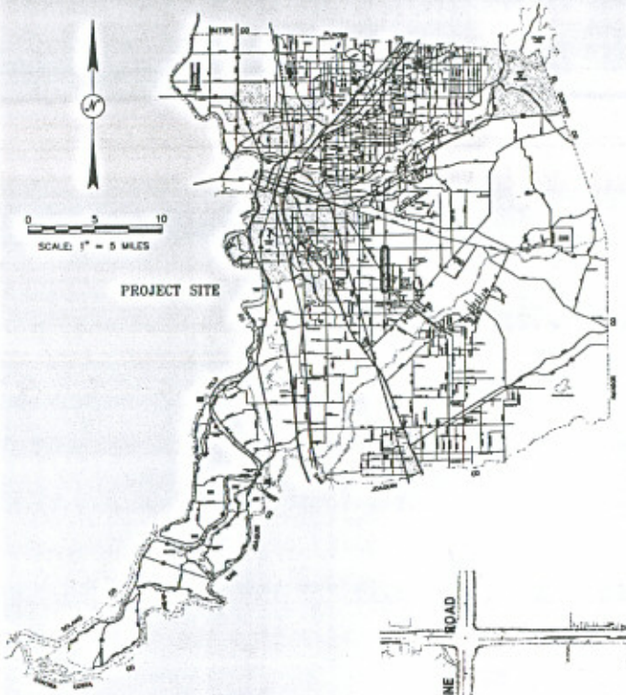

COUNTY OF SACRAMENTO
CALIFORNIA

MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

INDEX OF SHEETS

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G1	LEGENDS AND ABBREVIATIONS
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CD1–CD4	CONSTRUCTION DETAILS
PP1–PP17	PLAN AND PROFILE
RW1	RETAINING WALL PLAN
D1–D3	DRAINAGE PROFILES AND DETAILS
SC1–SC4	STAGE CONSTRUCTION AND TRAFFIC HANDLING PLANS
TR1–TR9	TREE REMOVAL PLANS
PD1–PD6	PAVEMENT DELINEATION AND SIGNING PLANS
E1–E3	TRAFFIC SIGNAL PLANS
E4–E9	TRAFFIC SIGNAL INTERCONNECT PLANS
SW1–SW6	EROSION & SEDIMENT CONTROL PLANS
WQ1	POST-CONSTRUCTION STORMWATER QUALITY TREATMENT PLAN
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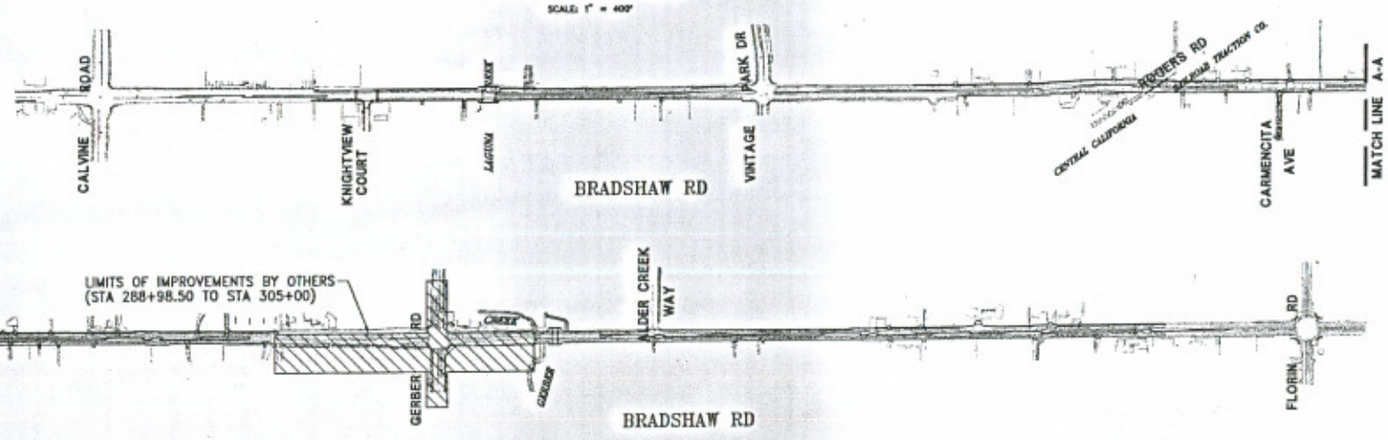


UTILITY REPRESENTATIVES

UTILITY	UTILITY OWNER	REPRESENTATIVES	PHONE
–	UNDERGROUND SERVICE ALERT	–	1-800-227-2600
COMMUNICATION	FRONTIER COMMUNICATIONS	CHUCK BERNACCHI	(916) 691-5624
GAS	PG&E	TERRY CLARK	(916) 386-5167
FUEL LINE	KINDER MORGAN	KEN YEO	(916) 369-9772
ELECTRICITY	SMUD	SHANE NELSON	(916) 732-6620
LIGHTING	SMUD	ROD TURNER	(916) 732-5707
SEWER	COUNTY SANITATION DISTRICT 1 (CSD 1)	ROBERT ESPINOSA	(916) 876-6386
WATER SUPPLY	COUNTY DEPARTMENT OF WATER RESOURCES	JAY FENSKE	(916) 875-3352
DRAINAGE	COUNTY DEPARTMENT OF WATER RESOURCES	BRIAN VIRAY	(916) 874-6851
RAILROAD	CENTRAL CALIFORNIA TRACTION COMPANY	DAVE BUCCOLO	(209) 466-6927

APPROVED BY: Will Carter Fees Paid 3/5/08
SACRAMENTO COUNTY WATER AGENCY — DATE: 3/7/08

SUBMITTED BY: Ali A. Hemmati — DATE: 3/7/08
ALI A. HEMMATI — RCE 36573
PROJECT MANAGER
WOOD RODGERS INC.

APPROVED BY: — DATE: 3/10/08
THERON J. ROSCHEN, CHIEF
DEPARTMENT OF TRANSPORTATION
COUNTY OF SACRAMENTO

CONTRACT NO: 3977

PREPARED BY — DATE
DRAWN: T. KOSTRATIS
DESIGNED: L. CHONG
CHECKED: A. HEMMATI
SURVEY FILE:

WOOD RODGERS
3301 C St, Bldg 100-B, Sacramento, CA 95816
Tel 916.341.7760 Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION
TITLE SHEET
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: N.T.S.
VERTICAL: N/A
INCHES
MILLIMETERS

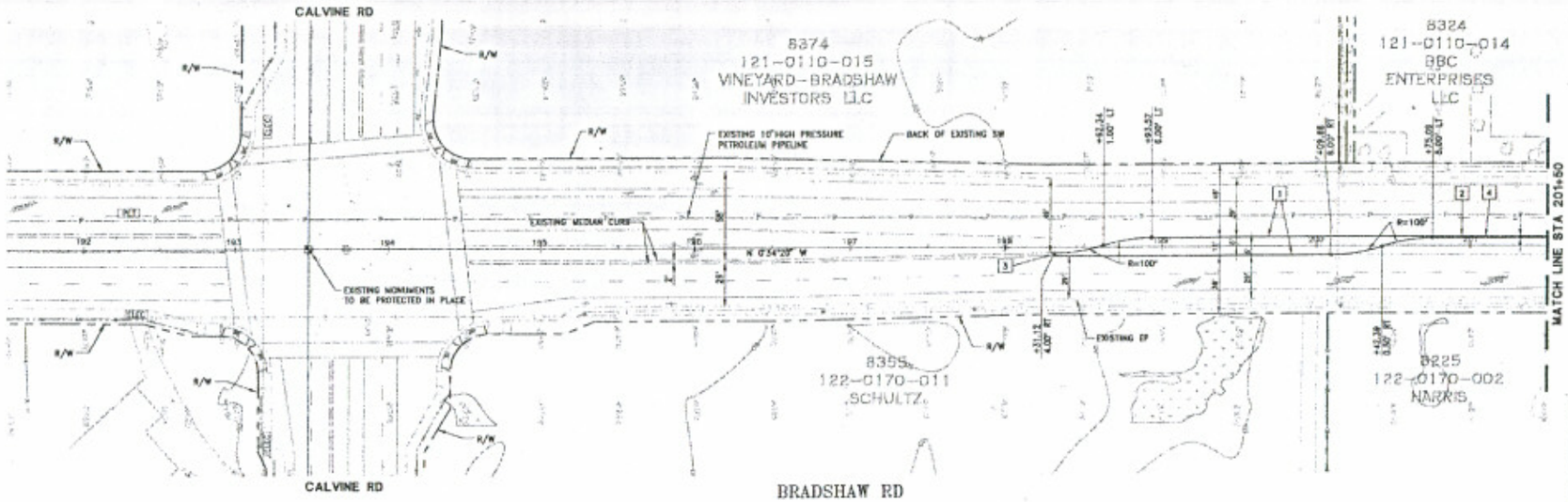
DRAWING
T1 OF T1

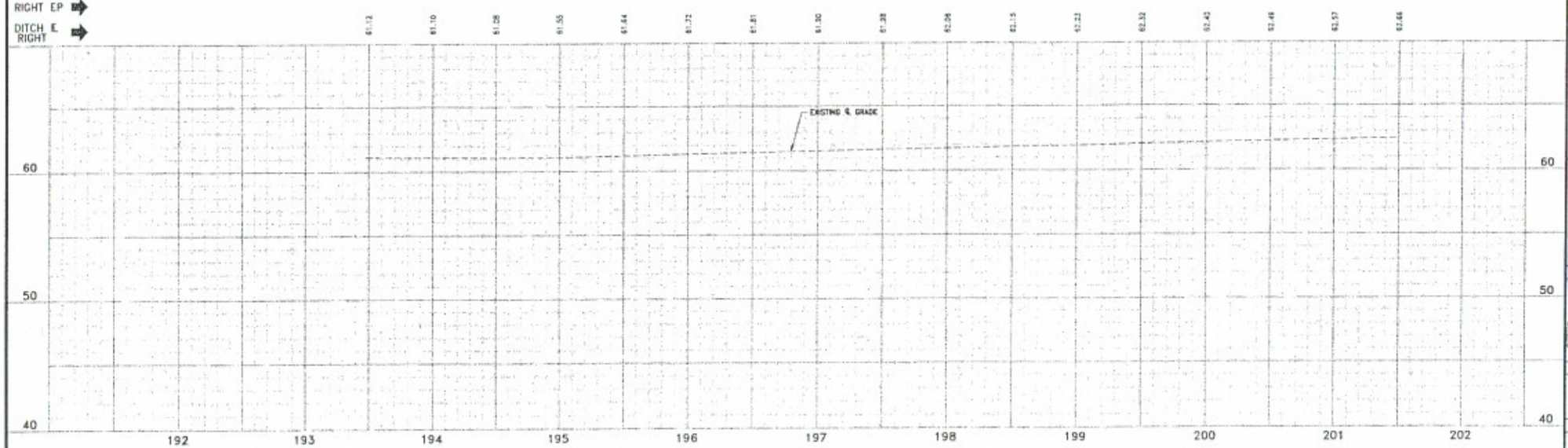
SHEET
1 OF 139

CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB PER STD DWG 4-25.
2. CONSTRUCT TYPE 6 CURB, SEE "CURB TRANSITION DETAIL" ON SHEET C01.
3. REMOVE EXISTING MEDIAN END. CONSTRUCT 5' CURB TRANSITION FROM 6" TO 8" HEIGHT.
4. 12' WIDE MEDIAN BREAK AT 20' O.C.
5. PROTECT EXISTING MONUMENTS, NOTIFY SURVEYOR PRIOR TO ANY CLEARING OR GRUBBING.

SCALE: 1" = 40'





WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER — CIVIL — No. 50778 — Exp. 6-30-08 — STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY		DATE
DRAWN:	F. MOSTRATE	
DESIGNED:	L. CHUNG	
CHECKED:	A. HUMAYI	
SURVEY F.B.:		

WOOD-RODGERS
Engineers • Planners • Surveyors
3301 C St, Bldg 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1":40'
VERTICAL: 1":4'
INCHES
MILLIMETERS

DRAWING
PP1 OF PP17

SHEET
9 OF 139

FENCE NOTES

- (A) REMOVE EXISTING BARBED WIRE FENCE.
- (B) REMOVE EXISTING CHAIN LINK FENCE – 6'.
- (C) REMOVE EXISTING WOOD FENCE.
- (D) PLACE BARBED WIRE FENCE PER COUNTY STD DWG 9-28 (TYPE BW).
- (E) PLACE CHAIN LINK FENCE – 6' PER COUNTY STD DWG 9-29 (TYPE CL-6).
- (F) PLACE WOOD FENCE, MATCH EXISTING. CONTRACTOR TO VERIFY.
- (G) CONNECT TO EXISTING FENCE.
- (H) EXISTING CHAIN LINK FENCE AND GATE TO REMAIN.

CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB PER STD DWG 4-25.
2. CONSTRUCT TYPE 6 CURB, SEE "CURB TRANSITION DETAIL" ON SHEET CD1.
3. CONSTRUCT 0.25' THICK AC PCD WALK.
4. UTILITY POLE TO BE RELOCATED BY OTHERS.
5. 12' WIDE BREAK AT 12' O.C.
6. RELOCATE EXISTING MAILBOX.
7. REMOVE AND DISPOSE EXISTING CULVERT.
8. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "B" ON SHEET CD1.
9. INSTALL 78 LF OF 4" CONDUIT WITH HO.5 PULL BOXES INSTALLED AT EDGE OF PAVEMENT.
10. INSTALL 74 LF OF 4" CONDUIT WITH HO.5 PULL BOXES INSTALLED AT EDGE OF PAVEMENT.
11. PROTECT EXISTING MONUMENTS, NOTIFY SURVEYOR PRIOR TO ANY CLEARING OR GRUBBING.

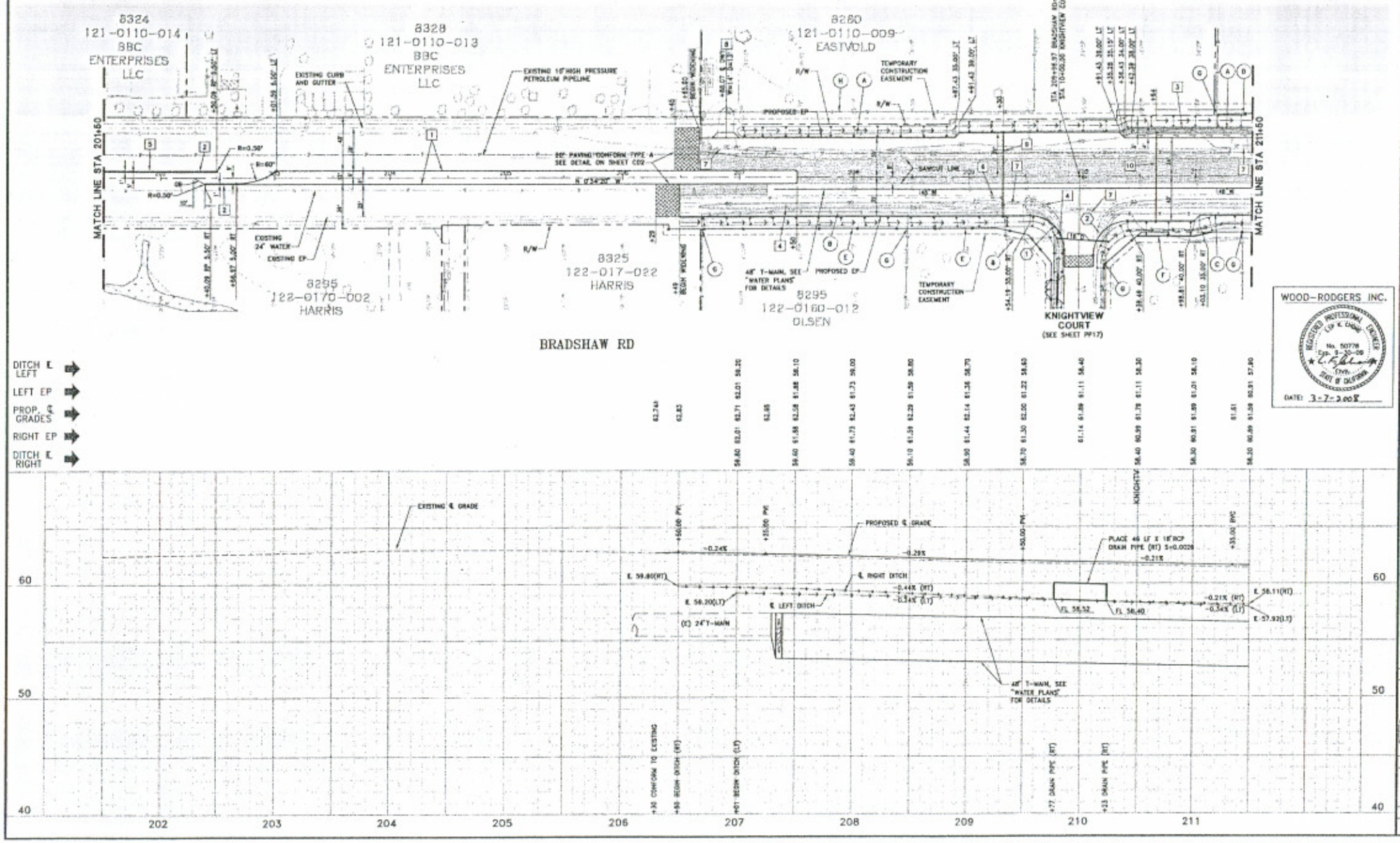
CURVE DATA

(1) R=30' L=47.28' Δ=90°18'04" T=30.16'

CURVE DATA

(2) R=30' L=47.07' Δ=89°53'17" T=29.94'

SCALE: 1" = 40'



WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER — No. 50778 — Exp. 9-30-08 — STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY — DATE

DRAWN: F. MOSTAFA
DESIGNED: L. CHONG
CHECKED: A. HUMAIR
SURVEY F&B:

WOOD RODGERS
ENGINEERING • MAPPING • PLANNING • SURVEYING
2901 C St, Bldg. 100-B Sacramento, CA 95816
Tel 916.341.7760 Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1":40'
VERTICAL: 1":4'

DRAWING
PP2 OF PP17

SHEET
10 OF 139

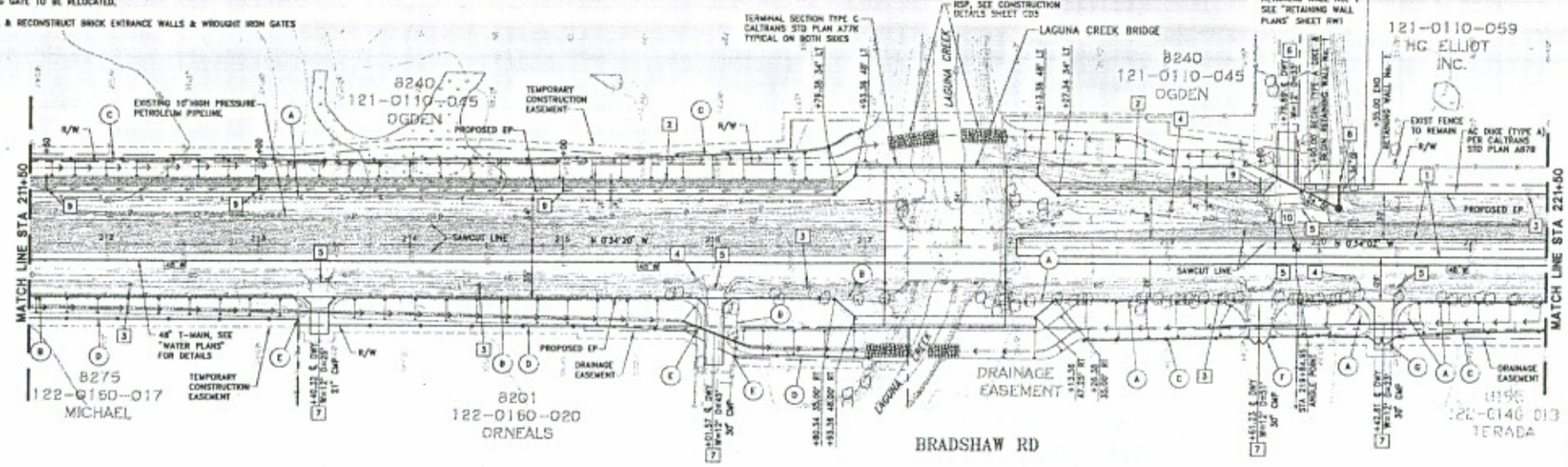
FENCE NOTES

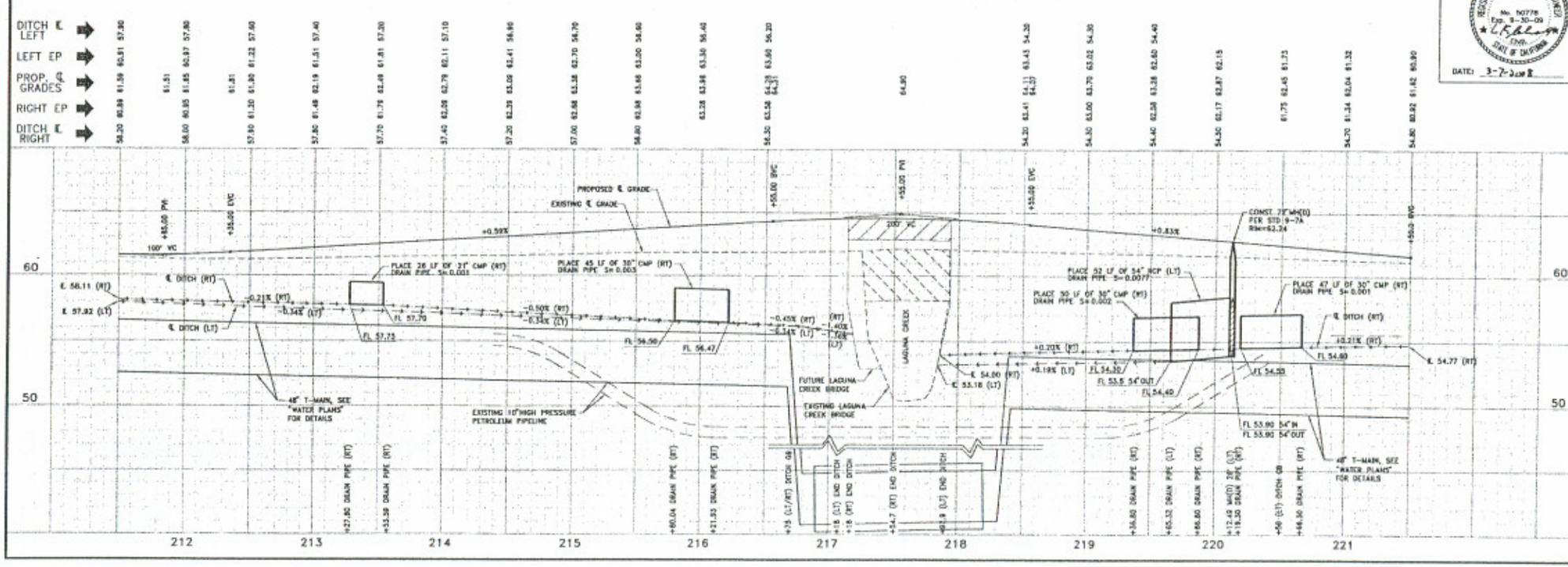
- (A) REMOVE EXISTING BARBED WIRE FENCE
- (B) REMOVE EXISTING WOOD FENCE
- (C) PLACE BARBED WIRE FENCE PER COUNTY STD DWG 9-28 (TYPE BW)
- (D) PLACE WOOD FENCE, MATCH EXISTING. CONTRACTOR TO VERIFY.
- (E) CONNECT TO EXISTING FENCE
- (F) EXISTING GATE TO BE RELOCATED.
- (G) REMOVE & RECONSTRUCT BRICK ENTRANCE WALLS & WROUGHT IRON GATES

CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB PER STD DWG 4-25.
2. CONSTRUCT 0.25' THICK AC PED WALK.
3. EXISTING UTILITY POLE TO BE RELOCATED BY OTHERS.
4. RELOCATE EXISTING MAILBOX.
5. REMOVE AND DISPOSE EXISTING CULVERT.
6. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "C" ON SHEET CD1.
7. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "B" ON SHEET CD1.
8. PLACE 18 LF DRAIN PIPE OF 54" RCP @ S=0.0077 FL @ END=54.02, FL @ MH=53.90
9. INSTALL SWALE DRAIN SYSTEM PER CONSTRUCTION DETAIL SHEET CD2.
10. INSTALL TYPE A MONUMENT PER CALTRANS STD PLAN A74.
11. PROTECT EXISTING MONUMENTS, NOTIFY SURVEYOR PRIOR TO ANY CLEARING OR GRUBBING.

SCALE: 1" = 40'





WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER — LISA K. CHONG — No. 50778 — Exp. 9-30-09 — CIVIL — STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY		DATE
DRAWN:	F. MOSTAFIZ	
DESIGNED:	L. CHONG	
CHECKED:	A. HOWARD	
SURVEY FILE:		

WOOD RODGERS
SACRAMENTO • RANCHO • PLANNING • SURVEYING
3301 C St. Bldg. 100-B, Sacramento, CA 95816
Tel 916.341.7760 Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1"=40'
VERTICAL: 1"=4'
INCHES
MILLIMETERS

DRAWING
PP3 OF PP17

SHEET
11 OF 139

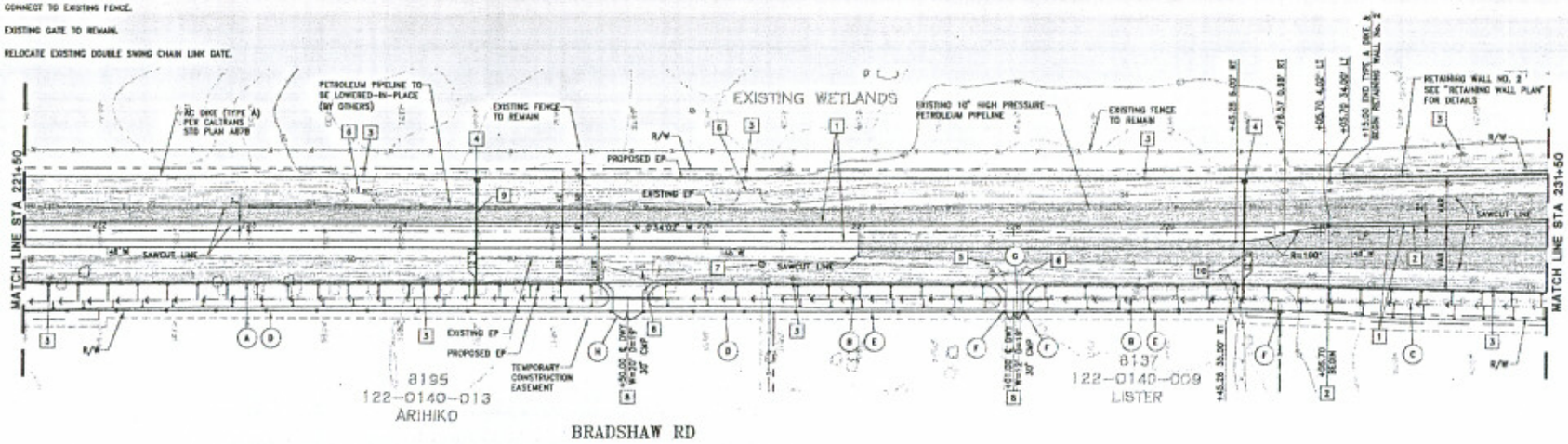
FENCE NOTES

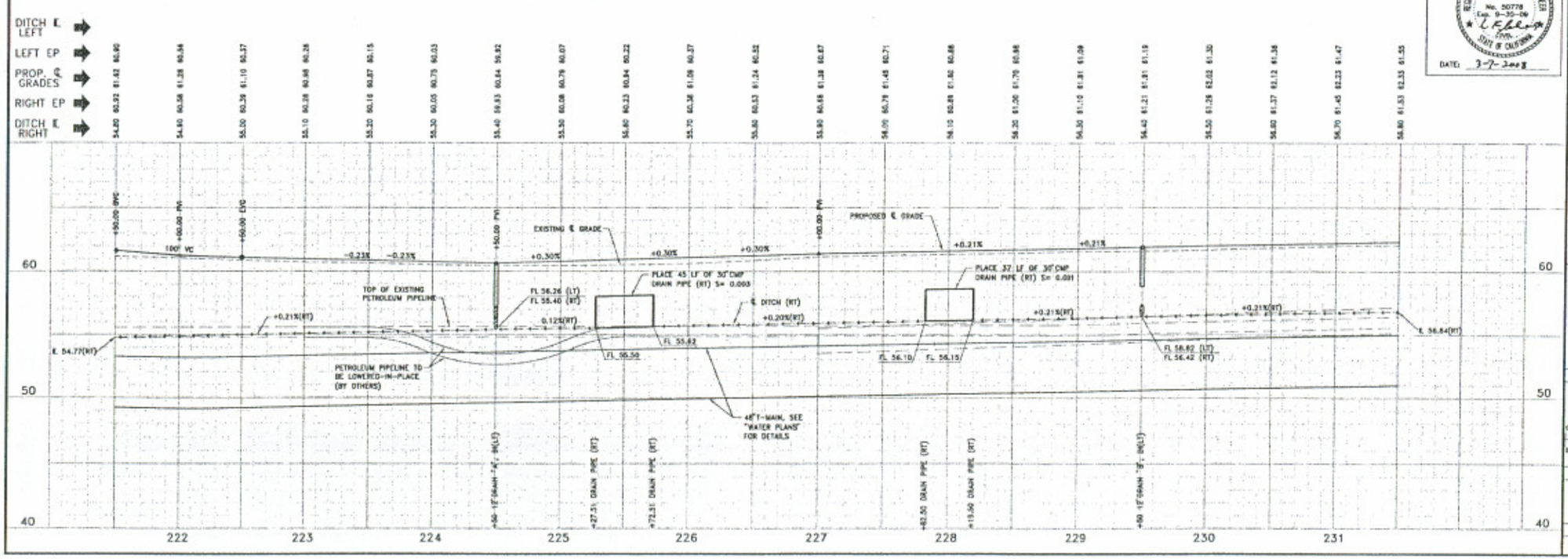
- (A) REMOVE EXISTING BARBED WIRE FENCE.
- (B) REMOVE EXISTING CHAIN LINK FENCE – 4'.
- (C) REMOVE EXISTING CUSTOM BRICK WALL FENCE.
- (D) PLACE BARBED WIRE FENCE PER COUNTY STD DWG 9-28 (TYPE BW).
- (E) PLACE CHAIN LINK FENCE – 4' PER COUNTY STD DWG 9-29 (TYPE CL-4)
- (F) CONNECT TO EXISTING FENCE.
- (G) EXISTING GATE TO REMAIN.
- (H) RELOCATE EXISTING DOUBLE SWING CHAIN LINK GATE.

CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB PER STD DWG 4-23.
2. REMOVE EXISTING RAISED MEDIAN.
3. EXISTING UTILITY POLE TO BE RELOCATED BY OTHERS.
4. CONSTRUCT DROP INLET TYPE B PER STD DWG 9-31B.
5. RELOCATE EXISTING MAILBOX.
6. REMOVE AND DISPOSE EXISTING CULVERT.
7. ADJUST EXISTING SEWER MANHOLE COVER TO GRADE.
8. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "B" ON SHEET C01.
9. DRAIN "A", SEE DRAINAGE PROFILE ON SHEET D1.
10. DRAIN "B", SEE DRAINAGE PROFILE ON SHEET D1.

SCALE: 1" = 40'





WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER LEE K. CHONG No. 50778 Exp. 9-30-09 CIVIL STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY		DATE
DRAWN:	F. NOSTRATIS	
DESIGNED:	L. CHONG	
CHECKED:	A. HENNAN	
SURVEY FILE:		

WOOD RODGERS
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Tel 916.341.7760 Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1"=40'
VERTICAL: 1"=4'
INCHES
MILLIMETERS

DRAWING
PP4 OF PP17

SHEET
12 OF 139

FENCE NOTES

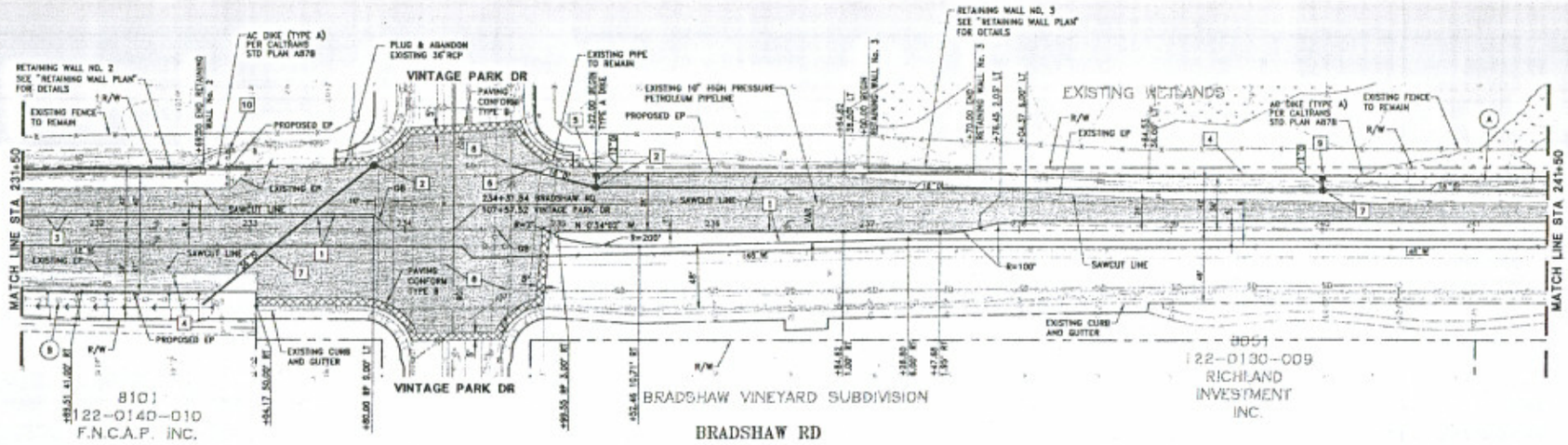
(A) REMOVE EXISTING WIRE MESH FENCE

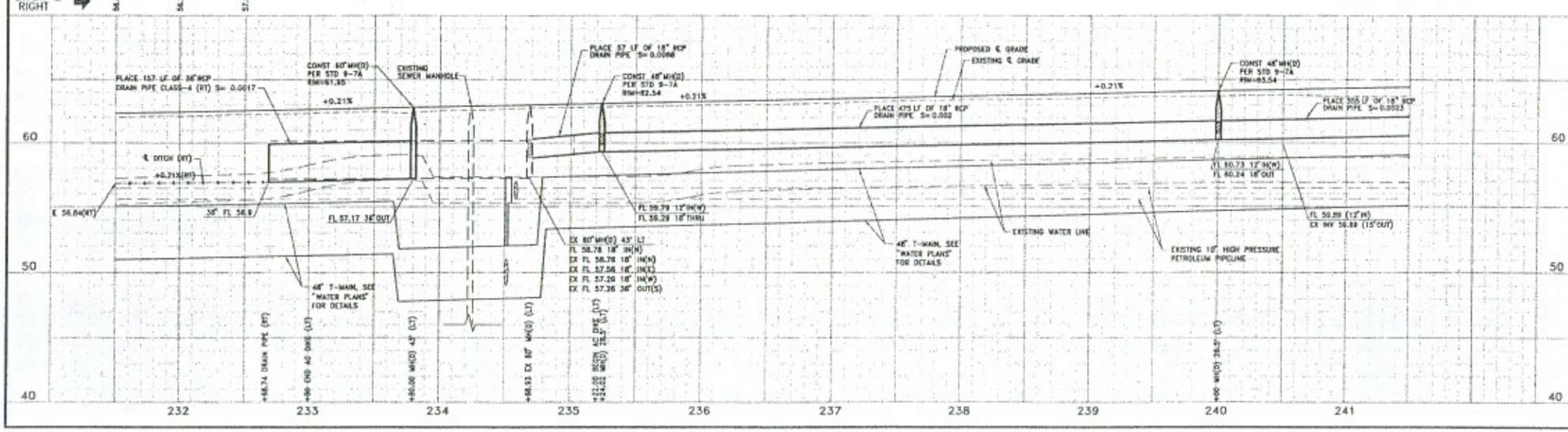
(B) REMOVE EXISTING CUSTOM BRICK WALL FENCE

CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB PER STD DGW 4-25.
2. CONSTRUCT DRAINAGE MANHOLE PER STD COUNTY STD DWG 9-74.
3. REMOVE EXISTING RAISED MEDIAN
4. EXISTING UTILITY POLE TO BE RELOCATED BY OTHERS.
5. CONSTRUCT DROP INLET TYPE B PER STD DWG 9-318. CONNECT TO MANHOLE WITH 8 LF OF 12" RCP. FL @ DI=59.88 FL@ MH=59.80 S=0.010
6. INSTALL 57 LF OF 18" RCP DRAIN PIPE, CONNECT TO MANHOLE.
7. DRAIN "C", SEE DRAINAGE PROFILE ON SHEET D1.
8. ADJUST EXISTING MANHOLE COVER TO GRADE.
9. CONSTRUCT DROP INLET TYPE B PER STD DWG 9-318. CONNECT TO MANHOLE WITH 8 LF OF 12" RCP FL @ DI=60.81 FL @ MH=60.73 S=0.010
10. REMOVE EXISTING BARRICADE.

