

WATER POLLUTION CONTROL PLAN

for

Murphy Canyon Channel Reaches 1 & 2 Maintenance Project

Prepared for:

City of San Diego Transportation & Storm Water Department
2781 Caminito Chollas, MS 44
San Diego, CA 92105

Submitted by:

Daniel Lottermoser
Associate Engineer, Storm Water Division
(619) 527-5423

Project Site Address/Location:

Between I-15 and Qualcomm Stadium and North of I-8
in Mission Valley, San Diego, CA

Contractor's Qualified Contact Person:

TBD

WPCP Prepared by:

URS Corporation
4225 Executive Square, Suite 1600
La Jolla, CA 92037
(858) 812-9292

WPCP Preparation Date:

11/6/2013

Project Information

1. Project Description

The project consists of clearing sediment and vegetation from Reaches 1 and 2 in the Murphy Canyon channel. The maintenance will remove excavated materials for an approximate length of 1,662 feet for Reach 1 and 206 feet for Reach 2. Reach 1 is an earthen, riprap-lined trapezoidal channel located just upstream of the confluence with the San Diego River. Reach 2 is a portion of the concrete trapezoidal channel located just upstream of Reach 1 that is on City property. One staging area will be utilized for the maintenance activities at the north end of the project area and several access & loading areas are also designated along the length of the channels which are shown on the maintenance plans.

No previously undisturbed areas will be impacted by this project however; approximately 1.4 acres of Reach 1 (engineered earthen channel) will be disturbed by the maintenance activities including the channel maintenance area and the access & loading areas. The project will remove vegetation and sediment from the channel maintenance area (Reaches 1 and 2) which totals approximately 1.3 acres. The staging area is located in the Qualcomm parking lot adjacent to the channel. The project is not subject to the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002) (CGP) and associated amendments because, as stated in the CGP, it consists of "routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility." The maintenance work is subject to multiple permits and a list of all the conditions will be included in the Individual Maintenance Plan (IMP) once permits are issued.

2. Unique Site Features

Reach 1 is the earthen portion of the Murphy Canyon channel located just upstream of the confluence with the San Diego River. Reach 2 is the continuation of the Murphy Canyon channel upstream of Reach 1 and is concrete lined.

3. Project Schedule

The maintenance activities will take place between September 15th and February 15th and will occur over a period of 12 to 16 weeks. Work will be scheduled as early as possible in this timeframe, based on available staffing resources, to minimize the potential exposure to rain. The schedule can be extended past February 15th with written permission from the California Department of Fish and Game and the US Fish and Wildlife Service.

4. Potential Pollutant Sources

The primary maintenance activities, related materials, and wastes that have the potential to pollute storm water include:

- a) Exposed soil areas from stockpiles and channel clearing activities,
- b) Fuel and other fluids from heavy equipment, and
- c) General maintenance waste materials.

Pollution Sources and Control Measures

The selected temporary sediment, erosion, and materials management control BMPs will be implemented on the maintenance site. Implementation and locations of temporary BMPs are shown on the maintenance plans. The CASQA Construction Stormwater BMP Handbook should be used as guidance in the application of the BMPs. The following lists of BMPs and narratives explain how the selected BMPs will be incorporated into the project.

Temporary Soil Stabilization Practices

TEMPORARY SOIL STABILIZATION BMPs				
<i>BMP No.</i>	<i>BMP</i>	<i>CHECK IF USED</i>	<i>CHECK IF NOT USED</i>	<i>IF NOT USED, STATE REASON</i>
EC-1	Scheduling	X		
EC-2	Preservation of Existing Vegetation	X		
EC-3	Hydraulic Mulch	X		
EC-4	Hydroseeding		X	Other soil stabilization BMPs will be used.
EC-5	Soil Binder	X		
EC-6	Straw Mulch		X	Other soil stabilization BMPs will be used.
EC-7	Geotextiles & Mats	X		
EC-8	Wood Mulching		X	Other soil stabilization BMPs will be used.
Temporary Concentrated Flow Conveyance Controls				
EC-9	Earth Dikes/Drainage Swales & Lined Ditches		X	Limited run-on areas are onsite and will be diverted by gravel bag berms as necessary.
EC-10	Velocity Dissipation Devices		X	Channel work will not require outlet protection/velocity dissipation devices.
EC-11	Slope Drains		X	There are no steep slopes on the project.

Selected Temporary Soil Stabilization BMPs

Soil disturbing activities will consist of the maintenance work in the channels and the stockpile area. Work will be scheduled as early as possible, based on available staffing resources, in the allowable timeframe (September 15th to February 15th) to minimize soil exposure to rain. Existing vegetation in Reach 1 and near the channels will be preserved to the maximum extent practicable and disturbance activities will be limited to the required maintenance activity areas. The excavated materials will be hauled to the staging area prior to its transport to an appropriate disposal facility. Plastic covers are the preferred measure to be used on the excavated material stockpile area for temporary protection from erosion. Other geotextiles or

mats, hydraulic mulch, and soil binders may be used with the approval of the City's Stormwater Department staff. No soil disturbing activities will be permitted outside the channels, staging areas, and access & loading areas.

The CASQA Construction Stormwater BMP Handbook should be used as guidance in the application of the BMPs. Locations of the BMPs are shown on the maintenance plans.

Sediment Control Practices

TEMPORARY SEDIMENT CONTROL BMPs				
<i>BMP No.</i>	<i>BMP</i>	<i>CHECK IF USED</i>	<i>CHECK IF NOT USED</i>	<i>IF NOT USED, STATE REASON</i>
SE-1	Silt Fence		X	Since most surfaces are paved, silt fence is not applicable.
SE-2	Sediment Basin		X	Based on project configuration and size, sediment basins are not applicable
SE-3	Sediment Trap		X	Based on project configuration and size, sediment traps are not applicable
SE-4	Check Dam		X	Based on Individual Hydraulic and Hydrology Assessment, check dams are not needed.
SE-5	Fiber Rolls	X		
SE-6	Gravel Bag Berm	X		
SE-7	Street Sweeping and Vacuuming-Daily	X		
SE-8	Sandbag Barrier		X	Other sediment control BMPs will be used.
SE-9	Straw Bale Barrier		X	Other sediment control BMPs will be used.
SE-10	Storm Drain Inlet Protection	X		

Selected Sediment Control BMPs

The only sediment disturbing activities associated with the maintenance work are the removal of sediment from the channels and from the temporary stockpile area. The excavated material stockpile area will be surrounded with a perimeter protection BMP consisting of fiber rolls and/or gravels bags at minimum and will be underlain by at least 10 mils thick plastic sheeting or liner of low permeability. Street sweeping/vacuuming will occur at least daily in the paved areas around the channel maintenance area and focused on the Qualcomm parking lot area and as well as the surrounding local streets as necessary. Storm drain inlet protection will be used for inlets located in the Qualcomm parking lot. No soil disturbing activities will be permitted outside the channels, staging areas, and access & loading areas.

The CASQA Construction Stormwater BMP Handbook should be used as guidance in the application of the BMPs. Locations of the BMPs are shown on the maintenance plans.

Tracking Control Practices

TRACKING CONTROL BMPs				
<i>BMP No.</i>	<i>BMP</i>	<i>CHECK IF USED</i>	<i>CHECK IF NOT USED</i>	<i>IF NOT USED, STATE REASON</i>
TC-1	Stabilized Construction Entrance/Exit	X		
TC-2	Stabilized Construction Roadway		X	All roadways to be used are paved and stabilized.
TC-3	Entrance/Outlet Tire Wash		X	Other tracking control measures will be used
SE-7	Street Sweeping and Vacuuming	X		

Selected Tracking Control BMPs

Stabilized construction entrance/exit consisting of shaker plate(s) placed on the asphalt will be used at the access point to the staging area. Existing paved roads and parking lot will be utilized for access and will be inspected and maintained throughout the maintenance activities. Street sweeping will occur on paved areas impacted by the maintenance activities at minimum once a day.

The CASQA Construction Stormwater BMP Handbook should be used as guidance in the application of the BMPs. Locations of the BMPs are shown on the maintenance plans.

Wind Erosion Controls

Wind erosion controls will be applied as necessary to exposed areas (stockpiles) to prevent nuisance dust. The soil stabilization BMPs selected for the project will also provide wind erosion control benefits.

A sweeper will operate regularly on the local roadways to control dust created by truck traffic.

Non-Storm Water Management BMPs

NON-STORM WATER MANAGEMENT BMPs				
<i>BMP No.</i>	<i>BMP</i>	<i>CHECK IF USED</i>	<i>CHECK IF NOT USED</i>	<i>IF NOT USED, STATE REASON</i>
NS-1	Water Conversation Practice	X		
NS-2	Dewatering Operations		X	Dewatering operations are not anticipated for this project.
NS-3	Paving and Grinding Operations		X	There are no paving or grinding operations associated with this project.
NS-4	Temporary Stream Crossing		X	There are no temporary stream crossings associated with this project.
NS-5	Clear Water Diversion	X		
NS-6	Illicit Discharge/Illegal Dumping Reporting	X		
NS-7	Potable Water/Irrigation	X		
Vehicle and Equipment Operations				
NS-8	Vehicle and Equipment Cleaning		X	Vehicle/equipment cleaning will be done offsite.
NS-9	Vehicle and Equipment Fueling	X		
NS-10	Vehicle and Equipment Maintenance	X		

Selected Non-Storm Water Management BMPs

The project will include the following activities that have the potential to generate non-storm water discharges:

- Wind erosion control using water trucks
- Vehicles and equipment fueling or leaks

Water will be conserved to the maximum extent practicable and any unplanned potable water discharges will be controlled following the guidance of NS-7. Contractor will notify the Resident Engineer of any illicit discharges or illegal dumping encountered during the maintenance operation.

Vehicle and equipment cleaning is not allowed on the project site. Re-fueling will be restricted to heavy earth moving equipment that stays onsite overnight (not dump trucks) and will be restricted to the designated fueling areas only. Fueling areas will be located a minimum of 150 feet from the channels as shown on the maintenance plans. Equipment will be inspected for fluid leaks and promptly cleaned up. There will be no storage of petroleum products or chemicals permitted onsite.

A clear water diversion will be used to divert dry weather flows in the channel around the channel maintenance area. In addition to dry weather flows from the upstream watershed, the Kinder Morgan groundwater remediation project discharges approximately 1 million gallons per day to the Murphy Canyon channel upstream of the project area. The clear water diversion will begin at the upstream end of the channel maintenance area within the project limits. The exact location will be coordinated with the project biologist to minimize environmental impacts. The flow diversion will be a pumped system because of the relatively flat topography as well as the space constraints due to being located in a highly developed area. The diverted flows will be discharged back into the channel at the downstream end of the channel maintenance area using a filter bag located near the flow line of the channel. The exact location will be coordinated with the project biologist to minimize environmental impacts. The normal channel flows will be restored to the original condition upon completion of the channel maintenance.

The CASQA Construction Stormwater BMP Handbook should be used as guidance in the application of the BMPs. Locations of the BMPs are shown on the maintenance plans.

Waste Management and Materials Pollution Control BMPs

WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs				
<i>BMP No.</i>	<i>BMP</i>	<i>CHECK IF USED</i>	<i>CHECK IF NOT USED</i>	<i>IF NOT USED, STATE REASON</i>
WM-1	Material Delivery and Storage	X		
WM-2	Material Use	X		
WM-3	Stockpile Management	X		
WM-4	Spill Prevention and Control	X		
WM-5	Solid Waste Management	X		
WM-6	Hazardous Waste Management	X		
WM-7	Contaminated Soil Management	X		
WM-8	Concrete Waste Management		X	There is no concrete waste associated with this project.
WM-9	Sanitary/Septic Waste Management	X		
WM-10	Liquid Waste Management	X		

Selected Waste Management and Materials Pollution Control BMPs

The BMPs selected above will be implemented on the project. Materials associated with the application of BMPs are the only materials anticipated to be delivered, stored and/or used onsite. In the process of sorting the excavated materials from the channels, the Contractor may

[illegible]

Weather Triggered Action Plan

The Qualified Contact Person shall monitor the weather forecast on a daily basis for predicted precipitation within the following 96 hours. The Qualified Contact Person shall monitor the forecast for the next 24, 48, 72 and 96 hours to determine if the forecast for precipitation is 50 percent or greater for any 6-hour period. If the forecast for precipitation is 50 percent or greater, the Qualified Contact Person shall calculate the amount of precipitation forecasted for each 24-hour period and the total precipitation for the forecasted storm event and record the information.

When there is a forecasted fifty percent (50%) or greater chance of likely precipitation of 0.10 inch or more, a pre-storm stormwater site inspection is required and the Qualified Contact Person shall ensure that the site is prepared for the forecasted storm event.

The following weather triggered action plan shall be implemented:

- All work associated with excavating soil from its initial resting place shall cease immediately. The only work that shall continue in the channel is the loading and removal of already disturbed material.
- All sediment control BMPs shall be removed from the channel. These BMPs are only capable of treating low flows. They provide zero benefit to water quality and are actually a liability because of the high probability that they will be washed downstream.
- Site preparation activities shall be completed in the staging areas and shall include, but are not limited to, the installation of soil stabilization and sediment best management practices on any stockpile areas.

List of Appendices

Appendix A – Sample Forms

List of Related Attachments

Attachment 1 – Water Pollution Control Drawings/Project Maintenance Plans

Appendix A – Sample Forms

Stormwater Maintenance BMP Inspection Report

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACTOR NAME AND ADDRESS
WPCP Manager	Phone Number (s) including Emergency (24/7) Phone Number
General Information	
Inspector's Name	Date of Inspection

Weather Conditions: ☐ Clear ☐ Partly Cloudy ☐ Cloudy

Precipitation Condition: ☐ None ☐ Misty ☐ Light Rain ☐ Rain ☐ Heavy Rain

Wind Condition: ☐ None ☐ Less than 5mph ☐ More than 5mph

Maintenance/Location

Site Inspection of Best Management Practices

If the inspection form does not contain enough lines for all locations, attach more pages for the BMP so that all locations are inspected and reported. List out all active BMPs (example: TC-1, WE-1, WM-1).

