STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	A1

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

KEY MAP OF CALIFORNIA

PLANS FOR PROPOSED

CA FLAP NEV 40(1)

DONNER PASS ROAD

TAHOE NATIONAL FOREST
NEVADA COUNTY, CA
PLACER COUNTY, CA
LENGTH 6.40 miles

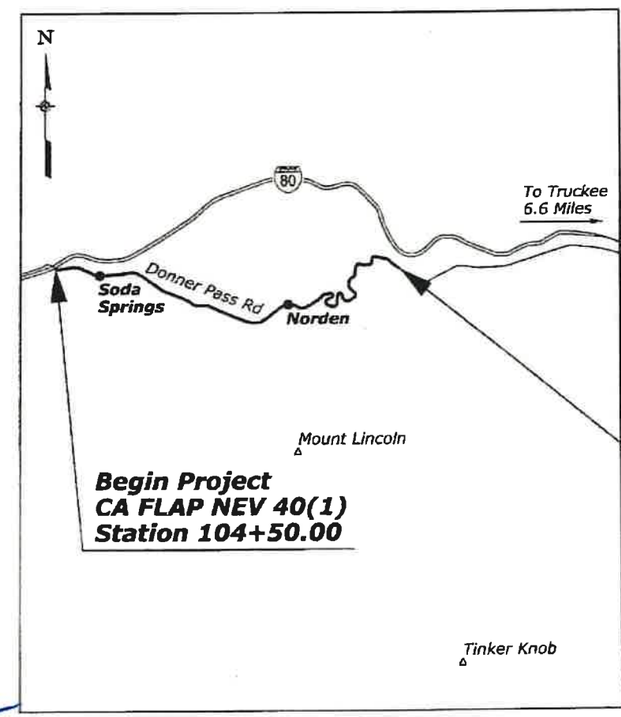
AS-BUILT DRAWINGS

TYPE OF CONSTRUCTION:
Restoration, Resurfacing, and Rehabilitation (3R+)
(Widening, Grading, Drainage and Asphalt Concrete Pavement)

DESIGN DESIGNATIONS:
ADT (2020) ---------- 1902
ADT (2040) ---------- 2321
DHV ---------- 8
D ---------- 50%
T ---------- 2%
V ---------- 35 mph
e(max) ---------- 8%

U.S. CUSTOMARY DIMENSIONS:
Slopes are expressed as RISE:RUN

SPECIFICATIONS:
"STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS, FP-14"



INDEX TO SHEETS

SHEET	DESCRIPTION
A	GENERAL INFORMATION
A1	TITLE SHEET
A2 - A3	CONVENTIONAL PLAN SYMBOLS & ABBREVIATIONS
A4	SURVEY CONTROL
A5	SITE MAP
A6 - A7	TYPICAL SECTIONS
A8 - A9	PAVEMENT STRUCTURAL SECTIONS
A10 - A11	TYPICAL SECTIONS APPROACH ROADS
B	SUMMARIES
B1 - B4	SUMMARY OF QUANTITIES
B5	GRADING SUMMARY
B6 - B7	DRAINAGE SUMMARY
B8 - B9	SURFACING SUMMARY
B10	GUARDRAIL SUMMARY
B11	REMOVAL SUMMARY
B12 - B13	TABULATION OF QUANTITIES
B14 - B16	PERMANENT SIGN SUMMARY
B17	PERMANENT PAVEMENT MARKING SUMMARY
C	MAINLINE PLAN & PROFILE
C1 - C28	DONNER PASS PLAN AND PROFILES
D	MINOR ROAD, PULLOUT, PARKING, GEOMETRIC DETAILS
D1	RAINBOW BRIDGE PARKING AREA
D2 - D7	PULLOUT DETAILS
D8	DONNER SKI RANCH STORM SYSTEM
F	DIVISION 200 STANDARDS/DETAILS AND SPECIALS
F1	EMBANKMENT BENCHING
F2	204-A SINKHOLE PATCHING DETAIL
G	DIVISION 250 STANDARDS/DETAILS AND SPECIALS
G1	ROCKERY WALL LAYOUT
G2	ROCKERY DETAIL
G3 - G25	ROCK CUT PLANS
G26 - G27	260-A ROCK REINFORCEMENT DETAIL
G28 - G30	GEOGRID REINFORCED MSE WALL DETAILS
G31	C251-50 PLACED RIPRAP AT CULVERT OUTLETS

CONTINUED ON SHEET A2

CONTRACTOR: HERBACK GENERAL ENGINEERING

FHWA COR: ALLEN REAVES

Work was constructed as designed unless otherwise noted

PLANS PREPARED BY
MULLER ENGINEERING COMPANY
FOR
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION
DENVER, COLORADO

FEDERAL LANDS HIGHWAY — COMMITMENT TO EXCELLENCE

FOREST SERVICE — U.S. DEPARTMENT OF AGRICULTURE

811 Know what's below. Call before you dig. www.call811.com

LICENSED PROFESSIONAL ENGINEER — MATTHEW DAVID ANDREWS — C 85264 — CIVIL — STATE OF CALIFORNIA
Matthew David Andrews 8/26/2019

APPROVED: _____ DATE: 9/3/2019
CHIEF OF ENGINEERING
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

PROJECT MANAGER	LEAD DESIGNER
M. AMBROZIAK	MULLER

8/14/2019 7:03:37 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\A-Gen_sht\TTL(DONN)C440.dgn User: mcarlson

3/21/2019 7:03:42 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\A-Gen_sht\SYM(DONN)CA40_01.dgn User: mcarlson

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	A2

ABBREVIATIONS

	℄	centerline
	Δ	curve delta
	Ø	diameter
A	abut.	abutment
	ADT	average daily traffic
	aggr.	aggregate
	AH	ahead
	alt.	alternate
	appr.	approach
	asph.	asphalt
B	b.f.	both faces
	beg.	beginning,begin
	BK	back
	BM	bench mark
	BP	balance point
	br.	bridge
	brg.	bearing
C	CBC	concrete box culvert
	c-c	center to center
	clr.	clear
	CMP	corrugated metal pipe
	Co.	county
	col.	column
	conc.	concrete
	constr.	construction
	constr. jt.	construction joint
	cont.	continuous
	corr.	corrugated
	cr.	creek
	CS	point of curve to spiral
	ctrs.	centers
	CTSM	contingent sum
	culv.	culvert
D	decr.	decrement
	DHV	design hour volume
	DI	drop inlet
	dia. or D	diameter
	diag.	diagonal
	diaph.	diaphragm
	dist.	distance
	Dist.	district
	DLC	donation land claim
	dwg(s).	drawing(s)
E	E	east
	e	superelevation rate
	El. 94.066	elevation with number
	elev.	elevation
	emb.	embankment
	engr(s).	Engineer(s)
	EOP	edge of pavement
	EQ or eq.	equation
	ER	edge of road
	et al	and others
	et ux	and wife
	EW	edge of water
	exc.	excavation
	exp. jt.	expansion joint
	ext.	exterior
F	f.f.	fill face
	Fed.	federal
	FES	flared end section
	fin.	finish
	ftg.	footing
G	ga.	gage (gauge)
	galv.	galvanized
	gdr.	girder
H	hdwl.	headwall
	HES	homestead entry survey
	hex.	hexagon
	horiz.	horizontal
	HW	high water
	hwy.	highway
I	ID	inside diameter
	incl.	inclusive,including
	incr.	increment
	int.	interior
J	jt.	joint
L	L	length of curve
	lam.	lamination
	lat.	latitude
	long.	longitudinal
	LPSM	lump sum
	Lt. or LT	left
	LW	low water
M	mag.	magnetic
	maint.	maintenance
	matl.	material
	max.	maximum
	min.	minimum
	mon.	monument
	mtn(s).	mountain(s)
N	N	north
	NC	normal crown
	neg.	negative
	no. or #	number
O	o.c.	on centers
	o.f.	other face
	OD	outside diameter
P	PC	point of curve
	PCC	point of compound curve
	perf.	perforate
	PI	point of intersection
	pl.	plate
	POC	point on curve
	POS	point on spiral
	POT	point on tangent
	proj.	project
	psi	pounds per square inch
	PT	point of tangent
	pvmt.	pavement
Q	quant., Qty	quantities
R	R	radius
	R.	range
	R/W	right-of-way
	rd.	road
	rdwy.	roadway
	reconst.	reconstruction
	reinf.	reinforcement
	reqd.	required
	res.	reservoir
	Res.	Reservation
	ret. wall	retaining wall
	RH	reference hub
	Rt. or RT	right
	rte.	route
S	S	south
	SADT	seasonal average daily traffic
	SC	point of spiral to curve
	sec.	section
	shldr.	shoulder
	spa.	spacing, Spaces or Spaced
	spec.	specification
	st.	street
	ST	point of spiral to tangent
	sta.	station
	std.	standard
	stiff.	stiffener
	str.	straight
	struc.	structural
	sym.	symmetrical
T	T	tangent length
	T.	township
	tan.	tangent
	TBM	temporary bench mark
	TCE	temporary construction easement
	transv.	transverse
	TS	point of tangent to spiral
	typ.	typical
V	V	design speed
	vert.	vertical
	vph	vehicles per hour
	VPI	vertical point of intersection
W	W	west

DRAINAGE SYMBOLS

Ditch (Existing, Proposed)

Flow Arrow

Drainage or Small Creek

Lake, Pond or Reservoir

Large Creek

Wetland

River

Spring — SPRING

Bridge (Existing, Proposed)

Box Culvert (Existing, Proposed)

Pipe Culvert (Existing, Proposed)

With End Sections (Existing, Proposed)

With Headwalls (Existing, Proposed)

With Drop Inlet (Existing, Proposed)

Underdrain (Existing, Proposed) — UD UD

Riprap Apron (Proposed)

EROSION & SEDIMENT CONTROL SYMBOLS

Bonded Fiber Matrix Mulching

Check Dam

Diversion Berm

Rolled Erosion Control Product

Riprap

Fiber Roll (Ditch and/or Cut Slope)

Silt Fence — SF SF SF SF SF

Temporary Inlet Protection

Fiber Roll (Slope Protection)

FENCE & CATTLEGUARD SYMBOLS

Fence (Existing, Proposed)

Fence w/ Gate (Existing, Proposed)

Cattleguard (Existing, Proposed)

GEOLOGIC SYMBOLS

Boring Location (Existing, Proposed)

Material Source

INDEX TO SHEETS (CONTINUED FROM SHEET A1)

SHEET	DESCRIPTION
T	DIVISION 600 LAYOUTS, STANDARDS/DETAILS AND SPECIALS
T1	601-3 WINGWALLS FOR CONCRETE HEADWALLS
T2	601-4 CONCRETE HEADWALL FOR SMALL PIPE CULVERT
T3	602-A DRAINAGE DETAILS
T4	602-1 METAL PIPE CULVERT
T5	602-2 METAL PIPE CULVERT COUPLING BAND
T6	602-3 METAL AND PLASTIC PIPE CULVERT BEDDING
T7	602-4 METAL END SECTIONS
T8	602-5 PLASTIC PIPE CULVERT
T9	602-7 CONCRETE PIPE CULVERT INSTALLATION
T10	602-8 CONCRETE END SECTION FOR ROUND PIPE
T11	602-9 METAL END SECTION WITH SAFETY BARS
T12	604-A R.C.P MANHOLE FOR CLOSED CONDUIT SYSTEM
T13	604-B INLET TYPE 7A AND 7B FOR 12" TO 36" CULVERT
T14	604-C GRATE DETAILS NO. 2
T15	604-5 INLET TYPE 5A
T16	604-6 FRAME AND GRATE TYPE 5A
T17 - T18	609-A CURB DETAILS
T19	609-B GUTTER DETAILS
T20	615-2 WHEELCHAIR RAMP CURB TAPER
T21	617-13 G4 AND MGS W-BEAM GUARDRAIL INSTALLATION IN ROCK
T22	617-14 G4 W-BEAM LOW SPEED TERMINAL TYPE LST, WOOD POSTS
T23	617-15 G4 W-BEAM GUARDRAIL MELT, LST & CRT ANCHORAGE ASSEMBLY DETAILS
T24	617-19 G4 AND MGS W-BEAM GUARDRAIL TYPE FLARED TERMINAL AND GRADING
T25	617-20 G4 AND MGS W-BEAM GUARDRAIL TYPE TANGENT TERMINAL AND GRADING
T26	617-28 G4 W-BEAM GUARDRAIL CONNECTION TO STRUCTURE SAFETY SHAPE FACE STEEL POSTS
T27	617-29 G4 BEAM GUARDRAIL CONNECTION TO STRUCTURE SAFETY SHAPE FACE RUBRAIL
T28	617-32 MGS W-BEAM GUARDRAIL STEEL POSTS
T29	617-37 MGS W-BEAM GUARDRAIL LONG-SPAN SYSTEM
T30	617-39 G4 TO MGS W-BEAM GUARDRAIL TRANSITION
T31	C617-50 G4 W-BEAM GUARDRAIL WOOD POSTS
T32 - T33	618-A CONCRETE BARRIER
T34 - T41	619-A ROAD CLOSURE GATE (DROP ARM)
T42	619-B ROAD CLOSURE GATE (SWING ARM)
T43 - T59	SIGNING AND PAVEMENT MARKING PLANS
T60 - T64	633-A SIGN INSTALLATION
T65	633-B SPECIAL SIGN DETAIL
T66 - T67	633-C SNOW POLE DETAILS
T68	C633-51 DELINEATORS
T69	634-A RECESS PAVEMENT MARKING DETAIL
T70	634-B BICYCLE LANE PAVEMENT MARKINGS
T71	C634-50 CENTERLINE STRIPING AND TOP LIFT PAVEMENT JOINT
T72	635-1 TEMPORARY TRAFFIC CONTROL ADVANCE SIGNING
T73	635-2 TEMPORARY PAVEMENT MARKINGS
T74	635-3 DELINEATION AND SIGNING FOR UNMARKED PAVEMENTS
T75	635-4 TEMPORARY TRAFFIC CONTROL FOR DIVERSION
T76	635-5 TEMPORARY TRAFFIC CONTROL ROAD CLOSURE LAYOUT (WITH FLAGGERS)
T77	635-6 TEMPORARY TRAFFIC CONTROL SINGLE LANE CLOSURE LAYOUT (WITH FLAGGERS)
T78	635-9 TEMPORARY TRAFFIC CONTROL SINGLE LANE CLOSURE LAYOUT (WITH SIGNALS)
T79	635-10 TEMPORARY TRAFFIC CONTROL SHOULDER CLOSURE LAYOUT
T80	635-11 TEMPORARY TRAFFIC CONTROL PART LANE WIDTH AND SHOULDER CLOSURE LAYOUT
T81	635-14 TEMPORARY TRAFFIC CONTROL SIGN INSTALLATION WOOD POSTS

HEREIN PROFESSIONAL ENGINEER MATTHEW DAVID ANDREWS C 85264 CIVIL STATE OF CALIFORNIA

Matthew David Andrews 4/11/2019

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

CONVENTIONAL PLAN SYMBOLS AND ABBREVIATIONS

Sheet 1 of 2

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	A3

LANDSCAPING & VEGETATION SYMBOLS

Tree

Treeline

MAPPING SYMBOLS

Building (Existing, Proposed)

Coordinate Grid Tick

North Arrow

Railroad
- Single Track
- Double Track

Spot Elevation 999.9

Trail

Survey Control Point

RIGHT-OF-WAY SYMBOLS

Boundaries
- National
- State
- County
- City
- Township or Range Line
- Section
- ¼ Section
- 1/16 Section
- Bureau of Indian Affairs
- Bureau of Land Management
- National Forest
- National Park
- National Wildlife Refuge

Easements
- Permanent (Existing) P/E
- Permanent (Proposed) P/E
- Temporary (Proposed) TCE

Monument (As described)

Parcel Number 400

Property Line
Right-of-Way Line (Existing)
Right-of-Way Line (Proposed) R/W

Section Corner (Found, Projected)

¼ Section Corner (Found, Projected)

1/16 Section Corner (Found)

GUARDRAIL, BARRIER & WALL SYMBOLS

Guardrail (Existing, Proposed)

Guardwall (Existing, Proposed)

Median & Side Barrier (Existing, Proposed)

Retaining Wall (Existing, Proposed)

ROADWAY SYMBOLS

Clearing/Construction Limits
Slope Stake Limits
- Top of Cut
- Transition
- Toe of Fill

Edge of Roadway
- Existing
- Proposed

Roadway Centerline (With Station ticks)

Roadway Obliteration

SIGN SYMBOLS

Signs
- Commercial (Existing, Proposed)
- Delineator (Existing)
- Portable (Proposed)
- Post Mounted (Existing, Proposed)

UTILITY SYMBOLS

Irrigation Ditch
- Underground (Existing, Proposed) IRR
- Surface (Existing, Proposed) IRR

Support Pole (Existing, Proposed)
Support Pole Anchor (Existing, Proposed)
Street Light (Existing, Proposed)

Telephone Booth (Existing, Proposed) TB

Telephone Pedestal (Existing, Proposed) TP

Underground Utility (Existing, Proposed)
- CATV TV
- Fiber Optic FO
- Gas G
- Oil O
- Power P
- Sanitary Sewer SS
- Telephone T
- Water W

Overhead Utility Line (Existing, Proposed)
- CATV TV
- Fiber Optic FO
- Power P
- Telephone T

PROJECT SPECIFIC SYMBOLS

Type E snow pole

Type F snow pole

LICENSED PROFESSIONAL ENGINEER MATTHEW DAVID ANDREWS C 85264 CIVIL STATE OF CALIFORNIA

Matthew David Andrews 4/1/2019

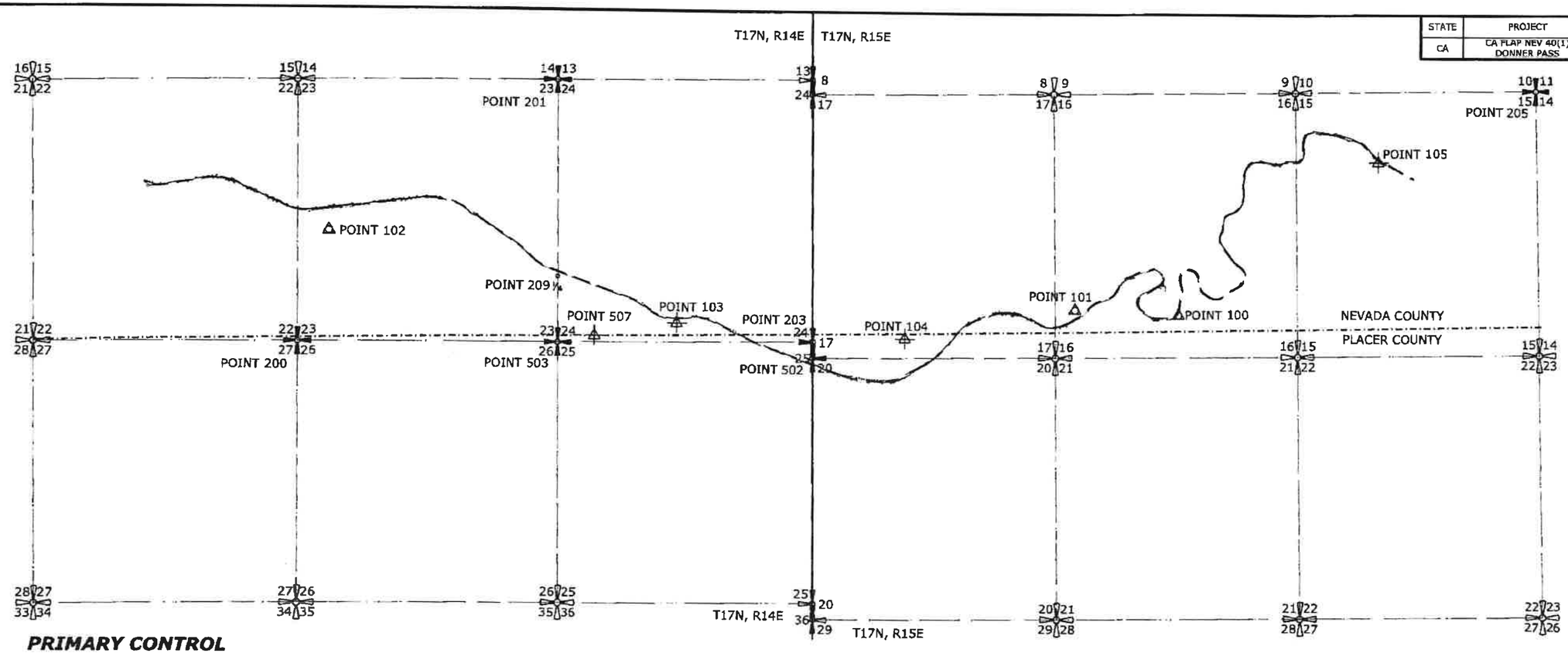
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

CONVENTIONAL PLAN SYMBOLS AND ABBREVIATIONS

Sheet 2 of 2

3/21/2019 7:03:43 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\A-Gen_sht\SYM(DONN)CA40_02.dgn User: marison

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	A4



PRIMARY CONTROL

POINT NUMBER	STATE PLANE COORDINATES NORTH	EAST	ELEVATION	GEO COORDINATES LATITUDE	LONGITUDE	ELLIPSOID HEIGHT	MAPPING ANGLE	COMBINED FACTOR	DESCRIPTION
100	2245948.63	7037590.39	6789.50	39°19'02.06400"N	120°19'03.61200"W	6713.07	1°03'40"	0.99960264	Brass Cap, USGS "V1201"
101	2246038.36	7035473.15	7192.78	39°19'03.36000"N	120°19'30.54000"W	7116.30	1°03'22"	0.99958343	Brass Cap, USGS "H226"
102	2247481.88	7020222.58	6761.81	39°19'20.35200"N	120°22'44.22000"W	6685.33	1°01'19"	0.99960432	Brass Cap, USGS "K835"
103	2245713.42	7027294.49	6964.62	39°19'01.59600"N	120°21'14.65200"W	6888.17	1°02'17"	0.99959428	Aluminum Cap, WCI Control Pt. 103
104	2245444.42	7031976.08	7316.54	39°18'58.10400"N	120°20'15.14400"W	7240.10	1°02'53"	0.99957743	Aluminum Cap, WCI Control Pt. 104
105	2249012.74	7041719.15	6174.22	39°19'31.58400"N	120°18'10.33200"W	6097.60	1°04'12"	0.99963258	Aluminum Cap, WCI Control Pt. 105

SECONDARY CONTROL

POINT NUMBER	STATE PLANE COORDINATES NORTH	EAST	ELEVATION	GEO COORDINATES LATITUDE	LONGITUDE	ELLIPSOID HEIGHT	MAPPING ANGLE	COMBINED FACTOR	DESCRIPTION
200	2245275.819	7019634.371	7001.43	39°18'58.64400"N	120°22'52.21200"W	6924.898	1°01'16"	0.99959247	Brass Cap, Sections 22|23|26|27
201	2250570.33	7024779.776	7107.758	39°19'50.05200"N	120°21'45.54000"W	7031.396	1°01'55"	0.99958843	Brass Cap, Sections 13|14|23|24
203	2245366.924	7030388.682	7228.975	39°18'57.67200"N	120°20'39.19200"W	7152.53	1°02'38"	0.99958159	Brass Cap, Sections 17|24|25
205	2250463.025	7044967.753	6332.89	39°19'45.33600"N	120°17'28.68000"W	6256.21	1°04'37"	0.99962530	Brass Cap, Sections 10|11|14|15
209	2246619.35	7024848.055	6887.29	39°19'10.99200"N	120°21'45.57600"W	5810.831	1°01'55"	0.99959815	Brass Cap, S1/16 - 23|24
502	2245040.65	7030393.489	7081.089	39°18'54.46800"N	120°20'39.19200"W	7004.639	1°02'38"	0.99958858	Aluminum Cap, Sections 25|17.20
503	2245303.769	7024872.024	6765.017	39°18'57.99600"N	120°21'45.57600"W	6686.534	1°01'55"	0.99960373	Aluminum Cap, Sections 23|24|25|26
507	2245446.652	7025616.51	6784.239	39°18'59.25600"N	120°21'36.07200"W	6707.765	1°01'02"	0.99960284	3" Pipe, County Line Marker

PROJECT : CA FLAP NEV 40(1) - Donner Pass Road

DATE OF FIELD WORK : 2017
DATE OF FINAL ADJUSTMENT : 2017

PROJECT UNITS : US SURVEY FOOT
COORDINATE SYSTEM : Lambert Conformal NAD83; CA 02 0402
EPOCH DATE : NAD_83(2011)(EPOCH:2010.0000)
VERTICAL DATUM : NAVD88
COMBINED SCALE FACTOR : 0.99959827

NOTE: TO PRECISELY CHECK DISTANCES BETWEEN POINTS AS MEASURED ON THE GROUND : INVERSE THE STATE PLANE COORDINATES AND DIVIDE THE COMPUTED DISTANCE BY A MEAN COMBINED FACTOR OF THE TWO POINTS.