SCALE: 1" = 40'





WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER — LEE K. CHANG — No. 50778 — Exp. 6-30-09 — CIVIL — STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY

		DATE
DRAWN:	F. MOSTAFIZI	
DESIGNED:	L. CHANG	
CHECKED:	A. HEMATI	
SURVEY F&B:		

WOOD RODGERS
ENGINEERING • MAPPING • PLANNING • SURVEYING
2301 G St. Bldg. 100-B Sacramento, CA 95816
Tel 916.341.7760 Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE

HORIZONTAL: 1"=40'

VERTICAL: 1"=4'

INCHES 0 1 2

MILLIMETERS 0 10 20 30 40 50

DRAWING

PP5 OF PP17

SHEET

13 OF 139

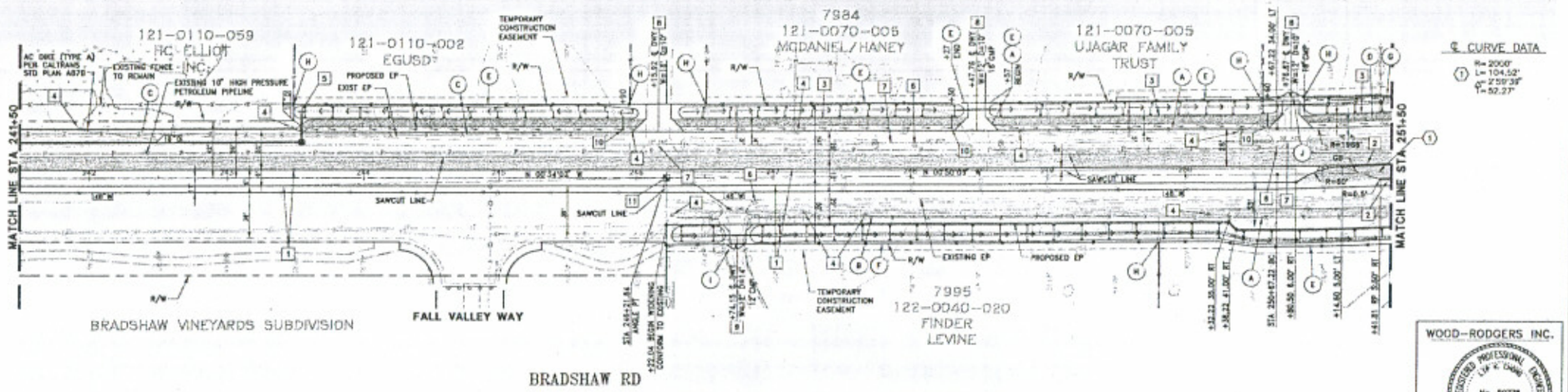
FENCE NOTES

- (A) REMOVE EXISTING BARBED WIRE FENCE.
- (B) REMOVE EXISTING CHAIN LINK FENCE – 4'.
- (C) REMOVE EXISTING WIRE MESH FENCE.
- (D) REMOVE EXISTING WOOD FENCE.
- (E) PLACE BARBED WIRE FENCE PER COUNTY STD DWG 9-26 (TYPE BW).
- (F) PLACE CHAIN LINK FENCE – 4' PER COUNTY STD DWG 9-29 (TYPE CL-4).
- (G) PLACE WOOD FENCE, MATCH EXISTING. CONTRACTOR TO VERIFY.
- (H) CONNECT TO EXISTING FENCE.
- (I) RELOCATE EXISTING GATE.
- (J) REMOVE AND PLACE EXISTING GATE.

CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB PER STD DWG 4-25.
2. CONSTRUCT TYPE 6 CURB, SEE "CURB TRANSITION DETAIL" ON SHEET CD1.
3. CONSTRUCT 0.25' THICK AC PED WALK
4. EXISTING UTILITY POLE TO BE RELOCATED BY OTHERS.
5. PLACE 20 LF OF 18" RCP WITH F.E.S. FL @ END=61.38 FL @ MH=61.14 S=0.007
6. RELOCATE EXISTING MAILBOX
7. REMOVE AND DISPOSE EXISTING CULVERT
8. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "A" ON SHEET CD1.
9. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "B" ON SHEET CD1.
10. INSTALL SWALE DRAIN SYSTEM PER CONSTRUCTION DETAIL SHEET CD2.
11. INSTALL TYPE A MONUMENT PER CALTRANS STD PLAN A74.
12. PROTECT EXISTING MONUMENTS, NOTIFY SURVEYOR PRIOR TO ANY CLEARING OR GRUBBING.

SCALE: 1" = 40'



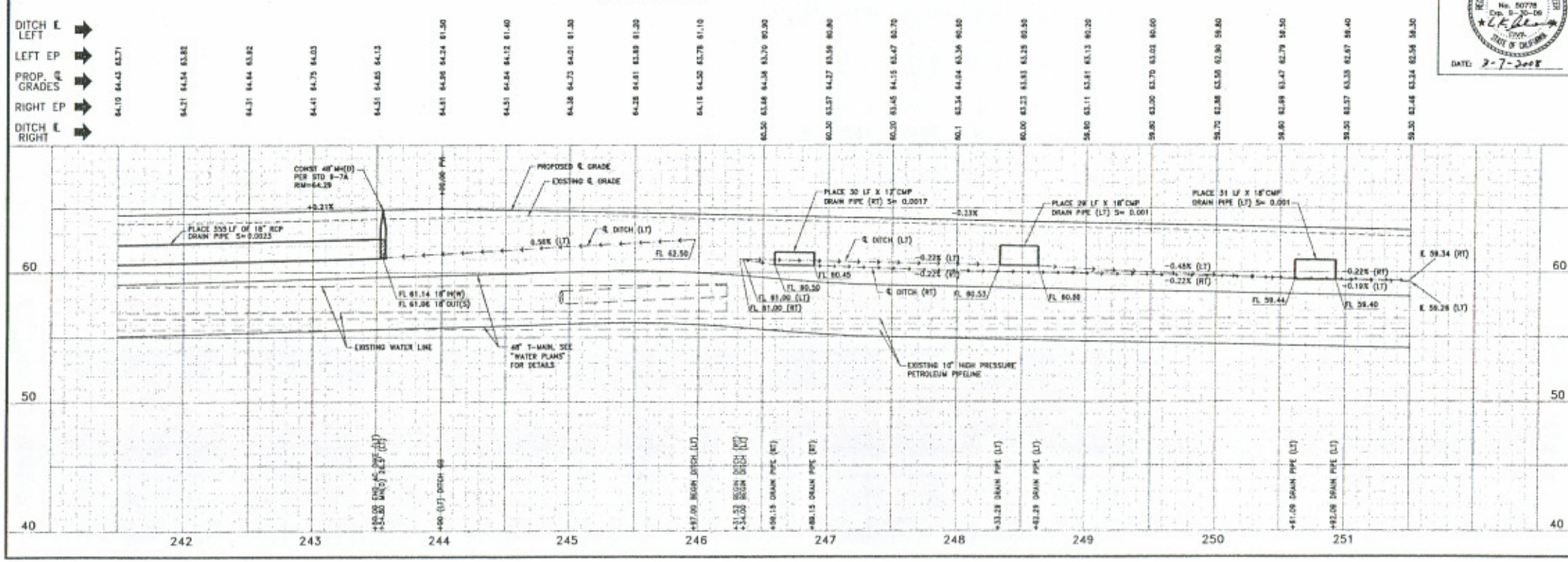
℄ CURVE DATA

(1) R=2000' L=104.52' Δ=2°59'38" T=52.27'

WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER — LIK K. CHONG — No. 50778 — Exp. 9-30-09 — CIVIL — STATE OF CALIFORNIA

DATE: 2-7-2008



PREPARED BY — DATE

DRAWN: F. NOSTRATS
DESIGNED: L. CHONG
CHECKED: A. HOWATT
SURVEY FILE:

WOOD RODGERS
ENGINEERING • MAPPING • PLANNING • SURVEYING
2301 C St. Bldg. 100-B, Sacramento, CA 95816 — Tel 916.341.7760 — Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1"=40'
VERTICAL: 1"=6'

DRAWING: PP6 OF PP17

SHEET: 14 OF 139

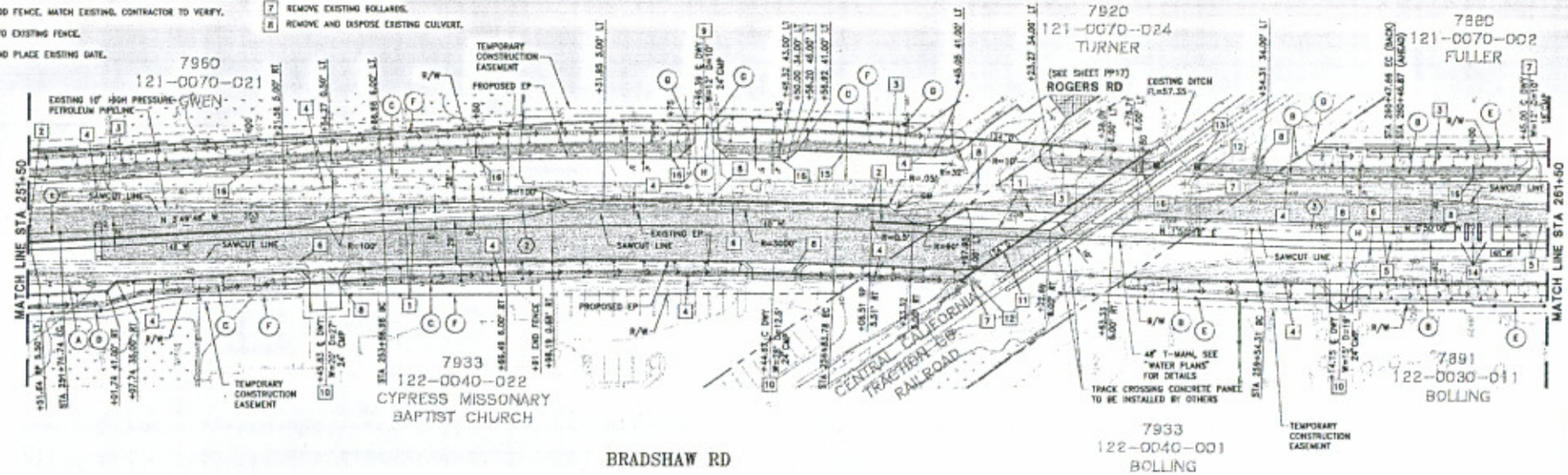
FENCE NOTES

- (A) REMOVE EXISTING BARBED WIRE FENCE.
- (B) REMOVE EXISTING WIRE MESH FENCE.
- (C) REMOVE EXISTING WOOD FENCE.
- (D) PLACE BARBED WIRE FENCE PER COUNTY STD DWG 9-28 (TYPE BW).
- (E) PLACE WIRE MESH FENCE PER COUNTY STD DWG 9-28 (TYPE WM).
- (F) PLACE WOOD FENCE, MATCH EXISTING. CONTRACTOR TO VERIFY.
- (G) CONNECT TO EXISTING FENCE.
- (H) REMOVE AND PLACE EXISTING DATE.

CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB PER STD DWG 4-25.
2. CONSTRUCT TYPE 6 CURB, SEE "CURB TRANSITION DETAIL" ON SHEET CD1.
3. CONSTRUCT 0.25' THICK AC PED WALK.
4. EXISTING UTILITY POLE TO BE RELOCATED BY OTHERS.
5. CONSTRUCT TYPE 4 CURB (6" HIGH). SEE CONSTRUCTION DETAIL SHEET CD1.
6. RELOCATE EXISTING MAILBOX.
7. REMOVE EXISTING BOLLARDS.
8. REMOVE AND DISPOSE EXISTING CULVERT.
9. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "A" ON SHEET CD1.
10. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "B1" ON SHEET CD1.
11. DRAIN "D", SEE DRAINAGE PROFILE ON SHEET D1.
12. EXISTING RR SIGNAL POLE AND ARM TO BE RELOCATED BY OTHERS.
13. DETECTABLE WARNING SURFACE ON AC PEDWALK, SEE DETAILS ON SHEET CD1.
14. 7' WIDE MEDIAN OPENING AT 9' O.C., TOTAL 3.
15. AC DIKE TYPE A WITH 2' BREAK AT 20' O.C. SEE CONSTRUCTION DETAIL SHEET CD2.
16. INSTALL SWALE DRAIN SYSTEM PER CONSTRUCTION DETAIL SHEET CD2.

SCALE: 1" = 40'



℄ CURVE DATA

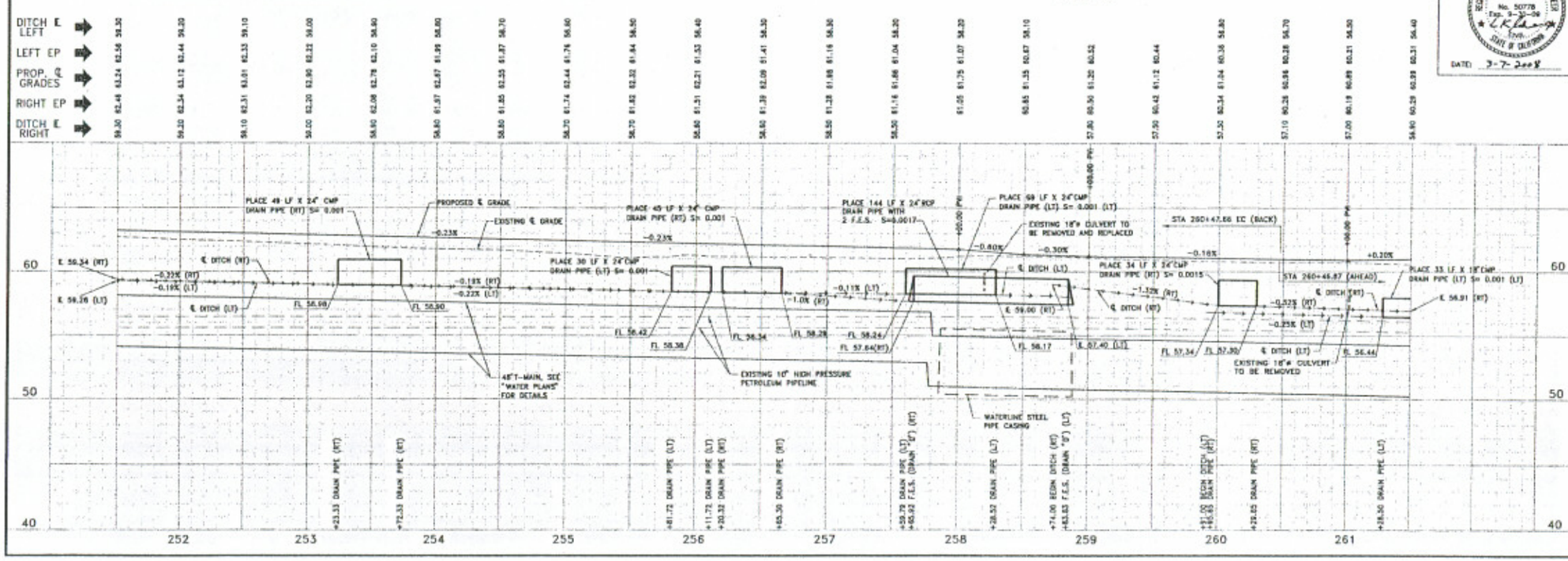
(1) R=2000' L=104.52' Δ=2°59'39" T=52.27'

℄ CURVE DATA

(2) R=3000' L=296.80' Δ=5°40'06" T=148.52'

℄ CURVE DATA

(3) R=2000' L=93.35' Δ=2°40'28" T=46.68'



WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER — LEE E. OHDING — No. 50778 — Exp. 9-30-09 — CIVIL — STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY — DATE

DRAWN: F. NOSTRATIS
DESIGNED: L. OHDING
CHECKED: A. HOWATT
SURVEY FILE:

WOOD-RODGERS
CIVIL ENGINEERS • PLANNERS • SURVEYORS
3301 C ST., BLDG. 100-B, Sacramento, CA 95816
TEL 916.341.7760 FAX 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1" = 40'
VERTICAL: 1" = 4'

DRAWING
PP7 OF PP17

SHEET
15 OF 139

FENCE NOTES

- (A) REMOVE EXISTING BARBED WIRE FENCE
- (B) REMOVE EXISTING WIRE MESH FENCE
- (C) REMOVE EXISTING WOOD FENCE
- (D) PLACE BARBED WIRE FENCE PER COUNTY STD DWG 9-28 (TYPE BW)
- (E) PLACE WIRE MESH FENCE PER COUNTY STD DWG 9-28 (TYPE WM)
- (F) PLACE WOOD FENCE, MATCH EXISTING. CONTRACTOR TO VERIFY.
- (G) CONNECT TO EXISTING FENCE
- (H) REMOVE & RECONSTRUCT BRICK ENTRANCE WALLS & WROUGHT IRON GATES
- (I) REMOVE AND PLACE EXISTING GATE.

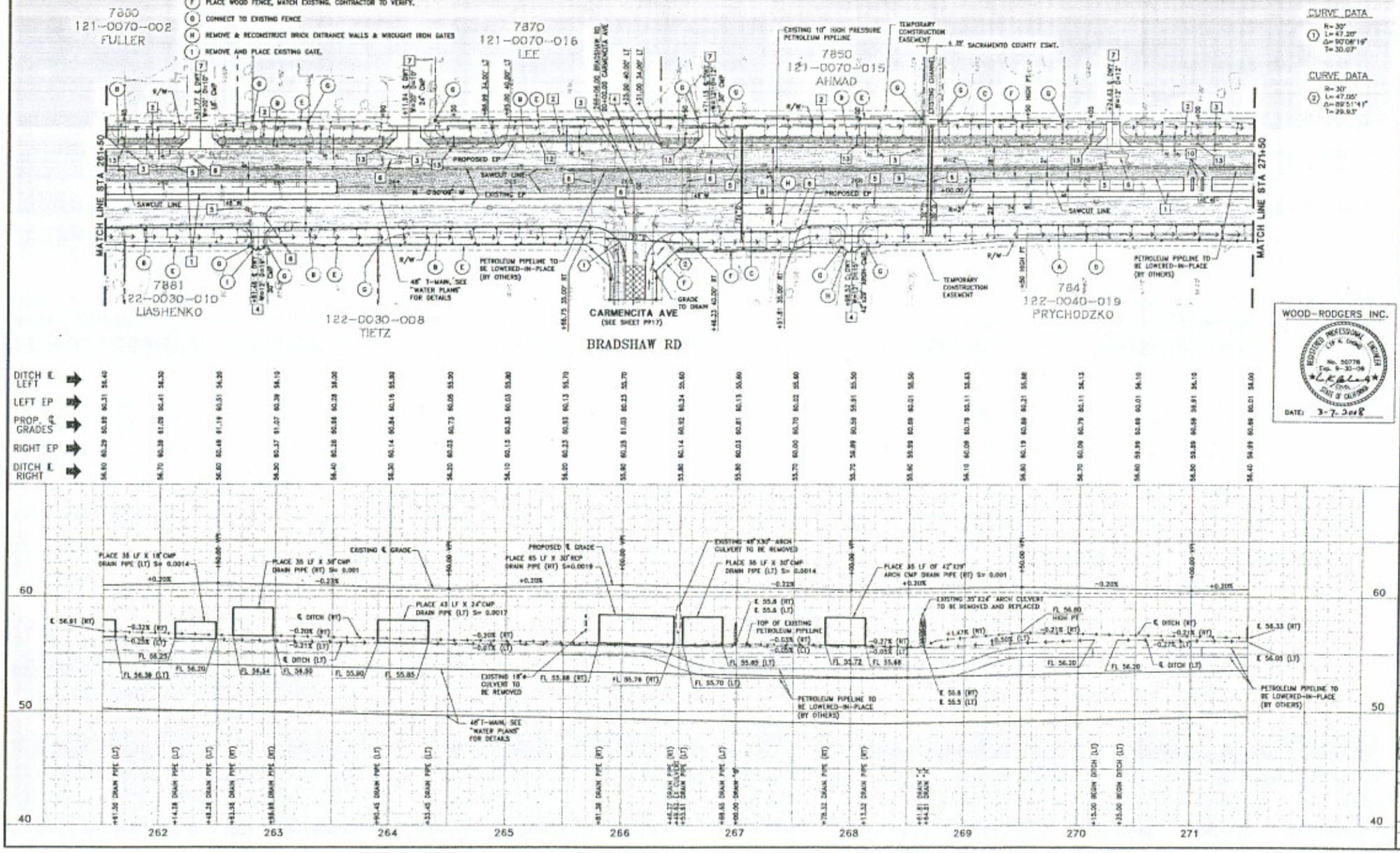
CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB (6" HIGH), SEE CONSTRUCTION DETAIL SHEET CD1.
2. CONSTRUCT 0.25' THICK AC PED WALK.
3. EXISTING UTILITY POLE TO BE RELOCATED BY OTHERS.
4. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "B" ON SHEET CD1.
5. RELOCATE EXISTING MAILBOX.
6. REMOVE AND DISPOSE EXISTING CULVERT.
7. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL A ON SHEET CD1.
8. DRAIN "G", SEE DRAINAGE PROFILE ON SHEET D2.
9. DRAIN "H", SEE DRAINAGE PROFILE ON SHEET D2.
10. 7' WIDE MEDIAN OPENING AT 8' O.C., TOTAL 3.
11. PROTECT EXISTING MONUMENTS, NOTIFY SURVEYOR PRIOR TO ANY CLEARING OR GRUBBING.
12. AC DIKE TYPE A, SEE CONSTRUCTION DETAIL SHEET CD2.
13. INSTALL SWALE DRAIN SYSTEM PER CONSTRUCTION DETAIL SHEET CD2.

SCALE: 1" = 40'

CURVE DATA
(1) R=30' L=47.20' Δ=90°08'19" T=30.07'

CURVE DATA
(2) R=30' L=47.05' Δ=89°51'41" T=29.93'



WOOD-RODGERS INC.
REGISTERED PROFESSIONAL ENGINEER
No. 50778
Exp. 9-30-08
STATE OF CALIFORNIA
DATE: 3-7-2008

PREPARED BY
DRAWN: F. MOSTAFA
DESIGNED: L. CHONG
CHECKED: A. HENNAIT
SURVEY FILE:
DATE

WOOD RODGERS
Engineering • Surveying • Planning
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Sacramento, CA 95816
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COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1"=40'
VERTICAL: 1"=4'

DRAWING
PP8 OF PP17

SHEET
16 - 139

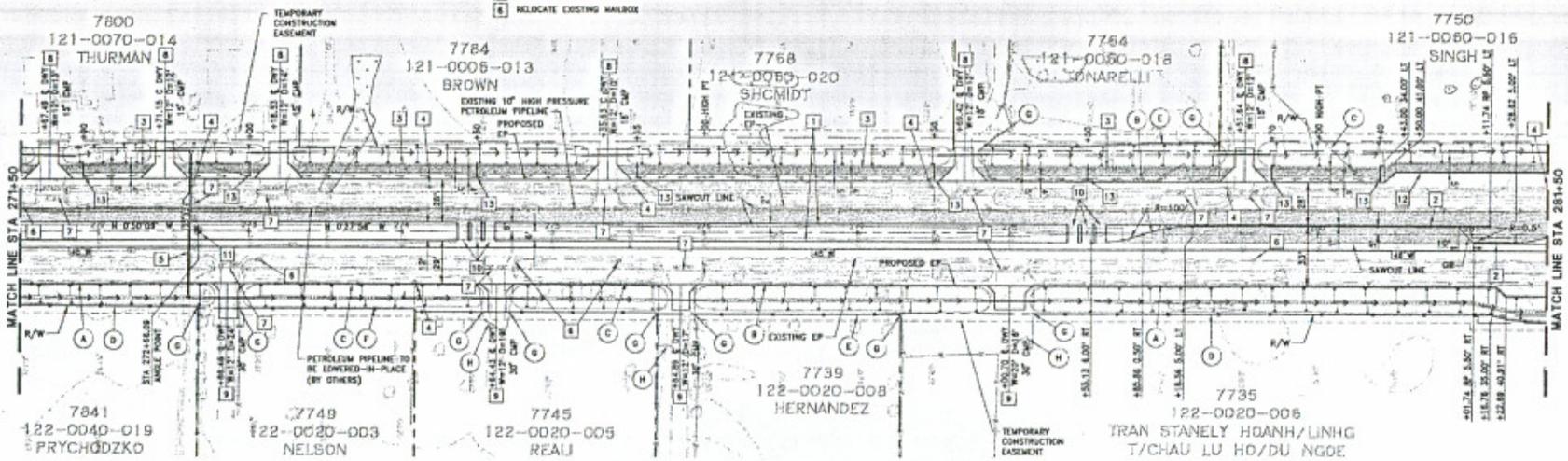
FENCE NOTES

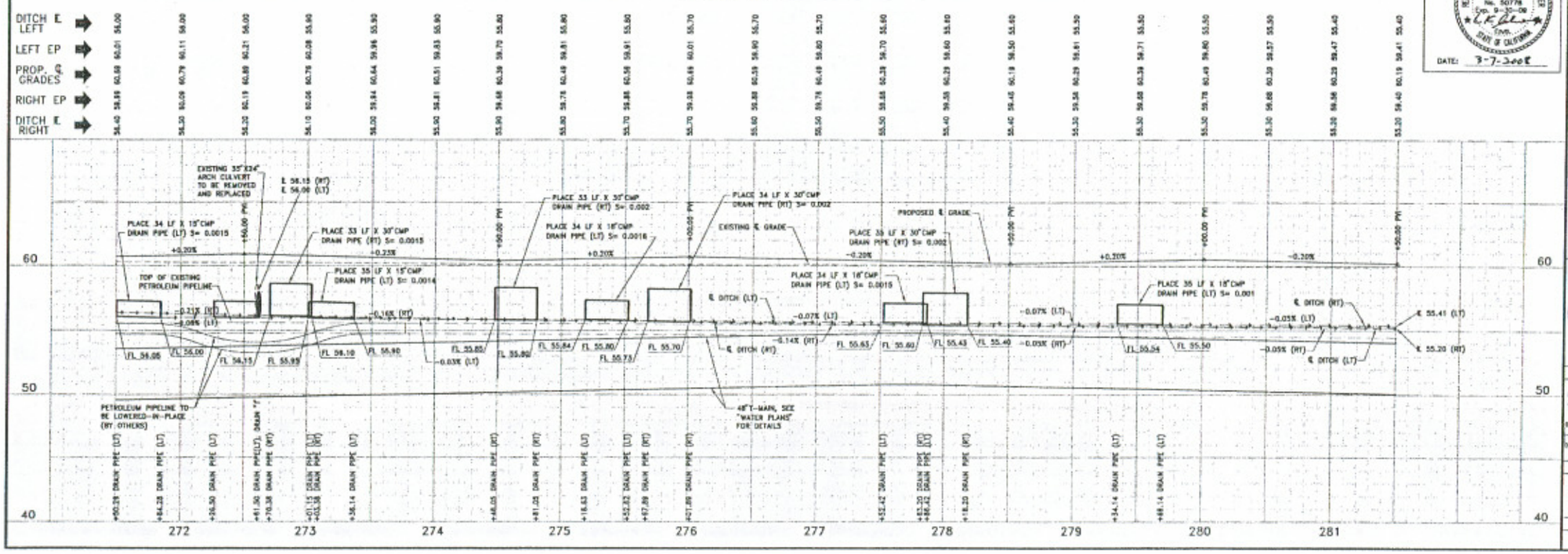
- (A) REMOVE EXISTING BARBED WIRE FENCE.
- (B) REMOVE EXISTING WIRE MESH FENCE.
- (C) REMOVE EXISTING WOOD FENCE.
- (D) PLACE BARBED WIRE FENCE PER COUNTY STD DWG 9-38 (TYPE BW).
- (E) PLACE WIRE MESH FENCE PER COUNTY STD DWG 9-28 (TYPE WM).
- (F) PLACE WOOD FENCE, MATCH EXISTING. CONTRACTOR TO VERIFY.
- (G) CONNECT TO EXISTING FENCE.
- (H) EXISTING GATE TO REMAIN.

CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB (6" HIGH).
2. CONSTRUCT TYPE 6 CURB (8" HIGH), SEE "CURB TRANSITION DETAIL" ON SHEET CD1.
3. CONSTRUCT 0.25' THICK AC PED WALK
4. EXISTING UTILITY POLE TO BE RELOCATED BY OTHERS.
5. DRAIN "F", SEE DRAINAGE PROFILE ON SHEET D2.
6. RELOCATE EXISTING MAILBOX
7. REMOVE AND DISPOSE EXISTING CULVERT.
8. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "A" ON SHEET CD1.
9. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "B" ON SHEET CD1.
10. 7' WIDE MEDIAN OPENING AT 9' O.C., TOTAL 3.
11. INSTALL TYPE A MONUMENT PER CALTRANS STD PLAN A74.
12. AC DIKE TYPE A WITH 2' BREAK AT 20' O.C. SEE CONSTRUCTION DETAIL SHEET CD2.
13. INSTALL SWALE DRAIN SYSTEM PER CONSTRUCTION DETAIL SHEET CD2.

SCALE: 1" = 40'





WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER — LIN K. CHONG — No. 50778 — Exp. 9-30-08 — CIVIL — STATE OF CALIFORNIA

DATE: 8-7-2008

PREPARED BY		DATE
DRAWN: F. NOSTRATIS		
DESIGNED: L. CHONG		
CHECKED: A. HEWATT		
SURVEY FILE:		

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COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1"=40'
VERTICAL: 1"=4'

DRAWING
PP9 OF PP17

SHEET
17 OF 139

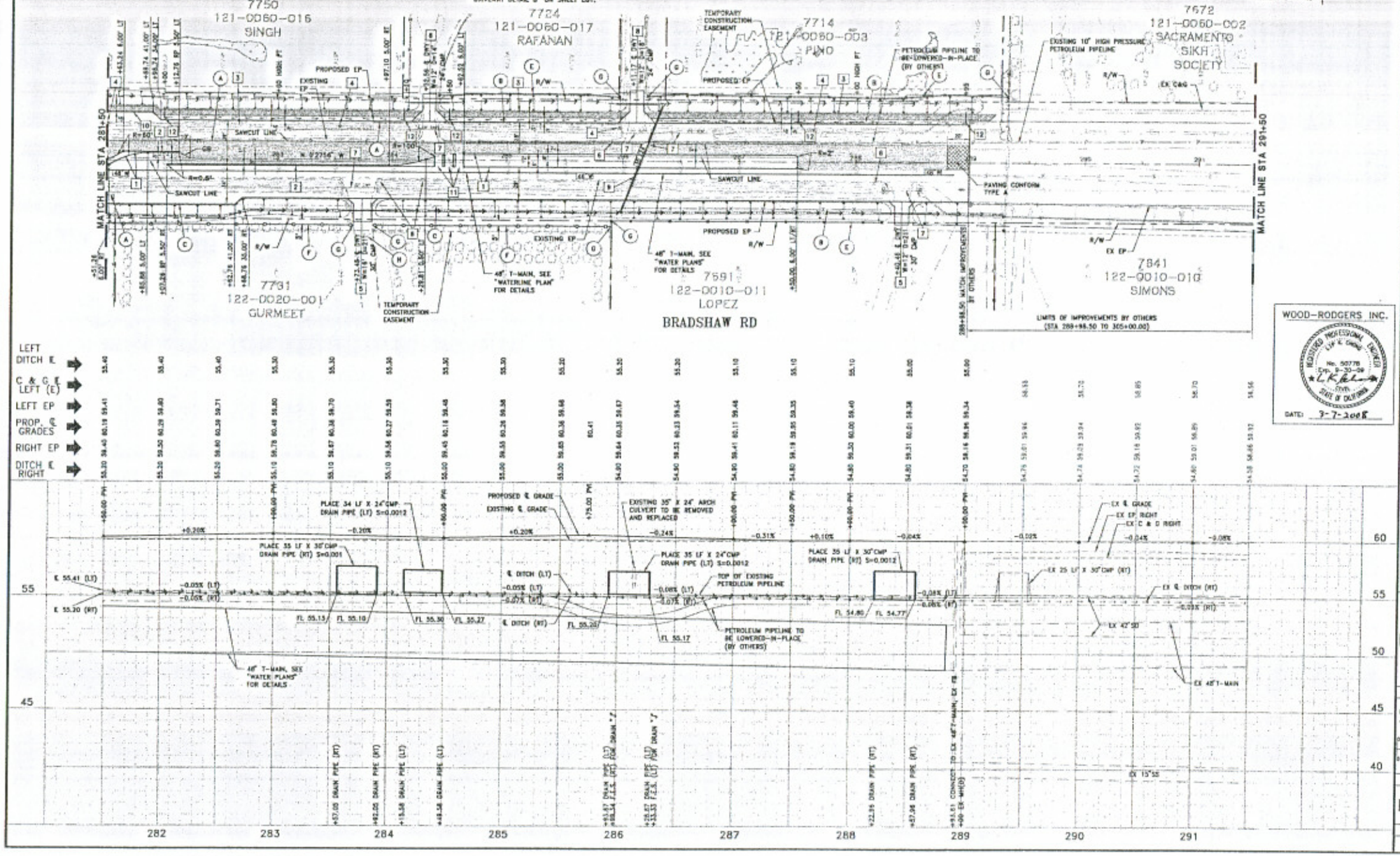
FENCE NOTES

- (A) REMOVE EXISTING BARBED WIRE FENCE
- (B) REMOVE EXISTING WOOD FENCE
- (C) REMOVE EXISTING MASONRY WALL/FENCE
- (D) PLACE BARBED WIRE FENCE PER COUNTY STD DWG 6-28 (TYPE BW)
- (E) PLACE WOOD FENCE, MATCH EXISTING. CONTRACTOR TO VERIFY.
- (F) REMOVE & RECONSTRUCT MASONRY WALL TO MATCH EXISTING.
- (G) CONNECT TO EXISTING FENCE
- (H) EXISTING GATE TO REMAIN.

CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB (6" HIGH).
2. CONSTRUCT TYPE 6 CURB (6" HIGH). SEE "CURB TRANSITION DETAIL" ON SHEET CD1.
3. CONSTRUCT 0.25' THICK AC PED WALK
4. EXISTING UTILITY POLE TO BE RELOCATED BY OTHERS.
5. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, DRIVEWAY DETAIL 8' ON SHEET CD1.
6. RELOCATE EXISTING MAILBOX
7. REMOVE AND DISPOSE EXISTING CULVERT
8. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "A" ON SHEET CD1.
9. DRAIN "J", SEE DRAINAGE PROFILE ON SHEET D2.
10. AC DIKE TYPE A WITH 2' BREAK AT 20' O.C. SEE CONSTRUCTION DETAIL SHEET CD2.
11. 7' WIDE MEDIAN OPENING AT 9' O.C., TOTAL 3.
12. INSTALL SWALE DRAIN SYSTEM PER CONSTRUCTION DETAIL SHEET CD2.

SCALE: 1" = 40'



WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER — LAWRENCE K. CHONG — No. 50778 — Exp. 9-30-09 — CIVIL — STATE OF CALIFORNIA

DATE: 7-7-2008

PREPARED BY	DATE
DRAWN: F. MOSTAFA	
DESIGNED: L. CHONG	
CHECKED: A. HOMAIZI	
SURVEY FILE:	

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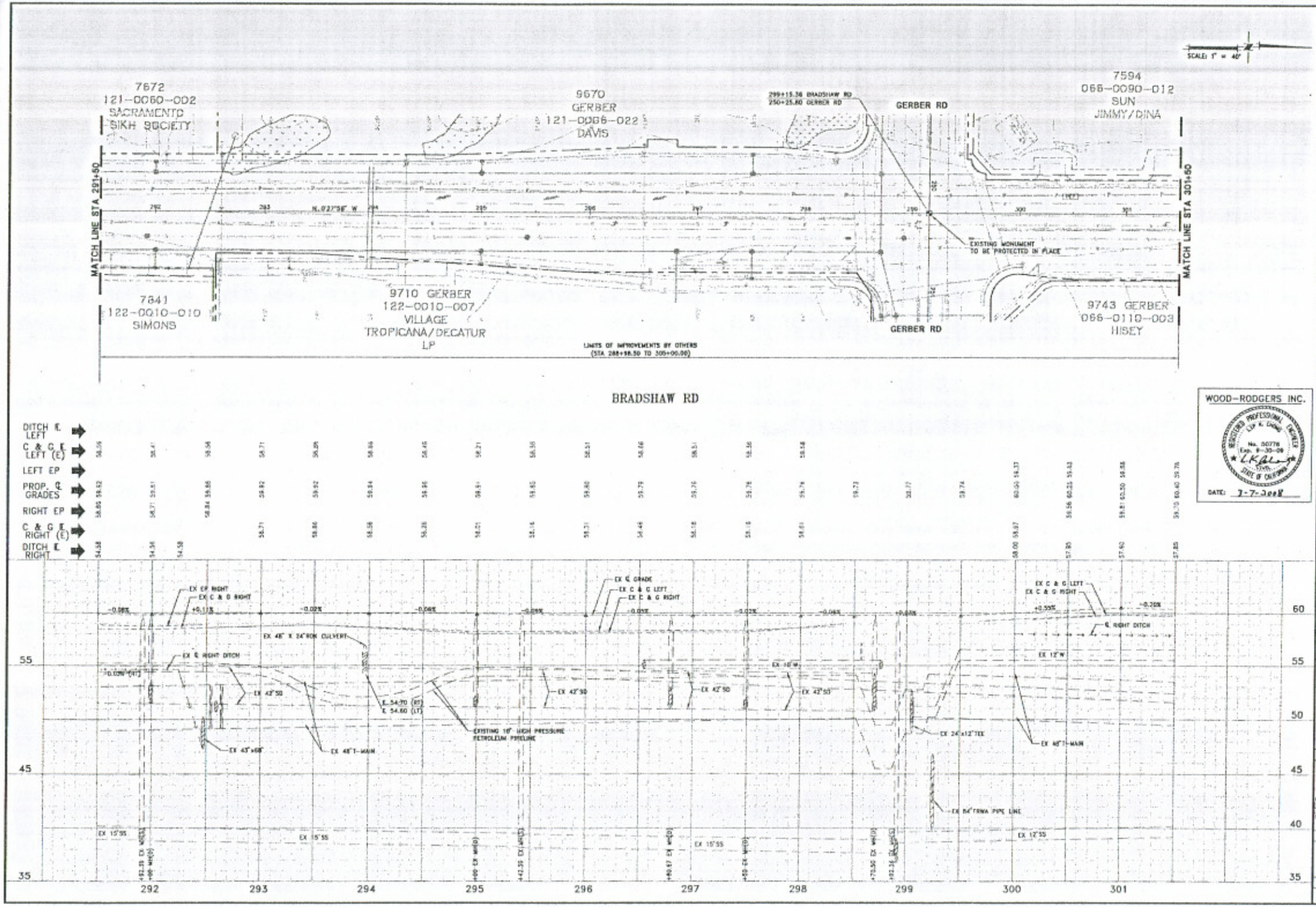
COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1":40'
VERTICAL: 1":4'
HOKS
MINUTES

DRAWING
PP10 OF PP17

SHEET
18 - 139



WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER
LEA K. CHONG
No. 60778
Exp. 9-30-09
CIVIL
STATE OF CALIFORNIA

DATE: 7-7-2008

PREPARED BY		DATE
DRAWN:	F. NOSTRATIS	
DESIGNED:	L. CHONG	
CHECKED:	A. HOMAIZI	
SURVEY FILE:		

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COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE

HORIZONTAL: 1"=40'
VERTICAL: 1"=4'

INCHES
MILLIMETERS

DRAWING
PP11 OF PP17

SHEET
19 OF 139

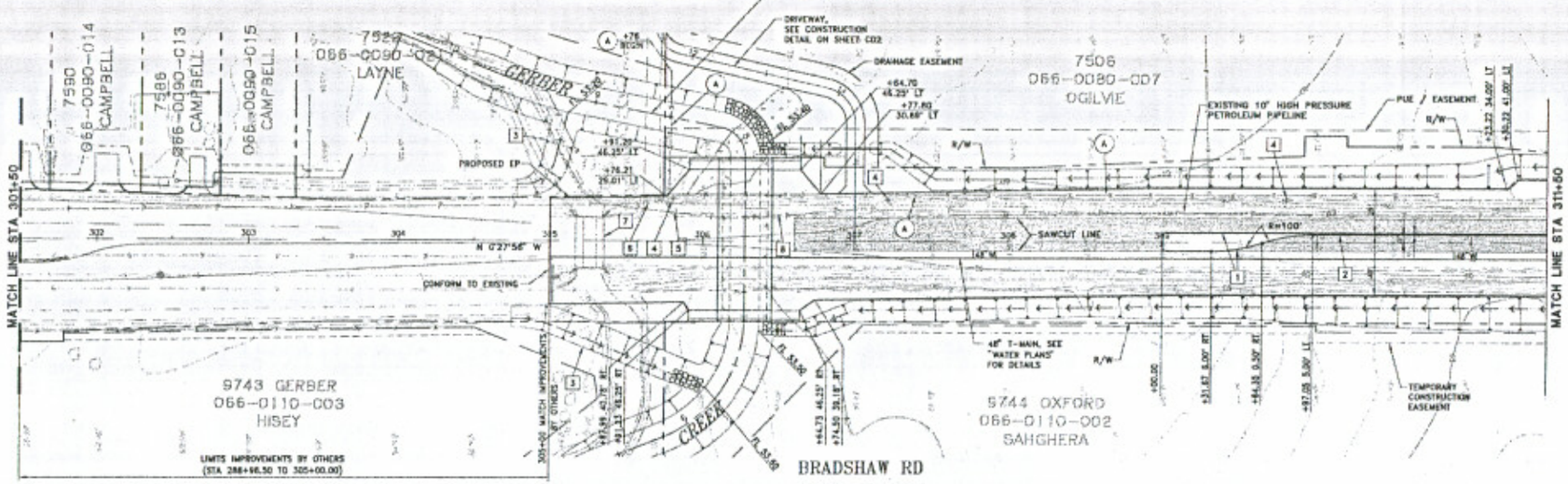
FENCE NOTES

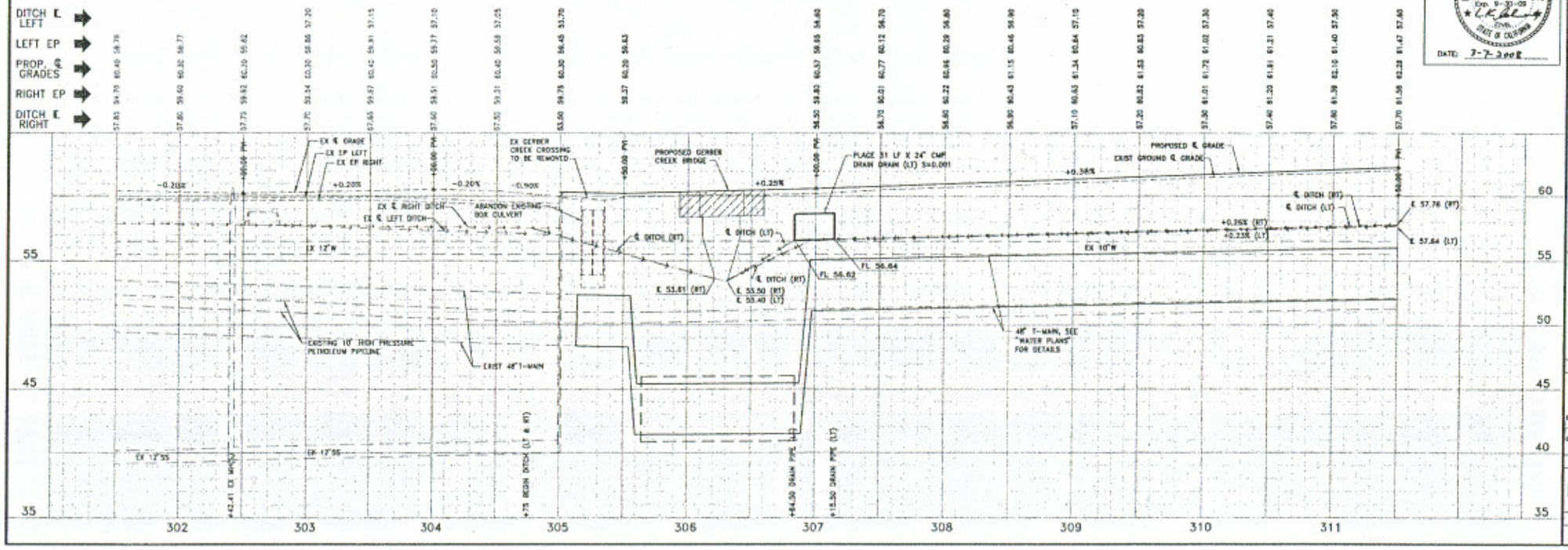
(A) REMOVE EXISTING WOOD FENCE

CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB PER STD DWG 4-25.
2. CONSTRUCT TYPE 6 CURB, SEE "CURB TRANSITION DETAIL" ON SHEET CD1.
3. SEE CONSTRUCTION DETAILS ON SHEET CD4.
4. EXISTING UTILITY POLE TO BE RELOCATED BY OTHERS.
5. RELOCATE EXISTING MAILBOX
6. REMOVE AND DISPOSE EXISTING CULVERT
7. REMOVE EXISTING DOUBLE RCB.
8. EXISTING 10" HIGH PRESSURE PETROLEUM LINE TO BE RELOCATED BY OTHERS.

SCALE: 1" = 40'





WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER LIN E. CHONG No. 56778 Exp. 9-30-09 CIVIL STATE OF CALIFORNIA

DATE: 7-7-2008

PREPARED BY

		DATE
DRAWN:	F. NOSTRATIS	
DESIGNED:	L. CHONG	
CHECKED:	A. HOWARD	
SURVEY FILE:		

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COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1"=40'
VERTICAL: 1"=6'

DRAWING
PP12 OF PP17

SHEET
20 OF 139

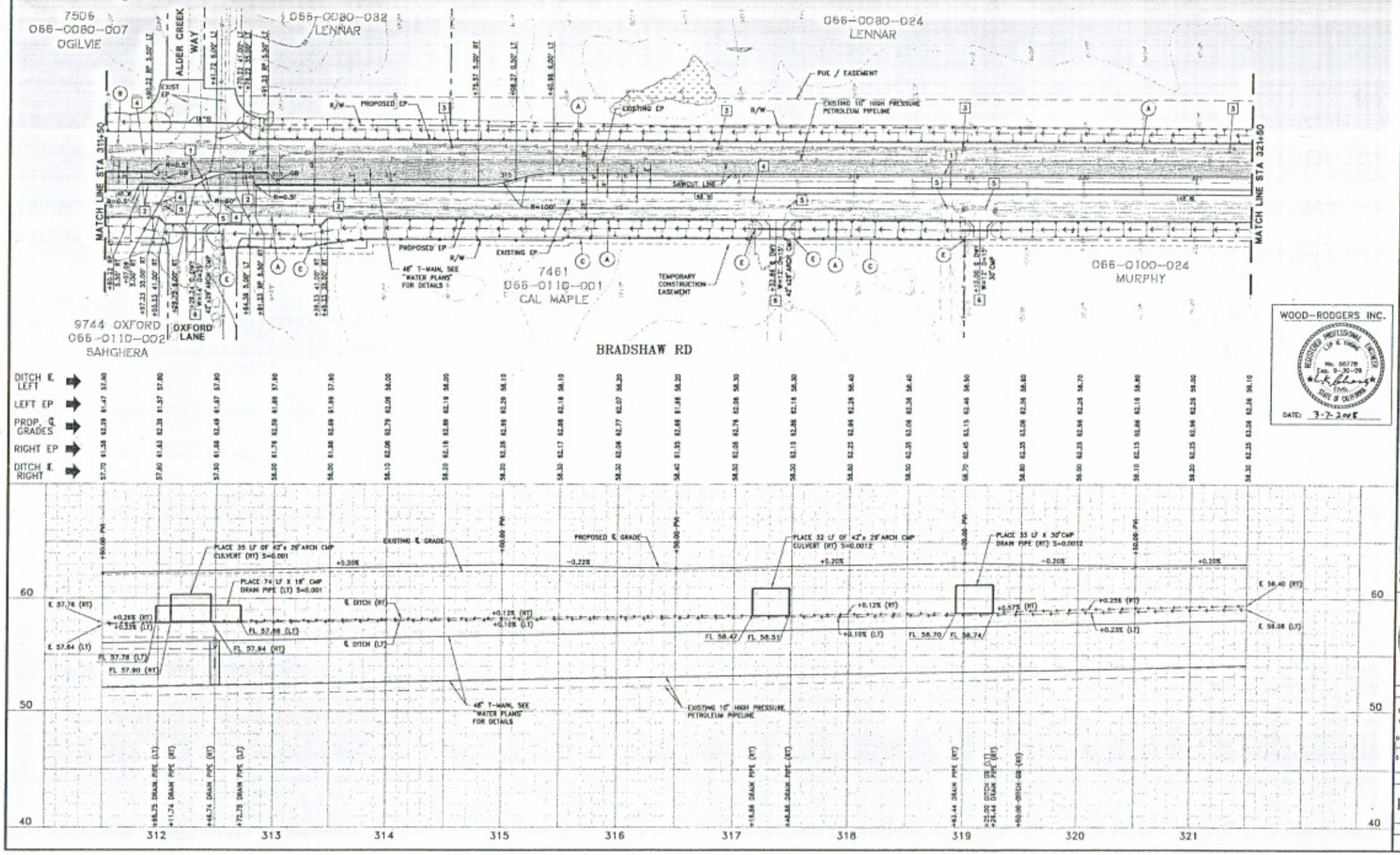
FENCE NOTES

- (A) REMOVE EXISTING BARBED WIRE FENCE
- (B) REMOVE EXISTING WOOD FENCE
- (C) PLACE BARBED WIRE FENCE PER COUNTY STD DWG 9-28 (TYPE BW)
- (D) PLACE WOOD FENCE, MATCH EXISTING. CONTRACTOR TO VERIFY.
- (E) CONNECT TO EXISTING FENCE

CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB PER STD DWG 4-25.
2. CONSTRUCT TYPE 6 CURB, SEE "CURB TRANSITION DETAIL" ON SHEET CD1.
3. EXISTING UTILITY POLE TO BE RELOCATED BY OTHERS.
4. RELOCATE EXISTING MAILBOX.
5. REMOVE AND DISPOSE EXISTING CULVERT.
6. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "B" ON SHEET CD1.
7. PROTECT EXISTING MONUMENTS, NOTIFY SURVEYOR PRIOR TO ANY CLEARING OR GRUBBING.

SCALE: 1" = 40'



WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER LIN K. CHONG No. 50778 Exp. 9-30-09 CIVIL STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY	DATE
DRAWN: F. NOSTRATIS	
DESIGNED: L. CHONG	
CHECKED: A. HENNAN	
SURVEY FILE:	

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COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1":40'
VERTICAL: 1":4'
INCHES
MILLIMETERS

DRAWING
PP13 OF PP17

SHEET
21 OF 134

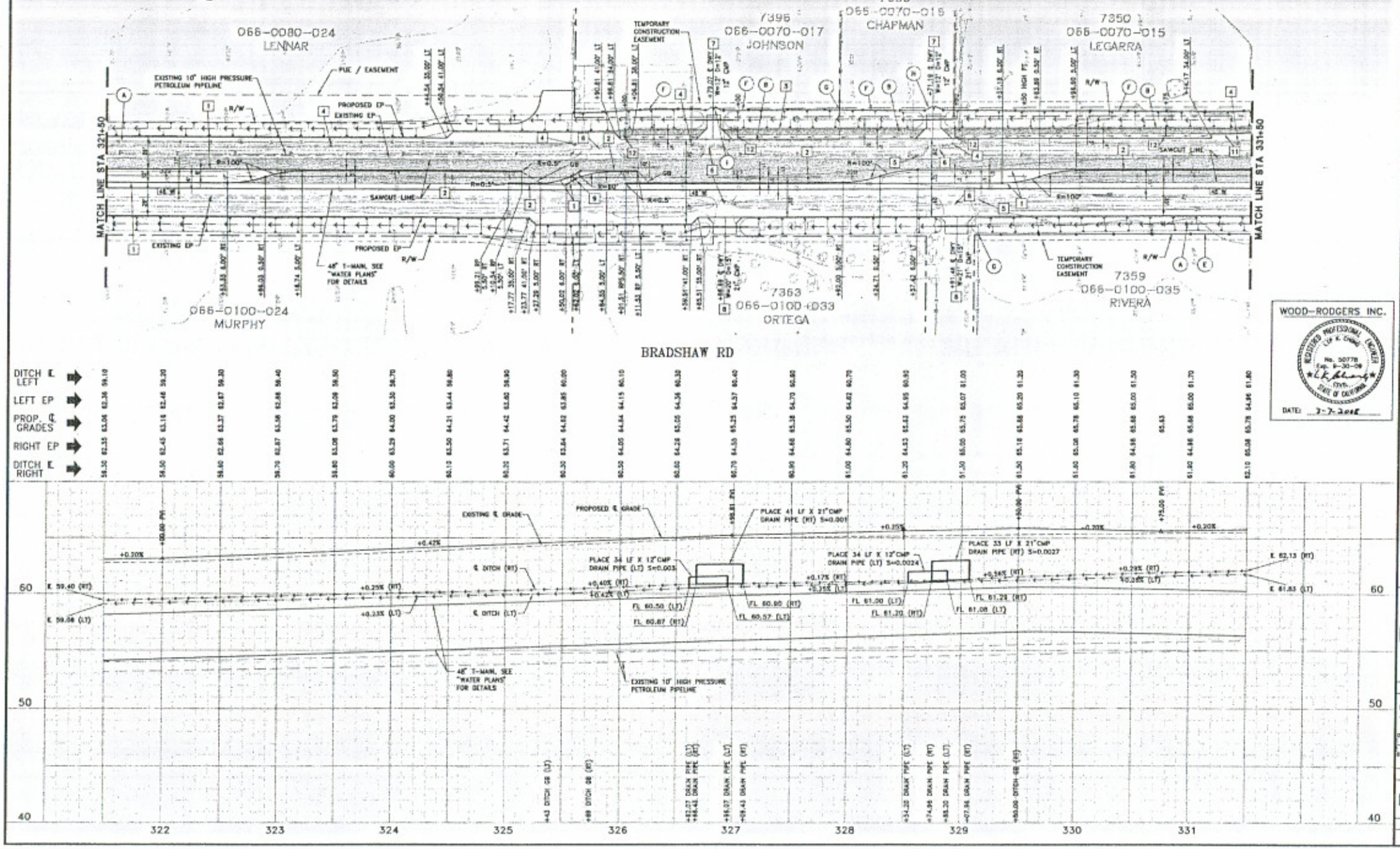
FENCE NOTES

- (A) REMOVE EXISTING BARBED WIRE FENCE
- (B) REMOVE EXISTING CHAIN LINK FENCE – 8'
- (C) REMOVE EXISTING WIRE MESH FENCE
- (D) REMOVE EXISTING WOOD FENCE
- (E) PLACE BARBED WIRE FENCE PER COUNTY STD DWG 9-28 (TYPE BW)
- (F) PLACE CHAIN LINK FENCE – 6' PER COUNTY STD DWG 9-29 (TYPE CL-6)
- (G) CONNECT TO EXISTING FENCE
- (H) RELOCATE EXISTING GATE
- (I) REMOVE AND PLACE EXISTING GATE.

CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB PER STD DWG 4-25.
2. CONSTRUCT TYPE 6 CURB, SEE "CURB TRANSITION DETAIL" ON SHEET CD1.
3. CONSTRUCT 0.25' THICK AC PED WALK
4. EXISTING UTILITY POLE TO BE RELOCATED BY OTHERS.
5. RELOCATE EXISTING MAILBOX
6. REMOVE AND DISPOSE EXISTING CULVERT
7. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "A" ON SHEET CD1.
8. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "B" ON SHEET CD1.
9. INSTALL TYPE A MONUMENT PER CALTRANS STD PLAN A74.
10. INSTALL SWALE DRAIN SYSTEM PER CONSTRUCTION DETAIL SHEET CD2.
11. AC DIKE TYPE A WITH 2' BREAK AT 20' O.C. SEE CONSTRUCTION DETAIL SHEET CD2.
12. PROTECT EXISTING MONUMENTS. NOTIFY SURVEYOR PRIOR TO ANY CLEARING OR GRUBBING.

SCALE: 1" = 40'



WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER — LEE K. CHONG — No. 50778 — Exp. 9-30-08 — CIVIL — STATE OF CALIFORNIA

DATE: 7-7-2008

PREPARED BY	DATE
DRAWN: F. HOSTRATIS	
DESIGNED: L. CHONG	
CHECKED: A. HOWSATT	
SURVEY FILE:	

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3301 C St, Bldg. 100-B, Sacramento, CA 95816
Tel 916.341.7760 Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1"=40'
VERTICAL: 1"=4'
INCHES
MILLIMETERS

DRAWING
PP14 OF PP17

SHEET
22 OF 139

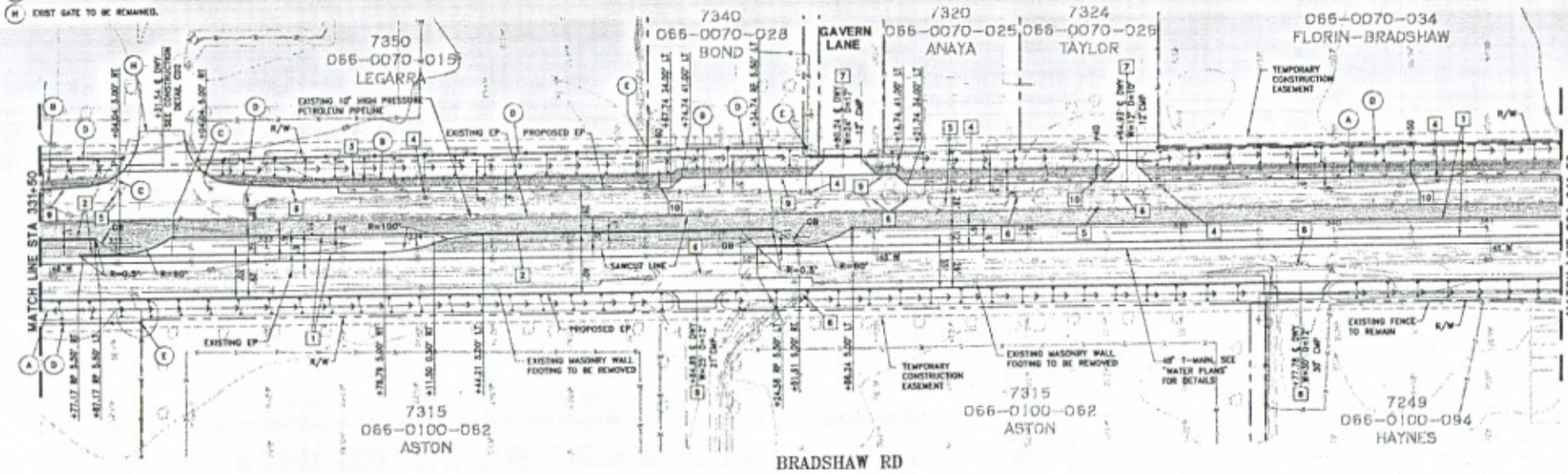
FENCE NOTES

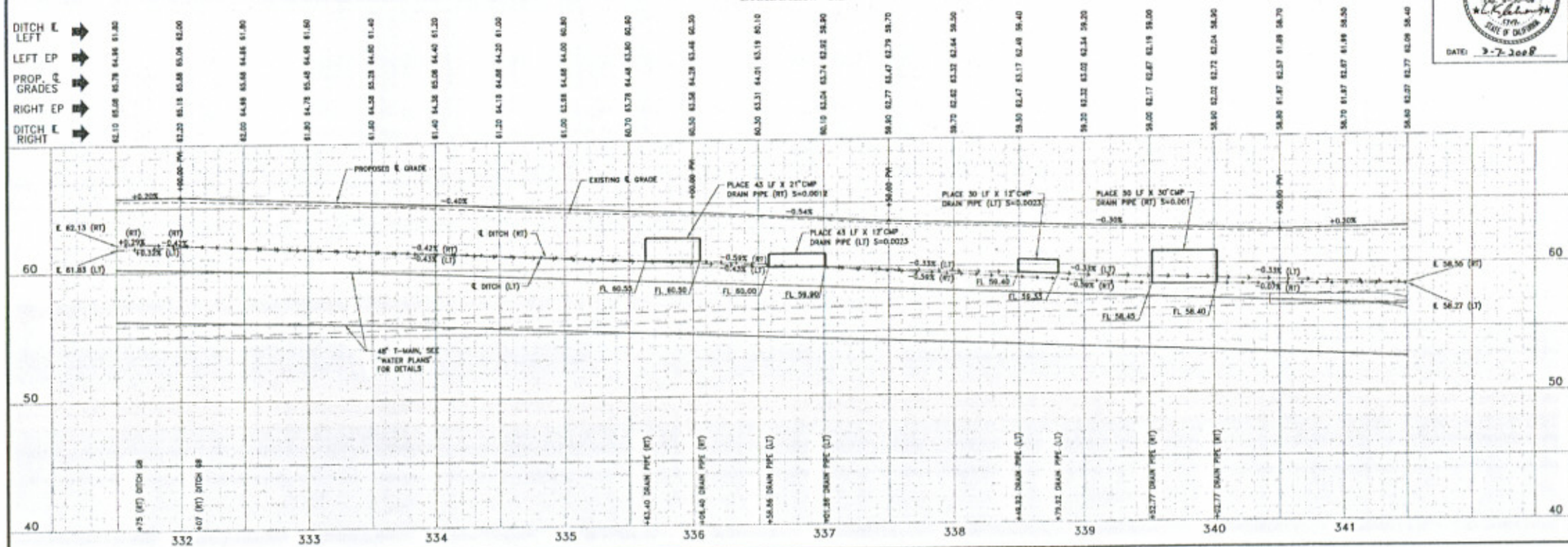
- (A) REMOVE EXISTING BARBED WIRE FENCE
- (B) REMOVE EXISTING CHAIN LINK FENCE
- (C) REMOVE EXISTING WOOD FENCE
- (D) PLACE CHAIN LINK FENCE PER COUNTY STD DWG 8-29 (TYPE CL-5)
- (E) CONNECT TO EXISTING FENCE
- (H) EXIST GATE TO BE REMAINED.

CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB PER STD DWG 4-25.
2. CONSTRUCT TYPE B CURB, SEE "CURB TRANSITION DETAIL" ON SHEET CD1.
3. CONSTRUCT 0.25' THICK AC PED WALK.
4. EXISTING UTILITY POLE TO BE RELOCATED BY OTHERS.
5. RELOCATE EXISTING MAILBOX
6. REMOVE AND DISPOSE EXISTING CULVERT
7. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "A" ON SHEET CD1.
8. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "B" ON SHEET CD1.
9. AC DIKE TYPE A WITH 3' BREAK AT 20' O.C. SEE CONSTRUCTION DETAIL SHEET CD2.
10. INSTALL SWALE DRAIN SYSTEM PER CONSTRUCTION DETAIL SHEET CD2.
11. PROTECT EXISTING MONUMENTS, NOTIFY SURVEYOR PRIOR TO ANY CLEARING OR GRUBBING.

SCALE: 1" = 40'





WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER
LEE K. CHONG
No. 50778
Exp. 9-30-08
CIVIL
STATE OF CALIFORNIA

DATE: 9-7-2008

PREPARED BY		DATE
DRAWN	F. KOSTRATIS	
DESIGNED	L. CHONG	
CHECKED	A. HOHNATI	
SURVEY FILE		

WOOD-RODGERS
3301 C ST., BLDG. 100-B • SACRAMENTO, CA 95816
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COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1"=40'
VERTICAL: 1"=6'

DRAWING
PP15 OF PP17

SHEET
23 OF 139

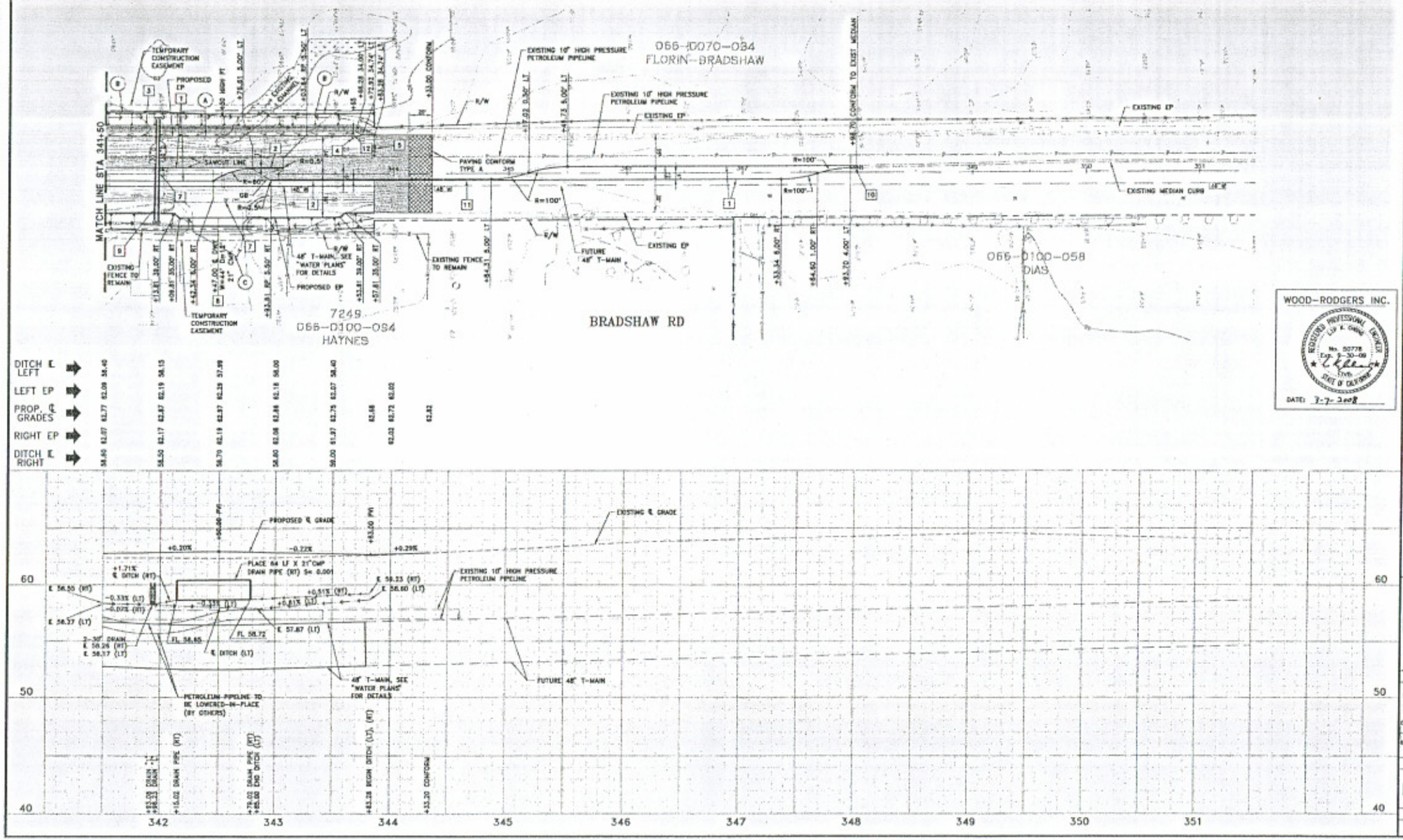
FENCE NOTES

- (A) REMOVE EXISTING BARBED WIRE FENCE
- (B) PLACE BARBED WIRE FENCE PER COUNTY STD DWG 9-28 (TYPE BW)
- (C) EXISTING GATE TO REMAIN.

CONSTRUCTION NOTES

1. CONSTRUCT TYPE 4 CURB PER STD DWG 4-25.
2. CONSTRUCT TYPE 6 CURB, SEE "CURB TRANSITION DETAIL" ON SHEET CD1.
3. CONSTRUCT 0.25' THICK AC PED WALK
4. EXISTING UTILITY POLE TO BE RELOCATED BY OTHERS.
5. REMOVE EXISTING BARRICADE AND SIGN.
6. RELOCATE EXISTING MAILBOX.
7. REMOVE AND DISPOSE EXISTING CULVERT
8. CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "B" ON SHEET CD1.
9. DRAIN "K", SEE DRAINAGE PROFILE ON SHEET D2.
10. REMOVE EXISTING MEDIAN END. CONSTRUCT 5' CURB TRANSITION FROM 8" TO 6" HEIGHT.
11. 12' WIDE MEDIAN BREAK AT 12' O.C.
12. INSTALL SWALE DRAIN SYSTEM PER CONSTRUCTION DETAIL SHEET CD2.

