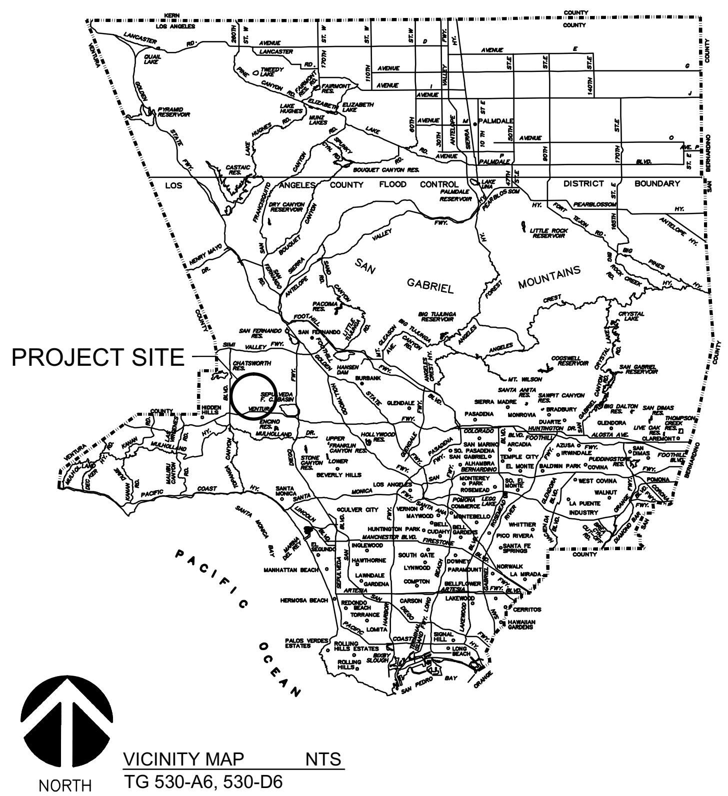
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS LOS ANGELES

LOS ANGELES RIVER HEADWATERS LANDSCAPE IMPROVEMENTS, PEDESTRIAN TRAIL AND PEDESTRIAN BRIDGE OVERCROSSINGS

OWENSMOUTH AVENUE TO MASON AVENUE
TOTAL LENGTH OF PROJECT = 1.25 MILES
PROJECT ID NO. FCC0001174



VICINITY MAP NTS
TG 530-A6, 530-D6

SHEET INDEX

PROJECT NOTES:

LEGAL DESCRIPTION
PROVIDE INFORMATION IF APPLICABLE)

BENCHMARK:
(PROVIDE INFORMATION IF APPLICABLE)

WATER PURVEYOR:
LOS ANGELES DEPARTMENT OF WATER AND POWER
CONTACT ANGAD FARAG AT (213) 367-0328

1. STREET TREES WITHIN PUBLIC RIGHT OF WAY ARE TO BE PLANTED PER APPROVED STREET IMPROVEMENT PLANS.

2. ALL HARDSCAPES, RETAINING WALLS, SWIMMING POOLS, AND/OR BLOCK WALLS MUST BE REVIEWED AND APPROVED UNDER A SEPARATE PERMIT.

3. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT, TWO DAYS BEFORE YOU DIG AT 1-800-227-2600.

4. ALL PLANTING SHALL FOLLOW THE LOS ANGELES RIVER MASTER PLAN LANDSCAPING GUIDELINES AND PLANT PALETTES, JANUARY 2004 PER COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS.

5. LONG TERM MAINTENANCE:
LA COUNTY FLOOD CONTROL DISTRICT WILL BE RESPONSIBLE FOR THE IMPROVEMENTS AND MAINTENANCE AFTER THE TWO YEAR ESTABLISHMENT PERIOD. USER SHALL MAINTAIN THE IMPROVEMENTS UNTIL THE TWO YEAR PLANT ESTABLISHMENT WORK HAS BEEN SATISFACTORILY COMPLETED AS DETERMINED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS ON BEHALF OF THE DISTRICT. IF MAINTENANCE IS UNSATISFACTORY, THE USER SHALL MAINTAIN WORK BEYOND THE TWO YEAR PERIOD UNTIL ALL PLANTING IS IN HEALTHY THRIVING CONDITION AS DETERMINED BY THE COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS.

6. FUEL MODIFICATION PLAN IS NOT REQUIRED PER:

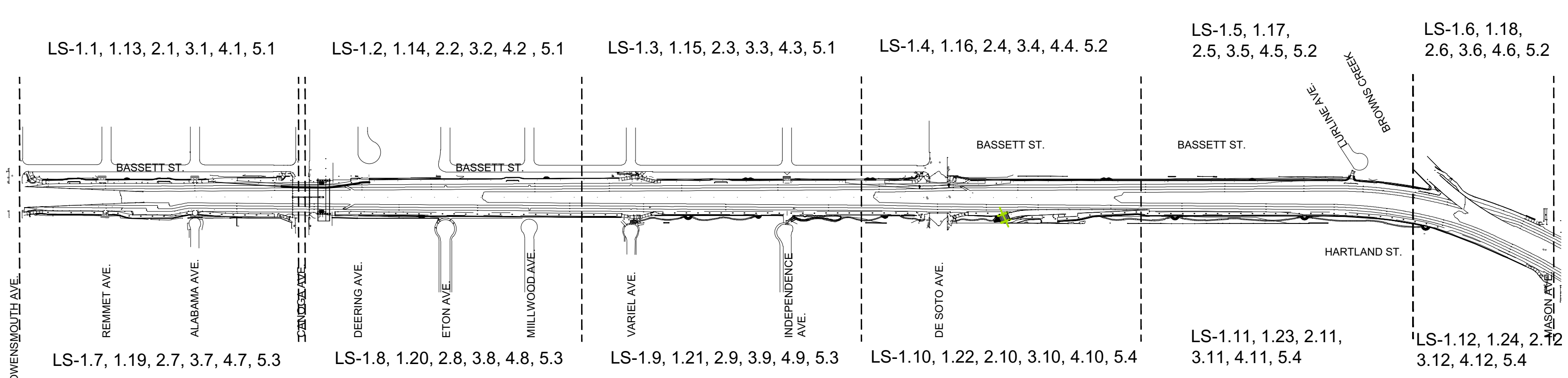
(NAME OF PERSON)
DEPUTY FORESTER FUEL MODIFICATION UNIT
(626) 909-520-5605
N. ANGELINO AVENUE, AZUSA, CA 91702

PROJECT INFORMATION

PROJECT AREA:

PLANTING AREA TOTAL -	184,950 SF
HARDSCAPE AREA TOTAL -	30,430 SF
DECOMPOSED GRANITE PAVING AREA TOTAL -	135,900 SF
TOTAL PROJECT AREA -	351,280 SF

(NOTE: THE INFORMATION ABOVE DOES NOT SUPERCEDE OR TAKE PRECEDENCE OVER ANY OF THE CONTRACT DOCUMENTS. THE INFORMATION ABOVE IS FOR PURPOSES INTERNAL TO THE AGENCY AND NOT FOR CONTRACT ADMINISTRATION)



KEY MAP

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT
JOHN DOE
NO. 12345
EXP. 1/1/2012
STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

LOS ANGELES RIVER HEADWATERS PROJECT

TITLE SHEET

LS-0.1

DATE 10/6/2011	PCA EF1931013W	FCC0001174	SHEET 1 OF 16

GENERAL PLANTING NOTES:

1. PLANT QUANTITIES IN LEGEND IS FOR CONTRACTOR'S CONVENIENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL PLANTS SHOWN ON PLANTING PLANS.
2. ALL TREES ARE TO BE PLANTED MIN. 20' FROM EXISTING POWER POLES (WHERE APPLICABLE).
3. CONTRACTOR SHALL PROVIDE 3" DEEP LAYERS OF MEDIUM TO FINE TEXTURED (3/4" TO 2") GRIND WOOD BY-PRODUCT OR SHREDDED BARK MULCH TO ALL PLANTED AREAS WITH THE EXCEPTION OF CRUSHED ROCK PAVING AREA. COLOR OF MULCH SHALL BE DARK.
4. CONTRACTOR SHALL INSTALL AN EDGING MATERIAL SEPARATING PLANTING AND DECOMPOSED GRANITE AREAS.
5. **PLANS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY PERCEIVED DISCREPANCY BEFORE THE START OF CONSTRUCTION.**
6. CONTRACTOR SHALL PROVIDE AND INSTALL IMPORTED TOP SOIL TO FILL IN AREAS WHERE PLANTINGS ARE PROPOSED. IMPORTED TOP SOIL SHALL BE CLASS "A" TOP SOIL. AN AGRONOMICAL SOILS REPORT SHALL BE SUBMITTED PER SECTION L, LANDSCAPE 1.02-2 OF SPECIAL PROVISIONS, REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO THE DELIVERY OF THE SOIL ON SITE.
7. REFER TO CONSTRUCTION PLANS FOR EXACT LOCATION OF EXISTING PLANT MATERIALS TO BE SAVED IN PLACE. REFER TO DEMOLITION PLAN FOR EXISTING TREES TO BE REMOVED.
8. CONTRACTOR SHALL PRUNE AND REMOVE DEAD BRANCHES FROM ALL EXISTING TREES AND SHRUBS TO REMAIN. FOR ALL EXISTING TREES 12 FEET AND HIGHER, REMOVE ALL BRANCHES 7 FEET ABOVE ADJACENT GROUND (MEASURED AT UPPER SIDE OF SLOPE).
9. ALL 5 GALLON SHRUBS ARE TO BE PLANTED MIN. 18" FROM BACK OF THE CURB, WALL, BIKE PATH, UTILITY BOXES AND WALKWAYS TO CENTER POINT OF PLANT. ALL 1 GALLON SHRUBS ARE TO BE PLANTED MIN. 12" FROM BACK OF THE CURB, WALL, PAVEMENT, BIKE PATH, AND UTILITY BOXES TO CENTER POINT OF PLANT. ALL TREES SHALL BE PLANTED A MINIMUM OF 17' BEHIND THE EDGE OF CHANNEL.
10. ANY SOIL PREPARATION AND PLANTING WITHIN THE DRIP LINE OF THE EXISTING TREES SHALL BE DONE BY HAND.

GENERAL CONSTRUCTION/REMOVAL NOTES:

1. **PLANS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY PERCEIVED DISCREPANCY BEFORE THE START OF CONSTRUCTION.**
2. THE CONTRACTOR SHALL LAY OUT HEADER WORK AND OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO CASTING THE CONCRETE.
3. CONTRACTOR SHALL SUBMIT SAMPLES FOR CONCRETE, DECOMPOSED GRANITE, [illegible] CRUSHED ROCK PAVINGS AND RIVER ROCK WALL CLADDING PER 2-5.3 OF THE [illegible]IAL PROVISIONS. CONTRACTOR SHALL PROVIDE 2'X2' SAMPLES FOR EACH MATE[illegible] IN FIELD FOR ENGINEER'S REVIEW AND APPROVAL PRIOR TO COMMENCING WORK. (SAMP[illegible]S TO INCLUDE COLOR AND FINISH). ALL SAMPLES SHALL REMAIN ON-SITE UNTIL JOB COMP[illegible]ON.
4. SEE SHEET LS-2.31 TO LS-2.38 FOR CONSTRUCTION DETAILS.
5. ALL EXISTING ELEMENTS NOT DESIGNATED TO BE REMOVED SHALL BE PROTECTED IN PLACE.
6. CONTRACTOR SHALL INSTALL JUTE MATTING ON PLANTING AREAS WITH SLOPE STE[illegible]ER THAN 3:1 (EXCEPT FOR AREAS WITH ROCK MULCH). REFER TO SPECIAL PROVISIONS FOR [illegible] INFORMATION.
7. ALL EXISTING IN-FILL PAVEMENT WITHIN THE PLANTING AREA SHALL BE REMOVED AND DISPOSED OFF SITE.
8. FOR PROPOSED CONCRETE, DECOMPOSED GRANITE AND FLAGSTONE PAVEMENT AREAS, CONTRACTOR SHALL REMOVE AND DISPOSE ALL EXISTING PAVEMENT MATERIAL, BASE AND EXISTING SOIL TO ALLOW NEW PAVEMENT.
9. THE CONTRACTOR SHALL REMOVE ALL VEGETATION, HILLSIDE SLOUGHAGE AND OTHER MATERIALS THAT INTERFERES WITH CONSTRUCTION. PAYMENT SHALL BE PART OF THE BID ITEM FOR CLEARING AND GRUBBING.
10. THE CONTRACTOR SHALL REMOVE ALL FOLIAGE, VINES AND DEBRIS ON EXISTING CHAIN LINK FENCE WITHIN THE LOS ANGELES COUNTY FLOOD CONTROL RIGHT OF WAY. PAYMENT SHALL BE PART OF THE BID ITEM FOR CLEARING AND GRUBBING.

ELECTRIC INSTALLATION NOTES:

CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:

1. NEW ELECTRICAL SERVICE(S) WILL BE APPLIED AND PAID FOR BY THE AGENCY PRIOR TO THE STARTING OF THE PROJECT. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL INSTALLATION & CONNECTION WORK WITH LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP). VERIFY LOCATIONS OF THE NEW ELECTRICAL METERS IN FIELD. OBTAIN CONSTRUCTION MAP AND ELECTRICAL INSTALLATION REQUIREMENTS FROM LADWP PRIOR TO STARTING OF ANY ELECTRICAL WORK.
2. PROVIDE AND INSTALL OUTDOOR COMBINATION ELECTRICAL METER/IRRIGATION CONTROLLER PEDESTAL ENCLOSURE (TOTAL OF 6) WHERE SHOWN ON IRRIGATION PLANS AND PER LADWP REQUIREMENTS. VERIFY PROPOSED LOCATION WITH LADWP PRIOR TO INSTALLATION.
3. NOTIFY LADWP FOR INSPECTION AND APPROVAL 48 HR. IN ADVANCE.
4. TRENCH, PROVIDE AND INSTALL UNDERGROUND ELECT. CONDUIT, PER LADWP CODE, FROM ELECT. P.O.C. TO THE OUTDOOR COMBINATION ELECTRICAL METER/IRRIGATION CONTROLLER PEDESTAL ENCLOSURE(S). CONTRACTOR SHALL PROVIDE AND INSTALL PULL ROPE FROM ELECTRICAL P.O.C. TO ELECTRICAL METER.
5. MAKE ALL NECESSARY CONNECTIONS TO PROVIDE AN OPERATIONAL ELECTRICAL SYSTEM/AUTOMATIC IRRIGATION SYSTEM.
6. ALL ELECTRICAL WORK, INCLUDING GROUNDING SYSTEM, SHALL BE DONE IN ACCORDANC[illegible]TH THE SPECIAL PROVISIONS AND ANY REQUIREMENTS SET FORTH BY LADWP
7. CONTRACTOR SHALL REQUEST THE ENGINEER TO FORWARD THE [illegible]ARANCE TO ENERGIZE" [illegible] LADWP UPON THE FINAL INSPECTION OF THE ELECTRICAL SERVICE.
8. ELECTRICAL SYSTEM/AUTOMATIC IRRIGATION [illegible]M TO [illegible]LLY OP[illegible]TIONAL BY THE BEGINNING OF THE PLANT ESTABLISHED [illegible].

LOS ANGELES DEPARTMENT OF WATER AND PO[illegible]R WILL PROVID[illegible]D INSTAL[illegible]

1. P.O.C. AT EXISTING POWER P[illegible]AS INDIC[illegible]D ON P[illegible]
2. INSTALL ELECTRICAL METER I[illegible]LE[illegible]RICAL ME[illegible]BOX.
3. INSTALL[illegible]ONNECT ELECT[illegible]AL S[illegible]VICE (TO[illegible]).

