CITY OF MORENO VALLEY

INITIAL STUDY FOR
Sunnymead Master Storm Drain Plan Line F and Line F-7

Sunnymead Master Storm Drain Plan Line F and Line F-7, Project No. 804 0008

April 12, 2025

Lead Agency
CITY OF MORENO VALLEY
14177 Frederick Street
Moreno Valley, CA 92552

Prepared By
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BACKGROUND INFORMATION AND PROJECT DESCRIPTION

1. **Project Case Number(s):**
   804 0017

2. **Project Title**:
   Sunnymead Master Drainage Plan Line F and F-7

3. **Public Comment Period:**
   April 12, 2025 through May 12, 2025

4. **Lead Agency**:
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5. **Document Posted At:**
   https://moval.gov/cdd/documents/about-projects.html

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7. **Project Sponsor**:
   Applicant/Developer
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8. **Project Location**:
   Within the City of Moreno Valley – commencing at the corner of Hemlock Avenue and Graham Street, continuing westerly along Hemlock Avenue, then turning southerly through the Towngate Racquet Club Apartments, continuing southerly crossing State Route 60 and then Sunnymead Boulevard, ending at a proposed basin lying southerly of Sunnymead Boulevard (see **Figure 1** through **Figure 3**).

9. **General Plan Designation**:
   Along Hemlock Avenue: Commercial and Residential (Max 20 DU/AC)
   Along Sunnymead Boulevard: Commercial and Residential (Max 5 DU/AC)

10. **Existing Zoning**:
    Hemlock Avenue is zoned as a Community Commercial District (CC) which is intended to provide residents and workers with a variety of businesses and services. Hemlock Avenue is also zoned as Residential 20 District (R20), which provides residential developments of multifamily dwelling units, mobile home parks, and is identified as having a maximum density of twenty DUs per net acre.
    Sunnymead Boulevard is designated as a Community Commercial (CC) in the Village Specific Plan (SP 204). The size and scope of the CC areas require vehicular movement of the users and allows for a “grander scale” in size and height of projects. The primary focus of the CC land use designation is to provide for the general shopping and service needs of freeway travelers, area residents, and workers

provide for the general shopping and service needs of freeway travelers, area residents, and workers by providing a wide variety of travel related and local business services, which include motels, gas stations, fast food and sit-down restaurants, general retail, and personal uses. CC is the basic commercial zoning for the City of Moreno Valley and the Village.

Figure 1. Regional Location

Figure 2. Project Location

Figure 3. Site Photos

Hemlock Ave from Graham intersection

View east along Hemlock Ave

View at southern boundary looking west

View at apartments looking west

View at Sunnymead Blvd looking west

View of drainage channel looking south

View of drainage channel looking south

11. Surrounding Land Uses and Setting:

The Sunnymead Storm Drain Project (Project) is set within a developed environment of residential and nine office/commercial land uses (see **Table 1**). Graham Street and Hemlock Avenue are two-lane improved roadways, including curb/gutter and sidewalks. Sunnymead Boulevard is a four-lane arterial with a center median island. Along Hemlock Avenue east of Graham Street land uses are characterized by multi-family residential apartments and townhome/condominiums. The land use transitions from residential to office/commercial and mini-storage land uses approaching Pigeon Pass Road from the east.

Along Sunnymead Boulevard near Frederick Street the land uses are office/commercial businesses. Moving east, the south side of the Boulevard consists of a single-family residential neighborhood that takes access from Graham Street. The north side of the Boulevard is a master planned professional office park (SP 204C).

Table 1. Existing Land Use and Zoning

	Existing Land Use	General Plan	Zoning
Project Site	Public ROW; Vacant	Hemlock Avenue: Commercial and Residential (Max 20 DU/AC). Sunnymead Boulevard: Commercial and Residential (Max 5 DU/AC)	Community Commercial District (CC); Residential 20 District (R20); Community Commercial (CC) and Residential 5 District and R5 zoning
North	Commercial, Residential	Community Commercial District (CC) and Residential: Maximum 20 DUs per net acre	Community Commercial District (CC) and R20 Residential: Maximum 20 DUs per net acre
South	Commercial, Residential	Community Commercial (CC) within the Village Specific Plan (SP 204): Maximum 15-25 DUs per net acre	Community Commercial (CC) within the Village Specific Plan (SP 204): Maximum 15-25 DUs per net acre
East	Commercial, Residential	Community Commercial (CC) within the Village Specific Plan (SP 204):Maximum 15-25 DUs per acre and Residential: Maximum 5 DUs per net acre.	Community Commercial (CC) within the Village Specific Plan (SP 204):Maximum 15-25 DUs per acre and R5 Residential: Maximum 5 DUs per net acre.
West	Commercial, Residential	Community Commercial (CC) within the Village Specific Plan (SP 204): Maximum 15-25 DUs per net acre and Residential: Maximum 5 DUs per net acre.	Community Commercial (CC) within the Village Specific Plan (SP 204): Maximum 15-25 DUs per net acre and R5 Residential: Maximum 5 DUs per net acre.

12. Description of Project:

Environmental Setting

A history of flooding has occurred in the following three locations within the immediate area, and are the primary reasons for initiating this Project.

- North of SR-60 within the open channel that runs through the Towngate Racquet Club Apartments, run-off exceeds the capacity of the 4' high X 7' wide concrete box culvert resulting in ponding water and flowing water, through the above-ground swale which traverses the apartment complex.
- North side of SR-60 at the alignment of Graham Street. Run-off in this area ponds to depths that flood the parking lot at the Ashwood Apartment Homes and nearby David Lane.
- North of Sunnymead Boulevard where a single pipe inlet does not have adequate capacity to pass the run-off under the roadway. The stormwater often ponds to depths that flood a private parking lot and Sunnymead Boulevard, frequently requiring closure of Sunnymead Boulevard.

According to the City of Moreno Valley General Plan Section 6.8 Flood Hazards, the regional flood control planning and facilities are under the jurisdiction of the Riverside County Flood Control and Water Conservation District (RCFCWCD). The City of Moreno Valley (City), however, has the responsibility for design, construction, and maintenance of local drainage facilities. Roadway curb and gutter, and roadside ditches that supplement the flood control system.

The RCFCWCD prepared four "Master Drainage Plans" for the City; these documents analyzed drainage flows and made recommendations for improvements. The Drainage Plan specific to the proposed Project is the Sunnymead Area Drainage Plan, which is generally bounded by Frederick Street and March Air Reserve Base on the west, the Perris Valley Storm Drain on the south and Lasselle

Street on the east. The plan consists of several retention basins, open channels, and a network of underground storm drains. Poorman Reservoir (Pigeon Pass Reservoir) is the major flood basin in the area. The system carries storm runoff south to the Perris Valley Storm Drain. Although master drainage plans are in place, and are being implemented as funds are available, drainage problems remain, and can be expected to continue into the future until the entire drainage system has been completed.

Project Description

The Project Site is generally bounded by Graham Street to the east, Pigeon Pass Road/Frederick Street to the west, Hemlock Avenue to the north and Park Valley Drive to the south including Sunnymead Boulevard. SR-60 runs through the center of the Project Site and acts as a drainage barrier for surface runoff flows that approach from the north. Surface runoff in the area generally flows from north to south with two major points of collection occurring on Hemlock Avenue. The proposed storm drain system is identified in the City's Master Drainage Plan and the Riverside County Master Drainage plan. The proposed improvements are intended to provide a flood protection level up to a 100-year storm event in the local area.

EXISTING CONDITIONS:

The first point of collection occurs 1,140 feet east of Pigeon Pass Road, where an existing double 48" corrugated metal pipe culvert discharges flow from a regional 72" storm drain facility (Line F) to an existing earthen swale. The earthen swale conveys flows southerly through an existing apartment complex to a 4'x7' Reinforced Concrete Box (RCB) culvert which flows under SR-60 and discharges to another existing earthen swale to the south.

The second point of collection occurs at the intersection of Hemlock Avenue and Graham Street where no storm drain facilities currently exist. Surface runoff flows south via curb and gutter down Graham Street through an existing 16"x 32" opening in the SR-60 Freeway sound wall and then into a 30" culvert crossing under the SR-60 Freeway. The flows then collect in an earthen swale on the south side of the SR-60 Freeway and are conveyed west to Line F and confluence with flows discharging from the 4'x7' RCB. The confluence flows then meander south in the earthen swale to Sunnymead Boulevard where runoff is intercepted by a 36" reinforced concrete pipe (RCP) that transitions to a 54" RCP where a tributary lateral discharges runoff from Sunnymead Boulevard. The flows are then discharged to an earthen flood control channel and continue south down the historical drainage path.

PROPOSED IMPROVEMENTS:

While the primary purpose of this Project is to address flooding issues, water quality elements that treat smaller storms through infiltration will also be included to address Municipal Separate Storm Sewer System (MS4) permit requirements. Project improvements begin at the intersection of Graham Street and Hemlock Avenue with an array of catch basins designed to intersect the heavy flows from the north of Graham Street. From here the flows are conveyed westerly through an underground pipe system in Hemlock Avenue for approximately 1,200 feet, then the system sweeps South (into the Towngate Racquet Club Apartment Complex) capturing the flows from the easterly pipe of the Hemlock culvert using a storm drain lateral; from here the combined flows continue southerly in a 84" pipe that will cross the SR-60 and one private property (APN 292-250-013), when this system reaches Sunnymead Boulevard, it will capture the runoff from the Boulevard by a series of catch basins, from here, the storm drain system will cross private property (APN 292-250-020) prior to discharging into a concrete "U" channel that will divert low flows into a basin and will outlet high flows into the natural streambed using an appropriate sized spillway.

A dual-purpose Stormwater Management and Retention Treatment (SMART) basin is proposed on the downstream stream side of Sunnymead Boulevard. The basin design includes two elements that will be necessary to address peak flows as well as resource agency requirements. The basin will provide flow reduction through detention of the peak rate of the 100-year storm, while also providing a low flow retention element to support habitat and preserve beneficial uses through infiltration and recharge of groundwater. The floor of the basins will be used for retention purposes that will allow for minimal ponding to ensure drawdown of retained runoff within 48-hours. Storage in the basins above the retention volume will provide detention that will reduce peak flow rates of the 100-year storm event.

Given the complexity and functionality of the basins that include both retention and detention components, for the purposes of this Project these basins will be referred to as SMART basin.

In summary, the Project improvements would include a total of 4,200 feet of storm drain, 10 catch basins, two infiltration facilities, two diversion structures, one weir structure and energy dissipation where necessary. These quantities reflect an approximation and are subject to change as the Project progresses through final design.

Discretionary Approvals, Permits, and Studies

The following discretionary approval, permits, and studies are anticipated to be necessary for implementation of the proposed Project:

City of Moreno Valley

- Adoption of this Mitigated Negative Declaration
- Approvals and permits necessary to execute the proposed Project, including but not limited to, demolition permit, grading permit, building permit, etc.

13. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Note: Conducting consultation early in the California Environmental Quality Act (CEQA) process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

The City initiated consultation with California Native American tribes with traditional use areas within or near the Project Site regarding the proposed Project, pursuant to Assembly Bill 52 (AB 52). The Project received responses from the following tribes:

- Pechanga Band of Indians
- Yuhaaviatam of San Manual Nation
- Rincon Band of Luiseño Indians
- Agua Caliente Band of Cahuilla Indians
- Morongo Band of Mission Indians
- Torres Martinez Desert Cahuilla Indians

Morongo Band of Mission Indians, Rincon Band of Luiseño Indians, and Pechanga Band of Indians identified the Project Site is within ancestral territory and traditional use area of the Cahuilla and Serrano prople of the Morongo Band of Missions Indian. The tribes requested formal consultation and measures to be incorporated into the environmental document.

The Agua Caliente Band of Cahuilla Indians requested copies of any cultural documentation generated as part of the Project. The Yuhaaviatam of San Manuel Nation requested that measures be incoporated into the environmental document and closed AB 52 consultation. The Torres Martinez Desert Cahuilla Indians noted that the Project is outside of their prehistoric settlement pattern and therefore, it is outside of their Tribal area of concern.

14. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

- RCFCWCD – Plan approval
- Caltrans District 8 – Encroachment Permit for "jack and bore" operation under SR-60
- US Army Corps of Engineers – Clean Water Act Section 404 Permit
- Santa Ana Regional Water Quality Controal Board – Section 401 Water Quality Certification
- California Department of Fish and Wildlife – 1602 Streambed Alteration Agreement

15. Other Technical Studies Referenced in this Initial Study (Provided as Appendices):

- Air Quality and Greenhouse Gas Technical Memorandum
- Biological Techincal Report and Multiple Species Habitat Conservation Plan Consistency Analysis
- Cultural Resources Report
- Geotechnical Exploration and Recommendations Report
- Hydraulics and HydrologyReport
- Noise Technical Memorandum
- Phase 1 Environmental Site Assessment

16. Acronyms:

AB –	Assembly Bill
ACBI –	Agua Caliente Band of Cahuilla Indians
APE –	Area of Potential Effect
AQMP –	Air Quality Management Plan
BMP –	Best management practice
BUOW –	burrowing owl
CalEPA –	California Environmental Protection Agency
CAL FIRE –	California Department of Forestry and Fire Protection
CC –	County Commercial District
CDFW –	California Department of Fish and Wildlife
CEQA –	California Environmental Quality Act
CFR –	Code of Federal Regulations
Cfs –	Cubic feet per second
CHRIS –	California Historical Resources Information System
CNDDB –	California Natural Diversity Database
CNEL –	Community Noise Equivalent Level
CNPS –	California Native Plant Society
CNPSEI –	California Native Plant Society's Electronic Inventory
COMU –	Corridor Mixed-Use
CRMP –	Cultural Resource Monitoring Plan
CRPR –	California Rare Plant Bank
CWA –	Clean Water Act
dB –	Decibel
dBA –	A-weighted sound pressure level
DBESP –	Determination of Biologically Equivalent or Superior Preservation
DTSC –	Department of Toxic Substance Control
EIC –	Eastern Information Center
EIR –	Environmental Impact Report
ESA –	Environmental Site Assessment
FMMP –	Farmland Mapping and Monitoring Program

GHG – Greenhouse Gas
GP – General Plan
IS – Initial Study
LSTs – Localized Significance Thresholds
MBMI – Morongo Band of Mission Indians
MBTA – Migratory Bird Treaty Act
MLD – Most Likely Descendent
MM – Mitigation measure
MMRP – Mitigation Monitoring Report Plan
MRZ – Mineral Resource Zone
MS4 – Municipal Separate Storm Sewer System
MSHCP – Multiple Species Habitat Conservation Plan
MTCO2e – Metric tons of carbon dioxide equivalent
MWD – Municipal Water District of Southern California
NAHC – Native American Heritage Commission
NEPSSA – Narrow Endemic Plant Species Survey Area
NHD – National Hydrology Dataset
NPDES – National Pollutant Discharge Elimination System
NC – Natural Resouces Conservation
NWI – National Wetlands Inventory
OHWM – Ordinary High Water Mark
OR – Open Resources
PRC – Public Resources Code
PPP – Plans, Programs, or Policies
R20 – Residential 20 District
RCA – Regional Conservation Authority
RCB – Reinforced Concrete Box
RCFCWCD – Riverside County Flood Control & Water Conservation District
RCP – Reinforced Concrete Pipe
REC – Recognized Environmental Conditions
RPW – Relatively Permanent Waters
RWQCB – Regional Water Quality Control Board
SCAB – South Coast Air Basin
SCAG – Southern California Association of Governments
SCAQMD – South Coast Air Quality Management District
SHPO – State Historic Preservation Officer
SLF – Sacred Lands File

SMART – Stormwater Management and Retention Treatment
SSC – Species of Special Concern
SWPPP – Storm Water Pollution Prevention Plan
SWRCB – State Water Resources Control Board
TCR – Tribal Cultural Resource
TNW – Traditional Navigable Waters
UCR – University of California Riverside
USACE – United Stated Army Corps of Engineers
UDOT – United States Department of Transportation
USEPA – United States Environmental Protection Agency
USFWS – United States Fish and Wildlife
USGS – United States Geologic Survey
WQMP – Water Quality Management Plan

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, 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 the proposed project MAY have a "potentially significant" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR 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, nothing further is required.

Claudia Manrique-Miklusek
Signature

April 3, 2025
Date

Claudia Manrique, Associate Planner
Printed Name

City of Moreno Valley
For

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources 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 will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) Less Than Significant 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 Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or another CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a) Earlier Analyses Used. Identify and state where they are available for review.

    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources. A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

    a) the significance criteria or threshold, if any, used to evaluate each question; and

    b) the mitigation measure identified, if any, to reduce the impact to less than significance.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Except as provided in Public Resources Code §21099 – Modernization of Transportation Analysis for Transit-Oriented Infill Projects – **Would the project:**				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
Response: No impact The proposed Project is located within the City of Moreno Valley, which lies within a relatively flat valley floor surrounded by hills and mountains. The City's 2006 General Plan (GP) Final Environmental Impact Report (FEIR) identifies scenic resources in the City. According to Figure 5.11-1 of the City's GP FEIR, scenic vistas potentially visible from the proposed Project are Box Springs Mountains area to the north and the "Badlands" to the east. The Project is in the western portion of the City and is not within or adjacent to a designated scenic resource. Additionally, the proposed Project improvements would largely be confined to underground pipes and below grade channels and catch basins that would not obstruct a scenic vista. ***No impact*** would result from implementation of the Project.				
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
Response: No impact There are no designated state scenic highways adjacent to the Project. In addition, there are no rock outcroppings or historic buildings in the immediate vicinity of the proposed Project, therefore there would be no impact to such resources. The proposed Project improvements would be confined to below ground pipelines and structures that would not obstruct viewsheds along SR-60. ***No impact*** would result from implementation of the Project.				
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
Response: Less than Significant Impact The area surrounding the proposed Project is characterized as an urbanized area and includes residential and office/commercial land uses. The proposed Project would flow in a north-south direction across privately-owned property east of Fredreick Street. Because the proposed Project would be confined to underground pipes and below grade structures in this segment, the proposed Project would not alter the visual character along Sunnymead Boulevard. However, there would be visual disruption during construction as trenches are excavated and stockpiles of earth are created for the duration of each construction phase. Construction impacts would be temporary, and all disturbed areas would be hydroseeded and re-stored to their prior condition. Therefore, the Project would result in a ***less than significant impact*** to existing visual character.				
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
Response: No impact The implementation of the proposed Project does not include any modifications to street lighting, nor does the Project include other site lighting, and therefore would not create a new source of light or glare in the area. ***No impact*** would occur.				
Plans, Programs, or Policies (PPPs)				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
None. **Mitigation Measures** None.				
Sources: 1. City of Moreno Valley General Plan Final Environmental Impact Report adopted July 2006. • Chapter 5.11 – Aesthetics 2. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code • Section 9.10.110 – Light and Glare • Chapter 9.16 – Design Guidelines • Section 9.17.030 – Landscape and Water Efficiency Requirements - G - Heritage Trees				
II. AGRICULTURE AND FOREST RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest protocols adopted by the California Air Resources Board. **Would the project:**				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
Response: No impact According to the California Department of Conservation's Important Farmland Finder, the entire area surrounding the proposed Project is designated as "Urban and Built-up Land." Therefore, the Project would not convert any farmlands to non-agricultural uses. ***No impact*** would occur.				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
Response: No impact According to the California Department of Conservation Williamson Act Enrollment Finder, the proposed Project is not within or around an area subject to the Williamson Act contract. Therefore, the Project would not conflict with a Williamson Act contract. ***No impact*** would occur.				
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
Response: No impact The Project is located in a built-up and urbanized area and does not include any forests or timberlands. Therefore, ***no impact*** would occur.				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
Response: No impact The Project is not located in an area of forestlands. Therefore, the Project would not convert forestland to non-forest uses. ***No impact*** would occur.				
e) Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
Response: No impact The Project is not located in an area of forestlands. Therefore, the Project would not convert forestland to non-forest uses. ***No impact*** would occur.				
Plans, Programs, or Policies (PPPs) None. **Mitigation Measures** None.				
Sources: 1. California Department of Conservation a. Important Farmland Finder b. Williamson Act Enrollment Finder 2. City of Moreno Valley General Plan Final Environmental Impact Report adopted July 2006. **a.** Chapter 5.8 – Agricultural Resources				
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district 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?	☐	☐	☐	☒
Response: No Impact The South Coast Air Quality Management District (SCAQMD or District) was created to ensure regional and local compliance with the Federal Clean Air Act and to implement the state air quality program. The SCAQMD prepared the 2022 Air Quality Management Plan (AQMP), which is a tool used to identify strategies for meeting state and federal ambient air quality standards. The SCAQMD coordinates with local planning agencies to determine assumptions and projections that inform the significance thresholds and strategies that are required to meet compliance standards. If a project exceeds the SCAQMD significance thresholds and cannot implement mitigation measures that reduce the impact level to less than significant, then the project would be in conflict with the AQMP. As detailed subsequently in response to Question III b), the proposed Project would not exceed any air quality thresholds and would be consistent with the AQMP. ***No Impact*** would occur, and no mitigation is required.				
b) 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?	☐	☐	☒	☐
Response: Less Than Signicant Impact The proposed Project is located within the South Coast Air Basin (SCAB) under the SCAQMD jurisdiction. SCAQMD has jurisdiction over an approximately 12,000 square-mile area consisting of the four-county Basin				

and the Los Angeles County and Riverside County portions of what used to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the Southern California Association of Governments (SCAG), county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards. **Table 2** summarizes the SCAQMD Air Quality Significance Thresholds to determine significance for the purposes of CEQA.

Table 2. SCAQMD Regional Daily Air Quality Significance Thresholds

Mass Daily Thresholds		
Pollutant	**Construction**	**Operation**
NO_X	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

Source: SCAQMD March 2023

SCAQMD developed localized significance thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative I-4. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. The thresholds were developed based on the ambient concentrations of NO_X, CO, PM_{10} and $PM_{2.5}$ for each source receptor area and distance to the nearest sensitive receptor. The LSTs applicable to the proposed Project are those for a project site up to 1 acre in size with sensitive receptors within 25 meters of construction activity and located within the Perris Valley source receptor area. These values are summarized in **Table 3**.

Table 3. SCAQMD Localized Significance Thresholds

Allowable Emissions (lbs/day)		
Pollutant	**Construction**	**Operation**
NO_X	118 lbs/day	118 lbs/day
CO	602 lbs/day	602 lbs/day
PM_{10}	4 lbs/day	1 lb/day
$PM_{2.5}$	3 lbs/day	1 lb/day

Source: SCAQMD October 2009

Construction Emissions

Construction emissions are considered short-term, temporary emissions. During construction, short-term degradation of air quality may occur due to fugitive dust generated by construction activities involving clearing vegetation, site grading, and trenching. If construction activities are not properly controlled, they could temporarily generate small amounts of fugitive dust, which is attributed to impacting air quality.

Potential emissions from construction of the proposed Project were estimated using CalEEMod (2020.4.0) (Appendix D.1). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential

criteria pollutant emissions associated with both construction and operations from a variety of land use projects.

SCAQMD has adopted Rule 403 to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions. Implementation of the measures in Rule 403 would reduce the emissions of PM10 and PM2.5 estimated by CalEEMod defaults. Compliance with Rule 403, identified as **PPP AQ-1**, was included in the emissions modeling analysis:

- All clearing, grading, earth-moving or excavation activities shall cease when winds exceed 25mph per SCAQMD guidelines in order to limit fugitive dust emissions.
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project are watered at least three (3) times a day during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the midmorning, afternoon and after work is finished for the day.
- The contractor shall ensure that traffic speeds on unpaved roads and project site areas are reduced to 15 miles per hour.

The maximum daily emissions, assuming compliance with all state and local regulatory conditions, are presented in **Table 4**.

Table 4. Construction Emissions Summary (Pounds per Day)

Source/Phase	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions*	2.2	22.0	17.9	<0.1	3.2	1.9
SCAQMD Air Quality Significance Threshold**	75	100	550	150	150	55
SCAQMD Localized Significance Threshold***	--	118	602	--	4	3
Significant	NO	NO	NO	NO	NO	NO

*CalEEMod 2020.4.0
**SCAQMD March 2023
***SCAQMD October 2009

Operational Emissions

The Project related operational emissions, along with a comparison of SCAQMD significance thresholds, are shown in **Table 5**. There are no predicted operational emissions.

Table 5. Operational Emissions Summary (Pounds per Day)

Source	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Area Source	0	0	0	0	0
Energy Source	0	0	0	0	0
Mobile Source	0	0	0	0	0
Totals	**0**	**0**	**0**	**0**	**0**
SCAQMD Threshold	55	55	550	150	55
SCAQMD Localized Significance Threshold	--	118	602	1	--
Significant	NO	NO	NO	NO	NO

*CalEEMod 2020.4.0

Construction and Operational Impacts

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
The estimated maximum daily emisisons of all air pollutants during Project construction and operation are below the SCAQMD air quality significance thresholds and localized significance thresholds; therefore, impacts are considered to be ***less than significant,*** and no mitigation is required.				
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

Response: Less Than Significant Impact

Sensitive receptors can include residences, schools, playgrounds, child care centers, health care facilities, and retirement homes. The proposed Project is in the immediate vicinity of sensitive receptor land uses (defined as a place where an individual could reamin for 24-hours). The townhomes and apartment homes along Hemlock Avenue and the single-family residential neighborhood along the south side of Sunnymead Boulevard are all within the immediate vicinity of the Project. In addition, a Kindercare Day Care facility and an Elementary School are both located approximately 600-feet from the proposed Project.

As described in response to question b) above and shown in **Table 2** and **Table 3**, the Project's maximum localized construction and operational emissions would not exceed SCAQMD's thresholds for significance. Therefore, sensitive receptors would not be subject to a significant air quality impact during Project construction or operations. Impacts would be ***less than significant,*** and no mitigation is required.

d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐

Response: Less Than Significant Impact

The proposed Project does not contain activities that are typically associated with emitting objectionable odors. Potential odor sources associated with the Project may result from construction equipment exhaust and the application of asphalt during construction activities. It should be noted that any construction–related odor emissions generated would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction activity; they are therefore, considered less than significant. The Project would be required to comply with SCAQMD Rule 402 Iincluded as **PPP AQ-2** to prevent occurrences of public nuisances. Therefore, odors associated with the Project-related construction and /or operations would be ***less than significant*** and no mitigation is required.

Plans, Programs, or Policies (PPPs)

PPP AQ-1: Rule 403. All applicable measures included in Rule 403, shall be incorporated into Project plans and specifications as implementation of Rule 403, which include but are not limited to:

- All clearing, grading, earth-moving or excavation activities shall cease when winds exceed 25mph per SCAQMD guidelines in order to limit fugitive dust emissions.
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project are watered at least three (3) times a day during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the midmorning, afternoon and after work is finished for the day.
- The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are reduced to 15 miles per hour.

PPP AQ-2: Rule 402. No air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public.

Mitigation Measures

None.

Sources:

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Air Quality and GHG Emissions Technical Memorandum (WSP, 2025)				
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Response: Less than Significant with Mitigation

An *Updated Biological Technical Report and Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis* was prepared for the Project, which evaluates and addresses potential impacts to biological resources (Appendix D.2). The findings of this analysis is summarized in the section below.

Vegetation Communities/Land Cover Types

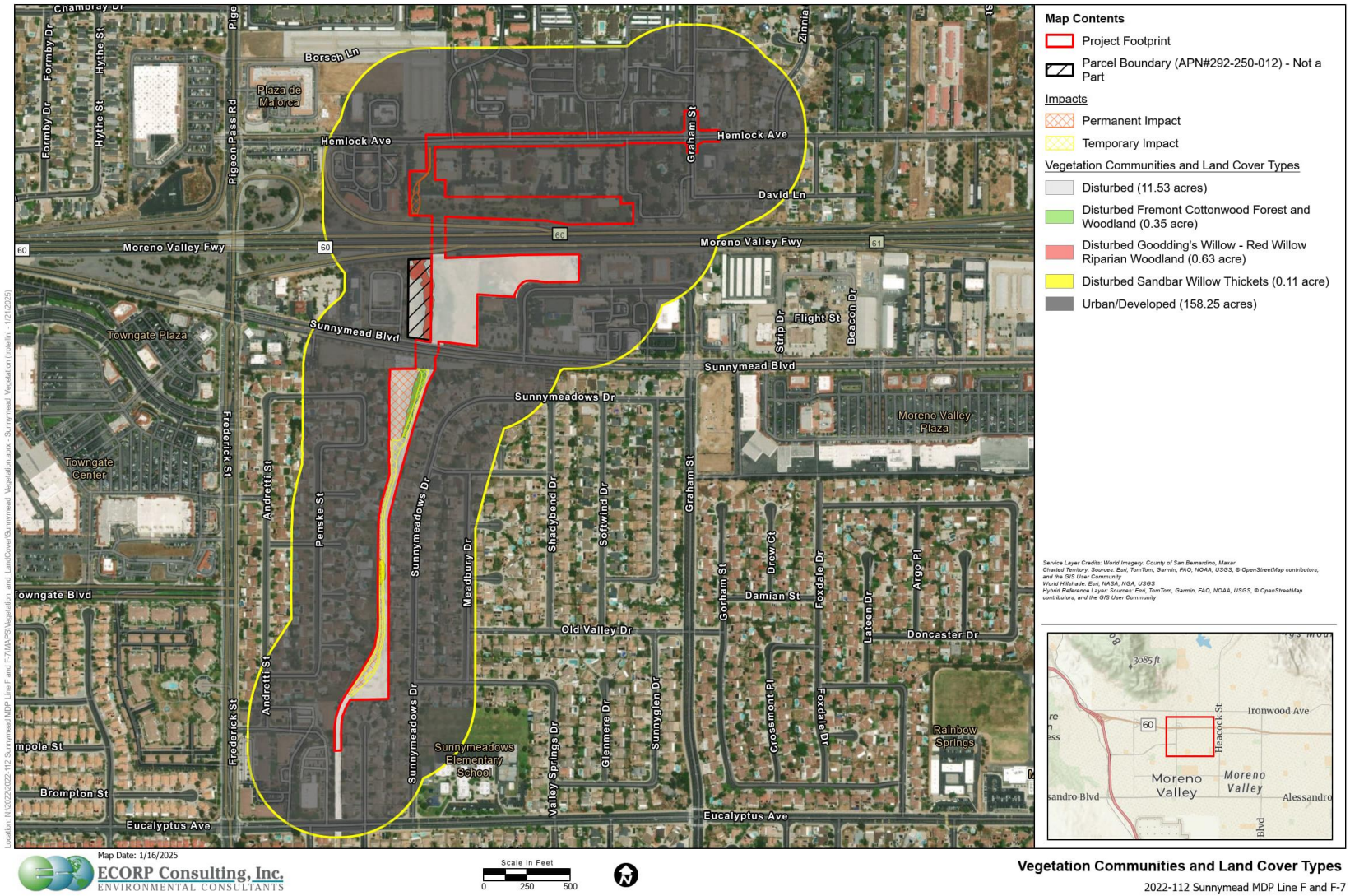
The Project Footprint plus a 500-foot buffer (collectively referred to in this section as the Study Area) was mapped and classified for vegetation communities. The Project Footprint is classified as "disturbed" and "developed" due to the high levels of disturbances associated with human activities and existing structures present. Within the Project Footprint, three vegetation communities including disturbed Fremont cottonwood forest and woodland, disturbed Goodding's willow - red willow riparian woodlands, disturbed sandbar willow thickets, and two land cover types are present: disturbed and urban/developed. Two of these vegetation communities are considered sensitive and are discussed in greater detail below. The additional 500-foot survey buffer consists of one vegetation community: disturbed sandbar willow thickets, and two land cover types: disturbed and urban/developed. **Table 6** lists the associated acreage for vegetation communities and land cover types that occur within the Study Area. These vegetation communities and land cover types are also described in more detail below and depicted on **Figure 4**.

Table 6. Vegetation Communities and Land Cover Acreage within the Study Area

Land cover type	Acreage within Study Area
Disturbed Fremont cottonwood forest and woodland	0.35
Disturbed Goodding's willow – red willow riparian woodlands	0.63
Disturbed sandbar willow thickets	0.11
Disturbed	11.53
Urban/Developed	158.25
TOTAL	170.87

[1] The acreage value for each feature has been rounded to the nearest 1/100 decimal place. The totals represent a summation of unrounded values prior to being rounded.

Figure 4. Vegetation Communities and Land Cover Types within the Study Area



Sensitive Vegetation Communities

Disturbed Fremont Cottonwood Forest and Woodland

Disturbed Fremont cottonwood forest and woodland is characterized by Fremont's cottonwood (*Populus fremontii*) as a dominant or codominant species in the tree canopy with ash trees (*Fraxinus spp*.), willows (*Salix* spp.), California sycamore (*Platanus racemosa*), and coast live oak (*Quercus agrifolia*). This community is found on floodplains, along low-gradient rivers, perennial or seasonally intermittent streams, springs, in lower canyons in desert mountains, in alluvial fans, and in valleys with a dependable subsurface water supply that varies considerably during the year. Fremont cottonwood forest and woodland is considered a state-sensitive vegetation community and has a State Rarity Rank of S3, indicating that it is vulnerable. The area mapped within the Project Footprint as disturbed Fremont cottonwood forest and woodland mostly has a continuous tree canopy. Toward the southern end of this community, an open tree canopy and an intermittent shrub layer is present. In the Project Footprint, this community is dominated by Fremont's cottonwood and other species including mulefat (*Baccharis salicifolia*), narrowleaf willow (*Salix exigua*), tamarisk (*Tamarix ramosissima*), broadleaf cattail (*Typha latifolia*), and Mexican fan palm (*Washingtonia robusta*) are present. Disturbances observed within this vegetation community include unauthorized dumping, nonnative species, and homeless encampments.

Disturbed Goodding's Willow – Red Willow Riparian Woodland

Disturbed Goodding's willow – red willow riparian woodland is characterized by black willow (*Salix gooddingii*) and/or red willow (*Salix laevigata*) as a dominant or codominant species in the tree or shrub canopy with white alder (*Alnus rhombifolia*), foothill pine (*Pinus sabiniana*), California sycamore, Fremont's cottonwood, and oaks (*Quercus* spp.). Shrubs within this alliance may include mulefat, California wild rose (*Rosa californica*), narrowleaf willow, arroyo willow (*Salix lasiolepis*), and black elderberry (*Sambucus nigra ssp. caerulea*). This community is found on terraces along large rivers and canyons and along floodplains of streams, seeps, springs, ditches, lake edges, and low gradient depositions. Goodding's willow – red willow riparian woodland is considered a state sensitive vegetation community and has a State Rarity Rank of S3, indicating that it is vulnerable. In the Project Footprint, this community is dominated by Gooding's willow and occurs in patches north of Sunnymead Boulevard. It is associated with a stream feature located to the west and outside the Project Footprint on a parcel that is not a part of the Project. Additional species present within this community include ash (*Fraxinus* sp.), arroyo willow, mulefat, and Mexican fan palm. Disturbances observed within this alliance include nonnative species, homeless encampments and unauthorized dumping.

Other Vegetation Communities/Land Cover Types

Disturbed Sandbar Willow Thickets

Disturbed sandbar willow thickets are characterized by narrowleaf willow as a dominant or co-dominant species in the shrub canopy with baccharis (*Baccharis* spp.), California wild rose, blackberry shrubs (*Rubus* spp.), and arroyo willow. Shrubs are generally less than 23 feet in height and the canopy is intermittent to continuous. This community is typically found on temporarily flooded floodplains, depositions along rivers and streams, and at springs. Within the Project Footprint, this community has an intermittent to continuous canopy, and shrubs range from 6 feet to 12 feet in height. The disturbed sandbar willow thicket community identified in the Project Footprint is dominated by narrowleaf willow, and no other native species were present at the time of the biological survey. Disturbances observed in this community include nonnative species, pedestrians, feral cats and dogs, and scattered trash. During the presence/absence least bell's vireo surveys, the biologists noticed that this vegetation community was removed by an unknown entity in June 2024; however, this vegetation community was starting to grow back by the time of the rare plant survey in September 2024.

Disturbed

Disturbed land includes areas where the native vegetation community has been heavily influenced by human actions such as grading and trash dumping but lack development. Disturbed land is not a vegetation classification, but rather a land cover type and is not restricted by elevation. Disturbed areas may be actively maintained to be free of vegetation or have been compacted or disked to such a degree that native vegetation is very sparse. The areas mapped as disturbed are largely devoid of native vegetation and are dominated by open areas or non-native weedy and ruderal vegetation. This land cover type occurs throughout the majority of the Project Footprint south of SR-60. Plants present in this land cover type within the Project Footprint include non-native weedy species such as prickly lettuce (*Lactuca serriola*), wild oat (*Avena fatua*), mustard (*Brassica* sp.), Bermuda grass (*Cynodon dactylon*), puncture vine (*Tribulus terrestris*), and Russian thistle

(*Salsola tragus*). Native species in this land cover type included vinegar weed (*Trichostema lanceolatum*), rattlesnake sandmat (*Euphorbia albomarginata*), and turkey-mullein (*Croton setiger*). The central portion of the Project Footprint, south of SR-60 and north of Sunnymead Boulevard, appeared the most disturbed based on the large areas of bare ground and prevalence of weedy vegetation characteristic of disturbed places (i.e., Bermuda grass and Russian thistle), and it appeared the area had been cleared and graded in the past. South of Sunnymead Boulevard, the disturbed area northwest of the drainage also appeared graded, and gravel had been spread over this area. Additionally, the southeast corner of the Project Footprint, east of the large drainage that runs down the Project Footprint, had evidence of grading with compact soils and some portions of this area appeared to have had mulch put down.

Urban/Developed

Urban/Developed areas do not constitute a vegetation classification, but rather a land cover type. Areas mapped as urban/developed have been constructed upon or otherwise physically altered to an extent that natural vegetation communities are no longer supported. In the Project Footprint, portions of the developed areas contain strips of ornamental and landscaped vegetation; however, this land cover type also consists of paved roadways, residential development, and parking lots. The majority of the 500-foot survey buffer is mapped as urban/developed. Ornamental landscaped plants observed during the biological survey include bougainvillea (*Bougainvillea* sp.), Italian cypress (*Cupressus sempervirens*), Bermuda grass, olive trees (*Olea europaea*), Peruvian pepper trees (*Schinus mole*), and pine trees (*Pinus* sp.).

Special-Status Plant Species

The California Natural Diversity Database (CNDDB) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI) searches were conducted to identify potential special-status plant species that could occur within the Project Footprint. There were 64 special-status plant species (of those, 12 are federally and/or state listed and 40 are covered by the MSHCP) that appeared in the literature review and database searches for the Project Footprint. Of the 64 special-status plants identified in the literature review and based on the habitat found onsite, no species have a high potential to occur, seven species have a moderate potential to occur, and eight species have a low potential to occur within the Project Footprint or in the immediate area. The remaining 49 species are presumed absent from the Project Footprint. No sensitive plant species were identified during the biological surveys or rare plant survey.

Descriptions of the CNPS designations can be found in **Table 7** below.

Table 7. California Rare Plant Rank (CRPR) Status Designations

List Designation	Meaning
1A	Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B	Plants Rare, Threatened, or Endangered in California and Elsewhere
2A	Plants Presumed Extirpated in California, But Common Elsewhere
2B	Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3	Plants about which we need more information; a review list
4	Plants of limited distribution; a watch list
List 1B, 2, and 4 extension meanings:	
1	Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
2	Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
3	Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

The following seven species were found to have a moderate potential to occur in the Project Footprint.

- Nevin's barberry (*Berberis nevinii*), federally listed (endangered), state listed (endangered), CRPR 1B.1, MSHCP Covered;
- Smooth tarplant (*Centromadia pungens* ssp. *laevis*), CRPR 1B.1, MSHCP Covered;
- California satintail (*Imperata brevifolia*), CRPR 2B.1;
- Spreading navarretia (*Navarretia fossalis*), federally listed (threatened), CRPR 1B.1, MSHCP Covered;
- White rabbit-tobacco (*Pseudognaphalium leucocephalum*), CRPR 2B.2;
- San Bernardino aster (*Symphyotrichum defoliatum*), CRPR 1B.2; and
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*), CRPR 2B.1, MSHCP Covered.

The following eight species have a low potential to occur in the Project Footprint:

- San Diego sagewort (*Artemisia palmeri*), CRPR 4.2;
- Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*), CRPR 1A;
- Southern California black walnut (*Juglans californica*), CRPR 4.2, MSHCP Covered;
- Ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*), CRPR 4.2, MSHCP Covered;
- Lemon lily (*Lilium parryi*), CRPR 1B.2, MSHCP Covered;
- Small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*), CRPR 4.2, MSHCP Covered;
- Engelmann oak (*Quercus engelmannii*), CRPR 4.2, MSHCP Covered; and
- Parish's gooseberry (*Ribes divaricatum* var. *parishii*), CRPR 1A.

If rare, special-status, or narrow endemic plants species occur in the Project Footprint, impacts in the form of ground disturbance, vegetation removal, habitat loss, and mortality may occur and may be considered significant under CEQA. Within the Western Riverside MSHCP, smooth tarplant and Nevin's barberry are Criteria Area species and spreading navarretia and Wright's trichocoronis are Narrow Endemic Plant Species. Impacts to these four species have already been contemplated and addressed under the MSHCP. Furthermore, the Project is a covered activity under the MSHCP and is not located in a Criteria Area nor a MSHCP-designated Narrow Endemic Plant Species Survey Area. Therefore, additional focused surveys and implementation of mitigation for these four species are not required for the Project.

The white rabbit-tobacco, California satintail, and San Bernardino aster are not covered species under the MSHCP and have CRPR ranks of 1 and 2. Therefore, impacts to these species may be considered significant under CEQA if these plant species are present within the Project Footprint. However, no special-status plant species were observed during the biological surveys and/or rare plant survey. Therefore, impacts to sensitive plants would be ***less than significant***, and no additional surveys or mitigation measures for sensitive plant species are required.

Special-Status Wildlife Species

There were 53 special-status wildlife species (of those, 17 are federally and/or state listed, two are candidates for federal listing, two are candidates for state listing, and 37 are covered by the MSHCP) that appeared in the literature review and database searches for the Project Footprint. Of the 53 special-status wildlife species identified in the literature review, one was present on the site, six have a moderate potential to occur, 13 have a low potential to occur, and the remaining 33 species are presumed absent from the Project Footprint. It is likely that previous disturbances on the site, proximity to urban and residential development, the presence of anthropogenic influences on the site, and the lack of suitable habitat preclude many of these species from occurring.

The yellow warbler (*Setophaga petechia*) is a California Department of Fish and Wildlife [CDFW] Species of Special Concern [SSC] and MSHCP Covered Species and was the only species observed in the Project Footprint. Although the species was observed, no nesting activities for the species were observed.

The following six species were found to have a moderate potential to occur in the Project Footprint:

- Western Spadefoot (*Spea hammondii*), CDFW SSC, MSHCP Covered Species;
- Southern California Legless Lizard (*Anniella stebbinsi*), CDFW SSC;
- Coastal Whiptail (*Aspidoscelis tigris stejnegeri*), CDFW SSC, MSHCP Covered Species;
- Least Bell's Vireo (*Vireo bellii pusillus*), federally listed endangered state-listed endangered, MSHCP Covered Species;
- Pallid bat (*Antrozous pallidus*), CDFW SSC; and
- Western Yellow Bat (*Lasiurus xanthinus*), CDFW SSC.

Of the species with a moderate potential to occur in the Project Footprint, western spadefoot is considered adequately conserved under the MSHCP. Therefore, potential Project impacts would be considered ***less than significant***, and no further mitigation is required for this species for this Project.

Southern California legless lizard and coastal whiptail are CDFW SSC species. Direct impacts to these species could occur in the form of injury or mortality due to vehicle or equipment strike or entombment inside of burrows that are graded over during construction. Indirect impacts may occur in the form of loss of habitat, increased human activity, noise, dust, nighttime lighting, and ground vibrations. If present, these species are not expected to occur at high densities due to the disturbed nature of the Project Footprint and degraded quality of the habitat present. Although the loss of the SSC individuals, if present, would not contribute to the decline in regional populations, best management practices identified in **MM BIO-1** found at the end of this section would be implemented to further avoid and/or minimize impacts to these species. Therefore, Project impacts would be ***less than significant***.

Marginally suitable nesting and foraging habitat for least Bell's vireo is present in two locations on the Project site, within the disturbed Fremont cottonwood forest and woodland and disturbed Goodding's willow – red willow riparian woodland vegetation communities. Focused surveys were conducted according to agency-accepted protocol guidelines for least Bell's vireo during the 2024 breeding season. The surveyors did not detect least Bell's vireo in the Project Footprint during the focused surveys. A portion of the suitable least Bell's vireo habitat within the Project Footprint was removed by an unknown entity before the protocol least Bell's vireo surveys were complete. Due to the lack of least Bell's vireo detection during the 2024 protocol surveys, it is presumed that least Bell's vireo are absent from the Project Footprint at this time. Direct impacts may occur in the form of injury or mortality by moving vehicles and equipment as well as loss of nest or nest occupants if habitat is cleared during the breeding season. Indirect impacts could occur as a result of Project construction in the form of increased human and vehicular activity, noise, dust, ground vibrations, nighttime lighting, and habitat degradation. Least Bell's vireo was not observed during focused surveys. Therefore, the species is considered to be absent from the Study Area at this time. ***No impact*** would result from Project implementation, and no further mitigation is required for this species.

Suitable maternity roosting habitat for pallid bat and western yellow bat, both CDFW SSC species, is present in the Project Footprint. The large tree cavities observed along the large drainage feature (Feat. 1) (**Figure 6**) in the Project Footprint offer suitable maternity roosting habitat for pallid bat. Suitable maternity roosting habitat for the western yellow bat is present in the palm trees and Fremont's cottonwood trees located on the Project Footprint. Title 14, Section 251.1 of the California Code of Regulations prohibits harassment (defined in that section as an intentional act that disrupts an animal's normal behavior patterns, including breeding, feeding, or sheltering) of nongame mammals (i.e., bats), and California Fish and Game Code Section 4150 prohibits take or possession of all nongame mammals or parts thereof. Any activities resulting in bat mortality (i.e., the destruction of an occupied bat roost that results in the death of bats), disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), or various modes of nonlethal pursuit or capture may be considered take as defined in Section 86 of the California Fish and Game Code. Impacts to maternity roosting sites of any native bat species, regardless of status, may be considered a significant impact to a "native wildlife nursery site" under CEQA. With the implementation of **MM BIO-2: Preconstruction Bat Surveys,** potentially significant impacts to bats classified as SSC or to maternity colonies of non-SSC bats would be minimized to a ***less than significant*** level.

The following thirteen species were found to have a low potential to occur in the Project Footprint.

- California glossy snake (*Arizona elegans occidentalis*), CDFW SSC;
- Coast horned lizard (*Phrynosoma blainvillii*), CDFW SSC, MSHCP Covered;
- Tricolored blackbird (*Agelaius tricolor*), state-listed (threatened), CDFW SSC, MSHCP Covered;
- Grasshopper sparrow (*Ammodramus savannarum*), CDFW SSC, MSHCP Covered;
- Long-eared owl (*Asio otus*), CDFW SSC, MSHCP Covered;
- Burrowing owl (*Athene cunicularia*), CDFW SSC, MSHCP Covered;
- Swainson's hawk (*Buteo swainsoni*), state-listed (threatened), MSHCP Covered;
- White-tailed kite (*Elanus leucurus*), CDFW Fully Protected, MSHCP Covered;
- Southwestern willow flycatcher (*Empidonax traillii extimus*), federally listed (endangered), state-listed (endangered);
- Yellow-breasted chat (*Icteria virens*), CDFW SSC, MSHCP Covered;
- Loggerhead shrike (*Lanius ludovicianus*), CDFW SSC, MSHCP Covered;
- Lincoln's sparrow (*Melospiza lincolnii*), MSHCP Covered; and
- Southern grasshopper mouse (*Onychomys torridus ramona*), CDFW SSC.

Eleven of these species (California glossy snake, coast horned lizard, tricolored blackbird, grasshopper sparrow, long-eared owl, burrowing owl, Swainson's hawk, white-tailed kite, yellow-breasted chat, loggerhead shrike, and Lincoln's sparrow) are addressed under the MSHCP. Impacts to these species have already been contemplated and addressed under the MSHCP. Therefore, impacts would be ***less than significant***, and no further mitigation is required for these eleven species.

