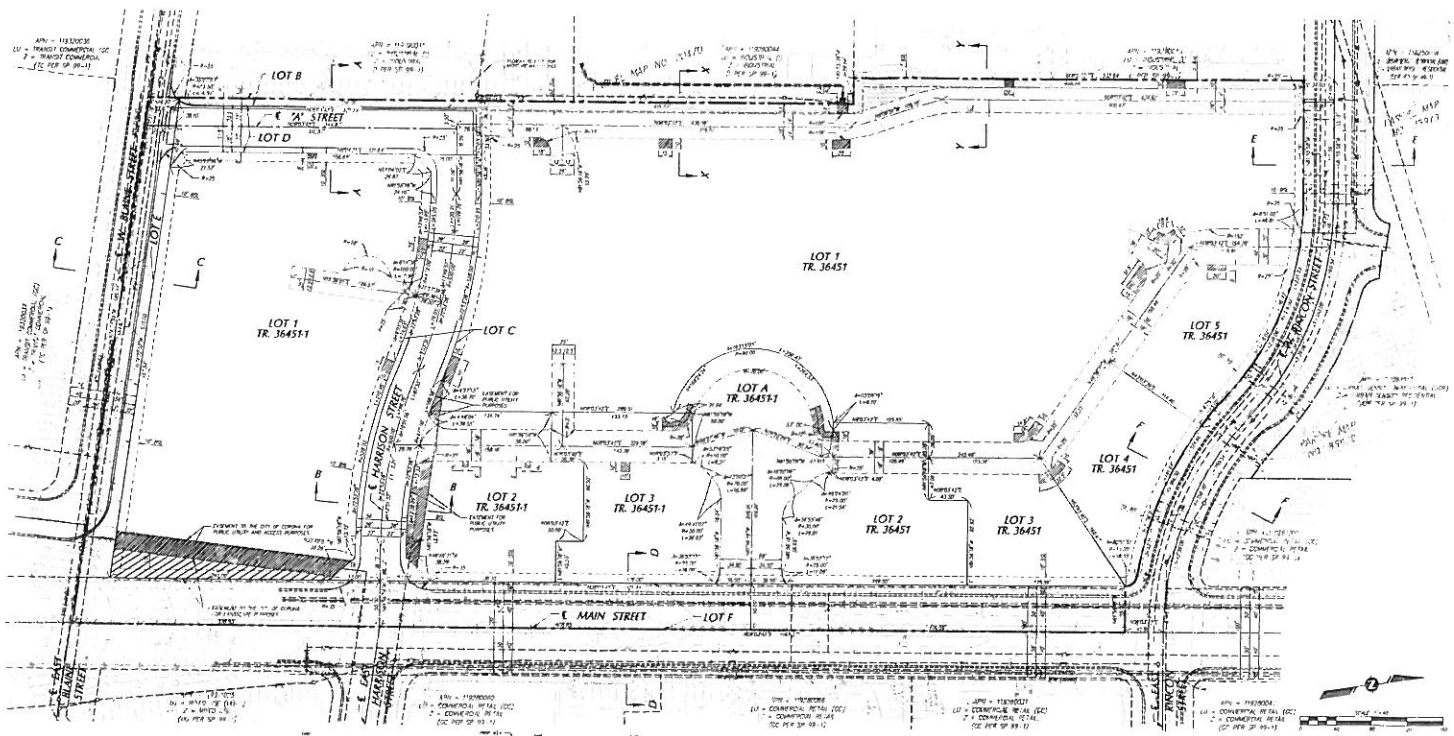
DPR NO. 12-07 & 12-08

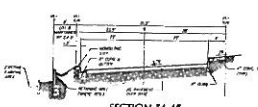
TENTATIVE TRACT MAP NO. 36451

ULTIMATE CONDITION

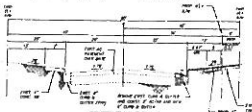
IN THE CITY OF CORONA, COUNTY OF RIVERISDE

FOR CONDOMINIUM PURPOSES

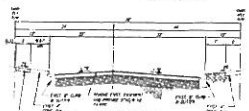




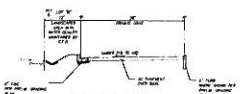
SECTION "A-A"
"A" STREET



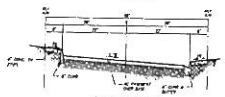
SECTION "C-C"
WEST BLAINE STREET



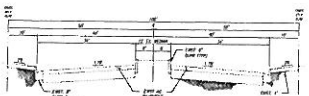
SECTION "E-E"
WEST RINCON STREET



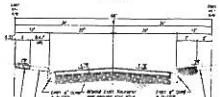
SECTION "X-X"
PRIVATE DRIVE



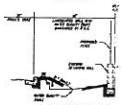
SECTION "B-B"
HARRISON STREET



SECTION "D-D"
MAIN STREET



SECTION "F-F"
WEST RINCON STREET



SECTION "Y-Y"
PRIVATE DRIVE

GENERAL NOTES

1. PREPARED - MARCH 2012
2. SURVEYED - GROSS = 18.87 AC NET = 14.21 AC
3. EXISTING USE - COMMERCIAL
4. PROPOSED USE - COMMERCIAL WITH VIC AND MULTI FAMILY RESIDENTIAL
5. LOT SUMMARY

TRACT NO.	LOT NO.	PROPOSED LAND USE	PROPOSED ZONING	ACREAGE GROSS	ACREAGE NET	PERCENT OF AREA	LOT DATA WIDTH	LOT DATA DEPTH
36451-1	1	CRR	CR	3.99	3.99	21.08	472	279
36451-1	2	CR	CR	0.73	0.73	3.85	145	198
36451-1	3	CR	CR	0.69	0.69	3.64	155	187
SUBTOTAL				5.40	5.40	28.56		
36451		CRR & MU	CRR & MU	6.73	6.73	35.58	260'	390'
36451	2	CR	CR	0.66	0.66	3.48	170'	128'
36451	3	CR	CR	0.48	0.48	2.53	142'	114'
36451	4	CR	CR	0.50	0.50	2.65	142'	128'
36451	5	CR	CR	0.53	0.53	2.80	148'	133'
SUBTOTAL				8.90	8.90	47.04		
36451-1	6	CRR/CT & MU/SFDR		0.67	0.67	3.54		
36451-1	7	MU/SFDR		0.56	0.56	2.96		
36451-1	8	CRR/CT		0.54				
36451-1	9	CRR/CT		0.48				
36451-1	10	CRR/CT		0.42				
36451-1	11	CRR/CT		0.53				
SUBTOTAL				3.70	1.23	6.50		
GRAND TOTAL				18.87	14.21	100.00		

6. EXISTING GENERAL PLAN DESIGNATION = COMMERCIAL RETAIL (CR) AND URBAN DENSITY RESIDENTIAL (UDR)
7. PROPOSED GENERAL PLAN DESIGNATION = COMMERCIAL RETAIL (CR), URBAN DENSITY RESIDENTIAL (UDR) AND MIXED USE (MU-1)
8. EXISTING ZONING = COMMERCIAL RETAIL (CR) AND URBAN DENSITY RESIDENTIAL (UDR)
9. PROPOSED ZONING = [illegible] AS IMPLIED: COMMERCIAL RETAIL (CR), URBAN DENSITY RESIDENTIAL (UDR) AND MIXED - USE (MU-1)
10. SURROUNDING USES
    - NORTH = COMMERCIAL RETAIL AND MULTI FAMILY RESIDENTIAL
    - EAST = COMMERCIAL RETAIL
    - SOUTH = COMMERCIAL RETAIL
    - WEST = MULTI FAMILY
11. ALL LOT LINE DIMENSIONS ARE APPROXIMATE
12. ALL PROPOSED SLOPES = 2:1 MAXIMUM SLOPE
13. LOT A SHALL BE RESERVED FOR PRIVATE STREETS AND LANDSCAPING PURPOSES. LOT B SHALL BE RESERVED FOR LANDSCAPING PURPOSES.
14. LOTS C, D, E & F SHALL BE DEDICATED TO THE CITY OF CORONA FOR PUBLIC STREET PURPOSES
15. ALL PRIVATE SITE PLANS WILL BE SUBMITTED TO THE CITY DEPARTMENT FOR SCREEN CHECK APPROVAL PRIOR TO BUILDING PLAN SUBMITTAL
16. A MINIMUM FIRE FLOW OF 1,000 GPM SHALL BE PROVIDED
17. FIRE HYDRANTS SHALL BE PLACED AT A MAXIMUM SPACING OF 250 FEET
18. PARKING = THE TRACT MAP WILL BE REQUIRED AS 2 PARCELS
19. ALL GATE VALVES SHALL BE INSTALLED PER CITY OF CORONA STANDARDS
20. UTILITY PROVIDERS
    - WATER SERVICE = CORONA DWP
    - SEWER SERVICE = CORONA DWP
    - ELECTRICAL SERVICE = SOUTHERN CALIFORNIA EDISON CO
    - NATURAL GAS SERVICE = SOUTHERN CALIFORNIA GAS CO
    - TELEPHONE / CABLE SERVICE = AT&T BROADBAND AND PACIFIC BELL
21. RECORD BOUNDARY NOTE: THE BOUNDARY INDICATED ON THIS DRAWING WAS BEEN BASED UPON RECORDED DATA PER PRELIMINARY TITLE REPORT DATED JUNE 21, 2011
22. TOPOGRAPHY NOTE: THE TOPOGRAPHY WAS PREPARED BY HUSCO ENGINEERING DATED JUNE 2007
23. ASSESSOR'S PARCEL NUMBERS: 119-280-018, 119-280-019, 119-280-020, 119-280-021, 119-280-022, 119-280-023, 119-280-024
24. TITLE REPORT: THE BOUNDARY AND EASEMENTS SHOWN HEREON ARE PER PRELIMINARY TITLE REPORT DATED JUNE 21, 2011, BY CHICAGO TITLE COMPANY (NO. 00003-158 USE)
25. STREET LENGTH SUMMARY

STREET NAME	LENGTH OF STREET	STREET NAME	LENGTH OF STREET
MAIN STREET	1,015'	HARRISON STREET	557
RINCON STREET	845'	WEST BLAINE STREET	588
		"A" STREET	142

