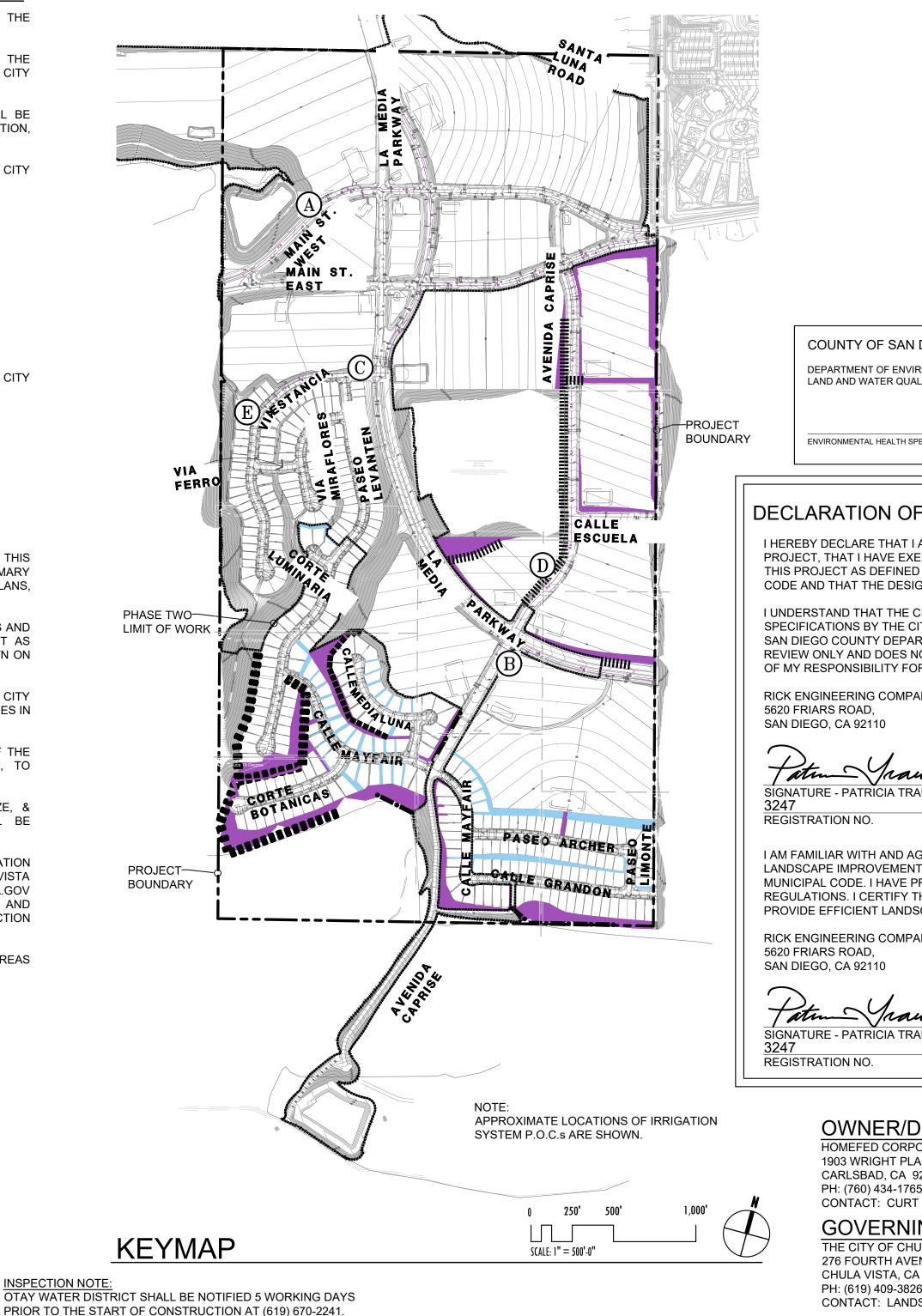
CITY OF CHULA VISTA TRACT NO. 09-04 PH. 2 PHASE 2 SLOPE AND EROSION CONTROL LANDSCAPE AND IRRIGATION PLANS FOR OTAY RANCH VILLAGE 8 WEST CITY OF CHULA VISTA, CALIFORNIA

GENERAL NOTES

- EFFECTIVE PLANTING SHALL BE INSTALLED, FULLY GERMINATED, AND ESTABLISHED AT THE REQUIRED AREAS PRIOR TO FINAL APPROVAL THE PLANTING MIX SHALL BE APPROVED BY THE CITY LANDSCAPE DEPARTMENT PRIOR TO INSTALLATION. IRRIGATION SYSTEMS ARE REQUIRED ON ALL SLOPES THREE FEET OF HIGHER.
- 2. LANDSCAPE IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF CHULA VISTA LANDSCAPE MANUAL, LANDSCAPE CHECKLIST AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREEN BOOK"-CURRENT EDITION). WHENEVER SPECIAL REQUIREMENTS CONFLICT ON ANY MATTER, THE DIRECTOR OF DEVELOPMENT SERVICES OR DESIGNEE SHALL DETERMINE WHICH SPECIAL CONDITION OR CODE SHALL GOVERN. NOTE: "LANDSCAPE " REFERS TO ALL IMPROVEMENTS WITHIN THIS SET OF DOCUMENTS THAT HAVE BEEN DESIGNED BY THIS OFFICE
- THE CONTRACTOR SHALL NOT BEGIN ANY WORK ON THIS PROJECT UNTIL A PRE-CONSTRUCTION CONFERENCE IS HELD WITH THE LANDSCAPE ARCHITECT, THE ENGINEER OF WORK, THE SOILS ENGINEER, ENGINEER GEOLOGIST, A QUALIFIED PALEONTOLOGIST MONITOR, A BOTANIST, THE DEVELOPER, THE CITY LANDSCAPE INSPECTOR, AND THE OTAY WATER DISTRICT.
- 4. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITY PIPES AND STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING UTILITIES OR STRUCTURES LOCATED AT THE WORK SITE. THE CONTRACTOR IS REQUIRED TO CONTACT DIG ALERT AT 1-800-227-2600 48 HOURS IN ADVANCE OF ANY EXCAVATION FOR THE MARK-OUT OF UTILITIES LOCATION. AND NOTIFICATION OF COMMENCEMENT OF WORK:
 - WATER OTAY WATER DISTRICT WATER - CITY OF CHULA VISTA WATER - SAN DIEGO COUNTY WATER AUTHORITY SEWERS - CITY OF CHULA VISTA GAS & ELECTRIC - S.D.G.& E TELEPHONE - AT&T, TIME WARNER, COX STREET LIGHT OR SIGNAL CONDUCT - CITY OF CHULA VISTA CABLE T.V. - AT&T, TIME WARNER, COX
- 5. THE CONTRACTOR SHALL NOTIFY OTAY LAND COMPANY (760.602.3774), THE CITY OF CHULA VISTA (619.397.6018) & CITY LANDSCAPE INSPECTOR (619.409.5432) NO LESS THAN 48 HOURS PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.
- 6. ALL WORK PERFORMED WITHOUT BENEFIT OF OBSERVATION BY OTAY LAND COMPANY REPRESENTATIVE WILL BE SUBJECT TO REJECTION AND REMOVAL. PHONE: (619) 918-8200 LEON HAYDEN
- SEPARATION BETWEEN RECYCLED & POTABLE SYSTEMS IS ACHIEVED WITH SOLID WALLS, FENCES, MOW CURBS, DISTANCE, & WALKS.
- THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) 670-2441. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
- 9. CIVIL ENGINEER IS HALE (858-715-1420 X 127).
- 10. CATCH BASINS SHALL BE PROTECTED FROM RECYCLED WATER, OVER-SPRAY, MIST. OR RUNOFF.
- 11. CONTRACTOR SHALL VERIFY WITH OWNER'S REPRESENTATIVE THAT PLANS ARE CURRENT AND APPROVED.
- 12. THESE PLANS ARE BASED ON IMPROVEMENTS BY HALE ENGINEERING CO. DATED 10/14 (DWG.#14011).
- 13. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEERING SOILS REPORT RECOMMENDATIONS AS THEY RELATE TO THIS WORK.
- 14. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY AND/OR REQUIRED PERMITS AND PAY ALL RELATED FEES AND/OR TAXES REQUIRED TO INSTALL THE WORK ON THESE PLANS.

- 15. THE CONTRACTOR SHALL BE APPROPRIATELY LICENSED AS REQUIRED BY THE STATE OF CALIFORNIA
- 16. DETERMINATION OF "EQUAL" SUBSTITUTIONS SHALL BE MADE ONLY BY THE LANDSCAPE ARCHITECT OF RECORD IN CONJUNCTION WITH A CITY REPRESENTATIVE.
- 17. LANDSCAPE ARCHITECT OF RECORD AND CITY REPRESENTATIVES SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF THE START OF CONSTRUCTION, ANY SITE OBSERVATIONS, OR MEETINGS.
- 18. SITE OBSERVATIONS BY LANDSCAPE ARCHITECT OF RECORD AND CITY REPRESENTATIVE SHALL INCLUDE, BUT NOT LIMITED TO: MAINLINES
 - A. TRENCHES COMPLETE
 - **B. HYDROSTATIC PRESSURE TEST** C. BACKFILL AND COMPACTION
 - CONTROL LINES
 - A. TRENCHES COMPLETE
 - B. WIRES, CONNECTIONS AND PULL BOXES IN C. BACKFILL AND COMPACTION TEST
 - LATERAL LINES A. TRENCHES AND SLEEVES
 - B. PIPE, FITTINGS, SWING JOINTS SPOT CHECKS C. BACKFILL AND COMPACTION
- 19. SITE OBSERVATIONS BY LANDSCAPE ARCHITECT OF RECORD AND CITY REPRESENTATIVE SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - A. PRE-CONSTRUCTION MEETING B. LANDSCAPE GRADING AND SOIL AMENDING
 - C. LANDSCAPE CONSTRUCTION
 - D. SPOTTING OF TREES AND SPECIMEN PLANTS E. IRRIGATION MAINLINE PRESSURE, COVERAGE, AND WIRE TESTS
 - F. PLANTING AND/OR HYDROSEEDING
 - G. PRE-MAINTENANCE (SUBSTANTIAL CONFORMANCE WALK THROUGH) H. POST-MAINTENANCE (FINAL WALK THROUGH)
 - NOTE: "LANDSCAPE " REFERS TO ALL IMPROVEMENTS WITHIN THIS SET OF DOCUMENTS THAT HAVE BEEN DESIGNED BY THIS OFFICE.
- 20. SITE OBSERVATIONS BY THE LANDSCAPE ARCHITECT DURING ANY PHASES OF THIS PROJECT DOES NOT RELIEVE THE CONTRACTOR OF HIS/HER PRIMARY RESPONSIBILITY TO PERFORM ALL WORK IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND GOVERNING CODES.
- 21. CONTRACTOR IS RESPONSIBLE TO CAP AND STUB EXISTING IRRIGATION LINES AND PROVIDE ALL NECESSARY TRENCHING, SLEEVING, WIRING AND EQUIPMENT AS REQUIRED TO PROVIDE A FULLY FUNCTIONING IRRIGATION SYSTEM AS SHOWN ON THESE PLANS.
- 22. THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF RECORD AND CITY REPRESENTATIVE IMMEDIATELY OF ANY ERRORS, OMISSIONS OR DISCREPANCIES IN EXISTING CONDITIONS OR WITH THE PLANS PRIOR TO BEGINNING THE WORK.
- 23. UNIT PRICES FOR ALL IMPROVEMENTS SHALL BE ESTABLISHED AS PART OF THE CONTRACT WITH THE PROJECT OWNER, PRIOR TO BEGINNING WORK, TO ACCOMMODATE ADDITIONS AND/OR DELETIONS OF MATERIAL AND/OR LABOR.
- 24. CONTRACTOR TO VERIFY SERVICE LINE. STATIC PRESSURE. METER SIZE. & LOCATION PRIOR TO BEGINNING WORK. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO OWNER'S REP.
- 25. PRIORT TO THE COMMENCEMENT OF THE LANDSCAPE AND IRRIGATION IMPROVEMENTS, CONTRACTOR SHALL CONTRACT THE CITY OF CHULA VISTA SENIOR LANDSCAPE INSPECTOR, DAVE DEFACCI (DDEFACCI@CHULAVISTACA.GOV OR 619-409-5432) FOR A LANDSCAPE INSPECTION PACKET, LANDSCAPE AND IRRIGATION BOND EXONERATION WORKSHEET, AND TO SCHEDULE AN INSPECTION OF THE IMPROVEMENTS.
- 26. THE CONTRACTOR SHALL PROVIDE FULL MAINTENANCE OF ALL LANDSCAPE AREAS FOR A MINIMUM OF 90 DAYS.

OWD AS BUILT	OWD	REVISION			
	CONSTRUCTION CHA MAINLINE ON NON-IR ADDED VALVES TO S	RIGATED SLOPES and		BUE	CITY OF
Signature and Date Field Services Mngr. Brandon DiPie	etro				CHULA VISTA
ANNUAL ANTICIPATED WATER DEMAN 449,000 SQ. FT. PLANTING AREA 10.30 ACRE MAXIMUM APPLIED WATER ALLOWANCE 6,388,821 GAL./YR. 19.6 ACRE FEET					EAST PALOMAR ST
ESTIMATED TOTAL WATER USE PER YEAR 5,678,953 GAL./YR. 17.42 ACRE FEET				ΓΥ Μ	
 NOTE: 1. ALL GRADED AREAS EQUAL TO OR GREATER AND A CONTRACT AN	ATER THAN 2% SHALL ROL. IALL HAVE AT LEAST				BIRCH RD STA LUNA BO N
AS BUILT DATE SIGNATURE R.L.A. No. Printed Name My Registration Expires Discipline	ALL EXISTING UTILITIES SHOWN (RECORD DATA AT THEIR APPRO) FACILITIES MAY EXIST WHICH HA OF RECORD. CONTRACTOR SH	ITY NOTE ON THESE PLANS ARE PLOTTED FROM XIMATE LOCATIONS. UNDERGROUND AVE NOT BEEN REPORTED OR ARE NOT ALL VERIFY THE LOCATION OF ALL PE O THE START OF CONSTRUCTION.	г		SITE
CONSTRUCTION RECORD	REFERENCES By	REVISIONS	Date	App'd	DATUMS
CONTRACTOR: INSPECTOR: DATE COMPLETED:	HALE ENGINEERING GRADING PLANS: 14011				CITY OF CHULA VISTA BENCH MARK NO. 95 ELEVATION 446.361 NAVD 88 DESCRIPTION: 3" BRASS DISK (LS4324) WEI CL INT. RUTGERS & OTAY LAKES. PT. NO. 5 ROS 14841



RESPONSIBILITY DISCLAIMER:

ALL SCREENED FACILITIES, EXISTING OR PROPOSED, WEF D1044-090379), 14014 (OWD # D1044-090380), 18024 (OWD # PROJECT (OWD # D1044-060273) ACTUAL SIZE AND LOCAT UTILITIES TO VERIFY TIE IN LOCATIONS, PIPE SIZE AND TY FACILITIES EXIST OR WILL EXIST AS SHOWN. THE OTAY WA ACTUAL SIZE OR LOCATION. ANY DISCREPANCIES SHALL I

MAINTENANCE RESPONSIBLITY: ALL REQUIRED LAND BE MAINTAINED BY PROPERTY OWNER, EXCEPT EXTERIO HOA. THE LANDSCAPE AREAS SHALL BE MAINTAINED FRE MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWI MATERIAL SHALL BE SATISFACTORILY TREATED OR REPLACE

TITLE SHEET FOR:

OMISSION STATEMENT: THERE ARE NO DRINKING FOUNTAINS, DECORATIVE FOUNTAINS, COMFORT STATIONS, OUTDOOR EATING AREAS, SWIMMING POOLS, PLAYGROUND EQUIPMENT. OR WELLS ON THE SITE. RECYCLED WATER NOTES THERE ARE NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING

ALL WORK PERFORMED WITHOUT THE BENEFIT OF INSPECTION

SHALL BE SUBJECT TO REJECTION AND REMOVAL.

POOLS, OUTDOOR EATING FACILITIES OR WELLS ASSOCIATED WITH THIS PROJECT. BARRIERS SHALL BE INSTALLED BETWEEN AREAS IRRIGATED WITH POTABLE AND RECYCLED WATER AREAS. THESE BARRIERS MAY CONSIST OF SIDEWALKS, MOW CURBS, WALLS, FENCES, ETC. CONTRACTOR TO REFER TO VILLAGE 8 WEST TM AND PHASE 1 GRADING BY HALE ENGINEERING FOR CONTOURS.

TUMS	SCALE	Designed By:	Drawn By:	Che	cked By:	Submitted:		
ENCH MARK NO. 95072	HORIZONTAL	LE	LE / RR		PT		APPROVED BY:	DATE:
′D 88 S DISK (LS4324) WELL MON @	1" = 500'	Plans Prepared Un	der Supervision Of:	Date:	2/10/2022	Ву:		
Y LAKES, PT, NO, 5072 PER	VERTICAL	•			· ·			
	N/A	PATRICI	A TRAUTH	_ R.L.A No	3247	Office:	DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY A	ILLEN UK DESIGNEE

	METE		ΔΤΙΩΝΙ ΤΔ	BLE (PHAS	F 2)					C
		POC ST		IRRIGATION AREA (SF)	DEMAND (GPM)	ANNUAL ((ACRE-FT		LATERAL SIZE (IN)	METER SIZE (IN)	
	'B'	170+75 LA ME	DIA PKWY.	146,850	70	3.3	,	2"	1 1/2"	
	'C'	26+64 VIA ES		56,700	100	1.3		2"	2"	Ĺ
	'D' 'E'	29+92 AVE. C		88,700 156,750	70 70	2.0 3.5		2" 2"	1 1/2" 1 1/2"	
			TOTAL	449,000	70	10.1		2	1 1/2	_
				BLE (PHAS			т)			C
				IRRIGATION			/	LATERAL	METER	C
	POC ID	POC ST		AREA (SF)	(GPM)	(ACRE-FT	,	SIZE (IN)	. ,	č
	'A' 'B'	17+76 MAIN S 170+75 LA ME		194,000 305,050	70 70	4.4		2" 2"	1 1/2" 1 1/2"	
	'C'	26+64 VIA ES		255,200	100	5.8		2"	2"	Ĺ
	'D'	29+92 AVE. C		88,700	70	2.0		2"	1 1/2"	
	'E'	19+49 VIA ES		227,950 1,070,900	70	5.1 24.2		2"	1 1/2"	
			TOTAL	.,				J		L
	GO									
	MENTAL HEA DIVISION	LTH		-						
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ECIA	LIST F	DATE:								
	L				PROJECT	No: D1	044-060)274		
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AM	THE LAND	SCAPE ARCHITEC		OR THIS						
		ONSIBLE CHARG 703 OF THE BUSI								
GN I	S CONSIST	ENT WITH CURR	ENT STANDAR	DS.	Brandon L	DiPietro: FIEL	D SERVIC	ES MANAGER		DATE:
		PROJECT DRAW VISTA, OTAY WA		AND THE						
RTN	IENT OF EN	IVIRONMENTAL H	EALTH IS CON	IFINED TO A	Juan Tam	ayo: Recyclec	l Water Pro	gram Superviso	r	DATE:
	ROJECT DE									
NY					REVIEWE	DBY				DATE:
					NOTE: SIGN	ATURE EXPIR	RES (1) YE	AR AFTER D	ATE.	
				L						
đ	r L	1/10/22	2		СПС		יםחו			
UT	H	DATE 11/30/2	23					<u> </u>		
		EXP. DATE			<u>PLA</u> TITLE S	_				<u>SHEET</u> T-1
-		PLY WITH THE RE		-		FION P.O.C	. LEGEN	ID		(T-2)-(T-3)
REF	PARED THIS	S PLAN IN COMPL	IANCE WITH T	HOSE		FION PLAN		NOTES		(LI-1)-(LI-9)
	PE WATER	I IMPLEMENTS TH USE.				TION LEGE		NOTES		(LI-10)-(LI-11) (LI-12)-(LI-17)
NY						TION SCHE				LI-18
						FION CALC				LI-19 (LI-20)-(LI-23)
					*PLANTI	ING PLAN				(LP-1)-(LP-9)
t	s	1/10/22	2			ING LEGEN ING DETAII		NOTES		LP-10 LP-11
UT	Н	DATE 11/30/2	23		*PLANTI	ING SPECI	FICATIC			(LP-12)-(LP-15)
		EXP. DATE				ING WATEI PART OF O		-		LP-16
	VELOF	DER		SCAPE AR	CHITEC	т				
) R/			RICK ENGI	NEERING COMPA		<u> </u>	HALE EN	NGINEERING		
ACE 200	, #220 8		5620 FRIAF SAN DIEGO	RS ROAD), CA 92110				NVOY COUR GO, CA 921		
5 ∵SM	ШТН		PH: (619) 29 CONTACT:	91-0707 PATRICIA TRAUT	Ъ		·) 715-1420 CT: JILL GRA	VELY	
N	g mun	IICIPALITY	GOVE			GENCY	GOV	ERNIN	G HEAL	TH AGENCY
JLA	VISTA		OTAY WAT	ER DISTRICT			COUNTY	OF SAN DIE		
NUI 92	⊑ 010		SPRING VA	LLEY, CA 91977	5 BUULEVARL	J	5500 OV	ERLAND AVE	ENUE, SUITE 1	
o SCA	APE DIVISIO	DN	PH: (619) 67 CONTACT:	70-2241 PUBLIC SERVICE	S		PH: (858	GO, CA 9212) 505-6700		#0103
									ED WATER DI\	/ISION
				.'S 14011, 18016, 1 AND 19036 (OWD #		2). FOR THIS	APN 644	-070-12, 14		SD LANDSCAPE ARC
ON	OF FACILIT	TIES SHÀLL BE VE	ERIFIED. COŃT	RACTOR SHALL F	OTHOLE ALL E	ÉXISTING	APN 644	-070-13	RESERVOIR,	
ATE	R DISTRIC	T AND RICK ENGI	NEERING SHA	LL NOT BE HELD I	RESPONSIBLE		NOT A F			Signature 11-30-23 Renewal Date
sc/	APE AREAS		RTY LINE SHAL	L			FRIARS RO			Renewal Date <u>1-10-22</u> Date 0
		H ARE MAINTAIN AND LITTER, ANI		R R	RIC	SAN 619-2	DIEGO, CA 291-0707			OF CALIFORN
ING		ON. DISEASED OF	R DEAD PLAN	T ENC	SINEERING CO	MPANY) 61 9-29 1-4			rickengineering.com
	-			San D	ogen	River	side - Orande	- Sacramento - S	ban Luis Obisbo - I	Phoenix - Tucson - Denver

CITY OF CHULA VISTA GENERAL SERVICES DEPARTMENT

CHULA VISTA TRACT NO. 09-04 PH.2 | T-1

OTAY RANCH. VILLAGE 8 WEST

-15)

DRAWING NO.

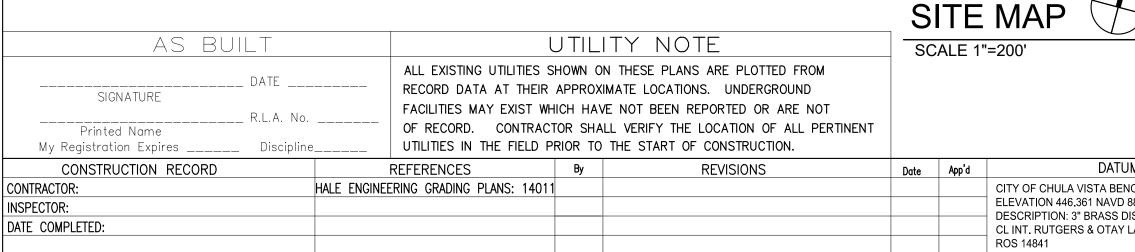
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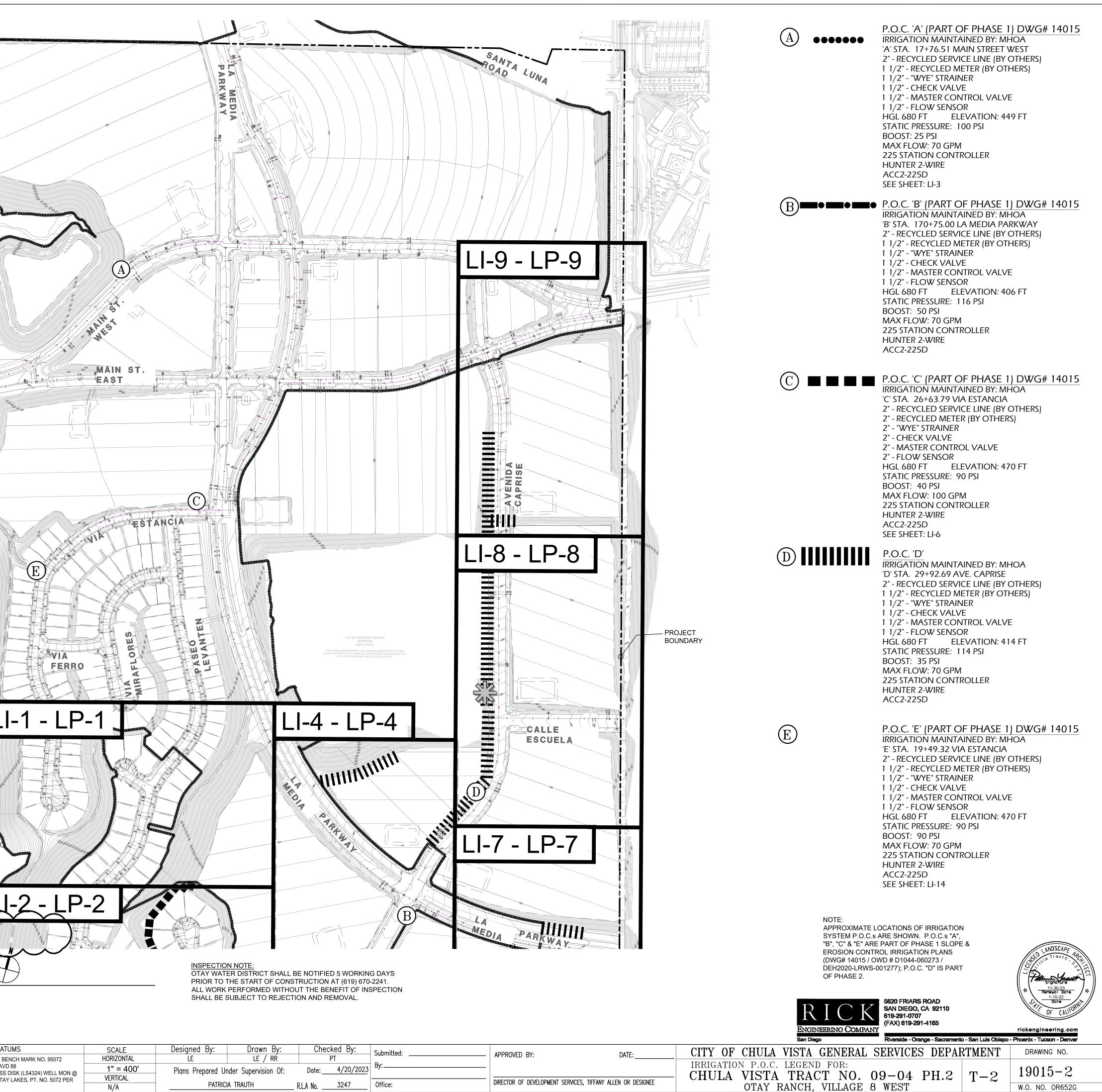
GRADING PERMIT No. GR13-005 PLR-20-018 OWD SHEET 1 OF 27

W.O. NO. OR652G

WATER UTILITY LEGEND

<u>SYMBOL</u> w	DESCRIPTION POTABLE WATER LINE (PER CIVIL)
Ŵ	POTABLE WATER METER (PER CIVIL)
	RECYCLED WATER LINE (PER CIVIL)
(RW)	RECYCLED WATER METER (PER CIVIL)
	FIRE HYDRANT (PER CIVIL)
S	SEWER LINE (PER CIVIL)
	RECYCLE WATER SIGN



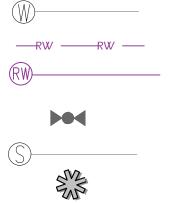


TUMS	SCALE	Designed By:	Drawn By:	Cheo	ked By:	Submitted:	
ENCH MARK NO. 95072	HORIZONTAL	LE	LE / RR		PT		APPROVED BY:
	1" = 400'	Plans Prepared Unc	ler Supervision Of:	Date:	4/20/2023	Ву:	
DISK (LS4324) WELL MON @ Y LAKES, PT, NO, 5072 PER	VERTICAL						
	N/A	PATRICIA	TRAUTH	_ R.L.A No	3247	Office:	DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY
							1

DWD # D1044-060274

AS BUILT DATE SIGNATURE R.L.A. No. Printed Name My Registration Expires Discipling	R F 0	UTILITY NOTE ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE PLOTTED FROM RECORD DATA AT THEIR APPROXIMATE LOCATIONS. UNDERGROUND FACILITIES MAY EXIST WHICH HAVE NOT BEEN REPORTED OR ARE NOT OF RECORD. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL PERTINENT UTILITIES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.				INSPECTION NOTE: OTAY WATER DISTRI PRIOR TO THE STAR ALL WORK PERFORM SHALL BE SUBJECT 1	
CONSTRUCTION RECORD	REF	FERENCES	Ву	REVISIONS	Date	App'd	DATU
CONTRACTOR:	HALE ENGINEERIN	IG GRADING PLANS: 14011					CITY OF CHULA VISTA BEN
INSPECTOR:							ELEVATION 446.361 NAVD 8
DATE COMPLETED:							DESCRIPTION: 3" BRASS DI CL INT. RUTGERS & OTAY L ROS 14841

SITE MAP SCALE 1"=200'



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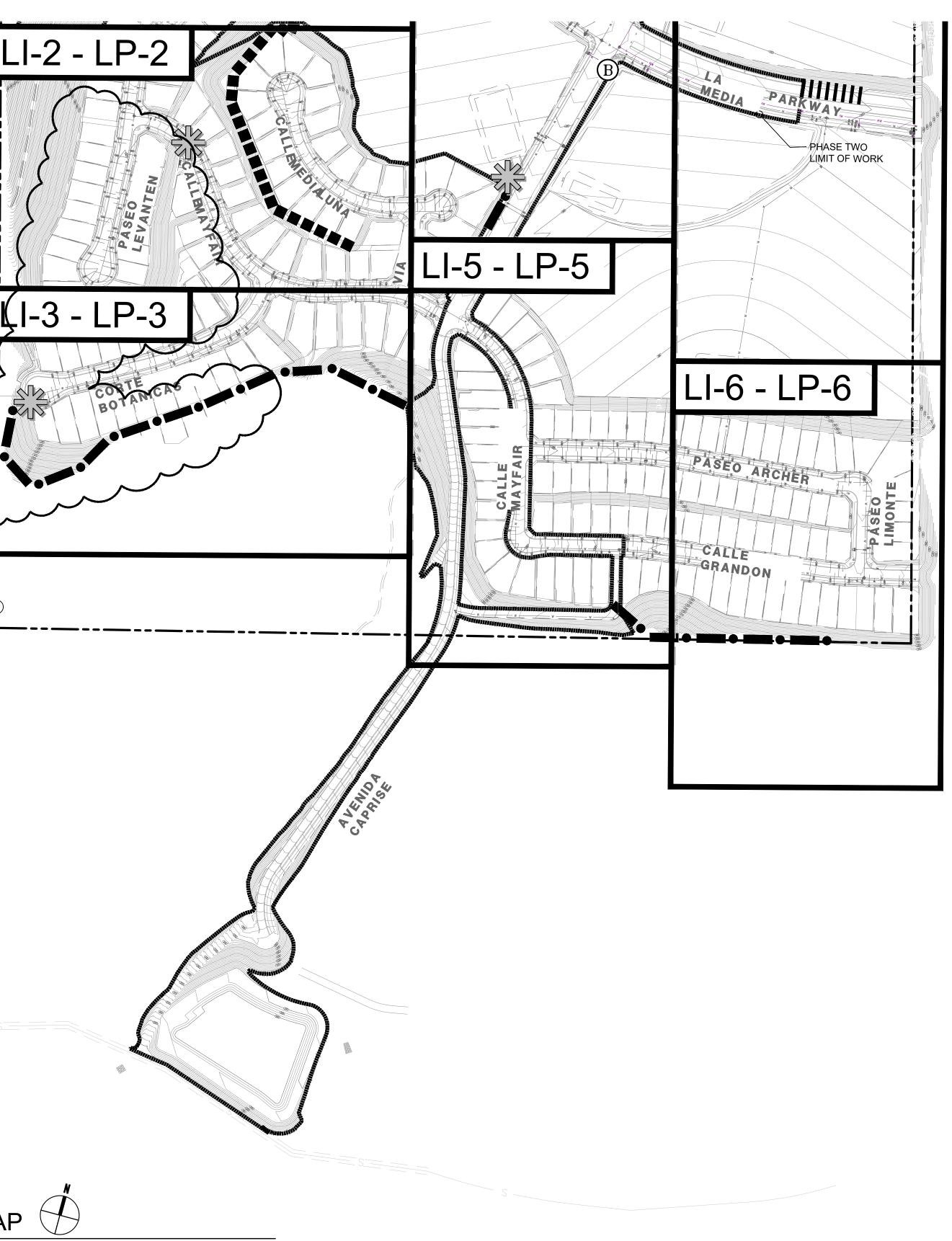
DESCRIPTION POTABLE WATER LINE (PER CIVIL) POTABLE WATER METER (PER CIVIL) RECYCLED WATER LINE (PER CIVIL) RECYCLED WATER METER (PER CIVIL) FIRE HYDRANT (PER CIVIL) SEWER LINE (PER CIVIL)

RECYCLE WATER SIGN



SYMBOL

WATER UTILITY LEGEND



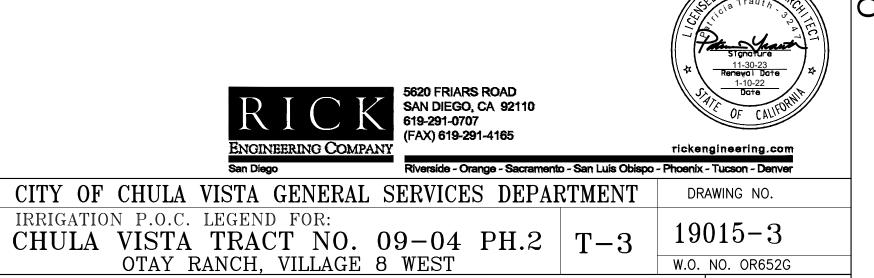
TRICT SHALL BE NOTIFIED 5 WORKING DAYS ART OF CONSTRUCTION AT (619) 670-2241. RMED WITHOUT THE BENEFIT OF INSPECTION T TO REJECTION AND REMOVAL.

TUMS	SCALE	Designed By:	Drawn By:	Che	cked By:	Submitted:	
BENCH MARK NO. 95072	HORIZONTAL	LE	LE / RR		PT		- APPROVED BY:
	1" = 400'	Plans Prepared Ur	Plans Prepared Under Supervision Of:		4/20/2023	Ву:	-
S DISK (LS4324) WELL MON @ AY LAKES, PT, NO, 5072 PER	VERTICAL			Date: <u>4/20/2023</u>			
AT LANES. I I. NO. 30721 LIN	N/A			_ R.L.A No	3247	Office:	DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY A
	/						

B P.O.C. 'B' (PART OF PHASE 1) DWG# 14015 IRRIGATION MAINTAINED BY: MHOA 'B' STA. 170+75.00 LA MEDIA PARKWAY 2" - RECYCLED SERVICE LINE (BY OTHERS) 1 1/2" - RECYCLED METER (BY OTHERS) 1 1/2" - "WYE" STRAINER 1 1/2" - CHECK VALVE 1 1/2" - MASTER CONTROL VALVE 1 1/2" - FLOW SENSOR HGL 680 FT ELEVATION: 406 FT STATIC PRESSURE: 116 PSI BOOST: 50 PSI MAX FLOW: 70 GPM 225 STATION CONTROLLER HUNTER 2-WIRE ACC2-225D

NOTE:

APPROXIMATE LOCATIONS OF IRRIGATION SYSTEM P.O.C.s ARE SHOWN. P.O.C.s "A", "B", "C" & "E" ARE PART OF PHASE 1 SLOPE & EROSION CONTROL IRRIGATION PLANS (DWG# 14015 / OWD # D1044-060273 / DEH2020-LRWS-001277); P.O.C. "D" IS PART OF PHASE 2.



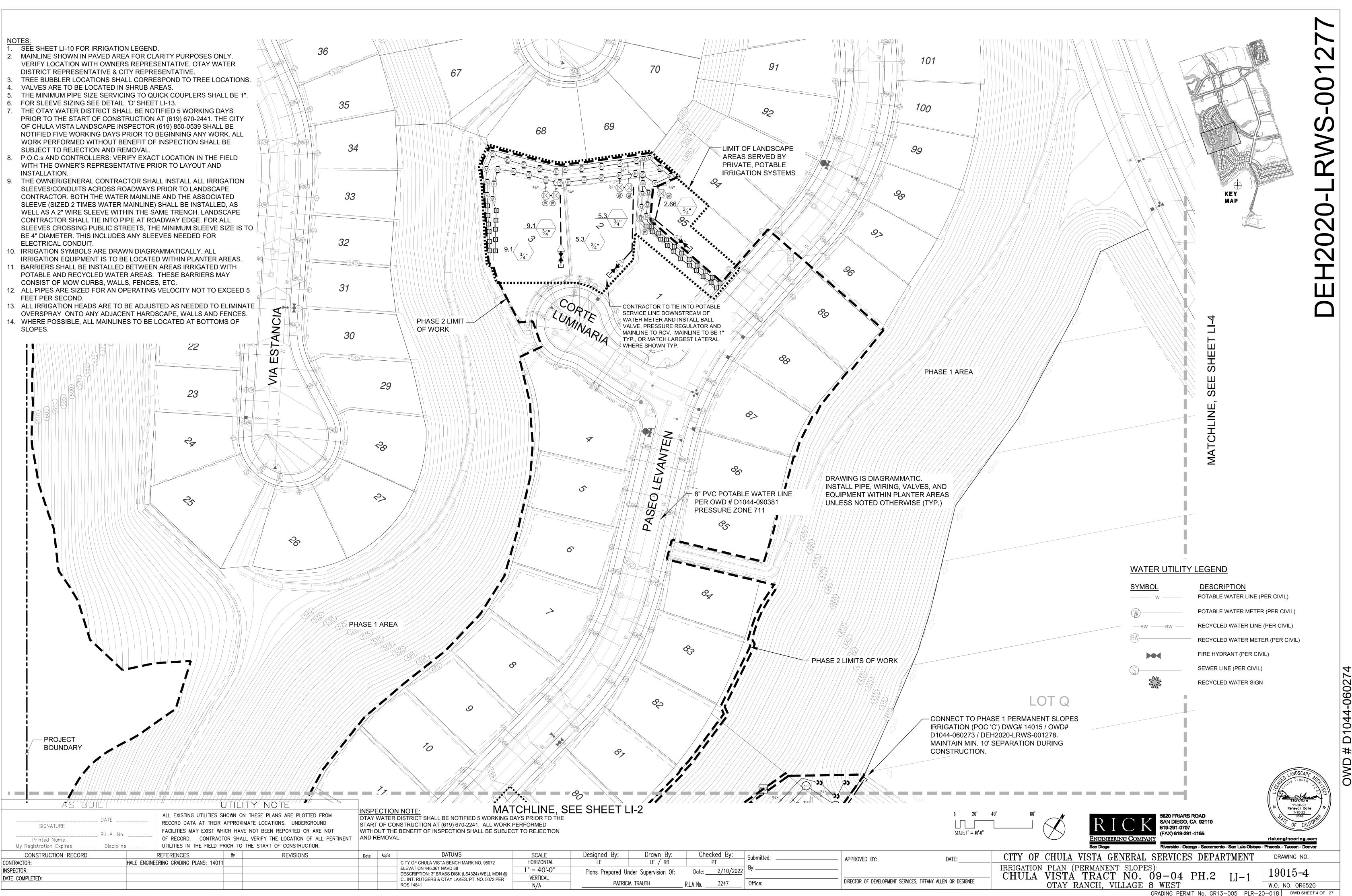
DATE:

W.O. NO. OR652G GRADING PERMIT No. GR13-005 PLR-20-018 OWD SHEET 3 OF 27

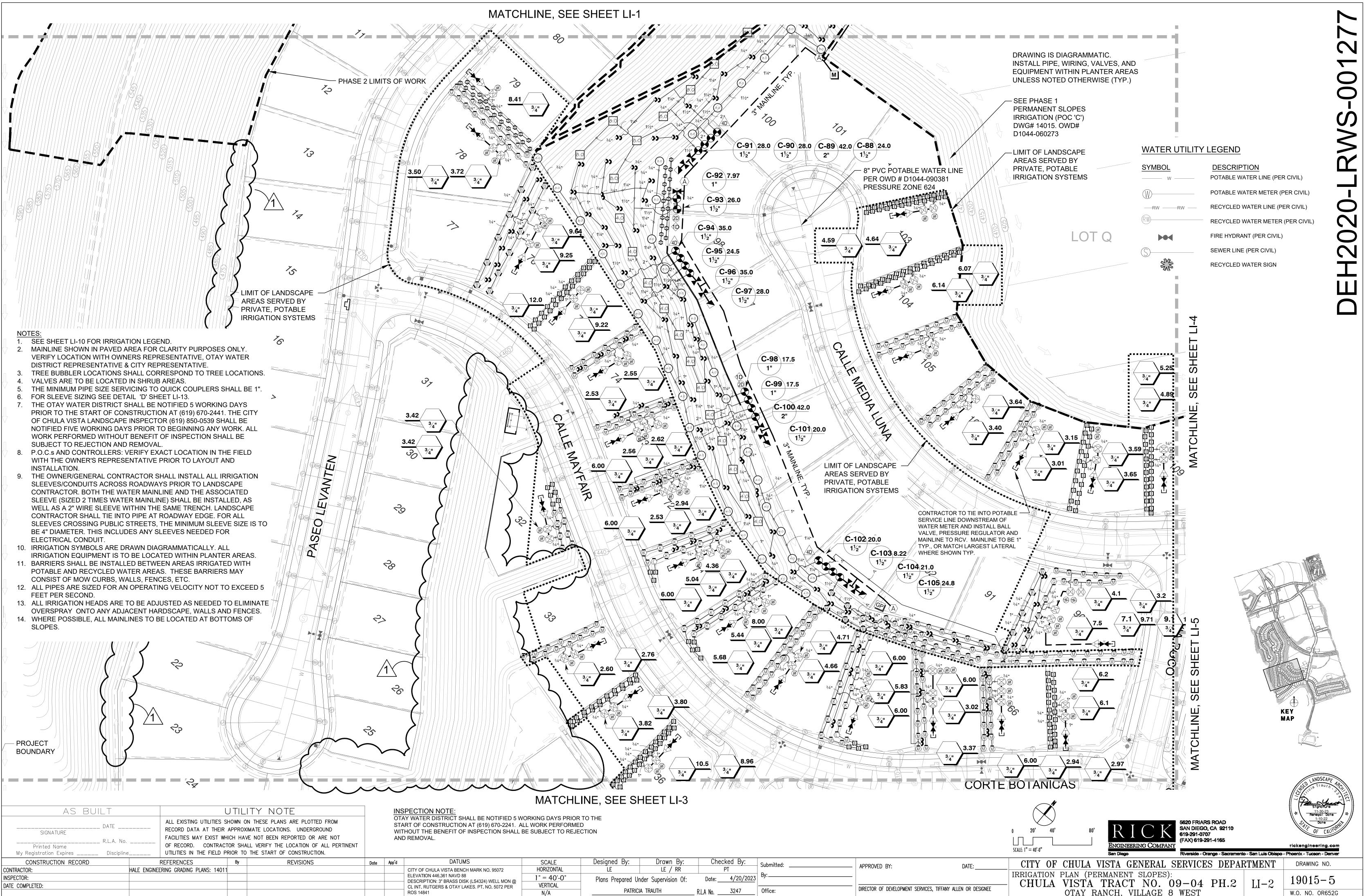
- DISTRICT REPRESENTATIVE & CITY REPRESENTATIVE.

