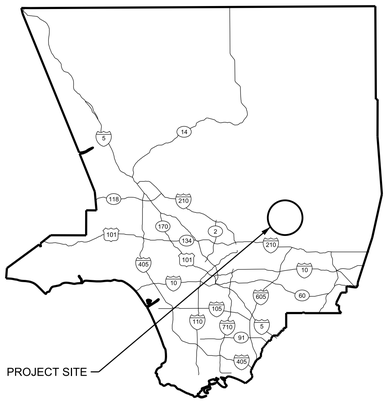
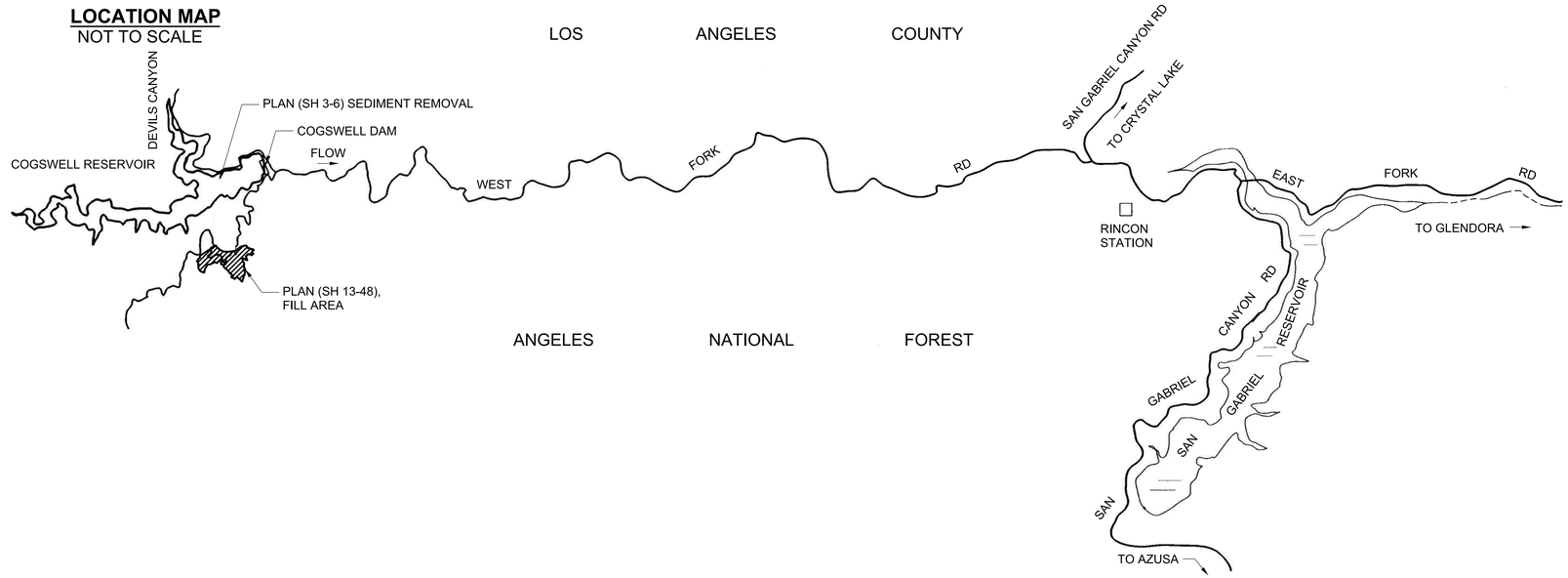
LOS ANGELES COUNTY
PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT



LOCATION MAP
NOT TO SCALE



KEY MAP
NOT TO SCALE

NORTH

PRIME CONTRACTOR LICENSE REQUIRED: CLASS A

INDEX TO PROJECT PLANS

SHEET NUMBER	DESCRIPTION
PLAN DR	
1	TITLE SHEET
2	NOTES AND REFERENCES
3	COGSWELL RESERVOIR - EXCAVATION PLAN STA 100+00 TO STA 130+60
4	COGSWELL RESERVOIR - EXCAVATION PLAN STA 130+60 TO STA 160+00
5	COGSWELL RESERVOIR - EXCAVATION PLAN STA 160+00 TO STA 190+80
6	DEVILS CANYON - EXCAVATION PLAN STA 200+00 TO STA 241+68
7	COGSWELL RESERVOIR - EXCAVATION PROFILE STA 100+00 TO STA 130+00
8	COGSWELL RESERVOIR - EXCAVATION PROFILE STA 130+00 TO STA 160+00
9	COGSWELL RESERVOIR - EXCAVATION PROFILE STA 160+00 TO STA 190+00
10	DEVILS CANYON - EXCAVATION PROFILE STA 200+00 TO STA 230+00
11	DEVILS CANYON EXCAVATION PROFILE STA 230+00 TO STA 240+00 AND COGSWELL RESERVOIR CROSS SECTIONS
12	DEVILS CANYON - CROSS SECTIONS
13	SEDIMENT PLACEMENT SITE A-1 - SITE GRADING CONTROL POINTS
14	SEDIMENT PLACEMENT SITE A-1 - SITE GRADING CONTROL POINTS COORDINATES TABLE AND CONSTRUCTION CONTROL DATA
15	SEDIMENT PLACEMENT SITE A-1 - DRAINAGE PLAN
16	SEDIMENT PLACEMENT SITE A-1 - SITE GRADING CONTROL POINTS, DRAINAGE PLAN AND SITE GRADING CONTROL POINTS COORDINATES TABLE
17	SEDIMENT PLACEMENT SITE A-1 - DRAINAGE PLAN COORDINATES TABLE AND BENCH TURNS DESIGN PARAMETERS TABLE
18	SEDIMENT PLACEMENT SITE B - SITE GRADING CONTROL POINTS
19	SEDIMENT PLACEMENT SITE B - SITE GRADING CONTROL POINTS COORDINATES TABLE PART 1
20	SEDIMENT PLACEMENT SITE B - SITE GRADING CONTROL POINTS COORDINATES TABLE PART 2 AND CONSTRUCTION CONTROL DATA
21	SEDIMENT PLACEMENT SITE B - DRAINAGE PLAN
22	SEDIMENT PLACEMENT SITE B - DRAINAGE PLAN COORDINATES TABLE AND BENCH TURNS DESIGN PARAMETERS TABLE
23	SEDIMENT PLACEMENT SITE A-2 - SITE GRADING CONTROL POINTS AND DRAINAGE PLAN
24	SEDIMENT PLACEMENT SITE A-2 - SITE GRADING AND DRAINAGE CONTROL POINTS COORDINATES TABLE AND CONSTRUCTION CONTROL DATA
25	SEDIMENT PLACEMENT SITES A-1 AND A-2 - PROFILES
26	SEDIMENT PLACEMENT SITE B - PROFILE
27	SEDIMENT PLACEMENT SITE A-1 - ACCESS ROAD PROFILE
28	SEDIMENT PLACEMENT SITE B - ACCESS ROAD PROFILE STA 701+00 TO STA 724+00
29	SEDIMENT PLACEMENT SITES B AND A-2 - SITE B ACCESS ROAD PROFILE STA 724+00 TO STA 737+89 AND SITE A-2 ACCESS ROAD
30	SEDIMENT PLACEMENT SITE A-1 - DRAINAGE SYSTEMS PROFILES
31	SEDIMENT PLACEMENT SITE B - DRAINAGE SYSTEM PROFILE
32	SEDIMENT PLACEMENT SITE A-2 - DRAINAGE SYSTEMS AND LATERAL PROFILES
33	SEDIMENT PLACEMENT SITE A-1 - STORM DRAIN LATERALS PROFILES A1, A2 AND A3
34	SEDIMENT PLACEMENT SITE A-1 - STORM DRAIN LATERALS PROFILES A4 AND A5
35	SEDIMENT PLACEMENT SITE A-1 - STORM DRAIN LATERALS PROFILES A6, A7, A8 AND A-EXT1
36	SEDIMENT PLACEMENT SITE A-1 - STORM DRAIN LATERALS PROFILES A9 AND A9-1
37	SEDIMENT PLACEMENT SITE B - STORM DRAIN LATERALS PROFILES B1, B2, B3, B4, B5 AND B6
38	SEDIMENT PLACEMENT SITE B - STORM DRAIN LATERALS PROFILES B7, B7-1, B8, B9, B10 AND B11
39	SEDIMENT PLACEMENT SITE B - STORM DRAIN LATERALS PROFILES B12, B12-1, B13, B13-1, B14, B-EXT1, B-EXT2, B-EXT3 AND B-EXT3-1
40	SEDIMENT PLACEMENT SITE - ACCESS ROADS A, B & C INTERSECTION, ACCESS ROAD B TURNAROUND AREA AND ACCESS ROAD TURN TRANSVERSE SLOPE CHANGES
41	SEDIMENT PLACEMENT SITE - ACCESS ROAD, BENCH AND GUTTER DETAILS
42	SEDIMENT PLACEMENT SITE - BENCH TURNS DETAILS
43	SEDIMENT PLACEMENT SITE - ACCESS ROAD LANDING GUTTER CONFIGURATION SAMPLES
44	SEDIMENT PLACEMENT SITE - MANHOLE ACCESS SHAFT PART 1
45	SEDIMENT PLACEMENT SITE - MANHOLE ACCESS SHAFT PART 2
46	SEDIMENT PLACEMENT SITE - DRAINAGE SYSTEM INLET STRUCTURE DETAILS
47	SEDIMENT PLACEMENT SITE - SUBDRAINS
48	SEDIMENT PLACEMENT SITE - DEMOLITION PLAN
49	COGSWELL RESERVOIR - DEVIL'S CANYON NORTH ACCESS ROAD
50	COGSWELL RESERVOIR - DEVIL'S CANYON NORTH ACCESS ROAD PROFILE AND CROSS SECTIONS
51	COGSWELL RESERVOIR - SOUTH ACCESS ROAD
52	COGSWELL RESERVOIR - SOUTH ACCESS ROAD PROFILE
53	COGSWELL RESERVOIR - CONCEPTUAL WORK PAD AND ACCESS ROAD PLAN
54	COGSWELL RESERVOIR - CONCEPTUAL SURFACE WATER DIVERSION AND DEWATERING PLAN 1
55	COGSWELL RESERVOIR - CONCEPTUAL SURFACE WATER DIVERSION AND DEWATERING PLAN 2
PLAN E	
E-01	TITLE SHEET
E-02	STRUCTURE DETAIL
E-03	LIGHTWEIGHT STEEL POLE DETAIL
E-04	EXISTING SINGLE LINE
E-05	PROPOSED SINGLE LINE
E-06	LOCATION 1
E-07	LOCATION 2
E-08	LOCATION 3
E-09	LOCATION 4
E-10	LOCATION 5A
E-11	LOCATION 5B
E-12	TRANSFORMER CONNECTION DETAIL
E-13	GATE OPERATOR REPLACEMENT

PROJECT ID WRDM000036
COGSWELL RESERVOIR
POST-FIRE EMERGENCY
PROJECT

BID PACKAGE

DESIGNER: JOHN NG
CHECKER: SJ
CADD PROJECT FILE NAME: WRDM000036.DGN

Know what's **below.** **Call** before you dig.

APPROVED BY MARK PESTRELLA, DIRECTOR OF PUBLIC WORKS

ASSISTANT DEPUTY DIRECTOR — DATE: 01/21/2021

RECOMMENDED BY:

DESIGN TEAM II — DATE: 1-21-2021

DATE	MK	DESCRIPTION
		REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — DATE: Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

TITLE SHEET

PROJECT ID NO. WRDM000036

DWG 627-D13.1 | PD053212 | SHEET 1 OF 55

PLAN DR

CONSTRUCTION NOTES

1. EXISTING TOPOGRAPHY SHOWN FOR RESERVOIR AND SEDIMENT PLACEMENT SITE IS BASED ON SURVEYS OF SEPTEMBER 2015 AND JUNE 2010 RESPECTIVELY.
2. LACFCD RIGHT OF WAY SHOWN IS APPROXIMATE AND SHOULD BE VERIFIED.
3. ELEVATIONS SHOWN ARE IN FEET BASED ON THE DATUMS INDICATED UNDER THE "REFERENCES" SECTION HEREON.
4. STATIONS SHOWN ON THE DRAWINGS ARE ALONG CENTER LINES AND CONTROL LINES OF THE PROJECT OR ON LINES NORMAL TO CENTER LINES AND CONTROL LINES OF THE PROJECT.
5. STATIONS AND INVERT ELEVATIONS OF PIPE INLETS SHOWN ON THE PROFILES ARE AT THE INSIDE FACE OF THE CONDUIT, UNLESS OTHERWISE SHOWN.
6. ALL STEEL HARDWARE FOR CSP, DROP INLETS INCLUDING GRATES, SEEP RINGS, MANHOLE ACCESS SHAFTS, OUTLET TOWERS INCLUDING COVERS ,AND PROTECTION BARRIERS, ETC SHALL BE GALVANIZED.
7. ALL EXISTING IMPROVEMENTS TO BE RECONSTRUCTED SHALL BE CONSTRUCTED AT THE SAME ELEVATION AND LOCATION AS THE EXISTING IMPROVEMENTS, UNLESS OTHERWISE NOTED.
8. EXISTING TREES SHALL BE REMOVED ONLY IF SO DESIGNATED. THOSE TREES NOT INTERFERING WITH CONSTRUCTION SHALL BE PROTECTED IN PLACE.
9. ALL FIELD BOOK REFERENCES ARE TO LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS FIELD BOOKS, UNLESS OTHERWISE NOTED.
10. THE WORK SHOWN ON THESE DRAWINGS REQUIRES THE PRIME CONTRACTOR TO HAVE A VALID CLASS A LICENSE ISSUED BY THE STATE OF CALIFORNIA.
11. STANDARD PLANS REFERENCED ARE PER THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION (SPPWC) UNLESS OTHERWISE NOTED.

STANDARD PLANS

SPPWC, 2012 EDITION

120-2 CURB AND GUTTER - BARRIER

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
2-D261.1 TO .3 PROTECTION BARRIER

REFERENCES

TOPOGRAPHY: 627-T81 (SEP 2015) FOR RESERVOIR
627-T78 (JUN 2010) FOR SEDIMENT PLACEMENT SITE

627-T81 (SEP 2015) FOR RESERVOIR
HORIZONTAL DATUM: CALIFORNIA COORDINATE SYSTEM, ZONE 5
NAD83, EPOCH 2007.0

VERTICAL DATUM: NGVD29 DSD

627-T78 (JUN 2010) FOR SEDIMENT PLACEMENT SITE
HORIZONTAL DATUM: CALIFORNIA COORDINATE SYSTEM, ZONE 5
NAD83

VERTICAL DATUM: NGVD29 DESIGN SPILLWAY

FIELD BOOKS: FC 3419

DRAWINGS: 627-D10 (JUNE 1992)
627-D5 (FEB. 1991)

ABBREVIATIONS

ABBREVIATION	WORD OR WORDS
BC	BEGIN CURVE
CFS	CUBIC FEET PER SECOND
DIA	DIAMETER
DWG	DRAWING
EC	END CURVE
EL	ELEVATION
EXST	EXISTING
GA	GAGE
GC	GRADE CHANGE
HEX	HEXAGONAL
HOR, H	HORIZONTAL
I.D.	INSIDE DIAMETER
L	LENGTH
LACFCD	LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
LTR	LETTER
MAX	MAXIMUM
MH	MANHOLE
NO.	NUMBER
OC	ON CENTER
OD	OUTSIDE DIAMETER
PI	POINT OF INTERSECTION
PT	POINT
R	RADIUS
R/W	RIGHT OF WAY
RD	ROAD
S	SLOPE
SH	SHEET
STA	STATION
STD	STANDARD
T	TANGENT
TYP	TYPICAL
USFS	UNITED STATES FOREST SERVICE
VERT, V	VERTICAL

CONSTRUCTION SYMBOLS

(#) INDICATES WORK PER CONSTRUCTION LEGEND

(LTR) CURVE DATA SHOWN IN TABLE ON PLAN

A / 3 ABOVE LINE: NAME OF SECTION OR DETAIL
BELOW LINE: SHEET NUMBER OF THE REFERENCED SECTION OR DETAIL
IF THE SECTION OR DETAIL IS NOT ON THE SAME PAGE

TOPOGRAPHY LEGEND

	EXISTING TOPOGRAPHY	PROPOSED IMPROVEMENTS
PIPE		
CONNECTOR PIPE		
MAIN LINE		
OTHER TREE		
VALVE		

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

COGSWELL RESERVOIR

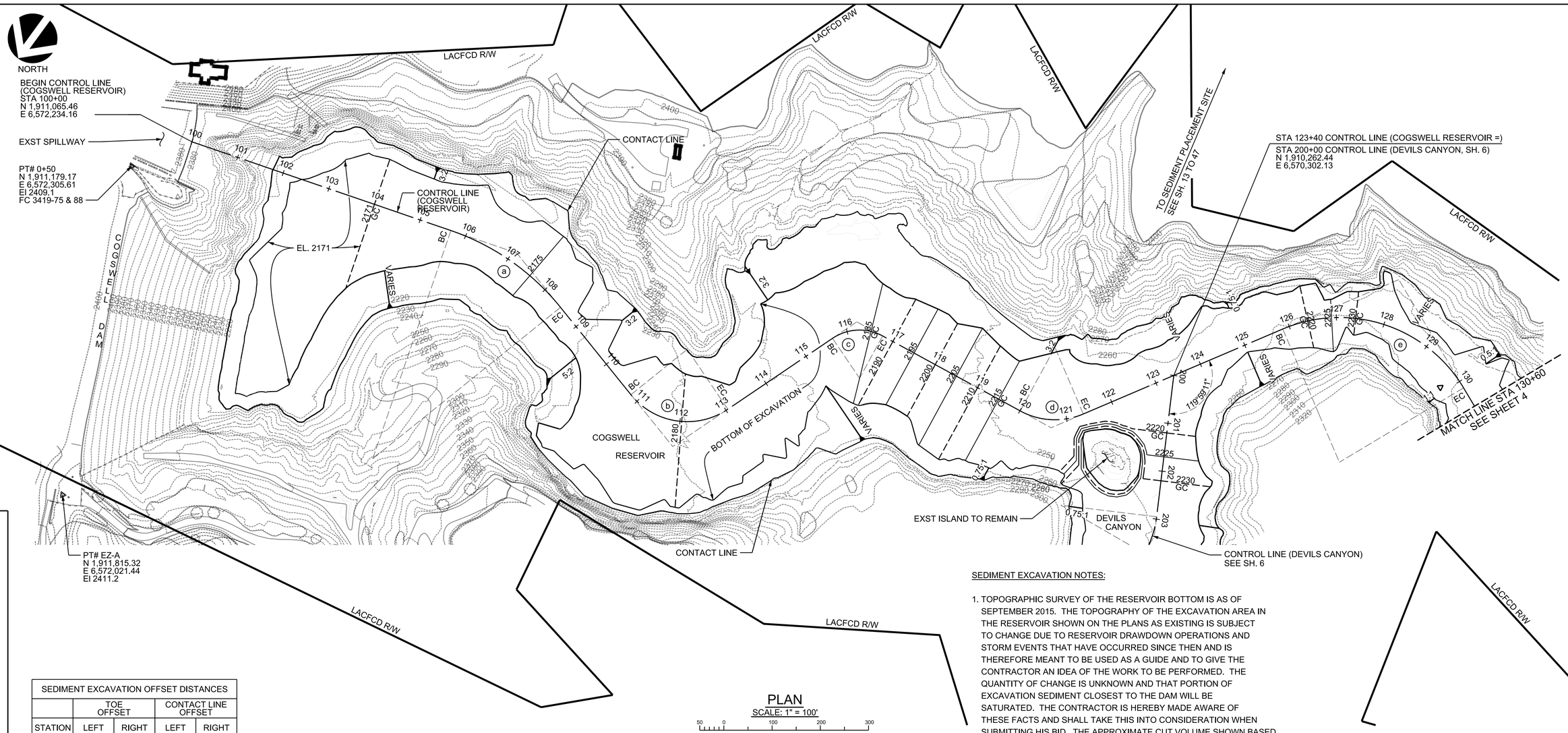
NOTES AND REFERENCES

PROJECT ID NO. WRDM000036

DWG 627-D13.2 | PD053212 | SHEET 2 OF 55

PLAN DR

$TIME$ $FILE$



PLAN
SCALE: 1" = 100'
50 0 100 200 300

SEDIMENT EXCAVATION OFFSET DISTANCES				
	TOE OFFSET		CONTACT LINE OFFSET	
STATION	LEFT	RIGHT	LEFT	RIGHT
103+00	45.5'	450.10'	130.2'	474.6'
106+00	117.9'	61.2'	140.9'	141.1'
109+00	25.7'	44.4'	111.7'	106.8'
112+00	98.9'	177.7'	145.8'	189.8'
115+00	144.3'	73.5'	217.3'	210'
118+00	99.2'	129.8'	173.7'	186'
121+00	136.6'	151.1'	168.3'	-----
124+00	84.8'	67.2'	131.9'	110.1'
127+00	34.3'	64.4'	67.3'	79.2'
130+00	69.1'	66.3'	100.8'	76.9'

NOTES:
1. STATIONS ARE INCREASING UPSTREAM ALONG CONTROL LINE.
2. OFFSETS ARE MEASURED IN FEET PERPENDICULAR TO CONTROL LINE

APPROXIMATE CUT VOLUME SHOWN (BASED ON A PRE-FIRE SURVEY) = 2,398,000 CY (SEE NOTE 5)

APPROXIMATE CUT VOLUME ANTICIPATED = 4,000,000 CY

CONTROL LINE CURVE DATA								
CURVE	RADIUS	CENTRAL ANGLE	LENGTH	TANGENT	PI NORTHING	PI EASTING	BC STA	EC STA
ⓐ	500'	32°12'47"	281.11'	144.38'	1,910,856.83	6,571,553.46	105+67.58	108+48.69
ⓑ	150'	85°13'22"	223.11'	137.99'	1,910,991.61	6,571,056.46	110+81.27	113+04.39
ⓒ	100'	62°40'42"	109.39'	60.89'	1,910,558.33	6,570,899.19	115+66.44	116+75.84
ⓓ	150'	51°38'55"	135.22'	72.59'	1,910,499.50	6,570,444.45	120+00.88	121+36.10
ⓔ	300'	82°09'06"	430.15'	261.48'	1,909,827.78	6,570,041.16	125+85.51	130+15.65

SEDIMENT EXCAVATION NOTES:

1. TOPOGRAPHIC SURVEY OF THE RESERVOIR BOTTOM IS AS OF SEPTEMBER 2015. THE TOPOGRAPHY OF THE EXCAVATION AREA IN THE RESERVOIR SHOWN ON THE PLANS AS EXISTING IS SUBJECT TO CHANGE DUE TO RESERVOIR DRAWDOWN OPERATIONS AND STORM EVENTS THAT HAVE OCCURRED SINCE THEN AND IS THEREFORE MEANT TO BE USED AS A GUIDE AND TO GIVE THE CONTRACTOR AN IDEA OF THE WORK TO BE PERFORMED. THE QUANTITY OF CHANGE IS UNKNOWN AND THAT PORTION OF EXCAVATION SEDIMENT CLOSEST TO THE DAM WILL BE SATURATED. THE CONTRACTOR IS HEREBY MADE AWARE OF THESE FACTS AND SHALL TAKE THIS INTO CONSIDERATION WHEN SUBMITTING HIS BID. THE APPROXIMATE CUT VOLUME SHOWN BASED ON A PRE-FIRE SURVEY = 2,398,000 CUBIC YARDS. THE APPROXIMATE CUT VOLUME ANTICIPATED = 4,000,000 CUBIC YARDS.
2. SIDE SLOPES ARE TO BE CUT FOLLOWING THE NATURAL SLOPE OF THE BANK. STEEP SLOPES ARE PROPOSED AS PART OF THE RESERVOIR CLEANOUT. THE CONTRACTOR'S ENGINEERING GEOLOGIST SHOULD BE PRESENT TO DETERMINE THE STABILITY AND SAFETY OF THESE EXCAVATIONS. ALL WORK SHALL BE SUBJECT TO THE REVIEW OF THE AGENCY'S ENGINEERING GEOLOGIST.
3. PROPOSED SLOPE GRADIENTS ARE APPROXIMATE. EXCAVATIONS SHALL BE PERFORMED TO THE BEDROCK CONTACT. FINAL CONFIGURATION/ SLOPES SHALL BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.
4. ANY EXCAVATIONS INTO BEDROCK SHALL BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.
5. THE EXCAVATION VOLUME REPRESENTED ON THE PLANS REFLECTS THE RESERVOIR "IN-PLACE" VOLUME. THIS VOLUME MAY NOT REFLECT THAT OF THE SAME SEDIMENT PLACED IN THE SPS DUE TO WATER CONTENT, SHRIKAGE, COMPACTION, ETC."

CADD PROJECT FILE NAME WRDM000036.DGN
CHECKER SJ
DESIGNER JOHN NG

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
MAN TAT NG
C 70322
CIVIL
STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

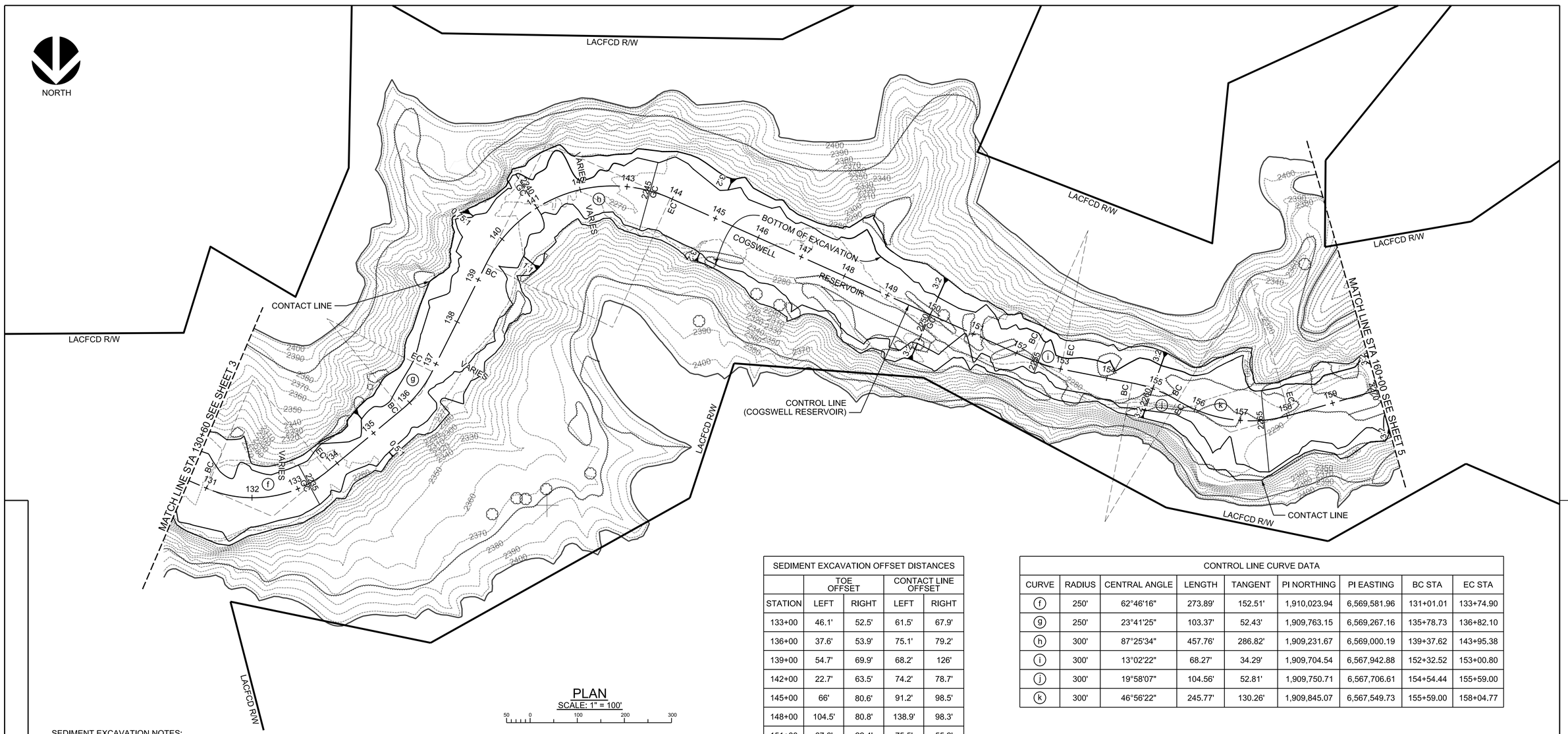
COGSWELL RESERVOIR

EXCAVATION PLAN STA 100+00 TO STA 130+60

PROJECT ID NO. WRDM000036

DWG 627-D13.3 | PD053212 | SHEET 3 OF 55

PLAN DR



PLAN
SCALE: 1" = 100'
50 0 100 200 300

SEDIMENT EXCAVATION NOTES:

1. TOPOGRAPHIC SURVEY OF THE RESERVOIR BOTTOM IS AS OF SEPTEMBER 2015. THE TOPOGRAPHY OF THE EXCAVATION AREA IN THE RESERVOIR SHOWN ON THE PLANS AS EXISTING IS SUBJECT TO CHANGE DUE TO RESERVOIR DRAWDOWN OPERATIONS AND STORM EVENTS THAT HAVE OCCURRED SINCE THEN AND IS THEREFORE MEANT TO BE USED AS A GUIDE AND TO GIVE THE CONTRACTOR AN IDEA OF THE WORK TO BE PERFORMED. THE QUANTITY OF CHANGE IS UNKNOWN AND THAT PORTION OF EXCAVATION SEDIMENT CLOSEST TO THE DAM WILL BE SATURATED. THE CONTRACTOR IS HEREBY MADE AWARE OF THESE FACTS AND SHALL TAKE THIS INTO CONSIDERATION WHEN SUBMITTING HIS BID. THE APPROXIMATE CUT VOLUME SHOWN BASED ON A PRE-FIRE SURVEY = 2,398,000 CUBIC YARDS. THE APPROXIMATE CUT VOLUME ANTICIPATED = 4,000,000 CUBIC YARDS.
2. SIDE SLOPES ARE TO BE CUT FOLLOWING THE NATURAL SLOPE OF THE BANK. STEEP SLOPES ARE PROPOSED AS PART OF THE RESERVOIR CLEANOUT. THE CONTRACTOR'S ENGINEERING GEOLOGIST SHOULD BE PRESENT TO DETERMINE THE STABILITY AND SAFETY OF THESE EXCAVATIONS. ALL WORK SHALL BE SUBJECT TO THE REVIEW OF THE AGENCY'S ENGINEERING GEOLOGIST.
3. PROPOSED SLOPE GRADIENTS ARE APPROXIMATE. EXCAVATIONS SHALL BE PERFORMED TO THE BEDROCK CONTACT. FINAL CONFIGURATION/ SLOPES SHALL BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.
4. ANY EXCAVATIONS INTO BEDROCK NEED TO BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.
5. THE EXCAVATION VOLUME REPRESENTED ON THE PLANS REFLECTS THE RESERVOIR "IN-PLACE" VOLUME. THIS VOLUME MAY NOT REFLECT THAT OF THE SAME SEDIMENT PLACED IN THE SPS DUE TO WATER CONTENT, SHRIKAGE, COMPACTION, ETC."

SEDIMENT EXCAVATION OFFSET DISTANCES				
	TOE OFFSET		CONTACT LINE OFFSET	
STATION	LEFT	RIGHT	LEFT	RIGHT
133+00	46.1'	52.5'	61.5'	67.9'
136+00	37.6'	53.9'	75.1'	79.2'
139+00	54.7'	69.9'	68.2'	126'
142+00	22.7'	63.5'	74.2'	78.7'
145+00	66'	80.6'	91.2'	98.5'
148+00	104.5'	80.8'	138.9'	98.3'
151+00	67.6'	22.4'	75.5'	55.2'
154+00	37.8'	45.3'	72.3'	55.8'
157+00	101.8'	92.7'	154.8'	126.1'
160+00	58.6'	55.2'	75.8'	94.7'

NOTES:
1. STATIONS ARE INCREASING UPSTREAM ALONG CONTROL LINE.
2. OFFSETS ARE MEASURED IN FEET PERPENDICULAR TO CONTROL LINE.

CONTROL LINE CURVE DATA								
CURVE	RADIUS	CENTRAL ANGLE	LENGTH	TANGENT	PI NORTHING	PI EASTING	BC STA	EC STA
ⓕ	250'	62°46'16"	273.89'	152.51'	1,910,023.94	6,569,581.96	131+01.01	133+74.90
ⓖ	250'	23°41'25"	103.37'	52.43'	1,909,763.15	6,569,267.16	135+78.73	136+82.10
ⓗ	300'	87°25'34"	457.76'	286.82'	1,909,231.67	6,569,000.19	139+37.62	143+95.38
ⓘ	300'	13°02'22"	68.27'	34.29'	1,909,704.54	6,567,942.88	152+32.52	153+00.80
ⓙ	300'	19°58'07"	104.56'	52.81'	1,909,750.71	6,567,706.61	154+54.44	155+59.00
ⓚ	300'	46°56'22"	245.77'	130.26'	1,909,845.07	6,567,549.73	155+59.00	158+04.77

APPROXIMATE CUT VOLUME SHOWN (BASED ON A PRE-FIRE SURVEY) = 2,398,000 CY (SEE NOTE 5)

APPROXIMATE CUT VOLUME ANTICIPATED = 4,000,000 CY

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

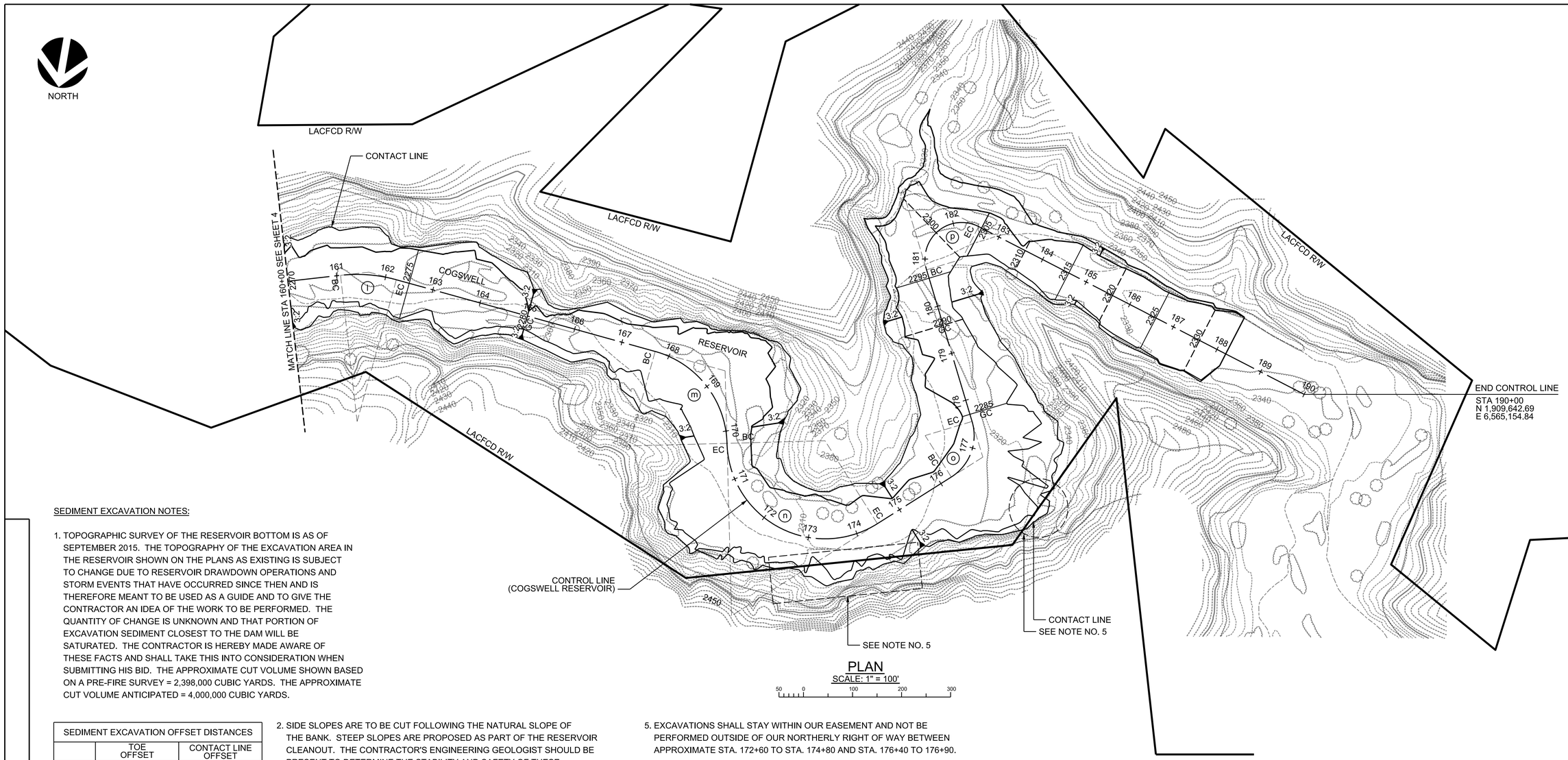
COGSWELL RESERVOIR

EXCAVATION PLAN STA 130+60 TO STA 160+00

PROJECT ID NO. WRDM000036

DWG 627-D13.4	PD053212	SHEET 4 OF 55

PLAN DR



PLAN
SCALE: 1" = 100'

50 0 100 200 300

SEDIMENT EXCAVATION NOTES:

1. TOPOGRAPHIC SURVEY OF THE RESERVOIR BOTTOM IS AS OF SEPTEMBER 2015. THE TOPOGRAPHY OF THE EXCAVATION AREA IN THE RESERVOIR SHOWN ON THE PLANS AS EXISTING IS SUBJECT TO CHANGE DUE TO RESERVOIR DRAWDOWN OPERATIONS AND STORM EVENTS THAT HAVE OCCURRED SINCE THEN AND IS THEREFORE MEANT TO BE USED AS A GUIDE AND TO GIVE THE CONTRACTOR AN IDEA OF THE WORK TO BE PERFORMED. THE QUANTITY OF CHANGE IS UNKNOWN AND THAT PORTION OF EXCAVATION SEDIMENT CLOSEST TO THE DAM WILL BE SATURATED. THE CONTRACTOR IS HEREBY MADE AWARE OF THESE FACTS AND SHALL TAKE THIS INTO CONSIDERATION WHEN SUBMITTING HIS BID. THE APPROXIMATE CUT VOLUME SHOWN BASED ON A PRE-FIRE SURVEY = 2,398,000 CUBIC YARDS. THE APPROXIMATE CUT VOLUME ANTICIPATED = 4,000,000 CUBIC YARDS.

SEDIMENT EXCAVATION OFFSET DISTANCES				
	TOE OFFSET		CONTACT LINE OFFSET	
STATION	LEFT	RIGHT	LEFT	RIGHT
163+00	75.3'	42.2'	96.3'	62.4'
166+00	40.2'	47.3'	45.2'	65.1'
169+00	151.8'	63.7'	156.9'	103.5'
172+00	69.1'	76.7'	95.7'	103.1'
175+00	27.7'	47.9'	64.9'	88'
178+00	26.5'	109.3'	96.1'	130'
181+00	72.1'	68'	86.1'	-----
184+00	45.3'	46.6'	63.9'	60.8'
187+00	60.7'	72.8'	66.1'	75.2'

NOTES:

1. STATIONS ARE INCREASING UPSTREAM ALONG CONTROL LINE.
2. OFFSETS ARE MEASURED IN FEET PERPENDICULAR TO CONTROL LINE.

2. SIDE SLOPES ARE TO BE CUT FOLLOWING THE NATURAL SLOPE OF THE BANK. STEEP SLOPES ARE PROPOSED AS PART OF THE RESERVOIR CLEANOUT. THE CONTRACTOR'S ENGINEERING GEOLOGIST SHOULD BE PRESENT TO DETERMINE THE STABILITY AND SAFETY OF THESE EXCAVATIONS. ALL WORK SHALL BE SUBJECT TO THE REVIEW OF THE AGENCY'S ENGINEERING GEOLOGIST.

3. PROPOSED SLOPE GRADIENTS ARE APPROXIMATE. EXCAVATIONS SHALL BE PERFORMED TO THE BEDROCK CONTACT. FINAL CONFIGURATION/ SLOPES SHALL BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.

4. ANY EXCAVATIONS INTO BEDROCK NEED TO BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.

5. EXCAVATIONS SHALL STAY WITHIN OUR EASEMENT AND NOT BE PERFORMED OUTSIDE OF OUR NORTHERLY RIGHT OF WAY BETWEEN APPROXIMATE STA. 172+60 TO STA. 174+80 AND STA. 176+40 TO 176+90.

6. THE EXCAVATION VOLUME REPRESENTED ON THE PLANS REFLECTS THE RESERVOIR "IN-PLACE" VOLUME. THIS VOLUME MAY NOT REFLECT THAT OF THE SAME SEDIMENT PLACED IN THE SPS DUE TO WATER CONTENT, SHRIKAGE, COMPACTION, ETC."

CONTROL LINE CURVE DATA								
CURVE	RADIUS	CENTRAL ANGLE	LENGTH	TANGENT	PI NORTHING	PI EASTING	BC STA	EC STA
(l)	300'	21°56'33"	114.89'	58.16'	1,909,710.30	6,567,077.05	161+07.88	162+22.77
(m)	200'	72°59'49"	254.81'	147.98'	1,909,789.46	6,566,327.45	167+70.39	170+25.20
(n)	200'	120°45'39"	421.54'	351.78'	1,910,280.09	6,566,232.31	170+25.20	174+46.73
(o)	100'	74°26'07"	129.91'	75.95'	1,909,876.73	6,565,780.16	176+24.92	177+54.83
(p)	75'	133°59'05"	175.39'	176.62'	1,909,360.19	6,566,034.00	180+77.80	182+53.19

APPROXIMATE CUT VOLUME SHOWN (BASED ON A PRE-FIRE SURVEY) = 2,398,000 CY (SEE NOTE 6)

APPROXIMATE CUT VOLUME ANTICIPATED = 4,000,000 CY

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

COGSWELL RESERVOIR

EXCAVATION PLAN STA 160+00 TO STA 190+80

PROJECT ID NO. WRDM000036

DWG 627-D13.5 | PD053212 | SHEET 5 OF 55

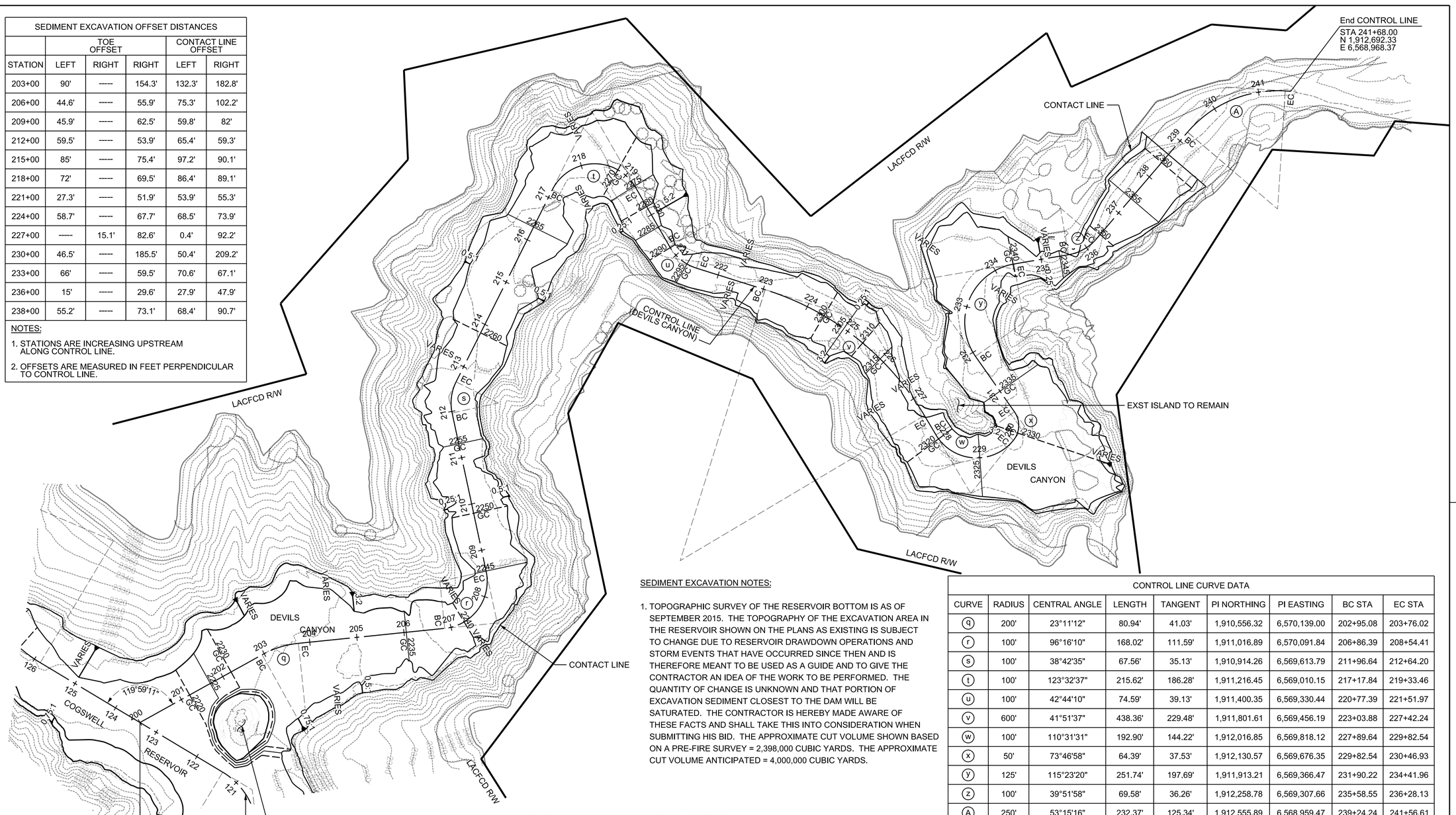
PLAN DR

NORTH

SEDIMENT EXCAVATION OFFSET DISTANCES					
	TOE OFFSET			CONTACT LINE OFFSET	
STATION	LEFT	RIGHT	RIGHT	LEFT	RIGHT
203+00	90'	-----	154.3'	132.3'	182.8'
206+00	44.6'	-----	55.9'	75.3'	102.2'
209+00	45.9'	-----	62.5'	59.8'	82'
212+00	59.5'	-----	53.9'	65.4'	59.3'
215+00	85'	-----	75.4'	97.2'	90.1'
218+00	72'	-----	69.5'	86.4'	89.1'
221+00	27.3'	-----	51.9'	53.9'	55.3'
224+00	58.7'	-----	67.7'	68.5'	73.9'
227+00	-----	15.1'	82.6'	0.4'	92.2'
230+00	46.5'	-----	185.5'	50.4'	209.2'
233+00	66'	-----	59.5'	70.6'	67.1'
236+00	15'	-----	29.6'	27.9'	47.9'
238+00	55.2'	-----	73.1'	68.4'	90.7'

NOTES:

1. STATIONS ARE INCREASING UPSTREAM ALONG CONTROL LINE.
2. OFFSETS ARE MEASURED IN FEET PERPENDICULAR TO CONTROL LINE.



PLAN
SCALE: 1" = 100'
50 0 100 200 300

SEDIMENT EXCAVATION NOTES:

1. TOPOGRAPHIC SURVEY OF THE RESERVOIR BOTTOM IS AS OF SEPTEMBER 2015. THE TOPOGRAPHY OF THE EXCAVATION AREA IN THE RESERVOIR SHOWN ON THE PLANS AS EXISTING IS SUBJECT TO CHANGE DUE TO RESERVOIR DRAWDOWN OPERATIONS AND STORM EVENTS THAT HAVE OCCURRED SINCE THEN AND IS THEREFORE MEANT TO BE USED AS A GUIDE AND TO GIVE THE CONTRACTOR AN IDEA OF THE WORK TO BE PERFORMED. THE QUANTITY OF CHANGE IS UNKNOWN AND THAT PORTION OF EXCAVATION SEDIMENT CLOSEST TO THE DAM WILL BE SATURATED. THE CONTRACTOR IS HEREBY MADE AWARE OF THESE FACTS AND SHALL TAKE THIS INTO CONSIDERATION WHEN SUBMITTING HIS BID. THE APPROXIMATE CUT VOLUME SHOWN BASED ON A PRE-FIRE SURVEY = 2,398,000 CUBIC YARDS. THE APPROXIMATE CUT VOLUME ANTICIPATED = 4,000,000 CUBIC YARDS.
2. SIDE SLOPES ARE TO BE CUT FOLLOWING THE NATURAL SLOPE OF THE BANK. STEEP SLOPES ARE PROPOSED AS PART OF THE RESERVOIR CLEANOUT. THE CONTRACTOR'S ENGINEERING GEOLOGIST SHOULD BE PRESENT TO DETERMINE THE STABILITY AND SAFETY OF THESE EXCAVATIONS. ALL WORK SHALL BE SUBJECT TO THE REVIEW OF THE AGENCY'S ENGINEERING GEOLOGIST.
3. PROPOSED SLOPE GRADIENTS ARE APPROXIMATE. EXCAVATIONS SHALL BE PERFORMED TO THE BEDROCK CONTACT. FINAL CONFIGURATION/ SLOPES SHALL BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.
4. ANY EXCAVATIONS INTO BEDROCK NEED TO BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.
5. THE EXCAVATION VOLUME REPRESENTED ON THE PLANS REFLECTS THE RESERVOIR "IN-PLACE" VOLUME. THIS VOLUME MAY NOT REFLECT THAT OF THE SAME SEDIMENT PLACED IN THE SPS DUE TO WATER CONTENT, SHRIKAGE, COMPACTION, ETC."

CONTROL LINE CURVE DATA								
CURVE	RADIUS	CENTRAL ANGLE	LENGTH	TANGENT	PI NORTHING	PI EASTING	BC STA	EC STA
(q)	200'	23°11'12"	80.94'	41.03'	1,910,556.32	6,570,139.00	202+95.08	203+76.02
(r)	100'	96°16'10"	168.02'	111.59'	1,911,016.89	6,570,091.84	206+86.39	208+54.41
(s)	100'	38°42'35"	67.56'	35.13'	1,910,914.26	6,569,613.79	211+96.64	212+64.20
(t)	100'	123°32'37"	215.62'	186.28'	1,911,216.45	6,569,010.15	217+17.84	219+33.46
(u)	100'	42°44'10"	74.59'	39.13'	1,911,400.35	6,569,330.44	220+77.39	221+51.97
(v)	600'	41°51'37"	438.36'	229.48'	1,911,801.61	6,569,456.19	223+03.88	227+42.24
(w)	100'	110°31'31"	192.90'	144.22'	1,912,016.85	6,569,818.12	227+89.64	229+82.54
(x)	50'	73°46'58"	64.39'	37.53'	1,912,130.57	6,569,676.35	229+82.54	230+46.93
(y)	125'	115°23'20"	251.74'	197.69'	1,911,913.21	6,569,366.47	231+90.22	234+41.96
(z)	100'	39°51'58"	69.58'	36.26'	1,912,258.78	6,569,307.66	235+58.55	236+28.13
(A)	250'	53°15'16"	232.37'	125.34'	1,912,555.89	6,568,959.47	239+24.24	241+56.61

APPROXIMATE CUT VOLUME SHOWN (BASED ON A PRE-FIRE SURVEY) = 2,398,000 CY (SEE NOTE 5)

APPROXIMATE CUT VOLUME ANTICIPATED = 4,000,000 CY

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

DEVILS CANYON

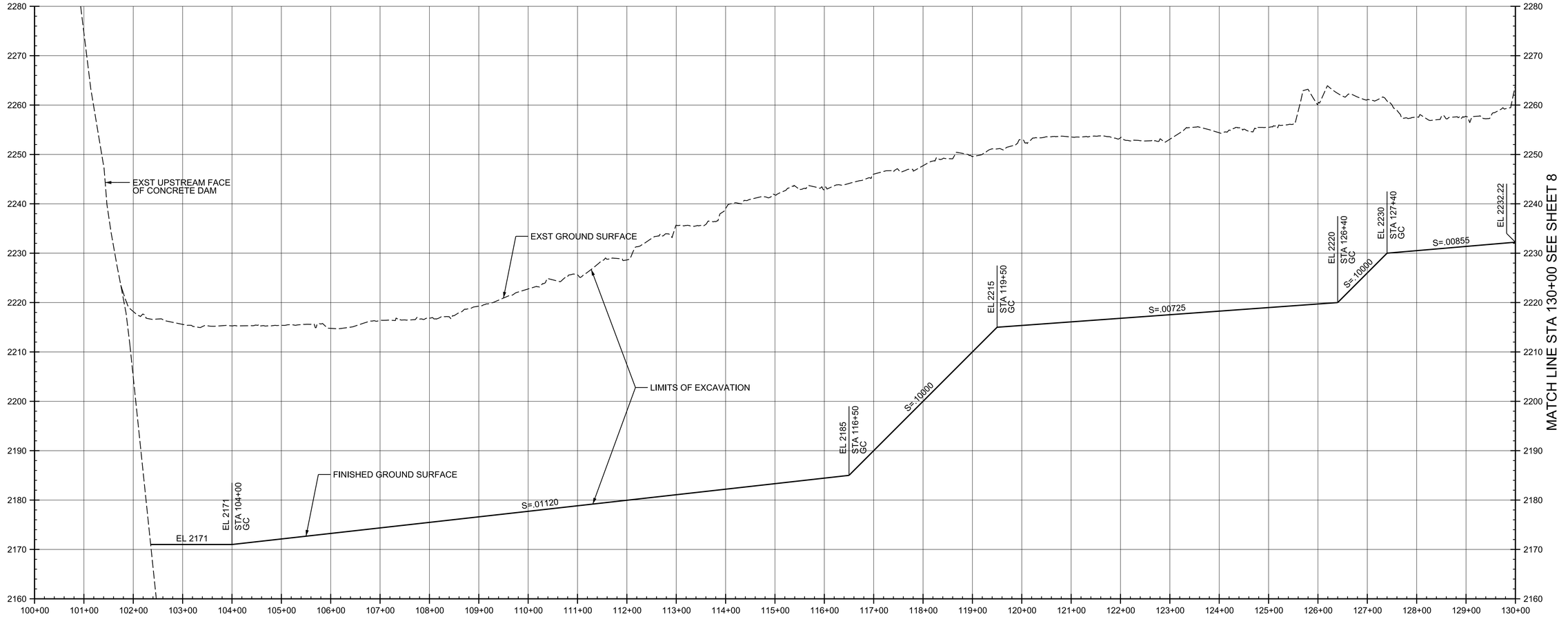
EXCAVATION PLAN STA 200+00 TO STA 241+68

PROJECT ID NO. WRDM000036

DWG 627-D13.6 | PD053212 | SHEET 6 OF 55

CADD PROJECT FILE NAME WRDM000036.DGN
CHECKER SJ
DESIGNER JOHN NG

PLAN DR



PROFILE ALONG CONTROL LINE (COGSWELL RESERVOIR) (SH 3)

SCALE: HOR 1" = 100'
VERT 1" = 10'

SEDIMENT EXCAVATION NOTES:

1. TOPOGRAPHIC SURVEY OF THE RESERVOIR BOTTOM IS AS OF SEPTEMBER 2015. THE TOPOGRAPHY OF THE EXCAVATION AREA IN THE RESERVOIR SHOWN ON THE PLANS AS EXISTING IS SUBJECT TO CHANGE DUE TO RESERVOIR DRAWDOWN OPERATIONS AND STORM EVENTS THAT HAVE OCCURRED SINCE THEN AND IS THEREFORE MEANT TO BE USED AS A GUIDE AND TO GIVE THE CONTRACTOR AN IDEA OF THE WORK TO BE PERFORMED. THE QUANTITY OF CHANGE IS UNKNOWN AND THAT PORTION OF EXCAVATION SEDIMENT CLOSEST TO THE DAM WILL BE SATURATED. THE CONTRACTOR IS HEREBY MADE AWARE OF THESE FACTS AND SHALL TAKE THIS INTO CONSIDERATION WHEN SUBMITTING HIS BID. THE APPROXIMATE CUT VOLUME SHOWN BASED ON A PRE-FIRE SURVEY = 2,398,000 CUBIC YARDS. THE APPROXIMATE CUT VOLUME ANTICIPATED = 4,000,000 CUBIC YARDS.
THE EXCAVATION VOLUME REPRESENTED ON THE PLANS REFLECTS THE RESERVOIR "IN-PLACE" VOLUME. THIS VOLUME MAY NOT REFLECT THAT OF THE SAME SEDIMENT PLACED IN THE SPS DUE TO WATER CONTENT, SHRIKAGE, COMPACTION, ETC."

2. SIDE SLOPES ARE TO BE CUT FOLLOWING THE NATURAL SLOPE OF THE BANK. STEEP SLOPES ARE PROPOSED AS PART OF THE RESERVOIR CLEANOUT. THE CONTRACTOR'S ENGINEERING GEOLOGIST SHOULD BE PRESENT TO DETERMINE THE STABILITY AND SAFETY OF THESE EXCAVATIONS. ALL WORK SHALL BE SUBJECT TO THE REVIEW OF THE AGENCY'S ENGINEERING GEOLOGIST.

3. PROPOSED SLOPE GRADIENTS ARE APPROXIMATE. EXCAVATIONS SHALL BE PERFORMED TO THE BEDROCK CONTACT. FINAL CONFIGURATION/ SLOPES SHALL BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.

4. ANY EXCAVATIONS INTO BEDROCK NEED TO BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

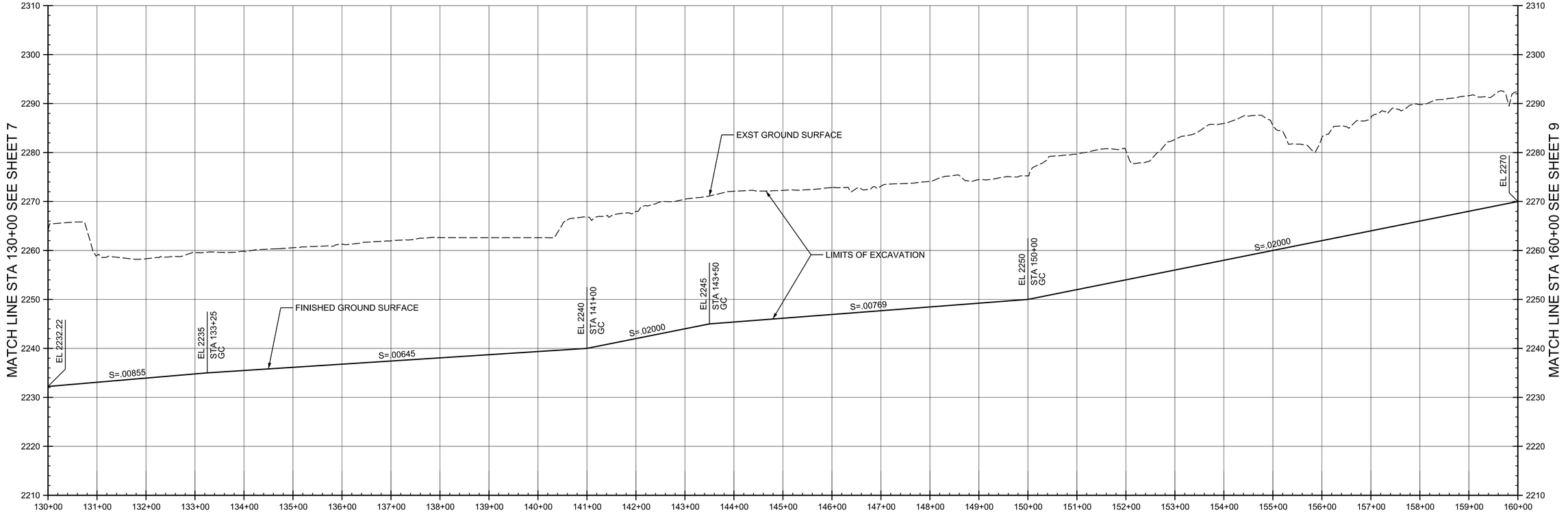
COGSWELL RESERVOIR

EXCAVATION PROFILE STA 100+00 TO STA 130+00

PROJECT ID NO. WRDM000036

DWG 627-D13.7	PD053212	SHEET 7 OF 55

PLAN DR



SEDIMENT EXCAVATION NOTES:

1. TOPOGRAPHIC SURVEY OF THE RESERVOIR BOTTOM IS AS OF SEPTEMBER 2015. THE TOPOGRAPHY OF THE EXCAVATION AREA IN THE RESERVOIR SHOWN ON THE PLANS AS EXISTING IS SUBJECT TO CHANGE DUE TO RESERVOIR DRAWDOWN OPERATIONS AND STORM EVENTS THAT HAVE OCCURRED SINCE THEN AND IS THEREFORE MEANT TO BE USED AS A GUIDE AND TO GIVE THE CONTRACTOR AN IDEA OF THE WORK TO BE PERFORMED. THE QUANTITY OF CHANGE IS UNKNOWN AND THAT PORTION OF EXCAVATION SEDIMENT CLOSEST TO THE DAM WILL BE SATURATED. THE CONTRACTOR IS HEREBY MADE AWARE OF THESE FACTS AND SHALL TAKE THIS INTO CONSIDERATION WHEN SUBMITTING HIS BID. THE APPROXIMATE CUT VOLUME SHOWN BASED ON A PRE-FIRE SURVEY = 2,398,000 CUBIC YARDS. THE APPROXIMATE CUT VOLUME ANTICIPATED = 4,000,000 CUBIC YARDS.
   THE EXCAVATION VOLUME REPRESENTED ON THE PLANS REFLECTS THE RESERVOIR "IN-PLACE" VOLUME. THIS VOLUME MAY NOT REFLECT THAT OF THE SAME SEDIMENT PLACED IN THE SPS DUE TO WATER CONTENT, SHRIKAGE, COMPACTION, ETC."

2. SIDE SLOPES ARE TO BE CUT FOLLOWING THE NATURAL SLOPE OF THE BANK. STEEP SLOPES ARE PROPOSED AS PART OF THE RESERVOIR CLEANOUT. THE CONTRACTOR'S ENGINEERING GEOLOGIST SHOULD BE PRESENT TO DETERMINE THE STABILITY AND SAFETY OF THESE EXCAVATIONS. ALL WORK SHALL BE SUBJECT TO THE REVIEW OF THE AGENCY'S ENGINEERING GEOLOGIST.

3. PROPOSED SLOPE GRADIENTS ARE APPROXIMATE. EXCAVATIONS SHALL BE PERFORMED TO THE BEDROCK CONTACT. FINAL CONFIGURATION/ SLOPES SHALL BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.