LEGAL DESCRIPTION

LOTS 1, 2, 3 AND LOTS A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, BB, CC, DD, EE, FF, GG, HH, II, JJ, KK, LL, MM, NN, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, ZZ, AAA, BBB, CCC, DDD, EEE, FFF, GGG, HHH, III, JJJ, KKK, LLL, MMM, NNN, OOO, PPP, QQQ, RRR, SSS, TTT, UUU, VVV, WWW, XXX, YYY, ZZZ, AAAA, BBBB, CCCC, DDDD, EEEE, FFFF, GGGG, HHHH, IIII, JJJJ, KKKK, LLLL, MMMM, NNNN, OOOO, PPPP, QQQQ, RRRR, SSSS, TTTT, UUUU, VVVV, WWWW, XXXX, YYYY, ZZZZ, AAAAA, BBBBB, CCCCC, DDDDD, EEEEE, FFFFF, GGGGG, HHHHH, IIIII, JJJJJ, KKKKK, LLLLL, MMMMM, NNNNN, OOOOO, PPPPP, QQQQQ, RRRRR, SSSSS, TTTTT, UUUUU, VVVVV, WWWWW, XXXXX, YYYYY, ZZZZZ, AAAAAA, BBBBBB, CCCCCC, DDDDDD, EEEEEE, FFFFFF, GGGGGG, HHHHHH, IIIIII, JJJJJJ, KKKKKK, LLLLLL, MMMMMM, NNNNNN, OOOOOO, PPPPPP, QQQQQQ, RRRRRR, SSSSSS, TTTTTT, UUUUUU, VVVVVV, WWWWWW, XXXXXX, YYYYYY, ZZZZZZ, AAAAAAA, BBBBBBB, CCCCCCC, DDDDDDD, EEEEEEE, FFFFFFF, GGGGGGG, HHHHHHH, IIIIIII, JJJJJJJ, KKKKKKK, LLLLLLL, MMMMMMM, NNNNNNN, OOOOOOO, PPPPPPP, QQQQQQQ, RRRRRRR, SSSSSSS, TTTTTTT, UUUUUUU, VVVVVVV, WWWWWWW, XXXXXXX, YYYYYYY, ZZZZZZZ, AAAAAAAA, BBBBBBBB, CCCCCCCC, DDDDDDDD, EEEEEEEE, FFFFFFFF, GGGGGGGG, HHHHHHHH, IIIIIIII, JJJJJJJJ, KKKKKKKK, LLLLLLLL, MMMMMMMM, NNNNNNNN, OOOOOOOO, PPPPPPPP, QQQQQQQQ, RRRRRRRR, SSSSSSSS, TTTTTTTT, UUUUUUUU, VVVVVVVV, WWWWWWWW, XXXXXXXX, YYYYYYYY, ZZZZZZZZ, AAAAAAAAA, BBBBBBBBB, CCCCCCCCC, DDDDDDDDD, EEEEEEEEE, FFFFFFFFF, GGGGGGGGG, HHHHHHHHH, IIIIIIIII, JJJJJJJJJ, KKKKKKKKK, LLLLLLLLL, MMMMMMMMM, NNNNNNNNN, OOOOOOOOO, PPPPPPPPP, QQQQQQQQQ, RRRRRRRRR, SSSSSSSSS, TTTTTTTTT, UUUUUUUUU, VVVVVVVVV, WWWWWWWWW, XXXXXXXXX, YYYYYYYYY, ZZZZZZZZZ, AAAAAAAAAA, BBBBBBBBBB, CCCCCCCCCC, DDDDDDDDDD, EEEEEEEEEE, FFFFFFFFFF, GGGGGGGGGG, HHHHHHHHHH, IIIIIIIIII, JJJJJJJJJJ, KKKKKKKKKK, LLLLLLLLLL, MMMMMMMMMM, NNNNNNNNNN, OOOOOOOOOO, PPPPPPPPPP, QQQQQQQQQQ, RRRRRRRRRR, SSSSSSSSSS, TTTTTTTTTT, UUUUUUUUUU, VVVVVVVVVV, WWWWWWWWWW, XXXXXXXXXX, YYYYYYYYYY, ZZZZZZZZZZ, AAAAAAAAAAA, BBBBBBBBBBB, 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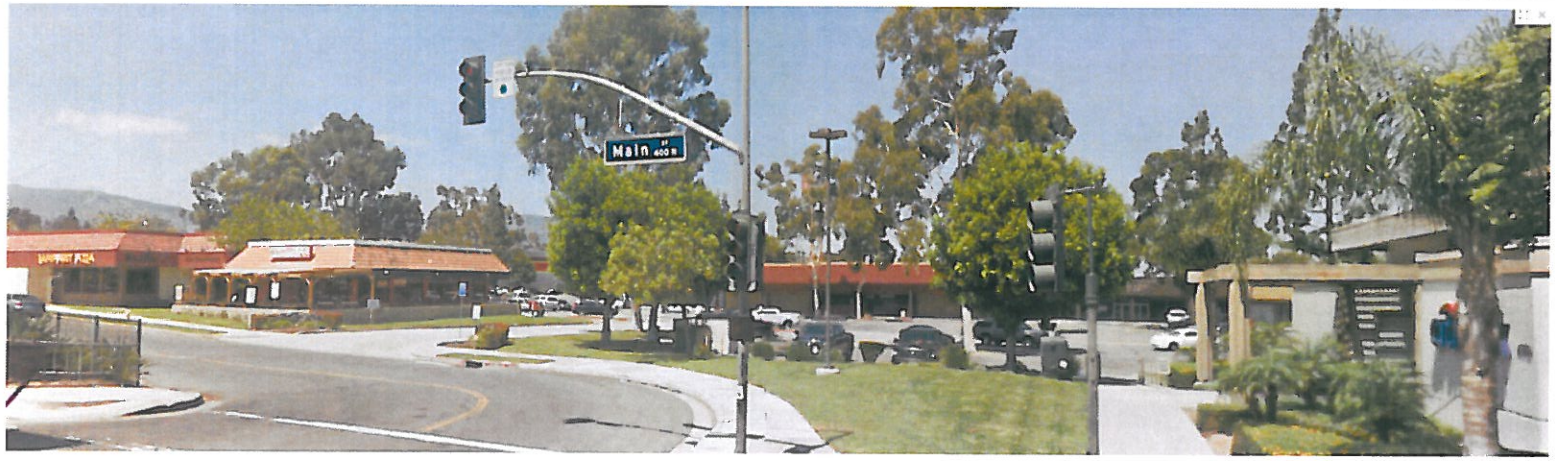
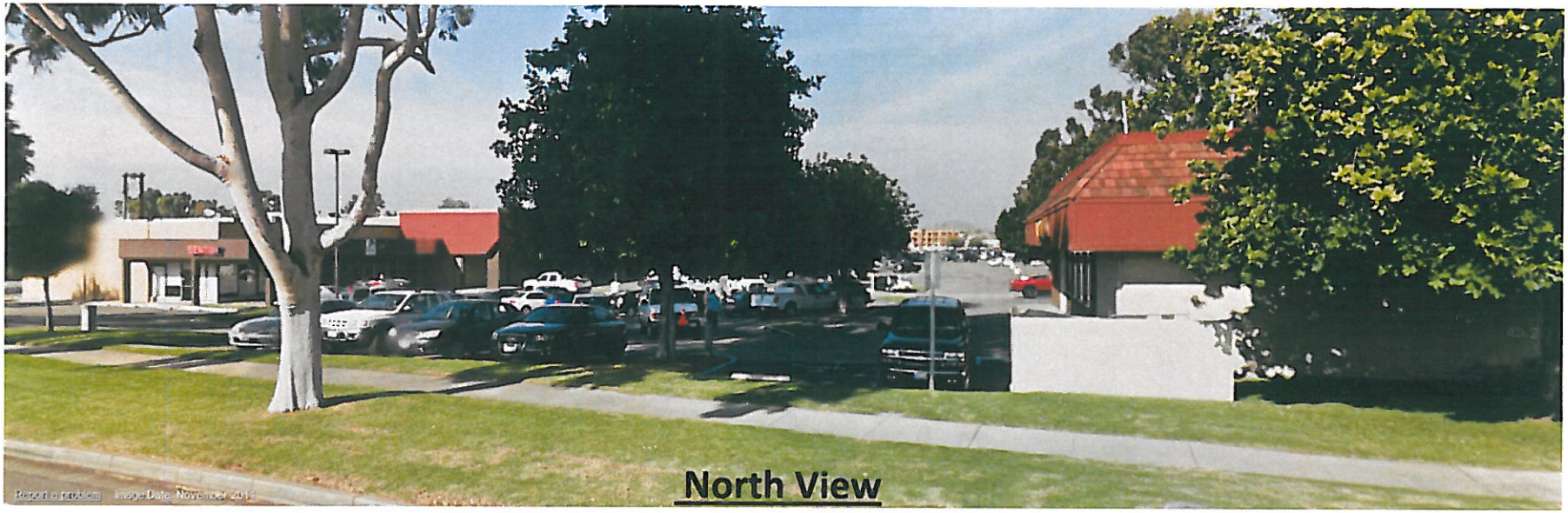


Site Photographs

SITE PROPERTIES

West View

SITE PROPERTIES



MEMORANDUM

Public Works Department – Traffic Division

DATE: October 13, 2009

TO: **Name, Title**
Department

SUBJECT: **Corona North Main Residential Development (Phase I) TIA**

FROM: Name, Title

After reviewing the TIA submitted by Watermark, Traffic staff found that the traffic analysis is generally valid and consistent with the City-approved North Main District Traffic Impact Analysis Report prepared by Iteris Inc. However, there are discrepancies between the mitigations proposed in this TIA and the City-approved Iteris report. Specifically, the improvements identified in this TIA appear to cover only parts of the overall improvements recommended by Iteris. In addition, the TIA did not address the need to widen Rincon Street between Main Street and Sheridan Street to accommodate future traffic volumes.

Rincon Street

Traffic staff acknowledges that the project mitigations and fair-share contributions were incomplete in the original Iteris report, as well as the Iteris report did not identify any mitigation needs for Rincon Street due to the uncertainty of the future extension of Rincon Street between Lincoln Avenue and Cota Street. The report did show, however, that the segment of Rincon Street between Main Street and Sheridan Street is forecasted to experience heavy daily volumes and will exceed the City's acceptable LOS threshold in the Year 2030 based upon the criteria set forth in the Riverside County Level of Service Criteria. To mitigate the forecasted roadway deficiency, The City of Corona recommends widening the roadway width along Rincon Street from a 2-lane Collector (44 feet wide) to a 4-lane Secondary Arterial (64 feet wide).