IRRIGATION INSTA[illegible]TIO[illegible]TES:

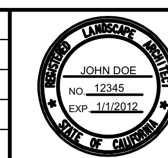
1. TRENCHING OP[illegible]: CON[illegible]TO[illegible] HAS AS A[illegible]PTION TO INSTALL LATERAL IRRIGATION LINES UTILIZING [illegible]TRENCHLESS T[illegible]NIQUE ([illegible]IN) WHERE POSSIBLE.
2. ALL[illegible]TING, NON-[illegible]RATIONAL [illegible]RIGATION EQUIPMENT SHALL BE REMOVED AND DISPOSED. VERIFY OPER[illegible]AL STATU[illegible]ITH PROJECT ENGINEER PRIOR TO REMOVAL.
3. [illegible]NTRACTO[illegible]LL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND SHALL NOTIFY THE ENGINEER OF A[illegible] DISCREPANCIES BEFORE PRIOR TO START OF CONSTRUCTION.
4. CONTRACTOR TO VERIFY LOCATIONS OF ALL EXISTING TREES AND OTHER PLANTS IN THE AREAS OF WORK PRIOR TO START OF CONSTRUCTION.
5. INSTALL PVC SCHEDULE 40 CONDUIT UNDER EXISTING PAVING WHEREVER NECESSARY TO "RUN" CONTROL WIRES. INSTALL CONTROL WIRES A MINIMUM 24" BELOW FINISH GRADE AND 36" UNDER VEHICULAR ROADWAY.
6. ALL VERTICAL CHANGES IN MAINLINE PIPE DIRECTION SHALL BE DONE WITH THE USE OF 45 DEGREE ELBOWS.
7. LATERAL SUPPLY LINES FROM THE VALVE TO THE FIRST HEAD SHALL BE ONE SIZE LARGER THAN THE VALVE, UNLESS OTHERWISE NOTED.
8. THE AGENCY WILL APPLY FOR AND PAY ALL FEES FOR THE PROPOSED WATER METER(S). SEE PLANS FOR AVAILABLE WATER PRESSURE AT THE P.O.C. AND WATER PURVEYOR'S INFORMATION. NOTIFY THE ENGINEER IF THERE IS A DISCREPANCY WITH CONTRACTORS FINDING AND WHAT IS INDICATED ON THE PLANS.
9. REPAIR ALL EXISTING MATERIALS DAMAGED OR EXPOSED BY NEW IRRIGATION INSTALLATION WORK OR BY ANY OTHER CONSTRUCTION WORK, MATCH EXISTING ADJACENT WORK IN TEXTURE AND COLOR.
10. ALL QUICK COUPLING VALVES SHALL BE INSTALLED IN LOCK LID VALVE BOXES. MARK ALL BOXES Q.C.V. WITH EPOXY PAINT.
11. IRRIGATION HEADS SHALL BE PROPERLY POSITIONED TO ALLOW STANDARD OPERATION, RETRACTION, AND SHALL BE ADJUSTED SO THERE IS NO OVER-SPRAYING ONTO ADJACENT SIDEWALKS, PAVEMENT(S), AND ROADWAYS.

IRRIGATION INSTALLATION NOTES:

11. IRRIGATION HEADS SHALL BE PROPERLY POSITIONED TO ALLOW STANDARD OPERATION, RETRACTION, AND SHALL BE ADJUSTED SO THERE IS NO OVER-SPRAYING ONTO ADJACENT SIDEWALKS, PAVEMENT(S), AND ROADWAYS.
12. CONTRACTOR SHALL MAKE ALL NECESSARY ADJUSTMENTS TO ENSURE THAT ALL COMPONENTS OF THE IRRIGATION SYSTEM PERFORM PROPERLY DURING CONSTRUCTION AND MAINTENANCE PERIODS.
13. CONTRACTOR SHALL PROVIDE AND INSTALL FLOW METER(S) AND MASTER CONTROL VALVE(S) FOR ALL PROPOSED AUTOMATIC IRRIGATION CONTROL SYSTEM(S) AS SHOWN ON PLANS. INSTALLATION SHALL BE PER DETAILS AND MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL BE RESPONSIBLE TO PROGRAM THE AUTOMATIC IRRIGATION CONTROLLER(S) SO THE SYSTEM SHALL BE FULLY OPERATION TO DETECT MAIN AND LATERAL LINE BREAKAGE.
14. ADJUST LOCATION OF IRRIGATION HEADS AS NECESSARY TO MINIMIZE SPRAY INTERFERENCE AGAINST OBSTRUCTIONS (CONCRETE WALLS, TELEPHONE AND POWER POLES, TREES, ETC.).
15. ADJUST ALL ADJUSTABLE ARC NOZZLES AS NECESSARY TO AVOID UNDER-SPRAY OF PLANTING AREAS AND OVER-SPRAY OF WALLS AND SIDEWALKS.
16. CONTRACTOR SHALL ADJUST POSITION OF ROTOR IRRIGATION HEADS IN FIELD, AS NECESSARY, TO MAINTAIN **10' MIN.** DISTANCE FROM TRUNKS OF TREES.
17. FOLLOWING IRRIGATION HEAD INSTALLATION, ADJUST RADIUS THROW TO CONFORM TO SITE CONDITIONS.
18. INSTALL NEW ELECTRIC IRRIGATION CONTROLLERS IN OUTDOOR COMBINATION ELECTRICAL METER/IRRIGATION CONTROLLER ENCLOSURE WHERE SHOWN ON PLANS. MAKE ELECTRICAL CONNECTIONS AS NECESSARY TO PROVIDE AN OPERATIONAL ELECTRICAL AUTOMATIC IRRIGATION SYSTEMS. (SEE ELECTRICAL INSTALLATION NOTES THIS SHEET FOR ADDITIONAL INFORMATION.)
19. CONTRACTOR SHALL PROVIDE AND PAY FOR BACKFLOW DEVICE INSPECTIONS. INSPECTIONS TO BE PERFORMED BY AN INSPECTOR CERTIFIED BY LOS ANGELES COUNTY DEPARTMENT OF HEALTH SERVICES (LACDHS). THE INSPECTION CERTIFICATION SHALL BE COMPLETED AND SUBMITTED TO THE WATER PURVEYOR, AND A COPY SHALL BE SUBMITTED TO THE ENGINEER AND LACDHS.
20. CONTRACTOR SHALL VERIFY THE FIELD CONDITIONS AND INSTALL ADDITIONAL IN-LINE CHECK VALVES WHEREVER NECESSARY TO PREVENT LOW-HEAD DRAINAGE.
21. ALL TREES ARE TO BE WATERED BY A SEPARATE BUBBLER SYSTEM. SEE IRRIGATION DETAIL FOR BUBBLER INSTALLATION.
22. INSTALL X-OVER SLEEVES (CLASS 315 PVC UNLESS NOTED OTHERWISE) AT INTERSECTIONS, UNDER PAVEMENTS, AND WHERE SHOWN ON PLANS. ALL SLEEVES SHALL EXTEND 6" INTO PLANTING AREAS AT BOTH ENDS.
23. SLEEVES SHALL BE INSTALLED WHERE SHOWN (APPROXIMATE) ON PLANS. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE SLEEVES PRIOR TO PAVING/PATH/ETC. BEING INSTALLED.
24. "BORE" UNDER EXISTING PAVING WHEREVER POSSIBLE. SAWCUT EXISTING PAVING WHERE NECESSARY AS APPROVED TO INSTALL PIPING/SLEEVE. FOR TRENCH REPAIR INFORMATION (INSERT TRENCHING REPAIR DETAIL IN DETAIL SHEET), REFER TO DETAIL E, SHEET LS-3.13.
25. CONTRACTOR SHALL ADJUST EXACT LOCATIONS OF IRRIGATION PIPES AND SLEEVE TO AVOID CATCH BASINS AND OTHER SITE AMENITIES.
26. VERIFY THE EXISTING GROUNDING SYSTEM. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
27. ALL HEADS WITH CHECK VALVES AND PRESSURE REGULATION DEVICES IN POP-UP STEM SHALL BE CONNECTED THOUGH BOTTOM INLET AND NOT SIDE INLET.

DATE	MK	DESCRIPTION

REVISIONS



PROJECT LANDSCAPE ARCHITECT DATE

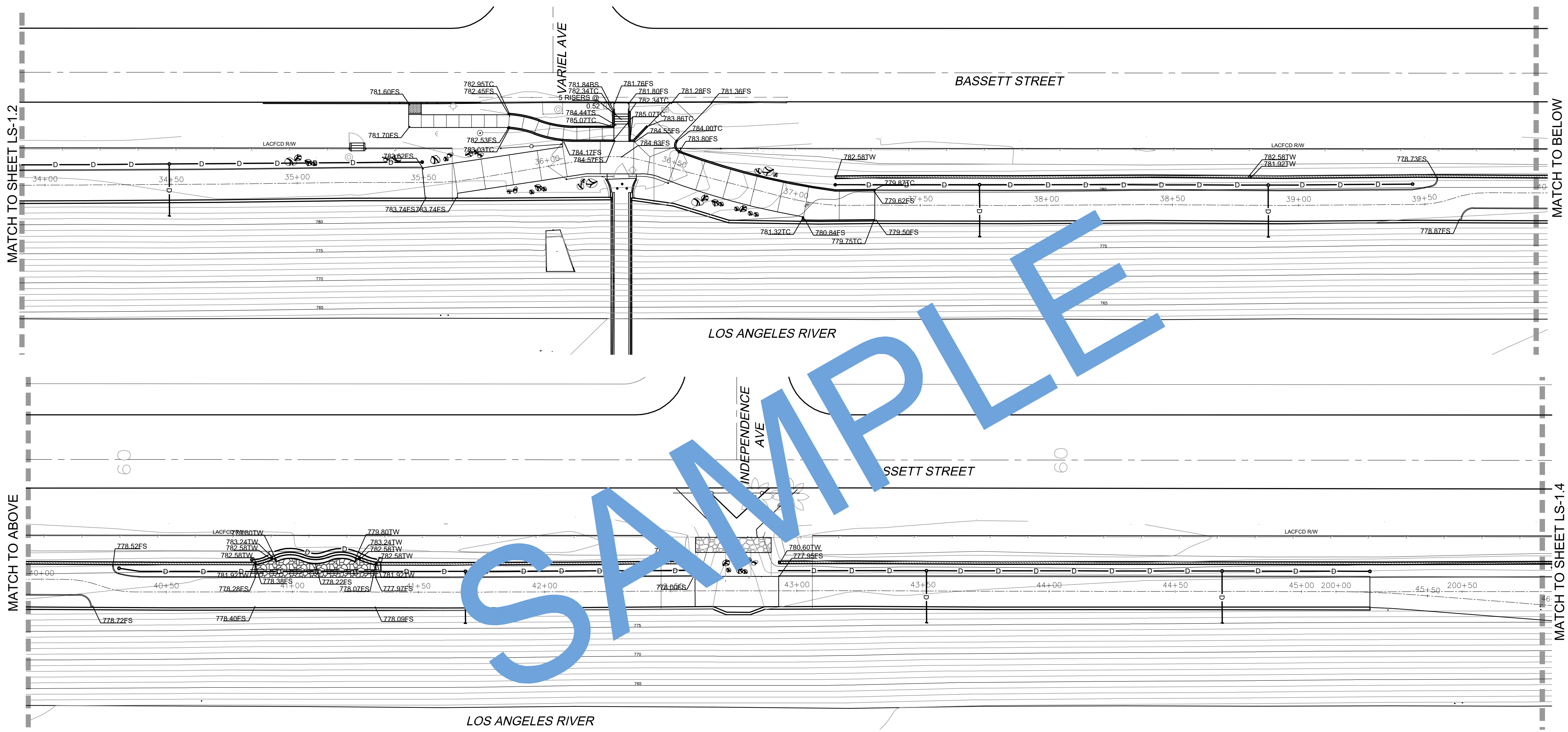
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

LOS ANGELES RIVER HEADWATERS PROJECT

GENERAL NOTES

LS-0.2

DATE 10/6/2011 | PCA EF1931013W | FCC0001174 | SHEET 2 OF 16



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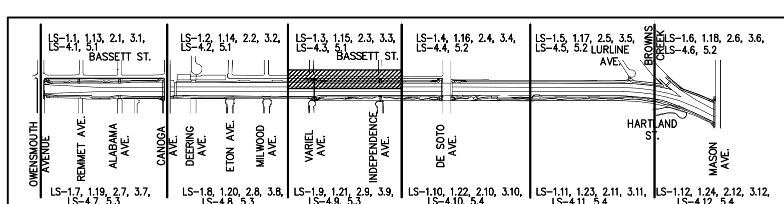
SCALE: 1"=20'

NORTH



LEGEND

—D—	4" HDPE DRAIN PIPE - SEE DETAIL I, SHT. LS-2.35
—E—	6" ELECTRICAL CONDUIT BURIED 24" DEEP FOR FUTURE CONNECTION
=====	4" PVC CLASS 315 SLEEVE
¤	SOLAR POWERED POLE LIGHTS (NOT IN CONTRACT)
PB	CONCRETE PULLBOX

TW	TOP OF WALL	INV	INVERT
TP	TOP OF PILASTER	FG	FINISHED GRADE
TC	TOP OF CURB	FS	FINISHED SURFACE
TS	TOP OF STAIR	BS	BOTTOM OF STAIR

NOTE:
SOLAR POWERED LIGHT FIXTURES ARE SHOWN FOR COORDINATION PURPOSES AND NOT A PART OF THIS CONTRACT. LIGHT FIXTURES, FOOTINGS, AND ALL CONNECTIONS SHALL BE PROVIDED AND INSTALLED BY CITY OF LOS ANGELES UNDER FUTURE AND SEPARATE CONTRACT.

