BRANN RANCH - HIGHWAY 12 WIDENING

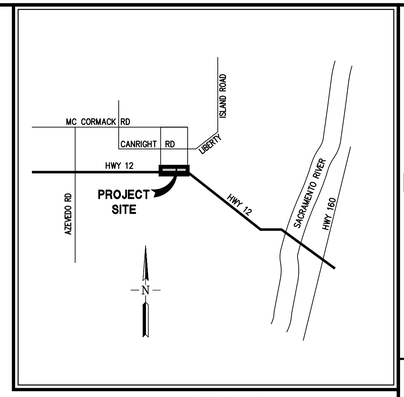
CITY OF RIO VISTA, SOLANO COUNTY, CALIFORNIA
FOR: ENCORE LIBERTY II, LLC

LEGEND

PROPOSED	DESCRIPTION	EXISTING
	TRACT BOUNDARY	
	LOT LINE	
	RIGHT OF WAY	
	CENTER LINE	
	MATCH LINE	
	RETAINING WALL	
	EASEMENT LINE	
12"SD	STORM DRAIN	EX 12"SD
	CURB & GUTTER	EX FC
	SAWCUT	
	SIDEWALK	
	EARTH OR GRASS SWALE	
	VALLEY GUTTER	
	STORM WATER INLET	
	DROP INLET	
	AREA DRAIN	
	BUBBLE UP	
	MANHOLE	
	FIRE HYDRANT	
	MONUMENT	
	TRAFFIC SIGN	
	FENCE	
	BARRICADE	

ABBREVIATIONS

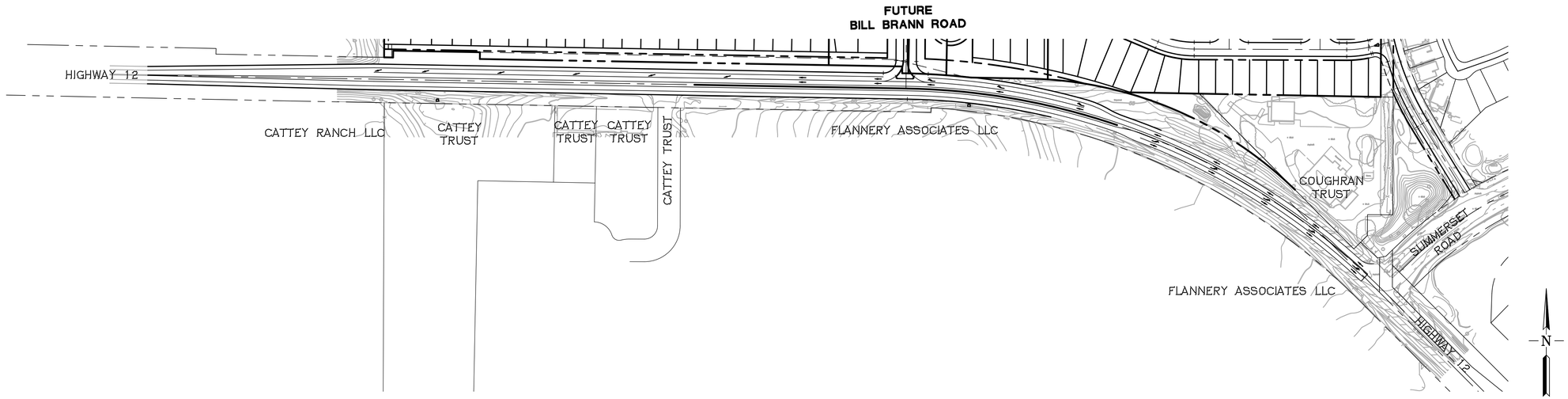
AB	AGGREGATE BASE	LL	LOT LINE
AC	ASPHALT CONCRETE	LP	LOW POINT
BC	BEGINNING OF CURVE	MAX	MAXIMUM
BDY	BOUNDARY	MH	MANHOLE
CL	CENTER LINE	MIN	MINIMUM
CMP	CORRUGATED METAL PIPE	OH	OVERHEAD
DI	DROP INLET	P	PAD ELEVATION
EC	END OF CURVE	PAV	PAVEMENT
EP	EXISTING PAVEMENT	PL	PROPERTY LINE
EVAE	EMERGENCY VEHICLE ACCESS EASEMENT	PVC	POLYVINYL CHLORIDE PIPE
EX	EXISTING	RCP	REINFORCED CONCRETE PIPE
FC	FACE OF CURB	RET	CURB RETURN
FH	FIRE HYDRANT	RW	RIGHT OF WAY
FL	FLOW LINE	SD	STORM DRAIN
GB	GRADE BREAK	STD	STANDARD
HP	HIGH POINT	SWI	STORM WATER INLET
INV	INVERT ELEVATION	SWK	SIDEWALK
LF	LINEAR FOOT	TYP	TYPICAL



VICINITY MAP
NOT TO SCALE

General Comments

- show alignment on all sheets
- construction details missing
- grading plan missing
- superelevation diagram missing
- landscape plans missing
- erosion control plans missing
- include staging plans (positive work zone protection might be needed)



