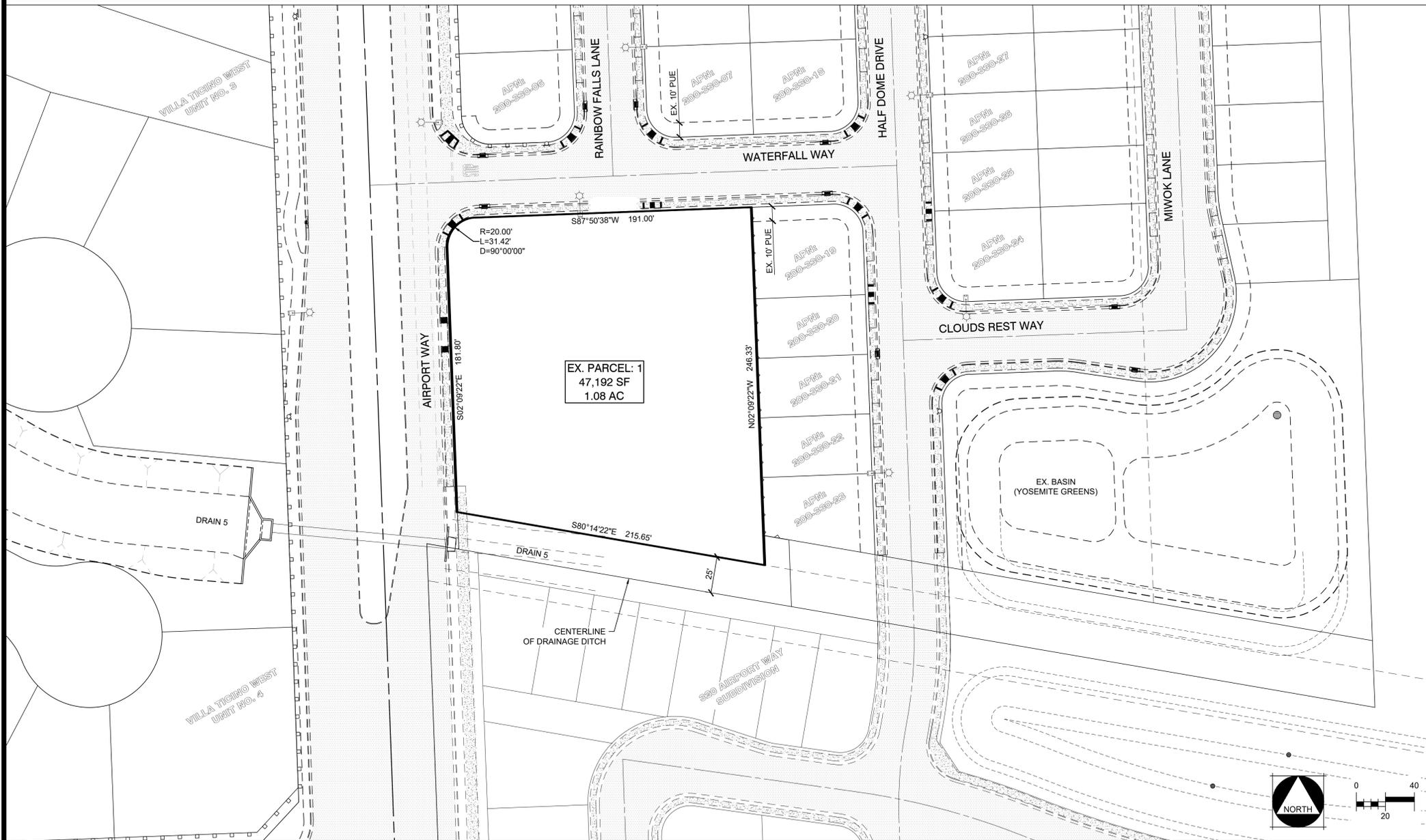
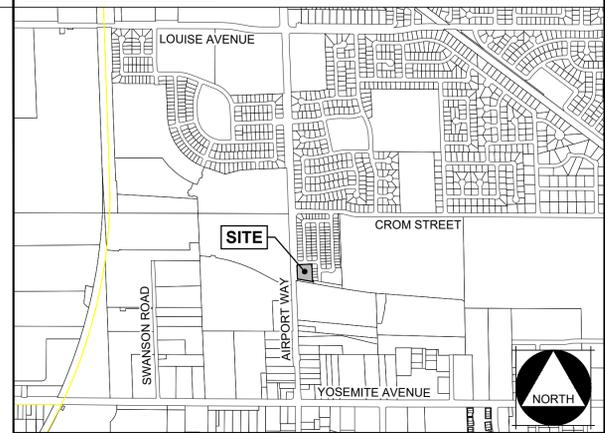