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT
JOHN DOE
NO. 12345
EXP. 1/1/2012
STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT DATE

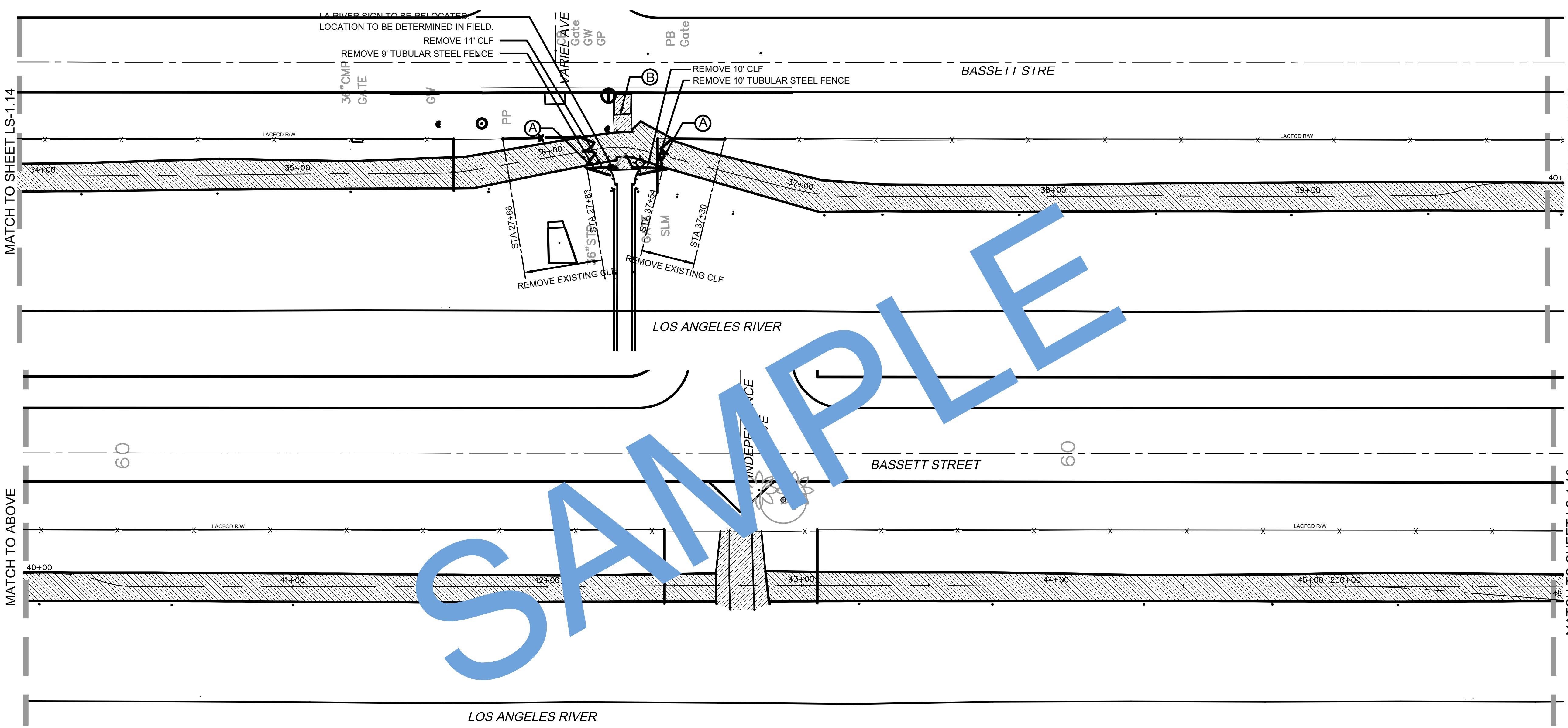
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

LOS ANGELES RIVER HEADWATERS PROJECT

GRADING/DRAINAGE/SLEEVING PLAN

LS-1.3

DATE 10/6/2011 | PCA EF1931013W | FCC0001174 | SHEET 3 OF 16



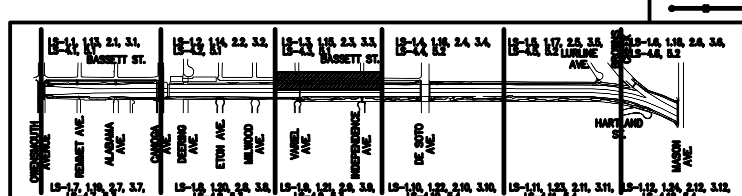
REMOVAL LEGEND

	REMOVE EXISTING AC PAVING		EXISTING TREE TO BE REMOVED		EXISTING TREE TO REMAIN AND PROTECTED IN PLACE
	REMOVE EXISTING PCC PAVING		EXISTING PALM TO BE REMOVED	A	REMOVE EXISTING GATES, POSTS AND FOOTINGS
				B	REMOVE EXISTING CONCRETE STEPS AND RAILS
	EXISTING CLF TO REMAIN	TS	EXISTING STUMP TO BE REMOVED AND GRINDED DOWN TO 24" DEPTH		
	EXISTING CLF TO BE REMOVED				

0 10' 20' 40' 60'

SCALE: 1"=20'

NORTH



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LICENSED LANDSCAPE ARCHITECT
JOHN DOE
NO. 12345
EXP. 1/1/2012
STATE OF CALIFORNIA

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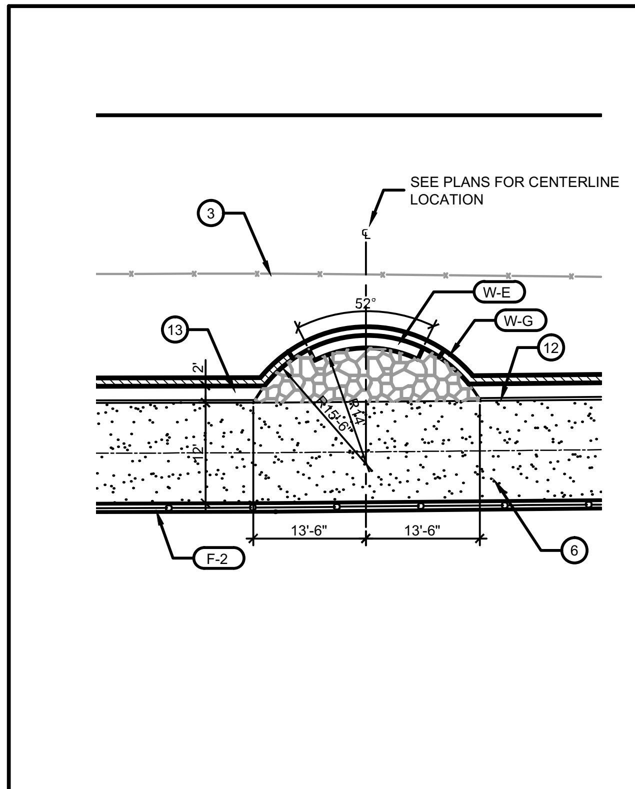
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

LOS ANGELES RIVER HEADWATERS PROJECT

DEMOLITION PLAN

LS-1.15

DATE 10/6/2011 | PCA EF1931013W | FCC0001174 | SHEET 4 OF 16



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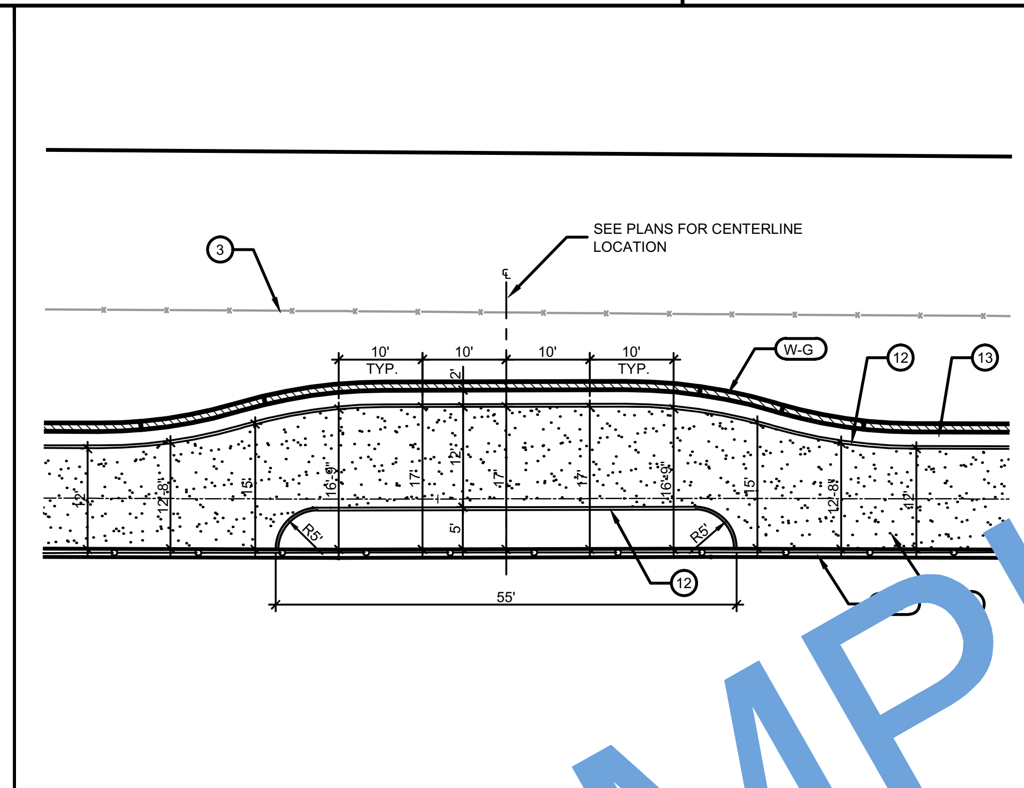

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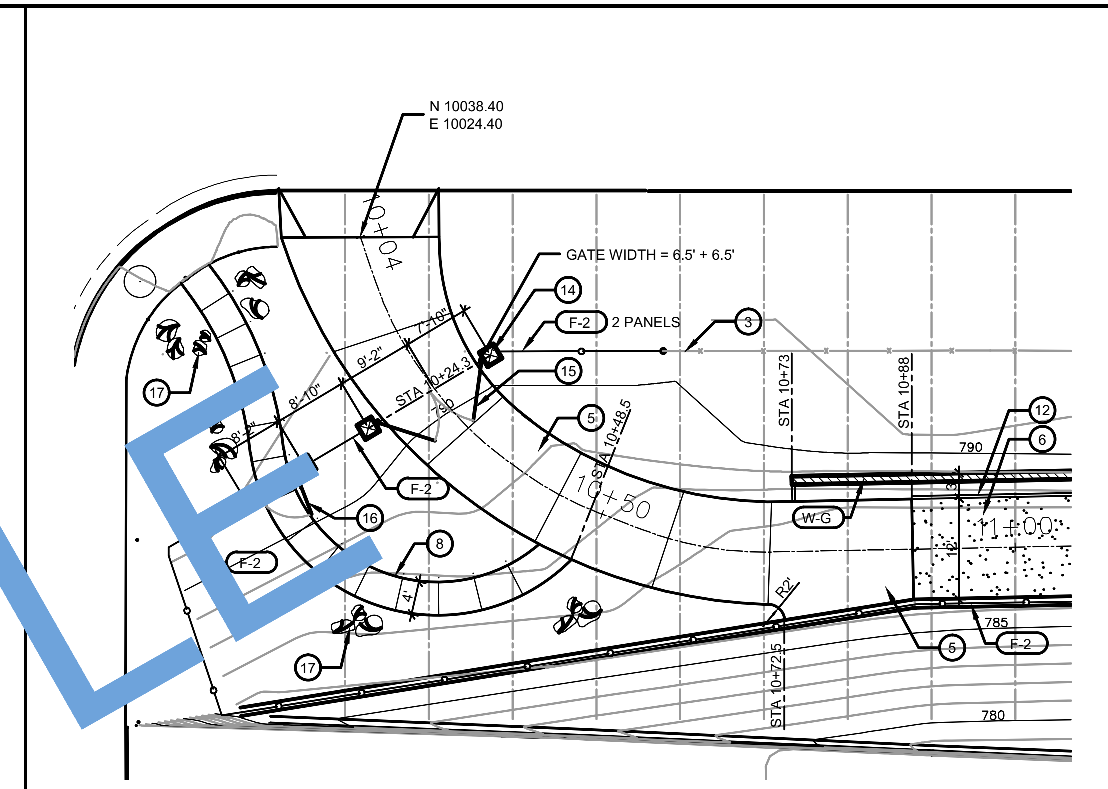

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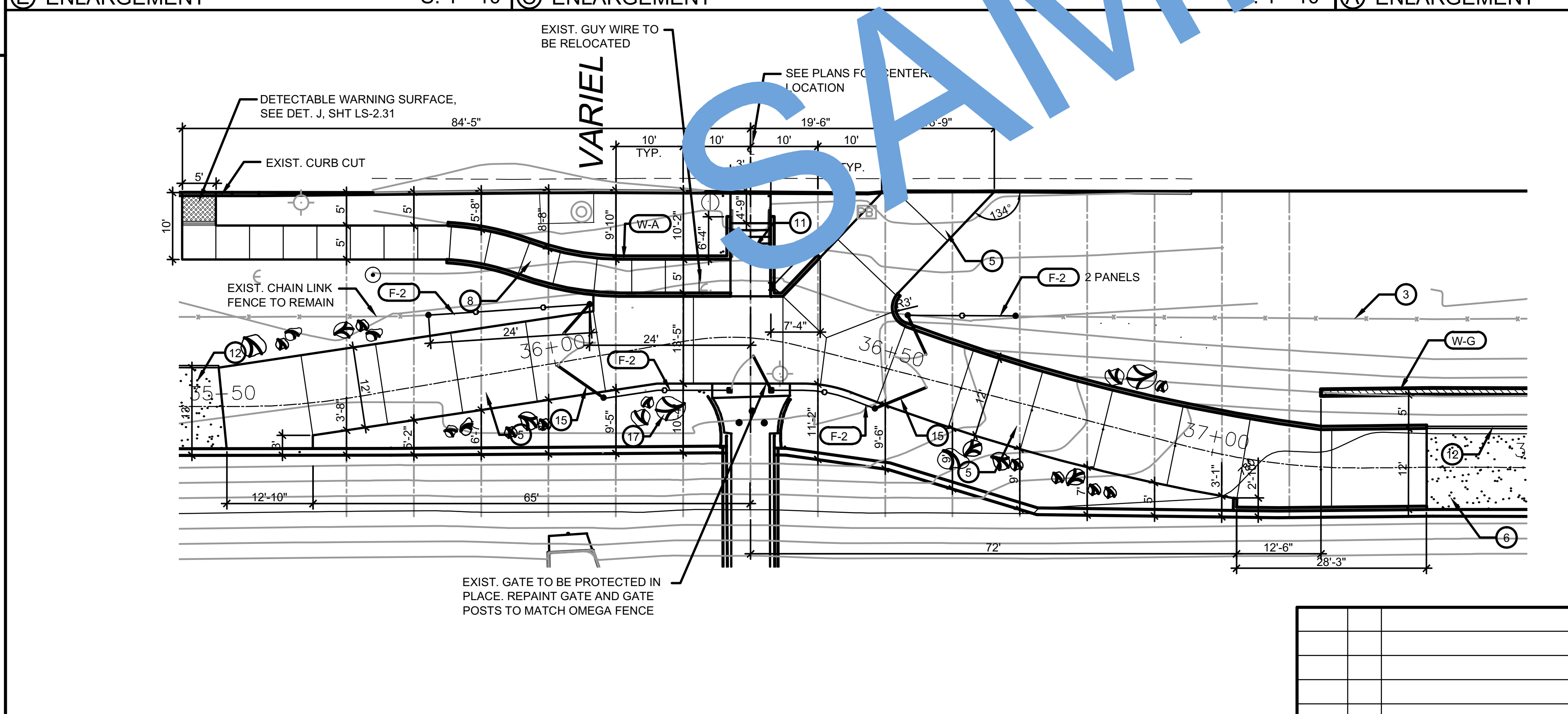

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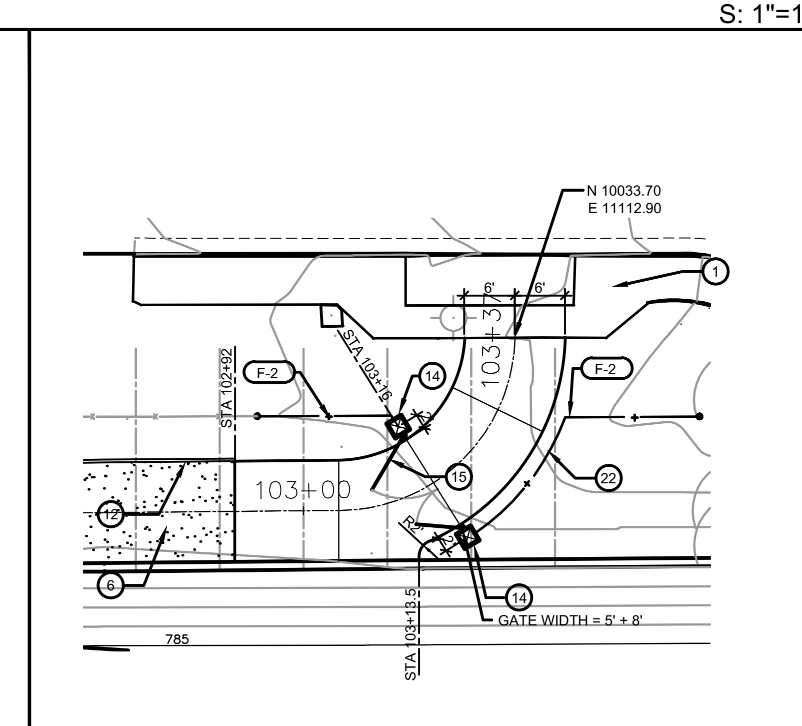