4. ANY EXCAVATIONS INTO BEDROCK NEED TO BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.

PROFILE ALONG CONTROL LINE (COGSWELL RESERVOIR) (SH 3 & 4)

SCALE: HOR 1" = 100'
VERT 1" = 10'

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER MAN TAT NG C 70322 CIVIL STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

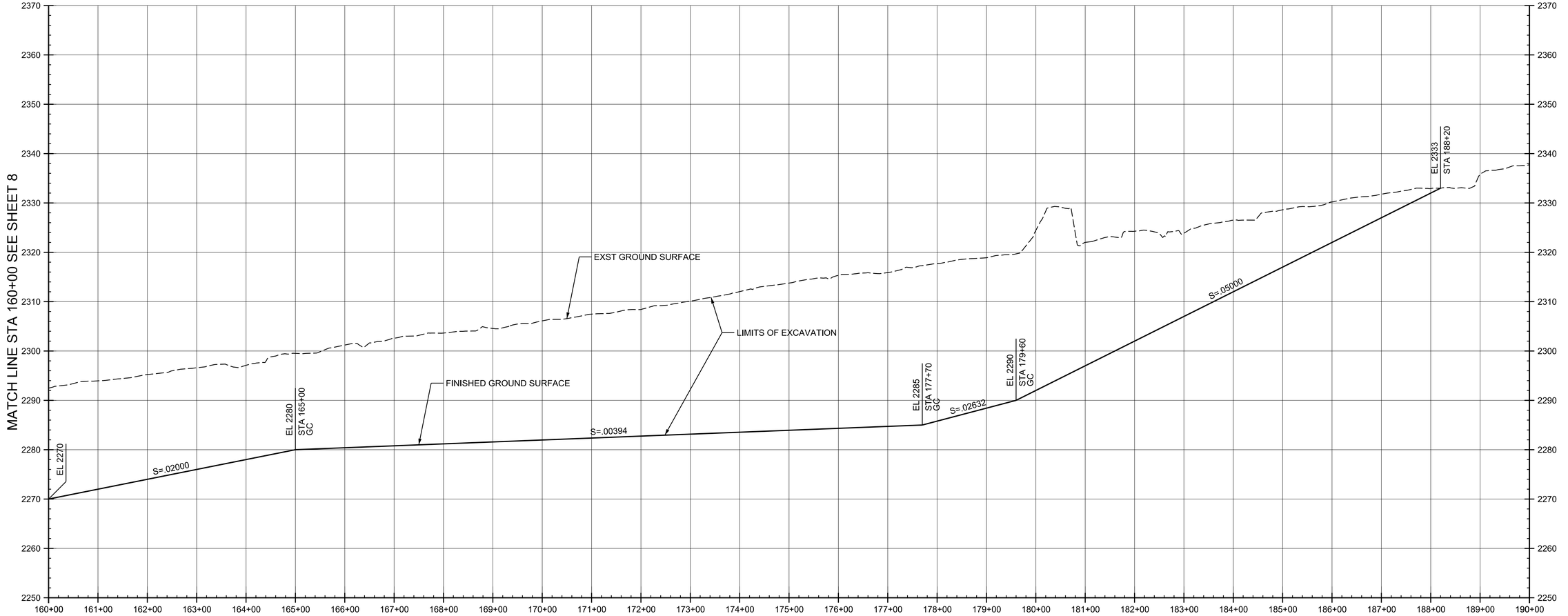
COGSWELL RESERVOIR

EXCAVATION PROFILE STA 130+00 TO STA 160+00

PROJECT ID NO. WRDM000036

DWG 627-D13.8 | PD053212 | SHEET 8 OF 55

PLAN DR



PROFILE ALONG CONTROL LINE (COGSWELL RESERVOIR) (SH 5)

SCALE: HOR 1" = 100'
VERT 1" = 10'

SEDIMENT EXCAVATION NOTES:

1. TOPOGRAPHIC SURVEY OF THE RESERVOIR BOTTOM IS AS OF SEPTEMBER 2015. THE TOPOGRAPHY OF THE EXCAVATION AREA IN THE RESERVOIR SHOWN ON THE PLANS AS EXISTING IS SUBJECT TO CHANGE DUE TO RESERVOIR DRAWDOWN OPERATIONS AND STORM EVENTS THAT HAVE OCCURRED SINCE THEN AND IS THEREFORE MEANT TO BE USED AS A GUIDE AND TO GIVE THE CONTRACTOR AN IDEA OF THE WORK TO BE PERFORMED. THE QUANTITY OF CHANGE IS UNKNOWN AND THAT PORTION OF EXCAVATION SEDIMENT CLOSEST TO THE DAM WILL BE SATURATED. THE CONTRACTOR IS HEREBY MADE AWARE OF THESE FACTS AND SHALL TAKE THIS INTO CONSIDERATION WHEN SUBMITTING HIS BID. THE APPROXIMATE CUT VOLUME SHOWN BASED ON A PRE-FIRE SURVEY = 2,398,000 CUBIC YARDS. THE APPROXIMATE CUT VOLUME ANTICIPATED = 4,000,000 CUBIC YARDS.
THE EXCAVATION VOLUME REPRESENTED ON THE PLANS REFLECTS THE RESERVOIR "IN-PLACE" VOLUME. THIS VOLUME MAY NOT REFLECT THAT OF THE SAME SEDIMENT PLACED IN THE SPS DUE TO WATER CONTENT, SHRIKAGE, COMPACTION, ETC."

2. SIDE SLOPES ARE TO BE CUT FOLLOWING THE NATURAL SLOPE OF THE BANK. STEEP SLOPES ARE PROPOSED AS PART OF THE RESERVOIR CLEANOUT. THE CONTRACTOR'S ENGINEERING GEOLOGIST SHOULD BE PRESENT TO DETERMINE THE STABILITY AND SAFETY OF THESE EXCAVATIONS. ALL WORK SHALL BE SUBJECT TO THE REVIEW OF THE AGENCY'S ENGINEERING GEOLOGIST.

3. PROPOSED SLOPE GRADIENTS ARE APPROXIMATE. EXCAVATIONS SHALL BE PERFORMED TO THE BEDROCK CONTACT. FINAL CONFIGURATION/ SLOPES SHALL BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.

4. ANY EXCAVATIONS INTO BEDROCK NEED TO BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

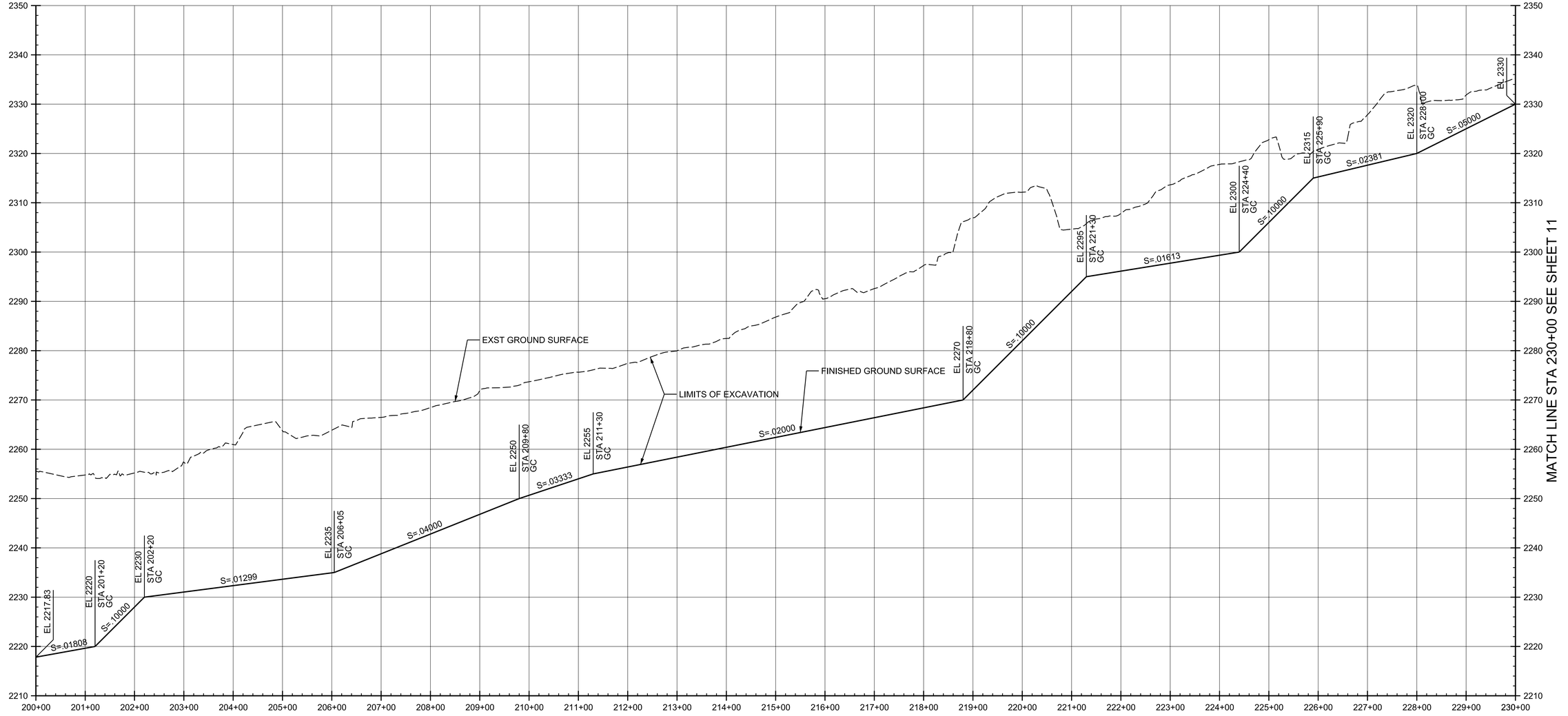
COGSWELL RESERVOIR

EXCAVATION PROFILE STA 160+00 TO STA 190+00

PROJECT ID NO. WRDM000036

DWG 627-D13.9 | PD053212 | SHEET 9 OF 55

PLAN DR



MATCH LINE STA 230+00 SEE SHEET 11

PROFILE ALONG CONTROL LINE (DEVILS CANYON) (SH 6)

SCALE: HOR 1" = 100'
VERT 1" = 10'

SEDIMENT EXCAVATION NOTES:

1. TOPOGRAPHIC SURVEY OF THE RESERVOIR BOTTOM IS AS OF SEPTEMBER 2015. THE TOPOGRAPHY OF THE EXCAVATION AREA IN THE RESERVOIR SHOWN ON THE PLANS AS EXISTING IS SUBJECT TO CHANGE DUE TO RESERVOIR DRAWDOWN OPERATIONS AND STORM EVENTS THAT HAVE OCCURRED SINCE THEN AND IS THEREFORE MEANT TO BE USED AS A GUIDE AND TO GIVE THE CONTRACTOR AN IDEA OF THE WORK TO BE PERFORMED. THE QUANTITY OF CHANGE IS UNKNOWN AND THAT PORTION OF EXCAVATION SEDIMENT CLOSEST TO THE DAM WILL BE SATURATED. THE CONTRACTOR IS HEREBY MADE AWARE OF THESE FACTS AND SHALL TAKE THIS INTO CONSIDERATION WHEN SUBMITTING HIS BID. THE APPROXIMATE CUT VOLUME SHOWN BASED ON A PRE-FIRE SURVEY = 2,398,000 CUBIC YARDS. THE APPROXIMATE CUT VOLUME ANTICIPATED = 4,000,000 CUBIC YARDS.
THE EXCAVATION VOLUME REPRESENTED ON THE PLANS REFLECTS THE RESERVOIR "IN-PLACE" VOLUME. THIS VOLUME MAY NOT REFLECT THAT OF THE SAME SEDIMENT PLACED IN THE SPS DUE TO WATER CONTENT, SHRIKAGE, COMPACTION, ETC."

2. SIDE SLOPES ARE TO BE CUT FOLLOWING THE NATURAL SLOPE OF THE BANK. STEEP SLOPES ARE PROPOSED AS PART OF THE RESERVOIR CLEANOUT. THE CONTRACTOR'S ENGINEERING GEOLOGIST SHOULD BE PRESENT TO DETERMINE THE STABILITY AND SAFETY OF THESE EXCAVATIONS. ALL WORK SHALL BE SUBJECT TO THE REVIEW OF THE AGENCY'S ENGINEERING GEOLOGIST.

3. PROPOSED SLOPE GRADIENTS ARE APPROXIMATE. EXCAVATIONS SHALL BE PERFORMED TO THE BEDROCK CONTACT. FINAL CONFIGURATION/ SLOPES SHALL BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.

4. ANY EXCAVATIONS INTO BEDROCK NEED TO BE APPROVED BY THE AGENCY'S ENGINEERING GEOLOGIST.

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER MAN TAT NG C 70322 CIVIL STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

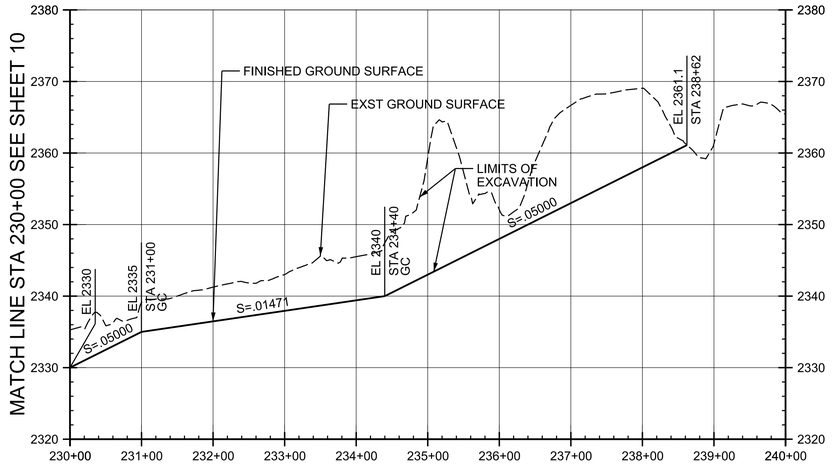
DEVILS CANYON

EXCAVATION PROFILE STA 200+00 TO STA 230+00

PROJECT ID NO. WRDM000036

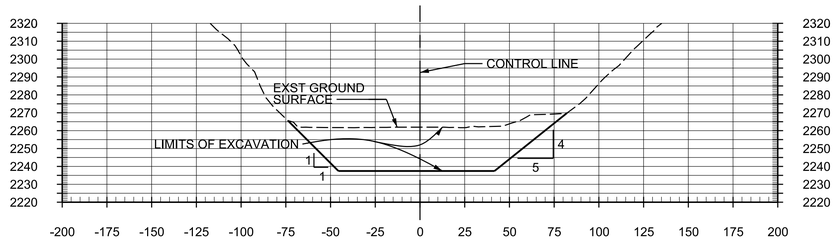
DWG 627-D13.10	PD053212	SHEET 10 OF 55

PLAN DR



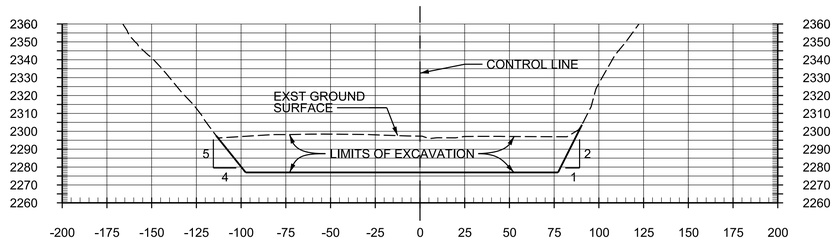
PROFILE ALONG CONTROL LINE

DEVILS CANYON
SCALE: HOR 1" = 100'
VERT 1" = 10'



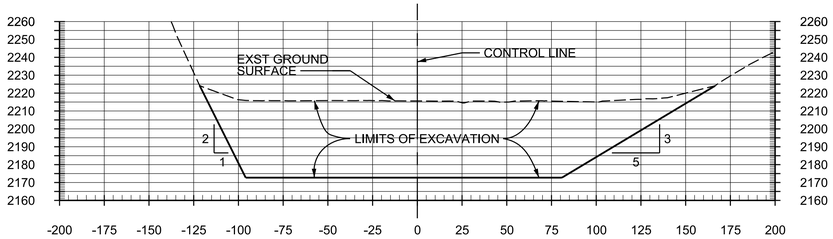
SECTION AT STA 137+00

COGSWELL RESERVOIR
SCALE: HOR 1" = 40'
VERT 1" = 40'



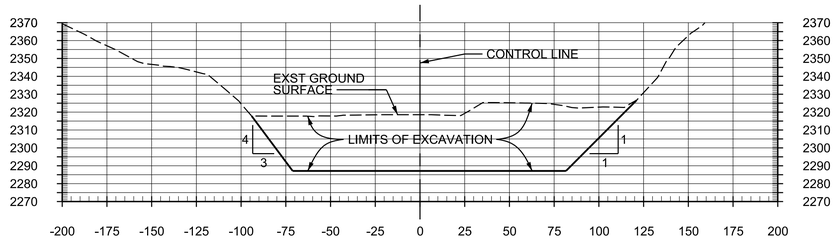
SECTION AT STA 163+50

COGSWELL RESERVOIR
SCALE: HOR 1" = 40'
VERT 1" = 40'



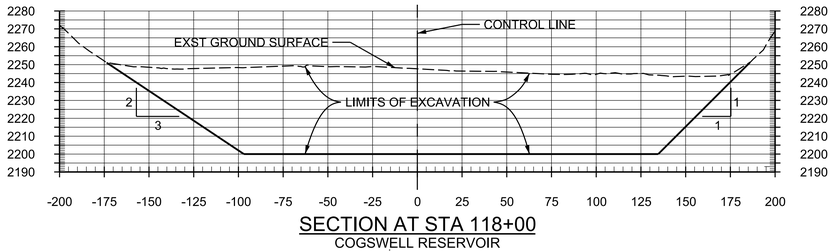
SECTION AT STA 105+50

COGSWELL RESERVOIR
SCALE: HOR 1" = 40'
VERT 1" = 40'



SECTION AT STA 178+50

COGSWELL RESERVOIR
SCALE: HOR 1" = 40'
VERT 1" = 40'



SECTION AT STA 118+00

COGSWELL RESERVOIR
SCALE: HOR 1" = 40'
VERT 1" = 40'

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — Jan 20, 2021

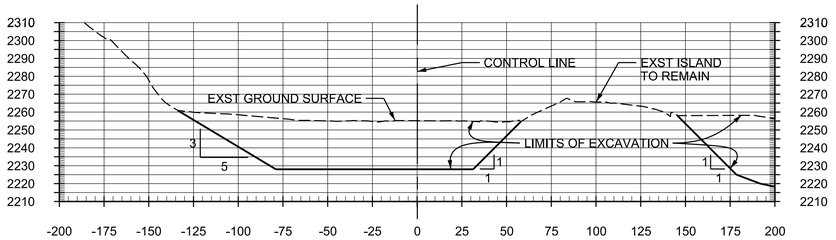
LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

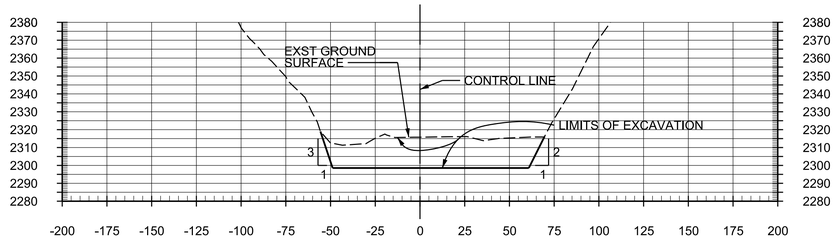
DEVILS CANYON EXCAVATION PROFILE
STA 230+00 TO 240+00 AND
COGSWELL RESERVOIR CROSS SECTIONS
PROJECT ID NO. WRDM000036

DWG 627-D13.11 | PD053212 | SHEET 11 OF 55

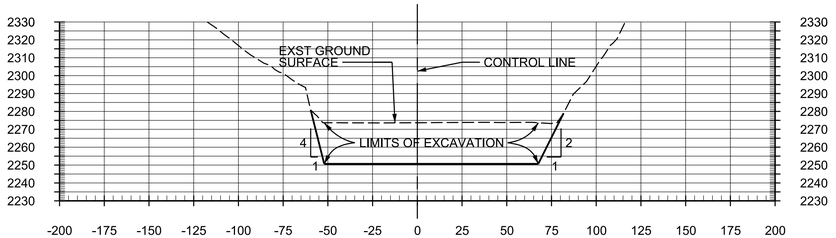
PLAN DR



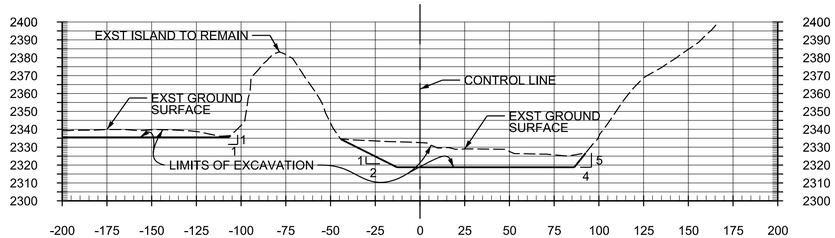
SECTION AT STA 202+00
DEVILS CANYON
SCALE: HOR 1" = 40'
VERT 1" = 40'



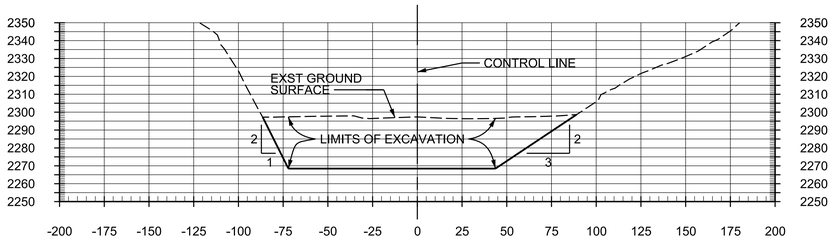
SECTION AT STA 223+50
DEVILS CANYON
SCALE: HOR 1" = 40'
VERT 1" = 40'



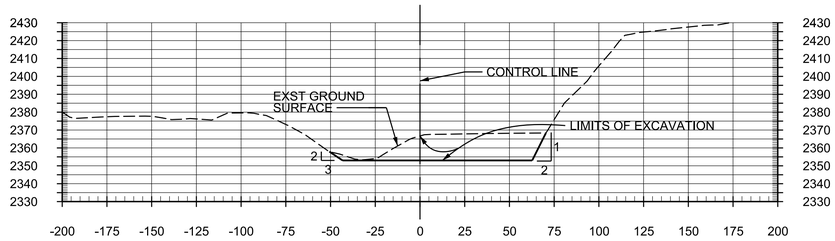
SECTION AT STA 210+00
DEVILS CANYON
SCALE: HOR 1" = 40'
VERT 1" = 40'



SECTION AT STA 227+50
DEVILS CANYON
SCALE: HOR 1" = 40'
VERT 1" = 40'



SECTION AT STA 218+00
DEVILS CANYON
SCALE: HOR 1" = 40'
VERT 1" = 40'



SECTION AT STA 237+00
DEVILS CANYON
SCALE: HOR 1" = 40'
VERT 1" = 40'

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER MAN TAT NG C 70322 CIVIL STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

DEVILS CANYON

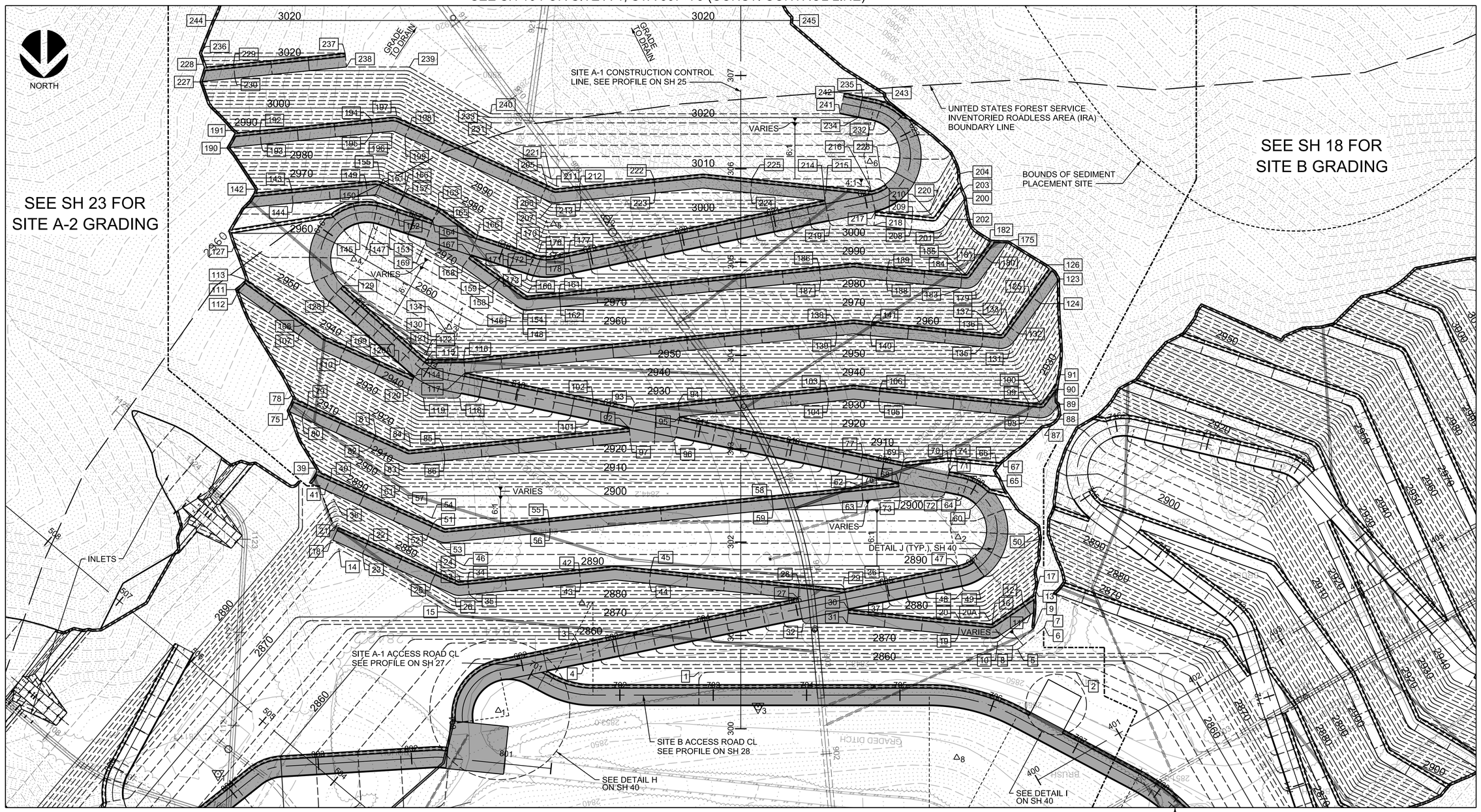
CROSS SECTIONS

PROJECT ID NO. WRDM000036

DWG 627-D13.12 | PD053212 | SHEET 12 OF 55

PLAN DR

SEE SH 16 FOR SITE A-1, STA 307+75 (CONST. CONTROL LINE)



NOTES:

1. SEE SEDIMENT PLACEMENT SITE A-1 SITE GRADING CONTROL POINTS' COORDINATES, ACCESS ROAD CONSTRUCTION CURVE DATA AND CONSTRUCTION CONTROL LINE'S COORDINATES ON SHEET 14.
2. SEE SEDIMENT PLACEMENT SITE A-1 DRAINAGE PLAN ON SHEETS 15 AND 16.
3. SEE ACCESS ROAD LANDING GUTTER CONFIGURATION SAMPLES ON SHEET 43.

4. SEDIMENT PLACEMENT SITE DESIGN PARAMETERS:

FILL VOLUME = APPROX. 1,520,000 CUBIC YARDS
MAX FACE SLOPE = 2H : 1V
MAX ACCESS ROAD LONGITUDINAL SLOPE = 10%
MAX BENCH (15' W) LONGITUDINAL SLOPE = 5%
MIN BENCH (15' W) LONGITUDINAL SLOPE = 1 TO 2 %
BENCHES ARE CONSTRUCTED EVERY 30 VERTICAL FEET OR LESS
ACCESS ROAD MIN CURVE RADIUS = 50 FEET

5. SURVEY CONTROLS:

▽1 PT# 1004 PHOTO ID# 3
N/E COR. CONC. INLET STRUCT.
N 1,908,128.488
E 6,571,339.921
EL 2820.74
FC 3419-107

▽2 PT# 1005 PHOTO ID# 1
ON TOP OF N/W COR.
OF TRASH RACK
N 1,907,533.681
E 6,570,923.521
EL 2850.07
FC 3419-107

▽3 PT. GREG
N 1,908,056.4358
E 6,570,761.5091
EL=2853.03

PLAN
SCALE: 1" = 50'
25 0 50 100

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION
		REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE A-1

SITE GRADING CONTROL POINTS

PROJECT ID NO. WRDM000036

DWG 627-D13.13 | PD053212 | SHEET 13 OF 55

PLAN DR

SITE A-1 GRADING COORDINATES TABLE				
POINT NO.	ELEV.	NORTHING	EASTING	REMARK*
1	2854	1908019.32	6570824.93	10'
2	2854	1908019.32	6570421.04	10'
3	2856	1907988.21	6570953.88	———
4	2856	1908015.32	6570948.35	6'
5	2866	1907995.32	6570483.26	10'
6	2866	1907971.33	6570454.66	10'
7	2866	1907964.63	6570452.62	———
8	2868	1907991.32	6570488.74	10'
9	2868	1907972.16	6570465.91	———
10	2870	1907987.32	6570504.98	10'
11	2870	1907957.53	6570469.47	———
12	2870	1907945.13	6570477.92	———
13	2870	1907933.07	6570463.55	———
14	2872	1907886.76	6571210.54	10'
15	2872	1907956.21	6571090.26	10'
16	2872	1907967.49	6570510.78	———
17	2872	1907926.58	6570462.03	———
18	2874	1907877.56	6571218.48	10'
19	2874	1907979.32	6570546.79	———
20	2874	1907964.40	6570545.29	———
20A	2874	1907964.40	6570513.32	10'
21	2876	1907859.49	6571211.94	10'
22	2876	1907878.57	6571178.89	———
23	2876	1907892.24	6571185.05	———
24	2880	1907911.44	6571105.96	———
25	2880	1907925.11	6571112.12	———
26	2880	1907940.21	6571085.97	10'
27	2880	1907940.21	6570718.73	———
28	2880	1907925.28	6570717.23	———
29	2880	1907925.28	6570670.22	6'
30	2880	1907952.40	6570664.69	———
31	2880	1907967.32	6570666.19	———
32	2880	1907967.32	6570713.19	6'
33	2882	1907921.28	6571080.90	10'
34	2882	1907921.28	6571072.35	———
35	2882	1907936.21	6571070.85	———
36	2882	1907921.28	6570626.02	———
37	2882	1907948.40	6570620.48	6'
38	2886	1907833.77	6571216.47	10'
39	2888	1907800.75	6571235.81	———
40	2888	1907810.56	6571218.83	———
41	2888	1907824.24	6571224.99	———
42	2888	1907909.28	6570952.95	———
43	2888	1907924.21	6570951.45	———
44	2888	1907924.21	6570877.93	———
45	2888	1907909.28	6570876.43	———
46	2890	1907905.28	6571076.61	10'
47	2890	1907905.28	6570547.63	———
48	2890	1907932.40	6570542.10	6'
49	2890	1907932.40	6570524.97	10'
50	2890	1907876.13	6570457.92	———
51	2894	1907859.87	6571109.43	———
52	2894	1907873.54	6571115.59	———
53	2894	1907881.28	6571102.18	10'
54	2896	1907854.36	6571110.97	10'
55	2896	1907854.36	6570985.61	———
56	2896	1907869.28	6570984.11	———
57	2900	1907830.36	6571136.54	10'
58	2900	1907830.36	6570746.82	———
59	2900	1907845.28	6570745.32	———
60	2900	1907845.28	6570534.03	10'
61	2902	1907820.69	6571145.28	10'
62	2902	1907820.69	6570650.64	———
63	2902	1907835.62	6570649.14	———
64	2902	1907835.62	6570544.40	6'
65	2902	1907809.41	6570508.02	———
66	2902	1907794.48	6570506.52	———
67	2902	1907794.48	6570499.00	———
68	2904	1907816.69	6570610.84	———
69	2904	1907789.58	6570605.30	6'
70	2904	1907789.58	6570558.30	———

SITE A-1 GRADING COORDINATES TABLE				
POINT NO.	ELEV.	NORTHING	EASTING	REMARK*
71	2904	1907804.51	6570556.80	———
72	2904	1907831.62	6570562.33	6'
73	2904	1907831.62	6570609.34	———
74	2904	1907789.58	6570555.30	———
75	2906	1907742.62	6571264.51	———
76	2906	1907812.69	6570655.05	6'
77	2906	1907785.58	6570649.51	———
78	2908	1907722.74	6571261.08	———
79	2908	1907732.71	6571243.82	———
80	2908	1907746.39	6571249.98	———
81	2912	1907765.58	6571170.88	———
82	2912	1907779.26	6571177.05	———
83	2912	1907800.69	6571139.92	10'
84	2916	1907777.77	6571133.78	10'
85	2916	1907777.77	6571098.51	———
86	2916	1907792.69	6571097.01	———
87	2922	1907753.58	6570446.47	10'
88	2924	1907749.58	6570448.78	10'
89	2924	1907732.16	6570438.72	———
90	2924	1907717.80	6570447.67	———
91	2924	1907700.67	6570437.78	———
92	2926	1907757.77	6570899.51	———
93	2926	1907730.66	6570893.98	6'
94	2926	1907730.66	6570846.97	———
95	2926	1907745.58	6570845.47	———
96	2926	1907772.69	6570851.01	6'
97	2926	1907772.69	6570898.01	———
98	2926	1907745.58	6570473.15	———
99	2926	1907730.66	6570471.65	———
100	2926	1907730.66	6570459.71	10'
101	2928	1907753.77	6570943.72	6'
102	2928	1907726.66	6570938.18	———
103	2934	1907714.66	6570687.77	———
104	2934	1907729.58	6570686.27	———
105	2934	1907729.58	6570632.35	———
106	2934	1907714.66	6570630.85	———
107	2938	1907657.99	6571253.24	———
108	2938	1907645.81	6571244.48	———
109	2938	1907669.90	6571202.76	———
110	2938	1907683.58	6571208.92	———
111	2942	1907609.47	6571321.28	———
112	2942	1907611.26	6571318.18	———
113	2942	1907599.09	6571309.42	———
114	2942	1907702.77	6571129.82	———
115	2942	1907683.73	6571115.93	18"
116	2942	1907683.73	6571076.86	———
117	2942	1907698.66	6571075.36	———
118	2942	1907725.77	6571080.89	6'
119	2942	1907725.77	6571119.84	10'
120	2942	1907716.45	6571135.99	———
120A	2944	1907688.56	6571146.44	———
121	2944	1907671.53	6571131.36	———
122	2944	1907679.73	6571117.15	10'
123	2950	1907598.05	6570438.57	———
124	2952	1907624.48	6570458.45	———
125	2952	1907615.72	6570470.63	———
126	2952	1907582.81	6570451.63	———
127	2954	1907563.56	6571322.95	———
128	2954	1907622.25	6571221.29	———
129	2954	1907605.22	6571206.21	———
130	2954	1907659.73	6571111.79	10'
131	2954	1907674.66	6570492.04	10'
132	2954	1907656.95	6570481.82	———
133	2954	1907648.19	6570493.99	———
134	2956	1907655.73	6571094.72	10'
135	2956	1907670.66	6570521.86	———
136	2956	1907655.73	6570520.36	———
137	2956	1907655.73	6570502.97	10'
138	2962	1907643.73	6570678.86	———
139	2962	1907658.66	6570677.36	———
140	2962	1907658.66	6570641.26	———

SITE A-1 GRADING COORDINATES TABLE				
POINT NO.	ELEV.	NORTHING	EASTING	REMARK*
141	2962	1907643.73	6570639.76	———
142	2964	1907501.81	6571300.14	———
143	2964	1907501.81	6571261.08	———
144	2964	1907516.73	6571259.58	———
145	2964	1907546.46	6571187.99	10'
146	2964	1907639.73	6571026.44	10'
147	2966	1907543.27	6571174.17	6'
148	2966	1907635.73	6571014.03	10'
149	2968	1907493.81	6571181.48	———
150	2968	1907508.73	6571179.98	———
151	2968	1907508.73	6571171.77	10'
152	2968	1907522.53	6571147.88	———
153	2968	1907548.78	6571156.64	6'
154	2968	1907631.73	6571012.96	10'
155	2970	1907489.81	6571166.70	10'
156	2970	1907505.08	6571140.24	———
157	2970	1907518.76	6571146.41	———
158	2970	1907608.31	6571045.53	———
159	2970	1907596.13	6571036.77	———
160	2970	1907612.81	6571007.89	10'
161	2970	1907612.81	6570974.55	———
162	2970	1907627.73	6570973.05	———
163	2972	1907521.52	6571103.77	———
164	2972	1907535.19	6571109.94	———
165	2972	1907523.02	6571101.18	———
166	2972	1907546.52	6571060.47	6'
167	2972	1907572.77	6571069.23	———
168	2972	1907584.94	6571078.00	———
169	2972	1907561.44	6571118.70	6'
170	2974	1907565.16	6571020.18	———
171	2974	1907591.41	6571028.95	6'
172	2976	1907571.50	6571001.21	———
173	2976	1907597.74	6571009.98	4'
174	2976	1907600.81	6571004.67	10'
175	2976	1907557.59	6570492.49	———
176	2978	1907569.69	6570996.34	10'
177	2978	1907569.69	6570964.30	———
178	2978	1907596.81	6570958.77	6'
179	2978	1907611.73	6570528.37	10'
180	2978	1907580.77	6570510.50	———
181	2978	1907572.01	6570522.67	———
182	2978	1907555.38	6570513.07	———
183	2980	1907607.73	6570544.57	———
184	2980	1907592.81	6570543.07	———
185	2980	1907592.81	6570539.30	6'
186	2984	1907584.81	6570695.95	———
187	2984	1907599.73	6570694.45	———
188	2984	1907599.73	6570624.17	———
189	2984	1907584.81	6570622.67	———
190	2986	1907457.81	6571330.34	———
191	2988	1907438.88	6571325.08	———
192	2988	1907438.88	6571295.17	———
193	2988	1907453.81	6571293.67	———
194	2994	1907426.88	6571175.77	———
195	2994	1907441.81	6571174.27	———
196	2994	1907441.81	6571153.84	10'
197	2996	1907422.88	6571148.77	10'
198	2996	1907431.71	6571133.47	———
199	2996	1907445.39	6571139.64	———
200	3000	1907511.56	6570538.58	———

SITE A-1 GRADING COORDINATES TABLE				
POINT NO.	ELEV.	NORTHING	EASTING	REMARK*
201	3002	1907548.81	6570564.70	10'
202	3002	1907534.11	6570556.22	———
203	3002	1907525.35	6570568.39	———
204	3002	1907485.22	6570545.22	———
205	3004	1907497.46	6570987.61	———
206	3004	1907511.13	6570993.77	———
207	3004	1907517.69	6570982.40	10'
208	3004	1907544.81	6570597.62	———
209	3004	1907529.88	6570596.12	———
210	3004	1907529.88	6570575.63	10'
211	3006	1907498.77	6570977.33	10'
212	3006	1907498.77	6570952.61	———
213	3006	1907513.69	6570951.11	———
214	3006	1907513.69	6570689.96	———
215	3006	1907498.77	6570688.46	———
216	3006	1907498.77	6570641.45	6'
217	3006	1907525.88	6570635.92	———
218	3006	1907540.81	6570637.42	———
219	3006	1907540.81	6570684.42	6'
220	3006	1907525.88	6570577.94	10'
221	3008	1907490.77	6570983.19	10'
222	3008	1907490.77	6570873.01	———
223	3008	1907505.69	6570871.51	———
224	3008	1907505.69	6570769.56	———
225	3008	1907490.77	6570768.06	———
226	3008	1907490.77	6570629.71	10'
227	3014	1907386.88	6571359.24	———
228	3016	1907367.96	6571355.81	———
229	3016	1907367.96	6571323.22	———
230	3016	1907382.88	6571321.72	———
231	3018	1907430.77	6571047.11	10'
232	3018	1907430.77	6570636.15	2'
233	3020	1907425.10	6571048.93	10'
234	3020	1907425.10	6570654.19	———
235	3020	1907402.81	6570649.64	———
236	3022	1907355.96	6571360.02	———
237	3022	1907355.96	6571203.82	———
238	3022	1907370.88	6571202.32	———
239	3022	1907370.88	6571134.83	10'
240	3022	1907421.10	6571047.85	10'
241	3022	1907421.10	6570673.78	———
242	3022	1907398.81	6570669.23	———
243	3022	1907398.81	6570624.89	———
244	3020	1907321.10	6571346.04	———
245	3020	1907321.10	6570724.20	———

SITE A-1 ACCESS ROAD CONSTRUCTION CURVE DATA									
CURVE NO.	DELTA	R	T	L	BC	EC	PI		REMARK
							NORTHING	EASTING	
Δ_1	86°11'05"	50'	46.78'	75.21'	601+00	601+75.21	1908026.43	6571084.22	ACCESS ROAD BEGINS AT STA. 601+00
Δ_2	156°55'34"	50'	244.95'	136.94'	606+78.41	608+15.35	1907867.44	6570305.36	———
Δ_3	30°	75'	20.10'	39.27'	613+75.21	614+14.48	1907702.46	6571113.60	———
Δ_4	156°55'34"	50'	244.95'	136.94'	615+28.19	616+65.13	1907451.31	6571397.10	———
Δ_5	30°	50'	13.40'	26.18'	618+34.64	618+60.82	1907586.81	6570991.27	———
Δ_6	156°55'34"	50'	244.95'	136.94'	622+07.78	623+44.72	1907465.75	6570398.19	———

SITE A-1 ACCESS ROAD CONSTRUCTION CONTROL DATA			
STATION	NORTHING	EASTING	REMARK
623+78.72	1907409.96	6570671.51	ACCESS ROAD ENDS

SITE A-1 CONST. CONTROL LINE		
STATION	NORTHING	EASTING
300+00	1908080	6570780
312+00	1906880	6570780

NOTES:

* NUMBER IN FEET UNDER FIELD "REMARK" OF GRADING COORDINATE TABLE INDICATES HORIZONTAL GRADING CURVE RADIUS AT PARTICULAR CONTROL POINT.

1. SEE SEDIMENT PLACEMENT SITE A-1 SITE GRADING PLAN ON SHEET 13.

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE A-1

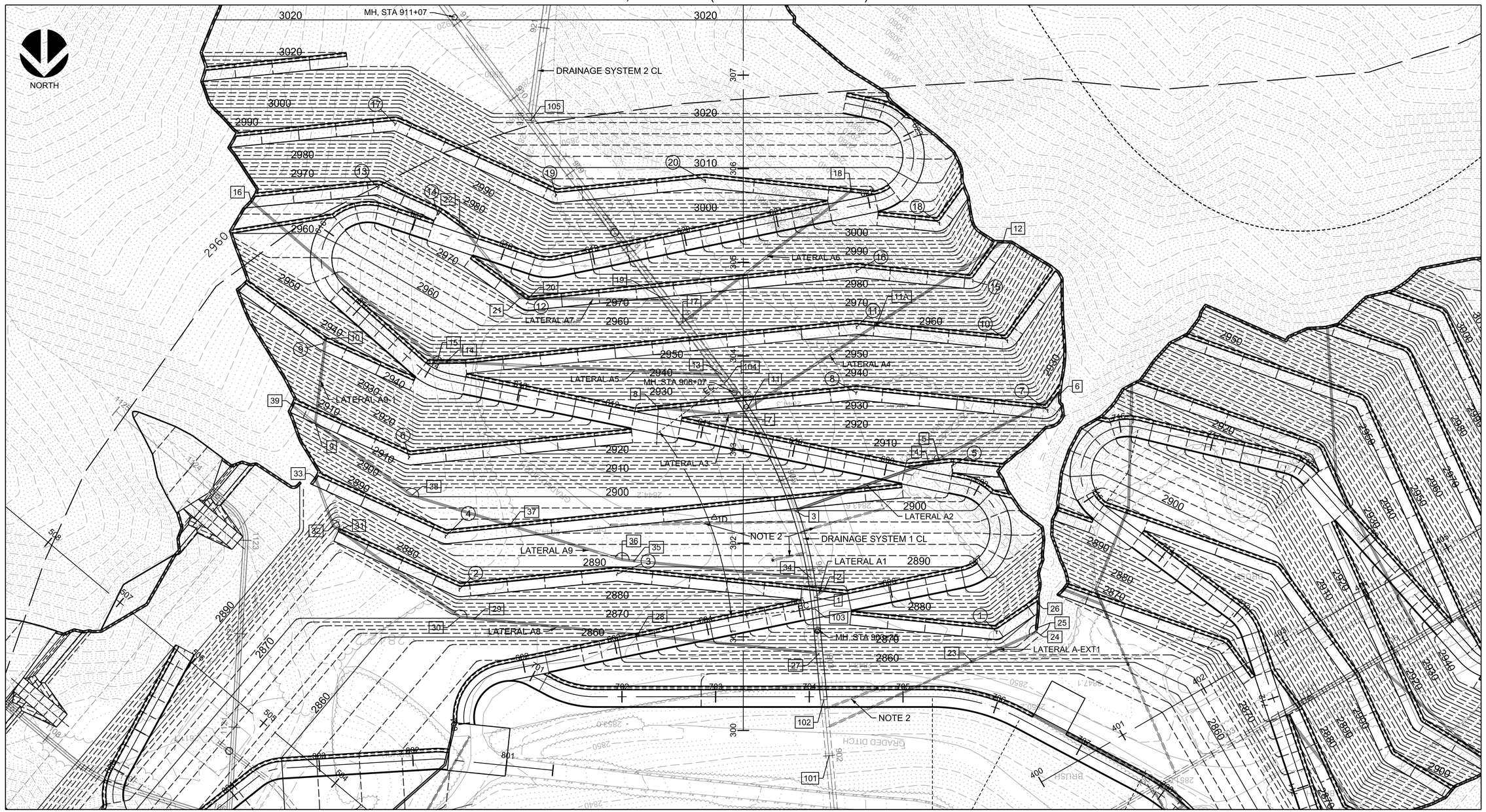
SITE GRADING CONTROL POINTS COORDINATES TABLE AND CONSTRUCTION CONTROL DATA

PROJECT ID NO. WRDM000036

DWG 627-D13.14	PD053212	SHEET 14 OF 55

PLAN DR

SEE SH 16 FOR SITE A-1, STA 307+75 (CONST. CONTROL LINE)



NOTES:

1. SEE SEDIMENT PLACEMENT SITE A-1 DRAINAGE SYSTEMS & STORM DRAIN LATERALS' COORDINATES TABLE & CONSTRUCTION CURVE DATA AND BENCH TURNS DESIGN PARAMETERS TABLE ON SHEET 17.
2. FILL EXISTING 24" CPS LATERALS AND INLETS WITH SLURRY (100-E-100 OR 1-SACK SAND SLURRY) AND ABANDON THEM IN PLACE.
3. SEE SEDIMENT PLACEMENT SITE A-1 DRAINAGE SYSTEMS & STORM DRAIN LATERALS' PROFILES ON SHEETS 30, 33, 34, 35 AND 36.
4. SEE SEDIMENT PLACEMENT SITE A-1 GRADING PLAN ON SHEET 13.

PLAN

SCALE: 1" = 50'

25 0 50 100

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

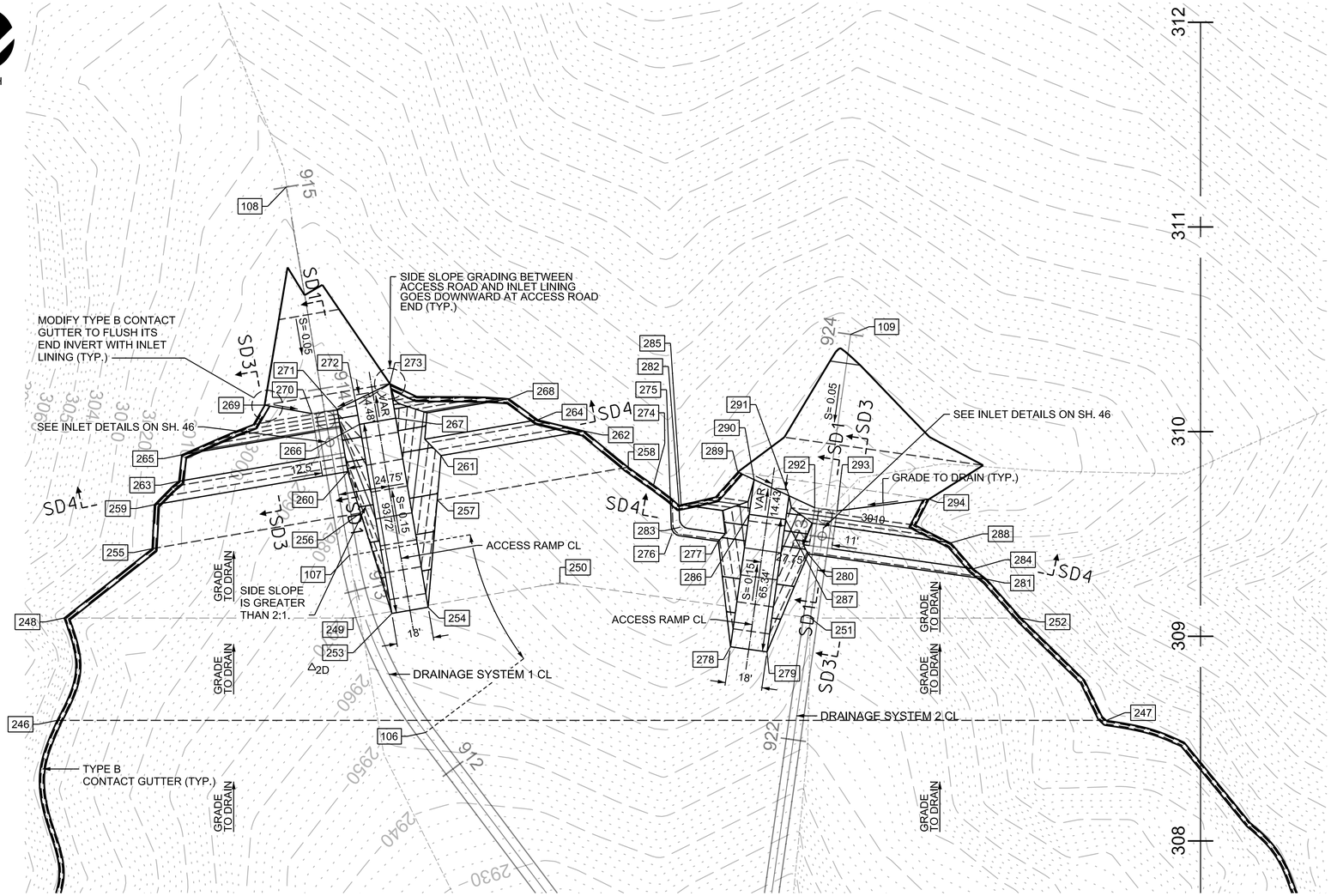
SEDIMENT PLACEMENT SITE A-1

DRAINAGE PLAN

PROJECT ID NO. WRDM000036

DWG 627-D13.15 | PD053212 | SHEET 15 OF 55

PLAN DR



SEE SH 13, SITE GRADING CONTROL POINTS AND SH 15, DRAINAGE PLAN FOR SITE A-1, STA 307+75 (CONST. CONTROL LINE)

NOTES:

1. SEE SEDIMENT PLACEMENT SITE A-1 DRAINAGE SYSTEMS' COORDINATES TABLE FOR CONTROL POINT NOS. 106 TO 109 ON SHEET 17.
2. SEE SEDIMENT PLACEMENT SITE A-1 CONSTRUCTION CONTROL LINE'S COORDINATES ON SHEET 14.

PLAN
SCALE: 1" = 30'
10 0 30 60

SITE A-1 GRADING COORDINATES TABLE

POINT NO.	ELEV.	NORTHING	EASTING	REMARK*
246	3018	1907221.10	6571338.66	———
247	3018	1907221.10	6570825.95	———
248	3017	1907171.10	6571335.23	———
249	3017	1907171.10	6571193.98	50'
250	3017	1907153.81	6571093	50'
251	3017	1907171.10	6570970.54	50'
252	3017	1907171.10	6570867.64	———
253	3017.02	1907168.84	6571175.09	———
254	3017.02	1907165.80	6571157.35	———
255	3016	1907137.20	6571292.27	———
256	3016	1907119.75	6571190.33	———
257	3016	1907113.34	6571152.90	———
258	3016	1907097.37	6571059.59	———
259	3015.58	1907115.70	6571291.12	———
260	3015.58	1907099.52	6571196.60	———
261	3015.58	1907091.72	6571151.06	———
262	3015.58	1907079.74	6571081.08	———
263	3010.95	1907104.27	6571279.23	———
264	3010.95	1907074.22	6571103.73	———
265	3010.70	1907091.34	6571277.74	———
266	3002.97	1907076.47	6571190.91	———
267	3002.97	1907073.43	6571173.17	———
268	3010.7	1907063.96	6571117.84	———
269	3002	1907067.05	6571237.25	———
270	3001.6	1907071.21	6571214.13	———
271	3001.6	1907069.10	6571201.81	———
272	3001.74	1907064.78	6571192.91	———
273	3002	1907056.58	6571176.05	———
274	3017	1907106.07	6571047.19	SET TYPE B CONTACT GUTTER AT HIGHER POINT TO DRAIN BOTHWAYS
275	3016.38	1907112.16	6571039.04	———
276	3016.38	1907130.35	6571038.42	5'
277	3016.38	1907133.56	6571015.64	———
278	3017.33	1907185.12	6571009.63	———
279	3017.33	1907187.64	6570991.81	———
280	3016.38	1907139.76	6570971.76	———
281	3016.38	1907152.07	6570884.58	———
282	3014.32	1907116	6571034.78	———
283	3014.32	1907126.74	6571034.41	5'
284	3014.32	1907146.99	6570891.01	———
285	3014.10	1907115.72	6571033.78	———
286	3007.53	1907120.42	6571000.50	———
287	3007.53	1907122.94	6570982.67	———
288	3014.10	1907134.34	6570901.96	———
289	3007	1907099.74	6571006.10	———
290	3006.87	1907103.44	6570998.10	———
291	3006.60	1907111.35	6570981.04	———
292	3006.40	1907117.17	6570968.48	———
293	3006.40	1907118.71	6570957.59	———
294	3007	1907112.94	6570912.58	———

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE A-1

SITE GRADING CONTROL POINTS, DRAINAGE PLAN AND SITE GRADING CONTROL POINTS COORDINATES TABLE

PROJECT ID NO. WRDM000036

DWG 627-D13.16	PD053212	SHEET 16 OF 55

PLAN DR

SITE A-1 STORM DRAIN LATERALS COORDINATES TABLE

LATERAL	POINT NO.	STATION	NORTHING	EASTING	REMARK
A1	1	0+00	1907937.71	6570704.55	= 903+70 OF SITE A-1 DRAINAGE SYSTEM 1
	2	0+13.63	1907929.81	6570693.45	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
A2	3	0+00	1907845.14	6570725.19	= 904+65 OF SITE A-1 DRAINAGE SYSTEM 1
	4	1+51.94	1907794.11	6570582.08	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
	5	1+63.29	1907790.29	6570571.39	∠ = 171.5°
	6	3+09.77	1907721.24	6570442.21	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2
A3	7	0+00	1907745.51	6570771.24	= 905+75 OF SITE A-1 DRAINAGE SYSTEM 1
	8	1+00.04	1907735.18	6570870.75	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
A4	11	0+00	1907737.03	6570776.54	= 905+85 OF SITE A-1 DRAINAGE SYSTEM 1
	11A	1+66.28	1907646.11	6570637.32	INLET IN TYPE A-2 GUTTER
	12	3+27.20	1907558.12	6570502.58	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2
A5	13	0+00	1907700.26	6570802.44	= 906+30 OF SITE A-1 DRAINAGE SYSTEM 1
	14	2+94.49	1907686.19	6571096.60	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
	15	3+04.58	1907685.70	6571106.67	∠ = 142°
	16	5+66.66	1907514.66	6571305.25	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2
A6	17	0+00	1907644.32	6570844.54	= 907+00 OF SITE A-1 DRAINAGE SYSTEM 1
	18	2+28.56	1907503.29	6570664.68	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
A7	19	0+00	1907620.35	6570862.57	= 907+30 OF SITE A-1 DRAINAGE SYSTEM 1
	20	1+46.76	1907618.14	6571009.32	INLET IN MODIFIED TYPE A-2 GUTTER, SEE BENCH TURN #12
	21	1+55.87	1907618	6571018.43	∠ = 130°
	22	2+57.93	1907538.83	6571082.84	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
A-EXT1	23	1+00	1908006.33	6570536.11	REMOVE EX. 24" CSP, INLET AND JOIN EX. 24" CSP
	24	1+75.68	1907974.78	6570467.32	∠ = 120°
	25	1+79.68	1907970.79	6570467.02	INLET IN TYPE B CONTACT GUTTER END, NOTE 3
	26	2+05.92	1907944.62	6570465.08	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2
A8	27	0+00	1907997.43	6570698.74	= 903+10 OF SITE A-1 DRAINAGE SYSTEM 1
	28	1+95.10	1907977.92	6570892.87	INLET IN TYPE A-2 GUTTER
	29	3+70	1907960.43	6571066.89	INLET (FOR MAINTENANCE ACCESS)
	30	3+85.60	1907958.87	6571082.41	∠ = 150°
	31	5+43.64	1907866.57	6571210.68	INLET IN TYPE A GUTTER END, NOTE 3
	32	5+52.03	1907861.66	6571217.50	∠ = 146°15'
	33	6+06.32	1907810.81	6571236.52	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2
A9	34	0+00	1907917.91	6570707.36	= 903+90 OF SITE A-1 DRAINAGE SYSTEM 1
	35	1+90	1907898.91	6570896.41	INLET (FOR MAINTENANCE ACCESS)
	36	2+03.04	1907897.61	6570909.38	∠ = 168°45'
	37	3+28.65	1907860.91	6571029.52	INLET IN TYPE A-2 GUTTER
	38	4+37.87	1907828.99	6571133.97	∠ = 160°
	39	5+97.38	1907733.03	6571261.38	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2
A9-1	9	0+00	1907751.47	6571236.89	=5+66.72 OF LATERAL A9 DEFLECTION ∠ = 45°
	10	0+90.34	1907661.80	6571225.90	INLET IN MODIFIED TYPE A-2 GUTTER, SEE BENCH TURN #9

SITE A-1 DRAINAGE SYSTEMS COORDINATES TABLE

DRAINAGE SYSTEM	POINT NO.	STATION	NORTHING	EASTING	REMARK
1	101	902+00	1908106.95	6570688.4	EXST 84" CSP
	102	902+60	1908047.21	6570694.04	JOIN EXST 84" CSP, CONTRACTOR VERIFY EXST CSP'S LOCATION AND INVERT ELEVATION.
	103	903+57.36	1907950.28	6570703.19	BC
	104	906+21.85	1907706.77	6570797.54	EC
	106	912+22.30	1907227	6571158.60	BC
	107	913+17.41	1907140.49	6571195.93	EC
	108	915+00	1906960.52	6571226.74	———
2	105	915+00	1907428.59	6571006.89	= 909+70 OF SITE A-1 DRAINAGE SYSTEM, DEFLECTION ANGLE = 45°
	109	924+00	1907032.52	6570950.97	———

SITE A-1 DRAINAGE SYSTEMS CONSTRUCTION CURVE DATA

CURVE NO.	DELTA	R	T	L	BC	EC	PI		REMARK*
							NORTHING	EASTING	
Δ_{1D}	31°34'14"	480'	135.69'	264.48'	903+57.36	906+21.85	1907815.19	6570715.95	———
Δ_{2D}	27°14'54"	200'	48.47'	95.11'	912+22.30	913+17.41	1907188.27	6571187.75	———

NOTES:

1. SEE MODIFIED TYPE A GUTTER CONFIGURATION SAMPLES ON SHEET 43.
2. SEE MODIFIED TYPE B CONTACT GUTTER ON SHEET 41.
3. SEE TYPE A1 & A2 GUTTER ENDS AND TYPE B CONTACT GUTTER END ON SHEET 41.
4. SEE BENCH TURNS DETAILS ON SHEET 42.
5. SEE SEDIMENT PLACEMENT SITE A-1 DRAINAGE PLAN ON SHEETS 15 AND 16.