EXISTING BOUNDARY & EASEMENTS



VICINITY MAP



PROJECT INFORMATION

- PROPERTY OWNERS:
HARDEEP SINGH
1974 LOVEJOY AVENUE
MANTECA, CA 95337
- ENGINEERING:
MCR ENGINEERING INC.
1242 DUPONT COURT
MANTECA, CA 95336
(209) 239-6229
ATTN: SHAWN SAMANIEGO
- APN: 200-130-06
- CURRENT ZONING: R-2 - LIMITED MULTIPLE-FAMILY DWELLING
PROPOSED ZONING: R-2 - LIMITED MULTIPLE-FAMILY DWELLING
- CURRENT GENERAL PLAN: MDR - MEDIUM DENSITY RESIDENTIAL
PROPOSED GENERAL PLAN: MDR - MEDIUM DENSITY RESIDENTIAL
- SCHOOL DISTRICT:
MANTECA UNIFIED SCHOOL DISTRICT
- SEWAGE DISPOSAL BY CONNECTION TO EXISTING CITY SEWER SYSTEM.
- STORM DRAINAGE SHALL BE COLLECTED BY ON-SITE SYSTEM AND DISCHARGED INTO EXISTING CITY STORM DRAINAGE SYSTEM.
- DOMESTIC WATER BY CONNECTION TO CITY WATER SYSTEM.
- ALL IMPROVEMENTS TO CONFORM TO CITY OF MANTECA STANDARDS.

SHEET INDEX

#	SHEET TITLE
SP1	COVER SHEET
SP2	SITE PLAN
SP3	PRELIMINARY GRADING & DRAINAGE PLAN
SP4	PRELIMINARY UTILITY PLAN

LEGEND

ITEM	EXISTING	PROPOSED
WATER VALVE		
BLOWOFF		
FIRE HYDRANT		
WATER METER		
SEWER MANHOLE		
STORM MANHOLE		
DRAIN INLET		
CURB INLET		
CLEANOUT		
WATER LINE		
SANITARY SEWER		
STORM DRAIN		
TYPICAL ELECTROLYZER		
TYPICAL LUMINAIRE		
ELECTRICAL VAULT		
UTILITY POLE		
WOOD FENCE		
RETAINING WALL		
MASONRY WALL		
CURB, GUTTER & SIDEWALK		