- OF CHULA VISTA LANDSCAPE INSPECTOR (619) 850-0539 SHALL BE NOTIFIED FIVE WORKING DAYS PRIOR TO BEGINNING ANY WORK. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
- WITH THE OWNER'S REPRESENTATIVE PRIOR TO LAYOUT AND
- SLEEVES/CONDUITS ACROSS ROADWAYS PRIOR TO LANDSCAPE CONTRACTOR. BOTH THE WATER MAINLINE AND THE ASSOCIATED SLEEVE (SIZED 2 TIMES WATER MAINLINE) SHALL BE INSTALLED, AS WELL AS A 2" WIRE SLEEVE WITHIN THE SAME TRENCH. LANDSCAPE CONTRACTOR SHALL TIE INTO PIPE AT ROADWAY EDGE. FOR ALL BE 4" DIAMETER. THIS INCLUDES ANY SLEEVES NEEDED FOR

- CONSIST OF MOW CURBS, WALLS, FENCES, ETC.
- FEET PER SECOND.
- OVERSPRAY ONTO ANY ADJACENT HARDSCAPE, WALLS AND FENCES.



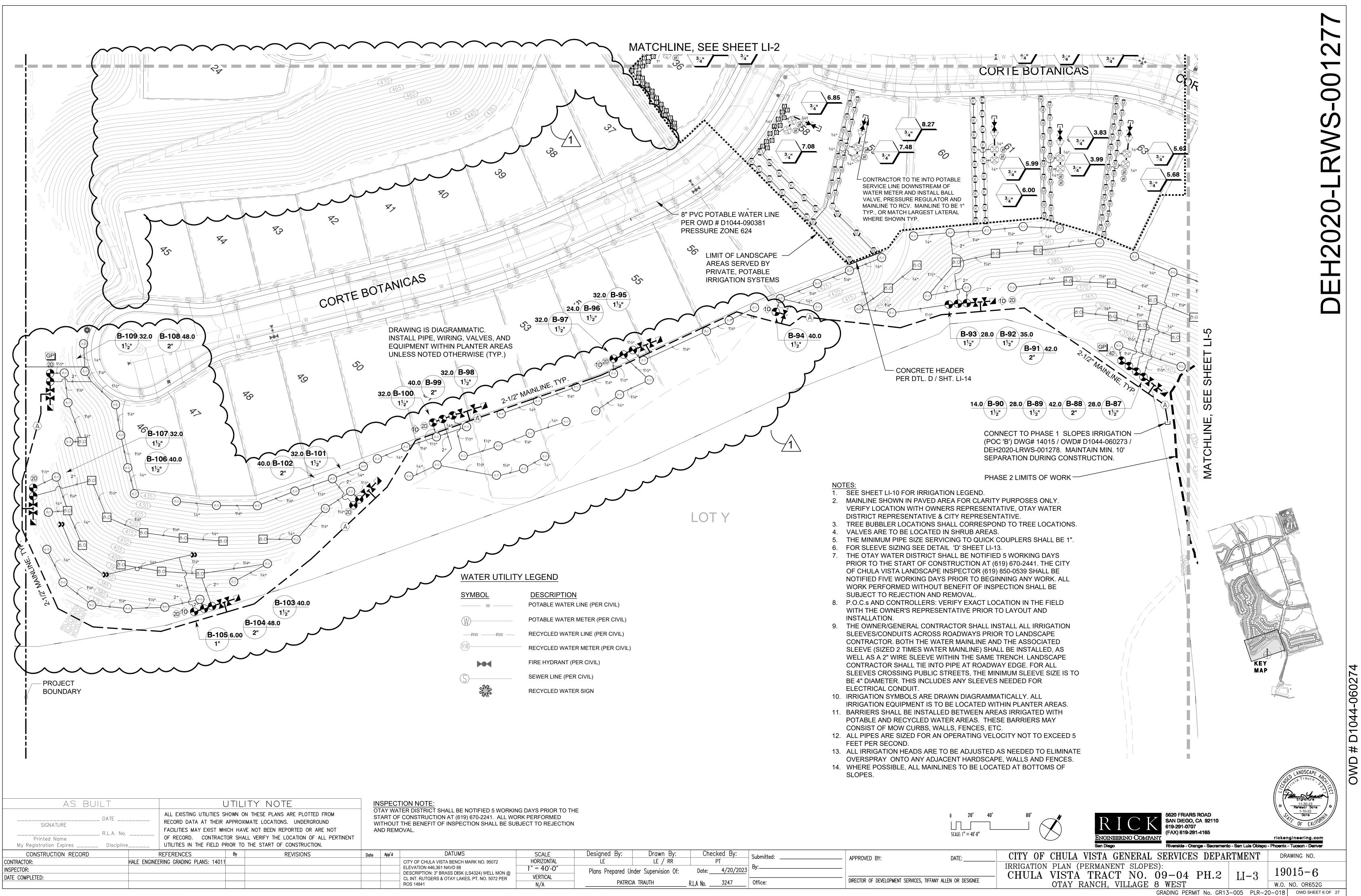
TUMS	SCALE	Designed By:	Drawn By:	Checked By:		Submitted:	
ENCH MARK NO. 95072	HORIZONTAL	LE	LE / RR		PT		APPROVED BY:
/D 88 S DISK (LS4324) WELL MON @	1" = 40'-0"	Plans Prepared Under Supervision Of:		Date:	2/10/2022	Ву:	
AY LAKES. PT. NO. 5072 PER	VERTICAL			_			DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY
	N/A	PATRICI	A TRAUTH	_ R.L.A No	3247	Office:	DIRECTOR OF DEVELOFMENT SERVICES, TIFFANT



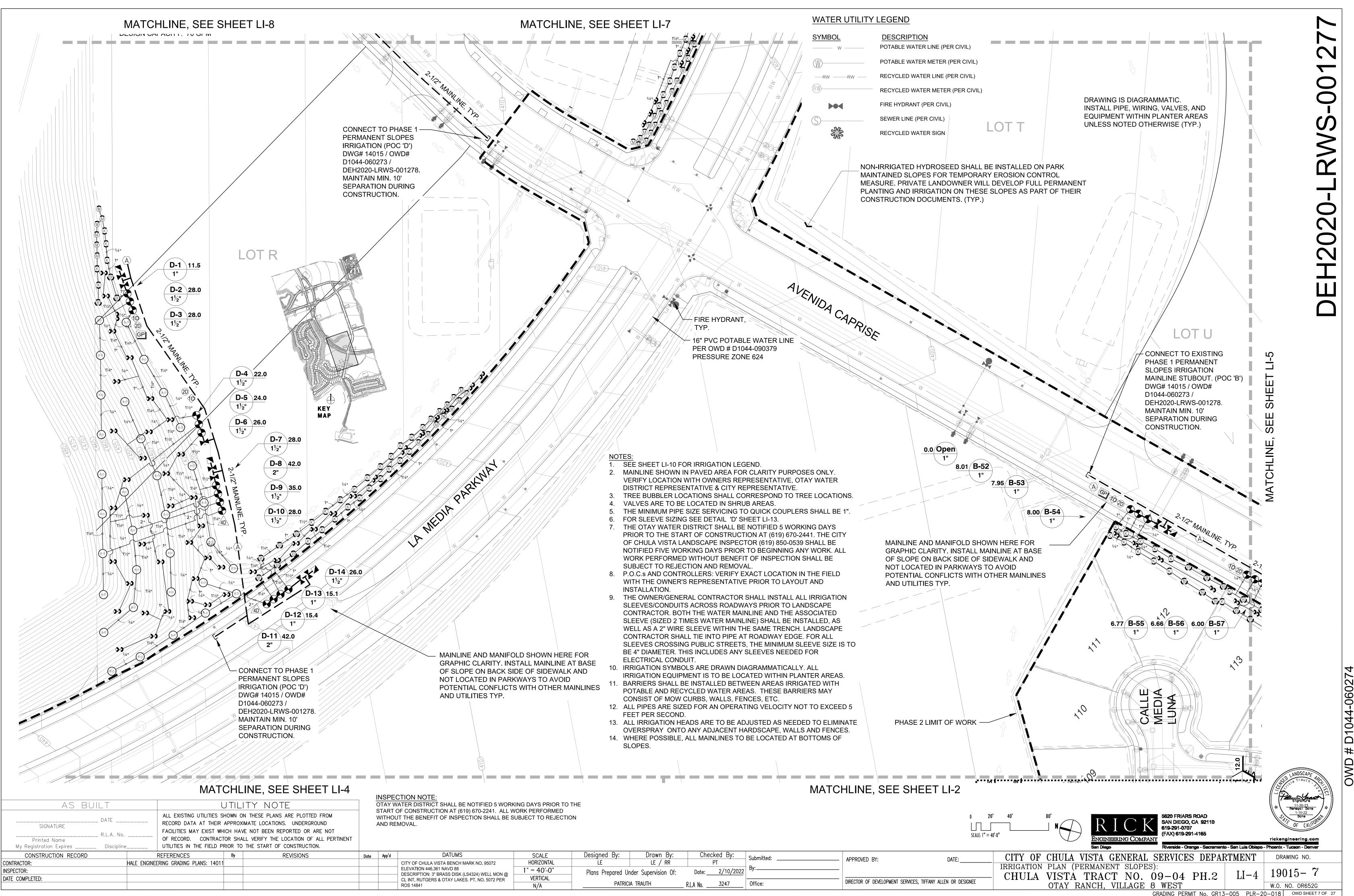
TUMS	SCALE	Designed By:	Designed By: Drawn By:		cked By:	Submitted:	
ENCH MARK NO. 95072	HORIZONTAL	LE	LE / RR		PT		APPROVED BY:
/D 88 S DISK (LS4324) WELL MON @	1" = 40'-0"	Plans Prepared Ur	nder Supervision Of:	Date:	4/20/2023	Ву:	
AY LAKES. PT. NO. 5072 PER	VERTICAL						DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY
	N/A	PATRICI	A TRAUTH	_ R.L.A No	3247	Office:	DIRECTOR OF DEVELOPMENT SERVICES, HIFFANT A

D1044-0602 # MD

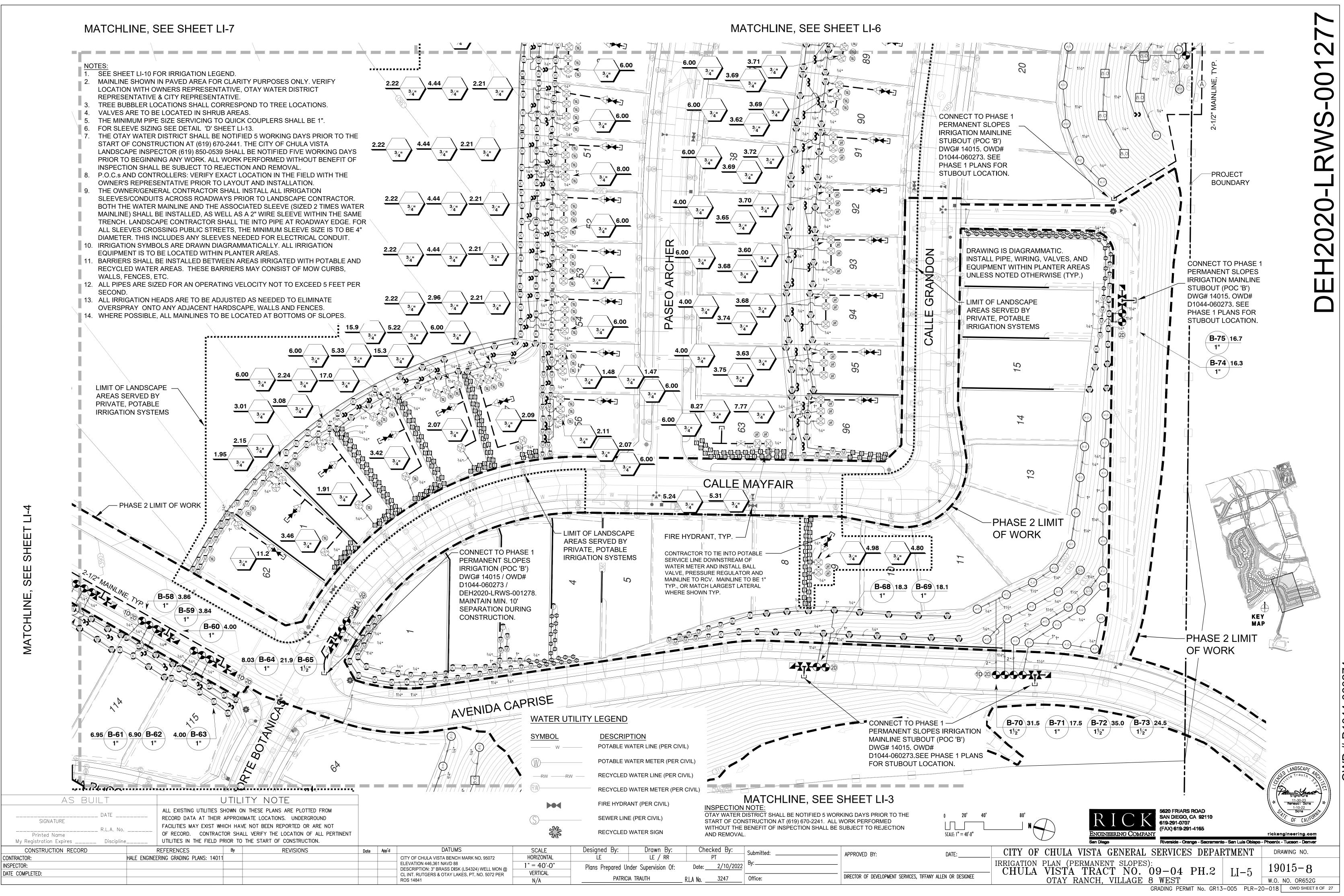
GRADING PERMIT No. GR13-005 PLR-20-018 OWD SHEET 5 OF 27



ATUMS	SCALE	Designed By:	Drawn By:	Chec	ked By:	Submitted:	
BENCH MARK NO. 95072	HORIZONTAL	LE	LE / RR		PT		APPROVED BY:
	1" = 40'-0"	Plans Prepared Under	Supervision Of	Date:	4/20/2023	Ву:	
SS DISK (LS4324) WELL MON @ TAY LAKES, PT, NO, 5072 PER	VERTICAL	I	•		<u> </u>		
	N/A	PATRICIA TR	AUTH	_ R.L.A No	3247	Office:	DIRECTOR OF DEVELOPMENT SERVICES, TIFFAN
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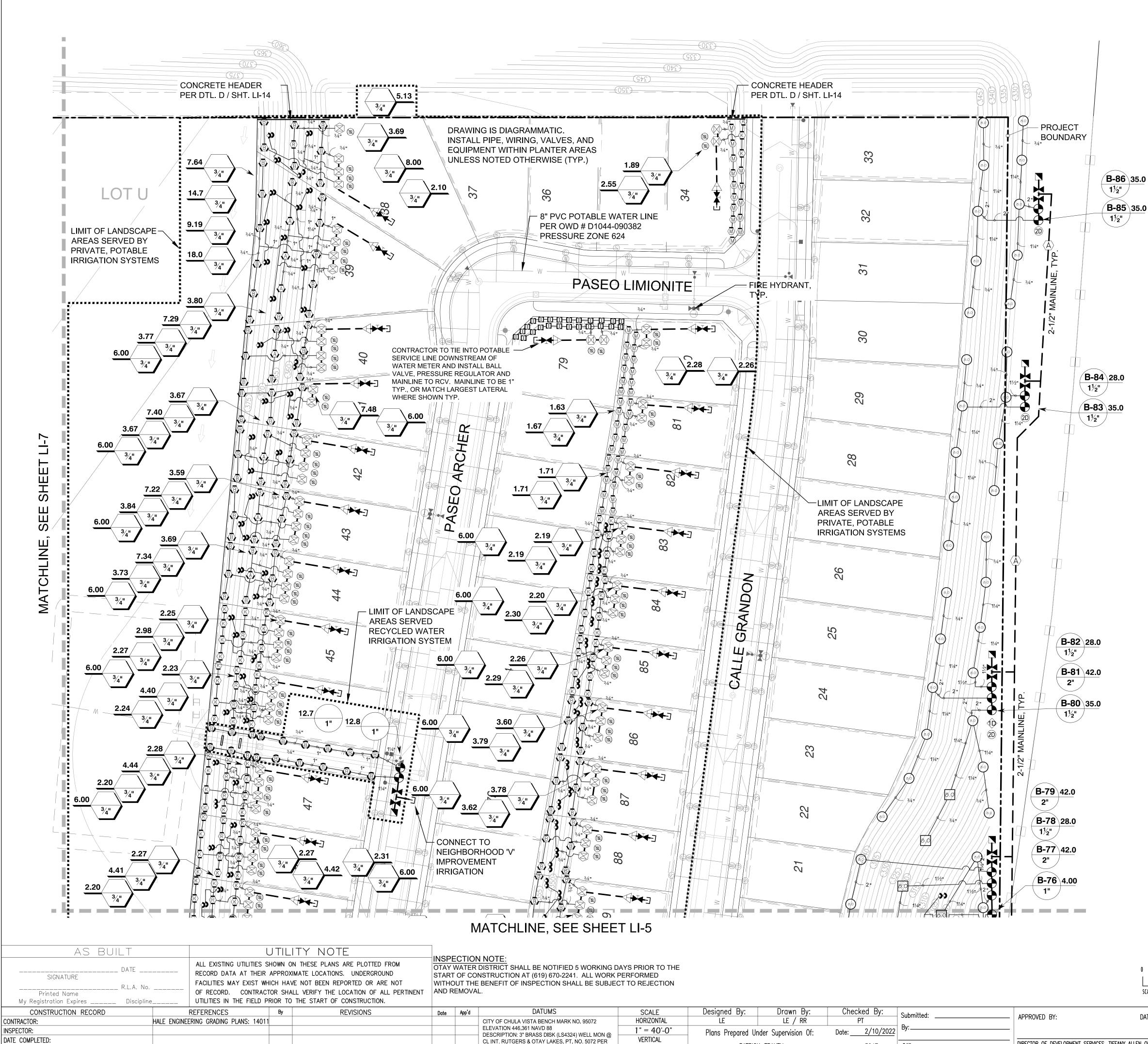


MS	SCALE	Designed By:	Drawn By:	Cheo	cked By:	Submitted:	
ICH MARK NO. 95072	HORIZONTAL	LE	LE / RR		PT	_	APPROVED BY:
88 ISK (LS4324) WELL MON @	1" = 40'-0"	Plans Prepared Un	der Supervision Of:	Date:	2/10/2022	Ву:	
LAKES. PT. NO. 5072 PER	VERTICAL	•	1				DIRECTOR OF DEVELOPMENT SERVICES, TIFFAN
	N/A		A TRAUTH	_ R.L.A No	3247	Office:	DIRECTOR OF DEVELOFMENT SERVICES, HITAN



UMS	SCALE	Designed By:	Drawn By:	Che	cked By:	Submitted:	
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) 88 DISK (LS4324) WELL MON @	1" = 40'-0"	Plans Prepared Und	der Supervision Of:	Date:	2/10/2022	Ву:	
LAKES PT. NO. 5072 PER	VERTICAL						DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY A
	N/A	PATRICIA	TRAUTH	_ R.L.A No	3247	Office:	DIRECTOR OF DEVELOFMENT SERVICES, TIFFANT A
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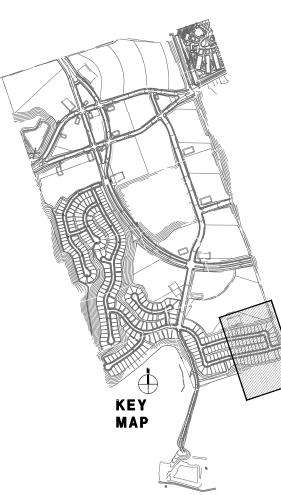
TUMS	SCALE	Designed By:	Drawn By:	Che	cked By:	Submitted:	APPROVED BY:	DATE:
3ENCH MARK NO. 95072 /D 88 S DISK (LS4324) WELL MON @	$\frac{1}{1} = 40'-0''$	Plans Prepared Un	LE / RR nder Supervision Of:	Date:	2/10/2022	- By:		
AY LAKÈS. PT. NO. 5072 PER	VERTICAL N/A	PATRICI	a trauth	_ R.L.A No	3247	Office:	DIRECTOR OF DEVELOPMENT SE	RVICES, TIFFANY ALLEN OR DESIGNEE

WATER UTILITY LEGEND

<u>SYMBOL</u> 	DESCRIPTION POTABLE WATER LINE (PER CIVIL)
Ŵ	POTABLE WATER METER (PER CIVIL)
	RECYCLED WATER LINE (PER CIVIL)
(RW)	RECYCLED WATER METER (PER CIVIL)
	FIRE HYDRANT (PER CIVIL)
S	SEWER LINE (PER CIVIL)
ANN AND	RECYCLED WATER SIGN

NOTES:

- 1. SEE SHEET LI-10 FOR IRRIGATION LEGEND.
- 2. MAINLINE SHOWN IN PAVED AREA FOR CLARITY PURPOSES ONLY. VERIFY LOCATION WITH OWNERS REPRESENTATIVE, OTAY WATER DISTRICT REPRESENTATIVE & CITY REPRESENTATIVE.
- TREE BUBBLER LOCATIONS SHALL CORRESPOND TO TREE LOCATIONS. VALVES ARE TO BE LOCATED IN SHRUB AREAS.
- THE MINIMUM PIPE SIZE SERVICING TO QUICK COUPLERS SHALL BE 1". FOR SLEEVE SIZING SEE DETAIL 'D' SHEET LI-13.
- 7. THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) 670-2441. THE CITY OF CHULA VISTA LANDSCAPE INSPECTOR (619) 850-0539 SHALL BE NOTIFIED FIVE WORKING DAYS PRIOR TO BEGINNING ANY WORK. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE
- SUBJECT TO REJECTION AND REMOVAL. P.O.C.s AND CONTROLLERS: VERIFY EXACT LOCATION IN THE FIELD 8. WITH THE OWNER'S REPRESENTATIVE PRIOR TO LAYOUT AND INSTALLATION.
- 9. THE OWNER/GENERAL CONTRACTOR SHALL INSTALL ALL IRRIGATION SLEEVES/CONDUITS ACROSS ROADWAYS PRIOR TO LANDSCAPE CONTRACTOR. BOTH THE WATER MAINLINE AND THE ASSOCIATED SLEEVE (SIZED 2 TIMES WATER MAINLINE) SHALL BE INSTALLED, AS WELL AS A 2" WIRE SLEEVE WITHIN THE SAME TRENCH. LANDSCAPE CONTRACTOR SHALL TIE INTO PIPE AT ROADWAY EDGE. FOR ALL SLEEVES CROSSING PUBLIC STREETS, THE MINIMUM SLEEVE SIZE IS TO BE 4" DIAMETER. THIS INCLUDES ANY SLEEVES NEEDED FOR ELECTRICAL CONDUIT.
- 10. IRRIGATION SYMBOLS ARE DRAWN DIAGRAMMATICALLY. ALL IRRIGATION EQUIPMENT IS TO BE LOCATED WITHIN PLANTER AREAS.
- 11. BARRIERS SHALL BE INSTALLED BETWEEN AREAS IRRIGATED WITH POTABLE AND RECYCLED WATER AREAS. THESE BARRIERS MAY CONSIST OF MOW CURBS, WALLS, FENCES, ETC.
- 12. ALL PIPES ARE SIZED FOR AN OPERATING VELOCITY NOT TO EXCEED 5 FEET PER SECOND.
- 13. ALL IRRIGATION HEADS ARE TO BE ADJUSTED AS NEEDED TO ELIMINATE OVERSPRAY ONTO ANY ADJACENT HARDSCAPE, WALLS AND FENCES.
- 14. WHERE POSSIBLE, ALL MAINLINES TO BE LOCATED AT BOTTOMS OF SLOPES.



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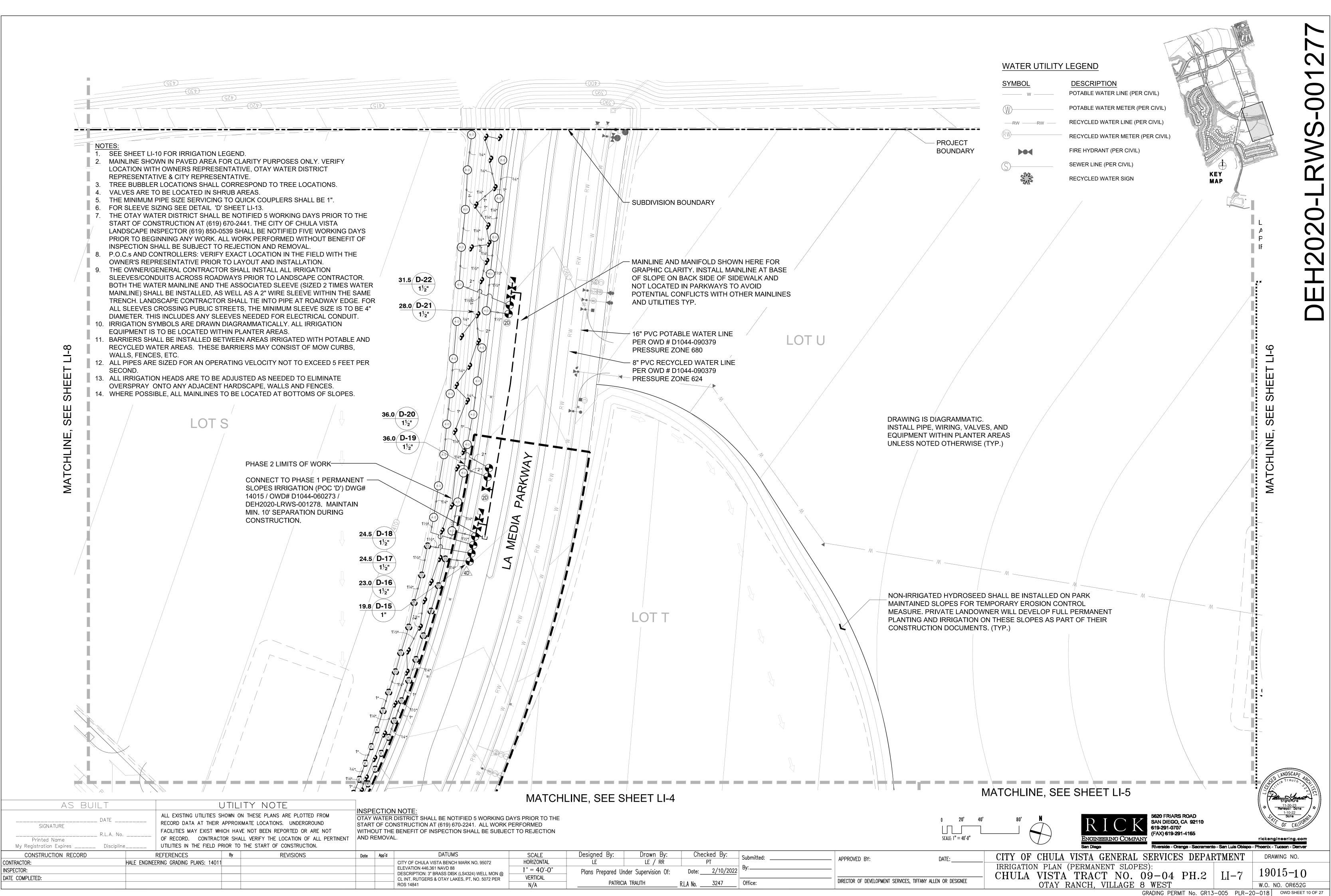
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SCALE: 1'' = 40'-0''

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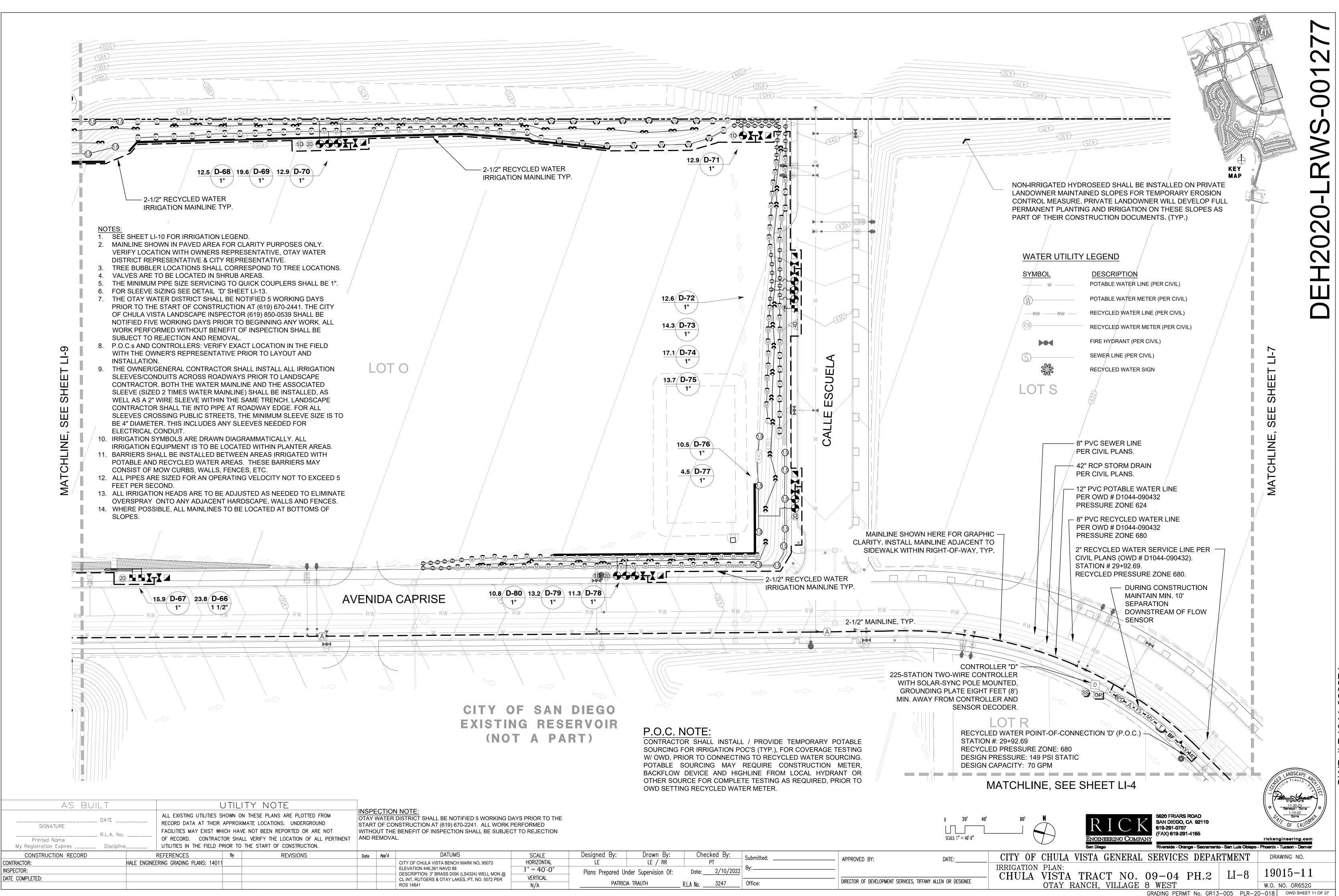
5620 FRIARS ROAD SAN DIEGO, CA 92110 619-291-0707 (FAX) 619-291-4165

rickengineering.com Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver CITY OF CHULA VISTA GENERAL SERVICES DEPARTMENT DRAWING NO. IRRIGATION PLAN (PERMANENT SLOPES): CHULA VISTA TRACT NO. 09-04 PH.2 LI-6 19015-9 OTAY RANCH, VILLAGE 8 WEST W.O. NO. OR652G GRADING PERMIT No. GR13-005 PLR-20-018 OWD SHEET 9 OF 27



UMS	SCALE	Designed By:	Drawn By:	Cheo	cked By:	Submitted:		
ENCH MARK NO. 95072	HORIZONTAL	LE	LE / RR		PT		APPROVED BY:	
D 88 DISK (LS4324) WELL MON @	1" = 40'-0"	Plans Prepared Ur	nder Supervision Of:	Date:	2/10/2022	Ву:		
Y LAKES. PT. NO. 5072 PER	VERTICAL		•				DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY	
	N/A	PATRICIA TRAUTH		_ R.L.A No	3247	Office:	DIRECTOR OF DEVELOPMENT SERVICES, HIPPANT	

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TUMS	SCALE	Designed By:	Drawn By:	Che	cked By:	Submitted:	
ENCH MARK NO. 95072	HORIZONTAL	LE	LE / RR		PT		 APPROVED BY:
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	N/A	PATRICI	A TRAUTH	_ R.L.A No	3247	Office:	DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY A

D1044-060274 OWD

SPECIAL IRRIGATION NOTES:

(OWD NOTES SHALL SUPERSEDE)

- THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM STATIC PRESSURE OF 125 PSI FOR (POC A), 166 PSI FORPOC B,130 PSI FOR POC C, 149 PSI FOR POC D, 180 PSI FOR POC E, AND THE MAXIMUM FLOW DEMAND OF 70 GPM FOR POC A, POC B, POC D AND POC E, AND 100 GPM FOR POC C AT THE WATER POINT OF CONNECTION (P.O.C.). THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION AND SHALL REPORT ANY DIFFERENCES BETWEEN THE DESIGN WATER PRESSURE AND THE ACTUAL WORKING PRESSURE READING AT THE IRRIGATION P.O.C. TO OWNER'S REPRESENTATIVE. ALL PIPES ARE SIZED FOR OPERATING VELOCITY NOT TO EXCEED 5 FEET PER SECOND.
- THIS DESIGN IS DIAGRAMMATIC. THESE DRAWINGS ARE INTENDED TO BE A SCHEMATIC REPRESENTATION OF THE FINISHED IRRIGATION SYSTEM. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE SEE DETAIL E ON SHEET LI-15. AVOID ANY CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING, AND ARCHITECTURAL FEATURES.
- CONTRACTOR SHALL MAKE ALL NECESSARY FIELD ADJUSTMENTS TO ACCOMMODATE ACTUAL SITE CONDITIONS. CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS SHOWN ON THESE PLANS AT THE SITE PRIOR TO COMMENCEMENT OF WORK.
- CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THESE DRAWINGS WHEN I IS OBVIOUS THAT FIELD OBSTRUCTIONS AND/OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MAY NOT HAVE BEEN CONSIDERED IN THE SYSTEM ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER'S REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT GIVEN. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY
- CONTRACTOR TO COORDINATE SLEEVING UNDER ALL PAVING WITH OTHER TRADES AS NECESSARY. NO TEES OF ELLS SHALL BE INSTALLED UNDER PAVING. ALL SLEEVES SHALL EXTEND A MINIMUM OF EIGHTEEN INCHES (18") BEYOND EDGE OF PAVING. ALL SLEEVING LOCATED UNDER PAVING SHALL BE FOUR-INCH (4") MINIMUM DIAMETER CONTRACTOR TO INSTALL METALLIC BACKED TAPE ALONG THE ENTIRE LENGTH OF THE SLEEVE, TWELVE INCHES (12") DIRECTLY ABOVE THE SLEEVE. TAPE SHALL BE MARKED "IRRIGATION" IN TWO INCH (2") CAPITAL LETTERS EVERY THREE FEET ALONG THE TAPE.
- REMOTE CONTROL VALVES SHALL BE INSTALLED ADJACENT TO WALKWAYS UNLESS OTHERWISE NOTED. CONCRETE THRUST BLOCKS SHALL BE USED ON ALL IRRIGATION MAINLINES WHERE CHANGES OF DIRECTION OF FORTY-FIVE (45) DEGREES OR MORE SHOULD OCCUR. THRUST BLOCKS ONLY USED ON PVC WHEN 4" OR LARGER.
- WHERE TREES, LIGHT STANDARDS, ETC., ARE AN OBSTRUCTION TO IRRIGATION COVERAGE, THEN PIPING AND SPRINKLER HEADS SHALL BE ADJUSTED AND/OR RELOCATED AS NECESSARY TO OBTAIN FULL COVERAGE AND MINIMUM OVERSPRAY. DO NOT EXCEED SPACING AS PER MANUFACTURER'S RECOMMENDATIONS. 9. CONTRACTOR SHALL FLUSH ALL MAIN LINES PRIOR TO INSTALLATION OF THE VALVES, AND SHALL FLUSH ALL
- LATERAL LINES PRIOR TO INSTALLATION OF THE SPRINKLER HEADS. 10. 10. CONTRACTOR SHALL FINE-TUNE AND ADJUST ALL SPRINKLER SYSTEMS TO ACHIEVE OPTIMUM PERFORMANCE AND COMPLETE COVERAGE. WITH MINIMUM OVERSPRAY ONTO HARDSCAPE AREAS. THIS INCLUDES ADJUSTMENT OF THE FLOW CONTROL STEM AT EACH REMOTE CONTROL VALVE TO OBTAIN THE OPTIMUM OPERATING FLOW / PRESSURE FOR THAT SYSTEM, AND ADJUSTMENT OF ALL SPRINKLER NOZZLES.
- 11. COORDINATE IRRIGATION WORK WITH PLANTING PLANS TO AVOID CONFLICTING LOCATIONS BETWEEN PIPING AND PLANT PITS. SPECIMEN TREE LOCATIONS TAKE PRECEDENCE OVER IRRIGATION PIPING. LOCATE SPECIMEN TREES PRIOR TO TRENCHING FOR IRRIGATION PIPING
- 12. ALL LATERAL END RUNS ARE AS PER CONTRACT DOCUMENTS 13. TRENCH MARKER: ALL DIRECT BURIAL WIRES SHALL BE MARKED WITH A CONTINUOUS RED COLORED TRENCH MARKER TAPE PLACED NINE INCHES (9") BELOW FINISH GRADE DIRECTLY ABOVE THE BURIED WIRES. MARKER TAPE SHALL BE EQUAL TO "ALAMA TAPE" AS MANUFACTURED BY PAUL POTTER WARNING TAPE INC. TAPE SHALL BE FOUR INCHES (4") WIDE.
- 14. IRRIGATION SYSTEMS ARE TO BE INSTALLED AS DESIGNED AND IN ACCORDANCE WITH THE CRITERIA AND APPLICABLE STANDARDS AS OF THE APPROVED DATE OF THESE PLANS. ALL IRRIGATION SYSTEM COMPONENTS SHALL BE INSTALLED PER LOCAL CODE. CONTRACTORS SHALL SECURE ALL NECESSARY PERMITS. 15. FOR REMOTE CONTROL VALVE MANIFOLDS, BALL VALVE SIZE SHALL EQUAL THE SIZE OF THE LARGEST REMOTE
- CONTROL VALVE IN THE MANIFOLD. 16. PROVIDE PULL BOXES FOR CONTROL WIRING AT ALL CHANGES IN DIRECTION GREATER THAN FORTY-FIVE (45) DEGREES AND WHERE WIRE RUNS EXCEED THREE HUNDRED FEET (300') IN LENGTH. IN-LINE WIRE SPLICES SHALL
- BE MADE ONLY IN PULL BOXES, WITH WATERPROOF CONNECTORS. TWO WIRE SYSTEMS SHALL UTILIZE A TWISTED PAIR OF #14 AWG DECODER CABLES IN CONDUIT. THE COMMUNICATION CABLE SHALL BE MANUFACTURED BY PAIGE ELECTRIC MODEL #P7350D, OR EQUAL. DECODERS SHALL HAVE 'INTEGRATED SURGE PROTECTION' (CDEC-ISP-1). DECODERS SEND DC SIGNALS TO DC-LATCHING SOLENOIDS THROUGH #14 WIRE DTS CABLES (MODEL #P7351D). ALL SPLICES SHALL BE MADE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE® ARTICLES 300.5 (UNDERGROUND INSTALLATIONS) AND 110.14 (ELECTRICAL CONNECTIONS) USING 3M DBY-6 OR DBR-6 CONNECTORS, WHICH ARE UL LISTED UNDER "UL 486D-DIRECT BURIAL", FOR WET OR DAMP LOCATIONS, 600 VOLTS. THE DECODERS SHALL HAVE 'INTEGRATED SURGE PROTECTION' RATED TO 20 KV (20,000 VOLTS) SECONDARY SURGE.
- 18. BACKFILL MATERIAL SHALL BE CLEAN AND FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), AND OBJECTS WITH SHARP EDGES 19. CONTRACTOR SHALL INSTALL IN-LINE ANTI-DRAIN VALVES AS WARRANTED BY SITE CONDITIONS TO ALLEVIATE
- LOW-HEAD DRAINAGE. 20. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO THE FINISH GRADE OF THE AREA TO BE IRRIGATED,
- UNLESS OTHERWISE DESIGNATED ON THE PLANS. ADJUST THE ANGLE OF RISERS FOR SPRINKLER HEADS ON SLOPES TO ACHIEVE OPTIMUM COVERAGE AND MINIMUM OVERSPRAY.
- 1. SEE SHEET LI-10 FOR IRRIGATION LEGEND.
- 2. MAINLINE SHOWN IN PAVED AREA FOR CLARITY PURPOSES ONLY. VERIFY LOCATION WITH OWNERS REPRESENTATIVE, OTAY WATER DISTRICT REPRESENTATIVE & CITY REPRESENTATIVE.
- 3. TREE BUBBLER LOCATIONS SHALL CORRESPOND TO TREE
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- 5. THE MINIMUM PIPE SIZE SERVICING TO QUICK COUPLERS SHALL BE
- 6. FOR SLEEVE SIZING SEE DETAIL 'D' SHEET LI-13. THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) 670-2441. THE CITY OF CHULA VISTA LANDSCAPE INSPECTOR (619) 850-0539 SHALL BE NOTIFIED FIVE WORKING DAYS PRIOR TO BEGINNING ANY WORK. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL
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- ELIMINATE OVERSPRAY ONTO ANY ADJACENT HARDSCAPE, WALLS AND FENCES.
- 14. WHERE POSSIBLE, ALL MAINLINES TO BE LOCATED AT BOTTOMS OF SLOPES.

R.L.A. No. ____

Discipline_

REFERENCES

HALE ENGINEERING GRADING PLANS: 14011

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SIGNATURE

CONSTRUCTION RECORD

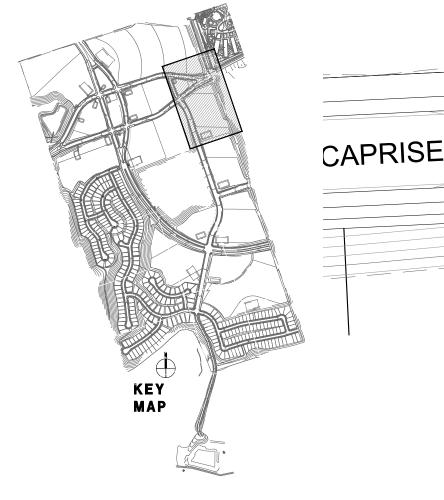
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My Registration Expires

CONTRACTOR:

DATE COMPLETED:

INSPECTOR:



UTILITY NOTE

OF RECORD. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL PERTINENT

REVISIONS

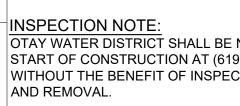
ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE PLOTTED FROM

FACILITIES MAY EXIST WHICH HAVE NOT BEEN REPORTED OR ARE NOT

RECORD DATA AT THEIR APPROXIMATE LOCATIONS. UNDERGROUND

UTILITIES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.

