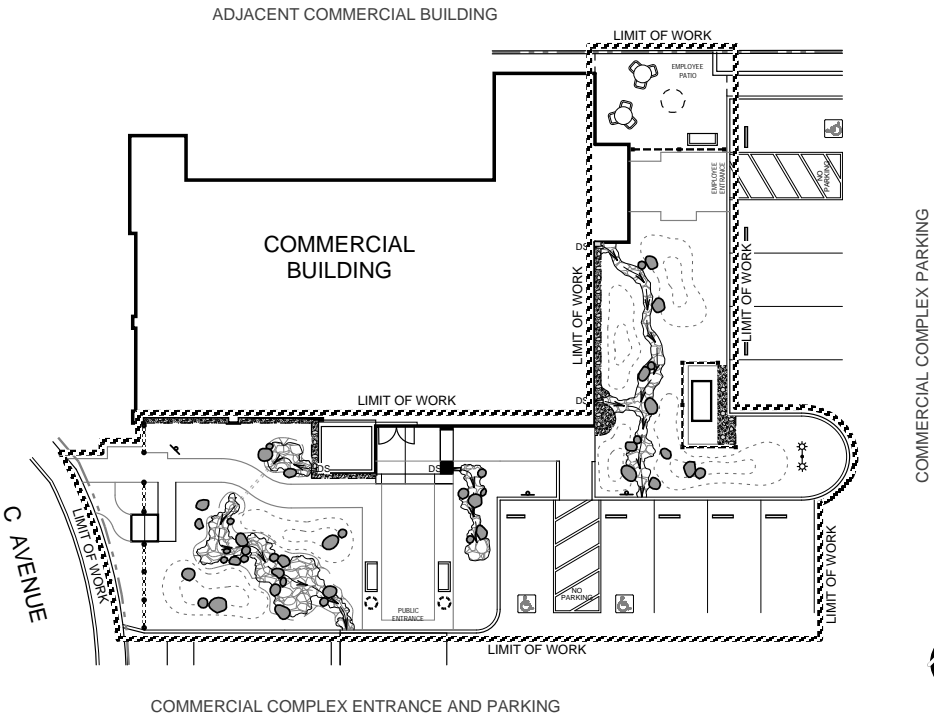


CONSTRUCTION DOCUMENTS FOR NEW LANDSCAPE IMPROVEMENTS

Attachment 10 - Planning Case P18-0608
Commercial Landscape Plan - Working
Drawing Example

PROJECT NAME
1357 STREET NAME
IN THE CITY OF RIVERSIDE, CALIFORNIA

SHEET KEY MAP:



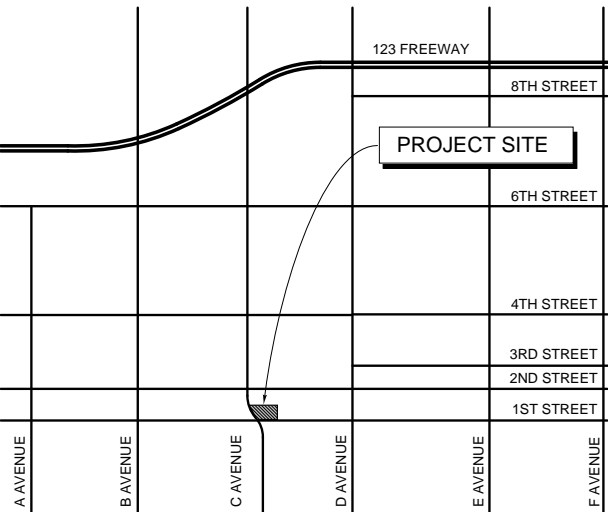
ABBREVIATIONS:

A.B.	Anchor Bolt	Int.	Integral
A.C.	Asphaltic Concrete	J. Box	Junction Box
Adj.	Adjacent	Jts.	Joints
All.	Alternate	L.A.	Landscape Architect
Arch.	Architect	Lic.	Licensed
Auto.	Automatic	L.P.	Low Point
Bldg.	Building	Max.	Maximum
Blk.	Block	M.B.	Machine Bolt
B.M.	Bench Mark	Mech.	Mechanical
B.S.	Bottom of Slopes	Med.	Medium
C.B.	Catch Basin	Min.	Minimum
C.F.	Cubic Foot	M.H.	Manhole
C.I.	Cast Iron	Multi.	Multi-branched
C.I.P.	Cast Iron Pipe	Nat.	Natural
C.J.	Cold Joint	N.I.C.	Not in Contract
C.L.	Center Line	O.C.	On Center
Clr.	Clearance	O.D.	Outside Diameter
C.O.	Clean Out	P.A.	Planting Area
C.M.P.	Corrugated Metal Pipe	Perf.	Perforated
Como.	Connected	P.O.C.	Point of Connection
Con.	Concrete	P.S.I.	Pounds Per Square
Cond.	Condition	P.T.	Pressure Treated
Cont.	Continuous	P.V.C.	Poly Vinyl Chloride
Cr.	Center	R.	Radius
Cr. Sink	Counter Sink	R.C.P.	Reinforced Concrete
D.D.	Deck Drain	Rebar	Reinforcing Bar
D.F.	Doubles Fit	Rein.	Reinforcing
D.G.	Decomposed Granite	Rein.	Reinforced
Dia.	Diameter	Ret.	Retardant
Dim.	Dimension	Rough	Rough
Dll.	Detail	R.S.	Rough Sawn
E.	Each	R.S.R.	Rough Sawn Redwood
E.J.	Expansion Joint	Rwd.	Redwood
Elec.	Electric	Sch.	Schedule
Elev.	Elevation	S.F.	Square Foot
Eng.	Engineer	Sht.	Sheet
Exp.	Exposed	Sht. Mil.	Sheet Metal
E.W.W.M.	Electric Welded Wire Mesh	Sim.	Similar
Ex.	Existing	S.L.	Scoreline
Exp.	Exposed	Smooth	Smooth
F.F.	Finish Floor Elevation	Specs.	Specifications
F.G.	Finish Grade	Sq.	Square
F.H.	Fire Hydrant	Sil.	Steel
Fin.	Finish	T.A.D.	Top of Area Drain
F.L.	Flow Line	T & B	Top and Bottom
Fl.	Flat	T.B.	Top of Berm
F.S.	Finish Surface	T.C.	Top of Curb
Ftn.	Fountain	Tex.	Textured
Gal.	Galvanized	T.G.	Top of Grate
G.C.	Ground Cover	T.G.D.	Top of Grate Drain
G.I.	Galvanized Iron	Thk.	Thick
H.B.	Header Board	T.P.	Top of Paving
Hdr. Brd.	Header Board	T.P.C.	Top of Poll Coupling
Horiz.	Horizontal	T.S.	Top of Slopes
H.P.	High Point	T.W.	Top of Wall
Hgt.	Height	Twl.	Typical
I.D.	Inside Diameter	Vert.	Vertical
Inv.	Invert	Wt.	Weight
		W/O	Without
		W.S.	Water Surface

SHEET INDEX:

- L-1 TITLE SHEET
- L-2 CONSTRUCTION AND GRADING PLAN
- L-3 CONSTRUCTION DETAILS
- L-4 IRRIGATION PLAN
- L-5 IRRIGATION DETAILS
- L-6 PLANTING PLAN
- L-7 PLANTING DETAILS
- L-8 CONSTRUCTION SPECIFICATIONS
- L-9 IRRIGATION AND PLANTING SPECIFICATIONS

VICINITY MAP:



DEVELOPER/OWNER:

COMPANY NAME
COMPANY ADDRESS
CONTACT NAME
CONTACT EMAIL ADDRESS
PHONE NUMBER

CONSULTANTS:

COMPANY NAME
COMPANY ADDRESS
CONTACT NAME
CONTACT EMAIL ADDRESS
PHONE NUMBER

SUBMITTALS:

- FIRST SUBMITTAL:
- SECOND SUBMITTAL:
- THIRD SUBMITTAL:
- FOURTH SUBMITTAL:
- FINAL SUBMITTAL:

PLANS PREPARED BY:

COMPANY NAME
COMPANY ADDRESS
CONTACT NAME
CONTACT EMAIL ADDRESS
PHONE NUMBER



Know what's below.
Call before you dig.

APPROVED BY: _____
Underground Utility Note:
CONTRACTOR SHALL VERIFY LOCATION AND
ELEVATION OF ALL EXISTING UNDERGROUND
UTILITIES PRIOR TO CONSTRUCTION

LICENSE
STAMP

LICENSED PROFESSIONAL
LOGO
AND
COMPANY
INFORMATION

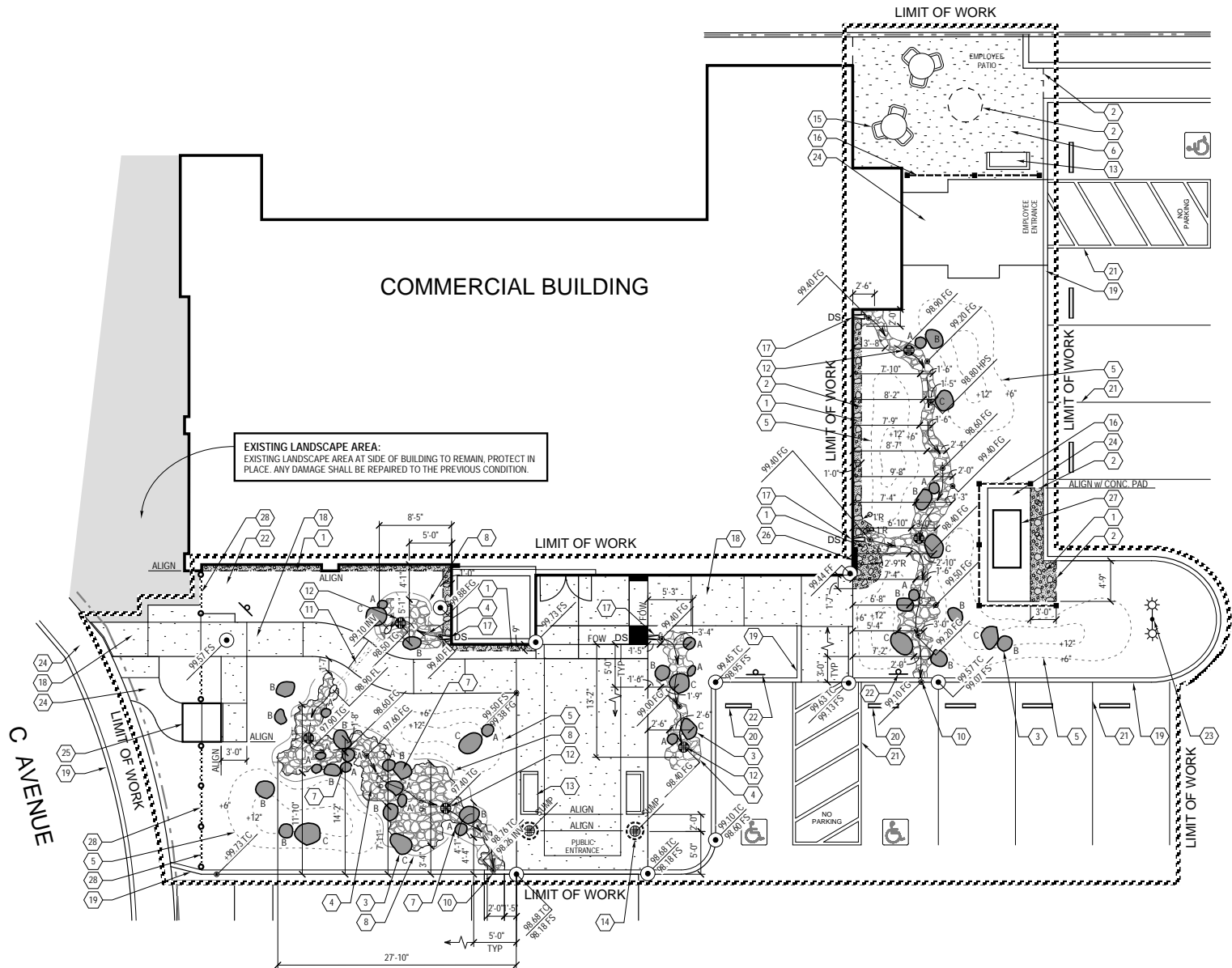
OWNER LOGO
AND
COMPANY
INFORMATION

REV.	DATE	BY	DESCRIPTION

DRAWN:
DATE:
REVISED:
REV. DATE:
CHECKED:
APPROVED:
JOB NO:

LANDSCAPE IMPROVEMENTS FOR
PROJECT NAME,
ADDRESS, AND
APN NO.
SHEET NAME: TITLE SHEET

SHEET NO.
L1
1 OF 10



GRADING NOTES

- 1. ALL GRADING SHALL BE IN ACCORDANCE WITH THE CITY OF RIVERSIDE GRADING ORDINANCE AND ANY SPECIAL REQUIREMENTS OF THE GRADING PERMIT.
- 2. SLOPES SHALL BE NO STEEPER THAN 2" HORIZONTAL TO 1" VERTICAL (2:1) AND SHALL HAVE NOT LESS THAN 90% COMPACTION OUT TO THEIR FINISH SURFACES.
- 3. ALL DRAIN LINES SHALL BE A MINIMUM 3" DIAMETER, AND HAVE A 1% MINIMUM FALL. DRAIN LINES SHALL BE INSTALLED WITH CLEAN-OUTS EVERY 100 FT. PER CODE. CORE CURBS 1/2" DIAMETER LARGER THAN PIPE O.D.
- 4. ALL CATCH BASINS AND DRAINS SHALL BE AS NOTED AND SET FLUSH WITH PROPOSED FINISH SURFACE OR PROPOSED FINISH GRADES, AND SHALL BE CLEANED OF ALL DEBRIS AT COMPLETION OF INSTALLATION.
- 5. CONTRACTOR SHALL COORDINATE DRAINLINE LOCATIONS SO AS NOT TO CONFLICT WITH TREE INSTALLATIONS.
- 6. ALL PAVED AREAS SHALL SLOPE AWAY FROM BUILDINGS AND STRUCTURES WITH A 1% MINIMUM FALL. PLANTED AREAS SHALL HAVE A MINIMUM 2% FALL.
- 7. FINISH GRADE SHALL BE THREE INCHES BELOW FINISH SURFACE OF SIDEWALKS, CURBS, OR PAVED AREAS (UNLESS SHOWN OTHERWISE) TO ALLOW FOR MULCH.
- 8. FINISH GRADE SHALL HAVE A UNIFORM SURFACE, FREE FROM ALL DEPRESSIONS AND ALL OBJECTS THAT MAY BE A HINDRANCE TO CONSTRUCTION, PLANTING OR MAINTENANCE OPERATIONS.
- 9. DIRT AND DEBRIS TRACKED ONTO EXISTING STREETS SHALL BE REMOVED FROM STREETS ON DAILY BASIS AND AT COMPLETION OF CONSTRUCTION.

GRADING SYMBOL LEGEND

- PROPOSED FLOW LINE w/ DIRECTION & PERCENTAGE
- FLOW DIRECTION / SLOPE DIRECTION w/ PERCENTAGE
- EXISTING GRADE PER SURVEY
- PROPOSED FINISH GRADE
- 24" DEEP SUMP w/ GRAVEL. SEE DETAIL B, SHEET L-3
- SUMP WITH DRAIN GRATE FOR POTS. SEE DETAIL D, SHEET L-3
- MITER DRAIN & GRATE TO MATCH PIPE SIZE. HDPE-Gray

GRADING ABBREVIATIONS

- A.D. AREA DRAIN
- B.S. BOTTOM OF STEP
- B.W. BACK OF WALK
- C.L. CENTER LINE
- E.J. EXPANSION JOINT
- E.Q. EQUAL
- F.F. FINISH FLOOR ELEVATION
- F.G. FINISHED GRADE
- F.L. FLOW LINE
- F.S. FINISHED SURFACE
- G.B. GRADE BREAK
- H.P. HIGH POINT
- H.P.S. HIGH POINT IN SWALE
- INV. INVERT
- N.I.C. NOT IN CONTRACT
- O.C. ON CENTER
- P.A. PLANTING AREA
- R. RADIUS
- S.Q. SQUARE
- T.C. TOP OF CURB
- T.G. TOP OF GRATE/ CATCH BASIN
- T.G.R. TOP OF GUARDRAIL/ HANDRAIL
- T.F. TOP OF FENCE
- T.O.C. TOP OF COPING
- T.O.F. TOP OF FOOTING
- T.P. TOP OF PILASTER
- T.S. TOP OF STEP
- T.W. TOP OF WALL
- TYP. TYPICAL

CONSTRUCTION NOTES

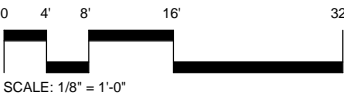
- 1. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO A FAILURE TO GIVE SUCH NOTIFICATION.
- 2. ALL FORMS AND ALIGNMENTS OF SPECIAL PAVING AREAS SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO POURING (GIVE A MINIMUM OF 48 HOURS NOTICE).
- 3. FOR SITE GRADING, SEE NOTES BELOW.
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR COST INCURRED DUE TO DAMAGE AND REPLACEMENT OF SAID UTILITIES.
- 5. CONTRACTOR SHALL COORDINATE IRRIGATION SLEEVE LOCATIONS UNDER PAVED AREAS AS REQUIRED. REFER TO IRRIGATION PLANS.
- 6. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH OTHER SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH CONSTRUCTION OPERATIONS AS SHOWN.
- 7. PRIOR TO PLACING CONCRETE, THE CONTRACTOR SHALL SUFFICIENTLY COMPACT THE SUB-GRADE AND PROVIDE SUBSURFACE PREPARATION PER SPECIFICATIONS.
- 8. CONCRETE SURFACES SHALL BE FORMED WITH LONG, SMOOTH GRADIENT TO REDUCE DIPS, ABRUPT CHANGES AND SHARP TRANSITIONS.
- 9. ALL CURVILINEAR WALKS, CURBS, HEADER BOARDS, AND WALLS SHALL HAVE A CONTINUOUS SMOOTH CURVE WHERE APPLICABLE. ALL FORMS MUST BE INSPECTED AND APPROVED PRIOR TO BEGINNING THAT PHASE OF WORK.
- 10. IF IN THE FIELD, SCALED DIMENSIONS CONFLICT WITH STATED GRADES AND/OR ELEVATIONS, THE DESIGN ELEVATION SHALL TAKE PRECEDENCE.

CONSTRUCTION LEGEND

- 1. INSTALL 3" THICK 3/4" DIA. GRAVEL MAINTENANCE STRIP. SEE DETAIL H, SHEET L-3.
- 2. PROVIDE AND INSTALL ALUMINUM EDGING. COLOR TO BE BLACK ANODIZED. AVAILABLE FROM COMPANY NAME AND CONTACT INFORMATION. SEE DETAIL A AND H, SHEET L-3.
- 3. INSTALL GRANITE LANDSCAPE BOULDER. SELECTION TO BE APPROVED BY OWNER/LANDSCAPE ARCHITECT. SEE DETAIL C, SHEET L-3.
- BOULDER SIZES SHALL BE:
 - A. 18" TO 24" DIA.
 - B. 24" TO 30" DIA.
 - C. 30" TO 36" DIA.
- 4. CONSTRUCT BIOSWALE WITH COBBLE AND GRAVEL PER DETAIL K, SHEET L-3.
- 5. LANDSCAPE BERMING. SEE ELEVATIONS NOTED ON PLAN.
- 6. INSTALL 3" THICK LAYER 'CALIFORNIA GOLD' DECOMPOSED GRANITE PAVING. AVAILABLE FROM COMPANY NAME AND CONTACT INFORMATION. SEE DETAIL A, SHEET L-3.
- 7. CONSTRUCT BOULDER CHECKDAM. SEE DETAIL E, SHEET L-3.
- 8. BIOSWALE TOP AND TOE OF SIDE SLOPES AT 3:1 MIN.
- 9. BIOSWALE FLOWLINE. PROVIDE POSITIVE DRAINAGE AT 3% MIN TO CURB CORE.
- 10. CONSTRUCT 4" DIAMETER CURB CORE.
- 11. PROVIDE AND INSTALL 3" DIAMETER PVC DRAIN PIPE PER DETAIL F AND G, SHEET L-3.
- 12. CONSTRUCT 5" DEEP BY 2' WIDE SUMP DRAIN PER DETAIL B, SHEET L-3. SEE GRADING NOTES THIS SHEET.
- 13. PROVIDE AND INSTALL TWO 6' LONG METAL BENCHES. COLOR TO BE BLACK. MODEL 'URBAN'. AVAILABLE FROM COMPANY NAME AND CONTACT INFORMATION. ALLOW 6-8 WEEKS LEAD TIME FOR DELIVERY.
- 14. DECORATIVE POT WITH PLANTS. REFER TO PLANTING PLAN ON SHEET L-6 AND DETAIL D, SHEET L-3.
- 15. PROVIDE AND INSTALL TWO 3" DIAMETER CAFE TABLES. COLOR TO BE GRANITE. MODEL 'URBAN'. AVAILABLE FROM COMPANY NAME AND CONTACT INFORMATION. ALLOW 6-8 WEEKS LEAD TIME FOR DELIVERY.
- 16. PROVIDE AND INSTALL GREEN SCREEN FENCE. SEE DETAIL M, SHEET L-3.
- 17. ROOF DRAIN DOWNSPOUT. PROVIDE SPLASH PAD AND PROVIDE FLOW LINE TRANSITION TO ADJACENT COBBLE SWALE.
- 18. CONCRETE WALK PER ARCHITECT'S PLAN.
- 19. CURB AND GUTTER PER ARCHITECT'S PLANS.
- 20. WHEELSTOP PER ENGINEER'S PLANS.
- 21. PARKING STRIPING PER ENGINEER'S PLANS.
- 22. ACCESSIBLE PARKING SIGNAGE PER ENGINEER'S PLANS.
- 23. EXISTING LIGHT FIXTURE. TO REMAIN, PROTECT IN PLACE.
- 24. EXISTING CONCRETE PAD/WALK. TO REMAIN, PROTECT IN PLACE.
- 25. EXISTING BULLETIN BOARD STRUCTURE. TO REMAIN, PROTECT IN PLACE.
- 26. ELECTRICAL UTILITY BOX. TO REMAIN, PROTECT IN PLACE.
- 27. ELECTRICAL GENERATOR WITH CONCRETE PAD. TO REMAIN, PROTECT IN PLACE.
- 28. EXISTING TUBULAR STEEL FENCE. TO REMAIN, PROTECT IN PLACE.

PLAN CROSS REFERENCES

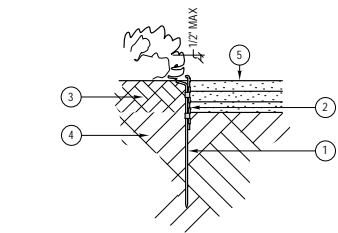
FOR NOTES AND LEGENDS, SEE THIS SHEET FOR CONSTRUCTION DETAILS, SEE SHEET L-3 FOR CONSTRUCTION SPECIFICATIONS, SEE SHEET L-8 FOR CORRESPONDING IRRIGATION PLAN SEE SHEET L-4 FOR CORRESPONDING PLANTING PLAN SEE SHEET L-6



ALL IMPROVEMENTS SHALL BE MAINTAINED BY THE PROPERTY OWNER.

Know what's below.
Call before you dig.

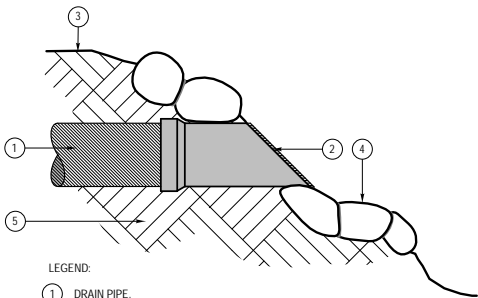
APPROVED BY: _____	<div>LICENSE STAMP</div>	LICENSED PROFESSIONAL LOGO AND COMPANY INFORMATION	OWNER LOGO AND COMPANY INFORMATION	REV.	DATE	BY	DESCRIPTION	DRAWN:	LANDSCAPE IMPROVEMENTS FOR PROJECT NAME, ADDRESS, AND APN NO.	SHEET NO. L2		
Underground Utility Note: CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION												DATE:
												REVISED:
												REV. DATE:
												CHECKED:
										APPROVED:		
										JOB NO:		
								SHEET NAME: CONSTRUCTION AND GRADING PLAN		2 OF 10		



- LEGEND:
- 1 ALUMINUM STAKE. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
 - 2 ALUMINUM EDGING, MILL FINISH. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
 - 3 MULCH LAYER PER PLANTING SPECIFICATIONS.
 - 4 COMPACTED NATIVE SUBGRADE.
 - 5 DECOMPOSED GRANITE PAVING, D.G. TYPE AND SUPPLIER PER CONSTRUCTION LEGEND. INSTALL IN (3) EQUAL LIFTS, WATER IN AND COMPACT AFTER EACH LAYER WITH VIBRATORY PLATE COMPACTOR.

A D.G. w/ ALUM. EDGING

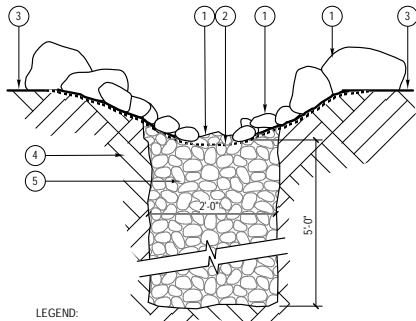
SCALE: 1 1/2" = 1'-0"



- LEGEND:
- 1 DRAIN PIPE.
 - 2 MITERED DRAIN END CAP AND DRAIN PER CONSTRUCTION PLAN. SIZE TO MATCH EXISTING PIPE SIZE.
 - 3 ADJACENT FINISH GRADE.
 - 4 BIOSWALE WITH COBBLE. REFER TO CONSTRUCTION PLAN.
 - 5 90% COMPACTED SUBGRADE OR PER SOIL REPORT.

F MITERED DRAIN CAP

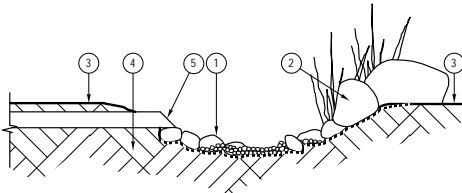
SCALE: N.T.S.



- LEGEND:
- 1 BIOSWALE w/ LANDSCAPE BOULDERS, LOOSE COBBLE STONES AND GRAVEL. SEE DETAIL K, THIS SHEET.
 - 2 FILTER FABRIC.
 - 3 FINISH GRADE.
 - 4 NATIVE SUBGRADE.
 - 5 SUMP PIT. FILL w/ 1" GRAVEL.

B DRY WELL SUMP

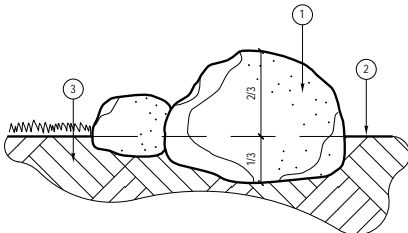
SCALE: 3/4" = 1'-0"



- LEGEND:
- 1 COBBLE BIOSWALE PER DETAIL D, THIS SHEET.
 - 2 LANDSCAPE BOULDER PER CONSTRUCTION PLAN. SEE DETAIL E, THIS SHEET.
 - 3 FINISH GRADE.
 - 4 SUBGRADE.
 - 5 DRAINPIPE w/ 45° CUT @ DAYLIGHT SEE DETAIL F, THIS SHEET.

G DRAIN DAYLIGHT

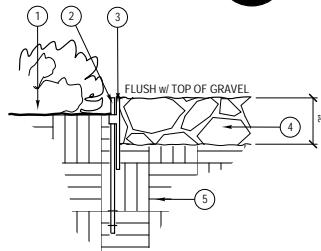
SCALE: N.T.S.



- LEGEND:
- 1 BOULDER PER CONSTRUCTION PLAN. RECESS AT LEAST 1/3 OF BOULDER'S DEPTH INTO SUB-GRADE AS SHOWN.
 - 2 FINISH GRADE.
 - 3 90% COMPACTED SUB-GRADE.
- NOTES:
- A CHIPPED AND BROKEN PORTIONS OF BOULDERS SHALL BE BURIED OUT OF VIEW.
 - B POWER WASH ALL EXPOSED SURFACES OF BOULDERS AT TIME OF FINAL PLACEMENT.

C BOULDER PLACEMENT

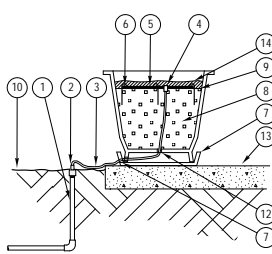
SCALE: 1" = 1'-0"



- LEGEND:
- 1 FINISH GRADE/ADJACENT SHRUB PLANTING
 - 2 COLMET SPLICING STAKE/LINE STAKE, INSTALL PER MANUFACTURER'S SPECIFICATIONS.
 - 3 BLACK POWDER COATED STEEL EDGING, AVAILABLE FROM COMPANY NAME AND CONTACT INFORMATION. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
 - 4 GRAVEL PAVING PER CONSTRUCTION PLAN. FLUSH WITH TOP OF EDGING.
 - 5 COMPACTED NATIVE SUB-GRADE.

H GRAVEL MAINTENANCE STRIP

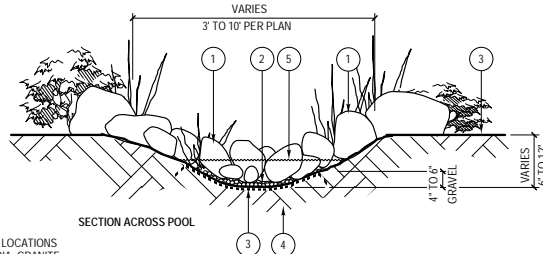
SCALE: N.T.S.



- LEGEND:
- 1 3/4" PVC IRRIGATION LATERAL, 90° ELBOW AND SCH. 80 THREADED NIPPLE TO FINISH SURFACE AT ADJACENT PLANTER AREA.
 - 2 POLY TUBING CONNECTION
 - 3 POLY TUBING, EXTEND FROM FITTING AT FINISH GRADE THROUGH SAUCER NOTCH AND UP TO POT SOIL SURFACE.
 - 4 ELBOW FITTING
 - 5 DRIPLINE WITH BUG CAP. COIL DRIPLINE IN POT TO PROVIDE EVEN IRRIGATION DISTRIBUTION TO PLANT MATERIAL
 - 6 DRIPLINE TUBING STAKE.
 - 7 POT SAUCER, NOTCHED TO ALLOW DRAINAGE TO ADJACENT PLANTER AND IRRIGATION TUBING
 - 8 100% POTTING SOIL
 - 9 POT SOIL SURFACE
 - 10 FINISH SURFACE
 - 11 PLANTER POT WITH WATER PROOF SEALER SEE PLANTING PLANS FOR POT MANUFACTURER AND MODEL
 - 12 DRILL HOLE IN SAUCER TO RECEIVE A 1/4" LANDSCAPE DRIPLINE TO DRAIN POT INTO PLANTER.
 - 13 CONCRETE, SEE CONSTRUCTION PLAN
 - 14 MULCH LAYER, SEE PLANTING PLAN

D POT IRRIGATION AND DRAINAGE

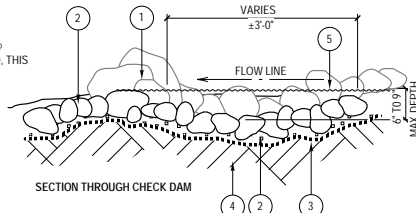
SCALE: N.T.S.



- LEGEND:
- 1 BOULDER AND LOOSE COBBLE CHECK DAM. LOCATIONS PER PLAN. BOULDERS SHALL BE 12" TO 30" DIA. GRANITE FROM LOCAL SOURCE. COBBLE SHALL BE 4" TO 12" DIA. GRANITE FROM LOCAL SOURCE.
 - 2 LOOSE COBBLE AND GRAVEL STREAM BED PER CONSTRUCTION PLAN, FORM 6" TO 12" DEEP BOWL @ UPSTREAM SIDE OF CHECK DAM. SEE ALSO DETAIL D, THIS SHEET.
 - 3 FILTER FABRIC.
 - 4 COMPACTED SUBGRADE.
 - 5 WATER LINE.

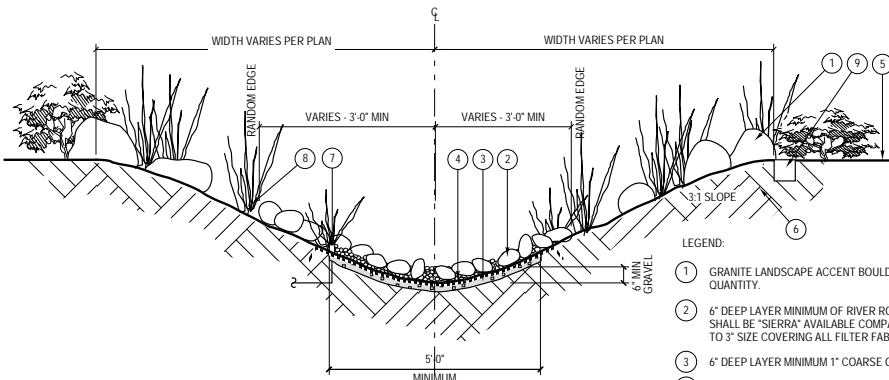
E CHECK DAM

SCALE: 3/4" = 1'-0"



J NOT USED

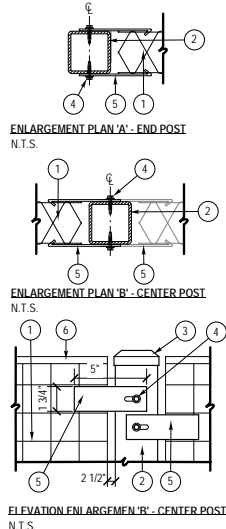
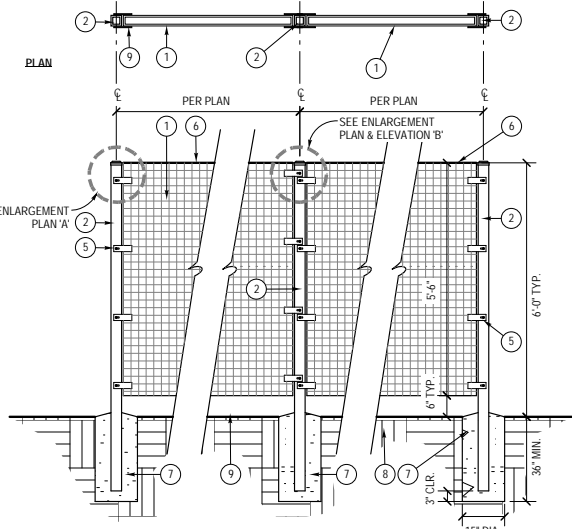
SCALE: N.T.S.



- LEGEND:
- 1 GRANITE LANDSCAPE ACCENT BOULDERS. REFER TO CONSTRUCTION PLAN FOR SIZE AND QUANTITY.
 - 2 6" DEEP LAYER MINIMUM OF RIVER ROCK COBBLE, 1" TO 3" SIZE AND 4" TO 18" SIZE. COBBLE SHALL BE "SIERRA" AVAILABLE COMPANY NAME. FILL IN AROUND 4" TO 18" COBBLE WITH THE 1" TO 3" SIZE COVERING ALL FILTER FABRIC.
 - 3 6" DEEP LAYER MINIMUM 1" COARSE GRAVEL BED.
 - 4 FILTER FABRIC, POLYPROPYLENE GEOTEXTILE. LAY OVER GRAVEL BASE AND EXTEND 12" INTO ADJACENT LANDSCAPE.
 - 5 FINISH GRADE.
 - 6 NATIVE SUBGRADE.
 - 7 IRRIGATION PER IRRIGATION PLAN.
 - 8 PLANT MATERIAL TO BE INSTALLED WITHIN COBBLE AREA, KEEP COBBLE CLEAR OF ROOTBALL DIAMETER.
 - 9 CONCRETE HEADER, SEE CONSTRUCTION DETAILS.

K COBBLE AND GRAVEL SWALE

SCALE: 3/4" = 1'-0"



- LEGEND:
- 1 4' W x 5'-6" H x 3" THICK GREEN SCREEN PANEL
 - 2 3" SQ 11 GA. TUBULAR STEEL FENCE POST SET IN CONCRETE FOOTING.
 - 3 #5139 SQUARE POST CAP WELDED TO TUBULAR STEEL POST. AVAILABLE THROUGH GREEN SCREEN, TEL: 800-450-3494
 - 4 1/4" DIA. STAINLESS STEEL SELF-TAPPING TEK SCREW. AVAILABLE THROUGH GREEN SCREEN, TEL: 800-450-3494
 - 5 #5145 POST CLIP. MOUNTED FRONT AND BACK AT EACH LOCATION. TYP. 3" THICK GREEN SCREEN PANEL, TYP. AVAILABLE THROUGH GREEN SCREEN, TEL: 800-450-3494
 - 6 #5105 STEEL EDGE TRIM AT TOP EDGE OF PANEL, TYP. AVAILABLE THROUGH GREEN SCREEN, TEL: 800-450-3494
 - 7 36" DEEP x 15" DIA. CONCRETE FOOTING AT END POSTS, PROVIDE 30" DEEP x 12" DIA. FOOTING @ LINE POSTS. SLOPE TOP TO DRAIN
 - 8 COMPACTED SUBGRADE PER SOIL ENGINEER'S REPORT.
 - 9 FINISH GRADE

NOTES:

- ALL GREEN SCREEN PANELS TO BE WRINKLE GREEN POWDER COAT FINISH. PROVIDE SAMPLE TO OWNER FOR APPROVAL PRIOR TO ORDER AND INSTALL.
- PAINT STEEL POSTS TO MATCH PANEL POWDER COAT
- CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO INSTALLATION.

M GREEN SCREEN FENCE

SCALE: 1/2"=1'-0"



Know what's below.
Call before you dig.

APPROVED BY: _____

Underground Utility Note:
CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION

LICENSE
STAMP

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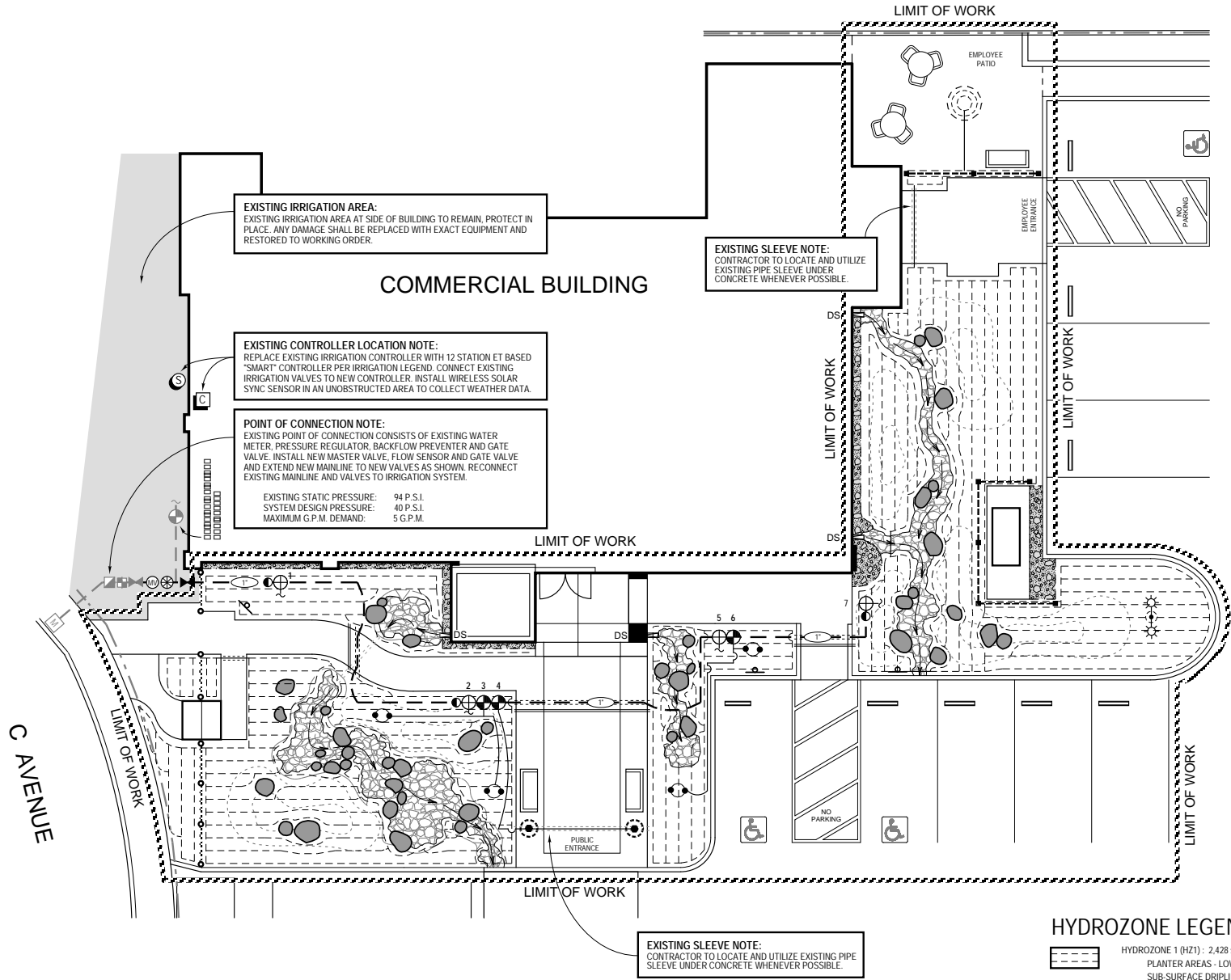
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REVISED: _____
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APPROVED: _____
JOB NO: _____

LANDSCAPE IMPROVEMENTS FOR
PROJECT NAME,
ADDRESS, AND
APN NO.

SHEET NAME:
CONSTRUCTION DETAILS

SHEET NO.
L3
3 OF 10



IRRIGATION NOTES

- THIS SYSTEM IS DIAGRAMMATIC. ALL PIPE, VALVES, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHEREVER POSSIBLE. WHEN PASSING UNDER HARDSCAPE, ALL PIPE AND WIRING SHALL BE INSTALLED IN THE APPROPRIATE SIZE SLEEVING.
- DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS INDICATED ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR GRADE DIFFERENCES EXIST AND SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR MUST ASSUME FULL RESPONSIBILITY FOR REVISIONS NECESSARY.
- SYSTEM DESIGN IS BASED ON MINIMUM OPERATING PRESSURE SHOWN AT EACH POINT OF CONNECTION WITH MAXIMUM GPM DEMAND SPECIFIED. IRRIGATION CONTRACTOR SHALL VERIFY ALL PRESSURES ON SITE PRIOR TO CONSTRUCTION TO OWNER'S CONSTRUCTION REPRESENTATIVE.
- IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, CURBS, ETC. HE SHALL COORDINATE ALL HIS WORK WITH THE GENERAL CONTRACTOR AND OTHER SUB-CONTRACTORS FOR LOCATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADS, PAVING AND STRUCTURES.
- MAINLINE FEEDER BETWEEN POINT OF CONNECTION, METER, AND BACKFLOW PREVENTER TO BE OF MATERIAL REQUIRED BY CURRENT WATER DISTRICT.
- FINAL LOCATION OF THE AUTOMATIC CONTROLLER ENCLOSURE AND THE BACKFLOW PREVENTION DEVICE SHALL BE APPROVED BY MVWD REPRESENTATIVE, AND/OR LANDSCAPE ARCHITECT, WHERE APPLICABLE.
- IN ADDITION TO THE SLEEVES SHOWN ON THE PLAN, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ADDITIONAL SLEEVES OF SUFFICIENT SIZE UNDER ALL PAVED AREAS PRIOR TO PAVING UPON APPROVAL OF THE OWNER'S REPRESENTATIVE, IF REQUIRED TO OPERATE SYSTEMS.
- IRRIGATION CONTRACTOR SHALL FLUSH ALL LINES AND ADJUST ALL HEADS FOR MAXIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO WALKS, STREETS, AND BUILDINGS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST NOZZLE RADIUS TO FIT UNUSUAL SITE CONDITIONS FOR APPROVAL PURPOSES AT NO EXTRA CHARGE. CALL LANDSCAPE ARCHITECT 48 HOURS IN ADVANCE FOR ANY COVERAGE TESTS.
- QUALITY CONTROL OBSERVATION SEQUENCES ARE FOUND IN THE SPECIFICATIONS.
- CLEAN-UP ON A DAILY BASIS PER OWNER'S REPRESENTATIVE'S APPROVAL.
- CONTRACTOR TO PROVIDE 5 ADDITIONAL CONTROL WIRES TO EACH END OF ALL MAINLINES.
- THE MINIMUM LATERAL PIPE SIZE SHALL BE 3/4" SCHEDULE 40 PVC.

IRRIGATION LEGEND:

SYM.	MANUFACTURER	MODEL NUMBER	DESCRIPTION	RADIUS	G.P.M.	P.S.I.	COMMENTS
	RAINBIRD	RWS-B-C-1402	ROOT WATERING SYSTEM	BUBBLER	0.50	30	5' MINIMUM FROM TREE TRUNK SEE DETAIL F, SHEET L-5
	NETAFIM	TLCV6-18	CV TECHLINE DRIPLINE	DRIP	0.01	30	INSTALL LINES 18" APART SEE DETAIL K, SHEET L-5
	RAINBIRD	XFD-06-12	ON-SURFACE DRIPLINE	DRIP	0.01	30	COIL IN POT SEE DETAIL G, SHEET L-5
	FEBCO	825-YA-BV	EXISTING IRRIGATION WATER METER, POTABLE WATER SOURCE				
	WILKENS	500 SERIES	EXISTING 1" REDUCED PRESSURE BACKFLOW ASSEMBLY WITH GC-1 LIFT-OFF GUARD SHACK BACKFLOW ENCLOSURE				
	NIBCO	T-580	EXISTING 1" PRESSURE REGULATOR				
	NIBCO	T-580	EXISTING LINE-SIZE BALL VALVE IN VALVE BOX				
	HUNTER	IC-600-M ICM-600	LINE-SIZE BALL VALVE IN VALVE BOX				
	HUNTER	WSS-SEN	12 STATION IRRIGATION CONTROLLER				
	RAINBIRD	100-PESB	WIRELESS SOLAR SYNC AND RECEIVER				
	RAINBIRD	XCZ-PRB-100-COM	1" ELECTRIC REMOTE CONTROL VALVE IN VALVE BOX, SIZE AS SHOWN				
	ANTELCO	GREENBACK	1" PESB VALVE DRIP KIT WITH BASKET FILTER, 30 PSI PRESSURE REGULATOR AND BALL VALVE IN VALVE BOX. SEE DETAIL C, SHEET L-5				
	RAINBIRD	33DRC	1/2" MANUAL FLUSH VALVE AT EACH PLANTER IN 6" VALVE BOX, SEE DETAIL E, SHEET L-5				
	RAINBIRD	100-EFB-CP	3/4" QUICK COUPLER VALVE IN 10" ROUND VALVE BOX				
	HUNTER	HFS-FCT-100	1" MASTER VALVE IN VALVE BOX				
	APPROVED	SCH. 40 PVC	FLOW SYNC, FLOW SENSOR AND RECEPTACLE TEE				
	APPROVED	SCH. 40 PVC	1" MAINLINE, SIZE AS SHOWN, MINIMUM COVER 12"				
	APPROVED	SCH. 40 PVC	1 1/2" EXISTING MAINLINE TO REMAIN, PROTECT IN PLACE				
	APPROVED	SCH. 40 PVC	3/4" LATERAL LINE, MINIMUM COVER 12"				
	EXISTING		PIPE SLEEVE, SIZED 2X LARGER THAN PIPE TO BE INSERTED UNLESS OTHERWISE NOTED				
	APPROVED	SCH. 40 PVC	EXISTING PIPE SLEEVE TO BE LOCATED AND UTILIZED AS NOTED ON PLAN				
	APPROVED	SCH. 40 PVC	WIRE SLEEVE, SIZE AS REQUIRED UNLESS OTHERWISE NOTED				

HYDROZONE LEGEND:

	HYDROZONE 1 (HZ1): 2,428 s.f. PLANTER AREAS - LOW WATER USE SHRUBS WITH SUB-SURFACE DRIPLINE IRRIGATION
	HYDROZONE 2 (HZ2): 125 s.f. TREES - LOW WATER USE, RWS BUBBLER IRRIGATION
	HYDROZONE 3 (HZ3): 6 s.f. POTS - MODERATE WATER USE, WITH ON-SURFACE DRIPLINE COILED IN POTS

FOR IRRIGATION DETAILS, CONTROLLER SCHEDULING CHARTS, AND WATER BUDGET CALCULATIONS, SEE SHEET L-5

PLAN CROSS REFERENCES

FOR NOTES AND LEGENDS, SEE THIS SHEET
FOR IRRIGATION DETAILS, SEE SHEET L-5
FOR IRRIGATION SPECIFICATIONS, SEE SHEET L-9
FOR CORRESPONDING CONSTRUCTION PLAN SEE SHEET L-2
FOR CORRESPONDING PLANTING PLAN SEE SHEET L-6

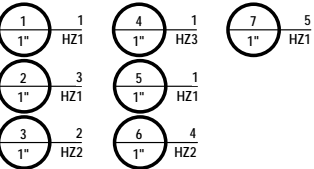
ALL IMPROVEMENTS SHALL BE MAINTAINED BY THE PROPERTY OWNER.

THIS SYSTEM IS DESIGNED TO USE WATER FROM A POTABLE WATER SOURCE.

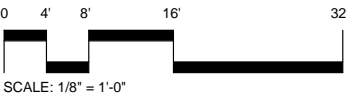
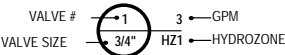
PIPE SIZING CHART:

A	3/4"	0-8 GPM
B	1"	8-12 GPM
C	1 1/4"	13-22 GPM
D	1 1/2"	23-30 GPM
E	2"	31-50 GPM

CONTROL VALVES



VALVE SIZING KEY





Know what's below.
Call before you dig.

APPROVED BY: _____

Underground Utility Note:
CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION



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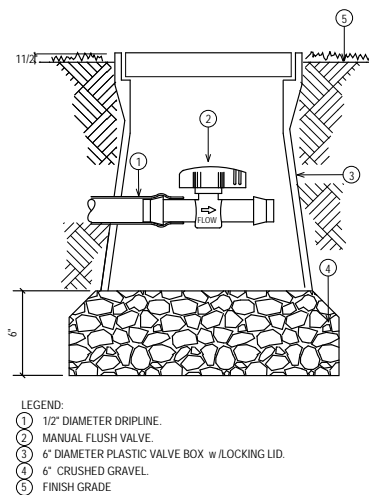
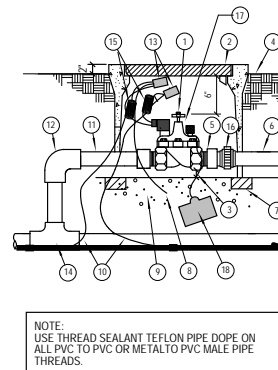
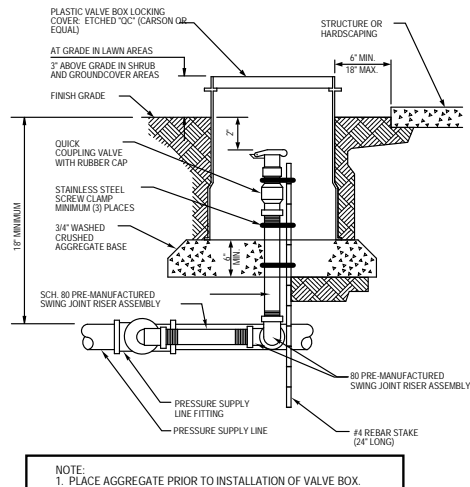
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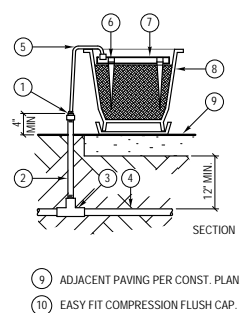
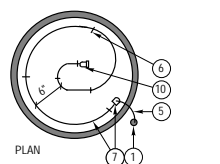
LANDSCAPE IMPROVEMENTS FOR
PROJECT NAME,
ADDRESS, AND
APN NO.

SHEET NAME: IRRIGATION PLAN

SHEET NO.
L4
4 OF 10



SCALE: N.T.S.



Existing Mainline: _____ Size: 1 1/2" _____
 Static Pressure: _____ High: 36 _____ Low: 94 _____
 Source of Information: _____ Contact _____
 Phone Number: _____ XXX XXX XXXX _____
 Date of Information: _____ XXX XXXX _____

H.G.L. Mean Elevation: _____ (Required if static pressure unknown)
 Water Meter Elevation: _____
 Elevation Difference: _____ x 433 = _____

Remote Control Valve Number: _____ Size: 1" _____
 Maximum Demand: _____ GPM _____
 Elevation of Highest Head: _____

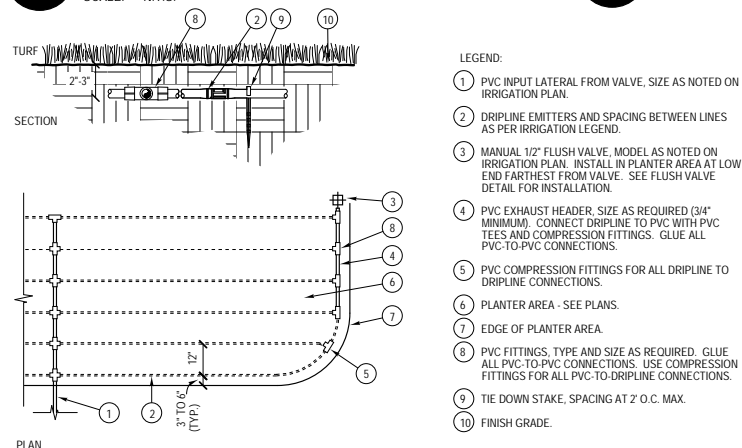
Qty.	Size	Item	PSI Loss
	1"	Water Meter	0.30
15'	1"	Mainline	0.10
	1"	Backflow Assembly	11.00
	1"	Pressure Regulator	5.00
2	1"	Gate Valve (S)	0.20
105'	1 1/2"	Main Line	0.70
	1"	Automatic Valve	1.70
20'	3/4"	Lateral Line	0.50
		Subtotal	19.50
		Fittings Loss (10%)	2.00
		Elevation Change (+ -)	
		Total System Losses	21.50
		Pressure to Meter Head:	30.00
		Total Pressure Required:	51.50
		Lowest Static Pressure Available:	94.00
		Pre-Set Regulated Pressure (if required):	67.00
		Pressure from Pump (if required):	
		Residual Water Pressure:	15.50

SCALE: N.T.S.

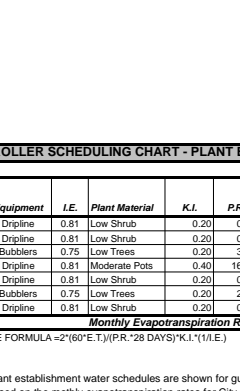
Reference ETo for the area	ETo	56.4					
Estimated Total Water Use (ETWU): ETWU is calculated using the following formula: (Eto) (.62) (ETAF) (LA) where ETWU ETAF = PF(IE)							
Hydrozone # / Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF(IE))	Landscape Area (sq. ft.)	ETAF x Landscape Area	Estimated Total Water Use (ETWU) gallons/yr
Regular Landscape Areas							
H21 - Low Shrubs	0.2	Drip	0.81	0.25	2,428	600	20964
H22 - Low Trees	0.2	Bubbler	0.75	0.27	125	33	1166
H24 - Pots	0.4	Drip	0.81	0.49	6	3	104
Totals					2,559	636	
Special Landscape Areas							
Totals					0	0	
Estimated Total Water Use in gallons per year, ETWU Total						22233	
Maximum Annual Water Allowance in gallons per year, MAWA Total						40267	
MAWA calculation: (Eto) (.62) [(ETAF x LA) + ((1-ETAF) x SLA)]						MAWA - ETWU = 18035	

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SCALE: N.T.S.



SCALE: N.T.S

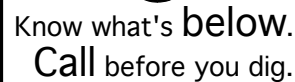
CONTROLLER SCHEDULING CHART - PLANT ESTABLISHMENT PERIOD																																		
					AVERAGE DAILY RUN TIMES (MINUTES)																													
Valve	Equipment	I.E.	Plant Material	K.I.	P.R.	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Valve	Total Annual Minutes	Valve G.P.M.	Total Annual Gallons	Valve Area Sq.Ft.												
1	Dripline	0.81	Low Shrub	0.20	0.45	6	7	10	12	14	15	17	16	13	10	7	6	1	3,703	1	3,703	213												
2	Dripline	0.81	Low Shrub	0.20	0.36	7	8	12	15	17	19	21	20	16	12	8	8	2	4,613	3	13,838	796												
3	Bubblers	0.75	Low Trees	0.20	3.65	1	1	1	2	2	2	2	2	2	1	1	1	3	469	2	939	50												
4	Bubblers	0.81	Moderate Pots	0.40	16.05	0	0	1	1	1	1	1	1	1	1	0	0	4	239	1	239	6												
5	Dripline	0.81	Low Shrub	0.20	0.36	7	8	12	15	17	19	21	20	16	12	8	8	5	4,607	1	4,607	265												
6	Bubblers	0.75	Low Trees	0.20	2.57	1	1	1	2	2	3	3	3	3	2	2	1	6	704	2	1,408	75												
7	Dripline	0.81	Low Shrub	0.20	0.42	6	7	11	13	15	17	18	17	14	10	7	7	7	4,012	5	20,061	1,154												
Monthly Evapotranspiration Rate																		2.5	2.9	4.2	5.3	5.9	6.6	7.2	6.9	5.4	4.1	2.9	2.6	Totals	18,316	15	44,764	2,559
RUN TIME FORMULA = $\frac{2}{in^2} \times (60 \times T) \times (P.R. \times 28 \text{ DAYS}) \times K.I. \times (1/I.E.)$																							56.4 Annual Evapotranspiration Rate											
NOTE:																																		
1. The plant establishment water schedules are shown for guideline use only and are to be modified according to plant needs and as the weather changes.																																		
2. It is based on the monthly evapotranspiration rates for City of Riverside, CA.																																		

CONTROLLER SCHEDULING CHART - ESTABLISHED LANDSCAPE																						
						AVERAGE DAILY RUN TIMES (MINUTES)																
Valve	Equipment	I.E.	Plant Material	K.I.	P.R.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Valve	Total Annual Minutes	Valve G.P.M.	Total Annual Gallons	Valve Area Sq.Ft.
1	Dripline	0.81	Low Shrub	0.20	0.45	3	3	5	6	7	8	8	8	6	5	3	3	1	1,851	1	1,851	213
2	Dripline	0.81	Low Shrub	0.20	0.36	4	4	6	8	9	10	10	10	8	6	4	4	2	2,306	3	6,919	796
3	Bubbblers	0.81	Low Trees	0.20	3.95	0	0	1	1	1	1	1	1	1	1	0	0	3	217	2	435	50
4	Dripline	0.40	Moderate Pots	0.40	16.05	0	0	0	0	0	0	0	0	0	0	0	0	4	104	1	104	6
5	Dripline	0.81	Low Shrub	0.20	0.36	4	4	6	8	9	10	10	10	8	6	4	4	5	2,303	1	2,303	265
6	Bubbblers	0.81	Low Trees	0.20	2.57	1	1	1	1	1	1	1	1	1	1	1	1	6	326	2	652	75
7	Dripline	0.81	Low Shrub	0.20	0.42	3	4	5	7	7	8	9	9	7	5	4	3	7	2,006	5	10,031	1,154
Monthly Evapotranspiration Rate						2.5	2.9	4.2	5.3	5.9	6.6	7.2	6.9	5.4	4.1	2.9	2.6	Totals	9,115	15	22,295	2,559
RUN TIME FORMULA =(60°E.T.)/(P.R.*28 DAYS)/(K.I.*1.1 E.)																						
56.4 Annual Evapotranspiration Rate																						
NOTE:																						
1. The water schedules are shown for guideline use only and are to be modified accordingly as the weather changes with the assistance of a programmed smart controller.																						
2. It is based on the monthly evapotranspiration rates for City of Riverside, CA.																						

SCALE: N.T.S.

SCALE: N.T.S.

SCALE: N.T.S.



APPROVED BY: _____

Underground Utility Note:
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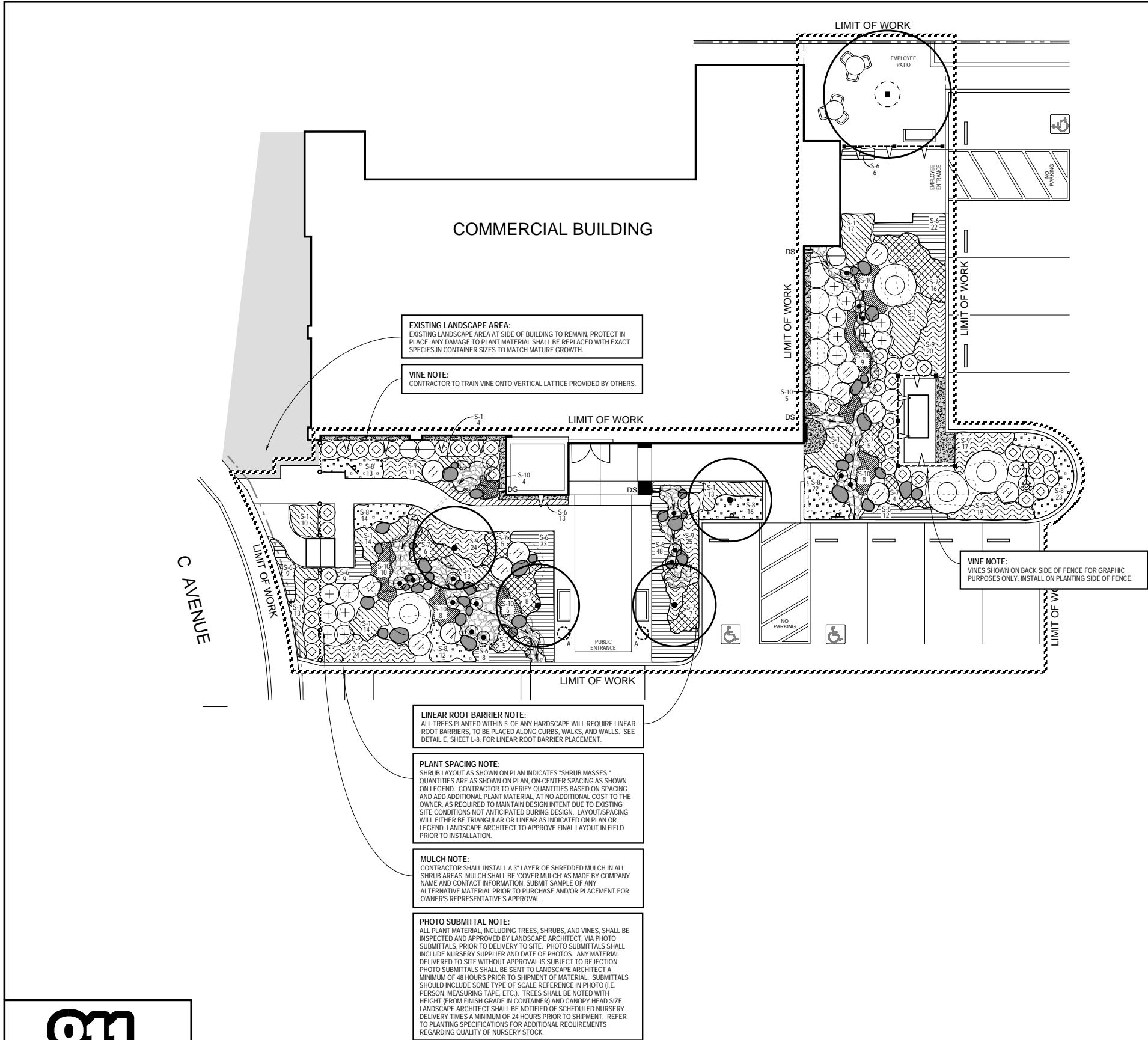
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LANDSCAPE IMPROVEMENTS FOR PROJECT NAME, ADDRESS, AND APN NO.	
SHEET NAME:	IRRIGATION DETAILS

SHEET NO.

L5

5 OF 10



PLANTING NOTES

- SHRUB LAYOUT AS SHOWN ON PLAN INDICATES "SHRUB MASSES." QUANTITIES ARE AS SHOWN ON PLAN, ON-CENTER SPACING AS SHOWN ON LEGEND. CONTRACTOR TO VERIFY QUANTITIES BASED ON SPACING AND ADD ADDITIONAL PLANT MATERIAL (AT NO ADDITIONAL COST TO THE OWNER) REQUIRED TO MAINTAIN DESIGN INTENT DUE TO EXISTING SITE CONDITIONS NOT ANTICIPATED DURING DESIGN. LAYOUT/SPACING WILL EITHER BE TRIANGULAR OR LINEAR AS SHOWN ON PLAN OR LEGEND. LANDSCAPE ARCHITECT TO APPROVE FINAL LAYOUT IN FIELD PRIOR TO INSTALLATION.
- CONTRACTORS SHALL NOTIFY THE LANDSCAPE ARCHITECT OF SITE CONDITIONS WHICH PREVENT INSTALLATION PER PLANS AND SPECIFICATIONS.
- CONTRACTOR SHALL BE LIABLE FOR REMOVING AND RE-INSTALLING IRRIGATION EQUIPMENT, AND REPLANTING AREAS WHICH ARE NOT INSTALLED PER PLAN AND SPECIFICATIONS.
- REFER TO PLANTING SPECIFICATIONS FOR INSPECTION/CERTIFICATION SCHEDULE.
- IRRIGATION SYSTEM SHALL BE INSTALLED AND OPERATIONAL PRIOR TO INSTALLATION OF PLANT MATERIALS.
- TREES AND SHRUBS SHALL BE PLANTED AFTER CONCRETE PLACEMENT, BUT NOT BEFORE IRRIGATION COVERAGE TEST NO. 1 HAS BEEN APPROVED. (SEE SPECIFICATIONS).
- PLACE TREES BETWEEN IRRIGATION HEADS WHEREVER POSSIBLE.
- SHREDDED MULCH INSTALLATION: INSTALL SHREDDED MULCH IN ALL SHRUB AND GROUNDCOVER AREAS PER SPECIFICATIONS UNLESS OTHERWISE INDICATED ON PLANS
- CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS AND/OR REPLACEMENT OF ANY DAMAGED LANDSCAPE AREAS BEYOND THE LIMIT OF WORK, INCLUDING REPAIRING ANY IRRIGATION LINES/SPRINKLER HEADS, THAT IS A DIRECT RESULT OF THE LANDSCAPE CONSTRUCTION AND/OR HIS SUB-CONTRACTOR. REPLACEMENT ITEMS SHALL BE EXACT DUPLICATION OF ORIGINAL WORK OR PLANTS, UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT.
- WHEREVER GROUNDCOVER AREAS ARE ADJACENT TO TURF INSTALL CONCRETE MOWSTRIP OR HEADEDBOARD AS INDICATED ON DRAWINGS.
- CLEAN-UP SHALL TAKE PLACE ON A DAILY BASIS UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ALL GRADES AND FLOW LINES AS SHOWN ON THE GRADING PLAN. WHERE SOD IS TO BE INSTALLED ON A SWALE, THE FINISH GRADE MUST BE ADJUSTED SO THE SOD DOES NOT RESTRICT THE FLOW.
- SOIL AMENDMENTS SHALL BE APPLIED PER THE SOIL REPORT RECOMMENDATIONS.

PLANT LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS	QTY.	WATER USE
TREES							
T-1	Cercis occidentalis	Western Redbud	24" Box	Per Plan	Low branching	4	L
T-2	Chitalpa tashkentensis 'Pink Dawn'	Pink Dawn Chitalpa	36" Box	Per Plan		1	L
SHRUBS							
S-1	Dianella revoluta 'Little Rev'	Little Rev Flax Lily	1 Gal.	18" o.c.		136	L
S-2	Arctostaphylos 'Howard McMinn'	Howard McMinn Manzanita	5 Gal.	Per Plan		4	L
S-3	Pennisetum s. 'Rubrum'	Purple Fountain Grass	1 Gal.	42" o.c.		14	L
S-4	Cistus x purpureus	Rockrose	5 Gal.	Per Plan		14	L
S-5	Rosmarinus 'Tuscan Blue'	Tuscan Blue Rosemary	15 Gal.	Per Plan		3	L
S-6	Achillea 'Moonshine'	Yarrow	1 Gal.	18" o.c.		160	L
S-7	Penstemon heterophyllus	Foothill Penstemon	1 Gal.	24" o.c.		56	L
S-8	Teucrium cossonii	Germander	1 Gal.	18" o.c.		100	L
S-9	Senecio serpens	Blue Chalksticks	1 Gal.	18" o.c.		140	L
S-10	Zauschneria c. 'Waynes Select'	California Fuschia	1 Gal.	18" o.c.		58	L
S-11	Juncus patens	Common Rush	1 Gal.	Per Plan		15	L
S-12	Anigozanthus 'Big Red'	Big Red Kangaroo Paw	5 Gal.	30" o.c.		42	L
S-13	Rhamnus californica 'Eve Case'	Coffeeberry	5 Gal.	Per Plan		6	L
VINES							
V-1	Macfadyena unguis-cati	Cat's Claw	5 Gal.	Per Plan		12	L

POT SCHEDULE

Contractor to provide and plant ceramic pots indicated on plan. All pots are to be pre-drilled from factory, available from Company and contact information. Contractor to allow sufficient lead time to order and have pots/saucers delivered to jobsite prior to completion of landscape construction.

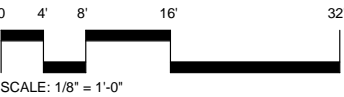
SYM.	QTY	DESCRIPTION	MODEL#	COLOR	FINISH	PLANT WITH:
A	(2)	24" ROUND POT w/ SAUCER	24HW w/18SAUCER	Charcoal Gray	Matte	(1) 5 gal. Cordyline 'Festival Burgundy' (4) 1 gal. Sedum 'r. 'Angelina'

NOTE:
Contractor to use sealant on all pot interiors. Landscape Architect to specify plant species and location at time of installation based on pot location and exposure. Contact Landscape Architect at least 10 days prior to time of installation to specify plant species.

Contractor to extend saucer 1/2" from adjacent edge of concrete and cut 1/2" wide notch edge of saucer for drain flow. Coordinate with owner's representative prior to application.

PLAN CROSS REFERENCES

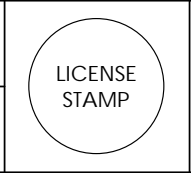
FOR NOTES AND LEGENDS, SEE THIS SHEET
FOR PLANTING DETAILS, SEE SHEET L-7
FOR PLANTING SPECIFICATIONS, SEE SHEET L-9
FOR CORRESPONDING CONSTRUCTION PLAN SEE SHEET L-2
FOR CORRESPONDING IRRIGATION PLAN SEE SHEET L-4



Know what's below.
Call before you dig.

APPROVED BY: _____

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COMPANY
INFORMATION

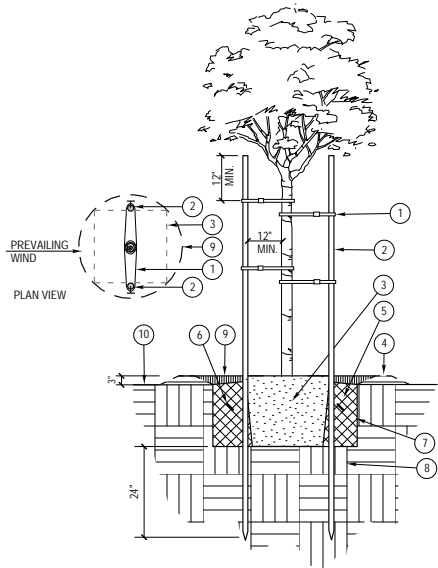
REV.	DATE	BY	DESCRIPTION

DRAWN:
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JOB NO:

LANDSCAPE IMPROVEMENTS FOR
PROJECT NAME,
ADDRESS, AND
APN NO.

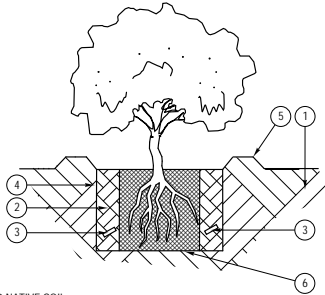
SHEET NAME:
PLANTING PLAN

SHEET NO.
L6
6 OF 10



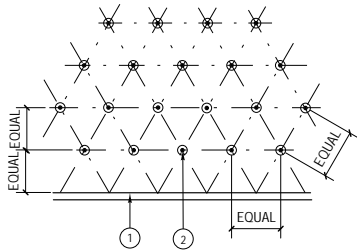
- LEGEND:
- 1 TIES (2) PER POLE. SEE SPECIFICATIONS. NAIL TO TREE STAKE w/ 1" GALV. ROOFING NAIL (4) REQUIRED.
 - 2 2" DIA. x 10' LONG LODGEPOLE PINE TREE STAKE. (2) PER TREE. LOCATE OUTSIDE ROOT BALL.
 - 3 CONTAINER ROOT BALL. SET 3" ABOVE F.G.
 - 4 TEMPORARY 3" BERM TO FORM DEPRESSED WATERING BASIN. ALL SIDES.
 - 5 PREPARED BACKFILL MIX PER SOIL REPORT RECOMMENDATIONS.
 - 6 FERTILIZER TABLETS AND QUANTITY PER PLANTING SPECIFICATIONS.
 - 7 PLANT PIT TO BE TWICE ROOTBALL WIDTH. SET ROOTBALL ON UNDISTURBED NATIVE SUBGRADE.
 - 8 UNDISTURBED NATIVE SOIL.
 - 9 2" MULCH LAYER. 3'-0" DIA. IN TURF AREAS.
 - 10 FINISH GRADE.

- LEGEND:
- A UNTANGLE MATTED ROOTS BY LOOSENING WALL ROOTS AT EDGE OF ROOTBALL w/ WATER FROM HOSE. DO NOT CRACK ROOTBALL.
 - B PLACE FERTILIZER TABS IN PLANT PIT PRIOR TO PLANTING FOR OBSERVATION PURPOSES.
 - C SET STAKES PERPENDICULAR TO PREVAILING WINDS.



- LEGEND:
- 1 UNDISTURBED NATIVE SOIL.
 - 2 BACKFILL MIX PER PER SOIL REPORT RECOMMENDATIONS.
 - 3 FERTILIZER TABLETS PER SPECIFICATIONS.
 - 4 PLANT PIT TWICE ROOTBALL WIDTH.
 - 5 3" BERM TO FORM WATERING BASIN.
 - 6 ROOTBALL SET ON NATIVE SOIL.

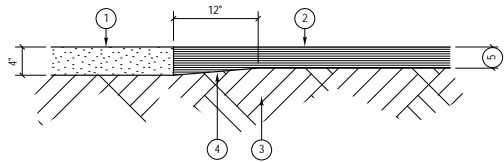
- NOTES:
- A UNTANGLE MATTED ROOTS BY LOOSENING ALL ROOTS @ EDGE OF ROOTBALL w/ WATER FROM HOSE. DO NOT CRACK BALL OF ROOTS.
 - B PLACE FERTILIZER TABS IN PLANT CONTAINER PRIOR TO PLANTING FOR OBSERVATION PURPOSES.



- LEGEND:
- 1 BACK OF CURB OR EDGE OF PAVING.
 - 2 PLANT LOCATION.

NOTE:

ALL SHRUBS / GROUND COVER SHALL BE PLANTED AT EQUAL SPACING (TRIANGULAR) UNLESS OTHERWISE INDICATED ON PLANS. SEE PLANTING LEGEND FOR SPACING REQUIREMENTS.



- LEGEND:
- 1 HARDSCAPING / HEADERBOARD.
 - 2 SHREDDED MULCH (MEDIUM GRIND). DO NOT USE BARK CHIPS.
 - 3 FINISH GRADE.
 - 4 SHOVEL CUT DEEPEDED EDGE ADJACENT TO PAVING.
 - 5 MULCH DEPTH PER PLANTING PLAN.

NOTE:

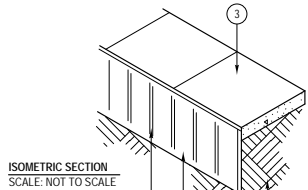
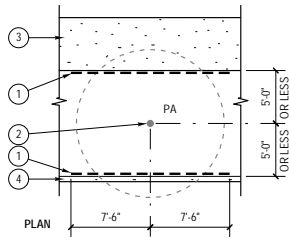
MULCH UNDER TREES AND SHRUBS, AND BLEND INTO EDGES AT GROUND COVER AREAS.

A DOUBLE STAKE TREE PLANTING

SCALE: 1" = 1'-0"

LEGEND:

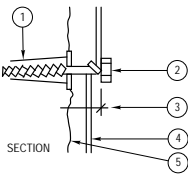
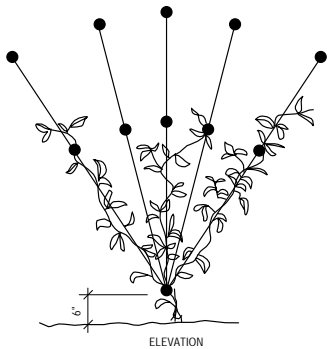
- 1 18" DEEP LINEAR-STYLE ROOT BARRIER AS MADE BY COMPANY NAME AND MODEL NUMBER (OR APPROVED EQUAL.) PLACE BARRIER IN TRENCH w/ THE VERTICAL RIBS FACING TOWARD TREE AND ALIGN IN A STRAIGHT FASHION. USE HARDSCAPE EDGE AS A GUIDE AND BACKFILL AGAINST THE BARRIER TO PROVIDE A CLEAN FIT. TOP OF BARRIER TO EXTEND TO TOP OF CURB OR WALK, OR 1" ABOVE TOP OF MULCH LAYER OR FINISH GRADE (WHICHEVER IS HIGHEST).
- 2 TREE TRUNK LOCATION (CANOPY SHOWN AS DASHED CIRCLE).
- 3 CONCRETE SIDEWALK PER PLAN.
- 4 CONCRETE CURB PER PLAN.
- 5 VERTICAL RIBS.
- 6 COMPACTED SUBGRADE.



ISOMETRIC SECTION
SCALE: NOT TO SCALE

E LINEAR ROOT BARRIER

SCALE: 1" = 1'-0"



LEGEND:

- 1 #6X1" PLASTIC EXPANSION SHEILD
- 2 #6X1 3/4" GALV. MACHINE BOLT
- 3 3/4" SPACE
- 4 14 GA. WIRE LAV. PAINT TO MATCH WALL
- 5 WALL

B SHRUB PLANTING DETAIL

SCALE: NOT TO SCALE

SOIL LABORATORIES		Print Date	MM/DD/YYYY
STREET NUMBER AND NAME		Location	
CITY, STATE AND ZIP CODE		Requester	
PHONE (XXX) XXX-XXXX		Project Manager, Company Name	
ammonium bicarbonate/DTPA		graphic interpretation: * very low, ** low, *** moderate	
extractable - mg/kg soil		**** high, * **** very high	
Interpretation of data		Sample ID Number ##-##-##	
low medium high		Sample Description Soil Sample Received MM/DD/YYYY	
0 - 7 8-15 over 15		elements	
0-60 60 -120 121-180		phosphorus	
0 - 4 4 - 10 over 10		potassium	
0- 0.5 0.6- 1 over 1		iron	
0 - 1 1 - 1.5 over 1.5		manganese	
0- 0.2 0.3- 0.5 over 0.5		zinc	
0- 0.2 0.2- 0.5 over 1		copper	
		boron	
		calcium	
		magnesium	
		sodium	
		sulfur	
		molybdenum	
		nickel	
		aluminum	
		arsenic	
		barium	
		cadmium	
		chromium	
		cobalt	
		lead	
		lithium	
		mercury	
		selenium	
		silver	
		strontium	
		tin	
		vanadium	
		pH value	
		ECe (milli-mho/cm)	
		calcium	
		magnesium	
		sodium	
		potassium	
		cation sum	
		chloride	
		nitrate as N	
		phosphorus as P	
		sulfate as S	
		anion sum	
		boron as B	
		SAR	
		est. gypsum requirement-lbs./1000 sq. ft.	
		relative infiltration rate	
		estimated soil texture	
		lime (calcium carbonate)	
		organic matter	
		moisture content of soil	
		half saturation percentage	

Elements are expressed as mg/kg dry soil or mg/l for saturation extract.
pH and ECe are measured in a saturation paste extract. nd means not detected.
Analytical data determined on soil fraction passing a 2 mm sieve.

C SHRUB & G.C.SPACING

SCALE: NOT TO SCALE

The soil is slightly acidic with a pH of 6.69. Salinity is modest at 0.78 millimho/cm. Nitrogen and iron are modest. Boron and sulfur are low. Phosphorus, potassium, magnesium and the other micronutrients are well supplied. Sodium is low. The soil is hydrophobic. It is difficult to wet. Water beads up on the soil surface initially and then slowly moves into the soil.

Recommendations

Soil Amendment

General soil preparation on a square foot basis. Broadcast the following materials uniformly. The rates are per 1,000 square feet. Incorporate them homogeneously 6 inches deep:

agricultural gypsum - 10 pounds
good quality soil amendment - as needed, sufficient for 3% to 5% soil organic matter on a dry weight basis

Backfill

For preparation on a volume basis, uniformly blend the following materials into clean excavated soil. Rates are per cubic yard:

agricultural gypsum - 1/2 pound
good quality soil amendment - as needed, sufficient for 3% to 5% soil organic matter on a dry weight basis

Organic soil amendment

- Humus material shall have an acid-soluble ash content of no less than 6% and no more than 20%. The organic matter content shall be at least 50% on a dry weight basis.
- The pH of the material shall be between 6 and 7.5.
- The salt content shall be less than 10 millimho/cm @ 25° C. (ECe less than 10) in a saturated paste extract.
- Boron content of the saturated extract shall be less than 1.0 part per million.
- Silicon content (acid-insoluble ash) shall be less than 50%.
- Calcium carbonate shall not be present if to be applied on alkaline soils.

D MULCH

SCALE: NOT TO SCALE

- Types of acceptable products are composts, manures, mushroom composts, straw, alfalfa, peat mosses etc. low in salts, low in heavy metals, free from weed seeds, free of pathogens and other deleterious materials.
- Composted wood products are conditionally acceptable [stable humus must be present]. Wood based products are not acceptable which are based on red wood or cedar.
- Sludge-based materials are not acceptable.
- Carbon:nitrogen ratio is less than 25:1.
- The compost shall be aerobic without malodorous presence of decomposition products.
- The maximum particle size shall be 0.5 inch, 80% or more shall pass a No. 4 screen.

Maximum total permissible pollutant concentrations in amendment in parts per million on a dry weight basis:

arsenic	20	copper	150	selenium	30
cadmium	15	lead	100	silver	10
chromium	100	mercury	10	vanadium	200
cobalt	50	molybdenum	20	zinc	200
		nickel	100		

Irrigate areas which are hydrophobic slowly with multiple start cycles and soaking periods in between the irrigation cycles.

For site maintenance, apply calcium nitrate (15.5-0-0) at 6 pounds per 1,000 square feet about once per quarter. Monitor the site with periodic soil testing. Adjust the maintenance program as needed.

SOIL LABORATORIES
STREET NUMBER AND NAME
CITY, STATE AND ZIP CODE
PHONE (XXX) XXX-XXXX



Know what's below.
Call before you dig.

F VINE PLANTING

APPROVED BY: _____

Underground Utility Note:
CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION

LICENSE
STAMP

LICENSED PROFESSIONAL
LOGO
AND
COMPANY
INFORMATION

OWNER LOGO
AND
COMPANY
INFORMATION

G SOIL ANALYSIS AND RECOMMENDATIONS REPORT

REV.	DATE	BY	DESCRIPTION

DRAWN: _____
DATE: _____
REVISED: _____
REV. DATE: _____
CHECKED: _____
APPROVED: _____
JOB NO: _____

LANDSCAPE IMPROVEMENTS FOR
PROJECT NAME,
ADDRESS, AND
APN NO.

SHEET NAME: PLANTING DETAILS

SHEET NO.

L7

7 OF 10

CONCRETE

PART 1 - SCOPE OF WORK

1.01 WORK INCLUDED

Work includes, but is not limited to the following: Furnish all labor and materials, accessories, tools, equipment, facilities, transportation, and services necessary for installing all concrete work complete as indicated on the drawings and specifications including, but not limited to:

- A. Furnish and set all reinforcing steel, bolts and anchors.
- B. Install all items required by other trades which are to be cast into concrete.
- C. Concrete mow curbs, banding, poured in place walls, other flatwork, footings, pans and slabs for: walls, fencing, benches, controllers, decks, etc., where applicable.

PART 2 - GENERAL

All requirements of subsection 3.31, standard specifications for Public Works Construction, shall apply except as specified herein.

2.1 INSPECTION OF SITE

Examine related work and surfaces before starting work in this section. Report to the Landscape Architect in writing, site conditions which will prevent the proper provision of this work. Electronize the work in this section without resorting to unstable conditions to the Landscape Architect constitutes acceptance of site conditions by the Contractor. Any required removal, repair, or replacement of this work caused by unstable conditions shall be done at no additional cost to Owner.

2.2 PROTECTION OF EXISTING CONDITIONS

Contractor shall acquaint himself with all site conditions. He shall take necessary precautions to protect existing site conditions. Should damage be incurred, the Contractor shall repair damage to its original condition or furnish and install equal replacement at his own expense, to the satisfaction of the Owner.

2.4 COORDINATION

- A. Cooperation On-Site: Coordinate and cooperate with other contractors to enable the work to proceed as rapidly and as efficiently as possible.
- B. Work With Other Trades: Coordinate with General Contractor items of other trades to be furnished and set in place. Such portions of their work as all or in part embedded, built-in, attached to, or supported by the work shall be executed by them in ample time that progress of the work is not delayed. Any cutting or patching made necessary to comply with this injunction shall be done at the Contractor's expense.

2.5 APPROVAL

Whenever the terms "approve," "approved," "approval" or "approved" are used in the Specifications, they mean approval of the Landscape Architect, the Owner's Representative or their field representatives, or in writing.

2.6 SUBMITTALS

At least 10 days after award of contract, Contractor shall submit for approval samples and/or manufacturers' latest catalog cuts and specifications of the following prior to beginning work. Approved samples shall be standards for completing work.

- A. One 2-1/2 x 2-1/2 x 2-1/2 sample for each type of concrete finish and color at the job site.
- B. Color samples for expansion joint compounds.
- C. All submittal data shall be forwarded in a single package to the Landscape Architect within 15 days after award of the General Contract unless otherwise approved by the Landscape Architect and/or Owner's Construction Representative.

2.7 SUBSTITUTIONS

- A. Standards: Specific reference to manufacturers' names and products specified in this section are used as standards; this includes no right to substitute other material or methods without written approval of the Landscape Architect.
- B. Approval: Installation of any approved substitutions is Contractor's responsibility. Any changes required for installation of any approved substitution must be made to the satisfaction of Landscape Architect and without additional cost to Owner. Approval by Landscape Architect of substituted materials and/or dimensional drawings do not waive these requirements.

PART 3 - MATERIALS

Materials shall be of first quality and of domestic manufacture as noted below:

- A. Portland cement shall conform to ASTM-C150, Type I or Type II.
- B. Concrete aggregate shall conform to ASTM-C33.
- C. Water shall be clean, free from strong acid, alkali, oil or organic matter.
- D. Admixtures for all formed concrete shall be Sika Chemical Corp.'s "Plastiment", or approved equal, applied in strict accordance with manufacturer's directions.
- E. Reinforcement: reinforcing steel ASTM-A15 and ASTM-A305; Wire fabric: ASTM-A185
- F. Forms:
 - 1. Lumber shall be "construction grade" Douglas fir.
 - 2. Plywood for forming of concrete which is exposed shall be Plyform. All plywood used for forming shall be at least 5/8 inch thick and edge sealed.
 - 3. Expansion joint filler shall conform with ASTM-D1751 (premoiled).

PART 4 - EXECUTION

4.01 CONCRETE DESIGN MIX

- A. Contractor assumes responsibility for the design mix and guarantees the specified ultimate strength as indicated or specified herein.
- B. Concrete, minimum 28-day ultimate strength shall be 2000 PSI.
- C. Ready-mixed concrete shall conform to ASTM-C94.

4.02 CONCRETE PROPORTIONS & CONSISTENCY

- A. The proportions of aggregate to cement shall provide a dense mixture which will readily work into all corners of the forms and around all reinforcements without any segregation of the materials, cause excess free water to collect on the surface or cause excessive bleeding of the forms.
- B. The recommended proportions of the American Concrete Institute shall be followed until available procedures. The maximum slump shall not exceed (4") four inches for footings, slabs on grade, and mass concrete 6 inches for foundation walls.

4.03 CONCRETE APPROVAL

The concrete quality, proportions, consistency, etc., is subject to the approval of Owner, and no changes shall be made without prior written approval.

4.04 FORMWORK

- A. Forms for concrete work shall be either metal or wood. Forms that are warped or that do not have a smooth inside upper edge shall not be used. Forms shall be set with the inner edge of the board true to line and grade and shall be staked rigidly in place with stakes set not more than four feet (4') apart so as to remain immovable throughout the construction. All forms shall be approved by Owner within a tolerance of one percent (1%). All materials shall be accurately and separately weighed and mixing shall continue until the distribution of material is uniform and the mass of concrete is homogeneous.
- B. Two and one-half (2 1/2) gallons of water per cubic yard, shall be withheld from the mix at the plant, and all or a portion may be added to the mix at the job site as directed by the Inspector. The concrete shall be mixed at least 5 minutes after such water is added and not less than 3 minutes of this time shall be immediately prior to the discharge of the batch. Total mixing time after adding original water shall be at least 15 minutes.
- C. Concrete which is not placed within 90 minutes after the introduction of cement and water, and concrete which has stood for 30 minutes after leaving the mixer, shall not be used.

4.05 REBAR

Reinforcing bar shall be spliced with 40 bar diamers minimum overlap.

4.06 CONVEYING AND PLACING

- A. Before pouring, all forms shall be thoroughly cleaned and made tight. The bottom of trenches shall be wet (even before minor blemishes) with shall not be muddy at the time of pouring. Concrete shall not be placed until reinforcements, rough hardware, and forms are approved by Owner.
- B. Before depositing new concrete against old concrete, all surfaces shall be removed, and the surfaces roughened to expose the embedded aggregate. The surfaces shall then be covered with cement grout, using the specified mix with 1/2 of the coarse aggregate omitted, 1-1/2 inches thick.
- C. Conveying and placing of concrete shall be done so as to prevent separation of ingredients, and in no case shall the free fall exceed 6 feet. Tremies shall be used as required. Surfaces of concrete shall be kept reasonably level, with a minimum amount of concrete being allowed to flow after being placed. Placing shall be performed as a continuous operation until each section is completed.
- D. Concrete shall be loaded and vibrated with mechanical vibrators to a maximum subsidence, without separation of ingredients. The moving of concrete by vibration will not be permitted.

4.07 COLORED CONCRETE

Integral color and Dust-On color hardener shall be as specified on plans and details.

4.08 GROUTING

- A. Grout shall be composed of one part Portland Cement and two parts of fine aggregate by volume. Materials shall be mixed dry and water added just sufficient to make the mixture flow under its own weight.
- B. For dry lump cement grout, a minimum of water shall be added to the mix so that when wet sample is squeezed hard in the hand, surface moisture, but no free water, shall appear on the sample. Do not mix more than can be used in 30 minutes.

4.09 CURING AND PROTECTION

- A. All exposed surfaces of concrete shall be protected from damage due to temperature, elements, and construction operations.
- B. Curing shall be as follows:
 - 1. All exposed surfaces of concrete shall be protected from premature drying and fresh placed concrete shall be protected against wash by rain. All concrete shall be kept wet for a period of ten days after placing. In order that curing water may reach both surfaces of walls, the forms shall be loosened and water shall be poured over the tops of the walls and allowed to run down between the concrete and the forms.
 - 2. All liquid curing compounds shall be used in accordance with the manufacturer's recommendations and shall not be used on surfaces receiving concrete hardener.

4.10 DEFECTIVE CONCRETE

- A. Concrete which is not in accordance with these specifications, out of line, level, or slump; showing structural cracks, rock sockets, voids, spalls, honeycombing, exposed reinforcing or other damaged surfaces shall be considered as defective.
- B. All fines and irregularities shall be removed from exposed concrete surfaces while the concrete is still green. Where patching is required, all loose and uniform concrete shall be removed prior to patching.

4.11 CONCRETE FINISHES

Flat surfaces shall be screeded to the required levels and slopes and then any excess water or blaine removed. Concrete shall be compacted with a steel tamper and then floated to a true and level surface within the tolerance of 1/8-inch along a 10-inch straight edge. Contractor shall ensure positive drainage on all flatwork. See Plans for concrete finish in landscape areas.

4.12 EXPANSION JOINTS

Placement of expansion joints shall be as directed and determined by layouts of slab markings noted on drawings. Expansion joint material shall be Poly Furan or approved equal, as set noted on Plans. Expansion joints shall be placed on a true and level finish surface and sealed with a bead of grey thick sealant or equal. Silica sand to match concrete color shall then be tamped into thickened bead.

4.13 CONTROL JOINTS

Control joints and other edges shall be formed in fresh concrete using a clean edging or jointing tool to provide a smooth uniform finish.

4.14 PROTECTION

All finished concrete work shall be barricaded to pedestrian traffic for three (3) days. Barricades shall be placed immediately after concrete finishing. Contractor shall furnish, place and remove all of his own barricades. Contractor shall be responsible for any damage to new construction and replacement of repair of the work shall be made without added cost to Owner.

4.15 PATCHING

If patching is necessary and permissible, a bonding agent such as Weld-Crete, or equal, shall be used.

4.16 CONCRETE CURBS

Construct concrete curbs at locations shown on Plans as detailed, true to line and grade, as approved by the local County or City. Use natural grey Portland cement concrete, 2000 PSI compressive strength. Locate expansion joints as detailed or shown, and as directed, at intervals not to exceed fifteen feet (15'). Finish with steel trowel, then brush with bristle brush parallel to face or edge.

4.17 CLEAN-UP

Upon completion of all concrete work and before final acceptance, Contractor shall remove all tools, surplus materials, apparatus, debris, etc., from the site and the site shall be left in a clean, neat condition acceptable to Owner.

PART 5 - WARRANTIES

In addition to manufacturers' warranties or warranties, all work shall be warranted for one year from the date of final acceptance against all defects in materials and workmanship by contractor. Warranty shall also cover repair of damage to any part of the premises resulting from defects in materials and workmanship to the satisfaction of the Owner.

END OF SECTION

TUBULAR STEEL

PART 1 - SCOPE OF WORK

1.01 WORK INCLUDED

- A. Furnish and install tubular steel per plans, details and specifications.

1.02 RELATED WORK IN OTHER SECTIONS

The following items of associated work are included in other sections of these Specifications:

- A. Painting

PART 2 - GENERAL

2.01 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Perform shop welding on the premises of a fabricator licensed by the City Building and Safety Department.
 - 2. Perform welding by welders approved and certified in accordance with requirements of AWS.
 - B. Reference Standards:
 - 1. "AISC Steel Construction Manual".
 - 2. "Code for Arc and Gas Welding in Building Construction". AWS D1.0 of the American Welding Society.
 - 3. "Metal Finished Manual", of the National Association of Architectural Metal Manufacturers (NAAMM).
- 2.02 SUBMITTALS
- A. Submit complete shop drawings to the Landscape Architect and/or Owner's Representative for review in advance of fabrication. Show the following on the shop drawings:
 - 1. Show dimensions, sizes, thicknesses, gauges, finishes, joining, attachments and relationship to adjacent work.
 - 2. Where welded connections, concrete inserts, and other items are required to receive other work, show exact locations required.
 - 3. For standard manufactured items, submit work sheets showing illustrates cuts of items to be furnished, scale, details and dimensions.

2.03 COORDINATION WITH OTHER WORK

- A. Examine drawings and specifications, and include all miscellaneous metal work which is not distinctly specified in other sections.
- B. Provide all connections, anchors, bolts, welding, cutting, punching, drilling, tapping or other connecting required to be miscellaneous metal with other work.
- C. Provide items to be installed by other trades well in advance, to permit proper sequencing and scheduling of other work.

PART 3 - MATERIALS

Materials shall be of first quality and of domestic manufacture as noted below:

- A. Rolled steel shapes and steel plates: ASTM A36.
- B. Steel tubing: ASTM A500 Grade A, or ASTM A501 seamless - G.A. per details.
- C. Steel pipe: ASTM A53, Type E or S, Grade A or A120, galvanized 6" diameter.
- D. Steel bolts: ASTM A307, Grade A.
- E. Welding rods: Conform to AWS requirements for intended use.
- F. Concrete inserts: As indicated on the plans.
- G. Shop prime-coat paint: Conform to either FS TT-P-86 Type II for red leadalkyd type paint or to FS TT-P-45 for zinc chromate type paint (2 applications - shop & site).
- H. Touch-up for galvanized surfaces: Al State 9291 Galvanizing Powder (30% Zn, 30% zinc, 40% lead and flux) as manufactured by Al State Welding Alloys Co., or Speed Galvanized by W.D.L. Co. or equal.
- I. Non-shrink grout: Mini Wax Construction Products Division Por-Rock, or approved equal.
- J. Metal enamel: FS TT-P-37C - (2 coats).

PART 4 - EXECUTION

4.01 FABRICATION

- A. Conform to the requirements of the referenced standards.
 - 1. For manual welding, use low hydrogen type E7015 and E7016 electrodes.
 - 2. Weld crevas shall be determined from MIL Reports showing the chemical composition of the reinforcement.
- B. Show minimum all ferrous items to 1 mill dry coat thickness after fabrication, deburr and remove smooth welds and rough spots. Touch-up after installation. Leave in proper condition to receive finish painting.
 - 1. Do not paint rebar and steel surfaces to be embedded in or bonded to concrete.
- C. Welds shall be ground smoothly, all weld spatter removed and work shall comply with the specifications of the "American Welding Society."
- D. Subcontractor to perform all the above work in accordance with the governing plans and specifications.

4.02 INSTALLATION

- A. Miscellaneous metalwork shall be free from defects which would impair strength, durability and appearance.
- B. Erect plumb, straight, true and accurately fit in place. Brace, reinforce, and anchor in place. Grind all field welds.
- C. Provide non-shrink grouting of all frames, plates, sills, bolts and other items not designated to be done by others.
- D. Conceal all connections in the finished work, where possible. Exposed screw connections shall be Allenhead screws matching the material they fasten.

- E. Set base plate for support posts, true and plumb in concrete footing per details.
- F. Protect all dissimilar metals from galvanic corrosion by pressure tapes, coatings, or isolators.
- G. After erection, clean off all rust, scale and oil. Clean field welds, bolts, and abraded areas. Touch-up all areas with the same material as used for the shop coat, leaving all surfaces ready to receive finish coats. Apply second coat of primer on site.
- H. Apply new primer coat and two finish coats of exterior metal enamel to metal surfaces, color as selected by Owner's Representative.

4.03 REPAIR OF DEFECTS

- A. All defective or damaged work shall be replaced, removed and replaced as directed by the Landscape Architect or Owner's Representative at no cost to the owner.

4.04 CLEAN-UP

- A. Clean-up and remove from the site all unused materials and debris resulting from the performance of this work not less than once a week or the last working day each week. All trash shall be removed completely from the project site.
- B. Touchup: Contractor shall clean and retouch Contractor's work as necessary, or as required for final approval by the Landscape Architect within 24 hours notice.
- C. Unwanted Surfaces: Contractor shall leave all surfaces not to be painted, dented, hardware, or slant materials free from any paint, stain, splatters, streaks or smudges which are the result of his operation.
- D. Location: Contractor shall not clean equipment and brushes or dispose of thinners, paint or other chemicals in areas to be planted or in the vicinity of existing plants.

PART 5 - WARRANTIES

In addition to manufacturers' warranties or warranties, all work shall be warranted for one year from the date of Final Acceptance against defects in materials and workmanship by Contractor. Warranty shall also cover repair of damage to any part of the premises resulting from defects in materials and workmanship to the satisfaction of the Owner.

END OF SECTION



Know what's below.
Call before you dig.

APPROVED BY: _____

Underground Utility Note:
CONTRACTOR SHALL VERIFY LOCATION AND
ELEVATION OF ALL EXISTING UNDERGROUND
UTILITIES PRIOR TO CONSTRUCTION

LICENSE
STAMP

LICENSED PROFESSIONAL
LOGO
AND
COMPANY
INFORMATION

OWNER LOGO
AND
COMPANY
INFORMATION

REV.	DATE	BY	DESCRIPTION

DRAWN:
DATE:
REVISED:
REV. DATE:
CHECKED:
APPROVED:
JOB NO:

LANDSCAPE IMPROVEMENTS FOR PROJECT NAME, ADDRESS, AND APN NO.
SHEET NAME: CONSTRUCTION SPECIFICATIONS

SHEET NO. L8
8 OF 10