Ⓑ ENLARGEMENT S: 1"=10'

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT
JOHN DOE
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EXP 1/1/2012
STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT DATE

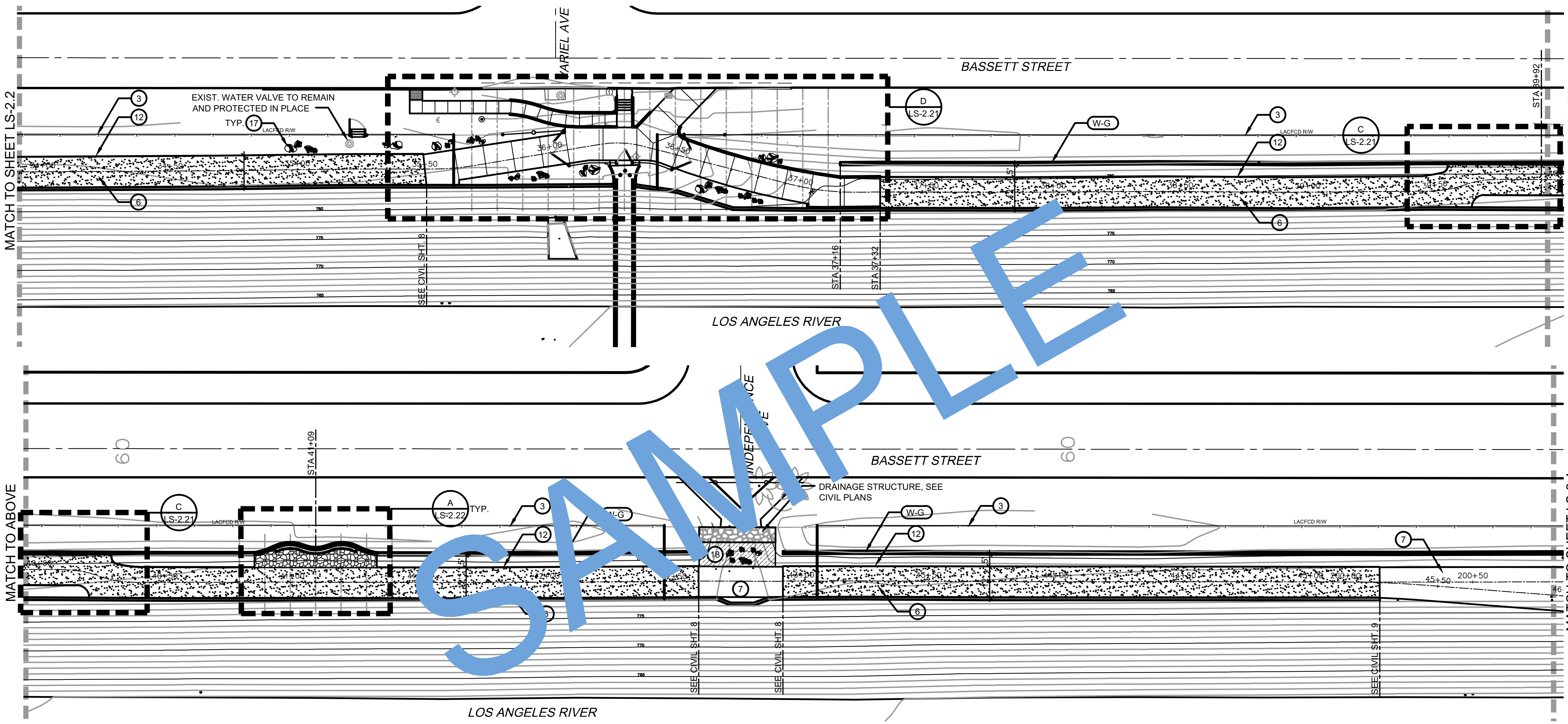
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

LOS ANGELES RIVER HEADWATERS PROJECT

PLAN ENLARGEMENTS

LS-2.21

DATE 10/6/2011 | PCA EF1931013W | FCC0001174 | SHEET 5 OF 16



CONSTRUCTION NOTES:

1. PLANS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY PERCEIVED DISCREPANCY BEFORE THE START OF CONSTRUCTION.
2. ALL REMOVALS SHALL BE DISPOSED OF OFF-SITE OR AS DIRECTED BY THE ENGINEER IN A LEGAL MANNER TO A COUNTY APPROVED LOCATION.
3. ALL SIGNS ON EXISTING GATE(S) AND FENCE(S) SHALL BE REMOVED, SALVAGED AND REINSTALLED AS DIRECTED BY THE ENGINEER.
4. PLANTER EDGE SHALL BE 5' CLEAR OF EACH SIDE OF CHANNEL EXPANSION JOINTS; ADJUST LOCATION IN FIELD.

CONSTRUCTION LEGEND:

- EXISTING TREE TO REMAIN
- EXISTING PALM TO REMAIN

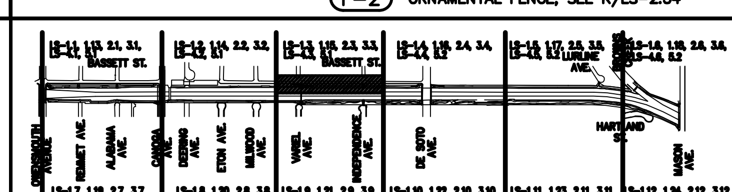
- W-A CURB WALL TYPE A, SEE G/LS-2.33
- W-B CURB WALL TYPE B, SEE G/LS-2.33
- W-C CURB WALL TYPE C, SEE G/LS-2.33
- W-D RETAINING WALL TYPE D, SEE L/LS-2.32
- W-E RETAINING WALL TYPE E, SEE L/LS-2.32
- W-F RETAINING WALL TYPE F, SEE L/LS-2.32
- W-G RETAINING WALL TYPE G, SEE L/LS-2.32
- F-1 5' HIGH CHAINLINK FENCE, SPPWC STANDARD PLAN 600-3
- F-2 ORNAMENTAL FENCE, SEE K/LS-2.34

1. EXISTING PCC PAVING TO REMAIN, PROTECT IN PLACE.
2. EXISTING CMU WALL TO REMAIN, PROTECT IN PLACE.
3. EXISTING CHAIN LINK FENCE TO REMAIN, PROTECT IN PLACE.
4. FLAGSTONE PAVING, SEE H/LS-2.31
5. PCC VEHICULAR PAVING, SEE A/LS-2.31
6. DECOMPOSED GRANITE PAVING, SEE E/LS-2.31
7. PCC PAVING, SEE CIVIL
8. PCC WALKWAY, SEE A/LS-2.31
9. PCC PEDESTRIAN RAMP, REFER TO STATE OF CA. STANDARD PLANS RSP A88A, CASE F
10. PCC PEDESTRIAN BRIDGE AND GUARDRAIL, SEE K/LS-2.35
11. PCC STAIRS AND HANDRAIL, SEE F/LS-2.35
12. PCC EDGING, SEE G/LS-4.13
13. DRAINAGE CHANNEL, SEE A/LS-2.33
14. PILASTER, SEE I/LS-2.33
15. VEHICULAR DOUBLE SWING GATE, SEE I/LS-2.33
16. PEDESTRIAN SINGLE SWING GATE, SEE E/LS-2.34
17. BOULDERS, SEE I/LS-4.13
18. BIOSWALE, SEE H/LS-2.37
19. PEDESTRIAN BRIDGE, SEE STRUCTURAL PLANS
20. PCC VEHICULAR BRIDGE, SEE STRUCTURAL PLANS
21. GUARDRAIL, SEE B/LS-2.37
22. INTERPRETATIVE SIGN, SEE SITE FURNISHING PLANS & H/LS-2.36
23. STEEL BOLLARD, SEE K/LS-2.36
24. STEEL GATE POST, SEE L/LS-2.33
25. BIOSWALE, SEE I/LS-2.37

0 10' 20' 40' 60'

SCALE: 1"=20'

NORTH



DATE	MK	DESCRIPTION
		REVISIONS

REGISTERED LANDSCAPE ARCHITECT
JOHN DOE
NO. 12345
EXP. 1/1/2012
STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT DATE

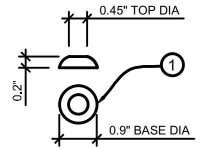
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

LOS ANGELES RIVER HEADWATERS PROJECT

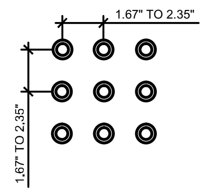
CONSTRUCTION PLAN

LS-2.3

DATE 10/6/2011 | PCA EF1931013W | FCC0001174 | SHEET 6 OF 16



RAISED TRUNCATED DOME ENLARGEMENT
SCALE: FULL SIZE



RAISED TRUNCATED DOME PATTERN (IN-LINE)

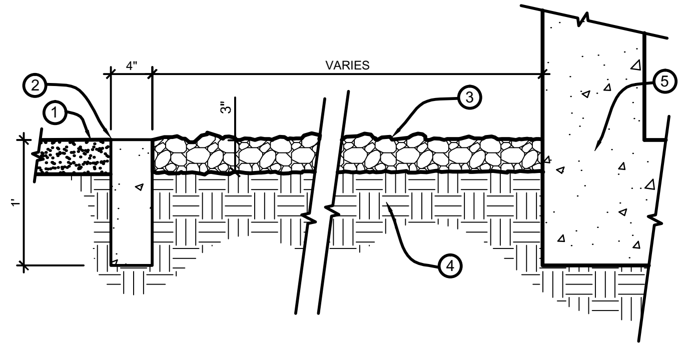
LEGEND:

1. RAISED TRUNCATED DOME

NOTES:

1. INSTALL PER STANDARD PLAN RSP A88A AND A88B OF STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
2. DETECTABLE WARNING SURFACE SHALL CONFORM TO THE REQUIREMENTS IN THE SPECIAL PROVISIONS.
3. THERE SHALL BE A MINIMUM OF 70 PERCENT CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE. THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE DETECTABLE SURFACE.

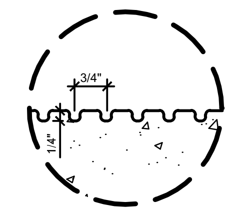
(J) DETECTABLE WARNING SURFACE — S: 6"=1'-0"



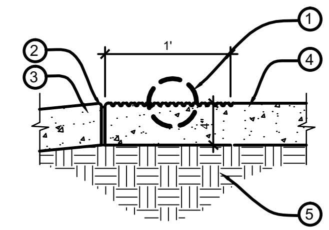
LEGEND:

1. D.G. PAVING. SEE DETAIL I SHT. LS-2.31.
2. PCC EDGING (520-C-2500).
3. 3/4" Ø TO 2-1/2" Ø CRUSHED ROCK PAVING.
4. 90% COMPACTED SUBGRADE.
5. CURB WALL OR RETAINING WALL.

(G) CRUSHED ROCK PAVING — S: 1/2"=1'-0"



ENLARGEMENT

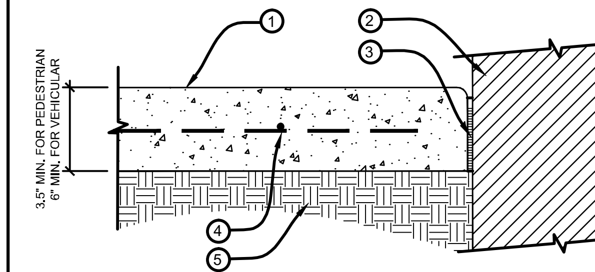


LEGEND:

1. SEE ENLARGEMENT ABOVE
2. EXPANSION JOINT
3. CURB RAMP
4. ADJA AVING
5. ACTED SUBGRADE

NOTE:
NOT EXCEED OPE IN ANY ECTION

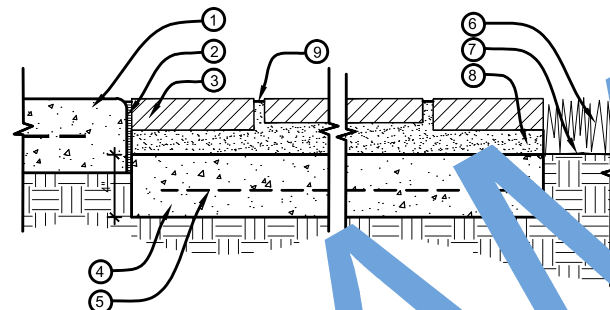
(D) PAVEMENT GR VING — S: 2"=1'-0"



LEGEND:

1. CONCRETE PAVING (520-C-2500).
2. CURB / WALL, SEE PLAN
3. EXPANSION JOINT, SEE DET. B THIS SHEET
4. VEHICULAR: #4 REBAR @ 16"O.C. BOTH WAYS PEDESTRIAN: #3 REBAR @ 24"O.C. BOTH WAYS
5. COMPACTED SUBGRADE

(A) PCC PAVING — S: 3"=1'-0"

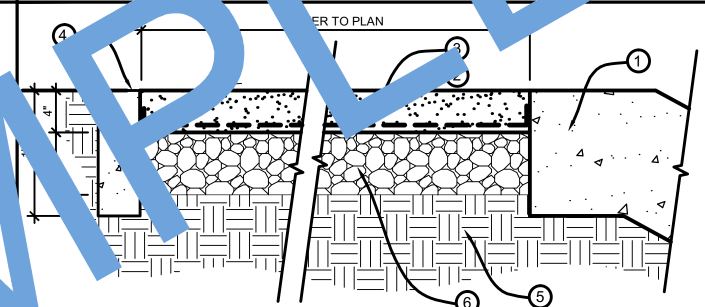


LEGEND:

1. CONCRETE ING
2. EXPANSIO INT, SEE DETAIL B THIS SHEET
3. 1" TO 1.5" TH NISH SCHEDULE
4. 3" THICK 520-C-2500 CONCRETE BASE
5. 4"X4", 10 GAUGE WELDED WIRE MESH
6. NTING AREA
7. SH GRADE
8. TO 1" THICK TYPE S MORTAR
9. MIN. TO 3/4" MAX. GROUT JOINT, SEE FINISH SCHEDULE FOR COLOR

(K)

(H) FLAGSTONE PAVING — S: 3"=1'-0"

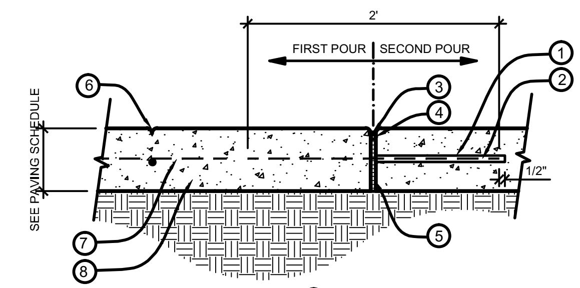


FOR D.G. PATH WITH FUTURE BICYCLE LANE
(SOUTH SIDE OF CHANNEL)

LEGEND:

1. EXISTING CONCRETE CHANNEL. PROTECT IN PLACE.
2. DECOMPOSED GRANITE. FINISH GRADE SHALL BE 1/2" BELOW ADJACENT PAVEMENT/SURFACE. BINDER/STABILIZER TO BE ADDED PER SPECIAL PROVISION. SLOPE TO DRAIN AT 2%.
3. WEED BARRIER. FABRIC TO BE POLYTHYLENE FILM (TYP).
4. PCC EDGING (520-C-2500).
5. 95% COMPACTED SUBGRADE.
6. 6" CRUSHED MISCELLANEOUS BASE (CMB).