SITE A-1 BENCH TURNS DESIGN PARAMETERS TABLE

BENCH TURN NUMBER	BENCH TURN SHAPE	POINT	ELEV.	NORTHING	EASTING	REMARK
①	U SHAPE	O	———	1907965.24	6570511.88	∠ I = 40°
		A	2872.15	———	———	———
		B	2871.93	———	———	———
		C	2872.15	———	———	———
		PI	———	1907983.29	6570507.29	T = 6.37'
②	U SHAPE	O	———	1907919.70	6571081.55	∠ I = 30°
		A	2881.42	———	———	———
		B	2881.20	———	———	———
		C	2881.42	———	———	———
		PI	———	1907937.58	6571084.46	T = 4.69'
③	INVERTED V SHAPE	A	2889.92	1907905.44	6570914.69	———
		B	2889.68	———	———	———
		C	2889.85	1907920.52	6570914.69	———
④	U SHAPE	O	———	1907862.98	6571096.43	∠ I = 30°
		A	2894.24	———	———	———
		B	2894.02	———	———	———
		C	2894.24	———	———	———
		PI	———	1907880.87	6571099.34	T = 4.69'
⑤	INVERTED V SHAPE	A	2904.08	1907789.43	6570556.80	———
		B	2903.84	———	———	———
		C	2904	1907804.51	6570556.80	———
⑥	U SHAPE	O	———	1907778.94	6571135.16	∠ I = 30°
		A	2914.04	———	———	———
		B	2913.82	———	———	———
		C	2914.04	———	———	———
		PI	———	1907796.82	6571138.08	T = 4.69'
⑦	U SHAPE	O	———	6570459.10	6570459.10	∠ I = 60°
		A	2925.09	———	———	———
		B	2924.87	———	———	———
		C	2925.09	———	———	———
		PI	———	1907747.83	6570450.79	T = 10.10'
⑧	INVERTED V SHAPE	A	2935.43	1907711.80	6570659.31	———
		B	2935.19	———	———	———
		C	2935.35	1907726.87	6570659.31	———
⑨	V SHAPE	A	2936.79	1907659.95	6571224.83	———
		B	2936.55	———	———	———
		C	2936.71	1907673.01	6571232.37	———
⑩	U SHAPE	O	———	1907655.06	6570502.02	∠ I = 60°
		A	2954.80	———	———	———
		B	2954.58	———	———	———
		C	2954.80	———	———	———
		PI	———	1907673.48	6570493.72	T = 10.10'
⑪	INVERTED V SHAPE	A	2962.98	1907641.77	6570659.31	———
		B	2962.74	———	———	———
		C	2962.91	1907656.84	6570659.31	———
⑫	U SHAPE	O	———	1907613.67	6571008.12	∠ I = 41°28'42"
		A	2968.41	———	———	———
		B	2968.19	———	———	———
		C	2968.41	———	———	———
		PI	———	1907631.74	6571012.96	T = 6.63'
⑬	INVERTED U SHAPE	O	———	1907510.36	6571171.13	∠ I = 30°
		A	2968.57	———	———	———
		B	2968.35	———	———	———
		C	2968.57	———	———	———
		PI	———	1907492.48	6571168.22	T = 4.69'
⑭	INVERTED V SHAPE	A	2972.08	1907522.14	6571102.40	———
		B	2971.84	———	———	———
		C	2972	1907535.19	6571109.94	———
⑮	U SHAPE	O	———	1907590.68	6570539.19	∠ I = 60°
		A	2979.53	———	———	———
		B	2979.31	———	———	———
		C	2979.53	———	———	———
		PI	———	1907609.11	6570530.89	T = 10.10'
⑯	INVERTED V SHAPE	A	2985.84	1907581.12	6570659.31	———
		B	2985.60	———	———	———
		C	2985.77	1907596.20	6570659.31	———

SITE A-1 BENCH TURNS DESIGN PARAMETERS TABLE

BENCH TURN NUMBER	BENCH TURN SHAPE	POINT	ELEV.	NORTHING	EASTING	REMARK
⑰	INVERTED U SHAPE	O	———	1907442.17	6571152.86	∠ I = 30°
		A	2995.20	———	———	———
		B	2994.98	———	———	———
		C	2995.20	———	———	———
		PI	———	1907424.29	6571149.95	T = 4.69'
⑱	U SHAPE	O	———	1907529.54	6570574.49	∠ I = 60°
		A	3002.64	———	———	———
		B	3002.42	———	———	———
		C	3002.64	———	———	———
		PI	———	1907547.97	6570566.19	T = 10.10'
⑲	U SHAPE	O	———	1907498.85	6570978.43	∠ I = 30°
		A	3004.58	———	———	———
		B	3004.36	———	———	———
		C	3004.58	———	———	———
		PI	———	1907516.73	6570981.34	T = 4.69'
⑳	INVERTED V SHAPE	A	3008.88	1907485.49	6570820.53	———
		B	3008.65	———	———	———
		C	3008.85	1907500.57	6570820.53	———

CADD PROJECT FILE NAME WRDM000036.DGN
CHECKER SJ
DESIGNER JOHN NG

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

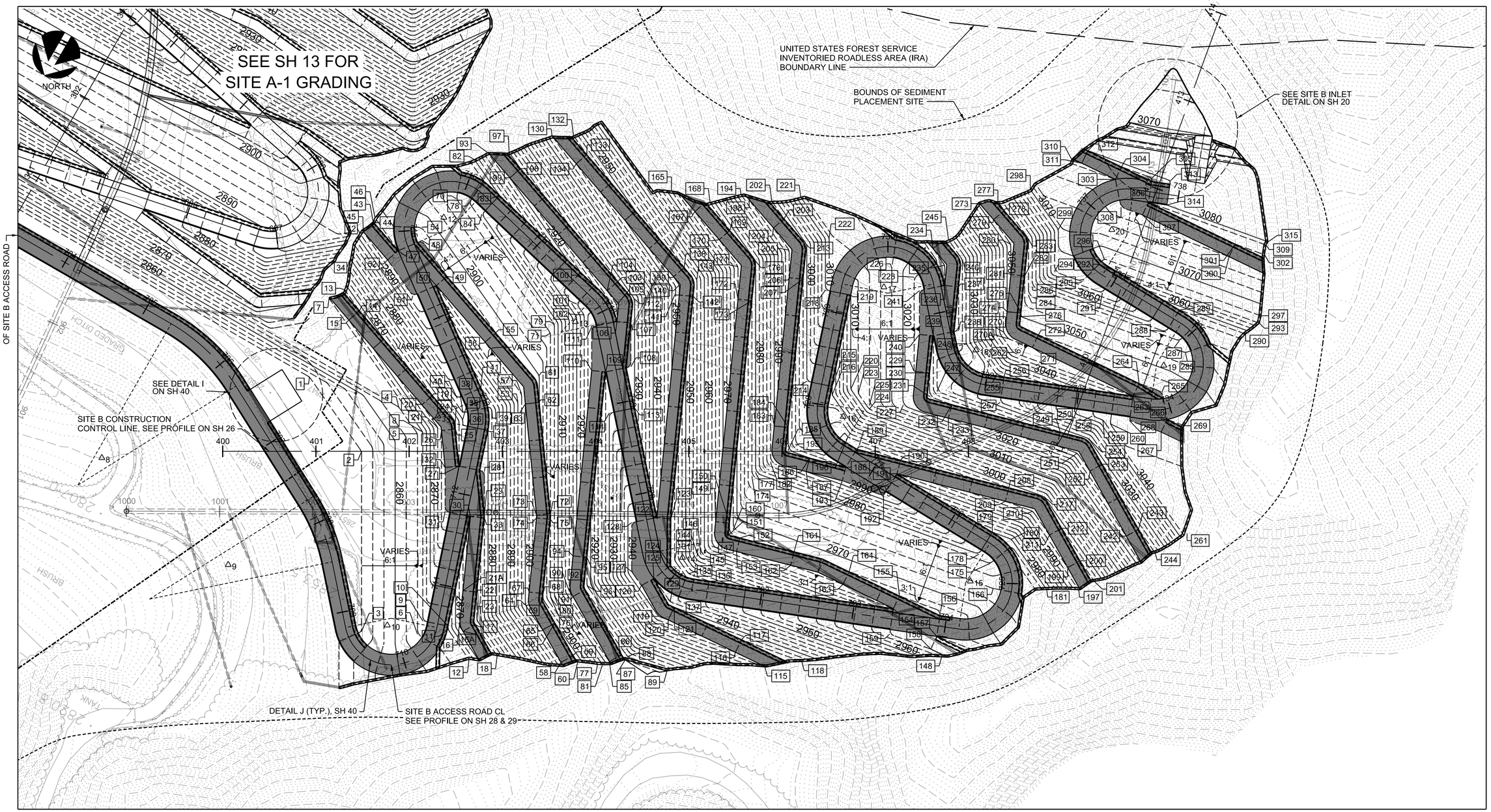
LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE A-1
DRAINAGE PLAN COORDINATES TABLE AND BENCH TURNS DESIGN PARAMETERS TABLE
PROJECT ID NO. WRDM000036

DWG 627-D13.17 | PD053212 | SHEET 17 OF 55

PLAN DR



NOTES:

1. SEE SEDIMENT PLACEMENT SITE B SITE GRADING CONTROL POINTS' COORDINATES, ACCESS ROAD CONSTRUCTION CURVE DATA AND CONSTRUCTION CONTROL LINE'S COORDINATES ON SHEETS 19 AND 20.
2. SEE SEDIMENT PLACEMENT SITE B DRAINAGE PLAN ON SHEET 21.
3. SEE ACCESS ROAD LANDING GUTTER CONFIGURATION SAMPLES ON SHEET 43.

4. SEDIMENT PLACEMENT SITE DESIGN PARAMETERS:

FILL VOLUME = APPROX. 957,000 CUBIC YARDS
MAX FACE SLOPE = 2H : 1V
MAX ACCESS ROAD LONGITUDINAL SLOPE = 10%
MAX BENCH (15' W) LONGITUDINAL SLOPE = 5%
MIN BENCH (15' W) LONGITUDINAL SLOPE = 1 TO 2 %
BENCHES ARE CONSTRUCTED EVERY 30 VERTICAL FEET OR LESS
ACCESS ROAD MIN CURVE RADIUS = 50 FEET

5. SURVEY CONTROL:

▽5 PT# 1006 PHOTO ID# 2
S/W COR. OF INLET STRUCT.
N 1,907,816.378
E 6,569,828.040
EL 2871.11
FC 3419-107

PLAN
SCALE: 1" = 50'
25 0 50 100

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

MAN TAT NG
REGISTERED PROFESSIONAL ENGINEER
C 70322
CIVIL
STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE B
SITE GRADING CONTROL POINTS
PROJECT ID NO. WRDM000036

DWG 627-D13.18 | PD053212 | SHEET 18 OF 55

PLAN DR

SITE B GRADING COORDINATES TABLE

POINT NO.	ELEV.	NORTHING	EASTING	REMARK*
1	2854	1908019.32	6570421.04	10'
2	2854	1908060.50	6570332.74	10'
3	2854	1908227.93	6570236.07	4'
4	2864	1907999.32	6570321.96	10'
5	2864	1908014.12	6570290.24	10'
6	2864	1908200.57	6570182.58	10'
7	2866	1907935.67	6570445.05	———
8	2866	1908009.74	6570286.22	10'
9	2866	1908185.27	6570184.88	6'
10	2866	1908176.51	6570158.63	———
11	2866	1908179.68	6570156.80	10'
12	2866	1908196.26	6570121.23	———
13	2868	1907919.35	6570435.28	———
14	2868	1907931.11	6570410.05	———
15	2868	1907945.27	6570415.00	———
16	2872	1908170.40	6570148.30	10'
16A	2872	1908173.35	6570141.97	———
17	2872	1908160.46	6570134.31	———
18	2872	1908177.77	6570097.18	———
19	2874	1907970.70	6570296.77	———
20	2874	1907984.86	6570301.71	———
21	2874	1907997.37	6570274.89	10'
21A	2874	1908135.62	6570163.76	———
22	2874	1908129.45	6570150.09	———
23	2874	1908155.77	6570134.89	10'
24	2876	1907982.74	6570261.48	10'
25	2876	1907989.51	6570257.57	———
26	2876	1907998.27	6570269.75	———
27	2878	1908021.98	6570234.21	———
28	2878	1908013.21	6570207.96	6'
29	2878	1908053.92	6570184.46	———
30	2878	1908062.68	6570196.63	———
31	2878	1908071.45	6570222.88	6'
32	2878	1908030.74	6570246.38	———
33	2878	1908056.52	6570182.96	———
34	2880	1907887.74	6570446.28	———
35	2880	1907976.55	6570255.82	10'
36	2880	1907980.36	6570248.10	———
37	2880	1907973.16	6570226.52	———
38	2882	1907970.29	6570259.42	6'
39	2882	1907952.28	6570233.90	6'
40	2884	1907959.89	6570272.27	6'
41	2884	1907937.65	6570255.80	———
42	2892	1907858.66	6570451.51	———
43	2894	1907840.67	6570445.30	———
44	2894	1907841.23	6570444.10	———
45	2894	1907855.39	6570449.05	———
46	2896	1907836.06	6570445.72	———
47	2896	1907854.42	6570406.34	———
48	2896	1907832.19	6570389.87	6'
49	2896	1907852.05	6570347.27	———
50	2896	1907866.21	6570352.21	———
51	2896	1907888.45	6570368.69	6'
52	2896	1907868.58	6570411.29	———
53	2896	1907930.63	6570214.07	10'
54	2898	1907819.98	6570397.12	10'
55	2898	1907878.44	6570271.74	———
56	2898	1907892.60	6570276.69	———
57	2898	1907921.50	6570214.72	10'
58	2898	1908149.71	6570034.31	———
59	2898	1908136.82	6570026.64	———
60	2898	1908140.45	6570018.86	———
61	2900	1907894.79	6570208.29	10'
62	2900	1907919.76	6570193.88	———
63	2900	1907928.52	6570206.05	———
64	2900	1908115.58	6570098.05	10'
65	2900	1908129.27	6570068.69	———
66	2900	1908116.38	6570061.02	———
67	2902	1908101.45	6570101.59	———
68	2902	1908095.29	6570087.91	———
69	2902	1908100.95	6570084.65	10'
70	2906	1907774.94	6570380.14	10'

SITE B GRADING COORDINATES TABLE

POINT NO.	ELEV.	NORTHING	EASTING	REMARK*
71	2906	1907849.28	6570220.71	10'
72	2906	1908017.16	6570123.78	———
73	2906	1908025.92	6570135.96	———
74	2906	1908028.52	6570134.46	———
75	2906	1908022.36	6570120.78	———
76	2906	1908094.76	6570078.98	10'
77	2906	1908132.03	6569999.07	———
78	2908	1907771.64	6570366.28	6'
79	2908	1907839.02	6570221.79	10'
80	2908	1908091.52	6570076.01	10'
81	2908	1908129.57	6569994.41	———
82	2910	1907728.82	6570384.48	———
83	2910	1907748.68	6570341.90	———
84	2910	1907775.59	6570348.34	6'
85	2912	1908122.95	6569989.68	———
86	2912	1908110.05	6569982.01	———
87	2912	1908112.89	6569975.92	———
88	2914	1908108.68	6569975.48	10'
89	2914	1908100.87	6569931.20	———
90	2916	1908079.15	6570064.67	10'
91	2916	1908082.06	6570058.44	———
92	2916	1908069.16	6570050.77	———
93	2918	1907715.17	6570375.90	———
94	2918	1908044.28	6570080.18	———
95	2918	1908038.12	6570066.51	———
96	2918	1908064.52	6570051.27	10'
97	2920	1907703.49	6570356.16	———
98	2920	1907712.51	6570336.83	———
99	2920	1907726.67	6570341.78	———
100	2924	1907781.27	6570205.74	———
101	2924	1907808.19	6570212.19	6'
102	2924	1907814.28	6570199.12	10'
103	2928	1907765.29	6570185.79	———
104	2928	1907779.45	6570190.74	———
105	2928	1907787.13	6570174.25	10'
106	2928	1907802.89	6570165.15	———
107	2928	1907796.73	6570151.48	———
108	2928	1907837.43	6570127.97	6'
109	2928	1907855.78	6570148.69	———
110	2928	1907861.95	6570162.36	———
111	2928	1907821.24	6570185.86	6'
112	2930	1907772.50	6570160.84	10'
113	2930	1907873.72	6570102.40	———
114	2930	1907892.07	6570123.12	6'
115	2934	1908044.58	6569842.30	———
116	2936	1908046.75	6569877.62	———
117	2936	1908031.79	6569878.73	———
118	2936	1908019.83	6569810.89	———
119	2940	1908054.63	6569968.37	10'
120	2940	1908052.69	6569957.40	———
121	2940	1908037.73	6569958.51	———
122	2942	1907963.54	6570022.83	———
123	2942	1907957.38	6570009.16	———
124	2942	1908000.80	6569984.40	———
125	2942	1908021.90	6569992.91	———
126	2942	1908035.11	6570000.76	———
127	2942	1908027.41	6570017.27	10'
128	2942	1907981.89	6570043.55	6'
129	2942	1908034.84	6569965.15	10'
130	2944	1907664.98	6570325.17	———
131	2944	1907993.89	6569983.46	10'
132	2946	1907653.44	6570305.14	———
133	2946	1907663.90	6570282.71	———
134	2946	1907678.06	6570287.66	———
135	2946	1907998.87	6569963.33	10'
136	2946	1907994.81	6569940.35	———
137	2946	1908020.55	6569930.19	6'
138	2954	1907716.68	6570131.67	———
139	2954	1907730.84	6570136.61	———
140	2954	1907735.40	6570126.84	10'

SITE B GRADING COORDINATES TABLE

POINT NO.	ELEV.	NORTHING	EASTING	REMARK*
141	2954	1907744.74	6570121.45	———
142	2954	1907738.58	6570107.77	———
143	2956	1907720.77	6570113.43	10'
144	2956	1907975.34	6569966.46	10'
145	2956	1907978.07	6569960.59	10'
146	2958	1907974.34	6569962.42	10'
147	2964	1907961.06	6569956.23	10'
148	2964	1907940.50	6569683.50	———
149	2966	1907935.99	6569966.08	———
150	2966	1907929.83	6569952.40	———
151	2966	1907940.12	6569946.46	10'
152	2966	1907938.06	6569934.76	———
153	2966	1907952.49	6569930.69	———
154	2966	1907921.39	6569754.31	———
155	2966	1907906.44	6569755.43	———
156	2966	1907898.27	6569709.14	———
157	2966	1907924.01	6569698.98	———
158	2966	1907938.97	6569697.87	———
159	2966	1907947.13	6569744.16	6'
160	2968	1907933.85	6569945.46	10'
161	2968	1907921.78	6569877.01	———
162	2968	1907936.22	6569872.94	———
163	2968	1907925.85	6569814.15	———
164	2968	1907910.89	6569815.26	———
165	2974	1907650.14	6570179.72	———
166	2974	1907849.16	6569672.48	10'
167	2976	1907658.71	6570151.88	———
168	2978	1907642.16	6570142.57	———
169	2978	1907657.74	6570109.17	———
170	2978	1907671.90	6570114.11	———
171	2978	1907686.75	6570082.26	10'
172	2978	1907717.19	6570064.69	———
173	2978	1907711.02	6570051.02	———
174	2978	1907874.86	6569956.43	10'
175	2978	1907827.66	6569688.75	6'
176	2980	1907672.12	6570068.86	10'
177	2980	1907869.28	6569955.03	10'
178	2980	1907825.03	6569704.09	6'
179	2980	1907797.37	6569703.35	———
180	2980	1907793.60	6569681.97	10'
181	2980	1907821.56	6569622.01	———
182	2988	1907851.57	6569946.78	10'
183	2990	1907815.60	6569962.93	———
184	2990	1907809.43	6569949.25	———
185	2990	1907830.64	6569937.01	10'
186	2990	1907826.39	6569912.90	———
187	2990	1907840.82	6569908.84	———
188	2992	1907815.53	6569874.40	———
189	2992	1907787.87	6569873.66	6'
190	2992	1907779.71	6569827.37	———
191	2992	1907794.15	6569823.30	———
192	2992	1907821.81	6569824.05	6'
193	2992	1907829.97	6569870.33	———
194	2994	1907618.24	6570118.15	———
195	2994	1907821.79	6569932.89	10'
196	2994	1907786.44	6569888.58	10'
197	2994	1907804.57	6569592.18	———
198	2996	1907618.69	6570107.74	———
199	2996	1907789.82	6569614.35	———
200	2996	1907776.93	6569606.69	———

SITE B GRADING COORDINATES TABLE

POINT NO.	ELEV.	NORTHING	EASTING	REMARK*
201	2996	1907788.40	6569582.09	———
202	2998	1907608.00	6570085.88	———
203	2998	1907617.72	6570065.03	———
204	2998	1907631.88	6570069.98	———
205	2998	1907644.29	6570043.36	10'
206	2998	1907669.73	6570028.67	———
207	2998	1907663.57	6570015.00	———
208	2998	1907747.16	6569711.87	———
209	2998	1907761.60	6569707.80	———
210	2998	1907756.17	6569677.04	10'
211	2998	1907769.37	6569648.73	———
212	2998	1907756.48	6569641.07	———
213	3000	1907629.66	6570029.95	10'
214	3000	1907756.57	6569956.68	6'
215	3000	1907747.80	6569930.42	———
216	3000	1907755.86	6569925.77	10'
217	3000	1907736.50	6569674.45	10'
218	3010	1907661.72	6569988.35	6'
219	3010	1907652.95	6569962.09	———
220	3010	1907740.40	6569911.60	10'
221	3012	1907588.62	6570061.17	———
222	3012	1907611.11	6570012.95	10'
223	3012	1907740.25	6569902.45	10'
224	3012	1907749.02	6569883.66	10'
225	3014	1907745.31	6569885.67	10'
226	3018	1907605.71	6569938.56	10'
227	3020	1907727.60	6569854.33	10'
228	3022	1907602.24	6569912.85	10'
229	3022	1907689.74	6569862.33	1.5'
230	3022	1907682.89	6569847.13	———
231	3022	1907704.88	6569834.44	10'
232	3022	1907700.47	6569809.43	———
233	3022	1907714.90	6569805.37	———
234	3024	1907565.56	6569582.09	———
235	3024	1907574.73	6569890.88	10'
236	3024	1907593.53	6569880.03	———
237	3024	1907587.37	6569866.35	———
238	3024	1907628.07	6569842.85	6'
239	3024	1907646.42	6569863.56	———
240	3024	1907652.59	6569877.24	———
241	3024	1907611.88	6569900.74	6'
242	3024	1907729.08	6569576.79	———
243	3024	1907716.19	6569569.12	———
244	3024	1907729.36	6569540.87	———
245	3026	1907549.15	6569900.96	———
246	3026	1907560.10	6569877.48	10'
247	3026	1907696.02	6569830.31	10'
248	3028	1907636.20	6569828.92	10'
249	3028	1907667.92	6569693.93	———
250	3028	1907682.35	6569689.86	———
251	3028	1907678.28	6569666.79	10'
252	3028	1907688.19	6569645.55	———
253	3028	1907675.29	6569637.88	———
254	3030	1907658.61	6569664.20	10'
255	3032	1907648.18	6569784.30	10'
256	3032	1907646.70	6569775.89	———
257	3032	1907672.45	6569765.72	6'
258	3042	1907635.74	6569672.71	6'
259	3042	1907633.66	6569660.91	10'
260	3044	1907633.33	6569652.16	10'

NOTES:

* NUMBER IN FEET UNDER FIELD "REMARK" OF GRADING COORDINATE TABLE INDICATES HORIZONTAL GRADING CURVE RADIUS AT PARTICULAR CONTROL POINT.

1. SEE SEDIMENT PLACEMENT SITE B SITE GRADING PLAN ON SHEET 18.

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE B

SITE GRADING CONTROL POINTS COORDINATES TABLE PART 1

PROJECT ID NO. WRDM000036

DWG 627-D13.19 | PD053212 | SHEET 19 OF 55

PLAN DR

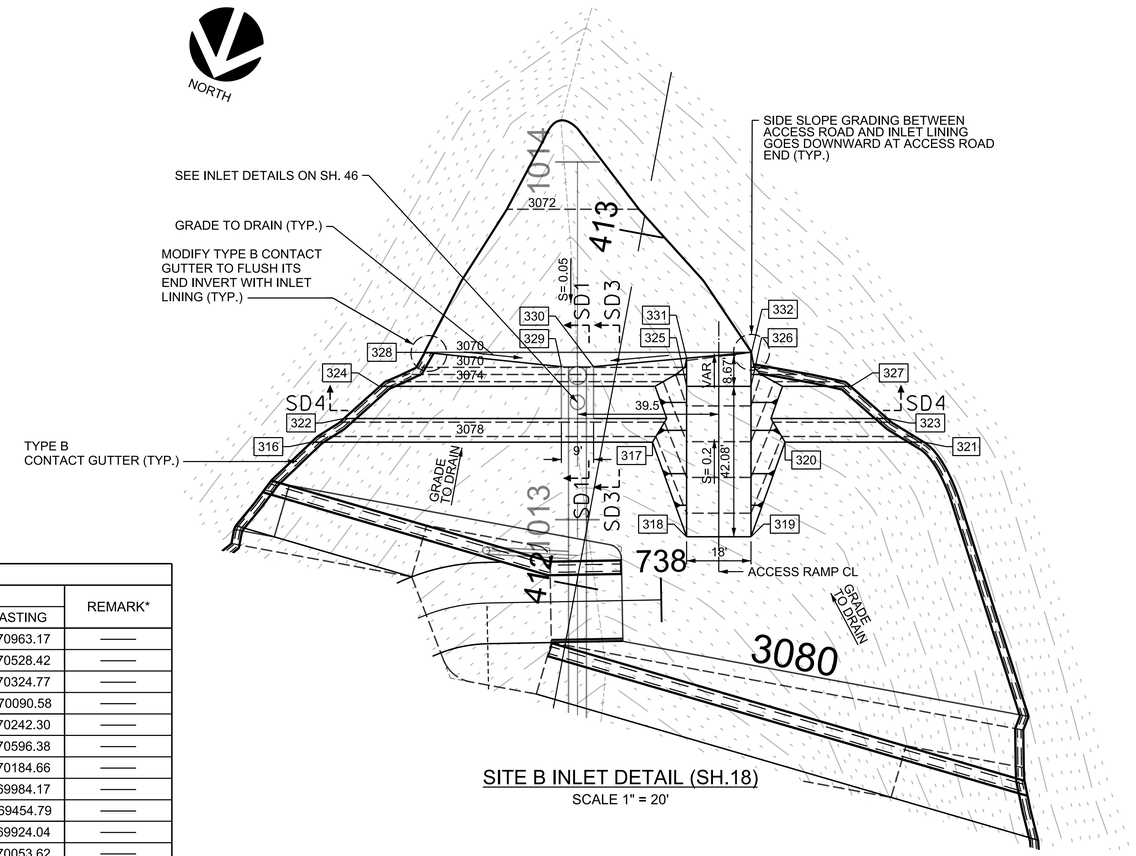
SITE B GRADING COORDINATES TABLE				
POINT NO.	ELEV.	NORTHING	EASTING	REMARK*
261	3044	1907694.13	6569521.77	———
262	3046	1907619.08	6569780.47	10'
263	3046	1907595.31	6569645.66	———
264	3046	1907580.35	6569646.78	———
265	3046	1907575.80	6569620.99	10'
266	3046	1907598.75	6569601.43	———
267	3046	1907613.71	6569600.32	———
268	3046	1907619.99	6569635.92	4'
269	3046	1907595.36	6569582.18	———
270	3048	1907605.28	6569800.58	10'
270A	3048	1907609.02	6569792.56	10'
271	3048	1907604.22	6569765.33	———
272	3048	1907589.26	6569766.44	———
273	3050	1907499.77	6569893.27	———
274	3050	1907584.41	6569808.02	———
275	3050	1907578.24	6569794.34	———
276	3050	1907581.65	6569792.38	4'
277	3052	1907487.14	6569875.58	———
278	3052	1907492.06	6569865.04	———
279	3052	1907506.22	6569869.98	———
280	3052	1907519.90	6569840.64	10'
281	3052	1907547.94	6569824.45	———
282	3052	1907541.78	6569810.78	———
283	3054	1907505.27	6569827.23	10'
284	3054	1907558.05	6569796.76	10'
285	3054	1907526.92	6569620.22	10'
286	3056	1907548.30	6569797.77	10'
287	3056	1907519.14	6569632.42	6'
288	3058	1907518.10	6569649.53	6'
289	3058	1907490.44	6569648.79	———
290	3058	1907477.32	6569574.42	———
291	3066	1907515.95	6569729.50	6'
292	3066	1907488.29	6569728.76	———
293	3066	1907459.84	6569567.39	———
294	3068	1907521.75	6569785.39	10'
295	3068	1907516.28	6569754.38	10'
296	3068	1907483.23	6569746.15	4'
297	3068	1907452.12	6569569.70	———
298	3070	1907458.38	6569852.08	———
299	3070	1907480.53	6569804.57	10'
300	3076	1907414.23	6569631.26	———
301	3076	1907399.28	6569632.38	———
302	3076	1907393.45	6569599.31	———
303	3078	1907403.41	6569778.35	———
304	3078	1907388.45	6569779.46	———
305	3078	1907382.38	6569745.04	4'
306	3078	1907406.95	6569735.34	———
307	3078	1907421.91	6569734.23	———
308	3078	1907426.15	6569758.27	10'
309	3078	1907383.63	6569603.11	———
310	3080	1907408.38	6569829.58	———
311	3080	1907406.38	6569818.24	———
312	3080	1907391.42	6569819.35	———
313	3080	1907375.04	6569726.43	4'
314	3080	1907399.61	6569716.74	———
315	3080	1907379.56	6569603.05	———

SITE B GRADING COORDINATES TABLE				
POINT NO.	ELEV.	NORTHING	EASTING	REMARK*
316	3078.79	1907377.99	6569817.93	———
317	3078.79	1907344.55	6569728.49	———
318	3079.32	1907366.01	6569710.29	———
319	3079.32	1907359.71	6569693.43	———
320	3078.79	1907331.58	6569693.78	———
321	3078.79	1907317.92	6569657.24	———
322	3075.48	1907368.61	6569811.71	———
323	3075.48	1907315.33	6569669.21	———
324	3075.3	1907356.67	6569805.47	———
325	3070.9	1907326.6	6569725.03	———
326	3070.9	1907320.29	6569708.17	———
327	3075.3	1907310.49	6569681.95	———
328	3070	1907343.37	6569797.01	———
329	3069.8	1907333.7	6569759.74	———
330	3069.8	1907330.55	6569751.31	———
331	3069.92	1907319.24	6569727.78	———
332	3070	1907311.35	6569711.37	———

SITE B CONST. CONTROL LINE		
STATION	NORTHING	EASTING
400+00	1908135	6570461.78
409+00	1907685	6569682.35
414+00	1907192.60	6569769.18

SITE B ACCESS ROAD CONSTRUCTION CURVE DATA									
CURVE NO.	DELTA	R	T	L	BC	EC	PI		REMARK*
							NORTHING	EASTING	
Δ_7	27°53'03"	100'	24.83'	48.67'	701+22.51	701+71.17	1908044	6570963.17	———
Δ_8	27°54'43"	200'	49.7'	97.43'	705+31.4	706+28.83	1908044	6570528.42	———
Δ_9	20°33'04"	200'	36.26'	71.74'	707+73.32	708+45.06	1908151.88	6570324.77	———
Δ_{10}	156°55'34"	50'	244.95'	136.94'	709+17.03	710+53.98	1908416.24	6570090.58	———
Δ_{11}	35°	50'	15.76'	30.54'	712+72.36	713+02.90	1907961.81	6570242.30	———
Δ_{12}	156°55'34"	50'	244.95'	136.94'	714+82.87	716+19.81	1907699.45	6570596.38	———
Δ_{13}	35°	50'	15.76'	30.54'	717+82.44	718+12.99	1907798.02	6570184.66	———
Δ_{14}	70°	50'	35.01'	61.09'	720+64.57	721+25.65	1908024.34	6569984.17	———
Δ_{15}	156°55'34"	50'	244.95'	136.94'	724+14.81	725+51.75	1907815.41	6569454.79	———
Δ_{16}	70°	50'	35.01'	61.09'	727+41.21	728+02.30	1907802.82	6569924.04	———
Δ_{17}	156°55'34"	50'	244.95'	136.94'	729+31.50	730+68.44	1907414.73	6570053.62	———
Δ_{18}	70°	50'	35.01'	61.09'	731+38.71	731+99.80	1907676.88	6569821.38	———
Δ_{19}	156°55'34"	50'	244.95'	136.94'	733+78.19	735+15.13	1907508.62	6569395.04	———
Δ_{20}	156°55'34"	50'	244.95'	136.94'	736+14.33	737+51.28	1907492.82	6569983.92	———

SITE B ACCESS ROAD CONSTRUCTION CONTROL DATA			
STATION	NORTHING	EASTING	REMARK
701+00	1908021.86	6571005.01	ACCESS ROAD BEGINS
737+89.08	1907389.02	6569720.91	ACCESS ROAD ENDS



SITE B INLET DETAIL (SH.18)

SCALE 1" = 20'

NOTES:

* NUMBER IN FEET UNDER FIELD "REMARK" OF GRADING COORDINATE TABLE INDICATES HORIZONTAL GRADING CURVE RADIUS AT PARTICULAR CONTROL POINT.

1. SEE SEDIMENT PLACEMENT SITE B SITE GRADING PLAN ON SHEET 18.

PLAN

SCALE: 1" = 20'

10 0 20 40

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER MAN TAT NG C 70322 CIVIL STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

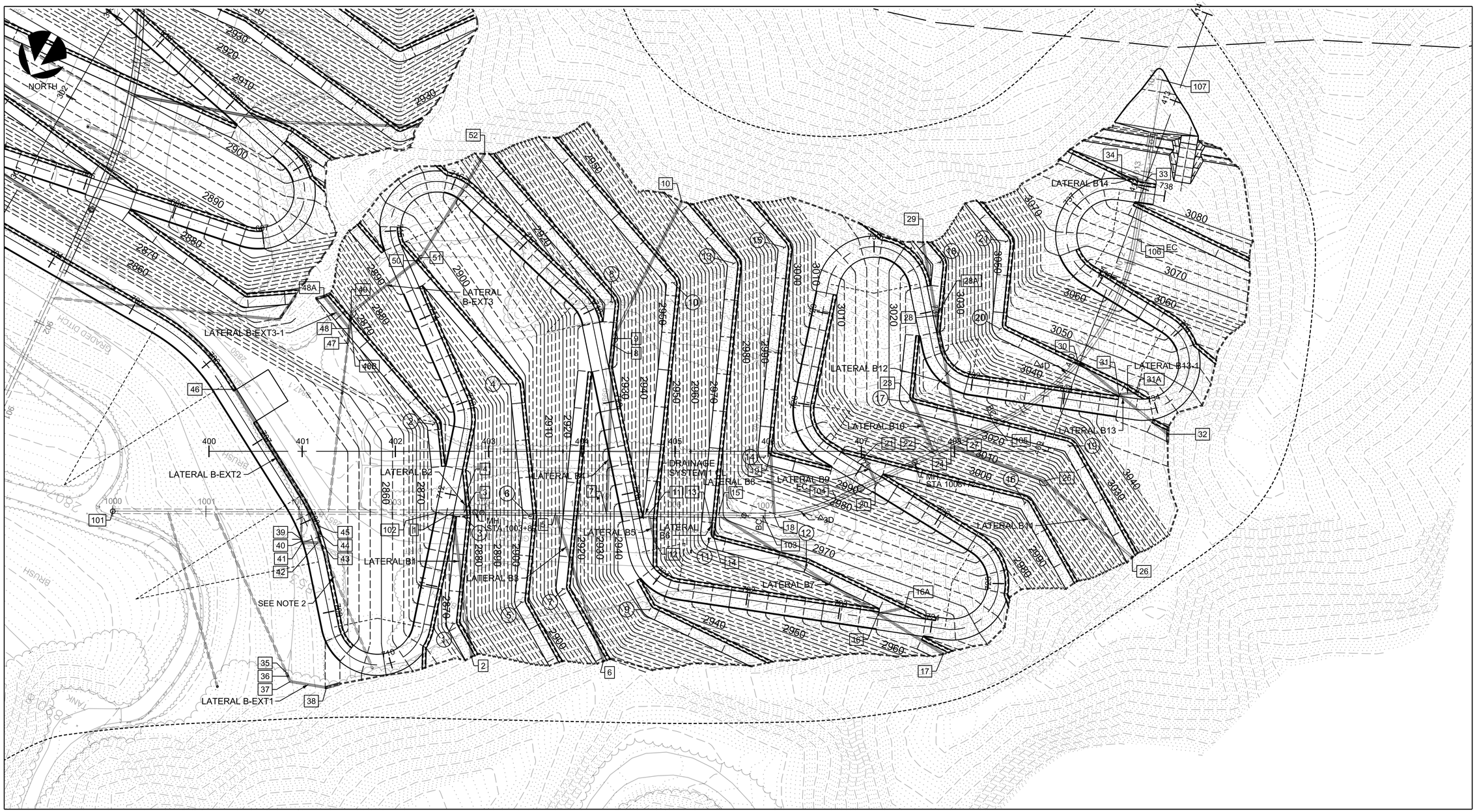
SEDIMENT PLACEMENT SITE B

SITE GRADING CONTROL POINTS COORDINATES TABLE PART 2 AND CONSTRUCTION CONTROL DATA

PROJECT ID NO. WRDM000036

DWG 627-D13.20 | PD053212 | SHEET 20 OF 55

PLAN DR



NOTES:

1. SEE SEDIMENT PLACEMENT SITE B DRAINAGE SYSTEMS & STORM DRAIN LATERALS' COORDINATES TABLE & CONSTRUCTION CURVE DATA AND BENCH TURNS DESIGN PARAMETERS TABLE ON SHEET 22.
2. FILL EXISTING 24" CPS LATERAL AND INLET WITH SLURRY (100-E-100 OR 1-SACK SAND SLURRY) AND ABANDON THEM IN PLACE.
3. SEE SEDIMENT PLACEMENT SITE B DRAINAGE SYSTEMS & STORM DRAIN LATERALS' PROFILES ON SHEETS 31, 37, 38 AND 39.
4. SEE SEDIMENT PLACEMENT SITE B GRADING PLAN ON SHEET 18.

PLAN

SCALE: 1" = 50'

25 0 50 100

DESIGNER JOHN NG

CHECKER SJ

CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE B

DRAINAGE PLAN

PROJECT ID NO. WRDM000036

DWG 627-D13.21	PD053212	SHEET 21 OF 55

PLAN DR

SITE B STORM DRAIN LATERALS COORDINATES TABLE

LATERAL	POINT NO.	STATION	NORTHING	EASTING	REMARK
B1	1	0+00	1908060.91	6570202.36	= 1003+65 OF SITE B DRAINAGE SYSTEM
	2	1+56.25	1908185.10	6570107.54	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2
B2	3	0+00	1908054.94	6570191.94	= 1003+77 OF SITE B DRAINAGE SYSTEM
	4	0+21.07	1908035.59	6570200.27	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
B3	5	0+00	1908006.73	6570106.62	= 1004+75 OF SITE B DRAINAGE SYSTEM
	6	1+66.85	1908118.40	6569982.65	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2
B4	7	0+00	1907979.74	6570058.70	= 1005+30 OF SITE B DRAINAGE SYSTEM
	8	1+81.22	1907819.59	6570143.50	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
	9	1+88.34	1907813.29	6570146.84	∠ = 155.5°
	10	3+52.81	1907649.11	6570156.60	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2
B5	11	0+00	1907957.66	6570019.49	= 1005+75 OF SITE B DRAINAGE SYSTEM
	12	0+30.67	1907980.14	6569998.63	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
B6	13	0+00	1907925.76	6569962.86	= 1006+40 OF SITE B DRAINAGE SYSTEM
	14	0+22.77	1907942.74	6569947.69	INLET IN MODIFIED TYPE A-2 GUTTER, SEE BENCH TURN #11
B7	15	0+00	1907920.85	6569954.14	= 1006+50 OF SITE B DRAINAGE SYSTEM
	16	2+01.57	1907926.94	6569752.66	= 0+00 OF LATERAL B7-1
	17	2+83.65	1907929.42	6569670.62	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2
B7-1	16	0+00	1907926.94	6569752.66	∠ = 45°
	16A	0+29.44	1907906.76	6569731.22	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
B8	18	0+00	1907891.06	6569902.07	= 1007+10 OF SITE B DRAINAGE SYSTEM
	19	0+67.29	1907834.77	6569938.94	INLET IN MODIFIED TYPE A-2 GUTTER, SEE BENCH TURN #14
B9	20	0+00	1907805.44	6569826.70	= 1008+25 OF SITE B DRAINAGE SYSTEM
	21	0+28.93	1907788.30	6569850.01	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
B10	22	0+00	1907747.92	6569786.81	= 1008+95 OF SITE B DRAINAGE SYSTEM
	23	0+62.98	1907709.11	6569836.41	INLET IN MODIFIED TYPE A-2 GUTTER, SEE BENCH TURN #17
B11	24	0+00	1907731.49	6569775.41	= 1009+15 OF SITE B DRAINAGE SYSTEM
	25	1+06.95	1907714.53	6569669.81	∠ = 160°
	26	2+32.19	1907738.17	6569546.83	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2
B12	27	0+00	1907723.27	6569769.72	= 1009+25 OF SITE B DRAINAGE SYSTEM
	28	1+37.89	1907618.21	6569859.03	= 0+00 OF LATERAL B12-1
	29	2+17.43	1907557.61	6569910.55	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2
B12-1	28	0+00	1907618.21	6569859.03	∠ = 45°
	28A	0+08.02	1907610.22	6569858.38	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
B13	30	0+00	1907585.25	6569702.54	= 1010+80 OF SITE B DRAINAGE SYSTEM
	31	0+56.44	1907594.08	6569646.79	=0+00 OF LATERAL B13-1 DEFLECTION ∠ = 45°
	32	1+24.15	1907604.67	6569579.92	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2
B13-1	31	0+00	1907594.08	6569646.79	∠ = 45°
	31A	0+18.82	1907583.02	6569631.56	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
B14	33	0+00	1907381.58	6569737.03	= 1012+90 OF SITE B DRAINAGE SYSTEM
	34	0+25.56	1907389.24	6569761.42	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
B-EXT1	35	0+06.00	1908299.31	6570270.87	REMOVE EX. 24" CSP AND JOIN EX. 24" CSP
	36	0+10.00	1908301.65	6570267.63	REMOVE EX. INLET AND CONSTRUCT IN-KIND INLET
	37	0+16.14	1908305.25	6570262.65	∠ = 123.75°
	38	0+55.37	1908291.58	6570225.88	INLET IN TYPE B CONTACT GUTTER END, NOTE 3
B-EXT2	39	1+00	1908167.14	6570328.69	REMOVE EX. 24" CSP INLET AND JOIN EX. 24" CSP
	40	1+02	1908168.88	6570327.70	∠ = 135°
	41	1+04	1908169.40	6570325.77	∠ = 135°
	42	1+20.27	1908161.32	6570311.65	∠ = 135°
	43	1+22.27	1908159.39	6570311.12	∠ = 135°
	44	1+31.16	1908151.67	6570315.54	INLET IN TYPE A GUTTER LOCAL DEPRESSION, NOTE 3
	45	1+38.39	1908145.41	6570319.13	∠ = 148°
	46	3+11.17	1908063.74	6570471.40	INLET IN TYPE A GUTTER END, NOTE 3
B-EXT3	47	1+00	1907960.14	6570390.71	REMOVE EX. 24" CSP AND JOIN EX. 24" CSP
	48	1+16	1907945.47	6570397.07	= 0+00 OF LATERAL B-EXT3-1
	48B	1+25.72	1907936.55	6570400.94	INLET IN TYPE A-2 GUTTER
	49	1+32.98	1907929.89	6570403.83	∠ = 135°
	50	2+23.06	1907846.10	6570370.73	INLET IN MODIFIED TYPE A GUTTER, NOTE 1
	51	2+28.31	1907841.23	6570368.81	∠ = 160°
	52	3+59.07	1907710.52	6570365.26	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2
B-EXT3-1	48	0+00	1907945.47	6570397.07	∠ = 45°
	48A	0+44.21	1907929.22	6570438.19	INLET IN MODIFIED TYPE B CONTACT GUTTER, NOTE 2

SITE B DRAINAGE SYSTEM COORDINATES TABLE

DRAINAGE SYSTEM	POINT NO.	STATION	NORTHING	EASTING	REMARK
1	101	1000+00	1908242.26	6570519.11	EXST 60" CSP
	102	1003+50	1908068.36	6570215.37	JOIN EXST 60" CSP. CONTRACTOR VERIFY EXST CSP'S LOCATION AND INVERT ELEVATION.
	103	1006+97.94	1907897.33	6569912.37	BC
	104	1007+79.22	1907843.06	6569852.79	EC
	105	1009+66.65	1907689.05	6569745.98	BC
	106	1012+26.96	1907440.63	6569714.95	EC
	107	1014+00	1907278.55	6569775.55	———

SITE B BENCH TURNS DESIGN PARAMETERS TABLE

BENCH TURN NUMBER	BENCH TURN SHAPE	POINT	ELEV.	NORTHING	EASTING	REMARK
1	U SHAPE	O	———	1908157.25	6570134.82	∠ I = 35°
		A	2872.26'	———	———	———
		B	2872.04'	———	———	———
		C	2872.26'	———	———	———
		PI	———	1908169.47	6570148.50	———
2	INVERTED U SHAPE	O	———	1907997.37	6570273.47	∠ I = 35°
		A	2875.70'	———	———	———
		B	2875.48'	———	———	———
		C	2875.70'	———	———	———
		PI	———	1907982.67	6570262.49	T = 5.52'
3	INVERTED V SHAPE	A	2878.08'	1908055.14	6570183.58	———
		B	2877.84'	———	———	———
		C	2878'	1908062.68	6570196.63	———
4	INVERTED U SHAPE	O	———	1907915.61	6570218.42	∠ I = 35°
		A	2899.52'	———	———	———
		B	2899.30'	———	———	———
		C	2899.52'	———	———	———
		PI	———	1907900.91	6570207.44	T = 5.52'
5	U SHAPE	O	———	1908100.50	6570082.82	∠ I = 35°
		A	2901.50'	———	———	———
		B	2901.28'	———	———	———
		C	2901.50'	———	———	———
		PI	———	1908112.73	6570096.51	T = 5.52'
6	INVERTED V SHAPE	A	2906.15'	1908019.61	6570122.02	———
		B	2905.91'	———	———	———
		C	2906.08'	1908027.14	6570135.08	———
7	U SHAPE	O	———	1908066.00	6570051.20	
		A	2916.26'	———	———	———
		B	2916.04'	———	———	———
		C	2916.26'	———	———	———
		PI	———	1908078.22	6570064.89	T = 5.52'
8	INVERTED U SHAPE	O	———	1907787.68	6570174.75	
		A	2929.07'	———	———	———
		B	2928.85'	———	———	———
		C	2929.07'	———	———	———
		PI	———	1907773.64	6570161.88	T = 7.51'
9	U SHAPE	O	———	1908035.70	6569964.82	∠ I = 35°
		A	2940.37'	———	———	———
		B	2940.15'	———	———	———
		C	2940.37'	———	———	———
		PI	———	1908053.56	6569969.02	T = 5.52'
10	INVERTED U SHAPE	O	———	1907736.54	6570127.88	∠ I = 46°28'42"
		A	2954.69'	———	———	———
		B	2954.47'	———	———	———
		C	2954.69'	———	———	———
		PI	———	1907722.50	6570115.02	T = 7.51'
11	U SHAPE	O	———	1907938.55	6569945.73	∠ I = 81°28'42"
		A	2964.78'	———	———	———
		B	2964.56'	———	———	———
		C	2964.78'	———	———	———
		PI	———	1907959.48	6569955.49	T = 15.07'
12	INVERTED V SHAPE	A	2968.53'	1907913.23	6569846.68	———
		B	2968.30'	———	———	———
		C	2968.50'	1907928.08	6569844.07	———
13	INVERTED U SHAPE	O	———	1907685.94	6570081.52	∠ I = 46°28'42"
		A	2979.95'	———	———	———
		B	2979.73'	———	———	———
		C	2979.95'	———	———	———
		PI	———	1907671.90	6570068.65	T = 7.51'
14	U SHAPE	O	———	1907830.57	6569936.99	∠ I = 81°28'42"
		A	2988.10'	———	———	———
		B	2987.88'	———	———	———
		C	2988.10'	———	———	———
		PI	———	1907851.51	6569946.75	T = 15.07'
15	INVERTED U SHAPE	O	———	1907643.94	6570043.04	∠ I = 46°28'42"
		A	2999.65'	———	———	———
		B	2999.43'	———	———	———
		C	2999.65'	———	———	———
		PI	———	1907629.90	6570030.17	T = 7.51'
16	INVERTED U SHAPE	O	———	1907755.50	6569676.95	∠ I = 46°28'42"
		A	2999.75'	———	———	———
		B	2999.53'	———	———	———
		C	2999.75'	———	———	———
		PI	———	1907736.62	6569674.47	T = 7.51'
17	U SHAPE	O	———	1907704.92	6569834.46	∠ I = 81°28'42"
		A	3020.38'	———	———	———
		B	3020.16'	———	———	———
		C	3020.38'	———	———	———
		PI	———	1907725.85	6569844.22	T = 15.07'
18	INVERTED U SHAPE	O	———	1907575.00	6569891.12	∠ I = 46°28'42"
		A	3025.25'	———	———	———
		B	3025.03'	———	———	———
		C	3025.25'	———	———	———
		PI	———	1907560.95	6569878.26	T = 7.51'
19	INVERTED U SHAPE	O	———	1907678.45	6569666.81	∠ I = 46°28'42"
		A	3029.34'	———	———	———
		B	3029.12'	———	———	———
		C	3029.34'	———	———	———
		PI	———	1907659.57	6569664.32	T = 7.51'
20	U SHAPE	O	———	1907588.29	6569787.07	∠ I = 70°
		A	3049.19'	———	———	———
		B	3048.97'	———	———	———
		C	3049.19'	———	———	———
		PI	———	1907606.65	6569797.99	T = 12.25'
21	INVERTED U SHAPE	O	———	1907519.31	6569840.10	∠ I = 46°28'42"
		A	3053.81'	———	———	———
		B	3053.59'	———	———	———
		C	3053.81'	———	———	———
		PI	———	1907505.27	6569827.23	T = 7.51'

SITE B DRAINAGE SYSTEM CONSTRUCTION CURVE DATA

CURVE NO.	DELTA	R	T	L	BC	EC	PI		REMARK*
							NORTHING	EASTING	
Δ_{3D}	25°52'16"	180'	41.34'	81.28'	1006+97.94	1007+79.22	1907877.04	6569876.35	———
Δ_{4D}	55°14'23"	270'	141.27'	260.31'	1009+66.65	1012+26.96	1907572.96	6569665.48	———

NOTES:

1. SEE MODIFIED TYPE A GUTTER CONFIGURATION SAMPLES ON SHEET 43.
2. SEE MODIFIED TYPE B CONTACT GUTTER ON SHEET 41.
3. SEE TYPE A1 & A2 LOCAL DEPRESSION, TYPE A1 & A2 GUTTER ENDS AND TYPE B CONTACT GUTTER END ON SHEET 41.
4. SEE BENCH TURNS DETAILS ON SHEET 42.
5. SEE SEDIMENT PLACEMENT SITE B DRAINAGE PLAN ON SHEET 21.

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

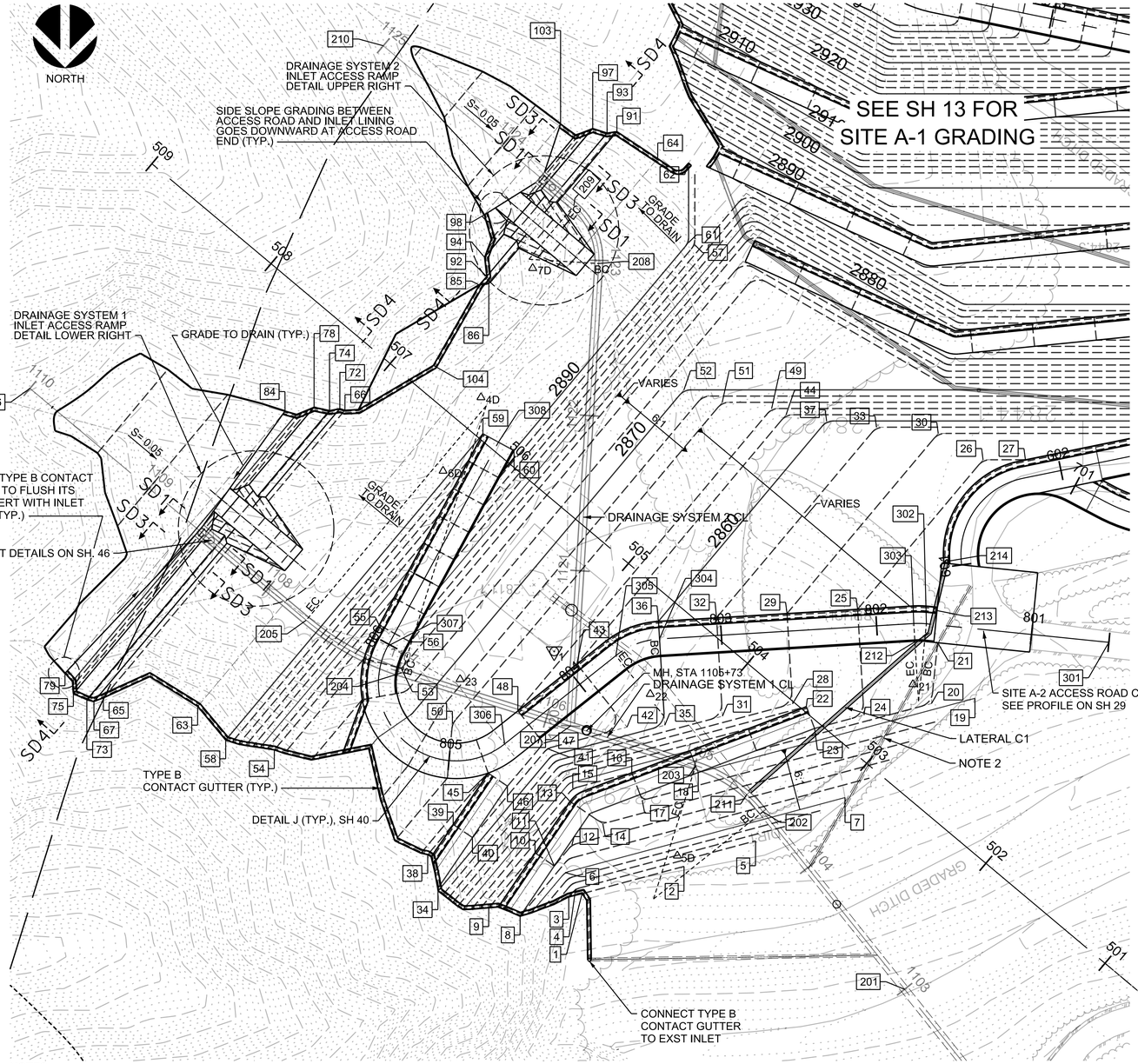
SEDIMENT PLACEMENT SITE B

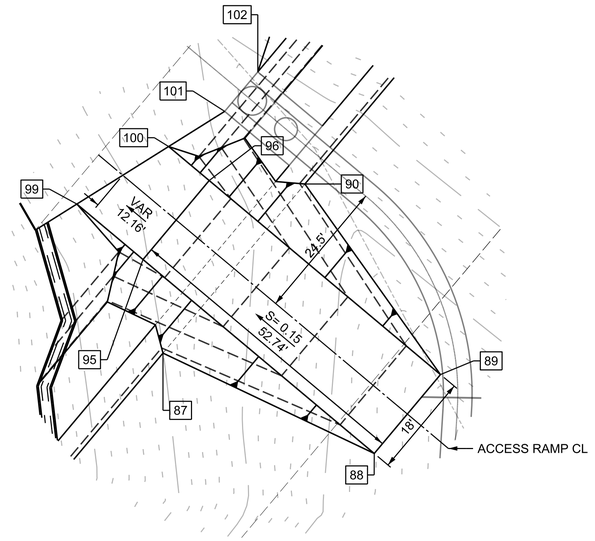
DRAINAGE PLAN COORDINATES TABLE AND BENCH TURNS DESIGN PARAMETERS TABLE

PROJECT ID NO. WRDM000036

DWG 627-D13.22 | PD053212 | SHEET 22 OF 55

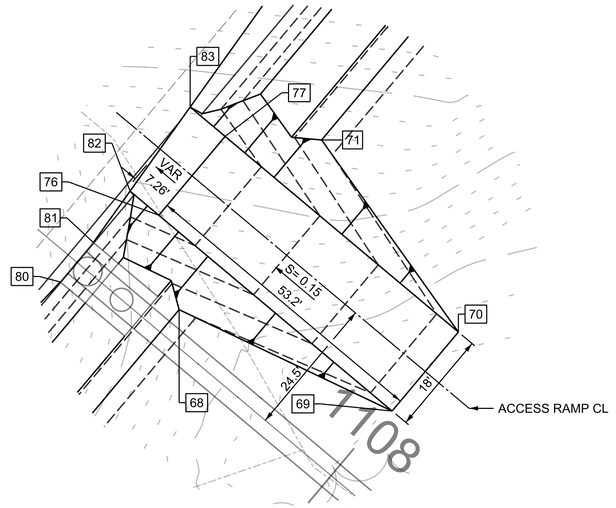
PLAN DR





DRAINAGE SYSTEM 2 INLET ACCESS RAMP DETAIL

SCALE: NOT TO SCALE



DRAINAGE SYSTEM 1 INLET ACCESS RAMP DETAIL

SCALE: NOT TO SCALE

NOTES:

1. SEE SEDIMENT PLACEMENT SITE A-2 SITE GRADING CONTROL POINTS' COORDINATES, ACCESS ROAD CONSTRUCTION CURVE DATA AND CONSTRUCTION CONTROL LINE'S COORDINATES ON SHEET 24.
2. FILL EXISTING 24" CPS LATERAL AND INLET WITH SLURRY (100-E-100 OR 1-SACK SAND SLURRY) AND ABANDON THEM IN PLACE.
3. SEE SEDIMENT PLACEMENT SITE A-2 DRAINAGE SYSTEMS & STORM DRAIN LATERAL'S PROFILES ON SHEET 32.

PLAN

SCALE: 1" = 40'

20 0 40 80

4. SEDIMENT PLACEMENT SITE DESIGN PARAMETERS:

FILL VOLUME = APPROX. 161,000 CUBIC YARDS
MAX FACE SLOPE = 2H : 1V
MAX ACCESS ROAD LONGITUDINAL SLOPE = 10%
MAX BENCH (15' W) LONGITUDINAL SLOPE = 5%
MIN BENCH (15' W) LONGITUDINAL SLOPE = 1 TO 2 %
BENCHES ARE CONSTRUCTED EVERY 30 VERTICAL FEET OR LESS.
ACCESS ROAD MIN CURVE RADIUS = 50 FEET

5. SURVEY CONTROLS:

▽1 PT# 1004 PHOTO ID# 3
N/E COR. CONC. INLET STRUCT.
N 1,908,128.488
E 6,571,339.921
EL 2820.74
FC 3419-107

6. SEE SEDIMENT PLACEMENT SITE A-2 DRAINAGE SYSTEMS & STORM DRAIN LATERAL'S COORDINATES TABLE AND CONSTRUCTION CURVE DATA ON SHEET 24.

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

MAN TAT NG
C 70322
CIVIL
STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER

Jan 20, 2021
PROJECT ENGINEER

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE A-2

SITE GRADING CONTROL POINTS AND DRAINAGE PLAN

PROJECT ID NO. WRDM000036

DWG 627-D13,23	PD053212	SHEET 23 OF 55

PLAN DR

SITE A-2 GRADING COORDINATES TABLE

POINT NO.	ELEV.	NORTHING	EASTING	REMARK*
1	2832	1908284.29	6571321.98	———
2	2832	1908266.72	6571256.43	———
3	2834	1908286.39	6571330.53	———
4	2834	1908281.29	6571326.24	10'
5	2834	1908250.26	6571210.45	———
6	2840	1908270.68	6571333	———
7	2840	1908222.43	6571152.97	———
8	2842	1908298.83	6571361.85	———
9	2844	1908293.43	6571382.02	———
10	2844	1908258.01	6571352.30	———
11	2844	1908266.45	6571339.90	———
12	2844	1908252.92	6571328.54	10'
13	2846	1908224.95	6571329.78	———
14	2846	1908239.31	6571308.69	10'
15	2848	1908216.62	6571328.01	10'
16	2848	1908206.44	6571290.05	———
17	2848	1908224.23	6571283.31	———
18	2850	1908206.31	6571247.33	———
19	2850	1908158.64	6571069.41	———
20	2852	1908161.98	6571097.35	———
21	2852	1908122.85	6571093.37	———
22	2854	1908163.95	6571177.82	———
23	2854	1908177.98	6571172.51	———
24	2854	1908169.46	6571140.71	10'
25	2854	1908101.30	6571144.83	———
26	2854	1908005.16	6571064.16	10'
27	2854	1908005.16	6571036.93	———
28	2856	1908162.18	6571186.69	10'
29	2856	1908104.05	6571190.20	———
30	2856	1907988.21	6571093.01	10'
31	2858	1908170.12	6571231.74	10'
32	2858	1908106.79	6571235.57	6'
33	2858	1907984.21	6571132.72	10'
34	2860	1908282.54	6571414.66	———
35	2860	1908175.92	6571268.85	10'
36	2860	1908109.05	6571272.90	———
37	2860	1907980.21	6571164.79	10'
38	2862	1908259.22	6571421.25	———
39	2862	1908239.74	6571404.90	———
40	2862	1908248.18	6571392.50	———
41	2862	1908190.87	6571344.41	10'
42	2862	1908177.13	6571293.12	10'
43	2862	1908136.55	6571325.36	———
44	2862	1907976.21	6571190.82	10'
45	2864	1908206.68	6571382.38	———
46	2864	1908215.12	6571369.98	———
47	2864	1908187.43	6571346.75	4'
48	2864	1908166.65	6571363.25	———
49	2864	1907972.21	6571200.10	10'
50	2866	1908174.97	6571405.38	10'
51	2866	1907968.21	6571231.89	10'
52	2870	1907960.21	6571256.51	10'
53	2874	1908139.41	6571438.20	2'
54	2876	1908191.83	6571519.91	———
55	2876	1908111.51	6571452.51	———
56	2876	1908122.35	6571432.51	———
57	2888	1907866.94	6571249.52	10'
58	2890	1908185.50	6571551.15	———
59	2890	1907988.43	6571385.79	———
60	2890	1907999.27	6571365.79	———
61	2890	1907865.48	6571253.52	10'
62	2890	1907814.24	6571253.52	———
63	2889	1908163.89	6571569.19	———
64	2889	1907811.38	6571273.39	———
65	2888	1908158.38	6571629.84	———
66	2888	1907973.26	6571474.50	———
67	2887.94	1908160.73	6571635.87	———
68	2887.94	1908058.86	6571550.39	———
69	2888.74	1908076.56	6571513.18	———
70	2888.74	1908062.77	6571501.61	———

SITE A-2 GRADING COORDINATES TABLE

POINT NO.	ELEV.	NORTHING	EASTING	REMARK*
71	2887.94	1908029.20	6571525.50	———
72	2887.94	1907972.30	6571477.76	———
73	2885.78	1908159.49	6571640.46	———
74	2885.78	1907973.50	6571484.40	———
75	2885.6	1908155.80	6571649.12	———
76	2880.76	1908042.37	6571553.93	———
77	2880.76	1908028.58	6571542.36	———
78	2885.60	1907971.34	6571494.34	———
79	2880.25	1908142.48	6571654.52	———
80	2879.9	1908054.02	6571571.16	———
81	2879.9	1908047.13	6571565.37	———
82	2879.94	1908038.15	6571558.96	———
83	2880.01	1908023.46	6571548.46	———
84	2880.25	1907973.85	6571513.02	———
85	2888.38	1907892.69	6571388.14	———
86	2888.38	1907892.15	6571381.95	5'
87	2888.38	1907869.17	6571362.67	———
88	2889.17	1907886.72	6571325.76	———
89	2889.17	1907872.93	6571314.19	———
90	2888.38	1907839.63	6571337.88	———
91	2888.38	1907794.03	6571299.62	———
92	2886.28	1907887.25	6571383.31	———
93	2886.28	1907795.02	6571305.92	———
94	2886.10	1907874.93	6571384.72	———
95	2881.26	1907852.82	6571366.16	———
96	2881.26	1907839.03	6571354.59	———
97	2886.10	1907792.06	6571315.19	———
98	2881	1907847.67	6571384.95	———
99	2880.87	1907843.13	6571377.71	———
100	2880.58	1907833.08	6571361.68	———
101	2880.40	1907826.94	6571351.89	———
102	2880.40	1907820.04	6571346.10	———
103	2881	1907789.11	6571335.82	———
104	~2888.50	1907944.42	6571417.66	SET TYPE B CONTACT GUTTER AT HIGHER POINT TO DRAIN BOTHWAYS

SITE A-2 DRAINAGE SYSTEMS COORDINATES TABLE

DRAINAGE SYSTEM	POINT NO.	STATION	NORTHING	EASTING	REMARK
1	201	1103+00	1908345.75	6571114.61	EXST 60" CSP
	202	1104+46.09	1908231.53	6571205.69	BC, JOIN EXST 60" CSP. CONTRACTOR VERIFY EXST CSPS LOCATION AND INVERT ELEVATION.
	203	1104+99.33	1908201.83	6571248.95	EC
	204	1106+97.48	1908142.14	6571437.89	BC
	205	1107+68.06	1908108.39	6571499.37	EC
	206	1110+00.00	1907959.30	6571677.04	———
2	207	1120+00	1908176.40	6571329.45	=1105+83.76, DRAINAGE SYSTEM 1
	208	1122+97.99	1907878.96	6571311.26	BC
	209	1123+40.01	1907841.74	6571327.25	EC
	210	1125+00.00	1907738.90	6571449.81	———
LATERAL C1	211	0+00	1908220.52	6571216.11	= 1104+61.27, DRAINAGE SYSTEM 1
	212	1+56.98	1908116.53	6571098.52	∠ = 145°
	213	1+71.98	1908101.95	6571095.01	INLET IN TYPE A GUTTER END, NOTE 4
	214	2+04.27	1908070.55	6571087.47	INLET IN TYPE A GUTTER END, NOTE 4

SITE A-2 ACCESS ROAD CONSTRUCTION CURVE DATA

CURVE NO.	DELTA	R	T	L	BC	EC	PI		REMARK*
							NORTHING	EASTING	
Δ_{21}	9°16'34"	50'	4.06'	8.09'	801+67.94	801+76.04	1908110.26	6571104.65	———
Δ_{22}	35°	50'	15.76'	30.54'	803+39.85	803+70.39	1908121.36	6571287.95	———
Δ_{23}	156°55'34"	50'	244.95'	136.94'	804+61.76	805+98.71	1907492.82	6569983.92	———

SITE A-2 ACCESS ROAD COORDINATES TABLE

POINT NO.	STATION	NORTHING	EASTING	REMARK
301	800+50.00	1908122.62	6570983.28	ACCESS ROAD BEGINS
302	801+67.94	1908110.68	6571100.62	BC
303	801+76.04	1908110.51	6571108.70	EC
304	803+39.85	1908120.40	6571272.21	BC
305	803+70.39	1908131.16	6571300.29	EC
306	804+61.76	1908188	6571371.84	BC
307	805+98.71	1908125.02	6571446.89	EC
308	807+47.91	1907993.85	1907993.85	ACCESS ROAD ENDS

SITE A-2 CONST. CONTROL LINE

STATION	NORTHING	EASTING
500+00	1908393.30	6570909.16
509+00	1907814.79	6571598.60

NOTES:

* NUMBER IN FEET UNDER FIELD "REMARK" OF GRADING COORDINATE TABLE INDICATES HORIZONTAL GRADING CURVE RADIUS AT PARTICULAR CONTROL POINT.