Activity	Observations and Comments
Temporary Soil Stabilization BMPs ☐ Yes ☐ No	
Temporary Sediment Control BMPs ☐ Yes ☐ No	
Wind Erosion Control BMPs ☐ Yes ☐ No	
Tracking Control Practices ☐ Yes ☐ No	

Stormwater Maintenance BMP Inspection Report

Non-Stormwater Management Practices ☐ Yes ☐ No	
Vehicle and Equipment Storage/Fueling/Maintenance Practices ☐ Yes ☐ No	
Dewatering ☐ Yes ☐ No	
Waste and Materials Pollution Management ☐ Yes ☐ No	
Hazardous Waste Management ☐ Yes ☐ No	

Additional Notes:

Daily Stormwater Inspection Report Certification

The information contained in this inspection report was gathered from a field site inspection.

Stormwater Inspector Name	Date Report Completed
Stormwater Inspector Signature	

The information contained in this inspection report was gathered and evaluated by qualified personnel before submittal. Based on my review of the information and inquiry of those who gathered and evaluated the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

WPCP Manager Name	Date
WPCP Manager Signature	Date

Channel Maintenance Daily Report

Date: _____ S M T W T F S (Circle Day)

Operation Lead: _____

Site Name/Facility: _____

Work Hours: _____ to _____

Master Program Map No: _____

Start

Stop

Description of Work

Equipment

Equip No:	Description	Idle/Down	Additonal Remarks

Channel Material Removed

Type removed	Quantity(linear ft.)
Silt/Sand	
Debris	
Vegetation	

Stockpile Area Material Removed

Type	Quantity/Unit
Sediment	
Debris	
Vegetation	
Tires (#)	

Activities/ Observations:

- ☐ Inspection of construction stormwater BMPs
☐ Reviewed any noticed and/or reported violations
☐ Water quality sampling activities performed
☐ Procedures for impending heavy rain fall

- ☐ Toxic materials found*
☐ Cultural/Biological/Native American monitor present
☐ Biological resources observed ☐ No ☐ Yes*
☐ Cultural resources observed ☐ No ☐ Yes*

☐ Daily tailgate covering:

☐ Cultural

☐ Water Quality/BMPs

☐ Biological

☐ Noise

☐ Other(list): _____

* If found/observed, describe in comments including list of resources, toxic materials, and/or hazardous material manifest

Channel Maintenance Daily Report

Additional Comments (Describe any unusual conditions, situations or special requirements needed to do the work such as diversion of water, construction of staging area, replacement of bank material, presence of utilities, etc)

Print Name	Signature	Title
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GENERAL NOTES

1. APPROVAL OF THESE PLANS BY THE CITY ENGINEER DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL A NOTICE TO PROCEED HAS BEEN ISSUED.
2. THE APPROVAL OF THIS PLAN OR ISSUANCE OF A PERMIT BY THE CITY OF SAN DIEGO DOES NOT AUTHORIZE THE SUBDIVIDER AND OWNER TO VIOLATE ANY FEDERAL, STATE OR CITY LAWS, ORDINANCES, REGULATIONS, OR POLICIES, INCLUDING, BUT NOT LIMITED TO, THE FEDERAL ENDANGERED SPECIES ACT OF 1973 AND AMENDMENTS THERETO (16 USC SECTION 1531 ET.SEQ.).
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DESTROYED, A LAND SURVEYOR SHALL REPLACE SUCH MONUMENTS WITH APPROPRIATE MONUMENTS. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT, SECTION 8771 OF THE BUSINESS AND PROFESSIONS CODE OF THE STATE OF CALIFORNIA. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE CITY OF SAN DIEGO FIELD SURVEY SECTION MUST BE NOTIFIED, IN WRITING, AT LEAST 3 DAYS PRIOR TO THE CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPLACING ANY VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.
4. IMPORTANT NOTICE: SECTION 4216 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT, TOLL FREE 1-800-422-4133, TWO DAYS BEFORE YOU DIG.
5. CONTRACTOR SHALL IMPLEMENT AN EROSION AND SEDIMENT CONTROL PROGRAM DURING THE PROJECT GRADING AND/OR CONSTRUCTION ACTIVITIES. THE PROGRAM SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE STATE WATER RESOURCE CONTROL BOARD AND THE CITY OF SAN DIEGO MUNICIPAL CODE AND STORM WATER STANDARDS MANUAL.
6. "PUBLIC IMPROVEMENT SUBJECT TO DESUETUDE OR DAMAGE." IF REPAIR OR REPLACEMENT OF SUCH PUBLIC IMPROVEMENTS IS REQUIRED, THE OWNER SHALL OBTAIN THE REQUIRED PERMITS FOR WORK IN THE PUBLIC RIGHT-OF-WAY, SATISFACTORY TO THE PERMIT- ISSUING AUTHORITY.
7. ALL EXISTING AND/OR PROPOSED PUBLIC UTILITY SYSTEM AND SERVICE FACILITIES SHALL BE INSTALLED UNDERGROUND IN ACCORDANCE WITH SECTION 144.0240 OF THE MUNICIPAL CODE.
8. PRIOR TO ANY DISTURBANCE TO THE SITE, EXCLUDING UTILITY MARK-OUTS AND SURVEYING, THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR A PRE-CONSTRUCTION MEETING WITH THE CITY OF SAN DIEGO FIELD ENGINEERING DIVISION (858) 627-3200.
9. DEVIATIONS FROM THESE SIGNED PLANS WILL NOT BE ALLOWED UNLESS A CONSTRUCTION CHANGE IS APPROVED BY THE CITY ENGINEER OR THE CHANGE IS REQUIRED BY THE CITY INSPECTOR.
10. AS-BUILT DRAWINGS MUST BE SUBMITTED TO THE RESIDENT ENGINEER PRIOR TO ACCEPTANCE OF THIS PROJECT BY THE CITY OF SAN DIEGO.
11. THE AREA WHICH IS DEFINED AS A NON GRADING AREA AND WHICH IS NOT TO BE DISTURBED SHALL BE STAKED PRIOR TO START OF THE WORK. THE PERMIT APPLICANT AND ALL OF THEIR REPRESENTATIVES OR CONTRACTORS SHALL COMPLY WITH THE REQUIREMENTS FOR PROTECTION OF THIS AREA AS REQUIRED BY ANY APPLICABLE AGENCY. ISSUANCE OF THE CITY'S GRADING PERMIT SHALL NOT RELIEVE THE APPLICANT OR ANY OF THEIR REPRESENTATIVES OR CONTRACTORS FROM COMPLYING WITH ANY STATE OR FEDERAL REQUIREMENTS BY AGENCIES INCLUDING BUT NOT LIMITED TO CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, CALIFORNIA DEPARTMENT OF FISH AND GAME. COMPLIANCE MAY INCLUDE OBTAINING PERMITS, OTHER AUTHORIZATIONS, OR COMPLIANCE WITH MANDATES BY ANY APPLICABLE STATE OR FEDERAL AGENCY.

GROUND WATER DISCHARGE NOTES

1. ALL GROUND WATER EXTRACTION AND SIMILAR WASTE DISCHARGES TO SURFACE WATERS NOT TRIBUTARY TO THE SAN DIEGO BAY ARE PROHIBITED UNTIL IT CAN BE DEMONSTRATED THAT THE OWNER HAS APPLIED AND OBTAINED AUTHORIZATION FROM THE STATE OF CALIFORNIA VIA AN OFFICIAL "ENROLLMENT LETTER" FROM THE REGIONAL WATER QUALITY CONTROL BOARD IN ACCORDANCE WITH THE TERMS, PROVISIONS AND CONDITIONS OF STATE ORDER NO R9-2008-0002 NPDES CAG919002.
2. THE ESTIMATED MAXIMUM DISCHARGE RATES MUST NOT EXCEED THE LIMITS SET IN THE OFFICIAL "ENROLLMENT LETTER" FROM THE REGIONAL BOARD UNLESS PRIOR NOTIFICATION AND SUBSEQUENT AUTHORIZATION HAS BEEN OBTAINED, AND DISCHARGE OPERATIONS MODIFIED TO ACCOMMODATE THE INCREASED RATES.
3. ALL GROUND WATER EXTRACTIONS AND SIMILAR WASTE DISCHARGES TO SURFACE WATERS TRIBUTARY TO THE SAN DIEGO BAY ARE PROHIBITED UNTIL IT CAN BE DEMONSTRATED THAT THE OWNER HAS APPLIED AND OBTAINED AUTHORIZATION FROM THE STATE OF CALIFORNIA VIA AN OFFICIAL "ENROLLMENT LETTER" FROM THE REGIONAL WATER QUALITY CONTROL BOARD IN ACCORDANCE WITH THE TERMS, PROVISIONS AND CONDITIONS OF STATE ORDER NO R9-2007-0034 NPDES NO. CAG919001.

REFERENCE DRAWINGS

REFERENCE DRAWING DESCRIPTION	DRAWING NUMBER
STADIUM IMP. PLANS	17827-D
MURPHY CANYON CULVERT	27068-D

SHEET INDEX

SHEET DESCRIPTION	SHEET #/RANGE
TITLE SHEET	1
REACH 1	2
REACH 1 AND 2	3
TYPICAL SECTIONS	4
NOTES	5-11

TOPOGRAPHY SOURCE

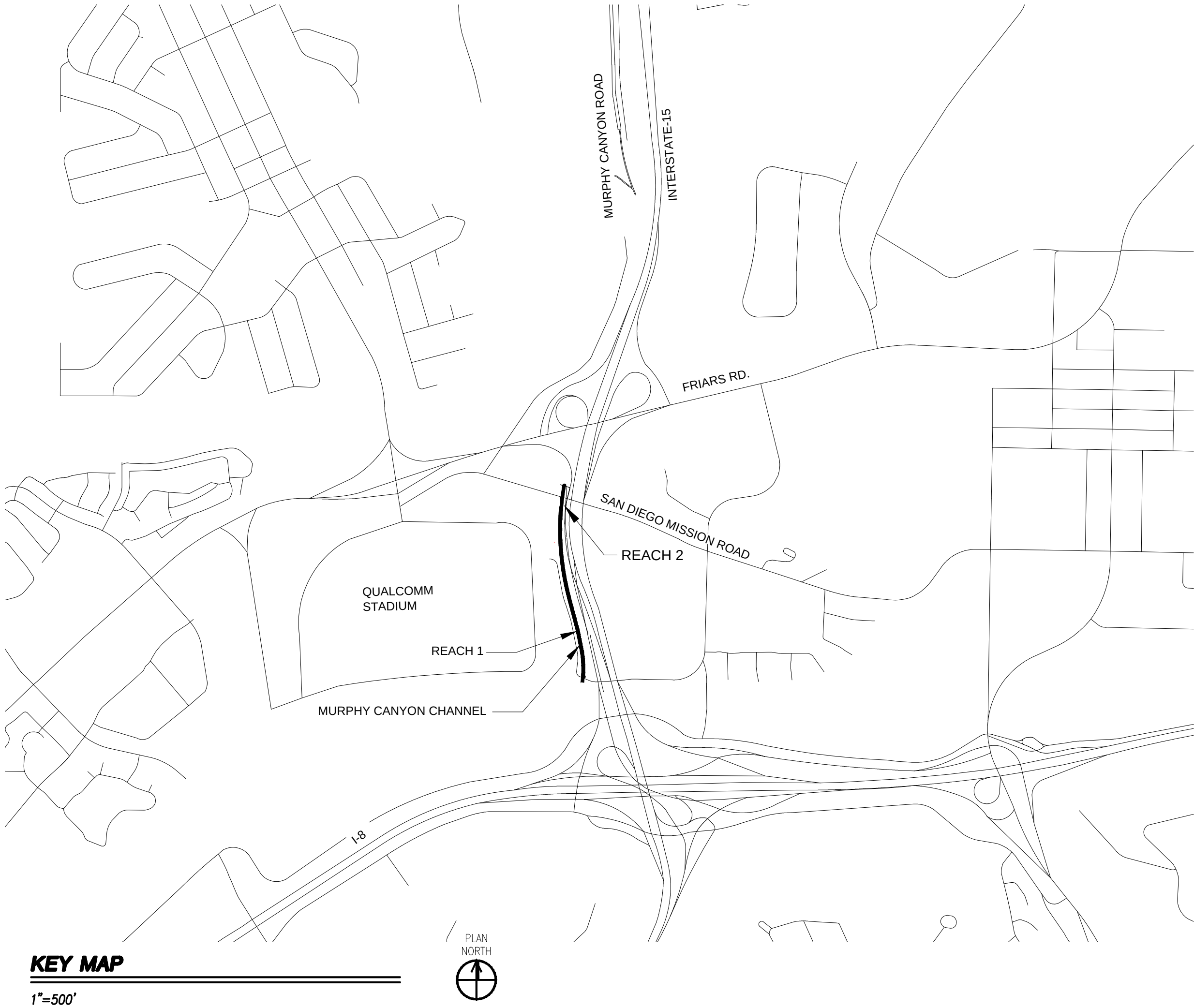
DATUM: NAD 1983 STATEPLANE CALIFORNIA VI FIPS 0406 FEET
TOPO ELEVATIONS FOR PICTORIAL PURPOSES ONLY
TOPOGRAPHY DATE: 1999

STORM WATER PROTECTION NOTES

1. THIS PROJECT IS SUBJECT TO MUNICIPAL STORM WATER PERMIT ORDER NO. R9-2007-0001; AND RISK LEVEL/TYPE: CHECK ONE BELOW
- ☒ WPCP
- ☐ CGP RISK LEVEL 1 ☐ CGP LUP TYPE 1
- ☐ CGP RISK LEVEL 2 ☐ CGP LUP TYPE 2
- ☐ CGP RISK LEVEL 3 ☐ CGP LUP TYPE 3
2. CHECK ONE
- ☐ THIS PROJECT WILL EXCEED THE MAXIMUM DISTURBED AREA LIMIT, THEREFORE A WEATHER TRIGGERED ACTION PLAN (WTAP) IS REQUIRED.
- ☐ THIS PROJECT WILL FOLLOW PHASED GRADING NOT TO EXCEED FIVE (5) ACRES PER PHASE.
- ☒ NOT APPLICABLE
3. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE WPCP OR SWPPP AS APPLICABLE.

