



OC PUBLIC WORKS DEPARTMENT

SHANE SILSBY, DIRECTOR

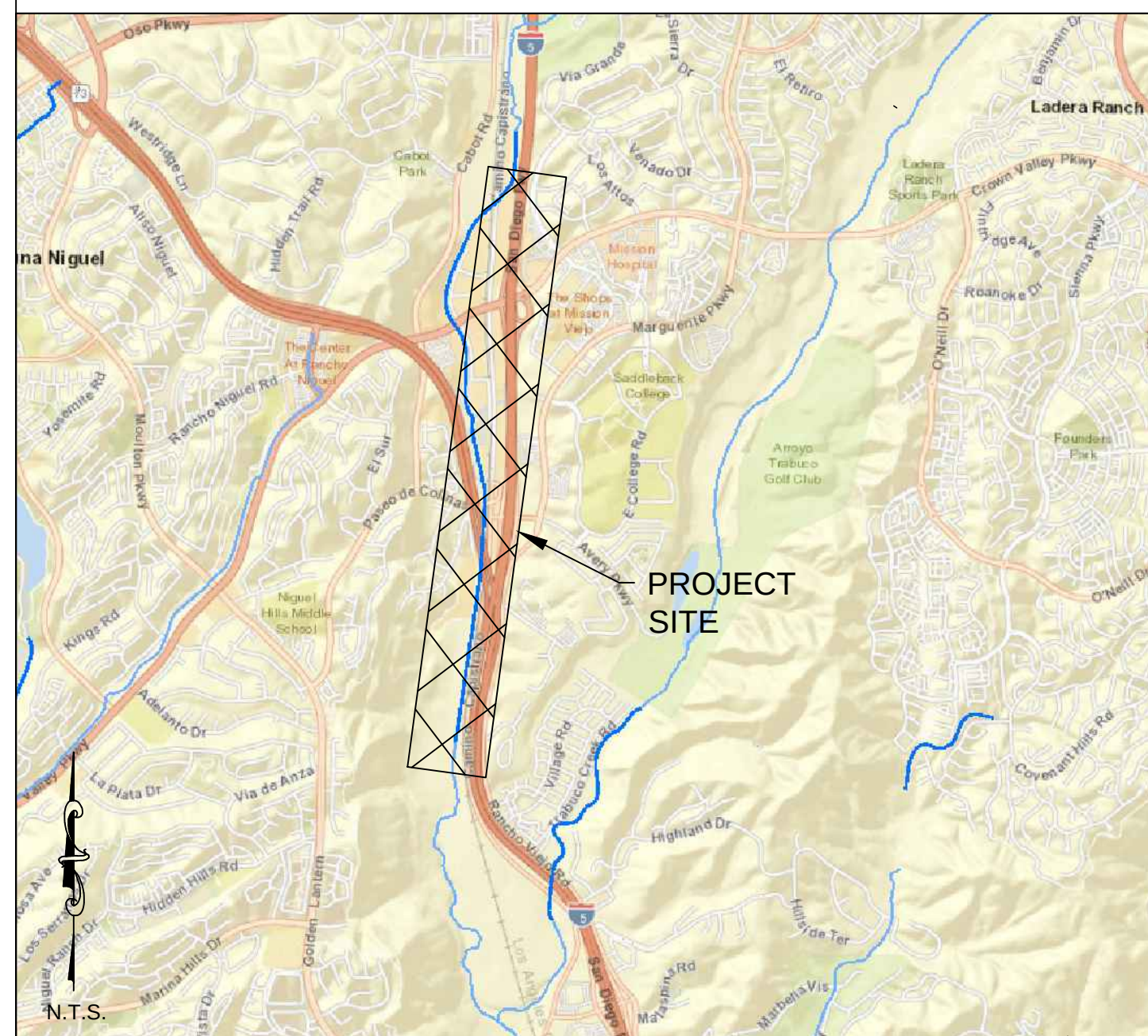
KEVIN HILLS, COUNTY SURVEYOR

OSO CREEK CHANNEL (L03) TOPOGRAPHY



LIMITS: CROWN VALLEY PKWY TO
PASEO DE COLINAS

LOCATION MAP



SENIOR LAND SURVEYOR'S CERTIFICATE:

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYOR'S ACT; THIS 30TH DAY OF MAY, 2019.

ELLIOTT MEDINA SENIOR LAND SURVEYOR



DEPUTY COUNTY SURVEYOR'S STATEMENT:

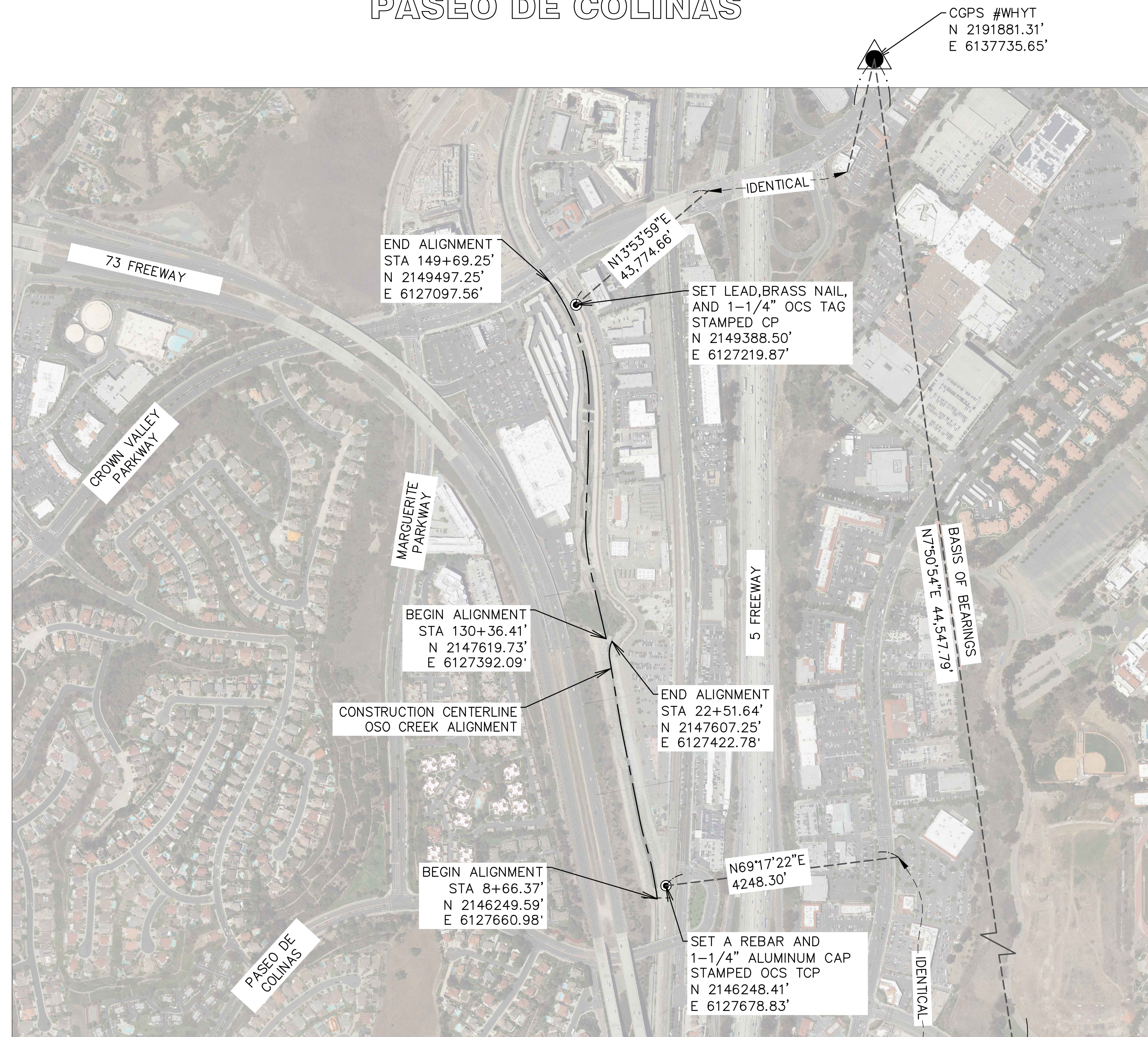
THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH THE PROFESSIONAL LAND SURVEYOR'S ACT; THIS 30TH DAY OF MAY, 2019.

WADE WEAVER DEPUTY COUNTY SURVEYOR



U.S. Survey Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping



BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, NAD 83, OCS 2007.00 EPOCH ADJUSTMENT, AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS) "SBCC" AND "WHYT", BEING NORTH 7°50'54\"/>

HORIZONTAL DATUM

COORDINATES SHOWN HEREON ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, 1983 NORTH AMERICAN DATUM (2007.00 EPOCH O.C.S. G.P.S. ADJUSTMENT).

ALL DISTANCES SHOWN ARE GRID, UNLESS OTHERWISE NOTED. MULTIPLY A GRID DISTANCE BY 1.000045072 TO OBTAIN GROUND DISTANCE.

ALL DISTANCES ARE BASED ON THE U.S. SURVEY FOOT.

VERTICAL DATUM

O.C.S. BM. BM 3U-41-70 ELEV. = 264.88' YEAR LEVELED: 1991
NAVD 1988 (O.C.S. 1995 ADJUSTMENT)

DESCRIPTION: DESCRIBED BY OCS 2003 - FOUND 3 3/4\"/>

NOTES

THE SURVEY INFORMATION SHOWN HEREON IS TO BE USED FOR TOPOGRAPHIC RELATIONSHIPS ONLY AND IS NOT INTENDED FOR LAND ACQUISITION OR BOUNDARY PURPOSES.