1. SEE SEDIMENT PLACEMENT SITE A-2 SITE GRADING PLAN AND DRAINAGE PLAN ON SHEET 23.

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

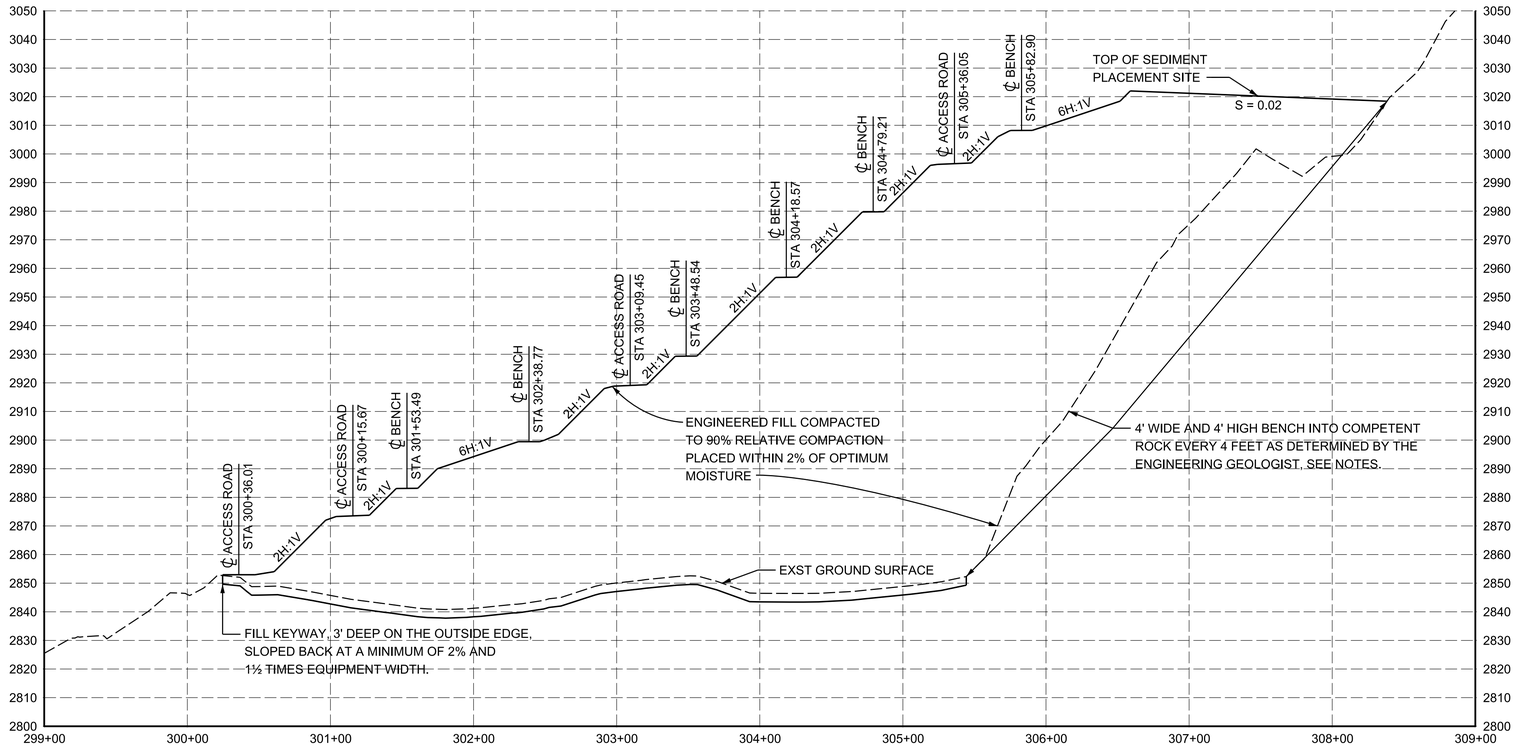
COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE A-2

SITE GRADING AND DRAINAGE CONTROL POINTS
COORDINATES TABLE AND CONSTRUCTION CONTROL DATA
PROJECT ID NO. WRDM000036

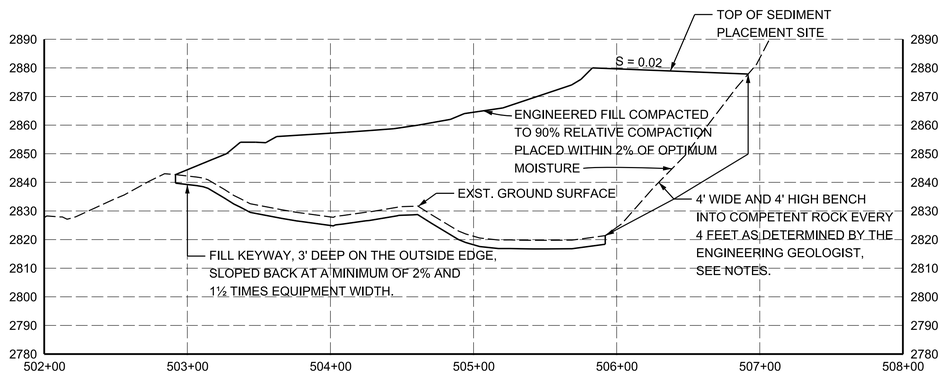
DWG 627-D13.24 | PD053212 | SHEET 24 OF 55

PLAN DR



SITE A-1 CONSTRUCTION CONTROL LINE (SH 13 & 16)

SCALE: HOR 1" = 50'
VERT 1" = 25'



SITE A-2 CONSTRUCTION CONTROL LINE (SH 23)

SCALE: HOR 1" = 50'
VERT 1" = 25'

GRAPHICAL SCALE: 1"
0.5 0 1 2

NOTES:

1. DURING BENCHING OPERATIONS, ALL ORGANICS SHALL BE REMOVED AND EITHER LEGALLY DISPOSED OF OFF-SITE OR CHIPPED AND/OR GROUND FOR STORAGE/USE AS MULCH OUTSIDE OF THE SPS.
2. PREVIOUS GEOLOGIC MAPPING (PLATE 1, GMED 2011 REPORT) IN THE AREAS OF SITES A-1, A-2, AND B HAD IDENTIFIED DEBRIS FLOW DEPOSITS (QDF) AND LANDSLIDE DEPOSITS (QLS) WHICH SHALL BE REMOVED TO EXPOSE COMPETENT BEDROCK DURING BENCHING OPERATIONS, AND...
3. IN ALL CANYONS OF SITES A-1, A-2, AND B, SUBDRAINS SHALL BE INSTALLED AND CONNECTED TO THE PROPOSED DRAINAGE SYSTEM FOLLOWING REMOVAL OF ORGANICS AND EXPOSURE OF COMPETENT BEDROCK AND BEFORE THE PLACEMENT OF ANY ENGINEERED FILL.

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION
REVISIONS		

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

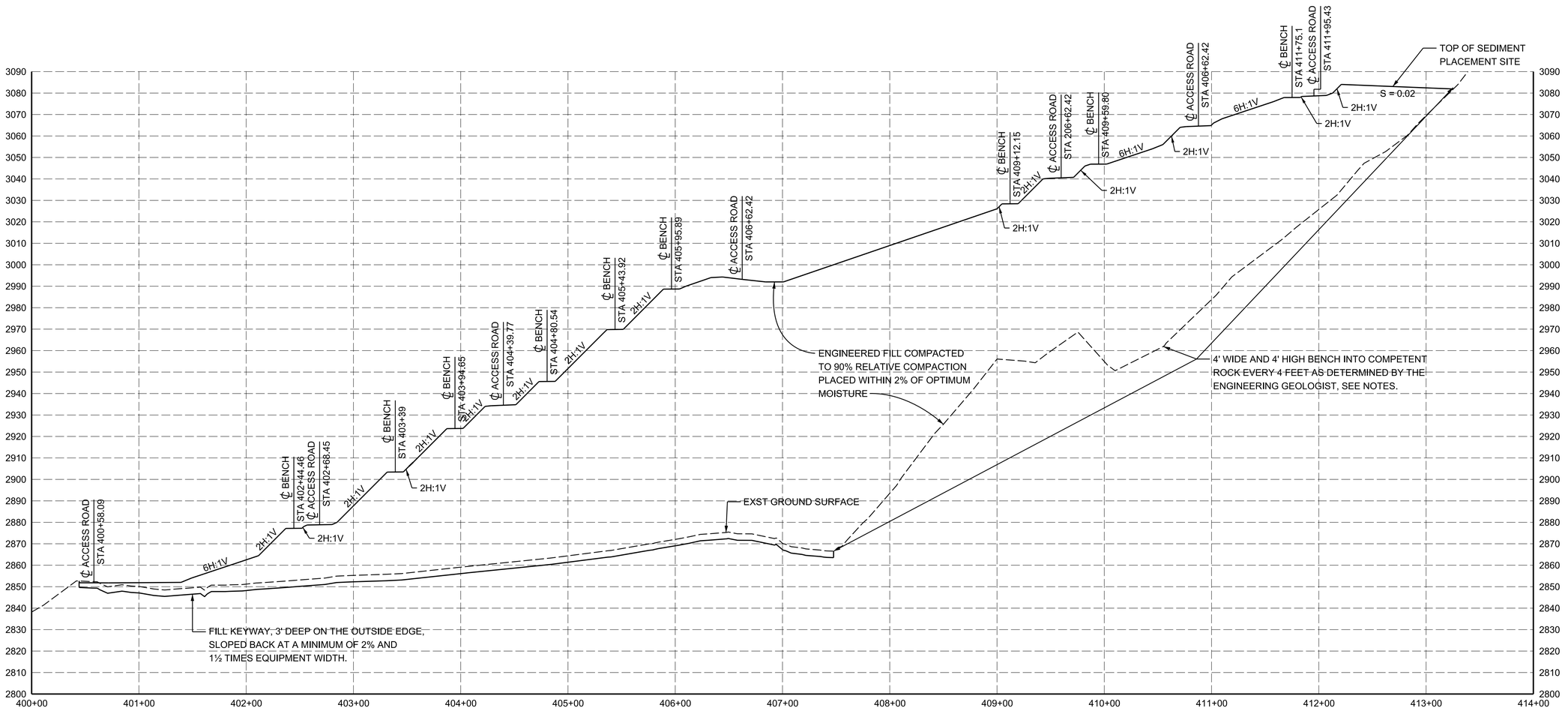
SEDIMENT PLACEMENT SITES A-1 AND A-2

PROFILES

PROJECT ID NO. WRDM000036

DWG 627-D13.25	PD053212	SHEET 25 OF 55

PLAN DR



SITE B CONSTRUCTION CONTROL LINE (SH. 18)

SCALE: HOR 1" = 50'
VERT 1" = 25'

NOTES:

1. DURING BENCHING OPERATIONS, ALL ORGANICS SHALL BE REMOVED AND EITHER LEGALLY DISPOSED OF OFF-SITE OR CHIPPED AND/OR GROUND FOR STORAGE/USE AS MULCH OUTSIDE OF THE SPS.
2. PREVIOUS GEOLOGIC MAPPING (PLATE 1, GMED 2011 REPORT) IN THE AREAS OF SITES A-1, A-2, AND B HAD IDENTIFIED DEBRIS FLOW DEPOSITS (QDF) AND LANDSLIDE DEPOSITS (QLS) WHICH SHALL BE REMOVED TO EXPOSE COMPETENT BEDROCK DURING BENCHING OPERATIONS, AND...
3. IN ALL CANYONS OF SITES A-1, A-2, AND B, SUBDRAINS SHALL BE INSTALLED AND CONNECTED TO THE PROPOSED DRAINAGE SYSTEM FOLLOWING REMOVAL OF ORGANICS AND EXPOSURE OF COMPETENT BEDROCK AND BEFORE THE PLACEMENT OF ANY ENGINEERED FILL.

GRAPHICAL SCALE: 1"
0.5 0 1 2

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

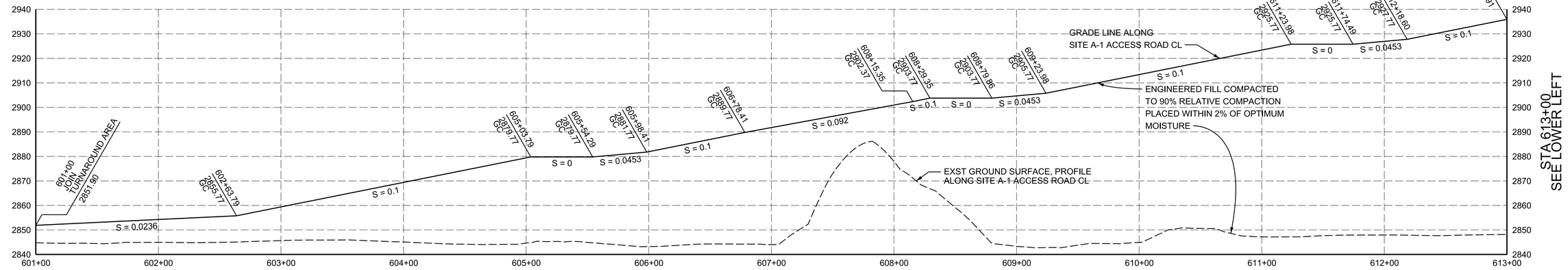
SEDIMENT PLACEMENT SITE B

PROFILE

PROJECT ID NO. WRDM000036

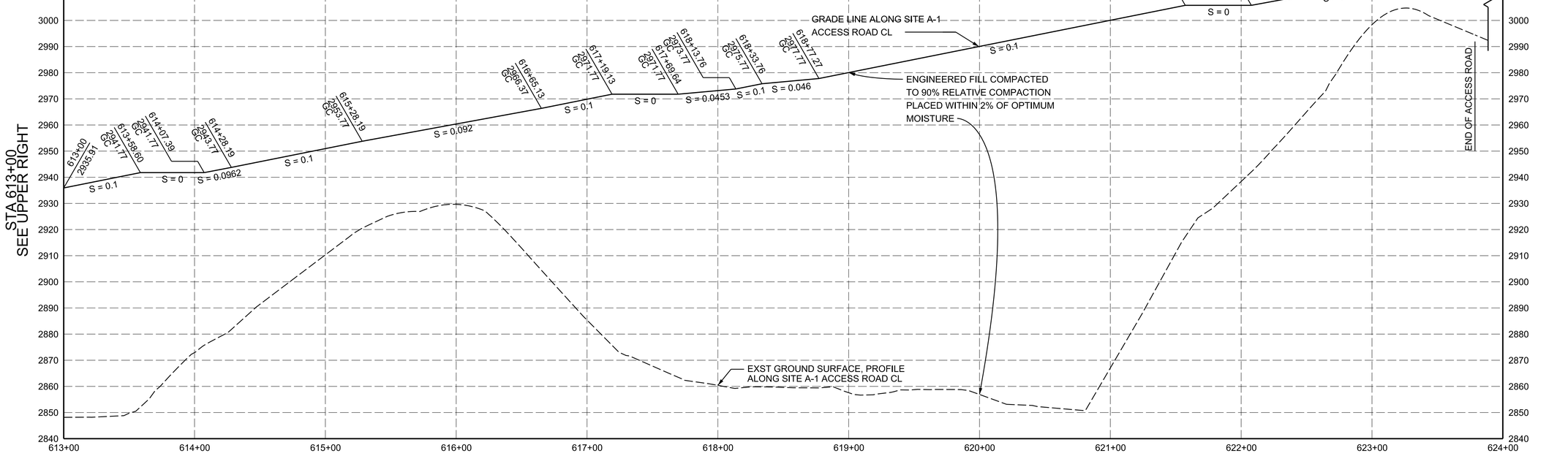
DWG 627-D13.26 | PD053212 | SHEET 26 OF 55

PLAN DR



STA 613+00
SEE LOWER LEFT

STA 613+00
SEE UPPER RIGHT



SITE A-1 ACCESS ROAD (SH 13)

SCALE: HOR 1" = 40'
VERT 1" = 20'

GRAPHICAL SCALE: 1"
0.5 0 1 2

CADD PROJECT FILE NAME: WRDM000036.DGN
CHECKER: SJ
DESIGNER: JOHN NG

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
MAN TAT NG
C 70322
CIVIL
STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

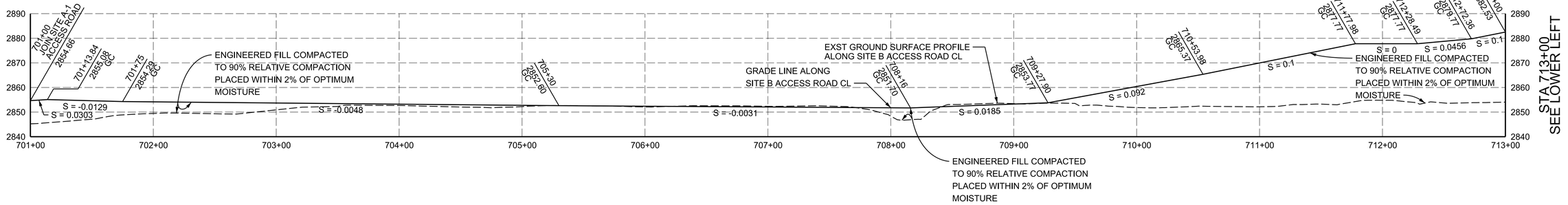
COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

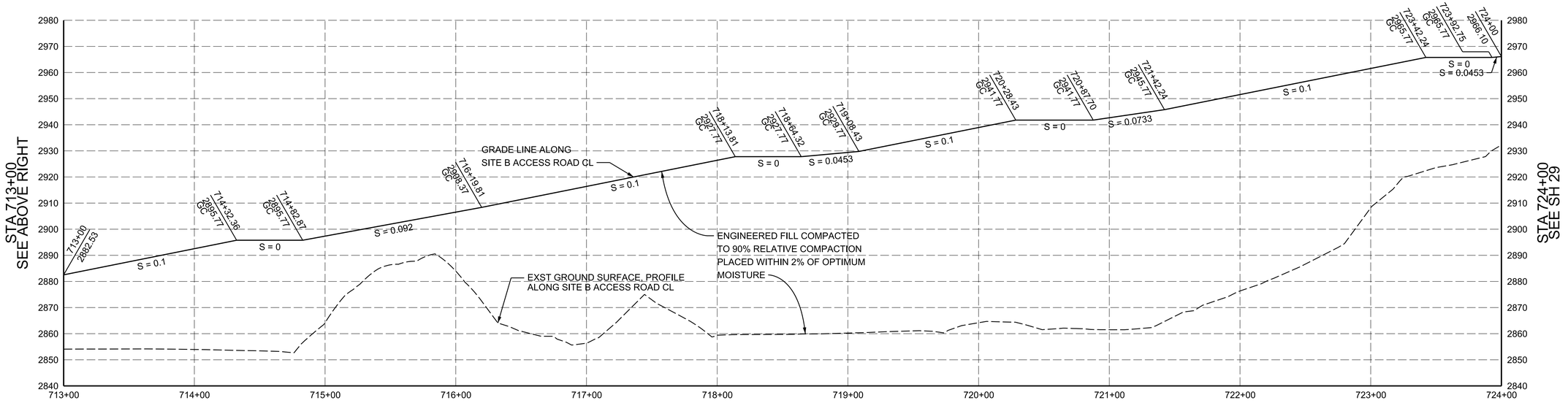
SEDIMENT PLACEMENT SITE A-1

ACCESS ROAD PROFILE
PROJECT ID NO. WRDM000036

DWG 627-D13.27 | PD053212 | SHEET 27 OF 55

PLAN DR





SITE B ACCESS ROAD (SH 13 &18)

SCALE: HOR 1" = 40'
VERT 1" = 20'

GRAPHICAL SCALE: 1"
0.5 0 1 2

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEERS — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

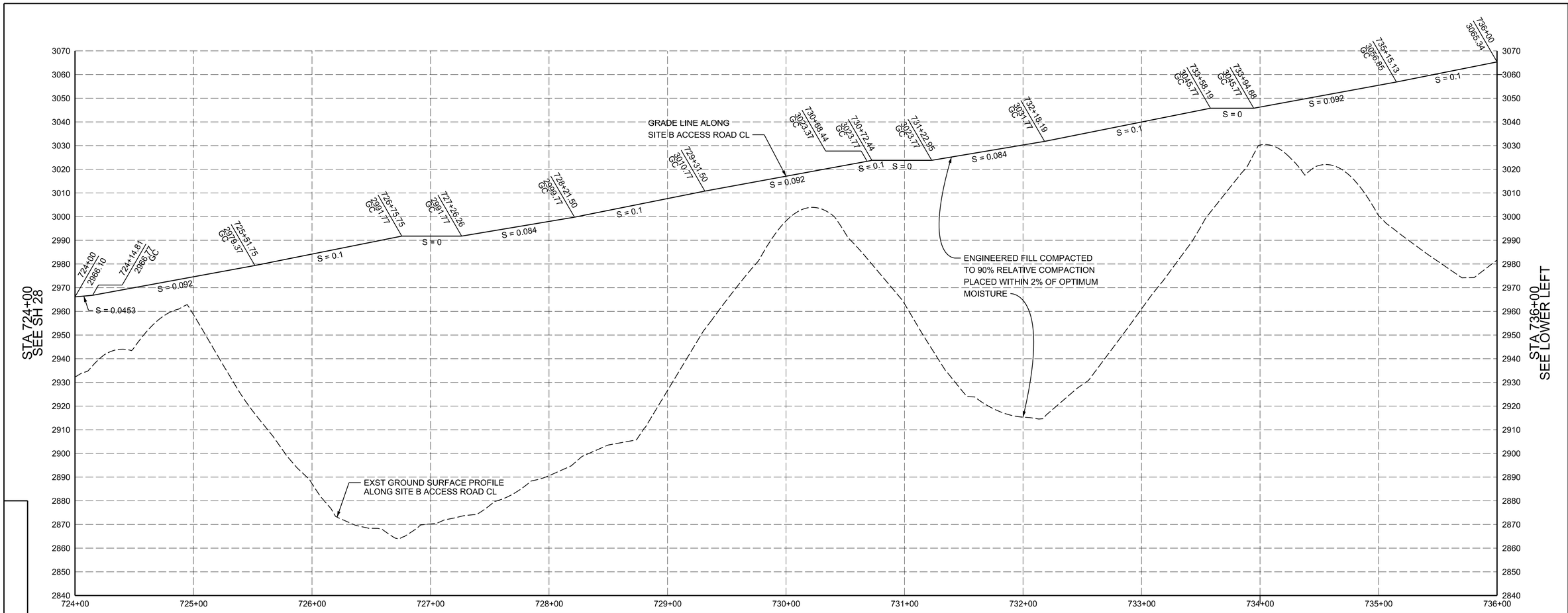
LOS ANGELES COUNTY PUBLIC WORKS

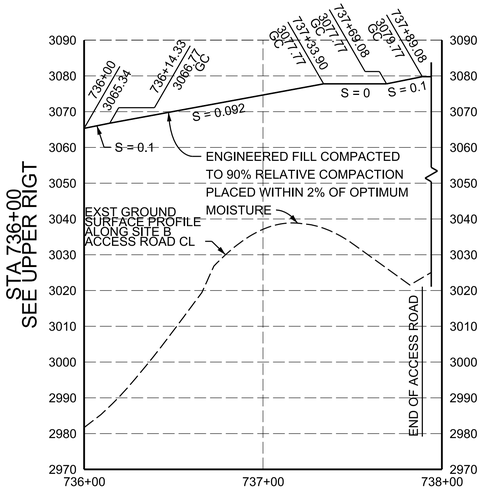
COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE B
ACCESS ROAD PROFILE
STA 701+00 TO STA 724+00
PROJECT ID NO. WRDM000036

DWG 627-D13.28	PD053212	SHEET 28 OF 55

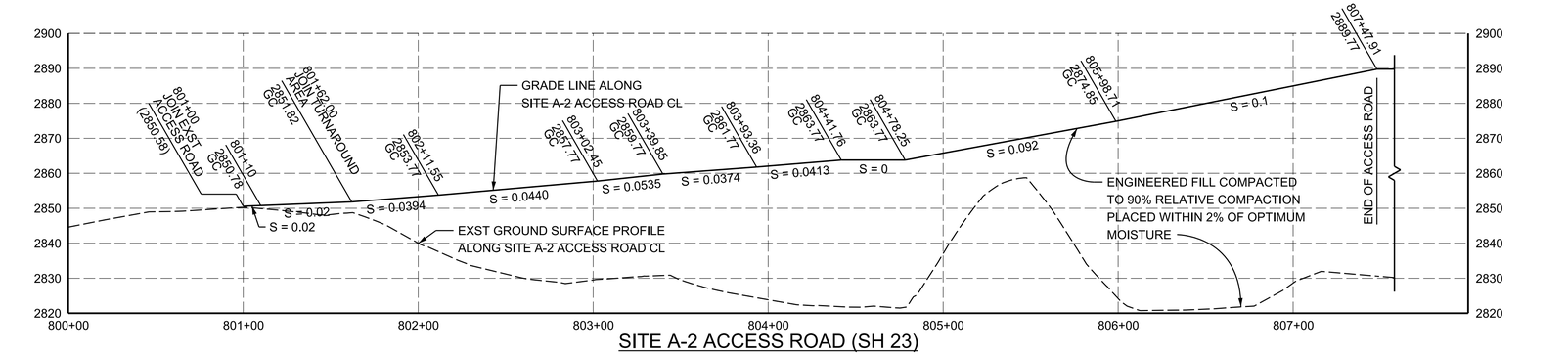
PLAN DR





SITE B ACCESS ROAD (SH 18)

SCALE: HOR 1" = 40'
VERT 1" = 20'



SITE A-2 ACCESS ROAD (SH 23)

SCALE: HOR 1" = 40'
VERT 1" = 20'

GRAPHICAL SCALE: 1"

0,5 0 1 2

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

MAN TAT NG
C 70322
CIVIL
STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER

PROJECT ENGINEER Jan 20, 2021

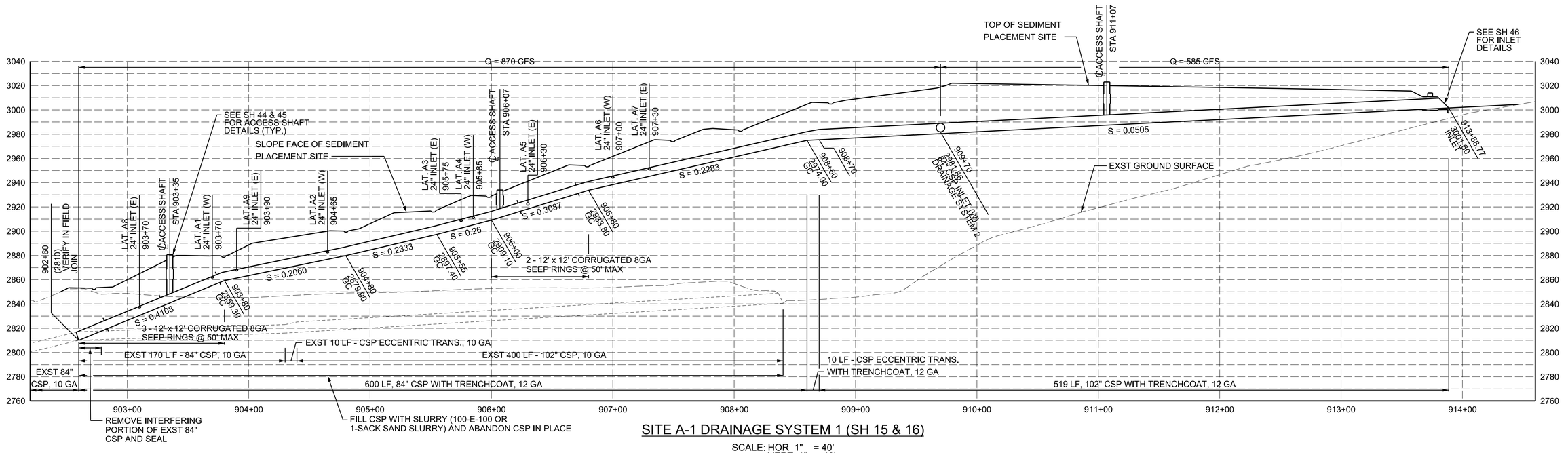
LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE B AND A-2
SITE B ACCESS ROAD PROFILE STA 724+00 TO
STA 737+89 AND SITE A-2 ACCESS ROAD
PROJECT ID NO. WRDM000036

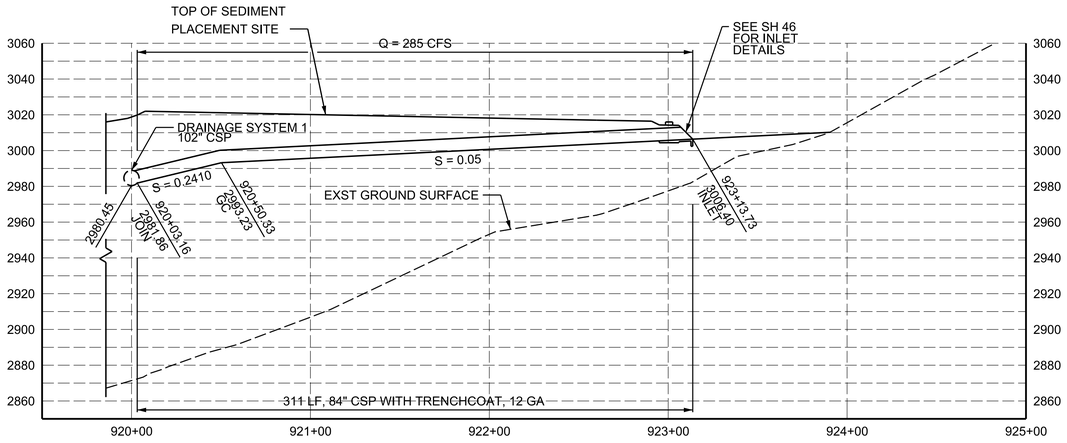
DWG 627-D13.29 | PD053212 | SHEET 29 OF 55

PLAN DR



SITE A-1 DRAINAGE SYSTEM 1 (SH 15 & 16)

SCALE: HOR 1" = 40'
VERT 1" = 40'



SITE A-1 DRAINAGE SYSTEM 2 (SH 15 & 16)

SCALE: HOR 1" = 40'
VERT 1" = 40'

GRAPHICAL SCALE: 1"

0.5 0 1 2

CADD PROJECT FILE NAME: WRDM000036.DGN
CHECKER: SJ
DESIGNER: JOHN NG

DATE	MK	DESCRIPTION
		REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

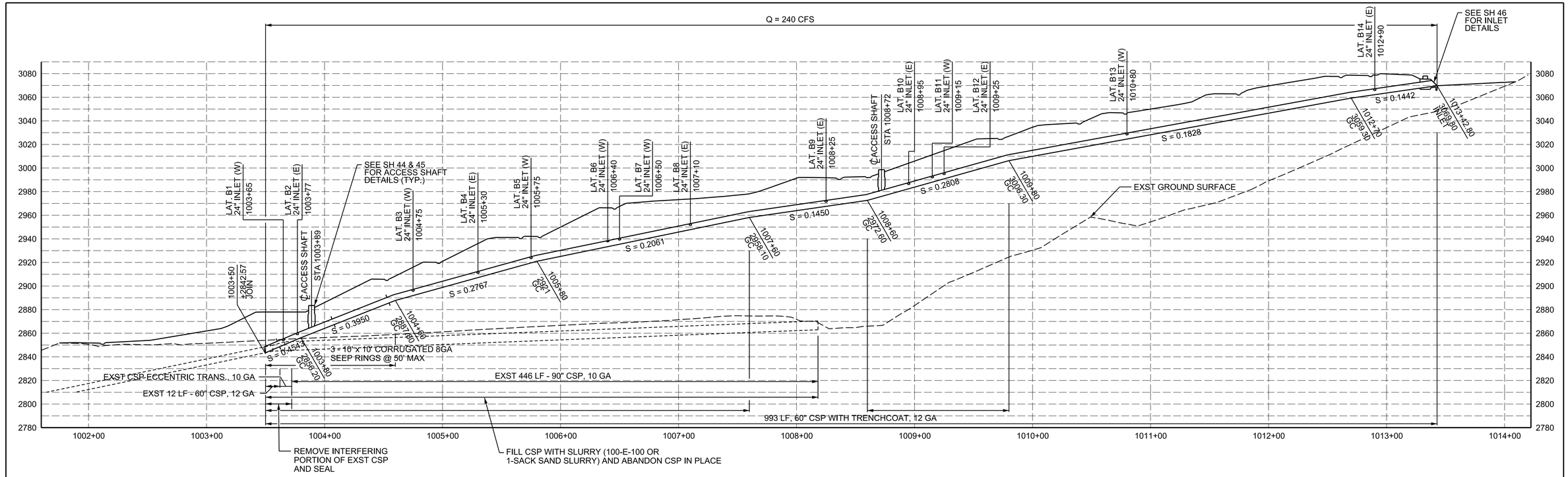
SEDIMENT PLACEMENT SITE A-1

DRAINAGE SYSTEMS PROFILES

PROJECT ID NO. WRDM000036

DWG 627-D13.30 | PD053212 | SHEET 30 OF 55

PLAN DR



SITE B DRAINAGE SYSTEM (SH 21)

SCALE: HOR 1" = 40'
VERT 1" = 20'

GRAPHICAL SCALE: 1"
0.5 0 1 2

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

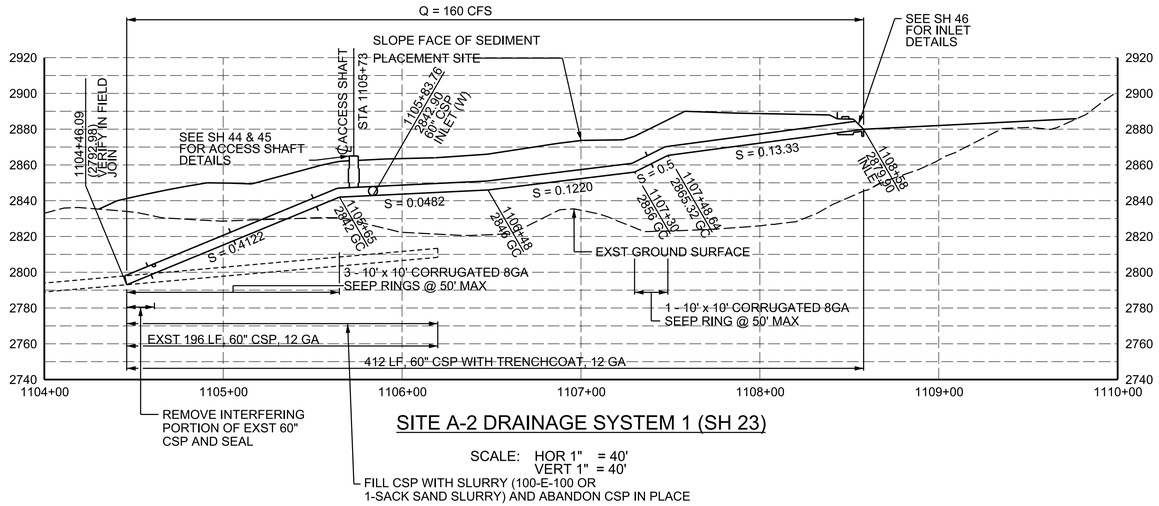
LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE B
DRAINAGE SYSTEM PROFILE
PROJECT ID NO. WRDM000036

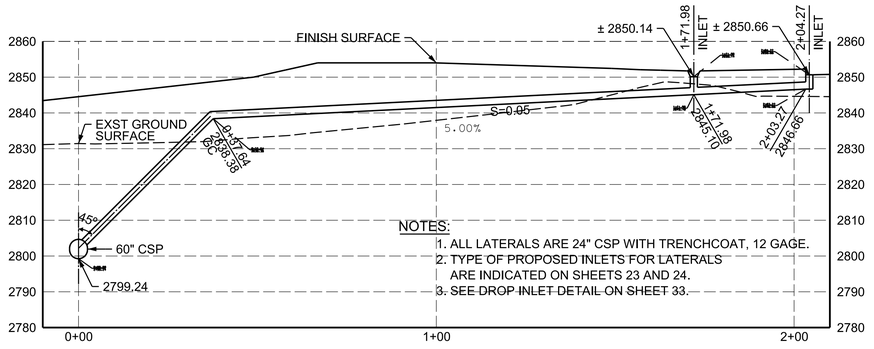
DWG 627-D13.31	PD053212	SHEET 31 OF 55

PLAN DR



SITE A-2 DRAINAGE SYSTEM 1 (SH 23)

SCALE: HOR 1" = 40'
VERT 1" = 40'



NOTES:
1. ALL LATERALS ARE 24" CSP WITH TRENCHCOAT, 12 GAGE.
2. TYPE OF PROPOSED INLETS FOR LATERALS ARE INDICATED ON SHEETS 23 AND 24.
3. SEE DROP INLET DETAIL ON SHEET 33.

LATERAL C1 (SH 23)

STA 0+00 = STA 1104+61.27, SITE A-2 DRAINAGE SYSTEM 1

SCALE: HOR 1" = 20'
VERT 1" = 20'

SITE A-2 DRAINAGE SYSTEM 2 (SH 23)

STA 1120+00 = STA 1105+83.76, SITE A-2 DRAINAGE SYSTEM 1

SCALE: HOR 1" = 40'
VERT 1" = 40'

GRAPHICAL SCALE: 1"
0.5 0 1 2

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION	
REVISIONS			

REGISTERED PROFESSIONAL ENGINEER — JIAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

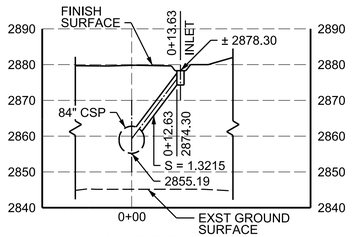
COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE A-2

DRAINAGE SYSTEMS AND LATERAL PROFILES
PROJECT ID NO. WRDM000036

DWG 627-D13.32 | PD053212 | SHEET 32 OF 55

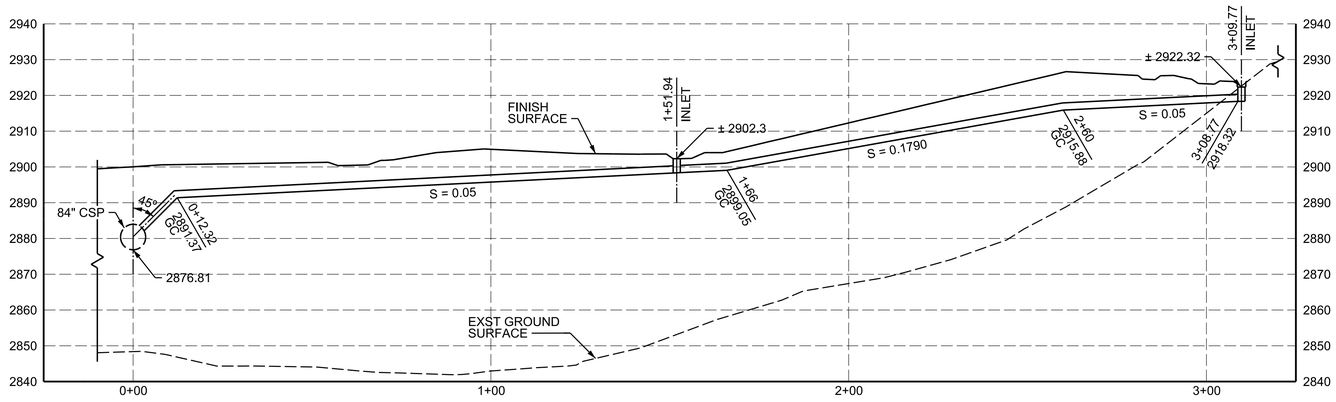
PLAN DR



LATERAL A1

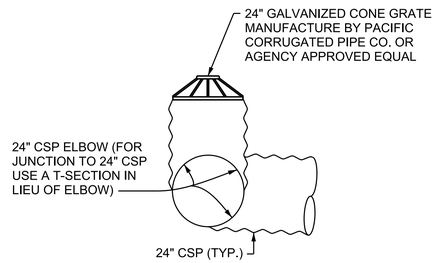
STA 0+00 = STA 903+70, SITE A - 1 DRAINAGE SYSTEM 1

NOTE. LATERAL A1 CONNECTS TO 84" CSP RADIALLY.



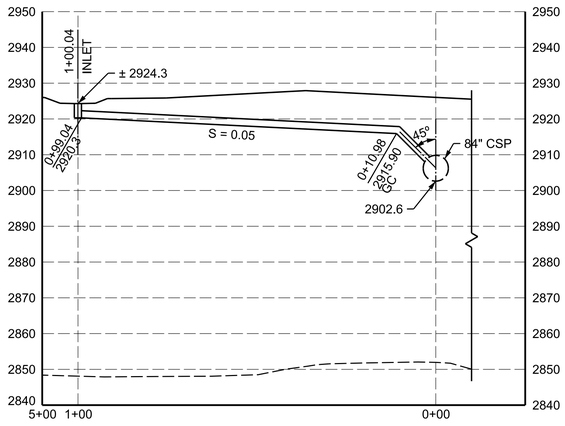
LATERAL A2

STA 0+00 = STA 904+65, SITE A - 1 DRAINAGE SYSTEM 1



DROP INLET

SCALE 1" = 2'



LATERAL A3

STA 0+00 = STA 905+75, SITE A - 1 DRAINAGE SYSTEM 1

SITE A-1 STORM DRAIN LATERALS (SH 15)

SCALE: HOR 1" = 20'
VERT 1" = 20'

GRAPHICAL SCALE: 1"

0.5 0 1 2

NOTES:

1. ALL LATERALS ARE 24" CSP WITH TRENCHCOAT, 12 GAGE.
2. TYPE OF PROPOSED INLETS FOR LATERALS ARE INDICATED ON SHEETS 15 AND 17.

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — Jan 20, 2021

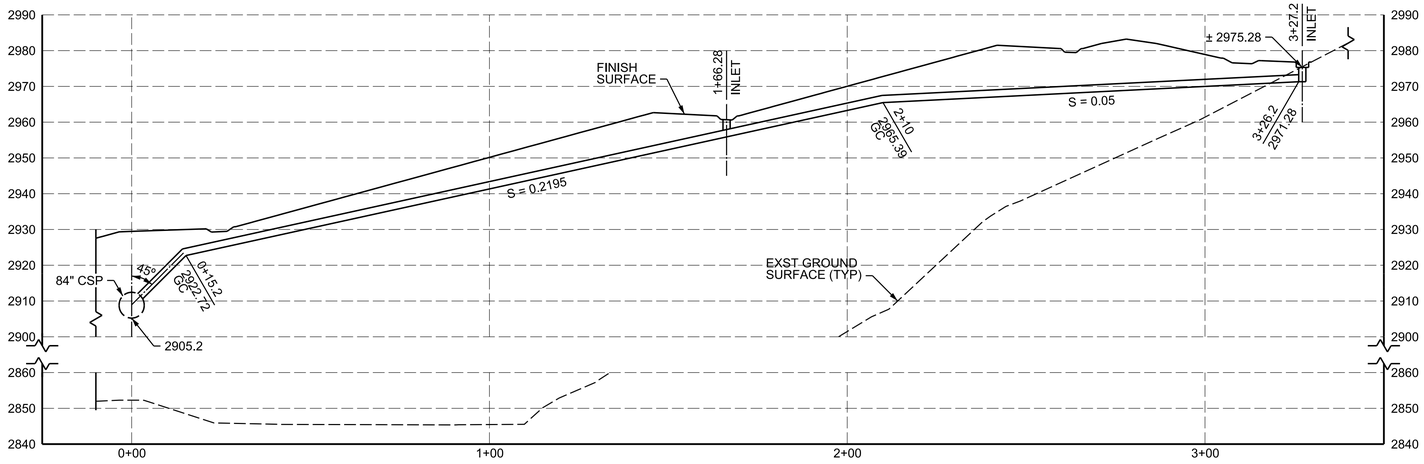
LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE A-1
STORM DRAIN LATERALS PROFILES
A1, A2 AND A3
PROJECT ID NO. WRDM000036

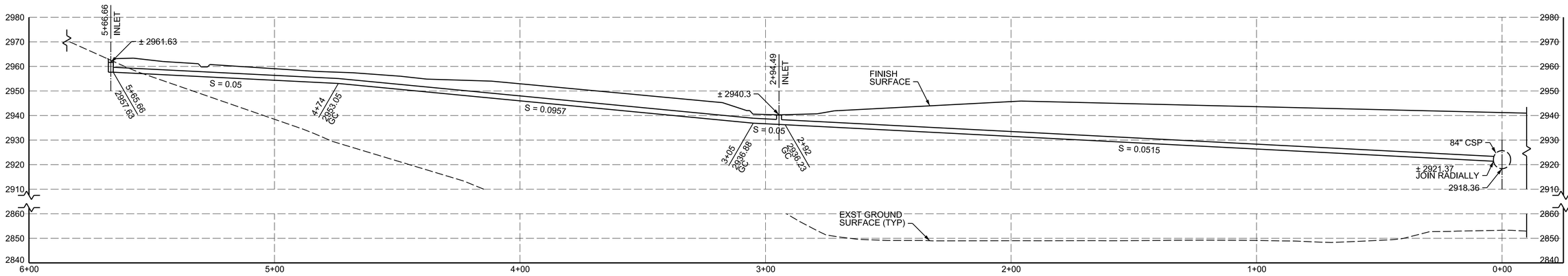
DWG 627-D13.33	PD053212	SHEET 33 OF 55

PLAN DR



LATERAL A4

STA 0+00 = STA 905+85, SITE A - 1 DRAINAGE SYSTEM 1



LATERAL A5

STA 0+00 = STA 906+30, SITE A - 1 DRAINAGE SYSTEM 1

SITE A-1 STORM DRAIN LATERALS (SH 15)

SCALE: HOR 1" = 20'
VERT 1" = 20'

GRAPHICAL SCALE: 1"
0.5 0 1 2

NOTES:
1. ALL LATERALS ARE 24" CSP WITH TRENCHCOAT, 12 GAGE.
2. TYPE OF PROPOSED INLETS FOR LATERALS ARE INDICATED ON SHEETS 15 AND 17.
3. SEE DROP INLET DETAIL ON SHEET 33.

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION
REVISIONS		

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — Jan 20, 2021

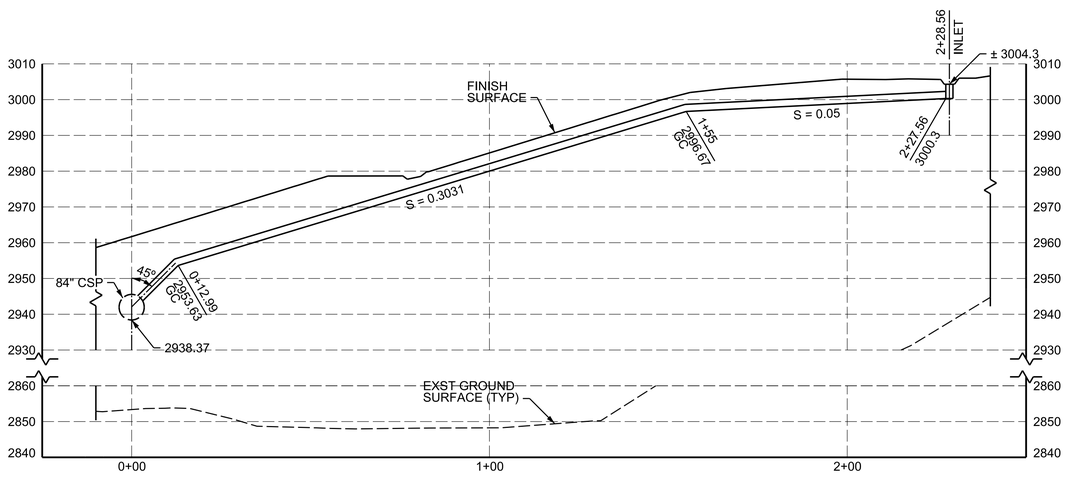
LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE A-1
STORM DRAIN LATERALS PROFILES
A4 AND A5
PROJECT ID NO. WRDM000036

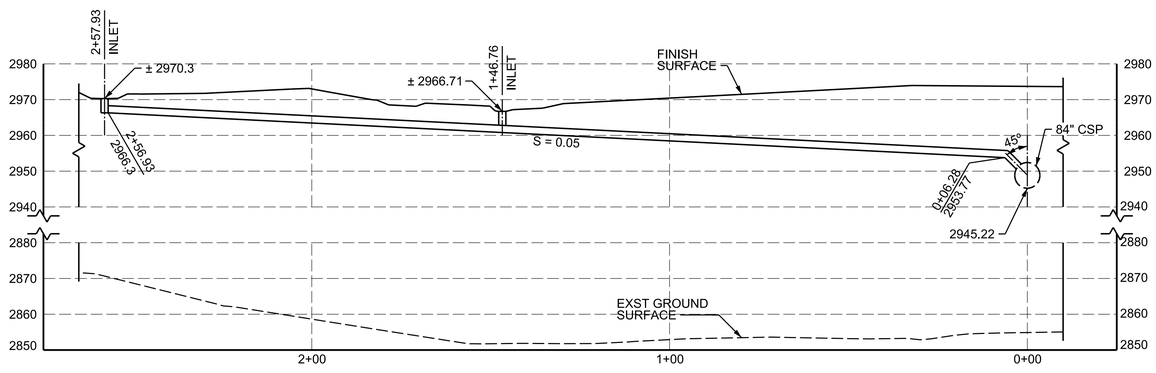
DWG 627-D13.34	PD053212	SHEET 34 OF 55

PLAN DR



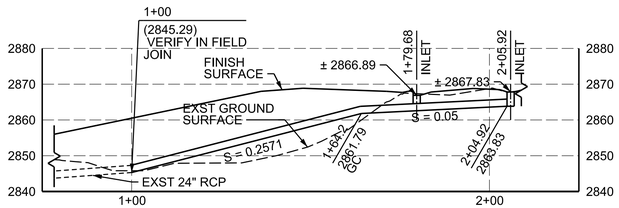
LATERAL A6

STA 0+00 = STA 907+00, SITE A - 1 DRAINAGE SYSTEM 1

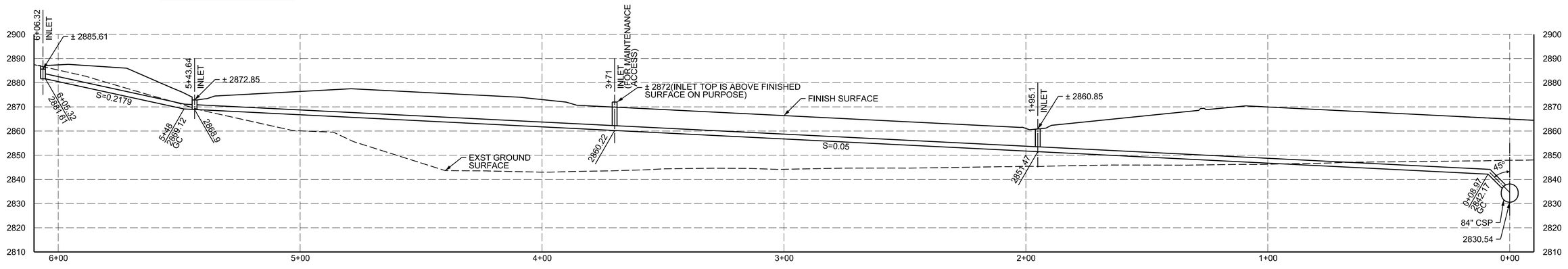


LATERAL A7

STA 0+00 = STA 907+30, SITE A - 1 DRAINAGE SYSTEM 1



LATERAL A-EXT1



LATERAL A8

STA 0+00 = STA 903+10, SITE A - 1 DRAINAGE SYSTEM 1

SITE A-1 STORM DRAIN LATERALS (SH 15)

SCALE: HOR 1" = 20'
VERT 1" = 20'

GRAPHICAL SCALE: 1"

0.5 0 1 2

NOTES:

1. ALL LATERALS ARE 24" CSP WITH TRENCHCOAT, 12 GAGE.
2. TYPE OF PROPOSED INLETS FOR LATERALS ARE INDICATED ON SHEETS 15 AND 17.
3. SEE DROP INLET DETAIL ON SHEET 33.

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

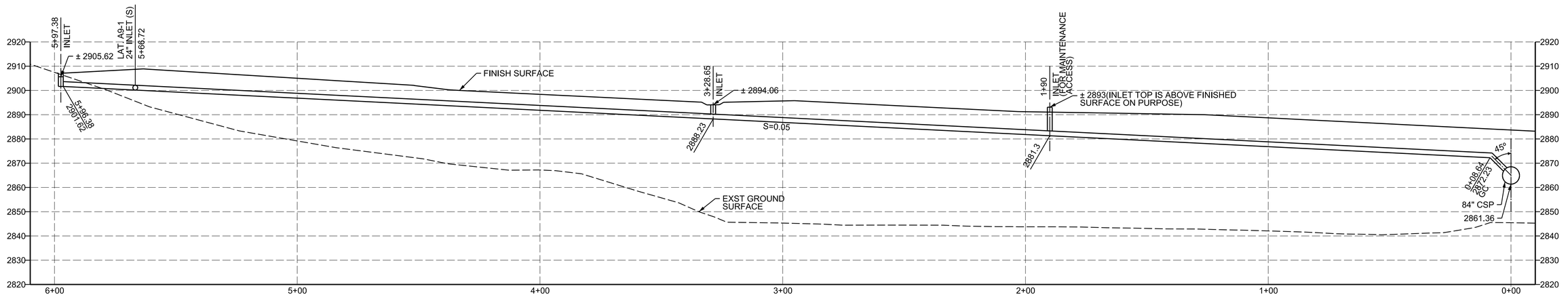
LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE A-1
STORM DRAIN LATERALS PROFILES
A6, A7, A8 AND A-EXT1
PROJECT ID NO. WRDM000036

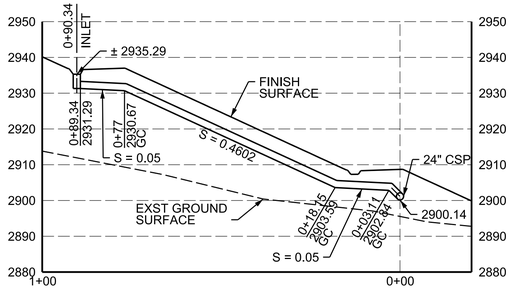
DWG 627-D13.35	PD053212	SHEET 35 OF 55

PLAN DR



LATERAL A9

STA 0+00 = STA 903+90, SITE A - 1 DRAINAGE SYSTEM 1



LATERAL A9-1

STA 0+00 = STA 5+66.72, LATERAL A9

SITE A-1 STORM DRAIN LATERALS (SH 15)

SCALE: HOR 1" = 20'
VERT 1" = 20'

GRAPHICAL SCALE: 1"

0.5 0 1 2

NOTES:

1. ALL LATERALS ARE 24" CSP WITH TRENCHCOAT, 12 GAGE.
2. TYPE OF PROPOSED INLETS FOR LATERALS ARE INDICATED ON SHEETS 15 AND 17.
3. SEE DROP INLET DETAIL ON SHEET 33.

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
MAN TAT NG
C 70322
CIVIL
STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

LOS ANGELES COUNTY PUBLIC WORKS

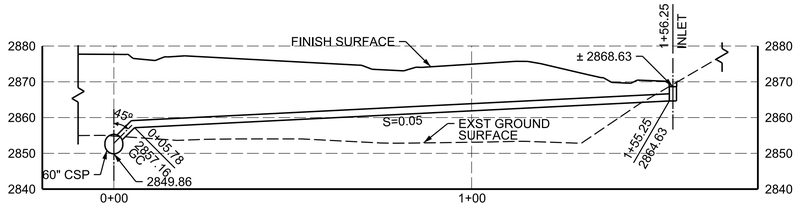
COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE A-1
STORM DRAIN LATERALS PROFILES
A9 AND A9-1
PROJECT ID NO. WRDM000036

DWG 627-D13.36	PD053212	SHEET 36 OF 55

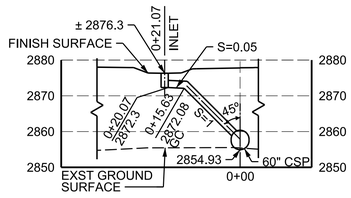
DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

PLAN DR



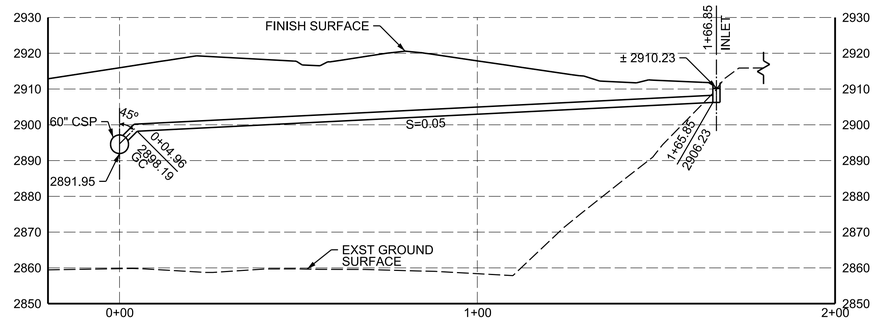
LATERAL B1

STA 0+00 = STA 1003+65, SITE B DRAINAGE SYSTEM



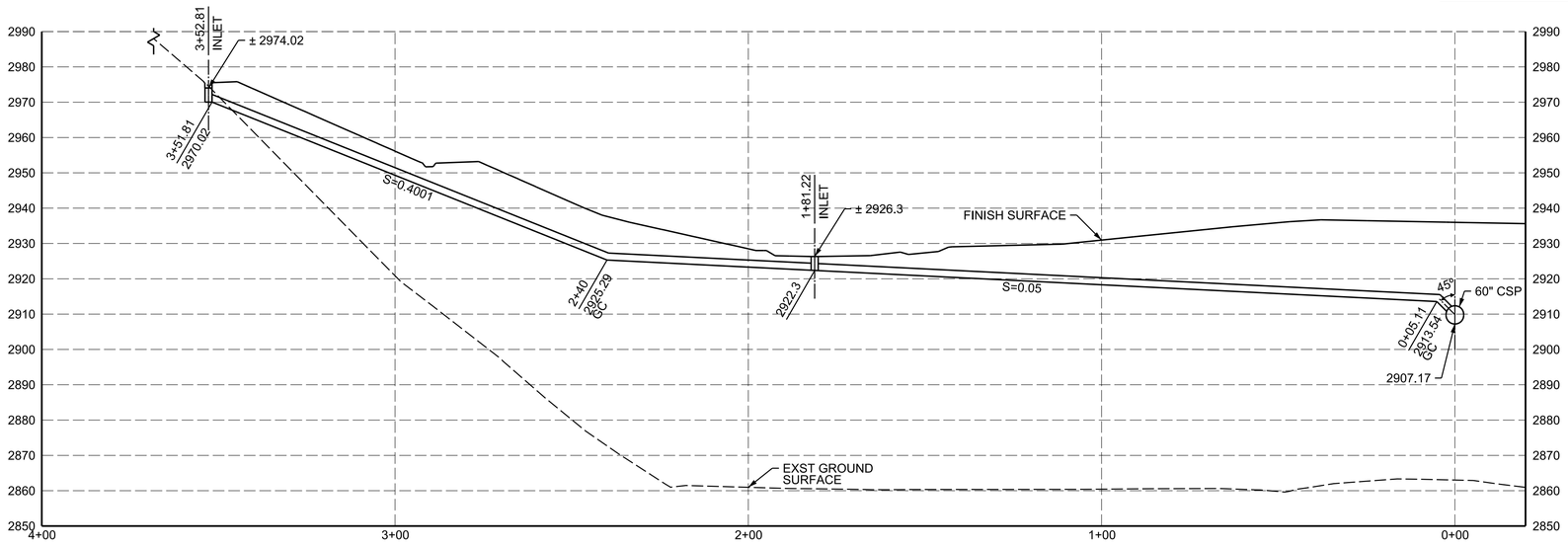
LATERAL B2

STA 0+00 = STA 1003+77, SITE B DRAINAGE SYSTEM



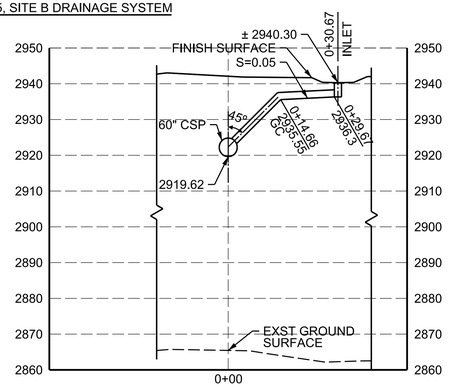
LATERAL B3

STA 0+00 = STA 1004+75, SITE B DRAINAGE SYSTEM



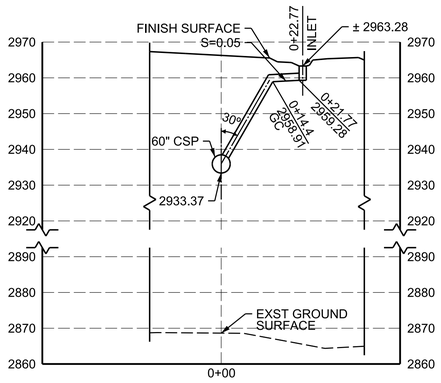
LATERAL B4

STA 0+00 = STA 1005+30, SITE B DRAINAGE SYSTEM



LATERAL B5

STA 0+00 = STA 1005+75, SITE B DRAINAGE SYSTEM



LATERAL B6

STA 0+00 = STA 1006+40, SITE B DRAINAGE SYSTEM

SITE B INLET CONNECTORS (SH 21)

SCALE: HOR 1" = 20'
VERT 1" = 20'

GRAPHICAL SCALE: 1"
0.5 0 1 2

NOTES:

1. ALL LATERALS ARE 24" CSP WITH TRENCHCOAT, 12 GAGE.
2. TYPE OF PROPOSED INLETS FOR LATERALS ARE INDICATED ON SHEETS 21 AND 22.
3. SEE DROP INLET DETAIL ON SHEET 33.