Watermark should be conditioned to widen Rincon Street along the project frontage from the easterly property line to Sheridan Street to accommodate 2 travel lanes in each direction. As a part of the Phase I mitigation improvements, Watermark will widen the north side of the street from the existing 22' half-width to 32' half-wide. The south side of the street will be widened when Phase II of the project comes in. Watermark should revise the TIA to include the mitigation improvements on Rincon Street and should also verify that the street configuration is consistent with the project's Tentative Tract Map. This improvement will be included in the City wide Developer Impact Fee Schedule and will constitute a credit back to Watermark for construction.

Project Fair-Share

Public Works staff has also created a spreadsheet itemizing all the proper mitigations and fair-share contributions for the seven planning areas in the North Main District (excluding Rincon Street widening). The purpose of this mitigation fair-share spreadsheet is to identify the cost that

is related to the burdens created by the new developments in the North Main District on the City's surface transportation system. It ensures that the City adopts a fair and standardized method to collect traffic impact fees based on each new development's project trip contribution.

In order to maintain consistency with the City-approved Iteris report, Watermark will have to revise its TIA to incorporate all of the proposed mitigations identified in the City-approved North Main District TIA prior to receiving approved building permits (see **Revised Table N** below). The TIA should also modify the Percent Project Fair-Share to be consistent with what's shown on the **Revised Table N**. Based on the proposed project trip generation, Phase I will be responsible for approximately 19.3% of the PA-2 fair-share cost, while Phase II will be responsible for the remaining 80.7%. The Phase I Project Fair Share is calculated by multiply 19.3% with the Iteris Fair-Share with the PA-2 Percent Project Traffic.

Revised Table N: Year 2030 Mitigation and Project Fair Share

	Intersection	Mitigation Measure	Iteris Fair-share	PA-2 Percent Project Traffic	PA-2 Phase I Project Fair-share
1	Hamner Ave./Hidden Valley Pkwy.	Add dual WBL, add EBR, add NBR overlap phase	65%	9.1%	1.1%
		EBR overlap phase	18%		0.3%
2	Main St./Parkridge Ave.	WBR overlap, add WBT, add NBT, add EBT	100%	8.6%	1.7%
4	Main St./Rincon St.	Add NB and SB right-turn pocket, EBL and right-turn pocket, E/W protected phasing, EBR overlap	100%	39.7%	7.7%
5	Main St./Harrison St.	Add NB and SB right-turn pockets, add WBR pocket	100%	29.4%	5.7%
6	Main St./Grand Blvd.	Widen North Main to six lanes	63%	20.0%	2.4%
		Add NB and SB right-turn pockets	100%		3.9%
7	Main St./SR-91 WB Ramps	Widen North Main to six lanes	63%	23.0%	2.8%
		Add SBR turn pocket	100%		4.4%
8	Main St./SR-91 EB Ramps	Widen North Main to six lanes	30%	20.6%	1.2%
9	Main St./3rd St.	Widen North Main to six lanes	65%	4.2%	0.5%
19	Lincoln Ave./Harrison St.	Signalize	4%	0%	0%
26	Cota St./Rincon St.	Signalize	18%	31.4%	1.1%
29	Sheridan St./Rincon St.	Signalize	100%	47.9%	9.2%
31	Sheridan St./Blaine St.	Signalize	100%	17.9%	3.5%
36	Grand Blvd./6th St.	Add NB and SB through lanes	100%	9.7%	1.9%

Recommended mitigation per North Main District TIA
Fair share per project trip generation

The amount of fair-share contribution for each of the seven Planning Areas is shown in **Table 1** (see attachment). For simplicity, the amount of fair-share contribution for the Watermark Phase I and Phase II project is shown in **Table 2** (see attachment). Watermark will be conditioned to pay for the fair-share amount shown in **Table 2**. Please note that the fees for Phase II are estimates only. The precise amount will be based upon the project trip generation of the approved site design of Phase II.

Together with fair-share contributions from the other Planning Areas and funding available from other city revenue sources, the City will be able to construct the required improvements, accommodate project growth and fulfill the goal, objectives and policies of the City's General Plan.

Table 1
North Main Redevelopment
Preliminary Cost Estimate

			Section 1*		Section 2		Section 4		Section 5		Section 6a** & 6b**		Section 7a	
			Hamner and Hidden Valley		Main Street and Parkridge		Main Street from Rincon Street to Harrison Street		Main Street and Harrison Street		Grand Boulevard		Main Street from SR-91 and Grand Boulevard	
			Hamner and Hidden Valley requires intersection modification which will consist of updating cables, heads, and controllers. Scope of work covers 700 L.F. across Main and 400 L.F. across Main Street. New striping and upgrading ramps to meet ADA compliance will required within these limits.		The proposed widening on Main and Parkridge consist of adding westbound right turn, westbound turn, northbound turn, and eastbound turn. The plan is to convert existing shared through-right lanes to right turn lanes which will result in traffic signal modifications, and reduction of parkway width. Scope of work covers 200 L.F. across Parkridge, 700 L.F. along Main Street.		Proposed widening for northbound, and southbound right turn pockets impact 825 L.F. along Main Street. It will be necessary to reduce parkway width in some areas which will result in relocations parkway items such as hydrants, streetlight, catch basins, curb, gutter and sidewalk.		Scope of work on Main and Harrison includes Northbound Southbound, and Eastbound right turn pockets. Approximately 460 L.F. on main and 250 L.F. on Harrison will be impacted by adding right turn pockets. Widening results in minimizing parkway widths which will require 4,385 L.F. of right of way acquisition from adjacent properties. Striping, Relocation of traffic signals, and head modifications will be required.		Proposed striping covers 700 L.F. along Grand Blvd between Washburn Circle and Victoria Avenue		The proposed widening is located along Main Street between Grand Blvd and SR-91. A proposed Northbound right turn pocket is located along Main Street. Scope of work covers 550 L.F. along Main. Striping, relocation of traffic signals, and head modifications will be required. It will be necessary to reduce parkway width and relocate parkways items such as hydrants, streetlight, catch basins, curb, gutter and sidewalk.	
Item Description	**Unit of Measure**	**Unit Cost**	**Est. Quantity**	**Total Cost**	**Est. Quantity**	**Total Cost**	**Est. Quantity**	**Total Cost**	**Est. Quantity**	**Total Cost**	**Est. Quantity**	**Total Cost**	**Est. Quantity**	**Total Cost**
Remove and dispose of sidewalk	SF	$ 2.00	-	$ -	29,248	$ 58,498.00	11,521	$ 23,042.00	6,674	$ 13,672.00	-	$ -	4,578	$ 9,156.00
Construct sidewalk	SF	$ 8.00	-	$ -	11,966	$ 95,728.00	5,010	$ 40,080.00	3,380	$ 27,040.00	-	$ -	2,090	$ 16,720.00
Removal of parkway	SF	$ 2.00	-	$ -	-	$ -	5,010	$ 10,020.00	4,784	$ 9,568.00	-	$ -	7,524	$ 15,048.00
Removal of trees	EA	$ 1,000.00	-	$ -	19	$ 19,000.00	20	$ 20,000.00	7	$ 7,000.00	-	$ -	-	$ -
Remove and dispose of driveway approach	EA	$ 1,500.00	-	$ -	11	$ 16,500.00	6	$ 9,000.00	-	$ -	-	$ -	-	$ -
Construct driveway approach	EA	$ 3,500.00	-	$ -	13	$ 45,500.00	6	$ 21,000.00	-	$ -	-	$ -	-	$ -
Remove and dispose of curb & gutter	LF	$ 5.00	-	$ -	2,659	$ 13,295.00	911	$ 4,555.00	684	$ 3,420.00	-	$ -	422	$ 2,110.00
Construct 8" curb & gutter	LF	$ 22.00	-	$ -	2,659	$ 58,498.00	911	$ 20,042.00	684	$ 15,048.00	-	$ -	422	$ 9,284.00
Construct 14.5" AB	TON	$ 60.00	-	$ -	2,772	$ 166,320.00	1,535	$ 92,100.00	1,096	$ 65,400.00	-	$ -	926	$ 55,560.00
Construct 7.5" AC	TON	$ 110.00	-	$ -	1,440	$ 158,400.00	867	$ 95,370.00	615	$ 67,650.00	-	$ -	522	$ 57,420.00
Roadway Excavation (1' Depth)	CY	$ 30.00	-	$ -	1,083	$ 32,490.00	714	$ 21,420.00	506	$ 15,180.00	-	$ -	430	$ 12,900.00
Remove and dispose of curb ramp	EA	$ 1,000.00	4	$ 4,000.00	5	$ 5,000.00	4	$ 4,000.00	4	$ 4,000.00	-	$ -	3	$ 3,000.00
Construct curb ramp	EA	$ 2,000.00	4	$ 8,000.00	5	$ 10,000.00	4	$ 8,000.00	4	$ 8,000.00	-	$ -	3	$ 6,000.00
Detectable warning surface per cal trans standard	EA	$ 600.00	4	$ 2,400.00	5	$ 3,000.00	4	$ 2,400.00	4	$ 2,400.00	-	$ -	3	$ 1,800.00
Slurry seal	SF	$ 0.25	-	$ -	300,000	$ 75,000.00	75,000	$ 18,750.00	46,552	$ 11,638.00	-	$ -	74,448	$ 18,612.00
Relocate traffic signals (per pole, not intersection)	EA	$ 50,000.00	-	$ -	4	$ 200,000.00	4	$ 200,000.00	3	$ 150,000.00	-	$ -	3	$ 150,000.00
Relocate street lights	EA	$ 5,000.00	-	$ -	9	$ 45,000.00	7	$ 35,000.00	3	$ 15,000.00	-	$ -	1	$ 5,000.00
Intersection Modifications (Cables, Head, Controller, etc.)	LS	$ 10,000.00	1	$ 10,000.00	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -
Miscellaneous (Striping)	LS	$ 20,000.00	1	$ 20,000.00	-	$ -	-	$ -	-	$ -	1	$ 20,000.00	-	$ -
Installation of new traffic signal (per leg)	EA	$ 70,000.00	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -	-	$ -
Remove catch basins	EA	$ 7,500.00	-	$ -	-	$ -	1	$ 7,500.00	2	$ 15,000.00	-	$ -	1	$ 7,500.00
Install catch basins	EA	$ 15,000.00	-	$ -	-	$ -	1	$ 15,000.00	2	$ 30,000.00	-	$ -	1	$ 15,000.00
Relocate fire hydrants	EA	$ 5,000.00	-	$ -	2	$ 10,000.00	-	$ -	2	$ 10,000.00	-	$ -	-	$ -
R-O-W Acquisition	SF	$ 20.00	-	$ -	27,120	$ 542,400.00	3,300	$ 66,000.00	4,385	$ 87,700.00	-	$ -	5,440	$ 128,480.00
Mobilization & traffic Control (10%)				$ 4,440.00		$ 154,862.90		$ 71,334.30		$ 55,771.60		$ 2,000.00		$ 51,395.00
Striping (10%)				$ -		$ 154,862.90		$ 71,334.30		$ 55,771.60		$ 2,000.00		$ 51,395.00
Contingency (20%)				$ 8,880.00		$ 309,725.80		$ 142,668.60		$ 111,543.20		$ 4,000.00		$ 102,790.00
Construction Contract				$ 57,720.00		$ 2,168,080.60		$ 998,680.20		$ 780,802.40		$ 28,000.00		$ 719,530.00
Engineering (10% of Construction Contract)				$ 5,772.00		$ 216,808.06		$ 99,868.02		$ 78,080.24		$ 2,800.00		$ 71,953.00
Surveying (5% of Construction Contract)				$ 2,886.00		$ 108,404.03		$ 49,934.01		$ 39,040.12		$ 1,400.00		$ 35,976.50
Inspection (5% of Construction Contract)				$ 2,886.00		$ 108,404.03		$ 49,934.01		$ 39,040.12		$ 1,400.00		$ 35,976.50
Admin, Contingency (5% of Construction Contract)				$ 2,886.00		$ 108,404.03		$ 49,934.01		$ 39,040.12		$ 1,400.00		$ 35,976.50
Total				$ 72,150.00		$ 2,710,100.75		$ 1,248,350.25		$ 975,503.00		$ 35,000.00		$ 899,412.50
PA-1			(0% of 65%)	$ -	(0% of 100%)	$ -	(0% of 100%)	$ -	(0% of 100%)	$ -	(0% of 100%)	$ -	(0% of 63%)	$ -
PA-2			(8.1% of 65%)	$ 4,267.67	(8.5% of 100%)	$ 233,068.66	(39.7% of 100%)	$ 495,595.05	(29.4% of 100%)	$ 286,944.88	(20% of 100%)	$ 7,000.00	(23% of 63%)	$ 130,324.87
PA-2 Phase I			*19.3% of PA-2 Total*	*$ 823.66*	*19.3% of PA-2 Total*	*$ 44,982.25*	*19.3% of PA-2 Total*	*$ 95,649.84*	*19.3% of PA-2 Total*	*$ 55,380.36*	*19.3% of PA-2 Total*	*$ 1,351.00*	*19.3% of PA-2 Total*	*$ 25,152.70*
PA-2 Phase II			*80.7% of PA-2 Total*	*$ 3,444.01*	*80.7% of PA-2 Total*	*$ 188,086.41*	*80.7% of PA-2 Total*	*$ 399,945.20*	*80.7% of PA-2 Total*	*$ 231,564.52*	*80.7% of PA-2 Total*	*$ 5,649.00*	*80.7% of PA-2 Total*	*$ 105,172.17*
PA-3			(0% of 65%)	$ -	(0% of 100%)	$ -	(0% of 100%)	$ -	(0% of 100%)	$ -	(0% of 100%)	$ -	(0% of 63%)	$ -
PA-4			(36.2% of 65%)	$ 16,976.90	(25% of 100%)	$ 677,525.19	(14.2% of 100%)	$177,265.74	(10.8% of 100%)	$105,408	(7.5% of 100%)	$ 2,625.00	(7.4% of 63%)	$ 41,930.61
PA-5			(24.3% of 65%)	$ 11,396.00	(38.5% of 100%)	$ 1,043,389	(24.9% of 100%)	$ 310,830.21	(18.6% of 100%)	$ 181,537	(12.0% of 100%)	$ 4,515.00	(13.0% of 63%)	$ 74,721.15
PA-6			(8.9% of 65%)	$ 4,173.88	(8.0% of 100%)	$ 216,808	(5.7% of 100%)	$ 83,639.47	(22.1% of 100%)	$ 215,697	(11% of 100%)	$ 3,850.00	(13.7% of 63%)	$ 77,628.29
PA-7			(21.5% of 65%)	$ 10,082.96	(19.9% of 100%)	$ 539,310	(14.5% of 100%)	$ 181,010.79	(19.1% of 100%)	$ 186,417	(48.6% of 100%)	$ 17,010.00	(42% of 63%)	$ 237,984.55
Total				$ 51,185.17		$ 2,943,169.41		$1,743,945.30		$1,262,347.86		$42,000.00		$606,294.75