SHEET INDEX

SHEET NO.	DESCRIPTION
C0.0	COVER SHEET
C1.0	PRELIMINARY SECTIONS AND DETAILS
C1.1	PRELIMINARY PLAN AND PROFILE
C1.2	PRELIMINARY PLAN AND PROFILE
C1.3	PRELIMINARY PLAN AND PROFILE
C2.1	PRELIMINARY STORMWATER TREATMENT PLAN
C3.1	PRELIMINARY SIGNING AND STRIPING

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PHONE: (925) 227-9100 FAX: (925) 227-9300

NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
DAVID T. VERHUNE
No. 82632
CIVIL
STATE OF CALIFORNIA

PRELIMINARY ENCROACHMENT PLANS
BRANN RANCH - HIGHWAY 12 WIDENING
COVER SHEET
CITY OF RIO VISTA, SOLANO COUNTY, CALIFORNIA

SCALE AS SHOWN
DATE 11-8-2023
DRAWN HCR
CHECKED JA
PROJ. MGR. DT

DATE	MK	SHEET REVISIONS	BY	CK	CITY

SHEET NO.
C0.0
OF 7 SHEETS
JOB NO.
211098

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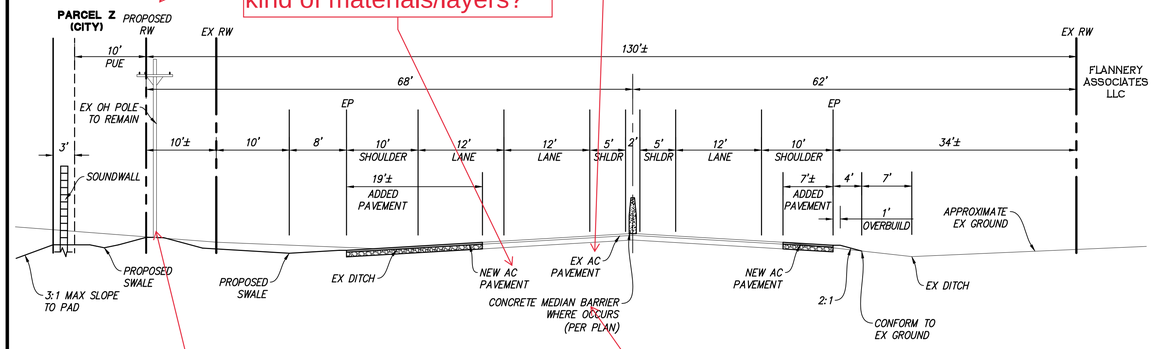
show cross sections for sta 229 +89.2 to 236+00

R/W coordination needed with Caltran's R/W office

show existing AC pavement sections

show proposed AC pavement sections - what kind of materials/layers?



type of Median Barrier?

is this proposing the ex. utility pole to be within CT's R/W?

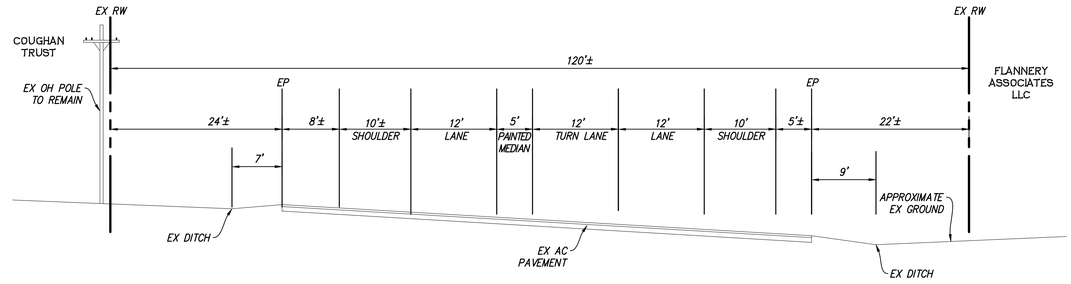
coordination maybe needed b/t utility owner and CT's ROW Utilites

NOT TO SCALE

1 STA 236+00.00 TO STA 255+00.00

DESIGN SPEED 60 MPH
POSTED SPEED 50 MPH

DESIGN STANDARDS:
CALTRANS HIGHWAY DESIGN MANUAL
AASHTO – A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS



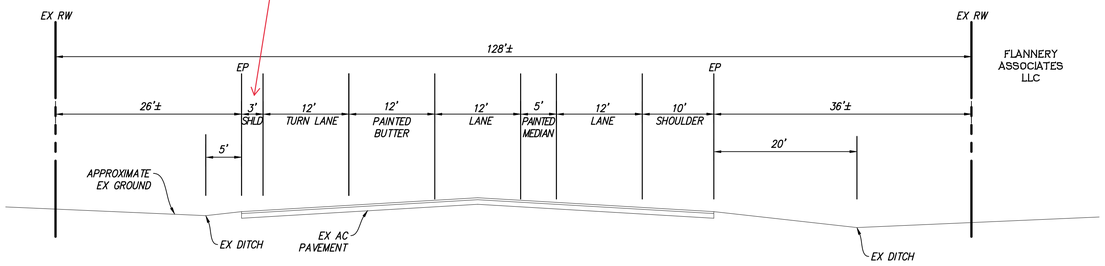
existing pavement conditions with proposed pavement stripe

NOT TO SCALE

2 STA 257+00.00 TO STA 263+00.00

non-std shldr (need to be 8') - HDM Table 302.1

- since existing condition, will need a memo to file document



existing conditions

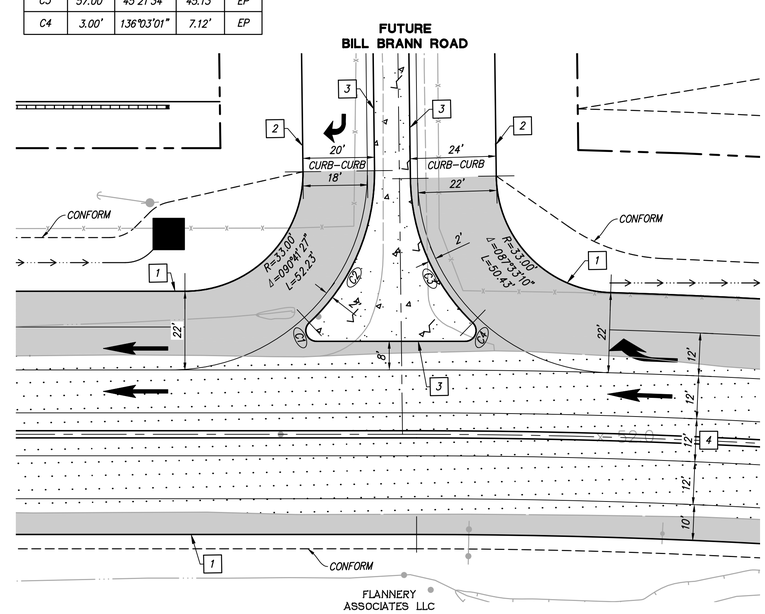
NOT TO SCALE

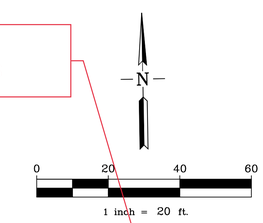
3 STA 263+00.00 TO SUMMERSET ROAD

CURVE TABLE				
CURVE	RADIUS	DELTA	LENGTH	DESC
C1	3.00'	137°10'00"	7.18'	EP
C2	57.00'	47°51'27"	47.61'	EP
C3	57.00'	45°21'34"	45.13'	EP
C4	3.00'	136°03'01"	7.12'	EP

show alignment

show proposed pavement sections





LEGEND

- NEW AC PAVEMENT
- SLURRY SEAL
- RAISED CONCRETE MEDIAN
- PROPOSED RIGHT OF WAY
- PROPOSED SWALE (1% MIN)

PLAN KEYNOTES:

1. PAVEMENT WIDENING/NEW EP PER PLAN
2. ONSITE CURB AND GUTTER PER SEPARATE BRANN RANCH DEVELOPMENT
3. RAISED TYPE D 8" MEDIAN CURB PER CALTRANS STD DETAIL A87A
4. 5' SHOULDERS AND RAISED CONCRETE MEDIAN BARRIER (12' TOTAL WIDTH)

SCALE 1"=20'

4 PROJECT ENTRY ENLARGED DETAIL

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REGISTERED PROFESSIONAL ENGINEER DAVID A. VERHUNE No. 82632 CIVIL STATE OF CALIFORNIA

PRELIMINARY ENCROACHMENT PLANS
BRANN RANCH - HIGHWAY 12 WIDENING

PRELIMINARY SECTIONS AND DETAILS

CITY OF RIO VISTA, SOLANO COUNTY, CALIFORNIA

SCALE AS SHOWN | DATE 11-8-2023 | DRAWN HCR | CHECKED JA | PROJ. MGR. DT

SHEET REVISIONS: BY | CK | CITY | DATE | MK

SHEET NO. C1.0 OF 7 SHEETS

JOB NO. 211098

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super-elevation diagram needed for widening portion.

callout CT's R/W lines

show cross section for sta 229+89.2 to 236+00

construction details needed for widening work w/ grading plans , elevations, pavement sections.

what kind of pavement section?

APPROXIMATE EXISTING GRADE AT CL

139 LF 36" SD S=0.0050

236+20.31 SDMH #1 RIM 53.5 INV 47.30 (36" IN) INV 47.30 (36" OUT)

237+59.57 DI #1 TG 55.3 INV 48.57 (36" IN) INV 48.00 (36" OUT)

DESIGN SPEED 60 MPH
POSTED SPEED 50 MPH

DESIGN STANDARDS:
CALTRANS HIGHWAY DESIGN MANUAL
AASHTO – A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS

SEE BRANN RANCH VESTING TENTATIVE MAP UTILITY PLAN PREPARED BY RJA, DATED JULY 2023, FOR CONTINUATION

SEE BRANN RANCH VESTING TENTATIVE MAP PREPARED BY RJA, DATED JULY 2023, FOR ONSITE IMPROVEMENTS

CASTELLANOS

EXISTING RW

PROPOSED SWALE

EX OH TO REMAIN

FL 56.0 HP

CONFORM

LIMIT OF WORK MATCH EX. PAVEMENT

36" SD

98 LF EX 36" CMP TO REMAIN S=0.022

EX 36" CMP

EX GAS

EX DITCH FL

EX 8" PIPE

EX FL 50.7±

PROPOSED RW

PROPOSED SWALE

10' PUE

PARCEL Z (CITY)

CATTEY TRUST

MATCH LINE 241+50.00
SEE SHEET C1.2

P 51.4 | P 51.4 | P 51.4 | P 51.0 | P 50.7 | P 50.3 | P 50.0 | P 50.0 | P 50.2 | P 50.5

LEGEND

- NEW AC PAVEMENT
- SLURRY SEAL
- PROPOSED SWALE (1% MIN)
- PROJECT BOUNDARY
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY

PLAN KEYNOTES:

1. EXISTING EDGE OF PAVEMENT
2. REMOVE AND ADJUST TO FINISH GRADE EXISTING TRAFFIC SIGN AND POST
3. EXISTING PG&E POLE TO REMAIN

0 40 80 120
1 inch = 40 ft.

BEFORE EXCAVATING
CALL U.S.A.
UNDERGROUND SERVICE ALERT
800-227-2600 TOLL FREE
48 HOURS BEFORE ALL PLANNED WORK OPERATIONS

NOTE:
LOCATIONS AND DEPTHS OF EX UTILITIES ARE APPROXIMATE. CONTRACTOR TO POTHOLE ALL EXISTING UTILITIES AT PROPOSED UTILITY CROSSINGS PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS A MINIMUM OF TWO WORKING DAYS PRIOR TO STARTING ANY WORK.

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PRELIMINARY ENCROACHMENT PLANS
BRANN RANCH - HIGHWAY 12 WIDENING

PRELIMINARY PLAN AND PROFILE

CITY OF RIO VISTA, SOLANO COUNTY, CALIFORNIA

SCALE	AS SHOWN
DATE	11-8-2023
DRAWN	HOR
CHECKED	JA
PROJ. MGR.	DT

DATE	MK	SHEET REVISIONS	BY	CK	CITY

SHEET NO. C1.1
OF 7 SHEETS
JOB NO. 211098

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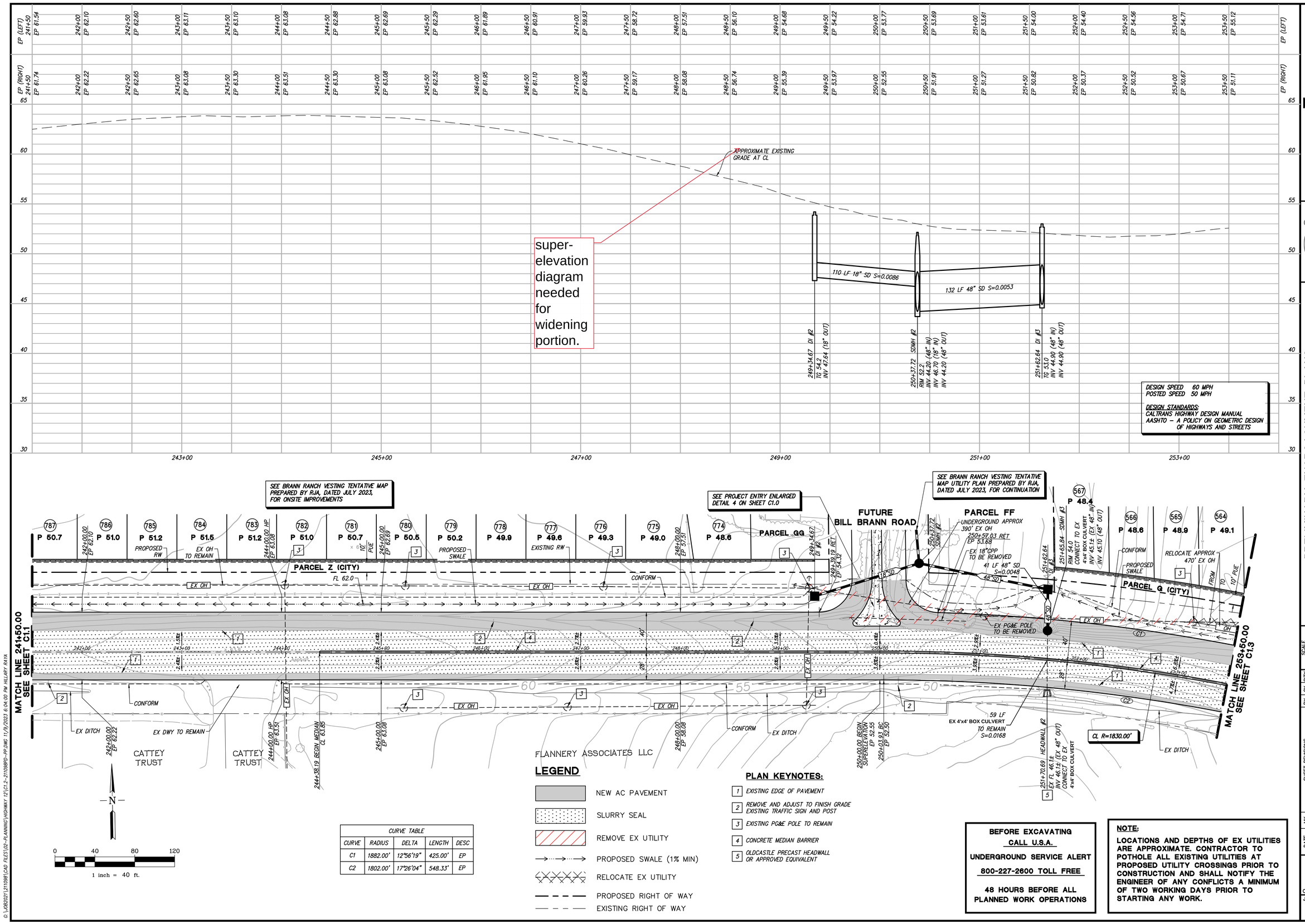