By



LOT H'

Date	App'd	DATU
		CITY OF CHULA VISTA BEN
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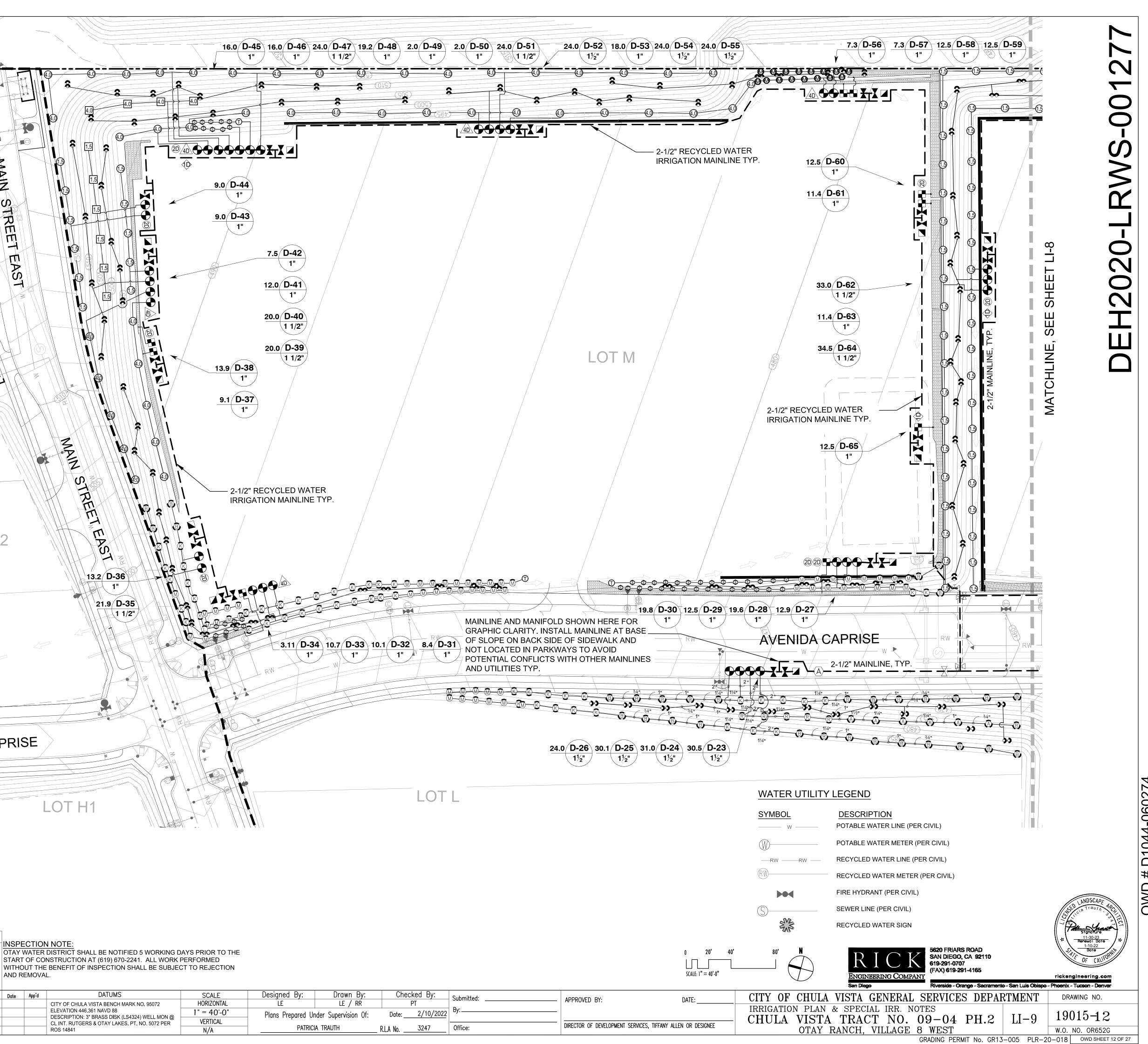
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OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED

SCALE	Designed By:	Drawn By:	Che	cked By:	Submitted:	
HORIZONTAL	LE	LE / RR		PT		APPROVED BY:
1" = 40'-0"	Plans Prepared Ur	nder Supervision Of:	Date:	2/10/2022	Ву:	
VERTICAL		·	_			DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY
N/A	PATRICI	A IRAUIH	_ R.L.A No	3247	Office:	DIRECTOR OF DEVELOPMENT SERVICES, TITAINT
	HORIZONTAL 1" = 40'-0" VERTICAL	HORIZONTAL LE 1 " = 40'-0" Plans Prepared Ur VERTICAL DATRICE	HORIZONTALLELE / RR1" = 40'-0"Plans Prepared Under Supervision Of:VERTICALPlans Prepared Under Supervision Of:	HORIZONTAL LE LE / RR 1" = 40'-0" Plans Prepared Under Supervision Of: Date: VERTICAL DATE: OA DATE: OA	HORIZONTAL LE LE / RR PT 1" = 40'-0" Plans Prepared Under Supervision Of: Date: 2/10/2022 VERTICAL DATE/CIA_TEAL/TH Dit h.H. Z047	HORIZONTAL LE LE / RR PT Submitted: 1" = 40'-0" Plans Prepared Under Supervision Of: Date: 2/10/2022 VERTICAL PATRICIA TRAVEL 0fficer

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$ \underbrace{\text{SYMBOL}}{\left(\square \right) \left(\square \right) \left(\square \right)} \\ \underbrace{\left(\square \right) \left(\square \right) \left(\square \right) } \\ \underbrace{\left(\square \right) \left(\square \right) \left(\square \right) \left(\square \right) } \\ \underbrace{\left(\square \right) \left(\square \right) \left(\square \right) \left(\square \right) } \\ \underbrace{\left(\square \right) \left(\square \right) \left(\square \right) \left(\square \right) \left(\square \right) } \\ \underbrace{\left(\square \right) \left(\square \right) \left(\square \right) \left(\square \right) \left(\square \right) } \\ \underbrace{\left(\square \right) \left(\square \right) } \\ \underbrace{\left(\square \right) \left(\square \right) } \\ \left(\square \right) \left(\square $	MANUFACTURER/MODEL/DESCRIPTION HUNTER MP1000 PROS-12-PRS40-CV SHRUB ROTATOR, 12" (15.24 CM) POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON PRS40 BODY. M=MAROON ADJ ARC 90 L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC. T = CORNEI POTABLE WATER HEADS FOR PRIVATE LOTS ONLY.	,	<u>RADIUS</u> 14'	<u>DETAIL</u> A / LI-12, C / LI-15
$\langle \underline{K} \rangle \langle \underline{G} \rangle \langle \underline{R} \rangle$	HUNTER MP2000 PROS-12-PRS40-CV SHRUB ROTATOR, 12" (15.24 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON PRS40 BODY. K=BLACK ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC.POT. WATER HEADS FOR PRIVATE LOTS ONLY.	ADJ	19'	A / LI-12, C / LI-15
	HUNTER MP3000 PROS-12-PRS40-CV SHRUB ROTATOR, 12" (15.24 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON PRS40 BODY. B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC. POTABLE WATER HEADS FOR PRIVATE LOTS ONLY.	40	30'	A / LI-12, C / LI-15
POTABLE (RESIDENTIAL LOTS ONLY)	HUNTER MP800 PROS-12-PRS40-CV-R SHRUB ROTATOR, 12" POP-UP WITH FACTORY INSTALLED CHECK VALVE, RECLAIMED BODY CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON P BODY. RESIDENTIAL LOT NOZZLE SHALL NOT BE PURPLE CAP	RS40		A / LI-12, C / LI-15
M O	HUNTER MP1000 PROS-00-PRS40-CV (2) SHRUB ROTATOR, ON RISER (10.16 CM) WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON PRS40 BODY. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC. POTABLE WATER HEADS FOR PRIVATE LOTS ONLY.	40	14'	E / LI-12, D / LI-15
K G R	HUNTER MP2000 PROS-00-PRS40-CV (2) SHRUB ROTATOR, ON RISER (10.16 CM) WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON PRS40 BODY. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC. POTABLE WATER HEADS FOR PRIVATE LOTS ONLY.		19'	E / LI-12, D / LI-15
	HUNTER MP3000 PROS-00-PRS40-CV (2) SHRUB ROTATOR, ON RISER (10.16 CM) WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON PRS40 BODY. B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC. POTABLE WATER HEADS FOR PRIVATE LOTS ONLY.	40	30'	E / LI-12, D / LI-15
	HUNTER MP1000 PROS-12-CV-R SHRUB ROTATOR, 12" (30.48 CM) POP-UP WITH CHECK VALVE, PURPLE CAP, PRESSURE REGULATED TO 40 PSI (2.76 MP ROTATOR NOZZLE. M=MAROON ADJ ARC 90 TO 210, L=LIG 210 TO 270 ARC, O=OLIVE 360 ARC ON PRS40 BODY. T = CORN	HT BLUE	14'	A / LI-12, C / LI-15
KGR	HUNTER MP2000 PROS-12-CV-R SHRUB ROTATOR, 12" (30.48 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, RECLAIMED BODY CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE. K=E ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC	BLACK	19' 0 BODY.	A / LI-12, C / LI-15
BYA	HUNTER MP3000 PROS-12-CV-R SHRUB ROTATOR, 12" (30.48 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, RECLAIMED BODY CAP, PRESSURE TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE. B=BLUE ADJ ARC Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC ON PRS40 BOD	90-210,	30' ATED	A / LI-12, C / LI-15
K G R	HUNTER MP2000 PROS-00-PRS40-CV-R ON RISER SHRUB ROTATOR, FIXED-RISER, PRESCLOSSURE REGULATEI 40 PSI (2.76 BAR), MP ROTATOR NOZZLE. K=BLACK ADJ ARC 9 G=GREEN ADJ ARC 210-270, R=RED 360 ARC ON PRS40 BODY. PURPLE CAP. WITH CHECK VALVE.	90-210,	19'	A / LI-12, D / LI-15
	HUNTER MP3000 PROS-00-PRS40-CV-R ON RISER SHRUB ROTATOR, FIXED-RISER, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE. B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC ON PRS40 BODY. PURPLE CAP. WITH CHECK VALVE.	40	30'	E / LI-12, D / LI-15
	RAIN BIRD 1806-SAM-PRS-5SERIES STREAM W/PCS 40-SCR STREAM BUBBLER 6.0" POPUP WITH CHECK VALVE AND PRESSURE REGULATOR. WITH 5H-B NOZZILE AND PCS-040 SCREEN. (TWO BUBBLERS PER TREE)	30	5'	B / LI-15

AS BU	ILT	l	JTILI	TY NOTE			BF		5YA 1 ½" - BACKFLO KFLOW PREVENTEF				WR-08 / LI-14	Valve Callout
SIGNATURE	_ DATE	RECORD DATA AT THEIR	APPROXI	N THESE PLANS ARE PLOTTED FROM MATE LOCATIONS. UNDERGROUND Æ NOT BEEN REPORTED OR ARE NOT					MODEL GC-3 LIFT-	•				# # Valve Valve Valve
Printed Name My Registration Expires	_ R.L.A. No	OF RECORD. CONTRAC	TOR SHA	LL VERIFY THE LOCATION OF ALL PERTINENT THE START OF CONSTRUCTION.										#" • Valve
CONSTRUCTION RECORD		REFERENCES	By	REVISIONS	Date	App'd	DATUMS	SCALE	Designed By:	Drawn By:	Checked By:	Submitted:	APPROVED BY:	DATE:
CONTRACTOR:	HALE ENGINEE	ERING GRADING PLANS: 1401					CITY OF CHULA VISTA BENCH MARK NO. 95072	HORIZONTAL	LE	LE / RR	PT			DATE:
INSPECTOR:							ELEVATION 446.361 NAVD 88 DESCRIPTION: 3" BRASS DISK (LS4324) WELL MON @		Plans Prepared Un	der Supervision Of:	Date: 2/10/2022	Ву:		
DATE COMPLETED:							CL INT. RUTGERS & OTAY LAKES. PT. NO. 5072 PER ROS 14841	VERTICAL N/A		·	R.L.A No3247	Office:	DIRECTOR OF DEVELOPM	MENT SERVICES, TIFFANY ALLEN OR DESIGNEE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION HUNTER I-20-12-R SHRUB ROTOR, 12.0" POP-UP. ADJUSTABLE AND FULL	<u>PSI</u> <u>GPI</u> 45 1.50	<u>M</u> <u>RADIUS</u>) 31'	<u>B DETAIL</u> B / LI-12	T	NIBCO LINE SIZE T-FP-660-A-LL BALL VA AND NIBCO 3/4" T-580 A TEST PORT BAL		WR-04 / LI-14
\bigcirc	CIRCLE. PLASTIC RISER. DRAIN CHECK VALVE. STANDARD NOZZLE. WITH PURPLE COVER FOR RECLAIMED WATER.				SYMBOL	MANUFACTURER/MODEL/DESCRIPTION		DETAIL
\frown	HUNTER I-20-12-R	45 4.00) 40'	B / LI-12		CHAMPION AVB #262 (RED BRASS)		B / LI-14
(4.0)	SHRUB ROTOR, 12.0" POP-UP. ADJUSTABLE AND FULL CIRCLE. PLASTIC RISER. DRAIN CHECK VALVE. STANDARD				MD	1 1/2" RECYCLED WATER METER 'A' (SEI	E CIVIL)	
(8.0)	NOZZLE, WITH PURPLE COVER FOR RECLAIMED WATER. HUNTER I-20-12-R SHRUB ROTOR, 12.0" POP-UP. ADJUSTABLE AND FULL CIRCLE. PLASTIC RISER. DRAIN CHECK VALVE. STANDARD	45 8.00) 44'	B / LI-12		IRRIGATION LATERAL LINE: PVC SCHED PURPLE COLOR. PRIVATE LOT PIPE SHALL BE WHITE.	ULE 40, MHOA AREA SHALL BE	A,B,C,D / LI-13 E / LI-15
\smile	NOZZLE. WITH PURPLE COVER FOR RECLAIMED WATER.						3/11 TO 4 4/01	A,B,C,D / LI-13
1.5	HUNTER I-20-00-R ON RISER SHRUB ROTOR, FIXED RISER. ADJUSTABLE AND FULL CIRCLE. PLASTIC RISER. DRAIN CHECK VALVE. STANDARD NOZZLE. WITH PURPLE RECLAIMED WATER COVER.	45 1.50) 31'	D / LI-12		FOR MHOA AREAS, PVC SCHEDULE 40 - PVC CLASS 315 SDR 13.5 FOR PIPES 2" - FOR 4" OR LARGER. MHOA AREA PIPE S PRIVATE LOT PIPE SHALL BE WHITE.	3-1/2", PVC CLASS 315	E / LI-15
4.0	HUNTER I-20-00-R ON RISER SHRUB ROTOR, FIXED RISER. ADJUSTABLE AND FULL CIRCLE. PLASTIC RISER. DRAIN CHECK VALVE. STANDARD NOZZLE. WITH PURPLE RECLAIMED WATER COVER.	45 4.00	0 40'	D / LI-12		PIPE SLEEVE: PVC SCHEDULE 40 TYPICAL PURPLE PIPE SLEEVE FOR IRF SLEEVE SHALL BE DOUBLE THE DIAMET WITHIN. EXTEND SLEEVES 18 INCHES B CONSTRUCTION IN SOFT WORKABLE LA	ER OF THE PIPE CONTAINED EYOND EDGES OF PAVING OR	A,B / LI-13
	HUNTER I-20-00-R ON RISER	45 8.00) 44'	D / LI-12				
8.0	SHRUB ROTOR, FIXED RISER. ADJUSTABLE AND FULL CIRCLE. PLASTIC RISER. DRAIN CHECK VALVE. STANDARD NOZZLE. WITH PURPLE RECLAIMED WATER COVER.					RAIN BIRD XCZ-100-PRB-QKCHK-R WIDE FLOW DRIP CONTROL KIT FOR CC 1" PESBR VALVE AND 1" PRESSURE REC FILTER. 200 MESH SS SCREEN W/ CLEAI TO 20GPM. PURPLE CAP.	SULATING 30PSI BASKET	B / LI-17
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION HUNTER ICV-G-FS-R-AS40 REMOTE CONTROL VALVE			<u>DETAIL</u> F / LI-12		RAIN BIRD XCZ-150-PRB-COM-R		A / LI-17
•	1", 1-1/2", 2", AND 3" PLASTIC ELECTRIC REMOTE CONTROL VALVES, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE. WITH FILTER SENTRY FACTORY INSTALLED OPTION, AND RECLAIMED WATER ID, PURPLE HANDLE.					HIGH FLOW CONTROL ZONE KIT, FOR LA COMMERCIAL DRIP ZONES. 1-1/2" PESB TWO 1" PRESSURE REGULATING (30PSI BASKET FILTERS. FLOW RANGE: 15-40G	VALVE WITH) QUICK-CHECK	
	HUNTER PGV-ASV-3/4" AND 1" RED BRASS ANTI-SIPHON V			A / LI-14		RAIN BIRD XCZ-100-PRB-QKCHK-R WIDE FLOW DRIP CONTROL KIT FOR CC		A / LI-17
	3/4" AND 1" RED BRASS ANTI-SIPHON VALVE. HUNTER HQ-44LRC-AW-R QUICK COUPLER			G / LI-12		1" PESBR VALVE AND 1" PRESSURE REC FILTER. 200 MESH SS SCREEN W/ CLEAI TO 20GPM. PURPLE CAP.		
	QUICK COUPLER VALVE, PURPLE RUBBER LOCKING COVER FOR RECLAIMED WATER USE. RED BRASS AND STAINLESS STEEL, WITH 1" NPT INLET, 2-PIECE BODY. ACME THREADED ACME KEY WITH ANTI-ROTATION WINGS.	ONLY.			Ē	RAIN BIRD MDCFCAP	ESSION FITTING COUPLER. PURPLE CAP.	C / LI-17
	HAYWARD TB-PVC BALL VALVE. PURPLE HANDLE. 2" AND SM	ALLER		H&I / LI-12		RAIN BIRD OPERIND DRIP SYSTEM OPERATION INDICATOR.	STEM RISES 6" FOR CLEAR	B / LI-16
$\overline{\mathbf{A}}$	NIBCO 2" T-FP-600A SHUT OFF VALVE. PURPLE HANDLE. 2-1/2	2" TO 4".		H&I / LI-12	ID#	VISIBILITY WHEN DRIP SYSTEM IS CHAP 20PSI. INCLUDES 16" OF 1/4" DISTRIBUT	GED TO A MINIMUM OF	
	BUCKNER-SUPERIOR 3200 1 1/2" NORMALLY CLOSED BRASS			J / LI-12		CONNECTION FITTING PRE-INSTALLED.	PURPLE CAP	
	MASTER VALVE. DIRTY WATER PROTECTION & NO MIN. FLOW	V				AREA TO RECEIVE DRIPLINE RAIN BIRD XFS-CV-09-12-NP		A,C,D / LI-16
⟨A⟩♠ (RECYCLED)	NETAFIM 1 1/2" NYLON COMBO AIR VENT/VACUUM GUARD WATTS 25 AUB-HP PRESSURE REGULATOR			C / LI-14 L / LI-14		XFS-CV NON POTABLE SUB-SURFACE L HEAVY-DUTY 4.3 PSI CHECK VALVE. 0.9	GPH EMITTERS AT 12" O.C.	
	SPRING RANGE OF 75-125 PSI, SEE PLAN FOR SETTING PSI			L / LI-14		DRIPLINE LATERALS SPACED AT 12" AP/ OFFSET FOR TRIANGULAR PATTERN.	ART, WITH EMITTERS	
D	HUNTER ACC2-225D-PED-SS 2-WIRE DECODER CONTROLLER 2-WIRE DECODER CONTROLLER WITH 225 STATION CAPACIT CABINET, STAINLESS STEEL PEDESTAL, P2P CELLULAR COM	Y, METAL	J	K / LI-12		AREA TO RECEIVE DRIPLINE RAIN BIRD XFS-CV-09-12-NP XFS-CV NON POTABLE SUB-SURFACE L		A,C,D / LI-16
	HUNTER ICD-100 SINGLE STATION DECODER W/SURGE SUPPRESSION AND GI		Ξ	E,I,J / LI-13		HEAVY-DUTY 4.3 PSI CHECK VALVE. 0.9 DRIPLINE LATERALS SPACED AT 12" AP/ OFFSET FOR TRIANGULAR PATTERN.		
(2D)	HUNTER ICD-200 2-STATION DECODER WITH SURGE SUPPRESSION AND GRO	UND WIRE		E,I,J / LI-13				
4D	HUNTER ICD-400 4-STATION DECODER WITH SURGE SUPPRESSION AND GRO	UND WIRE		E,I,J / LI-13				
SD	HUNTER ICD-SEN 2-INPUT SENSOR DECODER WITH SURGE SUPPRESSION ANI		/IRE	E,I,J / LI-13	MINIMUM WI	OR TO PSI TEST ALL LATERALS UNDER PAVI TH ZERO LEAKS. E FITTINGS TO BE SCHEDULE 80.	EMENT TO DESIGN PRESSURE FOR FOUR H	υυκο
	HUNTER SOLAR-SYNC					LL BOXES EVERY 200 FEET ON MAINLINES. OXES SHALL BE PRUPLE, LOCKABLE, DURA	A DRY (OR EQUAL) AND JUMBO IF NECESSA	RY.
SS	SOLAR, RAIN FREEZE SENSOR WITH OUTDOOR INTERFACE, WIRED. CONTRACTOR SHALL INSTALL ON EIGHT FOOT (8`) HEIGHT STAINLESS STEEL POST.				 PROVIDE 12 AV VALVES TO THI ALL TWO-WIRE 	E CONTROLLER. E TO BE IN PVC SCH 40 CONDUIT	EL ID2PUR COMMUNICATION FROM THE REMOTE	
FS	1 1/2" FLOW SENSOR HUNTER FLOW-CLIK-158.			M / LI-12	PLATE SHALL E 4. ALL WIRE CON	BE EIGHT FEET LONG AND INSTALLED AT RIGHT A INECTIONS SHALL BE MADE WITH HUNTER DBRY	R EVERY 12 REMOTE CONTROL VALVES MINIMUM NGLES EIGHT FEET AWAY FROM THE DECODER. -6 WATERPROOF CONNECTORS. CREWS WITHIN THE REMOTE CONTROL VALVE BO	
BPD	BOOSTER PUMP `D` BARRETT PUMPS, VFD, 35 PSI BOOST			A / LI-15		SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO THE		
Ч	CAP FOR FUTURE USE					ION AT (619) 670-2241. ALL WORK PERFORMED OF INSPECTION SHALL BE SUBJECT TO REJECTION	HEADS SHALL HAVE THE EXPOSED SURFACE COLO EXPOSED SURFACE SHALL BE COLORED THROUGH INTEGRALLY MOLDED PURPLE PLASTIC OR PERMAN	THE USE OF
GP	COPPER GROUNDING PLATE			K,L / LI-13			PURPLE PLASTIC RING OR DISC. ALL SHRUB HEADS PURPLE CAPS. DECAL ON RISERS WILL NOT BE ACC	SHALL HAVE
Ŷ	APOLLO YB-LF WYE STRAINER			WR-08 / LI-14			NOTE:	SU LIGIA TI
BF	FEBCO 825YA 1 ¹ / ₂ " - BACKFLOW PREVENTER WITHBACKFLOW PREVENTER CAGE, AMERICAN BACKFLOW			WR-08 / LI-14		Valve Callout	ALL FACILITIES SHALL BE INSTALLED PER SDWAS STANDARD SPECIFICATIONS 15152	
	COMPANY MODEL GC-3 LIFT-OFF 12" WIDE X 24" TALL X 42" L				<i>#</i> ● <i>#</i> ● <i>#</i> " ●	Valve Number Valve Flow Valve Size	RICK ENCLUEERING COMPANY 5620 FRIARS ROAD SAN DIEGO, CA 92110 619-291-0707 (FAX) 619-291-4165	A Renew Sign Sign Construction Sign Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Construction Con
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Valve Flow
 Valve Size

	Engineering Com	PANY	rickengineering.com
	San Diego	Riverside - Orange - Sacramento - San Luis Obispo -	Phoenix - Tucson - Denver
	CITY OF CHULA VISTA GENERA	L SERVICES DEPARTMENT	DRAWING NO.
_	IRRIGATION LEGEND & NOTES FOR: CHULA VISTA TRACT NO. OTAY RANCH, VILLAGE	09-04 PH.2 LI-10	19015-13 W.O. NO. OR652G
	, ·, ·,	GRADING PERMIT No. GR13-005 PLR-20	0-018 OWD SHEET 13 OF 27

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OTAY WATER DISTRICT RECYCLED WATER NOTES:

ALL ON-SITE IRRIGATION IMPROVEMENTS SHOWN ON THESE PLANS ARE PART OF A RECYCLED WATER DISTRIBUTION SYSTEM. NO CONSTRUCTION WILL BE ALLOWED UNTIL ALL APPROVALS HAVE BEEN OBTAINED.

CROSS CONNECTIONS BETWEEN RECYCLED WATER LINES AND POTABLE WATER LINES ARE STRICTLY PROHIBITED

USE OF RECYCLED WATER SHALL ADHERE TO TITLE 22, DIVISION 4, CHAPTER 3 OF THE CALIFORNIA CODE OF REGULATIONS AND THE CURRENT RULES, REGULATIONS AND SPECIFICATIONS OF 3 THE DISTRICT.

OTAY WATER DISTRICT INSPECTION SHALL BE NOTIFIED FIVE (5) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL

PUBLIC FACILITIES, SUCH AS DRINKING AND DECORATIVE FOUNTAINS, COMFORT STATIONS, PLAYGROUND EQUIPMENT, ETC., DO NOT EXIST ON THIS PROJECT. 5

ALL ON-SITE RECYCLED WATER IRRIGATION PIPING AND ON-SITE POTABLE WATER PIPING INSTALLED UNDER THIS DESIGN SHALL BE IDENTIFIED IN ACCORDANCE WITH THE DISTRICT STANDARD SPECIFICATIONS.

ALL ON-SITE RECYCLED WATER PIPING SHALL BE PURPLE COLORED PVC, CONTINUOUSLY STENCILED ON OPPOSITE SIDES OF THE PIPE WITH THE WORDS "CAUTION - RECYCLED 7 WATER". APPROVED MANUFACTURERS OF THIS PIPE CAN BE FOUND IN THE DISTRICTS' "APPROVED MATERIALS LIST"

ALL ON-SITE POTABLE WATER LINES SHALL BE WHITE OR BLUE UNLESS OTHERWISE APPROVED BY THE DISTRICT.

UNLESS OTHERWISE DIRECTED BY THE DISTRICT, A 10-FOOT HORIZONTAL AND 1-FOOT VERTICAL SEPARATION BETWEEN POTABLE WATER AND CONSTANT PRESSURE RECYCLED WATER LINES SHALL BE MAINTAINED AT ALL TIMES. THE POTABLE LINES SHALL BE INSTALLED ABOVE THE RECYCLED LINES UNLESS OTHERWISE APPROVED BY THE DISTRICT OR DEHQ.

WHERE POTABLE LINES AND CONSTANT PRESSURE RECYCLED WATER LINES CROSS, THE RECYCLED WATER LINE SHOULD BE INSTALLED BELOW THE POTABLE WATER LINE IN A SCHEDULE 40 10. PURPLE COLORED PVC SLEEVE. THE SLEEVE SHALL EXTEND 10-FEET ON EITHER SIDE OF THE POTABLE LINE. FOR A TOTAL OF 20-FEET.

A MINIMUM VERTICAL SEPARATION OF 12 INCHES SHALL BE MAINTAINED BETWEEN UTILITIES AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE DISTRICT. 11.

HOSE BIBS ARE STRICTLY PROHIBITED ON RECYCLED WATER SYSTEMS. 12.

ALL SPRAY HEADS, VALVE BOXES, AND QUICK COUPLER VALVES SHALL BE CLEARLY COLOR CODED (PURPLE) TO INDICATE THE USE OF RECYCLED WATER 13.

RECYCLED WATER LINES SHALL NOT CROSS ROADS. STREETS, OR EASEMENTS UNLESS SPECIFICALLY SHOWN ON THESE PLANS. 14.

ALL CONSTANT PRESSURE LINES SHALL BE TESTED WITH HYDROSTATIC PRESSURE AS REQUIRED IN THE DISTRICT STANDARD SPECIFICATIONS. NO LEAKS SHALL BE ALLOWED. CONTRACTOR 15. SHALL PROVIDE ALL EQUIPMENT FOR HYDROSTATIC TESTS. THESE TESTS SHALL BE WITNESSED BY A REPRESENTATIVE OF THE DISTRICT.

ALL SIGNAGE SHALL BE APPROVED AND INSTALLED PRIOR TO ENERGIZING THE SYSTEM WITH WATER. A SIGNAGE PLAN INDICATING USE OF RECYCLED WATER SHALL BE SUBMITTED TO THE 16. DISTRICT FOR APPROVAL PRIOR TO INSTALLATION. AS A MINIMUM, SIGNS MUST BE POSTED AND WRITTEN IN ENGLISH AND SPANISH WITH THE INTERNATIONAL SYMBOL (DO NOT DRINK).

ALL METER SIZES SHALL BE VERIFIED BY THE DISTRICT. FINAL DETERMINATION OF METER SIZES IS RESERVED BY THE DISTRICT. 17.

ALL RECYCLED WATER SERVICES REQUIRE BACKFLOW PREVENTION AS SHOWN IN THE POINT OF CONNECTION (POC) DETAIL. IRRIGATION SYSTEMS BEING SUPPLIED WITH RECYCLED WATER 18. SHALL INSTALL BACKFLOW PREVENTION AND A WYE STRAINER PER DISTRICT STANDARD DRAWING WR-03, WR-04, WR-05, WR-06, AND WR-08,

19. PRIOR TO ENERGIZING THE ON-SITE SYSTEM WITH WATER, ONE (1) COMPLETE SET OF LAMINATED CONTROLLER CHARTS AND ONE (1) ELECTRONIC COPY CREATED FROM THE FINAL APPROVED AS-BUILT SHALL BE PROVIDED TO THE DISTRICT.

20. EACH AUTOMATIC CONTROLLER AND ITS ASSOCIATED EQUIPMENT SHALL BE IDENTIFIED WITH A SIGN BEARING THE WORDS "RECYCLED WATER USED FOR IRRIGATION" IN ENGLISH AND SPANISH, WITH WHITE LETTERS AT LEAST 1 INCH HIGH ON A PURPLE, PANTONE 512, BACKGROUND. THE SIGN SHALL BE PLACED AS TO BE READILY SEEN BY ANY OPERATIONS PERSONNEL UTILIZING THE EQUIPMENT.

21. THE CONTRACTOR SHALL ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE. THIS SHALL INCLUDE THROTTLING THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM. CONDITIONS THAT CAUSE OVERSPRAYS, PONDING, OR RUNOFF SHALL BE ELIMINATED. ADJUST SYSTEM TO AVOID THESE CONDITIONS.

22. THE IRRIGATION SYSTEM HAS BEEN DESIGNED TO AND SHALL BE OPERATED BETWEEN THE HOURS OF 9:00 P.M. AND 6:00 A.M. UNLESS OTHERWISE APPROVED BY THE DISTRICT.

23. NO SUBSTITUTION OF PIPE MATERIALS WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE DISTRICT.

24. AN INITIAL CROSS-CONNECTION INSPECTION WILL BE DONE AT SITES WITH BOTH POTABLE AND RECYCLED WATER SERVICES BY THE DISTRICT AND/OR THE SAN DIEGO COUNTY ENVIRONMENTAL HEALTH (DEHQ). COPIES OF INSPECTION REPORTS WILL BE FORWARDED TO THE NON-INSPECTING PARTY. ANNUAL INSPECTIONS OR CROSS-CONNECTION TESTING WILL BE PERFORMED THEREAFTER.

25. FAILURE TO COMPLY WITH THE DISTRICT'S RULES AND REGULATIONS IS A VIOLATION AND COULD RESULT IN SUSPENSION OF SERVICE UNTIL THE APPROPRIATE CORRECTIVE STEPS HAVE BEEN TAKEN

WHEN RECYCLED WATER BECOMES AVAILABLE, AN ON-SITE CERTIFIED RECYCLED WATER SITE SUPERVISOR SHALL BE DESIGNATED IN WRITING. THIS INDIVIDUAL SHALL BE FAMILIAR WITH 26. PLUMBING SYSTEMS WITHIN THE PROPERTY, WITH THE BASIC CONCEPTS OF BACKFLOW/CROSS CONNECTION PROTECTION, THE RECYCLED PURVEYOR'S RULES AND REGULATIONS, AND THE SPECIFIC REQUIREMENTS OF A RECYCLED WATER SYSTEM. COPIES OF THE DESIGNATION, WITH CONTACT PHONE NUMBERS SHALL BE PROVIDED TO THE OTAY WATER DISTRICT AND SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

IN CASE OF EMERGENCY, CONTACT LANCE LEININGER AT 619.520.9562 NAME PHONE NO.

OR AFTER HOURS, CONTACT LANCE LEININGER AT 619.520.9562 PHONE NO. NAME

BEST MANAGEMENT PRACTICES SHALL BE USED TO ELIMINATE OR CONTROL TO THE BEST EXTENT POSSIBLE PONDING, RUN-OFF, OVER-SPRAY AND MISTING. 27

AT THE DESCRETION OF OTAY WATER DISTRICT, RECYCLED WATER QUICK COUPLERS MAY BE ALLOWED WITHIN SLOPES AND PARKWAYS. 28.

29. RECYCLED WATER QUICK COUPLING VALVES SHALL BE OF A TYPE DESIGNED FOR USE ON RECYCLED WATER DISTRIBUTION SYSTEMS (SPIKES NOT INTERCHANGEABLE WITH POTABLE WATER QUICK COUPLER SPIKES) PER OTAY WATER DISTRICT'S RULES AND REGULATIONS.

30. ALL BUILDINGS SHALL HAVE INDIVIDUAL POTABLE WATER SHUT-OFF VALVES INSTALLED ON THE EXTERIOR OF EACH BUILDING AND SHALL BE MAINTAINED IN WORKING ORDER FOR THE PURPOSE OF THE CROSS-CONNECTION SHUTDOWN TEST. A DETAIL OF POTABLE WATER SHUT-OFF VALVE INSTALLATION MUST BE INCLUDED ON PLANS FOR DISTRICT APPROVAL.

31. ALL BOX LIDS SHALL BE BRANDED.

32. A 10-FOOT SEPARATION BETWEEN RECYCLED WATER IRRIGATION MAIN LINE TIE IN POINT AND PROJECT POINT OF CONNECTION (POC) IS TO BE MAINTAINED DURING THE CONSTRUCTION PROCESS AND IS TO BE TIED IN AT THE INSPECTIONS DIRECTION, AFTER DEH APPROVALS AND METER(S) SET(S) HAVE TAKEN PLACE.

33. RECYCLED WATER IRRIGATION PROJECTS THAT REQUIRE PHASING OF CONSTRUCTION SHALL REQUIRE A DETAILED PHASING PLAN BE SUBMITTED BY THE PROJECT ARCHITECT TO THE DISTRICT FOR REVIEW. UPON APPROVAL OF THE PHASING PLAN BY THE DISTRICT, A COPY OF THE APPROVED PHASING PLAN SHALL BE INCORPORATED INTO THE APPROVED PLAN SET(S) BY THE PROJECT ARCHITECT.

34. ALL DUAL SOURCED RECYCLED WATER USE SITES SHALL BE DESIGNED AND BUILT TO UTILIZE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH APPROVED TEST METHOD 1 UTILIZING PRESSURE RECORDERS FOR THE RECYCLED AND POTABLE CROSS-CONNECTION TESTING. PROPOSED ALTERNATIVE TEST METHODS MUST BE APPROVED BY THE OTAY WATER DISTRICT AND SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

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DATE SIGNATURE R.L.A. No. Printed Name My Registration Expires Discipline.	FACILITIES MAY EXIST WH	APPROX IICH HA TOR SHA				
CONSTRUCTION RECORD	REFERENCES	By	REVISIONS	Date	App'd	DAT
CONTRACTOR:	HALE ENGINEERING GRADING PLANS: 1401	1				CITY OF CHULA VISTA BE
INSPECTOR:						ELEVATION 446.361 NAVD
DATE COMPLETED:						CL INT. RUTGERS & OTAY
						ROS 14841

SAN DIEGO COUNTY D.E.H. RECYCLED WATER NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE OTAY WATER DISTRICT'S RULES AND REGULATIONS.

2. DRINKING WATER FOUNTAINS AND DESIGNATED OUTDOOR EATING AREAS SHALL BE PROTECTED AGAINST CONTACT WITH RECYCLED WATER SPRAY, MIST, OR RUNOFF.

3. BEST MANAGEMENT PRACTICES SHALL BE USED TO ELIMINATE OR CONTROL TO THE BEST EXTENT POSSIBLE PONDING, RUN-OFF, OVER-SPRAY AND MISTING.

- 4. HOSE BIBS ARE STRICTLY PROHIBITED.
- 5. CROSS-CONNECTIONS BETWEEN RECYCLED WATER LINES AND POTABLE WATER LINES ARE STRICTLY PROHIBITED
- 6. NO SUBSTITUTIONS OF PIPE MATERIALS WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE OTAY WATER DISTRICT.

7. ALL MAINLINE PIPES SHALL HAVE WARNING TAPE PER OTAY WATER DISTRICT'S RULES AND REGULATIONS.

8. HOURS FOR IRRIGATION WITH RECYCLED WATER ARE FROM 9:00 PM TO 6:00 AM. THE HOURS FOR IRRIGATION WITH DISINFECTED TERTIARY RECYCLED WATER MAY BE MODIFIED BY THE LOCAL AUTHORITY. IRRIGATION DURING PUBLIC USE PERIODS WITH DISINFECTED TERTIARY RECYCLED WATER SHALL BE UNDER THE SUPERVISION OF THE DESIGNATED USER SUPERVISOR. IRRIGATION WITH WATER OF A LESSER QUALITY THAN DISINFECTED TERTIARY RECYCLED WATER SHALL BE BETWEEN THE HOURS OF 9:00 PM AND 6:00 AM.

9. BURIAL OF ALL WIRING AND PIPING SHALL MEET OTAY WATER DISTRICT'S RULES AND REGULATIONS.

10. NON-DESIGNATED USE AREAS SHALL BE PROTECTED FROM CONTACT WITH RECYCLED WATER, WHETHER BY WINDBLOWN SPRAY OR BY DIRECT APPLICATION THROUGH IRRIGATION OR OTHER USE. LACK OF PROTECTION, WHETHER BY DESIGN, CONSTRUCTION PRACTICES, OR SYSTEM OPERATION, IS STRICTLY PROHIBITED.

11. IRRIGATION HEADS SHALL BE RELOCATED OR ADJUSTED TO MINIMIZE OR ELIMINATE OVER-SPRAYING ON SIDEWALKS, STREETS AND NON-DESIGNATED USE AREAS

AND REGULATIONS.

13. ON RECYCLED WATER SYSTEMS, ALL APPURTENANCES (SPRINKLER HEADS, VALVE BOXES, ETC.) SHALL BE COLOR-CODED PURPLE PER AWWA GUIDELINES AND SECTION 116815 OF THE CALIFORNIA HEALTH AND SAFETY CODE.

14. ALL IRRIGATION PIPES SHALL BE STENCILED WITH THE WARNING, "NON-POTABLE OR RECYCLED WATER", COLOR-CODED (PURPLE) AND LAID WITH WARNING TAPE AND STENCILING ORIENTED TOWARD THE TOP OF THE TRENCH PER THE OTAY WATER DISTRICT'S RULES AND REGULATIONS.

15. ON NEW ON-SITE SYSTEMS (POST-METER), POTABLE WATER, CONSTANT PRESSURE RECYCLED WATER, AND SEWER LINES SHALL BE PLACED A MINIMUM OF FOUR (4) FEET APART OR AS DIRECTED BY THE PROJECT ENGINEER AND/OR REGULATORY AGENCY. MEASUREMENTS SHALL BE BETWEEN FACING SURFACES, NOT PIPE CENTERLINES.

CROSSING SEPARATION BETWEEN OTHER UTILITIES.

17. IF A CONSTANT PRESSURE RECYCLED WATER LINE MUST BE INSTALLED ABOVE A POTABLE WATER LINE OR LESS THAN TWELVE (12) INCHES BELOW A POTABLE WATER LINE, THEN THE RECYCLED WATER LINE SHALL BE INSTALLED WITHIN AN APPROVED PROTECTIVE SLEEVE AS PER OTAY WATER DISTRICT'S RULES AND REGULATIONS.

18. DEVELOPER/CONTRACTOR SHALL CONDUCT A CROSS-CONNECTION TEST AND COVERAGE TEST AS DIRECTED BY OTAY WATER DISTRICT AND THE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH PRIOR TO ANY USE OF RECYCLED WATER.

19. THE REQUIRED CROSS-CONNECTION INSPECTION SHALL BE DONE BY EITHER THE OTAY WATER DISTRICT AND/OR THE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH. COPIES OF INSPECTION REPORTS WILL BE FORWARDED TO THE NON-INSPECTING PARTY.

20. THE DESIGN AND LOCATIONS PROPOSED FOR RECYCLED WATER "DO NOT DRINK" SIGNS SHALL BE CALLED OUT ON THE PLANS.

21. WHEN RECYCLED WATER BECOMES AVAILABLE. AN ON-SITE USER SUPERVISOR SHALL BE DESIGNATED IN WRITING. THIS INDIVIDUAL SHALL BE FAMILIAR WITH PLUMBING SYSTEMS WITHIN THE PROPERTY, WITH THE BASIC CONCEPTS OF BACKFLOW / CROSS-CONNECTION PROTECTION. THE RECYCLED PURVEYOR'S RULES AND REGULATIONS AND THE SPECIFIC REQUIREMENTS OF A RECYCLED WATER SYSTEM. COPIES OF THE DESIGNATION, WITH CONTACT PHONE NUMBERS SHALL BE PROVIDED TO THE OTAY WATER DISTRICT.

IN CASE OF EMERGENCY, CONTACT JEFF O'CONNOR AT 760-918-8200

OR AFTER HOURS CONTACT JEFF O'CONNOR AT 760-918-8200

22. ALL PUBLIC AND PRIVATE POTABLE WATER MAINS INCLUDING FIRE MAINS AND ANY WATER WELLS AND WATER COURSES WITHIN THE RECYCLED WATER PROJECT SHALL BE SHOWN ON THE PLANS.

23. CALL OUT ON THE PLANS IF THERE ARE OR ARE NOT DRINKING FOUNTAINS AND / OR DESIGNATED OUTDOOR EATING AREAS ON THIS SITE.

24. EDUCATE ALL MAINTENANCE PERSONNEL ON A CONTINUOUS BASIS OF THE PRESENCE OF RECYCLED WATER. PERSONNEL MUST BE INFORMED THAT RECYCLED WATER IS MEANT FOR IRRIGATION PURPOSES ONLY, AND IS NOT APPROVED FOR DRINKING PURPOSES, HAND WASHING, CLEANING OF TOOLS, ETC. GIVEN THE HIGH TURNOVER RATE OF EMPLOYEES IN THE LANDSCAPE INDUSTRY IT IS IMPORTANT THE INFORMATION BE DISSEMINATED ON AN ALMOST DAILY BASIS.

25. A PHYSICAL SEPARATION SHALL BE PROVIDED BETWEEN ADJACENT AREAS IRRIGATED WITH RECYCLED WATER AND POTABLE WATER. SEPARATION SHALL BE PROVIDED BY DISTANCE, CONCRETE NOW STRIPS, OR OTHER APPROVED METHODS

TUMS	SCALE	Designed By:	Drawn By:	Checked By:		Submitted:		
BENCH MARK NO. 95072 HORIZONTAL		LE LE / RR			PT	Submitted	APPROVED BY:	
VD 88 S DISK (I S4324) WELL MON @		Plans Prepared Ur	nder Supervision Of:	Date:	2/10/2022	Ву:		
S DISK (LS4324) WELL MON @ - AY LAKES. PT. NO. 5072 PER	VERTICAL N/A		IA TRAUTH			Office:	DIRECTOR OF DEVELOPMENT SERVICES, TIFF	
	,							

12. RECYCLED WATER QUICK COUPLING VALVES SHALL BE OF A TYPE DESIGNED FOR THE USE ON RECYCLED WATER DISTRIBUTION SYSTEMS PER OTAY WATER DISTRICT'S RULES

16. CONSTANT PRESSURE RECYCLED WATER LINES SHALL CROSS AT LEAST TWELVE (12) INCHES BELOW POTABLE WATER LINES AND MAINTAIN AT LEAST TWELVE (12) INCHES

COLOR CODING

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. ALL SHRUB HEADS SHALL HAVE PURPLE CAPS. DECAL ON RISERS WILL NOT BE ACCEPTED.