*Note that the preliminary cost estimate was created with the following assumptions and following conditions

- AB and AC was calculated using information from Sampson's project (Depths are listed on items).
- See attached exhibit for location of areas impacted.
- Quantities are based on conceptual design.
- * For Section 1, 18% contribution for EBR overlap phase was eliminated due to it being mention in the 65% contribution.
- ** For Section 6, cost was combined to have a 100% contribution due to the fact that Mitigation scenarios were duplicate (same as the scenarios mentioned on section 7).

Note: These fees are estimates only. All fees will be based upon the trip generation of the approved site design.

Table 1
North Main Redevelopment
Preliminary Cost Estimate

			Section 7b		Section 8		Section 9		Section 19		Section 26	
			Main Street from SR-91 and Grand Boulevard		Main Street from Third Street to SR-91		Main Street from Sixth Street to Third Street		Lincoln Avenue and Harrington Street		Cota Street and Rincon Street	
			The proposed widening for the Southbound right turn pocket is located along Main is between Grand Blvd. and SR-91. This cost also includes a right turn pocket along Grand Blvd. between Washburn Circle and Grand Blvd. Striping, relocation of traffic signals, and head modifications will be required. It will be necessary to reduce parkway width and relocate parkways items such as: hydrants, streetlight, catch basins, curb, gutter and sidewalk.		The proposed widening along Main between Third Street and SR-91 will impact 600 L.F. Widening results in reducing parkway width which will require 9,950 S. F. right of way acquisition. Striping, relocation of traffic signals, and head modifications will be required. It will also be necessary relocate parkways items such as, hydrants, streetlight, catch basins, curb, gutter and sidewalk.		Approximately 1200 L.F. will be impacted by the proposed Widening along Main between Sixth Street and Third Street. Widening will require 1,015 S. F. of right of way acquisition from Northwest and Southwest Corners on Fifth Street along Main. Striping, relocation of traffic signals, and head modifications will be required. Due to parkway width reduction it will also be necessary to relocate parkways items such as, hydrants, streetlight, catch basins, curb, gutter and sidewalk.		A new signalized intersection is proposed at Lincoln and Harrington Street. Upgrading ramps to meet ADA compliance will be required.		A new traffic signal is proposed at Cota Street and Rincon Street. Curb ramps must be updated to meet ADA requirements.	
Item Description	**Unit of Measure**	**Unit Cost**	**Est. Quantity**	**Total Cost**	**Est. Quantity**	**Total Cost**	**Est. Quantity**	**Total Cost**	**Est. Quantity**	**Total Cost**	**Est. Quantity**	**Total Cost**
Remove and dispose of sidewalk	SF	$ 2.00	6,780	$ 13,560.00	7,710	$ 15,420.00	8,026	$ 16,052.00	-	$ -	-	$ -
Construct sidewalk	SF	$ 8.00	2,825	$ 22,600.00	3,470	$ 27,760.00	16,335	$ 130,680.00	-	$ -	-	$ -
Removal of parkway	SF	$ 2.00	2,825	$ 5,650.00	4,716	$ 9,432.00	8,416	$ 16,832.00	-	$ -	-	$ -
Removal of trees	EA	$ 1,000.00	2	$ 2,000.00	7	$ 7,000.00	10	$ 10,000.00	-	$ -	-	$ -
Remove and dispose of driveway approach	EA	$ 1,500.00	-	$ -	-	$ -	8	$ 12,000.00	-	$ -	-	$ -
Construct driveway approach	EA	$ 3,500.00	-	$ -	-	$ -	8	$ 28,000.00	-	$ -	-	$ -
Remove and dispose of curb & gutter	LF	$ 5.00	1,478	$ 7,390.00	771	$ 3,855.00	1,485	$ 7,425.00	-	$ -	-	$ -
Construct 8" curb & gutter	LF	$ 22.00	1,478	$ 32,516.00	771	$ 16,962.00	1,485	$ 32,670.00	-	$ -	-	$ -
Construct 14.5" AB	TON	$ 60.00	676	$ 40,560.00	1,072	$ 64,320.00	910	$ 54,600.00	-	$ -	-	$ -
Construct 7.5" AC	TON	$ 110.00	382	$ 42,020.00	560	$ 61,600.00	468	$ 51,530.00	-	$ -	-	$ -
Roadway Excavation (1' Depth)	CY	$ 30.00	314	$ 9,420.00	460	$ 13,800.00	609	$ 18,270.00	-	$ -	-	$ -
Remove and dispose of curb ramp	EA	$ 1,000.00	5	$ 5,000.00	4	$ 4,000.00	5	$ 5,000.00	1	$ 1,000.00	3	$ 3,000.00
Construct curb ramp	EA	$ 2,000.00	5	$ 10,000.00	4	$ 8,000.00	5	$ 10,000.00	2	$ 4,000.00	4	$ 8,000.00
Detectable warning surface per cal trans standard	EA	$ 600.00	5	$ 3,000.00	4	$ 2,400.00	5	$ 3,000.00	2	$ 1,200.00	4	$ 2,400.00
Slurry seal	SF	$ 0.25	-	$ -	-	$ -	96,000	$ 24,000.00	-	$ -	-	$ -
Relocate traffic signals (per pole, not intersection)	EA	$ 50,000.00	2	$ 100,000.00	1	$ 50,000.00	3	$ 150,000.00	-	$ -	-	$ -
Relocate street lights	EA	$ 5,000.00	2	$ 10,000.00	4	$ 20,000.00	8	$ 40,000.00	-	$ -	-	$ -
Intersection Modifications (Cables, Head, Controller, etc.)	LS	$ 10,000.00	-	$ -		$ -	-	$ -	-	$ -	-	$ -
Miscellaneous (Striping)	LS	$ 20,000.00	-	$ -		$ -	-	$ -	-	$ -	-	$ -
Installation of new traffic signal (per leg)	EA	$ 70,000.00	-	$ -	-	$ -	-	$ -	3	$ 210,000.00	4	$ 280,000.00
Remove catch basins	EA	$ 7,500.00	1	$ 7,500.00	4	$ 30,000.00	4	$ 30,000.00	-	$ -	-	$ -
Install catch basins	EA	$ 15,000.00	1	$ 15,000.00	4	$ 60,000.00	4	$ 60,000.00	-	$ -	-	$ -
Relocate fire hydrants	EA	$ 5,000.00	1	$ 5,000.00	-	$ -	5	$ 25,000.00	-	$ -	-	$ -
R-O-W Acquisition	SF	$ 20.00	3,271	$ 64,600.00	9,550	$ 190,000.00	1,015	$ 20,300.00	-	$ -	-	$ -
Mobilization & traffic Control (10%)				$ 39,581.60		$ 59,354.90		$ 74,541.90		$ 21,620.00		$ 29,340.00
Striping (10%)				$ 39,581.60		$ 59,354.90		$ 74,541.90		$ -		$ -
Contingency (20%)				$ 79,163.20		$ 118,709.80		$ 149,083.80		$ 43,240.00		$ 58,680.00
Construction Contract				$ 554,142.40		$ 830,968.60		$ 1,043,586.60		$ 281,060.00		$ 381,420.00
Engineering (10% of Construction Contract)				$ 55,414.24		$ 83,096.86		$ 104,358.66		$ 28,106.00		$ 38,142.00
Surveying (5% of Construction Contract)				$ 27,707.12		$ 41,548.43		$ 52,179.33		$ 14,053.00		$ 19,071.00
Inspection (5% of Construction Contract)				$ 27,707.12		$ 41,548.43		$ 52,179.33		$ 14,053.00		$ 19,071.00
Admin. Contingency (5%of Construction Contract)				$ 27,707.12		$ 41,548.43		$ 52,179.33		$ 14,053.00		$ 19,071.00
Total				$ 692,678.00		$ 1,038,710.75		$ 1,304,483.25		$ 351,325.00		$ 476,775.00
PA-1			(0% of 100%)	$ -	(0% of 30%)	$ -	(0% of 65%)	$ -	(0% of 4%)	$ -	(0% of 18%)	$ -
PA-2			(23% of 100%)	$ 159,315.94	(20.6% of 30%)	$ 64,192.32	(4.2% of 65%)	$ 35,612.39	(0% of 4%)	$ -	(31.4% of 18%)	$ 26,947.32
PA-2 Phase I			*19.3% of PA-2 Total*	*$ 30,747.98*	*19.3% of PA-2 Total*	*$ 12,389.12*	*19.3% of PA-2 Total*	*$ 6,873.19*	*19.3% of PA-2 Total*	*$ -*	*19.3% of PA-2 Total*	*$ 5,200.83*
PA-2 Phase II			*80.7% of PA-2 Total*	*$ 128,567.96*	*80.7% of PA-2 Total*	*$ 51,803.21*	*80.7% of PA-2 Total*	*$ 28,739.20*	*80.7% of PA-2 Total*	*$ -*	*80.7% of PA-2 Total*	*$ 21,746.49*
PA-3			(0% of 100%)	$ -	(0% of 30%)	$ -	(0% of 65%)	$ -	(0% of 4%)	$ -	(0% of 18%)	$ -
PA-4			(7.4% of 100%)	$ 51,258.17	(7.9% of 30%)	$ 24,617.44	(10.0% of 65%)	$ 84,791.41	(16.7% of 4%)	$ 2,346.85	(13.6% of 18%)	$ 11,671.45
PA-5			(13.9% of 100%)	$ 96,282.24	(15.4% of 30%)	$ 47,988.44	(21.4% of 65%)	$ 181,453.62	(0% of 4%)	$ -	(27.1% of 18%)	$ 23,257.08
PA-6			(13.7% of 100%)	$ 94,836.89	(14.5% of 30%)	$ 45,435.53	(17.2% of 65%)	$ 145,841.23	(0% of 4%)	$ -	(0% of 18%)	$ -
PA-7			(42% of 100%)	$ 290,924.76	(41.5% of 30%)	$ 129,318.49	(47.2% of 65%)	$ 400,215.46	(83.3% of 4%)	$ 11,706.15	(27.9% of 18%)	$ 23,943.64
Total				$851,993.94		$375,805.55		$883,526.51		$14,053.00		$112,766.82