(E) D.G. PAVING — S: 1-1/2"=1'-0"



LEGEND:

1. PLASTIC DOWEL SLEEVE
2. 1/2" DIA. SMOOTH DOWEL @ 16" O.C.
3. JOINT SEALANT
4. FOAM BACKER
5. PRE-FORMED EXPANSION JOINT
6. 1/2" RADIUS WEAKENED PLANE JOINT
7. #4 REBAR @ 16" O.C. BOTH WAYS
8. CONCRETE PAVING

NOTES:

A. ALIGN DOWEL WITH REINFORCEMENT BAR WHERE POSSIBLE
B. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTUCTED AT REGULAR INTERVALS NOT EXCEEDING 6' IN WALKS AND 10' IN CURBS.
C. PROVIDE EXPANSION JOINTS AT BCR AND ECR IN CURB, GUTTER, SIDEWALK, AND AROUND UTILITY POLES AND CONCRETE FOUNDATIONS LOCATED IN SIDEWALK AREAS.

(B) EXPANSION JOINT — NTS

(F)

(C)

(L)

(I)

DATE	MK	DESCRIPTION

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PROJECT LANDSCAPE ARCHITECT — DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

LOS ANGELES RIVER HEADWATERS PROJECT

CONSTRUCTION DETAILS

DATE 10/6/2011	PCA EF1931013W	FCC0001174	LS-2.31 SHEET 7 OF 16

Maximum Applied Water Allowance (MAWA)

MAWA = (ETo) (0.62) [(0.7 x LA) + (0.3 x SLA)]

MAWA= Maximum Applied Water Allowance
ETo = Reference Evapo……
0.62 = Conversion factor (to gallons per square foot)
0.7 = ET Adjustment Factor (ETAF)
LA = Landscaped Area includes ….
0.3 = Additional ET Adjustment Factor for Special Landscape Area (1.0 - 0.7 = 0.3)
SLA - Portion of Landsape Area identified as Special Landscape Area - see Definitions (square feet)

Applicant to fill in boxes below.

52.0	ETo (reference Evapotranspiration from Appendix A (inches per year)
134,634	Landscape Area including Special Landscape Area/SLA (square feet)
0	Portion of Landscape Area identified as Special Landscape Area (square feet)

	ETo		ETAF		AREA (s,f,)		Conversion		MAWA
MAWA for LA	52.0	x	0.7	x	134,634	x	0.62	=	3,038,420
MAWA for SL/	52.0	x	0.3	x	0	x	0.62	=	0
Total MAWA									**3,038,420** (gallons per year)

Estimated Total Water Use (ETWU)

ETWU = (ETo) (0.62) [(PF x HA) / IE + SLA)]

ETWU = Estimated …
ETo = Reference Evapo……
0.62 = Conversion factor (to gallons per square foot)
PF = Plant Factor from WUCOLS (see Definitions)
HA = Hydrozone Area - planting area separated to high, moderate, low and very low water usea areas (square feet)
*IE = Irrigation Efficiency - see Chart ** (minimum 0.71)*
SLA - Portion of Landsape Area identified as Special Landscape Area - see Definitions (square feet)

ETWU arrived from Hydrozone Table below= **1,545,163** gallons per year

HYDROZONE TABLE

hydrozone	plant water use type	plant factor (PF) (see table B)	hydrozone area (HA) (square ft.)	PFxHA (square ft.)	% of landscape area (LA)	irrigation efficiency IE	Hydro-zone ETWU
A1	low water	0.2	1,250	250	0.93%	0.71	11,352
A2	low water	0.2	891	178	0.66%	0.71	8,092
A3	low water	0.2	1,437	287	1.07%	0.71	13,050
A4	mod water	0.6	600	360	0.45%	0.90	12,896
A5	low water	0.2	680	136	0.51%	0.71	6,176
A6	low water	0.2	2,170	434	1.61%	0.71	19,707
A7	low water	0.3	896	269	0.67%	0.80	10,833
A8	low water	0.2	1,291	258	0.96%	0.71	11,724
F12	low water	0.2	1,[illegible]	325	1.21%	0.71	14,767
F13	low water	0.2	1,2[illegible]	251	0.93%	0.71	11,388
F14	mod water	0.6	900	540	0.67%	0.90	19,344
F15	low water	0.2	823	165	0.61%	0.71	7,474
F16	low water	0.2	981	196	0.73%	0.80	7,907
F17	low water	0.2	1,149	230	0.85%	0.71	10,435
F18	mod water	0.6	475	285	0.35%	0.90	10,209
F19	low water	0.2	1,079	216	0.80%	0.71	9,799
F20	low water	0.2	1,076	215	0.80%	0.71	9,772
F21	low water	0.2	1,434	287	1.07%	0.71	13,023
F22	low water	0.2	670	134	0.50%	0.80	5,400
					Subtotal ETWU		1,545,163
		TOTAL	134,634		100%		1,545,163

IRRIGATION SCHEDULE (Peak Summer Schedule)

PROJECT NAME: LOS ANGELES RIVER HEADWATERS
PROJECT LOCATION: CANOGA PARK
TOTAL LANDSCAPE AREA: 184,950 sq.ft.

ETo: (enter area)

jan.	feb.	mar.	april	may	june	july	aug.	sept.	oct.	nov.	dec.	annual
2.0	2.7	3.5	4.6	5.5	5.9	7.3	6.7	5.3	3.9	2.6	2.0	52.0

IRRIGATION SCHEDULE FOR SUMMER (JULY): (use columns as applicable to the project)

valve no.	valve size	flow (GPM)	irr. effcy. (IE)	irr. type	area (sq.ft.)	plant type	precip rate (in/min.)	plant factor (PF)	daily runtime (min.)	nos. of cycles per day	individ. runtimes (min.)	frequency per month	monthly runtime (min.)	total ETWU Gallons
A1	1"	10	0.71	spray	884	shrub	1.80	0.2	9	1	9	8	68.5	1127.0
A2	1"	7	0.90	subsurface	56	[illegible]	0.25	0.2	49	6	8	8	389.3	56.3
A3	1"	27	0.71	spray	1453	[illegible]	1.80	0.2	9	1	9	8	68.5	1852.5
A3	1"	27	0.71	spray	1453	shrub	[illegible]	0.2	9	1	9	8	68.5	1852.5
A4	1"	3	0.90	subsurface	108	tree	[illegible].25	0.2	49	6	8	8	389.3	108.6
A5	1"	2	0.90	subsurface	72	tree	0.25	0.2	49	6	8	8	389.3	72.4
A6	1"	2	0.90	subsurface	72	tree	0.25	0.2	49	6	8	8	389.3	72.4
A7	1.5"	29	0.71	spray	380	shrub	1.80	0.2	9	1	9	8	68.5	484.5
A8	1"	4	0.90	subsurface	32	tree	0.25	0.2	49	6	8	8	389.3	32.2
E40	1"	2	0.90	subsurface	72	tree	0.25	0.2	49	6	8	8	389.3	72.4

Total Runtime per day 5.3 Hours | Total Montly ETWU 3878.4

Pressure Loss Calculation

POC 'A' STATIC PRESSURE: 114 PSI VALVE: A6 GPM: 41.26

DESCRIPTION	PSI LOSS
REDUCED PRESSURE 1 1/2" BACKFLOW	12.0
1 1/2" WATER METER	3
1 1/2" MASTER VALVE	2.4
1 1/2" FLOW METER	.5
1 1/2" REMOTE CONTROL VALVE	3.5
2" MAINLINE (267 LF)	3.39
MAINLINE FITTINGS @ 10%	.339
LATERAL LINE (96 LF)	3.86
LATERAL FITTINGS @ 23%	.88
COMPONENT LOSS TOTAL	29.87
REQUIRED AT HEAD	30
COMPONENT LOSSES PLUS HEAD LOSS	59.87
10% SAFETY FACTOR	6
TOTAL PRESSURE REQUIRED	65.87
STATIC PRESSURE	114
PRESSURE LOSS/GAIN FROM ELEVATION CHANGE	0
TOTAL AVAILABLE PRESSURE	114
RESIDUAL PRESSURE	48.13

TOTAL PRESSURE ABOVE THE MINIMUM REQUIRED
PRESSURE REGULATOR NEEDED

Table A - PF (Plant Factor)

Cool Season Turf*	0.8	
Warm Season Turf**	0.6	
High Water Using Plants	0.8	can [illegible]etwee[illegible] 0.9
Moderate Water Using Plants	0.5	can [illegible]ween [illegible]6
Low Water Using Plants	0.2	can be[illegible]een 0.1 -
Very Low water Using Plants	0.1	below 0.

* species include tall fescue, ryegr[illegible] bentgrass [illegible] tucky bluegrass
** sp[illegible]de bermudagrass, z[illegible]grass, st. aug[illegible]rass

Table B - IE (Irrigation Efficienc

Pop-up spray heads	0.71
Rotor heads	0.75
Micro[illegible]	0.75
	0.8
Drip emitters	0.85
Subsurface irrigation	0.9

note: adjustment can be m[illegible] based on exact type of equipment

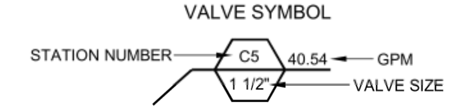
IRRIGATION LEGEND

SYMBOL Q H F V	DESCRIPTION	MANUFACTURER	MODEL	GPM Q	GPM H	GPM F	VAN's	RAD.	PSI	DET / SHT #
	12" POP-UP SHRUB SPRAY	RAINBIRD OR APPROVED EQUAL	1812-SAM-PRS-MPR5	0.1	0.2	0.41		5'	30	C / LS-3.13
	12" POP-UP SHRUB SPRAY	RAINBIRD OR APPROVED EQUAL	1812-SAM-PRS-MPR8	0.26	0.52	1.05	.72 - 1.7	8'	30	C / LS-3.13
	12" POP-UP SHRUB SPRAY	RAINBIRD OR APPROVED EQUAL	1812-SAM-PRS-MPR10	0.39	0.79	1.58	.75 - 2.6	10'	30	C / LS-3.13
	12" POP-UP SHRUB SPRAY	RAINBIRD OR APPROVED EQUAL	1812-SAM-PRS-MPR12	0.65	1.3	2.60	.59 - 2.36	12'	30	C / LS-3.13
	12" POP-UP SHRUB SPRAY	RAINBIRD OR APPROVED EQUAL	1812-SAM-PRS-MPR15	0.92	1.85	3.7	.92 - 3.7	15'	30	C / LS-3.13
LS RS	12" POP-UP SHRUB SPRAY	RAINBIRD OR APPROVED EQUAL	1812-SAM-PRS-15 LC/RC			.61		4'x15'	30	C / LS-3.13
SS	12" POP-UP SHRUB SPRAY	RAINBIRD OR APPROVED EQUAL	1812-SAM-PRS-15SST			1.21		4'x30'	30	C / LS-3.13
	12" POP-UP STREAM BUBBLER	[illegible]INBIRD [illegible]ROVED EQUAL	1812-SAM-PRS-MPR5CST-B			.5		5'	30	C / LS-3.13
	SHRUB BUBBLER ON RISER	RAINBIRD OR APPROVED EQUAL	1401			.25		1-3'	30	H / LS-3.13
	TREE ROOT WATERING S[illegible]M	RAINBIRD OR APPROVE[illegible] EQUAL	RWS-B-1402			.5		1-3'	30	B / LS-3.13
	REMOTE CONTROL VALVE	R[illegible]D [illegible]ED EQUAL	PESB SERIES WITH PRS-DIAL (SIZE PER PLAN)							D / LS-3.13
	QUICK COUPLER	[illegible]AINBIRD OR APPROVED EQUAL	33 DLRC ¾" WITH LOCKING COVER							A / LS-3.13
	FLU[illegible]ALVE	N.A.	SEE SPECIFICATIONS							J / LS-3.14
	BACKF[illegible] PREVENTER	FEBC[illegible] OR APP[illegible]AL	825Y 1 1/2" W/ WYE FILTER & STEEL ENCLOSURE							I / LS-3.13
	[illegible]TE VA[illegible]	[illegible]CO [illegible]PROVED EQUAL	T-133-K (LINE SIZE)							G / LS-3.13
	[illegible]STER VA[illegible]	GRISWOLD OR APPROVED EQUAL	2260 1 ½" NORMALLY OPEN							F / LS-3.13
F	[illegible]OW METER	CALSENSE OR APPROVED EQUAL	FM-1 1/2" FLOW METER							F / LS-3.13
	PRESSURE REGU[illegible]OR	WILKINS OR APPROVED EQUAL	500 1 1/2" REGULATOR							I / LS-3.13
	ELECTRIC POINT OF CONNECTION	N.A.	PER POWER COMPANY (LADWP)							N.A.
	RAIN SENSOR	RAINBIRD OR APPROVED EQUAL	RSD-CEX (POLE MOUNTED)							N / LS-3.14
E #	ELECTRIC METER AND ENCLOSURE	N.A.	METER PER POWER COMPANY (LADWP), VIT MPS-A16-42K ENCLOSURE							1 / E-2.1
C #	CONTROLLER AND ENCLOSURE	RAINBIRD OR APPROVED EQUAL	ESP-LXME-F, ETM-LXM (TO BE HOUSED IN ELECTRICAL PEDESTAL)							1 / E-2.1
W #	WATER METER	N.A.	PER WATER COMPANY (LADWP)							N.A.
———	LATERAL LINE	WESTERN LASCO OR APPROVED EQUAL	SCHEDULE 40 PVC - SIZE PER PLAN							E / LS-3.13
- - -	MAIN LINE	WESTERN LASCO OR APPROVED EQUAL	SEE SPECIFICATIONS - SIZE PER PLAN							E / LS-3.13
= = =	PIPE SLEEVE / CONDUIT IRRIGATION LINES & CONTROL WIRES	WESTERN LASCO OR APPROVED EQUAL	SEE SPECIFICATIONS/SLEEVING CHART							E / LS-3.13
PB	PULL BOX	N.A.	SEE SPECIFICATIONS							L / LS-3.14

IRRIGATION NOTES:

1. WATER SERVICE INFORMATION IS AVAILABLE THROUGH LOS ANGELES DEPARTMENT OF WATER AND POWER. CONTACT AMGAD FARAG AT (213) 367-0328
2. SEE SHEET LS-3.13 & LS-3.14 FOR IRRIGATION DETAILS.
3. SEE SHEET LS-0.2 FOR IRRIGATION AND ELECTRICAL INSTALLATION NOTES.
4. WORK SHOWN ON THE IRRIGATION PLANS IS DIAGRAMMATIC. LOCATE NEW IRRIGATION LINES, VALVES AND EQUIPMENT IN PLANTING AREAS. AVOID LOCATING LINES WHERE MAJOR TREES ARE PROPOSED.
5. FINAL LOCATION OF THE BACKFLOW PREVENTOR, POC EQUIPMENT, AND CONTROLLER SHALL BE APPROVED IN FIELD BY COUNTY OF LOS ANGELES ENGINEER/REPRESENTATIVE.
6. PRECISE LOCATION OF MAINLINE SHALL BE APPROVED IN FIELD BY COUNTY OF LOS ANGELES ENGINEER/REPRESENTATIVE.
7. VALVE BOX'S SHALL BE INSTALLED WITHIN 15' FROM EDGE OF CHANNEL WALL, CONTRACTOR TO COORDINATE FINAL LOCATION WITH COUNTY OF LOS ANGELES ENGINEER/REPRESENTATIVE.
8. ELECTRICAL PEDESTAL SHALL BE INSTALLED BY CONTRACTOR PER THE LADWP SPECIFICATIONS. IRRIGATION CONTROLLER SHALL BE HOUSED IN ELECTRICAL SERVICE PEDESTAL.
9. PROVIDE SEPARATE WIRE COLORS FOR EACH IRRIGATION VALVE.
10. PIPE SLEEVE SHALL ALLOW FOR IRRIGATION PIPING AND RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING. EXTEND NEW SLEEVES 18 INCHES BEYOND EDGES OF PAVING.
11. THE CONTRACTOR SHALL ALLOW FOR MINOR ADJUSTMENTS TO BUBBLER HEADS WITH NO CHARGE TO THE COUNTY OF LOS ANGELES.
12. PROVIDE TWO EXTRA CONTROL WIRES AT THE ENDS OF EACH ZONE FOR FUTURE EXPANSION.
13. PAINT BACKFLOW PREVENTOR GREEN FOR THEFT PREVENTION. COORDINATE COLOR WITH COUNTY ENGINEER/REPRESENTATIVE.