INSPECTION NOTE

OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT THE BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL



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DRAWING NO.

19015-14

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D1044-06027

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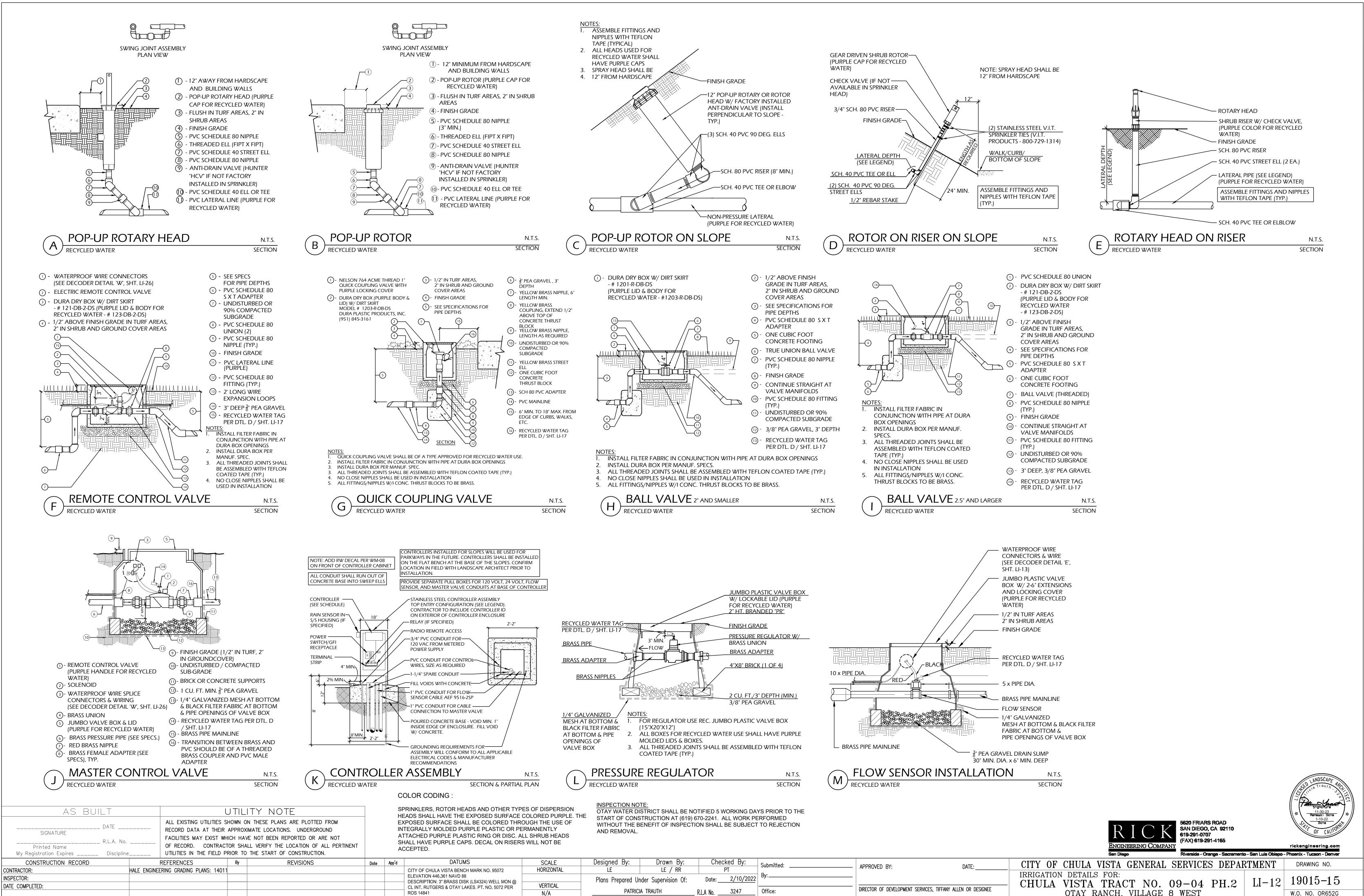
CHULA VISTA TRACT NO. 09-04 PH.2 | LI-11

619-291-0707 (FAX) 619-291-4165 Riverside - Orange - Sacramento - San Luís Obispo - Phoenix - Tucson - Denver CITY OF CHULA VISTA GENERAL SERVICES DEPARTMENT IRRIGATION SCHEDULE & NOTES FOR:

ANY ALLEN OR DESIGNEE

DATE:

OTAY RANCH. VILLAGE 8 WEST W.O. NO. OR652G GRADING PERMIT No. GR13-005 PLR-20-018 OWD SHEET 14 OF 27

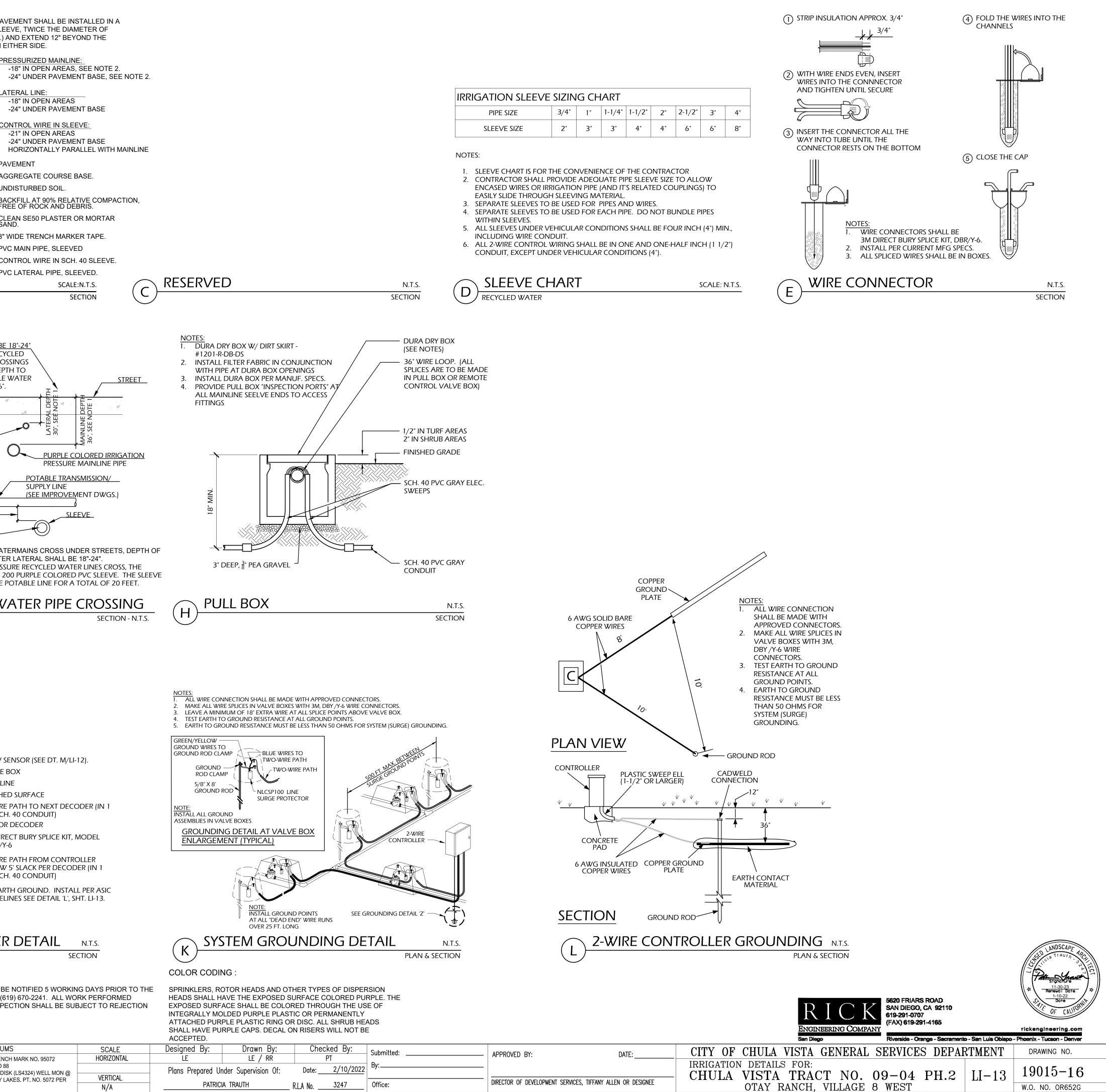


R.L.A No. 3247 PATRICIA TRAUTH Office: N/A

GRADING PERMIT No. GR13-005 PLR-20-018 OWD SHEET 15 OF 27

D1044-06027 MD

	-FINISH SURI	FACE		1	2	7	NOTE:
½" TO 2 1/2" IN SIZE 3" IN SIZE	18" 12" 24" 4 36" 4	C D 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6"	EAN COMPACTED ACKFILL WIDE I.D. TAPE ESSURE MAINLINE PIPE ESSURE MAINLINE PIPE ESSURE MAINLINE PIPE ESSURE MAINLINE SPECS.) OVIDE SAND BED PER TY OF CHULA VISTA STI ENOTES) EEVE SIZE, SEE TO ART. MAINLINE SHALL BE ON 4" MIN. SAND BED DUNDED ON 5 SIDES BY 6" OF SAND N.T.S. SECTION	DS. NOTES: 1. ALL SLEEVES COLOR. 2. WHERE RECY WATERMAINS DEPTH OF TH RECYCLED W 18"-24".	SHALL BE CLED ANE CLED ANE CROSS U E RECYCL ATER LATI) POTAE NDER S ED MAI ERAL S	BLE 6 3" STREETS, 7 PV NLINE AND 8 CC
SIDEWALK		24"	METER BOX WITH METER			<u>م</u>	DEPTH SHOULD BE FOR SLEEVED RECY WATER ROAD CRO WHERE ROAD DEP EXISTING POTABLE AND GAS IS 30-36".
POTABLE SERVICE LINE	APPR	ROX. 8"	12" MIN	NIMUM WATH TO SF THE L	er Pipe Fro	Pressui DM SPR IEAD. \ Ses The	<u>Gation</u> Re Recycled Inkler Head Whenever Potable
		ED WATER IRRIGATION		12" MIN I			
10' MINIMUM WA	TER IRRIGAT	ION MAINLINE WITH SLEEVE		RECYCLE		transi	MISSION/SUPPLY
OF A POTABLE WATER LINE MAINLINE 24" FROM FACE C	. INSTALLATI DF SIDEWALK	IS MANDATORY WHEN CRO ON OF RECYCLED WATER IRI WILL PROVIDE THE NECESS OTABLE MAINLINE IN THE ST	RIGATION ARY 10'	THE REC 2. WHER RECYCLE	YCLED MA E POTABLE D LINES SH	INLINE LINES J	ED AND POTABLE WAT AND RECYCLED WATE AND CONSTANT PRESS INSTALLED IN CLASS 2 N EITHER SIDE OF THE I
F POTABLE S RECYCLED WATER	ERVIC	E LINE CROSSI	NG n.t.s. section		CLED) & I	Potable W
 1- DECODER TO SOLE 150' (IN 1 1/2" SCH. 2- ID WIRE PATH TWIS DECODER (IN 1 1/2 CONDUIT) 3- 3M DIRECT BURY SF #DBR/Y-6 4- COLOR CODED VA NOTES) 5- DECODER (TO BE N OF VALVE BOX W/ 	40 CONDUI TED TO NEX SCH. 40 PLICE KIT, MC LVE WIRES (S 10UNTED O	T) ALLOW 5' SLACK F 1/2 ON EITHER SIE 1/2" SCH. 40 CONE ODEL 7- TO EARTH GROUN GUIDELINES EVER SEE DETAIL 'Z', SH SEE 3- VALVE BOX N INSIDE	PER DECODER DE OF DECODER (IN 1 DUIT) ND. INSTALL PER ASIC Y 500' (SEE NOTE 2)			4 	 FLOW S VALVE MAINLI FINISHE
			<u>/</u> 6		} ≪ ≪ ≪ ≪ ≪ ≪ ≪ ≪ ≪ ≪ ≪ ≪ ≪		(5)- ID WIRE 1/2" SCH (6)- SENSOF (7)- 3M DIRI #DBR/Y
AND CORRESPONE ADDRESS 1 = Black ADDRESS 4 = White	DING COLOR ADDRESS 2 ADDRESS 5 ONS CONSU	= Yellow, ADDRESS 3 = Greer 5 = Orange, ADDRESS 6 = Pur LT LANDSCAPE ARCHITECT F	ple	NOTES: 1. SEE DETAIL 'N DETAIL. 2. ALL WIRE SHA TWISTED ID-V 3. IN ROCKY CO LANDSCAPE A ALTERNATE O	ALL BE 12 WIRE. NDITIONS ARCHITECT	or 14 A Consl	AWG 1/2" SCH 3- TO EAR JLT GUIDEL
DECODER RECYCLED WATER	DETA	IL	N.T.S.			120	R DECODE
AS BUILT DATE SIGNATURE R.L.A. No. Printed Name		ALL EXISTING UTILITIES SHOW RECORD DATA AT THEIR APP FACILITIES MAY EXIST WHICH OF RECORD. CONTRACTOR	PROXIMATE LOCATIONS. HAVE NOT BEEN REPOR SHALL VERIFY THE LOCA	UNDERGROUND TED OR ARE NOT ATION OF ALL PERTINEN	OT ST. WI AN	AY WAT ART OF	<u>ON NOTE:</u> TER DISTRICT SHALL B CONSTRUCTION AT (6 THE BENEFIT OF INSPE OVAL.
My Registration Expires Disciplin CONSTRUCTION RECORD CONTRACTOR:		UTILITIES IN THE FIELD PRIOF REFERENCES ERING GRADING PLANS: 14011		ISTRUCTION. ISIONS	Date	App'd	DATU CITY OF CHULA VISTA BENG
INSPECTOR: DATE COMPLETED:							ELEVATION 446.361 NAVD 8 DESCRIPTION: 3" BRASS DI: CL INT. RUTGERS & OTAY L

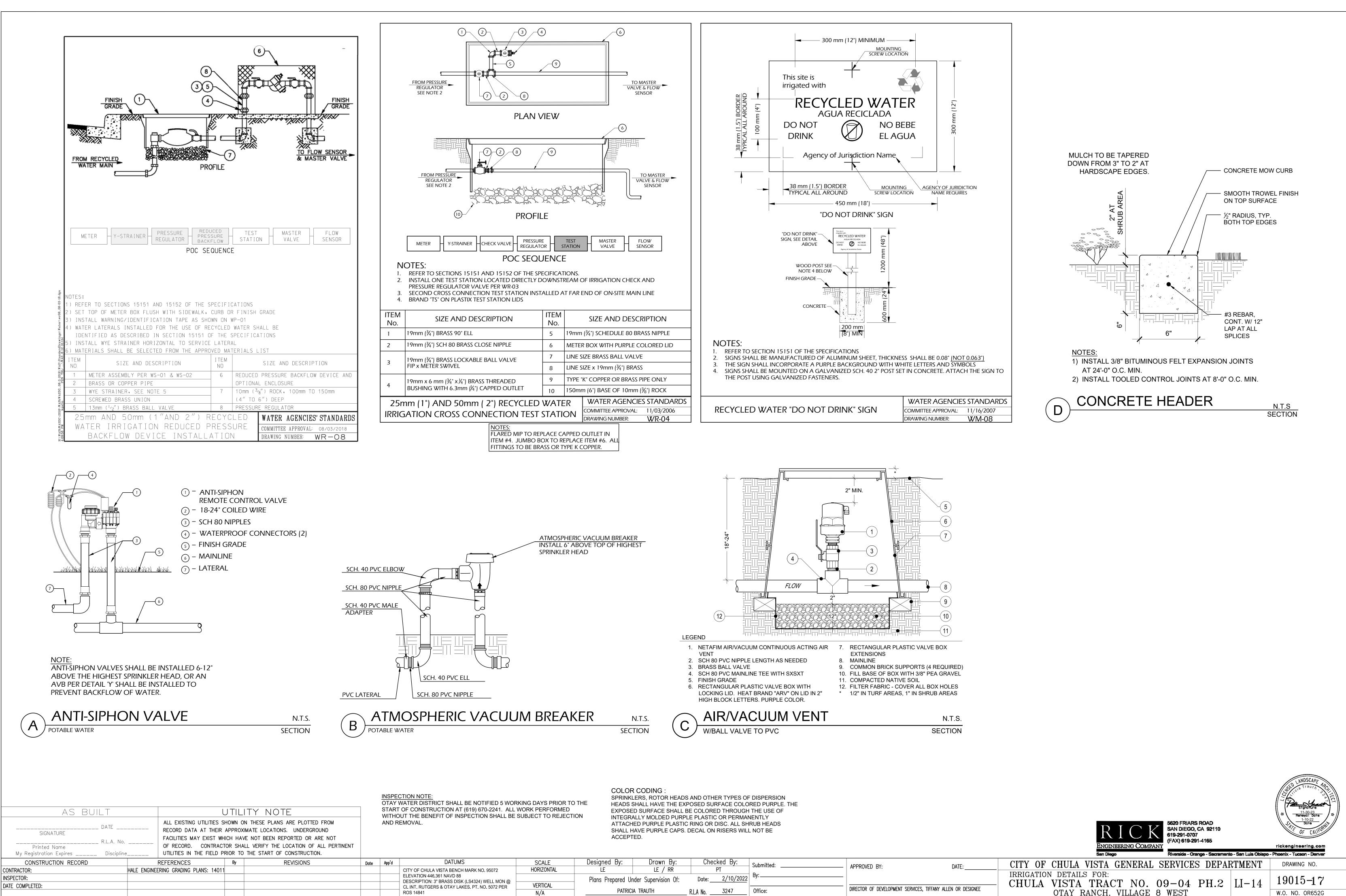


1 NAVD 88 BRASS DISK (LS4324) WELL MON @		Plans Prepared Under Supervision Of:	Date: _	2/10/2022	Ву:	
& OTAY LAKES. PT. NO. 5072 PER	VERTICAL			70.47		DIRECTOR OF DEVELOPMENT SERVICES
	N/A	PATRICIA TRAUTH	_ R.L.A No	3247	Office:	
	•	•				

ROS 14841

W.O. NO. 0R652G GRADING PERMIT No. GR13-005 PLR-20-018 OWD SHEET 16 OF 27

OWD # D1044-060274

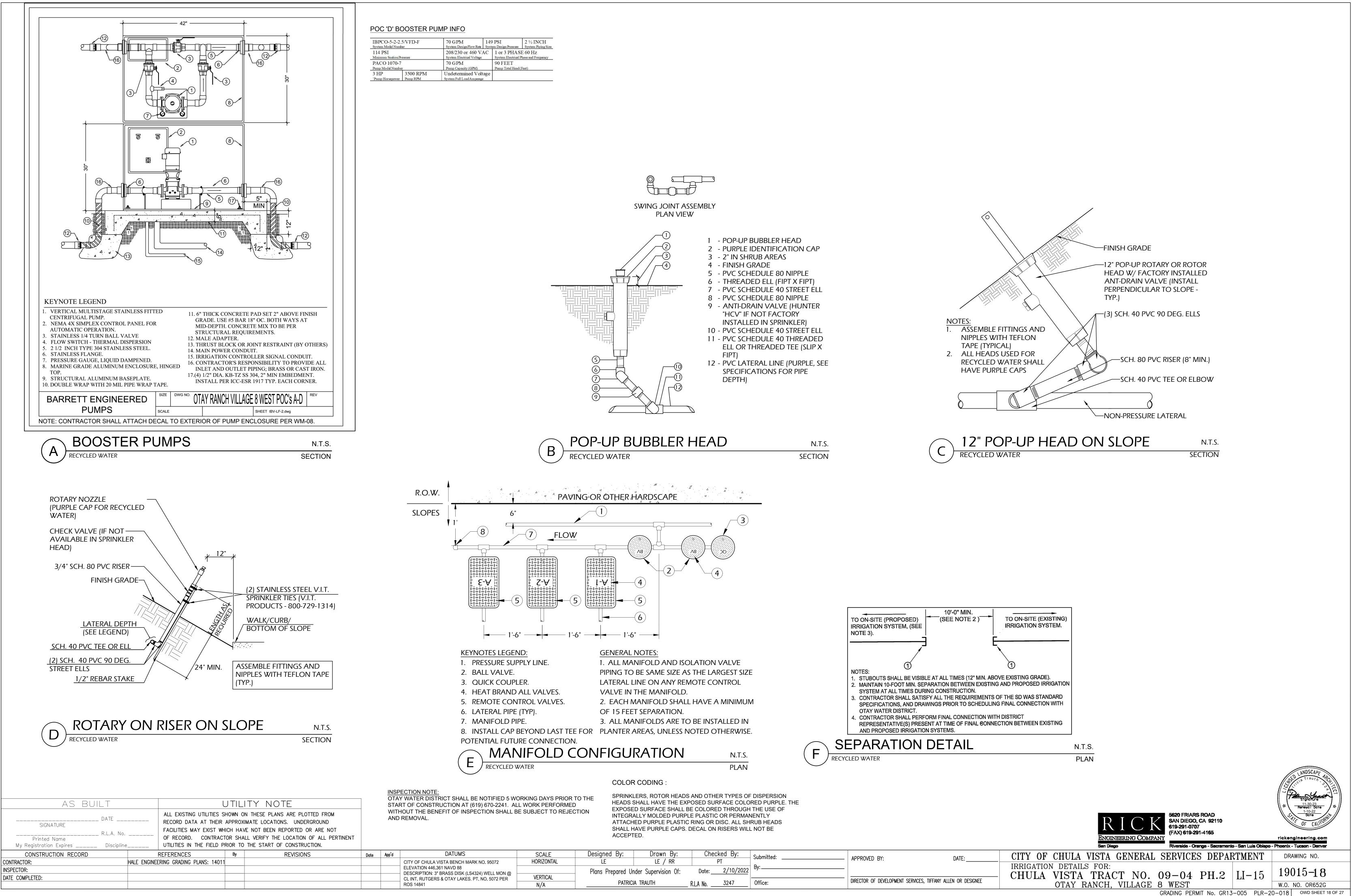


ATUMS BENCH MARK NO. 95072	SCALE HORIZONTAL	Designed By: LE	Drawn By: LE / RR	Che	cked By: PT	Submitted:	APPROVED BY:
VD 88 SS DISK (LS4324) WELL MON @	VERTICAL	Plans Prepared Un	der Supervision Of:	Date:	2/10/2022	Ву:	
AY LAKES. PT. NO. 5072 PER	N/A	PATRICI	PATRICIA TRAUTH			Office:	DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY A

GRADING PERMIT No. GR13-005 PLR-20-018 OWD SHEET 17 OF 27

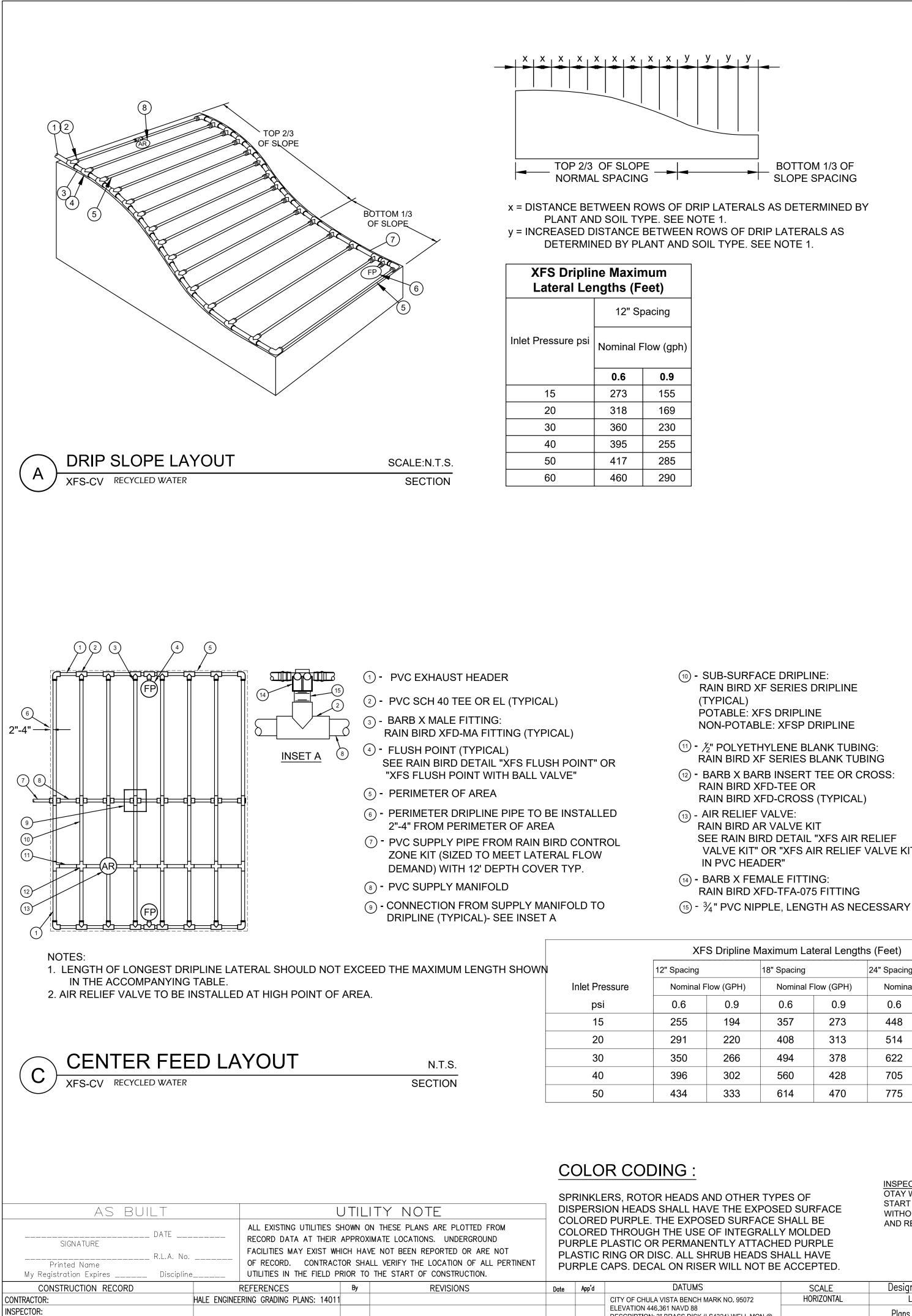
D1044-06027 DWD

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PM	149	PSI	2 ½ INCH				
n Design Flow Rate	Syste	em Design Pressure	System Piping Size				
230 or 460 VA n Electrical Voltage	4C	1 or 3 PHASE 60 Hz System Electrical Phase and Frequency					
PM		90 FEET					
Capacity (GPM)		Pump Total Head(Feet)					
etermined Volt	age						
Full Load Amperage	:						

SCALE	Designed By:	By: Drawn By:		cked By:	Submitted	
HORIZONTAL	LE	LE / RR		PT		APPROVED BY:
	Plans Prepared Under Supervision Of:		Date: _	2/10/2022	Ву:	
N/A	PATRIC	IA TRAUTH	_ R.L.A No	3247	Office:	DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY
	HORIZONTAL VERTICAL	HORIZONTAL LE Plans Prepared U	HORIZONTAL LE LE / RR Plans Prepared Under Supervision Of: VERTICAL	HORIZONTAL LE LE / RR VERTICAL Plans Prepared Under Supervision Of: Date: _	HORIZONTAL LE LE / RR PT Plans Prepared Under Supervision Of: Date: 2/10/2022 VERTICAL PATRICIA FRAUTULE FRAUTULE FRAUTULE FRAUTULE FRAUTULE	HORIZONTAL LE LE / RR PT Submitted: HORIZONTAL LE LE / RR PT By: VERTICAL Patrola TRAUTU Date: 2/10/2022



DATE COMPLETED:

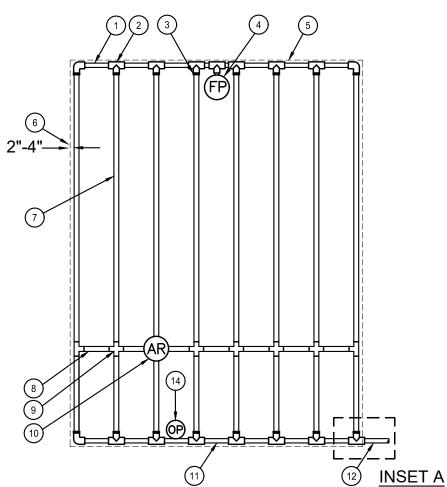
DESCRIPTION: 3" BRASS I CL INT. RUTGERS & OTAY

ROS 14841

- (1) PVC DRIP MANIFOLD FROM RAIN BIRD CONTROL ZONE VALVE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
- 2 BARB X MALE FITTING: RAIN BIRD XFF-MA FITTING (TYPICAL)
- (3) PVC SUPPLY HEADER
- (4) PVC SCH 40 TEE OR EL (TYPICAL)
- 5 SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE (TYPICAL) POTABLE: XFS DRIPLINE NON-POTABLE: XFSP DRIPLINE
- (6) FLUSH POINT: SEE RAIN BIRD XFS DETAILS FOR FLUSH POINT INSTALLATION
- (7) PVC FLUSH HEADER
- 8 1/2" AIR RELIEF VALVE: RAIN BIRD MODEL: ARV050
- SEE RAIN BIRD XFS DETAILS FOR AIR RELIEF INSTALLATION

NOTES:

- 1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. DISTANCE BETWEEN LATERAL ROWS FOR BOTTOM 1/3 OF SLOPE TO BE SPACED GREATER THAN OPTIMAL ROW DISTANCE. SEE RAIN BIRD XFD DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACING.
- 2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE
- 3. WHEN ELEVATION CHANGE EXCEEDS 8 FEET IT IS RECOMMENDED THAT A NEW DRIPLINE ZONE BE CREATED.
- 4. INSTALL AIR RELIEF VALVE AT HIGH POINTS IN DRIP LATERAL 5. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.



NOTES:

1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE RAIN BIRD XFS DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS. 2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE. 3. AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA.

END FEED LAYOUT

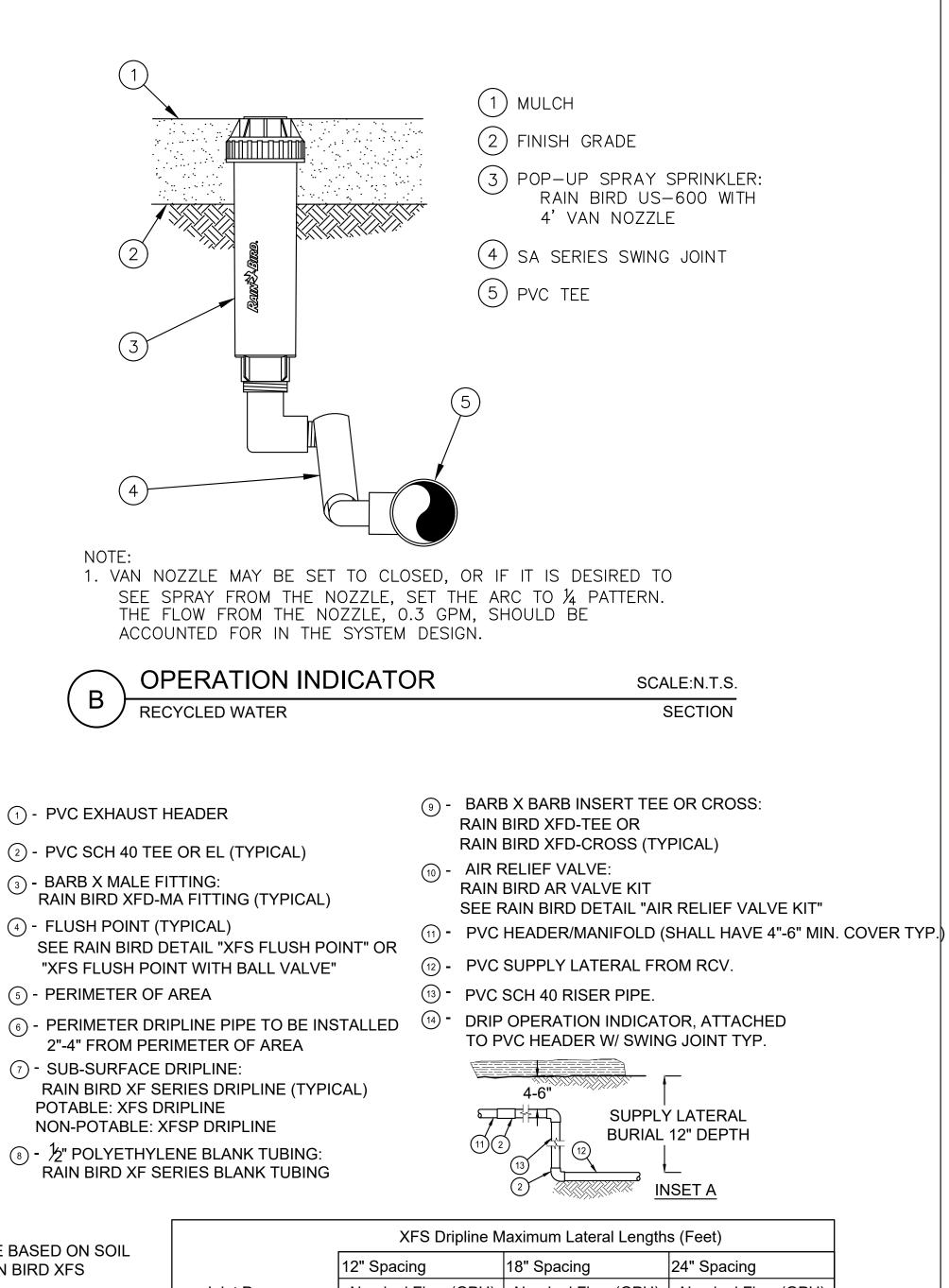
XFS-CV RECYCLED WATER

- RAIN BIRD XF SERIES DRIPLINE
- NON-POTABLE: XFSP DRIPLINE
- (1) ½" POLYETHYLENE BLANK TUBING:
- (12) BARB X BARB INSERT TEE OR CROSS: RAIN BIRD XFD-CROSS (TYPICAL)
- SEE RAIN BIRD DETAIL "XFS AIR RELIEF VALVE KIT" OR "XFS AIR RELIEF VALVE KIT
- RAIN BIRD XFD-TFA-075 FITTING

XF	XFS Dripline Maximum Lateral Lengths (Feet)											
cing		18" Spacing	24" Spacing									
ninal Flow (GPH) Nominal Flow (GPH)				Nominal Flow (GPH)								
	0.9	0.6	0.9	0.6	0.9							
5	194	357 273		448	343							
	220	408 313		514	394							
)	266	494	378	622	478							
6	302	560 428		705	541							
ŀ	333	614	470	775 594								

INSPECTION NOTE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT THE BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.

TUMS	SCALE	Designed By:	Drawn By:	Cheo	ked By:	Submitted:		
BENCH MARK NO. 95072	HORIZONTAL	LE	LE / RR		PT		APPROVED BY:	
√D 88 S DISK (LS4324) WELL MON @ -		Plans Prepared Under Supervision Of:		Date:	2/10/2022	Ву:		
AY LAKES. PT. NO. 5072 PER	VERTICAL							
AT LAKES. PT. NO. 5072 FER	N/A	PATRICI	PATRICIA TRAUTH		3247	Office:	DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY AI	
	·	1						



N.T.S. SECTION

Nominal Flow (GPH) Nominal Flow (GPH) Nominal Flow (GPH) Inlet Pressure 0.6 0.6 0.9 0.6 0.9 0.9 psi 15 255 194 357 273 448 343 20 291 220 408 313 514 394 378 30 350 266 494 622 478 40 302 560 428 705 541 396 594 50 333 470 775 434 614



5620 FRIARS ROAD SAN DIEGO, CA 92110

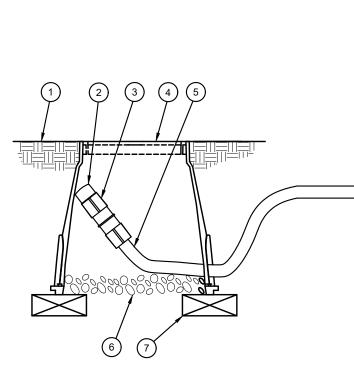


DATE:

 I FINSH GRADETOP OF MULCH ALTERAL PIPE ALTERAL PIPE ALTERAL PIPE ALTERAL PIPE ALTERAL PIPE ALTERAL PIPE 		
	Image: state of the state	 VALVE BOX WITH COVER: RAIN BIRD VB-STD -REMOTE CONTROL VALVE: RAIN BIRD 150-PESB (INCLUDED IN XCZ-PREKT) 4 -ID TAG 5 -WATERPROOF CONNECTION: RAIN BIRD DB SERIES 6 -30-INCH LINEAR LENGTH OF WIRE, COILED 7 -PRESSURE REGULATING QUICK CHECK BASFILTER: RAIN BIRD PRB-QKCHK-100 (INCLUDED IN XCZ-PRB-150-COM KIT) 8 -PVC SCH 80 NIPPLE (LENGTH AS REQUIRED 9 -PVC SCH 40 ELL 10 -PVC SCH 40 ELL 11 -PVC SCH 40 TEE OR ELL 12 -MAINLINE PIPE 13 -3-INCH MINIMUM DEPTH OF 3/8-INCH WASHE 14 -PVC SCH 40 TEE (INCLUDED IN XCZ-PRB-150- COM KIT) 15 -PVC SCH 40 TEE (INCLUDED IN XCZ-PRB-150- COM KIT) 16 -PVC SCH 40 TEE (INCLUDED IN XCZ-PRB-150- COM KIT) 17 -PVC SCH 40 TEE (INCLUDED IN XCZ-PRB-150- COM KIT) 16 -PVC SCH 40 TEE (INCLUDED IN XCZ-PRB-150- COM KIT) 17 -PVC SCH 40 FEMALE ADAPTOR 18 -LATERAL PIPE

COLOR CODING :

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. ALL SHRUB HEADS SHALL HAVE PURPLE CAPS. DECAL ON RISER WILL NOT BE ACCEPTED.