*Note that the preliminary cost er
- AB and AC was calculated usin
- See attached exhibit for location
- Quantities are based on concep
* For Section 1, 18% contribution
** For Section 6, cost was combin

Note: These f

Table 1
North Main Redevelopment
Preliminary Cost Estimate

			Section 29		Section 31		Section 34		Combination of all sections	
			Sheridan Street and Rincon Street		Sheridan Street and Blaine Street		East Grand Boulevard from Quarry Street to Circle City Drive			
			A new traffic signal is proposed at Sheridan Street and Rincon Street. Curb ramps must be updated to meet ADA requirements.		A new traffic signal is proposed at Sheridan Street and Blaine Street. Curb ramps must be updated to meet ADA requirements.		Approximately 1000 L.F. will be impacted by the proposed Northbound and Southbound through lanes along Grand Blvd. Widening will be along E. Grand Blvd. from Quarry Street to Circle City Drive. Due to the reduction of parkway width it will also be necessary to relocate parkways items such as hydrants streetlight, catch basins, curb, gutter and sidewalk.		See each section for corresponding details	
Item Description	**Unit of Measure**	**Unit Cost**	**Est. Quantity**	**Total Cost**	**Est. Quantity**	**Total Cost**	**Est. Quantity**	**Total Cost**	**Est. Quantity**	**Total Cost**
Remove and dispose of sidewalk	SF	$ 2.00	-	$ -	-	$ -	10,688	$ 21,375.08	85,412	$ 170,819.08
Construct sidewalk	SF	$ 8.00	-	$ -	-	$ -	7,695	$ 61,560.22	52,771	$ 422,168.22
Removal of parkway	SF	$ 2.00	-	$ -	-	$ -	10,988	$ 21,976.05	43,963	$ 87,925.08
Removal of trees	EA	$ 1,000.00	-	$ -	-	$ -	27	$ 27,000.00	83	$ 83,000.00
Remove and dispose of driveway approach	EA	$ 1,500.00	-	$ -	-	$ -	13	$ 19,500.00	40	$ 60,000.00
Construct driveway approach	EA	$ 3,500.00	-	$ -	-	$ -	13	$ 45,500.00	40	$ 140,000.00
Remove and dispose of curb & gutter	LF	$ 5.00	-	$ -	-	$ -	1,710	$ 8,550.03	10,120	$ 50,600.03
Construct 8" curb & gutter	LF	$ 22.00	-	$ -	-	$ -	1,710	$ 37,620.14	10,120	$ 222,640.14
Construct 14.5" AB	TON	$ 60.00	-	$ -	-	$ -	852	$ 51,133.48	9,834	$ 590,053.46
Construct 7.5" AC	TON	$ 110.00	-	$ -	-	$ -	933	$ 102,279.76	5,785	$ 636,329.76
Roadway Excavation (1' Depth)	CY	$ 30.00	-	$ -	-	$ -	396	$ 11,880.00	4,512	$ 135,360.00
Remove and dispose of curb ramp	EA	$ 1,000.00	2	$ 2,000.00	1	$ 1,000.00	6	$ 6,000.00	47	$ 47,000.00
Construct curb ramp	EA	$ 2,000.00	4	$ 8,000.00	3	$ 6,000.00	6	$ 12,000.00	53	$ 106,000.00
Detectable warning surface per cal trans standard	EA	$ 600.00	4	$ 2,400.00	3	$ 1,800.00	6	$ 3,600.00	53	$ 31,800.00
Slurry seal	SF	$ 0.25	-	$ -	-	$ -	104,280	$ 26,070.00	696,280	$ 174,070.00
Relocate traffic signals (per pole, not intersection)	EA	$ 50,000.00	-	$ -	-	$ -	4	$ 200,000.00	24	$ 1,200,000.00
Relocate street lights	EA	$ 5,000.00	-	$ -	-	$ -	10	$ 50,000.00	44	$ 220,000.00
Intersection Modifications (Cables, Head, Controller, etc.)	LS	$ 10,000.00	-	$ -	-	$ -	-	$ -	1	$ 10,000.00
Miscellaneous (Striping)	LS	$ 20,000.00	-	$ -	-	$ -	-	$ -	2	$ 40,000.00
Installation of new traffic signal (per leg)	EA	$ 70,000.00	3	$ 210,000.00	3	$ 210,000.00	-	$ -	13	$ 910,000.00
Remove catch basins	EA	$ 7,500.00	-	$ -	-	$ -	2	$ 15,000.00	15	$ 112,500.00
Install catch basins	EA	$ 15,000.00	-	$ -	-	$ -	2	$ 30,000.00	15	$ 225,000.00
Relocate fire hydrants	EA	$ 5,000.00	-	$ -	-	$ -	6	$ 30,000.00	16	$ 80,000.00
R-O-W Acquisition	SF	$ 20.00	-	$ -	-	$ -	110	$ 2,200.00	55,550	$ 1,111,000.00
Mobilization & traffic Control (10%)				$ 22,240.00		$ 21,880.00		$ 78,264.38		$ 686,626.58
Striping (10%)				$ -		$ -		$ 78,264.38		$ 587,106.58
Contingency (20%)				$ 44,480.00		$ 43,760.00		$ 156,528.75		$ 1,373,253.15
Construction Contract				$ 289,120.00		$ 284,440.00		$ 1,095,701.25		$ 9,513,252.05
Engineering (10% of Construction Contract)				$ 28,912.00		$ 28,444.00		$ 109,570.13		$ 951,325.21
Surveying (5% of Construction Contract)				$ 14,456.00		$ 14,222.00		$ 54,785.06		$ 475,662.60
Inspection (5% of Construction Contract)				$ 14,456.00		$ 14,222.00		$ 54,785.06		$ 475,662.60
Admin. Contingency (5%of Construction Contract)				$ 14,456.00		$ 14,222.00		$ 54,785.06		$ 475,662.60
Total				$ 361,400.00		$ 355,550.00		$ 1,369,626.57		$ 11,891,565.07
PA-1			(0% of 100%)	$ -	(0% of 100%)	$ -	(0% of 100%)	$ -		$ -
PA-2			(47.9% of 100%)	$ 173,110.60	(17.9% of 100%)	$ 63,643.45	(9.7% of 100%)	$ 132,853.78		$ 1,812,876.95
PA-2 Phase I			*19.3% of PA-2 Total*	*$ 33,410.35*	*19.3% of PA-2 Total*	*$ 12,283.19*	*19.3% of PA-2 Total*	*$ 25,640.78*	*19.3% of PA-2 Total*	*$ 349,885.25*
PA-2 Phase II			*80.7% of PA-2 Total*	*$ 139,700.25*	*80.7% of PA-2 Total*	*$ 51,360.26*	*80.7% of PA-2 Total*	*$ 107,213.00*	*80.7% of PA-2 Total*	*$ 1,462,991.70*
PA-3			(0% of 100%)	$ -	(0% of 100%)	$ -	(0% of 100%)	$ -		$ -
PA-4			(14.4% of 100%)	$ 52,041.60	(0% of 100%)	$ -	(8.7% of 100%)	$ 119,157.51		$1,367,516
PA-5			(28.4% of 100%)	$ 102,637.60	(0% of 100%)	$ -	(11.4% of 100%)	$ 156,137.43		$ 2,238,104
PA-6			(0% of 100%)	$ -	(82.1% of 100%)	$ 291,906.55	(9.9% of 100%)	$ 135,593.03		$ 1,315,530
PA-7			(9.3% of 100%)	$ 33,610.20	(0% of 100%)	$ -	(60.3% of 100%)	$ 825,884.82		$ 2,887,419
Total				$534,510.60		$419,193.45		$1,502,489.34		$11,434,512.72