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — Jan 20, 2021

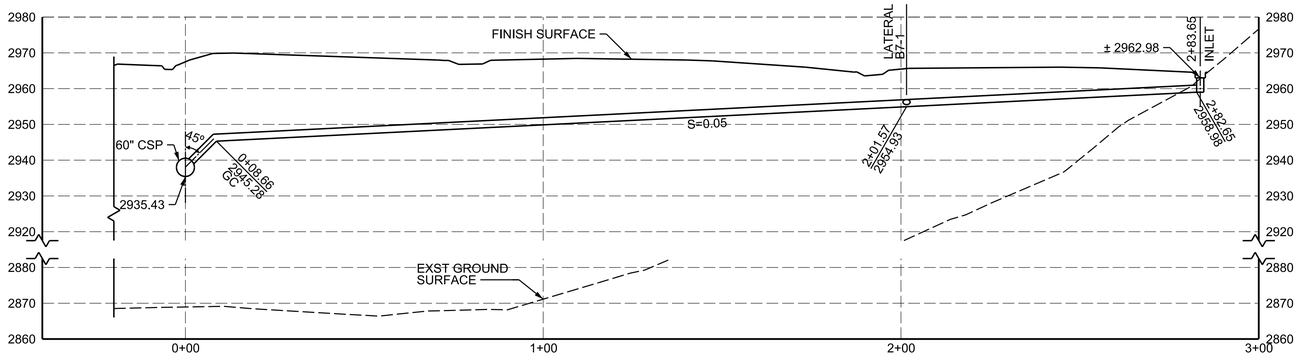
LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE B
STORM DRAIN LATERALS PROFILES
B1, B2, B3, B4, B5 AND B6
PROJECT ID NO. WRDM000036

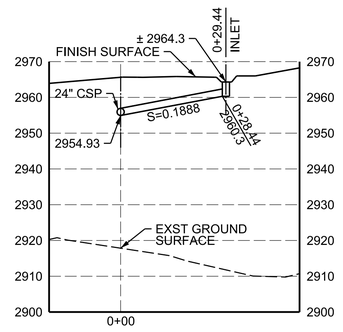
DWG 627-D13.37	PD053212	SHEET 37 OF 55

PLAN DR



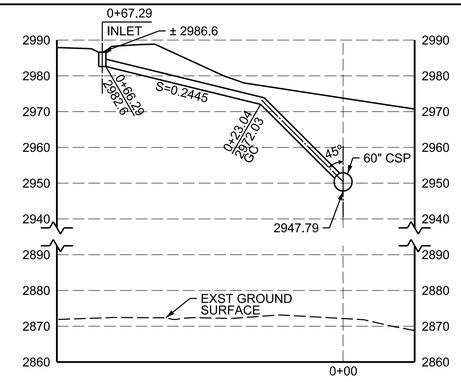
LATERAL B7

STA 0+00 = STA 1006+50, SITE B DRAINAGE SYSTEM



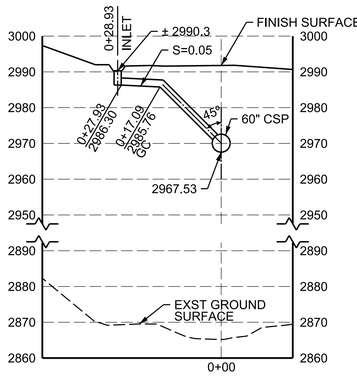
LATERAL B7-1

STA 0+00 = STA 2+01.57, LATERAL B7



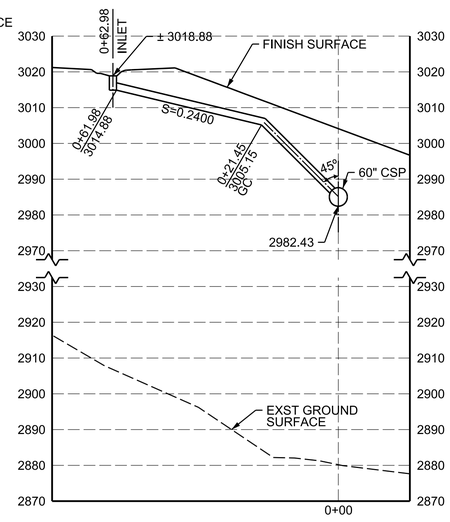
LATERAL B8

STA 0+00 = STA 1007+10, SITE B DRAINAGE SYSTEM



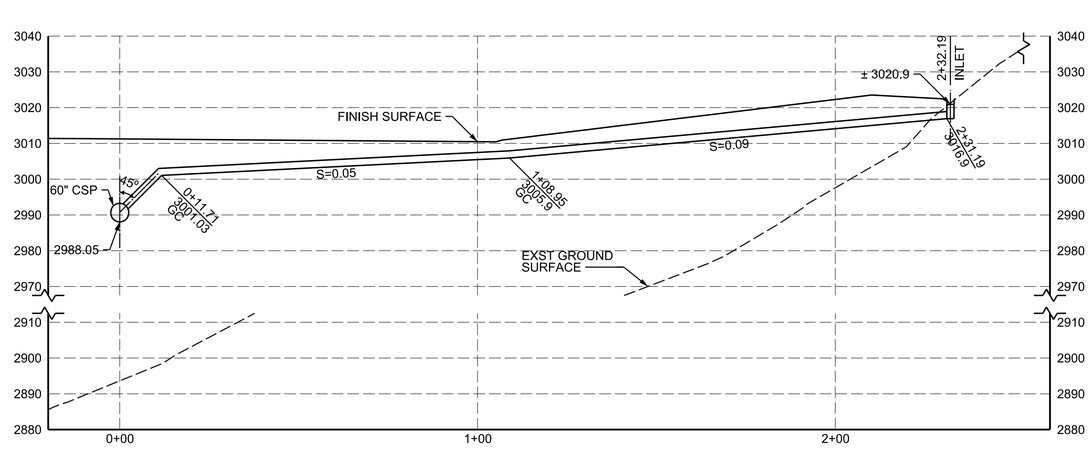
LATERAL B9

STA 0+00 = STA 1008+25, SITE B DRAINAGE SYSTEM



LATERAL B10

STA 0+00 = STA 1008+95, SITE B DRAINAGE SYSTEM



LATERAL B11

STA 0+00 = STA 1009+15, SITE B DRAINAGE SYSTEM

SITE B INLET CONNECTORS (SH 21)

SCALE: HOR 1" = 20'
VERT 1" = 20'

GRAPHICAL SCALE: 1"

0.5 0 1 2

NOTES:

1. ALL LATERALS ARE 24" CSP WITH TRENCHCOAT, 12 GAGE.
2. TYPE OF PROPOSED INLETS FOR LATERALS ARE INDICATED ON SHEETS 21 AND 22.
3. SEE DROP INLET DETAIL ON SHEET 33.

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

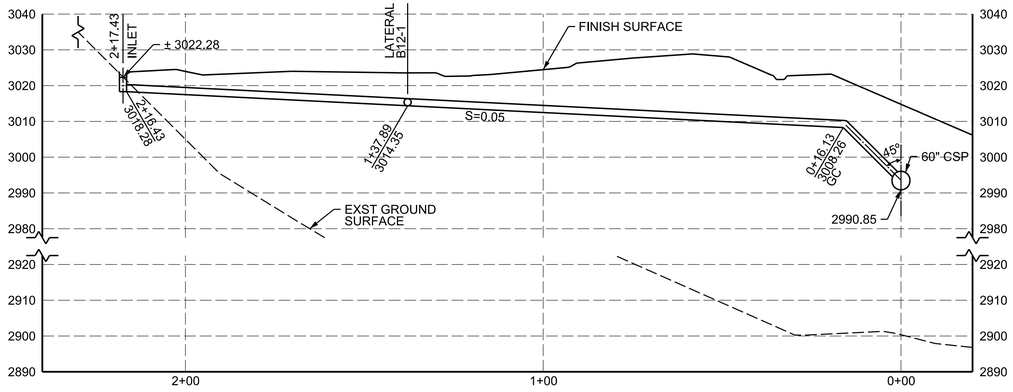
LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE B
STORM DRAIN LATERALS PROFILES
B7, B7-1, B8, B9, B10 AND B11
PROJECT ID NO. WRDM000036

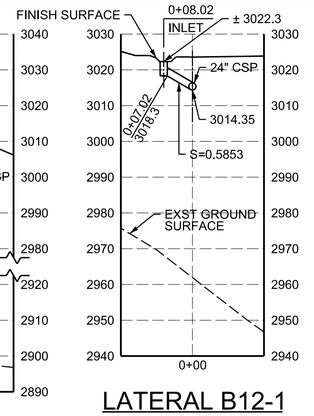
DWG 627-D13.38	PD053212	SHEET 38 OF 55

PLAN DR



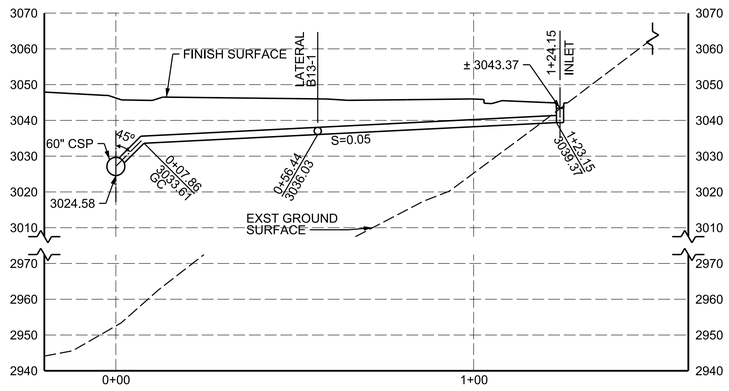
LATERAL B12

STA 0+00 = STA 1009+25, SITE B DRAINAGE SYSTEM



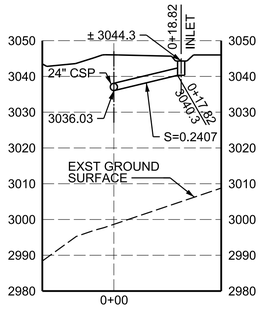
LATERAL B12-1

STA 0+00 = STA 1+37.89, LATERAL B12



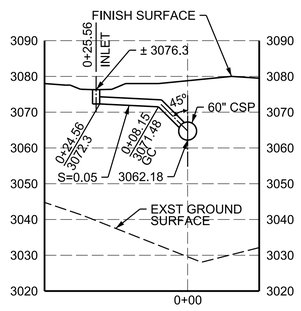
LATERAL B13

STA 0+00 = STA 1010+80, SITE B DRAINAGE SYSTEM



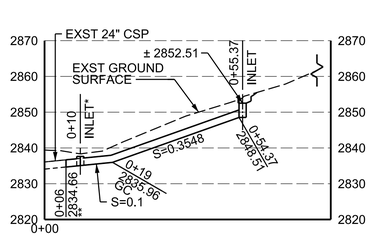
LATERAL B13-1

STA 0+00 = STA 0+56.44, LATERAL B13

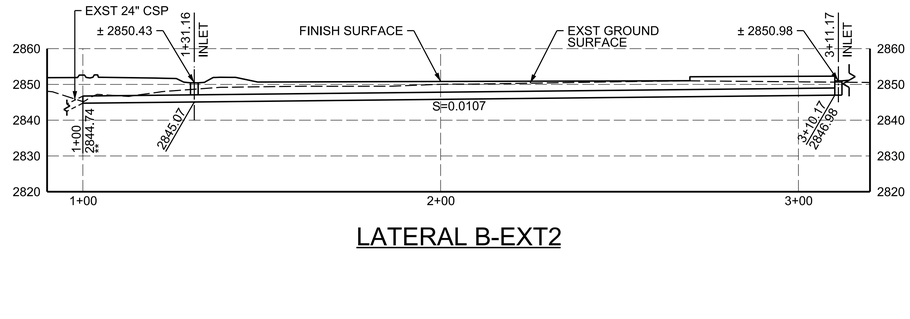


LATERAL B14

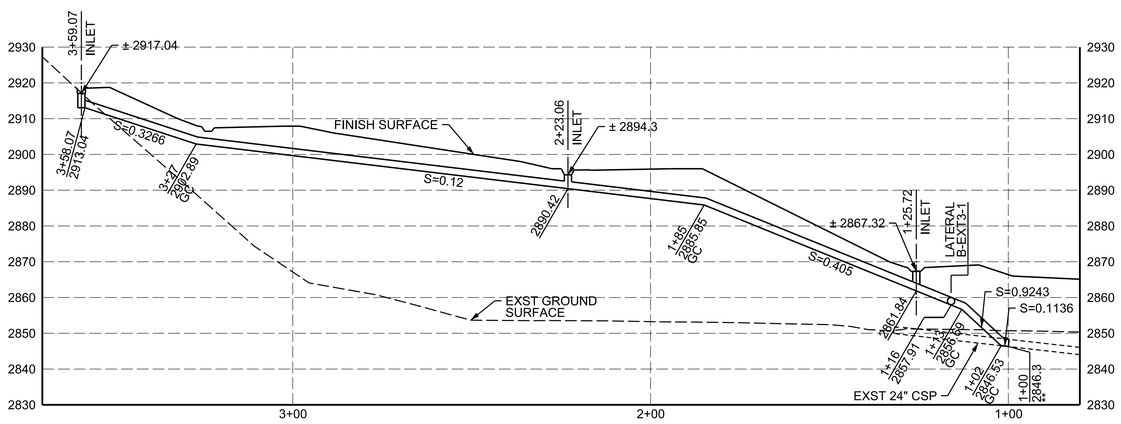
STA 0+00 = STA 1012+90, SITE B DRAINAGE SYSTEM



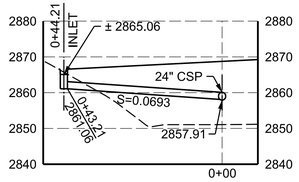
LATERAL B-EXT1



LATERAL B-EXT2



LATERAL B-EXT3



LATERAL B-EXT3-1

STA 0+00 = STA 1+16, LATERAL B-EXT3

SITE B INLET CONNECTORS (SH 21)

SCALE: HOR 1" = 20'
VERT 1" = 20'

GRAPHICAL SCALE: 1"

0.5 0 1 2

NOTES:

1. ALL LATERALS ARE 24" CSP WITH TRENCHCOAT, 12 GAGE.
2. TYPE OF PROPOSED INLETS FOR LATERALS ARE INDICATED ON SHEETS 21 AND 22.
3. SEE DROP INLET DETAIL ON SHEET 33.

*REMOVE EX. INLET AND CONSTRUCT IN-KIND INLET AT SAME TOP FINISHED ELEVATION.
**JOIN EX. 24" CSP, CONTRACTOR SHALL VERIFY EX. CSP INVERT ELEVATION AND LOCATION IN THE FIELD.

CADD PROJECT FILE NAME WRDM000036.DGN
CHECKER SJ
DESIGNER JOHN NG

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — Jan 20, 2021

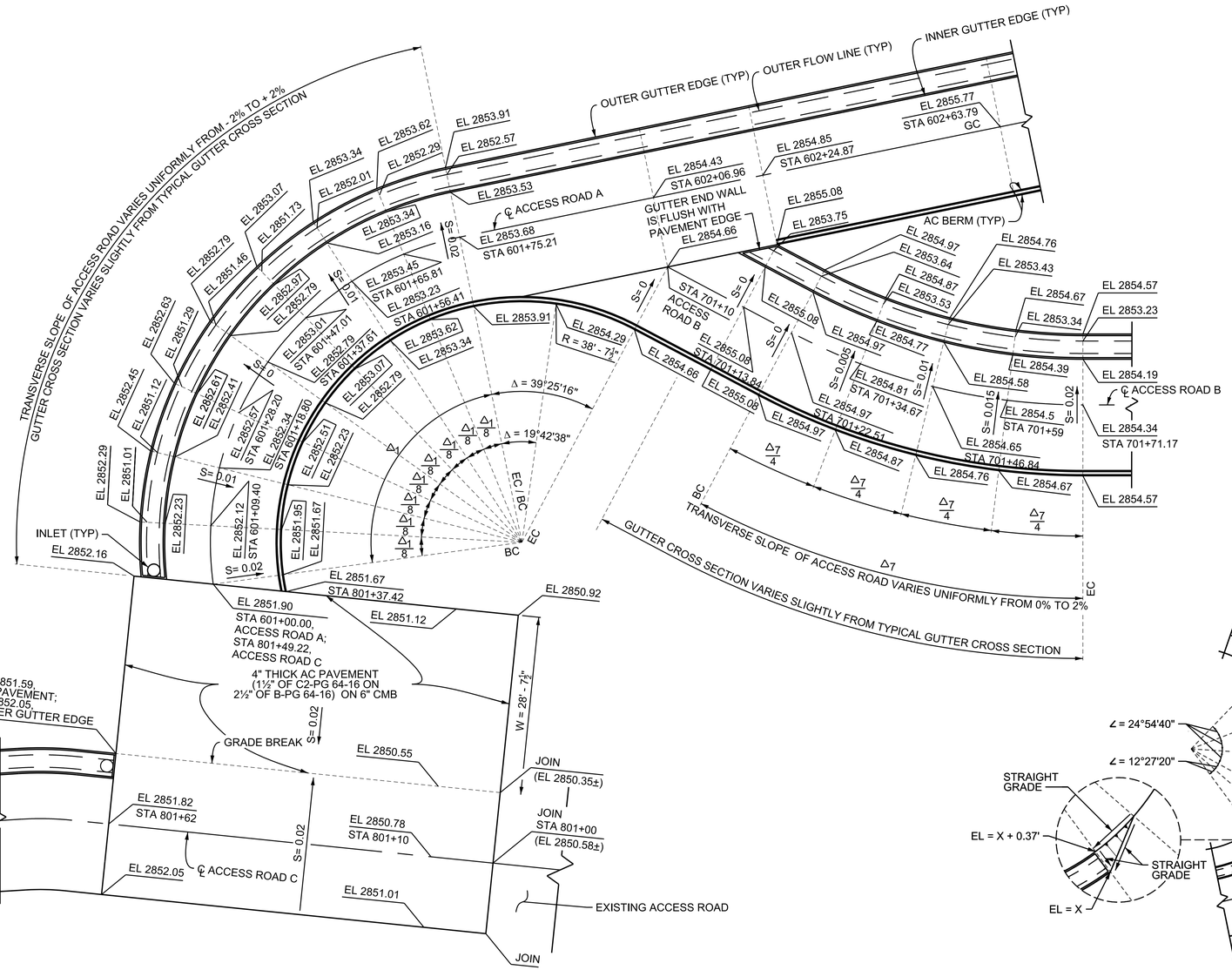
LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

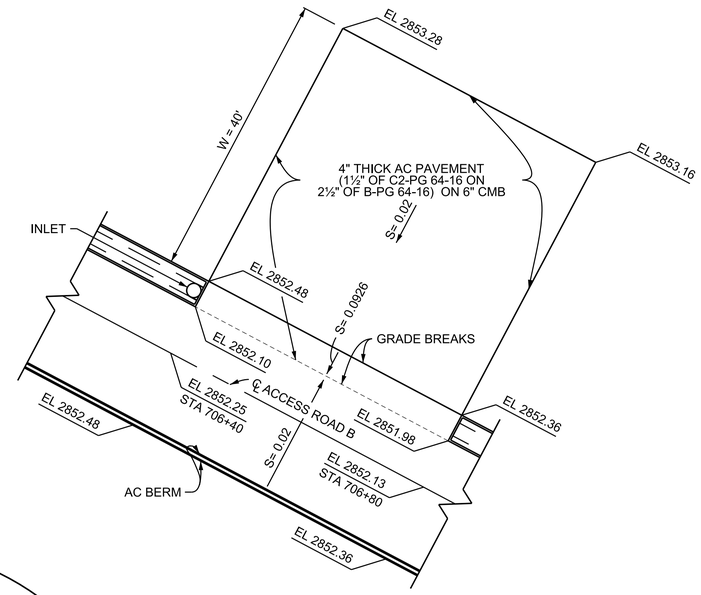
SEDIMENT PLACEMENT SITE B
STORM DRAIN LATERALS PROFILES B12, B12-1, B13, B13-1, B14, B-EXT1, B-EXT2, B-EXT3 AND B-EXT3-1
PROJECT ID NO. WRDM000036

DWG 627-D13.39 | PD053212 | SHEET 39 OF 55

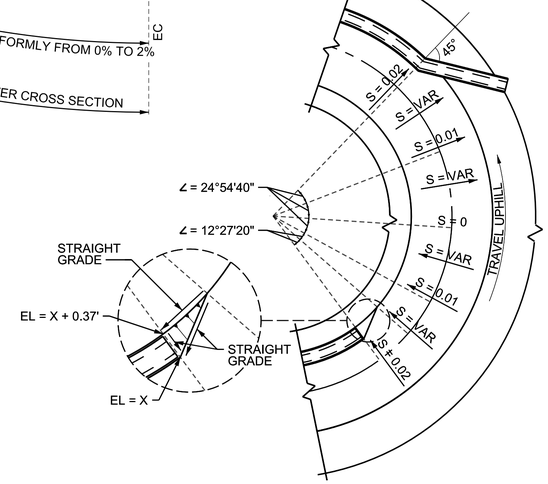
PLAN DR



DETAIL "H" (SH 13)
ACCESS ROADS A, B & C INTERSECTION
SCALE: NOT TO SCALE



DETAIL "I" (SH 13 AND 18)
ACCESS ROAD B TURNAROUND AREA
SCALE: NOT TO SCALE



DETAIL "J" (SH 13, 18 AND 23)
ACCESS ROAD TRANSVERSE SLOPE CHANGES
SCALE: NOT TO SCALE

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
MAN TAT NG
C 70322
CIVIL
STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR RESTORATION PROJECT

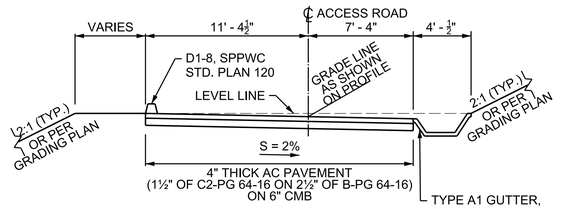
SEDIMENT PLACEMENT SITE

ACCESS ROADS A, B & C INTERSECTION, ACCESS ROAD B TURNAROUND AREA AND ACCESS ROAD TURN TRANSVERSE SLOPE CHANGES

PROJECT ID NO. WRDM000036

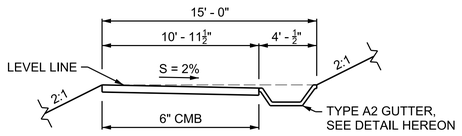
DWG 627-D13.40	PD053212	SHEET 40 OF 55

PLAN DR



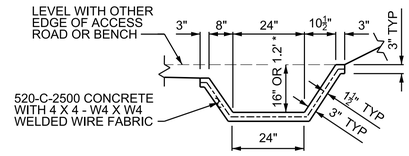
TYPICAL ACCESS ROAD

SCALE 1" = 5'



TYPICAL BENCH SECTION

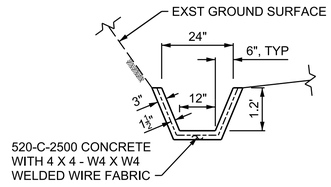
SCALE 1" = 5'



TYPE A1 & A2 GUTTERS

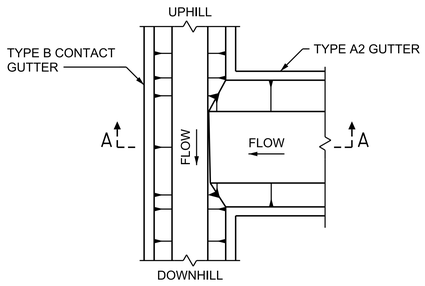
SCALE 1" = 2'

* 16" FOR TYPE A1 AND 1.2' FOR TYPE A2



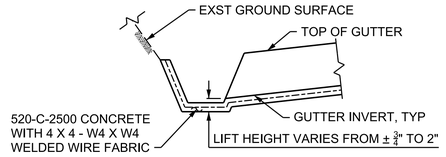
TYPE B CONTACT GUTTER

SCALE 1" = 2'



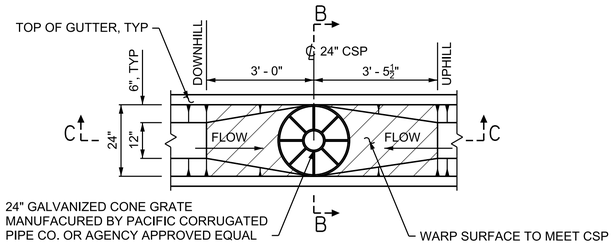
TYPE A2 & TYPE B CONTACT GUTTERS CONNECTION

SCALE 1" = 2'



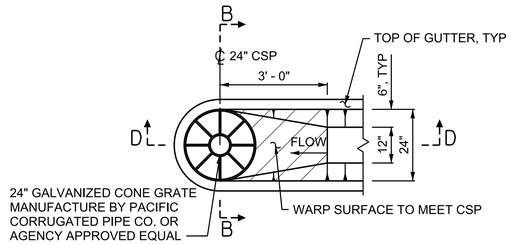
SECTION A-A

SCALE 1" = 2'



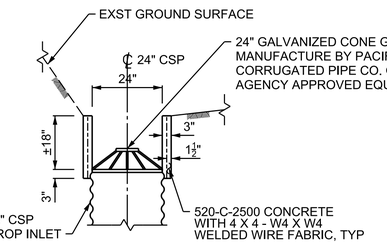
MODIFIED TYPE B CONTACT GUTTER

SCALE 1" = 2'



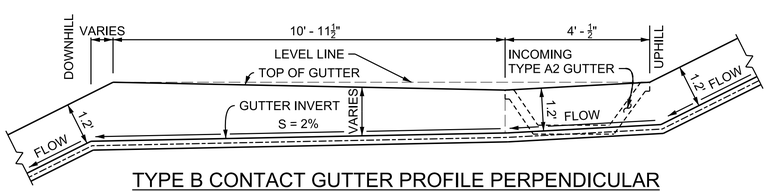
TYPE B CONTACT GUTTER END

SCALE 1" = 2'



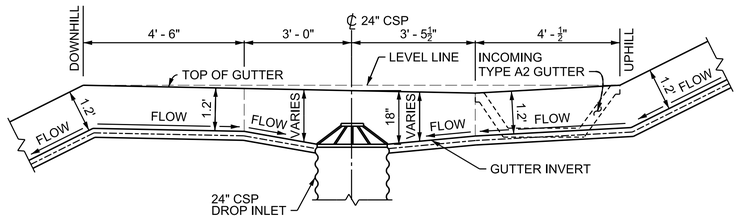
SECTION B-B

SCALE 1" = 2'



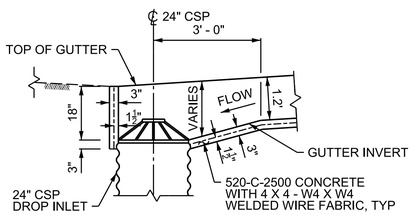
TYPE B CONTACT GUTTER PROFILE PERPENDICULAR TO BENCH CENTERLINE AT BENCH END W/O INLET

SCALE 1" = 2'



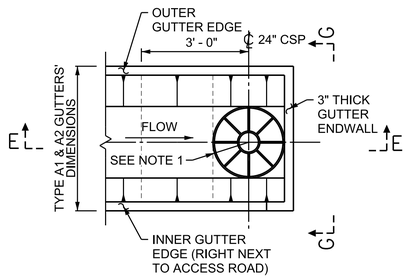
SECTION C-C
TYPE B CONTACT GUTTER PROFILE PERPENDICULAR TO BENCH CENTERLINE AT BENCH END W/ INLET

SCALE 1" = 2'



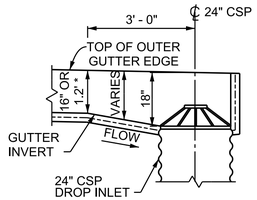
SECTION D-D

SCALE 1" = 2'



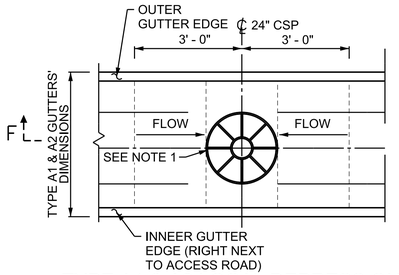
TYPE A1 & A2 GUTTER ENDS

SCALE 1" = 2'



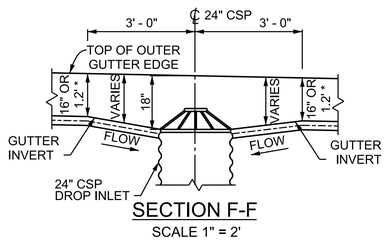
SECTION E-E

SCALE 1" = 2'



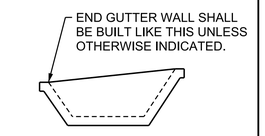
TYPE A1 & A2 LOCAL DEPRESSION

SCALE 1" = 2'



SECTION F-F

SCALE 1" = 2'



SECTION G-G
GUTTER TYPE A END WALL

SCALE: NOT TO SCALE

CADD PROJECT FILE NAME: WRDM000036.DGN
CHECKER: SJ
DESIGNER: JOHN NG

DATE	MK	DESCRIPTION
		REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

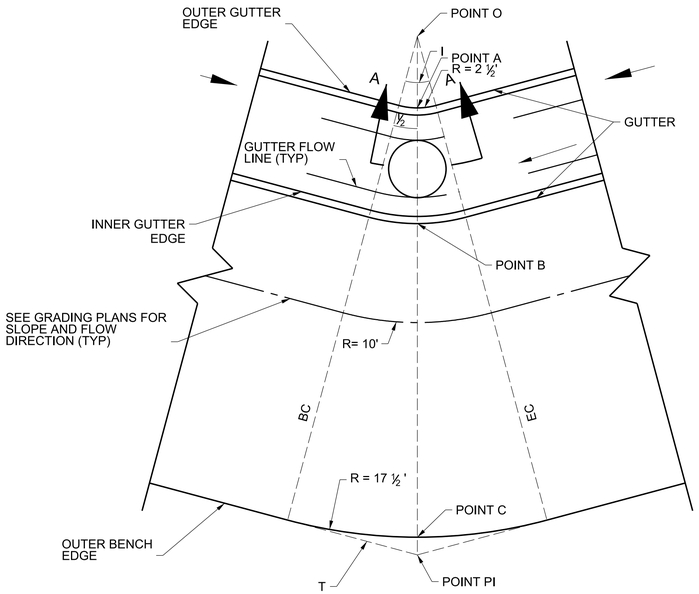
SEDIMENT PLACEMENT SITE

ACCESS ROAD, BENCH AND GUTTER DETAILS

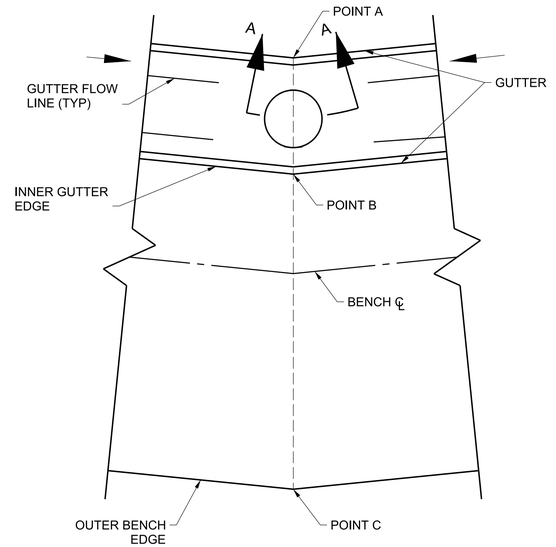
PROJECT ID NO. WRDM000036

DWG 627-D13.41 | PD053212 | SHEET 41 OF 55

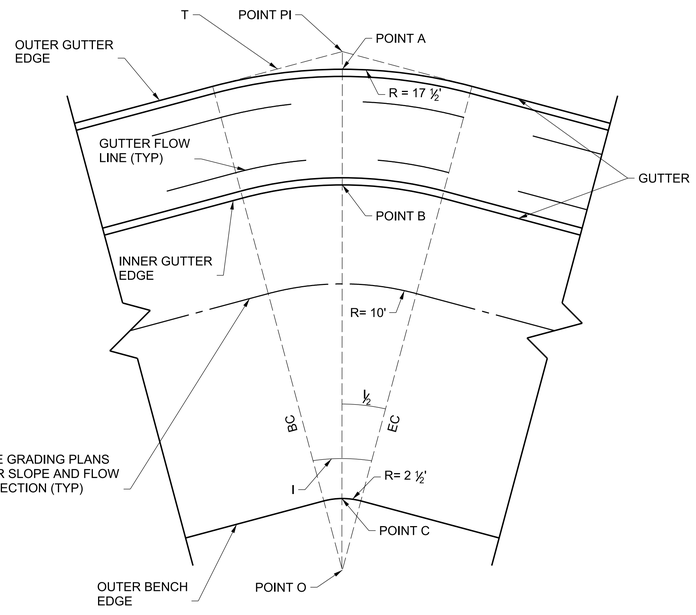
PLAN DR



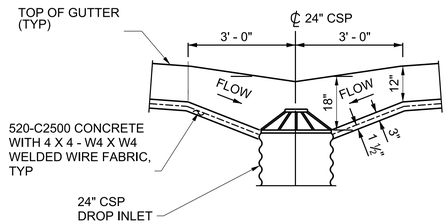
TYPE A - U SHAPE
SCALE : NOT TO SCALE



TYPE C - V SHAPE
SCALE : NOT TO SCALE



TYPE B - INVERTED U SHAPE
SCALE : NOT TO SCALE

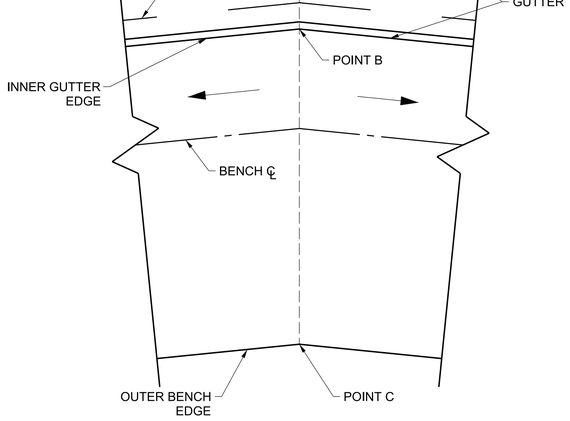


SECTION A-A
SCALE : NOT TO SCALE

BENCH TURN

NOTE:

1. SEE SEDIMENT PLACEMENT SITES A-1 AND B BENCH TURNS DESIGN PARAMETERS TABLE ON SHEETS 17 AND 22.



TYPE D - INVERTED V SHAPE
SCALE : NOT TO SCALE

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR RESTORATION PROJECT

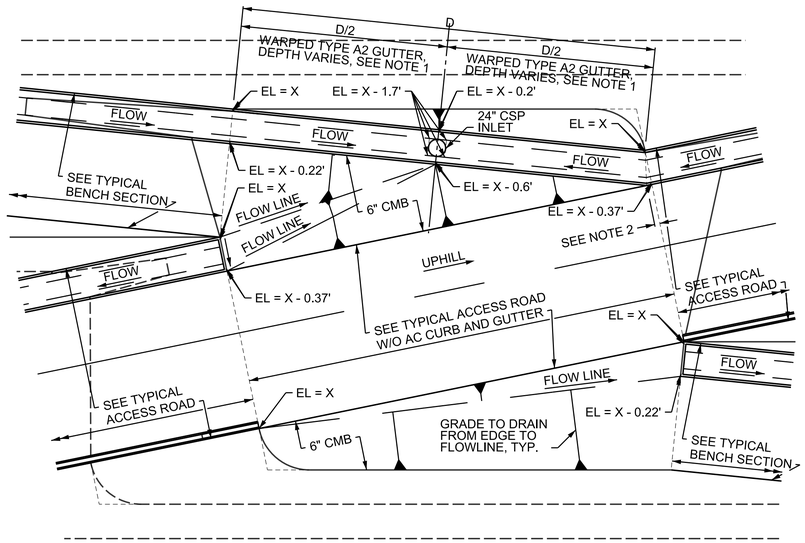
SEDIMENT PLACEMENT SITE

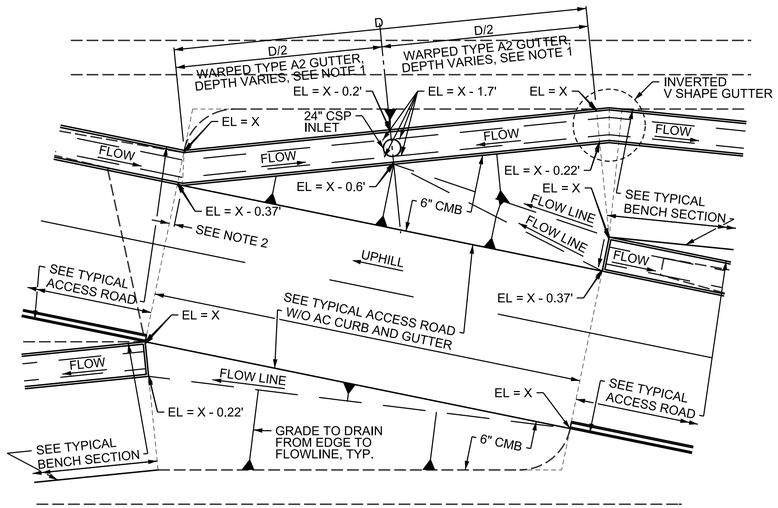
BENCH TURNS DETAILS

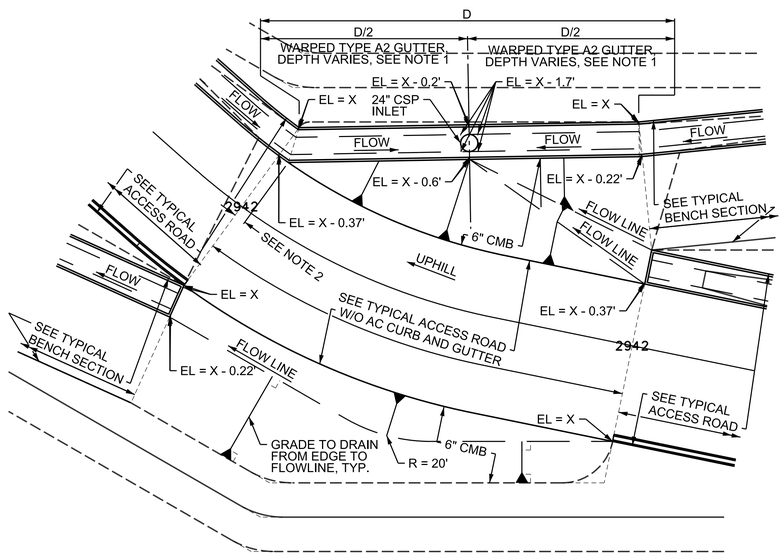
PROJECT ID NO. WRDM000036

DWG 627-D13.42	PD053212	SHEET 42 OF 55

PLAN DR







NOTES:

1. GUTTER'S OUTER EDGES, FLOWLINES, AND INNER EDGES HAVE STRAIGHT GRADES. THESE 3 GROUPS OF STRAIGHT GRADES HAVE DIFFERENT SLOPES.
2. GUTTER'S INNER EDGES WILL MATCH ACCESS ROAD'S INNER EDGE ELEVATION.
3. IF LANDING GUTTER CONFIGURATION FLIPS, DIMENSIONS FLIP ACCORDINGLY.
4. SEE SEDIMENT PLACEMENT SITES A-1, B AND A-2' SITE GRADING PLANS AND DRAINAGE PLANS ON SHEETS 13, 15, 18, 21 AND 23.

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

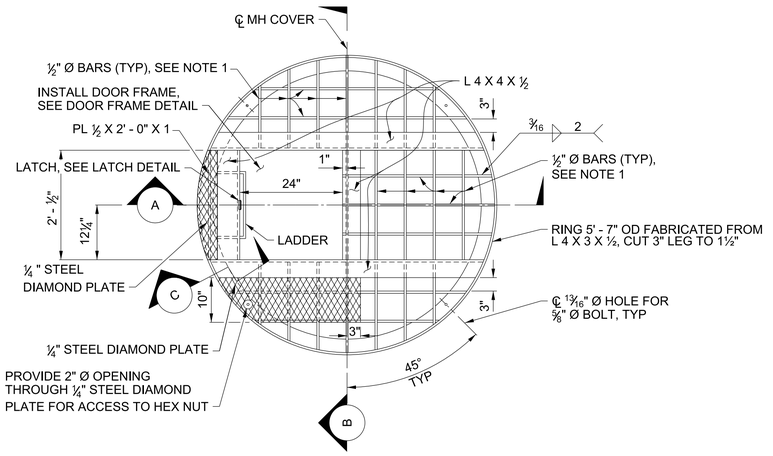
LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE
ACCESS ROAD LANDING GUTTER
CONFIGURATION SAMPLES
PROJECT ID NO. WRDM000036

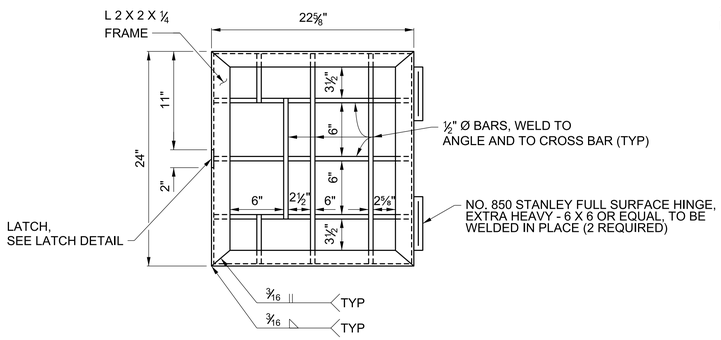
DWG 627-D13.43 | PD053212 | SHEET 43 OF 55

PLAN DR



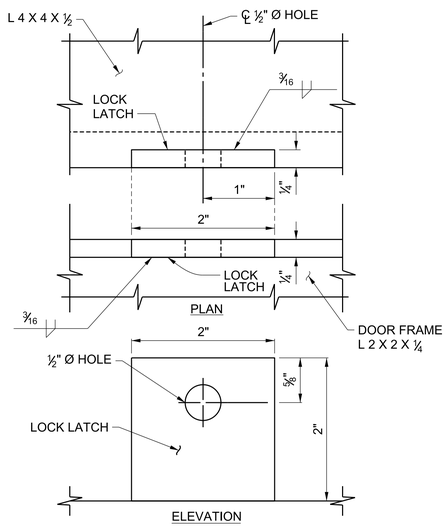
60" ACCESS SHAFT COVER

SCALE: ¾" = 1' - 0"



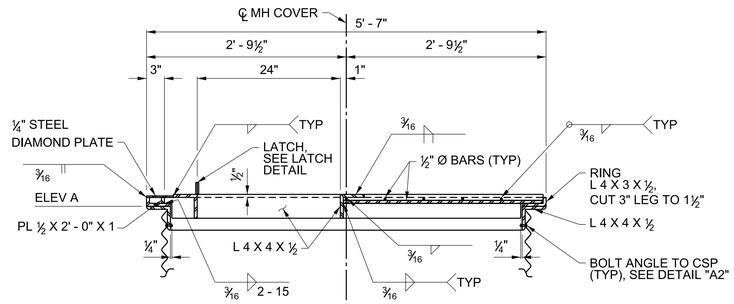
DOOR FRAME DETAIL

SCALE: 1½" = 1' - 0"



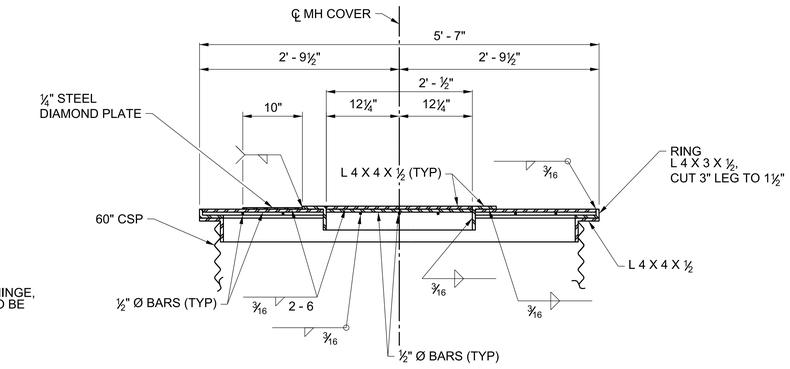
LATCH DETAIL

SCALE: FULL SIZE



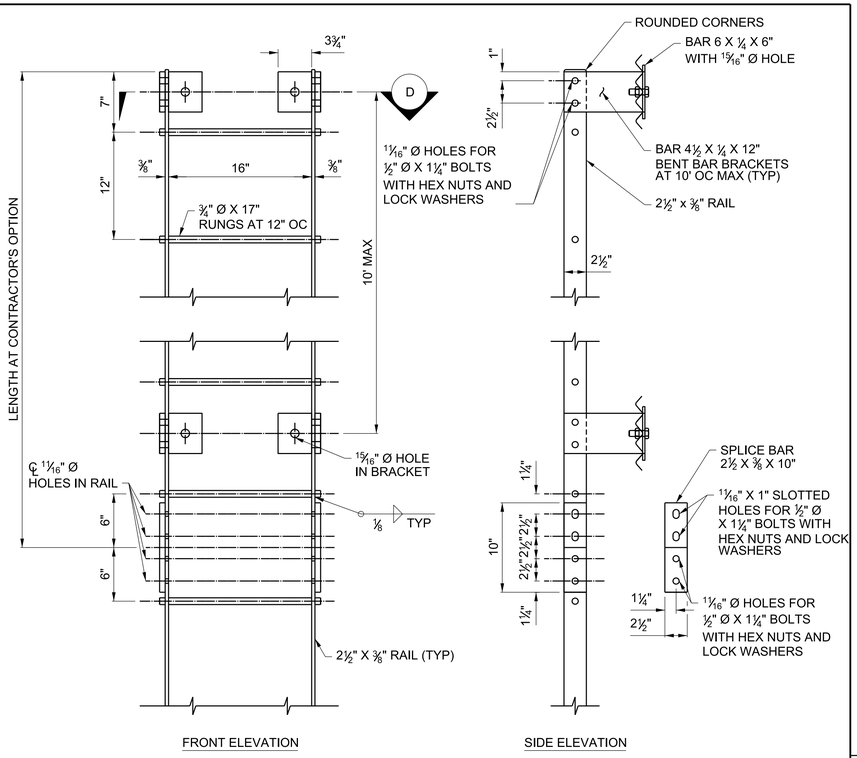
SECTION A

SCALE: 1" = 1' - 0"



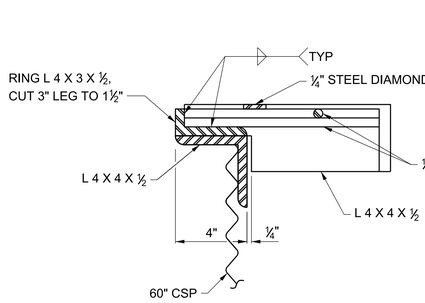
SECTION B

SCALE: 1" = 1' - 0"



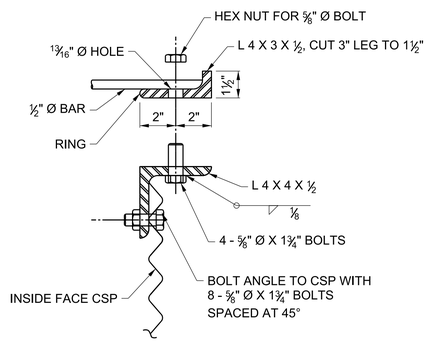
ACCESS SHAFT LADDER DETAIL (SEE SH 45)

SCALE: NOT TO SCALE



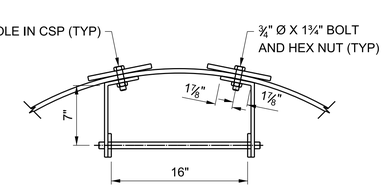
SECTION C

SCALE: 3" = 1' - 0"



DETAIL "A2"

SCALE: NOT TO SCALE



SECTION D

SCALE: NOT TO SCALE

NOTES:

1. ½" Ø BARS SHALL BE SPACED NOT MORE THAN 6" CLEAR, AND WELDED TO RING, ANGLES AND CROSS BARS
2. GALVANIZE ALL METAL PARTS AFTER FABRICATION
3. SEE SEDIMENT PLACEMENT SITES A-1, B AND A-2 DRAINAGE SYSTEMS PROFILES ON SHEETS 30, 31 AND 32.

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

Jan 20, 2021

PROJECT ENGINEER

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

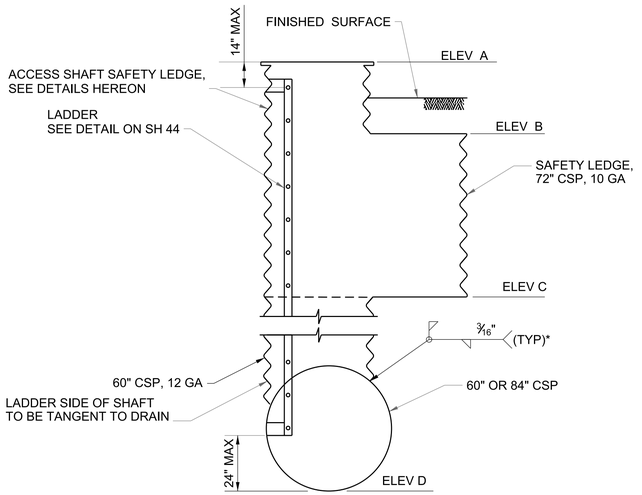
SEDIMENT PLACEMENT SITE

MANHOLE ACCESS SHAFT PART 1

PROJECT ID NO. WRDM000036

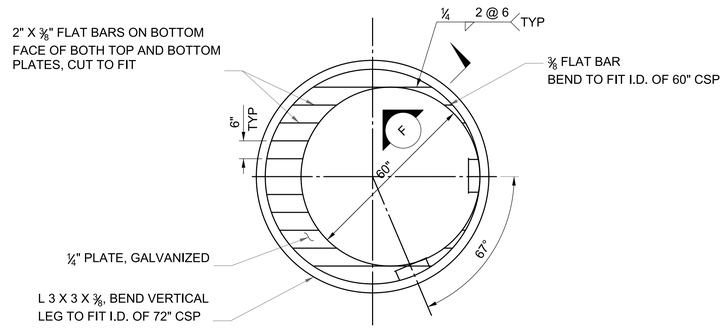
DWG 627-D13.44	PD053212	SHEET 44 OF 55

PLAN DR



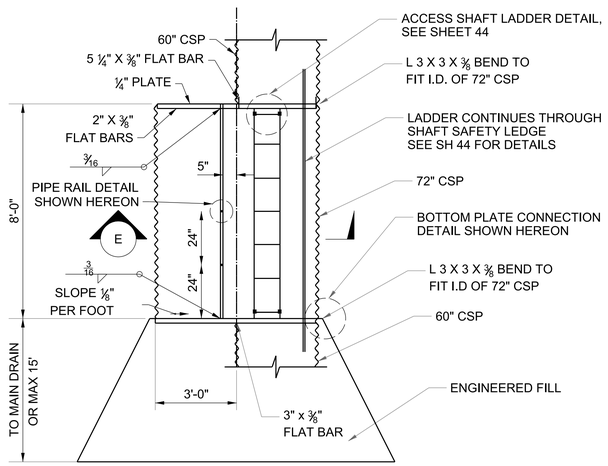
*NOTE: 1. SEE ACCESS SHAFT DATA HEREON FOR VALUES OF ELEVS A, B, AND C FOR DIFFERENT DRAINAGE SYSTEMS
2. CONTRACTOR MUST SUBMIT SHOP DRAWINGS FOR APPROVAL

ACCESS SHAFT WITH SAFETY LEDGE
SCALE: NOT TO SCALE

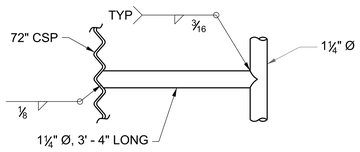


SECTION E
SCALE: NOT TO SCALE

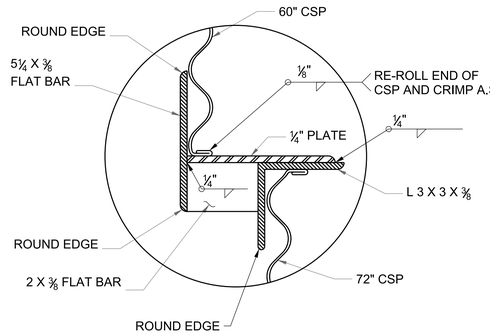
ACCESS SHAFT DATA					
STATION	ELEVATION "A"	ELEVATION "B"	ELEVATION "C"	LADDER LOCATION (LOOKING UPSTREAM)	SAFETY LEDGE
SITE A-1 DRAINAGE SYSTEM 1					
903+35	2880.60	2860.60	2840.81	MAIN LINE RIGHT SIDE	YES
906+07	2934	2921.40	2911.26	MAIN LINE LEFT SIDE	YES
911+07	3023	3005.20	2987.37	MAIN LINE RIGHT SIDE	YES
SITE B DRAINAGE SYSTEM					
1003+89	2883.50	2868.10	2859.76	MAIN LINE RIGHT SIDE	YES
1008+72	2998.60	2983.30	2975.97	MAIN LINE RIGHT SIDE	YES
SITE A-2 DRAINAGE SYSTEM 1					
1105+73	2865	2858	2850	MAIN LINE LEFT SIDE	YES



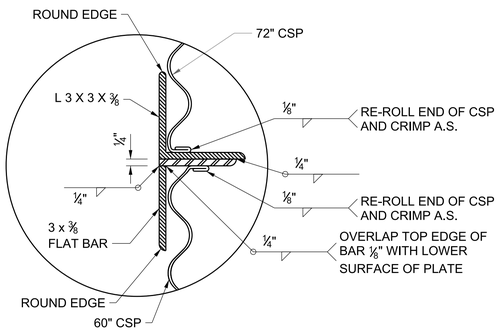
ACCESS SHAFT SAFETY LEDGE SECTION
SCALE: NOT TO SCALE



PIPE RAIL DETAIL
SCALE: NOT TO SCALE



SECTION F
SCALE: NOT TO SCALE



BOTTOM PLATE CONNECTION DETAIL
SCALE: NOT TO SCALE

NOTES:

1. ALL METAL SHALL BE GALVANIZED PER SECTION 210-3
2. SEE SEDIMENT PLACEMENT SITES A-1, B AND A-2 DRAINAGE SYSTEMS PROFILES ON SHEETS 30, 31 AND 32.

CADD PROJECT FILE NAME: WRDM000036.DGN
CHECKER: SJ
DESIGNER: JOHN NG

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

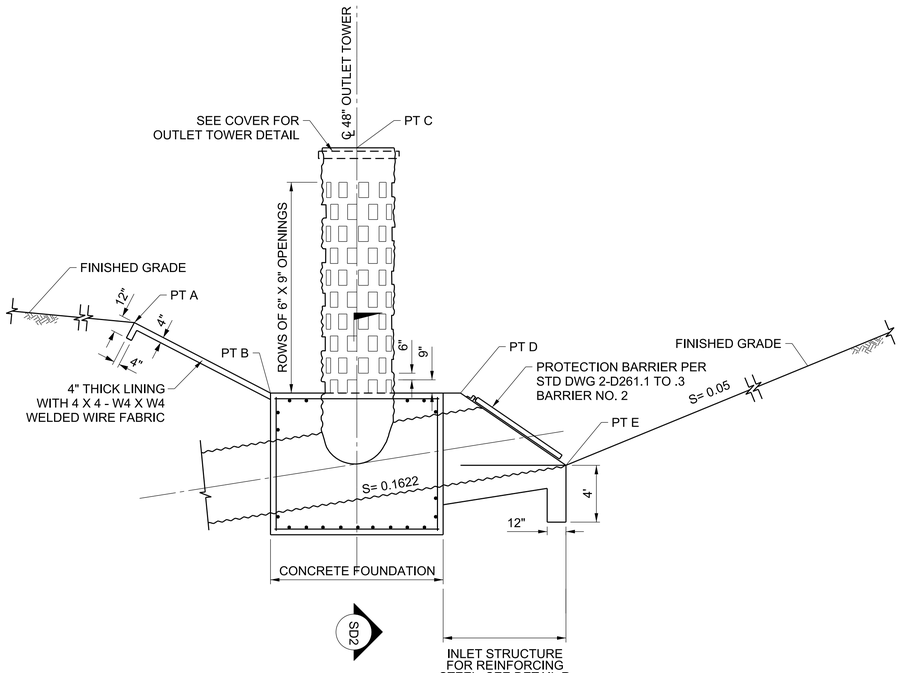
SEDIMENT PLACEMENT SITE

MANHOLE ACCESS SHAFT PART 2

PROJECT ID NO. WRDM000036

DWG 627-D13.45 | PD053212 | SHEET 45 OF 55

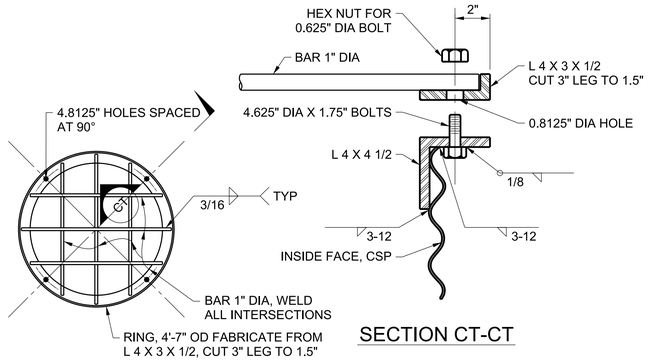
PLAN DR



NOTE: SEE INLET STRUCTURE DATA BELOW FOR PT A, PT B, PT C, PT D AND PT E'STATIONS AND ELEVATIONS

SECTION SD1-SD1

SCALE: NOT TO SCALE

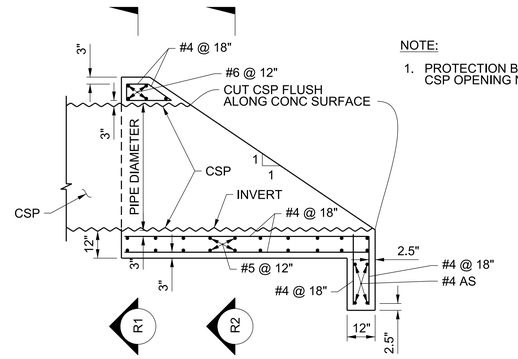


PLAN

SECTION CT-CT

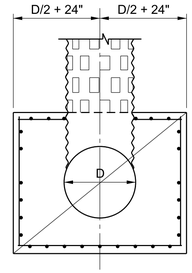
COVER FOR OUTLET TOWER

SCALE: NOT TO SCALE



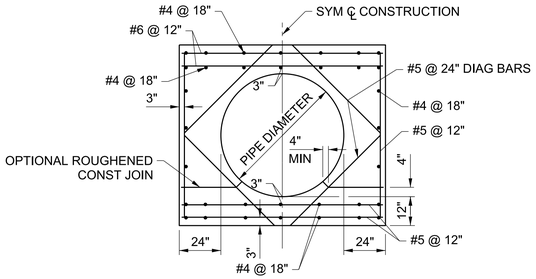
DETAIL R

SCALE: NOT TO SCALE



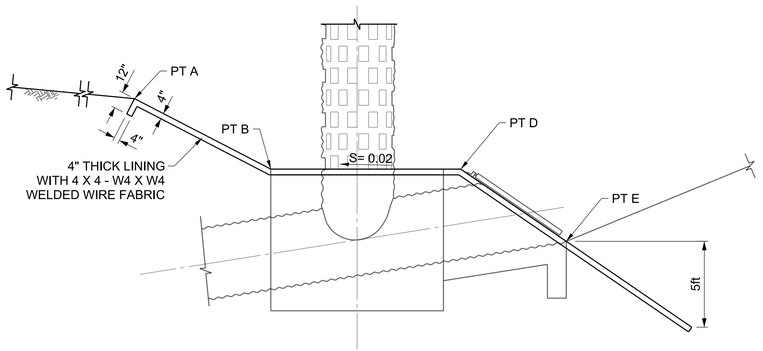
SECTION SD2-SD2

SCALE: NOT TO SCALE



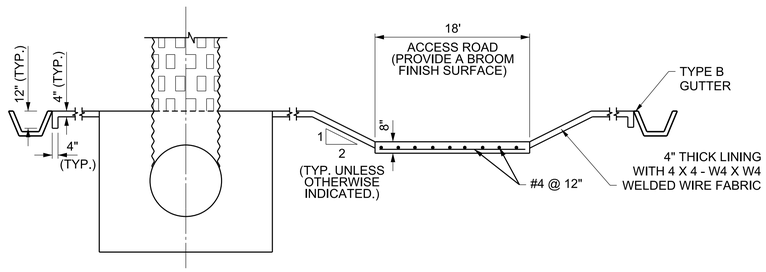
SECTION R1- R1

SCALE: NOT TO SCALE



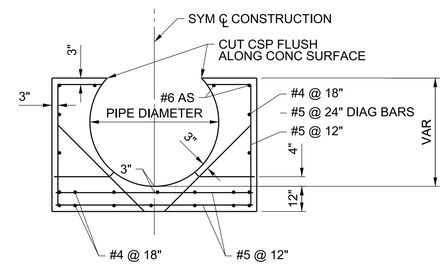
SECTION SD3-SD3

SCALE: NOT TO SCALE



SECTION SD4-SD4

SCALE: NOT TO SCALE



SECTION R2-R2

SCALE: NOT TO SCALE

INLET STRUCTURE DATA					
INLET STRUCTURE	POINT A	POINT B	POINT C	POINT D	POINT E
SITE A-1 DRAIN. SYSTEM 1	913+57.91, ELEV. 3015.58	913+67.17, ELEV. 3010.95	913+73.42, ELEV. 3014	913+79.67, ELEV. 3010.70	913+88.77, ELEV. 3001.60
SITE A-1 DRAIN. SYSTEM 2	922+90.90, ELEV. 3016.38	922+95.03, ELEV. 3014.32	923+00.53, ELEV. 3016	923+06.03, ELEV. 3014.10	923+13.73, ELEV. 3006.40
SITE B DRAIN. SYSTEM	1013+21.69, ELEV. 3078.79	1013+28.30, ELEV. 3075.48	1013+32.80, ELEV. 3078	1013+37.30, ELEV. 3075.30	1013+42.80, ELEV. 3069.80
SITE A-2 DRAIN. SYSTEM 1	1108+38.98, ELEV. 3078.79	1108+43.30, ELEV. 2885.78	1108+47.80, ELEV. 2887	1108+52.30, ELEV. 2885.60	1108+58, ELEV. 2879.90
SITE A-2 DRAIN. SYSTEM 2	1123+49.51, ELEV. 2888.38	1123+53.70, ELEV. 2886.28	1123+58.20, ELEV. 2888	1123+62.70, ELEV. 2886.10	1123+68.40, ELEV. 2880.40

NOTES:

1. REINFORCING STEEL FOR CONCRETE FOUNDATION IS #4 @ 12.
2. GALVANIZE ALL METAL PARTS AFTER FABRICATION.
3. USE CONCRETE CLASS 560-C-3250
4. SEE SEDIMENT PLACEMENT SITES A-1, B AND A-2' SITE GRADING PLANS, DRAINAGE PLANS AND DRAINAGE SYSTEMS PROFILES ON SHEETS 16, 20, 23, 30, 31 AND 32.

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

Jan 20, 2021

PROJECT ENGINEER

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE

DRAINAGE SYSTEM INLET STRUCTURE DETAILS
PROJECT ID NO. WRDM000036

DWG 627-D13.45 | PD053212 | SHEET 46 OF 55

DESIGNER JOHN NG | CHECKER SJ | CADD PROJECT FILE NAME WRDM000036.DGN

PLAN DR

NORTH

SEAL UPSTREAM END OF 8" PERFORATED CSP (TYP.)