VALVE SYMBOL



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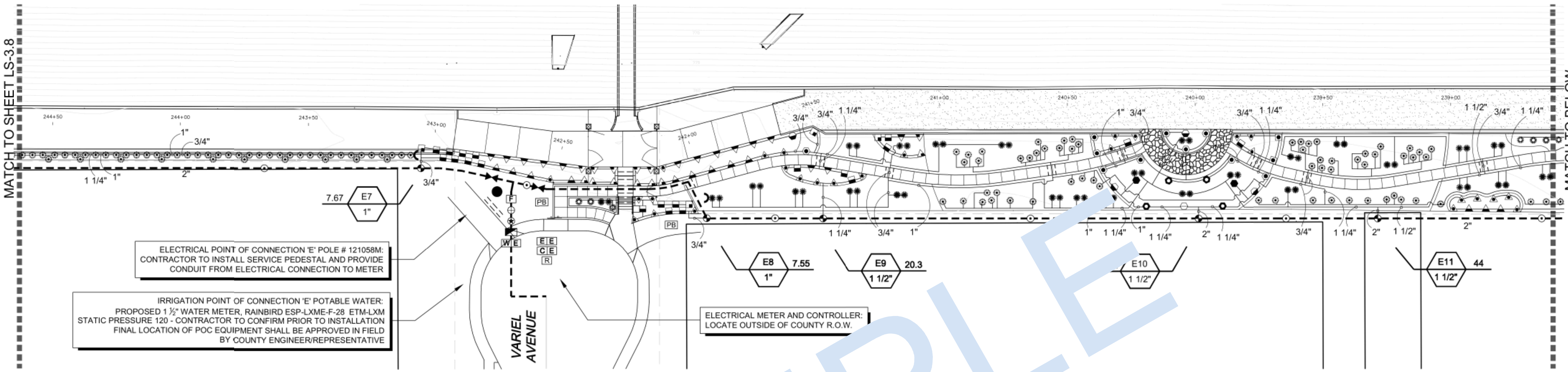
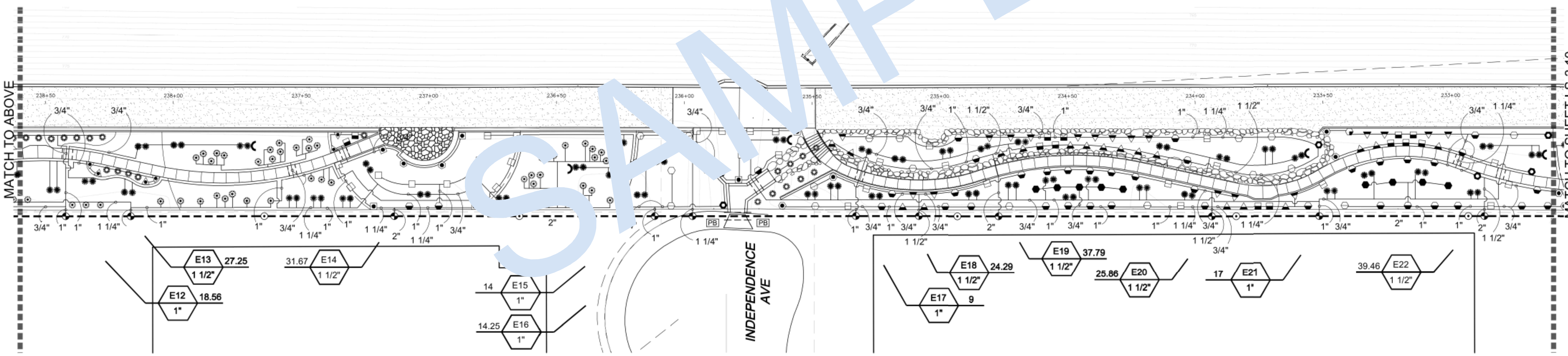
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

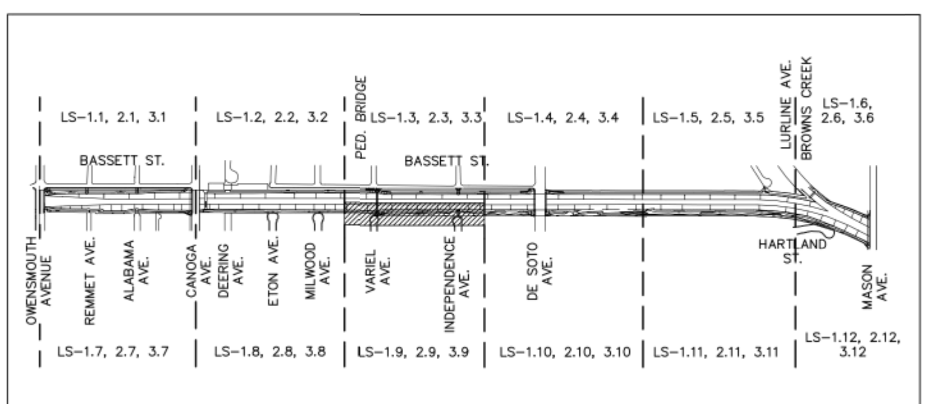
LOS ANGELES RIVER HEADWATERS PROJECT
IRRIGATION LEGEND AND NOTES

LS-3.0

DATE 10/6/2011 | PCA EF1931013W | FCC0001174 | SHEET 8 OF 16







KEYMAP NTS

NORTH

0 10' 20' 40' 60'

SCALE: 1"=20'

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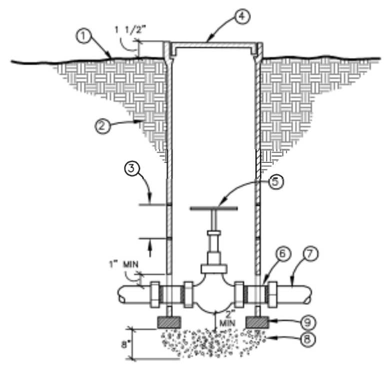
LOS ANGELES RIVER HEADWATERS PROJECT

IRRIGATION PLAN

LS-3.9

DATE 10/6/2011 | PCA EF1931013W | FCC0001174 | SHEET 9 OF 16



LEGEND:

1. FINISH GRADE
2. COMPACTED SUBGRADE
3. BREAK-OFF GROOVES
4. VALVE BOX-LID TO BE HINGED AND LOCKABLE (FOR NON-POTABLE USE: PURPLE VALVE BOX AND LID LABELED WITH "RECYCLED WATER DO NOT DRINK")
5. GATE VALVE W/ HANDWHEEL LINE SIZE
6. SCH. 80 P.V.C. NIPPLES, TYP.
7. PVC MAINLINE (FOR NON-POTABLE USE PURPLE PIPE WITH WORDS "RECYCLED WATER DO NOT DRINK")
8. 3/4" CRUSHED ROCK 8" DEPTH
9. COMMMON RED BRICK, ONE AT EACH CORNER (4 REQUIRED)

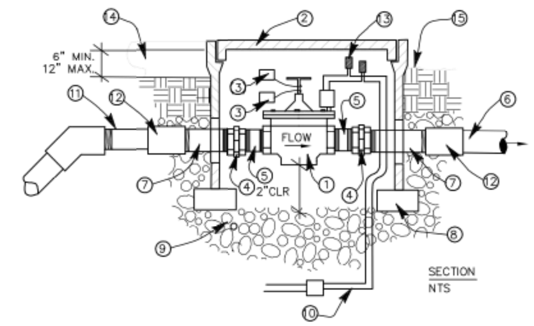
NOTES:

FOR 2 1/2 " OR LARGER GATE VALVE, USE CAST IRON FLANGE ADAPTOR BETWEEN G.V.& P.V.C. SUPPLY.

(G) GATE VALVE — NTS

LEGEND:

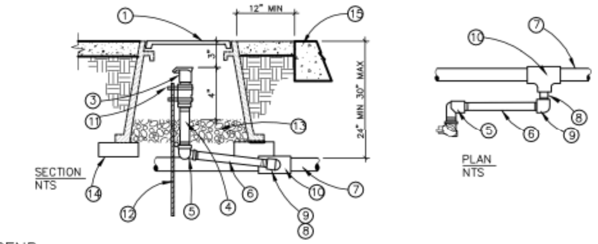
1. ELECTRIC CONTROL VALVE. SEE SPECIAL PROVISIONS.
2. VALVE BOX-LID TO BE HINGED AND LOCKABLE (FOR NON-POTABLE USE: PURPLE VALVE BOX AND LID LABELED WITH "RECYCLED WATER")
3. IDENTIFICATION TAG PER SPECIAL PROVISIONS. NUMBER TO MATCH DRAWINGS (FOR NON- POTABLE INCLUDE ADDITIONAL PLASTIC LABEL IDENTIFICATION TAG ATTACHED WITH NYLON TIE LABELTO READ: "RECYCLED WATER DO NOT DRINK" IN ENGLISH AND SPANISH)
4. UNION (TYP.)
5. PVC SCHEDULE 80 T.O.E. NIPPLE (THREADED TWO END)
6. PVC PIP TO IRRIGATION HEADS. ANGLE PIPE TO SPECIFIED DEPTH WITH 45 DEGREE ELBOWS
7. 6" BRASS THREAD NIPPLE.
8. COMMON RED BRICK, ONE AT EACH CORNER (4 REQUIRED) TYP.
9. 3/4" CRUSHED ROCK - 8" DEEP AND 2" CLEAR BELOW VALVE.
10. CONTROL COMMON WIRES FROM CONTROLLER.
11. PVC MAINLINE (FOR NON-POTABLE USE PURPLE PIPE WITH WORDS "RECYCLED WATER DO NOT DRINK")
12. PVC FEMALE ADAPTER (PVC PURPLE FEMALE ADAPTER)
13. WIRE CONNECTOR PER SPECIAL PROVISIONS TYP.
14. ADJACENT FINISH SURFACE OF PAVEMENT. TOP OF BOX TO BE FLUSH W/ PAVEMENT.
15. ADJACENT FINISH GRADE (TOP OF BOX TO BE 1" ABOVE GRADE FOR LAWN, 2" ABOVE GRADE FOR GROUND COVER/SHRUB AREA).



NOTES:

1. WHEN VALVE BOXES ARE CLUSTERED, PROVIDE 1' MIN. CLEARANCE BETWEEN BOXES.
2. PROVIDE VALVE WITH SEPARATE CONNECTION TO MAINLINE. INSTALL NO MULTIPLE ASSEMBLIES.
3. INSTALL VALVE BOX WITH HINGED COVER "OPENING TOWARD DOWNSTREA[illegible]VE IN ORDER TO PROVIDE ACCESS TO FLOW CONTROL FEATURE OF CON[illegible]VE.
4. ALL VERTICAL CHANGES IN MAINLINE PIPE DIRECTION SHALL BE [illegible] THE USE OF 45 DEGREE ELBOWS.
5. INSTALL GALVANIZED WOVEN MESH (1/4" SIEVE SIZE) BE[illegible]V BOX AND CRUSHED ROCK. WRAP FABRIC UP SIDE OF BOX (3" [illegible]

(D) REMOTE CONTROL VALVE — NTS



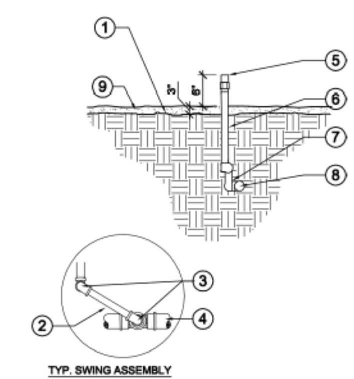
LEGEND:

1. VALVE BOX-LID TO BE HINGED AND LOCKABLE
3. QUICK COUPLING VALVE 33-DRC
4. SCHEDULE 80 PVC - LENGTH AS REQUIRED.
5. SCHEDULE 40 PVC STREET ELBOW.
6. SCHEDULE 80 PVC NIPPLE - 6" MINIMUM, 12" MAXIMUM LENGTH.
7. PVC MAINLINE
8. PVC SCHEDULE 80 THREADED NIPPLE - 2" LENGTH)
9. SCHEDULE 80 PVC THREADED ELBOW
10. PVC SCHEDULE 80 SLIP TEE
11. STAINLESS STEEL COMPRESSION CLAMP (2 REQUIRED)
12. 24" MINIMUM LENGTH #4 REBAR STAKE SECURED AT BODY ONLY
13. 3/4" CRUSHED ROCK - 8" DEEP
14. COMMON BRICK, ONE AT EACH CORNER (4 REQUIRED) TYP
15. CURB, WALK OR OTHER HARDSCAPE FEATURE

NOTE:

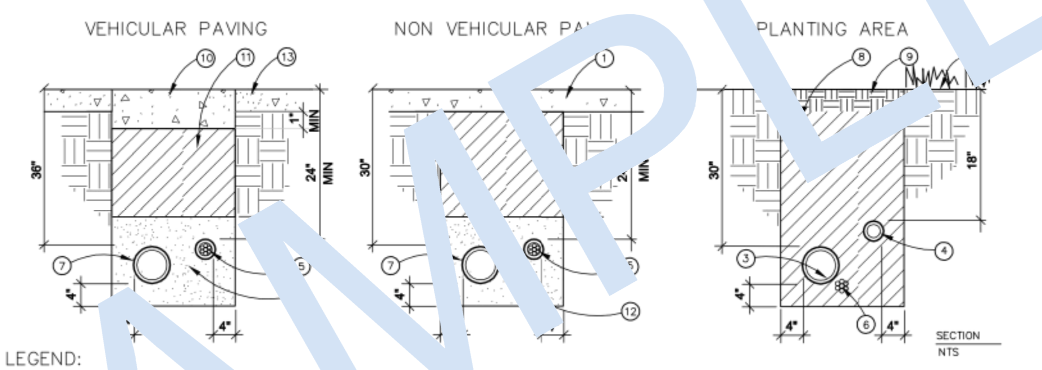
1. VALVE BOX TO BE SET SQUARE AND FLUSH NEXT TO CURB OR SIDEWALK
2. FOR NON-HARDSCAPE AREAS, SET TOP OF VALVE BOX 2" ABOVE FINISH GRADE