SCALE: 1" = 40'



WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER — LIP K. CHONG — No. 50778 — Exp. 3-30-09 — CIVIL — STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY		DATE
DRAWN:	F. MOSTAFIS	
DESIGNED:	L. CHONG	
CHECKED:	A. HEMATI	
SURVEY FILE:		

WOOD-RODGERS
HIGHWAYS · WATERWAYS · AIRPORTS · RAILWAYS
3301 C St. Bldg. 100-B Sacramento, CA 95816
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COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1":40'
VERTICAL: 1":4'

DRAWING
PP16 OF PP17

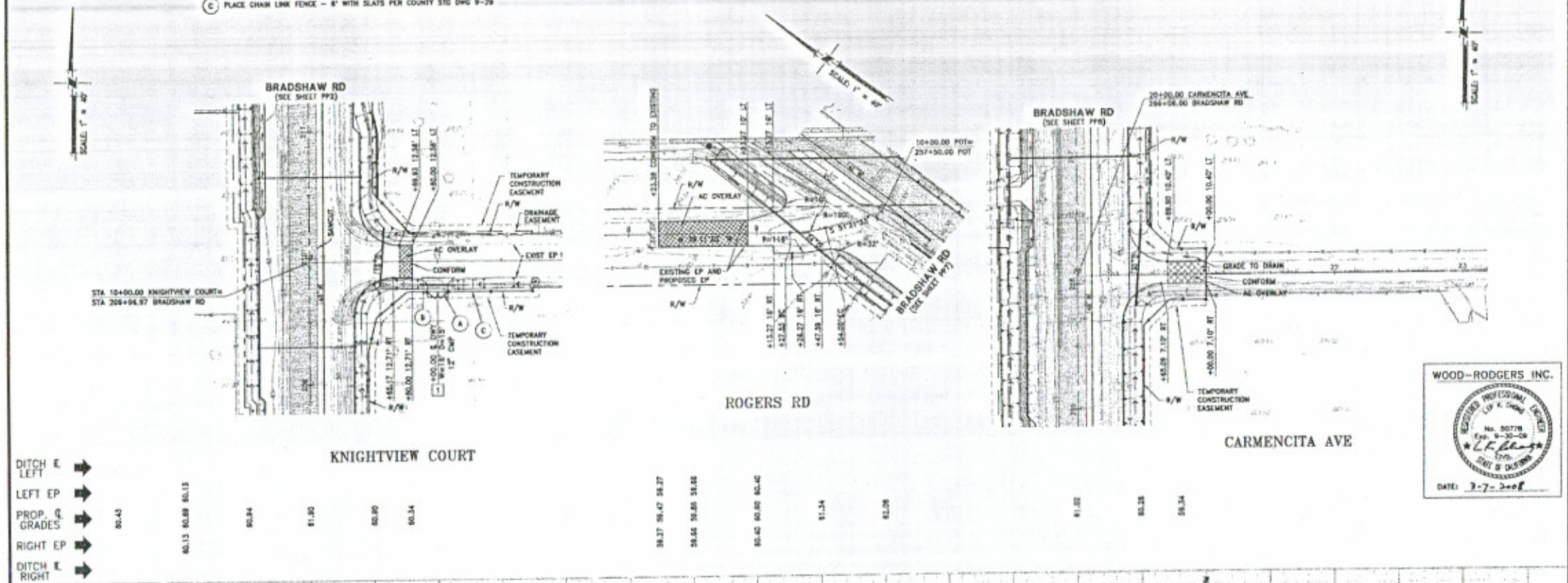
SHEET
24 OF 139

FENCE NOTES

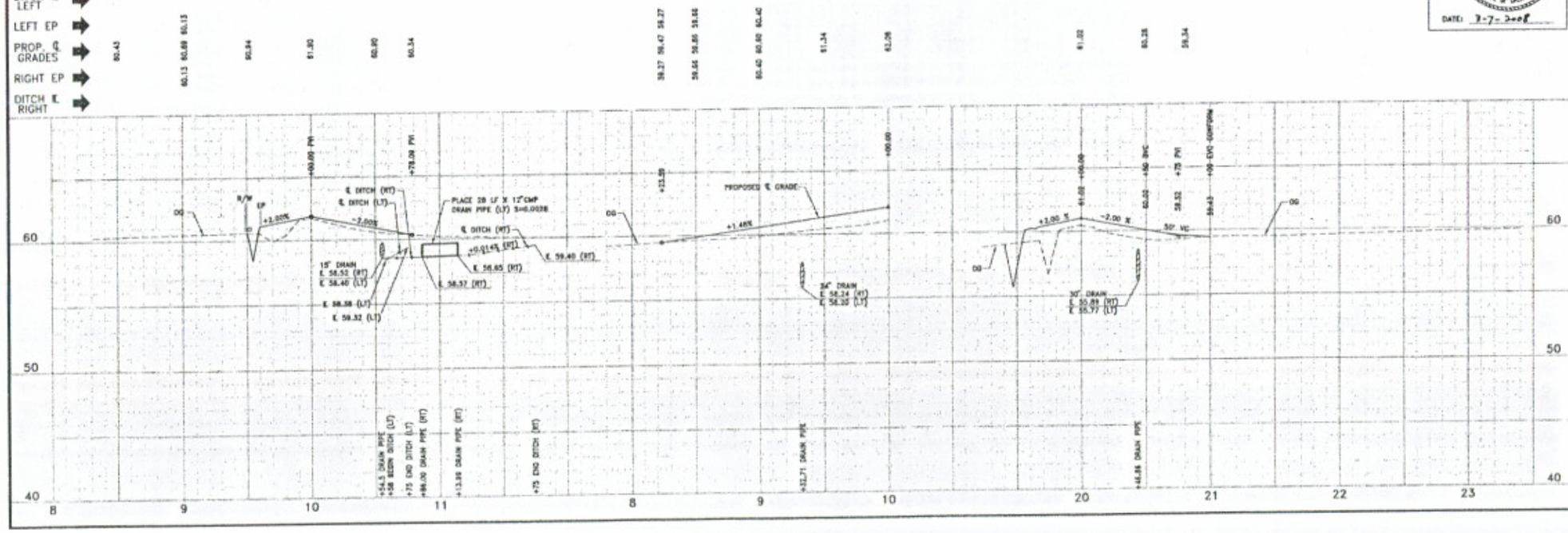
(A) PLACE 16' CHAIN LINK GATE PER STD DWG 9-28.
(B) REMOVE EXISTING WIRE MESH FENCE
(C) PLACE CHAIN LINK FENCE – 8' WITH SLATS PER COUNTY STD DWG 9-29

CONSTRUCTION NOTES

1 CONSTRUCT DRIVEWAY AND PLACE DRAIN PIPE, SEE DRIVEWAY DETAIL "B" ON SHEET C01.



WOOD-RODGERS INC.
REGISTERED PROFESSIONAL ENGINEER
LOI K. CHENG
No. 50778
Exp. 9-30-09
CIVIL
STATE OF CALIFORNIA
DATE: 3-7-2008



PREPARED BY		DATE
DRAWN:	F. MOSTRATIS	
DESIGNED:	L. CHENG	
CHECKED:	A. HOWAIT	
SURVEY FILE:		

WOOD-RODGERS
CONSULTING ENGINEERS, PLANNERS
3301 C ST., BLDG. 100-B
SACRAMENTO, CA 95816
Tel 916.341.7760
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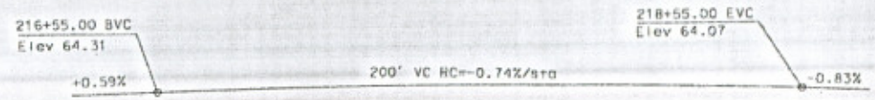
COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1":40'
VERTICAL: 1":4'
INCHES
MILLIMETERS

DRAWING
PP17 OF PP17

SHEET
25 OF 139

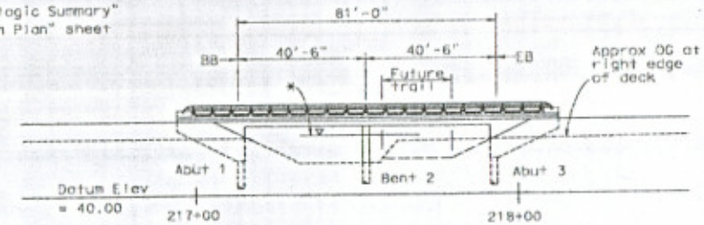


PROFILE
No scale

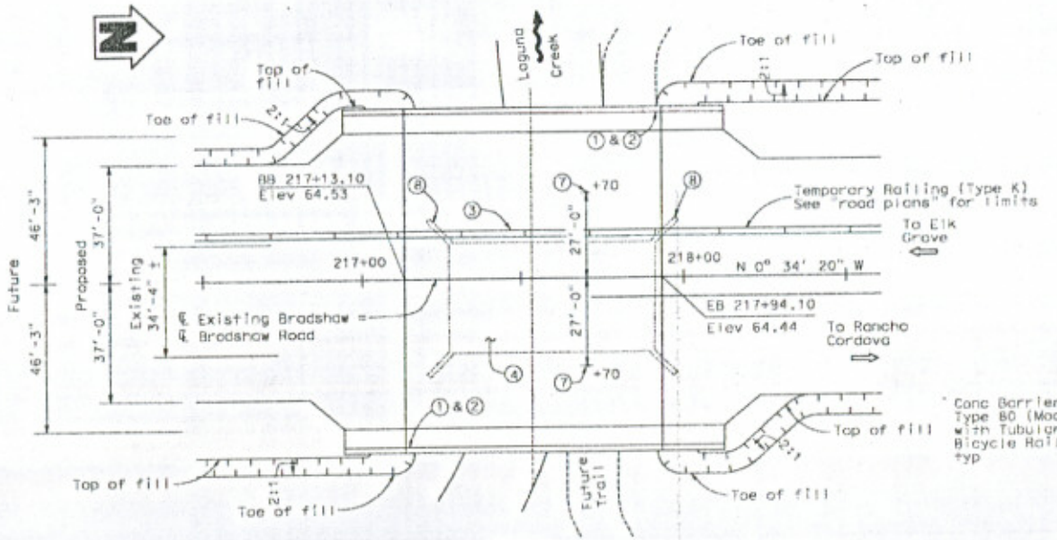
Legend:
1. Paint "Laguna Creek Bridge"
2. Paint Bridge Number and year completed
3. Temporary Railing (Type K) attached to bridge deck
4. Remove existing bridge
5. Two 5" future utilities openings
6. Bat habitat see "Slab Reinforcement Details" for limits
7. Flush soffit luminaire see "Road Plans"
8. Remove portion of existing wing wall for stage 1 construction

Indicates existing structure
Indicates new construction
Indicates direction of traffic
Indicates direction of stream flow

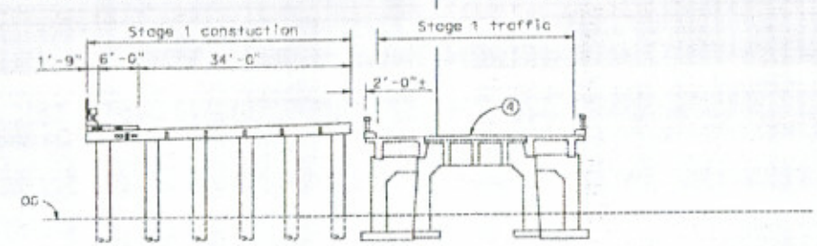
* See "Hydrologic Summary" on "Foundation Plan" sheet



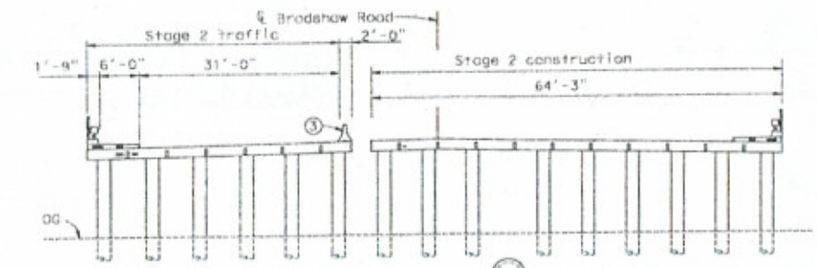
ELEVATION
1"=20'-0"



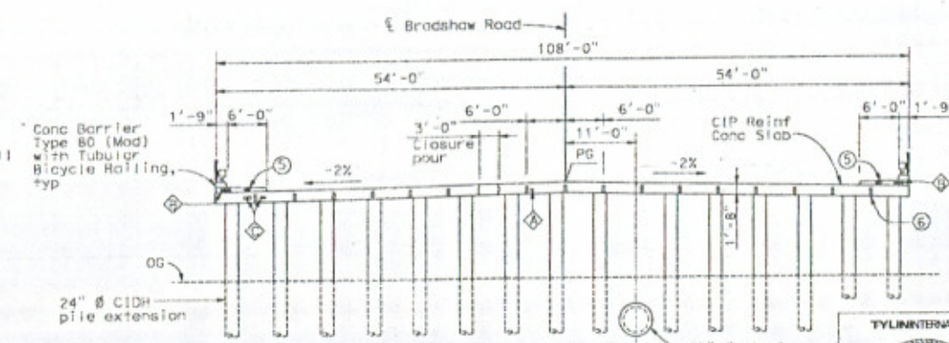
PLAN
1"=20'-0"



STAGE 1



STAGE 2



FINAL

TYPICAL SECTION
1"=10'

Notes:
1. For "Index to Plans", "Standard Plans List" see "Deck Contour" sheet.
2. For "General Notes" and "Pile Data Table" see "Foundation Plan" sheet.

2 - 2" Ø HDPE (see Electrical Plan)
4 - 4" Ø HDPE for Frontier.
2 - 6" & 2 - 4" Ø conduits for SMUD.

Note:
The Contractor shall verify all controlling field dimension before ordering or fabricating material.

PREPARED BY		DATE
DRAWN	Staff	11/87
DESIGNED	D.Li	11/87
CHECKED	K. Andurlakar	12/87
SURVEY FIELD	WOOD RODGERS	

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COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION
LAGUNA CREEK BRIDGE REPLACEMENT
GENERAL PLAN
BRADSHAW ROAD WIDENING
(CALVINE ROAD TO FLORIN ROAD)

TYLIN INTERNATIONAL
REGISTERED PROFESSIONAL ENGINEER
DEREK N. LI
Exp. 12-31-88
CIVIL
STATE OF CALIFORNIA
DATE: 3/8/88

SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN
INCHES 1 2
MILLIMETERS 0 20 40 60 80

DRAWING
S1 of S22

SHEET
59 of 134

BENCH MARK:

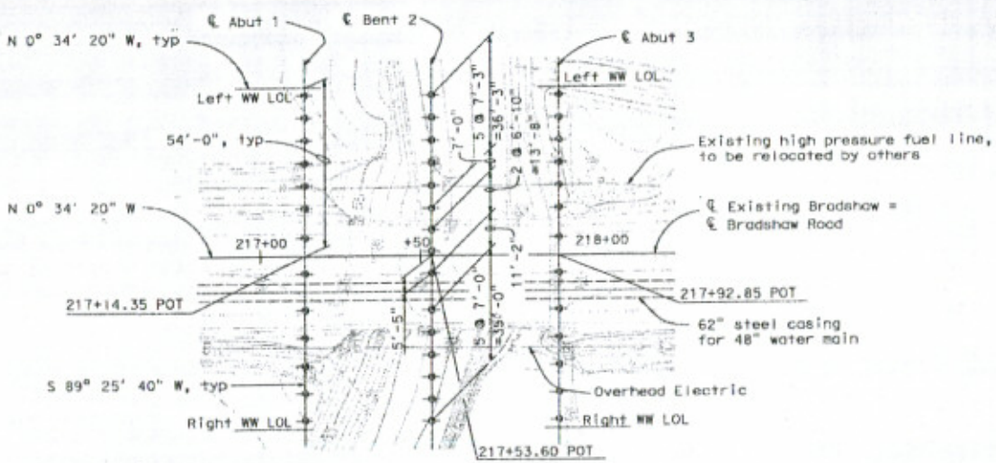
Sacramento County "B-1"
Nail & washer
NE Ret @ Calvine and Carmencita.
Northing 1927397.335,
Easting 6753543.059
Elevation 61.90

BENCH MARK:

Sacramento County "B-6"
C Nail/shiner in dwy.
1000' +/- s'ly of Vintage Park Dr.
Northing 1930561.897,
Easting 6752180.325
Elevation 59.71

GENERAL NOTES
LOAD FACTOR DESIGN

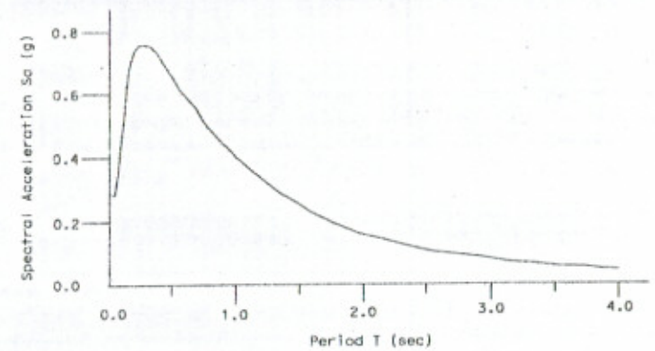
DESIGN:	CALTRANS BRIDGE DESIGN SPECIFICATIONS LFD Version April 2000
SEISMIC DESIGN:	Caltrans Seismic Design Criteria (SDC) Version 1.4, June 2006
DEAD LOAD:	Includes 35 psf for future wearing surface.
LIVE LOADING:	HS20-44 and alternative one permit design load.
SEISMIC LOAD:	SDC ARS Curve For Soil Profile C (M=7.25± 0.25) (Peak Rock Acceleration = 0.2g with 20% increase of Sa for all structural periods)
REINFORCED CONCRETE:	f_y = 60,000 psi f'_c = 3,600 psi n = 9 Transverse Deck Slabs (Working Stress Design) f_s = 20,000 psi f_c = 1,440 psi n = 10



Note:
For abutment pile layout, see "Abutment Layout and Details" sheet

PLAN
1"=20'-0"

Legend:
o Indicates CIDH pile



ARS DESIGN CURVE
No Scale

HYDROLOGIC SUMMARY
Drainage Area = 20.0 Sq. Miles

	Design Flood	Base Flood
Frequency (Year)	10	100
Discharge (CFS)	1037	1530
Water Surface Elev at Bridge	58.84	59.57

Flood plain data are based upon information available when the plans were prepared and are shown to meet Federal requirements. The accuracy of said information is not warranted by the State, County, or consultants and interested or affected parties should make their own investigations.

PILE DATA TABLE

Location	Pile Type	Design Loading (tons)	Nominal Resistance		Cut-off Elev. (ft)	Design Tip Elev. (ft)	Specified Tip Elev. (ft)
			Compression (tons)	Tension (tons)			
Abut 1	24" CIDH	70	140	0	51.25	25.75 (1); 23.75 (2)	23.75
Bent 2	24" CIDH	125	250	0	44.00	16.00 (1); 16.00 (2)	16.00
Abut 3	24" CIDH	70	140	0	51.25	25.75 (1); 23.75 (2)	23.75

Design Tip Elevation is controlled by the following demands: (1) Compression, (2) Lateral Load, and 2 feet of scour at both abutments and 6 feet at the bent have been included in the design

Note:
The Contractor shall verify all controlling field dimension before ordering or fabricating material.

TYLIN INTERNATIONAL
REGISTERED PROFESSIONAL ENGINEER
OCTA N. LI
No. 35525
Exp. 12-31-08
CIVIL
STATE OF CALIFORNIA
DATE: 3/12/08

PREPARED BY		DATE
DRAWN: Staff		11/07
DESIGNED: G.Li		11/07
CHECKED: K. Andrulaitis		12/07
SURVEY FILE: WCSD 20030715		

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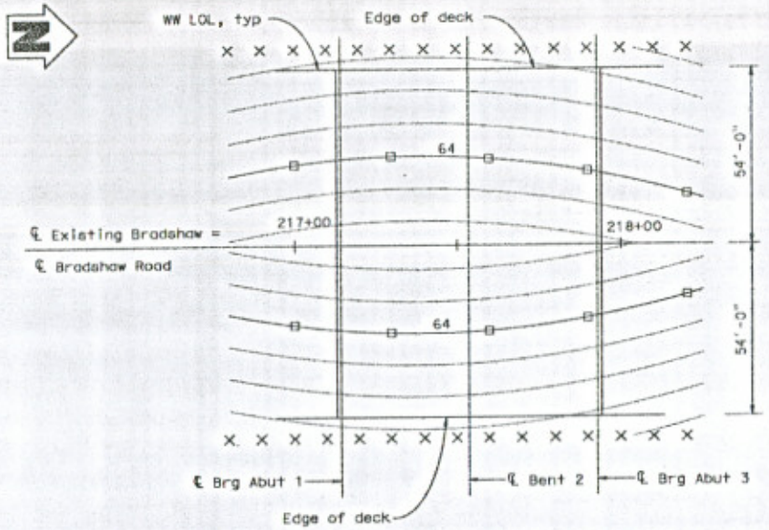
COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

LAGUNA CREEK BRIDGE REPLACEMENT
FOUNDATION PLAN
BRADSHAW ROAD WIDENING
(CALVINE ROAD TO FLORIN ROAD)

SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN

DRAWING
S2 OF S22

SHEET
60 OF 139



PLAN

1"=20'-0"

Legend

□ - Indicates even foot contours

X - 10' intervals

Notes

1. Contours do not include camber
2. Contour interval is 0.2'

INDEX TO PLANS

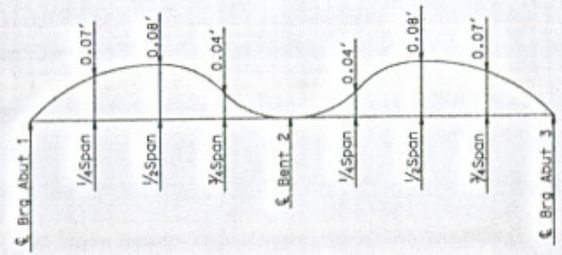
Sheet No.	Title
1	General Plan
2	Foundation Plan
3	Deck Contours
4	Abutment Layout and Details
5	Bent And Miscellaneous Details
6	Typical Section
7	Slab Reinforcement Details
8	Concrete Barrier Type 80 (Mod)
9	Tubular Bicycle Railing No. 1
10	Tubular Bicycle Railing No. 2
11	Log of Test Borings

CALTRANS STANDARD PLANS DATED MAY 2006

A10A	Acronyms and Abbreviations (Sheet 1 of 2)
A10B	Acronyms and Abbreviations (Sheet 2 of 2)
A10C	Symbols (Sheet 1 of 2)
A10D	Symbols (Sheet 2 of 2)
A62C	Limits of Payment for Excavation and Backfill - Bridge
T3	Temporary Railing (Type K)
B0-1	Bridge Details
B0-3	Bridge Details
B0-5	Bridge Details
B2-3	16" and 24" Cast-In-Drilled Hole Concrete Pile

Caltrans Standard Plan Sheet No.

Detail No.



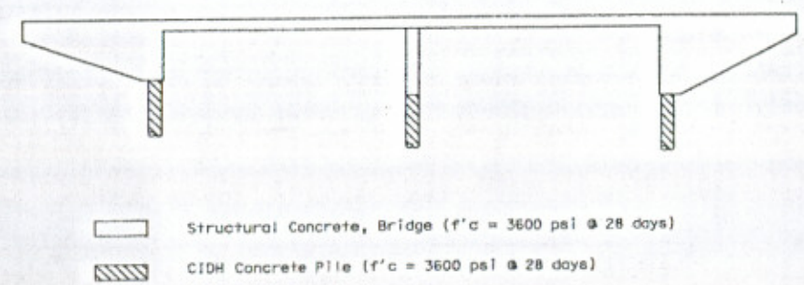
CAMBER DIAGRAM

No scale

Note:
The Contractor shall verify all controlling field dimension before ordering or fabricating material.

Notes

Does not include allowance for falsework settlement.



CONCRETE TYPE LIMITS

No scale

TYLININTERNATIONAL

REGISTERED PROFESSIONAL ENGINEER
DEON K.LI
Exp. 12-31-08
CIVIL
STATE OF CALIFORNIA

DATE: 3/5/08

PREPARED BY		DATE
DRAWN	Staff	11/07
DESIGNED	G.Li	11/07
CHECKED	K.Anderjakar	12/07
SURVEY FIELD	WOOD RODGERS	

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COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

LAGUNA CREEK BRIDGE REPLACEMENT
DECK CONTOURS
BRADSHAW ROAD WIDENING
(CALVINE ROAD TO FLORIN ROAD)

SCALE

HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN

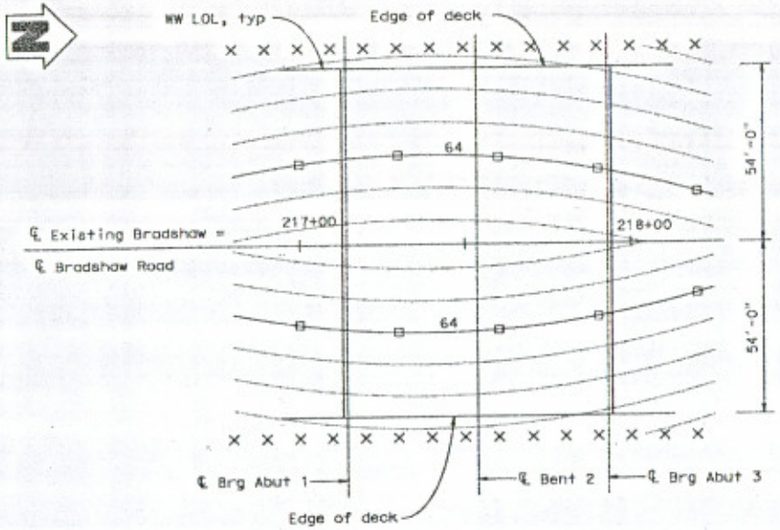
INCHES
MILLIMETERS

DRAWING

S3 OF S22

SHEET

61 OF 139



PLAN

1"=20'-0"

Legend

□ - Indicates even foot contours

X - 10' intervals

Notes

1. Contours do not include camber
2. Contour interval is 0.2'

INDEX TO PLANS

Sheet No.	Title
1	General Plan
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CALTRANS STANDARD PLANS DATED MAY 2006

A10A	Acronyms and Abbreviations (Sheet 1 of 2)
A10B	Acronyms and Abbreviations (Sheet 2 of 2)
A10C	Symbols (Sheet 1 of 2)
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A62C	Limits of Payment for Excavation and Backfill - Bridge
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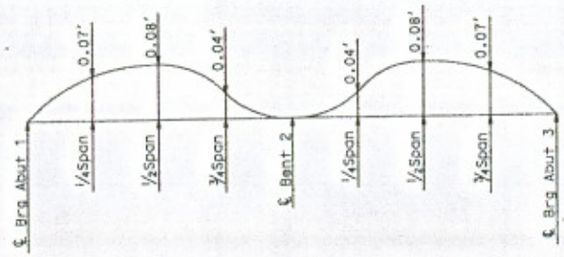
Caltrans Standard Plan Sheet No.

Detail No.

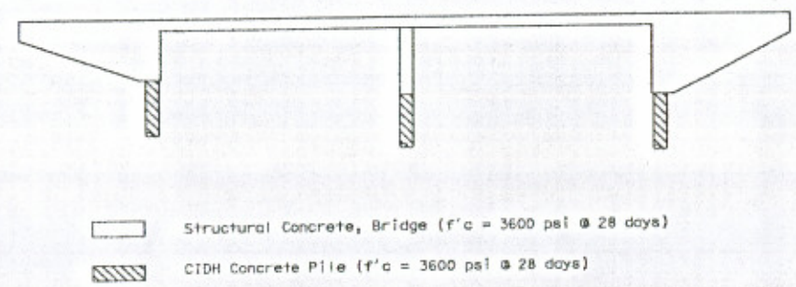


CAMBER DIAGRAM

No scale

Notes

Does not include allowance for falsework settlement.



CONCRETE TYPE LIMITS

No scale

Note:
The Contractor shall verify all controlling field dimension before ordering or fabricating material.

TYLIN INTERNATIONAL

REGISTERED PROFESSIONAL ENGINEER
GORDON M. LI
Exp. 12-31-08
CIVIL
STATE OF CALIFORNIA

DATE: 3/6/08

PREPARED BY		DATE
DRAWN	Staff	11/07
DESIGNED	G. Li	11/07
CHECKED	K. Arakaki-Ishler	12/07
SURVEY FILE	WOOD RODGERS	

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COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

LAGUNA CREEK BRIDGE REPLACEMENT
DECK CONTOURS
BRADSHAW ROAD WIDENING

(CALVINE ROAD TO FLORIN ROAD)

SCALE

HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN

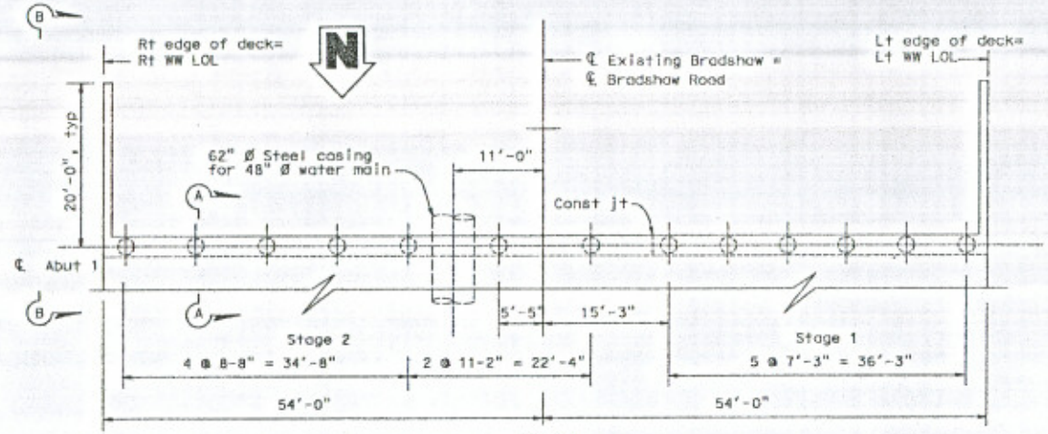
INCHES
MILLIMETERS

DRAWING

S3 OF S22

SHEET

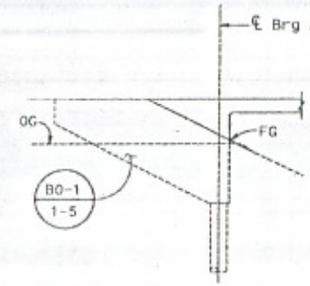
61 OF 139



PLAN

1/8"=1'-0"

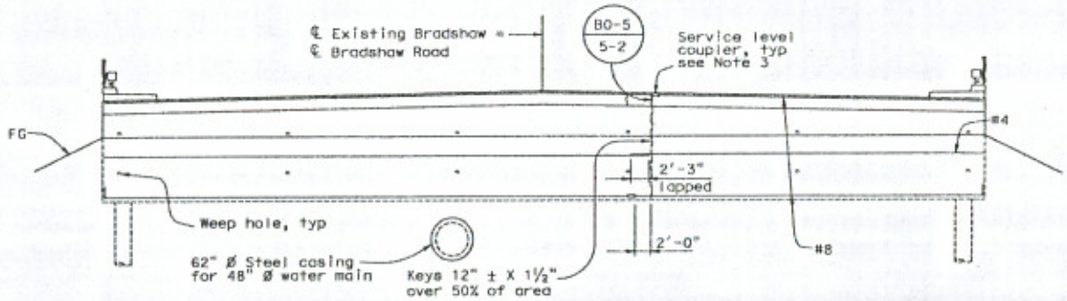
Notes:
1 Conc Barrier not shown for clarity.
2 Abut 1 shown, Abut 3 similar by opposite hand.
3 Structrure Approach Type EQ(10) not shown for clarity.



VIEW B-B

1/8"=1'-0"

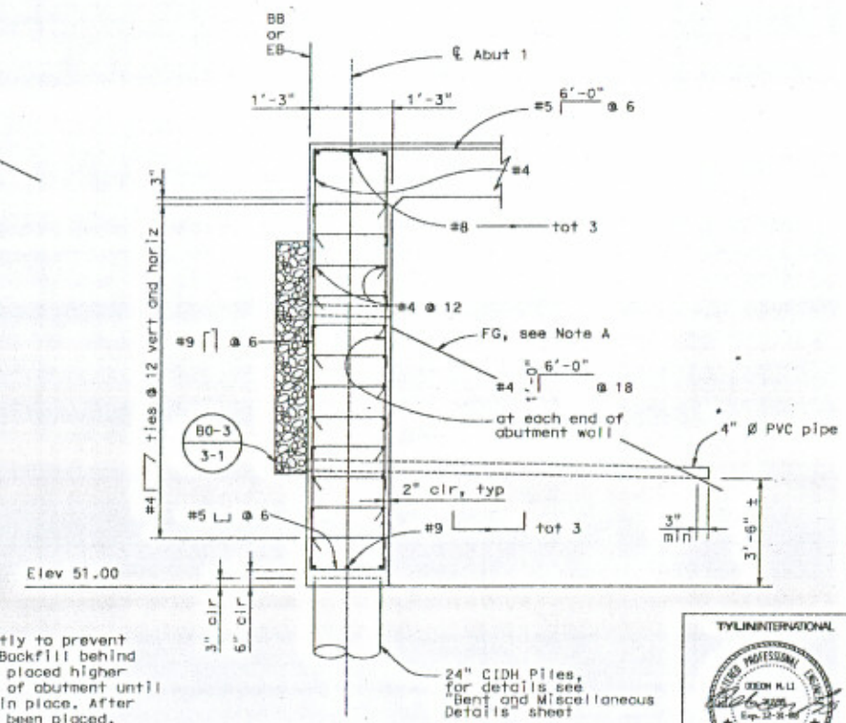
Notes:
1. Conc Barrier Type 80 (Mod) with Tubular Bicycle Railing not shown for clarity.
2. For details not shown see "Concrete Barrier Type 80 (Mod)" sheet.



ELEVATION

1/8"=1'-0"

Notes:
1 Not all piles are shown.
2 Abut 1 shown, Abut 3 similar by opposite hand.
3 Stagger service level coupler.



SECTION A-A

1/2"=1'-0"

Note A:

Backfill sufficiently to prevent ponding of water. Backfill behind abutment not to be placed higher than fill in front of abutment until superstructure is in place. After superstructure has been placed, backfill to be placed uniformly at abutments to equalize wall pressures.

Note:

The Contractor shall verify all controlling field dimension before ordering or fabricating material.