MAINTENANCE PLANS FOR:

MURPHY CANYON CHANNEL REACH 1 AND 2



KEY MAP

1"=500'



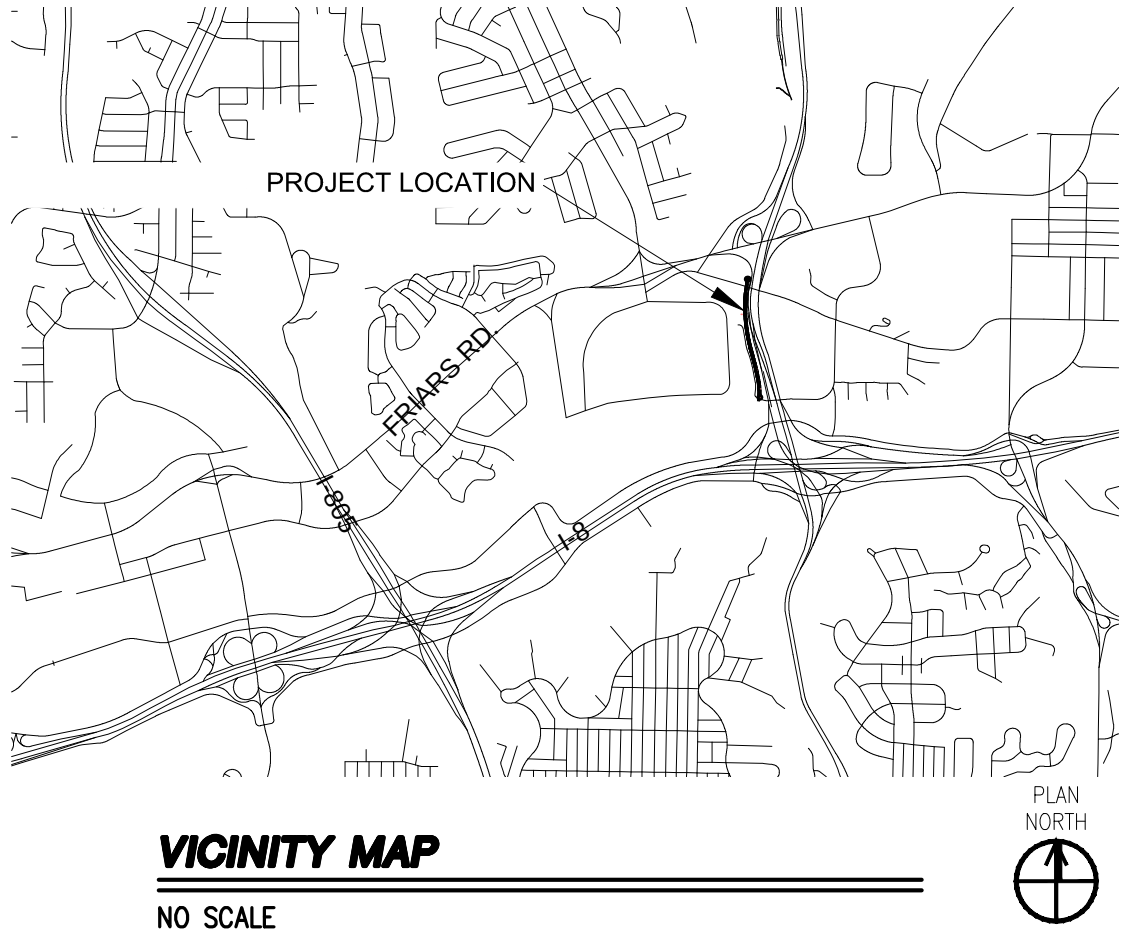
DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF SAN DIEGO IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

URS CORPORATION
4225 EXECUTIVE SQUARE, SUITE 1600
LA JOLLA, CA 92037
858-812-9292
858-812-9293

MATTHEW C. MOORE R.C.E. NO. 56780 EXP. 06-30-2013 DATE



VICINITY MAP

NO SCALE

WORK TO BE DONE

THE IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS AND THE SPECIFICATIONS AND STANDARD DRAWINGS OF THE CITY OF SAN DIEGO.

- MAINTENANCE OF EARTHEN AND CONCRETE CHANNELS TO REMOVE ACCUMULATED SEDIMENT AND OTHER DEBRIS

STANDARD SPECIFICATIONS:

DOCUMENT NO. PITS070112-01	DESCRIPTION STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK), 2012 EDITION
PITS070112-02	CITY OF SAN DIEGO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (WHITEBOOK), 2012 EDITION
PITS070112-04	CALIFORNIA DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 2012 EDITION
PITS070112-06	CALIFORNIA DEPARTMENT OF TRANSPORTATION U.S CUSTOMARY STANDARD SPECIFICATIONS, 2010 EDITION

STANDARD DRAWINGS:

DOCUMENT NO. PITS070112-03	DESCRIPTION CITY OF SAN DIEGO STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, 2012 EDITION
PITS070112-05	CALIFORNIA DEPARTMENT OF TRANSPORTATION U.S CUSTOMARY STANDARD PLANS, 2010 EDITION

LEGEND

EXISTING IMPROVEMENTS

ITEM	SYMBOL
CHANNEL MAINTENANCE AREA	
STAGING AREAS	
ACCESS AREAS / ROUTES	
ENVIRONMENTAL SENSITIVE AREAS (ESA)	
EX WATER MAIN	—W—
EX STORM DRAIN	—SD—
EX SEWER MAIN	—S—
MAJOR CONTOUR	
MINOR CONTOUR	
PARCEL LINE	----

MAINTENANCE BMPs

ITEM	SYMBOL
STABILIZED CONSTRUCTION ENTRANCE WITH SHAKER PLATES	
GRAVEL BAGS	
VEHICLE/EQUIPMENT STORAGE AREA	
SANITARY FACILITIES, STORAGE AREA, SPILL CONTROL/CONTAINMENT MATERIALS	
TEMPORARY FLOW DIVERSION SET UP	
TEMPORARY FLOW DIVERSION HOSE LINE	----

ENGINEERING PERMIT NO: N/A

DISCRETIONARY PERMIT NO:

WDID NO: N/A

RETAINING WALL PROJECT NO: N/A

CONSTRUCTION SITE
STORM WATER PRIORITY: LOW

MAINTENANCE PLANS FOR
MURPHY CANYON CHANNEL
REACH 1 AND 2

CITY OF SAN DIEGO, CALIFORNIA SHEET 1 OF 11 SHEETS					I.O. NO. _____ PROJECT NO. _____
FOR CITY ENGINEER					V.T.M. _____
DESCRIPTION	BY	APPROVED	DATE	FILMED	
ORIGINAL	URS				
AS-BUILTS					XXXX-XXXX NAD83 COORDINATES
CONTRACTOR					XXX-XXXX LAMBERT COORDINATES
INSPECTOR					
DATE STARTED					
DATE COMPLETED					

-1-D

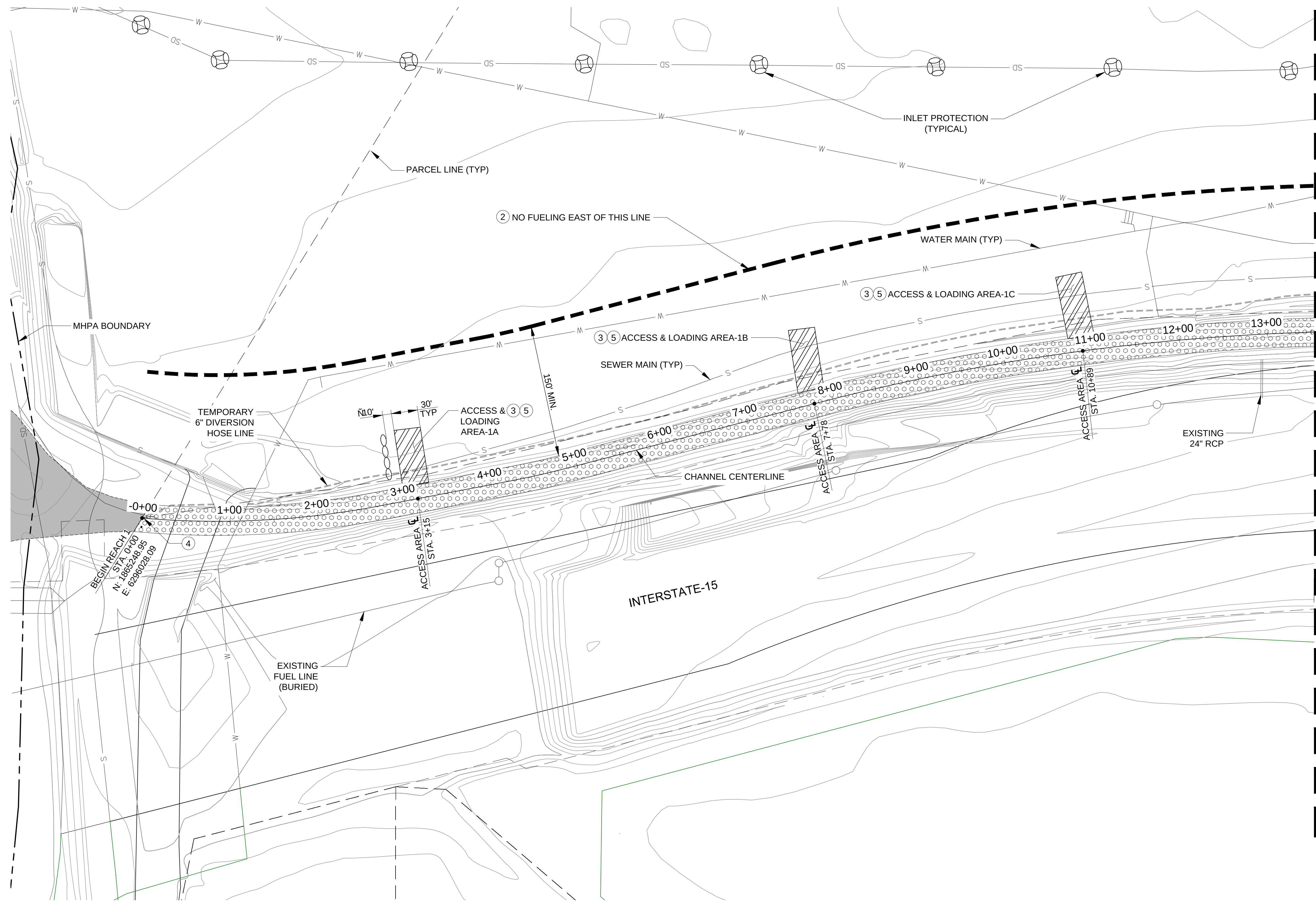
CONSTRUCTION CHANGE TABLE			
CHANGE	DATE	EFFECTED OR ADDED SHEET NUMBERS	APPROVAL NO.