STA. 310+66.76
OFFSET 437.56'
N=1907013.24
E=6571217.56

STA. 309+82.98
OFFSET 107.07'
N=1907097.02
E=6570887.07

8" PERFORATED CSP ALONG EXIST FLOW LINE (TYP.)

REMOVE SEAL OF EXIST 8" PERFORATED CSP AND JOIN 8" PERFORATED CSP SEE NOTE 1 (TYP.)

EXIST 8" PERFORATED CSP (TYP.)

SEAL UPSTREAM END OF 8" PERFORATED CSP (TYP.)

STA. 508+20.20
OFFSET 165.02'
N=1907739.67
E=6571431.39

PT# 1004 PHOTO ID# 3
N/E COR. CONC. INLET STRUCT.
N 1,908,128.488
E 6,571,339.921
EL 2820.74
FC 3419-1070.125

PT# 1005 PHOTO ID# 1
ON TOP OF N/W COR.
OF TRASH RACK
N 1,907,533.681
E 6,570,923.521
EL 2850.07
FC 3419-107

SITE A-1

8" PERFORATED CSP ALONG EXIST FLOW LINE

REMOVE SEAL OF EXIST 8" PERFORATED CSP AND JOIN 8" PERFORATED CSP SEE NOTE 1 (TYP.)

EXIST 8" PERFORATED CSP (TYP.)

STA. 508+44.12
OFFSET 163.76'
N=1907976.15
E=6571661.06

8" PERFORATED CSP ALONG EXIST FLOW LINE

STA. 507+53.30
OFFSET 282.45'
N=1908125.46
E=6571667.78

SITE A-2

PT. GREG
N 1,908,056.4358
E 6,570,761.5091
EL=2853.03

SITE B

BOUNDS OF SEDIMENT PLACEMENT SITE

UNITED STATES FOREST SERVICE INVENTORIED ROADLESS AREA (IRA) BOUNDARY LINE

STA. 413+27.09
OFFSET 27.82'
N=1907269.23
E=6569783.91

SEAL UPSTREAM END OF 8" PERFORATED CSP (TYP.)

8" PERFORATED CSP ALONG EXIST FLOW LINE (TYP.)

PT# 1006 PHOTO ID# 2
S/W COR. OF INLET STRUCT.
N 1,907,816.378
E 6,569,828.040
EL 2871.11
FC 3419-107

REMOVE SEAL OF EXIST 8" PERFORATED CSP AND JOIN 8" PERFORATED CSP SEE NOTE 1 (TYP.)

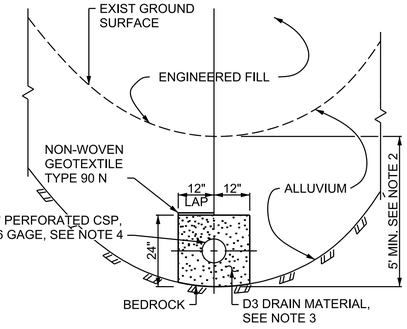
EXIST 8" PERFORATED CSP (TYP.)

CLEAR AND GRUBBING BOUNDARY

PLAN

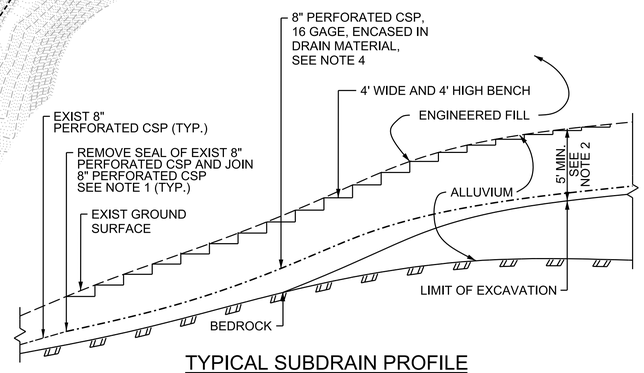
SCALE: 1" = 100'

50 0 100 200



TYPICAL SUBDRAIN CROSS SECTION

SCALE: NOT TO SCALE



TYPICAL SUBDRAIN PROFILE

SCALE: NOT TO SCALE

NOTES:

1. THE LOCATIONS OF THE EXISTING 8" PERFORATED CSPS' UPSTREAM ENDS SHOWN ARE VAGUE. THE CONTRACTOR SHOULD USE AS-BUILT DRAWING NO. 627-D10.16 (COGSWELL SEDIMENT PLACEMENT SITE, PHASE 2, FILL AREA, ZONE I FILL AND SUBDRAIN, [PLAN, PROFILE, AND CROSS SECTION) TO ASSIST THEMSELF TO EXPLORE THEIR LOCATIONS.
2. EXCAVATE A MINA. OF 5' INTO THE ALLUVIUM OR TO THE BEDROCK FLOOR AS DETERMINED BY THE ENGINEERING GEOLOGIST.
3. ENCASE D3 DRAIN MATERIAL IN NON-WOVEN GEOTEXTILE TYPE 90 N FOR COMPLETE LENGTH OF 8" PERFORATED CSP. SEAL UPSTREAM END OF PIPE.
4. ALIGNMENT AND GRADE OF DRAIN PIPE TO BE DETERMINED BY THE ENGINEERING GEOLOGIST.
5. SEE SEDIMENT PLACEMENT SITES A-1, B AND A-2 CONSTRUCTION CONTROL LINES' COORDINATES ON SHEETS 14, 20 AND 24.
6. SEE SEDIMENT PLACEMENT SITES A-1, B AND A-2 SITE GRADING PLANS ON SHEETS 13 & 16, 18 AND 23.
7. SEE SEDIMENT PLACEMENT SITES A-1, B AND A-2 DRAINAGE PLANS ON SHEETS 15 & 16, 21 AND 23.

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

SEDIMENT PLACEMENT SITE

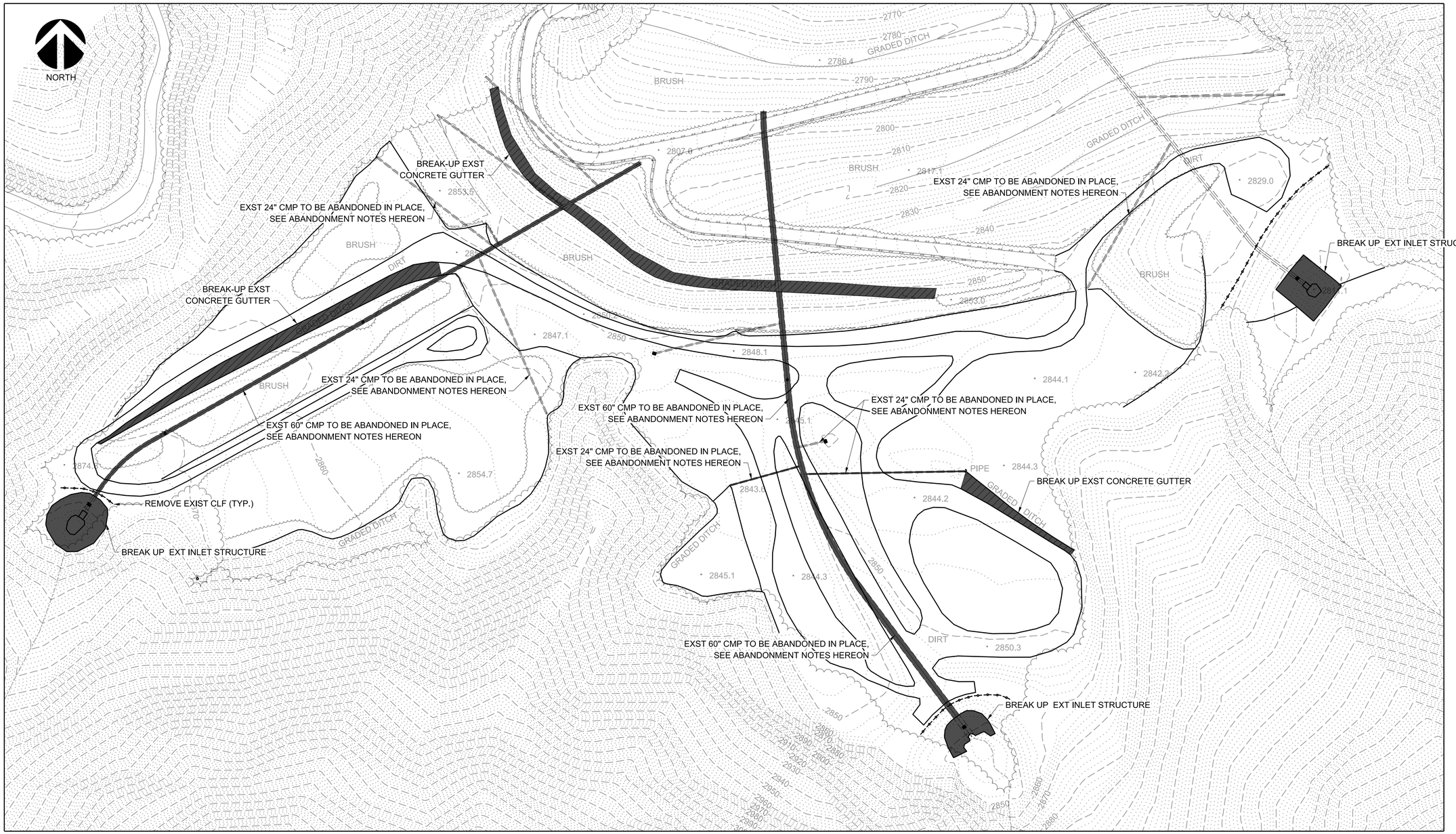
SUBDRAINS

PROJECT ID NO. WRDM000036

DWG | PD053212 | SHEET 47 OF 55

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

PLAN DR



ABANDONMENT NOTES

1. ALL CONCRETE STRUCTURES SHOWN ON THIS DEMOLITION PLAN SHALL BE BROKEN UP SUCH THAT THEY DO NOT HOLD WATER.
2. ALL EXISTING CMP AND SHAFTS TO BE ABANDONED IN PLACE SHALL BE FILLED WITH SLURRY (100-E-100 OR 1-SACK SAND SLURRY)
3. INLETS TO BE FILLED WITH SAND AND ABANDONED IN PLACE.

PLAN

SCALE: 1" = 60'

30 0 60 120

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR RESTORATION PROJECT

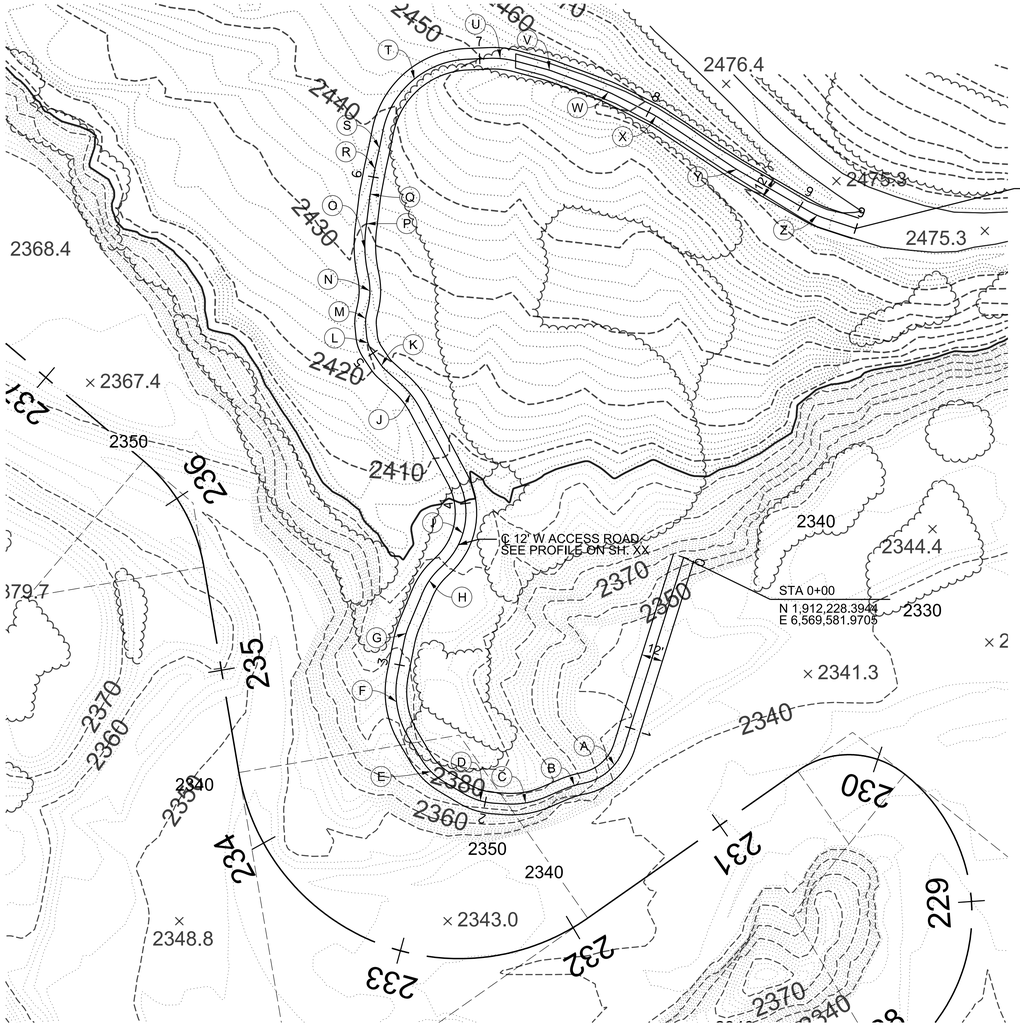
SEDIMENT PLACEMENT SITE

DEMOLITION PLAN

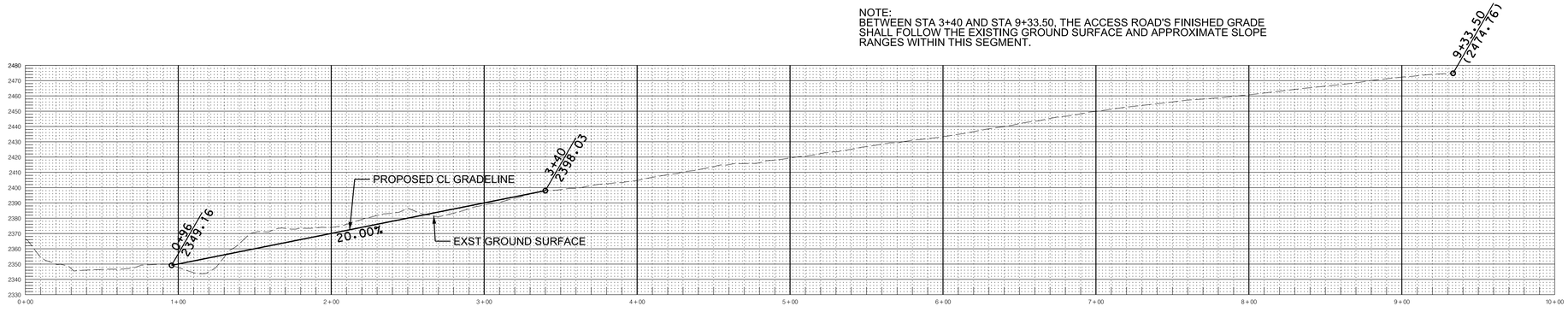
PROJECT ID NO. WRDM000036

DWG 627-D13.46	PD053212	SHEET 48 OF 55

PLAN DR

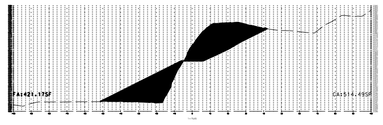

STA 9+33.50
N 1,912,412.2982
E 6,569,678.1707
STA 0+00
N 1,912,228.3944
E 6,569,581.9705
C 12' W ACCESS ROAD
SEE PROFILE ON SH. XX
2476.4
2475.3
2475.3
2368.4
2367.4
2344.4
2341.3
2343.0
2348.8
2450
2440
2430
2420
2410
2400
2390
2380
2370
2360
2350
2340
2330
2370
2360
2350
2340
2340
2350
2360
2380
2390
2400
2410
2420
2430
2440
2450
2460
2470
2480
2490
2500
2510
2520
2530
2540
2550
2560
2570
2580
2590
2600
2610
2620
2630
2640
2650
2660
2670
2680
2690
2700
2710
2720
2730
2740
2750
2760
2770

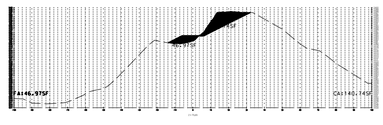
NOTE:
BETWEEN STA 3+40 AND STA 9+33.50, THE ACCESS ROAD'S FINISHED GRADE SHALL FOLLOW THE EXISTING GROUND SURFACE AND APPROXIMATE SLOPE RANGES WITHIN THIS SEGMENT.

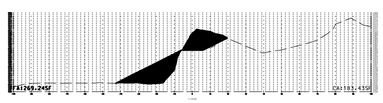


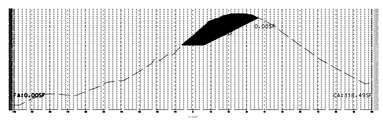
NORTH ACCESS ROAD PROFILE

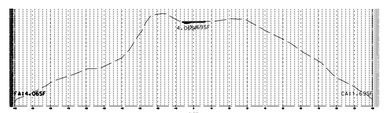
SCALE: HOR 1" = 40'
VERT 1" = 40'

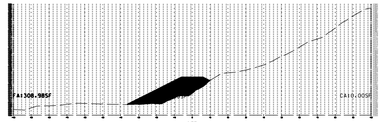


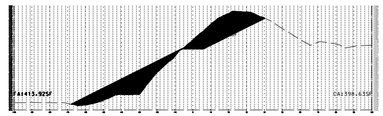


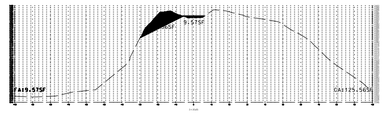


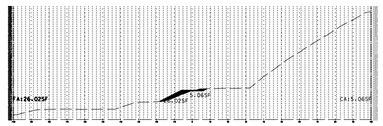


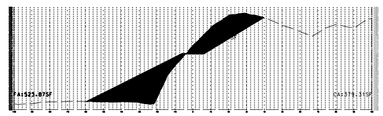


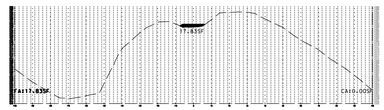












DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
MAN TAT NG
C 70322
CIVIL
STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

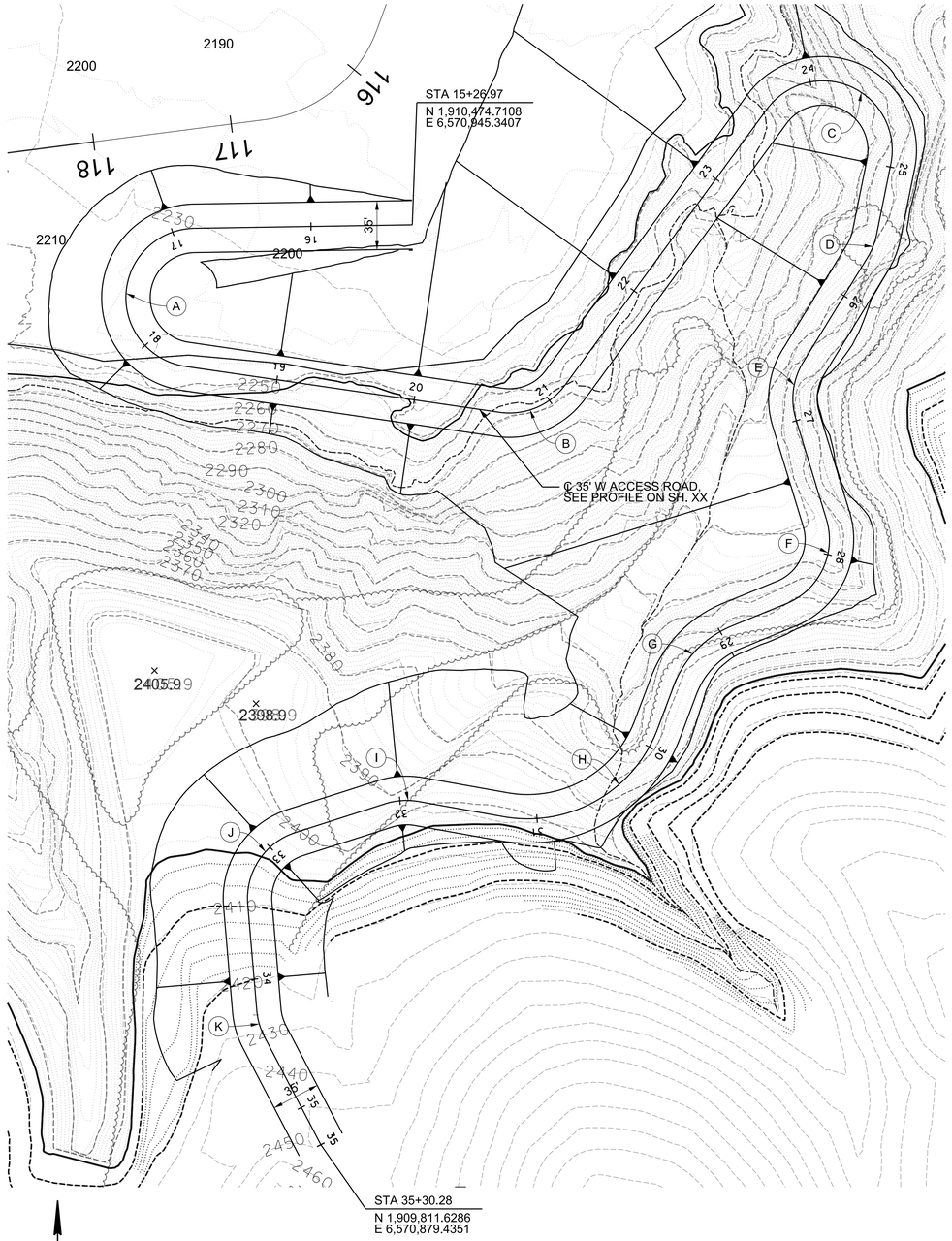
LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR RESTORATION PROJECT

COGSWELL RESERVOIR
DEVIL'S CANYON NORTH ACCESS ROAD PROFILE AND CROSS SECTIONS
PROJECT ID NO. WRDM000036

DWG 627-D13.48 | PD053212 | SHEET 50 OF 55

PLAN DR



35 FEET WIDE ACCESS ROAD CENTERLINE CURVE DATA								
CURVE	RADIUS	CENTRAL ANGLE	LENGTH	TANGENT	PI NORTHING	PI EASTING	BC STA	EC STA
Ⓐ	50'	170° 45' 9"	149.01'	618.23'	1,910,462.35	6,570,170.00	16+84.18	18+33.19
Ⓑ	50'	62° 8' 55"	54.23'	30.13'	1,910,335.20	6,571,037.91	20+62.01	21+16.24
Ⓒ	50'	155° 16' 35"	135.50'	228.14'	1,910,742.21	6,571,335.64	23+62.25	24+97.76
Ⓓ	50'	20° 5' 39"	17.54'	8.86'	1,910,458.82	6,571,278.18	25+49.92	25+67.46
Ⓔ	50'	48° 30' 24"	42.33'	22.53'	1,910,356.36	6,571,215.26	26+56.31	26+98.64
Ⓕ	50'	84° 41' 53"	73.91'	45.57'	1,910,218.93	6,571,257.14	27+74.22	28+48.13
Ⓖ	75'	47° 6' 51"	61.67'	32.70'	1,910,173.21	6,571,145.40	28+90.59	29+52.26
Ⓗ	100'	79° 31' 16"	138.79'	83.20'	1,910,033.44	6,571,092.77	29+85.71	31+24.50
Ⓘ	50'	27° 52' 49"	24.33'	12.41'	1,910,061.20	6,570,937.77	31+86.35	32+10.68
Ⓙ	50'	77° 9' 8"	67.33'	39.88'	1,910,024.63	6,570,823.35	32+78.52	33+45.84
Ⓚ	50'	22° 41' 52"	19.81'	10.04'	1,909,898.39	6,570,834.12	34+22.62	34+42.43

APPROXIMATE CUT VOLUME SHOWN (BASED ON A PRE-FIRE SURVEY) FOR RAMP = 491,293 CY

APPROXIMATE FILL VOLUME FOR RAMP = 3,452 CY

DESIGNER JOHN NG
CHECKER SJ
CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER MAN TAT NG C 70322 CIVIL STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

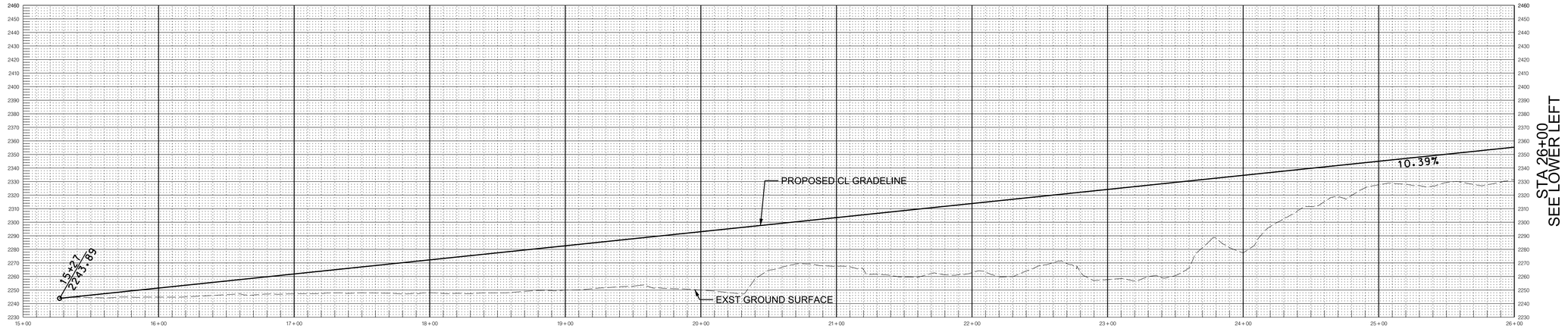
LOS ANGELES COUNTY PUBLIC WORKS

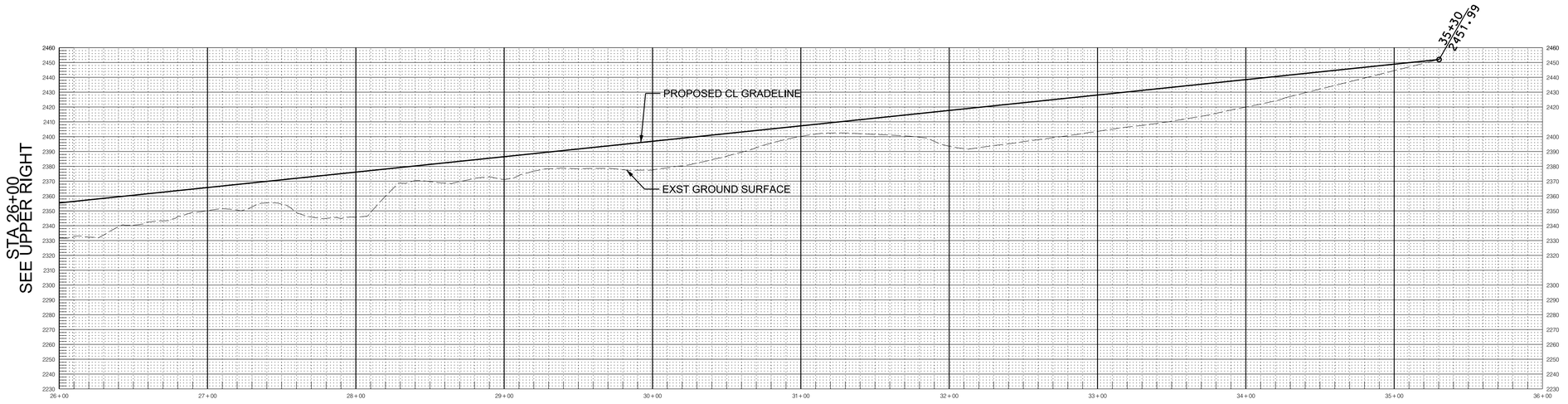
COGSWELL RESERVOIR RESTORATIO PROJECT

COGSWELL RESERVOIR
SOUTH ACCESS ROAD
PROJECT ID NO. WRDM000036

DWG 627-D13.49 | PD053212 | SHEET 51 OF 55

PLAN DR





SOUTH ACCESS ROAD PROFILE

SCALE: HOR 1" = 40'
VERT 1" = 40'

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

COGSWELL RESERVOIR SEDIMENT REMOVAL PROJECT

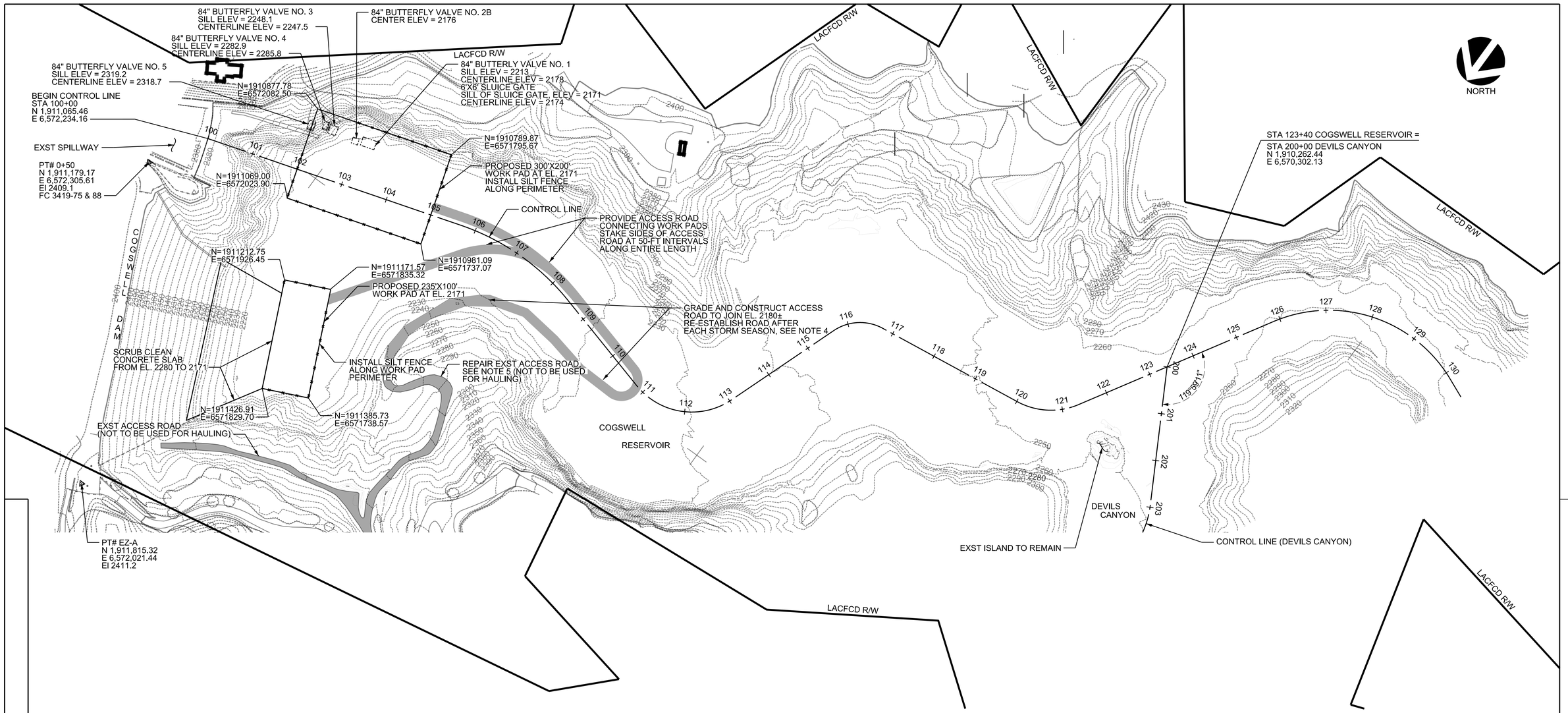
COGSWELL RESERVOIR

SOUTH ACCESS ROAD PROFILE

PROJECT ID NO. WRDM000036

DWG 627-D13.50	PD053212	SHEET 52 OF 55

PLAN DR



NOTES

1. WORK PADS AND ACCESS ROADS SHOWN ARE CONCEPTUAL. LOCATIONS MAY VARY BY SEASON. THE CONTRACTOR SHALL SUBMIT PLANS FOR WORK PADS AND ACCESS ROADS FOR APPROVAL.
2. THE WORK PADS SHALL BE COMPLETELY DEWATERED AND COMPACTED TO A RELATIVE COMPACTION OF 95 PERCENT MINIMUM.
3. ACCESS RAMP AND ROAD SHALL HAVE A MINIMUM WIDTH OF 15' AND MAXIMUM SLOPE OF 15%. ACCESS RAMP AND ROAD SHALL BE COMPACTED TO A RELATIVE COMPACTION OF 95 PERCENT.
4. ERODED PORTION OF ACCESS ROAD AND ACCESS RAMP SHALL BE REGRADED TO RESTORE ROADWAY WIDTH AND PROFILE. ERODED ACCESS ROAD/RAMP SHALL BE RECOMPACTED TO A RELATIVE COMPACTION OF 95 PERCENT. STAKING ALONG ACCESS ROAD SHALL BE RESTORED.
5. EXISTING ACCESS ROAD SHALL BE REGRADED TO RESTORE MINIMUM ROADWAY WIDTH OF 15'. EXISTNG ACCESS ROAD SHALL BE COMPACTED TO A RELATIVE COMPACTION OF 95 PERCENT.

PLAN
SCALE: 1" = 100'
50 0 100 200 300

CADD PROJECT FILE NAME: WRDM000036.DGN
CHECKER: SJ
DESIGNER: JOHN NG

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
JOHN YEE LO
C 77676
CIVIL
STATE OF CALIFORNIA

PROJECT ENGINEER 01/20/21

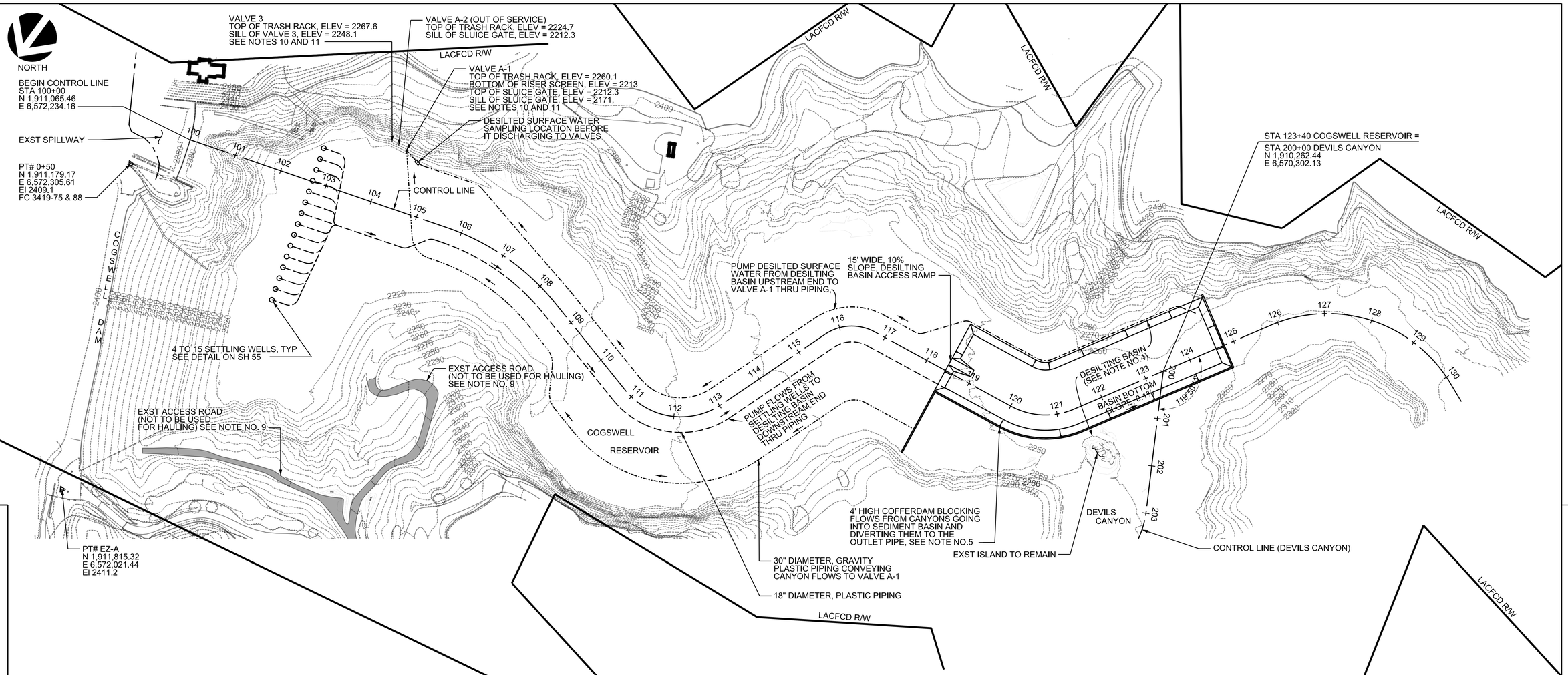
LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

COGSWELL RESERVOIR
CONCEPTUAL WORK PAD AND
ACCESS ROAD PLAN
PROJECT ID NO. WRDM000036

DWG 627-D13.W1 | PD053212 | SHEET 53 OF 55

PLAN DR



7 ACRE-FEET DESILTING BASIN PARAMETERS	
INFLOW RATE	16.4 CFS
BOTTOM LENGTH	600'
BOTTOM WIDTH	145'
BOTTOM LENGTH TO BOTTOM WIDTH RATIO	~ 4 TO 1
DEPTH	5.25'
BOTTOM LONGITUDINAL SLOPE	S = 0.001
SIDE SLOPE	3 TO 1
DESIGN WATER DEPTH	3.25'

PLAN

SCALE: 1" = 100'

50 0 100 200 300

NOTES

1. WATER BYPASS RELEASED THROUGH VALVE A-1.
2. VALVES AND ALL OTHER OUTLET COMPONENTS SHALL REMAIN IN PLACE DURING THE DEWATERING. THE CONTRACTOR SHALL PROTECT THE OUTLET WORKS AT ALL TIMES.
3. THE ENTRANCE OF ALL INTAKE PIPES OF THE PUMPS USED FOR DEWATERING PURPOSES SHALL HAVE 1/8" OR SMALLER MESH FISH SCREEN.
4. THE LOCATION, ORIENTATION AND SIZE (DIMENSIONS) OF THE DESILTING BASIN WILL BE VARIED BASED ON THE CONTRACTOR'S NEEDS. WORKING DRAWINGS AND THEIR SUPPORTING INFORMATION FOR THE DESILTING BASIN ARE REQUIRED TO BE SUBMITTED TO THE AGENCY FOR REVIEW AND APPROVAL.
5. FLOWS FROM THE CANYONS SHOULD NEVER MAKE CONTACT WITH CONSTRUCTION WORK/EXCAVATION AREAS AND WATER IN THE DESILTING BASIN TO PREVENT ADVERSE IMPACTS ON THEIR WATER QUALITY AND BE COLLECTED UPSTREAM OF THE CONSTRUCTION WORK/EXCAVATION AREAS AND THE DESILTING BASIN. THE COFFERDAMS MAY NOT ONLY BE RIGHT ALONG THE DESILTING BASIN'S PARAMETERS, BUT ALSO AT WHEREVER ARE NEEDED TO CONVEY FLOWS AROUND THE CONSTRUCTION WORK/ EXCAVATION AREAS TO ISOLATE CONSTRUCTION ACTIVITIES FROM CONTACT WITH FLOWS. WHAT TYPE OF COFFEDAM IS NOT SPECIFIED. THERE ARE DIFFERENT COFFERDAM OPTIONS AVAILABLE SUCH AS WATER FILLED
6. THESE CONCEPTUAL SURFACE WATER DIVERSION AND DEWATERING PLANS MERELY PROVIDE THE CONTRACTOR PROCEDURES REQUIRING TO DIVERT SURFACE WATER FROM AND DEWATER THE RESERVOIR. THE CONTRACTOR SHALL SUBMIT DEWATERING PLANS FOR APPROVAL.
7. THE CONTRACTOR MAY REQUIRE TO INSTALL MORE SETTING WELLS TO EXTRACT TRAPPED WATER WITHIN THE VOIDS OF SEDIMENT TO SOLIDIFY THE SEDIMEN AND RELOCATED THE WELLS BASED ON THE SITE CONDITION AND SEDIMENT REMOVAL PROGRESS. THE WELLS SHALL BE PROTECTED FROM STORM FLOWS
8. PIPES LAID ON THE RESERVOIR SURFACE CAN BE UNSECURED. THE CONTRACTOR CAN CHOOSE TO SECURE AND COVER THE PIPES IF THEY FIND IT NECESSARY.
9. THE CONTRACTOR CAN USE THE EXISTING ACCESS ROAD FOR A FUTURE LACPW PROJECT IN YEARS 3 TO 4.
10. VALVE 3 MAY BE USED FOR DEWATERING AND SURFACE FLOWS SINCE VALVE 1 MAY STILL BE UNDER WATER DURING THE INITIAL DIVERSION AND DEWATERING PROCESS. IT SHOULD BE NOTED PUMPS MAY BE NEEDED TO GET WATER OUT THROUGH VALVE 3.
11. MAXIMUM PIPE SIZE TO GO THROUGH VALVES WILL BE 24"

DESIGNER	CHECKER	CADD PROJECT FILE NAME
JOHN NG	SJ	WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
MAN TAT NG
C 70322
CIVIL
STATE OF CALIFORNIA

Jan 20, 2021
PROJECT ENGINEER

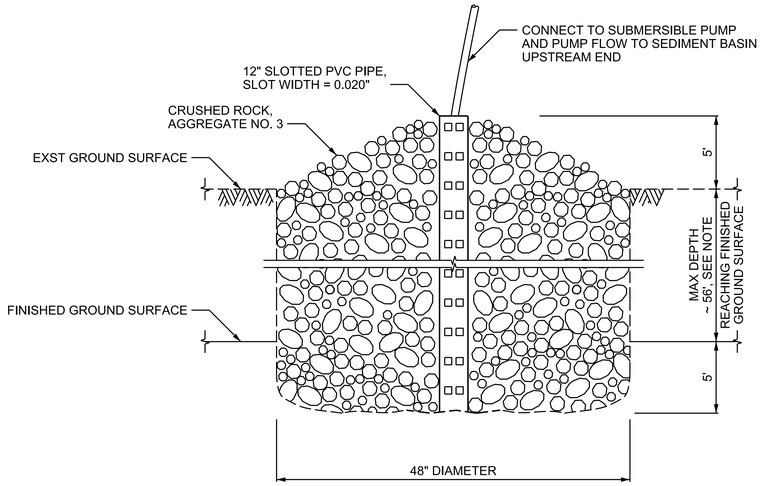
LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

COGSWELL RESERVOIR
CONCEPTUAL SURFACE WATER DIVERSION AND DEWATERING PLAN
PROJECT ID NO. WRDM000036

DWG 627-D13.W1	PD053212	SHEET 54 OF 55

PLAN DR



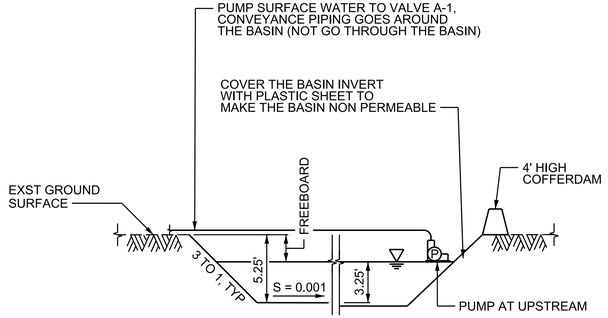
Sieve Size	Percentage Passing Sieve
	Aggregate No. 3
2" (50 mm)	—
1-1/2" (37.5 mm)	100
1" (25.0 mm)	90 - 100
3/4" (19.0 mm)	55 - 85
3/8" (9.5 mm)	8 - 20
No. 4 (4.75 mm)	0 - 5
No. 8 (2.36 mm)	0 - 5
No. 200 (75 µm)	0 - 5
ASTM C131 Test Grading	B

TYPICAL SETTLING WELL (SH. 54)

NOT TO SCALE

NOTE:

THE CONTRACTOR CAN CONSTRUCT THE WELL AT DIFFERENT DEPTH PHASES TO ACHIEVE THE REQUIRED WELL DEPTH.



SECTION A-A (SH. 54)

NOT TO SCALE

DESIGNER JOHN NG

CHECKER SJ

CADD PROJECT FILE NAME WRDM000036.DGN

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — MAN TAT NG — C 70322 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER Jan 20, 2021

LOS ANGELES COUNTY PUBLIC WORKS

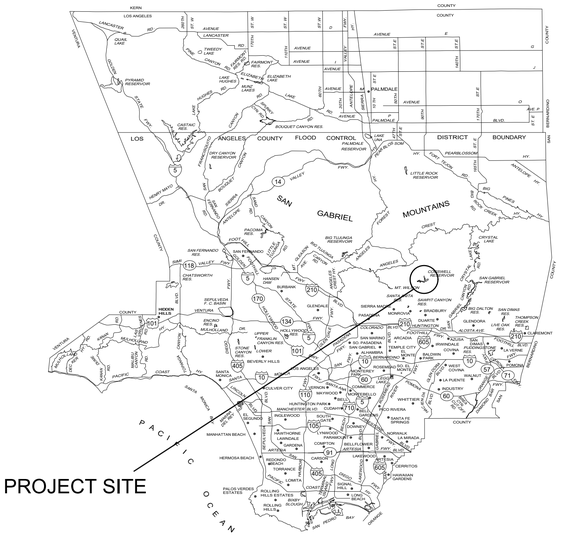
COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

COGSWELL RESERVOIR
CONCEPTUAL SURFACE WATER DIVERSION AND DEWATERING PLAN
PROJECT ID NO. WRDM000036

DWG 627-D13.W2 | PD053212 | SHEET 55 OF 55

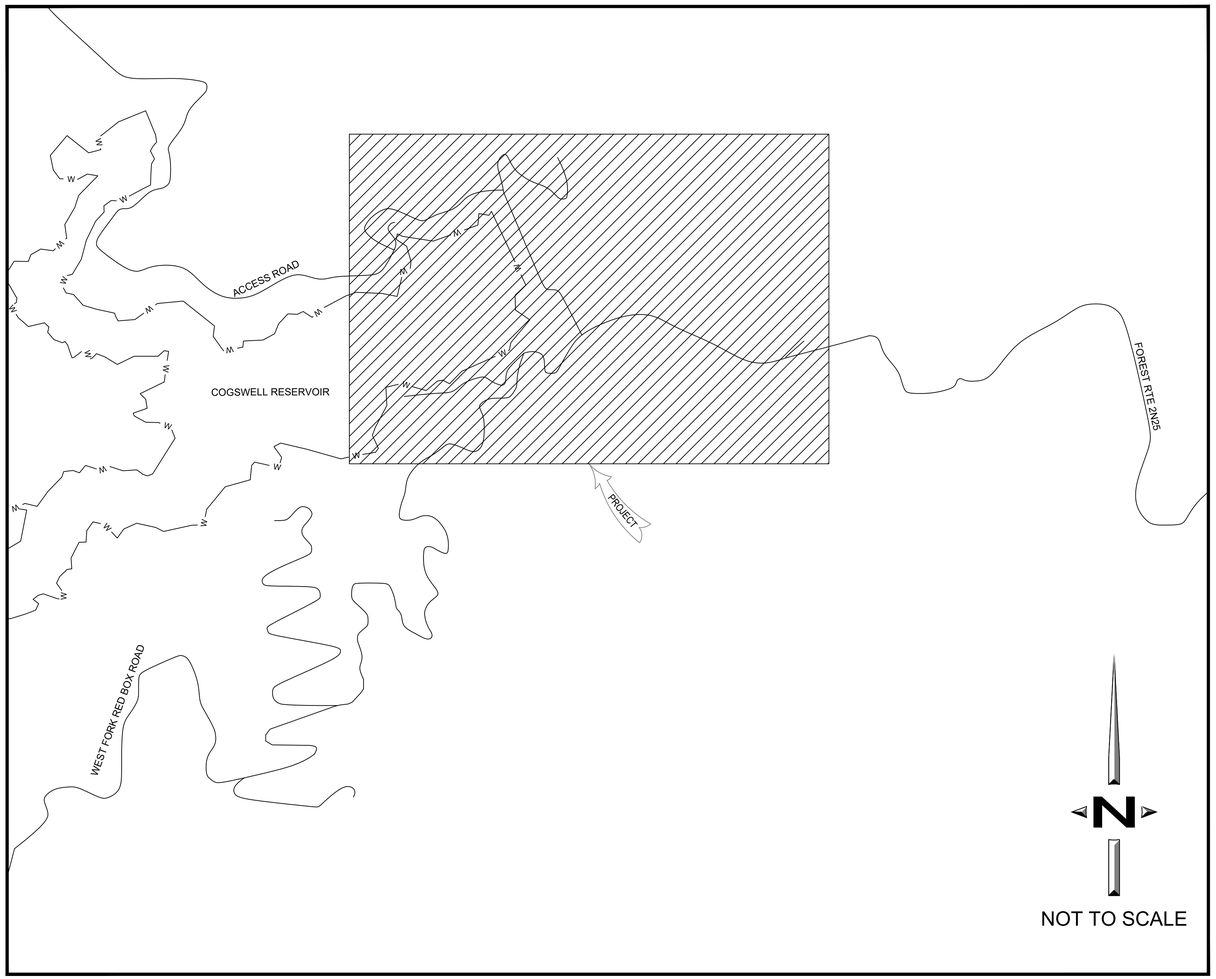
PLAN DR

LOS ANGELES COUNTY PUBLIC WORKS
COGSWELL DAM
POST-FIRE EMERGENCY RESTORATION PROJECT



LOCATION MAP
NOT TO SCALE

VICINITY MAP



PLAN E INDEX

E-01 TITLE SHEET
E-02 STRUCTURE DETAIL
E-03 LIGHTWEIGHT STEEL POLE DETAIL
E-04 EXISTING SINGLE LINE
E-05 PROPOSED SINGLE LINE
E-06 LOCATION 1
E-07 LOCATION 2
E-08 LOCATION 3
E-09 LOCATION 4
E-10 LOCATION 5A
E-11 LOCATION 5B
E-12 TRANSFORMER CONNECTION DETAIL
E-13 GATE OPERATOR REPLACEMENT

NOTE FOR CREW: PTD ALL POLES

WORK ORDER SYMBOLOGY LEGEND

TYPE

- OVERHEAD
- UNDERGROUND
- COMMUNICATION

LINE TYPE LEGEND

- HIGH VOLTAGE (PRIMARY) & STREET LIGHT
- COMMUNICATION
- LOW VOLTAGE (SECONDARY)
- EDGE OF PAVEMENT

DRAFTER: BRADY WARREN
DESIGNER: FRANCISCO CIENFUEGOS
CHECKER: AKASH BEZAWADA

DATE	MARK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — AKASH BEZAWADA — C 90394 — EXP. 09/30/2021 — CIVIL — STATE OF CALIFORNIA

AKASH BEZAWADA 01/13/2021
PROJECT ENGINEER DATE

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR
POST-FIRE EMERGENCY RESTORATION PROJECT

TITLE SHEET

DWG	PD	SHEET E-01 OF E-13

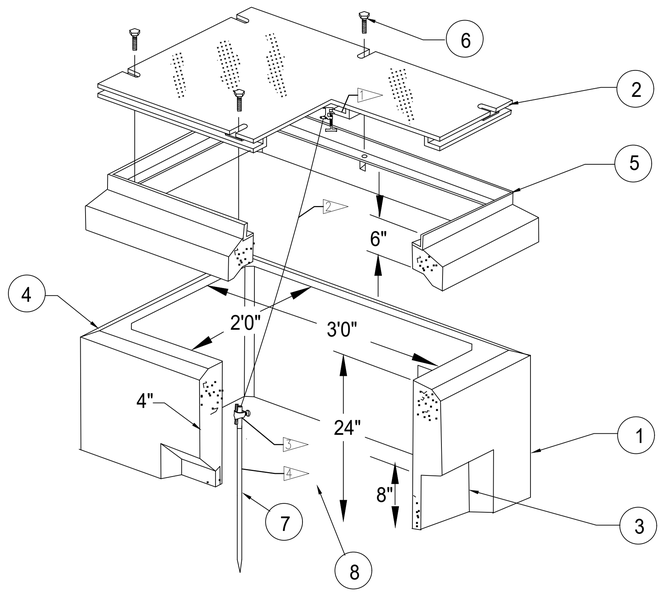
DATE: 01/13/2021

PLAN E

DATE: TIME: FILE:

LOS ANGELES COUNTY PUBLIC WORKS
COGSWELL DAM

TYPICAL SIGNAL PULL BOX DETAIL

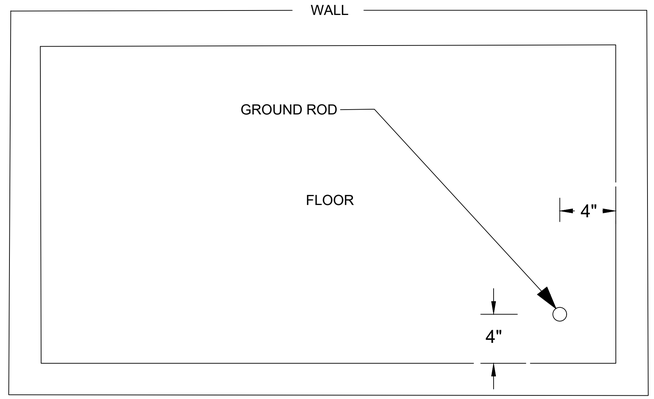


NOTES

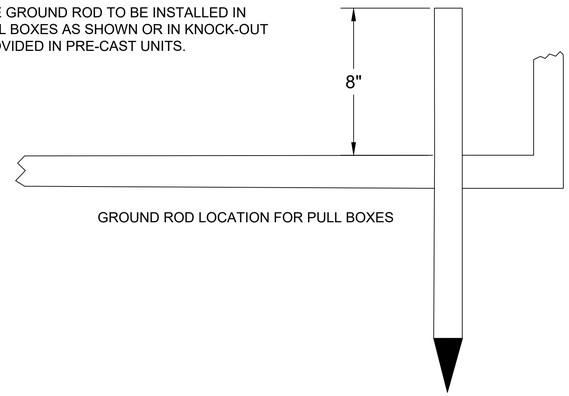
1. PRECAST 2'-O" X 3'-0" CONCRETE PULLBOX REINFORCED TO H20 BRIDGE LOADING
2. GALVANIZED STEEL TRAFFIC COVER RATED FOR H-20 BRIDGE LOADING
3. KNOCKOUTS AS REQUIRED
4. PROVIDE MANUFACTURER'S JOINT COMPOUND AT ALL JOINTS
5. TOP RING WITH GALVANIZED STEEL FRAME CAST INTO SECTION TO RECEIVE COVER. BOND FRAME TO GND ROD WITH #4/0 B.C.
6. PENTAHEAD STAINLESS STEEL BOLTS (4 REQ'D). CONTRACTOR TO PROVIDE MINIMUM OF 6 WRENCHES TO FIT PENTAHEAD BOLTS.
7. PROVIDE 3/4"DIA. X 10' COPPER GROUND ROD.
8. SET BOX ON 12" BEDDING OF 3/4"GRAVEL FILL

1. ATTACH GROUNDING CLAMP TO PRE-CAST FLANGE. IF FLANGE IS PROHIBITIVE, CAD WELD 1/4" X 12" X 3" STEEL CHANNEL IRON TO BOTTOM OF LID.
2. #4 BARE COPPER CONTINUOUS GROUND WIRE. COIL 6' OF CONDUCTOR INSIDE OF BOX.
3. MECHANICAL BOLT CONNECTION FOR 3/4"DIA GROUND ROD TO #4 BARE COPPER.
4. CONTRACTOR TO PERFORM GROUNDING TEST TO CONFIRM MAXIMUM 25 Ohm RESISTANCE. IF RESISTANCE NOT MET, DRIVE ADDITIONAL GROUND RODS UNTIL REPEATED TEST SHOWS LESS THAN 25 Ohm.

WHERE DIAMOND PLATE LIDS ARE PRESENT
USE GROUNDING DETAIL BELOW



ONE GROUND ROD TO BE INSTALLED IN PULL BOXES AS SHOWN OR IN KNOCK-OUT PROVIDED IN PRE-CAST UNITS.



GROUND ROD LOCATION FOR PULL BOXES

DESIGNER: FRANCISCO CIENFUEGOS
DRAFTER: BRADY WARREN
CHECKER: AKASH BEZAWADA

DATE	MARK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
AKASH BEZAWADA
C 90394
EXP. 09/30/2021
CIVIL
STATE OF CALIFORNIA

AKASH BEZAWADA 01/13/2021
PROJECT ENGINEER DATE

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR
POST-FIRE EMERGENCY RESTORATION PROJECT

STRUCTURE DETAIL

DWG	PD	SHEET E-02 OF E-13

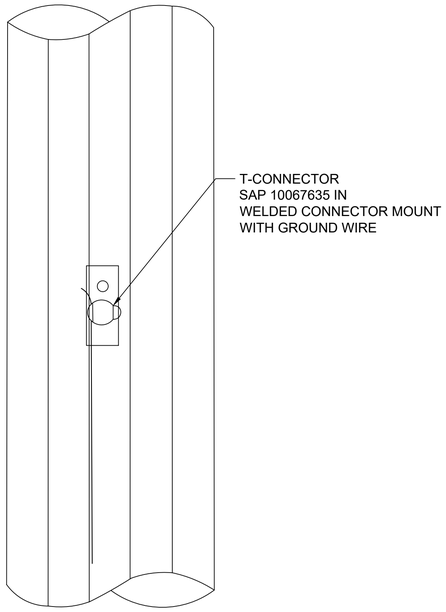
DATE: 01/13/2021

PLAN E

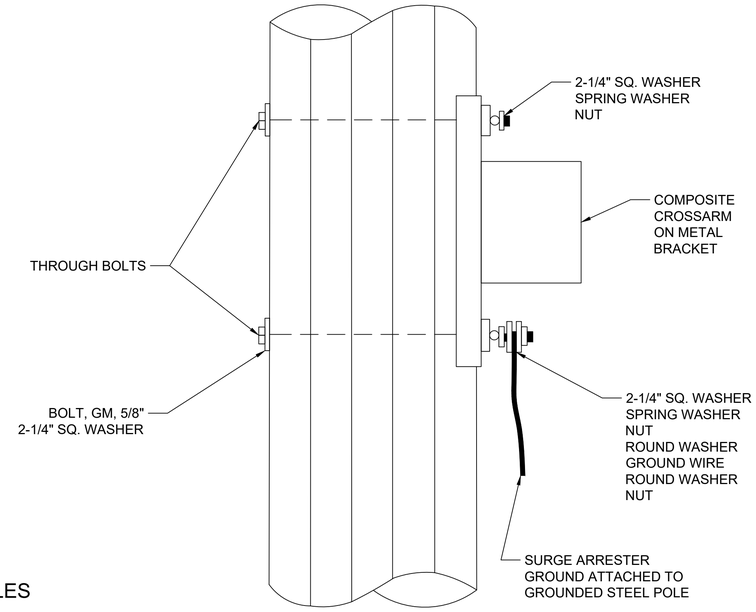
DATE: TIME: FILE:

LOS ANGELES COUNTY PUBLIC WORKS
COGSWELL DAM

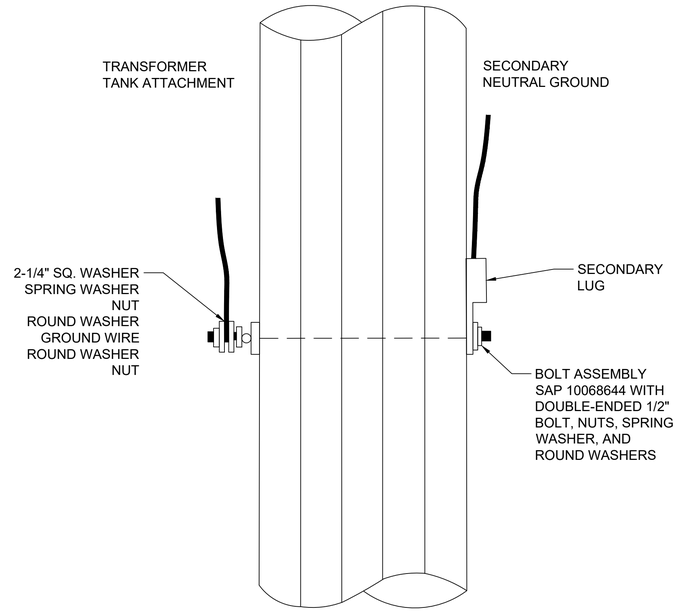
INSTALLATION OF A T-CONNECTOR AND A GROUND WIRE IN A WELDED CONNECTOR MOUNT



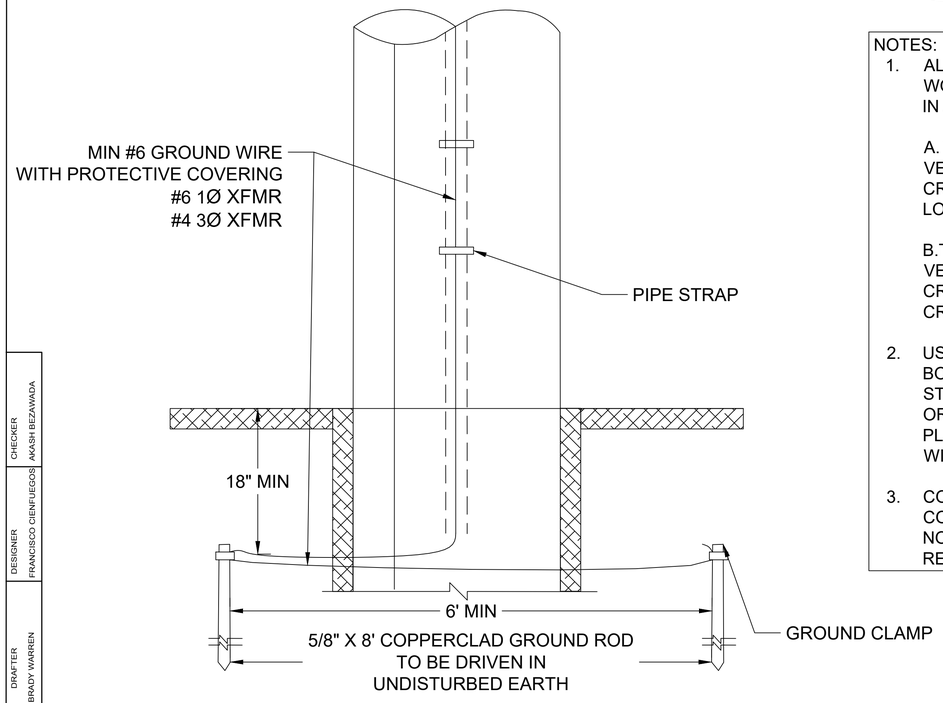
INSTALLATION OF A SURGE ARRESTER GROUND USING A CROSSARM BRACKET THROUGH-BOLT



INSTALLATION OF A TRANSFORMER TANK ATTACHMENT AND SECONDARY NEUTRAL GROUND USING THE SAME THROUGH-BOLT



ALTERNATE GROUNDING - WOOD POLES



NOTES:

1. ALL 115 KV, 66KV, 33KV, 25KV, 16KV & 12KV CIRCUITS ON WOOD AND COMPOSITE CROSSARMS SHALL BE BONDED IN ALL LOCATIONS.

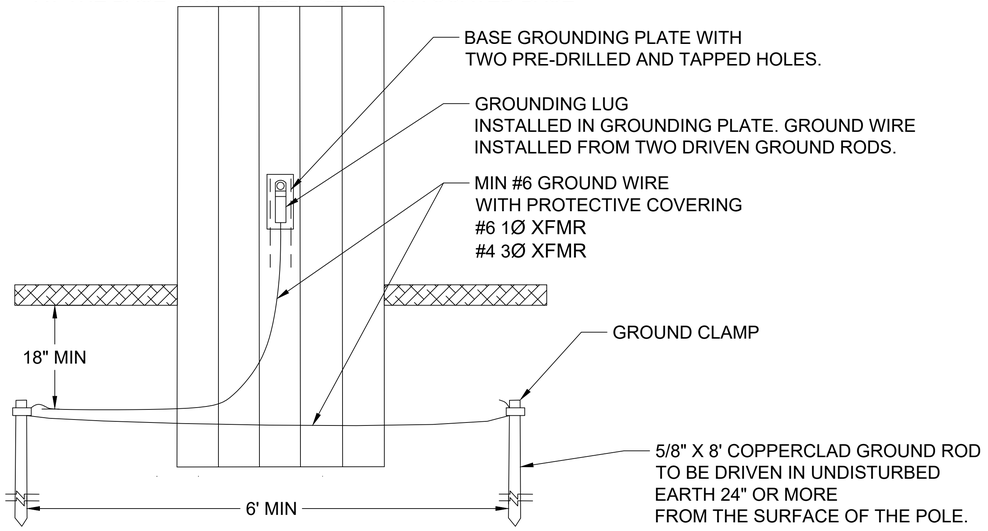
   A. TWO 3-WIRE CIRCUITS OF 12KV OR ABOVE USING VERTICAL CONSTRUCTION ON WOOD AND COMPOSITE CROSSARMS SHALL BE BONDED SEPARATELY IN ALL LOCATIONS.

