California State University San Marcos
Mangrum Track Lighting and Cell Tower Project

Final Initial Study/Mitigated Negative Declaration

State Clearinghouse No. 2014041053

Lead Agency:

California State University Board of Trustees
401 Golden Shore
Long Beach, California 90802-4210

Prepared for:

California State University San Marcos
333 South Twin Oaks Valley Road
Craven Hall, Suite 4304
San Marcos, California 92096-0001

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard, Suite 200
La Mesa, CA 91942

July 2014

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FINAL MITIGATED NEGATIVE DECLARATION

California State University San Marcos
Mangrum Track Lighting and Cell Tower Project

Lead Agency: California State University Board of Trustees
401 Golden Shore
Long Beach, CA 90802-4210

Project Sponsor: California State University San Marcos

Project Location: The proposed project is located at the California State University San Marcos (CSUSM) Mangrum Track, located north of Campus View Drive, west of Campus Way, and northwest of Chavez Circle. The CSUSM campus is located in the City of San Marcos in northern San Diego County.

Project Description: CSUSM is proposing to remove the metal halide light fixtures (30-foot candles [fc] each) from eight approximately 30-foot-tall light standards (pole and existing fluorescent fixtures to remain) and install one 119-foot-tall stadium light standard with telecommunications equipment and three 90-foot-tall stadium light standards (75 fc each) at the Mangrum Track located in the northern portion of the CSUSM campus. The project would include a 360-square-foot concrete block equipment shelter, which would house mobility system racks, equipment cabinets, condenser units, and other equipment associated with the proposed cell tower, as well as global positioning system (GPS) antennas mounted to the roof. An adjoining 200-square-foot concrete block generator enclosure would house a 50-kilowatt (kW), 210-gallon diesel tank generator. The project would require utility connections.

Finding: The California State University has determined that with incorporation of project-specific mitigation measures, the proposed project will not result in a significant adverse effect on the environment. See Mitigation Monitoring and Reporting Program (MMRP) in Appendix C.

Supporting Documentation: The documentation supporting this determination is discussed in the attached Initial Study prepared for this project.

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STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

May 14, 2014

Bradley Fenton
California State University Board of Trustees
333 Twin Oaks Valley Road
San Marcos, CA 92096

Subject: California State University San Marcos Mangrum Track Lighting and Cell Tower Project
SCH#: 2014041053

Dear Bradley Fenton:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on May 13, 2014, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

A-1

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Letter A - State Clearinghouse

A-1 This comment letter confirms receipt and distribution of the Draft IS/MND and project compliance with State Clearinghouse requirements. No further response is required.

Document Details Report
State Clearinghouse Data Base

SCH# 2014041053
Project Title California State University San Marcos Mangrum Track Lighting and Cell Tower Project
Lead Agency California State University Trustees

Type MND Mitigated Negative Declaration

Description CSUSM is proposing to remove the metal halide light fixtures (30 foot candles [fc] each) from eight approximately 30-foot-tall light standards (pole and existing fluorescent fixtures to remain) and install one 119-foot-tall stadium light standard with telecommunications equipment and three 90-foot-tall stadium light standards (75 fc each) at the Mangrum Track located in the northern portion of the CSUSM campus. The project would include a 360 sf concrete block equipment shelter, which would house mobility system racks, equipment cabinets, condenser units, and other equipment associated with the proposed cell tower, as well as global positioning system (GPS) antennas mounted to the roof. An adjoining 200-sf concrete block generator enclosure would house a 50-kW, 210 gallon diesel tank generator. The project would require utility connections.

Lead Agency Contact

Name Bradley Fenton
Agency California State University Board of Trustees
Phone 760 750 4659 **Fax**
email
Address 333 Twin Oaks Valley Road
City San Marcos **State** CA **Zip** 92096

Project Location

County San Diego
City San Marcos
Region
Lat / Long 33° 7' 44" N / 117° 9' 43" W
Cross Streets Twin Oaks Valley Road, Craven road, Campus View Drive
Parcel No. 2216700200
Township **Range** **Section** **Base**

Proximity to:

Highways SR-78
Airports
Railways Sprinter and Freight rail
Waterways
Schools Various
Land Use California State University

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 11; Air Resources Board; Regional Water Quality Control Board, Region 9; Department of Toxic Substances Control; California Energy Commission; Native American Heritage Commission; Public Utilities Commission

Date Received 04/14/2014 **Start of Review** 04/14/2014 **End of Review** 05/13/2014

State of California Transportation Agency

CLEAR
5/13/14
E

Memorandum

RECEIVED
MAY 13 2014
STATE CLEARING HOUSE

Date: May 9, 2014

To: State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95814

From: **DEPARTMENT OF CALIFORNIA HIGHWAY PATROL**
Information Management Division

File No.: 040.13313.A06786.047.7-0179

Subject: ENVIRONMENTAL DOCUMENT REVIEW AND RESPONSE
SCH #2014041053

B-1

This memorandum is written in response to the request by Special Projects Section to review the "Notice of Completion" environmental document SCH# 2014041053 sent to the California Highway Patrol by the State Clearinghouse.

Telecommunications Section has reviewed the one page notice and recommends additional review as follows:

> A full copy of the Environmental Document should be sent to the Governor's Office of Emergency Services, Public Safety Communications, attention CHP Unit, located at 601 Sequoia Pacific Boulevard, Sacramento, CA, 95811, for a complete review of the proposed telecommunications equipment project and frequencies to be utilized for potential interference. The one page transmittal notice does not contain such information.

Should you have any questions, please do not hesitate to contact myself of Assistant Chief Lori Young at (916) 843-4000.

for
S. R. HOWLAND, Chief

cc: Enforcement and Planning Division, Special Projects Section

Safety, Service, and Security *An Internationally Accredited Agency*
CHP 51 (Rev. 05/2013) OPI 076

Letter B - California Highway Patrol

B-1 This comment letter requests that a full copy of the Draft IS/MND be sent to the Governor's Office of Emergency Services, Public Safety Communications, CHP Unit in order to review the proposed telecommunications equipment and the frequencies to be utilized for potential interference. The CHP Unit has been added to the project distribution list and will receive subsequent notifications related to the project. CSUSM and AT&T will coordinate with the CHP during the final design process to ensure that the frequencies utilized for the cell equipment would not interfere with those typically used for emergency services, including CHP communications.

RINCON BAND OF LUISEÑO INDIANS
Culture Committee
1 W. Tribal Road · Valley Center, California 92082 ·
(760) 297-2621 or·(760) 297-2622 & Fax:(760) 749-8901

May 7, 2014

Bradley Fenton
California State University San Marcos
333 South Twin Oaks Valley Road, Craven Hall 5111
San Marcos, CA 92096-0001

Re: Mangrum Track Lighting & Cell Tower

Dear Bradley Fenton:

C-1

This letter is written in response to a notice received dated April 14, 2014 in regards to the Mangrum Track Lighting and Cell Tower Project. Rincon is submitting these comments concerning your projects potential impact on Luiseño cultural resources.

The Rincon Band has concerns for impacts to historic and cultural resources and the finding of items of significant cultural value that could be disturbed or destroyed and are considered culturally significant to the Luiseño people. This is to inform you, your identified location is within the Luiseño Aboriginal Territory and the tribe is concerned with the overall impact this project could have on the protection and preservation of Native American cultural assets. The Rincon Band of Luiseño Indians would like to remain informed of any and all updates and changes in regards to this project.

If there are any questions or concerns please do not hesitate to contact the Rincon Cultural Resources Department at (760) 297-2635 and they will be happy to assist you.

Thank you for the consideration and opportunity to protect and preserve our cultural resources.

Sincerely,

Rose Duro
Rincon Culture Committee Chairman

Letter C - Rincon Band of Luiseño Indians

C-1 This comment states the that the Rincon Band of Luiseño Indians (hereinafter, "the Rincon Band") is concerned about the potential for impacts to historic and cultural resources that are significant to the Luiseño people and finding culturally significant items that could be disturbed or destroyed during project construction. The Rincon Band indicates that the project is located within the Luiseño Aboriginal Territory. Section 5.b of the Initial Study notes that no evidence of prehistoric occupation was identified within the project site during previous cultural resources studies conducted for the CSUSM Master Plan EIR in 1985 and no previously recorded archaeological resources have been identified on the project site. The project site has little potential for unknown buried archaeological resources, since it has been previously graded and developed and is underlain by compacted fill. Based on these considerations, the potential for impacts to cultural resources is less than significant. Furthermore, in the unlikely event that historical or unique archaeological resources are accidentally discovered during construction, in accordance with Section 15064.5(e) of the CEQA Guidelines, it is campus procedure to have the accidental find immediately evaluated by a qualified archaeologist. If the find is determined to be an historic or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation will be addressed.

The Rincon Band requests to be informed of any and all updates and changes regarding the project. This comment does not address the adequacy or accuracy of information provided in the IS/MND. However, this comment is noted and the Rincon Band will be notified of updates or changes to the project.

May 13, 2014

Mr. Bradley Fenton
Planning, Design, and Construction
California State University San Marcos
333 S. Twin Oaks Valley Road
Craven Hill, Suite 4304
San Marcos, CA 92096-0001

RE: CSUSM Mangrum Track Lighting and Cell Tower Project Mitigated Negative Declaration

Dear Mr. Fenton:

Thank you for giving the City of San Marcos (the "City") an opportunity to comment on the California State University (CSUSM) Mangrum Track Lighting and Cell Tower Project Mitigated Negative Declaration (MND). The City Development Services Department has the following comments on the project:

Under "Land Use and Planning," please consider the following:

> Under subsection "b", it states that, "there is No Impact. The proposed project is located on the CSUSM campus within the City of San Marcos. CSUSM is part of the CSU system, an entity of the State, which is not subject to Municipal plans, policies, or regulations. Thus, the CSUSM campus is not part of or subject to the City of San Marcos General Plan, or other local plans. The adopted Campus Master Plan is the applicable campus land use plan, which contains specific guiding principles for planning and design of the neighborhoods, buildings, parking areas, common areas, and landscaping on campus (CSUSM 1988). Campus development that is consistent with the adopted Campus Master Plan would not have land use impacts. The project proposes the installation of telecommunications equipment and improvements to existing lighting at the Mangrum Track, which would not conflict with the adopted campus Master Plan. The site is identified as a recreation facility in the Master Plan, and the project would not change the land use or affect the function or operations of the track. No associated land use impacts would occur."

D-1

The new lights proposed on the four new light standard poles will serve the athletic and educational needs of the campus with lights installed at 90 feet, with exception of one pole proposed at 119 feet. On the 119 foot pole, lights will be installed at 90 feet and antennas are proposed at 104 and 116 feet. There is an additional 29 feet being added to the light pole, not for an educational purpose, but for the purpose of increasing cellular reception in the project area. This said, the City requests that CSUSM provide further explanation as to how the additional 29 foot vertical height increase, not used for an educational purpose, is not subject to City of San Marcos General Plan and Municipal Code (SMMC) Chapter 20.465 regulating Wireless Telecommunication Facilities within the City of San Marcos.

The MND fails to provide substantial evidence to support that the proposed facility is not subject to Chapter 20.465 of the SMMC. This failure results in a significant impact to an applicable policy or regulation from an agency with jurisdiction over the project, i.e., the City of San Marcos. This said, the

1 Civic Center Drive | San Marcos, CA 92069-2918 | (760) 744-1050 | (760) 591-4135 Fax | www.san-marcos.net

Letter D - City of San Marcos

D-1 This comment addresses the Land Use and Planning analysis in the Initial Study (IS). The comment proposes that the 119-foot cell tower for the purpose of increasing cellular reception in the project area is not for an educational purpose and thus, would be outside of the CSU jurisdiction and subject to Chapter 20.465 of the San Marcos Municipal Code. The proposed 119-foot-tall stadium light standard with telecommunications equipment supports academic uses by providing improved cellular service to students and faculty. As an almost completely wireless campus, CSUSM uses AT&T for campus communications and would be directly benefited by improved cellular reception. AT&T would provide upgraded stadium track lighting designed to National Collegiate Athletic Association (NCAA) Division 2 standards, which would support athletic and educational needs by allowing events and classes to be held at night. Athletics, intramural sports, physical education classes, community events, and campus events are historically an integral part of higher education. Both improved technology and improved lighting allow access for students to university activities and are essential to their education. Based on these considerations and the fact that the cell tower would be installed within the CSUSM campus, under the jurisdiction of CSU, the project is not subject to the City's Wireless Telecommunications

Mr. Bradley Fenton
California State University San Marcos
May 13, 2014
Page 2 of 3

D-1 cont. No Impact finding in the MND is not appropriate. This potential significant land use finding can be mitigated to a level below significant through project compliance with SMMC Chapter 20.465 that would provide project compliance with the applicable City of San Marcos policy or regulation.

Under "Aesthetics", please consider the following:

> The Aesthetics section identifies the visual impact of the new light pole standards as "Less Than Significant stating that "the new 119-foot light standard, although visible from S. Twin Oaks Valley Road, would be visually compatible with existing lighting standards."

D-2 The existing light standards on the campus range in height from 14 to 30 feet, whereas, the proposed light standards would range from 90 to 119 feet. The height increase is a substantial change from the existing light standards. The MND does explain that the light fixtures will be state-of-the art and engineered to reduce light spillage therefore minimizing visual impacts from the new light standard poles. The City does not, however, agree that the visual impacts are less than significant resulting from the antennas proposed at 104 feet and 116 feet on the 119 foot high pole.

> The MND aesthetic section also states that "the visual impact is Less Than Significant Impact as the pole will be similar color and form."

D-3 The reference to color and form, discounts the visual impact of the antennas themselves on the 119 foot high pole, which would be clearly visible from Craven Road, as demonstrated in Figure 6b. This visual impact does require mitigation.

D-4 SMMC Chapter 20.465 is intended to promote a camouflage design of wireless facilities to minimize impacts, including visual. The proposed facility design does not minimize visual impacts through a stealth design. As demonstrated on Figures 6a and 6b in the Aesthetics section of the MND, the proposed antennas on the light standard poles will result in a visual impact from Twin Oaks Valley Road and Craven Road, warranting mitigation. The antennas can be mitigated through a more stealth design including either a shroud or other material to camouflage the antennas, or if this method does not fully mitigate the impact, a more stealth design integrated into a building structure.

D-5 Compliance with SMMC 20.465 would also include substantiation by the applicant that the proposed height is required to provide wireless coverage, etc., and that there is a purpose and need for the proposed wireless design over a more stealth design.

Under "Project Objectives", please consider the following

> The MND states that "the design of the facilities is to be aesthetically pleasing and respectful of the local visual character."

D-6 The proposed project would result in highly visible antennas from S. Twin Oaks Valley Road and Craven Road. The local character along Twin Oaks Valley Road is wireless facilities that are incorporated into a building façade to the west, and not light standard pole with antennas at heights of 104 and 116 feet, as is proposed by the project.

D-7 The City requests the alternative design and location analysis documentation from the applicable wireless provider to demonstrate that other locations and design alternatives were evaluated as part of design

D-1 cont. Facilities Ordinance. As noted in the IS, CSUSM is part of the CSU system and is entity of the State; projects proposed within the campus are not subject to local land use plans or ordinances. No revisions to the IS/MND are required in response to this comment.

D-2 This comment provides a statement in quotations that was not directly taken from the IS/MND regarding the aesthetics analysis and the potential visual impact of the proposed light standards. The aesthetics discussion in Item 1.c of the IS/MND acknowledges that the existing 30-foot-tall light standards surrounding the track would be replaced with light standards that, while taller than the existing light standards, would be similar in color and form and would be visually compatible with the numerous other vertical linear elements in the vicinity. As shown in Figure 6a of the IS/MND, the proposed light standards would not be visually dominant elements or at a scale that would substantially contrast with the existing visual environment from this public viewpoint along South Twin Oaks Valley Road. The proposed light standards would not have a substantial adverse effect on a scenic vista and would not substantially degrade the existing visual character or quality of the site or its surroundings. Therefore, impacts would be less than significant.

D-3 This comment states that the visual impact of the project, as visible from Craven Road, would require mitigation. The cited figure, Figure 6b, is a simulation from the trail adjacent to the track, not from Craven Road. The trail sits at a lower elevation than Craven Road, views from which are better depicted in Figure 6c. As shown in Figure 6c, a northeasterly view from eastbound Craven Road, the rise in elevation and intervening vegetation between the Mangrum Track and Craven Road would mostly shield the proposed light standards and cell tower from view. The proposed project features would not be a dominant visual feature within this viewpoint, and would be smaller in scale than other liner elements in the foreground (e.g., the existing streetlight and stop sign). Accordingly, visual impacts from Craven Road would be less than significant and no mitigation would be required.

D-4 This comment states that the proposed project would result in a visual impact from Twin Oaks Valley Road and Craven Road and should consider a camouflage design to minimize visual impacts, per Chapter 20.465 of the San Marcos Municipal Code. As discussed in response to comments D-2 and D-3, visual impacts resulting from the project would be less than significant from these two public viewpoints. Therefore, no mitigation is required.

D-5 This comment suggests that the analysis include substantiation that the proposed height is required to provide wireless coverage and that there is a purpose and need for the proposed design over a more stealth design. The height of the proposed stadium light standards were determined based on the photometric study prepared for the CSUSM athletic facilities by Musco, referenced in the IS/MND (Musco 2014c). The 90-foot-high poles would provide complete lighting coverage using four stadium light standards, and would comply with the NCAA Division 2 lighting requirements. The cellular equipment height and design is determined by the level of existing coverage and the coverage objective for the area. Facility design should enable the cell tower to interact with others towers in the region, establishing a more reliable network system. Because of the short wavelength of the frequencies assigned by the Federal Communications Commission (FCC) for wireless services, the antennas require line-of-sight paths for their signals to propagate well. According to a coverage analysis conducted by AT&T for the project, the proposed height of 119 feet is based on the lower elevation of the Mangrum track relative to the residential area south of Craven Road along Twin Oaks Valley Road, a difference in elevation of approximately 120 feet. The design of the proposed cell tower is driven by its co-location on one of the light standards. The external, unshrouded antennas that would be affixed to the light standard (up to a height of 119 feet) would be the most the functional and simple design to facilitate maintenance of both the lights and the cell equipment. Other designs were considered, such as the use of shrouds or internal placement of the antennas, but these designs would not be feasible for a single-pole design with the number of antennas proposed because the structural load would be beyond what could be supported by a single pole. Moreover, as described in response to Comment D-1, the project is not required to comply with the San Marcos Municipal Code; therefore, no additional discussion regarding the cell tower height or design is required above and beyond what is already included in the IS/MND.