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

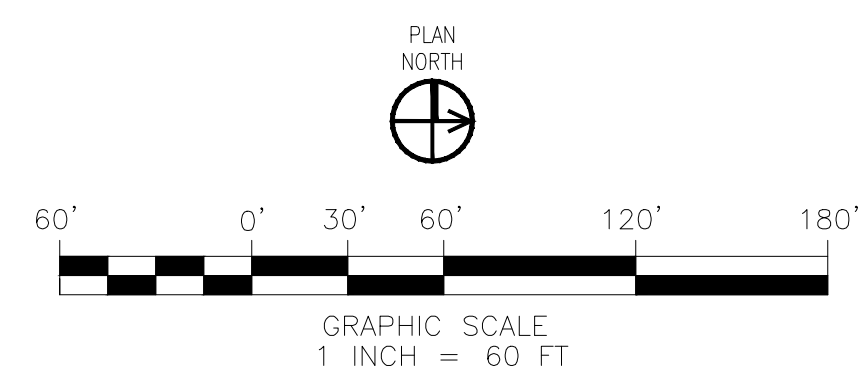
CITY OF SAN DIEGO
DEVELOPMENT SERVICES DEPARTMENT



STREET DATA TABLE				
STREET NAME	CLASSIFICATION	SPEED (MPH)	ADT (VEHICLES)	R/W (FT)



MATCHLINE - SEE SHEET 3 - STA. 13+53



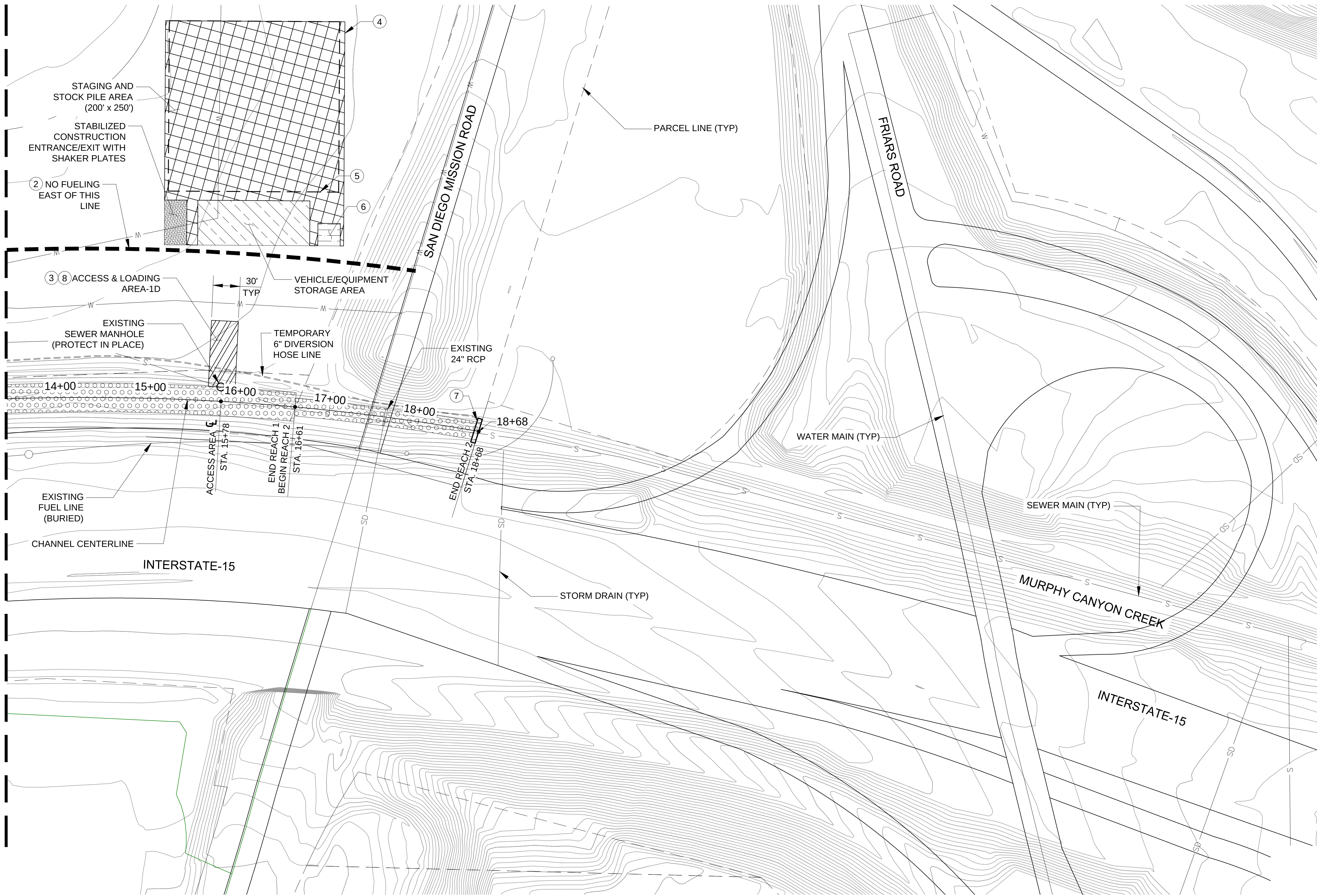
URS CORPORATION
4225 EXECUTIVE SQUARE, SUITE 1600
LA JOLLA, CA 92037
858-812-9292
858-812-9293

MATTHEW C. MOORE R.C.E. NO. 56780 EXP. 06-30-2013 DATE

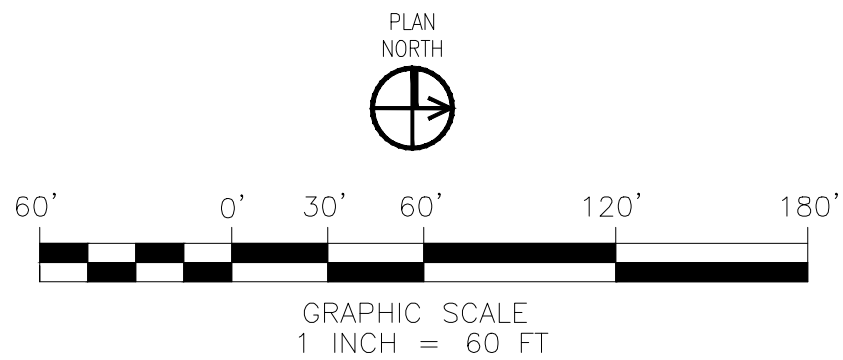
- NOTES:
- 1 SEE SHEET 4 FOR CHANNEL SECTION.
 - 2 ALL FUELING AREAS SHALL BE LOCATED A MINIMUM OF 150 FT FROM THE CHANNEL.
 - 3 ALL ACCESS AND LOADING AREAS WILL HAVE 30 FT WIDTH AND LENGTH WILL VARY FROM 60 FT TO 75 FT.
 - 4 DISCHARGE POINT FOR DIVERSION HOSE LINE. FILTER BAG SHALL BE USED AT END OF DIVERSION HOSE LINE TO DISCHARGE WATER AT FLOWLINE OF THE CHANNEL. COORDINATE EXACT LOCATION WITH PROJECT BIOLOGIST TO MINIMIZE IMPACTS.
 - 5 SEE SHEET 4 FOR DIVERSION CROSSING AT ACCESS AND LOADING AREA DETAILS.

MAINTENANCE PLANS FOR: MURPHY CANYON CHANNEL MMP MAP #58 REACH 1				
CITY OF SAN DIEGO, CALIFORNIA DEVELOPMENT SERVICES DEPARTMENT SHEET 2 OF 11 SHEETS				I.O. NO. _____ PROJECT NO. _____
FOR CITY ENGINEER				V.T.M. _____
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	URS			
AS-BUILTS				
CONTRACTOR _____ DATE STARTED _____				XXX-XXXX NAD83 COORDINATES XXX-XXXX LAMBERT COORDINATES
INSPECTOR _____ DATE COMPLETED _____				

MATCHLINE - SEE SHEET 2 - STA. 13+53



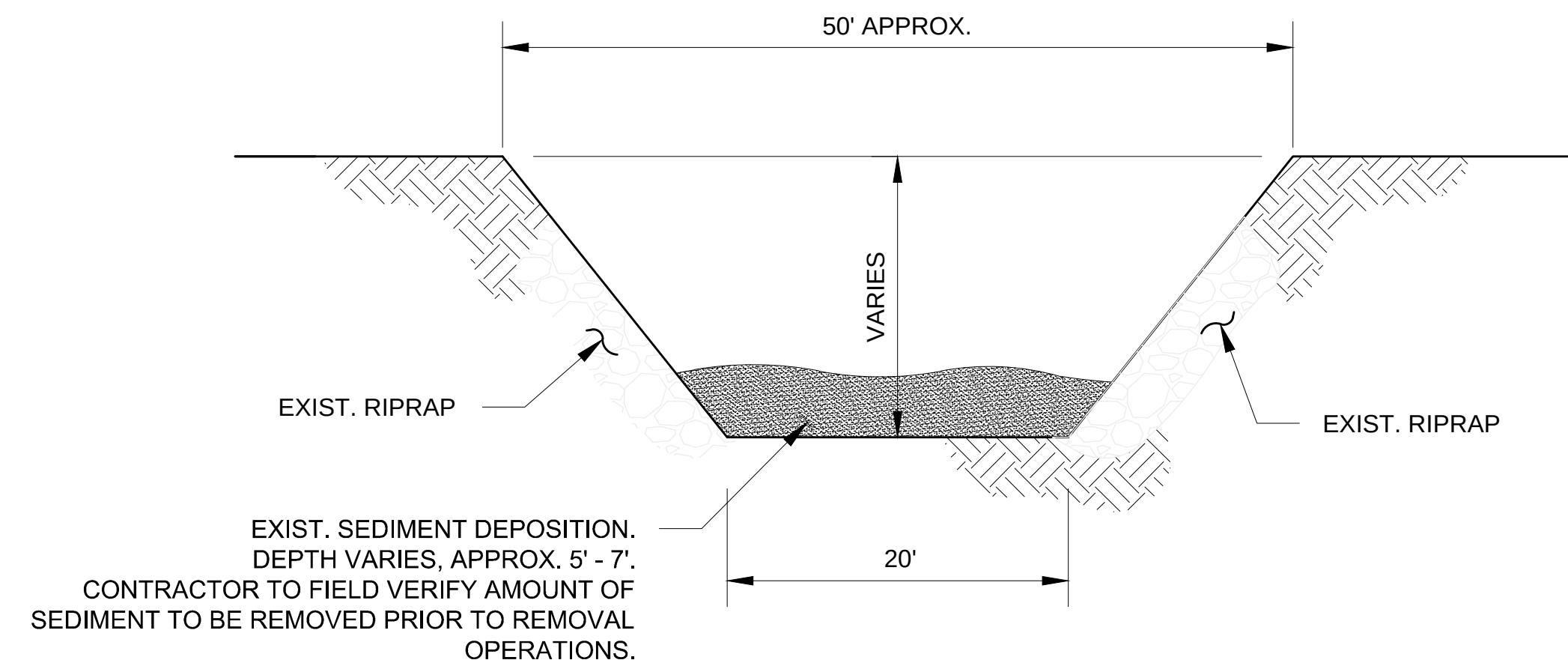
- NOTES:
- SEE SHEET 4 FOR CHANNEL SECTION.
 - ALL FUELING AREAS SHALL BE LOCATED A MINIMUM OF 150 FT FROM THE CHANNEL.
 - ALL ACCESS AND LOADING AREAS WILL HAVE 30 FT WIDTH AND LENGTH WILL VARY FROM 60 FT TO 75 FT.
 - USE PERIMETER PROTECTION BMPs (FIBER ROLLS, GRAVEL BAGS, SILT FENCE, ETC.) AROUND STAGING AREA WITH TEMPORARY CONSTRUCTION FENCE.
 - STOCKPIES SHALL BE UNDERLAIN BY AT LEAST 10 MILS THICK PLASTIC SHEETING OR LINER OF LOW PERMEABILITY.
 - SANITARY FACILITIES, STORAGE AREA, SPILL CONTROL/CONTAINMENT MATERIALS.
 - SET UP TEMPORARY FLOW DIVERSION AROUND WORK AREA. EXACT GRAVEL BAG BERM LOCATION TO BE COORDINATED WITH PROJECT BIOLOGIST TO MINIMIZE IMPACTS. BYPASS PUMP (WITH CAPACITY OF 1200 GPM OR GREATER) SHALL PUMP FLOW INTO 6" DISCHARGE HOSE INSTALLED OUTSIDE OF THE CHANNEL.
 - SEE SHEET 4 FOR DIVERSION CROSSING AT ACCESS AND LOADING AREA DETAILS.