TYLININTERNATIONAL

REGISTERED PROFESSIONAL ENGINEER
OREN H. LI
Exp. 12-31-98
CIVIL
STATE OF CALIFORNIA

DATE: 3/6/98

PREPARED BY		DATE
DRAWN	Staff	11/97
DESIGNED	G. Li	11/97
CHECKED	K. Anburajakar	12/97
SURVEY FIELD	WOOD ROGERS	

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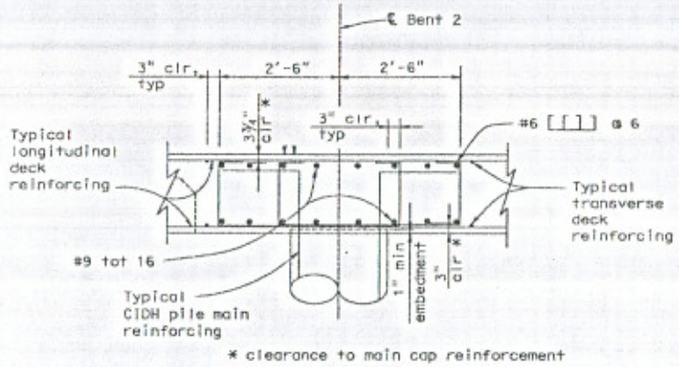
COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

LAGUNA CREEK BRIDGE REPLACEMENT
ABUTMENT LAYOUT AND DETAILS
BRADSHAW ROAD WIDENING
(CALVINE ROAD TO FLORIN ROAD)

SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN

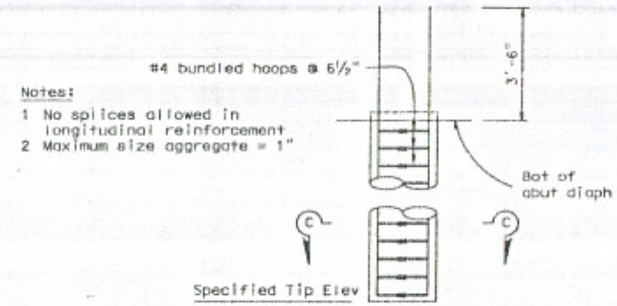
DRAWING
S4 OF S22

SHEET
62 OF 139



BENT SECTION AT PILE EXTENSION

¾" = 1'-0"

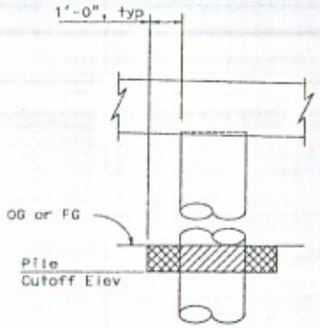


Notes:

1 No splices allowed in longitudinal reinforcement
2 Maximum size aggregate = 1"

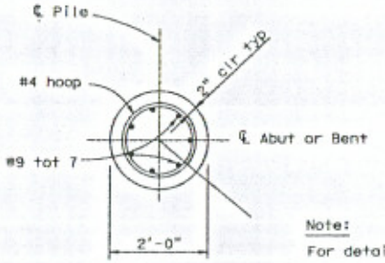
ABUTMENT PILE ELEVATION

½" = 1'-0"



LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL

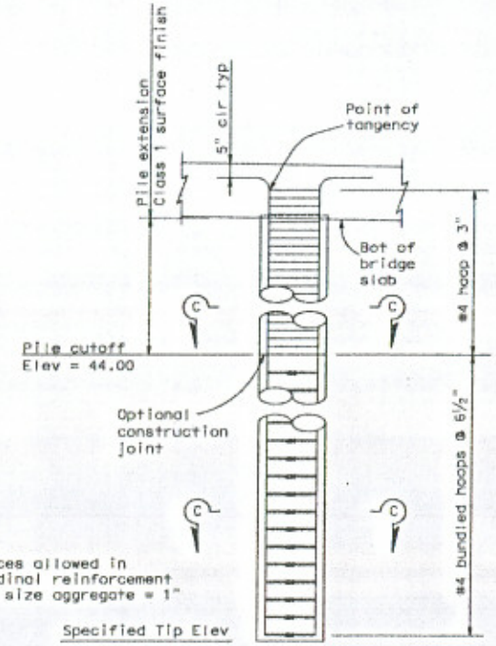
No scale



Note:
For details not shown, see B2-3

SECTION C-C

¾" = 1'-0"



Notes:

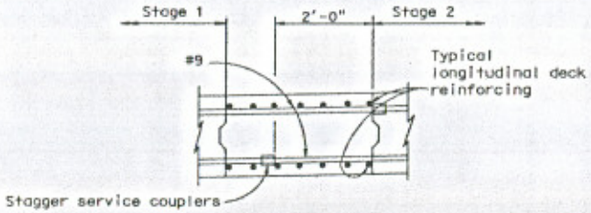
1 No splices allowed in longitudinal reinforcement
2 Maximum size aggregate = 1"

BENT PILE ELEVATION

½" = 1'-0"

Legend:

- Structure Excavation (Bridge)
- Structure Backfill (Bridge)
- ⌀ Denotes bundled bars



CAP REINFORCEMENT SPLICE AT CLOSURE POUR

¾" = 1'-0"

Note:
The Contractor shall verify all controlling field dimension before ordering or fabricating material.

TYLIN INTERNATIONAL
REGISTERED PROFESSIONAL ENGINEER
ROBIN M. LI
Exp. 12-31-88
CIVIL
STATE OF CALIFORNIA
DATE: 3/8/88

PREPARED BY		DATE
DRAWN	Staff	11/87
DESIGNED	G.L.	11/87
CHECKED	K. Andersdotter	12/87
SURVEY FILE	V000 R000595	

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COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

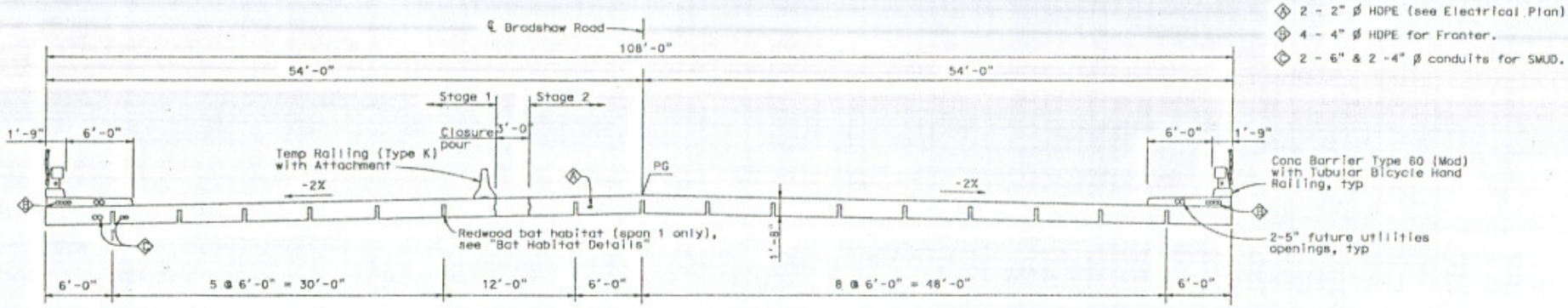
LAGUNA CREEK BRIDGE REPLACEMENT
BENT AND MISCELLANEOUS DETAILS
BRADSHAW ROAD WIDENING

(CALVINE ROAD TO FLORIN ROAD)

SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN
INCHES
HALF INCHES

DRAWING
S5 OF S22

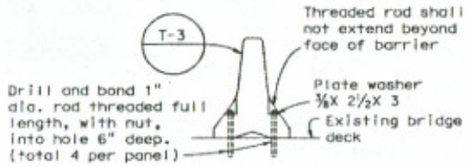
SHEET
63 OF 139



TYPICAL SECTION

1"=5'

Note:
Span 1 shown, span 2 similar without the bat habitat.



TEMPORARY RAILING (TYPE K) ATTACHMENT DETAILS

No scale

FALSEWORK RELEASE

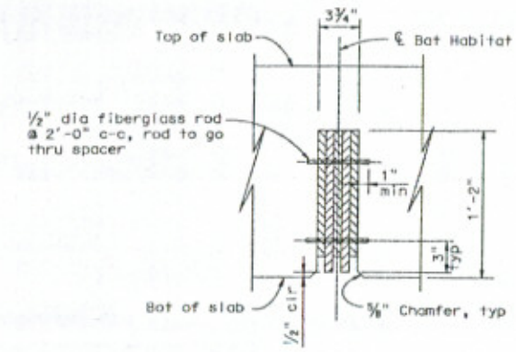
ALTERNATIVE 1:

Falsework shall be released as soon as permitted by the specifications. Closure pour shall not be placed sooner than 60 days after the falsework has been released.

ALTERNATIVE 2:

Falsework shall not be released less than 28 days after the last concrete has been placed. Closure pour shall not be placed sooner than 14 days after the falsework has been released.

When Falsework Release Alternative 2 is used, camber values are 0.75 times those shown.



BAT HABITAT DETAILS

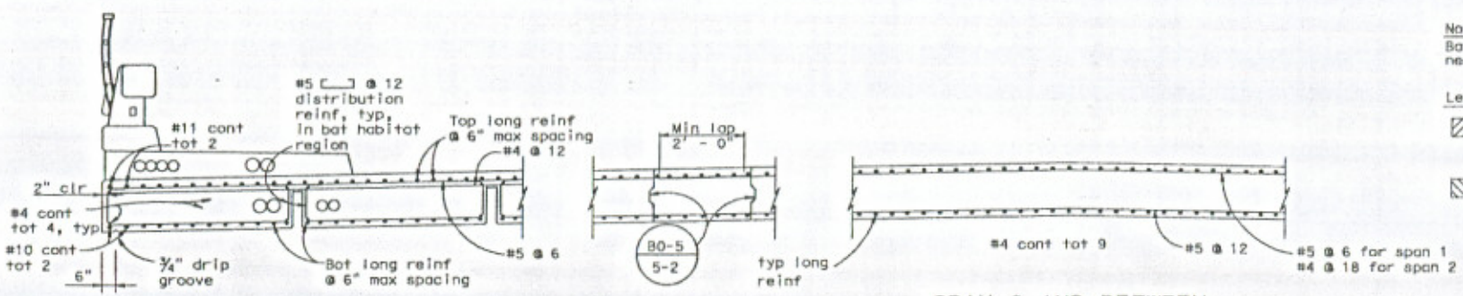
No scale

Note:
Bat habitat to be nailed together as necessary to made a composite section.

Legend:

¾" Plywood roosts coated with thick layer of epoxy paint and sprinkle with rough grit.

¾" X 4" X 1' -0" Plywood spacer @ 2'-0". Paint with exterior polyurethane (2 coats) of a thick layer of epoxy paint and sprinkle with rough grit.



SPAN 1

AT CLOSURE POUR

SPAN 2 AND BETWEEN BAT HABITAT IN SPAN 1

PART TYPICAL SECTION

½"=1'-0"

Note:
The Contractor shall verify all controlling field dimension before ordering or fabricating material.

TYLININTERNATIONAL

REGISTERED PROFESSIONAL ENGINEER
DOUGLAS W. LI
Exp. 12-31-98
CIVIL
STATE OF CALIFORNIA

DATE: 3/6/98

PREPARED BY		DATE
DRAWN	Staff	11/97
DESIGNED	G.L.	11/97
CHECKED	K. Andrulaitis	12/97
SURVEY FIELD	WOOD RODGERS	

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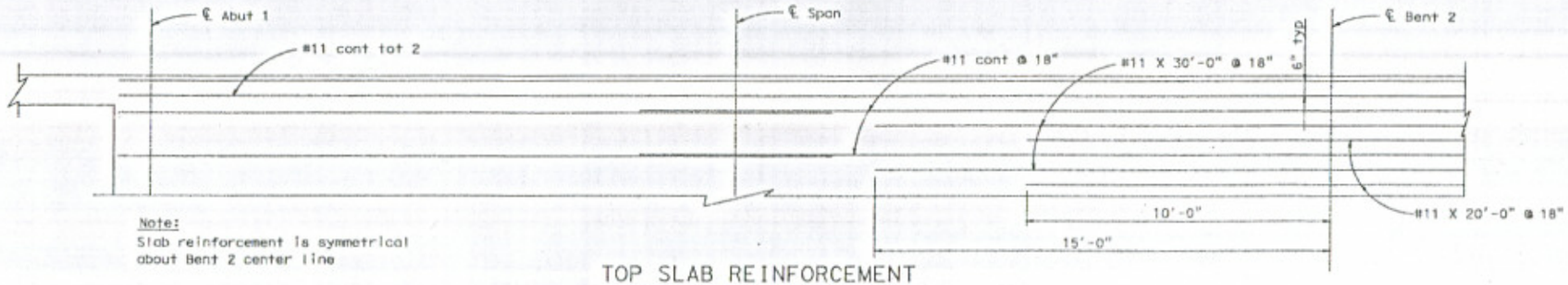
COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

LAGUNA CREEK BRIDGE REPLACEMENT
TYPICAL SECTION
BRADSHAW ROAD WIDENING
(CALVINE ROAD TO FLORIN ROAD)

SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN
INCHES
MILLIMETERS

DRAWING
S6 OF S22

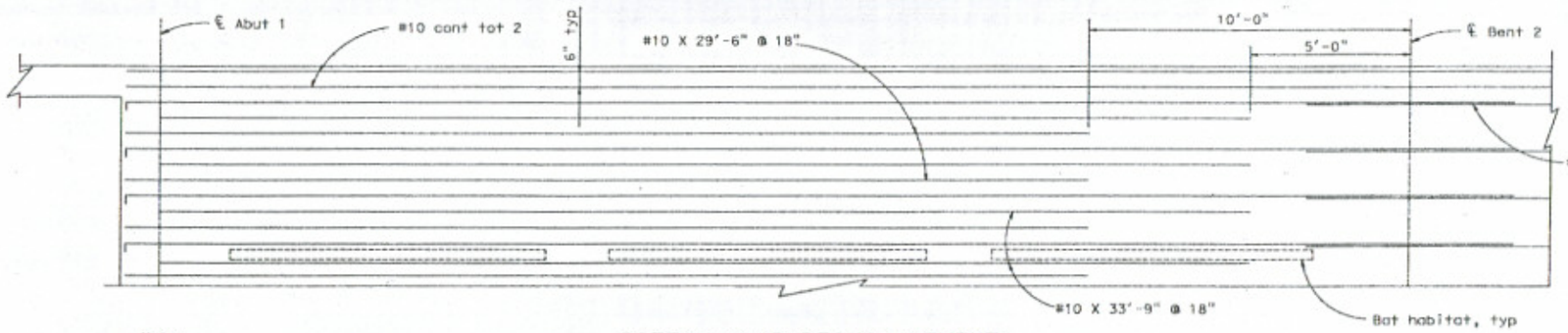
SHEET
64 OF 139



Note:
Slab reinforcement is symmetrical about Bent 2 center line

TOP SLAB REINFORCEMENT

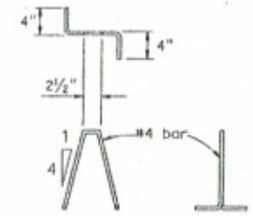
No scale



Note:
Slab reinforcement is symmetrical about Bent 2 center line

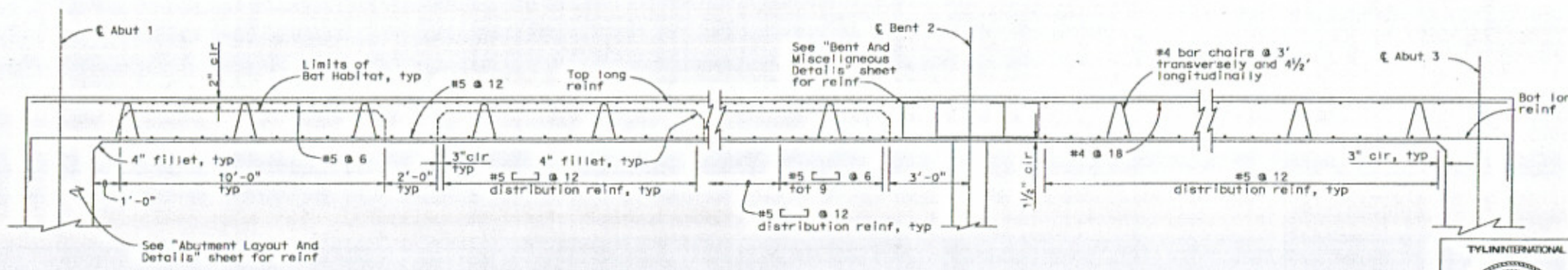
BOTTOM SLAB REINFORCEMENT

No scale



BAR CHAIR DETAIL

No scale



LONGITUDINAL SECTION

No scale

Note:
The Contractor shall verify all controlling field dimension before ordering or fabricating material.

TYLININTERNATIONAL

REGISTERED PROFESSIONAL ENGINEER
DOUGLAS M. LI
Exp. 12-31-98
CIVIL
STATE OF CALIFORNIA

DATE 3/6/98

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CHECKED	K. Ambalakat	12/97
SURVEY FILE	X:\230 \0200\05	

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COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

LAGUNA CREEK BRIDGE REPLACEMENT
SLAB REINFORCEMENT DETAILS
BRADSHAW ROAD WIDENING

(CALVINE ROAD TO FLORIN ROAD)

SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN

DRAWING
S7 OF S22

SHEET
65 of 139

NOTES:

A. Walls are to be backfilled before the barrier is placed.

B. Clearance to reinforcing steel in barrier to be 1", except as noted. Longitudinal reinforcing steel to stop at all expansion joints.

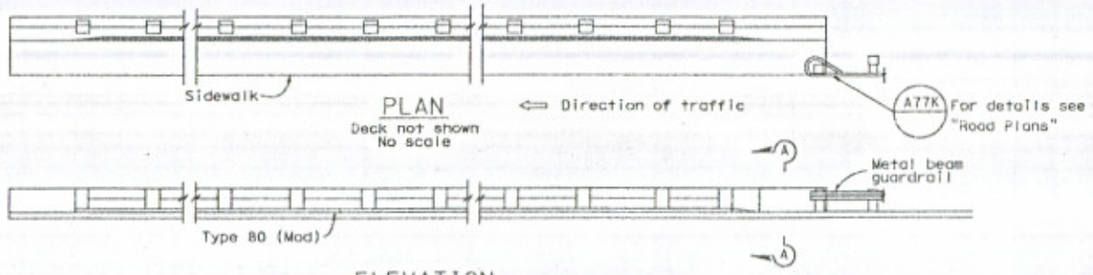
C. The front face dimensions are to be constant above the finish roadway profile, but the overall height will vary with certain thicknesses of surfacing and roadway slopes.

D. Splicing of longitudinal reinforcing shall be by butt welding, mechanical butt splicing, or mechanical lap splicing only. No lap splicing allowed on the longitudinal rail reinforcing. Splicing shall be staggered.

E. Galvanize lower rail assembly after fabrication.

F. This sheet is an English units modification of Caltrans XS 16-060-1

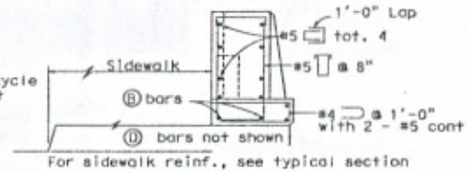
G. Two - 5 inch round future utilities openings are required for each sidewalk. Openings are to be sealed at ends and extended 8 inches minimum past end of sidewalk if not used. Duct forms are to be tied down.



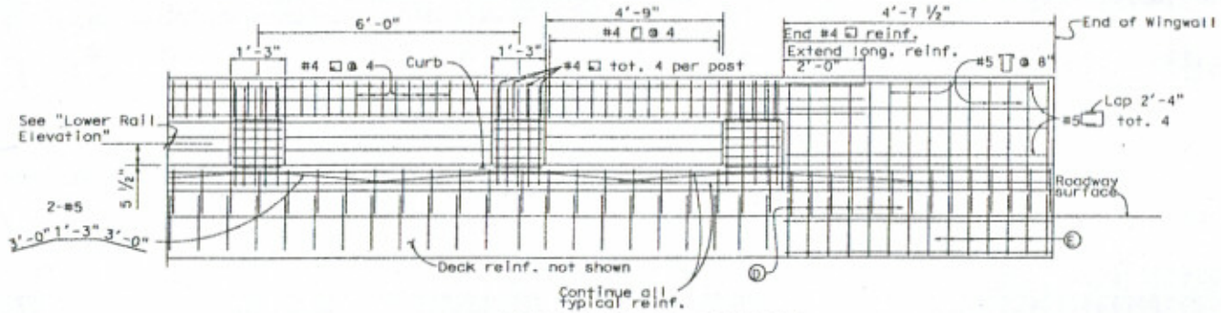
PLAN
Deck not shown
No scale

ELEVATION
No scale

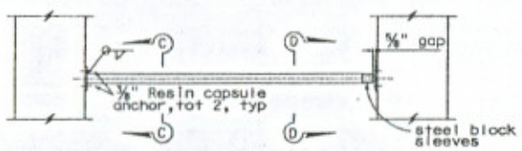
NOTE:
Tubular bicycle railing not shown.



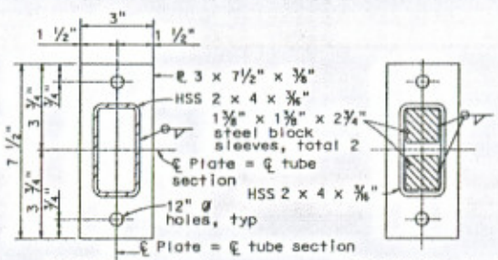
SECTION A-A
No scale



LONGITUDINAL SECTION
Note: Deck or wingwall reinf. not shown.
No scale

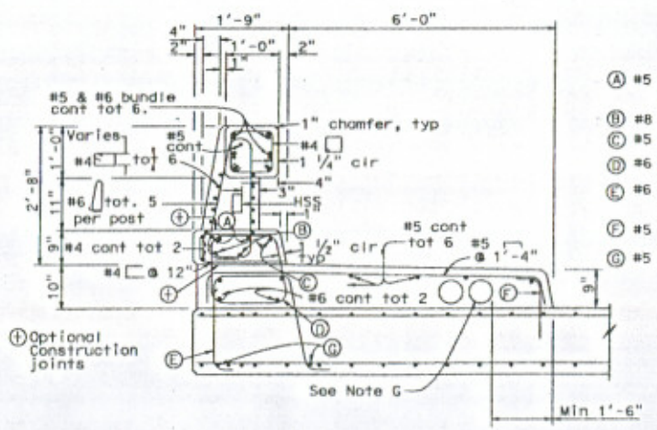


LOWER RAIL ELEVATION
No scale

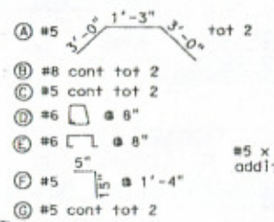


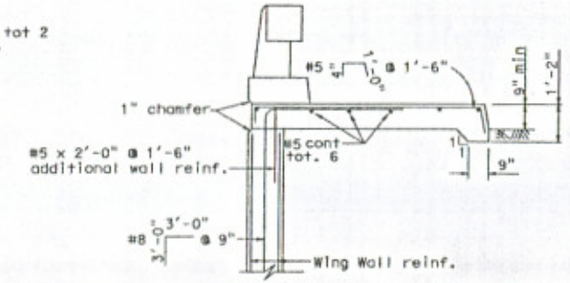
SECTION C-C
No scale

SECTION D-D
No scale



TYPICAL SECTION
No scale





WING WALL
No scale

Note:
The Contractor shall verify all controlling field dimension before ordering or fabricating material.

TYLININTERNATIONAL
REGISTERED PROFESSIONAL ENGINEER
DOUGLAS M. LEE
Exp. 12-31-88
CIVIL
STATE OF CALIFORNIA
DATE: 3/15/88

PREPARED BY		DATE
DRAWN	Staff	11/87
DESIGNED	D.L.	11/87
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SURVEY FILE	X000 RDSDCS	

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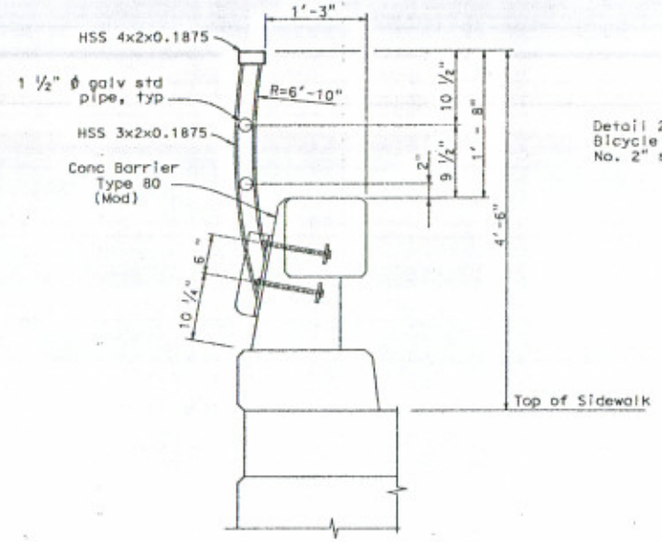
COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

LAGUNA CREEK BRIDGE REPLACEMENT
CONCRETE BARRIER TYPE 80 (MOD)
BRADSHAW ROAD WIDENING
(CALVINE ROAD TO FLORIN ROAD)

SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN
INCHES
MILLIMETERS

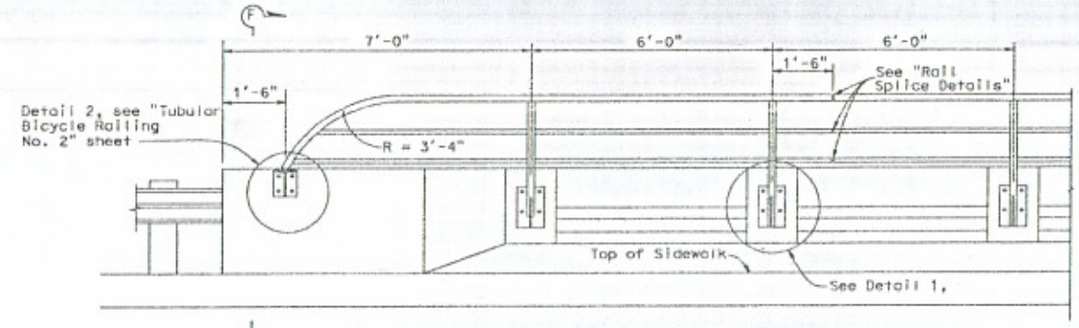
DRAWING
S8 OF S22

SHEET
66 OF 139



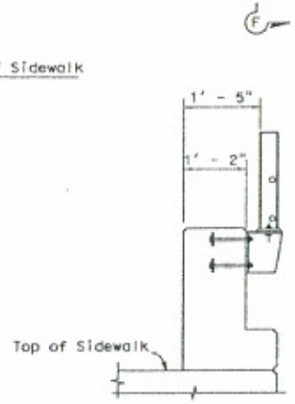
POST ANCHORAGE DETAIL AND TYPICAL SECTION

No scale



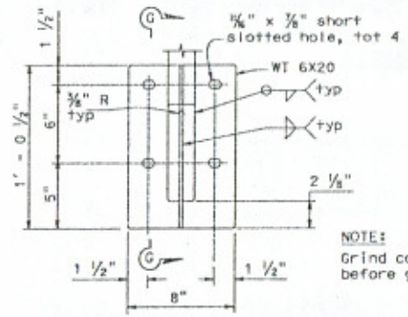
ELEVATION

No scale



SECTION F-F

No scale

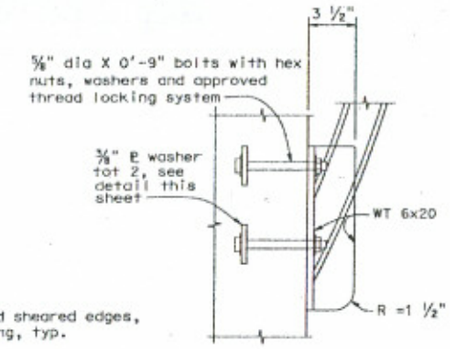


DETAIL 1

No scale

NOTE:

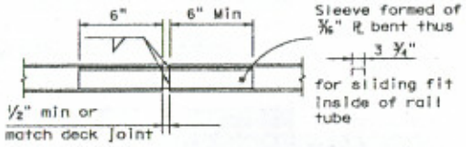
Grind corners and sheared edges, before galvanizing, typ.



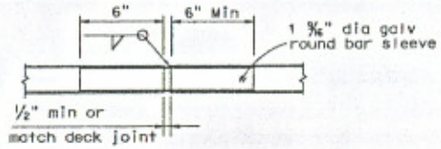
SECTION G-G

No scale

ANCHOR ASSEMBLY DETAILS



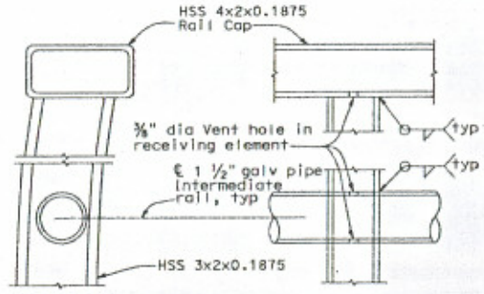
TUBE SPLICE



PIPE SPLICE

RAIL SPLICE DETAILS

No scale

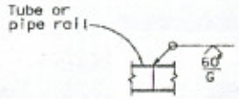


SECTION

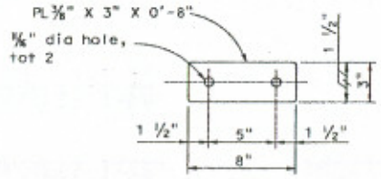
ELEVATION

RAIL CONNECTION DETAILS

No scale



WELDED SPLICE



⅜" PL WASHER

No scale

Note:

The Contractor shall verify all controlling field dimension before ordering or fabricating material.

NOTES:

1. Galvanize rail assembly after fabrication.
2. Post shall be normal to railing.
3. Rail tubes shall be shop bent or fabricated to fit horizontal curve when radius is less than 985 ft.
4. Top and intermediate rail tubes or pipes shall be continuous over not less than two posts except a short post spacing is permitted near deck or wall joints, electroliers, or other rail discontinuities as noted.
5. For details and reinforcement not shown see "Concrete Barrier, Type 80 (Mod)" sheet.

TYLIN INTERNATIONAL

REGISTERED PROFESSIONAL ENGINEER — OGEON K.U. — Exp. 12-31-89 — CIVIL — STATE OF CALIFORNIA

DATE: 3/6/88

PREPARED BY		DATE
DRAWN	Staff	11/87
DESIGNED	G.L.	11/87
CHECKED	K. Anderlaker	12/87
SURVEY FILE	W200 RODGERS	

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COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

LAGUNA CREEK BRIDGE REPLACEMENT
TUBULAR BICYCLE RAILING NO. 1
BRADSHAW ROAD WIDENING
(CALVINE ROAD TO FLORIN ROAD)

SCALE

HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN

NOTES

DRAWING

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SHEET

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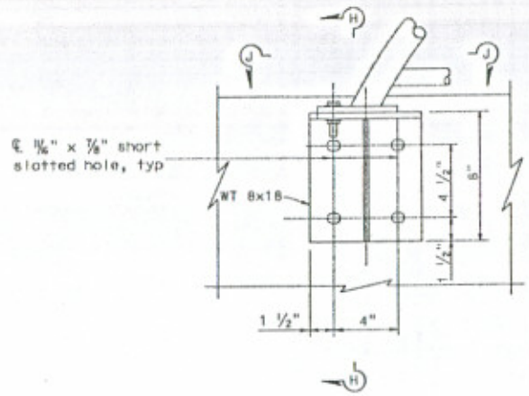
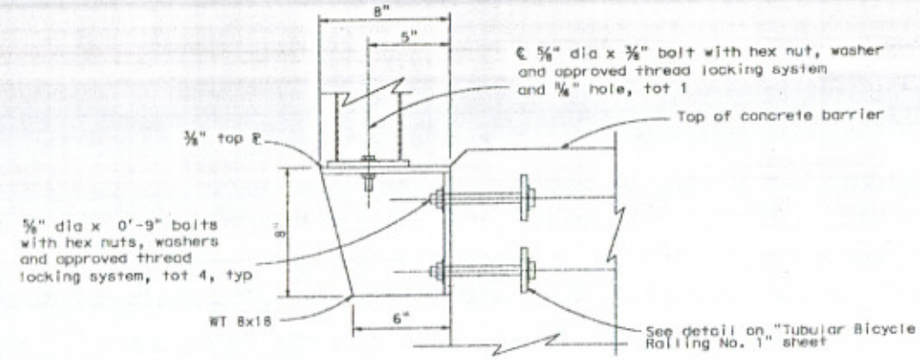
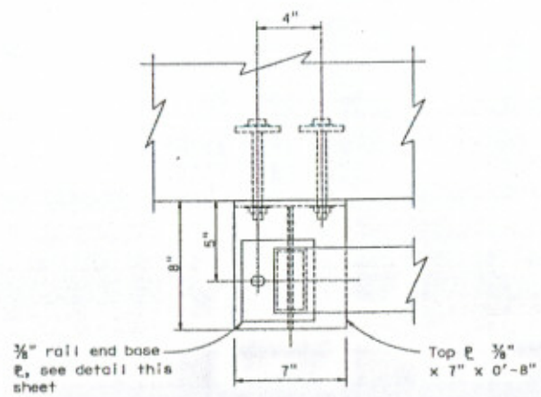


DETAIL 2
No scale



SECTION H-H
No scale



SECTION J-J
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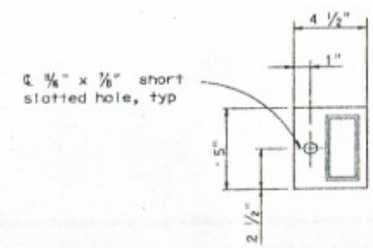

RAIL END BASE ℙ TAIL
No scale

Note:
The Contractor shall verify all controlling field dimension before ordering or fabricating material.

