Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	301	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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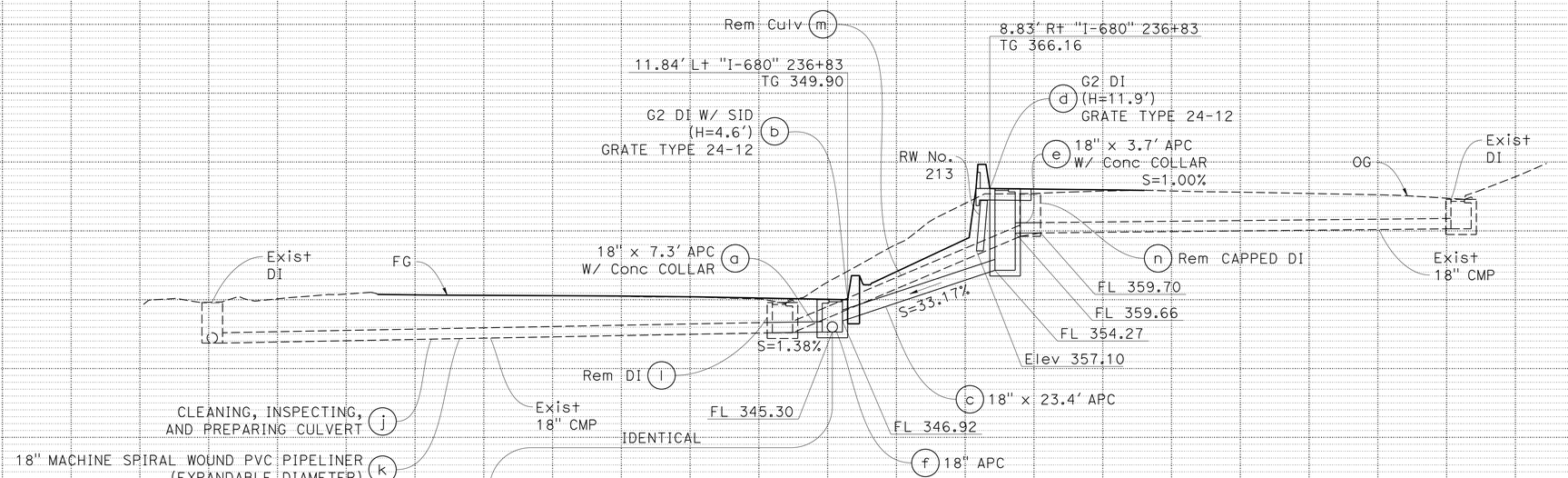
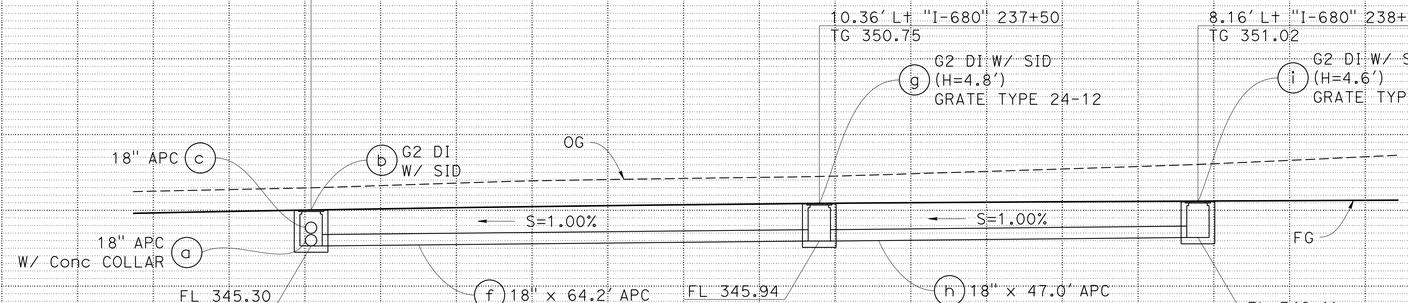


DRAINAGE SYSTEM No. 15



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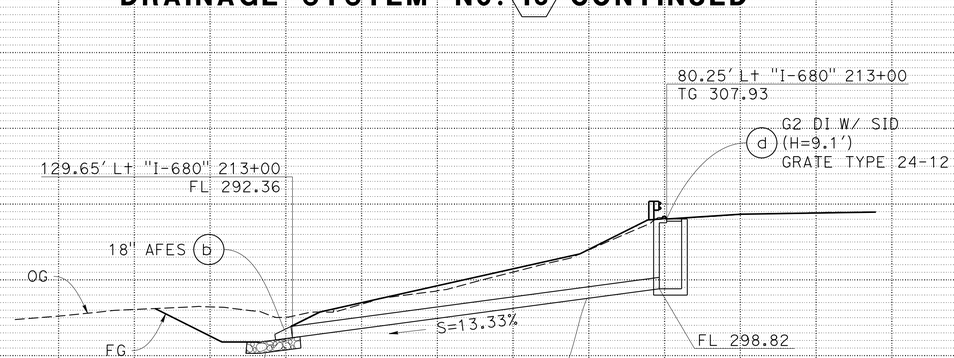

DRAINAGE SYSTEM No. 16

FOR ABBREVIATIONS
SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-10

REVISED BY: RS | DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 8-MAR-2022
09-29-21 | TIME PLOTTED => 15:36

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	302	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

October 8, 2021
PLANS APPROVAL DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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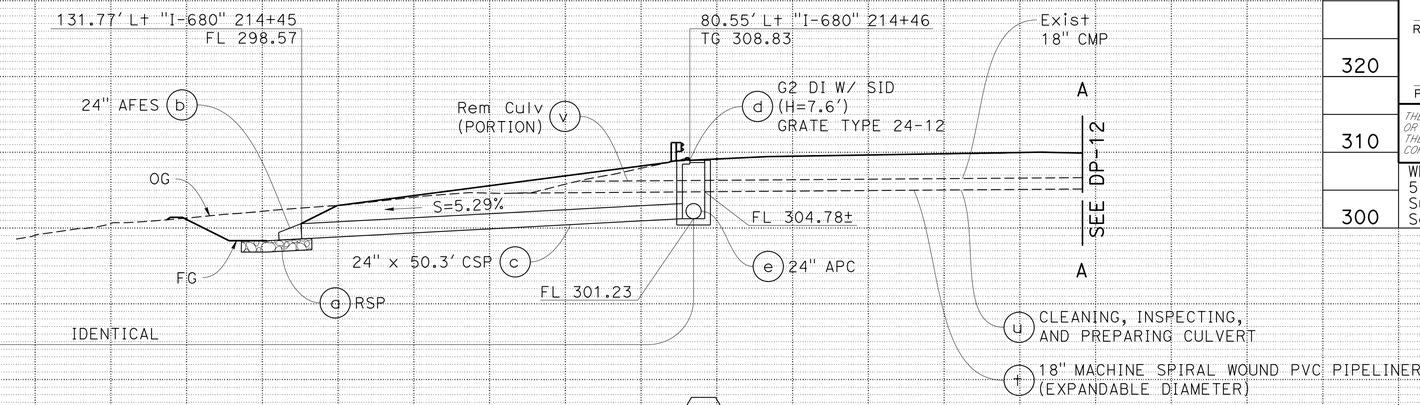
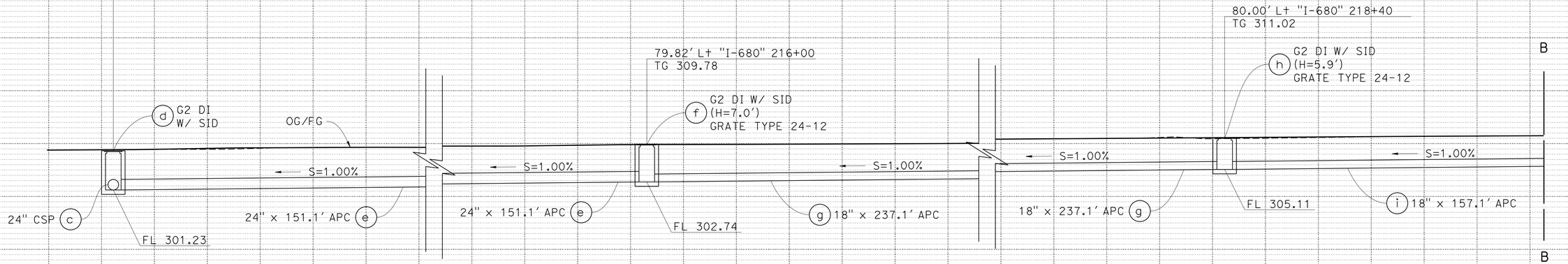
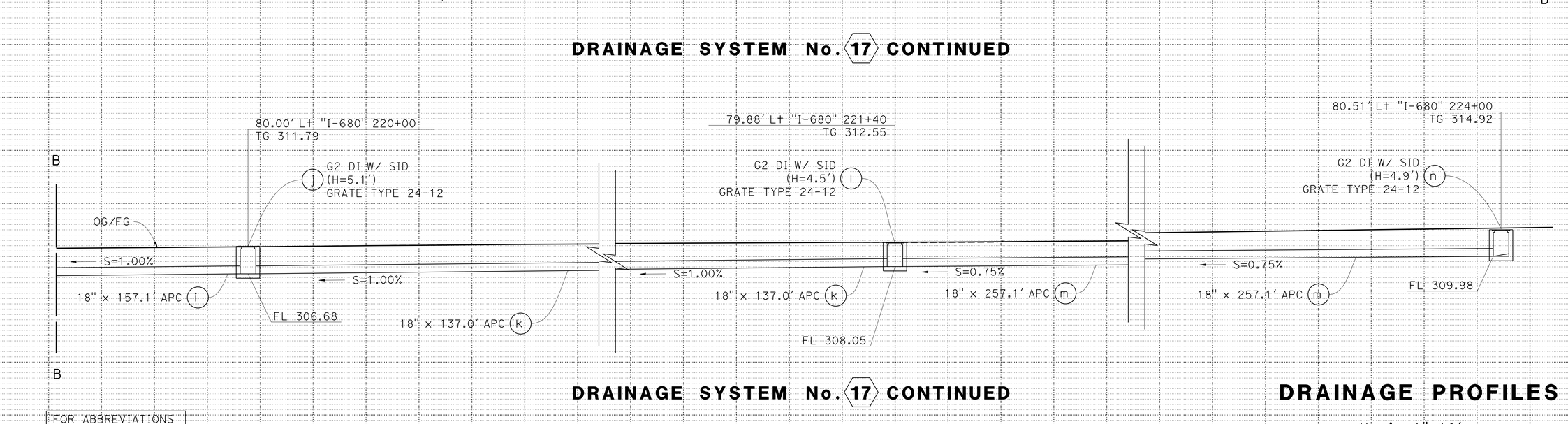
DRAINAGE SYSTEM No. 17



DRAINAGE SYSTEM No. 17 CONTINUED



DRAINAGE SYSTEM No. 17 CONTINUED



FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-11

RICHARD SAGASTUME — CALCULATED-DESIGNED BY
TINH TRUONG — CHECKED BY
TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR
REVISED BY: RS — DATE REVISED: 9-29-21
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION — DATE PLOTTED => 8-MAR-2022 — TIME PLOTTED => 15:36

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b011.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	303	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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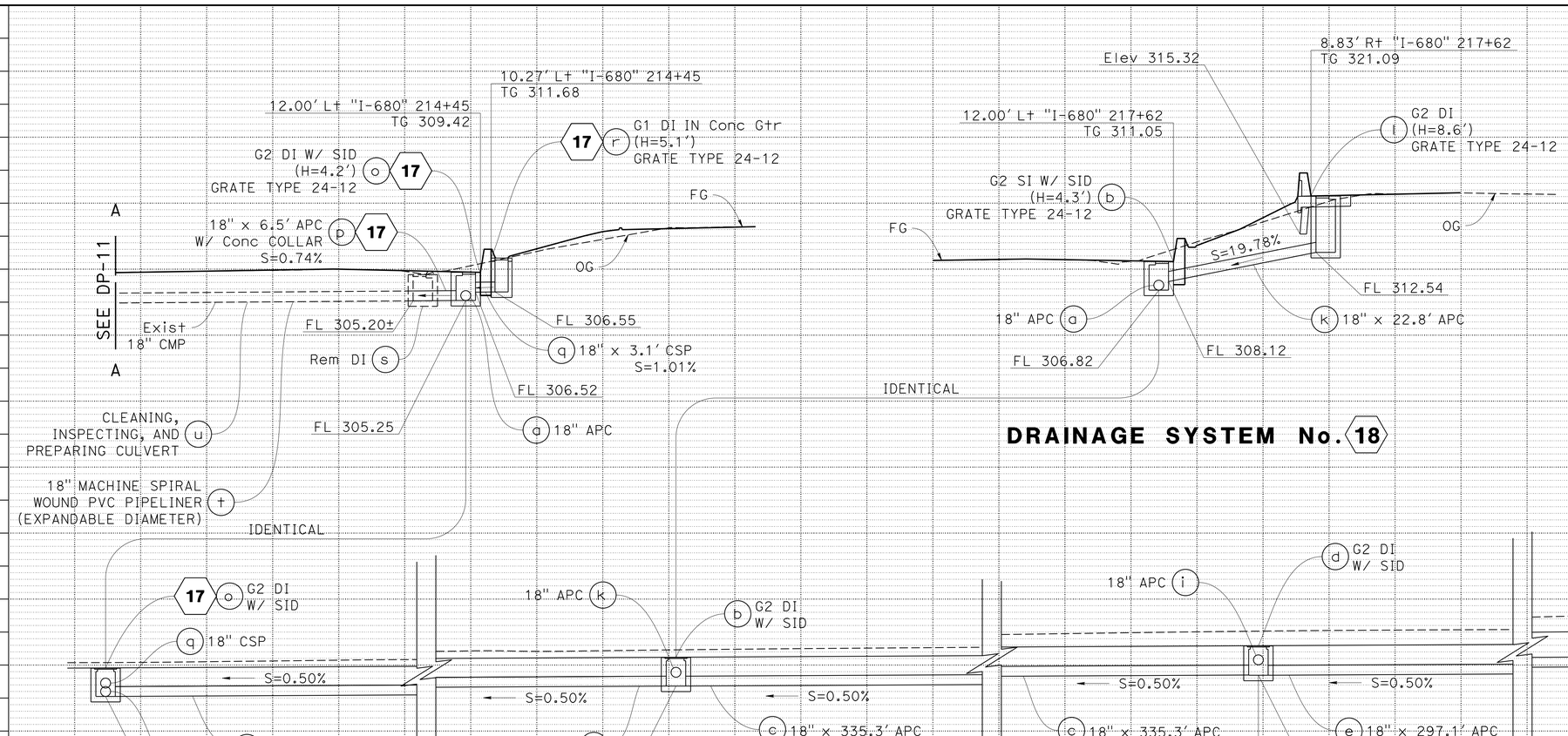
DRAINAGE SYSTEM No. 18



DRAINAGE SYSTEM No. 18 CONTINUED

DRAINAGE SYSTEM No. 18 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-12

REVISED BY: RS — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION: DATE PLOTTED => 9-29-21 TIME PLOTTED => 8-MAR-2022 15:36

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b012.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	304	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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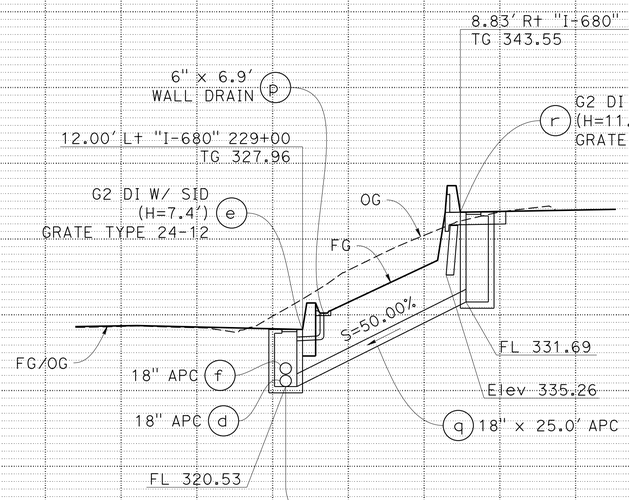
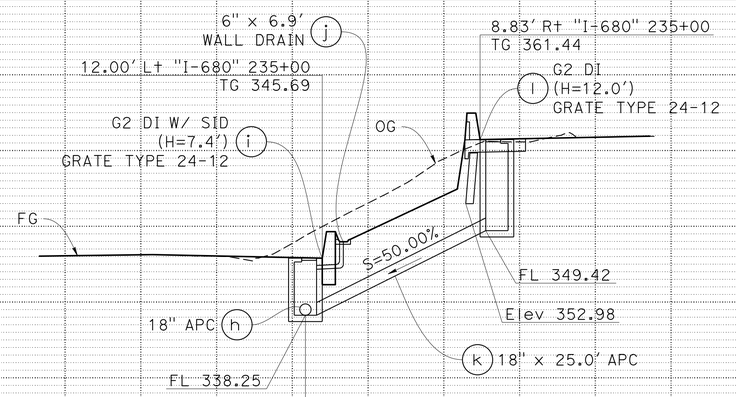
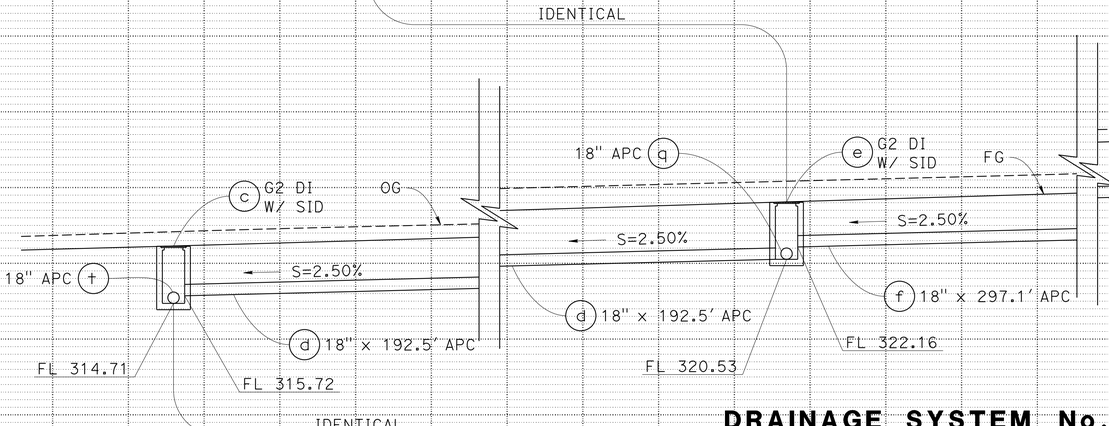
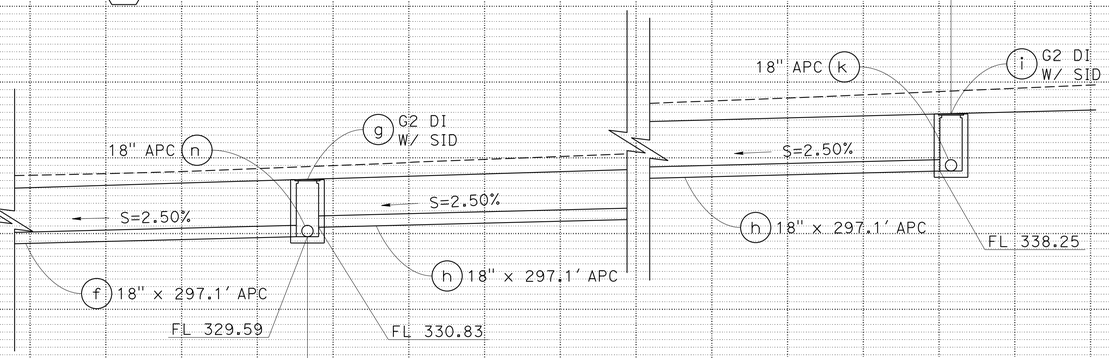
DRAINAGE SYSTEM No. 19



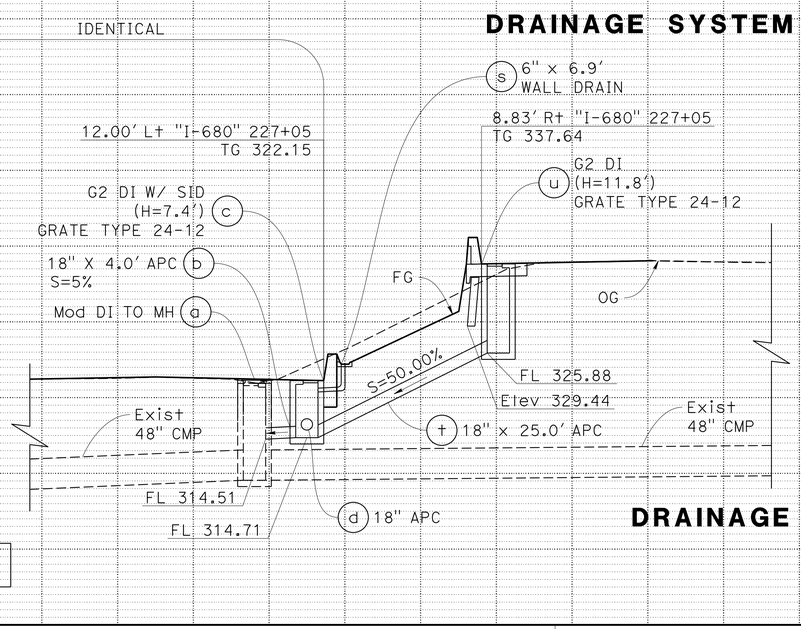


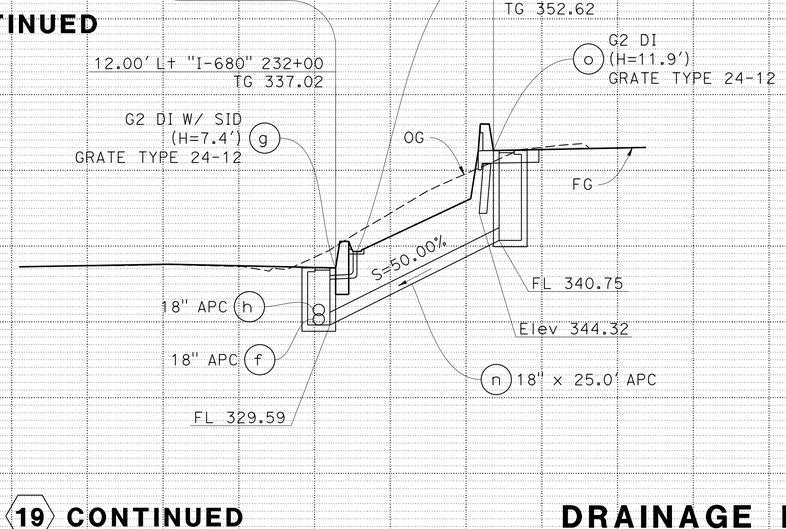
IDENTICAL





DRAINAGE SYSTEM No. 19 CONTINUED





DRAINAGE SYSTEM No. 19 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-13

LAST REVISION: DATE PLOTTED => 8-MAR-2022
09-29-21 TIME PLOTTED => 15:37

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351ib013.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	305	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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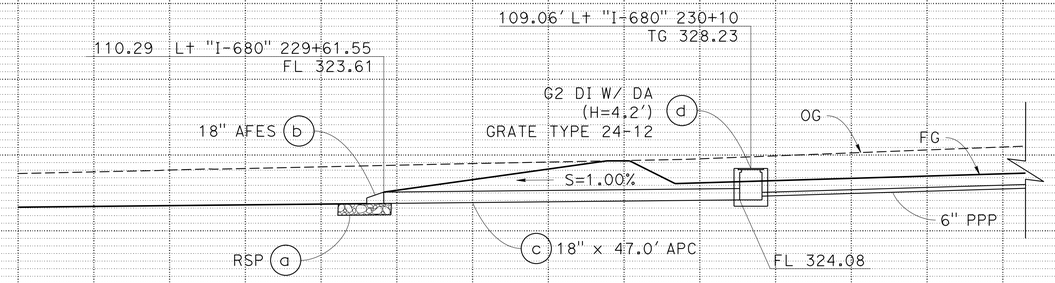

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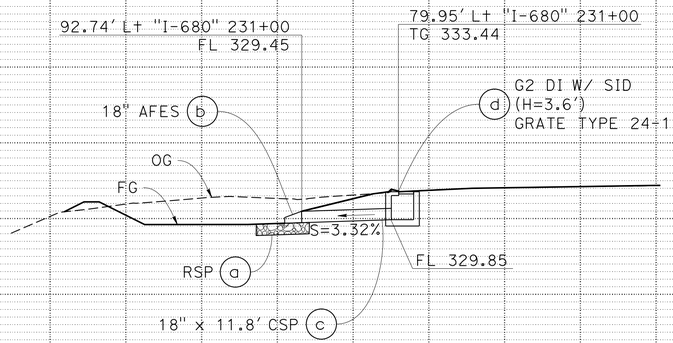

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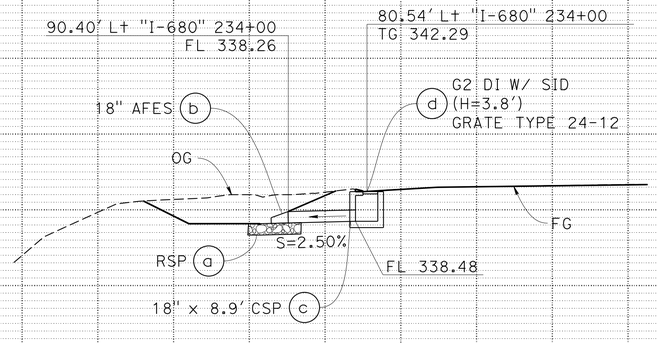
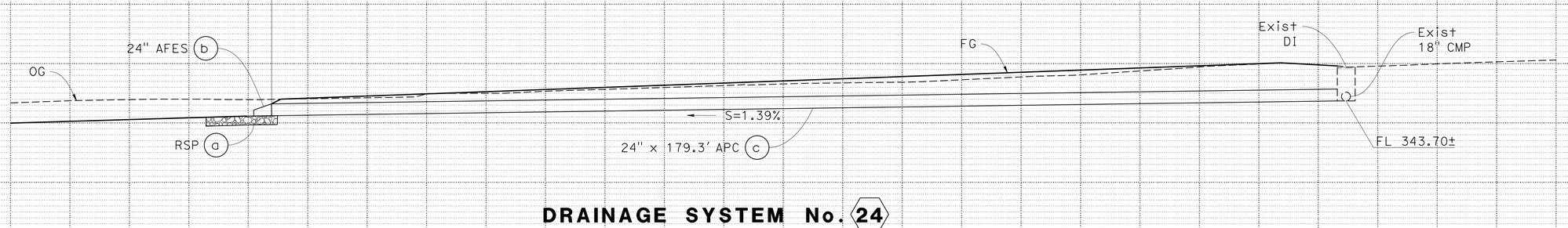


DRAINAGE SYSTEM No. 23



DRAINAGE SYSTEM No. 24

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-14

RICHARD SAGASTUME — TINH TRUONG — TIMOTHY J. LEE

REVISED BY: RS — DATE REVISED: 9-29-21

CALCULATED-DESIGNED BY — CHECKED BY — CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b014.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	306	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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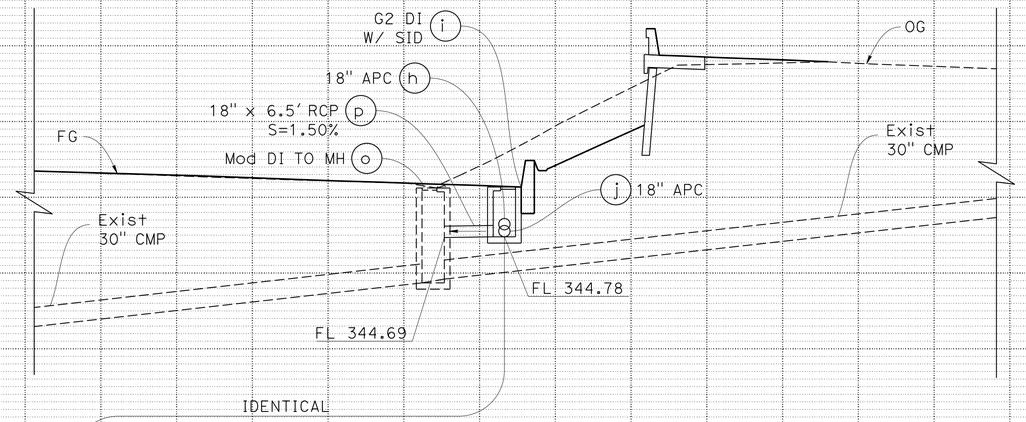

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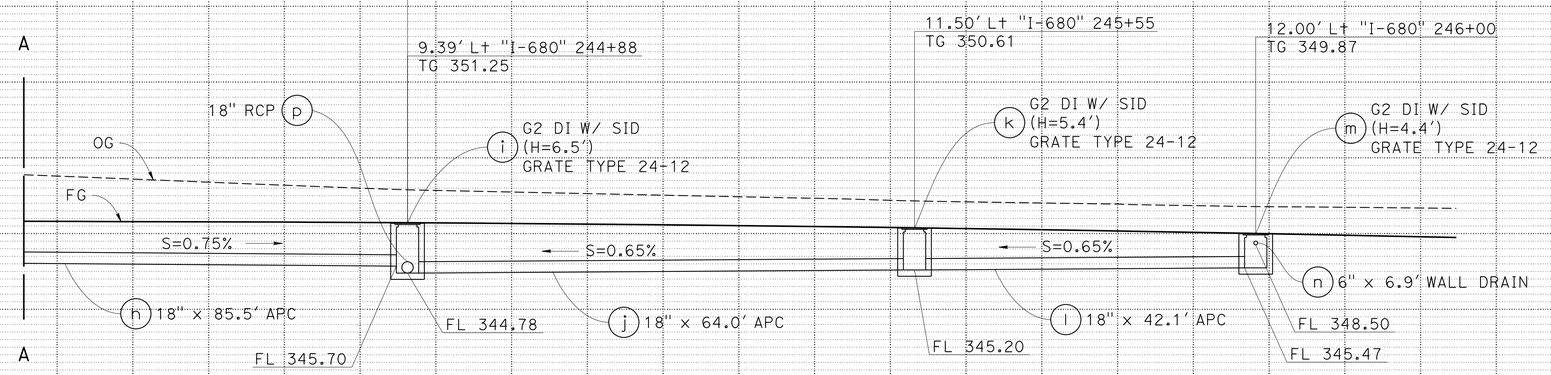
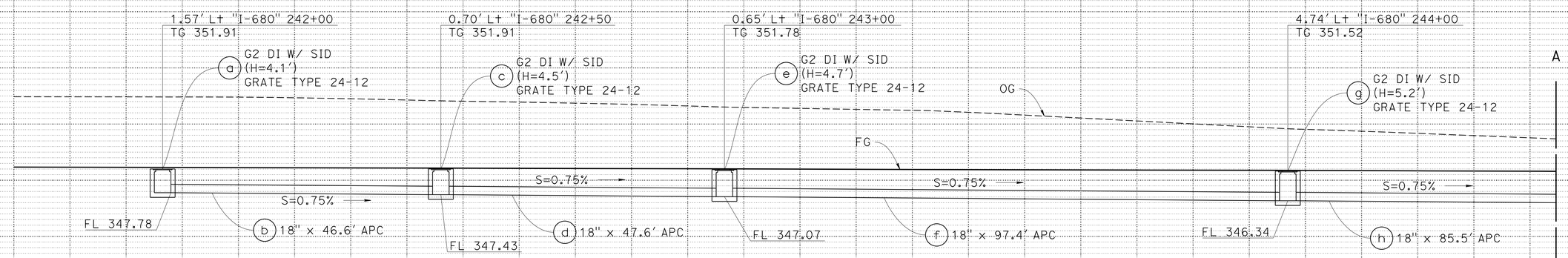


DRAINAGE SYSTEM No. 25 CONTINUED



DRAINAGE SYSTEM No. 25 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-15

REVISED BY: RS — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b015.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	307	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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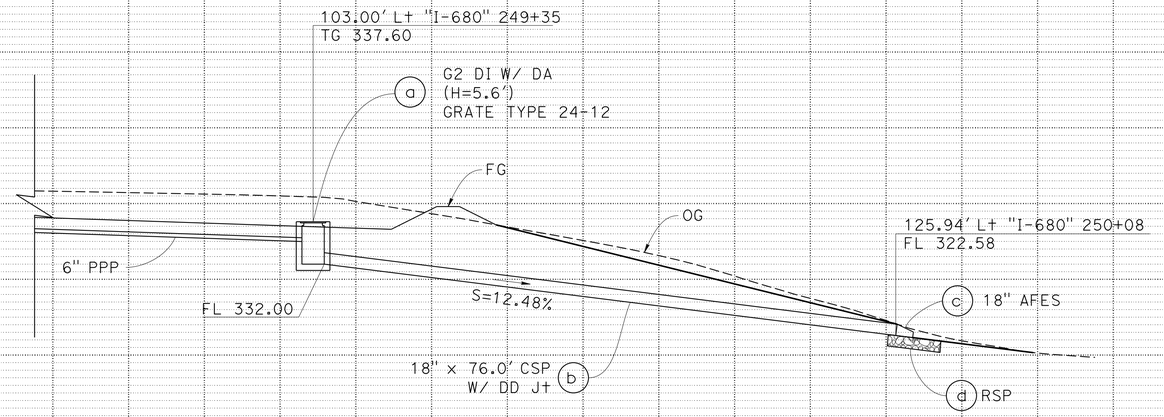
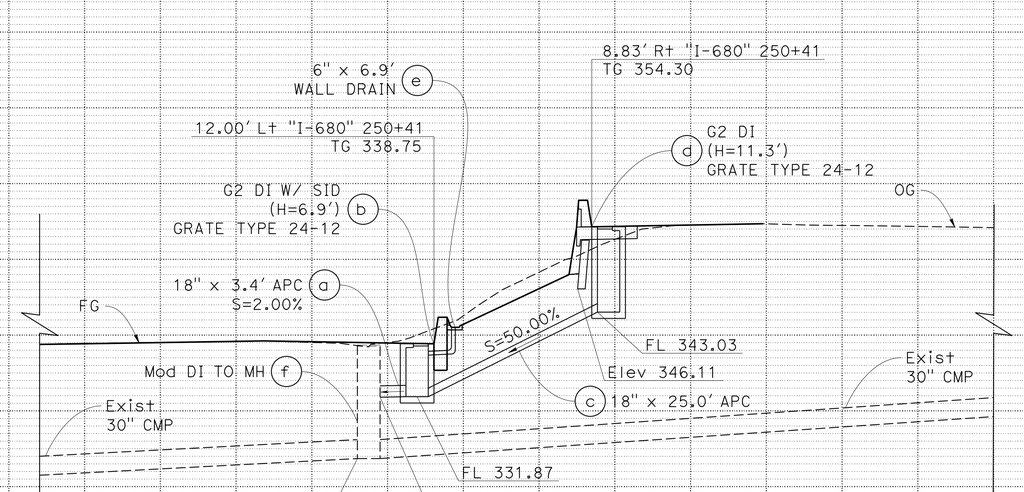


DRAINAGE SYSTEM No. 26



DRAINAGE SYSTEM No. 27

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-16

FOR ABBREVIATIONS SEE SHEET DP-1

RICHARD SAGASTUME — TINH TRUONG — CALCULATED-DESIGNED BY / CHECKED BY

REVISED BY: RS — DATE REVISED: 9-29-21

CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION | DATE PLOTTED => 8-MAR-2022 | TIME PLOTTED => 15:37

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b016.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	308	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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97.65' Lt "I-680" 253+40
TG 331.07

80.56' Lt "I-680" 253+40
TG 332.89

G2 DI W/ DA (H=5.0') a
GRATE TYPE 24-12

c G2 DI (H=7.0')
GRATE TYPE 24-12

d 18" APC

OG

FG

S=0.97%

FL 326.07

FL 325.93

18" x 14.6' APC b

IDENTICAL

DRAINAGE SYSTEM No. 29

80.67' Lt "I-680" 254+00
TG 332.18

80.26' Lt "I-680" 254+50
TG 331.89

80.17' Lt "I-680" 255+00
TG 331.58

80.31' Lt "I-680" 255+50
TG 331.25

18" APC b

c G2 DI

FG/OG

e G2 DI W/ SID (H=7.0')
GRATE TYPE 24-12

g G2 DI W/ SID (H=7.4')
GRATE TYPE 24-12

i G2 DI W/ SID (H=7.8')
GRATE TYPE 24-12

k G2 DI W/ SID (H=8.1')
GRATE TYPE 24-12

S=1.00%

FL 325.93

18" x 57.0' APC d

FL 325.35

FL 325.15

f 18" x 47.1' APC

FL 324.68

FL 324.48

18" x 47.1' APC h

FL 324.01

FL 323.81

18" x 47.1' APC j

FL 323.34

FL 323.14

18" x 47.1' APC l

A

A

80.75' Lt "I-680" 256+40
TG 330.84

80.62' Lt "I-680" 256+97
TG 330.93

80.49' Lt "I-680" 257+47
TG 331.28

79.82' Lt "I-680" 258+00
TG 331.44

B

B

FG/OG

m G2 DI W/ SID

o G2 DI W/ SID (H=6.3')
GRATE TYPE 24-12

q G2 DI W/ SID (H=5.7)
GRATE TYPE 24-12

s G2 DI W/ SID (H=5.4')
GRATE TYPE 24-12

u G2 DI W/ SID (H=4.8')
GRATE TYPE 24-12

18" CSP DD z

S=1.00%

FL 322.67

FL 324.14

FL 321.29

n 18" x 37.0' APC

FL 324.71

FL 324.51

18" x 54.4' APC p

FL 325.45

FL 325.25

18" x 47.1' APC r

FL 326.12

FL 325.92

18" x 49.7' APC t

FL 326.62

18" x 70.9' APC v

l 18" x 47.1' APC

IDENTICAL

115.25' Lt "I-680" 256+00
FL 312.91

80.75' Lt "I-680" 256+00
TG 330.86

79.97' Lt "I-680" 258+75
TG 331.78

79.82' Lt "I-680" 259+50
TG 332.55

m G2 DI W/ SID (H=9.6')
GRATE TYPE 24-12

w G2 DI W/ SID (H=4.5')
GRATE TYPE 24-12

y G2 DI W/ SID (H=4.5')
GRATE TYPE 24-12

FG/OG

FG

n 18" APC

18" AFES aa

S=25.00%

j 18" APC

OG

18" x 34.6' CSP DD z

FL 321.29

RSP bb

18" x 70.9' APC v

18" x 70.9' APC x

FL 327.33

FL 328.04

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE SYSTEM No. 29 CONTINUED

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-17

REVISED BY	DATE REVISED
RS	9-29-21

RICHARD SAGASTUME — CALCULATED-DESIGNED BY
TINH TRUONG — CHECKED BY
TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:37
LAST REVISION 09-29-21

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	309	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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RS	9-29-21

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TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DRAINAGE SYSTEM No. 30

8.83′ Rt "I-680" 255+30
TG 341.43
G2 DI (H=9.3′) u
GRATE TYPE 24-12

12.00′ Lt "I-680" 255+30
TG 331.86
G2 DI W/ SID (H=6.9′) a
GRATE TYPE 24-12
FG
OG
S=35.00%
18" APC b
FL 324.94
FL 332.15
t 18" x 21.8′ APC
s 6" x 6.9′ WALL DRAIN
IDENTICAL

12.00′ Lt "I-680" 255+80
TG 331.79
G2 DI W/ SID (H=7.2′) c
GRATE TYPE 24-12
FG
OG
e 6" x 6.9′ WALL DRAIN
FL 324.59
IDENTICAL

18" x 3.7′ APC w
S=2.00%
Mod DI TO MH v
Exist 36" CMP
FL 323.28
12.00′ Lt "I-680" 256+91
TG 332.13
h G2 DI W/ SID (H=8.8′)
GRATE TYPE 24-12
FG
OG
x 6" x 6.9′ WALL DRAIN
FL 323.36
Exist 36" CMP
IDENTICAL

15.00′ Lt "I-680" 257+47
RIM 332.64
j G2 MH (H=5.0′)
TYPE U45 MH F&C
OG
FG
FL 327.64

6" WALL DRAIN s
a G2 DI W/ SID
6" WALL DRAIN e
c G2 DI W/ SID
18" APC t
FL 324.94
S=0.75%
b 18" x 47.1′ APC
FL 324.59
d 18" x 57.0′ APC
12.00′ Lt "I-680" 256+40
TG 331.89
f G2 DI W/ SID (H=7.7′)
GRATE TYPE 24-12
FL 324.16
S=0.75%
g 18" x 48.3′ APC
FL 323.80
S=0.75%
h G2 DI W/ SID
x 6" WALL DRAIN
18" CSP k
S=1.00%
FL 327.11
i 18" x 53.1′ APC
FL 327.64

DRAINAGE SYSTEM No. 30 CONTINUED

IDENTICAL

10.27′ Lt "I-680" 257+47
TG 334.84
l G1 DI IN Conc Gtr (H=5.1′)
GRATE TYPE 24-12
IDENTICAL
n G2 DI W/ SID
20.90′ Rt "I-680" 257+47
TG 339.93±
MATCH Exist GRADE
G2 DI W/ SID (H=6.9′) n
GRATE TYPE 24-12
OG
G2 MH j
S=5.36%
Exist 18" APC
FL 331.50
FL 329.70
FL 333.00
18" APC m
FL 336.20±
FL 333.00
18" APC j
k 18" x 3.3′ CSP
S=2.01%
FL 327.64
FL 329.63
m 18" x 28.0′ APC
Exist DI
Exist 18" APC
FL 336.70±
LIMITS OF Conc Bkf L=97′
S=1.00%
18" x 98.6′ APC W/ Conc Bkf a
OG/FG
S=1.00%
o 18" x 98.6′ APC W/ Conc Bkf
20.33′ Rt "I-680" 259+00
TG 340.96±
MATCH Exist GRADE
GDOM DI W/ SID (H=3.3′) p
GRATE TYPE 24-12 (2)
LIMITS OF Conc Bkf L=96′
S=1.00%
q 18" x 97.7′ APC W/ Conc Bkf
FL 337.69
20.13′ Rt "I-680" 260+00
TG 342.33±
MATCH Exist GRADE
GDOM DI W/ SID (H=3.7′) r
GRATE TYPE 24-12 (2)
S=1.00%
FL 338.66
q 18" x 97.7′ APC W/ Conc Bkf

DRAINAGE SYSTEM No. 30 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10′
Vert 1"=10′

DP-18

LAST REVISION | DATE PLOTTED => 8-MAR-2022
09-29-21 | TIME PLOTTED => 15:37

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b018.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	310	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN — REGISTERED PROFESSIONAL ENGINEER — No. C46770 — Exp. 6-30-23 — CIVIL — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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96.64' Lt "I-680" 261+20
FL 327.73

80.25' Lt "I-680" 261+20
TG 334.99

(d) G2 DI W/ SID (H=6.5')
GRATE TYPE 24-12

18" AFES (b)

OG

FG

S=5.00%

RSP (a)

FL 328.50

18" x 15.4' CSP (c)

DRAINAGE SYSTEM No. 31

IDENTICAL

10.29' Lt "I-680" 262+40
TG 342.50

G2 DI IN Conc Gtr (H=8.2') (c)
GRATE TYPE 24-12

Mod DI (a)
TO MH

FG

S=19.22%

OG

(e) 18" APC W/ Conc Bkf

S=10%

FL 338.99

FL 334.33

FL 344.20±

Exist 36" CMP

FL 333.36

(b) 18" x 9.8' CSP

(d) 18" x 27.6' APC

Exist 36" CMP

LIMITS OF Conc Bkf
L=40'

Exist DI

OG

OG/FG

18" APC (d)

FL 344.20±

S=1.00%

(e) 18" x 59.1' APC W/ Conc Bkf

20.61' Rt "I-680" 263+00
TG 349.53±
MATCH Exist GRADE

(f) G2 DI W/ SID (H=4.7')
GRATE TYPE 24-12

FL 344.79

DRAINAGE SYSTEM No. 32

79.64' Lt "I-680" 263+00
TG 338.73

(d) G2 DI W/ SID (H=4.3')
GRATE TYPE 24-12

FG

S=5%

119.11' Lt "I-680" 263+00
FL 319.92

18" AFES (b)

S=52.39%

FL 334.41

88.78' Lt "I-680" 263+00
FL 334.00

OG

(c) 18" x 41.9' CSP DD

S=5%

RSP (a)

115.29' Lt "I-680" 263+00
FL 320.11

DRAINAGE SYSTEM No. 33

92.76' Lt "I-680" 264+35
TG 340.83

(d) G2 DI W/ SID (H=8.0')
GRATE TYPE 24-12

118.07' Lt "I-680" 264+35
FL 327.88

FG

OG

18" AFES (b)

RSP (a)

S=20.37%

18" x 24.8' CSP W/ DD Jt (c)

FL 332.85

DRAINAGE SYSTEM No. 34

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-19

RICHARD SAGASTUME — REVISED BY — RS — 9-29-21 — DATE REVISED
TINH TRUONG — CALCULATED-DESIGNED BY — CHECKED BY
TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	311	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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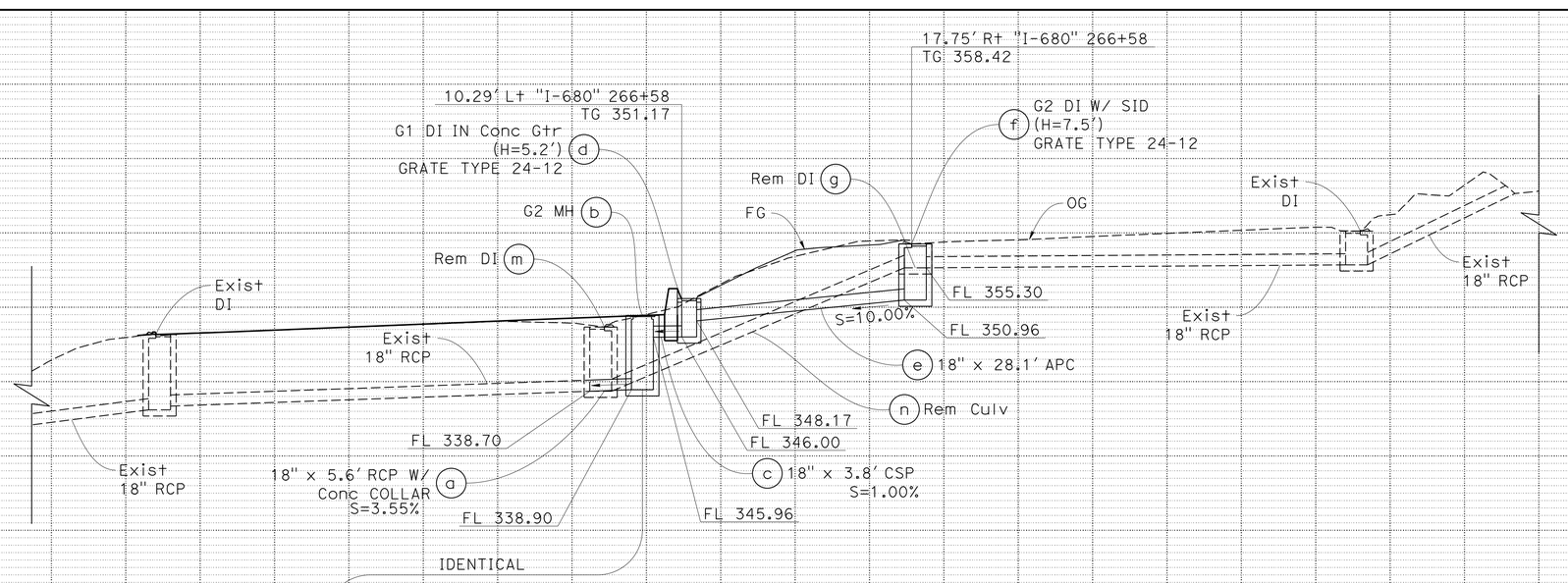
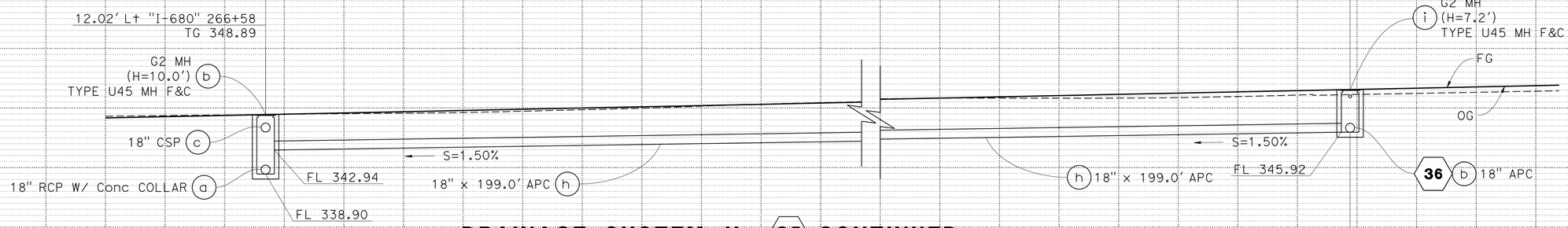
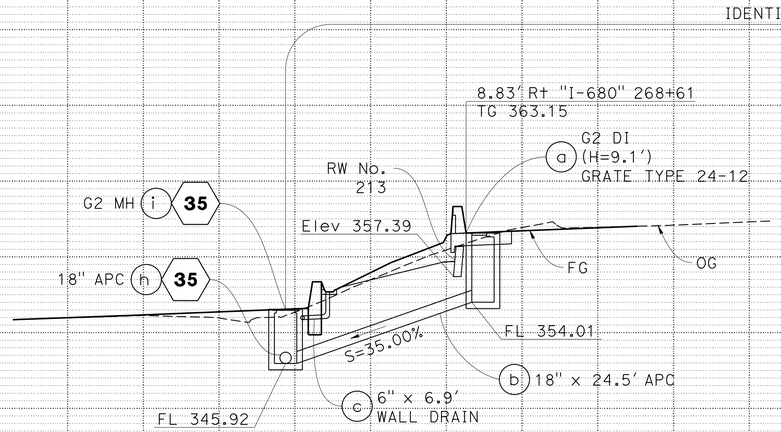


DRAINAGE SYSTEM No. 35



DRAINAGE SYSTEM No. 35 CONTINUED



DRAINAGE SYSTEM No. 36

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-20

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	312	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

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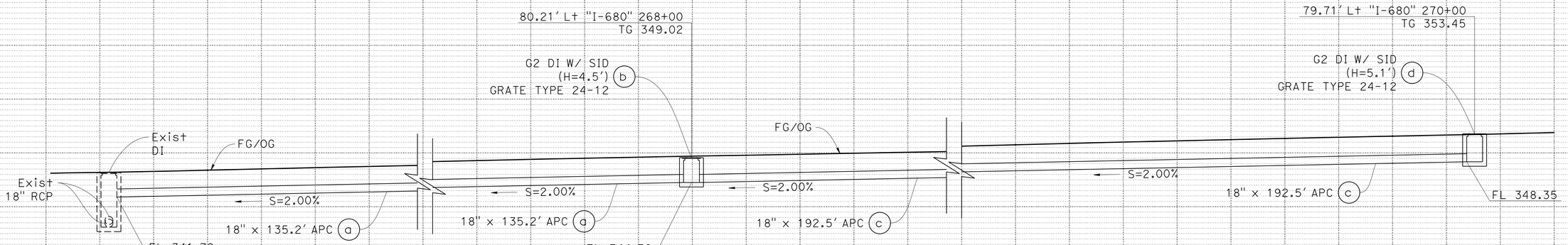

DRAINAGE SYSTEM No. 37

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-21

LAST REVISION DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:37

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	313	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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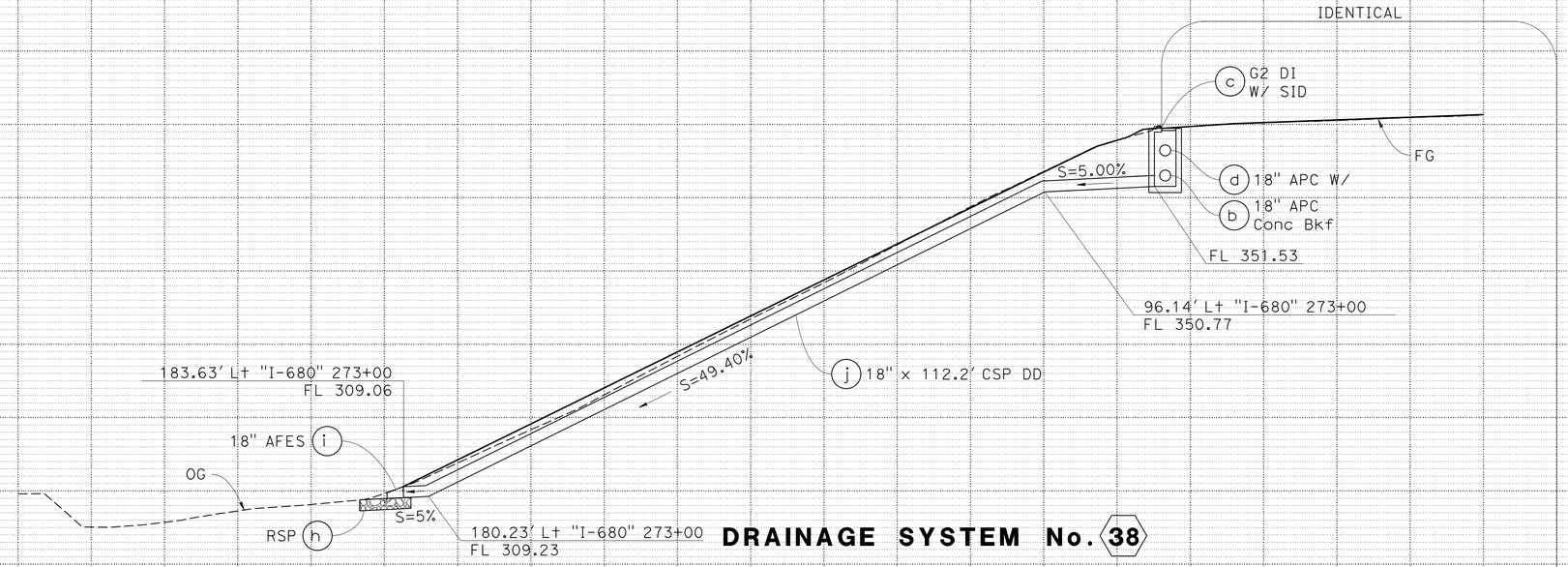
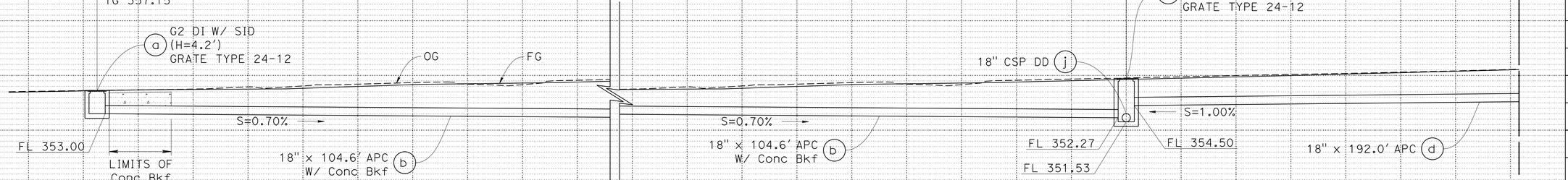


DRAINAGE SYSTEM No. 38



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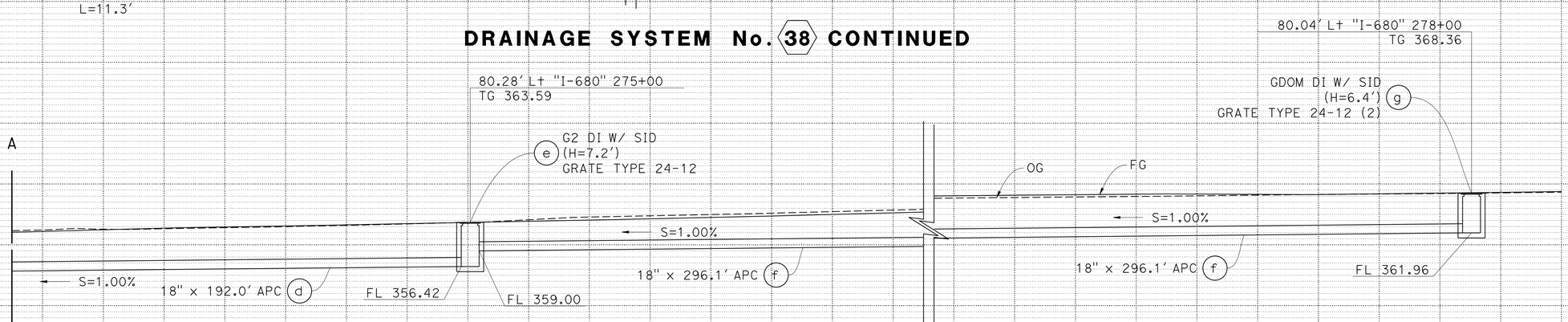