TO COMPUTE GEODETIC AZIMUTHS USE THE FOLLOWING FORMULA :
GEODETIC AZIMUTH = GRID AZIMUTH + MAPPING ANGLE

N

0 2200' 4200.'
Scale in Feet

LEGEND

- PROJECTED SECTION CORNER
- FOUND SECTION CORNER
- FOUND NGS POINT
- SET ALUMINUM CAP
- SECTION LINE
- RANGE LINE
- COUNTY LINE
- 1/16 SIXTEENTH CORNER

LICENSED LAND SURVEYOR
BENJAMIN M. ARAGON
EXP. 12-31-29
L.S. 8016
STATE OF CALIFORNIA

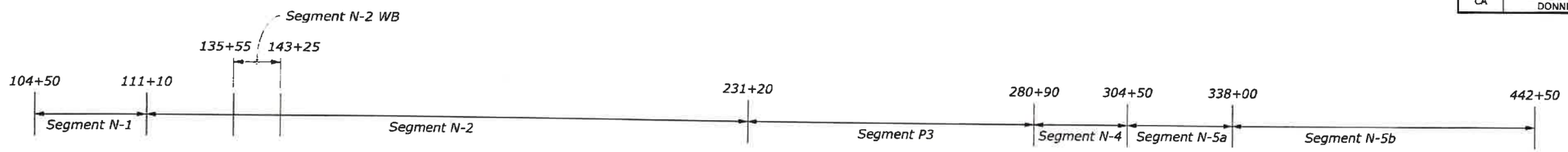
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

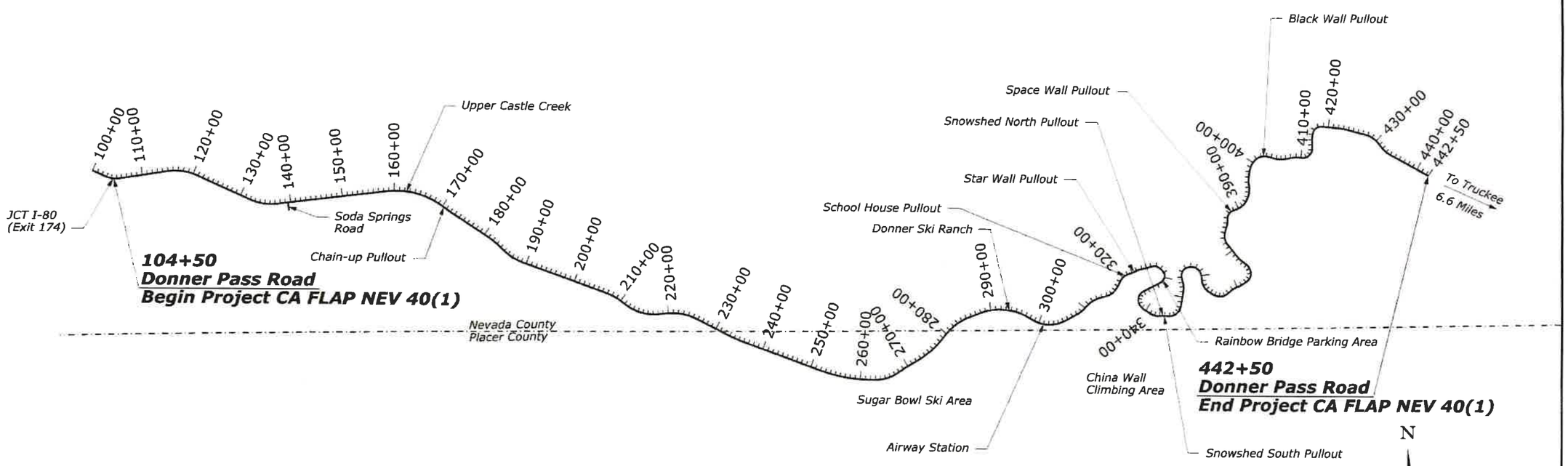
SURVEY CONTROL

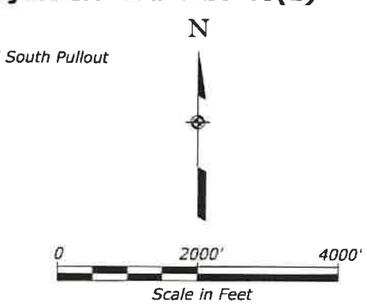
RANGE 14E AND 15E
TOWNSHIP 17N

$USER$
$$$$DGN$$$$
$TIME$
$$$$DATE$$$$

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	A5







Note:

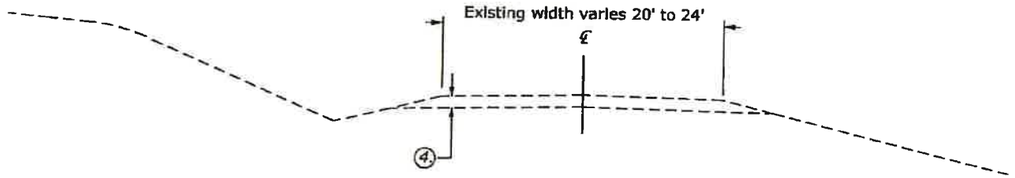
1. Available staging area include pullouts located throughout the corridor. Staging areas are limited to previously disturbed areas.
2. Segments used for pavement recommendations. See geotechnical and pavement recommendations for additional information.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

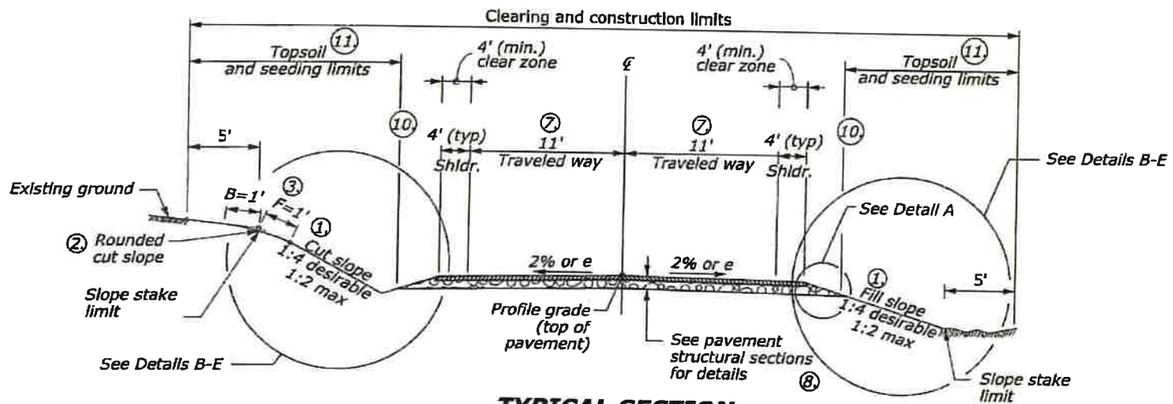
SITE MAP

User: mcarlson_
7:03:44 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\A-Gen_sht\STE(DONN)CA40.dgn
3/21/2019

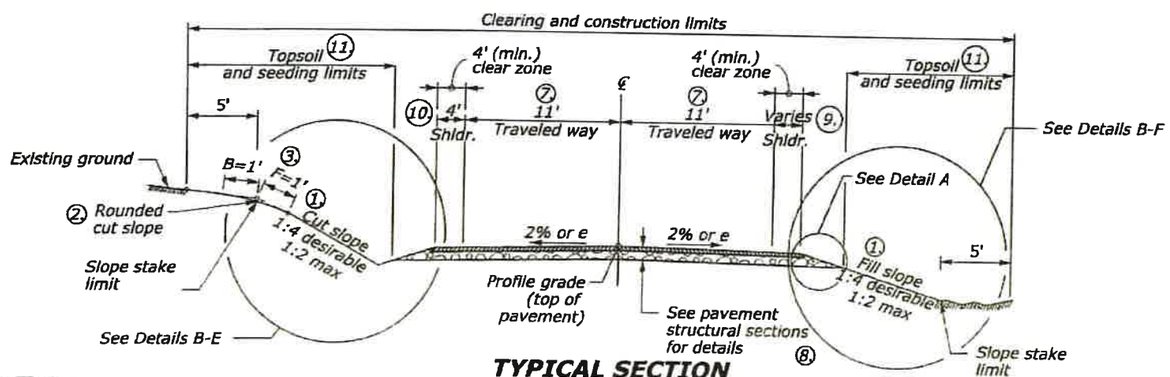
STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	A6



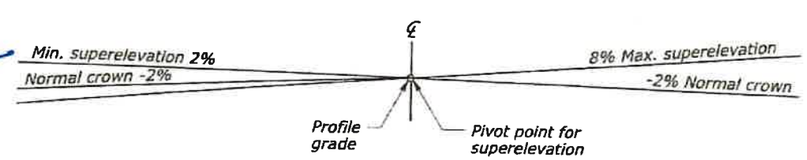
EXISTING TYPICAL SECTION
104+50 to 442+50



TYPICAL SECTION
104+50 to 305+00



TYPICAL SECTION
305+00 to 442+50

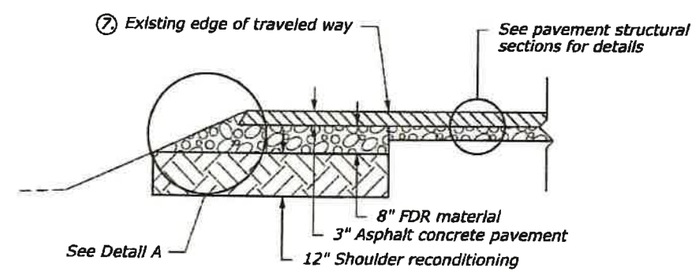


METHOD OF SUPERELEVATION ON CURVES
See plans for locations of curves and superelevations

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDERSON
C 85264
8/26/2019
CIVIL
STATE OF CALIFORNIA

NOTES:

1. See the cross sections for cut and fill slope ratios. See tabulations, plan and profile sheets and cross sections for application of details B-F. The gradient and width of roadway ditches and the excavation and embankment slope ratios may be adjusted by the CO to assure adequate drainage and stability.
2. Round all earth slopes and all rippable rock slopes.
3. Dimensions shown are approximate and may be varied by the CO.
4. Existing pavement depth varies. See Pavement Structural Sections and Geotechnical and Pavement Report for more information on existing pavement conditions.
5. Superelevated and widened sections are not shown.
6. Reshaping for traveled way, including superelevation, profile changes, and/or widening, includes the pulverizing and milling of the existing asphalt. The work of processing, spreading, hauling, stockpiling, placement, and compaction of pulverized and milled materials will not be paid for separately, but is included in the costs of FDR and asphalt pavement removal.
7. Where proposed road widens beyond edge of existing traveled way, rework subgrade as shown in the Geotechnical and Pavement Report and the widening detail. This work will be paid for as 30301-2000, Shoulder Reconditioning.
8. Sinkholes and voids may develop in subgrade during pulverization and subgrade preparation in pavement areas constructed on the existing rock fill. Fill and stabilize sinkholes and voids when called for by CO per Detail 204-A.
9. Match existing horizontal edge of asphalt concrete pavement.
10. See the cross sections for variations in shoulder cross slope.
11. Topsoil and seeding limits are excluded between 280+00 and 400+00 in locations where there is a rock face or rock slope.
12. Construct two foot wide bench sloping at two percent towards the roadway between Curb Type E and face of slope where terrain allows.



WIDENING DETAIL
(Applies to left and right side of roadway)

LENGTH OF PROJECT

Station to Station	Roadway (ft)
104+50 to 442+50	33,800
TOTALS (ft)	33,800
TOTAL (mi)	6.4

NO SCALE

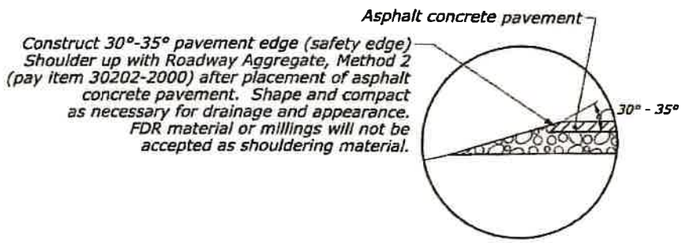
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

TYPICAL SECTIONS

Sheet 1 of 2

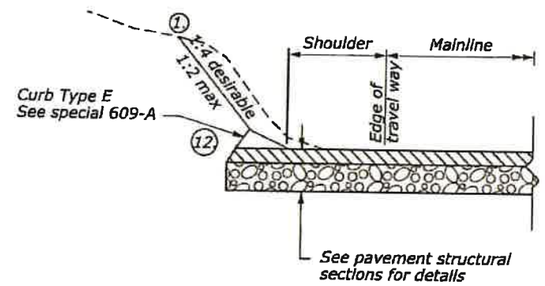
8/15/2019 11:17:59 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\A-Gen_sht\TYP(DONN)CA40_01.dgn User: mcarlson

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	A7



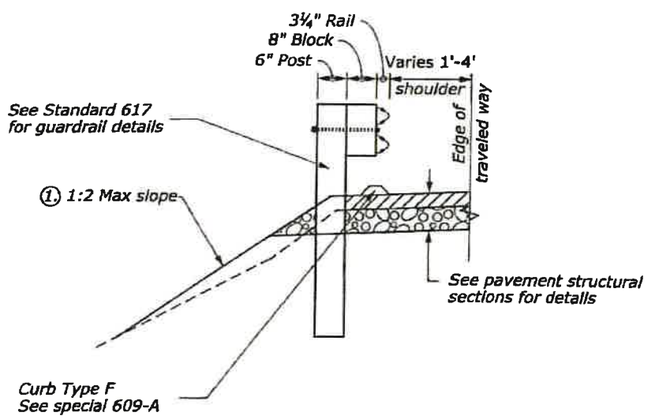
DETAIL A

(Applies to left and right side of roadway)



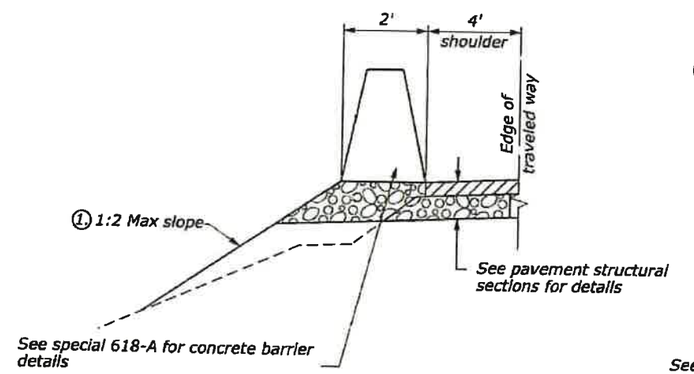
DETAIL B

(Applies to left and right side of roadway)



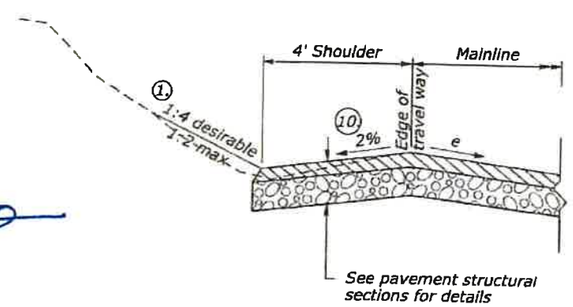
DETAIL C

(Applies to right and left side of roadway)



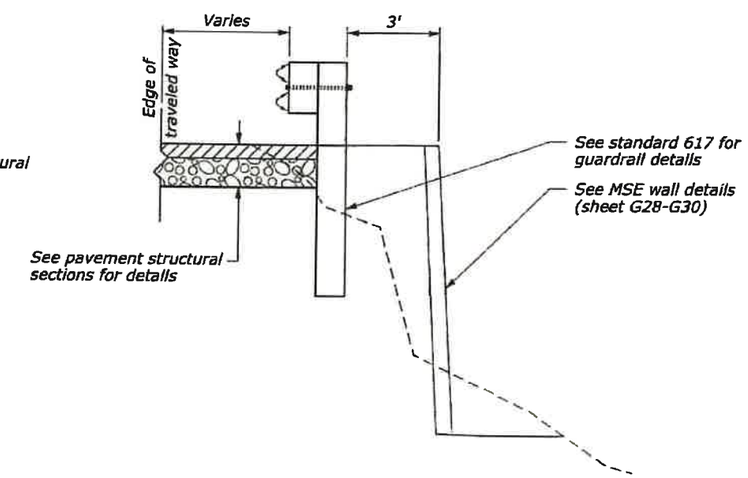
DETAIL D

(Applies to right and left side of roadway)



DETAIL E

(Applies to right and left side of roadway)



DETAIL F

(Applies to right side of roadway)

NOTES:

1. See the cross sections for cut and fill slope ratios. See tabulations, plan and profile sheets and cross sections for application of details B-F. The gradient and width of roadway ditches and the excavation and embankment slope ratios may be adjusted by the CO to assure adequate drainage and stability.
2. Round all earth slopes and all rippable rock slopes.
3. Dimensions shown are approximate and may be varied by the CO.
4. Existing pavement depth varies. See Pavement Structural Sections and Geotechnical and Pavement Report for more information on existing pavement conditions.
5. Superelevated and widened sections are not shown.
6. Reshaping for traveled way, including superelevation, profile changes, and/or widening, includes the pulverizing and milling of the existing asphalt. The work of processing, spreading, hauling, stockpiling, placement, and compaction of pulverized and milled materials will not be paid for separately, but is included in the costs of FDR and asphalt pavement removal.
7. Where proposed road widens beyond edge of existing traveled way, rework subgrade as shown in the Geotechnical and Pavement Report and the widening detail. This work will be paid for as 30301-2000, Shoulder Reconditioning.
8. Sinkholes and voids may develop in subgrade during pulverization and subgrade preparation in pavement areas constructed on the existing rock fill. Fill and stabilize sinkholes and voids when called for by CO per Detail 204-A.
9. Match existing horizontal edge of asphalt concrete pavement.
10. See the cross sections for variations in shoulder cross slope.
11. Topsoil and seeding limits are excluded between 280+00 and 400+00 in locations where there is a rock face or rock slope.
12. Construct two foot wide bench sloping at two percent towards the roadway between Curb Type E and face of slope where terrain allows.

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREW
C 85264
8/26/2019
CIVIL
STATE OF CALIFORNIA

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

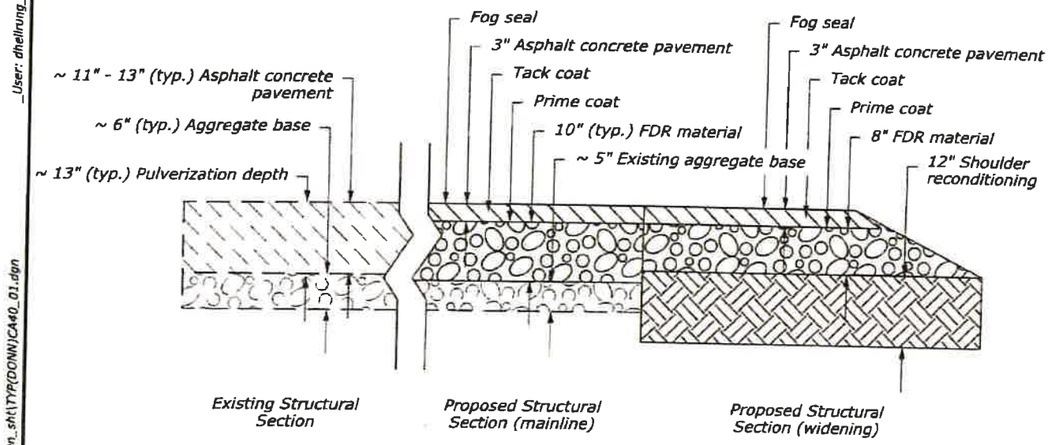
TYPICAL SECTIONS

Sheet 2 of 2

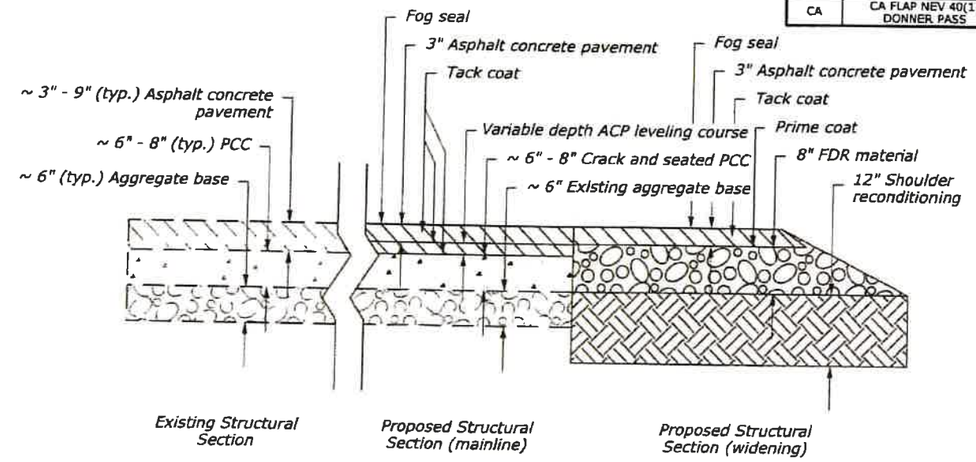
NO SCALE

8/15/2019 11:18:01 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\A-Gen_sht\TYP(DONN)CA40_01.dgn User: mcarlson

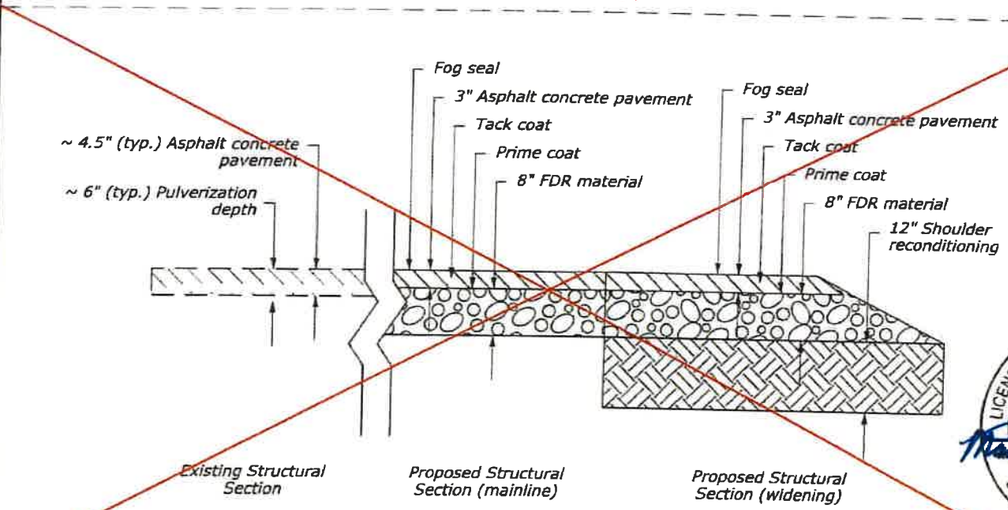
STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	A8



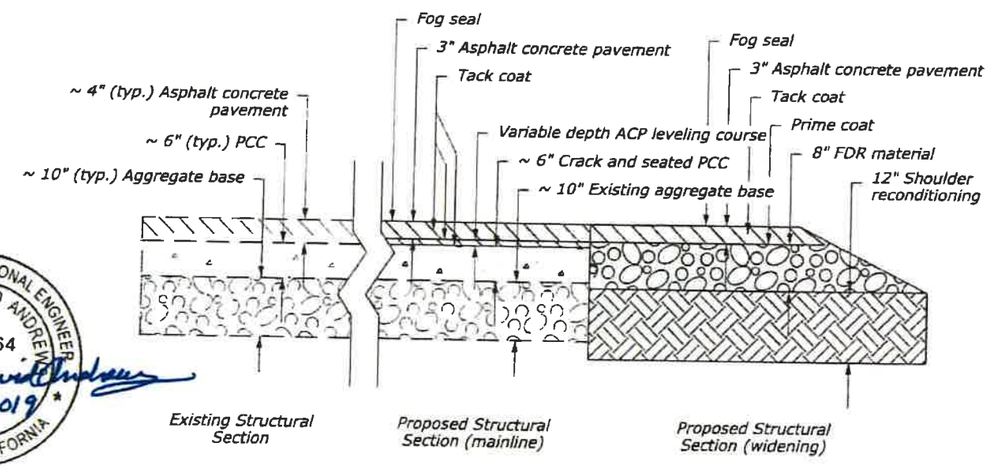
SEGMENT N-1 STRUCTURAL SECTION
104+50 TO 111+~~10~~30



SEGMENT N-2 STRUCTURAL SECTION
111+10 to 231+20



SEGMENT N-2 WB STRUCTURAL SECTION
135+55 to 143+25



SEGMENT P-3 STRUCTURAL SECTION
231+20 to 280+90

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
9/11/2019
CIVIL
STATE OF CALIFORNIA

General Notes (All segments):

1. Apply prime coat prior to first asphalt lift.
2. Apply tack coat between asphalt lifts.
3. Apply fog seal to top asphalt lift.
4. Place asphalt concrete pavement in two equal lifts.
5. If bedrock is encountered within 11" of the proposed top of pavement, refer to CO for pavement section.
6. See Geotechnical and Pavement Report for more information on pavement structural section recommendations.
7. The minimum structual section for all segemnts is 3-inches of ACP over 8-inches of base material. Base material includes existing aggregate base, cracked and seated PCC and placed FDR material.

Notes for Segment N-1, N-2WB, N-4b, N-5a and N-5b:

8. Existing pavement section varies. Pulverize existing asphalt concrete pavement to a depth one inch below existing asphalt concrete pavement. Typical pulverization depth shown for quantity estimation only.

Notes for Segment N-2, P-3 and N-4a:

9. Existing pavement section varies. Remove existing asphalt concrete pavement by milling and grinding to expose existing PCC pavement.
10. Asphalt millings shall be reused as minor aggreagte base and can be substituted for FDR material as shown on the plans. Process and adjust gradation of asphalt millings as needed to make material suitable for compaction.
11. Crack and seat existing PCC pavement in-place with multi-head breaker.
12. Where the elevation difference between exposed cracked and seated PCC and finished grade is less than or equal to 5-inches, place a variable depth asphalt concrete pavement leveling course directly on cracked and seated PCC prior to placing top 3-inches to achieve asphalt concrete paement finished grade elevations.

NO SCALE

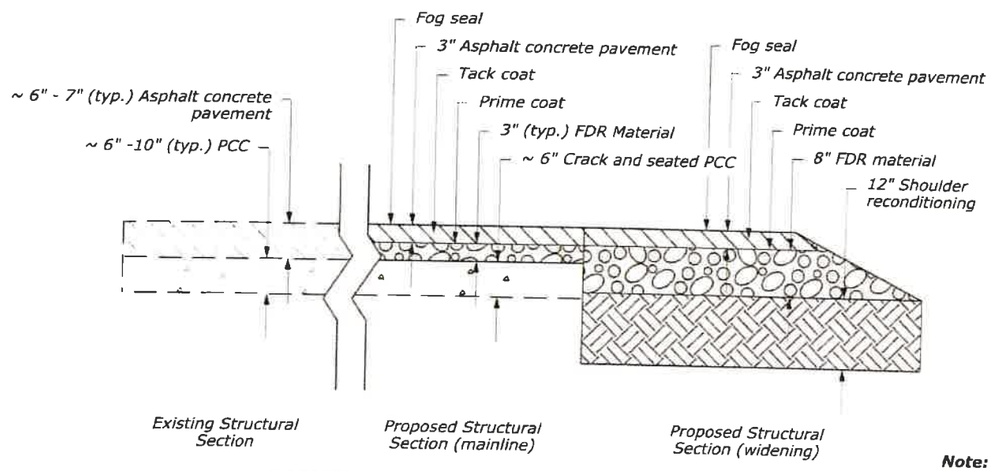
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

PAVEMENT STRUCTURAL SECTIONS

Sheet 1 of 2

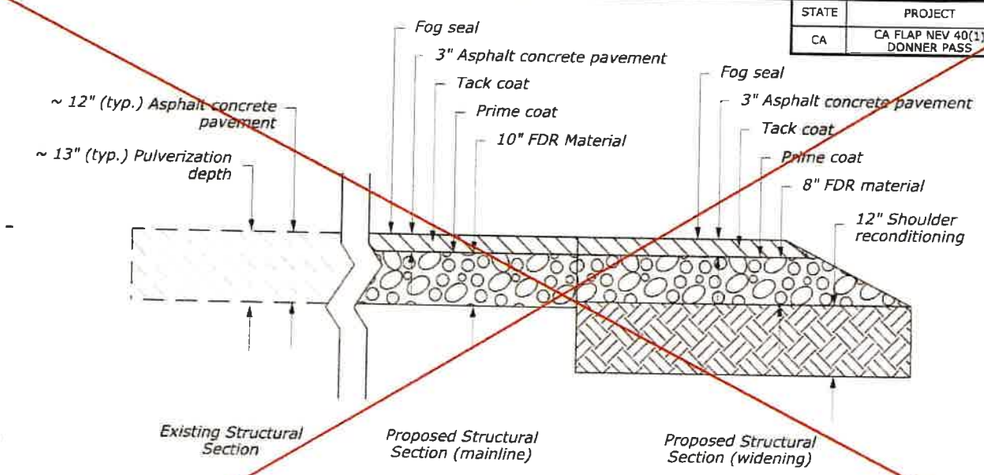
9/5/2019 10:42:34 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\A-Gen_sht\TYP(DONN)CA40_01.dgn User: dhellrung

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	A9



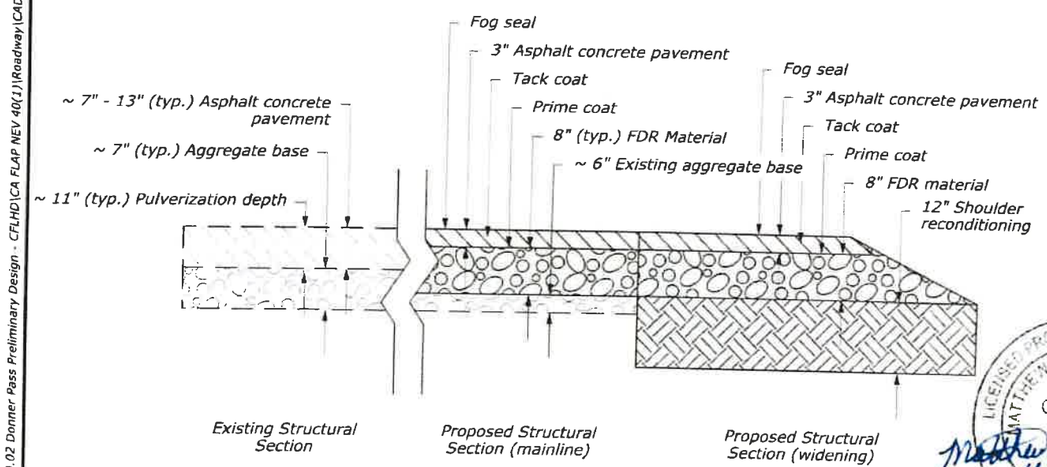
SEGMENT N-4a STRUCTURAL SECTION
280+90 to ~~304+50~~ 305+27

- OR -

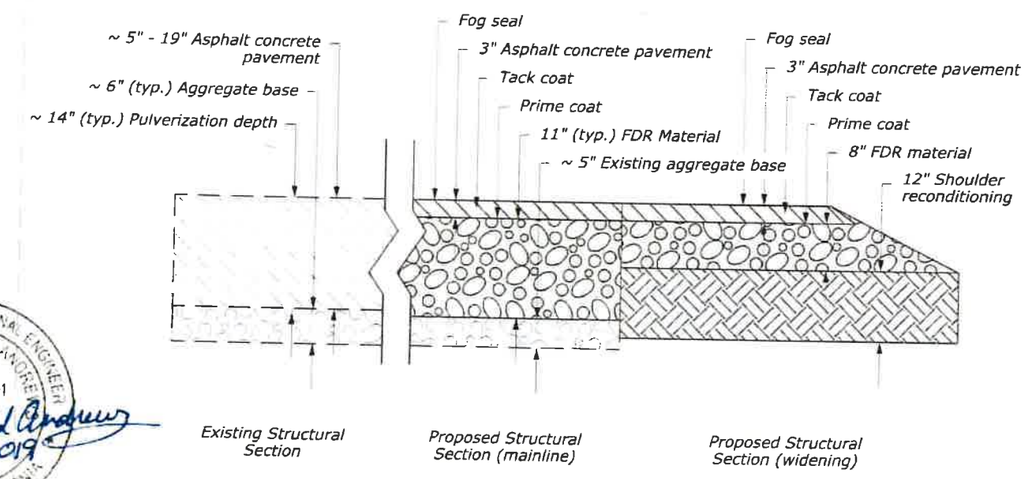


SEGMENT N-4b STRUCTURAL SECTION
280+90 to 304+50

Note:
If concrete pavement is encountered, use N-4a. If no concrete pavement is present use N-4b.