CURVE TABLE				
CURVE	RADIUS	DELTA	LENGTH	DESC
C1	1882.00'	12°56'19"	425.00'	EP
C2	1802.00'	17°26'04"	548.33'	EP

LEGEND

- NEW AC PAVEMENT
- SLURRY SEAL
- REMOVE EX UTILITY
- PROPOSED SWALE (1% MIN)
- RELOCATE EX UTILITY
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY

PLAN KEYNOTES:

1. EXISTING EDGE OF PAVEMENT
2. REMOVE AND ADJUST TO FINISH GRADE EXISTING TRAFFIC SIGN AND POST
3. EXISTING PG&E POLE TO REMAIN
4. CONCRETE MEDIAN BARRIER
5. OLDCASTLE PRECAST HEADWALL OR APPROVED EQUIVALENT

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BRANN RANCH - HIGHWAY 12 WIDENING
PRELIMINARY PLAN AND PROFILE
CITY OF RIO VISTA, SOLANO COUNTY, CALIFORNIA

DATE	BY	CK	CITY
MK			

SHEET REVISIONS

SCALE AS SHOWN
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DRAWN HDP
CHECKED JA
PROJ MGR. DT

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OF 7 SHEETS
JOB NO. 211098

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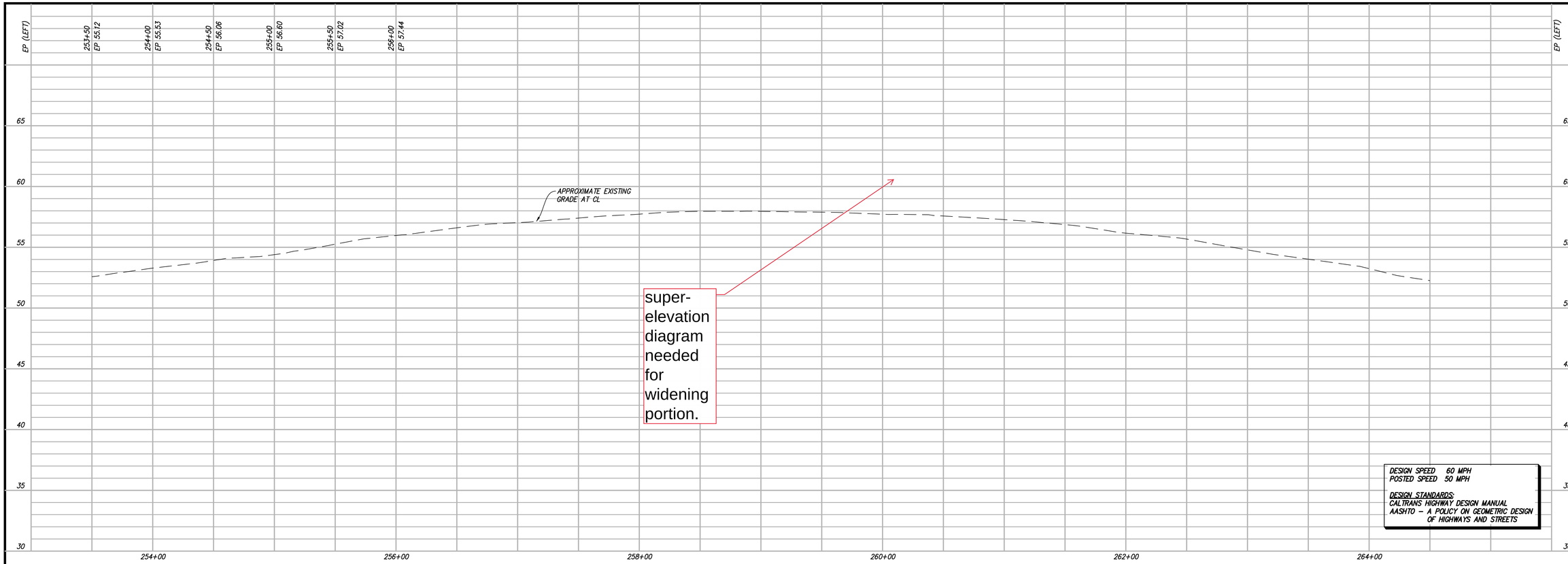
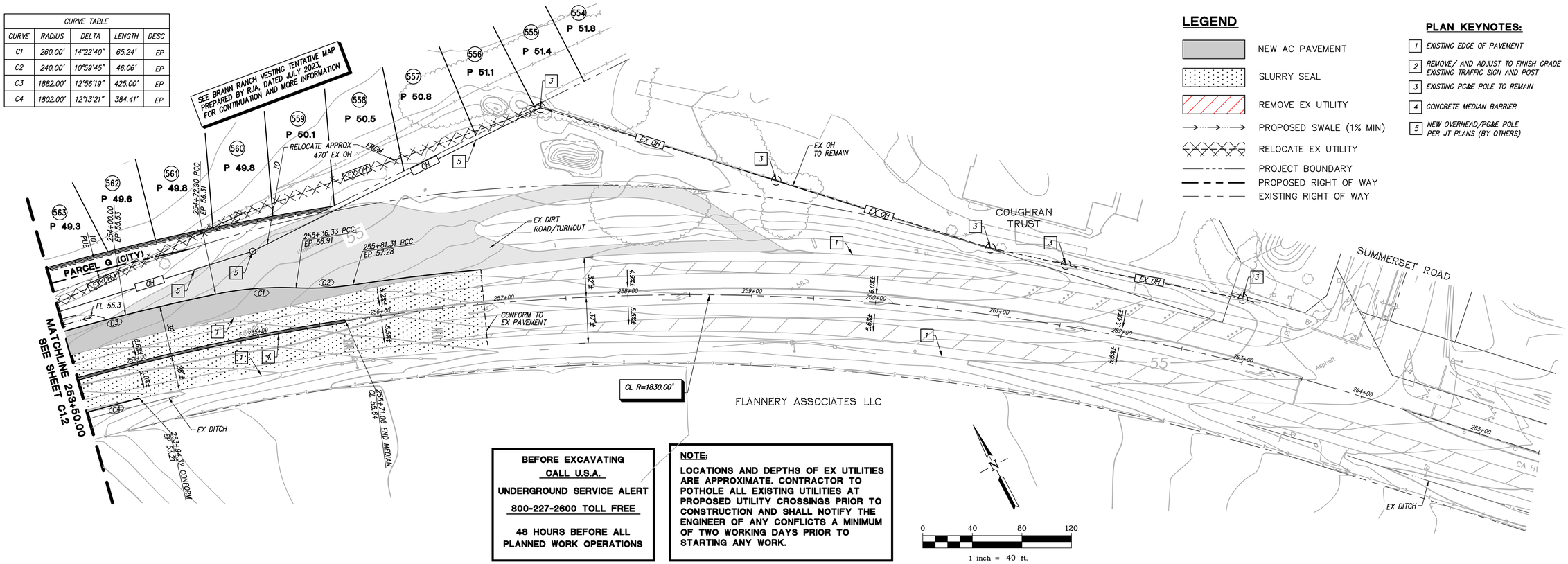


DESIGN SPEED 60 MPH
POSTED SPEED 50 MPH

DESIGN STANDARDS:
CALTRANS HIGHWAY DESIGN MANUAL
AASHTO – A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS

CURVE TABLE				
CURVE	RADIUS	DELTA	LENGTH	DESC
C1	260.00'	14°22'40"	65.24'	EP
C2	240.00'	10°59'45"	46.06'	EP
C3	1882.00'	12°56'19"	425.00'	EP
C4	1802.00'	12°13'21"	384.41'	EP



LEGEND

- NEW AC PAVEMENT
- SLURRY SEAL
- REMOVE EX UTILITY
- PROPOSED SWALE (1% MIN)
- RELOCATE EX UTILITY
- PROJECT BOUNDARY
- PROPOSED RIGHT OF WAY
- EXISTING RIGHT OF WAY

PLAN KEYNOTES:

1. EXISTING EDGE OF PAVEMENT
2. REMOVE/ AND ADJUST TO FINISH GRADE EXISTING TRAFFIC SIGN AND POST
3. EXISTING PG&E POLE TO REMAIN
4. CONCRETE MEDIAN BARRIER
5. NEW OVERHEAD/PG&E POLE PER JT PLANS (BY OTHERS)

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0 40 80 120
1 inch = 40 ft.