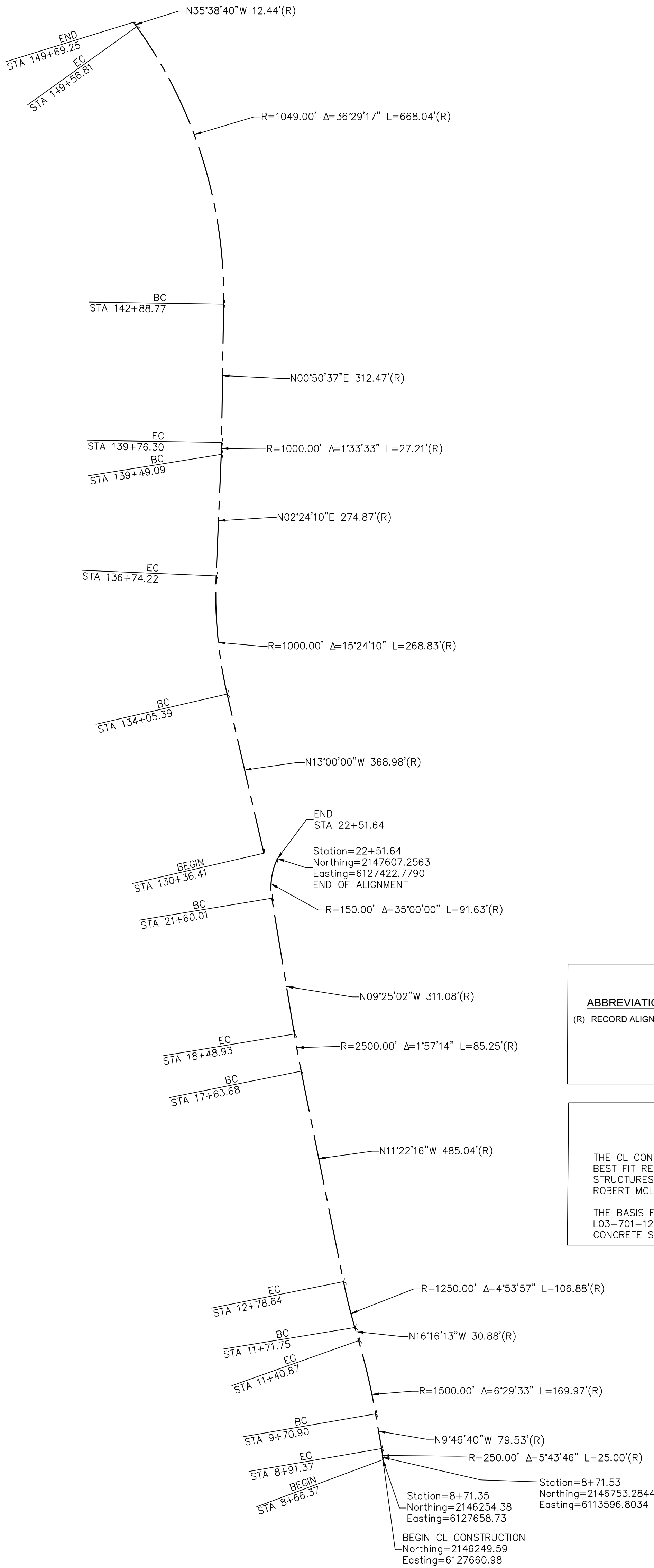
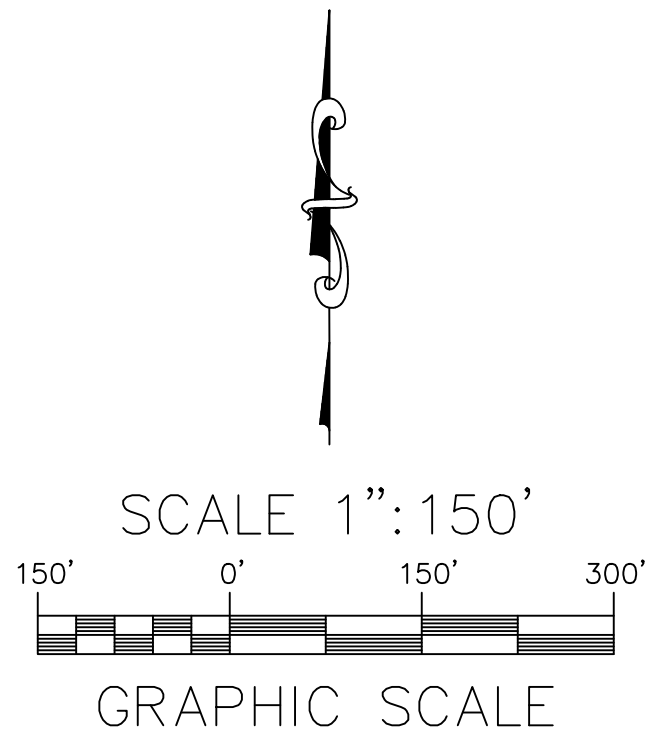
SHEET INDEX

SHEET NO.	DESCRIPTION
SHEET #1	TITLE SHEET
SHEET #2	ALIGNMENT SHEET
SHEETS #3-8	TOPOGRAPHIC MAP

PURPOSE OF SURVEY

A TOPO SURVEY IS BEING REQUESTED FOR THE EARTHEN AND RIP RAP LINED SLOPE PORTIONS OF OSO CREEK TO COMPARE EXISTING CONDITIONS WITH THE AS-BUILT GEOMETRY. OC CONSTRUCTION'S JOG CONTRACTOR WILL USE THE DATA TO RE-ESTABLISH GRADELINES, FLOWLINES AND HINGEPOINTS FOR REHABILITATION OF THE ERODED CHANNEL SLOPES.

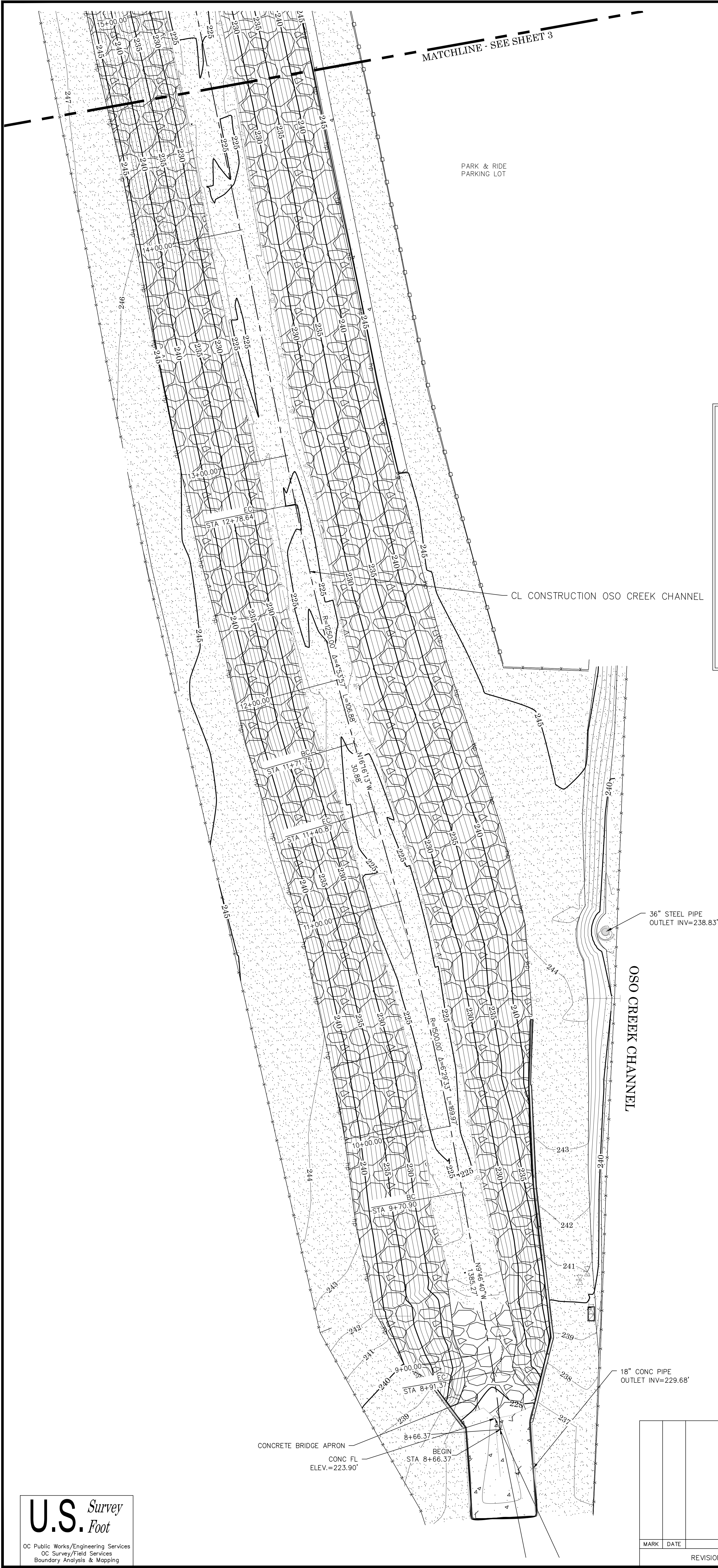
COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING			
OSO CREEK CHANNEL TOPO			
TITLE SHEET			
LOCATION: OSO CREEK CHANNEL TOPO			
DATE OF SURVEY: 12/24/2018	BY: R. MACIAS & PARTY	SHEET NO. 1 of 8	
TOPOGRAPHIC MAPPING	BY: K. AHMED		
OFFICE CHECK	BY: W. WEAVER PLS		
FIELD CHECK	BY: E. MEDINA PLS		
SCALE: N.T.S.	W.O. #EF21294	REVISIONS	
FILE: OSOCREEKCHANNEL_TOPOGRAPHICMAP_2019.DWG			