*Note that the preliminary cost e
- AB and AC was calculated usin
- See attached exhibit for locatior
- Quantities are based on concep
* For Section 1 18% contribution
** For Section 6 cost was combin

Note: These f

Table 2
Recommended Project Buildout Mitigation and Associated Cost
(Fees based on the project trip generation of the approved site design)

Intersections		Mitigation Measure	PA-2 Total Dollar Contribution	PA-2 Phase I [1]	PA-2 Phase II [2]
1	Hamner Avenue & Hidden Valley	Widen Hamner Avenue to six lanes Add dual WBL, add EBR, and NBR Overlap Phase EBR Overlap Phase	$ 4,267.67	$ 823.66	$ 3,444
2	Main Street and Parkridge Avenue	Widen Hamner Avenue to six lanes WBR Overlap, Add WBT, Add NBT, add EBT (convert existing shared through-right lanes to right turn lane)	$ 233,068.66	$ 44,982.25	$ 188,086.41
4	Main Street and Rincon Street	Add NB and SB right-turn pockets, add EBL and right-turn pocket, E/W Protected Phasing, EBR Overlap Phase	$ 495,595.05	$ 95,649.84	$ 399,945.21
5	Main Street and Harrison Street	Add NB and SB right-turn pockets, add WBR pocket (convert WBTR to WBT) Add WBL (dual lefts)	$ 286,944.88	$ 55,380.36	$ 231,564.52
6	Main Street and Grand Blvd	Widen North Main Street to six lanes Add NB and SB right-turn pockets	$ 7,000.00	$ 1,351.00	$ 5,649.00
7	Main Street and SR-91 WB On & Off Ramps	Widen North Main Street to six lanes	$ 130,324.87	$ 25,152.70	$ 105,172.17
		Add SBR Turn pocket	$ 159,315.94	$ 30,747.98	$ 128,567.96
8	Main Street and SR-91 EB On & Off Ramps	Widen North Main Street to six lanes	$ 64,192.32	$ 12,389.12	$ 51,803.20
9	Main Street and 3rd Street	Widen North Main Street to six lanes	$ 35,612.39	$ 6,873.19	$ 28,739.20
19	Lincoln Avenue and Harrington Avenue	Signalize	$ -	$ -	$ -
26	Cota Street and Rincon Street	Signalize	$ 26,947.32	$ 5,200.83	$ 21,746.49
29	Sheridan Street and Rincon Street	Signalize	$ 173,110.60	$ 33,410.35	$ 139,700.25
31	Sheridan Street and Blaine Street	Signalize	$ 63,643.45	$ 12,283.19	$ 51,360.26
36	East Grand and 6th Street	Add NB & SB thru lanes	$ 132,853.78	$ 25,640.78	$ 107,213.00
	Total Mitigation Cost		**$ 1,812,876.93**	**$ 349,885.25**	**$ 1,462,991.68**

[1] PA-2 Phase I Fair-Share Cost = (Iteris Fair-Share) x (19.3% of PA-2) x cost

[2] PA-2 Phase II Fair-Share Cost = (Iteris Fair-Share) x (80.7% of PA-2) x cost

Fees for Phase II are estimates only. All fees will be based upon the project trip generation of the approved site design.

emissions reduction expected from each feature. The menu of features allows maximum flexibility and options for how development projects can implement the GHG reduction measures. Projects that garner at least 100 points will be consistent with the reduction quantities anticipated in the City's CAP. As such, those projects that garner a total of 100 points or greater would not require quantification of project specific GHG emissions. Consistent with CEQA Guidelines, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.

Instructions for Mixed Use Projects

Mixed use projects provide additional opportunities to reduce emissions by combining complimentary land uses in a manner that can reduce vehicle trips. Mixed use projects also have the potential to complement energy efficient infrastructure in a way that reduces emissions. For mixed use projects, fill out both Screening Table 1 and Table 2, but proportion the points identical to the proportioning of the mix of uses. As an example, a mixed use project that is 50% commercial uses and 50% residential uses will show ½ point for each assigned point value in Table 1 and Table 2. Add the points from both tables. Mixed use Projects that garner at least 100 points will be consistent with the reduction quantities in the City's CAP and are considered less than significant for GHG emissions.

Those Projects that do not garnish 100 points using the screening tables will need to provide additional analysis to determine the significance of GHG emissions. Nothing in this guidance shall be construed as limiting the City's authority to adopt a statement of overriding consideration for projects with significant GHG impacts. The following tables provides a menu of performance standards/options related to GHG mitigation measures and design features that can be used to demonstrate consistency with the reduction measures and GHG reduction quantities in the CAP.

Mixed Use Calculations:		%	Total Points	
Commercial SF	= 77,256 sf	11%	91	= 10.0 points
Residential SF	= 600,295 sf	89%	102	= 90.8 points
Total SF	= 677,551 sf			100.8 points

Table 1: Screening Table for Implementation of GHG Reduction Measures for Residential Development

Feature	Description	Assigned Point Values	Project Points
Reduction Measure R2 E1: Energy Efficiency for New Residential			
Building Envelope			
Insulation	Title 24 standard (required)	0 points	7
	Modestly Enhanced Insulation (5% > Title 24)	3 points	
	Enhanced Insulation (15%> Title 24)	7 points	
	Greatly Enhanced Insulation (20%> Title 24)	9 points	
Windows	Title 24 standard (required)	0 points	7
	Modestly Enhanced Window Insulation (5% > Title 24)	3 points	
	Enhanced Window Insulation (15%> Title 24)	7 points	
	Greatly Enhanced Window Insulation (20%> Title 24)	9 points	
Doors	Title 24 standard (required)	0 points	7
	Modestly Enhanced Insulation (5% > Title 24)	3 points	
	Enhanced Insulation (15%> Title 24)	7 points	
	Greatly Enhanced Insulation (20%> Title 24)	9 points	
Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage.		3
	Title 24 standard (required)	0 points	
	Modest Building Envelope Leakage (5% > Title 24)	3 points	
	Reduced Building Envelope Leakage (15%> Title 24)	7 points	
	Minimum Building Envelope Leakage (20% > Title 24)	9 points	
Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls.		–
	Thermal storage designed to reduce heating/cooling by 5°F within the building	5 points	
	Thermal storage to reduce heating/cooling by 10°F within the building	10 points	
	Note: Engineering details must be provided to substantiate the efficiency of the thermal storage device.		

Feature	Description	Assigned Point Values	Project Points
Indoor Space Efficiencies			
Heating/ Cooling Distribution System	Title 24 standard (required)	0 points	7
	Modest Distribution Losses (5% > Title 24)	3 points	
	Reduced Distribution Losses (15%> Title 24)	7 points	
	Greatly Reduced Distribution Losses (15%> Title 24)	9 points	
Space Heating/ Cooling Equipment	Title 24 standard (required)	0 points	3
	Efficiency HVAC (5% > Title 24)	3 points	
	High Efficiency HBAC (15%> Title 24)	7 points	
	Very High Efficiency HBAC (20%> Title 24)	9 points	
Water Heaters	Title 24 standard (required)	0 points	7
	Efficiency Water Heater (Energy Star conventional that is 5% > Title 24)	3 points	
	High Efficiency Water Heater (Conventional water heater that is 15%> Title 24)	7 points	
	High Efficiency Water Heater (Conventional water heater that is 20%> Title 24)	9 points	
	Solar Water Heating System	12 points	
Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours.		–
	All peripheral rooms within the living space have at least one window (required)	0 points	
	All rooms within the living space have daylight (through use of windows, solar tubes, skylights, etc.) such that each room has at least 800 lumens of light during a sunny day	3 points	
	All rooms daylighted to at least 1,000 lumens	5 points	
Artificial Lighting	Title 24 standard (required)	0 points	7
	Efficient Lights (5% > Title 24)	3 points	
	High Efficiency Lights (LED, etc. 15%> Title 24)	7 points	
	Very High Efficiency Lights (LED, etc. 20%> Title 24)	9 points	
Appliances	Title 24 standard (required)	0 points	7
	Efficient Appliances (5% > Title 24)	3 points	
	High Efficiency Energy Star Appliances (15%> Title 24)	7 points	
	Very High Efficiency Appliances (20%> Title 24)	9 points	

Feature	Description	Assigned Point Values	Project Points
Miscellaneous Residential Building Efficiencies			
Building Placement	North/South alignment of building or other building placement such that the orientation of the buildings optimizes natural heating, cooling, and lighting.	3 point	3
Independent Energy Efficiency Calculations	Provide point values based upon energy efficiency modeling of the Project. Note that engineering data will be required documenting the energy efficiency and point values based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	
Other	This allows innovation by the applicant to provide design features that increases the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	
Existing Residential Retrofits	The applicant may wish to provide energy efficiency retrofit projects to existing residential dwelling units to further the point value of their project. Retrofitting existing residential dwelling units within the City is a key reduction measure that is needed to reach the reduction goal. The potential for an applicant to take advantage of this program will be decided on a case by case basis and must have the approval of the Corona Planning Department. The decision to allow applicants to ability to participate in this program will be evaluated based upon, but not limited to the following; Will the energy efficiency retrofit project benefit low income or disadvantaged residents? Does the energy efficiency retrofit project fit within the overall assumptions in Reduction Measure R2E3? Does the energy efficiency retrofit project provide co-benefits important to the City? Point value will be determined based upon engineering and design criteria of the energy efficiency retrofit project.	TBD	
Reduction Measure R2 E2: New Home Renewable Energy			
Photovoltaic	Solar Photovoltaic panels installed on individual homes or in collective neighborhood arrangements such that the total power provided augments:		10
	Solar Ready Homes (sturdy roof and electric hookups)	2 points	
	10 percent of the power needs of the project	10 points	
	20 percent of the power needs of the project	15 points	
	30 percent of the power needs of the project	20 points	
	40 percent of the power needs of the project	28 points	
	50 percent of the power needs of the project	35 points	
	60 percent of the power needs of the project	38 points	
	70 percent of the power needs of the project	42 points	
	80 percent of the power needs of the project	46 points	
	90 percent of the power needs of the project	52 points	
	100 percent of the power needs of the project	58 points	