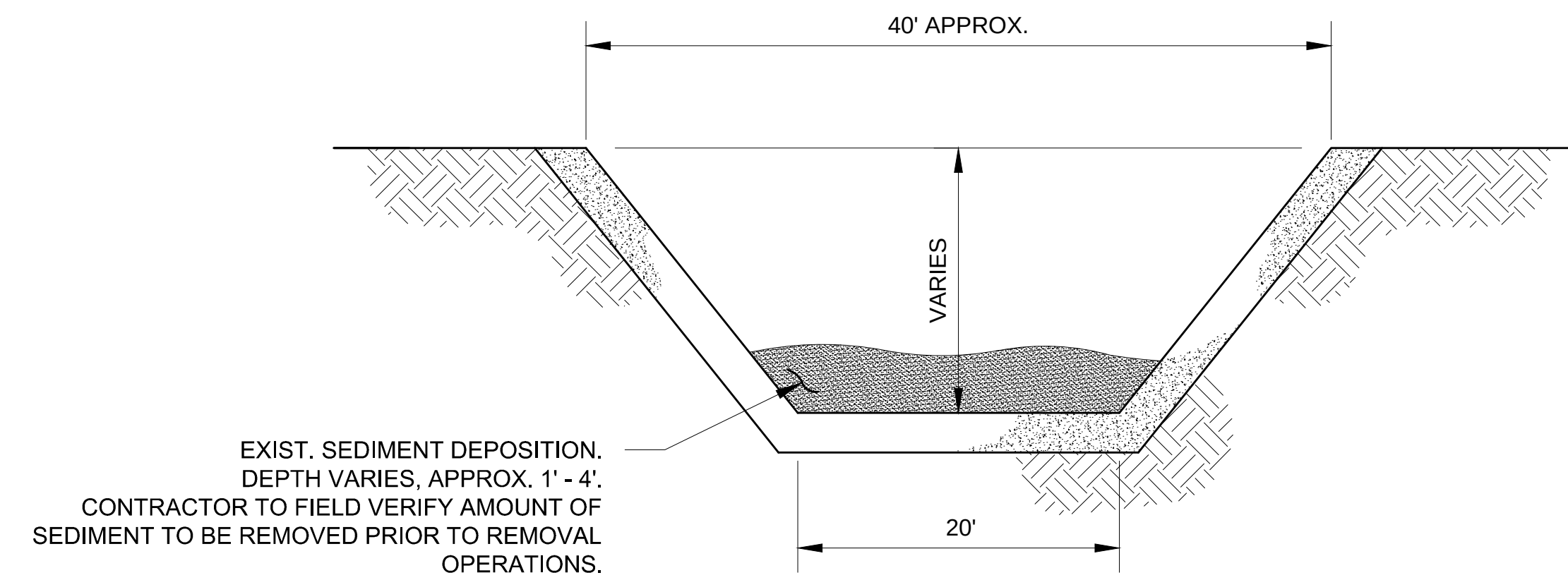
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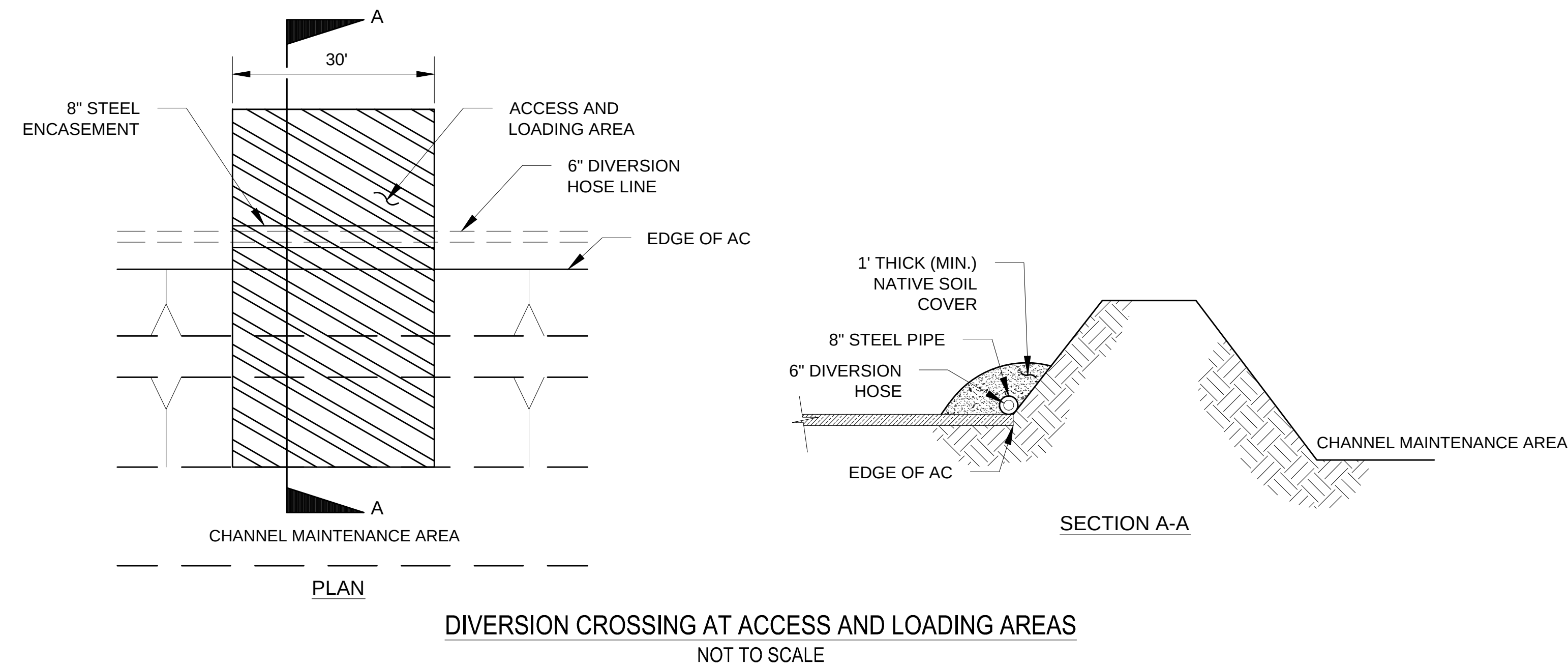
MAINTENANCE PLANS FOR: MURPHY CANYON CHANNEL MMP MAP #58 REACH 1 & 2					
CITY OF SAN DIEGO, CALIFORNIA DEVELOPMENT SERVICES DEPARTMENT SHEET 3 OF 11 SHEETS					I.O. NO. _____ PROJECT NO. _____
FOR CITY ENGINEER _____ DATE _____					V.T.M. _____
DESCRIPTION	BY	APPROVED	DATE	FILMED	
ORIGINAL	URS				
					XXXX-XXXX NAD83 COORDINATES
					XXX-XXXX LAMBERT COORDINATES
AS-BUILTS					
CONTRACTOR _____ DATE STARTED _____					
INSPECTOR _____ DATE COMPLETED _____					



REACH 1 EARTHEN CHANNEL SECTION (TYPICAL)
NOT TO SCALE



REACH 2 CONCRETE CHANNEL SECTION (TYPICAL)
NOT TO SCALE



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MATTHEW C. MOORE R.C.E. NO. 56780 EXP. 06-30-2013 DATE

MAINTENANCE PLANS FOR: MURPHY CANYON CHANNEL MMP MAP #58 CHANNEL TYPICAL SECTIONS					
CITY OF SAN DIEGO, CALIFORNIA DEVELOPMENT SERVICES DEPARTMENT SHEET 4 OF 11 SHEETS					I.O. NO. _____ PROJECT NO. _____
FOR CITY ENGINEER _____ DATE _____					V.T.M. _____
DESCRIPTION	BY	APPROVED	DATE	FILMED	
ORIGINAL	URS				
					XXXX-XXXX NAD83 COORDINATES
					XXX-XXXX LAMBERT COORDINATES
AS-BUILTS					
CONTRACTOR _____ DATE STARTED _____					
INSPECTOR _____ DATE COMPLETED _____					

MAINTENANCE BMP NOTES:

1. ALL BEST MANAGEMENT PRACTICES (BMPs) WILL BE IMPLEMENTED PRIOR TO OR CONCURRENT WITH CONSTRUCTION AND MAINTAINED THROUGHOUT THE PROJECT. A QUALIFIED CONTACT PERSON WILL BE RESPONSIBLE FOR IMPLEMENTING THE WATER POLLUTION CONTROL PLAN (WPCP). ALL WORK SHALL BE COMPLETED BETWEEN SEPTEMBER 15TH AND FEBRUARY 15TH UNLESS AN EXTENSION IS GRANTED IN CONFORMANCE WITH ALL APPLICABLE PERMITS.
2. CONTRACTOR WILL LIMIT ALL CONSTRUCTION RELATED ACTIVITIES TO THE PROJECT FOOTPRINT.
3. EXISTING VEGETATION TO BE PRESERVED IN PLACE SHALL BE CLEARLY MARKED WITH A BUFFER AREA FOLLOWING THE GUIDANCE OF BMP FACT SHEET EC-2.
4. REMOVAL OF VEGETATION MUST OCCUR BY HAND, MECHANICALLY, OR USING U.S. ENVIRONMENTAL PROTECTION AGENCY APPROVED HERBICIDES DEPLOYED WITH APPLICABLE BMPs TO PREVENT IMPACTS TO BENEFICIAL USES OF WATERS OF THE U.S. AND/OR STATE. USE OF AQUATIC PESTICIDES MUST BE DONE IN ACCORDANCE WITH STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDER NO. 2004-0009-DWQ, AND ANY SUBSEQUENT REISSUANCE AS APPLICABLE. REMOVAL OF VEGETATION MUST OCCUR OUTSIDE OF THE AVIAN NESTING SEASON (MARCH 15-AUGUST 31).
5. REMOVAL AND DISPOSAL OF EXOTIC INVASIVE SPECIES SHALL BE DONE IN A MANNER THAT PREVENTS THE SPREAD OF EXOTIC INVASIVE SPECIES TO OTHER AREAS.
6. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ADEQUATE WIND EROSION CONTROL IS AVAILABLE ONSITE FOLLOWING BMP FACT SHEET WE-1.
7. STABILIZED CONSTRUCTION ROADWAYS AND ENTRANCE/EXITS WILL BE INSTALLED TO PREVENT TRACKING FOLLOWING THE GUIDANCE OF BMP FACT SHEET TC-1 AND TC-2.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON STREETS AND OTHER PAVED SURFACES DUE TO EXCAVATION AND STOCKPILING ACTIVITIES. STREET SWEEPING AND VACUUMING WILL BE MANAGED FOLLOWING THE GUIDANCE OF BMP FACT SHEET SE-7.
9. THE PERIMETER OF THE SITES SHALL BE PROTECTED AGAINST RUN-ON AND RUNOFF USING LINEAR SEDIMENT BARRIERS SUCH AS DRAINAGE SWALES, SILT FENCE, FIBER ROLLS, AND/OR GRAVEL BAG BERMS. THE SEDIMENT CONTROL BMPs MAY BE USED INTERCHANGEABLY BASED ON SITE CONDITIONS AND STORMWATER CONCENTRATION.
10. CONTRACTOR TO PLACE LINEAR SEDIMENT BARRIERS AROUND WORK ZONE FOLLOWING THE GUIDANCE OF BMP FACT SHEETS SC-1, SC-5, SC-6 AND/OR SC-8. SC-1 OR SC-5 SHALL BE USED WHERE APPROPRIATE IN CONJUNCTION WITH CONSTRUCTION FENCE, WHICH WILL BE USED AS SUPPORT. FIBER ROLLS MUST BE ADEQUATELY SECURED SO THAT STORMWATER CANNOT GET AROUND OR UNDER THEM.
11. GRAVEL BAG BERMS MAY BE USED TO FORM BARRIERS ACROSS SLOPES TO INTERCEPT RUNOFF AND RELEASE IT AS SHEET FLOW, PROVIDING SOME SEDIMENT REMOVAL. GRAVEL BAGS CAN BE USED WHERE FLOWS ARE MODERATELY CONCENTRATED, SUCH AS IN DITCHES AND SWALES. GRAVEL BAGS SHALL BE USED AS A LINEAR SEDIMENT BARRIER IF FLOW EXCEEDS THE ABILITY OF FIBER ROLLS TO CONTROL. GRAVEL BAG BERMS WILL BE IMPLEMENTED FOLLOWING THE GUIDANCE OF BMP FACT SHEET SE-6.
12. FIBER ROLLS SHALL ALSO BE USED IN VEGETATED AREAS, ON SLOPES, AND TO FORM BERMS AROUND STOCKPILES. FIBER ROLLS SHALL BE IMPLEMENTED FOLLOWING THE GUIDANCE OF BMP FACT SHEET SC-5. SILT FENCE MAY ALSO BE USED AT TOES OF STOCKPILES.
13. WEATHER TRIGGERED ACTION PLAN SHALL BE IMPLEMENTED WHEN THERE IS A FORECASTED 50% OR GREATER CHANCE OF LIKELY PRECIPITATION OF 0.1 INCH OR GREATER BY THE NATIONAL WEATHER SERVICE FORECAST.
14. SOIL ROUGHENING CAN BE USED IN CONJUNCTION WITH HYDRAULICALLY APPLIED STABILIZATION METHODS, GEOTEXTILES, FIBER ROLLS, OR MULCH TO PROTECT, TEMPORARY STOCKPILES, OR SWALES FOLLOWING THE GUIDANCE OF BMP FACT SHEETS EC-4, EC-5, & EC-7.
15. CONTRACTOR SHALL RESTORE ALL EROSION CONTROL DEVICES TO WORKING ORDER AFTER EACH RUNOFF-PRODUCING RAINFALL.
16. TEMPORARY EROSION OR SEDIMENT CONTROL MEASURES WILL BE REMOVED UPON COMPLETION OF MAINTENANCE UNLESS THEIR REMOVAL WOULD RESULT IN GREATER ENVIRONMENTAL IMPACT THAN LEAVING THEM IN PLACE.
17. WASTE AND STOCKPILES SHALL BE MANAGED FOLLOWING THE GUIDANCE OF BMP FACT SHEETS WM-3, WM-5, WM-6, WM-7, AND WM-10. COMPOSTABLE GREEN WASTE MATERIALS SHALL BE TRANSPORTED TO AN APPROVED COMPOSTING FACILITY WHEN FEASIBLE.
18. EXPOSED WASTE MATERIALS AND SOIL STOCKPILES SHALL BE TEMPORARILY STORED IN STAGING AREAS UNTIL REMOVAL TO A PERMITTED DISPOSAL FACILITY. EXPOSED WASTE MATERIALS AND SOIL STOCKPILES SHALL BE PROTECTED IN PLACE USING SILT FENCE, FIBER ROLLS, GRAVEL BAGS, PLASTIC COVERS, AND/OR DRAINAGE SWALES FOLLOWING THE GUIDANCE OF BMP FACT SHEETS SE-1, SE-5, SE-6, EC-7 AND/OR EC-9. MANAGEMENT OF STOCKPILES TEMPORARILY MUST ALSO COMPLY WITH R9-2007-0104, CONDITIONAL WAIVERS OF WASTE DISCHARGE REQUIREMENTS FOR SPECIFIC TYPES OF DISCHARGE WITHIN THE SAN DIEGO REGION, CONDITIONAL WAIVER 8.

