

42095 ZEVO DR., TEMECULA, CALIFORNIA 92590-3780

Engineering Resources of Southern California

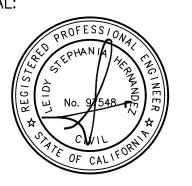
1861 W. Redlands Blvd, Bldg 7B Redlands, Ca. 92373

PROJECT ADMINISTERED BY: SAN BERNARDINO COUNTY PROJECT & FACILITIES

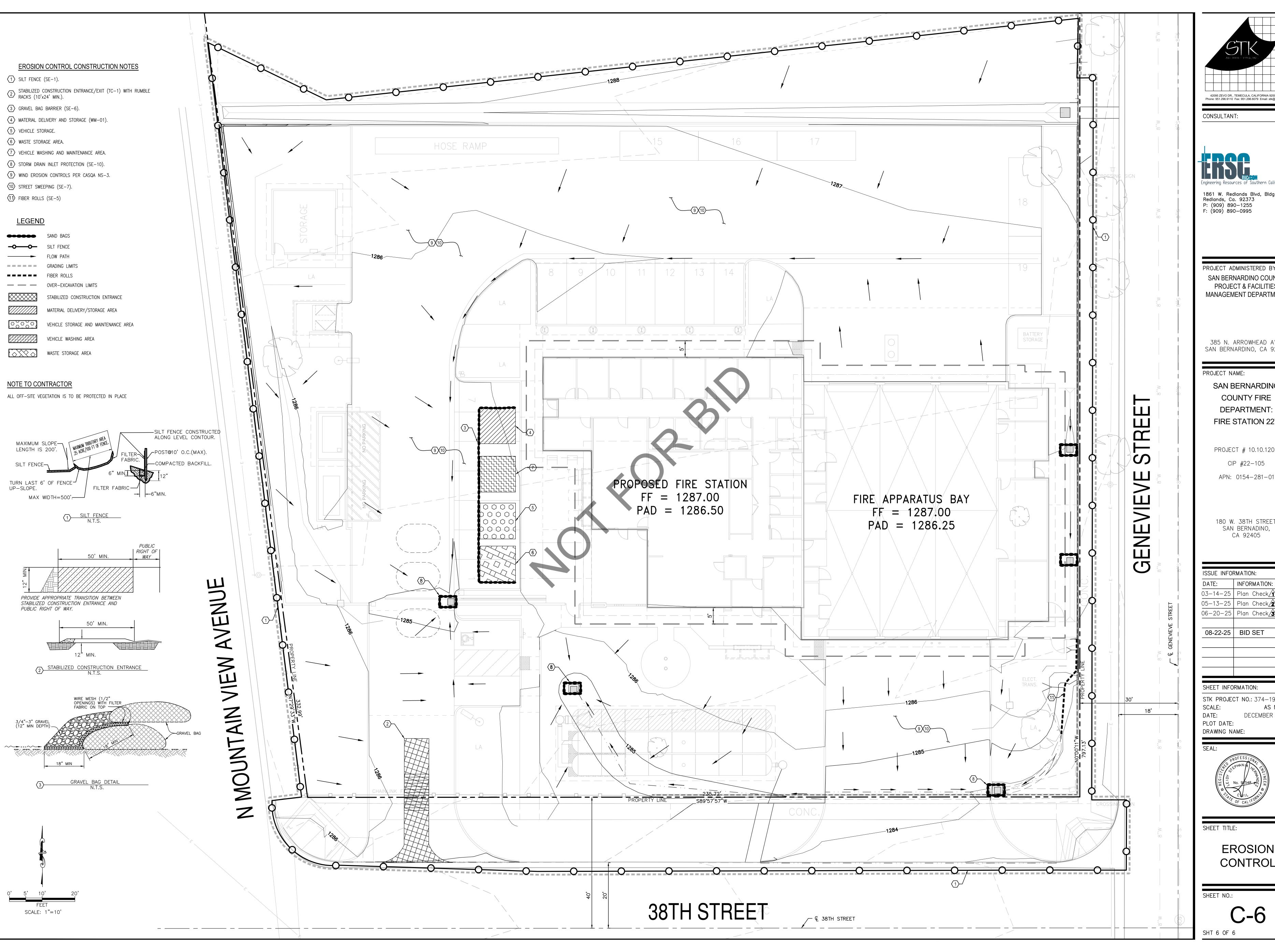
385 N. ARROWHEAD AVE.

SAN BERNARDINO **COUNTY FIRE** DEPARTMENT:

DECEMBER 2024



ON-SITE UTILITIES





CONSULTANT:

1861 W. Redlands Blvd, Bldg 7B Redlands, Ca. 92373 P: (909) 890-1255 F: (909) 890-0995

PROJECT ADMINISTERED BY: SAN BERNARDINO COUNTY PROJECT & FACILITIES MANAGEMENT DEPARTMENT

385 N. ARROWHEAD AVE. SAN BERNARDINO, CA 92415

PROJECT NAME:

SAN BERNARDINO COUNTY FIRE DEPARTMENT: **FIRE STATION 227**

PROJECT # 10.10.1202 CIP #22-105

APN: 0154-281-01

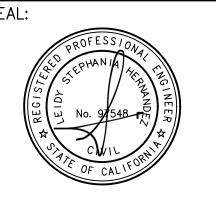
180 W. 38TH STREET SAN BERNADINO, CA 92405

ISSUE INFORMATION: INFORMATION: 03-14-25 | Plan Check<u>1</u> 05-13-25 | Plan Check**/2**

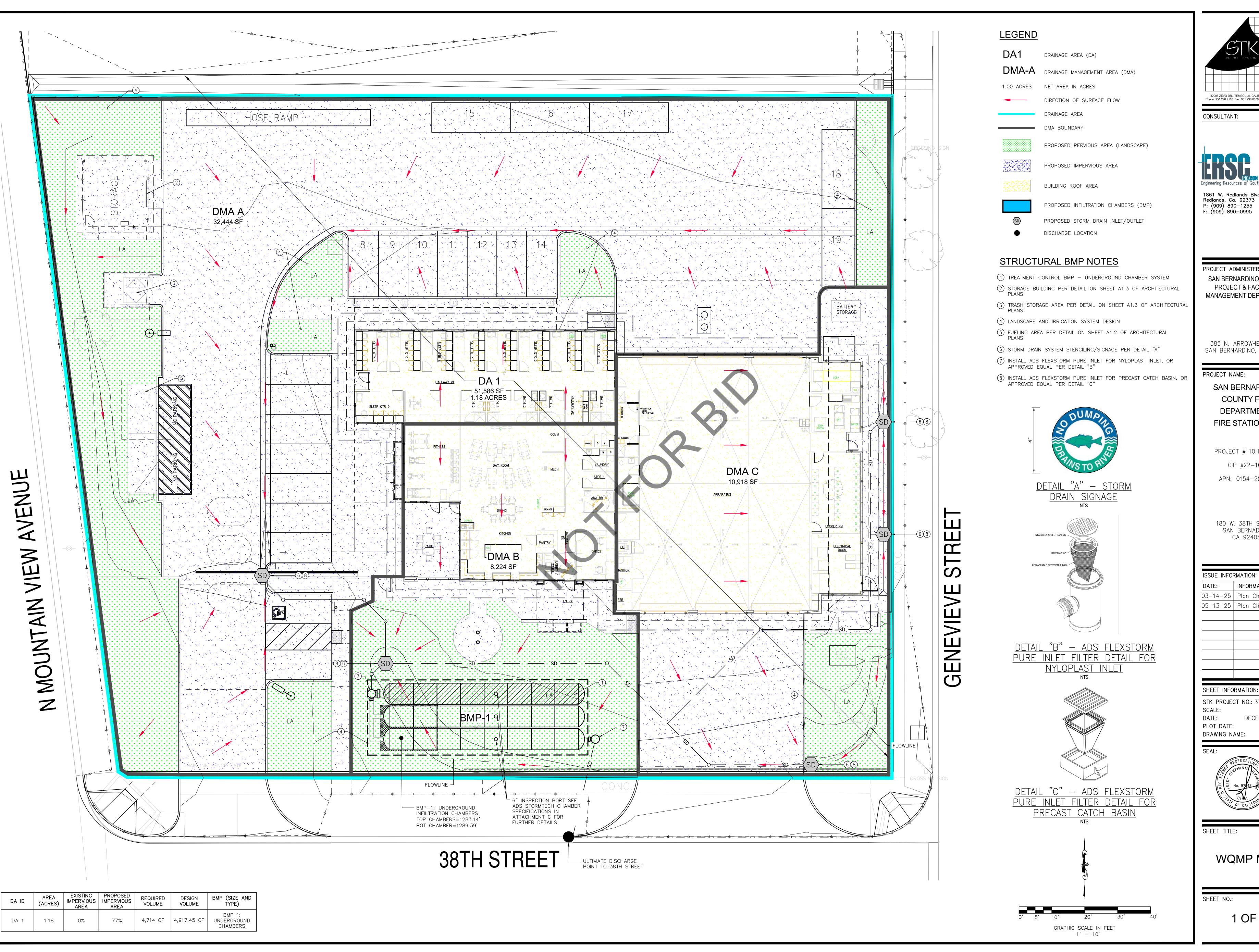
08-22-25 BID SET

SHEET INFORMATION:

STK PROJECT NO.: 374-193-24 SCALE: DATE: DECEMBER 2024 PLOT DATE:



EROSION CONTROL





1861 W. Redlands Blvd, Bldg 7B Redlands, Ca. 92373 P: (909) 890-1255

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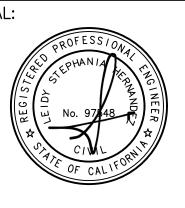
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180 W. 38TH STREET SAN BERNADINO, CA 92405

SSUE INFORMATION:						
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3-14-25	Plan Check					
)5-13-25	Plan Check 2					

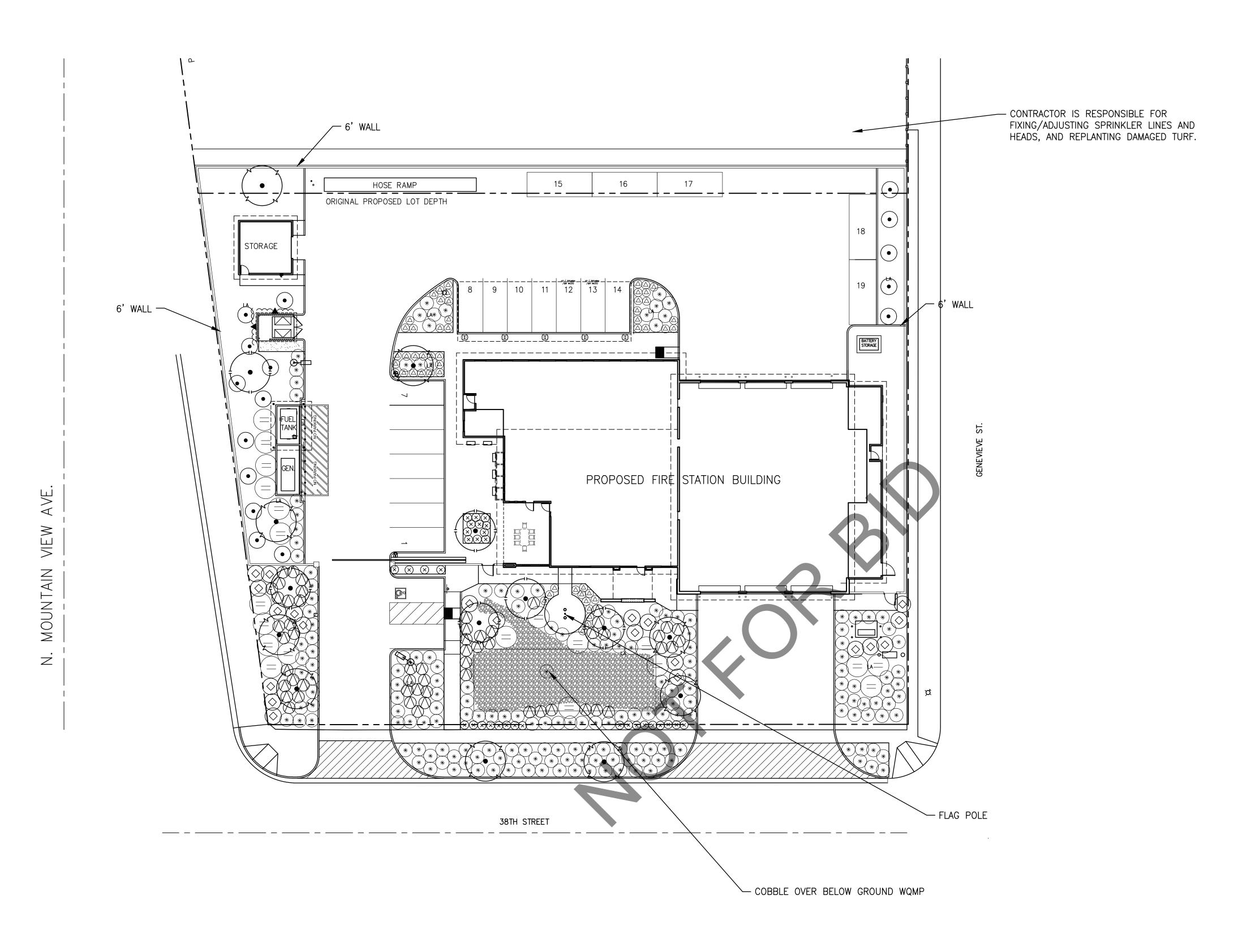
STK PROJECT NO.: 374-193-24 DECEMBER 2024

DRAWING NAME:



WQMP MAP

1 OF 1



PLANTING LEGEND

SYMBOL	BOTANICAL NAME COMMON NAME		SIZE NUMBER		REMARKS	WUCOLS IV
\sim	TREES:			•		•
	LAURUS NOBILIS 'SARATOGA'	BAY LAUREL	24" BOX	9	DOUBLE STAKE / HEIGHT 8-10', SPREAD 3'-4' MIN.	L
(\cdot)	CERCIDIUM 'DESERT MUSEUM'	DESERT MUSEUM PALO VERDE	24" BOX	6	DOUBLE STAKE / HEIGHT 8-10', SPREAD 3'-4' MIN.	L
	SHRUBS:					•
*	BACCHARIS PILULARIS 'PIGEON POINT'	PROSTRATE COYOTE BUSH	1 GAL	187	TRIANGULAR SPACING @ 5' O.C.	L
	HESPERALOE PARVIFLORA RED YUCCA		5 GAL	57	FULL & BUSHY @ 4' O.C.	L
\otimes	CALLISTEMON VIMINALIS 'BETTER JOHN'	DWARF BOTTLEBRUSH	5 GAL.	32	FULL & BUSHY @ 3' O.C.	L
	DIANELLA 'LITTLE REV' LITTLE REV FLAX		5 GAL	53	FULL & BUSHY @ 3' O.C.	L
(=)	ACACIA REDOLENS 'DESERT CARPET'	PROSTRATE ACACIA	1 GAL	20	TRIANGULAR SPACING @ 8' O.C.	L
(•) <u> </u>	LEUCOPHYLLUM FRUTESCENS 'GREEN CLOUD'	GREEN TEXAS RANGER	5 GAL	16	FULL & BUSHY @ 6' O.C.	L
\Diamond	CAESALPINIA PULCHERRIMA	MEXICAN BIRD OF PARADISE	5 GAL	21	FULL & BUSHY @ 6' O.C.	L
	VINES:					•
$\qquad \qquad $	MACFADYENA UNGUIS-CATI	CAT'S CLAW	5 GAL	2	ATTACH TO WALLS	L
	MULCH :					•
NOT SHOWN	MEDIUM GRIND WOOD MULCH	SHREDDED WOOD MULCH	3" MIN.	AS REQ'D.	3" DEEP - INSTALL TO ALL PLANTING AREAS	

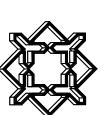
PLANTING NOTES

- 1. CONTRACTOR SHALL APPLY "RON STAR" PRE-EMERGENT HERBICIDE AT 3 lbs. PER 1000 s.f. AFTER PLANTING AND BEFORE MULCH INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.(ONLY ON NON-SEEDED AREAS)
- 2. ALL PLANTING SHALL CONFORM TO THE SAN BERNARDINO COUNTY DEVELOPMENT CODES AND STANDARDS.
- 3. SOIL TESTING: CONTRACTOR SHALL PROVIDE A HORTICULTURAL SOILS ANALYSIS PERFORMED BY A LABORATORY OF THE CALIFORNIA ASSOC. OF AGRICULTURAL LABORATORIES. SOIL ANALYSIS SUBMITTED TO THE CITY SHALL INCLUDE THE FOLLOWING: SOIL TEXTURE, PERCENTAGE OF ORGANIC MATTER, SOIL INFILTRATION RATE (DERIVED FROM SOIL TEXTURE/ INFILTRATION RATE TABLES), PH AND TOTAL SOLUBLE SALTS. CONTRACTOR SHALL SPECIFICALLY REQUEST THE SOILS LAB TO PROVIDE AMENDMENT RECOMMENDATIONS.
- 4. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE OF ALL PLANTING AREAS ON SITE AND SUBSURFACE DRAINAGE FOR ENCLOSED PLANTING AREAS.
- 5. THE CONTRACTOR SHALL CAREFULLY INSPECT THE SITE AND VERIFY ALL THE CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH ANY WORK. NOTIFY LANDSCAPE ARCHITECT AND OWNER IF ANY INCONSISTENCIES OCCUR.
- 6. THE CONTRACTOR SHALL REMOVE ALL WEEDS, ROCKS, DEBRIS AND OTHER EXTRANEOUS MATERIALS FROM THE JOB SITE PRIOR TO PROCEEDING WITH ANY WORK.
- 7. ALL PLANT MATERIALS SHALL BE HANDLED OR STORED SO THAT THEY ARE ADEQUATELY PROTECTED FROM DRYING OUT, FROM SUN OR WIND BURN, OR FROM ANY OTHER INJURY.

- 8. THE CONTRACTOR SHALL APPLY TO ALL PLANTING AREAS FOREST FLOOR MEDIUM GRIND WOOD MULCH OR EQUAL CONTRACTOR SHALL PROVIDE LANDSCAPE ARCHITECT WITH SAMPLES FOR APPROVAL PRIOR TO INSTALLATION.
- 9. CONTRACTOR TO VERIFY ALL PLANT QUANTITIES SHOWN ON PLANS.
- 10. SEE SHEET L-3 FOR DETAILS & SPECIFICATIONS.
- 11. ALL ABOVE GROUND UTILITIES SHALL BE SCREENED W/ PLANTING. CONTACT CITY LANDSCAPE ARCHITECT REGARDING LOCATIONS.
- 12. ALL PLANTING SHALL NOT INTERFERE W/ TRAFFIC SITE LINES.
- 13. CONTRACTOR SHALL TURN OVER SOIL AMENDMENT VERIFICATION TICKETS TO THE CITY INSPECTOR.
- 14. INSTALL CENTURY PRODUCTS .0060" SIZE NON—PANELED ROOT BARRIERS ADJACENT TO HARDSCAPE WHEN TREES ARE PLANTED 5' FROM THE HARDSCAPE TYP. SEE DETAILS & SPECIFICATIONS.
- 15. CONTACT THE COUNTY REPRESENTATIVE FOR FINAL INSPECTION WHEN ALL WORK IS COMPLETED.
- 16. TREES & SHRUBS SHALL BE PLACED A MINIMUM OF 5' AWAY FROM WATER METER, GAS METER, OR SEWER LATERALS; A MINIMUM OF 10' AWAY FROM UTILITY POLES; & A MINIMUM OF 8' AWAY FROM FIRE HYDRANTS & FIRE DEPARTMENT SPRINKLER & STANDPIPE CONNECTIONS.



CONSULTANT:



ALHAMBRA GROUP LANDSCAPE ARCHITECTURE
CALIFORNIA LICENSE #2017 RECREATION FACILITIES PLANNING 41635 ENTERPRISE CIRCLE NORTH, SUITE C TEMECULA, CA 92590 (951) 296-6802

PROJECT ADMINISTERED BY: SAN BERNARDINO COUNTY PROJECT & FACILITIES MANAGEMENT DEPARTMENT

385 N. ARROWHEAD AVE. SAN BERNARDINO, CA 92415

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SAN BERNARDINO COUNTY FIRE **DEPARTMENT**:

FIRE STATION 227

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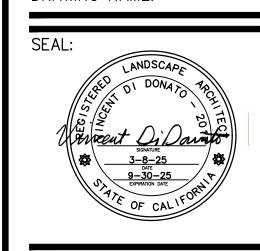
180 W. 38TH STREET

SAN BERNARDINO, CA 92405

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03-08-25	Plan Check <u>1</u>		
08-22-25	BID Set		

SHEET INFORMATION: STK PROJECT NO.: 374-193-24

SCALE: AS NOTED DATE: DECEMBER 2024 PLOT DATE: DRAWING NAME:



SHEET TITLE:

PLANTING PLAN



SHEET NO.:

1"=20'-0"

1 Maximum Annual Water Allowance INPUT the total square footage of landscape = 2,165 INPUT the Hist. ETo for the area = 57.33 **MAWA = 4,630** cu ft / yr - CONTRACTOR IS RESPONSIBLE FOR 2 Estimated Annual Water Use FIXING/ADJUSTING SPRINKLER LINES AND 6' WALL HEADS, AND REPLANTING DAMAGED TURF. Plant Type Water Us Hydrozone # 1 Plant Factor = 0.2 Shrubs / Groundcover Low INPUT Square Foot Area of Hydrozone = 2,165 Hydrozone Irrigation Efficiency = 0.90 Point Source Drip HOSE RAMP EAWU = 2,286 cu ft / yr IGINAL PROPOSED LOT DEPTH Plant Type Water Use SELECT SELECT Hydrozone # 2 Plant Factor = INPUT square footage of hydrozone = 0 Hydrozone Irrigation Efficiency = 1 STORAGE EAWU = 0 cu ft / yr Plant Type Water Use SELECT Hydrozone # 3 SELECT 3/200mm - 3/200m INPUT square footage of hydrozone = 0 Hydrozone Irrigation Efficiency = 1 EAWU = 0 cu ft / yr Plant Type Water Use ____ SELECT SELECT **INPUT** square footage of hydrozone = 0 -----_____3/4 // Hydrozone Irrigation Efficiency = 1 EAWU = 0 cu ft / yr <u>~</u> − − − ¬ ¬ _________ Plant Type Water Use Hydrozone # 5 SELECT INPUT square footage of hydrozone = 0 Hydrozone Irrigation Efficiency = 1 EAWU = 0 cu ft / yr Plant Type Water Use Hydrozone # 6 0 SELECT SELECT INPUT square footage of hydrozone = 0 Hydrozone Irrigation Efficiency = 1 PROPOSED FIRE STATION BUILDING 3/4 3/4 3/4 3/4 3/4 1 3/4 1 1 6 SubTotal EAWU = 2,286 cu ft / yr Input Irrigation System Operation Factor 0.85 Total EAWU = 2,689 - IRRIGATION CONTROLLER **MAWA - EAWU = 1,941** cu ft / yr 3/4 (this number must be positive) → SOLAR SYNC 3/4 PERCENTAGE OF WATER SAVED RELATIVE TO MAX ALLOWED = 42% * Trees are not required to be listed as a separate hydrozone if understory is planted with plants of an equal or higher plant factor, and foot area is already included in calculations. `-----| ----IRRIGATED AREA IS 5 S.F. PER EMITTER

- CLASS 315 PVC SLEEVE 2 X THE PIPE OR WIRE BUNDLE DIA. PROVIDE SEPARATE SLEEVES FOR MAIN LINE, LATERAL AND CONTROL WIRES TYP.

STORAGE.

BLU-LOCK SPECIFICATIONS

HIGH DENSITY POLYETHYLENE PIPE AND FITTINGS:

A. ALL PIPE SHALL BE CONSTRUCTED OF VIRGIN HIGH DENSITY POLYETHYLENE (HDPE) RESIN WITH THE CELL CLASSIFICATION OF 345464C PER ASTM D 2239 OR ASTM D 2737. THE MATERIAL SHALL CONTAIN 2% CARBON BLACK AS A UV INHIBITOR TO ACCOMMODATE OUTSIDE

B. ALL PIPE FITTINGS SHALL BE CONSTRUCTED FOR QUICK COUPLE PUSH-ON INSTALLATION WITHOUT THE USE OF GLUE OR CLAMPS ONTO 1/2" SWING, OR 3/4", OR 1", HDPE 3408 SIDR 15 LATERAL PIPE.

C. FITTINGS SHALL BE BUILT OF ABS MATERIAL WITH A STAINLESS STEEL RETAINING RING AND EPDM SEAL MATERIAL.

D. FITTINGS SHALL BE FOR OUTDOOR USE ONLY ON COLD WATER, NOT FOR USE ON CONSTANT PRESSURE, DESIGNED FOR USE ON LATERALS ONLY OR FOR USE ON ALL SYSTEM LINES FROM THE MASTER VALVE OUT. TYPE: HYDRO-RAIN BLU LOCK OR APPROVED EQUAL

DRIP SYSTEM PRESSURE LOSS CALCS.

VALVE 1A @ 10 G.P.M. PRESSURE AVAILABLE AT METER 80.0 P.S.I. REGULATED PRESSURE: 65.0 P.S.I. **EQUIPMENT** METER B.P.U. MASTER VALVE 1-1/2" FLOW SENSOR 1-1/2" BALL VALVE R.C.V. 1-1/2" MAIN LINE ELEVATION CHANGE

P.S.I. LOSS BEFORE PRESSURE REGULATOR: (24.3 P.S.I.) 50.7 P.S.I. PRESSURE AVAILABLE AT R.C.V BEFORE PR: REGULATOR REDUCES PRESSURE TO: 40.0 P.S.I.

<u>SIZE</u> <u>EQUIPMENT</u> LATERAL LINES EMITTERS (OPERATING N/A PRESSURE 25 PSI) ELEVATION CHANGE

(28.0 P.S.I.) P.S.I. LOSS AFTER PRESSURE REGULATOR: 12.0 P.S.I. TOTAL RESIDUAL PRESSURE:

IRRIGATION LEGEND

SYMBOL	MANUFACTURER	MODEL NO.	REMARKS - SEE SHEET L-3 FOR DETAILS & SPECIFICATIONS
a Z b	HUNTER FEBCO HUNTER RAINBIRD	IC-600-PL 825-YA-3/4" SOLAR SYNC XCZ-100-PRB-COM	6 STATION AUTOMATIC IRRIGATION CONTROLLER — INSTALL IN ELECTRIC ROOM NEAR A 120V A.C. CONNECTION. REDUCED PRESSURE B.P.U., INSTALL IN PLANTING AREA ET SENSOR W/ OUTDOOR INTERFACE ET MODULE. INSTALL ON POLE NEAR WALL, UNOBSTRUCTED BY TREES AND OVERHANGS. 1" REMOTE CONTROL VALVE KIT W/ PRESSURE REGULATOR (40 PSI) AND FILTER
©	HUNTER	FLOW-CLIK-100	1" FLOW SENSOR 240
⊕¹ ② NOT SHOWN ———————————————————————————————————	HUNTER RAINBIRD BOWSMITH NIBCO PAC. PLASTICS PAC. PLASTICS HYDRO-RAIN PAC. PLASTICS	ICV-150G 33DLRC SB-20 UB SERIES SCHEDULE 40 CLASS 315 BLU-LOCK SCHEDULE 40	1-1/2" MASTER CONTROL VALVE QUICK COUPLING VALVE NON-STOP DRIP EMITTER (2 GPH), 3 PER TREE, 1 PER SHRUB. PLASTIC BALL VALVE (THREADED) LINE SIZE — TYPICAL PRESSURE TYPE MAINLINE — INSTALL WITH 18" MINIMUM COVER NON-PRESSURE TYPE SLEEVE NON-PRESSURE LATERAL LINE-INSTALL 2" BELOW GRADE EXCEPT UNDER PAVEMENT INSTALL 12" BELOW GRADE-SEE DETAILS. NON-PRESSURE TYPE LATERAL — INSTALL WITH 12" MINIMUM COVER
NOT SHOWN	ROBERTS HYDRORAIN/ORBIT FLO-CONTROL	POLY MODEL 5024 1520-10/1012-10	MICRO (SPAGHETTI) POLYTUBE WITH STAKES AUTOMATIC DRAIN FLUSH VALVE SWING TYPE OR SPRING TYPE CHECK VALVE. USE SWING CHECK WHEN RCV IS AT THE TOE OF THE SLOPE, USE SPRING CHECK WHEN RCV IS AT THE TOP. LINE SIZE BY LATERAL LINE.
Ê	EZ-FLO	EZ005-FX	5 GALLON FERTIGATION TANK

⁽⁴ | 3/4 | 3/4 | 3/4 |

EMITTERS

38TH STREET

IRRIGATION NOTES

1-1/2 1-1/2 1-1/2 1-1/2

1. IRRIGATION SYSTEM IS SHOWN DIAGRAMMATICALLY. LOCATE ALL

- COBBLE OVER BELOW GROUND WQMP

PIPE AND EQUIPMENT WITHIN PLANTING AREAS WHEREVER POSSIBLE. 2. LOCATE PRESSURE LINES WITHIN 18" OF EDGE OF HARDSCAPE IN

PLANTING AREAS. 3. ADJUST ALL EMITTERS FOR UNIFORM DISTRIBUTION IN ALL PLANTING AREAS & ADD EMITTERS AS REQUIRED.

4. TREE LOCATIONS TAKE PRECEDENCE OVER IRRIGATION PIPING & DRIP LINE. STAKE TREE LOCATIONS PRIOR TO TRENCHING PIPE.

5. CONTRACTOR SHALL ARRANGE AND PAY FOR ALL NECESSARY CONNECTIONS FOR 120V A.C. ELECTRICAL SERVICE TO IRRIGATION CONTROLLER.

6. CONTRACTOR SHALL INSPECT THE SITE AND VERIFY ALL CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. TO ALLOW FOR ADEQUATE IRRIGATION COVERAGE AS SHOWN ON PLAN, ADJUST DRIP LINE TO COMPENSATE FOR ANY CHANGES IN AREA.

7. TO ENSURE PROPER LOCATION OF IRRIGATION SLEEVE INSTALLATION COORDINATE LOCATION OF MAINLINE, DRIP LINES AND CONTROL WIRES WITH ALL OTHER RELATED TRADES AS REQ. 8. ALL BRASS FITTINGS TO BE RED BRASS TYPICAL.

10. IRRIGATION SYSTEMS DESIGNED FROM A STATIC WATER PRESSURE OF 80 P.S.I., THE CONTRACTOR SHALL VERIFY WATER PRESSURE AT WORST CONDITION AND CONTACT LANDSCAPE ARCHITECT IF ANY INCONSISTENCIES OCCUR.

9. USE 3/4" TEFLON TAPE ON ALL THREADED CONNECTIONS.

11. CONTROL WIRE SCHEDULE: (MAX. LENGTH OF RUNS) CONTROL/COMMON NO. 14 NO. 12 NO. 10 NO. 8 2400' 2700' 3300' 3800' 1700' 2000' NO. 14 2700' NO. 12 4300' 5200' NO. 10 NO. 8

12. ALL IRRIGATION SHALL CONFORM TO SAN BERNARDINO COUNTY DEVELOPMENT CODES AND STANDARDS.

LOW DRIP IRRIGATION SCHEDULE

- 3/4" POTABLE IRRIGATION WATER METER

80 P.S.I. STATIC PRESSURE

-3/4" RED. PRESSURE B.P.U.

— BALL VALVE —LINE SIZE TYP.

8 G.P.M. MAX. DEMAND

LOCATE IN SHRUB AREA. -1-1/2" MASTER VALVE

— 1" FLOW SENSOR ─ FERTILIZER INJECTOR County of San Bernardino Landscape Water Use Calculations

Fire Station 227 0.45 ETo allowance

Please note that embedded formulas will reflect as 'false' or as an error until selections are completed.

Project Type (Select) Commercial

Applicant to use drop down menus in cells that indicate a selection to describe each hydrozone.

Where "INPUT" is shown, applicant to enter project specific information.

	ETO	% ETO	CU. FT.	GALLONS	DAYS	GPM	MIN	G/DAY
JANUARY	2.17	0.04	102	762.97	4.00	14.43	13	191
FEBRUARY	2.84	0.05	134	999.12	5.00	14.43	14	200
MARCH	4.03	0.07	189	1,416.94	7.00	14.43	14	202
APRIL	4.55	0.08	214	1,598.60	8.00	14.43	14	200
MAY	6.10	0.11	287	2,143.57	11.00	14.43	14	195
JUNE	7.65	0.13	359	2,688.55	13.00	14.43	14	207
JULY	7.86	0.14	369	2,761.21	14.00	14.43	14	197
AUGUST	7.24	0.13	340	2,543.22	13.00	14.43	14	196
SEPTEMBER	6.00	0.10	282	2,107.24	11.00	14.43	13	192
OCTOBER	4.03	0.07	189	1,416.94	7.00	14.43	14	202
NOVEMBER	2.69	0.05	126	944.63	5.00	14.43	13	189
DECEMBER	2.17	0.04	102	762.97	4.00	14.43	13	191
-	57.33	1.00	2,693	20,145.97				

RUN EACH SYSTEM FOR THE MINUTES SHOWN EVERY DAY DURING PLANT ESTABLISHMENT



1"=20'-0"

41635 ENTERPRISE CIRCLE NORTH, SUITE C TEMECULA, CA 92590 (951) 296-6802 PROJECT ADMINISTERED BY: SAN BERNARDINO COUNTY PROJECT & FACILITIES MANAGEMENT DEPARTMENT 385 N. ARROWHEAD AVE. SAN BERNARDINO, CA 92415 PROJECT NAME: SAN BERNARDINO **COUNTY FIRE DEPARTMENT**: **FIRE STATION 227**

42095 ZEVO DR., TEMECULA, CALIFORNIA 92590-3780 Phone: 951.296.9110 Fax: 951.296.6079 Email: stk@stkinc.com

ALHAMBRA GROUP

LANDSCAPE ARCHITECTURE

CALIFORNIA LICENSE #2017

RECREATION FACILITIES PLANNING

CONSULTANT:

180 W. 38TH STREET SAN BERNARDINO, CA 92405

PROJECT # 10.10.1202

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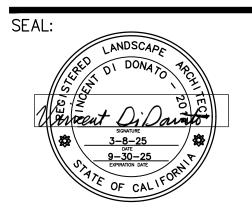
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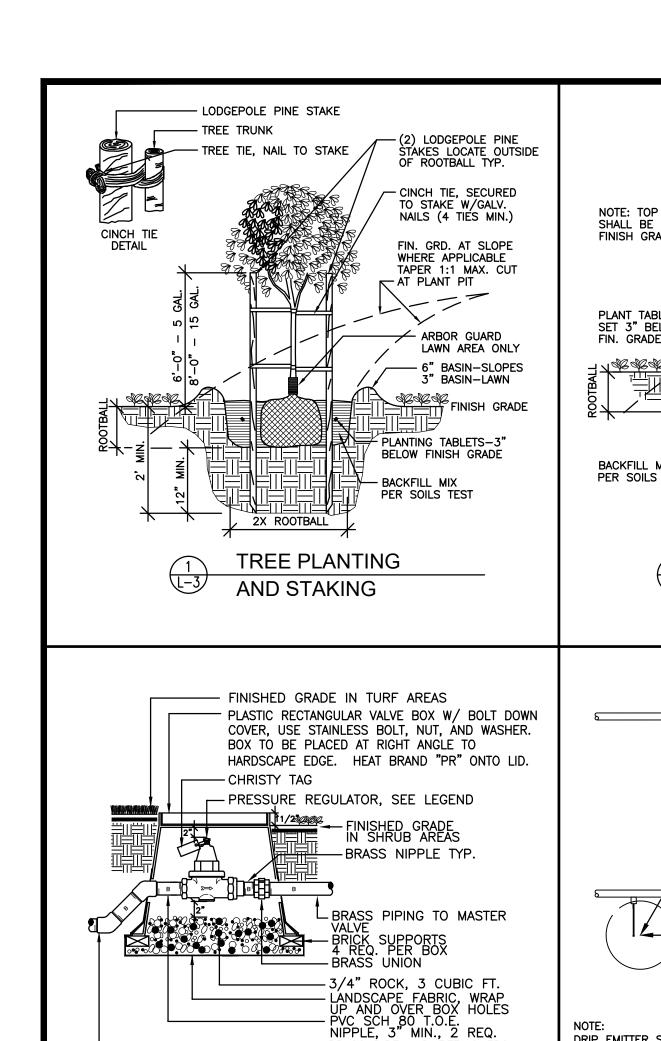
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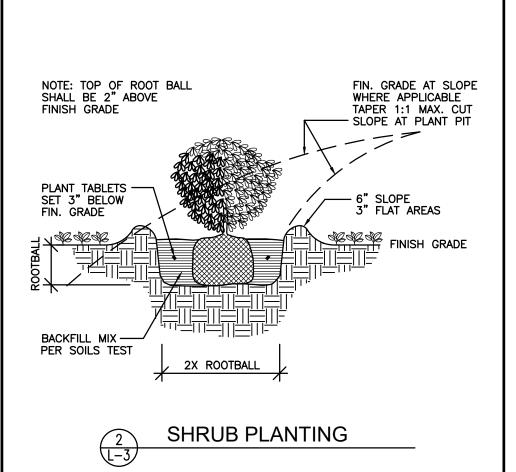
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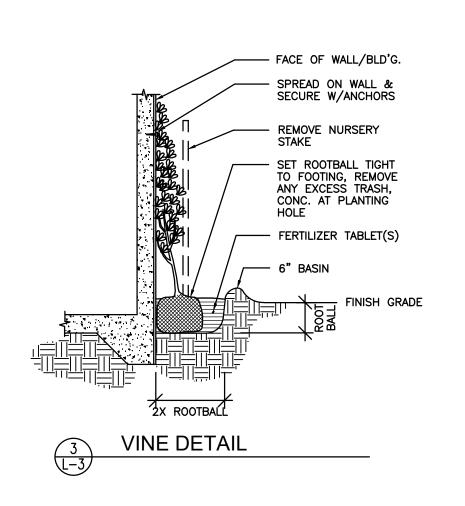


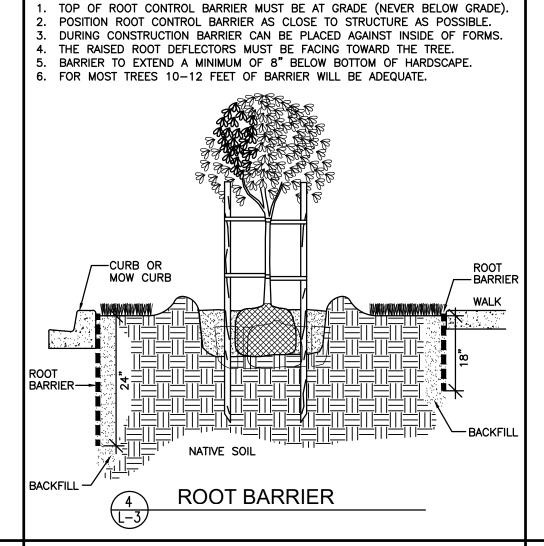
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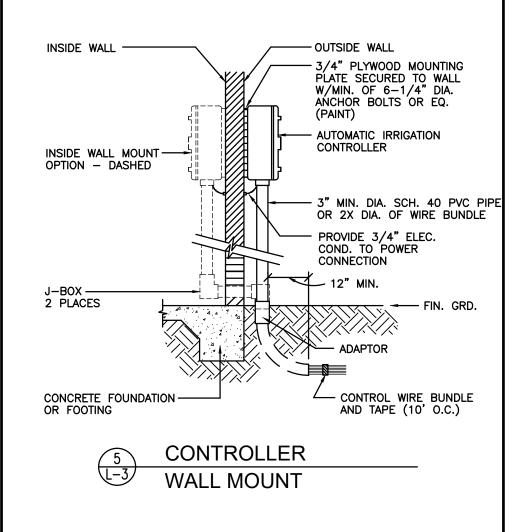
IRRIGATION PLAN

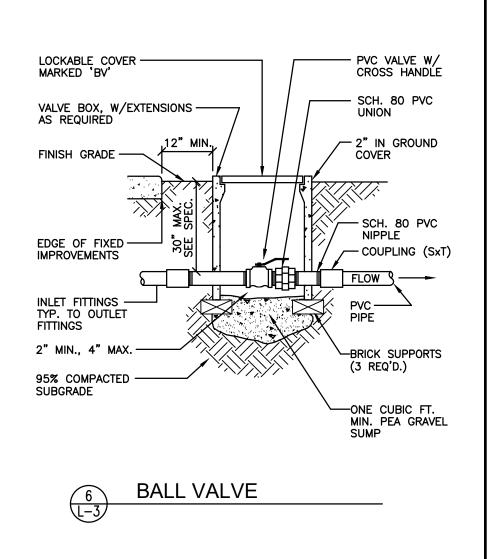


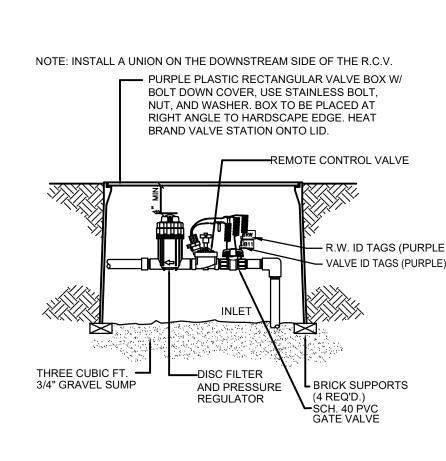












REMOTE CONTROL



CONSULTANT:

42095 ZEVO DR., TEMECULA, CALIFORNIA 92590-3780

Phone: 951.296.9110 Fax: 951.296.6079 Email: stk@stkinc.com

ALHAMBRA GROUP ANDSCAPE ARCHITECTURE CALIFORNIA LICENSE #2017 RECREATION FACILITIES PLANNING 41635 ENTERPRISE CIRCLE NORTH, SUITE TEMECULA, CA 92590 (951) 296-6802

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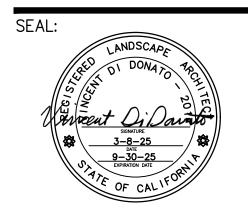
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DETAILS and SPECIFICATIONS

OF 3

-3/4" 'BLU-LOCK' FLEX PIPE BURIED 2" BELOW GRADE & SECURE W/ METAL STAPLES @ EACH EMITTER - 3/4" 'BLU-LOCK' FLEX PIPE TYP. BURIED 2" BELOW GRADE & SECURE W/ METAL STAPLES @ EACH EMITTER - BOWSMITH EMITTER W/ SPAGHETTI BOWSMITH EMITTER W/ SPAGHETTI TUBING & BUG CAP TYP. - 3 EMITTERS SHALL BE INSTALLED PER TREE TREE PLANTING PER PLANTING PLANS DRIP EMITTERS SHALL BE PLACED TO DRIP DIRECTLY ADJACENT TO TREE ROOTBALL. DRIP EMITTER SHALL BE PLACED TO DRIP DIRECTLY ADJACENT TO PLANT ROOTBALI ALL IRRIGATION SHALL BE COMPLETELY INSTALLED PRIOR TO PLANTING LAYOUT. PVC LATERAL SUPPLY LINES SHALL RUN PARALLEL TO SLOPE WITH DRIP EMITTER LINES RUN PERPENDICULAR TO SLOPE AS SHOWN ABOVE. ALL IRRIGATION SHALL BE COMPLETELY INSTALLED PRIOR TO PLANT LAYOUTS.

- ROUND PLASTIC VALVE BOX W/ LOCKING COVER - 3/4"BLx1/2"FIPT ELL 'BLU-LOCK' FITTING T 1/2"BL 'BLU-LOCK' AUTO CRUSHED AGGREGATE - NATIVE SOIL TYP. END FLUSH CAP

WIRE FROM MODULE TO SENSOR SHALL BE 18/2. USE CONTROLLER SMART PORT TO CONNECT TO MODULE UNIT. MODEL SOLAR SYNC SENSOR

FROM CONTROLLER COMPATIBLE HUNTER CONTROLLERS: SRC, PRO-C, ICC, ACC - COMMUNICATION WIRE FROM SENSOR TO MODULE POWER SOURCE

SOLAR SYNC SYSTEM

- Suitable post or roof parapet MOUNT. MIN 6ft. ABOVE GRADE.

MIN 15ft AWAY FROM STRUCTURES

- CONDUIT FROM SOLAR SYNC SENSOR TO MODULE

MOUNT LESS THAN 6' AWAY

- MODEL SOLAR SYNC

PRESSURE REGULATOR DRIP EMITTER FOR REFERENCE ASSEMBLY DETAIL

BRASS PIPE AND FITTING FROM

BASKET STRAINER

AND MATERIAL CONFORMING TO GOVERNING CODES. ALL DIMENSIONS AND LOCATIONS SHOWN ARE DIAGRAM SITE

INTENT - TO INDICATE AND SPECIFY A COMPLETE AND EFFICIENT

SPRINKLER IRRIGATION SYSTEM, READY FOR USE, WITH ALL WORK

<u>SECTION VIEW — N.T.S.</u> BACKFLOW PREVENTER OR

USE 45 DEGREE ELLS TO ACHIEVE MAINLINE DEPTH FROM

UP-STREAM SIDE OF THE PRESSURE REGULATOR ASSEMBLY

ALL WORK SHALL BE INSTALLED IN THE MOST DIRECT AND WORKMANLIKE MANNER WITHOUT INTERFERING WITH EXISTING OR PROPOSED PLANTING OR OTHER WORK AND UTILITY LINES.

CONDITIONS AND SHALL BE VERIFIED BEFORE INITIATING WORK.

IRRIGATION MATERIALS

IRRIGATION

VALVE BOXES: PLASTIC BOXES SIZES AS REQUIRED.

PLASTIC PIPING: ALL PRESSURE PIPE, SCHEDULE 40 PVC SOLVENT WELD TYPE, OR BETTER. NON-PRESSURE PIPE, BLU-LOCK HDPE PIPE TYP.

PLASTIC FITTINGS: TYPE I, SCHEDULE 80 PVC.

POLYETHYLENE: MOLDED, 85 P.S.I.

BALL VALVES: PLASTIC BODIED, 125 P.S.I. MINIMUM, HEAVY DUTY TYPE, FEDERAL SPEC, CROSS HANDLE.

DRIP EMITTERS: OF MODEL AND TYPE SHOWN ON PLANS.

CONTROL WIRE: DIRECT BURIAL, UL APPROVED; WHITE FOR COMMON, BLACK FOR CONTROL; 12 GAUGE MINIMUM SIZE COMMON, 14 GAUGE MINIMUM SIZE CONTROL WIRE. 2-WIRE SYSTEM

QUICK COUPLING VALVES: SINGLE LUG, TWO PIECE; PER LEGEND.

EXTRA STOCK: SUPPLY OWNER WITH VALVE KEYS, EXTRA EMITTERS, TWO QUICK COUPLING HOSE BIBS, AND MANUALS FOR EQUIPMENT USED.

EXCAVATION

TRENCHES SHALL BE CUT TO FOLLOWING REQUIRED GRADES: PRESSURE PIPE AT (18") MIN. COVER; ALL NON-PRESSURE HDPE PIPE AT (2") MIN. COVER; 12" UNDER PAVEMENT TYP.

PIPE FITTING AND LAYOUT

JOIN AND INSTALL PIPING IN STRICT ACCORDANCE WITH MANU-FACTURER'S INSTALLATION GUIDE. INSTALL LINES AWAY FROM FIXED IMPROVEMENTS AND ALONG EDGE OF PLANTING AREAS.

EQUIPMENT AND INSTALLATION

SET ALL EQUIPMENT TRUE, PLUMB, SECURE, AND ACCESSIBLE FOR OPERATION AND SERVICING PER MANUFACTURER'S RECOMMENDATIONS AND PER DETAILS SHOWN.

BACKFILLING

MATERIAL: SUITABLE FILL SOIL FREE OF LARGE ROCKS AND

BACKFILL: TRENCHES SHALL BE COMPACTED TO AT LEAST 85% OF THE MAX. RELATIVE DENSITY AS DETERMINED BY THE ASTM D-1557 EXCEPT BACKFILL IN TRENCHES LOCATED UNDER A.C. PAVED AREAS AND/OR ANY TRAFFIC AREAS IN WHICH CASE TRENCHES SHALL BE COMPACTED TO 90%. BACKFILL SHALL BE SUBJECT TO TESTING BY THE SOILS ENGINEER.

SETTLING: PROPERLY WETTED AND TAMPED TO A FIRM FINISH GRADE WITH NO FUTURE SETTLING.

9. TESTING AND ADJUSTING

PRESSURE TEST: PRESSURE LINES AT 150 P.S.I. FOR 3 HOURS AND NON-PRESSURE LINES AT EXISTING STATIC LINE PRESSURE FOR 2 HOURS. LINES SHALL BE WATERTIGHT WITH NO

COVERAGE TEST: ADJUST AND POSITION EMITTERS FOR COMPLETE COVERAGE OF ALL WETTABLE AREAS.

10. RECORD PRINTS

MAINTAIN A SET OF PRINTS DELINEATING AND DIMENSIONING LOCATIONS AND DEPTHS OF ALL PRESSURE PIPING, VALVES, AND GATE VALVES AS WORK IS COMPLETED. RECORD PRINTS SHALL REMAIN ON THE JOB SITE THROUGHOUT CONSTRUCTION. A LEGIBLE REDUCED LAMINATED SET SHALL BE PREPARED AND SUBMITTED TO THE OWNER PRIOR TO FINAL ACCEPTANCE.

SOIL PREPARATION AND PLANTING

TREE DRIP LAYOUT

1. ALL PLANTING LOCATIONS SHOWN AND MEASUREMENTS SCALED FROM THE DRAWINGS ARE APPROXIMATE. FINAL LOCATIONS TO BE APPROVED BY THE LANDSCAPE ARCHITECT.

2. ALL PLANT MATERIALS SHALL BE PROTECTED FROM EXCESSIVE WIND, SUN, AND ALL OTHER DAMAGE.

3. MATERIALS:

TOPSOIL: APPROVED CLEAN SANDY LOAM AND/OR LOAM SOIL, OR APPROVED EQUAL

SOIL CONDITIONER

NITROLIZED SHAVINGS, TERRA BLEND OR APPROVED EQUAL.

GYPSUM: BEN FRANKLIN AGRICULTURAL GYPSUM, OR EQU

PRE-PLANT FERTILIZER: COMMERCIAL (6-20-20) OR EQUAL.

POST-PLANT FERTILIZER: COMMERCIAL (16-8-8) OR EQUAL. PLANTING TABLETS: AGRIFORM (20-10-5) BLUE CHIP TABLETS.

PLANTING BACKFILL: TWO (2) PARTS EXCAVATED SOIL BLENDED

WITH ONE (1) PART SOIL CONDITIONER.

MULCH: SHREDDED, CLEAN GROUND FIR OR PINE WOOD MULCH.

TREE STAKES: TWO INCH (2") BY TEN FOOT (10') LONG SOUND LODGE POLE PINE STAKES, POINTED ONE END ONLY.

TREE TIES: BLACK VINYL CINCH-TIES BY BORDEN OR EQUAL.

TREE GUYS: 12 GAUGE GALVANIZED STRANDED WIRE PER DETAIL. WOOD HEADERS: CONSTRUCTION ALL-HEART REDWOOD, FREE OF

PLANT MATERIALS: PER THE CALIFORNIA STATE DEPARTMENT OF AGRICULTURE'S REGULATIONS FOR NURSERY INSPECTIONS OF RULES AND GRADING. PLANTS SHALL BE SOUND AND HEALTHY, FREE OF DISEASE AND DEFECTS, WELL DEVELOPED OF SIZE NORMAL FOR CONTAINER SIZE AND NOT ROOT-BOUND. UNSATISFACTORY AND UNDER-SIZED PLANTS WILL BE REJECTED. PROTECT PLANTS AT ALL TIMES ACCORDING TO SPECIES.

SEEDS: PURE, LIVE SEED OF VARIETIES SPECIFIED, FREE OF WEED SEED; GERMINATION AS SPECIFIED.

4. SOIL PREPARATION AND GRADING

KNOTS ON TOP EDGE.

ROUGH GRADES AND ROCK PLACEMENT: ESTABLISHED BY OTHER SECTIONS. SOIL CONDITIONING: THOROUGHLY INCORPORATE THE FOLLOWING INTO THE PLANT BACKFILL MIX TYPICAL.