(A) QUICK COUPLER — NTS



1. FINISH GRADE
2. SWING JOINT
3. 90° PVC STREET ELLS
4. PVC LATERAL LINE
5. BUBBLER HEADS - ½" FIP CONNECTION
6. SCH 80 12" RISER
7. SxSxT TEE
8. PVC PIPE
9. 3" MULCH COVER

(H) BUBBLER ON RISER — NTS



LEGEND:

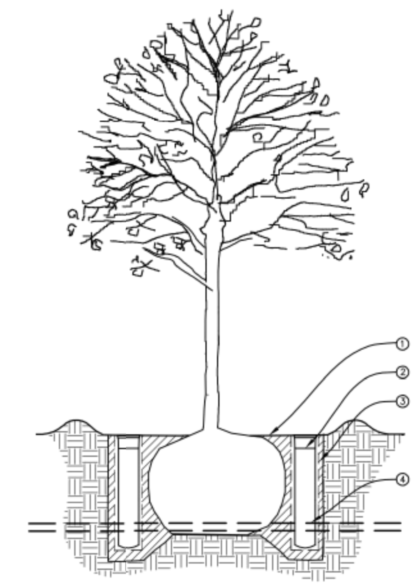
1. PAVING
FINISH GRADE
MAINLINE (FO[illegible]N-PO[illegible]SE PURPLE PIPE WITH [illegible]CLED WAT[illegible] DO NOT DRINK")
4. PVC LATERAL LINE [illegible] NON-POTABLE USE PURPLE PIPE W[illegible] WORDS [illegible] WATER [illegible]OT DRINK")
[illegible]ES OR [illegible] CABLE IN CONDUIT
6. CONTROL [illegible] OR [illegible] CABLE
7. SLEEVE FO[illegible]AINLINE [illegible]D/OR LATERAL LINE

[illegible] FINE GRANULAR BACKFILL
[illegible]TOPSOIL
10. AC PAVEMENT (C2-PG 64-10) OR PCC. (560-C-3250) THICKNESS TO MATCH EXISTING PAVEMENT PLUS 1". MINIMUM THICKNESS SHALL BE 4".
11. TRENCH BACKFILL SLURRY (270-E-500)
12. WASHED SAND
13. EXISTING AC OR PCC PAVEMENT

NOTES:

1. TAPE AND BUNDLE 24V. WIRES TO MAINLINE @ 10' INTERVALS.
2. MINIMUM DEPTH OF 24V. WIRING SHALL BE 24" BELOW GRADE.
3. TRENCH WIDTH ALLOW 4" MIN. CLEARANCE BETWEEN PARALLEL PIPES.
4. SNAKE PIPES FROM SIDE TO SIDE WITHIN TRENCH TO ALLOW FOR MOVEMENT.
5. TIE A 20" LOOP IN ALL WIRING AT CHANGES OF DIRECTION. UNTIE PRIOR TO BACKFILLING TRENCHES.

(E) [illegible]RENCH DETAIL — NTS



NOTES:

1. FINISH GRADE
2. ROOT WATERING SYSTEM BY RAINBIRD OR EQUAL
   USE RWS-M-BCG FOR 15 GAL TO 24" BOX TREE
   USE RWS-BCG FOR 36" BOX OR LARGER TREE
3. OPTIONAL LANDSCAPE FABRIC FOR SANDY SOILS
4. LATERAL LINE

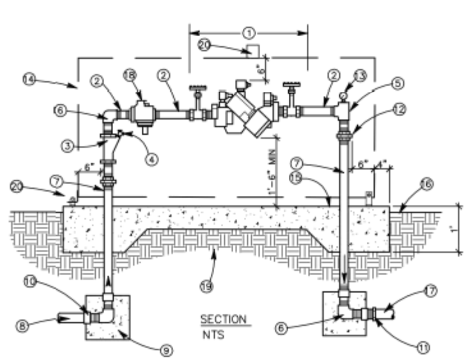
NOTES:

1. USE 2 UNITS PER TREE
2. POSITION UNITS EVENLY SPACED AROUND ROOT BALL
3. SET TOP OF CAP 1" ABOVE FINISH GRADE
4. USE PURPLE CAP FOR NON-POTABLE WATER

(B) TREE ROOT WATERING SYSTEM — NTS

LEGEND:

1. REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY
2. BRASS NIPPLE- 3" MIN, 4" MAX LENGTH (TYP)
3. BRONZE WYE STRAINER WITH 60 MESH MONEL SCREEN
4. BRASS HOSE BIB WITH THREADED HOSE BIB VACUUM BREAKER
5. BRASS TEE - LINE SIZE
6. BRASS 90 DEGREE ELBOW (TYP).
7. BRASS RISER/ NIPPLE (TYP) - WRAP ALL PIPE BELOW SOIL/CONCRETE LINE WITH 10 MIL PVC TAPE
8. MAINLINE FROM POINT OF CONNECTION - ADAPT AS REQUIRED
9. 12"X12"X12" CONCRETE THRUST BLOCK (TYPICAL)
10. BRASS COUPLING - SET FLUSH WITH CONCRETE (TYPICAL)
11. PVC MALE ADAPTER
12. BRASS UNION - LINE SIZE
13. WATERPROOF PRESSURE GAUGE (0-200 PSI) ON 1/4" NPT THREADED SP REDUCING BUSHING - ADAPT AS REQUIRED
14. BACKFLOW DEVICE ENCLOSURE: BF-86 BY LEMEUR WELDING MFG. OR EQUAL INSTALL PER MANUF. RECOMMENDATIONS
15. 6" THICK CONCRETE PAD (450-C-2000) SLOPED TO DRAIN. EXTEND BASE 4" BEYOND ALL FOUR SIDES OF ENCLOSURE. SET TOP OF PAD 2" ABOVE FINISH GRADE
16. FINISH GRADE
17. PVC MAINLINE
18. PRESSURE REGULATOR - IF NECESSARY (SEE PLAN)
19. COMPACTED SUB GRADE
20. ENCLOSURE LOCK FOR SINGLE (SIDE) OR DUAL (TOP) OPENING



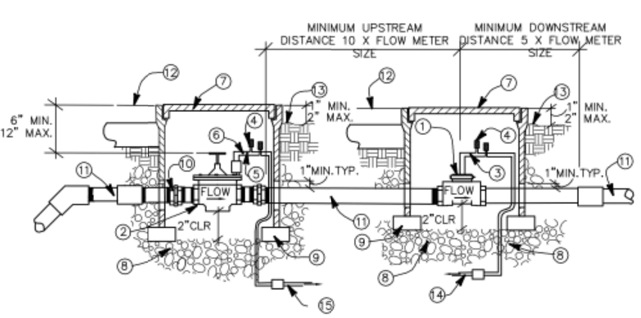
NOTES:

1. ENGINEER TO APPROVE FINAL LOCATION OF BACKFLOW PREVENTER AND ENCLOSURE PRIOR TO INSTALLATION.
2. FINAL ASSEMBLY AND FITTING OF BACKFLOW PREVENTER WITHIN THE ENCLOSURE IS THE RESPONSIBILITY OF CONTRACTOR.

(I) BACKFLOW PREVENTER — NTS

LEGEND:

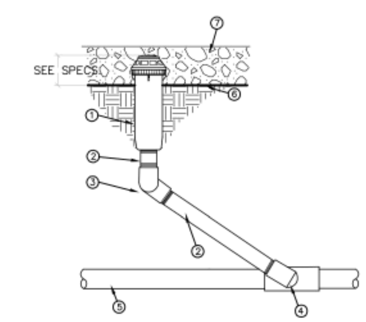
1. FLOW METER
2. MASTER VALVE
3. SIGNAL CONDUCTOR CABLE. INCLUDE 30" EXPANSION LOOP. INSTALL CABLE 18" MIN. BELOW GRADE
4. WATERPROOF CONNECTORS FOR WIRES/CONDUCTORS (TYP.)
5. COMMON WIRE (WHITE)
6. CONTROL WIRE
7. VALVE BOX-LID TO BE HINGED AND LOCKABLE (FOR NON-POTABLE USE: PURPLE VALVE BOX AND LID LABELED WITH "RECYCLED WATER")
8. 3/4" DIA. CRUSHED ROCK 8" DEEP (SEE SSPWC SECTION 200-1.2)
9. COMMON RED BRICK, ONE AT EACH CORNER (4 REQUIRED) TYP.
10. UNION (TYP.)
11. PVC MAINLINE (FOR NON-POTABLE USE: PVC PURPLE MAINLINE PIPING WITH THE WORDS "RECYCLED WATER DO NOT DRINK")
12. ADJACENT FINISH SURFACE OF PAVEMENT. TOP OF BOX TO BE FLUSH W/PAVEMENT.
13. ADJACENT FINISH GRADE (TOP OF BOX TO BE 1" ABOVE GRADE FOR LAWN, 2" ABOVE GRADE FOR GROUND COVER/SHRUB AREA
14. WIRES TO AUTOMATIC IRRIGATION CONTROLLER



NOTES:

1. INSTALL FLOW METER AND MASTER VALVE PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE 2' EXPANSION LOOP AT EACH WIRE CONNECTION IN VALVE BOX AND CONTROL WIRES.
3. ALL PIPE FITTINGS SHALL BE PVC SCH. 80 UNLESS OTHERWISE NOTED.
4. TAPE DIRECT BURIAL WIRES IN BUNDLES EVERY 10'
5. WATERPROOF CONNECTORS SHALL BE EITHER 3M SCOTCHLOK CONNECTORS OR DRY SPLICE.
6. CRUSHED ROCK SHALL COVER VALVE BOX PIPE OPENINGS TO PREVENT SOIL ENTRY.

(F) MASTER VALVE WITH FLOW METER — NTS



LEGEND:

1. POP-UP SPRINKLER
2. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
3. PVC SCH 80 ELL
4. PVC SCH 80 RISER ASSEMBLY (SEE NOTES BELOW)
5. PVC LATERAL PIPE
6. FINISH GRADE
7. MULCH, WHERE OCCURS

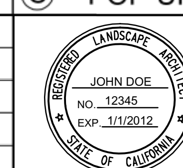
NOTES:

1. IRRIGATION HEADS FOR NON RECREATIONAL TURF AREAS SHALL HAVE DOUBLE SWING RISER ASSEMBLIES

(C) POP UP ROTOR / SPRAY ASSEMBLY — NTS

DATE	MK	DESCRIPTION

REVISIONS



REGISTERED LANDSCAPE ARCHITECT
JOHN DOE
NO. 12345
EXP. 1/1/2012
STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT — DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

LOS ANGELES RIVER HEADWATERS PROJECT

IRRIGATION DETAILS

LS-3.13

DATE 10/6/2011	PCA EF1931013W	FCC0001174	SHEET 10 OF 16

SYMBOL	ABBREVIATION	BOTANICAL/COMMON NAME	SIZE	SETBACK	PLANT FACTOR	SPACING
SMALL SHRUBS & GROUNDCOVERS						
	BAC PIL	BACCHARIS PILULARIS PILULARIS [HYBRID?] (PROSTRATE COYOTE BUSH)	1 GAL	3'	L/M	4'
	LES FIL	LESSINGIA FILAGINIFOLIA (CALIFORNIA ASTER)	1 GAL	2'	VL	2'
	ACH MIL	ACHILLEA MILLEFOLIUM 'PAPRIKA' (YARROW)	1 GAL	1.5'	M/L	2'
	IVA HAY	IVA HAYESIANA (HAYES IVA)	5 GAL	3'	M/L	4'
	ROS CAL	ROSA CALIFORNICA (CALIFORNIA WILD ROSE)	1 GAL	3'	L	4'
	SOL CAL	SOLIDAGO CALIFORNICA (CALIFORNIA GOLDENROD)	1 GAL	1'	L/M	18"
	EPI CAN	EPILOBIUM CANUM LATIFOLIUM (CALIFORNIA FUSCHIA)	1 GAL		VL/L	2'
	RIB AUR	RIBES AUREUM GRACILLIMUM (GOLDEN CURRANT)		3'	VL/L	4'
	STA BUL	STACHYS BULLATA (PINK HEDGENETTLE)	1 GA	2'		18"
	ERI FAC	ERIOGONUM FASCICULAT M FASCICULATUM (CALIFORNIA BUCKWHE	5 GAL		VL/L	4'
	ENC CAL	ENCELIA CALIFORNICA (CALIFOR CELIA)	1 GAL		L	
	ISO ARB	S ARBO DDERPOD)	5 GAL	4'		4'
	SAL M	SALVIA MELLIFERA (BLACK SAGE)	5 GAL	4'	VL	5'
	SOL XAN	OLANUM X HAPA HTSHADE)	GAL	2'	VL/L	2'
	LON	S LONGIFLORUS (MONKEY FLOWER)	1 GAL	2'	L	2'
	SA	SAL IANA (WHIT GE)	5 GAL	3'	VL	4'
	SAN CH	SANTOL HAMAECYPARISSUS (LAVENDER COTTON)	1 GAL	2'	M/L	2'
	LEY TRI	EYMUS TRITICOIDES 'GRAY DAWN' (CREEPING WILD RYE)	1 GAL	2'	M	3'
	YUC WHI	YUCCA WHIPPLEI (OUR LORD'S CANDLE)	15 GAL	4'	VL	5'
	LOT SCO	LOTUS SCOPARIUS (DEERWEED)	1 GAL	2'	VL	2'
	MUH RIG	MUHLENBERGIA RIGENS (DEERGRASS)	1 GAL	3'	L	3'
	MYO PAR	MYOPORUM PARVIFOLIUM (PROSTRATE MYOPORUM)	1 GAL	3'	M	4'
BORDER MIX :						
	HYP CAL	HYPERICUM CALYCINUM (AARON'S BEARD)	4" POT	3'	M	3'
INSIDE SWALE MIX :						
		[45% BY AREA, APPROX. 9 PLANTS PER 100 S.F.] JUNCUS PATENS (RUSH)	1 GAL	2'	L/M	2'
		[10% BY AREA, APPROX. 5 PLANTS PER 100 S.F.] MELICA IMPERFECTA (COAST RANGE MELIC)	1 GAL	1'	L/M	18"
		[25% BY AREA, APPROX. 5 PLANTS PER 100 S.F.] NASSELLA PULCHRA (PURPLE NEEDLE GRASS)	1 GAL	1'	VL/L	18"
		[20% BY AREA, APPROX. 20 PLANTS PER 100 S.F.] SISYRINCHIUM BELLUM (BLUE-EYED GRASS)	1 GAL	1'	VL/L	9"
MULCH :						
		CRUSHED ROCK MULCH - MIDWAY GREEN SOURCE: SOUTHWEST BOULDER & STONE OR AGENCY APPROVED EQUAL	3/4"-1-1/2" DIA.	N/A	NA	
		CRUSHED ROCK MULCH - CALIFORNIA GOLD SOURCE: SOUTHWEST BOULDER & STONE OR AGENCY APPROVED EQUAL	1-1/2"-3" DIA.	N/A	NA	

