OC PUBLIC WORKS DEPARTMENT

JAMES TREADAWAY, DIRECTOR OF PUBLIC WORKS

KEVIN HILLS PLS, COUNTY SURVEYOR

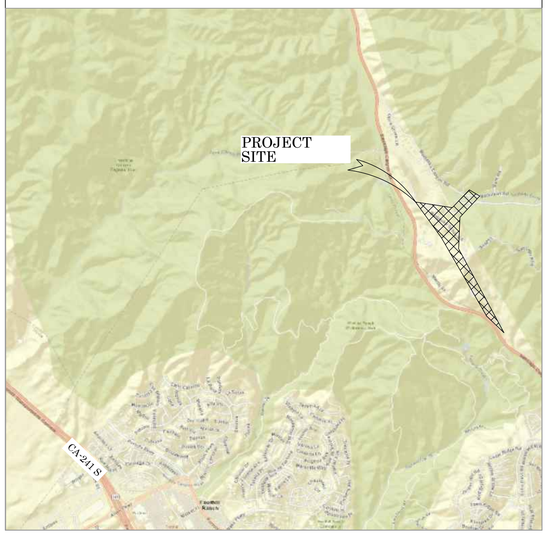
MODJESKA GRADE ROAD

FROM SANTIAGO CANYON ROAD TO MODJESKA CANYON ROAD ROAD AND DRAINAGE IMPROVEMENTS

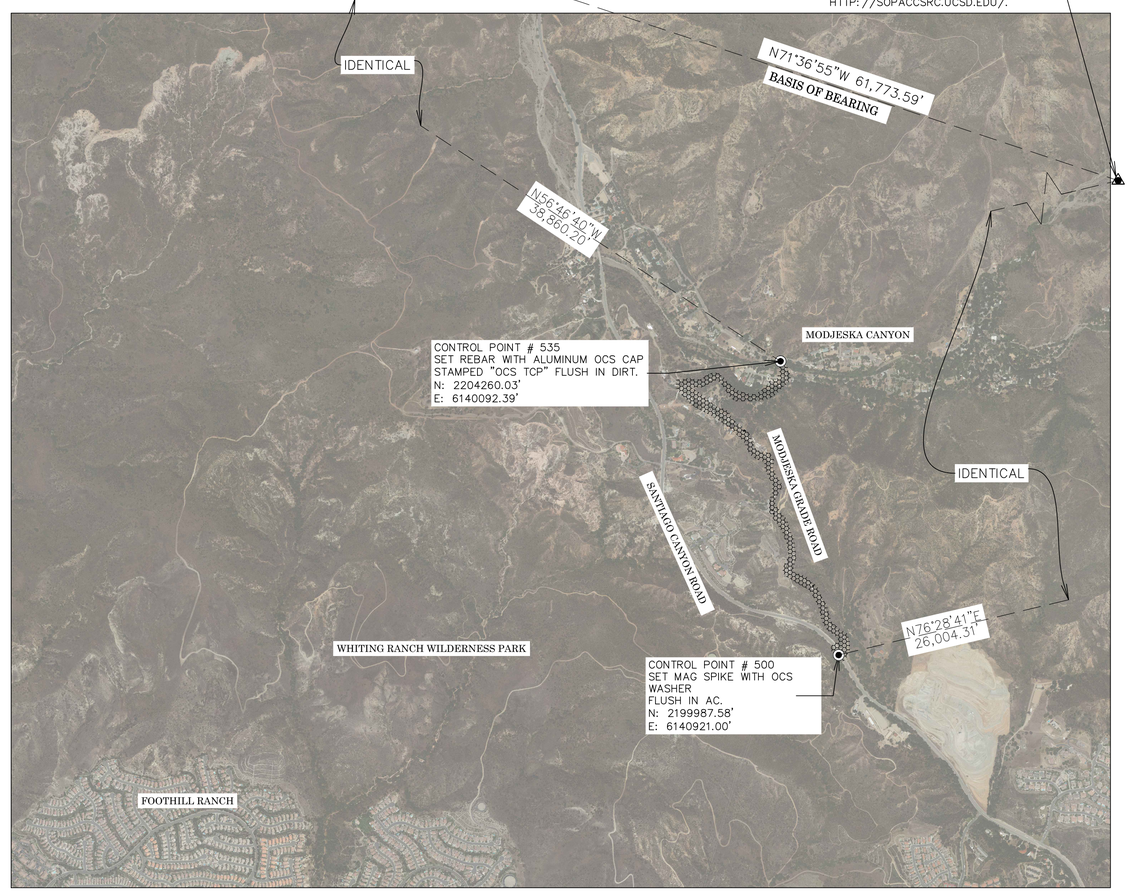
FOUND CGPS "OEOC"
N: 2225550.98'
E: 6107583.77'
THIS IS A CONTINUOUS GPS STATION (CGPS) AND IS PART OF THE CALIFORNIA SPATIAL REFERENCE NETWORK (CSRN), FROM WHICH DATA CAN BE DOWNLOADED HERE: HTTP://SOPACCSRC.UCSD.EDU/.

FOUND CGPS "MJPK"
N: 2206067.91'
E: 6166204.47'
THIS IS A CONTINUOUS GPS STATION (CGPS) AND IS PART OF THE CALIFORNIA SPATIAL REFERENCE NETWORK (CSRN), FROM WHICH DATA CAN BE DOWNLOADED HERE: HTTP://SOPACCSRC.UCSD.EDU/.

LOCATION MAP



N.T.S



BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, NAD 83, OCS (2017.50) EPOCH ADJUSTMENT, AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS CGPS (MJPK) AND (OEOC) BEING NORTH 71°36'55" WEST AS DERIVED FROM THE COORDINATES PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC) ALONG WITH DATA SHEETS ON FILE IN THE OFFICE OF THE ORANGE COUNTY SURVEYOR.

HORIZONTAL DATUM

COORDINATES SHOWN ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE VI, NAD 83, OCS 2017.50 EPOCH ADJUSTMENT.

ALL DISTANCES SHOWN ARE GRID, UNLESS OTHERWISE NOTED. TO OBTAIN GROUND DISTANCES MULTIPLY GRID BY 1.000095939
ALL DISTANCES ARE BASED ON THE U.S. SURVEY FOOT.

VERTICAL DATUM

O.C.S. BM. UU-4-92 ELEV. = 1420.44' YEAR LEVELED: 1992

NAVD 1988 (O.C.S. 1995 ADJUSTMENT)

DESCRIPTION: FOUND 3 3\4" OCS ALUMINUM BENCHMARK DISK STAMPED "3UU-4-92",SET IN THE TOP OF A 6 IN BY 6 IN. CONCRETE POST. MONUMENT IS LOCATED IN THE SOUTHERLY PORTION OF THE INTERSECTION OF MODJESKA GRADE ROAD AND CANYON HEIGHTS DRIVE, 35 FT. WESTERLY OF THE CENTERLINE OF MODJESKA GRADE ROAD AND 1 FT. WESTERLY OF THE WESTERLY UPHILL BARRICADE. MONUMENT IS SET LEVEL WITH THE GRADE.

NOTES

THE SURVEY INFORMATION SHOWN HEREON IS TO BE USED FOR TOPOGRAPHIC RELATIONSHIPS ONLY AND IS NOT INTENDED FOR LAND ACQUISITION OR BOUNDARY PURPOSES.TOPOGRAPHY OUTSIDE OF THE CONVENTIONAL SURVEY LIMITS SHOWN HEREON WERE DERIVED FROM AERIAL LIDAR PROVIDED BY DMI INC.

SHEET INDEX

PURPOSE OF SURVEY

TO PROVIDE A TOPOGRAPHIC SURVEY AND STREET RIGHT OF WAY FOR DESIGN OF ROAD AND DRAINAGE IMPROVEMENTS.

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 8 DAY OF DECEMBER, 2020.

JESOM MORENO, PLS. SENIOR LAND SURVEYOR

LICENSED LAND SURVEYOR JESOM MORENO No. 8478 STATE OF CALIFORNIA

DEPUTY COUNTY SURVEYOR'S STATEMENT:

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH THE PROFESSIONAL LAND SURVEYOR'S ACT; THIS 8 DAY OF DECEMBER, 2020.

WADE WEAVER, PLS. DEPUTY COUNTY SURVEYOR

LICENSED LAND SURVEYOR WADE D. WEAVER No. 4337 STATE OF CALIFORNIA

U.S. Survey Foot

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

PRELIMINARY
TOPOGRAPHIC MAPPING PROJECT

MARK	DATE	ITEM
REVISIONS		

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

MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TITLE SHEET

FROM: INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD
TO: 100' SOUTH OF INTERSECTION OF MARKUSON RD. & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY
TOPOGRAPHIC MAPPING	BY: R. BELTRAN
OFFICE CHECK	BY: J. MORENO, PLS.
FIELD CHECK	BY: J. JOHNS & PARTY
SCALE: 1" = 20' W.O. #EQ17009P	FILE NO. 1920PW-IN0018
FILE: Modjeska Grade Road_Topo_2020.DWG	

SHEET NO. 1 of 21

ESTABLISHMENT NOTES

A ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING MONUMENTS 1 AND 2

B ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD SOUTH AND SOUTHEASTERLY FROM MONUMENT 1 BY HOLDING RECORD DATA PER PMB 153/15-16 (R1)

C ESTABLISHED THE CENTERLINE OF SANTIAGO CANYON RD FROM SURVEY RESULTS PERFORMED IN 2017 FOR SANTIAGO CANYON ROAD HIGHWAY SAFETY IMPROVEMENT PROJECT (HISP) SURVEY FILE NO. 1617PW-RD0003

D ESTABLISHED CENTERLINE INTERSECTION OF MODJESKA CANYON ROAD AND SANTIAGO CANYON ROAD BY INTERSECTING ESTABLISHMENT NOTES B AND C

E ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING MONUMENTS 2 AND 3

F ESTABLISHED CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R1) AND TANGENT TO ESTABLISHMENT NOTES A AND E

G ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER PMB 153/15-16 (R1) AND FOUND MONUMENTS 6 AND 7

H ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING MONUMENT 3 AND ESTABLISHMENT NOTE G

I ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R1) AND TANGENT TO ESTABLISHMENT NOTES E AND H

J ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER PMB 153/15-16 (R1) AND FOUND MONUMENTS 6 AND 7

K ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTES G AND J

L ESTABLISHED CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R1) AND TANGENT TO ESTABLISHMENT NOTES H AND K

M ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING MONUMENT 7 AND ESTABLISHMENT NOTE J

N ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER PMB 83/1-3 (R3) AND FOUND MONUMENTS 7 AND 8

O ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING MONUMENT 7 AND ESTABLISHMENT NOTE N

P ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R3) AND TANGENT TO ESTABLISHMENT NOTES K AND O

Q ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER PMB 83/1-3 (R3) AND FOUND MONUMENTS 7 AND 8

R ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTES N AND O

S ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R3) AND TANGENT TO ESTABLISHMENT NOTES Q AND R

T ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER PMB 83/1-3 (R3) AND FOUND MONUMENTS 7 AND 8

U ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTES Q AND T

V ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R3) AND TANGENT TO ESTABLISHMENT NOTES R AND U

W ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER PMB 83/1-3 (R3) AND FOUND MONUMENTS 7 AND 8

X ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTES T AND W

Y ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R3) AND TANGENT TO ESTABLISHMENT NOTES U AND X

Z ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER PMB 83/1-3 (R3) AND FOUND MONUMENTS 7 AND 8

AA ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTES W AND Z

AB ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R3) AND TANGENT TO ESTABLISHMENT NOTES X AND AA

AC ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTES Z AND FOUND MONUMENT 8

AD ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R3) AND TANGENT TO ESTABLISHMENT NOTES AA AND AC

AE ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING FOUND MONUMENTS 8 AND 9

AF ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R3) AND TANGENT TO ESTABLISHMENT NOTES AC AND AE

AG ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER MM 437/3-6 (R4) AND FOUND MONUMENTS 9 AND 10

AH ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING FOUND MONUMENT 9 AND ESTABLISHMENT NOTE AC

AI ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R4) AND TANGENT TO ESTABLISHMENT NOTES AE AND AH

AJ ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER MM 437/3-6 (R4) AND FOUND MONUMENTS 9 AND 10

AK ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTES AC AND AJ

AL ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R4) AND TANGENT TO ESTABLISHMENT NOTES AH AND AK

AM ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTE AJ AND FOUND MONUMENT 10

AN ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R4) AND TANGENT TO ESTABLISHMENT NOTES AK AND AM

AO ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING FOUND MONUMENTS 10 AND 11

AP ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R4) AND TANGENT TO ESTABLISHMENT NOTES AM AND AO

NOTES

STREET R/W SHOWN ARE BASED ON STREET WIDTHS FROM RECORD DOCUMENTS AND MAPS.

REFERENCES

(R1) = PMB 153/15-16
(R2) = TRACT NO. 12365 MM 649/14-18
(R3) = PMB 83/1-3
(R4) = TRACT NO. 9652 MM 437/3-6
(R5) = CSTB 146/23-40
(R6) = MM 9/41-43
(R7) = TRACT NO. 11767 MM 628/35-36
(R8) = A/5-7,6&8/216-228

LEGEND

● FOUND MONUMENT AS NOTED
⊗ SEARCHED, FOUND NOTHING
■ SEARCHED, FOUND NOTHING ESTABLISHED BY LEAST SQUARE ADJUSTMENT UNLES OTHERWISE NOTED.
S.F.N. SEARCHED, FOUND NOTHING
R RECORD
M MEASURED

MONUMENT NOTES

1 FOUND SPIKE AND 1 1/2 INCH OCS WASHER FLUSH IN AC PER (R8 PG. 218 OF REFERECNE) ACCEPTED AS BC #7 PER (R8) ON CENTERLINE OF MODJESKA GRADE ROAD.

2 FOUND PUNCHED SPIKE AND 1 1/2 INCH OCS WASHER FLUSH IN AC PER (R8 PG. 219 OF REFERENCE) ACCEPTED AS PI #5 PER (R8) OF MODJESKA GRADE ROAD.

3 FOUND PUNCHED SPIKE AND 1 1/2 INCH OCS WASHER FLUSH IN AC PER (R8 PG. 220 OF REFERENCES) ACCEPTED AS PI #3 PER (R8) OF MODJESKA GRADE ROAD.

4 FOUND PUNCHED SPIKE AND 1 1/2 INCH OCS WASHER FLUSH IN AC PER (R8 PG. 220 OF REFERENCE) N71°43'27"W 0.37 FEET FROM EC #3 PER (R8).

5 FOUND PUNCHED SPIKE AND 1 1/2 INCH OCS WASHER FLUSH IN AC PER (R8 PG. 219 OF REFERENCE) N20°29'18"W 0.06 FEET FROM BC #5 PER (R8).

6 FOUND PUNCHED SPIKE AND 1 1/2 INCH OCS WASHER FLUSH IN AC PER (R8 PG. 220) ON CENTERLINE OF MODJESKA GRADE ROAD N59°00'19"W 0.13' FROM EC #1 PER (R8).

7 FOUND 1 INCH IP WITH NAIL IN CONC PLUG DN. 1.1 FEET ACCEPTED AS PI #2 PER (R8) OF MODJESKA GRADE ROAD. IN DIRT, IN LIEU OF 1 INCH IP AND TAG "LS 3186" PER (R8 PG. 222 OF REFERENCE)

8 FOUND PUNCHED SPIKE AND 1 1/2 INCH OCS WASHER FLUSH IN AC PER (R8 PG. 224 OF REFERENCE) ACCEPTED AS PI #7 PER (R8) OF MODKESKA GRADE ROAD.

9 FOUND PUNCHED SPIKE AND 1 1/2 INCH OCS WASHER FLUSH IN AC PER (R8 PG. 224 OF REFERENCE) ACCEPTED AS PI #8 PER (R8) OF MODJESKA GRADE ROAD.

10 FOUND PUNCHED SPIKE AND 1 1/2 INCH OCS WASHER FLUSH IN AC PER (R8 PG. 225 OF REFERENCE) ACCEPTED AS PI #12 PER (R8) OF MODJESKA GRADE ROAD.

11 FOUND 1 INCH IP CONC PLUG WITH NAIL PER (R8 PG. 225 OF REFERENCE) DN. 0.5 FEET IN DIRT ACCEPTED AS PI #13 PER (R8) OF MODJESKA GRADE ROAD.

12 FOUND PUNCHED SPIKE AND 1 1/2 INCH OCS WASHER FLUSH IN AC PER (R8 PG. 226 OF REFERENCE) ACCEPTED AS PI #15 PER (R8) OF MODJESKA GRADE ROAD.

13 FOUND MAG SPIKE AND 2 INCH ALUMINUM WASHER STAMPED "LS 8932" FLUSH IN AC. NO REF. ACCEPTED AS PI #16 PER (R8) OF MODJESKA GRADE ROAD.

14 FOUND PUNCHED SPIKE AND 1 1/2 INCH OCS WASHER FLUSH IN AC PER (R8 PG. 227 OF REFERENCE) ACCEPTED AS PI #18 PER (R8) OF MODJESKA GRADE ROAD.

15 FOUND PUNCHED SPIKE AND 1 1/2 INCH OCS WASHER FLUSH IN AC NO REF, SHOWN AS SET NOTHING PER (R8 PG. 227 OF REFERENCE) ACCEPTED AS PI #19 PER (R8) OF MODJESKA GRADE ROAD.

16 FOUND PUNCHED SPIKE AND 1 1/2 INCH OCS WASHER FLUSH IN AC PER (R8 PG. 227 OF REFERENCE) ACCEPTED AS PI #20 PER (R8) OF MODJESKA GRADE ROAD.

17 FOUND PUNCHED SPIKE AND 1 1/2 INCH OCS WASHER FLUSH IN AC NO REF, SHOWN AS SET NOTHING PER (R8 PG. 227 OF REFERENCE) ACCEPTED AS PI #22 PER (R8) OF MODJESKA GRADE ROAD.

18 FOUND PUN SPIKE AND 1 1/4 INCH OCS WASHER FLUSH IN AC NO REF N66°26'23"E 0.33 FEET. FROM PI PER ESTABLISHMENT NOTE BP.

19 FOUND 3/4 INCH IP WITH CONC PLUG AND NAIL PER (R8 PG. 228 OF REFERENCE) DN. 0.5 FEET IN AC. ACCEPTED AS PI #26 PER (R8) OF MODJESKA GRADE ROAD.

20 FOUND PUN BOAT SPIKE AND 1 1/4 INCH NO REF DN. 0.5 FEET IN AC. ACCEPTED AS PI #27 PER (R5) OF MODJESKA GRADE ROAD.

21 FOUND 3/4 INCH IP WITH NAIL IN CONC PLUG IN AC NO REF DN. 0.5 FEET IN AC. N81°55'45"W 0.18 FEET FROM PRC OF MODJESKA GRADE ROAD.

22 FOUND 2 INCH IP NO TAG PER (R7) DN. 1.75 FEET OCS WELL MONUMENT ACCEPTED AS CENTERLINE INTERSECTION OF MODJESKA GRADE ROAD AND MODJESKA CANYON ROAD PER (R7).

23 FOUND 2 INCH IP WITH TAG STAMPED "LS 2988" IN LIEU OF 2 INCH IP PER (R7). ACCEPTED AS PI OF VACATED LOT "A" CENTERLINE PER (R7).

24 FOUND 3/4 INCH IP WITH PER (R7) DN. 0.5 FEET IN OCS WELL MONUMENT ACCEPTED AS POINT ON CENTERLINE OF MODJESKA CANYON ROAD.

25 FOUND PK NAIL, FLUSH IN AC. NO REF, ACCEPTED AS POINT ON CENTERLINE FITS RECORD DISTANCE TO VACATED CENTERLINE OF LOT "A" PER (R7).