ABBREVIATION LIST

@	AT	GW	GREASE WASTE	RPV	PRESSURE REDUCING VALVE
AB	AGGREGATE BASE	HGL	HYDRAULIC GRADE LINE	RTW	RETAINING TOP OF WALL
AC	ASPHALT CONCRETE	HP	HIGH POINT	RWL	RAIN WATER LEADER
ADA	AMERICAN DISABILITIES ACT	INV	INVERT	S	SLOPE
BC	BEGINNING OF CURVE	IRR	IRRIGATION	SCDA	SINGLE CHECK DETECTOR
BDRY	BOUNDARY	L	LENGTH	SD	ASSEMBLY
BSL	BUILDING SET BACKLINE	LF	LINEAL FEET OR LINEAR FEET	SHT	STORM DRAIN SHEET
BVC	BEGIN VERTICAL CURVE	LP	LOW POINT	SL	SECTION LINE
BW	BOTTOM WALL	MAX	MAXIMUM	SNS	STREET NAME SIGN
C & G	CURB AND GUTTER	MH	MAINTENANCE HOLE	STA	STATION
CB	CATCH BASIN	MIN	MINIMUM	STD	STANDARD
CI	CURB INLET	MS4	MUNICIPAL SEPARATE STORM SEWER SYSTEM	SW / S/W	SIDEWALK
CIP	CAST IN PLACE PIPE	NTS	NOT TO SCALE	SS	SANITARY SEWER
CL	CENTER LINE	OG	ORIGINAL GROUND / GRADE	S.S.J.I.D.	SOUTH SAN JOAQUIN IRRIGATION DISTRICT
CO	CLEAN OUT	O.R.	OFFICIAL RECORD	TB	THRUST BLOCK
CONC	CONCRETE	(P)	PROPOSED	TC	TOP OF CURB
COM	CITY OF MANTECA	P	PAVEMENT	TEMP	TEMPORARY
CR	CURB RETURN	P.A.E.	PRIVATE ACCESS EASEMENT	THRU	THROUGH
CRN	ROAD CROWN	P.V.	POST INDICATOR VALVE	TPE	TRAFFIC INDEX
DCDA	DOUBLE CHECK DETECTOR	P.M.	PARCEL MAP (SAN JOAQUIN COUNTY RECORDS)	TR	TREE PLANTING EASEMENT
DIA	DIAMETER	PP	POWER POLE	TW	TRANSITION
DIP	DUCTILE IRON PIPE	PRC	POINT OF REVERSE CURVATURE	TYP.	TYPICAL
DO	DRIVE OVER	PT	POINT	U.N.O.	UNLESS NOTED OTHERWISE
DW	DRIVEWAY	PUE	PUBLIC UTILITY EASEMENT	V	6" VERTICAL CURB
EC	END OF CURVE	PVC	POLYVINYL CHLORIDE PIPE	VM	4" VERTICAL CURB (MODIFIED)
EG	EXISTING GROUND	R	RADIUS	W	WATER
ELEV	ELEVATION	RBW	RETAINING BOTTOM OF WALL	WS	WATER SERVICE
EP	EDGE OF PAVEMENT	RCP	REINFORCED CONCRETE PIPE	±	PLUS OR MINUS (NOT EXACT)
ESMT	EASEMENT	RET	RETURN		
EVA	EMERGENCY VEHICLE ACCESS	RGRCP	RUBBER GASKET REINFORCED CONCRETE PIPE		
EVC	END OF VERTICAL CURVE	ROW/RW	RIGHT-OF-WAY		
EXIST	EXISTING	RPA	REDUCED PRESSURE BACKFLOW ASSEMBLY		
FDC	FIRE DEPARTMENT CONNECTION	RPBA	REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY		
FG	FINISHED GRADE	RPDA	REDUCED PRESSURE DETECTOR ASSEMBLY		
FH	FIRE HYDRANT				
FL	FLOW LINE				
G	GROUND				
GB	GRADE BREAK				

MCR ENGINEERING
www.mcreng.com
1242 DUPONT COURT
MANTECA, CA 95336
TEL: (209) 239-6229
FAX: (209) 239-8839

REGISTERED PROFESSIONAL ENGINEER
No. C54088
Exp. 12-31-23
CIVIL
STATE OF CALIFORNIA

APPROVED:

PLAN REVISIONS

NO.	DESCRIPTIONS	DATE

SITE PLAN FOR:
WATERFALL APARTMENTS
 COVER SHEET
 MANTECA, CA
 380 N. AIRPORT WAY

811
Know what's below.
Call before you dig.
811 / 800-227-2600

JOB NO.: 23-059
DATE: 12-21-2023
SCALE: AS SHOWN
DR. BY: MT, RP, MJ
CK. BY: SLS, DE

SHEET NO.
SP1
OF 4 SHEETS



APPROVED:

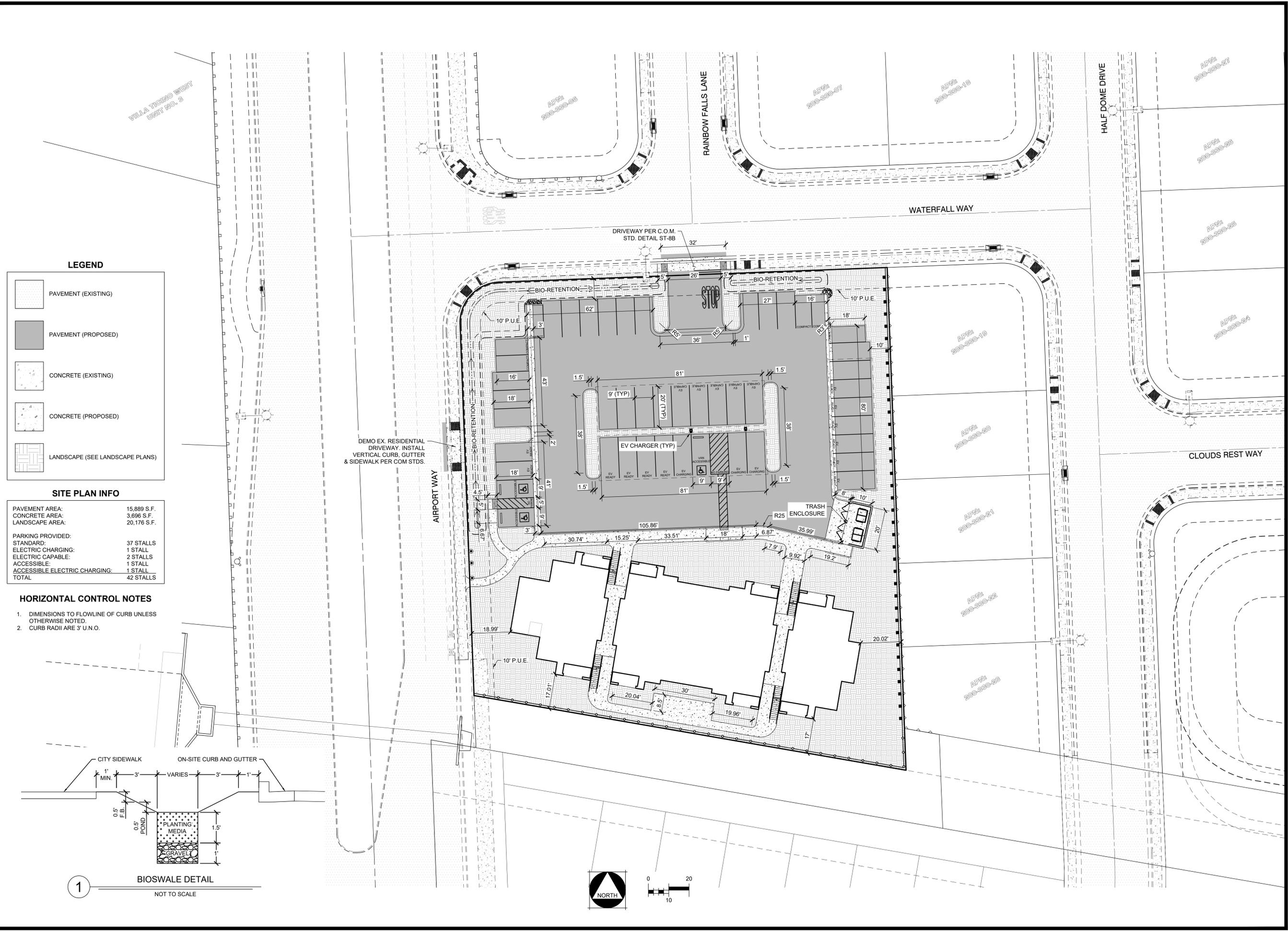
PLAN REVISIONS		
NO.	DESCRIPTIONS	DATE

SITE PLAN FOR:
WATERFALL APARTMENTS
 SITE PLAN
 MANTENCA, CA
 380 N. AIRPORT WAY

811
Know what's below.
Call before you dig.
811 / 800-227-2600

JOB NO.: 23-059
DATE: 12-21-2023
SCALE: AS SHOWN
DR. BY: MT, RP, MJ
CK. BY: SLS, DE

SHEET NO.
SP2
OF 4 SHEETS



LEGEND

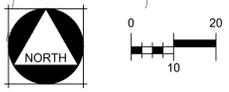
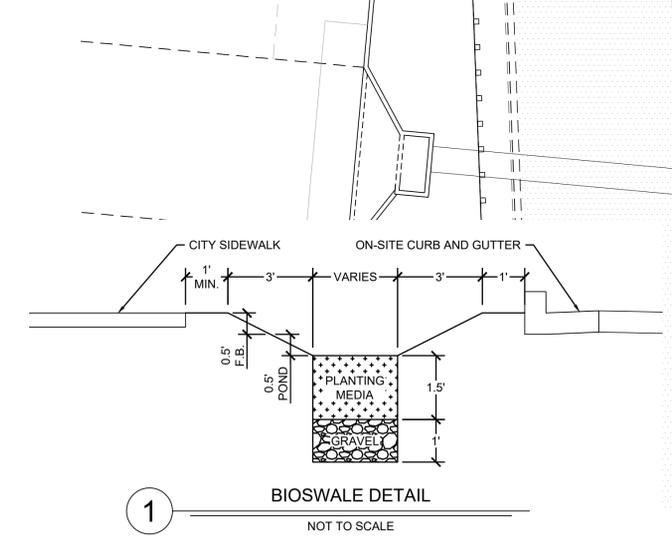
- PAVEMENT (EXISTING)
- PAVEMENT (PROPOSED)
- CONCRETE (EXISTING)
- CONCRETE (PROPOSED)
- LANDSCAPE (SEE LANDSCAPE PLANS)