DRAINAGE SYSTEM No. 38 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-22

REVISED BY: RS — DATE REVISED: 9-29-21
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	314	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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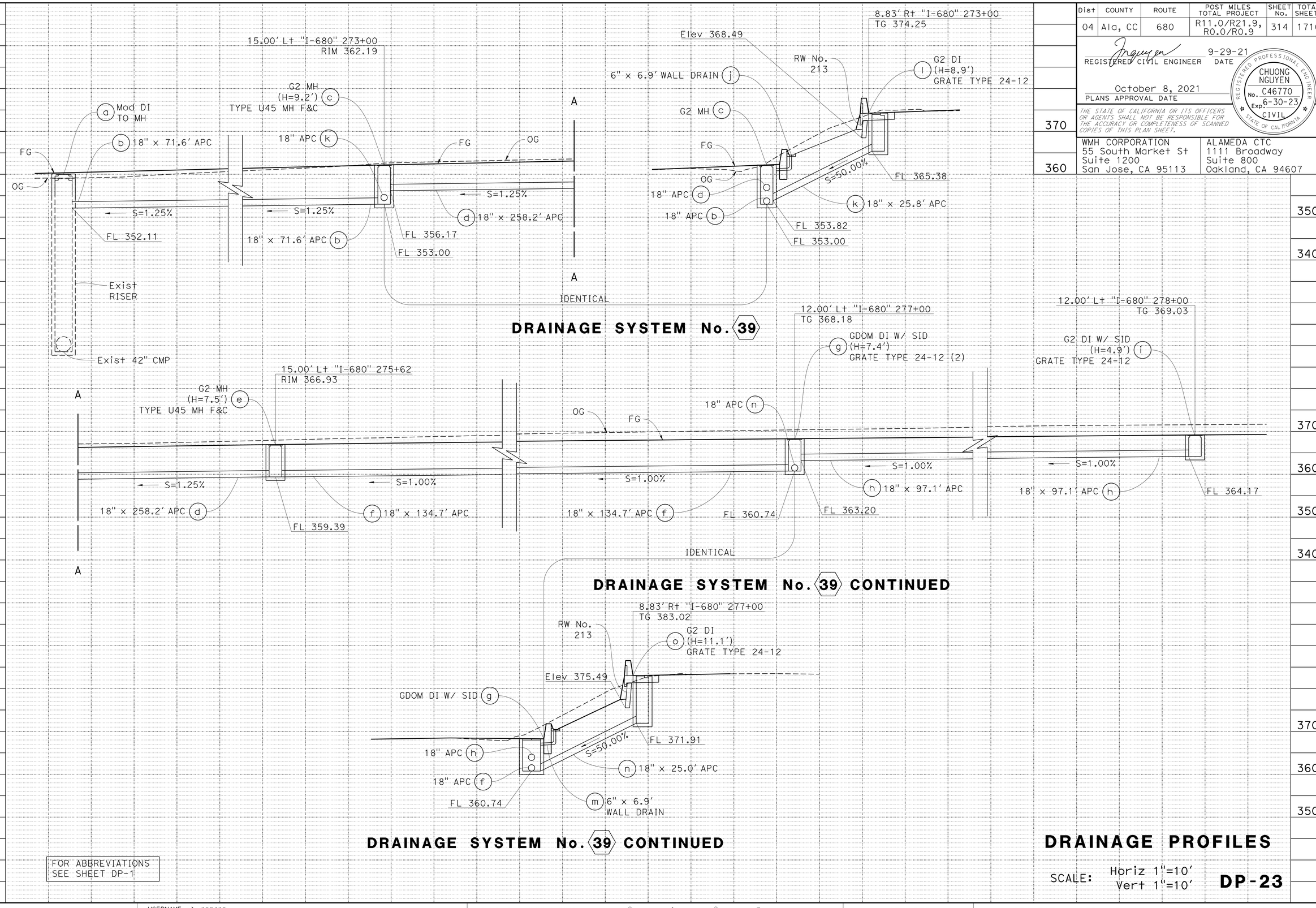

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-23

LAST REVISION — DATE PLOTTED => 8-MAR-2022
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	315	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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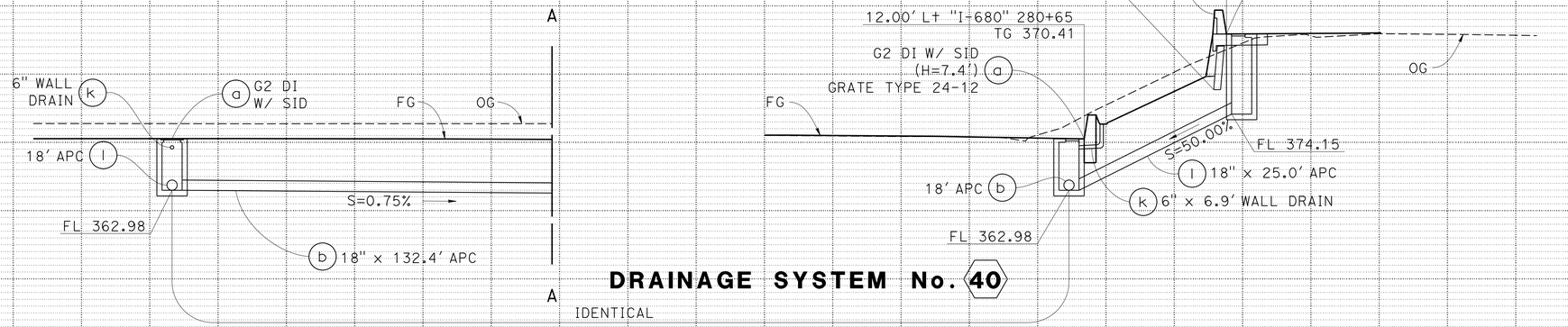
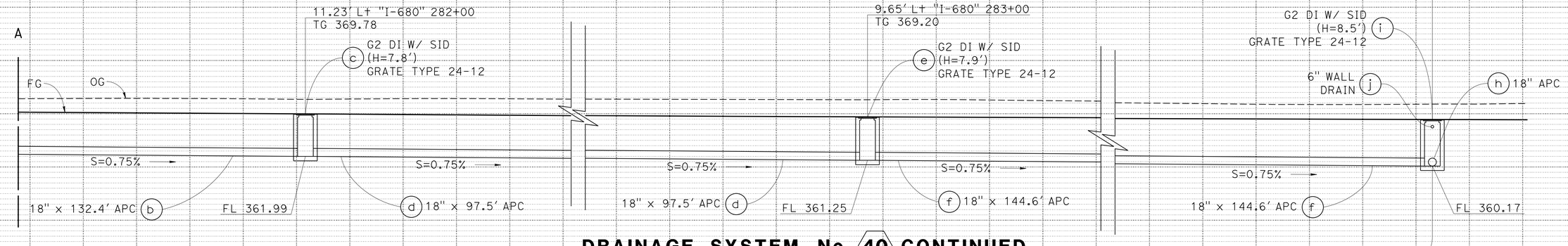
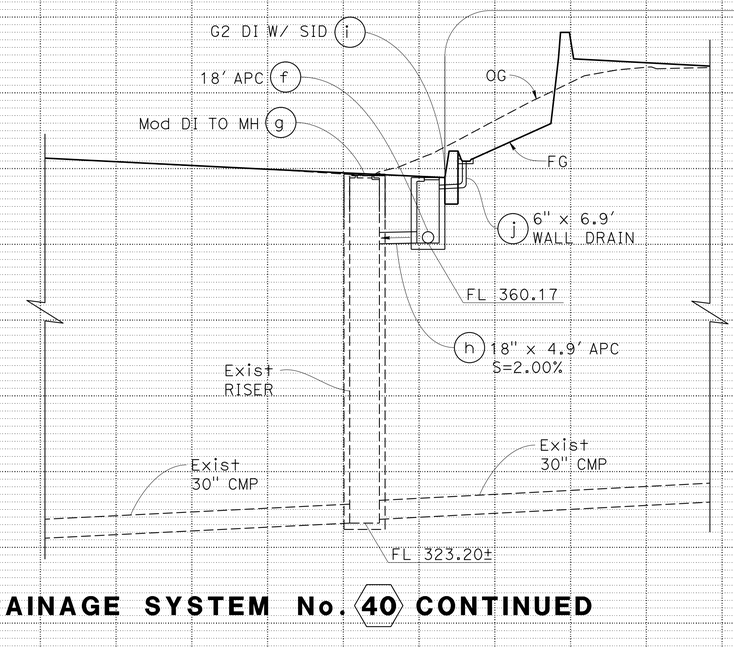
DRAINAGE SYSTEM No. 40





DRAINAGE SYSTEM No. 40 CONTINUED



DRAINAGE SYSTEM No. 40 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-24

RICHARD SAGASTUME — TINH TRUONG — TIMOTHY J. LEE — RS — 9-29-21

REVISED BY — DATE REVISED — CALCULATED-DESIGNED BY — CHECKED BY — CONSULTANT FUNCTIONAL SUPERVISOR

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BORDER LAST REVISED 7/2/2010 — USERNAME => p302438 — DGN FILE => 04200002351b024.dgn — RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 — UNIT 0733 — PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	316	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

October 8, 2021
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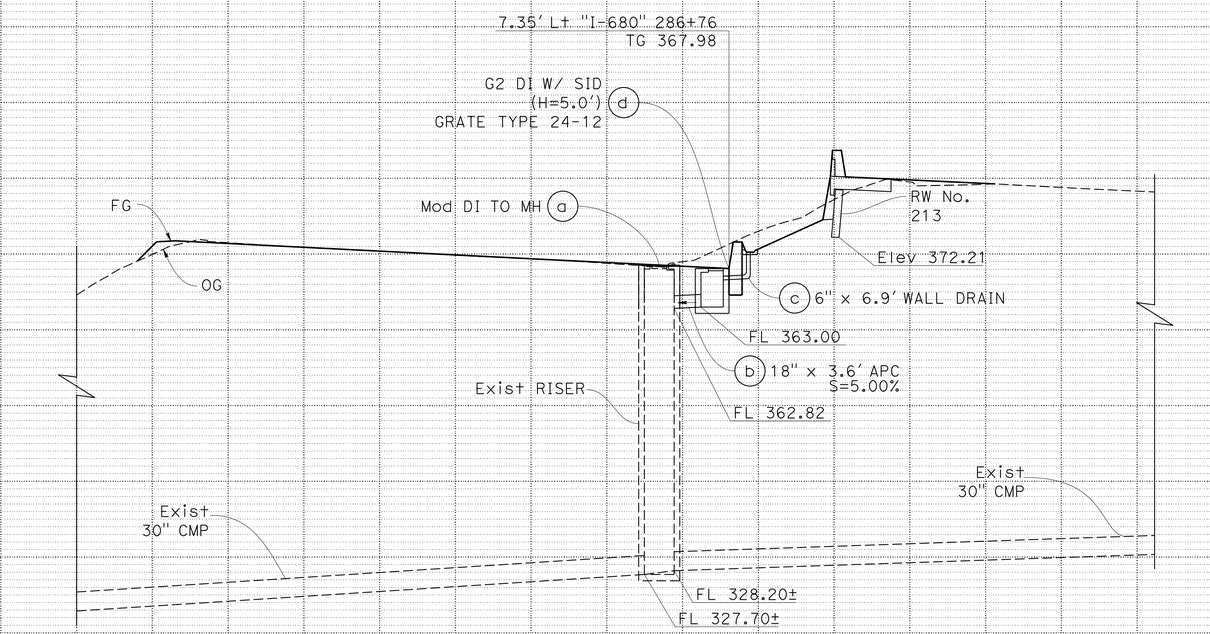
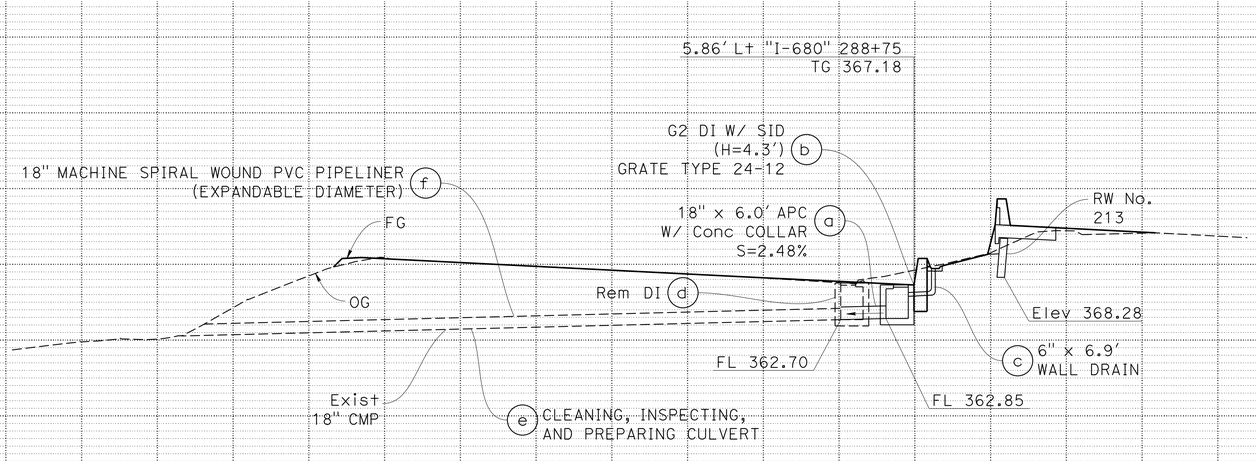


DRAINAGE SYSTEM No. 41



DRAINAGE SYSTEM No. 42

FOR ABBREVIATIONS
SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-25

RS 9-29-21 — REVISED BY / DATE REVISED
RICHARD SAGASTUME — CALCULATED-DESIGNED BY
TINH TRUONG — CHECKED BY
TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR
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LAST REVISION | DATE PLOTTED => 8-MAR-2022
09-29-21 | TIME PLOTTED => 15:38

BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b025.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	317	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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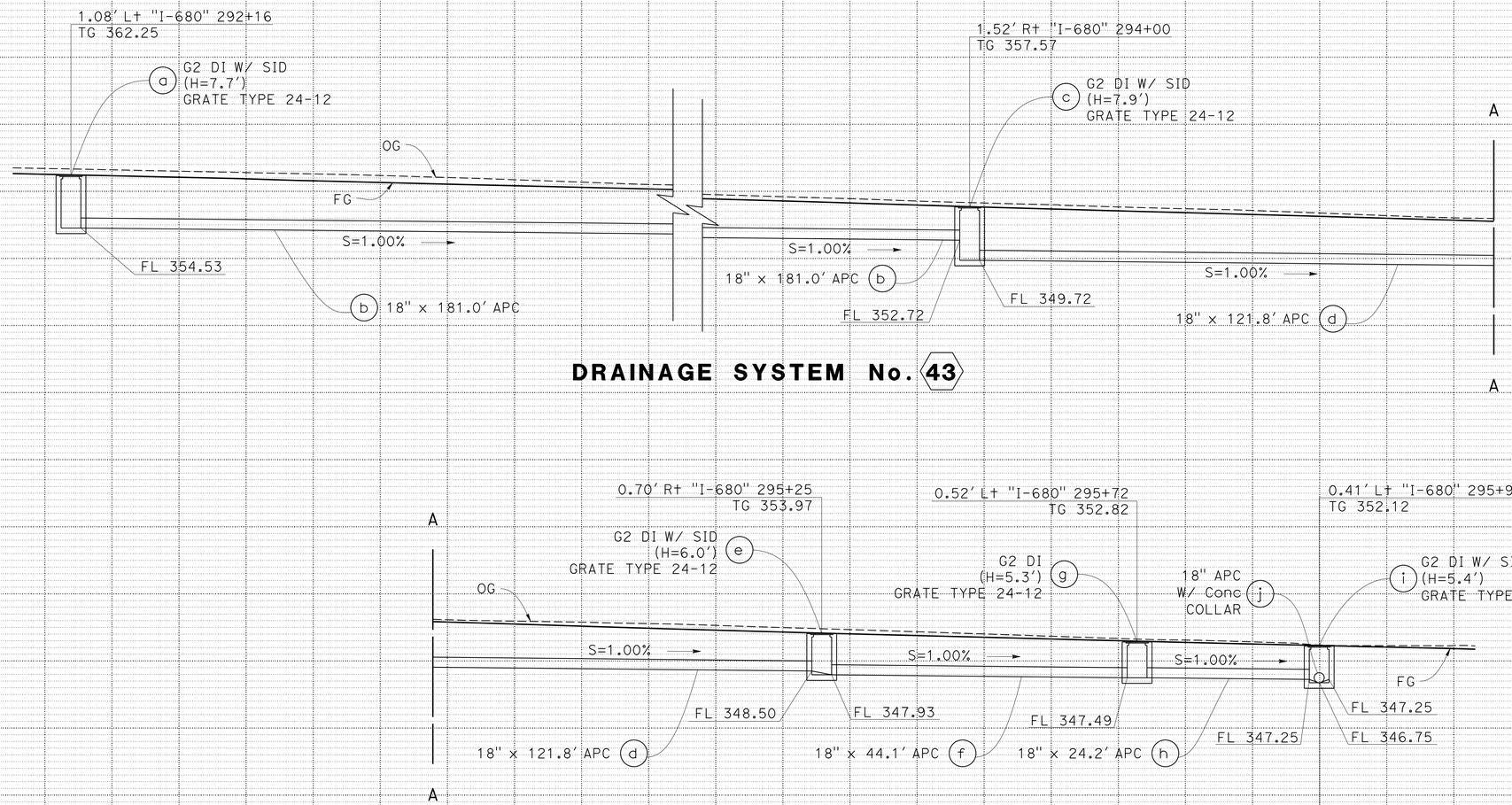
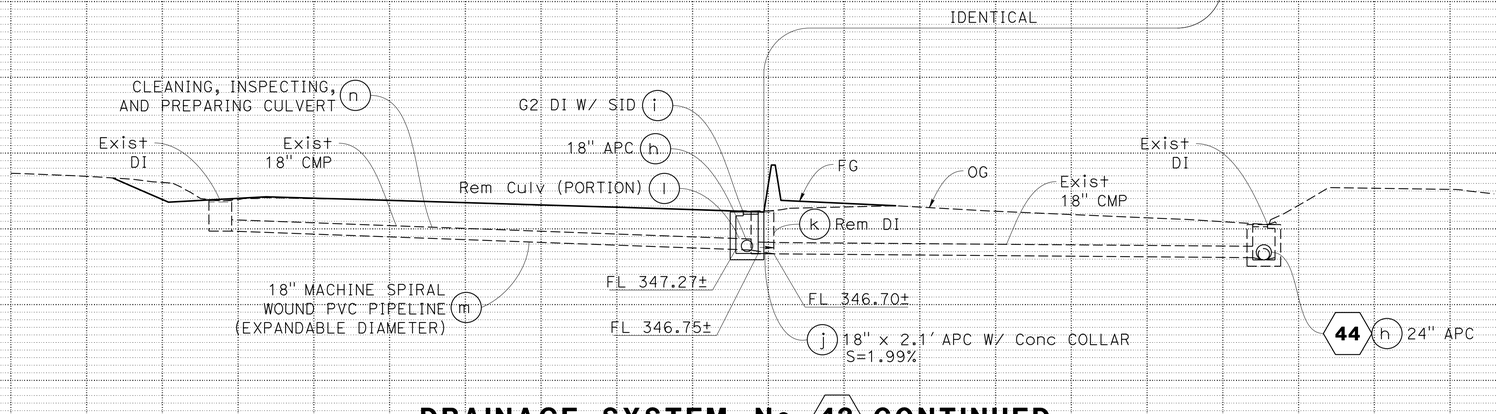


DRAINAGE SYSTEM No. 43

DRAINAGE SYSTEM No. 43 CONTINUED



DRAINAGE SYSTEM No. 43 CONTINUED

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-26

FOR ABBREVIATIONS SEE SHEET DP-1

REVISED BY: RS — DATE REVISED: 9-29-21
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CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351ib026.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	318	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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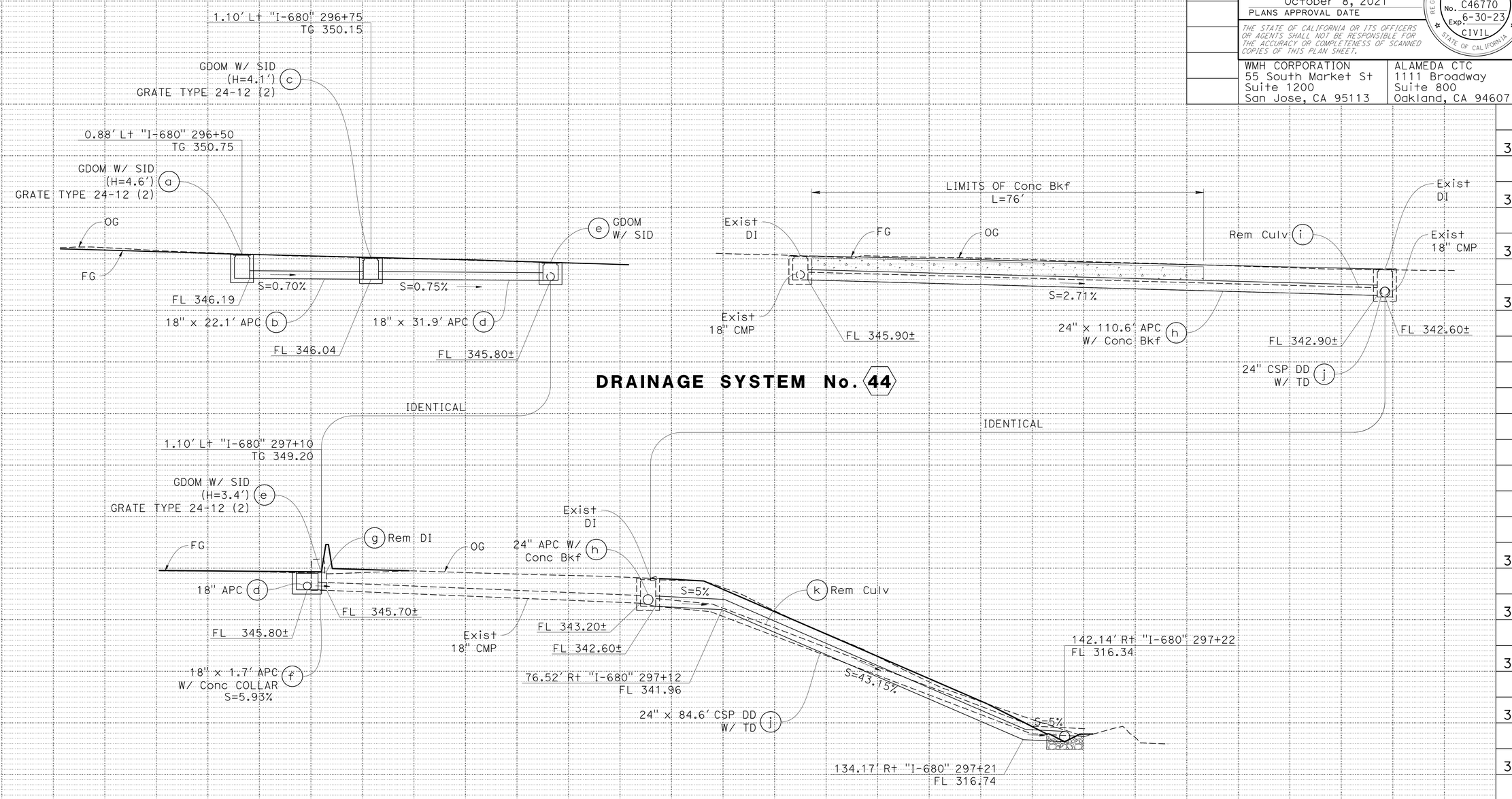
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE



DRAINAGE SYSTEM No. 44

DRAINAGE SYSTEM No. 44 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-27

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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TIME PLOTTED => 15:38

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b027.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	319	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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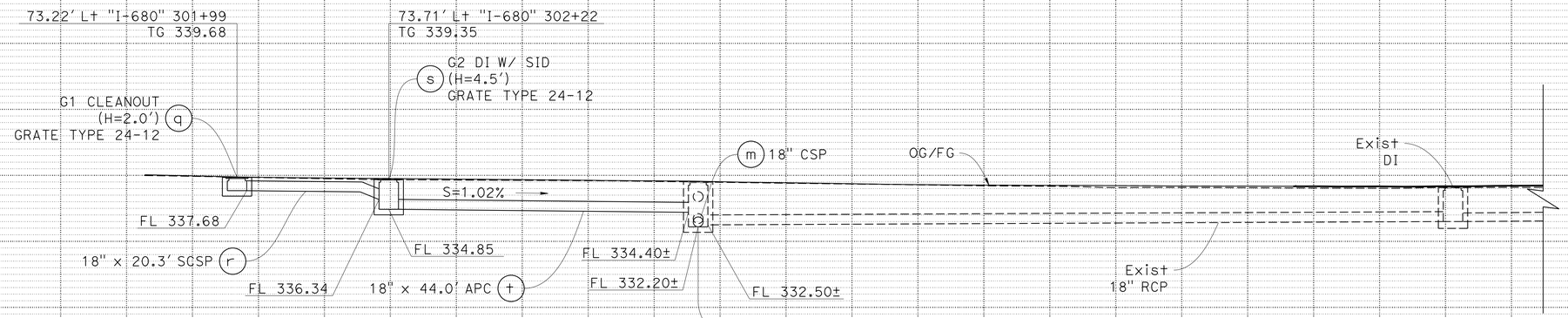
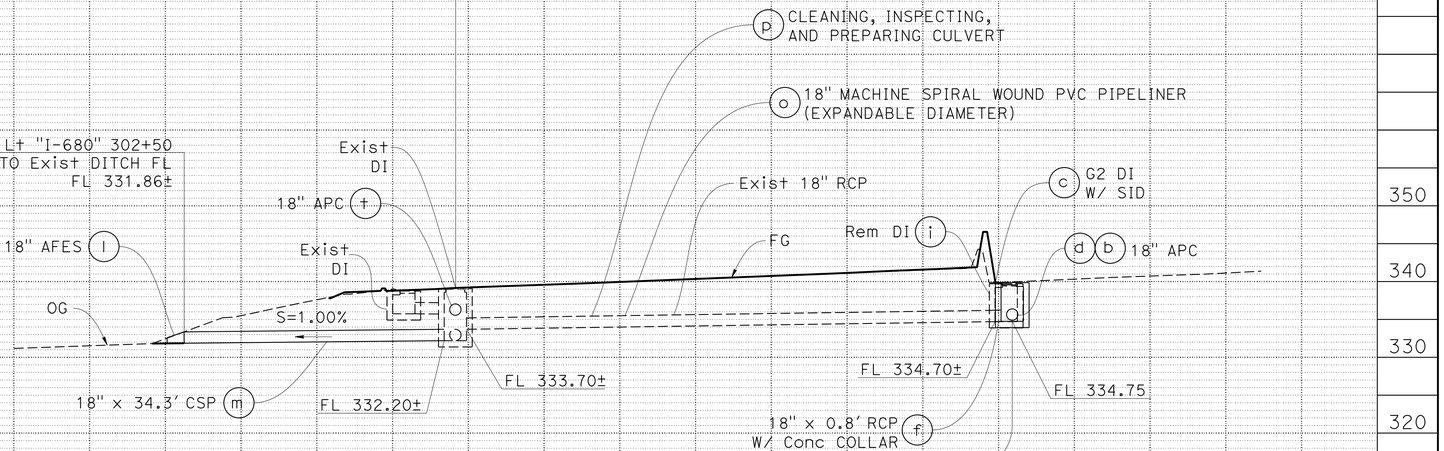
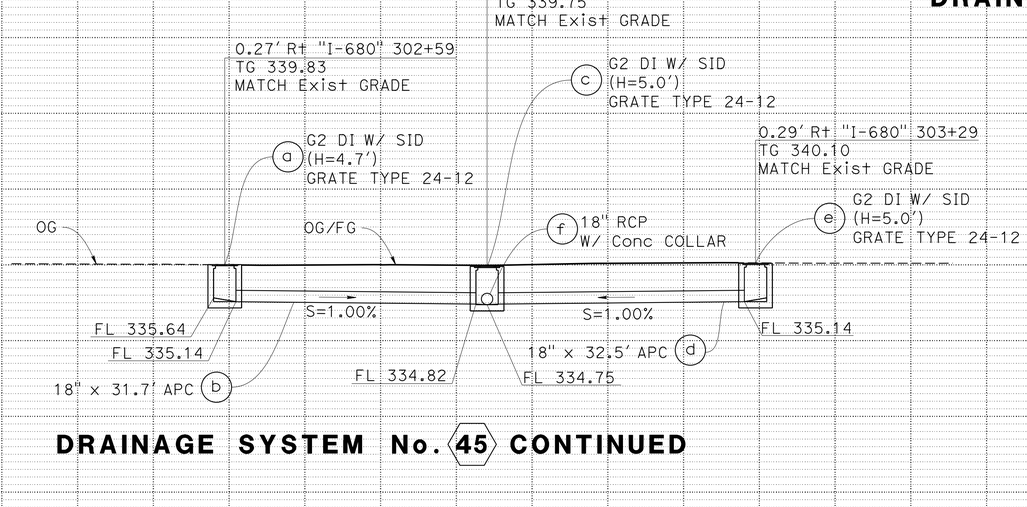
DRAINAGE SYSTEM No. 45





DRAINAGE SYSTEM No. 45 CONTINUED



DRAINAGE SYSTEM No. 45 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10′ Vert 1"=10′

DP-28

LAST REVISION: DATE PLOTTED => 8-MAR-2022 09-29-21 TIME PLOTTED => 15:38

O:\0030\DRAFTING\FINAL_PS&E\04200002351ib028.dgn

BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 DGN FILE => 04200002351ib028.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	320	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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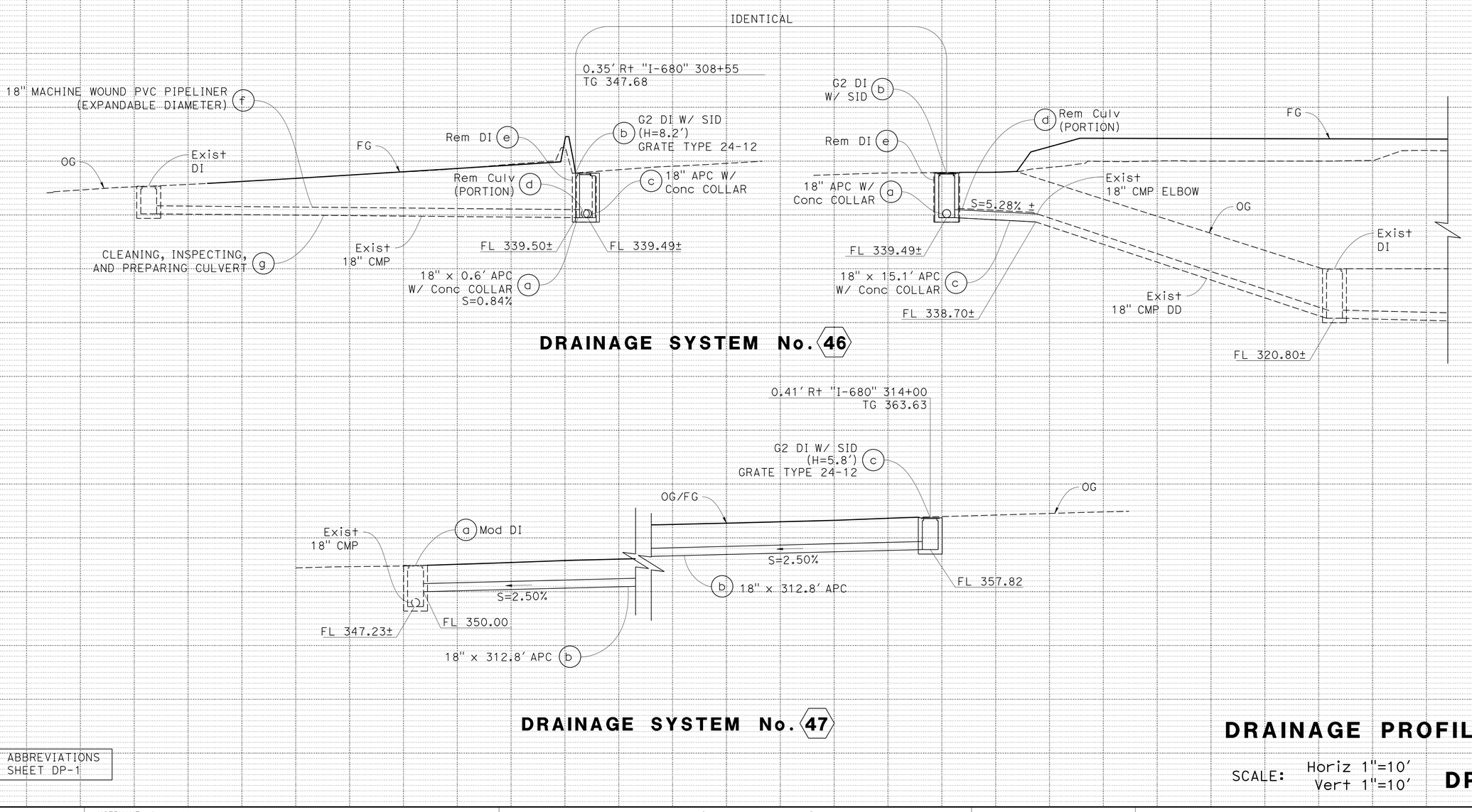

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-29

RICHARD SAGASTUME — TINH TRUONG — CALCULATED-DESIGNED BY — CHECKED BY

REVISED BY: RS — DATE REVISED: 9-29-21

CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b029.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	321	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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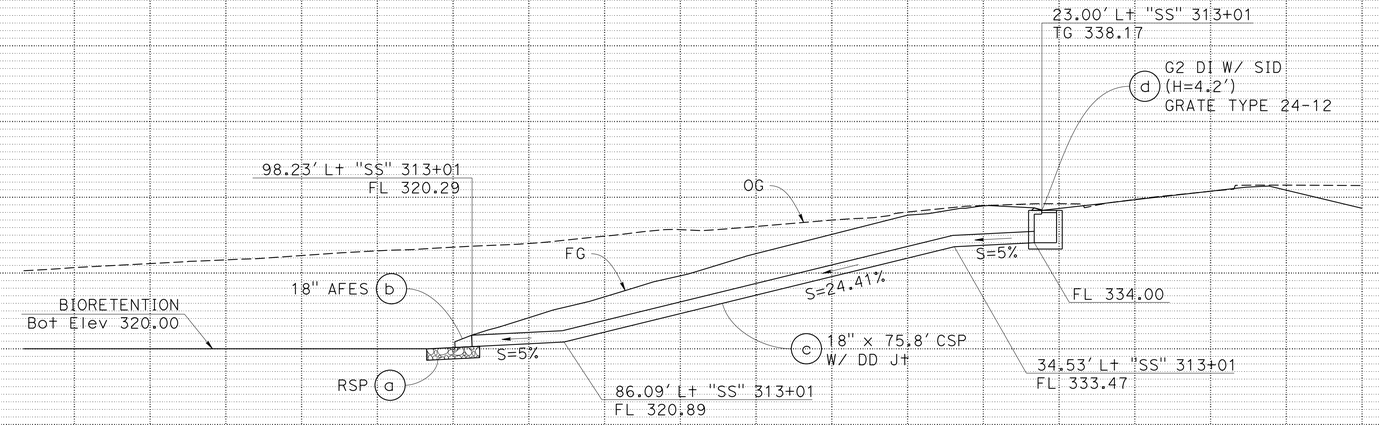
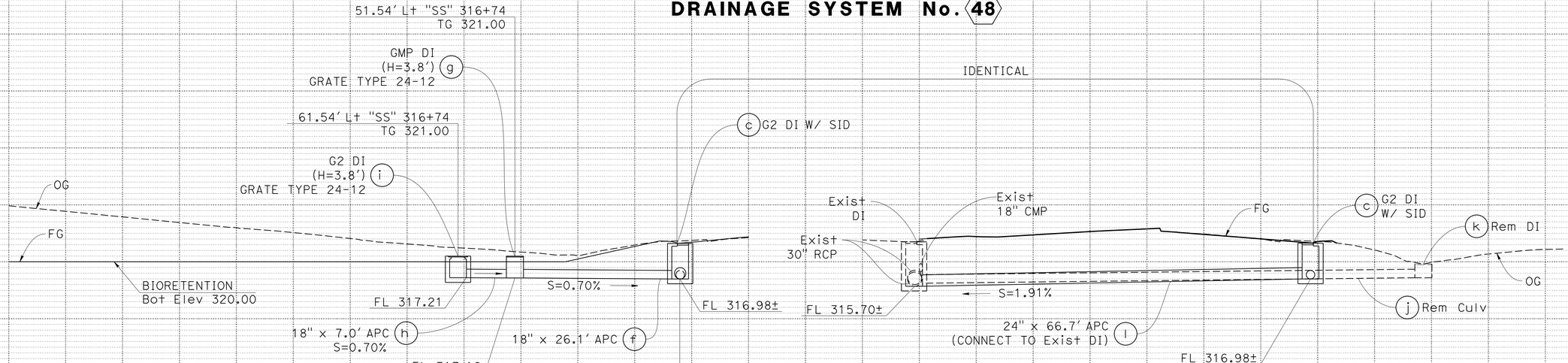
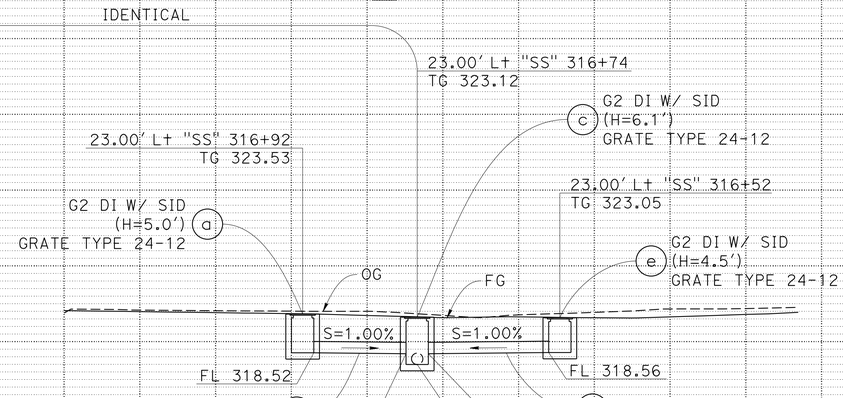


DRAINAGE SYSTEM No. 48



DRAINAGE SYSTEM No. 49



DRAINAGE PROFILES

DRAINAGE SYSTEM No. 49 CONTINUED

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-30

FOR ABBREVIATIONS SEE SHEET DP-1

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	322	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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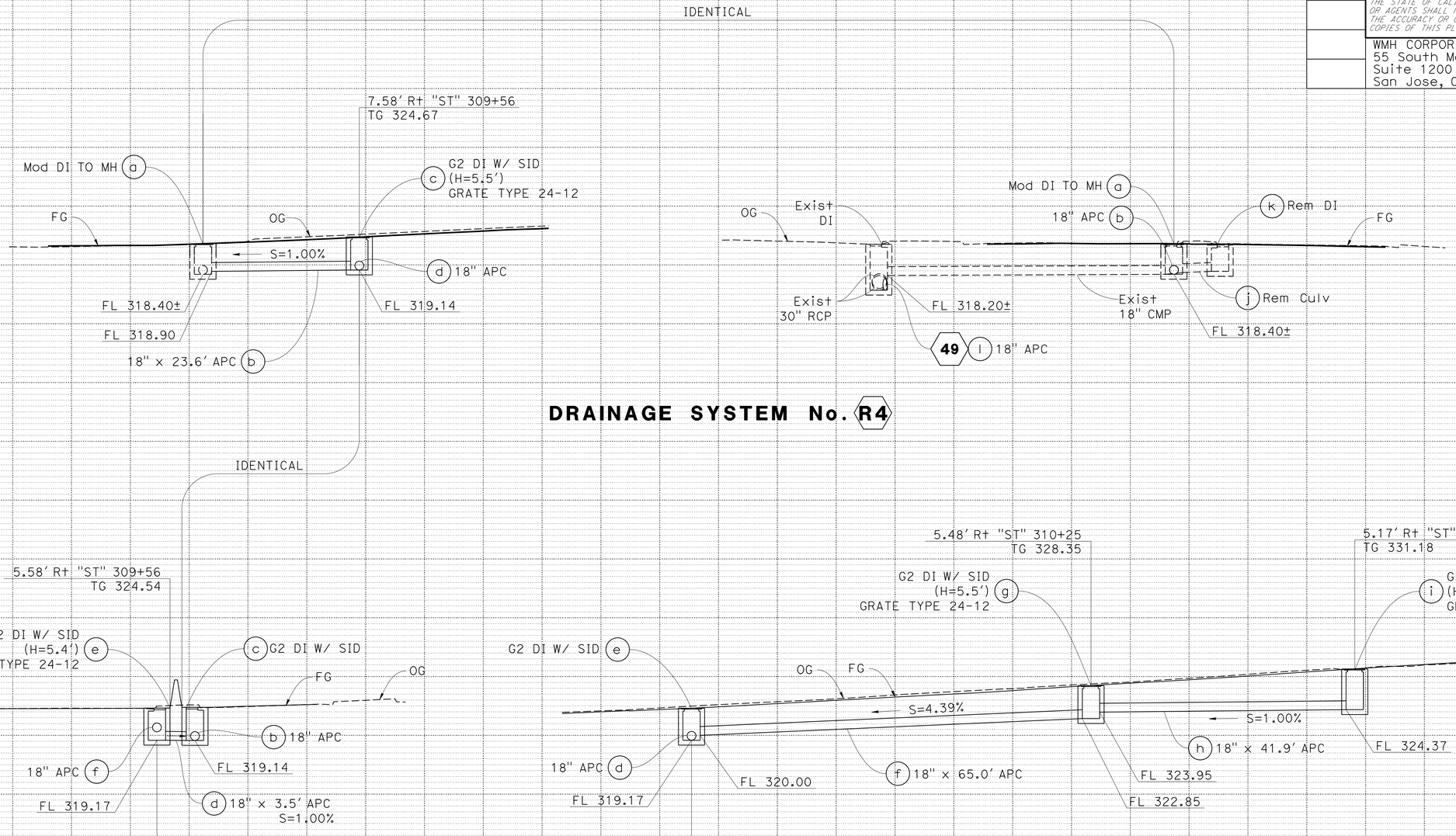
DRAINAGE SYSTEM No. R4



DRAINAGE SYSTEM No. R4 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-31

REVISED BY: RS — DATE REVISED: 9-29-21
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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b031.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	323	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL
REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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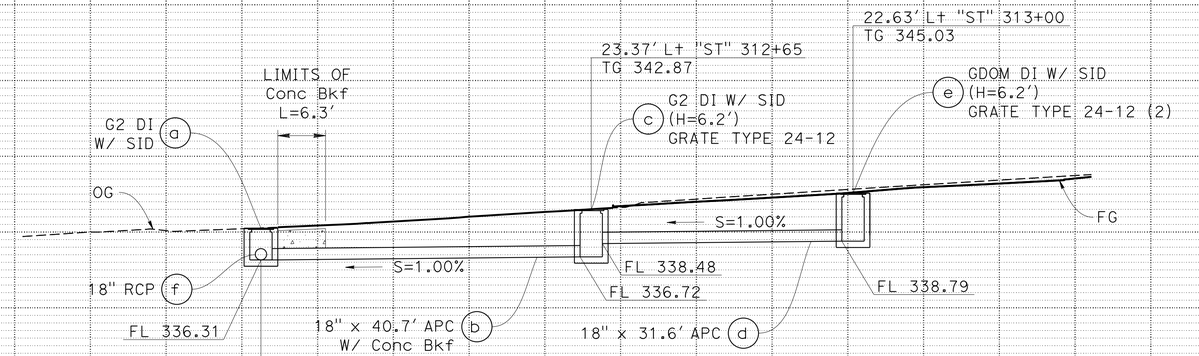
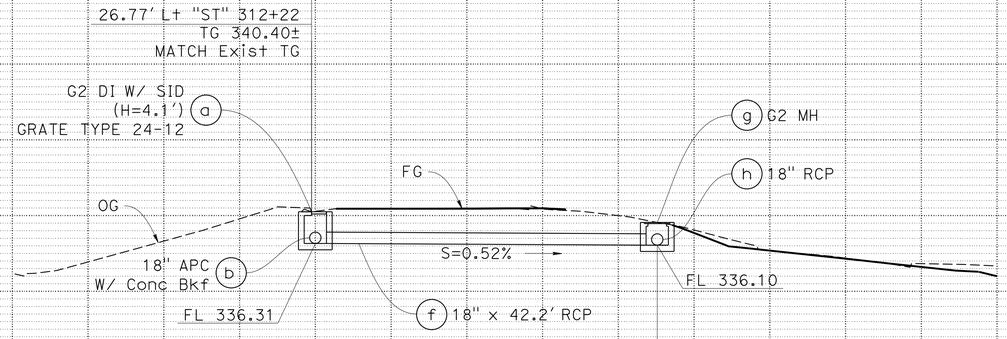
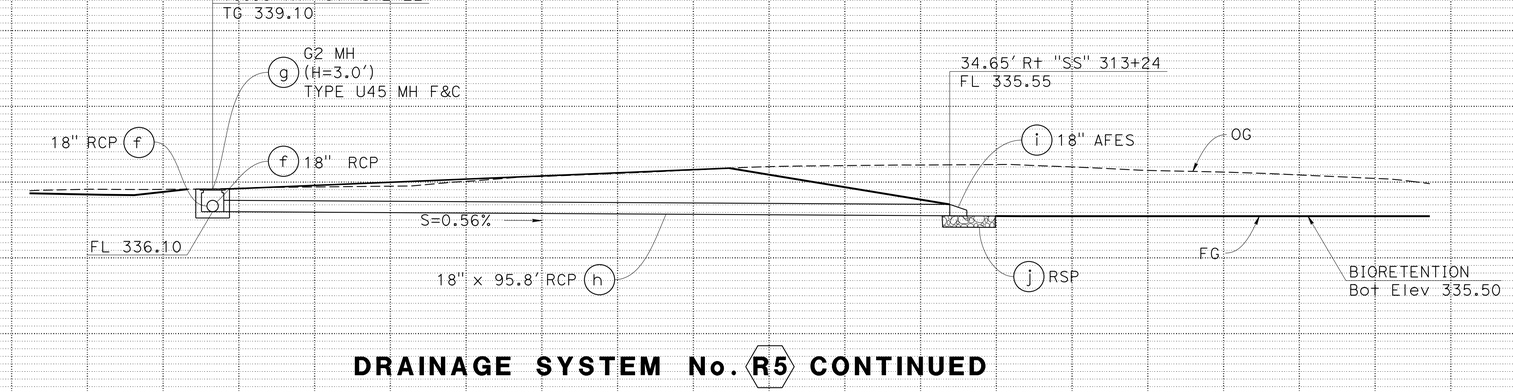


DRAINAGE SYSTEM No. R5



DRAINAGE SYSTEM No. R5 CONTINUED



DRAINAGE SYSTEM No. R5 CONTINUED

FOR ABBREVIATIONS
SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-32

REVISED BY: RS — DATE REVISED: 9-29-21
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CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	324	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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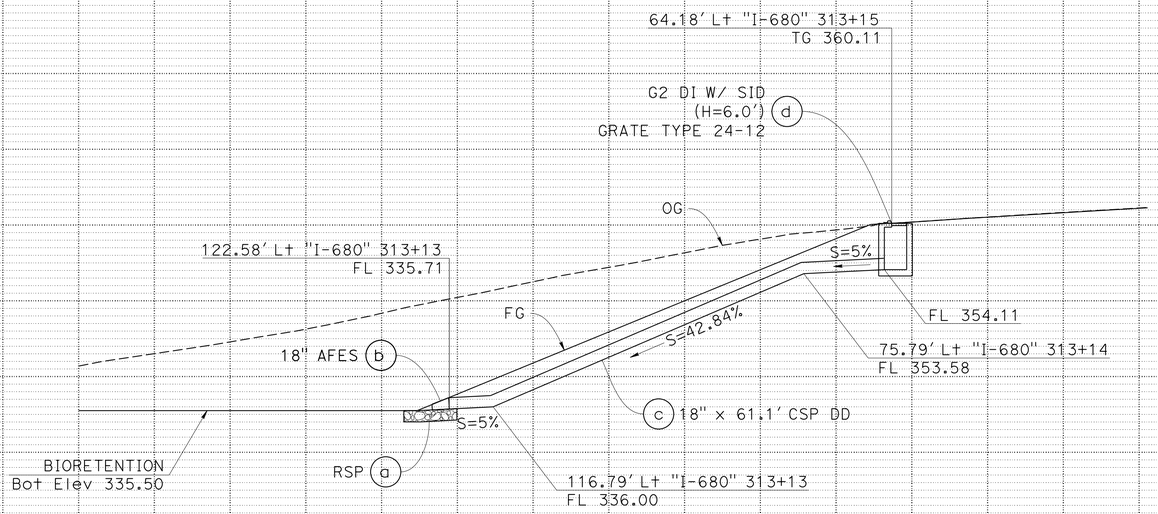
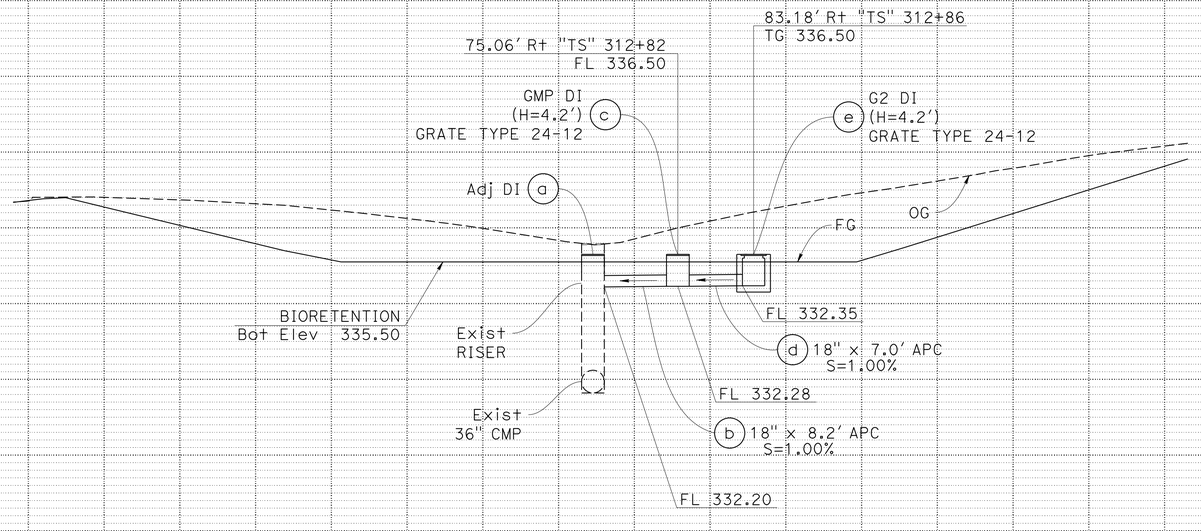


DRAINAGE SYSTEM No. 50



DRAINAGE SYSTEM No. 51

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-33

REVISED BY	DATE REVISED
RS	9-29-21

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351ib033.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	325	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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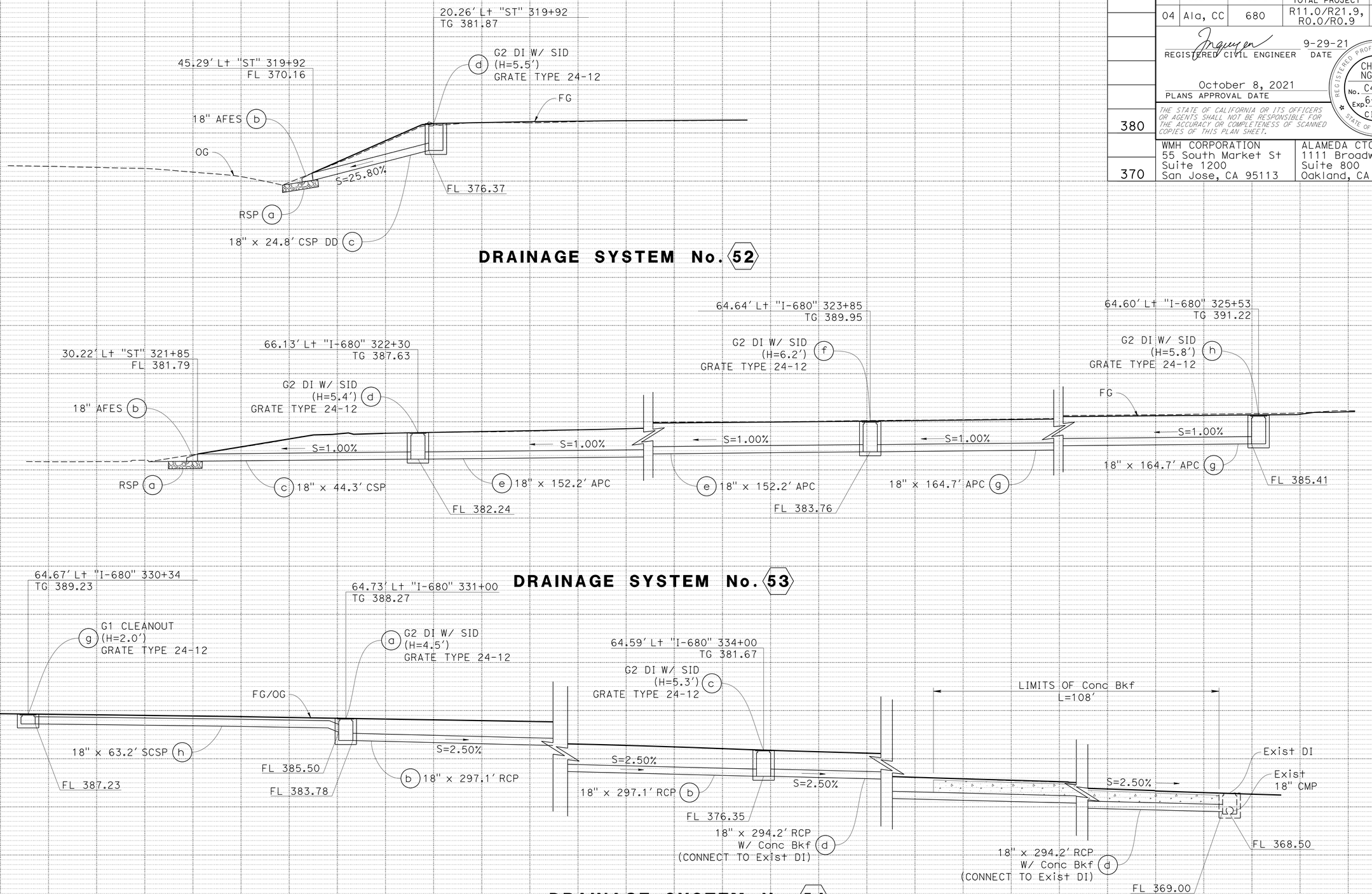

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-34

RICHARD SAGASTUME — REVISED BY: RS — DATE REVISED: 9-29-21
TINH TRUONG — CALCULATED-DESIGNED BY — CHECKED BY
TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR

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Caltrans

LAST REVISION 09-29-21
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:39

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BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351ib034.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	326	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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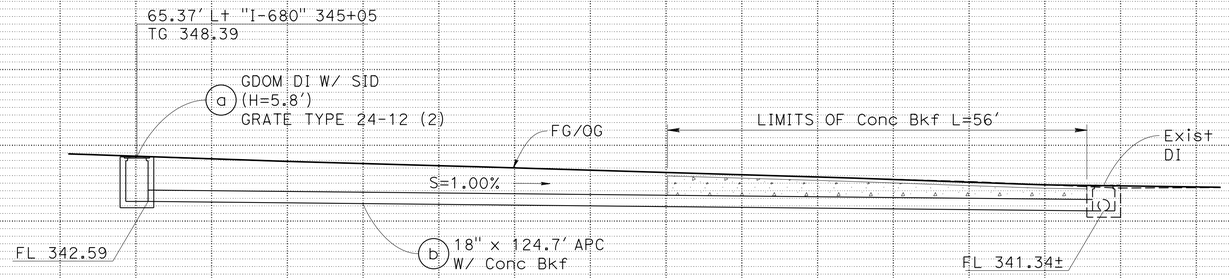
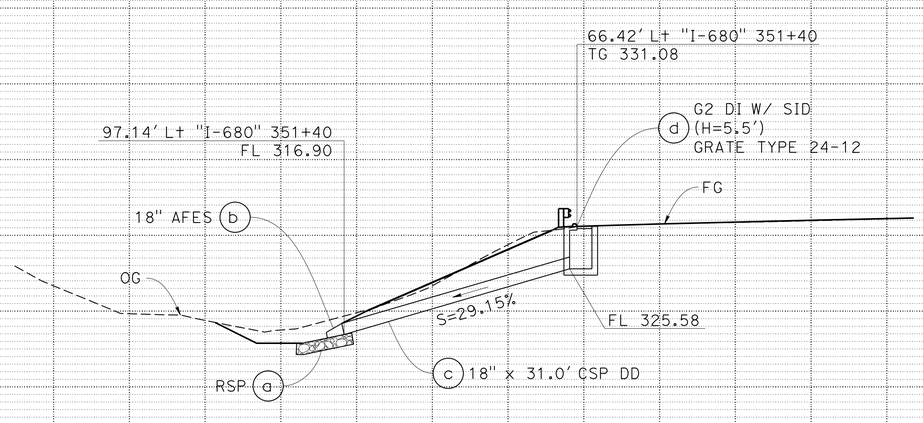


DRAINAGE SYSTEM No. 56



DRAINAGE SYSTEM No. 57

FOR ABBREVIATIONS
SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-35

RICHARD SAGASTUME — TINH TRUONG — CALCULATED-DESIGNED BY — CHECKED BY

REVISED BY: RS — DATE REVISED: 9-29-21

CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	327	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

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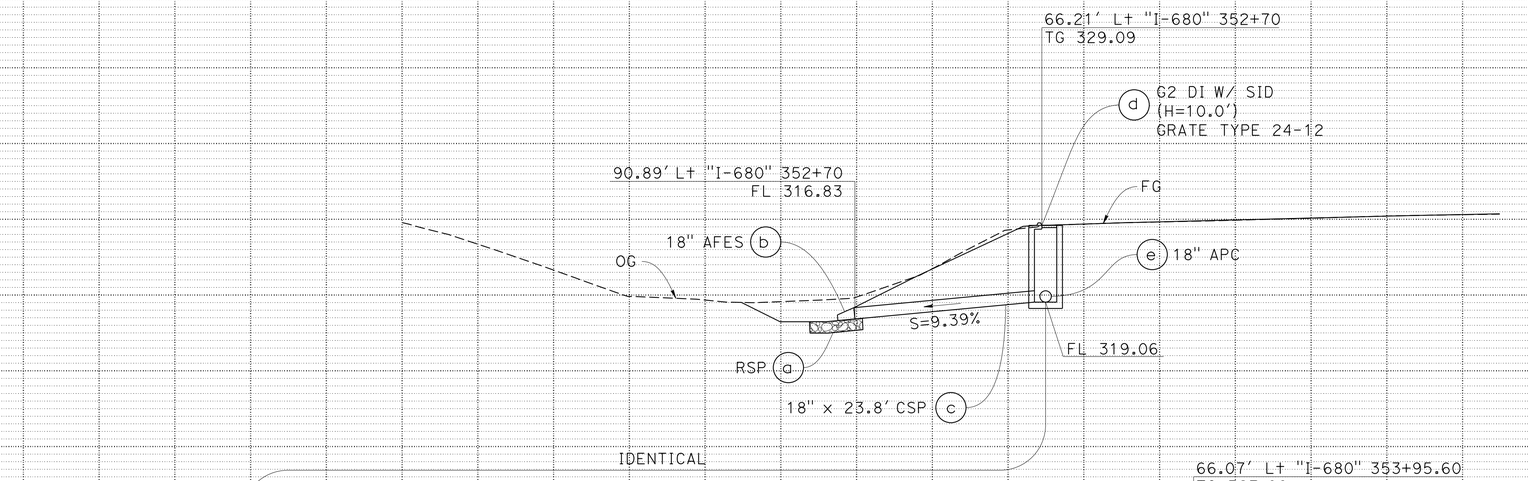
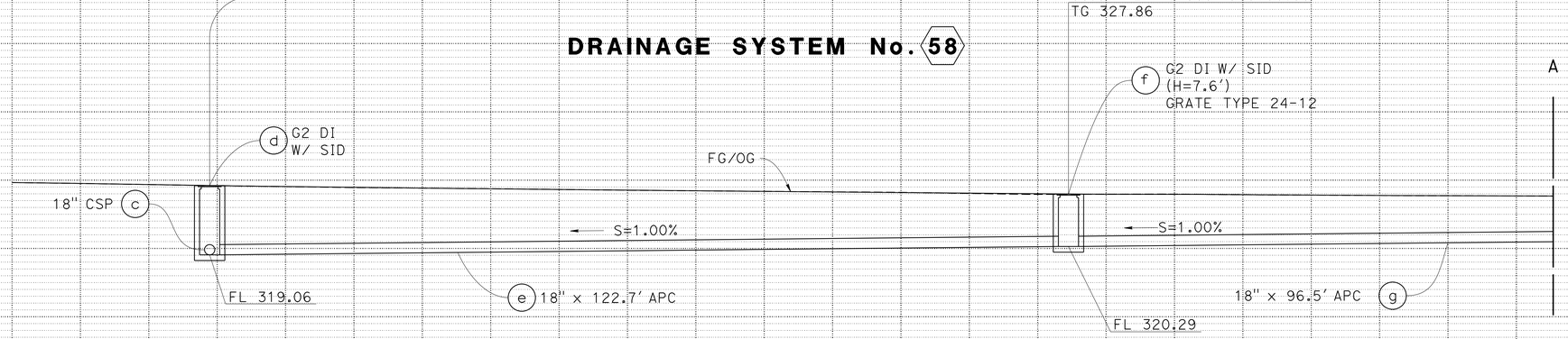
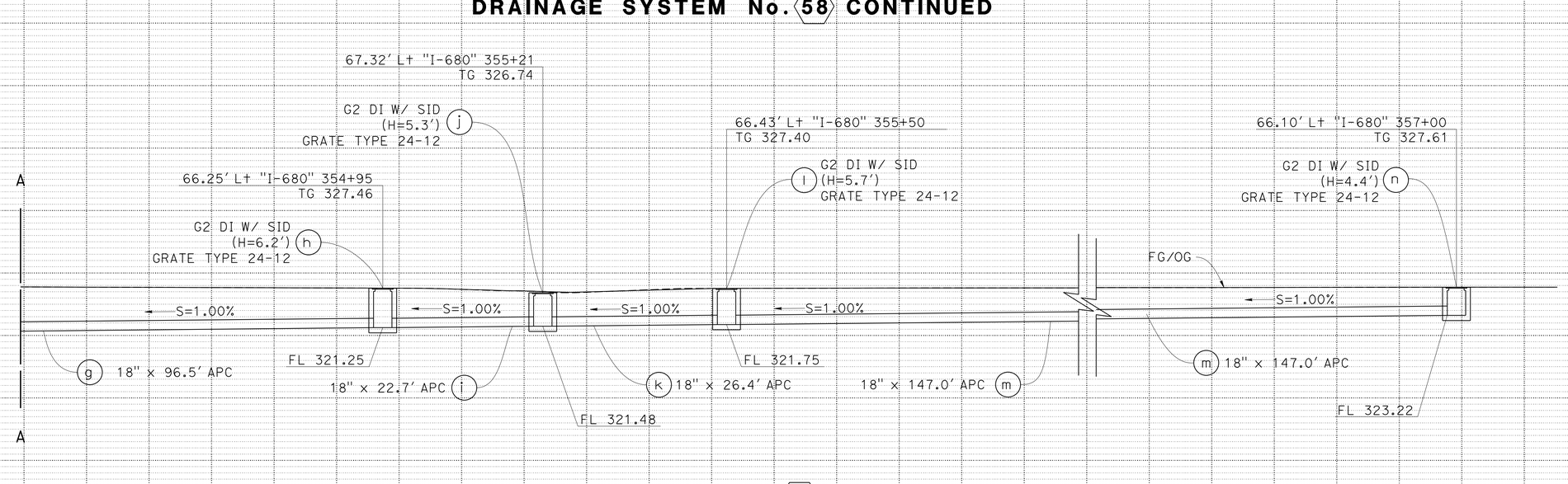


DRAINAGE SYSTEM No. 58



DRAINAGE SYSTEM No. 58 CONTINUED



DRAINAGE SYSTEM No. 58 CONTINUED

DRAINAGE PROFILES

SCALE: Horiz 1"=10′ Vert 1"=10′

DP-36

FOR ABBREVIATIONS SEE SHEET DP-1

REVISED BY: RS — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION: DATE PLOTTED => 9-29-21
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:39

01\0030\DRAFTING\FINAL_PS&E\04200002351b036.dgn

BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351b036.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	328	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

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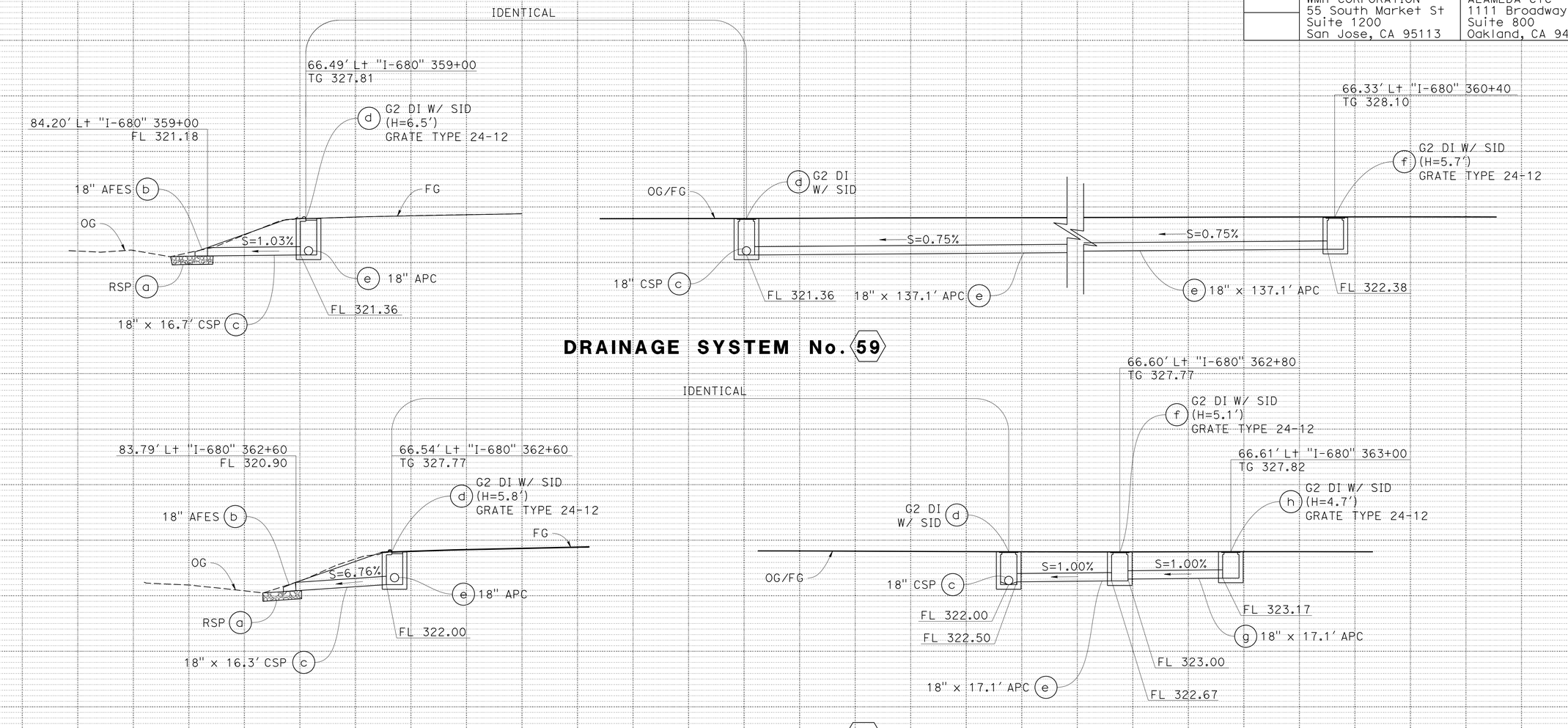
CHECKED BY TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



DRAINAGE SYSTEM No. 59

DRAINAGE SYSTEM No. 172

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10′ Vert 1"=10′

DP-37

LAST REVISION DATE PLOTTED => 8-MAR-2022
09-29-21 TIME PLOTTED => 15:39

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	329	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CHUONG NGUYEN — No. C46770 — Exp. 6-30-23 — CIVIL — STATE OF CALIFORNIA

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CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
SUPERVISOR: TIMOTHY J. LEE
CONSULTANT FUNCTIONAL SUPERVISOR

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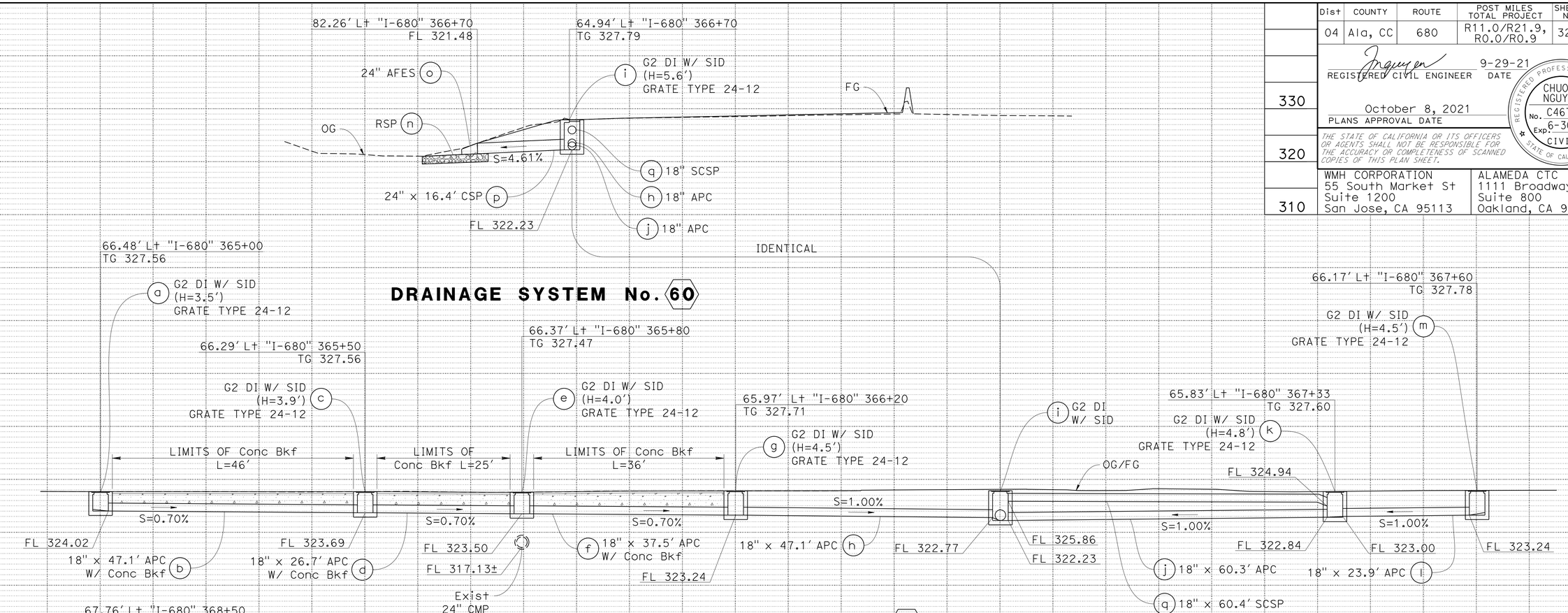
DRAINAGE SYSTEM No. 60



DRAINAGE SYSTEM No. 60 CONTINUED

DRAINAGE SYSTEM No. 61

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-38

LAST REVISION DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:39

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	330	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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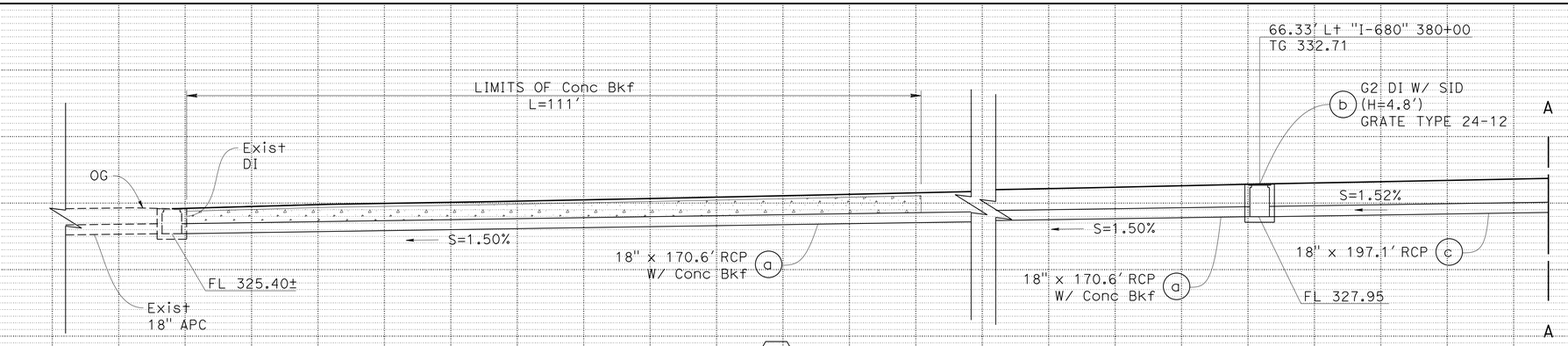
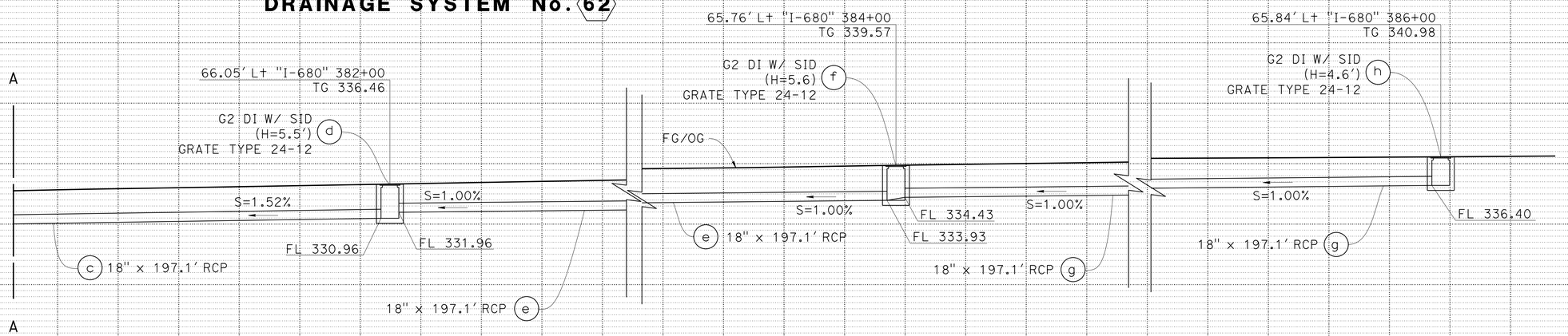
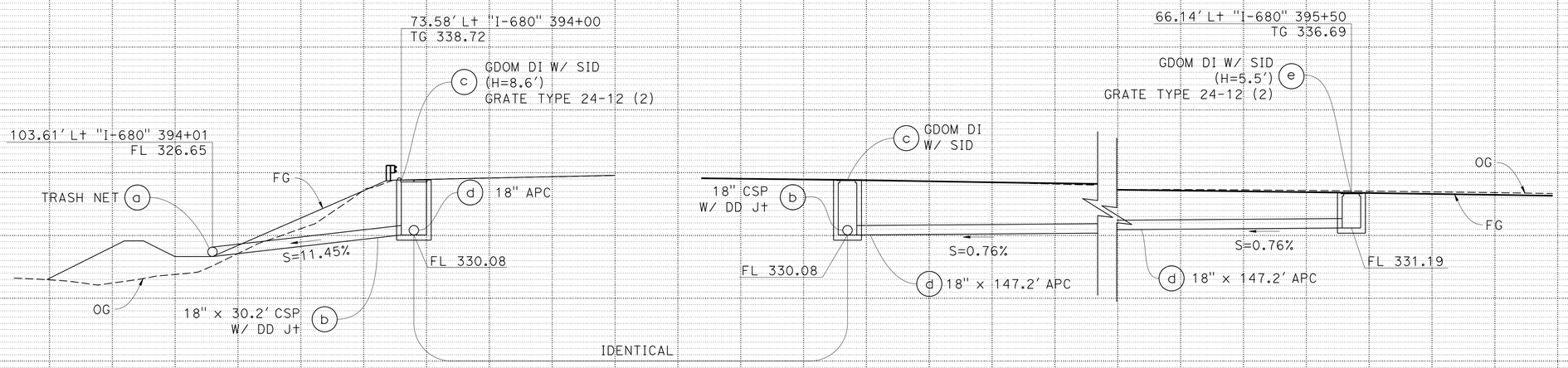


DRAINAGE SYSTEM No. 62



DRAINAGE SYSTEM No. 62 CONTINUED



DRAINAGE SYSTEM No. 63

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-39

FOR ABBREVIATIONS SEE SHEET DP-1

REVISED BY: RS — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:39

01:\0030U\DRAFTING\FINAL_PS&E\04200002351b039.dgn

BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b039.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	331	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER — DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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CHECKED BY: TINH TRUONG
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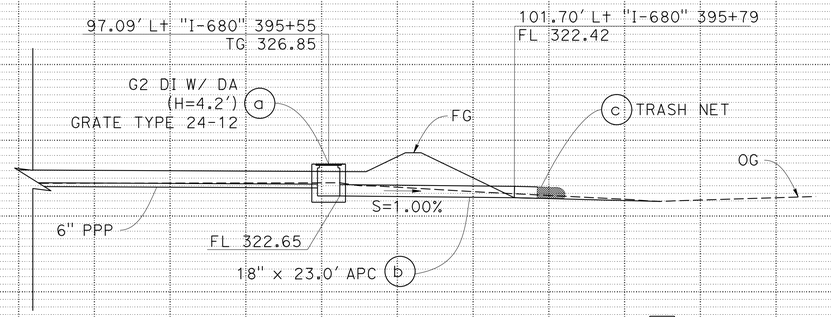
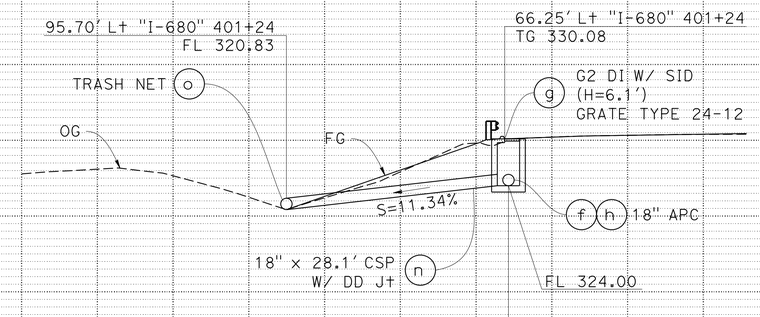
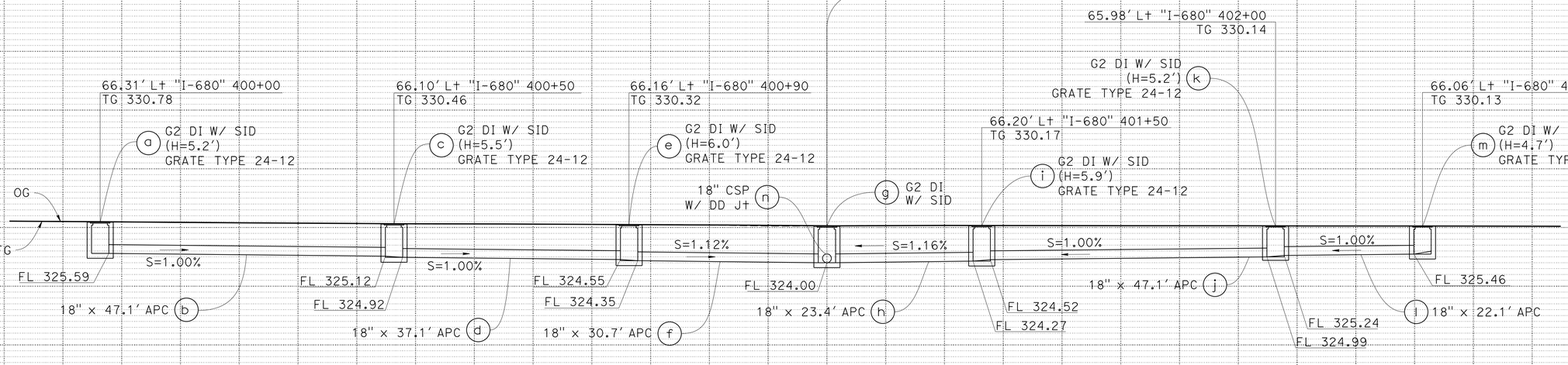
DRAINAGE SYSTEM No. 64

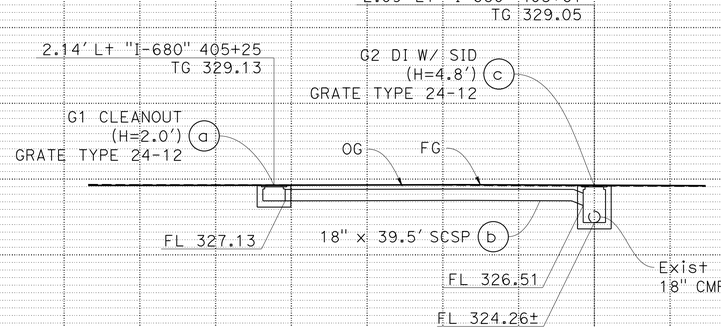


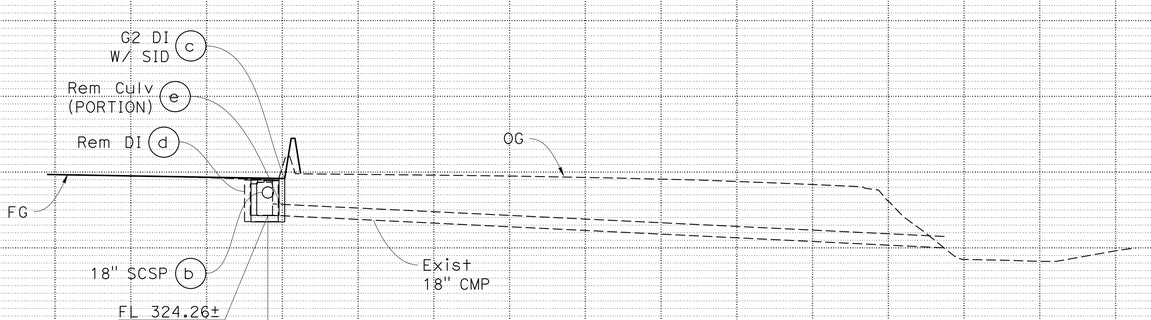


IDENTICAL



DRAINAGE SYSTEM No. 65





IDENTICAL

DRAINAGE SYSTEM No. 66

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10′ Vert 1"=10′

DP-40

LAST REVISION: DATE PLOTTED => 8-MAR-2022 TIME PLOTTED => 15:39

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b040.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	332	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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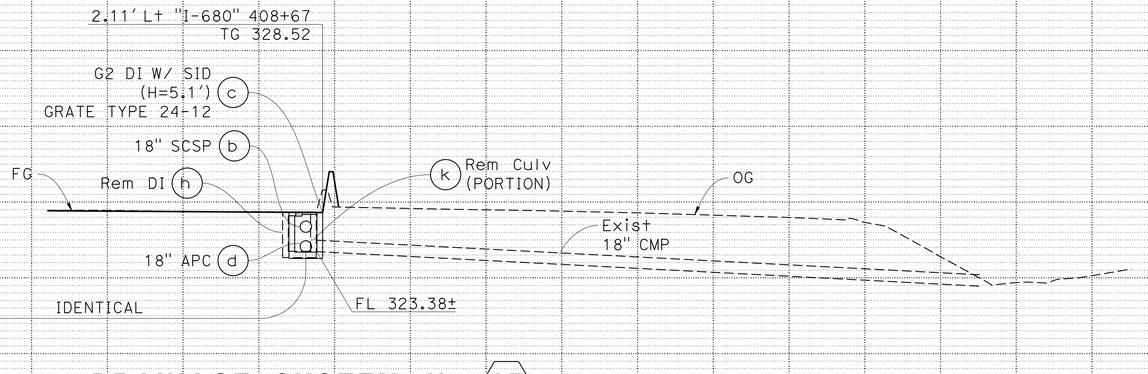
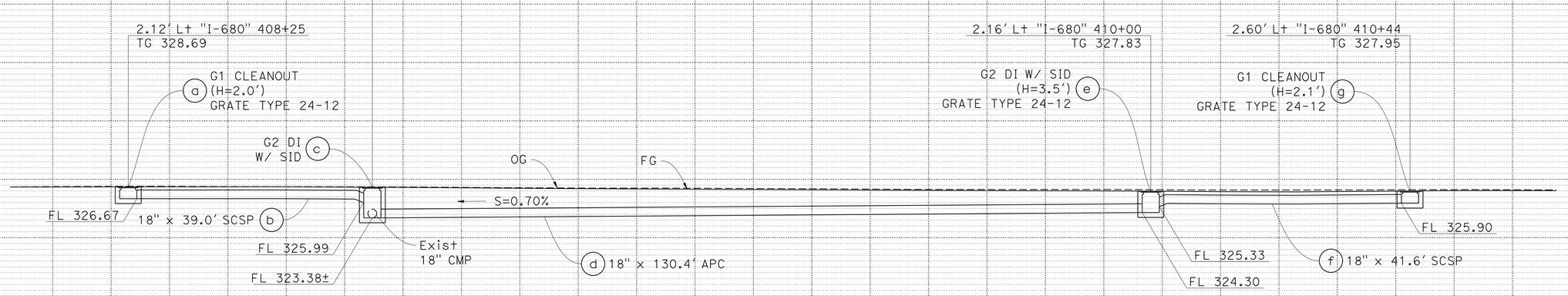


DRAINAGE SYSTEM No. 67



DRAINAGE SYSTEM No. 67 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-41

RICHARD SAGASTUME — TINH TRUONG — REVISED BY — DATE REVISED — RS — 9-29-21
CALCULATED-DESIGNED BY — CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR — TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION — DATE PLOTTED => 8-MAR-2022 — TIME PLOTTED => 15:39 — 09-29-21

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b041.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	333	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

DRAINAGE SYSTEM No. 68

0.56′ Lt "I-680" 414+20
TG 327.26
G2 DI W/ SID (H=3.7′) c
GRATE TYPE 24-12

0.39′ Lt "I-680" 414+50
TG 327.19
G2 DI W/ SID (H=3.7′) e
GRATE TYPE 24-12

0.16′ Lt "I-680" 415+80
TG 327.30
G2 DI W/ SID (H=4.2′) k
GRATE TYPE 24-12

0.21′ Lt "I-680" 415+50
TG 327.34
G2 DI W/ SID (H=4.1′) i
GRATE TYPE 24-12

0.12′ Lt "I-680" 416+00
TG 327.33
G2 DI W/ SID (H=4.3′) m
GRATE TYPE 24-12

0.75′ Lt "I-680" 414+00
TG 327.35
G1 CLEANOUT (H=2.0′) a
GRATE TYPE 24-12

0.32′ Lt "I-680" 414+80
TG 327.27
G2 DI W/ SID (H=3.9′) g
GRATE TYPE 24-12

0.07′ Rt "I-680" 416+20
TG 327.38
G2 DI W/ SID (H=4.4′) o
GRATE TYPE 24-12

FG
OG
S=0.30%
S=0.50%
FL 325.40
18" x 17.3′ SCSP b
FL 324.48
18" x 27.0′ APC d
FL 323.55
FL 323.47
18" x 27.1′ APC f
FL 323.39
18" x 67.1′ APC h
FL 323.19
18" x 27.1′ APC j
FL 323.10
18" x 17.1′ APC l
FL 323.05
18" x 17.1′ APC n
FL 322.97
18" x 77.1′ APC p

A — A

DRAINAGE SYSTEM No. 68 CONTINUED

0.05′ Rt "I-680" 417+00
TG 327.28
G2 DI W/ SID (H=4.7′) q
GRATE TYPE 24-12

0.11′ Rt "I-680" 417+60
TG 327.16
G2 DI W/ SID (H=4.9′) s
GRATE TYPE 24-12

0.13′ Rt "I-680" 417+80
TG 327.13
G2 DI W/ SID (H=4.9′) u
GRATE TYPE 24-12

0.15′ Rt "I-680" 418+00
TG 327.15
G2 DI W/ SID (H=5.0′) w
GRATE TYPE 24-12

G2 DI W/ SID y

FG
OG
S=0.50%
S=1.00%
FL 322.58
18" x 77.1′ APC p
18" x 57.1′ APC r
FL 322.30
18" x 17.1′ APC t
FL 322.21
FL 322.13
18" x 17.1′ APC v
18" x 71.7′ APC x
FL 321.76
69 q 18" x 27.1′ APC
SEE DP-43

A — A

DRAINAGE SYSTEM No. 68 CONTINUED

0.31′ Rt "I-680" 418+75
TG 327.51
G2 DI W/ SID (H=5.9′) y
GRATE TYPE 24-12
IDENTICAL
Rem Culv (PORTION) ae
Rem DI ab
FG
OG
Exist 18" CMP
FL 321.65±
Exist DI
Exist 18" CMP

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10′ Vert 1"=10′

DP-42

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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LAST REVISION DATE PLOTTED => 8-MAR-2022
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09-29-21

BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351ib042.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	334	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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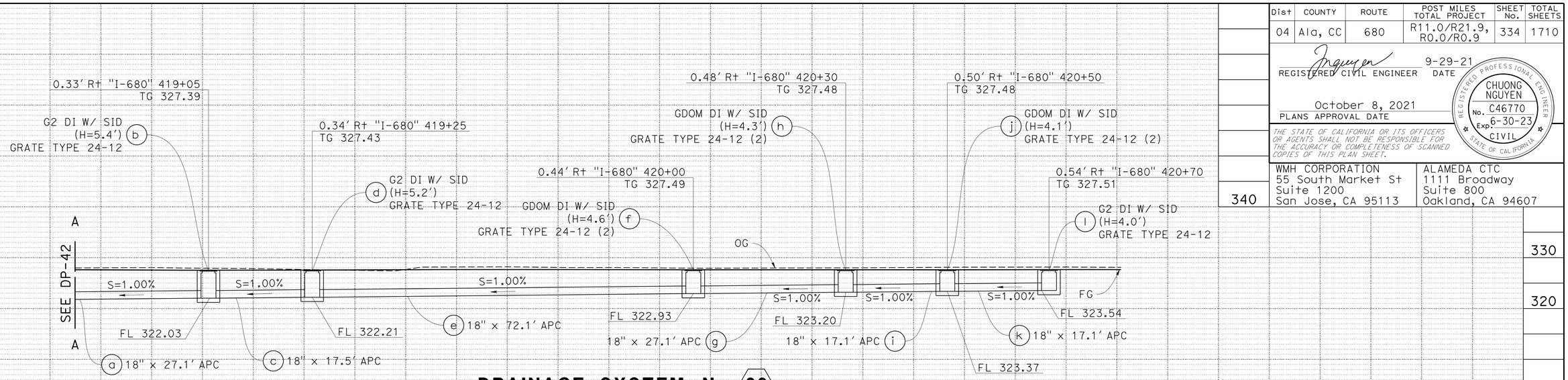
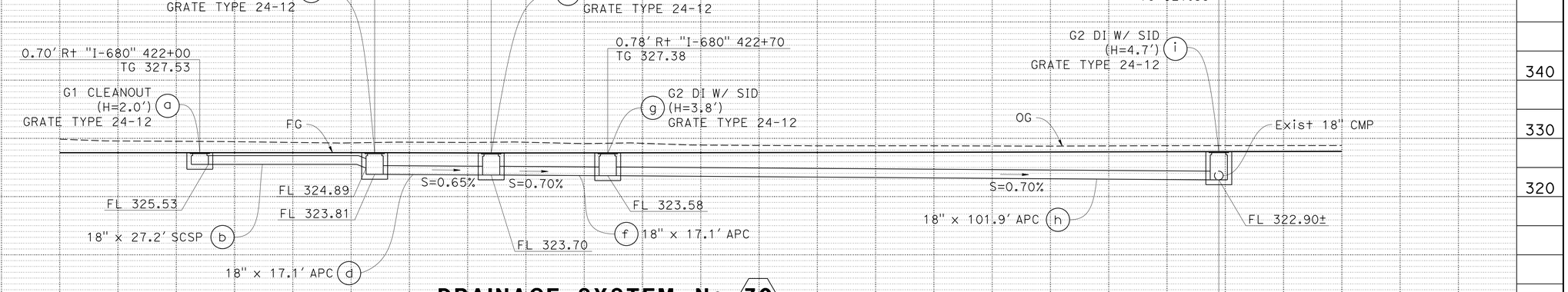
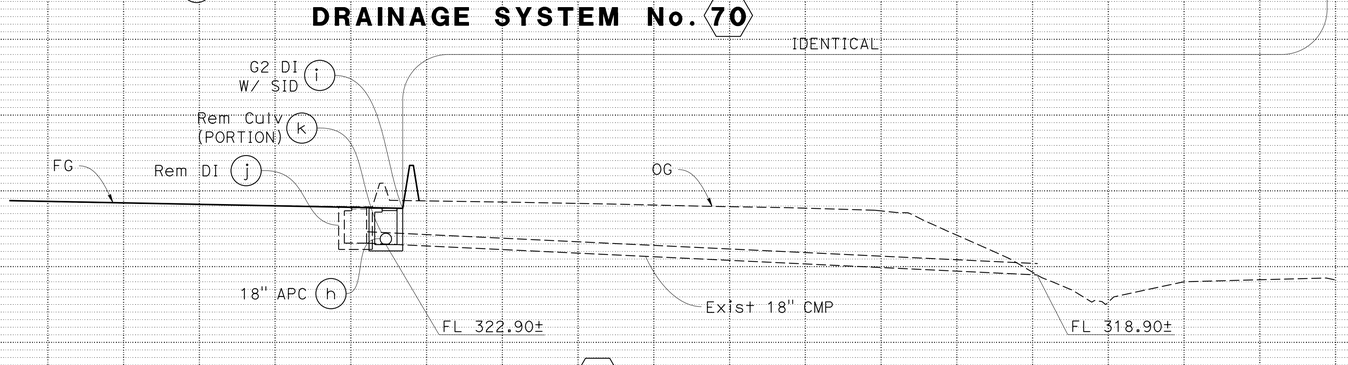


DRAINAGE SYSTEM No. 69



DRAINAGE SYSTEM No. 70



DRAINAGE SYSTEM No. 70 CONTINUED

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-43

FOR ABBREVIATIONS SEE SHEET DP-1

RICHARD SAGASTUME — TINH TRUONG — REVISED BY — DATE REVISED: RS — 9-29-21
CALCULATED-DESIGNED BY — CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION | DATE PLOTTED => 8-MAR-2022 | TIME PLOTTED => 15:39

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b043.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	335	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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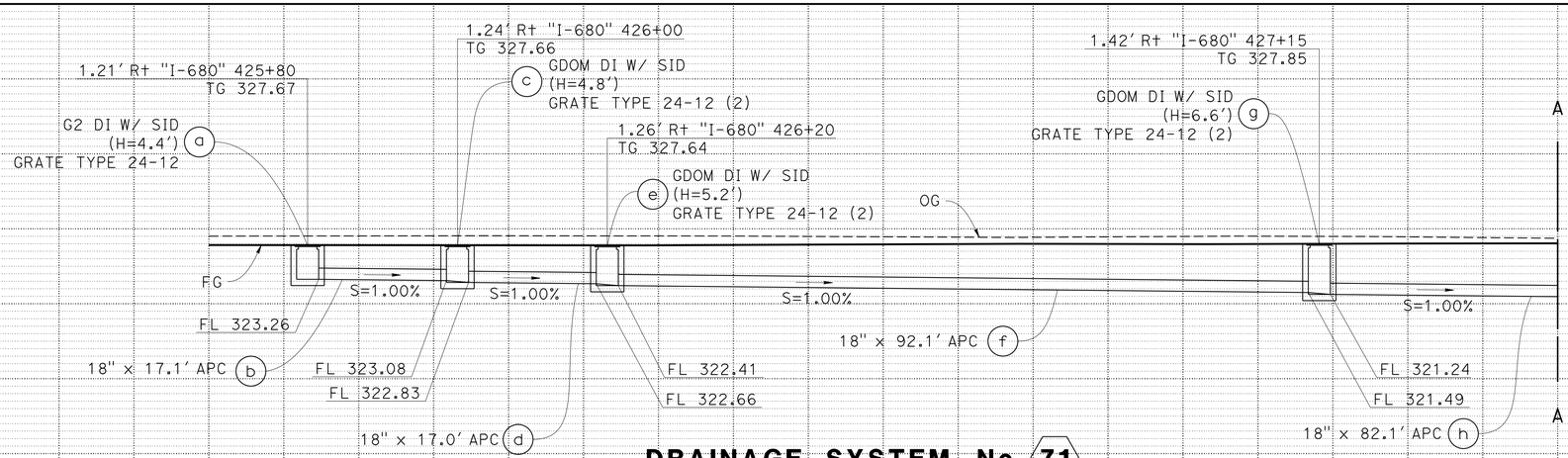
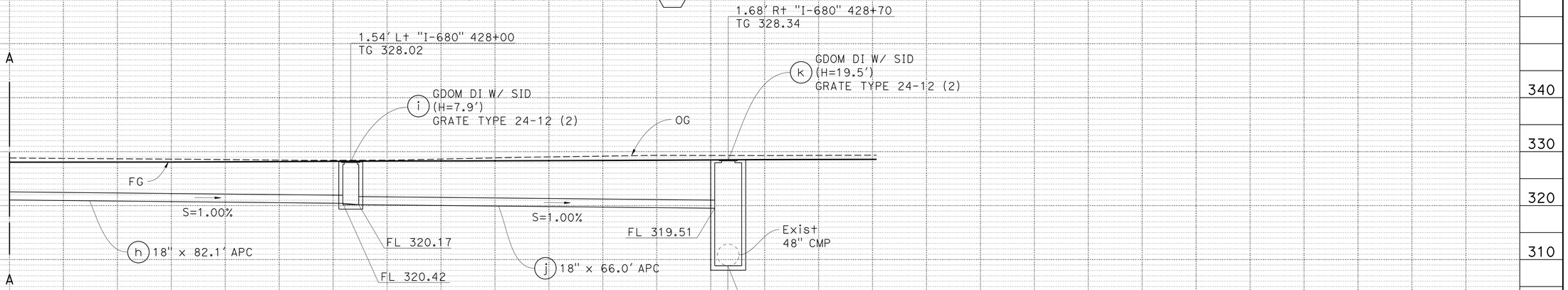
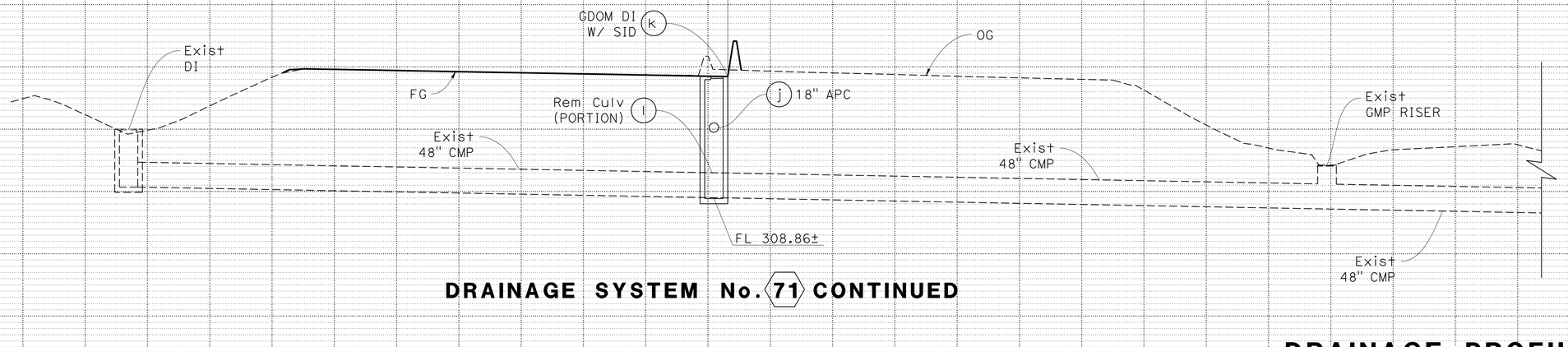


DRAINAGE SYSTEM No. 71



DRAINAGE SYSTEM No. 71 CONTINUED



DRAINAGE SYSTEM No. 71 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-44

RICHARD SAGASTUME — TINH TRUONG — REVISED BY: RS — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY — CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION — DATE PLOTTED => 6-MAR-2022 — TIME PLOTTED => 15:40

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351ib044.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	336	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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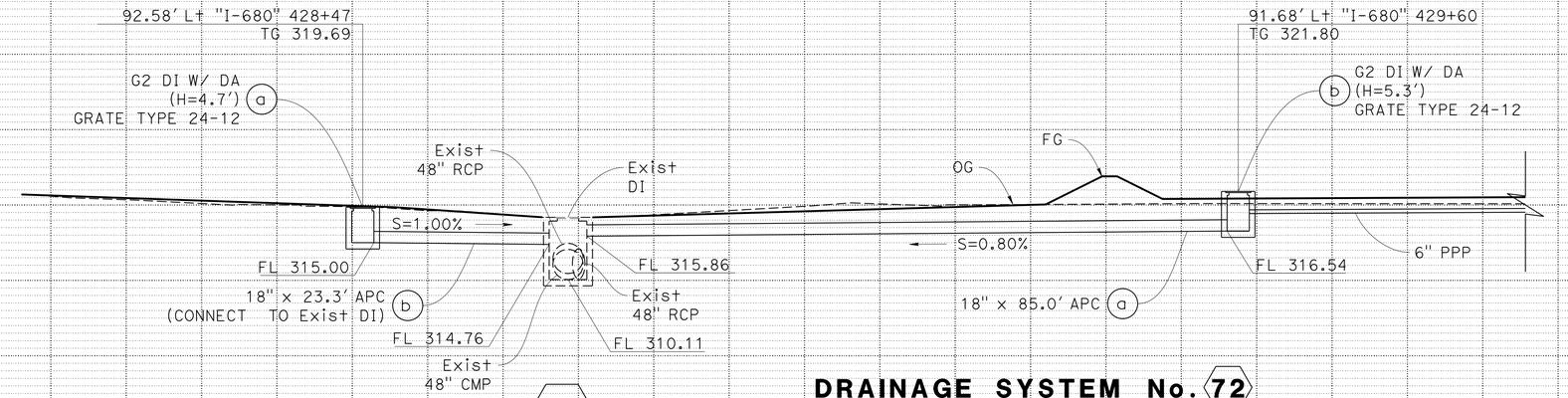
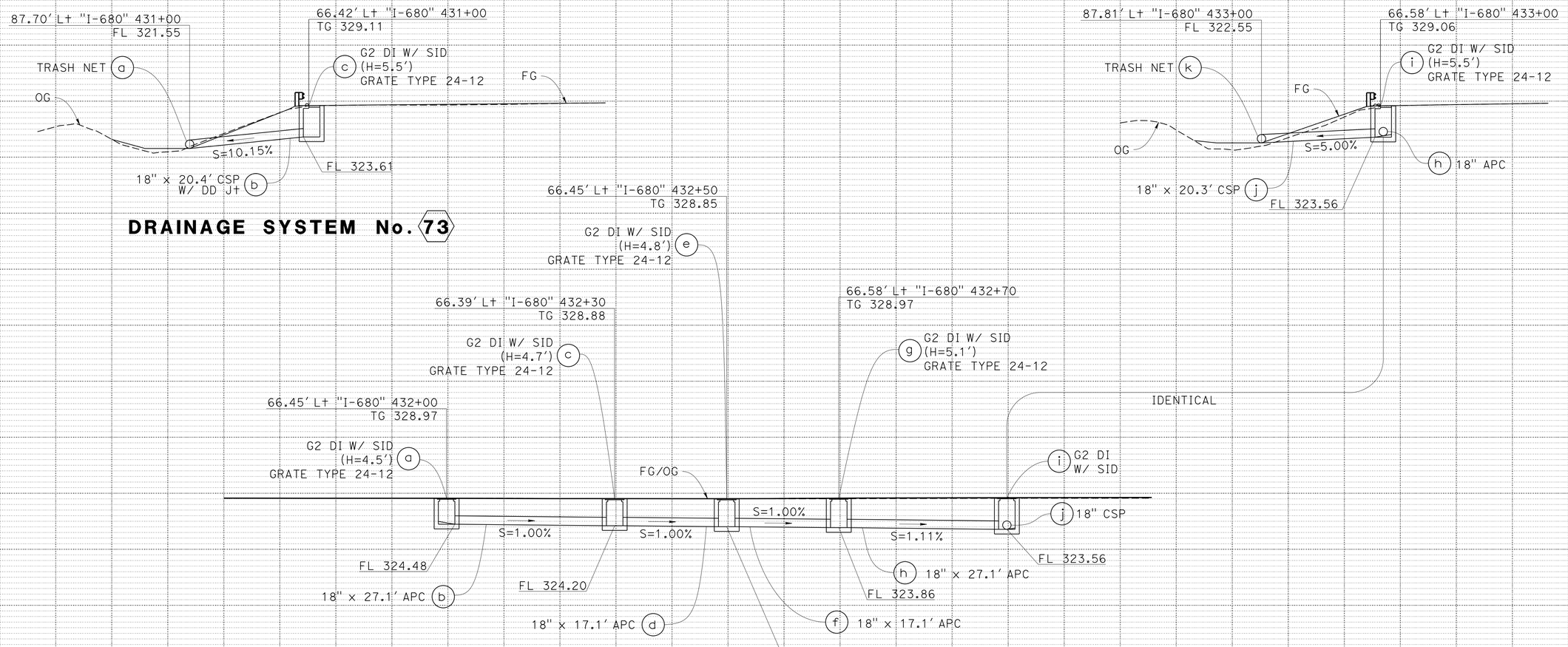


DRAINAGE SYSTEM No. 173

DRAINAGE SYSTEM No. 72



DRAINAGE SYSTEM No. 73

DRAINAGE SYSTEM No. 74

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-45

REVISED BY	DATE REVISED
RS	9-29-21

CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION: DATE PLOTTED => 09-29-21
TIME PLOTTED => 8-MAR-2022 15:40

I:\0030\DRAFTING\FINAL_PS&E\04200002351ib045.dgn

BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351ib045.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	337	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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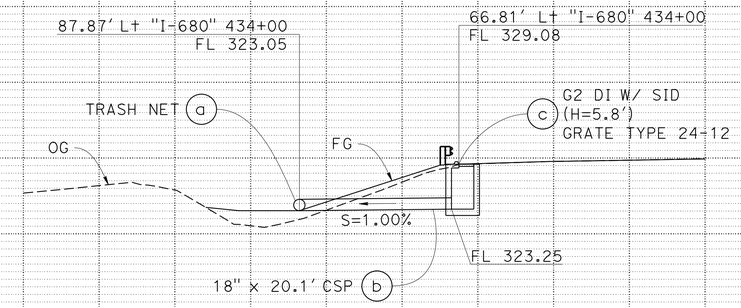

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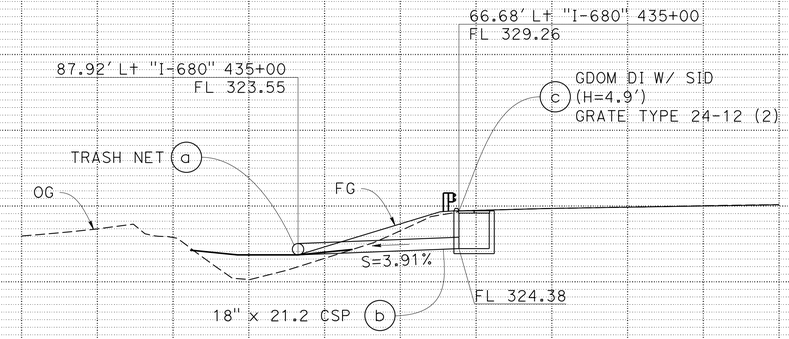
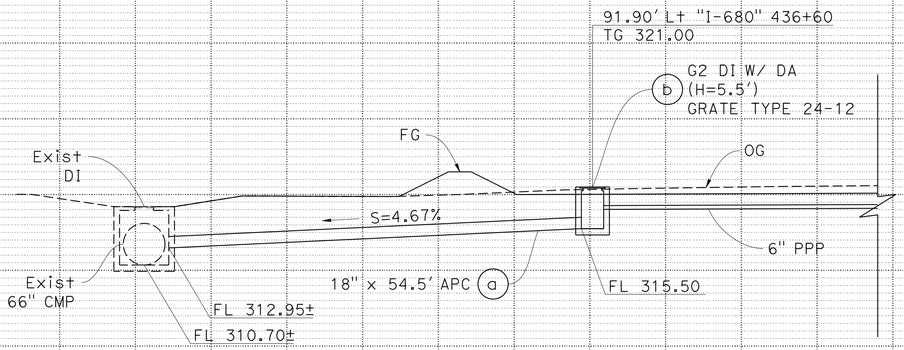


DRAINAGE SYSTEM No. 76



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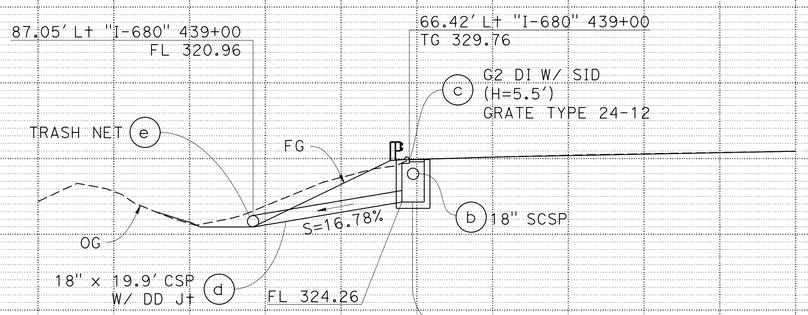
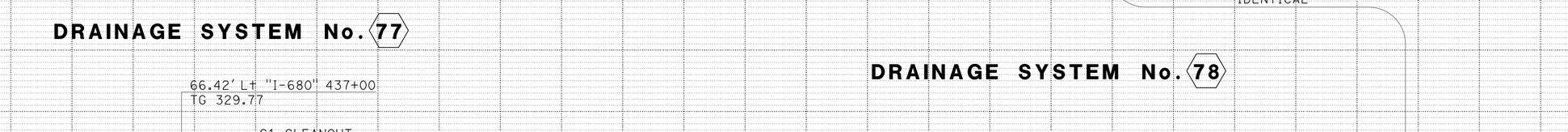


DRAINAGE SYSTEM No. 78



DRAINAGE SYSTEM No. 78 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10′ Vert 1"=10′

DP-46

RICHARD SAGASTUME — TINH TRUONG — CALCULATED-DESIGNED BY — CHECKED BY
REVISED BY: RS — DATE REVISED: 9-29-21
TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans®

LAST REVISION 09-29-21 — DATE PLOTTED => 8-MAR-2022 — TIME PLOTTED => 15:40

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BORDER LAST REVISED 7/2/2010 — USERNAME => p302438 — DGN FILE => 04200002351b046.dgn — RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 — UNIT 0733 — PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	338	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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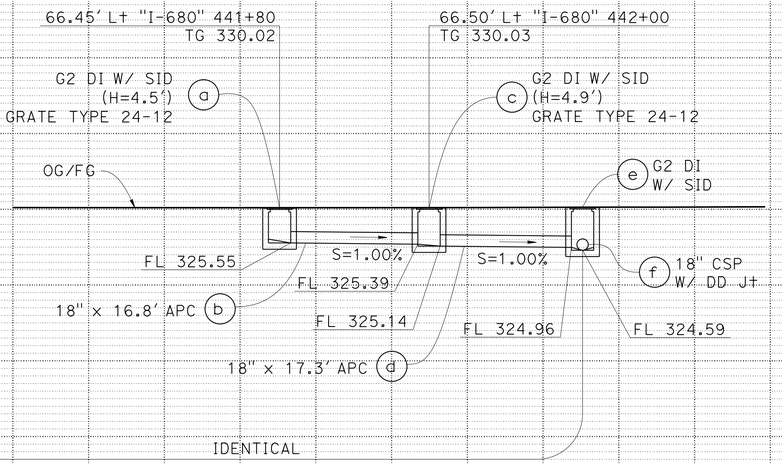
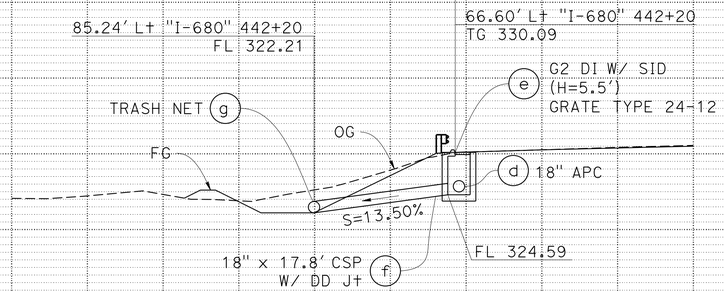
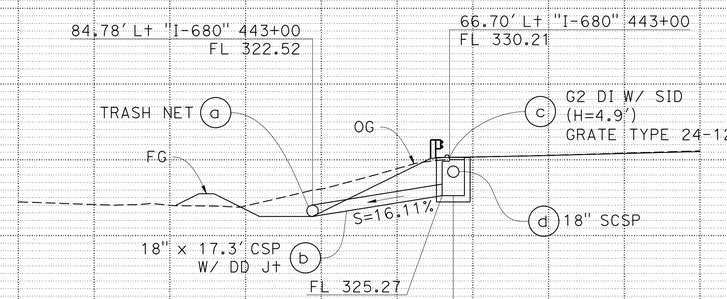
DRAINAGE SYSTEM No. 79



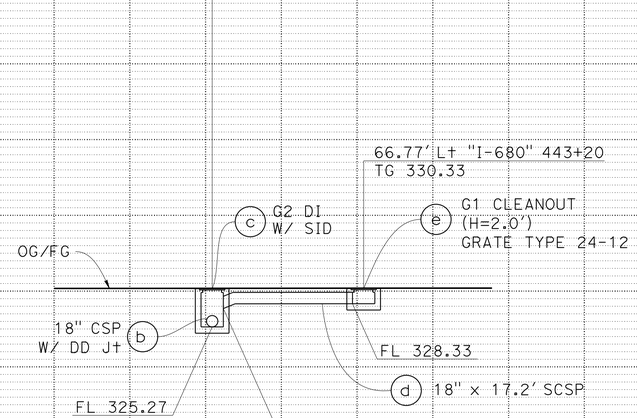
DRAINAGE SYSTEM No. 79 CONTINUED



DRAINAGE SYSTEM No. 80



DRAINAGE SYSTEM No. 80 CONTINUED



FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10′ Vert 1"=10′

DP-47

REVISED BY: RS — DATE REVISED: 9-29-21
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	339	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CHUONG NGUYEN — No. C46770 — Exp. 6-30-23 — CIVIL — STATE OF CALIFORNIA

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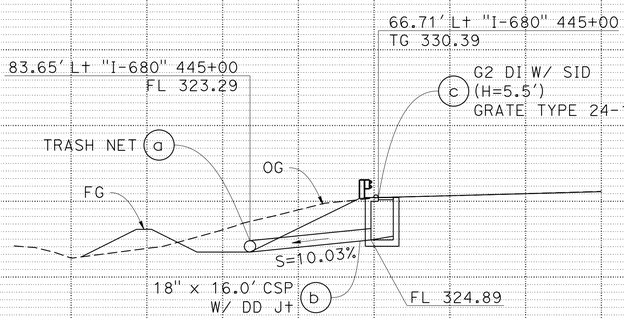
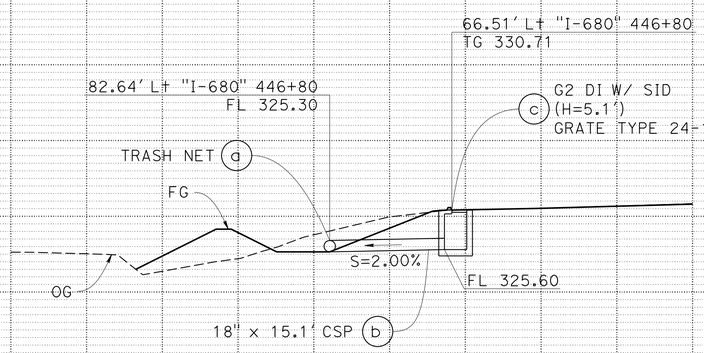


DRAINAGE SYSTEM No. 81



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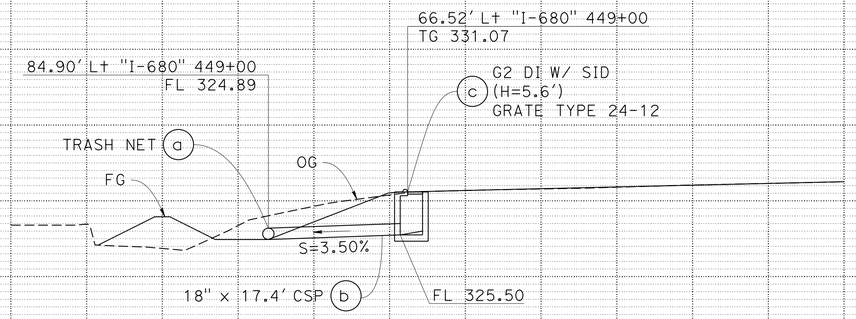
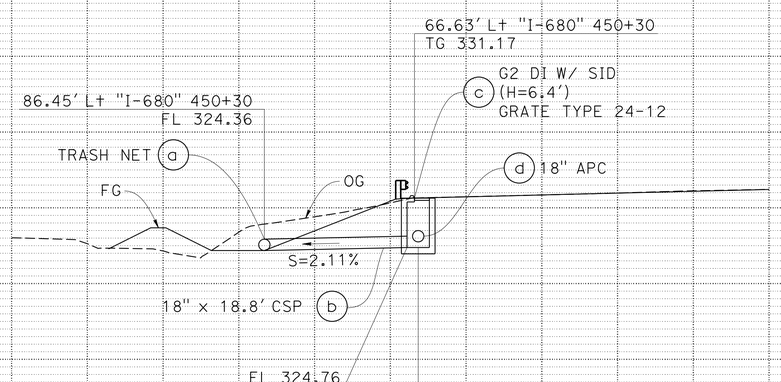
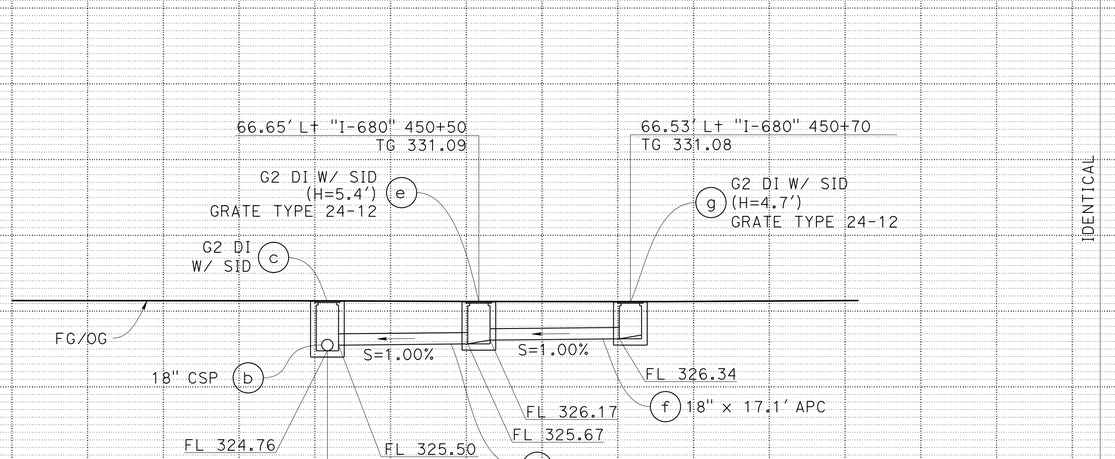


DRAINAGE SYSTEM No. 83





DRAINAGE SYSTEM No. 84

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-48

REVISED BY: RS — DATE REVISED: 9-29-21
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	340	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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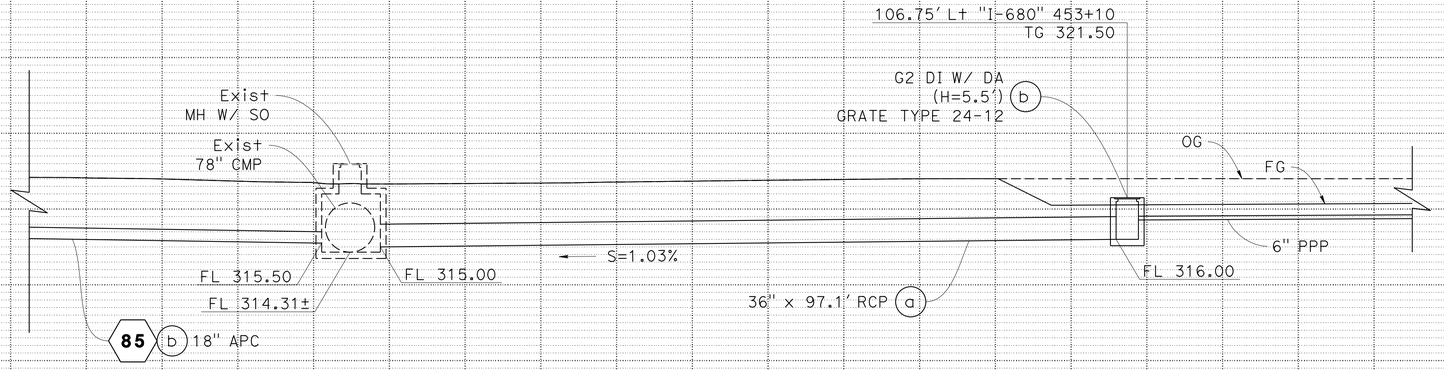
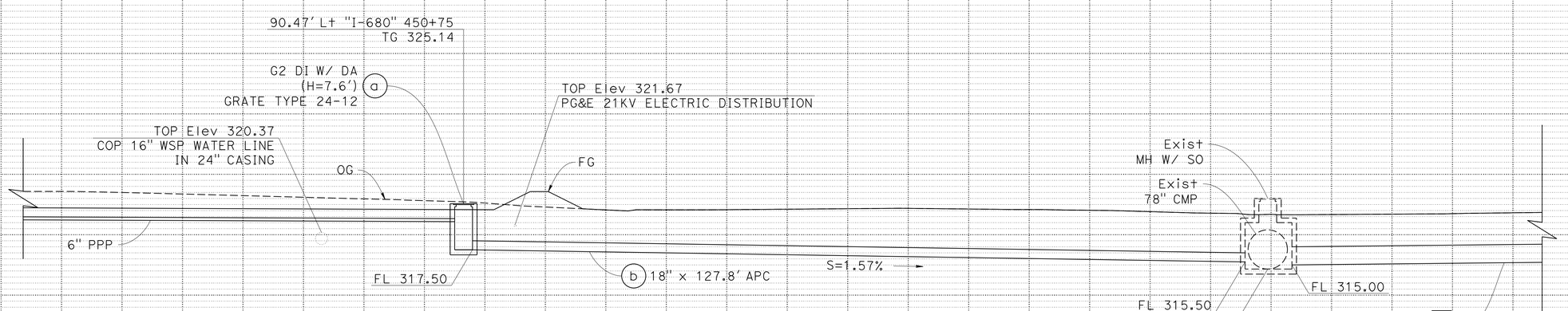


DRAINAGE SYSTEM No. 86



DRAINAGE SYSTEM No. 85

FOR ABBREVIATIONS
SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-49

REVISED BY: RS — DATE REVISED: 9-29-21
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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b049.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	341	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

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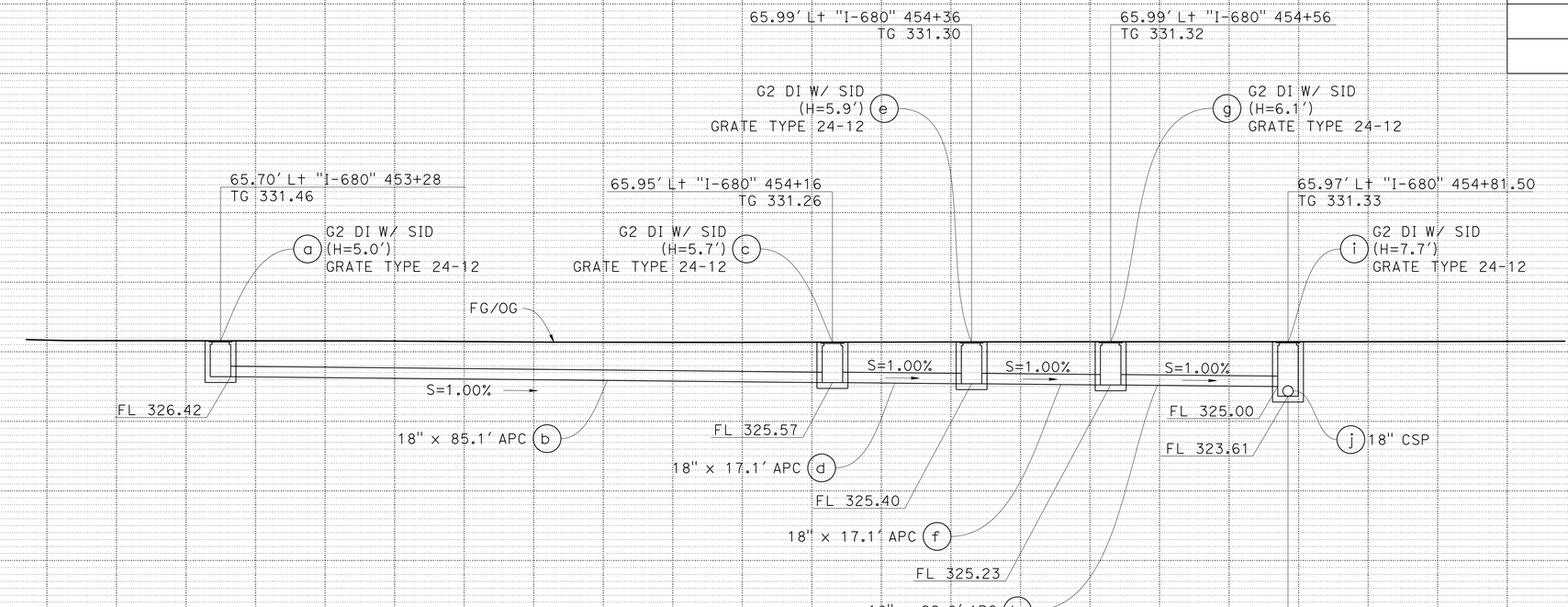
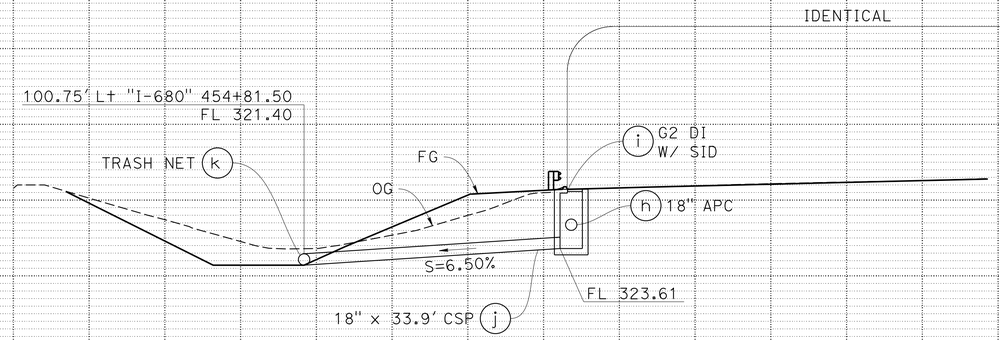


DRAINAGE SYSTEM No. 87



DRAINAGE SYSTEM No. 87 CONTINUED

FOR ABBREVIATIONS
SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-50

RS 9-29-21
REVISED BY DATE REVISED
RICHARD SAGASTUME
TINH TRUONG
CALCULATED-DESIGNED BY
CHECKED BY
TIMOTHY J. LEE
CONSULTANT FUNCTIONAL SUPERVISOR
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TIME PLOTTED => 15:40

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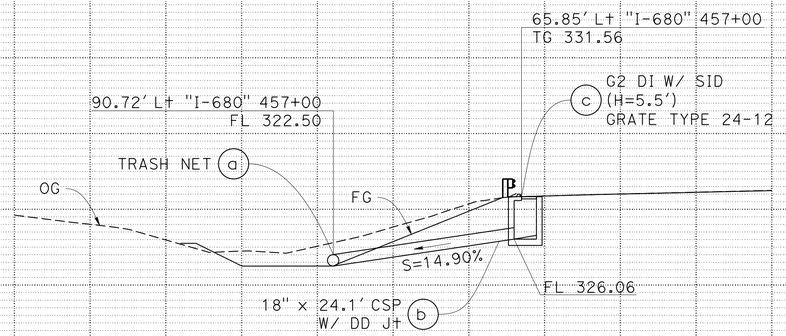
BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351b050.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351



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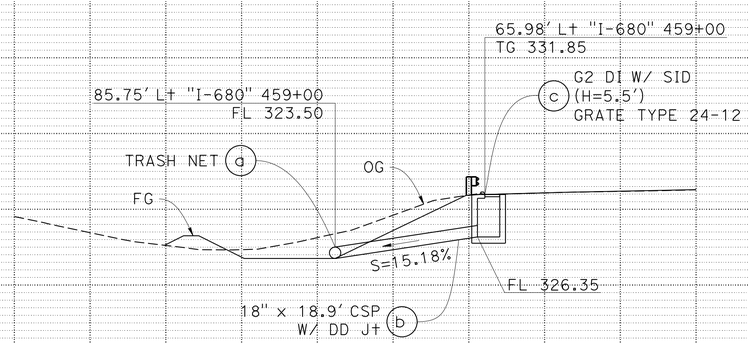
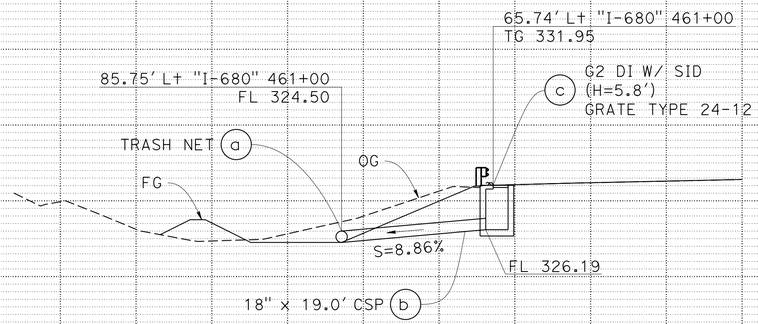
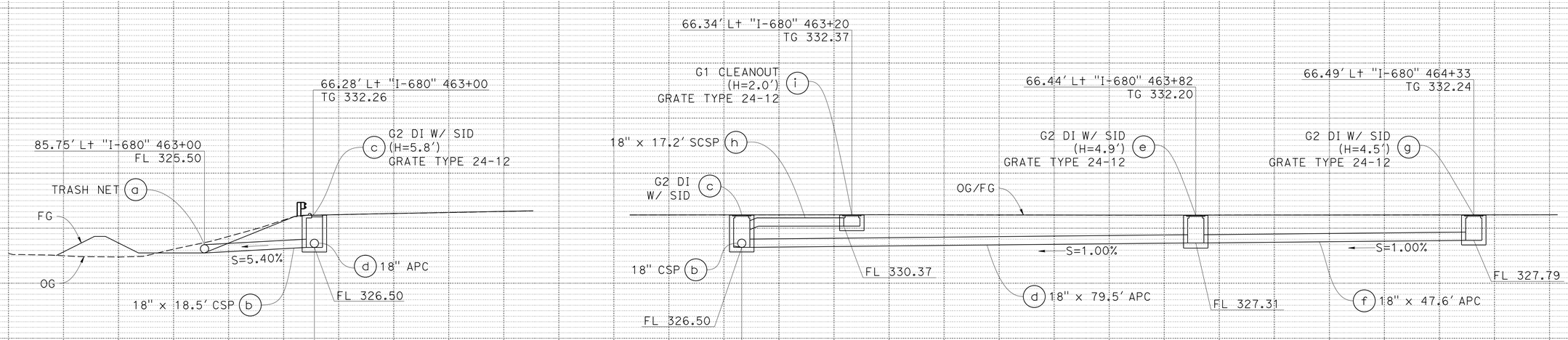


DRAINAGE SYSTEM No. 89



DRAINAGE SYSTEM No. 90



DRAINAGE SYSTEM No. 91

FOR ABBREVIATIONS
SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-51

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	342	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351ib051.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	343	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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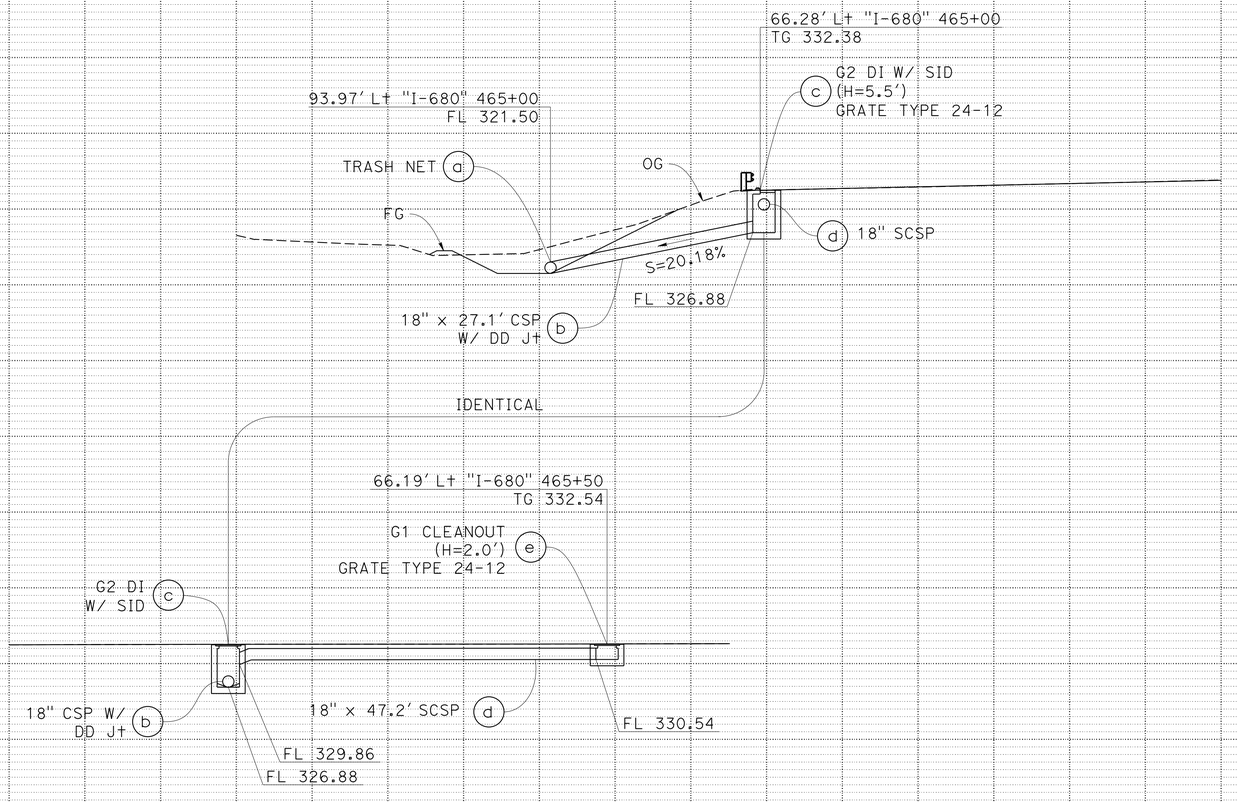

DRAINAGE SYSTEM No. 92

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-52

REVISED BY: RS — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
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LAST REVISION | DATE PLOTTED => 8-MAR-2022
09-29-21 | TIME PLOTTED => 15:40

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351ib052.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	344	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

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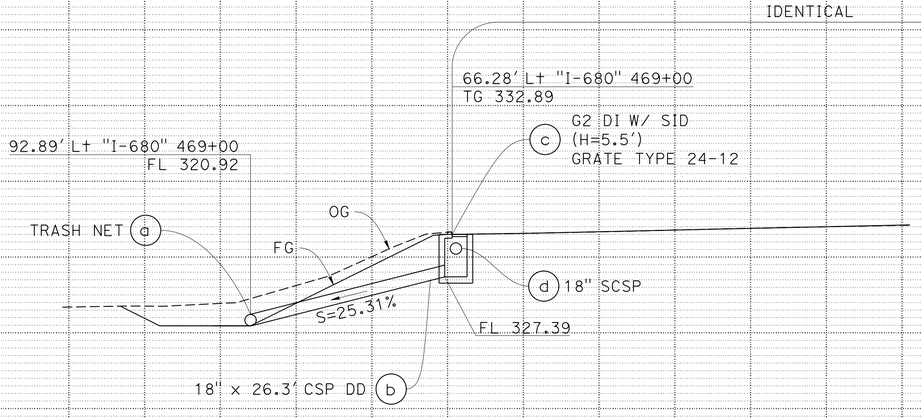
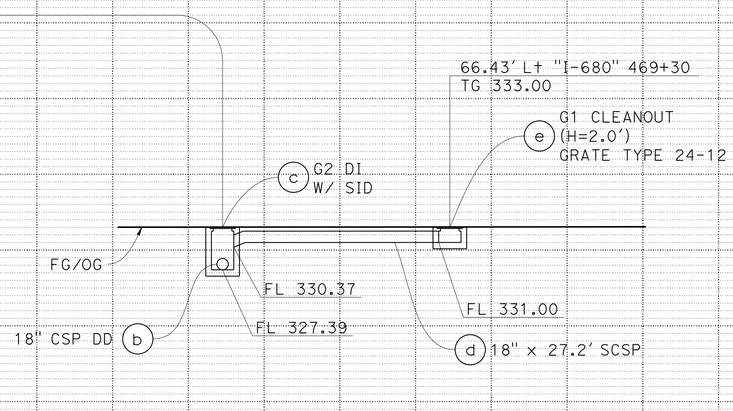
Oakland, CA 94607

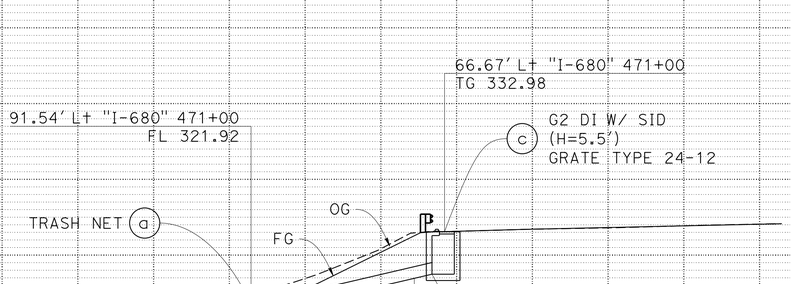
REVISED BY: RS — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

IDENTICAL

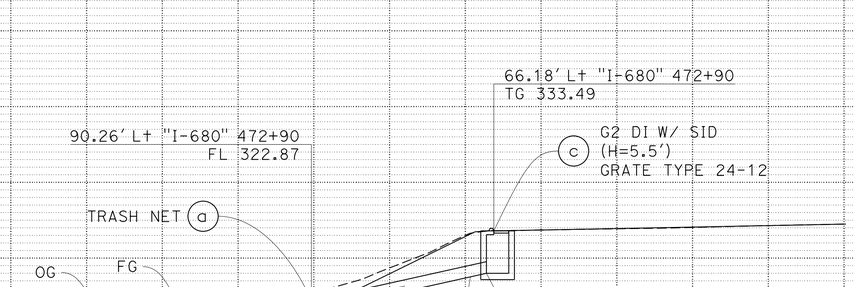




DRAINAGE SYSTEM No. 94



DRAINAGE SYSTEM No. 95



DRAINAGE SYSTEM No. 96

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-53

LAST REVISION | DATE PLOTTED => 8-MAR-2022
09-29-21 | TIME PLOTTED => 15:40

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	345	1710

Inguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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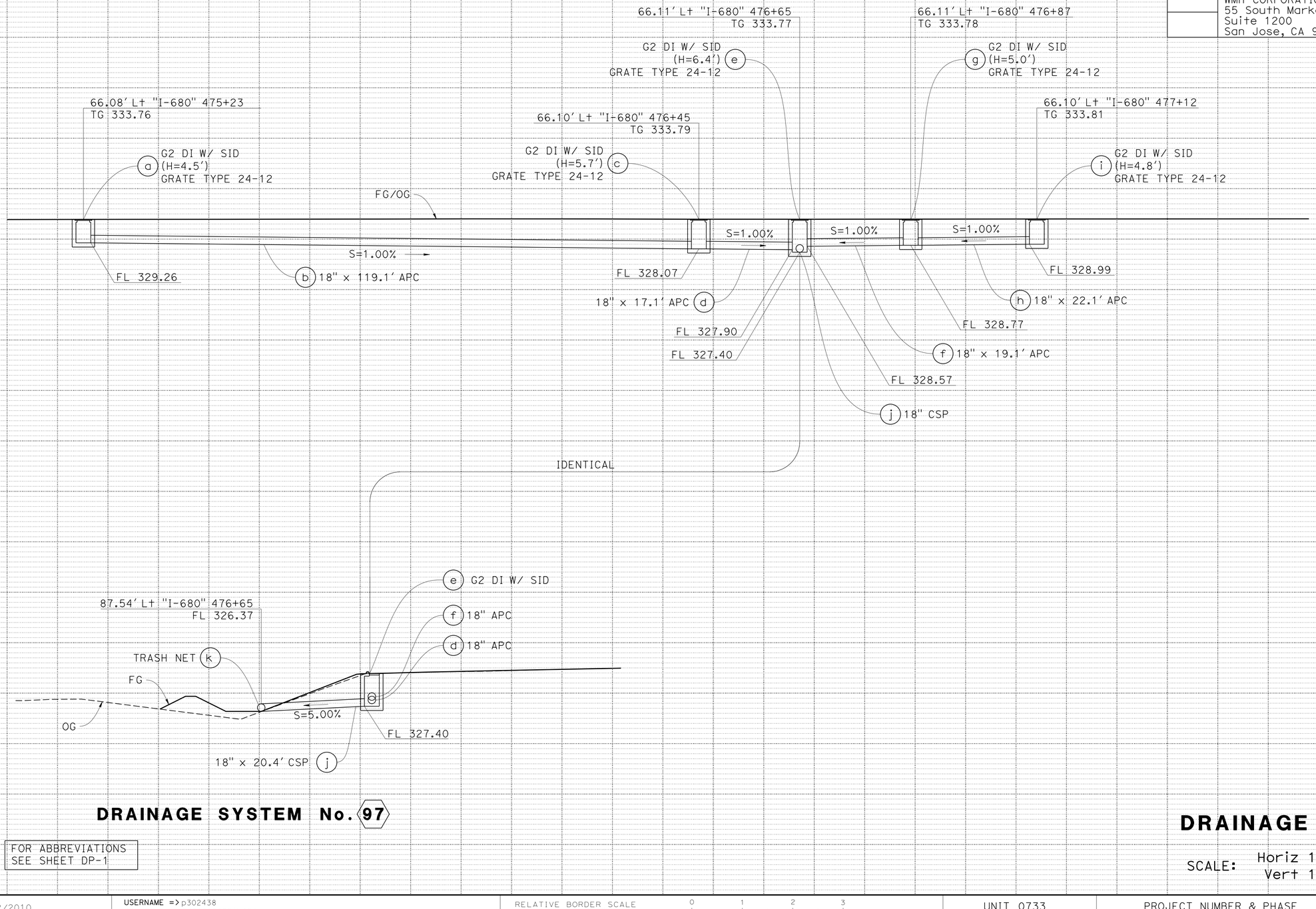

DRAINAGE SYSTEM No. 97

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-54

REVISED BY	DATE REVISED
RS	9-29-21

RICHARD SAGASTUME
TINH TRUONG
CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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LAST REVISION 09-29-21
DATE PLOTTED => 6-MAR-2022
TIME PLOTTED => 15:40

BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351ib054.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	346	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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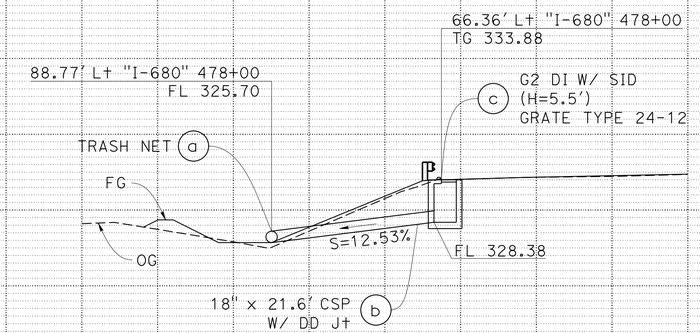
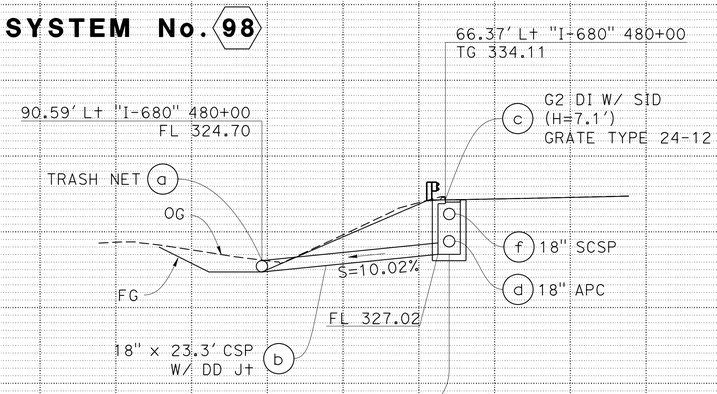
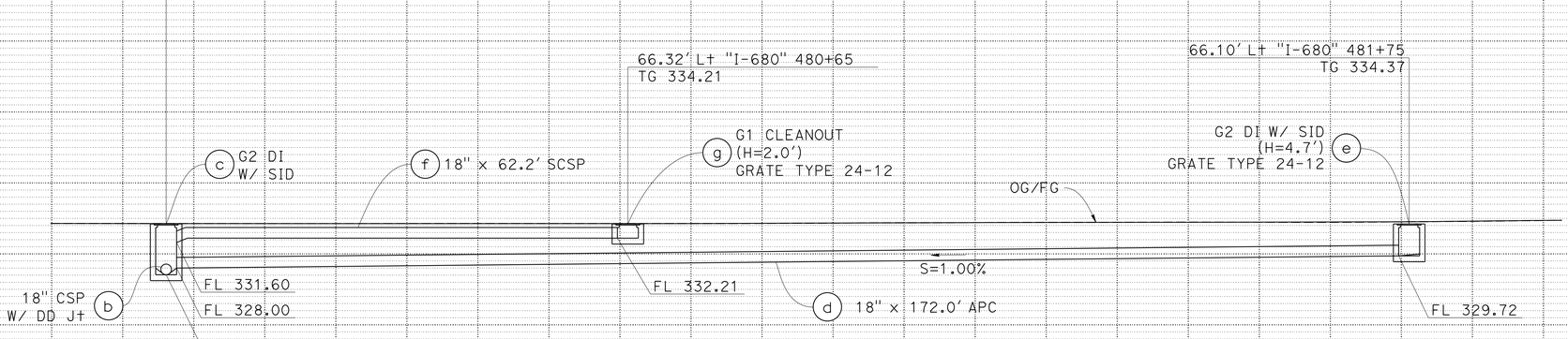


DRAINAGE SYSTEM No. 98



IDENTICAL

DRAINAGE SYSTEM No. 99



DRAINAGE SYSTEM No. 99 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-55

RICHARD SAGASTUME — TINH TRUONG — CALCULATED-DESIGNED BY — CHECKED BY
TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR
REVISED BY: RS — DATE REVISED: 9-29-21
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION — DATE PLOTTED => 8-MAR-2022 — TIME PLOTTED => 15:41
01\0030U\DRAFTING\FINAL_PS&E\04200002351ib055.dgn

BORDER LAST REVISED 7/2/2010 — USERNAME => p302438 — DGN FILE => 04200002351ib055.dgn — RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 — UNIT 0733 — PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	347	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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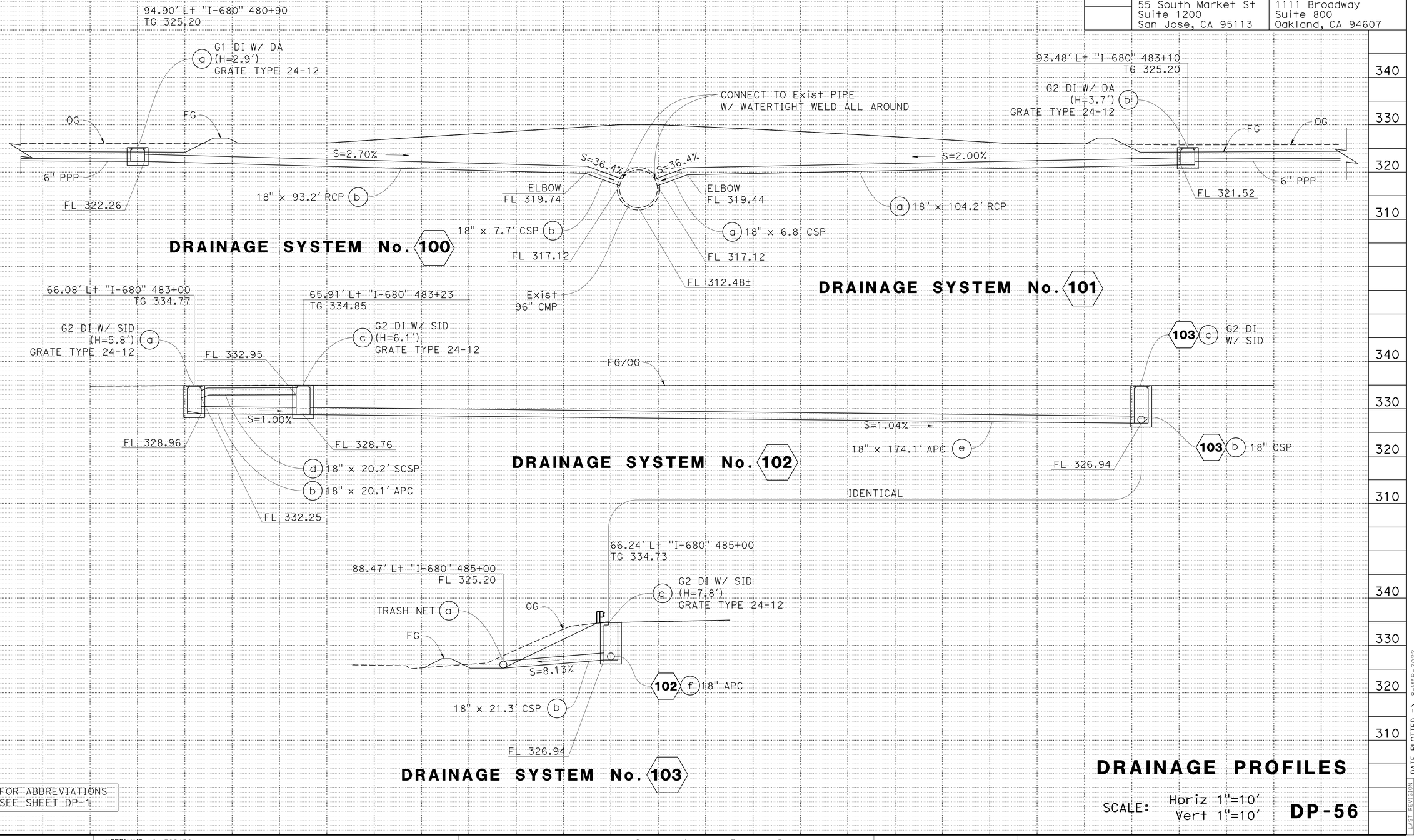

FOR ABBREVIATIONS
SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-56

REVISED BY: RS
DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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LAST REVISION | DATE PLOTTED => 8-MAR-2022
09-29-21 | TIME PLOTTED => 15:41

BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200000235ib056.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	348	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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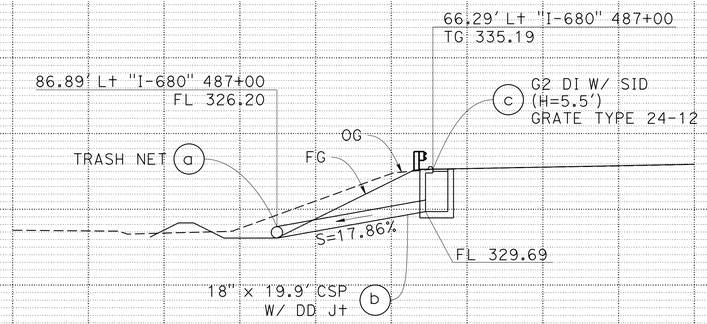
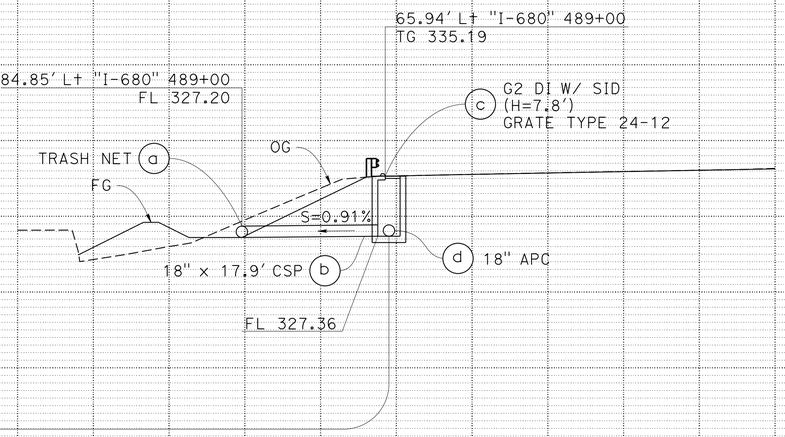
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

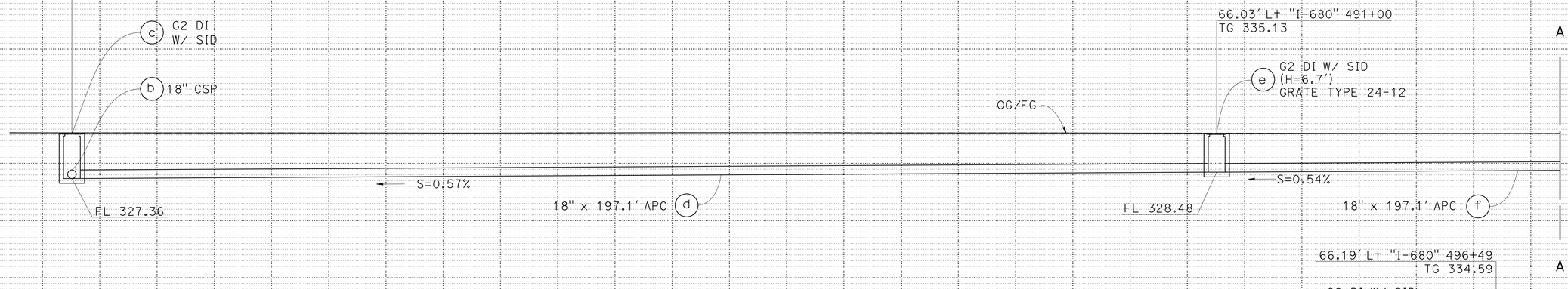


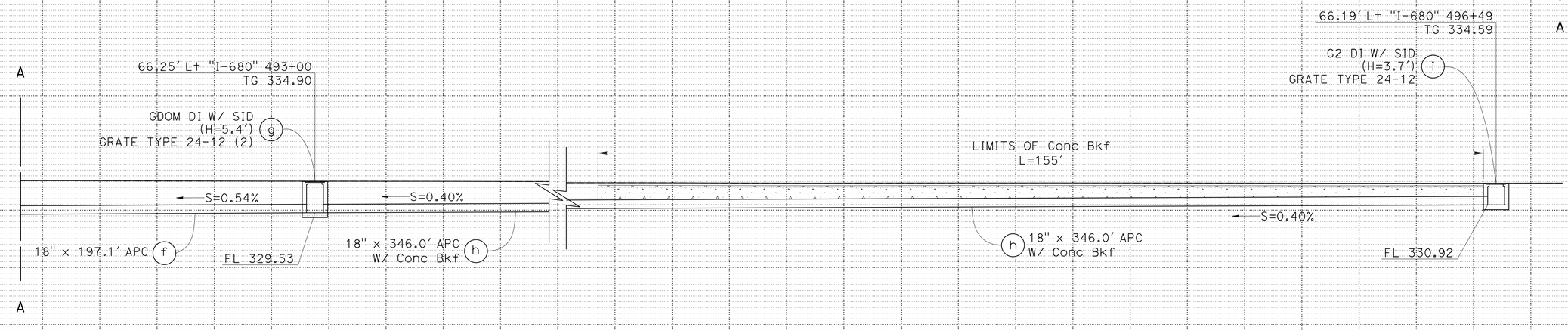


DRAINAGE SYSTEM No. 104

IDENTICAL

DRAINAGE SYSTEM No. 105





DRAINAGE SYSTEM No. 105 CONTINUED

FOR ABBREVIATIONS
SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-57

LAST REVISION DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:41
09-29-21

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	349	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

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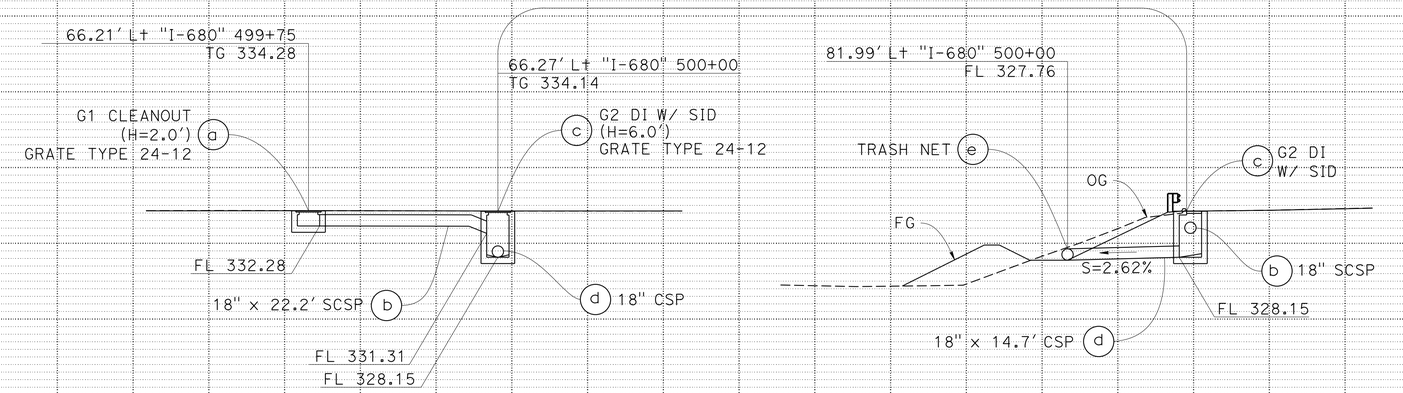
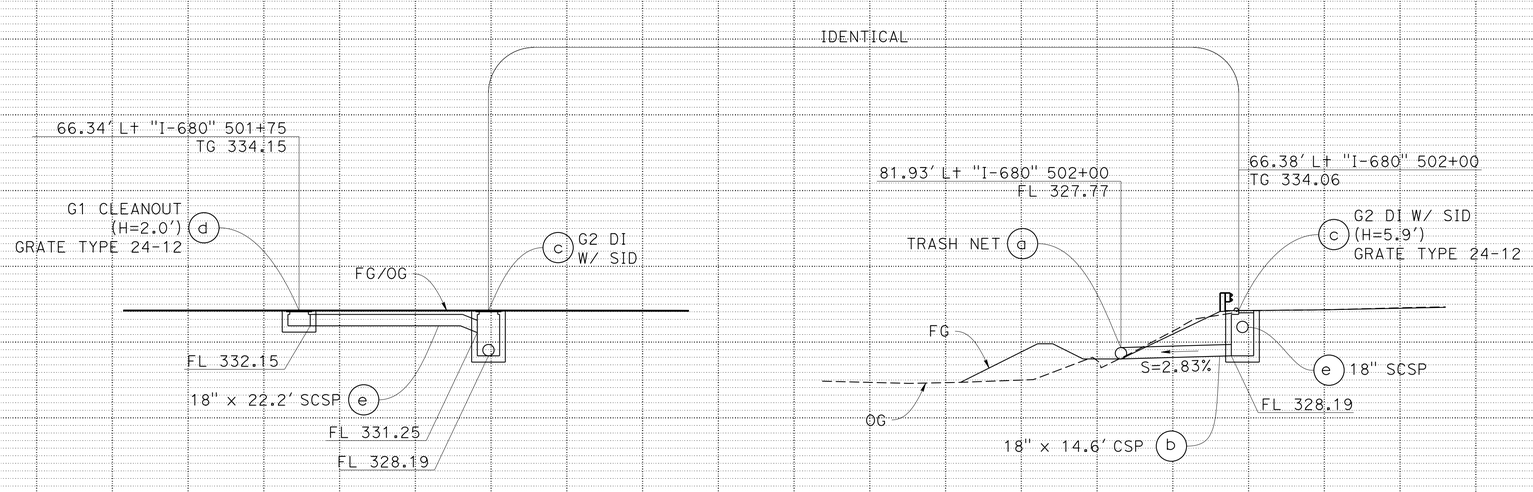


DRAINAGE SYSTEM No. 107



DRAINAGE SYSTEM No. 108

FOR ABBREVIATIONS
SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-58

REVISED BY	DATE REVISED
RS	9-29-21

CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG

CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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09-29-21 | TIME PLOTTED => 15:41

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	350	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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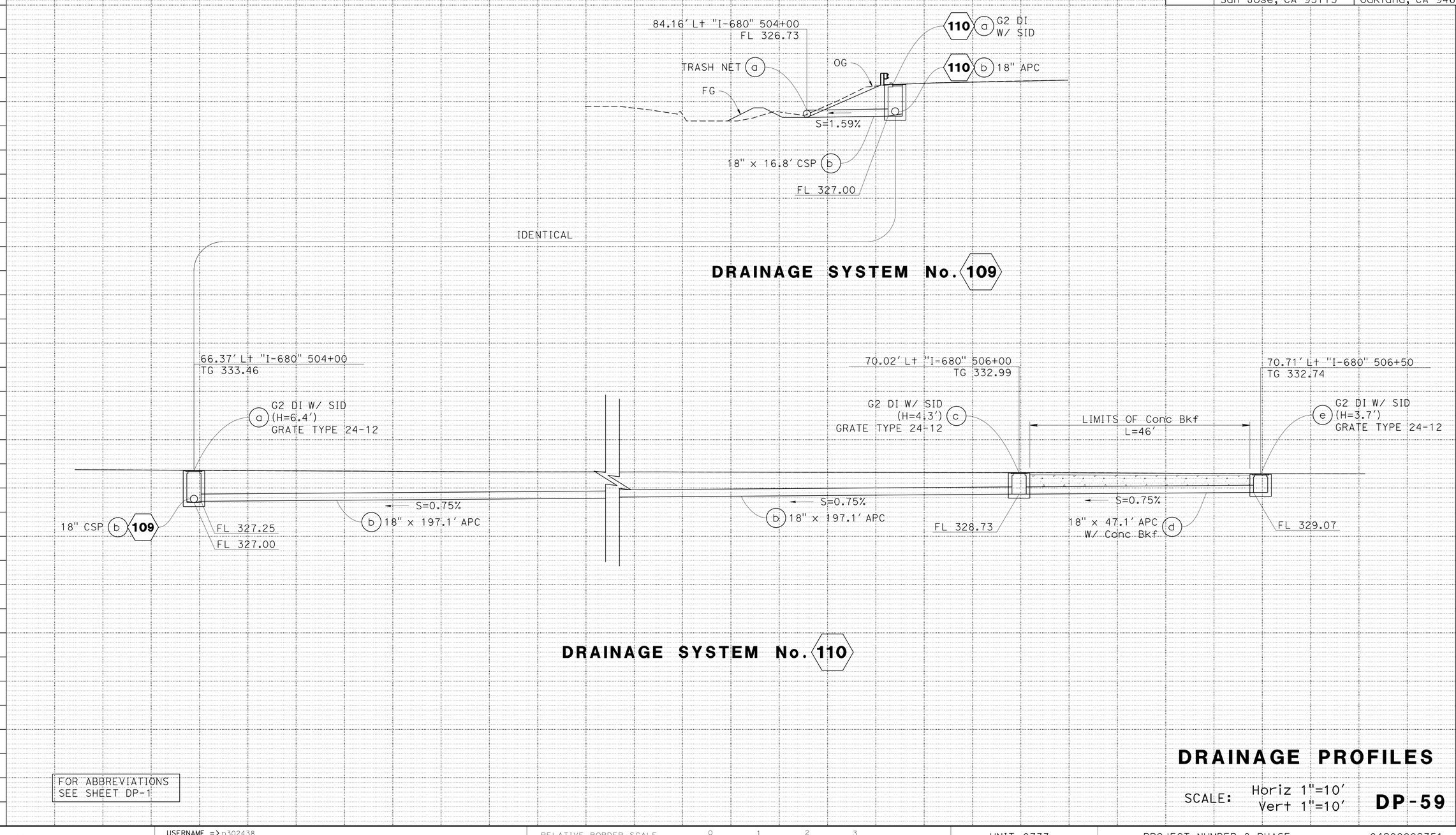

DRAINAGE SYSTEM No. 109

DRAINAGE SYSTEM No. 110

FOR ABBREVIATIONS
SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-59

REVISED BY: RS — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
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LAST REVISION | DATE PLOTTED => 8-MAR-2022
09-29-21 | TIME PLOTTED => 15:41

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b059.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	351	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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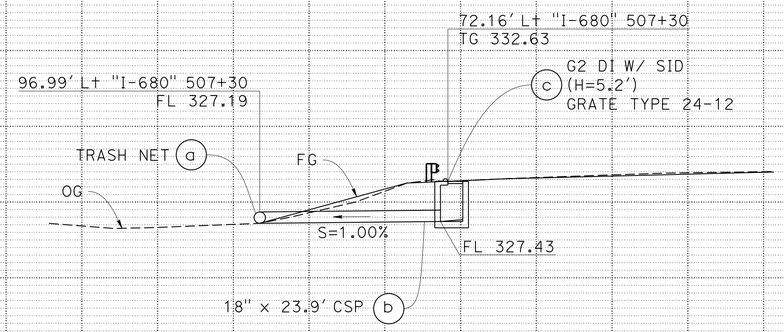
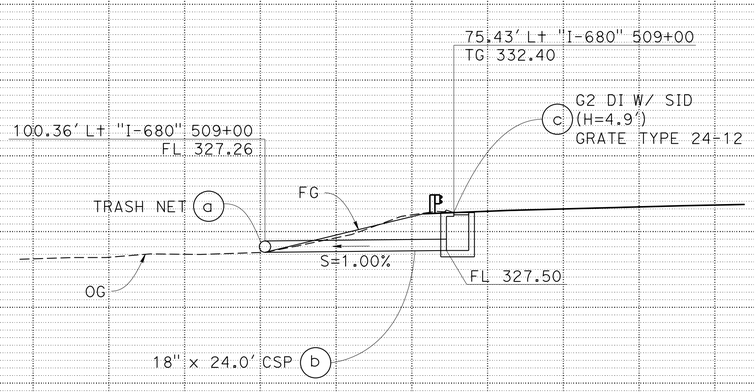
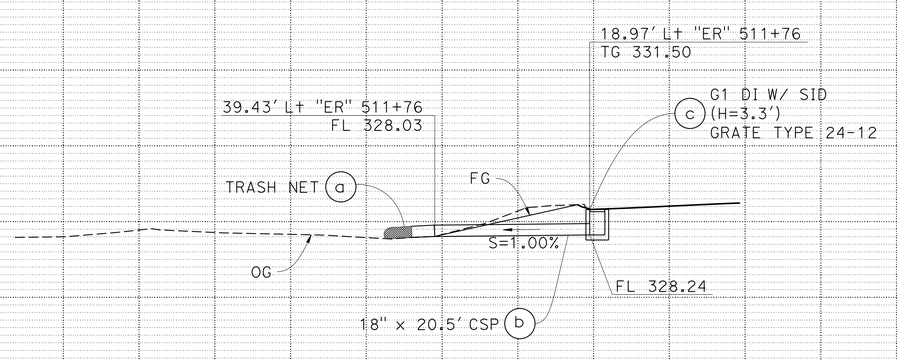