LEGEND	
ABBREVIATION	LINE PATTERN KEY
(R) RECORD ALIGNMENT PER L03-701-5/12R	ALIGNMENT CENTERLINE

ALIGNMENT ESTABLISHMENT
THE CL CONSTRUCTION ALIGNMENT SHOWN HEREON WAS DERIVED BY HOLDING A BEST FIT RECORD ALIGNMENT BETWEEN EXISTING MID POINT OF CONCRETE STRUCTURES PER DIRECTIVE FROM THE CIVIL ENGINEER FOR THIS PROJECT ROBERT MCLEAN P.E.
THE BASIS FOR STATIONING IS DERIVED FROM RECORD DRAWINGS L03-701-5 L03-701-12R. BEGINNING AT THE MID POINT OF THE MOST SOUTHERLY EXISTING CONCRETE STRUCTURE GRADELINES WITH STATION 8+71.53 AS SHOWN HEREON.

			COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING			
			OSO CREEK CHANNEL			
			ALIGNMENT ESTABLISHMENT NOTES			
			LOCATION: OSO CREEK CHANNEL, CITY OF TUSTIN, CA			
			DATE OF SURVEY: 02/20/2019		BY: J. RUSSO & PARTY	
			TOPOGRAPHIC MAPPING		BY: K. AHMED	
			OFFICE CHECK		BY: E. MEDINA PLS	
			FIELD CHECK		BY: W. WEAVER PLS	
			SCALE: 1"=150'		W.O. # EF21294	
MARK	DATE	ITEM	REVISIONS		OSOCREEKCHANNEL_TOPOGRAPHICMAP_2019.dwg	
SHEET NO. 2 of 8						

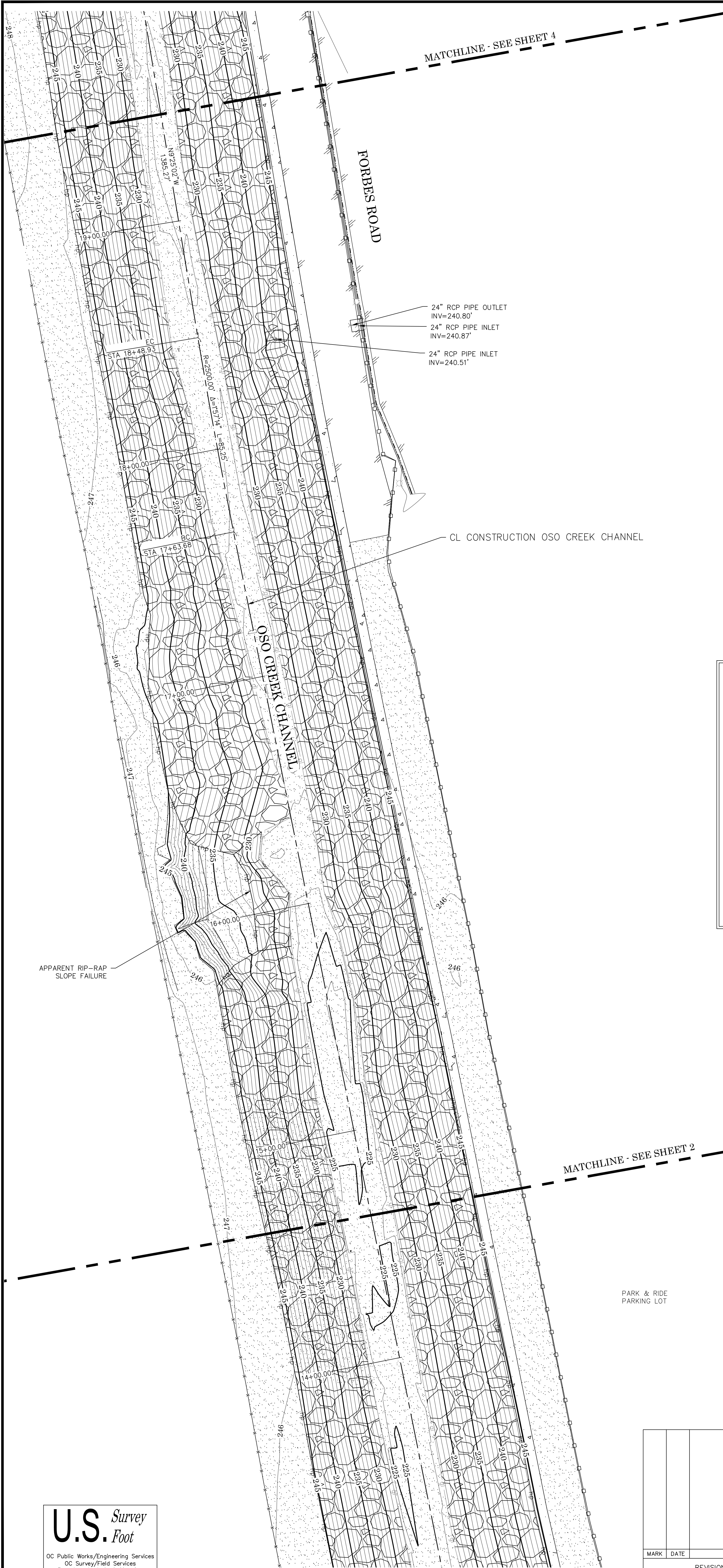


SYMBOL PATTERN KEY		LINE PATTERN KEY	
DGT	Gate, Double	Centerline	
SGT	Gate, Single	Edge of Asphalt Pavement	
GYA	Guy Anchor	Edge of Concrete Pavement	
MHHUN	Manhole - Undefined	Fence - Chain Link	
MWL	Monitoring Well	Flowline	
PBXEL	Pullbox - Electrical	Gradeline	
PBXUN	Pullbox - Undefined	Head Wall	
PCN	Pier Column	Hinge Point	
PPI/PPO	Pipe Inlet / Pipe Outlet	Lot Line	
PST	Post	R/W	
UG1	Utility Pole	Right of Way	
VLTEL	Vault - Electrical	Block Wall	
VLTUN	Vault - Undefined	Wing Wall	
VLTTWA	Vault - Water	Wall as Noted	
VPP	Vent Pipe		
VLVWA	Water Valve		
		AREA PATTERN KEY	
		Concrete	
		Dirt	
		Gravel / Rip Rap	

			COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING		
			OSO CREEK CHANNEL		
			TOPOGRAPHIC MAP		
			LOCATION: OSO CREEK CHANNEL, CITY OF MISSION VIEJO, CA		
			DATE OF SURVEY: 12/24/2018	BY: R. MACIAS & PARTY	SHEET NO. 3 of 8
			TOPOGRAPHIC MAPPING	BY: K. AHMED	
			OFFICE CHECK	BY: W. WEAVER PLS	
			FIELD CHECK	BY: E. MEDINA PLS	
			SCALE: 1" = 20'	W.O. #EF21294	
MARK	DATE	ITEM	FILE: OSOCREEKCHANNEL_TOPOGRAPHICMAP_2019.DWG		
REVISIONS					

U.S. Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping



LEGEND

SYMBOL PATTERN KEY

DGT	Gate, Double
SGT	Gate, Single
GYA	Guy Anchor
MHHUN	Manhole - Undefined
MWL	Monitoring Well
PBXEL	Pullbox - Electrical
PBXUN	Pullbox - Undefined
PCN	Pier Column
PPI/PPO	Pipe Inlet / Pipe Outlet
PST	Post
UG1	Utility Pole
VLTEL	Vault - Electrical
VLTUN	Vault - Undefined
VLTWA	Vault - Water
VPP	Vent Pipe
VLVWA	Water Valve

LINE PATTERN KEY

Centerline
Edge of Asphalt Pavement
Edge of Concrete Pavement
Fence - Chain Link
Flowline
Gradeline
Head Wall
Hinge Point
Lot Line
Right of Way
Block Wall
Wing Wall
Wall as Noted

AREA PATTERN KEY

Concrete
Dirt
Gravel / Rip Rap

U.S. Survey
Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping

COUNTY OF ORANGE
OC PUBLIC WORKS
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