SITE PLAN INFO

PAVEMENT AREA:	15,889 S.F.
CONCRETE AREA:	3,696 S.F.
LANDSCAPE AREA:	20,176 S.F.

PARKING PROVIDED:	37 STALLS
STANDARD:	1 STALL
ELECTRIC CHARGING:	2 STALLS
ELECTRIC CAPABLE:	1 STALL
ACCESSIBLE:	1 STALL
ACCESSIBLE ELECTRIC CHARGING:	1 STALL
TOTAL	42 STALLS

- HORIZONTAL CONTROL NOTES**
- DIMENSIONS TO FLOWLINE OF CURB UNLESS OTHERWISE NOTED.
 - CURB RADII ARE 3' U.N.O.





APPROVED:

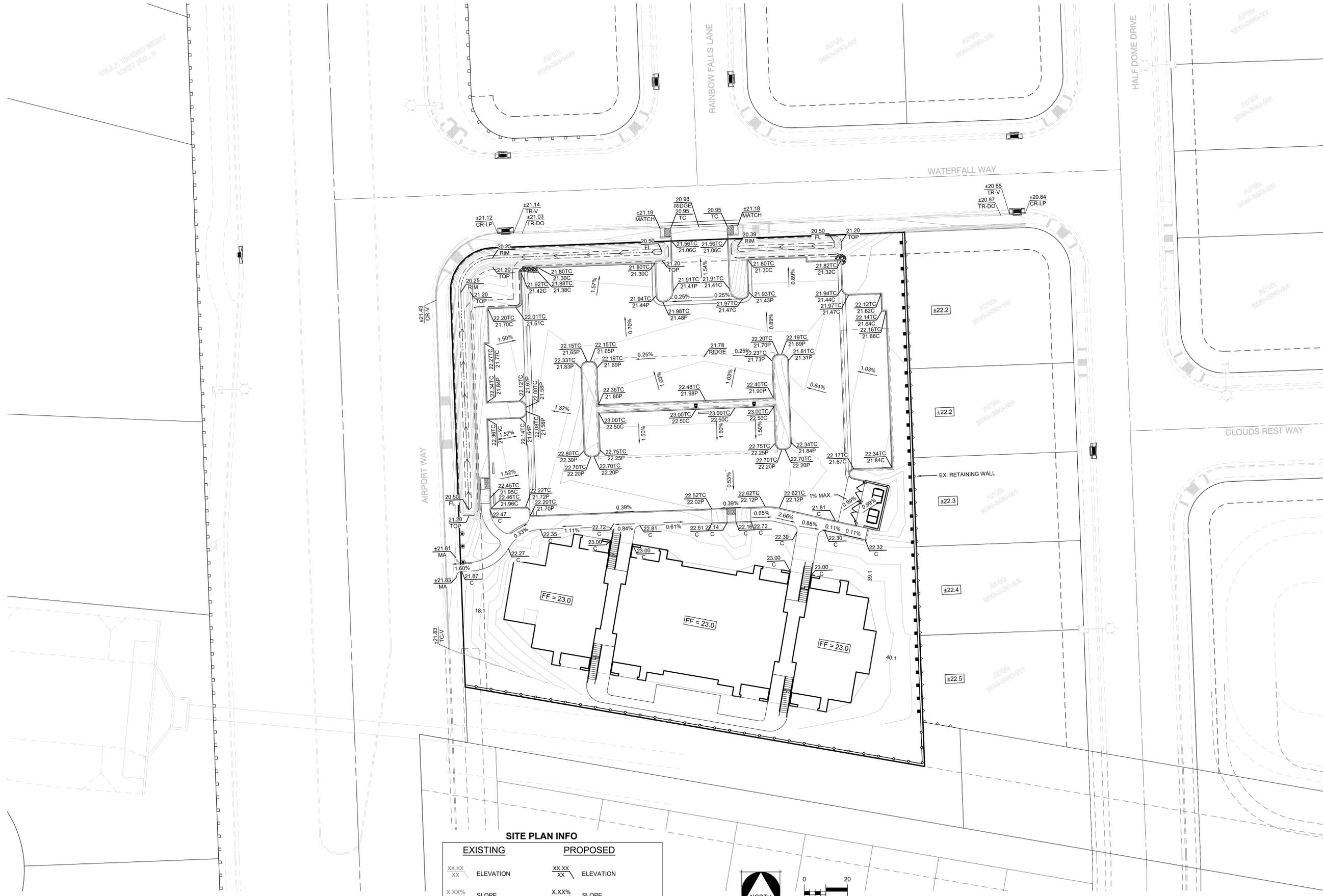
PLAN REVISIONS		
NO.	DESCRIPTIONS	DATE

SITE PLAN FOR:
WATERFALL APARTMENTS
PRELIMINARY GRADING & DRAINAGE PLAN
 MANTECA, CA
 380 N. AIRPORT WAY

811
Know what's below.
Call before you dig.
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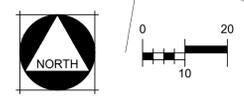
JOB NO.: 23-059
DATE: 12-21-2023
SCALE: AS SHOWN
DR. BY: MT, RP, MJ
CK. BY: SLS, DE

SHEET NO.
SP3
OF 4 SHEETS



SITE PLAN INFO

EXISTING		PROPOSED	
XX.XX XX	ELEVATION	XX.XX XX	ELEVATION
X.XX%	SLOPE	X.XX%	SLOPE
---	EXISTING GROUND	####	DIRECTION OF FLOWLINE





APPROVED:

PLAN REVISIONS		
NO.	DESCRIPTIONS	DATE

MANTECA, CA

SITE PLAN FOR:
WATERFALL APARTMENTS
PRELIMINARY UTILITY PLAN

380 N. AIRPORT WAY



Know what's below.
Call before you dig.
811 / 800-227-2600

JOB NO.: 23-059
DATE: 12-21-2023
SCALE: AS SHOWN
DR. BY: MT, RP, MJ
CK. BY: SLS, DE

SHEET NO.

SP4

OF 4 SHEETS



MCR ENGINEERING
1242 Dupont Court
Manteca, CA 95336
(209) 239-6229
FAX (209) 239-8839