TYLIN INTERNATIONAL
REGISTERED PROFESSIONAL ENGINEER
DEREK M. LI
Exp. 12-31-88
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STATE OF CALIFORNIA
DATE 3/8/88

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CHECKED	K. Anderlicker	12/87
SURVEY FILE	WOOD ROGERS	

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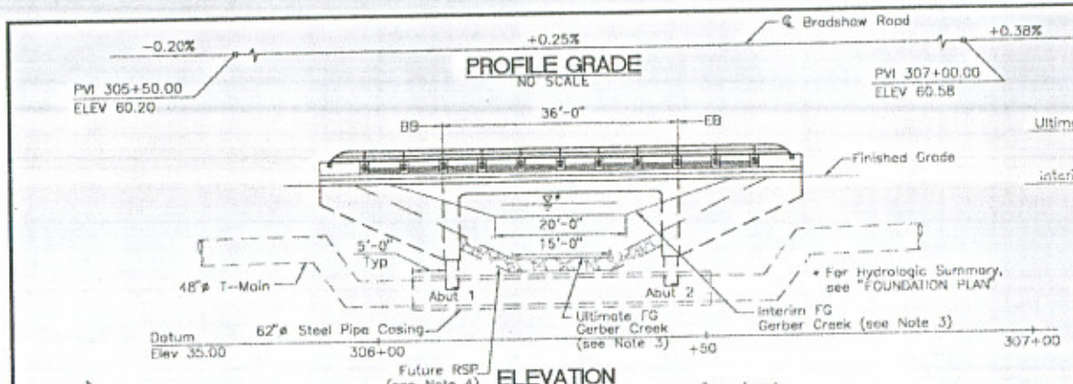
COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

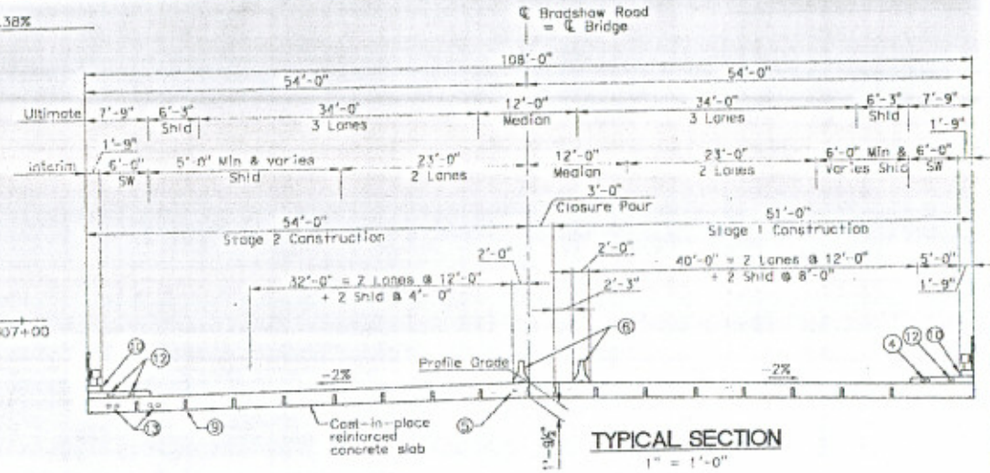
LAGUNA CREEK BRIDGE REPLACEMENT
TUBULAR BICYCLE RAILING NO. 2
BRADSHAW ROAD WIDENING
(CALVINE ROAD TO FLORIN ROAD)

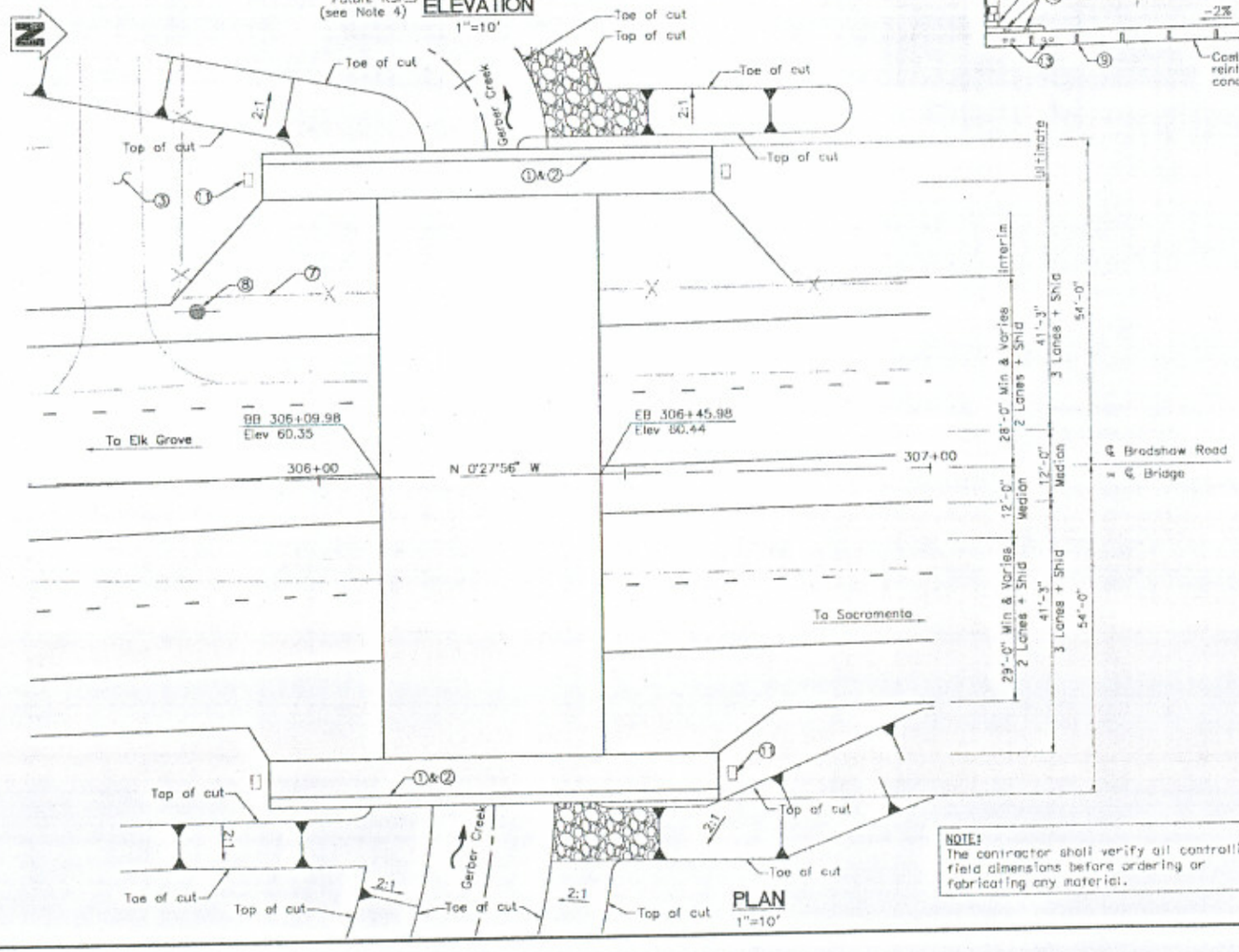
SCALE
HORIZONTAL: NO SCALE
VERTICAL: NO SCALE
INCHES
MILLIMETERS

DRAWING
S10 OF S22

SHEET
68 OF 139







INDEX TO PLANS

Sheet No.	Title
1	GENERAL PLAN
2	DECK CONTOURS
3	FOUNDATION PLAN
4	ABUTMENT DETAILS NO.1
5	ABUTMENT DETAILS NO.2
6	TYPICAL SECTION
7	SLAB REINFORCEMENT DETAILS
8	CONCRETE BARRIER TYPE 80 (MOD)
9	TUBULAR BICYCLE RAILING NO.1
10	TUBULAR BICYCLE RAILING NO.2
11	LOG OF TEST BORINGS

Legend:

Denotes direction of flow

Denotes existing fence to be removed, see "CIVIL PLANS" for limits

Notes:

1. Paint bridge name and year completed
2. Paint bridge number
3. See "CIVIL PLANS" for driveway realingment
4. 5"ø future utility openings, tot 2
5. 2"ø HDPE, tot 2 (see "Electrical Plans")
6. Temporary Concrete Barrier type K, see "CIVIL PLANS" for limits
7. Existing fence to be removed, see "CIVIL PLANS" for limits
8. Overhead utiltiy pole to be relocated, see "CIVIL PLANS" for limits
9. Bat Habitat, see "SLAB DETAILS" for limits and "TYPICAL SECTION" sheet for details
10. Concrete barrier, Type 80 (Mod) w/ tubular bicycle railing (black).
11. Pull Box No.5, see "Electrical Plans" for details
12. (2) 4"ø HDPE for Frontier
13. (2) 6"ø & (2) 4"ø conduits for SMUD

NOTE:
The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

Notes:

1. For "GENERAL NOTES" and "STANDARD PLANS", see "DECK CONTOUR" sheet.
2. For "HYDROLOGIC SUMMARY" and "PILE DATA TABLE", see "FOUNDATION PLAN"
3. Gerber Creek invert elev @ upstream
   Interim = 53.5'
   Ultimate = 47.72'
4. Future Rock Slope Protection ¼ ton Method A, Typ.

WOOD-RODGERS INC.
PROFESSIONAL ENGINEER
Ex. 3-31-09
STATE OF CALIFORNIA
DATE: 3/28

PREPARED BY		DATE
DRAWN:	K. DESBACH	12/4/07
DESIGNED:	J. ENGLAND	12/4/07
CHECKED:	D. U	
SURVEY FILE:	WOOD RODGERS	

WOOD-RODGERS
CIVIL ENGINEERS · LAND SURVEYORS · PLANNERS
3301 C St, Bldg 100-B Sacramento, CA 95816
Tel 916.341.7760 Fax 916.341.7767

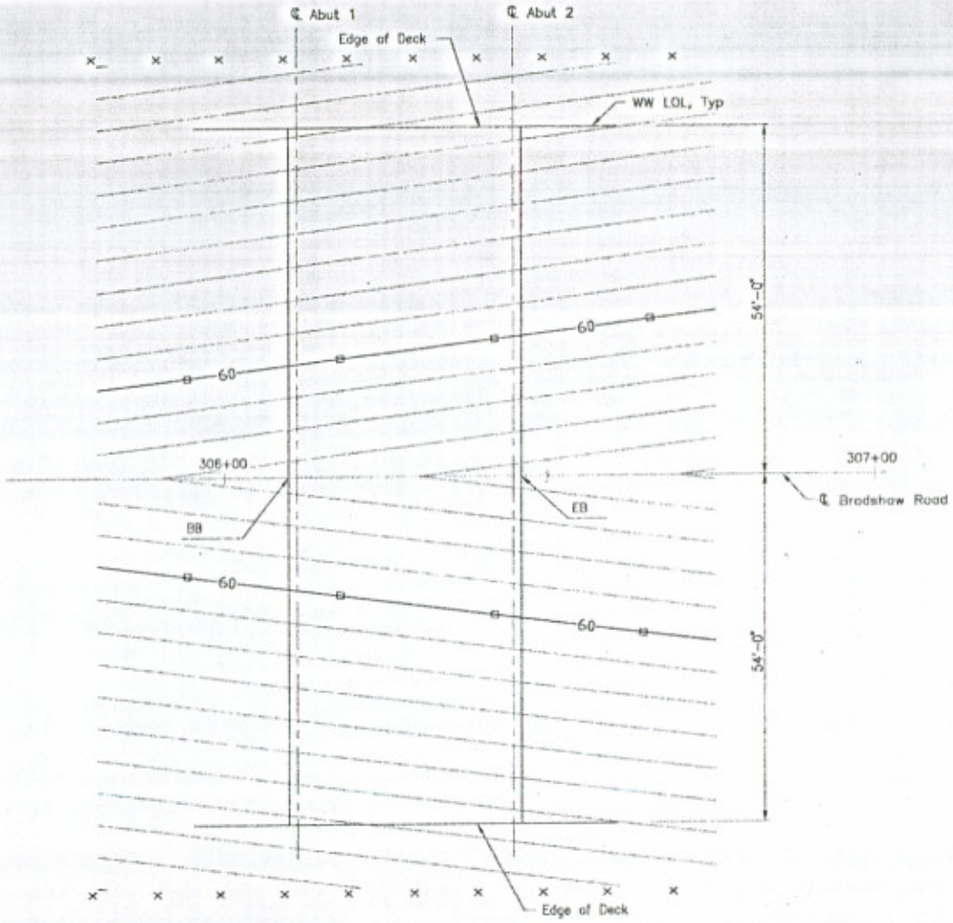
COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

GERBER CREEK BRIDGE
GENERAL PLAN
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

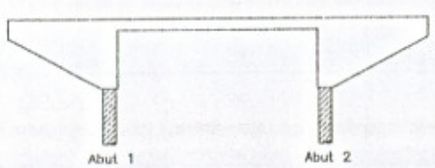
SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN

DRAWING
S12 OF S22

SHEET
70 OF 139



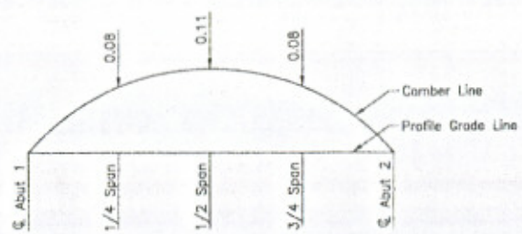
PLAN
1" = 10'



CONCRETE STRENGTH AND CONCRETE TYPE LIMITS
No Scale

Structural Concrete, Bridge (3600 psi @ 28 Days)

Cast-in-Drilled Hole Concrete Pile (3600 psi @ 28 Days)



CAMBER DIAGRAGM
No Scale

Note:
Camber Diagram does not include allowances for falsework settlement

CALTRANS STANDARD PLANS DATED MAY 2006

A10A	Acronyms and Abbreviations (sheet 1 of 2)
A10B	Acronyms and Abbreviations (sheet 2 of 2)
A10C	Symbols (sheet 1 of 2)
A10D	Symbols (sheet 2 of 2)
A62C	Limits of payments for excavation and backfill – Bridge
A77 K1	Metal beam guard railing connections to bridge railing with sidewalks detail no. 1
A77 K2	Metal beam guard railing connections to bridge railing with sidewalks detail no. 2
T-3	Temporary railing (type k)
B0-1	Bridge details
B0-3	Bridge details
B0-5	Bridge details
B2-3	16" and 24" Cast-in-drilled-hole concrete pile
B11-62	Concrete Barrier Type 80 SW (Sheet 1 of 3)
B11-63	Concrete Barrier Type 80 SW (Sheet 2 of 3)
ES-8	Electrical systems (Pull box details)

PLAN SYMBOLS

Caltrans Standard Plan Sheet No.

Detail No.

GENERAL NOTES
LOAD FACTOR DESIGN

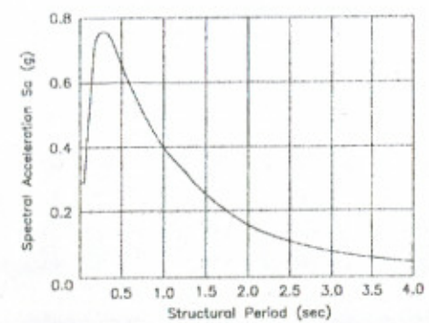
DESIGN: Caltrans Bridge Design Specifications April 2000 (LFD)(1996 AASHTO with Interims and Revisions by CALTRANS)

SEISMIC DESIGN: CALTRANS Seismic Design Criteria (SDC), version 1.4 June 2006

DEAD LOAD: Includes 35 psf for Future Wearing Surface

LIVE LOADING: HS20-44 and Alternative and Permit Design Load

SEISMIC LOADING: SDC ARS Curve for Soil Profile Type C (Mw=7.25 ±.25) (Peak Rock Acceleration = 0.2g) with the following modifications 20% increase of Sa for all structural periods



ARS DESIGN CURVE

REINFORCED CONCRETE:
f_y = 60,000 psi
f'_c = 3,800 psi
n = 8.5

Notes:

1. Contours do not include for camber or falsework settlement.
2. Contour Interval is 0.10'.

Legend:

□ Indicates even foot contours.

× Indicates 10' increments along station line.

NOTE:
The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

WOOD-RODGERS INC.
DATE: 3/3/08

PREPARED BY		DATE
DRAWN:	K. DERSCH	12/14/07
DESIGNED:	J. ENGLAND	12/14/07
CHECKED:	D. U	
SURVEY FIELD:	WOOD RODGERS	

WOOD RODGERS
CIVIL ENGINEERS · PLANNERS · SURVEYORS
3301 C St, Bldg. 100-B Sacramento, CA 95816
Tel 916.341.7760 Fax 916.341.7767

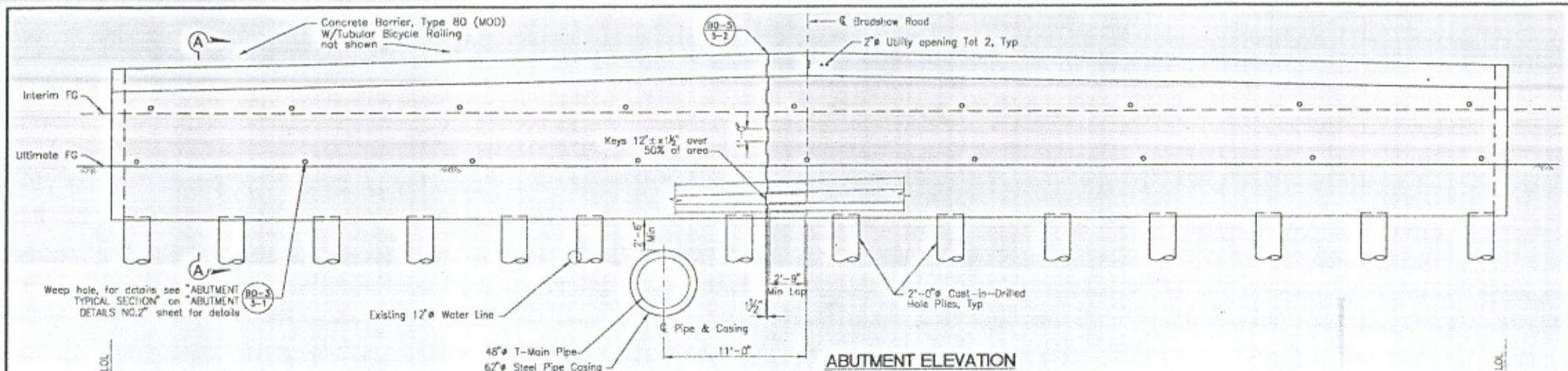
COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

GERBER CREEK BRIDGE
DECK CONTOURS
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN

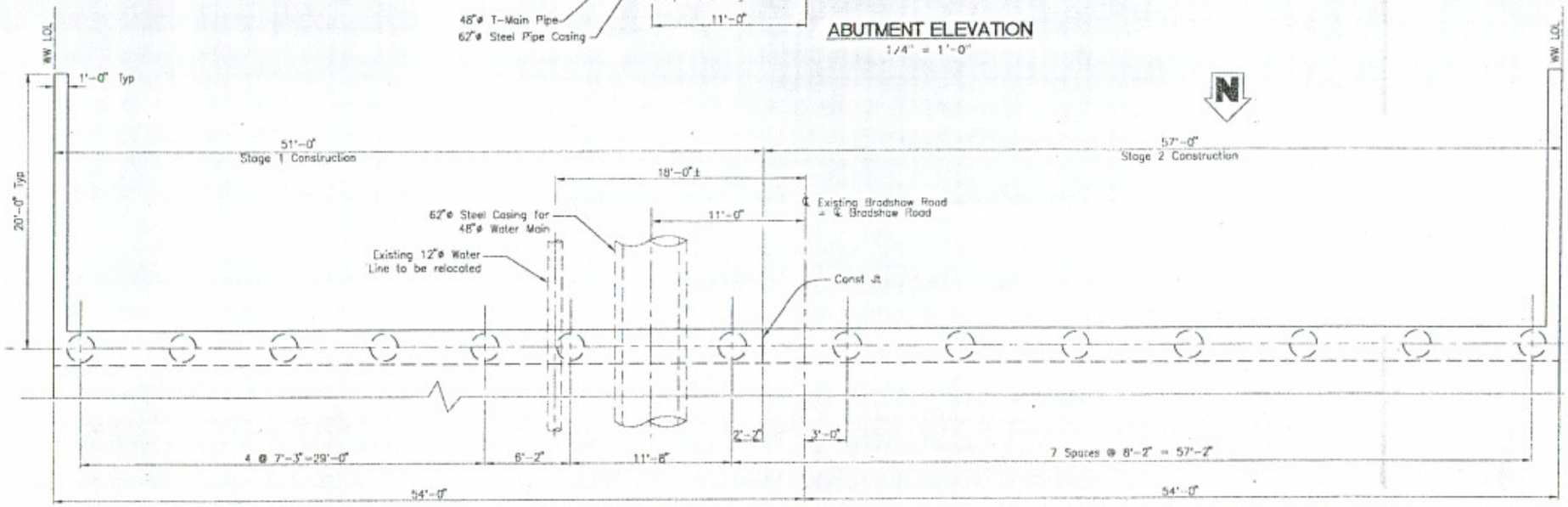
DRAWING
S13 OF S22

SHEET
71 OF 139



ABUTMENT ELEVATION

1/4" = 1'-0"



ABUTMENT PLAN

1/4"=1'-0"

NOTE: Abutment 1 shown, Abutment 2 similar.

NOTES:

1. To avoid conflict of lapped reinforcement from stage 1 construction with stage 2 construction, the contractor may use approved mechanical couplers to connect reinforcement.
2. Backfill behind abutment not to be placed higher than fill in front of abutment until superstructure is in place. After superstructure has been placed, backfill to be placed uniformly at abutment to equalize wall pressure.
3. See "CIVIL PLANS" for Proposed Grades and limits.
4. For "SECTION A-A" and "ABUTMENT TYPICAL SECTION", see "ABUTMENT DETAILS No.2" sheet.
5. For invert elevation of 62"ø steel pipe casing, see "CIVIL PLANS"

NOTE:
The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

WOOD-RODGERS INC.
REGISTERED PROFESSIONAL ENGINEER No. S 3676 Exp. 3-31-09 CIVIL STATE OF CALIFORNIA
DATE:

PREPARED BY		DATE
DRAWN:	K. JOSHAQI	12/14/07
DESIGNED:	J. ENGLAND	12/14/07
CHECKED:	Q. LI	
SURVEY FILE:	WOOD RODGERS	

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MAPPING & SURVEYING
3301 C St, Bldg 100-B Sacramento, CA 95816
Tel 916.341.7760 Fax 916.341.7767

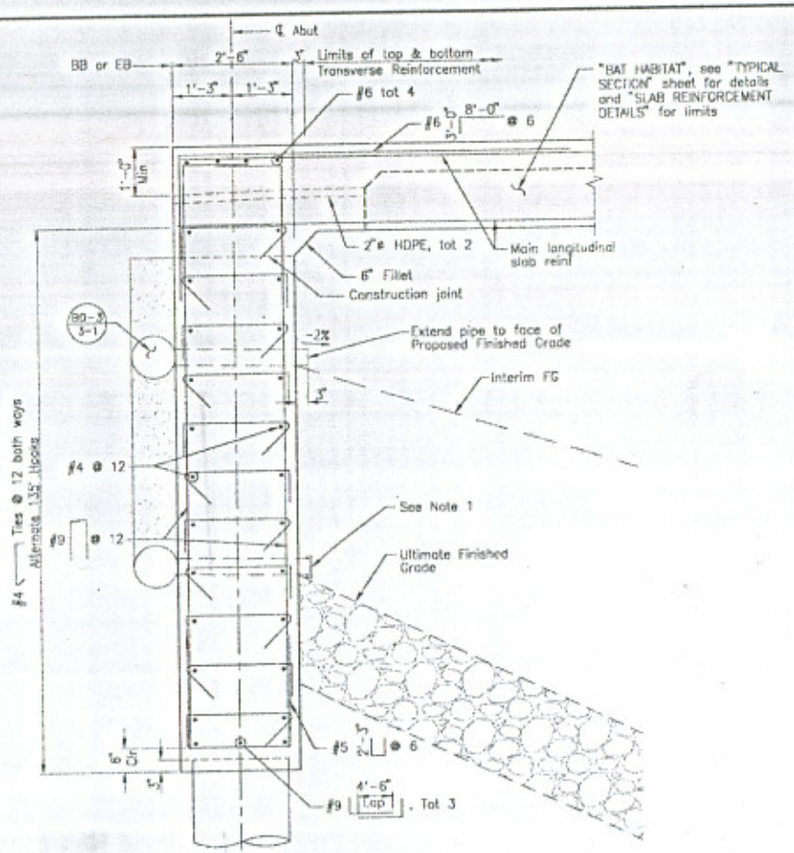
COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

GERBER CREEK BRIDGE
ABUTMENT DETAILS NO.1
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN
INCHES
MILLIMETERS

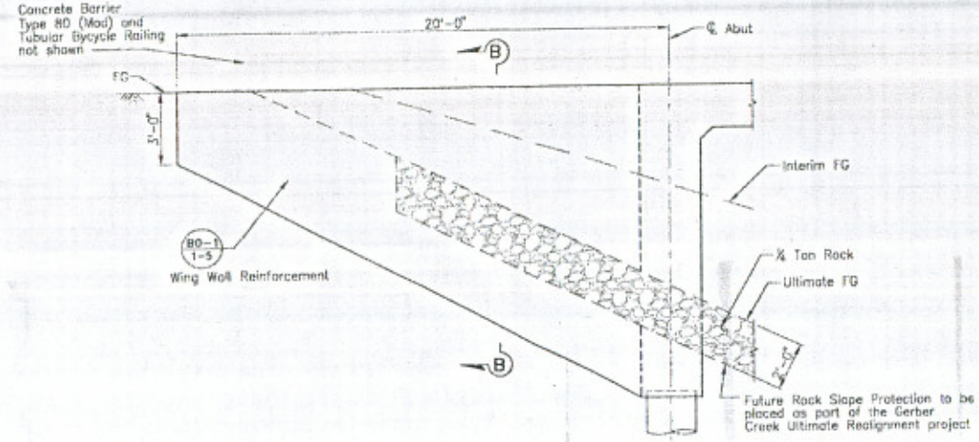
DRAWING
S15 OF S22

SHEET
73 OF 139



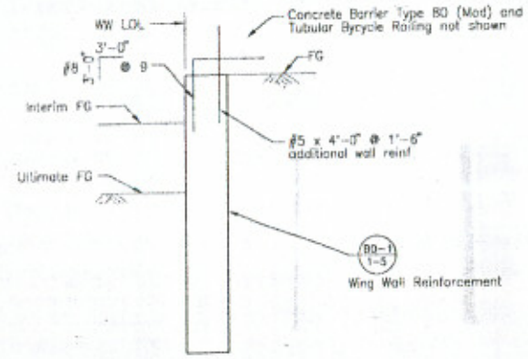
ABUTMENT TYPICAL SECTION

3/4" = 1'-0"



TYPICAL WING WALL ELEVATION

3/8" = 1'-0"



SECTION B-B

3/8" = 1'-0"

Notes:
1. Provide cap at the end of PVC tube during Interim level of overflow Canal.

NOTE:
The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

WOOD-RODGERS INC.
REGISTERED PROFESSIONAL ENGINEER No. S 3576 Exp. 3-31-09 STATE OF CALIFORNIA
DATE: 3/3/08

PREPARED BY

		DATE
DRAWN:	K. DUBBACK	12/14/07
DESIGNED:	J. ENGLAND	12/14/07
CHECKED:	G. U	
SURVEY FILE:	WOOD RODGERS	

WOOD RODGERS
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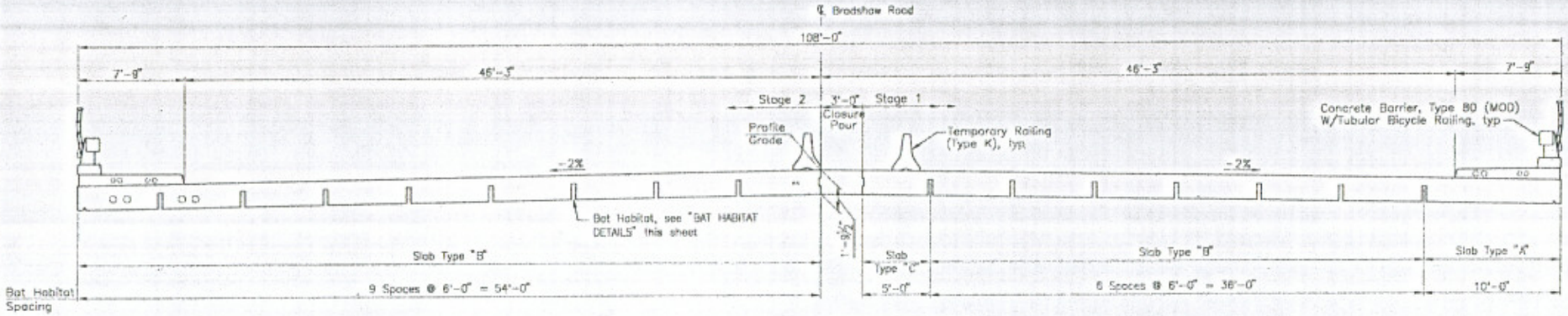
COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

GERBER CREEK BRIDGE
ABUTMENT DETAILS NO.2
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN
INCHES
MILLIMETERS

DRAWING
S16 OF S22

SHEET
74 OF 139



TYPICAL SECTION

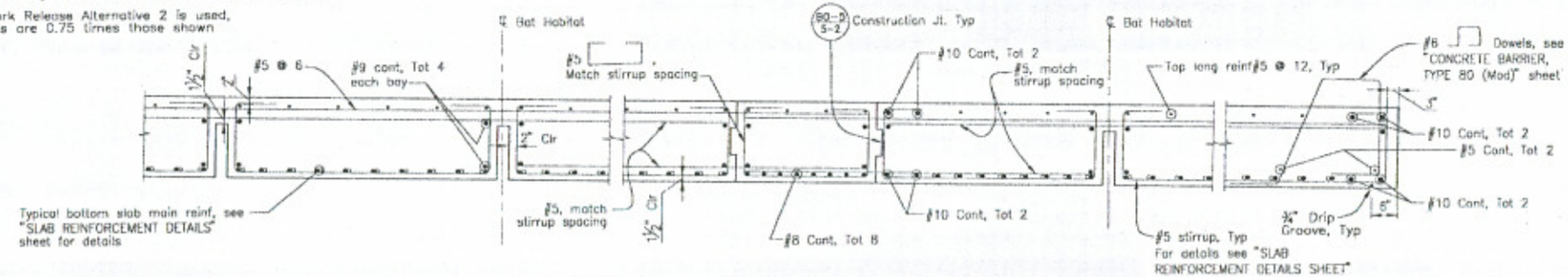
1/4"=1'-0"

FALSEWORK RELEASE

Alternative 1: Falsework shall be released as soon as permitted by the specifications. Closure pour shall not be placed sooner than 60 days after the falsework has been released.

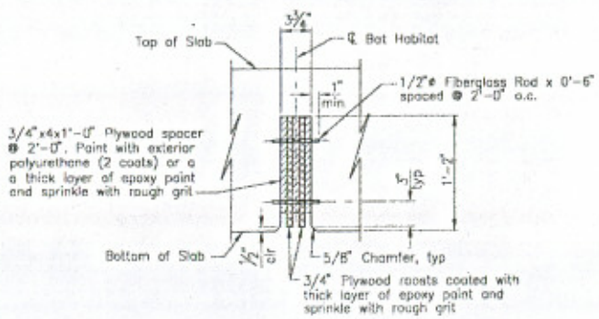
Alternative 2: Falsework shall not be released less than 28 days after the last concrete has been placed. Closure pour shall not be placed sooner than 14 days after the falsework has been released.

When Falsework Release Alternative 2 is used, camber values are 0.75 times those shown



PART TYPICAL SECTION

3/4"=1'-0"



BAT HABITAT DETAILS

NO SCALE

NOTE:
The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

WOOD-RODGERS INC.
REGISTERED PROFESSIONAL ENGINEER
No. S 3576
Exp. 3-31-09
STRUCTURAL
STATE OF CALIFORNIA
DATE: 3/5/08

PREPARED BY		DATE
DRAWN:	K. DESBACH	12/14/07
DESIGNED:	J. ENGLAND	12/14/07
CHECKED:	D. W	
SURVEY FIELD:	WOOD RODGERS	

WOOD-RODGERS
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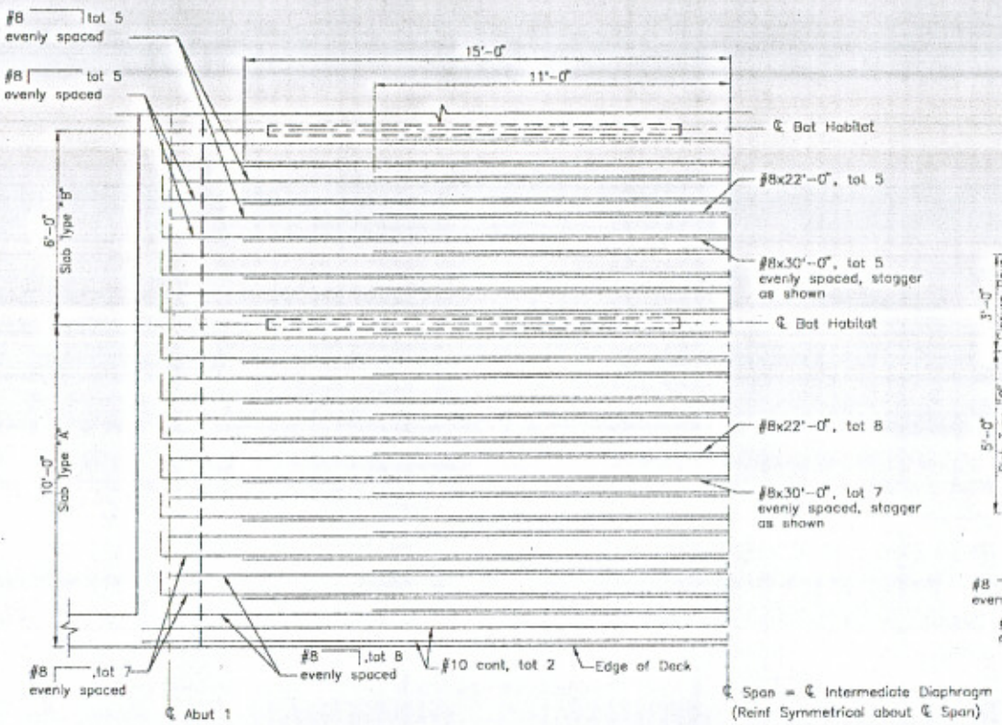
COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

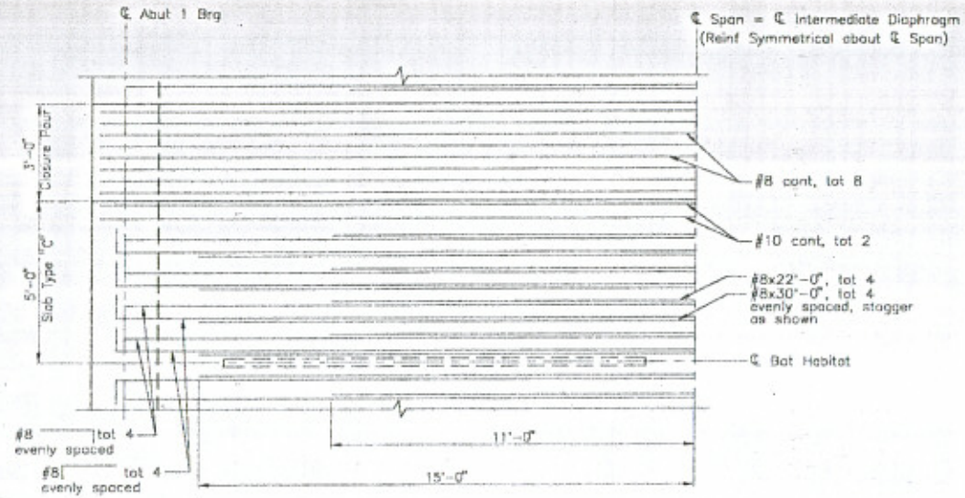
GERBER CREEK BRIDGE
TYPICAL SECTION
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN
INCHES
MILLIMETERS

DRAWING
S17 OF S22

SHEET
75 OF 139

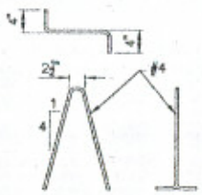




NOTE: For Bot Habitat locations, see "TYPICAL SECTION" on "TYPICAL SECTION" sheet

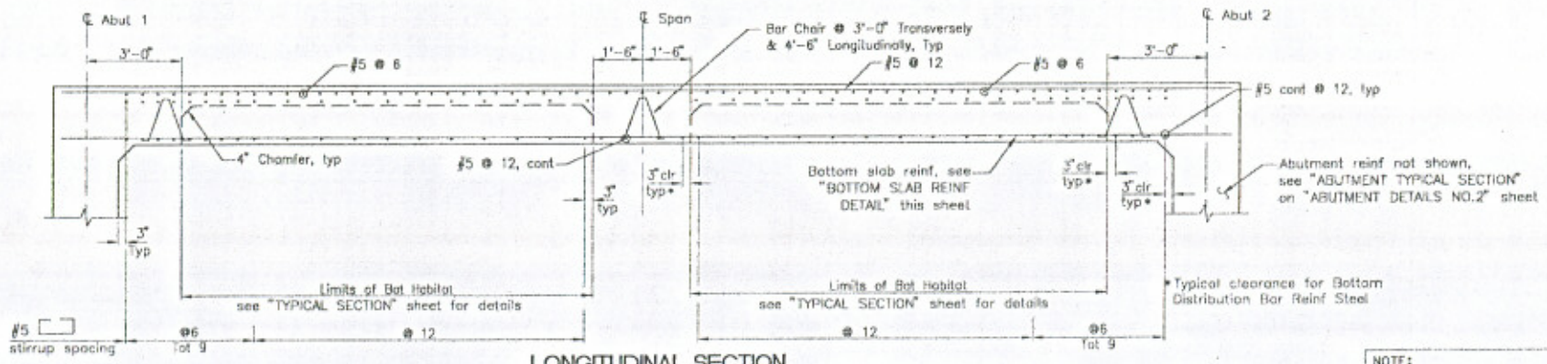
BOTTOM SLAB REINFORCEMENT

3/4"=1'-0"



BAR CHAIR DETAIL

NO SCALE



LONGITUDINAL SECTION

3/4"=1'-0"

NOTES:

1. All longitudinal deck reinforcement shall be placed parallel to the center line of the bridge.
2. No splices allowed in the lonitudinal reinforcement.