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PRELIMINARY ENCROACHMENT PLANS
BRANN RANCH - HIGHWAY 12 WIDENING
PRELIMINARY PLAN AND PROFILE
CITY OF RIO VISTA, SOLANO COUNTY, CALIFORNIA

SCALE AS SHOWN
DATE 11-8-2023
DRAWN HCR
CHECKED JA
PROJ. MGR. DT

DATE	MK	SHEET REVISIONS	BY	CK	CITY

SHEET NO. C1.3 OF 7 SHEETS
JOB NO. 211098

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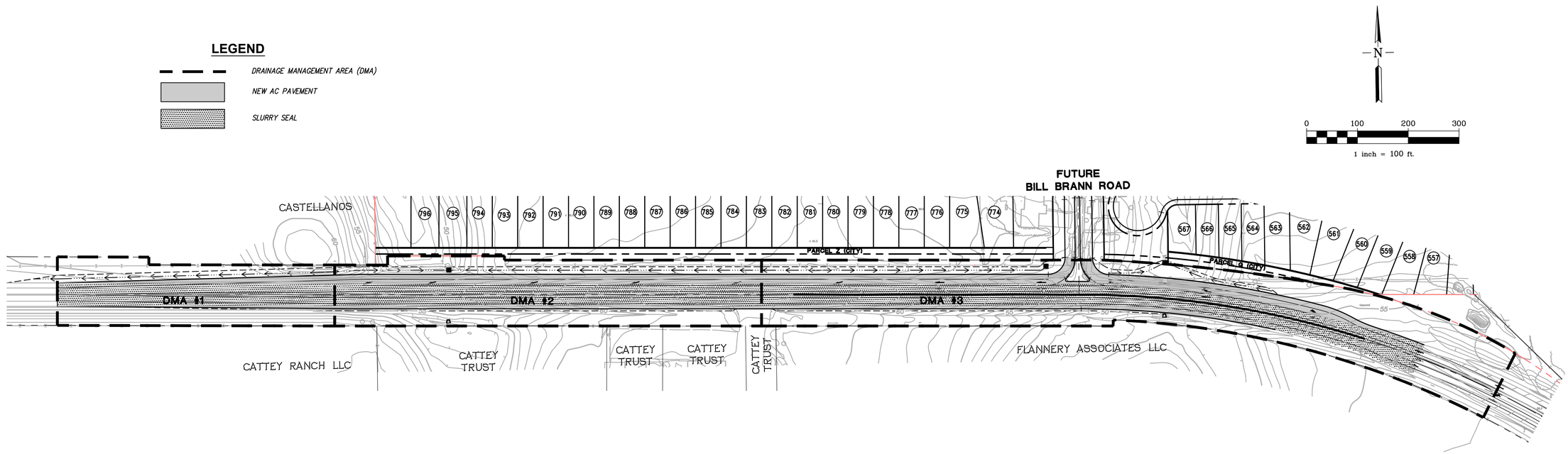
LEGEND

- DRAINAGE MANAGEMENT AREA (DMA)
- NEW AC PAVEMENT
- SLURRY SEAL



PRELIMIANRY STORMWATER TREATMENT CALCULATIONS

DMA	TOTAL DMA AREA (SF)	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	EFFECTIVE IMPERVIOUS AREA (SF)	REQUIRED TREATMENT AREA (SF) (1)	PROVIDED TREATMENT AREA (SF) (1)
1	68,178	17,035	51,143	22,149	11,075	51,143
2	109,906	20,541	89,365	29,478	14,739	89,365
3	193,650	29,590	164,060	45,996	22,998	164,060
TOTAL	371,734	67,166	304,568			

NOTE:
1. THE DRAINAGE MANAGEMENT AREAS SHALL BE TREATED VIA THE 2:1 SELF-RETAINING AREA WITHIN THE LANDSCAPE STRIP.

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STATE OF CALIFORNIA

PRELIMINARY ENCROACHMENT PLANS
BRANN RANCH - HIGHWAY 12 WIDENING
PRELIMINARY STORMWATER TREATMENT PLAN
CITY OF RIO VISTA, SOLANO COUNTY, CALIFORNIA