MARK	DATE	ITEM
REVISIONS		

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

MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

PROJECT LIMITS: FROM INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD TO 100' SOUTH OF INTERSECTION OF MARKUSON RD & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY	SHEET NO.
MAPPING	BY: R. BELTRAN	2
OFFICE CHECK	BY: M. MORENO, PLS	of
FIELD CHECK	BY: J. JOHNS & PARTY	23
SCALE: NO SCALE W.O. #EQ17009P	FILE #1920PW-IN0018	
FILE: MODJESKA GRADE ROAD_BOUNDARY_RB.DWG		

ESTABLISHMENT NOTES

AQ ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER MM 437/3-6 (R4) AND FOUND MONUMENTS 11 AND 12

AR ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING FOUND MONUMENT 11 AND ESTABLISHMENT NOTE AQ

AT ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTE AQ AND FOUND MONUMENT 12

AU ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R4) AND TANGENT TO ESTABLISHMENT NOTES AQ AND AT

AV ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING FOUND MONUMENTS 12 AND 13

AW ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R4) AND TANGENT TO ESTABLISHMENT NOTES AT AND AV

AX ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER MM 437/3-6 (R4) AND FOUND MONUMENTS 13 AND 14

AY ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING FOUND MONUMENT 13 AND ESTABLISHMENT NOTE AX

AZ ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R4) AND TANGENT TO ESTABLISHMENT NOTES AY AND AV

BA ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTE AX AND FOUND MONUMENT 14

BB ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R4) AND TANGENT TO ESTABLISHMENT NOTES AY AND BA

BC ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING FOUND MONUMENTS 14 AND 15

BD ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R4) AND TANGENT TO ESTABLISHMENT NOTES BA AND BC

BE ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING MONUMENTS 15 AND 16

BF ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R4) AND TANGENT TO ESTABLISHMENT NOTES BC AND BE

BG ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER MM 437/3-6 (R4) AND FOUND MONUMENTS 16 AND 17

BH ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING FOUND MONUMENT 16 AND ESTABLISHMENT NOTE BG

BI ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R4) AND TANGENT TO ESTABLISHMENT NOTES BE AND BH

BJ ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTE BG AND MONUMENT 17

BK ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R5) AND TANGENT TO ESTABLISHMENT NOTES BH AND BJ

BL ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER CSTB 143/23-40 (R5) AND FOUND MONUMENTS 17 AND 19

BM ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING FOUND MONUMENT 17 AND ESTABLISHMENT NOTE BL

BN ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R5) AND TANGENT TO ESTABLISHMENT NOTES BL AND BM

BO ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER CSTB 143/23-40 (R5) AND FOUND MONUMENTS 17 AND 19

BP ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTES BL AND BO

BQ ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R5) AND TANGENT TO ESTABLISHMENT NOTES BM AND BP

BR ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER CSTB 143/23-40 (R5) AND FOUND MONUMENTS 17 AND 19

BS ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTES BO AND BR

BT ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R5) AND TANGENT TO ESTABLISHMENT NOTES BP AND BS

BU ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTES BP AND MONUMENT 19

BV ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R5) AND TANGENT TO ESTABLISHMENT NOTES BS AND BU

BW ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING FOUND MONUMENTS 19 AND 20

BX ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R5) AND TANGENT TO ESTABLISHMENT NOTES BT AND BW

BY ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER CSTB 146/23-40 (R5) AND FOUND MONUMENTS 20 AND 22

BZ ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING FOUND MONUMENT 20 AND ESTABLISHMENT NOTE BY

CA ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R5) AND TANGENT TO ESTABLISHMENT NOTES BW AND BZ

CB ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER CSTB 146/23-40 (R5) AND FOUND MONUMENTS 20 AND 22

CC ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTES BY AND CB

CD ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R5) AND TANGENT TO ESTABLISHMENT NOTES BZ AND CC

CE ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER CSTB 146/23-40 (R5) AND FOUND MONUMENTS 20 AND 22

CF ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTES CB AND CE

CG ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R5) AND TANGENT TO ESTABLISHMENT NOTES CC AND CF

CH ESTABLISHED PI OF MODJESKA GRADE ROAD BY LEAST SQUARES ADJUSTMENT USING RECORD DATA PER CSTB 146/23-40 (R5) AND FOUND MONUMENTS 20 AND 22

CI ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTES CE AND CH

CJ ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R5) AND TANGENT TO ESTABLISHMENT NOTES CF AND CI

CK ESTABLISHED THE CENTERLINE BEARING OF MODJESKA GRADE ROAD BY HOLDING ESTABLISHMENT NOTE CH AND FOUND MONUMENT 22

CL ESTABLISHED THE CENTERLINE OF MODJESKA GRADE ROAD BY HOLDING RECORD RADIUS PER (R5) AND TANGENT TO ESTABLISHMENT NOTES CK AND CJ

CM ESTABLISHED OLD CENTERLINE BEARING OF LOT "A" PER M.M. 9/41-43 HOLDING FOUND MONUMENTS 22 AND 23

CN ESTABLISHED CENTERLINE INTERSECTION OF MODJESKA CANYON RD AND SHADOWLAND CIRCLE BY HOLDING DISTANCE ALONG ESTABLISHMENT NOTE CM FROM FOUND MONUMENT 22

CO ESTABLISHED CENTERLINE BEARING OF MODJESKA CANYON RD BY HOLDING RECORD ANGLE FROM ESTABLISHMENT NOTE CM AT ESTABLISHMENT NOTE CN PER M.M. 628/35-36 (R7)

CP ESTABLISHED BY INTERSECTION OF SOUTHERLY PROLONGATION OF MODJESKA CANYON RD, ESTABLISHMENT NOTE CK, WITH MODJESKA GRADE RD ESTABLISHMENT NOTE CO

CQ ESTABLISHED BY HOLDING RECORD DISTANCE PER M.M. 628/35-36 (R7) NORTHERLY FROM ESTABLISHMENT NOTE CP

CR ESTABLISHED CENTERLINE BEARING OF SHADOWLAND CIRCLE BY HOLDING RECORD ANGLE FROM SOUTHERLY PROLONGATION OF ESTABLISHMENT NOTE CN AT ESTABLISHMENT NOTE CQ PER M.M. 628/35-36 (R7)

CS ESTABLISHED CENTERLINE BEARING OF SHADOWLAND CIRCLE BY HOLDING BEARING OF ESTABLISHMENT NOTE CM AT FOUND MONUMENT 25

CT ESTABLISHED THE CENTERLINE OF SHADOWLAND CIRCLE BY HOLDING RECORD RADIUS PER M.M. 628/35-36 (R7) AND TANGENT TO ESTABLISHMENT NOTES CR AND CS

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

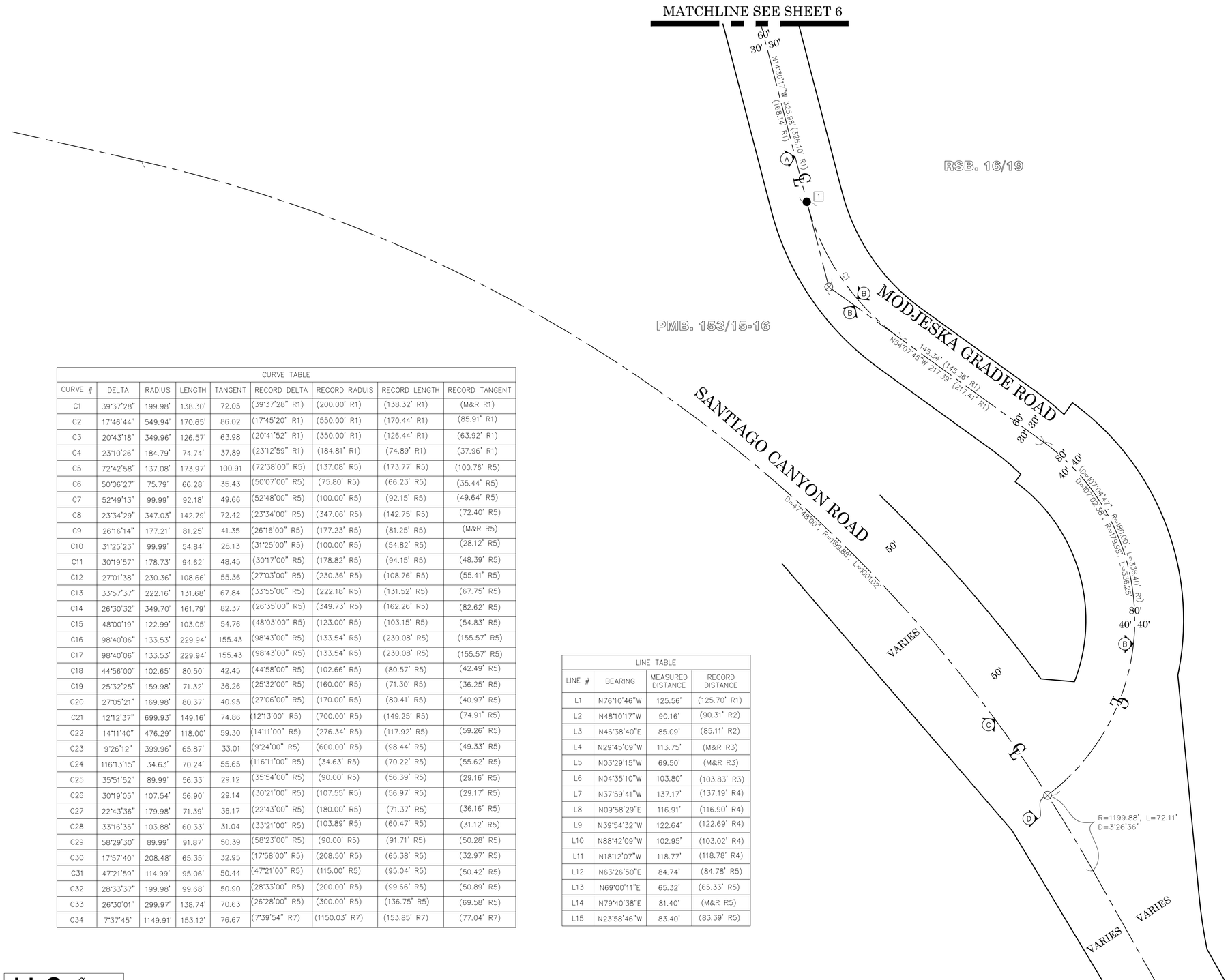
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

PROJECT LIMITS: FROM INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD TO 100' SOUTH OF INTERSECTION OF MARKUSON RD & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019		BY: J. JOHNS & PARTY
MAPPING		BY: R. BELTRAN
OFFICE CHECK		BY: M. MORENO, PLS
FIELD CHECK		BY: J. JOHNS & PARTY
SCALE: NO SCALE	W.O. #EQ17009P	FILE #1920PW-IN0018
FILE: MODJESKA GRADE ROAD_BOUNDARY_RB.DWG		



NOTES

STREET R/W SHOWN ARE BASED ON STREET WIDTHS FROM RECORD DOCUMENTS AND MAPS.

REFERENCES

(R1) = PMB 153/15-16
(R2) = TRACT NO. 12365 MM 649/14-18
(R3) = PMB 83/1-3
(R4) = TRACT NO. 9652 MM 437/3-6
(R5) = CSTB 146/23-40
(R6) = MM 9/41-43
(R7) = TRACT NO. 11767 MM 628/35-36
(R8) = A/5-7,6&8/216-228

LEGEND

● FOUND MONUMENT AS NOTED
⊗ SEARCHED, FOUND NOTHING
■ SEARCHED, FOUND NOTHING ESTABLISHED BY LEAST SQUARE ADJUSTMENT UNLES OTHERWISE NOTED.
S.F.N. SEARCHED, FOUND NOTHING
R RECORD
M MEASURED

CURVE TABLE

CURVE #	DELTA	RADIUS	LENGTH	TANGENT	RECORD DELTA	RECORD RADUIS	RECORD LENGTH	RECORD TANGENT
C1	39°37'28"	199.98'	138.30'	72.05	(39°37'28" R1)	(200.00' R1)	(138.32' R1)	(M&R R1)
C2	17°46'44"	549.94'	170.65'	86.02	(17°45'20" R1)	(550.00' R1)	(170.44' R1)	(85.91' R1)
C3	20°43'18"	349.96'	126.57'	63.98	(20°41'52" R1)	(350.00' R1)	(126.44' R1)	(63.92' R1)
C4	23°10'26"	184.79'	74.74'	37.89	(23°12'59" R1)	(184.81' R1)	(74.89' R1)	(37.96' R1)
C5	72°42'58"	137.08'	173.97'	100.91	(72°38'00" R5)	(137.08' R5)	(173.77' R5)	(100.76' R5)
C6	50°06'27"	75.79'	66.28'	35.43	(50°07'00" R5)	(75.80' R5)	(66.23' R5)	(35.44' R5)
C7	52°49'13"	99.99'	92.18'	49.66	(52°48'00" R5)	(100.00' R5)	(92.15' R5)	(49.64' R5)
C8	23°34'29"	347.03'	142.79'	72.42	(23°34'00" R5)	(347.06' R5)	(142.75' R5)	(72.40' R5)
C9	26°16'14"	177.21'	81.25'	41.35	(26°16'00" R5)	(177.23' R5)	(81.25' R5)	(M&R R5)
C10	31°25'23"	99.99'	54.84'	28.13	(31°25'00" R5)	(100.00' R5)	(54.82' R5)	(28.12' R5)
C11	30°19'57"	178.73'	94.62'	48.45	(30°17'00" R5)	(178.82' R5)	(94.15' R5)	(48.39' R5)
C12	27°01'38"	230.36'	108.66'	55.36	(27°03'00" R5)	(230.36' R5)	(108.76' R5)	(55.41' R5)
C13	33°57'37"	222.16'	131.68'	67.84	(33°55'00" R5)	(222.18' R5)	(131.52' R5)	(67.75' R5)
C14	26°30'32"	349.70'	161.79'	82.37	(26°35'00" R5)	(349.73' R5)	(162.26' R5)	(82.62' R5)
C15	48°00'19"	122.99'	103.05'	54.76	(48°03'00" R5)	(123.00' R5)	(103.15' R5)	(54.83' R5)
C16	98°40'06"	133.53'	229.94'	155.43	(98°43'00" R5)	(133.54' R5)	(230.08' R5)	(155.57' R5)
C17	98°40'06"	133.53'	229.94'	155.43	(98°43'00" R5)	(133.54' R5)	(230.08' R5)	(155.57' R5)
C18	44°56'00"	102.65'	80.50'	42.45	(44°58'00" R5)	(102.66' R5)	(80.57' R5)	(42.49' R5)
C19	25°32'25"	159.98'	71.32'	36.26	(25°32'00" R5)	(160.00' R5)	(71.30' R5)	(36.25' R5)
C20	27°05'21"	169.98'	80.37'	40.95	(27°06'00" R5)	(170.00' R5)	(80.41' R5)	(40.97' R5)
C21	12°12'37"	699.93'	149.16'	74.86	(12°13'00" R5)	(700.00' R5)	(149.25' R5)	(74.91' R5)
C22	14°11'40"	476.29'	118.00'	59.30	(14°11'00" R5)	(276.34' R5)	(117.92' R5)	(59.26' R5)
C23	9°26'12"	399.96'	65.87'	33.01	(9°24'00" R5)	(600.00' R5)	(98.44' R5)	(49.33' R5)
C24	116°13'15"	34.63'	70.24'	55.65	(116°11'00" R5)	(34.63' R5)	(70.22' R5)	(55.62' R5)
C25	35°51'52"	89.99'	56.33'	29.12	(35°54'00" R5)	(90.00' R5)	(56.39' R5)	(29.16' R5)
C26	30°19'05"	107.54'	56.90'	29.14	(30°21'00" R5)	(107.55' R5)	(56.97' R5)	(29.17' R5)
C27	22°43'36"	179.98'	71.39'	36.17	(22°43'00" R5)	(180.00' R5)	(71.37' R5)	(36.16' R5)
C28	33°16'35"	103.88'	60.33'	31.04	(33°21'00" R5)	(103.89' R5)	(60.47' R5)	(31.12' R5)
C29	58°29'30"	89.99'	91.87'	50.39	(58°23'00" R5)	(90.00' R5)	(91.71' R5)	(50.28' R5)
C30	17°57'40"	208.48'	65.35'	32.95	(17°58'00" R5)	(208.50' R5)	(65.38' R5)	(32.97' R5)
C31	47°21'59"	114.99'	95.06'	50.44	(47°21'00" R5)	(115.00' R5)	(95.04' R5)	(50.42' R5)
C32	28°33'37"	199.98'	99.68'	50.90	(28°33'00" R5)	(200.00' R5)	(99.66' R5)	(50.89' R5)
C33	26°30'01"	299.97'	138.74'	70.63	(26°28'00" R5)	(300.00' R5)	(136.75' R5)	(69.58' R5)
C34	7°37'45"	1149.91'	153.12'	76.67	(7°39'54" R7)	(1150.03' R7)	(153.85' R7)	(77.04' R7)

LINE TABLE

LINE #	BEARING	MEASURED DISTANCE	RECORD DISTANCE
L1	N76°10'46"W	125.56'	(125.70' R1)
L2	N48°10'17"W	90.16'	(90.31' R2)
L3	N46°38'40"E	85.09'	(85.11' R2)
L4	N29°45'09"W	113.75'	(M&R R3)
L5	N03°29'15"W	69.50'	(M&R R3)
L6	N04°35'10"W	103.80'	(103.83' R3)
L7	N37°59'41"W	137.17'	(137.19' R4)
L8	N09°58'29"E	116.91'	(116.90' R4)
L9	N39°54'32"W	122.64'	(122.69' R4)
L10	N88°42'09"W	102.95'	(103.02' R4)
L11	N18°12'07"W	118.77'	(118.78' R4)
L12	N63°26'50"E	84.74'	(84.78' R5)
L13	N69°00'11"E	65.32'	(65.33' R5)
L14	N79°40'38"E	81.40'	(M&R R5)
L15	N23°58'46"W	83.40'	(83.39' R5)

0' 20' 40' 80' 120'
SCALE: 1" = 40'

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

MARK	DATE	ITEM
REVISIONS		

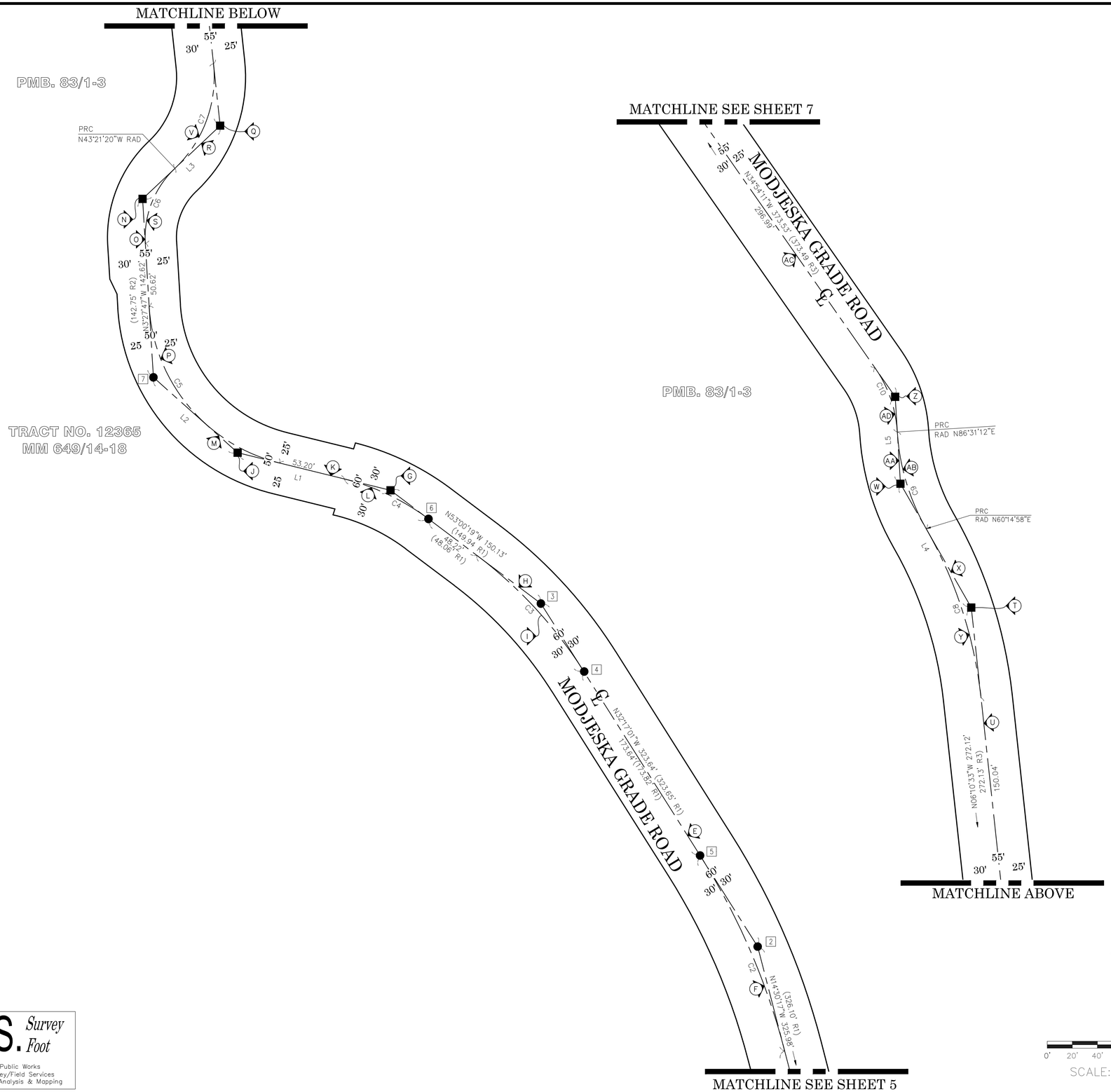
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP
PROJECT LIMITS: FROM INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD TO 100' SOUTH OF INTERSECTION OF MARKUSON RD & MODJESKA CANYON RD.