NOTE:
The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

WOOD-RODGERS INC.
REGISTERED PROFESSIONAL ENGINEER
No. S 3576
Exp. 3-31-09
STRUCTURAL
STATE OF CALIFORNIA
DATE: 3/5/08

PREPARED BY		DATE
DRAWN	K. DESBACH	12/14/07
DESIGNED	J. ENGLAND	12/14/07
CHECKED	D. U.	
SURVEY FILE	WOOD RODGERS	

WOOD-RODGERS
ENGINEERING • PLANNING • SURVEYING
8401 O St, Bldg. 100-B Sacramento, CA 95818
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COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

GERBER CREEK BRIDGE
SLAB REINFORCEMENT DETAILS
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN
INCHES
MILLIMETERS

DRAWING
S18 OF S22

SHEET
76 OF 139

NOTES:

A. Walls are to be backfilled before the barrier is placed.

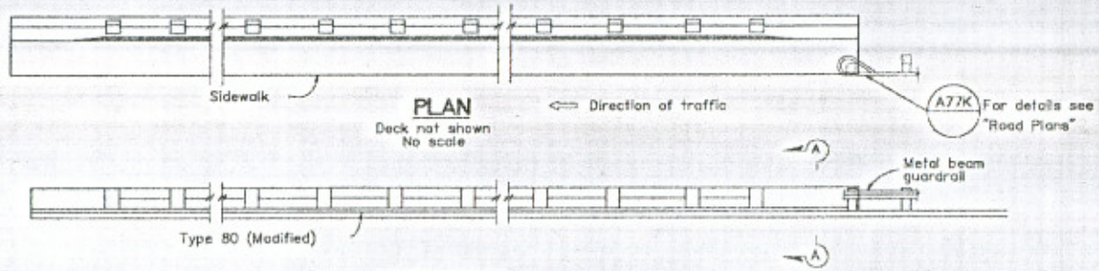
B. Clearance to reinforcing steel in barrier to be 1", except as noted. Longitudinal reinforcing steel to stop at all expansion joints.

C. The front face dimensions are to be constant above the finish roadway profile, but the overall height will vary with certain thicknesses of surfacing and roadway slopes.

D. Splicing of longitudinal reinforcing shall be by butt welding, mechanical butt splicing, or mechanical lap splicing only. No lap splicing allowed on the longitudinal rail reinforcing. Splicing shall be staggered.

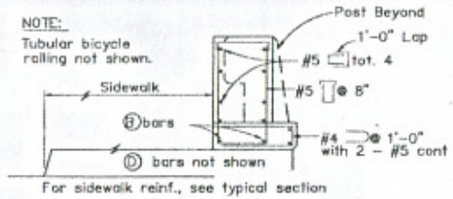
E. Galvanize lower rail assembly after fabrication.

F. A minimum of two 5" round openings are required for future utilities. Openings are to be sealed at ends and extended 8" min past end of sidewalk. Duct forms are to be tied down.

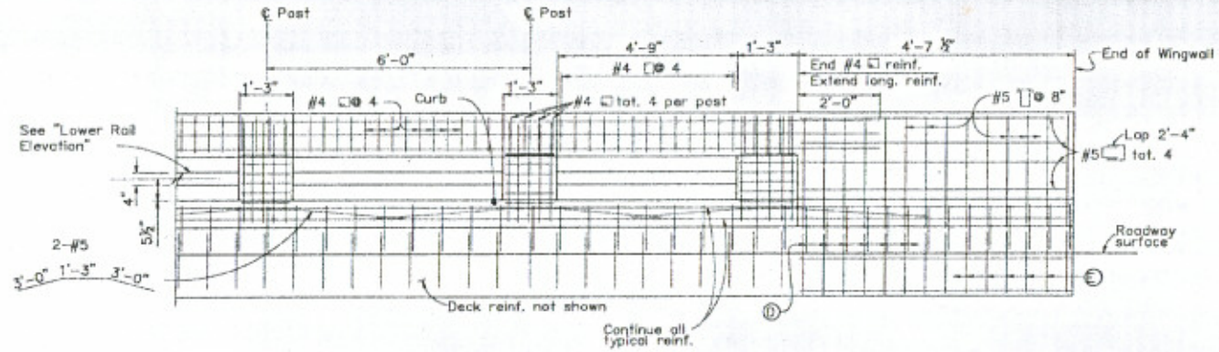


PLAN
Deck not shown
No scale

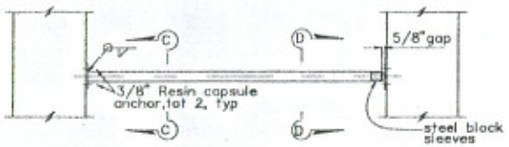
ELEVATION
No scale



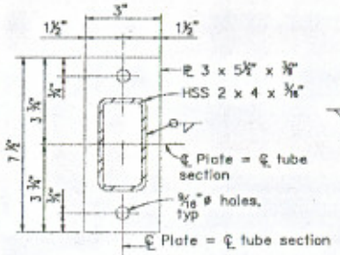
SECTION A-A
No scale



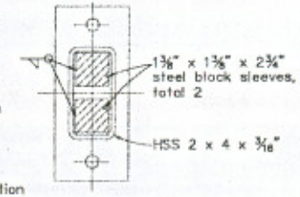
LONGITUDINAL SECTION
Note: Deck or wingwall reinf. not shown.
No scale



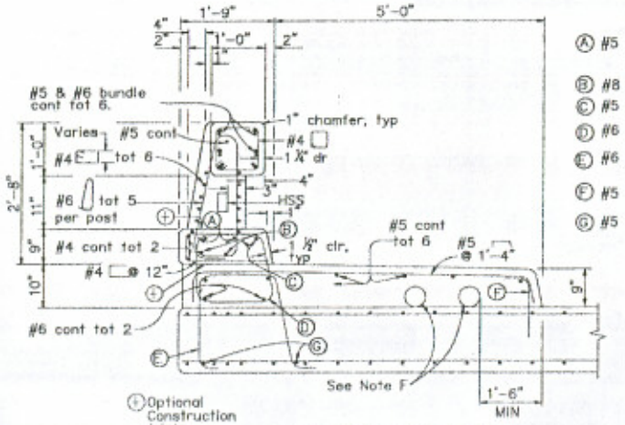
LOWER RAIL ELEVATION
No scale



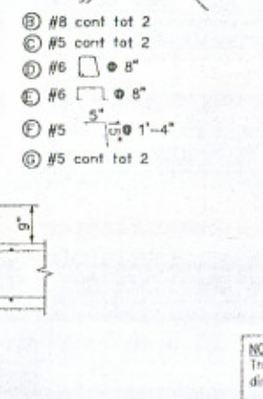
SECTION C-C
No scale

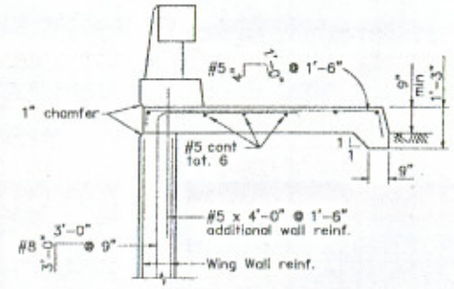


SECTION D-D
No scale



TYPICAL SECTION
No scale





WING WALL
No scale

NOTE:
The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

WOOD-RODGERS INC.
DATE: 3/28

PREPARED BY		DATE
DRAWN:	K. DESHAZO	12/31/07
DESIGNED:	J. ENGLAND	12/31/07
CHECKED:	D. U.	
SURVEY FILE:	WOOD RODGERS	

WOOD RODGERS
INCORPORATED
3001 G St, Bldg 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

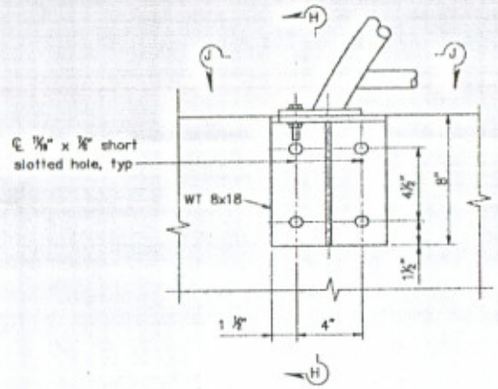
COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

GERBER CREEK BRIDGE
CONCRETE BARRIER TYPE 80 (MOD)
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN
INCHES
MILLIMETERS

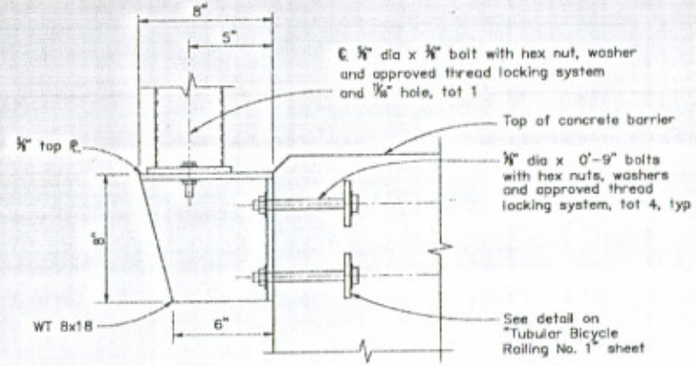
DRAWING
S19 OF S22

SHEET
77 OF 139



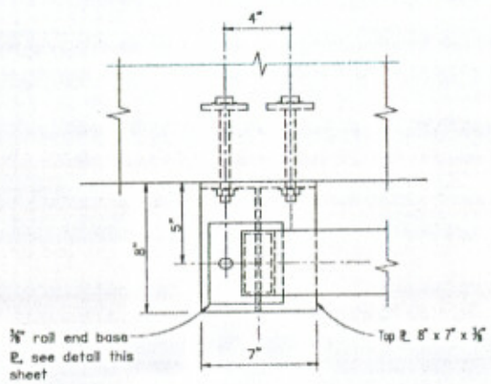
DETAIL 2

No scale



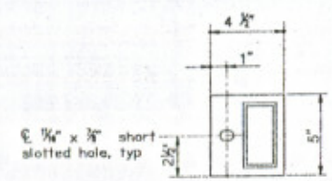
SECTION H-H

No scale



SECTION J-J

No scale



RAIL END BASE ℙ TAIL

No scale

NOTE:
The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

WOOD-RODGERS INC.

PROFESSIONAL ENGINEER No. S 3578 Exp. 3-31-08 STRUCTURAL STATE OF CALIFORNIA

DATE: 3/5/08

PREPARED BY		DATE
DRAWN:	K. DESBACH	12/14/07
DESIGNED:	J. ENGLAND	12/14/07
CHECKED:	D. U.	
SURVEY FILE:	WOOD RODGERS	

WOOD RODGERS
ENGINEERING • MAPPING • PLANNING • SURVEYING
3301 C St. Bldg. 100-B Sacramento, CA 95816
Tel 916.341.7760 Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

GERBER CREEK BRIDGE
TUBULAR BICYCLE RAILING NO.2
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE

HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN

DRAWING

S21 or S22

SHEET

79 of 139

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	SAC				

REGISTERED ENGINEER-GEOTECHNICAL

PLANS APPROVAL DATE

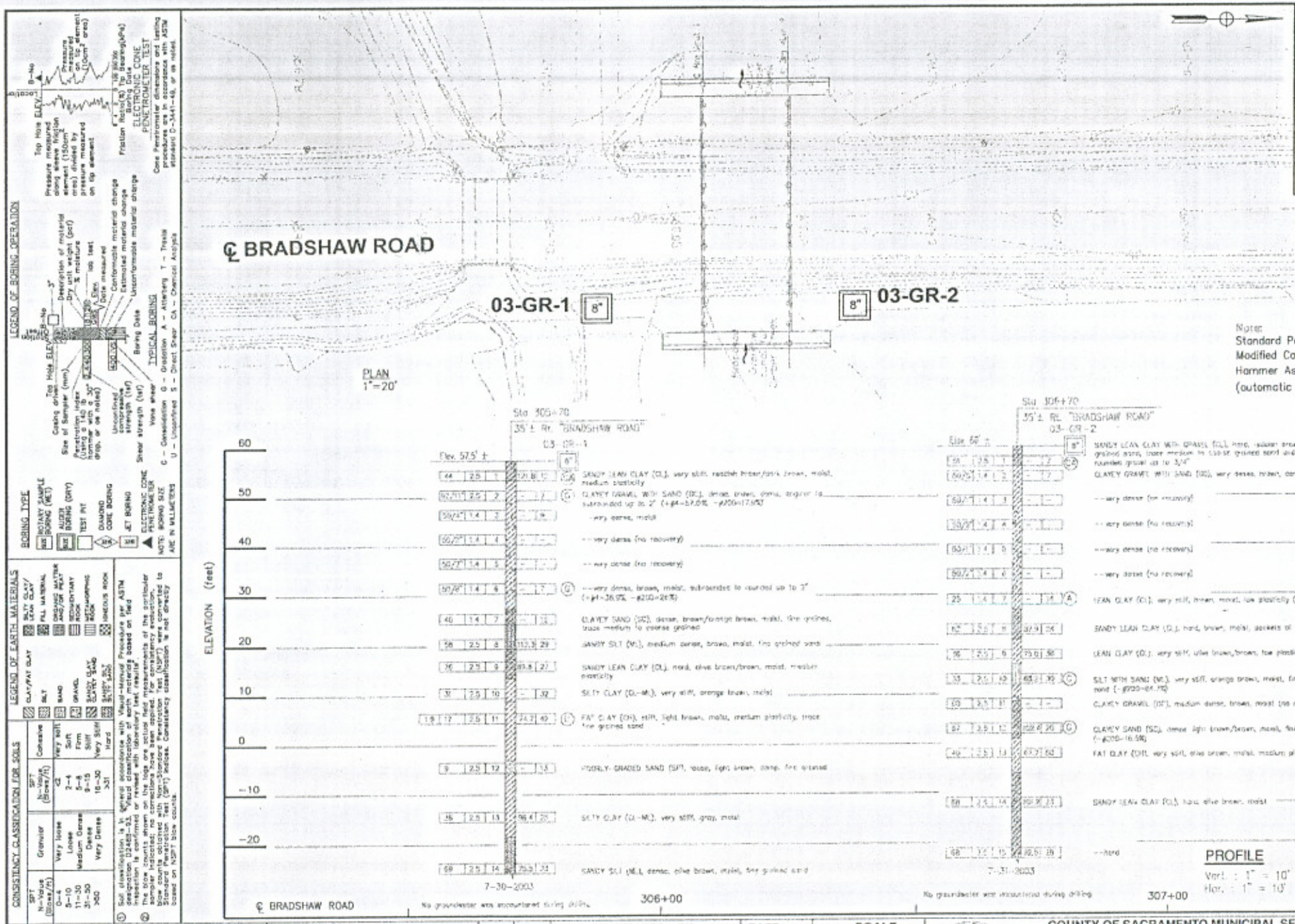
PARIKH CONSULTANTS, INC.
358 S. MILPITAS BLVD
MILPITAS CA 95035

The County of Sacramento or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

BENCH MARK:
Sac County BM 110
Nail & Washer
Sac Co. "B-1"
NE. Ret. @ Calvine and Carmencita

BENCH MARK:
Sac County BM 113
2" B.D. Sac Co. DPW
"B-88-16" at end of Hedge Rd & Calvine

Notes
Standard Penetration Test sampler: I.D. = 1.4"; O.D. = 2"
Modified California Sampler: I.D. = 2.5"; O.D. = 3"
Hammer Assembly: A 140 lb hammer with a 30" drop (automatic hammer)



PROJECT NO.	SURVEY	REVISION	DESCRIPTION	BY	DATE	PREPARED BY		DATE	SCALE
FACILITY CODE	DATUM					FIELD INVESTIGATOR:	DENNIS ALEXANDER	7-31-03	HORIZONTAL: 1" = 10'
						DRAWN BY:	FRANK WANG	8-21-03	VERTICAL: 1" = 10'
WORK AUTHORIZATION	FILE No. :					PROJECT ENGINEER:	A. KOZOMPOUS	8-22-03	INCHES
						CHECKED BY:	A. KOZOMPOUS	2-23-04	MILLIMETERS

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

GERBER CREEK BRIDGE
LOG OF TEST BORINGS
BRADSHAW ROAD WIDENING - CALVINE ROAD TO FLORIN ROAD

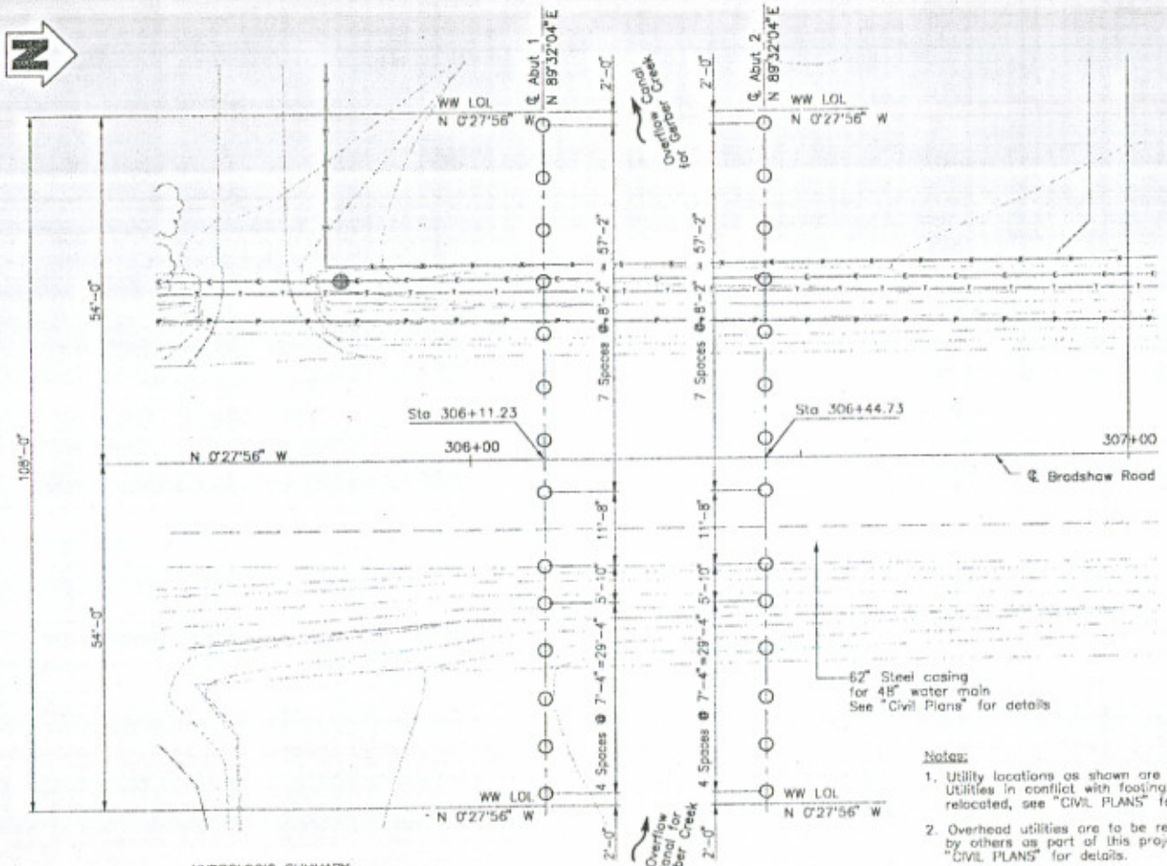
DRAWING S22 OF S22
SHEET 20 of 139

PLATE A-1

PILE DATA TABLE

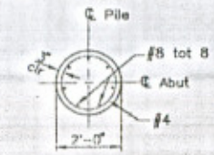
Location	Pile Type	Design Loading (Service)(Tons)	Nominal Resistance (tons) Compression	Tension	Cutt-Off Elev (ft)	Design Tip Elev (Ft)	Specified Tip Elev (Ft)
Abut 1	24" CIDH	70	140	0	47.75	12.00 (1)&(3)	12.00
Abut 2	24" CIDH	70	140	0	47.75	12.00 (1)&(3)	12.00

*Design tip elevation is controlled by the following demands:
(1) Compression, (2) Lateral Loads (3) Scour Potential exists to Elev 47 Ft.

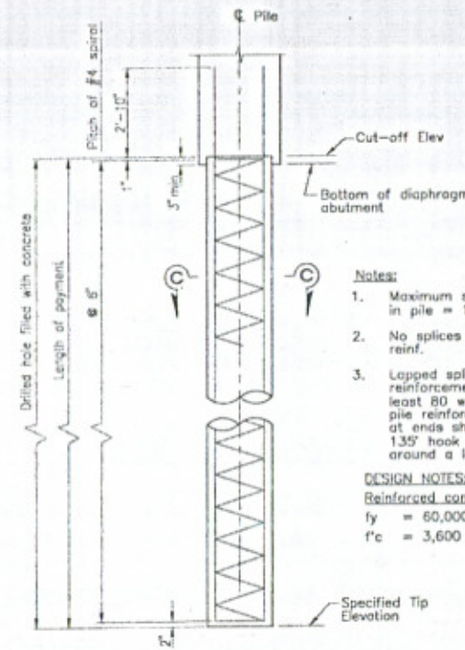


PLAN
1" = 10'

Notes:
1. Utility locations as shown are approximate. Utilities in conflict with footings will be relocated, see "CIVIL PLANS" for details.
2. Overhead utilities are to be relocated by others as part of this project, see "CIVIL PLANS" for details.



SECTION C-C
1/2" = 1'-0"



Notes:
1. Maximum size of aggregate in pile = 1".
2. No splices allowed in longitudinal reinf.
3. Lapped splices in spiral pile reinforcement shall be lapped at least 80 wire/bar diameters. Spiral pile reinforcement at splices and at ends shall be terminated with a 135° hook with a 6" tail hooked around a longitudinal bar.

DESIGN NOTES:
Reinforced concrete
fy = 60,000 psi
f'c = 3,600 psi

Specified Tip Elevation

24" CIDH PILE (140 KIP) DESIGN CAPACITY
1/2" = 1'-0"

HYDROLOGIC SUMMARY:
Drainage Area: 2.9 Square Miles

	Design Flood Interim	Design Flood Ultimate
FREQUENCY (YEARS)	Q100	Q100
DISHCHARGE (CUBIC FEET PER SECOND)	396	346
WATER SUFACE ELEVATION (AT BRIDGE)	58.18	54.16

Flood of record not available.

Flood plain data are based upon information available when the plans were prepared and are shown to meet federal requirements. The accuracy of said information is not warranted by the County or Wood Rodgers and interested of affected parties should make their own investigation.

NOTE:
The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

Legend:
- ○ Denotes Cast-in-Drilled Hole Concrete Pile
- —•— Denotes existing fence to be removed, see "CIVIL PLANS" for limits
- ---P--- Denotes Fuel Line, see "Civil Plans" for disposition
- ---E--- Denotes Overhead Electrical Line, see "Civil Plans" for disposition
- ---T--- Denotes Overhead Telephone Line, see "Civil Plans" for disposition

WOOD-RODGERS INC.
No. S 3576 Exp. 3-31-09 STATE OF CALIFORNIA
DATE: 3/3/08

PREPARED BY		DATE
DRAWN	K. DESRAIS	12/14/07
DESIGNED	J. ENGLAND	12/14/07
CHECKED	D. U	
SURVEY FILE: WOOD RODGERS		

WOOD RODGERS
ENGINEERING • PLANNING • PLANNING • SURVEYING
3301 C St. Bldg. 100-B Sacramento, CA 95816
Tel 916-341-7760 Fax 916-341-7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICE AGENCY
DEPARTMENT OF TRANSPORTATION

GERBER CREEK BRIDGE FOUNDATION PLAN
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: AS SHOWN
VERTICAL: AS SHOWN
INCHES
MILLIMETERS

DRAWING
S14 OF S22

SHEET
72 OF 139

LEGEND

EXISTING

- WETLAND
- EDGE OF PAVEMENT
- UNDERGROUND PETROLEUM PIPELINE
- OVERHEAD ELECTRIC
- OVERHEAD TELEPHONE
- JOINT TRENCH
- STORM DRAIN
- SEWER
- WATER
- CULVERT
- FENCE
- TREE
- UTILITY POLE
- STREET NAME SIGN
- ROADSIDE SIGN
- 122-0130-009 ASSESSOR'S PARCEL NO.
- ELECTROLIER
- SIDEWALK RAMP

IMPROVEMENTS

- SIDEWALK RAMP PER COUNTY STD DETAILS 4-23-A AND 4-24
- AC OVERLAY
- CONSTRUCT AC PED WALK
- COLD PLANE AC PAVEMENT
- PROPOSED TRAPEZOIDAL DITCH
- PROPOSED V-DITCH
- SWALE DRAIN SYSTEM
- MANHOLE
- DRAINAGE INLET
- DRAIN PIPE WITH FLARED END SECTION
- STORM DRAIN
- WATER
- PERMANENT EASEMENT (DRAINAGE SLOPE)
- TEMPORARY CONSTRUCTION EASEMENT
- NEW OR RELOCATED UTILITY POLE
- OVERLAND RELEASE ARROW
- DRAIN INLET PROTECTION
- MONUMENT

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE PAVEMENT
AVRV	AIR VACUUM RELIEF VALVE
BC	BEGIN CURVE
BCR	BEGIN CURVE RETURN
BM	BENCH MARK
BVC	BEGIN VERTICAL CURVE
BOW	BACK OF WALK
℄ ,CL	CENTER LINE, CLASS
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CONST	CONSTRUCT
CR	CURB RETURN OR CREEK
CT	COURT
D	DISTANCE
DI	DRAINAGE INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DR	DRIVE
DWG	DRAWING
DWY	DRIVEWAY
E	EAST
EA	EACH
EC	END CURVE
ECR	END CURVE RETURN
ELEV, EL	ELEVATION
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EX, EXIST	EXISTING
EVC	END OF VERTICAL CURVE
F.E.S.	FLARED END SECTION
FH	FIRE HYDRANT
FL, ℄	FLOW LINE
GR	GRATE
GB	GRADE BREAK
HP	HINGE POINT
HDPE	HIGH DENSITY POLYETHYLENE
HS	SEWER HOUSE SERVICE
INV	INVERT
JP	JOINT POLE
L	LENGTH
LF	LINEAR FEET
LT	LEFT
MBGR	METAL BEAM GUARD RAILING
MAX	MAXIMUM
MH	MANHOLE
MH(D)	STORM DRAIN MANHOLE
MH(S)	SANITARY SEWER MANHOLE
MIN	MINIMUM
N	NORTH
N/A	NOT APPLICABLE
NB	NORTH BOUND
NO.	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OG	ORIGINAL GROUND
OH	OVERHEAD
PCC	POINT OF COMPOUND CURVE OR PORTLAND CEMENT CONCRETE
PED	PEDESTRIAN
PG	PROFILE GRADE
PI	POINT OF INTERSECTION
PIVC	POINT OF INTERSECTION VERTICAL CURVE
PL	PROPERTY LINE
PRC	POINT OF REVERSE CURVATURE
PT	POINT
PVMT	PAVEMENT
R	RADIUS
RD	ROAD
RP	RADIAL POINT
RR	RAILROAD
RAC	ASPHALT RUBBER CONCRETE HOT MIX, GAP GRADED (ARHM-GG)
RSP	ROCK SLOPE PROTECTION
RCP	REINFORCED CONCRETE PIPE
RT	RIGHT
R/W	RIGHT OF WAY
RW LOL	RIGHT OF WAY LAYOUT LINE
S	SOUTH
SB	SOUTH BOUND
SE	SANITARY SEWER EASEMENT
SHT	SHEET
STA	STATION
STD	STANDARD
SW	SIDEWALK
T	TANGENT
TBC	TOP BACK OF CURB
TEMP	TEMPORARY
TYP	TYPICAL
TP	TELEPHONE POLE
VAR	VARIES
VERT	VERTICAL
W	WIDTH
WM	WATER MAIN

WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER LIN K. CHONG No. 50778 Exp. 12/31/08 CIVIL STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY

		DATE
DRAWN	F. NOSTRATIS	
DESIGNED	L. CHONG	
CHECKED	A. HEMATI	
SURVEY FILE		

WOOD RODGERS
ENGINEERING • MAPPING • PLANNING • SURVEYING
3301 C St, Bldg. 100-B Sacramento, CA 95816
Tel 916.341.7760 Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

LEGENDS AND ABBREVIATIONS
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE

HORIZONTAL: AS SHOWN

VERTICAL:

INCHES 0 1

0 10 20 30 40 50 MILLIMETERS

DRAWING

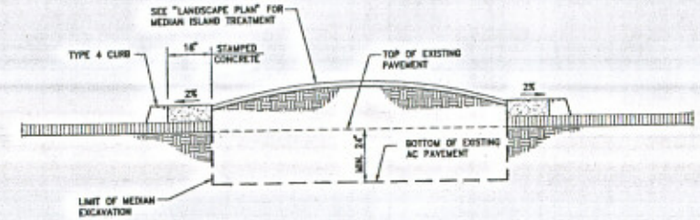
G1 OF G1

SHEET

2 OF 139

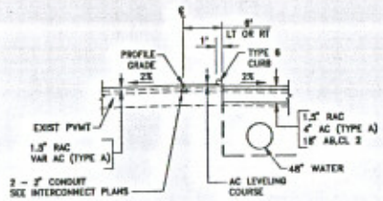
NOTES:

1. EXISTING STRUCTURAL SECTION SHOWN TO BE REMOVED WITHIN THE PROPOSED ROADWAY SHALL BE REMOVED AS PART OF ROADWAY EXCAVATION.
2. EXISTING STRUCTURAL SECTION SHOWN TO BE REMOVED WITHIN THE PROPOSED MEDIAN ISLAND SHALL BE REMOVED AS PART OF MEDIAN EXCAVATION.
3. SEE LANDSCAPE AND IRRIGATION PLANS FOR MEDIAN ISLAND TREATMENTS.
4. IN MEDIAN AREAS, OVERLAY TO 18" BEHIND FACE OF MEDIAN CURB OR TO CENTERLINE OF MEDIAN ISLAND WHERE MEDIAN ISLAND IS LESS THAN 4' WIDE.

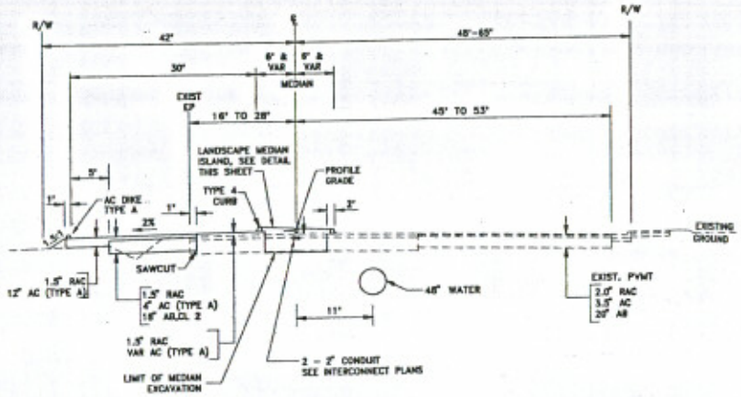


LANDSCAPING MEDIAN ISLAND DETAIL

NOT TO SCALE

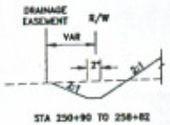


1' WIDE MEDIAN

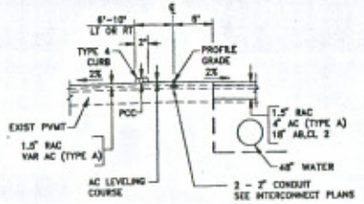


BRADSHAW ROAD

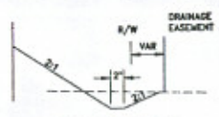
STA 234+32 TO 248+22



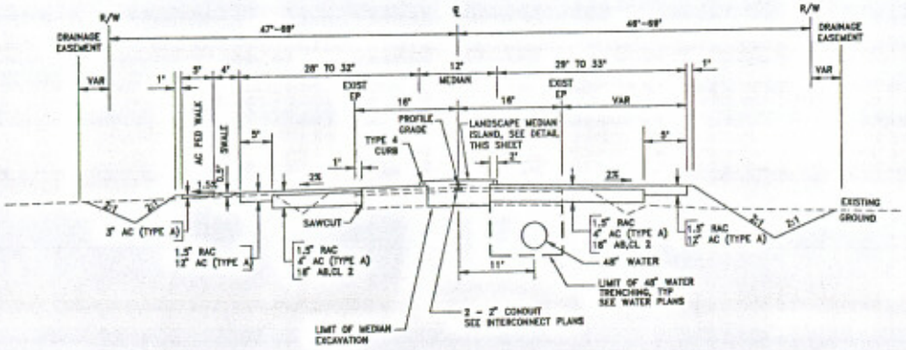
STA 250+90 TO 258+82



2' WIDE MEDIAN

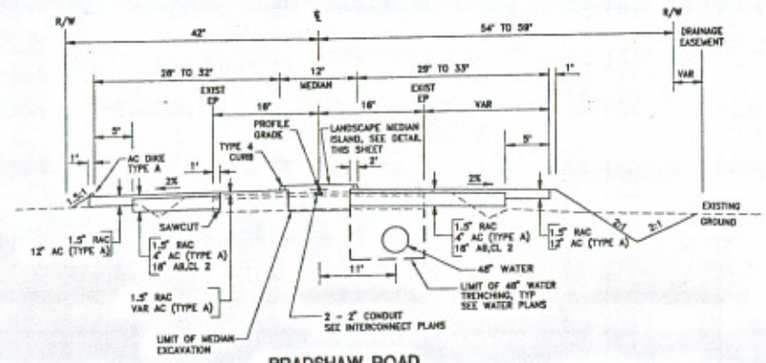


STA 210+39 TO 217+00
STA 246+25 TO 257+65
STA 289+50 TO 289+30
STA 340+03 TO 341+95



BRADSHAW ROAD

STA 206+49 TO 207+00 STA 269+00 TO 287+00
STA 218+00 TO 219+85 STA 309+00 TO 343+83
STA 248+22 TO 263+00



BRADSHAW ROAD

STA 219+85 TO 234+32

WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER
No. 50778
Exp. 9-30-09
CIVIL
STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY		DATE
DRAWN:	F. NOSTRATIS	
DESIGNED:	L. CHONG	
CHECKED:	A. HOWARTH	
SURVEY FILE:		

WOOD-RODGERS
8401 G.W. Blvd. • Sacramento, CA 95828
Tel 916.341.7760
Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE

HORIZONTAL: NO SCALE
VERTICAL: NO SCALE

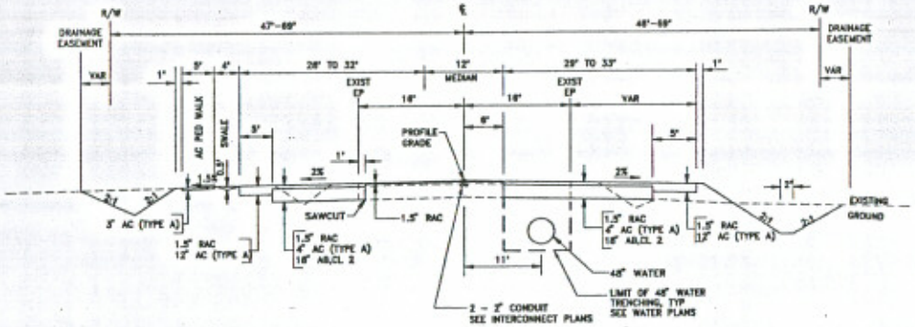
INCHES 0 1 2
MILLIMETERS 0 10 20 30 40 50