NOTE:



AS BU	IILT		UTILIT	Y NOTE									
SIGNATURE Printed Name My Registration Expires	DATE R.L.A. No _ Discipline	RECORD DATA AT TH FACILITIES MAY EXIS OF RECORD. CONT	IEIR APPROXIMA T WHICH HAVE RACTOR SHALL	THESE PLANS ARE PLOTTED FROM TE LOCATIONS. UNDERGROUND NOT BEEN REPORTED OR ARE NOT VERIFY THE LOCATION OF ALL PERTINENT IE START OF CONSTRUCTION.	START OF WITHOUT	OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT THE BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.							
CONSTRUCTION RECORD		REFERENCES	Ву	REVISIONS	Date App'd	DATUMS	SCALE	Designed By:	Drawn By:	Checked By:	Submitted:		
CONTRACTOR:	HALE ENGI	NEERING GRADING PLANS: 1	4011			CITY OF CHULA VISTA BENCH MARK NO. 95072	HORIZONTAL	LE	LE / RR	PT		APPROVED BY:	DATE:
INSPECTOR: DATE COMPLETED:						ELEVATION 446.361 NAVD 88 DESCRIPTION: 3" BRASS DISK (LS4324) WELL MON @	VERTICAL	Plans Prepared Un	der Supervision Of:	Date: 2/10/202	By:		
DATE COMPLETED.						CL INT. RUTGERS & OTAY LAKES. PT. NO. 5072 PER ROS 14841	N/A	PATRICIA	TRAUTH	R.L.A No3247	Office:	DIRECTOR OF DEVELOPMENT SERVICE	ES, TIFFANY ALLEN OR DESIGNEE

RB-150-COM

ASKET

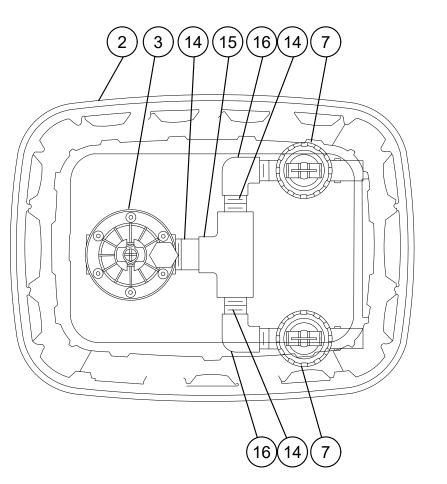
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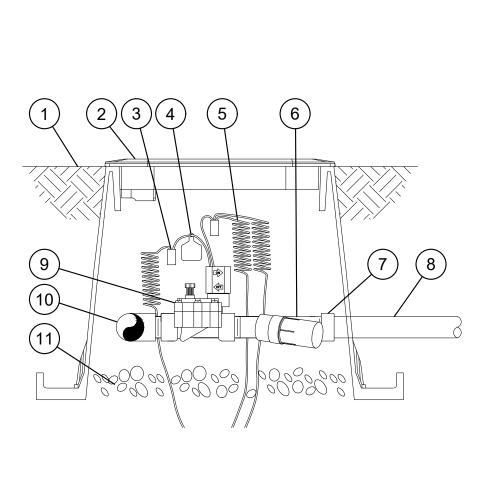
DEN) AND

HED GRAVEL

50-COM KIT)

50-COM KIT)

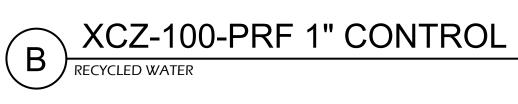




(1) -FINISH GRADE (2) -STANDARD VALVE BOX WITH COVER:RAIN BIRD VB-STD (3) -WATERPROOF CONNECTION: RAIN BIRD DB SERIES (4) -VALVE ID TAG (5) -30-INCH LINEAR LENGTH OF WIRE, COILED (6) PRESSURE REGULATING FILTER: RAIN BIRD PRF-100-RBY (INCLUDED IN XCZ-100-PRF KIT) (7) -PVC SCH 40 FEMALE ADAPTOR (8) -LATERAL PIPE (9) -REMOTE CONTROL VALVE: RAIN BIRD 100-DV (INCLUDED IN XCZ-100-PRF KIT) (10) -PVC SCH 40 TEE OR ELL TO MANIFOLD -3-INCH MINIMUM DEPTH OF 3/8-INCH WASHED (11) GRAVEL (12) -MANIFOLD PIPE AND FITTINGS

TOP VIEW

SIDE VIEW



RECYCLED WATER

- 1 FINISH GRADE
- 2 FLUSH CAP FOR EASY FIT COMPRESSION FITTINGS: POTABLE: RAIN BIRD MDCFCAP NON-POTABLE: RAIN BIRD MDCFPCAP
- 3 EASY FIT COUPLING: RAIN BIRD MDCFCOUP
- (4) SUBTERRANEAN EMITTER BOX: RAIN BIRD SEB 7XB W/ LOCKING LID
- (5) SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFS DRIPLINE NON-POTABLE: XFSP DRIPLINE
- 6 3-INCH MINIMUM DEPTH OF 3/8-INCH WASHED GRAVEL
- 7 BRICK (1 OF 2)

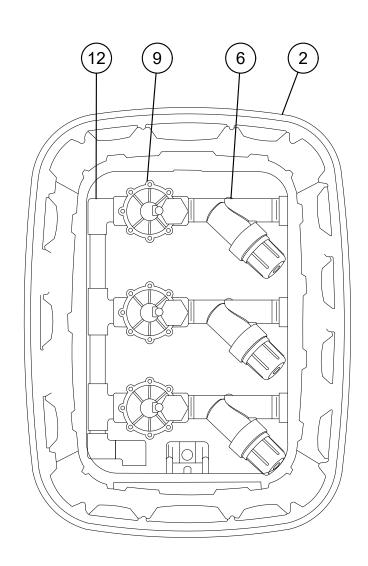
1. ALLOW A MINIMUM OF 6-INCHES OF DRIPLINE TUBING IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

INE	FLUSH POINT	

XFS SUBGRADE RECYCLED WATER

N.T.S. SECTION





TOP VIEW

SCALE: N.T.S. SECTION

SECTION



5620 FRIARS ROAD SAN DIEGO, CA 92110 619-291-0707 (FAX) 619-291-4165

rickengineering.com San Diego Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver CITY OF CHULA VISTA GENERAL SERVICES DEPARTMENT DRAWING NO. IRRIGATION DETAILS FOR: CHULA VISTA TRACT NO. 09-04 PH.2 LI-17 19015-20 OTAY RANCH, VILLAGE 8 WEST W.O. NO. OR652G GRADING PERMIT No. GR13-005 PLR-20-018 OWD SHEET 20 OF 27

PROJEC	CT: OR VIL. 8 WEST SLO CT JOB NUMBER: 1919 APE ARCHITECT: RIC	4	ET= PR=	CRC EVA PRE	OP CO POTR		IENT (RATIC RATE	.3 FOI DN RA	R NAT TE(SE		HRUB A LY CHA					<	PROJEC	T: OR VIL. 8 WEST T JOB NUMBER: 1 APE ARCHITECT:	19194	PF= CRC ET= EVA PR= PRE	POTRANS	CIENT PIRATION RATE	(.3 FOI DN RA E	R NATIV TE(SEE				
ORMU	LA: T	= 60 X	ЕТ Х Р	F÷PR	R X EA	<u>.</u>										<	FORMUL	A:	T = 60 X	ET X PF ÷	PR X EA							
	VISTA ERAGE INCHES PER MO ERAGE INCHES PER DA			1.99	2.60	3.72	4.74	5.46	<mark>6.12</mark>	6.89	AUG. S 6.32 (0.204 0	5. <mark>2</mark> 5	3.72	2.50	0 1.0	69		ISTA RAGE INCHES PEF RAGE INCHES PEF		1.99	FEB. MA 2.60 3.7 0.093 0.1	2 4.74	5.46	6.12 6	6.89 6.32	2 5.25	3.72 2	2.50 1
	OLLER 'B' VATERING SCHEDULE																	LLER 'C' ATERING SCHEDU										
Valve		M PR			. FEB	MAR.					AUG. S				-		Valve C-88	Spray Type BUBBLER	GPM PR 24 2.71	PF JAN 0.3 1	FEB. MA	R. APR. 2	MAY 2		UL. AUG 3 3		<u>)CT. N</u>	IOV. D
51 (Ope 52	/	17 0.45 01 0.45		5	7	9 9	12 12	13 13	15 15	<u>17</u> 17		13 13	9 9	6 6		4	C-89	SHRUB ROTOR		0.3 1	8 1		15		19 17		10	7
53	SHRUB ROTARY 7.	95 0.45	0.3	5	7	9	12	13	15	17	15	13	9	6		4	C-90	SHRUB ROTOR	28 0.4	0.3 5	8 1) 13	15	17	19 17	15	10	7 7
54	BUBBLER	8 2.71		1	1	1	2	2	3	3	3	2	1	1	1	1	C-91	SHRUB ROTOR		0.3 5	8 1		15		19 17 17 15		10	7
55 56		77 0.45 66 0.45		5	7	9 9	12 12	13 13	15 15	<u>17</u> 17	15 15	13 13	9 9	6		⁴ ₄	C-92 C-93	SHRUB ROTARY BUBBLER		0.3 5	7 9	12	13 2		17 15 3 3		9 1	6 1
57	BUBBLER	6 2.71	0.3	1	1	1	2	2	3	3	3	2	1	1		1	C-94	SHRUB ROTOR	35 0.4	0.3 5	8 1) 13	15		19 17		10	7
58		86 0.45 84 0.45		5	7	9 9	12	13	15	17 17		13	9 9	6 6	4	4	C-95	SHRUB ROTOR		0.3 5	8 1		15		19 17		10	7
59 60	SHRUB ROTARY 3. BUBBLER	4 2.71	-	5	1	9	12 2	13 2	15 3	3	15 3	13 2	9 1	1		1	C-96 C-97	SHRUB ROTOR BUBBLER		0.3 5	8 1) <u>13</u> 2	15 2		19 17 3 3	2 15	10 1	1
61	SHRUB ROTARY 6.	95 0.45	0.3	5	7	9	12	13	15	17	15	13	9	6	4	4	C-98	SHRUB ROTOR	17.5 0.4	0.3 5	8 1		15	17	19 17	2 15	10	7
62 63		6.9 0.45 4 2.71		5	7	9	12	13	15 3	17 3	1	13	9 1	6	4		-	SHRUB ROTOR	17.5 0.4	0.3 5	8 1) 13	15		19 17	15	10	7
53 54	BUBBLER SHRUB ROTARY 8.	03 0.45		5	7	9	2 12	2 13	3 15	3 17	3 15	2 13	9	6	2	4	C-100 C-101	SHRUB ROTOR BUBBLER		0.3 5	8 1) <u>13</u> 2	15 2		19 17 3 3		10	7
5	SHRUB ROTARY 2	1.9 0.4 5	0.3	5	7	9	12	13	15	17	15	13	9	6	4	4 <	C-101 C-102	BUBBLER		0.3 1		2	2		3 3		1	1
	,	55 0.45 35 0.45		5	7	9	12 12	13 13	15 15	17 17		13 13	9 9	6 6	4	4	C-103	SHRUB ROTARY	8.22 0.45	0.3 5	7 9	12	13	15	17 15	13	9	6
8	· ·	3.3 0.45	-	5	7	9	12	13	15	17		13	9	6	_	4	C-104	SHRUB ROTOR		0.3 5	8 1		15	+ +	19 17 17 15		10	7
9		3.1 0.45	-	5	7	9	12	13	15	17	+ +	13	9	6	_	4	C-105	SHRUB ROTARY	24.0 0.45	0.3 5	7 9	12	13	15	17 15	13	9	6
0 1		1.5 0.4 7.5 0.4		5	8	10 10	13 13	15 15	17 17	19 19		15 15	10 10	7	_	5 < 5		INUTES PER DAY	(3 VALVES	ATIMI 24	35 4	5 59	66	77	83 77	66	45	31
2		35 0.4		5		10	13	15	17	19		15	10	7	_	5							44		1111		0.0	0.5
3		1.5 0.4		5	8	10	13	15	17	19		15	10	7	_	5 <	TOTAL H	OURS PER DAY (3	VALVES A	TIVE) 0.4	0.6 0.	8 1.0	1.1	1.3	1.4 1.3	3 1.1	0.8 (0.5
74 75		6.3 0.45 6.7 0.45		5	7	9	12 12	13 13	15 15	<u>17</u> 17		13 13	9	6	_	4												
76	BUBBLER	4 2.71		1	1	1	2	2	3	3	3	2	1	1		1	١											
77		42 0.4		5	8	10	13	15	17	19		15	10	7	_	5	/											
78 79		28 0.4 42 0.4		5	8	10 10	13 13	15 15	17 17	19 19	+	15 15	10 10	7	_	5 5												
80		35 0.4		5	8	10	13	15	17	19		15	10	7	_	5 <												
31		42 0.4		5	8	10	13	15	17	19		15	10	7	_	5												
82 83		28 0.4 35 0.4		5	8	10 10	13 13	15 15	17 17	19 19	<u> </u>	15 15	10 10	7	_	5 5	L											
34		28 0.4		5	8	10	13	15	17	19		15	10	7	Ę	5												
35		35 0.4		5	8	10	13	15	17	19		15	10	7	_	5 <												
36 37		35 0.4 28 0.4		5	8	10 10	13 13	15 15	17 17	19 19		15 15	10 10	7	_	5												
38	SHRUB ROTOR	42 0.4	0.3	5	8	10	13	15	17	19	17	15	10	7	ţ	5												
9		28 0.4		5	8	10	13	15	17	19		15	10	7	_	5)											
0 1		14 0.4 42 0.4		5	8	10 10	13 13	15 15	17 17	19 19		15 15	10 10	7	_	5												
2	SHRUB ROTOR	35 0.4	0.3	5	8	10	13	15	17	19	17	15	10	7	Ę	5 🗸												
3		28 0.4		5	8	10	13	15	17	19 19		15	10	7	_	5												
4 5		35 0.4 32 0.4	-	5	8	10 10	13 13	15 15	17 17	19 19	+ +	15 15	10 10	7	_	5 5												
96	SHRUB ROTOR	24 0.4	0.3	5	+	10	13	15	17	19	17	15	10	7	Ę	5												
7 8		32 0.4		5	8	10	13	15	17	19 19		15	10	7	_	5												
8 9		32 0.4 40 0.4		5	8	10 10	13 13	15 15	17 17	19 19		15 15	10 10	7	_	5												
00	SHRUB ROTOR	32 0.4	0.3	5	8	10	13	15	17	19	17	15	10	7	Ę	5												
01		32 0.4		5	8	10	13	15	17	19 19		15 15	10	7	_	5 <												
02		40 0.4 40 0.4		5	8	10 10	13 13	15 15	17 17	19 19	1 1	15 15	10 10	7	_	5)											
04	SHRUB ROTOR	48 0.4	0.3	5	8	10	13	15	17	19	17	15	10	7	_	5 <												
105		6 2.71		1	1	1	2	2	3 17	3	3	2 15	1	1		1 5												
06 07		40 0.4 32 0.4		5	8	10 10	13 13	15 15	17	19 19		15 15	10 10	7	_	5	/											
08	SHRUB ROTOR	32 0.4	0.3	5	8	10	13	15	17	19	17	15	10	7	Ę	5												
09	SHRUB ROTOR	48 0.4	0.3	5	8	10	13	15	17	19	17	15	10	7	ţ	5	ł											
DTALI	MINUTES PER DAY (3 V	ALVES	A TIME)	93	135	175	230	256	297	323	297 2	255	175	121	8	30)											
	HOURS PER DAY (3 VAL	VES A	TIME)	1.6	2.3	2.9	3.8	4.3	5.0	5.4	5.0	4.2	2.9	2.0	1	.3												

AS BU	JILT			UTIL	ITY NOTE			NNOTE:
SIGNATURE	DATE		RECORD DATA AT TH FACILITIES MAY EXIST	EIR APPROX WHICH HA	N THESE PLANS ARE PLOTTED FROM IMATE LOCATIONS. UNDERGROUND /E NOT BEEN REPORTED OR ARE NOT	ST/ WI ⁻ AN	ART OF	ER DISTRICT SHALL E CONSTRUCTION AT (THE BENEFIT OF INSF WAL.
Printed Name					LL VERIFY THE LOCATION OF ALL PERTINEN	1		
My Registration Expires	Discipline	?	UTILITIES IN THE FIEL	D PRIOR TO	THE START OF CONSTRUCTION.			
CONSTRUCTION RECORD			REFERENCES	By	REVISIONS	Date	App'd	DAT
CONTRACTOR:		HALE ENGINE	ERING GRADING PLANS: 14	4011				CITY OF CHULA VISTA BE
INSPECTOR:								ELEVATION 446.361 NAVE
DATE COMPLETED:								 DESCRIPTION: 3" BRASS CL INT. RUTGERS & OTA
								ROS 14841

PROJEC PROJEC	0' MHOA 0/09/2020 T: OR VIL. 8 W T JOB NUMBE APE ARCHITEC	R: 13-0	08.02	PF= ET= PR=	CRO EVA	P CO POTR CIPIT	ON TIM EFFIC ANSPI ATION	IENT IRATI I RAT	(.3 FO ON R <i>A</i> E	R NAT								P.O.C. E' DATE: 0 PROJECT PROJECT LANDSCA	14/202 : OR VI JOB N	1 IL. 8 WE IUMBE	R: 19	194	ES	PF= ET= PR=	CROI EVAP PREC	P CO POTR		IENT IRATI I RAT	(.3 FC ON R/ E	OR NA	SEE D	SHRU				7	
FORMUI	_A:	т	= 60 X							(.75)							>	FORMULA			T	- = 6								(.75)				/			<
CHULA							. MAR	. APR	. MAY	JUN	JUL.	AUG.	SEP.	OCT.	NOV	DEC	>	CHULA VI										. Apr	. MAY	Y JUN	N. JU	L. AU	G. SE	P. 00	CT. NO	V. DE	C.
	RAGE INCHES) 3.72 3 0.120	_	_	_								ETo AVER ETo AVER					TH												72 2.5 120 0.0	50 1.6 83 0.05	
	DLLER 'D' TERING SCHE																	CONTROI						D	F		F	Г									
Valve D-1	SHRUB ROT	e GF	PM PR		_	FEB	. MAR	. APR	_	_	. JUL . 17	AUG . 15	SEP . 13	ост. 9	NOV 6	DEC	5	Valve	Spr	ay Type B ROT	e G	PM	RR 04		JAN. 5	FEB . 8	MAR 10	. APR	. MA	_					CT. NO	V. DE	
D-2 D-3	SHRUB ROT SHRUB ROT	OR 2	8 0.4	0.3	5	8	10 10	13 13	15	17	19 19	17 17	15 15	10 10	7 7 7	5	>	E-23	SHRU	B ROT	OR 4	4.41 35	0.4		5 5	8 8	10 10 10	13 13	15 15		19	9 17	7 1	5 1	0 7 0 7	75 5 5	
D-4 D-5	BUBBLER	2 2	2 2.71 4 2.71	0.3	1	1	1	2	2	3	3	3	2	1	1	1	>	E-26	SHRUE	B ROTA	RY	14	0.45 0.45	0.3	5 5	7 7	9 9	12 12	13 12	15	5 1	7 15	5 1	3 9			
D-6 D-7 D-8	BUBBLER SHRUB ROT SHRUB ROT	OR 2		0.3	5	1 8 8	1 10 10	2 13 13	_	3 17 17	3 19 19	3 17 17	2 15 15	1 10 10	1 7 7	1 5 5	\rangle		SHRU	BBLER B ROT B ROT	OR	3.77 35 28	0.4 0.4	0.3	5	1 8 8	1 10 10	2 13 13	15 15	3 17 17	7 19	9 17	7 1	5 1	1 1 0 7 0 7	1 5 5 5	
D-9 D-10	SHRUB ROT SHRUB ROT	OR 3	5 0.4	0.3	5	8	10 10 10	13 13 13	_	17	19 19	17 17 17	15 15	10 10 10	7 7 7	5			SHRU	B ROT	OR	35	0.4 0.4 2.71	0.3	5 1	8	10 10 1	13	15 15 2		7 19	9 17	7 1	5 1	0 7 0 7 1 1	5 5	
D-11 D-12	SHRUB ROT SHRUB ROT	OR 1	5 0.4	0.3	5	8 8	10 10	13 13	15	17	19 19	17 17	15 15	10 10	7 7	5 5		E-33	SHRU	B ROT B ROT	OR	9.29 35	0.4 0.4	0.3	5 5	8 8	10 10	13 13	15 15	17	7 19	9 17	7 1	5 1	0 7 0 7	5 5	
D-13 D-14	SHRUB ROT	2	6 2.71	_	1	8	10 1	13 2	2	3	19 3	17 3	15 2	10 1	7	5		E-34 E-35	BU				0.4 2.71	0.3	5	8		13 2	15 2	3	3	3		2	0 7 1 1	5	<
D-15 D-16 D-17	SHRUB ROT/ SHRUB ROT/ SHRUB ROT	ARY 2	0 0.45 3 0.45 5 0.4		5	7 7 8	9 9 10	12 12 13	13 13 15	15	17 17 19	15 15 17	13 13 15	9 9 10	6 6 7	4 4 5		E-36 E-37 E-38	SHRUE	BBLER 3 ROTA 8 ROT	RY 2	33.2 25.1 24.7	2.71 0.45 0.4	0.3	1 5 5	7 7 8	1 9 10	2 12 13	2 13 15	3 15 17	5 1	7 15	5 1	3 9	1 1 9 6 0 7	1 6 4 7 5	
D-18 D-19	SHRUB ROT BUBBLER	OR 2 3	5 0.4 6 2.71	0.3	5 1	8	10 10 1	13 13 2	_		19 3	17 17 3	15 2	10 10 1	7	5	7	E-39	SHRUE SHRUE	B ROTA B ROTA	ARY 5	53.7	0.45		5	7 7 7	9 9	12 12 12	13 13 13	15	5 1	7 15	5 1	3 9 3 9	9 6	6 4	
D-20 D-21	BUBBLER SHRUB ROT	8 3 OR 2	6 2.71 8 0.4	0.3	1 5	1	1 10	2 13	2 15	_	3 19	3 17	2 15	1 10	1 7	1 5	>	E-41 E-42	BU SHRUE	BBLER B ROTA	RY	28 28	2.71 0.45	0.3 0,8	1 5	1 7	1 9	2 12	13	3 15	3 5 1	3 7 15	5 1	2 ² 3 9	1 1 9 6	1 5 4	
D-22 D-23 D-24	SHRUB ROT	ARY 3	1 0.45	0.3	5	8 7 7	10 9 9	13 12 12	15 13 13	17 15 15	19 17 17	17 15 15	15 13 13	10 9 9	7 6 6	5 4 4	\langle	E-44	SHRUE	B ROTA B ROTA B ROTA	RY 2	35 24.5 28		0.3	5 5 5	7 7 7	9 9 9	12 12 12	13 13 13	15	5 1 5 1 1	7 15	5 1	3 9 3 9 3 9	9 6	6 4	<
D-24 D-25 D-26	SHRUB ROTA	ARY 3	0 0.45 4 2.71	0.3	5	7	9 9 1	12 12 2	13 13 2		17 17 3	15 15 3	13 13 2	9 1	6 1	4	7	E-46	SHRUE	B ROTA B ROTA	RY	42		0.3	5 5 5	7 7 7	9 9 9	12 12 12	13	15	5 1		5 1	3 9 3 9	9 6	6 4	
D-27 D-28	ROTARY BUBBLER	1 2	3 0.5 0 2.7	0.3	5 1	7 1	9 1	12 2	13 2	15 3	17 3	15 3	13 2	9 1	6 1	4		E-48 E-49	SHRUE	B ROTA B ROTA	ARY ARY	30	0.45 0.45	0.3	5 5	7 7	9 9	12 12	13 13	15 15	5 1	15	5 1	3 9 3 9	9 6	6 4	
D-29 D-30	ROTARY DRIP	2	0 1.4	0.3	1	7	9	12 4	13 4	15 5	17 5	15 5	13 4	9	6 2	4		E-51	SHRUE	B ROTA	RY		0.45	0.3	5 5	7 7 7	9 9	12 12	13 13	15	5 1	7	2 1	3 9	9 6	6 4	
D-31 D-32 D-33	ROTARY BUBBLER DRIP		3 2.7	0.3	1	7 1 2	9 1 3	12 2 4	13 2 4	15 3 5	17 3 5	15 3 5	13 2 4	9 1 3	6 1 2	4		E-53	SHRUE	B ROTA B ROTA B ROTA	RY	42 (28 (28 (0.3	5 5 5	7 7 7	9 9 9	12 12 12	13 13 13	-	5 1	7 15	5 1	3 9	9 6	6 4	_
D-34 D-35	ROTARY ROTARY	1	1 0.5	0.3	5	777	9	12 12	13	15	17 17	15 15	13 13	9 9	6 6	4		E-55	SHRUE	B ROTA	RY		0.45	0.3	5 5 5	7 7 7	9 9	12 12 12	13 13 13	15	5 1	7 15	5 1	3 9	9 6	6 4	_
D-36 D-37	ROTARY DRIP	6) 1.4	0.3	1	72	9 3	12 4	13 4	5	17 5	15 5	13 4	9 3	6 2	4		E-58	SHRUE	B ROTA B ROTA	RY 3		0.45	0.3	5 5	7 7	9 9	12 12	13 13	15	5 1	7 15	5 1	3 3	6	6 4	
D-38 D-39 D-40	DRIP ROTOR ROTOR	2	0 0.4	0.3	5	2 8 8	3 10 10	4 13 13	_	5 17 17	5 19	5 17 17	4 15 15	3 10	2 7 7	1 5 5	$\left< \right>$	E-59	/						5	7	9	207	231	15 26		7 15 1 26		3 9			
D-40 D-41 D-42	BUBBLER	1	2 2.7	0.3	1	0 1 8	10 1 10	13 2 13	15 2 15	3	19 3 19	17 3 17	15 2 15	10 1 10	7 1 7	5 1 5	Ì	TOTAL HO							1.4					4.5					.6 1.	$\overline{\mathbf{N}}$	
D-43 D-44	ROTOR ROTOR	((0.4		5	8 8	10 10	13 13	15 15	-	19 19	17 17	15 15	10 10	7 7	5 5																$\overline{\mathbf{A}}$					
D-45 D-46	ROTOR ROTOR	1	6 0.4	0.3	5	8	10 10	13 13	15	17	19 19	17 17	15 15	10 10	7 7	5 5					-													γ_1	\backslash	_	
D-47 D-48 D-49	ROTOR BUBBLER ROTARY	1	9 2.7	0.3	1	8	10 1 9	13 2 12	15 2 13	17 3 15	19 3 17	17 3 15	15 2 13	10 1 9	7 1 6	5 1 4																					
D-49 D-50 D-51	ROTARY ROTOR	2	2 0.5	0.3	5	7 7 8	9 9 10	12 12 13	13 13 15	15 15 17	17 17 19	15 15 17	13 13 15	9 9 10	6 7	4																					
D-52 D-53	ROTOR BUBBLER	2	4 0.4	0.3	5	8 1	10 1	13 2	15 2	17 3	19 3	17 3	15 2	10 1	7 1	5 1																					
D-54 D-55	ROTOR ROTOR		4 0.4	0.3	5	8	10 10	13 13		-	19 19	17 17	15 15	10 10	7 7	5	-																				
D-56 D-57 D-58	ROTARY ROTARY DRIP	7	7 0.5	0.3	5	7 7 2	9 9 3	12 12 4	13 13 4	15 15 5	17 17 5	15 15 5	13 13 4	9 9 3	6 6 2	4																					
D-59 D-60	DRIP DRIP	1	-	0.3	1	2	3	4	4	5	5	5	4 4	3	2	1																					
D-61 D-62	DRIP ROTOR	3	3 0.4	0.3	5	2	3 10	4 13	4	5 17	5 19	5 17	4 15	3 10	2 7	1																					
D-63 D-64 D-65	BUBBLER ROTOR DRIP	3	5 0.4	0.3	5	1 8 2	1 10 3	2 13 4	2 15 4	3 17 5	3 19 5	3 17 5	2 15 4	1 10 3	1 7 2	1 5 1																					
D-66 D-67	DRIP DRIP	2	4 1.4		1	2	3	4	4	5 5	5	5	4 4	3 3	2	1																					
D-68 D-69	ROTOR ROTOR	1 2	3 0.4 0 0.4	0.3	5 5	8 8	10 10	13 13	15 15	17 17	19 19	17 17	15 15	10 10	7 7	5 5																					
D-70 D-71	BUBBLER	1	3 0.4		5	1 8	1 10	2 13	2 15	3	3 19	3 17	2 15	1 10	1 7	1 5	-																				
D-72 D-73 D-74	BUBBLER ROTOR ROTOR	1		0.3	5	1 8 8	1 10 10	2 13 13	2 15 15	3 17 17	3 19 19	3 17 17	2 15 15	1 10 10	1 7 7	1 5 5																					
D-74 D-75 D-76	DRIP ROTOR	1	4 1.4	-	1	2	3 10	4 13	4	5 17	19 5 19	5 17	4	3 10	2 7	1 5																					
D-77 D-78	ROTOR ROTOR	؛ 1	5 0.4 1 0.4	0.3	5 5	8 8	10 10	13 13	15 15	17 17	19 19	17 17	15 15	10 10	7 7	5 5																					
D-79 D-80	BUBBLER		3 2.7 1 0.4	0.3	_	1 8	1 10	2 13	2 15	3 17	3 19	3 17	2 15	1 10	1 7	1 5																					
TOTAL	INUTES PER	DAY (2)	VALVES	ATI	vi 150	218	282	371	413	479	521	479	411	282	195	129]																	(SI)	LANDSCA	PE ARCE	
TOTAL	IOURS PER DA	ay (2 VA	LVES A	TIME	2.5	3.6	4.7	6.2	6.9	8.0	8.7	8.0	6.8	4.7	3.2	2.2					E	R			K	5/ 61 (F	20 FRI/ N DIEC 9-291-0 AX) 619	30, CA)707	92110)					Stgnatu 11-30-2: Renewal D 1-10-22 Date OF (1)	ALIFORNIA	-cn *
Che	ecked By:	<u> </u>															<u> </u>			TT A .	Sa	n Diego)			Ri								xenix - Ti	neering ucson-D) enver	
Date:	PT	Submitted By:	:				-) BY: F DEVELO) PMFNT	SERVICES	TIFFANY		ATE:	GNFF		IR	CITY OF RRIGATION CHULA		JLA HEDU STA		FOI	R:									-18	1		'ing na 15≓		

Product of the control of the contr	PES P E P	F= CRC T= EVA R= PRE	GATION OP COE POTRA CIPITA LICATIO	FFICIEI NSPIR/ TION R	NT (.3 ATION ATE	FOR N	NATIVI (SEE					DAT PRO PRO	E: 10 JECT JECT	MHOA /09/2020 Г: OR VIL. 8 Г JOB NUM PE ARCHIT	BER: 13	8-008.0	S PF= 2 ET= PR=	EVA	IGATION DP COEF POTRAN CIPITAT LICATIO	FICIEN ISPIRA ION R	NT (.3 F ATION R ATE	OR NAT						PROJECT		R: 19194	PES P 4 E K P	F= CR T= EV R= PR	RIGATIO ROP COE APOTRA RECIPITA PLICATIO	FFICIE	ENT (.3 F ATION R RATE	OR NA ATE(S				
	60 X ET	X PF ÷	PR X E	4								FOR	MUL	A:	-	T = 6	ОХЕТХ	(PF÷	PR X EA	۱								FORMUL	A:	T =	= 60 X E1	r X PF	÷ PR X E	A						
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Bench Mark No. 95072 VD 88 S DISK (LS4324) WELL MON @ AY LAKES. PT. NO. 5072 PER LE LE RE OTHOLA					CO 41 1	-		Decir	aned D		Draw		Char	oked Rue	1															San Di	iego		Rive					bispo - Phoe	nix - Tucson	- Denver
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N/A PATRICIA TRAUTH R.L.A No. 324/ Office: Direction of Development Services, HITAN ALLEN ON DESIGNEE OTAY RANCH, VILLAGE 8 WEST W.O. NO. OR652G	S DISK (LS	4324) WEL PT. NO. 50	L MON @ 172 PER			AL		Plan	•		•				-)R 0F 051/F	OPMENT C	FRVICES TI	FANY ALLEN		GNFF			VISTA	TRA	CT I				PH.	2	LI-1	0		
GRADING PERMIT NO. GR13-005 PLR-20-018 OWD SHEET 2					N/A					PAIRICI	IA IKAUIH	R.L.A	NO	JZ4/						SILLOIU		, MLIII J[v_v, IIF						OTAY RA	ANCH	, VILL	AGE			MIT No		005 PL			

<u>P.O.C. 'B' / MHOA</u>

PROJECT OR, VILLAGE 8 SLO		DATE			JOB #	19194
VALVE #		94	B	-86	000 #	10104
1. LENGTH OF MAINLINE		60		000	_	
2. GALLONS PER MINUTE		0		35		
3. EXISTING STATIC WATER		<u> </u>		66		
PRESSURE PSI AT P.O.C.		BOOST		BOOST		
4. ELEVATION:	00101	20001	00101	00001		
AT METER (A)	40	06	4	06		
AT R.C.V. (B)		27		37		
AT HIGHEST HEAD ©		27		74		
5. FIND FRICTION LOSS	SIZE	LOSS	SIZE	LOSS		
WATER METER	1-1/2"	9.8	1-1/2"	98		
WYE' STRAINER	1-1/2"	2	1-1/2"	2		
BACKFLOW PREVENTER	1-1/2"	13.0	1-1/2"	13.0		
PRESSURE REGULATOR (POC)	N/A		N/A			
AIR VENT	1-1/2"	1.0	1-1/2"	1		
FLOW SENSOR	1-1/2"	0.5	1-1/2"	0.5		
MASTER VALVE	1-1/2"	5.1	1-1/2"	5.1		
BALL VALVE	1-1/2"	1	1-1/2"	1		
MAINLINE	2-1/2"	25	2-1/2"	45		
LATERAL (5 PSI MAX)		5.00		5.00		
PRCV (5 PSI TYPICAL)		5		5		
CHECK VALVE (IN-LINE)	N/A					
CHECK VALVE (IN-HEAD)		3		3		
OPERATING PSI OF		45.0		45.0		
IRRIGATION HEAD						
SUBTOTAL		115.4		125.6		
6. ELEVATION LOSS						
(Gain is minus Loss is plus)						
(B) - (A) X 0.433 (MAIN)		9.1		13.4		
(C) - (B) X 0.433 (LATERAL)		0.0		16.0		
SUBTOTAL		9.1		29.5		
TOTAL		124.5		155.1		
7. RESIDUAL PRESSURE	41	.5	1().9		
(#3) - (TOTAL) = (Y)				5.0		
8. PRESSURE DIFFERENTIAL (Y) - 10 PSI = (Z)	31	.5	0	.9		
(T) = 10 + 01 = (2) IF (Y) < 10 PSI, RESIZE EQUIPMENT	AND/OR INS	TALL BOOS	TER PUMP			
IF (Z) > 20, USE A PRESSURE REGU						
(< = LESS THAN, > = GREATER THA						

POC 'C' PRESSURE LOSS	CHART F		. SYSTEM	IS_MAX F	LOW 100	GPM
PROJECT OR, VILLAGE 8 SL	OPES	DATE			JOB #	19194
VALVE #	C	-42	C-	63		
1. LENGTH OF MAINLINE	1,	500	1,6	60		
2. GALLONS PER MINUTE		10	3	35		
3. EXISTING STATIC WATER	1	30	1:	30		
PRESSURE PSI AT P.O.C.	40 PSI	BOOST		BOOST		
4. ELEVATION:						
AT METER (A)	4	70	4	70		
AT R.C.V. (B)	4	91		08		
AT HIGHEST HEAD ©		98		80		
5. FIND FRICTION LOSS	SIZE	LOSS	SIZE	LOSS		
WATER METER	2"	7.8	2"	7.8		
WYE' STRAINER	2"	2	2"	2		
BACKFLOW PREVENTER	2"	13.0	2"	13.0		
PRESSURE REGULATOR (POC)	N/A		N/A			
AIR VENT	1-1/2"	1.0	1-1/2"	1		
FLOW SENSOR	1-1/2"	0.5	1-1/2"	0.5		
MASTER VALVE	1-1/2"	5.1	1-1/2"	5.1		
BALL VALVE	1-1/2"	1	1-1/2"	1		
MAINLINE	3"	16.7	3"	18.4		
LATERAL (5 PSI MAX)		5.00		5.00		
PRCV (5 PSI TYPICAL)		5		5		
CHECK VALVE (IN-LINE)	N/A		N/A	<u> </u>		
CHECK VALVE (IN-HEAD)		3		3		
OPERATING PSI OF		45.0		45.0		
IRRIGATION HEAD		10.0		10.0		
SUBTOTAL		105.1		106.8		
6. ELEVATION LOSS						
(Gain is minus Loss is plus)						
(B) - (A) X 0.433 (MAIN)		9.1		-26.9		
(C) - (B) X 0.433 (LATERAL)		3.0		31.2		
SUBTOTAL		12.1		4.3		
TOTAL		117.2		111.1		
7. RESIDUAL PRESSURE (#3) - (TOTAL) = (Y)	12	2.8	18	3.9		
8. PRESSURE DIFFERENTIAL (Y) - 10 PSI = (Z)	2	2.8	8	.9		
IF (Y) < 10 PSI, RESIZE EQUIPMENT A IF (Z) > 20, USE A PRESSURE REGUL						
(< = LESS THAN, > = GREATER THAN	۷)					

						_		
AS BL	ЛГТ		l	JTIL	ITY NOTE			N NOTE:
SIGNATURE Printed Name My Registration Expires			RECORD DATA AT THEIR FACILITIES MAY EXIST WH OF RECORD. CONTRACT	APPROX ICH HA` OR SHA	N THESE PLANS ARE PLOTTED FROM IMATE LOCATIONS. UNDERGROUND /E NOT BEEN REPORTED OR ARE NOT LL VERIFY THE LOCATION OF ALL PERTINENT THE START OF CONSTRUCTION.	ST/ WI	ART OF	ER DISTRICT SHALL CONSTRUCTION AT THE BENEFIT OF INS WAL.
CONSTRUCTION RECORD		f	REFERENCES	Ву	REVISIONS	Date	App'd	DAT
CONTRACTOR: INSPECTOR: DATE COMPLETED:	HAL	LE ENGINEE	RING GRADING PLANS: 14011					CITY OF CHULA VISTA BI ELEVATION 446.361 NAV DESCRIPTION: 3" BRASS CL INT. RUTGERS & OTA ROS 14841

P.O.C. 'C' / MHOA

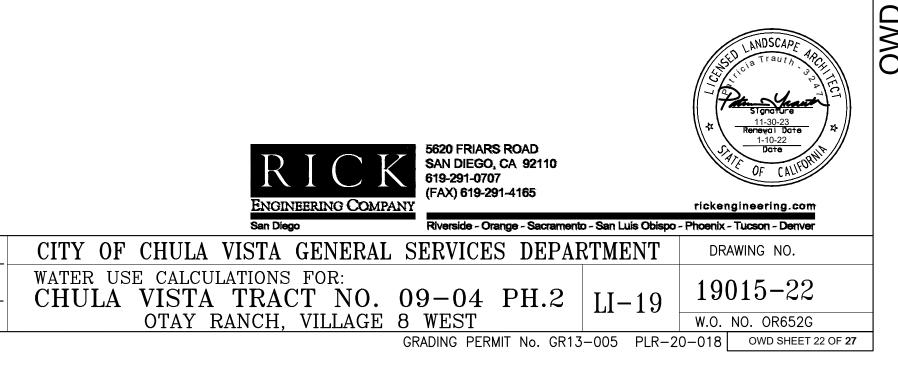
P.O.C. 'D' / MHOA

PROJECT OR, VILLAGE 8 SLO	PES PH2	DATE			JOB #	19194
/ALVE #	D	-10	D-	42		
1. LENGTH OF MAINLINE	1,	140	2,2	288		
2. GALLONS PER MINUTE	2	28	25	5. <mark>5</mark>		
3. EXISTING STATIC WATER	1	49	14	49		
PRESSURE PSI AT P.O.C.	35 PSI	BOOST	35 PSI	BOOST		
4. ELEVATION:						
AT METER (A)	4	14	42	22		
AT R.C.V. (B)	4	20	49	90		
AT HIGHEST HEAD ©	4	80	52	20		
5. FIND FRICTION LOSS	SIZE	LOSS	SIZE	LOSS	SIZE	LOSS
WATER METER	1-1/2"	9.8	1-1/2"	9.8		
NYE' STRAINER	1-1/2"	2	1-1/2"	2		
BACKFLOW PREVENTER	1-1/2"	13.0	1-1/2"	1.8		
PRESSURE REGULATOR (POC)	N/A		N/A			
AIR VENT	1-1/2"	1.0	1-1/2"	1.0		
FLOW SENSOR	1-1/2"	0.5	1-1/2"	0.5		
MASTER VALVE	1-1/2"	5.1	1-1/2"	5. <mark>1</mark>		
BALL VALVE	1-1/2"	1	1-1/2"	1		
MAINLINE	2-1/2"	17.1	2-1/2"	<u>18</u>		
LATERAL (5 PSI MAX)		5.00		4.00		
PRCV (5 PSI TYPICAL)		5		5		
CHECK VALVE (IN-LINE)	N/A		N/A			
CHECK VALVE (IN-HEAD)		3		3		
OPERATING PSI OF		45.0		45.0	_	
IRRIGATION HEAD						
SUBTOTAL		107.5		96.2		
6. ELEVATION LOSS						
(Gain is minus Loss is plus)						
(B) - (A) X 0.433 (MAIN)		2.6		29.5		
(C) - (B) X 0.433 (LATERAL)		26.0		13.0		-
SUBTOTAL TOTAL		28.6		42.5		
7. RESIDUAL PRESSURE		136.1		138.7		
(#3) - (TOTAL) = (Y)	12	2.9	10).3	(Y) :	
3. PRESSURE DIFFERENTIAL	~	0		2	(7) ·	
(Y) - 10 PSI = (Z)	2	2.9	0	.3	(Z) :	

L BE NOTIFIED 5 WORKING DAYS PRIOR TO THE T (619) 670-2241. ALL WORK PERFORMED ISPECTION SHALL BE SUBJECT TO REJECTION

TUMS	SCALE	Designed By:	Drawn By:	Chec	ked By:	Submitted:	
ENCH MARK NO. 95072	HORIZONTAL	LE	LE / RR		PT	-	APPROVED BY:
'D 88 3 DISK (LS4324) WELL MON @		Plans Prepared Un	der Supervision Of:	Date:	4/20/2023	Ву:	-
Y LAKES. PT. NO. 5072 PER	VERTICAL	·	•		7047	Office:	DIRECTOR OF DEVELOPMENT SERVICES, TIFFAN
	N/A		A TRAUTH	_ R.L.A No	3247	Unice:	

PROJECT OR, VILLAGE 8 S		DATE			JOB #	19194
ALVE #		-2		-19	\mid	
LENGTH OF MAINLINE	3,	200		700		
GALLONS PER MINITE		20		1.2		
. EXISTING STATIC WATER PRESSURE PSI AT P.O.C.		80	1		1	
ELEVATION:	501-51			BOOST		
AT METER (A)	1	70	1.	70		
AT R.C.V. (B)		00		85		
AT HIGHEST HEAD ©		40	54			
FIND FRICTION LOSS	SIZE	LOSS	SIZE	LOSS	SIZE	LOSS
WATER METER	1-1/2"	9.8	1-1/2	9.8		2000
VYE' STRAINER	1/2"	2	1-1/2"	2		
ACKFLOW PREVENTER	1-1/2"	13.0	1-1/2"	13.0		
PRESSURE REGULATOR (POC)	N/A		N/A			
AIR VENT	1-1/2"	1.0	1-1/2"	1		
FLOW SENSOR	1-1/2"	0.5	1- <mark>1</mark> /2"	0.5		
MASTER VALVE	1-1/2"	5.1	1-1/2"	5.1		
BALL VALVE	1-1/2"		1-1/2"	1		
MAINLINE	2-1/2"	45.2	2-1/2"	38.1		
LATERAL (5 PSI MAX)		5.00		5.00		
PRCV (5 PSI TYPICAL)	/	5		5		
	N/A		N/A			
CHECK VALVE (IN-HEAD) OPERATING PSI OF		3		3		
IRRIGATION HEAD		45.0		45.0	-	
	/					
SUBTOTAL	/	135.6		128.5		
ELEVATION LOSS		100.0		120.0		
(Gain is minus Loss is plus)						
(B) - (A) X 0.433 (MAIN)		13.0		6,5		
(C) - (B) X 0.433 (LATERAL)		17.3		27.7		
SUBTOTAL		30.3		34.2		
TOTAL		165.9		162.7		
. RESIDUAL PRESSURE (#3) - (TOTAL) = (Y)	14	4.1	17	7.3	M:	
. PRESSURE DIFFERENTIAL (Y) - 10 PSI = (Z)		.1		.3	(Z) :	
(Y) < 10 PSI, RESIZE EQUIPMENT, (Z) > 20 PSE A DESCUE						
(Z) > 20, OSE A PRESSURE REGU < = LESS THAN, > = GREATER THA		IOTE CONTR	KOL VALVE.			<u> </u>



SECTION 02810

IRRIGATION SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION I SPECIFICATIONS, APPLY TO WORK OF THIS SECTION.

1.2 SCOPE OF WORK

THE WORK INCLUDES ALL LABOR, MATERIALS, APPLIANCES, TOOLS, EQUIPMENT, FACILITIES, TRANSPORTATION AND SERVICES NECESSARY FOR AND INCIDENTAL TO PERFORMING ALL OPERATIONS IN CONNECTION WITH FURNISHING, DELIVERY, AND INSTALLATION OF A COMPLETE FUNCTIONING "IRRIGATION SYSTEM," COMPLETE AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.

1.3 QUALITY ASSURANCE

A.IT IS THE INTENTION OF THIS SPECIFICATION TO ACCOMPLISH THE WORK OF INSTALLING AN AUTOMATIC IRRIGATION SYSTEM, WHICH WILL OPERATE IN AN EFFICIENT AND SATISFACTORY MANNER ACCORDING TO THE WORKMANLIKE STANDARDS ESTABLISHED FOR LANDSCAPE INSTALLATION AND SPRINKLER IRRIGATION OPERATION AS SET FORTH BY THE CALIFORNIA LANDSCAPE CONTRACTORS ASSOCIATION (CLCA). THE SPECIFICATION CAN ONLY INDICATE THE INTENT OF THE WORK TO BE PERFORMED RATHER THAN A DETAILED DESCRIPTION OF THE PERFORMANCE OF THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL SAID MATERIALS AND EQUIPMENT IN SUCH A MANNER THAT THEY SHALL OPERATE EFFICIENTLY AND EVENLY AND SUPPORT OPTIMUM PLANT GROWTH AND HEALTH.

B. THE LANDSCAPE ARCHITECT AND/OR HIS OR HER CONSULTANT SHALL BE THE SOLE JUDGE OF THE TRUE INTENT OF THE DRAWINGS AND SPECIFICATIONS AND OF THE QUALITY OF ALL MATERIALS FURNISHED IN PERFORMANCE OF THE CONTRACT.

- C.IN THE EVENT OF ANY DISCREPANCIES BETWEEN THE PLANS AND THE SPECIFICATIONS, THE FINAL DECISION AS TO WHICH SHALL BE FOLLOWED SHALL BE MADE BY THE LANDSCAPE ARCHITECT AND/OR HIS OR HER CONSULTANT. THE CONTRACTOR SHALL BE COMPELLED TO ACT ON THIS DECISION AS DIRECTED. IN THE EVENT THE INSTALLATION IS CONTRADICTORY TO THE DIRECTION OF THE LANDSCAPE ARCHITECT, THE INSTALLATION SHALL BE RECTIFIED BY THE CONTRACTOR AT NO ADDITIONAL COST. THE CONTRACTOR SHALL IMMEDIATELY BRING ANY SUCH DISCREPANCIES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.
- D.IT SHALL BE DISTINCTLY UNDERSTOOD THAT NO ORAL STATEMENT OF ANY PERSON SHALL BE ALLOWED IN ANY MANNER TO MODIFY ANY OF THE CONTRACT PROVISIONS. CHANGES SHALL BE MADE ONLY ON WRITTEN AUTHORIZATION OF THE LANDSCAPE ARCHITECT EXCEPT IN AN EMERGENCY ENDANGERING LIFE OR PROPERTY.
- E. MAKE USE OF ALL DATA IN ALL OF THE CONTRACT DOCUMENTS INCLUDING MANUFACTURER'S CATALOGS AND VERIFY THE INFORMATION ON SITE PRIOR TO BIDDING ON THIS WORK AND ALSO AT THE TIME OF INSTALLATION.
- 1.4 INTENT OF CONSTRUCTION DRAWINGS

A.IRRIGATION PIPING AND RELATED EQUIPMENT ARE DRAWN DIAGRAMMATICALLY. SCALED DIMENSIONS ARE APPROXIMATE ONLY, BEFORE PROCEEDING WITH WORK, CAREFULLY CHECK AND VERIFY DIMENSIONS AND IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT OF DISCREPANCIES BETWEEN THE DRAWINGS OR SPECIFICATIONS AND THE ACTUAL CONDITIONS. ALTHOUGH SIZES AND LOCATIONS OF PLANTS AND OF IRRIGATION EQUIPMENT ARE DRAWN TO SCALE WHEREVER POSSIBLE, IT IS NOT WITHIN THE SCOPE OF THE DRAWINGS TO SHOW ALL NECESSARY OFFSETS, OBSTRUCTIONS, OR SITE

CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL HIS OR HER WORK IN SUCH A MANNER THAT IT WILL BE IN CONFORMANCE TO SITE CONDITIONS, COMPLETE, AND IN GOOD WORKING ORDER.

B. PIPING AND EQUIPMENT IS TO BE LOCATED WITHIN THE DESIGNATED PLANTING AREAS WHEREVER POSSIBLE UNLESS SPECIFICALLY DEFINED OR DIMENSIONED OTHERWISE.