D-6 This comment states that the project would result in highly visible antennas from South Twin Oaks Valley Road and Craven Road, contrary to the existing character of wireless facilities in the area. As described in Item 1.c of the IS, three of the photosimulations from public viewpoints along adjacent roadways, including South Twin Oaks Valley Road and Craven Road, are provided as part of the visual analysis. As seen in Figure 6a, a southeasterly view from southbound South Twin Oaks Valley Road approximately 800 feet northwest of the project site, the proposed light standards and cell tower do not appear any larger than the existing light standards within the surface parking lots in the foreground of the view. This is even more evident with the view from Craven Road depicted in Figure 6c, in which the light standards and cell tower are almost entirely blocked from view by intervening vegetation and are smaller in scale than other liner elements in the foreground (e.g., the existing streetlight and stop sign). As shown in the simulations, the proposed project would not introduce features that would represent a substantial departure from the existing visual environment in the vicinity of the project site and would thus, be visually compatible with the local visual character. While the proposed light standards and cell tower would be taller and larger in scale than the existing light standards, the project would not substantially degrade the existing visual character or quality of the site or its surroundings.

Mr. Bradley Fenton
California State University San Marcos
May 13, 2014
Page 3 of 3

D-7 cont. development process for the proposed project to determine that the proposed design is the only viable option to meet the project objectives.

D-8 Under the "Required Approval" Section, please consider the following:

Add approval to include: Applicable City of San Marcos permits are required prior to project construction in accordance with San Marcos Municipal Code Chapter 20.465.

D-9 Under the "Public Services" section please consider the following:

1) The proposed Telecommunications Equipment, Cell Tower, and antennas, shall not cause interference with San Marcos Fire Protection District (SMFPD) signal communications.

D-10 2) A minimum 20 foot wide, all weather Emergency Access Road, designed to support a minimum 75,000 lbs, must be provided to access both the equipment and generator structures.

D-11 3) The proposed 210-Gallon diesel generator must be designed with Secondary Containment for the fuel supply.

D-12 4) Emergency access to both structures must be provided for the SMFPD access. A Knox Key box shall be installed on the 360 square foot equipment shelter with master keys to access both the telecommunications equipment and generator structures.

D-13 5) Please Provide Fuel Modification (as needed) within 30 feet of the equipment shelter and generator enclosure structures. The fuel modification will be minimal and only require thinning of trees or vegetation as needed.

D-14 6) An NFPA 704 placard will be required to be affixed to the generator enclosure building and equipment shelter.

D-15 The City requests review of the responses to these comments prior to adoption of the Mangrum Track Lighting and Cell Tower Project Mitigated Negative Declaration. The City also requests notification of when action will be taken on the Final MND, and a copy of the documentation of final approval for this action by CSUSM. Please feel free to contact Susan Vandrew Rodriguez in the Planning Division at (760) 744-1050 extension 3237 or svandrew@san-marcos.net to discuss our comments.

Sincerely,

Jerry Backoff
Planning Division Director

cc: Natalia Shparber, Attorney, Telecom Law Firm
Robert Scott, Division Chief/Fire Marshal
Karen Brindley, Principal Planner
Susan Vandrew Rodriguez, Associate Planner
Sean del Solar, Assistant Planner

D-7 This comment requests City review of alternative design and location analysis documentation to demonstrate that other locations and design alternatives were evaluated for the project. AT&T conducts design and location analyses for proposed facilities and determined that the project as designed would provide an academic benefit for the campus by providing enhanced lighting at the Mangrum Track while accomplishing the objective of increased cellular reception in the project area. It should be noted that CEQA does not require discussion and analysis of project alternatives in an IS/MND, per Sections 15063(d) and 15071 of the State CEQA Guidelines.

D-8 This comment suggests that applicable City of San Marcos permits (per Chapter 20.465 of the San Marcos Municipal Code) be added to the "Required Approval" section of the IS. As described in response to Comment D-1, the project is not subject to this City ordinance and would not be required to obtain permits prior to construction. No revisions to the IS/MND are required in response to this comment.

D-9 This comment suggests that the "Public Services" section of the IS should be revised to state that the proposed telecommunications equipment, cell tower, and antennas shall not cause interference with the SMFPD signal communications. As a matter of project design, the frequencies utilized for the cell equipment would not interfere with those typically used for emergency services, including SMFPD communications. As part of the final project design process, CSUSM and AT&T will coordinate with the SMFPD to ensure that their communications will not be affected by the proposed project. No revisions to the IS/MND are required in response to this comment.

D-10 This comment suggests that the "Public Services" section of the IS should be revised to state that a minimum 20-foot-wide, all weather emergency access road be provided to access the equipment and generator structures. The project has been designed to provide an appropriately sized access road for vehicles to access to the equipment shelter; however, since the telecommunications equipment would be installed on a 119-foot-tall light pole constructed adjacent to the existing Mangrum

D-10 cont. Track, standard vehicle access may not be provided. CSUSM and AT&T would coordinate with the SMFPD and the State Fire Marshall to ensure that adequate access is provided. No revisions to the IS/MND are required in response to this comment.

D-11 This comment suggests that secondary containment for the generator fuel supply should be designated in the "Public Services" section of the IS. The project would comply with applicable requirements regarding the proposed generator as a matter of project design. No revisions to the IS/MND are required in response to this comment.

D-12 This comment suggests that the "Public Services" section of the IS should be revised to state that emergency access to both structures must be provided for SMFPD access and that a Knox Key box be installed on the equipment shelter with master keys to access both the telecommunications equipment and generator structures. The project would be designed to comply with applicable SMFPD requirements, and CSUSM and AT&T would coordinate with the SMFPD to ensure that adequate access would be provided. No revisions to the IS/MND are required in response to this comment.

D-13 This comment suggests that fuel modification should be provided, as needed, within 30 feet of the equipment shelter and generator enclosed structures. CSUSM and AT&T would coordinate with the SMFPD and the State Fire Marshall to ensure that adequate fuel modification is provided. No revisions to the IS/MND are required in response to this comment.

D-14 This comment suggests that the "Public Services" section of the IS should be revised to state that a NFPA 704 placard should be required to be affixed to the equipment shelter. As described in Item 8.a-b of the IS, transport, use, and disposal of hazardous materials associated with the project would be conducted in accordance with applicable federal and State laws, including display of a NFPA 704 placard, as applicable. No revisions to the IS/MND are required in response to this comment.

D-15 This comment states that the City requests review of the responses to the above comments prior to adoption of the Final MND and also requests notification of when action will be taken on the Final MND and a copy of documentation of final approval for this action by CSUSM. CSUSM will continue to notify the City regarding the actions taken on the Mangrum Track Lighting and Cell Tower Project, including the IS/MND. This Final IS/MND will be provided to the City at least 10 days prior to the CSU Board of Trustee meeting to consider the adoption of this Final IS/MND. The City will also receive notice of the date of the decision on the Final IS/MND. Documentation of the final approval of the project and adoption of the IS/MND will be available to the public, including the City.

From: C Signorino [mailto:responsiblecell@gmail.com]
Sent: Thursday, April 17, 2014 4:40 PM
To: Bradly Fenton
Subject: CSUSM must post a clear and concise "cell tower warning notice"

o [ ]
bfenton@csusm.edu

Dear Brandy Fenton,

E-1 CSUSM must post a clear and concise "cell tower warning notice" stating that the University is planning to install a Macro Cell Tower on campus. Be honest, a "negative declaration" notice is not fulfilling your communication obligation to your student's and facility.

E-2 We are a San Marcos (SM) citizen groups fighting cell pollution. This pollution can be harmful to people and wildlife, is man-made and is increasing in levels, amounts and areas.

The World Health Organization (WHO) has said microwave radiation is a potential carcinogen. The FCC guidelines allow 10 times more microwave radiation then what is allowed in most of the world. So your student's and facility will understandably be concerned, they must be made aware of this plan since it creates environmental and visual blight and safety concerns.

E-3 Today nationally, there are 301,779 cell sites and 100 sites within SM alone, all emitting microwave energy 24/7. The FCC, the Cell Companies and the City are not regulating each of these cell sites. These macro towers can emit up to 7000 watts of micro wave energy, can transmit signals over 40 miles and the RF amounts can be turned up remotely by the cell companies.

E-4 In San Marcos the cell companies are hiding and erecting massive multiple "macro cell sites" next to our homes and schools. This is not good. San Marcos residents have asked for at least 1000 feet of visual separations between these towers and people based on data AT&T provided the City with their San Elijo permit application. Note this AT&T permit was for placing their Macro cell tower just 350 feet from homes and the City approved this permit. Go figure.

E-5 Please make sure you notify the student's and facility of what is being planned and that WHO labeled microwave radiation as a potential carcinogen.

Be open and honest and make sure you fulfill your communication obligation - the benefits and risks. "Responsible Cell" will help you with the notice and any information or planning needs.

responsiblecell@gmail.com
760-736-8404

Letter E - Responsible Cell

E-1 This comment requests that a "cell tower warning notice" for installation of the proposed cell tower be posted on campus and states that a "'negative declaration' notice is not fulfilling your communication obligation to your student's and facility." The proposed project has completed the communication procedures required by Section 15072 of the State CEQA Guidelines, including providing a Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration to the public (via a newspaper article published in the North County Times edition of the San Diego Union-Tribune, dated April 14, 2014), as well as responsible and trustee agencies and the San Diego County Clerk. The NOI was sent to organizations and individuals who have previously requested such notice in writing and that are typically on the distribution list for CSUSM. This distribution list is provided in the Final MND. A copy of the Draft IS/MND was made available online during the 30-day public review period from April 14, 2014 through May 13, 2014 at: http://www.csusm.edu/pdc. The Draft IS/MND and associated appendices were also available for review during regular business hours at the CSUSM Planning, Design and Construction office located in Craven Hall on the CSUSM campus (333 South Twin Oaks Valley Road, San Marcos, CA 92096).

E-2 This comment states that emissions from cell towers have harmful effects on people and wildlife. The effects of radio frequency (RF) emissions from wireless telecommunications facilities are addressed in Item 8.c of the IS. As noted therein, the project would be in compliance with the FCC rules, regulations, and standards for the maximum permissible exposure allowable to the general public from RF emissions. The project would implement Mitigation Measure HAZ-1, which requires the installation of an emissions cut-off switch and posting of signs regarding safety precautions near the cellular telecommunications antenna in accordance with FCC regulations at the time of installation of the equipment. This

E-2 cont. would ensure that potentially significant impacts related to hazardous emissions would be less than significant.

As noted in response to Comment E-1 above, the project provided notice of the project in compliance with State CEQA Guidelines Section 15072. Effects of the project on environmental and visual effects, as well as safety concerns, are addressed in the project IS/MND. Specifically regarding visual effects, refer to Item 1 of the IS, which indicates that the project would have less than significant effects to scenic vistas, scenic resources located within a state scenic highway, and the existing visual character and quality of the campus and its surroundings. Safety concerns are addressed in Item 8.c, as described above.

E-3 This comment provides information on the number of cell sites in the nation, as well as in San Marcos and notes that the FCC, cell companies, and the City of San Marcos are not regulating each of these sites. The comment also provides an estimate of the amount of microwave energy the cell towers can emit. Contrary to the comment, the FCC, cell companies, and the City of San Marcos regulate cell sites. As described in Item 8.c of the IS, Section 704 (the National Wireless Telecommunications Site Policy) of the Telecommunication Act of 1996 requires facilities to comply with FCC regulations concerning RF emissions exposure. The proposed wireless telecommunication facility would be regulated by AT&T per the rules, regulations, and standards established by the FCC.

E-4 This comment does not address the adequacy or accuracy of information provided in the Draft IS/MND. No further response is required.

E-5 Please refer to response to comment E-1 regarding notification of the project per the State CEQA Guidelines and response to Comment E-2 regarding potential safety concerns.

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RESPONSES TO PUBLIC COMMENTS

Comment Letters Received

The following parties submitted written comment letters to CSUSM during the 30-day public review period on the Draft IS/MND (April 14, 2014 – May 13, 2014). The name of the commenter and date of the letter is provided below.

A. Governor's Office of Planning and Research (May 14, 2014)
B. Department of California Highway Patrol (May 9, 2014)
C. Rincon Band of Luiseño Indians (May 7, 2014)
D. City of San Marcos (May 13, 2014)
E. Responsible Cell (April 17, 2014)

The comment letters received on the Draft IS/MND have been numbered and CSUSM has provided a written response to each numbered comment. The comment letters and responses are provided on the following pages in side-by-side format. The numbered comments are provided on the left side of the page and CSUSM's response is provided on the right side of the page opposite each comment.

Revisions to the Draft IS/MND

None of the comment letters received during the Draft IS/MND public review period contained comments that resulted in changes to the Draft IS/MND.

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ACRONYMS AND ABBREVIATIONS

AAQS	Ambient Air Quality Standards
AB	Assembly Bill
AMSL	above mean sea level
Basin	San Diego Air Basin
BMPs	best management practices
CAA	Federal Clean Air Act of 1970
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act of 1988
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFCs	chlorofluorocarbons
CH_4	methane
City	City of San Marcos
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CSUSM	California State University San Marcos
dBA	decibels on the A-scale
DTSC	Department of Toxic Substances Control
EO	Executive Order
°F	degrees Fahrenheit
fc	foot candle
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
GHGs	greenhouse gases
GPS	global positioning system
HCP	Habitat Conservation Plan
HFCs	hydrofluorocarbons
HMBP	Hazardous Materials Business Plan
I-	Interstate
IS	Initial Study

kW	kilowatt
kWh	kilowatt hours
lbs	pounds
L_{eq}	noise equivalent
MHCP	North County Multiple Habitat Conservation Program
MND	Mitigated Negative Declaration
MRZ-3	Aggregate Mineral Resource Classification Zone Category 3
MT	metric tons
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NCCP	Natural Community Conservation Plan
NO_2	nitrogen dioxide
NOx	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
OSHA	Occupational Safety and Health Administration
Pb	lead
PFCs	perfluorocarbons
PM_{10}	particulate matter (10 microns or less in diameter)
$PM_{2.5}$	particulate matter (2.5 microns or less in diameter)
RAQS	Regional Air Quality Strategy
RRUs	remote radio units
RWQCB	San Diego Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SDAPCD	San Diego Air Pollution Control District
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SO_2	sulfur dioxide
SR-	State Route
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USFWS	U.S. Fish and Wildlife Service
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VOC	volatile organic compound

INITIAL STUDY AND ENVIRONMENTAL CHECKLIST

BACKGROUND DATA

1. Project Title:	California State University San Marcos Mangrum Track Lighting and Cell Tower Project
2. Lead Agency Name and Address:	California State University Board of Trustees 401 Golden Shore Long Beach, California 90802-4210
3. Contact Person and Phone Number:	Bradly Fenton Director, Planning, Design, and Construction (760) 750-4659
4. Project Location:	The proposed project is located at the CSUSM Mangrum Track, located north of Campus View Drive, west of Campus Way, and northwest of Chavez Circle. The CSUSM campus is located in the City of San Marcos (City) in northern San Diego County.
5. Project Sponsor's Name/Address:	California State University San Marcos 333 Twin Oaks Valley Road Craven Hall 5111 San Marcos, CA 92096

I. INTRODUCTION

The following Initial Study addresses the environmental impacts associated with the construction and operation of four new stadium light standards and cell tower facilities at the CSUSM Mangrum Track (herein referred to as "proposed project" or "project"). This Initial Study (IS) has been prepared in accordance with the *California Environmental Quality Act of 1970,* as amended, (CEQA; Public Resources Code Sections 21000 through 21177) and the *State CEQA Guidelines.* CSUSM is the Lead Agency for the purposes of CEQA for this project.

CSUSM is proposing to remove the metal halide light fixtures (30 foot candles[1] [fc] each) from eight approximately 30-foot-tall light standards[2] (pole and existing fluorescent fixtures to remain) and install one 119-foot-tall stadium light standard with telecommunications equipment and three 90-foot-tall stadium light standards (75 fc each) at the Mangrum Track located in the northern portion of the CSUSM campus (CSUSM 2014). The project also would include construction and/or installation of an equipment storage shelter, global positioning system (GPS) antennas, and utility connections.

[1] A foot candle is a unit of measure of the intensity of light falling on a surface, equal to one lumen per square foot.
[2] For the purposes of this IS, a light standard is comprised of a pole and the attached light fixtures.

II. ENVIRONMENTAL SETTING

Project Location

The proposed project is located at the CSUSM Mangrum Track, located north of Campus View Drive, west of Campus Way, and northwest of Chavez Circle (Figures 1 and 2). The CSUSM campus is located in the City of San Marcos in northern San Diego County. Regional access is provided to CSUSM via Interstate 15 (I-15) and State Route 78 (SR-78). The North County Transit District's SPRINTER also provides light rail transit services to CSUSM with a station serving the campus. The CSUSM campus is approximately one-half mile south of SR-78 and is bounded by South Twin Oaks Valley Road to the west, East Barham Drive to the north, La Moree Road and residential development to the east, and residential development and undeveloped hillsides to the south.

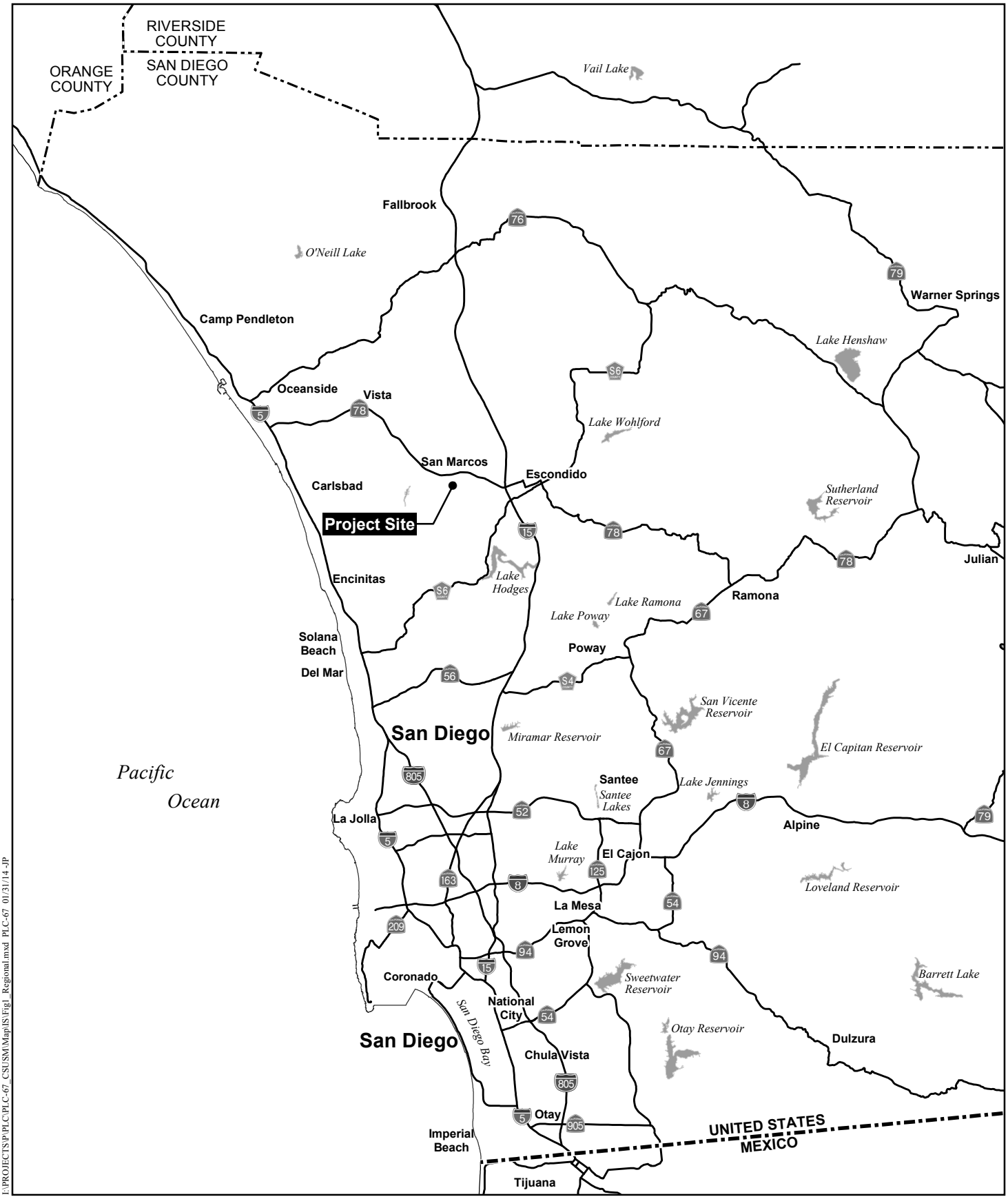
Existing Conditions and Surrounding Land Uses

The project site is comprised of the Mangrum Track, which currently includes an existing track, soccer field, long jump pits, throwing areas, grass turf areas, and both 30-foot-high and 14-foot-high light standards (Figure 3). Pedestrian access to the project site from South Twin Oaks Valley Road and Craven Road is provided via a paved pathway and concrete walkway, respectively. The project site ranges in elevation from approximately 615 to 685 feet above mean sea level (AMSL).