Eight species (California glossy snake, coast horned lizard, tricolored blackbird, long-eared owl, burrowing owl, yellow-breasted chat, loggerhead shrike, and southern grasshopper mouse) are CDFW SSC species. If present, these eight CDFW SSC species are not expected to occur at high densities due to the degraded quality of the habitat present due to onsite disturbances. Direct impacts to these species could occur in the form of injury or mortality due to vehicle or equipment strike, entombment inside of burrows that are graded over during construction, and/or loss of nest or nest occupants if habitat is cleared during the breeding season. Indirect impacts may occur in the form of loss of habitat, increased human and vehicular activity, noise, dust, nighttime lighting, and ground vibrations. Although the loss of the SSC individuals, if present, would not contribute to the decline in regional populations, best management practices identified in **MM BIO-1** found at the end of this section would be implemented to further avoid and/or minimize impacts to these species. Therefore, Project impacts would be ***less than significant***.

The Project Footprint and surrounding area was also surveyed for suitable burrowing owl (BUOW) habitat, and burrowing owl was determined to have a low potential to occur on the Project Footprint. A MSHCP-designated burrowing owl survey area occurs approximately 50 feet west of the Project Footprint (**Figure 5**).

Figure 5. WRMSHCP Burrowing Owl Survey Area

The northern portion of the Project Footprint provides functionally suitable burrowing owl habitat in the form of low-growing vegetation and friable soil; eight potentially suitable burrows were observed in this area. The central portion of the Project Footprint, east of Feat. 1 drainage feature (**Figure 6**) also offers functionally suitable burrowing owl habitat; however, no small mammal burrows were present in this location during the focused surveys. The remainder of the Project Footprint does not provide suitable habitat for burrowing owls. The disturbed land adjacent to the Project Footprint contains compacted and rocky soils, not suitable for burrowing owl use. Some small mammal burrows, belonging to Botta's pocket gopher, were observed adjacent to the Project Footprint in the MSHCP-designated burrowing owl survey area but none were suitable for burrowing owl use (incorrect size and orientation). In addition, no burrowing owls or their sign was observed during focused surveys. A few recent records of the species have been documented within 5 miles of the Project Footprint. Even though burrowing owls were not observed using the site during the focused surveys, this species could use the site prior to the start of Project activities due to their mobile and sometimes migratory nature. Burrowing owls are protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Codes §§ 3503, 3503.5, and 3513. If burrowing owls are found to be using or nesting on the Project Footprint prior to the start of construction, direct impacts may occur in the form of mortality or injury from ground disturbing activities, entombment, and/or vegetation removal. Indirect impacts from construction noise, increased human and vehicular activity, dust, habitat loss, and/or ground vibrations may occur. These impacts to the species would be considered significant under CEQA. In order to avoid potentially significant impacts to burrowing owl, **MM BIO-3: Preconstruction Burrowing Owl Survey,** found at the end of this section would be implemented.

Southwestern willow flycatcher has a low potential to occur on the Project Footprint due to marginally suitable riparian woodland habitat. However, this species is only expected to occur on the site during migration. No direct or indirect impacts are expected during the nesting season. Direct impacts to this species could occur in the form of injury or mortality due to vehicle or equipment strike. Indirect impacts may occur in the form of loss of habitat, increased human and vehicular activity, noise, dust, nighttime lighting, and ground vibrations. Since this species is not expected to occur in the Project Footprint during the breeding season, focused surveys are not required. Implementation of **MM BIO-4: Preconstruction Survey for Nesting Birds** and **MM BIO-5: Biological Monitoring,** found at the end of this section would be implemented to avoid potentially significant impacts to the species.

The shrubs and trees on and immediately adjacent to the Project Footprint could provide nesting habitat for nesting birds and raptors protected by the MBTA and California Fish and Game Code. Furthermore, the Project Footprint could provide nesting habitat for ground-nesting bird species. If construction of the proposed Project occurs during the bird breeding season (typically January 15 through August 31), ground-disturbing construction activities could directly affect birds protected by the MBTA and their nests through the removal of habitat on the Project Footprint, and indirectly through increased noise, vibrations, and increased human activity. Impacts to nesting birds would be ***less than significant*** with the implementation of **MM BIO-1, BIO-3** and **BIO-4**.

With implementation of **MM BIO-1** through **MM BIO-5**, the proposed Project impacts to sensitive biological plant and wildlife resources would be reduced to a ***less than significant*** level.

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?	☐	☒	☐	☐

Response: Less than Significant with Mitigation Incorporated

Three riparian communities are present in the Project Footprint. Two of these communities are considered sensitive natural communities as defined by CDFW: disturbed Fremont cottonwood forest and woodland, and disturbed Goodding's willow – red willow riparian woodlands. Both of these communities are ranked by CDFW as S3, which is defined by CDFW as vulnerable. The third riparian community present in the Project Footprint is disturbed sandbar willow thickets. Sandbar willow thickets is ranked as S4, which is defined as apparently secure, and therefore is not considered a sensitive natural community.

The only sensitive natural riparian community impacted by the proposed Project is disturbed Fremont cottonwood forest and woodland, which provides habitat for special-status wildlife species and nesting birds. The Project may result in permanent loss of riparian and streambed-dependent vegetation communities. Direct impacts to these communities could occur in the form of vegetation removal. Indirect impacts may occur in the form of altering the water source (dewatering) that sustains the disturbed Fremont cottonwood forest and woodland and could result in the permanent loss of this community. It is anticipated that the Project would result in approximately 0.35 acre of impacts, including 0.15 acres of temporary impacts and 0.20 acres of permanent impacts to disturbed Fremont cottonwood forest and woodland.

As described in **MM BIO-6: Agency Permitting**, temporary and permanent impacts to jurisdictional waters, including riparian habitat, will require compensatory mitigation at a minimum 1:1 ratio. Compensation can be a combination of habitat enhancement, restoration, rehabilitation, preservation, or another similar method. Compensation can also be achieved through a payment to a Habitat Conservation Entity that manages preserved lands or through the purchase of credits from a mitigation bank such as the Riverpark Mitigation Bank. Final mitigation ratios and strategies will be coordinated and determined by United Stated Army Corps of Engineers (USACE), CDFW, and Regional Water Quality Control Board (RWQCB) prior to obtaining regulatory permits. Additionally, if impacts to riparian areas are unavoidable, preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) will be necessary to satisfy MSHCP requirements. Therefore, through compliance with permitting conditions, impacts to riparian habitat or other sensitive natural communities would be ***less than significant***.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐

Response: Less than Significant with Mitigation Incorporated

Biologists conducted a desktop review to identify potential streams, lakes, ponds, and other indications of jurisdictional resources in the Project Footprint. This review followed guidelines of the entailed examination of historic and current aerial photography, United States Fish and Wildlife (USFWS) National Wetlands Inventory (NWI) mapping (USFWS 2022), United States Geological Survey (USGS) National Hydrology Dataset (NHD; USGS 2022a), and USGS "The National Map" (USGS 2022b) to determine if there were any blue-line streams or drainages that potentially fall under the jurisdiction of either federal or state regulatory agencies. After the literature review was completed, a jurisdictional waters delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Region Supplement) (United States Army Corps of Engineers [USACE] 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b), and the *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2010).

There were a total of three aquatic features identified and examined within the Project Footprint, labeled on **Figure 6** and **Figure 7** as Features 1, 2, and 3. These features include a freshwater marsh, an intermittent drainage and an ephemeral drainage, along with associated riparian habitat features (disturbed Fremont cottonwood forest and woodland and disturbed sandbar willow thickets).

Wetland Waters of the U.S.

One federal wetland was identified within the Project Footprint, identified on **Figure 6** as Feature 3. Feature 3 is a freshwater marsh located at the outfall below a culvert that traverses underneath Sunnymead Boulevard. A sample was collected at this location and determined that the location met all three wetland criteria. The freshwater marsh is dominated by a mix of freshwater wetland species including Fremont's cottonwood, Mexican fan palm, arroyo willow, broadleaf cattail, and an unknown grass species that could not be identified. Soils met the hydric soil indicators, and the wetland hydrology indicators observed included surface water present at five inches, saturation present at seven inches, drift deposits, and drainage patterns. The upland area adjacent to the freshwater marsh was documented with another sample. The freshwater marsh is approximately 0.014 acre (608 square feet) and 43 linear feet.

Other Waters of the U.S./CDFW Jurisdiction

Potentially jurisdictional Waters of the State, along with habitat potentially jurisdictional to CDFW, have been mapped within the Project Footprint.

Feature 1

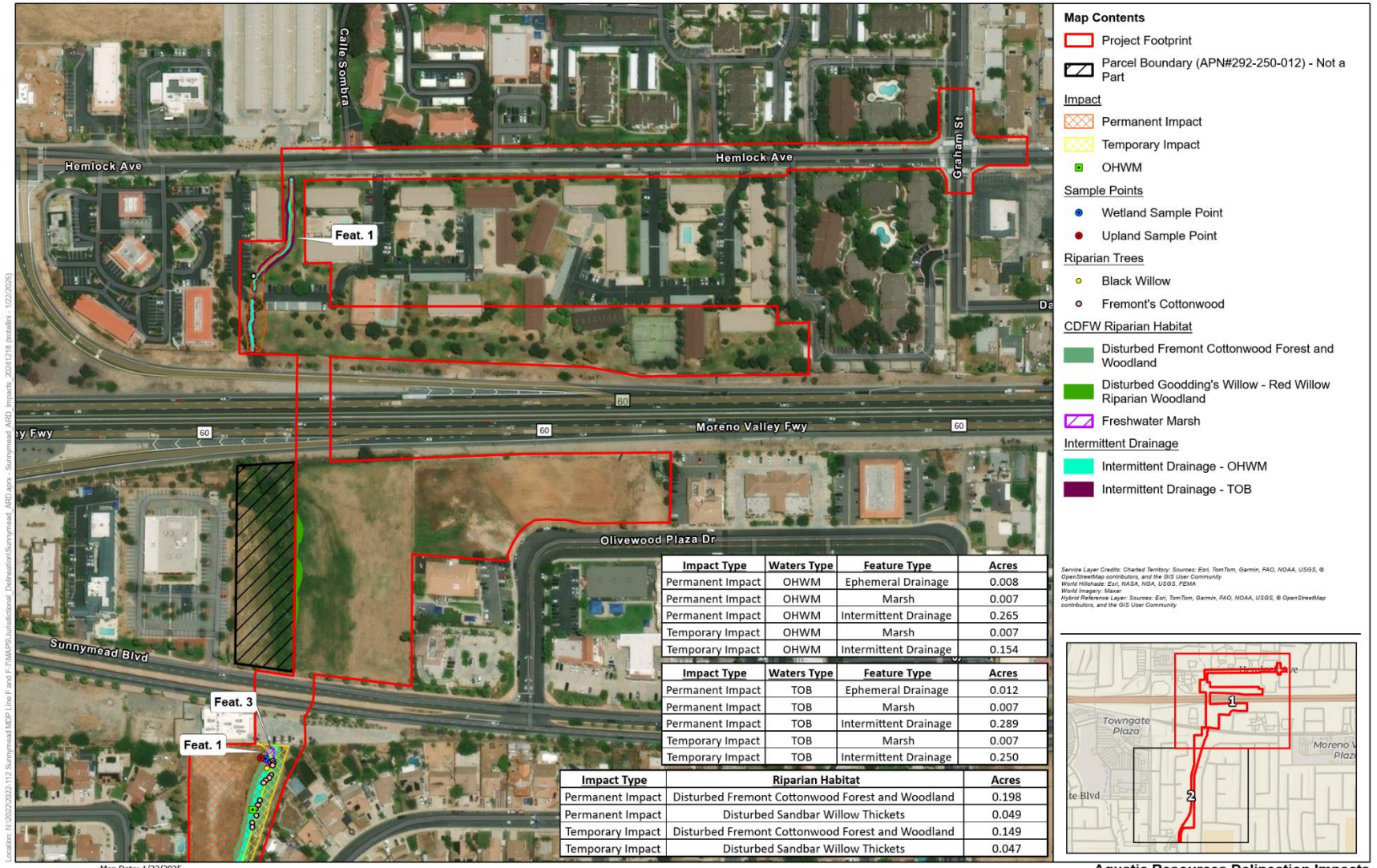
Feature 1 is the channel running through most of the Project Footprint and is considered to be an intermittent drainage. Intermittent drainages differ from ephemeral drainages in that they flow for longer duration, typically weeks or months following rainfall events, and are often influenced by groundwater. This usually results in greater quantities and duration of flow relative to ephemeral drainages. South of the Project Footprint, Feature 1 continues to travel southwest until it eventually ends up in the San Jacinto River. Both Feature 1 and the San Jacinto River are Relatively Permanent Waters, and the San Jacinto River is tributary to Lake Elsinore, which is a Traditional Navigable Water (TNW) as defined by the USACE. Therefore, Feature 1 likely has a significant nexus (affecting the chemical, physical, or biological integrity) with the downstream TNW, and is likely subject to regulation under Section 404 of the Clean Water Act (CWA).

Feature 1 is characterized by relatively dense, mature riparian vegetation within the active floodplain throughout much of the drainage's length and primarily has an unvegetated bed. The CDFW jurisdictional limits of Feat. 1 were defined by the upper limits of the overall channel, or top of the banks. Other CDFW jurisdiction includes the riparian habitat that is present (disturbed Fremont cottonwood forest and woodland, disturbed Goodding's willow-red willow riparian woodland and forest, and disturbed sandbar willow thickets). Within the mapped riparian habitats associated with Feature 1, there were also riparian trees, which are shown on **Figure 6** and **Figure 7**. Riparian trees mapped within the Project Footprint include 15 Fremont's cottonwood trees and 7 black willows. CDFW streambed and associated riparian habitat accounts for a total of approximately 0.66 acre (28,880 square feet) of the Project Footprint. Feature 1 is considered to be potentially jurisdictional to the USACE, RWQCB, and CDFW.

Feature 2

Feature 2 is a channel running in an east to west fashion through the southern portion of the Project Footprint. This Feature is considered to be an ephemeral drainage flowing during and immediately after storm events. Feat. 2 appears to be connected to an upstream storm drain system and enters the Project Footprint via a culvert. From the culvert outlet, it travels west until it joins Feature 1. Feature 2 is a non-navigable tributary that is not relatively permanent and could require a significant nexus evaluation to determine jurisdictional status to USACE. The bed of the drainage is vegetated with Bermuda grass. Feature 2 encompasses a total of approximately 0.02 acre (695 square feet) and 98 linear feet of the Project Footprint. The CDFW jurisdictional limits of Feature 2 were defined by the top of the banks of the channel. The CDFW streambed for Feature 2 totals approximately 0.03 acre (1,176 square feet). Feature 2 is considered to be potentially jurisdictional to the USACE, RWQCB, and CDFW.

Figure 6. Aquatic Resources

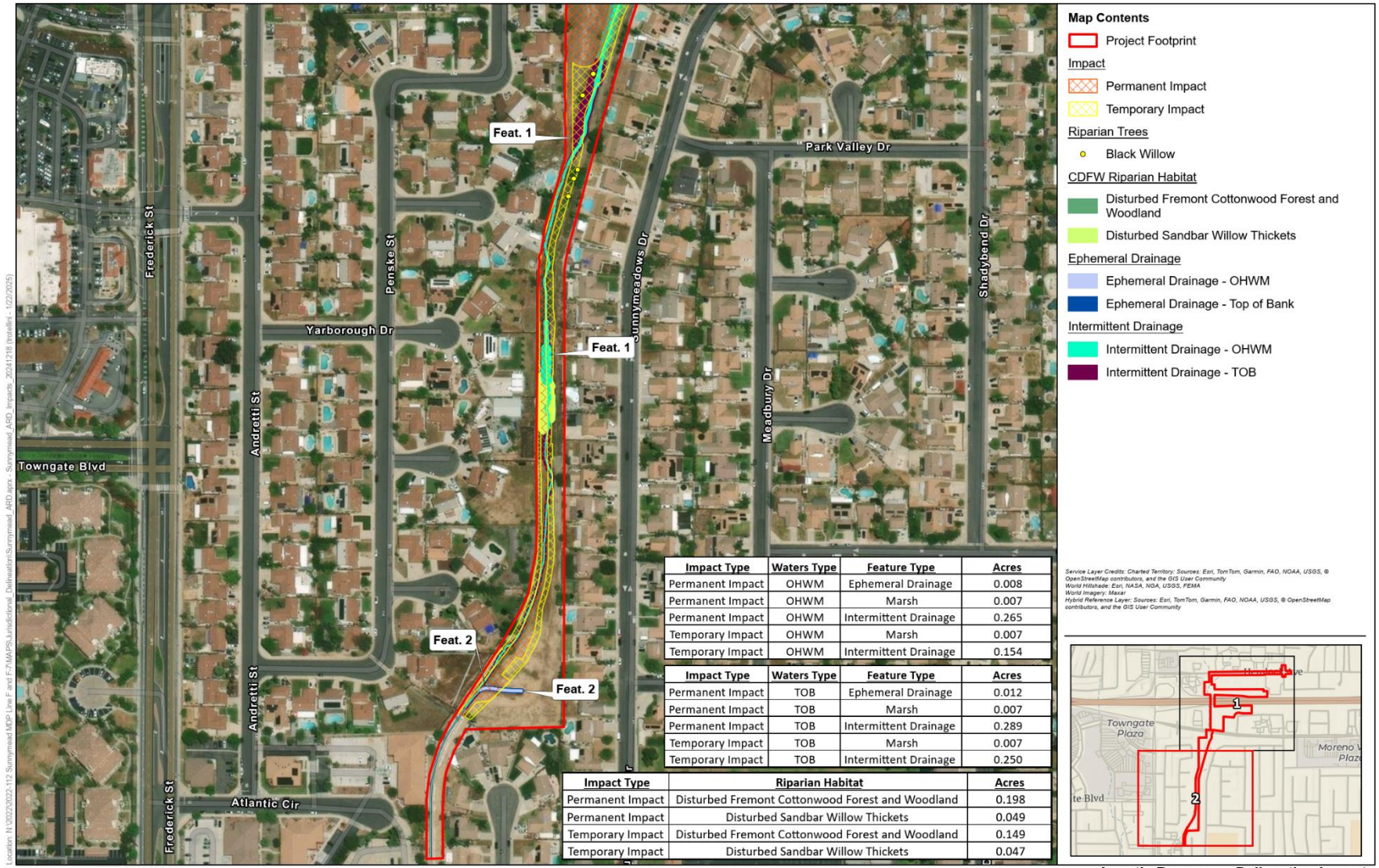


Impact Type	Waters Type	Feature Type	Acres
Permanent Impact	OHWM	Ephemeral Drainage	0.008
Permanent Impact	OHWM	Marsh	0.007
Permanent Impact	OHWM	Intermittent Drainage	0.265
Temporary Impact	OHWM	Marsh	0.007
Temporary Impact	OHWM	Intermittent Drainage	0.154

Impact Type	Waters Type	Feature Type	Acres
Permanent Impact	TOB	Ephemeral Drainage	0.012
Permanent Impact	TOB	Marsh	0.007
Permanent Impact	TOB	Intermittent Drainage	0.289
Temporary Impact	TOB	Marsh	0.007
Temporary Impact	TOB	Intermittent Drainage	0.250

Impact Type	Riparian Habitat	Acres
Permanent Impact	Disturbed Fremont Cottonwood Forest and Woodland	0.198
Permanent Impact	Disturbed Sandbar Willow Thickets	0.049
Temporary Impact	Disturbed Fremont Cottonwood Forest and Woodland	0.149
Temporary Impact	Disturbed Sandbar Willow Thickets	0.047

Figure 7. Aquatic Resources Continued



Impact Type	Waters Type	Feature Type	Acres
Permanent Impact	OHWM	Ephemeral Drainage	0.008
Permanent Impact	OHWM	Marsh	0.007
Permanent Impact	OHWM	Intermittent Drainage	0.265
Temporary Impact	OHWM	Marsh	0.007
Temporary Impact	OHWM	Intermittent Drainage	0.154

Impact Type	Waters Type	Feature Type	Acres
Permanent Impact	TOB	Ephemeral Drainage	0.012
Permanent Impact	TOB	Marsh	0.007
Permanent Impact	TOB	Intermittent Drainage	0.289
Temporary Impact	TOB	Marsh	0.007
Temporary Impact	TOB	Intermittent Drainage	0.250

Impact Type	Riparian Habitat	Acres
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Service Layer Credits: Charted Territory: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
World Hillshade: Esri, NASA, NGA, USGS, FEMA
World Imagery: Maxar
Hybrid Reference Layer: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Map Date: 1/22/2025

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 200
1:2,400

Aquatic Resources Delineation Impacts
Sheet 2 of 2
2022-112 Sunnymead MDP Line F and F-7

Impacts to federal aquatic resources associated with the Project consist of approximately 0.15 acre of temporary impacts and 0.27 acre of permanent impacts to intermittent drainage and 0.01 acre of permanent impact to ephemeral drainage under USACE/RWQCB jurisdiction. There would also be 0.01 acre of temporary impacts and 0.01 acre of permanent impacts to freshwater marsh under USACE/RWQCB jurisdiction. These impacts would be subject to Section 404 permitting with the USACE and Section 401 Water Quality Certification permitting with the RWQCB.

In addition, the Project would result in approximately 0.36 acres of temporary impacts and 0.53 acres of permanent impacts to CDFW jurisdiction, including top-of-bank streambed habitat, freshwater marsh, ephemeral drainages, and associated riparian habitat areas (disturbed Fremont cottonwood forest and woodland and disturbed sandbar willow thickets).

The acreages presented represent a calculated estimation of the extent of jurisdictional areas within the Project Footprint, and they are subject to modification following USACE, RWQCB, and CDFW review and/or the verification process. As described in **MM BIO-6: Agency Permitting**, temporary and permanent impacts to jurisdictional waters will require compensatory mitigation at a minimum 1:1 ratio. Compensation can be a combination of habitat enhancement, restoration, rehabilitation, preservation, or another similar method. Compensation can also be achieved through a payment to a Habitat Conservation Entity that manages preserved lands or through the purchase of credits from a mitigation bank such as the Riverpark Mitigation Bank. Final mitigation ratios and strategies will be coordinated and determined by USACE, CDFW, and RWQCB prior to obtaining regulatory permits. Additionally, if impacts to riparian areas are unavoidable, preparation of a DBESP will be necessary to satisfy MSHCP requirements. Therefore, with implementation of **MM BIO-6**, impacts to riparian habitat or other sensitive natural communities would be ***less than significant***.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with an established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐

Response: Less than Significant with Mitigation Incorporated

The Study Area was assessed for its ability to function as a wildlife corridor. The entire Project Footprint is surrounded by urban development. Although the two portions of the Project Footprint south of SR-60 consist of open land that wildlife could use for movement, paved roadways and SR-60 provide a barrier to wildlife movement throughout the Project Footprint. To the immediate north, west, south, and east is residential and commercial development. South of Sunnymead Boulevard, the Project Footprint is bordered by fencing on all sides with the exception of the southwestern most tip of the Project Footprint, where fencing is not present. Fencing could deter larger wildlife from moving through the area. SR-60 bisects the Project Footprint and this likely provides a large barrier to wildlife movement in the region. In addition, Hemlock Avenue and Sunnymead Boulevard are high-trafficked roadways that bisect the Project Footprint and would also provide some barriers to wildlife movement in the area. Additionally, the disturbances from homeless encampments, unauthorized dumping, and pedestrians throughout the Project Footprint lessen the quality of the Project Footprint's value as a potential corridor. Although the Project Footprint does contain an intermittent drainage that runs in a north-south fashion through the Project Footprint, this drainage would not provide movement corridors for wildlife. Therefore, the Project Footprint would not be considered a linkage or corridor between conserved natural habitat areas.

Potential nesting habitat for migratory birds and raptors protected by the MBTA (USFWS 1918) and California Fish and Game Code is present in the Project site. Shrubs, ornamental trees, and the riparian vegetation habitat that is present within the Project Footprint and adjacent to the site provide suitable nesting habitat. Suitable habitat for ground nesting bird species, such as mourning doves, is also present on the Project Footprint. If construction of the proposed Project occurs during the bird breeding season (typically January 15 through August 31), ground disturbing construction activities could directly affect birds protected by the MBTA and their nests through the removal of habitat on the Project Footprint, and indirectly through increased noise, vibrations, and increased human activity. Impacts to nesting birds would be less than significant with the implementation of **MM BIO-3** and **BIO-4**.

Suitable bat roosting habitat is present on the Project Footprint in the tree cavities and the palm thatch and foliage of the Fremont's cottonwood trees. These trees offer potential bat maternity roosting habitat. Bat maternity roosts are considered native wildlife nursery sites. In order to avoid potentially significant impacts to bats classified as SSC or to maternity colonies of non-SSC bats, **MM BIO-2** found at the end of this section would be implemented.

With implementation of **MM BIO-2**, **BIO-3** and **BIO-4**, the Project would have a ***less than significant*** impact on migratory birds and bats.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐

Response: Less than Significant with Mitigation Incorporated

Implementation of the proposed Project would directly impact 11 Fremont's Cottonwood and two Black Willow trees. The removal of trees is regulated by the City of Moreno Valley Municipal Code Section 9.17.030, E (**PPP BIO-1**). The standard for projects necessitating the removal of existing mature trees includes either a) transplanting elsewhere on the site, unless transplantation is infeasible due to the type or condition of the trees; or b) replacing the trees at a three to one ratio, with minimum 24 inch box size trees of the same species, or a minimum 36 inch box for a one to one replacement, where approved.

Because these trees are identified as associated riparian habitat under CDFW's jurisdiction, permitting conditions to offset these impacts will be identified during coordination through the regulatory permitting process with the regulatory agencies (USACE, RWQCB, and CDFW) and may include compensatory mitigation, avoidance, or nonnative plant removal within the communities (**MM BIO-6**). Impacts would be reduced to a ***less than significant*** level through compliance with the MSHCP.

The City of Moreno Valley does not have any additional policies or ordinances in place to protect biological resources that are applicable to the Project.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or another approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

Response: Less than Significant with Mitigation Incorporated.

The Project Footprint is located within the planning area for the Western Riverside MSHCP, but outside of any Cell Groups, Criteria Cells, and Subunit designations. Section 6.0 of the MSHCP requires assessment of the potential effects from the Project on biological resources, including riparian/riverine areas, vernal pools, and fairy shrimp, burrowing owl, and Narrow Endemic Plant Species. In addition, the MSHCP requires an Urban/Wildlands Interface analysis be conducted in order to address the indirect effects associated with locating proposed development in proximity of MSHCP Conservation Areas. Since infrastructure development as proposed by the Project is a covered activity within the MSHCP, it is an allowable use that has been contemplated within the MSHCP. However, projects that are covered still need to comply with MSHCP requirements. Therefore, these biological resources are discussed below in relation to the Project.

Section 6.1.2 Riparian/Riverine, Vernal Pool, and Fairy Shrimp Habitat Assessment

Consistent. In accordance with Section 6.1.2 of the MSHCP, a habitat assessment was performed for riparian and riverine communities, vernal pools, and fairy shrimp. The MSHCP defines riparian/riverine areas as lands which contain habitat dominated by trees, shrubs, persistent emergent vegetation, or emergent mosses and lichens, which occur close to or that depend upon soil moisture from a nearby fresh water source; or areas with freshwater flow during all or a portion of the year. The Project Footprint, consisting of sandy loam soils in the Greenfield, Hanford, Monserate, and Ramona series soil subtypes, was lacking clay soils and did not contain vernal pool habitat or suitable habitat for fairy shrimp.

However, there is riparian vegetation and riverine features present in the Project Footprint. As previously discussed, the Project Footprint consists of disturbed Fremont cottonwood forest and woodland, and disturbed sandbar willow thickets. Several riverine features and a small wetland were mapped within the Project Site, including an intermittent drainage, an ephemeral drainage, and a freshwater marsh. While these riverine and riparian areas are subject to disturbances, they provide suitable habitat for special-status wildlife

species and can also be utilized by bird and raptor species protected under the MBTA. Direct impacts in the form of habitat loss, mortality, injury, entombment inside of burrows, and/or nest failure could occur if construction activities are performed during the nesting season. Indirect impacts in the form of habitat degradation, increased human activity, noise, dust, nighttime lighting, and/or ground vibrations may also occur. Permitting conditions to offset impacts will be identified during coordination through the regulatory permitting process with the regulatory agencies (USACE, RWQCB, and CDFW) and may include compensatory mitigation, avoidance, or nonnative plant removal within the communities. Preparation of a DBESP will also be required to satisfy MSHCP requirements. A DBESP is required under the MSHCP regardless of agency jurisdiction of aquatic resources and vegetation because the DBESP also addresses the vegetation as habitat for special-status species. Additionally, implementation of **MM BIO-3** and **BIO-4** would reduce impacts to riparian birds to a level that is ***less than significant***.

Section 6.1.3 Narrow Endemic Plant Species

Not applicable. The Project is not located within a Narrow Endemic Plant Species Survey Area (NEPSSA) or a NEPSSA Criteria Area pursuant to Section 6.1.3 of the MSHCP. Therefore, the NEPSSA requirements are not applicable to the Project.

Section 6.1.4 Urban/Wildlands Interface Guidelines

Not Applicable. The requirements for Urban/Wildlands Interface for the management of edge factors do not apply to the Project because the Project Footprint is not situated adjacent to any wildlands or MSHCP-designated Conservation Areas. A net long-term increase of edge impacts is not expected as a result of this Project.

Section 6.3.2 Burrowing Owl Habitat Assessment

Consistent. The Regional Conservation Authority (RCA) MSHCP Information Map was reviewed to identify areas within the Project Footprint that may fall within designated burrowing owl survey areas, in accordance with Section 6.3.2 of the MSHCP. The Project Footprint is not located within a MSHCP-designated burrowing owl survey area (**Figure 5**).

Land immediately adjacent to the Project Footprint, located south of SR-60 and north of Sunnymead Boulevard, is a burrowing owl survey area as designated by the MSHCP. Due to the close proximity of the burrowing owl survey area to the Project Footprint, this land was assessed during the biological survey for potential burrowing owl habitat. The area designated as a burrowing owl survey area does not offer suitable habitat for burrowing owl because of the compacted soils and lack of ground squirrel activity. Some small mammal burrows were present in this burrowing owl survey area adjacent to the Project Footprint; however, these burrows belonged to Botta's pocket gopher, which is a species that can burrow in a variety of soils including ones that are compact. These small mammal burrows were incorrect size and orientation for burrowing owl use. In addition, no burrowing owls or owl sign was observed in this area.

Focused surveys for burrowing owl were conducted within the Project Footprint in May and June 2024. Eight potentially suitable burrows were observed in the northern portion of the Project Footprint. However, no burrowing owls or owl sign was observed throughout the focused surveys. Implementation of **MM BIO-3: Preconstruction Burrowing Owl Survey** will be conducted within 30 days of Project implementation to comply with Section 6.3.2 of the MSHCP.

Section 6.3.2 Additional Surveys

Not applicable. The RCA MSHCP Information Map was reviewed to determine if the Project Footprint was located within any other MSHCP designated survey areas beyond burrowing owl. The Information Map revealed that the Project Footprint is not located within the amphibian species, criteria area species, or mammalian species survey areas. Therefore, no further habitat assessments or surveys are required.

Plans, Programs, or Policies (PPPs)

PPP BIO-1: Adhere to all methods and provisions identified in Municipal Code Section 9.17.030, E, which provides landscape and irrigation design standards for the planting and removal of trees.

Mitigation Measures

MM BIO-1: Best Management Practices. The following best management practices shall be identified in the project contract documents and implemented to reduce potential impacts to biological and aquatic resources.

- Confine all work activities to the pre-determined work area.
- To prevent inadvertent entrapment of wildlife during construction, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals.
- To prevent wildlife use of burrow- or den-like structures, all construction pipes, culverts, or similar structures with a diameter of 4 inches or greater should be capped while stored onsite.
- All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from the construction or Project Footprint.
- Avoid the use of rodenticides and herbicides on the Project Footprint to prevent primary or secondary poisoning of wildlife, and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the USEPA, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to predatory wildlife.

MM BIO-2: Preconstruction Bat Surveys. Prior to the initiation of Project activities, a bat habitat assessment will be conducted to examine trees for suitable bat roosting habitat. High quality habitat features (e.g., large tree cavities, basal hollows, loose or peeling bark, palm trees with intact thatch, etc.) will be identified and the area around these features will be searched for bats and bat sign (guano, staining, culled insect parts).

If trees scheduled for removal/modification (i.e., trimming) are determined to be suitable for bat roosting or if work is expected to occur within 100 feet of suitable trees, these activities should be scheduled outside of the bat maternity season to the greatest extent feasible: September 1 to October 15 or when evening temperatures are not below 45° F and rain is not over 0.5 inch in 24 hours; or between March 1 and April 1 with the same weather parameters. If work is expected to occur outside of the bat maternity season (during conditions that meet the parameters described above), work adjacent to bat habitat trees can continue without additional surveying efforts. If trees with suitable bat roosting habitat are scheduled for removal during this time frame, removal using the two-step method should be conducted:

As much as feasible, vegetation and trees within the area that are not suitable for roosting bats will be removed first to provide a disturbance that might reduce the likelihood of bats using the habitat.

Two-step tree removal will occur over two consecutive days under the supervision of a qualified bat biologist. On Day 1, small branches and small limbs containing no cavity, crevice or exfoliating bark habitat on habitat trees (or outer fronds in the case of palm trees), as identified by a qualified bat biologist are removed first, using chainsaws only (i.e., no dozers, backhoes). The following day (Day 2), the remainder of the tree is to be felled/removed. (The intention of this method is to disturb the tree with noise and vibration and branch removal on Day 1. This should cause any potentially present day-roosting bats to abandon the roost tree after they emerge for nighttime foraging. Removing the tree quickly the next consecutive day should avoid reoccupation of the tree by bats.)

If tree removal/modification or work within 100 feet of suitable trees must occur during the maternity season, a qualified bat biologist shall conduct a focused emergence survey(s) of the tree(s) within 48 hours of scheduled work. If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until after the maternity season or a qualified biological monitor has determined the roost is no longer active.

MM BIO-3: Preconstruction Burrowing Owl Survey. Please note that the burrowing owl was recently listed as a candidate species under the state of California Endangered Species Act; therefore, the stipulations included in this mitigation measure are subject to change as a result. A preconstruction

survey for burrowing owl shall take place no more than 30 days prior to the start of ground-disturbing activities, regardless of whether Project activities are scheduled to occur during the burrowing owl breeding season (March 1 through August 31) or not. The preconstruction survey shall be performed by a qualified biologist who has experience surveying for and identifying burrowing owl and their sign in accordance with the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012). The biologist shall survey the Project Footprint and a 500-foot buffer surrounding the site. If preconstruction survey results are negative (i.e., no occupied burrows or live burrowing owls are detected), no further action is required for protection of burrowing owls. If preconstruction survey results are positive (i.e., presence of occupied burrows with sign present [such as whitewash, feathers, pellets, bones of prey items] or live owls) and impacts to burrowing owls are unavoidable, then additional mitigation measures will need to be implemented to offset impacts to burrowing owl. These measures shall be developed in accordance with the CDFW Staff Report on Burrowing Owl Mitigation (2012) and may include seasonal work restrictions, establishing a non-disturbance buffer around each burrow location, biological monitoring, or passive relocation.

MM BIO-4: Preconstruction Survey for Nesting Birds. Whenever feasible, any ground-disturbing activities shall be conducted during the non-breeding season for birds (approximately September 1 through January 14). This will avoid violations of the MBTA and California Fish and Game Code §§ 3503, 3503.5, and 3513. If activities with the potential to disrupt nesting birds, including southwestern willow flycatcher, are scheduled to occur during the bird breeding season (January 15 through August 31), a preconstruction survey for nesting birds and southwestern willow flycatcher shall be conducted by a qualified biologist who is experienced in conducting nesting bird surveys and the identification of southwestern willow flycatcher and other avian species. The survey should occur no more than three days prior to the start of ground-disturbing activities. The nesting bird survey shall include the Project Footprint and adjacent areas where Project activities have the potential to cause nest failure. If no nesting birds or southwestern willow flycatchers are observed during the survey, site preparation and construction activities may begin. If nesting birds (including nesting raptors) or southwestern willow flycatchers are found to be present, avoidance or minimization measures shall be undertaken to avoid potential Project-related impacts. Measures may include seasonal work restrictions or establishment of a non-disturbance buffer around each active nest until nesting has been completed as determined through periodic nest monitoring by the biologist. The size of the non-disturbance buffer will be determined by the Project biologist. Typically, this is 300 feet from the nest site in all directions (500 feet is typically recommended by CDFW for southwestern willow flycatcher and raptors), until the juveniles have fledged and there has been no evidence of a second attempt at nesting. Once nesting is deemed complete by the Project biologist, work may resume within the buffer.

MM BIO-5: Biological Monitoring. A biologist experienced with identification of the least Bell's vireo as well as the sensitive and common biological resources in the region shall be present to monitor all initial ground disturbing and vegetation clearing activities on each portion of the Project Footprint both during and outside of the breeding season (biological monitor). The biological monitor shall perform biological clearance surveys at the start of each workday that ground disturbing activities take place to minimize impacts on special-status species, including the least Bell's vireo. The monitor will be responsible for ensuring that impacts to special-status species will be avoided to the fullest extent possible. The biological monitor shall be present during the initiation of ground disturbing and vegetation clearing activities during each portion of the Project Footprint, and the monitor's presence should continue as necessary to maintain protective measures and to monitor for species in harm's way. These protection measures may include redirecting wildlife to areas outside the work area. Biological monitoring shall take place until the Project Footprint has been completely cleared of any vegetation and until ground disturbing activities have initiated on each portion of the Project Footprint. A biologist experienced with identification of the least Bell's vireo as well as the sensitive and common biological resources in the region shall be present to monitor all initial ground disturbing and vegetation clearing activities on each portion of the Project Footprint both during and outside of the breeding season (biological monitor). The biological monitor shall perform biological clearance surveys at the start of each workday that ground disturbing activities take place to minimize impacts on special-status species, including the least Bell's vireo. The monitor will be responsible for ensuring that impacts to special-status species will be avoided to the fullest extent possible. The biological

monitor shall be present during the initiation of ground disturbing and vegetation clearing activities during each portion of the Project Footprint, and the monitor's presence should continue as necessary to maintain protective measures and to monitor for species in harm's way. These protection measures may include redirecting wildlife to areas outside the work area. Biological monitoring shall take place until the Project Footprint has been completely cleared of any vegetation and until ground disturbing activities have initiated on each portion of the Project Footprint.

MM BIO-6: Agency Permitting. Prior to the issuance of grading permits or construction, the applicant shall obtain permits from the following agencies for impacts to jurisdictional wetlands and waters, including riparian habitats:

- US Army Corps of Engineers (USACE)
- California Department of Fish and Wildlife (CDFW)
- Regional Water Quality Control Board (RWQCB)

Temporary and permanent impacts to jurisdictional wetlands and waters will require compensatory mitigation at a minimum 1:1 ratio. Compensation can be a combination of habitat enhancement, restoration, rehabilitation, preservation, or another similar method. Compensation can also be achieved through a payment to a Habitat Conservation Entity that manages preserved lands or through the purchase of credits from a mitigation bank such as the Riverpark Mitigation Bank. Final mitigation ratios and strategies will be coordinated and determined by USACE, CDFW, and RWQCB prior to obtaining regulatory permits.

Sources:

1. City of Moreno Valley General Plan, adopted July 11, 2006
2. Moreno Valley Municipal Code Chapter 9.17 Landscape and Water Efficiency Requirements
3. Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)
4. Biological Technical Report and MSHCP Consistency Analysis (ECORP, January 2025).

V. CULTURAL RESOURCES – Would the project:

a)	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒

Response: No Impact

According to the *CEQA Guidelines*, a historical resource is defined as something that meets one or more of the following criteria: (1) listed in, or determined eligible for listing in, the California Register of Historical Resources; (2) listed in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k); (3) identified as significant in a historical resources survey meeting the requirements of PRC Section 5024.1(g); or (4) determined to be a historical resource by the Project's Lead Agency.

A Cultural Resources Inventory and Evaluation Report was prepared for the proposed Project and included a records search, literature review, and field survey of the Project Area (Appendix D.3). The Project Area includes all areas where activities associated with the Project are proposed, including areas proposed for construction, stockpiling, and staging. The vertical Project Area is described as the maximum depth below the surface excavations will extend. The subsurface vertical Project Area varies across the Project Site and is estimated to extend as deep as 30 feet below the current surface.

A records search was requested from the Eastern Information Center (EIC) of the California Historical Resources Information System (CHRIS) at University of California. In addition to the records search, historic references, maps, and aerial photos were reviewed. The records indicated that thirty previous cultural resource investigations have been conducted within one mile of the property and three studies were conducted within the Project Area. Of these studies, no previously recorded cultural resources were identified within the Project Area; however, there are 11 within one mile of the Project Area. Five of these previously recorded cultural resources are believed to be associated with Native American occupation of the vicinity, four are historic-era sites including structures, and two are multicomponent sites.

The Project Area was surveyed for cultural resources on October 10, 2022. Ground visibility ranged from 10 percent in overgrown areas to 100 percent in disced areas and along paved roads. The portion of the Project Area that crossed over State Route 60 was subject to a reconnaissance level survey for safety reasons. As

a result of the field survey, three new cultural resources were recorded (SUN-1, SUN-2, and SUN-3). These three historic-period resources consist of three road segments. Below is a description of the three cultural resources and then an evaluation of its eligiblity for listing on the California Register.

SUN-1: SUN-1 is a segment of Hemlock Avenue in Moreno Valley. It is a 55-foot wide, 1,658-foot long, two-lane suburban collector road paved with asphalt. SUN-1 has curb, gutter, storm drain, and sidewalk improvements on its northern and southern edges. Manhole covers in the roadway provide access to subsurface utilities.

SUN-2: SUN-2 is a segment of Sunnymead Boulevard in Moreno Valley. It is an 85-foot wide, 168-foot long, four-lane suburban arterial road paved with asphalt. SUN-2 has bicycle lanes, curb, gutter, storm drain, and sidewalk improvements on its northern and southern edges and a 15-foot-wide concrete median that divides traffic. California Highway Department crews built SUN-2 in 1941 as CA-60, a state highway that extended from CA-395, 2.5 miles to the west, to the community of Sunnymead (now Moreno Valley) and points farther east. In 1962, the California Highway Department built a new CA-60, the Moreno Valley Freeway, on an alignment about 500 feet north of SN-002. The old CA-60 became renamed Grevillea Avenue, then Sunnymead Boulevard.

SUN-3: SUN-3 is a segment of CA-60, also known as the Moreno Valley Freeway. It is a 125-foot wide, 235-foot long, six-lane freeway paved with asphalt. SUN-3 has a raised concrete median that divides traffic. Westbound and eastbound directions both possess two 10-foot-wide shoulders. California Highway Department crews built SUN-3 in 1962 as CA-60, a freeway that extended east from US-215, located 2.5 miles to the west, to Moreno Valley and points farther east.

Archival records do not suggest that these three resources are associated with events that have made a significant contribution to the broad patterns of our history or that they are associated with persons of historic significance. The resources are not distinguishable from similar collector roads or freeways in Moreno Valley or Riverside County. The three resources do not embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possesses high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. The information potential of the resources are expressed in its built form, alignment, and in the historical record. It has not yielded, nor is it likely to yield, information important in history or prehistory.

SUN-1 and SUN-3 possess integrity of location, setting, design, materials, workmanship, feeling, and association. SUN-1 remains a two-lane collector street paved with asphalt and conveys the aesthetic of a 1960s suburban collector road. SUN-3 remains a six-lane freeway paved with asphalt and still conveys the aesthetic of a 1960s freeway.

SUN-2 does not possess integrity of location because its original rural setting has been superseded by a suburban setting characterized by shopping centers and other large commercial properties with expansive parking lots. However, it remains as a two-lane arterial road paved with asphalt and coveys the aesthetic of a 1930s state highway.

Regardless of integrity, these resources do not meet the California Register of Historic Resource's eligibility criteria as individual resources or as part of any known or suspected historic district; and the resources are not listed on any Certified Local Government historic property register. Implementation of the proposed Project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines, as there are no eligible historical resources on the Project Site. ***No impact*** would occur.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐

Response: Less Than Significant Impact with Mitigation Incorporated

As part of the records search described above, the California Native American Heritage Commission (NAHC) was contacted on May 31, 2022, to request a search of the Sacred Lands File for the Project Area. This search was conducted to determine whether or not the California Native American tribes within the Project Area have recorded Sacred Lands, because the Sacred Lands File is populated by members of the Native American community with knowledge about the locations of tribal resources.

Much of the Project Area and environs has been previously developed, and many sites have been previously removed or otherwise impacted. As a result, the potential for buried pre-contact resources is considered low. However, due to the presence of alluvium and an ephemeral channel within the Project Area and based on the number of nearby sites with pre-contact components, the potential exists for buried pre-contact archaeological sites in the Project Area. Impacts to archaelogical resources would be potentially significant.

Avoidance and minimization measures **MM CR-1** through **CR-9** would be implemented to reduce impacts to archaeological resources. Compliance with these measures would ensure that potential impacts to previously undiscovered archaeological resources would be ***less than significant***.

c) Disturb any human remains, including those interred outside of formally dedicated cemeteries?	☐	☐	☐	☒

Response: No Impact.

The Project Area has been previously disturbed, as described above, and has not been previously used as a cemetery. It is not anticipated that implementation of the proposed Project would result in the disturbance of human remains. In addition, compliance with California Health and Safety Code Section 7050.5, CEQA Guidelines Section 15064.5, and Public Resources Code Section 5097.98, included as **PPP CUL-1**, mandate the process to be followed in the event of an accidental discovery of any human remains. Specifically, California Health and Safety Code Section 7050.5 requires that if human remains are discovered, disturbance of the site shall remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of death, and made recommendations concerning the treatment and disposition of the human remains to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. If the coroner determines that the human remains are not subject to his or her authority and if the coroner has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Compliance with existing law would ensure that ***no impact*** to human remains would occur.

Plans, Programs, or Policies (PPPs)

PPP CUL-1: Should human remains be discovered during Project construction, the Project would be required to comply with State Health and Safety Code Section 7050.5, which states that no further disturbance may occur in the vicinity of the body until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine the identity of and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD must complete the inspection within 48 hours of notification by the NAHC.

Mitigation Measures

MM CR-1: Cultural Resource Monitoring Plan (CRMP). Prior to the issuance of grading permits, the Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City, shall develop a CRMP in consultation pursuant to the definition in AB52 to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the Project Site. A consulting Tribe is defined as a Tribe that initiated the AB 52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include:

a) Project description and location
b) Project grading and development scheduling;
c) Roles and responsibilities of individuals on the Project;
d) The pre-grading meeting and Cultural Resources Worker Sensitivity Training details;
e) The protocols and stipulations that the contractor, City, Consulting Tribe (s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including

any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

f) The type of recordation needed for inadvertent finds and the stipulations of recordation of sacred items.

g) Contact information of relevant individuals for the Project;

MM CR- 2: Archaeological Monitoring. Prior to the issuance of a grading permit, the City shall retain a professional archaeologist to conduct monitoring of all ground disturbing activities. During construction, the Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed. The Project Archaeologist, in consultation with the Consulting Tribe(s) including Agua Caliente Band of Cahuilla Indians, Morongo Band of Mission Indians, Pechanga Band of Indians, Rincon Band of Luiseño Indians, San Manuel Band of Mission Indians, the contractor, and the City, shall develop a CRMP as defined in CR-1. The Project Archeologist shall tend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The archaeological monitor shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed.

MM CR-3: Native American Monitoring. Prior to the issuance of a grading permit, the City shall secure agreements with the Agua Caliente Band of Cahuilla Indians, Morongo Band of Mission Indians, Pechanga Band of Indians, Rincon Band of Luiseño Indians, San Manuel Band of Mission Indians, for tribal monitoring. The City is also required to provide a minimum of 30 days' advance notice to the tribes of all ground disturbing activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. The Native American Monitor(s) shall attend the pre-grading meeting with the Project Archaeologist, City, the construction manager and any contractors and will conduct the Tribal Perspective of the mandatory Cultural Resources Worker Sensitivity Training to those in attendance.

MM CR-4: Cultural Resource Disposition. In the event that Native American cultural resources are discovered during the course of ground-disturbing activities (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Moreno Valley Planning Department:
   i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place they were found with no development affecting the integrity of the resources.
   ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure CR-1. This shall include measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in Mitigation Measure CR-3 The location for the future reburial area shall be identified on a confidential exhibit on file with the City, and concurred to by the Consulting Native American Tribal Governments prior to certification of the environmental document.

MM CR-5: The City shall verify that the following note is included on the Grading Plan: "If any suspected archaeological resources are discovered during ground –disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."