1.5 SUBMITTALS AND SUBSTITUTIONS

A.PRIOR TO INSTALLATION OF ANY IRRIGATION WORK, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE LANDSCAPE ARCHITECT, A LIST OF ALL MATERIALS AND EQUIPMENT PROPOSED FOR USE. SUBMIT AS A MINIMUM THE FOLLOWING CATALOG CUT SHEETS TO THE LANDSCAPE ARCHITECT FOR APPROVAL:

- 1. FLOW METER
- 2. AUTOMATIC CONTROLLER ASSEMBLY (INCLUDING CONTROLLER, CONTROLLER CABINET, ELECTRICAL GFCI, ETC.)
- 3. RAIN-SENSING DEVICE
- 4. BACKFLOW PREVENTER ASSEMBLY (INCLUDING "Y" STRAINER, PRESSURE REGULATOR, & ENCLOSURE CAGE)
- 5. MASTER CONTROL VALVE
- 6. FLOW SENSOR AND DATA INTERFACE MAIN LINE PIPE, LATERAL LINE PIPE, PIPE SLEEVES
- 8. SOLVENT CEMENT
- 9. ISOLATION VALVES (GATE VALVES, BALL VALVES, ETC)
- 10. REMOTE CONTROL VALVE
- 11. QUICK COUPLER VALVE 12. VALVE BOXES
- 13. CONTROL WIRE
- 14. ANTI-DRAIN VALVES
- 15. WATERPROOF WIRE CONNECTORS 16. SPRINKLER HEADS (FOR EACH TYPE)
- 17. PAINT PRODUCTS
- 18. BOOSTER PUMPS

B. UPON FIFTEEN (15) DAYS AFTER THE CONTRACTOR HAS RECEIVED THE OWNER'S NOTICE TO PROCEED, THE CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT THREE (3) TYPEWRITTEN LISTS OF ALL MATERIALS PROPOSED, ALONG WITH THE MANUFACTURER, MODEL NUMBER, CUT SHEETS, AND SOURCE.

C.NO SUBSTITUTIONS OF MATERIAL OR PROCEDURES SHALL BE MADE CONCERNING THESE DOCUMENTS WITHOUT THE WRITTEN CONSENT OF AN ACCEPTED EQUIVALENT BY THE LANDSCAPE ARCHITECT.

D.EQUIPMENT OR MATERIALS INSTALLED OR FURNISHED WITHOUT PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT, MAY BE REJECTED BY THE LANDSCAPE ARCHITECT OR THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR SHALL BE REQUIRED TO REMOVE SUCH MATERIALS FROM THE SITE AT HIS OR HER OWN EXPENSE.

E. APPROVAL OF SUBSTITUTION OF MATERIAL AND/OR PRODUCTS, OTHER THAN THOSE SPECIFIED, SHALL NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND SPECIFICATIONS. THE CONTRACTOR

AS BUILT		UTILI	TY NOTE			N NOTE:
DATE SIGNATURE R.L.A. No. Printed Name My Registration Expires Discipline	RECORD DATA AT TH FACILITIES MAY EXIST OF RECORD. CONTR	IEIR APPROXI I WHICH HAV RACTOR SHA	N THESE PLANS ARE PLOTTED FROM MATE LOCATIONS. UNDERGROUND 'E NOT BEEN REPORTED OR ARE NOT LL VERIFY THE LOCATION OF ALL PERTINENT THE START OF CONSTRUCTION.	STA WIT	ART OF	ER DISTRICT SHALL BI CONSTRUCTION AT (6 THE BENEFIT OF INSPE WAL.
CONSTRUCTION RECORD	REFERENCES	Ву	REVISIONS	Date	App'd	DATU
CONTRACTOR:	HALE ENGINEERING GRADING PLANS: 14	4011				CITY OF CHULA VISTA BEN
INSPECTOR:						ELEVATION 446.361 NAVD DESCRIPTION: 3" BRASS D
DATE COMPLETED:						CL INT. RUTGERS & OTAY
						ROS 14841

SHALL BE RESPONSIBLE AT HIS OR HER OWN EXPENSE FOR ALL CHANGES BY APPROVED SUBSTITUTIONS, WHICH AFFECT OTHER ITEMS OF HIS OR HER OWN WORK AND/OR THE WORK OF OTHER CONTRACTORS.

- 1.6 GUARANTEE
 - FROM THE DATE OF FINAL ACCEPTANCE OF WORK.
- 1.7 EXAMINATION OF SITE

THE CONTRACTOR SHALL BE HELD TO HAVE EXAMINED THE PROJECT SITE AND TO HAVE COMPARED IT WITH THE DRAWINGS AND SPECIFICATIONS, TO HAVE CAREFULLY EXAMINED ALL OF THE CONTRACT DOCUMENTS AND TO HAVE SATISFIED HIMSELF OR HERSELF AS TO THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED BEFORE ENTERING INTO HIS OR HER CONTRACT FOR THIS WORK. NO ALLOWANCE SHALL SUBSEQUENTLY BE MADE ON BEHALF OF THE CONTRACTOR ON ACCOUNT OF AN ERROR ON HIS OR HER PART OR HIS OR HER NEGLIGENCE OR FAILURE TO ACQUAINT HIMSELF OR HERSELF WITH THE CONDITIONS OF THE SITE, EXISTING UTILITY LOCATIONS AND EASEMENTS, OR OF THE STREETS OR ROADS APPROACHING THE SITE. SUBMIT ANY QUESTIONS IN WRITING PRIOR TO COMMENCEMENT OF JOB.

- 1.8 PROTECTION OF WORK AND PROPERTY
 - OF THE WORK.

D. THE CONTRACTOR SHALL MAINTAIN SUFFICIENT SAFEGUARDS, SUCH AS RAILINGS, TEMPORARY WALKS, LIGHTS, ETC., AGAINST THE OCCURRENCE OF ACCIDENTS, INJURIES OR DAMAGE TO ANY PERSON OR PROPERTY RESULTING FROM HIS OR HER WORK, AND SHALL ALONE BE RESPONSIBLE FOR THE SAME IF SUCH OCCURS.

1.9 PROTECTION OF EXISTING PLANT MATERIAL

A. ALL EXISTING PLANT MATERIAL TO REMAIN WHICH ARE WITHIN THE PROJECT LIMITS SHALL BE TAGGED AND IDENTIFIED BY THE CONTRACTOR PRIOR TO START OF WORK. CONTRACTOR SHALL PROVIDE THE REQUIRED MAINTENANCE TO MAINTAIN THE VEGETATION IN A HEALTHY AND GROWING CONDITION, INCLUDING SUPPLEMENTAL IRRIGATION IF NEEDED.

B. ALL EXISTING PLANT MATERIAL SHALL BE PROTECTED AT ALL TIMES FROM DAMAGE BY PERSONNEL AND EQUIPMENT. ALL DAMAGES TO EXISTING PLANT MATERIALS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

C.DAMAGE TO A TREE OR SHRUB, WHICH RESULTS IN DEATH OR PERMANENT DISFIGURATION, SHALL RESULT IN THE CONTRACTOR'S COMPLETE REMOVAL OF SAID TREE OR SHRUB, INCLUDING ROOTS, FROM THE SITE. THE CONTRACTOR SHALL REPLACE THE PLANT MATERIAL AS ESTABLISHED BY THE LANDSCAPE ARCHITECT WITH ONE OF EQUAL VALUE AT HIS OR HER OWN EXPENSE OR SHALL REIMBURSE TO THE OWNER THE COST OF SAID REPLACEMENT. THE LANDSCAPE ARCHITECT SHALL BE THE SOLE JUDGE OF THE REPLACEMENT OF ANY PLANT MATERIAL.

1.10 POINTS OF CONNECTION

A. THE CONTRACTOR SHALL VERIFY WITH THE CITY'S REPRESENTATIVE THE MOST APPROPRIATE LOCATION AND SOURCE FOR THE WATER AND ELECTRICAL POINTS OF CONNECTION.

B. THE ELECTRICAL POINT OF CONNECTION SHALL BE MADE BY AN APPROPRIATELY LICENSED ELECTRICAL CONTRACTOR PER GOVERNING CODES.

1.11 TEMPORARY UTILITIES

A. ALL TEMPORARY PIPING, WIRING, METERS, PANELS AND OTHER RELATED APPURTENANCES REQUIRED BETWEEN SOURCE OF SUPPLY AND POINT OF USE SHALL BE PROVIDED BY THE CONTRACTOR AND COORDINATED WITH THE OWNER'S REPRESENTATIVE. EXISTING UTILITIES MAY BE USED WITH THE WRITTEN PERMISSION OF THE OWNER'S REPRESENTATIVE.

B. THE CONTRACTOR SHALL METER AND PAY FOR THE FURNISHING OF ALL ELECTRICITY AND WATER FOR HIS OR HER USE UNLESS OTHERWISE STATED. ALL WATER USED FOR CONSTRUCTION PURPOSES SHALL BE SEPARATED FROM THE POTABLE DOMESTIC WATER SUPPLY BY A REDUCED PRESSURE PRINCIPLE DEVICE (RP) BACKFLOW PREVENTER APPROVED BY THE LANDSCAPE ARCHITECT.

1.12 CUTTING, PATCHING, TRENCHING, AND DIGGINGS

A. ALL TRENCHING BACKFILL SHALL BE PER THE CITY OF CHULA VISTA DEPARTMENT OF WATER ENGINEERING CONSTRUCTION STANDARDS.

B. THE CONTRACTOR SHALL DO ALL CUTTING, FITTING, TRENCHING OR PATCHING OF HIS OR HER WORK THAT MAY BE REQUIRED TO MAKE ITS SEVERAL PARTS COME TOGETHER PROPERLY AND FIT THEM TO RECEIVE OR BE RECEIVED BY WORK OF OTHER CONTRACTORS SHOWN UPON, OR REASONABLY IMPLIED BY, THE DRAWINGS AND SPECIFICATIONS FOR THE COMPLETED PROJECT. CONTRACTOR SHALL DO ALL THAT IS NECESSARY TO ACCOMPLISH THE JOINING OF SAID SEVERAL PARTS IN A NEAT AND WORKMAN-LIKE MANNER TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

C. TRENCHING SHALL BE PERFORMED ONLY DURING THE PERIOD WHEN BENEFICIAL AND OPTIMUM RESULTS MAY BE OBTAINED. IF THE MOISTURE CONTENT OF THE SOIL SHOULD REACH A LEVEL THAT WORKING IT WOULD DESTROY THE SOIL STRUCTURE, DIGGING AND TRENCHING OPERATIONS SHALL BE

F. SAMPLES OF THE EQUIPMENT MAY BE REQUIRED AT THE REQUEST OF THE LANDSCAPE ARCHITECT IF THE EQUIPMENT IS OTHER THAN THAT SPECIFIED.

A.CONTRACTOR GUARANTEES ALL EQUIPMENT, MATERIALS, AND LABOR FURNISHED OR PERFORMED UNDER THE CONTRACT (UNLESS FURNISHED BY THE OWNER) AGAINST DEFECTS IN DESIGN, MATERIALS, AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR, UNLESS OTHERWISE SPECIFIED,

B.NEITHER THE FINAL CERTIFICATE FOR PAYMENT NOR ANY PROVISION IN THE CONTRACT DOCUMENTS SHALL RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR FAULTY MATERIALS OR WORKMANSHIP, AND HE OR SHE SHALL REMEDY ANY DEFECTS DUE THERETO AND PAY FOR ANY DAMAGE TO OTHER WORK RESULTING THERE WHICH MAY APPEAR WITHIN A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF WORK.

A. ALL MATERIALS AND EQUIPMENT SHALL BE STORED PROPERLY AND PROTECTED AS REQUIRED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE ENTIRELY RESPONSIBLE FOR DAMAGES OR LOSS BY WEATHER OR OTHER CAUSE TO WORK UNDER THE CONTRACT. MATERIALS SHALL BE FURNISHED IN AMPLE QUANTITIES AND AT SUCH TIMES AS TO ENSURE UNINTERRUPTED PROGRESS

B. THE CONTRACTOR SHALL CONTINUOUSLY MAINTAIN ADEQUATE PROTECTION OF ALL HIS OR HER WORK FROM DAMAGE, DESTRUCTION, OR LOSS, AND SHALL PROTECT THE OWNER'S PROPERTY FROM DAMAGE ARISING IN CONNECTION WITH THIS CONTRACT. CONTRACTOR SHALL MAKE GOOD ANY SUCH DAMAGE, DESTRUCTION, LOSS OR INJURY. CONTRACTOR SHALL ADEQUATELY PROTECT ADJACENT PROPERTY AS PROVIDED BY LAW AND THE CONTRACT DOCUMENTS.

C.PRIOR TO EXCAVATION FOR IRRIGATION PIPING OR EQUIPMENT, CONTRACTOR SHALL LOCATE UNDERGROUND UTILITIES AND RELATED SYSTEMS, AND TAKE PROPER PRECAUTIONS TO AVOID DAMAGE TO SUCH IMPROVEMENTS. IN THE EVENT OF A CONFLICT BETWEEN SUCH UTILITIES, RELATED SYSTEMS, LINES, IRRIGATION PIPING, AND/OR EQUIPMENT LOCATIONS, CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND ARRANGEMENTS WILL BE MADE FOR RELOCATION AS NECESSARY. THE CONTRACTOR ASSUMES RESPONSIBILITY FOR MAKING REPAIRS FOR DAMAGES RESULTING FROM WORK AS HEREIN SPECIFIED.

3E NOTIFIED 5 WORKING DAYS PRIOR TO THE 619) 670-2241. ALL WORK PERFORMED PECTION SHALL BE SUBJECT TO REJECTION

SUSPENDED UNTIL THE MOISTURE LEVEL IS INCREASED OR REDUCED TO ACCEPTABLE LEVELS AND THE DESIRED RESULTS ARE LIKELY TO BE OBTAINED.

D. THE CONTRACTOR SHALL NOT ENDANGER ANY WORK BY CUTTING, DIGGING OR OTHERW SHALL NOT CUT OR ALTER THE WORK OF ANY OTHER CONTRACTOR WITHOUT THE CONSENT OF OWNER'S REPRESENTATIVE.

1.13 SPECIMEN TREES

ALL SPECIMEN TREES TWENTY-FOUR-INCH (24") BOX AND LARGER SHALL BE INSTALLED PRIOR TO THE LOCATION OF THE IRRIGATION SYSTEM. THE LAYOUT OF THE IRRIGATION SYSTEM SHALL BE ADJUSTED TO ACCOMMODATE ALL SPECIMEN TREES WITH THE APPROVAL OF THE OWNER'S REPRESENTATIVE.

1.14 USE OF PREMISES

THE CONTRACTOR SHALL CONFINE HIS OR HER APPARATUS, THE STORAGE OF MATERIALS AND THE OPERATIONS OF HIS OR HER PERSONNEL TO LIMITS INDICATED BY THE LAW, ORDINANCES, OR PERMITS AND SHALL NOT UNREASONABLY ENCUMBER THE PREMISES WITH HIS OR HER MATERIALS.

1.15 PERMITS AND REGULATIONS

THE CONTRACTOR SHALL GIVE ALL NOTICES AND PAY ALL FEES NECESSARY FOR COMPLETION OF WORK UNDER THIS CONTRACT, AND SHALL OBTAIN AND PAY FOR ALL PERMITS, CERTIFICATIONS, AND LICENSES (EXCEPT PERMANENT EASEMENTS) OVER ALL OR ANY PART OF THE WORK AS DRAWN AND SPECIFIED.

1.16 APPLICABLE CODES AND STANDARDS

A. WHEREVER REFERENCES ARE MADE IN THE CONTRACT TO STANDARDS OR CODES IN ACCORDANCE WITH WHICH WORK IS TO BE PERFORMED OR TESTED, THE EDITION OR REVISION OF THE STANDARDS AND CODES CURRENT ON THE EFFECTIVE DATE OF THIS CONTRACT SHALL APPLY,

UNLESS OTHERWISE EXPRESSLY SET FORTH. UNLESS OTHERWISE SPECIFIED, REFERENCE TO SUCH STANDARDS OR CODES IS SOLELY FOR IMPLEMENTATION OF THE TECHNICAL PORTIONS OF SUCH STANDARDS AND CODES.

B. IN CASE OF CONFLICT AMONG ANY REFERENCED STANDARDS OR CODES OR BETWEEN ANY REFERENCED STANDARDS AND CODES AND THE SPECIFICATIONS, THE LANDSCAPE ARCHITECT

SHALL DETERMINE WHICH SHALL GOVERN.

1.17 DRAWINGS AND SPECIFICATIONS AT THE WORK SITE

THE CONTRACTOR SHALL KEEP ONE COPY OF ALL DRAWINGS AND SPECIFICATIONS ON THE WORK SITE, IN GOOD ORDER, AVAILABLE TO THE LANDSCAPE ARCHITECT AND TO HIS OR HER REPRESENTATIVES AT THE PROJECT SITE.

1.18 AS-BUILT RECORD DRAWINGS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETION OF "AS_BUILT" RECORD DRAWINGS, AND THE FOLLOWING PROCEDURE SHALL BE ADHERED TO:

CONTRACTOR SHALL MAINTAIN A REDLINE "AS BUILT" RECORD DRAWING ON-SITE AT ALL TIMES DURING CONSTRUCTION, AND SHALL UPDATE DRAWING ON FRIDAY OF EVERY WEEK. 2. THE CONTRACTOR SHALL NOT REQUEST INSPECTION OF ANY WORK INSTALLED CONTRARY TO THE DRAWINGS UNTIL NOTED ON THE RED LINE RECORD DRAWINGS.

3. BEFORE THE FINAL REQUEST FOR PAYMENT IS MADE AND FINAL APPROVAL OBTAINED, PRE AS BUILT DRAWINGS SHALL BE COMPLETED. ONE COPY SET OF THE DRAWINGS SHALL BE DELIVERED TO THE LANDSCAPE ARCHITECT WITH ALL AS BUILT INDICATIONS AND CHANGES NOTED, MARKING OUT ALL ITEMS WHICH ARE NOT AS BUILT CONDITIONS. THE DRAWINGS SHALL PRESENT THE FINAL AS BUILT INFORMATION CLEARLY. EQUIPMENT SUCH AS VALVES AND BACKFLOW PREVENTERS SHALL BE REFERENCED AND DIMENSIONED FROM TWO FIXED POINTS ON THE SITE. TO TRIANGULATE THEIR LOCATION.

4. AFTER PRE AS BUILT DRAWINGS HAVE BEEN APPROVED BY THE LANDSCAPE ARCHITECT, THE CONTRACTOR SHALL OBTAIN, AT HIS OR HER OWN EXPENSE, MYLAR TRANSPARENCIES OF THE ORIGINAL DRAWINGS AND TRANSFER THE AS_BUILT INFORMATION ONTO THEM. DRAFTING SHALL BE OF EQUAL QUALITY TO THE WORKING DRAWINGS. ALL AS_BUILT INDICATIONS SHALL BE MADE ON THE TRANSPARENCIES BY AN EXPERIENCED DRAFTSPERSON. ALL AS_BUILT CHANGES SHALL BE DRAFTED IN BLACK INDIA INK. ALL ITEMS, WHICH HAVE CHANGED AND ARE NOT AS-BUILT SHALL BE BUBBLE/CLOUD ENCIRCLED AND CLEARLY LABELED.

THE CONTRACTOR SHALL SIGN AND CERTIFY ON THE ORIGINAL DRAWINGS AS TO THE ACCURACY OF THE COMPLETED AS BUILT DRAWINGS. ALL DAMAGES DUE TO INACCURATE AS BUILT DRAWINGS SHALL BE REPAIRED WITHIN TWENTY FOUR (24) HOURS AFTER NOTIFICATION TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AND AT NO COST TO THE OWNER.

1.19 CONTROLLER CHARTS

A. PROVIDE ONE CONTROLLER CHART FOR EACH AUTOMATIC CONTROLLER INSTALLED. CONTROLLER CHART SHALL BE BLACKLINE PRINT OF ACTUAL "AS BUILT DRAWING" SHOWING THE AREA

COVERED BY THAT CONTROLLER AND REDUCED TO FIT IN THE CONTROLLER CABINET. KEEP REDUCTION TO MAXIMUM SIZE POSSIBLE TO RETAIN FULL LEGIBILITY.

B. IDENTIFY THE AREA OF COVERAGE OF EACH REMOTE CONTROL VALVE, USING A DISTINCTLY DIFFERENT PASTEL COLOR. DRAWN OVER THE ENTIRE PIPING SYSTEM OF THE AREA OF COVERAGE.

C. FOLLOWING APPROVAL OF CHARTS BY THE LANDSCAPE ARCHITECT, HERMETICALLY SEAL CHART BETWEEN TWO LAYERS OF 20 MIL. THICK PLASTIC SHEETING.

D. CHARTS MUST BE COMPLETED AND APPROVED PRIOR TO FINAL WALK_THROUGH OF IRRIGATION SYSTEM.

E. THE CHARTS SHALL BE AFFIXED TO THE INSIDE OF THE CONTROLLER CABINET DOORS USING AN APPROVED MASTIC OR FASTENING SYSTEM AND ALSO IN THE MAINTENANCE ROOM AREA, IF APPLICABLE.

1.20 SITE OBSERVATIONS

A. SITE OBSERVATIONS HEREIN SPECIFIED SHALL BE MADE BY THE LANDSCAPE ARCHITECT DURING OFFICE WORKING HOURS ON EACH OF THE STEPS OR CONDITIONS LISTED BELOW. THE

CONTRACTOR OR HIS OR HER AUTHORIZED REPRESENTATIVE SHALL BE ON THE SITE AT THE TIME OF EACH OBSERVATION. THE CONTRACTOR WILL NOT BE PERMITTED TO INITIATE THE SUCCEEDING STEP OF WORK UNTIL HE OR SHE HAS RECEIVED APPROVAL TO PROCEED BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF A

REQUESTED SITE OBSERVATION AT LEAST THREE (3) BUSINESS DAYS IN ADVANCE OF AN OBSERVATION.

B. ALL CHANGES AND DEVIATIONS TO THE PLANS AND SPECIFICATIONS BY THE LANDSCAPE ARCHITECT TO THE CONTRACTOR SHALL BE CONFIRMED IN WRITING.

NOTE:

ALL FACILITIES SHALL BE INSTALLED PER SDWAS STANDARD SPECIFICATIONS 15152. THESE SHALL TAKE PRESIDENCE OVER THESE SPECS WHERE THERE IS CONFLICT.

ATUMS	SCALE	Designed By:	Drawn By:	Che	cked By:	Submitted:		
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ISE,	AND	

INTERFERENCE

INSTALLATION.

GUARANTEE PERIOD.

PART 2 - PRODUCTS

SLEEVING.

OF REGULAR PROJECT SCHEDULE.

EXCEPTION OF SPECIMEN TREE PLANTING.

FULFILL ALL CONDITIONS OF THE CONTRACT.

2.1 MATERIALS A. ALL MATERIALS SHALL BE OF STANDARD, APPROVED, AND FIRST GRADE QUALITY AND SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND ACCEPTED.

C. THE CONTRACTOR SHALL HAVE SUFFICIENT WORK PERSONNEL AVAILABLE DURING NORMAL

D. SITE OBSERVATIONS WILL BE REQUIRED FOR THE FOLLOWING PARTS OF THE WORK:

4. LATERAL LINE TEST: COMPLETION AND TESTING, PRIOR TO BACKFILLING.

WORKING HOURS TO CORRECT DEFICIENCIES IMMEDIATELY UPON REQUEST OF THE LANDSCAPE

ARCHITECT. SUCH REPAIR OR RE_WORK SERVICES ARE TO BE PERFORMED WITHOUT

1. PRE CONSTRUCTION MEETING: IMMEDIATELY PRIOR TO THE COMMENCEMENT OF WORK OF THIS

FOR APPROVAL OF THE MATERIALS SPECIFIED, EQUIPMENT, SCHEDULE OF WORK AND THE METHOD OF

3. PRESSURE MAIN LINE TEST: COMPLETION OF INSTALLATION AND TESTING, PRIOR TO BACKFILLING.

6. PRE MAINTENANCE OBSERVATION: ENTIRE IRRIGATION SYSTEM SHALL BE COMPLETELY INSTALLED

AND OPERATIONAL. ALL DISCHARGE ENDS OF DRIP EMITTERS SHALL BE EXPOSED UNDER OPERATION FOR

DESIGNED, PRIOR TO PLACING BARK MULCH OVER EMITTER DISCHARGE ENDS. THIS OBSERVATION SHALL

5. ADJUSTMENT AND COVERAGE TEST: ADJUST AND TEST THE OPERATING PERFORMANCE OF ALL

INSTALLED IRRIGATION SYSTEMS PRIOR TO COMMENCEMENT OF PLANTING OPERATIONS WITH THE

BE COORDINATED WITH THE PRE MAINTENANCE OBSERVATION OF THE PLANTING INSTALLATION. A

WRITTEN "PUNCH LIST" INDICATING ALL ITEMS TO BE CORRECTED AND THE BEGINNING DATE OF THE

REPRESENTATIVE HAS RECEIVED ALL CHARTS, RECORDS, DRAWINGS, AND EXTRA EQUIPMENT AS

NOT ACCEPTABLE SHALL BE REWORKED AND THE MAINTENANCE PERIOD WILL BE EXTENDED.

MAINTENANCE PERIOD WILL BE SENT TO THE CONTRACTOR. THIS IS NOT FINAL ACCEPTANCE AND DOES

NOT RELIEVE THE CONTRACTOR FROM ANY OF THE RESPONSIBILITIES IN THE CONTRACT DOCUMENTS.

7. FINAL SITE OBSERVATION AND ACCEPTANCE: AT THE CONCLUSION OF THE MAINTENANCE PERIOD, A

FINAL SITE OBSERVATION WILL BE MADE. THE CONTRACTOR SHALL SHOW EVIDENCE THAT THE OWNER'S

REQUIRED BEFORE FINAL ACCEPTANCE. THE CONTRACTOR SHALL SHOW ALL CORRECTIONS MADE FROM

8. THE CONTRACTOR WILL BE NOTIFIED IN WRITING THAT THE CONTRACT WORK AND MAINTENANCE

PERIOD HAS BEEN ACCEPTED OR THAT THE MAINTENANCE PERIOD HAS BEEN EXTENDED TO CORRECT

ANY DEFICIENCIES REMAINING. FINAL ACCEPTANCE SHALL ESTABLISH THE BEGINNING DATE FOR THE

E. SITE OBSERVATION OF THE WORK SHALL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATION TO

THE WRITTEN "PUNCH LIST" PREVIOUSLY GENERATED BY THE LANDSCAPE ARCHITECT. ANY ITEMS DEEMED

OBSERVATION TO DEMONSTRATE THAT ALL EMITTERS ARE PERFORMING AND INSTALLED AS

2. TRENCHING AND SLEEVING REVIEW: COMPLETION AND INSTALLATION OF ALL TRENCHING AND

SECTION, THE OWNER'S REPRESENTATIVE, LANDSCAPE ARCHITECT, AND THE CONTRACTOR SHALL MEET

B. THE USE OF A MANUFACTURER'S NAME AND MODEL OR CATALOG NUMBER IS FOR THE PURPOSE OF ESTABLISHING THE STANDARD OF QUALITY AND CONFIGURATION DESIRED ONLY. OTHER MANUFACTURER'S EQUIPMENT MAY BE SUBMITTED FOR APPROVAL WITH WRITTEN APPROVAL

THE LANDSCAPE ARCHITECT. ONLY UPON SUBMITTAL AND SUBSEQUENT WRITTEN APPROVAL OF THE MATERIAL LIST SHALL THESE ITEMS BE PERMITTED. CHANGES TO HYDRAULICS BROUGHT ABOUT BY THE USE OF OTHER EQUIPMENT THAN THAT SPECIFIED SHALL BE RECALCULATED BY THE

CONTRACTOR AND SUBMITTED TO THE LANDSCAPE ARCHITECT FOR WRITTEN APPROVAL. SUCH

WORK SHALL NOT BE INSTALLED PRIOR TO RECEIPT BY THE CONTRACTOR OF THE WRITTEN APPROVAL.

C. WHENEVER SUCH TERMS AS "IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS" IS USED, IT SHALL MEAN IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED DIRECTIONS. IF THOSE DIRECTIONS CONFLICT WITH THIS SPECIFICATION. THE MATTER SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO PROCEEDING WITH WORK.

D. APPROVAL OF ANY ITEMS OR SUBSTITUTIONS INDICATES ONLY THAT THE PRODUCT(S) APPARENTLY MEET THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS ON THE BASIS OF THE

INFORMATION OR SAMPLES SUBMITTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERFORMANCE OF SUBSTITUTED ITEMS. IF THE SUBSTITUTION PROVES TO BE UNSATISFACTORY THE CONTRACTOR SHALL REPLACE SAID ITEMS WITH THE ORIGINALLY SPECIFIED ITEMS, INCLUDING

ALL NECESSARY WORK AND MODIFICATIONS TO REPLACE THE ITEMS, AT NO COST TO THE OWNER.

2.2 PIPING MATERIAL

A. INDIVIDUAL TYPES OF PIPE AND FITTINGS SUPPLIED ARE TO BE OF COMPATIBLE MANUFACTURER UNLESS OTHERWISE APPROVED. PIPE SIZES SHOWN ARE NOMINAL INSIDE DIAMETER UNLESS

OTHERWISE NOTED.

B. BRASS PIPE AND FITTINGS: BRASS PIPE SHALL BE 85% RED BRASS, AMERICAN NATIONAL STANDARD INSTITUTE (ANSI), SCHEDULE 40-SCREWED PIPE.

1. FITTINGS SHALL BE MEDIUM BRASS, SCREWED 125-POUND CLASS.

C. HARD COPPER TUBE AND FITTINGS: COPPER TUBE (PIPE) SHALL BE ASTM B 88, TYPE L, WATER TUBE, DRAWN TEMPER.

1. FITTINGS SHALL BE ASME B16.18, CAST-COPPER-ALLOY OR ASME B16.22, WROUGHT-COPPER, SOLDER-JOINT FITTINGS FOR 2 1/2 INCH SIZE AND SMALLER PIPE. CAST BRASS FITTINGS SHALL BE USED FOR PIPE OVER 2_1/2 INCH SIZE.

BRONZE FLANGES: ASME B 16.24, CLASS 150, WITH SOLDER-JOINT END.

4. COPPER UNIONS: MSS SP-123, CAST-COPPER-ALLOY, HEXAGONAL-STOCK BODY, WITH BALL-AND-SOCKET, METAL-TO-METAL SEATING SURFACES AND SOLDER-JOINT OR THREADED ENDS.

4



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rickengineering.com Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver CITY OF CHULA VISTA GENERAL SERVICES DEPARTMENT DRAWING NO. IRRIGATION SPECIFICATIONS FOR: 19015 - 23CHULA VISTA TRACT NO. 09-04 PH.2 | LI-20 OTAY RANCH. VILLAGE 8 WEST W.O. NO. OR652G

GRADING PERMIT No. GR13-005 PLR-20-018 OWD SHEET 23 OF 27

D.PLASTIC PIPE AND FITTINGS:

1. ALL PIPES SHALL BE FREE OF BLISTERS, INTERNAL STRIATIONS, CRACKS, OR ANY OTHER DEFECTS OR IMPERFECTIONS. THE PIPE SHALL BE CONTINUOUSLY AND PERMANENTLY MARKED WITH THE FOLLOWING INFORMATION: MANUFACTURER'S NAME OR TRADE MARK, SIZE, CLASS AND TYPE OF PIPE, PRESSURE RATING, QUALITY CONTROL IDENTIFICATIONS, AND DATE OF EXTRUSION.

2. PRESSURE MAINLINE FOR PIPING UPSTREAM OF REMOTE CONTROL VALVES AND QUICK COUPLING VALVES:

- a. 4" DIAMETER PIPE: SHALL BE MANUFACTURED RIGID VIRGIN POLYVINYL CHLORIDE PCV CLASS 200. CONFORMING TO ASTM D 2241. PIPE SHALL HAVE AN INTEGRAL BELL END WITH A LOCKED-IN FACTORY INSTALLED GASKET. BELL SHALL MEET REQUIREMENTS OF ASTM D 2672, GASKET SHALL MEET REQUIREMENTS OF ASTM D 3139, AND GASKET MATERIAL SHALL MEET REQUIREMENTS OF ASTM F 477. PIPE SIZES SHALL BE INSTALLED AS SHOWN ON PLANS. PIPE SHALL BE PURPLE IN COLOR.
- b. 2" -3" DIAMETER PIPE: PLASTIC PIPE FOR USE WITH SOLVENT WELD OR THREADED FITTINGS. SHALL BE MANUFACTURED RIGID VIRGIN POLYVINYL CHLORIDE PVC 1120, ASTM D 1784. CONFORMING TO ASTM D 2241. CLASS 315. SDR 13.5. PIPE SHALL BE PURPLE IN COLOR FOR RECYCLED WATER.
- c. 3/4" TO 1-1/2" DIAMETER PIPE: PLASTIC PIPE FOR USE WITH SOLVENT WELD AND/OR THREADED FITTINGS. SHALL BE MANUFACTURED RIGID VIRGIN POLYVINYL CHLORIDE PVC 1120, ASTM D 1784, CONFORMING TO ASTM D 1784, DESIGNATED AS SCHEDULE 40. PIPE SHALL BE PURPLE IN COLOR FOR RECYCLED WATER
- 3. NON_PRESSURE LATERAL LINE FOR PIPING DOWNSTREAM OF REMOTE CONTROL VALVES SHALL BE PLASTIC PIPE FOR USE WITH SOLVENT WELD OR THREADED FITTINGS, SHALL BE MANUFACTURED RIGID VIRGIN POLYVINYL CHLORIDE (PVC) 1220 (TYPE 1, GRADE 2) CONFORMING TO ASTM D 1785, DESIGNATED AS CLASS 200, THREE-QUARTER-INCH (3/4) MINIMUM SIZE. PIPE SHALL BE PURPLE IN COLOR.
- 4. IDENTIFICATION: FURNISH PLASTIC PIPE CONTINUOUSLY AND PERMANENTLY MARKED WITH FOLLOWING INFORMATION: MANUFACTURER'S NAME OR TRADE MARK, SIZE, CLASS AND TYPE OF PIPE, WORKING PRESSURE AT 73.4 F AND NATIONAL SANITATION FOUNDATION (NSF) RATING. PIPE SHALL BE PURPLE IN COLOR.
- 5. POLYETHYLENE TUBING FOR DRIP SYSTEMS SHALL BE CONSTRUCTED OF LINEAR. LOW DENSITY. POLYETHYLENE RESIN MANUFACTURED UNDER ASTM STANDARDS.
- 6. FITTINGS AND CONNECTIONS:
 - a. FITTINGS FOR 4" DIAMETER PIPE AND LARGER: FITTINGS SHALL BE DUCTILE IRON, DEEP-BELL, GASKETED FITTINGS MANUFACTURED BY LEEMCO, INC., OR APPROVED EQUAL.
 - b. FITTINGS FOR 3" DIAMETER PIPE AND SMALLER SHALL BE PLASTIC MANUFACTURED RIGID VIRGIN POLYVINYL CHLORIDE (PVC) 1120, (TYPE 2, GRADE 1), CONFORMING TO ASTM D 1784, SCHEDULE 80, HIGH IMPACT MOLDED SUITABLE FOR EITHER SOLVENT WELD OR THREADED CONNECTIONS AS REQUIRED.

2.3 PIPE CONNECTION MATERIALS

A. THREADED CONNECTIONS: TEFLON TAPE OR APPROVED EQUIVALENT, UL LISTED.

B. GASKETED FITTINGS: LUBRICANT PER MANUFACTURER'S RECOMMENDATIONS.

- C.SOLVENT WELD CONNECTIONS _ PRIMER AND ADHESIVE SOLVENT SHALL BE TYPE AS RECOMMENDED BY MANUFACTURER OF PIPE AND FITTINGS:
- 1. ALL CANS OF SOLVENTS AND PRIMERS SHALL HAVE LABELS INTACT AND SHALL BE STAMPED WITH THE DATE AND MANUFACTURER. NO CANS DATED OVER TWO (2) YEARS OLD WILL BE PERMITTED.
- 2. NO THINNING OF SOLVENT OR PRIMER IN ANY MANNER WILL BE PERMITTED.

D.NIPPLES AND RISERS:

- 1. METALLIC: RED BRASS, STANDARD PIPE SIZE, SCHEDULE 40, ASTM B43. COMPOSITION: NOMINAL COPPER CONTENT TO BE 85 PERCENT (MIN. 83%, MAX. 86%), NOMINAL ZINC CONTENT TO BE 15 PERCENT. MAXIMUM ALLOWABLE LEAD AND IRON CONTENT TO BE 0.05 PERCENT EACH
- 2. PLASTIC: PLASTIC NIPPLES AND RISERS SHALL BE MANUFACTURED RIGID VIRGIN POLYVINYL CHLORIDE PVC, (TYPE 1, GRADE 1), CONFORMING TO ASTM D 1784 OR D 2464, DESIGNATED AS SCHEDULE 80 WITH MOLDED THREADS.
- 2.4 BACKFLOW PREVENTION DEVICE / BACKFLOW PREVENTION ASSEMBLY
- A. ALL SPRINKLER IRRIGATION SYSTEMS THAT ARE USING WATER FROM POTABLE WATER SYSTEMS SHALL REQUIRE BACKFLOW PREVENTION. ALL BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH REQUIREMENTS SET FORTH BY ALL REGIONAL CODES, LOCAL CODES, AND THE LOCAL HEALTH DEPARTMENT.
- B. BACKFLOW PREVENTION DEVICE SHALL BE REDUCED PRESSURE PRINCIPLE DEVICE (RP). CONSTRUCTED OF BRASS OR BRONZE, WITH ALL BRONZE OR STAINLESS STEEL TRIM AND ALL MOVING PARTS OF NON_CORROSIVE MATERIALS. ALL PARTS SHALL BE REMOVABLE OR REPLACEABLE WITHOUT REMOVAL OF THE UNIT FROM THE LINE.
- C.BACKFLOW PREVENTION ASSEMBLY SHALL BE INTEGRALLY FITTED WITH A BRASS OR BRONZE ISOLATION VALVE AT BOTH THE INLET AND OUTLET POINTS.

D. SEE IRRIGATION LEGEND ON THE DRAWINGS FOR MANUFACTURER AND MODEL TYPE.

- E. BACKFLOW PREVENTION ASSEMBLY IS TO BE HOUSED WITHIN EXPANDED METAL BACKFLOW PREVENTION ASSEMBLY ENCLOSURE, CONSTRUCTED OF #9 EXPANDED STAINLESS STEEL, WITH STAINLESS STEEL FRAME. SIZE AS REQUIRED TO COMPLETELY ENCLOSE ENTIRE BACKFLOW PREVENTER ASSEMBLY. LEMEUR, RAINMAN, STRONG BOX, OR APPROVED EQUAL
- F. PRESSURE REGULATOR ON BACKFLOW PREVENTION ASSEMBLY: PRESSURE REGULATOR SHALL CONSIST OF A BRONZE BODY AND BELL HOUSING, A SEPARATE ACCESS COVER FOR THE PLUNGER, AND A BOLT TO ADJUST THE DOWNSTREAM PRESSURE. THE BRONZE BELL HOUSING AND ACCESS CAP SHALL BE THREADED TO THE BODY AND SHALL NOT REQUIRE THE USE OF FERROUS SCREWS. THE ASSEMBLY SHALL BE OF THE BALANCED PISTON DESIGN AND SHALL REDUCE PRESSURE IN BOTH FLOW AND NO-FLOW CONDITIONS. THE ASSEMBLY SHALL BE ACCESSIBLE FOR MAINTENANCE WITHOUT HAVING TO REMOVE THE BODY FROM THE LINE. SEE IRRIGATION LEGEND FOR MANUFACTURER AND MODEL TYPE.
- G."Y" TYPE STRAINER ON BACKFLOW PREVENTION ASSEMBLY: THE MAIN BODY AND COVER OF THE "Y" TYPE STRAINER SHALL BE CAST BRASS OR BRONZE. THE STRAINER SCREEN SHALL BE 20-MESH, 300 SERIES STAINLESS STEEL, AND SHALL BE ACCESSIBLE FOR MAINTENANCE WITHOUT REMOVING THE DEVICE FROM THE LINE. SEE IRRIGATION LEGEND FOR MANUFACTURER AND MODEL TYPE.
- 2.5 AUTOMATIC CONTROLLER ASSEMBLY

A. THE AUTOMATIC CONTROLLER ASSEMBLY SHALL BE A COMPLETE PRE-PACKAGED UNIT CONSISTING OF AN AUTOMATIC CONTROLLER, A STAINLESS STEEL ENCLOSURE, A STAINLESS STEEL PRE-DRILLED REMOVABLE BACKBOARD, A TERMINAL INTERFACE BOARD, AN ELECTRICAL JUNCTION BOX WITH A GROUND FAULT CIRCUIT INTERRUPTER (GFCI), A GROUND ROD, A FLOW SENSOR DEVICE WITH ALL ASSOCIATED DATA INTERFACE COMPONENTS, AND A RAIN SHUT-OFF SWITCH.

B. AUTOMATIC CONTROLLER SHALL BE ELECTRIC, SELF CONTAINED OUTDOOR TYPE, WALL OR PEDESTAL MOUNTED, 120 VOLT, 60 CYCLE. CONTROLLER SHALL BE COMPLETELY AUTOMATIC, AND ALSO BE ABLE TO OPERATE MANUALLY. INDEPENDENT STATIONS SHALL BE

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SIGNATURE Printed Name My Registration Expires	DATE R.L.A. No. Discipline		RECORD DATA AT THEIR FACILITIES MAY EXIST WH OF RECORD. CONTRACT	APPROX ICH HA\ OR SHA	N THESE PLANS ARE PLOTTED FROM IMATE LOCATIONS. UNDERGROUND /E NOT BEEN REPORTED OR ARE NOT LL VERIFY THE LOCATION OF ALL PERTINENT THE START OF CONSTRUCTION.			
CONSTRUCTION RECORD			REFERENCES	Ву	REVISIONS	Date	App'd	D
CONTRACTOR:		HALE ENGINE	ERING GRADING PLANS: 14011					CITY OF CHULA VISTA
INSPECTOR:								ELEVATION 446.361 NA DESCRIPTION: 3" BRAS
DATE COMPLETED:								CL INT. RUTGERS & OT
								ROS 14841

ADJUSTABLE FROM 2 TO 60 MINUTES AND THE PROGRAMMING SHALL BE CAPABLE OF AT LEAST TWO (2) INDEPENDENT PROGRAMS WITH AT LEAST THREE STARTS PER DAY. CONTROLLER SHALL HAVE A MASTER SWITCH, WHICH SHALL BE POSSIBLE TO OPERATE EACH VALVE MANUALLY, INDEPENDENT OF THE CLOCK, OR ANY OTHER VALVE.

- BACKBOARD.
- (GFCI).

- MANUFACTURER, AND MODEL TYPE.
- PHASED.
- LISTED.
- 2.6 MASTER CONTROL VALVE
- BRASS OR BRONZE BODY.

- 2.7 FLOW SENSOR AND FLOW SENSOR DATA INTERFACE

- - TWO-AND-ONE-HALF-INCH (2_1/2") SIZE SHALL BE VALVES OF BRONZE AND BRASS CONSTRUCTION.
 - SQUARE-OPERATING NUT.

- SPECIFICATION WW-V 5LD, CLASS A, TYPE IV.
- 2.10 REMOTE CONTROL VALVES
- OPERATION.
- PLANS.
- THE TOP PORTION OF EACH ASSEMBLY.

- BUILT IN FLOW CONTROL AND A SELF-CLOSING VALVE.
- BONDED RUBBER-LIKE VINYL COVER, PURPLE IN COLOR.

- 2.9 CHECK VALVES

- SHALL BE INSTALLED ON THE DISCHARGE END.
- 2.11 QUICK COUPLING VALVES

C.CONTROLLER SHALL BE HOUSED IN A STURDY, LOCKING, WEATHER RESISTANT, VANDAL-RESISTANT STAINLESS STEEL ENCLOSURE, FURNISHED FOR MAXIMUM EXTERIOR PROTECTION.

D. AUTOMATIC CONTROLLER ASSEMBLY SHALL HAVE A STAINLESS STEEL PRE-DRILLED REMOVABLE

E, A PRE-LABELED, PRE-WIRED, TERMINAL INTERFACE BOARD SHALL CLEARLY INDICATE THE PROPER POINTS OF CONNECTION FOR ALL APPROPRIATE WIRING (INCLUDING STATION VALVES, COMMONS, MASTER VALVES, FLOW SENSORS, PUMP START, OTHER SENSORS, ETC).

F. AN ELECTRICAL JUNCTION BOX SHALL BE PROVIDED WITHIN THE ASSEMBLY WITH AN ON/OFF SWITCH, AND A DUPLEX RECEPTACLE EQUIPPED WITH A GROUND FAULT CIRCUIT INTERRUPTER

G.AUTOMATIC CONTROLLER ASSEMBLY SHALL HAVE A GROUND ROD WITH CLAMP.

H. AUTOMATIC CONTROLLER ASSEMBLY SHALL INCLUDE A FLOW SENSOR DEVICE WITH ALL ASSOCIATED DATA INTERFACE COMPONENTS TO ALLOW IT TO FUNCTION PROPERLY WITH THE MASTER CONTROL VALVE AND THE AUTOMATIC CONTROLLER.

I. CONTROLLER SHALL BE EQUIPPED WITH RAIN SHUT-OFF SWITCH, MOUNTED EXTERNALLY IN ITS OWN VANDAL-RESISTANT STAINLESS STEEL ENCLOSURE. SEE IRRIGATION LEGEND FOR

J. ALL POWER WITHIN THE AUTOMATIC CONTROLLER ASSEMBLY HOUSING SHALL BE PROPERLY

K. THE ENTIRE AUTOMATIC CONTROLLER ASSEMBLY SHALL BE UNDERWRITERS LABORATORY INC. (UL)

L. THE ENTIRE AUTOMATIC CONTROLLER ASSEMBLY SHALL HAVE A LIMITED FIVE (5) YEAR WARRANTY.

A. SHALL BE NORMALLY CLOSED, SIZED SAME AS BACKFLOW PREVENTION ASSEMBLY OR LARGER,

B. SEE IRRIGATION LEGEND FOR MANUFACTURER AND MODEL TYPE.

THE MASTER CONTROL VALVE WIRE SHALL BE A TWO-CONDUCTOR OF ICEA CLASS B, 16 AWG, 3-STRAND, CONFORMING TO ASTM B-3 AND B-8, ALUMINUM SHIELDED WITH DRAIN WIRE, AND SHALL HAVE A JACKET OF 0.50 SUNLIGHT AND MOISTURE RESISTANT PVC.

A.FLOW SENSOR, FLOW SENSOR CABLE, COMMUNICATION CABLE, AND DECODERS SHALL BE PROVIDED WITH AUTOMATIC CONTROLLER ASSEMBLY UNIT.

THE FLOW SENSOR WIRE SHALL BE A TWO-CONDUCTOR OF ICEA CLASS B, 16 AWG, 3-STRAND, CONFORMING TO ASTM B-3 AND B-8, ALUMINUM SHIELDED WITH DRAIN WIRE, AND SHALL HAVE A JACKET OF 0.50 SUNLIGHT AND MOISTURE RESISTANT PVC.

2.8 ISOLATION VALVES (GATE VALVES / BALL VALVES / GLOBE VALVES, ETC)

A.ISOLATION VALVES FOR THREE-QUARTER-INCH (3/4") THROUGH

B. ISOLATION VALVES FOR THREE-INCH (3") AND LARGER SIZE SHALL BE TRUE UNION PVC 2000, AND SHALL HAVE A CLEAR WATERWAY EQUAL TO THE FULL NOMINAL DIAMETER OF THE VALVE, AND SHALL BE RUBBER GASKET, FLANGED OR MECHANICAL JOINT ONLY, AND SHALL BE ABLE TO

WITHSTAND A CONTINUOUS WORKING PRESSURE OF 150 PSI. VALVE SHALL BE EQUIPPED WITH A

C.ALL ISOLATION VALVES LOCATED IN A REMOTE CONTROL VALVE MANIFOLD SHALL BE THE SAME SIZE AS THE LARGEST REMOTE CONTROL VALVE IN THE MANIFOLD, ONE-AND-ONE-HALF-INCH (1-1/2") SIZE MINIMUM. PROVIDE PIPE-REDUCING ADAPTERS DOWNSTREAM OF VALVES, AS REQUIRED.

D. ALL IN-LINE ISOLATION VALVES SHALL BE THE SAME SIZE AS THE MAINLINE PIPE.

E. SEE IRRIGATION LEGEND FOR MANUFACTURER AND MODEL TYPE.

A.SWING CHECK VALVES 2" AND SMALLER SHALL BE 200 LBS., W.O.G., BRONZE CONSTRUCTION WITH REPLACEABLE COMPOSITION, NEOPRENE OR RUBBER DISC AND SHALL MEET OR EXCEED FEDERAL

B. ANTI-DRAIN VALVES SHALL BE OF HEAVY-DUTY VIRGIN PVC CONSTRUCTION, WITH SOFT COMPOSITION NEOPRENE DISC AND STAINLESS STEEL INTERNAL PARTS. ANTI DRAIN VALVES SHALL BE FIELD ADJUSTABLE TO COMPENSATE FOR ELEVATION CHANGES UP TO 32 FEET.

A.REMOTE CONTROL VALVES SHALL BE ELECTRICALLY OPERATED, SINGLE SEAT, NORMALLY CLOSED CONFIGURATION, EQUIPPED WITH FLOW CONTROL ADJUSTMENT AND CAPABILITY FOR MANUAL

B. VALVES SHALL BE ACTUATED BY A NORMALLY CLOSED LOW WATTAGE SOLENOID USING 24 VOLTS, 50/60 CYCLE SOLENOID POWER REQUIREMENT. SOLENOID SHALL BE EPOXY ENCASED. A UNION

C. VALVES SHALL BE WIRED TO CONTROLLER IN SAME NUMERICAL SEQUENCE AS INDICATED ON

D.REMOTE CONTROL VALVES SHALL HAVE A RECYCLED WATER IDENTIFICATION TAG INSTALLED ON

E. SEE IRRIGATION LEGEND FOR MANUFACTURER AND MODEL TYPE.

A.QUICK COUPLING VALVES SHALL BE A TWO-PIECE UNIT CONSISTING OF A COUPLER SEAL VALVE ASSEMBLY AND A REMOVABLE QUICK CONNECTING COUPLER KEY. A POSITIVE, WATERTIGHT CONNECTION SHALL BE MADE BETWEEN THE COUPLER KEY AND THE VALVE UNIT.

B. QUICK COUPLING VALVE SHALL BE DOUBLE-LUGGED TYPE, ONE-INCH (1) SIZE, DESIGNED TO WITHSTAND A WORKING PRESSURE OF 150 PSI, HEAVY-DUTY RED BRASS CONSTRUCTION WITH

C.QUICK COUPLING VALVE SHALL BE EQUIPPED WITH A LOCKABLE, HINGED COVER WITH SPRINGS FOR POSITIVE CLOSURE UPON KEY REMOVAL. COVERS SHALL BE RED BRASS WITH A PERMANENTLY

D. QUICK COUPLER KEY SHALL BE BRASS OR BRONZE WITH AN ATTACHED HOSE BIB ASSEMBLY. KEY SIZE SHALL BE COMPATIBLE WITH QUICK COUPLER AND OF SAME MANUFACTURER. SEE IRRIGATION LEGEND FOR MANUFACTURER AND MODEL TYPE.

2.12 VALVE BOXES AND MATERIALS

A. VALVE BOXES: VALVE BOXES SHALL BE CONSTRUCTED OF ABS (ACRYLONITRILE BUTADI STYRENE) PLASTIC, PURPLE IN COLOR, WITH RIGID BASE AND SIDES AND SHALL BE SUPF BOLT LOCK COVER SECURED WITH STAINLESS STEEL BOLTS. COVER SHALL BE IDENTIFIE SHOWN ON PLANS, PURPLE IN COLOR. PROVIDE BOX EXTENSIONS AS REQUIRED.

B.FOR GATE VALVES, DRIPLINE, FLUSH VALVES, EMITTERS AND WIRE STUB BOXES USE TEN-AND-ONE-HALF-INCH (10.5") DIAMETER BOX, PURPLE IN COLOR. FOR REMOTE CONTI THREE-QUARTER-INCH TO TWO-INCH (3/4" - 2"), USE CARSON #1419 13B BOX, PURPLE IN COLOR. FOR DRIP ASSEMBLIES USE #1419 _ 13B, PURPLE IN COLOR.

C.INSTALL IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS.

2.13 SPRINKLERS

A.ALL SPRINKLERS SHALL BE AS INDICATED ON THE IRRIGATION LEGEND ON THE DRAWING PURPLE CAPS.

B. RISER NIPPLES FOR ALL SPRINKLER HEADS SHALL BE THE SAME SIZE AS THE RISER OPE SPRINKLER BODY AND FABRICATED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE

2.14 ELECTRICAL CONTROL WIRING

A.LOW VOLTAGE

- 1. THE ELECTRICAL CONTROL WIRE SHALL BE DIRECT BURIAL TYPE UF, NO. 12 AWG, SINGLE CONDUCTOR, COPPER WIRE, U.L. APPROVED. WIRE SHALL BE LARGER SIZI REQUIRED TO OPERATE SYSTEM AS DESIGNED.
- 2. COLOR CODE WIRES TO EACH VALVE. COMMON WIRE SHALL BE WHITE. ALL MASTE VALVE OR FILL VALVE WIRES TO BE BLUE. ALL SPARE WIRES TO BE SOLID RED.
- 3. IF MULTIPLE CONTROLLERS ARE BEING UTILIZED, AND WIRE PATHS OF DIFFERENT CONTROLLERS CROSS EACH OTHER, BOTH COMMON AND CONTROL WIRES FROM CONTROLLER TO BE OF DIFFERENT COLORS.
- 4. CONTROL WIRE CONNECTIONS AND SPLICES SHALL BE MADE WITH DRY SPLICE ME CONTROL WIRE SPLICES ALLOWED ONLY ON RUNS OF MORE THAN THREE-HUNDR (300). PROVIDE PULL BOXES FOR CONTROL WIRING WHERE WIRE RUNS EXCEED THREE-HUNDRED FEET (300) IN LENGTH, AND AT ALL CHANGES IN DIRECTION GREA FORTY-FIVE (45) DEGREES. IN-LINE WIRE SPLICES SHALL BE MADE ONLY IN PULL-B WATERPROOF CONNECTORS.

B. HIGH VOLTAGE:

SHALL BE OF TYPE AS REQUIRED BY LOCAL CODES AND ORDINANCES 2. SHALL BE OF PROPER SIZE TO ACCOMMODATE NEEDS OF EQUIPMENT IT IS TO SEE

WIRE MARKERS: WHITE, SELF LAMINATING, VINYL IMPREGNATED CLOTH WITH PRINTE AND NUMERALS. LEGEND COLOR SHALL BE BLACK. BACKGROUND COLOR SHALL BE WI MINIMUM DIMENSION OF COMPLETE MARKER: 3/4" BY 1_1/2". MARKERS SHALL BE INSTA SERIES

C. TRACER WIRES: SHALL BE DIRECT BURIAL TYPE UF, NO. 12 AWG, SOLID, SINGLE CONDUC PLASTIC COATED COPPER WIRE, U.L. APPROVED.

2.15 TRENCH MARKER TAPE

A.MARKER TAPE FOR PRESSURE PIPE SHALL BE AN INERT PLASTIC FILM WITH METALLIC BA SPECIFICALLY FORMULATED FOR PROLONGED UNDERGROUND USE. MINIMUM THICKNES 4 MILS, MINIMUM WIDTH SHALL BE THREE-INCHES (3). MARKER TAPE SHALL BE BLUE IN C SHALL HAVE TWO-INCH (2) BLACK LETTERING WITH THE INSCRIPTION "CAUTION: WATER I BELOW". MARKER TAPE SHALL BE ALARMATAPE.

B. MARKER TAPE FOR DIRECT BURIAL CONTROL WIRE SHALL BE AN INERT PLASTIC FILM SP FORMULATED FOR PROLONGED UNDERGROUND USE. MINIMUM THICKNESS SHALL BE 4 I MINIMUM WIDTH SHALL BE THREE-INCHES (3). MARKER TAPE SHALL BE RED IN COLOR AN HAVE TWO-INCH (2) BLACK LETTERING WITH THE INSCRIPTION "CAUTION: ELECTRICAL LIN MARKER TAPE SHALL BE AS MANUFACTURED BY ALLEN MARKING TAPE, OR APPROVED E

2.16 CONCRETE THRUST BLOCKS

SIZE FOR AVERAGE SAFE SOIL BEARING LOAD OF 700-LBS/SQUARE FEET

2.17 EQUIPMENT TO BE FURNISHED TO OWNER

A. AS A PART OF THE CONTRACT, THE CONTRACTOR SHALL SUPPLY THE FOLLOWING EXTR. EQUIPMENT TO THE OWNER'S

REPRESENTATIVE AT THE CONCLUSION OF THE MAINTENANCE PERIOD. A SIGNED RECEIL FOLLOWING ITEMS BY THE OWNER'S REPRESENTATIVE WILL BE REQUIRED AT THE TIME OF FINAL ACCEPTANCE

- 1. AN APPROPRIATE PADLOCK AND TWO (2) SETS OF KEYS FOR EACH AUTOMATIC CC
- ASSEMBLY. 2. TWO (2) SETS OF KEYS FOR EACH CONTROLLER UNIT WITHIN THE AUTOMATIC CON
- ASSEMBLY.
- 3. AN APPROPRIATE PADLOCK AND TWO (2) SETS OF KEYS FOR EACH IRRIGATION BC PUMP ASSEMBLY
- 4. AN APPROPRIATE PADLOCK AND TWO (2) SETS OF KEYS FOR EACH BACKFLOW PR ASSEMBLY ENCLOSURE
- 5. TWO (2) FORTY-EIGHT-INCH (48") TEE WRENCHES APPROPRIATELY-SIZED, FOR OPI ANY BELOW-GRADE GATE VALVES.
- 6. THREE (3) SETS OF SPECIAL TOOLS REQUIRED FOR REMOVING, DISASSEMBLING A
- ADJUSTING EACH TYPE OF SPRINKLER AND VALVE SUPPLIED ON THIS PROJECT. 7. FOUR (4) QUICK COUPLER KEYS TO MATCH MANUFACTURER TYPE OF QUICK COUF
- 8. FOUR (4) SPRINKLERS AND NOZZLES OF EACH TYPE USED.

2.18 INCIDENTAL MATERIALS AND EQUIPMENT

FURNISH ALL MATERIALS AND EQUIPMENT NOT SPECIFIED ABOVE WHICH ARE NECESSARY COMPLETION OF THE WORK AS INTENDED.

2.19 MAINLINE BEDDING SAND

SAND SHALL CONSIST OF NATURAL OR MANUFACTURED GRANULAR MATERIAL SE30 OR BE OF ORGANIC MATERIAL, MICA, LOAM, CLAY OR OTHER SUBSTANCES NOT SUITABLE FOR TH PURPOSE.

PART 3 - EXECUTION

3.1 PREPARATION AND SITE REVIEW

- A.CONTRACTOR SHALL CONSULT ALL OTHER RELEVANT SPECIFICATION SECTIONS TO DET EXTENT AND CHARACTER OF WORK SPECIFIED ELSEWHERE BUT RELATED TO THE IRRIG SYSTEM.
- B. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATING TO FACILI MOST EXPEDITIOUS COMPLETION OF THE PROJECT IN A PROFESSIONAL AND WORKMANI

ATUMS	SCALE	Designed By:	Drawn By:	Chec	ked By:	Submitted:		
BENCH MARK NO. 95072	HORIZONTAL	LE	LE / RR		PT	- Subinitied:	APPROVED BY: DA	IE:
VD 88 SS DISK (LS4324) WELL MON @		Plans Prepared Ur	nder Supervision Of:	Date:	2/10/2022	Ву:		
TAY LAKES. PT. NO. 5072 PER	VERTICAL N/A	PATRICI	R.L.A No.	3247	Office:	DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY ALLEN O	or designee	
	M/A							

	MANNER, INCLUDING ALL REQUIRED IRRIGATION UTILITY CONNECTIONS WITH OTHER PROJECT TRADES.
DIENE	C.CONTRACTOR SHALL OBTAIN ALL INFORMATION PERTAINING TO LOCATIONS OF ALL EXISTING AND PROPOSED UTILITIES, LINES, AND APPURTENANCES PRIOR TO ANY IRRIGATION INSTALLATION.
PPLIED WITH FIED AS	D. STATE OF CALIFORNIA LAW: SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIG-ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR A DIG-ALERT IDENTIFICATION NUMBER, CALL UNDERGROUND SERVICE
TROL VALVES	ALERT TOLL FREE AT (800) 227-2600, TWO WORKING DAYS BEFORE YOU DIG.
	A.LOCATIONS AND DRAWINGS ARE DIAGRAMMATIC AND APPROXIMATE ONLY. ACTUAL WORK SHALL BE
	CHANGED AND ADJUSTED AS NECESSARY AND AS DIRECTED TO MEET EXISTING CONDITIONS AND OBTAIN COMPLETE WATER COVERAGE.
NGS, WITH	B. CONTRACTOR SHALL STAKE OUT LOCATIONS OF ALL PIPE, VALVES, EQUIPMENT, AND IRRIGATION HEADS AND EMITTERS USING AN APPROVED STAKING METHOD AND MAINTAIN THE STAKING OF THE APPROVED LAYOUT IN ACCORDANCE WITH THE DRAWINGS. VERIFY ALL HORIZONTAL AND VERTICAL SITE DIMENSIONS PRIOR TO STAKING OF HEADS. DO NOT EXCEED SPACING SHOWN ON DRAWINGS
PENING IN THE IE PLANS.	FOR ANY GIVEN AREA. IF SUCH MODIFIED SPACING DEMAND ADDITIONAL OR LESS MATERIAL THAN SHOWN ON THE DRAWINGS, NOTIFY THE LANDSCAPE ARCHITECT BEFORE BEGINNING ANY WORK IN THE ADJACENT AREA.
6, SOLID, ZE GAUGE, IF	C.MINOR CHANGES IN LOCATIONS OF THE ABOVE FROM LOCATIONS SHOWN SHALL BE MADE AS NECESSARY TO AVOID EXISTING SPECIMEN TREE PLANTING OR PROPOSED PIPING, UTILITIES, STRUCTURES, ETC. AT THE CONTRACTOR'S EXPENSE OR WHEN DIRECTED BY THE LANDSCAPE ARCHITECT.
TER CONTROL	D. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR RELOCATION OF ANY ITEMS WITHOUT FIRST OBTAINING THE LANDSCAPE ARCHITECT'S APPROVAL. THE CONTRACTOR SHALL REMOVE AND RELOCATE SUCH ITEMS AT HIS OR HER EXPENSE IF SO DIRECTED BY THE LANDSCAPE ARCHITECT.
IT M EACH	E. BEFORE STARTING WORK ON IRRIGATION SYSTEM, CAREFULLY CHECK ALL GRADES TO DETERMINE THAT WORK MAY SAFELY PROCEED, KEEPING WITHIN THE SPECIFIED MATERIAL DEPTHS. THE
METHOD. RED FEET	CONTRACTOR SHALL BE AWARE OF THE FACT THAT THE DRAWINGS ARE BASED ON HORIZONTAL DIMENSIONS. ACTUAL MEASUREMENTS TAKEN ALONG THE SLOPE OF A BANK WILL DIFFER FROM THOSE SHOWN ON THE DRAWINGS. MOW CURBS AND SPECIMEN TREES SHALL BE INSTALLED AND
EATER THAN BOXES, WITH	IN-PLACE BEFORE INSTALLATION OF IRRIGATION SYSTEM. F. NO FITTINGS SHALL BE INSTALLED ON PIPE UNDERNEATH PAVEMENT OR WALLS. IF SUCH A NEED SHOULD OCCUR, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT BEFORE BEGINNING
	ANY WORK. G.ALL CHANGES SHALL BE RECORDED ON THE REDLINE "AS_BUILT DRAWING" ON FRIDAY OF EVERY
ERVE. ED LETTERS	WEEK.
WHITE. FA-CODE PCM	
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ESS SHALL BE COLOR AND & LINE BURIED	
PECIFICALLY 4 MILS, ND SHALL INE BELOW". EQUAL.	
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REVENTION	
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Y FOR	
ETTER, FREE HE INTENDED	
ETERMINE THE GATION	INSPECTION NOTE: OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED
LITATE THE NLIKE	WITHOUT THE BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
	5620 FRIARS ROAD
	ENGINEERING COMPANY

CITY OF CHULA VISTA GENERAL SERVICES DEPARTMENT

San Diego

IRRIGATION SPECIFICATIONS FOR:

-0602 4 40 # <u>UMD</u>

DRAWING NO.

19015-24

CHULA VISTA TRACT NO. 09-04 PH.2 | LI-21 OTAY RANCH. VILLAGE 8 WEST W.O. NO. OR652G GRADING PERMIT No. GR13-005 PLR-20-018 OWD SHEET 24 OF 27

Riverside - Orange - Sacramento - San Luis Obispo - Phoenix - Tucson - Denver

- 3.3 TRENCHING
- A.PERFORM ALL TRENCHING AND EXCAVATIONS AS REQUIRED FOR THE INSTALLATION OF THE WORK INCLUDED UNDER THIS SECTION, INCLUDING SHORING OF EARTH BANKS TO PREVENT CAVE INS.

B. MAKE TRENCHES FOR MAINS. LATERALS AND CONTROL WIRING STRAIGHT AND TRUE TO GRADE AND FREE OF PROTRUDING STONES, ROOTS OR OTHER MATERIAL THAT WOULD PREVENT PROPER BEDDING OF PIPE OR WIRE.

C.EXCAVATE TRENCHES WIDE ENOUGH TO ALLOW A MINIMUM OF FOUR-INCHES (4) BETWEEN PARALLEL PIPE LINES AND EIGHT-INCHES (8) FROM LINES OF OTHER TRADES. DO NOT INSTALL IRRIGATION LINES DIRECTLY PARALLEL OR VERTICALLY OVER ONE ANOTHER. MAINTAIN THREE-INCHES (3) VERTICAL CLEARANCE BETWEEN IRRIGATION LINES. MINIMUM TRANSVERSE ANGLE IS FORTY-FIVE (45) DEGREES. ALL PIPES SHALL BE SERVICED OR REPLACED WITHOUT DISTURBING THE OTHER PIPES.

- D. TRENCHES FOR PIPELINES SHALL BE MADE OF SUFFICIENT DEPTH TO PROVIDE THE MINIMUM COVER FROM FINISHED GRADE AS FOLLOWS:
- 1. PRESSURIZED MAINLINES: EIGHTEEN-INCHES (18) BELOW FINISH GRADE TO TOP OF PIPE, THIRTY-INCHES (30) BELOW NON-VEHICULAR PAVED AREAS TO TOP OF PIPE, AND THIRTY SIX-INCHES (36) BELOW VEHICULAR PAVED AREA TO TOP OF PIPE, IN SCHEDULE 40 PVC SLEEVES.
- 2. NON-PRESSURIZED LATERAL LINES: TWELVE-INCHES (12) BELOW FINISH GRADE TO TOP OF PIPE, TWENTY FOUR-INCHES (24) BELOW NON-VEHICULAR PAVED AREAS TO TOP OF PIPE, AND THIRTY-INCHES (30") BELOW VEHICULAR PAVED AREAS TO TOP OF PIPE, IN SCHEDULE 40 PVC SLEEVES.
- 3. CONTROL WIRING: TO THE SIDE OF THE PRESSURIZED MAINLINE, AND THIRTY-INCHES (30) BELOW PAVED AREAS IN SCHEDULE 40 PVC SLEEVES.
- E. TRENCHING WITHIN "DRIP LINE" OF EXISTING TREES SHALL ONLY BE BY WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO START OF TRENCHING OPERATIONS.
- F. WHEN TRENCHING THROUGH AREAS WHERE IMPORTED SOIL HAS BEEN SPREAD, DEPOSIT IMPORTED SOILS ON ONE SIDE OF TRENCH AND SUBSOIL ON OPPOSITE SIDE. REPLACE IMPORTED SOIL AS THE TOP COVER WHEN BACKFILLING TRENCH.
- G.TRENCHES THROUGH PAVED AREAS SHALL BE RESURFACED WITH SAME MATERIAL OF SAME QUALITY AS EXISTING MATERIAL AS PART OF CONTRACT.

3.4 PIPING ASSEMBLY

A.GENERAL:

- 1. INSTALL ASSEMBLIES AND PIPE TO CONFORM TO RESPECTIVE DETAILS AND WHERE SHOWN DIAGRAMMATICALLY ON DRAWINGS, USING FIRST CLASS WORKMANSHIP AND BEST STANDARD PRACTICES AS APPROVED. ALL FITTINGS THAT ARE NECESSARY FOR PROPER CONNECTIONS SUCH AS SWING JOINTS, OFFSETS, AND REDUCING BUSHINGS THAT ARE NOT SHOWN ON
- DETAILS SHALL BE INSTALLED AS NECESSARY AND DIRECTED AS PART OF THE WORK. 2. DO NOT INSTALL MULTIPLE ASSEMBLIES ON PLASTIC LINES. PROVIDE EACH ASSEMBLY WITH ITS OWN OUTLET.
- 3. DIELECTRIC BUSHINGS SHALL BE USED IN ANY CONNECTIONS OF DISSIMILAR METALS.

B. PLASTIC PIPE:

- 1. GASKETED PLASTIC PIPE: PIPE-TO-PIPE JOINTS OR PIPE TO FITTINGS SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- 2. SOLVENT WELD OR THREADED PLASTIC PIPE:
 - a. INSTALLATION OF ALL PIPE AND FITTINGS SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 - b. BECAUSE OF THE NATURE OF PLASTIC PIPE AND FITTINGS, EXERCISE CAUTION IN HANDLING, LOADING AND STORING, TO AVOID DAMAGE, ALL PIPE AND FITTINGS SHALL BE STORED UNDER COVER UNTIL USED. ANY PIPE THAT HAS BEEN DENTED OR DAMAGED SHALL BE DISCARDED UNTIL DAMAGED SECTION IS CUT OUT AND REJOINED WITH COUPLING.
 - c. PIPE SHALL BE CUT USING APPROVED PVC PIPE CUTTERS ONLY. SAWED JOINTS ARE DISALLOWED. ALL FIELD CUTS SHALL BE BEVELED TO REMOVE BURRS AND EXCESS BEFORE GLUING.
 - d. PIPE ENDS AND FITTINGS SHALL BE WIPED WITH MEK OR EQUAL, BEFORE WELDING SOLVENT IS APPLIED. WELDED JOINTS SHALL BE GIVEN A MINIMUM OF 15 MINUTES TO SET BEFORE MOVING OR HANDLING. EXCESS SOLVENT ON THE EXTERIOR OF THE JOINT SHALL BE WIPED CLEAN IMMEDIATELY AFTER ASSEMBLY.
 - e. PLASTIC TO METAL CONNECTIONS SHALL BE MADE WITH PLASTIC ADAPTERS AND IF NECESSARY, SHORT (NOT CLOSE) BRASS THREADED NIPPLES. CONNECTION SHALL BE MADE WITH TWO (2) WRAPS OF TEFLON TAPE AND HAND TIGHTENED, PLUS ONE TURN WITH A STRAP WRENCH.
 - f. PIPE SHALL BE ASSEMBLED AND WELDED ON THE SURFACE. CURE ALL JOINTS ACCORDING TO MANUFACTURER'S SPECIFICATIONS BEFORE PLACING INTO TRENCH. ALL JOINTS MUST CURE AT LEAST TWENTY-FOUR (24) HOURS BEFORE PERMITTING WATER THROUGH PIPE. g. SNAKE PIPE HORIZONTALLY IN TRENCH TO ALLOW ONE-FOOT (1) OF EXPANSION AND
 - CONTRACTION PER ONE-HUNDRED FEET (100) FEET OF STRAIGHT RUN.
 - h. THREADED PIPE JOINTS SHALL BE MADE USING TEFLON TAPE. SOLVENT SHALL NOT BE USED WITH THREADED JOINTS. PIPE SHALL BE PROTECTED FROM TOOL AND EQUIPMENT DAMAGE DURING ASSEMBLY. ALL DAMAGED PIPE SHALL BE REMOVED AND REPLACED IMMEDIATELY. TAKE UP THREADED JOINTS WITH LIGHT WRENCH PRESSURE. i. NO CLOSE NIPPLES OR RISERS ARE ALLOWED. CROSS CONNECTIONS IN PIPING IS NOT
 - ALLOWED. j. CENTER LOAD PIPE WITH SMALL AMOUNT OF BACKFILL TO PREVENT ARCHING AND
 - SLIPPING UNDER PRESSURE. OTHER THAN THIS PRELIMINARY BACKFILL. ALL PIPE JOINTS. FITTINGS AND CONNECTIONS ARE TO REMAIN UNCOVERED UNTIL SUCCESSFUL COMPLETION OF HYDROSTATIC TESTING AND WRITTEN APPROVAL IS ACHIEVED. k. CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED BEHIND ALL PIPE FOUR-INCHES (4)
 - DIAMETER AND LARGER WITH SUFFICIENT BEARING TO RESIST THE THRUST OF WATER AT ALL CHANGES OF DIRECTION OF FORTY-FIVE (45) DEGREES OR MORE. CONSTRUCT THRUST BLOCKS FOR QUICK COUPLERS AS PER DETAIL.

3.5 FLUSHING AND TESTING

A.FLUSHING:

- 1. OPENINGS IN PIPING SYSTEM DURING INSTALLATION ARE TO BE CAPPED OR PLUGGED TO PREVENT DIRT AND DEBRIS FROM ENTERING PIPE AND EQUIPMENT. REMOVE PLUGS WHEN NECESSARY TO FLUSH OR COMPLETE SYSTEM.
- 2. AFTER COMPLETION AND PRIOR TO THE INSTALLATION OF ANY TERMINAL FITTINGS, THE ENTIRE PIPELINE SYSTEM SHALL BE THOROUGHLY FLUSHED TO REMOVE DIRT, DEBRIS, AND/OR OTHER MATERIAL.
- B. TESTING:
- 1. AFTER FLUSHING, THE FOLLOWING TESTS SHALL BE CONDUCTED IN THE SEQUENCE LISTED BELOW. THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT; MATERIALS AND LABOR NECESSARY TO PERFORM THE TESTS AND ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
- 2. WATER PRESSURE TESTS SHALL BE PERFORMED ON ALL PRESSURIZED MAINLINES AND NON-PRESSURIZED LATERAL LINES BEFORE ANY COUPLINGS, FITTINGS, VALVES AND THE LIKE

ARE CONCEALED. IMMEDIATELY PRIOR TO TESTING, ALL IRRIGATION LINES SHALL BE PURGED OF ALL ENTRAPPED AIR

AS BUILT		UTILITY NOTE								
DATE SIGNATURE R.L.A. No. Printed Name My Registration Expires Discipline.	RECORD DATA AT THE FACILITIES MAY EXIST OF RECORD. CONTR	IR APPROX WHICH HA ACTOR SH	ON THESE PLANS ARE PLOTTED FROM KIMATE LOCATIONS. UNDERGROUND VE NOT BEEN REPORTED OR ARE NOT ALL VERIFY THE LOCATION OF ALL PERTINENT O THE START OF CONSTRUCTION.							
CONSTRUCTION RECORD	REFERENCES	Ву	REVISIONS	Date	App'd	DAT				
CONTRACTOR:	HALE ENGINEERING GRADING PLANS: 14	011				CITY OF CHULA VISTA BE				
INSPECTOR:						ELEVATION 446.361 NAVE				
DATE COMPLETED:						CL INT. RUTGERS & OTA				
						ROS 14841				

REACTIVATED AT ANY TIME DURING THE PRESSURE TEST. HOUR WITH AN ALLOWABLE LOSS OF 3 PSI. SAME AS SPECIFIED HEREIN.

3.6 PIPE BACKFILLING AND COMPACTING

A. IRRIGATION TRENCHES SHALL BE CAREFULLY BACKFILLED WITH MATERIAL APPROVED FOR BACKFILLING AND FREE OF ROCKS AND DEBRIS ONE-INCH (1) IN DIAMETER AND LARGER.

B. UNDER NO CIRCUMSTANCE IS PIPE TO REST ON CONCRETE, ROCK, WOOD BLOCKS, OR OTHER POTENTIAL DELETERIOUS ITEMS.

C. BACKFILL SHALL BE COMPACTED WITH APPROVED EQUIPMENT TO NINETY-PERCENT (90%) MAXIMUM DENSITY AND PER CITY ENGINEERING SPECIFICATIONS. FINISH GRADE OF ALL TRENCHES SHALL CONFORM TO ADJACENT GRADES WITHOUT CLIPS OR OTHER IRREGULARITIES. DISPOSE OF EXCESS SOIL OR DEBRIS OFF SITE AT CONTRACTOR'S EXPENSE.

D. INSTALL APPROPRIATE TRENCH MARKER TAPE ON A CONTINUOUS RUN OF ALL PRESSURIZED LINE (MAINLINE PIPE) TRENCHES, AT A DEPTH OF NINE-INCHES (9) BELOW FINISH GRADE.

E. RESTORE ALL SURFACES AND REPAIR EXISTING UNDERGROUND INSTALLATIONS DAMAGED OR CUT AS A RESULT OF THE EXCAVATION TO THEIR ORIGINAL CONDITION, SATISFACTORY TO THE OWNER'S REPRESENTATIVE.

F. ANY SETTLING OF BACKFILL MATERIAL DURING THE MAINTENANCE OR WARRANTY PERIOD SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND PER CITY ENGINEERING SPECIFICATIONS, INCLUDING ANY REPLACEMENT OR REPAIR OF SOIL, LAWN, AND PLANT MATERIAL OR PAVING SURFACE. SURFACE DRAINAGE FLOWS SHALL BE MAINTAINED BY DESIGN.

3.7 INSTALLATION OF EQUIPMENT

INSTALL AS PER MANUFACTURER'S / SUPPLIER'S INSTRUCTIONS AND/OR DETAIL, WHERE INDICTED ON THE PLANS. THE OWNER'S REPRESENTATIVE SHALL APPROVE LOCATION PRIOR TO INSTALLATION. 2. REMOTE CONTROL VALVES SHALL BE CONNECTED TO THE CONTROLLER IN NUMERICAL SEQUENCE AS SHOWN ON THE PLANS. 3. CONTROLLER SHALL BE TESTED WITH COMPLETE ELECTRICAL CONNECTIONS. THE CONTRACTOR

TESTING PURPOSES.

4. CONNECTIONS TO CONTROL WIRING SHALL BE MADE WITHIN THE PEDESTAL OF THE CONTROLLER ASSEMBLY. ALL WIRE SHALL FOLLOW THE PRESSURE MAINLINE PIPE INSOFAR AS POSSIBLE. 5. ELECTRICAL WIRING SHALL BE "HARD-WIRED" IN AN APPROPRIATE RIGID CONDUIT PURSUANT TO ALL APPROPRIATE CODES AND REGULATIONS, FROM THE CONTROLLER ASSEMBLY TO THE ELECTRICAL SUPPLY. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL WIRING TO THE CONTROLLER, IN ORDER TO PROPERLY COMPLETE THIS INSTALLATION. A DISCONNECT SWITCH SHALL BE INCLUDED.

6. INSIDE THE AUTOMATIC CONTROLLER ASSEMBLY, THE LETTER OF THE CONTROLLER (AS DESIGNATED ON THE PLANS) SHALL BE STENCIL PAINTED ON THE CONTROLLER CABINET DOOR WITH BLACK OR WHITE ENAMEL PAINT. 7. UPON COMPLETION OF INSTALLATION, THE ENTIRE AUTOMATIC CONTROLLER ASSEMBLY SHALL BE INSPECTED AND TESTED FOR PROPER CONNECTIONS AND COMPLETE AND FULL OPERATION BY THE MANUFACTURER'S AND/OR SUPPLIER'S REPRESENTATIVE, INCLUDING PROPER OPERATION AND INTERFACE WITH THE FLOW SENSOR, FLOW SENSOR DATA INTERFACE, MASTER CONTROL VALVE, ETC. 8. A REDUCED COPY OF THE AS-BUILT RECORD DRAWINGS OF THE IRRIGATION PLAN SHALL BE COLOR-CODED BY STATIONS AND LAMINATED IN PLASTIC, AND SHALL BE MOUNTED ON THE INSIDE OF EACH CONTROLLER ENCLOSURE FOR MAINTENANCE PERSONNEL.

C. MASTER CONTROL VALVE, FLOW SENSOR, AND FLOW SENSOR DATA INTERFACE:

IRRIGATION CONTROLLER.

D. ISOLATION VALVES (GATE VALVES / BALL VALVES / GLOBE VALVES, ETC):

INSTALL AS REQUIRED AT LOCATIONS DESIGNATED ON DRAWINGS WITHIN AN APPROPRIATE VALVE BOX.

E. CHECK VALVES / ANTI-DRAIN VALVES:

INSTALL AS SHOWN ON DETAILS AT LOCATIONS NECESSARY TO PREVENT LOW HEAD RUN OFF INSTALL IN-LINE ANTI-DRAIN VALVES AS WARRANTED BY SITE CONDITIONS TO ALLEVIATE LOW HEAD DRAINAGE

F. REMOTE CONTROL VALVES AND VALVE MANIFOLDS:

INSTALL AS SHOWN ON DETAIL AT LOCATIONS DESIGNATED ON PLANS AND HOUSE EACH VALVE IN AN INDIVIDUAL BOX. GROUP VALVES TOGETHER WHERE PRACTICAL AND LOCATE IN SHRUB AREAS. REMOTE CONTROL VALVES SHALL HAVE A RECYCLED WATER IDENTIFICATION TAG INSTALLED ON THE TOP PORTION. 3. REMOTE CONTROL VALVE MANIFOLDS AND QUICK-COUPLING VALVES SHALL BE CONNECTED

SEPARATELY ON THE MAINLINE, ALLOWING USE OF A QUICK COUPLER WITH ALL REMOTE CONTROL VALVES SHUT OFF. 4. REVIEW ALL VALVE BOX LOCATIONS WITH OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION OF VALVES. INSTALL BOXES NO FARTHER THAN TWELVE-INCHES (12) FROM EDGE OF PAVING AND PERPENDICULAR TO EDGE OF PAVING AND PARALLEL TO EACH OTHER. ALLOW SIX-INCHES (6) CLEARANCE BETWEEN ADJACENT BOXES.

G. QUICK COUPLING VALVE:

INSTALL QUICK COUPLING VALVE AS SHOWN IN DETAIL WITH THRUST BLOCK AND LOCATE WHERE INDICATED ON PLANS. INSTALL WITHIN VALVE BOX, AND IN ACCORDANCE WITH PLANS AND DETAILS. 2. QUICK COUPLING VALVES SHALL HAVE A RECYCLED WATER IDENTIFICATION TAG INSTALLED ON THE TOP PORTION.

3. IN TURF AREAS, SUCH EQUIPMENT SHALL BE INSTALLED IN A VALVE BOX SET TO FINISH GRADE. H. VALVE BOXES:

1. INSTALL ONE VALVE BOX FOR EACH TYPE OF VALVE INSTALLED AS PER THE DETAILS. NO

OR DEBRIS BY ADJUSTING CONTROL VALVES AND INSTALLING TEMPORARY CAPS FORCING WATER AND DEBRIS TO BE DISCHARGED FROM A SINGLE OUTLET.

4. TEST ALL PRESSURIZED MAINLINE AT 150 PSI FOR A MINIMUM TIME PERIOD OF FOUR (4) HOURS WITH ZERO (0) PSI LOSS. PRESSURE AND GAUGES SHALL BE READ IN PSI AND CALIBRATED SUCH THAT ACCURATE DETERMINATION OF POTENTIAL PRESSURE LOSS CAN BE ASCERTAINED. PUMP USED TO ENERGIZE SYSTEM FOR PRESSURE TEST SHALL BE COMPLETELY REMOVED FROM THE SYSTEM PRIOR TO START OF TIME PERIOD, AND NOT REACTIVATED AT ANY TIME DURING THE PRESSURE TEST.

5. TEST ALL NON_PRESSURIZED LATERAL LINE AT ONE-HUNDRED (100) PSI FOR A MINIMUM TIME PERIOD OF TWO (2) HOURS WITH ZERO (0) PSI LOSS. PUMP USED TO ENERGIZE SYSTEM FOR PRESSURE TEST SHALL BE COMPLETELY REMOVED FROM THE SYSTEM PRIOR TO START OF TIME PERIOD, AND NOT

6. TEST ALL NON-PRESSURE DRIP PIPE AT FORTY (40) PSI FOR A MINIMUM TIME PERIOD OF ONE (1)

7. RE TEST AS REQUIRED AFTER MAKING APPROPRIATE REVISIONS UNTIL THE SYSTEM MEETS THE REQUIREMENTS. ANY LEAKS, WHICH OCCUR DURING TEST PERIOD, WILL BE REPAIRED IMMEDIATELY FOLLOWING THE TEST. ALL PIPE SHALL BE RE TESTED UNTIL FINAL WRITTEN ACCEPTANCE IS ACHIEVED. 8. ALL MATERIALS AND INSTALLATION PROCEDURE USED FOR MAKING CORRECTIONS ARE TO BE THE

A. AUTOMATIC CONTROLLER ASSEMBLY:

SHALL BE RESPONSIBLE FOR TEMPORARY POWER TO THE CONTROLLER ASSEMBLY FOR OPERATION AND

THE MASTER CONTROL VALVE, FLOW SENSOR, AND FLOW SENSOR DATA INTERFACE SHALL BE INSTALLED AS PER MANUFACTURER'S AND/OR SUPPLIER'S RECOMMENDATIONS. 2. INSTALL SO THAT ALL COMPONENTS COMMUNICATE APPROPRIATELY WITH EACH OTHER AND THE

3. ENSURE THAT THE FUNCTION OF EACH COMPONENT IS FULLY OPERATIONAL, WITH FLOW SENSOR SETTINGS BASED UPON SITE CONDITIONS TO PREVENT POTENTIAL PROPERTY DAMAGE.

MORE THAN ONE VALVE SHALL BE INSTALLED IN ANY SINGLE VALVE BOX. 2. ALL VALVE BOXES SHALL BE SET TWO-INCHES (2") ABOVE FINISH GRADE IN SHRUB AND

- GROUNDCOVER AREAS, AND FLUSH WITH FINISH GRADE IN TURF AREAS. 3. ALL VALVE BOXES SHALL BE SET PARALLEL WITH EACH OTHER AND WITH ADJACENT HARDSCAPE ELEMENT (WALKWAYS, CURBS, VEHICULAR DRIVES, BUILDINGS, FENCES, ETC).
- 4. GRAVEL SUMP SHALL BE INSTALLED AFTER COMPACTION OF ALL TRENCHES. FINAL PORTION OF GRAVEL SHALL BE PLACED INSIDE VALVE BOX AFTER VALVE IS BACKFILLED AND
- COMPACTED. 5. BOXES SHALL BE INSTALLED SO THAT ALL VALVE HANDLES AND OTHER COMPONENTS OPERATE FREELY AND FUNCTION PROPERLY WITHIN THE BOX (OPEN/CLOSE, ETC).

I. SPRINKLERS:

- 1. ALL MAINLINES AND LATERAL LINES, INCLUDING RISERS, SHALL BE FLUSHED AND PRESSURE TESTED BEFORE INSTALLING SPRINKLER HEADS, AFTER WHICH A WATER COVERAGE TEST SHALL BE PERFORMED.
- 2. INSTALL SPECIFIED SPRINKLER HEADS AS SHOWN IN DETAILS AT LOCATIONS SHOWN ON THE PLANS. ADJUST LAYOUT FOR FULL COVERAGE, SPACING OF HEADS SHALL NOT EXCEED THE MAXIMUM SPACING RECOMMENDED BY THE MANUFACTURER.