   B.TWO 4-WIRE CIRCUITS OF 12KV OR ABOVE USING VERTICAL CONSTRUCTION ON WOOD AND COMPOSITE CROSSARMS SHALL BE BONDED EXCEPT AT GRADE "A" CROSSING.

2. USE #8 SOFT-DRAWN SOLID BARE COPPER FOR NEW BONDS. FOR WOOD CROSSARMS, FASTEN WITH GUN STAPLES USING BONDING WIRE PLASTIC INSULATORS OR WITH HAND-DRIVEN 1-1/2" FENCE STAPLES WITH RTVI PLASTIC INSERT. FOR COMPOSITE CROSSARMS, FASTEN WITH SELF-TAPPING SCREWS USING BONDING CLIPS.

3. CONTRACTOR TO PERFORM GROUNDING TEST TO CONFIRM MAXIMUM 25 Ohm RESISTANCE. IF RESISTANCE NOT MET, DRIVE ADDITIONAL GROUND RODS UNTIL REPEATED TEST SHOWS LESS THAN 25 Ohm.

INSTALLATION OF GROUND RODS INSTALLED AT THE BASE OF A STEEL POLE WITH A COATED BASE



DRAFTER	BRADY WARREN	
DESIGNER	FRANCISCO CIENFUEGOS	
CHECKER	AKASH BEZAWADA	

DATE	MARK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
AKASH BEZAWADA
C 90394
EXP. 09/30/2022
CIVIL
STATE OF CALIFORNIA

AKASH BEZAWADA 01/13/2021
PROJECT ENGINEER DATE

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR
POST-FIRE EMERGENCY RESTORATION PROJECT

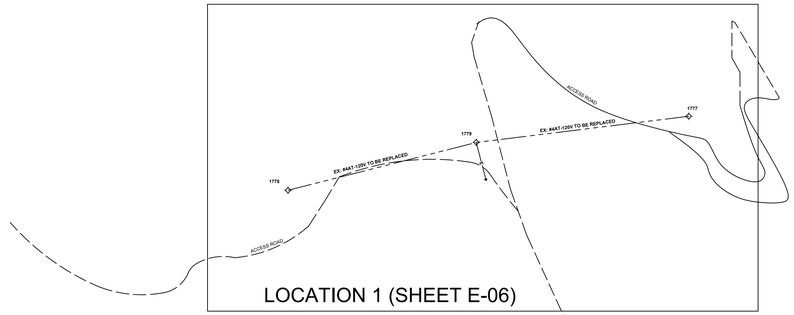
LIGHTWEIGHT STEEL POLE DETAIL

DWG	PD	SHEET E-03 OF E-13

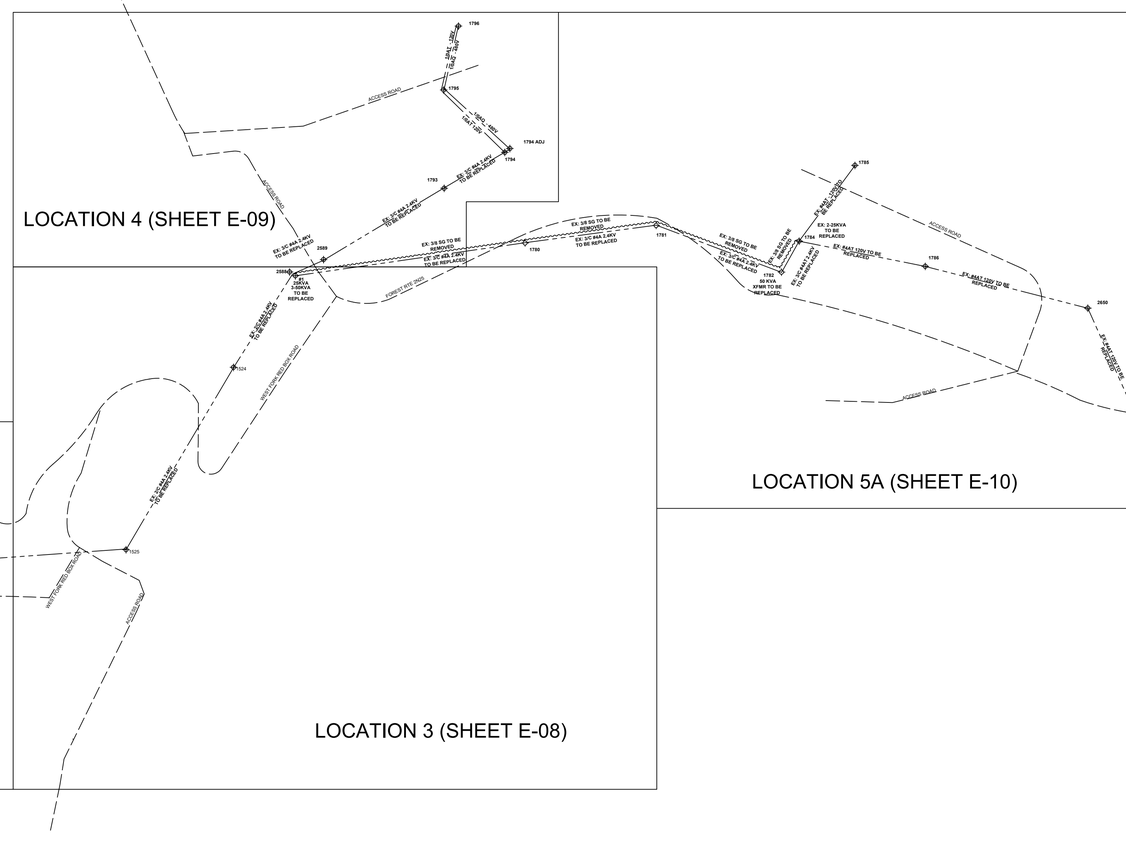
DATE: 01/13/2021

PLAN E

DATE: TIME: FILE:



LOCATION 1 (SHEET E-06)

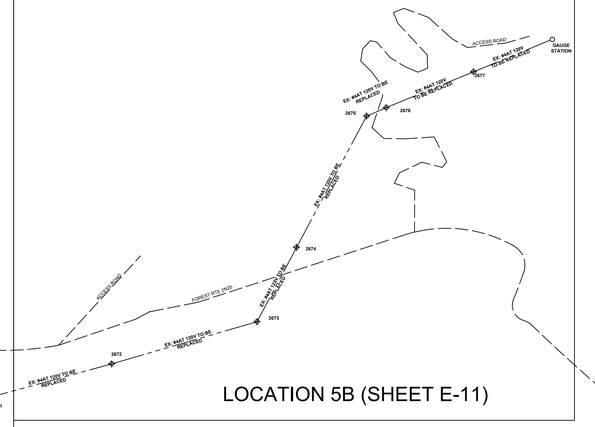


LOCATION 4 (SHEET E-09)

LOCATION 2 (SHEET E-07)

LOCATION 3 (SHEET E-08)

LOCATION 5A (SHEET E-10)



LOCATION 5B (SHEET E-11)

NOT TO SCALE

AS-IS OVERALL SINGLE LINE COGSWELL DAM 2.4 KV

DRAFTER	BRADY WARREN	
DESIGNER	FRANCISCO CIENFUEGOS	
CHECKER	AKASH BEZAWADA	

DATE	MARK	DESCRIPTION
		REVISIONS

REGISTERED PROFESSIONAL ENGINEER — AKASH BEZAWADA — C 90394 — EXP. 09/30/2021 — CIVIL — STATE OF CALIFORNIA

AKASH BEZAWADA 01/13/2021
PROJECT ENGINEER DATE

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR
POST-FIRE EMERGENCY RESTORATION PROJECT

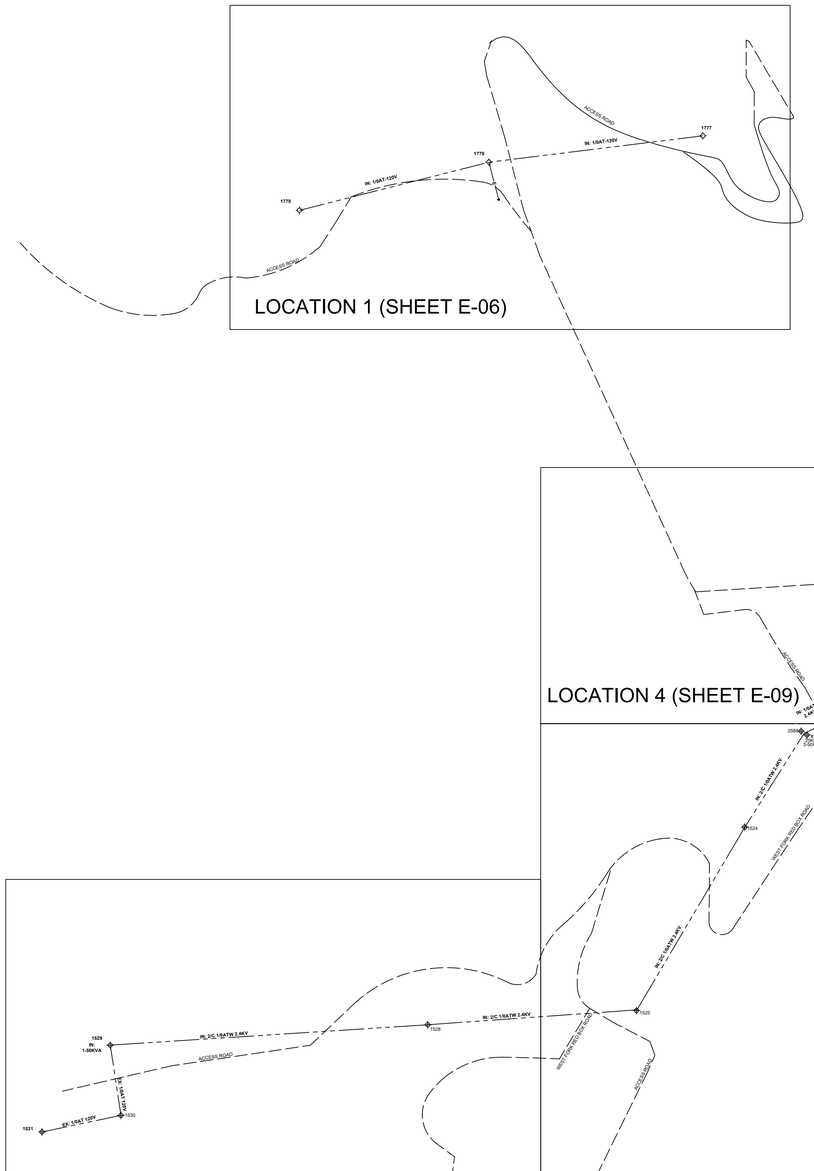
EXISTING SINGLE LINE

DWG	PD	SHEET E-04 OF E-13

DATE: 01/13/2021

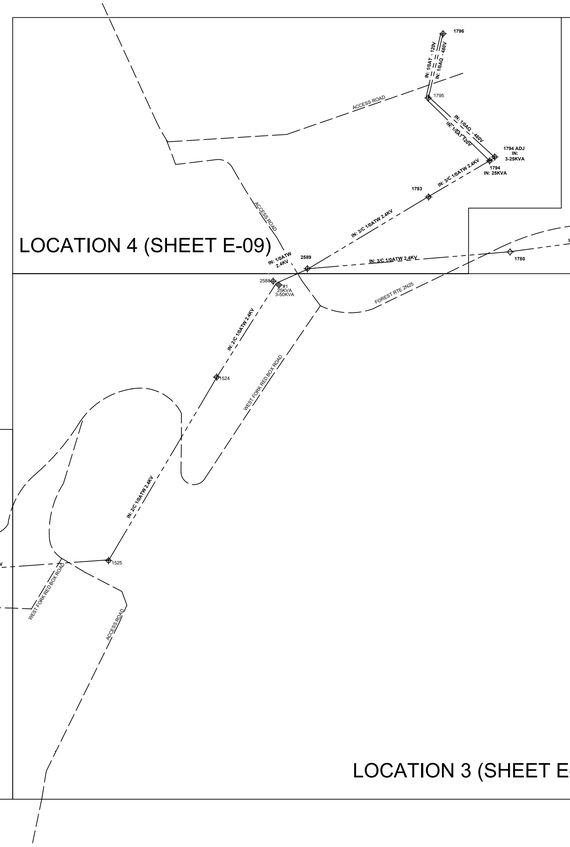
PLAN E

DATE: TIME: FILE:

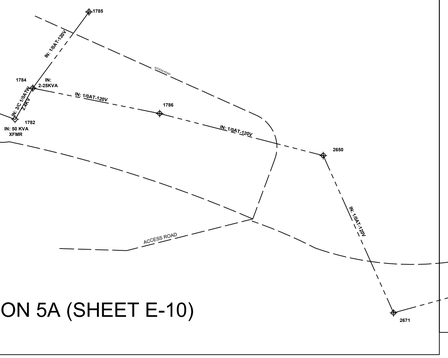


LOCATION 1 (SHEET E-06)

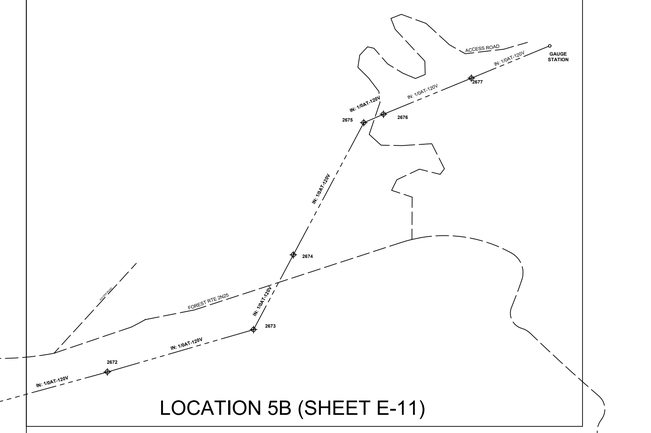
NOTE:
CONTRACTOR SHALL VISIT THE SITES TO DETERMINE PRE-EXISTING CONDITIONS AND WORK NECESSARY PRIOR TO SUBMISSION OF THE BID PRICE. INCLUDE IN THE BID ALL LABOR AND MATERIALS REQUIRED FOR THE INSTALLATION TO BE COMPLETE AND OPERATIVE.



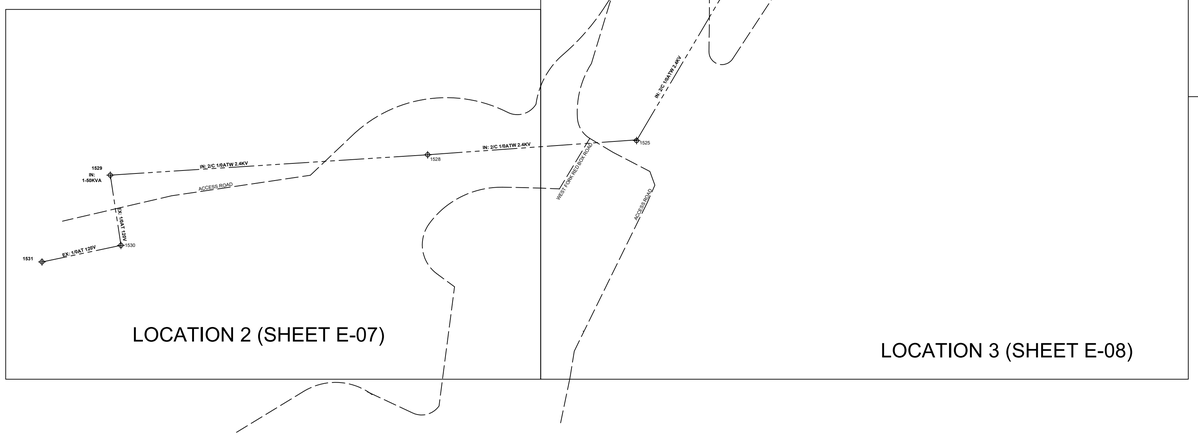
LOCATION 4 (SHEET E-09)



LOCATION 5A (SHEET E-10)



LOCATION 5B (SHEET E-11)



LOCATION 2 (SHEET E-07)

LOCATION 3 (SHEET E-08)

NOT TO SCALE

PROPOSED OVERALL SINGLE LINE
COGSWELL DAM 2.4 KV

DRAFTER	BRADY WARREN
DESIGNER	FRANCISCO CIENFUEGOS
CHECKER	AKASH BEZAWADA

DATE	MARK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
AKASH BEZAWADA
C 90394
EXP. 09/30/2021
CIVIL
STATE OF CALIFORNIA

AKASH BEZAWADA 01/13/2021
PROJECT ENGINEER DATE

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR
POST-FIRE EMERGENCY RESTORATION PROJECT

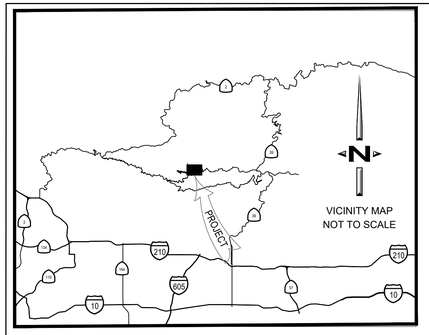
PROPOSED SINGLE LINE

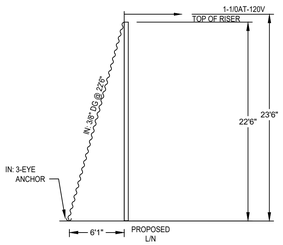
DWG	PD	SHEET E-05 OF E-13

DATE: 01/13/2021

PLAN E

DATE: TIME: FILE:





GPS:
LAT: N 34° 14' 44.13"
LONG: W 117° 58' 0.12"

GPS:
LAT: N 34° 14' 44.78"
LONG: W 117° 57' 56.93"

NOTE:
-CUT RISER PER POLEHEAD
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

NOTE:
-SEE SHEET E-03 FOR LWSP DETAIL

3 ELEVATION 2414'
RM: 1779 POLE
35' CLASS 4 ~ZOHP 402
RM: 306' #4AT 120V (TO 1777) ~ZOHC 264
1 – 166 ROLLER ~ZSEC 001
1 – RISER 3" TO 2" ~ZUGR 007

EMBED POLE 6'6"
SAME HOLE SET
4 IN: 1779 POLE
45' CLASS 2 LWSP SWR10
IN: 306' 1/0AT 120V (TO 1777) ~ZOHC 270
1 – 166 ROLLER ~ZSEC 001
1 – RISER 3" TO 2" ~ZUGR 007

NOTE:
-CREW TO SET HANDHOLE AND INTERCEPT EXISTING CONDUIT PRESERVING EXISTING CABLE FOR HANDHOLE MAKE UP.
-H20 TRAFFIC LOAD LIDS FOR PULL BOXES IN TRAFFIC AREAS.

2 IN: 1779PB PULLBOX
S SPL BOX PB 2'X3'X3'6" CONC TRAFFIC INTER ~ZUGS 209
IN: 45' 3-1/0 2-1/0 1-#2 AL 600V IN RGD DUCT ~ ZUGC 216
3 – 4 WAY UTILCO BAR (#8 TO 350KCMIL) AL AND CU ~ SAP 10118162
1 – 3" SCH 40 W/ SCH 80 SWEEP AT POLE

NOTE:
-SEE SHEET E-02 FOR PULLBOX DETAIL

NOTE:
-CUT AND ABANDON EXISTING ANCHOR.
-CREW TO RELOCATE RISER.
-HELICOPTER SET
-CREW TO CUT AND REMOVE EXISTING METAL CONDUIT/RISER ON EXISTING POLE.
-CONTRACTOR TO CONNECT EXISTING FLOOD LIGHT.
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

1 ELEVATION 2464'
RM: 1778 POLE
35' CLASS 5 ~ZOHP 102
RM: 178' #4AT 120V (TO 1779) ~ZOHC 264
2 – 166 ROLLER ~ZSEC 001
1 – 9/32" DOWN GUY ~ZGUY 013
1 – 3/4"x8' DBLE EYE ANCHOR ROD & PLATE ~ZGUY 111
1 – RISER 2-1/2" TO 2" ~ZUGR 008

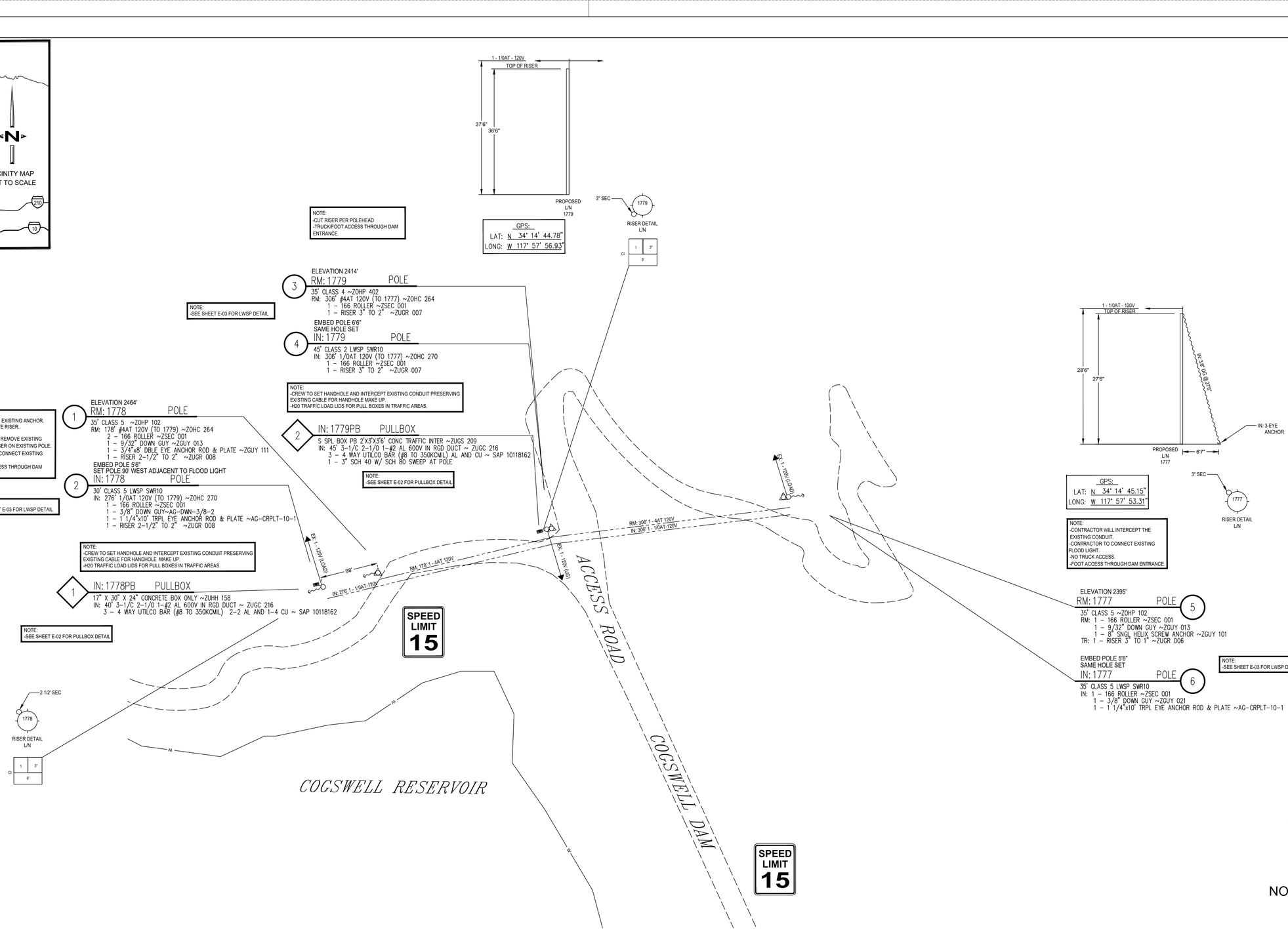
EMBED POLE 5'6"
SET POLE 90' WEST ADJACENT TO FLOOD LIGHT
2 IN: 1778 POLE
30' CLASS 5 LWSP SWR10
IN: 276' 1/0AT 120V (TO 1779) ~ZOHC 270
1 – 166 ROLLER ~ZSEC 001
1 – 3/8" DOWN GUY~AG-DWN-3/8-2
1 – 1 1/4"x10" TRPL EYE ANCHOR ROD & PLATE ~AG-CRPLT-10-1
1 – RISER 2-1/2" TO 2" ~ZUGR 008

NOTE:
-SEE SHEET E-03 FOR LWSP DETAIL

NOTE:
-CREW TO SET HANDHOLE AND INTERCEPT EXISTING CONDUIT PRESERVING EXISTING CABLE FOR HANDHOLE MAKE UP.
-H20 TRAFFIC LOAD LIDS FOR PULL BOXES IN TRAFFIC AREAS.

1 IN: 1778PB PULLBOX
17" X 30" X 24" CONCRETE BOX ONLY ~ZUHH 158
IN: 40' 3-1/C 2-1/0 1-#2 AL 600V IN RGD DUCT ~ ZUGC 216
3 – 4 WAY UTILCO BAR (#8 TO 350KCMIL) 2-2 AL AND 1-4 CU ~ SAP 10118162

NOTE:
-SEE SHEET E-02 FOR PULLBOX DETAIL



GPS:
LAT: N 34° 14' 45.15"
LONG: W 117° 57' 53.31"

NOTE:
-CONTRACTOR WILL INTERCEPT THE EXISTING CONDUIT.
-CONTRACTOR TO CONNECT EXISTING FLOOD LIGHT.
-NO TRUCK ACCESS.
-FOOT ACCESS THROUGH DAM ENTRANCE.

ELEVATION 2395'
RM: 1777 POLE 5
35' CLASS 5 ~ZOHP 102
RM: 1 – 166 ROLLER ~ZSEC 001
1 – 9/32" DOWN GUY ~ZGUY 013
1 – 8" SNGL HELIX SCREW ANCHOR ~ZGUY 101
TR: 1 – RISER 3" TO 1" ~ZUGR 006

EMBED POLE 5'6"
SAME HOLE SET
IN: 1777 POLE 6
35' CLASS 5 LWSP SWR10
IN: 1 – 166 ROLLER ~ZSEC 001
1 – 3/8" DOWN GUY ~ZGUY 021
1 – 1 1/4"x10' TRPL EYE ANCHOR ROD & PLATE ~AG-CRPLT-10-1

NOTE:
-SEE SHEET E-03 FOR LWSP DETAIL

NOT TO SCALE

LOCATION 1

DRAFTER	BRADY WARREN	
DESIGNER	FRANCISCO CIENFUEGOS	
CHECKER	AKASH BEZAWADA	

DATE	MARK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
AKASH BEZAWADA
C 90394
EXP. 09/30/2021
CIVIL
STATE OF CALIFORNIA

AKASH BEZAWADA 01/13/2021
PROJECT ENGINEER DATE

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR
POST-FIRE EMERGENCY RESTORATION PROJECT

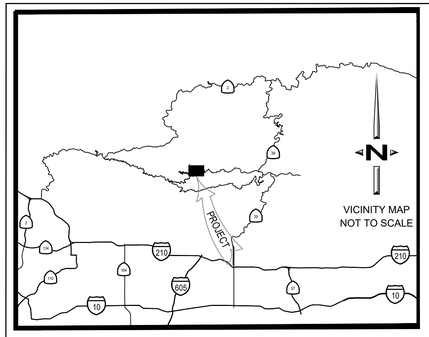
LOCATION 1

DWG	PD	SHEET E-06 OF E-13

DATE: 01/13/2021

PLAN E

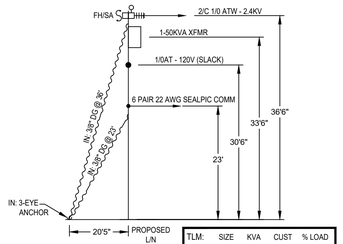
DATE: TIME: FILE:



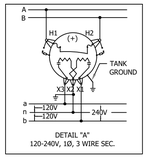
NOTE:
-SEE DETAIL "A" BELOW FOR GROUNDING DETAIL.

GPS:
LAT: N 34° 14' 32.39"
LONG: W 117° 58' 3.32"

NOTE:
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE
-NO EXISTING COMM IN FIELD DUE TO EXTREME FIRE DAMAGE
-CREW TO REMOVE ANY WIRE REMNANTS
-MINIMUM GROUNDING WIRE SIZE #6 PGW
-FAULT CURRENT 13889 AMPERES FOR 1-50KVA 1Ø



TLM:	SIZE	KVA	CUST	% LOAD
PROP.	50	27	1	54



NOTE:
-FOR TRANSFORMER GROUNDING DETAIL SEE SHEET E-09.

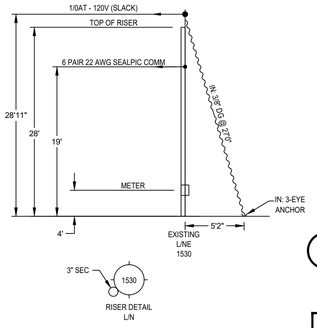
ELEVATION 2384'
10 RM: 1529 POLE
45' CLASS 4 ~ZOHP 104
RM: 450' 2/C #4A 12KV (TO 1528) ~ ZOHC 304
1 – 50KVA 2.4KV 120/240V 1Ø ~ JOTS 006
SN:
2 – 12KV ELF CUTOUT ~ ROCO 103
1 – 10' DBLE XARM FB ~ ZOXA 332
2 – 12KV P&I ~ ROPI 012
2 – INSGLASS/POLY 35KV & LESS ~ ZODI 900
1 – 166 ROLLER ~ ZSEC 001
1 – 9/32" DOWN GUY ~ ZGUY 011
1 – 3/4" X 8' DBLE EYE ANCHOR ROD & PLATE ~ ZGUY 111
2 – PRI GROUND ~ ZHOG 002

EMBED POLE 6'6"
SAME HOLE SET
11 IN: 1529 POLE
45' CLASS H1 ~ZOHP 420
IN: 450' 2/C 1/0ATW 12KV (TO 1528) ~ CD-ATW-1/0-A-1-1
1 – 50KVA 2.4KV 120/240V 1Ø ~ JOTS 006
SN:
2 – 12KV ELF CUTOUT ~ ROCO 103
2 – 12A ELF FUSES ~ FE-ELF-15-12A-1
2 – 12KV SURGE ARRESTER HFA T-GAP ~ SA-1HFA-12-PLY-3
1 – 10' SNGL DE COMP XARM W/BRKT ~XA-DE-CMP-10-SG-2
2 – 12KV POLY P&I (NYLON) ~ INS-12-PN-P-14
2 – 12KV DE(#4 – 1/0A) ~ ZODI 350
1 – 166 ROLLER ~ ZSEC 001
1 – SEC GROUND ~ZOHG 001
1 – 3/8" DOWN GUY ~ZGUY 021
1 – 1 1/4" X 10' TRPL EYE ANCHOR ROD & PLATE ~ AG-CRPLT-10-1
2 – PRI GROUND ~ ZHOG 002
2 – DEADEND WILDLIFE COVER ~ MISC-0-KDS-CVR-1
2 – CUTOUT COVERS ~ SAP10184097

3 EX:1529 POLE
45' CLASS H1 ~ZOHP 420
IN: 450' 6 PAIR 22AWG CU SEALPIC FIGURE 8 W MESSENGER ~ PN 10-062-08
2 – GUY HOOK ~ CATN PAGF11
1 – 3/8" DOWN GUY ~ ZGUY 021
2 – GD-STRANDVISE ~ PN 5200

GPS:
LAT: N 34° 14' 31.40"
LONG: W 117° 58' 3.15"

NOTE:
-INTRUSIVE INSPECTION REQUESTED ON 12/11/2020.
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.
- NO EXISTING COMM IN FIELD DUE TO EXTREME FIRE DAMAGE.
-CREW TO REMOVE ANY WIRE REMNANTS
- CREW TO PROTECT PANEL AND RISER AND TRANSFER AT NEW ATTACHMENT HEIGHT

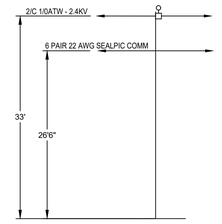


ELEVATION 2401'
9 EX: 1530 POLE
35' CLASS 4 (1994) INSP. 2020
RM: 101' 1/0AT – 120V (TO 1529) ~ ZOHC 270
IN: 101' 1/0AT – 120V (TO 1529) ~ ZOHC 270
1 – 1 1/4" X 10' TRPL EYE ANCHOR ROD & PLATE ~ AG-CRPLT-10-1
1 – 3/8" DOWN GUY ~ZGUY 021

2 EX:1530 POLE
35' CLASS 4 (1994) INSP 2020
IN: 101' 6 PAIR 22AWG CU SEALPIC FIGURE 8 W MESSENGER ~ PN 10-062-08
2 – GUY HOOK ~ CATN PAGF11
2 – GD-STRANDVISE ~ PN 5200

GPS:
LAT: N 34° 14' 32.67"
LONG: W 117° 57' 57.97"

NOTE:
-HELICOPTER SET
-NO TRUCK ACCESS.
- NO EXISTING COMM IN FIELD DUE TO EXTREME FIRE DAMAGE
- CREW TO REMOVE ANY WIRE REMNANTS



ELAVATION 2460'
12 RM: 1528 POLE
40' CLASS 4 ~ZOHP 416
RM: 297' 2/C #4A 12KV (TO 1525) ~ ZOHC 304
1 – 10' SNGL XARM FB NO BOND ~ ZOXA 322
2 – 12KV P&I ~ ROPI 012

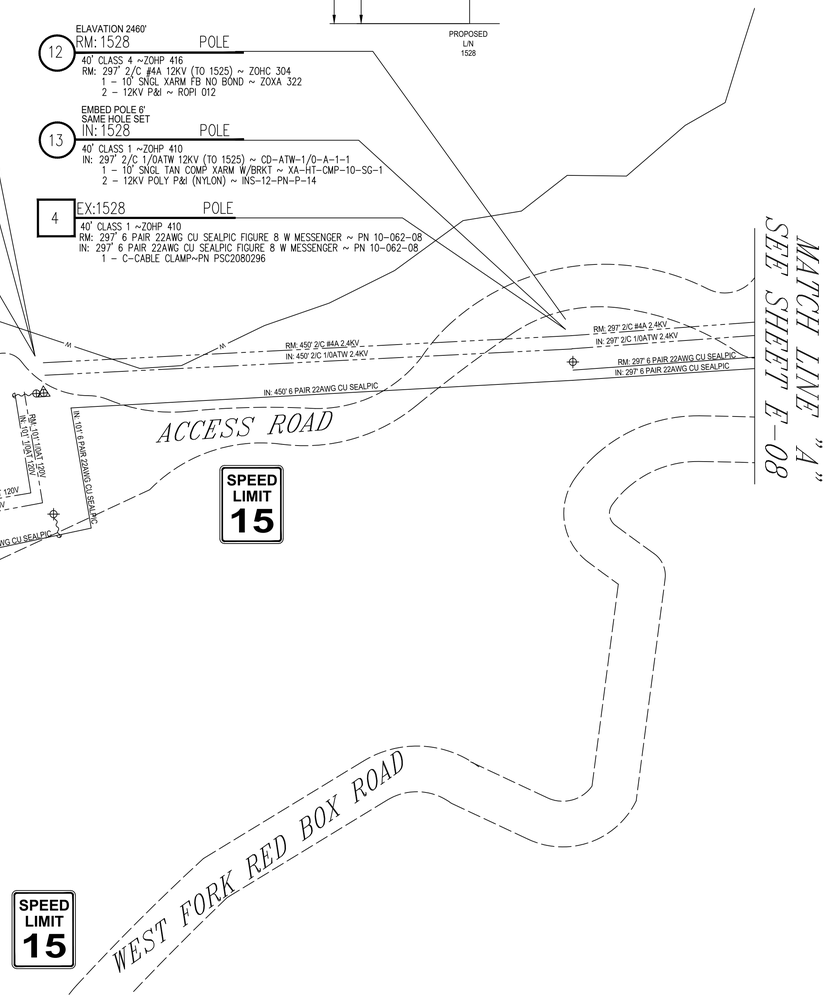
EMBED POLE 6'
SAME HOLE SET
13 IN: 1528 POLE
40' CLASS 1 ~ZOHP 410
IN: 297' 2/C 1/0ATW 12KV (TO 1525) ~ CD-ATW-1/0-A-1-1
1 – 10' SNGL TAN COMP XARM W/BRKT ~ XA-HT-CMP-10-SG-1
2 – 12KV POLY P&I (NYLON) ~ INS-12-PN-P-14

4 EX:1528 POLE
40' CLASS 1 ~ZOHP 410
RM: 297' 6 PAIR 22AWG CU SEALPIC FIGURE 8 W MESSENGER ~ PN 10-062-08
IN: 297' 6 PAIR 22AWG CU SEALPIC FIGURE 8 W MESSENGER ~ PN 10-062-08
1 – C-CABLE CLAMP~PN PSC2080296

ELEVATION 2398'
7 RM: 1531 POLE
35' CLASS 4 ~ZOHP 402
RM: 114' 1/0AT – 120V (TO 1530) ~ ZOHC 270
1 – 166 ROLLER ~ ZSEC 001
1 – 1Ø HY-PLUG 2-1/0 & 1-#2 ~TM -HPLG-1/0-1Ø-1
1 – RISER 3" ~ZUGR 011
TR: 1 – 100A AMP PANEL SELF-CONTAINED ~ ZMTR-108

EMBED POLE 6'
SAME HOLE SET
8 IN: 1531 POLE
40' CLASS 5 ~ZOHP 103
IN: 114' 1/0AT – 120V (TO 1530) ~ ZOHC 270
1 – 166 ROLLER ~ ZSEC 001
1 – 1Ø HY-PLUG 2-1/0 & 1 – #2 ~ TM-HPLG-1/0-1Ø-1
1 – 1 1/4" X 10' TRPL EYE ANCHOR ROD & PLATE ~ AG-CRPLT-10-1
1 – 3/8" DOWN GUY ~ZGUY 021

1 EX:1531 POLE
40' CLASS 5 ~ ZOHP 103
IN: 114' 6 PAIR 22AWG CU SEALPIC FIGURE 8 W MESSENGER ~ PN 10-062-08
1 – GUY HOOK ~ CATN PAGF11
1 – AERIAL CLOSURE KIT WITH RUBBER END SEAL ~ 3M 054007-71567
1 – OUTDOOR BUILDING ENTRANCE TERMINAL ~ 3M 4990VS-25
1 – GD-STRANDVISE ~ PN 5200



LOCATION 2

DRAFTER	DESIGNER	CHECKER
BRADY WARREN	FRANCISCO CIENFUEGOS	AKASH BEZAWADA

DATE	MARK	DESCRIPTION
		REVISIONS

REGISTERED PROFESSIONAL ENGINEER
AKASH BEZAWADA
C 90394
EXP. 09/30/2021
CIVIL
STATE OF CALIFORNIA

AKASH BEZAWADA 01/13/2021
PROJECT ENGINEER DATE

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR
POST-FIRE EMERGENCY RESTORATION PROJECT

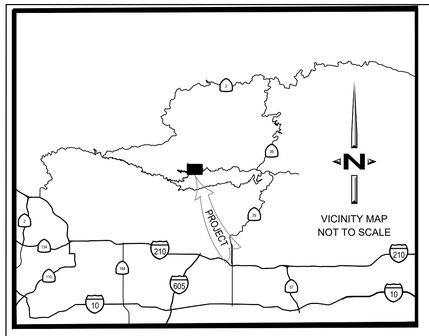
LOCATION 2

DWG	PD	SHEET E-07 OF E-13

DATE: 01/13/2021

PLAN E

DATE: TIME: FILE:



GPS:
LAT: N 34° 14' 32.87"
LONG: W 117° 57' 54.44"

NOTE:
-INTRUSIVE INSPECTION REQUESTED ON 12/11/2020.
-4'X4' CONCRETE REPAIR REQUIRED.
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

MATCH LINE "B" SEE SHEET E-09

MATCH LINE "C" SEE SHEET E-09

MATCH LINE "A" SEE SHEET E-07

WEST FORK RED BOX ROAD

1 RM: 331' 50 PAIR 24AWG CU SEALPIC (TO 1780)
2 IN: 331' 50 PAIR 24AWG CU SEALPIC (TO 1780)
3 RM: 331' 50 PAIR 24AWG CU SEALPIC (TO 1780)
4 IN: 331' 50 PAIR 24AWG CU SEALPIC (TO 1780)
5 IN: 3/8" SG
6 IN: 3/8" AG
7 RM: 47' 3/C #4A 2.4KV
8 IN: 47' 3/C #4A 2.4KV

RM: 158' 2/C #4A 12KV
IN: 158' 2/C #4A 12KV
RM: 158' #4AT 240V
IN: 158' #4AT 240V
RM: 158' 50 PAIR 24AWG CU SEALPIC
IN: 158' 50 PAIR 24AWG CU SEALPIC
RM: 158' 12 STRAND ADSS
IN: 158' 12 STRAND ADSS
RM: 158' 6 PAIR 22AWG CU SEALPIC FIGURE 8 W MESSENGER
IN: 158' 6 PAIR 22AWG CU SEALPIC FIGURE 8 W MESSENGER
RM: 302' 2/C #4A 12KV
IN: 302' 2/C #4A 12KV
RM: 302' #4AT 240V
IN: 302' #4AT 240V
RM: 297' 6 PAIR 22AWG CU SEALPIC
IN: 297' 6 PAIR 22AWG CU SEALPIC
RM: 297' 12 STRAND ADSS
IN: 297' 12 STRAND ADSS
RM: 297' 50 PAIR 24AWG CU SEALPIC
IN: 297' 50 PAIR 24AWG CU SEALPIC
RM: 297' 3/C #6BC COMM
IN: 297' 3/C #6BC COMM
RM: 297' 2" STRAND ADSS
IN: 297' 2" STRAND ADSS
RM: 150' 3/C #6BC COMM
RM: 150' BC COMM
IN: 3/8" SG
IN: 1/16" SG
IN: 297' 3/8" SG
RM: 150' 3/C #6BC COMM

NOTE:
-CREW TO TRANSFER EXISTING STEP UP XFMR.
-4'X4' CONCRETE REPAIR REQUIRED.
-MINIMUM GROUNDING WIRE SIZE #6 PGW
-FAULT CURRENT 5011 AMPERES FOR 3-25 KVA 3Ø
-FAULT CURRENT 6044 AMPERES FOR 1-25 KVA 1Ø
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

ELEVATION 2436'
RM: 2588 & 1 POLE 20
2 – 40' CLASS 4 ~ZOHP 104
RM: 1 – 25KVA 2.4KV 120/240V 1Ø ~JOTS 004
SN:
7 – 20' DBLE H-FRM XARM ~ZOXA 600
7 – 8' SINGLE CROSS ARM W/ FLAT BRACE ~ZOXA 201
1 – 12' DBLE XARM VB NO BOND ~ZOXA 509
4 – 12KV P&I ~ROPI 012
8 – 166 ROLLER (#4A) ~ZODI 040
4 – 10' SNGL XARM FB ~ZOXA 331
2 – 12KV 1Ø CUTOUT W/8" ARM ~ROCO 001
1 – 166 ROLLER ~ZSEC 001
1 – 3/8" SPAN GUY ~ZGUY 025
5 – 9/32" DOWN GUY ~ZGUY 013
TR: 3 – 50KVA STEP UP 480V TO 2.4KV XFMRS W/ FUSES & CUTOUTS ~JORO 005

EMBED POLE 6'4" NORTH POLE & 5'11" SOUTH POLE
SAME HOLE SET
IN: 2588 & 1 POLE 21
2 – 40' CLASS 2 LWSP SWR 10
IN: 47' 3/C 1/0ATW 12KV (TO 2588) ~CD-ATW-1/0-A-1-1
1 – 50KVA 2.4KV 120/240V 1Ø ~JOTS 006
SN:
2 – 6A ELF FUSE ~FE-ELF-15-6A-1
2 – 12KV ELF CUTOUT ~ROCO 103
2 – 12KV SURGE ARRESTER T-GAP 1Ø ~ROLA 028
1 – 10' DBLE DE COMP XARM W/BRKT ~XA-DE-CMP-10-DB-1
2 – 12KV SURGE ARRESTER T-GAP 1Ø ~ROLA 028
7 – 20' DBLE H-FRM XARM ~ZOXA 600
7 – 8' SINGLE CROSS ARM W/ FLAT BRACE ~ZOXA 201
4 – 12KV POLY P&I (NYLON) ~INS-12-PN-P-14
5 – 12KV DE (#4 – 1/0A) ~ZODI 250
5 – DEADEND WILDLIFE COVER ~MISC-O-KDS-CVR-1
1 – 166 ROLLER ~ZSEC 001
1 – 1Ø HY-PLUG 2–#2 & 1–#4 ~TM-HPLG–#2-1Ø-1
1 – SEC GROUND (COMP) ~GR-O-SEC-2
4 – 3/8" DOWN GUY W/1 12' FGSI ~AG-DWN-3/8-4
1 – 7/16" DOWN GUY W/1 12' FGSI ~AG-DWN-7/16-3
3 – 1¼" X 10' TRPL EYE ANCHOR ROD & PLATE ~AG-CRPLT-10-1
1 – 3/8" SPAN GUY W/2 12' FGSI (TO 2589) ~AG-SPN-3/8-2
1–3/8" SPAN GUY W/2 12' FGSI (TO #1) ~AG-SPN-3/8-2
4 – PRI GROUND ~ ZHOG 002

EX: 2588 & 1 POLE 13
2 – 40' CLASS 2 LWSP SWR 10
RM: 4 – AERIAL CLOSURE KIT WITH RUBBER END SEAL~3M 054007-71567
IN: 47' – 50 PAIR~PN 01-100-38
47' – 50 PAIR~PN 01-100-38
47' – 50 PAIR~PN 01-100-38
331' – 50 PAIR~PN 01-100-38
331' – 50 PAIR~PN 01-100-38
2 – MEDIUM TENSION DE ~ 2872109
2 – FIBERLION STORAGE KIT ~ 710012375AT1
2 – CLOSURE & SPLICE TRAY KIT ~ COYOTE00061
2 – LIMITED TENSION DE ~ 28722002C1E1B1
3 – AERIAL CLOSURE KIT WITH RUBBER END SEAL~3M 054007-71567
6 – GUYHOOK~CATN PAGF11
6 – GD-STRANDVISE ~ PN 5200
TR: 4 – 3"–2" RISER~ZUGR 007

ELEVATION 2479'
RM: 1524 POLE 18
45' CLASS 4 INSP. 2020 ~ZOHP 416
RM: 158' 2/C #4A 12KV (TO 2588) ~ZOHC 304
158' #4AT 240V (TO 2588) ~ZOHC 264
1 – 10' DBLE XARM VB NO BOND ~ZOXA 335
6 – 166 ROLLER ~ZSEC 001
4 – 12KV P&I ~ROPI 001
1 – 8' DBLE XARM VB ~ZOXA 237
2 – 9/32" DOWN GUY ~ZGUY 013
2 – 9/32" DOWN GUY ~ZGUY 013
2 – 12KV SURGE ARRESTER ~ROLA 098
1 – RISER 2–1/2" TO 2" UNISTRUT APPLICATION PVC ONLY ~ ZUGR 039

EMBED POLE 7'6"
SAME HOLE SET
IN: 1524 POLE 19
55' CLASS 1 ~ ZOHP 436
IN: 158' 2/C 1/0ATW (TO 2588) ~CD-ATW-1/0-A-1-1
158' 1/0AT 240V (TO 2588) ~ZOHC 270
1 – 10' DBLE DE COMP XARM W/BRKT ~XA-DE-CMP-10-DB-1
2 – 12KV POLY P&I (NYLON) ~INS-12-PN-P-14
4 – 12KV DE (1/0A) ~ZODI 250
6 – 166 ROLLER ~ZSEC 001
2 – 3/8" DOWN GUY ~ZGUY 013
3 – 1¼" X 10' TRPL EYE ANCHOR ROD & PLATE ~AG-CRPLT-10-1
4 – DEADEND WILDLIFE COVER ~MISC-O-KDS-CVR-1
1 – RISER 3" TO 2" UNISTRUT APPLICATION PVC ONLY~ZUGR 038
1 – PRECUT UNISTRUT W/ HARDWARE NO PVC~ZUGR 032

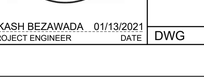
EX: 1524 POLE 12
55' CLASS 1 ~ ZOHP 436
RM: 158' 50 PAIR ~PN 01-100-38
158' – CORNING LOOSETUBE 12CT FIBER ~ PN 012EN4–T4S01A20
158' – CORNING LOOSETUBE 12CT FIBER ~ PN 012EN4–T4S01A20
1 – 8' DBL XARM VB ~ZOXA 237
6 – 166 ROLLER (#4A)~ZODI 040
2 – RISER 2 1/2" TO 2" ~ ZUGR 017
1 – RISER 2–1/2" TO 2" UNISTRUT APPLICATION PVC ONLY~ ZUGR 039
IN: 158' – 6 PAIR 22AWG CU SEALPIC FIGURE 8 W MESSENGER ~ PN 10–062–08
158' – CORNING LOOSETUBE 12CT FIBER ~ PN 012EN4–T4S01A20
158' – CORNING LOOSETUBE 12CT FIBER ~ PN 012EN4–T4S01A20
158' – 6 PAIR 22AWG CU SEALPIC FGURE 8 W MESSENGER ~ PN 10–062–08
2 – 10' DBLE DE COMP XARM W/BRKT ~XA-DE-CMP-10-DB-1
6 – 4KV DE (#6BC)~ZODI 101
6 – INS POLY W/PIN 12KV CLMP #6–4/0 CU ~INS-12-PN-P-9
1 – 3/8" DOWN GUY ~ZGUY 013
3 – 3"–2" RISER ~ ZUGR 007
1 – C-CABLE CLAMP ~ PN PSC2080296
2 – FASN W/STRUCTURAL REINFORCING RODS ~ 4470199
2 – ANCHOR SHACKLE W/5/8" EYE-NUT ~ 710010357
6 – MEDIUM TENSION DE ~ 2872109C1E1

GPS:
LAT: N 34° 14' 32.77"
LONG: W 117° 57' 54.30"

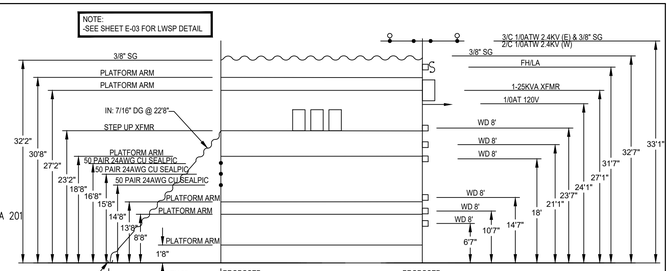
NOTE:
-HELICOPTER SET
-CREW TO TOP POLE 5'

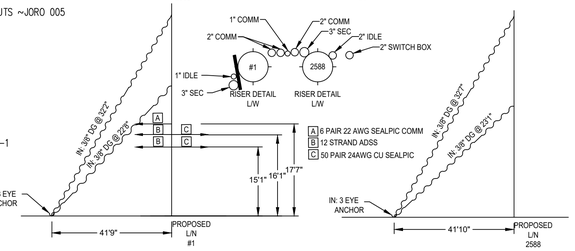
ELEVATION 2527'
RM: 1525 STUB POLE 16
30' CLASS 4 ~ ZOHP 402
RM: 2 – 3/8" SPAN GUYS ~ZGUY 025
1 – 3/8" DOWN GUY ~ZGUY 021

EMBED POLE 6'
SET 7' SOUTHWEST
IN: 1525 STUB POLE 17
40' CLASS 1 (TOP CUT 5') ~ZOHP 410
IN: 1 – 7/16" DOWN GUY W/1 12' FGSI ~AG-DWN-7/16-3
IN: 1 – 3/8" DOWN GUY W/1 12' FGSI ~AG-DWN-3/8-4
1 – ANCHOR ROD – 1 1/4 " X 10' 3-EYE, W/PLATE ~AG-CRPLT-10-1



NOTE:
-SEE SHEET E-03 FOR LWSP DETAIL





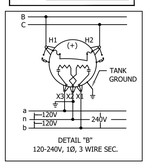
GPS:
LAT: N 34° 14' 36.69"
LONG: W 117° 57' 51.54"

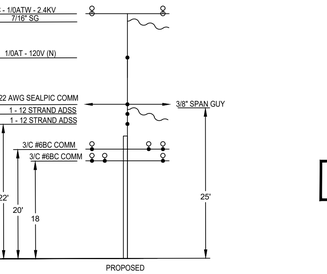
TLM:	SIZE	KVA	CUST	% LOAD
PROP.	50	42	3	84

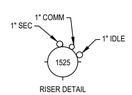
NOTE:
-SEE DETAIL "B" FOR GROUNDING DETAIL

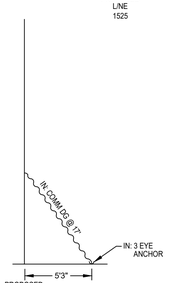
NOTE:
-FOR TRANSFORMER GROUNDING DETAIL SEE SHEET E-09.

GPS:
LAT: N 34° 14' 36.79"
LONG: W 117° 57' 51.57"







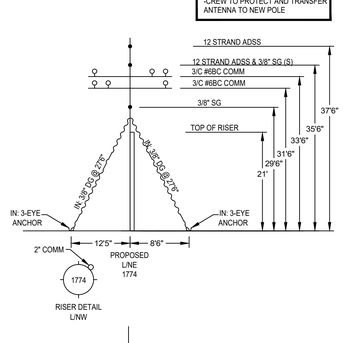


GPS:
LAT: N 34° 14' 30.20"
LONG: W 117° 57' 55.35"

NOTE:
-4'X4' CONCRETE REPAIR REQUIRED.
-HELICOPTER SET
-NO TRUCK ACCESS
-FOOT ACCESS THROUGH DAM ENTRANCE.
-CREW TO PROTECT AND TRANSFER ANTENNA TO NEW POLE

ELEVATION 2630'
9 RM: 1774 POLE
35' CLASS 4~ZOHP 402
RM: 281' 5/C #6BC COMM (TO 1525)~ZOHC 702
281' – CORNING LOOSETUBE 12CT FIBER ~ PN 012EN4–T4S01A20
281' – CORNING LOOSETUBE 12CT FIBER ~ PN 012EN4–T4S01A20
2 – 9/32" SPAN GUY (TO 1525) ~ZGUY 015
5 – 4KV P&I ~KOPI 006
1 – 8' SNGL XARM VB NO BOND~ZOXA 244
TR: 2 – RISER 2–1/2" TO 2"~ZUGR 008

EMBED POLE 6'6"
SAME HOLE SET
10 IN: 1774 POLE
45' CLASS 2 ~ZOHP 422
IN: 281' 6/C #6BC COMM (TO 1525)~ZOHC 702
281' – CORNING LOOSETUBE 12CT FIBER ~ PN 012EN4–T4S01A20
281' – CORNING LOOSETUBE 12CT FIBER ~ PN 012EN4–T4S01A20
2 – LIMITED TENSION DE ~ 28722002C1E1
6 – 4KV DE (#6BC)~ZODI 101
2 – 10' DBLE DE COMP XARM W/BRKT ~XA-DE-CMP-10-DB-1
2 – 3/8" DOWN GUY W/1 12' FGSI ~AG-DWN-3/8-4
2 – ANCHOR ROD – 1 1/4 " X 10' 3-EYE, W/PLATE ~AG-CRPLT-10-1

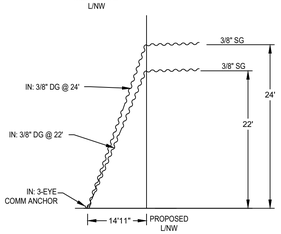


GPS:
LAT: N 34° 14' 28.68"
LONG: W 117° 57' 55.72"

NOTE:
-HELICOPTER SET
-CREW TO TOP POLE 5'

ELEVATION 2673'
7 RM: 1775 POLE
35' CLASS 5 ~ZOHP 102
RM: 3 – 3/8" SPAN GUY (TO 1774)~ZGUY 025
2 – 3/8" DOWN GUY ~ZGUY 021
1 – 1"X10" TRPL EYE ANCHOR ROD & PLATE~ZGUY 113

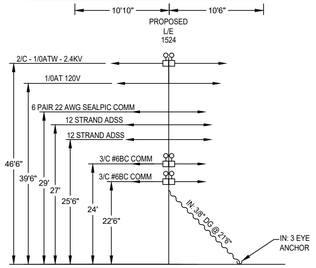
EMBED POLE 5'
SAME HOLE SET
8 IN: 1775 POLE
30' CLASS 4 ~ZOHP 402
IN: 2 – 3/8" SPAN GUY W/2 12' FGSI (TO 1774) ~AG-SPN-3/8-2
2 – 3/8" DOWN GUY W/1 12' FGSI ~AG-DWN-3/8-4
1 – 1¼" X 10' TRPL EYE ANCHOR ROD & PLATE ~AG-CRPLT-10-1

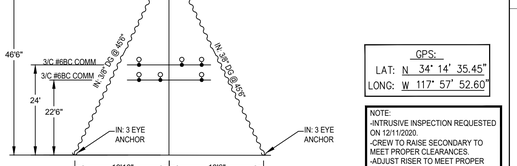


6 RM: 2222 POLE
35' CLASS 5 ~ZOHP 102
RM: 150' BC COMM
1 – 3/8" SPAN GUY

5 RM: 1111 POLE
35' CLASS 5 ~ZOHP 102
RM: 150' BC COMM
1 – 3/8" SPAN GUY

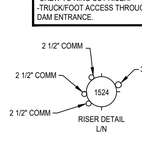
SPEED LIMIT 15

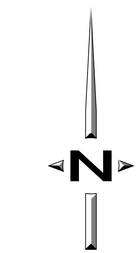




GPS:
LAT: N 34° 14' 35.45"
LONG: W 117° 57' 52.60"

NOTE:
-INTRUSIVE INSPECTION REQUESTED ON 12/11/2020.
-CREW TO RAISE SECONDARY TO MEET PROPER CLEARANCES.
-ADJUST RISER TO MEET PROPER CLEARANCES.
-PANEL AND CONDUIT BELOW TO REMAIN IN PLACE.
-CREW TO RING CUT RISER.
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.





LOCATION 3

DESIGNER	FRANCISCO CIENFUEGOS	
DRAFTER	BRADY WARREN	
CHECKER	AKASH BEZAWADA	

DATE	MARK	DESCRIPTION
REVISIONS		

REGISTERED PROFESSIONAL ENGINEER
AKASH BEZAWADA
C 90394
EXP. 09/30/2021
CIVIL
STATE OF CALIFORNIA

AKASH BEZAWADA 01/13/2021
PROJECT ENGINEER DATE

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR
POST-FIRE EMERGENCY RESTORATION PROJECT

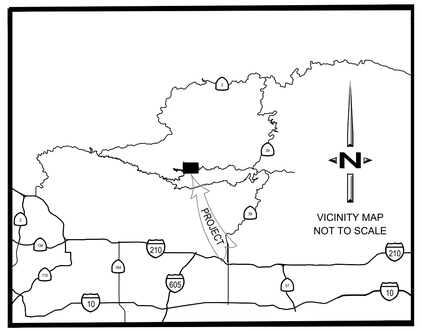
LOCATION 3

DWG	PD	SHEET E-08 OF E-13

PLAN E

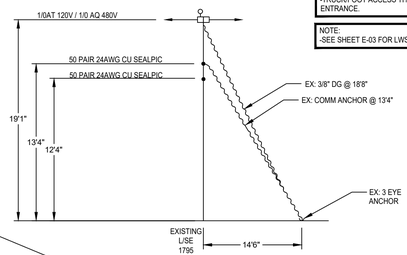
DATE: 01/13/2021

DATE: TIME: FILE:



GPS:
LAT: N 34° 14' 39.37"
LONG: W 117° 57' 49.02"

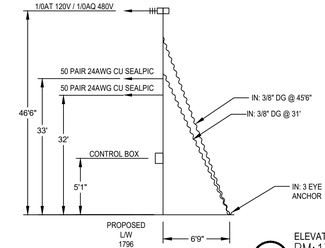
NOTE:
-TREE TRIMMING REQUIRED.
-JOINT CONSTRUCTION MEET REQUIRED.
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.