OSO CREEK CHANNEL

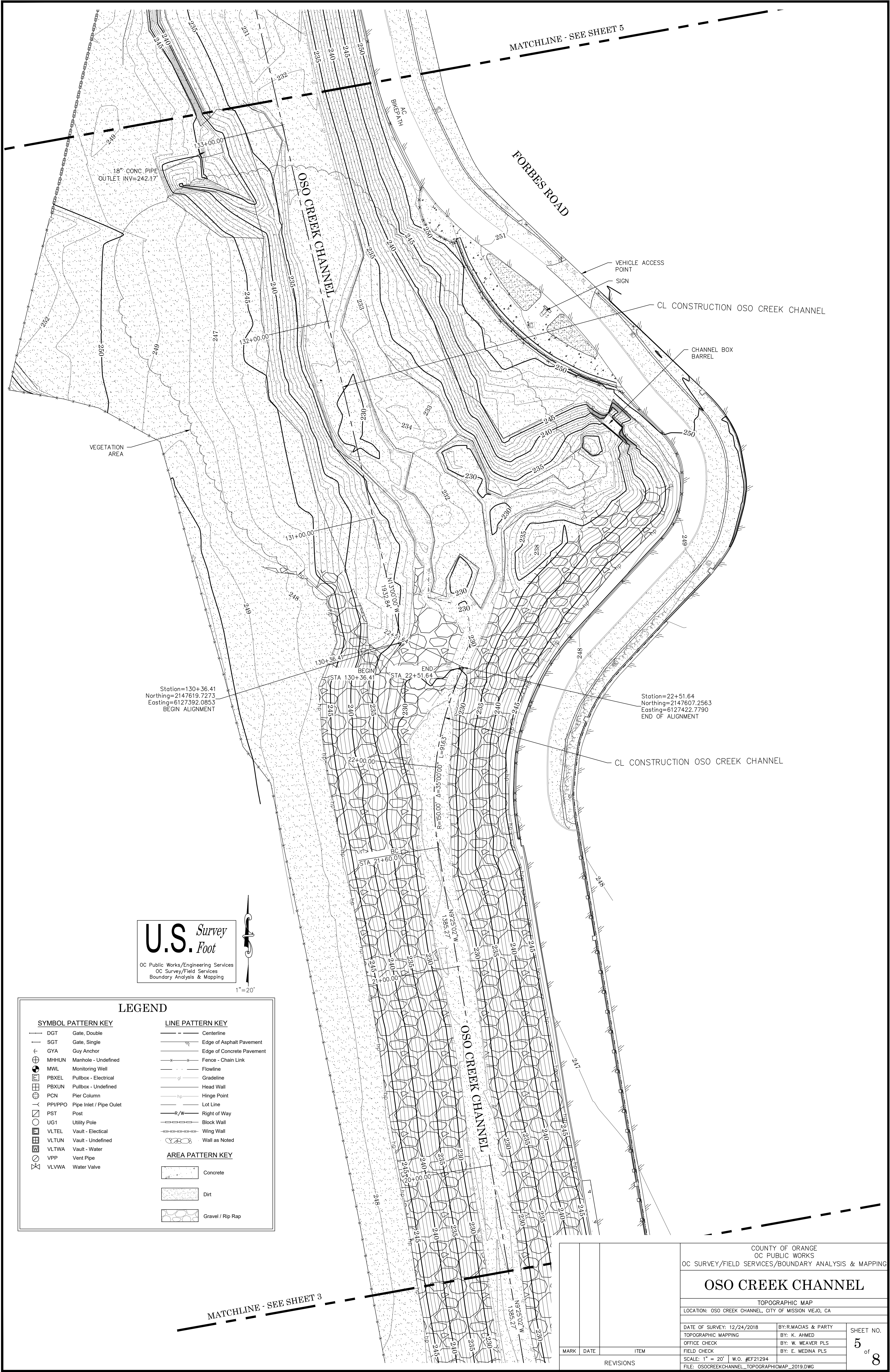
TOPOGRAPHIC MAP

LOCATION: OSO CREEK CHANNEL, CITY OF MISSION VIEJO, CA

DATE OF SURVEY: 12/24/2018	BY: R. MACIAS & PARTY
TOPOGRAPHIC MAPPING	BY: K. AHMED
OFFICE CHECK	BY: W. WEAVER PLS
FIELD CHECK	BY: E. MEDINA PLS
SCALE: 1" = 20'	W.O. #EF21294
FILE: OSOCREEKCHANNEL_TOPOGRAPHICMAP_2019.DWG	

SHEET NO.
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MARK	DATE	ITEM
REVISIONS		



U.S. Survey
Foot
OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping

LEGEND

SYMBOL PATTERN KEY

- DGT Gate, Double
- SGT Gate, Single
- GYA Guy Anchor
- MHHUN Manhole - Undefined
- MWL Monitoring Well
- PBXEL Pullbox - Electrical
- PBXUN Pullbox - Undefined
- PCN Pier Column
- PPU/PPO Pipe Inlet / Pipe Outlet
- PST Post
- UG1 Utility Pole
- VLTEL Vault - Electrical
- VLTUN Vault - Undefined
- VLTTWA Vault - Water
- VPP Vent Pipe
- VLVWA Water Valve

LINE PATTERN KEY

- Centerline
- Edge of Asphalt Pavement
- Edge of Concrete Pavement
- Fence - Chain Link
- Flowline
- Gradeline
- Head Wall
- Hinge Point
- Lot Line
- Right of Way
- Block Wall
- Wing Wall
- Wall as Noted

AREA PATTERN KEY

- Concrete
- Dirt
- Gravel / Rip Rap

COUNTY OF ORANGE
OC PUBLIC WORKS
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