SOIL CONDITIONER - PER SOIL TEST PRE-PLANT FERTILIZER - PER SOIL TEST GYPSUM-PER SOIL TEST WETTING AGENT - PER SOIL TEST

DEEP WATERING: DEEP WATERING LEACH ALL PLANTING AREAS TO EIGHT (8) INCHES MINIMUM DEPTH. FINAL GRADING: ENSURE POSITIVE DRAINAGE OF PROJECT AREA WITH ALL AREAS LEFT SMOOTH AND EVEN AND FREE OF ROCKS, CLODS AND DEBRIS. FINISH GRADE SHALL BE ONE INCH (1") BELOW ADJACENT FLATWORK AND CURBS.

5. PLANTING INSTALLATION

LAYOUT: PER PLANS WITH FINAL REVIEW AND APPROVAL OF LOCATIONS BY LANDSCAPE ARCHITECT.

EXCAVATION: PLANTING HOLES SHALL BE AS SHOWN ON DETAILS.

PLANTING TABLETS: SET THREE INCHES (3") BELOW GRADE:

1-5 GRAM PER FLAT PLANT AND/OR CUTTING 1-21 GRAM PER 1 GALLON

3-21 GRAM PER 5 GALLON

5-21 GRAM PER 15 GALLON 1-21 GRAM PER EACH 2 INCH BOX SIZE

AND THOROUGHLY WATER IN. STAKING AND GUYING: TO INSURE SAFETY AND PROPER HEALTH OF TREE. TIE WITH TIES PER DETAILS.

SETTING: SET PLANTS SLIGHTLY HIGHER THAN FINISH GRADE

WATER BASINS: AS REQUIRED TO ADEQUATELY WATER TREES AND

LEVELING: ALL PLANTING AREAS SHALL BE LEFT SMOOTH AND EVEN.

MAINTENANCE

PLANT MAINTENANCE WORK SHALL CONSIST OF APPLYING WATER (EXCEPT INITIAL WATERING OF PLANTS) WEEDING, CARING FOR PLANTS, AND PERFORMING THE FOLLOWING FINAL PLANT ESTABLISHMENT WORK:

THE ENTIRE PROJECT TO BE MAINTAINED FOR A PERIOD OF (60) CALENDAR DAYS, COMMENCING FROM THE TIME ALL ITEMS OF WORK HAVE BEEN COMPLETED TO THE SATISFACTION OF THE

LANDSCAPE ARCHITECT. THE ENTIRE PROJECT SHALL BE CARED FOR SO THAT A NEAT AND DURING THE FINAL (60) CALENDAR DAY PERIOD ALL PLANTS AND PLANTED AREAS SHALL BE KEPT WELL WATERED AND WEED FREE AT ALL TIMES. WEEDS, DALLAS, JOHNSON, AND BERMUDA GRASS SHALL BE REMOVED.

CLEAN CONDITION WILL BE PRESENTED AT ALL TIMES, TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL MAINTAIN A SUFFICIENT NUMBER OF MEN AND WORKMEN SHALL NOT BE ALLOWED TO WALK ON SHRUB AREAS UNNECESSARILY BEFORE, DURING OR AFTER PLANTING. DAMAGED OR COMPACTED SHRUB AREAS SHALL BE RE-PLANTED

IN ORDER TO EXPEDITE THE PLANT ESTABLISHMENT WORK, ADEQUATE EQUIPMENT TO PERFORM THE WORK HEREIN SPECIFIED AND FROM THE TIME ANY PLANTING IS DONE UNTIL THE END OF THE FINAL (60) CALENDAR DAY PERIOD.

AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR MAY BE RELIEVED FROM MAINTENANCE WORK WHEN THE FINAL (60) CALENDAR DAY MAINTENANCE WORK HAS BEEN SATISFACTORILY COMPLETED TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT.

DAMAGE TO PLANTING AREAS SHALL BE REPLACED IMMEDIATELY.

(1) DEPRESSIONS CAUSED BY VEHICLES, BICYCLES, OR FOOT

7. GUARANTEE AND REPLACEMENTS

ALL SHRUBS AND GROUNDCOVER SHALL BE GUARANTEED BY THE CONTRACTOR AS TO GROWTH AND HEALTH FOR A PERIOD OF SIX MONTHS AFTER COMPLETION OF THE SPECIFIED MAINTENANCE PERIOD AND/OR FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT. ALL TREES UP TO 5 GALLON SIZE SHALL BE GUARANTEED BY THE CONTRACTOR TO LIVE AND GROW IN AN ACCEPTABLE UPRIGHT POSITION FOR A PERIOD OF SIX MONTHS AFTER COMPLETION OF THE SPECIFIED MAINTENANCE PERIOD AND/OR FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT. TREES IN 15 GALLON, OR LARGER, AND ALL FIELD GROWN SPECIMENS SHALL BE GUARANTEED BY THE CONTRACTOR TO LIVE AND GROW IN AN ACCEPTABLE UPRIGHT POSITION FOR A PERIOD OF ONE YEAR AFTER COMPLETION OF THE SPECIFIED MAINTENANCE PERIOD, AND/OR FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT.

8. CLEAN-UP

UPON COMPLETION OF WORK OF THIS SECTION, REMOVE RUBBISH, TRASH AND DEBRIS RESULTING FROM OPERATION. REMOVE DISUSED EQUIPMENT AND IMPLEMENTS OF SERVICE, AND LEAVE ENTIRE AREA INVOLVED IN A NEAT AND ACCEPTABLE CONDITION SUCH AS TO MEET THE APPROVAL OF THE LANDSCAPE ARCHITECT, WITH ALL PAVING, WALKS AND OTHER CONSTRUCTION WASHED-DOWN AND FREE OF ALL DIRT AND DEBRIS.

SPECIAL CONDITIONS

ALL PROVISIONS OF THE GENERAL CONDITIONS OF THE CONTRACT SHALL APPLY TO THE WORK AS IF HEREIN WRITTEN.

1. ALL EXISTING UTILITY LINES AND IMPROVEMENTS SHALL BE LOCATED PRIOR TO WORK.

2. CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED PERMITS AND FEES TO COMPLETE WORK.

3. CONTRACTOR SHALL BE INSURED FOR LIABILITY AND PROPERTY

4. CONTRACTOR SHALL ADEQUATELY PROTECT ALL EXISTING

PROPERTY. 5. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP

FOR ONE YEAR. (EXCEPT AS NOTED) 6. ALL MATERIALS SHALL BE OF STANDARD, APPROVED, AND FIRST GRADE QUALITY AND SHALL BE IN PRIME CONDITION.

7. WORK SHALL BE PERFORMED WHEN WEATHER CONDITIONS PERMIT SATISFACTORY RESULTS.

8. ALL WORK SHALL BE DONE IN ACCORDANCE WITH APPROVED METHODS AND STANDARDS AS SET FORTH BY THE CALIFORNIA COUNCIL OF LANDSCAPE CONTRACTORS, UNLESS OTHERWISE INDICATED OR SHOWN.

9. ALL WORK SHALL BE IN FULL COMPLIANCE WITH ALL GOVERNING CODES AND REGULATIONS. 10. ALL AREAS SHALL BE LEFT CLEAN, FREE OF DEBRIS AND WASHED

11. LANDSCAPE ARCHITECT RETAINS OPTION TO REQUIRE THAT CONTRACTOR RECEIVE A FIELD OBSERVATION OF EACH OPERATION AND MATERIAL PRIOR TO INCORPORATION INTO THE WORK.

PLANTED AREAS FROM FOOT TRAFFIC INCLUDING BUT NOT LIMITED TO STAKES & WARNING TAPE.

DRAWING NAME:

SHEET NO.:

SCALE: 1"=20'-0"