SEGMENT N-5a STRUCTURAL SECTION
305+27 ~~304+50~~ to 338+00



SEGMENT N-5b STRUCTURAL SECTION
338+00 to 442+50

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREE
C 85264
CIVIL
STATE OF CALIFORNIA
Matthew David Andree
4/11/2019

General Notes (All segments):

1. Apply prime coat prior to first asphalt lift.
2. Apply tack coat between asphalt lifts.
3. Apply fog seal to top asphalt lift.
4. Place asphalt concrete pavement in two equal lifts.
5. If bedrock is encountered within 11" of the proposed top of pavement, refer to CO for pavement section.
6. See Geotechnical and Pavement Report for more information on pavement structural section recommendations.
7. The minimum structual section for all segemnts is 3-inches of ACP over 8-inches of base material. Base material includes existing aggregate base, cracked and seated PCC and placed FDR material.

Notes for Segment N-1, N-2WB, N-4b, N-5a and N-5b:

8. Existing pavement section varies. Pulverize existing asphalt concrete pavement to a depth one inch below existing asphalt concrete pavement. Typical pulverization depth shown for quantity estimation only.

Notes for Segment N-2, P-3 and N-4a:

9. Existing pavement section varies. Remove existing asphalt concrete pavement by milling and grinding to expose existing PCC pavement.
10. Asphalt millings shall be reused as minor aggreagte base and can be substituted for FDR material as shown on the plans. Process and adjust gradation of asphalt millings as needed to make material suitable for compaction.
11. Crack and seat existing PCC pavement in-place with multi-head breaker.
12. Where the elevation difference between exposed cracked and seated PCC and finished grade is less than or equal to 5-inches, place a variable depth asphalt concrete pavement leveling course directly on cracked and seated PCC prior to placing top 3-inches to achieve asphalt concrete paement finished grade elevations.

NO SCALE

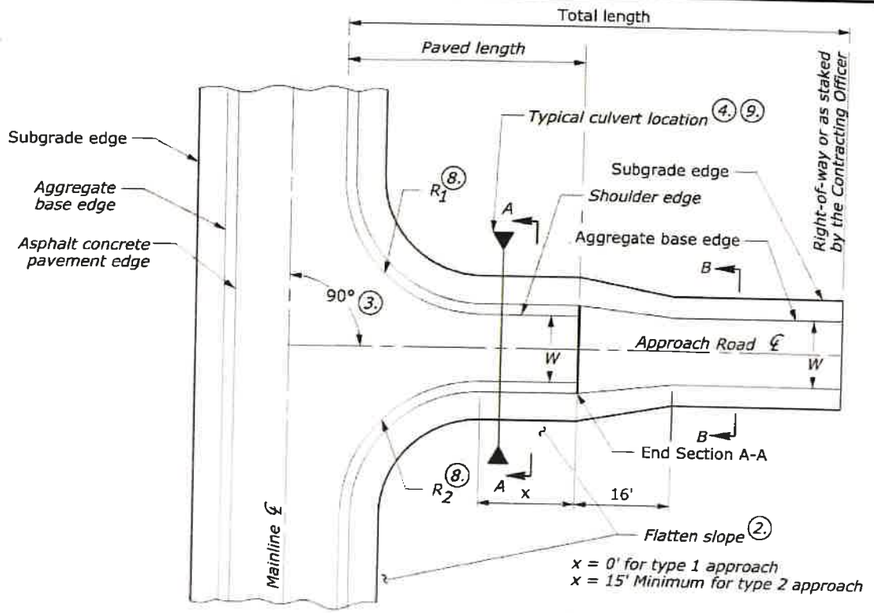
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

PAVEMENT STRUCTURAL SECTIONS

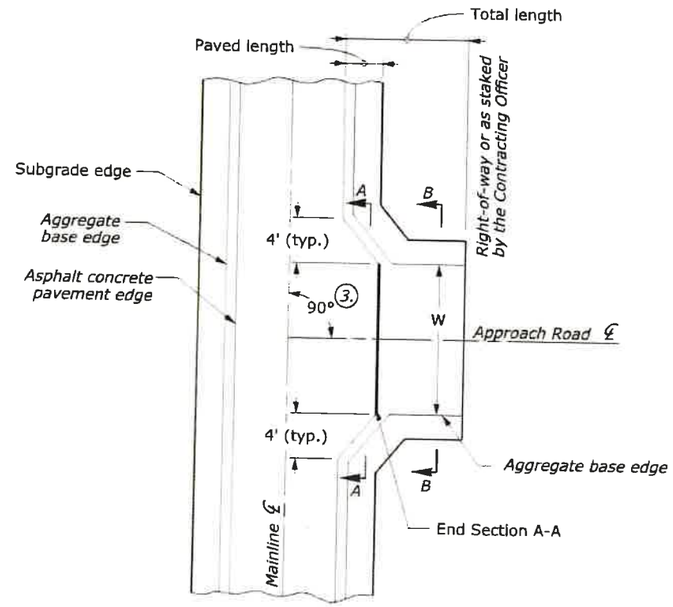
Sheet 2 of 2

4/2/2019 3:18:16 PM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\A-Gen_sht\TYP(DONN)CA40_01.dgn User: mcarlson

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	A10



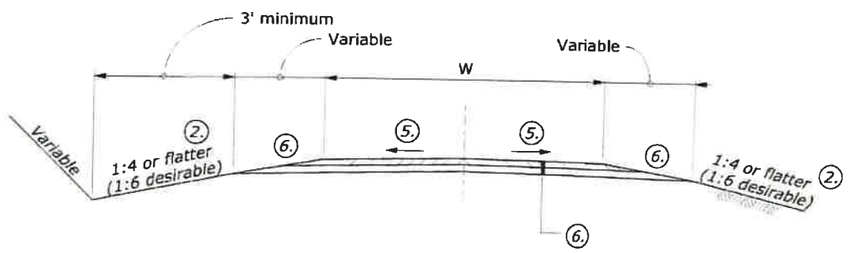
APPROACH ROAD TYPES 1 & 2 TYPICAL PLAN



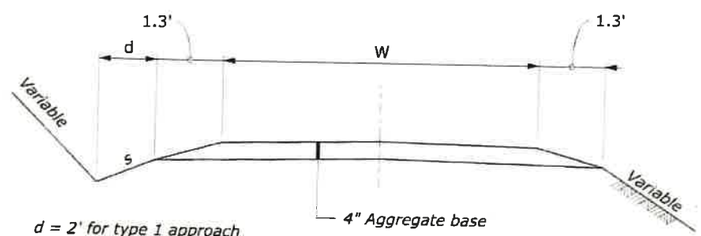
APPROACH ROAD TYPE 3 TYPICAL PLAN

NOTE:

1. Stations shown are approximate locations. Actual locations to be field verified.
2. Construct cut and fill slopes for approach roads to match with mainline roadway construction.
3. Under special conditions, the approach road angle shown may be varied ±20°.
4. Place culverts at the end of the approach road radius to provide a flatter foreslope and increased mainline recovery area. When a culvert must be placed within the clear zone of the mainline roadway, use safety end sections (see Standard Drawing 602-9).
5. Apply the normal mainline crown section to approach roads with widths greater than 15 feet. For paved aprons at Type 3 approach roads, cross slope shall match mainline roadway grade.
6. Refer to mainline typical sections for structural section thicknesses and foreslopes.
7. Construct approach roads with landing areas having grades within ±2%. In snowy regions restrict this to a 0% to -2% grade. Under special conditions, use 6% maximum.
8. Vary radii to fit unusual field conditions. Do not reduce existing radii or widths. R_1 is on the left side of the approach road centerline.
9. Provide at least 12" of cover over driveway culverts. Use slurry if 12" of cover cannot be constructed based on field conditions.

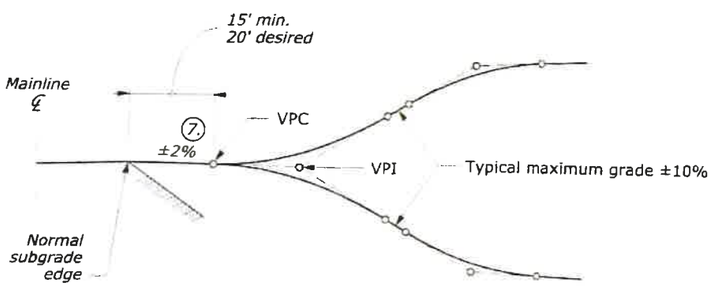


SECTION A-A



d = 2' for type 1 approach
d = 3' for type 2 approach
s = 1:3 for type 1 approach
s = 1:4 for type 2 approach

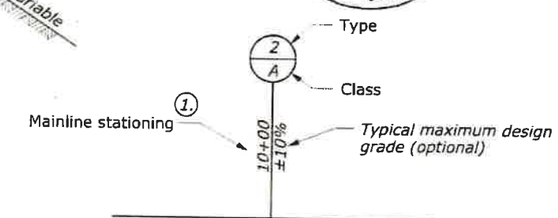
SECTION B-B



TYPICAL PROFILE

TYPE	CLASS	MIN. WIDTH W (ft)	MIN. RADIUS R (ft)	SAMPLE APPLICATION
1	A	12	15	Field Access
1	B	14	25	Minimum 1-Way Use
1	C	16	25	Farm Equipment
1	D	16	40	Logging Truck Use
2	A	18	25	Minimum 2-Way Use
2	B	20	25	ADT < 25
2	C	22	40	25 ≤ ADT < 100
2	D	24	40	100 ≤ ADT < 199
2	E	28	50	ADT ≥ 200
3	A	*	N/A	Paved apron

* Match existing



Example of symbol showing standard approach road connection on plan and profile sheet

TYPICAL SYMBOL

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

TYPICAL SECTIONS APPROACH ROADS

Sheet 1 of 2

3/21/2019 7:03:53 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\A-Gen_sht\TYP(DONN)CA40_Approach Roads_01.dgn User: mcarlson

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	A11

APPROACH ROAD SUMMARY

STATION	TYPE & CLASS	PAVED LENGTH (ft)	TOTAL LENGTH (ft)	W (ft)	R_1 (ft)	R_2 (ft)	REMARKS
109+00 Lt.	3A	4	4	704			
111+10 Rt.	3A	2	2	37			
115+70 Lt.	3A	12	12	66			
116+65 Rt.	3A	4	4	100			
116+75 Lt.	3A	5	5	30			
119+10 Rt.	3A	2	2	40			
119+40 Lt.	3A	6	6	40			
119+60 Rt.	3A	6	6	15			
120+00 Lt.	2A	50	50	24	*	*	Poma Lane
120+60 Rt.	3A	2	2	34			
123+37 Rt.	3A	8	8	24			
123+95 Rt.	3A	4	4	20			
124+05 Lt.	3A	6	6	50			
125+10 Lt.	2A	35	35	28	*	*	Liola Monte Lane
126+35 Lt.	3A	7	7	182			
126+60 Rt.	3A	10	10	317			
127+45 Lt.	3A	4	4	32			
128+93 Lt.	3A	15	15	32			
129+50 Rt.	3A	4	4	80			
129+80 Lt.	3A	2	15	20			
130+47 Lt.	3A	2	2	25			
132+00 Lt.	3A	10	10	36			
133+30 Lt.	3A	4	4	20			
134+05 Lt.	3A	6	6	24			
137+90 Rt.	3A	10	10	265			
137+93 Lt.	3A	4	4	26			Hill Road
139+55 Rt.	2E	22	22	30	*	*	Soda Springs Road
140+55 Rt.	3A	10	10	130			
140+63 Lt.	3A	4	4	26			
142+90 Rt.	3A	4	4	24			
143+95 Rt.	3A	4	4	12			
145+00 Rt.	3A	4	4	45			
145+40 Lt.	3A	4	4	55			
146+65 Rt.	3A	4	4	150			
148+57 Rt.	3A	4	10	20			
149+60 Lt.	3A	15	15	30			
150+60 Rt.	3A	4	4	230			
150+75 Lt.	3A	4	4	45			
151+80 Lt.	3A	4	4	78			
153+30 Lt.	3A	2	2	40			
153+50 Rt.	3A	4	12	58			
154+55 Lt.	3A	4	8	28			
155+00 Rt.	3A	4	4	25			
155+25 Lt.	3A	4	4	38			
156+35 Rt.	3A	4	4	107			
156+45 Lt.	3A	2	2	25			
158+05 Lt.	3A	6	6	20			
159+00 Rt.	3A	4	4	225			
160+08 Lt.	3A	2	2	33			

* Match existing

APPROACH ROAD SUMMARY (CONTINUED)

STATION	TYPE & CLASS	PAVED LENGTH (ft)	TOTAL LENGTH (ft)	W (ft)	R_1 (ft)	R_2 (ft)	REMARKS
160+70 Lt.	3A	4	4	35			
161+70 Lt.	3A	12	12	43			
162+70 Lt.	3A	12	12	18			
170+80 Lt.	3A	4	4	28			Bunny Hill Drive
209+70 Lt.	3A	4	25	50			
211+50 Lt.	3A	10	10	45			
221+20 Lt.	3A	4	11	75			
223+90 Lt.	3A	4	4	15			
229+95 Lt.	3A	12	12	60			
249+45 Rt.	3A	4	20	20			
253+11 Rt.	3A	18	18	50			
255+85 Rt.	3A	4	4	15			
257+35 Rt.	3A	4	4	75			
258+95 Rt.	3A	15	15	30			
261+00 Lt.	3A	8	8	892			
261+10 Rt.	3A	5	5	50			Sugar Bowl
283+50 Lt.	3A	2	2	27			
284+00 Lt.	3A	2	2	18			
286+30 Lt.	3A	10	10	32			
292+00 Lt.	3A	12	12	495			
293+25 Rt.	2E	25	25	36	*	*	Sugar Bowl Ski Area
294+00 Rt.	3A	5	5	72			
296+79 Lt.	3A	2	18	25			
296+80 Rt.	3A	5	5	16			
304+35 Rt.	3A	18	18	145			Sugar Bowl Academy
372+20 Lt.	3A	5	5	30			
407+25 Rt.	3A	12	12	75			
423+47 Lt.	3A	6	6	60			

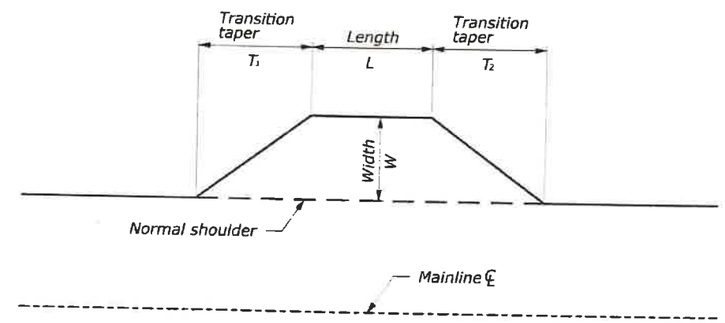
* Match existing

PULLOUT SUMMARY

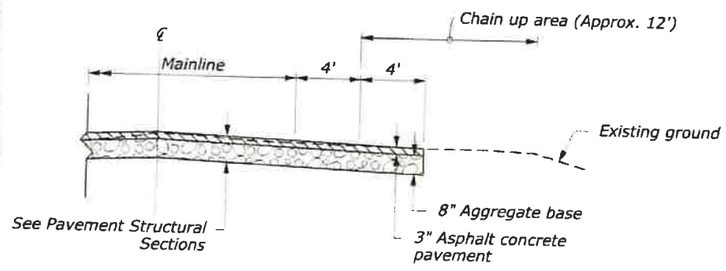
STATION TO STATION	SIDE	T_1 (ft)	L (ft)	T_2 (ft)	W (ft)	REMARKS
168+90 to 171+10	Rt	15	190	15	4	Chain-up Area
300+75 to 302+50	Lt	25	119	25	15	Airway Station

Notes:

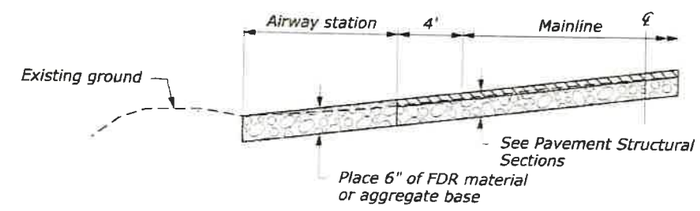
1. See D Sheets for additional pullout areas and details.



TYPICAL PULLOUT PLAN



CHAIN UP AREA TYPICAL SECTION



AIRWAY STATION PULLOUT TYPICAL SECTION

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
4/1/2019
CIVIL
STATE OF CALIFORNIA

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

APPROACH ROAD AND PULLOUT SUMMARY

Sheet 2 of 2

3/21/2019 7:03:54 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\A-Gen_sht\TYP(DONN)CA40_Approach Roads_02.dgn User: mcarlson

SUMMARY OF QUANTITIES

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B1

AMEND	Line Item No.	Pay Item Number	Pay Item Description	Unit	Sheet and Description: B5 GRADING SUMMARY	B6 - B7 DRAINAGE SUMMARY	B8 - B9 SURFACING SUMMARY	B10 GUARDRAIL SUMMARY	B11 REMOVAL SUMMARY	B12 - B13 TABULATION OF QUANTITIES	B14 - B16 PERMANENT SIGN SUMMARY	B17 PERMANENT PAVEMENT MARKING SUMMARY	Allowance	Estimated Quantities: Bid Schedule	Remarks and/or Determination of Estimated Quantity
	A0020	15101-0000	MOBILIZATION	LPSM										ALL	
	A0040	15214-2000	SURVEY AND STAKING, RETAINING WALL	LPSM						All				ALL	
	A0060	15215-1000	SURVEY AND STAKING, APPROACH ROAD	EACH						77				77	
	A0080	15215-3000	SURVEY AND STAKING, DRAINAGE STRUCTURE	EACH		11								11	
	A0100	15215-7000	SURVEY AND STAKING, PARKING AREA	EACH						9				9	
	A0120	15225-0000	SLOPE, REFERENCE, AND CLEARING AND GRUBBING CONTROL	MILE						6.400				6.400	
	A0140	15236-2000	SURVEY CONTROL, GRADE FINISHING	MILE						6.400				6.400	
	A0160	15301-0000	CONTRACTOR QUALITY CONTROL	LPSM										ALL	
	A0180	15401-0000	CONTRACTOR TESTING	LPSM										ALL	
	A0200	15501-0000	CONSTRUCTION SCHEDULE	LPSM										ALL	
	A0220	15701-0000	SOIL EROSION CONTROL (Erosion Control)	LPSM										ALL	
	A0240	15701-0000	SOIL EROSION CONTROL (Sediment Control)	LPSM										ALL	
	A0260	15701-0000	SOIL EROSION CONTROL (Non-Stormwater Control)	LPSM										ALL	
	A0280	15704-1200	SOIL EROSION CONTROL, ROCK MULCH	SQYD										ALL	
	A0300	15720-0000	STORM WATER POLLUTION PREVENTION PLAN	LPSM									20	20	At direction of CO (Sinkholes)
	A0320	15802-0000	WATERING FOR DUST CONTROL	LPSM										ALL	
	A0340	20101-0000	CLEARING AND GRUBBING	ACRE										ALL	
	A0360	20220-1000	REMOVAL, INDIVIDUAL TREE	EACH						37.4			1.1	38.5	
	A0380	20301-0700	REMOVAL OF DELINEATOR	EACH					100				5	105	
	A0400	20301-1100	REMOVAL OF GATE	EACH							416			416	
	A0420	20301-1200	REMOVAL OF HEADWALL	EACH		5			3					3	Road Closure Gates
	A0440	20301-1400	REMOVAL OF INLET	EACH		11								5	
	A0460	20301-2300	REMOVAL OF SIGN/MARKER	EACH										11	
A008	**A0470**	**20301-2800**	**REMOVAL OF STRUCTURES AND OBSTRUCTIONS** △1	**EACH**							63			63	
	A0480	20302-1200	REMOVAL OF GUARDRAIL	LNFT				**180**					**20**	**200**	**Removal of concrete "deadmen"**
	A0500	20302-2100	REMOVAL OF PIPE CULVERT	LNFT		272		4,697					235	4,932	
	A0520	20303-1600	REMOVAL OF PAVEMENT, ASPHALT	SQYD			50,614						13	285	
	A0540	20303-3200	REMOVAL OF SIDEWALK, CONCRETE	SQYD					22				1,586	52,200	
~~**A008**~~	~~**A0560**~~	~~**20304-1000**~~	~~**REMOVAL OF STRUCTURES AND OBSTRUCTIONS**~~ △1	~~**LPSM**~~									3	25	
	A0580	20401-0000	ROADWAY EXCAVATION	CUYD	6,607								~~**All**~~	~~**ALL**~~	~~**Removal of concrete "deadmen"**~~
	A0600	20402-0000	SUBEXCAVATION	CUYD						236			657	7,500	
	A0620	20421-0000	ROCK EXCAVATION	CUYD									250	250	
	A0640	20425-1000	DITCH, EXCAVATION	LNFT		864				178			17	195	
	A0660	20441-0000	WASTE	CUYD	4,549								36	900	
													451	5,000	

LICENSED PROFESSIONAL ENGINEER MATTHEW DAVID ANDREWS C 64 1/10/2020 CIVIL STATE OF CALIFORNIA

AMENDMENT A008

△1 *01/10/20 Pay Item Change*

MileStone: Amendment A008
Amendment Review Date: 01/10/20
Report Date: 01/10/20

Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CRLH\DVCA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\Spreadsheets\[TAB(DONN)CA40_SOQ.xlsm]Sheet
10-Jan-2020 7:48 AM

SUMMARY OF QUANTITIES

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B2

AMEND	Line Item No.	Pay Item Number	Pay Item Description	Unit	Sheet and Description: B5 GRADING SUMMARY	B6 - B7 DRAINAGE SUMMARY	B8 - B9 SURFACING SUMMARY	B10 GUARDRAIL SUMMARY	B11 REMOVAL SUMMARY	B12 - B13 TABULATION OF QUANTITIES	B14 - B16 PERMANENT SIGN SUMMARY	B17 PERMANENT PAVEMENT MARKING SUMMARY	Allowance	Estimated Quantities: Bid Schedule	Remarks and/or Determination of Estimated Quantity
	A0680	20442-0000	SLOPE SCALING	CUYD						19			1	20	
	A0700	20501-0000	CONTROLLED BLAST HOLE	LNFT						2,630			270	2,900	
	A0720	20702-1000	GEOTEXTILE FILTER, CLASS 2, TYPE E	SQYD									200	200	As directed by CO (Sinkholes)
	A0740	25101-2200	PLACED RIPRAP, METHOD B, CLASS 2	CUYD		12				32			4	48	
	A0760	25101-2400	PLACED RIPRAP, METHOD B, CLASS 4	CUYD		3							1	4	
	A0780	25210-0000	ROCKERY	SQFT						603			62	665	
	A0800	25501-1000	MECHANICALLY STABILIZED EARTH WALL, WELDED WIRE FACE	SQFT						7,505			295	7,800	
	A0820	26002-0000	ROCK DOWEL	LNFT						54			6	60	
	A0840	26005-0000	SHEAR PIN	EACH						20				20	At direction of CO
	A0860	30202-2000	ROADWAY AGGREGATE, METHOD 2	TON			11,612						588	12,200	
	A0880	30301-2000	SHOULDER RECONDITIONING	MILE			10.491							10.491	
	A0900	30302-1000	DITCH RECONDITIONING	LNFT		677							23	700	
	A0920	30401-5000	FULL DEPTH RECLAMATION, METHOD 2	MILE			2.894						0.206	3.100	
	A0960	40101-5600	ASPHALT CONCRETE PAVEMENT, GYRATORY MIX, 1/2-INCH OR 3/4-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 TO <3 MILLION ESAL	TON			19,202						798	20,000	
	A0980	40105-3000	ANTISTRIP ADDITIVE, TYPE 3	TON			192						8	200	
	A1020	40303-0100	ASPHALT CONCRETE PAVEMENT, TYPE 1, WEDGE AND LEVELING COURSE	TON			4,038						112	4,150	
	A1040	40601-0000	FOG SEAL	TON			51						4	55	
	A1060	41102-0000	PRIME COAT	SQYD			62,467						3,033	65,500	
	A1080	41105-0000	BLOTTER	TON			177						13	190	
	A1100	41201-0000	TACK COAT	TON			99						11	110	
	A1120	50207-0000	CONCRETE PAVEMENT RESTORATION, CRACKING AND SEATING PAVEMENT	SQYD			49,351						1,649	51,000	
	A1140	55401-1000	REINFORCING STEEL	LB		178								178	
	A1160	56603-0000	REINFORCED SHOTCRETE	SQYD						834			66	900	
	A1180	60101-0000	CONCRETE	CUYD		2.8							0.2	3.0	
	A1200	60103-0140	CONCRETE, HEADWALL FOR 24-INCH PIPE CULVERT	EACH		1								1	
	A1220	60201-0400	12-INCH PIPE CULVERT	LNFT		30							5	35	
	A1240	60201-0500	15-INCH PIPE CULVERT	LNFT		17							3	20	
	A1260	60201-0600	18-INCH PIPE CULVERT	LNFT		270							15	285	

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
CIVIL
STATE OF CALIFORNIA

Matthew David Andrews
8/26/2019

MileStone: 100%
Date Completed: 08/13/19

Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\Spreadsheets\[TAB(DONN)CA40_SOQ.xlsm]Sheet (2)
Aug-2019 12:17 PM

SUMMARY OF QUANTITIES

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B3

AMEND	Line Item No.	Pay Item Number	Pay Item Description	Unit	Sheet and Description: B5 GRADING SUMMARY	B6 - B7 DRAINAGE SUMMARY	B8 - B9 SURFACING SUMMARY	B10 GUARDRAIL SUMMARY	B11 REMOVAL SUMMARY	B12 - B13 TABULATION OF QUANTITIES	B14 - B16 PERMANENT SIGN SUMMARY	B17 PERMANENT PAVEMENT MARKING SUMMARY	Allowance	Estimated Quantities: Bid Schedule	Remarks and/or Determination of Estimated Quantity
	A1280	60201-0800	24-INCH PIPE CULVERT	LNFT		235							10	245	
	A1300	60201-0900	30-INCH PIPE CULVERT	LNFT		48							2	50	
	A1320	60201-1100	42-INCH PIPE CULVERT	LNFT		55							5	60	
	A1340	60201-1200	48-INCH PIPE CULVERT	LNFT		44							1	45	
	A1360	60210-0500	END SECTION FOR 15-INCH PIPE CULVERT	EACH		2								2	
	A1380	60210-0600	END SECTION FOR 18-INCH PIPE CULVERT	EACH		1								1	
	A1400	60210-0800	END SECTION FOR 24-INCH PIPE CULVERT	EACH		7								7	
	A1420	60210-0900	END SECTION FOR 30-INCH PIPE CULVERT	EACH		2								2	
	A1440	60210-1100	END SECTION FOR 42-INCH PIPE CULVERT	EACH		2								2	
	A1460	60401-0000	MANHOLE	EACH		2								2	
	A1480	60403-1200	INLET, FLH TYPE 5A	EACH		23								23	
	A1500	60403-2300	INLET, FLH TYPE 7B	EACH		3								3	
	A1520	60405-0000	MANHOLE ADJUSTMENT	EACH					57				3	60	
	A1540	60901-2100	CURB, ASPHALT, 4-INCH DEPTH	LNFT						7,045			355	7,400	
	A1560	60905-1000	GUTTER, CONCRETE	LNFT						138			7	145	
	A1580	61108-4000	ADJUST VALVE BOX	EACH					42				3	45	
	A1600	61505-1000	ACCESSIBILITY RAMP, CONCRETE	EACH						1				1	
	A1620	61701-4500	GUARDRAIL SYSTEM MGS, TYPE 2, CLASS A STEEL POSTS	LNFT				4,225					125	4,350	
	A1640	61702-0600	TERMINAL SECTION, TYPE FLARED	EACH				27						27	
	A1660	61702-0800	TERMINAL SECTION TYPE TANGENT	EACH				4						4	
	A1680	61702-1200	TERMINAL SECTION, TYPE LST	EACH				1						1	
	A1700	61707-1000	STRUCTURE TRANSITION RAILING, G4 SYSTEM	LNFT				27						27	
	A1720	61707-4000	STRUCTURE TRANSITION RAILING, MGS SYSTEM	LNFT				81						81	
	A1740	61801-0000	CONCRETE BARRIER	LNFT				70					5	75	
	A1760	61902-0000	GATE	EACH						1				1	
	A1780	61902-1600	GATE, METAL, 20 FEET WIDTH	EACH						2				2	
	A1800	62201-0200	DUMP TRUCK, 8 CUBIC YARD MINIMUM CAPACITY	HOUR									80	80	
	A1820	62201-0550	BACKHOE LOADER, 6 CUBIC FOOT MINIMUM RATED CAPACITY BUCKET, 24-INCH WIDTH	HOUR									80	80	
	A1840	62201-0950	WHEEL LOADER, 3 CUBIC YARD MINIMUM RATED CAPACITY	HOUR									80	80	
	A1860	62201-1300	BULLDOZER, 160HP MINIMUM FLYWHEEL POWER	HOUR									80	80	
	A1880	62201-2850	MOTOR GRADER, 12 FOOT MINIMUM BLADE	HOUR									80	80	
	A1900	62201-3350	HYDRAULIC EXCAVATOR, 1 CUBIC YARD MINIMUM CAPACITY	HOUR									80	80	

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREW
C 85264
CIVIL
STATE OF CALIFORNIA

Matthew David Andrew
8/26/2019

MileStone: 100%
Date Completed: 08/13/19

Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\Spreadsheets\[TAB(DONN)CA40_SOQ.xlsm]Sheet (3)
Aug-2019 12:17 PM

SUMMARY OF QUANTITIES

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B4

AMEND	Line Item No.	Pay Item Number	Pay Item Description	Unit	Sheet and Description: B5 GRADING SUMMARY	B6 - B7 DRAINAGE SUMMARY	B8 - B9 SURFACING SUMMARY	B10 GUARDRAIL SUMMARY	B11 REMOVAL SUMMARY	B12 - B13 TABULATION OF QUANTITIES	B14 - B16 PERMANENT SIGN SUMMARY	B17 PERMANENT PAVEMENT MARKING SUMMARY	Allowance	Estimated Quantities: Bid Schedule	Remarks and/or Determination of Estimated Quantity
	A1920	62301-0000	GENERAL LABOR	HOUR									80	80	
	A1940	62302-1000	SPECIAL LABOR, HIRED TECHNICAL SERVICES	HOUR									80	80	
	A1960	62302-1100	SPECIAL LABOR, HIRED SURVEY SERVICES	HOUR									80	80	
	A1980	62401-0300	FURNISHING AND PLACING TOPSOIL, 4-INCH DEPTH	SQYD	13,288								712	14,000	
	A2000	62510-2000	SEEDING, HYDRAULIC METHOD	ACRE						8.1			0.2	8.3	
	A2020	62515-2000	MULCHING, HYDRAULIC METHOD	ACRE						8.1			0.2	8.3	
	A2040	63301-0000	SIGN SYSTEM	EACH							97			97	
	A2060	63309-1000	DELINEATOR, TYPE SNOW POLE	EACH							355			355	
	A2080	63316-1000	REMOVE AND RESET SIGN	EACH							2			2	
	A2100	63318-1000	SNOW POLE HOLDER	EACH							115			115	
	A2120	63402-2300	PAVEMENT MARKINGS, TYPE L, SOLID	MILE								25.8	0.2	26.0	
	A2140	63403-0400	PAVEMENT MARKINGS, TYPE D	SQFT								492	8	500	
	A2160	63405-1350	PAVEMENT MARKINGS, TYPE D, STRAIGHT ARROW	EACH								35		35	
	A2180	63405-1650	PAVEMENT MARKINGS, TYPE D, ACCESSIBILITY SYMBOL	EACH								2		2	
	A2200	63407-0200	RECESSED PAVEMENT MARKER, BI-DIRECTIONAL REFLECTIVE	EACH								1,410	40	1,450	
	A2220	63501-0000	TEMPORARY TRAFFIC CONTROL	LPSM										ALL	
A008	**A2225**	**63713-0000**	**FIELD OFFICE SERVICES** 1	**MO**										**18**	
A008	**A2230**	**64502-0000**	**LOCATE UTILITIES** 1	**EACH**										**40**	

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
1/10/2020
CIVIL
STATE OF CALIFORNIA

AMENDMENT A008

1 01/10/20 Pay Item Change

MileStone: Amendment A008
Amendment Review Date: 01/10/20
Report Date: 01/10/20

Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\Spreadsheets\[TAB(DONN)CA40_SOQ.xlsm]Sheet (4)
10-Jan-2020 12:12 PM

GRADING SUMMARY

Station to Station	Roadway Excavation For info only	Pay Item 20401-0000	Embankment For info only	Pay Item 20441-0000
	ROADWAY PRISM	ROADWAY EXCAVATION	ROADWAY PRISM	WASTE
	BCY	CUYD	CCY	CUYD
104+50 - 108+00	72	72	2	70
108+00 - 120+00	316	316	120	196
120+00 - 133+00	387	387	64	323
133+00 - 147+00	419	419	21	398
147+00 - 160+00	472	472	10	462
160+00 - 173+00	359	359	63	296
173+00 - 182+00	238	238	110	128
182+00 - 196+00	321	321	126	195
196+00 - 210+00	439	439	103	336
210+00 - 224+00	306	306	105	201
224+00 - 238+00	409	409	55	354
238+00 - 252+00	326	326	41	285
252+00 - 266+00	307	307	38	269
266+00 - 280+00	321	321	50	271
280+00 - 294+00	211	211	56	155
294+00 - 308+00	183	183	72	111
308+00 - 318+00	90	90	218	0
318+00 - 326+00	93	93	40	53
326+00 - 336+00	76	76	62	14
336+00 - 350+00	137	137	47	90
350+00 - 360+00	131	131	60	71
360+00 - 372+00	120	120	132	0
372+00 - 386+00	154	154	106	48
386+00 - 400+00	242	242	195	47
400+00 - 413+00	80	80	79	1
413+00 - 420+00	56	56	49	7
420+00 - 434+00	123	123	49	0
434+00 - 442+50	219	219	51	168
TOTALS	6,607	6,607	2,124	4,549

Notes:

1. Estimated quantities calculated using volumes adjusted for shrink/swell. Value assumed to be 1.
2. The quantities shown herein are approximations. Payment will be made for the actual quantities of work performed.
3. The quantities shown herein represent estimated volumes to construct the roadway prism only. See the MSE Wall Summary, Rockery Summary and Rock Cut Summary for pay items and quantities associated with MSE walls, rockery and rock cuts.
4. BCY = Bank cubic yard - one cubic yard of material as it lies in the natural state.
   CCY = Compacted cubic yard - one cubic yard of material after it has been compacted to specification density.

TOPSOIL SUMMARY

Station to Station	Item Number 62401-0300
	FURNISHING AND PLACING TOPSOIL, 4-INCH DEPTH
	SQYD
104+50 - 108+00	95
108+00 - 120+00	796
120+00 - 133+00	685
133+00 - 147+00	526
147+00 - 160+00	492
160+00 - 173+00	1,072
173+00 - 182+00	597
182+00 - 196+00	864
196+00 - 210+00	913
210+00 - 224+00	961
224+00 - 238+00	671
238+00 - 252+00	671
252+00 - 266+00	526
266+00 - 280+00	768
280+00 - 294+00	
294+00 - 308+00	
308+00 - 318+00	
318+00 - 326+00	
326+00 - 336+00	
336+00 - 350+00	
350+00 - 360+00	
360+00 - 372+00	
372+00 - 386+00	
386+00 - 400+00	
400+00 - 413+00	1,121
413+00 - 420+00	626
420+00 - 434+00	1,155
434+00 - 442+50	750
TOTALS	13,288

Notes:

1. No conservable topsoil was assumed to be stripped in cuts or under fills. All topsoil is assumed as imported.
2. No topsoil will be placed between 289+00 to 395+00 due to existing rock fill.

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
CIVIL
STATE OF CALIFORNIA
4/11/2019

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

GRADING SUMMARY

3/21/2019 1:01:19 PM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\TAB(DONN)CA40_Grading Summary.dgn User: mcarlson

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B6

DRAINAGE SUMMARY

Station	Side	Skew (deg)	15215-3000 SURVEY AND STAKING, DRAINAGE STRUCTURE (EACH)	20301-1200 REMOVAL OF HEADWALL (EACH)	20301-1400 REMOVAL OF INLET (EACH)	20302-2100 REMOVAL OF PIPE CULVERT (LNFT)	20425-1000 DITCH, EXCAVATION (LNFT)	25101-2200 PLACED RIPRAP, METHOD B, CLASS 2 (CUYD)	25101-2400 PLACED RIPRAP, METHOD B, CLASS 4 (CUYD)	30302-1000 DITCH RECONDITIONING (LNFT)	55401-1000 REINFORCING STEEL (LB)	60101-0000 CONCRETE (CUYD)	60103-0140 CONCRETE, HEADWALL FOR 24-INCH PIPE CULVERT (EACH)	60201-0400 12-INCH PIPE CULVERT (LNFT)	60201-0500 15-INCH PIPE CULVERT (LNFT)	60201-0600 18-INCH PIPE CULVERT (LNFT)	60201-0800 24-INCH PIPE CULVERT (LNFT)	60201-0900 30-INCH PIPE CULVERT (LNFT)	60201-1100 42-INCH PIPE CULVERT (LNFT)
128+28		9	1			75			3										55
128+92	LT					40													
129+41	LT		1																
129+90	LT					43										136			
136+75	LT																		
149+57	LT		1															2	
149+94	LT					15										90			
174+83	LT			1															
184+33	LT				1	1										5			
185+66	LT			1		3													
187+96	LT				1														
191+29	LT				1	2										1			
192+66																			
193+80	LT				1	3											30		
196+87	LT			1		2													
200+21	LT				1	3													
202+02	LT			1															
203+44	LT				1											6			
205+36	LT			1												8			
207+04	LT				1												7		
214+42	LT				1											1			
237+12	LT			1													1		
238+11	LT				1												3		
239+92	LT				1											6			
251+43	LT				1											7			
280+82	LT			1												5			
282+55	LT			1														4	
283+55	LT			1		30										3			
283+85	LT		1											30					
287+96	LT			1	1						178	2.8							
292+41			1	2		55										2			
310+82			1	1															
~~312+00~~ 319+78	LT						238						1				35		
322+63	LT							10											
323+03	LT						24												
323+72	LT						80												
324+15		7	1																
341+70	RT						62										40		
342+00	LT						156												
343+55	RT			1															
365+87			1												11				
369+66			1														45		
374+25	LT									377							34		
382+67	LT						25												
384+04	LT						37												
384+24			1																
392+25		3	1															42	
399+00	RT			2				2									40		
400+40	LT						77								6				
401+77	LT						107												
402+79	LT						58												
420+50	LT									300									
TOTALS			11	~~5~~ 16	~~11~~ 13	~~272~~ 422.720	864	12	3	677	178	2.8	1	~~36~~ 36	~~17~~ 72.700	~~270~~ 300.950	~~235~~ 54.700	~~40~~ 184.500	~~55~~ 0

Notes:

1. The quantities, location, and skews shown are approximate and are subject to field adjustment. Do not order culvert pipe or appurtenances until the actual quantities are approved in the field by the Contracting Officer.
2. See C-sheets for pipe material type.
3. It is assumed that structural excavation and structural backfill are included in the cost of all pipes and drainage structures.

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85364
CIVIL
STATE OF CALIFORNIA

Matthew David Andrews
4/1/2019

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

DRAINAGE SUMMARY

Sheet 1 of 2

3/22/2019 9:17:47 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\TAB(DONN)CA40_Drainage Summary.dgn _User: mcarlson_

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	87

DRAINAGE SUMMARY

Station	Side	Skew (deg)	60201-1200 48-INCH PIPE CULVERT (LNFT)	60210-0500 END SECTION FOR 15-INCH PIPE CULVERT (EACH)	60210-0600 END SECTION FOR 18-INCH PIPE CULVERT (EACH)	60210-0800 END SECTION FOR 24-INCH PIPE CULVERT (EACH)	60210-0900 END SECTION FOR 30-INCH PIPE CULVERT (EACH)	60210-1100 END SECTION FOR 42-INCH PIPE CULVERT (EACH)	60401-0000 MANHOLE (EACH)	60403-1200 INLET, FLH TYPE 5A (EACH)	60403-2300 INLET, FLH TYPE 7B (EACH)	NO PAY GEOTEXTILE FILTER, CLASS 1, TYPE E (NON-WOVEN) (SQYD)	Remarks
128+28		9						2				10	Remove and replace existing culvert.
128+92	LT												Remove existing approach road culvert, LT.
129+41	LT												Install approach road culvert 18" HDPE, LT.
129+90	LT												Remove existing approach road culvert, Lt.
136+75	LT						1						Extend existing 30" CMP, Install end section, Lt.
149+57	LT									1			Install inlet and approach road culvert, Lt.
149+94	LT												Remove existing approach road culvert, Lt.
174+83	LT				1								Extend existing 18" CMP, Install end section, Lt.
184+33	LT									1			Remove and replace existing inlet, Lt. Inlet in bike lane
185+66	LT									1			Install inlet, Lt. Inlet in bike lane
187+96	LT									1			Remove and replace existing inlet, Lt. Inlet in bike lane
191+29	LT									1			Remove and replace existing inlet, Lt. Inlet in bike lane
192+66						1				1			Install 24" HDPE with inlet, Lt. and end section, Rt. Inlet in bike lane
193+80	LT									1			Remove and replace existing inlet, Lt. Inlet in bike lane
196+87	LT									1			Remove headwall and install inlet, Lt. Inlet in bike lane
200+21	LT									1			Remove and replace existing inlet, Lt. Inlet in bike lane
202+02	LT									1			Remove headwall and install inlet, Lt.
203+44	LT									1			Install inlet, Lt.
205+36	LT					1							Extend existing 24" CMP, Lt. Install end section, Lt.
207+04	LT									1			Remove and replace existing inlet, Lt.
214+42	LT									1			Remove and replace existing inlet, Lt.
237+12	LT									1			Remove and replace existing inlet, Lt.
238+11	LT									1			Remove and replace existing inlet, Lt.
239+92	LT									1			Remove and replace existing inlet, Lt.
251+43	LT									1			Remove and replace existing inlet, Lt.
280+82	LT										2		Remove headwall. Extend existing 30" CMP install (2) inlets, Lt.
282+55	LT									1			Remove headwall. Extend existing 18" CMP install inlet, Lt.
283+55	LT												Remove and replace approach road culvert, Lt.
283+85	LT												Install wingwall, Lt.
287+96	LT									1			Install inlet, Lt. Extend existing pipe, Lt.
292+41			44						2				Remove and replace section of existing culvert with (2) manholes.
310+82						1							Install 24" HDPE with headwall, Lt.
319+78	LT												Grade Ditch
322+63	LT											33	Rundown
323+03	LT												Grade Ditch
323+72	LT												Grade Ditch
324+15		7				1				1			Install 24" HDPE with inlet, Lt. and end section, Rt.
341+70	RT												Grade Ditch
342+00	LT												Grade Ditch
343+55	RT			1									Extend 15" existing CMP with end section, Rt.
365+87						1				1			Install 24" HDPE with inlet, Lt. and end section, Rt.
369+66						1				1			Install 24" HDPE with inlet, Lt. end section, Rt.
374+25	LT												Recondition ditch from Sta 372+39 to 376+16
382+67	LT												Grade Ditch
384+04	LT												Grade Ditch
384+24							1				1		Install 30" HDPE with inlet, Lt. and end section, Rt.
392+25		3				1				1			Install 24" HDPE with inlet, Lt. and end section, Rt.
399+00	RT			1								9	Remove headwall, extend 15" CMP with end section, Rt
400+40	LT												Grade Ditch
401+77	LT												Grade Ditch
402+79	LT												Grade Ditch
420+50	LT												Recondition ditch from Sta 419+00 to 422+00
TOTALS			~~44~~ 48	~~2~~ 1	~~1~~ 0	~~7~~ 5	~~2~~ 5	~~2~~ 0	~~2~~ 1	~~23~~ 22	~~3~~ 2	52	

Notes:

1. The quantities, location, and skews shown are approximate and are subject to field adjustment. Do not order culvert pipe or appurtenances until the actual quantities are approved in the field by the Contracting Officer.
2. See C-sheets for pipe material type
3. It is assumed that structural excavation and structural backfill are included in the cost of all pipes and drainage structures.

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
CIVIL
STATE OF CALIFORNIA
4/1/2019

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

DRAINAGE SUMMARY

Sheet 2 of 2

3/21/2019 1:01:24 PM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\TAB(DONN)CA40_Drainage Summary.dgn User: mcarlson

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B8

SURFACING SUMMARY

Item Number	20303-1600	30202-2000	30301-2000	30401-5000	40101-5600	40303-0100	40105-3000	40601-0000	41102-0000	41201-0000	50207-0000	
Station to Station	REMOVAL OF PAVEMENT, ASPHALT	ROADWAY AGGREGATE, METHOD 2	SHOULDER RECONDITIONING	FULL DEPTH RECLAMATION, METHOD 2	ASPHALT CONCRETE PAVEMENT, GYRATORY MIX, 1/2-INCH OR 3/4-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 TO <3 MILLION ESAL	ASPHALT CONCRETE PAVEMENT, TYPE 1, WEDGE AND LEVELING COURSE	ANTISTRIP ADDITIVE, TYPE 3	FOG SEAL	PRIME COAT	TACK COAT	CONCRETE PAVEMENT RESTORATION, CRACKING AND SEATING PAVEMENT	REMARKS
	SQYD	TON	MILE	MILE	TON	TON	TON	TON	SQYD	TON	SQYD	
Donner Pass Road												
104+50 - 111+10		29	0.250	0.125	354		3.5	0.9	2167	0.9		Segment N-1
111+10 - 231+20	29282	5498	4.549		6346	3440	63	17		51	29282	Segment N-2
135+55 - 143+25		33	~~0.292~~	0.146	353		3.5	0.9	2163	0.9		Segment N-2 WB
231+20 - 280+90	12789	2282	1.883		2723	598	27.2	7.2		21.6	12789	Segment P-3
280+90 - 304+00	7280	840	0.875		1280		12.8	3.4	7833	3.4	7280	Segment N-4
304+00 - 338+00		148	~~0.663~~ .644	0.644	1646		16.5	4.3	10079	4.3		Segment N-5a
338+00 - 442+50		454	1.979	1.979	5453		54.5	14.3	33385	14.3		Segment N-5b
Approach Roads												
109+00 Lt.		82			51		0.51	0.135	314	0.135		
111+10 Rt.		2			1		0.01	0.004	9	0.004		
115+70 Lt.		25			15		0.15	0.040	94	0.040		
116+65 Rt.		12			8		0.08	0.020	46	0.020		
116+75 Lt.		5			3		0.03	0.008	19	0.008		
119+10 Rt.		3			2		0.02	0.004	10	0.004		
119+40 Lt.		8			5		0.05	0.013	30	0.013		
119+60 Rt.		3			2		0.02	0.005	13	0.005		
120+00 Lt.		48			30		0.30	0.079	185	0.079		
120+60 Rt.		2			1		0.01	0.004	8	0.004		
123+37 Rt.		6			4		0.04	0.011	25	0.011		
123+95 Rt.		3			2		0.02	0.005	11	0.005		
124+05 Lt.		10			6		0.06	0.016	37	0.016		
125+10 Lt.		46			29		0.29	0.076	177	0.076		
126+35 Lt.		39			24		0.24	0.064	149	0.064		
126+60 Rt.		93			58		0.58	0.153	357	0.153		
127+45 Lt.		4			2		0.02	0.006	15	0.006		
128+93 Lt.		16			10		0.10	0.027	63	0.027		
129+50 Rt.		10			6		0.06	0.016	37	0.016		
129+80 Lt.		11			1		0.01	0.002	5	0.002		
130+47 Lt.		11			1		0.01	0.003	6	0.003		
132+00 Lt.		25			7		0.07	0.019	44	0.019		
133+30 Lt.		8			2		0.02	0.004	10	0.004		
134+05 Lt.		9			3		0.03	0.008	18	0.008		
137+90 Rt.		82			51		0.51	0.135	314	0.135		
137+93 Lt.		4			2		0.02	0.006	14	0.006		
139+55 Rt.		22			14		0.14	0.036	85	0.036		
140+55 Rt.		43			27		0.27	0.071	165	0.071		
140+63 Lt.		4			2		0.02	0.006	14	0.006		
142+90 Rt.		3			2		0.02	0.005	13	0.005		
143+95 Rt.		2			1		0.01	0.003	7	0.003		
145+00 Rt.		6			3		0.03	0.009	21	0.009		
145+40 Lt.		7			4		0.04	0.011	27	0.011		
146+65 Rt.		18			11		0.11	0.029	68	0.029		
148+57 Rt.		3			2		0.02	0.005	11	0.005		
149+60 Lt.		17			11		0.11	0.028	65	0.028		
150+60 Rt.		30			19		0.19	0.050	116	0.050		
150+75 Lt.		6			4		0.04	0.009	22	0.009		
151+80 Lt.		9			6		0.06	0.016	36	0.016		
153+30 Lt.		2			2		0.02	0.004	10	0.004		
153+50 Rt.		21			5		0.05	0.012	28	0.012		
154+55 Lt.		7			2		0.02	0.006	14	0.006		
155+00 Rt.		3			2		0.02	0.006	13	0.006		
155+25 Lt.		5			3		0.03	0.008	19	0.008		

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
STATE OF CALIFORNIA
Matthew David Andrews
4/1/2019

Values used for estimating purposes:

Roadway aggregate	139 lb/ft3
Asphalt concrete pavement	145.2 lb/ft3
Antistrip	1 % of weight of mix
Fog seal	0.1 gal/yd2 (233 gal/ton)
Asphalt binder	6 % of weight of mix
Prime coat	0.27 gal/yd2 (233 gal/ton)
Tack coat	0.1 gal/yd2 (233 gal/ton)
Blotter	14.75 lb/yd2 , assume 20% of area

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

SURFACING SUMMARY

Sheet 1 of 2

4/1/2019 6:00:17 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\TAB(DONN)CA40_Surfacing Summary.dgn _User: mcarlson_

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B9

SURFACING SUMMARY

Item Number	20303-1600	30202-2000	30301-2000	30401-5000	40101-5600	40303-0100	40105-3000	40601-0000	41102-0000	41201-0000	50207-0000	
Station to Station	REMOVAL OF PAVEMENT, ASPHALT	ROADWAY AGGREGATE, METHOD 2	SHOULDER RECONDITIONING	FULL DEPTH RECLAMATION, METHOD 2	ASPHALT CONCRETE PAVEMENT, GYRATORY MIX, 1/2-INCH OR 3/4-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 TO <3 MILLION ESAL	ASPHALT CONCRETE PAVEMENT, TYPE 1, WEDGE AND LEVELING COURSE	ANTISTRIP ADDITIVE, TYPE 3	FOG SEAL	PRIME COAT	TACK COAT	CONCRETE PAVEMENT RESTORATION, CRACKING AND SEATING PAVEMENT	REMARKS
	SQYD	TON	MILE	MILE	TON	TON	TON	TON	SQYD	TON	SQYD	
156+35 Rt.		13			8		0.08	0.021	49	0.021		
156+45 Lt.		2			1		0.01	0.003	6	0.003		
158+05 Lt.		4			3		0.03	0.007	16	0.007		
159+00 Rt.		27			17		0.17	0.044	102	0.044		
160+08 Lt.		2			1		0.01	0.004	8	0.004		
160+70 Lt.		5			3		0.03	0.008	18	0.008		
161+70 Lt.		18			11		0.11	0.029	68	0.029		
162+70 Lt.		8			5		0.05	0.013	30	0.013		
170+80 Lt.		4			2		0.02	0.006	15	0.006		
209+70 Lt.		6			4		0.04	0.010	24	0.010		
211+50 Lt.		14			9		0.09	0.023	53	0.023		
221+20 Lt.		25			6		0.06	0.015	36	0.015		
223+90 Lt.		2			1		0.01	0.004	8	0.004		
229+95 Lt.		22			14		0.14	0.036	85	0.036		
249+45 Rt.		12			8		0.08	0.020	46	0.020		
253+11 Rt.		28			17		0.17	0.046	106	0.046		
255+85 Rt.		2			1		0.01	0.004	8	0.004		
257+35 Rt.		9			6		0.06	0.015	36	0.015		
258+95 Rt.		15			2		0.02	0.006	15	0.006		
261+00 Lt.		207			130		1.30	0.341	796	0.341		
261+10 Rt.		8			5		0.05	0.013	30	0.013		
283+50 Lt.		2			1		0.01	0.003	7	0.003		
284+00 Lt.		1			1		0.01	0.002	5	0.002		
286+30 Lt.		11			7		0.07	0.017	40	0.017		
292+00 Lt.		174			109		1.09	0.287	669	0.287		
293+25 Rt.		39			24		0.24	0.064	150	0.064		
294+00 Rt.		11			7		0.07	0.018	42	0.018		
296+79 Lt.		15			2		0.02	0.005	13	0.005		
296+80 Rt.		3			1		0.01	0.004	9	0.004		
304+35 Rt.		77			11		0.11	0.028	66	0.028		
372+20 Lt.		5			3		0.03	0.008	19	0.008		
407+25 Rt.		30			19		0.19	0.049	113	0.049		
423+47 Lt.		11			7		0.07	0.018	43	0.018		
Pullouts												
Chain-Up Area					15		0.17	0.04	102	0.044		
Airway Station		76										
Rainbow Bridge Parking Area	1264				138		2.06	0.54	1264	0.542		
School House Pullout		100										
Star Wall Pullout		35										
Snowshed North Pullout		97										
Snowshed South Pullout		200										
Space Wall Pullout		92										
Black Wall Pullout		109										
TOTALS	**50,614**	**11,612**	**10.~~491~~180**	**2.894**	**19,202**	**4,038**	**192**	**51**	**62,467**	**99**	**49,351**	

Values used for estimating purposes:

Roadway aggregate 139 lb/ft3
Asphalt concrete pavement 145.2 lb/ft3
Antistrip . . . . 1 % of weight of mix
Fog seal . . . . 0.1 gal/yd2 (233 gal/ton)
Asphalt binder . . . . 6 % of weight of mix
Prime coat . . . . 0.27 gal/yd2 (233 gal/ton)
Tack coat . . . . 0.1 gal/yd2 (233 gal/ton)
Blotter . . . . 14.75 lb/yd2 , assume 20% of area

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
CIVIL
STATE OF CALIFORNIA
Matthew David Andrews
4/1/2019

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

SURFACING SUMMARY

Sheet 2 of 2

4/1/2019 6:00:21 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\TAB(DONN)CA40_Surfacing Summary.dgn User: mcarlson

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B10

GUARDRAIL SUMMARY

Station to Station	Side	20301-2800 REMOVAL OF STRUCTURES AND OBSTRUCTIONS (EACH)	20302-1200 REMOVAL OF GUARDRAIL See Note 2 (LNFT)	61701-4500 GUARDRAIL SYSTEM MGS, TYPE 2, CLASS A STEEL POSTS (LNFT)	61702-0600 TERMINAL SECTION, TYPE FLARED (EACH)	61702-0800 TERMINAL SECTION TYPE TANGENT (EACH)	61702-1200 TERMINAL SECTION, TYPE LST (EACH)	61707-1000 STRUCTURE TRANSITION RAILING, G4 SYSTEM (LNFT)	61707-0000 ~~61707-4000~~ STRUCTURE TRANSITION RAILING, MGS SYSTEM (LNFT)	61801-0000 CONCRETE BARRIER See Note 3 (LNFT)	Remarks
113+00 - 115+36	LT		204	187.50	2						Use 8' posts between Station 114+50 to 115+00 5' shy distance (typ)
113+20 - 115+72	RT		203	200.00	2						Use 8' posts between Station 114+50 to 115+00 5' shy distance (typ)
162+01 - 163+66	RT			37.50	1	1					
162+78 - 164+38	LT			37.50		1	1	26.875	~~53.75~~ 50	35	5' shy distance (typ)
309+17 - 313+56	RT		415	387.50	1	1			~~26.875~~ 25	35	5' shy distance (typ)
314+24 - 316+71	RT		252	212.50	2						2' shy distance (typ)
322+79 - 324+84	RT		191	150.00	2						3' shy distance (typ)
326+05 - 326+58	RT		46	25.00	1						
326+16 - 326+74	LT		57	37.50		1					See Note 1
329+44 - 330+91	LT		158	137.50	1						See Note 1
329+54 - 330+38	RT		69	50.00	1						See Note 1
347+20 - 348+25	RT		104	62.50	2						See Note 1
351+03 - 353+11	RT		204	162.50	2						4' shy distance (typ)
364+93 - 372+24	RT		753	700.00	2						1' shy distance (typ)
372+55 - 375+19	RT		278	237.50	2						
381+36 - 390+10	RT	105	854	800.00	2						
390+50 - 396+85	RT	75	654	600.00	2						2' shy distance (typ)
410+76 - 413+09	RT		255	200.00	2						1' shy distance (typ)
											2' shy distance (typ)
TOTAL		180	4697	4225.00	27	4	1	26.875	75 ~~80.625~~	70	

Notes:

1. Connect MGS, Type 2, Class A guardrail to existing structure transition railing at the Rainbow Bridge. Contractor to replace connection bolts between Rainbow Bridge barrier and existing structure transition railing at direction of the CO.
2. The quantity for Removal of Guardrail includes the length of the the terminal sections. All work related to removing guardrail and terminal sections shall be paid for as Removal of Guardrail.
3. See Special 618-A and 618-B, Concrete Barrier Type 60M, for Concrete Barrier details.
4. Install guardrail to match existing shy distance. See cross sections for additional information.
5. Contractor to verify guardrail post locations do not conflict with proposed drainage features or existing utilities prior to installation.
6. 8' posts could not be used at the first two locations due to an existing bridge deck.

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDRE
C 85264
1/10/2020
CIVIL
STATE OF CALIFORNIA

AMENDMENT A008

1 01/10/20 Pay Item Change

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

GUARDRAIL SUMMARY

1/10/2020 8:05:54 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\TAB(DONN)CA40_Guardrail Summary.dgn _User: dhellrung_

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B11

REMOVAL SUMMARY

Station to Station	Item Number 20220-1000 REMOVAL, INDIVIDUAL TREE (See Note 1) EACH	20301-1100 REMOVAL OF GATE EACH	20303-3200 REMOVAL OF SIDEWALK, CONCRETE SQYD	60405-0000 MANHOLE ADJUSTMENT (See Note 2) EACH	61108-4000 ADJUST VALVE BOX (See Note 2) EACH	Remarks
Donner Pass Road						
104+50 - 108+00						
108+00 - 120+00	11			1		Sheet C1
120+00 - 133+00	4			3	5	Sheet C2
133+00 - 147+00	4			5	4	Sheet C3
147+00 - 160+00					6	Sheet C4
160+00 - 173+00	15			4	1	Sheet C5
173+00 - 182+00	1			5	4	Sheet C6
182+00 - 196+00				4		Sheet C7
196+00 - 210+00				5		Sheet C8
210+00 - 224+00	3			3	1	Sheet C9
224+00 - 238+00	1			5	6	Sheet C10
238+00 - 252+00	2			2	3	Sheet C11
252+00 - 266+00				4	2	Sheet C12
266+00 - 280+00				1	5	Sheet C13
280+00 - 294+00	2			2		Sheet C14
294+00 - 308+00	2	1		2	3	Sheet C15
308+00 - 318+00	4			2	2	Sheet C16
318+00 - 326+00	4					Sheet C17
326+00 - 336+00	1					Sheet C18
336+00 - 350+00						Sheet C19
350+00 - 360+00				3		Sheet C20
360+00 - 372+00	3			2		Sheet C21
372+00 - 386+00	2					Sheet C22
386+00 - 400+00	7					Sheet C23
400+00 - 413+00				2		Sheet C24
413+00 - 420+00						Sheet C25
420+00 - 434+00	9					Sheet C26
434+00 - 442+50	25	2		1		Sheet C27
				1		Sheet C28
Rainbow Bridge Parking Area			22			
TOTALS	**100**	**3**	**22**	**57**	**42**	

Notes:

1. Contracting Officer approval required prior to removal.
2. If a manhole or valve box is adjusted more than once, payment will be made for the final adjustment to proper elevaton. Interim adjustments are included in the work at no additional cost to the Government.

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
CIVIL
STATE OF CALIFORNIA

Matthew David Andrews
4/11/2019

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

REMOVAL SUMMARY

3/21/2019 1:01:35 PM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFL\NDICA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\TAB(DONN)C440_Removal Summary.dgn User: mcarlson

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B12

CURB SUMMARY

Station to Station	Side	For info only: GEOTEXTILE FILTER, CLASS 1, TYPE E (NON-WOVEN)	25101-2200: PLACED RIPRAP, METHOD B, CLASS 2	60901-2100: CURB, ASPHALT, 4-INCH DEPTH	60905-1000: GUTTER, CONCRETE	Remarks
		SQYD	CUYD	LNFT	LNFT	
130+32 - 130+65	LT				33	Cross Pan, See Note 1
130+75 - 131+75	LT		1	100		
131+77 - 132+22	LT				45	Cross Pan, See Note 1
132+25 - 133+15	LT		1	90		
133+16 - 133+44	LT				28	Cross Pan, See Note 1
133+45 - 133+87	LT		1	43		
133+87 - 134+20	LT				32	Cross Pan, See Note 1
134+20 - 136+75	LT		1	250		
141+50 - 145+10	LT		1	360		
142+50 - 142+75	RT		1	25		
143+05 - 143+85	RT		1	80		
144+05 - 144+75	RT		1	72		
164+37 - 167+00	RT		1	257		
176+50 - 201+75	LT		1	2520		
225+75 - 229+60	LT		1	385		
286+50 - 289+00	LT		1	250		
310+10 - 313+05	RT	2	2	290		
321+75 - 322+55	LT		1	80		
323+05 - 324+58	RT	2	2	150		
324+50 - 326+15	LT		1	165		
366+00 - 368+20	LT		1	205		
368+20 - 369+80	RT	2	2	160		
369+80 - 370+75	LT		1	95		
381+61 - 384+70	RT	2	2	293		
384+70 - 386+20	LT		1	144		
386+20 - 389+25	RT	2	2	289		
389+25 - 390+45	LT		1	115		
392+65 - 394+80	LT		1	207		
395+40 - 396+60	RT	2	2	120		
438+50 - 441+50	LT		1	300		
TOTALS		12	32	7045	138	

Notes:

1. Install Gutter, Concrete. See Valley Drain Profile Special Detail 609-3.
2. See Curb Details 609-A for details on Curb, Asphalt, 4-Inch Depth and Placed Riprap, Method B, Class 2. See C Sheets for curb type.

CLEARING AND SEEDING SUMMARY

Station to Station	20101-0000: CLEARING AND GRUBBING	62510-2000: SEEDING, HYDRAULIC METHOD	62515-2000: MULCHING, HYDRAULIC METHOD	Remarks
	ACRE	ACRE	ACRE	
104+50 - 108+00	0.4	0.10	0.1	
108+00 - 120+00	1.4	0.44	0.4	
120+00 - 133+00	1.6	0.44	0.4	
133+00 - 147+00	1.8	0.43	0.4	
147+00 - 160+00	1.4	0.40	0.4	
160+00 - 173+00	1.5	0.52	0.5	
173+00 - 182+00	1.0	0.33	0.3	
182+00 - 196+00	1.5	0.50	0.5	
196+00 - 210+00	1.5	0.51	0.5	
210+00 - 224+00	1.5	0.52	0.5	
224+00 - 238+00	1.4	0.46	0.5	
238+00 - 252+00	1.4	0.46	0.5	
252+00 - 266+00	1.6	0.43	0.4	
266+00 - 280+00	1.4	0.48	0.5	
280+00 - 294+00	1.6			
294+00 - 308+00	1.6			
308+00 - 318+00	1.2			
318+00 - 326+00	1.0			
326+00 - 336+00	0.9			
336+00 - 350+00	1.7			
350+00 - 360+00	1.1			
360+00 - 372+00	1.4			
372+00 - 386+00	1.5			
386+00 - 400+00	1.5	0.30	0.3	
400+00 - 413+00	1.6	0.53	0.5	
413+00 - 420+00	0.8	0.29	0.3	
420+00 - 434+00	1.5	0.56	0.6	
434+00 - 442+50	0.9	0.35	0.4	
TOTAL	~~37.4~~ 37.7	8.1	8.1	

SURVEY AND STAKING SUMMARY

Station to Station	15214-2000: SURVEY AND STAKING, RETAINING WALL	15215-1000: SURVEY AND STAKING, APPROACH ROAD	15215-7000: SURVEY AND STAKING, PARKING AREA	15225-0000: SLOPE, REFERENCE, AND CLEARING AND GRUBBING CONTROL	15236-2000: SURVEY CONTROL, GRADE FINISHING	Remarks
	LPSM	EACH	EACH	MILE	MILE	
104+50 - 442+50	1	77	9	6.4	6.4	
TOTALS	ALL	77	9	6.4	6.4	

Notes:

1. See MSE Wall Summary and Rockery Summary for retaining wall survey and staking locations.
2. See Surfacing Summary for approach road and parking area survey and staking locations.

GATE SUMMARY

Station to Station	Side	61902-0000: GATE	61902-1600: GATE, METAL, 20 FEET WIDTH	Remarks
		EACH	EACH	
305+45	RT	1		See Note 1
434+90			2	See Note 2
TOTAL		1	2	

Note:

1. Install drop arm road closure gate in accordance to Detail 619-A or equivalent with approval by the CO.
2. Install swing arm road closure gate in accordance to Detail 619-B or equivalent with approval by the CO.

SIDEWALK SUMMARY

Station to Station	61505-1000: ACCESSIBILITY RAMP, CONCRETE	Remarks
	EACH	
Rainbow Bridge Parking Area	1	Parallel curb ramp
TOTALS	1	

LICENSED PROFESSIONAL ENGINEER MATTHEW DAVID ANDREWS C 85264 CIVIL STATE OF CALIFORNIA

Matthew David Andrews 4/1/2019

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

TABULATION OF QUANTITIES

Sheet 1 of 2

4/1/2019 4:55:34 PM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\TAB(DONN)CA40_Tabulation of Quantities.dgn User: mcarlson

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B13

ROCK CUT SUMMARY

Station to Station	Side	20401-0000 ROADWAY EXCAVATION (CUYD)	20421-0000 ROCK EXCAVATION (CUYD)	20442-0000 SLOPE SCALING (CUYD)	20501-0000 CONTROLLED BLAST HOLE (LNFT)	26002-0000 ROCK DOWEL (LNFT)	26005-0000 SHEAR PIN (See Note 1) (EACH)	Remarks
311+00 - 311+45	LT	16	9	4	138			
311+85 - 311+95	LT	6	2	3	30			
312+30 - 312+36	LT	2	2		30			
314+09 - 314+20	LT	2	2		6			
317+85 - 317+95	LT	2	2		24			
318+27	LT	1	1		6			
322+00 - 322+50	LT	25	20	1	150			
324+70 - 324+90	LT	5	3	1.5	40	324+60 22		
324+88 - 325+00	LT	5	3	1	42	~~18~~		
325+00 - 325+25	LT	10	4	4	52	325+18 8		
325+25 - 325+50	LT	12	10		104	~~18~~		
325+50 - 325+65	LT	4	3		32	~~6~~		
365+00	LT	2	2		30			
366+35 - 366+90	LT	8	6	1	140			
367+25 - 367+65	LT	14	12		120			
369+90 - 370+30	LT	5	4		80			
370+30 - 370+70	LT	8	7		100	~~12~~		
384+80 - 385+15	LT	4	3	0.5	90	370+40 16		
385+15 - 385+55	LT	5	4		160			
389+30 - 389+80	LT	5	4		150			
392+72 - 393+06	LT	6	5		187			
394+10 - 394+35	LT	16	10	3	39			
394+70 - 394+90	LT	2	2		40			
438+80 - 440+90	LT	70	58		840			
311+00 - 440+90							20	
TOTALS		**236** ~~81.300~~	**178** ~~821.738~~	~~19~~ 40.570	~~2630~~ 9450.000	~~54~~ 46	~~20~~ 0	

Notes:

1. Shear pins to be installed at locations directed by the CO based on field conditions.
2. Rock Dowel locations to be verified by CO prior to installation. If a Rock Bolt is required based on field conditions, install Rock Bolt per detail and pay for work as Rock Dowel.
3. Removal of rock from the project site paid for as Roadway Excavation. Quantites shown for Rock Excavation and Slope Scaling are in-situ quantities. A swell factor of 1.2 was assumed for Roadway Excavation.

MECHANICALLY STABILIZED EARTH WALL SUMMARY

Station to Station	Side	For Info only REINFORCEMENT GEOSYNTHETIC, TYPE 3 (SQYD)	For Info only STRUCTURE EXCAVATION (CUYD)	25501-1000 MECHANICALLY STABILIZED EARTH WALL, WELDED WIRE FACE (SQFT)	For Info only SELECT GRANULAR BACKFILL (CUYD)	56603-0000 REINFORCED SHOTCRETE (SQYD)	Remarks
312+00 - 313+25	RT	833	564	762.80 ~~1125~~	558	99.5 ~~125~~	
368+25 - 369+75	RT	533	277	859.5 ~~900~~	321	133.6 ~~100~~	
374+00 - 374+70	RT	155	140	438 ~~490~~	140	79.5 ~~54~~	
382+25 - 382+75	RT	111	89	144 ~~300~~	81	90.4 ~~33~~	
385+10 - 386+40	RT	1386	712	1059 ~~1500~~	789	109.3 ~~175~~	
386+65 - 387+75	RT	733	453	595.70 ~~880~~	438	114.2 ~~96~~	
393+00 - 394+20	RT	1040	567	690.50 ~~1080~~	529	57.3 ~~120~~	
394+95 - 396+25	RT	606	419	841.76 ~~1170~~	455	22.4 ~~130~~	
TOTAL		**5397**	**3220**	5391.26 ~~7505~~	**3312**	706.2 ~~834~~	

Notes:

1. Reinforcement Geosynthetic, structure excavation and backfill will not be paid for separately but should be included in the cost of Mechanically Stabilized Earth Wall, Welded Wire Face.

ROCKERY SUMMARY

Station to Station	Side	25210-0000 ROCKERY (SQFT)	Remarks
~~261+22~~ - 262+36	RT	~~603~~	
261+68	RT	457.050	
TOTAL		~~603~~ 457.050	

Note:

1. Structure excavation, foundation fill, granular rock back drain, drainage pipe, geotextile and grout will not be paid for separately but will be included in the cost of the rockery.

Jonathan Blum

REGISTERED PROFESSIONAL ENGINEER JONATHAN T. BLUM No. 2312 REGISTERED CIVIL STATE OF CALIFORNIA

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

TABULATION OF QUANTITIES

Sheet 2 of 2

4/2/2019 8:56:24 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\TAB(DONN)CA40_Tabulation of Quantities.dgn User: dhellrung

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B14

PERMANENT SIGN SUMMARY

Station	Side	MUTCD Reference	Description	Item Number / Sign Panel	20301-0700 REMOVAL OF DELINEATOR	20301-2300 REMOVAL OF SIGN/MARKER	63301-0000 SIGN SYSTEM	63309-1000 DELINEATOR, TYPE SNOW POLE	63316-1000 REMOVE AND RESET SIGN	63318-1000 SNOW POLE HOLDER	Remarks
				in x in	EACH	EACH	EACH	EACH	EACH	EACH	
104+50	LT	R3-2	No Left Turn	24 x 24		1	1				
104+50	RT		BIKE LANE	24 x 18			1				
			BEGIN	12 x 5							CALTRANS SIGN SPEC R81(CA)
104+70	LT		SACRAMENTO / RENO I-80	72 x 54		1	1				CALTRANS SIGN SPEC R81A(CA)
105+30	LT		SNOW REMOVAL AREA	36 x 24		1	1				CALTRANS SIGN SPEC G77 (WOOD POST - 2 POSTS)
105+60	RT		SKI AREAS	72 x 48		1	1				SPECIAL SIGN LAYOUT (WOOD POST - 1 POST)
105+90	LT		BIKE LANE	24 x 18			1				CALTRANS SIGN SPEC G1-4 (WOOD POST - 2 POSTS)
			END	8 x 5							CALTRANS SIGN SPEC R81(CA)
106+70	RT		HISTORIC ROUTE US 40	24 x 36		1	1				CALTRANS SIGN SPEC R81B(CA)
107+10	RT		Bicycle	30 x 30		1	1				CALTRANS SIGN SPEC S18
			SHARE THE ROAD	30 x 24							CALTRANS SIGN SPEC W79A
108+00	RT		DESTINATION SIGN	72 x 54		1	1				CALTRANS SIGN SPEC W79A
			SNOW REMOVAL AREA	36 x 24							CALTRANS SIGN SPEC G5 (WOOD POST - 2 POSTS)
110+40	RT	R2-1	Speed Limit	24 x 30		1	1				SPECIAL SIGN LAYOUT
			SPEED ENFORCED BY RADAR	24 x 30							~~25 MPH~~ 35 MPH
112+90	RT	W11-2	Pedestrian	30 x 30		1	1				CALTRANS SIGN SPEC R48
		W7-3AP	Next XX Miles (plaque)	24 x 18							
119+70	LT		POMA LN	36 x 6		1	1				NEXT 1 MILES
			DONNER PASS LN	36 x 6							NEVADA COUNTY STREET NAME SIGN re-use existing
119+80	LT	R1-1	Stop	30 x 30		1	1				NEVADA COUNTY STREET NAME SIGN re-use existing
121+50	RT		SODA SPRINGS	54 x 24		1	1				
123+60	LT		BIKE LANE	24 x 18			1				CALTRANS SIGN SPEC G9-2 (WOOD POST - 2 POSTS)
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
124+15	RT	R2-1	Speed Limit	24 x 30		1	1				
124+80	LT		LOLA MONTEZ LN	36 x 6		1	1				~~25 MPH~~ 35 MPH
			DONNER PASS LN	36 x 6							NEVADA COUNT STREET NAME SIGN re-use existing
124+85	LT	R1-1	Stop	30 x 30		1	1				NEVADA COUNT STREET NAME SIGN re-use existing
127+70	LT	W2-2R	Side Road Right	30 x 30		1	1				
128+30	LT	R2-1	Speed Limit	24 x 30		1	1				
134+60	RT		SERENE LAKES	36 x 12		1	1				~~25 MPH~~ 35 MPH
134+80	RT		BIKE LANE	24 x 18			1				CALTRANS SIGN SPEC G8-1
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
136+50	RT	W10-2R	Grade Crossing Right and Intersection	36 x 36		1	1				
139+20	LT		SKI AREAS	72 x 48		1	1				
139+60			SODA SPRINGS RD	48 x 12		1	1				CALTRANS SIGN SPEC G8-13 MODIFIED (WOOD POST - 2 POSTS)
			SODA SPRINGS RD	48 x 12		1	1				CALTRANS SIGN SPEC G8-1 MOUNT TO MAST
139+75	RT		SODA SPRINGS RD	36 x 6		1	1				CALTRANS SIGN SPEC G8-1 MOUNT TO MAST
			DONNER PASS LN	36 x 6							NEVADA COUNTY STREET NAME SIGN re-use existing
		R1-1	STOP	30 x 30							NEVADA COUNTY STREET NAME SIGN re-use existing
143+50	LT	W10-2L	Grade Crossing Left and Intersection	36 x 36		1	1				
144+70	RT	R2-1	Speed Limit	24 x 30		1	1				
144+80	LT		BIKE LANE	24 x 18			1				~~25 MPH~~ 35 MPH
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
151+10	LT	R2-1	Speed Limit	24 x 30		1	1				
165+20	RT		BIKE LANE	24 x 18			1				~~25 MPH~~ 35 MPH
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
168+50	LT	R2-1	Speed Limit	24 x 30		1	1				
			SPEED ENFORCED BY RADAR	24 x 30							35 MPH
168+80	RT	R2-1	Speed Limit	24 x 30		1	1				CALTRANS SIGN SPEC R48
			CHAIN INSTALLATION ONLY	36 x 24							35 MPH
169+80	RT		CHAIN INSTALLATION ONLY	36 x 24		1	1				CALTRANS SIGN SPEC R74 MODIFIED
											CALTRANS SIGN SPEC R74 MODIFIED

Notes:

1. *Use galvanized metal square tubular steel posts in accordance with FP-14 718.04(B)(2) and The Nevada County Standard Sign and Post Installation Detail for all signs unless otherwise noted as wood post in remarks above.*

2. *Delineator, Type Snow Pole to be 1" OD schedule 40 pipe or approved equivalent.*

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
CIVIL
STATE OF CALIFORNIA
Matthew David Andrews 4/1/2019

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

PERMANENT SIGN SUMMARY

Sheet 1 of 3

4/2/2019 3:19:01 PM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\TAB(DONN)CA40_Signing Summary.dgn _User: mcarlson_

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B15

PERMANENT SIGN SUMMARY

Station	Side	MUTCD Reference	Description	Sign Panel	20301-0700 REMOVAL OF DELINEATOR	20301-2300 REMOVAL OF SIGN/MARKER	63301-0000 SIGN SYSTEM	63309-1000 DELINEATOR, TYPE SNOW POLE	63316-1000 REMOVE AND RESET SIGN	63318-1000 SNOW POLE HOLDER	Remarks
			Item Number								
				In x In	EACH	EACH	EACH	EACH	EACH	EACH	
169+90	LT	W11-2	Pedestrian	30 x 30		1	1				
		W7-3AP	Next XX Miles (plaque)	24 x 18							
170+80	RT		CHAIN INSTALLATION ONLY	36 x 24		1	1				NEXT 1 MILES
171+70	RT		ICY	30 x 30		1	1				CALTRANS SIGN SPEC R74 MODIFIED
174+70	LT		BIKE LANE	24 x 18			1				CALTRANS W43
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
189+10	LT		ICY	30 x 30		1	1				
195+00	RT		BIKE LANE	24 x 18			1				CALTRANS W43
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
201+80	RT	R2-1	Speed Limit	24 x 30		1	1				
			SNOW REMOVAL AREA	36 x 24							35 MPH
201+90	LT	R2-1	Speed Limit	24 x 30		1	1				SPECIAL SIGN LAYOUT (WOOD POST - 1 POST)
205+00	LT		BIKE LANE	24 x 18			1				35 MPH
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
205+10	RT		SNOW REMOVAL AREA	54 x 30		1					
225+00	RT		BIKE LANE	24 x 18			1				
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
229+30	LT	R2-1	Speed Limit	24 x 30		1	1				
			SNOW REMOVAL AREA	36 x 24							35 MPH
230+35	LT		NEVADA COUNTY LINE	48 x 24		1	1				SPECIAL SIGN LAYOUT
230+40	RT		PLACER COUNTY LINE	48 x 24		1	1				CALTRANS SIGN SPEC G10 (WOOD POST - 1 POST)
			HISTORIC ROUTE US 40	24 x 36							CALTRANS SIGN SPEC G10 (WOOD POST - 1 POST)
231+80	RT	R2-1	Speed Limit	24 x 30		1	1				CALTRANS SIGN SPEC S18
235+00	LT		BIKE LANE	24 x 18			1				25 MPH
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
255+00	RT		BIKE LANE	24 x 18			1				
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
261+60	RT		DONNER PASS RD EAST	54 x 48		1	1				
265+00	LT		BIKE LANE	24 x 18			1				SPECIAL SIGN LAYOUT (WOOD POST - 2 POSTS)
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
278+40	LT	R2-1	Speed Limit	24 x 30		1	1				
280+05	RT		NEVADA COUNTY LINE	48 x 24		1	1				~~25 MPH~~ 35 MPH
280+10	LT		PLACER COUNTY LINE	48 x 24		1	1				CALTRANS SIGN SPEC G10 (WOOD POST - 1 POST)
281+30	RT	R2-1	Speed Limit	24 x 30		1	1				CALTRANS SIGN SPEC G10 (WOOD POST - 1 POST)
			SNOW REMOVAL AREA	36 x 24							35 MPH
288+00	RT		WELCOME TO DONNER SKI RANCH						1		SPECIAL SIGN LAYOUT (WOOD POST - 1 POST)
289+00	LT		BIKE LANE	24 x 18			1				
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
293+50	RT	R1-1	Stop	30 x 30		1	1				
295+00	RT		BIKE LANE	24 x 18			1				
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
302+00	RT		BIKE LANE	24 x 18			1				
			END	8 x 5							CALTRANS SIGN SPEC R81(CA)
302+60	LT	R2-1	Speed Limit	24 x 30		1	1				CALTRANS SIGN SPEC R81B(CA)
			SNOW REMOVAL AREA	36 x 24							35 MPH
302+70	RT		HISTORIC DONNER SUMMIT	54 x 36		1	1				SPECIAL SIGN LAYOUT (WOOD POST - 1 POST)
303+20	RT		PACIFIC CREST TRAIL	18 x 24		1	1				CALTRANS SIGN SPEC G16 MODIFIED (WOOD POST - 2 POSTS)
304+00	LT		HISTORIC DONNER SUMMIT	54 x 36		1	1				
305+40	RT	W1-5L	Winding Road Left	30 x 30		1	1				CALTRANS SIGN SPEC G16 MODIFIED (WOOD POST - 2 POSTS)
		W13-1P	Adv sory Speed (plaque)	18 x 18							
306+90	RT	R4-11	BIKES MAY USE FULL LANE	30 x 30			1				25 MPH

Notes:

1. *Use galvanized metal square tubular steel posts in accordance with FP-14 718.04(B)(2) and The Nevada County Standard Sign and Post Installation Detail for all signs unless otherwise noted as wood post in remarks above.*

2. *Delineator, Type Snow Pole to be 1" OD schedule 40 pipe or approved equivalent.*

LICENSED PROFESSIONAL ENGINEER
DAVID ANDREW
C 85264
STATE OF CALIFORNIA
Matthew David Andrews
4/1/2019

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

PERMANENT SIGN SUMMARY

Sheet 2 of 3

4/2/2019 3:19:04 PM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\TAB(DONN)CA40_Signing Summary.dgn _User: mcarlson_

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B16

PERMANENT SIGN SUMMARY

Station	Side	MUTCD Reference	Description	Sign Panel	20301-0700 REMOVAL OF DELINEATOR	20301-2300 REMOVAL OF SIGN/MARKER	63301-0000 SIGN SYSTEM	63309-1000 DELINEATOR, TYPE SNOW POLE	63316-1000 REMOVE AND RESET SIGN	63318-1000 SNOW POLE HOLDER	Remarks
				Item Number	20301-0700	20301-2300	63301-0000	63309-1000	63316-1000	63318-1000	
				in x in	EACH	EACH	EACH	EACH	EACH	EACH	
308+00	RT		WATCH FOR STOPPED VEHICLES	36 x 36			1				
		W7-3AP	Next XX Miles (plaque)	24 x 18							CALTRANS SIGN SPEC SW60(CA)
309+80	RT	W8-5	Slippery When Wet	30 x 30		1	1				NEXT 3 MILES
			ICY	30 x 30							
316+60	RT		SLIDE AREA	30 x 30		1	1				CALTRANS SIGN SPEC W43
322+90	RT	W5-2	Narrow Bridge	36 x 36		1	1				CALTRANS SIGN SPEC W38
325+00	LT		BIKE LANE	24 x 18			1				
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
326+70	RT		OM-3R OBJECT MARKER	12 x 36			1				
326+90	LT		OM-3L OBJECT MARKER	12 x 36			1				CALTRANS TYPE P MARKER
329+30	LT		OM-3R OBJECT MARKER	12 x 36			1				CALTRANS TYPE P MARKER
329+40	RT		OM-3L OBJECT MARKER	12 x 36			1				CALTRANS TYPE P MARKER
332+50	LT	R4-11	BIKES MAY USE FULL LANE	30 x 30			1				CALTRANS TYPE P MARKER
333+40	LT	W5-2	Narrow Bridge	36 x 36		1	1				
			VISTA POINT	36 x 18							
335+00	RT		WATCH FOR STOPPED VEHICLES	36 x 36			1				CALTRANS SIGN SPEC G8-4
		W7-3AP	Next XX Miles (plaque)	24 x 18							CALTRANS SIGN SPEC SW60(CA)
335+00	RT	R4-11	BIKES MAY USE FULL LANE	30 x 30			1				NEXT 2 MILES
350+00	LT		BIKE LANE	24 x 18			1				
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
362+50	RT	R4-11	BIKES MAY USE FULL LANE	30 x 30			1				
380+00	LT		BIKE LANE	24 x 18			1				
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
381+50	RT		SLIDE AREA	30 x 30		1	1				
396+50	RT	R4-11	BIKES MAY USE FULL LANE	30 x 30			1				CALTRANS SIGN SPEC W38
400+80	LT		SLIDE AREA	30 x 30		1	1				
410+00	LT		BIKE LANE	24 x 18			1				CALTRANS SIGN SPEC W38
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
415+00	LT		WATCH FOR STOPPED VEHICLES	36 x 36			1				
		W7-3AP	Next XX Miles (plaque)	24 x 18							CALTRANS SIGN SPEC SW60(CA)
419+50	LT		SLIDE AREA	30 x 30		1	1				NEXT 3 MILES
420+30	LT	W1-5L	Winding Road Left	30 x 30		1	1				CALTRANS SIGN SPEC W38
		W13-1P	Advisory Speed (plaque)	18 x 18							
		W7-3AP	Next XX Miles (plaque)	24 x 18							25 MPH
424+20	RT	R4-11	BIKES MAY USE FULL LANE	30 x 30			1				NEXT 3 MILES
429+20	LT		ICY	30 x 30		1	1				
		W8-5	Slippery When Wet	30 x 30							CALTRANS SIGN SPEC W43
431+20	LT		WATCH FOR SNOW REMOVAL EQUIP	36 x 36		1	1				
435+00	LT		LITTER REMOVAL								CALTRANS SIGN SPEC SW58
437+00	RT	R2-1	Speed Limit	24 x 30		1	1		1		
			SPEED ENFORCED BY RADAR	24 x 30							~~25 MPH~~ 35 MPH
442+30	LT		BIKE LANE	24 x 18			1				CALTRANS SIGN SPEC R48
		R8-3	NO PARKING	24 x 24							CALTRANS SIGN SPEC R81(CA)
Rainbow Bridge Parking		R7-8	RESERVED PARKING	12 x 18		1	1				
		R7-8P	Van Accessible (plaque)	18 x 9							REMOVE EXISTING SIGN SYSTEM
		R7-8	RESERVED PARKING	12 x 18			1				
		R7-8P	Van Accessible (plaque)	18 x 9							
		R8-3	NO PARKING	24 x 24			1				
		R8-3	NO PARKING	24 x 24			1				
			Delineators		416			355		115	
			TOTALS		416	63	99	355	2	115	

Notes:

1. *Use galvanized metal square tubular steel posts in accordance with FP-14 718.04(B)(2) and The Nevada County Standard Sign and Post Installation Detail for all signs unless otherwise noted as wood post in remarks above.*

2. *Delineator, Type Snow Pole to be 1" OD schedule 40 pipe or approved equivalent.*

LICENSED PROFESSIONAL ENGINEER MATTHEW DAVID ANDREWS C 85264 CIVIL STATE OF CALIFORNIA

Matthew David Andrews 4/1/2019

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

PERMANENT SIGN SUMMARY

Sheet 3 of 3

4/2/2019 3:19:07 PM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\TAR(DONN)CA40_Signing Summary.dgn _User: mcarlson_

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	B17

PERMANENT PAVEMENT MARKING SUMMARY

Station to Station	LEFT		RIGHT								63402-2300	63403-0400	63405-1350	63405-1650	63407-0200	Remarks
Item Number	Bike Lane Solid White 6 inches	Centerline Solid Yellow 4 inches	Edge Solid White 4 inches	Bike Lane Solid White 6 inches	Centerline Solid Yellow 4 inches	Parking Stripe Blue Solid 4 inches	Parking Stripe Solid White 4 inches	Shared Lane White 9 SQFT	"Bike Lane" White 12 SQFT	Bike Lane Arrow White	PAVEMENT MARKINGS, TYPE L, SOLID	PAVEMENT MARKINGS, TYPE D	PAVEMENT MARKINGS, TYPE D, STRAIGHT ARROW	PAVEMENT MARKINGS, TYPE D, ACCESSIBILITY SYMBOL	RECESSED PAVEMENT MARKER, BI-DIRECTIONAL REFLECTIVE	
	LNFT	LNFT	LNFT	LNFT	LNFT	LNFT	LNFT	EACH	EACH	EACH	MILE	SQFT	EACH	EACH	EACH	
104+50 - 305+00	20,050	20,050		20,050	20,050				26	26	15.2	312	26			
305+00 - 442+50	13,750	13,750	13,750		13,750			10	9	9	10.4	180	9			Bike markings every 1/4 mile
Rainbow Bridge Parking Area						400	600				0.2			2		Bike markings every 1/4 mile
Recessed Centerline Markiners															1410	"Type D markers
										TOTALS	25.8	492	35	2	2,820 ~~1410~~	TYPE ~~C~~ YELLOW RECESSED MARKER (@ 24' SPACING)

* Type D markings were placed with Type L(MMA Paint)material

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
CIVIL
STATE OF CALIFORNIA

Matthew David Andrews
8/26/2019

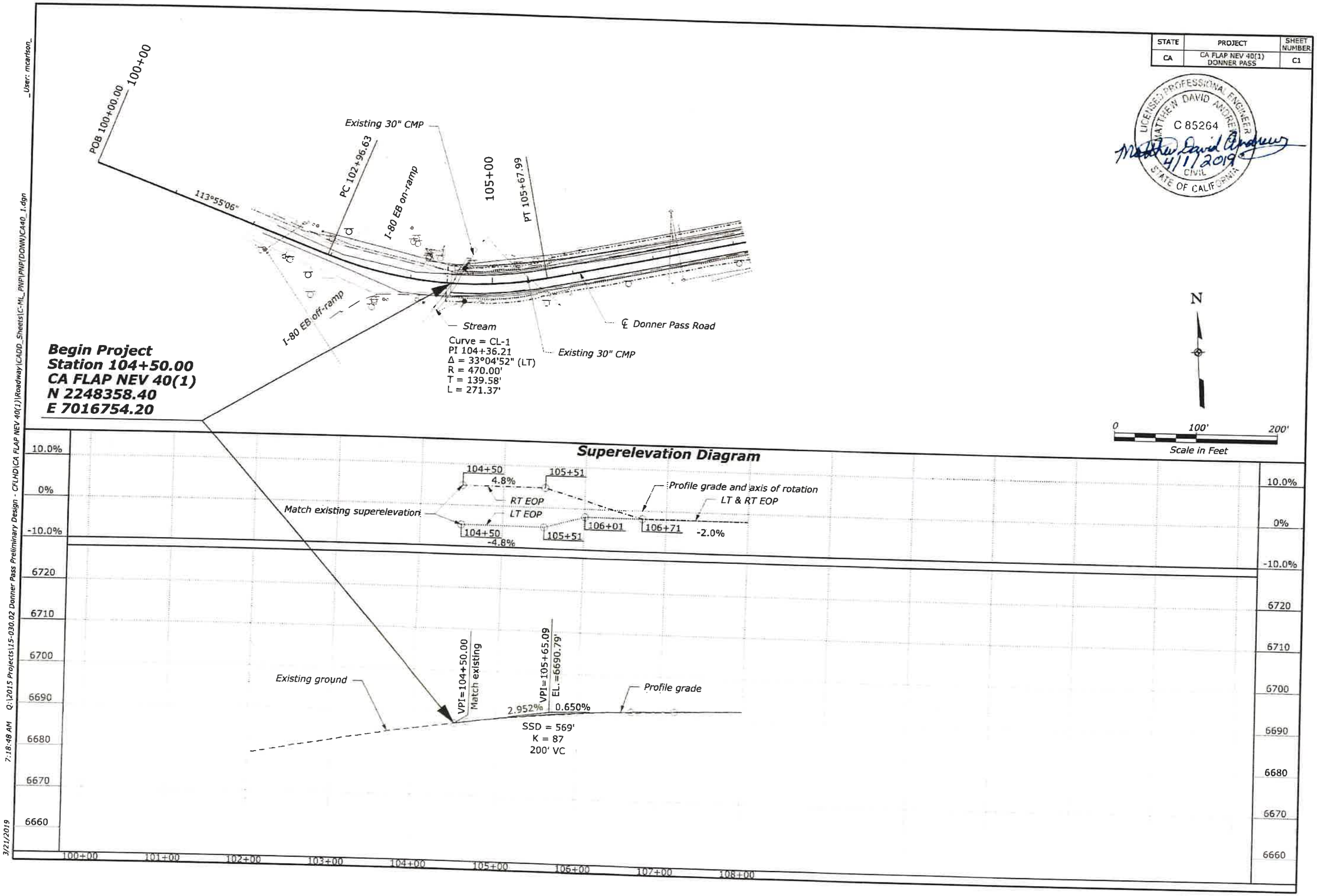
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

PERMANENT PAVEMENT MARKING SUMMARY

8/13/2019 10:59:21 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\B-Summ\TAB(DONN)CA40_Striping Summary.dgn _User: dhelirung_

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C1

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREE
C 85264
4/1/2019
CIVIL
STATE OF CALIFORNIA



User: mcarlson

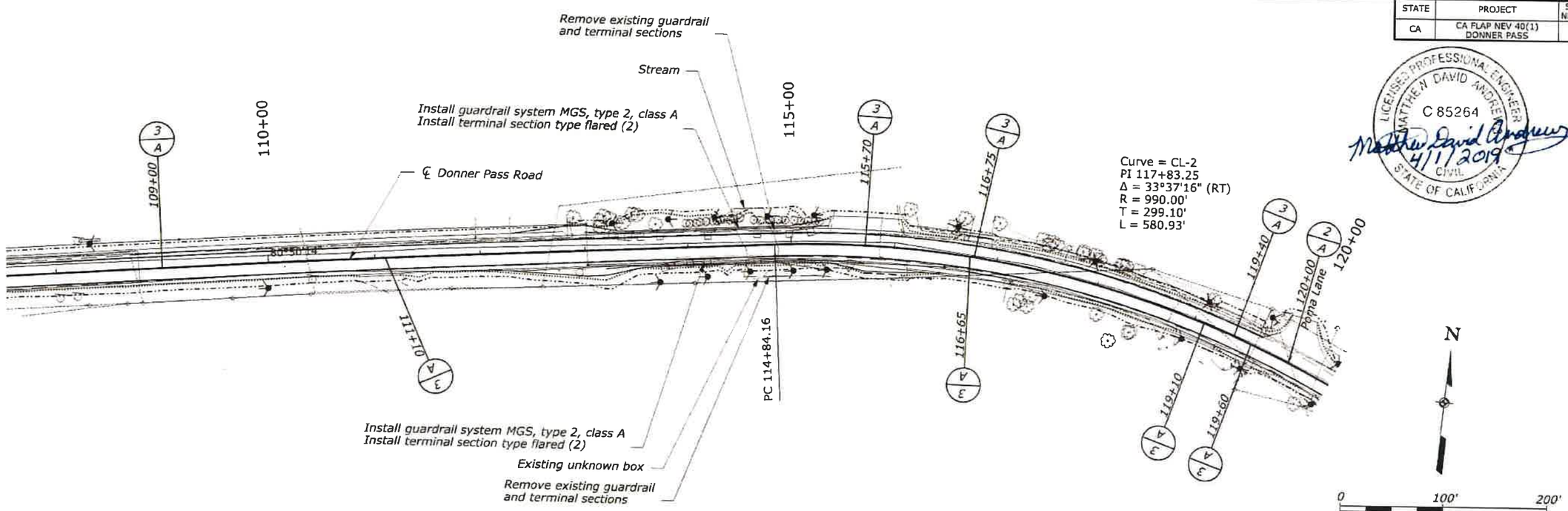
Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\C-ML_PNP\PNP(DONN)CA40_1.dgn

7:18:48 AM

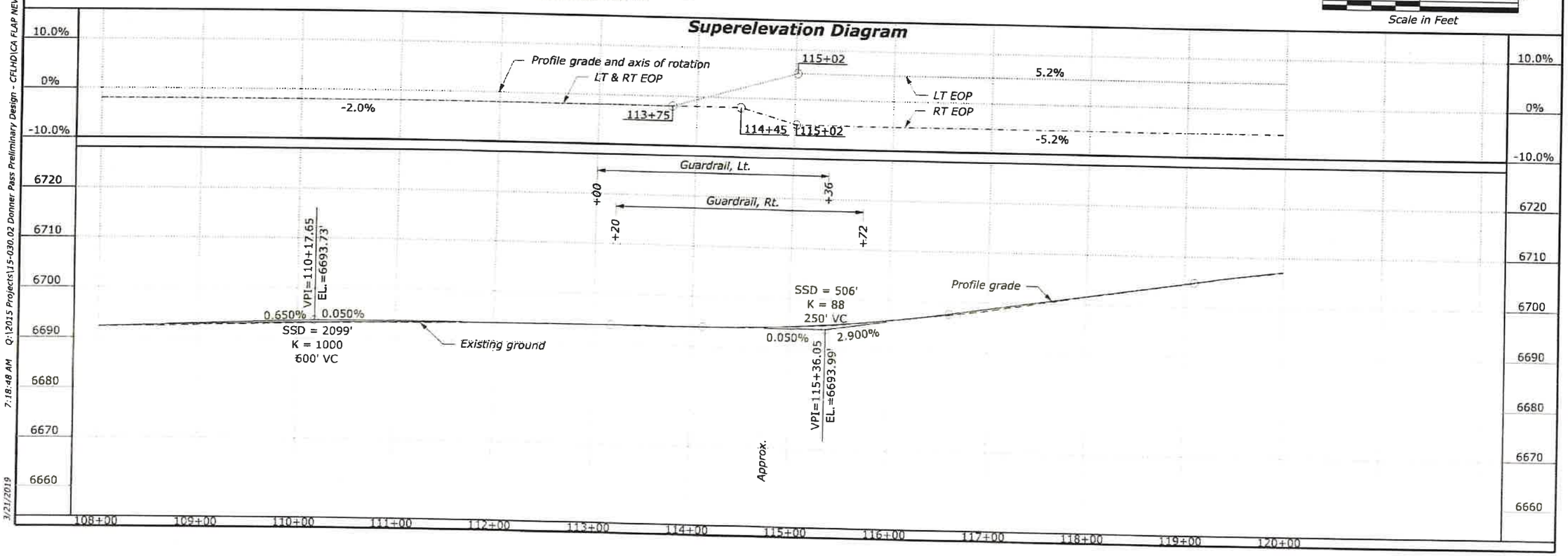
3/21/2019

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C2

LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
CIVIL
STATE OF CALIFORNIA
4/11/2019

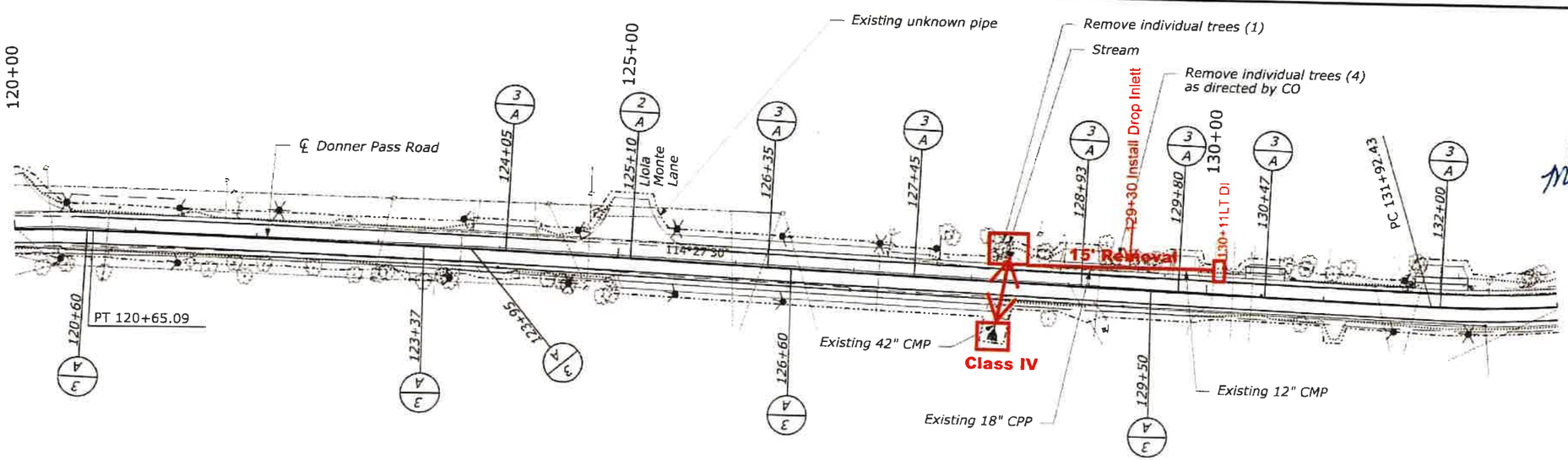


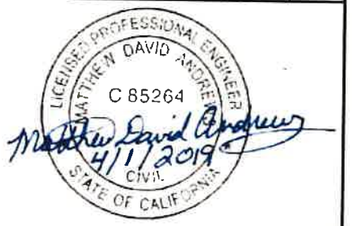
Superelevation Diagram

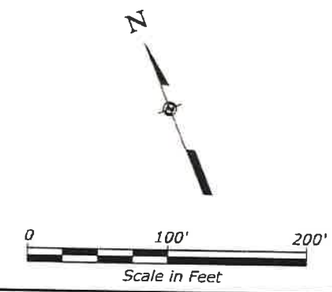


3/21/2019 7:18:48 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\C-MI_PNP\PNP(DONN)CA40_2.dgn User: mcarlson

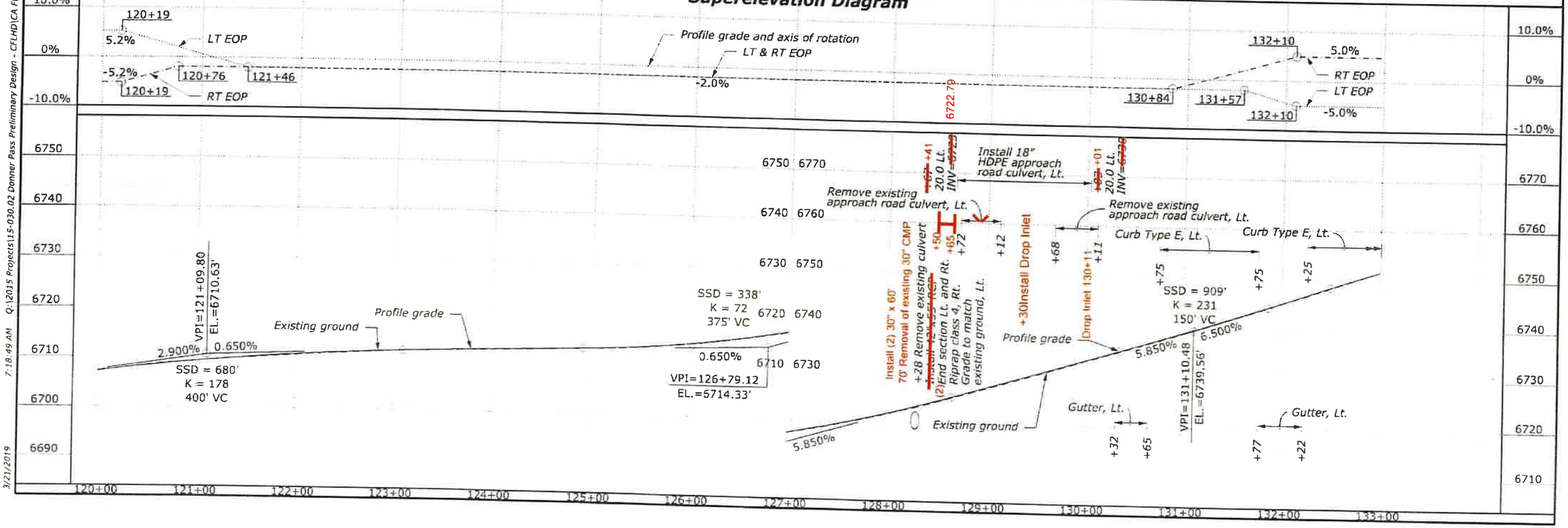
STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C3







Superelevation Diagram

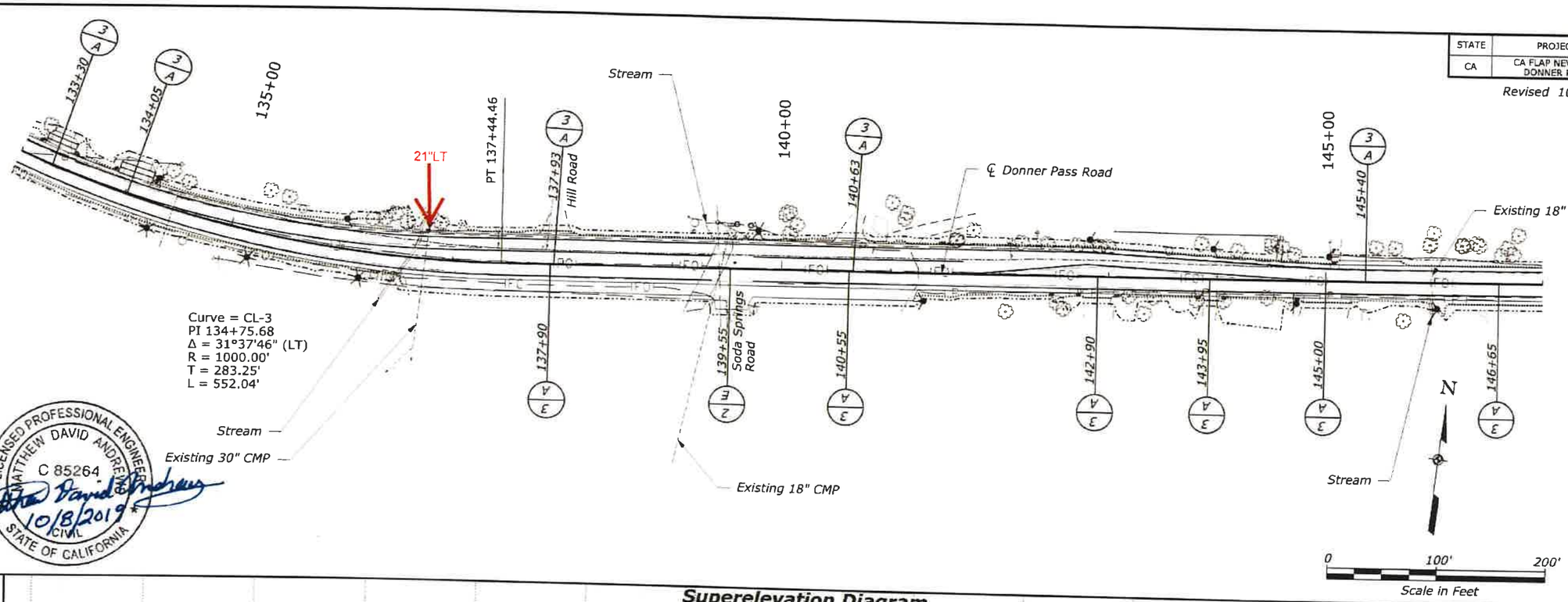


User: mcarlson
Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\C-ML_PNP\PNP(DONN)CA40_3.dgn
7:18:49 AM
3/21/2019

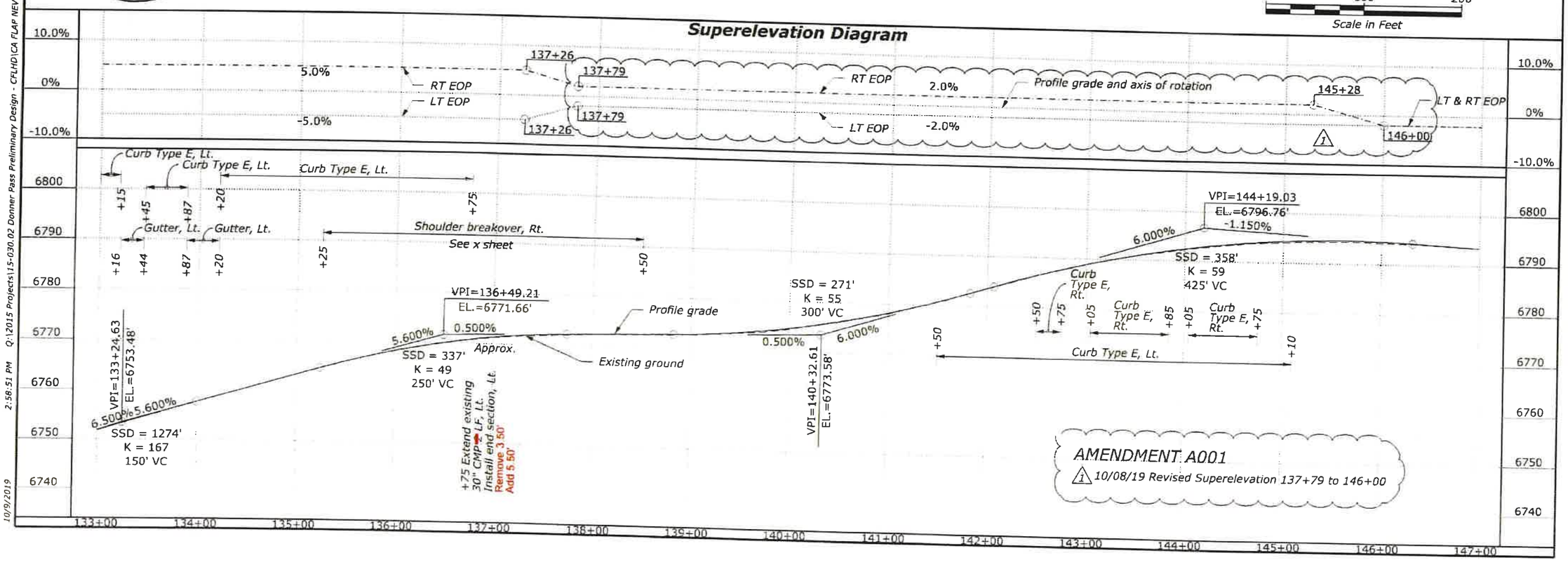
Amendment A001

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C4

Revised 10/08/19



LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
CIVIL
STATE OF CALIFORNIA
10/8/2019

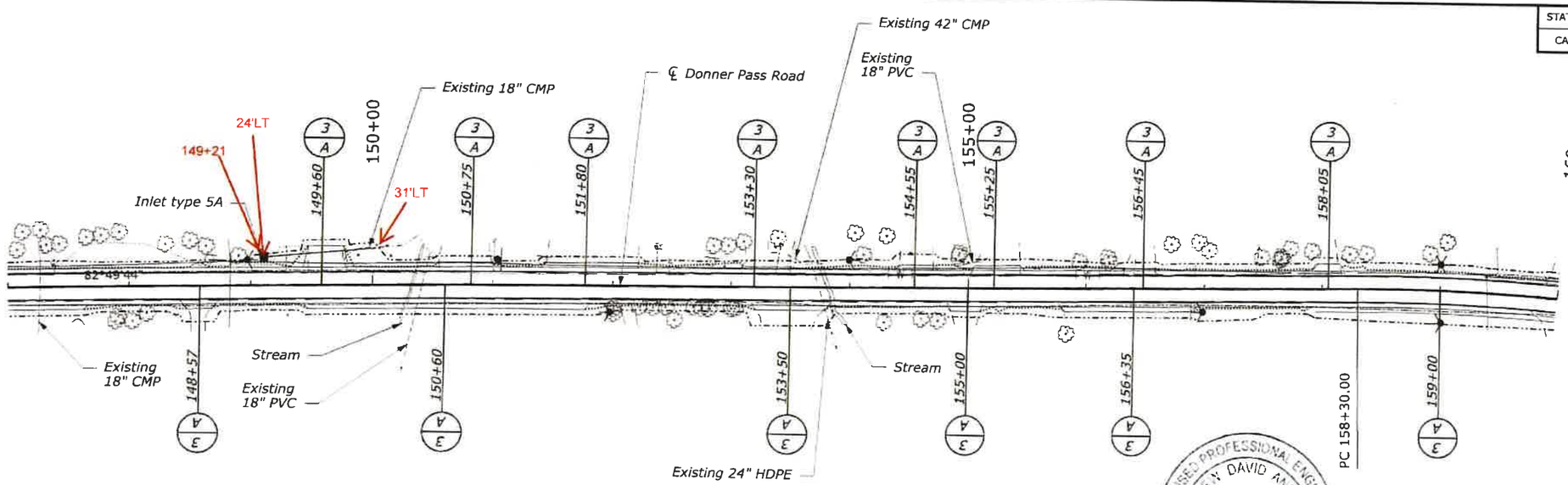


AMENDMENT A001

1 10/08/19 Revised Superelevation 137+79 to 146+00

10/9/2019 2:58:51 PM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\C-ML_PNP\PNP(DONN)CA40_4.dgn User: ppecchia