OSO CREEK CHANNEL

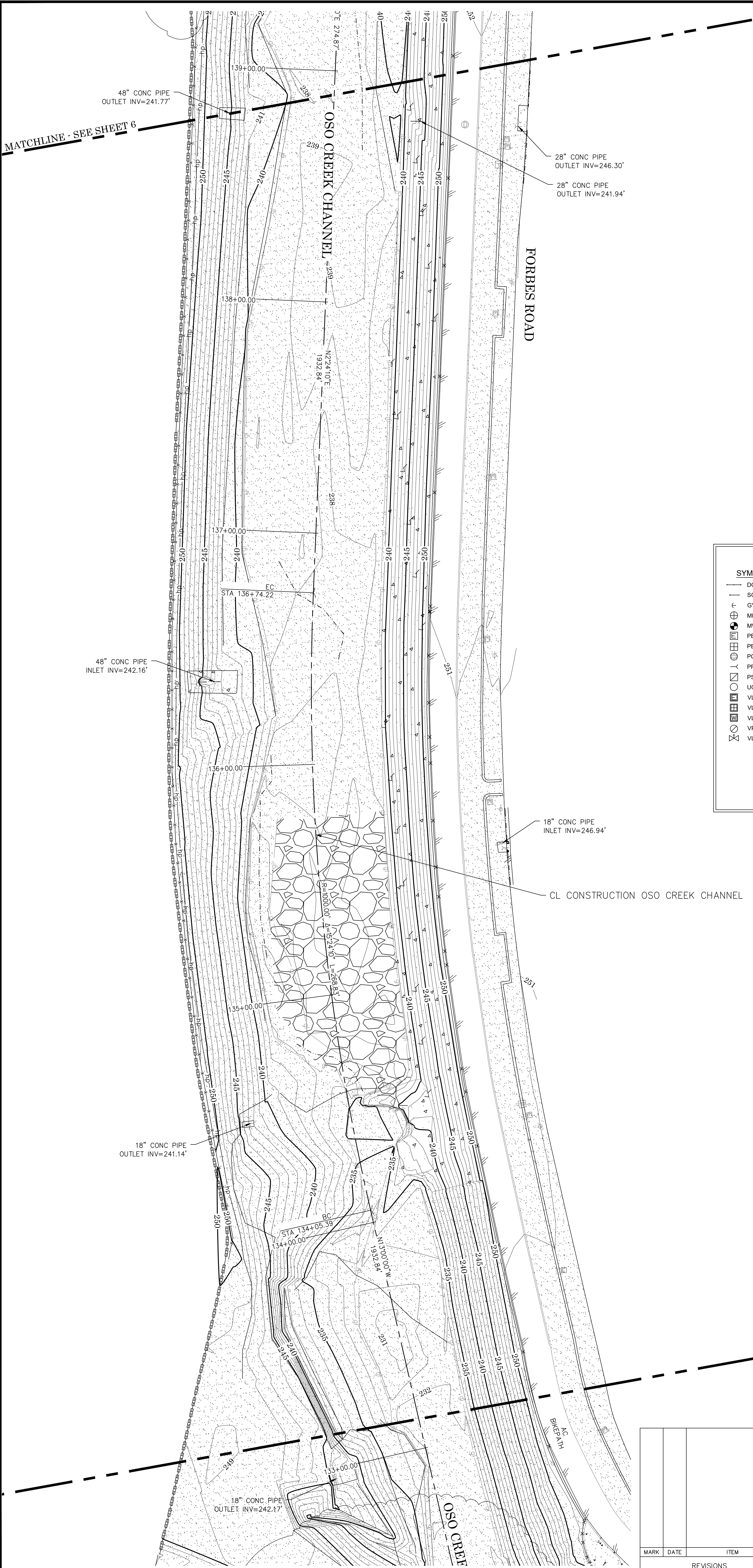
TOPOGRAPHIC MAP

LOCATION: OSO CREEK CHANNEL, CITY OF MISSION VIEJO, CA

DATE OF SURVEY: 12/24/2018	BY: R. MACIAS & PARTY
TOPOGRAPHIC MAPPING	BY: K. AHMED
OFFICE CHECK	BY: W. WEAVER PLS
FIELD CHECK	BY: E. MEDINA PLS
SCALE: 1" = 20'	W.O. #EF21294
FILE: OSOCREEKCHANNEL_TOPOGRAPHICMAP_2019.DWG	

SHEET NO.
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of
8

MARK	DATE	ITEM
REVISIONS		



SYMBOL PATTERN KEY

DGT	Gate, Double
SGT	Gate, Single
GYA	Guy Anchor
MHHUN	Manhole - Undefined
MWL	Monitoring Well
PBXEL	Pullbox - Electrical
PBXUN	Pullbox - Undefined
PCN	Pier Column
PPI/PPO	Pipe Inlet / Pipe Outlet
PST	Post
UG1	Utility Pole
VLTEL	Vault - Electrical
VLTUN	Vault - Undefined
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LINE PATTERN KEY

Centerline
Edge of Asphalt Pavement
Edge of Concrete Pavement
Fence - Chain Link
Flowline
Gradeline
Head Wall
Hinge Point
Lot Line
Right of Way
Block Wall
Wing Wall
Wall as Noted