The Mangrum Track is bordered by Campus View Drive to the east and Craven Road to the south. The project site is located within an area planned for athletic and recreational uses (CSUSM 1988). Existing on-campus facilities within the immediate vicinity of the project site include soccer and baseball fields to the north, the Clarke Field House to the northeast, the McMahon House to the west, and surface parking lots just south of Craven Road. The Clarke Field House is the recreation facility for the CSUSM campus, and includes a fitness center, multi-purpose gymnasium, and basketball and volleyball courts. The McMahon House is an event and conference center that occupies 3,200 square feet in four buildings used to host events and campus activities. Three surface parking lots are located east and south of the McMahon House facilities. The project is located less than 250 feet west of the Campus Center, which is located on the other side of Campus View Drive and includes the Kellogg Library, campus transit center, and open space. South of the Campus Center are the campus administration buildings.

The 304-acre CSUSM campus is surrounded primarily by single- and multi-family residential neighborhoods. Retail and commercial office buildings are located to the north and west of the campus. Commercial/light industrial land uses, including the San Marcos Industrial Park, are located to the north. Across SR-78 is the City of San Marcos Civic Center.

The project is located in the northwestern portion of San Diego County, and within the San Diego Air Basin (Basin). The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountain ranges to the east. The boundary of the Basin is coincident with the County boundary. The topography in the Basin region varies greatly, from beaches on the west, to mountains and then desert to the east. Much of the topography in between consists of mesas intersected by canyons, which includes CSUSM and the



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Regional Location Map

CSUSM MANGRUM TRACK LIGHTING AND CELL TOWER

HELIX Environmental Planning

N 0 8 Miles

Figure 1

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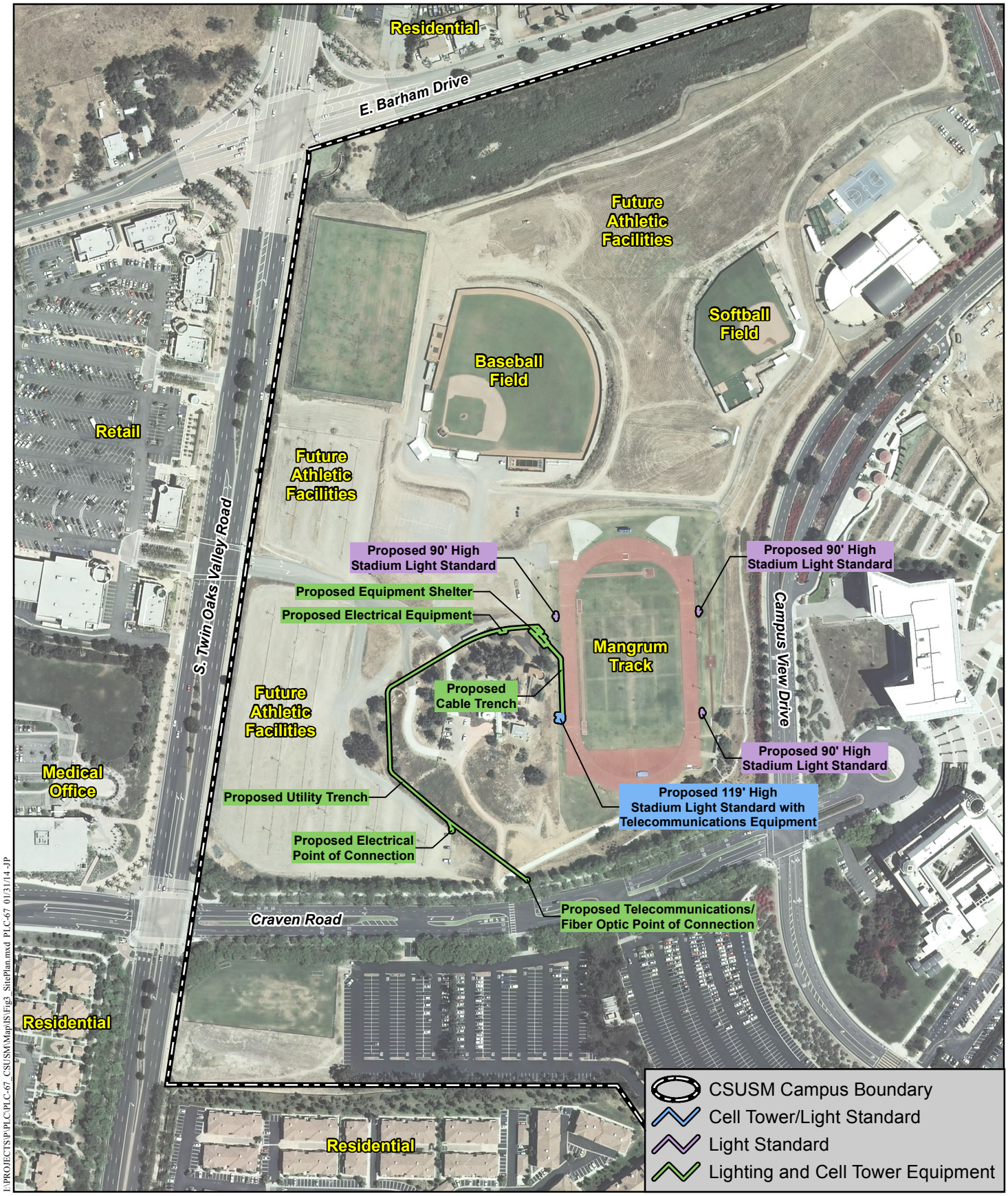
Project Vicinity Map and Surrounding Uses

CSUSM MANGRUM TRACK LIGHTING AND CELL TOWER

HELIX Environmental Planning

N 0 2,000 Feet

Figure 2



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Site Plan

CSUSM MANGRUM TRACK LIGHTING AND CELL TOWER

HELIX Environmental Planning

N

0 300 Feet

Figure 3

project site. The climate of the Basin is characterized by warm, dry summers and mild winters. During fall, the region often experiences dry, warm easterly winds, locally referred to as Santa Ana winds, which raise temperatures and lower humidity, often to less than 20 percent. Rainfall in the Basin averages approximately 9 to 14 inches annually. The heaviest precipitation occurs in November through April. The mean annual air temperature is 62.2 degrees Fahrenheit (°F), and the mean maximum and mean minimum temperatures are 75.7°F and 48.5°F, respectively.

III. PROJECT DESCRIPTION

Project Characteristics

The project entails the installation of one 119-foot-tall stadium light standard with telecommunications equipment and three 90-foot-tall stadium light standards at the Mangrum Track, plus an equipment storage shelter, GPS antennas, and utility connections (refer to Figures 3 and 4). The proposed 119-foot-tall light standard would be located on the southwest side of Mangrum Track with the following telecommunications equipment mounted to it: 16 mobility panel antennas, 40 remote radio units (RRUs[3]), and 8 surge suppressor units.[4] A set of 12, 8-foot-high panel antennas would be mounted at the top of the light standard; another set of 4, 6-foot-high panel antennas would be installed 3 feet below. The RRUs and surge suppressor units would be installed among the antenna equipment. The stadium light fixtures would be installed 10 feet below the set of 4 panel antennas, at a height of approximately 90 feet.

Two of the three proposed 90-foot-tall stadium light standards would be installed on the east side of the track, and the other would be installed on the northwest side of the track. Stadium light fixtures would be mounted at the top of the standards (refer to Figure 4). The proposed Light-Structure Green™ lighting design would include light fixtures with state-of-the-art glare shield protection and engineered reduced light spillage technology to reduce the amount of outward spill light (Figure 5). The proposed fixtures would utilize a technology that provides, on average, a greater than 50 percent reduction in light spill and uses 40 percent less energy as compared to typical field lighting. The eight existing metal halide light fixtures surrounding the track would be removed, while the 30-foot-tall light standards with fluorescent lights (similar to street lights) would be retained for general illumination at the track facilities (CSUSM 2014).

The project would construct a 360-square-foot concrete block equipment shelter with an adjoining 200-square-foot concrete block generator enclosure west of the track between the track and McMahan House building (refer to Figure 4). The equipment shelter would have a maximum height of 13.5 feet and be constructed on a new concrete pad. The equipment shelter would house mobility system racks, equipment cabinets, condenser units, and other equipment associated with the proposed cell tower. Three GPS antennas would be mounted to the roof of the shelter, inside the parapet. A 50-kilowatt (kW), 210-gallon diesel tank generator would be placed inside the generator enclosure to provide a back-up energy source. The equipment shelter would be painted a neutral color approved by CSUSM to blend in with the surrounding environment. Exterior light fixtures at the equipment shelter would be uni-directional, shielded and situated so as to not cause glare or excessive light spillage into the surrounding area.

[3] RRUs are radio transceivers that handle mobile subscriber calls.
[4] Surge suppressor units provide protection from electrical overvoltage damage caused by lightning strikes.

Other associated electrical equipment, including a transformer, switch gear, and meter pedestal, would be housed in an equipment storage just west of the equipment shelter (refer to Figure 4). Trenching for utility lines (i.e., telecommunications, fiber optics, and electrical) would be required. Utility lines would be connected from the cell tower to the equipment shelter and from the equipment shelter to an existing telecommunications pedestal and electrical vault. Existing landscaping removed by construction of the proposed project would be replaced.

Operation of the proposed project would consist of wireless radio transmissions for cellular phones, including voice and data transmission. The facility would operate 24 hours a day, 7 days a week. Approximately one site visit per month would be required for a routine maintenance check on the facility.

Project Construction

Construction of the proposed project would require a crane to erect the light standards, a cement truck to lay the concrete pad, and worker vehicles. While no grading would be required, the proposed project would include minor trenching for utility lines. A trench for coaxial cable would be constructed along the west side of the track between the equipment shelter and 119-foot-tall light standard. Another trench for electrical and telecommunications would be constructed between the equipment shelter and existing utility service lines near the track. The total construction period would be completed in approximately 110 working days.

Project Objectives

The primary objective of the project is to increase cellular reception in the project area. Specific project objectives include:

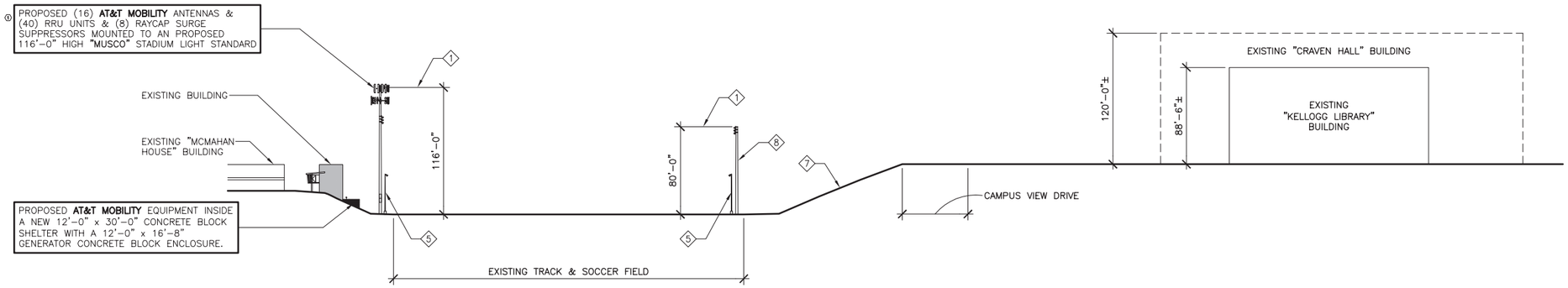
- Install a cellular telecommunications site at the Mangrum Track to increase cellular reception in the project area
- Provide enhanced lighting for the Mangrum Track
- Design facilities to be aesthetically pleasing and respectful of local visual character
- Conceal mechanical equipment and devices associated with wireless facilities in unobtrusive structures

Required Approvals

California State University is the Lead Agency under CEQA and is responsible for ensuring the adequacy of this Final IS/MND. The project is a "discretionary project," which is defined in CEQA Guidelines Section 15357 as "a project that requires the exercise of judgment or deliberation when the public agency or body decides to approve or disapprove a particular activity." The following discretionary action is associated with the project:

- CSU Project Approval (Schematic Plans)

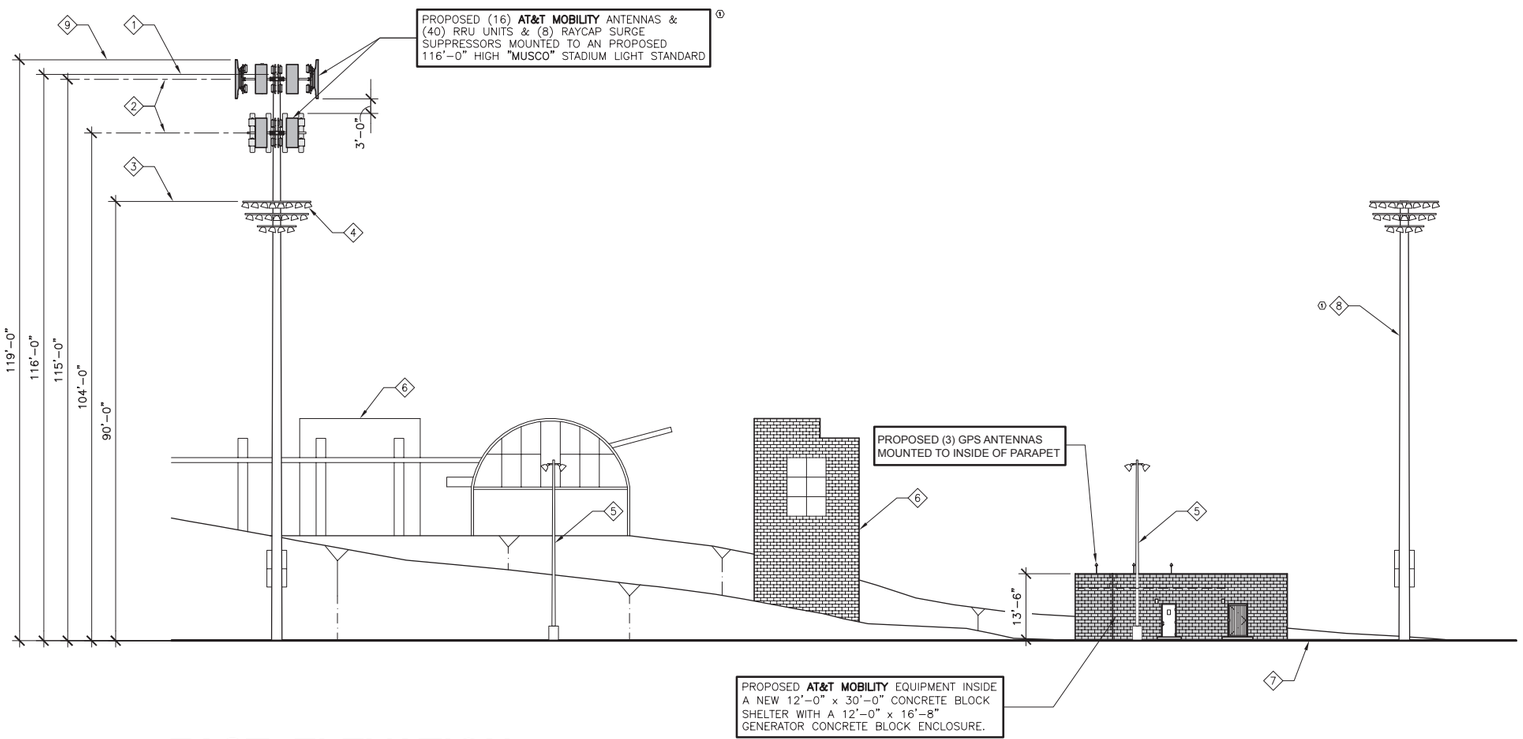
The project also may require a National Pollutant Discharge Elimination System (NPDES) Construction Permit by the San Diego Regional Water Quality Control Board (RWQCB).