DATE OF SURVEY:OCTOBER, 2019		BY:J. JOHNS & PARTY
MAPPING		BY:R. BELTRAN
OFFICE CHECK		BY:M. MORENO, PLS
FIELD CHECK		BY:J. JOHNS & PARTY
SCALE:1"=40'	W.O. #EQ17009P	FILE #1920PW-IN0018
FILE:MODJESKA GRADE ROAD_BOUNDARY_RB.DWG		

SHEET NO. 4 of 23



CURVE TABLE								
CURVE #	DELTA	RADIUS	LENGTH	TANGENT	RECORD DELTA	RECORD RADUIS	RECORD LENGTH	RECORD TANGENT
C1	39°37'28"	199.98'	138.30'	72.05	(39°37'28" R1)	(200.00' R1)	(138.32' R1)	(M&R R1)
C2	17°46'44"	549.94'	170.65'	86.02	(17°45'20" R1)	(550.00' R1)	(170.44' R1)	(85.91' R1)
C3	20°43'18"	349.96'	126.57'	63.98	(20°41'52" R1)	(350.00' R1)	(126.44' R1)	(63.92' R1)
C4	23°10'26"	184.79'	74.74'	37.89	(23°12'59" R1)	(184.81' R1)	(74.89' R1)	(37.96' R1)
C5	72°42'58"	137.08'	173.97'	100.91	(72°38'00" R5)	(137.08' R5)	(173.77' R5)	(100.76' R5)
C6	50°06'27"	75.79'	66.28'	35.43	(50°07'00" R5)	(75.80' R5)	(66.23' R5)	(35.44' R5)
C7	52°49'13"	99.99'	92.18'	49.66	(52°48'00" R5)	(100.00' R5)	(92.15' R5)	(49.64' R5)
C8	23°34'29"	347.03'	142.79'	72.42	(23°34'00" R5)	(347.06' R5)	(142.75' R5)	(72.40' R5)
C9	26°16'14"	177.21'	81.25'	41.35	(26°16'00" R5)	(177.23' R5)	(81.25' R5)	(M&R R5)
C10	31°25'23"	99.99'	54.84'	28.13	(31°25'00" R5)	(100.00' R5)	(54.82' R5)	(28.12' R5)
C11	30°19'57"	178.73'	94.62'	48.45	(30°17'00" R5)	(178.82' R5)	(94.15' R5)	(48.39' R5)
C12	27°01'38"	230.36'	108.66'	55.36	(27°03'00" R5)	(230.36' R5)	(108.76' R5)	(55.41' R5)
C13	33°57'37"	222.16'	131.68'	67.84	(33°55'00" R5)	(222.18' R5)	(131.52' R5)	(67.75' R5)
C14	26°30'32"	349.70'	161.79'	82.37	(26°35'00" R5)	(349.73' R5)	(162.26' R5)	(82.62' R5)
C15	48°00'19"	122.99'	103.05'	54.76	(48°03'00" R5)	(123.00' R5)	(103.15' R5)	(54.83' R5)
C16	98°40'06"	133.53'	229.94'	155.43	(98°43'00" R5)	(133.54' R5)	(230.08' R5)	(155.57' R5)
C17	98°40'06"	133.53'	229.94'	155.43	(98°43'00" R5)	(133.54' R5)	(230.08' R5)	(155.57' R5)
C18	44°56'00"	102.65'	80.50'	42.45	(44°58'00" R5)	(102.66' R5)	(80.57' R5)	(42.49' R5)
C19	25°32'25"	159.98'	71.32'	36.26	(25°32'00" R5)	(160.00' R5)	(71.30' R5)	(36.25' R5)
C20	27°05'21"	169.98'	80.37'	40.95	(27°06'00" R5)	(170.00' R5)	(80.41' R5)	(40.97' R5)
C21	12°12'37"	699.93'	149.16'	74.86	(12°13'00" R5)	(700.00' R5)	(149.25' R5)	(74.91' R5)
C22	14°11'40"	476.29'	118.00'	59.30	(14°11'00" R5)	(276.34' R5)	(117.92' R5)	(59.26' R5)
C23	9°26'12"	399.96'	65.87'	33.01	(9°24'00" R5)	(600.00' R5)	(98.44' R5)	(49.33' R5)
C24	116°13'15"	34.63'	70.24'	55.65	(116°11'00" R5)	(34.63' R5)	(70.22' R5)	(55.62' R5)
C25	35°51'52"	89.99'	56.33'	29.12	(35°54'00" R5)	(90.00' R5)	(56.39' R5)	(29.16' R5)
C26	30°19'05"	107.54'	56.90'	29.14	(30°21'00" R5)	(107.55' R5)	(56.97' R5)	(29.17' R5)
C27	22°43'36"	179.98'	71.39'	36.17	(22°43'00" R5)	(180.00' R5)	(71.37' R5)	(36.16' R5)
C28	33°16'35"	103.88'	60.33'	31.04	(33°21'00" R5)	(103.89' R5)	(60.47' R5)	(31.12' R5)
C29	58°29'30"	89.99'	91.87'	50.39	(58°23'00" R5)	(90.00' R5)	(91.71' R5)	(50.28' R5)
C30	17°57'40"	208.48'	65.35'	32.95	(17°58'00" R5)	(208.50' R5)	(65.38' R5)	(32.97' R5)
C31	47°21'59"	114.99'	95.06'	50.44	(47°21'00" R5)	(115.00' R5)	(95.04' R5)	(50.42' R5)
C32	28°33'37"	199.98'	99.68'	50.90	(28°33'00" R5)	(200.00' R5)	(99.66' R5)	(50.89' R5)
C33	26°30'01"	299.97'	138.74'	70.63	(26°28'00" R5)	(300.00' R5)	(136.75' R5)	(69.58' R5)
C34	7°37'45"	1149.91'	153.12'	76.67	(7°39'54" R7)	(1150.03' R7)	(153.85' R7)	(77.04' R7)

LINE TABLE			
LINE #	BEARING	MEASURED DISTANCE	RECORD DISTANCE
L1	N76°10'46"W	125.56'	(125.70' R1)
L2	N48°10'17"W	90.16'	(90.31' R2)
L3	N46°38'40"E	85.09'	(85.11' R2)
L4	N29°45'09"W	113.75'	(M&R R3)
L5	N03°29'15"W	69.50'	(M&R R3)
L6	N04°35'10"W	103.80'	(103.83' R3)
L7	N37°59'41"W	137.17'	(137.19' R4)
L8	N09°58'29"E	116.91'	(116.90' R4)
L9	N39°54'32"W	122.64'	(122.69' R4)
L10	N88°42'09"W	102.95'	(103.02' R4)
L11	N18°12'07"W	118.77'	(118.78' R4)
L12	N63°26'50"E	84.74'	(84.78' R5)
L13	N69°00'11"E	65.32'	(65.33' R5)
L14	N79°40'38"E	81.40'	(M&R R5)
L15	N23°58'46"W	83.40'	(83.39' R5)

NOTES

STREET R/W SHOWN ARE BASED ON STREET WIDTHS FROM RECORD DOCUMENTS AND MAPS.

REFERENCES

(R1) = PMB 153/15-16
(R2) = TRACT NO. 12365 MM 649/14-18
(R3) = PMB 83/1-3
(R4) = TRACT NO. 9652 MM 437/3-6
(R5) = CSTB 146/23-40
(R6) = MM 9/41-43
(R7) = TRACT NO. 11767 MM 628/35-36
(R8) = A/5-7,6&8/216-228

LEGEND

● FOUND MONUMENT AS NOTED
⊗ SEARCHED, FOUND NOTHING
■ SEARCHED, FOUND NOTHING ESTABLISHED BY LEAST SQUARE ADJUSTMENT UNLES OTHERWISE NOTED.
S.F.N. SEARCHED, FOUND NOTHING
R RECORD
M MEASURED

0' 20' 40' 80' 120'
SCALE: 1" = 40'

MARK	DATE	ITEM
REVISIONS		

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

MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

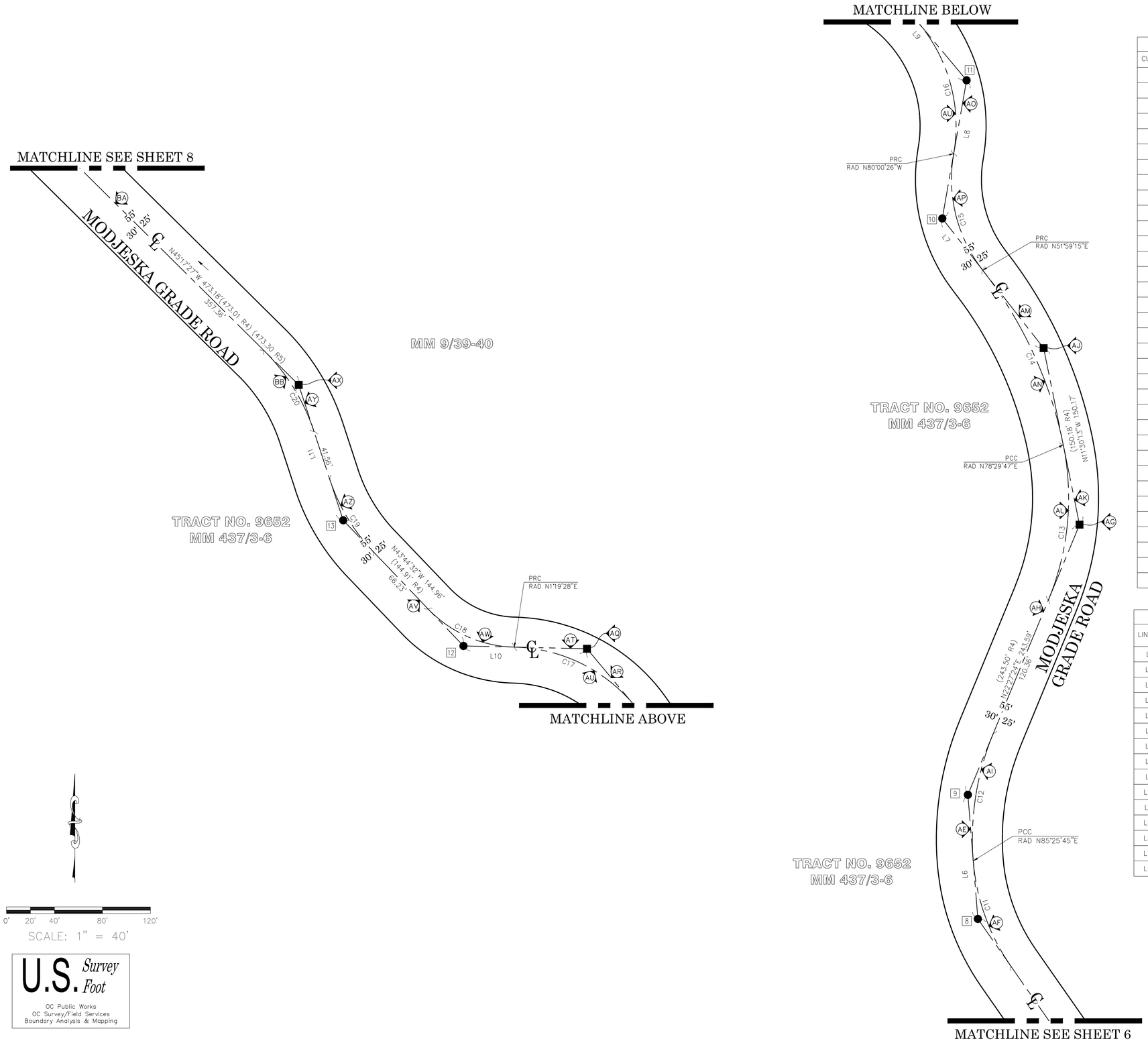
TOPOGRAPHIC MAP

PROJECT LIMITS: FROM INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD TO 100' SOUTH OF INTERSECTION OF MARKUSON RD & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY	SHEET NO.
MAPPING	BY: R. BELTRAN	5
OFFICE CHECK	BY: M. MORENO, PLS	of
FIELD CHECK	BY: J. JOHNS & PARTY	23
SCALE: 1"=40' W.O. #EQ17009P	FILE #1920PW-IN0018	
FILE: MODJESKA GRADE ROAD_BOUNDARY_RB.DWG		

U.S. Survey Foot

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



CURVE TABLE								
CURVE #	DELTA	RADIUS	LENGTH	TANGENT	RECORD DELTA	RECORD RADUIS	RECORD LENGTH	RECORD TANGENT
C1	39°37'28"	199.98'	138.30'	72.05	(39°37'28" R1)	(200.00' R1)	(138.32' R1)	(M&R R1)
C2	17°46'44"	549.94'	170.65'	86.02	(17°45'20" R1)	(550.00' R1)	(170.44' R1)	(85.91' R1)
C3	20°43'18"	349.96'	126.57'	63.98	(20°41'52" R1)	(350.00' R1)	(126.44' R1)	(63.92' R1)
C4	23°10'26"	184.79'	74.74'	37.89	(23°12'59" R1)	(184.81' R1)	(74.89' R1)	(37.96' R1)
C5	72°42'58"	137.08'	173.97'	100.91	(72°38'00" R5)	(137.08' R5)	(173.77' R5)	(100.76' R5)
C6	50°06'27"	75.79'	66.28'	35.43	(50°07'00" R5)	(75.80' R5)	(66.23' R5)	(35.44' R5)
C7	52°49'13"	99.99'	92.18'	49.66	(52°48'00" R5)	(100.00' R5)	(92.15' R5)	(49.64' R5)
C8	23°34'29"	347.03'	142.79'	72.42	(23°34'00" R5)	(347.06' R5)	(142.75' R5)	(72.40' R5)
C9	26°16'14"	177.21'	81.25'	41.35	(26°16'00" R5)	(177.23' R5)	(81.25' R5)	(M&R R5)
C10	31°25'23"	99.99'	54.84'	28.13	(31°25'00" R5)	(100.00' R5)	(54.82' R5)	(28.12' R5)
C11	30°19'57"	178.73'	94.62'	48.45	(30°17'00" R5)	(178.82' R5)	(94.15' R5)	(48.39' R5)
C12	27°01'38"	230.36'	108.66'	55.36	(27°03'00" R5)	(230.36' R5)	(108.76' R5)	(55.41' R5)
C13	33°57'37"	222.16'	131.68'	67.84	(33°55'00" R5)	(222.18' R5)	(131.52' R5)	(67.75' R5)
C14	26°30'32"	349.70'	161.79'	82.37	(26°35'00" R5)	(349.73' R5)	(162.26' R5)	(82.62' R5)
C15	48°00'19"	122.99'	103.05'	54.76	(48°03'00" R5)	(123.00' R5)	(103.15' R5)	(54.83' R5)
C16	98°40'06"	133.53'	229.94'	155.43	(98°43'00" R5)	(133.54' R5)	(230.08' R5)	(155.57' R5)
C17	98°40'06"	133.53'	229.94'	155.43	(98°43'00" R5)	(133.54' R5)	(230.08' R5)	(155.57' R5)
C18	44°56'00"	102.65'	80.50'	42.45	(44°58'00" R5)	(102.66' R5)	(80.57' R5)	(42.49' R5)
C19	25°32'25"	159.98'	71.32'	36.26	(25°32'00" R5)	(160.00' R5)	(71.30' R5)	(36.25' R5)
C20	27°05'21"	169.98'	80.37'	40.95	(27°06'00" R5)	(170.00' R5)	(80.41' R5)	(40.97' R5)
C21	12°12'37"	699.93'	149.16'	74.86	(12°13'00" R5)	(700.00' R5)	(149.25' R5)	(74.91' R5)
C22	14°11'40"	476.29'	118.00'	59.30	(14°11'00" R5)	(276.34' R5)	(117.92' R5)	(59.26' R5)
C23	9°26'12"	399.96'	65.87'	33.01	(9°24'00" R5)	(600.00' R5)	(98.44' R5)	(49.33' R5)
C24	116°13'15"	34.63'	70.24'	55.65	(116°11'00" R5)	(34.63' R5)	(70.22' R5)	(55.62' R5)
C25	35°51'52"	89.99'	56.33'	29.12	(35°54'00" R5)	(90.00' R5)	(56.39' R5)	(29.16' R5)
C26	30°19'05"	107.54'	56.90'	29.14	(30°21'00" R5)	(107.55' R5)	(56.97' R5)	(29.17' R5)
C27	22°43'36"	179.98'	71.39'	36.17	(22°43'00" R5)	(180.00' R5)	(71.37' R5)	(36.16' R5)
C28	33°16'35"	103.88'	60.33'	31.04	(33°21'00" R5)	(103.89' R5)	(60.47' R5)	(31.12' R5)
C29	58°29'30"	89.99'	91.87'	50.39	(58°23'00" R5)	(90.00' R5)	(91.71' R5)	(50.28' R5)
C30	17°57'40"	208.48'	65.35'	32.95	(17°58'00" R5)	(208.50' R5)	(65.38' R5)	(32.97' R5)
C31	47°21'59"	114.99'	95.06'	50.44	(47°21'00" R5)	(115.00' R5)	(95.04' R5)	(50.42' R5)
C32	28°33'37"	199.98'	99.68'	50.90	(28°33'00" R5)	(200.00' R5)	(99.66' R5)	(50.89' R5)
C33	26°30'01"	299.97'	138.74'	70.63	(26°28'00" R5)	(300.00' R5)	(136.75' R5)	(69.58' R5)
C34	7°37'45"	1149.91'	153.12'	76.67	(7°39'54" R7)	(1150.03' R7)	(153.85' R7)	(77.04' R7)

LINE TABLE			
LINE #	BEARING	MEASURED DISTANCE	RECORD DISTANCE
L1	N76°10'46"W	125.56'	(125.70' R1)
L2	N48°10'17"W	90.16'	(90.31' R2)
L3	N46°38'40"E	85.09'	(85.11' R2)
L4	N29°45'09"W	113.75'	(M&R R3)
L5	N03°29'15"W	69.50'	(M&R R3)
L6	N04°35'10"W	103.80'	(103.83' R3)
L7	N37°59'41"W	137.17'	(137.19' R4)
L8	N09°58'29"E	116.91'	(116.90' R4)
L9	N39°54'32"W	122.64'	(122.69' R4)
L10	N88°42'09"W	102.95'	(103.02' R4)
L11	N18°12'07"W	118.77'	(118.78' R4)
L12	N63°26'50"E	84.74'	(84.78' R5)
L13	N69°00'11"E	65.32'	(65.33' R5)
L14	N79°40'38"E	81.40'	(M&R R5)
L15	N23°58'46"W	83.40'	(83.39' R5)

NOTES

STREET R/W SHOWN ARE BASED ON STREET WIDTHS FROM RECORD DOCUMENTS AND MAPS.