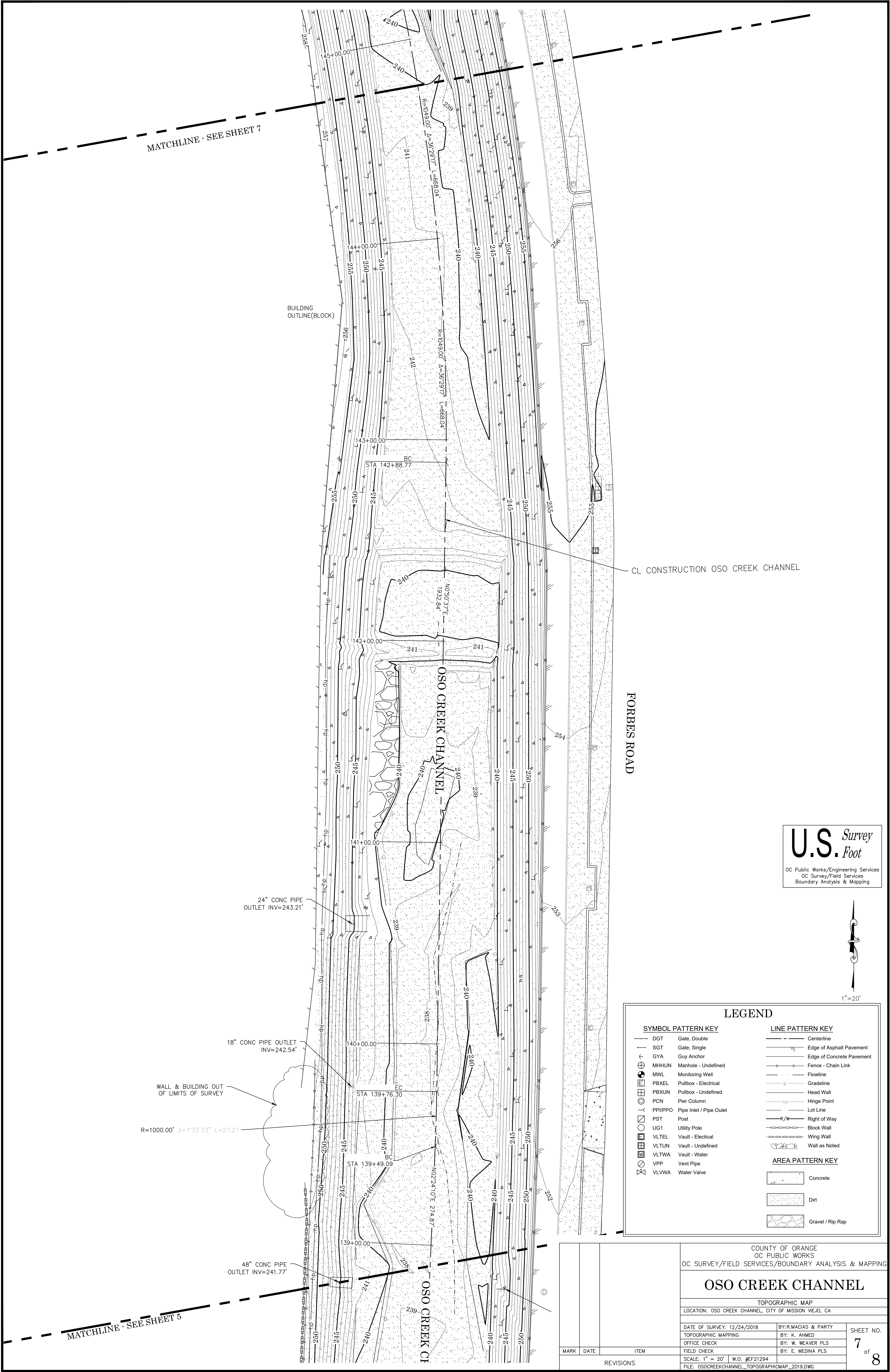
AREA PATTERN KEY

Concrete
Dirt
Gravel / Rip Rap

U.S. Survey
Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping

			COUNTY OF ORANGE OC PUBLIC WORKS OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING				
			OSO CREEK CHANNEL				
			TOPOGRAPHIC MAP				
			LOCATION: OSO CREEK CHANNEL, CITY OF MISSION VIEJO, CA				
MARK	DATE	ITEM	DATE OF SURVEY: 12/24/2018		BY: R. MACIAS & PARTY		SHEET NO. 6 of 8
			TOPOGRAPHIC MAPPING		BY: K. AHMED		
			OFFICE CHECK		BY: W. WEAVER PLS		
			FIELD CHECK		BY: E. MEDINA PLS		
			SCALE: 1" = 20'		W.O. #EF21294		
			FILE: OSOCREEKCHANNEL_TOPOGRAPHICMAP_2019.DWG				
REVISIONS							



MATCHLINE - SEE SHEET 7

BUILDING
OUTLINE(BLOCK)

FORBES ROAD

CL CONSTRUCTION OSO CREEK CHANNEL

U.S. Survey
Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping



1"=20'

LEGEND

SYMBOL PATTERN KEY

- DGT Gate, Double
- SGT Gate, Single
- GYA Guy Anchor
- MHHUN Manhole - Undefined
- MWL Monitoring Well
- PBXEL Pullbox - Electrical
- PBXUN Pullbox - Undefined
- PCN Pier Column
- PPI/PPD Pipe Inlet / Pipe Outlet
- PST Post
- UG1 Utility Pole
- VLTEL Vault - Electrical
- VLTUN Vault - Undefined
- VLTTWA Vault - Water
- VPP Vent Pipe
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LINE PATTERN KEY

- Centerline
- Edge of Asphalt Pavement
- Edge of Concrete Pavement
- Fence - Chain Link
- Flowline
- Gradeline
- Head Wall
- Hinge Point
- Lot Line
- Right of Way
- Block Wall
- Wing Wall
- Wall as Noted

AREA PATTERN KEY

- Concrete
- Dirt
- Gravel / Rip Rap

COUNTY OF ORANGE
OC PUBLIC WORKS
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

OSO CREEK CHANNEL

TOPOGRAPHIC MAP

LOCATION: OSO CREEK CHANNEL, CITY OF MISSION VIEJO, CA

DATE OF SURVEY: 12/24/2018	BY: R. MACIAS & PARTY
TOPOGRAPHIC MAPPING	BY: K. AHMED
OFFICE CHECK	BY: W. WEAVER PLS
FIELD CHECK	BY: E. MEDINA PLS
SCALE: 1" = 20'	W.O. #EF21294
FILE: OSOCREEKCHANNEL_TOPOGRAPHICMAP_2019.DWG	

SHEET NO.
7 of 8

MARK	DATE	ITEM
REVISIONS		

END CL CONSTRUCTION
Northing=2149497.2533
Easting=6127097.5602

CROWN VALLEY PKWY

36" CONC PIPE
INLET INV=249.57'

78" CONC PIPE
INLET INV=249.48'

FORBES ROAD

OSO CREEK CHANNEL

18" CONC PIPE
OUTLET INV=249.45'



LEGEND

SYMBOL PATTERN KEY

- DGT Gate, Double
- SGT Gate, Single
- GYA Guy Anchor
- MHHUN Manhole - Undefined
- MWL Monitoring Well
- PBXEL Pullbox - Electrical
- PBXUN Pullbox - Undefined
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LINE PATTERN KEY

- Centerline
- Edge of Asphalt Pavement
- Edge of Concrete Pavement
- Fence - Chain Link
- Flowline
- Gradeline
- Head Wall
- Hinge Point
- Lot Line
- R/W Right of Way
- Block Wall
- Wing Wall
- Wall as Noted

AREA PATTERN KEY

- Concrete
- Dirt
- Gravel / Rip Rap

MATCHLINE - SEE SHEET 6

CL CONSTRUCTION OSO CREEK CHANNEL

BUILDING
OUTLINE(BLOCK)

U.S. Survey
Foot

OC Public Works/Engineering Services
OC Survey/Field Services
Boundary Analysis & Mapping

COUNTY OF ORANGE
OC PUBLIC WORKS
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

OSO CREEK CHANNEL

TOPOGRAPHIC MAP

LOCATION: OSO CREEK CHANNEL, CITY OF MISSION VIEJO, CA

DATE OF SURVEY: 12/24/2018
TOPOGRAPHIC MAPPING
OFFICE CHECK
FIELD CHECK
SCALE: 1" = 20'
W.O. #EF21294
BY: R. MACIAS & PARTY
BY: K. AHMED
BY: W. WEAVER PLS
BY: E. MEDINA PLS
FILE: OSOCREEKCHANNEL_TOPOGRAPHICMAP_2019.DWG

SHEET NO.
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of
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REVISIONS