Feature	Description	Assigned Point Values	Project Points
Wind turbines	Some areas of the City lend themselves to wind turbine applications. Analysis of the area's capability to support wind turbines should be evaluated prior to choosing this feature. Individual wind turbines at homes or collective neighborhood arrangements of wind turbines such that the total power provided augments:		
	10 percent of the power needs of the project	10 points	–
	20 percent of the power needs of the project	15 points	
	30 percent of the power needs of the project	20 points	
	40 percent of the power needs of the project	28 points	
	50 percent of the power needs of the project	35 points	
	60 percent of the power needs of the project	38 points	
	70 percent of the power needs of the project	42 points	
	80 percent of the power needs of the project	46 points	
	90 percent of the power needs of the project	52 points	
	100 percent of the power needs of the project	58 points	
Off-site renewable energy project	The applicant may submit a proposal to supply an off-site renewable energy project such as renewable energy retrofits of existing homes that will help implement R2E4. These off-site renewable energy retrofit project proposals will be determined on a case by case basis and must be accompanied by a detailed plan that documents the quantity of renewable energy the proposal will generate. Point values will be determined based upon the energy generated by the proposal.	TBD	
Other Renewable Energy Generation	The applicant may have innovative designs or unique site circumstances (such as geothermal) that allow the project to generate electricity from renewable energy not provided in the table. The ability to supply other renewable energy and the point values allowed will be decided based upon engineering data documenting the ability to generate electricity.	TBD	
Reduction Measure R2 W1: Water Use Reduction Initiative			
Irrigation and Landscaping			
Water Efficient Landscaping	Limit conventional turf to < 20% of each lot (required)	0 points	
	Eliminate conventional turf from landscaping	3 points	
	Eliminate turf and only provide drought tolerant plants	4 points	4
	Xeroscaping that requires no irrigation	6 points	
Water Efficient irrigation	Drip irrigation	1 point	1

Feature	Description	Assigned Point Values	Project Points
systems	Smart irrigation control systems combined with drip irrigation (demonstrate 20 reduced water use)	3 points	3
Recycled Water	Graywater (purple pipe) irrigation system on site	5 points	5
Storm water Reuse Systems	Innovative on-site stormwater collection, filtration and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon design and engineering data documenting the water savings.	TBD	-
Potable Water			
Showers	Title 24 standard (required) EPA High Efficiency Showerheads (15% > Title 24)	0 points 3 points	3
Toilets	Title 24 standard (required) EPA High Efficiency Toilets (15% > Title 24)	0 points 3 points	3
Faucets	Title 24 standard (required) EPA High Efficiency faucets (15% > Title 24)	0 points 3 points	3
Reduction Measure R2 T1: Land Use Based Trips and VMT Reduction			
Mixed Use	Mixes of land uses that complement one another in a way that reduces the need for vehicle trips can greatly reduce GHG emissions. The point value of mixed use projects will be determined based upon a Transportation Impact Analysis (TIA) demonstrating trip reductions and/or reductions in vehicle miles traveled. Suggested ranges: Diversity of land uses complementing each other (2-28 points) Increased destination accessibility other than transit (1-18 points) Increased transit accessibility (1-25 points) Infill location that reduces vehicle trips or VMT beyond the measures described above (points TBD based on traffic data).	TBD	12
Residential Near Local Retail (Residential only Projects)	Having residential developments within walking and biking distance of local retail helps to reduce vehicle trips and/or vehicle miles traveled. The point value of residential projects in close proximity to local retail will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled (VMT)	TBD	
Other Trip Reduction Measures	Other trip or VMT reduction measures not listed above with TIA and/or other traffic data supporting the trip and/or VMT for the project.	TBD	

Feature	Description	Assigned Point Values	Project Points
Reduction Measure R2 T3: Bicycle Master Plan Development			
Bicycle Infrastructure	Corona's Bicycle Master Plan is extensive and describes the construction on 11.5 miles of Class I bike paths and 23 miles of Class II and Class III bikeways to build upon the current 8 miles of bikeways. Provide bicycle paths within project boundaries. Provide bicycle path linkages between residential and other land uses. Provide bicycle path linkages between residential and transit.	TBD 2 points 5 points	–
Reduction Measure R2 T4: WRCOG Neighborhood Electric Vehicle Plan			
Electric Vehicle Recharging	Provide circuit and capacity in garages of residential units for use by a neighborhood electric vehicle (NEV). Provide connections to NEV approved roads and bicycle lanes according to WRCOG NEV Plan.	1 point 5 points	–
Total Points Earned by Residential Project:			102

Table 2: Screening Table for Implementation of GHG Reduction Measures for Commercial Development

Feature	Description	Assigned Point Values	Project Points
Reduction Measure R2 E5: Energy Efficiency for Commercial Development			
Building Envelope			
Insulation	Title 24 standard (required)	0 points	4
	Modestly Enhanced Insulation (5% > Title 24)	4 points	
	Enhanced Insulation (15%> Title 24)	8 points	
	Greatly Enhanced Insulation (20%> Title 24)	12 points	
Windows	Title 24 standard (required)	0 points	8
	Modestly Enhanced Window Insulation (5% > Title 24)	4 points	
	Enhanced Window Insulation (15%> Title 24)	8 points	
	Greatly Enhanced Window Insulation (20%> Title 24)	12 points	
Doors	Title 24 standard (required)	0 points	8
	Modestly Enhanced Insulation (5% > Title 24)	4 points	
	Enhanced Insulation (15%> Title 24)	8 points	
	Greatly Enhanced Insulation (20%> Title 24)	12 points	
Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage.		4
	Title 24 standard (required)	0 points	
	Modest Building Envelope Leakage (5% > Title 24)	4 points	
	Reduced Building Envelope Leakage (15%> Title 24)	8 points	
	Minimum Building Envelope Leakage (20% > Title 24)	12 points	
Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls.		–
	Thermal storage designed to reduce heating/cooling by 5°F within the building	6 points	
	Thermal storage to reduce heating/cooling by 10°F within the building	12 points	
	Note: Engineering details must be provided to substantiate the efficiency of the thermal storage device.		

Feature	Description	Assigned Point Values	Project Points
Indoor Space Efficiencies			
Heating/ Cooling Distribution System	Title 24 standard (required)	0 points	8
	Modest Distribution Losses (5% > Title 24)	4 points	
	Reduced Distribution Losses (15%> Title 24)	8 points	
	Greatly Reduced Distribution Losses (15%> Title 24)	12 points	
Space Heating/ Cooling Equipment	Title 24 standard (required)	0 points	4
	Efficiency HVAC (5% > Title 24)	4 points	
	High Efficiency HBAC (15%> Title 24)	8 points	
	Very High Efficiency HBAC (20%> Title 24)	12 points	
Commercial Heat Recovery Systems	Heat recovery strategies employed with commercial laundry, cooking equipment, and other commercial heat sources for reuse in HVAC air intake or other appropriate heat recovery technology. Point values for these types of systems will be determined based upon design and engineering data documenting the energy savings.	TBD	
Water Heaters	Title 24 standard (required)	0 points	8
	Efficiency Water Heater (Energy Star conventional that is 5% > Title 24)	4 points	
	High Efficiency Water Heater (Conventional water heater that is 15%> Title 24)	8 points	
	High Efficiency Water Heater (Conventional water heater that is 20%> Title 24)	12 points	
	Solar Water Heating System	14 points	
Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours.		1
	All peripheral rooms within building have at least one window or skylight	1 points	
	All rooms within building have daylight (through use of windows, solar tubes, skylights, etc.) such that each room has at least 800 lumens of light during a sunny day	5 points	
	All rooms daylighted to at least 1,000 lumens	7 points	
Artificial Lighting	Title 24 standard (required)	0 points	4
	Efficient Lights (5% > Title 24)	4 points	
	High Efficiency Lights (LED, etc. 15%> Title 24)	6 points	
	Very High Efficiency Lights (LED, etc. 20%> Title 24)	8 points	

Feature	Description	Assigned Point Values	Project Points
Appliances	Title 24 standard (required) Efficient Appliances (5% > Title 24) High Efficiency Energy Star Appliances (15%> Title 24) Very High Efficiency Appliances (20%> Title 24)	0 points 4 points 8 points 12 points	8
Miscellaneous Commercial Building Efficiencies			
Building Placement	North/South alignment of building or other building placement such that the orientation of the buildings optimizes conditions for natural heating, cooling, and lighting.	4 point	4
Other	This allows innovation by the applicant to provide design features that increases the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	
Existing Commercial building Retrofits	The applicant may wish to provide energy efficiency retrofit projects to existing residential dwelling units to further the point value of their project. Retrofitting existing commercial buildings within the City is a key reduction measure that is needed to reach the reduction goal. The potential for an applicant to take advantage of this program will be decided on a case by case basis and must have the approval of the Corona Planning Department. The decision to allow applicants to ability to participate in this program will be evaluated based upon, but not limited to the following: Will the energy efficiency retrofit project benefit low income or disadvantaged communities? Does the energy efficiency retrofit project fit within the overall assumptions in Reduction Measure R2E7? Does the energy efficiency retrofit project provide co-benefits important to the City? Point value will be determined based upon engineering and design criteria of the energy efficiency retrofit project.	TBD	