REFERENCES

(R1) = PMB 153/15-16
(R2) = TRACT NO. 12365 MM 649/14-18
(R3) = PMB 83/1-3
(R4) = TRACT NO. 9652 MM 437/3-6
(R5) = CSTB 146/23-40
(R6) = MM 9/41-43
(R7) = TRACT NO. 11767 MM 628/35-36
(R8) = A/5-7,6&8/216-228

LEGEND

● FOUND MONUMENT AS NOTED
⊗ SEARCHED, FOUND NOTHING
■ SEARCHED, FOUND NOTHING ESTABLISHED BY LEAST SQUARE ADJUSTMENT UNLES OTHERWISE NOTED.
S.F.N. SEARCHED, FOUND NOTHING
R RECORD
M MEASURED

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

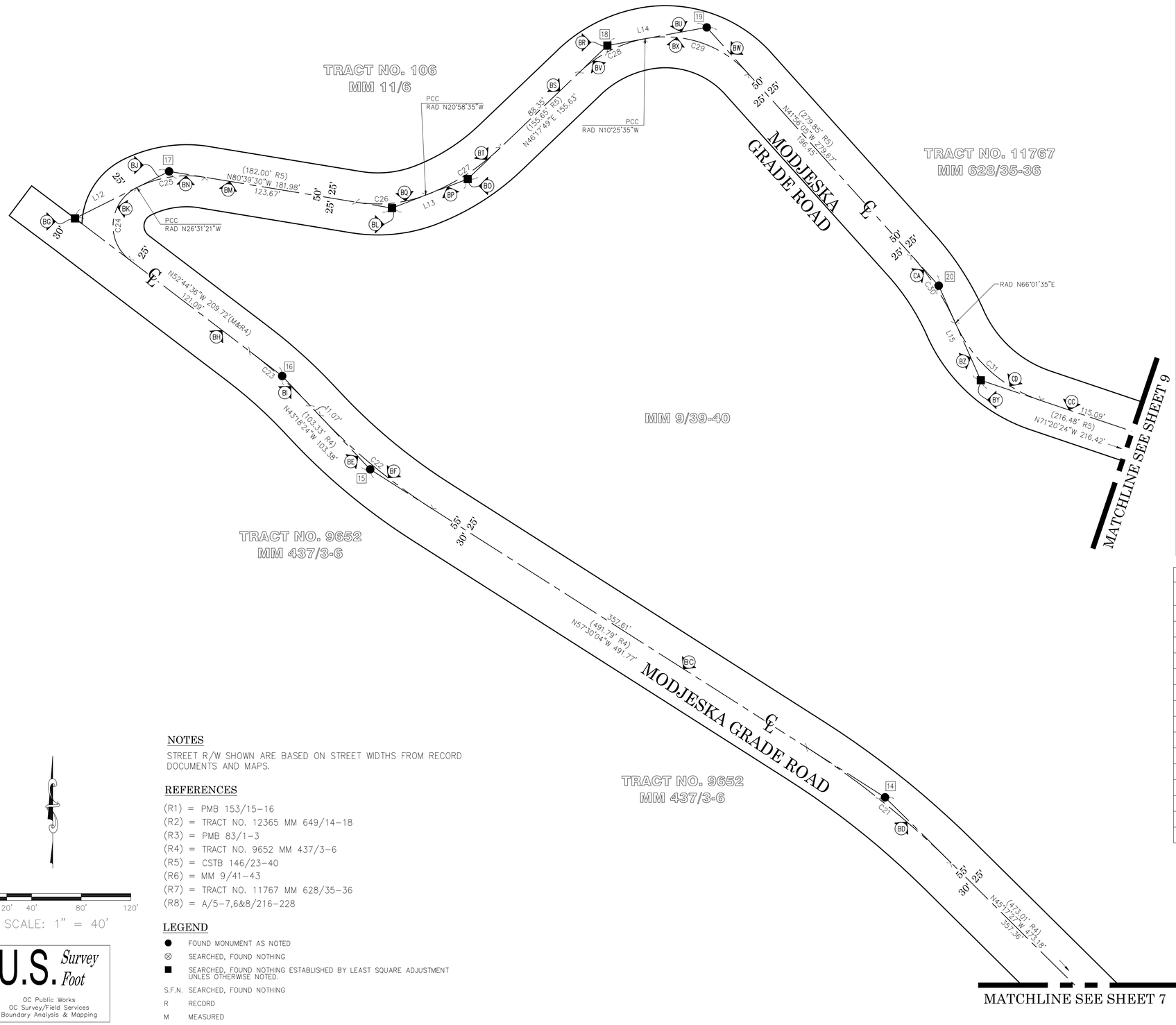
COUNTY OF ORANGE
OC PUBLIC WORKS/ENGINEERING SERVICES
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

PROJECT LIMITS: FROM INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD TO 100' SOUTH OF INTERSECTION OF MARKUSON RD & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY	SHEET NO.
MAPPING	BY: R. BELTRAN	6
OFFICE CHECK	BY: M. MORENO, PLS	of
FIELD CHECK	BY: J. JOHNS & PARTY	23
SCALE: 1"=40' W.O. #EQ17009P	FILE #1920PW-IN0018	
FILE: MODJESKA GRADE ROAD_BOUNDARY_RB.DWG		



CURVE TABLE								
CURVE #	DELTA	RADIUS	LENGTH	TANGENT	RECORD DELTA	RECORD RADUIS	RECORD LENGTH	RECORD TANGENT
C1	39°37'28"	199.98'	138.30'	72.05	(39°37'28" R1)	(200.00' R1)	(138.32' R1)	(M&R R1)
C2	17°46'44"	549.94'	170.65'	86.02	(17°45'20" R1)	(550.00' R1)	(170.44' R1)	(85.91' R1)
C3	20°43'18"	349.96'	126.57'	63.98	(20°41'52" R1)	(350.00' R1)	(126.44' R1)	(63.92' R1)
C4	23°10'26"	184.79'	74.74'	37.89	(23°12'59" R1)	(184.81' R1)	(74.89' R1)	(37.96' R1)
C5	72°42'58"	137.08'	173.97'	100.91	(72°38'00" R5)	(137.08' R5)	(173.77' R5)	(100.76' R5)
C6	50°06'27"	75.79'	66.28'	35.43	(50°07'00" R5)	(75.80' R5)	(66.23' R5)	(35.44' R5)
C7	52°49'13"	99.99'	92.18'	49.66	(52°48'00" R5)	(100.00' R5)	(92.15' R5)	(49.64' R5)
C8	23°34'29"	347.03'	142.79'	72.42	(23°34'00" R5)	(347.06' R5)	(142.75' R5)	(72.40' R5)
C9	26°16'14"	177.21'	81.25'	41.35	(26°16'00" R5)	(177.23' R5)	(81.25' R5)	(M&R R5)
C10	31°25'23"	99.99'	54.84'	28.13	(31°25'00" R5)	(100.00' R5)	(54.82' R5)	(28.12' R5)
C11	30°19'57"	178.73'	94.62'	48.45	(30°17'00" R5)	(178.82' R5)	(94.15' R5)	(48.39' R5)
C12	27°01'38"	230.36'	108.66'	55.36	(27°03'00" R5)	(230.36' R5)	(108.76' R5)	(55.41' R5)
C13	33°57'37"	222.16'	131.68'	67.84	(33°55'00" R5)	(222.18' R5)	(131.52' R5)	(67.75' R5)
C14	26°30'32"	349.70'	161.79'	82.37	(26°35'00" R5)	(349.73' R5)	(162.26' R5)	(82.62' R5)
C15	48°00'19"	122.99'	103.05'	54.76	(48°03'00" R5)	(123.00' R5)	(103.15' R5)	(54.83' R5)
C16	98°40'06"	133.53'	229.94'	155.43	(98°43'00" R5)	(133.54' R5)	(230.08' R5)	(155.57' R5)
C17	98°40'06"	133.53'	229.94'	155.43	(98°43'00" R5)	(133.54' R5)	(230.08' R5)	(155.57' R5)
C18	44°56'00"	102.65'	80.50'	42.45	(44°58'00" R5)	(102.66' R5)	(80.57' R5)	(42.49' R5)
C19	25°32'25"	159.98'	71.32'	36.26	(25°32'00" R5)	(160.00' R5)	(71.30' R5)	(36.25' R5)
C20	27°05'21"	169.98'	80.37'	40.95	(27°06'00" R5)	(170.00' R5)	(80.41' R5)	(40.97' R5)
C21	12°12'37"	699.93'	149.16'	74.86	(12°13'00" R5)	(700.00' R5)	(149.25' R5)	(74.91' R5)
C22	14°11'40"	476.29'	118.00'	59.30	(14°11'00" R5)	(276.34' R5)	(117.92' R5)	(59.26' R5)
C23	9°26'12"	399.96'	65.87'	33.01	(9°24'00" R5)	(600.00' R5)	(98.44' R5)	(49.33' R5)
C24	116°13'15"	34.63'	70.24'	55.65	(116°11'00" R5)	(34.63' R5)	(70.22' R5)	(55.62' R5)
C25	35°51'52"	89.99'	56.33'	29.12	(35°54'00" R5)	(90.00' R5)	(56.39' R5)	(29.16' R5)
C26	30°19'05"	107.54'	56.90'	29.14	(30°21'00" R5)	(107.55' R5)	(56.97' R5)	(29.17' R5)
C27	22°43'36"	179.98'	71.39'	36.17	(22°43'00" R5)	(180.00' R5)	(71.37' R5)	(36.16' R5)
C28	33°16'35"	103.88'	60.33'	31.04	(33°21'00" R5)	(103.89' R5)	(60.47' R5)	(31.12' R5)
C29	58°29'30"	89.99'	91.87'	50.39	(58°23'00" R5)	(90.00' R5)	(91.71' R5)	(50.28' R5)
C30	17°57'40"	208.48'	65.35'	32.95	(17°58'00" R5)	(208.50' R5)	(65.38' R5)	(32.97' R5)
C31	47°21'59"	114.99'	95.06'	50.44	(47°21'00" R5)	(115.00' R5)	(95.04' R5)	(50.42' R5)
C32	28°33'37"	199.98'	99.68'	50.90	(28°33'00" R5)	(200.00' R5)	(99.66' R5)	(50.89' R5)
C33	26°30'01"	299.97'	138.74'	70.63	(26°28'00" R5)	(300.00' R5)	(136.75' R5)	(69.58' R5)
C34	7°37'45"	1149.91'	153.12'	76.67	(7°39'54" R7)	(1150.03' R7)	(153.85' R7)	(77.04' R7)

LINE TABLE			
LINE #	BEARING	MEASURED DISTANCE	RECORD DISTANCE
L1	N76°10'46"W	125.56'	(125.70' R1)
L2	N48°10'17"W	90.16'	(90.31' R2)
L3	N46°38'40"E	85.09'	(85.11' R2)
L4	N29°45'09"W	113.75'	(M&R R3)
L5	N03°29'15"W	69.50'	(M&R R3)
L6	N04°35'10"W	103.80'	(103.83' R3)
L7	N37°59'41"W	137.17'	(137.19' R4)
L8	N09°58'29"E	116.91'	(116.90' R4)
L9	N39°54'32"W	122.64'	(122.69' R4)
L10	N88°42'09"W	102.95'	(103.02' R4)
L11	N18°12'07"W	118.77'	(118.78' R4)
L12	N63°26'50"E	84.74'	(84.78' R5)
L13	N69°00'11"E	65.32'	(65.33' R5)
L14	N79°40'38"E	81.40'	(M&R R5)
L15	N23°58'46"W	83.40'	(83.39' R5)

NOTES

STREET R/W SHOWN ARE BASED ON STREET WIDTHS FROM RECORD DOCUMENTS AND MAPS.

REFERENCES

(R1) = PMB 153/15-16
(R2) = TRACT NO. 12365 MM 649/14-18
(R3) = PMB 83/1-3
(R4) = TRACT NO. 9652 MM 437/3-6
(R5) = CSTB 146/23-40
(R6) = MM 9/41-43
(R7) = TRACT NO. 11767 MM 628/35-36
(R8) = A/5-7,6&8/216-228

LEGEND

● FOUND MONUMENT AS NOTED
⊗ SEARCHED, FOUND NOTHING
■ SEARCHED, FOUND NOTHING ESTABLISHED BY LEAST SQUARE ADJUSTMENT UNLES OTHERWISE NOTED.
S.F.N. SEARCHED, FOUND NOTHING
R RECORD
M MEASURED

0' 20' 40' 80' 120'
SCALE: 1" = 40'

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

MARK	DATE	ITEM
REVISIONS		

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

MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

PROJECT LIMITS: FROM INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD TO 100' SOUTH OF INTERSECTION OF MARKUSON RD & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019		BY: J. JOHNS & PARTY
MAPPING		BY: R. BELTRAN
OFFICE CHECK		BY: M. MORENO, PLS
FIELD CHECK		BY: J. JOHNS & PARTY
SCALE: 1"=40'	W.O. #EQ17009P	FILE #1920PW-IN0018
FILE: MODJESKA GRADE ROAD_BOUNDARY_RB.DWG		

SHEET NO. 7 of 23

NOTES

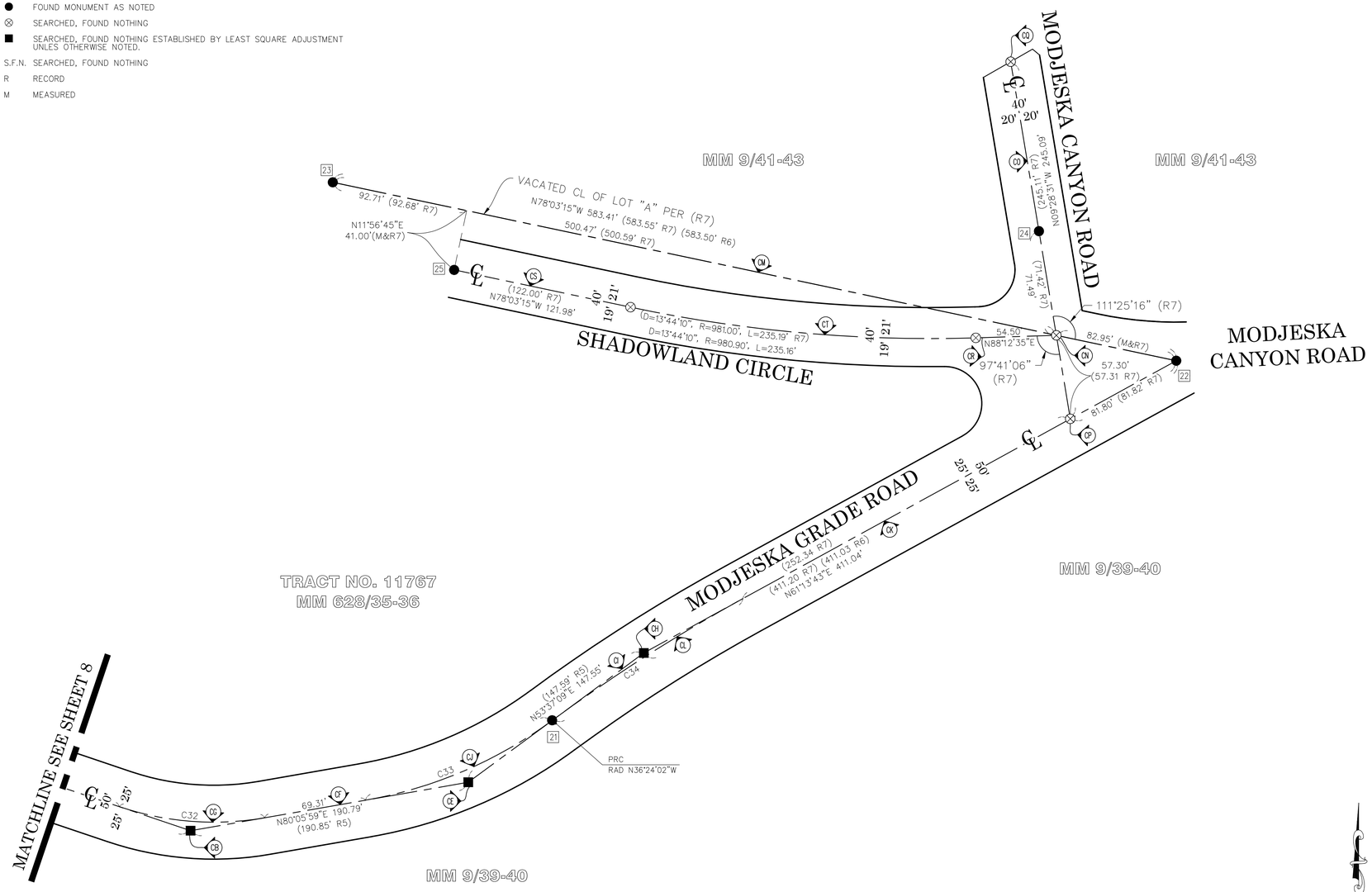
STREET R/W SHOWN ARE BASED ON STREET WIDTHS FROM RECORD DOCUMENTS AND MAPS.

REFERENCES

(R1) = PMB 153/15-16
(R2) = TRACT NO. 12365 MM 649/14-18
(R3) = PMB 83/1-3
(R4) = TRACT NO. 9652 MM 437/3-6
(R5) = CSTB 146/23-40
(R6) = MM 9/41-43
(R7) = TRACT NO. 11767 MM 628/35-36
(R8) = A/5-7,6&8/216-228

LEGEND

● FOUND MONUMENT AS NOTED
⊗ SEARCHED, FOUND NOTHING
■ SEARCHED, FOUND NOTHING ESTABLISHED BY LEAST SQUARE ADJUSTMENT UNLES OTHERWISE NOTED.
S.F.N. SEARCHED, FOUND NOTHING
R RECORD
M MEASURED



CURVE TABLE								
CURVE #	DELTA	RADIUS	LENGTH	TANGENT	RECORD DELTA	RECORD RADUIS	RECORD LENGTH	RECORD TANGENT
C1	39°37'28"	199.98'	138.30'	72.05	(39°37'28" R1)	(200.00' R1)	(138.32' R1)	(M&R R1)
C2	17°46'44"	549.94'	170.65'	86.02	(17°45'20" R1)	(550.00' R1)	(170.44' R1)	(85.91' R1)
C3	20°43'18"	349.96'	126.57'	63.98	(20°41'52" R1)	(350.00' R1)	(126.44' R1)	(63.92' R1)
C4	23°10'26"	184.79'	74.74'	37.89	(23°12'59" R1)	(184.81' R1)	(74.89' R1)	(37.96' R1)
C5	72°42'58"	137.08'	173.97'	100.91	(72°38'00" R5)	(137.08' R5)	(173.77' R5)	(100.76' R5)
C6	50°06'27"	75.79'	66.28'	35.43	(50°07'00" R5)	(75.80' R5)	(66.23' R5)	(35.44' R5)
C7	52°49'13"	99.99'	92.18'	49.66	(52°48'00" R5)	(100.00' R5)	(92.15' R5)	(49.64' R5)
C8	23°34'29"	347.03'	142.79'	72.42	(23°34'00" R5)	(347.06' R5)	(142.75' R5)	(72.40' R5)
C9	26°16'14"	177.21'	81.25'	41.35	(26°16'00" R5)	(177.23' R5)	(81.25' R5)	(M&R R5)
C10	31°25'23"	99.99'	54.84'	28.13	(31°25'00" R5)	(100.00' R5)	(54.82' R5)	(28.12' R5)
C11	30°19'57"	178.73'	94.62'	48.45	(30°17'00" R5)	(178.82' R5)	(94.15' R5)	(48.39' R5)
C12	27°01'38"	230.36'	108.66'	55.36	(27°03'00" R5)	(230.36' R5)	(108.76' R5)	(55.41' R5)
C13	33°57'37"	222.16'	131.68'	67.84	(33°55'00" R5)	(222.18' R5)	(131.52' R5)	(67.75' R5)
C14	26°30'32"	349.70'	161.79'	82.37	(26°35'00" R5)	(349.73' R5)	(162.26' R5)	(82.62' R5)
C15	48°00'19"	122.99'	103.05'	54.76	(48°03'00" R5)	(123.00' R5)	(103.15' R5)	(54.83' R5)
C16	98°40'06"	133.53'	229.94'	155.43	(98°43'00" R5)	(133.54' R5)	(230.08' R5)	(155.57' R5)
C17	98°40'06"	133.53'	229.94'	155.43	(98°43'00" R5)	(133.54' R5)	(230.08' R5)	(155.57' R5)
C18	44°56'00"	102.65'	80.50'	42.45	(44°58'00" R5)	(102.66' R5)	(80.57' R5)	(42.49' R5)
C19	25°32'25"	159.98'	71.32'	36.26	(25°32'00" R5)	(160.00' R5)	(71.30' R5)	(36.25' R5)
C20	27°05'21"	169.98'	80.37'	40.95	(27°06'00" R5)	(170.00' R5)	(80.41' R5)	(40.97' R5)
C21	12°12'37"	699.93'	149.16'	74.86	(12°13'00" R5)	(700.00' R5)	(149.25' R5)	(74.91' R5)
C22	14°11'40"	476.29'	118.00'	59.30	(14°11'00" R5)	(276.34' R5)	(117.92' R5)	(59.26' R5)
C23	9°26'12"	399.96'	65.87'	33.01	(9°24'00" R5)	(600.00' R5)	(98.44' R5)	(49.33' R5)
C24	116°13'15"	34.63'	70.24'	55.65	(116°11'00" R5)	(34.63' R5)	(70.22' R5)	(55.62' R5)
C25	35°51'52"	89.99'	56.33'	29.12	(35°54'00" R5)	(90.00' R5)	(56.39' R5)	(29.16' R5)
C26	30°19'05"	107.54'	56.90'	29.14	(30°21'00" R5)	(107.55' R5)	(56.97' R5)	(29.17' R5)
C27	22°43'36"	179.98'	71.39'	36.17	(22°43'00" R5)	(180.00' R5)	(71.37' R5)	(36.16' R5)
C28	33°16'35"	103.88'	60.33'	31.04	(33°21'00" R5)	(103.89' R5)	(60.47' R5)	(31.12' R5)
C29	58°29'30"	89.99'	91.87'	50.39	(58°23'00" R5)	(90.00' R5)	(91.71' R5)	(50.28' R5)
C30	17°57'40"	208.48'	65.35'	32.95	(17°58'00" R5)	(208.50' R5)	(65.38' R5)	(32.97' R5)
C31	47°21'59"	114.99'	95.06'	50.44	(47°21'00" R5)	(115.00' R5)	(95.04' R5)	(50.42' R5)
C32	28°33'37"	199.98'	99.68'	50.90	(28°33'00" R5)	(200.00' R5)	(99.66' R5)	(50.89' R5)
C33	26°30'01"	299.97'	138.74'	70.63	(26°28'00" R5)	(300.00' R5)	(136.75' R5)	(69.58' R5)
C34	7°37'45"	1149.91'	153.12'	76.67	(7°39'54" R7)	(1150.03' R7)	(153.85' R7)	(77.04' R7)