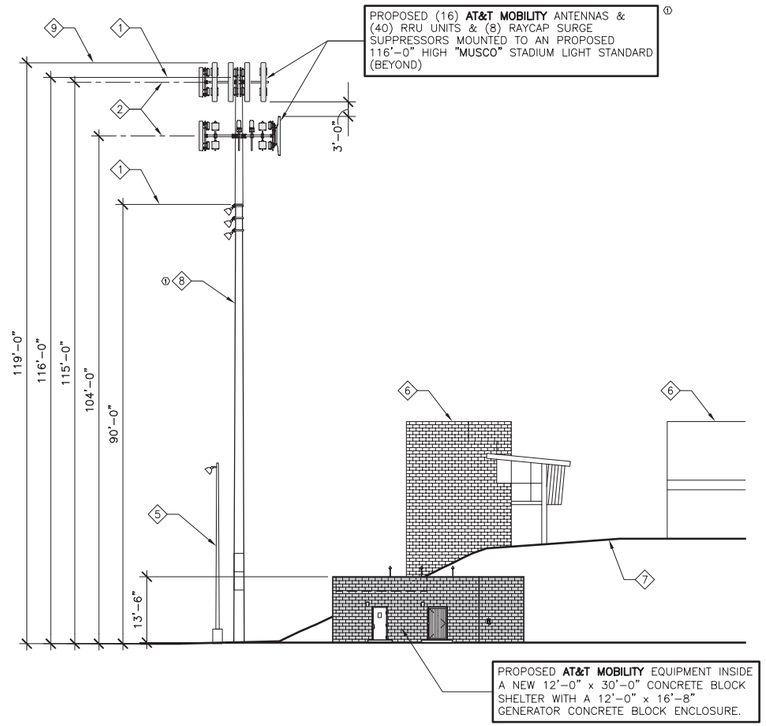
SITE PROFILE

KEY NOTES:

1. TOP OF LIGHT STANDARD
2. CENTERLINE OF **AT&T MOBILITY** ANTENNAS
3. TOP OF STADIUM LIGHTS
4. PROPOSED STADIUM LIGHT FIXTURES
5. EXISTING LIGHT STANDARD
6. EXISTING BUILDING
7. EXISTING GRADE
8. ① PROPOSED 90'–0" HIGH "MUSCO" STADIUM LIGHT STANDARD
9. TOP OF **AT&T MOBILITY** ANTENNAS



EAST ELEVATION



NORTH ELEVATION

Source: Booth & Suarez 2013

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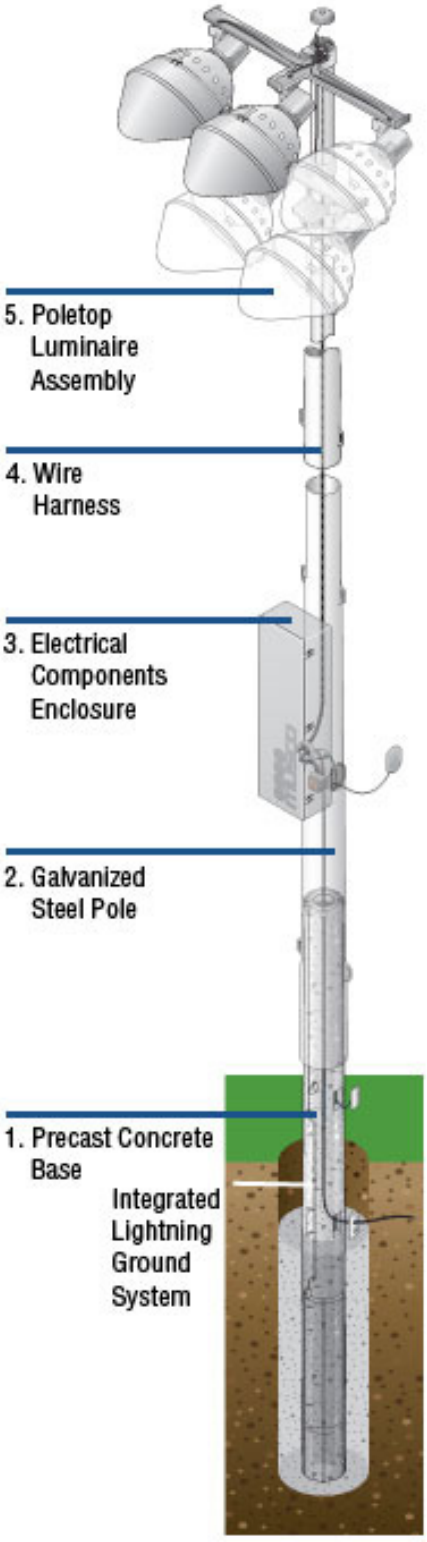
Site Profile and Elevations

CSUSM MANGRUM TRACK LIGHTING AND CELL TOWER

Figure 4

HELIX Environmental Planning

Innovative photometric improvements of the luminaire result in substantially more efficient light control.



Source: Musco 2014a

Proposed Stadium Light Standard Concept

CSUSM MANGRUM TRACK LIGHTING AND CELL TOWER

HELIX Environmental Planning

Figure 5

Public Review Process

The Draft IS/MND and associated appendices is available for review on the CSUSM Planning, Design and Construction website at http://www.csusm.edu/pdc. The Draft IS/MND and associated appendices were available for public review during regular business hours at the CSUSM Planning, Design and Construction office located in Craven Hall on the CSUSM campus (333 South Twin Oaks Valley Road, San Marcos, CA 92096).

Comments made on the Draft IS/MND in writing during the 30-day comment period (April 14, 2014 through May 13, 2014) were responded to in the Responses to Public Comments section of the Final IS/MND. Written comments on the Draft IS/MND were submitted to:

Bradly Fenton, Director
Planning, Design and Construction
California State University San Marcos
333 South Twin Oaks Valley Road, Craven Hall 5111
San Marcos, CA 92096-0001
Fax: (760) 750-4656

The Board of Trustees will consider the Final IS/MND and the comments thereto in determining whether to approve the proposed project. Board of Trustees meetings are held every two months at the CSU Chancellor's Office (401 Golden Shore, Long Beach, CA 90802). The tentative date for approval of the IS/MND by the CSU Board of Trustees is July 22, 2014. Please contact the CSU Capital Planning, Design and Construction office at (562) 951-4143 to confirm the date/time of the agenda item for the proposed project.

IV. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

V. DETERMINATION

On the basis of this initial evaluation that follows:

☐ The proposed project is exempt from CEQA pursuant to the general exemption (CEQA Guidelines, 15061 (b)(3)), a statutory exemption, and/or a categorical exemption, and that if a categorical exemption, none of the exceptions to the exemption apply. A NOTICE OF EXEMPTION will be prepared.

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

■ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental document is required. FINDINGS consistent with this determination will be prepared.

Signature

7.1.14

Date

Bradly Fenton
Director, Planning, Design, and Construction

VI. EVALUATION OF ENVIRONMENTAL IMPACTS

This section evaluates the potential environmental effects of the proposed project using the environmental checklist from the State CEQA Guidelines as amended. The definitions of the response column headings include the following:

A. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

B. "Less Than Significant Impact With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

C. "Less Than Significant Impact" applies where the project creates no significant impacts, only less than significant impacts.

D. "No Impact" applies where a project does not create an impact in that category. "No Impact" answers do not require an explanation if they are adequately supported by the information sources cited by the lead agency which show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

1. Aesthetics

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

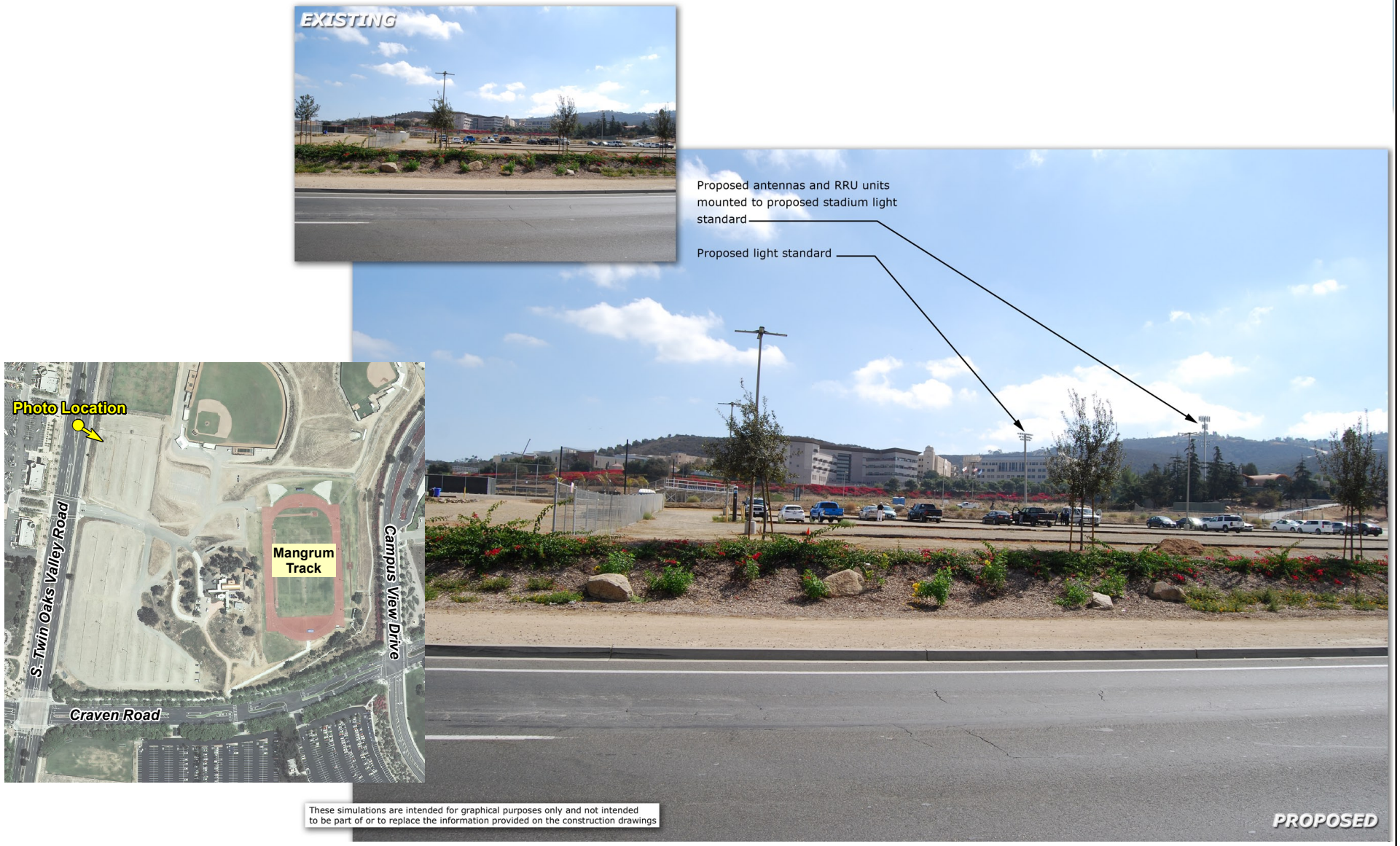
Discussion

a. **No Impact**. Scenic resources in the City of San Marcos include views to and from undeveloped hillsides, prominent ridgelines, and water features (City of San Marcos 2013a). No designated scenic resources are located within or in close proximity to the campus. The closest identified scenic resource is a ridgeline near South Lake, approximately 0.75 mile to the south. Due to distance from designated scenic resources and the relatively small scale of the project, the proposed project would not block views of ridgelines or other designated scenic vistas. No impact would occur.

b. **No Impact**. There are four officially designated state scenic highways in San Diego County, including SR-75 through Coronado and over the Coronado Bridge, SR-78 through the Anza-Borrego Desert, SR-125 between SR-94 and I-8 near Mount Helix, and SR-163 through Balboa Park. The project site is located over 25 miles away from the closest of the four highway segments. Within the project area, SR-78 is designated by the City as a view corridor, but is not a designated state scenic highway. Due to the distance of the project from these scenic highways, no impact would occur.

No prominent or landmark visual resources, such as stands of mature trees, large or unique rock outcroppings, historic structures, or community landmarks, occur on the project site. While some trees and groundcover could be removed with construction of the proposed project, these would be replaced upon completion of project construction. As such, no impacts to scenic resources would occur.

c. **Less Than Significant Impact**. The proposed project would be located at an existing track, which currently has 30-foot light standards surrounding the track. Eight of the existing light standards have 30 fc metal halide stadium light fixtures in addition to fluorescent lights used for general illumination. Installation of four stadium light standards and cellular equipment, and the addition of a new outbuilding near the Mangrum Track, would not result in a substantial change from the existing visual setting of the site (refer to Figures 6a through 6d). Four visual photosimulations have been prepared that depict the existing visual setting from key views adjacent to and within the project site with the addition of the proposed project features. Three of the photosimulations are from public viewpoints along adjacent roadways, including South Twin Oaks Valley Road and Craven Road. The other photosimulation is from an on-campus viewpoint directly adjacent to the Mangrum Track. Figure 6a represents a southeasterly view from southbound South Twin Oaks Valley Road, located approximately 800 feet northwest of the project site. As depicted in this photosimulation, the proposed stadium light standards would be visible to viewers traveling along South Twin Oaks Valley Road, but would be visually compatible with existing light standards within the surface parking lots in the foreground of the view and other vertical linear elements within the existing visual environment. Figure 6b provides a northerly view of the Mangrum Track facilities from the sidewalk located just south of the track along Craven Road. While the proposed light standards would be taller than the existing light standards, they would be similar in color and form. The proposed light standards would be visually compatible with the numerous other vertical linear elements, including the eight standards that would remain, within this viewpoint.



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Source: PlanCom 2013

Photosimulation of Proposed Telecommunications Structures

CSUSM MANGRUM TRACK LIGHTING AND CELL TOWER

HELIX Environmental Planning

Figure 6a

Source: PlanCom 2013

Photosimulation of Proposed Telecommunications Structures

CSUSM MANGRUM TRACK LIGHTING AND CELL TOWER

HELIX Environmental Planning

Figure 6b

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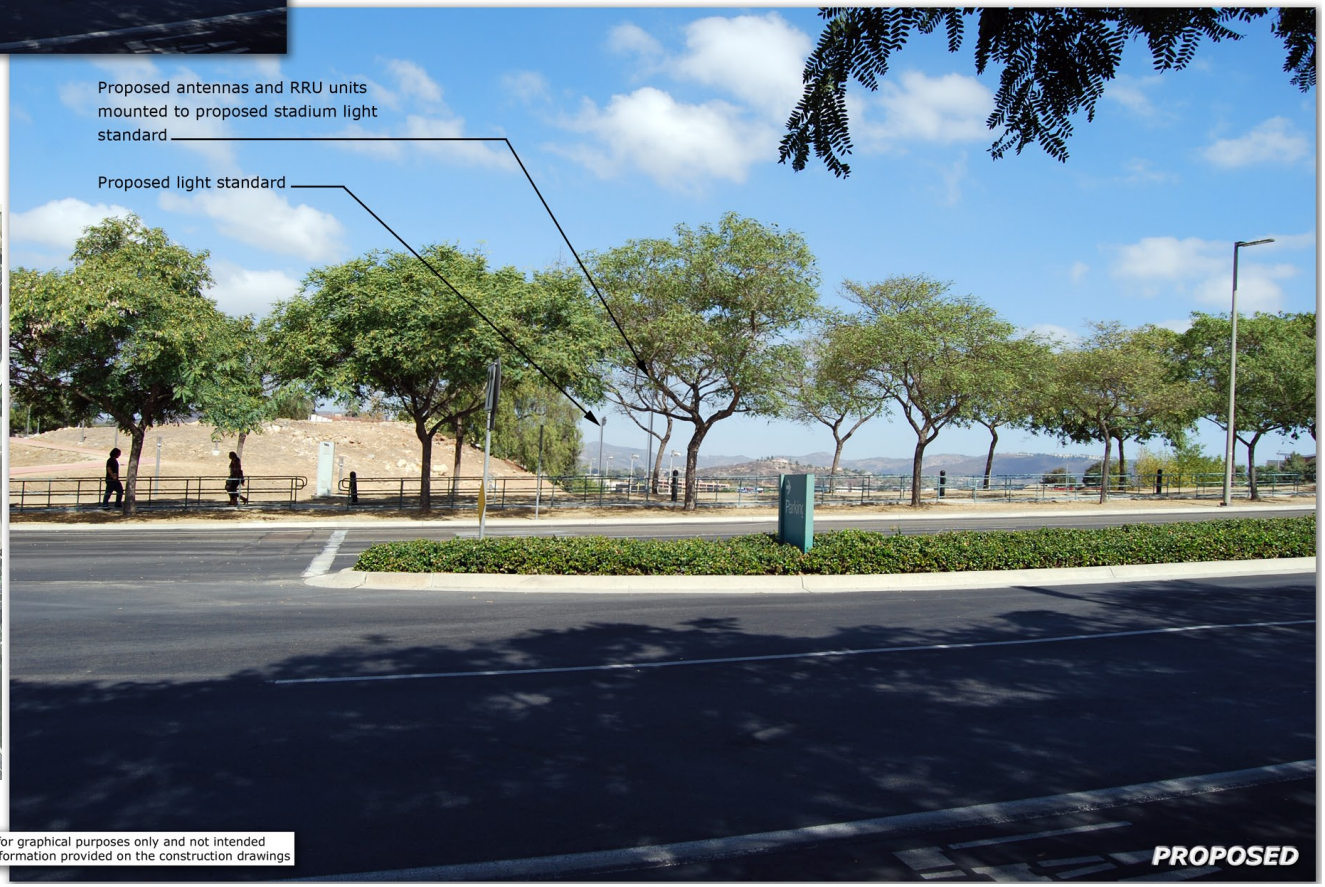

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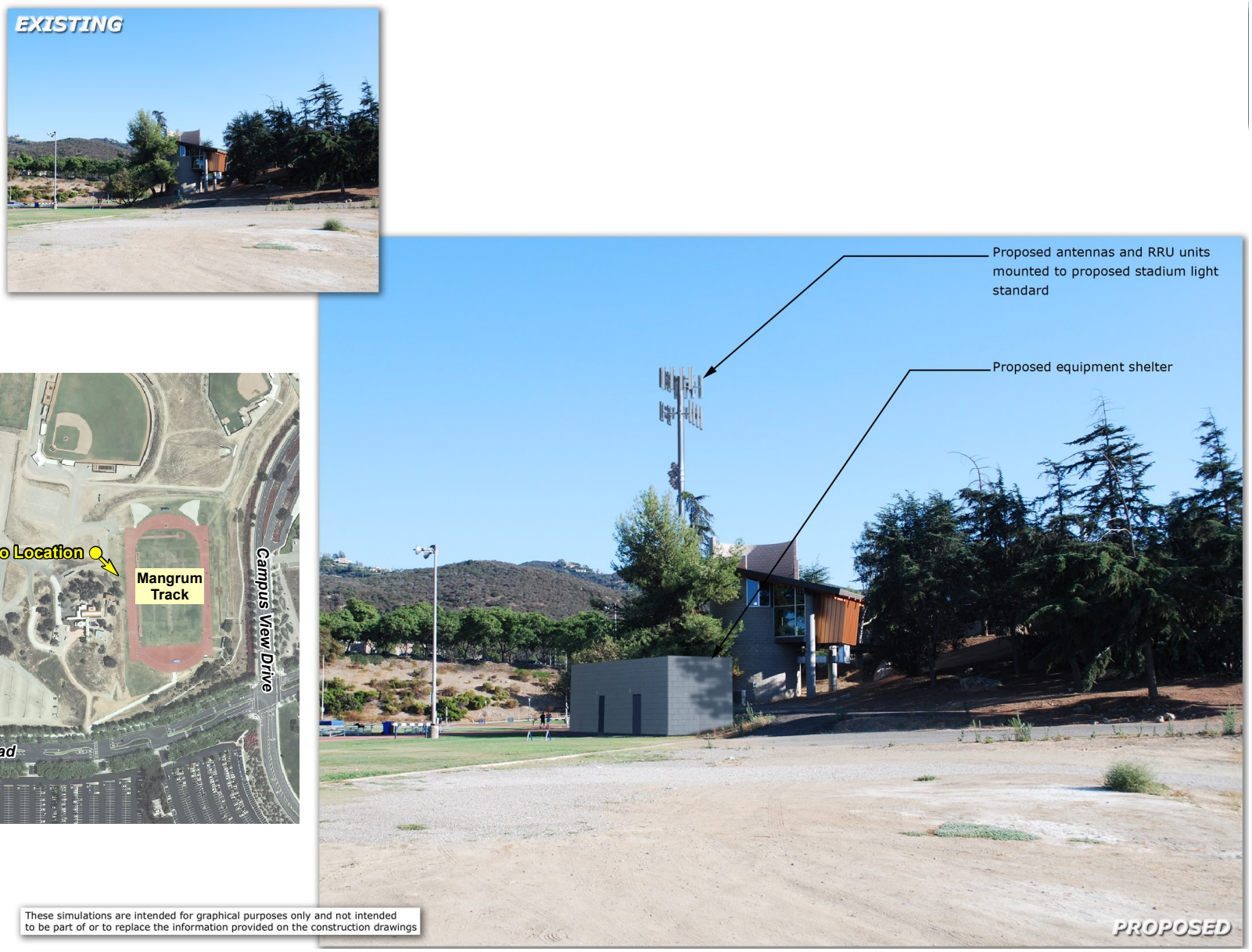
Source: PlanCom 2013

Photosimulation of Proposed Telecommunications Structures

CSUSM MANGRUM TRACK LIGHTING AND CELL TOWER

HELIX Environmental Planning

Figure 6c



Source: PlanCom 2013

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Photosimulation of Proposed Telecommunications Structures

CSUSM MANGRUM TRACK LIGHTING AND CELL TOWER

HELIX Environmental Planning

Figure 6d

Figure 6c, a northeasterly view from eastbound Craven Avenue, shows that the varying topography and existing vegetation in the project vicinity would mostly shield the proposed project features from view; the proposed light standards would not be a dominant visual feature within this viewpoint. Figure 6d represents a southeasterly view from within the project site, just east of the track looking toward the Mangrum Track and McMahon House facilities. This photosimulation depicts the equipment shelter and light standards and provides a close view of the project features, although not from a public viewpoint, but rather from an adjacent, on-campus location. While the project would alter the existing visual setting of the Mangrum Track by adding a new equipment shelter and light standards that are taller and larger in scale than the existing light standards, the project would not substantially degrade the existing visual character or quality of the site or its surroundings because the proposed cell tower and associated facilities would not substantially change visual conditions of the existing visual environment. Accordingly, impacts to visual character or quality would be less than significant.

d. **Less Than Significant Impact**. The project site is located approximately 25 miles southwest of the Mount Palomar Observatory in Zone B, which includes land within a 45-mile radius of the observatory. The observatory depends on dark skies in order to conduct research. Urbanization throughout San Diego and Riverside Counties has resulted in an increase in nighttime lighting that negatively impacts research at the observatory. In response, several jurisdictions have developed guidelines for nighttime lighting to minimize impacts to the observatory, such as including the use of shielding so that illumination does not extend beyond the property boundaries and incorporating low-intensity exterior lighting (City 2013c).

The project site and surroundings contain existing sources of nighttime lighting. Major campus roadways and walkways are well lit for the safety of students, faculty, and staff using the campus. Residential and commercial areas surrounding the campus to the west, north, and east also contribute to the existing ambient light in the campus vicinity. The existing lighting at the Mangrum Track contributes to ambient nighttime lighting as well.

The proposed project would install four new light fixtures, including one 119-foot-tall light standard with the lighting system mounted at approximately 90 feet and three 90-foot-tall light standards surrounding the track, as well as outdoor safety lighting at the equipment shelter. The field lighting would be used periodically for evening sporting events and recreational use of the track. The following design features of the proposed stadium light standards would contribute to a reduction in off-field lighting impacts and improved efficiency (see Figure 5):

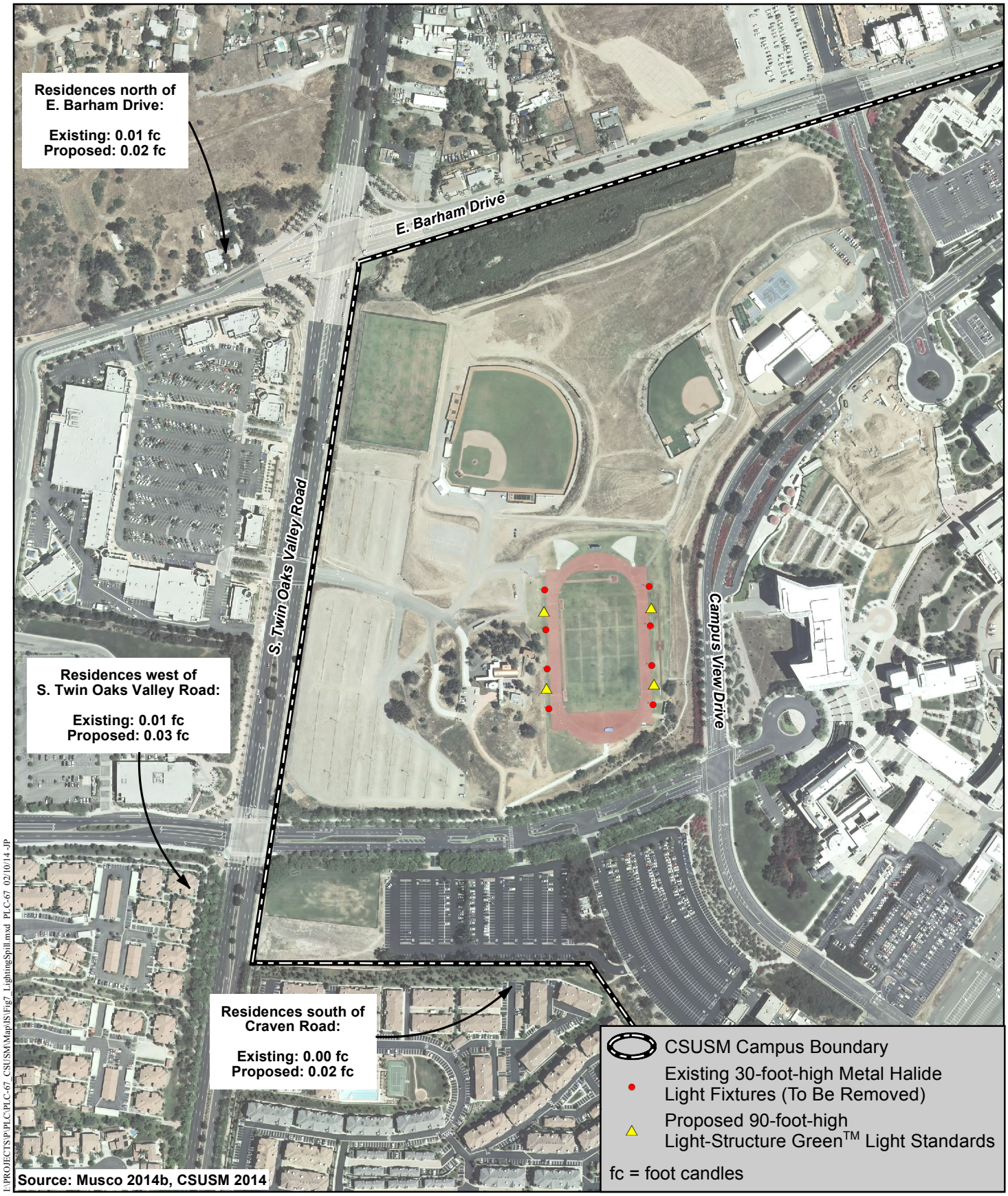
- Lighting fixture housing would have a segmented reflector system with built-in reflectors to direct light onto the field, resulting in less outward spill light.
- Die-cast aluminum housings and advanced optics would reduce the overall number of fixtures and sources of glare.
- A variety of visor lengths (ranging from 5 to 14 inches long) would be used to block glare to surrounding areas; visors would comprise the most advanced shielding system available.

- The height of the proposed stadium light standards would allow for each luminary to be mounted with a narrow beam angle aimed steeply downward, which would reduce spill light and skyglow. Higher mounting heights can often be more effective in controlling spill light, because lighting with a more controlled light distribution (i.e., narrower beam) and aimed in a downward direction may be used, making it easier to confine the light to the design area (County 2009).
- The lamps' arc tubes would be offset by 25 degrees for increased lamp output.

The proposed project is located in the vicinity of on- and off-campus uses that could potentially be affected by nighttime lighting and/or glare effects; however, as noted above, existing night lighting sources are currently located in the project area. Existing night lighting sources in the project area include existing lighting at the Mangrum Track, lighting along on-campus walkways, street lights along adjacent public roadways, parking lot lighting (on and off campus), and lights from on-campus and surrounding buildings. The University Village Housing complex is located along the south side of East Barham Drive, approximately 0.27 mile northeast of the project site. The Campus Center and the Kellogg Library is located less than 250 feet east of the project site. Off-site residences are located on either side of South Twin Oaks Valley Road less than a quarter mile south of the project site, and north of East Barham Drive, approximately 0.2 mile northwest of the project site. Each of these residential areas is bordered on at least one side by moderately lit roadways. The campus parking lots south of Craven Road also contribute to the existing lighting near the residences south of Twin Oaks Valley Road.

Existing light levels at these off-site residences were measured with the existing track lighting on to provide a baseline ambient light level. Future light levels with the proposed project were calculated in a photometric study conducted by the lighting manufacturer (Musco 2014b; Appendix B), and added to the baseline light level. The existing and proposed light levels are shown in Figure 7. The proposed track lighting is conservatively estimated to result in a maximum 0.03-fc increase in light levels over existing conditions at the off-site residential locations. This increase would be negligible since it is difficult for the human eye to identify a less than one fc change in light levels (Musco 2014b). Moreover, the proposed stadium light standards would be designed to result in a 50 percent reduction in spill and glare over previous technology and would be directed downward with a narrow beam angle to focus lighting on the intended area and not adjacent uses (Musco 2014a).

The proposed project would replace eight 30 fc metal halide fixtures with four 75 fc metal halide fixtures that would be mounted at a taller height than the existing fixtures (90 feet versus 30 feet). The 30 fc metal halide fixtures would be removed, which would offset some of the additional night lighting generated by the new fixtures. Further, the proposed fixtures would include glare shield protection and engineered spillage technology that would provide a greater than 50 percent reduction in light spill compared to typical field lighting. As seen in Figure 7, at nearby off-site residences, the change in night lighting would be indistinguishable from existing conditions. Based on these considerations, the proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Associated impacts would be less than significant.



Lighting Spill Locations and Levels

CSUSM MANGRUM TRACK LIGHTING AND CELL TOWER

HELIX Environmental Planning

N 0 400 Feet

Figure 7

2. Agriculture and Forestry Resources

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

Discussion

a-e. **No Impact**. The project site is not identified or designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, nor is it designated or zoned for agricultural, forestry or timberland uses (City 2011b; City 2013a). There are no Williamson Act contract land areas, agricultural operations, or timberland production operations within the project site or vicinity. No impacts to agricultural or forestry resources would occur.

3. Air Quality

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

Discussion

a. **No Impact**. The CSUSM campus is subject to air quality planning requirements by both the federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 amendments, and the California Clean Air Act (CCAA) of 1988. The federal and State statutes provide for ambient air quality standards (AAQS) to protect public health, timetables for progressing toward achieving and maintaining ambient standards, and the development of plans to guide the air quality improvement efforts of State and local agencies. Within the San Diego region, air quality is monitored, evaluated, and controlled by the U.S. Environmental Protection Agency (USEPA), California Air Resources Board (CARB), and the San Diego County Air Pollution Control District (SDAPCD).

The project is located within the San Diego Air Basin (Basin) under the jurisdiction of the SDAPCD. The SDAPCD develops and administers local regulations for stationary air pollutant sources within the Basin, and also develops plans and programs to meet attainment requirements for both federal and State Ambient Air Quality Standards (NAAQS and CAAQS, respectively). Additionally, the SDAPCD, along with CARB, maintains and operates ambient air quality monitoring stations at numerous locations throughout San Diego County. These stations are used to measure and monitor criteria and toxic air pollutant levels in the ambient air.

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the AAQS in the Basin. The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1991, with the most recent update in 2009. The RAQS outlines the SDAPCD's plans and control measures designed to attain the state air quality standards. The RAQS is a series of plans adopted for the purpose of reaching short- and long-term goals for those pollutants that the Basin is designated as a "nonattainment" area because the SDAPCD does not meet federal and/or State AAQS. Criteria pollutants of primary concern include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter (including both particulate matter 10 microns or less in diameter [PM_{10}] and particulate matter 2.5 microns or less in diameter [$PM_{2.5}$]), sulfur dioxide (SO_2), and lead (Pb). Table 1 lists the federal and State attainment status of the Basin for each of the criteria pollutants.

Table 1
SAN DIEGO AIR BASIN ATTAINMENT STATUS

Criteria Pollutant	Federal Designation	State Designation
O_3 (1-hour)	(No federal standard)	Nonattainment
O_3 (8-hour- 1997) O_3 (8-hour- 2008)	Attainment (Maintenance) Nonattainment (Marginal)	Nonattainment
CO	Attainment	Attainment
PM_{10}	Unclassifiable[1]	Nonattainment
$PM_{2.5}$	Attainment	Nonattainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment

[1] An area designated as unclassifiable is due to inadequate air quality data availability as a basis for a nonattainment or attainment designation.

Source: California Air Resources Board (CARB) 2013 and USEPA 2013

As shown in Table 1, the Basin is currently designated as a federal maintenance area for the1997 8-hour NAAQS for O_3 and as a marginal nonattainment area for the 2008 8-hour NAAQS for O_3. The Basin is designated as in attainment for all other criteria pollutants under the NAAQS with the exception of PM_{10}, which was determined to be unclassifiable. The Basin is currently designated as a State nonattainment area for PM_{10}, $PM_{2.5}$, and O_3. It is in attainment for CO, NO_2, SO_2, and lead relative to State air standards.

The SDAPCD has also developed the air basin's input to the State Implementation Plan (SIP), which is required under the federal CAA for areas that are out of attainment of air quality standards. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The SDAPCD completed its maintenance plan for the federal 8-hour ozone standard in 2012 (SDAPCD 2012).

To determine consistency between the project and these air quality plans, the project must comply with all applicable SDAPCD rules and regulations, all proposed or adopted control

measures of the RAQS, and be consistent with the growth forecasts utilized in preparation of the RAQS and SIP, which are based on regional population, housing, and employment projections prepared by SANDAG.

The SDAPCD air quality management plans were developed based on growth assumptions prepared by SANDAG. As discussed in Item 13.a, under Population and Housing, the proposed project does not include growth-generating components. As such, the project would not conflict with growth projections contained in the CSUSM Master Plan or the City's General Plan and thus, would be consistent with SANDAG forecasts. Based on these considerations and pursuant to SDAPCD guidelines, project-related emissions would be accounted for and the project would be consistent with the SDAPCD air quality management plans and the SIP. No impacts would occur.

b. **Less Than Significant Impact**. Air quality is defined by ambient air concentrations of six specific pollutants identified by the USEPA to be of concern with respect to health and welfare of the general public. These pollutants include O_3, CO, NO_2, PM_{10}, $PM_{2.5}$, SO_2, and lead. The primary source of air pollutants generated by the proposed project would be emissions associated with construction activities. Construction of the project would result in temporary increases in air pollutant and dust emissions generated primarily from construction equipment exhaust, earth disturbance, construction worker vehicle trips, and heavy duty truck trips.

Overall, daily construction emissions would be relatively low because only a limited number of truck trips would be required to haul construction equipment to/from the site and only a few pieces of construction equipment would be active at any one time. In addition, construction-related emissions would be fairly short term, lasting approximately 110 working days. Sensitive receptors, including on- and off-campus residents, would be exposed to construction activities during the construction period. To reduce the effects to sensitive receptors, the project would comply with all applicable SDAPCD Rules and Regulations, including Rule 55 related to fugitive dust emissions. Rule 55 requires the following:

1. No person shall engage in construction or demolition activity in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60 minute period; and

2. Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall be minimized by the use of any of the equally effective trackout/carry-out and erosion control measures listed in Rule 55 that apply to the project or operation. These measures include: track-out grates or gravel beds at each egress point; wheel-washing at each egress during muddy conditions; soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; watering for dust control; and using secured tarps or cargo covering, watering, or treating of transported material for outbound transport trucks. Erosion control measures must be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations.

Further, it is not anticipated that daily emissions of pollutants due to trenching would result in any daily exceedances of air pollutants. A typical trenching activity that would excavate an area 3 feet wide and 100 feet long in a day (about 0.02 acres) would generally use an excavator, two loaders, a backhoe, and a water truck. The resultant daily emissions from this type of activity would be 2 pounds per day (lbs/day) of VOCs, 18 lbs/day of nitrogen oxides (NOx), 13 lbs/day of CO, 1 lb/day of PM_{10}, and 1 lb/day of $PM_{2.5}$ (Atkins 2010). These levels would be well below the SDAPCD standards of 75 lbs/day of VOC, 250 lbs/day of NOx, 550 lbs/day of CO, 100 lbs/day of PM_{10}, and 55 lbs/day of $PM_{2.5}$.

Once construction is completed, operation of the proposed cell tower, light standards, and associated equipment would not generate substantial amounts of criteria pollutant emissions. Regular maintenance also would not generate substantial air emissions from vehicles over what currently exists on the campus. As a result, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation because pollutant emissions are anticipated to be below the SDAPCD screening thresholds and the project would implement dust control measures required by Rule 55. Impacts from project construction and operation would be less than significant.

c. **Less Than Significant Impact**. As discussed in Item 3.a, the proposed project would be consistent with the SDAPCD air quality management plans, which are intended to bring the Basin into attainment for all criteria pollutants, including the ones listed in Table 1 for which the Basin is designated as nonattainment. In addition, as discussed in Item 3.b, construction emissions would be temporary in duration and localized within the immediate project vicinity and no substantial operational emissions would be generated by the project. Accordingly, cumulative air quality impacts would be less than significant.

d. **Less Than Significant Impact**. Sensitive receptors are typically defined as residences, schools (preschool to 12^{th} grade), hospitals, resident care facilities, day-care centers, or other facilities that may house individuals with health conditions that would be severely impacted by changes in air quality. Sensitive receptors near the project site include off-site residential receptors located on either side of South Twin Oaks Valley Road less than a quarter mile south of the project site, and west of La Moree Road, almost a half mile east of the project site; as well as on-campus residential receptors located in the University Village Housing complex along the south side of East Barham Drive, approximately 0.27 mile northeast of the project site. During the project construction period, construction activities have the potential to generate diesel exhaust particulate matter from the use of construction equipment. Due to the short-term nature of project construction (approximately 110 working days) and the limited extent of construction activities involving heavy construction equipment, project construction is not anticipated to generate substantial amounts of diesel exhaust particulate matter. Accordingly, nearby sensitive receptors would not be exposed to substantial concentrations of diesel exhaust emissions during construction. Associated air quality impacts would be less than significant.

e. **No Impact**. The proposed project entails is the installation of a cell tower, light standards, equipment shelter, and emergency generator within existing athletic field facilities. The project would not generate any objectionable or nuisance odors. No impact would occur.

4. Biological Resources

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

Discussion

a. **No Impact**. The project site is developed with an existing track and associated facilities; no sensitive vegetation occurs on, or adjacent to, the site. Therefore, no species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS) is expected to occur on site or in the immediate vicinity due to lack of appropriate habitat. As such, the project would not directly or indirectly impact sensitive species.

b. **No Impact**. The project site is developed with an existing track and associated facilities and no sensitive vegetation occurs on, or adjacent to, the site. No direct impacts to sensitive habitats would occur.

c. **No Impact**. No riparian habitat or wetlands occur within or immediately adjacent to the project site. As such, no direct impacts to federally protected wetlands as defined by Section 404 of the Clean Water Act are anticipated.

d. **No Impact**. The project site is located within a developed area of the CSUSM campus that does not function as part of a wildlife movement corridor. The project site, which is developed with a track and field, does not contain any resources or suitable habitat that would support wildlife movement or a nursery site, such as trees. No impacts would occur.

e. **No Impact**. CSUSM is part of the CSU system, an entity of the State, which is not subject to municipal plans, policies, and regulations, such as the county and/or city general plans or local ordinances. No impacts would occur.

f. **No Impact**. As stated in Item 5.4.e above, as a State entity, CSUSM is not subject to municipal plans, policies, or regulations. Although the CSUSM campus is located within the boundaries of the North County Multiple Habitat Conservation Program (MHCP) and the Draft City of San Marcos Subarea Plan, the campus is not covered by these plans. Therefore, the proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan. No impacts would occur.

5. Cultural Resources

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

Discussion

a. **No Impact**. According to the CSUSM Master Plan EIR, there are no known existing historical resources located on the CSUSM campus (CSUSM 1988). The proposed project is being constructed on a site that has been previously graded and is highly disturbed. Installation of the light standards and trenching for utilities would not excavate beyond areas that have previously been disturbed and no import or export of soil would be required. As such, no impacts to historic resources would occur.

b. **Less Than Significant**. The CSUSM Master Plan EIR identified two isolated prehistoric artifacts that had been observed and collected from the campus during surveys conducted in 1985 (CSUSM 1988). These artifacts were collected and no additional evidence of prehistoric occupation was noted. Even though prehistoric populations occupied the region, there is no documented evidence for prehistoric use of the project area besides these two isolated artifacts. Moreover, the proposed project is being constructed on a site with no previously recorded resources and as mentioned under Item 5.a, has been previously graded and developed. Installation of the proposed light standards and trenching for utilities would not excavate beyond areas that have previously been graded. According to the geotechnical investigation conducted for the project, the site has been subject to a high level of ground disturbance and was previously graded down to the granitic rock that underlies the site in 1998 and 1999 (Geocon Incorporated [Geocon] 1999, 2014). Above the granitic rock, the site consists of compacted fill (Geocon 2014), which was subject to cultural monitoring when it was used for site preparation. Therefore, there is little potential for unknown buried archaeological resources to be disturbed from construction of the proposed project. As such, less than significant impacts to archaeological resources would occur.

c. **No Impact**. A paleontological survey of the CSUSM campus was conducted by the City in 1987 (CSUSM 1988). The survey concluded that the igneous and granite rocks found within the campus would not contain fossils due to the way they were formed. As such, the project would not impact known or unknown paleontological resources.

d. **No Impact**. No human remains are anticipated to be discovered during project construction due to the lack of burial sites recorded on campus and the disturbed nature of the site. No impacts would occur. In accordance with Health and Safety Code 7050.5, CEQA 15064.5(e), and Public Resources Code 5097.98, if any human remains are discovered, all work would be halted in the vicinity of the discovery, the appropriate authorities would be notified, and standard procedures for the respectful handling of human remains would be adhered to.

6. Geology and Soils

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	□	□	■	□
ii. Strong seismic ground shaking?	□	□	■	□
iii. Seismic-related ground failure, including liquefaction?	□	□	□	■
iv. Landslides?	□	□	□	■
b. Result in substantial soil erosion or the loss of topsoil?	□	□	■	□
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	□	□	■	□
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	□	□	■	□
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	□	□	□	■

Discussion

a.i. **Less Than Significant Impact**. No known active, potentially active, or inactive faults traverse the project area, nor is the project located within an Alquist-Priolo Earthquake Fault Zone (www.sangis.org). The Rose Canyon Fault zone and the Newport-Inglewood Fault, located approximately 12 miles west of the project site, are the closest known active faults (Geocon 2014). While the potential for on-site rupture cannot be completely discounted (e.g., unmapped faults could conceivably underlie the site), the likelihood for such an occurrence is considered low due to the absence of known faulting within or adjacent to the project site. Therefore, impacts related to fault rupture from implementation of the proposed project would be less than significant.

a.ii. **Less Than Significant Impact**. The project site is located in seismically active southern California and is likely to be subjected to moderate to strong seismic ground shaking. Seismic shaking at the site could be generated by events on any number of known active and potentially active faults in the region, including the Rose Canyon, Newport-Inglewood (offshore), Elsinore, Coronado Bank, Earthquake Valley, San Jacinto, Palos Verdes, or Whittier fault zones. Faulting in the region generally comprises a number of northwest-trending, predominantly right-lateral strike-slip faults at the boundary between the Pacific and North American tectonic plates. An earthquake along any of these known active or potentially active fault zones could result in severe ground shaking and consequently cause injury and/or property damage in the project vicinity. This could potentially result in significant impacts to proposed facilities, depending on factors such as event duration, motion frequency, and underlying soil/geologic conditions. The project design, however, would incorporate measures to accommodate projected seismic loading, pursuant to the applicable California State University Seismic Safety Requirements, as well as existing guidelines such as the California Building Code (CBC; California Code of Regulations, Title 24, Part 2). The CBC provides appropriate measures to accommodate seismic loading parameters in California. Based on the incorporation of applicable measures into project design and construction, impacts associated with strong seismic ground shaking would be less than significant.

a.iii. **No Impact**. Liquefaction is the phenomenon that occurs during severe ground shaking whereby soils reduce greatly in strength and temporarily behave similarly to a fluid. Severe or extended liquefaction can result in significant effects to surface and subsurface facilities through the loss of support and/or foundation integrity. Liquefaction is associated primarily with loose (low density), saturated, fine- to medium-grained, cohesionless soils. Due to the dense nature of the compacted fill and granitic rock underlying the project site, the potential for liquefaction is considered very low (Geocon 2014). Moreover, given that the project does not include the construction of habitable structures, and that construction of the proposed cell tower, light standards, and associated equipment would incorporate standard guidelines from the CBC, no impacts associated with liquefaction would occur.

a.iv. **No Impact**. The project site has low susceptibility for landslides and slope instability (City 2013a), and no landslides were encountered during the site investigation conducted for the project geotechnical investigation (Geocon 2014). Moreover, the project would not require blasting or other activities that could result in rock falls or trigger landslides or slope instability. Given the absence of active faults and the relatively level topography in the project area, the potential for seismically induced landslides is very low to nonexistent. No impact related to landslides would occur.

b. **Less Than Significant Impact**. Construction of the proposed project would expose soil via ground disturbance associated with trenching and construction of the light standards and equipment shelter. The contractor would implement erosion and sedimentation control measures to minimize on-site erosion and off-site transport of eroded materials in compliance with NPDES permit requirements. Control measures would include applicable best management practices (BMPs), such as covering stockpiled excavated materials to reduce potential off-site sediment transport and regular inspection and maintenance of all

sediment catchment facilities to ensure proper function and effectiveness. Project-specific BMPs are discussed in further detail in Item 9.a. Additional erosion control measures also may be required in association with NPDES permit requirements, as discussed in Item 8.a. Compliance with the NPDES Construction General Permit, in addition to the above considerations, would ensure that construction impacts would be less than significant.

Once construction is completed, the project site would not result in substantial soil erosion or loss of topsoil; no operational impacts would occur.

c. **Less Than Significant Impact**. As discussed in Items 6.a.iii and 6.a.iv, the project site is not located within an area prone to landslides or liquefaction. The CSUSM campus is underlain primarily by granitic rock, which is mantled by alluvium (CSUSM 1988). The alluvial deposits are predominantly in the northern portion of the campus (north of East Barham Drive) and in localized pockets in the southwest and southeast. These deposits vary in texture from sandy gravels, coarse sand, and silty clay. Cretaceous granitic rock that underlies most of the campus, including the project site, weathers to form outcrops of rounded boulders in areas of moderate relief and soils formed on the granitic rock tend to be relatively shallow (1 to 2 feet) with low to moderate expansive soil characteristics. The proposed project would be constructed on a previously disturbed site underlain by compacted fill and granitic rock, both considered suitable in their present condition for support of fill or structural loads (Geocon 2014). Installation of the light standards, equipment shelter, and utility connections would not cause local soil or geologic units to become unstable nor would the project cause on- or off-site landsliding, lateral spreading, subsidence, liquefaction, or collapse. Trenching and other construction activities would be performed in accordance with the project plans and all applicable Occupational Safety and Health Administration (OSHA) requirements. As indicated in the geotechnical investigation, the upper approximately one-foot of the fill material beneath the proposed equipment shelter would require scarification, moisture conditioning, and compaction to at least 90 percent of the maximum dry density due to drying and surface disturbance. Incorporation of standard engineering guidelines would ensure that effects related to unstable geologic units or soils would be less than significant.

d. **Less Than Significant Impact**. Expansive soils are generally high in clays or silts that shrink or swell with variation in moisture. Wetting can occur in a number of ways, including absorption from the air, rainfall, groundwater fluctuations, lawn watering, or broken water or sewer lines. The soil encountered in the geotechnical field investigation conducted for the project is considered to be expansive (expansion index of greater than 20) as defined by the 2013 CBC Section 1803.5.3. The majority of the soil encountered is anticipated to possess a “very low” to “low” expansion potential (expansion index of 50 or less). As a matter of project design, all excavations and trenches would be properly shored and maintained in accordance with applicable OSHA rules and regulations. Therefore, potential risks associated with expansive soils would be less than significant.

e. **No Impact**. Septic tanks or other alternative wastewater disposal systems would not be a part of the proposed project. No impacts would occur.

7. Greenhouse Gas Emissions

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

Discussion

a. **Less Than Significant Impact**. Global climate change refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), and certain hydro-fluorocarbons. These gases, known as greenhouse gases (GHGs), allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere. GHGs are emitted by both natural processes and human activities. The accumulation of GHGs in the atmosphere regulates the Earth's temperature. Emissions of GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect and contributing to what is termed "global warming," the trend of warming of the Earth's climate from anthropogenic activities. Global climate change impacts are by nature cumulative; direct impacts cannot be evaluated because the impacts themselves are global rather than localized impacts.

California Health and Safety Code Section 38505(g) defines GHGs to include the following compounds: CO_2, CH_4, N_2O, O_3, chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). As individual GHGs have varying heat-trapping properties and atmospheric lifetimes, GHG emissions are converted to carbon dioxide equivalent (CO_2e) units for comparison. The CO_2e is a consistent methodology for comparing GHG emissions because it normalizes various GHG emissions to a consistent measure.[5] The most common GHGs related to the project are those primarily related to energy usage: CO_2, CH_4, and N_2O.

[5] The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere, and is expressed as a function of how much warming would be caused by the same mass of CO_2. For instance, CH_4 has a global warming potential of 21, meaning that 1 gram of CH_4 traps the same amount of heat as 21 grams of CO_2. N_2O has a global warming potential of 310.

CSU has not published significance thresholds for greenhouse gas impacts. Therefore, guidance provided by the County of San Diego has been used for the purposes of the analysis. The County of San Diego published its most recent Guidelines for Determining Significance for Climate Change on November 7, 2013. The guidelines are based on regional data, including the incorporated cities such as San Marcos, and may be used by lead agencies in the region other than the County of San Diego. The purpose of the guidelines is to ensure that new development achieves its fair share of emissions reductions needed to meet the statewide Assembly Bill (AB) 32 mandate.[6] The County's guidelines establish a screening level threshold of a net increase in GHG emissions of 2,500 metric tons (MT) CO_2e per year. Therefore, a project that emits less than 2,500 MT CO_2e annually during construction or operation would not result in a potentially significant cumulative impact.

Construction of the project would result in temporary emissions of GHG from the operation of construction equipment and from worker and building supply vendor vehicles. Due to the short-term nature and relatively low intensity of project construction that would not involve use of heavy duty construction equipment over a long term, GHG emissions are anticipated to be well below the screening level threshold of 2,500 MT CO_2e per year. Consequently, no significant construction GHG emissions impacts would occur.

The primary source of operational GHG emissions from the project would be indirect emissions from electricity usage for the proposed light standards and cellular facility equipment. Emissions from mobile sources would be negligible as maintenance of the site would only require approximately one vehicle trip per month, which would not change from existing conditions. The project would not result in an increase in demand for natural gas, water, or solid waste disposal services; therefore, no increase in GHG emissions would occur from these sources.

Existing electricity use for the Mangrum Track lighting is approximately 22,833 kilowatt hours (kWh) per year (CSUSM 2013b). This is the estimated annual energy use for the eight existing 30-foot-tall light standards and ten 14-foot-tall pedestrian light standards. Assuming for the purposes of this analysis that each pole has an equivalent electricity demand, this equates to a usage of approximately 1,268.5 kWh per year of electricity per pole.

The proposed project would remove the 30 fc metal halide light fixtures from the eight 30-foot-tall standards but would retain the existing fluorescent light fixtures. Four new light standards with 75 fc metal halide fixtures would be installed as part of the project. To estimate the electricity demand associated with the new light fixtures, a factor of 2.5 was applied to the existing pole demand to account for the increase in light intensity between 30 fc and 75 fc. Consequently, the increase in electricity usage for the new lights is estimated to be 12,685 kWh per year (1,268.5 increased by a factor of 2.5 and multiplied by 4).

[6] Under AB 32, the CARB is responsible for adopting rules and regulations to reduce statewide GHG emissions to 1990 levels by the year 2020.

Although the existing metal halide fixtures on the eight 30-foot-tall standards would be removed, the future electricity usage for the four new standards was added to the baseline existing electricity usage for the track to conservatively estimate the future electricity demand. This results in approximately 35,518 kWh per year of electricity use for all track lighting (12,685 kWh added to 22,833 kWh).

In addition to lighting, the proposed telecommunications equipment, equipment storage shelter and associated components would use an estimated 54,000 kWh per year (Booth & Suarez 2013). Therefore, the total estimated annual energy use for the proposed project would be 89,518 kWh, which would result in a net increase in demand of 66,685 kWh.

Table 2 provides the existing and future annual electricity usage and associated GHG emissions for the project site.

Table 2
EXISTING AND FUTURE ANNUAL ELECTRICITY USAGE AND GHG EMISSIONS FOR MANGRUM TRACK

	Electricity Usage (kWh/yr)	CO_2e (MT/yr)
Existing	22,833	7.7
Future With Proposed Project	89,518	30.2
Net Increase	66,685	22.5
	County Threshold[1]	2,500
	Significant Impact?	No

[1] The County of San Diego's guidelines establish a screening level threshold of a net increase in GHG emissions of 2,500 metric tons (MT) CO_2e per year. Therefore, a project that emits less than 2,500 MT CO_2e annually during construction or operation would not result in a potentially significant cumulative impact.

Total operational GHG emissions would be approximately 30.2 MT CO_2e per year, or an increase of approximately 22.5 MT CO_2e per year over existing conditions (see Appendix A, which provides the GHG emissions calculations worksheets).[7] Operational emissions would not exceed the screening level threshold of 2,500 MT CO_2e per year. Moreover, the project would be designed with consideration of optimum energy utilization and compliance with applicable energy codes, including the use of Musco's Light-Structure Green™ energy-efficient lighting system (Musco 2014b), in order to be in compliance with the CSU Energy Policy, Executive Order (EO) No. 987 (CSU 2006). Therefore, no significant project-related GHG emission impacts would occur.

[7] GHG calculations are based on emission factors for energy use provided by the California Climate Action Registry (742 pounds (lbs)/megawatt hour (MWh)/year of CO_2, 0.03 lbs/MWh/year of CH_4, and 0.01 lbs/MWh/year of N_2O), which were then normalized to annual metric tons of CO_2e.

b. **Less Than Significant Impact**. AB 32, the California Global Warming Solutions Act of 2006, established statutory limits on GHG emissions in California. Under AB 32, the CARB is responsible for adopting rules and regulations to reduce statewide GHG emissions to 1990 levels by the year 2020. The CARB's Climate Change Scoping Plan outlines the state's strategy to achieve the 2020 GHG emissions limit and future emissions reduction targets established by Executive Order S-3-05. The County's climate change guidelines (which are utilized in the GHG emissions analysis for the proposed project, as described above) were established for the purpose of reducing the emissions of GHGs to meet the state requirements of AB 32. The guidelines are based on regional data, including the incorporated cities and may be used by lead agencies in the region other than the County of San Diego. The guidelines were developed in support of the County's Climate Action Plan that was approved in June 2012, and is compliant with AB 32. GHG emissions that are below the County's screening level threshold would be considered consistent with AB 32.

CSUSM operates under EO 987, the CSU Policy Statement on Energy Conservation, Sustainable Building Practices, and Physical Plant Management. This document sets minimum efficiency standards for new construction and renovations, and establishes operating practices intended to ensure CSU facilities are operated and maintained in the most energy efficient and sustainable manner possible while still meeting the programmatic needs of the university. As noted above in Item 7.a, the project would be designed to be in compliance with the applicable energy codes of EO 987.

As discussed in Item 7.a, neither construction-related nor operational GHG emissions generated by the project would exceed the screening level threshold established by the County of San Diego. Therefore, the project would not conflict with guidelines established for the purpose of reducing the emissions of GHGs to meet the state requirements of AB 32. Impacts would be less than significant.

8. Hazards and Hazardous Materials

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	□	□	■	□
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	□	□	■	□
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	□	■	□	□

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	□	□	□	■
e. For a project located within an airport land use plan or, where such a plan has not been adopted within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	□	□	□	■
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	□	□	□	■
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	□	□	□	■
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	□	□	□	■

Discussion

a-b. **Less Than Significant Impact**. During the project construction period, hazardous substances used to maintain and operate construction equipment (such as fuel, lubricants, etc.) could be present; however, it is not expected that large-scale staging and equipment/materials storage would be necessary. CSUSM contracts with licensed hazardous waste transporters to ensure that all hazardous wastes generated by the campus are transported off campus for treatment or disposal at licensed hazardous waste facilities. Transport, use, and disposal of hazardous materials associated with the project would be conducted in accordance with applicable federal and State laws, and the project would be subject to the NPDES Construction General Permit. Conformance with the Construction General Permit would entail implementation of a SWPPP to address the discharge of contaminants (including construction-related hazardous materials) through appropriate BMPs. While specific BMPs would be determined during the SWPPP process based on site-specific characteristics (equipment types, etc.), they would include standard industry measures and guidelines contained in the NPDES Construction General Permit text. Based on implementation of appropriate BMPs to provide conformance with the NPDES Construction General Permit, potential impacts associated with construction-related hazardous materials would be less than significant.

The proposed project also involves the storage of a 210-gallon diesel fuel tank, used to power a back-up generator stored within the equipment shelter. The transport, storage, and use of

diesel fuel could result in a hazard to the public in the event of upset or accident conditions. In compliance with the California Health and Safety Code, Section 25503.5, a Hazardous Materials Business Plan (HMBP) would be prepared to reduce the potential for impacts. Additionally, CSUSM has several plans and programs in place to address accidental release of hazardous materials, including a campus HMBP, an Emergency Management Program, a Spill Prevention Control and Countermeasure Plan. Accordingly, impacts from routine transport, use, or disposal of hazardous materials would be less than significant.

c. **Less Than Significant With Mitigation Incorporated**. The Federal Communications Commission (FCC) has guidelines in place for the maximum permissible exposure allowable to the general public from radio frequency (RF) emissions of wireless telecommunications facilities (FCC 2013). RF emissions from an antenna are normally directed toward the horizon in a narrow pattern in the vertical plane. As one moves away from the antenna, the power density of the antenna decreases rapidly. Consequently, ground-level exposure is much lower than the exposure that would be encountered if an individual were at the same height and directly in front of the antenna. To be exposed to RF emissions levels approaching the FCC's maximum permitted amounts, an individual would have to stand directly in front of the transmitting beam and within a few feet of the antenna for several minutes or longer. Exposure levels encountered at the base of an antenna are thousands of times less than the FCC's limit for safe exposure. Subsequently, the FCC has concluded that the possibility that a member of the general public would encounter RF levels in excess of the FCC guidelines is extremely unlikely. This would include exposure from the proposed project, which would install the cellular equipment at a minimum height of 90 feet above the ground.

Section 704 (the National Wireless Telecommunications Site Policy) of the Telecommunication Act of 1996 requires facilities to comply with FCC regulations concerning RF emissions exposure. Current regulations are contained in CFR Title 47, subpart E, parts 24.200 through 24.238. Transmitters regulated by the FCC must comply with the exposure limits put forth in Title 47 Sections, 1.1307 and 1.1310 and applications to the FCC must contain a statement confirming compliance with these limits and technical information supporting compliance. In general and as described above, the maximum permissible exposure levels cannot be exceeded by any person unless they are directly in front of the antenna, in its main beam, and within two feet of the antennas, or within inches of the back of the antenna. Since these antennas would be mounted to the proposed 119-foot-high light standard, the only individuals with the potential for exposure would be maintenance workers from the various utilities that would be attached to the light standard. Maintenance workers doing work near or in front of the pole-mounted utilities would receive training regarding proper avoidance of RF emissions exposure. In addition, based on review of emissions data from individual cell sites, the FCC and the California Public Utilities Commission may require the posting of pole-mounted information for maintenance workers regarding RF emissions safety precautions. The proposed cellular telecommunications antenna would comply with FCC rules, regulations, and standards with regard to RF emissions from antennas by implementing the following mitigation measure:

HAZ-1: The applicant shall install an emissions cut-off switch and post signs regarding safety precautions near the cellular telecommunications antenna in accordance with FCC regulations at the time the cellular telecommunications antenna is installed.

Potentially significant impacts related to hazardous emissions would be reduced to a level that is less than significant with adherence to all applicable FCC regulations and with implementation of mitigation measure HAZ-1.

d. **No Impact**. The California Department of Toxic Substances Control (DTSC) EnviroStor database and the State Water Resources Control Board (SWRCB) GeoTracker database provide information on hazardous materials sites. No areas of concern within one mile of the project site were listed on the EnviroStor database. The GeoTracker database identified 10 areas of concern due to historical unauthorized releases of hazardous materials into soil or groundwater within or near the project site. The majority of the cases, including the one case located on the CSUSM campus, have been closed and are no longer considered a hazard to the public or the environment. Three ongoing cases could potentially result in impacted soil and groundwater in the project vicinity. These include the former Hanson Aggregates San Marcos Plant, Conoco Phillips, and CDF-former San Marcos Forest Fire Station, described below.

The former Hanson Aggregates San Marcos Plant is located south of Village Drive and West of South Twin Oaks Valley Road, approximately 0.7 mile southwest of the project site. This is a voluntary assistance program case[8] that is undergoing site assessment. The property has historically been used for aggregate mining and is proposed for mixed-use development. According to GeoTracker database records, naturally-occurring arsenic at concentrations exceeding the upper background range for San Diego County were identified in soil samples collected in May 2012. Additional studies indicated that the localized areas of naturally-occurring elevated arsenic can be effectively managed through soil management activities; no impact to the project site would occur.

The Conoco Phillips site is an active 76 gas station with a Circle K convenience store, located at 190 West San Marcos Boulevard approximately 0.8 mile north of the project site. An environmental due diligence assessment conducted in November and December 2007, in addition to follow-up investigations in 2009 and 2012, identified soil and groundwater contamination from petroleum hydrocarbons. A Corrective Action Plan was submitted on February 4, 2013 requesting case closure. Due to distance from the project, and the site's eligibility for closure, this site is not expected to create a significant hazard to the public or the environment as a result of project construction.

The former San Marcos Forest Fire Station site is located at 236 Pico Avenue, approximately 0.9 mile north of the project site. Soil and groundwater beneath the site have been impacted by gasoline released from a former 550-gallon underground storage tank (UST). The UST was permanently closed by removal in May 1997, and 57 tons of soil were over-excavated from the former tank pit area. Boring samples indicated that soil and groundwater beneath the

[8] The County's voluntary assistance program is a service by which regulatory oversight of environmental cleanup projects is provided through consultation, project oversight, and technical or environmental report evaluation and concurrence (when appropriate) on projects pertaining to properties contaminated with hazardous substances.

site had been impacted by petroleum hydrocarbons. Although this case is considered open, the site is undergoing remediation and semi-annual monitoring. Due to the distance from the project and ongoing remediation of this site, no impact to the project site would occur.

e. **No Impact**. The project is not located within an airport land use plan or within two miles of a public airstrip. Therefore, the proposed project would not result in a safety hazard to the construction or maintenance workers. No impact would occur.

f. **No Impact**. The project site is not within the vicinity of a private airport. Therefore, the proposed project would not result in a safety hazard to the construction or maintenance workers. No impact would occur.

g. **No Impact**. CSUSM has an Emergency Management Plan, which addresses how the campus will respond to emergency occurrences from preparedness through recovery. The project would be subject to the policies and procedures set forth in this plan. In general, the project would not affect the operation of local roadways and no lane closures or detours that could affect emergency response would be required. Operation of the proposed project is not anticipated to have an effect on implementation of the plan, as it would consist of wireless radio transmissions for cellular phones and approximately one site visit per month for a routine maintenance. As such, implementation of the project would not adversely affect the ability of emergency officials to carry out an emergency response plan or evacuation plan. No impact would occur.

h. **No Impact**. Construction and operation of the proposed project would not expose people or structures to a significant risk or loss, injury, or death involving wildland fires. While the CSUSM campus is located adjacent to undeveloped hillsides that extend to the west and south, which may be susceptible to wildland fires, the project site is surrounded by development and no structures that would be occupied by people are proposed. No impacts related to wildland fires would occur.

9. Hydrology and Water Quality

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements?	□	□	■	□
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	□	□	□	■

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site?	□	□	□	■
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site?	□	□	□	■
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	□	□	■	□
f. Otherwise substantially degrade water quality?	□	□	■	□
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	□	□	□	■
h. Place within a 100-year flood hazard area, structures which would impede or redirect flood flows?	□	□	□	■
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	□	□	□	■
j. Inundation by seiche, tsunami, or mudflow?	□	□	□	■

Discussion

a. **Less Than Significant Impact**. Potential water quality impacts associated with the proposed project would be limited to short-term construction-related erosion and sedimentation. Based on the developed nature of the project site and the limited potential for the proposed cell tower, light standards, and associated equipment to generate pollutants or runoff beyond what already occurs on site, no potential long-term impacts to water quality would result. As required under the NPDES Construction General Permit, administered by the RWQCB, a SWPPP would be created for the proposed project. The plan would address erosion control measures that would be implemented to avoid erosion impacts to exposed soil associated with construction activities. The SWPPP would include a program of BMPs to provide erosion and sediment control and reduce potential impacts to water quality that may result from construction activities. BMPs would be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable and may include, but not be limited to, the following:

- Protection of storm drain inlets located within the project impact footprint and in downstream off-site areas with the use of BMPs acceptable to CSUSM, local jurisdictions, and the San Diego RWQCB.

- Sweeping of dirt and debris from paved streets in the construction zone on a regular basis, particularly before predicted rainfall events.
- Proper storage, use, and disposal of construction materials.
- Removal of sediment from surface runoff before it leaves the project site through use of silt fences or other similar devices around the laydown area perimeters.
- Protection of tracking soil off site through use of a gravel strip or wash facilities at exits from project laydown areas.
- Protection or stabilization of stockpiled soils.

Potential water quality impacts would be avoided or reduced below a level of significance through conformance with NPDES permit conditions and implementation of the applicable BMPs.

b. **No Impact**. The proposed project would not require the use of, or otherwise interfere with, groundwater supplies. Therefore, the project would not substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in the aquifer volume or permanent lowering of the local groundwater table. No impacts would occur.

c. **No Impact**. A minimal amount of ground disturbance would be required for installation of the light standards, equipment shelter, and connections to existing utilities. Once the project is constructed, the site would be returned to a similar condition to what exists on site, with the exception of the equipment shelter. The project would not substantially alter the existing drainage pattern of the project site or surrounding area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. No impacts would occur.

d. **No Impact**. As discussed in Item 9.c, the proposed project would not result in substantial changes to the existing drainage of the project site, nor would project implementation result in an increase in local surface runoff volumes. No impacts would occur.

e. **Less Than Significant Impact**. As stated in Item 9.d, the proposed project would not increase the local surface runoff volumes. On-site impervious surfaces would incrementally increase with the construction of the equipment shelter and generator enclosure; however, operation of the cell tower, light standards, and associated equipment would not provide a substantial additional source of polluted runoff, nor would the project create or contribute runoff that would exceed the capacity of existing or planned storm water drainage systems. Potential short-term pollutant generation would be avoided or reduced below a level of significance through conformance with NPDES Construction General Permit conditions and implementation of erosion and sedimentation control measures to minimize on-site erosion, as discussed in Item 9.a. Impacts would be less than significant.

f. **Less Than Significant Impact**. As discussed in Item 9.a, compliance with the NPDES Construction General Permit would reduce potentially significant impacts to water quality. Operation of the proposed cell tower, light standards, and associated equipment would not

discharge pollutants into receiving waters. Therefore, the proposed project would not otherwise substantially degrade water quality and impacts would be less than significant.

g. **No Impact**. The project does not include housing. No impact would occur.

h. **No Impact**. Implementation of the project would not entail the construction of structures that would impede or redirect flood flows. The CSUSM campus is not located within a Federal Emergency Management Agency (FEMA)-designated 100-year floodway or other flood areas (City 2011b). No impact associated with flooding would occur.

i. **No Impact**. Three lakes with dams are located in the vicinity of the project site—Discovery Lake, located approximately 0.9 mile southwest of the site; South Lake, located approximately 1.0 mile south of the site; and Lake San Marcos, located approximately 2.4 miles west of the site. The project site is not located within the dam inundation areas for these lakes (City 2011b), so the project would not be subject to flooding in the event of failure. As such, the project would not include facilities that would expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. No impacts would occur.

j. **No Impact**. Tsunamis are large ocean waves generated by fault displacement or major ground movement. The primary areas susceptible to tsunamis are those near the ocean and along low-lying river channels. Given the project's distance from the Pacific coast (approximately 10 miles) and the elevation of the site above 600 feet AMSL, no impacts associated with tsunamis would occur.

A seiche is a large wave generated in an enclosed body of water, often caused by ground-shaking associated with seismic activity. The project is located upstream of the nearest water body, Lake San Marcos, so a seiche within that water body would not pose a risk to the project site. No impacts resulting from inundation by a seiche would occur.

As noted in Items a.iii, a.iv, and 6.c, the project is not located within an area prone to landsliding, lateral spreading, subsidence, liquefaction, or collapse. As such, the project is not located within the vicinity of slopes potentially capable of producing mudslides, nor does the project propose housing, structures, or uses that would be subject to significant risk of loss, injury, or death from mudflows. For these reasons, no impacts associated with mudflow would occur.

10. Land Use and Planning

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

Discussion

a. **No Impact**. The proposed project would be constructed in an area of the CSUSM campus that is already developed. Construction and operation of the proposed cell tower, light standards, and associated equipment facilities would not physically divide an established community. No impacts would occur.

b. **No Impact**. The proposed project is located on the CSUSM campus within the City of San Marcos. CSUSM is part of the CSU system, an entity of the State, which is not subject to municipal plans, policies, or regulations. Thus, the CSUSM campus is not part of or subject to the City of San Marcos General Plan, or other local plans. The adopted Campus Master Plan is the applicable campus land use plan, which contains specific guiding principles for planning and design of the neighborhoods, buildings, parking areas, common areas, and landscaping on campus (CSUSM 1988). Campus development that is consistent with the adopted Campus Master Plan would not have land use impacts. The project proposes the installation of telecommunications equipment and improvements to existing lighting at the Mangrum Track, which would not conflict with the adopted campus Master Plan. The site is identified as a recreation facility in the Master Plan, and the project would not change the land use or affect the function or operations of the track. No associated land use impacts would occur.

c. **No Impact**. As discussed in Item 4.f, the project site is not addressed in an adopted HCP or NCCP. No associated land use impacts would occur.

11. Mineral Resources

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

Discussion

a. **No Impact**. The majority of the CSUSM campus, including the project site, is underlain by Cretaceous-age granite that is commonly extracted and processed for use as construction aggregate (CSUSM 1988). According to the State's Mineral Land Classification Maps, the project is located within Aggregate Mineral Resource Classification Zone Category 3 (MRZ-3; California Department of Mines and Geology 1996). MRZ-3 indicates an area containing deposits whose significance cannot be evaluated from available data. Although aggregate materials may be present within the project site, these resources have not been identified by the California Department of Mines and Geology as significant mineral resources. Moreover, the project site is already developed with a sports field and part of the CSUSM campus and is not planned for use as a mineral resource recovery site. No impacts to mineral resources would occur as a result of project implementation.

b. **No Impact**. Refer to Item 11.a, above.

12. Noise

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	□	□	■	□
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	□	□	□	■

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	□	□	■	□
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	□	■	□	□
e. For a project located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	□	□	□	■
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	□	□	□	■

Discussion

a. **Less Than Significant Impact**. Noise-sensitive land uses are those associated with indoor and/or outdoor human activities that could be subject to stress and/or interference from noise. They typically include residential dwellings, transient lodging, campus housing, hospitals, educational facilities, and libraries. Noise-sensitive land uses in the project area include on-campus housing and neighboring residences (single- and multi-family), on-campus classrooms, administrative offices, the CSUSM Kellogg Library, and medical offices. The athletic fields and facilities surrounding the proposed equipment are active recreational uses that are generally not considered noise-sensitive. Existing campus housing is located in the University Village Housing complex along the south side of East Barham Drive, approximately 0.27 mile northeast of the project site. Off-site noise-sensitive receptors located in close proximity to the project site include single- and multi-family residences located along South Twin Oaks Valley Road and East Barham Drive, less than a quarter mile from the project site. Kellogg Library is the closest on-campus noise-sensitive use, located approximately 350 feet east of the project site. The closest off-campus noise-sensitive use to the project site is an apartment complex located approximately 625 feet to the south.

For the purposes of this analysis, impacts associated with operational noise are considered significant if project-related activities result in exterior noise levels that exceed a one-hour average of 60 dBA L_{eq} at campus academic uses (libraries and classrooms) and 55 dBA L_{eq} at off-campus multi-family residential and campus housing.

The components of the proposed project that are most likely to generate audible exterior noise are the condenser unit and the 50 kilowatt emergency generator associated with the telecommunication facility. The emergency generator would create temporary and periodic

noise from testing, which occurs approximately once a month for approximately 30 minutes. The unit would be programmable and tests would be scheduled during times that would cause the least disturbance to the surrounding uses. In an electrical emergency, noise would be emitted by the generator for the duration of its use. The condenser unit and emergency generator would be located inside a 13.5 feet high concrete enclosure. Noise attenuation would be incorporated into the design and placement of the generator enclosure to reduce noise impacts. Combined noise levels expected from the condenser unit and emergency generator (when running), taking into account the noise reduction from the concrete enclosure, would be approximately 42 dBA L_{eq} at a distance of 40 feet (PlanCom 2013), and would be reduced by approximately six decibels per doubling of distance. Due to the distance of the proposed equipment from nearby on- and off-campus noise-sensitive receptors, operational noise impacts would be less than significant.

b. **No Impact**. The proposed project does not include components that would result in excessive groundborne vibration. While equipment in use during construction may result in minimal amounts of groundborne vibration, these effects would be temporary and not excessive. Therefore, no impacts associated with groundborne vibration would occur.

c. **Less Than Significant**. As noted in Item 12.a, noise levels generated during normal operation are not expected to exceed the thresholds used for this analysis. Operational noise impacts would be less than significant.

d. **Less Than Significant Impact With Mitigation Incorporated**. For impacts associated with periodic noise increases from the proposed emergency generator, please see discussion under 12.a.

Installation of the proposed equipment would generate temporary noise increases associated with construction equipment. Sound levels of typical construction equipment range from 60 to 90 dBA L_{eq} at 50 feet from the source (FHWA 2006). Construction noise generally attenuates by about six decibels per doubling of distance. As discussed in Item 12.a, noise-sensitive receptors within the vicinity of the project site include both on-campus and off-campus residential uses, administrative offices and facilities, the library, and classrooms. Noise levels at the nearest sensitive receptors could range between 73 dBA at the library and 68 dBA at the nearest off-site residence. Noise levels would depend on the type and number of equipment in use and the amount of time that the machinery and equipment are operated. Construction of the proposed project would have the potential to generate temporary substantial noise increases that would affect nearby noise-sensitive receptors. Mitigation Measures NOI-1 and NOI-2 would reduce construction-related noise.

NOI-1: Construction activities shall only occur during the hours between 7:00 a.m. to 6:00 p.m. Monday through Friday, and between 8:00 a.m. and 5:00 p.m. on Saturday.

NOI-2: The construction contractor shall implement the following measures to minimize short-term noise levels caused by construction activities. Measures to reduce

construction noise shall be listed in contractor specifications and shall include, but not be limited to, the following:

- Construction equipment shall be properly outfitted and maintained with manufacturer-recommended noise-reduction devices to minimize construction-generated noise.
- Electrical power shall be used to operate air compressors and similar power tools.
- Additional noise attenuation techniques shall be employed as needed to reduce excessive noise levels. Such techniques shall include, but not be limited to, the construction of temporary sound barriers or sound blankets between construction sites and nearby noise-sensitive receptors.
- Signage shall be posted on campus informing all workers and subcontractors of the time restrictions for construction activities. The sign should also include the CSUSM telephone numbers where complaints associated with construction noise can be submitted.

Implementation of Mitigation Measures NOI-1 and NOI-2 would reduce impacts associated with short-term noise increases during construction to less than significant.

e-f. **No Impact**. The proposed project is not located within two miles of a public airport or public use airport, and no private airstrips are located in the vicinity. The nearest public airport is McClellan-Palomar Airport, which is operated by the County of San Diego and located approximately seven miles west of the project in the City of Carlsbad. Therefore, the project would not result in impacts related to exposure of people to noise from an airport.

13. Population and Housing

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

Discussion

a. **No Impact**. Implementation of the proposed project would not directly induce population growth due to the fact that no new housing or businesses are proposed. The proposed project would not extend services or infrastructure to new areas or allow for the development of land that previously could not be developed due to service constraints. No impact associated with population growth would occur.

b. **No Impact**. The proposed project would not displace homes. No impacts would occur.

c. **No Impact**. The proposed project would not displace people. No impacts would occur.

14. Public Services

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

Discussion

a. **Fire Protection – Less Than Significant Impact**. The San Marcos Fire Department currently provides fire protection services for the CSUSM campus, including the project site. Construction and operation of the proposed project would generate virtually no demand for increased public services. During construction, fire protection may be required, but these would be short-term demands and would not require increases in the level of public service offered or affect response times. Because of the low probability and short-term nature of potential fire protection needs during construction, the proposed project would result in less than significant impacts to these services.

Police Protection – No Impact. The CSUSM Police Department provides police protection and public safety services for the CSUSM campus. The proposed lighting and cell tower project would not require increased police protection and public safety services

from the CSUSM Police Department, as it would be constructed within an existing track and field facility and would not induce population growth on campus. No impacts would occur.

Schools – <u>No Impact</u>. The project does not propose new housing, nor would it induce population growth such that there would be an increase in demand for school services. Thus, the project would not generate a need for new or expanded school services or facilities. No impacts would occur.

Parks – <u>No Impact</u>. The project does not propose new housing, nor would it induce population growth such that there would be an increase in demand for public parks. Thus, the project would not generate a need for new or expanded parks or recreational facilities. No impacts would occur.

Other Public Facilities – <u>No Impact</u>. The project does not propose new housing, nor would it induce population growth such that there would be an increase in demand for new or expanded public services. Accordingly, the proposed project would not result in impacts to other public facilities.

15. Recreation

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

Discussion

a. **<u>No Impact</u>**. See Item 14.a, *Parks*.

b. **<u>No Impact</u>**. The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities. No impacts would occur.

16. Transportation/Traffic

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

Discussion

a. **No Impact**. The proposed project does not include components that would result in long-term traffic generation or that would result in long-term alteration of the existing roadway or sidewalk configurations, or conflict with the circulation system identified in the CSUSM Master Plan. Thus, implementation of the project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.

b. **No Impact**. The project would not generate traffic, therefore no associated traffic impacts would occur.

c. **No Impact**. The proposed project would not include aviation components. Additionally, the project is not located in the vicinity of an airport or within an aircraft flight path and, therefore, would not affect air traffic patterns. No impacts would occur.

d. **No Impact**. The proposed project would not include design features that would affect traffic safety, nor would it cause incompatible uses (such as tractors) on local roads. No impacts would occur.

e. **No Impact**. The proposed project would not interfere with emergency access routes. Construction would occur within the CSUSM campus and would not be of a magnitude or duration that would substantially affect the capacity or access to local roadways. No impacts would occur.

f. **No Impact**. The proposed project would not affect transit routes or services, or bicycle/pedestrian facilities. Therefore, it would not conflict with the policies, plans, and programs supporting alternative transportation. No associated impacts would occur.

17. Utilities and Service Systems

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

Discussion

a. **No Impact**. The proposed project would not require the construction or expansion of wastewater facilities or exceed applicable wastewater treatment requirements because it would not involve the construction of facilities that would generate sewage. No impacts would occur.

b. **No Impact**. See Item 17.a. Because the project would not generate sewage, no impacts would occur.

c. **No Impact**. The proposed project would not require the construction or expansion of storm water drainage facilities. The cell tower, light standards, and associated facilities would avoid impacts to existing storm water facilities in the vicinity. No impacts would occur.

d. **No Impact**. The proposed project would involve installation and operation of a cell tower, light standards, and associated facilities that would not require new or expanded entitlements for water service. No impacts would occur.

e. **No Impact**. The proposed project would not require or result in the construction of new wastewater treatment facilities or the expansion of existing wastewater treatment facilities. No impacts would occur.

f. **Less Than Significant Impact**. Operation of the proposed project would not generate solid waste or affect landfill capacity. During construction a minimal amount of construction waste would be generated. Solid waste debris would be disposed of at a permitted landfill. Moreover, Assembly Bill 939 (Sher), also known as the Integrated Waste Management Act, and Assembly Bill 341 (Chesbro) mandate the reduction of solid waste disposal in landfills by requiring a minimum of 50 percent diversion rate. Accordingly, at least half of the potential construction waste would be diverted from a landfill. The remaining quantity is reasonably anticipated to be within the permitted capacity of the permitted landfills serving the project area. Impacts would be less than significant.

g. **No Impact**. See Item 17.f. The proposed project would comply with all applicable, federal, State, and local statutes and regulations related to solid waste. No impacts would occur.

18. Mandatory Findings of Significance

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

Discussion

a. **Less Than Significant Impact**. The project site is developed and does not support any sensitive habitat that would be suitable for rare, threatened, or endangered plant or animal species likely to occur in the region. Implementation of the project would not reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of rare or endangered plants or animals. Due to the limited ground disturbance, the proposed project would not be expected to impact any cultural or historic resources. Impacts would be less than significant.

b. **Less Than Significant Impact**. Cumulative impacts are defined as two or more individual project effects that, when considered together or in concert with other projects, combine to result in a significant impact (CEQA Guidelines Section 15355). This project is located within the CSUSM campus, where there is a potential for future development and construction activities. In order for a project to contribute to cumulative impacts, it must result in some level of impact on a project-specific level. The following discussion addresses project-related effects for which some level of potential impact was identified. This includes topics for which "Less than Significant Impacts" were identified, as well as those for which the threshold question assumed some level of impact (i.e., those for which consideration of a potential "substantial" or "significant" effect was considered).

Implementation of the proposed project would install new light standards, one of which would include telecommunications equipment, and an associated equipment shelter at the existing Mangrum Track on the CSUSM campus. As discussed in Item 1, these proposed features would not substantially change the existing visual environment of the project area and thus, would not contribute to cumulative visual effects. The project would introduce additional sources of night time lighting in an area that already contains several night time lighting sources, and is located in an area of campus where recreational facilities that may also contribute to increased lighting sources are proposed. The eight existing metal halide light fixtures would be removed, retaining only the existing fluorescent lights used for general illumination of the track. As noted in Item 1, the proposed stadium light standards would be designed to reduce spill and glare effects to adjacent uses and would not create a substantial new source of night time lighting. Therefore, the project's contribution to cumulative light and glare effects would not be cumulatively considerable.

For the issue of hydrology and water quality, the project would not result in substantial modifications to the existing condition or require the use of, or otherwise interfere with groundwater supplies. Effects to water quality would be addressed through conformance with NPDES permit conditions and implementation of the applicable BMPs. Since no impact was identified for this issue, any project contribution to cumulative effects would be negligible and less than cumulatively considerable (see Item 9).

Because of the developed nature of the project site, it is unlikely that localized cumulative impacts would occur. Geology and soils impacts are inherently restricted to the project site and would not contribute to cumulative impacts associated with other planned or proposed development; thus, it is not necessary to address this issue on a cumulative scale. Temporary noise impacts associated with construction would be site-specific mitigated with identified mitigation (NOI-1 and NOI-2) and would cease upon installation of the proposed equipment. Operational noise increases associated with operation of the equipment would not adversely impact surrounding noise-sensitive land uses. As a result, the project would not incrementally contribute to a significant cumulative noise impact.

With regard to project-specific impacts that are not localized to the immediate project area, including air quality and greenhouse gas emissions, the baseline analysis often addresses the cumulative condition—it is the contribution to the larger picture that is assessed in analyses of consistency with regional air quality strategies and pollutant dispersal. This includes the effects of air pollutants, which disperse from their original source and affect entire air basins (or with global warming, potentially the entire world). As noted in discussion of Items 3 and 7, this small project's contribution would be negligible and not cumulatively considerable. As discussed in Item 16, the project would generate negligible traffic trips during construction and operations; therefore, the project would not contribute to a cumulatively considerable increase in traffic in the project area. The project would not induce population growth and thereby, directly or indirectly, contribute to cumulative impacts related to public services or utilities and service systems.

With regard to hazards and hazardous materials, no regional problem is identified. In the unlikely event that the project would result in a spill (either on site or during transport),

there are prescribed activities overseen by CSUSM that would result in clean-up and protection of the public or the environment. Such an event occurs infrequently and is not identified as resulting in a regional cumulative problem. Nonetheless, given the CSUSM Emergency Management Plan (CSUSM 2013a) and minimal presence of hazardous materials on site, any contribution would be less than cumulatively considerable.

For these reasons, impacts associated with cumulative effects would be less than significant.

c. **Less Than Significant Impact With Mitigation Incorporated**. With the adherence to regulatory codes, ordinances, regulations, standards, and guidelines, in conjunction with mitigation measures HAZ-1, NOI-1, and NOI-2, construction and operation of the proposed project would not present a substantial adverse effect on human beings either directly or indirectly.

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Appendix A

GHG EMISSIONS CALCULATIONS SHEETS

Greenhouse Gas Emission Worksheet
Operational Emissions - Future

Project:
Project Number:

Conversion to CO2e Units based on GWP

CH4	21	GWP
N2O	310	GWP

Indirect Emission from Electricity Use

Total Project Usage: **89,518** kWH/year
90 MWH/year

1 ton (short, US) = 0.90718474 metric ton.
1 metric ton = 2,204.62 pounds

Emission Factors for Electricity Use:

CO2	742.12	lbs/MWh/year
CH4	0.0302	lbs/MWh/year
N2O	0.0081	lbs/MWh/year

Annual Emissions from Electricity Use:

	Total Emissions	**Total CO2e Units**
CO2 emissions:	30.1 metric tons	**30.1** metric tons CO2e
CH4 emissions:	0.0012 metric tons	**0.0** metric tons CO2e
N2O emissions:	0.0003 metric tons	**0.1** metric tons CO2e
	Project Total	***30 metric tons CO2e***

Sources:
Table C.1 Comparison of GWPs from the IPCC's 2nd and 3rd TAR, App. C of the CCAR General Reporting Protocol (GAR), Ver. 3.1, Jan. 2009
Table C.2: CO2, CH4, and N2O Electricity Emission Factors by eGRID Subregion, Subregion CAMX, App C of the CCAR GAR, Ver. 3.1, Jan. 2009.

Greenhouse Gas Emission Worksheet
Operational Emissions - Existing

Project:
Project Number:

Conversion to CO2e Units based on GWP

CH4	21	GWP
N2O	310	GWP

Indirect Emission from Electricity Use

Total Project Usage: **22,830** kWH/year
23 MWH/year

1 ton (short, US) = 0.90718474 metric ton.
1 metric ton = 2,204.62 pounds

Emission Factors for Electricity Use:

CO2	742.12	lbs/MWh/year
CH4	0.0302	lbs/MWh/year
N2O	0.0081	lbs/MWh/year

Annual Emissions from Electricity Use:

	Total Emissions		Total CO2e Units	
CO2 emissions:	7.7	metric tons	**7.7**	metric tons CO2e
CH4 emissions:	0.0003	metric tons	**0.0**	metric tons CO2e
N2O emissions:	0.0001	metric tons	**0.0**	metric tons CO2e
		Project Total	***8***	***metric tons CO2e***

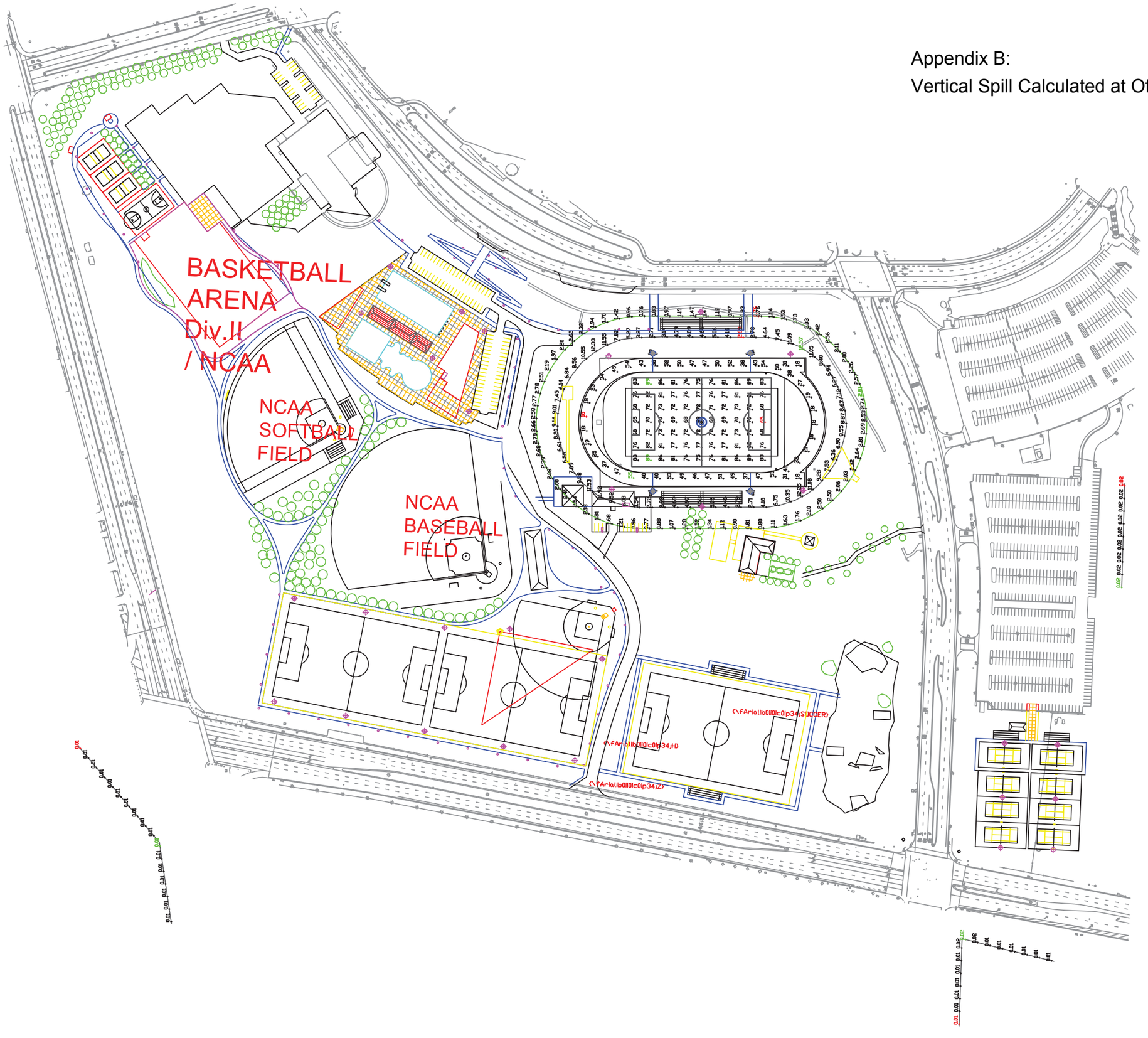
Sources:
Table C.1 Comparison of GWPs from the IPCC's 2nd and 3rd TAR, App. C of the CCAR General Reporting Protocol (GAR), Ver. 3.1, Jan. 2009
Table C.2: CO2, CH4, and N2O Electricity Emission Factors by eGRID Subregion, Subregion CAMX, App C of the CCAR GAR, Ver. 3.1, Jan. 2009.

Appendix B

VERTICAL SPILL CALCULATED AT OFF-SITE RESIDENTIAL USES

Appendix B:

Vertical Spill Calculated at Off-site Residential Uses



Source: Musco 2014c

fc = foot candles

Appendix C

MITIGATION MONITORING AND REPORTING PROGRAM

CSUSM Mangrum Track Lighting and Cell Tower Project
Mitigation Monitoring and Reporting Program

Mitigation Measure	Time Frame of Mitigation				Monitoring Reporting Agency	Time Frame for Verification Frequency to		Date of	
	Planning	Pre Construction	During Construction	Post Construction		Monitor	Report	Completion	Verification
Hazards and Hazardous Materials									
HAZ-1: The applicant shall install an emissions cut-off switch and post signs regarding safety precautions near the cellular telecommunications antenna in accordance with FCC regulations at the time the cellular telecommunications antenna is installed.			✓		CSUSM				
Noise									
NOI-1: Construction activities shall only occur during the hours between 7:00 a.m. to 6:00 p.m. Monday through Friday, and between 8:00 a.m. and 5:00 p.m. on Saturday.			✓		CSUSM				
NOI-2: The construction contractor shall implement the following measures to minimize short-term noise levels caused by construction activities. Measures to reduce construction noise shall be listed in contractor specifications and shall include, but not be limited to, the following: • Construction equipment shall be properly outfitted and maintained with manufacturer-recommended noise-reduction devices to minimize construction-generated noise. • Electrical power shall be used to operate air compressors and similar power tools. • Additional noise attenuation techniques shall be employed as needed to reduce excessive noise levels. Such techniques shall include, but not be limited to, the construction of temporary sound barriers or sound blankets between construction sites and nearby noise-sensitive receptors. • Signage shall be posted on campus informing all workers and subcontractors of the time restrictions for construction activities. The sign should also include the CSUSM telephone numbers where complaints associated with construction noise can be submitted.			✓		CSUSM				

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