DRAINAGE SYSTEM No. 111



DRAINAGE SYSTEM No. 112



DRAINAGE SYSTEM No. 113

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-60

FOR ABBREVIATIONS SEE SHEET DP-1

REVISED BY	DATE REVISED
RS	9-29-21

RICHARD SAGASTUME — CALCULATED-DESIGNED BY
TINH TRUONG — CHECKED BY

TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	352	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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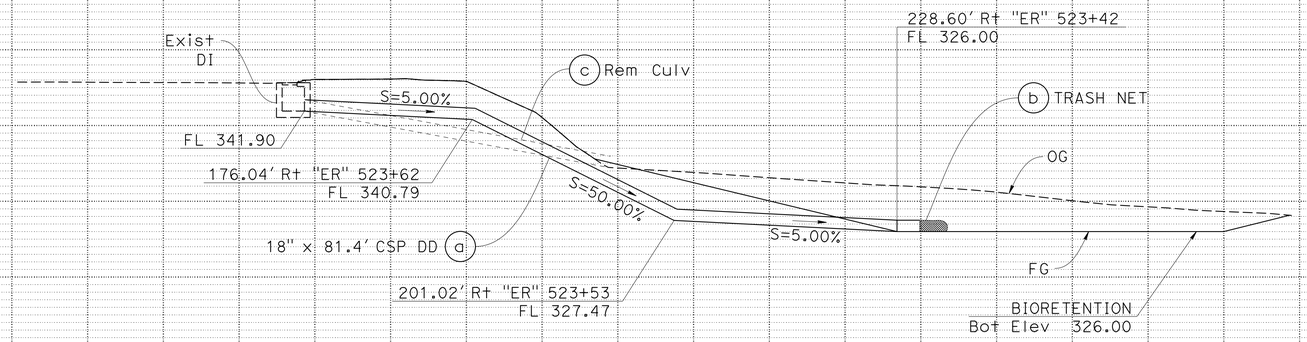

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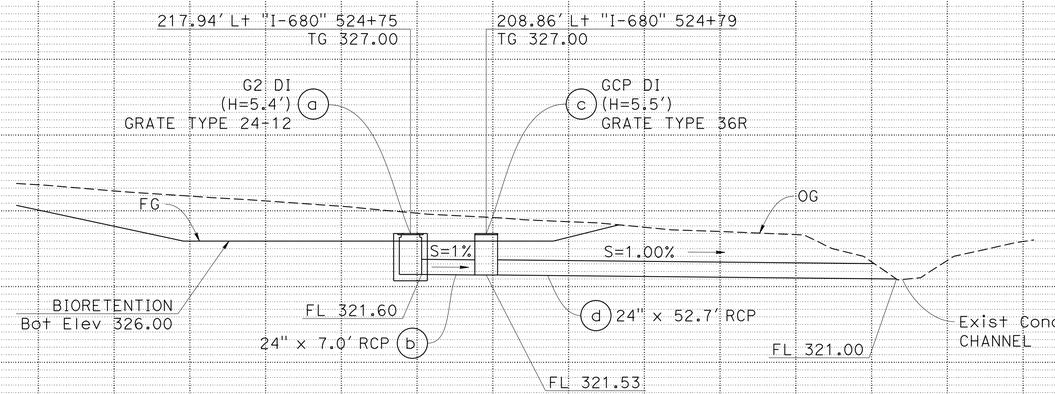

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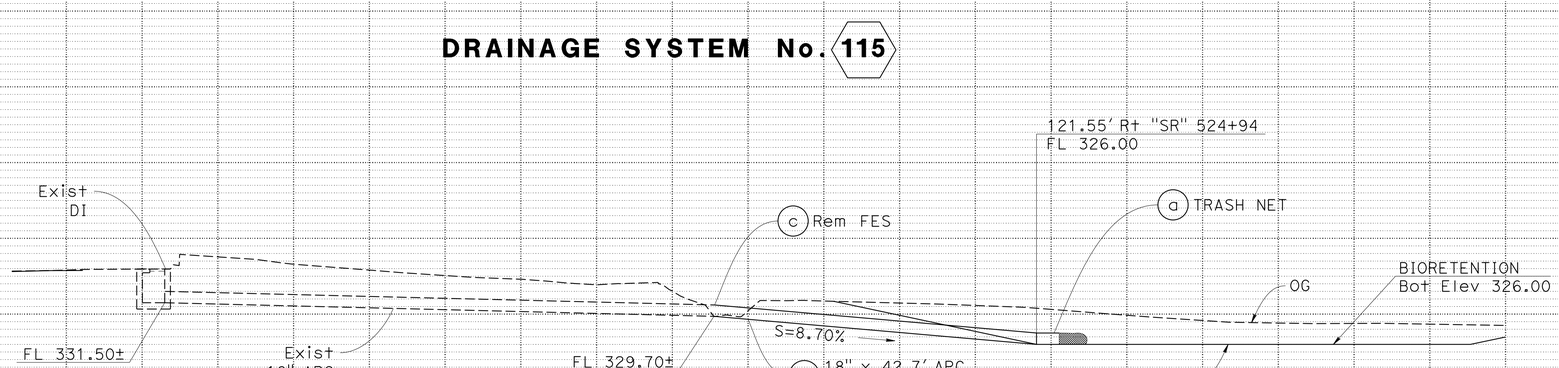

DRAINAGE SYSTEM No. 116

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-61

RICHARD SAGASTUME — TINH TRUONG — REVISED BY: RS — DATE REVISED: 9-29-21 — CALCULATED-DESIGNED BY — CHECKED BY — TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR

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DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:41
LAST REVISION 09-29-21

BORDER LAST REVISED 7/2/2010 — USERNAME => p302438 — DGN FILE => 04200002351ib061.dgn — RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 — UNIT 0733 — PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	353	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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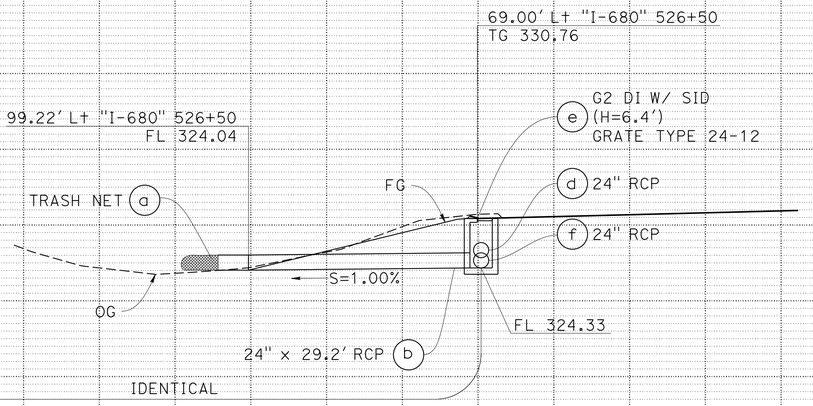
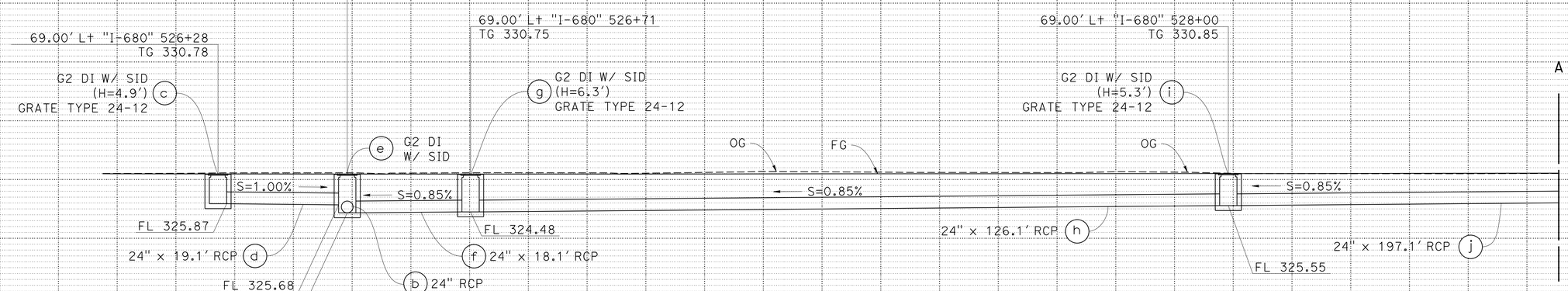
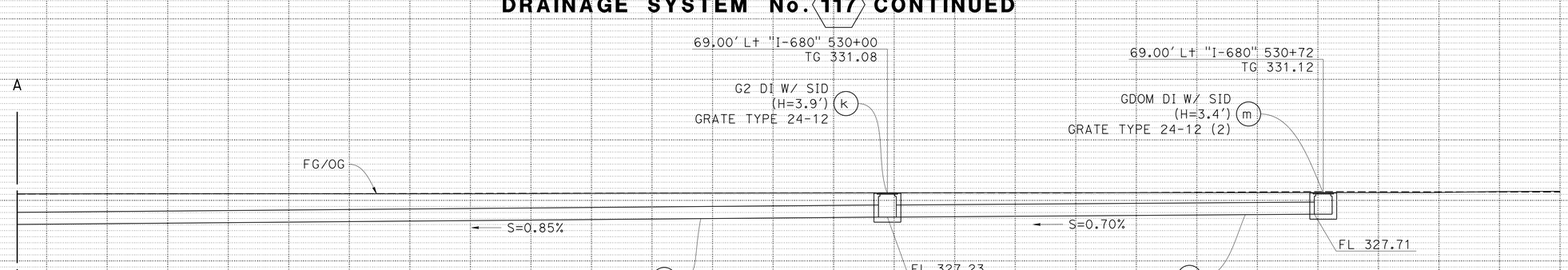


DRAINAGE SYSTEM No. 117



DRAINAGE SYSTEM No. 117 CONTINUED



DRAINAGE SYSTEM No. 117 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-62

RICHARD SAGASTUME — REVISED BY — RS — 9-29-21 — DATE REVISED
TINH TRUONG — CALCULATED-DESIGNED BY — CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR — TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

O:\0030UNDRAFTING\FINAL_PS&E\04200002351b062.dgn

LAST REVISION — DATE PLOTTED => 8-MAR-2022 — TIME PLOTTED => 15:41 — 09-29-21

BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b062.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	354	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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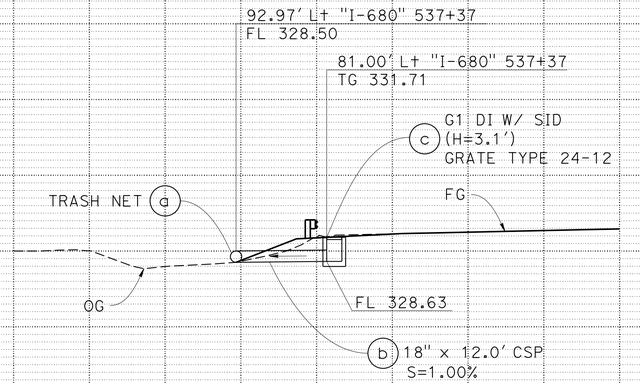
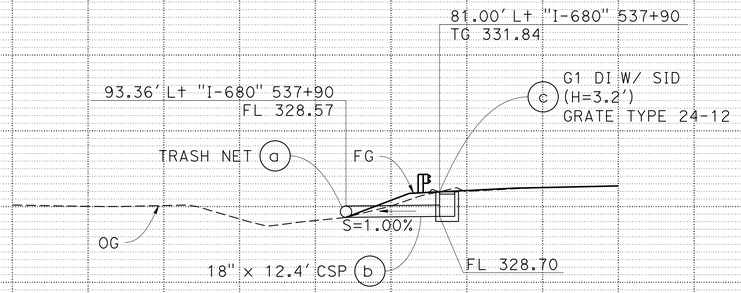


DRAINAGE SYSTEM No. 119



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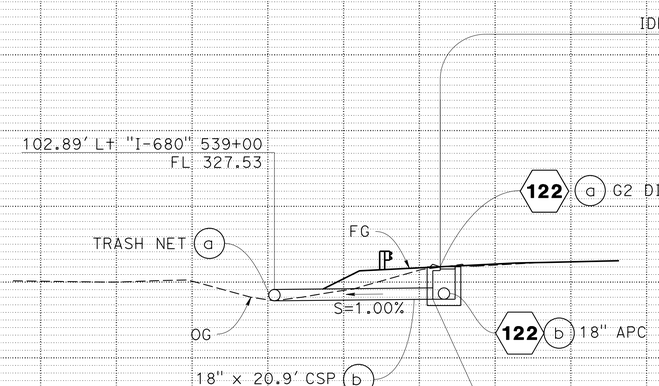

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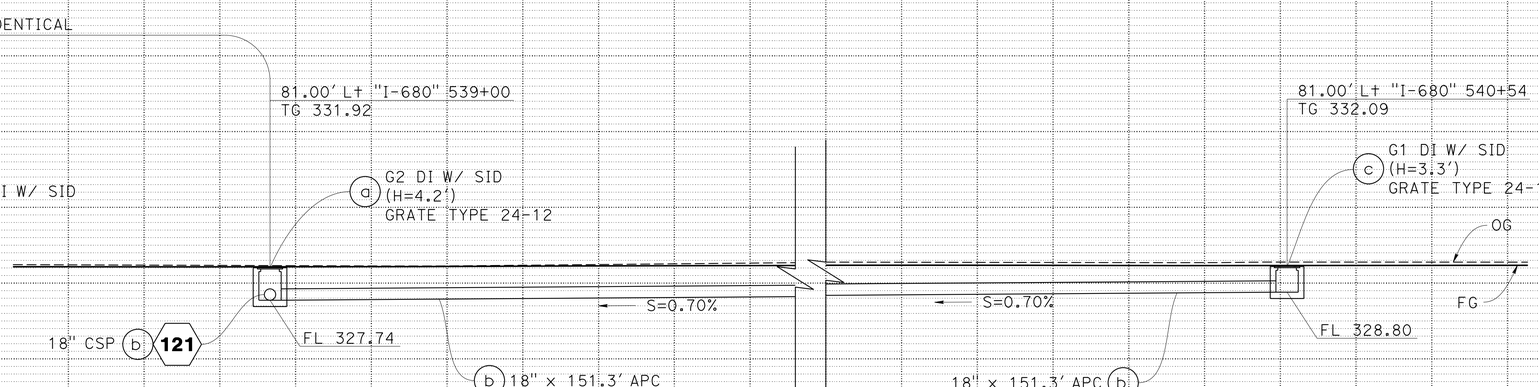

DRAINAGE SYSTEM No. 122

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-63

RICHARD SAGASTUME — TINH TRUONG — CALCULATED-DESIGNED BY — CHECKED BY
TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR
REVISED BY: RS — DATE REVISED: 9-29-21

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 09-29-21 — DATE PLOTTED => 8-MAR-2022 — TIME PLOTTED => 15:41

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BORDER LAST REVISED 7/2/2010 — USERNAME => p302438 — DGN FILE => 04200002351ib063.dgn — RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 — UNIT 0733 — PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	355	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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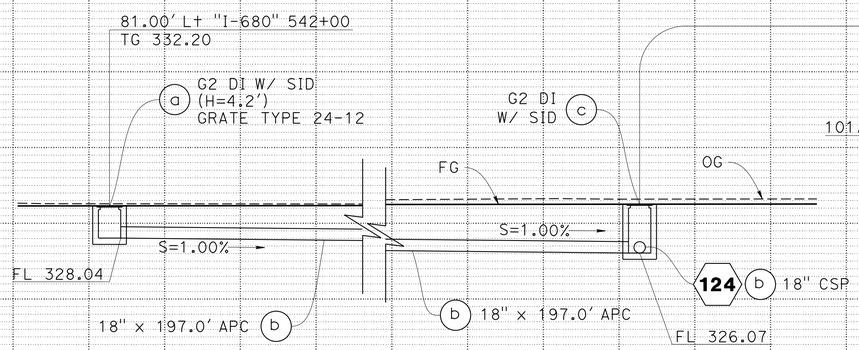

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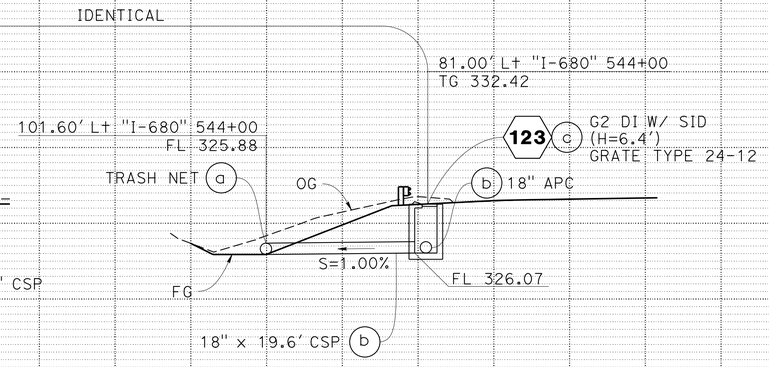

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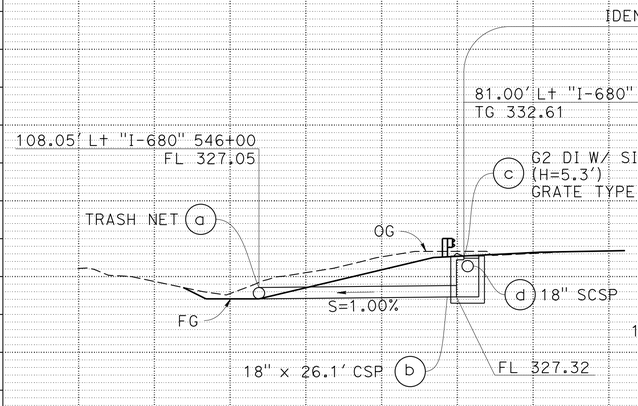

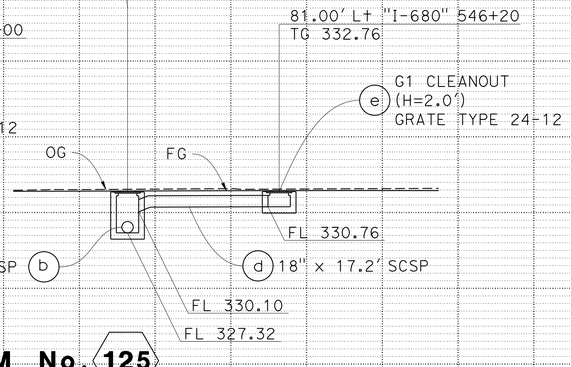

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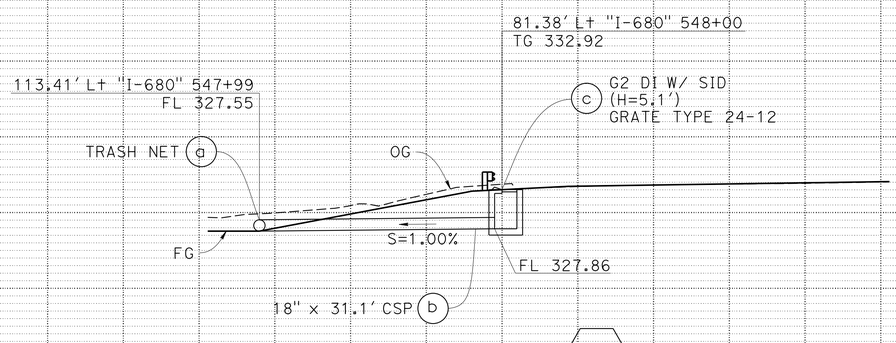
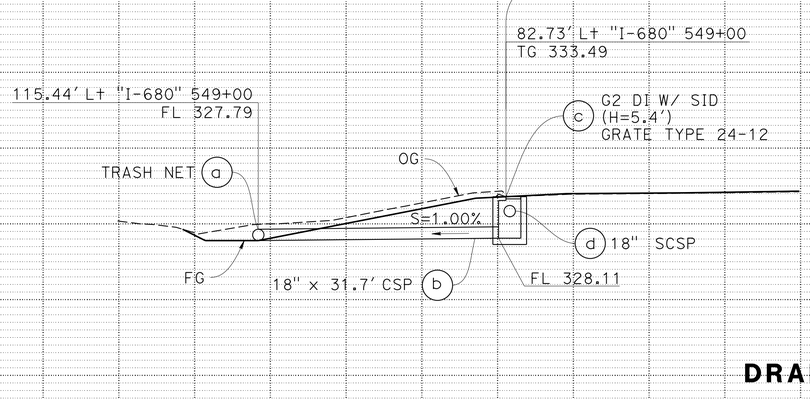
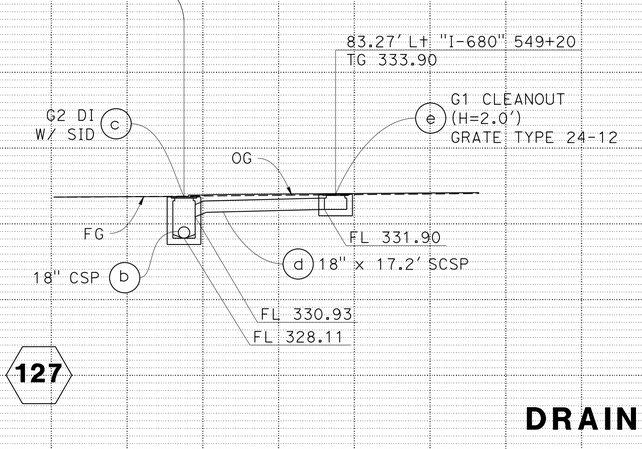


DRAINAGE SYSTEM No. 126





DRAINAGE SYSTEM No. 127

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-64

RS — REVISED BY — 9-29-21 — DATE REVISED
RICHARD SAGASTUME — TINH TRUONG — CALCULATED-DESIGNED BY — CHECKED BY
TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:41

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b064.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	356	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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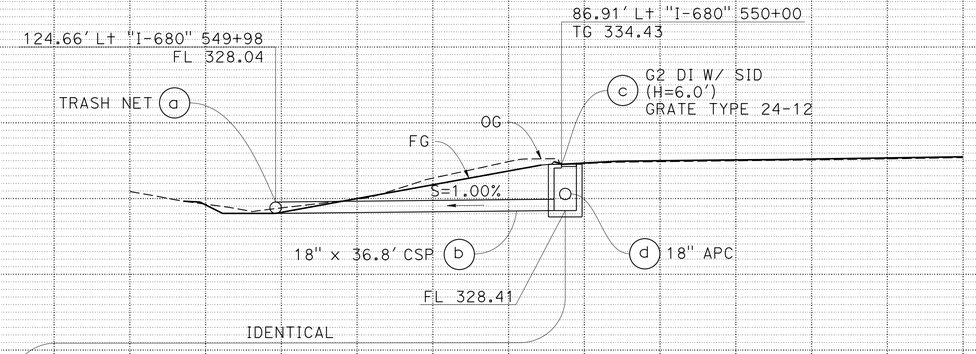
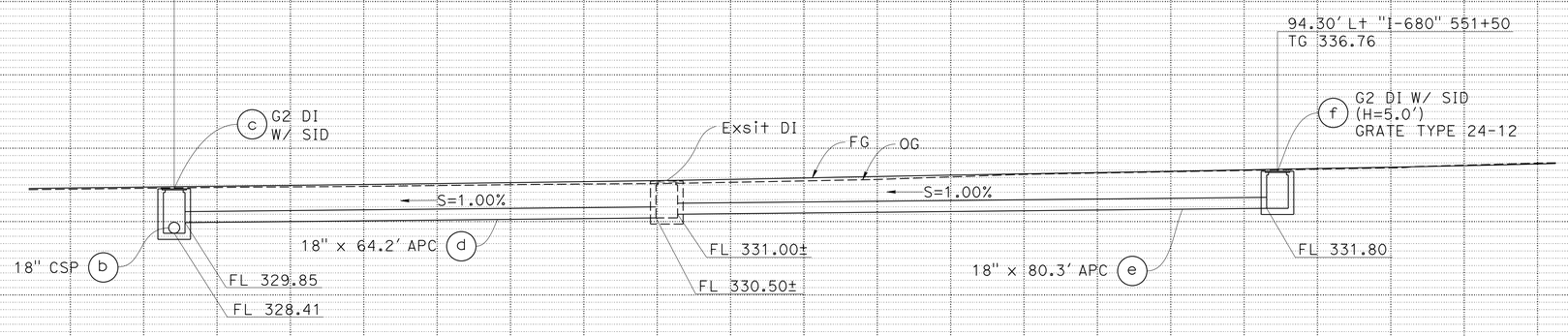


DRAINAGE SYSTEM No. 128



DRAINAGE SYSTEM No. 128 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-65

REVISED BY: RS — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	357	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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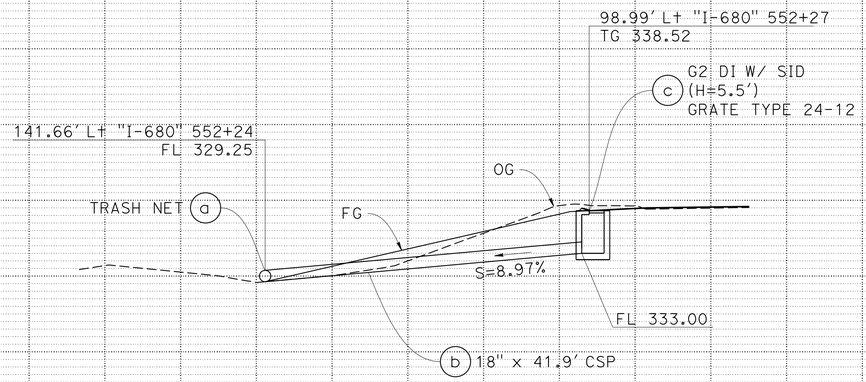
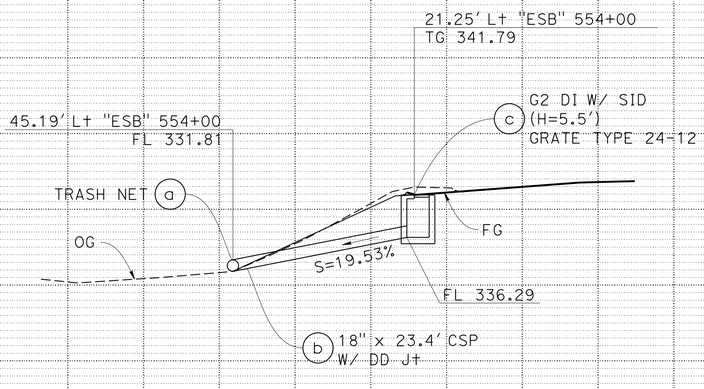
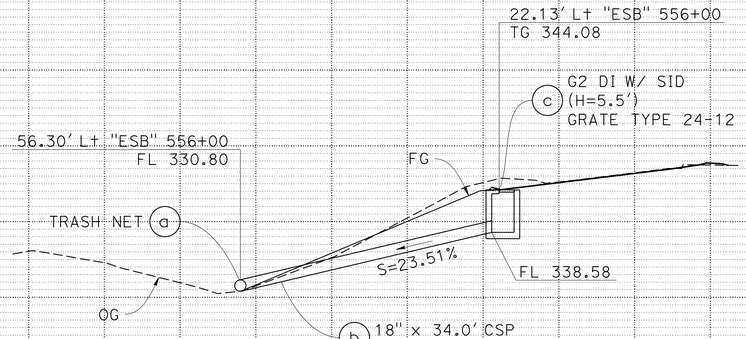
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



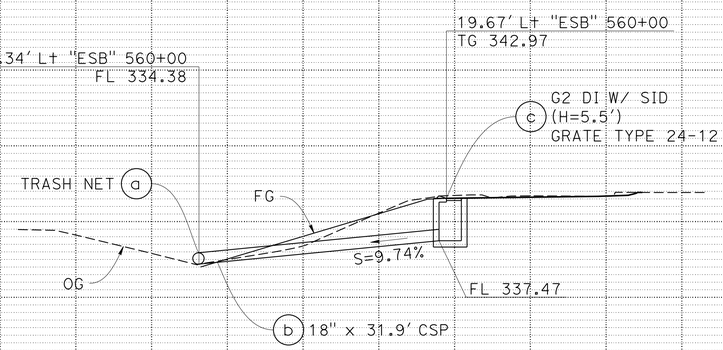
DRAINAGE SYSTEM No. R6



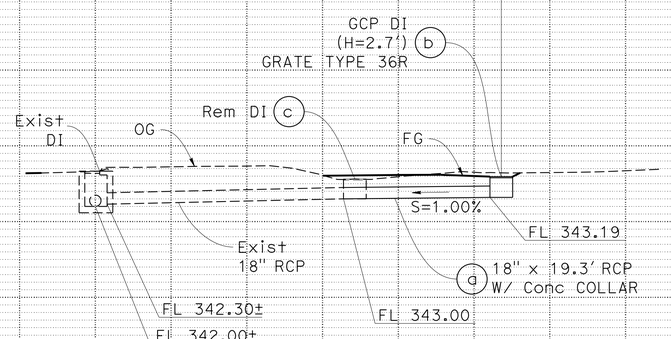
DRAINAGE SYSTEM No. R7



DRAINAGE SYSTEM No. R8



DRAINAGE SYSTEM No. R9



DRAINAGE SYSTEM No. R13

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-66

LAST REVISION: DATE PLOTTED => 6-MAR-2022
09-29-21 TIME PLOTTED => 15:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	358	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

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0.53' Rt "I-680" 563+89
TG 364.46±

Exist DI
FL 359.33
Exist 18" RCP
FG
b G2 DI W/ SID (H=5.7') GRATE TYPE 24-12
c 18" APC
FL 358.80±
18" x 0.8' RCP W/ Conc COLLAR a
S=3.29%
FL 358.78±
OG
FL 358.80±
j Rem Culv (PORTION)
Exist 18" RCP
Exist DI
FL 359.30
IDENTICAL

DRAINAGE SYSTEM No. 129

1.02' Rt "I-680" 566+00
TG 364.22

3.54' Rt "I-680" 567+50
TG 363.36

18" RCP W/ Conc COLLAR a
b G2 DI W/ SID
S=0.70%
18" x 208.5' APC c
FL 358.78
FG
OG
d G2 DI W/ SID (H=6.9') GRATE TYPE 24-12
S=0.70%
18" x 208.5' APC c
FL 357.32
e 18" x 147.2' APC
S=0.70%
G2 DI W/ SID (H=7.1') f GRATE TYPE 24-12
S=0.70%
18" x 147.2' APC e
FL 356.29
S=0.83%
g 18" x 124.3' APC

A — A

DRAINAGE SYSTEM No. 129

IDENTICAL

Mod DI h
MTC FIBER TOP OF PIPE Elev 359.97
OG/FG
S=0.83%
g 18" x 124.3' APC
FL 355.20±
Exist 18" RCP

h Mod DI
FG
OG
Exist 18" RCP
FL 355.50±
FL 355.32±
Exist 18" RCP
FL 355.20±
Exist RISER

DRAINAGE SYSTEM No. 129

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-67

LAST REVISION DATE PLOTTED => 8-MAR-2022
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	359	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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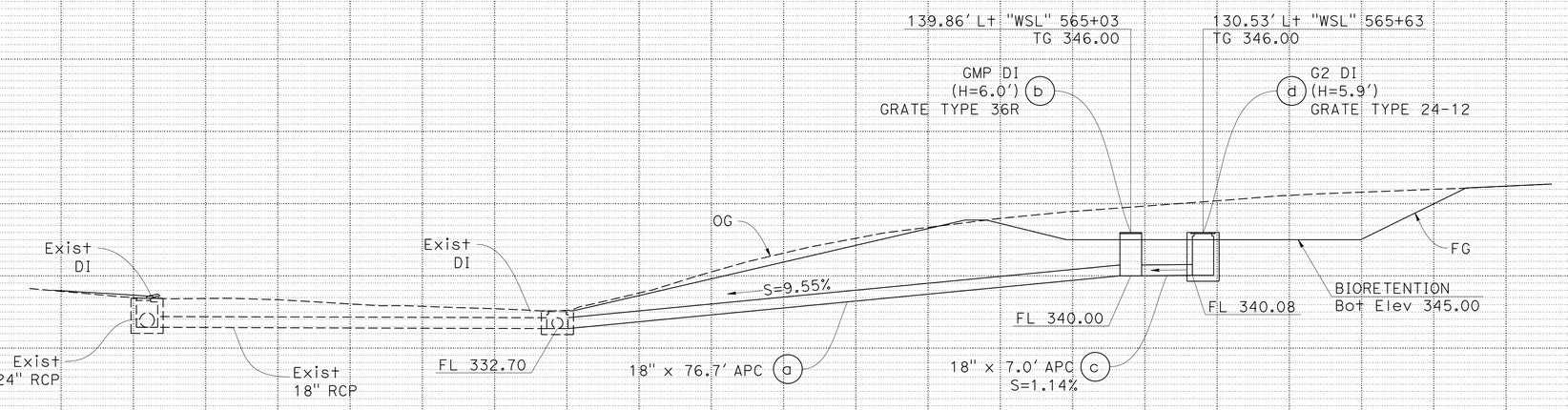
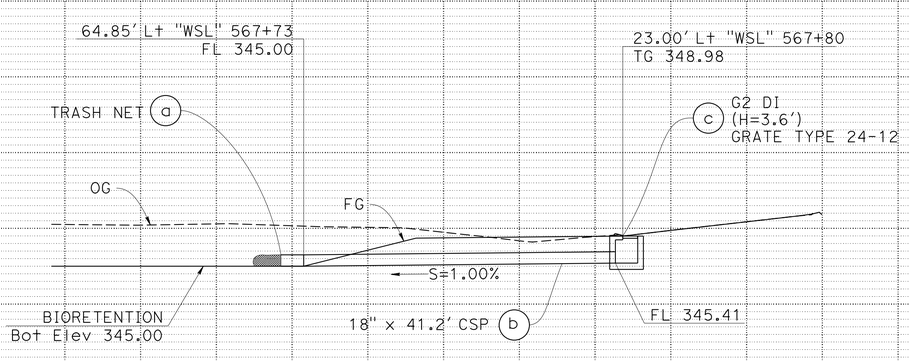


DRAINAGE SYSTEM No. 130



DRAINAGE SYSTEM No. 131

FOR ABBREVIATIONS
SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-68

REVISED BY	DATE REVISED
RS	9-29-21

CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG

CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 8-MAR-2022
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	360	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

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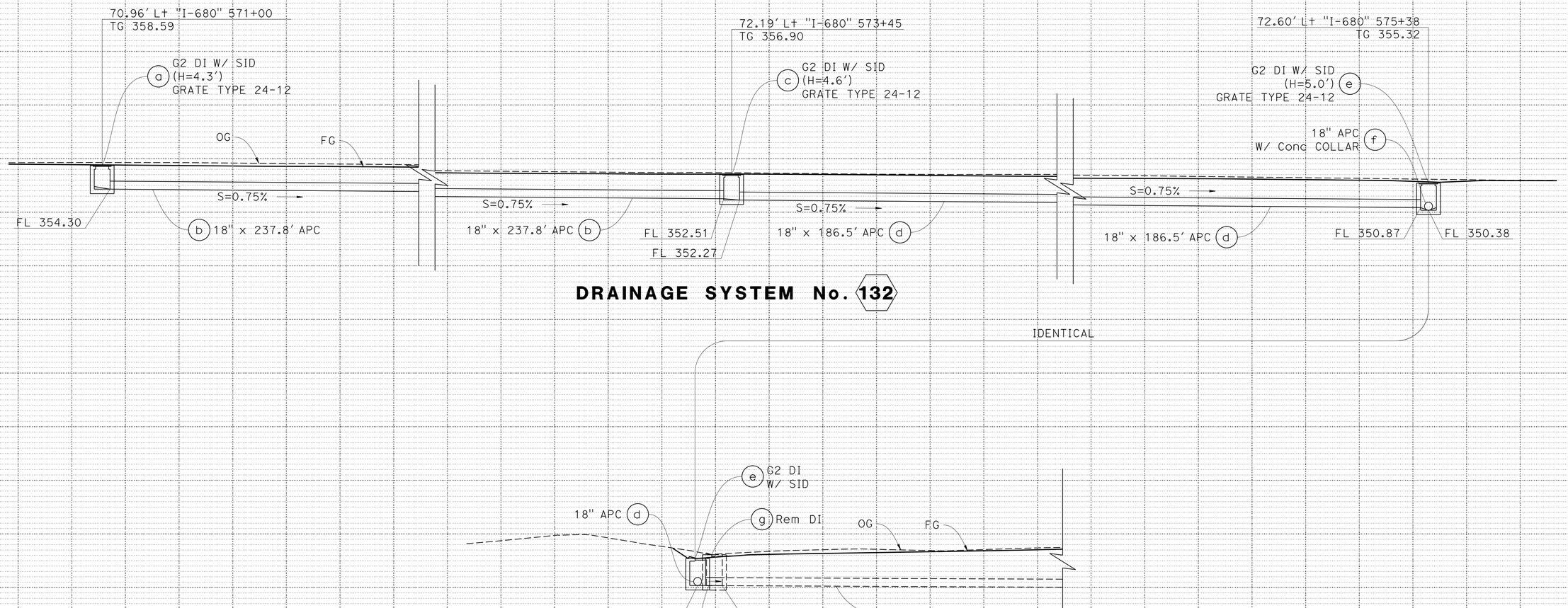
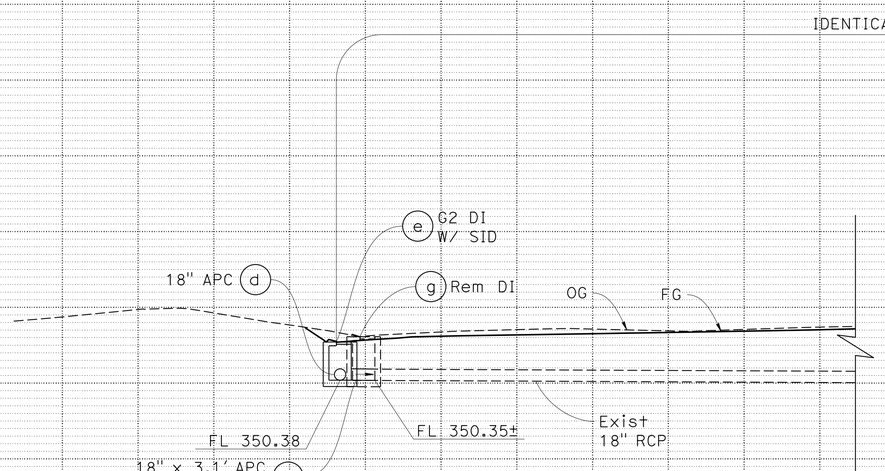


DRAINAGE SYSTEM No. 132



DRAINAGE SYSTEM No. 132

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10′
Vert 1"=10′

DP-69

RICHARD SAGASTUME — TINH TRUONG — CALCULATED-DESIGNED BY — CHECKED BY
REVISED BY: RS — DATE REVISED: 9-29-21
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION — DATE PLOTTED => 8-MAR-2022
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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b069.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	361	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
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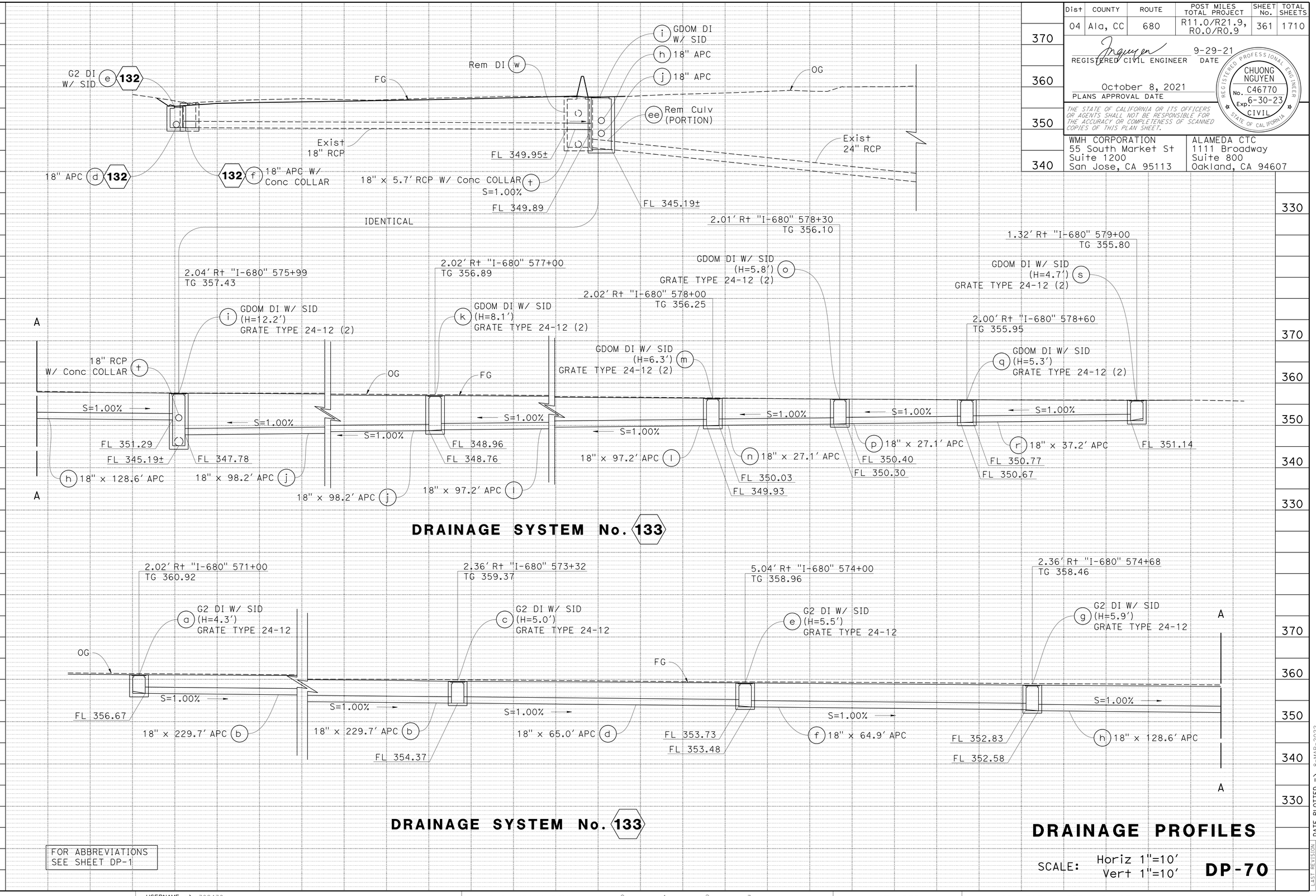

DRAINAGE SYSTEM No. 133

DRAINAGE SYSTEM No. 133

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-70

REVISED BY: RS — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION — DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	362	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

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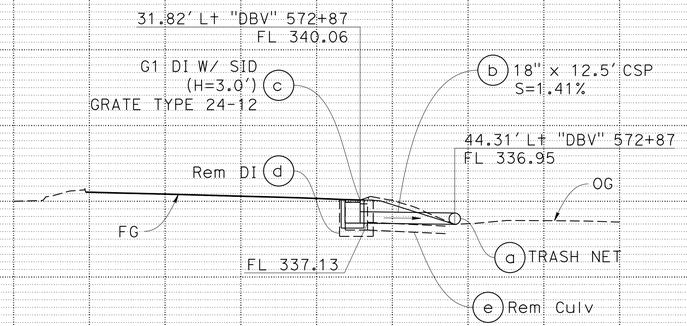
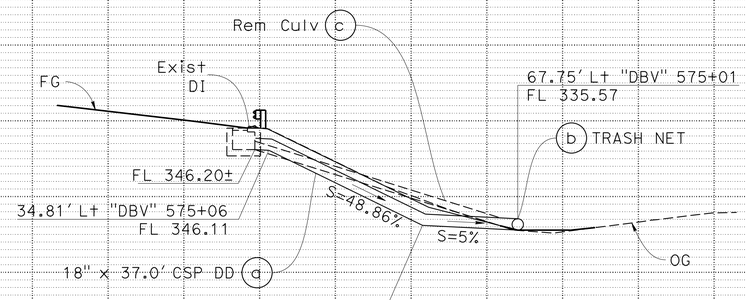


DRAINAGE SYSTEM No. 134



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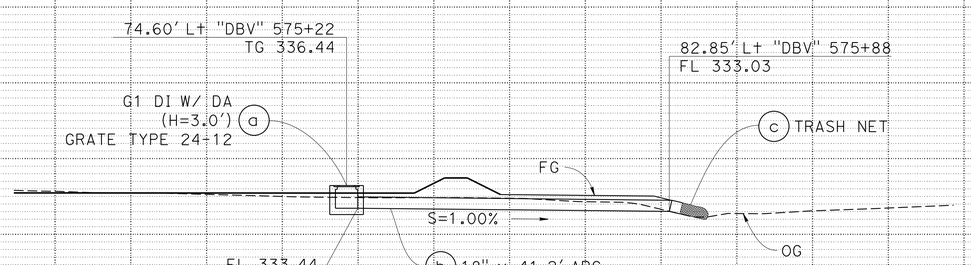

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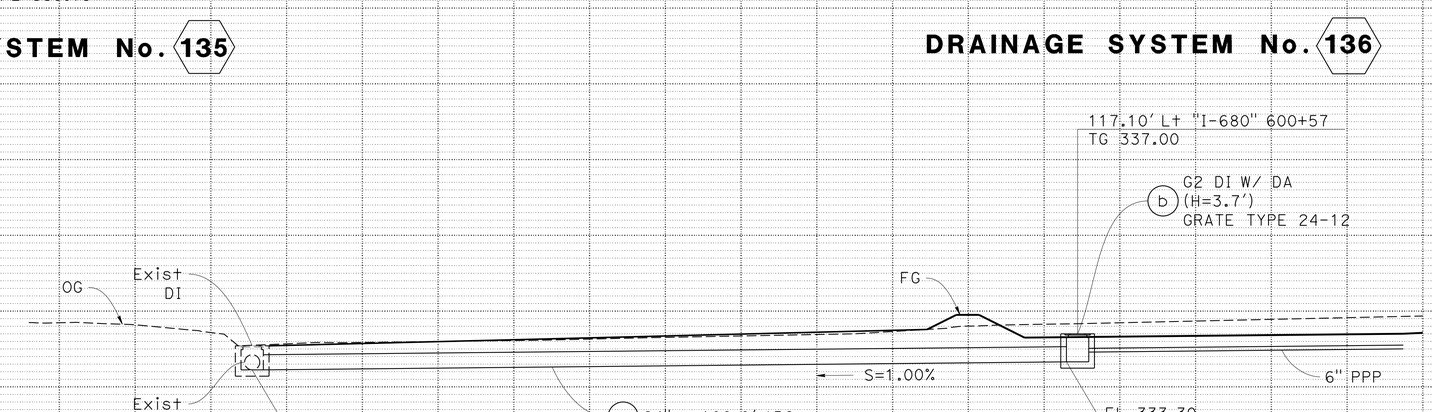

DRAINAGE SYSTEM No. 140

FOR ABBREVIATIONS
SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-71

RICHARD SAGASTUME — CALCULATED-DESIGNED BY
TINH TRUONG — CHECKED BY
RS — REVISED BY
9-29-21 — DATE REVISED
TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:42
LAST REVISION 09-29-21

01\0030\DRAFTING\FINAL_PS&E\04200002351ib071.dgn

BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351ib071.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	363	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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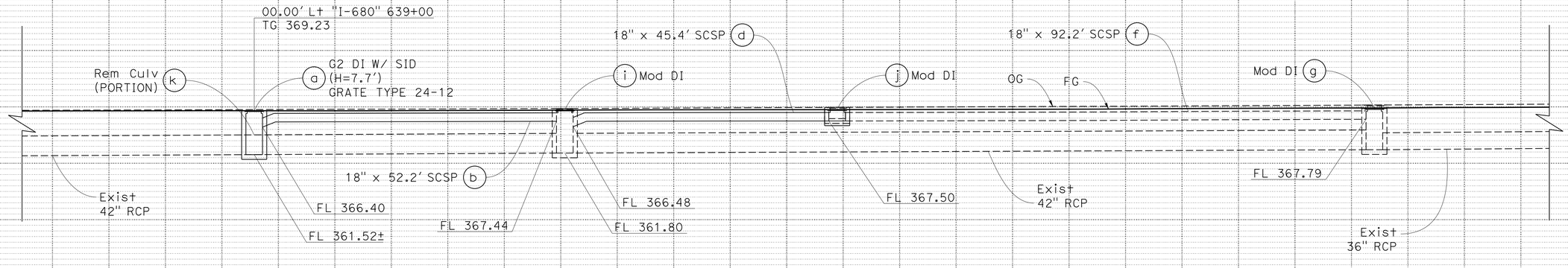
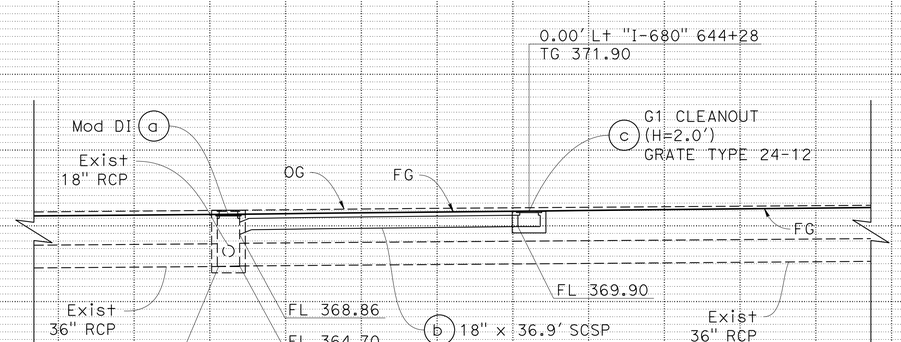
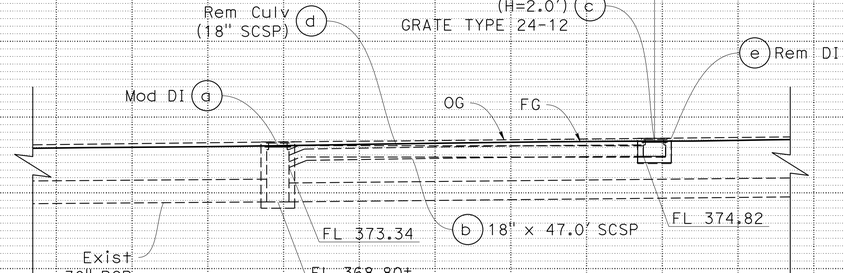


DRAINAGE SYSTEM No. 152



DRAINAGE SYSTEM No. 153



DRAINAGE SYSTEM No. 155

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-72

REVISED BY: RS — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:42

O:\003OU\DRAFTING\FINAL_PS&E\04200002351b072.dgn

BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b072.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	364	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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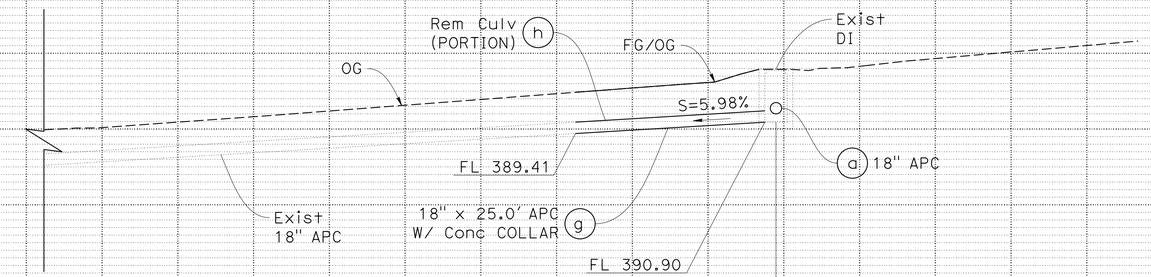
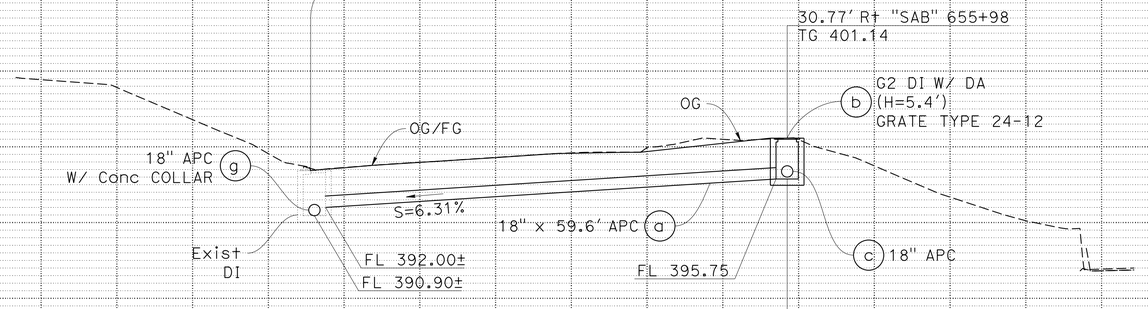


IDENTICAL



DRAINAGE SYSTEM No. 157

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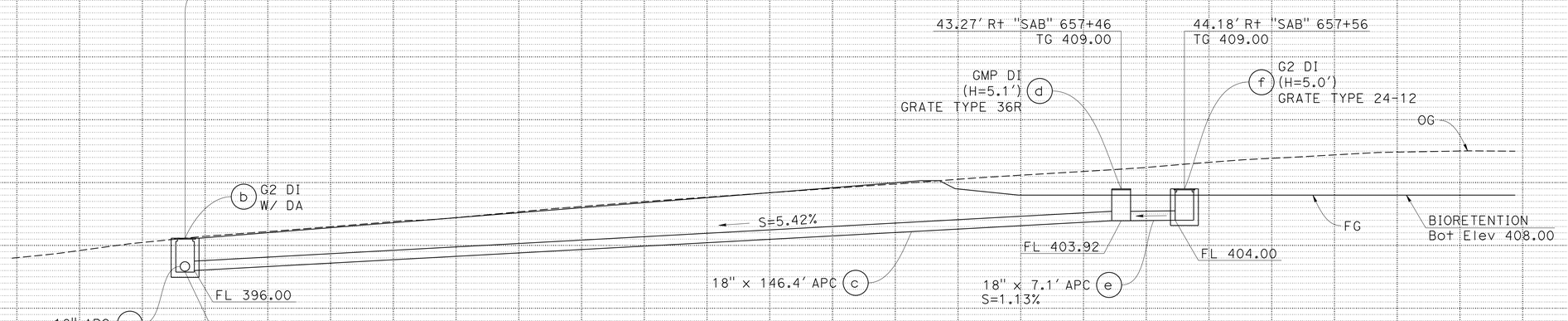

DRAINAGE SYSTEM No. 157 CONTINUED

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-73

RICHARD SAGASTUME — TINH TRUONG — CALCULATED-DESIGNED BY — CHECKED BY
REVISED BY: RS — DATE REVISED: 9-29-21
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION 09-29-21 — DATE PLOTTED => 8-MAR-2022 — TIME PLOTTED => 15:42

01\0030\DRAFTING\FINAL_PS&E\04200002351b073.dgn

BORDER LAST REVISED 7/2/2010 — USERNAME => p302438 — DGN FILE => 04200002351b073.dgn — RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 — UNIT 0733 — PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	365	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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DRAINAGE SYSTEM No. 158

165.18′ Lt "I-680" 658+77
TG 414.69±
MATCH Exist GRADE

173.40′ Lt "I-680" 658+42
FL 408.00

G2 DI W/ SID (H=5.2′) (k)
GRATE TYPE 24-12

(l) Rem DI

Exist 15" RCP

(j) 18" APC

TRASH NET (a)

FG

OG

Exist DI

S=3.97%

FL 411.12±

FL 409.46

Exist 15" RCP

FL 411.60±

BIORETENTION
Bot Elev 408.00

18" x 36.8′ CSP (b)

IDENTICAL

206.66′ Lt "I-680" 659+71
TG 416.58±
MATCH Exist GRADE

G1 CLEANOUT (H=2.0′) (e)
GRATE TYPE 24-12

FG/OG

(a) G2 DI W/ SID

OG

FL 414.58

(b) 18" CSP

18" x 9.2′ SCSP (d)

FL 413.49

IDENTICAL

18" x 9.2′ SCSP (g)