DRAWING

X1 OF X2

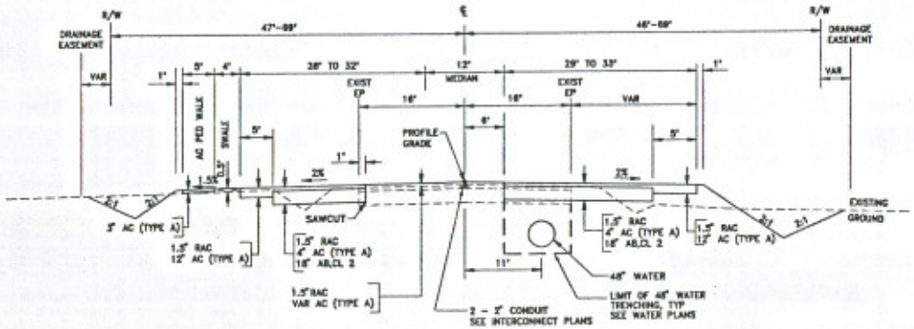
SHEET

3 OF 139



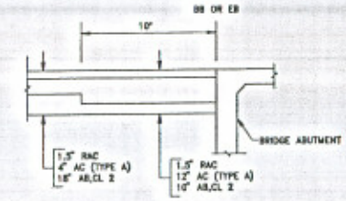
BRADSHAW ROAD

STA 287+50 TO 289+00

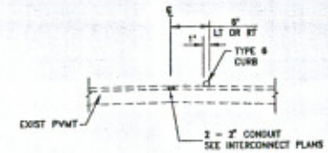


BRADSHAW ROAD

STA 207+00 TO 217+00
STA 263+00 TO 289+00
STA 306+00 TO 309+00

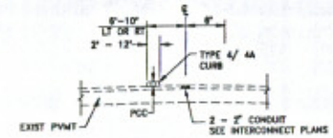


BRIDGE APPROACH DETAIL



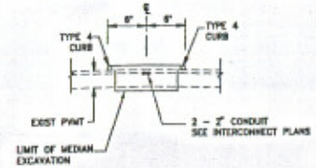
BRADSHAW ROAD

STA 200+75.09 TO 202+66.97
STA 343+83.28 TO 344+84.31



BRADSHAW ROAD

STA 198+31.12 TO 198+93.57
STA 200+09.68 TO 200+75.09
STA 202+66.97 TO 203+01.59
STA 344+84.31 TO 345+49.73
STA 347+33.34 TO 347+98.70



BRADSHAW ROAD

STA 198+93.57 TO 200+09.68
STA 203+01.59 TO 206+65
STA 345+49.73 TO 347+33.34

WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER
LI K. CHONG
No. 50778
Exp. 9-30-09
CIVIL
STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY		DATE
DRAWN:	F. NOSTRAND	
DESIGNED:	L. CHONG	
CHECKED:	A. HOWATT	
SURVEY FILE:		

WOOD-RODGERS
ENGINEERING • MAPPING • PLANNING • SURVEYING
3301 C St, Bldg. 100-B Sacramento, CA 95816
Tel 916.341.7760 Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE

HORIZONTAL: NO SCALE
VERTICAL: NO SCALE

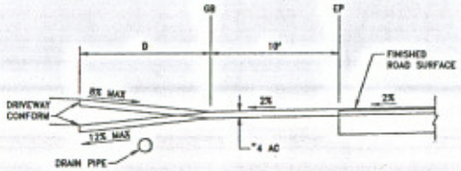
INCHES 0 1 2
0 10 20 30 40 50 MILLIMETERS

DRAWING

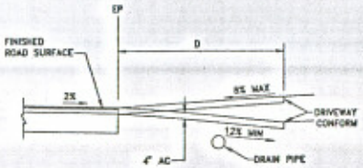
X2 OF X2

SHEET

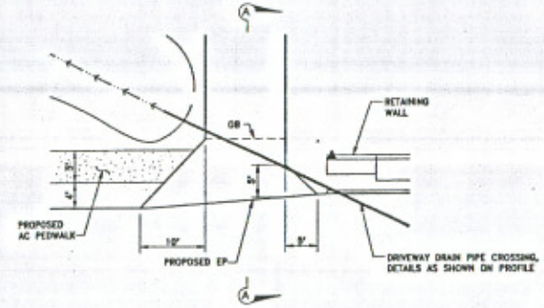
4 OF 139



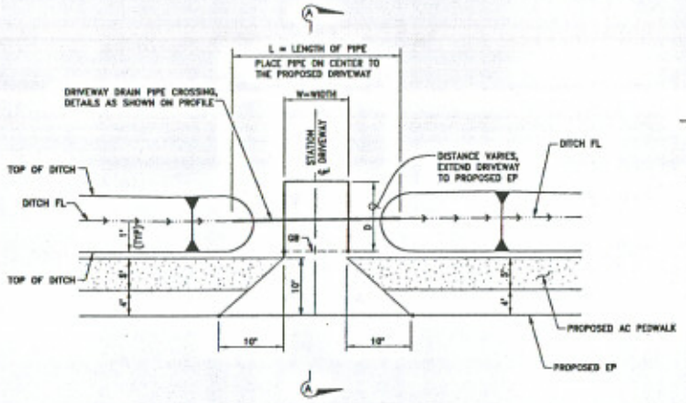
SECTION A-A



SECTION B-B



DRIVEWAY DETAIL "C"
NOT TO SCALE



DRIVEWAY DETAIL "A"
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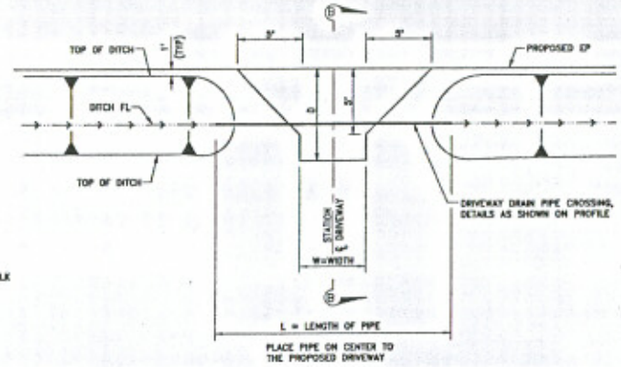
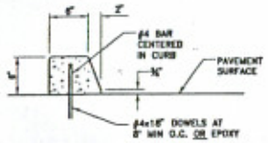
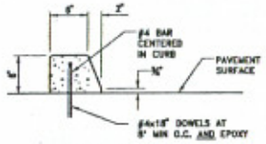


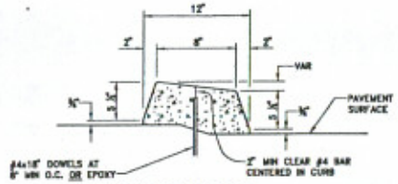
DRIVEWAY DETAIL "B"
NOT TO SCALE



TYPE 4 (6" HIGH)

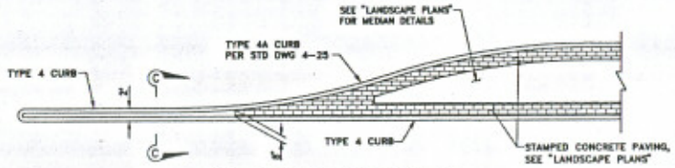


TYPE 4A (6" HIGH)

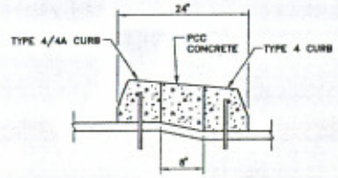


TYPE 6 (6" HIGH)

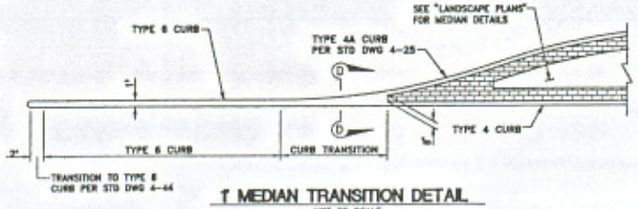
MODIFIED CURBS
NOT TO SCALE



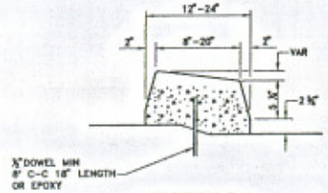
2' MEDIAN TRANSITION DETAIL
NOT TO SCALE



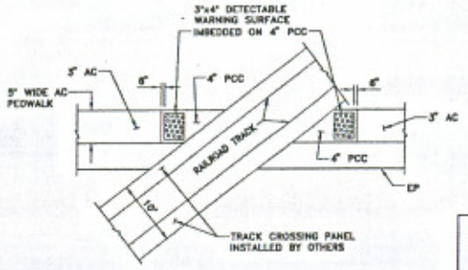
SECTION C-C



1' MEDIAN TRANSITION DETAIL
NOT TO SCALE



SECTION D-D



PEDWALK DETAIL AT RAILROAD CROSSING
NOT TO SCALE

WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER
LEAH K. CHANG
No. 50778
Exp. 9-30-08
CIVIL
STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY

		DATE
DRAWN:	F. NOSTRATIS	
DESIGNED:	L. CHONG	
CHECKED:	A. HUMAIR	
SURVEY FILE:		

WOOD-RODGERS
3301 C Street, Bldg. 100-B, Sacramento, CA 95816
Tel 916.341.7760 Fax 916.341.7767
3200 Cherry Creek South Drive, Suite 650, Denver, CO 80209
Tel 303.329.1131 Fax 303.329.1132
3000 Windy Ridge Parkway, Suite 600, Atlanta, GA 30339
Tel 770.955.1580 Fax 770.955.1581

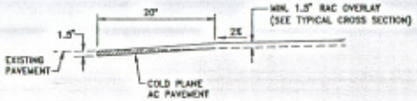
COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: N.T.S.
VERTICAL: N/A
INCHES
MILLIMETERS

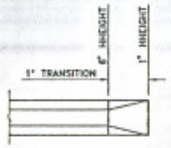
DRAWING
CD1 OF CD4

SHEET
5 OF 139

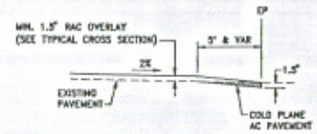


PAVING CONFORM TYPE A

NOT TO SCALE

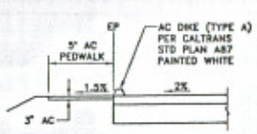


DIKE END DETAIL



PAVING CONFORM TYPE B

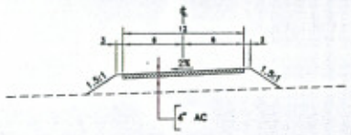
NOT TO SCALE



AC PEDWALK DETAIL

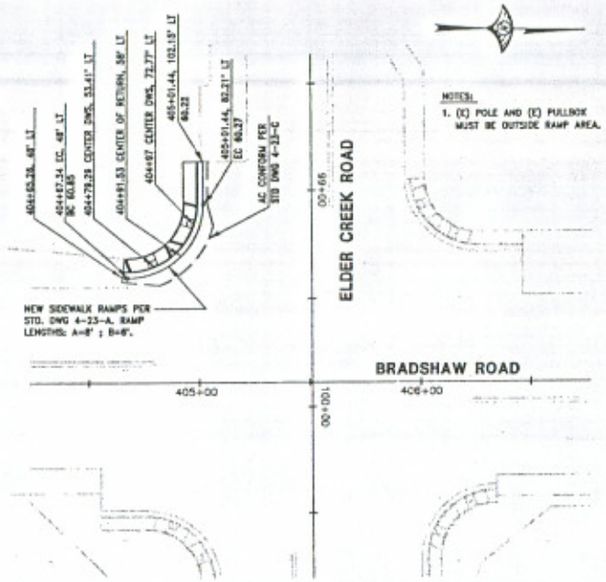
NOT TO SCALE

STA 256+57 TO STA 257+45
STA 264+92 TO STA 266+26
STA 280+47 TO STA 281+92
STA 331+14 TO STA 331+83
STA 332+79 TO STA 333+48
STA 335+72 TO STA 336+56
STA 337+03 TO STA 337+17



SECTION A-A

NOT TO SCALE

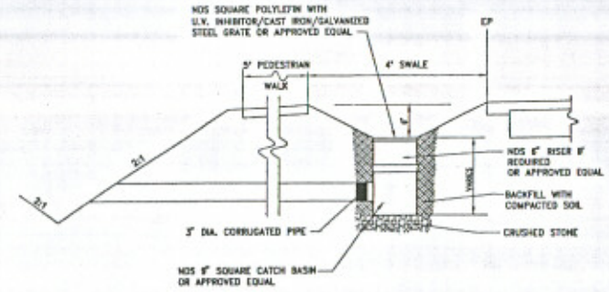


NOTES:

1. (E) POLE AND (E) PULLBOX MUST BE OUTSIDE RAMP AREA.

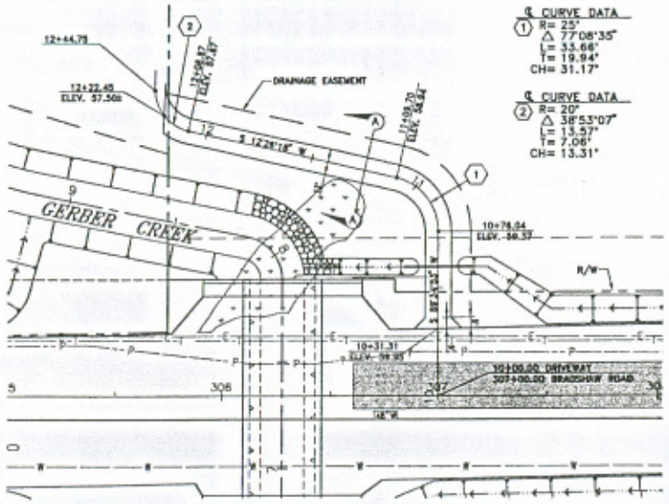
SIDEWALK RAMPS @ S/W CORNER BRADSHAW ROAD AND ELDER CREEK ROAD

SCALE: 1"=30'



SWALE DRAIN SYSTEM

NOT TO SCALE

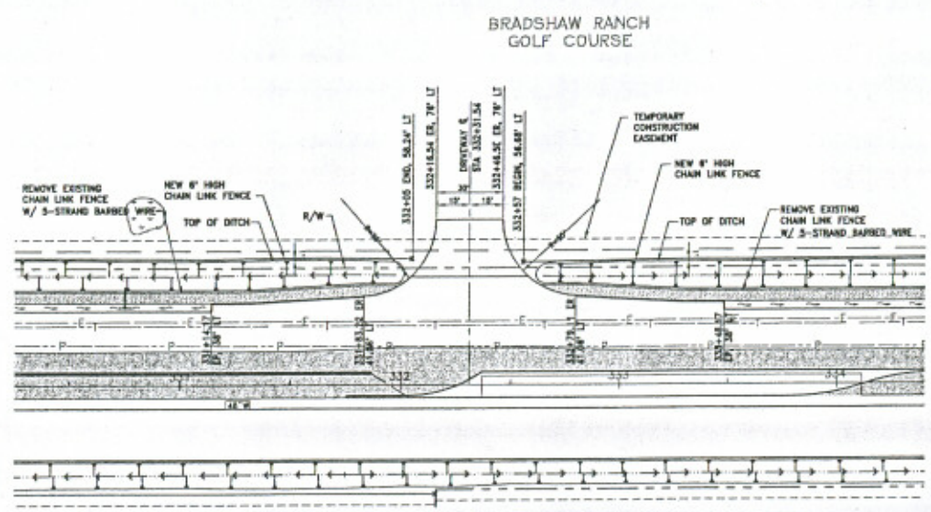


℄ CURVE DATA
(1) R= 25'
Δ 77°08'35"
L= 33.66'
T= 19.94'
CH= 31.17'

℄ CURVE DATA
(2) R= 20'
Δ 38°53'07"
L= 13.57'
T= 7.06'
CH= 13.31'

DRIVEWAY @ STA 307+00 BRADSHAW ROAD

SCALE: 1"=30'



DRIVEWAY @ STA 332+31.17 BRADSHAW ROAD

SCALE: 1"=30'

WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER
CLIFF K. CHENG
No. 50776
Exp. 9-30-08
CIVIL
STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY		DATE
DRAWN:	F. NOSTRATIS	
DESIGNED:	L. CHENG	
CHECKED:	A. HEMAIT	
SURVEY FILE:		

WOOD-RODGERS
MINNEAPOLIS · SACRAMENTO · SAN DIEGO · CALIFORNIA
3301 C St, Bldg 100-B
Sacramento, CA 95816
Tel 916.341.7760
Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE

HORIZONTAL: AS SHOWN
VERTICAL: N/A

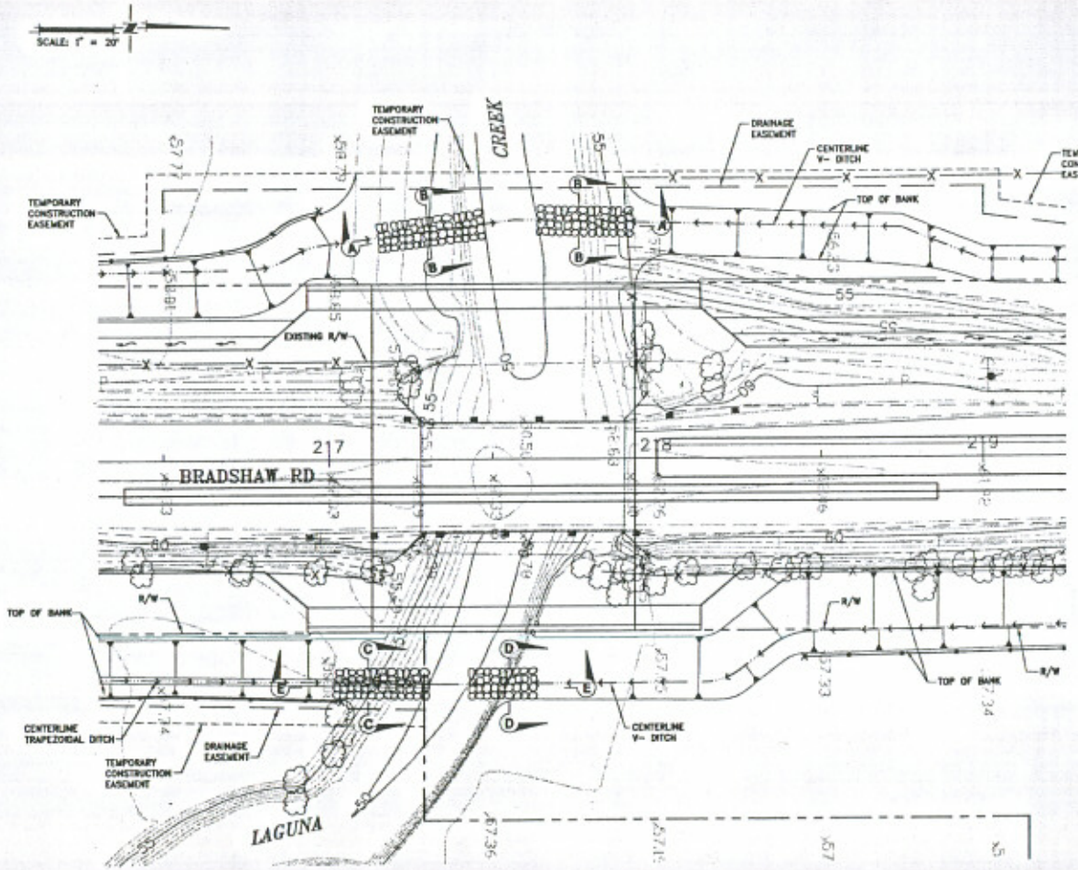
INCHES 0 1 2 3 4 5 6 7
MILLIMETERS 0 10 20 30 40 50

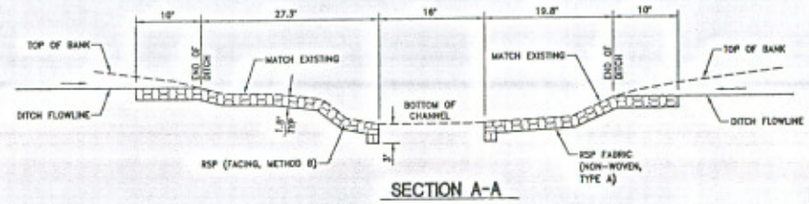
DRAWING

CD2 OF CD4

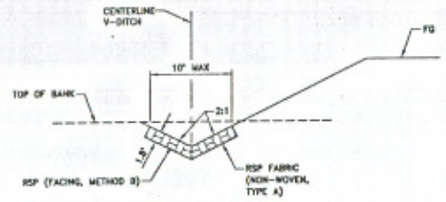
SHEET

6 OF 139

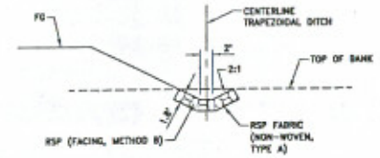




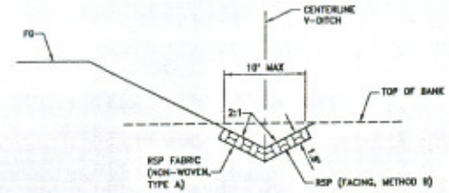
SECTION A-A



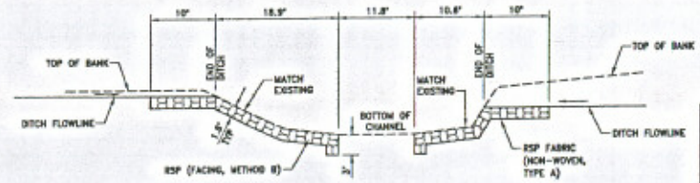
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER
C. E. Chong
No. 50778
Exp. 9-30-08
CIVIL
STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY		DATE
DRAWN	F. MOSTAFIS	
DESIGNED	L. CHONG	
CHECKED	A. HOHAUS	
SURVEY FILE		

WOOD-RODGERS
3301 C St., Bldg. 100-B Sacramento, CA 95816
Tel 916.341.7760 Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

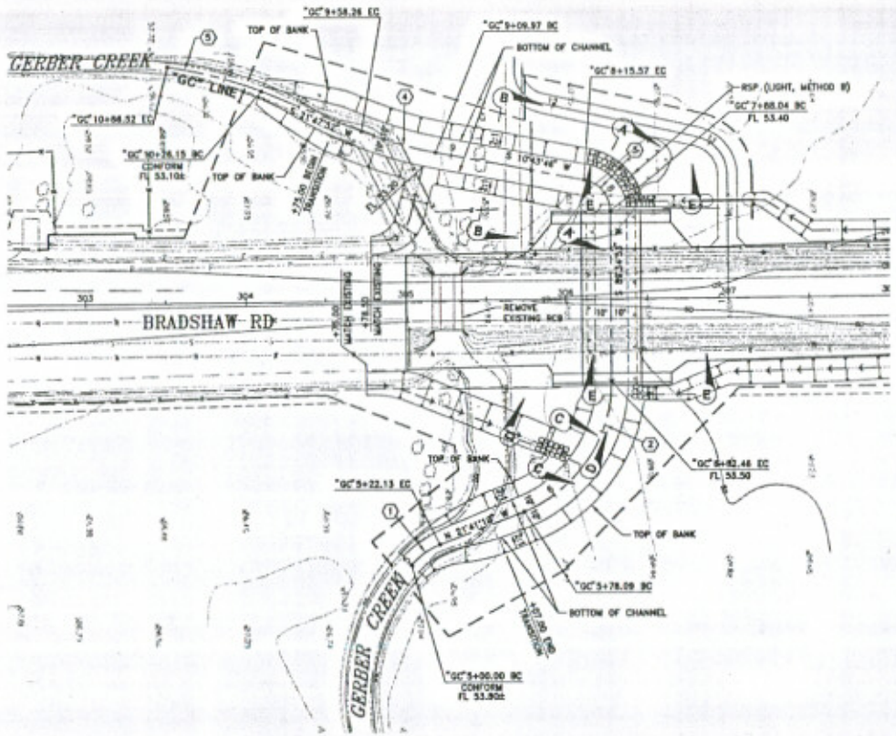
CONSTRUCTION DETAILS
(LAGUNA CREEK RSP DETAILS)
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE
HORIZONTAL: 1":20'
VERTICAL: N/A
INCHES 0 1 2
MILLIMETERS 0 10 20 30 40 50

DRAWING
CD3 OF CD4

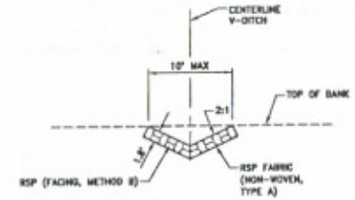
SHEET
7 OF 139

SCALE: 1" = 40'

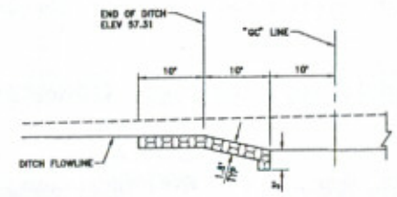


CREEK CENTERLINE CURVE DATA

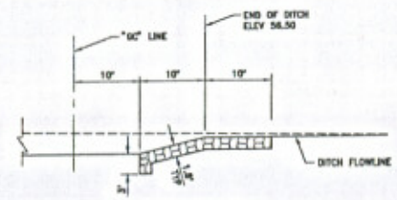
NO.	R	Δ	T	L
1	50'	25°21'22"	11.25'	22.13'
2	67'	88°43'57"	59.50'	104.37'
3	20'	78°51'03"	16.44'	27.53'
4	250'	11°04'06"	24.22'	48.30'
5	250'	13°50'16"	30.33'	60.38'



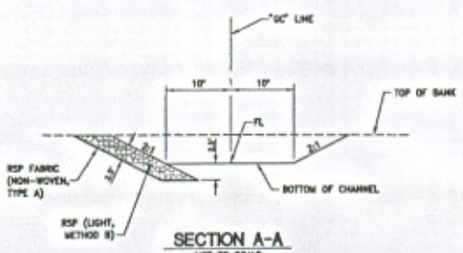
SECTION C-C
NOT TO SCALE



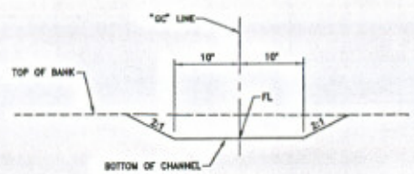
SECTION D-D
NOT TO SCALE



SECTION E-E
NOT TO SCALE



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER
LIN K. CHONG
No. 50778
Exp. 9-30-08
CIVIL
STATE OF CALIFORNIA

DATE: 3-7-2008

PREPARED BY

		DATE
DRAWN:	F. NOSTRANDS	
DESIGNED:	L. CHONG	
CHECKED:	A. HUNNATI	
SURVEY FILE:		

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3301 C ST, BLDG 100-B
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Fax 916.341.7767

COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
(GERBER CREEK REALIGNMENT)
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE

HORIZONTAL: NTS
VERTICAL: N/A

INCHES
MILLIMETERS

DRAWING

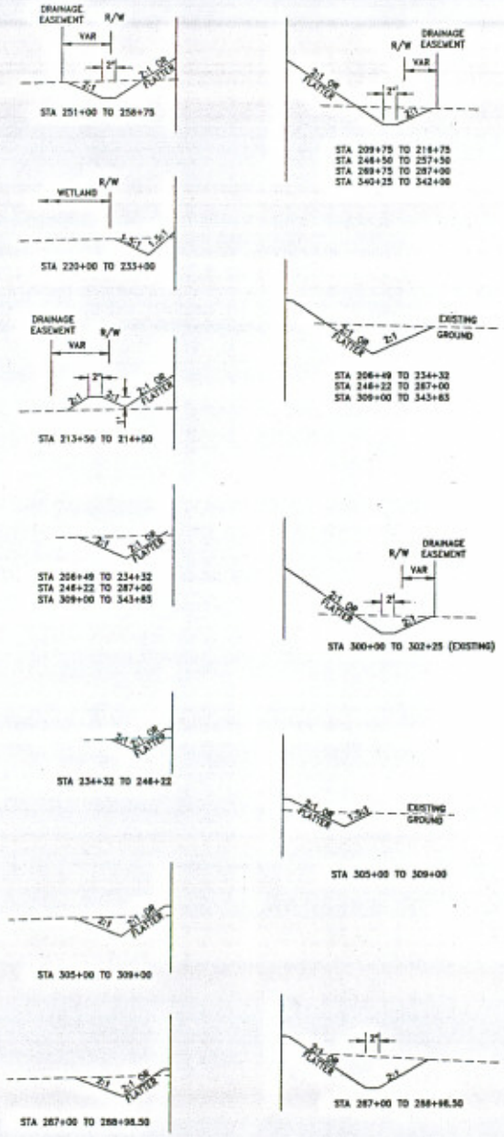
CD4 OF CD4

SHEET

8 OF 139

LT BRADSHAW ROAD RT

NOT TO SCALE



POST-CONSTRUCTION STORMWATER QUALITY TREATMENT TABLE: VEGETATIVE SWALE

Road Side	Upstream Station #	Downstream Station #	Length (ft)	Cross Section Area(sqft)	Contributing Area(ac)	Water Depth(ft)	Runoff Coeff	WQF (cfs)	Contact Time(min)	Bottom Width(ft)	Channel Slope
LT	207+00	217+15	1015	0.125	1.03	0.25	0.95	0.1753	12	-	0.0025
LT	219+60	218+00	160	0.125	0.20	0.25	0.95	0.0345	10	-	0.0025
LT	244+00	246+00	200	0.125	0.25	0.25	0.95	0.0424	10	-	0.0021
LT	246+35	248+35	200	0.125	0.25	0.25	0.95	0.0424	10	-	0.0022
LT	250+60	248+60	200	0.125	0.20	0.25	0.95	0.0345	12	-	0.0048
LT	255+80	250+90	490	0.625	0.56	0.25	0.95	0.0962	53	2	0.0019
LT	257+65	256+60	105	0.625	0.12	0.25	0.95	0.0206	53	2	0.0011
LT	257+75	258+82	107	0.625	0.12	0.25	0.95	0.0210	53	2	0.001
LT	259+50	262+30	280	0.125	0.28	0.25	0.95	0.0484	12	-	0.0025
LT	262+30	264+10	180	0.125	0.18	0.25	0.95	0.0311	12	-	0.0017
LT	264+10	266+70	260	0.125	0.26	0.25	0.95	0.0449	12	-	0.0012
LT	266+70	268+65	195	0.125	0.20	0.25	0.95	0.0337	12	-	0.0005
LT	269+50	268+65	85	0.125	0.09	0.25	0.95	0.0147	12	-	0.0062
LT	269+50	273+50	400	0.125	0.40	0.25	0.95	0.0691	12	-	0.0006
LT	273+50	279+50	600	0.125	0.61	0.25	0.95	0.1036	12	-	0.0007
LT	279+50	286+10	660	0.125	0.67	0.25	0.95	0.1140	12	-	0.0005
LT	286+10	289+50	340	0.125	0.34	0.25	0.95	0.0587	12	-	0.0008
LT	289+50	294+00	450	0.125	0.45	0.25	0.95	0.0777	12	-	0.0007
LT	297+85	294+00	385	0.125	0.39	0.25	0.95	0.0665	12	-	0.0029
LT	301+65	305+00	335	0.125	0.34	0.25	0.95	0.0579	12	-	0.0024
LT	332+15	325+90	625	0.125	0.63	0.25	0.95	0.1080	12	-	0.0030
LT	325+90	319+00	690	0.125	0.70	0.25	0.95	0.1192	12	-	0.0024
LT	319+00	312+20	680	0.125	0.69	0.25	0.95	0.1175	12	-	0.0010
LT	312+20	305+30	690	0.125	0.70	0.25	0.95	0.1192	12	-	0.0024
LT	332+15	336+80	465	0.125	0.47	0.25	0.95	0.0803	12	-	0.0043
LT	336+80	338+65	185	0.125	0.19	0.25	0.95	0.0320	12	-	0.0040
LT	338+65	342+00	335	0.125	0.34	0.25	0.95	0.0579	12	-	0.0032
LT	343+83	342+00	183	0.125	0.18	0.25	0.95	0.0316	12	-	0.0022
RT	206+50	209+75	325	0.125	0.33	0.25	0.95	0.0561	12	-	0.004308
RT	209+75	213+40	365	0.625	0.37	0.25	0.95	0.0630	60	2	0.002466
RT	213+40	217+20	380	0.625	0.38	0.25	0.95	0.0656	60	2	0.004474
RT	232+75	228+00	475	0.125	0.68	0.25	0.95	0.1162	9	-	0.0021
RT	228+00	225+50	250	0.125	0.45	0.25	0.95	0.0777	7	-	0.0021
RT	225+50	220+20	530	0.125	0.94	0.25	0.95	0.1606	7	-	0.0021
RT	220+20	217+75	245	0.125	0.25	0.25	0.95	0.0423	12	-	0.0021
RT	246+30	253+50	720	0.625	0.83	0.25	0.95	0.1413	53	2	0.002222
RT	253+50	256+20	270	0.625	0.31	0.25	0.95	0.0530	53	2	0.001111
RT	256+20	257+50	130	0.625	0.15	0.25	0.95	0.0255	53	2	0.000769
RT	258+50	260+15	165	0.125	0.17	0.25	0.95	0.0285	12	-	0.0048
RT	260+15	262+50	235	0.125	0.24	0.25	0.95	0.0406	12	-	0.0025
RT	262+50	266+00	350	0.125	0.35	0.25	0.95	0.0605	12	-	0.0019
RT	266+00	268+65	265	0.125	0.27	0.25	0.95	0.0458	12	-	0.0013
RT	269+50	268+65	85	0.125	0.09	0.25	0.95	0.0147	12	-	0.0141
RT	269+50	272+85	335	0.625	0.38	0.25	0.95	0.0658	53	2	0.00209
RT	272+85	286+00	1315	0.625	1.51	0.25	0.95	0.2581	53	2	0.000532
RT	286+00	289+45	345	0.625	0.40	0.25	0.95	0.0677	53	2	0.00087
RT	289+45	294+00	455	0.625	0.52	0.25	0.95	0.0893	53	2	0.000879
RT	294+00	298+05	405	0.625	0.46	0.25	0.95	0.0795	53	2	0.000741
RT	300+55	305+30	475	0.1094	0.38	0.25	0.95	0.0653	13	-	0.001053
RT	332+00	326+90	510	0.125	0.52	0.25	0.95	0.0881	12	-	0.0029
RT	326+90	319+00	790	0.125	0.80	0.25	0.95	0.1365	12	-	0.0026
RT	319+00	312+30	670	0.125	0.68	0.25	0.95	0.1157	12	-	0.0011
RT	312+30	305+65	665	0.1094	0.53	0.25	0.95	0.0914	13	-	0.002602
RT	332+00	335+85	385	0.125	0.39	0.25	0.95	0.0665	12	-	0.0041
RT	335+85	339+80	395	0.125	0.40	0.25	0.95	0.0682	12	-	0.004358
RT	339+80	342+00	220	0.625	0.25	0.25	0.95	0.0432	53	2	0.001818
RT	343+83	342+00	183	0.125	0.18	0.25	0.95	0.0316	12	-	0.003279

NOTES:

THE POST-CONSTRUCTIN STORMWATER QUALITY TREATMENT TABLE CONTAINS DESIGN DETAIL AND CALCULATIONS TO DEMONSTRATE THE ADEQUACY OF THE POST CONSTRUCTION CONTROL METHOD, AND INCLUDES THE FOLLOWING ITEMS; SWALE IDENTIFICATION BY STATION NUMBER, LENGTH, CROSS SECTION AREA, TREATMENT CONTRIBUTING AREA, DESIGN DEPTH, WATER QUALITY FLOW, AND CONTACT TIME.

GO TO THE LINEAR PROJECT TYPE THE GRADES, CONTRIBUTION SHED DELINEATION, EXISTING AND PROPOSED PAVEMENT, LANDSCAPING, EXISTING AND PROPOSED BUILDING, AND DRAINAGE SYSTEMS CAN BE FOUND ON THE PLAN & PROFILE SHEETS BY STATION NUMBER.

WOOD-RODGERS INC.

REGISTERED PROFESSIONAL ENGINEER LIN K. CHONG No. 50778 Exp. 9-30-08 CIVIL STATE OF CALIFORNIA

DATE: 3-7-2008

DATE

PREPARED BY

DRAWN: J. WITZEL

DESIGNED: L. CHONG

CHECKED: A. KOWALTI

SURVEY FILE:

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COUNTY OF SACRAMENTO MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

POST-CONSTRUCTION STORMWATER QUALITY TREATMENT PLAN
BRADSHAW ROAD WIDENING
CALVINE ROAD TO FLORIN ROAD

SCALE

HORIZONTAL: 1"=40'

VERTICAL: N/A

INCHES

MILLIMETERS

DRAWING

WQ1 OF WQ1

SHEET

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