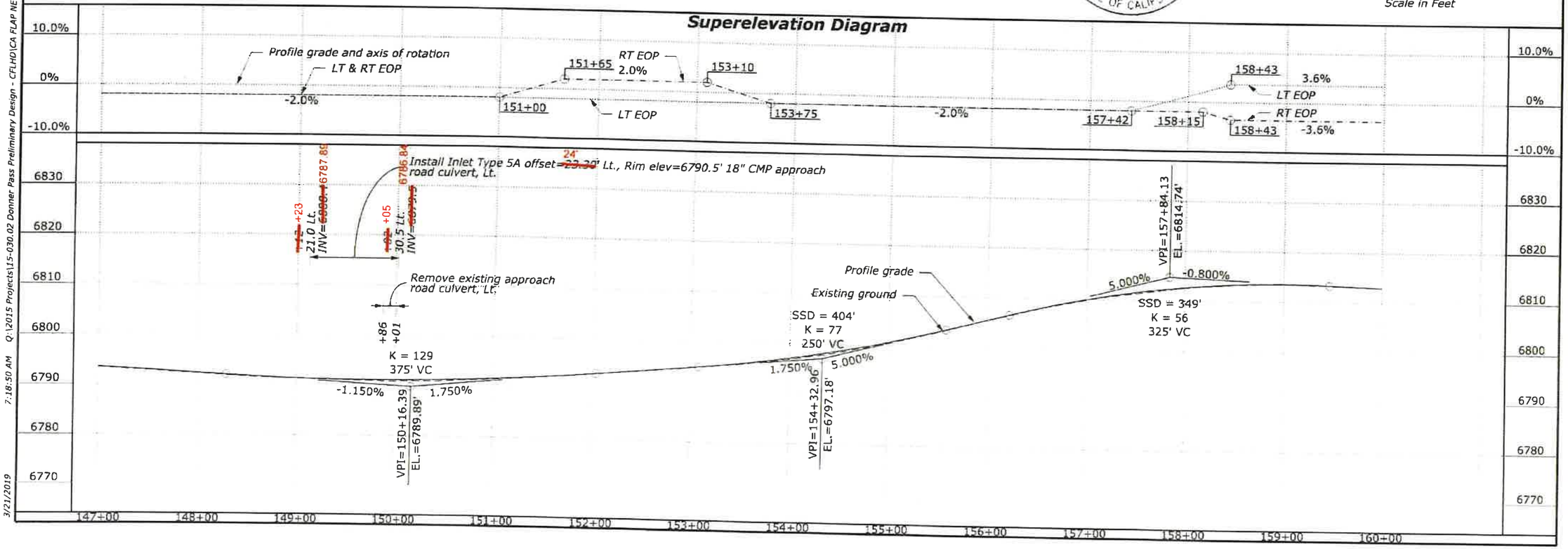
STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C5



LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
CIVIL
STATE OF CALIFORNIA
4/1/2019

0 100' 200'
Scale in Feet

Superelevation Diagram



User: mcarison_

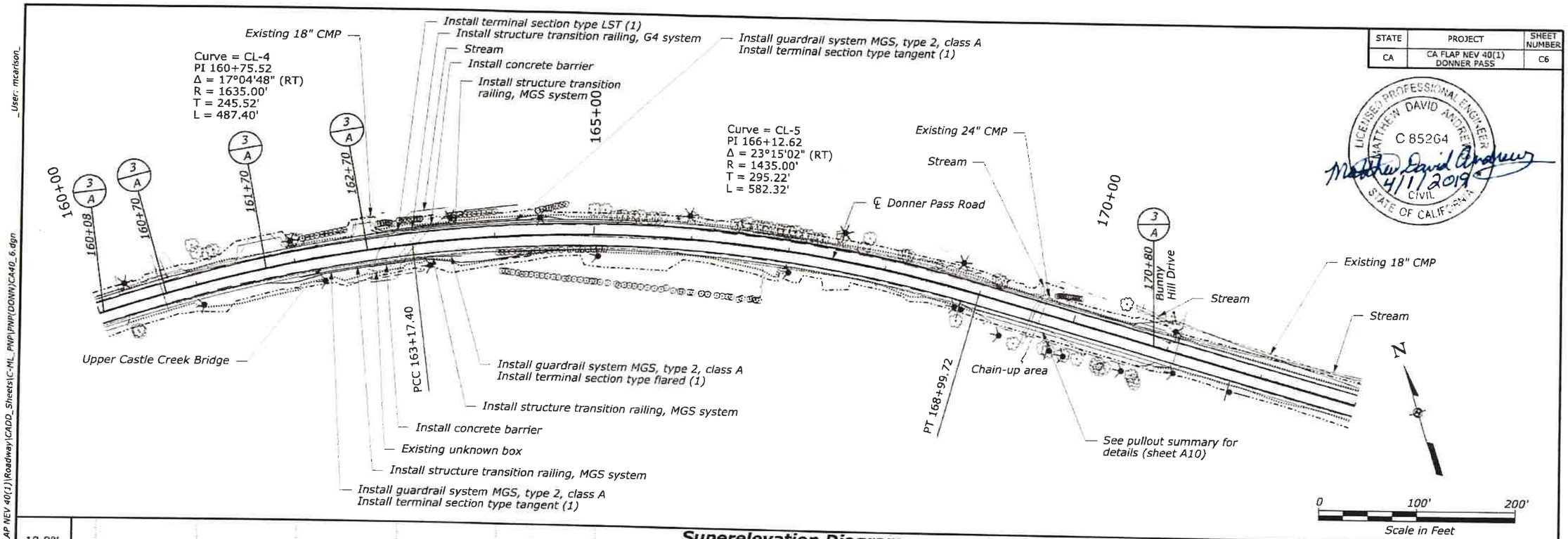
Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\C-ML_PNP\PNP(DONN)CA40_5.dgn

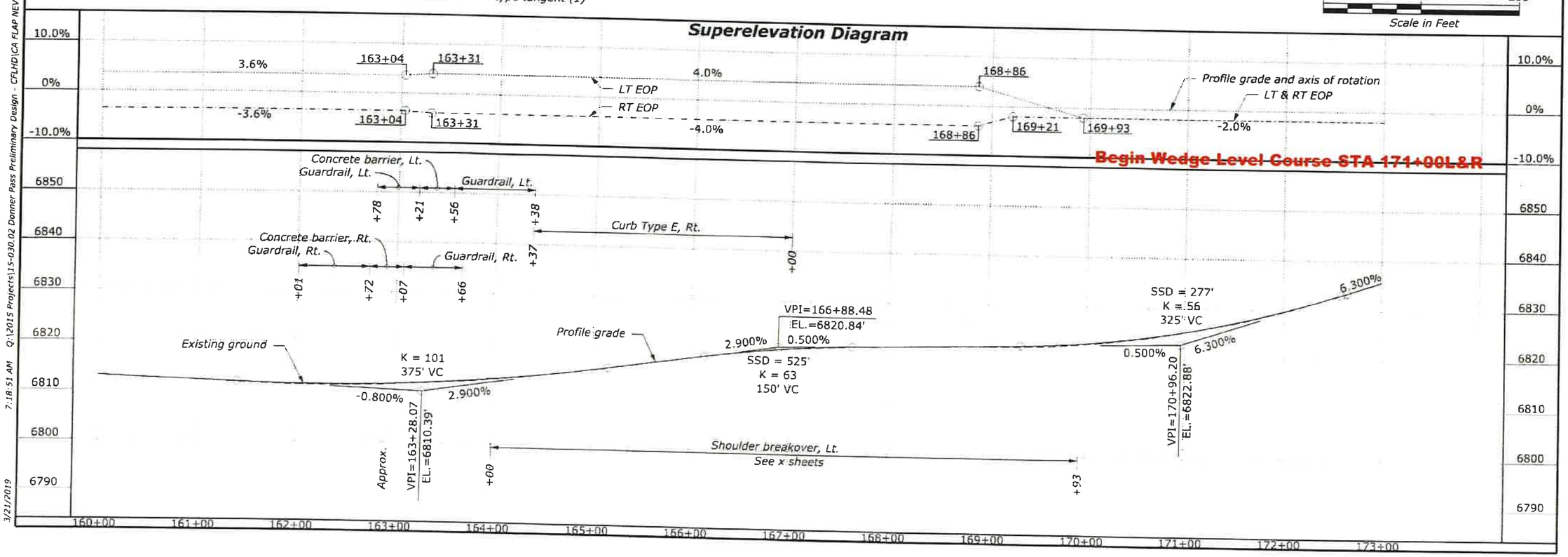
7:18:50 AM

3/21/2019

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C6

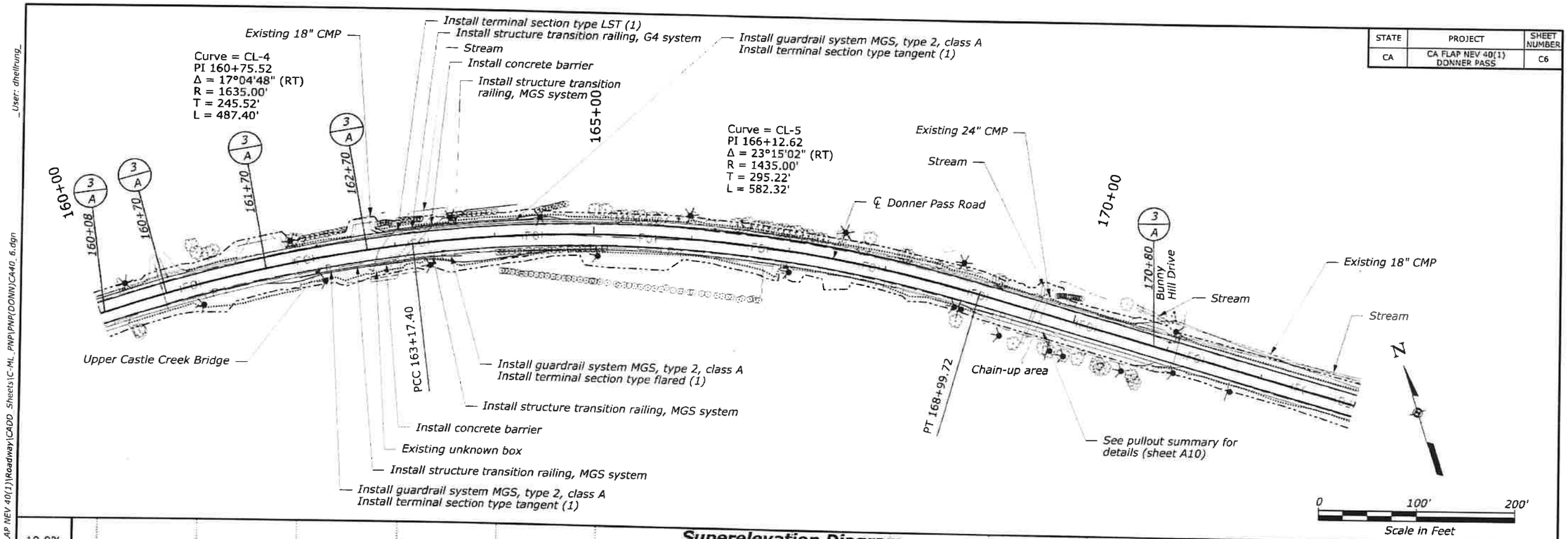
LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
4/1/2019
CIVIL
STATE OF CALIFORNIA

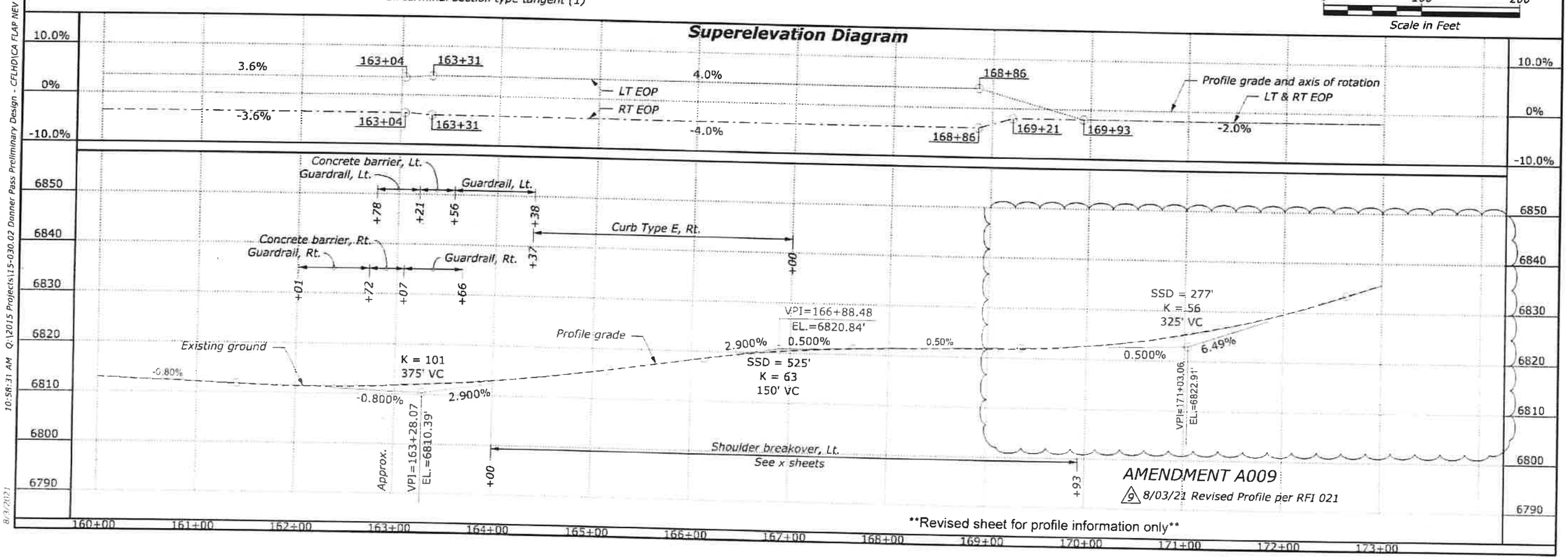




3/21/2019 7:18:51 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\C-ML_PNP\PNP(DONN)CA40_6.dgn _User: mcarlson_

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C6





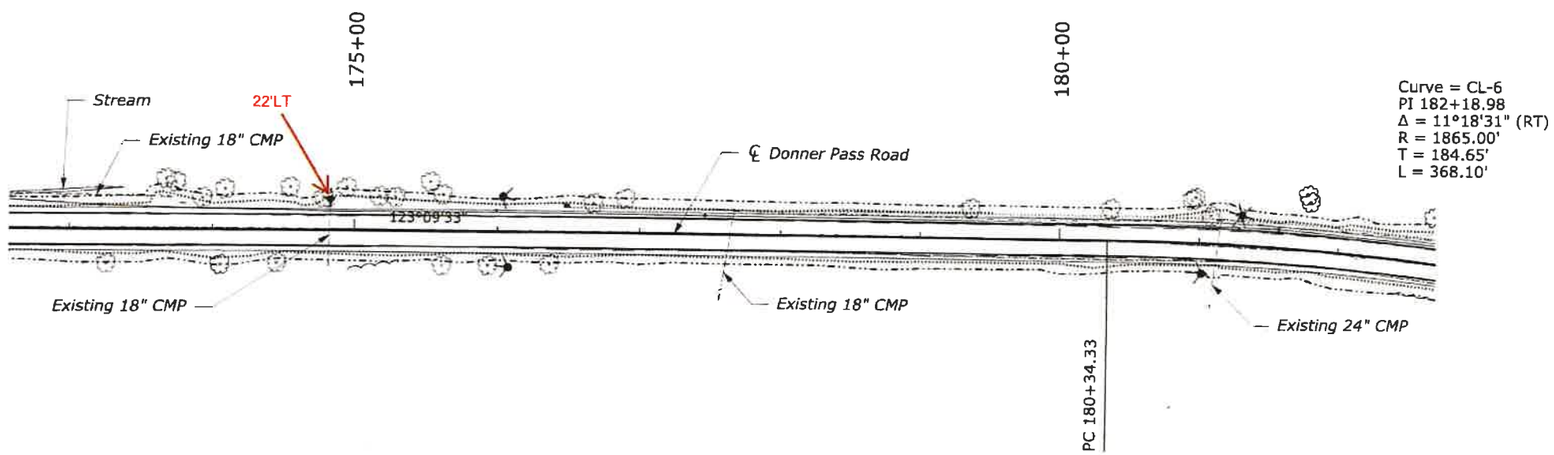
10:58:31 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD Sheets\C-ML_PNP\PNP(DONN)CA40_6.dgn

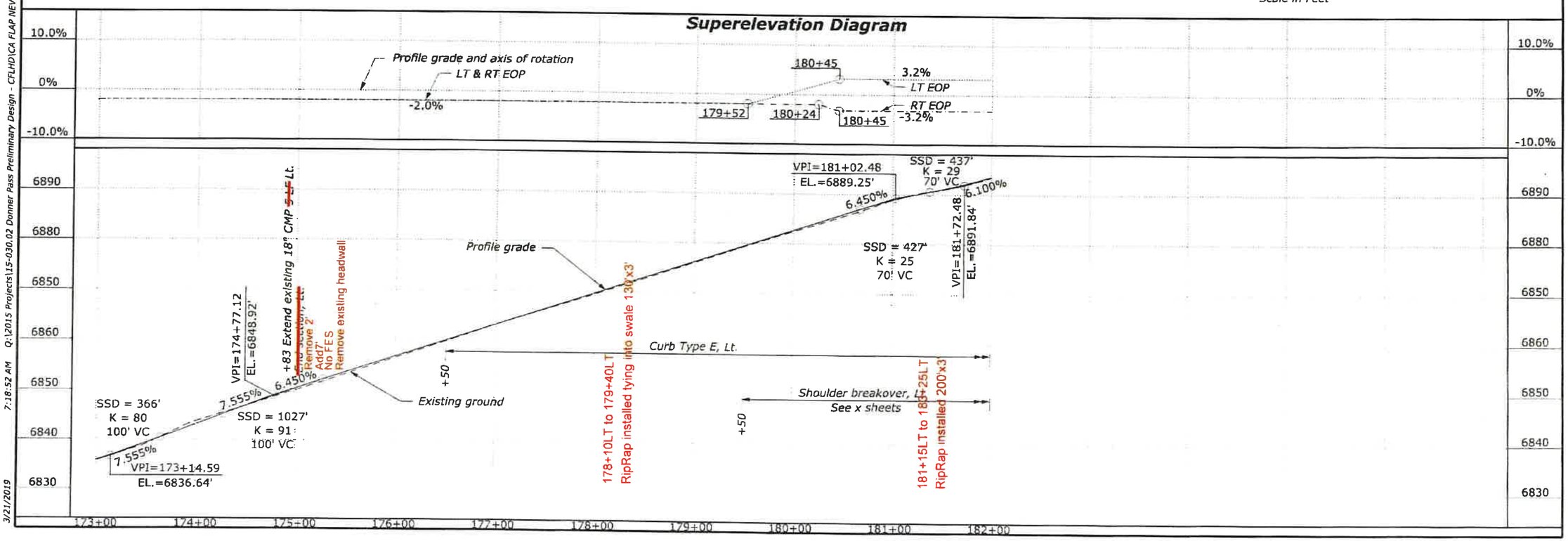
User: dhellrung

8/3/2021

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C7

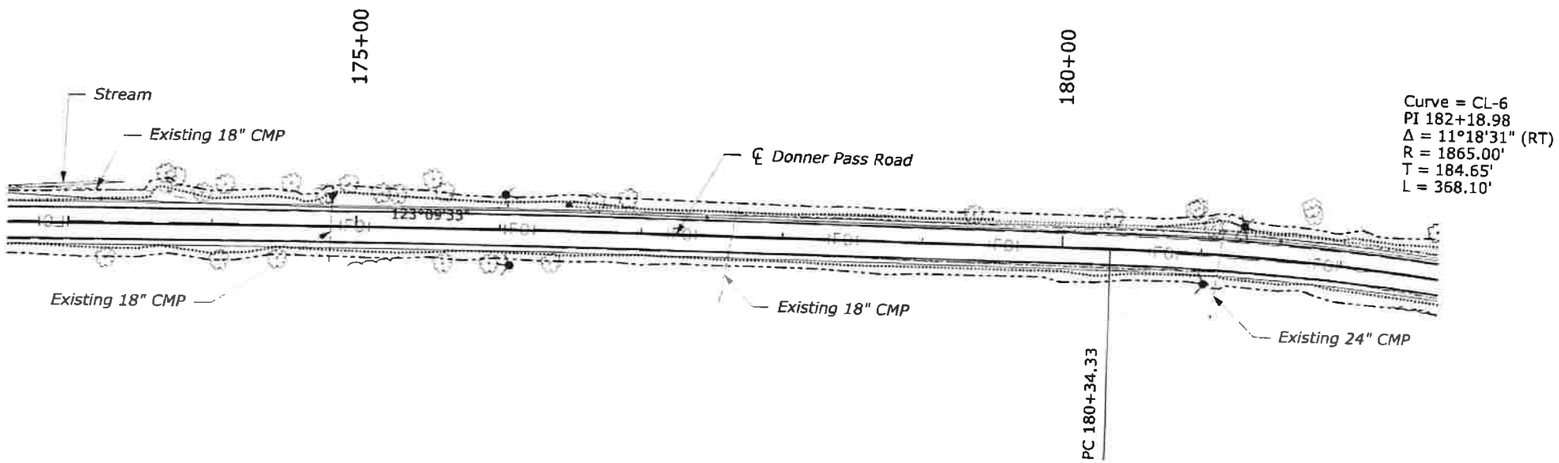
LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREER
C 85264
CIVIL
STATE OF CALIFORNIA
Matthew David Andreer
4/1/2019





User: mcarlson
Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\C-ML_PNP\PNP(DONN)CA40_7.dgn
7:18:52 AM
3/21/2019

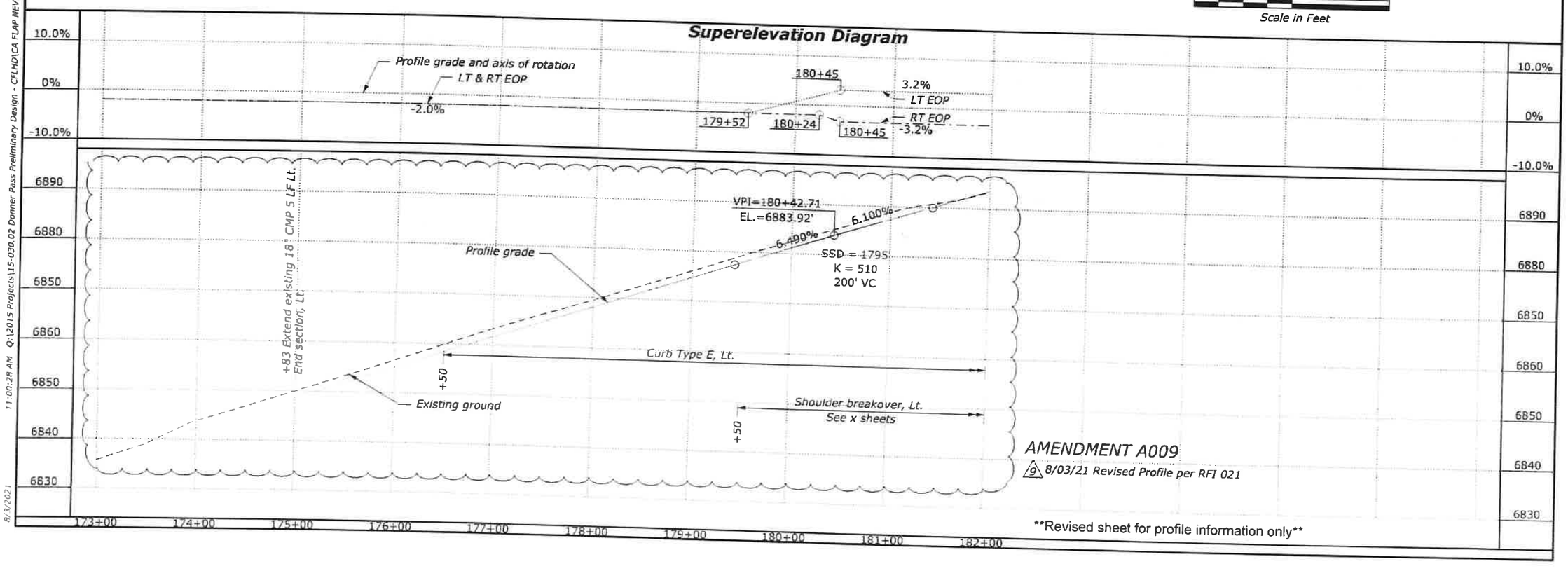
STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C7



Curve = CL-6
PI 182+18.98
Δ = 11°18'31" (RT)
R = 1865.00'
T = 184.65'
L = 368.10'

0 100' 200'
Scale in Feet

Superelevation Diagram

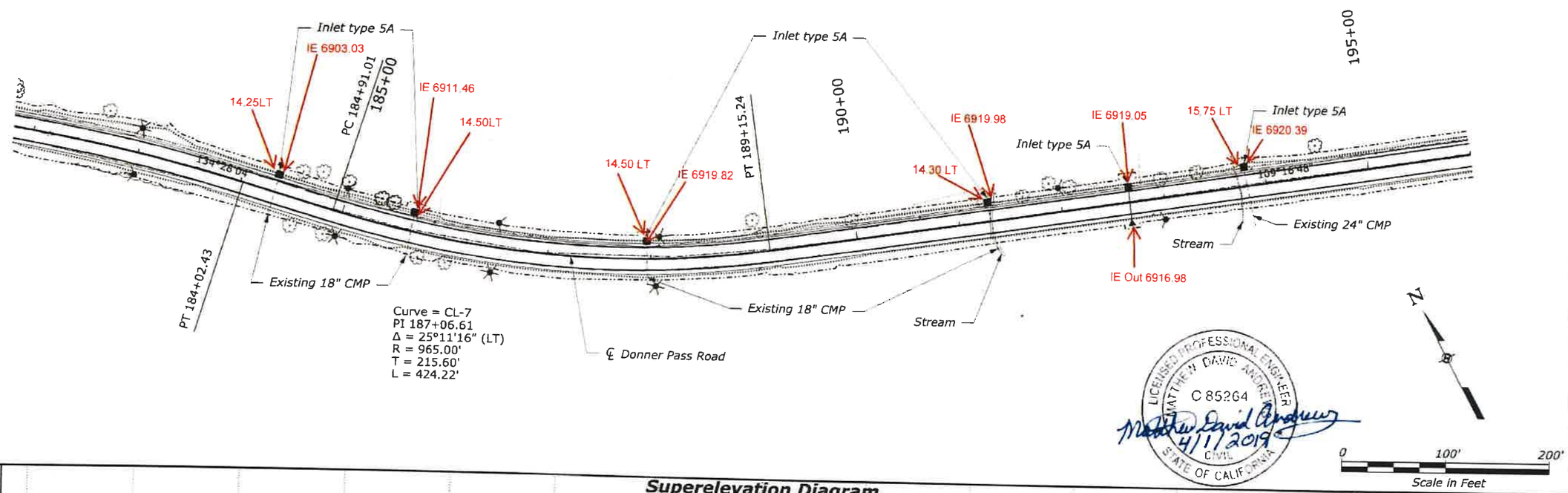


AMENDMENT A009
9 8/03/21 Revised Profile per RFI 021

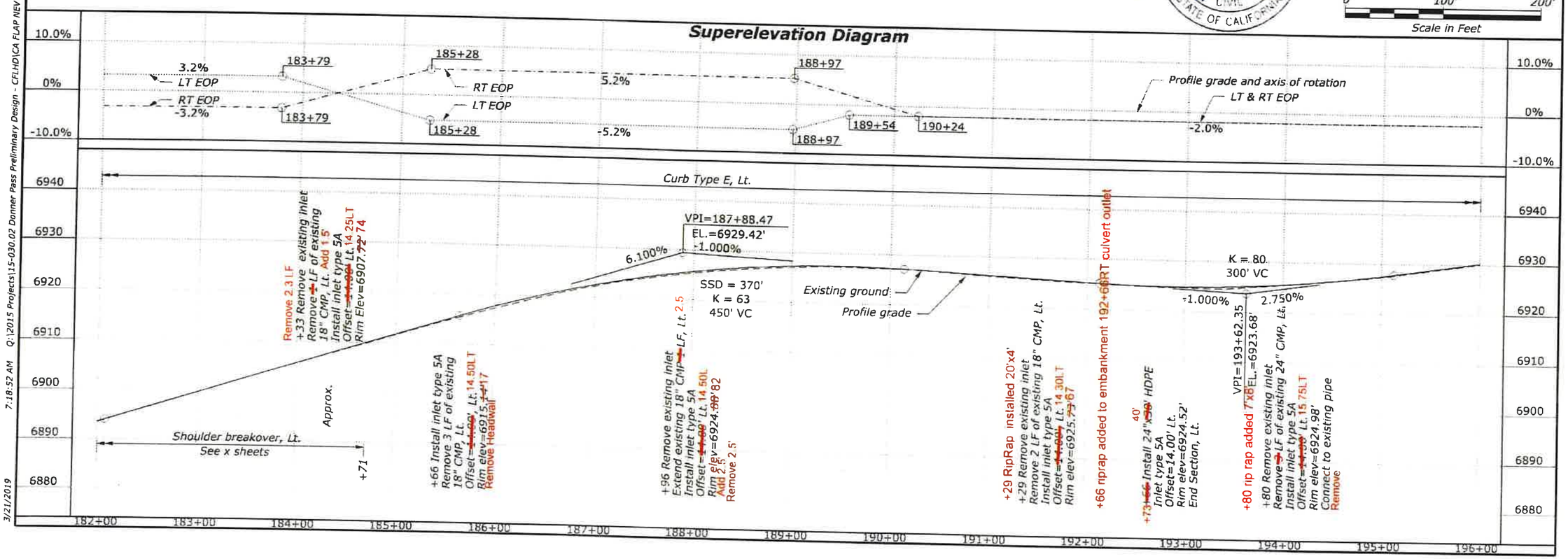
Revised sheet for profile information only

11:00:28 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\C-ML_PNP\PNP(DONN)CA40_7.dgn _User: dhellrung_
8/3/2021

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C8



LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
CIVIL
STATE OF CALIFORNIA
4/1/2019

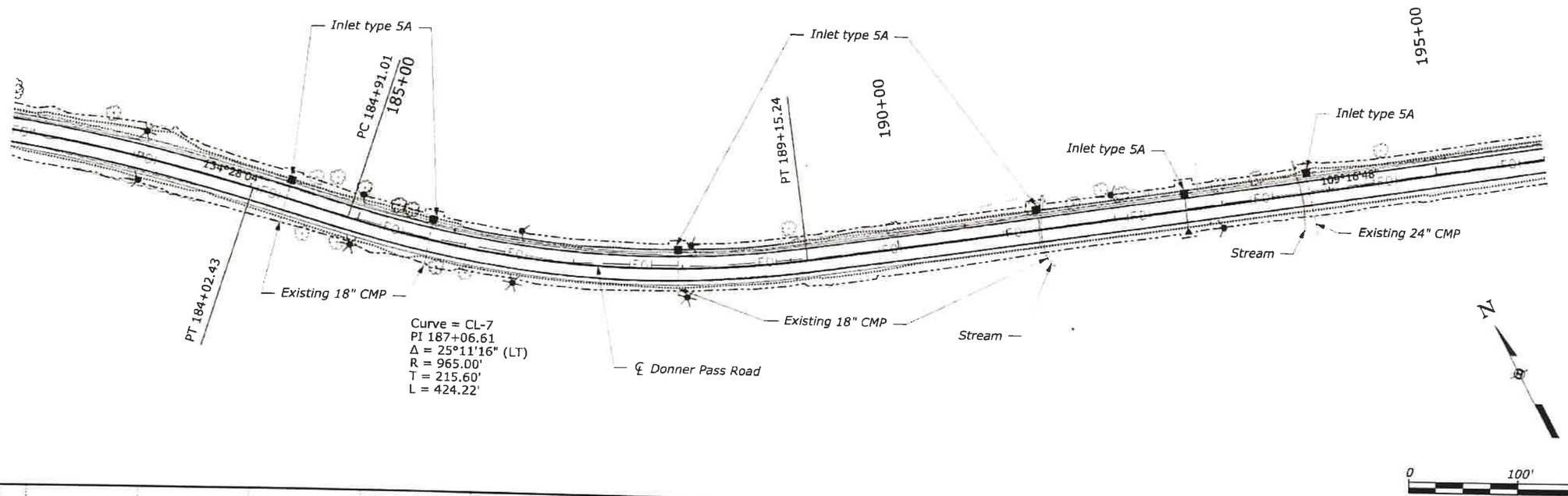


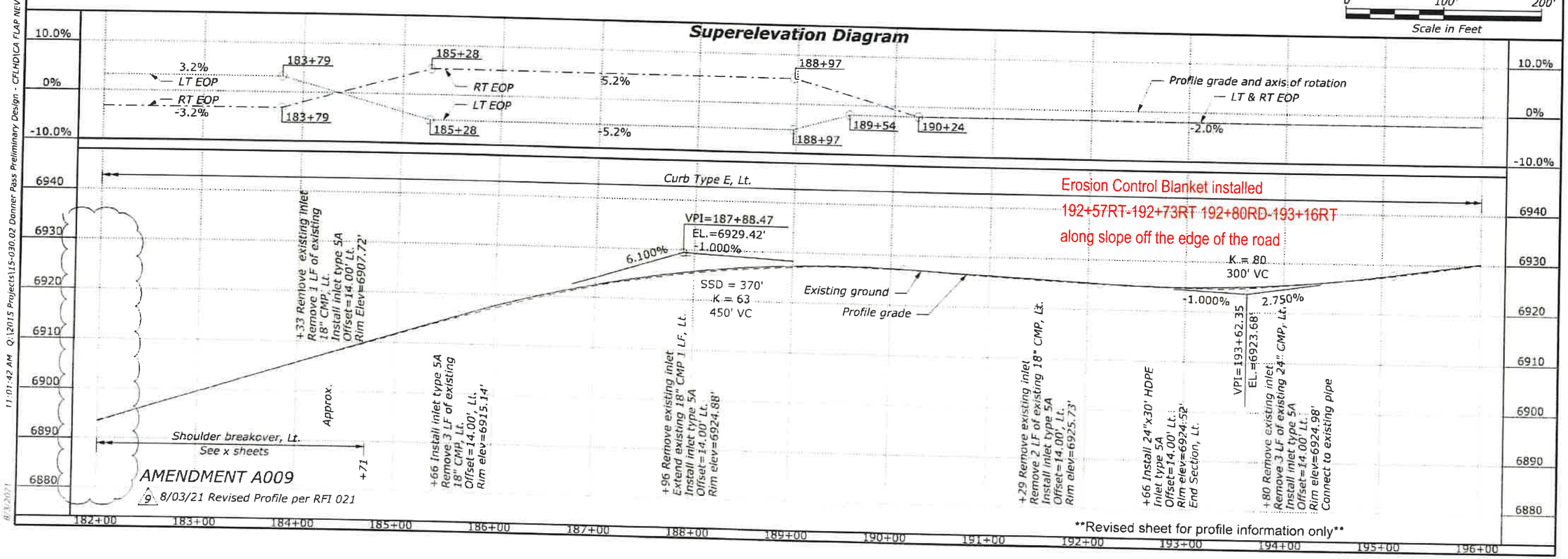
User: mcarlson

Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\C-ML_PNP\PNP(DONN)C440_8.dgn

3/21/2019 7:18:52 AM

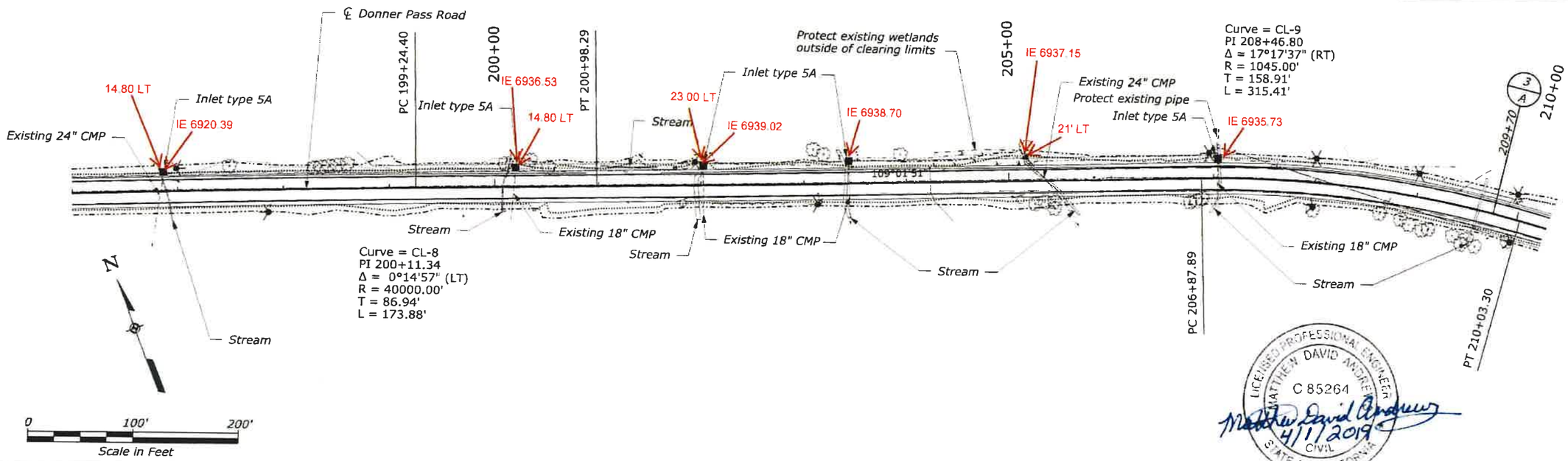
STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C8

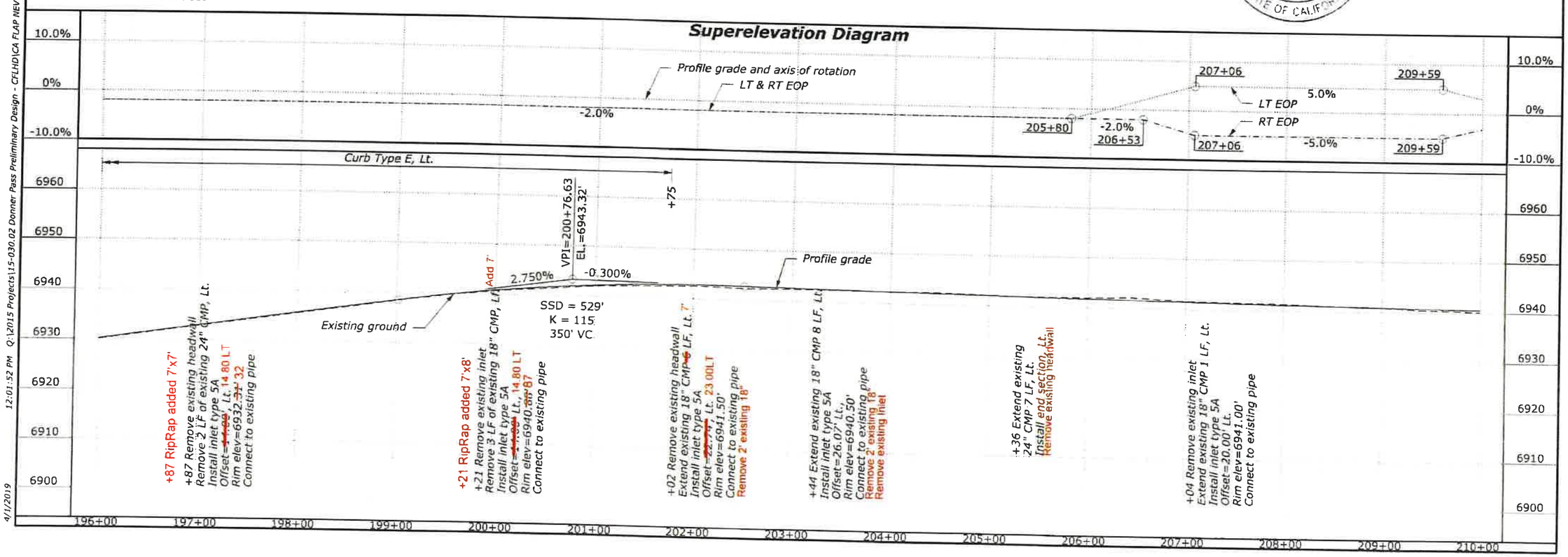




User: dhellkung
11:01:42 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFL\HD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\C-ML_PNP\PNP(DONN)CA40_8.dgn
8/13/2021

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C9





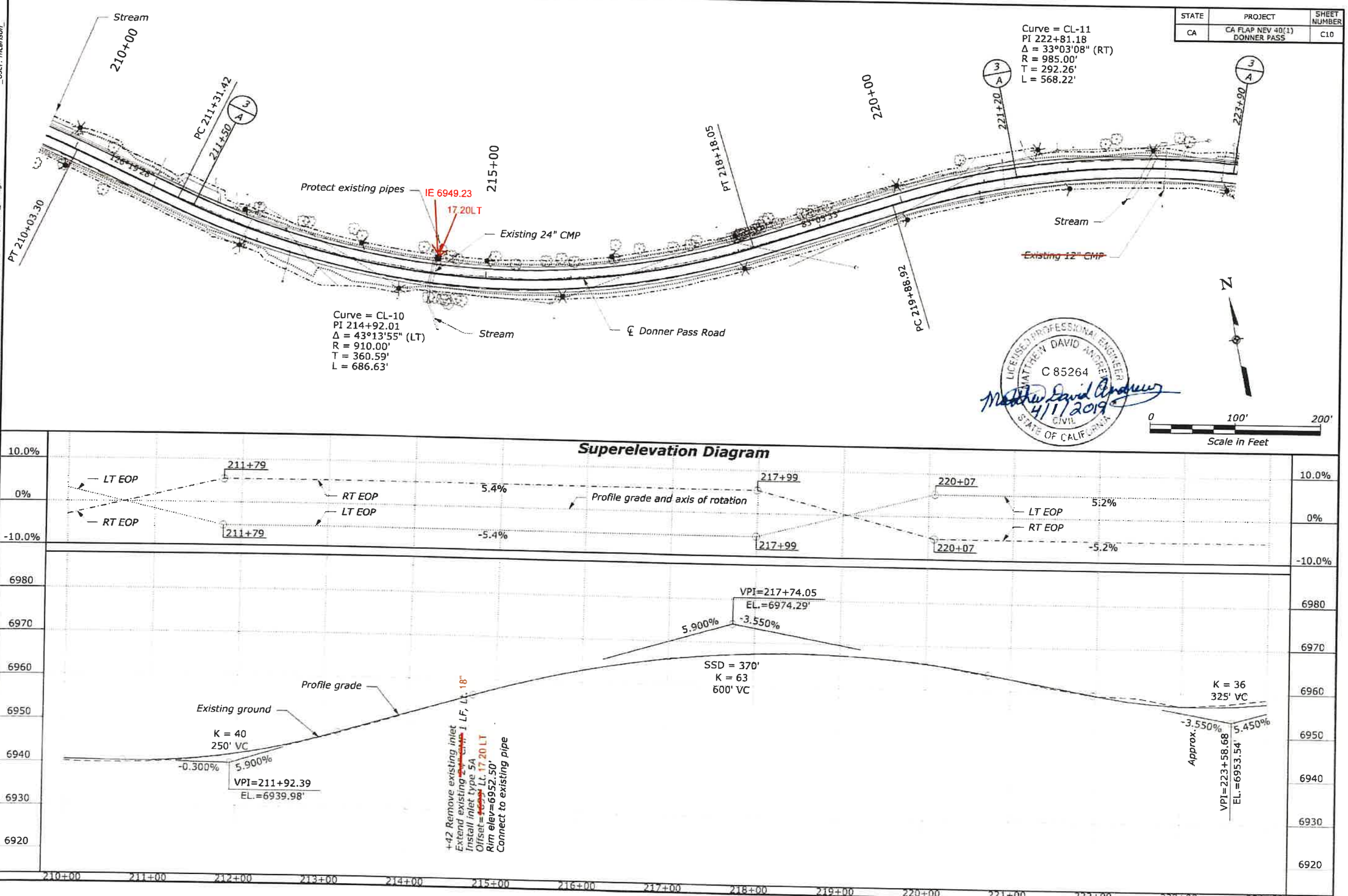
LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
CIVIL
STATE OF CALIFORNIA
Matthew David Andrews
4/1/2019

User: mcarlson_

12:01:52 PM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\C-ML_PNP\PNP(DONN)CA40_9.dgn

4/1/2019

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C10



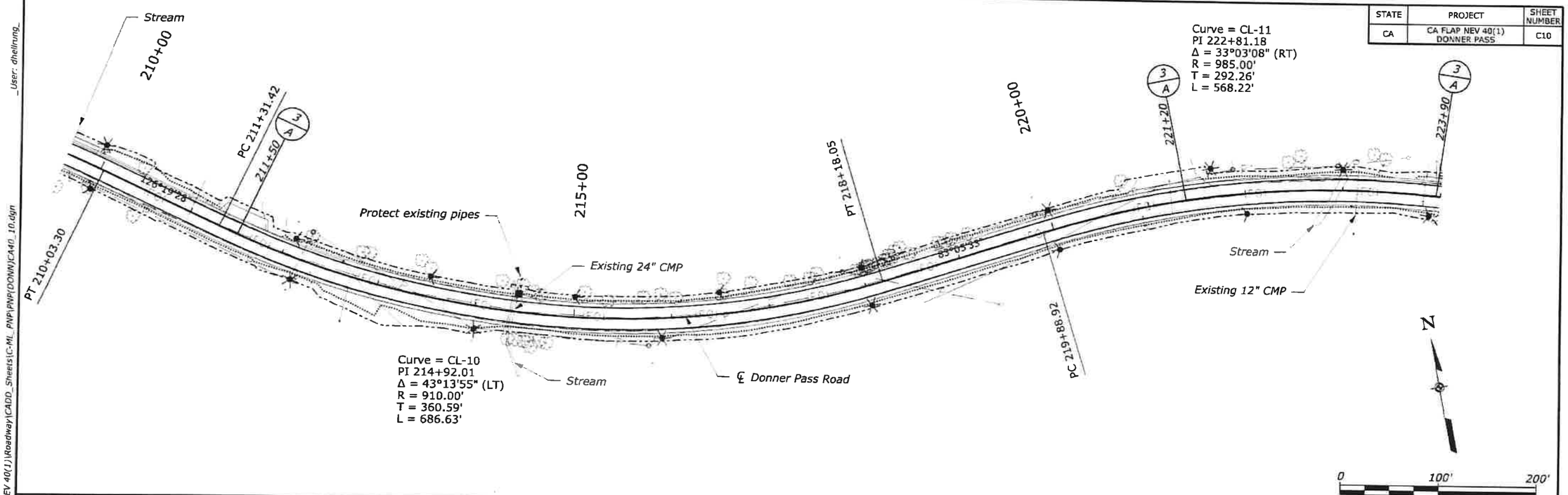
User: mcarison

Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\C-ML_PNP\PNP(DONN)CA40_10.dgn

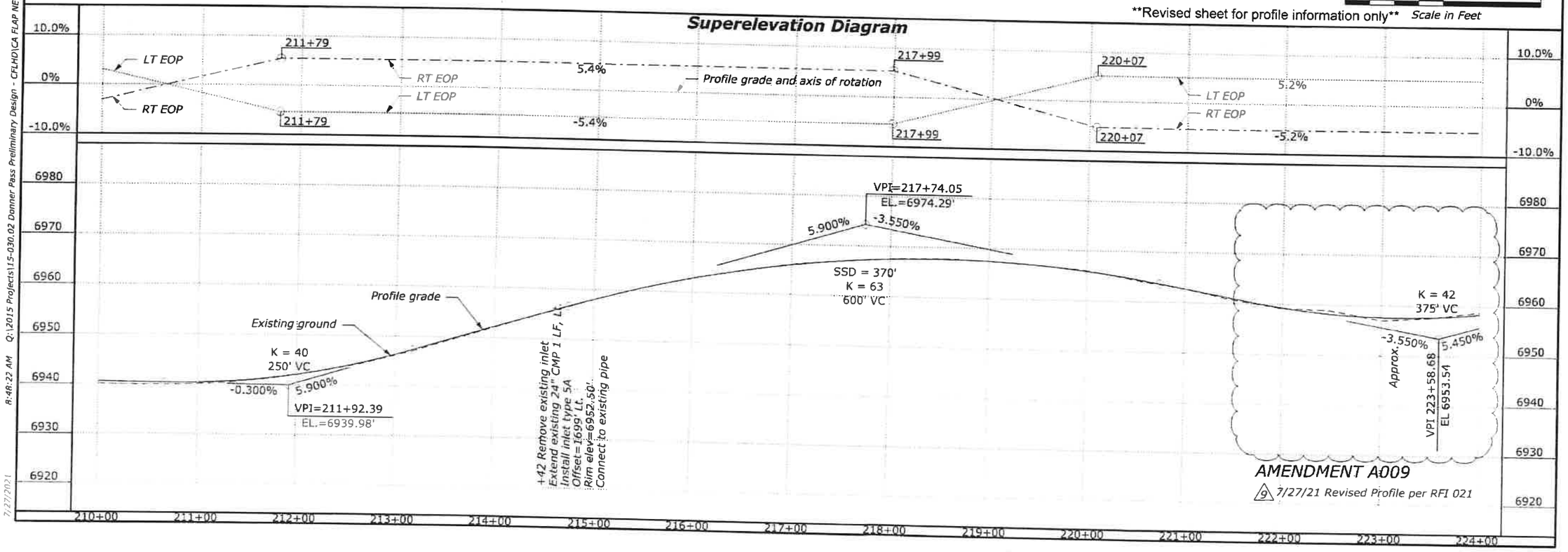
7:18:53 AM

3/21/2019

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C10



Revised sheet for profile information only

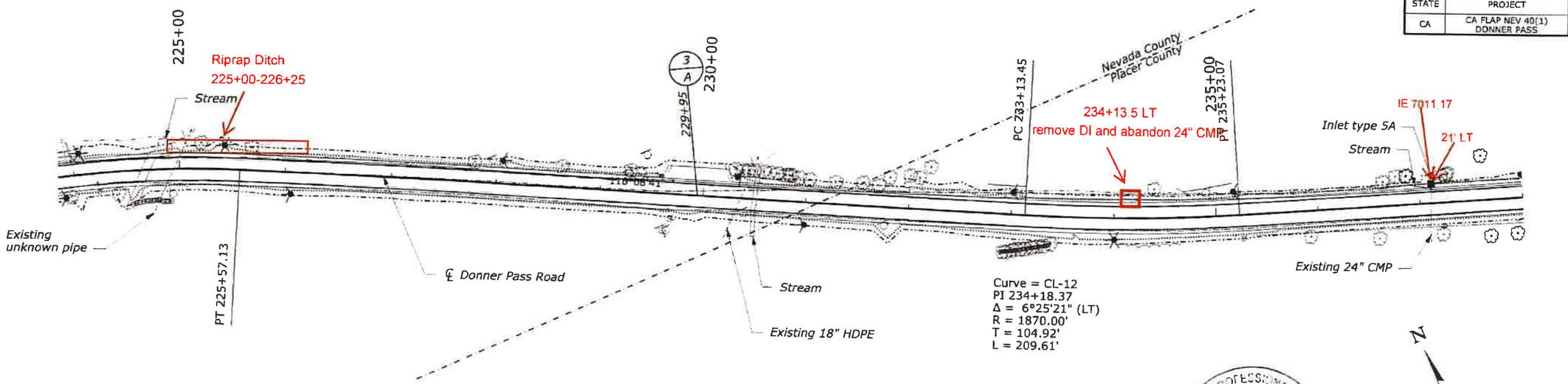


AMENDMENT A009

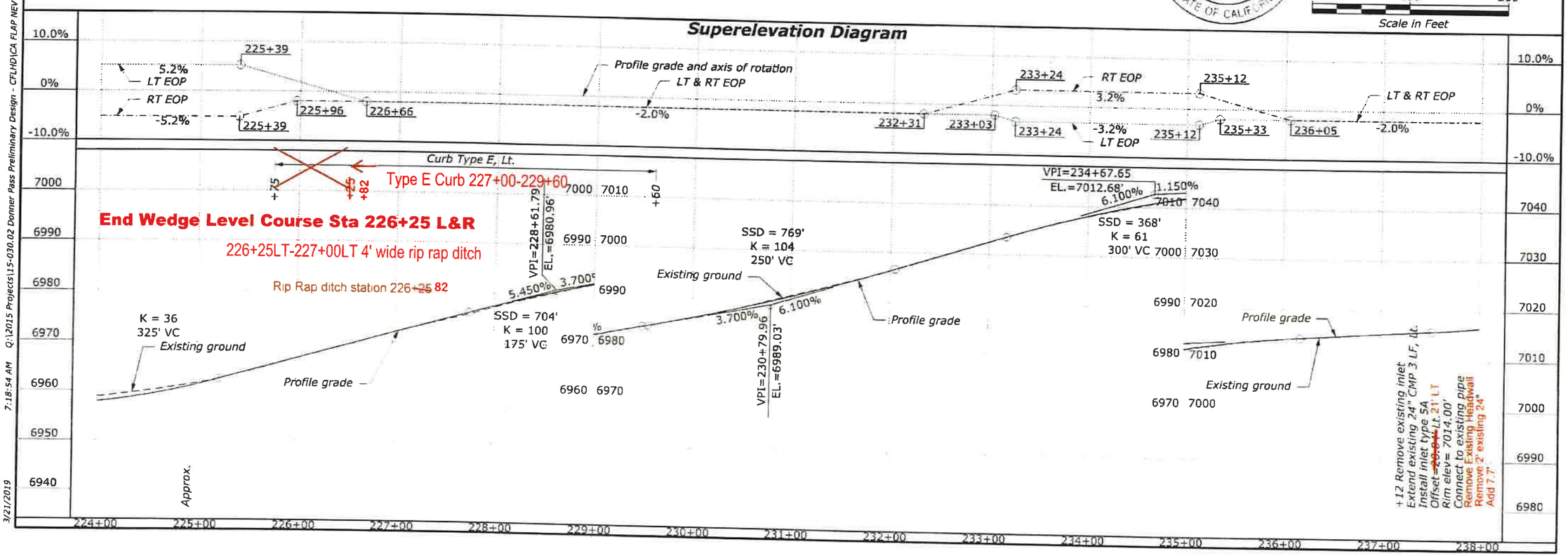
9 7/27/21 Revised Profile per RFI 021

8:48:22 AM Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\C-ML_PNP\PNP(DONN)CA40_10.dgn User: dhellring
7/27/2021

STATE	PROJECT	SHEET NUMBER
CA	CA FLAP NEV 40(1) DONNER PASS	C11



LICENSED PROFESSIONAL ENGINEER
MATTHEW DAVID ANDREWS
C 85264
CIVIL
STATE OF CALIFORNIA
4/1/2019



User: mcarlson
Q:\2015 Projects\15-030.02 Donner Pass Preliminary Design - CFLHD\CA FLAP NEV 40(1)\Roadway\CADD_Sheets\C-ML_PNP\PNP(DONN)CA40_11.dgn
7:18:54 AM
3/21/2019