176.80′ Lt "I-680" 658+80
TG 414.93±
MATCH Exist GRADE

G2 DI W/ SID (H=5.3′) (h)
GRATE TYPE 24-12

Rem CULV (PORTION) (i)

Exist 15" RCP

OG

FL 411.43±

FL 409.63±

18" x 9.1′ RCP (j)
S=1.88%

FL 412.17

Exist 15" RCP

(e) Rem CULV (PORTION)

FG/OG

S=0.30%

FL 409.46

18" x 33.6′ RCP (c)

FL 409.56

129.76′ Lt "I-680" 658+67
TG 413.71±
MATCH Exist GRADE

(d) G2 DI W/ SID (H=4.2′)
GRATE TYPE 24-12

(f) Abn CULV

195.05′ Lt "I-680" 659+68
TG 416.21±
MATCH Exist GRADE

G2 DI W/ SID (H=4.0′) (a)
GRATE TYPE 24-12

190.88′ Lt "I-680" 659+89
FL 412.00

(c) TRASH NET

OG

S=1.00%

18" SCSP (d)

(b) 18" x 22.9′ CSP

FG

BIORETENTION
Bot Elev 412.00

FL 412.23

DRAINAGE SYSTEM No. 160

DRAINAGE SYSTEM No. 158 CONTINUED

203.17′ Lt "I-680" 660+87
TG 413.00

194.52′ Lt "I-680" 660+92
TG 413.00

G2 DI (H=5.9′) (a)
GRATE TYPE 24-12

(c) GMP DI (H=6.0′)
GRATE TYPE 36R

OG

FG

BIORETENTION
Bot Elev 412.00

FL 407.08

S=25.53%

FL 407.00

18" x 7.0′ APC (b)
S=1.14%

18" x 66.5′ APC (d)

Exist DI

FL 390.54±

DRAINAGE SYSTEM No. 161

DRAINAGE PROFILES

SCALE: Horiz 1"=10′
Vert 1"=10′

DP-74

FOR ABBREVIATIONS SEE SHEET DP-1

REVISED BY: RS — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME — CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION: 09-29-21
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:42

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BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351b074.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	366	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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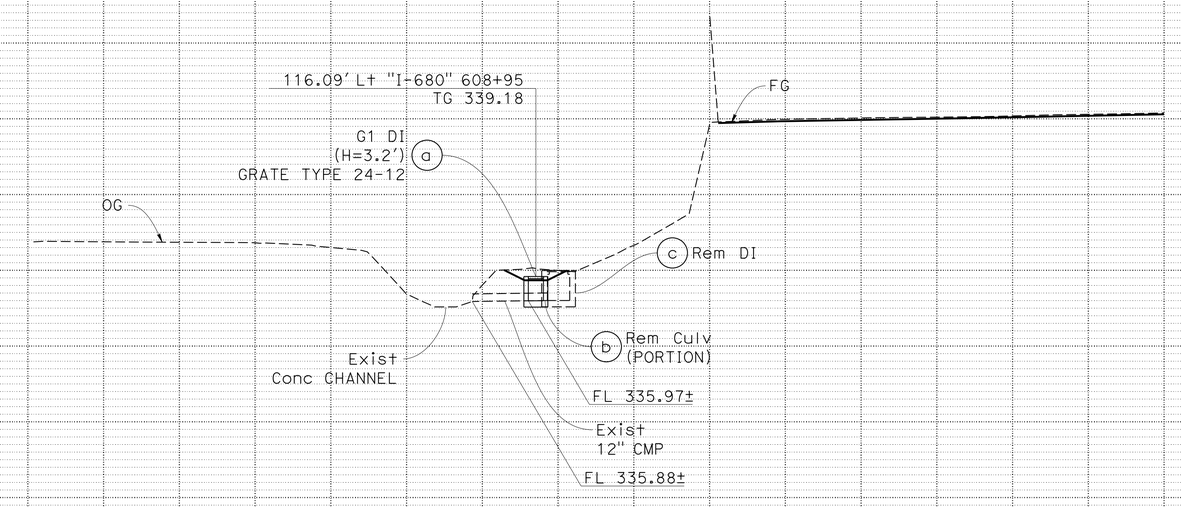
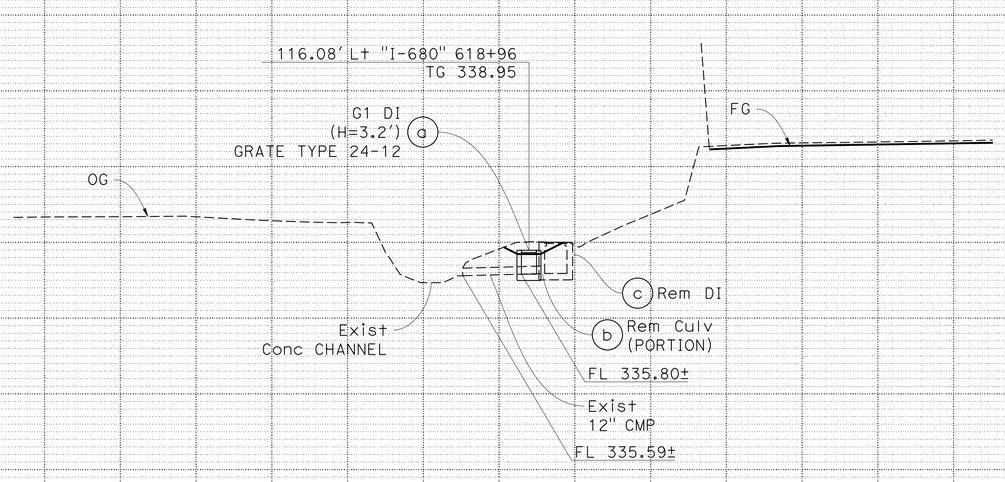


DRAINAGE SYSTEM No. 168



DRAINAGE SYSTEM No. 169

FOR ABBREVIATIONS SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-75

REVISED BY: RS — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION | DATE PLOTTED => 8-MAR-2022
09-29-21 | TIME PLOTTED => 15:43

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b075.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	367	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

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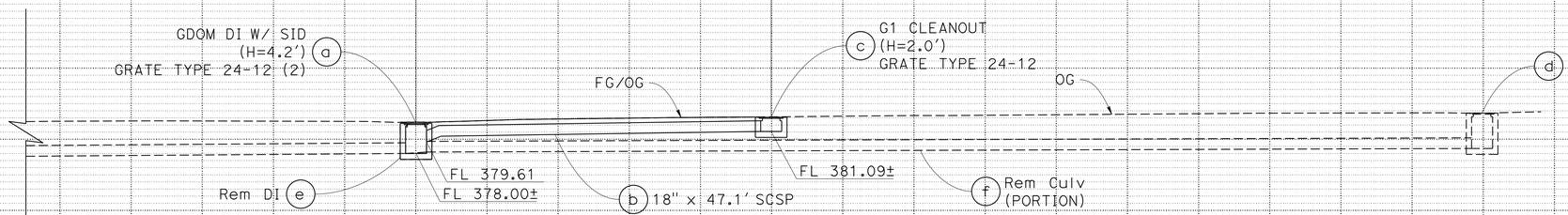
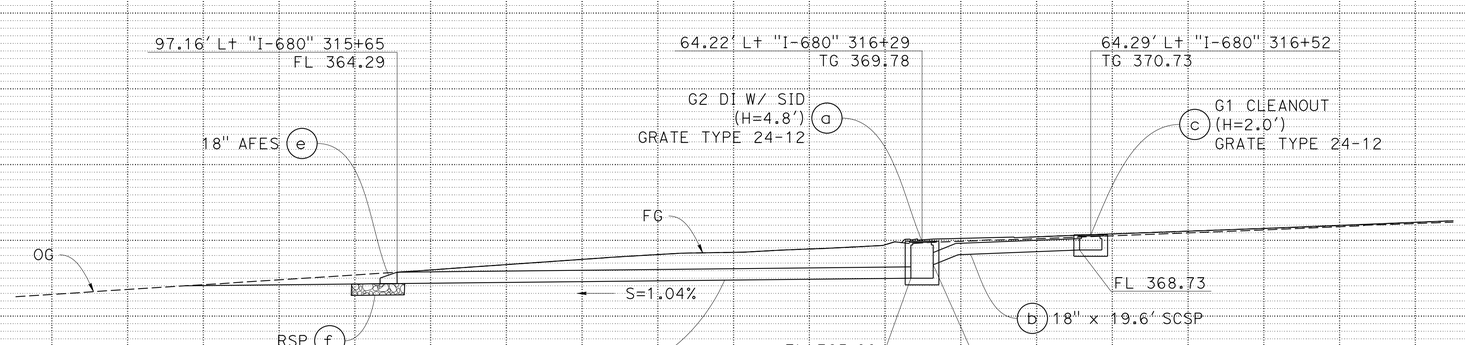


DRAINAGE SYSTEM No. 171



DRAINAGE SYSTEM No. 174

FOR ABBREVIATIONS
SEE SHEET DP-1

DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

DP-76

REVISED BY: RS
DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 8-MAR-2022
09-29-21 | TIME PLOTTED => 15:43

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351b076.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	368	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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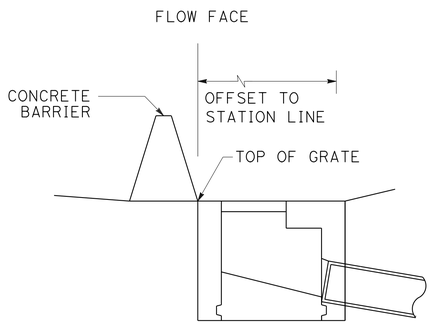
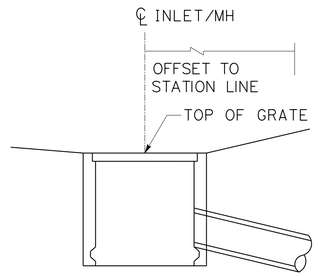
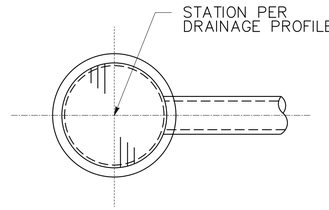


ELEVATION

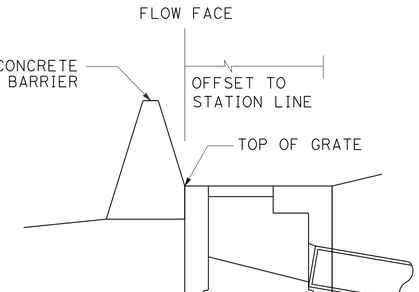


ELEVATION



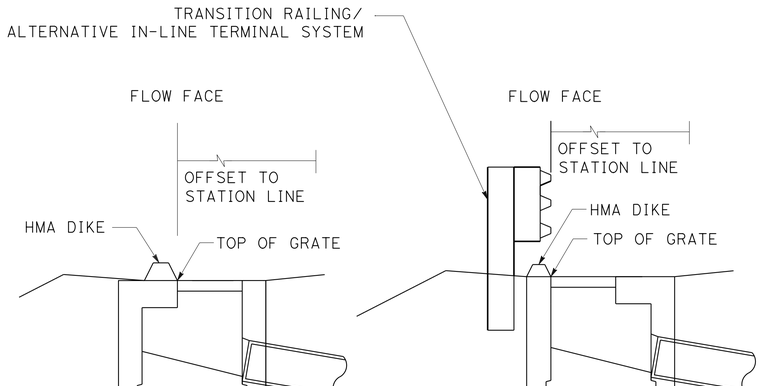
PLAN

FIELD INLET/MH



ELEVATION

ELEVATION



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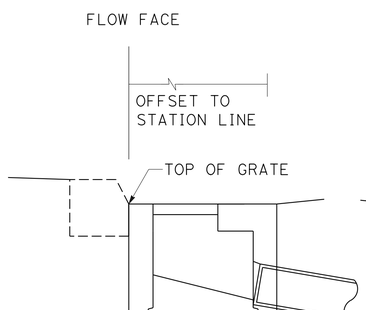
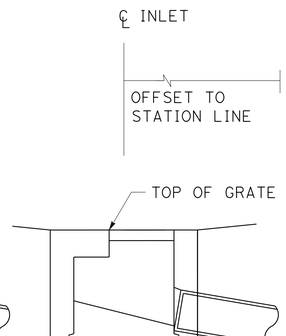
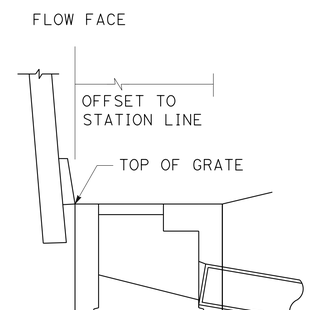


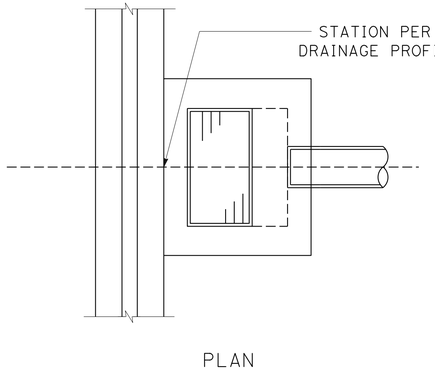
ELEVATION



ELEVATION

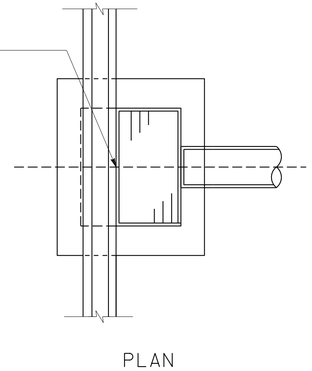


ELEVATION



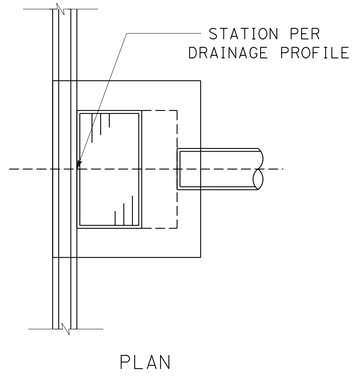
PLAN

INLET ADJACENT TO CONCRETE BARRIER



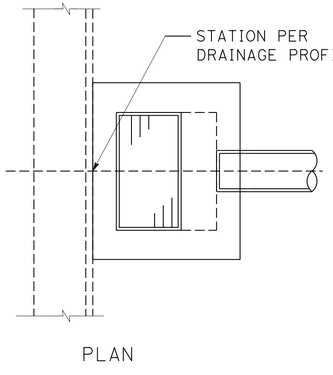
PLAN

INLET ADJACENT TO HMA DIKE



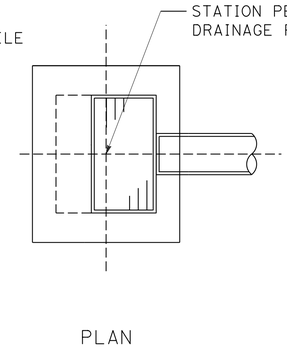
PLAN

INLET ADJACENT TRANSITION RAILING/ ALTERNATIVE IN-LINE TERMINAL SYSTEM



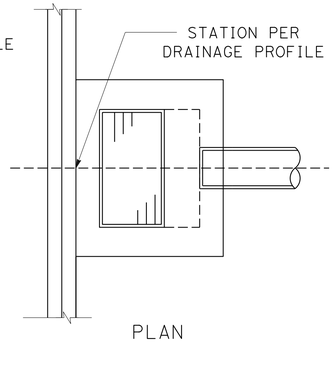
PLAN

INLET ADJACENT TO EXISTING CURB



PLAN

FIELD INLET



PLAN

INLET ADJACENT TO RETAINING WALL

DRAINAGE DETAILS

NO SCALE

DD-1

CALCULATED-DESIGNED BY: TINH TRUONG
CHECKED BY: JOHN NGUYEN
REVISED BY: TT
DATE REVISED: 9-29-21
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION | DATE PLOTTED => 8-MAR-2022
09-29-21 | TIME PLOTTED => 15:43

BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351c001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	369	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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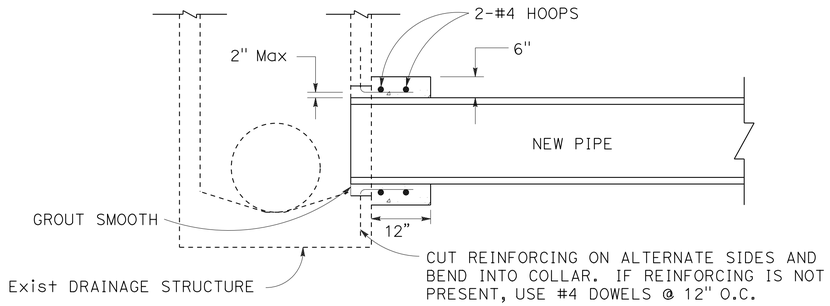
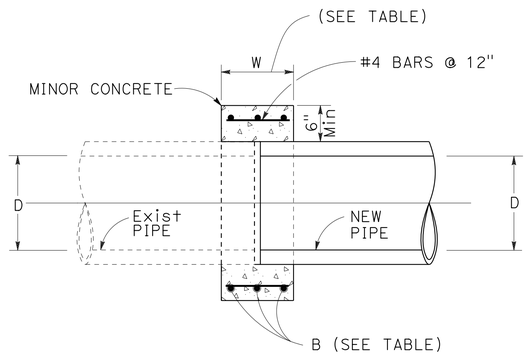


PIPE CONNECTION TO EXISTING DRAINAGE STRUCTURE

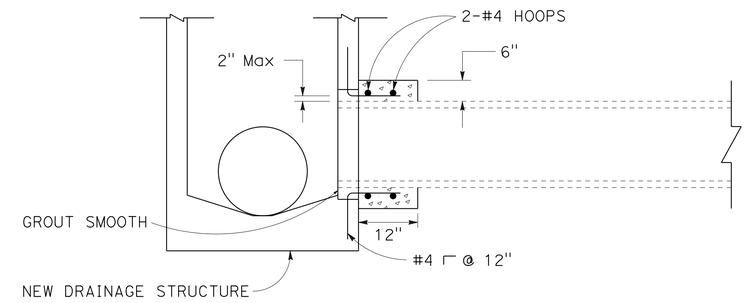
2 e, 3 b, 11 d, 12 q, 19 b, 24 c, 25 p, 27 a, 30 o w
37 a, 32 b d e, 39 b, 40 h, 41 b, 44 h l, 45 m, 47 b, R5 d e
51 b, 54 d, 56 b, 62 a, 72 a, 77 a, 85 b, 86 a, 114 a, 128 d e
129 g, 130 a, 140 a, 152 b d f, 153 b, 155 b, 157 a g, 161 d, 173 b, R4 b



PIPE INNER DIAMETER (D)	B	W
UP TO 24"	2-#5 HOOPS	18"
OVER 24"	3-#5 HOOPS	24"

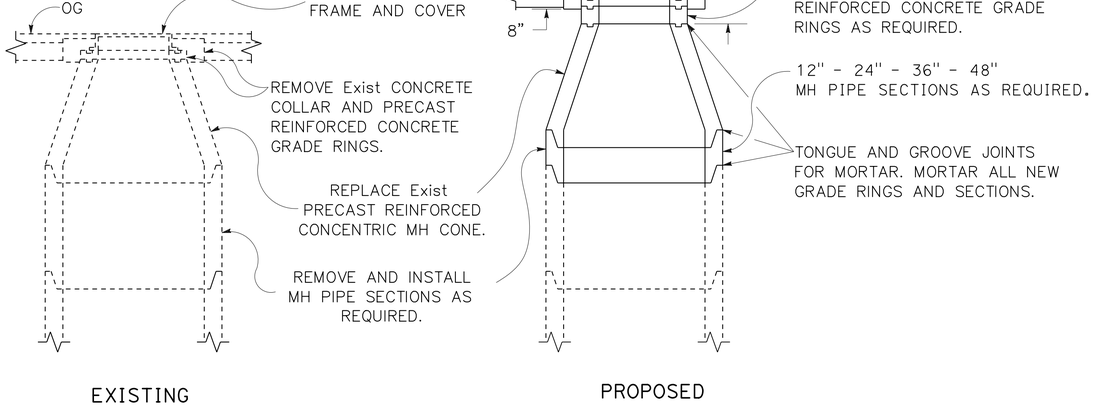
CONCRETE COLLAR

2 a, 15 a e, 17 p, 35 a, 42 a, 43 j, 44 f, 45 f, 46 a c, 116 b
129 a, 132 f, 133 t, 157 g, R1 d, R1 d, R3 b, R13 a



CONNECT EXISTING PIPE TO NEW DRAINAGE STRUCTURE

7 f, 17 d, 30 n, 35 f, 43 m, 49 c, 66 c, 67 c, 68 y, 70 i, 71 k
129 b h, 133 i, 135 a, 157 a, 158 d h k, 168 a, 169 a, 171 a, R1 c, R2 d, R3 a



ADJUST DRAINAGE MANHOLE

R4 l

DRAINAGE DETAILS

NO SCALE

DD - 2

REVISED BY	DATE REVISED
TT	9-29-21

TINH TRUONG — CALCULATED-DESIGNED BY
JOHN NGUYEN — CHECKED BY
TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 09-29-21 — DATE PLOTTED => 8-MAR-2022 — TIME PLOTTED => 15:43

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351ic002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	370	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CHUONG NGUYEN — No. C46770 — Exp. 6-30-23 — CIVIL — STATE OF CALIFORNIA

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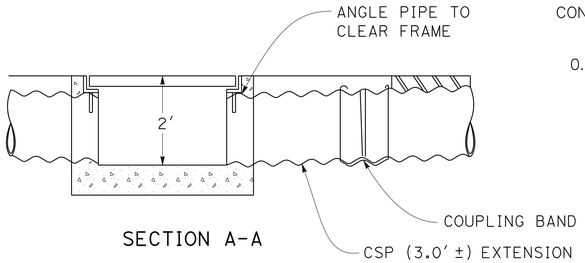
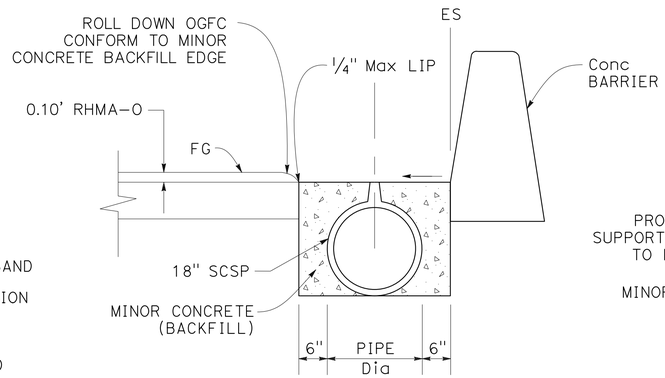
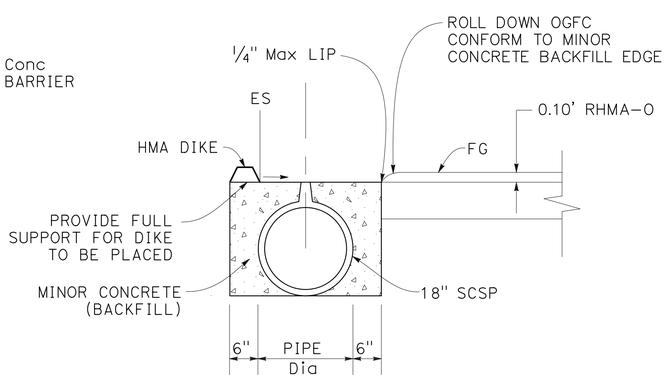


SECTION A-A



AT CONCRETE BARRIER

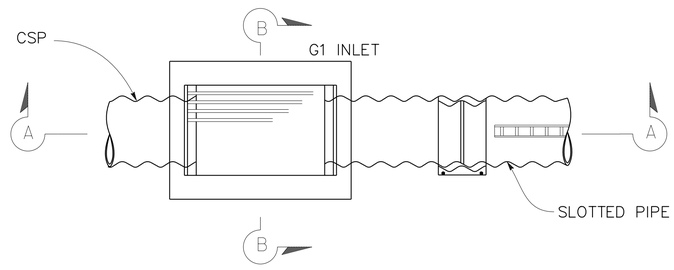


AT HMA DIKE

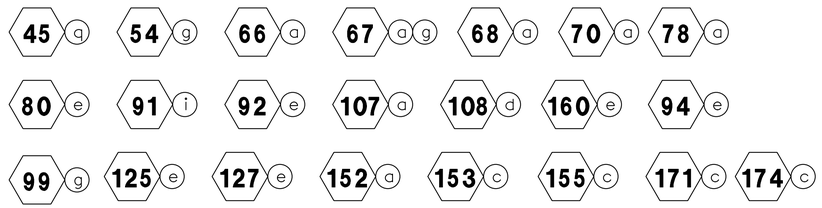
SLOTTED CORRUGATED STEEL PIPE

45 r | 54 h | 60 q | 61 i | 66 b | 67 b f | 68 b | 78 b | 70 b | 80 d | 91 h | 92 d | 94 d

99 f | 102 d | 107 b | 108 e | 125 d | 127 d | 152 b d f | 153 b | 155 b | 158 g | 160 d | 171 b



PLAN



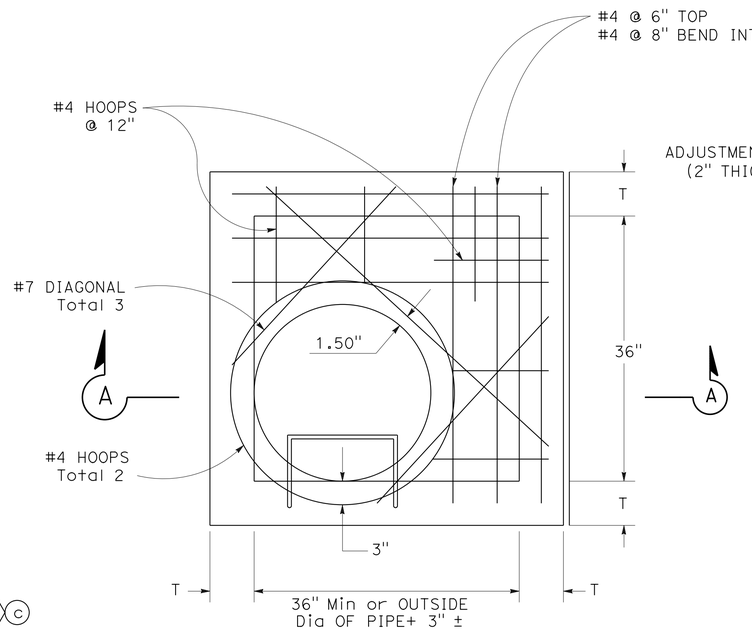
SECTION B-B

G1 CLEANOUT

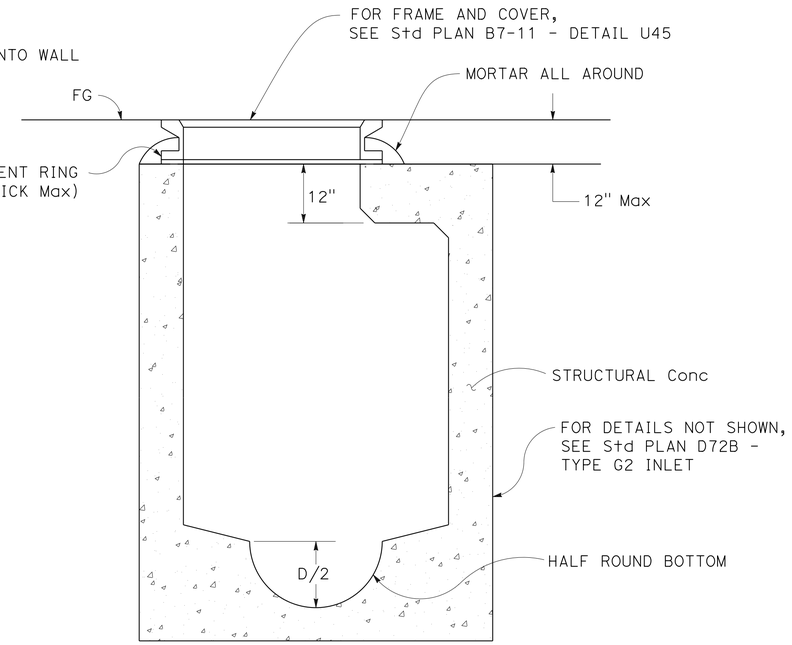
45 q | 54 g | 66 a | 67 a g | 68 a | 70 a | 78 a

80 e | 91 i | 92 e | 107 a | 108 d | 160 e | 94 e

99 g | 125 e | 127 e | 152 a | 153 c | 155 c | 171 c | 174 c



PLAN



SECTION A-A

TYPE G2 MANHOLE

30 j | 35 b i | 39 c e | R5 g

DRAINAGE DETAILS

NO SCALE

DD-3

TT | 9-29-21 | REVISED BY | DATE REVISED
TINH TRUONG | JOHN NGUYEN | CALCULATED-DESIGNED BY | CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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I:\0030\DRAFTING\FINAL_PS&E\04200002351ic003.dgn

BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351ic003.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	371	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

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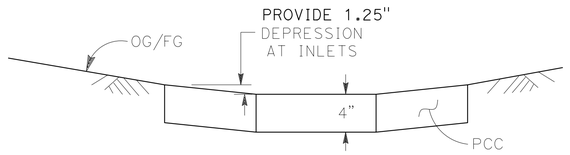
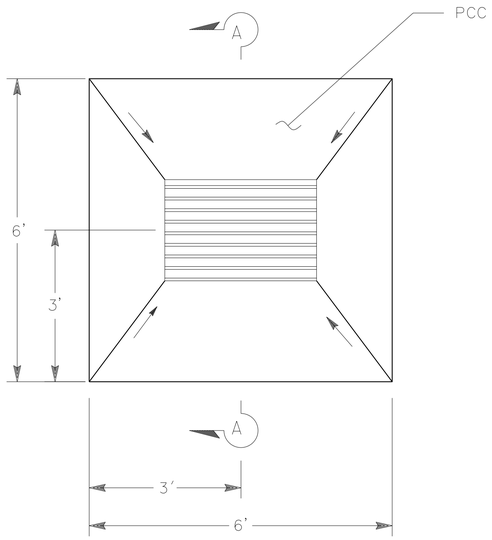


SECTION A-A

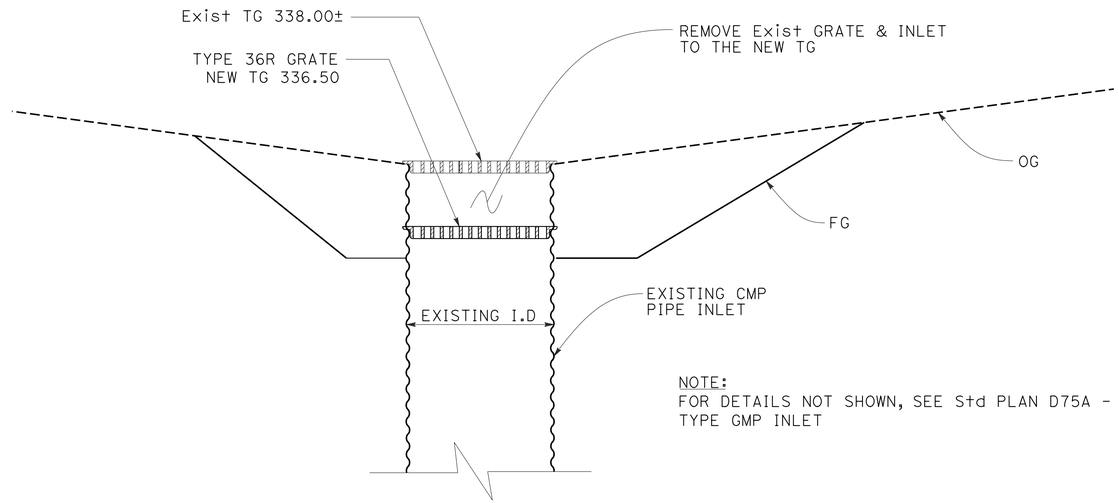


PLAN

DEPRESSED APRON DETAIL

5 d | 10 d f | 13 d | 20 d | 26 a | 29 a | 64 a | 72 b

77 b | 85 a | 86 b | 100 a | 101 b | 136 a | 140 b | 157 b



NOTE:
FOR DETAILS NOT SHOWN, SEE Std PLAN D75A - TYPE GMP INLET

ADJUST INLET

(LOWER EXISTING CMP PIPE INLET)
STATION "I-680" 313+24.86 (Lt)

51 a

DRAINAGE DETAILS

NO SCALE

DD-4

REVISED BY | TT | 9-29-21
DATE REVISED

TINH TRUONG
JOHN NGUYEN
CALCULATED-DESIGNED BY
CHECKED BY

TIMOTHY J. LEE
CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION | DATE PLOTTED => 8-MAR-2022
09-29-21 | TIME PLOTTED => 15:43

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BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351c004.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	372	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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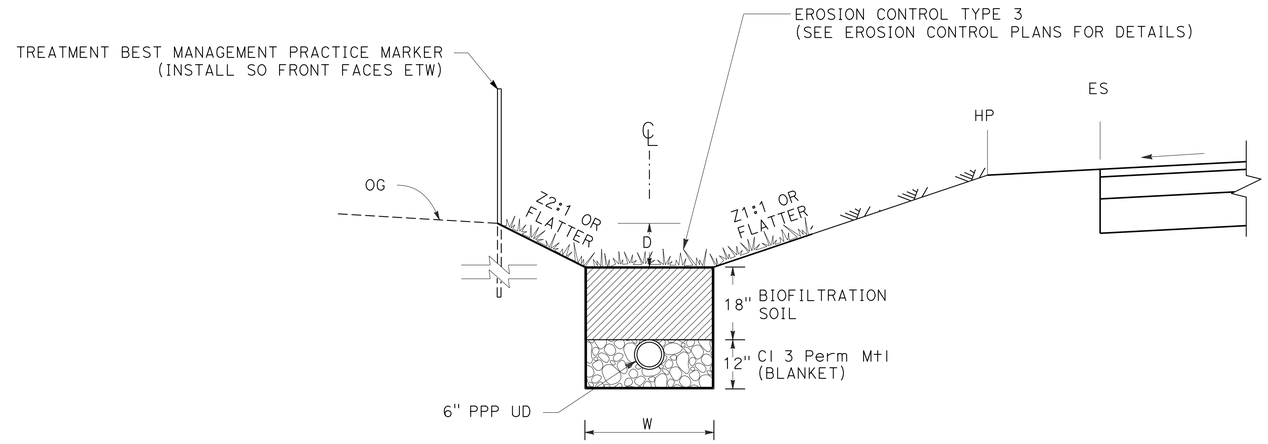
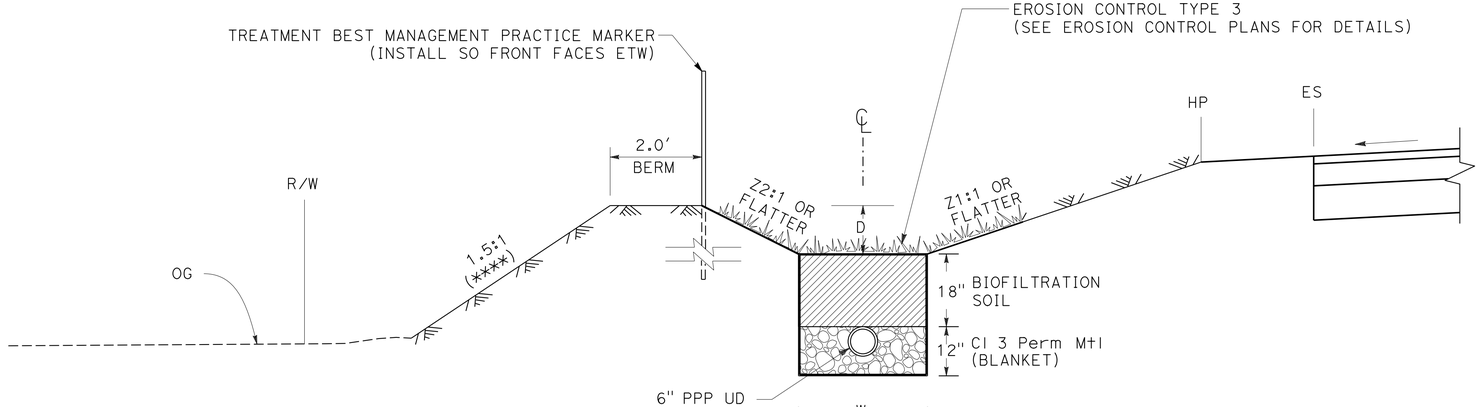
NOTE:
SEE BIORETENTION TABLE FOR BIORETENTION DIMENSIONS D, W, Z1, AND Z2.



BIORETENTION (TYPE 1)

B4 (**) B5 B6 B7 B8 B9

B10 (**) B11 B12 B13 B14 B15 B16



BIORETENTION (TYPE 2)

B1 B2 B3 B4 (*) B10 (*)

(*) FROM STATION "I-680" 208+75 TO "I-680" 211+50
FROM STATION "I-680" 442+00 TO "I-680" 451+30

(**) FROM STATION "I-680" 211+50 TO "I-680" 216+00
FROM STATION "I-680" 436+50 TO "I-680" 442+00

(***) FROM STATION "I-680" 447+00 TO "I-680" 451+30, D=2.0'.

(****) FROM STATION "I-680" 436+50 TO "I-680" 442+00, SIDE SLOPE = 2:1

BIORETENTION TABLE

BSW	SIDE SLOPE Z1	SIDE SLOPE Z2	BOTTOM WIDTH (W)	Min DEPTH (D)
B1 (a)	2	2	5.0'	2.5'
B2 (a)	2	2	18.0' - 23.25'	3.0'
B3 (a)	2	2	4.0' - 15.0'	3.0'
B4 (a)	2	2	5.0'	3.0'
B5 (a)	2	2	8.0' - 15.0'	3.0'
B6 (a)	4	2	6.0'	2.0'
B7 (a)	4	2	5.5'	2.0'
B8 (a)	2	2	6.0'	2.5'
B9 (a)	2	2	8.0'	3.0'
B10 (a)	2	2	7.0'	3.0' (***)
B11 (a)	2	2	12.0'	3.0'
B12 (a)	2	2	5.0'	3.0'
B13 (a)	2	2	7.0'	3.0'
B14 (a)	2	2	7.0'	2.0'
B15 (a)	2	2	7.0'	2.0'
B16 (a)	2	2	3.0'	1.5'

DRAINAGE DETAILS

NO SCALE

DD-5

REVISED BY	DATE REVISED
TT	9-29-21

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JOHN NGUYEN — CHECKED BY
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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TREATMENT BEST MANAGEMENT PRACTICE (TBMP) MARKER

DRAINAGE SYSTEM No.	DRAINAGE UNIT	STATION	LOCATION R+ / L+	LINE 1 MESSAGE	RETROREFLECTIVE SHEETING FRONT	RETROREFLECTIVE SHEETING BACK	No. OF SIGNS EA
B1	a	"I-680" 175+00.00	L+	Beg	BLUE	NONE	1
		"I-680" 185+50.00	L+	END	BLUE	NONE	1
B2	a	"I-680" 194+20.00	L+	Beg	BLUE	NONE	1
		"I-680" 194+95.00	L+	END	BLUE	NONE	1
B3	a	"I-680" 195+40.00	L+	Beg	BLUE	NONE	1
		"I-680" 199+00.00	L+	END	BLUE	NONE	1
B4	a	"I-680" 208+75.00	L+	Beg	BLUE	NONE	1
		"I-680" 216+00.00	L+	END	BLUE	NONE	1
B5	a	"I-680" 229+50.00	L+	Beg	BLUE	NONE	1
		"I-680" 235+00.00	L+	END	BLUE	NONE	1
B6	a	"I-680" 246+95.00	L+	Beg	BLUE	NONE	1
		"I-680" 249+95.00	L+	END	BLUE	NONE	1
B7	a	"I-680" 251+00.00	L+	Beg	BLUE	NONE	1
		"I-680" 253+50.00	L+	END	BLUE	NONE	1
B8	a	"I-680" 390+00.00	L+	Beg	BLUE	NONE	1
		"I-680" 395+60.00	L+	END	BLUE	NONE	1
B9	a	"I-680" 429+50.00	L+	Beg	BLUE	NONE	1
		"I-680" 435+50.00	L+	END	BLUE	NONE	1
B10	a	"I-680" 436+50.00	L+	Beg	BLUE	NONE	1
		"I-680" 450+80.0	L+	END	BLUE	NONE	1
B11	a	"I-680" 453+00.00	L+	Beg	BLUE	NONE	1
		"I-680" 463+50.00	L+	END	BLUE	NONE	1
B12	a	"I-680" 469+55.00	L+	Beg	BLUE	NONE	1
		"I-680" 473+00.00	L+	END	BLUE	NONE	1
B13	a	"I-680" 475+50.00	L+	END	BLUE	NONE	1
		"I-680" 481+00.00	L+	END	BLUE	NONE	1
B14	a	"I-680" 483+00.00	L+	Beg	BLUE	NONE	1
		"I-680" 491+00.00	L+	END	BLUE	NONE	1
B15	a	"DBV" 573+00.00	L+	Beg	BLUE	NONE	1
		"DBV" 575+33.00	L+	END	BLUE	NONE	1
B16	a	"I-680" 600+50.00	L+	Beg	BLUE	NONE	1
		"I-680" 627+00.00	L+	END	BLUE	NONE	1
TOTAL							32 *

(*) QUANTITY INCLUDED IN DRAINAGE QUANTITY SUMMARY TABLE, SHEET DQ-85

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	373	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CHUONG NGUYEN — No. C46770 — Exp. 6-30-23 — CIVIL — STATE OF CALIFORNIA

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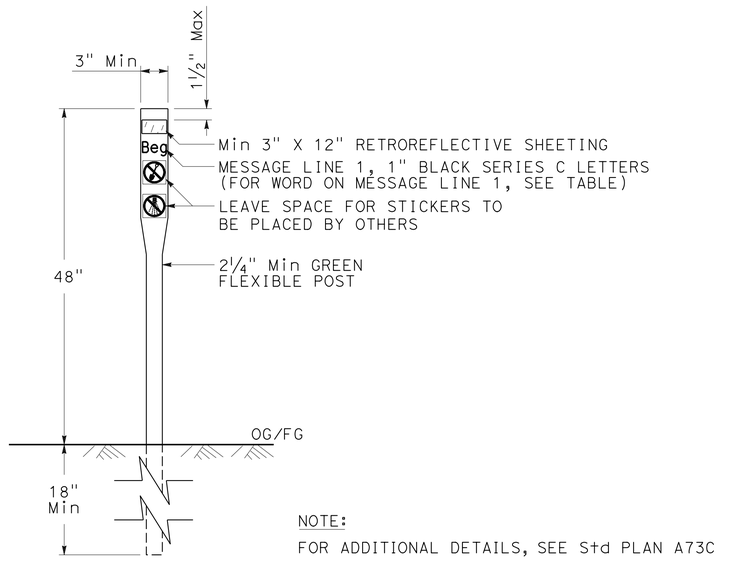
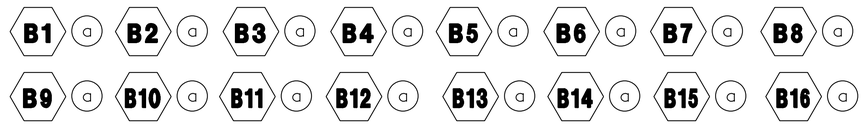


NOTE:
FOR ADDITIONAL DETAILS, SEE Std PLAN A73C

FRONT SECTION

TBMP MARKER



DRAINAGE DETAILS

NO SCALE

DD-6

REVISED BY	TT
DATE REVISED	9-29-21
CALCULATED-DESIGNED BY	TINH TRUONG
CHECKED BY	JOHN NGUYEN
CONSULTANT FUNCTIONAL SUPERVISOR	TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	Caltrans

LAST REVISION 09-29-21
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:43

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351ic006.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	374	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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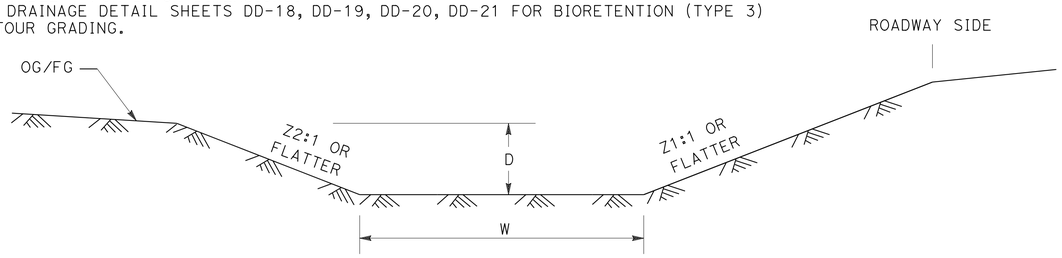
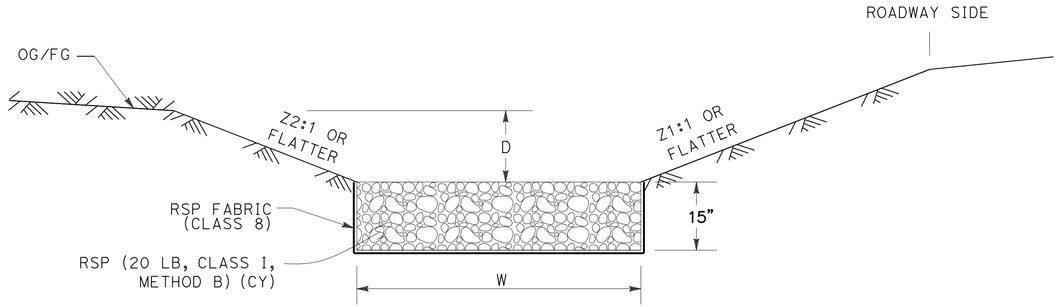
NOTES:

1. SEE TABLE 1 FOR DITCH DIMENSIONS.
2. SEE DRAINAGE DETAIL SHEETS DD-18, DD-19, DD-20, DD-21 FOR BIORETENTION (TYPE 3) CONTOUR GRADING.



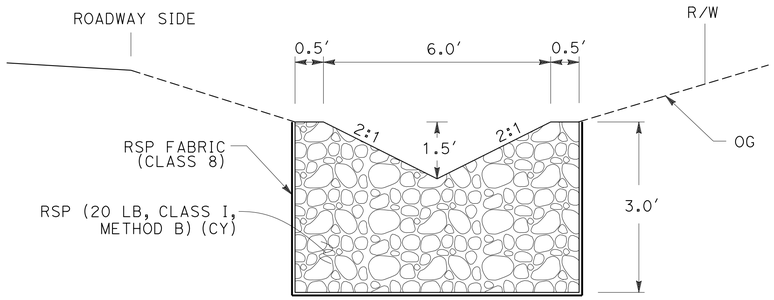
UNLINED DITCH

D1 (a) D2 (a) D4 (a) D5 (a) D6 (a) D7 (a) D8 (a)



RSP DITCH (TYPE 1)

D3 (a) D8 (a)

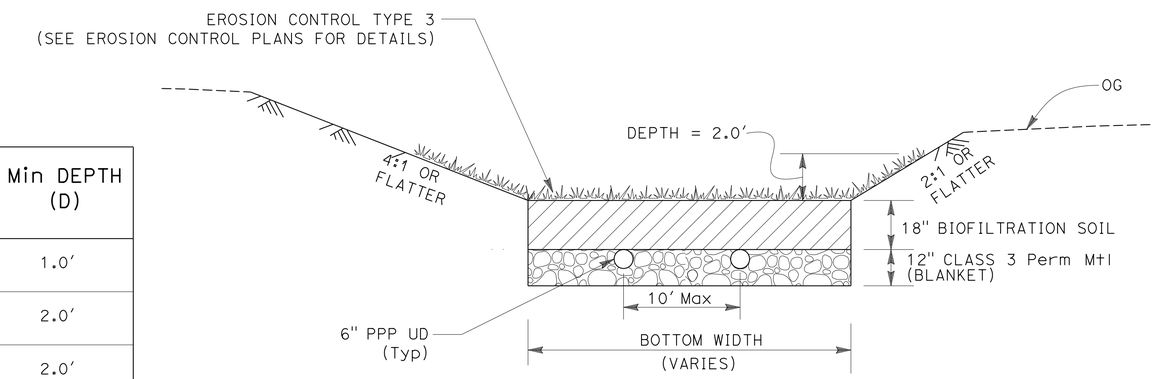


RSP DITCH (TYPE 2)

D9 (a)

TABLE 1

DITCH	SIDE SLOPE Z1	SIDE SLOPE Z2	BOTTOM WIDTH (W)	Min DEPTH (D)
D1 (a)	4	2	0.0′	1.0′
D2 (a)	4	4	0.0′	2.0′
D3 (a)	2	2	6.0′	2.0′
D4 (a)	2	2	3.5′	1.5′
D5 (a)	2	2	7.0′	1.5′
D6 (a)	2	2	5.0′	1.5′
D7 (a)	4	4	0.0′	1.0′
D8 (a)	2	2	7.0′	1.5′



BIORETENTION (TYPE 3)

B17 (a) B18 (a) B19 (a) B20 (a) B21 (a) B22 (a)

DRAINAGE DETAILS

NO SCALE

DD-7

REVISED BY	DATE REVISED
TT	9-29-21

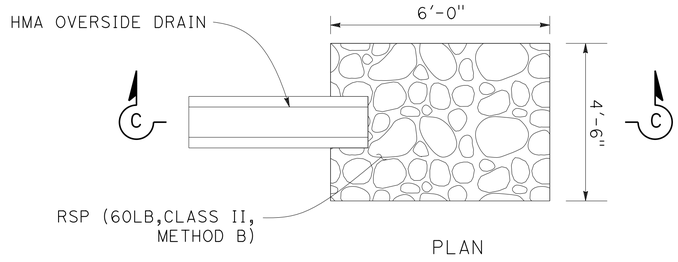
CALCULATED-DESIGNED BY: TINH TRUONG
CHECKED BY: JOHN NGUYEN
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION: DATE PLOTTED => 8-MAR-2022
09-29-21 TIME PLOTTED => 15:43

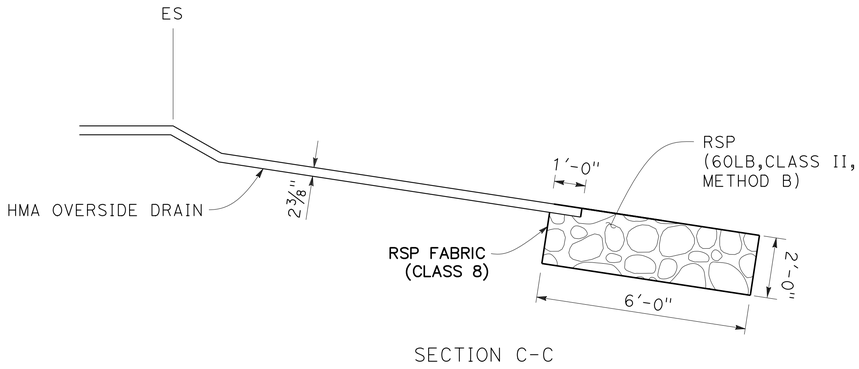
D:\0030U\DRAFTING\FINAL_PS&E\04200002351c007.dgn

BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 0420000235ic007.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

NOTE:
FOR OVERSIDE DRAIN DETAILS NOT SHOWN, SEE Std PLAN D87D.



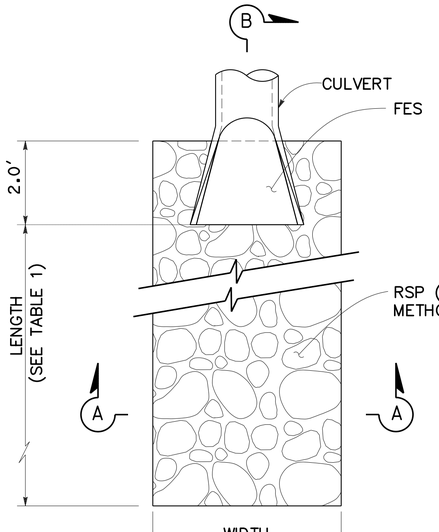
PLAN



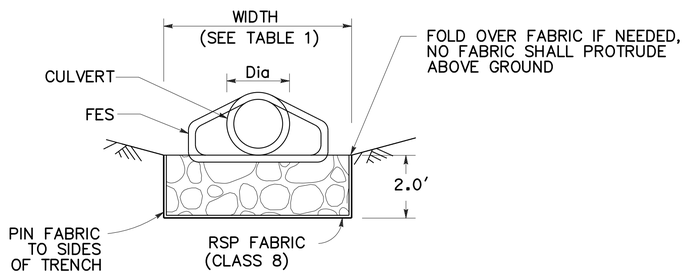
SECTION C-C

RSP AT OVERSIDE DRAIN

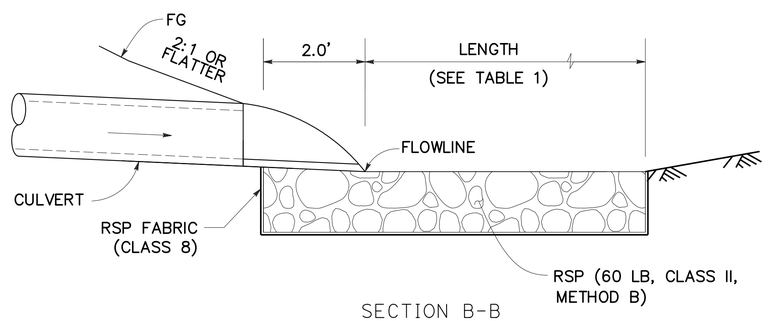
21a 28b 118a R10b R11b R12b 170b



PLAN



SECTION A-A



SECTION B-B

TABLE 1

PIPE DIAMETER	LENGTH	WIDTH
18"	11.0'	4.5'
24"	14.0'	6.0'

RSP AT FLARED END SECTION

4a 5a 6a 7a 8a 9h 10a 11a 13a 14a 16a 17a
20a 22a 23a 24a 26d 29bb 31a 33a 34a 38h 48a
R5j 50a 52a 53a 57a 58a 59a 172a 60n 61h 174f

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	375	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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Oakland, CA 94607

DRAINAGE DETAILS

NO SCALE

DD-8

REVISED BY: TT — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: TINH TRUONG
CHECKED BY: JOHN NGUYEN
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

D:\0030U\DRAFTING\FINAL_PS&E\04200002351ic008.dgn

LAST REVISION: DATE PLOTTED => 8-MAR-2022 TIME PLOTTED => 15:43

BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351ic008.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	376	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

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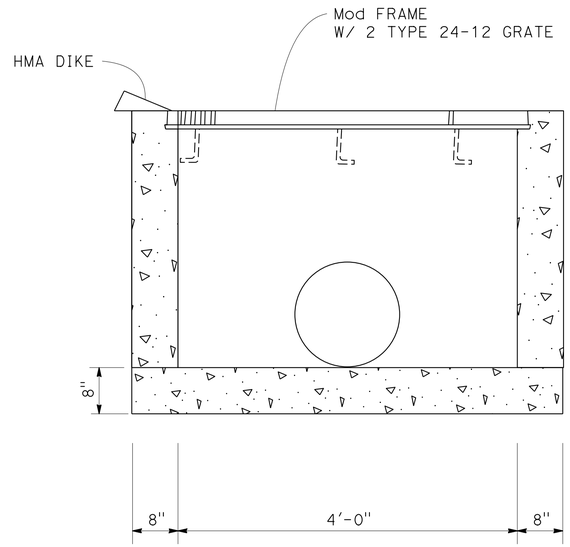
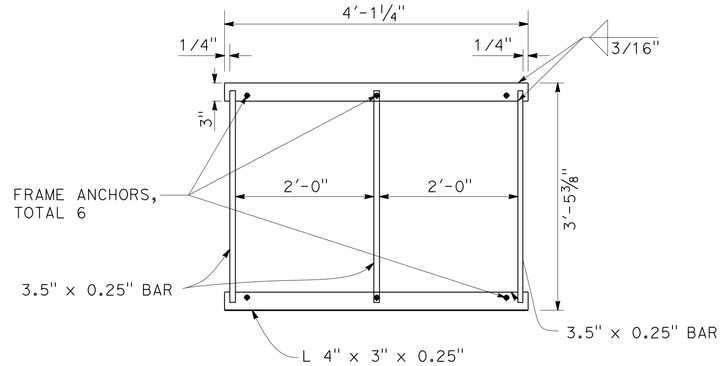
NOTE:
FOR REINFORCEMENT AND FRAME DETAILS NOT SHOWN,
SEE Std PLAN D72E - TYPE GDO INLET.

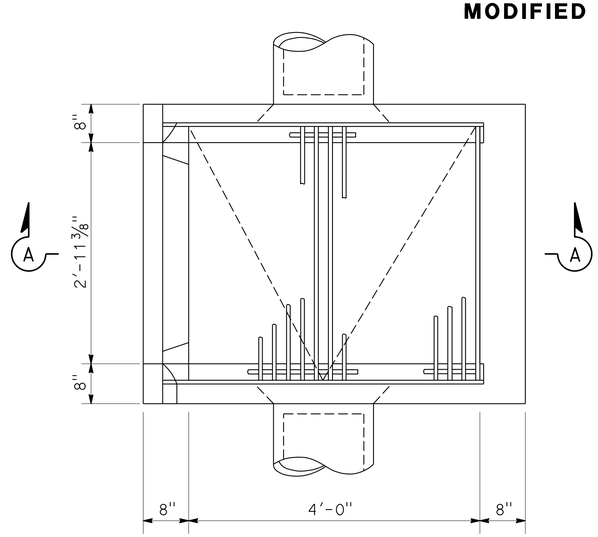


SECTION A-A



PLAN

MODIFIED FRAME



PLAN

TYPE GDOM (MODIFIED) DETAIL

3 a 4 d f h 7 d 8 d f 9 a c e 12 e 30 p r 38 g 39 g 171 a 44 a c e
56 a 63 c e 69 f h j 71 c e g i k 76 c 105 g 117 m 133 i k m o q s R5 e

DRAINAGE DETAILS

NO SCALE

DD-9

REVISED BY	TT	TINH TRUONG	CALCULATED-DESIGNED BY
DATE REVISED	9-29-21	JOHN NGUYEN	CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

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BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351ic009.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	377	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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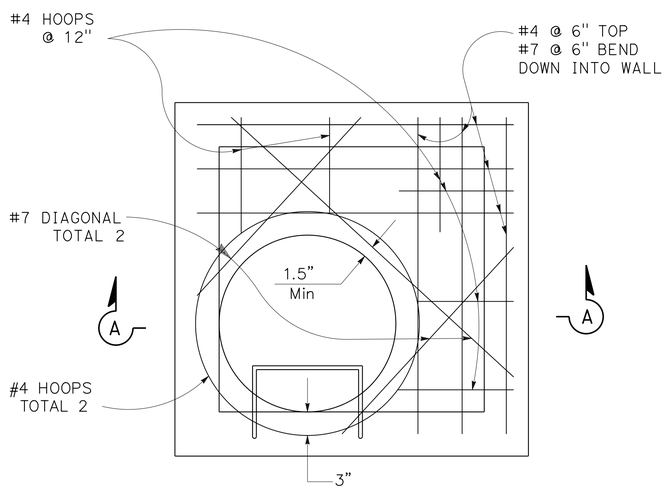
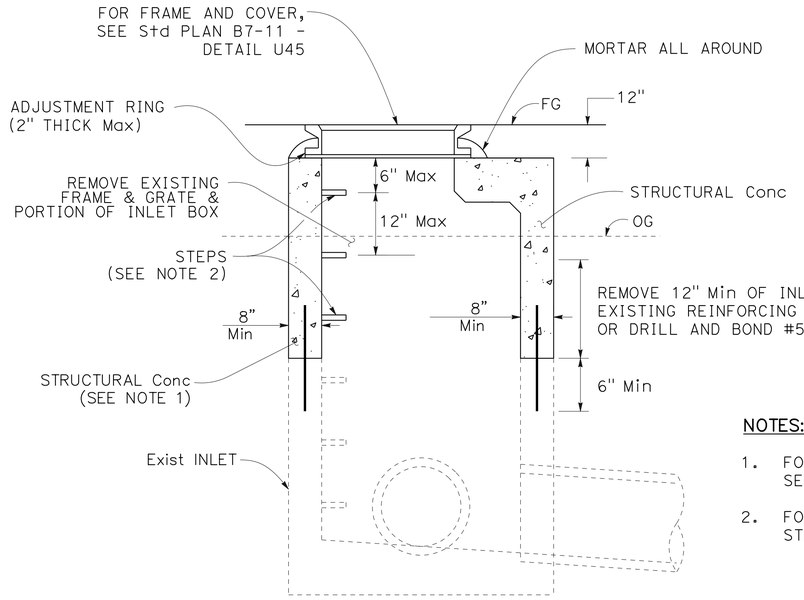


PLAN



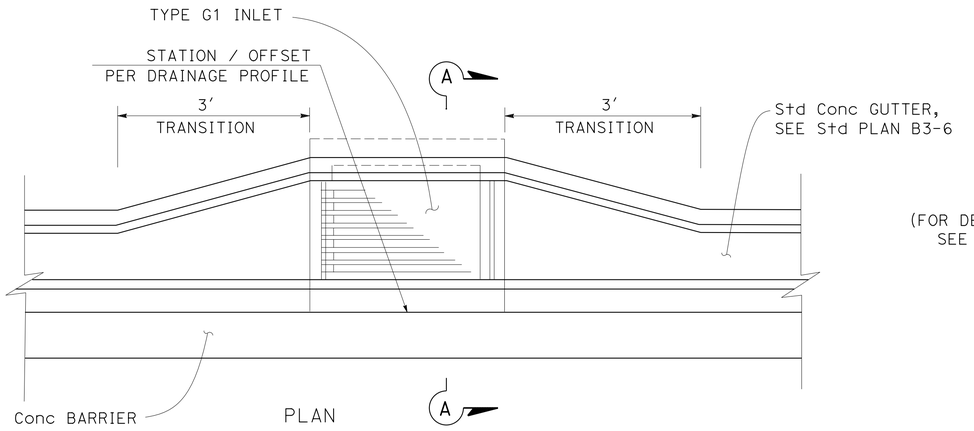
SECTION A-A

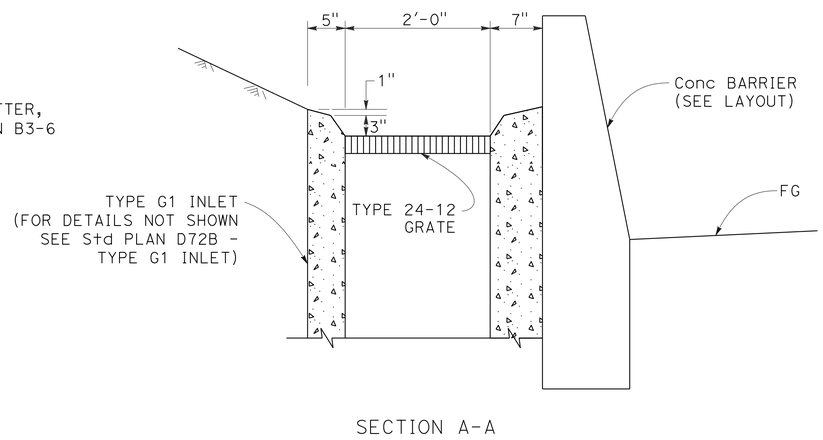
NOTES:

1. FOR WALL REINFORCEMENT AND DETAILS NOT SHOWN, SEE Std PLAN D72B - TYPE G2 INLET.
2. FOR STEP DETAILS NOT SHOWN, SEE Std PLAN D74 - STEP DETAILS.

MODIFY INLET TO MANHOLE

1 g | 12 p | 19 a | 25 o | 27 f | 30 v | 32 a | 39 a | 40 g | 41 a | R4 a





SECTION A-A

TYPICAL CONCRETE GUTTER TRANSITION AT INLET

DRAINAGE DETAILS

NO SCALE

DD-10

REVISED BY	TT	TINH TRUONG	CALCULATED-DESIGNED BY
DATE REVISED	9-29-21	JOHN NGUYEN	CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

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BORDER LAST REVISED 7/2/2010

USERNAME => p302438
DGN FILE => 04200002351ic010.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

LAST REVISION 09-29-21
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:44

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	378	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

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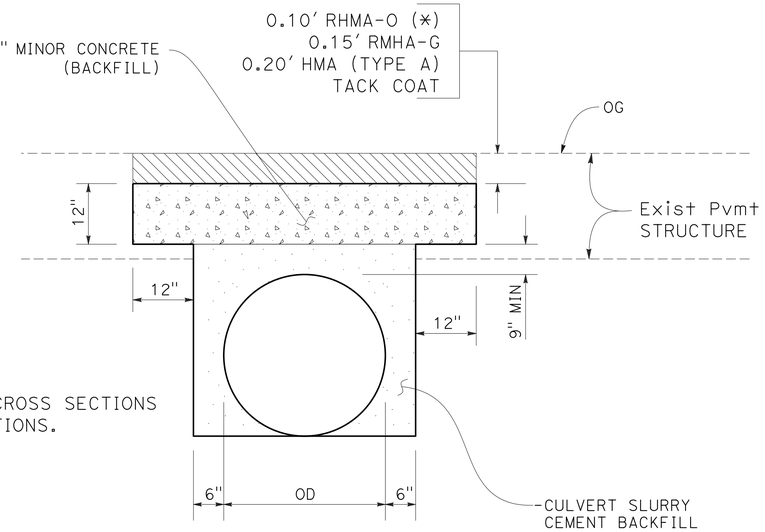
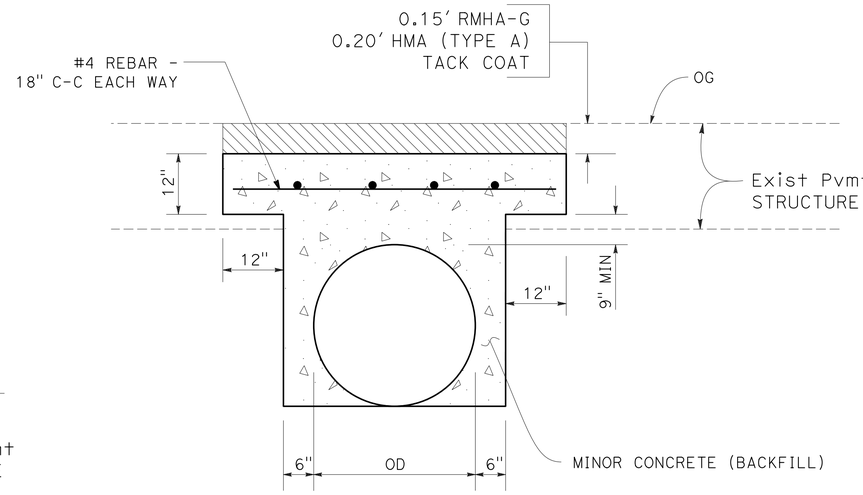


(*) REFER TO TYPICAL CROSS SECTIONS FOR REQUIRED LOCATIONS.

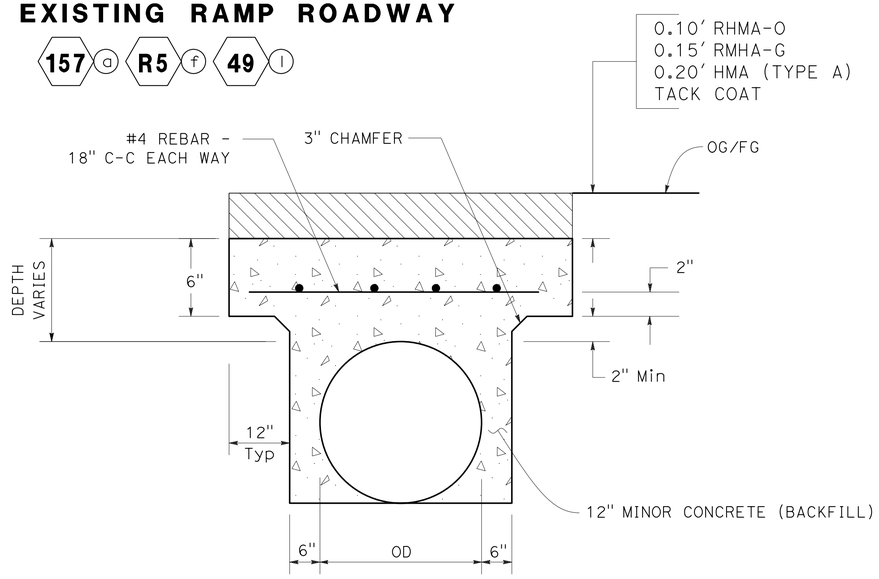
ROADWAY TRENCH BACKFILL DETAIL AT EXISTING MAINLINE ROADWAY

2 (e g i) 3 (b) 7 (e) 8 (e) 9 (b d) 11 (d f h j l n) 17 (e g i k m)
29 (d f h j l n p r t v x) 32 (e) 37 (a c) 38 (b d f) 44 (h) 45 (b d m)
46 (c) 47 (b) 53 (e g) 54 (b d) 56 (b) 58 (e g i k m) 59 (e) 172 (e g)
60 (h j l) 61 (b d k) 62 (a c e g) 63 (d) 65 (b d f h j l) 74 (b d f h)
79 (b d) 84 (d f) 87 (b d f h) 91 (d f) 97 (b d f h) 99 (d) 102 (b e)
105 (d f h) 110 (b) 128 (d e) 157 (g) 158 (c j) R5 (b)



ROADWAY TRENCH BACKFILL DETAIL AT EXISTING RAMP ROADWAY

157 (a) R5 (f) 49 (l)



MINOR CONCRETE BACKFILL

(PIPES WITH LESS THAN 3' COVER)

11 (n) 30 (o q) 32 (e) 38 (b) 44 (h) 54 (d) 56 (b)
60 (b d f) 62 (a) 105 (h) 110 (d) R5 (b)

DRAINAGE DETAILS

NO SCALE

DD - 11

REVISED BY	DATE REVISED
TT	9-29-21

CALCULATED-DESIGNED BY: TINH TRUONG
CHECKED BY: JOHN NGUYEN
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

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09-29-21 TIME PLOTTED => 15:44

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BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351ic011.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	379	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CHUONG NGUYEN — No. C46770 — Exp. 6-30-23 — CIVIL — STATE OF CALIFORNIA

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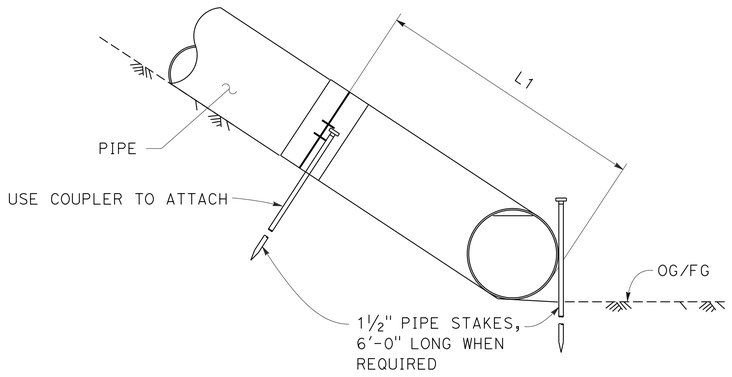
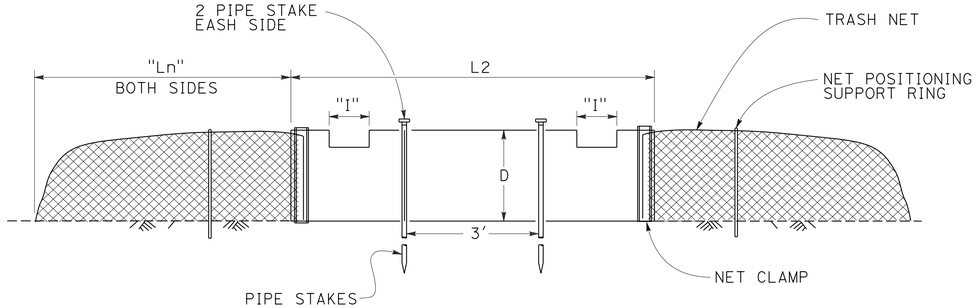
NOTES:

1. SEE Std PLAN D97A - D97J FOR COUPLING DETAILS NOT SHOWN.
2. SEE Std PLAN D87A & D87B FOR PIPE DOWNDRAIN ANCHOR ASSEMBLY AND RESTRAINER ASSEMBLY.



SECTION A-A

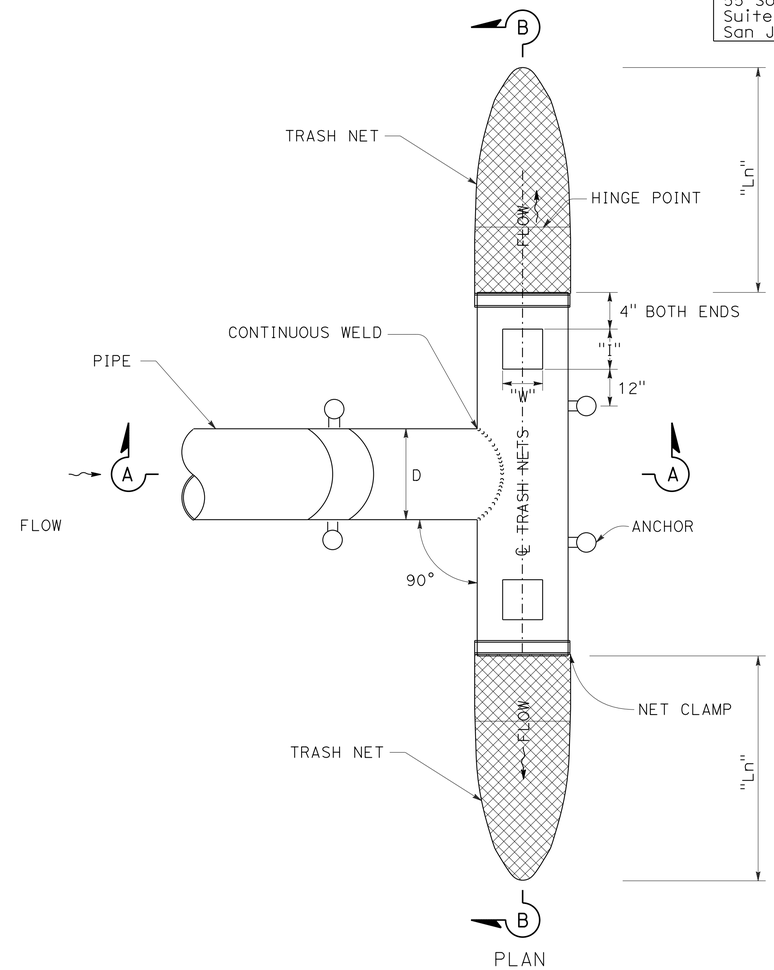


SECTION B-B

TRASH NET DIMENSION TABLE

PIPE SIZE D	T LENGTHS L1	T LENGTHS L2	OVERFLOW OPENING * CUTOUT DIMENSIONS W	OVERFLOW OPENING * CUTOUT DIMENSIONS I	TRASH NET LENGTH Ln
18"	5'	10.33'	14"	20"	5'

* CUT OPENINGS BOTH SIDES CENTERED ON TOP OF PIPE



PLAN

TRASH NET (DOWNDRAIN)

63 a, 65 o, 73 a, 74 k, 75 a, 76 a, 78 e, 79 g, 80 a, 81 a, 82 a, 83 a, 84 a, 87 k, 88 a, 89 a, 90 a, 91 a, 92 a
94 a, 95 a, 96 a, 97 k, 98 a, 99 a, 103 a, 104 a, 105 a, 107 e, 108 a, 109 a, 111 a, 112 a, 119 a, 120 a, 121 a, 124 a, 125 a
126 a, 127 a, 128 a, 135 b, 134 a, 139 a, 141 a, 142 a, 143 a, 144 a, 145 a, 146 a, 147 a, 148 a, R6 a, R7 a, R8 a, R9 a

DRAINAGE DETAILS

NO SCALE

DD-12

REVISED BY	DATE REVISED
TT	9-29-21

CALCULATED-DESIGNED BY: TINH TRUONG
CHECKED BY: JOHN NGUYEN
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
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LAST REVISION 09-29-21
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:44

BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351ic012.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	380	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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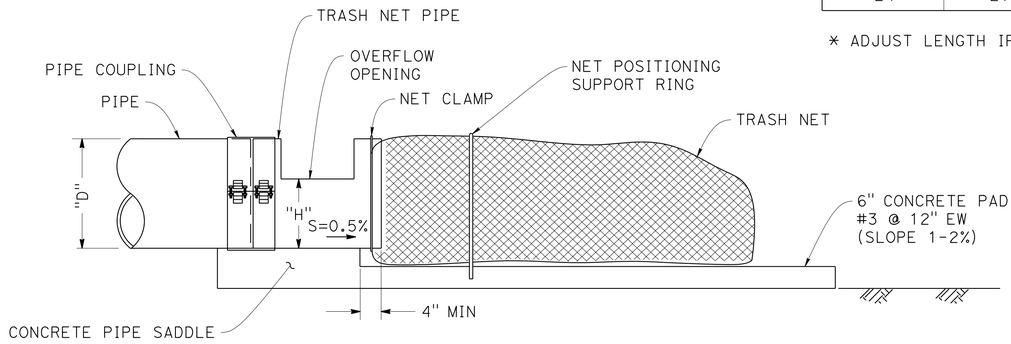
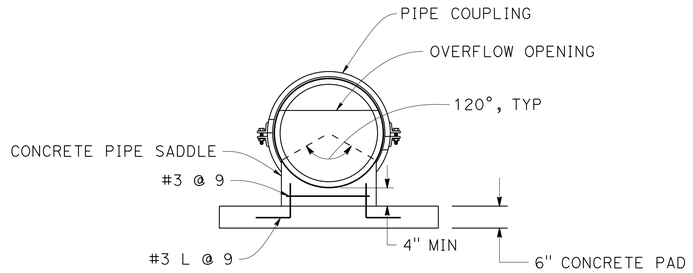
TRASH NET DIMENSION TABLE

PIPE SIZE D	EXTENSION (Min) * L	OVERFLOW OPENING CUTOUT DIMENSIONS I	H	W	TRASH NET LENGTH Ln
18"	22"	20"	15"	14"	5′
24"	27"	25"	18"	21"	5′

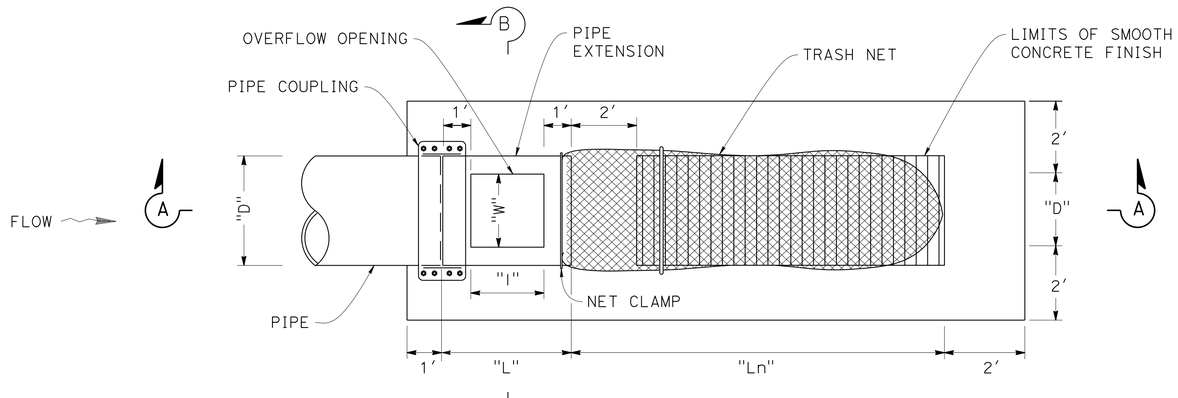
* ADJUST LENGTH IF GREATER OVERFLOW OPENING AREA IS REQUIRED.



SECTION A-A



SECTION B-B



PLAN

TRASH NET (END OF PIPE CONNECTION)

64 c 113 a 114 b 116 a 117 a 131 a 136 c 158 a 160 c

DRAINAGE DETAILS

NO SCALE

DD-13

TINH TRUONG — JOHN NGUYEN — TT — 9-29-21
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LAST REVISION | DATE PLOTTED => 8-MAR-2022 | 09-29-21 | TIME PLOTTED => 15:44

BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351c013.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	381	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CHUONG NGUYEN — No. C46770 — Exp. 6-30-23 — CIVIL — STATE OF CALIFORNIA

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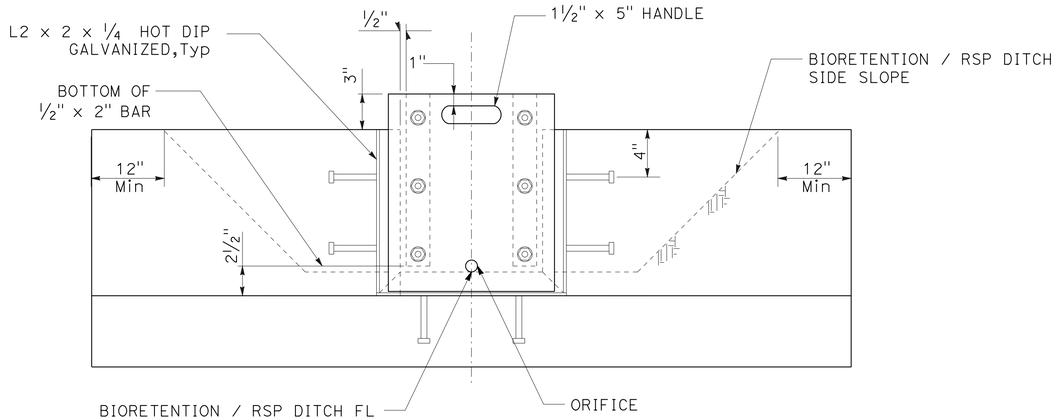
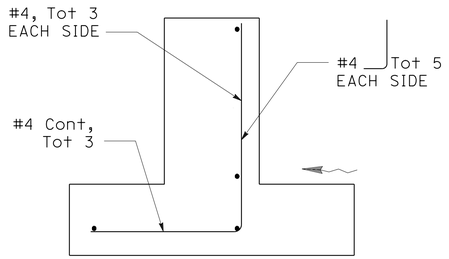
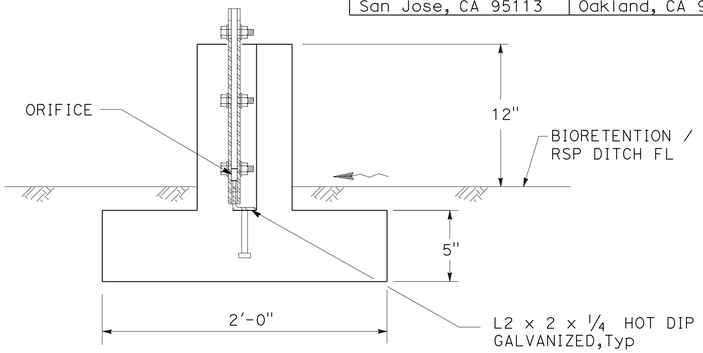


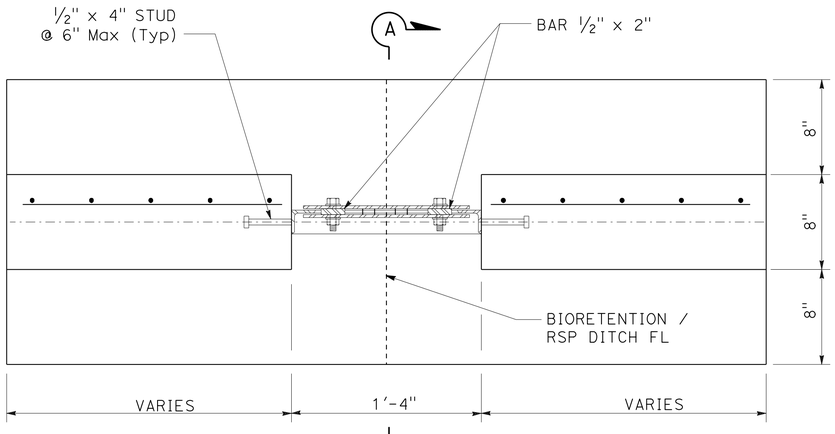
ELEVATION



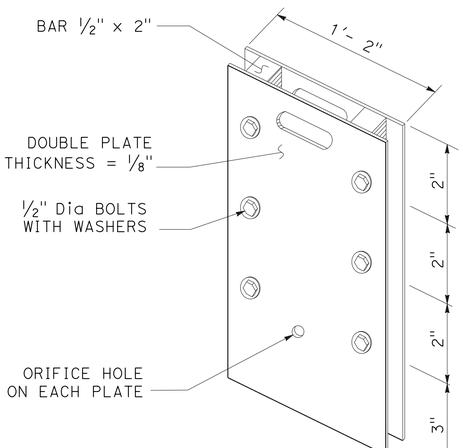
SECTION B-B



SECTION A-A



PLAN



SLIDING WEIR PLATES DETAIL

NOTES:

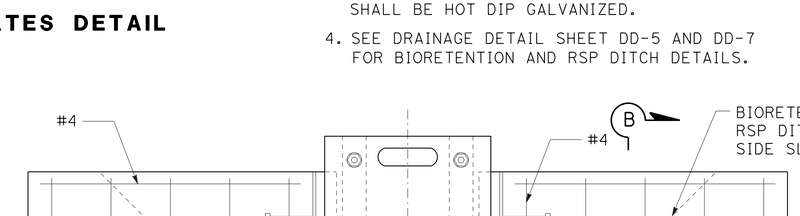
1. REINFORCED CONCRETE STRUCTURE:
   f'c =4,000 PSI
   fy = 60 ksi
2. STEEL STRUCTURE:
   GRADE 50
3. ALL STEEL MEMBERS NOT EMBEDDED IN CONCRETE SHALL BE HOT DIP GALVANIZED.
4. SEE DRAINAGE DETAIL SHEET DD-5 AND DD-7 FOR BIORETENTION AND RSP DITCH DETAILS.

DRAINAGE SYSTEM No.	ORIFICE	
	DIAMETER (In)	LOCATION
B1 (a)	6	"I-680" 175+90 (Lt)
	6	"I-680" 177+00 (Lt)
	6	"I-680" 178+00 (Lt)
	6	"I-680" 179+00 (Lt)
	6	"I-680" 180+00 (Lt)
	6	"I-680" 181+00 (Lt)
	6	"I-680" 182+00 (Lt)
B2 (a)	6	"I-680" 194+53 (Lt)
B3 (a)	6	"I-680" 196+52 (Lt)
	6	"I-680" 197+52 (Lt)
	6	"I-680" 198+52 (Lt)

DRAINAGE SYSTEM No.	ORIFICE	
	DIAMETER (In)	LOCATION
B4 (a)	6	"I-680" 210+00 (Lt)
	6	"I-680" 211+00 (Lt)
	6	"I-680" 212+00 (Lt)
	6	"I-680" 212+75 (Lt)
	6	"I-680" 214+00 (Lt)
	6	"I-680" 215+00 (Lt)
B5 (a)	6	"I-680" 231+00 (Lt)
	6	"I-680" 232+00 (Lt)
	6	"I-680" 233+00 (Lt)
	6	"I-680" 234+15 (Lt)

DRAINAGE SYSTEM No.	ORIFICE	
	DIAMETER (In)	LOCATION
D3 (a)	6	"I-680" 349+00 (Lt)
	6	"I-680" 350+00 (Lt)
	6	"I-680" 351+00 (Lt)
	6	"I-680" 352+00 (Lt)

BIOFILTRATION WEIR



REINFORCEMENT DETAILS

DRAINAGE DETAILS

NO SCALE

DD-14

REVISED BY	TT
DATE REVISED	9-29-21
CALCULATED-DESIGNED BY	TINH TRUONG
CHECKED BY	JOHN NGUYEN
CONSULTANT FUNCTIONAL SUPERVISOR	TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 09-29-21
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:44

BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351ic014.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	382	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

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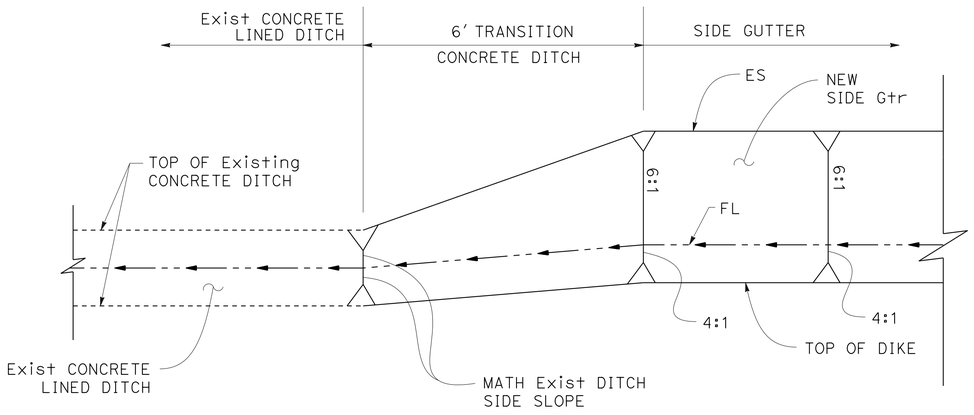
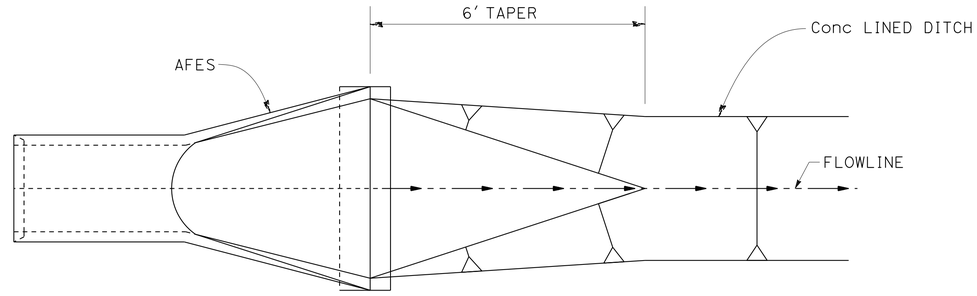
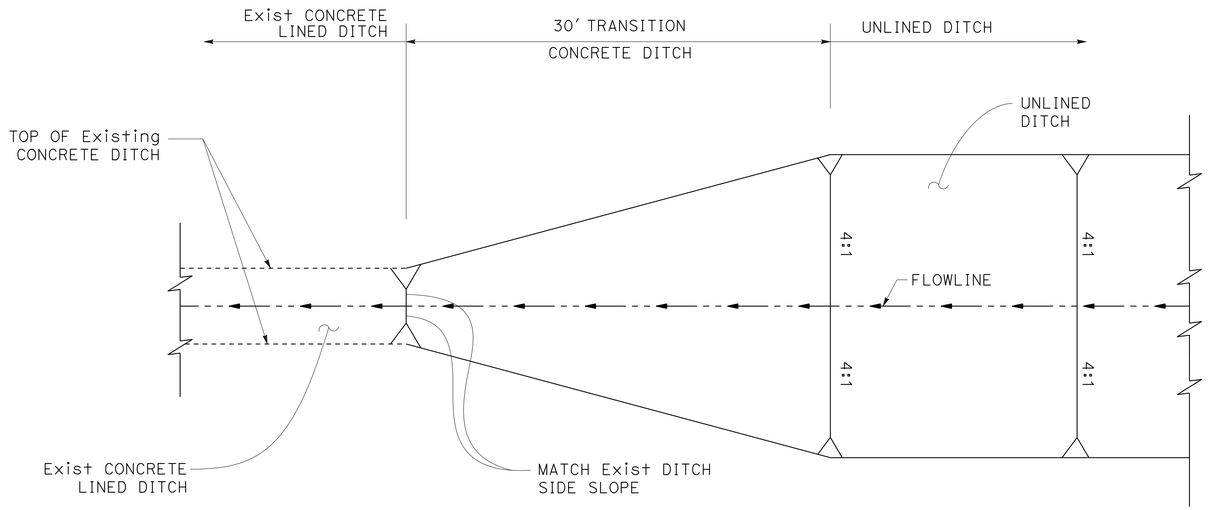


SIDE GUTTER TRANSITION AT Exist LINED DITCH



CONCRETE LINED DITCH TRANSITION AT FLARED END SECTION



UNLINED DITCH TRANSITION AT Exist LINED DITCH

DRAINAGE DETAILS

NO SCALE

DD-15

REVISED BY	DATE REVISED
TT	9-29-21

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CHECKED BY: JOHN NGUYEN
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

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BORDER LAST REVISED 7/2/2010
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DGN FILE => 04200002351ic015.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	383	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
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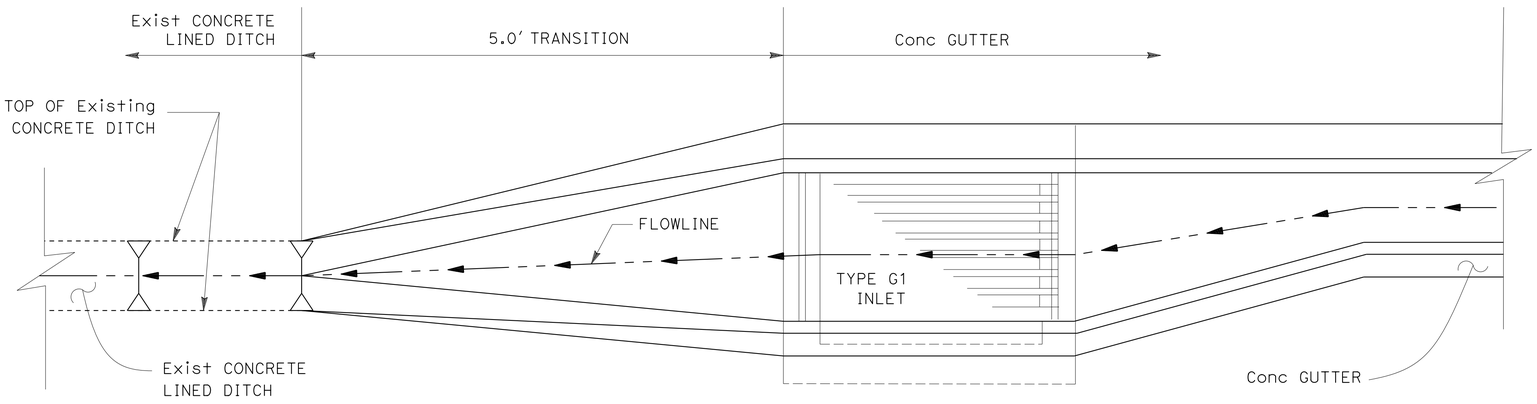
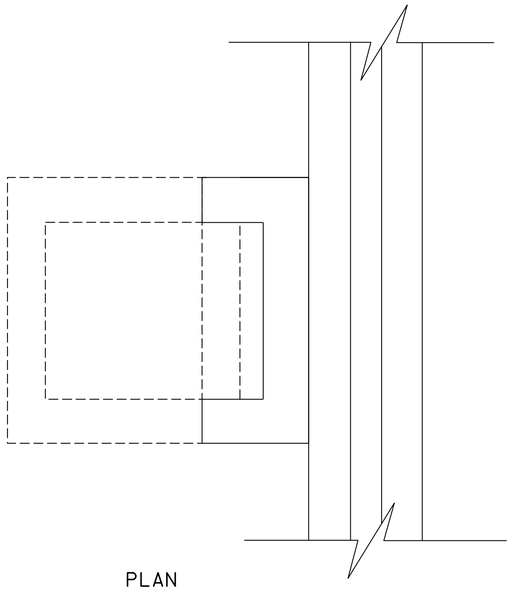
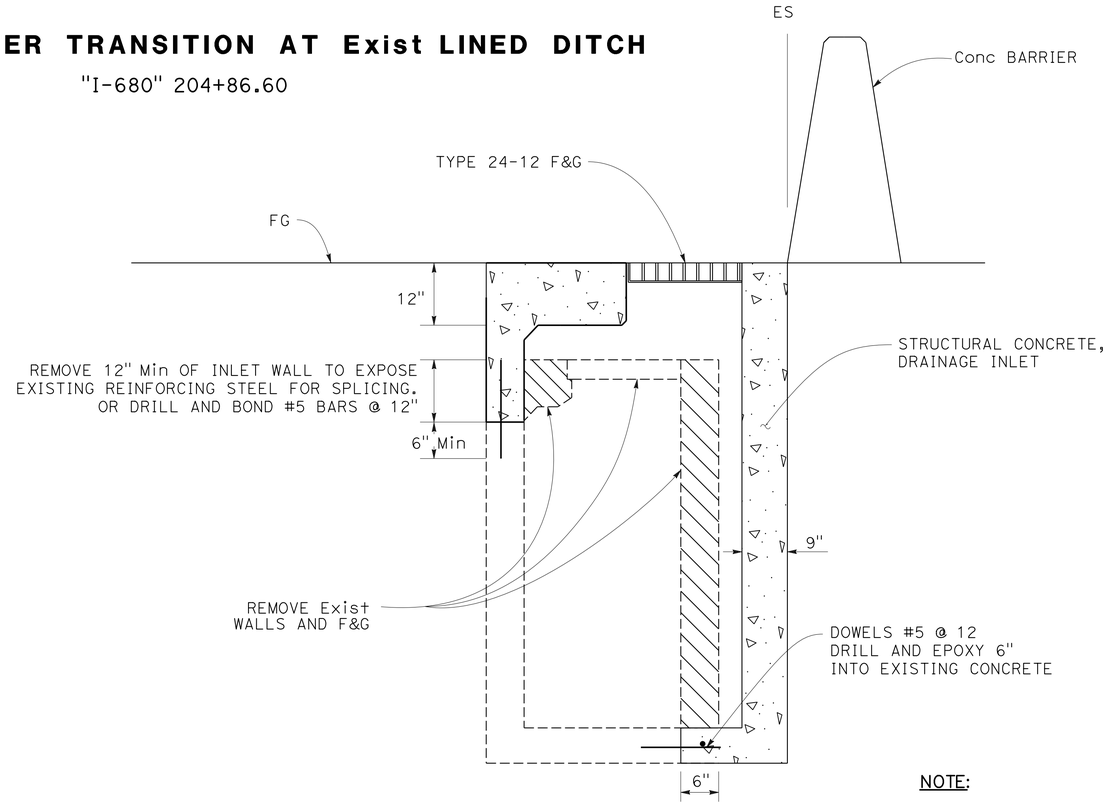


CONCRETE GUTTER TRANSITION AT Exist LINED DITCH

"I-680" 204+86.60





SECTION VIEW

NOTE:

FOR REINFORCEMENT AND DETAILS NOT SHOWN, SEE Std PLAN D72B - TYPE G2 INLET.

MODIFY Exist INLET AT MEDIAN BARRIER

47a 129h 137ab 150a 151a 152gij 153a 154a

155a 156a 159a 162a 163a 164a 165a 166a 167a

DRAINAGE DETAILS

NO SCALE

DD-16

REVISED BY	DATE REVISED
TT	9-29-21

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CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	384	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
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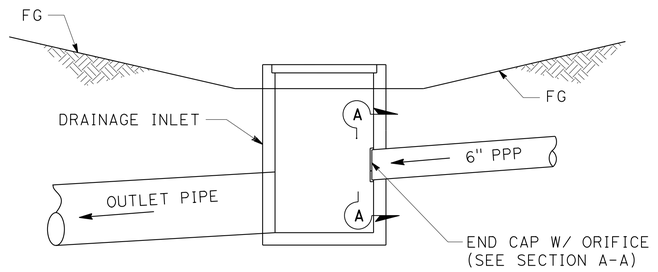
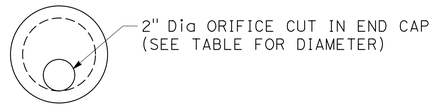


SECTION VIEW



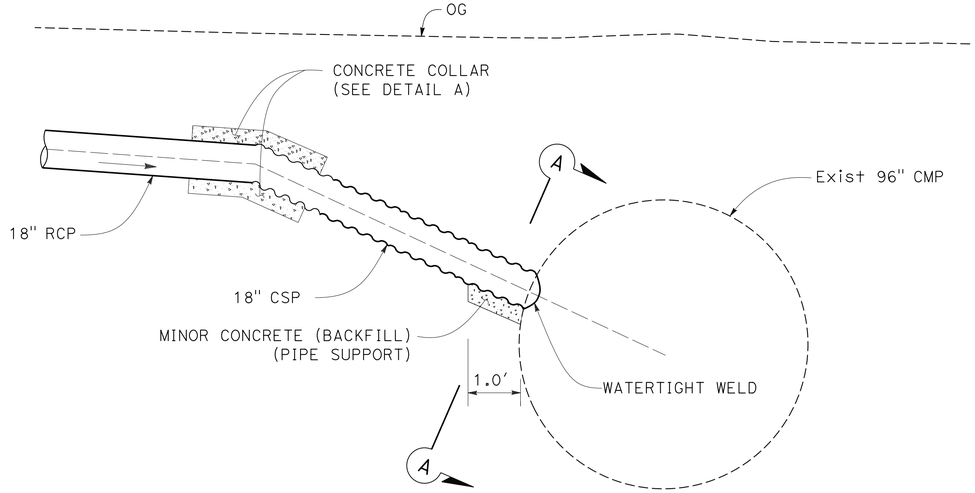
SECTION A-A

INLET WITH ORIFICE ON UNDERDRAIN

5 d 10 d f 13 d 20 d 26 a 29 a 64 a
72 b 77 b 85 a 86 b 100 a 101 b 136 a 140 a

ORIFICE TABLE

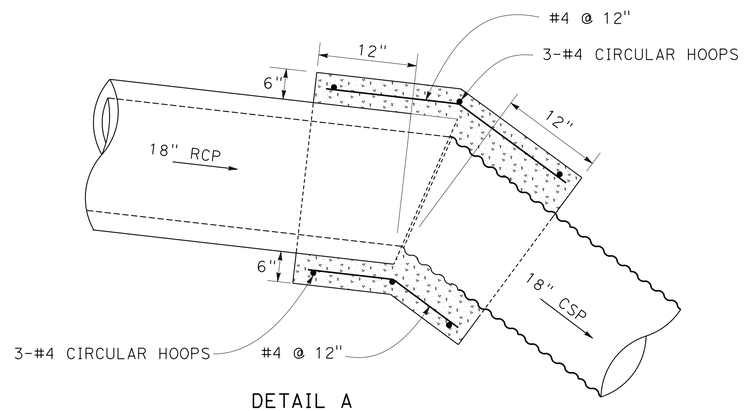
DRAINAGE SYSTEM	ORIFICE DIAMETER (In)	ORIFICE ELEVATION (Ft)
5 d	2.5	262.00
10 d	2.0	276.60
10 f	2.0	275.56
13 d	2.0	281.87
20 d	2.0	324.23
26 a	0.75	334.60
29 a	0.50	328.07
49 j	1.0	317.50
51 e	2.0	333.00
64 a	1.5	323.85
72 b	2.0	318.80
77 b	1.5	318.80
85 a	1.0	322.14
86 b	2.0	318.50
100 a	1.0	322.20
101 b	2.0	322.20
115 a	1.0	323.50
130 d	1.0	324.50
136 a	2.0	333.44
140 b	2.0	334.50
157 f	1.0	405.50
161 a	1.0	410.50
168 a	1.0	336.68
169 a	2.0	346.52



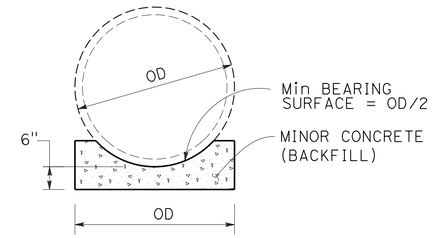
NOTE:
SEE DRAINAGE PROFILE FOR PIPE FLOWLINE ELEVATIONS.

PIPE CONNECTIONS TO EXISTING STORM DRAIN DETAIL

100 b 101 a



DETAIL A



SECTION A-A

DRAINAGE DETAILS

NO SCALE

DD-17

REVISED BY	DATE REVISED
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USERNAME => p302438
DGN FILE => 04200002351ic017.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	385	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

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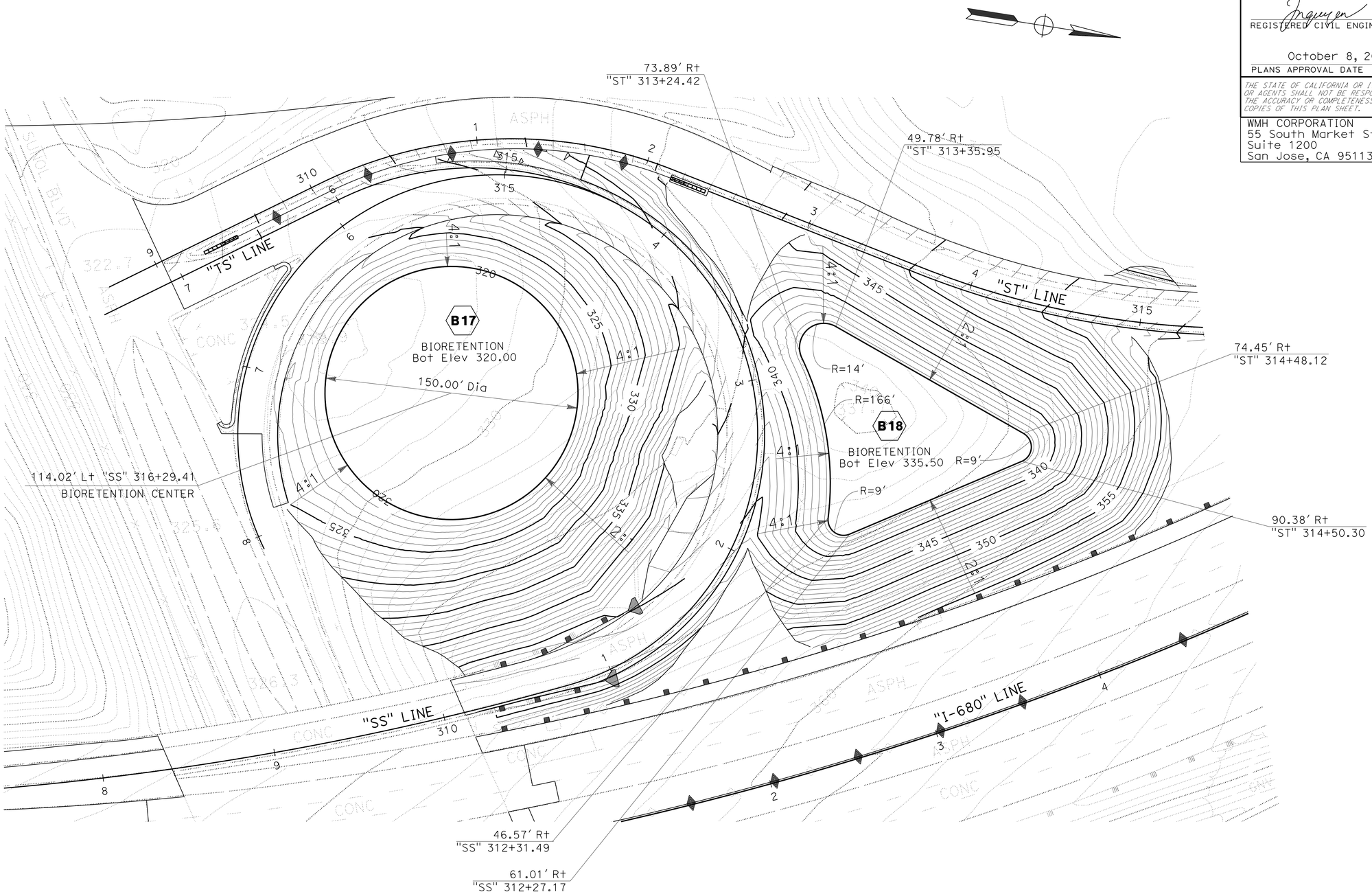

BIORETENTION DETAIL

B17 a B18 a

DRAINAGE DETAILS

SCALE: 1" = 30′

DD-18

REVISED BY	TT		
DATE REVISED	9-29-21		
CALCULATED-DESIGNED BY	TINH TRUONG		
CHECKED BY	JOHN NGUYEN		
CONSULTANT FUNCTIONAL SUPERVISOR	TIMOTHY J. LEE		
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION			

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	386	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

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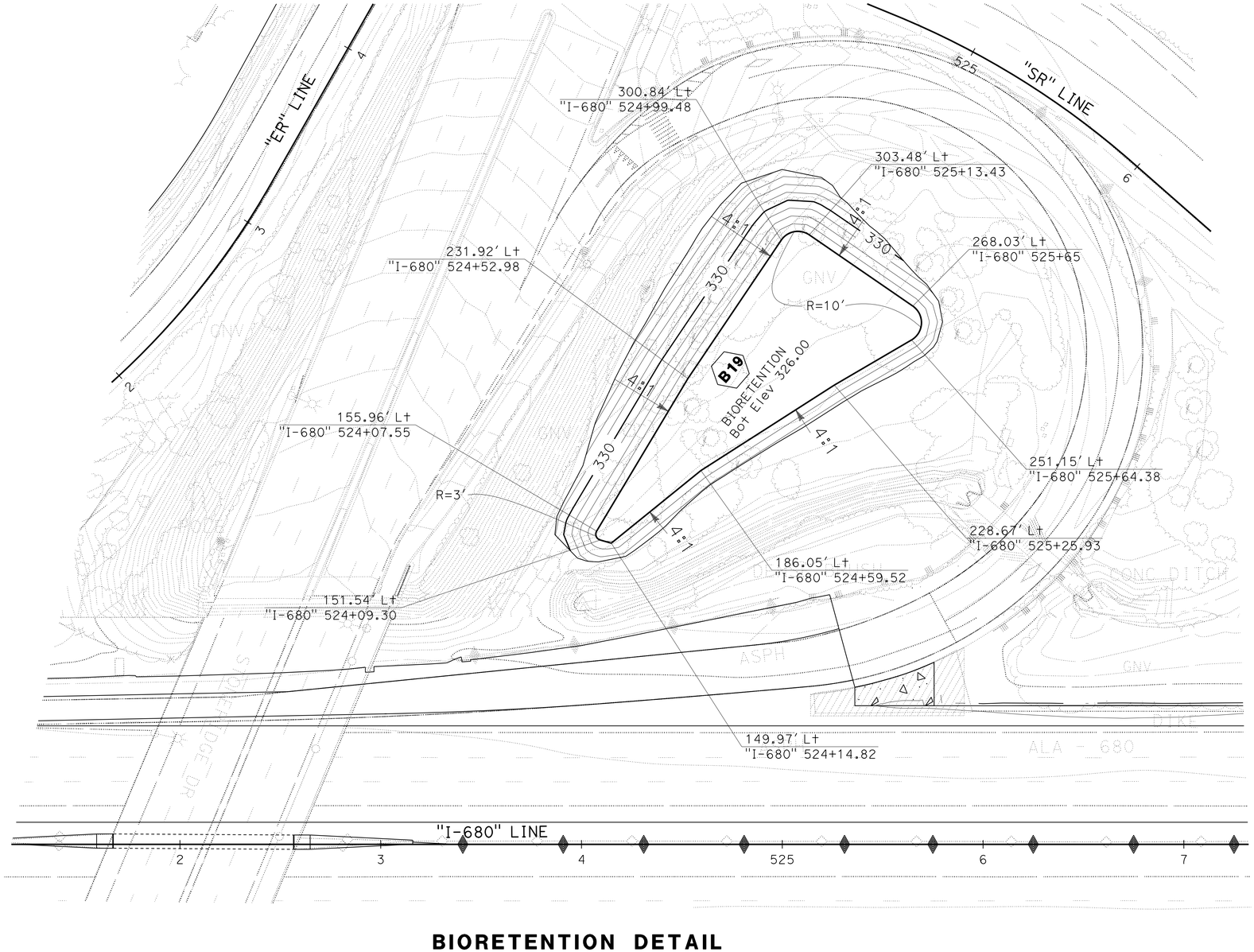

BIORETENTION DETAIL

B19 a

DRAINAGE DETAILS

SCALE: 1" = 30'

DD-19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
CALCULATED-DESIGNED BY: JOHN NGUYEN
CHECKED BY: TINH TRUONG
REVISED BY: TT
DATE REVISED: 9-29-21

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BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351ic019.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351
LAST REVISION 09-29-21
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:45

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	387	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