Feature	Description	Assigned Point Values	Project Points
Reduction Measure R2 E6: New Commercial/Industrial Renewable Energy			
Photovoltaic	Solar Photovoltaic panels installed on commercial buildings or in collective arrangements within a commercial development such that the total power provided augments:		
	Solar Ready Roofs (sturdy roof and electric hookups)	2 points	
	10 percent of the power needs of the project	8 points	
	20 percent of the power needs of the project	14 points	
	30 percent of the power needs of the project	20 points	
	40 percent of the power needs of the project	26 points	–
	50 percent of the power needs of the project	32 points	
	60 percent of the power needs of the project	38 points	
	70 percent of the power needs of the project	44 points	
	80 percent of the power needs of the project	50 points	
	90 percent of the power needs of the project	56 points	
	100 percent of the power needs of the project	62 points	
Wind turbines	Some areas of the City lend themselves to wind turbine applications. Analysis of the areas capability to support wind turbines should be evaluated prior to choosing this feature.		
	Wind turbines as part of the commercial development such that the total power provided augments:		
	10 percent of the power needs of the project	8 points	–
	20 percent of the power needs of the project	14 points	
	30 percent of the power needs of the project	20 points	
	40 percent of the power needs of the project	26 points	
	50 percent of the power needs of the project	32 points	
	60 percent of the power needs of the project	38 points	
	70 percent of the power needs of the project	44 points	
	80 percent of the power needs of the project	50 points	
	90 percent of the power needs of the project	56 points	
	100 percent of the power needs of the project	62 points	
Off-site renewable energy project	The applicant may submit a proposal to supply an off-site renewable energy project such as renewable energy retrofits of existing residential that will help implement R2E4, or existing commercial/industrial that will help implement R2E7. These off-site renewable energy retrofit project proposals will be determined on a case by case basis accompanied by a detailed plan documenting the quantity of renewable energy the proposal will generate. Point values will be based upon the energy generated by the proposal.	TBD	–

Feature	Description	Assigned Point Values	Project Points
Other Renewable Energy Generation	The applicant may have innovative designs or unique site circumstances (such as geothermal) that allow the project to generate electricity from renewable energy not provided in the table. The ability to supply other renewable energy and the point values allowed will be decided based upon engineering data documenting the ability to generate electricity.	TBD	-
Reduction Measure R2 W1: Water Use Reduction Initiative			
Irrigation and Landscaping			
Water Efficient Landscaping	Limit conventional turf to < 20% of each lot (required) Eliminate conventional turf from landscaping Eliminate turf and only provide drought tolerant plants Xeroscaping that requires no irrigation	0 points 3 points 4 points 6 points	4
Water Efficient irrigation systems	Drip irrigation Smart irrigation control systems combined with drip irrigation (demonstrate 20 reduced water use)	1 point 5 points	5
Recycled Water	Graywater (purple pipe) irrigation system on site	5 points	5
Storm water Reuse Systems	Innovative on-site stormwater collection, filtration and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon design and engineering data documenting the water savings.	TBD	-
Potable Water			
Showers	Title 24 standard (required) EPA High Efficiency Showerheads (15% > Title 24)	0 points 3 points	3
Toilets	Title 24 standard (required) EPA High Efficiency Toilets/Urinals (15% > Title 24) Waterless Urinals (note that commercial buildings having both waterless urinals and high efficiency toilets will have a combined point value of 6 points)	0 points 3 points 3 points	3
Faucets	Title 24 standard (required) EPA High Efficiency faucets (15% > Title 24)	0 points 3 points	3
Commercial Dishwashers	Title 24 standard (required) EPA High Efficiency dishwashers (20% water savings)	0 points 4 points	4

Feature	Description	Assigned Point Values	Project Points
Commercial Laundry Washers	Title 24 standard (required) EPA High Efficiency laundry (15% water savings) EPA High Efficiency laundry Equipment that captures and reuses rinse water (30% water savings)	0 points 3 points 6 points	3
Commercial Water Operations Program	Establish an operational program to reduce water loss from pools, water features, etc., by covering pools, adjusting fountain operational hours, and using water treatment to reduce draw down and replacement of water. Point values for these types of plans will be determined based upon design and engineering data documenting the water savings.	TBD	
Reduction Measure R2 T1: Land Use Based Trips and VMT Reduction Policies			
Mixed Use	Mixes of land uses that complement one another in a way that reduces the need for vehicle trips can greatly reduce GHG emissions. The point value of mixed use projects will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled	TBD	
Local Retail Near Residential (Commercial only Projects)	Having residential developments within walking and biking distance of local retail helps to reduce vehicle trips and/or vehicle miles traveled. The point value of residential projects in close proximity to local retail will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled	TBD	
Reduction Measure R2 T3: Bicycle Master Plan Development			
Bicycle Infrastructure	Corona's Bicycle Master Plan is extensive and describes the construction on 11.5 miles of Class I bike paths and 23 miles of Class II and Class III bikeways to build upon the current 8 miles of bikeways. Provide bicycle paths within project boundaries. Provide bicycle path linkages between project site and other land uses. Provide bicycle path linkages between project site and transit.	TBD TBD 2 points 5 points	
Total Points Earned by Commercial/Industrial Project:			91

URBAN CROSSROADS

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May 31, 2013

Mr. Teck Loh, P.E. LEED AP
WATERMARKE PROPERTIES, INC.
410 North Main Street
Corona, CA 92879

Subject: **Corona North Main Street Residential Development (Phase 2) – R2 T1: Land Use Based Trips and VMT Reduction Supplemental Information**

Dear Mr. Loh:

Urban Crossroads, Inc. is pleased to submit the following information in response to your request to provide direction on potential reductions achieved through the following two R2 T1: Land Use Based Trips and VMT Reduction strategies:

1. Diversity of land uses complementing each other (2-28 points)
2. Increased transit accessibility (1-25 points)

SUMMARY

The California Air Pollution Control Officers Association (CAPCOA) has published the guidance Quantifying Greenhouse Gas Mitigation Measures (August 2010) (referred to herein as "CAPCOA Guidance Document"). It is our understanding that several of the measures outlined in the CAPCOA Guidance Document were utilized to determine potential emissions reductions and associated assigned point values for the City of Corona's CEQA Thresholds and Screening Tables.

Table 6-2 of the CAPCOA Guidance Document identifies various transportation-related measures and associated percentage reduction in GHG emissions. Specifically LUT-3: Increase Diversity of Urban and Suburban Developments (Mixed Use) and LUT-5: Increase Transit Accessibility would apply. Table 1 illustrates the applicable measure as identified in the City of Corona CEQA Thresholds and Screening Tables and the related measure from the CAPCOA Guidance Document.

Table 1

City of Corona CEQA Thresholds and Screening Tables	*CAPCOA Guidance Document*
Diversity of land uses complementing each other (2-28 points)	LUT-3: Increase Diversity of Urban and Suburban Developments (Mixed Use). Percentage reduction in GHG Emissions (from transportation sector) 9.0-30.0%
Increased transit accessibility (1-25 points)	LUT-5: Increase Transit Accessibility Percentage reduction in GHG Emissions (from transportation sector) 0.5-24.6%

It should be noted that the CAPCOA Guidance Document reductions identified above are representative of transportation-related GHG emissions, not a reduction in terms of total GHG emissions. For development projects, approximately 75-80% of total emissions are typically a direct result of transportation sector. However, since a site-specific greenhouse gas analysis has not been prepared for the Project, and in an effort to understate, rather than overstate the reductions achieved from the aforementioned measures, only 47.7% of total emissions are assumed to be a direct result of the transportation sector (this is the percentage of transportation related emissions compared to total emissions for the City of Corona per the City's Climate Action Plan).

JUSTIFICATION FOR REDUCTIONS

LUT-3: Increase Diversity of Urban and Suburban Developments (Mixed Use):
Based on the CAPCOA Guidance Document, LUT-3: Increase Diversity of Urban and Suburban Developments (Mixed Use) the measure reduces GHG emissions due to the following:

> *"Having different types of land uses near one another can decrease VMT since trips between land use types are shorter and may be accommodated by non-auto modes of transport. For example when residential areas are in the same neighborhood as retail and office buildings, a resident does not need to travel outside of the neighborhood to meet his/her trip needs."* (CAPCOA 2010, Page 162)

The sample calculation provided under LUT-3 for the "Low Range % VMT Reduction" consists of 90% residential and 10% commercial. Since the Project includes approximately 89% residential and 11% commercial, this sample calculation is most appropriate to determine the reduction in VMT and subsequently in GHG's as 9% for the transportation sector.

LUT-5: Increase Transit Accessibility:
Based on the CAPCOA Guidance Document, LUT-5: Increase Transit Accessibility the measure reduces GHG emissions due to the following:

> *"Locating a project with high density near transit will facilitate the use of transit by people traveling to or from the Project site. The use of transit results in a mode shift and therefore reduced VMT. A project with a residential/commercial center designed around a rail or bus station, is called a transit-oriented development (TOD). The project description should include, at a minimum, the following design features:*
> - *A transit station/stop with high-quality, high-frequency bus service located within a 5-10 minute walk (or roughly ¼ mile from stop to edge of development), and/or*
> - *A rail station located within a 20 minute walk (or roughly ½ mile from station to edge of development)*
> - *Fast, frequent, and reliable transit service connecting to a high percentage of regional destinations*
> - *Neighborhood designed for walking and cycling"* (CAPCOA 2010, Page 171)

The calculation details provided under LUT-5 state that % VMT reduction = Transit x "B"

Where;

Transit = Increase in transit mode share = % transit mode share for project - % transit modeshare for typical ITE development ; when distance to transit 0-0.5 miles, then Transit mode share = -50x(distance of project to transit) +38

and B = adjustments from transit ridership increase to VMT, 0.67 per CAPCOA Guidance Document

Therefore:

[(-0.50 * 0.25 mile to transit + 38) – 1.3% * 0.67 = 16.86% reduction in VMT and Transportation-related GHG emissions.

CONCLUSION

Therefore, based on a thorough review of the CAPCOA Guidance Document, the following points should be awarded for the Project:

1. Diversity of land uses complementing each other (2-28 points): 9 Points x 47.7% = 4.29 points
2. Increased transit accessibility (1-25 points): 16.86 Points x 47.7% = 8.04 points

Total points for R2 T1 measures = 12.33 points

If you have any questions, please contact me directly at (949) 660-1994 ext. 217.

Respectfully submitted,

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HQ
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A tech concepts

REDUCTION MEASURE R2 E6: NEW HOME RENEWABLE ENERGY CALCULATIONS

A typical apartment will draw approximately 3,000 kWhr annually, so about 250 kWhr/month.

Typical common areas for 450-500 dwelling units complex will draw 300,000 kWhrs annually

Building 1	171 DU
Building 2	131 DU
Building 3	162 DU
Total	464 DU

Estimated Annual power consumption for residential units = 464 x 3,000 kWhr
1,392,000 kWhr

Total power consumption of residential and common areas = 1,392,000 + 300,000 kWhr
= 1,692,000 kWhr

The following is a proposal to Corona North Main Phase 2 for a 199.7 kW carport mounted photovoltaic system. The system would be owned, operated and maintained by Watermarke Properties. This system is designed to offset 90% of the electric consumption for the estimated House meters.
Total DC system size 199.7 kW DC
Estimated kWhrs generated 1st year 273,812

Estimated power provided augments = 273,812/1,692,000
= 0.162 or 16.2% of power needs of the project

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