MM CR-6: Inadvertent Finds. If potential historic or cultural resources are uncovered during excavation or construction activities at the Project Site that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to project approval, all ground disturbing activities

in the affected area within 100 feet of the uncovered resource must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Further ground disturbance shall not resume within the area of the discovery until an agreement has been reached by all parties as to the appropriate mitigation. Work shall be allowed to continue outside of the buffer area and will be monitored by additional archeologist and Tribal Monitors, if needed. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in **MM CR-2** before any further work commences in the affected area. If the find is determined to be significant and avoidance of the site has not been achieved, a Phase III data recovery plan shall be prepared by the Project Archeologist, in consultation with the Tribe, and shall be submitted to the City for their review and approval prior to implementation of the said plan.

MM CR-7: Human Remains. If human remains are discovered, no further disturbance shall occur in the affected area until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 24 hours of the published finding to be given a reasonable opportunity to identify the "most likely descendant". The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).

MM CR-8: Non-Disclosure of Reburial Locations. It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254 (r)., parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).

MM CR-9: Archeology Report - Phase III and IV. Prior to final inspection, the City/permit holder shall prompt the Project Archeologist to submit two (2) copies of the Phase III Data Recovery report (if required for the Project) and the Phase IV Cultural Resources Monitoring Report that complies with the Community Development Department's requirements for such reports. The Phase IV report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting. The Community Development Department shall review the reports to determine adequate mitigation compliance.

Provided the reports are adequate, the Community Development Department shall clear this condition. Once the report(s) are determined to be adequate, two (2) copies shall be submitted to the Eastern Information Center (EIC) at the University of California Riverside and one (1) copy shall be submitted to the Consulting Tribe(s) Cultural Resources Department(s).

Sources:

1. Cultural Resources Inventory and Evaluation Report for the Sunnymead Master Drainage Plan Project – Storm Drain Lines F and F-7
2. City of Moreno Valley General Plan Final Environmental Impact Report adopted July 2006.
    - Section 5.10 – Cultural Resources
        - Figure 5.10-1: Locations of Listed Historic Resource Inventory Structures

VI. ENERGY – Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐

Response: Less Than Significant Impact

There are generally two types of energy consumption periods – construction and operations. Construction energy uses are primarily from construction equipment, hauling materials, and construction workers driving to and from the Project Site. Operational energy is the energy required to operate and maintain the facility. Below is an analysis of construction and operational energy use.

Construction Energy Use

The Project would use a variety of construction equipment, including excavators, trucks, compactors, and bulldozers. Construction equipment for debris hauling and materials delivery would primarily use diesel and unleaded gasoline. Energy consumption would also include gasoline used by construction workers driving to and from the Project Site. Construction activities would result in a one-time energy expenditure.

Operational Energy Use

Regarding long-term energy consumption, no new permanent source of energy demand would result from Project implementation. The proposed improvements are intended to provide a flood protection level up to a 100-year storm event in the local area. The improved storm drain system would not result in a change in direct energy use. No on-going maintenance energy requirements are expected. Accordingly, the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Impacts would be ***less than significant,*** and no mitigation is required.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Response: No Impact

The City's GP identifies the objective of encouraging efficient use of energy resources, which is facilitated by policies that encourage energy efficiency and the reduction of energy demand. The installation of the proposed storm drain improvements would ultimately decrease energy usage required to respond to flooding and ponding events. Therefore, the Project would not conflict with any state or local plans for renewable energy or energy efficiency and ***no impact*** would occur.

Plans, Programs, or Policies (PPPs)

None.

Mitigation Measures

None.

Sources:

1. Air Quality and GHG Emissions Technical Memorandum (WSP, 2025)
2. City of Moreno Valley General Plan, adopted July 11, 2006
    - Chapter 7 – Conservation

VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause 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 https://www.conservation.ca.gov/cgs/Documents/SP_042.pdf	☐	☐	☒	☐

Response: Less Than Significant Impact

The Project is located within the Perris Block, a tectonically stable region bounded by the Chino fault and Elsinore trough on the west, the San Jacinto fault zone to the east and northeast, the Cucamonga fault to the north, and the San Filipe fault zone to the south. The Geotechnical Exploration and Recommendations Report (Appendix D.4) did not identify any active faults within or adjacent to the Project Site. The nearest active fault is the San Jacinto Fault, which is located approximately 4.5 miles northeast of the Project Site. Therefore, the likelihood of surface fault rupture is low, and impacts would be ***less than significant***.

ii) Strong seismic ground shaking?	☐	☐	☒	☐

Response: Less Than Significant Impact

The Project is located within an area potentially exposed to strong earthquake ground motions. As decribed in the response above, the nearest active fault is approximately 4.5 miles northeast of the Project Site. The Geotechnical Exploration and Recommendations Report prepared for the Project determined that the subsurface conditions and Project Site is feasible from a geotechnical perspective. However, the construction contractor should execute all pre-construction, installation, and post-construction activities associated with trenchless installations in accordance with the *Guidelines and Specifications for Trenchless Technology Projects* (Caltrans, 2018). Adherence to the recommendations provided in the Geotechnical Exploration and Recommendations Report would ensure that Project construction would not exacerbate sensitive conditions if strong seismic shaking were to occur. In addition, the Project does not propose placing any habitable structure nor any structures that could be at risk of collapse due to strong seismic ground shaking. Impacts would be ***less than significant.***

iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐

Response: Less Than Significant Impact

For liquefaction to occur, three conditions must simultaneously exist: loose to medium-dense granular soils, saturation of the soils by groundwater (typically upper 50 feet), and strong earthquake ground motion. The Geotechnical Exploration and Recommendations Report prepared for the Project determined that groundwater at the Project Site is likely at least 80 feet below the ground surface. Furthermore, the Project Site is primarily underlain by dense sands and gravels and very stiff clays. Therefore, the possibility of liquefaction to occur at the Project Site is considered negligible. The Project would not develop any habitatable structures and would not expose people or structures to strong seismic-related groud failure, including liquefaction that could be riggered as a result of the Project. Impacts would be ***less than significant***.

iv) Landslides?	☐	☐	☒	☐

Response: Less Than Significant Impact

The Project Site is relatively flat and located in a central portion of Moreno Valley. The surrounding areas are fully developed and generally characterized by gently sloping topography that is not expected to be susceptible to landslides. There are no known landslides near the Project, nor is the Project Site in the path of any known or potential landslides. Therefore, the likelihood of landslides at the Project Site is considered

very low. The Project would not cause or increase the potential for landslides; therefore, impacts would be ***less than significant***.

b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

Response: Less Than Significant Impact

The proposed Project would involve excavation, grading, and construction activities that would disturb soil and leave exposed soil on the ground surface. As such, the proposed Project would be required to comply with the City's grading standards and erosion control measures, included in Chapter 8.10 (Stormwater/Urban Runoff Management and Discharge Controls) of the City's Municipal Code. Additionally, the Construction General Permit issued by the State Water Resources Control Board (SWRCB), regulates construction activities to minimize water pollution, including sediment. The proposed Project would be subject to the National Pollution Discharge Elimination System (NPDES) permitting regulations, including implementation of a Stormwater Pollution Prevention Plan (SWPPP) and associated Best Management Practices (BMPs) during grading and construction, which would be required during construction permitting of the Project.

Adherence to the BMPs in the SWPPP would reduce, prevent, or minimize soil erosion from Project-related grading and construction activities. The SWPPP would include a BMP to return and restore all disturbed construction areas back to their pre-Project condition. Thus, the potential for soil erosion or the loss of topsoil would be low. Construction of the proposed Project would have a ***less than significant impact*** related to soil erosion.

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?	☐	☐	☐	☒

Response: No Impact

As described in preceding sections, the Geotechnical Exploration and Recommendations Report prepared for the Project determined that soils near and around the Project Site are stable and unlikely to result in landslide or liquifcation conditions. The Geotechnical Report concluded that the proposed stormwater infiltration structures are not expected to significantly increase the risk of exposure to potential geotechnical hazards at the site, such as liquefaction, slope instability, soil collapse/expansion, and build-up of hydrostatic pressures behind retaining walls. Therefore, ***no impact*** would occur.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐

Response: Less Than Significant Impact

Expansive soils contain certain types of clay minerals that shrink or swell as the moisture content changes; the shrinking or swelling can shift, crack, or break structures built on such soils. Arid or semiarid areas with seasonal changes of soil moisture experiences, such as southern California, have a higher potential of expansive soils than areas with higher rainfall and more constant soil moisture. According to the Natural Resources Conservation Service's Web Soil Survey, the proposed Project is not located in an area subject to expansive soils. The proposed Project would be subject to recommendations of the post-grading geotechnical results, which would ensure that any potentially expansive soils encountered during construction of the Project are appropriately remediated; as a result the proposed Project would be subjected to ***less than significant*** risks related to expansive soils.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Response: No Impact

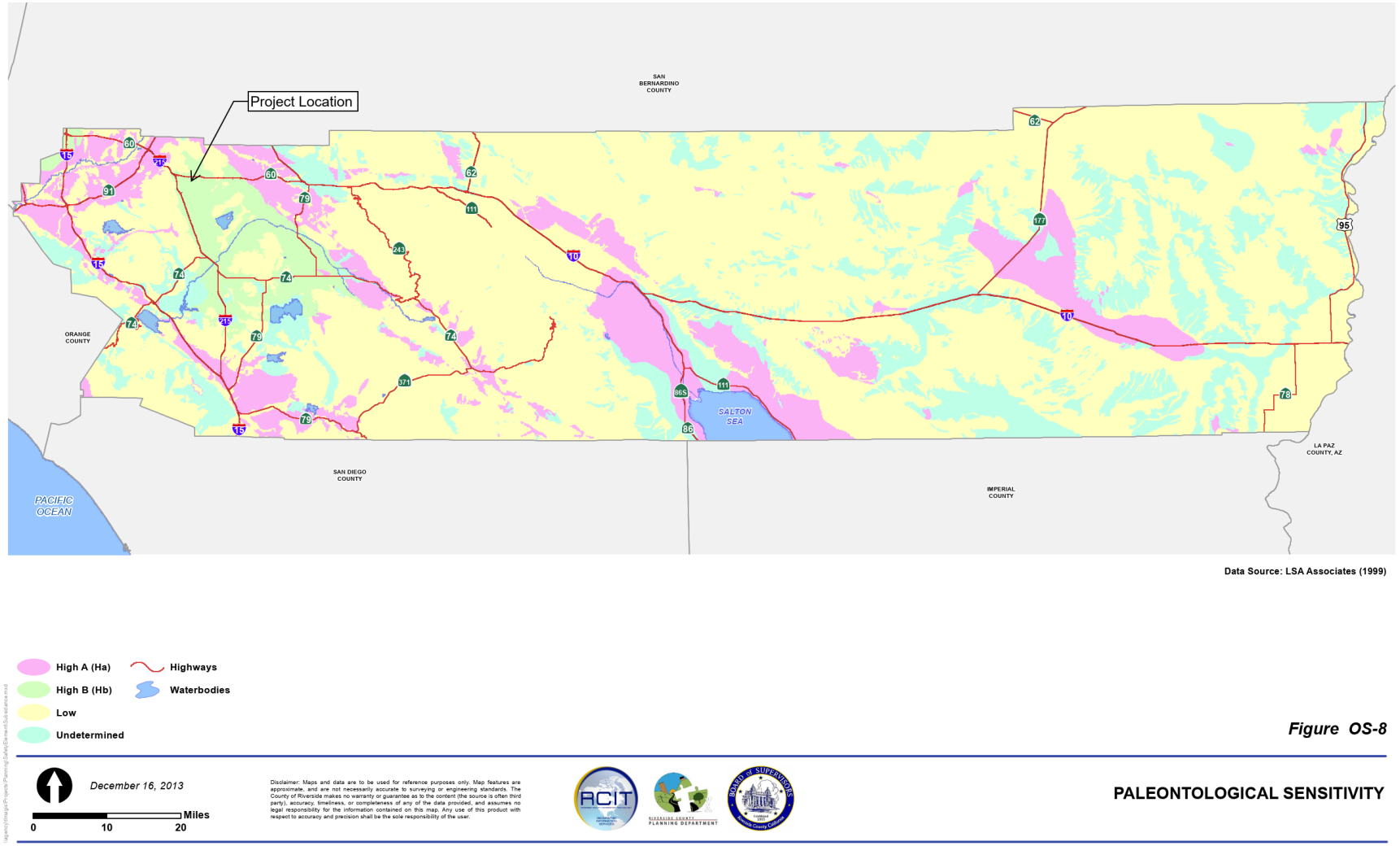
The proposed Project does not propose the use of a septic tank or alternative wastewater disposal system; therefore, ***no impact*** would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Response: Less Than Significant Impact with Mitigation

The Riverside County General Plan indicates that the Project Site is within an area that has a "High Potential" for paleontological resources to be encountered. **Figure 8** below presents the paleontological sensitivity ratings for soils located in Riverside County. Sensitivity ratings are based on the California Department of Transportation Standard Environmental Reference guidelines for paleontology, which classifies geologic units and formations as having high, low, or no potential for paleontological resources (Caltrans 2017). Sensitivity is also based on depth of excavation. Some geologic units and formations have low potential at a depth of excavation ranging from 0 to 10 feet but have high sensitivity when the depth of excavation exceeds 10 feet. The Project Site is located within an area of high paleontological sensitivity; therefore, impacts of the Project would be potentially significant. The Project shall implement **MM PAL-1**. With implementation of **MM PAL-1** the Project would have a ***less than significant*** impact on paleontological resources.

Figure 8. Paleontological Sensitivity



Source: Riverside County General Plan (December 2015)

Plans, Programs, or Policies (PPPs)

None.

Mitigation Measures

MM PAL-1: A qualified paleontological monitor shall be present during grading in Project areas where a Project specific geological technical study has determined that such monitoring is necessary due to the potential for paleontological resources to reside within the underlying geologic formations. The geologic technical study shall also provide specific duties of the monitor, and detailed measures to address fossil remains, if found.

Sources:

1. Geotechnical Exploration and Recommendations Report (WSP, 2023)
2. Natural Resources Conservation Service Web Soil Survey
3. County of Riverside General Plan adopted December 2015.
   - Chapter 5 – Multipurpose Open Space Element
     - Figure OS-8: Paleontological Sensitivity
3. Guidelines and Specifications for Trenchless Technology Projects (Caltrans, 2018)

VIII. GREENHOUSE GAS EMISSIONS – Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

Response: Less Than Significant Impact

The City of Moreno Valley has not adopted numerical significance thresholds for managing greenhouse gases (GHGs). In accordance with CEQA guidance, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to assess the significance of a Project's GHG emissions. The Project Site is located within the jurisdiction of the SCAQMD.

According to the Air Quality and Greenhouse Gas (GHG) Technical Memorandum prepared for the Project (Appendix D.1), the total estimated GHG emissions from Project construction would be 175.5 metric tons of carbon dioxide equivalent ($MTCO_{2e}$). These emissions were amortized over a 30-year period to compare to the SCAQMD screening threshold, as shown in **Table 9** below.

Table 8. Total Project Greenhouse Gas Emissions (Annual) (Metric Tons Per Year)

Emission Source	Emissions			
	CO_2	CH_4	N_2O	Total CO_2e
Annual construction-related emissions amortized over 30 years	5.80	0.002	0	5.9
Energy	0	0	0	0
Mobile Sources	0	0	0	0
Waste	0	0	0	0
Water Usage	0	0	0	0
Total CO_2e	**5.9**			

The estimated GHG emissions for the proposed Project would not exceed the SCAQMD's screening threshold of 10,000 $MTCO_{2e}$ per year; therefore, the Project would not generate GHG emissions that would have a significant impact on the environment and impacts would be ***less than significant***.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☒	☐

Response: Less Than Significant Impact

As discussed above, the Project would not generate a substantial amount of construction emissions or result in operational emissions. The proposed Project is consistent with all objectives and policies identified in the City's General Plan related to GHG emissions as detailed below. Therefore, a ***less than significant impact*** would occur.

- Policy 6.7.5 Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust.
- Policy 2.10.14 Preserve or relocate existing mature trees and vegetation where practical. Mature trees shall be replaced when they cannot be preserved or relocated.
    - As identified in **PPP BIO-1**, the Project would adhere to all methods and provisions identified in Municipal Code Section 9.17.030, E, which provides landscape and irrigation design standards for the planting and removal of trees.

Plans, Programs, or Policies (PPPs)

PPP BIO-1: Adhere to all methods and provisions identified in Municipal Code Section 9.17.030, E, which provides landscape and irrigation design standards for the planting and removal of trees.

Mitigation Measures

None.

Sources

1. Air Quality and GHG Emissions Technical Memorandum (WSP, 2025)
2. City of Moreno Valley General Plan, adopted July 11, 2006

IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

Response: Less Than Significant Impact

Development of the proposed Project would not require the routine use or disposal of hazardous materials. However, construction activities would involve equipment that are fueled and maintained by items, such as oils and fuels. All material required during construction would be transported and kept in compliance with federal, state, and local laws. Applicable laws and regulations include: the Code of Federal Regulations (CFR), Title 49, Chapter 1 and the Hazardous Materials Transportation Act requirements as imposed by the United States Department of Transportation (USDOT), Califirnia Division of Occupational Safety and Health (CalOSHA), California Environmental Protection Agency (CalEPA) and the California Department of Toxic Substanaces Control (DTSC).

Additionally, construction activities would be required to comply with the Project SWPPP, which is mandated by the NPDES General Construction Permit (included as **PPP WQ-1** herein) and enforced by the Santa Ana RWQCB. The SWPPP will include strict on-site handling rules and BMPs to minimize potential adverse effects to workers, the public, and the environment during construction, including, but not limited to:

- Establishing a dedicated area for fuel storage and refueling activities that includes secondary containment protection measures and spill control supplies;
- Following manufacturers' recommendations on the use, storage, and disposal of chemical products used in construction;
- Avoiding overtopping construction equipment fuel tanks;
- Properly containing and removing grease and oils during routine maintenance of equipment; and
- Properly disposing of discarded containers of fuels and other chemicals.

More information on proposed BMPs can be found in Section X., Hydrology and Water Quality.

Mandatory compliance with applicable laws and regulations related to the routine transport, use, and disposal of hazardous materials during construction activities at the Project Site would limit potentially significant hazards to construction workers, the public, and the environment.Impacts from the transport, use, or disposal of construction-related hazardous materials would be ***less than significant***.

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?	☐	☐	☒	☐

Response: Less Than Significant Impact

A Phase I Environmental Site Assessment (Phase I ESA) was prepared for the Project to review, evaluate, and document present and past land uses and practices as they relate to hazards and hazardous materials (Appendix D.6). The report provides preliminary identification of potentially hazardous waste that may be encountered during construction, and visually examined site conditions to identify Recognized Environmental Conditions (RECs). A REC is defined as the presence or likely presence of any hazardous substances or petroleum hydrocarbons on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum hydrocarbons into structures or into the ground, groundwater, or surface water of the subject property.

On November 9, 2022, a site reconnaissance was performed of the Project Site. The site reconnaissance consisted of observing and documenting the existing site conditions of the Project Site. The Phase I ESA concluded that there is no evidence of a REC in connection with the Project Site. Compliance with federal, state, and local laws, and BMPs, would ensure that the potential for accident or upset are ***less than significant***.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐

Response: Less Than Significant Impact

The proposed Project is located approximately 0.5 miles south of the Honey Hollow Elementary School and approximatley 0.35-mile north of the Sunnymeadows Elementary School. Furthermore, as noted in Sections IX(a) and IX(b) above, the proposed Project is not anticipated to release hazardous emissions or handle hazardous or acutely hazardous materials, substances, or wastes in significant quantities. Therefore, the proposed Project would not emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school and impacts would be ***less than significant***.

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?	☐	☐	☐	☒

Response: No Impact

The Phase I ESA concluded that the proposed Project location is not a listed hazardous material site. Therefore, the Project is not located on a site that would create a significant hazard to the public or the environment, and ***no impact*** would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐

Response: Less than Significant Impact

The proposed Project is located approximately 2.5-miles north of the runway at March Air Reserve Base. According to the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, Map MA-1, *Compatibility Map*, the Project Site is located within Compatibility Zone E, which indicates a low noise impact

and is beyond the 55 Community Noise Equivalent Level (CNEL) noise contour. The Project involves construction of a stormdrain facility and would not introduce new sensitive receptors (residents or permanent employees) to the Project Site. Construction workers would be on the site temporariliy. Due to the temporal nature of construction and low noise impact level, the proposed Project would not result in a safety hazard or excessive noise exposure for workers within the Project Site, and impacts would be ***less than significant***.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Response: Less Than Significant Impact

During construction of the proposed Project evacuation routes along a portion of Hemlock Avenue and Sunnymead Boulevard between Graham Street and Pigeon Pass Road may be impacted. If temporary conditions during construction warrant full roadway closure, appropriate detour routes will be signed and noted for the safe evacuation of the local community. The proposed Project would not otherwise interfere with an adopted emergency response or evacuation plan; therefore impacts would be ***less than significant***.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Response: No Impact

According to the USDA Forest Service's Wildfire Likelihood map, the proposed Project is not located within a high wildfire hazard area. The Project Site is located approximately 0.75-mile south of the nearest urban/wildland interface; therefore the proposed Project is not anticipated to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. ***No impact*** would occur.

Plans, Programs, or Policies (PPPs)

PPP WQ-1: Storm Water Pollution Prevention Plan. Prior to grading permit issuance, the Project developer shall have a Stormwater Pollution Prevention Plan (SWPPP) prepared by a QSD (Qualified SWPPP Developer) pursuant to the Municipal Code Section 8.21.170. The SWPPP shall incorporate all necessary Best Management Practices (BMPs) and other City requirements to comply with the National Pollutant Discharge Elimination System (NPDES) requirements to limit the potential of polluted runoff during construction activities.

Mitigation Measures

None.

Sources:

1. Phase I Environmental Site Assessment (WSP, January 2023)
2. March Air Reserve Base/March Inland Port Airport Land Use Compatibility Plan adopted November 2014
   - Map MA-1: Compatibility Map
3. USDA Forest Service Wildfire Risk to Communities Wildfire Likelihood

X. HYDROLOGY AND WATER QUALITY – Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐

Response: Less Than Significant Impact

Project construction activities have the potential to disturb more than an acre of soil and is therefore subject to the Construction General Permit under the NPDES permit requirements. Construction activities covered under the Construction General Permit include removal of vegetation, grading, excavation, or any other activity that causes the disturbance of one acre or more. In addition, raw materials used during construction, such as concrete, asphalt, mortar, and slurry, may contain potential pollutants, which, if uncontrolled, could lead to water quality issues, including sediment runoff, non-stormwater discharges, and potentially degradation of downstreaam receiving waters, groundwater, and/or ecosystems. The Construction General Permit requires the development and implementation of a SWPPP. The SWPPP will incorporate BMPs to

manage storm water runoff and reduce the potential to discharge sediment and other contaminants into waters. BMPs implemented for the proposed Project will include, but is not limited to, erosion control, sediment control, tracking control and non-storm water management controls. BMPs will also include non-structural controls such as scheduling to reduce the amount of distrubed soil area exposed at any one time (**PPP WQ-1**).

The RWQCB has issued an area-wide NPDES Municipal Separate Storm Sewer System (MS4) Permit for the County of Riverside to the Riverside County Flood Control and Water Conservation District (RCFCWCD), and the incorporated cities within Riverside County. The NPDES MS4 permit regulates the discharges of stormwater from storm drain systems and requires projects that are categorized as priority development projects to develop a Water Quality Management Plan (WQMP) for the purposes of addressing potential pollutants of concern and hydromodifcation. However, this Project is exempt from the WQMP requirements based on the Utility Project exemption and that new impervious surfaces will not exceed the threshold of 10,000 square feet. Infiltration facilities that are typically included in projects to address WQMP requirements will still be included in the SMART basin design to promote recharge and address potential pollutants of concern. Mandatory compliance with the NPDES Permit requirements (**PPP WQ-1**) would ensure that all potential pollutants of concern are minimized or otherwise treated prior to being discharged into receiving waters. Therefore, implementation of the proposed Project would not violate any water quality standards or waste discharge requirements, and impacts would be ***less than significant.***

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒

Response: No Impact

As identified in the City's GP FEIR Figure 5.7-2*, Groundwater Basins*, the proposed storm drain infrastructure Project overlies the San Jacinto Groundwater Basin. The City's water resources are supported by potable groundwater wells, treated water from two desalination plants, imported water from Municipal Water District of Southern California (MWD) and water from other agencies. The amount of potable ground water usage has been reduced as other water supplies have become available. The proposed Project will include recharge of groundwater through infiltration in the SMART Basin. The intent of the design will be to maximize infiltration of low flow events while providing peak attenuation of flooding events. The proposed Project would provide an additonal source for groundwater recharge, which would provide an increase in groundwater supplies. ***No impact*** would occur.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐

Response: Less Than Significant Impact

While the proposed Project would alter the existing drainge pattern, it would not alter the course of a stream or river in a manner that would result in substantial erosion or siltation on- or off-site. A Hydrology and Hydraulics Report was prepared for the proposed Project (WSP, 2023) which defined the tributary areas, drainge patterns, and flow rates discharged off-site.The Hydrology report indicates that the proposed Project would reduce peak flow rates and flow velocities. By managing high water flows through a network of storm drains and retention basins in-lieu of surface channels, there will be less channel erosion and silt transport. Therefore, the Project would not substantially increase erosion or siltation on- or off-site. In addition, once construction is complete, the disturbed portions of the Project Site, including channel contours, would be restored to their pre-construction condition. The proposed Project would result in a ***less than significant impact***.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☐	☐	☒

Response: No Impact

A Hydrology and Hydraulics Report was prepared for the proposed Project (Appendix D.9), which indicated the proposed Project would reduce 100-year 1-hour peak flow rates from 613 cfs to 439 cfs, thereby reducing the potential for flooding off-site. In addition, the proposed Project would minimize the amount of introduced impervious surfaces and keep total new impervious surfaces below 10,000-square feet. This would result in minimal increase in runoff volume. Introduced impervious surfaces will be designed to drain to pervious surfaces where feasible, and any will be limited to critical structures including storm drain manholes, diversion structures, spillways and interception structures. The proposed Project would capture flows from the north and east of the Project location so that surface water and flooding at the Project location and downstream would be eliminated.

Furthermore, the Project would comply with Municipal Code Chapter 8.12, Floodplain Ordinance (**PPP WQ-2**), which requires the Project comply with all provisions and procedures required by flooplain management agencies. The Project would be required to adhere to the City's General Plan Safety Element goal to protect life and property from natural and manmade hazards, as well as policies requiring flood protection (**PPP WQ-3** and **PPP WQ-4**).

Therefore, the Project would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding. ***No impact*** would occur.

iii) 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?	☐	☐	☐	☒

Response: No Impact

The existing storm drain systems currently do not meet the flow capacity needs during a 100-year storm event, which results in flooding of the Hemlock/Graham Street intersection, the Towngate Apartments, as well as Sunnymead Boulevard. The proposed Project is intended to alleviate flooding in these areas. Currently the unlined channel south of Sunnymead Boulevard lacks capacity to convey flows in excess of the 10-year storm event. The Hydrology and Hydraulics Report for the proposed Project indicates peak flow discharges from the Project Site would be reduced from 613 cfs to 439 cfs. The reduction in peak flow would alleviate flooding in and around the Project Site. In addition, the Project would not introduce any new sources of pollutant runoff. Therefore, implementation of the proposed Project would provide a net benefit to the stormwater drainage systems, and ***no impact*** would occur.

iv) Impede or redirect flood flows?	☐	☐	☒	☐

Response: Less than Significant Impact

While the proposed Project would incorporate infrastructure to redirect flood flows into a new storm drain system (Line and Line F-7), the flows would be discharged from the Project Site at the same location. No flows will be redirected into other watersheds and the discharge point south of Sunnymead Boulevard will continue to serve as the discharge point in the proposed Project. This is necessary in order to augement the exsiting conveyance capacity and allow flood flows to be conveyed in a controlled manner. Therefore impacts are considered ***less than significant***.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐

Response: Less Than Significant Impact

The Pigeon Pass Dam (Poorman's Reservoir) is approximately 0.75 miles north of the Project Site. Failure of the Pigeon Pass Dam could result in extensive flooding along the downstream watercourse. The risk of flooding due to dam failure is limited to the period during and immediately after major storms. The reservoir does not retain water throughout the year. Future development surrounding Pigeon Pass Dam (Poorman's Reservoir) would be required to comply with Municipal Code Chapter 8.12, Floodplain Ordinance (**PPP WQ-2**), which requires flood safe measures be included in development plans. Furthermore, future development would be required to adhere to the City's General Plan Safety Element objective to protect life and property from natural and manmade hazards, as well as policies requiring flood protection (**PPP WQ-3** and **PPP WQ-4**). Therefore, adherence to Municipal Code requirements for flood safe measures and General Plan policies

would ensure that development would not result in risks associated with flooding and would be ***less than significant***.

The proposed Project is situated approximately 40-miles inland from the Pacific Ocean; therefore, ***no impact*** as a result of tsunamis would occur.

Seiches can result from abrupt movements of large volumes of water due to earthquakes, landslides, volcanic eruptions, meteoric impacts, or onshore slope failure. Lake Perris, located approximately six miles southeast of the proposed Project, is the only large water body that could cause a seiche. Therefore, ***no impact*** as a result of a seiche would occur.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Response: Less than Significant

As previously described, the proposed Project would develop and implement a SWPPP, which would include construction BMPs to minimize potential construction impacts on water quality (**PPP WQ-1**). Implementation of these BMPs would reduce the potential for impacts on water quality to the maximum extent feasible. Therefore, the proposed Project would not conflict with or obstruct implementation of a water quality control plan. In addition, the proposed Project would increase the supply of available groundwater by implementing infrastructure such as the SMART Basin. Therefore, the Project would not conflict with or obstruct the implementation of a sustainable groundwater management plan, and impacts are considered ***less than significant***.

Plans, Programs, or Policies (PPPs)

PPP WQ-1: Storm Water Pollution Prevention Plan. Prior to grading permit issuance, the Project developer shall have a Stormwater Pollution Prevention Plan (SWPPP) prepared by a QSD (Qualified SWPPP Developer) pursuant to the Municipal Code Section 8.21.170. The SWPPP shall incorporate all necessary Best Management Practices (BMPs) and other City requirements to comply with the National Pollutant Discharge Elimination System (NPDES) requirements to limit the potential of polluted runoff during construction activities.

PPP WQ-2: Floodplain Management Ordinance. Adhere to all methods and provisions identified in Municipal Code 8.12, including all permits, reviews, and procedures required by floodplain management agencies such as the Riverside County Flood Control and Water Conservation District (RCFC&WD), and the Federal Emergency Management Agency (FEMA) the alteration of natural floodplains, stream channels, and natural protective barriers, which help to accommodate or channel flood waters.

PPP WQ-3: Flood Control Coordination. The Project Applicant shall coordinate with the Riverside County Flood Control and Water Conservation District to address storm drainage and flood control on a sub-regional basis in order to optimize the use of existing and planned conveyance facilities.

PPP WQ-4: Storm Drain Designs. Design, construct and maintain street and storm drain flood control systems to accommodate 10-year and 100-year storm flows respectively, employing "green infrastructure" techniques as feasible and appropriate. The storm drain system shall conform to Riverside County Flood Control and Water Conservation District master drainage plans and the requirements of the Federal Emergency Management Agency.

Mitigation Measures

None.

Sources:

1. Hydrology and Hydraulics Report, WSP, 2023.
2. City of Moreno Valley General Plan Final Environmental Impact Report adopted July 2006.
    - Section 5.7 – Hydrology and Water Quality
        - Figure 5.7-2: Groundwater Basins

3. Eastern Municipal Water District (EMWD) 2020 Urban Water Management Plan, https://www.emwd.org/post/urban-water-management-plan

XI. LAND USE AND PLANNING – Would the project:

a) Physically divide an established community?	☐	☐	☐	☒

Response: No Impact

The proposed Project would minimize the effects of flooding within the community through the improvements of Master Drainage Plan Line F from Hemlock Avenue, at Graham Street, and on Sunnymead Boulevard. The proposed stormdrain improvements are located within an existing storm drain channel that routes through existing urban development. No new devlopment or other structures are proposed outside the existing channel that would physically divide an established community. ***No impact*** would occur, and no mitigation is required.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Response: No Impact

The proposed Project entails the installation of stormdrain improvements within existing rights-of-way. The improvements would be consistent with the City's goals for reducing flood hazards as set forth in the General Plan Safety Element. The proposed Project would also assist in meeting water quality and groundwater protection goals by controlling water flows, maximizing bioretention, and preserving the natural drainage courses to the extent feasible. No change to the Project Site's existing general plan land use or zoning designation is proposed or necessary for Project implementation. Therefore, the Project would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. As such, ***no impact*** would occur, and no mitigation measures are required.

Plans, Programs, or Policies (PPPs)

None.

Mitigation Measures

None.

Sources:

1. City of Moreno Valley General Plan, adopted July 11, 2006.
   - Chapter 6 – Safety Element

XII. MINERAL RESOURCES – Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

Response: No Impact

As discussed in the City's GP FEIR, Chapter 5.14, *Mineral Resources*, majority of the land within the City, including the Project Site is designated as a Mineral Resource Zone (MRZ) 3. MRZ-3 is defined as areas that contain known mineral deposits, but the significance of which cannot be evaluated from available data. This MRZ category is not considered significant mineral resources. On this basis, the implementation of the Project would not result in any impacts to mineral resources that would be of value to the region and/or residents of the State. ***No impact*** would occur, and no mitigation is required.

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?	☐	☐	☐	☒

Response: No Impact

As discussed in the response above, there are no delineated mineral resource recovery sites, or designated land for mineral resource production. Therefore, implementation of the proposed Project would not result in the loss of a designated mineral recovery site, and ***no impact*** would occur.

Plans, Programs, or Policies (PPPs)

None.

Mitigation Measures

None.

Sources:

1. City of Moreno Valley General Plan Final Environmental Impact Report adopted July 2006.
   - Section 5.14 – Mineral Resources
2. The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, Sections 2710-2796), https://www.conservation.ca.gov/dmr/lawsandregulations

XIII. NOISE – Would the project result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐

Response: Less Than Significant Impact

A Noise Technical Memorandum was prepared for the Project (WSP, April 2023) and is included as Appendix D.5. Noise level measurements include intensity, frequency, and duration, as well as time of occurrence. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Project construction would result in groundborne vibration and noise from ground disturbing activities, such as excavation and grading that is necessary for construction. Activities such as clearing and grubbing and the pavement cutting, and pipe trenching would result in the highest noise levels. Noise from construction equipment such as a dozers, excavators and saw cutting would also occur. Other construction equipment that is anticipated to be used includes: front end loader, backhoes, generators, 10-wheel dump truck, 18-wheel trailers, concrete delivery trucks and pumps. **Table 10** shows Typical Construction Equipment Noise Levels.

Table 9. Typical Construction Equipment Noise

Equipment	Maximum Noise Level (dBA at 50 feet)[1]
Scraper	89
Dozer (Bulldozer)	85
Truck (Heavy Truck)	88[2]
Pickup Truck	55
Concrete Pump Truck	82
Backhoe	80
Pneumatic Tools	85

Notes:

1. Noise levels are from Table 9.1 of FHWA's 2006 Construction Noise Handbook (FHWA, 2006), unless otherwise noted.
2. This noise level is from Table 9.9 of FHWA's 2006 Construction Noise Handbook (FHWA, 2006), which is taken from Chapter 12 of the FTA Transit Noise and Vibration Guidance Handbook.

Construction would be completed in 10 phases with durations from 11 to 85 days. Below is an analysis of potential noise impacts for each phase of Project construction (**Figure 9**).

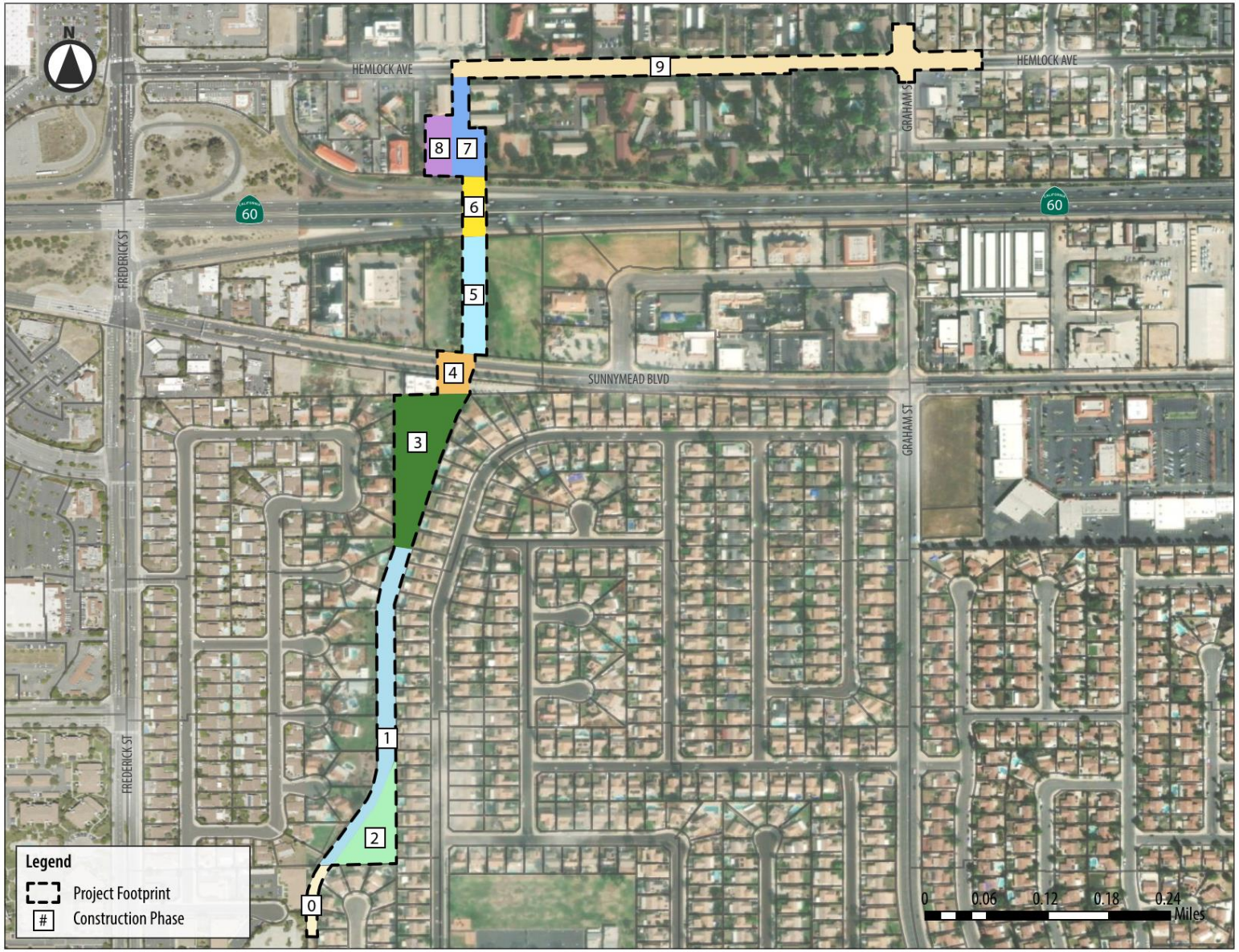
For phases 0 to 3, the rear property lines of homes on the following streets could be within 25 feet of construction, while the back of the homes are at least 50 feet from the construction: Sunny Meadows Drive, Penske Street, Donohue Court, Yarborough Drive, Gurney Place, Surtees Court, and Adeline Ave. Apart from the north end of Sunny Meadows Drive and Penske Street, construction activities would occur behind these homes for 23 to 26 days. Phase 3 will take 35 days and will be 20 to 25 feet from the homes at the north end of Sunny Meadows Drive and Penske Street. One-hour r Leq(dBA) noise levels at the back yard property line for phases 0 and 1 will range from 89 to 87 dBA, with the noise levels at the homes around 80 dBA. For the homes close to phase 4 the one-hour noise levels will range between 84 dBA at the property line to 78 dBA at the edge of structure.

Phases 4, 5 and 6 have no noise sensitive land uses within 200 feet.

For phases 7 and 8, the Segovia Apartment building at 23227 Hemlock would be within 25 feet of phase 7 activities and within 60 feet of phase 8 activities. Phase 7 has a duration of 11 days and phase 8 duration is 49 days, but the phases can be done concurrently, so the construction time in this area would be 49 days. Phase 7 one-hour Leq(dBA) levels are expected to be 84 to 87 dBA at the back of the apartment building. Phase 8 one-hour Leq(dBA) levels are expected to be 77 to 81 dBA at the back of the apartment building.

Phase 9 construction is along Hemlock Avenue, to the intersection with Graham Street, phase 9 has a duration of 85 days. Along Hemlock Avenue are several residential properties with front yards are within 15 feet from the street, while the buildings set back to 30 to 35 feet from Hemlock Avenue. During phase 9, one-hour Leq (dBA) levels are expected to between 83 to 96 dBA at nearest point of the front yard and between 83 to 90 dBA at the front of the buildings. The highest noise levels during phase 9 are due to the use of concrete saws to cut the asphalt on Hemlock Avenue; this activity has a duration of 19 days.

Figure 9. Construction Phases



Construction would comply to the City of Moreno Valley's General Plan section 6.4 and Chapter 11.80 of the City's Municipal Code. The Project would conform with the General Plan Policy 6.3.6 which states:

- Building construction shall be prohibited between 8 p.m. and 6 a.m. during the week and 8 p.m. and 7 a.m. weekends and holidays (Policy 6.3.6) (identified as **PPP NOI-1**)

Although adjacent residents would be exposed to construction noise levels that could be heard above ambient noise levels, impacts would be intermittent and temporary in duration. In addition, construction activities would only occur during the permitted hours identified in **PPP NOI-1** above. Therefore, noise impacts associated with Project construction would be less than significant.

Once the Project is constructed, no operational noise impacts would result. Any potential future maintenance of the site would be temporary and would be restricted to the hours set forth in Policy 6.3.6. Therefore, impacts would be ***less than significant***.

b) Generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐

Response: Less Than Significant Impact

Construction of the proposed Project is not anticipated to require the use of equipment that would generate excessive ground-borne vibration or ground-borne noise levels. Minor vibrations can be anticipated during excavation and construction of the Project. However, construction activities would be short-term and would occur between the hours of 7:00AM and 8:00PM per City Municipal Code §11.80.030.D.7 (**PPP NOI-1**).

The completed storm drain Project would not result in operational noise or vibration because of the nature of the underground pipelines and ground surface basins; as such, impacts would be ***less than significant***.

c) For a project located within the vicinity of a private airstrip or 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?	☐	☐	☒	☐

Response: Less Than Significant Impact

There are no known private airfields or airstrips in the vicinity of the proposed Project; therefore, no impacts associated with private airstrips would occur. As noted previously in Section IX, the proposed Project is located approximately 2.5 miles north of the runway for the March Air Reserve Base. According to the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, Map MA-1, *Compatibility Map*, the Project Site is located within Compatibility Zone E, which indicates a low noise impact and is beyond the 55 Community Noise Equivalent Level (CNEL) noise contour. The Project involves construction of a stormdrain facility and would not introduce new sensitive receptors (residents or permanent employees) to the Project Site. Construction workers would be on the site temporariliy. Due to the temporal nature of construction and low noise impact level, the proposed Project would not result in excessive noise exposure for workers within the Project Site, and impacts would be ***less than significant***.

Plans, Programs, or Policies (PPPs)

PPP NOI-1: City Municipal Code §11.80.030.D.7. Building construction shall be prohibited between 8 p.m. and 6 a.m. during the week and 8 p.m. and 7 a.m. weekends and holidays (Policy 6.3.6).

Mitigation Measures

None.

Sources:

1. Noise Technical Memorandum (WSP, 2023)
2. March Air Reserve Base/March Inland Port Airport Land Use Compatibility Plan adopted November 2014
   - Map MA-1: Compatibility Map
3. Moreno Valley Municipal Code Chapter 11.80 Noise Regulations

XIV. POPULATION AND HOUSING – Would the project:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?	☐	☐	☐	☒

Response: No Impact

The Project would construct storm drain improvements to serve existing development within the surrounding community. The Project would construct a total of 4,200 feet of storm drain, 10 catch basins, two infiltration facilities, two diversion structures, one weir structure and energy dissipation where necessary. The Project is intended to alleviate current flooding conditions and would not induce population growth either directly or indirectly. Therefore, ***no impact*** would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Response: No Impact

The Project would construct storm drain infrastructure within existing right of way and a drainage channel to reduce flooding. No people or housing would be displaced, and there would be no need for replacement housing. Therefore, ***no impact*** would occur.

Plans, Programs, or Policies (PPPs):

None.

Mitigation Measures:

None.

Sources: Not Applicable

XV. PUBLIC SERVICES – Would the project:

a) 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:

i) Fire protection?	☐	☐	☐	☒

Response: No Impact

The Project would construct storm drain infrastructure within existing rights of way and an existing drainage channel to reduce current flooding conditions. Given that the Project does not directly or indirectly induce population growth, there would be no impact to schools, parks, or other public facilities. Additionally, implementation of the Project would not result in an increased demand for police or fire protection service. Once complete, the Project would improve emergency and community access along Hemlock Avenue, Graham Street, and Sunnymead Boulevard by eliminating the need for road closures due to flooding during storm events. ***No impact*** associated with public services would occur.

ii) Police protection?	☐	☐	☐	☒

Response: No Impact

Please see response to item XV.i above. ***No impact*** would occur.

iii) Schools?	☐	☐	☐	☒

Response: **No Impact**

Please see response to item XV.i above. ***No impact*** would occur.

iv) Parks?	☐	☐	☐	☒

Response: No Impact

Please see response to item XV.i above. ***No impact*** would occur.

v) Other public facilities?	☐	☐	☐	☒

Response: No Impact

Please see response to item XV.i above. ***No impact*** would occur.

Plans, Programs, or Policies (PPPs)

None.

Mitigation Measures

None.

Sources: Not Applicable

XVI. RECREATION – Would the project:

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒

Response: No Impact

The Project would construct storm drain infrastructure within existing rights of way and an existing drainage channel to alleviate current flooding conditions. Construction of the Project would not generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities. Furthermore, the Project would not result in an increased demand or substantial physical deterioration of existing recreational facilities. Therefore, ***no impact*** would occur.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	☐	☐	☐	☒

Response: No Impact

Please see the response to item XVI.a. above. The proposed Project would not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, ***no impact*** would occur.

Plans, Programs, or Policies (PPPs)

None.

Mitigation Measures

None.

Sources:

1. City of Moreno Valley General Plan, adopted July 11, 2006.
   - Chapter 4 – Parks, Recreation and Open Space Element
     - Figure 4-2: Future Parklands Acquisition Areas

XVII. TRANSPORTATION – Would the project:

a) Conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒

Response: No Impact

The Project would construct storm drain infrastructure within existing rights of way and an drainage channel to reduce flooding on surrounding properties. Construction would occur over an approximate 18-month period. During construction there would be no obstructions or closures to existing roads, public transit stops, bicycle lanes, or sidewalks. Post-construction, there would be no perceivable difference to the surrounding environment. All traffic and transportation circulation patterns would remain as they currently exist. Therefore, the Project would not conflict with any applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. ***No impact*** would occur.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☒

Response: No Impact

The Project entails the installation of storm drain improvements, with the exception of construction-related traffic during the approximate 18-month construction period, there would be no operational traffic associated with the Project. Therefore, the Project would not conflict with CEQA Guidelines Section 15064.3, subdivision (b), and ***no impact*** would occur.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒

Response: No Impact

The proposed Project is intended to address localized conditions of flooding; and once complete, the Project would eliminate hazardous conditions along Hemlock Avenue, Graham Street, and Sunnymead Boulevard by eliminating the need for road closures due to flooding during storm events. There would be no changes to the existing transportation circulation system, including geometric design features and uses; therefore, ***no impact*** would occur.

d) Result in inadequate emergency access?	☐	☐	☒	☐

Response: Less Than Significant Impact

During construction of the proposed Project, evacuation routes along a portion of Hemlock Avenue and Sunnymead Boulevard between Graham Street and Pigeon Pass Road may be impacted. If temporary conditions during construction warrant full roadway closure, appropriate detour routes will be signed and noted for the safe evacuation of the local community. The proposed Project would not otherwise interfere with emergency access and once Project construction is complete, the Project would improve emergency and community access along Hemlock Avenue, Graham Street, and Sunnynead Boulevard by eliminating the need for road closures due to flooding during storm events. Impacts would be ***less than significant.***

Plans, Programs, or Policies (PPPs)

None.

Mitigation Measures

None.