LINE TABLE			
LINE #	BEARING	MEASURED DISTANCE	RECORD DISTANCE
L1	N76°10'46"W	125.56'	(125.70' R1)
L2	N48°10'17"W	90.16'	(90.31' R2)
L3	N46°38'40"E	85.09'	(85.11' R2)
L4	N29°45'09"W	113.75'	(M&R R3)
L5	N03°29'15"W	69.50'	(M&R R3)
L6	N04°35'10"W	103.80'	(103.83' R3)
L7	N37°59'41"W	137.17'	(137.19' R4)
L8	N09°58'29"E	116.91'	(116.90' R4)
L9	N39°54'32"W	122.64'	(122.69' R4)
L10	N88°42'09"W	102.95'	(103.02' R4)
L11	N18°12'07"W	118.77'	(118.78' R4)
L12	N63°26'50"E	84.74'	(84.78' R5)
L13	N69°00'11"E	65.32'	(65.33' R5)
L14	N79°40'38"E	81.40'	(M&R R5)
L15	N23°58'46"W	83.40'	(83.39' R5)

0' 20' 40' 80' 120'
SCALE: 1" = 40'

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

MARK	DATE	ITEM
REVISIONS		

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

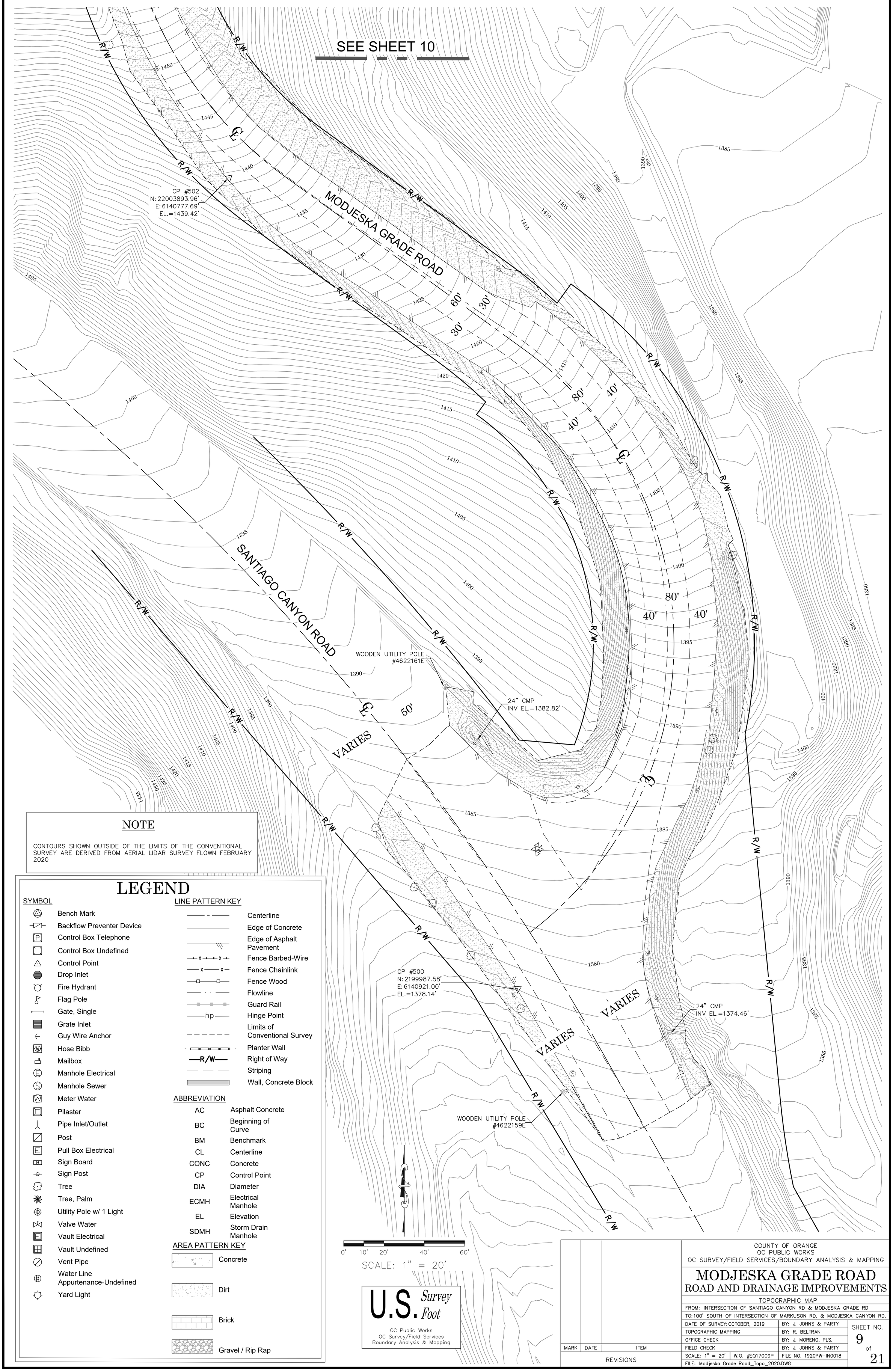
MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

PROJECT LIMITS: FROM INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD TO 100' SOUTH OF INTERSECTION OF MARKUSON RD & MODJESKA CANYON RD.

DATE OF SURVEY:OCTOBER, 2019		BY:J. JOHNS & PARTY
MAPPING		BY:R. BELTRAN
OFFICE CHECK		BY:M. MORENO, PLS
FIELD CHECK		BY:J. JOHNS & PARTY
SCALE:1"=40'	W.O. #EQ17009P	FILE #1920PW-IN0018
FILE:MODJESKA GRADE ROAD_BOUNDARY_RB.DWG		

SHEET NO. 8 of 23



NOTE

CONTOURS SHOWN OUTSIDE OF THE LIMITS OF THE CONVENTIONAL SURVEY ARE DERIVED FROM AERIAL LIDAR SURVEY FLOWN FEBRUARY 2020

LEGEND

SYMBOL

- Bench Mark
- Backflow Preventer Device
- Control Box Telephone
- Control Box Undefined
- Control Point
- Drop Inlet
- Fire Hydrant
- Flag Pole
- Gate, Single
- Grate Inlet
- Guy Wire Anchor
- Hose Bibb
- Mailbox
- Manhole Electrical
- Manhole Sewer
- Meter Water
- Pilaster
- Pipe Inlet/Outlet
- Post
- Pull Box Electrical
- Sign Board
- Sign Post
- Tree
- Tree, Palm
- Utility Pole w/ 1 Light
- Valve Water
- Vault Electrical
- Vault Undefined
- Vent Pipe
- Water Line Appurtenance-Undefined
- Yard Light

LINE PATTERN KEY

- Centerline
- Edge of Concrete
- Edge of Asphalt Pavement
- Fence Barbed-Wire
- Fence Chainlink
- Fence Wood
- Flowline
- Guard Rail
- Hinge Point
- Limits of Conventional Survey
- Planter Wall
- Right of Way
- Striping
- Wall, Concrete Block

ABBREVIATION

AC	Asphalt Concrete
BC	Beginning of Curve
BM	Benchmark
CL	Centerline
CONC	Concrete
CP	Control Point
DIA	Diameter
ECMH	Electrical Manhole
EL	Elevation
SDMH	Storm Drain Manhole

AREA PATTERN KEY

- Concrete
- Dirt
- Brick
- Gravel / Rip Rap

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

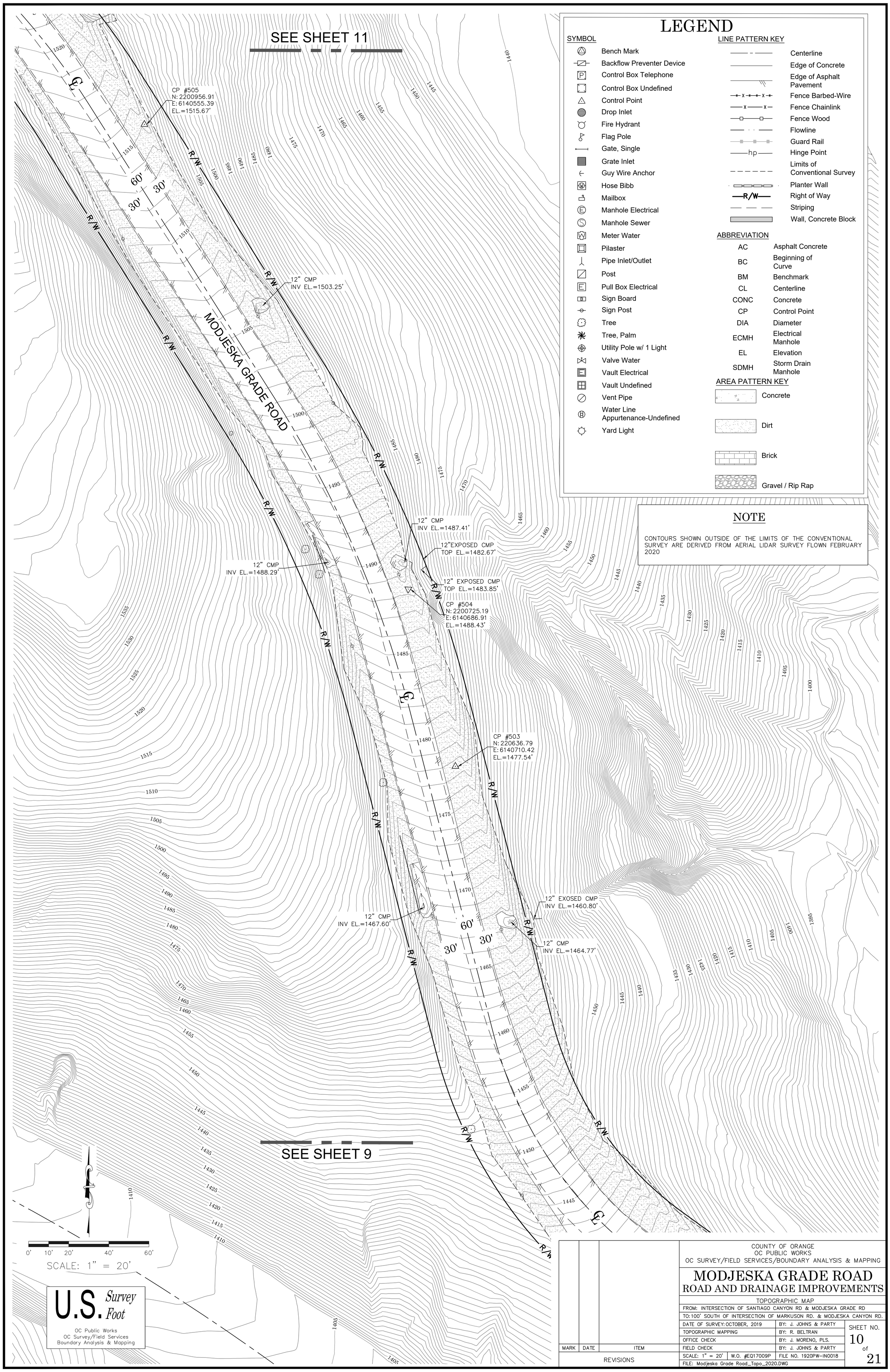
COUNTY OF ORANGE
OC PUBLIC WORKS
OC SURVEY/FIELD SERVICES/BOUNDARY ANALYSIS & MAPPING

MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

FROM: INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD
TO: 100' SOUTH OF INTERSECTION OF MARKUSON RD. & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY	SHEET NO.
TOPOGRAPHIC MAPPING	BY: R. BELTRAN	9
OFFICE CHECK	BY: J. MORENO, PLS.	of
FIELD CHECK	BY: J. JOHNS & PARTY	21
SCALE: 1" = 20' W.O. #EQ17009P	FILE NO. 1920PW-IN0018	
FILE: Modjeska Grade Road_Topo_2020.DWG		



LEGEND

SYMBOL

- Bench Mark
- Backflow Preventer Device
- Control Box Telephone
- Control Box Undefined
- Control Point
- Drop Inlet
- Fire Hydrant
- Flag Pole
- Gate, Single
- Grate Inlet
- Guy Wire Anchor
- Hose Bibb
- Mailbox
- Manhole Electrical
- Manhole Sewer
- Meter Water
- Pilaster
- Pipe Inlet/Outlet
- Post
- Pull Box Electrical
- Sign Board
- Sign Post
- Tree
- Tree, Palm
- Utility Pole w/ 1 Light
- Valve Water
- Vault Electrical
- Vault Undefined
- Vent Pipe
- Water Line Appurtenance-Undefined
- Yard Light

LINE PATTERN KEY

- Centerline
- Edge of Concrete
- Edge of Asphalt Pavement
- Fence Barbed-Wire
- Fence Chainlink
- Fence Wood
- Flowline
- Guard Rail
- Hinge Point (hp)
- Limits of Conventional Survey
- Planter Wall
- Right of Way (R/W)
- Striping
- Wall, Concrete Block

ABBREVIATION

AC	Asphalt Concrete
BC	Beginning of Curve
BM	Benchmark
CL	Centerline
CONC	Concrete
CP	Control Point
DIA	Diameter
ECMH	Electrical Manhole
EL	Elevation
SDMH	Storm Drain Manhole

AREA PATTERN KEY

- Concrete
- Dirt
- Brick
- Gravel / Rip Rap

NOTE

CONTOURS SHOWN OUTSIDE OF THE LIMITS OF THE CONVENTIONAL SURVEY ARE DERIVED FROM AERIAL LIDAR SURVEY FLOWN FEBRUARY 2020

MARK	DATE	ITEM
REVISIONS		

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

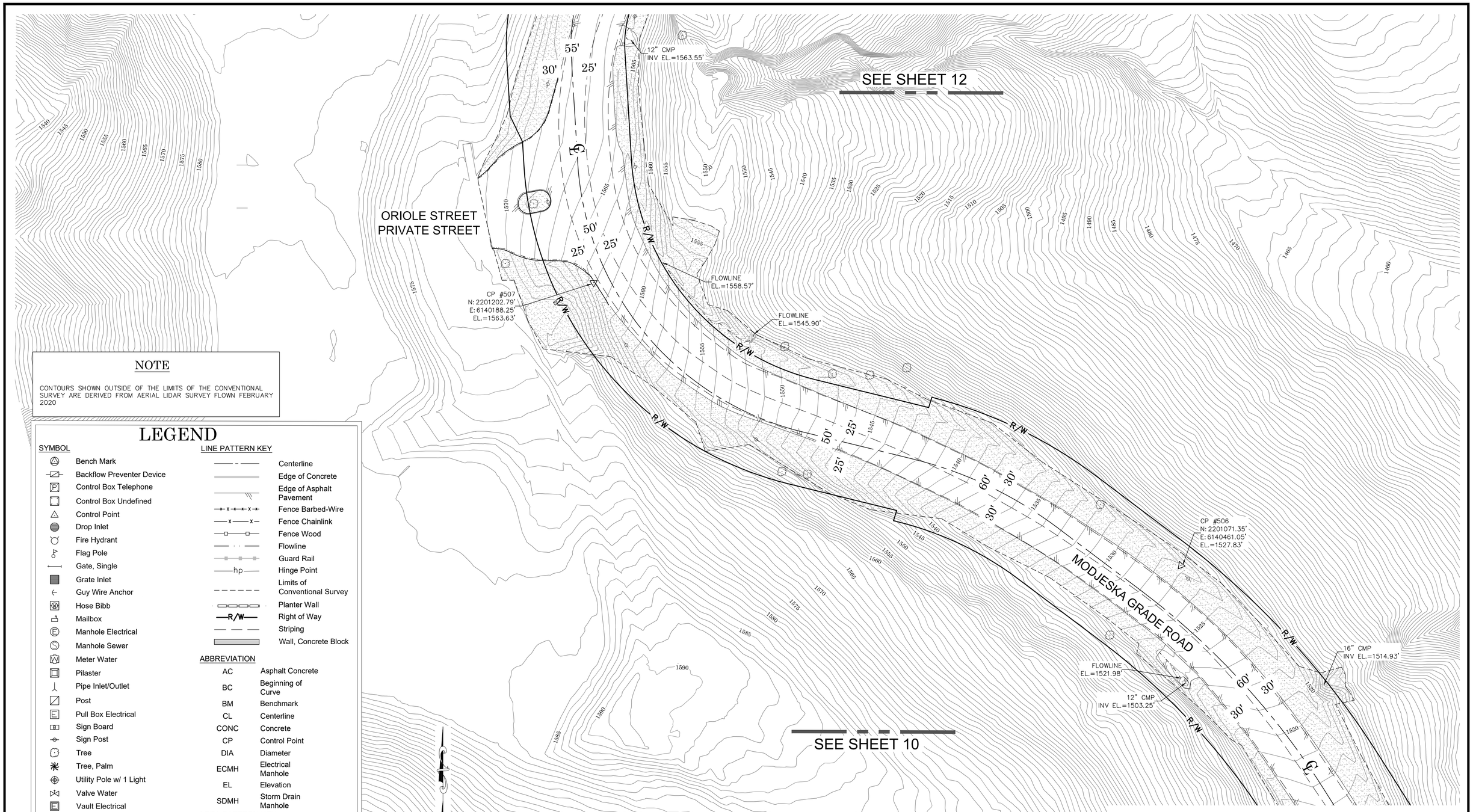
MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

FROM: INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD

TO: 100' SOUTH OF INTERSECTION OF MARKUSON RD. & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY
TOPOGRAPHIC MAPPING	BY: R. BELTRAN
OFFICE CHECK	BY: J. MORENO, PLS.
FIELD CHECK	BY: J. JOHNS & PARTY
SCALE: 1" = 20' W.O. #EQ17009P	FILE NO. 1920PW-IN0018
FILE: Modjeska Grade Road_Topo_2020.DWG	



NOTE

CONTOURS SHOWN OUTSIDE OF THE LIMITS OF THE CONVENTIONAL SURVEY ARE DERIVED FROM AERIAL LIDAR SURVEY FLOWN FEBRUARY 2020

LEGEND

SYMBOL

- Bench Mark
- Backflow Preventer Device
- Control Box Telephone
- Control Box Undefined
- Control Point
- Drop Inlet
- Fire Hydrant
- Flag Pole
- Gate, Single
- Grate Inlet
- Guy Wire Anchor
- Hose Bibb
- Mailbox
- Manhole Electrical
- Manhole Sewer
- Meter Water
- Pilaster
- Pipe Inlet/Outlet
- Post
- Pull Box Electrical
- Sign Board
- Sign Post
- Tree
- Tree, Palm
- Utility Pole w/ 1 Light
- Valve Water
- Vault Electrical
- Vault Undefined
- Vent Pipe
- Water Line Appurtenance-Undefined
- Yard Light

LINE PATTERN KEY

- Centerline
- Edge of Concrete
- Edge of Asphalt Pavement
- Fence Barbed-Wire
- Fence Chainlink
- Fence Wood
- Flowline
- Guard Rail
- Hinge Point (hp)
- Limits of Conventional Survey
- Planter Wall
- Right of Way (R/W)
- Striping
- Wall, Concrete Block

ABBREVIATION

AC	Asphalt Concrete
BC	Beginning of Curve
BM	Benchmark
CL	Centerline
CONC	Concrete
CP	Control Point
DIA	Diameter
ECMH	Electrical Manhole
EL	Elevation
SDMH	Storm Drain Manhole

AREA PATTERN KEY

- Concrete
- Dirt
- Brick
- Gravel / Rip Rap

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

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

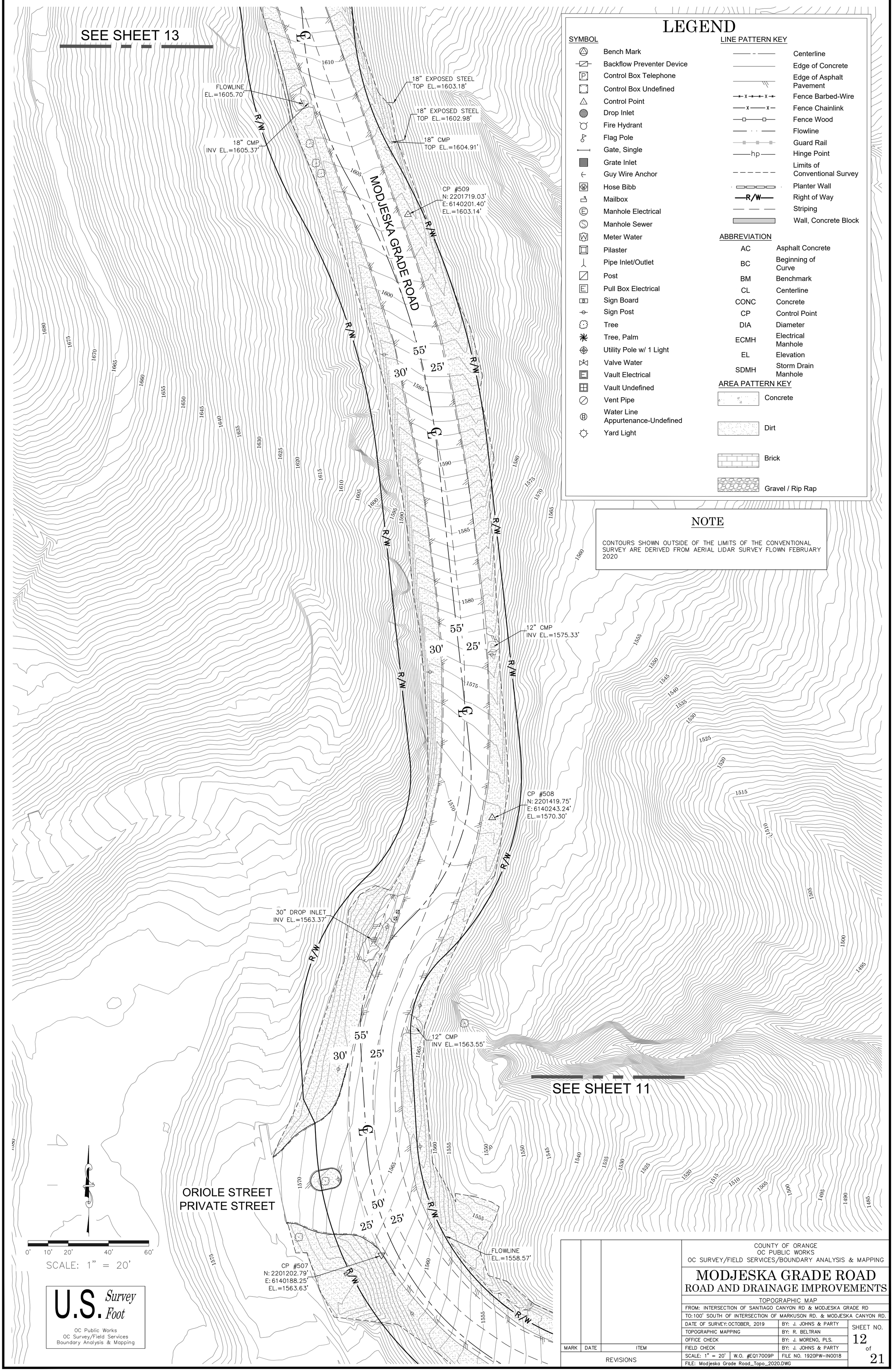
MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

FROM: INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD
TO: 100' SOUTH OF INTERSECTION OF MARKUSON RD. & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY
TOPOGRAPHIC MAPPING	BY: R. BELTRAN
OFFICE CHECK	BY: J. MORENO, PLS.
FIELD CHECK	BY: J. JOHNS & PARTY
SCALE: 1" = 20' W.O. #EQ170009P	FILE NO. 1920PW-IN0018
FILE: Modjeska Grade Road_Topo_2020.DWG	

SHEET NO. 11 of 21



LEGEND

SYMBOL

- Bench Mark
- Backflow Preventer Device
- Control Box Telephone
- Control Box Undefined
- Control Point
- Drop Inlet
- Fire Hydrant
- Flag Pole
- Gate, Single
- Grate Inlet
- Guy Wire Anchor
- Hose Bibb
- Mailbox
- Manhole Electrical
- Manhole Sewer
- Meter Water
- Pilaster
- Pipe Inlet/Outlet
- Post
- Pull Box Electrical
- Sign Board
- Sign Post
- Tree
- Tree, Palm
- Utility Pole w/ 1 Light
- Valve Water
- Vault Electrical
- Vault Undefined
- Vent Pipe
- Water Line Appurtenance-Undefined
- Yard Light

LINE PATTERN KEY

- Centerline
- Edge of Concrete
- Edge of Asphalt Pavement
- Fence Barbed-Wire
- Fence Chainlink
- Fence Wood
- Flowline
- Guard Rail
- Hinge Point
- Limits of Conventional Survey
- Planter Wall
- Right of Way
- Striping
- Wall, Concrete Block

ABBREVIATION

AC	Asphalt Concrete
BC	Beginning of Curve
BM	Benchmark
CL	Centerline
CONC	Concrete
CP	Control Point
DIA	Diameter
ECMH	Electrical Manhole
EL	Elevation
SDMH	Storm Drain Manhole

AREA PATTERN KEY

- Concrete
- Dirt
- Brick
- Gravel / Rip Rap

NOTE

CONTOURS SHOWN OUTSIDE OF THE LIMITS OF THE CONVENTIONAL SURVEY ARE DERIVED FROM AERIAL LIDAR SURVEY FLOWN FEBRUARY 2020

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

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

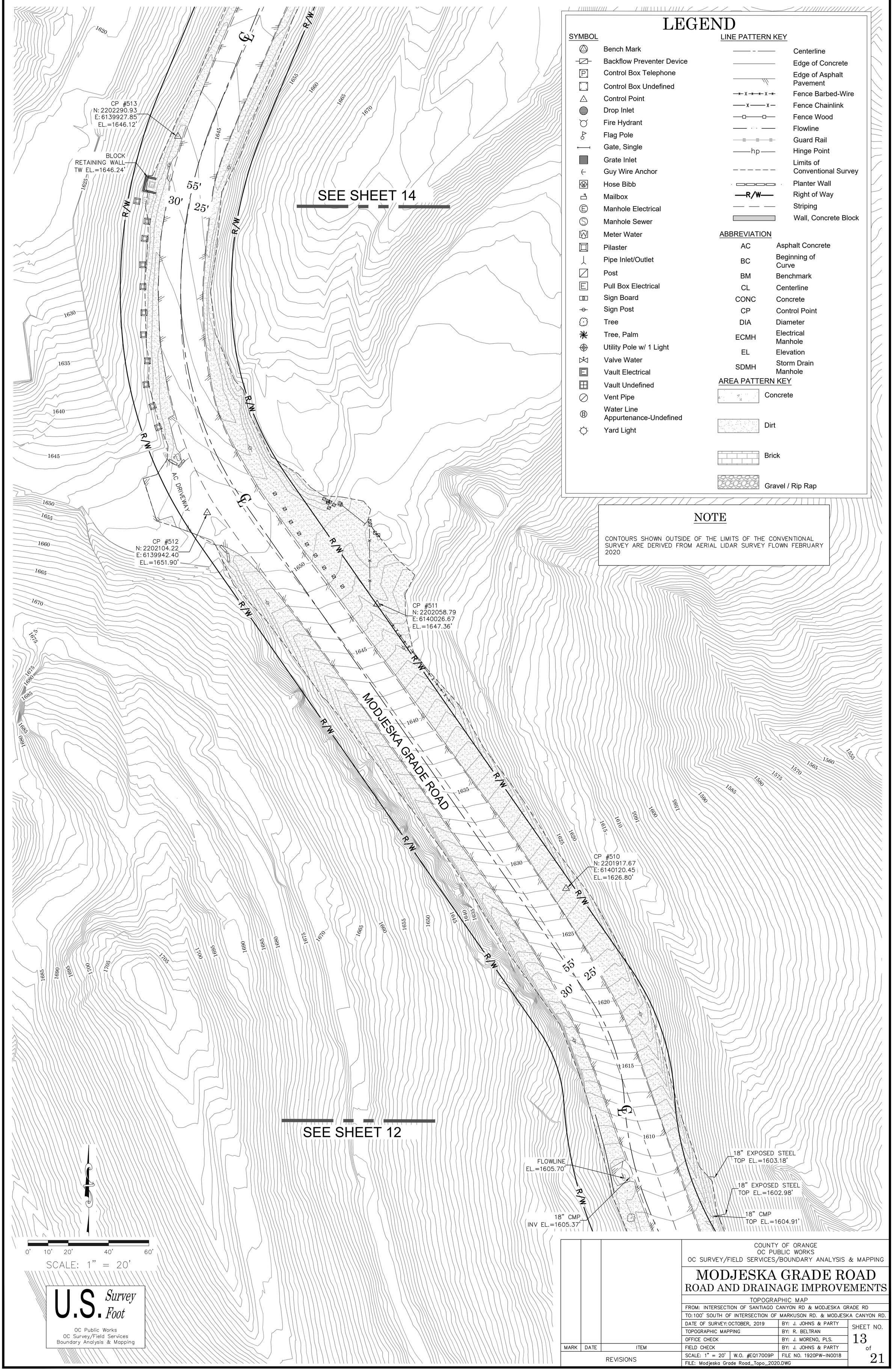
MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

FROM: INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD
TO: 100' SOUTH OF INTERSECTION OF MARKUSON RD. & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY
TOPOGRAPHIC MAPPING	BY: R. BELTRAN
OFFICE CHECK	BY: J. MORENO, PLS.
FIELD CHECK	BY: J. JOHNS & PARTY
SCALE: 1" = 20' W.O. #EQ17009P	FILE NO. 1920PW-IN0018
FILE: Modjeska Grade Road_Topo_2020.DWG	

SHEET NO. 12 of 21



LEGEND

SYMBOL

- Bench Mark
- Backflow Preventer Device
- Control Box Telephone
- Control Box Undefined
- Control Point
- Drop Inlet
- Fire Hydrant
- Flag Pole
- Gate, Single
- Grate Inlet
- Guy Wire Anchor
- Hose Bibb
- Mailbox
- Manhole Electrical
- Manhole Sewer
- Meter Water
- Pilaster
- Pipe Inlet/Outlet
- Post
- Pull Box Electrical
- Sign Board
- Sign Post
- Tree
- Tree, Palm
- Utility Pole w/ 1 Light
- Valve Water
- Vault Electrical
- Vault Undefined
- Vent Pipe
- Water Line Appurtenance-Undefined
- Yard Light

LINE PATTERN KEY

- Centerline
- Edge of Concrete
- Edge of Asphalt Pavement
- Fence Barbed-Wire
- Fence Chainlink
- Fence Wood
- Flowline
- Guard Rail
- Hinge Point (hp)
- Limits of Conventional Survey
- Planter Wall
- Right of Way (R/W)
- Striping
- Wall, Concrete Block

ABBREVIATION

AC	Asphalt Concrete
BC	Beginning of Curve
BM	Benchmark
CL	Centerline
CONC	Concrete
CP	Control Point
DIA	Diameter
ECMH	Electrical Manhole
EL	Elevation
SDMH	Storm Drain Manhole

AREA PATTERN KEY

- Concrete
- Dirt
- Brick
- Gravel / Rip Rap

NOTE

CONTOURS SHOWN OUTSIDE OF THE LIMITS OF THE CONVENTIONAL SURVEY ARE DERIVED FROM AERIAL LIDAR SURVEY FLOWN FEBRUARY 2020

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

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

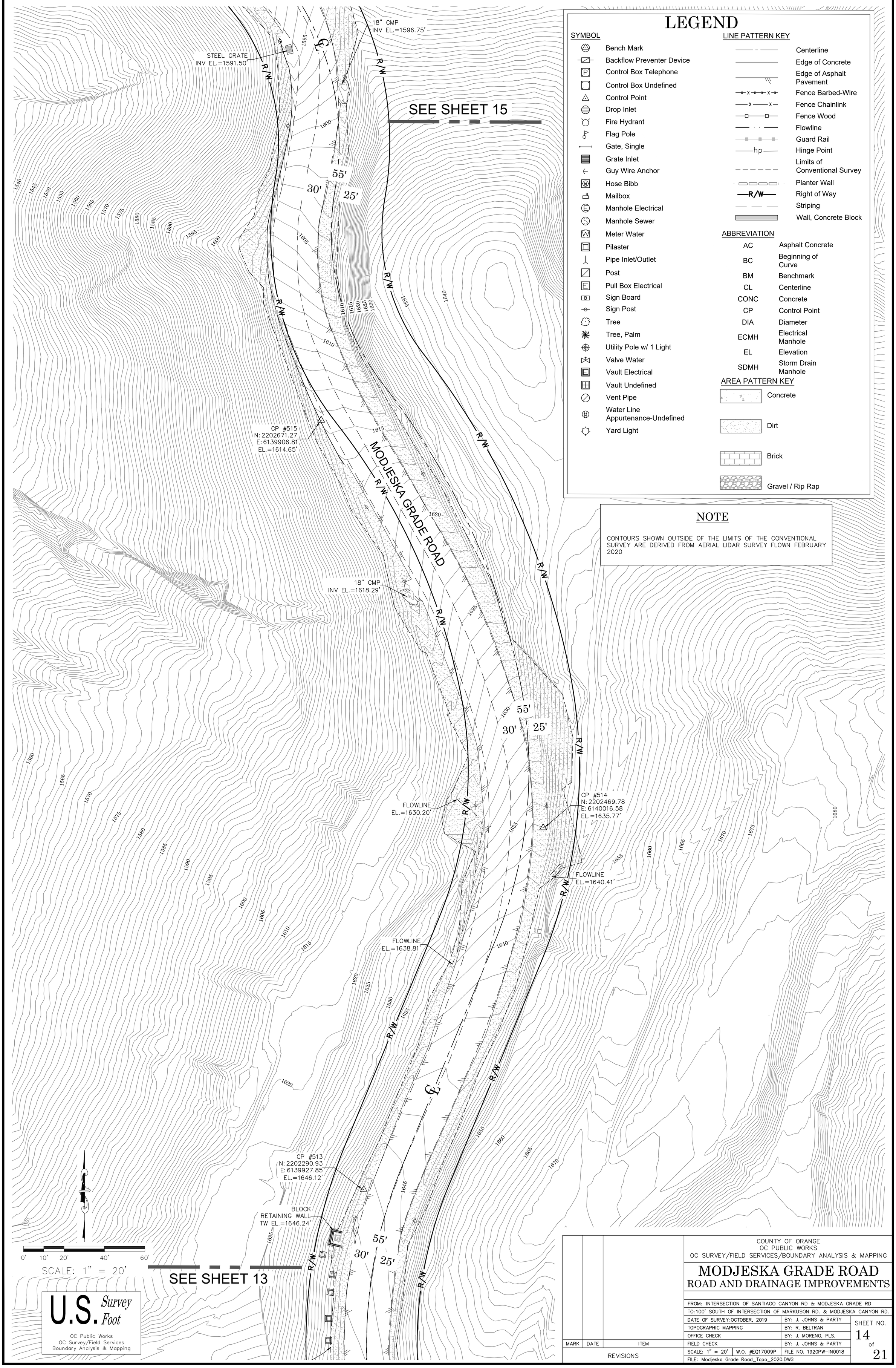
MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

FROM: INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD
TO: 100' SOUTH OF INTERSECTION OF MARKUSON RD. & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY
TOPOGRAPHIC MAPPING	BY: R. BELTRAN
OFFICE CHECK	BY: J. MORENO, PLS.
FIELD CHECK	BY: J. JOHNS & PARTY
SCALE: 1" = 20' W.O. #EQ17009P	FILE NO. 1920PW-IN0018
FILE: Modjeska Grade Road_Topo_2020.DWG	

SHEET NO. 13 of 21



LEGEND

SYMBOL

- Bench Mark
- Backflow Preventer Device
- Control Box Telephone
- Control Box Undefined
- Control Point
- Drop Inlet
- Fire Hydrant
- Flag Pole
- Gate, Single
- Grate Inlet
- Guy Wire Anchor
- Hose Bibb
- Mailbox
- Manhole Electrical
- Manhole Sewer
- Meter Water
- Pilaster
- Pipe Inlet/Outlet
- Post
- Pull Box Electrical
- Sign Board
- Sign Post
- Tree
- Tree, Palm
- Utility Pole w/ 1 Light
- Valve Water
- Vault Electrical
- Vault Undefined
- Vent Pipe
- Water Line Appurtenance-Undefined
- Yard Light

LINE PATTERN KEY

- Centerline
- Edge of Concrete
- Edge of Asphalt Pavement
- Fence Barbed-Wire
- Fence Chainlink
- Fence Wood
- Flowline
- Guard Rail
- Hinge Point (hp)
- Limits of Conventional Survey
- Planter Wall
- Right of Way (R/W)
- Striping
- Wall, Concrete Block

ABBREVIATION

AC	Asphalt Concrete
BC	Beginning of Curve
BM	Benchmark
CL	Centerline
CONC	Concrete
CP	Control Point
DIA	Diameter
ECMH	Electrical Manhole
EL	Elevation
SDMH	Storm Drain Manhole

AREA PATTERN KEY

- Concrete
- Dirt
- Brick
- Gravel / Rip Rap

NOTE

CONTOURS SHOWN OUTSIDE OF THE LIMITS OF THE CONVENTIONAL SURVEY ARE DERIVED FROM AERIAL LIDAR SURVEY FLOWN FEBRUARY 2020

MARK	DATE	ITEM
REVISIONS		

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

MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

FROM: INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD
TO: 100' SOUTH OF INTERSECTION OF MARKUSON RD. & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY	SHEET NO.
TOPOGRAPHIC MAPPING	BY: R. BELTRAN	14
OFFICE CHECK	BY: J. MORENO, PLS.	of
FIELD CHECK	BY: J. JOHNS & PARTY	21
SCALE: 1" = 20' W.O. #EQ17009P	FILE NO. 1920PW-IN0018	
FILE: Modjeska Grade Road_Topo_2020.DWG		

NOTE

CONTOURS SHOWN OUTSIDE OF THE LIMITS OF THE CONVENTIONAL SURVEY ARE DERIVED FROM AERIAL LIDAR SURVEY FLOWN FEBRUARY 2020

LEGEND

SYMBOL

- Bench Mark
- Backflow Preventer Device
- Control Box Telephone
- Control Box Undefined
- Control Point
- Drop Inlet
- Fire Hydrant
- Flag Pole
- Gate, Single
- Grate Inlet
- Guy Wire Anchor
- Hose Bibb
- Mailbox
- Manhole Electrical
- Manhole Sewer
- Meter Water
- Pilaster
- Pipe Inlet/Outlet
- Post
- Pull Box Electrical
- Sign Board
- Sign Post
- Tree
- Tree, Palm
- Utility Pole w/ 1 Light
- Valve Water
- Vault Electrical
- Vault Undefined
- Vent Pipe
- Water Line Appurtenance-Undefined
- Yard Light

LINE PATTERN KEY

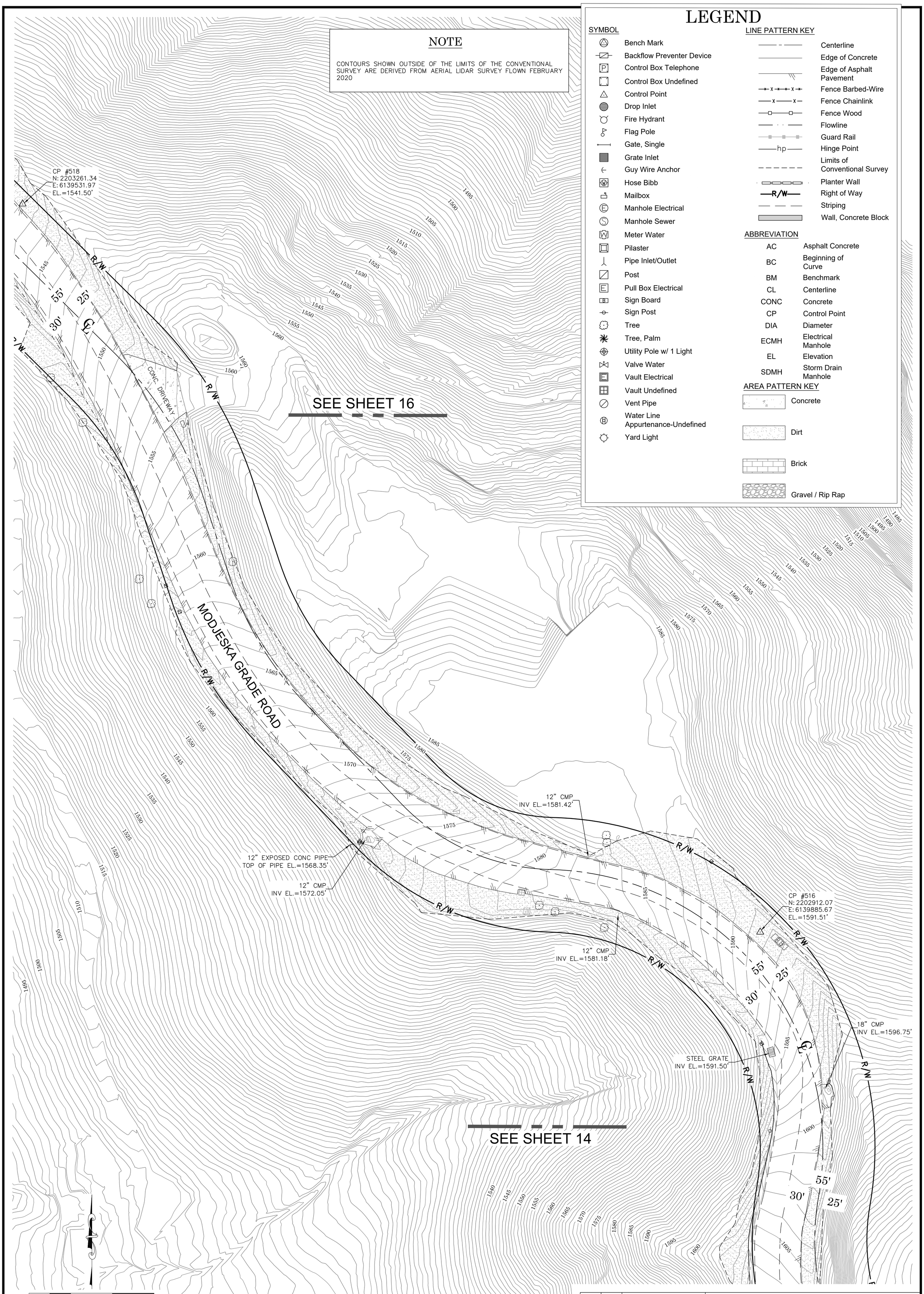
- Centerline
- Edge of Concrete
- Edge of Asphalt Pavement
- Fence Barbed-Wire
- Fence Chainlink
- Fence Wood
- Flowline
- Guard Rail
- Hinge Point
- Limits of Conventional Survey
- Planter Wall
- Right of Way
- Striping
- Wall, Concrete Block

ABBREVIATION

AC	Asphalt Concrete
BC	Beginning of Curve
BM	Benchmark
CL	Centerline
CONC	Concrete
CP	Control Point
DIA	Diameter
ECMH	Electrical Manhole
EL	Elevation
SDMH	Storm Drain Manhole

AREA PATTERN KEY

- Concrete
- Dirt
- Brick
- Gravel / Rip Rap



U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

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

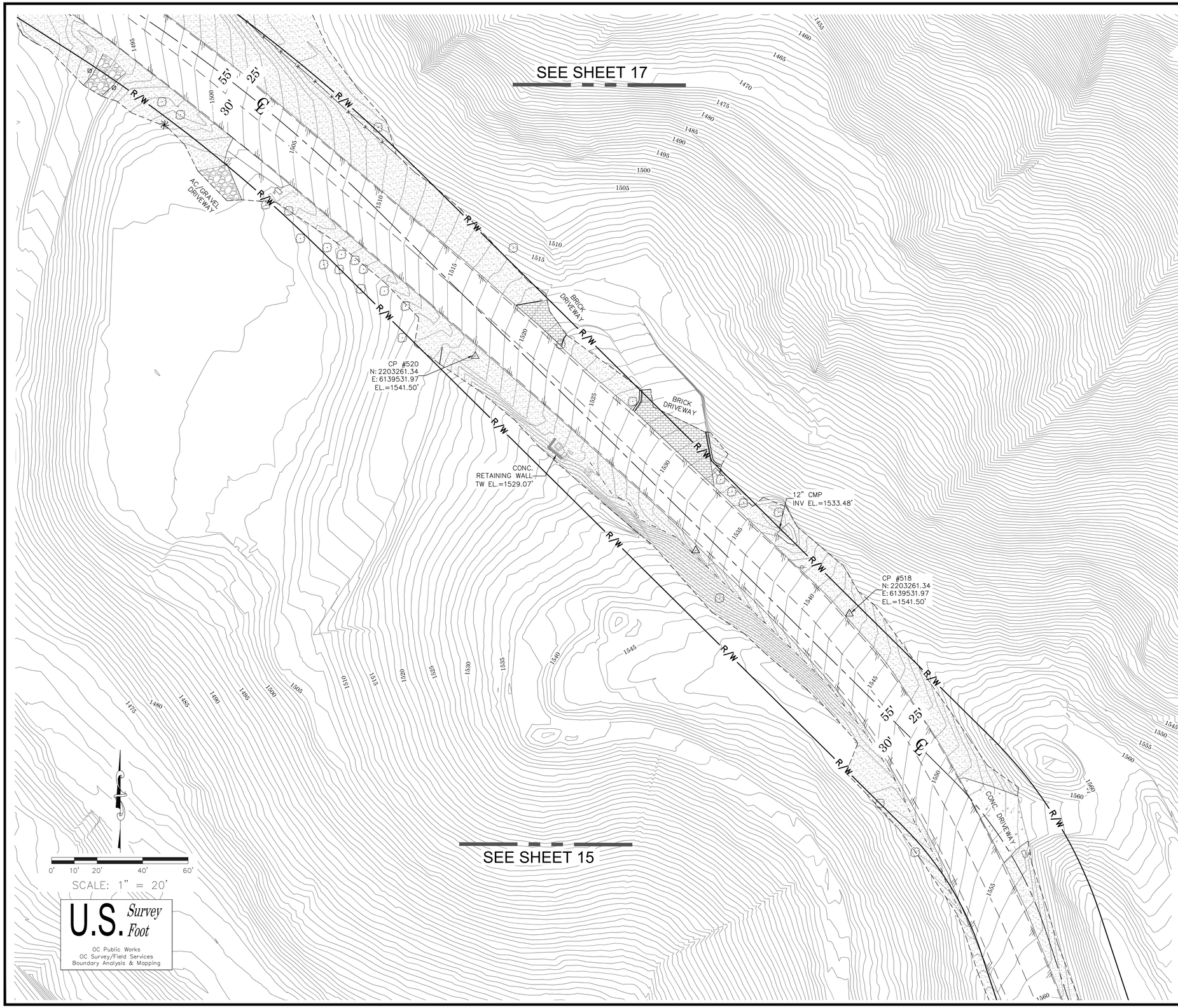
MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

FROM: INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD

TO: 100' SOUTH OF INTERSECTION OF MARKUSON RD. & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY	SHEET NO.
TOPOGRAPHIC MAPPING	BY: R. BELTRAN	15
OFFICE CHECK	BY: J. MORENO, PLS.	of
FIELD CHECK	BY: J. JOHNS & PARTY	21
SCALE: 1" = 20' W.O. #EQ17009P	FILE NO. 1920PW-IN0018	
FILE: Modjeska Grade Road_Topo_2020.DWG		



LEGEND

SYMBOL

- Bench Mark
- Backflow Preventer Device
- Control Box Telephone
- Control Box Undefined
- Control Point
- Drop Inlet
- Fire Hydrant
- Flag Pole
- Gate, Single
- Grate Inlet
- Guy Wire Anchor
- Hose Bibb
- Mailbox
- Manhole Electrical
- Manhole Sewer
- Meter Water
- Pilaster
- Pipe Inlet/Outlet
- Post
- Pull Box Electrical
- Sign Board
- Sign Post
- Tree
- Tree, Palm
- Utility Pole w/ 1 Light
- Valve Water
- Vault Electrical
- Vault Undefined
- Vent Pipe
- Water Line Appurtenance-Undefined
- Yard Light

LINE PATTERN KEY

- Centerline
- Edge of Concrete
- Edge of Asphalt Pavement
- Fence Barbed-Wire
- Fence Chainlink
- Fence Wood
- Flowline
- Guard Rail
- Hinge Point (hp)
- Limits of Conventional Survey
- Planter Wall
- Right of Way (R/W)
- Striping
- Wall, Concrete Block

ABBREVIATION

AC	Asphalt Concrete
BC	Beginning of Curve
BM	Benchmark
CL	Centerline
CONC	Concrete
CP	Control Point
DIA	Diameter
ECMH	Electrical Manhole
EL	Elevation
SDMH	Storm Drain Manhole

AREA PATTERN KEY

- Concrete
- Dirt
- Brick
- Gravel / Rip Rap

NOTE

CONTOURS SHOWN OUTSIDE OF THE LIMITS OF THE CONVENTIONAL SURVEY ARE DERIVED FROM AERIAL LIDAR SURVEY FLOWN FEBRUARY 2020

MARK	DATE	ITEM
REVISIONS		

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

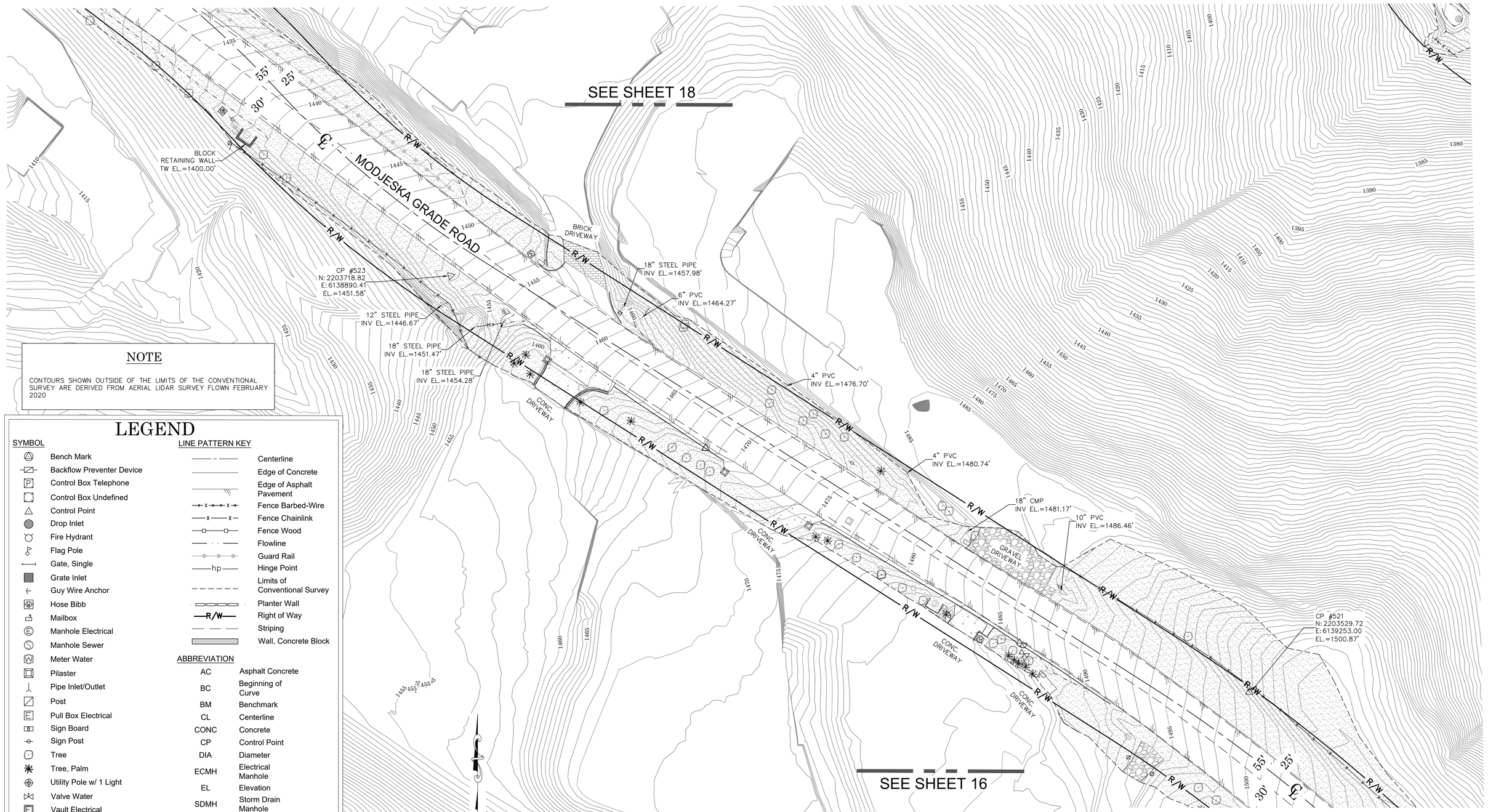
MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

FROM: INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD
TO: 100' SOUTH OF INTERSECTION OF MARKUSON RD. & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY
TOPOGRAPHIC MAPPING	BY: R. BELTRAN
OFFICE CHECK	BY: J. MORENO, PLS.
FIELD CHECK	BY: J. JOHNS & PARTY
SCALE: 1" = 20' W.O. #EQ17009P	FILE NO. 1920PW-IN0018
FILE: Modjeska Grade Road_Topo_2020.DWG	

SHEET NO. 16 of 21



NOTE

CONTOURS SHOWN OUTSIDE OF THE LIMITS OF THE CONVENTIONAL SURVEY ARE DERIVED FROM AERIAL LIDAR SURVEY FLOWN FEBRUARY 2020

LEGEND

SYMBOL

- Bench Mark
- Backflow Preventer Device
- Control Box Telephone
- Control Box Undefined
- Control Point
- Drop Inlet
- Fire Hydrant
- Flag Pole
- Gate, Single
- Grate Inlet
- Guy Wire Anchor
- Hose Bibb
- Mailbox
- Manhole Electrical
- Manhole Sewer
- Meter Water
- Pilaster
- Pipe Inlet/Outlet
- Post
- Pull Box Electrical
- Sign Board
- Sign Post
- Tree
- Tree, Palm
- Utility Pole w/ 1 Light
- Valve Water
- Vault Electrical
- Vault Undefined
- Vent Pipe
- Water Line Appurtenance-Undefined
- Yard Light

LINE PATTERN KEY

- Centerline
- Edge of Concrete
- Edge of Asphalt Pavement
- Fence Barbed-Wire
- Fence Chainlink
- Fence Wood
- Flowline
- Guard Rail
- Hinge Point (hp)
- Limits of Conventional Survey
- Planter Wall
- Right of Way (R/W)
- Striping
- Wall, Concrete Block

ABBREVIATION

AC	Asphalt Concrete
BC	Beginning of Curve
BM	Benchmark
CL	Centerline
CONC	Concrete
CP	Control Point
DIA	Diameter
ECMH	Electrical Manhole
EL	Elevation
SDMH	Storm Drain Manhole

AREA PATTERN KEY

- Concrete
- Dirt
- Brick
- Gravel / Rip Rap

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

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

MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

FROM: INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD
TO: 100' SOUTH OF INTERSECTION OF MARKUSON RD. & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019		BY: J. JOHNS & PARTY
TOPOGRAPHIC MAPPING		BY: R. BELTRAN
OFFICE CHECK		BY: J. MORENO, PLS.
FIELD CHECK		BY: J. JOHNS & PARTY
SCALE: 1" = 20'	W.O. #EQ17009P	FILE NO. 1920PW-IN0018
FILE: Modjeska Grade Road_Topo_2020.DWG		

SHEET NO. 17 of 21

LEGEND

SYMBOL

- Bench Mark
- Backflow Preventer Device
- Control Box Telephone
- Control Box Undefined
- Control Point
- Drop Inlet
- Fire Hydrant
- Flag Pole
- Gate, Single
- Grate Inlet
- Guy Wire Anchor
- Hose Bibb
- Mailbox
- Manhole Electrical
- Manhole Sewer
- Meter Water
- Pilaster
- Pipe Inlet/Outlet
- Post
- Pull Box Electrical
- Sign Board
- Sign Post
- Tree
- Tree, Palm
- Utility Pole w/ 1 Light
- Valve Water
- Vault Electrical
- Vault Undefined
- Vent Pipe
- Water Line Appurtenance-Undefined
- Yard Light

LINE PATTERN KEY

- Centerline
- Edge of Concrete
- Edge of Asphalt Pavement
- Fence Barbed-Wire
- Fence Chainlink
- Fence Wood
- Flowline
- Guard Rail
- Hinge Point
- Limits of Conventional Survey
- Planter Wall
- Right of Way
- Striping
- Wall, Concrete Block

ABBREVIATION

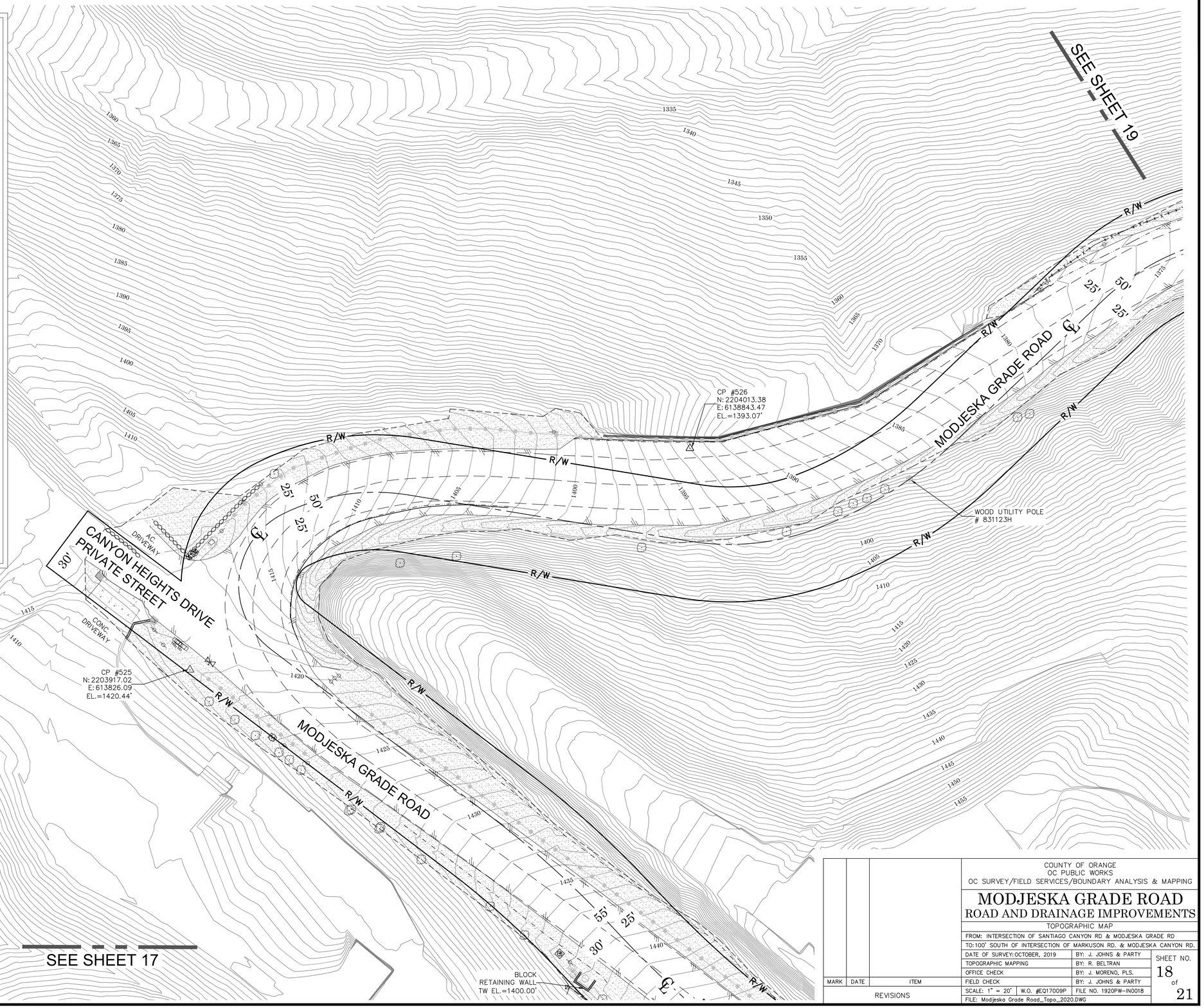
AC	Asphalt Concrete
BC	Beginning of Curve
BM	Benchmark
CL	Centerline
CONC	Concrete
CP	Control Point
DIA	Diameter
ECMH	Electrical Manhole
EL	Elevation
SDMH	Storm Drain Manhole