SCALE: AS SHOWN
DATE: 11-8-2023
DRAWN: HCR
CHECKED: JA
PROJ. MGR.: DT

DATE	MK	SHEET REVISIONS	BY	CK	CITY

SHEET NO.
C2.1
OF 7 SHEETS
JOB NO.
211098

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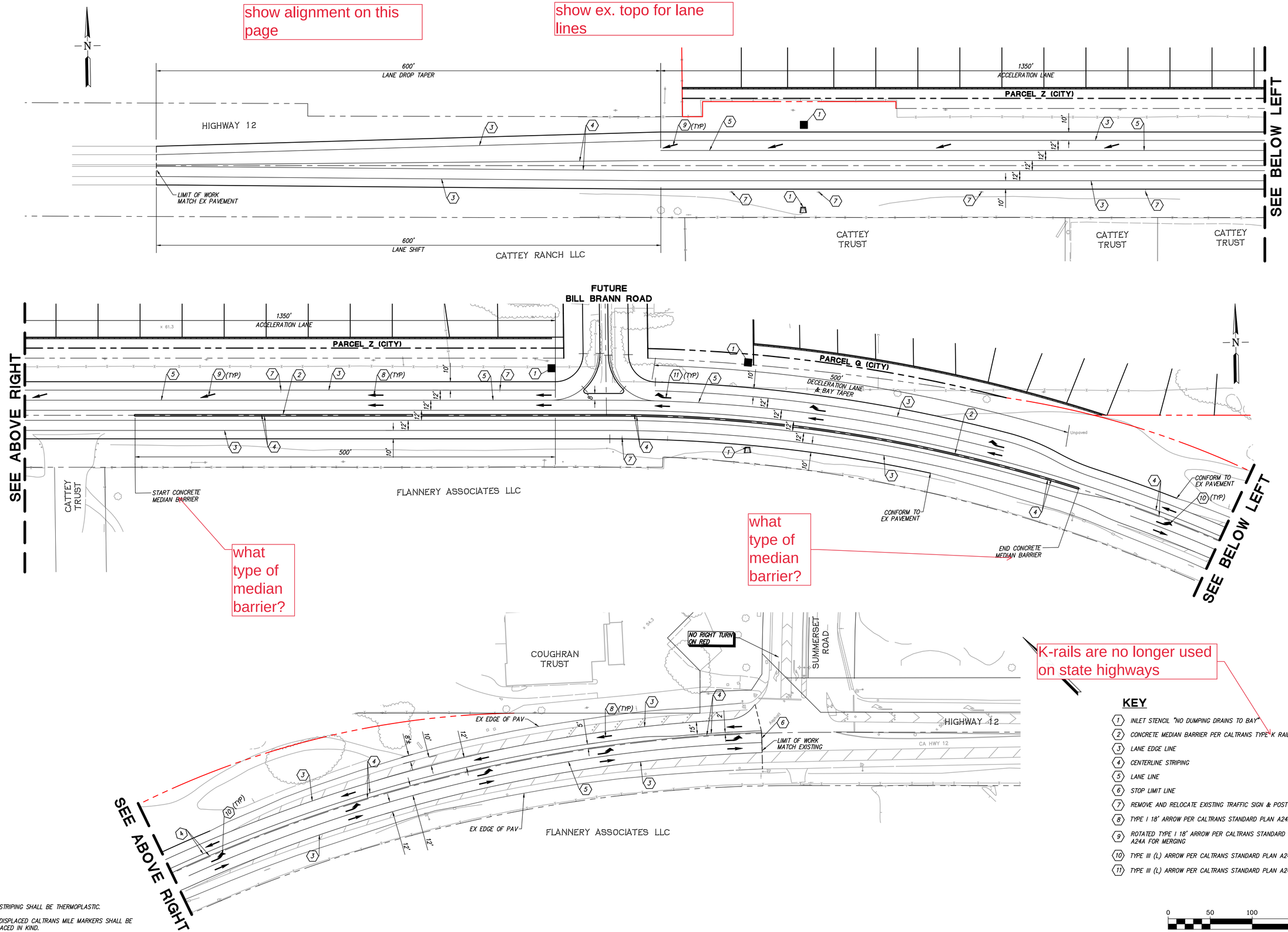
show alignment on this page

show ex. topo for lane lines



what type of median barrier?

what type of median barrier?

K-rails are no longer used on state highways

KEY

1. INLET STENCIL "NO DUMPING DRAINS TO BAY"
2. CONCRETE MEDIAN BARRIER PER CALTRANS TYPE K RAIL
3. LANE EDGE LINE
4. CENTERLINE STRIPING
5. LANE LINE
6. STOP LIMIT LINE
7. REMOVE AND RELOCATE EXISTING TRAFFIC SIGN & POST
8. TYPE I 18' ARROW PER CALTRANS STANDARD PLAN A24A
9. ROTATED TYPE I 18' ARROW PER CALTRANS STANDARD PLAN A24A FOR MERGING
10. TYPE III (L) ARROW PER CALTRANS STANDARD PLAN A24B
11. TYPE III (L) ARROW PER CALTRANS STANDARD PLAN A24B

0 50 100 150

1 inch = 50 ft.

NOTES:

1. ALL STRIPING SHALL BE THERMOPLASTIC.
2. ALL DISPLACED CALTRANS MILE MARKERS SHALL BE REPLACED IN KIND.

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PRELIMINARY ENCROACHMENT PLANS
BRANN RANCH - HIGHWAY 12 WIDENING

PRELIMINARY SIGNING AND STRIPING

CITY OF RIO VISTA, SOLANO COUNTY, CALIFORNIA

SCALE	DATE	DRAWN	CHECKED	PROJ. MGR.
AS SHOWN	11-8-2023	HCR	JA	DT

DATE	MK	SHEET REVISIONS	BY	CK	CITY

SHEET NO.
C3.1
OF 7 SHEETS

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