SPEED LIMIT 15

30 ELEVATION 2227'
EX:1795 POLE
25' CLASS 4 INSP. 2020 ~ZOHP 402
RM: 93' 1/0AT 120V (TO 1795) ~ZOHC 270
93' 1/0AQ 240V (TO 1795) ~ZOHC 288
4 – 166 ROLLER ~ZSEC 001
IN: 93' 1/0AT 120V (TO 1795) ~ZOHC 270
93' 1/0AQ 240V (TO 1795) ~ZOHC 288
4 – 166 ROLLER ~ZSEC 001
2 – 12KV POLY P&I (NYLON) ~INS-12-PN-P-14

17 EX:1795 POLE
25' CLASS 4 INSP. 2020 ~ZEJP 102
RM: 1 – 9/32" DOWN GUY ~ZGUY 013
IN: 93' 50 PAIR~PN 01-100-38
93' 50 PAIR~PN 01-100-38
4 – GUY HOOK~CATN PAGF11
4 – GD-STRANDVISE ~ PN 5200



GPS:
LAT: N 34° 14' 40.27"
LONG: W 117° 57' 48.78"

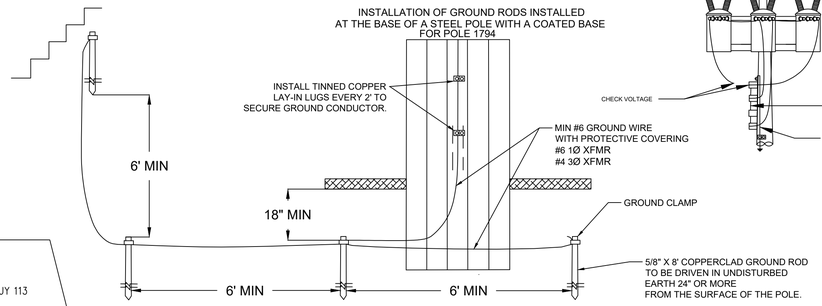
NOTE:
-TREE TRIMMING REQUIRED.
-JOINT CONSTRUCTION MEET REQUIRED.
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

NOTE:
-SEE SHEET E-03 FOR LWSP DETAIL

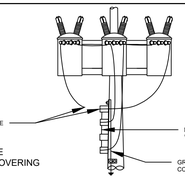
31 ELEVATION 2137'
RM:1796 POLE
45' CLASS 4 ~ZOHP 104
RM: 1 – 10' DBLE XARM FB SEC ~ZOXA 312
2 – 12KV DE (1/0A) ~ZODI 245
2 – 12KV DE (1/0A) ~ZODI 245
1 – 1"x10' TRPL EYE ANCHOR ROD & PLATE ~ZGUY 113

EMBED POLE 7'6"
SAME HOLE SET
32 IN:1796 POLE
55' CLASS 3 LWSP SWR 10
IN: 1 – 8' DBLE DE COMP XARM W/BRKT ~XA-DE-CMP-8-DB-1
2 – 166 ROLLER ~ZSEC 001
2 – 3/8" DOWN GUY W/1 12' FGSI ~AG-DWN-3/8-4
1 –1¼" X 10' TRPL EYE ANCHOR ROD & PLATE ~AG-CRPLT-10-1

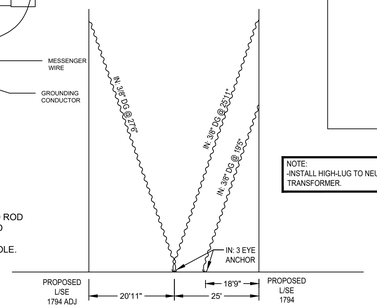
18 EX:2589 POLE
55' CLASS 3 LWSP SWR 10
IN: 2 GUYHOOK ~ CATN PAGF11
2 – AERIAL CLOSURE KIT WITH RUBBER END SEAL ~3M 054007-71567
2 – GD-STRANDVISE ~ PN 5200



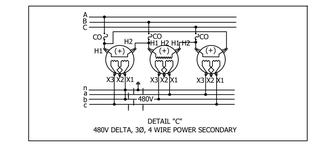
INSTALLATION OF GROUND RODS INSTALLED AT THE BASE OF A STEEL POLE WITH A COATED BASE FOR POLE 1794



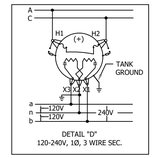
NOTE:
-TRANSFORMER GROUNDING DETAIL IS APPLICABLE TO ALL TRANSFORMER LOCATIONS.



NOTE:
-SEE SHEET E-12 FOR TRANSFORMER CONNECTION DETAIL.

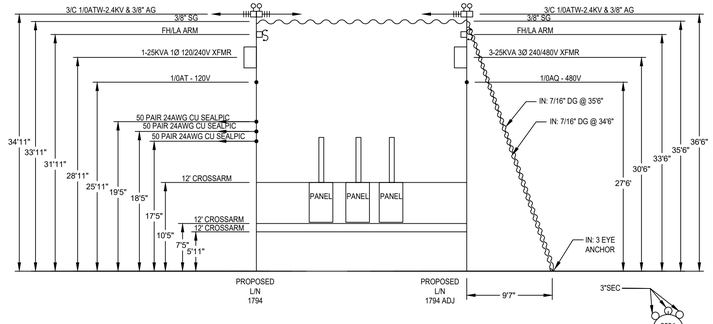


NOTE:
-INSTALL HIGH-LEG TO NEUTRAL LEAD OUT OF TRANSFORMER.

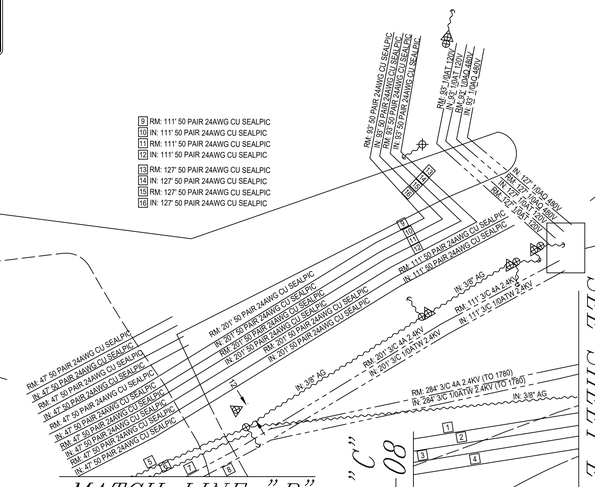


TLM:	SIZE	KVA	CUST	% LOAD
PROP.	25	8.4	1	33.6

TLM:	SIZE	KVA	CUST	% LOAD
PROP.	75	33.25	1	44.33



9 RM: 111' 50 PAIR 24AWG CU SEALPIC
10 IN: 111' 50 PAIR 24AWG CU SEALPIC
11 RM: 111' 50 PAIR 24AWG CU SEALPIC
12 IN: 111' 50 PAIR 24AWG CU SEALPIC
13 RM: 127' 50 PAIR 24AWG CU SEALPIC
14 IN: 127' 50 PAIR 24AWG CU SEALPIC
15 RM: 127' 50 PAIR 24AWG CU SEALPIC
16 IN: 127' 50 PAIR 24AWG CU SEALPIC



SEE SHEET E-12 FOR TRANSFORMER CONNECTION DETAIL

ELEVATION 2257'
RM:1794 ADJ POLE
28
2 – 45' CLASS 4 ~ZOHP 104
ALL MATERIAL REMOVED CALLED OUT ON 1794

EMBED POLE 6'6"
SAME HOLE SET
IN:1794 ADJ POLE
29
45' CLASS 1 LWSP SWR 10
ALL MATERIAL INSTALLED CALLED OUT ON 1794

MATCH LINE "B" SEE SHEET E-08

MATCH LINE "C" SEE SHEET E-08

MATCH LINE "D" SEE SHEET E-10

ELEVATION 2258'
RM:1794 POLE
26
2 – 45' CLASS 4 ~ZOHP 104
RM: 127' 1/0AT 120V (TO 1795) ~ZOHC 270
127' 1/0AQ 480V (TO 1795) ~ZOHC 288
3 – 3"–2" RISER ~ZUGR 007
2 – 12' SNGL XARM VB ~ZOXA 506
3 – 166 ROLLER ~ZSEC 001
2 – 9/32" DOWN GUY ~ZGUY 011
1 – 3/4" X 8' DBLE EYE ANCHOR ROD & PLATE ~ZGUY 111

GPS: 1794
LAT: N 34° 14' 38.50"
LONG: W 117° 57' 47.95"

GPS: 1794ADJ
LAT: N 34° 14' 38.55"
LONG: W 117° 57' 47.85"

NOTE:
-CUT AND ABANDON EXISTING ANCHOR.
-TRANSFORMER SIZED TO MEET VD & FL REQUIRMENTS.
-TRANSFER PANEL TO NEW POLES.
-CREW TO RE-PULL COPPER WIRE FROM LANDING LUGS TO WEATHER HEADS.
-CREW TO CUT FROM 12' TO 10' FGSI.
-MINIMUM GROUNDING WIRE SIZE #6PGW FOR 25KVA XFMR 1Ø
-MINIMUM GROUNDING WIRE SIZE #4PGW FOR 25KVA XFMR 3Ø
-FAULT CURRENT 6944 AMPERES FOR 1-25KVA 1Ø
-FAULT CURRENT 5011 AMPERES FOR 3-25KVA 3Ø
-BOND STAIRS METAL HANDRAIL TO NEW GROUNDING SYSTEM.
-HELICOPTER SET
-NO TRUCK ACCESS.
-FOOT ACCESS THROUGH STAIRWAY.

NOTE:
-SEE SHEET E-03 FOR LWSP DETAIL
-SEE DETAIL "C" AND "D" ABOVE FOR GROUNDING DETAIL.
-SEE SHEET E-12 FOR TRANSFORMER CONNECTION DETAIL.

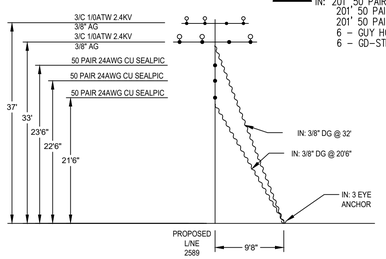
EMBED POLE 8'1" (MATCH POLE TOP WITH EAST POLE)
SAME HOLE SET
IN:1794 POLE
27
2 – 45' CLASS 1 LWSP SWR10
IN: 127' 3/C 1/0ATW 12KV (TO 1795) ~CD-ATW-1/0-A-1-1
127' 1/0AT 120V (TO 1795) ~ZOHC 270
127' 1/0AQ 240V (TO 1795) ~ZOHC 288
3 – 25 KVA 2.4KV CLOSED DELTA 3Ø 3W 480V ~JOTB 024 (SEE DETAIL "C")
SN:
1 – 25KVA 2.4KV 120/480V 1Ø ~JOTS 004 (SEE DETAIL "D")
SN:
2 – 6A FUSE ~FE-ELF-15-6A-1
2 – 12 ELF CUTOUT ~ROCO 103
5 – 12KV SURGE ARRESTER 1Ø ~ROLA 020
3 – 8A ELF FUSE ~FE-ELF-15-8A-1
3 – 3"–2" RISER ~ZUGR 007
2 – 10' DBLE DE COMP XARM W/BRKT ~XA-DE-CMP-10-DB-1
2 – 10' SNGL TAN COMP XARM W/BRKT ~XA-HT-CMP-10-SG-1
3 – 12' SNGL XARM VB NO BOND ~ZOXA 508
9 – 12KV DE (#4 – 1/0A) ~ZODI 250
12 – 12KV POLY P&I (NYLON) ~INS-12-PN-P-14
2 – 166 ROLLER ~ZSEC 001
2 – SEC GROUND (COMP) ~GR-O-SEC-2
2 – 7/16" DOWN GUY W/1 12' FGSI ~AG-DWN-7/16-3
3 – 3/8" DOWN GUY W/1 12' FGSI ~AG-DWN-3/8-4
3 – 1¼" X 10' TRPL EYE ANCHOR ROD & PLATE ~AG-CRPLT-10-1
1 – 3/8" SPAN GUY W/2 12' FGSI (TO 1794 ADJ) ~AG-SPN-3/8-2
9 – DEADEND WILDLIFE COVER ~MISC-O-KDS-CVR-1
2 – PRI GROUND ~ ZHOG 002
1 – JOHNNY BALL ~635-60403

EX: 1794 POLE
16
45' CLASS 1 LWSP SWR 10
IN: 127' 50 PAIR~PN 01-100-38
127' 50 PAIR ~ PN 01-100-38
5 GUYHOOK ~ CATN PAGF11
5 – GD-STRANDVISE ~ PN 5200

22 ELEVATION 2419'
RM:2589 POLE
35' CLASS 4 ~ZOHP 402
RM: 1 – 9/32" DOWN GUY ~ZGUY 013
1 – 1"x10' TRPL EYE ANCHOR ROD & PLATE ~ZGUY 113

EMBED POLE 6'6"
SET 12' SOUTH
23 IN: 2589 POLE
45' CLASS 2 LWSP SWR 10
IN: 201' 3/C 1/0ATW 12KV (TO 1793) ~CD-ATW-1/0-A-1-1
2 – 12' DBLE DE COMP XARM W/BRKT ~XA-DE-CMP-12-DB-1
12 – 12KV POLY P&I (NYLON) ~INS-12-PN-P-14
9 – 12KV DE (#4 – 1/0A) ~ZODI 250
2 – 3/8" DOWN GUY W/1 12' FGSI ~AG-DWN-3/8-4
1 – 1¼" X 10' TRPL EYE ANCHOR ROD & PLATE ~AG-CRPLT-10-1
1 – 3/8" SPAN GUY W/2 12' FGSI (TO 1793) ~AG-SPN-3/8-2
1 – 3/8" SPAN GUY W/2 12' FGSI (TO 1780) ~AG-SPN-3/8-2
9 – DEADEND WILDLIFE COVER ~MISC-O-KDS-CVR-1
2 – PRI GROUND ~ ZHOG 002

14 EX:2589 POLE
45' CLASS 2 LWSP SWR 10
IN: 201' 50 PAIR~PN 01-100-38
201' 50 PAIR~PN 01-100-38
201' 50 PAIR~PN E-0050240FC
6 – GUY HOOK~CATN PAGF11
6 – GD-STRANDVISE ~ PN 5200



GPS:
LAT: N 34° 14' 36.85"
LONG: W 117° 57' 51.01"

NOTE:
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

NOTE:
-SEE SHEET E-03 FOR LWSP DETAIL

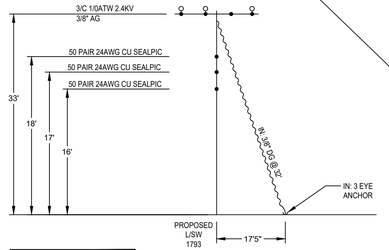
15 EX:1793 POLE
40' CLASS H1 LWSP SWR 10
IN: 111' 50 PAIR~PN 01-100-38
111' 50 PAIR~PN 01-100-38
111' 50 PAIR~PN E-0050240FC
3 – C-CABLE CLAMP~PN PSC2080296

ELEVATION 2325'
RM:1793 POLE
24
35' CLASS 4 ~ZOHP 402
RM: 1-9/32" DOWN GUY ~ZGUY 013
1-1"x10' TRPL EYE ANCHOR ROD & PLATE ~ZGUY 113

EMBED POLE 6'
SAME HOLE SET
IN:1793 POLE
25
40' CLASS H1 LWSP SWR 10
IN: 111' 3/C 1/0ATW 12KV (TO 1793) ~CD-ATW-1/0-A-1-1
1 – 10' SNGL DE COMP XARM W/BRKT ~XA-DE-CMP-10-SG-2
3 – 12KV DE (#4 – 1/0A) ~ZODI 250
6 – 12KV POLY P&I (NYLON) ~INS-12-PN-P-14
1 – 3/8" DOWN GUY W/1 12' FGSI ~AG-DWN-3/8-4
1 – 1¼" X 10' TRPL EYE ANCHOR ROD & PLATE ~AG-CRPLT-10-1
1 – 3/8" SPAN GUY W/2 12' FGSI (TO 1794) ~AG-SPN-3/8-2
2 – PRI GROUND ~ ZHOG 002

5 IN: 3/8" SG
6 IN: 3/8" AG
7 RM: 47' 3/C #4A 2.4KV
8 IN: 47' 3/C 1/0ATW 2.4KV

1 RM: 331' 50 PAIR 24AWG CU SEALPIC (TO 1780)
2 IN: 331' 50 PAIR 24AWG CU SEALPIC (TO 1780)
3 RM: 331' 50 PAIR 24AWG CU SEALPIC (TO 1780)
4 IN: 331' 50 PAIR 24AWG CU SEALPIC (TO 1780)



GPS:
LAT: N 34° 14' 37.97"
LONG: W 117° 57' 49.03"

NOTE:
-HELICOPTER SET
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

NOTE:
-SEE SHEET E-03 FOR LWSP DETAIL

N

NOT TO SCALE

LOCATION 4

DRAFTER	DESIGNER	CHECKER
BRADY WARREN	FRANCISCO CIENFUEGOS	AKASH BEZAWADA

DATE	MARK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
AKASH BEZAWADA
C 90394
EXP. 09/30/2022
CIVIL
STATE OF CALIFORNIA

AKASH BEZAWADA 01/13/2021
PROJECT ENGINEER DATE

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR POST-FIRE EMERGENCY RESTORATION PROJECT

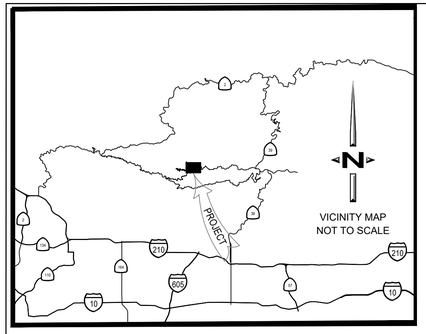
LOCATION 4

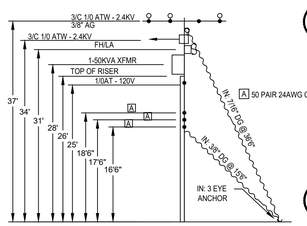
DWG	PD	SHEET E-09 OF E-13

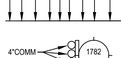
DATE: 01/13/2021

PLAN E

DATE: TIME: FILE:







NOTE:
-FOR TRANSFORMER GROUNDING DETAIL SEE SHEET E-09.

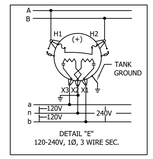
GPS:
LAT: N 34° 14' 36.79"
LONG: W 117° 57' 43.29"

NOTE:
-TREE TRIMMING REQUIRED
-MINIMUM GROUNDING WIRE SIZE #6 PGW
-FAULT CURRENT 13889 AMPERES FOR 1-50 1Ø
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

TLM:	SIZE	KVA	CUST	% LOAD
PROP.	50	27	1	54

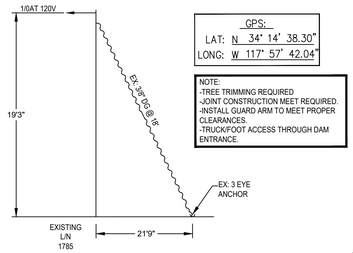
NOTE:
-SEE DETAIL "E" ABOVE FOR GROUNDING DETAIL.

38 ELEVATION 2374'
RM: 1782 POLE
45' CLASS 4 ~ZOHP 104
RM: 51' 3/C #4A 12KV (TO 1784) ~ ZOHC 304
51' #4AT 120V (TO 1784) ~ ZOHC 264
1 – 50KVA 2.4KV 120/240V 1Ø ~JOTS 006
SN: _____
2 –1 2KV ELF CUTOUT ~ROCO 103
2 – 10' DBLE XARM FB ~ZOXA 332
7 – 166 ROLLER ~ZSEC 001
3 –12KV P&I ~ ROPI 012
1 – SEC GROUND ~ZOHG 001
3 – 9/32" DOWN GUY ~ ZGUY 011
2 – 3/4" X 8' DBLE EYE ANCHOR ROD & PLATE ~ZGUY11
TR: 4 – 4"–3" TRSER ~ZUGR 021
EMBED POLE 6'6"
SAME HOLE SET
IN: 1782 POLE



39 ELEVATION 2342'
RM: 1782 POLE
45' CLASS H4 ~ ZOHP 421
IN: 51' 3/C 1/0ATW 12KV (TO 1784) ~CD-ATW-1/0-A-1-1
51' 1/0AT 120V (TO 1784) ~ZOHC 270
1–50KVA 2.4KV 120/240V 1Ø ~JOTS 006
SN: _____
1–166 ROLLER ~ZSEC 001
1–1Ø HY–PLUG 2–1/0 & 1–#2 ~TM–HPLG–1/0–1Ø–1
1–SEC GROUND ~ZOHG 001
2–12KV ELF CUTOUT ~ROCO 103
2–12A ELF FUSE ~FE–ELF–15–12A–1
2–12KV SURGE ARRESTER T–GAP 1Ø ~ROLA 028
1–10' SNGL TAN COMP XARM W/BRKT ~XA–HT–CMP–10–SG–1
2–10' DBLE DE COMP XARM W/BRKT ~XA–DE–CMP–10–DB–1
6–12KV DE (#4 – 1/0A) ~ZODI 250
3–12KV POLY P&I (NYLON) ~INS–12–PN–P–14
1–PRI GROUND ~ZOHG 002
1–3/8" DOWN GUY W/1 12' FGSI ~AG–DWN–3/8–4
1 – 7/16" DOWN GUY W/1 12' FGSI ~AG–DWN–7/16–3
1–1 1/4" X 10' TRPL EYE ANCHOR ROD & PLATE ~AG–CRPLT–10–1
6 – DEADEND WILDLIFE COVER ~MISC–O–KDS–CVR–1
EMBED POLE 6'6"
SAME HOLE SET
IN: 1782 POLE

21 EX:1782 POLE
45' CLASS H4 ~ ZOHP 421
IN: 51' 50 PAIR ~ PN 01–100–38
51' 50 PAIR ~ PN E–005024DFC
51' – 50 PAIR ~ PN 01–100–38
5 GUYHOOK ~ CATN PAGF11
1–AERIAL CLOSURE KIT WITH RUBBER END SEAL ~ 3M 054007–71567
5 – GD–STRANDVISE ~ PN 5200



GPS:
LAT: N 34° 14' 38.30"
LONG: W 117° 57' 42.04"

NOTE:
-TREE TRIMMING REQUIRED
-JOINT CONSTRUCTION MEET REQUIRED.
-INSTALL GUARD ARM TO MEET PROPER CLEARANCES.
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

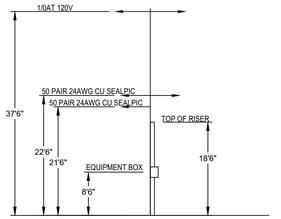
ELEVATION 2342'
EX: 1785 POLE 42
25' CLASS 7 INSP. 2020
RM: 1–166 ROLLER ~ZSEC 001
IN: 1–166 ROLLER ~ZSEC 001

GPS:
LAT: N 34° 14' 36.87"
LONG: W 117° 57' 40.84"

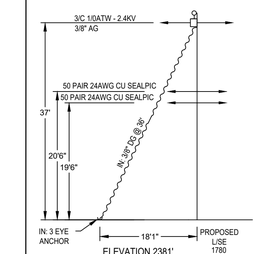
NOTE:
-TREE TRIMMING REQUIRED
-JOINT CONSTRUCTION MEET REQUIRED.
-INSTALL GUARD ARM TO MEET PROPER CLEARANCES.
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

43 ELEVATION 2332'
RM: 1786 POLE
45' CLASS 4 ~ZOHP 104
RM: 240' 4AT 120V (TO 2650) ~ ZOHC 264
1 – 10' DBLE XARM FB ~ZOXA 332
4 – 166 ROLLER ~ZSEC 001
EMBED POLE 6'6"
SAME HOLE SET
IN: 1786 POLE

44 45' CLASS 1 ~ZOHP 420
IN: 240' 1/0AT 120V (TO 2650) ~ZOHC 270
2 – 166 ROLLER ~ZSEC 001



23 EX:1786 POLE
45' CLASS 1 ~ZOHP 420
IN: 240' 50 PAIR ~ PN 01–100–38
2 – AERIAL CLOSURE KIT WITH RUBBER END SEAL ~ 3M 054007–71567
2 GUYHOOK ~ CATN PAGF11
2 – GD–STRANDVISE ~ PN 5200
1 – C–CABLE CLAMP~PN PSC2080296
TR: 1 – EQUIPMENT BOX
1 – 3"–2" RISER ~ZUGR 007



GPS:
LAT: N 34° 14' 37.21"
LONG: W 117° 57' 47.65"

NOTE:
-TREE TRIMMING REQUIRED
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.
-NO EXISTING COMM OR ELECTRICAL LINE DUE TO EXTREME FIRE DAMAGE
-CREW TO REMOVE ANY LEFT OVER POLE REMNANTS DUE TO EXTREME FIRE DAMAGE

33 ELEVATION 2381'
RM: 1780 POLE
45' CLASS 4 ~ZOHP 104
RM: 189' 3/C #4A 12KV (TO 1781) ~ ZOHC 304
1 – 9/32" SG ~ ZGUY 015
EMBED POLE 6'6"
SAME HOLE SET
IN: 1780 POLE

34 45' CLASS H2 ~ ZOHP 423
IN: 189' 3/C 1/0ATW 12KV (TO 1781) ~ CD–ATW–1/0–A–1–1
1 – 12' SNGL DE COMP XARM W/BRKT ~XA–DE–CMP–12–SG–1
3 – 12KV DE (#4 – 1/0A) ~ZODI 250
3 – 12KV POLY P&I (NYLON) ~ INS–12–PN–P–14
1 – 3/8" DOWNGUY W/1 12' FGSI ~ AG–DWN–3/8–4
1 – 1 1/4" X 10' TRPL EYE ANCHOR ROD & PLATE ~ AG–CRPLT–10–1

19 EX:1780 POLE
45' CLASS H2 ~ ZOHP 423
IN: 189' 50 PAIR ~ PN 01–100–38
189' 50 PAIR ~ PN E–005024DFC
2 GUYHOOK ~ CATN PAGF11
2 – GD–STRANDVISE ~ PN 5200

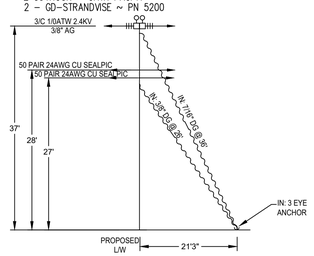
GPS:
LAT: N 34° 14' 37.45"
LONG: W 117° 57' 45.42"

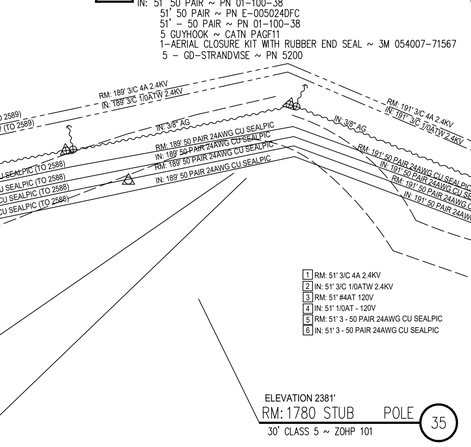
NOTE:
-TREE TRIMMING REQUIRED
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.
-CREW TO REMOVE ANY LEFT OVER POLE REMNANTS DUE TO EXTREME FIRE DAMAGE
-NO EXISTING COMM OR ELECTRICAL LINE DUE TO EXTREME FIRE DAMAGE

36 ELEVATION 2381'
RM: 1781 POLE
45' CLASS 4 ~ZOHP 104
RM: 191' 3/C #4A 12KV (TO 1782) ~ ZOHC 304
2 – 10' DBLE XARM FB ~ZOXA 332
2 – 12KV P&I ~ ROPI 012
3 – 9/32" DOWN GUY ~ ZGUY 011
2 – 3/4" X 8' DBLE EYE ANCHOR ROD & PLATE ~ZGUY11
EMBED POLE 6'6"
SAME HOLE SET
IN: 1781 POLE

37 45' CLASS 2 ~ ZOHP 422
IN: 191' 3/C 1/0ATW 12KV (TO 1782) ~CD–ATW–1/0–A–1–1
1 – 10' DBLE DE COMP XARM W/BRKT ~XA–DE–CMP–10–SG–1
6 – 12KV DE (#4 – 1/0A) ~ZODI 250
6 – 12KV POLY P&I (NYLON) ~INS–12–PN–P–14
1 – 3/8" DOWN GUY W/1 12' FGSI ~AG–DWN–3/8–4
1 – 7/16" DOWN GUY W/1 12' FGSI ~AG–DWN–7/16–3
1 – 1 1/4" X 10' TRPL EYE ANCHOR ROD & PLATE ~AG–CRPLT–10–1
6 – DEADEND WILDLIFE COVER ~MISC–O–KDS–CVR–1

20 EX:1781 POLE
45' CLASS 2 ~ ZOHP 422
IN: 191' 50 PAIR ~ PN 01–100–38
191' 50 PAIR ~ PN E–005024DFC
2 GUYHOOK ~ CATN PAGF11
2 – GD–STRANDVISE ~ PN 5200





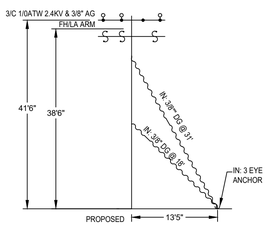
MATCH LINE "D"
SEE SHEET E-09

FOREST RTE 2N25

SPEED LIMIT 15

MATCH LINE "E"
SEE SHEET E-11

35 ELEVATION 2381'
RM: 1780 STUB POLE
30' CLASS 5 ~ ZOHP 101

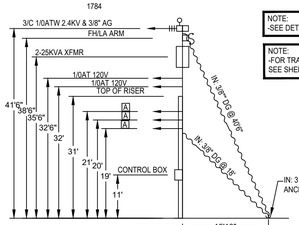


GPS:
LAT: N 34° 14' 37.23"
LONG: W 117° 57' 42.99"

NOTE:
-TREE TRIMMING REQUIRED
-JOINT CONSTRUCTION MEET REQUIRED.
-ADJUST RISER TO MEET PROPER CLEARANCES.
-INSTALL GUARD ARM TO MEET PROPER CLEARANCES.
-NO VDFL REQUIRED BEING FED DIRECTLY FROM POLE.
-MINIMUM GROUNDING WIRE SIZE #4 PGW
-FAULT CURRENT 13889 AMPERES FOR 1-50KVA 3Ø
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

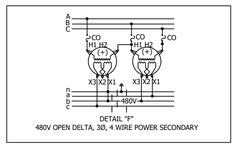
NOTE:
-SEE DETAIL "F" BELOW FOR GROUNDING DETAIL.

NOTE:
-FOR TRANSFORMER GROUNDING DETAIL SEE SHEET E-09.



A 50 PAIR 24AWG CU SEALPIC

2 1/2" - 2" - SEC
4" SEC
1784
RISER DETAIL L/NW



GPS:
LAT: N 34° 14' 36.28"
LONG: W 117° 57' 38.08"

NOTE:
-TREE TRIMMING REQUIRED
-JOINT CONSTRUCTION MEET REQUIRED.
-INSTALL GUARD ARM TO MEET PROPER CLEARANCES.
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

ELEVATION 2374'
RM: 1784 POLE 40
45' CLASS 4 ~ZOHP 104
RM: 184' #4AT 120V (TO 1786) ~ZOHC 264
134'2" #4AT 120V (TO 1785) ~ZOHC 264
2 – 10KVA 2.4KV 120/240V 1Ø ~JOTB 007
SN: _____
2 – 10' DBLE XARM FB SEC ~ZOXA 312
3 – INS GLASS/POLY 35KV & LESS ~ZODI 900
2 – 9/32" DOWN GUY ~ZGUY 013
1 – 1"x10' TRPL EYE ANCHOR ROD & PLATE ~ZGUY 113
2 – 166 ROLLER (#4A) ~ZODI 040
1 – RISER 2–1/2" TO 2" ~ZUGR 008
1 – RISER 4" TO 3" ~ZUGR 012
2 – 12KV SURGE ARRESTER T–GAP 1Ø ~ROLA 032
1 – FE CO MNT FOR ELF W/10' XA 100A 12KV 3Ø~ ROCO 102
EMBED POLE 7'
SAME HOLE SET
IN: 1784 POLE

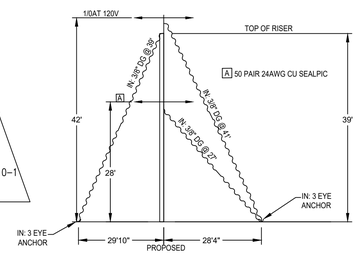
41 50' CLASS 3 ~ZOHP 434
IN: 184' 1/0AT 120V (TO 1786) ~ZOHC 270
134'2" 1/0AT 120V (TO 1785) ~ZOHC 270
2 – 25KVA 2.4 KV DP DEL 120/240 4W ~JOTB 013
SN: _____
1 – 10' DBLE XARM FB SEC ~ZOXA 312
3 – 12KV DE (#4 – 1/0A) ~ZODI 250
2 – 3/8" DOWN GUY W/1 12' FGSI ~AG–DWN–3/8–4
2 – 1 1/4" X 10' TRPL EYE ANCHOR ROD & PLATE ~AG–CRPLT–10–1
2 – 166 ROLLER (1/0A) ~ZODI 045
1 – SEC GROUND ~ZOHG 001
1 – PRECUT UNISTRUT ~ZUGR 032
1 – RISER 4" TO 3" ~ZUGR 012
2 – 12KV SURGE ARRESTER T–GAP 1Ø ~ROLA 032
1 – FE CO MNT FOR ELF W/10' XA 100A 12KV 3Ø~ ROCO 102
3 – DEADEND WILDLIFE COVER ~MISC–O–KDS–CVR–1
1 – 12KV RCS ADMO ~RCS–CTRL–O–12–1
1 – PRI GROUND ~ZOHG 002

EX: 1784 POLE 22
50' CLASS 3 ~ ZOHP 434
IN: 184' 50 PAIR ~ PN 01–100–38
184' 50 PAIR ~ PN 01–100–38
5 GUYHOOK ~ CATN PAGF11
5 – GD–STRANDVISE ~ PN 5200
2 – 3/8" DOWN GUY W/1 12' FGSI~AG–DWN–3/8–4

45 ELEVATION 2330'
RM: 2650 POLE
45' CLASS 4 ~ZOHP 104
RM: 245' #4AT 120V (TO 2672) ~ZOHC 264
2 – 166 ROLLER ~ZSEC 001
TR: 1 – 2" SEC RISER
EMBED POLE 7'
SAME HOLE SET
IN: 2650 POLE

46 50' CLASS 3 ~ZOHP 434
IN: 245' 1/0AT 120V (TO 2650) ~ZOHC 270
2 – 166 ROLLER ~ZSEC 001
2 – 3/8" DOWN GUY W/1 12' FGSI ~AG–DWN–3/8–4
2 – 1 1/4" X 10' TRPL EYE ANCHOR ROAD & PLATE ~AG–CRPLT–10–1

24 EX:2650 POLE
50' CLASS 3 ~ZOHP 434
IN: 245' 50 PAIR ~ PN 01–100–38
2 GUYHOOK ~ CATN PAGF11
2 – GD–STRANDVISE ~ PN 5200
1 – 3/8" DOWN GUY W/1 12' FGSI~AG–DWN–3/8–4



2" SEC
2650
RISER DETAIL L/E

ELEVATION 2327'
RM: 2671 POLE 47
35' CLASS 4 ~ZOHP 402
RM: 186' #4AT 120V (TO 2672) ~ZOHC 264
2 – 166 ROLLER ~ZSEC 001
1 – 3/8" DG ~ZGUY 021
1 – 3/4" X 8' DBLE EYE ANCHOR ROD & PLATE ~ZGUY 111
EMBED POLE 6'6"
SAME HOLE SET
IN: 2671 POLE

48 45' CLASS 1 ~ZOHP 418
IN: 186' 1/0AT 120V (TO 2672) ~ZOHC 270
2 – 166 ROLLER ~ZSEC 001
1 – 3/8" DOWN GUY W/1 12' FGSI ~AG–DWN–3/8–4
1 – 1 1/4" X 10' TRPL EYE ANCHOR ROD & PLATE ~AG–CRPLT–10–1

GPS:
LAT: N 34° 14' 34.07"
LONG: W 117° 58' 36.89"

NOTE:
-TREE TRIMMING REQUIRED
-JOINT CONSTRUCTION MEET REQUIRED.
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

EX: 2671 POLE 25
45' CLASS 1 ~ZOHP 418
IN: 186' 50 PAIR ~ PN 01–100–38
2 – GUYHOOK ~ CATN PAGF11
1 – 3/8" DG~ZGUY 021
2 – GD–STRANDVISE ~ PN 5200

NOT TO SCALE

LOCATION 5

DESIGNER	FRANCISCO CIENFUEGOS
DRAFTER	BRADY WARREN
CHECKER	AKASH BEZAWADA

DATE	MARK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
AKASH BEZAWADA
C 90394
EXP. 09/30/2021
CIVIL
STATE OF CALIFORNIA

AKASH BEZAWADA 01/13/2021
PROJECT ENGINEER DATE

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR
POST-FIRE EMERGENCY RESTORATION PROJECT

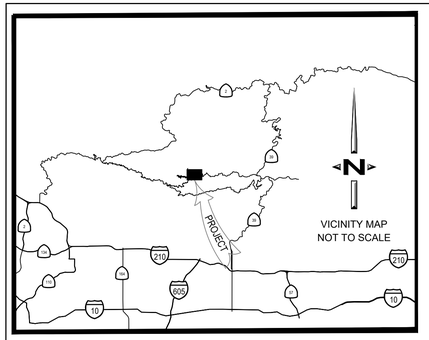
LOCATION 5A

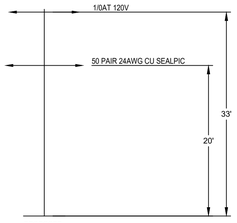
DWG	PD	SHEET E-10 OF E-13

PLAN E

DATE: 01/13/2021

DATE: TIME: FILE:

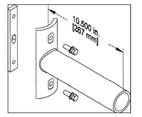




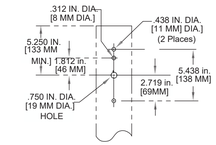
GPS:
LAT: N 34° 14' 36.20"
LONG: W 117° 57' 31.61"

NOTE:
-TREE TRIMMING REQUIRED
-JOINT CONSTRUCTION MEET REQUIRED.
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

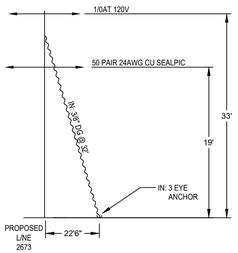
ROUND POLE MOUNTING ARM DRILLING TEMPLATE
3.5 TO 4.5-INCH (89 TO 114MM) OD
(WILL ALLOW 4 FIXTURES PER POLE @ 90 DEGREES.)



ROUND POLE MOUNTING ARM DRILLING TEMPLATE
3.5 TO 4.5-INCH (89 TO 114MM) OD
ROUND POLE MOUNTING ARM



NOTE:
-LED LIGHT FIXTURE TO BE INSTALLED ON NEWLY CONSTRUCTED POLE (GE #EALS-03-1-D5-SW-7-40-X SERIES).
-SWITCH IN NEMA 3R ENCLOSURE AND GFI RECEPTACLE IN NEMA 3R ENCLOSURE.



GPS:
LAT: N 34° 14' 35.15"
LONG: W 117° 57' 32.28"

NOTE:
-TREE TRIMMING REQUIRED
-JOINT CONSTRUCTION MEET REQUIRED.
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

ELEVATION 2320'
51 RM:2673 POLE
35' CLASS 4 ~ZOHP 402
RM: 119' #4AT 120V (TO 2674) ~ZOHC 264
2 – 166 ROLLER (1/0A) ~ZODI 045
1 – 9/32" DOWN GUY ~ZGUY 013
1 – 3/4"x8' DBLE EYE ANCHOR ROD & PLATE ~ZGUY 111

EMBED POLE 6'
SAME HOLE SET
52 IN: 2673 POLE
40' CLASS 3 ~ZOHP 424
IN: 119' 1/0AT 120V (TO 2674) ~ZOHC 270
2 – 166 ROLLER ~ZSEC 001
1 – 3/8" DOWN GUY ~ZGUY 021
1 – 1/4" X 10' TRPL EYE ANCHOR ROD & PLATE ~AG–CRPLT–10–1

27 EX:2673 POLE
40' CLASS 3 ~ZOHP 424
IN: 119' 50 PAIR~PN 01–100–38
1–GUY HOOK ~ CATN PAGF11
1 – GD–STRANDVISE ~ PN5200

ELEVATION 2320'
53 RM:2674 POLE
35' CLASS 4 ~ZOHP 402
RM: 213' #4AT 120V (TO 2675) ~ZOHC 264
2 – 166 ROLLER ~ZSEC 001

EMBED POLE 6'
SAME HOLE SET
54 IN: 2674 POLE
40' CLASS 3 ~ZOHP 414
IN: 213' 1/0AT 120V (TO 2675) ~ZOHC 270
2 – 166 ROLLER ~ZSEC 001

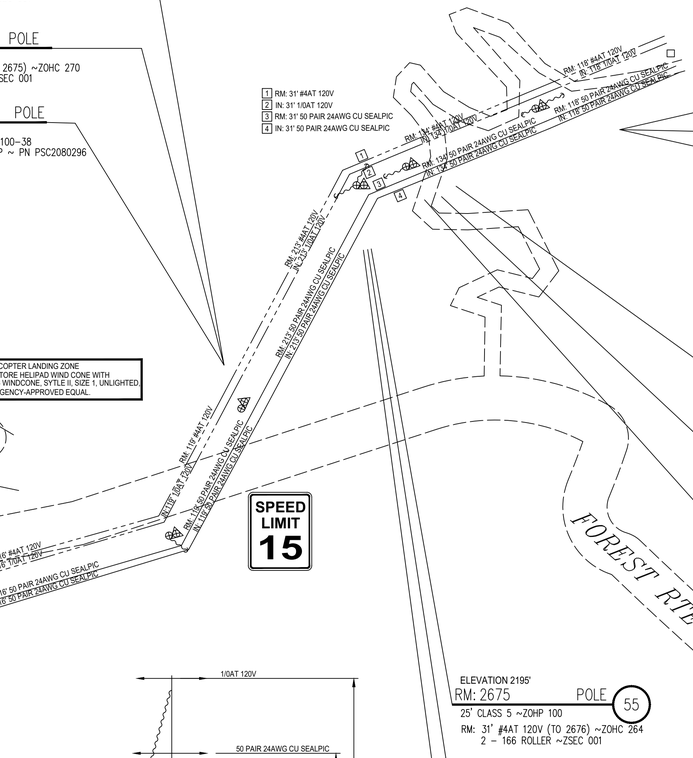
28 EX: 2674 POLE
40' CLASS 3 ~ZOHP 414
IN: 213' 50 PAIR~PN 01–100–38
1 – C–CABLE CLAMP ~ PN PSC2080296

HELICOPTER LANDING ZONE
-RESTORE HELIPAD WIND CONE WITH L-806 WINDCONE, SYTLE II, SIZE 1, UNLIGHTED, OR AGENCY-APPROVED EQUAL.

H

SPEED LIMIT 15

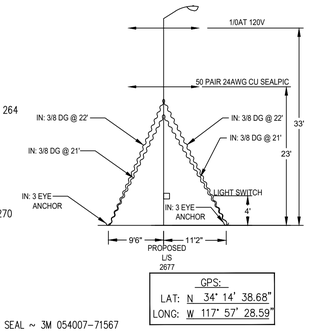
MATCH LINE "E" SEE SHEET E-10



ELEVATION 2187'
59 RM: 2677 POLE
35' CLASS 4~ZOHP 402
RM: 118' #4AT 120V (TO GAUGE STATION) ~ZOHC 264
2 – 166 ROLLER ~ZSEC 001
1 – 9/32" SPAN GUY ~ZGUY 015

EMBED POLE 6'
SAME HOLE SET
60 IN: 2677 POLE
40' CLASS 4 LWSP SWR10
IN: 118' 1/0AT 120V (TO WATER TOWER) ~ZOHC 270
2 – 166 ROLLER ~ZSEC 001
4 – 3/8" DOWN GUY~ZGUY 021
2 – 1/4" TRIPLE EYE AG–CRPLT–10–1

EX: 2677 POLE 31
40' CLASS 4 LWSP SWR10
IN: 118' PAIR~PN 01–100–38
1 – GUY HOOK~CATN PAGF11
1 – GD–STRANDVISE ~ PN5200
1 – AERIAL CLOSURE KIT WITH RUBBER END SEAL ~ 3M 054007–71567



GPS:
LAT: N 34° 14' 38.68"
LONG: W 117° 57' 28.59"

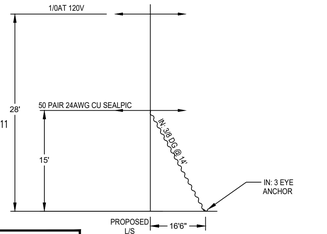
NOTE:
-HELICOPTER SET
-NO TRUCK ACCESS.
-FOOT ACCESS THROUGH DAM ENTRANCE.

NOTE:
-SEE SHEET E-03 FOR LWSP DETAIL

ELEVATION 2187'
57 RM: 2676 POLE
35' CLASS 4 ~ZOHP 402
RM: 134' #4AT 120V (TO 2677) ~ZOHC 264
2 – 166 ROLLER ~ZSEC 001
1 – 9/32" DOWN GUY ~ZGUY 013
1 – 3/4"x8' DBLE EYE ANCHOR ROD & PLATE ~ZGUY 111

EMBED POLE 6'
SAME HOLE SET
58 IN: 2676 POLE
35' CLASS 4 LWSP SWR10
IN: 134' 1/0A 120V (TO 2677) ~ZOHC 270
2 – 166 ROLLER ~ZSEC 001
1 – 3/8" DOWN GUY ~ZGUY 021
1 – 1/4" TRIPLE EYE AG–CRPLT–10–1

EX: 2676 POLE 30
35' CLASS 4 LWSP SWR10
IN: 134' PAIR~PN 01–100–38
1 – C–CABLE CLAMP ~ PN PSC2080296



NOTE:
-SEE SHEET E-03 FOR LWSP DETAIL

GPS:
LAT: N 34° 14' 38.18"
LONG: W 117° 57' 30.07"

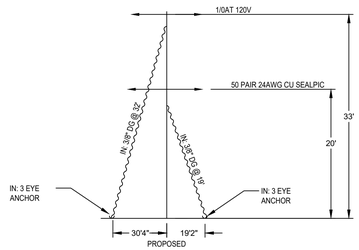
NOTE:
-TREE TRIMMING REQUIRED
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

ELEVATION 2195'
55 RM: 2675 POLE
25' CLASS 5 ~ZOHP 100
RM: 31' #4AT 120V (TO 2676) ~ZOHC 264
2 – 166 ROLLER ~ZSEC 001

EMBED POLE 6'
SAME HOLE SET
56 IN: 2675 POLE
40' CLASS 4 LWSP SWP10
IN: 31' 1/0AT 120V (TO 2676) ~ZOHC 270
1 – 166 ROLLER (1/0A) ~ZODI 045
2 – 166 ROLLER ~ZSEC 001
2 – 3/8" DOWN GUY ~ZGUY 021
2 – 1/4" X 10' TRPL EYE ANCHOR ROD & PLATE ~AG–CRPLT–10–1

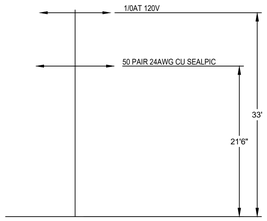
NOTE:
-SEE SHEET E-03 FOR LWSP DETAIL

EX: 2675 POLE 29
40' CLASS 4 LWSP SWP10
IN: 31' 50 PAIR~PN 01–100–38
1 – GUY HOOK~CATN PAGF11
1 – GD–STRANDVISE ~ PN5200



GPS:
LAT: N 34° 14' 38.06"
LONG: W 117° 57' 30.42"

NOTE:
-TREE TRIMMING REQUIRED
-JOINT CONSTRUCTION MEET REQUIRED.
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.



ELEVATION 2327'
49 RM:2672 POLE
35' CLASS 4 ~ZOHP 402
RM: 216' #4AT 120V (TO 2673) ~ZOHC 264

EMBED POLE 6'
SAME HOLE SET
50 IN: 2672 POLE
40' CLASS 3 ~ZOHP 414
IN: 216' 1/0AT 120V (TO 2673) ~ZOHC 270
2 – 166 ROLLER ~ZSEC 001

26 EX:2672 POLE
40' CLASS 3 ~ZOHP 414
IN: 216' 50 PAIR ~ PN 01–100–38
1 – C–CABLE CLAMP ~ PN PSC2080296

GPS:
LAT: N 34° 14' 34.56"
LONG: W 117° 57' 34.75"

NOTE:
-TREE TRIMMING REQUIRED
-JOINT CONSTRUCTION MEET REQUIRED.
-TRUCK/FOOT ACCESS THROUGH DAM ENTRANCE.

N

NOT TO SCALE

LOCATION 5

DATE	MARK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
AKASH BEZAWADA
C 90394
EXP. 09/30/2021
CIVIL
STATE OF CALIFORNIA

AKASH BEZAWADA 01/13/2021
PROJECT ENGINEER DATE

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR
POST-FIRE EMERGENCY RESTORATION PROJECT

LOCATION 5B

DWG	PD	SHEET E-11 OF E-13

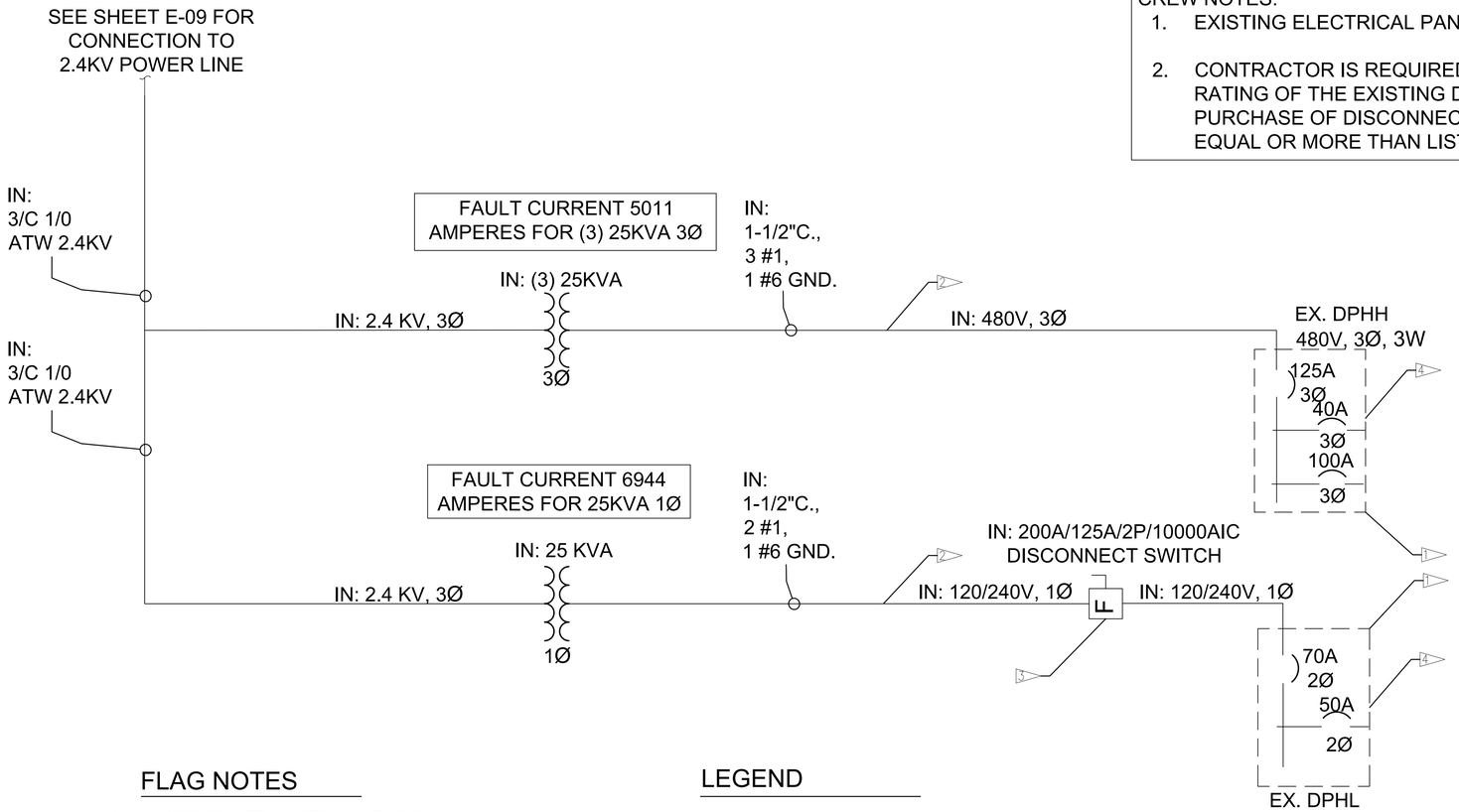
DATE: 01/13/2021

PLAN E

CHECKER	AKASH BEZAWADA
DESIGNER	FRANCISCO CIENFUEGOS
DRAFTER	BRADY WARREN

DATE: TIME: FILE:

CREW NOTES:
1. EXISTING ELECTRICAL PANELS LOCATED ON POLE 1794
2. CONTRACTOR IS REQUIRED TO FIELD VERIFY EXACT AIC RATING OF THE EXISTING DOWNSTREAM PANEL TO PURCHASE OF DISCONNECT SWITCH. AIC RATING SHALL BE EQUAL OR MORE THAN LISTED IN THE EXISTING PANEL



FLAG NOTES

1. PROTECT & TRANSFER EXISTING PANELS.
2. PROVIDE NEW FEEDER COMPLETE WITH WEATHERHEAD AND MOUNTING ACCESSORIES.
3. PROVIDE 200A/125A/2P/10000AIC DISCONNECT SWITCH IN NEMA 4X ENCLOSURE AND COMPLETE WITH MOUNTING ACCESSORIES.
4. CONNECT EXISTING PANELS TO NEWLY INSTALLED UTILITIES.

LEGEND

- EXISTING UTILITIES
- PROPOSED UTILITIES

TRANSFORMER CONNECTION DETAIL

DRAFTER: BRADY WARREN
DESIGNER: FRANCISCO CIENFUEGOS
CHECKER: AKASH BEZAWADA

DATE	MARK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — AKASH BEZAWADA — C 90394 — EXP. 09/30/2021 — CIVIL — STATE OF CALIFORNIA

AKASH BEZAWADA 01/13/2021
PROJECT ENGINEER DATE

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR
POST-FIRE EMERGENCY RESTORATION PROJECT

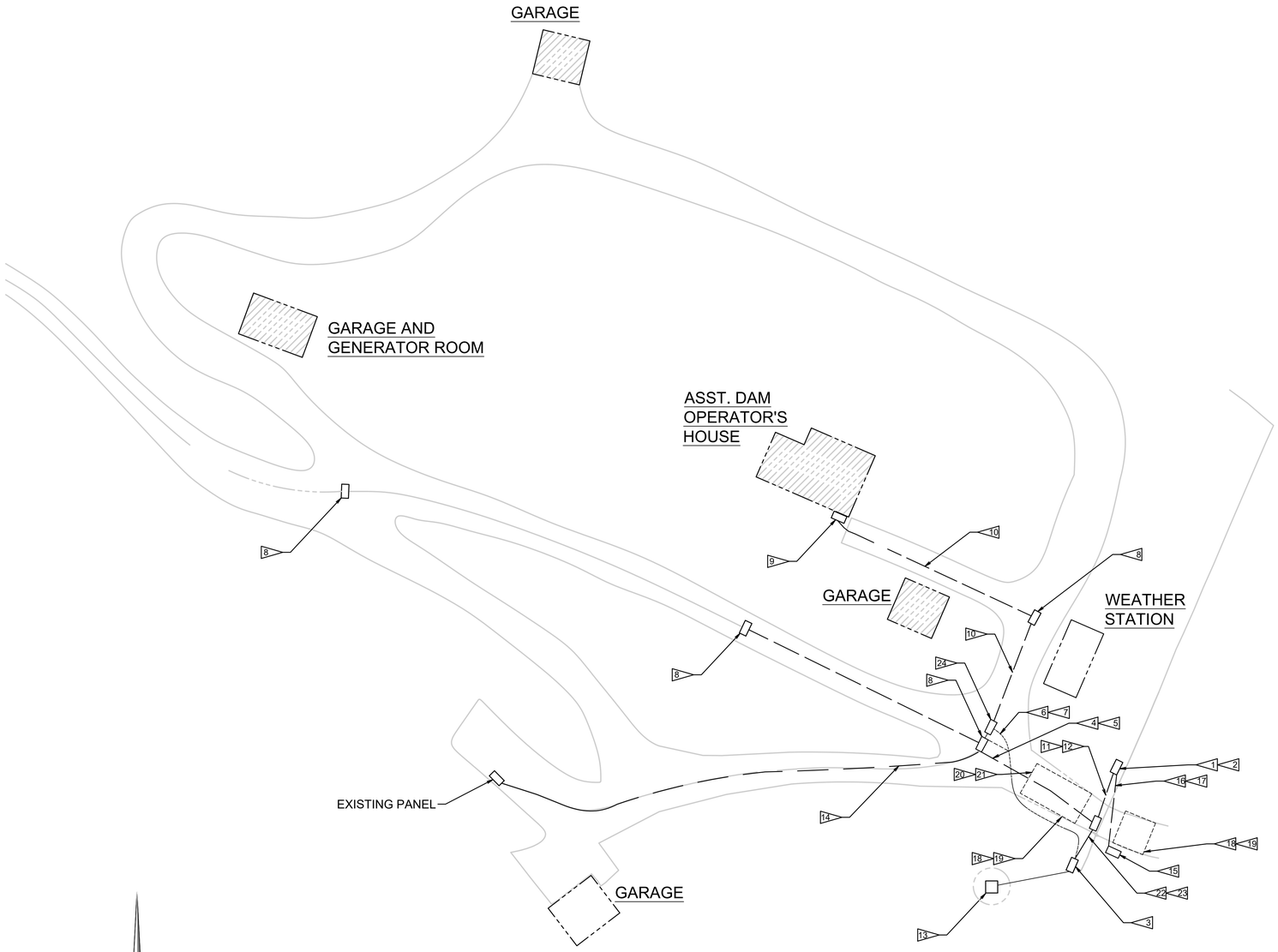
TRANSFORMER CONNECTION DETAIL

DWG	PD	SHEET E-12 OF E-13

DATE: 01/13/2021

PLAN E

DATE: TIME: FILE:



NOT TO SCALE

GATE OPERATOR REPLACEMENT

FLAG NOTES

1. DISCONNECT AND REMOVE EXISTING GATE OPERATOR/MOTOR AND ITS ASSOCIATED CONDUCTORS. EXISTING UNDERGROUND CONDUIT TO REMAIN.
2. REPLACE GATE OPERATOR WITH ALL-O-MATIC SL-150DC OR AGENCY APPROVED EQUAL: HTTPS://ALLOMATIC.NET/SL-150DC-SLIDE-GATE-OPERATOR
3. EXISTING PEDESTAL MOUNT CONTROL PANEL TO REMAIN.
4. DISCONNECT AND REMOVE EXISTING UNDERGROUND 120V POWER CONDUCTORS (2 #8 AND 1 #10 GND.) BETWEEN GATE OPERATOR/MOTOR AND EXISTING PULLBOX. EXISTING 2" UNDERGROUND CONDUIT TO REMAIN AND TO BE RE-USED.
5. PROVIDE NEW 120V POWER CONDUCTORS (2 #8 AND 1 #10 GND.). PULL INTO EXISTING 2" UNDERGROUND CONDUIT AND CONNECT REPLACED GATE OPERATOR/MOTOR. MAKE SPLICES AT EXISTING PULLBOX.
6. DISCONNECT AND REMOVE EXISTING UNDERGROUND COMMUNICATIONS CONDUCTORS (12-PAIR SUPERIOR ESSEX SEALPIC-F 04-097-21 AND FIBER OPTIC) BETWEEN GATE OPERATOR/MOTOR AND EXISTING PULLBOX. EXISTING 3" UNDERGROUND CONDUIT TO REMAIN AND TO BE RE-USED.
7. PROVIDE NEW COMMUNICATIONS CONDUCTORS (12-PAIR SUPERIOR ESSEX SEALPIC-F 04-097-21 AND FIBER OPTIC). PULL INTO EXISTING 3" UNDERGROUND CONDUIT AND CONNECT REPLACED GATE OPERATOR/MOTOR. MAKE SPLICES AT EXISTING PULLBOX.
8. EXISTING UNDERGROUND PULLBOX TO REMAIN.
9. EXISTING COMMUNCATIONS PANEL TO REMAIN.
10. EXISTING UNDERGROUND COMMUNICATIONS CONDUCTORS (12-PAIR SUPERIOR ESSEX SEALPIC-F 04-097-21 AND FIBER OPTIC) TO REMAIN.
11. DISCONNECT AND REMOVE EXISTING UNDERGROUND COMMUNICATIONS CONDUCTORS (12-PAIR SUPERIOR ESSEX SEALPIC-F 04-097-21 AND FIBER OPTIC) BETWEEN GATE OPERATOR/MOTOR AND EXISTING PEDESTAL MOUNT CONTROL PANEL. EXISTING 3" UNDERGROUND CONDUIT TO REMAIN AND TO BE RE-USED.
12. PROVIDE NEW COMMUNICATIONS CONDUCTORS (12-PAIR SUPERIOR ESSEX SEALPIC-F 04-097-21 AND FIBER OPTIC). PULL INTO EXISTING 3" UNDERGROUND CONDUIT AND CONNECT REPLACED GATE OPERATOR/MOTOR AND PEDESTAL MOUNT CONTROL PANEL.
13. EXISTING STEEL POST MOUNT SECURITY CAMERA TO REMAIN.
14. EXISTING UNDERGROUND 120V POWER FEEDER (2"C. - 2 #8 AND 1 #10 GND.) TO REMAIN.
15. EXISTING KEYPAD TO REMAIN.
16. DISCONNECT AND REMOVE EXISTING UNDERGROUND KEYPAD CONDUCTORS BETWEEN GATE OPERATOR/MOTOR AND KEYPAD. UNDERGROUND CONDUIT TO REMAIN AND TO BE RE-USED.
17. PROVIDE NEW KEYPAD CONDUCTORS. PULL INTO EXISTING UNDERGROUND CONDUIT AND CONNECT NEW GATE OPERATOR/MOTOR AND KEYPAD.
18. DISCONNECT AND REMOVE EXISTING UNDERGROUND EXIT & SAFETY SENSOR LOOP.
19. PROVIDE NEW UNDERGROUND EXIT & SAFETY SENSOR LOOP. DISCONNECT AND REMOVE EXISTING UNDERGROUND EXIT & SAFETY SENSOR LOOP CONDUCTORS BETWEEN GATE OPERATOR/MOTOR AND EXIT & SAFETY SENSOR LOOP.
20. UNDERGROUND CONDUIT TO REMAIN AND TO BE RE-USED.
21. PROVIDE NEW EXIT & SAFETY SENSOR LOOP CONDUCTORS. PULL INTO EXISTING UNDERGROUND CONDUIT AND CONNECT NEW GATE OPERATOR/MOTOR AND EXIT & SAFETY SENSOR LOOP.
22. INSTALL ELECTROMAGNETIC LOCK - GATE EMLOCK 1576U AT FENCE POST FOR CLOSED GATE.
23. PROVIDE NEW CONDUCTOR TO ELECTROMAGNETIC LOCK AND CONNECT THE ELECTROMAGNETIC LOCK AND THE GATE OPERATOR.
24. EXISTING COMMUNICATIONS PULL BOX TO REMAIN.

DRAFTER BRADY WARREN
DESIGNER FRANCISCO CIENFUEGOS
CHECKER AKASH BEZAWADA

DATE	MARK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
AKASH BEZAWADA
C 90394
EXP. 09/30/2022
CIVIL
STATE OF CALIFORNIA

AKASH BEZAWADA 01/13/2021
PROJECT ENGINEER DATE

LOS ANGELES COUNTY PUBLIC WORKS

COGSWELL RESERVOIR
POST-FIRE EMERGENCY RESTORATION PROJECT

GATE OPERATOR REPLACEMENT

DWG	PD	SHEET E-13 OF E-13

DATE: 01/13/2021

PLAN E

DATE: TIME: FILE: