STEVENS · CRESTO ENGINEERING, INC .

HYDROMODIFICATION MANAGEMENT PLAN

FOR:

OTAY CROSSINGS COMMERCE PARK

COUNTY TRACT 5405R

OTAY MESA, CA

Prepared for:
KEARNY PCCP OTAY 311, LLC
400 South Sierra Ave., Suite 100
Solana Beach, Ca 92075

Prepared by:
STEVENS CRESTO ENGINEERING INC.
9665 Chesapeake Drive, Suite 320
San Diego, CA 92123

Date: 06/05/12
Revised: 11/08/12
SCE Project: 03043.08

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OTAY MESA, CA

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 County of San Diego is confined to a review only and does not relieve me, as Engineer of Work, of my responsibilities for project design.

Stevens Cresto Engineering, Inc.
9665 Chesapeake Drive
Suite 320
San Diego, CA 92123
Tel: (858) 694-5660

8/14/12

Mark E. Stevens Date
R.C.E. 35502

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SECTION 1

PROJECT DESCRIPTION

Purpose

This Hydromodification Management Plan has been prepared to demonstrate that the proposed project, TM 5405R, will comply with the County of San Diego's hydromodification criteria, as detailed in the Final Hydromodification Management Plan (HMP), dated March 2011. The HMP was developed by the County of San Diego, and its NPDES Co-permittees, to address the hydromodification requirements issued by the Regional Water Quality Control Board in Order R9-2007-0001, Provision D.1.g (6). Provision D.1.g (6) states, "Each Co-permittee shall collaborate with the other Co-permittees to develop and implement a Hydromodification Management Plan (HMP) to manage increases in runoff discharge rates and durations from all Priority Development Projects, where such increased rates and durations are likely to cause increased erosion of channel beds and banks, sediment pollutant generation, or other impacts to beneficial uses and stream habitat due to increased erosive force. The HMP, once approved by the Regional Board, shall be incorporated into the local SUSMP and implemented by each Co-permittee so that post-project runoff discharge rates and durations shall not exceed estimated pre-project discharge rates and durations where the increased discharge rates and durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses, attributable to changes in the discharge rates and durations." The flow control criteria provided in the approved HMP, which is applicable to non-exempt projects of all sizes, is as follows:

> 1) For flow rates from 10%, 30%, or 50% of the pre-project 2-year runoff event (0.1Q2, 0.3Q2, or 0.5Q2) to the pre-project 10-year runoff event (Q10), the post-project discharge rates and durations shall not deviate above the pre-project rates and durations by more than 10% over and for more than 10% of the length of the flow duration curve. The specific lower flow threshold will depend on results from the SCCWRP channel screening study and the critical flow calculator.
>
> 2) For flow rates ranging from the lower flow threshold to Q5, the post-project peak flows shall not exceed pre-project peak flows. For flow rates from Q5 to Q10, post-project peak flows may exceed pre-project flows by up to 10% for a 1-year frequency interval. For example, post-project flows could exceed pre-project flows by up to 10% for the interval from Q9 to Q10 or from Q5.5 to Q6.5, but not from Q8 to Q10.

Per the first of the two flow criteria, the lower flow threshold is determined based on an assessment of the downstream receiving channel. Projects discharging to channels determined to be highly susceptible to erosion shall use 0.1Q2 as the lower threshold, those discharging to channels with a moderate susceptibility shall use

0.3Q2, and those discharging to channels with a low susceptibility shall use 0.5Q2. If a channel assessment has not been performed, the project shall use 0.1Q2.

Project Description

Otay Crossings Commerce Park (OCCP), TM 5405R, is a commercial/ industrial subdivision containing 47 lots on approximately 312 acres. The project is located south of Otay Mesa Road and east of Alta Road in the Otay Mesa area within the County of San Diego, California; County of San Diego Tract 5405. This Hydromodification Management Plan accompanies the Tentative Map for "Otay Crossings Commerce Park", County of San Diego Tract 5405, and assesses the need for hydromodification Best Management Practices (BMPs) to comply with the HMP.

Project completion and permanent post construction BMPs for the proposed development of TM 5405R will be implemented in two steps. During the initial phase of the project, completion of construction will yield only rough graded pads and public roads. Water quality, erosion control, and hydromodification BMPs will be incorporated as needed to address this level of development. Regional detention ponds will be constructed to mitigate for the increase in runoff generated by the public roads, and will be sized to comply with the HMP. Ultimately, rough graded pads will be purchased and occupied by industrial/commercial facilities. Currently, none of the rough graded pads are proposed to be built-out and no specifics are known about the ultimate developments that will eventually be constructed.

Exhibit C, within Section 4, provides minimum on-lot BMP sizing requirements to be implemented during the ultimate build-out of the project. During the Site Plan review that will take place prior to the development of each lot, as mandated by the East Otay Mesa Specific Plan, each proposed development will need to demonstrate that it is in compliance with the requirements indicated in this report. Should a project propose alternative BMPs, or any variation to the assumptions made within this report, then that project will need to provide additional modeling and analysis to demonstrate that the alternative BMPs will satisfy the hydromodification criteria.

Method of Analysis

The hydromodification analysis within this report utilizes the San Diego BMP Sizing Calculator (BMP Sizing Calculator). The BMP Sizing Calculator provides BMP design guidelines based on pre-project and post-project DMA and slope information. A rain gauge basin map is incorporated into the software to determine the appropriate rain gauge for use at the project of interest. Additionally, channel assessment results can be input into the calculator, along with particular properties of the downstream channel, to calculate the appropriate lower threshold for the project.

The OCCP project is within the Lindbergh field rain gauge basin and will utilize a lower threshold of 0.5Q2. The lower threshold of 0.5Q2 is based on a channel assessment performed for OCCP under separate cover.

The pre- and post-project land use and slope values for OCCP are shown on Exhibits A and B in Section 3. Ridges running through the project divide the site into three drainage basins labeled Basins "A", "B", and "C" within this report. All three basins drain north to south and discharge to natural terrain south of the project. Runoff generated by Basin B is collected and conveyed in an open channel that runs through the middle of the project. See Exhibit "A-2" – Existing Drainage Patterns, in Section 3, for on-site drainage conditions. The exhibit was taken from the CEQA Preliminary Hydrology/ Drainage Study for Otay Crossings Commerce Park.

The pre- and post-project land use and slope values were input, as appropriate, into the BMP Sizing Calculator, to calculate the required design parameters of the proposed hydromodification BMPs. Additional calculation details, and BMP Sizing Calculator output, can be found in Section 4.

Maintenance of Hydromodification Facilities

The proposed hydromodification facilities at OCCP will fall under second and third category maintenance mechanisms, as defined within the County of San Diego "Standard Urban Storm Water Mitigation Plan Requirements for Development Applications", dated January 8, 2011. The on-lot BMPs constructed during the ultimate build-out of each lot will fall under the second category maintenance mechanisms, requiring that a Stormwater Facilities Maintenance Agreement, with Easement and Covenants be entered into between the owner and the County of San Diego, obliging the owner to maintain the project category two BMPs into perpetuity. Prior to recordation of the agreement, the owner/ developer will provide the County with security to back up the maintenance agreement, which shall remain in place for an interim period of 5 years. The amount of the security shall equal the estimated cost of 2 years of maintenance activities. The BMPs servicing the public right-of-way will fall under third category maintenance mechanisms, requiring the establishment of a Storm Water Maintenance Assessment District to maintain the proposed BMPs into perpetuity. The primary funding mechanism will be a special assessment under the authority of the Flood Control District. The assessment will be collected with property tax. Because this primary funding mechanism will require a substantial amount of time to establish and collect assessments, prior to establishment of the zone, a developer fee will be needed to cover the initial maintenance period of 24 months.

Conclusion

The calculations within this report assess the feasibility of satisfying the HMP and establish detention facility sizes and locations for the project. Based on the detention requirements and the anticipated facility sizes, as illustrated on Exhibit C within Section 5, the OCCP project will comply with the HMP. During the Site Plan review that will take place prior to the development of each lot, as mandated by the East Otay Mesa Specific Plan, each proposed development will need to demonstrate that it is in compliance with the requirements indicated in this report. Should a project propose alternative BMPs, or any variation to the assumptions made within this

report, then that project will need to provide additional modeling and analysis to demonstrate that the alternative BMPs will satisfy the hydromodification criteria.

"No Channel" Option – TM 5405R provides a design option for eliminating the open channel within the project and replacing it with a box culvert within Lone Star Road. Storm water routing will not change with the proposed configuration, only the location and type of storm water conveyance will change. These factors have no impact on the calculations within this study and hydromodification detention pond sizing requirements will remain as shown on Exhibit C. The only minor change to the calculations will be a slight increase in hydromodification mitigation requirements for the lots along the open channel, due to the increase in developable area within those lots. As such, the "no channel option" generally conforms to the findings and calculations within this study.

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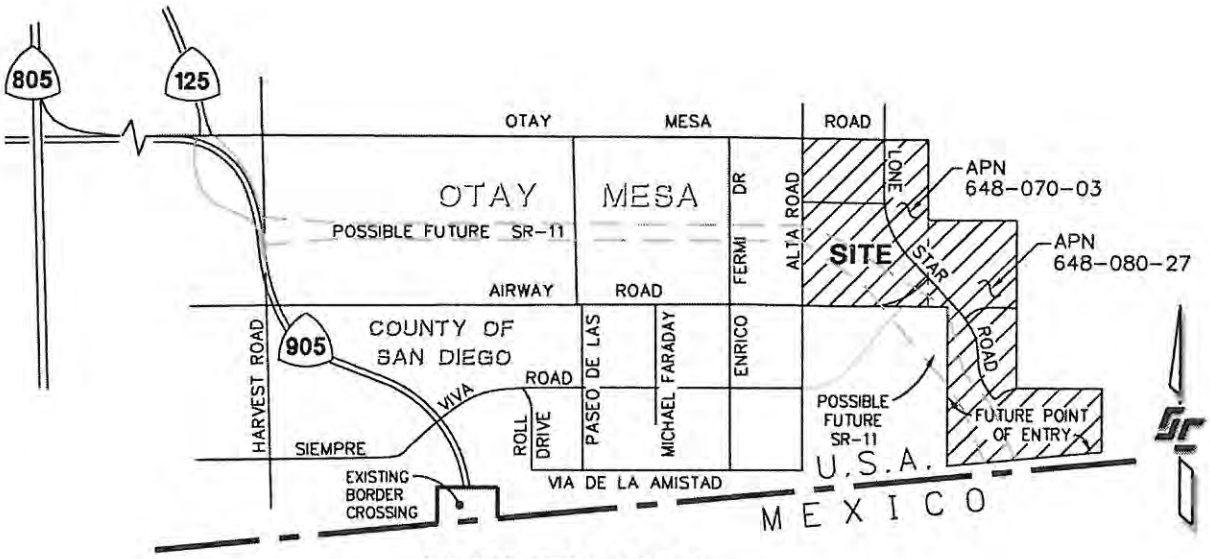
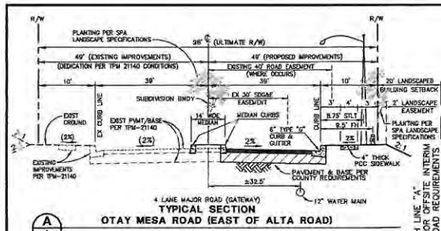
SECTION 2

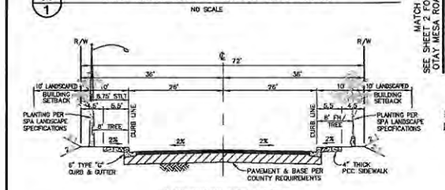
Tentative Map 5405R (Reduced – See Section 5 for Full Size)
Preliminary Grading Plan (Reduced – See Section 5 for Full Size)
Tentative Map 5405R, No Channel Option (Reduced)
Preliminary Grading Plan, No Channel Option (Reduced)

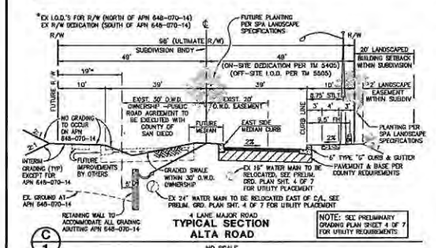
VICINITY MAP
(NO SCALE)

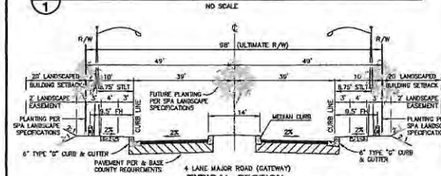


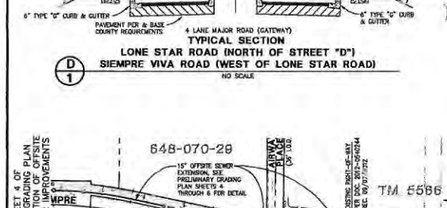
VICINITY MAP
NO SCALE











COUNTY OF SAN DIEGO TRACT 5405R

OTAY CROSSINGS COMMERCE PARK

TENTATIVE MAP

SHEET 1 OF 3

4 LANE MAJOR ROAD (GATEWAY)
TYPICAL SECTION
OTAY MESA ROAD (EAST OF ALTA ROAD)
A/1
NO SCALE

2 LANE INDUSTRIAL/COMMERCIAL ROAD
TYPICAL SECTION
CALLE VENTNER
STREETS "A", "B", "C" AND "D"
B/1
NO SCALE

4 LANE MAJOR ROAD
TYPICAL SECTION
ALTA ROAD
C/1
NO SCALE

NOTE: SEE PRELIMINARY GRADING PLAN SHEET 4 OF 7 FOR UTILITY REQUIREMENTS

4 LANE MAJOR ROAD (GATEWAY)
TYPICAL SECTION
LONE STAR ROAD (NORTH OF STREET "D")
SIEMPRE VIVA ROAD (WEST OF LONE STAR ROAD)
D/1
NO SCALE

4 LANE MAJOR ROAD
TYPICAL SECTION
SIEMPRE VIVA ROAD (WEST OF ALTA ROAD)
G/1
NO SCALE

NOTE: SEE PRELIMINARY GRADING PLAN SHEET 4 OF 7 FOR UTILITY REQUIREMENTS

SECTION J/1 NO SCALE

SECTION K/1 NO SCALE

SECTION L/1 NO SCALE

NOTE

RECYCLED WATER MAINS ARE REQUIRED OF THIS SUBDIVISION AND WILL BE LOCATED TO THE SATISFACTION OF THE OTAY MUNICIPAL WATER DISTRICT.

4 LANE INDUSTRIAL / COMMERCIAL COLLECTOR
TYPICAL SECTION
SIEMPRE VIVA ROAD (EAST OF LONE STAR ROAD)
LONE STAR ROAD (SOUTH OF STREET "D")
E/1
NO SCALE

VICINITY MAP
NO SCALE

TYPICAL DRAINAGE CHANNEL SECTION
H/1
NO SCALE

ZONING

EAST OTAY MESA BUSINESS PARK SPECIFIC PLAN			
ZONE		MIXED INDUSTRIAL	RURAL RESIDENTIAL
USE REGULATIONS		S-88	S-88
ANIMAL REGULATIONS		—	A
DEVELOPMENT REGULATIONS	DENSITY	—	0.05
	LOT SIZE	30,000 S.F.	20 AC.
	BUILDING TYPE	W	B
	FLOOR AREA	—	—
	FLOOR AREA RATIO	0.4	—
	BUILDING HEIGHT	R[5]	C (25')
	BUILDING COVERAGE	0.40	—
	SETBACKS	V	C
	PRIME ARTERIAL RD.	35'	—[3]
	MAJOR RD.	35'	—[3]
	COLLECTOR OR LESS	25'	—[3]
	INTERIOR YARD	—[2]	15'
	FRONT YARD	—[2]	60'[3]
	EXTERIOR YARD	—[2]	35'[3]
	REAR YARD	—[2]	25'
SPECIAL AREA REGULATIONS		B, POR. G[1]	G[4]

FOOTNOTES:

[1] COMMUNITY DESIGN REVIEW AREA REGULATIONS/SENSITIVE AREA RESOURCE REGULATIONS.

[2] SETBACKS TO BE ESTABLISHED DURING PLANNED DEVELOPMENT, USE PERMIT, OR SITE PLAN REVIEW PROCEDURE.

[3] LOT 52 (RURAL RESIDENTIAL ZONE) IS OPEN SPACE AND DOES NOT ABUT ANY ROADS.

[4] SENSITIVE AREA RESOURCE REGULATIONS.

[5] GREATER THAN 60'. ANY HEIGHT IN EXCESS OF 60 FEET REQUIRES A MAJOR USE PERMIT.

LOT AREAS (ACRES)

NO.	GROSS	HYDRO BASIN	NET	NO.	GROSS	HYDRO BASIN	NET	NO.	GROSS	HYDRO BASIN	NET
1	2.3	-	-	19	4.2	—	-	37	3.2	1.1	2.1
2	2.2	-	-	20	4.4	—	-	38	3.1	—	-
3	2.2	-	-	21	4.1	0.9	3.2	39	3.2	—	-
4	2.2	—	-	22	2.9	—	-	40	3.8	—	-
5	4.4	—	-	23	3.9	0.5	3.4	41	2.8	—	-
6	4.6	-	-	24	5.0	-	-	42	2.8	—	-
7	1.9	-	-	25	8.5	2.6	5.9	43	27.8	—	-
8	2.4	-	-	26	4.6	—	-	44	71.0	—	-
9	1.9	—	-	27	3.4	—	-	45	36.3	—	-
10	1.4	-	-	28	3.3	—	-	46	6.7	—	-
11	2.0	-	-	29	2.8	—	-	47	4.7	—	-
12	2.3	—	-	30	3.7	—	—				
13	2.1	—	-	31	3.1	—	-				
14	2.9	—	-	32	3.2	—	—				
15	2.1	—	-	33	2.5	—	-				
16	5.1	—	-	34	3.9	1.1	2.8				
17	3.6	-	-	35	3.3	1.0	2.3				
18	3.9	—	-	36	4.6	—	-				

DEVELOPABLE LOT AREA*		132.4 AC.
HYDRO BASIN		7.2 AC.
OPEN SPACE AREA (LOTS 45, 46 & 47)		47.7 AC.
NO PERMANENT STRUCTURES (LOTS 43 & 44)**		98.8 AC.
INTERNAL ROAD DEDICATIONS	19.8 AC.	
OTAY MESA ROAD	2.3 AC.	
ALTA ROAD	2.9 AC.	
AIRWAY ROAD	0.4 AC.	
TOTAL ROAD DEDICATIONS		25.4 AC.
TOTAL PROJECT BOUNDARY AREA		311.5 AC.

* DEVELOPABLE AREA = GROSS SITE AREA – (STREETS) – (OPEN SPACE) – (HYDRO BASINS) – (FUTURE SR-11 & BORDER CROSSING)

** LOTS ARE SET ASIDE FOR FUTURE SR-11 & 3RD BORDER CROSSING. TRUCK PARKING ALLOWED AS AN INTERIM USE UPON APPROVAL OF A MAJOR USE PERMIT.

NOTE: SEE "PRELIMINARY ROUTE STUDIES FOR CIRCULATION ELEMENT ROADWAY ALIGNMENT AND GRADES CORRESPONDING TO THE DESIGN REPRESENTED HEREON"

ASSESSOR'S PARCEL NUMBERS & TAX RATE AREA TABLE

PARCEL NUMBER	TAX RATE AREA
648-070-03	84035
648-080-27	84035

OTAY SUBREGIONAL PLAN

EXISTING & PROPOSED: SPA 22 (GPA 92-04)
EAST OTAY MESA BUSINESS PARK SPECIFIC PLAN

REGIONAL CATEGORY

VILLAGE/RURAL

PARK LAND DEDICATION

NOT REQUIRED IN INDUSTRIAL ZONE

BENCH MARK

BRASS DISK STAMPED "JM 154 1969" LOCATED 3.09 MILES EAST ALONG OTAY MESA ROAD FROM INTERSECTION OF OTAY VALLEY ROAD, 20.5' SOUTH OF CENTERLINE OF OTAY MESA ROAD AND ABOUT 170' EAST OF CENTERLINE INTERSECTION OF HARVEST ROAD. STEEL FENCEPOST MARKER LIES 1' SOUTH OF DISK. RECORD FROM COUNTY OF SAN DIEGO VERTICAL CONTROL RECORD. ELEVATION: 541.10 DATUM: U.S.C.& G.S., M.S.L.

LEGAL DESCRIPTION

THE NORTHWEST QUARTER OF SECTION 31, TOWNSHIP 18 SOUTH, RANGE 1 EAST, SAN BERNARDINO BASE AND MERIDIAN IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT, TOGETHER WITH THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER, THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER, ALL IN SECTION 32, TOWNSHIP 18 SOUTH, RANGE 1 EAST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

SLOPE ANALYSIS TABLE

0–15% SLOPES	299.0± AC.
15–25% SLOPES	10.4± AC.
25–50% SLOPES	1.8± AC.
50% OR GREATER SLOPES	0.09± AC.
TOTAL	311.3± AC.

GRADING QUANTITIES

CUT: 2,100,000 CUBIC YARDS
FILL: 2,100,000 CUBIC YARDS
EXPORT: 8

GENERAL NOTES

1. EXISTING ZONING – S-88
2. PROPOSED ZONING – S-88
3. GROSS ACREAGE WITHIN SUBDIVISION BOUNDARY: 311.5 ACRES, CROSS AREA MINUS ROAD EASEMENTS: 286.0 ACRES; PROPOSED ON-SITE STREETS: 25.5 ACRES
4. TOTAL NUMBER OF LOTS: 47 MIXED INDUSTRIAL LOTS, OPEN SPACE LOTS AND FUTURE SR-11. MINIMUM INDUSTRIAL LOT SIZE IS 1.40 ACRES.
5. CONTOUR INTERVAL OF 2 FEET (MEAN SEA LEVEL DATUM).
6. SPECIAL ASSESSMENT ACT PROCEEDINGS – MAY BE REQUESTED FOR THIS PROJECT.
7. IMPROVEMENTS, EASEMENTS AND DEDICATIONS ARE AS REQUIRED BY THE COUNTY ENGINEER.
8. UTILITIES:
   - A. SEWER – SAN DIEGO COUNTY SANITATION DISTRICT
   - B. WATER – OTAY WATER DISTRICT
   - C. GAS & ELECTRIC – SAN DIEGO GAS & ELECTRIC COMPANY
   - D. TELEPHONE – AT&T CALIFORNIA PUBLIC WORKS
9. FIRE PROTECTION – SAN DIEGO COUNTY RURAL FIRE DISTRICT
10. SCHOOLS : SAN YSIDRO SCHOOL DISTRICT
    SWEETWATER UNION HIGH SCHOOL DISTRICT
11. ALL PROPOSED UTILITIES TO BE UNDERGROUND.
12. ALL EXISTING EASEMENTS NOT REMAINING IN USE SHALL BE VACATED PRIOR TO RECORDATION OF THE FINAL MAP(S) SUBJECT TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS.
13. GENERAL PLAN REGIONAL CATEGORY: VILLAGE/RURAL
14. EXISTING TOPOGRAPHY WAS COMPILED USING PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY, BY PHOTO GEODETIC CORP. DATED: 12-24-03
15. THE FOLLOWING WAIVERS FROM THE SUBDIVISION ORDINANCE DESIGN STANDARDS ARE REQUESTED: DESIGN EXCEPTION FOR DRIVEWAYS ALONG LONE STAR ROAD (A GATEWAY ROAD THROUGH THE SUBDIVISION)
16. LAMBERT COORDINATES: 138–1765
17. DRAINAGE: STREETS & STORM DRAIN AS REQUIRED.
18. ALL ON-SITE STREETS WILL BE PUBLIC.
19. THIS IS A SOLAR SUBDIVISION AS REQUIRED BY SECTION 81.401 (n), OF THE SUBDIVISION ORDINANCE. ALL LOTS HAVE AT LEAST 100 SQ. FT. OF UNOBSTRUCTED ACCESS TO SUNLIGHT ON THE BUILDABLE PORTION OF THE LOT.
20. THIS PROJECT IS A MULTI-UNIT SUBDIVISION. (5 UNITS) MULTIPLE FINAL MAPS MAY BE FILED PURSUANT TO SECTION 66456.1 OF THE SUBDIVISION MAP ACT.
21. STREET LIGHTS WILL BE INSTALLED TO COMPLY WITH THE REQUIREMENTS AS SPECIFIED BY THE COUNTY STANDARDS.
22. STORM WATER DETENTION WILL BE PROVIDED IN ACCORDANCE COUNTY REQUIREMENTS.
23. THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN A VALID GRADING PERMIT AND PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.

LEGEND

DESCRIPTION	SYMBOL
PROPOSED LOT NUMBER	① THRU ㊼
SUBDIVISION BOUNDARY	— — —
UNIT BOUNDARY	UNIT 1 UNIT 2
PROPOSED LOT LINE	— - - —
FUTURE ULTIMATE RIGHT-OF-WAY	——
EASEMENT LINE	— — — —
PROPOSED PVC WATER MAIN (12" MINIMUM)	— W — W —
PROPOSED SEWER MAIN W/MANHOLE	—o— S —o—
PROPOSED STORM DRAIN	- - - SD - - -
PROPOSED STORM DRAIN INLET/CATCH BASIN	- - -□ - - -⊠
PROPOSED STORM DRAIN CLEANOUT	- - -⊡- - -
PROPOSED INTERIM STORM WATER COLLECTION BASIN, STAGE OUTLET RISER AND OVERFLOW (WHERE OCCURS)	- - -⊡
PROPOSED STORM DRAIN HEADWALL/ENERGY DISSIPATOR	
EXISTING CONTOUR	520

EXISTING EASEMENT TABLE

1 HIGHWAY EMBANKMENT, SLOPES, ELECTRICAL AND COMMUNICATIONS FACILITIES EASEMENT TO COUNTY OF SAN DIEGO RECORDED 11/5/1987 AS FILE NO. 87-624337, O.R. AND EXTENSION AGREEMENT WITH SAN DIEGO GAS & ELECTRIC COMPANY RECORDED 6/20/1989 AS FILE NO. 89-3[illegible]89, O.R.

2 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17469, O.R.

3 LINE EASEMENT TO SAN DIEGO GAS AND ELECTRIC CO. RECORDED 10/19/1948 IN BOOK 2985, PAGE 183, O.R.

4 40' WIDE EASEMENT FOR COUNTY HIGHWAY (ROAD SURVEY 793) RECORDED 1/31/1939 IN BOOK 869, PAGE 177. O.R.

5 30' WIDE EASEMENT TO SAN DIEGO GAS AND ELECTRIC COMPANY (OR WIDER IF REQUIRED BY NECESSARY CUTS AND FILLS) RECORDED 1/4/1983 AS FILE NO. 83-002642, O.R. AND RE-RECORDED 2/4/1983 AS FILE NO. 83-037564, O.R.

6 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17470, O.R.

7 EASEMENT FOR PUBLIC ROAD AND INCIDENTAL PURPOSES, RECORDED 3/8/1900 IN BOOK 257, PAGE 500 OF DEEDS.

8 EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF SAN DIEGO GAS & ELECTRIC, RECORDED 12/7/1987 AS INSTRUMENT NO. 87-673753 OF O.R.

9 EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF PACIFIC BELL, RECORDED 12/10/1987 AS INSTRUMENT NO. 87-682036 OF O.R.

10 EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF SAN DIEGO GAS & ELECTRIC, RECORDED 6/4/1999 AS INSTRUMENT NO. 1999-0392159 OF O.R.

11 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/15/1967 AS FILE NO. 20418, O.R.

12 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/9/1967 AS FILE NO. 17468, O.R.

A 20' WIDE EASEMENT TO SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED 9/24/1985 AS FILE NO. 85-3[illegible]968, O.R.

KEY NOTES

① PROPOSED DESILTATION BASIN (WITHIN FUTURE CALTRANS RIGHT-OF-WAY)
② PROPOSED DETENTION BASIN (HYDROMODIFICATION BMP)
③ EXISTING 42" RCP STORM DRAIN TO BE ABANDONED
④ SEE PRELIMINARY ROUTE STUDIES FOR ROADWAY ELEVATION ON CIRCULATION ELEMENT ROADWAYS.

MINIMUM ON-LOT BMPS REQUIRED TO SATISFY HYDROMODIFICATION CRITERIA

LOT NUMBER	LOT ACREAGE (Ac)	MINIMUM REQUIRED BIORETENTION AREA[1,2,3] (SF)	MINIMUM REQUIRED VOLUME OF UNDERGROUND DETENTION[1,2,3] (CF)	MAXIMUM OUTLET ORIFICE SIZE[1,2,3] (IN)	LOT NUMBER	LOT ACREAGE (Ac)	MINIMUM REQUIRED BIORETENTION AREA[1,2,3] (SF)	MINIMUM REQUIRED VOLUME OF UNDERGROUND DETENTION[1,2,3] (CF)	MAXIMUM OUTLET ORIFICE SIZE[1,2,3] (IN)	LOT NUMBER	LOT ACREAGE (Ac)	MINIMUM REQUIRED BIORETENTION AREA[1,2,3] (SF)	MINIMUM REQUIRED VOLUME OF UNDERGROUND DETENTION[1,2,3] (CF)	MAXIMUM OUTLET ORIFICE SIZE[1,2,3] (IN)	LOT NUMBER	LOT ACREAGE (Ac)	MINIMUM REQUIRED BIORETENTION AREA[1,2,3] (SF)	MINIMUM REQUIRED VOLUME OF UNDERGROUND DETENTION[1,2,3] (CF)	MAXIMUM OUTLET ORIFICE SIZE[1,2,3] (IN)
LOT 1	2.3	[illegible]	10,871	2.0	LOT 13	2.1	[illegible]	9,925	1.0	LOT 25	5.9	7,967	[illegible]	2.0	LOT 37	2.1	[illegible]	[illegible]	1.0
LOT 2	2.2	[illegible]	[illegible]	2.0	LOT 14	2.9	[illegible]	13,707	2.0	LOT 26	4.6	6,212	21,741	2.0	LOT 38	3.1	[illegible]	[illegible]	2.0
LOT 3	2.2	[illegible]	[illegible]	2.0	LOT 15	2.1	[illegible]	[illegible]	1.0	LOT 27	3.4	4,591	[illegible]	2.0	LOT 39	3.2	[illegible]	15,125	2.0
LOT 4	2.2	2,971	[illegible]	2.0	LOT 16	5.1	[illegible]	[illegible]	2.0	LOT 28	3.3	4,456	[illegible]	2.0	LOT 40	3.8	5,132	[illegible]	2.0
LOT 5	4.4	[illegible]	[illegible]	2.0	LOT 17	[illegible]	[illegible]	17,015	2.0	LOT 29	2.6	3,511	[illegible]	2.0	LOT 41	2.8	3,781	13,234	2.0
LOT 6	4.6	6,212	21,741	2.0	LOT 18	3.9	[illegible]	[illegible]	2.0	LOT 30	3.7	[illegible]	[illegible]	2.0	LOT 42	2.8	3,781	13,234	2.0
LOT 7	1.9	2,568	[illegible]	1.0	LOT 19	4.2	[illegible]	[illegible]	2.0	LOT 31	3.1	[illegible]	[illegible]	2.0					
LOT 8	2.4	[illegible]	[illegible]	2.0	LOT 20	4.4	[illegible]	[illegible]	2.0	LOT 32	3.2	[illegible]	15,125	2.0					
LOT 9	1.9	[illegible]	[illegible]	1.0	LOT 21	3.2	4,321	15,125	2.0	LOT 33	2.5	3,376	[illegible]	2.0					
LOT 10	1.4	[illegible]	6,617	1.0	LOT 22	2.9	3,916	13,707	2.0	LOT 34	2.8	3,781	13,234	2.0					
LOT 11	2.0	[illegible]	[illegible]	1.0	LOT 23	3.4	[illegible]	16,070	2.0	LOT 35	2.3	3,106	10,871	2.0					
LOT 12	2.3	[illegible]	[illegible]	2.0	LOT 24	5.0	[illegible]	23,632	2.0	LOT 36	4.6	6,212	21,741	2.0					

[1] BIORETENTION AREA AND UNDERGROUND DETENTION CRITERIA CALCULATED USING THE SAN DIEGO BMP SIZING CALCULATOR.

[2] ON-LOT BMPS MUST BE PLACED IN A LOCATION ON THE INDIVIDUAL LOT THAT MAXIMIZES THE CAPTURE OF THE ON-SITE RUNOFF.

[3] IF, DURING DEVELOPMENT OF EACH LOT, THE PROVIDED MINIMUM VALUES ARE NOT USED, ADDITIONAL ANALYSIS WILL NEED TO BE PROVIDED TO DEMONSTRATE THAT THE CHOSEN ALTERNATIVE BMPS SATISFY THE HYDROMODIFICATION CRITERIA. THIS ANALYSIS WILL BE PROVIDED DURING THE SITE PLAN REVIEW PROCESS MANDATED BY THE EAST OTAY MESA SPECIFIC PLAN FOR THE DEVELOPMENT OF EACH LOT.

KEARNY
Real Estate Company

OWNER/SUBDIVIDER

KEARNY REAL ESTATE COMPANY
530 B STREET, SUITE 1800
SAN DIEGO, CA 92101
PHONE: 619-702-8130
FAX: 619-702-7812

KEARNY PCCP OTAY 311, LLC.

BY: ______________________ DATE:
JOHN V. BRAGG JR.
VICE PRESIDENT

ENGINEER OF WORK

______________________ DATE
MARK E. STEVENS
R.C.E. 35502

REGISTERED PROFESSIONAL ENGINEER
MARK E. STEVENS
No. 35502
Exp. 9-30-13
CIVIL
STATE OF CALIFORNIA

STEVENS-CRESTO ENGINEERING, INC.
CIVIL ENGINEERS • LAND PLANNERS • SURVEYORS

9665 CHESAPEAKE DRIVE
SUITE 320
SAN DIEGO, CA 92123-1352

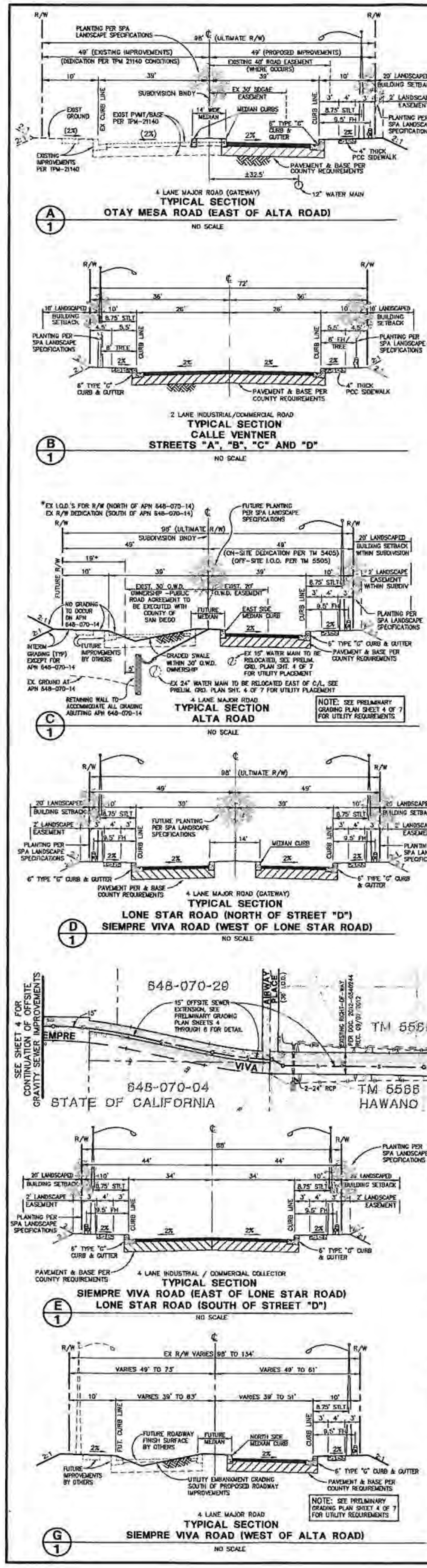
PHONE: 858.694.5660
FAX: 858.694.5661
www.scengr.com

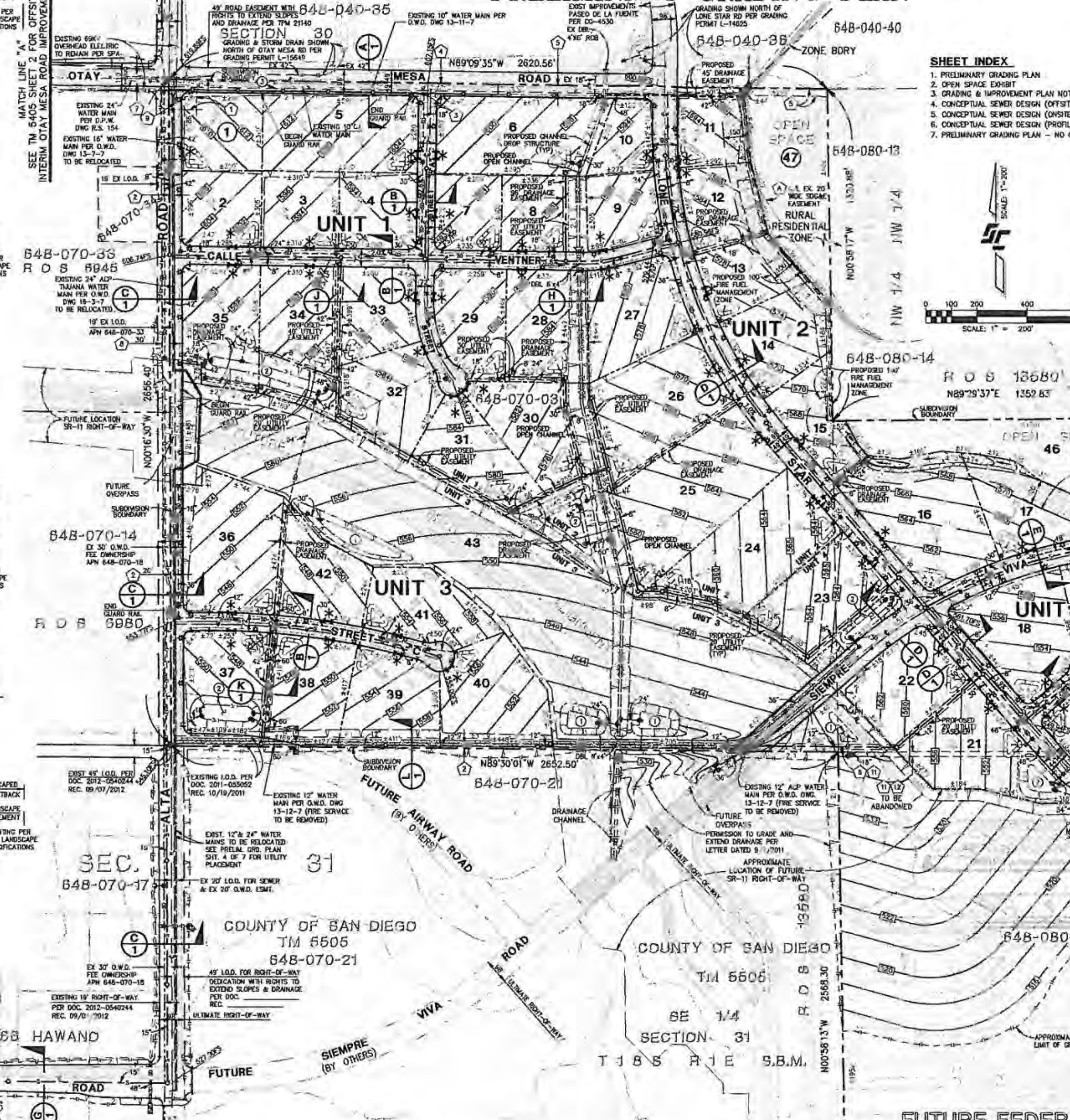
* REDUCED COPY. SEE SECTION 5 FOR FULL SIZE *

COUNTY OF SAN DIEGO TRACT 5405R

OTAY CROSSINGS COMMERCE PARK

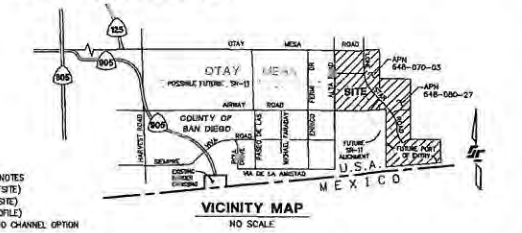
PRELIMINARY GRADING PLAN

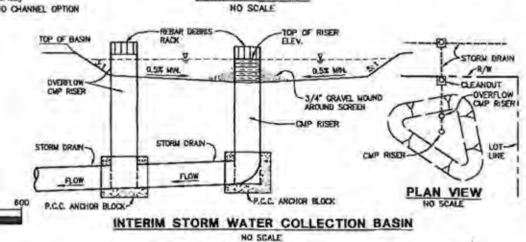


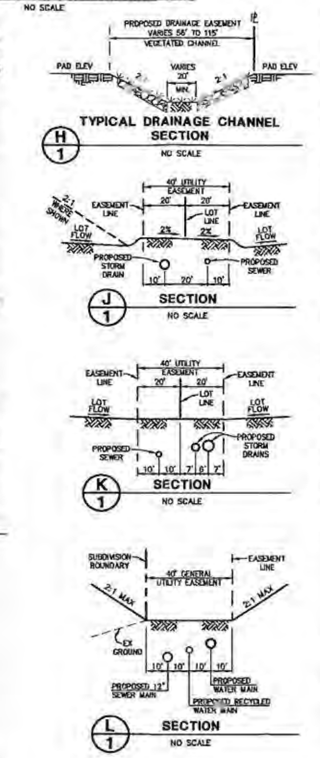


SHEET INDEX

1. PRELIMINARY GRADING PLAN
2. OPEN SPACE EXHIBIT
3. GRADING & IMPROVEMENT PLAN NOTES
4. CONCEPTUAL SEWER DESIGN (OFFSITE)
5. CONCEPTUAL SEWER DESIGN (ONSITE)
6. CONCEPTUAL SEWER DESIGN (PROFILE)
7. PRELIMINARY GRADING PLAN – NO CHANNEL OPTION







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 COUNTY OF SAN DIEGO.

STANDARD SPECIFICATIONS:

1. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION "GREEN BOOK" (LATEST EDITION), INCLUDING THE REGIONAL AND CITY OF SAN DIEGO SUPPLEMENT AMENDMENT.
2. SAN DIEGO COUNTY GRADING ORDINANCE.
3. CALIFORNIA DEPARTMENT OF TRANSPORTATION, " MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES," (LATEST EDITION).
4. STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS (LATEST EDITION).

STANDARD DRAWINGS:

1. THE CURRENT SAN DIEGO AREA REGIONAL STANDARD DRAWINGS.
2. STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD PLAN (LATEST EDITION).

LEGEND

DESCRIPTION	SYMBOL
PROPOSED LOT NUMBER	(1) THRU (47)
SUBDIVISION BOUNDARY	
UNIT BOUNDARY	
PROPOSED LOT LINE	
PROPOSED RIGHT-OF-WAY	
FUTURE ULTIMATE RIGHT-OF-WAY	
EASEMENT LINE	
EXISTING CONTOUR	
PROPOSED CONTOUR	530
PROPOSED SLOPE 2:1	2:1
PROPOSED PAVING	
PROPOSED SEWER MAIN W/MANHOLE	—O—S—O—
PROPOSED PVC WATER MAIN (12" MINIMUM)	— W — W —
PROPOSED STORM DRAIN	---SD---
PROPOSED STORM DRAIN INLET/CATCH BASIN	
PROPOSED STORM DRAIN CLEANOUT	
PROPOSED INTERIM STORM WATER COLLECTION BASIN, STAGE OUTLET RISER AND OVERFLOW (WHERE OCCURS)	
PROPOSED OPEN DRAINAGE CHANNEL	
PROPOSED STORM DRAIN HEADWALL/ENERGY DISSIPATOR	
FLOW DIRECTION	
PROPOSED DRIVEWAY LOCATION	

KEY NOTES

(1) PROPOSED DESILTATION BASIN (WITHIN FUTURE CALTRANS RIGHT-OF-WAY)
(2) PROPOSED DETENTION BASIN (HYDROMODIFICATION BMP)
(3) EXISTING 42" RCP STORM DRAIN TO BE ABANDONED
(4) SEE PRELIMINARY ROUTE STUDIES FOR ROADWAY ELEVATION ON CIRCULATION ELEMENT ROADWAYS.

BENCH MARK

BRASS DISK STAMPED "JM 154 1959" LOCATED 3.09 MILES EAST ALONG OTAY MESA ROAD FROM INTERSECTION OF OTAY VALLEY ROAD, 20.5' SOUTH OF CENTERLINE OF OTAY MESA ROAD AND ABOUT 170' EAST OF CENTERLINE INTERSECTION OF HARVEST ROAD. STEEL FENCEPOST MARKER LIES 1' SOUTH OF DISK. RECORD FROM COUNTY OF SAN DIEGO VERTICAL CONTROL RECORD. ELEVATION: 541.10 DATUM: U.S.C.& G.S., M.S.L.

LEGAL DESCRIPTION

THE NORTHWEST QUARTER OF SECTION 31, TOWNSHIP 18 SOUTH, RANGE 1 EAST, SAN BERNARDINO BASE AND MERIDIAN IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT, TOGETHER WITH THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER, THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER, ALL IN SECTION 32, TOWNSHIP 18 SOUTH, RANGE 1 EAST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

OTAY SUBREGIONAL PLAN

EXISTING & PROPOSED: SPA 22 (GPA 92-04)
EAST OTAY MESA BUSINESS PARK SPECIFIC PLAN

REGIONAL CATEGORY

VILLAGE/RURAL

PARK LAND DEDICATION

NOT REQUIRED IN INDUSTRIAL ZONE

GRADING QUANTITIES

CUT: 2,100,000 CUBIC YARDS
FILL: 2,100,000 CUBIC YARDS
EXPORT: 0

APN'S

648-070-03 AND 648-080-27

ADVISORY NOTE ON STORMWATER OBLIGATIONS:

1. THE ACTIVITIES SHOWN ON THE PLANS ARE SUBJECT TO ENFORCEMENT UNDER PERMITS FROM THE SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD AND MUST ALSO COMPLY WITH THE REQUIREMENTS OF THE SAN DIEGO COUNTY MUNICIPAL STORM WATER PERMIT. THIS INCLUDES REQUIREMENTS FOR MATERIALS AND WASTES CONTROL, EROSION CONTROL, AND SEDIMENT CONTROL ON PROJECT CONSTRUCTION SITES. THE PERMITTEES OF OPERATIONS SHOWN ON THESE PLANS ARE OBLIGATED TO INSURE COMPLIANCE WITH ALL APPLICABLE STORM WATER REGULATIONS AT ALL TIMES. THE PERMITTEE SHALL ALSO KEEP A COPY OF THE SWPPP (STORM WATER POLLUTION PREVENTION PLAN) ON SITE AND AVAILABLE FOR REVIEW BY COUNTY.
2. DURING THE RAINY SEASON THE AMOUNT OF EXPOSED SOIL ALLOWED AT ONE TIME SHALL NOT EXCEED THAT WHICH CAN BE ADEQUATELY PROTECTED BY THE PROPERTY OWNER OR AUTHORIZED AGENT IN THE EVENT OF A RAINSTORM. 125% OF ALL SUPPLIES NEEDED FOR BMP MEASURES SHALL BE RETAINED ON THE JOB SITE IN A MANNER THAT ALLOWS FULL DEPLOYMENT AND COMPLETE INSTALLATION IN 48 HOURS OR LESS OF A FORECAST RAIN.
3. NO AREA BEING DISTURBED SHALL EXCEED 50 ACRES AT ANY GIVEN TIME WITHOUT DEMONSTRATING TO THE SAN DIEGO COUNTY DPW DIRECTOR'S SATISFACTION THAT ADEQUATE EROSION AND SEDIMENT CONTROL CAN BE MAINTAINED. ANY DISTURBED AREA THAT IS NOT ACTIVELY GRADED FOR 10 DAYS MUST BE FULLY PROTECTED FROM EROSION. UNTIL ADEQUATE LONG-TERM PROTECTIONS ARE INSTALLED, THE DISTURBED AREA SHALL BE INCLUDED WHEN CALCULATING THE ACTIVE DISTURBANCE AREA. ALL EROSION CONTROL MEASURES SHALL REMAIN INSTALLED AND MAINTAINED DURING ANY INACTIVE PERIOD.

*APPROX. LOCATION 30' COMMERCIAL D/W

NOTE: MINIMUM C/L SEPARATION FOR COMMERCIAL DRIVEWAYS;
200' SEPARATION ON NON-CIRCULATION ELEMENT ROADWAYS
300' SEPARATION ON CIRCULATION ELEMENT ROADWAYS

OPEN SPACE EXHIBIT

SEE SHEET 2

GRADING & IMPROVEMENT PLAN NOTES

SEE SHEET 3

GENERAL NOTES (PRELIMINARY GRADING)

1. THIS "PRELIMINARY GRADING PLAN" DOES NOT CONSTITUTE A CONSTRUCTION DOCUMENT. A FINAL GRADING PLAN, PREPARED (TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS) IN ACCORDANCE WITH COUNTY GRADING ORDINANCE SHALL BE SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS. APPROVAL OF THE FINAL GRADING PLAN SHALL BE REQUIRED AND GRADING PERMIT ISSUED PRIOR TO ANY WORK IN THE FIELD.
2. A CONSTRUCTION, EXCAVATION OR ENCROACHMENT PERMIT FROM THE DIRECTOR OF PUBLIC WORKS WILL BE REQUIRED FOR ANY WORK IN THE COUNTY RIGHT-OF-WAY.
3. ALL SLOPES OVER 3 FEET IN HEIGHT SHALL BE PLANTED IN ACCORDANCE WITH SAN DIEGO COUNTY SPECIFICATIONS.
4. A SOILS REPORT SHALL BE REQUIRED PRIOR TO THE ISSUANCE OF A GRADING AND/OR BUILDING PERMIT.
5. APPROVAL OF THESE PLANS BY THE DIRECTOR OF PUBLIC WORKS DOES NOT AUTHORIZE ANY WORK OR GRADING TO BE PERFORMED UNTIL THE PROPERTY OWNER'S PERMISSION HAS BEEN OBTAINED AND A VALID GRADING PERMIT HAS BEEN ISSUED.
6. THE DIRECTOR OF PUBLIC WORKS APPROVAL OF THESE PLANS DOES NOT CONSTITUTE COUNTY BUILDING OFFICIAL APPROVAL OF ANY FOUNDATIONS FOR STRUCTURES TO BE PLACED ON THE AREA COVERED BY THESE PLANS. NO WAIVER OF THE GRADING ORDINANCE REQUIREMENTS CONCERNING MINIMUM COVER OVER EXPANSIVE SOILS IS MADE OR IMPLIED (SECTIONS 87.403 & 87.410). ANY SUCH WAIVER MUST BE OBTAINED FROM THE DIRECTOR OF DPLU.
7. ALL SLOPES SHALL BE ROUNDED INTO EXISTING TERRAIN TO PRODUCE A CONTOURED TRANSITION FROM CUT OR FILL FACES TO NATURAL GROUND AND ABUTTING CUT OR FILL SURFACES.
8. NOTWITHSTANDING THE MINIMUM STANDARDS SET FORTH IN THE GRADING ORDINANCE AND NOTWITHSTANDING THE APPROVAL OF THESE PRELIMINARY GRADING PLANS, THE PERMITTEE IS RESPONSIBLE FOR THE PREVENTION OF DAMAGE TO THE ADJACENT PROPERTY. NO PERSON SHALL EXCAVATE ON LAND SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY ADJOINING PUBLIC STREET, SIDEWALK, ALLEY, FUNCTION OF ANY SEWAGE DISPOSAL SYSTEM, OR ANY OTHER PUBLIC OR PRIVATE PROPERTY, WITHOUT SUPPORTING AND PROTECTING SUCH PROPERTY FROM SETTLING, CRACKING, EROSION, SILTING, SCOUR OR OTHER DAMAGE WHICH MIGHT RESULT FROM THE GRADING DESCRIBED ON THIS PLAN. THE COUNTY WILL HOLD THE PERMITTEE RESPONSIBLE FOR CORRECTION OF NON-DEDICATED IMPROVEMENTS WHICH DAMAGE ADJACENT PROPERTY.
9. ALL GRADING DETAILS WILL BE IN ACCORDANCE WITH SAN DIEGO COUNTY STANDARD DRAWINGS DS-8, DS-10, DS-11, D-75 UNLESS SHOWN OTHERWISE ON THESE PLANS.
10. SLOPE RATIOS:
    CUT – 2:1
    FILL – 2:1
    DEVIATING FROM THE ABOVE RATIOS WILL REQUIRE APPROVAL OF THE DIRECTOR OF PUBLIC WORKS AFTER REVIEW OF A REPORT FROM A SOILS ENGINEER.
11. EARTHWORK QUANTITIES:
    CUT: 2,100,000± CY
    FILL: 2,100,000± CY
    IMPORT/EXPORT: 0 C.Y.
    A SEPARATE PERMIT MUST BE OBTAINED FOR WASTE OR IMPORT AREA.
    GRADING QUANTITIES ARE APPROXIMATE AND ARE PROVIDED HEREON FOR PERMIT PURPOSES ONLY. QUANTITIES ARE BASED ON THE DIFFERENCE BETWEEN THE EXISTING SURFACES AND PROPOSED PAD/SUBGRADE SURFACES. VARIATIONS DUE TO LOSS FROM CLEARING AND GRUBBING, STRIPPING, SHRINKAGE, SWELL, UNSUITABLE MATERIAL & REMEDIAL GRADING ARE NOT CONSIDERED NOR FACTORED INTO THESE QUANTITIES. CONTRACTOR SHALL VERIFY QUANTITIES WITH THEIR OWN VOLUME CALCULATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THEIR OWN INDEPENDENT QUANTITY AND MATERIAL TAKE OFFS AND CONSTRUCT THE DESIGN INDICATED ON THESE DRAWINGS, PROJECT TO BE BID BASED ON CONTRACTOR'S OWN ESTIMATES.
12. SPECIAL CONDITION: IF ANY ARCHAEOLOGICAL RESOURCES ARE DISCOVERED ON THE SITE OF THIS GRADING DURING GRADING OPERATIONS, SUCH OPERATIONS WILL CEASE IMMEDIATELY, AND THE PERMITTEE WILL NOTIFY THE DIRECTOR OF PUBLIC WORKS OF THE DISCOVERY. GRADING OPERATIONS WILL NOT RECOMMENCE UNTIL THE PERMITTEE HAS RECEIVED WRITTEN AUTHORITY FROM THE DIRECTOR OF PUBLIC WORKS TO DO SO.

EROSION AND SEDIMENT CONTROL MEASURES NOTES:

1. ALL UTILITY TRENCHES SHALL BE BLOCKED AT THE PRESCRIBED INTERVALS WITH A DOUBLE ROW OF GRAVEL BAGS WITH A TOP ELEVATION, TWO GRAVEL BAGS BELOW THE GRADED SURFACE OF THE STREET. GRAVEL BAGS ARE TO BE PLACED WITH LAPPED COURSES.
2. AFTER UTILITY TRENCHES ARE BACK FILLED AND COMPACTED, THE SURFACES OVER SUCH TRENCHES SHALL BE MOUNDED SLIGHT TO PREVENT CHANNELING OF WATER IN THE TRENCH AREA. CARE SHOULD BE EXERCISED TO PROVIDE FOR CROSS FLOW AT FREQUENT INTER INTERVALS WHERE TRENCHES ARE NOT ON THE CENTERLINE OF A CROWNED STREET.
3. ALL BUILDING PADS SHOULD BE SLOPED TOWARDS THE DRIVEWAYS AND VELOCITY CHECK DAMS PROVIDED AT THE END OF THE DRIVEWAY APRON OF ALL DRIVEWAYS DRAINING INTO THE STREET.
4. PROVIDE VELOCITY CHECK DAMS IN ALL UNPAVED GRADED CHANNELS.
5. PROVIDE VELOCITY CHECK DAMS IN ALL STREET AREAS. VELOCITY CHECK DAMS MAY BE CONSTRUCTED OF GRAVEL BAGS, TIMBER, OR OTHER EROSION RESISTANT MATERIAL APPROVED BY THE COUNTY ENGINEER, AND SHALL EXTEND COMPLETELY ACROSS THE STREET OR CHANNEL AT RIGHT ANGLES TO THE CENTERLINE. VELOCITY CHECK DAMS MAY ALSO SERVE AS SEDIMENT TRAPS.
6. GRAVEL BAGS AND FILL MATERIAL SHALL BE STOCKPILED AT INTERVALS, READY FOR USE WHEN REQUIRED.
7. ALL EROSION CONTROL DEVICES WITHIN THE DEVELOPMENT SHOULD BE MAINTAINED DURING AND AFTER EVERY RUNOFF PRODUCING STORM. IF POSSIBLE, MAINTENANCE CREWS WOULD BE REQUIRED TO HAVE ACCESS TO ALL AREAS.
8. ANY PROPOSED ALTERNATE CONTROL MEASURES MUST BE APPROVED IN ADVANCE BY ALL RESPONSIBLE AGENCIES; I.E., COUNTY ENGINEER, DEPARTMENT OF SANITATION AND FLOOD CONTROL, OFFICE OF ENVIRONMENTAL MANAGEMENT, ETC.
9. PHYSICAL STABILIZATION THROUGH USE OF GEOTEXTILES, MATS, FIBER ROLLS (SS-7 OR ESC20). BONDED FIBER MATRIX OR OTHER MATERIAL APPROVED BY THE COUNTY FOR STABILIZING SLOPES.
10. VEGETATION STABILIZING USING HYDROSEED (SS-4 OR ESC10) OR ACCEPTABLE LANDSCAPING MAY BE USED ONLY MAY 1 TO AUGUST 15. VEGETATION PROPOSED TO STABILIZE SLOPES MUST BE INSTALLED BY AUGUST 15, WATERED AND ESTABLISHED PRIOR TO OCTOBER 1. THE PROPERTY OWNER OR AUTHORIZED AGENT SHALL SHOW ON THE PLAN A CONTINGENCY PHYSICAL BMP TO BE INSTALLED BY OCTOBER 1 IF HYDROSEED ESTABLISHMENT DOES NOT OCCUR BY THAT DATE. IF LANDSCAPING IS PROPOSED, EROSION CONTROL MEASURES MUST ALSO BE USED WHILE LANDSCAPING IS BEING ESTABLISHED. ESTABLISHED VEGETATION SHALL HAVE A SUBSURFACE MAT OF INTERTWINED MATURE ROOTS WITH A UNIFORM VEGETATIVE COVERAGE OF 70 PERCENT OF THE NATURAL VEGETATIVE COVERAGE OR MORE ON ALL DISTURBED AREAS.
11. ALL MANUFACTURED SLOPES AND CLEARED SLOPES OF 3 TO 1 (HORIZONTAL TO VERTICAL) AND STEEPER ARE TO BE PROTECTED WITH A BMP APPROVED BY THE COUNTY OF SAN DIEGO. CLEARED SLOPES FLATTER THAN 3 TO 1 MUST STILL BE PROTECTED FROM EROSION USING EITHER AN APPROVED BMP OR BY USING HYDROMULCH WITH A GUAR BINDER. FLAT AREAS OF LESS THAN 5% (LIKE BUILDING PADS, PARKING AREAS, LEACH FIELDS) SHALL HAVE 100% PROTECTION USING GEOTEXTILES, MATS (SS-7 OR ESC20), OR OTHER MATERIAL APPROVED BY THE COUNTY FOR STABILIZING SLOPES, OR USING TRACKING AND SOIL STABILIZERS/BINDERS (SS-5), TEMPORARY SEEDING (SS-4), MULCH/WOOD CHIPS (SS-3, SS-6, SS-8), OR JUTE MATTING (SS-7). THE COUNTY MAY REDUCE THIS REQUIREMENT FOR FLAT AREAS AND THE BELOW REQUIREMENT, PROVIDED FULL SEDIMENT CONTROL IS PROVIDED THROUGH CONSTRUCTED AND MAINTAINED DESILTATION BASINS (SC-2) AT ALL PROJECT DISCHARGE POINTS.
12. AREAS OF GRADED PADS THAT HAVE ACTIVE STRUCTURE CONSTRUCTION UNDERWAY MAY BE PROTECTED BY ROLLED PLASTIC AS PART OF A WEATHER-TRIGGERED ACTION PLAN UNTIL THE STRUCTURE'S ROOF HAS BEEN COMPLETED. THE REMAINDER OF THE PAD AREA MUST CONTINUE TO BE PROTECTED USING EROSION CONTROL MEASURES IDENTIFIED ABOVE.
13. UNPAVED ROADS ARE EXEMPT FROM THE 100% PROTECTION REQUIREMENTS BUT SHALL HAVE APPROPRIATE BMP'S INSTALLED SUCH AS GRAVEL BAG CHEVRONS.

EXISTING EASEMENT TABLE (WHERE NOTED BY SYMBOLOGY ⬠ ON PLAN)

(1) HIGHWAY EMBANKMENT, SLOPES, ELECTRICAL AND COMMUNICATIONS FACILITIES EASEMENT TO COUNTY OF SAN DIEGO RECORDED 11/5/1987 AS FILE NO. 87-624337, O.R. AND EXTENSION AGREEMENT WITH SAN DIEGO GAS & ELECTRIC COMPANY RECORDED 6/20/1989 AS FILE NO. 89-382889, O.R.

(2) 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17469, O.R.

(3) LINE EASEMENT TO SAN DIEGO GAS AND ELECTRIC CO. RECORDED 10/19/1948 IN BOOK 2985, PAGE 183, O.R.

(4) 40' WIDE EASEMENT FOR COUNTY HIGHWAY (ROAD SURVEY 793) RECORDED 1/31/1939 IN BOOK 869, PAGE 177, O.R.

(5) 30' WIDE EASEMENT TO SAN DIEGO GAS AND ELECTRIC COMPANY (OR WIDER IF REQUIRED BY NECESSARY CUTS AND FILLS) RECORDED 1/4/1983 AS FILE NO. 83-002642, O.R. AND RE-RECORDED 2/4/1983 AS FILE NO. 83-037564, O.R.

(6) 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17470, O.R.

(7) EASEMENT FOR PUBLIC ROAD AND INCIDENTAL PURPOSES, RECORDED 3/8/1909 IN BOOK 257, PAGE 500 OF DEEDS.

(8) EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF SAN DIEGO GAS & ELECTRIC, RECORDED 12/7/1987 AS INSTRUMENT NO. 87-673753 OF O.R.

(9) EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF PACIFIC BELL, RECORDED 12/10/1987 AS INSTRUMENT NO. 87-682036 OF O.R.

(10) EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF SAN DIEGO GAS & ELECTRIC, RECORDED 6/4/1999 AS INSTRUMENT NO. 1999-0392159 OF O.R.

(11) 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/15/1967 AS FILE NO. 20418, O.R.

(12) 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17468, O.R.

(A) 20' WIDE EASEMENT TO SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED 9/24/1985 AS FILE NO. 85-352966, O.R.

KEARNY Real Estate Company

OWNER/SUBDIVIDER

KEARNY REAL ESTATE COMPANY
530 B STREET, SUITE 1800
SAN DIEGO, CA 92101
PHONE: 619-702-8130
FAX: 619-702-7812

ENGINEER OF WORK

REGISTERED PROFESSIONAL ENGINEER MARK E. STEVENS No. 35502 Exp. 9-30-13 CIVIL STATE OF CALIFORNIA

MARK E. STEVENS   DATE
R.C.E. 35502

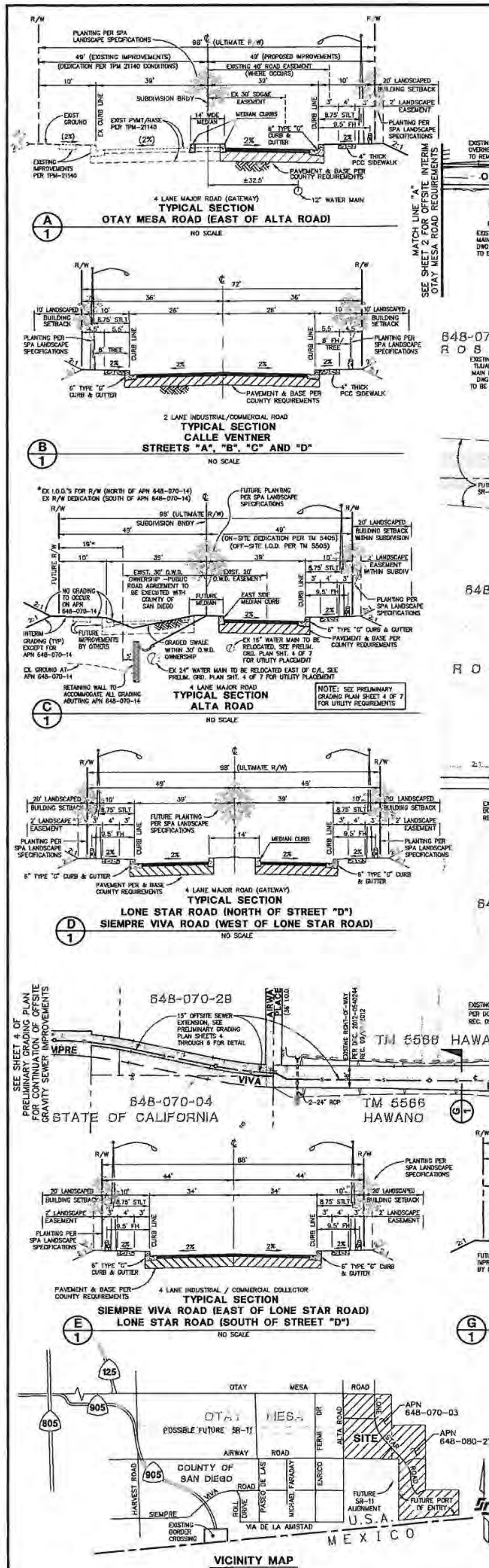
STEVENS·CRESTO ENGINEERING, INC.
CIVIL ENGINEERS· LAND PLANNERS· SURVEYORS
9665 CHESAPEAKE DRIVE
SUITE 320
SAN DIEGO, CA 92123-1352
PHONE: 858.694.5660
FAX: 858.694.5661
www.scengr.com

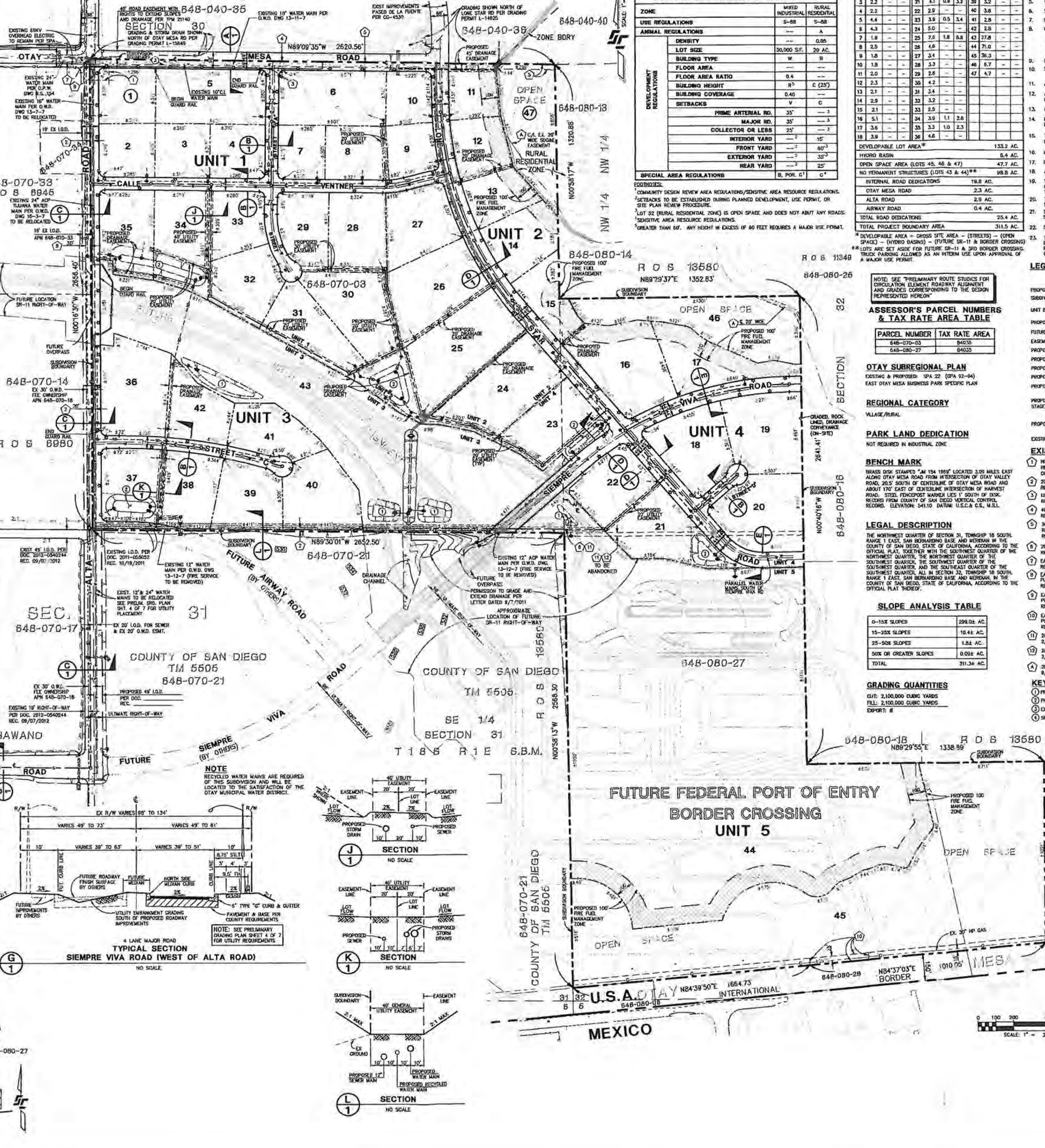
* REDUCED COPY - SEE SECTION 5 FOR FULL SIZE *

COUNTY OF SAN DIEGO TRACT 5405R

OTAY CROSSINGS COMMERCE PARK – NO CHANNEL OPTION

TENTATIVE MAP





ZONING

EAST OTAY MESA BUSINESS PARK SPECIFIC PLAN			
ZONE		MIXED INDUSTRIAL	RURAL RESIDENTIAL
USE REGULATIONS		S-88	S-88
ANIMAL REGULATIONS		---	A
DEVELOPMENT REGULATIONS	DENSITY	---	0.05
	LOT SIZE	30,000 S.F.	20 AC.
	BUILDING TYPE	W	B
	FLOOR AREA	---	---
	FLOOR AREA RATIO	0.4	---
	BUILDING HEIGHT	R [5]	C (25')
	BUILDING COVERAGE	0.40	---
	SETBACKS	V	C
	PRIME ARTERIAL RD.	35'	--- [3]
	MAJOR RD.	35'	--- [3]
	COLLECTOR OR LESS	25'	--- [3]
	INTERIOR YARD	--- [2]	15'
	FRONT YARD	--- [2]	60' [3]
	EXTERIOR YARD	--- [2]	35' [3]
	REAR YARD	--- [2]	25'
SPECIAL AREA REGULATIONS		B, POR. C [1]	C [4]

FOOTNOTES:

[1] COMMUNITY DESIGN REVIEW AREA REGULATIONS/SENSITIVE AREA RESOURCE REGULATIONS.

[2] SETBACKS TO BE ESTABLISHED DURING PLANNED DEVELOPMENT, USE PERMIT, OR SITE PLAN REVIEW PROCEDURE.

[3] LOT 52 (RURAL RESIDENTIAL ZONE) IS OPEN SPACE AND DOES NOT ABUT ANY ROADS.

[4] SENSITIVE AREA RESOURCE REGULATIONS.

[5] GREATER THAN 60'. ANY HEIGHT IN EXCESS OF 60 FEET REQUIRES A MAJOR USE PERMIT.

LOT AREAS (ACRES)

NO.	GROSS	HYDRO BASIN	NET	NO.	GROSS	HYDRO BASIN	NET	NO.	GROSS	HYDRO BASIN	NET
1	2.3	–	–	19	4.2	–	–	37	3.2	1.1	2.4
2	2.2	–	–	20	4.4	–	–	38	3.1	–	–
3	2.2	–	–	21	4.1	0.9	3.2	39	3.2	–	–
4	2.2	–	–	22	2.9	–	–	40	3.8	–	–
5	4.4	–	–	23	3.9	0.5	3.4	41	2.8	–	–
6	4.3	–	–	24	5.0	–	–	42	2.8	–	–
7	1.9	–	–	25	7.6	1.8	5.8	43	27.8	–	–
8	2.5	–	–	26	4.6	–	–	44	71.0	–	–
9	1.8	–	–	27	3.4	–	–	45	36.3	–	–
10	1.8	–	–	28	3.3	–	–	46	6.7	–	–
11	2.0	–	–	29	2.6	–	–	47	4.7	–	–
12	2.3	–	–	30	4.2	–	–				
13	2.1	–	–	31	3.4	–	–				
14	2.9	–	–	32	3.2	–	–				
15	2.1	–	–	33	2.5	–	–				
16	5.1	–	–	34	3.9	1.1	2.8				
17	3.6	–	–	35	3.3	1.0	2.3				
18	3.9	–	–	36	4.6	–	–				

DEVELOPABLE LOT AREA*		133.2 AC.
HYDRO BASIN		6.4 AC.
OPEN SPACE AREA (LOTS 45, 46 & 47)		47.7 AC.
NO PERMANENT STRUCTURES (LOTS 43 & 44)**		98.8 AC.
INTERNAL ROAD DEDICATIONS	19.8 AC.	
OTAY MESA ROAD	2.3 AC.	
ALTA ROAD	2.9 AC.	
AIRWAY ROAD	0.4 AC.	
TOTAL ROAD DEDICATIONS		25.4 AC.
TOTAL PROJECT BOUNDARY AREA		311.5 AC.

* DEVELOPABLE AREA = GROSS SITE AREA – (STREETS) – (OPEN SPACE) – (HYDRO BASINS) – (FUTURE SR-11 & BORDER CROSSING)

** LOTS ARE SET ASIDE FOR FUTURE SR-11 & 3RD BORDER CROSSING. TRUCK PARKING ALLOWED AS AN INTERIM USE UPON APPROVAL OF A MAJOR USE PERMIT.

NOTE: SEE "PRELIMINARY ROUTE STUDIES FOR CIRCULATION ELEMENT ROADWAY ALIGNMENT AND GRADES CORRESPONDING TO THE DESIGN REPRESENTED HEREON"

ASSESSOR'S PARCEL NUMBERS & TAX RATE AREA TABLE

PARCEL NUMBER	TAX RATE AREA
648-070-03	84035
648-080-27	84035

OTAY SUBREGIONAL PLAN

EXISTING & PROPOSED: SPA 22 (GPA 92-04)
EAST OTAY MESA BUSINESS PARK SPECIFIC PLAN

REGIONAL CATEGORY

VILLAGE/RURAL

PARK LAND DEDICATION

NOT REQUIRED IN INDUSTRIAL ZONE

BENCH MARK

BRASS DISK STAMPED "JM 154 1969" LOCATED 3.09 MILES EAST ALONG OTAY MESA ROAD FROM INTERSECTION OF OTAY VALLEY ROAD, 20.5' SOUTH OF CENTERLINE OF OTAY MESA ROAD AND ABOUT 170' EAST OF CENTERLINE INTERSECTION OF HARVEST ROAD. STEEL FENCEPOST MARKER LIES 1' SOUTH OF DISK. RECORD FROM COUNTY OF SAN DIEGO VERTICAL CONTROL RECORD. ELEVATION: 541.10 DATUM: U.S.C.& G.S., M.S.L.

LEGAL DESCRIPTION

THE NORTHWEST QUARTER OF SECTION 31, TOWNSHIP 18 SOUTH, RANGE 1 EAST, SAN BERNARDINO BASE AND MERIDIAN IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT, TOGETHER WITH THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER, THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER, ALL IN SECTION 32, TOWNSHIP 18 SOUTH, RANGE 1 EAST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

SLOPE ANALYSIS TABLE

0-15% SLOPES	299.0± AC.
15-25% SLOPES	10.4± AC.
25-50% SLOPES	1.8± AC.
50% OR GREATER SLOPES	0.09± AC.
TOTAL	311.3± AC.

GRADING QUANTITIES

CUT: 2,100,000 CUBIC YARDS
FILL: 2,100,000 CUBIC YARDS
EXPORT: Ø

GENERAL NOTES

1. EXISTING ZONING – S-88
2. PROPOSED ZONING – S-88
3. GROSS ACREAGE WITHIN SUBDIVISION BOUNDARY: 311.5 ACRES. GROSS AREA MINUS ROAD EASEMENTS: 286.0 ACRES; PROPOSED ON-SITE STREETS: 25.5 ACRES
4. TOTAL NUMBER OF LOTS: 47 MIXED INDUSTRIAL LOTS, OPEN SPACE LOTS AND FUTURE SR-11. MINIMUM INDUSTRIAL LOT SIZE IS 1.40 ACRES.
5. CONTOUR INTERVAL OF 2 FEET (MEAN SEA LEVEL DATUM).
6. SPECIAL ASSESSMENT ACT PROCEEDINGS – MAY BE REQUESTED FOR THIS PROJECT.
7. IMPROVEMENTS, EASEMENTS AND DEDICATIONS ARE AS REQUIRED BY THE COUNTY ENGINEER.
8. UTILITIES:
   A. SEWER – SAN DIEGO COUNTY SANITATION DISTRICT
   B. WATER – OTAY WATER DISTRICT
   C. GAS & ELECTRIC – SAN DIEGO GAS & ELECTRIC COMPANY
   D. TELEPHONE – AT&T CALIFORNIA PUBLIC WORKS
9. FIRE PROTECTION – SAN DIEGO COUNTY RURAL FIRE DISTRICT
10. SCHOOLS : SAN YSIDRO SCHOOL DISTRICT
    SWEETWATER UNION HIGH SCHOOL DISTRICT
11. ALL PROPOSED UTILITIES TO BE UNDERGROUND.
12. ALL EXISTING EASEMENTS NOT REMAINING IN USE SHALL BE VACATED PRIOR TO RECORDATION OF THE FINAL MAP(S) SUBJECT TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS.
13. GENERAL PLAN REGIONAL CATEGORY: VILLAGE/RURAL
14. EXISTING TOPOGRAPHY WAS COMPILED USING PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY, BY PHOTO GEODETIC CORP. DATED: 12-24-03
15. THE FOLLOWING WAIVERS FROM THE SUBDIVISION ORDINANCE DESIGN STANDARDS ARE REQUESTED: DESIGN EXCEPTION FOR DRIVEWAYS ALONG LONE STAR ROAD (A GATEWAY ROAD THROUGH THE SUBDIVISION).
16. LAMBERT COORDINATES: 138-1785
17. DRAINAGE: STREETS & STORM DRAIN AS REQUIRED.
18. ALL ON-SITE STREETS WILL BE PUBLIC.
19. THIS IS A SOLAR SUBDIVISION AS REQUIRED BY SECTION 81.401 (n), OF THE SUBDIVISION ORDINANCE. ALL LOTS HAVE AT LEAST 100 SQ. FT. OF UNOBSTRUCTED ACCESS TO SUNLIGHT ON THE BUILDABLE PORTION OF THE LOT.
20. THIS PROJECT IS A MULTI-UNIT SUBDIVISION. (5 UNITS) MULTIPLE FINAL MAPS MAY BE FILED PURSUANT TO SECTION 66456.1 OF THE SUBDIVISION MAP ACT.
21. STREET LIGHTS WILL BE INSTALLED TO COMPLY WITH THE REQUIREMENTS AS SPECIFIED BY THE COUNTY STANDARDS.
22. STORM WATER DETENTION WILL BE PROVIDED IN ACCORDANCE COUNTY REQUIREMENTS.
23. THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN A VALID GRADING PERMIT AND PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.

LEGEND

DESCRIPTION	SYMBOL
PROPOSED LOT NUMBER	(1) THRU (47)
SUBDIVISION BOUNDARY	
UNIT BOUNDARY	UNIT 1 / UNIT 2
PROPOSED LOT LINE	
FUTURE ULTIMATE RIGHT-OF-WAY	
EASEMENT LINE	
PROPOSED PVC WATER MAIN (12" MINIMUM)	W W
PROPOSED SEWER MAIN W/MANHOLE	S
PROPOSED STORM DRAIN	SD
PROPOSED STORM DRAIN INLET/CATCH BASIN	
PROPOSED STORM DRAIN CLEANOUT	
PROPOSED INTERIM STORM WATER COLLECTION BASIN, STAGE OUTLET RISER AND OVERFLOW (WHERE OCCURS)	
PROPOSED STORM DRAIN HEADWALL/ENERGY DISSIPATOR	
EXISTING CONTOUR	500

EXISTING EASEMENT TABLE

1. HIGHWAY EMBANKMENT, SLOPES, ELECTRICAL AND COMMUNICATIONS FACILITIES EASEMENT TO COUNTY OF SAN DIEGO RECORDED 11/5/1987 AS FILE NO. 87-624337, O.R. AND EXTENSION AGREEMENT WITH SAN DIEGO GAS & ELECTRIC COMPANY RECORDED 6/20/1989 AS FILE NO. 89-38[illegible], O.R.
2. 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17469, O.R.
3. LINE EASEMENT TO SAN DIEGO GAS AND ELECTRIC CO. RECORDED 10/19/1948 IN BOOK 2985, PAGE 183, O.R.
4. 40' WIDE EASEMENT FOR COUNTY HIGHWAY (ROAD SURVEY 793) RECORDED 1/31/1939 IN BOOK 869, PAGE 177, O.R.
5. 30' WIDE EASEMENT TO SAN DIEGO GAS AND ELECTRIC COMPANY (OR WIDER IF REQUIRED BY NECESSARY CUTS AND FILLS) RECORDED 1/4/1983 AS FILE NO. 83-002642, O.R. AND RE-RECORDED 2/4/1983 AS FILE NO. 83-037564, O.R.
6. 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/[illegible]/1967 AS FILE NO. 17470, O.R.
7. EASEMENT FOR PUBLIC ROAD AND INCIDENTAL PURPOSES, RECORDED 3/8/1900 IN BOOK 257, PAGE 500 OF DEEDS.
8. EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF SAN DIEGO GAS & ELECTRIC, RECORDED 12/[illegible]/1987 AS INSTRUMENT NO. 87-673753 OF O.R.
9. EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF PACIFIC BELL, RECORDED 12/10/1987 AS INSTRUMENT NO. 87-692036 OF O.R.
10. EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF SAN DIEGO GAS & ELECTRIC, RECORDED 6/4/1999 AS INSTRUMENT NO. 1999-0392156 OF O.R.
11. 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/15/1967 AS FILE NO. 20418, O.R.
12. 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17468, O.R.

A. 20' WIDE EASEMENT TO SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED 9/24/1985 AS FILE NO. 85-352968, O.R.

KEY NOTES

1. PROPOSED DESILTATION BASIN (WITHIN FUTURE CALTRANS RIGHT-OF-WAY)
2. PROPOSED DETENTION BASIN (HYDROMODIFICATION BMP)
3. EXISTING 42" RCP STORM DRAIN TO BE ABANDONED
4. SEE PRELIMINARY ROUTE STUDIES FOR ROADWAY ELEVATION ON CIRCULATION ELEMENT ROADWAYS.

KEARNY Real Estate Company

OWNER/SUBDIVIDER

KEARNY REAL ESTATE COMPANY
530 B STREET, SUITE 1800
SAN DIEGO, CA 92101
PHONE: 619-702-8130
FAX: 619-702-7812

KEARNY PCCP OTAY 311, LLC.

BY: ______________________ DATE:
JOHN V. BRAGG JR.
VICE PRESIDENT

ENGINEER OF WORK

STEVENS CRESTO ENGINEERING, INC.
9665 CHESAPEAKE DRIVE, SUITE 320
SAN DIEGO, CA 92123-1352
PHONE: (858) 694-5660
FAX: (858) 694-5661

REGISTERED PROFESSIONAL ENGINEER MARK E. STEVENS No. 35502 Exp. 9-30-13 CIVIL STATE OF CALIFORNIA

______________________ DATE
MARK E. STEVENS
R.C.E. 35502

STEVENS · CRESTO ENGINEERING, INC.
CIVIL ENGINEERS · LAND PLANNERS · SURVEYORS
9665 CHESAPEAKE DRIVE
SUITE 320
SAN DIEGO, CA 92123-1352
PHONE: 858.694.5660
FAX: 858.694.5661
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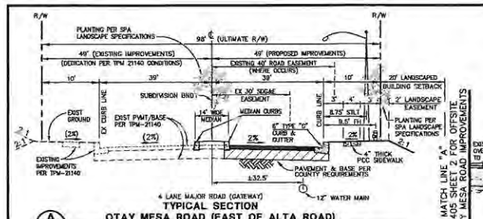
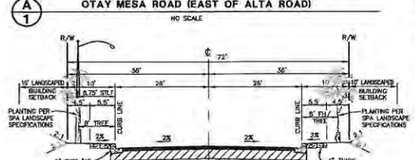
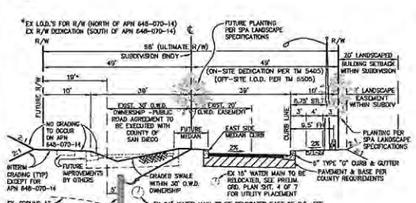
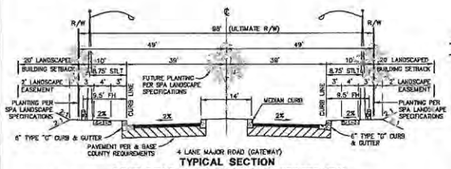
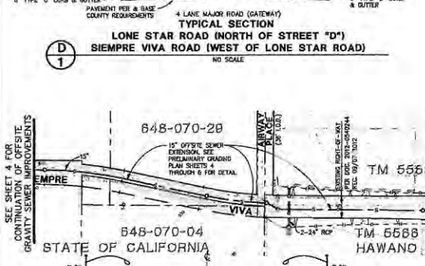
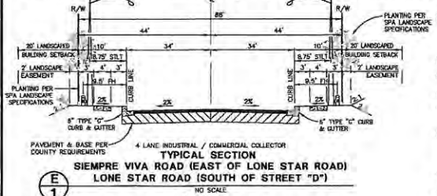


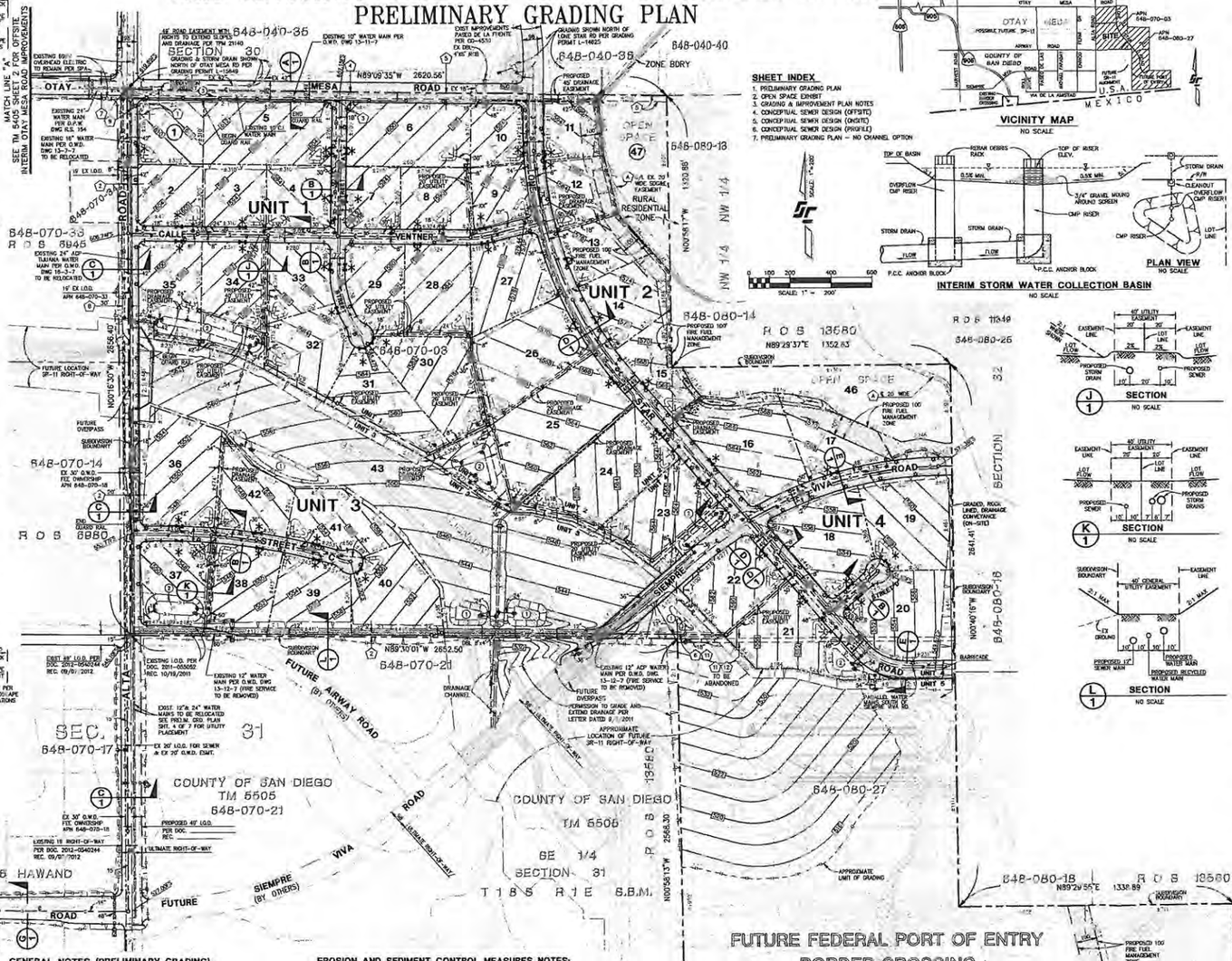












COUNTY OF SAN DIEGO TRACT 5405R

OTAY CROSSINGS COMMERCE PARK – NO CHANNEL OPTION

PRELIMINARY GRADING PLAN

SHEET 7 OF 7

4 LANE MAJOR ROAD (GATEWAY)
TYPICAL SECTION
OTAY MESA ROAD (EAST OF ALTA ROAD)
NO SCALE

2 LANE INDUSTRIAL/COMMERCIAL ROAD
TYPICAL SECTION
CALLE VENTNER
STREETS "A", "B", "C" AND "D"
NO SCALE

TYPICAL SECTION
ALTA ROAD
NO SCALE

4 LANE MAJOR ROAD (GATEWAY)
TYPICAL SECTION
LONE STAR ROAD (NORTH OF STREET "D")
SIEMPRE VIVA ROAD (WEST OF LONE STAR ROAD)
NO SCALE

SHEET INDEX

1. PRELIMINARY GRADING PLAN
2. OPEN SPACE EXHIBIT
3. GRADING & IMPROVEMENT PLAN NOTES
4. CONCEPTUAL SEWER DESIGN (OFFSITE)
5. CONCEPTUAL SEWER DESIGN (ONSITE)
6. CONCEPTUAL SEWER DESIGN (PROFILE)
7. PRELIMINARY GRADING PLAN – NO CHANNEL OPTION

4 LANE INDUSTRIAL / COMMERCIAL COLLECTOR
TYPICAL SECTION
SIEMPRE VIVA ROAD (EAST OF LONE STAR ROAD)
LONE STAR ROAD (SOUTH OF STREET "D")
NO SCALE

4 LANE MAJOR ROAD
TYPICAL SECTION
SIEMPRE VIVA ROAD (WEST OF ALTA ROAD)
NO SCALE

GENERAL NOTES (PRELIMINARY GRADING)

1. THIS "PRELIMINARY GRADING PLAN" DOES NOT CONSTITUTE A CONSTRUCTION DOCUMENT. A FINAL GRADING PLAN, PREPARED (TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS) IN ACCORDANCE WITH COUNTY GRADING ORDINANCE SHALL BE SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS. APPROVAL OF THE FINAL GRADING PLAN SHALL BE REQUIRED AND GRADING PERMIT ISSUED PRIOR TO ANY WORK IN THE FIELD.
2. A CONSTRUCTION, EXCAVATION OR ENCROACHMENT PERMIT FROM THE DIRECTOR OF PUBLIC WORKS WILL BE REQUIRED FOR ANY WORK IN THE COUNTY RIGHT-OF-WAY.
3. ALL SLOPES OVER 3 FEET IN HEIGHT SHALL BE PLANTED IN ACCORDANCE WITH SAN DIEGO COUNTY SPECIFICATIONS.
4. A SOILS REPORT SHALL BE REQUIRED PRIOR TO THE ISSUANCE OF A GRADING AND/OR BUILDING PERMIT.
5. APPROVAL OF THESE PLANS BY THE DIRECTOR OF PUBLIC WORKS DOES NOT AUTHORIZE ANY WORK OR GRADING TO BE PERFORMED UNTIL THE PROPERTY OWNER'S PERMISSION HAS BEEN OBTAINED AND A VALID GRADING PERMIT HAS BEEN ISSUED.
6. THE DIRECTOR OF PUBLIC WORKS APPROVAL OF THESE PLANS DOES NOT CONSTITUTE COUNTY BUILDING OFFICIAL APPROVAL OF ANY FOUNDATIONS FOR STRUCTURES TO BE PLACED ON THE AREA COVERED BY THESE PLANS. NO WAIVER OF THE GRADING ORDINANCE REQUIREMENTS CONCERNING MINIMUM COVER OVER EXPANSIVE SOILS IS MADE OR IMPLIED (SECTIONS 87.403 & 87.410). ANY SUCH WAIVER MUST BE OBTAINED FROM THE DIRECTOR OF DPLU.
7. ALL SLOPES SHALL BE ROUNDED INTO EXISTING TERRAIN TO PRODUCE A CONTOURED TRANSITION FROM CUT OR FILL FACES TO NATURAL GROUND AND ABUTTING CUT OR FILL SURFACES.
8. NOTWITHSTANDING THE MINIMUM STANDARDS SET FORTH IN THE GRADING ORDINANCE AND NOTWITHSTANDING THE APPROVAL OF THESE PRELIMINARY GRADING PLANS, THE PERMITTEE IS RESPONSIBLE FOR THE PREVENTION OF DAMAGE TO THE ADJACENT PROPERTY. NO PERSON SHALL EXCAVATE ON LAND SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY ADJOINING PUBLIC STREET, SIDEWALK, ALLEY, FUNCTION OF ANY SEWAGE DISPOSAL SYSTEM, OR ANY OTHER PUBLIC OR PRIVATE PROPERTY, WITHOUT SUPPORTING AND PROTECTING SUCH PROPERTY FROM SETTLING, CRACKING, EROSION, SILTING, SCOUR OR OTHER DAMAGE WHICH MIGHT RESULT FROM THE GRADING DESCRIBED ON THIS PLAN. THE COUNTY WILL HOLD THE PERMITTEE RESPONSIBLE FOR CORRECTION OF NON-DEDICATED IMPROVEMENTS WHICH DAMAGE ADJACENT PROPERTY.
9. ALL GRADING DETAILS WILL BE IN ACCORDANCE WITH SAN DIEGO COUNTY STANDARD DRAWINGS DS-8, DS-10, DS-11, D-75 UNLESS SHOWN OTHERWISE ON THESE PLANS.
10. SLOPE RATIOS:
    CUT – 2:1
    FILL – 2:1
    DEVIATING FROM THE ABOVE RATIOS WILL REQUIRE APPROVAL OF THE DIRECTOR OF PUBLIC WORKS AFTER REVIEW OF A REPORT FROM A SOILS ENGINEER.
11. EARTHWORK QUANTITIES:
    CUT: 2,100,000± CY
    FILL: 2,100,000± CY
    IMPORT/EXPORT: 0 C.Y.
    A SEPARATE PERMIT MUST BE OBTAINED FOR WASTE OR IMPORT AREA.
    GRADING QUANTITIES ARE APPROXIMATE AND ARE PROVIDED HEREON FOR PERMIT PURPOSES ONLY. QUANTITIES ARE BASED ON THE DIFFERENCE BETWEEN THE EXISTING SURFACES AND PROPOSED PAD/SUBGRADE SURFACES. VARIATIONS DUE TO LOSS FROM CLEARING AND GRUBBING, STRIPPING, SHRINKAGE, SWELL, UNSUITABLE MATERIAL & REMEDIAL GRADING ARE NOT CONSIDERED NOR FACTORED INTO THESE QUANTITIES. CONTRACTOR SHALL VERIFY QUANTITIES WITH THEIR OWN VOLUME CALCULATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THEIR OWN INDEPENDENT QUANTITY AND MATERIAL TAKE OFFS AND CONSTRUCT THE DESIGN INDICATED ON THESE DRAWINGS. PROJECT TO BE BID BASED ON CONTRACTOR'S OWN ESTIMATES.
12. SPECIAL CONDITION: IF ANY ARCHAEOLOGICAL RESOURCES ARE DISCOVERED ON THE SITE OF THIS GRADING DURING GRADING OPERATIONS, SUCH OPERATIONS WILL CEASE IMMEDIATELY, AND THE PERMITTEE WILL NOTIFY THE DIRECTOR OF PUBLIC WORKS OF THE DISCOVERY. GRADING OPERATIONS WILL NOT RECOMMENCE UNTIL THE PERMITTEE HAS RECEIVED WRITTEN AUTHORITY FROM THE DIRECTOR OF PUBLIC WORKS TO DO SO.

EROSION AND SEDIMENT CONTROL MEASURES NOTES:

1. ALL UTILITY TRENCHES SHALL BE BLOCKED AT THE PRESCRIBED INTERVALS WITH A DOUBLE ROW OF GRAVEL BAGS WITH A TOP ELEVATION. TWO GRAVEL BAGS BELOW THE GRADED SURFACE OF THE STREET. GRAVEL BAGS ARE TO BE PLACED WITH LAPPED COURSES.
2. AFTER UTILITY TRENCHES ARE BACK FILLED AND COMPACTED, THE SURFACES OVER SUCH TRENCHES SHALL BE MOUNDED SLIGHT TO PREVENT CHANNELING OF WATER IN THE TRENCH AREA. CARE SHOULD BE EXERCISED TO PROVIDE FOR CROSS FLOW AT FREQUENT INTER INTERVALS WHERE TRENCHES ARE NOT ON THE CENTERLINE OF A CROWNED STREET.
3. ALL BUILDING PADS SHOULD BE SLOPED TOWARDS THE DRIVEWAYS AND VELOCITY CHECK DAMS PROVIDED AT THE END OF THE DRIVEWAY APRON OF ALL DRIVEWAYS DRAINING INTO THE STREET.
4. PROVIDE VELOCITY CHECK DAMS IN ALL UNPAVED GRADED CHANNELS.
5. PROVIDE VELOCITY CHECK DAMS IN ALL STREET AREAS. VELOCITY CHECK DAMS MAY BE CONSTRUCTED OF GRAVEL BAGS, TIMBER, OR OTHER EROSION RESISTANT MATERIAL APPROVED BY THE COUNTY ENGINEER, AND SHALL EXTEND COMPLETELY ACROSS THE STREET OR CHANNEL AT RIGHT ANGLES TO THE CENTERLINE. VELOCITY CHECK DAMS MAY ALSO SERVE AS SEDIMENT TRAPS.
6. GRAVEL BAGS AND FILL MATERIAL SHALL BE STOCKPILED AT INTERVALS, READY FOR USE WHEN REQUIRED.
7. ALL EROSION CONTROL DEVICES WITHIN THE DEVELOPMENT SHOULD BE MAINTAINED DURING AND AFTER EVERY RUNOFF PRODUCING STORM. IF POSSIBLE, MAINTENANCE CREWS WOULD BE REQUIRED TO HAVE ACCESS TO ALL AREAS.
8. ANY PROPOSED ALTERNATE CONTROL MEASURES MUST BE APPROVED IN ADVANCE BY ALL RESPONSIBLE AGENCIES: I.E., COUNTY ENGINEER, DEPARTMENT OF SANITATION AND FLOOD CONTROL, OFFICE OF ENVIRONMENTAL MANAGEMENT, ETC.
9. PHYSICAL STABILIZATION THROUGH USE OF GEOTEXTILES, MATS, FIBER ROLLS (SS-7 OR ESC20), BONDED FIBER MATRIX OR OTHER MATERIAL APPROVED BY THE COUNTY FOR STABILIZING SLOPES.
10. VEGETATION STABILIZING USING HYDROSEED (SS-4 OR ESC10) OR ACCEPTABLE LANDSCAPING MAY BE USED ONLY MAY 1 TO AUGUST 15. VEGETATION PROPOSED TO STABILIZE SLOPES MUST BE INSTALLED BY AUGUST 15, WATERED AND ESTABLISHED PRIOR TO OCTOBER 1. THE PROPERTY OWNER OR AUTHORIZED AGENT SHALL SHOW ON THE PLAN A CONTINGENCY PHYSICAL BMP TO BE INSTALLED BY OCTOBER 1 IF HYDROSEED ESTABLISHMENT DOES NOT OCCUR BY THAT DATE. IF LANDSCAPING IS PROPOSED, EROSION CONTROL MEASURES MUST ALSO BE USED WHILE LANDSCAPING IS BEING ESTABLISHED. ESTABLISHED VEGETATION SHALL HAVE A SUBSURFACE MAT OF INTERTWINED MATURE ROOTS WITH A UNIFORM VEGETATIVE COVERAGE OF 70 PERCENT OF THE NATURAL VEGETATIVE COVERAGE OR MORE ON ALL DISTURBED AREAS.
11. ALL MANUFACTURED SLOPES AND CLEARED SLOPES OF 3 TO 1 (HORIZONTAL TO VERTICAL) AND STEEPER ARE TO BE PROTECTED WITH A BMP APPROVED BY THE COUNTY OF SAN DIEGO; CLEARED SLOPES FLATTER THAN 3 TO 1 MUST STILL BE PROTECTED FROM EROSION USING EITHER AN APPROVED BMP OR BY USING HYDROMULCH WITH A GUAR BINDER. FLAT AREAS OF LESS THAN 5% (LIKE BUILDING PADS, PARKING AREAS, LEACH FIELDS) SHALL HAVE 100% PROTECTION USING GEOTEXTILES, MATS (SS-7 OR ESC20), OR OTHER MATERIAL APPROVED BY THE COUNTY FOR STABILIZING SLOPES, OR USING TRACKING AND SOIL STABILIZERS/BINDERS (SS-5), TEMPORARY SEEDING (SS-4), MULCH/WOOD CHIPS (SS-3, SS-6, SS-8), OR JUTE MATTING (SS-7). THE COUNTY MAY REDUCE THIS REQUIREMENT FOR FLAT AREAS AND THE BELOW REQUIREMENT, PROVIDED FULL SEDIMENT CONTROL IS PROVIDED THROUGH CONSTRUCTED AND MAINTAINED DESILTATION BASINS (SC-2) AT ALL PROJECT DISCHARGE POINTS.
12. AREAS OF GRADED PADS THAT HAVE ACTIVE STRUCTURE CONSTRUCTION UNDERWAY MAY BE PROTECTED BY ROLLED PLASTIC AS PART OF A WEATHER-TRIGGERED ACTION PLAN UNTIL THE STRUCTURE'S ROOF HAS BEEN COMPLETED. THE REMAINDER OF THE PAD AREA MUST CONTINUE TO BE PROTECTED USING EROSION CONTROL MEASURES IDENTIFIED ABOVE.
13. UNPAVED ROADS ARE EXEMPT FROM THE 100% PROTECTION REQUIREMENTS BUT SHALL HAVE APPROPRIATE BMP'S INSTALLED SUCH AS GRAVEL BAG CHEVRONS.

EXISTING EASEMENT TABLE (WHERE NOTED BY SYMBOLOGY ⬠ ON PLAN)

① HIGHWAY EMBANKMENT, SLOPES, ELECTRICAL AND COMMUNICATIONS FACILITIES EASEMENT TO COUNTY OF SAN DIEGO RECORDED 11/5/1987 AS FILE NO. 87-624337, O.R. AND EXTENSION AGREEMENT WITH SAN DIEGO GAS & ELECTRIC COMPANY RECORDED 6/20/1989 AS FILE NO. 89-382889, O.R.

② 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17469, O.R.

③ LINE EASEMENT TO SAN DIEGO GAS AND ELECTRIC CO. RECORDED 10/19/1948 IN BOOK 2985, PAGE 183, O.R.

④ 40' WIDE EASEMENT FOR COUNTY HIGHWAY (ROAD SURVEY 793) RECORDED 1/31/1939 IN BOOK 869, PAGE 177, O.R.

⑤ 30' WIDE EASEMENT TO SAN DIEGO GAS AND ELECTRIC COMPANY (OR WIDER IF REQUIRED BY NECESSARY CUTS AND FILLS) RECORDED 1/4/1983 AS FILE NO. 83-002642, O.R. AND RE-RECORDED 2/4/1983 AS FILE NO. 83-037564, O.R.

⑥ 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17470, O.R.

⑦ EASEMENT FOR PUBLIC ROAD AND INCIDENTAL PURPOSES, RECORDED 3/9/1900 IN BOOK 257, PAGE 500 OF DEEDS.

⑧ EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF SAN DIEGO GAS & ELECTRIC, RECORDED 12/[illegible]/1987 AS INSTRUMENT NO. 87-673753 OF O.R.

⑨ EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF PACIFIC BELL, RECORDED 12/10/1987 AS INSTRUMENT NO. 87-682036 OF O.R.

⑩ EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF SAN DIEGO GAS & ELECTRIC, RECORDED 8/4/1999 AS INSTRUMENT NO. 1999-0392159 OF O.R.

⑪ 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/15/1967 AS FILE NO. 20418, O.R.

⑫ 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17468, O.R.

Ⓐ 20' WIDE EASEMENT TO SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED 9/24/1985 AS FILE NO. 85-352966, O.R.

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 COUNTY OF SAN DIEGO.

STANDARD SPECIFICATIONS:

1. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION "GREEN BOOK" (LATEST EDITION), INCLUDING THE REGIONAL AND CITY OF SAN DIEGO SUPPLEMENT AMENDMENT.
2. SAN DIEGO COUNTY GRADING ORDINANCE.
3. CALIFORNIA DEPARTMENT OF TRANSPORTATION, " MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES," (LATEST EDITION).
4. STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS (LATEST EDITION).

STANDARD DRAWINGS:

1. THE CURRENT SAN DIEGO AREA REGIONAL STANDARD DRAWINGS.
2. STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD PLAN (LATEST EDITION).

LEGEND

DESCRIPTION	SYMBOL
PROPOSED LOT NUMBER	① THRU ㊼
SUBDIVISION BOUNDARY	— — —
UNIT BOUNDARY	- - - - -
PROPOSED LOT LINE	—— - - ——
PROPOSED RIGHT-OF-WAY	————
FUTURE ULTIMATE RIGHT-OF-WAY	- - - -
EASEMENT LINE	— — — —
EXISTING CONTOUR	
PROPOSED CONTOUR	530
PROPOSED SLOPE 2:1	2:1
PROPOSED PAVING	▨
PROPOSED SEWER MAIN W/MANHOLE	—○—S—○—
PROPOSED PVC WATER MAIN (12" MINIMUM)	—W——W—
PROPOSED STORM DRAIN	- - - SD - - -
PROPOSED STORM DRAIN INLET/CATCH BASIN	- - -□- - -⊠
PROPOSED STORM DRAIN CLEANOUT	- - -⊡- - -
PROPOSED INTERIM STORM WATER COLLECTION BASIN, STAGE OUTLET RISER AND OVERFLOW (WHERE OCCURS)	
PROPOSED OPEN DRAINAGE CHANNEL	
PROPOSED STORM DRAIN HEADWALL/ENERGY DISSIPATOR	
FLOW DIRECTION	→ → →
PROPOSED DRIVEWAY LOCATION	✱

KEY NOTES

① PROPOSED DESILTATION BASIN (WITHIN FUTURE CALTRANS RIGHT-OF-WAY)
② PROPOSED DETENTION BASIN (HYDROMODIFICATION BMP)
③ EXISTING 42" RCP STORM DRAIN TO BE ABANDONED
④ SEE PRELIMINARY ROUTE STUDIES FOR ROADWAY ELEVATION ON CIRCULATION ELEMENT ROADWAYS.

BENCH MARK

BRASS DISK STAMPED "JM 154 1969" LOCATED 3.09 MILES EAST ALONG OTAY MESA ROAD FROM INTERSECTION OF OTAY VALLEY ROAD, 20.5' SOUTH OF CENTERLINE OF OTAY MESA ROAD AND ABOUT 170' EAST OF CENTERLINE INTERSECTION OF HARVEST ROAD. STEEL FENCEPOST MARKER LIES 1' SOUTH OF DISK. RECORD FROM COUNTY OF SAN DIEGO VERTICAL CONTROL RECORD. ELEVATION: 541.10 DATUM: U.S.C.& G.S., M.S.L.

LEGAL DESCRIPTION

THE NORTHWEST QUARTER OF SECTION 31, TOWNSHIP 18 SOUTH, RANGE 1 EAST, SAN BERNARDINO BASE AND MERIDIAN IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT, TOGETHER WITH THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER, THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER, ALL IN SECTION 32, TOWNSHIP 18 SOUTH, RANGE 1 EAST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

OTAY SUBREGIONAL PLAN

EXISTING & PROPOSED: SPA 22 (GPA 92-04)
EAST OTAY MESA BUSINESS PARK SPECIFIC PLAN

GRADING QUANTITIES

CUT: 2,100,000 CUBIC YARDS
FILL: 2,100,000 CUBIC YARDS
EXPORT: 0

REGIONAL CATEGORY

VILLAGE/RURAL

PARK LAND DEDICATION

NOT REQUIRED IN INDUSTRIAL ZONE

APN'S

648-070-03 AND 648-080-27

ADVISORY NOTE ON STORMWATER OBLIGATIONS:

1. THE ACTIVITIES SHOWN ON THE PLANS ARE SUBJECT TO ENFORCEMENT UNDER PERMITS FROM THE SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD AND MUST ALSO COMPLY WITH THE REQUIREMENTS OF THE SAN DIEGO COUNTY MUNICIPAL STORM WATER PERMIT. THIS INCLUDES REQUIREMENTS FOR MATERIALS AND WASTES CONTROL, EROSION CONTROL, AND SEDIMENT CONTROL ON PROJECT CONSTRUCTION SITES. THE PERMITTEES OF OPERATIONS SHOWN ON THESE PLANS ARE OBLIGATED TO INSURE COMPLIANCE WITH ALL APPLICABLE STORM WATER REGULATIONS AT ALL TIMES. THE PERMITTEE SHALL ALSO KEEP A COPY OF THE SWPPP (STORM WATER POLLUTION PREVENTION PLAN) ON SITE AND AVAILABLE FOR REVIEW BY COUNTY.
2. DURING THE RAINY SEASON THE AMOUNT OF EXPOSED SOIL ALLOWED AT ONE TIME SHALL NOT EXCEED THAT WHICH CAN BE ADEQUATELY PROTECTED BY THE PROPERTY OWNER OR AUTHORIZED AGENT IN THE EVENT OF A RAINSTORM. 125% OF ALL SUPPLIES NEEDED FOR BMP MEASURES SHALL BE RETAINED ON THE JOB SITE IN A MANNER THAT ALLOWS FULL DEPLOYMENT AND COMPLETE INSTALLATION IN 48 HOURS OR LESS OF A FORECAST RAIN.
3. NO AREA BEING DISTURBED SHALL EXCEED 50 ACRES AT ANY GIVEN TIME WITHOUT DEMONSTRATING TO THE SAN DIEGO COUNTY DPW DIRECTOR'S SATISFACTION THAT ADEQUATE EROSION AND SEDIMENT CONTROL CAN BE MAINTAINED. ANY DISTURBED AREA THAT IS NOT ACTIVELY GRADED FOR 10 DAYS MUST BE FULLY PROTECTED FROM EROSION. UNTIL ADEQUATE LONG-TERM PROTECTIONS ARE INSTALLED, THE DISTURBED AREA SHALL BE INCLUDED WHEN CALCULATING THE ACTIVE DISTURBANCE AREA. ALL EROSION CONTROL MEASURES SHALL REMAIN INSTALLED AND MAINTAINED DURING ANY INACTIVE PERIOD.

***APPROX. LOCATION 30' COMMERCIAL D/W**

NOTE: MINIMUM C/L SEPARATION FOR COMMERCIAL DRIVEWAYS;
200' SEPARATION ON NON-CIRCULATION ELEMENT ROADWAYS
300' SEPARATION ON CIRCULATION ELEMENT ROADWAYS

OPEN SPACE EXHIBIT

SEE SHEET 2

GRADING & IMPROVEMENT PLAN NOTES

SEE SHEET 3

KEARNY
Real Estate Company

OWNER/SUBDIVIDER

KEARNY REAL ESTATE COMPANY
530 B STREET, SUITE 1800
SAN DIEGO, CA 92101
PHONE: 619-702-8130
FAX: 619-702-7812

ENGINEER OF WORK

STEVENS CRESTO ENGINEERING, INC.
9665 CHESAPEAKE DRIVE, SUITE 320
SAN DIEGO, CA 92123-1352
PHONE: (858) 694-5660
FAX: (858) 694-5661

MARK E. STEVENS
No. 35502
Exp. 9-30-13

STEVENS-CRESTO ENGINEERING, INC.
CIVIL ENGINEERS · LAND PLANNERS · SURVEYORS
9665 CHESAPEAKE DRIVE
SUITE 320
SAN DIEGO, CA 92123-1352
PHONE: 858.694.5660
FAX: 858.694.5661
www.scengr.com

* REDUCED COPY *

3

SECTION 3

DMA CALCULATIONS

Pre-Project Condition:

In the pre-project condition, the project site consists of undisturbed natural terrain that drains from north to south. Ridge lines within the project basin divide the site into four drainage basins labeled Basins "A", "B", "C", and "D" (See Exhibit "A" in this section). The ground cover in the pre-project condition is "flat" to "steep" grassland, but is predominately "moderate, 5-10%". The site contains no impervious surfaces in the pre-project condition. Runoff from large offsite basins to the north, including portions of Otay Mesa Road and Alta Road, pass through the four project basins. All four basins drain north to south and discharge to natural terrain south of the project. See Exhibit "A-2" – Existing Drainage Patterns, in Section 3, for on-site drainage conditions. The exhibit was taken from the CEQA Preliminary Hydrology/ Drainage Study for Otay Crossings Commerce Park.

Post-Project Condition:

In the post-project condition, Basins "A", "B", "C", and "D" will generally maintain existing drainage patterns and outfall points. The site will be graded into 47 separate lots ranging from 1.4 to 71.0 acres in size. (See Exhibit "B" in this section). It is assumed, in this report, that each developed lot will be 75% impervious, and the roads will be 90% impervious. (See Exhibit "B" in this section). No development is proposed within Basin "D" and, as a result, no hydromodification mitigation is required within the basin. The basin is shown for reference only on Exhibits "A" and "B-1" and is excluded from the project calculations.

As in the pre-project condition, runoff from large off-site basins will pass through the project site. Runon from off-site basins tributary to Basins A, B and C (A-OS1, B-OS1, and C-OS1) will be collected in the project storm water conveyance systems. These offsite areas are included, as appropriate, in the sizing calculations for each of the regional facilities. A large off-site basin tributary to Basin B passes through the project undetained, and is therefore not included within any of the calculations for the regional facilities.

Lots 43 - 45 are designated for future CalTrans SR-11. Though these lots will be rough graded at the same time as the subdivision, these lots will be hydroseeded and returned to a semi-natural state until they are acquired by CalTrans for completion of the Highway. Acquisition of the land by Caltrans will include acceptance of any run-on entering the land and acceptance of the responsibility to detain and treat, as necessary, storm water runoff generated by the land.

In addition to creation of the rough graded pads, the project will extend Otay Mesa Road and Alta Road along the northern and western project boundaries, respectively. Also, seven public roads internal to the project, Calle Ventner, Lone Star

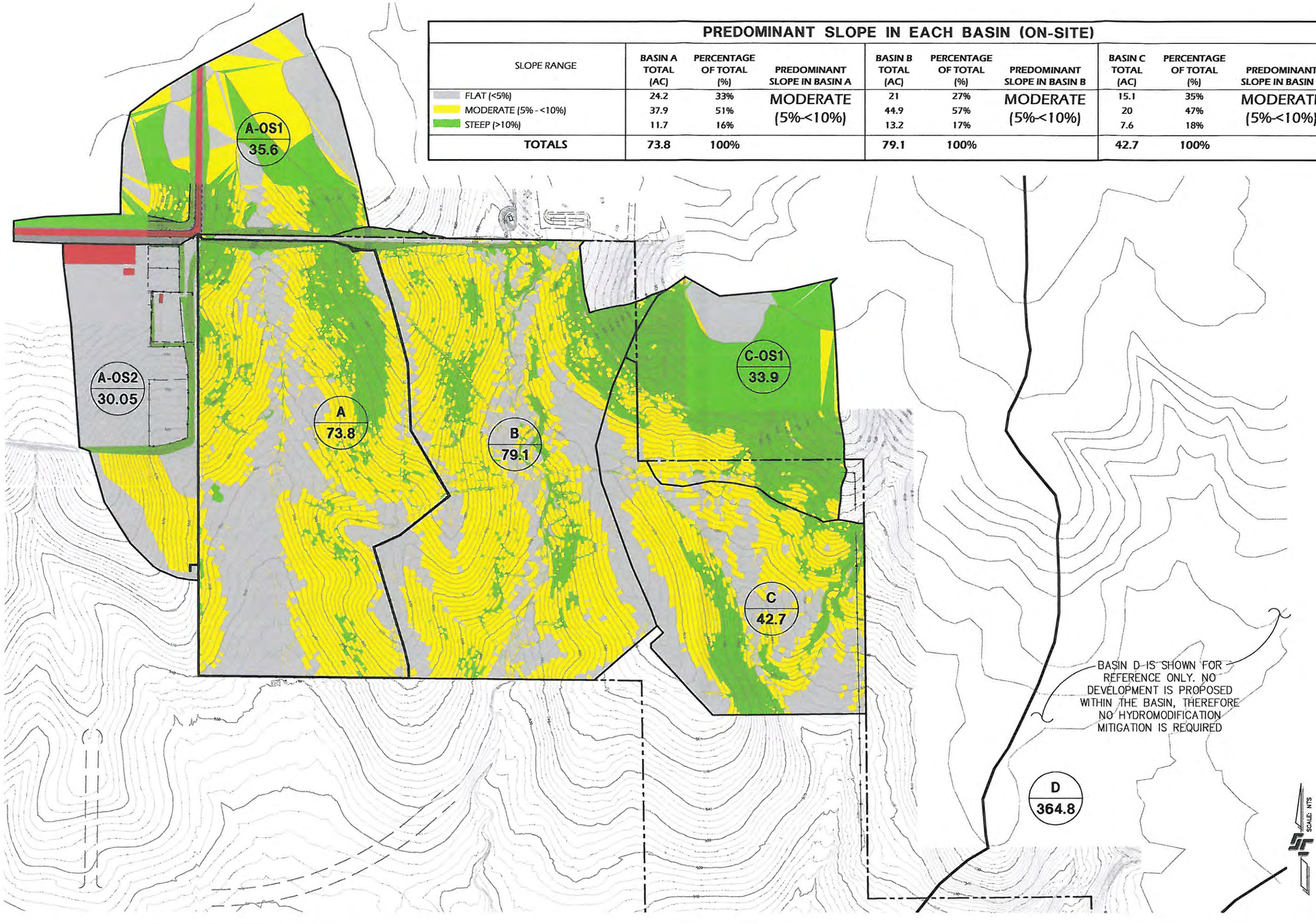
Road, Siempre Viva Road, Street "A", Street "B", Street "C", and Street "D", will be constructed to service the proposed lots. Typical sections of each road are included on the reduced copy of the tentative map provided in Section 2.

Project Soil Conditions (Infiltration Potential):

Per the letter prepared by Geocon Incorporated, dated May 15, 2009 and included for reference at the end of this section, top soils at the site consist of, "clayey sand and sandy clay", and formational soils consist of "silty sand, sandy silt, silty clay, and sandy clay". Additionally, Geocon states, "the feasibility of infiltration at the site is very low" and "there is potential for lateral migration to proposed industrial developments and future roadways". As such, infiltration BMPs are not proposed for use at the site.

PREDOMINANT SLOPE IN EACH BASIN (ON-SITE)

SLOPE RANGE	BASIN A TOTAL (AC)	PERCENTAGE OF TOTAL (%)	PREDOMINANT SLOPE IN BASIN A	BASIN B TOTAL (AC)	PERCENTAGE OF TOTAL (%)	PREDOMINANT SLOPE IN BASIN B	BASIN C TOTAL (AC)	PERCENTAGE OF TOTAL (%)	PREDOMINANT SLOPE IN BASIN C
FLAT (<5%)	24.2	33%	MODERATE (5%-<10%)	21	27%	MODERATE (5%-<10%)	15.1	35%	MODERATE (5%-<10%)
MODERATE (5% - <10%)	37.9	51%		44.9	57%		20	47%	
STEEP (>10%)	11.7	16%		13.2	17%		7.6	18%	
TOTALS	73.8	100%		79.1	100%		42.7	100%	



STEVENS · CRESTO ENGINEERING, INC.
CIVIL ENGINEERS · PLANNERS · LAND SURVEYORS
9665 CHESAPEAKE DRIVE
SUITE 320
SAN DIEGO, CA 92123 - 1352
PHONE: 858.694.5660
FAX: 858.694.5661
www.scengr.com

REVISIONS

△	△
△	△
△	△
△	△
△	△

OTAY CROSSINGS COMMERCE PARK
SAN DIEGO, CALIFORNIA

EXHIBIT "A"
LAND USE AND SLOPE ANALYSIS - PRE-PROJECT CONDITION

DATE: 08/13/12
SCE NO. 03043.08
SHEET A
1 OF 1 SHEETS

X:\DWG\Job\2003\03043\RPL7R\DRAINAGE\03043 EX HYDROMOD BASINS.dwg 8/13/2012 4:55:23 PM PDT

LEGEND

EXISTING GROUND CONTOURS
- 500 INDEX
- 502 INTERMEDIATE

DRAINAGE BASIN DESIGNATOR
- A / 0.57 — BASIN DESIGNATION (ALPHA CHARACTERS DESIGNATE REGIONAL RUNOFF AREAS)
- 0.57 — BASIN AREA (Acres)

DRAINAGE BASIN BOUNDARY

PROPERTY LINE

FLOW PATH

B1 96.4

B2 301.7

B3 163.3

B4 48.8

A 138.1

B5 41.9

C1 157.9

C2 100.4

D1 110.9

D2 158.5

D3 50.7

D4 44.5

NODE 101
NODE 102
NODE 103
Q_{100}=166.2 CFS
NODE 201
NODE 202
NODE 203
NODE 204
NODE 205
NODE 206
Q_{100}=492.9 CFS
NODE 301
NODE 302
Q_{100}=239.7 CFS
NODE 401
NODE 402
NODE 403
NODE 404
Q_{100}=332 CFS

Ranch
BM 762
BM 623
Reservoir
Tunnel
Tunnel
Prosp
TRAIL
INTERN

0 150 300 600 900
SCALE: NTS

STEVENS-CRESTO ENGINEERING, INC.
CIVIL ENGINEERS · LAND PLANNERS · SURVEYORS
5466 OVERPASS DRIVE
SUITE A
SAN DIEGO, CA 92123-1372
PHONE 858.614.5440
FAX 858.614.5441
www.scengr.com

OTAY CROSSINGS COMMERCE PARK
TM 5405R
OTAY MESA, CALIFORNIA

EXHIBIT "D-E1"
PRE-PROJECT CONDITION DRAINAGE BASINS

DATE: 05/14/12
SCE NO. 03043.08
SHEET
D-E1
1 OF 1 SHEETS

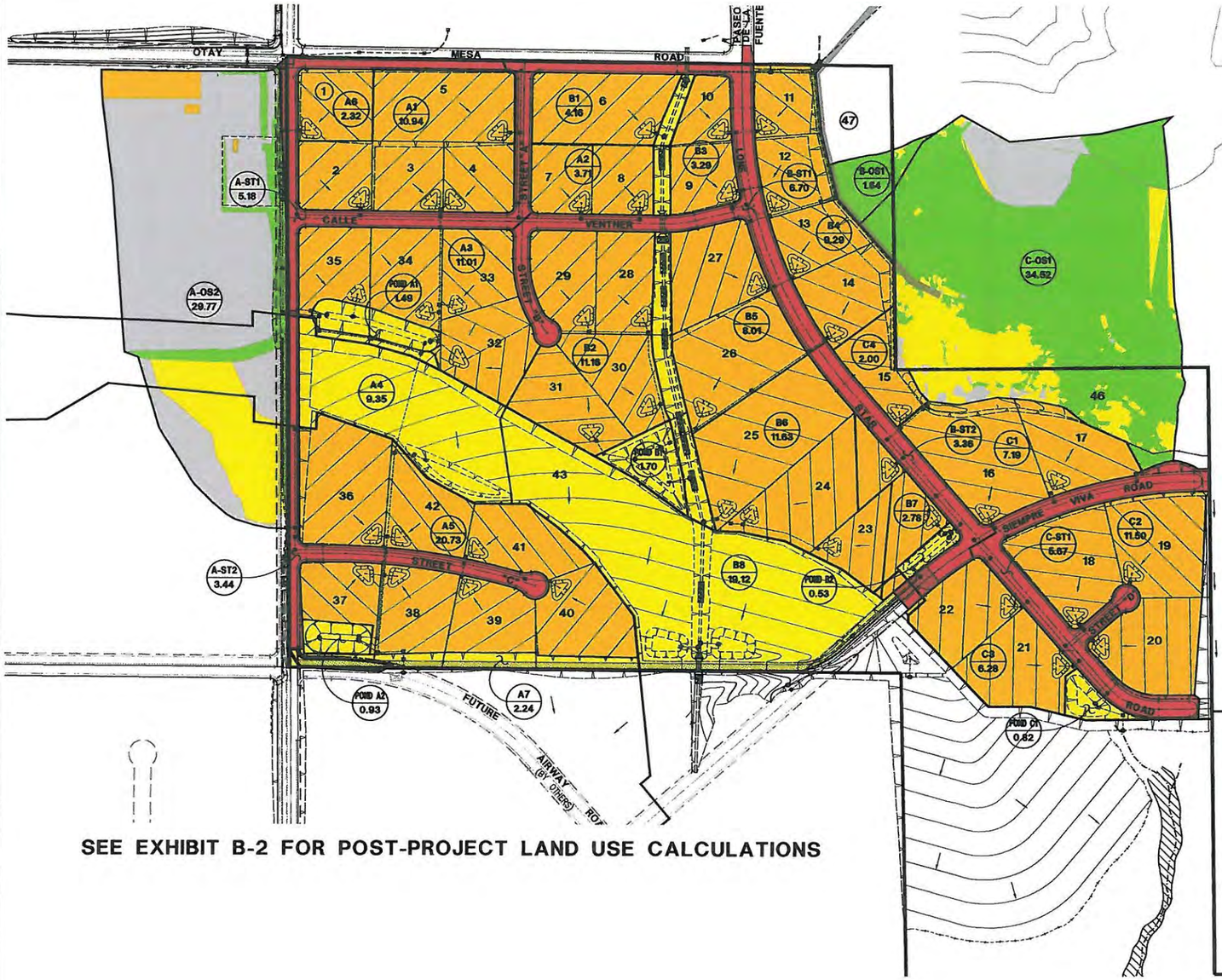
* PROVIDED FOR REFERENCE FROM DRAINAGE STUDY FOR TM5405R *

SCALE: NTS

LEGEND

- PERVIOUS, FLAT (<5% SLOPE)
- PERVIOUS, MODERATE (5% TO <10% SLOPE)
- PERVIOUS, STEEP (>10% SLOPE)
- PARKING LOT/BUILDING (75% IMPERVIOUS)
- ROADS (90% IMPERVIOUS)

NOTE: FOR ONSITE AREAS, SLOPE IS BASED ON THE PREDOMINANT SLOPE FOR THE BASIN IN THE PRE-PROJECT CONDITION



SEE EXHIBIT B-2 FOR POST-PROJECT LAND USE CALCULATIONS

BASIN D IS SHOWN FOR REFERENCE ONLY. NO DEVELOPMENT IS PROPOSED WITHIN THE BASIN, THEREFORE NO HYDROMODIFICATION MITIGATION IS REQUIRED

STEVENS · CRESTO ENGINEERING, INC.
CIVIL ENGINEERS · PLANNERS · LAND SURVEYORS
9665 CHESAPEAKE DRIVE, SUITE 320, SAN DIEGO, CA 92123-1352
PHONE: 858.694.5660
FAX: 858.694.5661
www.scengr.com

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OTAY CROSSINGS COMMERCE PARK

SAN DIEGO, CALIFORNIA

EXHIBIT "B-1"
LAND USE AND SLOPE ANALYSIS - POST-PROJECT CONDITION

DATE: 11/09/12
SCE NO. 03043.08
SHEET B-1
1 OF 1 SHEETS

X:\DWG\Jobs\2003\03043\RPL7R\DRAINAGE\03043 PR HYDROMOD BASINS 110912.DWG 11/5/2012 5:25:34 PM PST

POST-PROJECT LAND USE AND SLOPE ANALYSIS DATA - BASIN A

COLOR / SLOPE RANGE	BASIN A1, LOTS[1] (AC)	BASIN A2, LOTS[1] (AC)	BASIN A3, LOTS[1] (AC)	BASIN A-ST1, STREETS[2] (AC)	TOTAL TRIBUTARY TO POND A1 (AC)	POND A1 (AC)	BASIN A-ST2, STREETS[2] (AC)	BASIN A-OS2, OFFSITE RUNON[3] (AC)	TOTAL TRIBUTARY TO POND A2 (AC)	POND A2 (AC)	BASIN A4, CALTRANS[4] (AC)	BASIN A5, LOTS[1] (AC)	BASIN A6, LOTS[1] (AC)	BASIN A7, UTILITY CORRIDOR (AC)
PERVIOUS TO PERVIOUS, FLAT (<5%)	0	0	0	0	**0.00**	**0**	0	20.64	**20.64**	**0**	0	0	0	0
PERVIOUS TO PERVIOUS, MODERATE (5%-<10%)	2.73	0.93	1.65	0.52	**5.83**	**1.49**	0.34	4.62	**4.96**	**0.93**	9.35	5.18	0.23	2.24
PERVIOUS TO PERVIOUS, STEEP (>10%)	0	0	0	0	**0.00**	**0**	0	3.08	**3.08**	**0**	0	0	0	0
PERVIOUS TO IMPERVIOUS, MODERATE (5%-<10%)	8.21	2.78	9.36	4.66	**25.01**	**0**	3.1	0	**3.1**	**0**	0	15.55	2.09	0
IMPERVIOUS TO IMPERVIOUS, FLAT (<5%)	0	0	0	0	**0.00**	**0**	0	1.43	**1.43**	**0**	0	0	0	0
TOTALS	10.94	3.71	11.01	5.18	**30.84**	**1.49**	3.44	29.77	**33.21**	**0.93**	9.35	20.73	2.32	2.24

[1]DEVELOPED LOTS ARE ASSUMED TO BE 75% IMPERVIOUS. PROPOSED DEVELOPMENTS ON EACH LOT WILL BE REQUIRED TO PROVIDE ON-LOT MITIGATION.
[2]PUBLIC STREETS ARE ASSUMED TO BE 90% IMPERVIOUS.
[3]NO MITIGATION IS REQUIRED FOR OFFSITE RUNON; NO IMPROVEMENTS ARE PROPOSED WITHIN OFFSITE BASIN.
[4]MITIGATION FOR FUTURE SR-11 WILL BE PROVIDED BY CALTRANS AT THE TIME OF CONSTRUCTION.

POST-PROJECT LAND USE AND SLOPE ANALYSIS DATA - BASIN B

COLOR / SLOPE RANGE	BASIN B2, LOTS[1] (AC)	BASIN B3, LOTS[1] (AC)	BASIN B4, LOTS[1] (AC)	BASIN B5, LOTS[1] (AC)	BASIN B-ST1, STREETS[2] (AC)	BASIN B-OS1, OFFSITE RUNON[3] (AC)	TOTAL TRIBUTARY TO POND B1 (AC)	POND B1 (AC)	BASIN B7, LOTS[1] (AC)	BASIN B-ST2, STREETS[2] (AC)	TOTAL TRIBUTARY TO POND B2 (AC)	POND B2 (AC)	BASIN B1, LOT 6[1] (AC)	BASIN B6, LOTS[1] (AC)	BASIN B8, CALTRANS[4] (AC)
PERVIOUS TO PERVIOUS, FLAT (<5%)	0	0	0	0	0	0	**0.00**	**0**	0	0	**0**	**0**	0	0	0
PERVIOUS TO PERVIOUS, MODERATE (5%-<10%)	2.79	0.82	2.32	2.00	0.67	0.05	**8.65**	**1.7**	0.69	0.34	**1.03**	**0.53**	1.04	2.91	19.12
PERVIOUS TO PERVIOUS, STEEP (>10%)	0	0	0	0	0	1.59	**1.59**	**0**	0	0	**0**	**0**	0	0	0
PERVIOUS TO IMPERVIOUS, MODERATE (5%-<10%)	8.37	2.47	6.97	6.01	6.03	0	**29.85**	**0**	2.09	3.02	**5.11**	**0**	3.12	8.72	0
IMPERVIOUS TO IMPERVIOUS, FLAT (<5%)	0	0	0	0	0	0	**0.00**	**0**	0	0	**0**	**0**	0	0	0
TOTALS	11.16	3.29	9.29	8.01	6.7	1.64	**40.09**	**1.7**	2.78	3.36	**6.14**	**0.53**	4.16	11.63	19.12

[1]DEVELOPED LOTS ARE ASSUMED TO BE 75% IMPERVIOUS. PROPOSED DEVELOPMENTS ON EACH LOT WILL BE REQUIRED TO PROVIDE ON-LOT MITIGATION.
[2]PUBLIC STREETS ARE ASSUMED TO BE 90% IMPERVIOUS.
[3]NO MITIGATION IS REQUIRED FOR OFFSITE RUNON; NO IMPROVEMENTS ARE PROPOSED WITHIN OFFSITE BASIN.
[4]MITIGATION FOR FUTURE SR-11 WILL BE PROVIDED BY CALTRANS AT THE TIME OF CONSTRUCTION.

POST-PROJECT LAND USE AND SLOPE ANALYSIS DATA - BASIN C

COLOR / SLOPE RANGE	BASIN C1, LOTS[1] (AC)	BASIN C2, LOTS[1] (AC)	BASIN C3, LOTS[1] (AC)	BASIN C4, LOTS[1] (AC)	BASIN C-ST1, STREETS[2] (AC)	BASIN C-OS1, OFFSITE RUNON[3] (AC)	TOTAL TRIBUTARY TO POND C1 (AC)	POND C1 (AC)
PERVIOUS TO PERVIOUS, FLAT (<5%)	0	0	0	0	0	3.33	**3.33**	**0**
PERVIOUS TO PERVIOUS, MODERATE (5%-<10%)	1.8	2.87	1.57	0.5	0.57	6.53	**13.84**	**0.82**
PERVIOUS TO PERVIOUS, STEEP (>10%)	0	0	0	0	0	24.66	**24.66**	**0**
PERVIOUS TO IMPERVIOUS, MODERATE (5%-<10%)	5.39	8.63	4.71	1.5	5.1	0	**25.33**	**0**
IMPERVIOUS TO IMPERVIOUS, FLAT (<5%)	0	0	0	0	0	0	**0.00**	**0**
TOTALS	7.19	11.50	6.28	2	5.67	34.52	**67.16**	**0.82**

[1]DEVELOPED LOTS ARE ASSUMED TO BE 75% IMPERVIOUS. PROPOSED DEVELOPMENTS ON EACH LOT WILL BE REQUIRED TO PROVIDE ON-LOT MITIGATION.
[2]PUBLIC STREETS ARE ASSUMED TO BE 90% IMPERVIOUS.
[3]NO MITIGATION IS REQUIRED FOR OFFSITE RUNON; NO IMPROVEMENTS ARE PROPOSED WITHIN OFFSITE BASIN.

STEVENS·CRESTO ENGINEERING, INC.
CIVIL ENGINEERS · PLANNERS · LAND SURVEYORS
9665 CHESAPEAKE DRIVE
SUITE 320
SAN DIEGO, CA 92123-1352
PHONE 858.694.5560
FAX 858.694.5561
www.stcengr.com

REVISIONS

OTAY CROSSINGS
COMMERCE PARK
SAN DIEGO, CALIFORNIA

EXHIBIT "B-2"
LAND USE AND SLOPE ANALYSIS -
POST-PROJECT CONDITION

DATE: 11/09/12
SCE NO. 03043.08
SHEET
B-2
1 OF 1 SHEETS

X:\DWG\Job\2003\03043\RPL7R\DRAINAGE\03043 PR HYDROMOD BASINS 11912.DWG 11/5/2012 52534 PM PST

Project No. 07149-22-01A
May 15, 2009

The Judd Company
500 Stevens Avenue, Suite 208
Solana Beach, California 92075

Attention: Mr. Judd Halenza

Subject: OTAY CROSSING COMMERCIAL PARK
(310-ACRE PROPERTY)
SAN DIEGO COUNTY, CALIFORNIA
TRANSMITTAL

Dear Mr. Halenza:

In accordance with the request of Mr. Brian Hill with Stevens Cresto Engineering Incorporated, we have provided additional geotechnical engineering services on the subject project. The purpose of our work was to prepare this transmittal letter regarding our opinion for *Geotechnical Input for Hydromodification Management Studies* as requested by the County of San Diego with the outline indicated below.

- **Description of site soils.** Topsoils consist of clayey sand and sandy clay. The natural formational soils at the site consist of silty sand, sandy silt, silty clay, and sandy clay.

- **Discussion of the feasibility of infiltration of the site.** The soils at the site have a considerable clay and silt content and exhibit low permeability and low infiltration properties. Therefore, in our opinion, the feasibility of infiltration at the site is very low.

- **Recommendations of areas where on-site infiltration may be feasible, considering expected depth to groundwater, potential for lateral migration, and proximity of existing and proposed slopes, structures, roadways, walls, or other sensitive features.** Permanent groundwater level is expected to be greater than 100 feet. However, the site is not feasible for infiltration due to the low infiltration characteristics of *in situ* soils. In addition, there is a potential for lateral migration to proposed industrial developments and future roadways. Lateral migration of water could result in seepage on proposed cut slopes. Wetting of proposed fill slopes could create slope stability issues.

- **Preliminary infiltration rates for areas where on-site infiltration may be feasible.** Based on our experience in the area with similar soils conditions and the Soil Conservation Service *SCS Engineering Field Handbook,* Chapter 2, which has an infiltration rate of 0.05 to 0.15 inches/hour, we are of the opinion that *in situ* soils are similar to the Group C.

If you have any questions regarding this transmittal letter, please contact the undersigned.

Very truly yours,

GEOCON INCORPORATED

Raul R. Garcia
RCE 42132

RRG:dmc

(1) Addressee
(2) Stevens Cresto Engineering Inc.
Attention: Mr. Brian Hill

4

SECTION 4

HYDROMODIFICATION ANALYSIS

Calculation Method

Output from the BMP Sizing Calculator is provided for Basins A, B, and C in this section. Three sets of calculations were performed:

1. Pond Sizing – the "Pond Sizer" component of the BMP Sizing Calculator is utilized to calculate the required size of the regional detention facilities. DMAs representing tributary lots and roads are routed to a pond BMP for sizing. The BMP sizing calculator is not able to route outflow from one BMP to another BMP, so the mitigated lots are represented by pervious area in the calculations for the regional ponds. This is appropriate since the on-lot BMPs will be designed such that runoff from each lot will mimic pre-project undeveloped conditions. The BMP Sizing Calculator calculates a lower orifice size, an upper orifice size, and an overall volume for the pond based on the tributary DMAs, and some basic design parameters input by the user.
2. On-Lot BMP Sizing – the "LID Sizer" component of the BMP Sizing Calculator is utilized to calculate the required size of the on-lot BMPs. In the LID Sizer, the user inputs the appropriate tributary DMAs and then selects the desired BMP from a list of options. "Bioretention & Vault" was selected for OCCP. BMP facilities were sized for the largest and smallest lots and then proportionally adjusted to calculate sizes for the remaining lots. This is appropriate since the BMP Sizing Calculator uses sizing factors, based on area, to calculate the BMP sizes. The sizing factors are provided in Section 7 of the Final HMP. Since the pre-project predominant slope of all three basins is "moderate", this set of calculations provides facility sizing for all three basins.
3. Orifice Sizing – Although the BMP sizes can be broken down proportionally for each lot, the maximum orifice size can not. To calculate the range of orifice sizes within each basin, and to confirm the proportional BMP break-down for the basin, separate BMP sizing calculations are performed for representative lots of sizes ranging from the smallest to the largest lot. Calculations begin with a lot sized as 0.1 acre larger than the smallest lot and the size is increase incrementally by 0.1 acre to find the minimum lot size that corresponds to the next largest outlet orifice size. This process is continued until the representative lot is the size of the largest lot. The orifice sizes calculated for each representative lot are then used as a guideline for sizing the orifices for the remaining lots in the project. The orifices for the lots are initially sized by taking the size that was calculated for the smallest lot in the basin. Then, starting with the smallest of the representative lots, the orifices for all of the lots larger than that lot are increased to be the same size as the representative lot. The process is repeated for each of the representative lots, up until the largest one.

The calculated minimum on-lot BMP requirements established for each lot are provided on Exhibit C in this section. The minimum on-lot BMP sizing requirements are to be implemented during the ultimate build-out of the project. During the Site Plan review that will take place prior to the development of each lot, as mandated by the East Otay Mesa Specific Plan, each proposed development will need to demonstrate that it is in compliance with the minimum requirements. Should a project propose alternative BMPs, or any variation to the assumptions made within this report, then that project will need to provide additional modeling and analysis to demonstrate that the subdivision as a whole will still be in compliance with the HMP upon completion of the project.

Regional Pond Sizing Requirements

Below is a summary table showing the minimum sizing requirements for each regional detention pond, per the BMP Sizing Calculator calculations. Those sizes are compared to the pond sizes provided in the Preliminary Grading Plan for Otay Crossings Commerce Park. Pond sizes provided are in excess of the minimum sizes required to satisfy the HMP. The Preliminary Grading Plan is provided for reference in Section 5.

BMP SIZING CALCULATOR RESULTS - DETENTION POND SIZING

POND	DEPTH REQUIRED (FT)	VOLUME REQUIRED (CF)	DEPTH PROVIDED[1] (FT)	VOLUME PROVIDED[1] (CF)	DRAWDOWN TIME (HRS)
POND A1	5	43,869	5	128,198	4
POND A2	4.5	39,371	4.5	70,990	4
POND B1	5	43,869	5	86,530	3
POND B2	5	23,060	5	49,890	21
POND C	8	93,633	8	98,991	2

[1]PER THE PRELIMINARY GRADING PLAN FOR COUNTY OF SAN DIEGO TRACT 5405R, OTAY CROSSINGS COMMERCE PARK

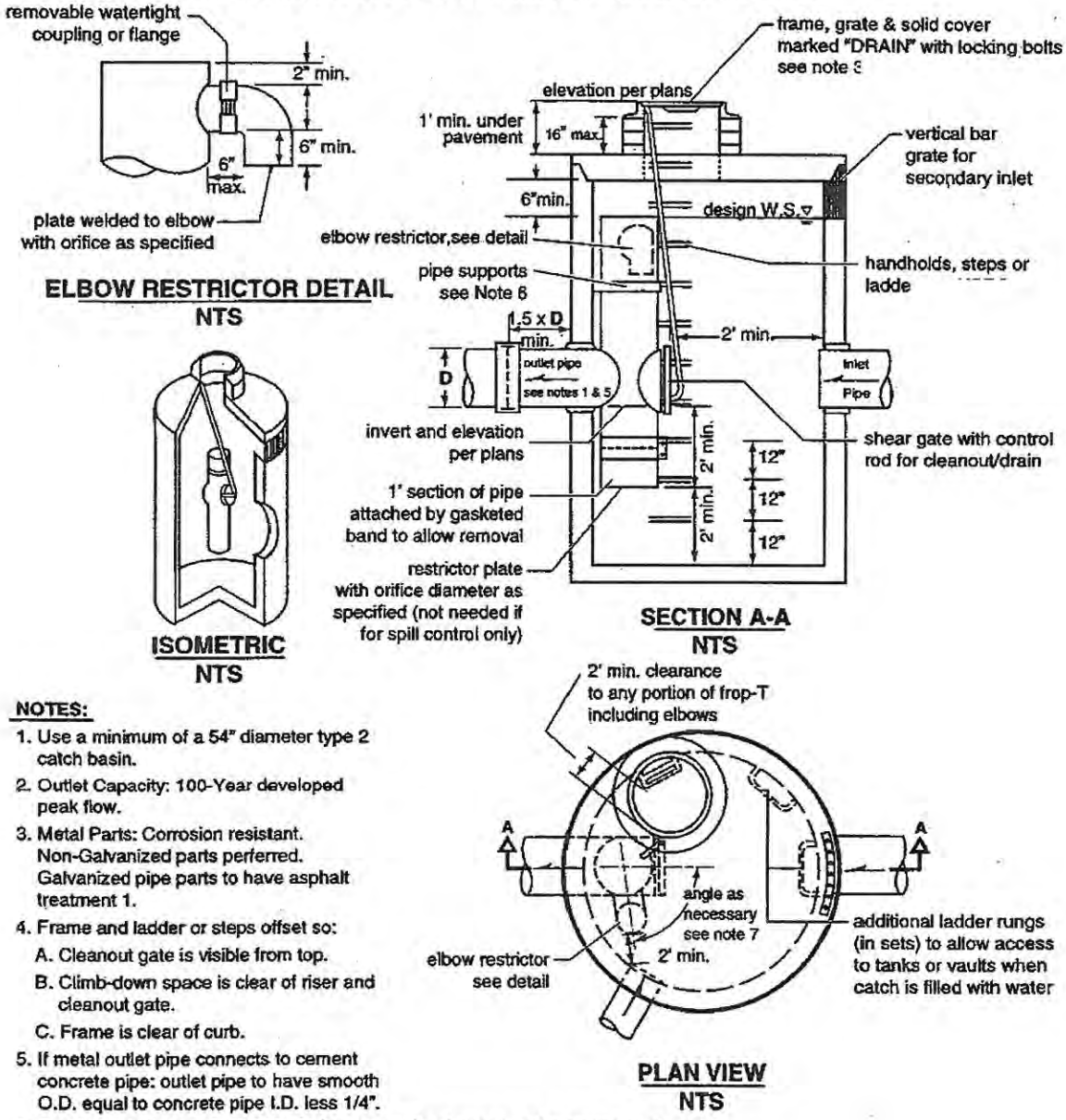
Drawdown Calculations

The maximum allowable drawdown time for a storm water facility is 96 hours. Per the drawdown calculations provided on the BMP Sizing Calculator reports, all regional detention facilities will drawdown in less than 96 hours.

BMP Maintenance

Per the calculations in this section, the outlet structures for the on-lot hydromodification facilities at the proposed project will have outlet orifices as small as 1.0 inch in diameter. Openings this small generally have a high propensity towards clogging and, thus, design and maintenance of the structures is critical. Though exact specifications won't be developed until final engineering, the outlet

structures utilized may be similar in design to the one shown in Figure 5.A below. This detail is provided in the 2005 Stormwater Management Manual for Western Washington and allows for an outlet orifice as small as 0.5 inch.



NOTES:

1. Use a minimum of a 54" diameter type 2 catch basin.
2. Outlet Capacity: 100-Year developed peak flow.
3. Metal Parts: Corrosion resistant. Non-Galvanized parts perferred. Galvanized pipe parts to have asphalt treatment 1.
4. Frame and ladder or steps offset so:
   A. Cleanout gate is visible from top.
   B. Climb-down space is clear of riser and cleanout gate.
   C. Frame is clear of curb.
5. If metal outlet pipe connects to cement concrete pipe: outlet pipe to have smooth O.D. equal to concrete pipe I.D. less 1/4".
6. Provide at least one 3" X .090 inches support bracket anchored to concrete wall. (maximum 3'-0" vertical spacing)
7. Locate elbow restrictor(s) as necessary to provide minimum clearance as shown.
8. Locate additional ladder rungs in structures used as access to tanks or vaults to allow access when catch basin is filled with water.

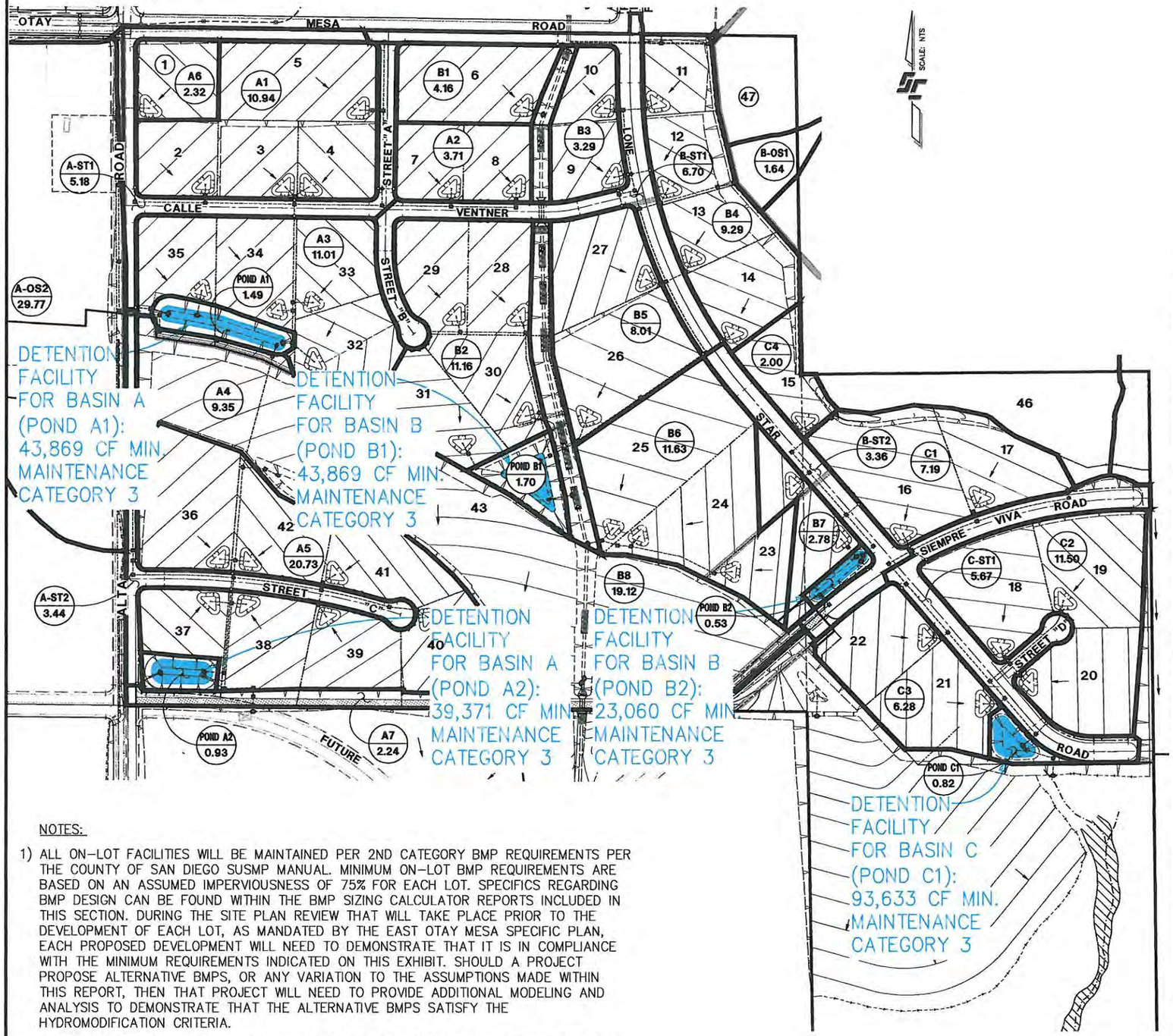
Figure 5.A
Hydromodification BMP Outlet Structure
Source: Stormwater Management Manual for Western Washington – Vol. III, dated February 2005

In order to ensure proper function of the hydromodification BMPs, regular maintenance of the facilities will be critical. As discussed in Section 1, the proposed BMPs will fall under second and third category maintenance mechanisms, as defined within the County of San Diego "Standard Urban Storm Water Mitigation Plan Requirements for Development Applications", dated January 8, 2011. The on-lot BMPs constructed during the ultimate build-out of each lot will fall under the second category maintenance mechanisms, requiring that a Stormwater Facilities Maintenance Agreement, with Easement and Covenants be entered into between the owner and the County of San Diego, obliging the owner to maintain the project category two BMPs into perpetuity. The BMPs servicing the public right-of-way will fall under third category maintenance mechanisms, requiring the establishment of a Storm Water Maintenance Assessment District to maintain the proposed BMPs into perpetuity. Specific maintenance categories for all BMPs are identified on Exhibit C in this Section.

Maintenance of the facilities will be performed according to a schedule developed for each BMP during final engineering. At a minimum, the facilities will need to be inspected twice a year, with one of the inspections occurring just prior to the start of the established rainy season (October to April). Depending on the type of the facility and anticipated pollutant loading, more regular inspections may be required.

100 Year Design Storm

The CEQA Preliminary Hydrology/ Drainage Study for Otay Crossings Commerce Park provides existing and post-development hydrologic calculations and peak runoff flow rates for the proposed project. As discussed within that study, project runoff is tributary to the Tijuana River and, as such, post-development project runoff must not exceed pre-development discharge rates for a 100 year design storm. Detention calculations within Section 4 of that study route post-development runoff from the 100 year design storm through models of the proposed hydromodification basins. The hydromodification basin models are created using the basin and outlet structure parameters calculated in this section. Peak runoff flow rates to downstream properties will not be increased in the post-development condition.



SCALE: NTS

LEGEND:

- (1) — LOT NO. (TM 5405R)
- A1 / 13.84 — HYDROMODIFICATION BASIN DESIGNATION AND BASIN AREA (AC)
- BASIN BOUNDARY
- DETENTION FACILITY, APPROX. LOCATION AND SIZE (SEE NOTE 2)

NOTES:

1) ALL ON-LOT FACILITIES WILL BE MAINTAINED PER 2ND CATEGORY BMP REQUIREMENTS PER THE COUNTY OF SAN DIEGO SUSMP MANUAL. MINIMUM ON-LOT BMP REQUIREMENTS ARE BASED ON AN ASSUMED IMPERVIOUSNESS OF 75% FOR EACH LOT. SPECIFICS REGARDING BMP DESIGN CAN BE FOUND WITHIN THE BMP SIZING CALCULATOR REPORTS INCLUDED IN THIS SECTION. DURING THE SITE PLAN REVIEW THAT WILL TAKE PLACE PRIOR TO THE DEVELOPMENT OF EACH LOT, AS MANDATED BY THE EAST OTAY MESA SPECIFIC PLAN, EACH PROPOSED DEVELOPMENT WILL NEED TO DEMONSTRATE THAT IT IS IN COMPLIANCE WITH THE MINIMUM REQUIREMENTS INDICATED ON THIS EXHIBIT. SHOULD A PROJECT PROPOSE ALTERNATIVE BMPS, OR ANY VARIATION TO THE ASSUMPTIONS MADE WITHIN THIS REPORT, THEN THAT PROJECT WILL NEED TO PROVIDE ADDITIONAL MODELING AND ANALYSIS TO DEMONSTRATE THAT THE ALTERNATIVE BMPS SATISFY THE HYDROMODIFICATION CRITERIA.

2) DETENTION FACILITY SYMBOLS APPROXIMATE THE SIZE AND LOCATIONS OF THE FACILITIES NEEDED TO SATISFY THE HYDROMODIFICATION CRITERIA. SPECIFICS REGARDING BMP DESIGN CAN BE FOUND WITHIN THE BMP SIZING CALCULATOR REPORTS INCLUDED IN THIS SECTION.

MINIMUM ON-LOT BMPS REQUIRED TO SATISFY FINAL HYDROMODIFICATION CRITERIA

LOT NUMBER	HYDROMOD BASIN	LOT ACREAGE (Ac)	MINIMUM REQUIRED BIORETENTION AREA[1,2,3] (SF)	MINIMUM REQUIRED VOLUME OF UNDERGROUND DETENTION[1,2,3] (CF)	MAXIMUM OUTLET ORIFICE SIZE[1,2,3] (IN)
LOT 1	A6	2.3	3,106	10,871	2.0
LOT 2	A1	2.2	2,971	10,398	2.0
LOT 3	A1	2.2	2,971	10,398	2.0
LOT 4	A1	2.2	2,971	10,398	2.0
LOT 5	A1	4.4	5,942	20,796	2.0
LOT 6	B1	4.6	6,212	21,741	2.0
LOT 7	A2	1.9	2,566	8,980	1.0
LOT 8	A2	2.4	3,241	11,343	2.0
LOT 9	B3	1.9	2,566	8,980	1.0
LOT 10	B3	1.4	1,891	6,617	1.0
LOT 11	B4	2.0	2,701	9,453	1.0
LOT 12	B4	2.3	3,106	10,871	2.0
LOT 13	B4	2.1	2,836	9,925	1.0
LOT 14	B4	2.9	3,916	13,707	2.0
LOT 15	C4	2.1	2,836	9,925	1.0
LOT 16	C1	5.1	6,887	24,105	2.0
LOT 17	C1	3.6	4,861	17,015	2.0
LOT 18	C2	3.9	5,267	18,433	2.0
LOT 19	C2	4.2	5,672	19,851	2.0
LOT 20	C2	4.4	5,942	20,796	2.0
LOT 21	C3	3.2	4,321	15,125	2.0
LOT 22	C3	2.9	3,916	13,707	2.0
LOT 23	B6	3.4	4,591	16,070	2.0
LOT 24	B6	5.0	6,752	23,632	2.0
LOT 25	B6	5.9	7,967	27,886	2.0
LOT 26	B5	4.6	6,212	21,741	2.0
LOT 27	B5	3.4	4,591	16,070	2.0
LOT 28	B2	3.3	4,456	15,597	2.0
LOT 29	B2	2.6	3,511	12,289	2.0
LOT 30	B2	3.7	4,996	17,488	2.0
LOT 31	B2	3.1	4,186	14,652	2.0
LOT 32	A3	3.2	4,321	15,125	2.0
LOT 33	A3	2.5	3,376	11,816	2.0
LOT 34	A3	2.8	3,781	13,234	2.0
LOT 35	A3	2.3	3,106	10,871	2.0
LOT 36	A5	4.6	6,212	21,741	2.0
LOT 37	A5	2.1	2,836	9,925	1.0
LOT 38	A5	3.1	4,186	14,652	2.0
LOT 39	A5	3.2	4,321	15,125	2.0
LOT 40	A5	3.8	5,132	17,960	2.0
LOT 41	A5	2.8	3,781	13,234	2.0
LOT 42	A5	2.8	3,781	13,234	2.0

[1]BIORETENTION AREA AND UNDERGROUND DETENTION CRITERIA CALCULATED USING THE SAN DIEGO BMP SIZING CALCULATOR

[2]ON-LOT BMPS MUST BE PLACED IN A LOCATION ON THE INDIVIDUAL LOT THAT MAXIMIZES THE CAPTURE OF THE ON-SITE RUNOFF.

[3]IF, DURING THE DEVELOPMENT OF EACH LOT, THE PROVIDED MINIMUM VALUES ARE NOT USED, ADDITIONAL ANALYSIS WILL NEED TO BE PROVIDED TO DEMONSTRATE THAT THE CHOSEN ALTERNATIVE BMPS SATISFY THE HYDROMODIFICATION CRITERIA. THIS ANALYSIS WILL BE PROVIDED DURING THE SITE PLAN REVIEW PROCESS MANDATED BY THE EAST OTAY MESA SPECIFIC PLAN FOR THE DEVELOPMENT OF EACH LOT.

STEVENS-CRESTO ENGINEERING, INC.
CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS
9665 CHESAPEAKE DRIVE SUITE 350 SAN DIEGO, CA 92123-1352
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REVISIONS

△	△
△	△
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△	△
△	△

OTAY CROSSINGS COMMERCE PARK
SAN DIEGO, CALIFORNIA

EXHIBIT "C"
PRELIMINARY HYDROMODIFICATION BMP SIZING REQUIREMENTS AND LOCATIONS

DATE: 11/09/12
SCE NO. 03043.08
SHEET C
1 OF 1 SHEETS

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TABLE 5-1
OTAY CROSSINGS COMMERCE PARK, TM 5405R
ON-LOT HYDROMODIFICATION BMP SIZING

Total On-lot Detention Requirements:					Average Per Acre
Total Area of Bioretention on the Developed Lots[1,2] (SF):				178,793	1,350
Total Volume of Underground Detention on the Developed Lots[1,2] (CF):				625,777	4,726
Lot Number	HydroMod Basin	Lot Acreage[3] (Ac)	Minimum Required Area of Bio-retention Swales[4] (SF)	Minimum Required Volume of Underground Detention[4]	Underground Detention Maximum Orifice Size[4] (in)
LOT 1	A6	2.3	3,106	10,871	2.0
LOT 2	A1	2.2	2,971	10,398	2.0
LOT 3	A1	2.2	2,971	10,398	2.0
LOT 4	A1	2.2	2,971	10,398	2.0
LOT 5	A1	4.4	5,942	20,796	2.0
LOT 6	B1	4.6	6,212	21,741	2.0
LOT 7	A2	1.9	2,566	8,980	1.0
LOT 8	A2	2.4	3,241	11,343	2.0
LOT 9	B3	1.9	2,566	8,980	1.0
LOT 10	B3	1.4	1,891	6,617	1.0
LOT 11	B4	2.0	2,701	9,453	1.0
LOT 12	B4	2.3	3,106	10,871	2.0
LOT 13	B4	2.1	2,836	9,925	1.0
LOT 14	B4	2.9	3,916	13,707	2.0
LOT 15	C4	2.1	2,836	9,925	1.0
LOT 16	C1	5.1	6,887	24,105	2.0
LOT 17	C1	3.6	4,861	17,015	2.0
LOT 18	C2	3.9	5,267	18,433	2.0
LOT 19	C2	4.2	5,672	19,851	2.0
LOT 20	C2	4.4	5,942	20,796	2.0
LOT 21	C3	3.2	4,321	15,125	2.0
LOT 22	C3	2.9	3,916	13,707	2.0
LOT 23	B6	3.4	4,591	16,070	2.0
LOT 24	B6	5.0	6,752	23,632	2.0
LOT 25	B6	5.9	7,967	27,886	2.0
LOT 26	B5	4.6	6,212	21,741	2.0
LOT 27	B5	3.4	4,591	16,070	2.0
LOT 28	B2	3.3	4,456	15,597	2.0
LOT 29	B2	2.6	3,511	12,289	2.0
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LOT 31	B2	3.1	4,186	14,652	2.0
LOT 32	A3	3.2	4,321	15,125	2.0
LOT 33	A3	2.5	3,376	11,816	2.0
LOT 34	A3	2.8	3,781	13,234	2.0
LOT 35	A3	2.3	3,106	10,871	2.0
LOT 36	A5	4.6	6,212	21,741	2.0
LOT 37	A5	2.1	2,836	9,925	1.0
LOT 38	A5	3.1	4,186	14,652	2.0
LOT 39	A5	3.2	4,321	15,125	2.0
LOT 40	A5	3.8	5,132	17,960	2.0
LOT 41	A5	2.8	3,781	13,234	2.0
LOT 42	A5	2.8	3,781	13,234	2.0
Totals		132.40	178,793	625,777	

[1]From San Diego BMP Sizing Calculator Reports provided in this section

[2]Bioretention area and underground detention volume calculated using the San Diego BMP Sizing Calculator, using the "Bioretention and Vault" BMP.

[3]Developed lot acreage from TM 5405R.

[4]If, during development of each lot, the provided minimum values are not used, additional analysis will need to be provided to demonstrate that the chosen alternative BMPs are comparable in addressing the hydromodification criteria for the subdivision as a whole. This analysis will be provided during the Site Plan review process mandated by the East Otay Mesa Specific Plan for the development of each lot.

BMP SIZING CALCULATOR REPORTS – BASIN A REGIONAL PONDS

Project Summary

Project Name	Otay Crossings Commerce Park
Project Applicant	Kearny PCCP Otay 311, LLC
Jurisdiction	County of San Diego
Parcel (APN)	
Hydrologic Unit	Tijuana

Compliance Basin Summary

Basin Name:	Basin A - Pond A1
Receiving Water:	
Rainfall Basin	Lindbergh Field
Mean Annual Precipitation (inches)	10.2
Project Basin Area (acres):	31.00
Watershed Area (acres):	131.30
SCCWRP Lateral Channel Susceptiblity (H, M, L):	Low (Lateral)
SCCWRP Vertifical Channel Susceptiblity (H, M, L):	Low (Vertical)
Overall Channel Susceptibility (H, M, L):	LOW
Lower Flow Threshold (% of 2-Year Flow):	0.5

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
14468	Drains to Pond	BMP 1	Basin A1, Pervious to Pervious (Mitigated Lot Runoff)	10.94	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14469	Drains to Pond	BMP 1	Basin A2, Pervious to Pervious (Mitigated Lot Runoff)	3.71	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14470	Drains to Pond	BMP 1	Basin A3, Pervious to Pervious (Mitigated Lot Runoff)	11.01	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14471	Drains to Pond	BMP 1	Basin A-ST1, Pervious to Pervious	0.52	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14472	Drains to Pond	BMP 1	Basin A-ST1, Pervious to Impervious	4.66	Pervious (Pre)	IMPERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)

Pond Facility Summary

Scenario	Description	Bottom Area (sqft)	Top Area (sqft)	Depth (ft)	Volume (cft)	Low Orifice (in)	Low Invert (ft)	High Orifice (in)	High Invert (ft)	Weir Length (ft)	Weir Invert (ft)	Facility Soil	Drawdown (hrs)
Design A	Pond A1	6000	11547	5	43868.9	5.00	0.00	13.00	0.9	6.3	4.00	D	4.00

Project Summary

Project Name	Otay Crossings Commerce Park
Project Applicant	Kearny PCCP Otay 311, LLC
Jurisdiction	County of San Diego
Parcel (APN)	
Hydrologic Unit	Tijuana

Compliance Basin Summary

Basin Name:	Basin A - Pond A2
Receiving Water:	
Rainfall Basin	Lindbergh Field
Mean Annual Precipitation (inches)	10.2
Project Basin Area (acres):	134.00
Watershed Area (acres):	131.30
SCCWRP Lateral Channel Susceptiblity (H, M, L):	Low (Lateral)
SCCWRP Vertifical Channel Susceptiblity (H, M, L):	Low (Vertical)
Overall Channel Susceptibility (H, M, L):	LOW
Lower Flow Threshold (% of 2-Year Flow):	0.5

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
14490	Drains to Pond	BMP 1	Basin A-ST2, Pervious to Pervious	0.34	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14491	Drains to Pond	BMP 1	Basin A-ST2, Pervious to Impervious	3.1	Pervious (Pre)	IMPERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14493	Drains to Pond	BMP 1	Basin A-OS2, Pervious to Pervious, Flat	20.64	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Flat - slope (less ...
14494	Drains to Pond	BMP 1	Basin A-OS2, Pervious to Pervious, Moderate	4.62	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14495	Drains to Pond	BMP 1	Basin A-OS2, Pervious to Pervious, Steep	3.08	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Steep (greater 10%)
14496	Drains to Pond	BMP 1	Basin A-OS2, Impervious to Impervious, Flat	1.43	Impervious (Pre)	IMPERVIOUS	Type D (high runoff - clay soi...	Flat - slope (less ...

Pond Facility Summary

Scenario	Description	Bottom Area (sqft)	Top Area (sqft)	Depth (ft)	Volume (cft)	Low Orifice (in)	Low Invert (ft)	High Orifice (in)	High Invert (ft)	Weir Length (ft)	Weir Invert (ft)	Facility Soil	Drawdown (hrs)
Design A	Pond A2	6250	11248	4.5	39370.6	5.00	0.00	14.00	1.1	12.5	3.5	D	4.00

BMP SIZING CALCULATOR REPORTS – BASIN B REGIONAL PONDS

Project Summary

Project Name	Otay Crossings Commerce Park
Project Applicant	Kearny PCCP Otay 311, LLC
Jurisdiction	County of San Diego
Parcel (APN)	
Hydrologic Unit	Tijuana

Compliance Basin Summary

Basin Name:	Basin B - Pond B1
Receiving Water:	
Rainfall Basin	Lindbergh Field
Mean Annual Precipitation (inches)	10.2
Project Basin Area (acres):	30.00
Watershed Area (acres):	680.91
SCCWRP Lateral Channel Susceptiblity (H, M, L):	Low (Lateral)
SCCWRP Vertifical Channel Susceptiblity (H, M, L):	Low (Vertical)
Overall Channel Susceptibility (H, M, L):	LOW
Lower Flow Threshold (% of 2-Year Flow):	0.5

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
14503	Drains to Pond	BMP 1	Basin B2, B3, B4, B5 Pervious to Pervious (Mitigated Lot Runoff)	31.75	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14505	Drains to Pond	BMP 1	Basin B-ST1, Pervious to Pervious	0.67	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14506	Drains to Pond	BMP 1	Basin B-ST1, Pervious to Impervious	6.03	Pervious (Pre)	IMPERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14507	Drains to Pond	BMP 1	Basin B-OS1, Pervious to Pervious, Moderate	0.05	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14508	Drains to Pond	BMP 1	Basin B-OS1, Pervious to Pervious, Steep	1.59	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Steep (greater 10%)

Pond Facility Summary

Scenario	Description	Bottom Area (sqft)	Top Area (sqft)	Depth (ft)	Volume (cft)	Low Orifice (in)	Low Invert (ft)	High Orifice (in)	High Invert (ft)	Weir Length (ft)	Weir Invert (ft)	Facility Soil	Drawdown (hrs)
Design A	Pond B1	6000	11547	5	43868.9	6.00	0.00	14.00	1.2	6.2	4.75	D	3.00

Project Summary

Project Name	Otay Crossings Commerce Park
Project Applicant	Kearny PCCP Otay 311, LLC
Jurisdiction	County of San Diego
Parcel (APN)	
Hydrologic Unit	Tijuana

Compliance Basin Summary

Basin Name:	Basin B - Pond B2
Receiving Water:	
Rainfall Basin	Lindbergh Field
Mean Annual Precipitation (inches)	10.2
Project Basin Area (acres):	15.00
Watershed Area (acres):	680.91
SCCWRP Lateral Channel Susceptiblity (H, M, L):	Low (Lateral)
SCCWRP Vertifical Channel Susceptiblity (H, M, L):	Low (Vertical)
Overall Channel Susceptibility (H, M, L):	LOW
Lower Flow Threshold (% of 2-Year Flow):	0.5

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
14512	Drains to Pond	BMP 1	Basin B7, Pervious to Pervious (Mitigated Lot Runoff)	2.78	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14513	Drains to Pond	BMP 1	Basin B-ST2, Pervious to Pervious	0.34	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14514	Drains to Pond	BMP 1	Basin B-ST2, Pervious to Impervious	3.02	Pervious (Pre)	IMPERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)

Pond Facility Summary

Scenario	Description	Bottom Area (sqft)	Top Area (sqft)	Depth (ft)	Volume (cft)	Low Orifice (in)	Low Invert (ft)	High Orifice (in)	High Invert (ft)	Weir Length (ft)	Weir Invert (ft)	Facility Soil	Drawdown (hrs)
Design A	Pond B2	2625	6599	5	23060.2	2.00	0.00	8.00	3.1	4.7	4.00	D	21.00

BMP SIZING CALCULATOR REPORTS – BASIN C REGIONAL PONDS

Project Summary

Project Name	Otay Crossings Commerce Park
Project Applicant	Kearny PCCP Otay 311, LLC
Jurisdiction	County of San Diego
Parcel (APN)	
Hydrologic Unit	Tijuana

Compliance Basin Summary

Basin Name:	Basin C - Pond C1
Receiving Water:	
Rainfall Basin	Lindbergh Field
Mean Annual Precipitation (inches)	10.2
Project Basin Area (acres):	66.00
Watershed Area (acres):	170.49
SCCWRP Lateral Channel Susceptiblity (H, M, L):	Low (Lateral)
SCCWRP Vertifical Channel Susceptiblity (H, M, L):	Low (Vertical)
Overall Channel Susceptibility (H, M, L):	LOW
Lower Flow Threshold (% of 2-Year Flow):	0.5

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
14517	Drains to Pond	BMP 1	Basin C1, C2, C3, C4 Pervious to Pervious (Mitigated Lot Runoff)	26.97	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14518	Drains to Pond	BMP 1	Basin C-ST1, Pervious to Pervious	0.57	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14519	Drains to Pond	BMP 1	Basin C-ST1, Pervious to Impervious	5.1	Pervious (Pre)	IMPERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14523	Drains to Pond	BMP 1	Basin C-OS1, Pervious to Pervious, Flat	3.33	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Flat - slope (less ...
14524	Drains to Pond	BMP 1	Basin C-OS1, Pervious to Pervious, Moderate	6.53	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14525	Drains to Pond	BMP 1	Basin C-OS1, Pervious to Pervious, Steep	24.66	Pervious (Pre)	PERVIOUS	Type D (high runoff - clay soi...	Steep (greater 10%)

Pond Facility Summary

Scenario	Description	Bottom Area (sqft)	Top Area (sqft)	Depth (ft)	Volume (cft)	Low Orifice (in)	Low Invert (ft)	High Orifice (in)	High Invert (ft)	Weir Length (ft)	Weir Invert (ft)	Facility Soil	Drawdown (hrs)
Design A	Pond C1	6640	16767	8	93633.1	7.00	0.00	17.00	0.75	9.4	6.7	D	2.00

BMP SIZING CALCULATOR REPORTS – BASIN A/B/C ON-LOT FACILITIES

Project Summary

Project Name	Otay Crossings Commerce Park
Project Applicant	Kearny PCCP Otay 311, LLC
Jurisdiction	County of San Diego
Parcel (APN)	
Hydrologic Unit	Tijuana

Compliance Basin Summary

Basin Name:	Basin A/B/C - Lots
Receiving Water:	
Rainfall Basin	Lindbergh Field
Mean Annual Precipitation (inches)	10.2
Project Basin Area (acres):	133.00
Watershed Area (acres):	131.29
SCCWRP Lateral Channel Susceptiblity (H, M, L):	Low (Lateral)
SCCWRP Vertifical Channel Susceptiblity (H, M, L):	Low (Vertical)
Overall Channel Susceptibility (H, M, L):	LOW
Lower Flow Threshold (% of 2-Year Flow):	0.5

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
14499	Drains to LID	BMP 1	Basin A/B/C Lots, Pervious to Pervious	33.1	Pervious (Pre)	Landscaping	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14500	Drains to LID	BMP 1	Basin A/B/C Lots, Pervious to Impervious	99.3	Pervious (Pre)	Concrete or asphalt	Type D (high runoff - clay soi...	Moderate (5 - 10%)

LID Facility Summary

BMP ID	Type	Description	Plan Area (sqft)	Volume 1(cft)	Volume 2(cft)	Orifice Flow (cfs)	Orifice Size (inch)
BMP 1	Bioretention + Vault	Basin A/B/C On-lot BMPs	178793	625777	0.00	6.904	12.00

4-16

Project Summary

Project Name	Otay Crossings Commerce Park
Project Applicant	Kearny PCCP Otay 311, LLC
Jurisdiction	County of San Diego
Parcel (APN)	
Hydrologic Unit	Tijuana

Compliance Basin Summary

Basin Name:	Basin A/B/C - Orifice Sizing: Smallest Lot (Lot 10)
Receiving Water:	
Rainfall Basin	Lindbergh Field
Mean Annual Precipitation (inches)	10.2
Project Basin Area (acres):	1.40
Watershed Area (acres):	680.91
SCCWRP Lateral Channel Susceptiblity (H, M, L):	Low (Lateral)
SCCWRP Vertifical Channel Susceptiblity (H, M, L):	Low (Vertical)
Overall Channel Susceptibility (H, M, L):	LOW
Lower Flow Threshold (% of 2-Year Flow):	0.5

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
14530	Drains to LID	BMP 1	Basin A/B/C - Smallest Lot (Lot 10), Pervious to Pervious	0.35	Pervious (Pre)	Landscaping	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14531	Drains to LID	BMP 1	Basin A/B/C-Smallest Lot (Lot 10), Pervious to Impervious	1.05	Pervious (Pre)	Concrete or asphalt	Type D (high runoff - clay soi...	Moderate (5 - 10%)

LID Facility Summary

BMP ID	Type	Description	Plan Area (sqft)	Volume 1(cft)	Volume 2(cft)	Orifice Flow (cfs)	Orifice Size (inch)
BMP 1	Bioretention + Vault	Basin A/B/C - On-lot BMP (Smallest Lot)	1890	6616	0.00	0.073	1.00

4-17

Project Summary

Project Name	Otay Crossings Commerce Park
Project Applicant	Kearny PCCP Otay 311, LLC
Jurisdiction	County of San Diego
Parcel (APN)	
Hydrologic Unit	Tijuana

Compliance Basin Summary

Basin Name:	Basin A/B/C - Orifice Sizing: Largest Lot (Lot 25)
Receiving Water:	
Rainfall Basin	Lindbergh Field
Mean Annual Precipitation (inches)	10.2
Project Basin Area (acres):	6.00
Watershed Area (acres):	680.91
SCCWRP Lateral Channel Susceptiblity (H, M, L):	Low (Lateral)
SCCWRP Vertifical Channel Susceptiblity (H, M, L):	Low (Vertical)
Overall Channel Susceptibility (H, M, L):	LOW
Lower Flow Threshold (% of 2-Year Flow):	0.5

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
14536	Drains to LID	BMP 1	Basin A/B/C - Largest Lot (Lot 25), Pervious to Pervious	1.47	Pervious (Pre)	Landscaping	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14537	Drains to LID	BMP 1	Basin A/B/C - Largest Lot (Lot 25), Pervious to Impervious	4.43	Pervious (Pre)	Concrete or asphalt	Type D (high runoff - clay soi...	Moderate (5 - 10%)

LID Facility Summary

BMP ID	Type	Description	Plan Area (sqft)	Volume 1(cft)	Volume 2(cft)	Orifice Flow (cfs)	Orifice Size (inch)
BMP 1	Bioretention + Vault	Basin A/B/C - On-lot BMP (Largest Lot)	7975	27913	0.00	0.307	2.00

4-18

Project Summary

Project Name	Otay Crossings Commerce Park
Project Applicant	Kearny PCCP Otay 311, LLC
Jurisdiction	County of San Diego
Parcel (APN)	
Hydrologic Unit	Tijuana

Compliance Basin Summary

Basin Name:	Basin A/B/C - Orifice Sizing: 2.0 in Min. Area
Receiving Water:	
Rainfall Basin	Lindbergh Field
Mean Annual Precipitation (inches)	10.2
Project Basin Area (acres):	5.00
Watershed Area (acres):	500.00
SCCWRP Lateral Channel Susceptiblity (H, M, L):	Low (Lateral)
SCCWRP Vertifical Channel Susceptiblity (H, M, L):	Low (Vertical)
Overall Channel Susceptibility (H, M, L):	LOW
Lower Flow Threshold (% of 2-Year Flow):	0.5

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
14540	Drains to LID	BMP 1	Basin A/B/C - 2.0in Min. Area, Pervious to Pervious	0.55	Pervious (Pre)	Landscaping	Type D (high runoff - clay soi...	Moderate (5 - 10%)
14541	Drains to LID	BMP 1	Basin A/B/C - 2.0in Min. Area, Pervious to Impervious	1.65	Pervious (Pre)	Concrete or asphalt	Type D (high runoff - clay soi...	Moderate (5 - 10%)

2.2 AC

LID Facility Summary

BMP ID	Type	Description	Plan Area (sqft)	Volume 1(cft)	Volume 2(cft)	Orifice Flow (cfs)	Orifice Size (inch)
BMP 1	Bioretention + Vault	Basin A/B/C - On-lot BMP (2.0 in Orifice)	2970	10398	0.00	0.114	2.00

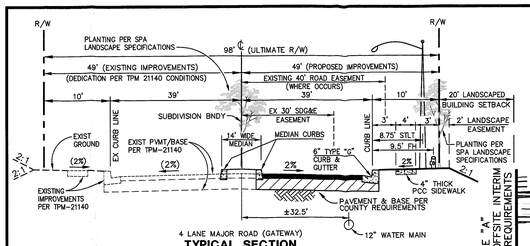
ALL LOTS OVER 2.2 AC WILL USE A 2.0" ORIFICE

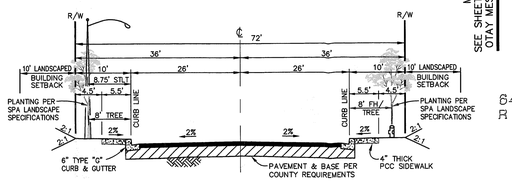
4-19

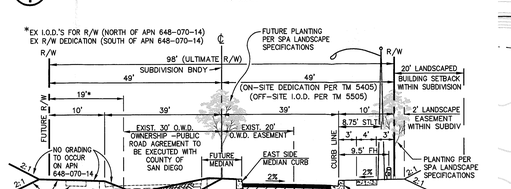
5

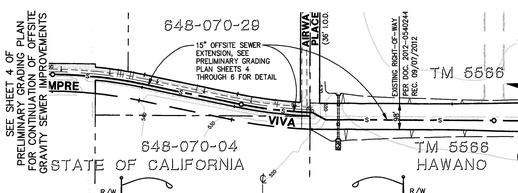
SECTION 5

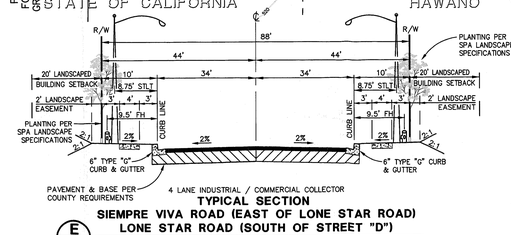
Tentative Map 5405R (Full Size)
Preliminary Grading Plan (Full Size)

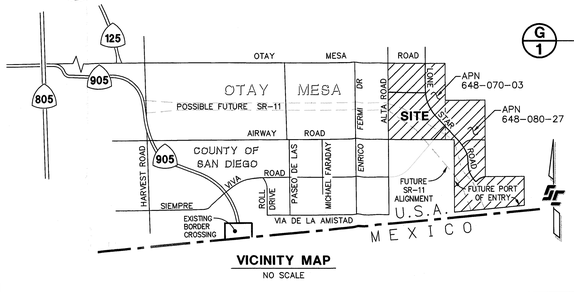


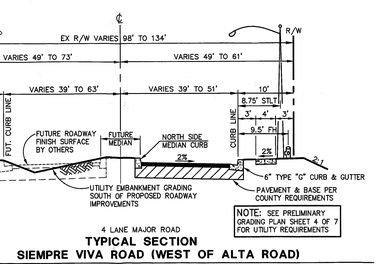


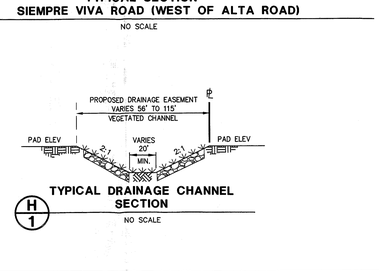


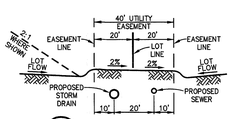


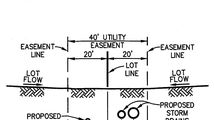


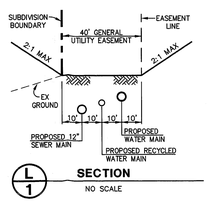


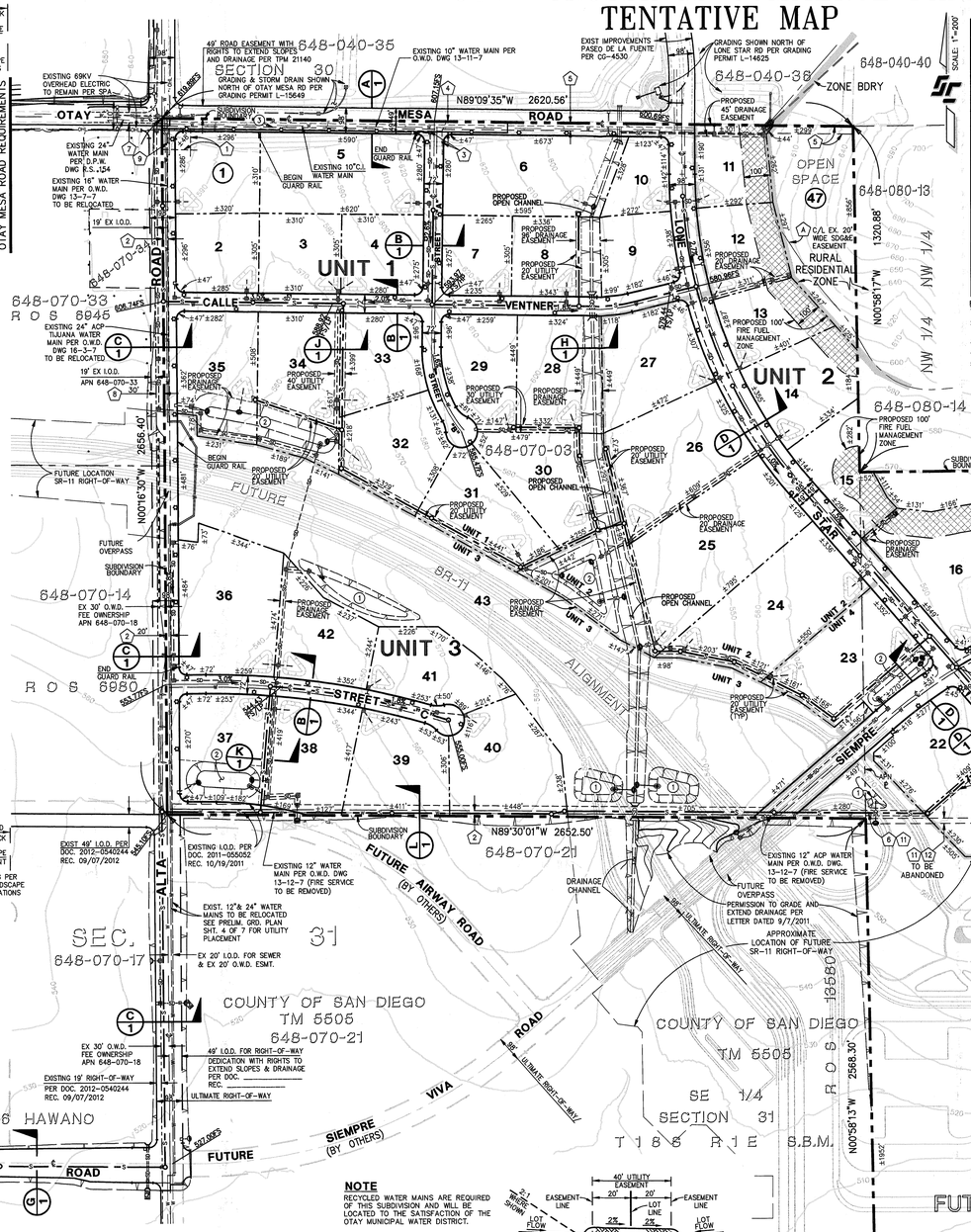












COUNTY OF SAN DIEGO TRACT 5405R

OTAY CROSSINGS COMMERCE PARK

TENTATIVE MAP

SHEET 1 OF 3

TYPICAL SECTION
OTAY MESA ROAD (EAST OF ALTA ROAD)
NO SCALE
A / 1

2 LANE INDUSTRIAL/COMMERCIAL ROAD

TYPICAL SECTION
CALLE VENTNER
STREETS "A", "B", "C" AND "D"
NO SCALE
B / 1

NOTE: SEE PRELIMINARY GRADING PLAN SHEET 4 OF 7 FOR UTILITY REQUIREMENTS

TYPICAL SECTION
ALTA ROAD
NO SCALE
C / 1

TYPICAL SECTION
LONE STAR ROAD (NORTH OF STREET "D")
SIEMPRE VIVA ROAD (WEST OF LONE STAR ROAD)
NO SCALE
D / 1

SEE SHEET 4 OF PRELIMINARY GRADING PLAN FOR CONTINUATION OF OFFSITE GRAVITY SEWER IMPROVEMENTS

NOTE
RECYCLED WATER MAINS ARE REQUIRED OF THIS SUBDIVISION AND WILL BE LOCATED TO THE SATISFACTION OF THE OTAY MUNICIPAL WATER DISTRICT.

FUTURE FEDERAL PORT OF ENTRY
BORDER CROSSING
UNIT 5

TYPICAL SECTION
SIEMPRE VIVA ROAD (EAST OF LONE STAR ROAD)
LONE STAR ROAD (SOUTH OF STREET "D")
NO SCALE
E / 1

NOTE: SEE PRELIMINARY GRADING PLAN SHEET 4 OF 7 FOR UTILITY REQUIREMENTS

4 LANE MAJOR ROAD

TYPICAL SECTION
SIEMPRE VIVA ROAD (WEST OF ALTA ROAD)
NO SCALE
G / 1

VICINITY MAP
NO SCALE

TYPICAL DRAINAGE CHANNEL SECTION
H / 1

SECTION
NO SCALE
J / 1

SECTION
NO SCALE
K / 1

SECTION
NO SCALE
L / 1

ZONING

EAST OTAY MESA BUSINESS PARK SPECIFIC PLAN			
ZONE		MIXED INDUSTRIAL	RURAL RESIDENTIAL
USE REGULATIONS		S-88	S-88
ANIMAL REGULATIONS		--	A
DEVELOPMENT REGULATIONS	DENSITY	--	0.05
	LOT SIZE	30,000 S.F.	20 AC.
	BUILDING TYPE	W	B
	FLOOR AREA	--	--
	FLOOR AREA RATIO	0.4	--
	BUILDING HEIGHT	R[5]	C (25')
	BUILDING COVERAGE	0.40	--
	SETBACKS	V	C
	PRIME ARTERIAL RD.	35'	--[3]
	MAJOR RD.	35'	--[3]
	COLLECTOR OR LESS	25'	--[3]
	INTERIOR YARD	--[2]	15'
	FRONT YARD	--[2]	60'[3]
	EXTERIOR YARD	--[2]	35'[3]
	REAR YARD	--[2]	25'
SPECIAL AREA REGULATIONS		B, POR. G[1]	G[4]

FOOTNOTES:

[1] COMMUNITY DESIGN REVIEW AREA REGULATIONS/SENSITIVE AREA RESOURCE REGULATIONS.

[2] SETBACKS TO BE ESTABLISHED DURING PLANNED DEVELOPMENT, USE PERMIT, OR SITE PLAN REVIEW PROCEDURE.

[3] LOT 52 (RURAL RESIDENTIAL ZONE) IS OPEN SPACE AND DOES NOT ABUT ANY ROADS.

[4] SENSITIVE AREA RESOURCE REGULATIONS.

[5] GREATER THAN 60'. ANY HEIGHT IN EXCESS OF 60 FEET REQUIRES A MAJOR USE PERMIT.

LOT AREAS (ACRES)

NO.	GROSS	HYDRO BASIN	NET	NO.	GROSS	HYDRO BASIN	NET	NO.	GROSS	HYDRO BASIN	NET
1	2.3	–	–	19	4.2	–	–	37	3.2	1.1	2.1
2	2.2	–	–	20	4.4	–	–	38	3.1	–	–
3	2.2	–	–	21	4.1	0.9	3.2	39	3.2	–	–
4	2.2	–	–	22	2.9	–	–	40	3.8	–	–
5	4.4	–	–	23	3.9	0.5	3.4	41	2.8	–	–
6	4.6	–	–	24	5.0	–	–	42	2.8	–	–
7	1.9	–	–	25	8.5	2.6	5.9	43	27.8	–	–
8	2.4	–	–	26	4.6	–	–	44	71.0	–	–
9	1.9	–	–	27	3.4	–	–	45	36.3	–	–
10	1.4	–	–	28	3.3	–	–	46	6.7	–	–
11	2.0	–	–	29	2.6	–	–	47	4.7	–	–
12	2.3	–	–	30	3.7	–	–				
13	2.1	–	–	31	3.1	–	–				
14	2.9	–	–	32	3.2	–	–				
15	2.1	–	–	33	2.5	–	–				
16	5.1	–	–	34	3.9	1.1	2.8				
17	3.6	–	–	35	3.3	1.0	2.3				
18	3.9	–	–	36	4.6	–	–				

DEVELOPABLE LOT AREA*		132.4 AC.
HYDRO BASIN		7.2 AC.
OPEN SPACE AREA (LOTS 45, 46 & 47)		47.7 AC.
NO PERMANENT STRUCTURES (LOTS 43 & 44)**		98.8 AC.
INTERNAL ROAD DEDICATIONS	19.8 AC.	
OTAY MESA ROAD	2.3 AC.	
ALTA ROAD	2.9 AC.	
AIRWAY ROAD	0.4 AC.	
TOTAL ROAD DEDICATIONS		25.4 AC.
TOTAL PROJECT BOUNDARY AREA		311.5 AC.

* DEVELOPABLE AREA = GROSS SITE AREA – (STREETS) – (OPEN SPACE) – (HYDRO BASINS) – (FUTURE SR-11 & BORDER CROSSING)

** LOTS ARE SET ASIDE FOR FUTURE SR-11 & 3RD BORDER CROSSING. TRUCK PARKING ALLOWED AS AN INTERIM USE UPON APPROVAL OF A MAJOR USE PERMIT.

NOTE: SEE "PRELIMINARY ROUTE STUDIES FOR CIRCULATION ELEMENT ROADWAY ALIGNMENT AND GRADES CORRESPONDING TO THE DESIGN REPRESENTED HEREON"

ASSESSOR'S PARCEL NUMBERS & TAX RATE AREA TABLE

PARCEL NUMBER	TAX RATE AREA
648-070-03	84035
648-080-27	84035

OTAY SUBREGIONAL PLAN

EXISTING & PROPOSED: SPA 22 (GPA 92-04)
EAST OTAY MESA BUSINESS PARK SPECIFIC PLAN

REGIONAL CATEGORY

VILLAGE/RURAL

PARK LAND DEDICATION

NOT REQUIRED IN INDUSTRIAL ZONE

BENCH MARK

BRASS DISK STAMPED "JM 154 1969" LOCATED 3.09 MILES EAST ALONG OTAY MESA ROAD FROM INTERSECTION OF OTAY VALLEY ROAD, 20.5' SOUTH OF CENTERLINE OF OTAY MESA ROAD AND ABOUT 170' EAST OF CENTERLINE INTERSECTION OF HARVEST ROAD. STEEL FENCEPOST MARKER LIES 1' SOUTH OF DISK. RECORD FROM COUNTY OF SAN DIEGO VERTICAL CONTROL RECORD. ELEVATION: 541.10 DATUM: U.S.C.& G.S., M.S.L.

LEGAL DESCRIPTION

THE NORTHWEST QUARTER OF SECTION 31, TOWNSHIP 18 SOUTH. RANGE 1 EAST, SAN BERNARDINO BASE AND MERIDIAN IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT, TOGETHER WITH THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER, THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER, ALL IN SECTION 32, TOWNSHIP 18 SOUTH, RANGE 1 EAST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

SLOPE ANALYSIS TABLE

0–15% SLOPES	299.0± AC.
15–25% SLOPES	10.4± AC.
25–50% SLOPES	1.8± AC.
50% OR GREATER SLOPES	0.09± AC.
TOTAL	311.3± AC.

GRADING QUANTITIES

CUT: 2,100,000 CUBIC YARDS
FILL: 2,100,000 CUBIC YARDS
EXPORT: Ø

GENERAL NOTES

1. EXISTING ZONING – S-88
2. PROPOSED ZONING – S-88
3. GROSS ACREAGE WITHIN SUBDIVISION BOUNDARY: 311.5 ACRES, GROSS AREA MINUS ROAD EASEMENTS: 286.0 ACRES; PROPOSED ON-SITE STREETS: 25.5 ACRES
4. TOTAL NUMBER OF LOTS: 47 MIXED INDUSTRIAL LOTS, OPEN SPACE LOTS AND FUTURE SR-11. MINIMUM INDUSTRIAL LOT SIZE IS 1.40 ACRES.
5. CONTOUR INTERVAL OF 2 FEET (MEAN SEA LEVEL DATUM).
6. SPECIAL ASSESSMENT ACT PROCEEDINGS – MAY BE REQUESTED FOR THIS PROJECT.
7. IMPROVEMENTS, EASEMENTS AND DEDICATIONS ARE AS REQUIRED BY THE COUNTY ENGINEER.
8. UTILITIES:
   A. SEWER – SAN DIEGO COUNTY SANITATION DISTRICT
   B. WATER – OTAY WATER DISTRICT
   C. GAS & ELECTRIC – SAN DIEGO GAS & ELECTRIC COMPANY
   D. TELEPHONE – AT&T CALIFORNIA PUBLIC WORKS
9. FIRE PROTECTION – SAN DIEGO COUNTY RURAL FIRE DISTRICT
10. SCHOOLS : SAN YSIDRO SCHOOL DISTRICT
    SWEETWATER UNION HIGH SCHOOL DISTRICT
11. ALL PROPOSED UTILITIES TO BE UNDERGROUND.
12. ALL EXISTING EASEMENTS NOT REMAINING IN USE SHALL BE VACATED PRIOR TO RECORDATION OF THE FINAL MAP(S) SUBJECT TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS.
13. GENERAL PLAN REGIONAL CATEGORY: VILLAGE/RURAL.
14. EXISTING TOPOGRAPHY WAS COMPILED USING PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY, BY PHOTO GEODEDTIC CORP. DATED: 12-24-03
15. THE FOLLOWING WAIVERS FROM THE SUBDIVISION ORDINANCE DESIGN STANDARDS ARE REQUESTED: DESIGN EXCEPTION FOR DRIVEWAYS ALONG LONE STAR ROAD (A GATEWAY ROAD THROUGH THE SUBDIVISION)
16. LAMBERT COORDINATES: 138-1785
17. DRAINAGE: STREETS & STORM DRAIN AS REQUIRED.
18. ALL ON-SITE STREETS WILL BE PUBLIC.
19. THIS IS A SOLAR SUBDIVISION AS REQUIRED BY SECTION 81.401 (n), OF THE SUBDIVISION ORDINANCE. ALL LOTS HAVE AT LEAST 100 SQ. FT. OF UNOBSTRUCTED ACCESS TO SUNLIGHT ON THE BUILDABLE PORTION OF THE LOT.
20. THIS PROJECT IS A MULTI-UNIT SUBDIVISION. (5 UNITS) MULTIPLE FINAL MAPS MAY BE FILED PURSUANT TO SECTION 66456.1 OF THE SUBDIVISION MAP ACT.
21. STREET LIGHTS WILL BE INSTALLED TO COMPLY WITH THE REQUIREMENTS AS SPECIFIED BY THE COUNTY STANDARDS.
22. STORM WATER DETENTION WILL BE PROVIDED IN ACCORDANCE COUNTY REQUIREMENTS.
23. THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN A VALID GRADING PERMIT AND PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.

LEGEND

DESCRIPTION	SYMBOL
PROPOSED LOT NUMBER	① THRU (47)
SUBDIVISION BOUNDARY	▬ ▬ ▬
UNIT BOUNDARY	UNIT 1 - - - UNIT 2
PROPOSED LOT LINE	—— - - ——
FUTURE ULTIMATE RIGHT-OF-WAY	———
EASEMENT LINE	— — —
PROPOSED PVC WATER MAIN (12" MINIMUM)	—— W —— W ——
PROPOSED SEWER MAIN W/MANHOLE	—○— S —○—
PROPOSED STORM DRAIN	- - - SD - - -
PROPOSED STORM DRAIN INLET/CATCH BASIN	- - -□ - - -⊠
PROPOSED STORM DRAIN CLEANOUT	- - -▣- - -
PROPOSED INTERIM STORM WATER COLLECTION BASIN, STAGE OUTLET RISER AND OVERFLOW (WHERE OCCURS)	
PROPOSED STORM DRAIN HEADWALL/ENERGY DISSIPATOR	
EXISTING CONTOUR	630

EXISTING EASEMENT TABLE

1. HIGHWAY EMBANKMENT, SLOPES, ELECTRICAL AND COMMUNICATIONS FACILITIES EASEMENT TO COUNTY OF SAN DIEGO RECORDED 11/5/1987 AS FILE NO. 87-624337, O.R. AND EXTENSION AGREEMENT WITH SAN DIEGO GAS & ELECTRIC COMPANY RECORDED 6/20/1989 AS FILE NO. 89-382889, O.R.
2. 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17469, O.R.
3. LINE EASEMENT TO SAN DIEGO GAS AND ELECTRIC CO. RECORDED 10/19/1948 IN BOOK 2985, PAGE 183, O.R.
4. 40' WIDE EASEMENT FOR COUNTY HIGHWAY (ROAD SURVEY 793) RECORDED 1/31/1939 IN BOOK 869, PAGE 177, O.R.
5. 30' WIDE EASEMENT TO SAN DIEGO GAS AND ELECTRIC COMPANY (OR WIDER IF REQUIRED BY NECESSARY CUTS AND FILLS) RECORDED 1/4/1983 AS FILE NO. 83-002642, O.R. AND RE-RECORDED 2/4/1983 AS FILE NO. 83-037564, O.R.
6. 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17470, O.R.
7. EASEMENT FOR PUBLIC ROAD AND INCIDENTAL PURPOSES, RECORDED 3/8/1900 IN BOOK 257, PAGE 500 OF DEEDS.
8. EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF SAN DIEGO GAS & ELECTRIC, RECORDED 12/7/1987 AS INSTRUMENT NO. 87-673753 OF O.R.
9. EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF PACIFIC BELL, RECORDED 12/10/1987 AS INSTRUMENT NO. 87-682036 OF O.R.
10. EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF SAN DIEGO GAS & ELECTRIC, RECORDED 6/4/1999 AS INSTRUMENT NO. 1999-0392159 OF O.R.
11. 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/15/1967 AS FILE NO. 20418, O.R.
12. 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17468, O.R.

A. 20' WIDE EASEMENT TO SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED 9/24/1985 AS FILE NO. 85-352966, O.R.

KEY NOTES

① PROPOSED DESILTATION BASIN (WITHIN FUTURE CALTRANS RIGHT-OF-WAY)
② PROPOSED DETENTION BASIN (HYDROMODIFICATION BMP)
③ EXISTING 42" RCP STORM DRAIN TO BE ABANDONED
④ SEE PRELIMINARY ROUTE STUDIES FOR ROADWAY ELEVATION ON CIRCULATION ELEMENT ROADWAYS.

KEARNY
Real Estate Company

OWNER/SUBDIVIDER

KEARNY REAL ESTATE COMPANY
530 B STREET, SUITE 1800
SAN DIEGO, CA 92101
PHONE: 619-702-8130
FAX: 619-702-7812

KEARNY PCCP OTAY 311, LLC.

BY: ____________________
JOHN V. BRAGG JR. DATE:
VICE PRESIDENT

ENGINEER OF WORK

REGISTERED PROFESSIONAL ENGINEER MARK E. STEVENS No. 35502 Exp. 9-30-13 CIVIL STATE OF CALIFORNIA

____
MARK E. STEVENS DATE
R.C.E. 35502

SCALE: 1" = 200'

MINIMUM ON-LOT BMPS REQUIRED TO SATISFY HYDROMODIFICATION CRITERIA

LOT NUMBER	LOT ACREAGE (Ac)	MINIMUM REQUIRED BIORETENTION AREA[1,2,3] (SF)	MINIMUM REQUIRED VOLUME OF UNDERGROUND DETENTION[1,2,3] (CF)	MAXIMUM OUTLET ORIFICE SIZE[1,2,3] (IN)
LOT 1	2.3	3,106	10,871	2.0
LOT 2	2.2	2,971	10,398	2.0
LOT 3	2.2	2,971	10,398	2.0
LOT 4	2.2	2,971	10,398	2.0
LOT 5	4.4	5,942	20,796	2.0
LOT 6	4.6	6,212	21,741	2.0
LOT 7	1.9	2,566	8,980	1.0
LOT 8	2.4	3,241	11,343	2.0
LOT 9	1.9	2,566	8,980	1.0
LOT 10	1.4	1,891	6,617	1.0
LOT 11	2.0	2,701	9,453	1.0
LOT 12	2.3	3,106	10,871	2.0
LOT 13	2.1	2,836	9,925	1.0
LOT 14	2.9	3,916	13,707	2.0
LOT 15	2.1	2,836	9,925	1.0
LOT 16	5.1	6,887	24,105	2.0
LOT 17	3.6	4,861	17,015	2.0
LOT 18	3.9	5,267	18,433	2.0
LOT 19	4.2	5,672	19,851	2.0
LOT 20	4.4	5,942	20,796	2.0
LOT 21	3.2	4,321	15,125	2.0
LOT 22	2.9	3,916	13,707	2.0
LOT 23	3.4	4,591	16,070	2.0
LOT 24	5.0	6,752	23,632	2.0
LOT 25	5.9	7,967	27,886	2.0
LOT 26	4.6	6,212	21,741	2.0
LOT 27	3.4	4,591	16,070	2.0
LOT 28	3.3	4,456	15,597	2.0
LOT 29	2.6	3,511	12,289	2.0
LOT 30	3.7	4,996	17,488	2.0
LOT 31	3.1	4,186	14,652	2.0
LOT 32	3.2	4,321	15,125	2.0
LOT 33	2.5	3,376	11,816	2.0
LOT 34	2.8	3,781	13,234	2.0
LOT 35	2.3	3,106	10,871	2.0
LOT 36	4.6	6,212	21,741	2.0
LOT 37	2.1	2,836	9,925	1.0
LOT 38	3.1	4,186	14,652	2.0
LOT 39	3.2	4,321	15,125	2.0
LOT 40	3.8	5,132	17,960	2.0
LOT 41	2.8	3,781	13,234	2.0
LOT 42	2.8	3,781	13,234	2.0

[1] BIORETENTION AREA AND UNDERGROUND DETENTION CRITERIA CALCULATED USING THE SAN DIEGO BMP SIZING CALCULATOR

[2] ON-LOT BMPS MUST BE PLACED IN A LOCATION ON THE INDIVIDUAL LOT THAT MAXIMIZES THE CAPTURE OF THE ON-SITE RUNOFF.

[3] IF, DURING DEVELOPMENT OF EACH LOT, THE PROVIDED MINIMUM VALUES ARE NOT USED, ADDITIONAL ANALYSIS WILL NEED TO BE PROVIDED TO DEMONSTRATE THAT THE CHOSEN ALTERNATIVE BMPS SATISFY THE HYDROMODIFICATION CRITERIA. THIS ANALYSIS WILL BE PROVIDED DURING THE SITE PLAN REVIEW PROCESS MANDATED BY THE EAST OTAY MESA SPECIFIC PLAN FOR THE DEVELOPMENT OF EACH LOT.

STEVENS·CRESTO ENGINEERING, INC.
CIVIL ENGINEERS • LAND PLANNERS • SURVEYORS
9665 CHESAPEAKE DRIVE
SUITE 320
SAN DIEGO, CA 92123-1352
PHONE: 858.694.5660
FAX: 858.694.5661
www.scengr.com

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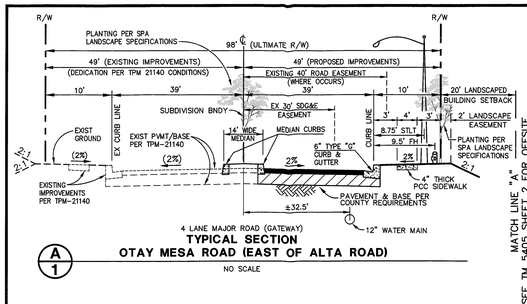

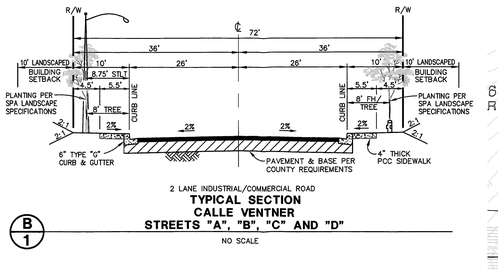

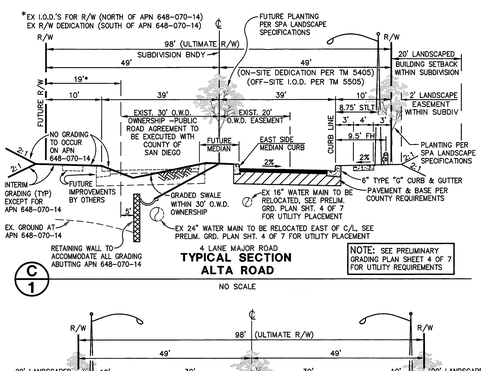

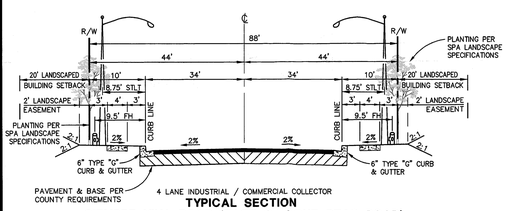

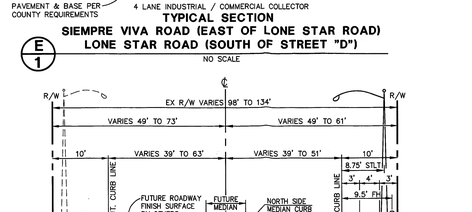

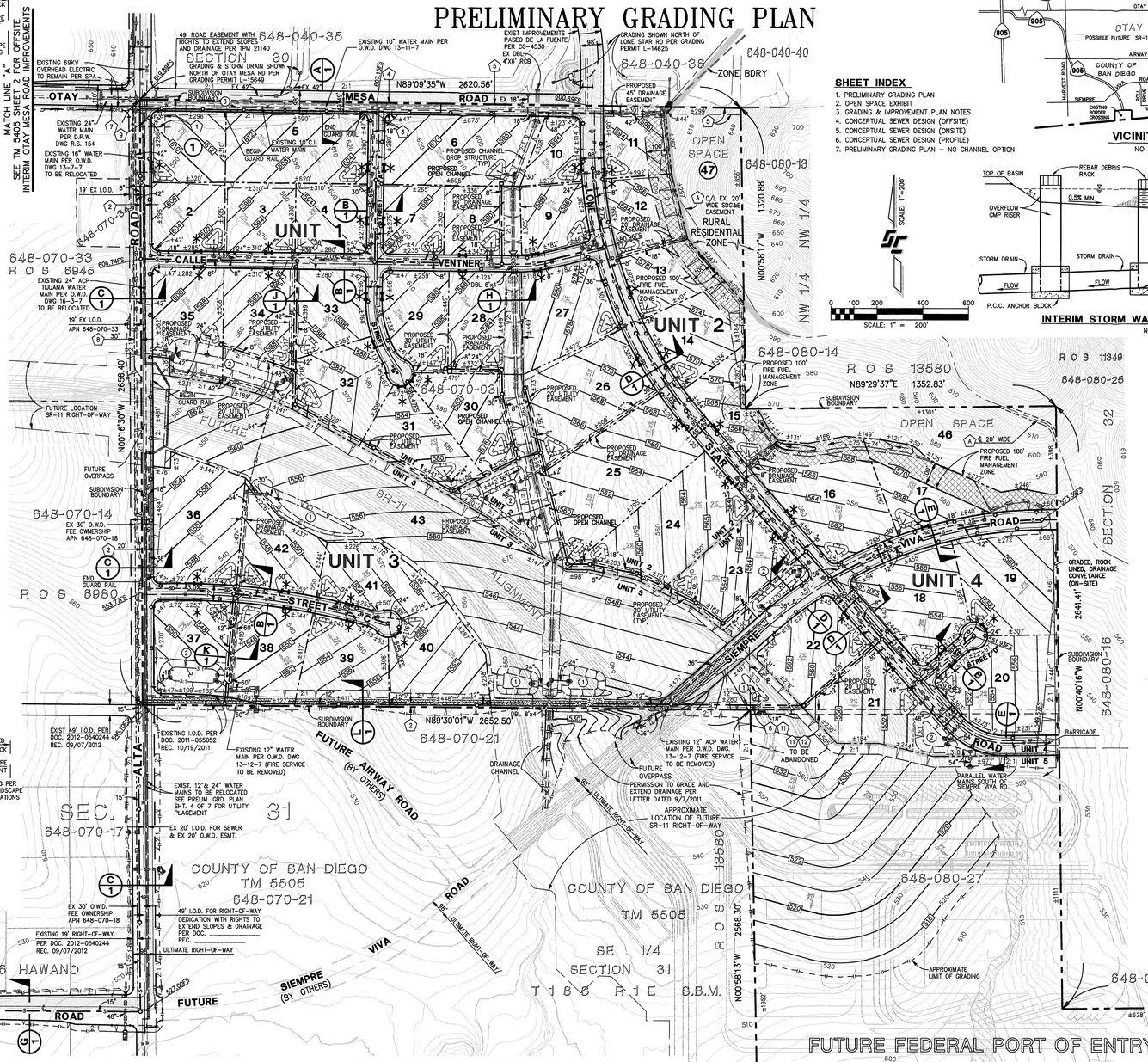

COUNTY OF SAN DIEGO TRACT 5405R

OTAY CROSSINGS COMMERCE PARK

PRELIMINARY GRADING PLAN

SHEET 1 OF 7

4 LANE MAJOR ROAD (GATEWAY)

TYPICAL SECTION

OTAY MESA ROAD (EAST OF ALTA ROAD)

A / 1

NO SCALE

2 LANE INDUSTRIAL/COMMERCIAL ROAD

TYPICAL SECTION

CALLE VENTNER

STREETS "A", "B", "C" AND "D"

B / 1

NO SCALE

4 LANE MAJOR ROAD

TYPICAL SECTION

ALTA ROAD

C / 1

NO SCALE

NOTE: SEE PRELIMINARY GRADING PLAN SHEET 4 OF 7 FOR UTILITY REQUIREMENTS

4 LANE MAJOR ROAD (GATEWAY)

TYPICAL SECTION

LONE STAR ROAD (NORTH OF STREET "D")

SIEMPRE VIVA ROAD (WEST OF LONE STAR ROAD)

D / 1

NO SCALE

SHEET INDEX

1. PRELIMINARY GRADING PLAN
2. OPEN SPACE EXHIBIT
3. GRADING & IMPROVEMENT PLAN NOTES
4. CONCEPTUAL SEWER DESIGN (OFFSITE)
5. CONCEPTUAL SEWER DESIGN (ONSITE)
6. CONCEPTUAL SEWER DESIGN (PROFILE)
7. PRELIMINARY GRADING PLAN – NO CHANNEL OPTION

4 LANE INDUSTRIAL / COMMERCIAL COLLECTOR

TYPICAL SECTION

SIEMPRE VIVA ROAD (EAST OF LONE STAR ROAD)

LONE STAR ROAD (SOUTH OF STREET "D")

E / 1

NO SCALE

NOTE: SEE PRELIMINARY GRADING PLAN SHEET 4 OF 7 FOR UTILITY REQUIREMENTS

4 LANE MAJOR ROAD

TYPICAL SECTION

SIEMPRE VIVA ROAD (WEST OF ALTA ROAD)

G / 1

NO SCALE

GENERAL NOTES (PRELIMINARY GRADING)

1. THIS "PRELIMINARY GRADING PLAN" DOES NOT CONSTITUTE A CONSTRUCTION DOCUMENT. A FINAL GRADING PLAN, PREPARED (TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS) IN ACCORDANCE WITH COUNTY GRADING ORDINANCE SHALL BE SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS. APPROVAL OF THE FINAL GRADING PLAN SHALL BE REQUIRED AND GRADING PERMIT ISSUED PRIOR TO ANY WORK IN THE FIELD.
2. A CONSTRUCTION, EXCAVATION OR ENCROACHMENT PERMIT FROM THE DIRECTOR OF PUBLIC WORKS WILL BE REQUIRED FOR ANY WORK IN THE COUNTY RIGHT-OF-WAY.
3. ALL SLOPES OVER 3 FEET IN HEIGHT SHALL BE PLANTED IN ACCORDANCE WITH SAN DIEGO COUNTY SPECIFICATIONS.
4. A SOILS REPORT SHALL BE REQUIRED PRIOR TO THE ISSUANCE OF A GRADING AND/OR BUILDING PERMIT.
5. APPROVAL OF THESE PLANS BY THE DIRECTOR OF PUBLIC WORKS DOES NOT AUTHORIZE ANY WORK OR GRADING TO BE PERFORMED UNTIL THE PROPERTY OWNER'S PERMISSION HAS BEEN OBTAINED AND A VALID GRADING PERMIT HAS BEEN ISSUED.
6. THE DIRECTOR OF PUBLIC WORKS APPROVAL OF THESE PLANS DOES NOT CONSTITUTE COUNTY BUILDING OFFICIAL APPROVAL OF ANY FOUNDATIONS FOR STRUCTURES TO BE PLACED ON THE AREA COVERED BY THESE PLANS. NO WAIVER OF THE GRADING ORDINANCE REQUIREMENTS CONCERNING MINIMUM COVER OVER EXPANSIVE SOILS IS MADE OR IMPLIED (SECTIONS 87.403 & 87.410). ANY SUCH WAIVER MUST BE OBTAINED FROM THE DIRECTOR OF DPLU.
7. ALL SLOPES SHALL BE ROUNDED INTO EXISTING TERRAIN TO PRODUCE A CONTOURED TRANSITION FROM CUT OR FILL FACES TO NATURAL GROUND AND ABUTTING CUT OR FILL SURFACES.
8. NOTWITHSTANDING THE MINIMUM STANDARDS SET FORTH IN THE GRADING ORDINANCE AND NOTWITHSTANDING THE APPROVAL OF THESE PRELIMINARY GRADING PLANS, THE PERMITTEE IS RESPONSIBLE FOR THE PREVENTION OF DAMAGE TO THE ADJACENT PROPERTY. NO PERSON SHALL EXCAVATE ON LAND SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY ADJOINING PUBLIC STREET, SIDEWALK, ALLEY, FUNCTION OF ANY SEWAGE DISPOSAL SYSTEM, OR ANY OTHER PUBLIC OR PRIVATE PROPERTY, WITHOUT SUPPORTING AND PROTECTING SUCH PROPERTY FROM SETTLING, CRACKING, EROSION, SILTING, SCOUR OR OTHER DAMAGE WHICH MIGHT RESULT FROM THE GRADING DESCRIBED ON THIS PLAN. THE COUNTY WILL HOLD THE PERMITTEE RESPONSIBLE FOR CORRECTION OF NON-DEDICATED IMPROVEMENTS WHICH DAMAGE ADJACENT PROPERTY.
9. ALL GRADING DETAILS WILL BE IN ACCORDANCE WITH SAN DIEGO COUNTY STANDARD DRAWINGS DS-8, DS-10, DS-11, D-75 UNLESS SHOWN OTHERWISE ON THESE PLANS.
10. SLOPE RATIOS:
    CUT – 2:1
    FILL – 2:1
    DEVIATING FROM THE ABOVE RATIOS WILL REQUIRE APPROVAL OF THE DIRECTOR OF PUBLIC WORKS AFTER REVIEW OF A REPORT FROM A SOILS ENGINEER.
11. EARTHWORK QUANTITIES:
    CUT: 2,100,000± CY
    FILL: 2,100,000± CY
    IMPORT/EXPORT: 0 C.Y.
    A SEPARATE PERMIT MUST BE OBTAINED FOR WASTE OR IMPORT AREA.
    GRADING QUANTITIES ARE APPROXIMATE AND ARE PROVIDED HEREON FOR PERMIT PURPOSES ONLY. QUANTITIES ARE BASED ON THE DIFFERENCE BETWEEN THE EXISTING SURFACES AND PROPOSED PAD/SUBGRADE SURFACES. VARIATIONS DUE TO LOSS FROM CLEARING AND GRUBBING, STRIPPING, SHRINKAGE, SWELL, UNSUITABLE MATERIAL & REMEDIAL GRADING ARE NOT CONSIDERED NOR FACTORED INTO THESE QUANTITIES. CONTRACTOR SHALL VERIFY QUANTITIES WITH THEIR OWN VOLUME CALCULATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THEIR OWN INDEPENDENT QUANTITY AND MATERIAL TAKE OFFS AND CONSTRUCT THE DESIGN INDICATED ON THESE DRAWINGS, PROJECT TO BE BID BASED ON CONTRACTOR'S OWN ESTIMATES.
12. SPECIAL CONDITION: IF ANY ARCHAEOLOGICAL RESOURCES ARE DISCOVERED ON THE SITE OF THIS GRADING DURING GRADING OPERATIONS, SUCH OPERATIONS WILL CEASE IMMEDIATELY, AND THE PERMITTEE WILL NOTIFY THE DIRECTOR OF PUBLIC WORKS OF THE DISCOVERY. GRADING OPERATIONS WILL NOT RECOMMENCE UNTIL THE PERMITTEE HAS RECEIVED WRITTEN AUTHORITY FROM THE DIRECTOR OF PUBLIC WORKS TO DO SO.

EROSION AND SEDIMENT CONTROL MEASURES NOTES:

1. ALL UTILITY TRENCHES SHALL BE BLOCKED AT THE PRESCRIBED INTERVALS WITH A DOUBLE ROW OF GRAVEL BAGS WITH A TOP ELEVATION. TWO GRAVEL BAGS BELOW THE GRADED SURFACE OF THE STREET. GRAVEL BAGS ARE TO BE PLACED WITH LAPPED COURSES.
2. AFTER UTILITY TRENCHES ARE BACK FILLED AND COMPACTED, THE SURFACES OVER SUCH TRENCHES SHALL BE MOUNDED SLIGHT TO PREVENT CHANNELING OF WATER IN THE TRENCH AREA. CARE SHOULD BE EXERCISED TO PROVIDE FOR CROSS FLOW AT FREQUENT INTER INTERVALS WHERE TRENCHES ARE NOT ON THE CENTERLINE OF A CROWNED STREET.
3. ALL BUILDING PADS SHOULD BE SLOPED TOWARDS THE DRIVEWAYS AND VELOCITY CHECK DAMS PROVIDED AT THE END OF THE DRIVEWAY APRON OF ALL DRIVEWAYS DRAINING INTO THE STREET.
4. PROVIDE VELOCITY CHECK DAMS IN ALL UNPAVED GRADED CHANNELS.
5. PROVIDE VELOCITY CHECK DAMS IN ALL STREET AREAS. VELOCITY CHECK DAMS MAY BE CONSTRUCTED OF GRAVEL BAGS, TIMBER, OR OTHER EROSION RESISTANT MATERIAL APPROVED BY THE COUNTY ENGINEER, AND SHALL EXTEND COMPLETELY ACROSS THE STREET OR CHANNEL AT RIGHT ANGLES TO THE CENTERLINE. VELOCITY CHECK DAMS MAY ALSO SERVE AS SEDIMENT TRAPS.
6. GRAVEL BAGS AND FILL MATERIAL SHALL BE STOCKPILED AT INTERVALS, READY FOR USE WHEN REQUIRED.
7. ALL EROSION CONTROL DEVICES WITHIN THE DEVELOPMENT SHOULD BE MAINTAINED DURING AND AFTER EVERY RUNOFF PRODUCING STORM. IF POSSIBLE, MAINTENANCE CREWS WOULD BE REQUIRED TO HAVE ACCESS TO ALL AREAS.
8. ANY PROPOSED ALTERNATE CONTROL MEASURES MUST BE APPROVED IN ADVANCE BY ALL RESPONSIBLE AGENCIES; I.E., COUNTY ENGINEER, DEPARTMENT OF SANITATION AND FLOOD CONTROL, OFFICE OF ENVIRONMENTAL MANAGEMENT, ETC.
9. PHYSICAL STABILIZATION THROUGH USE OF GEOTEXTILES, MATS, FIBER ROLLS (SS-7 OR ESC20), BONDED FIBER MATRIX OR OTHER MATERIAL APPROVED BY THE COUNTY FOR STABILIZING SLOPES.
10. VEGETATION STABILIZING USING HYDROSEED (SS-4 OR ESC10) OR ACCEPTABLE LANDSCAPING MAY BE USED ONLY MAY 1 TO AUGUST 15. VEGETATION PROPOSED TO STABILIZE SLOPES MUST BE INSTALLED BY AUGUST 15, WATERED AND ESTABLISHED PRIOR TO OCTOBER 1. THE PROPERTY OWNER OR AUTHORIZED AGENT SHALL SHOW ON THE PLAN A CONTINGENCY PHYSICAL BMP TO BE INSTALLED BY OCTOBER 1 IF HYDROSEED ESTABLISHMENT DOES NOT OCCUR BY THAT DATE. IF LANDSCAPING IS PROPOSED, EROSION CONTROL MEASURES MUST ALSO BE USED WHILE LANDSCAPING IS BEING ESTABLISHED. ESTABLISHED VEGETATION SHALL HAVE A SUBSURFACE MAT OF INTERTWINED MATURE ROOTS WITH A UNIFORM VEGETATIVE COVERAGE OF 70 PERCENT OF THE NATURAL VEGETATIVE COVERAGE OR MORE ON ALL DISTURBED AREAS.
11. ALL MANUFACTURED SLOPES AND CLEARED SLOPES OF 3 TO 1 (HORIZONTAL TO VERTICAL) AND STEEPER ARE TO BE PROTECTED WITH A BMP APPROVED BY THE COUNTY OF SAN DIEGO. CLEARED SLOPES FLATTER THAN 3 TO 1 MUST STILL BE PROTECTED FROM EROSION USING EITHER AN APPROVED BMP OR BY USING HYDROMULCH WITH A GUAR BINDER. FLAT AREAS OF LESS THAN 5% (LIKE BUILDING PADS, PARKING AREAS, LEACH FIELDS) SHALL HAVE 100% PROTECTION USING GEOTEXTILES, MATS (SS-7 OR ESC20), OR OTHER MATERIAL APPROVED BY THE COUNTY FOR STABILIZING SLOPES, OR USING TRACKING AND SOIL STABILIZERS/BINDERS (SS-5), TEMPORARY SEEDING (SS-4), MULCH/WOOD CHIPS (SS-3, SS-6, SS-8), OR JUTE MATTING (SS-7). THE COUNTY MAY REDUCE THIS REQUIREMENT FOR FLAT AREAS AND THE BELOW REQUIREMENT, PROVIDED FULL SEDIMENT CONTROL IS PROVIDED THROUGH CONSTRUCTED AND MAINTAINED DESILTATION BASINS (SC-2) AT ALL PROJECT DISCHARGE POINTS.
12. AREAS OF GRADED PADS THAT HAVE ACTIVE STRUCTURE CONSTRUCTION UNDERWAY MAY BE PROTECTED BY ROLLED PLASTIC AS PART OF A WEATHER-TRIGGERED ACTION PLAN UNTIL THE STRUCTURE'S ROOF HAS BEEN COMPLETED. THE REMAINDER OF THE PAD AREA MUST CONTINUE TO BE PROTECTED USING EROSION CONTROL MEASURES IDENTIFIED ABOVE.
13. UNPAVED ROADS ARE EXEMPT FROM THE 100% PROTECTION REQUIREMENTS BUT SHALL HAVE APPROPRIATE BMP'S INSTALLED SUCH AS GRAVEL BAG CHEVRONS.

EXISTING EASEMENT TABLE (WHERE NOTED BY SYMBOLOGY ⬠ ON PLAN)

1	HIGHWAY EMBANKMENT, SLOPES, ELECTRICAL AND COMMUNICATIONS FACILITIES EASEMENT TO COUNTY OF SAN DIEGO RECORDED 11/5/1987 AS FILE NO. 87-624337, O.R. AND EXTENSION AGREEMENT WITH SAN DIEGO GAS & ELECTRIC COMPANY RECORDED 6/20/1989 AS FILE NO. 89-382889, O.R.
2	20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17469, O.R.
3	LINE EASEMENT TO SAN DIEGO GAS AND ELECTRIC CO. RECORDED 10/19/1948 IN BOOK 2985, PAGE 183, O.R.
4	40' WIDE EASEMENT FOR COUNTY HIGHWAY (ROAD SURVEY 793) RECORDED 1/31/1939 IN BOOK 869, PAGE 177, O.R.
5	30' WIDE EASEMENT TO SAN DIEGO GAS AND ELECTRIC COMPANY (OR WIDER IF REQUIRED BY NECESSARY CUTS AND FILLS) RECORDED 1/4/1983 AS FILE NO. 83-002642, O.R. AND RE-RECORDED 2/4/1983 AS FILE NO. 83-037564, O.R.
6	20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17470, O.R.
7	EASEMENT FOR PUBLIC ROAD AND INCIDENTAL PURPOSES, RECORDED 3/8/1900 IN BOOK 257, PAGE 500 OF DEEDS.
8	EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF SAN DIEGO GAS & ELECTRIC, RECORDED 12/7/1987 AS INSTRUMENT NO. 87-673753 OF O.R.
9	EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF PACIFIC BELL, RECORDED 12/10/1987 AS INSTRUMENT NO. 87-682036 OF O.R.
10	EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES IN FAVOR OF SAN DIEGO GAS & ELECTRIC, RECORDED 6/4/1999 AS INSTRUMENT NO. 1999-0392159 OF O.R.
11	20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/15/1967 AS FILE NO. 20418, O.R.
12	20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT RECORDED 2/8/1967 AS FILE NO. 17468, O.R.
A	20' WIDE EASEMENT TO SAN DIEGO GAS AND ELECTRIC COMPANY, RECORDED 9/24/1985 AS FILE NO. 85-352966, O.R.

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 COUNTY OF SAN DIEGO.

STANDARD SPECIFICATIONS:

1. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION "GREEN BOOK" (LATEST EDITION), INCLUDING THE REGIONAL AND CITY OF SAN DIEGO SUPPLEMENT AMENDMENT.
2. SAN DIEGO COUNTY GRADING ORDINANCE.
3. CALIFORNIA DEPARTMENT OF TRANSPORTATION, " MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES," (LATEST EDITION).
4. STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS (LATEST EDITION).

STANDARD DRAWINGS:

1. THE CURRENT SAN DIEGO AREA REGIONAL STANDARD DRAWINGS.
2. STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD PLAN (LATEST EDITION).

LEGEND

DESCRIPTION	SYMBOL
PROPOSED LOT NUMBER	(1) THRU (47)
SUBDIVISION BOUNDARY	▬ ▬ ▬
UNIT BOUNDARY	▬ ▬ ▬
PROPOSED LOT LINE	—— - - ——
PROPOSED RIGHT-OF-WAY	——
FUTURE ULTIMATE RIGHT-OF-WAY	- - -
EASEMENT LINE	— — —
EXISTING CONTOUR	630
PROPOSED CONTOUR	630
PROPOSED SLOPE 2:1	2:1
PROPOSED PAVING	▨
PROPOSED SEWER MAIN W/MANHOLE	—○—S—○—
PROPOSED PVC WATER MAIN (12" MINIMUM)	— W — W —
PROPOSED STORM DRAIN	- - - SD - - -
PROPOSED STORM DRAIN INLET/CATCH BASIN	- - -□- - -⊠
PROPOSED STORM DRAIN CLEANOUT	- - -⊡- - -
PROPOSED INTERIM STORM WATER COLLECTION BASIN, STAGE OUTLET RISER AND OVERFLOW (WHERE OCCURS)	
PROPOSED OPEN DRAINAGE CHANNEL	
PROPOSED STORM DRAIN HEADWALL/ENERGY DISSIPATOR	
FLOW DIRECTION	→ → →
PROPOSED DRIVEWAY LOCATION	*

KEY NOTES

① PROPOSED DESILTATION BASIN (WITHIN FUTURE CALTRANS RIGHT-OF-WAY)
② PROPOSED DETENTION BASIN (HYDROMODIFICATION BMP)
③ EXISTING 42" RCP STORM DRAIN TO BE ABANDONED
④ SEE PRELIMINARY ROUTE STUDIES FOR ROADWAY ELEVATION ON CIRCULATION ELEMENT ROADWAYS.

BENCH MARK

BRASS DISK STAMPED "JM 154 1969" LOCATED 3.09 MILES EAST ALONG OTAY MESA ROAD FROM INTERSECTION OF OTAY VALLEY ROAD, 20.5' SOUTH OF CENTERLINE OF OTAY MESA ROAD AND ABOUT 170' EAST OF CENTERLINE INTERSECTION OF HARVEST ROAD. STEEL FENCEPOST MARKER LIES 1' SOUTH OF DISK. RECORD FROM COUNTY OF SAN DIEGO VERTICAL CONTROL RECORD. ELEVATION: 541.10 DATUM: U.S.C.& G.S., M.S.L.

LEGAL DESCRIPTION

THE NORTHWEST QUARTER OF SECTION 31, TOWNSHIP 18 SOUTH. RANGE 1 EAST, SAN BERNARDINO BASE AND MERIDIAN IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT, TOGETHER WITH THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER, THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER, ALL IN SECTION 32, TOWNSHIP 18 SOUTH, RANGE 1 EAST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

OTAY SUBREGIONAL PLAN

EXISTING & PROPOSED: SPA 22 (GPA 92-04)
EAST OTAY MESA BUSINESS PARK SPECIFIC PLAN

GRADING QUANTITIES

CUT: 2,100,000 CUBIC YARDS
FILL: 2,100,000 CUBIC YARDS
EXPORT: 0

REGIONAL CATEGORY

VILLAGE/RURAL

PARK LAND DEDICATION

NOT REQUIRED IN INDUSTRIAL ZONE

APN'S

648-070-03 AND 648-080-27

ADVISORY NOTE ON STORMWATER OBLIGATIONS:

1. THE ACTIVITIES SHOWN ON THE PLANS ARE SUBJECT TO ENFORCEMENT UNDER PERMITS FROM THE SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD AND MUST ALSO COMPLY WITH THE REQUIREMENTS OF THE SAN DIEGO COUNTY MUNICIPAL STORM WATER PERMIT. THIS INCLUDES REQUIREMENTS FOR MATERIALS AND WASTES CONTROL, EROSION CONTROL, AND SEDIMENT CONTROL ON PROJECT CONSTRUCTION SITES. THE PERMITTEES OF OPERATIONS SHOWN ON THESE PLANS ARE OBLIGATED TO INSURE COMPLIANCE WITH ALL APPLICABLE STORM WATER REGULATIONS AT ALL TIMES. THE PERMITTEE SHALL ALSO KEEP A COPY OF THE SWPPP (STORM WATER POLLUTION PREVENTION PLAN) ON SITE AND AVAILABLE FOR REVIEW BY COUNTY.
2. DURING THE RAINY SEASON THE AMOUNT OF EXPOSED SOIL ALLOWED AT ONE TIME SHALL NOT EXCEED THAT WHICH CAN BE ADEQUATELY PROTECTED BY THE PROPERTY OWNER OR AUTHORIZED AGENT IN THE EVENT OF A RAINSTORM. 125% OF ALL SUPPLIES NEEDED FOR BMP MEASURES SHALL BE RETAINED ON THE JOB SITE IN A MANNER THAT ALLOWS FULL DEPLOYMENT AND COMPLETE INSTALLATION IN 48 HOURS OR LESS OF A FORECAST RAIN.
3. NO AREA BEING DISTURBED SHALL EXCEED 50 ACRES AT ANY GIVEN TIME WITHOUT DEMONSTRATING TO THE SAN DIEGO COUNTY DPW DIRECTOR'S SATISFACTION THAT ADEQUATE EROSION AND SEDIMENT CONTROL CAN BE MAINTAINED. ANY DISTURBED AREA THAT IS NOT ACTIVELY GRADED FOR 10 DAYS MUST BE FULLY PROTECTED FROM EROSION. UNTIL ADEQUATE LONG-TERM PROTECTIONS ARE INSTALLED, THE DISTURBED AREA SHALL BE INCLUDED WHEN CALCULATING THE ACTIVE DISTURBANCE AREA. ALL EROSION CONTROL MEASURES SHALL REMAIN INSTALLED AND MAINTAINED DURING ANY INACTIVE PERIOD.

***APPROX. LOCATION 30' COMMERCIAL D/W**

NOTE: MINIMUM C/L SEPARATION FOR COMMERCIAL DRIVEWAYS;
200' SEPARATION ON NON-CIRCULATION ELEMENT ROADWAYS
300' SEPARATION ON CIRCULATION ELEMENT ROADWAYS

OPEN SPACE EXHIBIT

SEE SHEET 2

GRADING & IMPROVEMENT PLAN NOTES

SEE SHEET 3

KEARNY
Real Estate Company

OWNER/SUBDIVIDER

KEARNY REAL ESTATE COMPANY
530 B STREET, SUITE 1800
SAN DIEGO, CA 92101
PHONE: 619-702-8130
FAX: 619-702-7812

ENGINEER OF WORK

MARK E. STEVENS
R.C.E. 35502
DATE

MARK E. STEVENS No. 35502 Exp. 9-30-13

STEVENS·CRESTO ENGINEERING, INC.
CIVIL ENGINEERS · LAND PLANNERS · SURVEYORS

9665 CHESAPEAKE DRIVE
SUITE 320
SAN DIEGO, CA 92123-1352
PHONE: 858.694.5660
FAX: 858.694.5661
www.scengr.com

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