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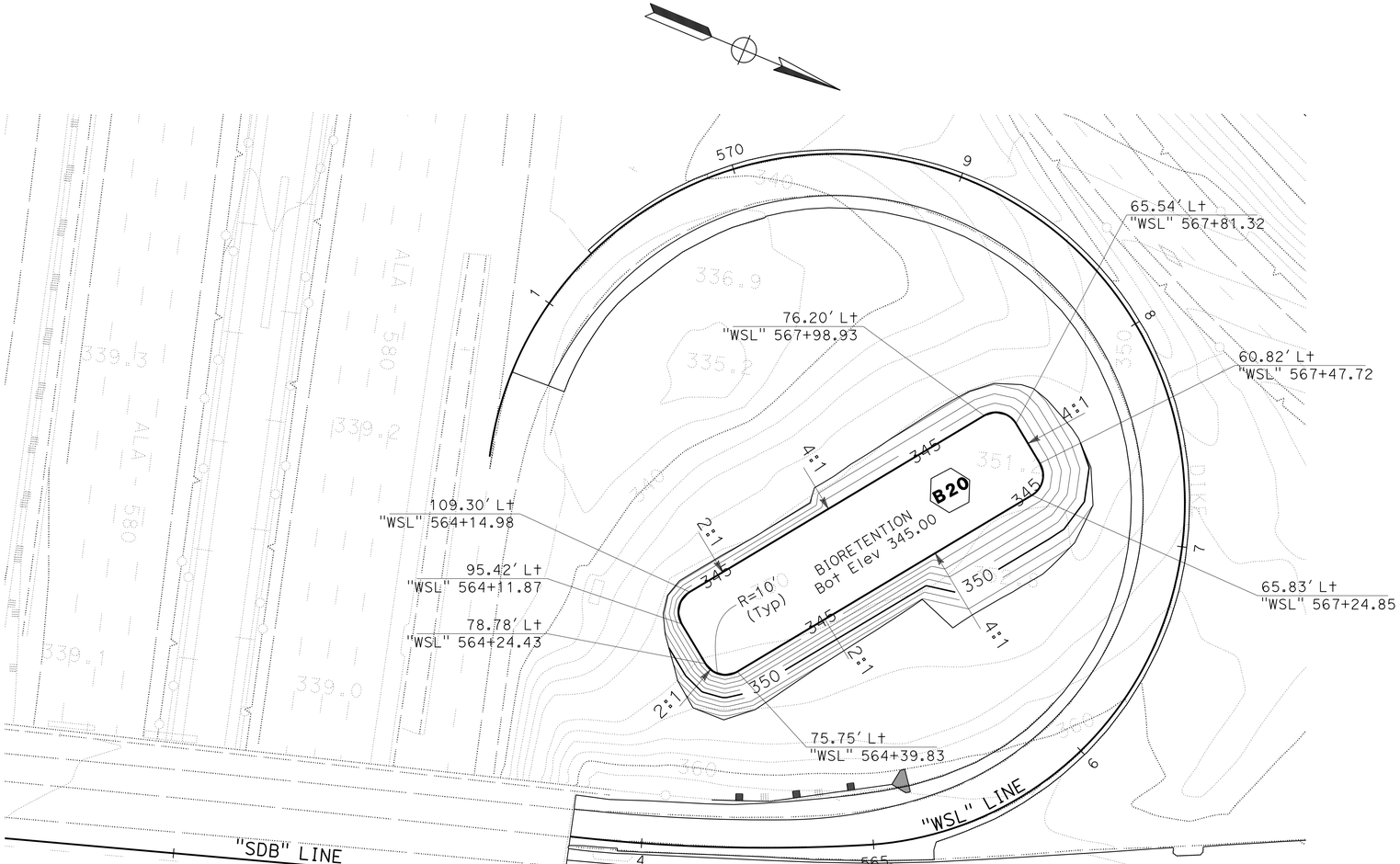

BIORETENTION DETAIL

B20 a

DRAINAGE DETAILS

SCALE: 1" = 30'

DD-20

REVISED BY	TT				
DATE REVISED	9-29-21				
CALCULATED-DESIGNED BY	TINH TRUONG				
CHECKED BY	JOHN NGUYEN				
CONSULTANT FUNCTIONAL SUPERVISOR	TIMOTHY J. LEE				
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	Caltrans				

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LAST REVISION 09-29-21
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:45

BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351ic020.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	388	1710

Nguyen 9-29-21
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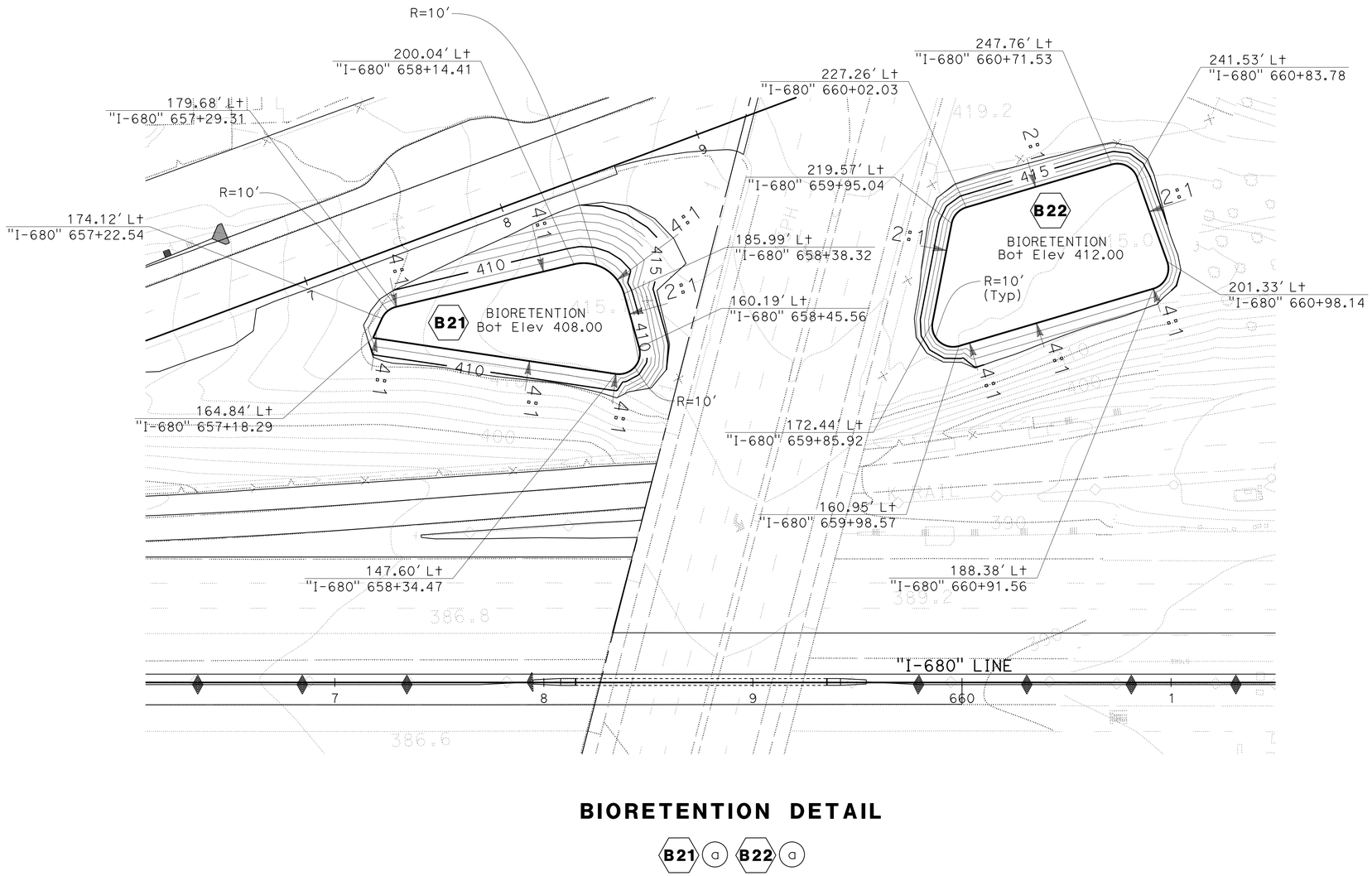

BIORETENTION DETAIL

B21 a B22 a

DRAINAGE DETAILS

SCALE: 1" = 30'

DD-21

REVISED BY	DATE REVISED
TT	9-29-21

TINH TRUONG
JOHN NGUYEN
CALCULATED-DESIGNED BY
CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR
TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 09-29-21
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:45

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BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351ic021.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

APC ALLOWABLE PIPE MATERIAL AND PROTECTION

DESIGNATION	RCP	PLASTIC		CSP
		PVC	HDPE	
		CORRUGATED	CORRUGATED TYPE (S)	BITUMEN COATED
				WALL THICKNESS (In)
18" APC	YES	YES	YES	0.138
24" APC	YES	YES	YES	0.138
30" APC	YES	YES	YES	0.138
36" APC	YES	YES	YES	0.138

ABBREVIATIONS:

DA	DEPRESSED APRON
P	POSITIVE
Rem	REMOVE
SID	STANDARD INLET DEPRESSION
S	STANDARD
TD	TEE DISSIPATOR

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	389	1710

Inguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CHUONG NGUYEN — No. C46770 — Exp. 6-30-23 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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ALAMEDA CTC
1111 Broadway
Suite 800
Oakland, CA 94607

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯	REMOVE CULVERT (LF)	ABANDON CULVERT (LF)	SAND BACKFILL	DRAINAGE INLETS: REMOVE INLET	REMOVE FES (EA)	REMOVE OVERSIDE DRAIN	ADJUST INLET	ADJUST DRAINAGE MANHOLE	MODIFY INLET	MODIFY INLET TO MH	DRAINAGE INLETS: DESIGN HEIGHT "H" (N)	36" CSP INLET (.138 THICK)	36" PRECAST CONCRETE PIPE INLET	STRUCTURAL Conc, DRAINAGE INLET	MINOR Conc (Misc Const)	Misc IRON AND STEEL	MINOR Conc (BACKFILL)	CULVERT SLURRY - CEMENT BACKFILL	HMA (TYPE A)	RHMA - OPEN GRADED (OPEN GRADED FRICTION COURSE)	RHMA (GAP GRADED)	TACK COAT	PLACE HMA (Misc AREA)	PIPE: CLEANING, INSPECTING, AND PREPARING CULVERT (LF)	PIPE: 18" MACHINE SPIRAL WOUND PVC PIPELINER (EXPANDABLE DIAMETER)	DESCRIPTION	STATION	DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯
			LF		CY	EA							LF			CY		LB	CY		TON				SQYD	LF						
D-1	1	a											5.2			2.9		326										G2 DI	2.72' Rt "I-680" 162+23	D-1	1	a
		b																										18" APC				b
		c											4.2			2.5		326										G2 DI	6.71' Rt "I-680" 165+00			c
		d																										18" APC				d
		e											4.8			2.7		326										G2 DI	4.04' Rt "I-680" 168+00			e
		f																										18" APC				f
		g										1						435										Mod DI TO MH				g
		h																										18" APC				h
		i				1																						Rem DI				i
		j	25																									Rem Culv				j
		k				1																						Rem DI				k
		l	20																									Rem Culv				l
		m				1																						Rem DI				m
		n		65	4.3																							Abn Culv				n
D-1	2	a																										18" APC W/ Conc COLLAR		D-1	2	a
		b											4.9			2.8		326										G2 DI	2.50' Rt "I-680" 169+57			b
		c																										18" APC				c
		d											5.8			3.2		326										G2 DI	1.44' Rt "I-680" 171+00			d
		e																	39.1	16.3	15.7		11.7	0.1				24" APC				e
		f											4.6			2.7	1.2	326										G2 DI W/ SID	69.55' Lt "I-680" 172+53			f
		g																	6.0	8.9	2.4		1.8	0.01				18" APC				g
		h											5.1			2.9	1.2	326										G2 DI W/ SID	69.11' Lt "I-680" 172+90			h
		i																	6.1	9.1	2.4		1.8	0.01				18" APC				i
		j											4.6			2.7	1.2	326										G2 DI W/ SID	69.56' Lt "I-680" 173+28			j
		k	3																									Rem Culv (PORTION)				k
D-1	3	a											4.6			2.4	1.9	652										GDOM DI W/ SID	66.58' Lt "I-680" 168+00	D-1	3	a
		b																	26.8	37.8	10.7		8.0	0.04				18" APC				b
D-1	R1	a											4.2			2.5	1.2	326										G2 DI W/ SID	20.00' Lt "SKP" 163+00	D-1	R1	a
		b																										18" APC				b
		c											4.7			2.7	1.2	326										G2 DI W/ SID	20.00' Lt "SKP" 163+20			c
		d																										18" APC W/ Conc COLLAR				d
		e											4.3			2.5	1.2	326										G2 DI W/ SID	20.00' Lt "SKP" 163+40			e
		f																										18" APC				f
		g	6																									Rem Culv (PORTION)				g
		h				1																						Rem DI				h
			54	65	4	4						1				32.4	9.1	4673	78.0	72.1	31.2		23.4	0.12				TOTAL (THIS SHEET)				

(N) - NOT A SEPARATE BID ITEM

DRAINAGE QUANTITIES

DQ-1

RICHARD SAGASTUME — TINH TRUONG — CALCULATED-DESIGNED BY — CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

REVISED BY: RS — DATE REVISED: 9-29-21

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans®

LAST REVISION — DATE PLOTTED => 8-MAR-2022 — TIME PLOTTED => 15:45

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351id001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	390	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

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San Jose, CA 95113

ALAMEDA CTC
1111 Broadway
Suite 800
Oakland, CA 94607

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT	PIPE: 6" PLASTIC PIPE WALL DRAIN (LF)	PIPE: 18" RCP (LF)	PIPE: 24" RCP (LF)	PIPE: 36" RCP (LF)	PIPE: 18" APC (LF)	PIPE: 24" APC (LF)	PIPE: 18" CSP (.138" THICK) (LF)	PIPE: 24" CSP (.138" THICK) (LF)	PIPE: 18" CSP DD (.109" THICK) (LF)	PIPE: 24" CSP DD (.109" THICK) (LF)	PIPE: 18" SCSP (.064" THICK) (LF)	FES: 18" AFES (EA)	FES: 24" AFES (EA)	PIPE JOINT CLASSIFICATION (N)	GRATE (N): TYPE 36R (EA)	GRATE (N): TYPE 24-12 (EA)	GRATE (N): TYPE U45 (EA)	RSP (60 LB, CLASS II, METHOD B) (CY)	RSP FABRIC (CLASS 8) (SQYD)	MAXIMUM COVER (N) (FT)	DESCRIPTION	STATION	DRAINAGE SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT
D-1	1	a																1					G2 DI	2.72' Rt "I-680" 162+23	D-1	1	a
		b					275.8									S						3.8	18" APC				b
		c																1					G2 DI	6.71' Rt "I-680" 165+00			c
		d					298.5									S						3.0	18" APC				d
		e																1					G2 DI	4.04' Rt "I-680" 168+00			e
		f					154.9									S						3.6	18" APC				f
		g																	1				Mod DI TO MH				g
		h					4.9									S							18" APC				h
		i																					Rem DI				i
		j																					Rem Culv				j
		k																					Rem DI				k
		l																					Rem Culv				l
		m																					Rem DI				m
		n																					Abn Culv				n
D-1	2	a					13.3									S						4.3	18" APC W/ Conc COLLAR		D-1	2	a
		b																1					G2 DI	2.50' Rt "I-680" 169+57			b
		c					140.3									S						4.2	18" APC				c
		d																1					G2 DI	1.44' Rt "I-680" 171+00			d
		e						192.1								S						6.8	24" APC				e
		f																1					G2 DI W/ SID	69.55' Lt "I-680" 172+53			f
		g					32.3									S							18" APC				g
		h																1					G2 DI W/ SID	69.11' Lt "I-680" 172+90			h
		i					32.8									S							18" APC				i
		j																1					G2 DI W/ SID	69.56' Lt "I-680" 173+28			j
		k																					Rem Culv (PORTION)				k
D-1	3	a																2					GDOM DI W/ SID	66.58' Lt "I-680" 168+00	D-1	3	a
		b					144.6									S						3.5	18" APC				b
D-1	R1	a																1					G2 DI W/ SID	20.00' Lt "SKP" 163+00	D-1	R1	a
		b					16.7									S						2.9	18" APC				b
		c																1					G2 DI W/ SID	20.00' Lt "SKP" 163+20			c
		d					5.9									S						2.9	18" APC W/ Conc COLLAR				d
		e																1					G2 DI W/ SID	20.00' Lt "SKP" 163+40			e
		f					17.4									S						2.9	18" APC				f
		g																					Rem Culv (PORTION)				g
		h																					Rem DI				h
							1137.4	192.1										13	1				TOTAL (THIS SHEET)				

(N) - NOT A SEPARATE BID ITEM

DRAINAGE QUANTITIES

DQ-2

REVISED BY	RS
DATE REVISED	9-29-21

RICHARD SAGASTUME
TINH TRUONG
CALCULATED-DESIGNED BY
CHECKED BY
TIMOTHY J. LEE
CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 09-29-21
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:45

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BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351id002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	391	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

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WMH CORPORATION
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Suite 1200
San Jose, CA 95113

ALAMEDA CTC
1111 Broadway
Suite 800
Oakland, CA 94607

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯	REMOVE CULVERT (LF)	ABANDON CULVERT (LF)	SAND BACKFILL	DRAINAGE INLETS: REMOVE INLET	REMOVE FES (EA)	REMOVE OVERSIDE DRAIN	ADJUST INLET	ADJUST DRAINAGE MANHOLE	MODIFY INLET	MODIFY INLET TO MH	DRAINAGE INLETS: DESIGN HEIGHT "H" (N)	36" CSP INLET (.138 THICK)	36" PRECAST CONCRETE PIPE INLET	STRUCTURAL Conc, DRAINAGE INLET	MINOR Conc (Misc Const)	Misc IRON AND STEEL	MINOR Conc (BACKFILL)	CULVERT SLURRY - CEMENT BACKFILL	HMA (TYPE A)	RHMA - OPEN GRADED (OPEN GRADED FRICTION COURSE)	RHMA (GAP GRADED)	TACK COAT	PLACE HMA (Misc AREA)	PIPE: CLEANING, INSPECTING, AND PREPARING CULVERT (LF)	PIPE: 18" MACHINE SPIRAL WOUND PVC PIPELINER (EXPANDABLE DIAMETER)	DESCRIPTION	STATION	DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯
			LF		CY	EA							LF			CY		LB	CY		TON				SQYD	LF						
D-1	R2	a											4.2			2.5	1.2	326										G2 DI W/ SID	20.00' Lt "SKP" 164+20	D-1	R2	a
		b	6																									Rem Culv (PORTION)				b
		c				1																						Rem DI				c
D-1	R3	a											5.5			3.0	1.2	326										G2 DI W/ SID	20.00' Lt "SKP" 169+76	D-1	R3	a
		b																										18" RCP W/ Conc COLLAR				b
		c	6																									Rem Culv (PORTION)				c
		d				1																						Rem DI				d
D-2	4	a																										RSP		D-2	4	a
		b																										18" AFES	124.85' Lt "I-680" 173+94			b
		c																										18" CSP				c
		d											3.8			2.1	1.9	652										GDOM DI W/ SID	108.54' Lt "I-680" 173+94			d
		e																										18" APC				e
		f											4.0			2.2	1.9	652										GDOM DI W/ SID	107.21' Lt "I-680" 174+24			f
		g																										18" APC				g
		h											4.5			2.4	1.9	652										GDOM DI W/ SID	101.28' Lt "I-680" 175+08			h
		i																										18" APC				i
		j											5.0			2.8	1.2	326										G2 DI W/ SID	97.49' Lt "I-680" 175+51			j
		k				1																						Rem DI				k
		l	25																									Rem Culv				l
		m					1																					Rem FES				m
		n	30																									Rem Culv				n
		o				1																						Rem DI				o
		p	80																									Rem Culv				p
		q				1																						Rem DI				q
		r	100																									Rem Culv				r
D-2	5	a																										RSP		D-2	5	a
		b																										24" AFES	127.57' Lt "I-680" 174+47			b
		c																										24" RCP				c
		d											2.8			1.0	0.4	326										G1 DI W/ DA	113.59' Lt "I-680" 175+08			d
			247			5	1									16.0	9.9	3260										TOTAL (THIS SHEET)				

(N) - NOT A SEPARATE BID ITEM

DRAINAGE QUANTITIES

DQ-3

REVISED BY: RS — DATE REVISED: 9-29-21
RICHARD SAGASTUME — TINH TRUONG
CALCULATED-DESIGNED BY — CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

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USERNAME => p302438
DGN FILE => 04200002351id003.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	392	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CHUONG NGUYEN — No. C46770 — Exp. 6-30-23 — CIVIL — STATE OF CALIFORNIA

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Suite 800
Oakland, CA 94607

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯	PIPE: 6" PLASTIC PIPE WALL DRAIN (LF)	PIPE: 18" RCP (LF)	PIPE: 24" RCP (LF)	PIPE: 36" RCP (LF)	PIPE: 18" APC (LF)	PIPE: 24" APC (LF)	PIPE: 18" CSP (.138" THICK) (LF)	PIPE: 24" CSP (.138" THICK) (LF)	PIPE: 18" CSP DD (.109" THICK) (LF)	PIPE: 24" CSP DD (.109" THICK) (LF)	PIPE: 18" SCSP (.064" THICK) (LF)	FES: 18" AFES (EA)	FES: 24" AFES (EA)	PIPE JOINT CLASSIFICATION (N)	GRATE (N): TYPE 36R (EA)	GRATE (N): TYPE 24-12 (EA)	GRATE (N): TYPE U45 (EA)	RSP (60 LB, CLASS II, METHOD B) (CY)	RSP FABRIC (CLASS 8) (SQYD)	MAXIMUM COVER (N) (FT)	DESCRIPTION	STATION	DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯
D-1	R2	a																1					G2 DI W/ SID	20.00' Lt "SKP" 164+20	D-1	R2	a
		b																					Rem Culv (PORTION)				b
		c																					Rem DI				c
D-1	R3	a																1					G2 DI W/ SID	20.00' Lt "SKP" 169+76	D-1	R3	a
		b		6.0												S						4.2	18" RCP W/ Conc COLLAR				b
		c																					Rem Culv (PORTION)				c
		d																					Rem DI				d
D-2	4	a																		6.2	18.2		RSP		D-2	4	a
		b												1									18" AFES	124.85' Lt "I-680" 173+94			b
		c						16.3								S						2.0	18" CSP				c
		d																2					GDOM DI W/ SID	108.54' Lt "I-680" 173+94			d
		e					25.2									S						2.1	18" APC				e
		f																2					GDOM DI W/ SID	107.21' Lt "I-680" 174+24			f
		g					77.1									S						2.9	18" APC				g
		h																2					GDOM DI W/ SID	101.28' Lt "I-680" 175+08			h
		i					40.9									S						3.6	18" APC				i
		j																1					G2 DI W/ SID	97.49' Lt "I-680" 175+51			j
		k																					Rem DI				k
		l																					Rem Culv				l
		m																					Rem FES				m
		n																					Rem Culv				n
		o																					Rem DI				o
		p																					Rem Culv				p
		q																					Rem DI				q
		r																					Rem Culv				r
D-2	5	a																		9.4	25.1		RSP		D-2	5	a
		b													1								24" AFES	127.57' Lt "I-680" 174+47			b
		c			59.1											S						3.6	24" RCP				c
		d																1					G1 DI W/ DA	113.59' Lt "I-680" 175+08			d
				6.0	59.1		143.2		16.3					1	1			10		15.7	43.3		TOTAL (THIS SHEET)				

(N) - NOT A SEPARATE BID ITEM

DRAINAGE QUANTITIES

DQ-4

REVISED BY	RS
DATE REVISED	9-29-21
RICHARD SAGASTUME	
TINH TRUONG	
CALCULATED-DESIGNED BY	
CHECKED BY	
CONSULTANT FUNCTIONAL SUPERVISOR	TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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BORDER LAST REVISED 7/2/2010
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UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	393	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

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Oakland, CA 94607

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT	REMOVE CULVERT (LF)	ABANDON CULVERT (LF)	SAND BACKFILL	REMOVE INLET	REMOVE FES (EA)	REMOVE OVERSIDE DRAIN	ADJUST INLET	ADJUST DRAINAGE MANHOLE	MODIFY INLET	MODIFY INLET TO MH	DRAINAGE INLETS: DESIGN HEIGHT "H" (N)	DRAINAGE INLETS: 36" CSP INLET (.138 THICK)	DRAINAGE INLETS: 36" PRECAST CONCRETE PIPE INLET	DRAINAGE INLETS: STRUCTURAL Conc, DRAINAGE INLET	DRAINAGE INLETS: MINOR Conc (Misc Const)	DRAINAGE INLETS: Misc IRON AND STEEL	MINOR Conc (BACKFILL)	CULVERT SLURRY - CEMENT BACKFILL	HMA (TYPE A)	RHMA - OPEN GRADED (OPEN GRADED FRICTION COURSE)	RHMA (GAP GRADED)	TACK COAT	PLACE HMA (Misc AREA)	PIPE: CLEANING, INSPECTING, AND PREPARING CULVERT (LF)	PIPE: 18" MACHINE SPIRAL WOUND PVC PIPELINER (EXPANDABLE DIAMETER)	DESCRIPTION	STATION	DRAINAGE SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT
			LF		CY	EA							LF			CY			CY			TON				SQYD	LF						
D-2	6	a																											RSP		D-2	6	a
		b																											18" AFES	103.43' Lt "I-680" 176+07			b
		c																											18" CSP				c
		d											5.2			2.9	1.2	326											G2 DI W/ SID	92.55' Lt "I-680" 176+07			d
		e																											18" APC				e
		f											5.0			2.8	1.2	326											G2 DI W/ SID	88.41' Lt "I-680" 176+54			f
		g																											18" APC				g
		h											5.4			3.0	1.2	326											G2 DI W/ SID	83.72' Lt "I-680" 177+07			h
		i																											18" APC				i
		j											5.8			3.2	1.2	326											G2 DI W/ SID	73.70' Lt "I-680" 178+21			j
		k				1																							Rem DI				k
		l	100																										Rem Culv				l
		m				1																							Rem DI				m
		n	120																										Rem Culv				n
		o				1																							Rem DI				o
		p	30																										Rem Culv				p
		q						1																						Rem OSD				q
D-2	7	a																											RSP		D-2	7	a
		b																											18" AFES	92.20' Lt "I-680" 179+34			b
		c																											18" CSP				c
		d											8.7			4.1	1.9	652											GDOM DI W/ SID	71.43' Lt "I-680" 179+34			d
		e																	47.4	202.5	18.9		14.2	0.07					18" APC				e
		f											10.1			6.2	1.2	326											G2 DI W/ SID	70.31' Rt "I-680" 181+94			f
		g	40																										Rem Culv (PORTION)				g
		h																								75			CLEANING, INSPECTING, AND PREPARING CULVERT				h
		i																									75		18" MACHINE SPIRAL WOUND PVC PIPELINER (EXPANDABLE DIAMETER)				i
D-2	8	a																											RSP		D-2	8	a
		b																											18" AFES	89.29' Lt "I-680" 185+50			b
		c																											18" CSP				c
		d											6.8			3.3	1.9	652											GDOM DI W/ SID	71.51' Lt "I-680" 185+50			d
		e																	46.0	88.9	18.4		13.8	0.07					18" APC				e
		f											5.8			2.9	1.9	652											GDOM DI W/ SID	70.72' Lt "I-680" 188+00			f
			290			3		1								28.5	11.9	3586	93.4	291.3	37.4		28.0	0.14		75	75		TOTAL (THIS SHEET)				

(N) - NOT A SEPARATE BID ITEM

DRAINAGE QUANTITIES

DQ-5

REVISED BY	DATE REVISED
RS	9-29-21

CALCULATED-DESIGNED BY
CHECKED BY

RICHARD SAGASTUME
TINH TRUONG

CONSULTANT FUNCTIONAL SUPERVISOR
TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 09-29-21
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:45

I:\0030\DRAFTING\FINAL_PS&E\04200002351id005.dgn

BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 04200002351id005.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	394	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CHUONG NGUYEN — No. C46770 — Exp. 6-30-23 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WMH CORPORATION
55 South Market St
Suite 1200
San Jose, CA 95113

ALAMEDA CTC
1111 Broadway
Suite 800
Oakland, CA 94607

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯	PIPE: 6" PLASTIC PIPE WALL DRAIN (LF)	PIPE: 18" RCP (LF)	PIPE: 24" RCP (LF)	PIPE: 36" RCP (LF)	PIPE: 18" APC (LF)	PIPE: 24" APC (LF)	PIPE: 18" CSP (.138" THICK) (LF)	PIPE: 24" CSP (.138" THICK) (LF)	PIPE: 18" CSP DD (.109" THICK) (LF)	PIPE: 24" CSP DD (.109" THICK) (LF)	PIPE: 18" SCSP (.064" THICK) (LF)	FES: 18" AFES (EA)	FES: 24" AFES (EA)	PIPE JOINT CLASSIFICATION (N)	GRATE (N): TYPE 36R (EA)	GRATE (N): TYPE 24-12 (EA)	GRATE (N): TYPE U45 (EA)	RSP (60 LB, CLASS II, METHOD B) (CY)	RSP FABRIC (CLASS 8) (SQYD)	MAXIMUM COVER (N) (FT)	DESCRIPTION	STATION	DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯
D-2	6	a																		6.2	18.2		RSP		D-2	6	a
		b												1									18" AFES	103.43' Lt "I-680" 176+07			b
		c							13.3							S						3.8	18" CSP				c
		d																1					G2 DI W/ SID	92.55' Lt "I-680" 176+07			d
		e					44.1									S						3.6	18" APC				e
		f																1					G2 DI W/ SID	88.41' Lt "I-680" 176+54			f
		g					50.4									S						4.0	18" APC				g
		h																1					G2 DI W/ SID	83.72' Lt "I-680" 177+07			h
		i					111.3									S						4.3	18" APC				i
		j																1					G2 DI W/ SID	73.70' Lt "I-680" 178+21			j
		k																					Rem DI				k
		l																					Rem Culv				l
		m																					Rem DI				m
		n																					Rem Culv				n
		o																					Rem DI				o
		p																					Rem Culv				p
		q																					Rem OSD				q
D-2	7	a																		6.2	18.2		RSP		D-2	7	a
		b												1									18" AFES	92.20' Lt "I-680" 179+34			b
		c							20.8							S						7.4	18" CSP				c
		d																2					GDOM DI W/ SID	71.43' Lt "I-680" 179+34			d
		e					255.8									S						8.7	18" APC				e
		f																1					G2 DI W/ SID	70.31' Rt "I-680" 181+94			f
		g																					Rem Culv (PORTION)				g
		h																					CLEANING, INSPECTING, AND PREPARING CULVERT				h
		i																					18" MACHINE SPIRAL WOUND PVC PIPELINER (EXPANDABLE DIAMETER)				i
D-2	8	a																		6.2	18.2		RSP		D-2	8	a
		b												1									18" AFES	89.29' Lt "I-680" 185+50			b
		c							17.8							S						5.1	18" CSP				c
		d																2					GDOM DI W/ SID	71.51' Lt "I-680" 185+50			d
		e					248.5									S						4.4	18" APC				e
		f																2					GDOM DI W/ SID	70.72' Lt "I-680" 188+00			f
							710.1		51.9					3				11		18.7	54.7		TOTAL (THIS SHEET)				

(N) - NOT A SEPARATE BID ITEM

DRAINAGE QUANTITIES

DQ-6

REVISED BY	DATE REVISED
RS	9-29-21

CALCULATED-DESIGNED BY: RICHARD SAGASTUME
CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION: DATE PLOTTED => 8-MAR-2022
09-29-21 TIME PLOTTED => 15:45

01\0030\DRAFTING\FINAL_PS&E\04200002351id006.dgn

BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351id006.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	395	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WMH CORPORATION
55 South Market St
Suite 1200
San Jose, CA 95113

ALAMEDA CTC
1111 Broadway
Suite 800
Oakland, CA 94607

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯	REMOVE CULVERT (LF)	ABANDON CULVERT (LF)	SAND BACKFILL	REMOVE INLET	REMOVE FES (EA)	REMOVE OVERSIDE DRAIN	ADJUST INLET	ADJUST DRAINAGE MANHOLE	MODIFY INLET	MODIFY INLET TO MH	DRAINAGE INLETS: DESIGN HEIGHT "H" (N)	DRAINAGE INLETS: 36" CSP INLET (.138 THICK)	DRAINAGE INLETS: 36" PRECAST CONCRETE PIPE INLET	DRAINAGE INLETS: STRUCTURAL Conc, DRAINAGE INLET	DRAINAGE INLETS: MINOR Conc (Misc Const)	DRAINAGE INLETS: Misc IRON AND STEEL	MINOR Conc (BACKFILL)	CULVERT SLURRY - CEMENT BACKFILL	HMA (TYPE A)	RHMA - OPEN GRADED (OPEN GRADED FRICTION COURSE)	RHMA (GAP GRADED)	TACK COAT	PLACE HMA (Misc AREA)	PIPE: CLEANING, INSPECTING, AND PREPARING CULVERT (LF)	PIPE: 18" MACHINE SPIRAL WOUND PVC PIPELINER (EXPANDABLE DIAMETER)	DESCRIPTION	STATION	DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯
			LF		CY	EA							LF			CY		LB	CY		TON					SQYD	LF						
D-3	9	a											4.5			2.4	1.9	652											GDOM DI W/ SID	70.54′ L+ "I-680" 191+00	D-3	9	a
		b																	8.7	15.1	3.5		2.6	0.01				18" APC				b
		c											5.6			2.9	1.9	652										GDOM DI W/ SID	69.92′ L+ "I-680" 191+50			c
		d																	7.3	17.1	2.9		2.2	0.01				18" APC				d
		e											6.7			3.3	1.9	652										GDOM DI W/ SID	70.27′ L+ "I-680" 191+92			e
		f																										18" CSP W/ DD J+				f
		g																										18" AFES	154.81′ L+ "I-680" 191+92			g
		h																										RSP				h
		i				1																						Rem DI				i
		j	55																									Rem Culv				j
		k				1																						Rem DI				k
		l	25																									Rem Culv				l
D-3	10	a																										RSP		D-3	10	a
		b																										24" AFES	141.75′ L+ "I-680" 194+01			b
		c																										24" APC				c
		d											4.1			2.5	0.4	326										G2 DI W/ DA	139.88′ L+ "I-680" 194+30			d
		e																										24" APC				e
		f											4.3			2.5	0.4	326										G2 DI W/ DA	129.87′ L+ "I-680" 195+50			f
D-3	11	a																										RSP		D-3	11	a
		b																										24" AFES	104.27′ L+ "I-680" 198+00			b
		c																										24" CSP W/ DD J+				c
		d																	12.9	47.5	5.1		3.9	0.02				18" APC				d
		e											10.4			6.4	1.2	326										G2 DI W/ SID	69.85′ L+ "I-680" 198+00			e
		f																	37.8	126.3	15.1		11.3	0.06				24" APC				f
		g											7.2			3.7	1.2	326										G2 DI W/ SID	73.32′ L+ "I-680" 199+89			g
		h																	19.7	56.5	7.9		5.9	0.03				18" APC				h
		i											6.5			3.4	1.2	326										G2 DI W/ SID	76.60′ L+ "I-680" 201+00			i
		j																	35.9	91.9	14.4		10.8	0.05				18" APC				j
		k											5.9			3.2	1.2	326										G2 DI W/ SID	79.98′ L+ "I-680" 203+00			k
		l																	36.2	66.7	14.5		10.9	0.05				18" APC				l
		m											4.9			2.8	1.2	326										G2 DI W/ SID	80.58′ L+ "I-680" 205+00			m
		n																	63.2	21.6	14.7	4.3	11.1	0.07				18" APC W/ Conc Bkf				n
		o											4.1			2.5	1.2	326										G2 DI W/ SID	80.42′ L+ "I-680" 207+00			o
			80			2										35.5	14.0	4564	221.7	442.6	78.1	4.3	58.6	0.31				TOTAL (THIS SHEET)				

(N) - NOT A SEPARATE BID ITEM

DRAINAGE QUANTITIES

DQ-7

RICHARD SAGASTUME — TINH TRUONG — CALCULATED-DESIGNED BY — CHECKED BY
REVISED BY: RS — DATE REVISED: 9-29-21
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans®
O:\0030UNDRAFTING\FINAL_PS&E\04200002351id007.dgn
LAST REVISION: DATE PLOTTED => 8-MAR-2022 — TIME PLOTTED => 15:45 — 09-29-21

BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 0420000235id007.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	396	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WMH CORPORATION
55 South Market St
Suite 1200
San Jose, CA 95113

ALAMEDA CTC
1111 Broadway
Suite 800
Oakland, CA 94607

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT	PIPE: 6" PLASTIC PIPE WALL DRAIN (LF)	PIPE: 18" RCP (LF)	PIPE: 24" RCP (LF)	PIPE: 36" RCP (LF)	PIPE: 18" APC (LF)	PIPE: 24" APC (LF)	PIPE: 18" CSP (.138" THICK) (LF)	PIPE: 24" CSP (.138" THICK) (LF)	PIPE: 18" CSP DD (.109" THICK) (LF)	PIPE: 24" CSP DD (.109" THICK) (LF)	PIPE: 18" SCSP (.064" THICK) (LF)	FES: 18" AFES (EA)	FES: 24" AFES (EA)	PIPE JOINT CLASSIFICATION (N)	GRATE (N): TYPE 36R (EA)	GRATE (N): TYPE 24-12 (EA)	GRATE (N): TYPE U45 (EA)	RSP (60 LB, CLASS II, METHOD B) (CY)	RSP FABRIC (CLASS 8) (SQYD)	MAXIMUM COVER (N) (FT)	DESCRIPTION	STATION	DRAINAGE SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT
D-3	9	a																2					GDOM DI W/ SID	70.54' Lt "I-680" 191+00	D-3	9	a
		b					47.1									S						5.4	18" APC				b
		c																2					GDOM DI W/ SID	69.92' Lt "I-680" 191+50			c
		d					39.3									S						5.8	18" APC				d
		e																2					GDOM DI W/ SID	70.27' Lt "I-680" 191+92			e
		f							85.1							DD							18" CSP W/ DD Jt				f
		g												1									18" AFES	154.81' Lt "I-680" 191+92			g
		h																		6.2	18.2		RSP				h
		i																					Rem DI				i
		j																					Rem Culv				j
		k																					Rem DI				k
		l																					Rem Culv				l
D-3	10	a																		9.4	25.1		RSP		D-3	10	a
		b													1								24" AFES	141.75' Lt "I-680" 194+01			b
		c						27.1								S						4.2	24" APC				c
		d																1					G2 DI W/ DA	139.88' Lt "I-680" 194+30			d
		e						117.5								S						4.2	24" APC				e
		f																1					G2 DI W/ DA	129.87' Lt "I-680" 195+50			f
D-3	11	a																		9.4	25.1		RSP		D-3	11	a
		b													1								24" AFES	104.27' Lt "I-680" 198+00			b
		c								34.3						DD						7.2	24" CSP W/ DD Jt				c
		d					69.4									S						7.3	18" APC				d
		e																1					G2 DI W/ SID	69.85' Lt "I-680" 198+00			e
		f						185.7								S						6.2	24" APC				f
		g																1					G2 DI W/ SID	73.32' Lt "I-680" 199+89			g
		h					106.3									S						5.9	18" APC				h
		i																1					G2 DI W/ SID	76.60' Lt "I-680" 201+00			i
		j					193.9									S						5.2	18" APC				j
		k																1					G2 DI W/ SID	79.98' Lt "I-680" 203+00			k
		l					195.6									S						4.4	18" APC				l
		m																1					G2 DI W/ SID	80.58' Lt "I-680" 205+00			m
		n					197.1									S						3.3	18" APC W/ Conc Bkf				n
		o																1					G2 DI W/ SID	80.42' Lt "I-680" 207+00			o
							848.7	330.3	85.1	34.3				1	2			14		25.1	68.3		TOTAL (THIS SHEET)				

(N) - NOT A SEPARATE BID ITEM

DRAINAGE QUANTITIES

DQ-8

REVISED BY: RS — DATE REVISED: 9-29-21
CALCULATED-DESIGNED BY: RICHARD SAGASTUME — CHECKED BY: TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

LAST REVISION 09-29-21 — DATE PLOTTED => 8-MAR-2022 — TIME PLOTTED => 15:46

O:\0030U\DRAFTING\FINAL_PS&E\04200002351id008.dgn

BORDER LAST REVISED 7/2/2010 — USERNAME => p302438 — DGN FILE => 04200002351id008.dgn — RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 — UNIT 0733 — PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	397	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CHUONG NGUYEN — No. C46770 — Exp. 6-30-23 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WMH CORPORATION
55 South Market St
Suite 1200
San Jose, CA 95113

ALAMEDA CTC
1111 Broadway
Suite 800
Oakland, CA 94607

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯	REMOVE CULVERT (LF)	ABANDON CULVERT (LF)	SAND BACKFILL	REMOVE INLET	REMOVE FES (EA)	REMOVE OVERSIDE DRAIN	ADJUST INLET	ADJUST DRAINAGE MANHOLE	MODIFY INLET	MODIFY INLET TO MH	DRAINAGE INLETS: DESIGN HEIGHT "H" (N)	DRAINAGE INLETS: 36" CSP INLET (.138 THICK)	DRAINAGE INLETS: 36" PRECAST CONCRETE PIPE INLET	DRAINAGE INLETS: STRUCTURAL Conc, DRAINAGE INLET	DRAINAGE INLETS: MINOR Conc (Misc Const)	DRAINAGE INLETS: Misc IRON AND STEEL	MINOR Conc (BACKFILL)	CULVERT SLURRY - CEMENT BACKFILL	HMA (TYPE A)	RHMA - OPEN GRADED (OPEN GRADED FRICTION COURSE)	RHMA (GAP GRADED)	TACK COAT	PLACE HMA (Misc AREA)	PIPE: CLEANING, INSPECTING, AND PREPARING CULVERT (LF)	PIPE: 18" MACHINE SPIRAL WOUND PVC PIPELINER (EXPANDABLE DIAMETER)	DESCRIPTION	STATION	DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯
			LF		CY	EA							LF			CY			CY		TON				SQYD	LF						
D-4	11	p	45																									Rem Culv		D-4	11	p
		q	45																									Rem Culv				q
		r	45																									Rem Culv				r
		s				1																						Rem DI				s
		t																								75		CLEANING, INSPECTING, AND PREPARING CULVERT				t
		u																									75	18" MACHINE SPIRAL WOUND PVC PIPELINER (EXPANDABLE DIAMETER)				u
D-4	12	a											4.1			2.5	1.2	326										G2 DI W/ SID	12.00 Lt "I-680" 204+92	D-4	12	a
		b																										18" CSP				b
		c											2.5			1.0		326										G1 DI IN Conc Gtr	10.27' Lt "I-680" 204+92			c
		d																										18" APC				d
		e											4.8			2.5	1.9	652										GDOM DI W/ SID	12.00' Lt "I-680" 206+00			e
		f																										18" CSP				f
		g											5.2			1.4		326										G1 DI IN Conc Gtr	10.27' Lt "I-680" 206+00			g
		h																										18" APC				h
		i											7.9			4.0	1.2	326										G2 DI W/ SID	12.00' Lt "I-680" 207+58			i
		j																										18" CSP				j
		k											5.1			1.4		326										G1 DI IN Conc Gtr	10.27' Lt "I-680" 207+58			k
		l																										18"APC				l
		m											4.9			2.8	1.2	326										G2 DI W/ SID	12.00' Lt "I-680" 211+00			m
		n																										18" CSP				n
		o											5.1			1.4		326										G1 DI IN Conc Gtr	10.27' Lt "I-680" 211+00			o
		p										1						435										Mod DI TO MH				p
		q																										18" APC				q
D-4	13	a																										RSP		D-4	13	a
		b																										24" AFES	140.78' Lt "I-680" 207+50			b
		c																										24" APC				c
		d											3.7			2.0	0.4	326										G2 DI W/ DA	129.61' Lt "I-680" 208+85			d
D-4	14	a																										RSP		D-4	14	a
		b																										18" AFES	123.93' Lt "I-680" 209+00			b
		c																										18" CSP DD				c
		d											6.5			3.4	1.2	326										G2 DI W/ SID	80.95' Lt "I-680" 209+00			d
			135			1						1				22.4	7.2	4021								75	75	TOTAL (THIS SHEET)				

(N) - NOT A SEPARATE BID ITEM

DRAINAGE QUANTITIES

DQ-9

REVISED BY: RS — DATE REVISED: 9-29-21
RICHARD SAGASTUME — TINH TRUONG
CALCULATED-DESIGNED BY — CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR: TIMOTHY J. LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®

LAST REVISION | DATE PLOTTED => 8-MAR-2022 | TIME PLOTTED => 15:46 | 09-29-21

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351d009.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	398	1710

REGISTERED CIVIL ENGINEER — 9-29-21 DATE

CHUONG NGUYEN No. C46770 Exp. 6-30-23 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 8, 2021
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WMH CORPORATION
55 South Market St
Suite 1200
San Jose, CA 95113

ALAMEDA CTC
1111 Broadway
Suite 800
Oakland, CA 94607

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT	PIPE: 6" PLASTIC PIPE WALL DRAIN (LF)	PIPE: 18" RCP (LF)	PIPE: 24" RCP (LF)	PIPE: 36" RCP (LF)	PIPE: 18" APC (LF)	PIPE: 24" APC (LF)	PIPE: 18" CSP (.138" THICK) (LF)	PIPE: 24" CSP (.138" THICK) (LF)	PIPE: 18" CSP DD (.109" THICK) (LF)	PIPE: 24" CSP DD (.109" THICK) (LF)	PIPE: 18" SCSP (.064" THICK) (LF)	FES: 18" AFES (EA)	FES: 24" AFES (EA)	PIPE JOINT CLASSIFICATION (N)	GRATE (N): TYPE 36R (EA)	GRATE (N): TYPE 24-12 (EA)	GRATE (N): TYPE U45 (EA)	RSP (60 LB, CLASS II, METHOD B) (CY)	RSP FABRIC (CLASS 8) (SQYD)	MAXIMUM COVER (N) (FT)	DESCRIPTION	STATION	DRAINAGE SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT
D-4	11	p																					Rem Culv		D-4	11	p
		q																					Rem Culv				q
		r																					Rem Culv				r
		s																					Rem DI				s
		t																					CLEANING, INSPECTING, AND PREPARING CULVERT				t
		u																					18" MACHINE SPIRAL WOUND PVC PIPELINER (EXPANDABLE DIAMETER)				u
D-4	12	a																1					G2 DI W/ SID	12.00 Lt "I-680" 204+92	D-4	12	a
		b							3.1							S						5.0	18" CSP				b
		c																1					G1 DI IN Conc Gtr	10.27' Lt "I-680" 204+92			c
		d					105.4									S						3.6	18" APC				d
		e																2					GDOM DI W/ SID	12.00' Lt "I-680" 206+00			e
		f							3.1							S						5.0	18" CSP				f
		g																1					G1 DI IN Conc Gtr	10.27' Lt "I-680" 206+00			g
		h					155.2									S						5.8	18" APC				h
		i																1					G2 DI W/ SID	12.00' Lt "I-680" 207+58			i
		j							3.1							S						5.0	18" CSP				j
		k																1					G1 DI IN Conc Gtr	10.27' Lt "I-680" 207+58			k
		l					339.0									S						5.2	18"APC				l
		m																1					G2 DI W/ SID	12.00' Lt "I-680" 211+00			m
		n							3.1							S						5.0	18" CSP				n
		o																1					G1 DI IN Conc Gtr	10.27' Lt "I-680" 211+00			o
		p																	1				Mod DI TO MH				p
		q					21.4									S						7.1	18" APC				q
D-4	13	a																			9.4	25.1	RSP		D-4	13	a
		b													1								24" AFES	140.78' Lt "I-680" 207+50			b
		c						133.5								S						4.8	24" APC				c
		d																1					G2 DI W/ DA	129.61' Lt "I-680" 208+85			d
D-4	14	a																			6.2	18.2	RSP		D-4	14	a
		b												1									18" AFES	123.93' Lt "I-680" 209+00			b
		c									45.4					DD						5.1	18" CSP DD				c
		d																1					G2 DI W/ SID	80.95' Lt "I-680" 209+00			d
							621.0	133.5	12.4		45.4			1	1			11	1	15.7	43.3		TOTAL (THIS SHEET)				

(N) - NOT A SEPARATE BID ITEM

DRAINAGE QUANTITIES

DQ-10

REVISED BY	DATE REVISED
RS	9-29-21

RICHARD SAGASTUME — CALCULATED-DESIGNED BY
TINH TRUONG — CHECKED BY
TIMOTHY J. LEE — CONSULTANT FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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LAST REVISION 09-29-21 | DATE PLOTTED => 8-MAR-2022 | TIME PLOTTED => 15:46

BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351d010.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	399	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — CHUONG NGUYEN — No. C46770 — Exp. 6-30-23 — CIVIL — STATE OF CALIFORNIA

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WMH CORPORATION
55 South Market St
Suite 1200
San Jose, CA 95113

ALAMEDA CTC
1111 Broadway
Suite 800
Oakland, CA 94607

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯	REMOVE CULVERT (LF)	ABANDON CULVERT (LF)	SAND BACKFILL	REMOVE INLET	REMOVE FES (EA)	REMOVE OVERSIDE DRAIN	ADJUST INLET	ADJUST DRAINAGE MANHOLE	MODIFY INLET	MODIFY INLET TO MH	DRAINAGE INLETS: DESIGN HEIGHT "H" (N)	DRAINAGE INLETS: 36" CSP INLET (.138 THICK)	DRAINAGE INLETS: 36" PRECAST CONCRETE PIPE INLET	DRAINAGE INLETS: STRUCTURAL Conc, DRAINAGE INLET	DRAINAGE INLETS: MINOR Conc (Misc Const)	DRAINAGE INLETS: Misc IRON AND STEEL	MINOR Conc (BACKFILL)	CULVERT SLURRY - CEMENT BACKFILL	HMA (TYPE A)	RHMA - OPEN GRADED (OPEN GRADED FRICTION COURSE)	RHMA (GAP GRADED)	TACK COAT	PLACE HMA (Misc AREA)	PIPE: CLEANING, INSPECTING, AND PREPARING CULVERT (LF)	PIPE: 18" MACHINE SPIRAL WOUND PVC PIPELINER (EXPANDABLE DIAMETER)	DESCRIPTION	STATION	DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯
			LF	LF	CY	EA	EA	EA	EA	EA	EA	EA	LF	LF	LF	CY	CY	LB	CY	CY	TON	TON	TON	TON	SQYD	LF	LF					
D-4	16	a																										RSP		D-4	16	a
		b																										18" AFES	129.65' Lt "I-680" 213+00			b
		c																										18" CSP W/ DD Jt				c
		d											9.1			5.7	1.2	326										G2 DI W/ SID	80.25' Lt "I-680" 213+00			d
D-5	17	a																										RSP		D-5	17	a
		b																										24" AFES	131.77' Lt "I-680" 214+45			b
		c																										24" CSP				c
		d											7.6			3.9	1.2	326										G2 DI W/ SID	80.55' Lt "I-680" 214+46			d
		e																	30.8	93.1	12.3		9.2	0.05				24" APC				e
		f											7.0			3.6	1.2	326										G2 DI W/ SID	79.82' Lt "I-680" 216+00			f
		g																	43.9	108.3	17.6		13.2	0.07				18" APC				g
		h											5.9			3.2	1.2	326										G2 DI W/ SID	80.00' Lt "I-680" 218+40			h
		i																	29.1	55.7	11.6		8.7	0.04				18" APC				i
		j											5.1			2.9	1.2	326										G2 DI W/ SID	80.00' Lt "I-680" 220+00			j
		k																	25.4	39.6	10.2		7.6	0.04				18" APC				k
		l											4.5			2.6	1.2	326										G2 DI W/ SID	79.88' Lt "I-680" 221+40			l
		m																	47.6	70.1	19.0		14.3	0.07				18" APC				m
		n											4.9			2.8	1.2	326										G2 DI W/ SID	80.51' Lt "I-680" 224+00			n
		o											4.2			2.5	1.2	326										G2 DI W/ SID	12.00' Lt "I-680" 214+45			o
		p																										18" APC W/ Conc COLLAR				p
		q																										18" CSP				q
		r											5.1			1.4		326										G1 DI IN Conc Gtr	10.27' Lt "I-680" 214+45			r
		s				1																						Rem DI				s
		t																									65	18" MACHINE SPIRAL WOUD PVC PIPELINER (EXPANDABLE DIAMTER)				t
		u																								65		CLEANING, INSPECTING, AND PREPARING CULVERT				u
		v	25																									Rem Culv (PORTION)				v
			25			1										28.6	9.8	2934	176.8	366.8	70.7		53.0	0.27		65	65	TOTAL (THIS SHEET)				

(N) - NOT A SEPARATE BID ITEM

DRAINAGE QUANTITIES

DQ-11

REVISED BY	RS		
DATE REVISED	9-29-21		
RICHARD SAGASTUME	TINH TRUONG		
CALCULATED-DESIGNED BY	CHECKED BY		
CONSULTANT FUNCTIONAL SUPERVISOR	TIMOTHY J. LEE		
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	Caltrans®		

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BORDER LAST REVISED 7/2/2010 | USERNAME => p302438 | DGN FILE => 04200002351id011.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0733 | PROJECT NUMBER & PHASE 04200002351

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Ala, CC	680	R11.0/R21.9, R0.0/R0.9	400	1710

Nguyen 9-29-21
REGISTERED CIVIL ENGINEER DATE

October 8, 2021
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHUONG NGUYEN
No. C46770
Exp. 6-30-23
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

WMH CORPORATION
55 South Market St
Suite 1200
San Jose, CA 95113

ALAMEDA CTC
1111 Broadway
Suite 800
Oakland, CA 94607

DRAINAGE QUANTITIES

DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯	PIPE: 6" PLASTIC PIPE WALL DRAIN (LF)	PIPE: 18" RCP (LF)	PIPE: 24" RCP (LF)	PIPE: 36" RCP (LF)	PIPE: 18" APC (LF)	PIPE: 24" APC (LF)	PIPE: 18" CSP (.138" THICK) (LF)	PIPE: 24" CSP (.138" THICK) (LF)	PIPE: 18" CSP DD (.109" THICK) (LF)	PIPE: 24" CSP DD (.109" THICK) (LF)	PIPE: 18" SCSP (.064" THICK) (LF)	FES: 18" AFES (EA)	FES: 24" AFES (EA)	PIPE JOINT CLASSIFICATION (N)	GRATE (N): TYPE 36R (EA)	GRATE (N): TYPE 24-12 (EA)	GRATE (N): TYPE U45 (EA)	RSP (60 LB, CLASS II, METHOD B) (CY)	RSP FABRIC (CLASS 8) (SQYD)	MAXIMUM COVER (N) (FT)	DESCRIPTION	STATION	DRAINAGE SHEET No.	DRAINAGE SYSTEM No. ⬡	DRAINAGE UNIT ◯
D-4	16	a																		6.2	18.2		RSP		D-4	16	a
		b												1									18" AFES	129.65' Lt "I-680" 213+00			b
		c							48.9							DD						7.7	18" CSP W/ DD Jt				c
		d																1					G2 DI W/ SID	80.25' Lt "I-680" 213+00			d
D-5	17	a																		9.4	25.1		RSP		D-5	17	a
		b													1								24" AFES	131.77' Lt "I-680" 214+45			b
		c								50.3						S						5.4	24" CSP				c
		d																1					G2 DI W/ SID	80.55' Lt "I-680" 214+46			d
		e						151.1								S						5.6	24" APC				e
		f																1					G2 DI W/ SID	79.82' Lt "I-680" 216+00			f
		g					237.1									S						5.4	18" APC				g
		h																1					G2 DI W/ SID	80.00' Lt "I-680" 218+40			h
		i					157.1									S						4.3	18" APC				i
		j																1					G2 DI W/ SID	80.00' Lt "I-680" 220+00			j
		k					137.0									S						3.0	18" APC				k
		l																1					G2 DI W/ SID	79.88' Lt "I-680" 221+40			l
		m					257.1									S						2.7	18" APC				m
		n																1					G2 DI W/ SID	80.51' Lt "I-680" 224+00			n
		o																1					G2 DI W/ SID	12.00' Lt "I-680" 214+45			o
		p					6.5									S						3.6	18" APC W/ Conc COLLAR				p
		q							3.1							S						5.0	18" CSP				q
		r																1					G1 DI IN Conc Gtr	10.27' Lt "I-680" 214+45			r
		s																					Rem DI				s
		t																					18" MACHINE SPIRAL WOUD PVC PIPELINER (EXPANDABLE DIAMTER)				t
		u																					CLEANING, INSPECTING, AND PREPARING CULVERT				u
		v																					Rem Culv (PORTION)				v
							794.8	151.1	52.0	50.3				1	1			9		15.7	43.3		TOTAL (THIS SHEET)				

(N) - NOT A SEPARATE BID ITEM

REVISED BY	RS
DATE REVISED	9-29-21
CALCULATED-DESIGNED BY	RICHARD SAGASTUME
CHECKED BY	TINH TRUONG
CONSULTANT FUNCTIONAL SUPERVISOR	TIMOTHY J. LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DRAINAGE QUANTITIES
DQ-12

LAST REVISION 09-29-21
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 15:46

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BORDER LAST REVISED 7/2/2010
USERNAME => p302438
DGN FILE => 0420000235id012.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0733
PROJECT NUMBER & PHASE 04200002351