19. EXCAVATED MATERIALS FROM THE CHANNELS SHALL BE PROCESSED TO SEPARATE OUT SEDIMENT, VEGETATION, AND TRASH TO THE MEP.
20. WASTE TIRES SHALL BE SEPARATED FROM EXCAVATED MATERIALS AND TRANSPORTED TO AN APPROPRIATE DISPOSAL FACILITY. IF MORE THAN NINE TIRES ARE IN A VEHICLE OR WASTE BIN AT ANY ONE TIME, THEY SHALL BE TRANSPORTED UNDER A COMPLETED COMPREHENSIVE TRIP LOG (CTL) TO DOCUMENT THAT THE TIRES WERE TAKEN TO AN APPROPRIATE DISPOSAL FACILITY.
21. EXCAVATED MATERIALS WILL BE REUSED, WHENEVER POSSIBLE, AS FILL MATERIAL, AGGREGATE, SAND REPLENISHMENT OR OTHER RAW MATERIAL USES. RE-USED MATERIAL (AGGREGATES, SOIL, SAND, OR SILT) SHALL BE DOCUMENTED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
22. HAZARDOUS MATERIALS USED DURING MAINTENANCE WILL NOT BE STORED WITHIN 50 FEET FROM STORM WATER FACILITIES. HAZARDOUS MATERIALS SHALL BE MANAGED AND STORED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. A REGISTERED FIRST-RESPONSE, PROFESSIONAL HAZARDOUS MATERIALS CLEAN-UP/REMEDIATION SERVICE SHALL BE LOCALLY AVAILABLE ON CALL.
23. MAINTENANCE-RELATED TRASH WILL BE STORED IN AN APPROPRIATE RECEPTACLE WITH A COVER IN THE STAGING AREAS AT LEAST 150 FEET FROM STORM WATER FACILITIES, AND TRASH RECEPTACLES WILL BE EMPTIED/REMOVED REGULARLY (AT LEAST ONCE PER WEEK).
24. THE TREATMENT, STORAGE, AND DISPOSAL OF WASTEWATER DURING THE LIFE OF THE PROJECT MUST BE DONE IN ACCORDANCE WITH WASTE DISCHARGE REQUIREMENTS ESTABLISHED BY THE SAN DIEGO WATER BOARD PURSUANT TO CWC 13260.
25. CONSTRUCTION DEWATERING OPERATIONS SHALL BE MANAGED FOLLOWING THE GUIDANCE OF BMP FACT SHEET NS-2. GROUNDWATER DEWATERING SHALL BE MANAGED IN ACCORDANCE WITH THE GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM TEMPORARY GROUNDWATER EXTRACTION AND SIMILAR WASTE DISCHARGES TO SAN DIEGO BAY, TRIBUTARIES THERETO UNDER TIDAL INFLUENCE, AND STORM DRAINS OR OTHER CONVEYANCE SYSTEMS TRIBUTARY THERETO (WDR) ORDER NO. R9-2007-0034, NPDES NO. CAG919001.
26. SANITARY FACILITIES WILL BE PROVIDED ONSITE FOR THE USE OF PERSONNEL AND WILL BE PROPERLY MAINTAINED, INCLUDING BEING EQUIPPED WITH SECONDARY CONTAINMENT FOLLOWING THE GUIDANCE OF BMP FACT SHEET WM-9
27. SPILLS SHALL BE MANAGED FOLLOWING THE GUIDANCE OF BMP FACT SHEET WM-4. SPILL CLEANUP MATERIALS SHALL BE AVAILABLE ONSITE AT ALL TIMES.
28. MATERIAL USE, DELIVERY AND STORAGE SHALL BE MANAGED FOLLOWING THE GUIDANCE OF BMP FACT SHEETS WM-1 AND WM-2.
29. WATER SHALL BE CONSERVED FOLLOWING THE GUIDANCE OF BMP FACT SHEET NS-1 SO AS NOT TO ALLOW UNAUTHORIZED NON-STORMWATER DISCHARGES.
30. BMP MATERIAL SHALL BE STORED ONSITE TO PROVIDE COMPLETE PROTECTION OF EXPOSED AREAS AND PREVENT OFFSITE SEDIMENT TRANSPORT.
31. VEHICLE AND EQUIPMENT FUELING/MAINTENANCE SHALL BE MANAGED FOLLOWING THE GUIDANCE OF BMP FACT SHEETS NS-9 AND NS-10. THE FUELING AREA SHALL BE LOCATED AT LEAST 150 FEET AWAY FROM THE CHANNELS. NO ROUTINE MAINTENANCE AND NO STORAGE OF PETROLEUM PRODUCTS OR CHEMICALS ARE PERMITTED ONSITE. RE-FUELING WILL BE RESTRICTED TO HEAVY EARTH MOVING EQUIPMENT (NOT DUMP TRUCKS). EQUIPMENT WILL BE INSPECTED DAILY FOR FLUID LEAKS AND PROMPTLY CLEANED UP.
32. STATIONARY EQUIPMENT (CRANES, MOTORS, PUMPS, ETC.) LOCATED IN OR ADJACENT TO THE CHANNELS SHALL BE POSITIONED OVER DRIP PANS.
33. THE CONTRACTOR SHALL PROVIDE EQUIPMENT NECESSARY TO EXTINGUISH SMALL BRUSH FIRES (FROM SPARKING VEHICLES, ETC.) ON-SITE DURING ALL PHASES OF PROJECT ACTIVITIES, ALONG WITH TRAINED PERSONNEL FOR USE OF SUCH EQUIPMENT.
34. THE CONTRACTOR SHALL MONITOR THE 5 DAY WEATHER FORECAST. IF ANY PRECIPITATION IS FORECASTED, THE SITE SHALL BE SECURED TO PREVENT ANY CONSTRUCTION RELATED MATERIALS FROM LEAVING THE SITE AND ENTERING THE CHANNELS. STOCKPILES SHALL BE REMOVED FROM THE PROJECT SITE WITHIN 48 HOURS OF FORECASTED RAIN. NO CONSTRUCTION ACTIVITIES SHALL OCCUR DURING RAIN EVENTS.
35. SAMPLING AND ANALYSIS, MONITORING AND REPORTING, AND POST-MAINTENANCE MANAGEMENT OF THE PROJECT SHALL BE CONDUCTED AS DETERMINED NECESSARY BY THE CITY OF SAN DIEGO.
36. CHANNELS WILL BE INSPECTED WITHIN 72 HOURS OF THE FIRST 2-YEAR STORM FOLLOWING MAINTENANCE. IF SUBSTANTIAL EROSION HAS OCCURRED, EROSION CONTROL MEASURES RECOMMENDED BY THE FIELD ENGINEER WILL BE IMPLEMENTED TO REMEDIATE EROSION AREAS AND TO MINIMIZE FUTURE EROSION.
37. CONTRACTOR SHALL PROVIDE TRAINING FOR ALL PERSONNEL RESPONSIBLE FOR THE PROPER INSTALLATION, INSPECTION, AND MAINTENANCE OF ONSITE BMPs.

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MAINTENANCE PROCEDURE:

PRE-MAINTENANCE ACTIVITIES:

1. PRECONSTRUCTION MEETING - CONDUCT A PRE-MAINTENANCE MEETING ON-SITE PRIOR TO THE START OF ANY MAINTENANCE ACTIVITY. QUALIFIED SPECIALISTS SHALL: INDICATE/IDENTIFY ANY SENSITIVE BIOLOGICAL/HISTORICAL/WATER QUALITY RESOURCES TO BE AVOIDED DURING MAINTENANCE, FLAG/DELINEATE SENSITIVE RESOURCES TO BE AVOIDED DURING MAINTENANCE, REVIEW SPECIFIC MEASURES TO BE IMPLEMENTED TO MINIMIZE DIRECT/INDIRECT IMPACTS, AND DIRECT CREWS OR OTHER PERSONNEL TO PROTECT SENSITIVE RESOURCES AS NECESSARY.
2. TRAINING - CONDUCT TRAINING FOR PERSONNEL RESPONSIBLE FOR THE PROPER INSTALLATION, INSPECTION, AND MAINTENANCE OF ON-SITE BMPs.
3. BMP INSTALLATION - INSTALL CONSTRUCTION BMPs (SEDIMENT, EROSION CONTROL, ETC.) IN ACCORDANCE WITH THE WATER POLLUTION CONTROL PLANS.
4. MOBILIZE EQUIPMENT AT STAGING AREA.
5. PERFORM NECESSARY MAINTENANCE ACTIVITIES FOR THE EXISTING ACCESS & LOADING AREAS.

CHANNEL SEQUENCE

1. PORTION OF REACH 1 - STATION 15+78 TO 16+61 - ACCESS & LOADING AREA-1D TO CONCRETE LINED CHANNEL
2. REACH 2 - STATION 16+61 TO 18+68 - CONCRETE LINED CHANNEL FROM END OF EARTHEN CHANNEL TO CALTRANS ROW 206' NORTH
3. REMAINDER OF REACH 1 - STATION 0+00 TO 15+78 - EARTHEN CHANNEL FROM ACCESS & LOADING AREA-1D SOUTH TO APPROXIMATELY RANCHO MISSION ROAD BRIDGE (1,662')

METHODOLOGY

PORTION OF REACH 1

1. DRY WEATHER FLOW DIVERSION WILL BE PLACED AT NORTHERN LIMITS OF CHANNEL CLEANING.
2. BULLDOZER ENTER/EXIT(S) CHANNEL AT ACCESS & LOADING AREA-1D.
3. BULLDOZER WILL BEGIN CLEANING EARTHEN CHANNEL NORTH OF ACCESS & LOADING AREA-1D & PUSHES MATERIAL TO ACCESS & LOADING AREA-1D.
4. EXCAVATOR STATIONED AT ACCESS & LOADING AREA-1D SCOOPS MATERIAL FROM CHANNEL & LOADS MATERIAL INTO WAITING DUMP TRUCK LOCATED WITHIN STADIUM PARKING LOT.
5. DUMP TRUCK SHORT-HAULS LOADS TO STAGING & STOCKPILE AREA.
6. BULLDOZER EXITS CHANNEL.

REACH 2:

1. LOADER ENTER/EXIT(S) CHANNEL ONCE REACH 1 NORTH OF ACCESS & LOADING AREA-1D IS CLEARED.
2. LOADER PUSHES MATERIAL IN CONCRETE CHANNEL TO EXCAVATOR AT ACCESS & LOADING AREA-1D UNTIL IT REACHES NORTHERN LIMIT OF WORK.
3. EXCAVATOR CONTINUES TO LOAD EXCAVATED MATERIALS INTO DUMP TRUCK.
4. DUMP TRUCK SHORT-HAULS LOADS TO STAGING & STOCKPILE AREA.

REMAINDER OF REACH 1:

1. BULLDOZER RE-ENTER/EXIT(S) CHANNEL AT ACCESS/LOADING AREA(S) & PUSHES MATERIAL TO EXCAVATOR LOCATED AT ACCESS & LOADING AREA(S) TO MINIMIZE DISTANCES MATERIAL IS PUSHED.
2. EXCAVATOR LOADS MATERIAL INTO WAITING DUMP TRUCK LOCATED WITHIN STADIUM PARKING LOT.
3. DUMP TRUCK SHORT-HAULS LOAD TO STAGING & STOCKPILE AREA.
4. DRY WEATHER DIVERSION REMOVED ONCE MAINTENANCE WORK IN CHANNEL IS COMPLETE.
5. DUMP TRUCKS HAUL STOCKPILE TO LEGAL DISPOSAL SITE.

POST-CONSTRUCTION

1. DEMOBILIZE EQUIPMENT.
2. RESTORE SITE, INCLUDING TEMPORARY ACCESS & LOADING AREA(S), TO PRE-MAINTENANCE OR AS-BUILT CONDITION (INCLUDING THE REPLACEMENT OF K-RAILS AND FENCE).
3. REMOVE TEMPORARY CONSTRUCTION BMPs.

MAINTENANCE PLANS FOR:									
MURPHY CANYON CHANNEL									
MAINTENANCE BMP NOTES									
CITY OF SAN DIEGO, CALIFORNIA DEVELOPMENT SERVICES DEPARTMENT SHEET 5 OF 11 SHEETS								I.O. NO. _____ PROJECT NO. _____	
FOR CITY ENGINEER						DATE		V.T.M. _____	
DESCRIPTION	BY	APPROVED	DATE	FILMED					
ORIGINAL	URS								
AS-BUILTS									
CONTRACTOR _____ DATE STARTED _____								-5-D	
INSPECTOR _____ DATE COMPLETED _____									

ADDITIONAL MAINTENANCE REQUIREMENTS:

1.

THE MASTER LIST OF BMPs, INCLUDED AS APPENDIX B IN THE WPCP, SHOULD BE CONSULTED FOR ADDITIONAL BIOLOGICAL, CULTURAL, AND WATER QUALITY RELATED REQUIREMENTS.
2.

AN ONSITE PRE-MAINTENANCE MEETING SHOULD BE CONDUCTED PRIOR TO THE START OF THE PROJECT. IN ATTENDANCE AT THE MEETING SHOULD BE THE: MAINTENANCE CONTRACTOR, CITY STORM WATER DIVISION REPRESENTATIVES, MITIGATION MONITORING COORDINATOR, QUALIFIED WATER QUALITY SPECIALIST, PROJECT BIOLOGIST/MONITOR, QUALIFIED ARCHAEOLOGIST/HISTORICAL MONITOR/PALEONTOLOGICAL MONITOR, AND ANY OTHER KEY PERSONNEL. SENSITIVE HISTORICAL AND BIOLOGICAL RESOURCES SHOULD BE IDENTIFIED TO BE AVOIDED DURING THE MAINTENANCE ACTIVITIES AS WELL AS ANY CONDITIONS FOR POSSIBLE NIGHT AND/OR WEEKEND WORK. THE WATER QUALITY SPECIALIST SHOULD IDENTIFY MITIGATION MEASURES, PROTOCOLS AND BMPs TO BE CARRIED OUT DURING THE MAINTENANCE. THE MASTER LIST OF BMPs PROVIDES DETAILED INFORMATION ON PROCEDURES TO BE FOLLOWED.
3.

THE CITY SHALL NOTIFY DFG, IN WRITING, AT LEAST FIVE DAYS PRIOR TO INITIATION OF CONSTRUCTION (PROJECT) ACTIVITIES AND AT LEAST FIVE DAYS PRIOR TO COMPLETION OF CONSTRUCTION (PROJECT) ACTIVITIES, EACH TIME PROJECT ACTIVITIES OCCUR. NOTIFICATION SHALL BE SENT TO DFG'S SOUTH COAST OFFICE, ATTN: STREAMBED ALTERATION PROGRAM - SM # 1600-2011-0271-R5.
4.

AVOID THE INTRODUCTION OF INVASIVE PLANT SPECIES WITH PHYSICAL EROSION CONTROL MEASURES.
5.