J. WIRING:

1. LOW VOLTAGE WIRING:

- a. CONTROL WIRING BETWEEN CONTROLLER AND ELECTRICAL VALVES SHALL BE INSTALLED IN THE SAME TRENCH AS THE MAINLINE WHERE PRACTICAL. THE WIRE SHALL BE BUNDLED AND SECURED TO THE LOWER QUADRANT OF THE TRENCH AT TEN-FEET (10) INTERVALS WITH PLASTIC ELECTRICAL TAPE.
- b. WHEN THE CONTROL WIRING CANNOT BE INSTALLED IN SAME MAINLINE TRENCH IT SHALL BE INSTALLED A MINIMUM OF 18-INCHES (18) BELOW FINISH GRADE AND A BRIGHT COLORED PLASTIC RIBBON WITH SUITABLE MARKINGS SHALL BE INSTALLED IN THE TRENCH SIX-INCHES (6) BELOW GRADE DIRECTLY OVER THE WIRE.
- c. AN EXPANSION LOOP SHALL BE PROVIDED EVERY TWO-HUNDRED-FEET (200) AND/OR 270 DEGREES OF BENDS IN A BOX AND INSIDE EACH VALVE BOX. EXPANSION LOOP SHALL BE FORMED BY WRAPPING WIRE AT LEAST EIGHT (8) TIMES AROUND A THREE-QUARTER-INCH (3/4) PIPE AND THEN WITHDRAWING PIPE FROM THE COILED WIRE. d. PROVIDE ONE CONTROL WIRE TO SERVICE EACH REMOTE CONTROL VALVE IN THE
- SYSTEM. e. PROVIDE ONE COMMON WIRE PER CONTROLLER.
- f. ALL CONTROL WIRE SPLICES NOT OCCURRING AT CONTROL VALVE SHALL BE INSTALLED IN A SEPARATE SPLICE VALVE BOX.
- g. WIRE MARKERS (SEALED, 1 INCH TO 3 INCH SQUARE) ARE TO IDENTIFY CONTROL WIRES AT VALVES AND AT TERMINAL STRIPS OF CONTROLLER. AT THE TERMINAL STRIP MARK EACH WIRE CLEARLY INDICTING VALVE CIRCUIT NUMBER.
- 2. HIGH VOLTAGE WIRING FOR AUTOMATIC CONTROLLER ASSEMBLY:
- a. ALL ELECTRICAL WORK SHALL CONFORM TO ANY AND ALL LOCAL CODES, ORDINANCES,
- AND ANY AUTHORITIES HAVING JURISDICTION. b. ALL HIGH VOLTAGE ELECTRICAL WORK SHALL BE PERFORMED BY A STATE OF CALIFORNIA
- LICENSED ELECTRICIAN.
- c. THE CONTRACTOR SHALL PROVIDE 120-VOLT POWER CONNECTION TO THE AUTOMATIC CONTROLLER ASSEMBLY, UNLESS NOTED OTHERWISE ON PLANS.
- 3. TRACER WIRE:
 - a. TRACER WIRE SHALL BE INSTALLED WITH NON METALLIC PLASTIC IRRIGATION MAINLINES
 - WHERE CONTROLLER WIRES ARE NOT BURIED IN THE SAME TRENCH AS THE MAINLINE. b. THE TRACER WIRE SHALL BE PLACED ON THE BOTTOM OF THE TRENCH UNDER THE
 - VERTICAL PROJECTION OF THE PIPE WITH SPLICED JOINTS SOLDERED AND COVERED WITH INSULATION TYPE TAPE.
 - c. TRACER WIRE SHALL BE OF A COLOR NOT USED FOR VALVE WIRING. TERMINATE WIRE IN A VALVE BOX. PROVIDE ENOUGH LENGTH OF WIRE TO MAKE A LOOP AND ATTACH WIRE MARKER WITH THE DESIGNATION "TRACER WIRE".

3.8 ADJUSTMENT AND COVERAGE TEST

A.ADJUSTMENT:

THE CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS, VALVES AND ALL OTHER EQUIPMENT TO ASCERTAIN THAT THEY FUNCTION ACCORDING TO THE MANUFACTURER'S DATA. 4. ADJUST ALL SPRINKLER HEADS SO AS TO NOT OVERSPRAY ONTO WALKS, ROADWAYS,

- BUILDINGS, AND OTHER HARDSCAPE ELEMENTS WHEN UNDER MAXIMUM OPERATING PRESSURE AND DURING TIMES OF NORMAL PREVAILING WINDS.
- 5. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE UNLESS OTHERWISE DESIGNATED ON THE PLANS OR DETAILS.

B. COVERAGE TEST:

- 1. THE CONTRACTOR SHALL PERFORM THE COVERAGE TEST FOR THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE AFTER ALL SPRINKLER HEADS HAVE BEEN INSTALLED. FLUSHED AND ADJUSTED. EACH SECTION IS TESTED TO PROVIDE UNIFORM AND ADEQUATE COVERAGE OF THE AREAS SERVICED.
- 2. ANY SYSTEMS THAT REQUIRE ADJUSTMENTS FOR FULL AND EVEN COVERAGE SHALL BE DONE BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE AT THE DIRECTION OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST. ADJUSTMENTS MAY ALSO INCLUDE REALIGNMENT OF PIPES, ADDITION OF EXTRA HEADS, AND CHANGES IN NOZZLE TYPE OR SIZE.
- 3. THE CONTRACTOR SHALL IMMEDIATELY CORRECT ALL UNAUTHORIZED CHANGES OR POOR INSTALLATION PRACTICES AT NO ADDITIONAL COST.
- 4. THE ENTIRE SYSTEM SHALL BE OPERATING PROPERLY WITH WRITTEN APPROVAL PRIOR TO ANY PLANTING OPERATIONS.

3.9 CLEAN-UP AND SAFE ENVIRONMENT

AS PROJECT PROGRESSES, CONTRACTOR SHALL MAINTAIN ALL AREAS IN A NEAT AND SAFE MANNER, AND REMOVE UNSIGHTLY DEBRIS AS NECESSARY. AFTER COMPLETION OF PROJECT EACH DAY, CONTRACTOR SHALL REMOVE ALL DEBRIS AND CONTAINERS USED IN ACCOMPLISHING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF, OFF SITE, AT NO ADDITIONAL EXPENSE, ANY TRASH OR DEBRIS GENERATED BY THE INSTALLATION OF THE WORK.

3.10 GENERAL MAINTENANCE AND THE MAINTENANCE PERIOD

A.GENERAL MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER INSTALLATION OF IRRIGATION SYSTEM. THE GENERAL MAINTENANCE AND THE MAINTENANCE PERIOD SHALL INCLUDE THE FOLLOWING:

- 1. ON A WEEKLY BASIS THE CONTRACTOR SHALL KEEP THE IRRIGATION SYSTEM IN GOOD RUNNING ORDER AND MAKE INSPECTIONS ON THE ENTIRE SYSTEM FOR PROPER OPERATION AND COVERAGE. CONTRACTOR SHALL CONTINUE TO ADJUST SPRINKLER NOZZLES AS NECESSARY TO OBTAIN OPTIMUM COVERAGE AND MINIMUM OVERSPRAY OF WATER ON HARDSCAPE ELEMENTS THROUGHOUT THE MAINTENANCE PERIOD. REPAIR AND CLEANING SHALL BE DONE AS NECESSARY TO KEEP THE SYSTEM IN FULL OPERATION.
- 2. DRIP IRRIGATION: FLUSH LATERAL SYSTEMS ONE (1) TIME PER MONTH MINIMUM DURING THE MAINTENANCE PERIOD. 3. RECORDS OF ALL TIMING CHANGES TO CONTROL VALVES FROM INITIAL INSTALLATION TO
- TIME OF FINAL ACCEPTANCE SHALL BE KEPT AND TURNED OVER TO THE OWNER'S REPRESENTATIVE AT THE TIME OF FINAL ACCEPTANCE.
- 4. DURING THE LAST WEEK OF THE MAINTENANCE PERIOD, PROVIDE EQUIPMENT FAMILIARIZATION AND INSTRUCTION ON THE TOTAL OPERATIONS OF THE SYSTEM TO THE

ATUMS	SCALE	Designed By:	Drawn By:	Cheo	cked By:	Submitted:	
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AY LAKES. PT. NO. 5072 PER	VERTICAL N/A	PATRICI	A TRAUTH	R.L.A No	3247	Office:	DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY

DATE:

OWNER'S REPRESENTATIVE AND TO THE PERSONNEL WHO WILL ASSUME RESPONSIBILITY FOR RUNNING THE IRRIGATION SYSTEM. A SIGNED RECEIPT BY THE OWNER'S REPRESENTATIVE THAT THE EQUIPMENT FAMILIARIZATION AND INSTRUCTION OCCURRED WILL BE REQUIRED AT THE TIME OF FINAL ACCEPTANCE.

5. AT THE END OF THE MAINTENANCE PERIOD, TURN OVER ALL OPERATIONS LOGS, MANUALS, INSTRUCTIONS, SCHEDULES, KEYS AND ANY OTHER EQUIPMENT NECESSARY FOR OPERATION OF THE IRRIGATION SYSTEM TO THE OWNER'S REPRESENTATIVE, WHO WILL ASSUME RESPONSIBILITY FOR THE OPERATIONS AND MAINTENANCE OF THE IRRIGATION SYSTEM. A SIGNED RECEIPT BY THE OWNER'S REPRESENTATIVE THAT THESE ITEMS ARE RECEIVED WILL BE REQUIRED AT THE TIME OF FINAL ACCEPTANCE.

B. THE MAINTENANCE PERIOD FOR THE IRRIGATION SYSTEM SHALL COINCIDE WITH THE NINETY (90) DAY MAINTENANCE PERIOD FOR THE LANDSCAPE MATERIALS.

INSPECTION NOTE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT THE BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.





5620 FRIARS ROAD SAN DIEGO, CA 92110 619-291-0707 (FAX) 619-291-4165

WATER AGENCIES' STANDARDS

STANDARD SPECIFICATIONS

REVISED: 08/03/2018 SECTION 15152 RECYCLED WATER FACILITIES (ONSITE)

PART 1 GENERAL

1.01 DESCRIPTION

This section includes special provisions, materials, and identification of onsite (post meter private) recycled water irrigation or plumbing systems. The purpose of this section is to provide Rules and Regulations and establish procedures and specifications for the development and operation of recycled water systems in the District's service area.

1.02 REFERENCE STANDARDS

Environmental Health

The publications listed below form part of this specification to the extent referenced and are referred to in the text by the basic designation only. Reference shall be made to the latest edition of said standards unless otherwise called for.

AWWA		American Waterworks Association Guidelines for Distribution of Non- potable Water
CCR		California Code of Regulations Title 22 and Title 17.
DOHS	3 1 -3	Department of Health Services
Recycled	Water Plan	Check and Inspection Manual, County of San Diego, Department of

1.03 RELATED WORK SPECIFIED ELSEWHERE

WAS Standard Drawings

WAS Standard Specification 01000

1.04 OFFSITE AND ONSITE CRITERIA

Recycled water facilities are separated into two categories

- "Offsite" (pre-meter, public) recycled water facilities consist of those facilities which are on the upstream side of the meter. These facilities are, or will be, owned, operated and maintained by the District. Specification Section 15151 details the requirements for construction of Offsite Recycled Water Facilities.
- "Onsite" (post-meter, private) recycled water facilities consist of those facilities which are on the downstream side of the water meter. These are facilities which will be owned, operated and maintained by the customer. This specification will detail the requirements for the design, installation and testing of onsite recycled irrigation and plumbing systems.

1.05 POLICY

The District operates and maintains a recycled water distribution system within its service area enabling it to provide disinfected tertiary treated recycled water for a variety of beneficial uses. Recycled Water usage as an alternate will conserve an equal amount of potable water for domestic use.

The beneficial use of recycled water is regulated by the California State Water Resources Control N. Board (CWRCB). California Water Code Section 13551 establishes a State policy to encourage the use of recycled water. Permission to use recycled water is based on the ability to adequately treat wastewater to the point that the recycled water (effluent) meets or exceeds the requirements of existing Title 22, Chapter 3, regulations of the California Code of Regulations. Title 22 was promulgated by the State of California Department of Health Services (DOHS) to ensure proper health protection and specify the treatment degree to match the intended applications.

In accordance with waste discharge requirements for water reclamation projects, the Regional Water Quality Control Board, San Diego Region, (RWQCB) requires that Rules and Regulations for facilities using recycled water be established.

1.06 APPROVED USE

These Rules and Regulations pertain to recycled water service to lands and/or improvements lying within the legal boundaries of the District unless otherwise stated. It is the intent of the District to provide recycled water service in accordance with these Rules and Regulations to all areas identified in the District's Water Reclamation Master Plan, including all subsequent revisions for the use of recycled water. Recycled water service shall be provided to the service area when related transmission distribution facilities are completed and service becomes available.

In accordance with the goals of the District, the uses of recycled water include only those uses Q. approved by the State of California Department of Health Services (DOHS), the County of San Diego Department of Environmental Health (DEH) and for which Title 22 of the California Code of Regulations provides treatment requirements. All potential applications of recycled water shall be reviewed and approved by the District prior to installation of facilities. Prior to approval and at its discretion, the District may set forth specific requirements as conditions for providing service and/or require specific prior approval from the appropriate regulatory agencies.

The facilities shall be constructed in accordance with the procedures and requirements of the District. No recycled water mains or connections to the recycled water mains shall be installed unless shown on the Approved Plans.

1.07 CONDITIONS OF SERVICE

Recycled water service shall be provided by the District only if such service is obtained in the manner provided in these Rules and Regulations. Recycled water service shall be available, R. provided, and used in accordance with other codes, rules, and regulations referenced in this specification.

If any of the following conditions of service are not satisfied at all times recycled water service may be revoked by the District.

A. Financial: Conditions relating to service rates, fees and billing shall be established by the Board of Directors

- B. Operationa
 - Liability: The District shall not be liable for any water-related damage resulting from, but not limited to:
 - a. defective plumbing
 - broken or faulty services
 - onsite facilities failures
 - high or low pressure conditions
 - interruptions of service
 - unauthorized connections
 - Service: All recycled water will be provided to the user as specified in the Application/Permit For Recycled Water Service. Recycled water use will be S. subject to the same restrictions as stated in these specifications and the regulatory requirements of DOHS and DEH.
- Regulatory: Recycled water service may be suspended whenever the quality of the recycled water does not comply with the requirements of the regulatory agencies or at any time these Rules and Regulations For Recycled Water Service are violated.

1.08 DESIGN CRITERIA - ONSITE RECYCLED SYSTEMS

- A. The design of onsite recycled water facilities, including the preparation of plans and specifications, shall be under the responsibility of a licensed Landscape Architect or Civil Engineer registered with the State of California. A Declaration of Responsible Charge shall appear on the title sheet of the plans.
- B. The design of onsite recycled facilities shall conform to the most current provisions set forth herein and to any other conditions, standards, and requirements set forth by the U. District.

- In those areas where recycled water is not immediately available, and the District has V. determined that recycled water will be supplied in the future, the onsite facilities shall be designed to use recycled water. Provisions shall be made, as directed by the District, to allow for connection to the recycled distribution main when it becomes available. In the interim, potable water shall be supplied through a temporary potable water connection W. using a master reduced pressure principal backflow device installed per these Standard Specifications. When recycled water becomes available, the Owner shall remove the backflow prevention device in the presence of, and as directed by, the District Engineer. The onsite system will be connected to the recycled water distribution main per the requirements of the Standard Specifications at the time the connection is made.
- Onsite recycled water systems shall be designed to include backflow prevention per the WARNING requirements of the Standard Specifications. In some cases, more stringent backflow protection may be required
- The recycled water system shall be separate and independent of any potable water Tape. system. Cross connections between potable water facilities and recycled water facilities are prohibited.
- Hose bibs on recycled water facilities are prohibited.
- Fire hydrants, wharf heads, or other appurtenances shall only be included in the design when these appurtenances are expressly approved by the District and DOHS.
- Drinking fountains shall be protected from the spray of recycled water. There shall be no Н. A direct contact of recycled water with a drinking fountain. Protection of drinking fountains can be accomplished either by maintaining a horizontal separation of at least 9m (30') between the drinking fountain and the nearest spray type emitter, spray head modification, or by the use of a covered fountain. The manner used to protect drinking fountains from the spray of recycled water shall be approved by the District and DOHS.
- Potable and recycled lines shall not to be installed in the same trench. Recycled lines shall be designed to be installed below the potable lines where the two pipelines run parallel to each other. Where this is not possible, the recycled line shall be installed in a casing. Details of this installation shall be clearly drawn on the plans.
- Onsite recycled water irrigation systems shall be designed to meet the peak moisture demand of the plant material to be irrigated. The use of moisture sensors is encouraged, but not mandatory
- Onsite recycled water irrigation systems shall be designed to apply irrigation water in a manner compatible with the infiltration rates of the soil types within the approved use area. Evidence that infiltration rates have been assessed shall be included with the design. Where varying soil types are present, the system design shall be compatible with the lowest infiltration rate present.
- Onsite recycled water systems shall be designed to prevent discharge onto areas not under control of the Owner. Appropriate sprinklers, bubblers, emitters, rotors, etc., shall be employed in the design to confine the discharge to the approved use area. The design shall avoid spray patterns which discharge onto obstructions that tend to concentrate water which results in ponding and/or runoff.
- Onsite recycled irrigation systems shall be designed to provide a physical separation between adjacent areas irrigated with potable water. The means of separation shall be provided by either a distance of 3m (10'), concrete mow strips, approved fence or other approved means. Where concrete mow strips or other means are used, they shall be shown on the plans.
- Onsite recycled water systems shall be designed to operate during periods of minimal public use of the area. The total time required to irrigate the design area shall not exceed D. nine (9) hours in any twenty four (24) hour period. The system shall be designed to operate between the hours of 9 PM and 6 AM.
- Onsite recycled water system designs shall include automatic system control devices which can be easily adjusted to minimize ponding and runoff.
- Onsite recycled water system design plans shall contain the following information for each meter requested:
- Meter location and size
- Gross and net irrigation area served by each meter (sq ft or acres)
- 3. Peak flow through the meter in liters/minute (gpm)
- Estimate of the yearly demand (acre-feet)
- Design operating pressure at the meter in Kpa (psi) Onsite recycled water system design plans shall contain a legend showing the pertinent data for the materials to be used in the system construction. Included shall be a pipe schedule (listing pipe sizes and materials of construction), valve types (including quick-

coupling type valves), and the following information for each type of sprinkler device:

- Manufacturer and model number
- Sprinkler radius in meters (feet)
- Operating pressure in Kpa (psi)
- 4. Flow in liters/minute (gpm)

Sprinkler pattern

- Onsite recycled water design plans shall contain the following detailed information: Points of connection
- Routing of all pipes
- Gate valves
- Control valves
- Quick-coupling valves
- Routing of control wires
- Control stations The area controlled by each control station
- Signage plan and sign detail
- Cross connection test station locations and detail
- Location of mow strips, fences, walls, or other barriers
- Adjacent parcels, lots or home sites irrigated with potable water 12.

3 Onsite recycled water design plans shall clearly detail backflow prevention devices, all potable water lines, buildings, walls, exterior drinking, and decorative fountains, swimming pools, playgrounds, or any other permanent facilities in the design area. If none of the items listed in this paragraph are present in the design area, it shall be ONSITE R specifically stated on the plans that none exist.

- Onsite recycled water design plans shall clearly indicate the following minimum top of pipe depth requirements:
- Intermittent pressure lines 50mm (2") in diameter and smaller: 300mm (12")
- Constant pressure lines less than 150mm (6") in diameter: 450mm (18") deep.
- 3. Constant pressure lines 150mm (6") in diameter and larger: 750mm (30") deep.

The District's Recycled Water Use Notes are to be included on all onsite recycled water system design plans. These notes, as appended, may be expanded or otherwise C. modified as directed by the District.

AS BUILT	Ĺ	UTILITY NOTE								
DATE SIGNATURE R.L.A. No. Printed Name My Registration Expires Discipline	FACILITIES MAY EXIST WH	APPROX ICH HA OR SHA	IN THESE PLANS ARE PLOTTED FROM IMATE LOCATIONS. UNDERGROUND /E NOT BEEN REPORTED OR ARE NOT ILL VERIFY THE LOCATION OF ALL PERTINENT THE START OF CONSTRUCTION.			3				
CONSTRUCTION RECORD	REFERENCES	Ву	REVISIONS	Date	App'd	DAT				
CONTRACTOR:	HALE ENGINEERING GRADING PLANS: 14011					CITY OF CHULA VISTA BE				
INSPECTOR:						ELEVATION 446.361 NAVD DESCRIPTION: 3" BRASS I				
DATE COMPLETED:						CL INT. RUTGERS & OTAY				

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WARNING

١			hour contact telephone number ince of the system shall appear or			4.	prevented		overspray, ponding and ru				installed in a becomes a presence of	able water shall be supplie accordance with the Distric available, the Owner shall f and as directed by the Dis cled water service lateral.
١		as follows: The Distric	II be shown on each page of the d t Inspection Division shall be noti struction. All work performed witho	fied 48 hours (2 working days)	D.	the follo	owing criter	a:	le water facilities shall be ins			OPERA	ATION AND I	MAINTENANCE
		subject to rejection and	removal.			1.			h between onsite recycled and), measured between outside		shall be a	А.	General:	e operation, surveillance, m
A V	ul irrig	NG/IDENTIFICATION T gation pipe, both p g/Identification	APE potable and recycled, shall	include the installation of		2.	lines, with outside dia	a minimum v imeters. Excep	ed water lines shall be insta ertical separation of 300mm (otions to this general requirement ines may be installed above p	(12"), measure ent are as follow	d between ws:		facil Site of re Dist	ilities are the responsibility e Recycled Water Supervis recycled water in accordan trict shall receive the follow
2		MATERIALS					the	e recycled line nstruction requ	ires may be installed above a s (laterals) are intermittently uirements are necessary, pro- n is maintained.	pressurized.	No special		loca be r	"On-Site Supervisor": their ation during normal working reached during off hours.
									surized recycled water lines lines providing the recycled					e District must be notified in 152.3.02.A.1 within ten (10)
4		Pipe shall be solid purp	e-colored PVC material conformin	g to the following:			aı sl	utomatic flow eeved. An aut	control/shut-off device installe omatic flow control/shut-off de	ed, or the recy evice shall term	ycled line is inate all flow		The custom facilities:	ner shall have the following
		1120 for sched	naller pipe shall conform to ASTM- ule 40 or 80, or ASTM-D2241, T e. Ends shall be solvent welde	ype 1, Grade 1, PVC-1120 for			(g th P	pm). Sleeving e potable line, VC. In all c	natically should the flow exce shall extend 1.5m (5') each s for a total length of 3m (10'). eases, the 300mm (12") ve	side from the c The sleeve sh	enter-line of all be purple		fam 2. To	ensure that all operation niliarized with the use of rec ensure precautionary mea
		2. 100mm (4") an elastomeric ring pipe is unavail	d larger pipe shall conform to eith g bell-type pipe ends, conforming t able, 0.203mm (0.008" or 8 mils) accordance with Section 15151.	o ASTM-D3139. Where purple	E.	under	recycled v control of th	ne Owner. App	shall be installed to prevent propriate irrigation component arge to the approved use an	ts shall be emp	ployed in the		wate	ycled water. For work inv ter, employees must be pro t aid supplies should be av ould be promptly treated to p
		3. Identification m shall include th	arkings shall be continuous on tw e nominal pipe size, PVC type, and the words "CAUTION-RECYC	ASTM or AWWA designation,	F.	avoid s produc	spray patter e ponding a	ns which disch and/or runoff.	shall be installed to operate	end to concentr	rate water to		insti prop	furnish their operations tructions, irrigation schedul per operation in accordance ensure all recycled water fa
E		1. 75mm (3") and	all conform to the following: smaller pipe shall use solvent w with a working pressure rating n			nine (9) hours in		time required to irrigate the de riod. The system shall be in				with syst	these Rules and Regulation tems within the District.
		Schedule 40 fil ASTM-D2464 a	tings shall conform to ASTM-D24 nd D-2467. PVC solvent cement s	66 and Schedule 80 fittings to shall conform to ASTM-D2564.	G.		requiremen	ts:	shall be installed to the follo		top of pipe		Operation, appropriate,	maintenance and control , shall include but are not lir eration of onsite recycled
			d larger pipe shall use either med forming to AWWA C153; or grip ti			1. 2.			es 50mm (2") and smaller – 30 smaller than 150mm (6") – 45				mini	nimize discharge onto area nimize public contact.
r		C110 and C111		of for prolonged underground		3.		NC7/ 1	150mm (6") and larger – 750n	109 - 200 000 000			hum	eration of the onsite recycled nan use of the service are
C		conditions. The minimi	e an inert plastic film formulate um thickness shall be 0.102mm (0 um of 75mm (3"). The tape shall	0.004" or 4 mils) and the overall	н.				I be installed on all onsite pol	table and recyc	cled lines as			kimum dry-out time before the zation of automatic controll
		background or black RECYCLED WATERLI	printing on a purple backgroun NE BELOW".	d with the words "CAUTION:	L		for in Sectio esting shal		l on all constant pressure lin	nes in the pres	sence of the		need	cled water. Total sprinkle ded to supply the landscape dscape's water requirement
		They shall be construct	hall be acme thread type for open ted of brass with a solid purple- ver shall have the warning "NON-	colored locking rubber or vinyl		District rating	Engineer.	The test pres	sure shall be a minimum of 3 e maintained for a minimum be allowed. If leakage excee	345 Kpa (50 ps duration of 2	i) above the hours. No		repro	ogrammed with a greater nu requirements. This method
			and the International "DO NOT [shall be	e located a	nd repaired, an	d the hydrotest repeated until	l there is zero le	eakage.			customer reporting to the I tem that cause an unauthoriz
E		surface colored purple	and other types of dispersion The exposed surface shall be plastic or permanently attached p	e colored through the use of	J.	cross o tempor potable	connection ary water water sou	test (if require meter obtaine rce. A reduce	d for hydrotesting, flushing, th d). Potable water shall be su d from the District and loca d pressure principal backflow	upplied through ated at a Distri device shall be	n a separate ict-approved e installed at		5. Prote cont	tection of all drinking founta tact with windblown recycled ther approved uses by locati
F		The entire box may be "NON-POTABLE- DO	er industry standards with solid pu molded from purple-colored PVC. NOT DRINK'' in English and Spa e warnings shall be permanently r	The lids shall have the warning nish and the International "DO	K	tempor during	rary high lir the constru	ne shall be ins ction and testin		recycled irriga	ation system		6. Prote limite	by design, construction practi tection of facilities that may ted to, eating surfaces and pl areas. These shall be prot
C		tags. The purple paint tags shall be 75mm x 1	exterior surface painted purple a shall be as listed on the Approv 00mm (3" x 4") weatherproof purp ermanent markings with the words	ed Materials List. Identification le plastic. The plastic tags shall	К.		selected fr	om the Approv	shall be installed in accordar ed Materials List. (¾") through 50mm (2"), the	e strainer and	check valve		recy throu cons	vcled water to the maximum ugh wash down or by irrig sidered sources of recycl struction practice and system
		Not Drink" on one side	and "Peligro: Agua Impura- No Bel	ber" on the opposite side.			box.	istalled in a se	parate 25mm (1") meter box a	abutted to the s	ervice meter			ification of the District of all u rict and DOHS shall be of
F		Labels and signs sha installation. The labels is unsafe to drink. The	ns shall be required and installed p II be submitted to the District I and signs shall notify that the syst by shall be in English and Spanis ninimum, signs shall be installed	Engineer for approval prior to em contains recycled water that h with the international "Do Not		2.	installed sufficient	in a separate	than 50mm (2"), the strainer vault adjacent to meter va le adequate room for mainte	ault. The vaul	It shall be of	D.	Rule ager	rict procedures. All updates es and Regulations and th ncies. er shall enforce the following
1.			ne exterior front panel of irrigation			3.		ner and check	valve shall be installed and	d inspected pr	ior to service			ss-connections: Cross-conn julations, Title 17, resulting
		on the strainer leg for bronze body, in-line typ bronze ball valve instal strainers shall be cast-	flushing. 50mm (2") and smaller e with stainless steel screens. Str led on the strainer's wye leg. 75 or ductile-iron and have the size on the strainer's wye leg	wye pattern strainers shall be ainers shall have a 13mm (1/2") mm (3") and larger wye pattern	L.	Plans installe	and detail ed directly	ed on the Sta downstream o	shall be installed at the location ndard Drawings. In genera f each point of connection, d ss connection station(s) may	al, one test sta lownstream of	ation shall be any pressure		phys prac 2. Hose	sical presence of a recycled ctice or system operation, are be Bibs: Use or installation of tem that presently operates
J	[Check valves shall be	in-line, spring-loaded, bronze-bo or dual check type valves with s		M.		proved Pla		ap shall be prepared and sub	bmitted to the D	District prior to		rega 3. Runo	ardless of the hose bib const noff: Conditions that directly of
ĸ		valves shall be the sam A more stringent meth	e size as the service meter. od of backflow prevention may t	e required when a fertilizer or			encing serv	rice. The map	shall be prepared as follows: ach automatic controller show				prac	in or outside of the approv ctice or system operation, are iding: Conditions that directly
			m is shown on the Approved Plan	s.		2.	map shal	l be 275mm x 4	425mm (11" x 17") in size. uced drawing of the actual sy				withi prac	in or outside of the approv ctice, or system operation, ar
		E POTABLE WATER FA	lue-colored PVC material conform	ing to this specification.				on the origina it is clearly leg	I controller map drawing sha ble.	all be so draw	n that, when		pass	dblown Spray: Conditions th s outside of the approved us
E	i . 1	15 B	shall not be acme thread type. The	ney shall have a cover made of		3.			ackline print with a different on and subsystem.	color used to	show area of		6. Disp	system operation, are prohib posal in Unapproved Areas
C).	brass, yellow rubber o Onsite systems distrib	or vinyi. Duting potable water shall not hav	ve purple markings.		4.	two piece		pproved, the maps shall be h orless plastic, each piece be				Dist	uding approved uses, in are trict and without the prior kn encies, is prohibited.
٧	VARNI	ING/IDENTIFICATION	ТАРЕ		N.	The ov	<i>9.</i>);	с. 	Itative shall contact the Distri	ict's Inspection	Division and			approved Uses: Use of rec cifically approved by the Dis
۷	Varning	g/Identification Tape m	aterials shall conform to Section	15000.		attend to the	ance along system ar	with persons e required, oth	pection. The owner or owner capable of making system ac er than minor adjustments, t	djustments. If the owner will	modifications be notified in			
3		EXECUTION				be ma owner,	de in a tim , applicant,	ely manner. A	To avoid suspension of ser Il modifications to the system and said owner, applicant or o	are the respon	nsibility of the	and ons	site facilities. ary, inspect c	onitor and inspect the entire The District shall conduct r onsite facilities for complian d by other regulating agen
C	NSITE	E RECYCLED WATER	FACILITIES		О.				of the coverage test, a Fin	al Inspection	shall also be	the right recycled	ht to enter u d water facili	upon the customer's prem ities and approved use are
A	λ.	by the District Engine	er and the San Diego County, D	until the plans have been approved epartment of Environmental Health has been held with the District			eer before p	permanent serv	s must be completed to the vice will be established:		of the District	have the to verify	ne right to enti- fy that the c	g. The District, Regional W ter upon the customer's pre- customer's irrigation practic keys and/or lock combinatio
		approval and/or insp		led system is installed prior to plan he system shall be exposed and		1. 2.			service has been made to the Is are installed.	e District.		provide	such access	š.
E	I.	Onsite recycled wate	er facilities shall be installed a	as shown on the approved plans. be permitted until the revised plans		3.			valve boxes, controllers and ith the proper markings indi			A.	The District	IOTIFICATION t reserves the right to de
c		have been submitted	to, and approved by, the governi	ing regulatory agencies.		4.	1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 -	or potable wate	er. f and ponding have been limit	ted or prevente	d.		customer. In violation of a	s has resulted from any ac Insofar as the violation o any regulatory agency requ
		1. The recycled	water system shall be separat	e and independent of any potable		5.		859 (859)	t to operate during the approv	<i>a</i>		В.	Specific viol	tation on behalf of the conce
		recycled wate	 Cross connections between r facilities are prohibited. recycled water facilities are proh 	potable water facilities and onsite		6. 7		2	een submitted to the District. our (24) hour contact phone nur	mber identified			noncompliar willfully or by	prohibitions as listed in thes nce with any condition or co y accident, shall constitute a
		3. Drinking four	tains shall be protected from	the spray of recycled water in a y agencies and as directed by the	P.	In those	e areas whe	re recycled wa	our (24) nour contact phone nur ter is not immediately available be supplied in the future, the or	e, but the Distric			onsite recycles resulted in v	ponsibility of the customer cled water system whethe violations. Failures may occ
		District Engin				installed allow fo	to use recy r connectior	voled water. Prototo to the recycled	be supplied in the future, the or ovisions shall be made, as direc I distribution main when it becon	cted by the Distr	rict, to		there are an	rized personnel or any non- ny doubts regarding whether istrict so that a determination
	/ISTA B	TUMS BENCH MARK NO. 95072	SCALE HORIZONTAL		awn B LE / Rf	/		ked By: PT	Submitted:		APPROVED BY:			DATE:
N: 3'		/D 88 S DISK (LS4324) WELL MC AY LAKES. PT. NO. 5072 F	ER VERTICAL	Plans Prepared Under Supe PATRICIA TRAUTH			Date:	2/10/2022 3247	By: Office:		DIRECTOR OF DEVE	LOPMENT	SERVICES. TIF	FFANY ALLEN OR DESIGNEE
			N/A			K	R.L.A No	5271						

interim, potable water shall be supplied through a temporary potable water connection dance with the District's Standard Specifications. When recycled water ble, the Owner shall remove the backflow prevention device in the as directed by the District Engineer, and shall connect the onsite system water service lateral.

NTENANCE

ration, surveillance, maintenance, and repair of all onsite recycled water are the responsibility of the customer. The customer's designated "Oncycled Water Supervisor" shall bear the responsibility for the distribution cled water in accordance with the District Rules and Regulations. The shall receive the following information regarding the individual designated -Site Supervisor": their name, address and telephone number of their during normal working hours, and a telephone number at which they can hed during off hours.

trict must be notified in writing of any change in the information in Section C. 3.02.A.1 within ten (10) working days.

hall have the following responsibilities pertaining to operation of onsite

ure that all operations and maintenance personnel are trained and zed with the use of recycled water.

ure precautionary measures be taken to minimize direct contact with I water. For work involving more than a casual contact with recycled mployees must be provided with proper protective equipment. Adequate supplies should be available on the premises. All cuts and abrasions be promptly treated to prevent infection.

hish their operations and maintenance personnel with maintenance ions, irrigation schedules, controller charts, and as-built plans to ensure peration in accordance with these Rules and Regulations.

are all recycled water facilities are operated and maintained in accordance se Rules and Regulations and other documents governing recycled water within the District.

hall be responsible for any and all subsequent uses of the recycled water. ntenance and control measures to be utilized in this regard, where I include but are not limited to the following::

on of onsite recycled water facilities shall be operated to prevent or discharge onto areas not under control of the customer so as to e public contact.

n of the onsite recycled water facilities shall be during periods of minimal use of the service area. Consideration shall be given to allow a n dry-out time before the irrigated area will be used by the public.

of automatic controller systems to minimize ponding and runoff of water. Total sprinkler run times shall not be greater than the time supply the landscape's water requirement. If runoff occurs before the be's water requirements are met, the automatic controllers shall be mmed with a greater number of water cycles of shorter duration to meet rements. This method of operation is intended to minimize ponding and

comer reporting to the District any and all failures in the recycled water hat cause an unauthorized discharge of recycled water.

of all drinking fountains located within the approved use area from with windblown recycled water spray, direct application through irrigation approved uses by location and/or a protecting structure. Protection shall sign, construction practice and system operation.

n of facilities that may be used by the public. They include but are not eating surfaces and playground equipment located within the approved s. These shall be protected by siting and/or shelter from contact with water to the maximum extent possible. Windblown spray, direct contact wash down or by irrigation application, or other approved uses are red sources of recycled water. Protection shall be by design, tion practice and system operation.

on of the District of all updates and proposed changes. Approval by the and DOHS shall be obtained prior to construction in accordance with rocedures. All updates and proposed changes shall comply with these d Regulations and the governing documents of all other regulatory

all enforce the following prohibitions:

nnections: Cross-connections, as defined by the California Code of ons. Title 17, resulting from the use of recycled water or from the presence of a recycled water service, whether by design, construction or system operation, are strictly prohibited.

bs: Use or installation of permanent hose bibs on any customer water that presently operates or is designed to operate with recycled water, as of the hose bib construction or identification, is prohibited.

Conditions that directly or indirectly cause runoff of recycled water either outside of the approved use area, whether by design, construction or system operation, are prohibited.

Conditions that directly or indirectly cause recycled water to pond either outside of the approved use area, whether by design, construction or system operation, are prohibited.

wn Spray: Conditions that directly or indirectly permit windblown spray to tside of the approved use area, whether by design, construction practice,

m operation, are prohibited.

I in Unapproved Areas: Disposal of recycled water for any purposes, g approved uses, in areas other than those specifically approved by the and without the prior knowledge and approval of the governing regulatory s, is prohibited.

oved Uses: Use of recycled water for any purposes other than those ally approved by the District, is prohibited.

PECTION

r and inspect the entire recycled distribution facility, including both offsite e District shall conduct monitoring programs, maintain records as deemed a facilities for compliance with these Rules and Regulations, and provide other regulating agencies. For these purposes, the District shall have the customer's premises during reasonable hours to inspect onsite and approved use areas. Reasonable hours shall include hours when he District, Regional Water Quality Control Board, DOHS and DEH shall pon the customer's premises during reasonable hours, from time to time, omer's irrigation practices conform with these Rules and Regulations. and/or lock combinations shall be issued upon request to the District to

FICATION

erves the right to determine whether a violation of the Rules and s resulted from any action or occurrence that is the responsibility of a far as the violation of these Standards Specifications constitutes a regulatory agency requirement, the District shall make its determination on behalf of the concerned agency.

is shall include those that directly cause noncompliance with any one of ibitions as listed in these Rules and Regulations. However, by definition, with any condition or conditions of these Rules and Regulations, whether cident, shall constitute a violation.

ibility of the customer to notify the District of any and all failures in the water system whether or not in the customer's opinion the failures tions. Failures may occur as a result of the customer's action, an action personnel or any non-designated use of the recycled water service. If oubts regarding whether a violation has occurred, the customer should t so that a determination can be made.

IRRIGATION SPECIFICATIONS FOR:

ENGINEERING COMPANY

5620 FRIARS ROAD SAN DIEGO, CA 92110 619-291-0707 (FAX) 619-291-4165

19015 - 26

rickengineering.com Riverside - Orange - Sacramento - San Luís Obispo - Phoenix - Tucson - Denver CITY OF CHULA VISTA GENERAL SERVICES DEPARTMENT DRAWING NO.

CHULA VISTA TRACT NO. 09-04 PH.2 LI-23 OTAY RANCH, VILLAGE 8 WEST W.O. NO. OR652G GRADING PERMIT No. GR13-005 PLR-20-018 OWD SHEET 26 OF 27

END OF SECTION

E: SDWAS SPEC. 15152 SHALL SUPERSEDE ALL OTHER SPECIFICATIONS ON THE PLANS WHEN IN CONFLICT. CONTRACTOR SHALL PROVIDE REDLINE AS-BUILTS TO THE LANDSCAPE ARCHITECT TO VERIFY FOR ACCURACY, TRANSFER TO BLACK LINES AND SUBMIT TO OWD FOR REVIEW PRIOR TO APPROVAL.

Notification of failures and violations should be made by telephone, as soon as possible.

to the District. If the failure occurs after normal business hours, notification should be

then it shall be the responsibility of the customer to initiate corrective action. Pertinent

violations will be documented and a copy of this notice will be hand-delivered or mailed to

A timetable for completing the corrective action should be negotiated with the District by

the customer. Such corrections can involve human factors, such as additional training or

procedures modifications, as well as physical alterations to the system. Corrections not

made in accordance with the timetable shall result in the termination of service by

If, in the opinion of the District, the violation constitutes an immediate danger to the public

health, then service shall be terminated immediately by shutting off the meter or service

and locking it. Service shall be resumed only after the violation has been corrected to the

The customer is to maintain a written log of all system failures and violations, including

A mandatory administrative review will be conducted to examine customer's irrigation practice if

three written violations are issued within a 30-day period. The District and customer or agent is

required to present reasons for non-compliance with these Rules and Regulations. The customer

shall present a plan for corrective action acceptable to the District and the regulatory agencies.

The accepted plan and implementation schedule shall be adhered to or service may be

corrective action taken. The log will be reviewed by the District regularly.

made no later than 9:00 a.m. on the next regular business day following the occurrence.

A. If the District's investigation results in the determination that a violation has occurred,

ECTION NOT

CORRECTIVE ACTION

the customer.

ADMINISTRATIVE REVIEW

D.

suspended.

shutting off and locking the meter.

satisfaction of the District.

OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT THE BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.

D1044-0602

	ANNU	JAL ANTICIPATE	D WATER DEMA	ND				ANN	UAL ANT	ICIPATE	ED WATI	ERDEMA	ND			ANNUAL ANTICIPATED WATER DEMAND								1	ANNUAL /	ANTICIPA?	FED WAT	TER DEMANI)	
PROJECT:	OTAY RANC	H, VILLAGE 8 PE	RMANENT SLOPE	S		PROJECT:	ОТ	AY RAN	CH, VILL	GE 8 PE	RMANE	NT SLOPE	S		PROJECT: OTAY RANCH, VILLAGE 8 PERMANENT SLOPES						PROJECT:	ΟΤΑΥ Ρ	RANCH, VI	LLAGE 8 F	PERMANE	ENT SLOPES				
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BY:	RICK ENGINNER				E (GALLONS PER YEAR)	BY:	RIC	(CE (GALLONS PER YEAF		/YAC						NS PER YEAR)		WYAC						E (GALLONS PER YEAF
PROJ. NO.:	19194	EWU ESTI	ATED TOTAL WATER	USE (GALLO	NS PER YEAR)	PROJ. NO.		19194						LONS PER YEAR)	PROJ. NO.: 1	3-008.002	EWU	ESTIMA	FED TOTAL W	ATER USE (G/	ALLON'S PER	YEAR)	PROJ. NO	0 0 0 0 0 0 0 0 0 0	2			OTAL WATER US		
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1AWA = 51.0	0 0.45	146,850 0.62	22.95 2,089,529	2,793	6.41	MAWA = 51.	.00	0.45	56,700	0.62	22.95	806,784	1,079	2.48	MAWA = 51.00	0.45	156,750 0.62		22.95 2,23	0,396 2,98	2 6.85		MAWA = 51	.00 0.45	J 88,700	0.62	22.95	5 1,262,112	1,687	3.87
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		TOTAL E.T.W.U.)							(TOTAL E.T	.W.U.)							(TOTALE.T.W.U	.)								_E.T.W.U.)				
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SIGNATURE	NTE A. No Discipline		RECORD DATA AT THEIR FACILITIES MAY EXIST WH OF RECORD. CONTRACT	APPROX ICH HA' OR SHA	ON THESE PLANS ARE PLOTTED FROM (IMATE LOCATIONS. UNDERGROUND VE NOT BEEN REPORTED OR ARE NOT ALL VERIFY THE LOCATION OF ALL PERTINENT O THE START OF CONSTRUCTION.			
CONSTRUCTION RECORD			REFERENCES	Ву	REVISIONS	Date	App'd	DAT
CONTRACTOR:	HÆ	ALE ENGINEE	RING GRADING PLANS: 14011					CITY OF CHULA VISTA BE
INSPECTOR:								ELEVATION 446.361 NAVD DESCRIPTION: 3" BRASS I
DATE COMPLETED:								_ CL INT. RUTGERS & OTAY
								ROS 14841

ATUMS	SCALE	Designed By: Drawn By:		Checked By:		Submitted:	
BENCH MARK NO. 95072	HORIZONTAL	LE LE / RR			PT		APPROVED BY:
VD 88 S DISK (LS4324) WELL MON @		Plans Prepared Under Supervision Of:		Date: <u>2/10/2022</u>		Ву:	
AY LAKÈS. PT. NO. 5072 PER	VERTICAL N/A	PATRICIA TRAUTH		_ R.L.A No	3247 Offi	Office:	DIRECTOR OF DEVELOPMENT SERVICES, TIFFANY
							÷