AREA PATTERN KEY

- Concrete
- Dirt
- Brick
- Gravel / Rip Rap

NOTE

CONTOURS SHOWN OUTSIDE OF THE LIMITS OF THE CONVENTIONAL SURVEY ARE DERIVED FROM AERIAL LIDAR SURVEY FLOWN FEBRUARY 2020



0' 10' 20' 40' 60'

SCALE: 1" = 20'

U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

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

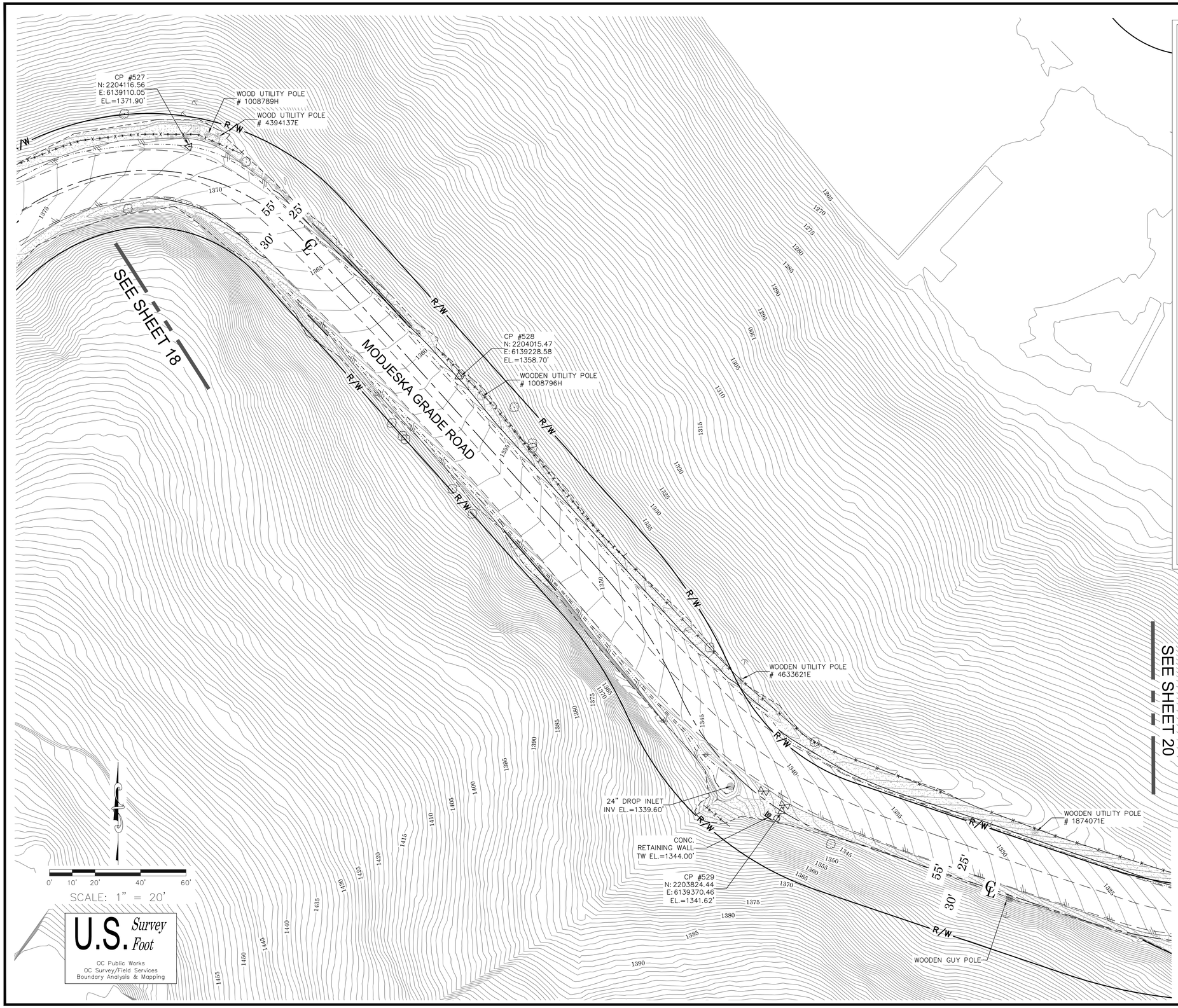
MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

FROM: INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD
TO: 100' SOUTH OF INTERSECTION OF MARKUSON RD. & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019		BY: J. JOHNS & PARTY
TOPOGRAPHIC MAPPING		BY: R. BELTRAN
OFFICE CHECK		BY: J. MORENO, PLS.
FIELD CHECK		BY: J. JOHNS & PARTY
SCALE: 1" = 20'	W.O. #EQ17009P	FILE NO. 1920PW-IN0018
FILE: Modjeska Grade Road_Topo_2020.DWG		

SHEET NO. 18 of 21



LEGEND

SYMBOL

- Bench Mark
- Backflow Preventer Device
- Control Box Telephone
- Control Box Undefined
- Control Point
- Drop Inlet
- Fire Hydrant
- Flag Pole
- Gate, Single
- Grate Inlet
- Guy Wire Anchor
- Hose Bibb
- Mailbox
- Manhole Electrical
- Manhole Sewer
- Meter Water
- Pilaster
- Pipe Inlet/Outlet
- Post
- Pull Box Electrical
- Sign Board
- Sign Post
- Tree
- Tree, Palm
- Utility Pole w/ 1 Light
- Valve Water
- Vault Electrical
- Vault Undefined
- Vent Pipe
- Water Line Appurtenance-Undefined
- Yard Light

LINE PATTERN KEY

- Centerline
- Edge of Concrete
- Edge of Asphalt Pavement
- Fence Barbed-Wire
- Fence Chainlink
- Fence Wood
- Flowline
- Guard Rail
- Hinge Point
- Limits of Conventional Survey
- Planter Wall
- Right of Way
- Striping
- Wall, Concrete Block

ABBREVIATION

AC	Asphalt Concrete
BC	Beginning of Curve
BM	Benchmark
CL	Centerline
CONC	Concrete
CP	Control Point
DIA	Diameter
ECMH	Electrical Manhole
EL	Elevation
SDMH	Storm Drain Manhole

AREA PATTERN KEY

- Concrete
- Dirt
- Brick
- Gravel / Rip Rap

NOTE

CONTOURS SHOWN OUTSIDE OF THE LIMITS OF THE CONVENTIONAL SURVEY ARE DERIVED FROM AERIAL LIDAR SURVEY FLOWN FEBRUARY 2020

MARK	DATE	ITEM
REVISIONS		

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

MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

FROM: INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD
TO: 100' SOUTH OF INTERSECTION OF MARKUSON RD. & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY	SHEET NO. 19 of 21
TOPOGRAPHIC MAPPING	BY: R. BELTRAN	
OFFICE CHECK	BY: J. MORENO, PLS.	
FIELD CHECK	BY: J. JOHNS & PARTY	
SCALE: 1" = 20' W.O. #E017009P	FILE NO. 1920PW-IN0018	
FILE: Modjeska Grade Road_Topo_2020.DWG		

LEGEND

SYMBOL

- Bench Mark
- Backflow Preventer Device
- Control Box Telephone
- Control Box Undefined
- Control Point
- Drop Inlet
- Fire Hydrant
- Flag Pole
- Gate, Single
- Grate Inlet
- Guy Wire Anchor
- Hose Bibb
- Mailbox
- Manhole Electrical
- Manhole Sewer
- Meter Water
- Pilaster
- Pipe Inlet/Outlet
- Post
- Pull Box Electrical
- Sign Board
- Sign Post
- Tree
- Tree, Palm
- Utility Pole w/ 1 Light
- Valve Water
- Vault Electrical
- Vault Undefined
- Vent Pipe
- Water Line Appurtenance-Undefined
- Yard Light

LINE PATTERN KEY

- Centerline
- Edge of Concrete
- Edge of Asphalt Pavement
- Fence Barbed-Wire
- Fence Chainlink
- Fence Wood
- Flowline
- Guard Rail
- Hinge Point
- Limits of Conventional Survey
- Planter Wall
- Right of Way
- Striping
- Wall, Concrete Block

ABBREVIATION

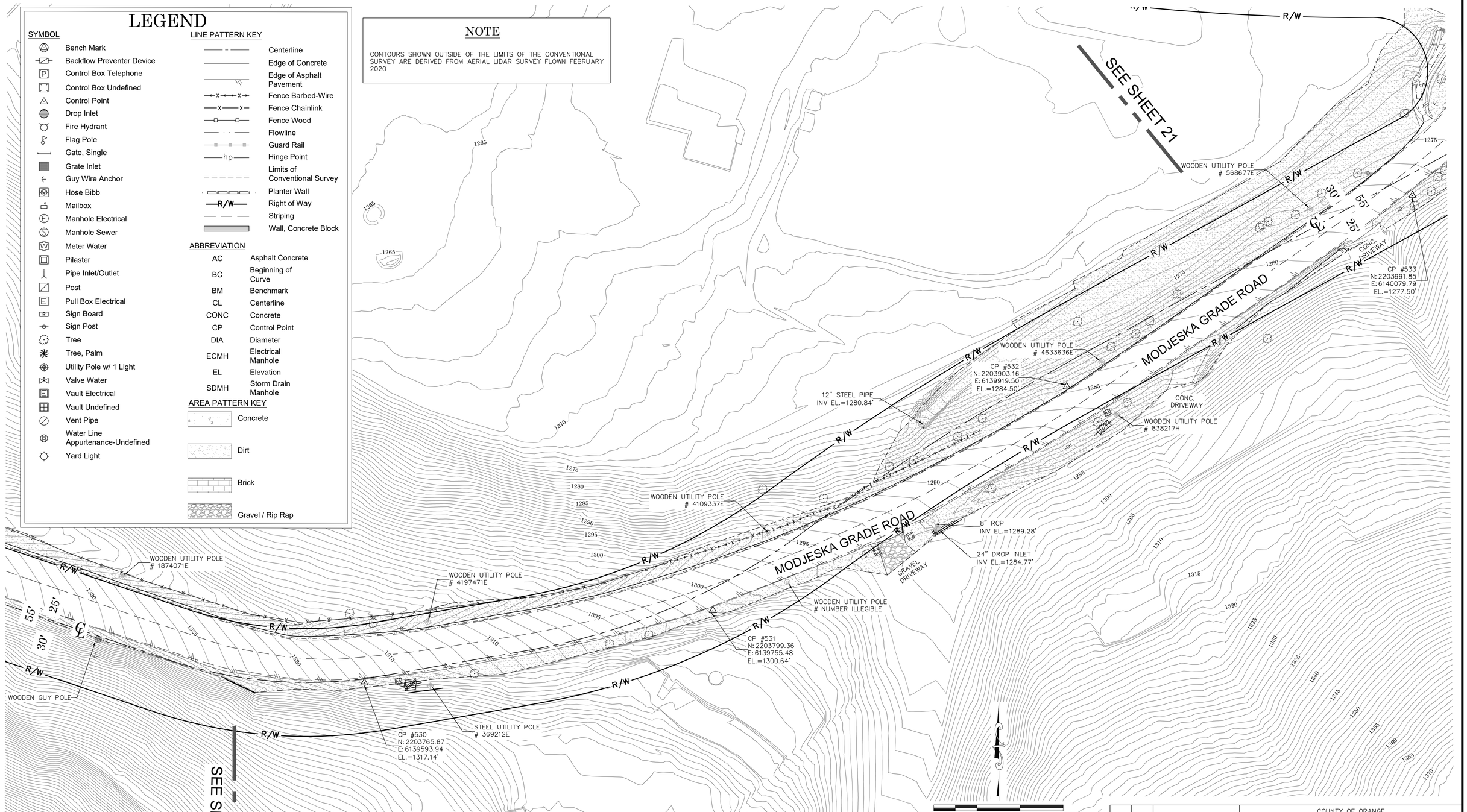
AC	Asphalt Concrete
BC	Beginning of Curve
BM	Benchmark
CL	Centerline
CONC	Concrete
CP	Control Point
DIA	Diameter
ECMH	Electrical Manhole
EL	Elevation
SDMH	Storm Drain Manhole

AREA PATTERN KEY

- Concrete
- Dirt
- Brick
- Gravel / Rip Rap

NOTE

CONTOURS SHOWN OUTSIDE OF THE LIMITS OF THE CONVENTIONAL SURVEY ARE DERIVED FROM AERIAL LIDAR SURVEY FLOWN FEBRUARY 2020



U.S. Survey Foot

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

MARK	DATE	ITEM
REVISIONS		

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

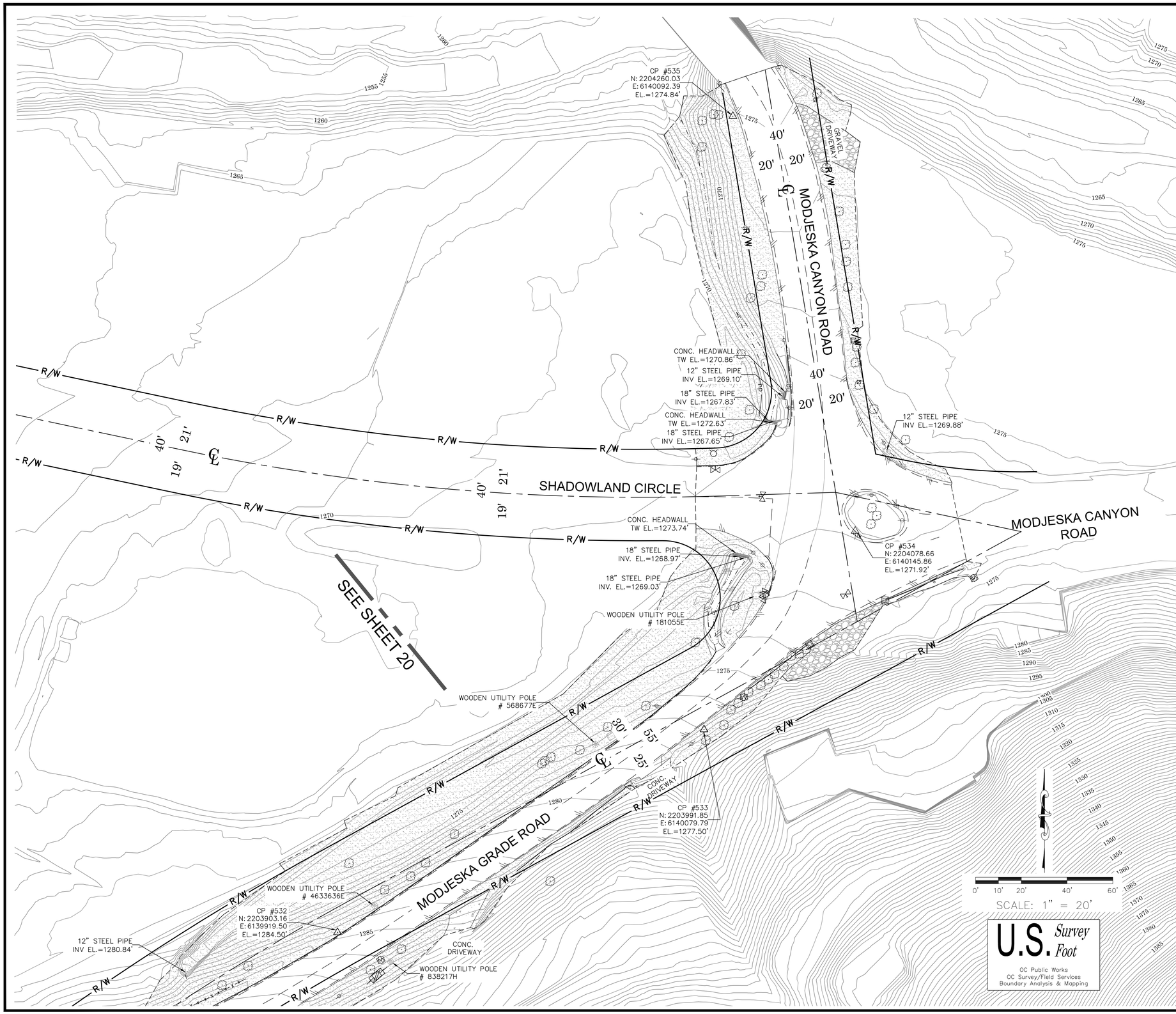
MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

FROM: INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD
TO: 100' SOUTH OF INTERSECTION OF MARKUSON RD. & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY
TOPOGRAPHIC MAPPING	BY: R. BELTRAN
OFFICE CHECK	BY: J. MORENO, PLS.
FIELD CHECK	BY: J. JOHNS & PARTY
SCALE: 1" = 20' W.O. #EQ17009P	FILE NO. 1920PW-IN0018
FILE: Modjeska Grade Road_Topo_2020.DWG	

SHEET NO. 20 of 21



LEGEND

SYMBOL

- Bench Mark
- Backflow Preventer Device
- Control Box Telephone
- Control Box Undefined
- Control Point
- Drop Inlet
- Fire Hydrant
- Flag Pole
- Gate, Single
- Grate Inlet
- Guy Wire Anchor
- Hose Bibb
- Mailbox
- Manhole Electrical
- Manhole Sewer
- Meter Water
- Pilaster
- Pipe Inlet/Outlet
- Post
- Pull Box Electrical
- Sign Board
- Sign Post
- Tree
- Tree, Palm
- Utility Pole w/ 1 Light
- Valve Water
- Vault Electrical
- Vault Undefined
- Vent Pipe
- Water Line Appurtenance-Undefined
- Yard Light

LINE PATTERN KEY

- Centerline
- Edge of Concrete
- Edge of Asphalt Pavement
- Fence Barbed-Wire
- Fence Chainlink
- Fence Wood
- Flowline
- Guard Rail
- Hinge Point
- Limits of Conventional Survey
- Planter Wall
- Right of Way
- Striping
- Wall, Concrete Block

ABBREVIATION

AC	Asphalt Concrete
BC	Beginning of Curve
BM	Benchmark
CL	Centerline
CONC	Concrete
CP	Control Point
DIA	Diameter
ECMH	Electrical Manhole
EL	Elevation
SDMH	Storm Drain Manhole

AREA PATTERN KEY

- Concrete
- Dirt
- Brick
- Gravel / Rip Rap

NOTE

CONTOURS SHOWN OUTSIDE OF THE LIMITS OF THE CONVENTIONAL SURVEY ARE DERIVED FROM AERIAL LIDAR SURVEY FLOWN FEBRUARY 2020

U.S. Survey Foot

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

MARK	DATE	ITEM

REVISIONS

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

MODJESKA GRADE ROAD
ROAD AND DRAINAGE IMPROVEMENTS

TOPOGRAPHIC MAP

FROM: INTERSECTION OF SANTIAGO CANYON RD & MODJESKA GRADE RD
TO: 100' SOUTH OF INTERSECTION OF MARKUSON RD. & MODJESKA CANYON RD.

DATE OF SURVEY: OCTOBER, 2019	BY: J. JOHNS & PARTY	SHEET NO. 21 of 21
TOPOGRAPHIC MAPPING	BY: R. BELTRAN	
OFFICE CHECK	BY: J. MORENO, PLS.	
FIELD CHECK	BY: J. JOHNS & PARTY	
SCALE: 1" = 20' W.O. #E017009P	FILE NO. 1920PW-IN0018	
FILE: Modjeska Grade Road_Topo_2020.DWG		