PRIOR TO COMMENCING ANY MAINTENANCE ACTIVITY WHICH MAY IMPACT SENSITIVE BIOLOGICAL RESOURCES, THE MONITORING BIOLOGIST SHALL VERIFY THAT THE FOLLOWING ACTIONS HAVE BEEN TAKEN, AS APPROPRIATE:

FENCING, FLAGGING, SIGNAGE, OR OTHER MEANS TO PROTECT SENSITIVE RESOURCES TO REMAIN AFTER MAINTENANCE HAS BEEN IMPLEMENTED;

NOISE ATTENUATION MEASURES NEEDED TO PROTECT SENSITIVE WILDLIFE ARE IN PLACE AND EFFECTIVE; AND/OR

NESTING RAPTORS HAVE BEEN IDENTIFIED AND NECESSARY MAINTENANCE SETBACKS HAVE BEEN ESTABLISHED IF MAINTENANCE IS TO OCCUR BETWEEN JANUARY 15 AND AUGUST 31. SEE THE MASTER LIST OF BMPs FOR ADDITIONAL INFORMATION.
6.

CONTRACTOR SHALL HAVE A QUALIFIED BIOLOGIST ON SITE DAILY DURING PROJECT ACTIVITY TO ENSURE THAT AGREEMENT CONDITIONS ARE BEING MET AND MINIMIZE IMPACTS TO HABITAT. THE BIOLOGIST WILL BE KNOWLEDGEABLE OF VIREO BIOLOGY AND ECOLOGY. THE BIOLOGIST SHALL BE AUTHORIZED TO STOP CONSTRUCTION IF NECESSARY TO PROTECT FISH AND WILDLIFE RESOURCES. IF ANY PROTECTED SPECIES ARE FOUND THE BIOLOGIST SHALL INFORM DFG. IF THERE IS A THREAT OF HARM TO ANY PROTECTED SPECIES OR OTHER AQUATIC WILDLIFE THE BIOLOGIST SHALL HALT CONSTRUCTION AND NOTIFY DFG. CONSULTATION WITH DFG IS REQUIRED BEFORE RE-COMMENCING WORK. THE QUALIFIED BIOLOGIST WILL FOLLOW PROCEDURES OUTLINED IN THE MASTER LIST OF BMPs.
7.

IF ANY WILDLIFE IS ENCOUNTERED DURING THE COURSE OF MAINTENANCE, SAID WILDLIFE SHALL BE ALLOWED TO LEAVE THE MAINTENANCE AREA UNHARMED.
8.

IF A LISTED SPECIES IS LOCATED WITHIN 500 FEET OF A PROPOSED MAINTENANCE ACTIVITY AND MAINTENANCE WOULD OCCUR DURING THE ASSOCIATED BREEDING SEASON, AN ANALYSIS OF THE NOISE GENERATED BY MAINTENANCE ACTIVITY SHALL BE COMPLETED BY A QUALIFIED ACOUSTICIAN (POSSESSING CURRENT NOISE ENGINEER LICENSE OR REGISTRATION WITH MONITORING NOISE LEVEL EXPERIENCE WITH LISTED ANIMAL SPECIES) AND APPROVED BY THE ADD ENVIRONMENTAL DESIGNEE. THE MASTER LIST OF BMPs PROVIDES DETAILED INFORMATION ON PROCEDURES TO BE FOLLOWED.
9.

ALL LIGHTING ADJACENT TO, OR WITHIN, THE MHPA SHALL BE SHIELDED, UNIDIRECTIONAL, LOW PRESSURE SODIUM ILLUMINATION (OR SIMILAR) AND DIRECTED AWAY FROM SENSITIVE AREAS USING APPROPRIATE PLACEMENT AND SHIELDS. IF LIGHTING IS REQUIRED FOR NIGHTTIME MAINTENANCE, IT SHALL BE DIRECTED AWAY FROM THE PRESERVE AND THE TOPS OF ADJACENT TREES WITH POTENTIALLY NESTING RAPTORS, USING APPROPRIATE PLACEMENT AND SHIELDING.

MAINTENANCE PROTOCOL REQUIREMENTS:

1.

WQ-1: STABILIZE DESIGNATED ACCESS ROADS (OR OTHER GRADED AREAS) WITH PERMEABLE PROTECTIVE SURFACING (E.G., GRASSCRETE), STORM WATER DIVERSION STRUCTURES (E.G., BROW DITCHES OR BERM), OR CROSSING STRUCTURES (E.G., CULVERTS) TO CONTROL EROSION AND PREVENT OFF-SITE SEDIMENT TRANSPORT.
2.

WQ-2: PREVENT OFFSITE SEDIMENT TRANSPORT DURING MAINTENANCE THROUGH THE USE OF EROSION AND SEDIMENT CONTROLS WITHIN STORM WATER FACILITIES, ALONG ACCESS ROUTES AND AROUND THE STOCKPILE/STAGING AREAS. INSTALL BMPs SUCH AS SILT FENCES, FIBER ROLLS, GRAVEL BAGS, TEMPORARY SEDIMENT BASINS, STABILIZED MAINTENANCE ACCESS POINTS (E.G. SHAKE PLATES), CONTAINMENT BARRIERS (E.G. SILT FENCE, FIBER ROLLS, AND /OR BERMS), FOR MAINTENANCE STOCKPILES AND PROPERLY FITTED COVERS FOR MATERIAL TRANSPORT VEHICLES. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURE UPON COMPLETION OF MAINTENANCE UNLESS THEIR REMOVAL WOULD RESULT IN GREATER ENVIRONMENTAL IMPACT THAT LEAVING THEM IN PLACE.
3.

WQ-3: STORE BMP MATERIALS ONSITE TO PROVE COMPLETE PROTECTION OF EXPOSED AREAS AND PREVENT OFFSITE SEDIMENT TRANSPORT.
4.

WQ-4: PROVIDE TRAINING FOR PERSONNEL RESPONSIBLE FOR PROPER INSTALLATION, INSPECTION AND MAINTENANCE OF ONSITE BMPs.
5.

WQ-5: REVEGETATE SPOIL AND STAGING AREAS WITHIN 30 DAYS OF COMPLETION OF MAINTENANCE ACTIVITIES. MONITOR AND MAINTAIN REVEGETATED AREAS FOR A PERIOD OF NOT LESS THAN 25 MONTHS FOLLOWING PLANTING.
6.

WQ-6: IMPLEMENT SAMPLING AND ANALYSIS, MONITORING AND REPORTING, AND POST MAINTENANCE MANAGEMENT PROGRAMS PER NPDES AND/OR CITY REQUIREMENTS.
7.

WQ-7: AVOID STORING HAZARDOUS MATERIAL USED DURING MAINTENANCE WITHIN 50 FEET FROM STORM WATER FACILITIES. HAZARDOUS MATERIALS SHALL BE MANAGED AND STORED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
8.

WQ-8: STORM MAINTENANCE RELATED TRASH IN AREAS AT LEAST 50 FEET AWAY FROM STORM WATER FACILITIES AND REMOVE ANY TRASH RECEPTACLE REGULARLY (AT LEAST WEEKLY).
9.

WQ-10: INSPECT EARTHEN-BOTTOM STORM WATER FACILITIES WITHIN 30 DAYS OF THE FIRST 2-YEAR STORM FOLLOWING MAINTENANCE. IMPLEMENT EROSION CONTROL MEASURES RECOMMENDED BY THE FIELD ENGINEER, SUCH AS FIBER BLANKETS, TO REMEDIATE SUBSTANTIAL EROSION WHICH HAS OCCURRED AND TO MINIMIZE FUTURE EROSION.
10.

BIO-1: RESTRICT VEHICLES TO ACCESS DESIGNATED IN THE MASTER PROGRAM.
11.

BIO-2: FLAG AND DELINEATE ALL SENSITIVE BIOLOGICAL RESOURCES TO REMAIN WITHIN OR ADJACENT TO MAINTENANCE AREA PRIOR TO INITIATION OF MAINTENANCE ACTIVITIES IN ACCORDANCE WITH THE SITE SPECIFIC IBA, IHHA, AND/OR IMP.
12.

BIO-3: CONDUCT A PRE-MAINTENANCE ONSITE PRIOR TO THE START OF ANY MAINTENANCE ACTIVITY THAT OCCURS WITHIN OR ADJACENT TO SENSITIVE BIOLOGICAL RESOURCES. THE PREMAINTENANCE MEETING SHALL INCLUDE A QUALIFIED BIOLOGIST, FIELD ENGINEER, PLANNER, EQUIPMENT OPERATORS/SUPERINTENDENT AND OTHER KEY PERSONNEL CONDUCTING OR INVOLVED IN CHANNEL MAINTENANCE ACTIVITIES. THE QUALIFIED BIOLOGIST SHALL POINT OUT OR IDENTIFY SENSITIVE BIOLOGICAL RESOURCES TO BE AVOIDED DURING MAINTENANCE, FLAG/DELINEATE SENSITIVE RESOURCES TO BE AVOIDED, REVIEW SPECIFIC MEASURES TO PROTECT SENSITIVE BIOLOGICAL RESOURCES AS NECESSARY. THE BIOLOGIST SHALL ALSO REVIEW THE PROPOSED EROSION CONTROL METHODS TO CONFIRM THEY WILL NOT POSE RISK TO WILDLIFE (E.G., NON-Biodegradable BLANKETS MAY ENTANGLE WILDLIFE).
13.

BIO-4: AVOID THE INTRODUCTION OF INVASIVE PLANT SPECIES WITH PHYSICAL EROSION CONTROL MEASURES.
14.

BIO-5: CONDUCT APPROPRIATE PRE-MAINTENANCE PROTOCOL SURVEYS IF MAINTENANCE IS PROPOSED DURING THE BREEDING SEASON OF A SENSITIVE ANIMAL SPECIES. IF SENSITIVE ANIMAL SPECIES COVERED BY THE PEIR ARE IDENTIFIED, THEN APPLICABLE MEASURES FROM THE MMRP SHALL BE IMPLEMENTED UNDER THE DIRECTION OF A QUALIFIED BIOLOGIST TO AVOID SIGNIFICANT DIRECT AND/OR INDIRECT IMPACTS TO IDENTIFIED SENSITIVE ANIMAL SPECIES. IF SENSITIVE ANIMAL SPECIES ARE IDENTIFIED DURING PRE-MAINTENANCE SURVEYS THAT ARE NOT COVERED BY THE PEIR, SWD SHALL CONTACT THE APPROPRIATE WILDLIFE AGENCIES AND ADDITIONAL ENVIRONMENTAL REVIEW UNDER CEQA WILL BE REQUIRED.
15.

BIO-7: AVOID MECHANIZED MAINTENANCE WITHIN 300 FEET OF A COOPER'S HAWK NEST, 900 FEET OF A NORTHERN HARRIER'S NEST, OR 500 FEET OF ANY OTHER RAPTOR'S NEST UNTIL ANY FLEDGLINGS HAVE LEFT THE NEST.
16.

WM-1: DISPOSE AND TRANSPORT COMPOSTABLE GREEN WASTE MATERIAL TO AN APPROVED COMPOSTING FACILITY, IF AVAILABLE.
17.

WM-2: REUSE EXCAVATED MATERIAL, WHENEVER POSSIBLE, AS FILL MATERIAL, AGGREGATE, SAND REPLENISHMENT OR OTHER RAW MATERIAL USES. RE-USED MATERIAL (AGGREGATES, SOIL, SAND, OR SILT) SHALL BE DOCUMENTED IN

URS CORPORATION
4225 EXECUTIVE SQUARE, SUITE 1600
LA JOLLA, CA 92037
858-812-9292
858-812-9293

ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

18.

WM-3: SEPARATE WASTE TIRES FROM EXCAVATED MATERIAL AND TRANSPORT THEM TO AN APPROPRIATE DISPOSAL FACILITY. IF MORE THAN NINE TIRES ARE IN A VEHICLE OR WASTE BIN AT ANY ONE TIME, THEY SHALL BE TRANSPORTED UNDER A COMPLETED COMPREHENSIVE TRIP LOG (CTL) TO DOCUMENT THAT THE TIRES WERE TAKEN TO AN APPROPRIATE DISPOSAL FACILITY.
19.

WM-4: LOG AND TRANSPORT ANY HAZARDOUS MATERIALS ENCOUNTERED DURING MAINTENANCE UNDER A HAZARDOUS MATERIALS MANIFEST TO AN APPROVED HAZARDOUS WASTE STORAGE, RECYCLING, TREATMENT OR DISPOSAL FACILITY. PERSONNEL HANDLING HAZARDOUS MATERIALS SHALL HAVE THE APPROPRIATE TRAINING TO HANDLE, STORE, TRANSPORT AND/OR DISPOSE. HAZARDOUS MATERIALS (E.G., MACHINE OIL, MERCURY SWITCHES AND REFRIGERANT GASES) SHALL BE REMOVED FROM APPLIANCES AND DISPOSED IN ACCORDANCE WITH THIS PROTOCOL.

MAINTENANCE PLANS FOR:

MURPHY CANYON CHANNEL
MAINTENANCE NOTES

CITY OF SAN DIEGO, CALIFORNIA
DEVELOPMENT SERVICES DEPARTMENT
SHEET 6 OF 11 SHEETS

I.O. NO. _____
PROJECT NO. _____

FOR CITY ENGINEER
DATE _____

V.T.M. _____

DESCRIPTION

BY

APPROVED

DATE

FILMED

ORIGINAL

URS

AS-BUILTS

CONTRACTOR _____ DATE STARTED _____

INSPECTOR _____ DATE COMPLETED _____

XXXX-XXXX
NAD83 COORDINATES

XXX-XXXX
LAMBERT COORDINATES

-6-D

ENVIRONMENTAL MITIGATION REQUIREMENTS:

CHAPTER 11.0 MITIGATION MONITORING AND REPORTING PROGRAM

Section 21081.6 of the State of California Public Resources Code requires a Lead or Responsible Agency that approves or carries out a project where an environmental impact report (EIR) has identified significant environmental effects to adopt a “reporting or monitoring program for adopted or required changes to mitigate or avoid significant environmental effects.” The City of San Diego is the lead Agency for the Master Program PEIR, and, therefore, is responsible for implementation of the MMRP. Because the PEIR recommends measures to mitigate these impacts, an MMRP is required to ensure that adopted mitigation measures are implemented.

As Lead Agency for the proposed project under CEQA, the City of San Diego will administer the MMRP for the following environmental issue areas: biological resources, historical resources, land use policies, paleontological resources, and water quality.

GENERAL

General Mitigation 1: Prior to commencement of work, the ADD Environmental Designee of the Entitlements Division shall verify that mitigation measures for impacts to biological resources (Mitigation Measures 4.3.1 through 4.3.20), historical resources (Mitigation Measures 4.4.1 and 4.4.2), land use policy (Mitigation Measures 4.1.1 through 4.1.13), paleontological resources (Mitigation Measure 4.7.1), and water quality (Mitigation Measures 4.8.1 through 4.8.3) have been included in entirety on the submitted maintenance documents and contract specifications, and included under the heading, “Environmental Mitigation Requirements.” In addition, the requirements for a Pre-maintenance Meeting shall be noted on all maintenance documents.

General Mitigation 2: Prior to the commencement of work, a Pre-maintenance Meeting shall be conducted and include, as appropriate, the MMC, SWD Project Manager, Biological Monitor, Historical Monitor, Paleontological Monitor, Water Quality Specialist, and Maintenance Contractor, and other parties of interest.

General Mitigation 3: Prior to the commencement of work, evidence of compliance with other permitting authorities is required, if applicable. Evidence shall include either copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the ADD Environmental Designee.

General Mitigation 4: Prior to commencement of work and pursuant to Section 1600 et seq. of the State of California Fish & Game Code, evidence of compliance with Section 1605 is required, if applicable. Evidence shall include either copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the ADD Environmental Designee.

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BIOLOGICAL RESOURCES

Potential impacts to biological resources would be reduced to below a level of significance through implementation of the following mitigation measures as well as Mitigation Measures 4.1-1 through 4.1-25.

Mitigation Measure 4.3.1: Prior to commencement of any activity within a specific annual maintenance program, a qualified biologist shall prepare an IBA for each area proposed to be maintained. The IBA shall be prepared in accordance with the specifications included in the Master Program.

Mitigation Measure 4.3.2: No maintenance activities within a proposed annual maintenance program shall be initiated before the City’s Assistant Deputy Director (ADD) Environmental Designee and state and federal agencies with jurisdiction over maintenance activities have approved the IMPs and IBAs including proposed mitigation for each of the proposed activities. In their review, the ADD Environmental Designee and agencies shall confirm that the appropriate maintenance protocols have been incorporated into each IMP.

Mitigation Measure 4.3.3: No maintenance activities within a proposed annual maintenance program shall be initiated until the City’s ADD Environmental Designee and Mitigation Monitoring Coordinator (MMC) have approved the qualifications for biologist(s) who shall be responsible for monitoring maintenance activities which may impact sensitive biological resources.

Mitigation Measure 4.3.4: Prior to undertaking any maintenance activity included in an annual maintenance program, a mitigation account shall be established to provide sufficient funds to implement all biological mitigation associated with the proposed maintenance activities. The fund amount shall be determined by the ADD Environmental Designee. The account shall be managed by the City’s SWD, with quarterly status reports submitted to DSD. The status reports shall separately identify upland and wetland account activity. Based upon the impacts identified in the IBAs, money shall be deposited into the account, as part of the project submittal, to ensure available funds for mitigation.

Mitigation Measure 4.3.5: Prior to commencing any activity that could impact wetlands, evidence of compliance with other permitting authorities is required, if applicable. Evidence shall include copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the ADD Environmental Designee.

Mitigation Measure 4.3.6: Prior to commencing any activity where the IBA indicates significant impacts to biological resources may occur, a pre-maintenance meeting shall be held on site with the following in attendance: City’s SWD Maintenance Manager (MM), MMC, and Maintenance Contractor (MC). The biologist selected to monitor the activities shall be present. At this meeting, the monitoring biologist shall identify and discuss the maintenance protocols that apply to the maintenance activities.

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At the pre-maintenance meeting, the monitoring biologist shall submit to the MMC and MC a copy of the maintenance plan (reduced to 11”x17”) that identifies areas to be protected, fenced, and monitored. This data shall include all planned locations and design of noise attenuation walls or other devices. The monitoring biologist also shall submit a maintenance schedule to the MMC and MC indicating when and where monitoring is to begin and shall notify the MMC of the start date for monitoring.

Mitigation Measure 4.3.7: Within three months following the completion of mitigation monitoring, two copies of a written draft report summarizing the monitoring shall be prepared by the monitoring biologist and submitted to the MMC for approval. The draft monitoring report shall describe the results including any remedial measures that were required. Within 90 days of receiving comments from the MMC on the draft monitoring report, the biologist shall submit one copy of the final monitoring report to the MMC.

Mitigation Measure 4.3.8: Within six months of the end of an annual storm water facility maintenance program, the monitoring biologist shall complete an annual report which shall be distributed to the following agencies: the City of San Diego DSD, CDFG, RWQCB, USFWS, and Corps. At a minimum, the report shall contain the following information:

- Tabular summary of the biological resources impacted during maintenance and the mitigation;
- Master table containing the following information for each individual storm water facility or segment which is regularly maintained;
- Date and type of most recent maintenance;
- Description of mitigation which has occurred; and
- Description of the status of mitigation which has been implemented for past maintenance activities.

Mitigation Measure 4.3.9: Wetland impacts resulting from maintenance shall be mitigated in one of the following three two ways: (1) habitat creation, restoration, and/or enhancement concurrent with maintenance, (2) habitat creation, restoration, and/or enhancement prior to maintenance, or (32) mitigation credits. The amount of mitigation when mitigation is proposed to be accomplished through concurrent creation, restoration or enhancement, the amount of planting shall be in accordance with ratios in Table 4.3-10 unless different mitigation ratios are required by state or federal agencies with jurisdiction over the impacted wetlands. In this event, the mitigation ratios required by these agencies will supersede, and not be in addition to, the ratios defined in Table 4.3-10. When previously created, restored or enhanced wetland habitat is proposed to be used for mitigation, the ratio shall be 1:1, provided the habitat has been determined to be successfully established by the ADD Environmental Designee in consultation with the Resource Agencies prior to commencing the maintenance activity. Mitigation credits may be used at a ratio of 1:1, provided the mitigation credits are from a mitigation bank which has been approved by the Resource Agencies. No maintenance shall commence until the ADD Environmental Designee has

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determined that mitigation proposed for a specific maintenance activity meets one of these three two options.

Table 4.3-10 WETLAND MITIGATION RATIOS	
WETLAND TYPE	MITIGATION RATIO ¹
Southern riparian forest	3:1
Southern sycamore riparian woodland	3:1
Riparian woodland	3:1
Coastal saltmarsh	4:1
Coastal brackish marsh	4:1
Southern willow scrub	2:1
Mule fat scrub	2:1
Riparian scrub ¹	2:1
Freshwater marsh ²	12:1
Cismontane alkali marsh	4:1
Disturbed wetland	12:1
Streambed/natural flood channel	NA2:1

¹ Mitigation ratio within the Coastal Zone will be 3:1
² Mitigation ratio within the Coastal Zone will be 4:1
³ Mitigation done in advance or through purchase of mitigation credits would be at a 1:1 ratio.

Mitigation locations for wetland impacts shall be selected using the following order of preference, based on the best mitigation value to be achieved.

1. Within impacted watershed, within City limits.
2. Within impacted watershed, outside City limits on City-owned or other publicly-owned land.
3. Outside impacted watershed, within City limits.
4. Outside impacted watershed, outside City limits on City-owned or other publically-owned land.

In order to mitigate for impacts in an area outside the limits of the watershed within which the impacts occur, the SWD must demonstrate to the satisfaction of the ADD Environmental Designee in consultation with the Resource Agencies that no suitable location exists within the impacted watershed.

Mitigation Measure 4.3.10: Whenever maintenance will impact wetland vegetation, a wetland mitigation plan shall be prepared in accordance with the Conceptual Wetland Restoration Plan contained in Appendix H of the Biological Technical Report, included as Appendix D.3 of the PEIR.

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Mitigation which involves habitat enhancement, restoration or creation shall include a wetland mitigation plan containing the following information:

- Conceptual planting plan including planting zones, grading, and irrigation;
- Seed mix/planting palette;
- Planting specifications;
- Monitoring program including success criteria; and
- Long-term maintenance and preservation plan.

Mitigation which involves habitat acquisition and preservation shall include the following:

- Location of proposed acquisition;
- Description of the biological resources to be acquired including support for the conclusion that the acquired habitat mitigates for the specific maintenance impact; and
- Documentation that the mitigation area would be adequately preserved and maintained in perpetuity.

Mitigation which involves the use of mitigation credits shall include the following:

- Location of the mitigation bank;
- Description of the credits to be acquired including support for the conclusion that the acquired habitat mitigates for the specific maintenance impact; and
- Documentation that the credits are associated with a mitigation bank which has been approved by the appropriate Resource Agencies.

Mitigation Measure 4.3.11: Upland impacts shall be mitigated through payment into the City’s Habitat Acquisition Fund, acquisition and preservation of specific land, or purchase of mitigation credits in accordance with the ratios identified in Table 4.3-11. Upland mitigation shall be completed within six months of the date the related maintenance has been completed.

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Table 4.3-11 UPLAND HABITAT MITIGATION RATIOS ¹			
Vegetation Type	Tier	Location of Impact with Respect to the MHPA	
		Inside	Outside
Coast live oak woodland	I	2:1	1:1
Scrub oak chaparral	I	2:1	1:1
Southern foredunes	I	2:1	1:1
Beach	I	2:1	1:1
Diegan coastal sage scrub	II	1:1	1:1
Coastal sage-chaparral scrub	II	1:1	1:1
Broom baccharis scrub	II	1:1	1:1
Southern mixed chaparral	IIA	1:1	0.5:1
Non-native grassland	IIIB	1:1	0.5:1
Eucalyptus woodland	IV	--	--
Non-native vegetation/ornamental	IV	--	--
Disturbed habitat/ruderal	IV	--	--
Developed	IV	--	--

¹ Assumes mitigation occurs within an MHPA

Mitigation Measure 4.3.12: Loss of habitat for the coastal California gnatcatcher shall be mitigated through the acquisition of suitable habitat or mitigation credits at a ratio of 1:1. Mitigation shall take place within the MHPA, and shall be accomplished within six months of the date maintenance is completed.

Mitigation Measure 4.3.13: Prior to commencing any maintenance activity which may impact sensitive biological resources, the monitoring biologist shall verify that the following actions have been taken, as appropriate:

- Fencing, flagging, signage, or other means to protect sensitive resources to remain after maintenance have been implemented;
- Noise attenuation measures needed to protect sensitive wildlife are in place and effective; and/or
- Nesting raptors have been identified and necessary maintenance setbacks have been established if maintenance is to occur between January 15 and August 31.

The designated biological monitor shall be present throughout the first full day of maintenance, whenever mandated by the associated IBA. Thereafter, through the duration of the maintenance activity, the monitoring biologist shall visit the site weekly to confirm that measures required to protect sensitive resources (e.g., flagging, fencing, noise barriers) continue to be effective. The monitoring biologist shall document monitoring events via a Consultant Site Visit Record. This record shall be sent to the MM each month. The MM will forward copies to MMC.

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Mitigation Measure 4.3.14: Whenever off-site mitigation would result in a physical disturbance to the proposed mitigation area, the City will conduct an environmental review of the proposed mitigation plan in accordance with CEQA. If the off-site mitigation would have a significant impact on biological resources associated with the mitigation site, mitigation measures will be identified and implemented in accordance with the MMRP resulting from that CEQA analysis.

Mitigation Measure 4.3.15: Impacts to listed or endemic sensitive plant species shall be offset through implementation of one or a combination of the following actions:

- Impacted plants would be salvaged and relocated;
- Seeds from impacted plants would be collected for use at an off-site location;
- Off-site habitat that supports the species impacted shall be enhanced and/or supplemented with seed collected on site; and/or
- Comparable habitat at an off-site location shall be preserved.

Mitigation which involves relocation, enhancement or transplanting sensitive plants shall include the following:

- Conceptual planting plan including grading and, if appropriate, temporary irrigation;
- Planting specifications;
- Monitoring Program including success criteria; and
- Long-term maintenance and preservation plan.

Mitigation Measure 4.3.16: Maintenance activities shall not occur within the following areas:

- 300 feet from any nesting site of Cooper’s hawk (*Accipiter cooperii*);
- 1,500 feet from known locations of the southern pond turtle (*Clemmys marmorata pallida*);
- 900 feet from any nesting sites of northern harriers (*Circus cyaneus*);
- 4,000 feet from any nesting sites of golden eagles (*Aquila chrysaetos*); or
- 300 feet from any occupied burrow or burrowing owls (*Athene cunicularia*).

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MAINTENANCE PLANS FOR: MURPHY CANYON CHANNEL ENVIRONMENTAL MITIGATION REQUIREMENTS					
CITY OF SAN DIEGO, CALIFORNIA DEVELOPMENT SERVICES DEPARTMENT SHEET 7 OF 12 SHEETS					I.O. NO. _____ PROJECT NO. _____
FOR CITY ENGINEER					V.T.M. _____
DESCRIPTION	BY	APPROVED	DATE	FILMED	
ORIGINAL	XXX				
AS-BUILTS					
CONTRACTOR _____ DATE STARTED _____					
INSPECTOR _____ DATE COMPLETED _____					
-7-D					