Project Name: Yosemite Greens Villas
Job: 23-059
By: MEJ
Date: 10/26/2023

Water Quality - Design Calculations

Design Volume Per MS4 Requirements
Volume Requirements: CASQA Rain Gauge Station **Manteca** Per CASQA BMP Appendix D
P₆ (Mean 6 hr Rainfall Depth) = **0.37** inches
Required Drawdown Time = **45** Hours a (Regression Constant) = **1.96**

Impervious Areas		Pervious Areas	
A (ac)	A (sf)	A (ac)	A (sf)
Pavement	0.36	Landscape	0.48
Concrete	0.08	Access Road	0.00
Building Roof	0.18	Compacted Earth	0.00
Totals:	0.62	Totals:	0.48

Total Area = **1.10** ac % Impervious = **56.3%** C_{BMP} = **0.38**
P₆ (Unit Stormwater Volume) = **0.28** in
Required Volume of Storage = **0.03** ac-ft P₆ = (a x C x P₆) Credits = **0**
Required Design Volume of Storage = **0.03** ac-ft See Post-Construction Calc

Bioretention Design Calculations: *Designed SAC Multi-Agency MS4 Requirements*
Required Design Volume of Storage = **0.03** ac-ft **1,112** cf
f (Infiltration Rate) = **0.50** in/hr
d_p (Depth Ponding) = **0.50** ft (0.3-1.5)ft
d_{pm} (Depth Planting Media) = **1.50** ft (1.3-3.0)ft n_{pm} (Porosity Planting Media) = **0.30**
d_g (Depth Gravel) = **1.00** ft (1.0)ft n_{pg} (Porosity Gravel) = **0.40**
Total Design Depth = **1.35** ft Max Drawdown Depth = **2.00** ft
Drawdown Check = **Drawdown Requirements Met**
Required Bioretention Surface Area = **824** sf Design Bioretention Surface Area = **999** sf