Sources:

1. City of Moreno Valley Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment (June 2020) https://www.moval.org/city_hall/departments/pub-works/transportation/TIA-Guidelines.pdf
2. Southern California Association of Governments (SCAG) High Quality Transit Areas (2045) https://gisdata-scag.opendata.arcgis.com/datasets/SCAG::high-quality-transit-areas-hqta-2045-scag-region/explore?location=33.931309%2C-117.241414%2C14.00

XVIII. TRIBAL CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐

Response: Less than Significant with Mitigation

Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014) establishes a formal consultation process for California tribes as part of the CEQA process and equates significant impacts on "tribal cultural resources" with significant environmental impacts (Public Resources Code [PRC] § 21084.2). AB 52 requires that lead agencies undertaking CEQA review evaluate, just as they do for other historical and archeological resources, a project's potential impact to a tribal cultural resource.

Tribal cultural resource (TCR) identification efforts were conducted to determine whether a TCR, as defined by PRC § 21074, would be impacted by the proposed Project. These efforts included background research, a search of archaeological site records and cultural survey reports on file at the EIC, literature and map review, a review of the Sacred Lands File (SLF) by the NAHC, efforts to coordinate with Native American Tribal Governments, and a field survey.

The NAHC was contacted on May 31, 2022, to determine whether the California Native American tribes within the Project Area have recorded Sacred Lands. The NAHC confirmed that the SLF search for the Project was completed with negative results; however, the absence of specific site information in the SLF does not necessarily indicate the absence of tribal cultural resources in the Area of Potential Effect (APE).

The City of Moreno Valley initiated AB 52 consultation with seven Native American tribes as required under CEQA. On April 20, 2022, initial AB 52 consultation letters were sent to the following Native American tribal representatives:

- Agua Caliente Band of Cahuilla Indians; Director/Tribal Historic Preservation Officer, Patricia Garcia-Plotkin
- Morongo Band of Mission Indians; Cultural Resources Specialist, Raymond Huaute
- Morongo Band of Mission Indians; Tribal Chairman, Robert Martin
- Pechanga Band of Indians; Planning Specialist, Ebru T. Ozdil
- Rincon Band of Luiseno Indians; Cultural Resources Dept. Manager, Cheryl Madrigal
- San Manuel Band of Mission Indians; Director – CRM Department, Lee Clauss
- Soboba Band of Luiseno Indians; Cultural Resource Director, Joseph Ontiveros
- Torrez Martinez Desert Cahuilla Indians; Cultural Resources Coordinator, Michael Mirelez

The letters provided a summary of the Project and requested comments or concerns the Native American community might have about the Project and whether any traditional cultural properties, TCRs, or other resources of significance would be affected by implementation of the Project. The letters also stated that if the tribes would like to consult under AB 52, they would have to respond within 30 days, pursuant to PRC 21080.3.1(d). Below is a summary of tribal communications.

Agua Caliente Band of Cahuilla Indians; Director/Tribal Historic Preservation Officer, Patricia Garcia-Plotkin. On May 20, 2022, an email response was received from Arysa Romero, Cultural Resource Analyst for Agua Caliente Band of Cahuilla Indians (ACBCI). Ms. Romero noted the Project is not in the boundaries of the ACBCI Reservation. However, the Project is within the Tribe's Traditional Use Area and requested copies of the Project's cultural resources report. The cultural resources report was provided to ACBCI on March 8, 2023. No response was received prior to publication of this MND.

Morongo Band of Mission Indians; Tribal Chairman, Robert Martin. On May 12, 2022, an email response was received from Bernadette Ann Brierty, Tribal Historic Preservation Officer for the Morongo Band of Mission Indians (MBMI). Ms. Brierty noted that the Project is located within the ancestral territory and Traditional Use

Area of the Cahuilla and Serrano People of the Morongo Band of Mission Indians. MBMI requested government-to-government consultation under AB 52 and the following information:

- Project design and grading maps
- A copy of the cultural resources report including site records
- Tribal monitor during the pedestrian survey and testing if the fieldwork has not already taken place. If the work has been completed, provide a copy of the Phase I study or other cultural assessments.
- Shapefiles of the APE
- Geotechnical Report
- Draft environmental document

A copy of the cultural resources report was provided to MBMI on March 8, 2023. No response was received prior to publication of this MND.

Pechanga Band of Indians; Planning Specialist, Ebru T. Ozdil. On May 13, 2022, an email response was received from Juan Ochoa, Assistant Tribal Historic Preservation Officer for the Pechanga Band of Indians. It was noted that the Project is within Luiseno territory and there are cultural features associated with religious practice and an extensive artifact record in the vicinity of the Project. Furthermore, it was noted that the Project is located within a Traditional Cultural Property. The Tribe requested the following:

- Formal government-to-government consultation under AB 52;
- All documents and notices, including cultural resources reports, environmental documents, public notices, and design and grading plans;
- Notification of all public hearings and scheduled approvals concerning the Project, and that the Tribe's comments be incorporated into the record of approval; and
- No Phase II testing or other ground-disturbing archaeological activities be conducted on the site until after the Tribe and the City complete government-to-government consultation.

A copy of the cultural resources report was provided to the Tribe on March 8, 2023. No response was received prior to publication of this MND.

Rincon Band of Luiseno Indians; Cultural Resources Dept. Manager, Cheryl Madrigal. On May 18, 2022, a response from Ms. Madrigal was received. The response indicated the Rincon Band would like to consult on the Project. The Project is in a Traditional Use Area of the Luiseño people and within the Rincon Band's specific Area of Historic Interest. As such, the Rincon Band is traditionally and culturally affiliated to the Project Area. The Tribe requested a copy of the cultural resources report and design plans. A copy of the cultural resources report was provided to the Tribe on March 8, 2023. On April 7, 2023, the Tribe responded and noted that they are in agreement with the proposed cultural resources measures and concluded consultation.

San Manuel Band of Mission Indians; Director – CRM Department, Lee Clauss. On May 17, 2022, an email response was received from Ryan Nordness, Cultural Resource Analyst at San Manuel Band of Mission Indians. The response indicated that the Project is within Serrano ancestral territory and is of interest to the Tribe. However, it was noted that the Tribe does not have any concerns with the Project's implementation and requested cultural resources measures to be implemented as part of the Project. Mr. Nordness noted no additional consultation is required.

Torrez Martinez Desert Cahuilla Indians; Cultural Resources Coordinator, Michael Mirelez. A response was received on May 23, 2022, which indicated the Project is outside of the Tribe's prehistoric settlement pattern; therefore, the Tribe will defer to San Manual Band of Mission Indians and Soboba Band of Luiseno Indians.

No response was received from Soboba Band of Luiseno Indians; Cultural Resource Director, Joseph Ontiveros.

Through the SLF search and tribal consultation process, no listed or eligible for listing TCRs were identified within the APE. However, due to the number of locally affiliated tribes confirming that the Project lies within a traditional use area, there exists the possibility that unknown TCRs could be encountered during construction. **MM CR-3**: Native American Monitoring, identified above, would be implemented to mitigate

impacts to TCRs. Within application of **MM CR-3**, the Project would not cause a substantial adverse change to a TCR, and impacts would be reduced to a ***less than significant*** level.

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Response: Less than Significant with Mitigation Incorporated

As identified in the response above, the Project is within four tribal traditional use areas. In addition, two tribes including the Morongo Band of Mission Indians and the Pechanga Band of Indians requested government-to-government consultation. Through tribal consultation, and implementation of **PPP CUL-1** and **MM CR-1** through **CR-9**, the Project would have a ***less than significant impact***.

Plans, Programs, or Policies (PPPs)

PPP CUL-1: Should human remains be discovered during Project construction, the Project would be required to comply with State Health and Safety Code Section 7050.5, which states that no further disturbance may occur in the vicinity of the body until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine the identity of and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD must complete the inspection within 48 hours of notification by the NAHC.

Mitigation Measures

MM CR-1: Cultural Resource Monitoring Plan (CRMP). Prior to the issuance of grading permits, the Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City, shall develop a CRMP in consultation pursuant to the definition in AB52 to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the Project Site. A consulting Tribe is defined as a Tribe that initiated the AB 52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include:

h) Project description and location
i) Project grading and development scheduling;
j) Roles and responsibilities of individuals on the Project;
k) The pre-grading meeting and Cultural Resources Worker Sensitivity Training details;
l) The protocols and stipulations that the contractor, City, Consulting Tribe (s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.
m) The type of recordation needed for inadvertent finds and the stipulations of recordation of sacred items.
n) Contact information of relevant individuals for the Project;

MM CR- 2: Archaeological Monitoring. Prior to the issuance of a grading permit, the City shall retain a professional archaeologist to conduct monitoring of all ground disturbing activities. During construction, the Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed. The Project Archaeologist, in consultation with the Consulting Tribe(s) including Agua Caliente Band of Cahuilla Indians, Morongo Band of Mission Indians, Pechanga Band of Indians, Rincon Band of Luiseño Indians, San Manuel Band of Mission Indians, the contractor, and the City, shall develop a CRMP as

defined in CR-1. The Project Archeologist shall tend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The archaeological monitor shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed.

MM CR-3: Native American Monitoring. Prior to the issuance of a grading permit, the City shall secure agreements with the Agua Caliente Band of Cahuilla Indians, Morongo Band of Mission Indians, Pechanga Band of Indians, Rincon Band of Luiseño Indians, San Manuel Band of Mission Indians, for tribal monitoring. The City is also required to provide a minimum of 30 days' advance notice to the tribes of all ground disturbing activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. The Native American Monitor(s) shall attend the pre-grading meeting with the Project Archaeologist, City, the construction manager and any contractors and will conduct the Tribal Perspective of the mandatory Cultural Resources Worker Sensitivity Training to those in attendance.

MM CR-4: Cultural Resource Disposition. In the event that Native American cultural resources are discovered during the course of ground-disturbing activities (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

b) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Moreno Valley Planning Department:
   i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place they were found with no development affecting the integrity of the resources.
   ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure CR-1. This shall include measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in CR-3 The location for the future reburial area shall be identified on a confidential exhibit on file with the City, and concurred to by the Consulting Native American Tribal Governments prior to certification of the environmental document.

MM CR-5: The City shall verify that the following note is included on the Grading Plan: "If any suspected archaeological resources are discovered during ground –disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."

MM CR-6: Inadvertent Finds. If potential historic or cultural resources are uncovered during excavation or construction activities at the Project Site that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to Project approval, all ground disturbing activities in the affected area within 100 feet of the uncovered resource must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Further ground disturbance shall not resume within the area of the discovery until an agreement has been reached by all parties as to the appropriate mitigation. Work shall be allowed to continue outside of the buffer area and will be monitored by additional archeologist and Tribal Monitors, if needed. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in CR-2 before any further work commences in the affected area. If the find is determined to be significant and avoidance of the site has not been achieved, a Phase III data recovery plan shall be prepared

by the Project Archeologist, in consultation with the Tribe, and shall be submitted to the City for their review and approval prior to implementation of the said plan.

MM CR-7: Human Remains. If human remains are discovered, no further disturbance shall occur in the affected area until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 24 hours of the published finding to be given a reasonable opportunity to identify the "most likely descendant". The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).

MM CR-8: Non-Disclosure of Reburial Locations. It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254 (r)., parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).

MM CR-9: Archeology Report - Phase III and IV. Prior to final inspection, the City/permit holder shall prompt the Project Archeologist to submit two (2) copies of the Phase III Data Recovery report (if required for the Project) and the Phase IV Cultural Resources Monitoring Report that complies with the Community Development Department's requirements for such reports. The Phase IV report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting. The Community Development Department shall review the reports to determine adequate mitigation compliance.

Provided the reports are adequate, the Community Development Department shall clear this condition. Once the report(s) are determined to be adequate, two (2) copies shall be submitted to the Eastern Information Center (EIC) at the University of California Riverside (UCR) and one (1) copy shall be submitted to the Consulting Tribe(s) Cultural Resources Department(s).

Sources:

1. Cultural Resources Inventory and Evaluation Report for the Sunnymead Master Drainage Plan Project – Storm Drain Lines F and F-7
2. Appendix A.2, AB-52 Tribal Consultation Coordination Log

XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒

Response: No Impact

The proposed Project includes a combination of storm drain pipelines, infiltration facilities, catch basins, weir structures, confluence structures, and energy dissipation features. The Project is intended to provide flood protection and manage stormwater flows up to a 100-year flood event. All impacts associated with the construction of the proposed storm drain facilities are described within the sections of the IS/MND. No additional impacts would result from construction of the Project not already disclosed herein. Furthermore, the proposed Project would not require relocation of construction of new or expanded water, wastewater treatment, electrical power, natural gas, or telecommunications facilities. Therefore, ***no impact*** would occur.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐

Response*:* Less Than Significant Impact

The proposed Project may use water during construction for dust management. This demand would be temporary in nature and cease upon construction completion. Once the Project is operational, there would be no water demand. Therefore, the Project would have a ***less than significant impact*** on water supply.

c) 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?	☐	☐	☐	☒

Response: No Impact

The proposed Project would not generate any wastewater. Therefore, ***no impact*** due to the construction or relocation of wastewater infrastructure or facilities would occur.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐

Response: Les Than Significant Impact

Project construction would generate debris and solid waste. The construction contractor would be required to adhere to the City's Construction and Demolition Waste Recycling Program which requires all covered projects in the City to divert 50 percent of construction and demolition waste from County landfills (**PPP UTIL-1**). As part of this program, the construction contractor would also be required to prepare a Waste Management Plan for City approval prior to Project construction. The remaining solid waste would be disposed of at the Badlands Sanitary landfill where the solid waste capacity is currently 7,800,000 cubic yards. Construction activities would not generate solid waste in excess of State or local standards or in excess of the local landfill capacity. Therefore, impacts would be ***less than significant***.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Response: Less Than Significant Impact

As discussed in the response above, the Project would comply with the City's Construction and Demolition Waste Recycling Program. As part of adhering to this Program, the construction contractor will recycle 50 percent of all solid waste. Therefore, the Project would comply with local management and reduction statutes and regulations related to solid waste. Therefore, impacts would be ***less than significant***.

Plans, Programs, or Policies (PPPs)

PPP UTIL-1: Construction & Demolition Waste Recycling Program. Projects in the City shall divert 50 percent of construction and demolition waste from County landfills. As part of this program, the construction contractor would also be required to prepare a Waste Management Plan for City approval prior to Project construction.

Mitigation Measures

None.

Sources:

1. Moreno Valley Municipal Code Chapter 8.80 – Recycling and Diversion of Construction and Demolition Waste
2. CalRecycle – Solid Waste Information System (SWIS)Facility Badlands Sanitary Landfill Site Activity Details

XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, **would the project:**				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Response: Less Than Significant Impact

According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zones online interactive map, the Project is not in a "very high/high/moderate" fire hazard severity zone. Additionally, the City's GP and Emergency Operation Plan do not identify any evacuation routes. Nevertheless, if temporary conditions during construction warrant full roadway closure, appropriate detour routes will be signed and noted for the safe evacuation of the local community. The proposed Project would not otherwise interfere with emergency evacuation routes. Once Project construction is complete, the Project would improve emergency and community access along Hemlock Avenue, Graham Street, and Sunnynead Boulevard by eliminating the need for road closures due to flooding during storm events. Impacts would be ***less than significant.***

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒

Response: No Impact

The Project proposes underground storm drain and related infrastructure improvements. The Project Site is relatively flat and is generally characterized by gently sloping topography. In addition, the surrounding area is fully developed. Once the improvements are constructed, the disturbed portions of the Project Site, including roadways and channel contours would be restored to their pre-construction condition. Therefore, the Project would not expose Project occupants to pollutant concentrations from a wildfire or uncontrolled spread of a wildfire. ***No impact*** would occur, and no mitigation is required.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒

Response: No Impact

Although the proposed Project would provide storm drain improvements, the majority of the improvements would be underground and would not exacerbate fire risk. Additionally, the proposed design would be reviewed and approved by the City to ensure all applicable standards and regulations are implemented. Therefore, the proposed Project would not require the installation or maintenance of associated infrastructure (including roads, fuel breaks, emergency water sources, power lines, or other utilities) that would exacerbate fire risk or that would result in impacts to the environment. ***No impact*** would occur, and no mitigation is required.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Response: No Impact

The Project Site topography is relatively flat, and the soils found onsite are not susceptible to landslides. The proposed Project would improve the drainage pattern by controlling water flows, which will minimize the risk for flooding and decrease the amount of runoff. Therefore, the proposed Project would not expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. ***No impact*** would occur, and no mitigation is necessary.

Plans, Programs, or Policies (PPPs)

None.

Mitigation Measures

None.

Sources:

1. City of Moreno Valley General Plan, adopted July 11, 2006.
   - Chapter 6 – Safety Element
     - Section 6.2 – Fire and Emergency Services
     - Section 6.2.8 – Wildland Urban Interface
2. City of Moreno Valley General Plan Final Environmental Impact Report adopted July 2006.
   - Section 5.5 – Hazards
     - Figure 5.5-2: Floodplains and High Fire Hazard Areas Map, 2006
3. Title 9 – Planning and Zoning of the Moreno Valley Municipal Code
4. Local Hazard Mitigation Plan, City of Moreno Valley Fire Department, adopted October 4, 2011, amended 2017, http://www.moval.org/city_hall/departments/fire/pdfs/haz-mit-plan.pdf
   - Chapter 5 – Wildland and Urban Fires
     - Figure 5-2 – Moreno Valley High Fire Area Map, 2016
   - Chapter 8 – Landslide
     - Figure 8-1 – Moreno Valley Slope Analysis, 2016
5. Emergency Operations Plan, City of Moreno Valley, March 2009, http://www.moval.org/city_hall/departments/fire/pdfs/mv-eop-0309.pdf
   - Threat Assessment 3 – Wildfire

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to substantially 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, substantially 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?	☐	☒	☐	☐

Response: Less Than Significant with Mitigation Incorporated

As discussed in Section IV, *Biological Resources*, the proposed Project has the potential to impact sensitives species, natural communities, and jurisdictional waters. As a result, **MM BIO-1** through **BIO-6** would be implemented as part of the Project. Inclusion of these measures would ensure that the Project would not substantially degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, substantially reduce the number, or restrict the range of a rare or endangered plant or animal. Additionally, as described in Section V, *Cultural Resources* and XVII, *Tribal Cultural Resources*, there exists a possibility that unknown tribal cultural resources could be encountered during construction. However, with the implementation of **PPP CUL-1** and **MM CUL-1** through **CUL-9**, the potential for impacts on undiscovered resources are considered to be less than significant. The proposed Project would not eliminate important examples of major periods of California history or prehistory. With implementation of the abovementioned mitigation measures, impacts would be reduced to a ***less than significant*** level.

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 project, and the effects of probable future projects.)?	☐	☐	☒	☐

Response: Less than Significant Impact

As detailed in the analysis provided within this document, all construction and operational impacts would either have a less than significant or mitigated to a less than significant level and there would be no long-

term significant impacts. Therefore, the proposed Project would not result in individual impacts that could contribute to a cumulative effect. A ***less than significant*** impact would occur.				
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Response: Less than Significant Impact

The proposed Project entails the installation of storm drain and related infrastructure improvements. Once complete, the Project site and surrounding area would provide a beneficial impact by alleviating flood risks and ponding that occur during storm events. Generally, impacts to humans are associated with air quality, hazards and hazardous materials, noise impacts, and wildfire. As detailed in the respective topic sections of this document, policies **PPP AQ-1** and **AQ-2**, and **PPP NOI-1** would be implemented. With implementation of the identified policies, the proposed Project would not cause significant adverse impacts to humans and impacts would be ***less than significant.***

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Moreno Valley, California 92553

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WSP, 2023. Phase I Environmental Site Assessment for the Sunnymead Master Drainage Plan Line F and F-7 Project

Appendix A – Consultation and Coordination

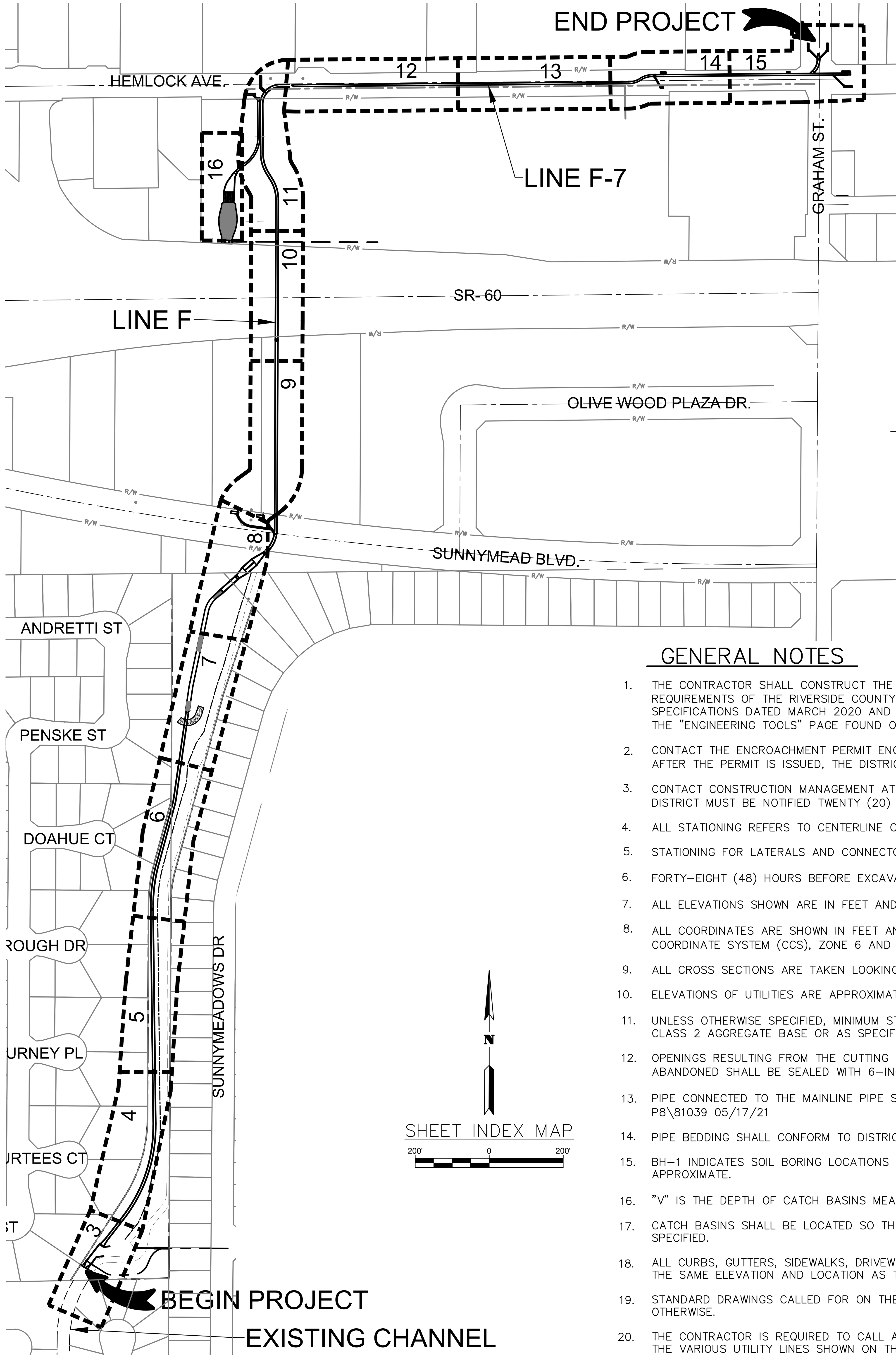
Appendix A.1 Notice of Intent

Appendix A.2 AB 52 Tribal Consultation

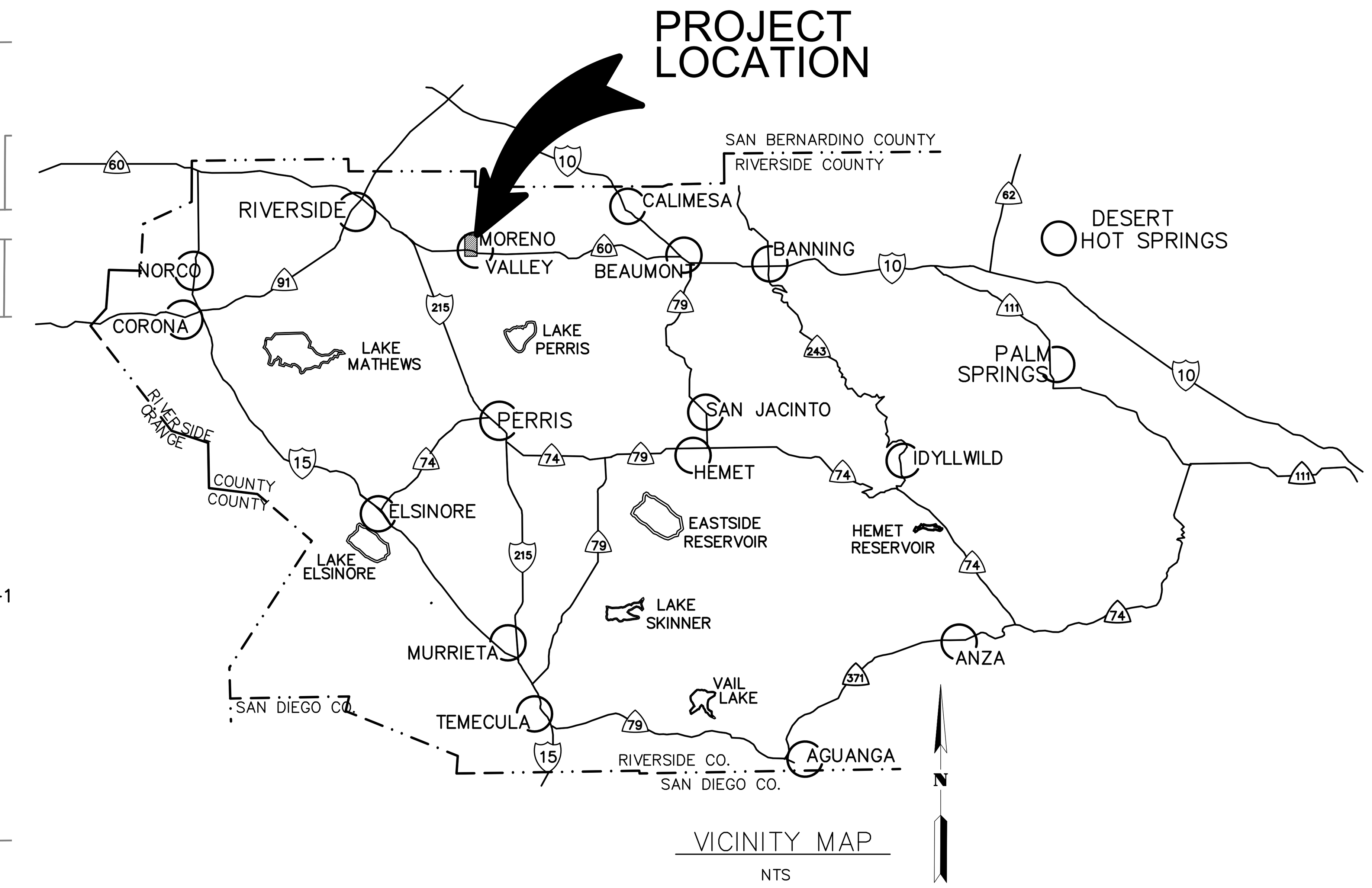
Appendix B – Project Plans

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

SUNNYMEAD MDP LINE F AND F-7



SHEET INDEX MAP



VICINITY MAP

NTS

INDEX

R.C.F.C.&W.C.D. STANDARD DRAWINGS

CB 109	SPECIAL CONNECTION TO CATCH BASIN
JS 226	JUNCTION STRUCTURE No.1
JS 227	JUNCTION STRUCTURE No.2
MH 251	MANHOLE No.1
MH 252	MANHOLE No.2
MH 253	MANHOLE No.3
MH 254	MANHOLE No.4
MH 261	MANHOLE SAFETY LEDGE
TS 301	TRANSITION STRUCTURE No.1
TS 302	TRANSITION STRUCTURE No.2
TS 303	TRANSITION STRUCTURE No.3
CH 327	CONCRETE CHANNEL
CH 329	CHANNEL TRANSITION STRUCTURE
CH 335	MAINTENANCE RAMP FRO ROCK LINED CHANNEL
M 803	CONCRETE COLLAR
M 816	CONCRETE BULKHEAD
M 827	VEHICULAR TURN AROUND AREA

CITY OF MORENO VALLEY STANDARD DRAWINGS

MVSI-132	TRENCH BACKFILL AND ROADWAY REPAIR
MVSI-170	SURVEY MONUMENT
MVFE-300	CATCH BASIN

CALTRANS STANDARD DRAWINGS

D83A	PRECAST REINFORCED CONCRETE BOX CULVERT
D84	BOX CULVERT WING WALLS
D90	PIPE CULVERT HEADWALLS, ENDWALLS AND WINGWALLS
B11-47	CABLE RAILING

SPPWC STANDARD DRAWINGS

361-2	TRASH RACK
390-1	PRECAST REINFORCED CONCRETE BOX
610-3	REINFORCED CONCRETE RETAINING WALL

GENERAL NOTES

1. THE CONTRACTOR SHALL CONSTRUCT THE FLOOD CONTROL IMPROVEMENTS SHOWN ON THE DRAWINGS IN CONFORMANCE WITH THE REQUIREMENTS OF THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT'S (DISTRICT) M.O.U. STANDARD SPECIFICATIONS DATED MARCH 2020 AND DISTRICT STANDARD DRAWINGS. FOR THE LATEST STANDARD DRAWINGS, PLEASE REFER TO THE "ENGINEERING TOOLS" PAGE FOUND ON THE "BUSINESS" SECTION OF THE DISTRICT'S WEBSITE.
2. CONTACT THE ENCROACHMENT PERMIT ENGINEER AT 951.955.1266 IF AN ENCROACHMENT PERMIT IS REQUIRED FROM THE DISTRICT. AFTER THE PERMIT IS ISSUED, THE DISTRICT MUST BE NOTIFIED ONE (1) WEEK PRIOR TO CONSTRUCTION.
3. CONTACT CONSTRUCTION MANAGEMENT AT 951.955.1288 IF CONSTRUCTION INSPECTION WILL BE PERFORMED BY THE DISTRICT. THE DISTRICT MUST BE NOTIFIED TWENTY (20) DAYS PRIOR TO CONSTRUCTION.
4. ALL STATIONING REFERS TO CENTERLINE OF CONSTRUCTION UNLESS OTHERWISE NOTED.
5. STATIONING FOR LATERALS AND CONNECTOR PIPES REFER TO THE CENTERLINE INTERSECTION STATIONS.
6. FORTY-EIGHT (48) HOURS BEFORE EXCAVATION, CALL UNDERGROUND SERVICE ALERT AT 1.800.227.2600.
7. ALL ELEVATIONS SHOWN ARE IN FEET AND DECIMALS THEREOF BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD 88).
8. ALL COORDINATES ARE SHOWN IN FEET AND DECIMALS THEREOF BASED ON THE NORTH AMERICAN DATUM (NAD 83), CALIFORNIA COORDINATE SYSTEM (CCS), ZONE 6 AND EPOCH 2011.00.
9. ALL CROSS SECTIONS ARE TAKEN LOOKING DOWNSTREAM.
10. ELEVATIONS OF UTILITIES ARE APPROXIMATE UNLESS OTHERWISE NOTED.
11. UNLESS OTHERWISE SPECIFIED, MINIMUM STREET RECONSTRUCTION SHALL BE 4-INCHES TYPE "A" HOT MIX ASPHALT OVER 6-INCHES CLASS 2 AGGREGATE BASE OR AS SPECIFIED BY THE ENGINEER.
12. OPENINGS RESULTING FROM THE CUTTING OR PARTIAL REMOVAL OF EXISTING CULVERTS, PIPES OR SIMILAR STRUCTURES TO BE ABANDONED SHALL BE SEALED WITH 6-INCHES OF CLASS "B" CONCRETE.
13. PIPE CONNECTED TO THE MAINLINE PIPE SHALL CONFORM TO JUNCTION STRUCTURE NO. 4 (JS 229) UNLESS OTHERWISE NOTED. P8\81039 05/17/21
14. PIPE BEDDING SHALL CONFORM TO DISTRICT STANDARD DRAWING NO. M815.
15. BH-1 INDICATES SOIL BORING LOCATIONS BASED ON THE SOILS REPORT DATED APRIL 19, 2023. LOCATIONS SHOWN ARE APPROXIMATE.
16. "V" IS THE DEPTH OF CATCH BASINS MEASURED FROM THE TOP OF CURB TO INVERT OF CONNECTOR PIPE.
17. CATCH BASINS SHALL BE LOCATED SO THAT LOCAL DEPRESSION SHALL BEGIN AT EXISTING CURB RETURN JOINT, UNLESS OTHERWISE SPECIFIED.
18. ALL CURBS, GUTTERS, SIDEWALKS, DRIVEWAYS AND OTHER EXISTING IMPROVEMENTS ARE TO BE RECONSTRUCTED IN KIND AND AT THE SAME ELEVATION AND LOCATION AS THE EXISTING IMPROVEMENTS UNLESS OTHERWISE NOTED.
19. STANDARD DRAWINGS CALLED FOR ON THE PLAN AND PROFILE SHALL CONFORM TO DISTRICT STANDARD DRAWINGS UNLESS NOTED OTHERWISE.
20. THE CONTRACTOR IS REQUIRED TO CALL ALL UTILITY AGENCIES REGARDING TEMPORARY SHORING AND SUPPORT REQUIREMENTS FOR THE VARIOUS UTILITY LINES SHOWN ON THESE PLANS.
21. DURING ROUGH GRADING OPERATIONS AND PRIOR TO CONSTRUCTION OF PERMANENT DRAINAGE STRUCTURES, TEMPORARY DRAINAGE CONTROL SHOULD BE PROVIDED TO PREVENT PONDING WATER AND DAMAGE TO ADJACENT PROPERTIES.
22. APPROVAL OF THESE PLANS BY DISTRICT DOES NOT RELIEVE THE DEVELOPER'S ENGINEER OF RESPONSIBILITY FOR THE ENGINEERING DESIGN. IF FIELD CHANGES ARE REQUIRED, IT WILL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER TO MAKE THE NECESSARY CORRECTIONS.
23. THE CONTRACTOR OR DEVELOPER SHALL SECURE ALL REQUIRED ENCROACHMENT AND/OR STATE AND FEDERAL REGULATORY PERMITS PRIOR TO THE COMMENCEMENT OF ANY WORK.
24. THE CONCRETE COATING ON THE INSIDE OF ALL REINFORCED CONCRETE PIPES AND STRUCTURES MUST BE INCREASED TO PROVIDE A MINIMUM OF 1-1/2-INCHES OVER THE REINFORCING STEEL AND INCREASED TO A MINIMUM OF 3-1/2-INCHES OVER REINFORCING STEEL FOR BOX CULVERT, WHEN DESIGN VELOCITIES EXCEED 20 FEET PER SECOND. THE CONCRETE DESIGN STRENGTH FOR REINFORCED CONCRETE PIPES AND STRUCTURES IN THESE REACHES SHALL BE F'C=5,000 PSI FOR VELOCITIES EXCEEDING 20 FEET PER SECOND AND F'C=6,000 PSI FOR VELOCITIES EXCEEDING 30 FEET PER SECOND.
25. CONSTRUCTION JOINTS FOR CALTRANS STANDARD REINFORCED CONCRETE BOX SHALL BE PLACED ACCORDING TO DISTRICT STANDARD DRAWING NO. BOX 401.
26. ROCK FOR ACCESS ROADS, TURN AROUNDS AND OTHER AREAS WITHIN DISTRICT RIGHT OF WAY AS SHOWN ON THE PROJECT DRAWINGS AND AS DIRECTED BY THE ENGINEER SHALL MEET THE REQUIREMENTS FOR 1-INCH X NO. 4 COARSE AGGREGATE AS PER SECTION 90-1.02C(4)(B) OF THE CALTRANS SPECIFICATIONS. X VALUES FOR ROCK GRADATION SHALL BE 75 AND 15 FOR 3/4-INCH AND 3/8-INCH RESPECTIVELY. ROCK SHALL ADDITIONALLY MEET THE SPREADING AND COMPACTION REQUIREMENTS OF SECTIONS 26-1.03D AND 26- 1.03E OF THE CALTRANS SPECIFICATIONS. FURTHERMORE, ROCK DEPTH SHALL NOT EXCEED 3-INCHES AND SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER. ROCK SHALL NOT CONTAIN RECYCLED CONCRETE PRODUCTS.

BASIS OF BEARINGS:
BEARINGS AND DISTANCES ARE GRID BASED ON NAD-83 (NSRS2007) EPOCH 2011.00 CCS83 ZONE 6, DERIVED LOCALLY FROM CSRS CGPS STATIONS: MAT2 AND MLFP. TO OBTAIN GROUND DISTANCES DIVIDE STATIONING AND GRID DISTANCES SHOWN BY THE AVERAGE COMBINATION FACTOR OF 0.9999367.

95% DESIGN

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE. DIGALERT CALL 811 or 1-800-422-4133 2 Working Days Before You Dig WWW.CALL811.COM

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00 PER CSRC / CCS83 ZONE 6 (0406)
DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED "M-59-69 RESET 1997" (ELEV=1641.16)

REF.	REVISIONS DESCRIPTION	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER SEAN TURNAGE No. 62297 Exp. 09/30/25 CIVIL STATE OF CALIFORNIA

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RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: CHIEF, DESIGN & CONSTRUCTION DATE:____
APPROVED BY: GENERAL MANAGER-CHIEF ENGINEER DATE:____

NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY
RECOMMENDED: QUANG NGUYEN, PE CAPITAL PROJECTS DIVISION MANAGER R.C.E. 58590 DATE
APPROVED: MELISSA WALKER, PE PUBLIC WORKS DIRECTOR/CITY ENGINEER R.C.E. 69563 DATE

SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F AND F-7

TITLE SHEET
CITY PROJECT NO. 804 0008

PROJECT NO. 4-8-00290
DRAWING NO. SD-001
SHEET NO. 01 OF 24

STORM DRAIN CONSTRUCTION ITEMS

(1) CONSTRUCT 24" RCP STORM DRAIN, D-LOAD PER PLAN
(2) CONSTRUCT 36" RCP STORM DRAIN, D-LOAD PER PLAN
(3) CONSTRUCT 42" RCP STORM DRAIN, D-LOAD PER PLAN
(4) CONSTRUCT 48" RCP STORM DRAIN, D-LOAD PER PLAN
(5) CONSTRUCT 60" RCP STORM DRAIN, D-LOAD PER PLAN
(6) CONSTRUCT 72" RCP STORM DRAIN, D-LOAD PER PLAN
(7) CONSTRUCT 84" RCP STORM DRAIN, D-LOAD PER PLAN
(8) CONSTRUCT 10' X 8 RCB STORM DRAIN PER CALTRANS STD D83A, D-LOAD PER PLAN
(9) CONSTRUCT 4' X 2' RCB STORM DRAIN PER CALTRANS STD D83A, D-LOAD PER PLAN
(10) CONSTRUCT 20' X 4' DOUBLE CELL RCB STORM DRAIN PER SPPWC STD 390-1, D-LOAD PER PLAN
(11) CONSTRUCT 6' X 4' RCB STORM DRAIN PER CALTRANS STD D83A, D-LOAD PER PLAN
(12) CONSTRUCT 5' X 4' RCB STORM DRAIN PER CALTRANS STD D83A, D-LOAD PER PLAN
(13) CONSTRUCT MANHOLE NO. 1 PER RCFC&WCD STD MH251
(14) CONSTRUCT MANHOLE NO. 2 PER RCFC&WCD STD MH252
(15) CONSTRUCT MANHOLE NO. 3 PER RCFC&WCD STD MH253
(16) CONSTRUCT MANHOLE NO. 4 PER RCFC&WCD STD MH254
(17) CONSTRUCT TRANSITION STRUCTURE NO. 1 PER RCFC&WCD STD TS301
(18) CONSTRUCT TRANSITION STRUCTURE NO. 2 PER RCFC&WCD STD TS302
(19) CONSTRUCT TRANSITION STRUCTURE NO. 3 PER RCFC&WCD STD TS303
(20) CONSTRUCT JUNCTION STRUCTURE NO. 1 PER RCFC&WCD STD JS226
(21) CONSTRUCT JUNCTION STRUCTURE NO. 2 PER RCFC&WCD STD JS227
(22) CONSTRUCT CATCH BASIN NO. 1 PER RCFC@WCD STD CB100
(23) CONSTRUCT SPECIAL CONNECTION TO CATCH BASIN PER RFC&WCD STD CB109
(24) CONSTRUCT CONCRETE COLLAR PER RCFC&WCD STD M803
(25) CONSTRUCT CHANNEL TO CATCH BASIN TRANSITION
(26) CONSTRUCT REINFORCED CONCRETE RETAINING WALL, TYPE 1 PER SPPWC STD 610-3
(27) CONSTRUCT CHANNEL TRANSITION STRUCTURE PER RCFC&WCD STD CH329
(28) CONSTRUCT MAINTENANCE RAMP FOR ROCK LINED CHANNEL PER RCFC&WCD STD CH335
(29) CONSTRUCT CHANNEL ACCESS RAMP
(30) CONSTRUCT 10' X 8'9" CONCRETE CHANNEL PER RCFC&WCD STD CH327
(31) CONSTRUCT BOX CULVERT TYPE A HEADWALL AND WING WALL PER CALTRANS STD D90
(32) CONSTRUCT CONCRETE BULKHEAD PER RCFC&WCD STD M816
(33) CONSTRUCT DRIVABLE CONCRETE BASIN OVERFLOW WEIR PER SHEET 19
(34) CONSTRUCT PIPE CULVERT TYPE A HEADWALL AND WING WALL PER CALTRANS STD D90
(35) CONSTRUCT TRASH RACK PER SPPWC STD 361-2
(36) RESET STREET CENTERLINE MONUMENT PER CITY OF MORENO VALLEY ST PLAN MVSI-170A,B,C,D,E
(37) SAWCUT EXISTING PAVEMENT AND ROADWAY REPAIR PER CITY OF MORENO VALLEY STD PLAN MVSI-132B-0
(38) CONSTRUCT MHC SHAFT SAFETY LEDGE PER RCFC&WCD STD MH261
(39) CONSTRUCT 16" REINFORCED CONCRETE SLAB PER SPPWC STD 610-3, FOOTING REINFORCEMENT
(40) CONSTRUCT 3" D-50 RIP-RAP
(41) CONSTRUCT GRATING CATCH BASIN-ALLEY (TRANSVERSE) PER SPPWC STD PLAN 305-4, MODIFIED TO CONNECT TO CURB OPENING CATCH BASIN
(42) CONSTRUCT CATCH BASIN NO. 4 PER RCFC&WCD STD CB101
(43) CONSTRUCT CABLE RAILING PER CALTRANS STD B11-47
(97) REMOVE AND REPLACE
(98) REMOVE CONFLICTING PORTIONS
(99) PROTECT IN PLACE

95% DESIGN

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00 PER CSRC / CCS83 ZONE 6 (0406)
DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED "M-59-69 RESET 1997" (ELEV=1641.16)

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

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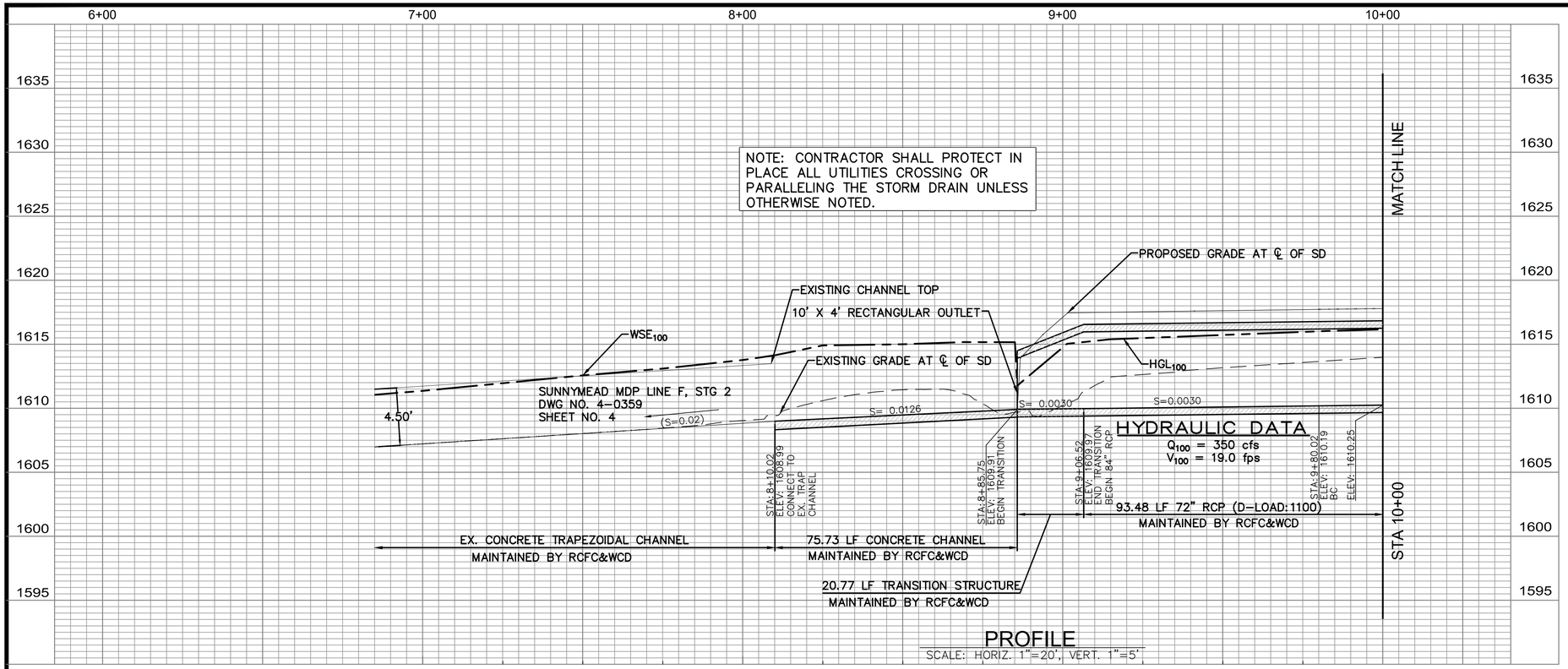
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
NOT FOR CONSTRUCTION
RECOMMENDED FOR APPROVAL BY: CHIEF, DESIGN & CONSTRUCTION DATE:
APPROVED BY: GENERAL MANAGER-CHIEF ENGINEER DATE:

CITY OF MORENO VALLEY
RECOMMENDED:
QUANG NGUYEN, PE
CAPITAL PROJECTS DIVISION MANAGER
R.C.E. 58590
DATE
APPROVED:
MELISSA WALKER, PE
PUBLIC WORKS DIRECTOR/CITY ENGINEER
R.C.E. 69563
DATE

SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F AND F-7

CONSTRUCTION NOTES MASTER
CITY PROJECT NO. 804 0008

PROJECT NO. 4-8-00290
DRAWING NO. VALUE
SHEET NO. 02 OF 24



PROFILE

SCALE: HORIZ. 1"=20', VERT. 1"=5'

STORM DRAIN CONSTRUCTION ITEMS

(6) CONSTRUCT 72" RCP STORM DRAIN, D-LOAD PER PLAN

(17) CONSTRUCT TRANSITION STRUCTURE NO. 1 PER RCFC&WCD STD TS301

(26) CONSTRUCT REINFORCED CONCRETE RETAINING WALL, TYPE 1 PER SPPWC STD 610-3

(27) CONSTRUCT CHANNEL TRANSITION STRUCTURE PER RCFC&WCD STD CH329

(28) CONSTRUCT MAINTENANCE RAMP FOR ROCK LINED CHANNEL PER RCFC&WCD STD CH335

(31) CONSTRUCT BOX CULVERT TYPE A HEADWALL AND WING WALL PER CALTRANS STD D90

(35) CONSTRUCT TRASH RACK PER SPPWC STD 361-2

(39) CONSTRUCT 16" REINFORCED CONCRETE SLAB PER SPPWC STD 610-3, FOOTING REINFORCEMENT

(40) CONSTRUCT 3" D-50 RIP-RAP

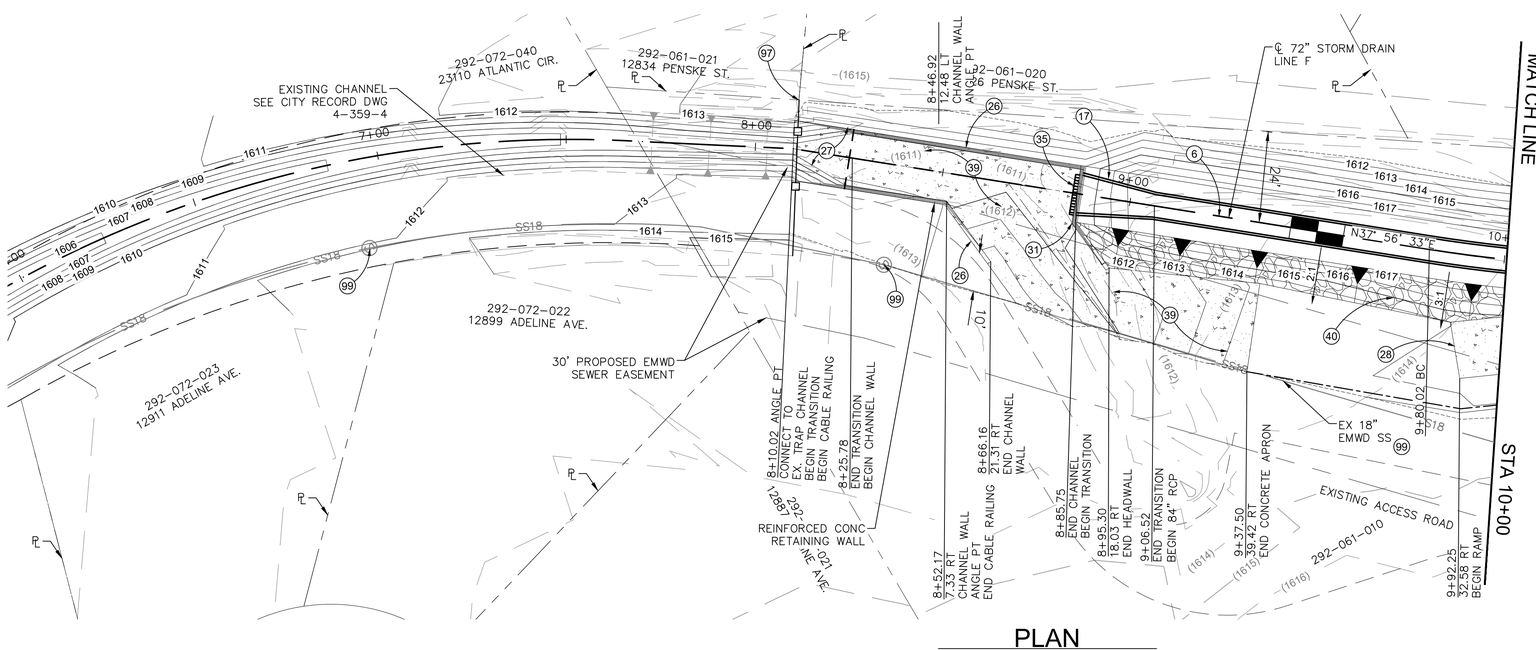
(97) REMOVE AND REPLACE

(99) PROTECT IN PLACE

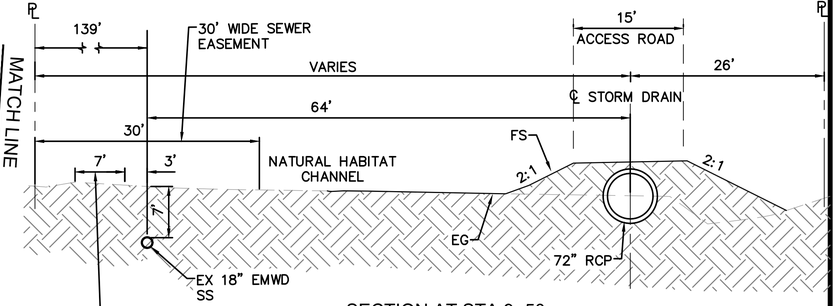
NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS

NOTE TO CONTRACTOR:

1. PLEASE SEE SHEET 23 FOR ELEVATION, SLOPES, AND CROSS-SECTION DETAILS OF 16" REINFORCED CONCRETE SLAB AND CHANNEL WALL CONFLUENCE STRUCTURE.
2. PLEASE SEE SHEET 24 FOR DISTRICT MAINTENANCE ROAD TURN AROUND COMPLIANCE.
3. PLEASE SEE SHEET 17 FOR EXISTING RCFC&WCD CHANNEL IMPROVEMENTS.



PLAN



SECTION AT STA 9+50

FILE NAME: I:\12804\SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-02-SD100-STORMDRAIN.dwg DATE: Monday, February 03, 2025 - 10:52am USFC67837

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.
DIGALERT
CALL 811 or 1-800-422-4133
2 Working Days Before You Dig
www.CALLB811.com

BENCH MARK:
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REF.	REVISIONS	APPR.	DATE

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DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER
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RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

RECOMMENDED FOR APPROVAL BY: _____ DATE: _____
CHIEF, DESIGN & CONSTRUCTION

APPROVED BY: _____ DATE: _____
GENERAL MANAGER-CHIEF ENGINEER

NOT FOR CONSTRUCTION

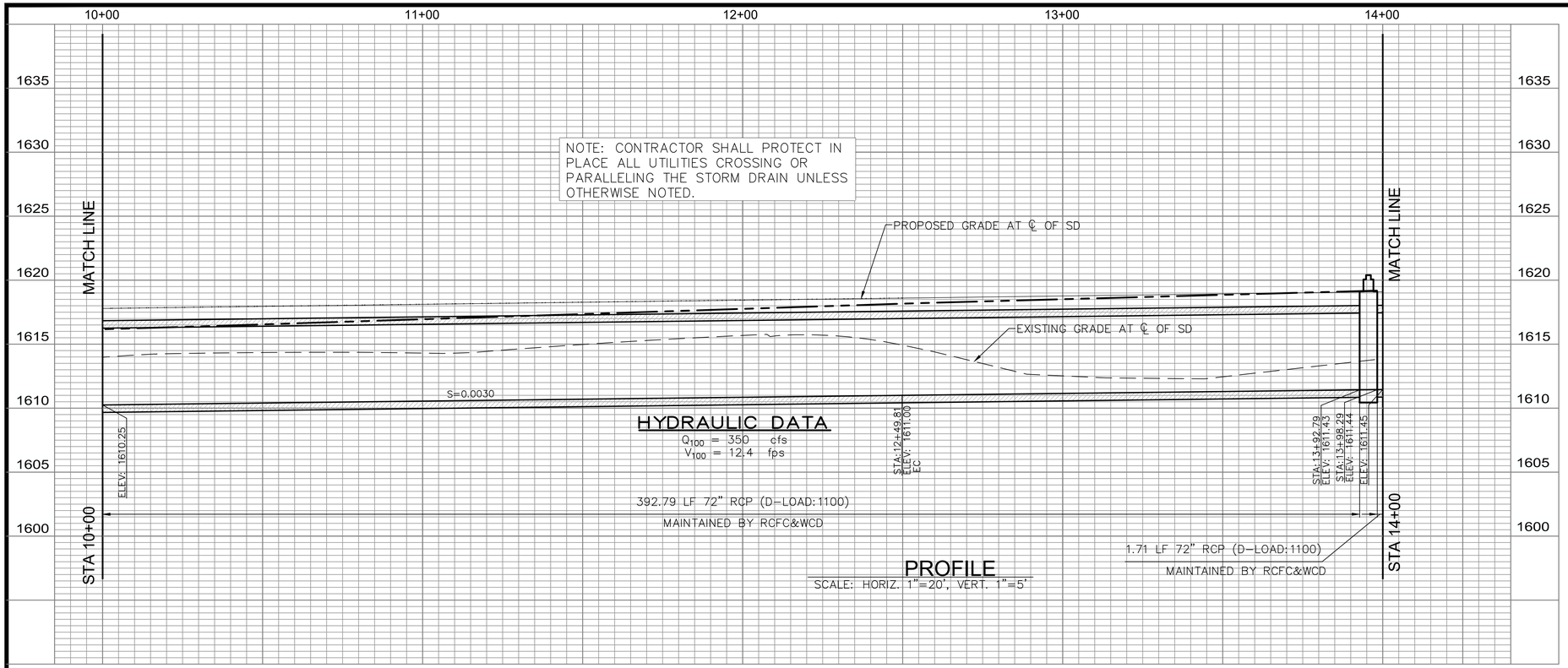
CITY OF MORENO VALLEY

RECOMMENDED: _____ DATE _____
QUANG NGUYEN, PE
CAPITAL PROJECTS DIVISION MANAGER
R.C.E. 88590

APPROVED: _____ DATE _____
MELISSA WALKER, PE
PUBLIC WORKS DIRECTOR/CITY ENGINEER
R.C.E. 69563

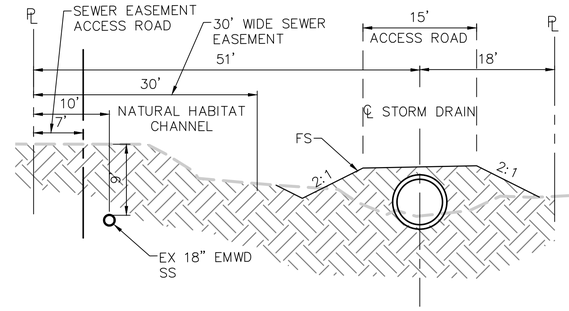
SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F AND F-7
PLAN AND PROFILE
STA 6+00 TO 10+00
CITY PROJECT NO. 804 0008

PROJECT NO. 4-8-00290
DRAWING NO. SD100
SHEET NO. 03 OF 24



PROFILE

SCALE: HORIZ. 1"=20', VERT. 1"=5'



SECTION AT STA 13+50

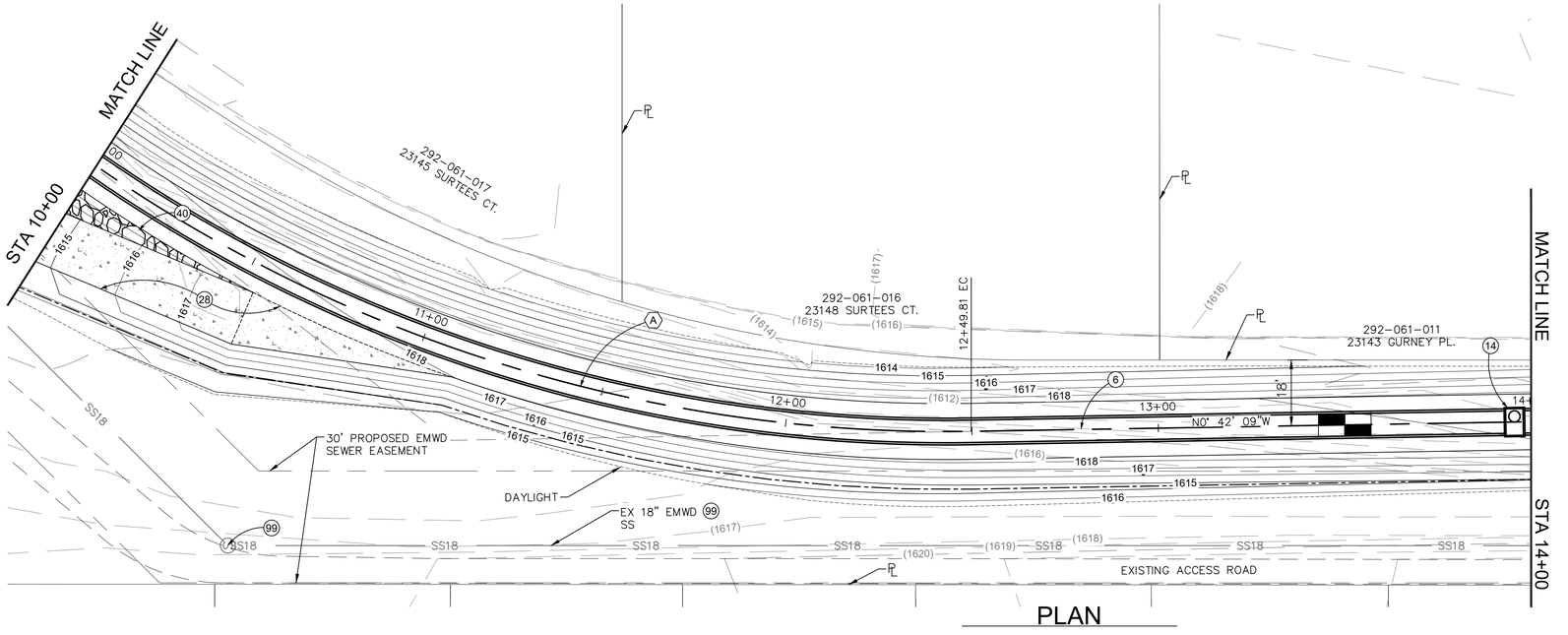
TYPICAL FROM STA 12+55 TO 16+25

10' 0 10'

MANHOLE STRUCTURE TABLE				
STATION	STRUCTURE ID	M	D_1	D_2
13+95.54	MH NO. 2	XX	72"	72"

Ⓐ ℄ CURVE DATA

Δ = 38° 38' 42"
R = 400'
T = 140.25'
L = 269.79'
BC = STA 9+80.02
EC = STA 12+49.81
PI = N 2285097.04
E 6255725.32



PLAN

20' 0 20'

STORM DRAIN CONSTRUCTION ITEMS

(6) CONSTRUCT 72" RCP STORM DRAIN, D-LOAD PER PLAN

(14) CONSTRUCT MANHOLE NO. 2 PER RCFC&WCD STD MH252

(17) CONSTRUCT TRANSITION STRUCTURE NO. 1 PER RCFC&WCD STD TS301

(28) CONSTRUCT MAINTENANCE RAMP FOR ROCK LINED CHANNEL PER RCFC&WCD STD CH335

(40) CONSTRUCT 3" D-50 RIP-RAP

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY'S NOTIFIED OF INTENTION TO OPERATE OR EXCAVATE
DIGALERT
CALL 811 or 1-800-422-4133
2 Working Days Before You Dig
WWW.CALL811.COM

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED
"M-59-69 RESET 1997"
(ELEV=1641.16)

REF.	REVISIONS	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER · CHRISTOPHER SEAN TURNAGE · No. 62297 · Exp. 09/30/25 · CIVIL · STATE OF CALIFORNIA

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884
CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

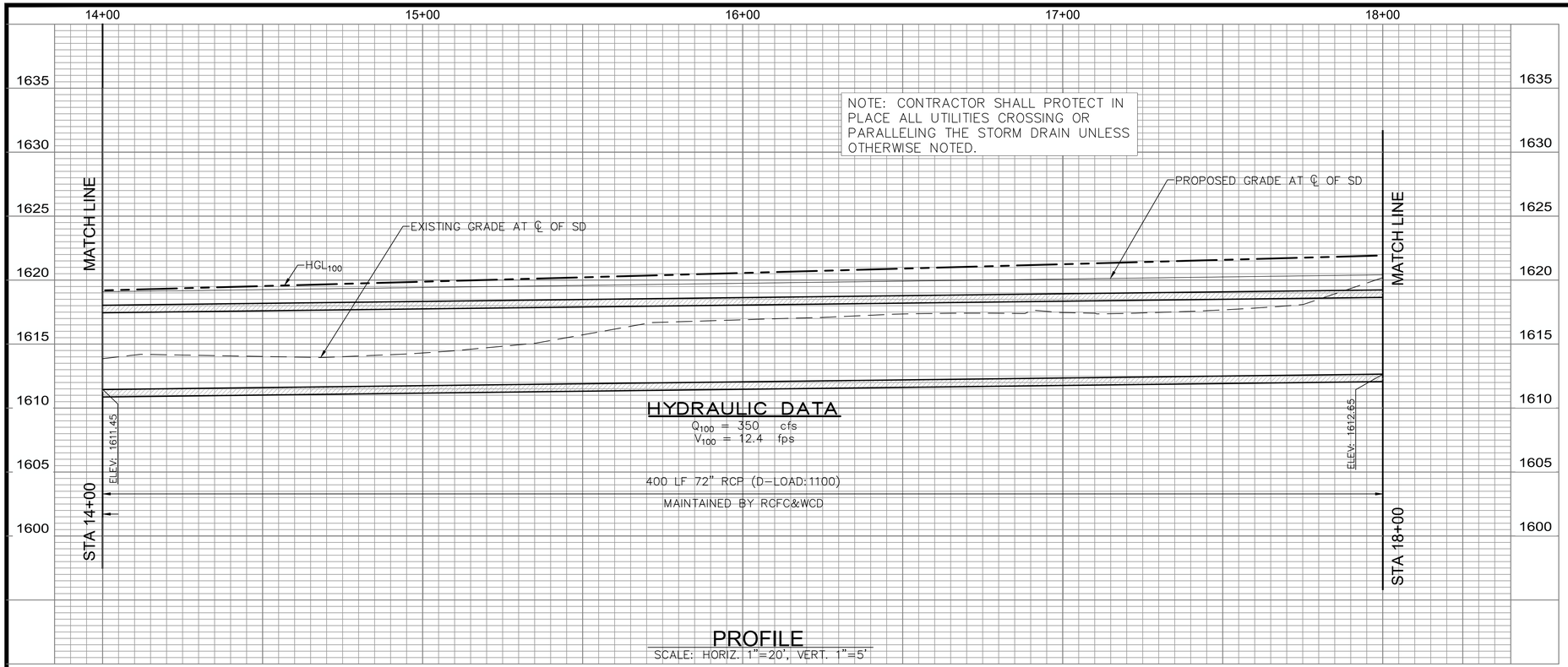
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: CHIEF, DESIGN & CONSTRUCTION DATE:
APPROVED BY: GENERAL MANAGER-CHIEF ENGINEER DATE:
NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY
RECOMMENDED: QUANG NGUYEN, PE, CAPITAL PROJECTS DIVISION MANAGER, R.C.E. 58590 — DATE
APPROVED: MELISSA WALKER, PE, PUBLIC WORKS DIRECTOR/CITY ENGINEER, R.C.E. 69563 — DATE

SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F AND F-7
PLAN AND PROFILE
STA 10+00 TO 14+00
CITY PROJECT NO. 804 0008

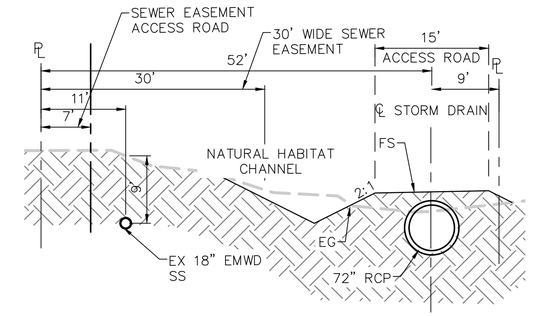
PROJECT NO. 4-8-00290
DRAWING NO. SD-101
SHEET NO. 04 OF 24

FILE NAME: T:\128044Sunnymead\MasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-03-SD101-STORMDRAIN.dwg DATE: Monday, February 03, 2025 - 10:53am USFC67B307



PROFILE

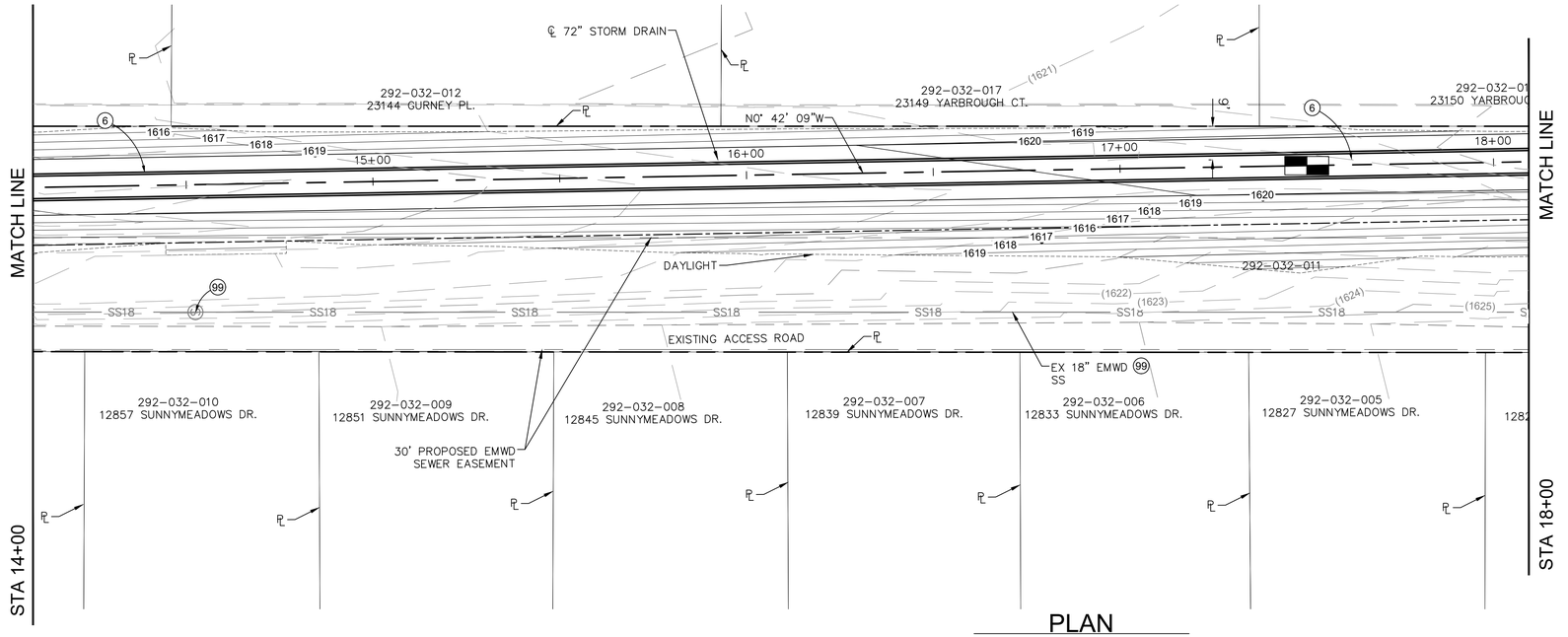
SCALE: HORIZ. 1"=20', VERT. 1"=5'



SECTION AT STA 17+50

TYPICAL FROM STA 16+25 TO 20+25

10' 0 10'



PLAN

STORM DRAIN CONSTRUCTION ITEMS

(6) CONSTRUCT 72" RCP STORM DRAIN, D-LOAD PER PLAN

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS

20' 0 20'

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.
DIGALERT
CALL 811 or 1-800-422-4133
2 Working Days Before You Dig
WWW.CALL811.COM

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED
"M-59-69 RESET 1997"
(ELEV=1641.16)

REF.	REVISIONS	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER SEAN TURNAGE No. 62297 Exp. 09/30/25 STATE OF CALIFORNIA CIVIL

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884

CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

RECOMMENDED FOR APPROVAL BY: CHIEF, DESIGN & CONSTRUCTION DATE:

APPROVED BY: GENERAL MANAGER-CHIEF ENGINEER DATE:

NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY

RECOMMENDED: QUANG NGUYEN, PE, CAPITAL PROJECTS DIVISION MANAGER, R.C.E. 88590 — DATE

APPROVED: MELISSA WALKER, PE, PUBLIC WORKS DIRECTOR/CITY ENGINEER, R.C.E. 69563 — DATE

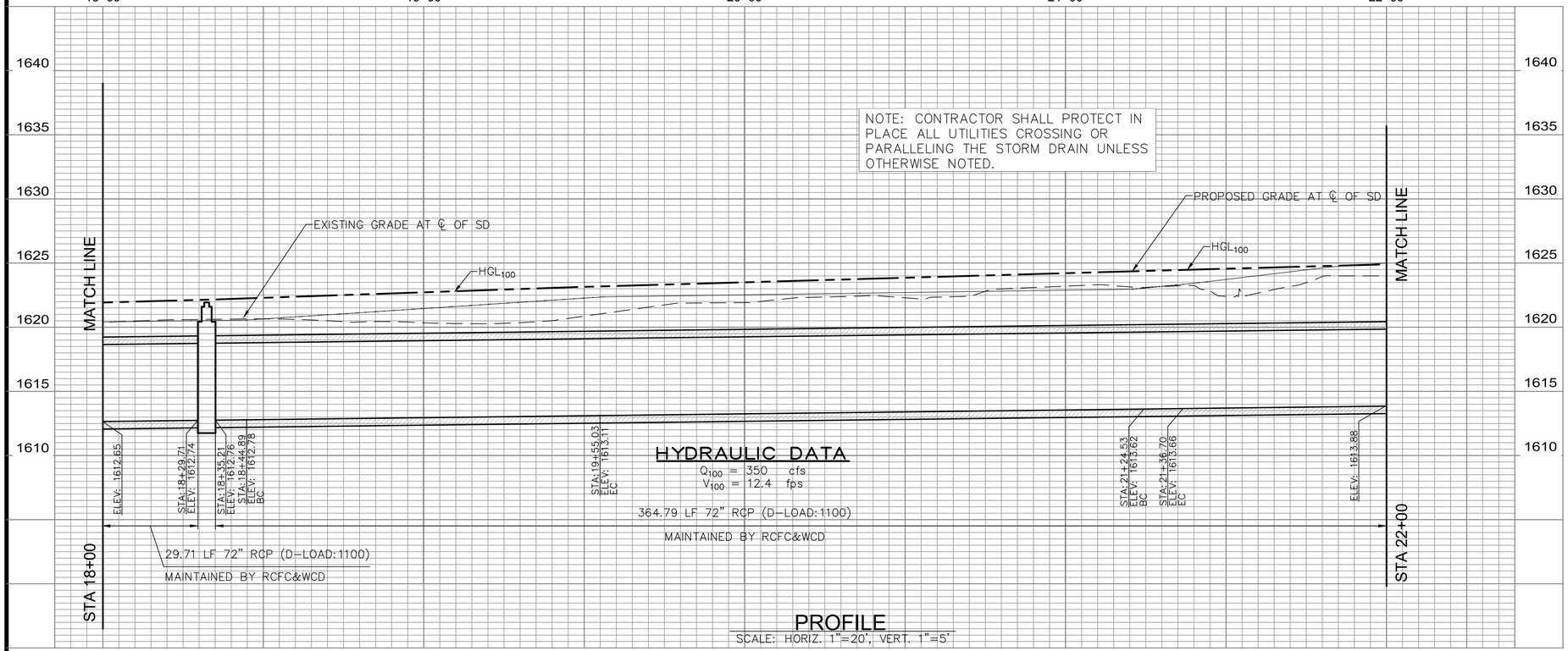
SUNNYMEAD BOULEVARD SUNNYMEAD MDP LINE F AND F-7 PLAN AND PROFILE

STA 14+00 TO 18+00

CITY PROJECT NO. 804 0008

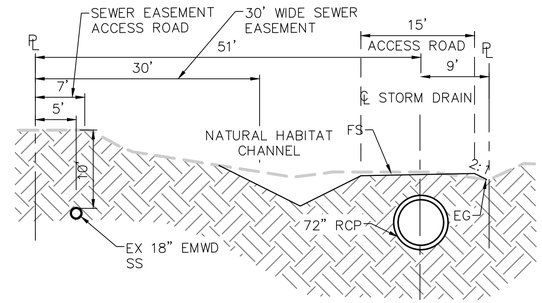
PROJECT NO. 4-8-00290
DRAWING NO. SD-102
SHEET NO. 05 OF 24

FILE NAME: I:\12804\SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-04-SD102-STORMDRAIN.dwg DATE: Monday, February 03, 2025 - 10:53am USFC67837



PROFILE

SCALE: HORIZ. 1"=20', VERT. 1"=5'

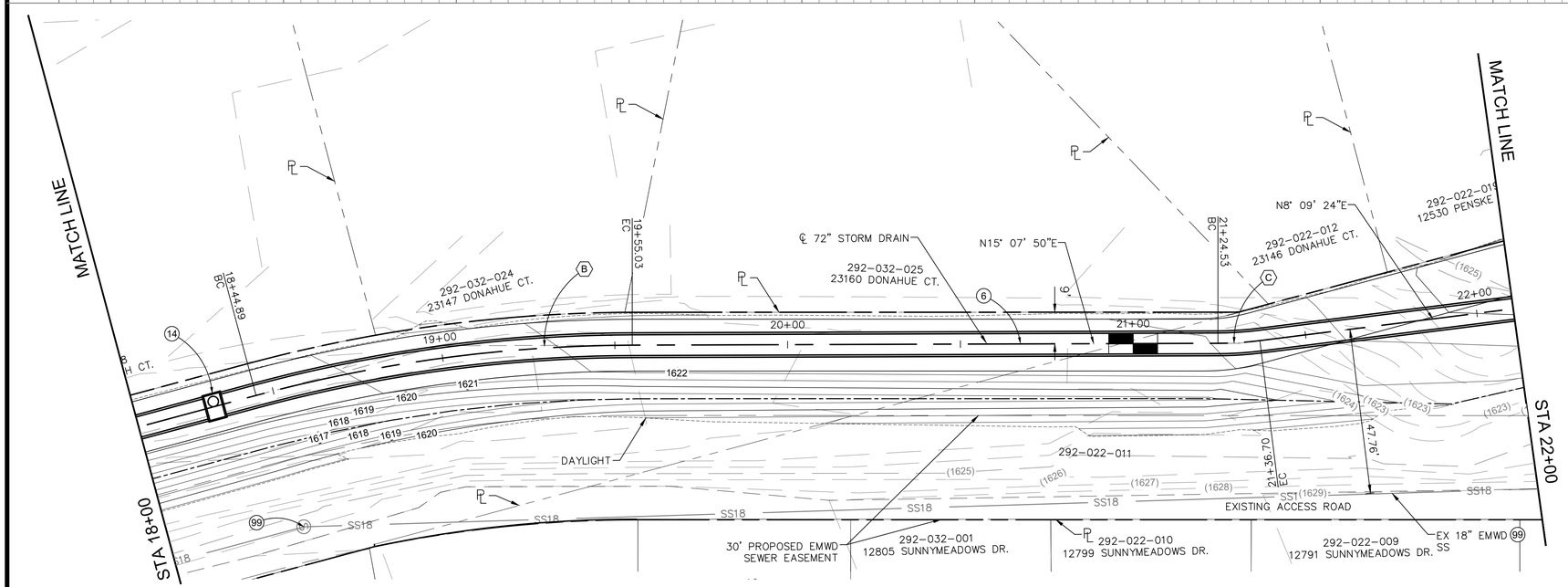


SECTION AT STA 21+00

TYPICAL FROM STA 20+25 TO 21+20

10' 0 10'

MANHOLE STRUCTURE TABLE				
STATION	STRUCTURE ID	M	D_1	D_2
19+32.46	MH NO. 2	XX	72"	72"



PLAN

℄ CURVE DATA (B)

Δ	= 14° 50' 55"
R	= 425'
T	= 55.38'
L	= 110.14'
BC	= STA 18+44.89
EC	= STA 19+55.03
PI	= N 2285879.59 E 6255743.37

℄ CURVE DATA (C)

Δ	= 06° 58' 26"
R	= 100'
T	= 6.09'
L	= 12.17'
BC	= STA 21+24.53
EC	= STA 21+36.70
PI	= N 2286103.08 E 6255799.91

STORM DRAIN CONSTRUCTION ITEMS

(6) CONSTRUCT 72" RCP STORM DRAIN, D-LOAD PER PLAN

(14) CONSTRUCT MANHOLE NO. 2 PER RCFC&WCD STD MH252

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS

20' 0 20'

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.
DIGALERT
CALL 811 or 1-800-422-4133
2 Working Days Before You Dig
WWW.CALL811.COM

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED "M-59-69 RESET 1997"
(ELEV=1641.16)

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER SEAN TURNAGE No. 62297 Exp. 09/30/25 CIVIL STATE OF CALIFORNIA

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884
CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: CHIEF, DESIGN & CONSTRUCTION DATE:
APPROVED BY: GENERAL MANAGER-CHIEF ENGINEER DATE:

NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY
RECOMMENDED: QUANG NGUYEN, PE, CAPITAL PROJECTS DIVISION MANAGER, R.C.E. 58590 — DATE
APPROVED: MELISSA WALKER, PE, PUBLIC WORKS DIRECTOR/CITY ENGINEER, R.C.E. 69563 — DATE

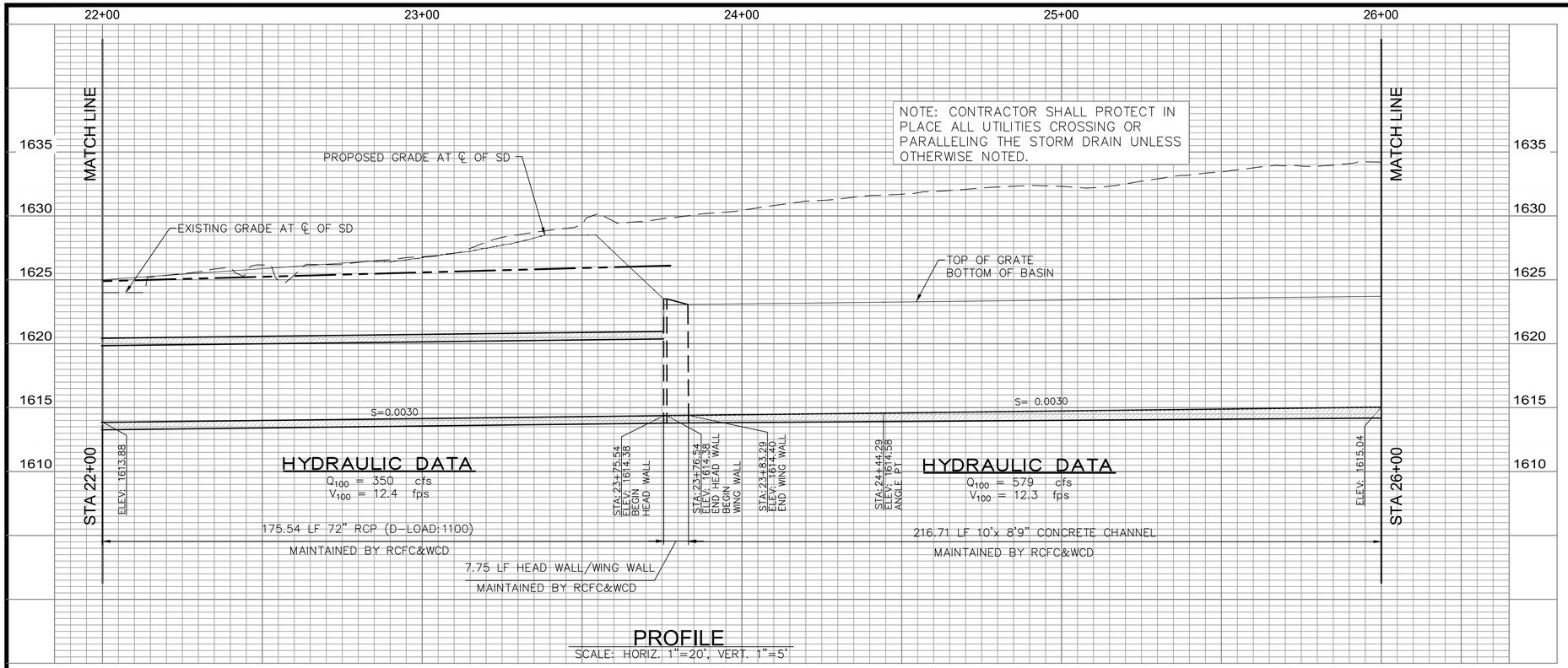
SUNNYMEAD BOULEVARD SUNNYMEAD MDP LINE F AND F-7 PLAN AND PROFILE

STA 18+00 TO 22+00

CITY PROJECT NO. 804 0008

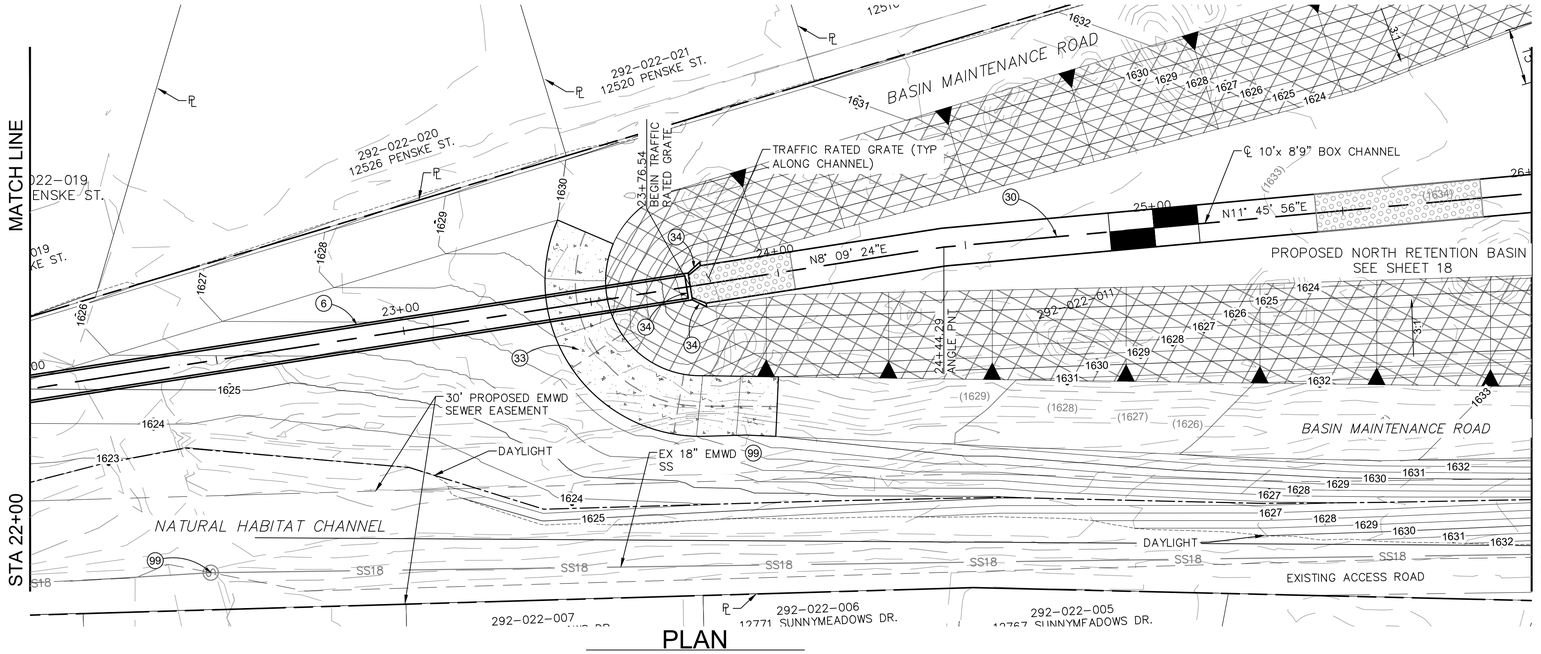
PROJECT NO. 4-8-00290
DRAWING NO. SD-103
SHEET NO. 06 OF 24

FILE NAME: T:\128044Sunnymead\MasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-05-SD103-STORMDRAIN.dwg DATE: Monday, February 03, 2025 - 10:54am USTC67847

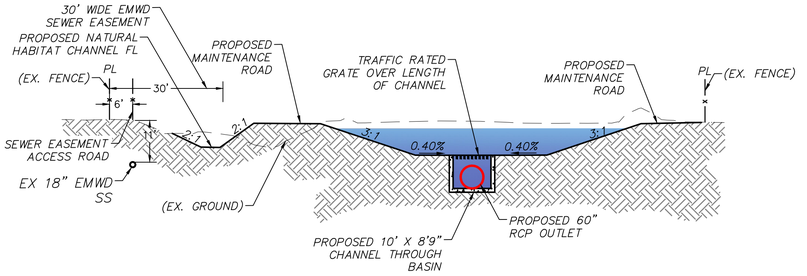


PROFILE

SCALE: HORIZ. 1"=20', VERT. 1"=5'



PLAN



SECTION AT STA 25+00

20' 0 20'

20' 0 20'

STORM DRAIN CONSTRUCTION ITEMS

(6) CONSTRUCT 72" RCP STORM DRAIN, D-LOAD PER PLAN

(30) CONSTRUCT 10' X 8'9" CONCRETE CHANNEL PER RCFC&WCD STD CH327

(33) CONSTRUCT DRIVABLE CONCRETE BASIN OVERFLOW WEIR PER SHEET 19

(34) CONSTRUCT PIPE CULVERT TYPE A HEADWALL AND WING WALL PER CALTRANS STD D90

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.
DIGALERT
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2 Working Days Before You Dig
www.CALLB811.COM

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED
"M-59-69 RESET 1997"
(ELEV=1641.16)

REF.	REVISIONS	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER SEAN TURNAGE
No. 62297
Exp. 09/30/25
CIVIL
STATE OF CALIFORNIA

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884

CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

RECOMMENDED FOR APPROVAL BY: _____ CHIEF, DESIGN & CONSTRUCTION DATE: _____

APPROVED BY: _____ GENERAL MANAGER-CHIEF ENGINEER DATE: _____

NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY

RECOMMENDED: _____ DATE

QUANG NGUYEN, PE
CAPITAL PROJECTS DIVISION MANAGER
R.C.E. 58590

APPROVED: _____ DATE

MELISSA WALKER, PE
PUBLIC WORKS DIRECTOR/CITY ENGINEER
R.C.E. 69563

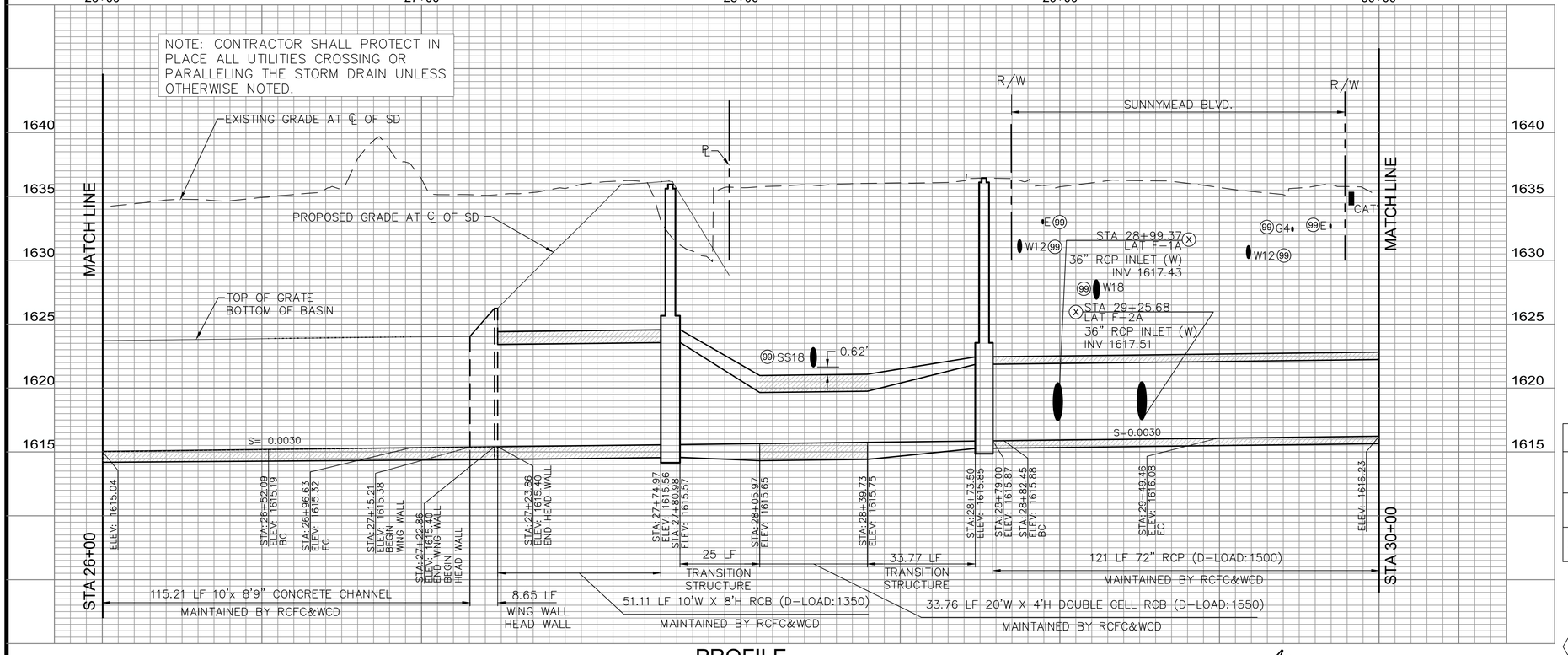
SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F AND F-7
PLAN AND PROFILE
STA 22+00 TO 26+00

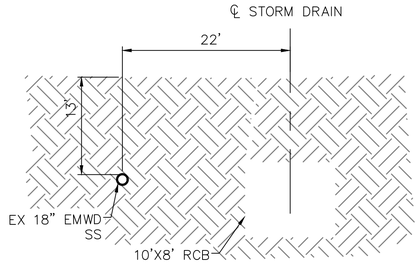
CITY PROJECT NO. 804 0008

PROJECT NO. 4-8-00290
DRAWING NO. SD-104
SHEET NO. 07 OF 24

FILE NAME: I:\12804\SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-06-SD104-STORMDRAIN.DWG DATE: Monday, February 03, 2025 - 10:54am USFC67837

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.





SECTION AT STA 28+25

TYPICAL FROM STA 30+22.91 TO 32+25.00

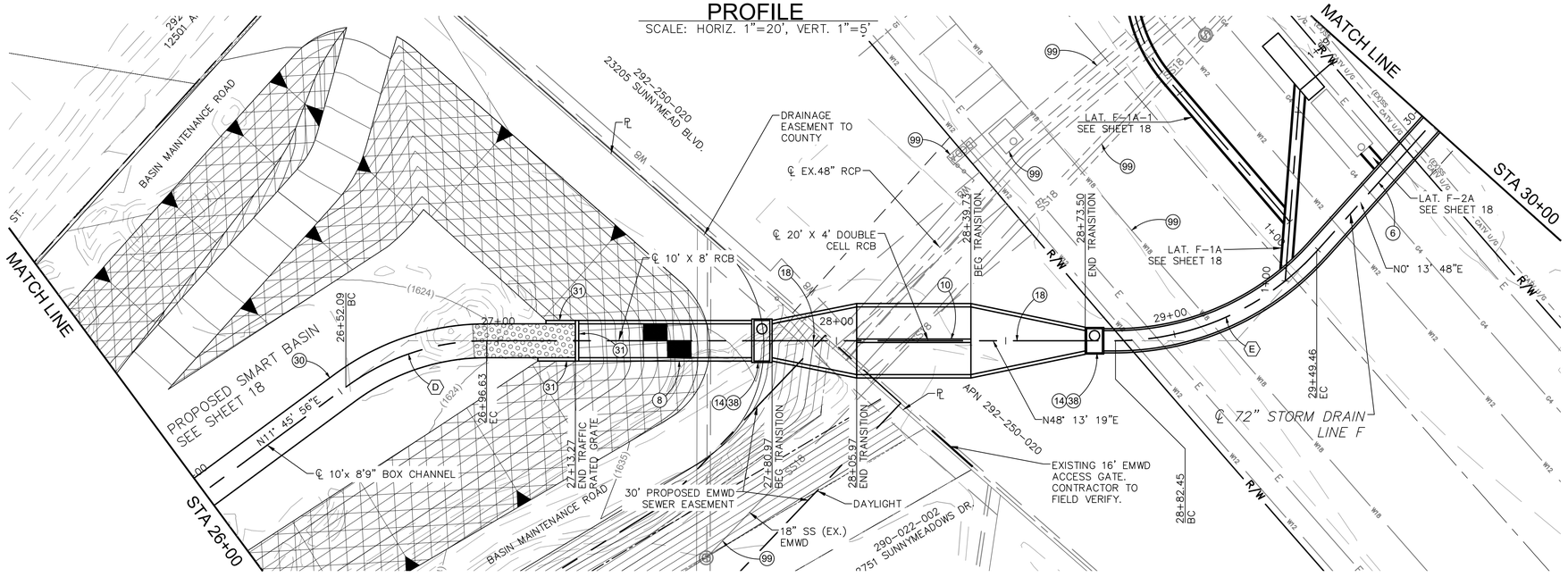
10' 0 10'

MANHOLE STRUCTURE TABLE

STATION	STRUCTURE ID	M	D_1	D_2
27+77.98	MH NO. 2	20.39'	10'W X 8'H RCB	20'W X 4'H DOUBLE CELL RCB
28+76.25	MH NO. 2	18.83'	20'W X 4'H DOUBLE CELL RCB	72"

PROFILE

SCALE: HORIZ. 1"=20', VERT. 1"=5'



PLAN

℄ CURVE DATA (D)

Δ	=	36° 27' 23"
R	=	70'
T	=	23.05'
L	=	44.54'
BC	=	STA. 26+52.09
EC	=	STA. 26+96.63
PI	=	N 2286639.55 E 6255891.67

℄ CURVE DATA (E)

Δ	=	47° 59' 31"
R	=	80'
T	=	35.61'
L	=	67.01'
BC	=	STA. 28+82.45
EC	=	STA. 29+49.46
PI	=	N 2286802.44 E 6256073.99

STORM DRAIN CONSTRUCTION ITEMS

(6) CONSTRUCT 72" RCP STORM DRAIN, D-LOAD PER PLAN

(8) CONSTRUCT 10' X 8 RCB STORM DRAIN PER CALTRANS STD D83A, D-LOAD PER PLAN

(10) CONSTRUCT 20' X 4' DOUBLE CELL RCB STORM DRAIN PER SPPWC STD 390-1, D-LOAD PER PLAN

(14) CONSTRUCT MANHOLE NO. 2 PER RCFC&WCD STD MH252

(18) CONSTRUCT TRANSITION STRUCTURE NO. 2 PER RCFC&WCD STD TS302

(30) CONSTRUCT 10' X 8'9" CONCRETE CHANNEL PER RCFC&WCD STD CH327

(31) CONSTRUCT BOX CULVERT TYPE A HEADWALL AND WING WALL PER CALTRANS STD D90

(38) CONSTRUCT MHC SHAFT SAFETY LEDGE PER RCFC&WCD STD MH261

(97) REMOVE AND REPLACE

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS

20' 0 20'

FILE NAME: T:\12804SunnymeadMasterDrainagePlan\CAD\SHEETS\SHT-12804-SD-07-SD105-STORMDRAIN.DWG DATE: Monday, February 03, 2025 - 11:12am USFC678307

DIGALERT — CALL 811 or 1-800-422-4133, 2 Working Days Before You Dig

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)
DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED "M-59-69 RESET 1997" (ELEV=1641.16)

REF.	REVISIONS / DESCRIPTION	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER SEAN TURNAGE — No. 62297 — Exp. 09/30/25 — CIVIL — STATE OF CALIFORNIA

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884

CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: CHIEF, DESIGN & CONSTRUCTION DATE:
APPROVED BY: GENERAL MANAGER-CHIEF ENGINEER DATE:

NOT FOR CONSTRUCTION

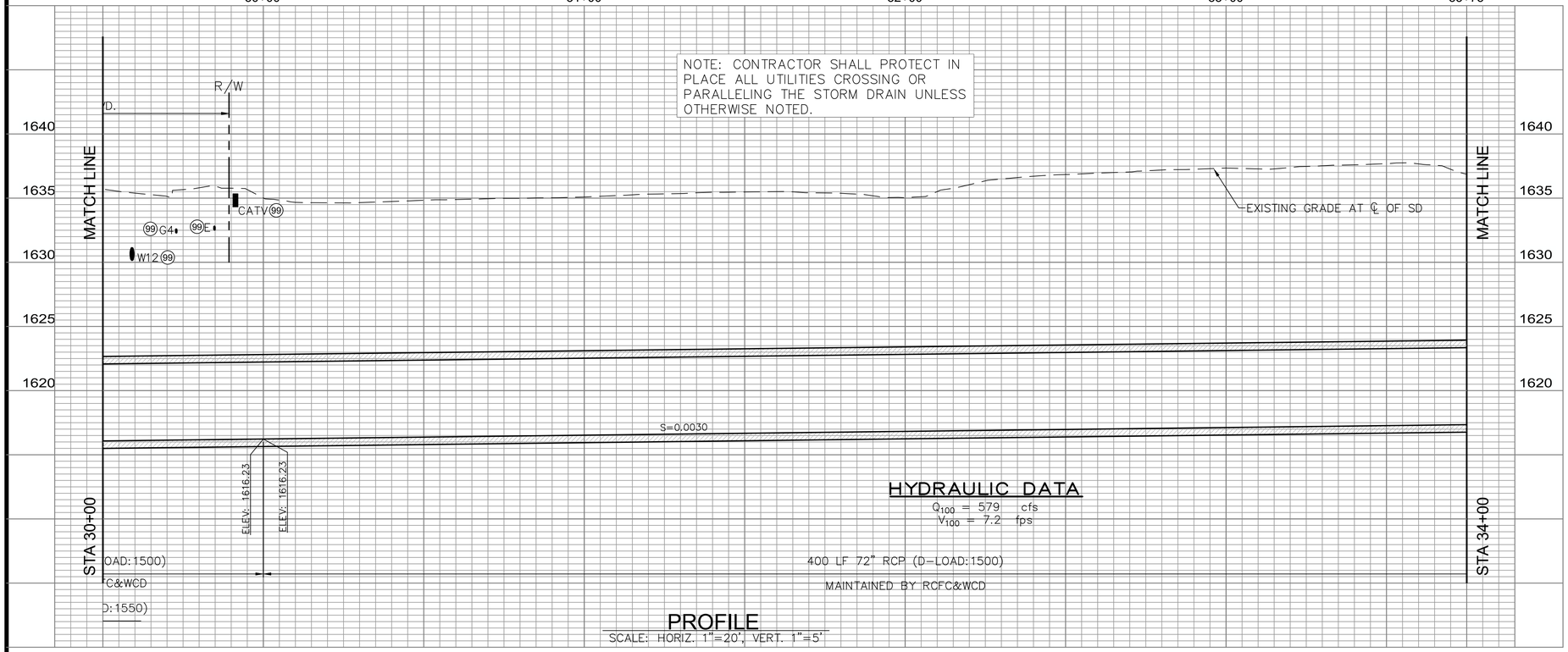
CITY OF MORENO VALLEY
RECOMMENDED: QUANG NGUYEN, PE, CAPITAL PROJECTS DIVISION MANAGER, R.C.E. 58590 — DATE
APPROVED: MELISSA WALKER, PE, PUBLIC WORKS DIRECTOR/CITY ENGINEER, R.C.E. 69563 — DATE

SUNNYMEAD BOULEVARD SUNNYMEAD MDP LINE F AND F-7 PLAN AND PROFILE

STA 26+00 TO STA 30+00

CITY PROJECT NO. 804 0008

PROJECT NO. 4-8-00290
DRAWING NO. SD-105
SHEET NO. 08 OF 24

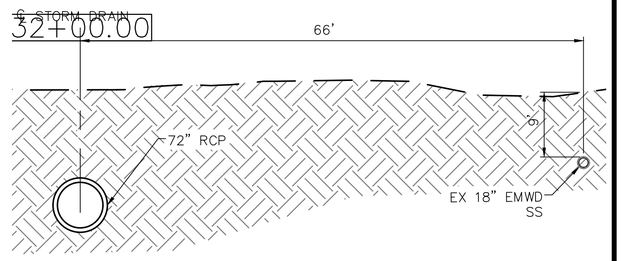


HYDRAULIC DATA

Q_{100} = 579 cfs
V_{100} = 7.2 fps

PROFILE

SCALE: HORIZ. 1"=20', VERT. 1"=5'



SECTION AT STA 32+00

TYPICAL FROM STA 32+25.00 TO 36+25.00

10' 0 10'

STORM DRAIN CONSTRUCTION ITEMS

(6) CONSTRUCT 72" RCP STORM DRAIN, D-LOAD PER PLAN

(10) CONSTRUCT 20' X 4' DOUBLE CELL RCB STORM DRAIN PER SPPWC STD 390-1, D-LOAD PER PLAN

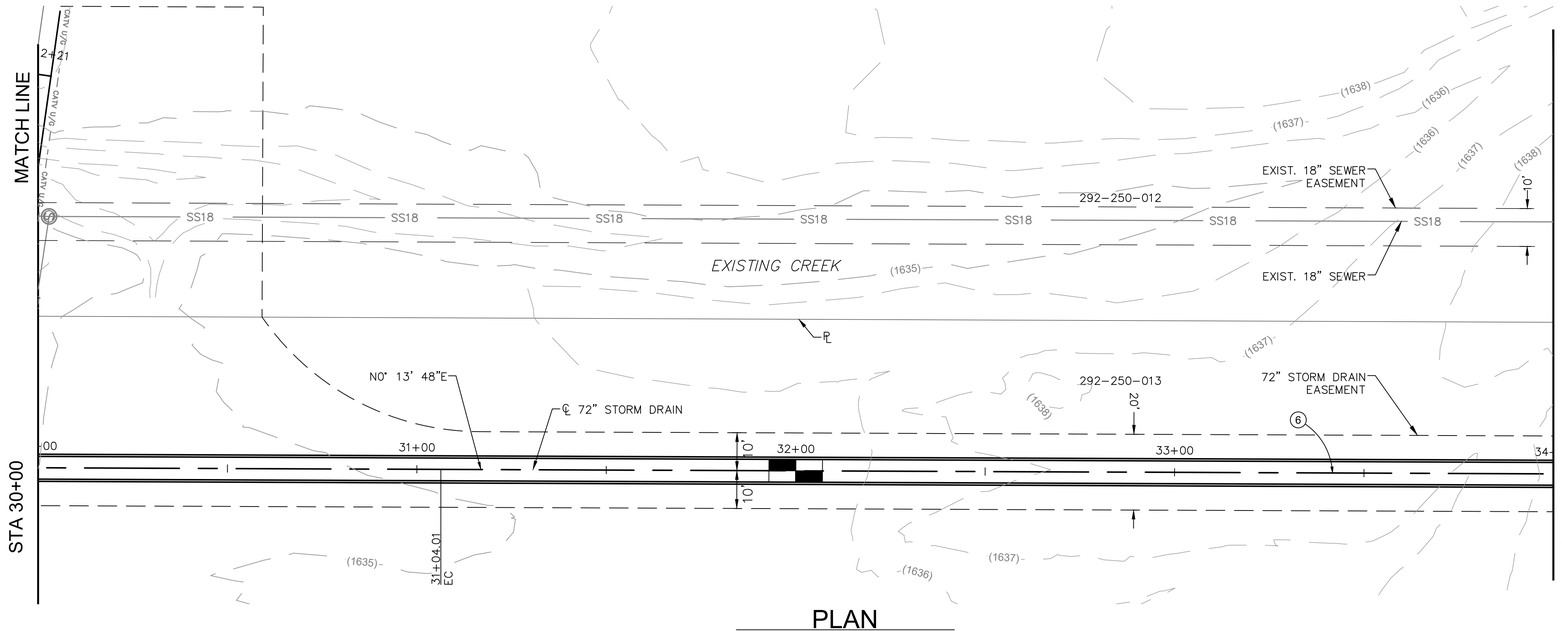
(14) CONSTRUCT MANHOLE NO. 2 PER RCFC&WCD STD MH252

(17) CONSTRUCT TRANSITION STRUCTURE NO. 1 PER RCFC&WCD STD TS301

(38) CONSTRUCT MHC SHAFT SAFETY LEDGE PER RCFC&WCD STD MH261

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS



PLAN

20' 0 20'

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED
"M-59-69 RESET 1997"
(ELEV=1641.16)

REF.	REVISIONS	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER SEAN TURNAGE — No. 62297 — Exp. 09/30/25 — CIVIL — STATE OF CALIFORNIA

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884

CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

RECOMMENDED FOR APPROVAL BY: _____ DATE: _____
CHIEF, DESIGN & CONSTRUCTION

APPROVED BY: _____ DATE: _____
GENERAL MANAGER-CHIEF ENGINEER

NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY

RECOMMENDED: _____ DATE _____
QUANG NGUYEN, PE
CAPITAL PROJECTS DIVISION MANAGER
R.C.E. 58590

APPROVED: _____ DATE _____
MELISSA WALKER, PE
PUBLIC WORKS DIRECTOR/CITY ENGINEER
R.C.E. 69563

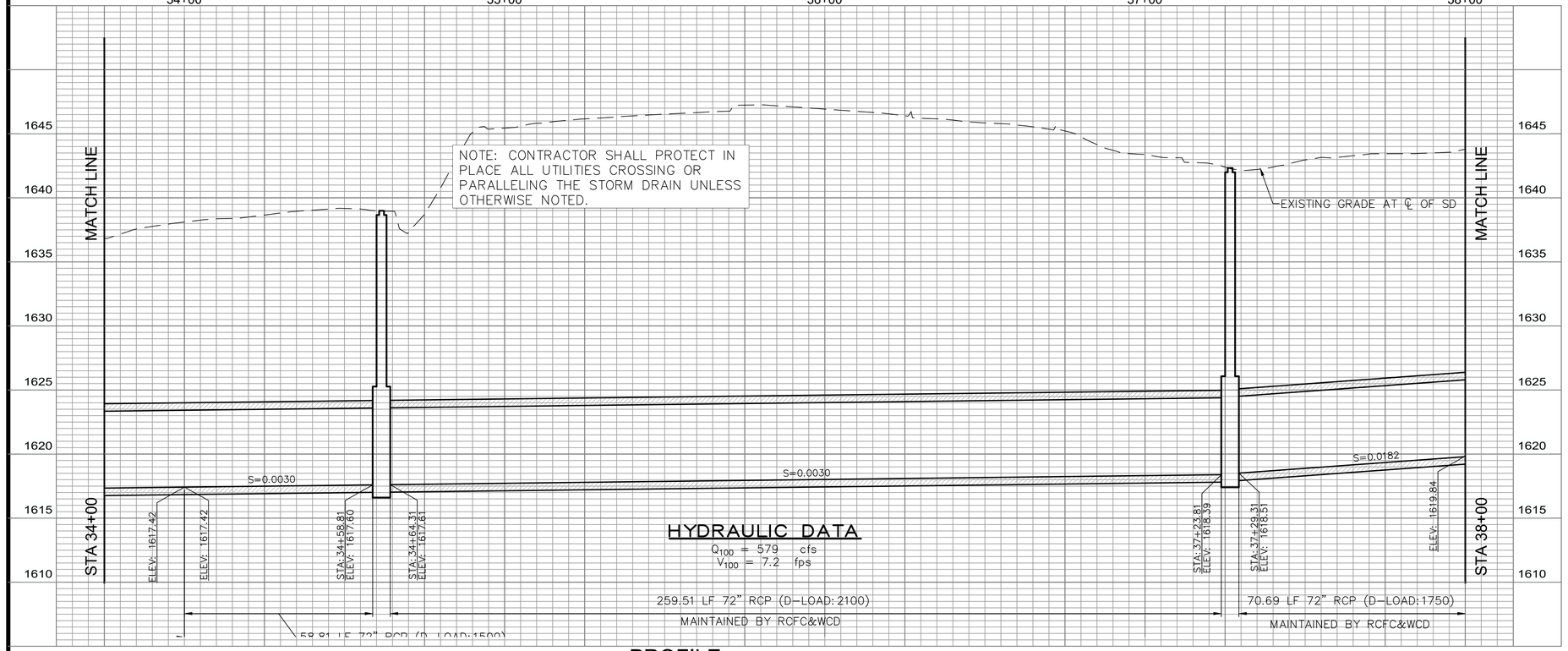
SUNNYMEAD BOULEVARD SUNNYMEAD MDP LINE F AND F-7 PLAN AND PROFILE

STA 30+00 TO STA 34+00

CITY PROJECT NO. 804 0008

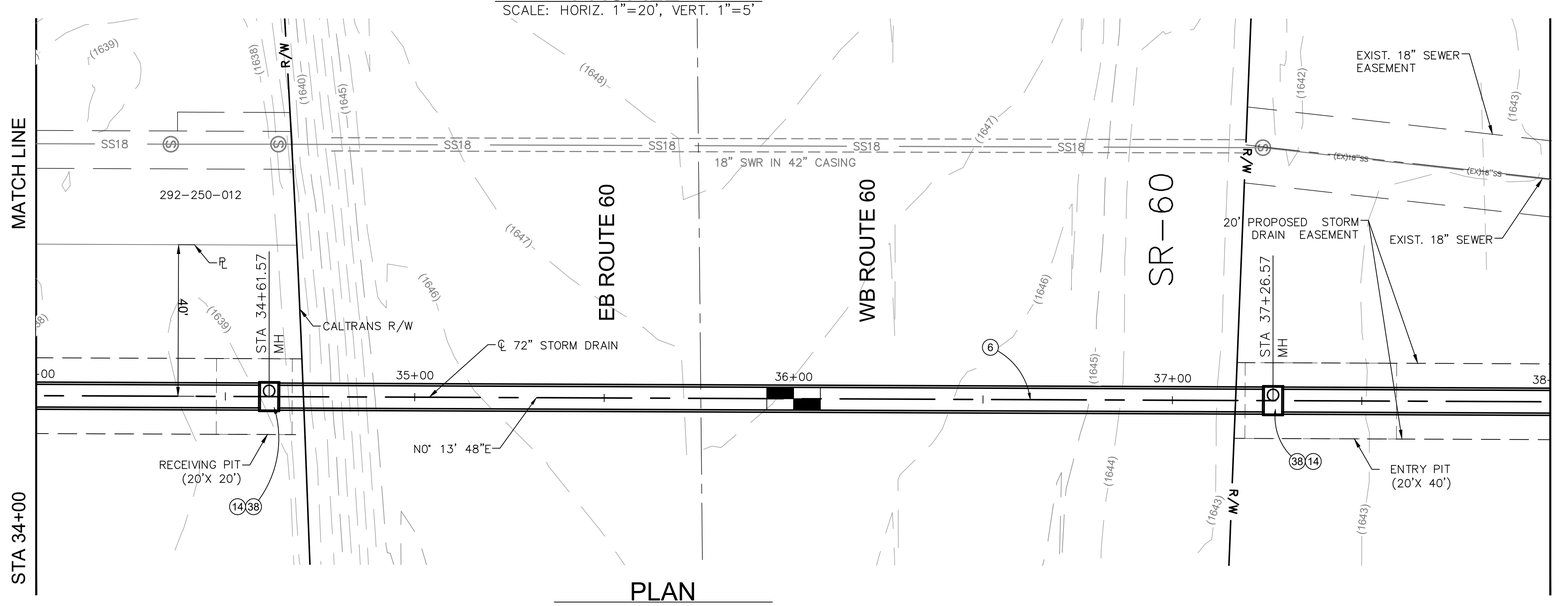
PROJECT NO. 4-8-00290
DRAWING NO. SD-106
SHEET NO. 09 OF 24

FILE NAME: I:\12804\SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-08-SD106-STORMDRAIN.DWG DATE: Monday, February 03, 2025 - 10:55am USFC67B307

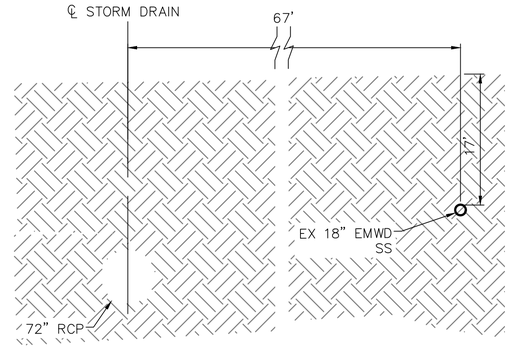


PROFILE

SCALE: HORIZ. 1"=20', VERT. 1"=5'



PLAN



SECTION AT STA 36+00

TYPICAL FROM STA 36+25.00 TO 40+25.00

10' 0 10'

MANHOLE STRUCTURE TABLE				
STATION	STRUCTURE ID	M	D_1	D_2
34+61.57	MH NO. 2	21.40'	72"	72"
37+26.57	MH NO. 2	23.94'	72"	72"

STORM DRAIN CONSTRUCTION ITEMS

(6) CONSTRUCT 72" RCP STORM DRAIN, D-LOAD PER PLAN

(14) CONSTRUCT MANHOLE NO. 2 PER RCFC&WCD STD MH252

(38) CONSTRUCT MHC SHAFT SAFETY LEDGE PER RCFC&WCD STD MH261

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS

N

20' 0 20'

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED
"M-59-69 RESET 1997"
(ELEV=1641.16)

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER SEAN TURNAGE
No. 62297
Exp. 09/30/25
CIVIL
STATE OF CALIFORNIA

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884
CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

RECOMMENDED FOR APPROVAL BY: _____ CHIEF, DESIGN & CONSTRUCTION DATE: _____

APPROVED BY: _____ GENERAL MANAGER-CHIEF ENGINEER DATE: _____

NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY

RECOMMENDED: _____ DATE
QUANG NGUYEN, PE
CAPITAL PROJECTS DIVISION MANAGER
R.C.E. 58590

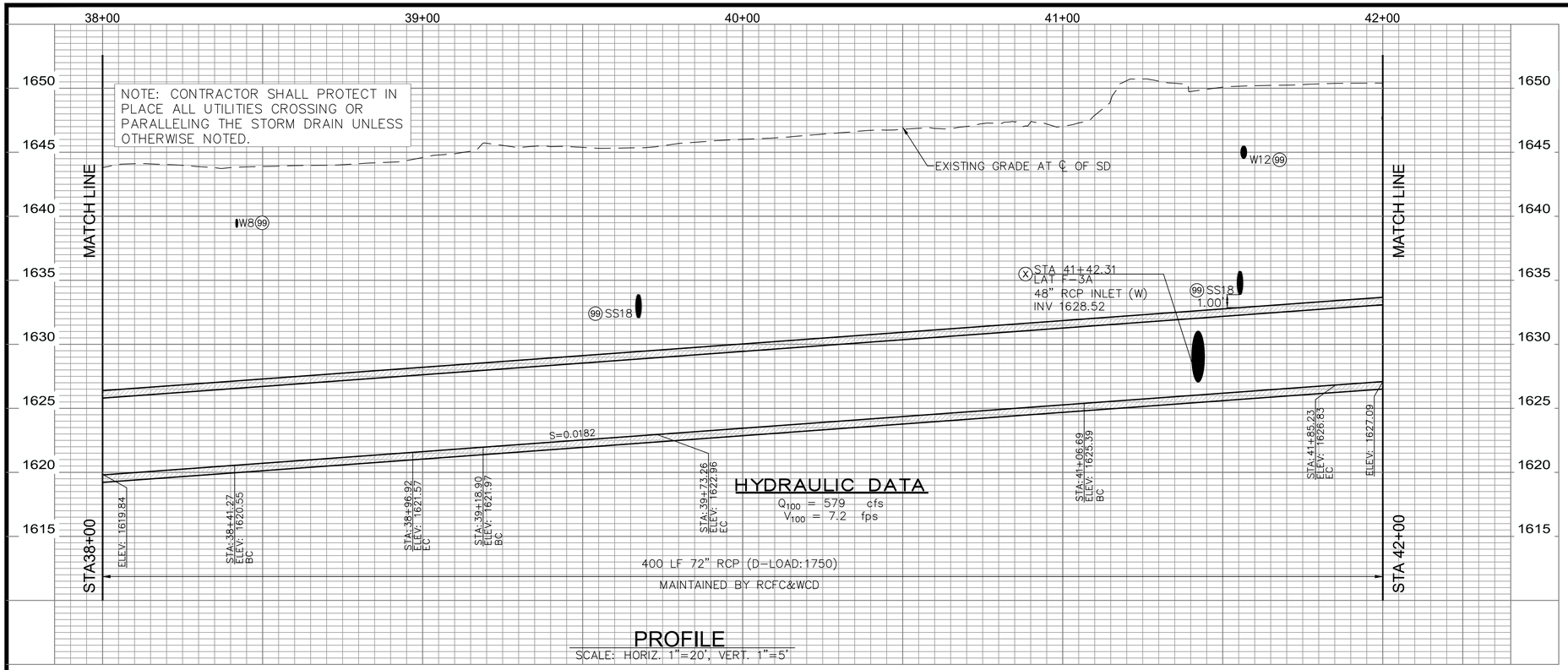
APPROVED: _____ DATE
MELISSA WALKER, PE
PUBLIC WORKS DIRECTOR/CITY ENGINEER
R.C.E. 69563

SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F AND F-7
PLAN AND PROFILE
STA 34+00 TO STA 38+00

CITY PROJECT NO. 804 0008

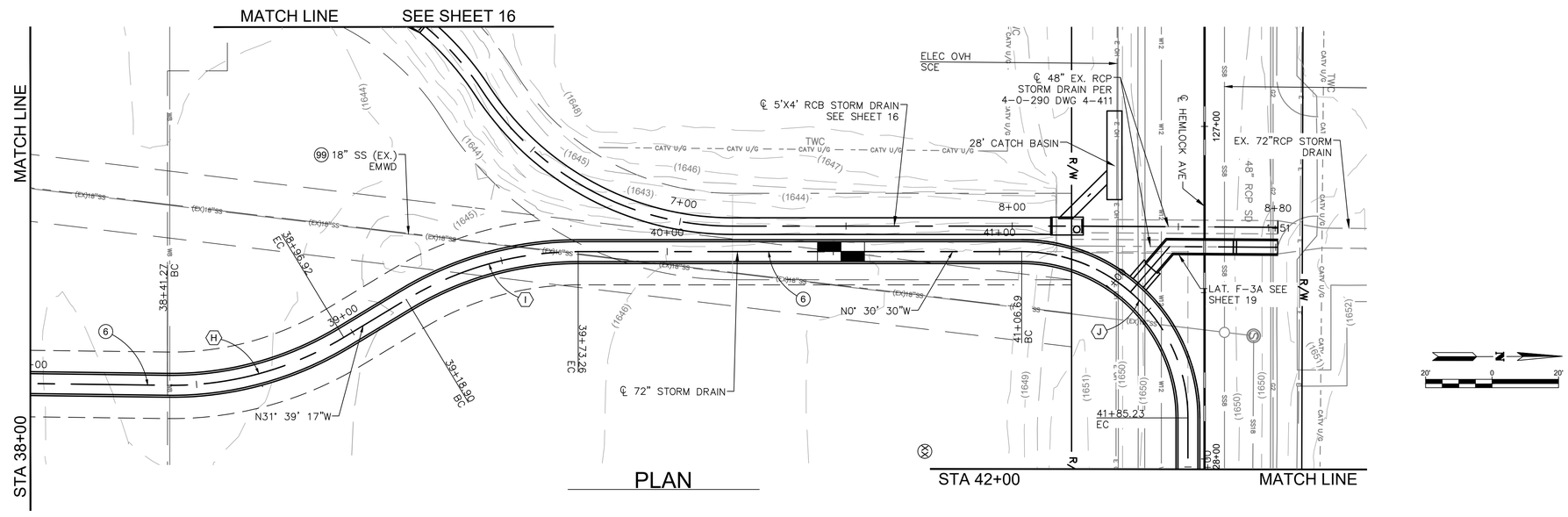
PROJECT NO. COMING SOON
DRAWING NO. SD-107
SHEET NO. 10 OF 24

FILE NAME: T:\12804SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-09-SD107-STORMDRAIN.DWG DATE: Monday, February 03, 2025 - 10:56am USFC678307

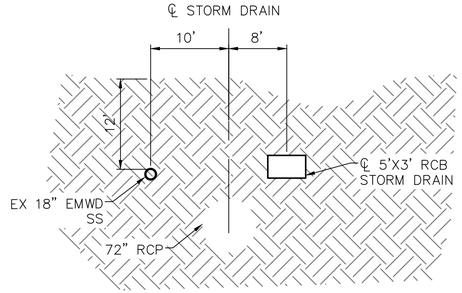


PROFILE

SCALE: HORIZ. 1"=20', VERT. 1"=5'



PLAN



SECTION AT STA 40+50

TYPICAL FROM STA 40+65.68 TO 42+08.99

10' 0 10'

(H) ℄ CURVE DATA
- Δ = 31° 53' 05"
- R = 100'
- T = 28.57'
- L = 55.65'
- BC = STA. 38+41.27
- EC = STA. 38+96.92
- PI = N 2287757.34, E 6256073.98

(I) ℄ CURVE DATA
- Δ = 31° 08' 47"
- R = 100'
- T = 27.87'
- L = 54.36'
- BC = STA. 39+18.90
- EC = STA. 39+73.26
- PI = N 2287826.23, E 6256040.33

(J) ℄ CURVE DATA
- Δ = 90° 00' 09"
- R = 50'
- T = 50'
- L = 78.54'
- BC = STA. 41+06.69
- EC = STA. 41+85.23
- PI = N 2288021.95, E 6256049.57

STORM DRAIN CONSTRUCTION ITEMS

(6) CONSTRUCT 72" RCP STORM DRAIN, D-LOAD PER PLAN

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE
DIGALERT
CALL 811 or 1-800-422-4133
2 Working Days Before You Dig
WWW.CALL811.COM

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED "M-59-69 RESET 1997"
(ELEV=1641.16)

REF.	REVISIONS	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER SEAN TURNAGE — No. 62297 — Exp. 09/30/25 — CIVIL — STATE OF CALIFORNIA

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884
CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

RECOMMENDED FOR APPROVAL BY: _____ CHIEF, DESIGN & CONSTRUCTION DATE: _____

APPROVED BY: _____ GENERAL MANAGER-CHIEF ENGINEER DATE: _____

NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY

RECOMMENDED: _____ QUANG NGUYEN, PE, CAPITAL PROJECTS DIVISION MANAGER, R.C.E. 88590 — DATE

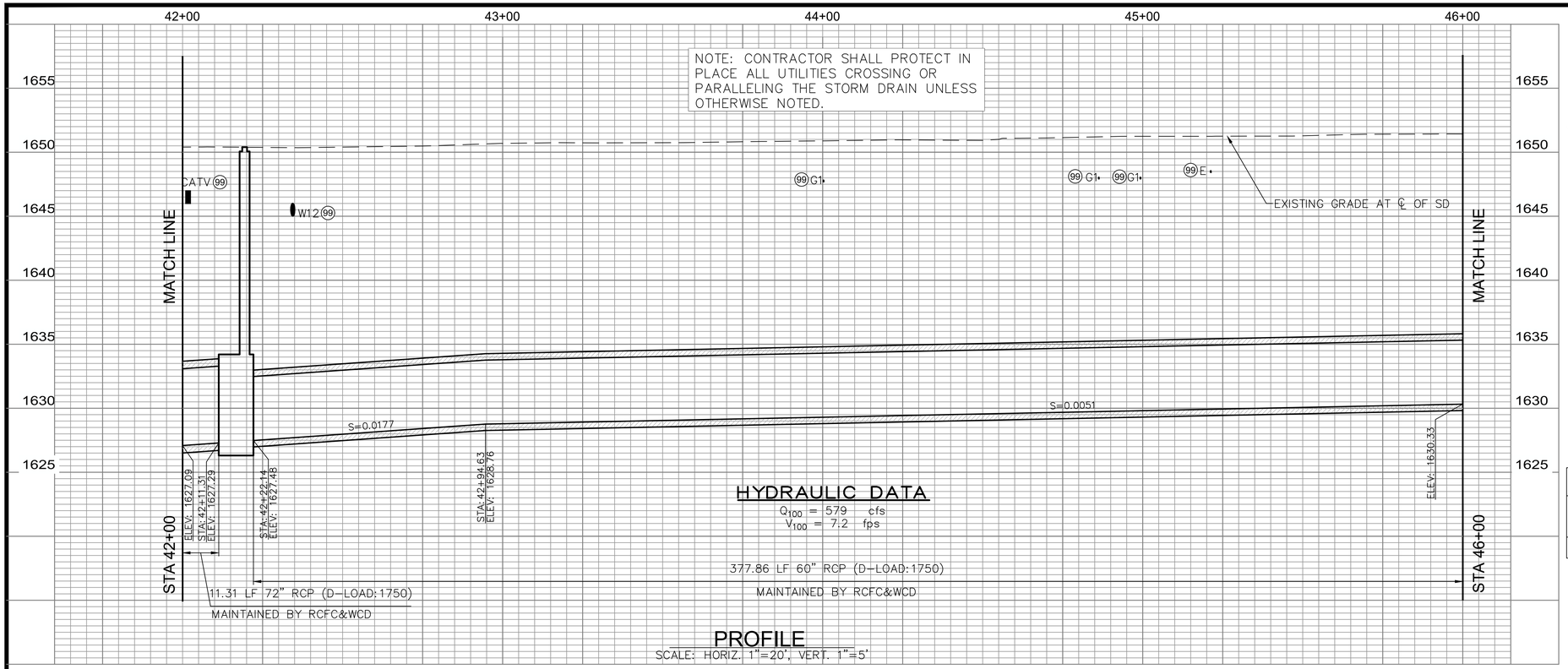
APPROVED: _____ MELISSA WALKER, PE, PUBLIC WORKS DIRECTOR/CITY ENGINEER, R.C.E. 69563 — DATE

SUNNYMEAD BOULEVARD SUNNYMEAD MDP LINE F AND F-7 PLAN AND PROFILE STA 38+00 TO STA 42+00

CITY PROJECT NO. 804 0008

PROJECT NO. 4-8-00290
DRAWING NO. SD-108
SHEET NO. 11 OF 24

FILE NAME: I:\12804\SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-10-SD108-STORMDRAIN.DWG DATE: Monday, February 03, 2025 - 11:12am USFC67837

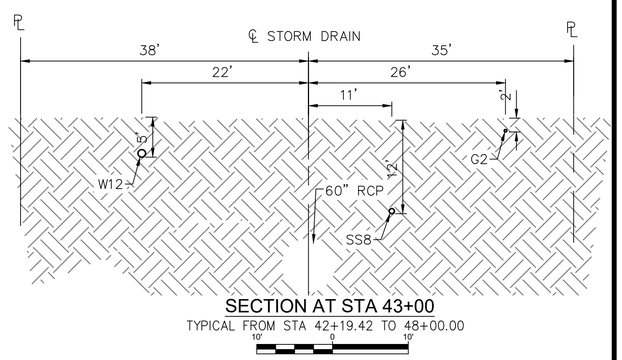


HYDRAULIC DATA

Q_{100} = 579 cfs
V_{100} = 7.2 fps

PROFILE

SCALE: HORIZ. 1"=20', VERT. 1"=5'



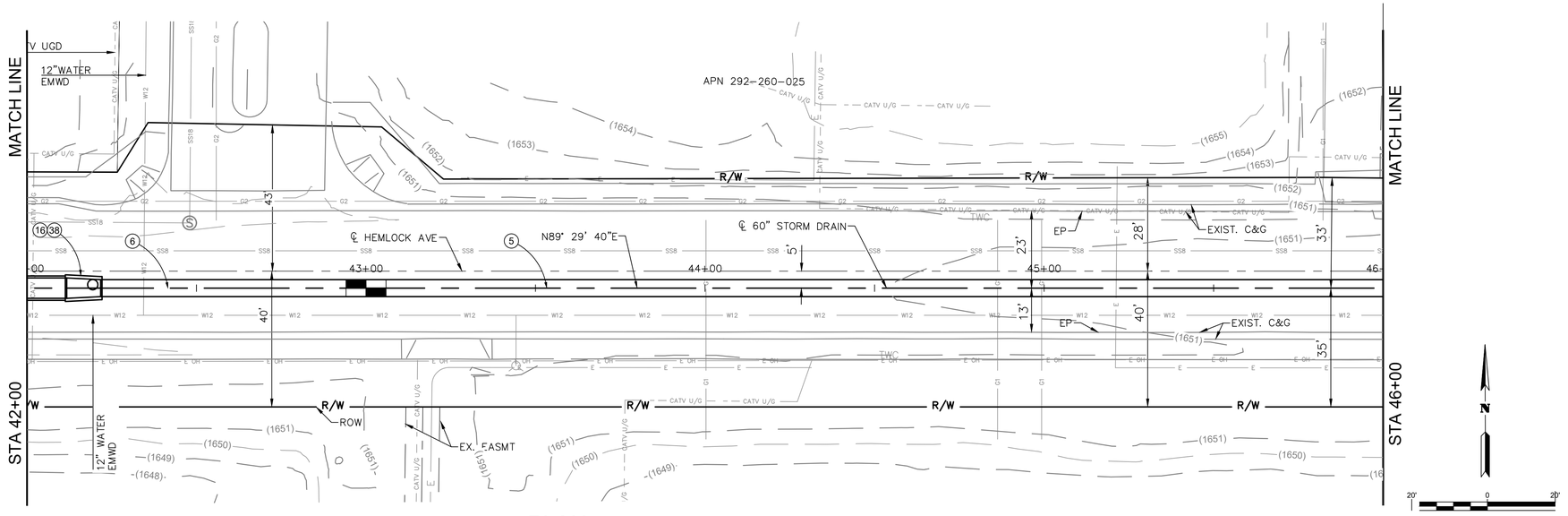
SECTION AT STA 43+00

TYPICAL FROM STA 42+19.42 TO 48+00.00

10' 0 10'

MANHOLE STRUCTURE TABLE

STATION	STRUCTURE ID	A	B	C	M	D_2	D_1	ELEVATION S	ELEVATION R
42+19.40	MH NO. 4	NA	NA	NA	23.11'	72"	60"	NA	NA



PLAN

STORM DRAIN CONSTRUCTION ITEMS

(5) CONSTRUCT 60" RCP STORM DRAIN, D-LOAD PER PLAN

(6) CONSTRUCT 72" RCP STORM DRAIN, D-LOAD PER PLAN

(16) CONSTRUCT MANHOLE NO. 4 PER RCFC&WCD STD MH254

(38) CONSTRUCT MHC SHAFT SAFETY LEDGE PER RCFC&WCD STD MH261

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE
DIGALERT
CALL 811 or 1-800-422-4133
2 Working Days Before You Dig
WWW.CALL811.COM

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED
"M-59-69 RESET 1997"
(ELEV=1641.16)

REF.	REVISIONS	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER SEAN TURNAGE — No. 62297 — Exp. 09/30/25 — CIVIL — STATE OF CALIFORNIA

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884

CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

RECOMMENDED FOR APPROVAL BY: CHIEF, DESIGN & CONSTRUCTION DATE:

APPROVED BY: GENERAL MANAGER-CHIEF ENGINEER DATE:

NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY

RECOMMENDED: QUANG NGUYEN, PE, CAPITAL PROJECTS DIVISION MANAGER, R.C.E. 58590 — DATE

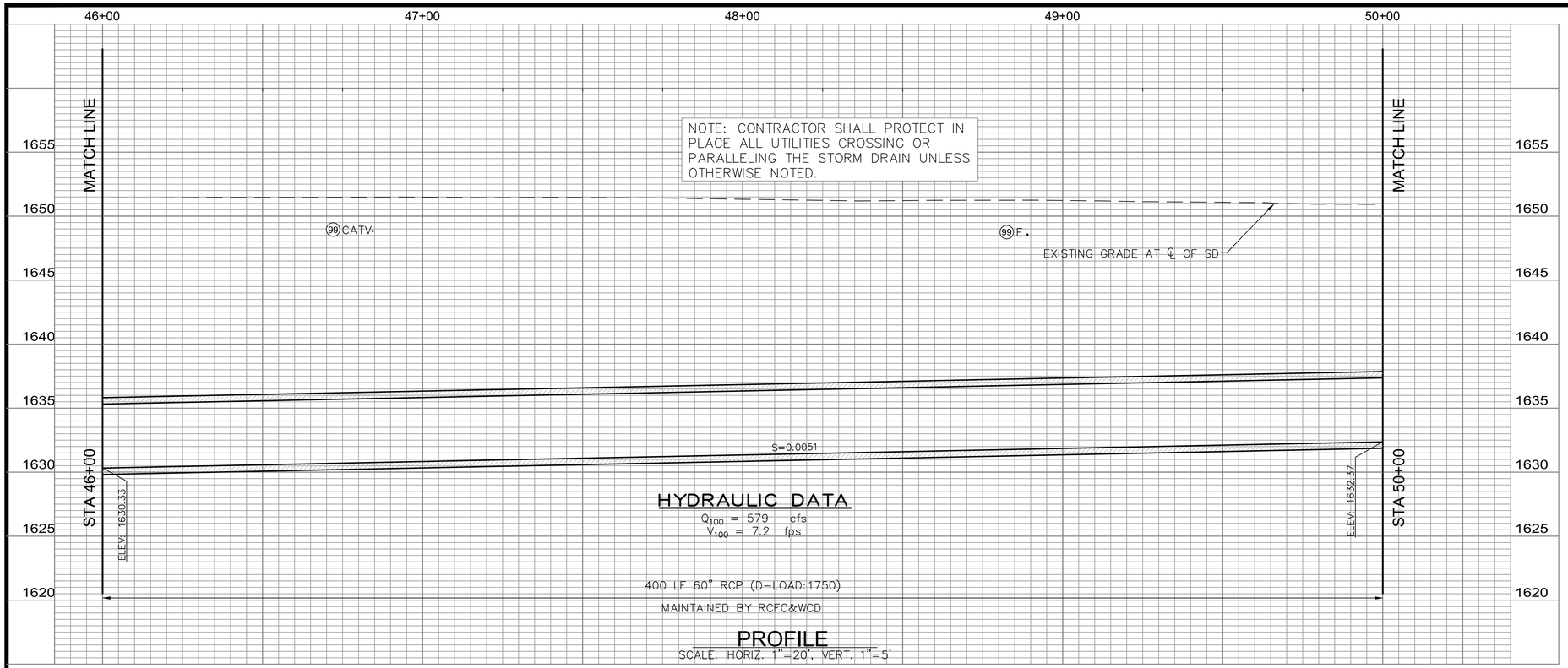
APPROVED: MELISSA WALKER, PE, PUBLIC WORKS DIRECTOR/CITY ENGINEER, R.C.E. 69563 — DATE

SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F AND F-7
PLAN AND PROFILE
STA 42+00 TO STA 46+00

CITY PROJECT NO. 804 0008

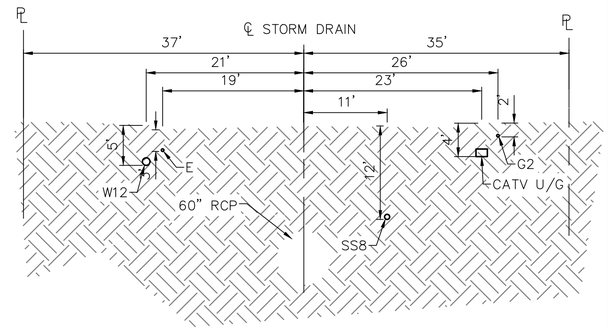
PROJECT NO. 4-8-00290
DRAWING NO. SD-109
SHEET NO. 12 OF 24

FILE NAME: T:\128044\SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-11-SD109-STORMDRAIN.dwg DATE: Monday, February 03, 2025 - 10:56am USF0678307



PROFILE

SCALE: HORIZ. 1"=20', VERT. 1"=5'



SECTION AT STA 48+00

TYPICAL FROM STA 46+00.00 TO 50+00.00

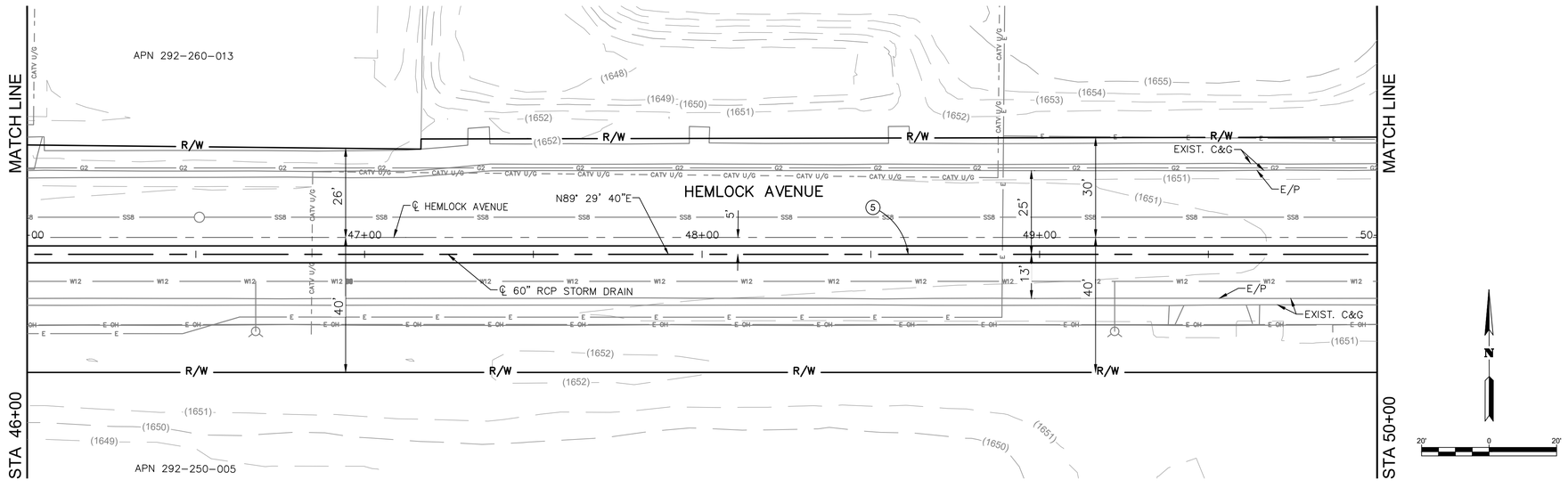
10' 0 10'

STORM DRAIN CONSTRUCTION ITEMS

(5) CONSTRUCT 60" RCP STORM DRAIN, D-LOAD PER PLAN

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS



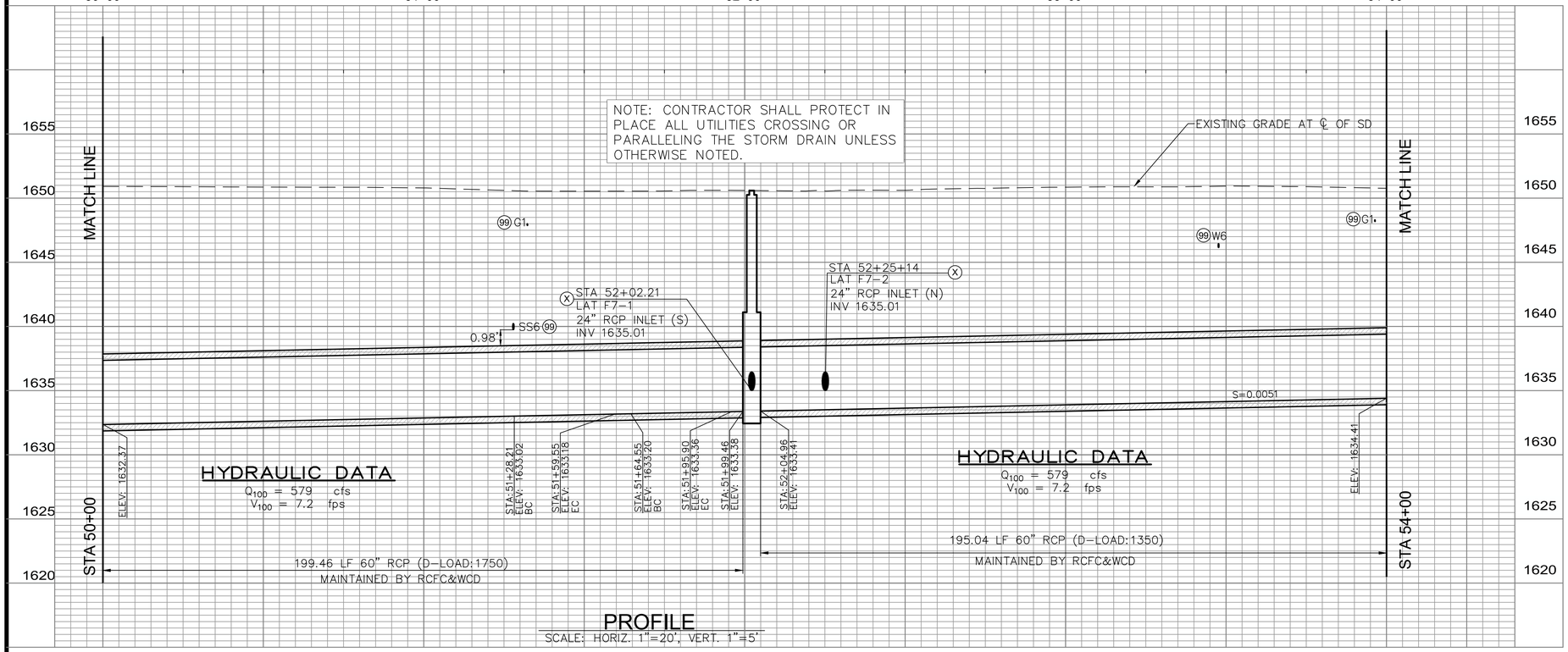
PLAN

FILE NAME: I:\12804\SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-12-SD110-STORMDRAIN.dwg DATE: Monday, February 03, 2025 - 10:57am USFC67837			
NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE. DIGALERT CALL 811 or 1-800-422-4133 2 Working Days Before You Dig www.CALLB811.COM	**BENCH MARK:** DATUM HORIZONTAL: NAD83 (NSRS2007) EPOCH 2011.00 PER CSRC / CCS83 ZONE 6 (0406) DATUM VERTICAL: NGVD29 PER CITY BM STAMPED "M-59-69 RESET 1997" (ELEV=1641.16)	REVISIONS REF. DESCRIPTION APPR. DATE	DESIGNED BY: C. TURNAGE DRAWN BY: C. MELO DATE DRAWN: NOVEMBER, 2023
REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER SEAN TURNAGE No. 62297 Exp. 09/30/25 CIVIL STATE OF CALIFORNIA	WSP USA Inc. 862 E. HOSPITALITY LANE SUITE 350 SAN BERNARDINO, CA 92408 TEL: +1.909.888.1106 FAX: +1.909.889.1884 CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25	RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT RECOMMENDED FOR APPROVAL BY: CHIEF, DESIGN & CONSTRUCTION DATE: APPROVED BY: GENERAL MANAGER-CHIEF ENGINEER DATE: NOT FOR CONSTRUCTION	CITY OF MORENO VALLEY RECOMMENDED: QUANG NGUYEN, PE CAPITAL PROJECTS DIVISION MANAGER R.C.E. 88590 DATE APPROVED: MELISSA WALKER, PE PUBLIC WORKS DIRECTOR/CITY ENGINEER R.C.E. 69563 DATE

SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F AND F-7
PLAN AND PROFILE
STA 46+00 TO STA 50+00

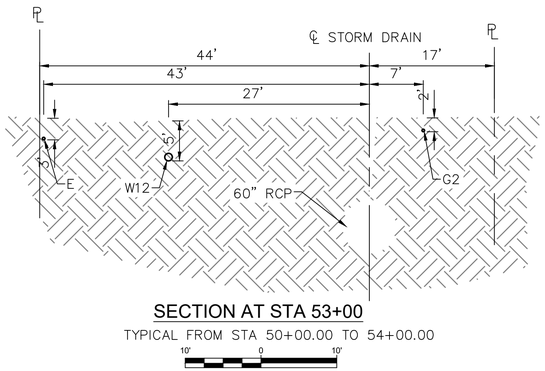
CITY PROJECT NO. 804 0008

PROJECT NO.	4-8-00290
DRAWING NO.	SD-110
SHEET NO.	13 OF 24



PROFILE

SCALE: HORIZ. 1"=20', VERT. 1"=5'

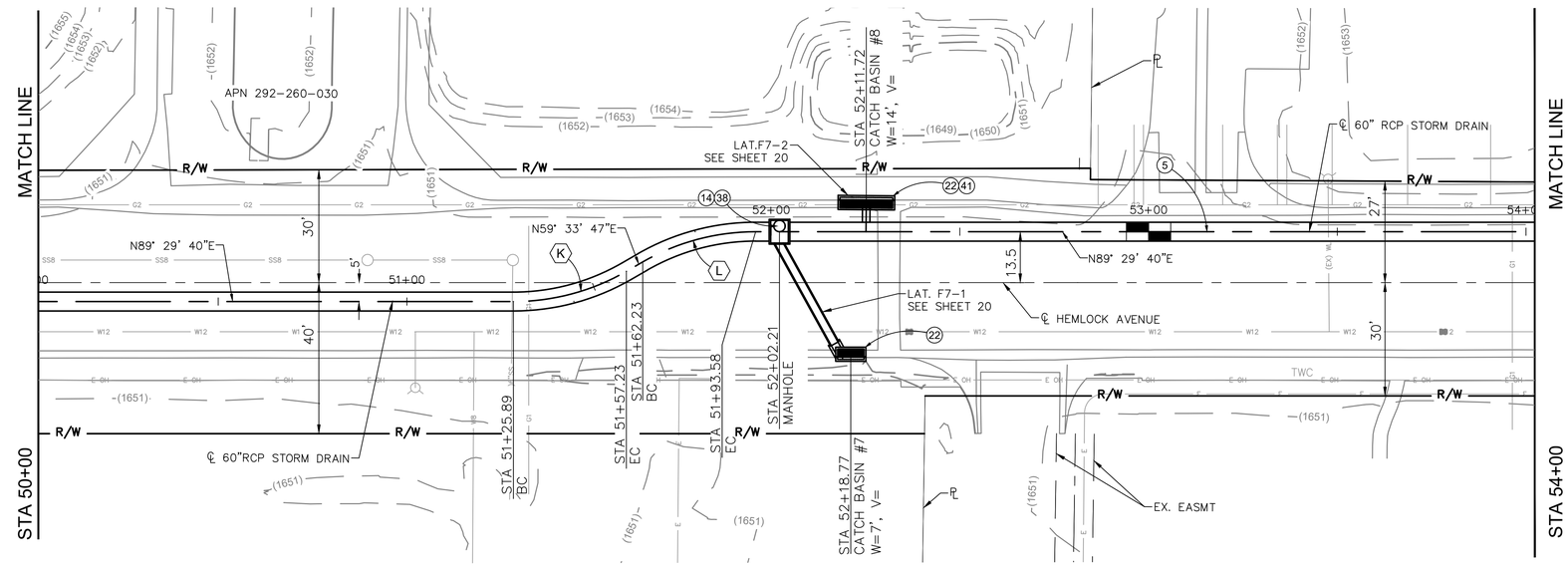


SECTION AT STA 53+00

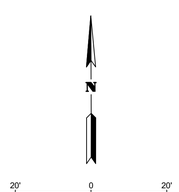
TYPICAL FROM STA 50+00.00 TO 54+00.00

10' 0 10'

MANHOLE STRUCTURE TABLE						
STATION	STRUCTURE ID	M	A	B	D_1	D_1
52+02.21	MH NO. 2	17.22'	60"	24"	60"	60"



PLAN



(K) ℄ CURVE DATA
- Δ = 29° 55' 53"
- R = 60'
- T = 16.04'
- L = 31.34'
- BC = STA. 51+25.89
- EC = STA. 51+57.23
- PI = N 2288045.37, E 6257043.78

(L) ℄ CURVE DATA
- Δ = 29° 55' 53"
- R = 60'
- T = 16.04'
- L = 31.34'
- BC = STA. 51+62.23
- EC = STA. 51+98.05
- PI = N 2288064.16, E 6257075.74

STORM DRAIN CONSTRUCTION ITEMS

(5) CONSTRUCT 60" RCP STORM DRAIN, D-LOAD PER PLAN

(14) CONSTRUCT MANHOLE NO. 2 PER RCFC&WCD STD MH252

(22) CONSTRUCT CATCH BASIN NO. 1 PER RCFC@WCD STD CB100

(38) CONSTRUCT MHC SHAFT SAFETY LEDGE PER RCFC&WCD STD MH261

(41) CONSTRUCT GRATING CATCH BASIN-ALLEY (TRANSVERSE) PER SPPWC STD PLAN 305-4, MODIFIED TO CONNECT TO CURB OPENING CATCH BASIN

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED
"M-59-69 RESET 1997"
(ELEV=1641.16)

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER SEAN TURNAGE — No. 62297 — Exp. 09/30/25 — CIVIL — STATE OF CALIFORNIA

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884

CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

RECOMMENDED FOR APPROVAL BY: _____ CHIEF, DESIGN & CONSTRUCTION DATE: _____

APPROVED BY: _____ GENERAL MANAGER-CHIEF ENGINEER DATE: _____

NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY

RECOMMENDED: _____ DATE
QUANG NGUYEN, PE
CAPITAL PROJECTS DIVISION MANAGER
R.C.E. 58590

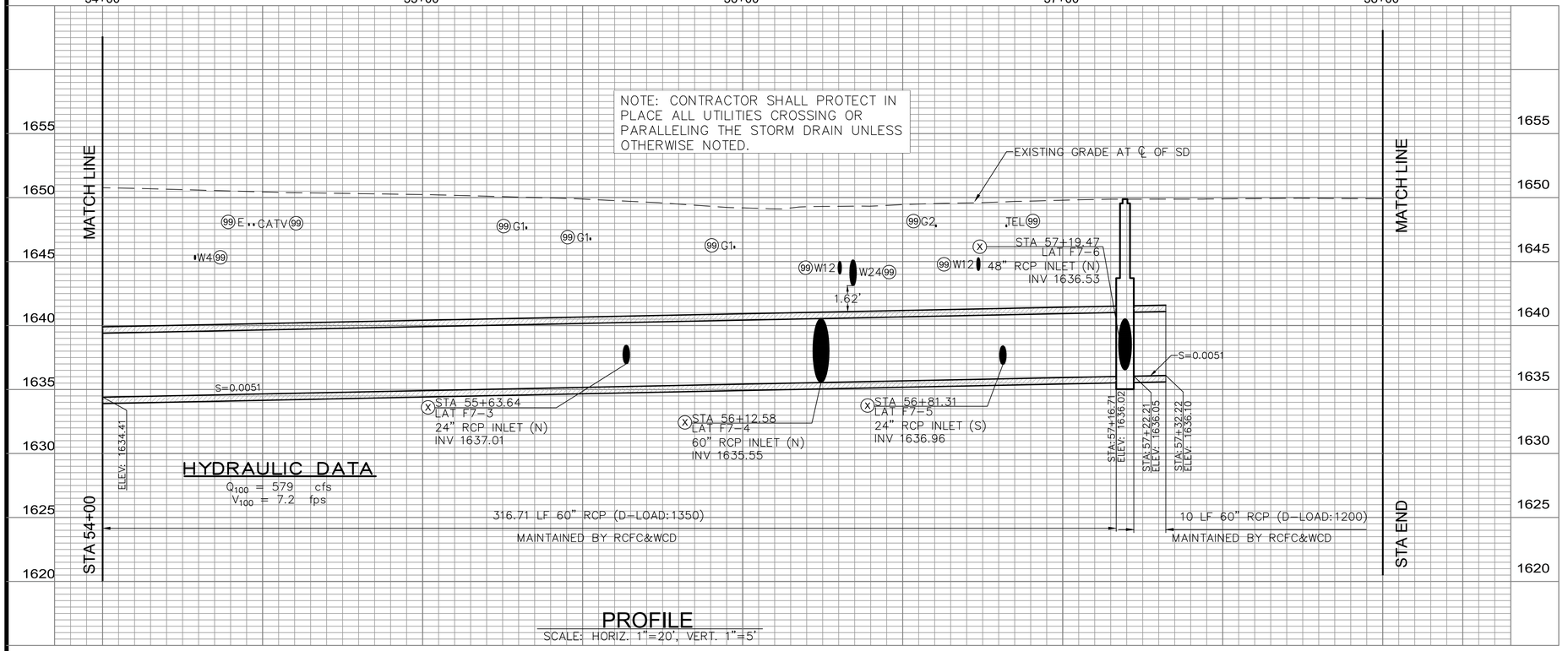
APPROVED: _____ DATE
MELISSA WALKER, PE
PUBLIC WORKS DIRECTOR/CITY ENGINEER
R.C.E. 69563

SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F AND F-7
PLAN AND PROFILE
STA 50+00 TO STA 54+00

CITY PROJECT NO. 804 0008

PROJECT NO. 4-8-00290
DRAWING NO. SD-111
SHEET NO. 14 OF 24

FILE NAME: T:\12804SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-13-SD111-STORMDRAIN.dwg DATE: Monday, February 03, 2025 - 10:57am USFC678307

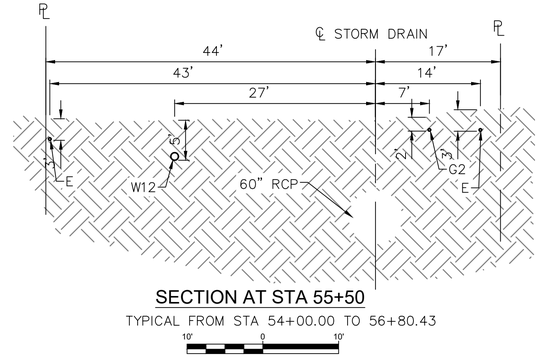


HYDRAULIC DATA

Q_{100} = 579 cfs
V_{100} = 7.2 fps

PROFILE

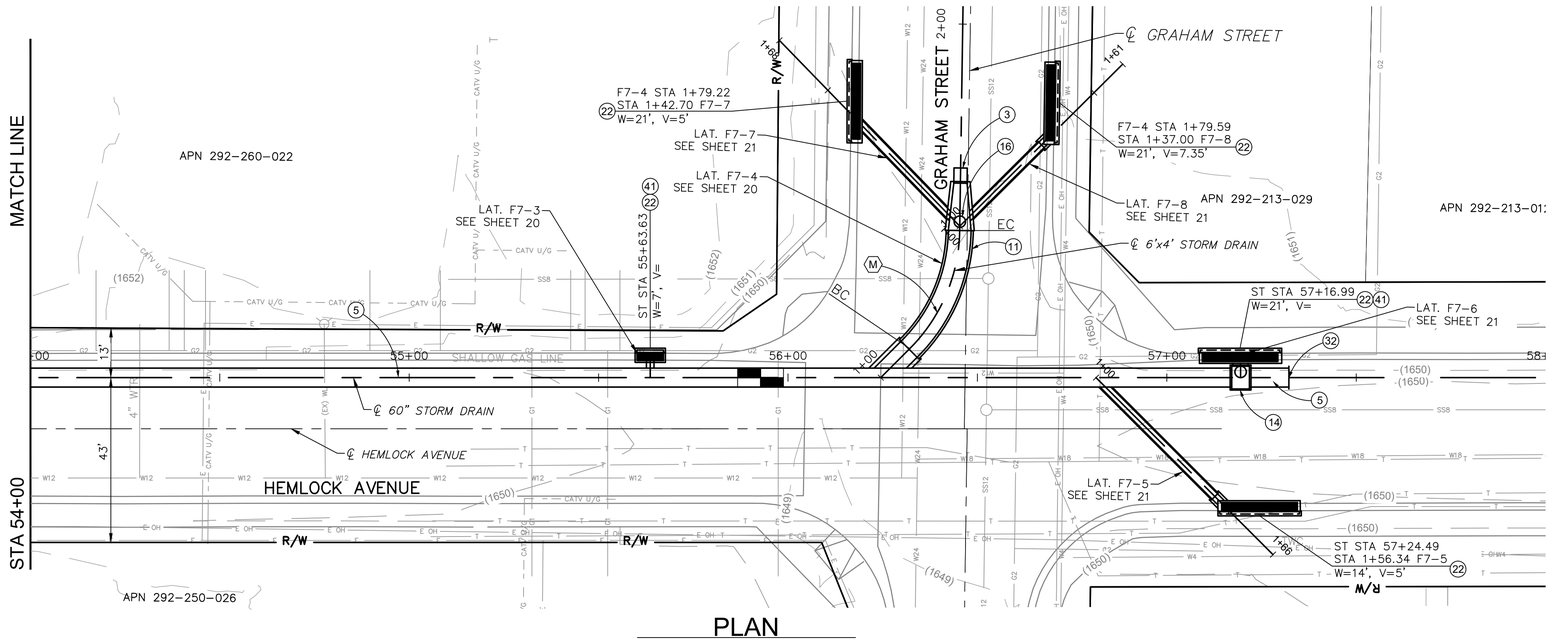
SCALE: HORIZ. 1"=20', VERT. 1"=5'



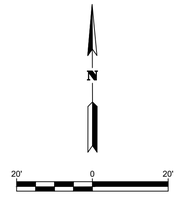
SECTION AT STA 55+50

TYPICAL FROM STA 54+00.00 TO 56+80.43

10' 0 10'



PLAN



MANHOLE STRUCTURE TABLE

STATION	STRUCTURE ID	M	A_1	A_2	B_1	B_2	D_1	D_2	ELEVATION S	ELEVATION R
57+19.46	MH NO. 2	13.86'	90°	NA	48"	NA	60"	60"	NA	NA
1+47.85	MH NO. 4	13.86'	44°	45°	48"	48"	6' X 4'	42"	60"	60"

(M) ℄ CURVE DATA

Δ = 44° 09' 16"
R = 45'
T = 18.25'
L = 34.68'
BC = STA. 1+10.84
EC = STA. 1+45.52
PI = N 2288088.8313
E 6257540.7374

STORM DRAIN CONSTRUCTION ITEMS

(3) CONSTRUCT 42" RCP STORM DRAIN, D-LOAD PER PLAN

(5) CONSTRUCT 60" RCP STORM DRAIN, D-LOAD PER PLAN

(11) CONSTRUCT 6' X 4' RCB STORM DRAIN PER CALTRANS STD D83A, D-LOAD PER PLAN

(14) CONSTRUCT MANHOLE NO. 2 PER RCFC&WCD STD MH252

(16) CONSTRUCT MANHOLE NO. 4 PER RCFC&WCD STD MH254

(22) CONSTRUCT CATCH BASIN NO. 1 PER RCFC@WCD STD CB100

(32) CONSTRUCT CONCRETE BULKHEAD PER RCFC&WCD STD M816

(41) CONSTRUCT GRATING CATCH BASIN-ALLEY (TRANSVERSE) PER SPPWC STD PLAN 305-4, MODIFIED TO CONNECT TO CURB OPENING CATCH BASIN

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN

FILE NAME: I:\12804\SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-14-SD112-STORMDRAIN.dwg DATE: Monday, February 03, 2025 - 10:58am USFC678307

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE
DIGALERT
CALL 811 or 1-800-422-4133
2 Working Days Before You Dig
www.CALL811.com

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED
"M-59-69 RESET 1997"
(ELEV=1641.16)

REF.	REVISIONS	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER SEAN TURNAGE No. 62297 Exp. 09/30/25 CIVIL STATE OF CALIFORNIA

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884

CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

RECOMMENDED FOR APPROVAL BY: CHIEF, DESIGN & CONSTRUCTION DATE:

APPROVED BY: GENERAL MANAGER-CHIEF ENGINEER DATE:

NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY

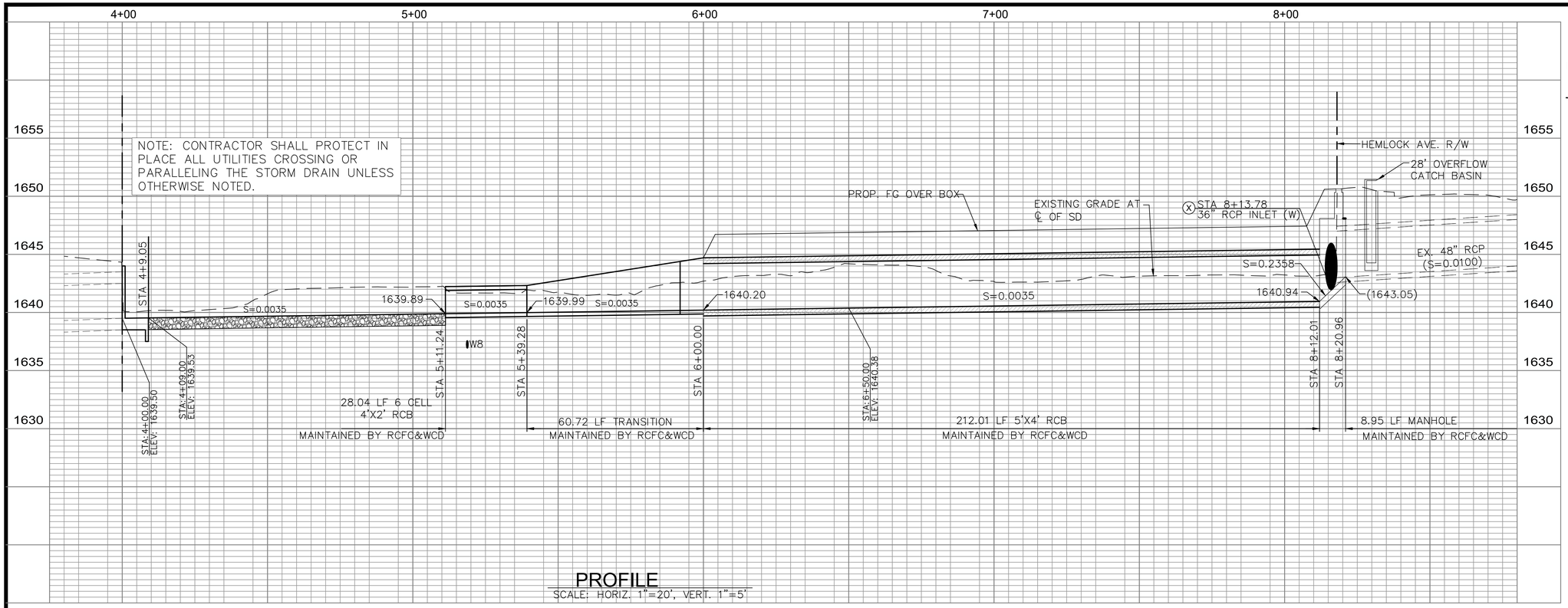
RECOMMENDED: QUANG NGUYEN, PE, CAPITAL PROJECTS DIVISION MANAGER, R.C.E. 88590 — DATE

APPROVED: MELISSA WALKER, PE, PUBLIC WORKS DIRECTOR/CITY ENGINEER, R.C.E. 69563 — DATE

SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F AND F-7
PLAN AND PROFILE
STA 54+00 TO STA END

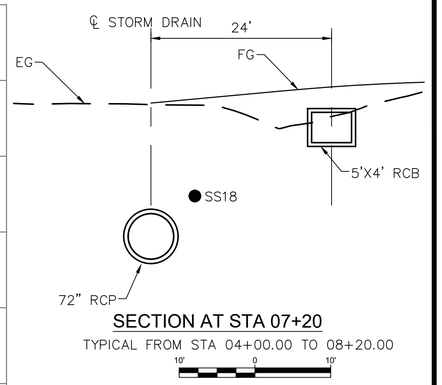
CITY PROJECT NO. 804 0008

PROJECT NO. 4-8-00290
DRAWING NO. SD-112
SHEET NO. 15 OF 24



PROFILE

SCALE: HORIZ. 1"=20', VERT. 1"=5'



SECTION AT STA 07+20

TYPICAL FROM STA 04+00.00 TO 08+20.00

10' 0 10'

STORM DRAIN CONSTRUCTION ITEMS

(6) CONSTRUCT 72" RCP STORM DRAIN, D-LOAD PER PLAN

(9) CONSTRUCT 4' X 2' RCB STORM DRAIN PER CALTRANS STD D83A, D-LOAD PER PLAN

(11) CONSTRUCT 6' X 4' RCB STORM DRAIN PER CALTRANS STD D83A, D-LOAD PER PLAN

(12) CONSTRUCT 5' X 4' RCB STORM DRAIN PER CALTRANS STD D83A, D-LOAD PER PLAN

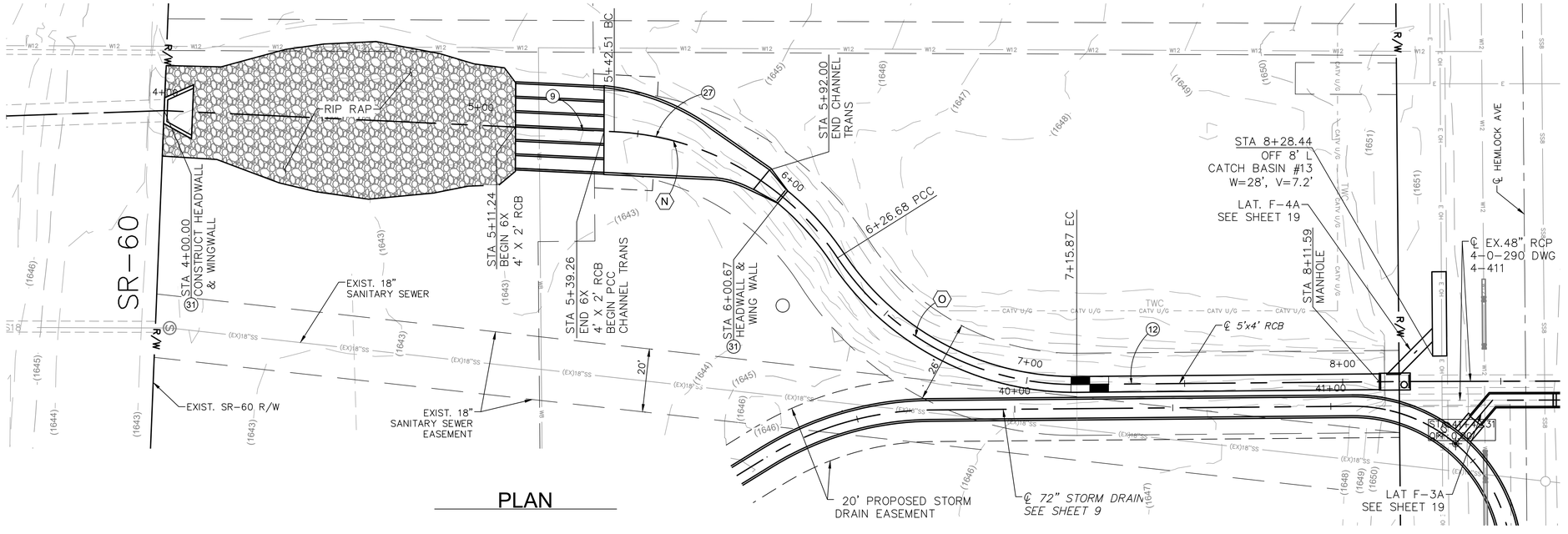
(22) CONSTRUCT CATCH BASIN NO. 1 PER RCFC&WCD STD CB100

(27) CONSTRUCT CHANNEL TRANSITION STRUCTURE PER RCFC&WCD STD CH329

(31) CONSTRUCT BOX CULVERT TYPE A HEADWALL AND WING WALL PER CALTRANS STD D90

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS



PLAN

(N) ℄ CURVE DATA

Δ	=	53° 35' 21"
R	=	90'
T	=	45.45'
L	=	84.18'
BC	=	STA. 5+42.51
EC	=	STA. 6+26.68
PI	=	N 2287798.5131 E 6255950.5248

(O) ℄ CURVE DATA

Δ	=	56° 46' 43"
R	=	90'
T	=	48.64'
L	=	89.19'
BC	=	STA. 6+26.68
EC	=	STA. 7+15.87
PI	=	N 2287850.7607 E 6256028.7786

20' 0 20'

FILE NAME: I:\12804\SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-15-SD113-STORMDRAIN.DWG DATE: Monday, February 03, 2025 - 10:58am USFC67B307

NO WORK SHALL BE DONE ON THIS SHEET UNTIL BELOW AGENCIES NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.
DIGALERT
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www.DIGALERT.com

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED "M-59-69 RESET 1997"
(ELEV=1641.16)

REF.	REVISIONS	APPR.	DATE

DESIGNED BY: J. DYE
DRAWN BY: C. MELO
DATE DRAWN: JUNE, 2022

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER SEAN TURNAGE No. 62297 Exp. 09/30/25 CIVIL STATE OF CALIFORNIA

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884
CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

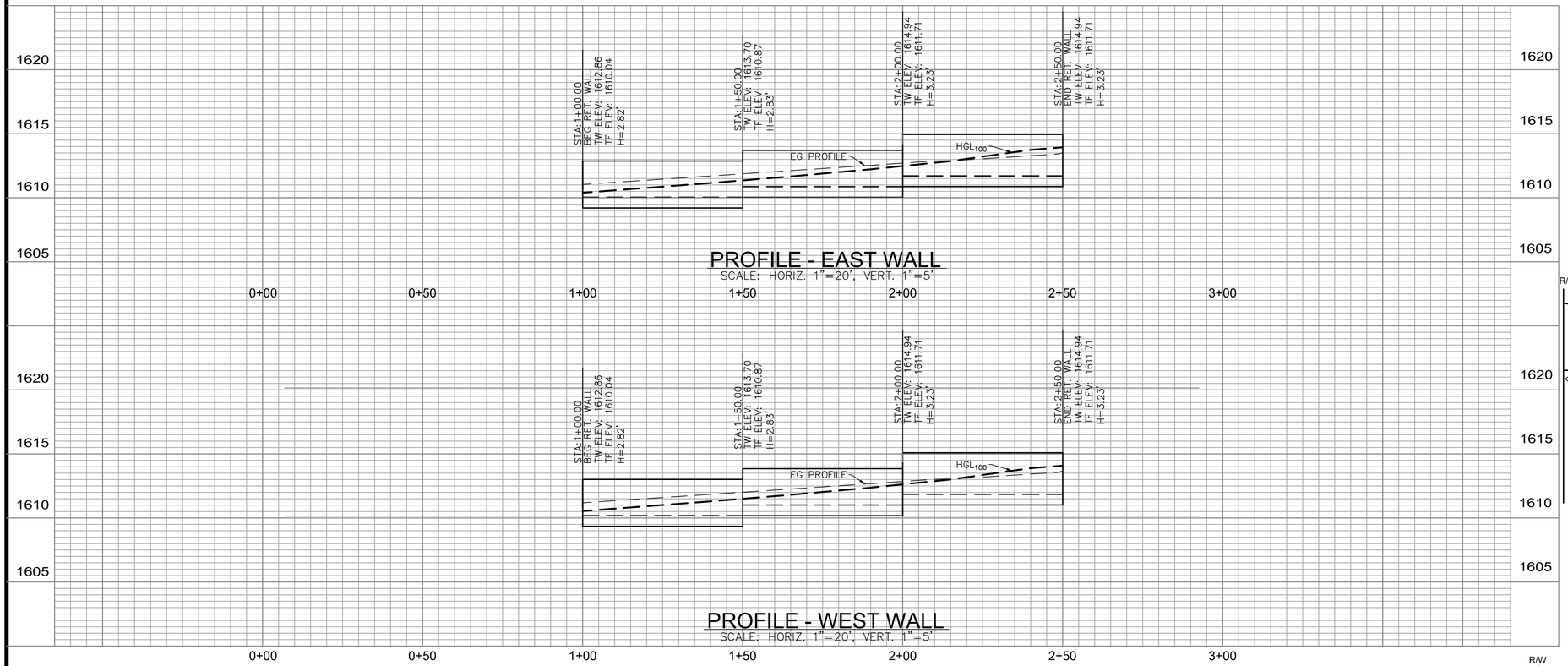
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: APPROVED BY:
DATE: NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY
RECOMMENDED:
QUANG NGUYEN, PE DATE
CAPITAL PROJECTS DIVISION MANAGER
R.C.E. 58590
APPROVED:
MELISSA WALKER, PE DATE
PUBLIC WORKS DIRECTOR/CITY ENGINEER
R.C.E. 69563

SUNNYMEAD BOULEVARD SUNNYMEAD MDP LINE F PLAN AND PROFILE STA 4+00 TO STA 8+50

CITY PROJECT NO. 804 0008

PROJECT NO. 4-8-00290
DRAWING NO. SD-113
SHEET NO. 16 OF 24



PROFILE - EAST WALL

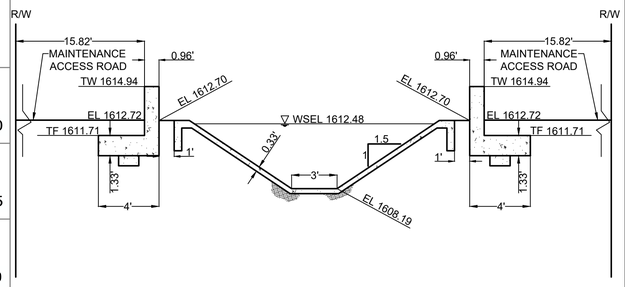
SCALE: HORIZ. 1"=20', VERT. 1"=5'

PROFILE - WEST WALL

SCALE: HORIZ. 1"=20', VERT. 1"=5'

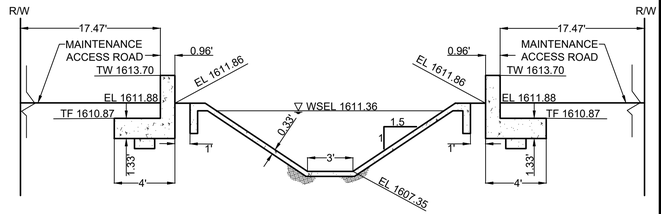
STREET CONSTRUCTION ITEMS

(1) CONSTRUCT REINFORCED CONCRETE RETAINING WALL PER SPPWC STD. PLAN 615-4.



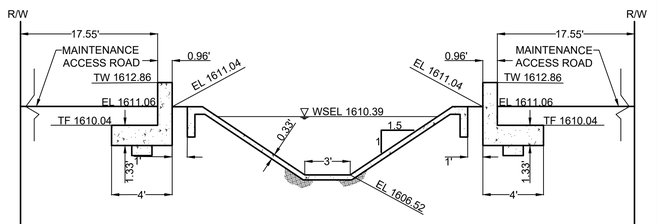
SECTION AT STA 2+00

5' 0 5'



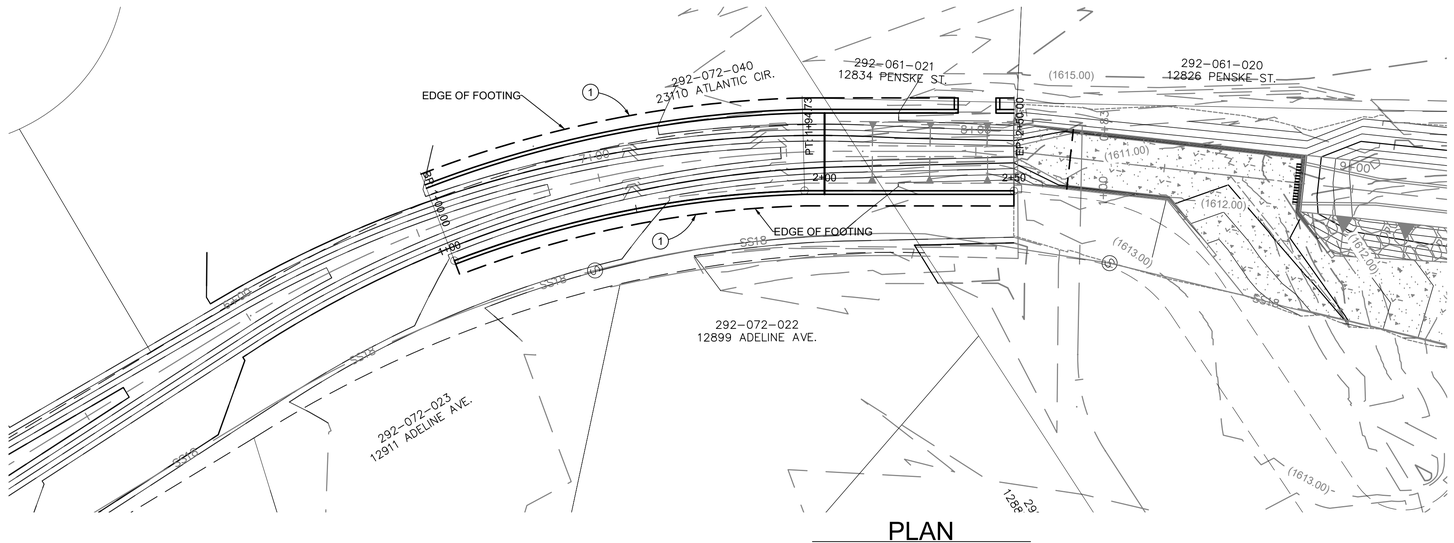
SECTION AT STA 1+50

5' 0 5'



SECTION AT STA 1+00

5' 0 5'



PLAN

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED
"M-59-69 RESET 1997"
(ELEV=1641.16)

REF.	REVISIONS	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER SEAN TURNAGE No. 62297 Exp. 09/30/25 CIVIL STATE OF CALIFORNIA
WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884
CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

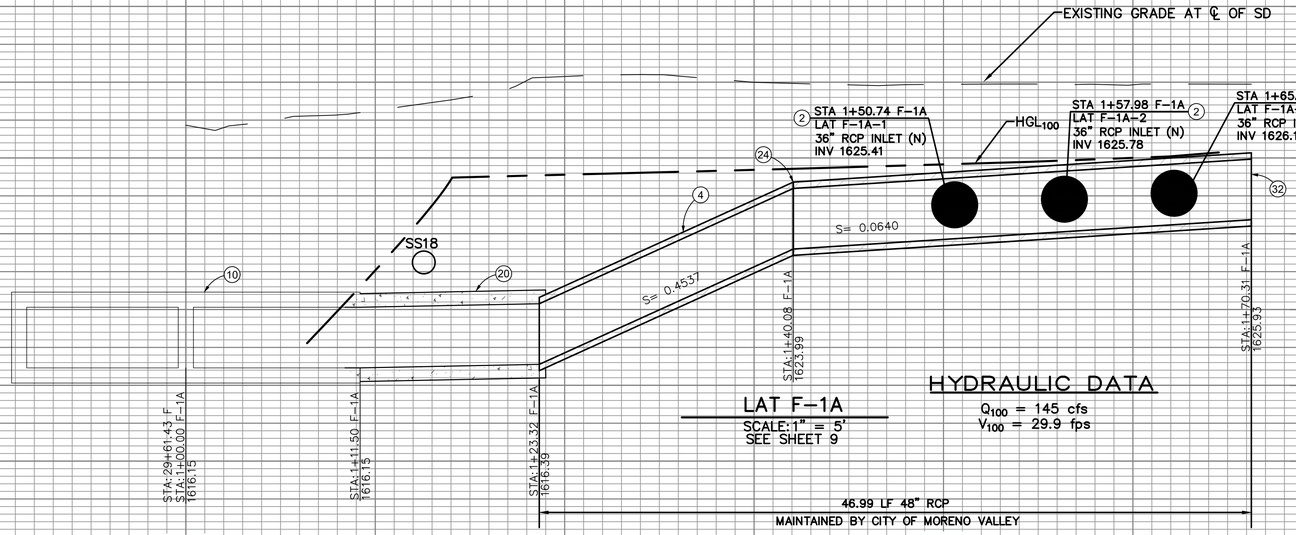
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: CHIEF, DESIGN & CONSTRUCTION DATE:
APPROVED BY: GENERAL MANAGER-CHIEF ENGINEER DATE:
NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY
RECOMMENDED: QUANG NGUYEN, PE, CAPITAL PROJECTS DIVISION MANAGER, R.C.E. 58590 — DATE
APPROVED: MELISSA WALKER, PE, PUBLIC WORKS DIRECTOR/CITY ENGINEER, R.C.E. 69563 — DATE

SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F AND F-7
PLAN AND PROFILE
CHANNEL MAINTENANCE ROAD
CITY PROJECT NO. 804 0008

PROJECT NO. 4-8-00290
DRAWING NO. SD-114
SHEET NO. 17 OF 24

FILE NAME: T:\12804\SunnymeadMasterDrainage\Plan\CADD\SHEETS\SHT-12804-SD-17-SD114-MAINTACCRD.dwg DATE: Monday, February 03, 2025 - 10:59am USFC67B307

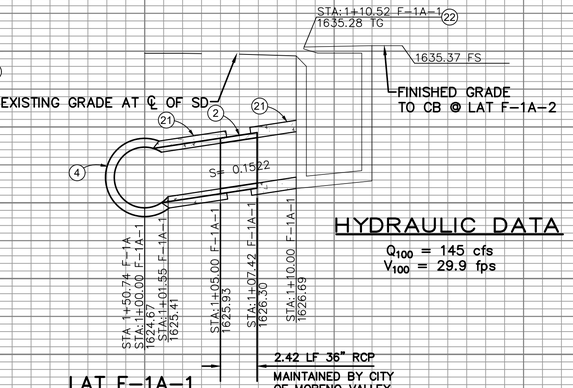


LAT F-1A

SCALE:1" = 5'
SEE SHEET 9

HYDRAULIC DATA

Q_{100} = 145 cfs
V_{100} = 29.9 fps

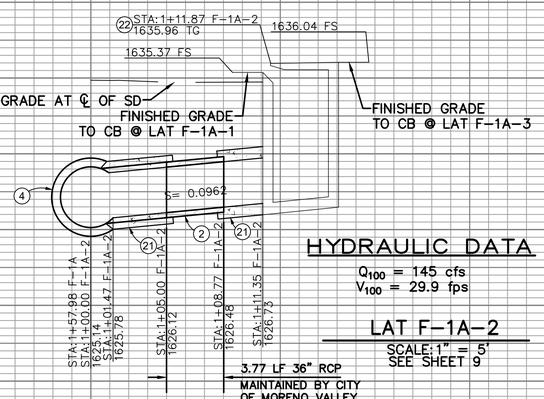


LAT F-1A-1

SCALE:1" = 5'
SEE SHEET 9

HYDRAULIC DATA

Q_{100} = 145 cfs
V_{100} = 29.9 fps

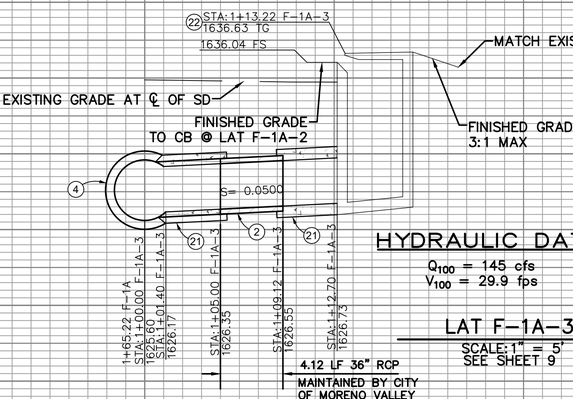


LAT F-1A-2

SCALE:1" = 5'
SEE SHEET 9

HYDRAULIC DATA

Q_{100} = 145 cfs
V_{100} = 29.9 fps



LAT F-1A-3

SCALE:1" = 5'
SEE SHEET 9

HYDRAULIC DATA

Q_{100} = 145 cfs
V_{100} = 29.9 fps

STORM DRAIN CONSTRUCTION ITEMS

(2) CONSTRUCT 36" RCP STORM DRAIN, D-LOAD PER PLAN

(4) CONSTRUCT 48" RCP STORM DRAIN, D-LOAD PER PLAN

(10) CONSTRUCT 20' X 4' DOUBLE CELL RCB STORM DRAIN PER SPPWC STD 390-1, D-LOAD PER PLAN

(20) CONSTRUCT JUNCTION STRUCTURE NO. 1 PER RCFC&WCD STD JS226

(21) CONSTRUCT JUNCTION STRUCTURE NO. 2 PER RCFC&WCD STD JS227

(22) CONSTRUCT CATCH BASIN NO. 1 PER RCFC@WCD STD CB100

(24) CONSTRUCT CONCRETE COLLAR PER RCFC&WCD STD M803

(32) CONSTRUCT CONCRETE BULKHEAD PER RCFC&WCD STD M816

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED
"M-59-69 RESET 1997"
(ELEV=1641.16)

REF.	DESCRIPTION	APPR.	DATE
	REVISIONS		

DESIGNED BY: J. DYE
DRAWN BY: C. MELO
DATE DRAWN: JUNE, 2022

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER SEAN TURNAGE
No. 62297
Exp. 09/30/25
CIVIL
STATE OF CALIFORNIA

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884
CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

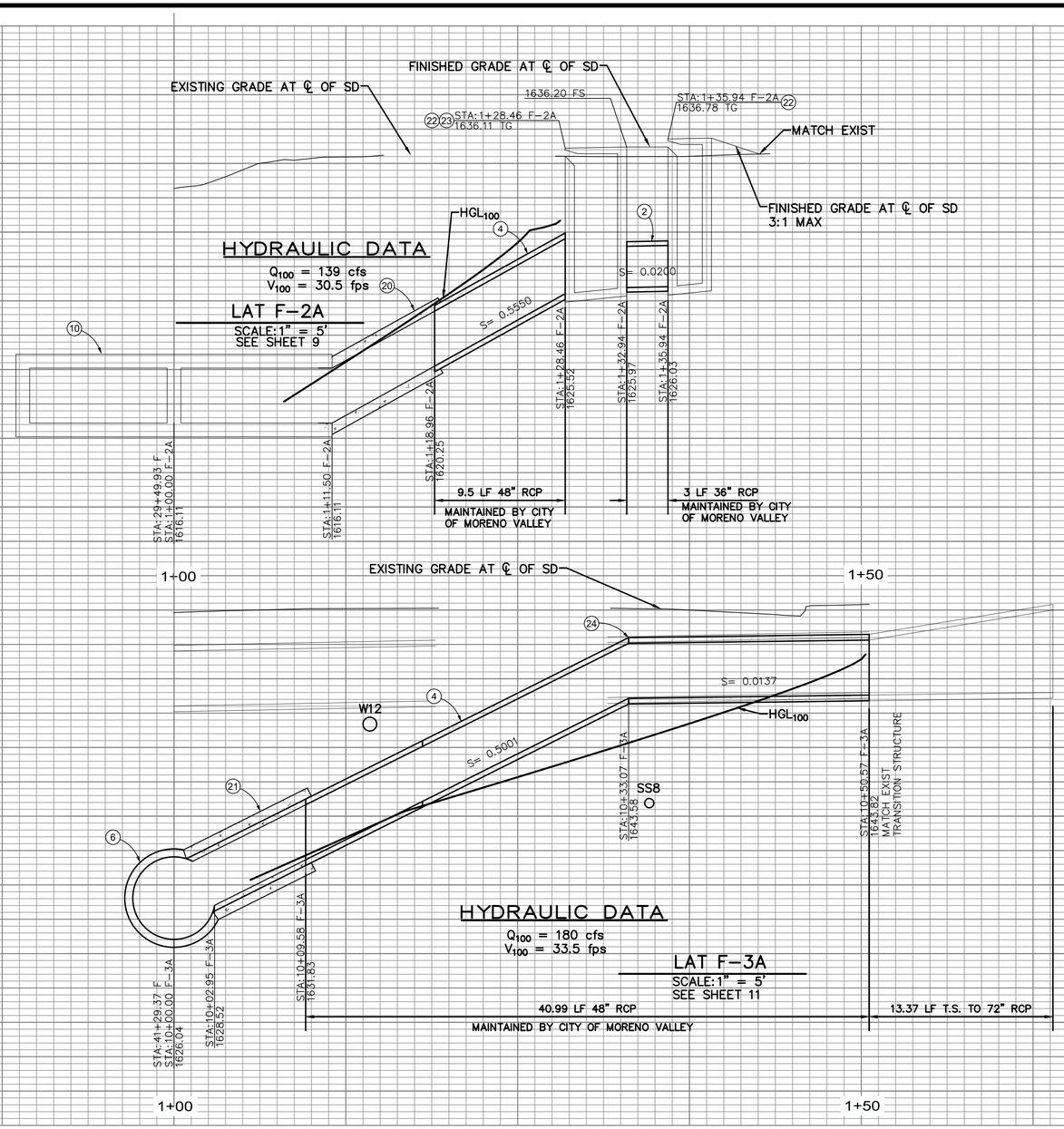
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: APPROVED BY:
DATE: DATE:
NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY
RECOMMENDED: QUANG NGUYEN, PE, CAPITAL PROJECTS DIVISION MANAGER, R.C.E. 58590 — DATE
APPROVED: MELISSA WALKER, PE, PUBLIC WORKS DIRECTOR/CITY ENGINEER, R.C.E. 69563 — DATE

SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F
CONNECTOR PIPE PROFILES

CITY PROJECT NO. 804 0008

PROJECT NO. 4-8-00290
DRAWING NO. SD-201
SHEET NO. 18 OF 24



STORM DRAIN CONSTRUCTION ITEMS

(2) CONSTRUCT 36" RCP STORM DRAIN, D-LOAD PER PLAN

(4) CONSTRUCT 48" RCP STORM DRAIN, D-LOAD PER PLAN

(6) CONSTRUCT 72" RCP STORM DRAIN, D-LOAD PER PLAN

(10) CONSTRUCT 20' X 4' DOUBLE CELL RCB STORM DRAIN PER SPPWC STD 390-1, D-LOAD PER PLAN

(12) CONSTRUCT 5' X 4' RCB STORM DRAIN PER CALTRANS STD D83A, D-LOAD PER PLAN

(14) CONSTRUCT MANHOLE NO. 2 PER RCFC&WCD STD MH252

(20) CONSTRUCT JUNCTION STRUCTURE NO. 1 PER RCFC&WCD STD JS226

(21) CONSTRUCT JUNCTION STRUCTURE NO. 2 PER RCFC&WCD STD JS227

(22) CONSTRUCT CATCH BASIN NO. 1 PER RCFC@WCD STD CB100

(23) CONSTRUCT SPECIAL CONNECTION TO CATCH BASIN PER RFC&WCD STD CB109

(24) CONSTRUCT CONCRETE COLLAR PER RCFC&WCD STD M803

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00 PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED "M-59-69 RESET 1997" (ELEV=1641.16)

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE

DESIGNED BY: J. DYE
DRAWN BY: C. MELO
DATE DRAWN: JUNE, 2022

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER SEAN TURNAGE No. 62297 Exp. 09/30/25 CIVIL STATE OF CALIFORNIA

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884
CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: APPROVED BY:
DATE: DATE:
NOT FOR CONSTRUCTION

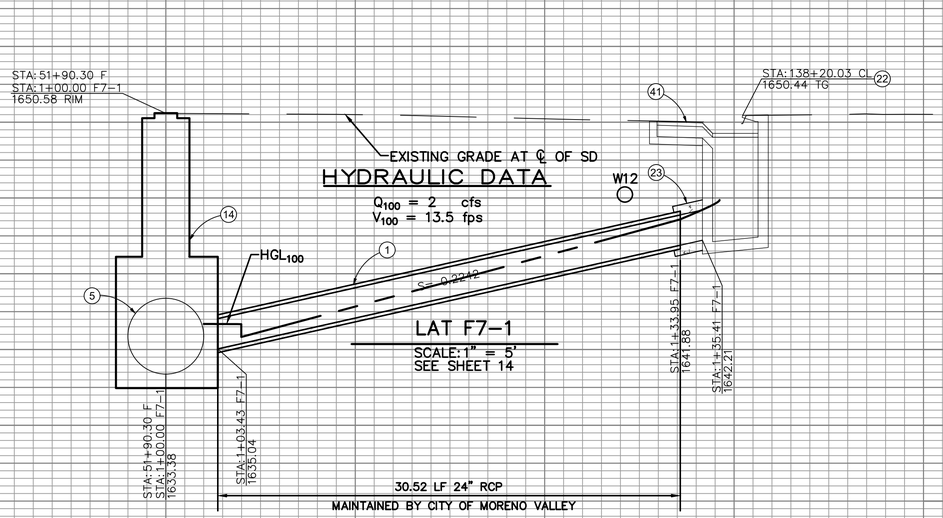
CITY OF MORENO VALLEY
RECOMMENDED: QUANG NGUYEN, PE, CAPITAL PROJECTS DIVISION MANAGER, R.C.E. 58590 — DATE
APPROVED: MELISSA WALKER, PE, PUBLIC WORKS DIRECTOR/CITY ENGINEER, R.C.E. 69563 — DATE

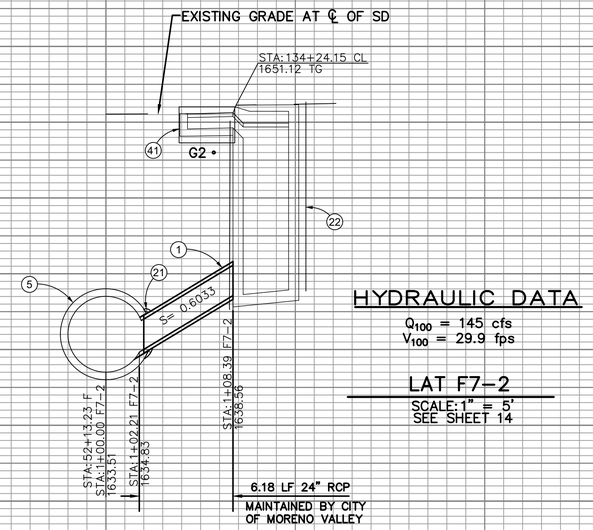
SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F
CONNECTOR PIPE PROFILES

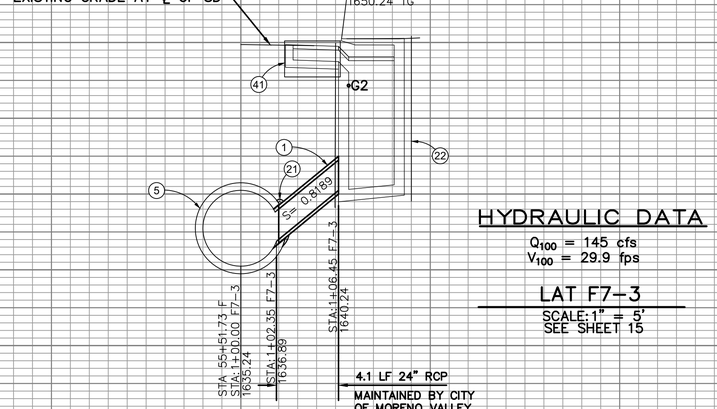
CITY PROJECT NO. 804 0008

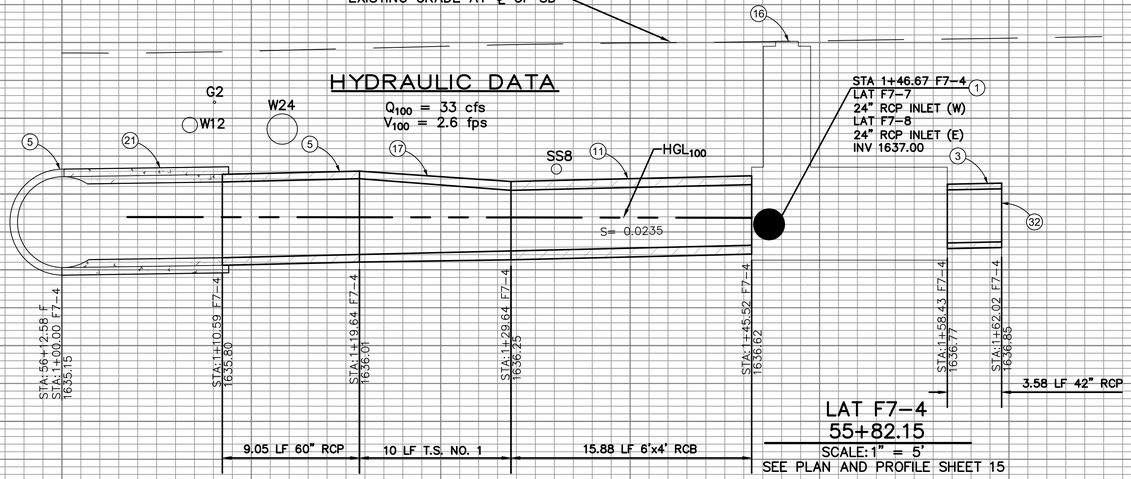
PROJECT NO. 4-8-00290
DRAWING NO. SD-202
SHEET NO. 19 OF 24

FILE NAME: T:\12804SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-19-SD202-CONNECTORLATERALS.dwg DATE: Monday, February 03, 2025 - 11:00am USFC67837









STORM DRAIN CONSTRUCTION ITEMS

(1) CONSTRUCT 24" RCP STORM DRAIN, D-LOAD PER PLAN

(3) CONSTRUCT 42" RCP STORM DRAIN, D-LOAD PER PLAN

(5) CONSTRUCT 60" RCP STORM DRAIN, D-LOAD PER PLAN

(11) CONSTRUCT 6' X 4' RCB STORM DRAIN PER CALTRANS STD D83A, D-LOAD PER PLAN

(14) CONSTRUCT MANHOLE NO. 2 PER RCFC&WCD STD MH252

(16) CONSTRUCT MANHOLE NO. 4 PER RCFC&WCD STD MH254

(17) CONSTRUCT TRANSITION STRUCTURE NO. 1 PER RCFC&WCD STD TS301

(21) CONSTRUCT JUNCTION STRUCTURE NO. 2 PER RCFC&WCD STD JS227

(22) CONSTRUCT CATCH BASIN NO. 1 PER RCFC@WCD STD CB100

(23) CONSTRUCT SPECIAL CONNECTION TO CATCH BASIN PER RFC&WCD STD CB109

(32) CONSTRUCT CONCRETE BULKHEAD PER RCFC&WCD STD M816

(41) CONSTRUCT GRATING CATCH BASIN-ALLEY (TRANSVERSE) PER SPPWC STD PLAN 305-4, MODIFIED TO CONNECT TO CURB OPENING CATCH BASIN

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS

BENCH MARK:
DATUM HORIZONTAL:
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PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED
"M-59-69 RESET 1997"
(ELEV=1641.16)

REF.	REVISIONS / DESCRIPTION	APPR.	DATE

DESIGNED BY: J. DYE
DRAWN BY: C. MELO
DATE DRAWN: JUNE, 2022

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER SEAN TURNAGE
No. 62297
Exp. 09/30/25
STATE OF CALIFORNIA
CIVIL

WSP USA Inc.
862 E. HOSPITALITY LANE
SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884

CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY:
APPROVED BY:
DATE:

NOT FOR CONSTRUCTION

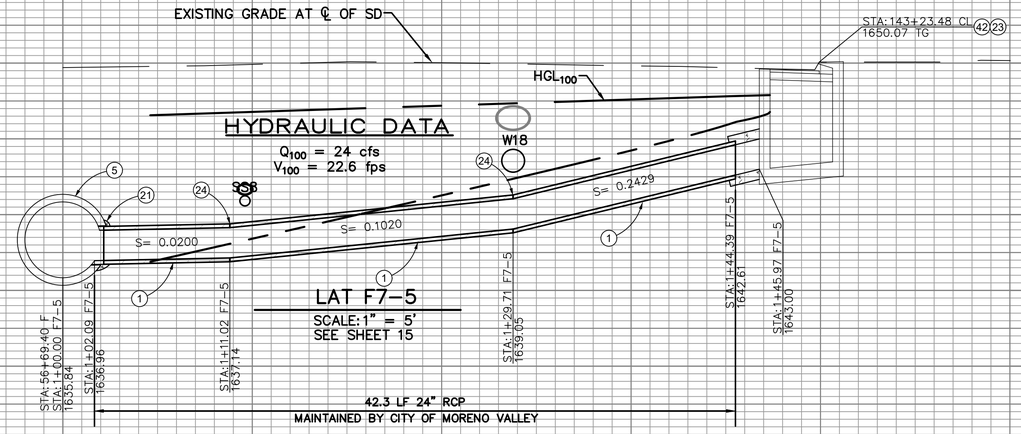
CITY OF MORENO VALLEY
RECOMMENDED:
QUANG NGUYEN, PE
CAPITAL PROJECTS DIVISION MANAGER
R.C.E. 58590
DATE
APPROVED:
MELISSA WALKER, PE
PUBLIC WORKS DIRECTOR/CITY ENGINEER
R.C.E. 69563
DATE

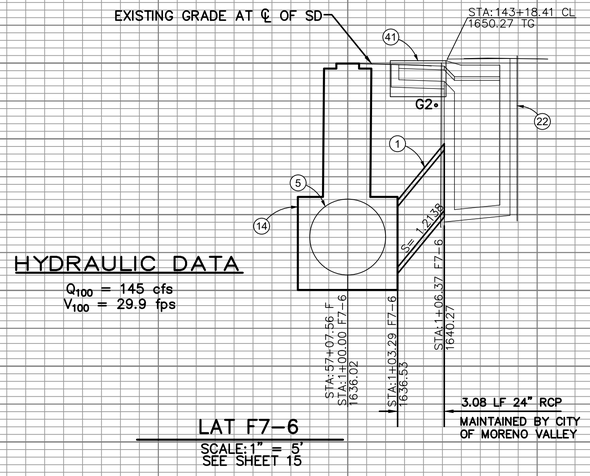
SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F
CONNECTOR PIPE PROFILES

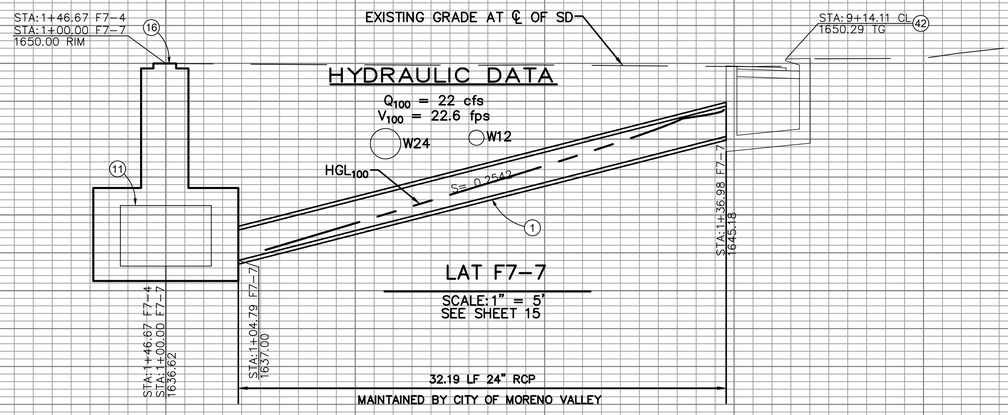
CITY PROJECT NO. 804 0008

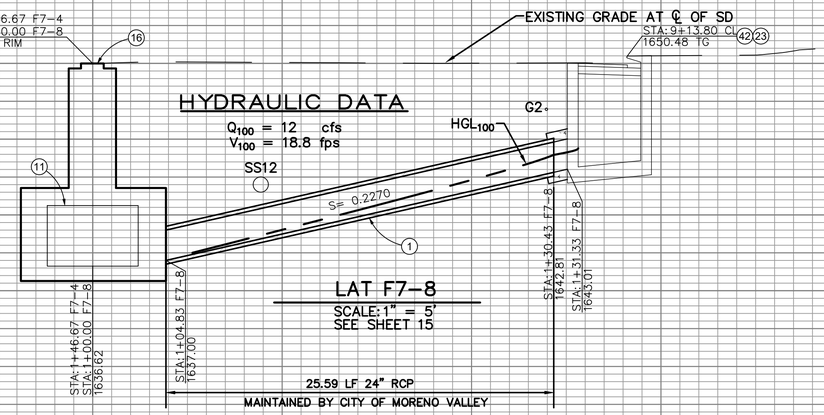
PROJECT NO. 4-8-00290
DRAWING NO. VALUE
SHEET NO. 20 OF 24

FILE NAME: T:\12804\SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-20-SD203-CONNECTORLATTERALS.dwg DATE: Monday, February 03, 2025 - 11:00am USFC6783O7









STORM DRAIN CONSTRUCTION ITEMS

(1) CONSTRUCT 24" RCP STORM DRAIN, D-LOAD PER PLAN

(5) CONSTRUCT 60" RCP STORM DRAIN, D-LOAD PER PLAN

(11) CONSTRUCT 6' X 4' RCB STORM DRAIN PER CALTRANS STD D83A, D-LOAD PER PLAN

(14) CONSTRUCT MANHOLE NO. 2 PER RCFC&WCD STD MH252

(16) CONSTRUCT MANHOLE NO. 4 PER RCFC&WCD STD MH254

(21) CONSTRUCT JUNCTION STRUCTURE NO. 2 PER RCFC&WCD STD JS227

(22) CONSTRUCT CATCH BASIN NO. 1 PER RCFC&WCD STD CB100

(23) CONSTRUCT SPECIAL CONNECTION TO CATCH BASIN PER RFC&WCD STD CB109

(24) CONSTRUCT CONCRETE COLLAR PER RCFC&WCD STD M803

(41) CONSTRUCT GRATING CATCH BASIN-ALLEY (TRANSVERSE) PER SPPWC STD PLAN 305-4, MODIFIED TO CONNECT TO CURB OPENING CATCH BASIN

(42) CONSTRUCT CATCH BASIN NO. 4 PER RCFC&WCD STD CB101

(99) PROTECT IN PLACE

NOTE: PLEASE SEE SHT SD-002 FOR COMPLETE SET OF STORM DRAIN CONSTRUCTION ITEMS

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED
"M-59-69 RESET 1997"
(ELEV=1641.16)

REF.	REVISIONS	APPR.	DATE

DESIGNED BY: J. DYE
DRAWN BY: C. MELO
DATE DRAWN: JUNE, 2022

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER SEAN TURNAGE
No. 62297
Exp. 09/30/25
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STATE OF CALIFORNIA
WSP USA Inc.
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FAX: +1.909.889.1884
CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: APPROVED BY:
DATE:
NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY
RECOMMENDED: QUANG NGUYEN, PE, CAPITAL PROJECTS DIVISION MANAGER, R.C.E. 58590 — DATE
APPROVED: MELISSA WALKER, PE, PUBLIC WORKS DIRECTOR/CITY ENGINEER, R.C.E. 69563 — DATE

SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F
CONNECTOR PIPE PROFILES

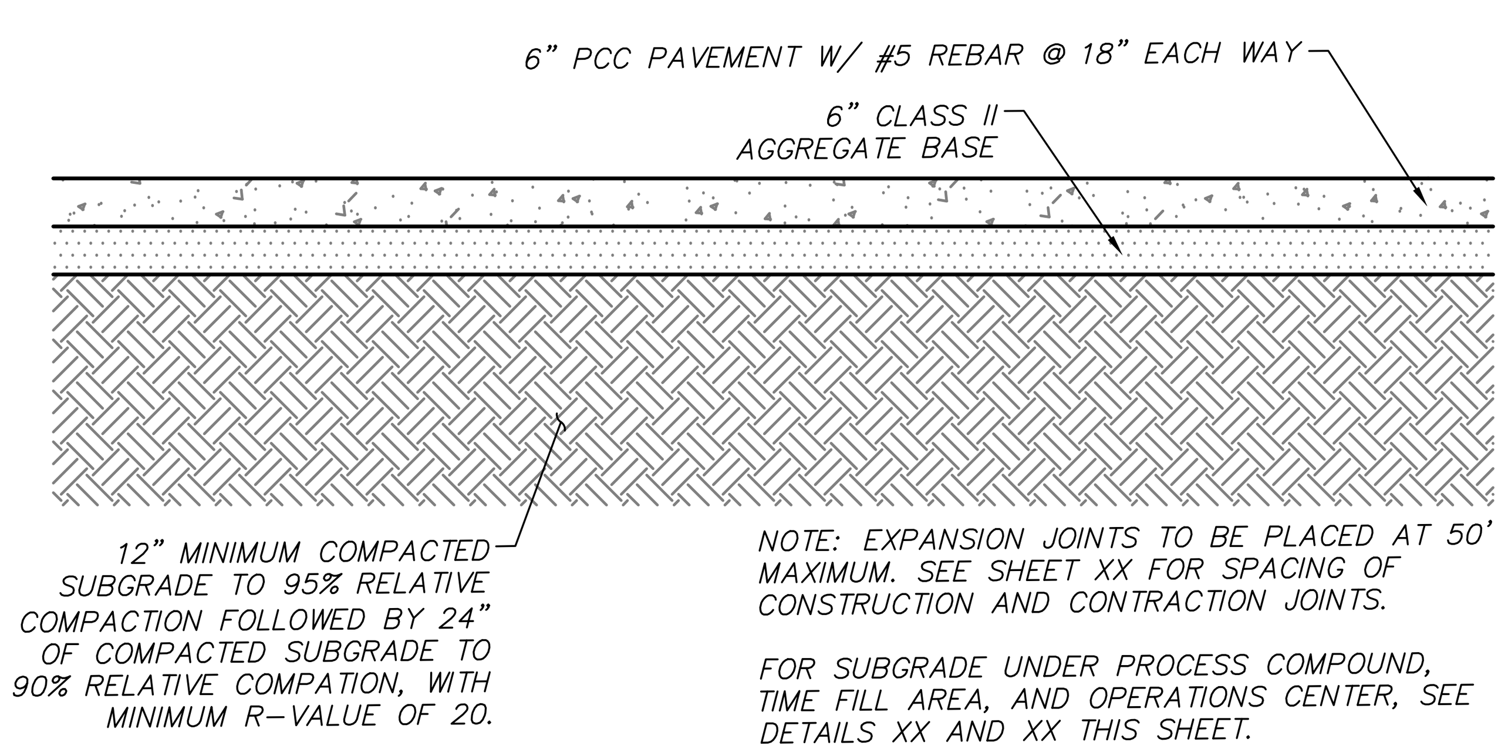
CITY PROJECT NO. 804 0008

PROJECT NO. 4-8-00290
DRAWING NO. VALUE
SHEET NO. 21 OF 24

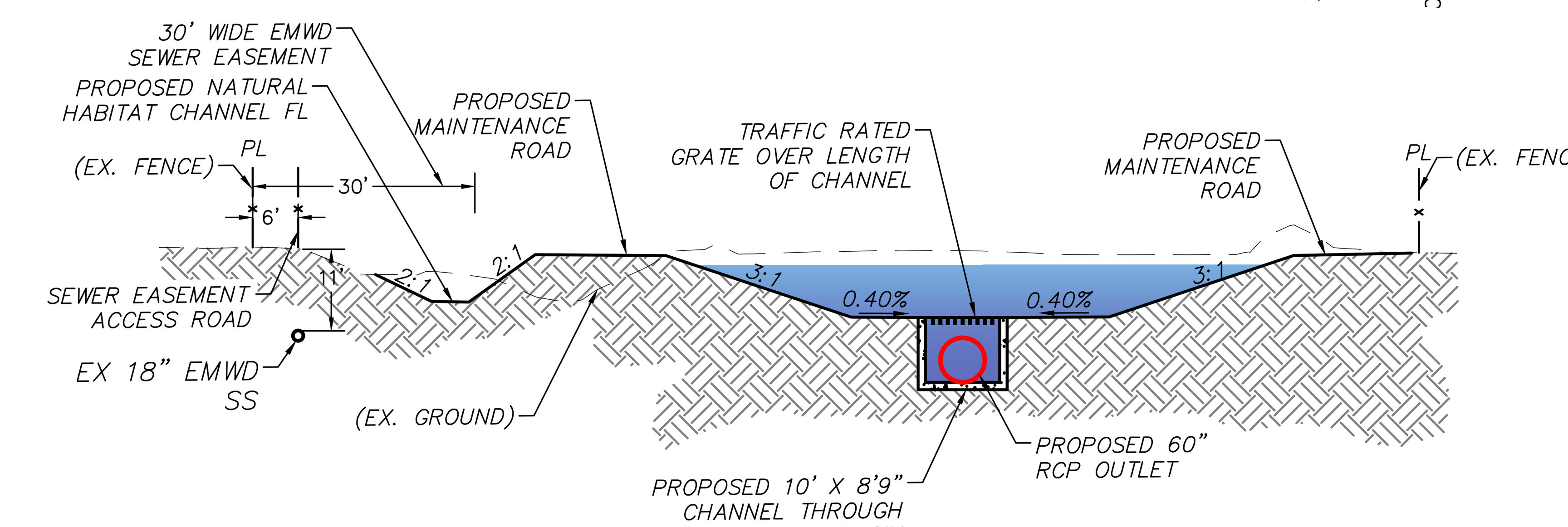
FILE NAME: T:\12804\SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-21-SD204-CONNECTORLATTERALS.dwg DATE: Monday, February 03, 2025 - 11:01am USFC678307

BASIN SURVEY CONTROL				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	2286318.17	6255793.44	1629.80	ER GB
2	2286318.09	6255807.98	1630.00	ER GB EC
3	2286330.31	6255818.30	1630.00	GB POC
4	2286351.38	6255793.60	1630.39	ER GB
5	2286351.30	6255809.53	1630.07	ER GB EC
6	2286680.19	6255795.22	1635.23	ER GB
7	2286680.11	6255810.27	1634.93	ER GB BC
8	2286667.04	6255830.79	1632.17	ER BC
9	2286655.99	6255833.35	1631.07	ER EC
10	2286581.56	6255833.28	1623.85	END RAMP
11	2286581.54	6255848.28	1623.85	END RAMP
12	2286655.98	6255848.35	1630.77	ER BC
13	2286656.00	6255868.51	1624.05	TOE BC
14	2286671.41	6255869.14	1624.11	TOE EC COR
15	2286673.66	6255844.25	1632.47	ER EC
16	2286705.04	6255835.04	1635.77	ER GB EC
17	2286671.08	6255917.95	1624.05	TOE COR
18	2286660.53	6255924.15	1624.04	TOE COR
19	2286706.02	6255940.21	1636.41	ER GB BC
20	2286721.00	6255940.07	1636.71	ER GB BC

BASIN SURVEY CONTROL				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
21	2286673.49	6255964.28	1635.21	ER GB EC
22	2286668.77	6255979.51	1634.90	ER GB EC
23	2286361.79	6255864.58	1630.00	END RAMP GB
24	2286356.52	6255879.44	1630.00	END RAMP GB
25	2286349.07	6255876.80	1629.25	ER AP
26	2286338.20	6255873.82	1628.17	ER BC
27	2286342.50	6255858.41	1627.98	ER BC
28	2286530.43	6255836.92	1623.70	TOE AP
29	2286507.01	6255932.10	1632.83	ER AP
30	2286477.13	6255922.22	1632.33	ER AP
31	2286607.29	6255960.54	1634.50	ER AP



BASIN OVERFLOW WEIR STRUCTURAL SECTION



SECTION A-A
SCALE 1"=20'

DIGALERT — CALL 811 or 1-800-422-4133 — 2 Working Days Before You Dig

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)
DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED
"M-59-69 RESET 1997"
(ELEV=1641.16)

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER SEAN TURNAGE — No. 62297 — Exp. 09/30/25 — CIVIL — STATE OF CALIFORNIA

WSP USA Inc.
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SUITE 350
SAN BERNARDINO, CA 92408
TEL: +1.909.888.1106
FAX: +1.909.889.1884

CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

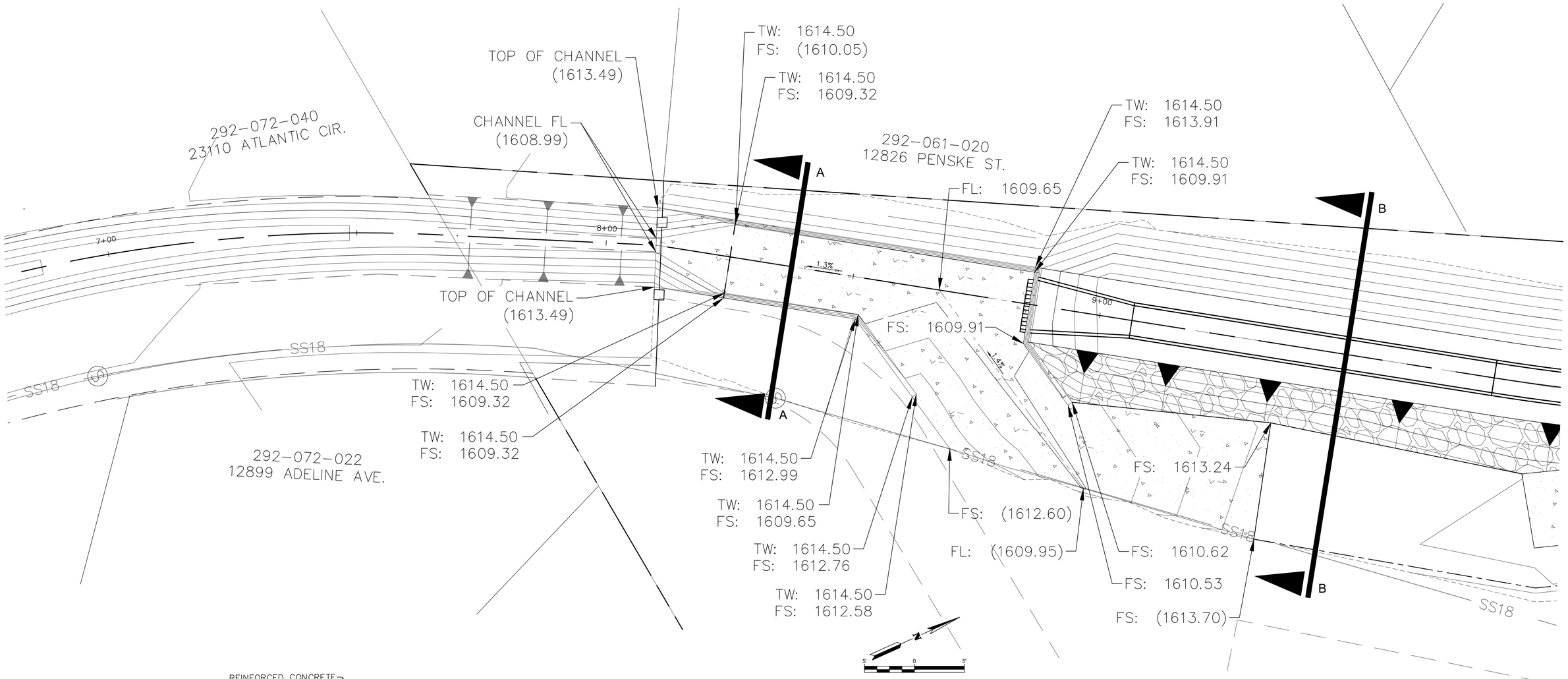
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: — CHIEF, DESIGN & CONSTRUCTION — DATE:
APPROVED BY: — GENERAL MANAGER-CHIEF ENGINEER — DATE:

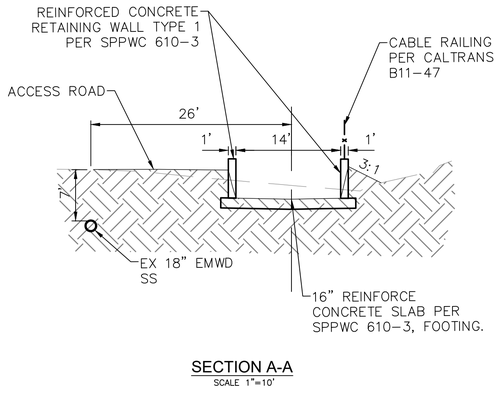
NOT FOR CONSTRUCTION

CITY OF MORENO VALLEY
RECOMMENDED: QUANG NGUYEN, PE — CAPITAL PROJECTS DIVISION MANAGER — R.C.E. 58590 — DATE
APPROVED: MELISSA WALKER, PE — PUBLIC WORKS DIRECTOR/CITY ENGINEER — R.C.E. 69563 — DATE

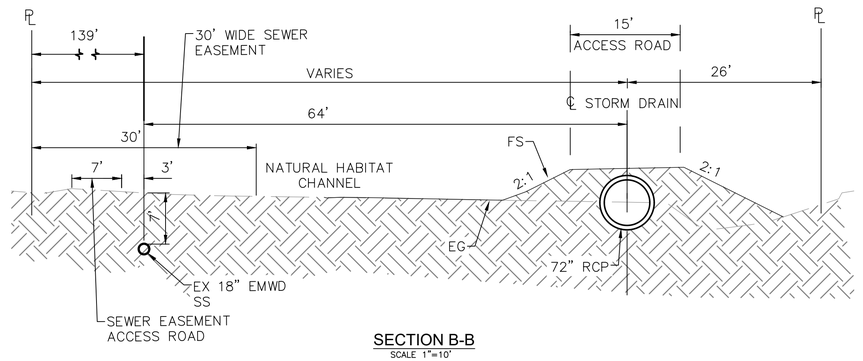
SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F AND F-7
PLAN AND PROFILE
BASIN DETAILS
CITY PROJECT NO. 804 0008

PROJECT NO. 4-8-00290
DRAWING NO. SD-301
SHEET NO. 22 OF 24





SECTION A-A
SCALE 1"=10'



SECTION B-B
SCALE 1"=10'

DIGALERT
811 or
1-800-422-4133
2 Working Days Before You Dig
www.CALL811.COM

BENCH MARK:
DATUM HORIZONTAL:
NAD83 (NSRS2007) EPOCH 2011.00
PER CSRC / CCS83 ZONE 6 (0406)

DATUM VERTICAL:
NGVD29 PER CITY BM STAMPED
"M-59-69 RESET 1997"
(ELEV=1641.16)

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE

DESIGNED BY: C. TURNAGE
DRAWN BY: C. MELO
DATE DRAWN: NOVEMBER, 2023

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER SEAN TURNAGE
No. 62297
Exp. 09/30/25
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TEL: +1.909.888.1106
FAX: +1.909.889.1884

CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

RECOMMENDED FOR APPROVAL BY: _____ APPROVED BY: _____
CHIEF, DESIGN & CONSTRUCTION — GENERAL MANAGER-CHIEF ENGINEER
DATE: _____ DATE: _____

FOR CONSTRUCTION

CITY OF MORENO VALLEY

RECOMMENDED: _____ DATE
QUANG NGUYEN, PE
CAPITAL PROJECTS DIVISION MANAGER
R.C.E. 58590

APPROVED: _____ DATE
MELISSA WALKER, PE
PUBLIC WORKS DIRECTOR/CITY ENGINEER
R.C.E. 69563

SUNNYMEAD BOULEVARD
SUNNYMEAD MDP
LINE F AND F-7
PLAN AND PROFILE
CHANNEL DETAILS

CITY PROJECT NO. 804 0008

PROJECT NO. 4-8-00290
DRAWING NO. SD-302
SHEET NO. 23 OF 24

FILE NAME: I:\12804&Sunnymead&MasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-22-SD302-CHANNELDTLS.dwg DATE: Monday, February 03, 2025 - 11:02am USFC678307

File: I:\12804&SunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-22-SD302-CHANNELDTLS.dwg Feb 03, 2025 - 11:02am USFC678307

FILE NAME: T:\12804ASunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-23-SD303-TURNARND .dwg DATE: Monday, February 03, 2025 - 11:02am USFC678307

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE. DIGALERT CALL 811 or 1-800-422-4133 2 Working Days Before You Dig WWW.CALL811.COM	BENCH MARK: DATUM HORIZONTAL: NAD83 (NSRS2007) EPOCH 2011.00 PER CSRC / CCS83 ZONE 6 (0406) DATUM VERTICAL: NGVD29 PER CITY BM STAMPED "M-59-69 RESET 1997" (ELEV=1641.16)	REVISIONS REF. | DESCRIPTION | APPR. | DATE	DESIGNED BY: C. TURNAGE DRAWN BY: C. MELO DATE DRAWN: NOVEMBER, 2023	REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER SEAN TURNAGE No. 62297 Exp. 09/30/25 CIVIL STATE OF CALIFORNIA WSP WSP USA Inc. 862 E. HOSPITALITY LANE SUITE 350 SAN BERNARDINO, CA 92408 TEL: +1.909.888.1106 FAX: +1.909.889.1884 CHRISTOPHER TURNAGE R.C.E. No. 62297 Exp. 09-30-25	

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		CITY OF MORENO VALLEY	SUNNYMEAD BOULEVARD SUNNYMEAD MDP LINE F AND F-7 PLAN DISTRICT TURN AROUND CITY PROJECT NO. 804 0008	PROJECT NO. 4-8-00290 DRAWING NO. SD-303 SHEET NO. 24 OF 24
RECOMMENDED FOR APPROVAL BY: CHIEF, DESIGN & CONSTRUCTION DATE:	APPROVED BY: GENERAL MANAGER-CHIEF ENGINEER DATE:	RECOMMENDED: QUANG NGUYEN, PE CAPITAL PROJECTS DIVISION MANAGER R.C.E. 58590 — DATE APPROVED: MELISSA WALKER, PE PUBLIC WORKS DIRECTOR/CITY ENGINEER R.C.E. 69563 — DATE		

NOT FOR CONSTRUCTION

File: T:\12804ASunnymeadMasterDrainagePlan\CADD\SHEETS\SHT-12804-SD-23-SD303-TURNARND .dwg Feb 03, 2025 - 11:02am USFC678307

Appendix C – Mitigation Monitoring Report Plan (MMRP)

Measure #	Mitigation Measure	Timeframe of Mitigation	Monitoring, Enforcement, and Reporting Responsibility
Biological Resources			
MM BIO-1	**Best Management Practices.** The following best management practices shall be identified in the project contract documents and implemented to reduce potential impacts to biological and aquatic resources. • Confine all work activities to the pre-determined work area. • To prevent inadvertent entrapment of wildlife during construction, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. • To prevent wildlife use of burrow- or den-like structures, all construction pipes, culverts, or similar structures with a diameter of 4 inches or greater should be capped while stored onsite. • All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from the construction or Project Footprint. • Avoid the use of rodenticides and herbicides on the Project Footprint to prevent primary or secondary poisoning of wildlife, and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the USEPA, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to predatory wildlife.	During construction	City-appointed biologist
MM BIO-2	**Preconstruction Bat Surveys.** Prior to the initiation of Project activities, a bat habitat assessment will be conducted to examine trees for suitable bat roosting habitat. High quality habitat features (e.g., large tree cavities, basal hollows, loose or peeling bark, palm trees with intact thatch, etc.)	Prior to construction	City-appointed biologist

	will be identified and the area around these features will be searched for bats and bat sign (guano, staining, culled insect parts). If trees scheduled for removal/modification (i.e., trimming) are determined to be suitable for bat roosting or if work is expected to occur within 100 feet of suitable trees, these activities should be scheduled outside of the bat maternity season to the greatest extent feasible: September 1 to October 15 or when evening temperatures are not below 45° F and rain is not over 0.5 inch in 24 hours; or between March 1 and April 1 with the same weather parameters. If work is expected to occur outside of the bat maternity season (during conditions that meet the parameters described above), work adjacent to bat habitat trees can continue without additional surveying efforts. If trees with suitable bat roosting habitat are scheduled for removal during this time frame, removal using the two-step method should be conducted: As much as feasible, vegetation and trees within the area that are not suitable for roosting bats will be removed first to provide a disturbance that might reduce the likelihood of bats using the habitat. Two-step tree removal will occur over two consecutive days under the supervision of a qualified bat biologist. On Day 1, small branches and small limbs containing no cavity, crevice or exfoliating bark habitat on habitat trees (or outer fronds in the case of palm trees), as identified by a qualified bat biologist are removed first, using chainsaws only (i.e., no dozers, backhoes). The following day (Day 2), the remainder of the tree is to be felled/removed. (The intention of this method is to disturb the tree with noise and vibration and branch removal on Day 1. This should cause any potentially present day-roosting bats to abandon the roost tree after they emerge for nighttime foraging. Removing the tree quickly the next consecutive day should avoid reoccupation of the tree by bats.) If tree removal/modification or work within 100 feet of suitable trees must occur during the maternity season, a qualified bat biologist shall conduct a focused emergence survey(s) of the tree(s) within 48 hours of scheduled work. If a maternity roost is located, whether solitary or colonial, that roost will remain undisturbed until after the maternity season or a qualified biological monitor has determined the roost is no longer active.		

MM BIO-3	**Preconstruction Burrowing Owl Survey.** Please note that the burrowing owl was recently listed as a candidate species under the state of California Endangered Species Act; therefore, the stipulations included in this mitigation measure are subject to change as a result. A preconstruction survey for burrowing owl shall take place no more than 30 days prior to the start of ground-disturbing activities, regardless of whether Project activities are scheduled to occur during the burrowing owl breeding season (March 1 through August 31) or not. The preconstruction survey shall be performed by a qualified biologist who has experience surveying for and identifying burrowing owl and their sign in accordance with the CDFW Staff Report on Burrowing Owl Mitigation (CDFG 2012). The biologist shall survey the Project Footprint and a 500-foot buffer surrounding the site. If preconstruction survey results are negative (i.e., no occupied burrows or live burrowing owls are detected), no further action is required for protection of burrowing owls. If preconstruction survey results are positive (i.e., presence of occupied burrows with sign present [such as whitewash, feathers, pellets, bones of prey items] or live owls) and impacts to burrowing owls are unavoidable, then additional mitigation measures will need to be implemented to offset impacts to burrowing owl. These measures shall be developed in accordance with the CDFW Staff Report on Burrowing Owl Mitigation (2012) and may include seasonal work restrictions, establishing a non-disturbance buffer around each burrow location, biological monitoring, or passive relocation.	Prior to construction	City-appointed biologist
MM BIO-4	**Preconstruction Survey for Nesting Birds.** Whenever feasible, any ground-disturbing activities shall be conducted during the non-breeding season for birds (approximately September 1 through January 14). This will avoid violations of the MBTA and California Fish and Game Code §§ 3503, 3503.5, and 3513. If activities with the potential to disrupt nesting birds, including southwestern willow flycatcher, are scheduled to occur during the bird breeding season (January 15 through August 31), a preconstruction survey for nesting birds and southwestern willow flycatcher shall be conducted by a qualified biologist who is experienced in conducting nesting bird surveys and the identification of southwestern willow flycatcher and other avian species. The survey should occur no more than three days prior to the start of ground-disturbing activities. The nesting bird survey shall include the Project Footprint and adjacent areas where Project activities have the potential to cause nest failure. If no nesting birds or southwestern willow flycatchers are observed during the survey, site preparation and construction activities may begin. If nesting	Prior to construction within specified timeframes	City-appointed biologist

	birds (including nesting raptors) or southwestern willow flycatchers are found to be present, avoidance or minimization measures shall be undertaken to avoid potential Project-related impacts. Measures may include seasonal work restrictions or establishment of a non-disturbance buffer around each active nest until nesting has been completed as determined through periodic nest monitoring by the biologist. The size of the non-disturbance buffer will be determined by the Project biologist. Typically, this is 300 feet from the nest site in all directions (500 feet is typically recommended by CDFW for southwestern willow flycatcher and raptors), until the juveniles have fledged and there has been no evidence of a second attempt at nesting. Once nesting is deemed complete by the Project biologist, work may resume within the buffer.		
MM BIO-5	**Biological Monitoring.** A biologist experienced with identification of the least Bell's vireo as well as the sensitive and common biological resources in the region shall be present to monitor all initial ground disturbing and vegetation clearing activities on each portion of the Project Footprint both during and outside of the breeding season (biological monitor). The biological monitor shall perform biological clearance surveys at the start of each workday that ground disturbing activities take place to minimize impacts on special-status species, including the least Bell's vireo. The monitor will be responsible for ensuring that impacts to special-status species will be avoided to the fullest extent possible. The biological monitor shall be present during the initiation of ground disturbing and vegetation clearing activities during each portion of the Project Footprint, and the monitor's presence should continue as necessary to maintain protective measures and to monitor for species in harm's way. These protection measures may include redirecting wildlife to areas outside the work area. Biological monitoring shall take place until the Project Footprint has been completely cleared of any vegetation and until ground disturbing activities have initiated on each portion of the Project Footprint. A biologist experienced with identification of the least Bell's vireo as well as the sensitive and common biological resources in the region shall be present to monitor all initial ground disturbing and vegetation clearing activities on each portion of the Project s Footprint both during and outside of the breeding season (biological monitor). The biological monitor shall perform biological clearance surveys at the start of each workday that ground disturbing activities take place to minimize impacts on special-status species, including the least Bell's vireo. The monitor will be responsible for ensuring that impacts to special-status species will be avoided to the fullest extent possible. The biological monitor shall be present during the	At the start of each workday that ground disturbing activities	City-appointed biologist

	initiation of ground disturbing and vegetation clearing activities during each portion of the Project Footprint, and the monitor's presence should continue as necessary to maintain protective measures and to monitor for species in harm's way. These protection measures may include redirecting wildlife to areas outside the work area. Biological monitoring shall take place until the Project Footprint has been completely cleared of any vegetation and until ground disturbing activities have initiated on each portion of the Project Footprint.		
MM BIO-6	**Agency Permitting.** Prior to the issuance of grading permits or construction, the applicant shall obtain permits from the following agencies for impacts to jurisdictional wetlands and waters, including riparian habitats: • US Army Corps of Engineers (USACE) • California Department of Fish and Wildlife (CDFW) • Regional Water Quality Control Board (RWQCB) Temporary and permanent impacts to jurisdictional wetlands and waters will require compensatory mitigation at a minimum 1:1 ratio. Compensation can be a combination of habitat enhancement, restoration, rehabilitation, preservation, or another similar method. Compensation can also be achieved through a payment to a Habitat Conservation Entity that manages preserved lands or through the purchase of credits from a mitigation bank such as the Riverpark Mitigation Bank. Final mitigation ratios and strategies will be coordinated and determined by USACE, CDFW, and RWQCB prior to obtaining regulatory permits.		
Cultural and Tribal Cultural Resources			
MM CR-1	**Cultural Resource Monitoring Plan (CRMP).** Prior to the issuance of grading permits, the Project Archaeologist, in consultation with the Consulting Tribe(s), the contractor, and the City, shall develop a CRMP in consultation pursuant to the definition in AB52 to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the Project Site. A consulting Tribe is defined as a Tribe that	Prior to issuance of grading permits	City-appointed Archaeologist / Construction Contractor

	initiated the AB 52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB 52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include: a) Project description and location b) Project grading and development scheduling; c) Roles and responsibilities of individuals on the Project; d) The pre-grading meeting and Cultural Resources Worker Sensitivity Training details; e) The protocols and stipulations that the contractor, City, Consulting Tribe (s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation. f) The type of recordation needed for inadvertent finds and the stipulations of recordation of sacred items. g) Contact information of relevant individuals for the Project;		
MM CR- 2	**Archaeological Monitoring.** Prior to the issuance of a grading permit, the City shall retain a professional archaeologist to conduct monitoring of all ground disturbing activities. During construction, the Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed. The Project Archaeologist, in consultation with the Consulting Tribe(s) including Agua Caliente Band of Cahuilla Indians, Morongo Band of Mission Indians, Pechanga Band of Indians, Rincon Band of Luiseño Indians, San Manuel Band of Mission Indians, the contractor, and the City, shall develop a CRMP as defined in **Mitigation Measure CR-1**. The Project archeologist shall tend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The archaeological monitor shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed.	Prior to issuance of grading permits	City-appointed Archaeologist / Construction Contractor

MM CR-3	**Native American Monitoring.** Prior to the issuance of a grading permit, the City shall secure agreements with the Agua Caliente Band of Cahuilla Indians, Morongo Band of Mission Indians, Pechanga Band of Indians, Rincon Band of Luiseño Indians, San Manuel Band of Mission Indians, for tribal monitoring. The City is also required to provide a minimum of 30 days' advance notice to the tribes of all ground disturbing activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. The Native American Monitor(s) shall attend the pre-grading meeting with the Project Archaeologist, City, the construction manager and any contractors and will conduct the Tribal Perspective of the mandatory Cultural Resources Worker Sensitivity Training to those in attendance.	Prior to issuance of grading permits	City-appointed Archaeologist / Construction Contractor
MM CR-4	**Cultural Resource Disposition.** In the event that Native American cultural resources are discovered during the course of ground-disturbing activities (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries: a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Moreno Valley Planning Department: i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place they were found with no development affecting the integrity of the resources. ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to **Mitigation Measure CR-1.** This shall include measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in **Mitigation Measure CR-3** The location for the future reburial area shall be identified on a confidential exhibit on file with the City, and concurred to by the Consulting Native American Tribal Governments prior to certification of the environmental document.	During Construction	City-appointed Archaeologist / Construction Contractor

MM CR-5	The City shall verify that the following note is included on the Grading Plan: “If any suspected archaeological resources are discovered during ground –disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."	Prior to issuance of grading permits	City of Moreno Valley
MM CR-6	**Inadvertent Finds.** If potential historic or cultural resources are uncovered during excavation or construction activities at the Project Footprint that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to project approval, all ground disturbing activities in the affected area within 100 feet of the uncovered resource must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Further ground disturbance shall not resume within the area of the discovery until an agreement has been reached by all parties as to the appropriate mitigation. Work shall be allowed to continue outside of the buffer area and will be monitored by additional archeologist and Tribal Monitors, if needed. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in **Mitigation Measure CR-2** before any further work commences in the affected area. If the find is determined to be significant and avoidance of the site has not been achieved, a Phase III data recovery plan shall be prepared by the Project Archeologist, in consultation with the Tribe, and shall be submitted to the City for their review and approval prior to implementation of the said plan.		
MM CR-7	**Human Remains.** If human remains are discovered, no further disturbance shall occur in the affected area until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 24 hours of the published finding to be given a reasonable opportunity to identify the “most likely descendant”. The “most likely descendant” shall then make	During Construction	City-appointed Archaeologist / Construction Contractor

	recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).		
MM CR-8	**Non-Disclosure of Reburial Locations.** It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254 (r)., parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).	During Construction	City of Moreno Valley / City-appointed Archaeologist / Construction Contractor
MM CR-9	**Archeology Report - Phase III and IV.** Prior to final inspection, the City/permit holder shall prompt the Project Archeologist to submit two (2) copies of the Phase III Data Recovery report (if required for the Project) and the Phase IV Cultural Resources Monitoring Report that complies with the Community Development Department's requirements for such reports. The Phase IV report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting. The Community Development Department shall review the reports to determine adequate mitigation compliance. Provided the reports are adequate, the Community Development Department shall clear this condition. Once the report(s) are determined to be adequate, two (2) copies shall be submitted to the South Coastal Information Center (SCIC) at the San Diego State University (SDSU) and one (1) copy shall be submitted to the Consulting Tribe(s) Cultural Resources Department(s).	Prior to final construction inspection	City of Moreno Valley / City-appointed Archaeologist / Construction Contractor
Paleontological Resouces			
MM PAL-1	A qualified paleontological monitor shall be present during grading in project areas where a project specific geological technical study has determined that such monitoring is necessary due to the potential for paleontological resources to reside within the underlying geologic formations. The geologic technical study shall also provide specific duties of the monitor, and detailed measures to address fossil remains, if found.	During construction	City-appointed Paleontological monitor

Appendix D – Technical Studies

Appendix D.1 – Air Quality and GHG Emissions Technical Memo

Appendix D.2 – Updated Biological Resources Technical Report and Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis

Appendix D.3 – Cultural Resources Evaluation Technical Report

Appendix D.4 – Geotechnical Report

Appendix D.5 – Noise Technical Memo

Appendix D.6 – Phase I ESA

Appendix D.7 – Least Bell's Vireo Survey

Appendix D.8 – Burrowing Owl Survey

Appendix D.9 – Hydrology and Hydraulics Report