30 ALUMINUM EDGING. SEE DETAIL G, SHT. LS-4.13

QUANTITY — 50 — GENUS — BAC

CONTAINER SIZE — 1 GAL — SPECIES — PIL

SYMBOL	ABBREVIATION	BOTANICAL/COMMON NAME	SIZE	SETBACK*	PLANT FACTOR	SPACING
TREES						
	PLA RAC	PLATANUS RACEMOSA CALIFORNIA SYCAMORE	24" BOX	6'	M	PER PLAN
	QUE AGR	QUERCUS AGRIFOLIA COAST LIVE OAK	24" BOX	8'	VL/L	PER PLAN
	UMB CAL	UMBELLULARIA CALIFORNICA CALIFORNIA BAY LAUREL	24" BOX	6'	M	PER PLAN
	POP FRE	POPULUS FREMONTII FREMONT COTTONWOOD	24" BOX	8'	M/H	PER PLAN
	FRA VEL	FRAXINUS VELUTINA VAR. CORIACEA VELVET ASH	24" BOX	6'	M/H	PER PLAN
	CHI TAS	x CHITALPA TASHKENTENSIS CHITALPA	24" BOX	6'	M/L	PER PLAN
	CER OCC	CERCIS OCCIDENTALIS WESTERN REDBUD	24" BOX	6'	M/L	PER PLAN
	SAL LAE	SALIX LAEVIGATA RED WILLOW	24" BOX	6'	M/H	PER PLAN
	JUG CAL	JUGLANS CALIFORNICA CALIFORNIA WALNUT	24" BOX	6'	VL	PER PLAN
	SAM MEX	SAMBUCUS MEXICANA MEXICAN ELDERBERRY	24" BOX	6'	VL/L	PER PLAN
		EXISTING TREE TO REMAIN				
		EXISTING PALM TO REMAIN				
LARGE SHRUBS						
	HET ARB	HETEROMELES ARBUTIFOLIA TOYON	15 GAL	6'	L	7'
	RHU INT	RHUS INTEGRIFOLIA LEMONADEBERRY	15 GAL	6'	VL/L	7'
	PRU ILI	PRUNUS ILICIFOLIA HOLLYLEAF CHERRY	15 GAL	4'	VL/L	6'
	RHA CAL	RHAMNUS CALIFORNICA CALIFORNIA COFFEEBERRY	15 GAL	6'	L	6'
VINES						
1	CAL MAC	CALYSTEGIA MACROSTEGIA SSP. ARIDA FINGER-LEAF MORNING GLORY	5 GAL	1'	VL/M	15'
2	CLE LIG	CLEMATIS LIGUSTICIFOLIA VIRGIN'S BOWER	5 GAL	2'	L/M	15'
3	VIT GIR	VITIS GIRDIANA DESERT GRAPE	5 GAL	2'	M	15'

* PLANT SETBACK IS FORM EDGE OF ADJACENT WALK, PAVEMENT HARDSCAPE ELEMENT TO CENTER OF PLANT.

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT
JOHN DOE
NO. 12345
EXP. 1/1/2012
STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT DATE

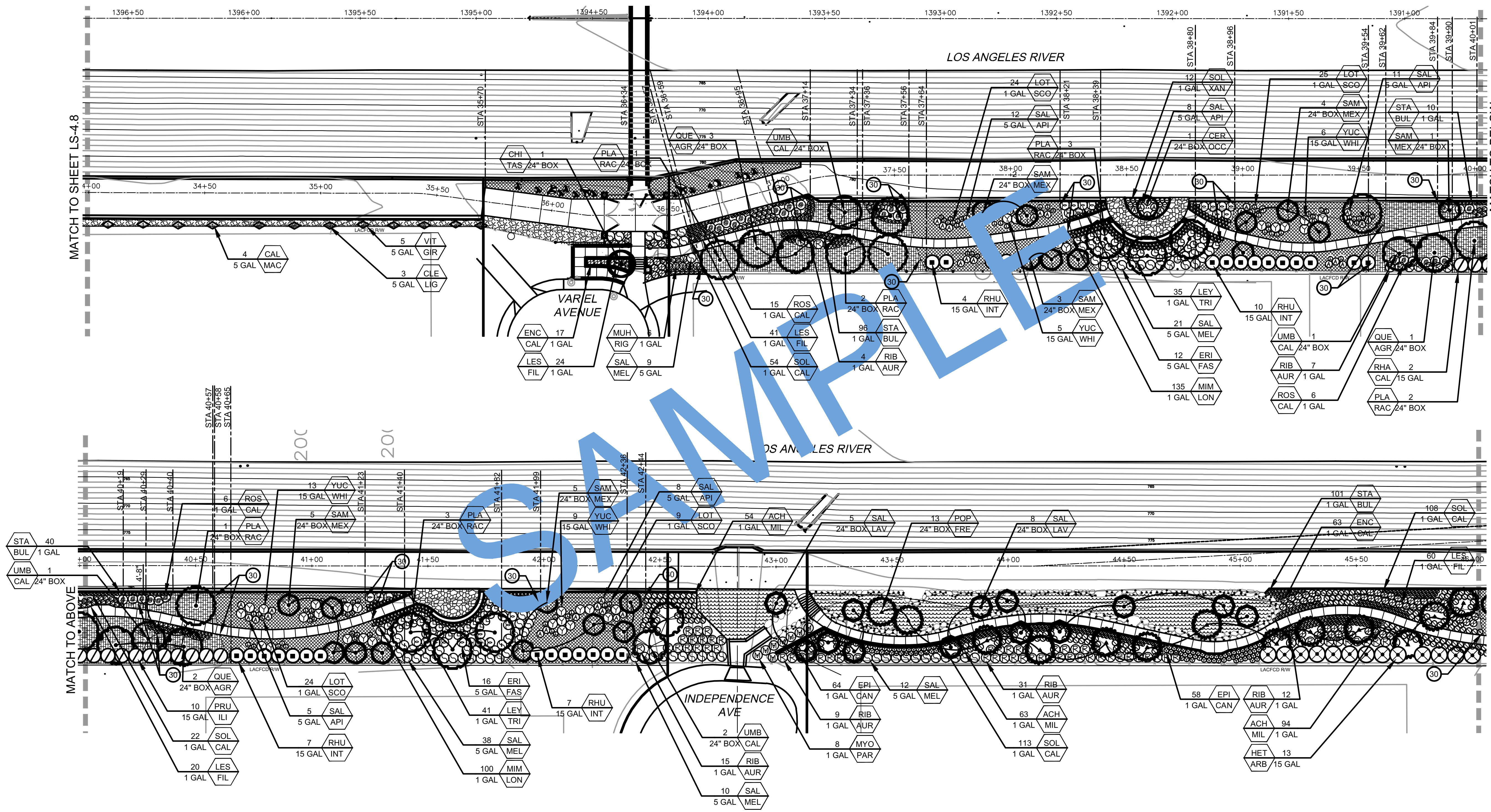
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

LOS ANGELES RIVER HEADWATERS PROJECT

PLANTING LEGEND

LS-4.0

DATE 10/6/2011 | PCA EF1931013W | FCC0001174 | SHEET 11 OF 16



SCALE: 1"=20'

NORTH

DATE	MK	DESCRIPTION

REVISIONS

PROJECT LANDSCAPE ARCHITECT DATE

JOHN DOE NO. 12345 EXP. 1/1/2012

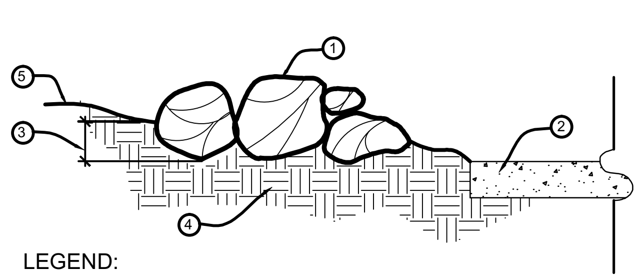
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

LOS ANGELES RIVER HEADWATERS PROJECT

PLANTING PLAN

LS-4.9

DATE 10/6/2011 | PCA EF1931013W | FCC0001174 | SHEET 12 OF 16



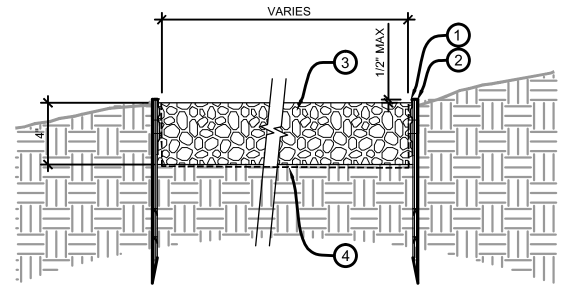
LEGEND:

1. BOULDERS SHALL BE ANGULAR, SEDIMENTARY TYPE. DIAMETER SHALL BE 25% LARGE-24"-36"Ø, 50% MEDIUM-18"-24"Ø, 25% SMALL-12"-18"Ø. REFER TO PLAN FOR LOCATIONS.
2. ADJACENT PAVING
3. BOULDER SHALL BE BURIED BENEATH THE ADJACENT FINISH GRADE BY 1/3 OF ITS HEIGHT
4. 90% RELATIVE COMPACTED SUBGRADE
5. FINISH GRADE

NOTES:

1. BOULDER LOCATION AND GROUPING SHALL BE DESIGNATED IN FIELD BY LANDSCAPE ARCHITECT.
2. BOULDERS SHALL BE SET IN PLACE UTILIZING CRANE AND STEEL CABLES. USE OF BACK HOE FOR BOULDER PLACEMENT WILL NOT BE ALLOWED.

(J) BOULDERS — NTS

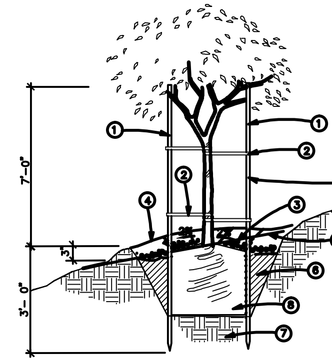


LEGEND:

1. EDGING (SEE NOTE) TO BE MAXIMUM OF 1/2" ABOVE SURFACE MATERIAL
2. 18" ALUMINUM STAKES, 2 FT OC, INSTALL PER MANUFACTURER'S RECOMMENDATIONS
3. CRUSHED AGGREGATES - SEE PLANTING LEGEND FOR COLOR AND SIZE RANGE
4. GEOTEXTILE WEED BARRIER

NOTE: "CLEANLINE" BY PERMALOC ALUMINUM EDGING (OR AGENCY APPROVED EQUAL). SIZE: 3/16" THICKNESS X 4" HEIGHT; MILL FINISH - NATURAL ALUMINIUM

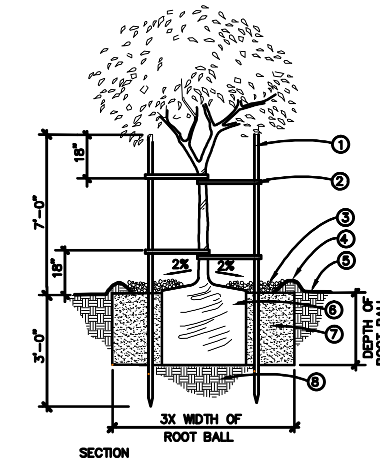
(G) ALUMINUM EDGING — SCALE: 1-1/2"=1'-0"



LEGEND:

1. (2) TWO 10'-0" x 2" DIA. COMPLETELY TREATED LODGEPOLE TREE STAKE. REFER TO SPECIAL PROVISIONS.
2. FASTEN TREE TO STAKES W/ "WONDER TREE TIES" OR EQUAL (TYP.) TWO (2) AT EACH STAKE.
3. BACKFILL WATER BASIN W/3" OF UNCOMPACTED MULCH. KEEP MULCH AWAY FROM CROWN.
4. FINISH GRADE (VARIES) ... 3" HIGH X 3' DIA. BERM AR... BASIN.
5. SLOPE BEYON...
6. BACKFIL... REFER TO SPECIAL PROVIS...
7. SET ROO... ON UNDISTURB... DE.
8. SET TOP OF ... T BAL... VE FINISH GRADE.

(D) TREE PLANTING ON SLOPE — NTS



LEGEND:

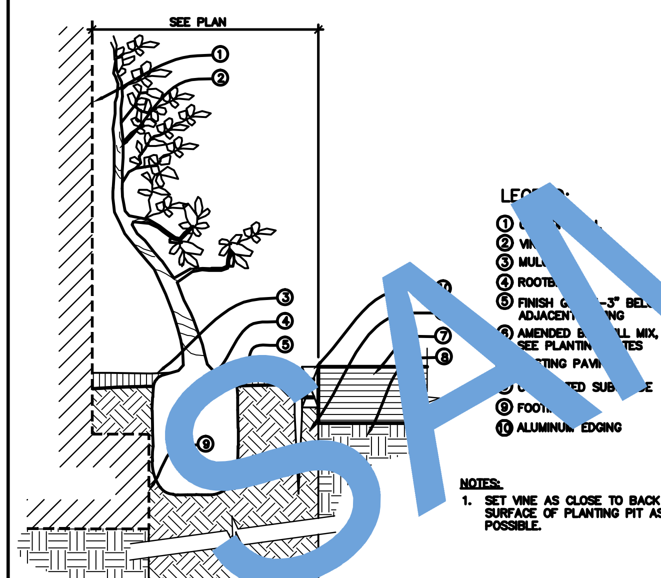
1. (2) TWO 10'-0" x 2" DIA. TREATED LODGEPOLE TREE STAKES
2. FASTEN TREE TO STAKES W/ "WONDER TREE TIES" OR APPROVED EQUAL TWO (2) AT EACH STAKE.
3. BACKFILL WATER BASIN W/ 3" OF DG, GRAVEL OR MULCH. KEEP MULCH 3" AWAY FROM TRUNK.
4. FORM 3" HIGH BERM AROUND BASIN, 3' DIA.
5. FINISH GRADE
6. ROOT BALL. SET TOP OF ROOT BALL 1" ABOVE FINISH GRADE. TRUNK OR ROOT FLARE SHALL BE VISIBLE DO NOT COVER ROOTBALL WITH SOIL
7. BACKFILL MIX. REFER TO SPECIFICATIONS.
8. UNDISTURBED NATIVE SOIL OR TAMPED NATIVE BACKFILL

NOTE:

1. AFTER TREE IS PLANTED, PRUNE AND SHAPE AS DIRECTED AND APPROVED BY LANDSCAPE ARCHITECT.
2. INSTALL TREE STAKES PERPENDICULAR TO THE PREVAILING WIND.

(A) TREE PLANTING — NTS

(K) VINE PLANTING



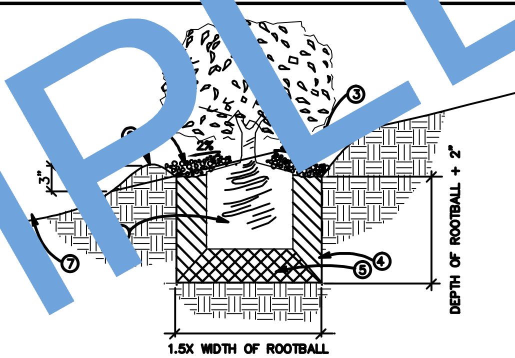
LEG...D:

1. ...
2. VI...
3. MUL...
4. ROOTB...
5. FINISH G... -3" BEL... ADJACENT ...ING
6. AMENDED B... LL MIX, SEE PLANTIN... TES
7. ...STING PAVI...
8. ...TED SUB... E
9. FOOT...
10. ALUMINU... EDGING

NOTES:

1. SET VINE AS CLOSE TO BACK SURFACE OF PLANTING PIT AS POSSIBLE.

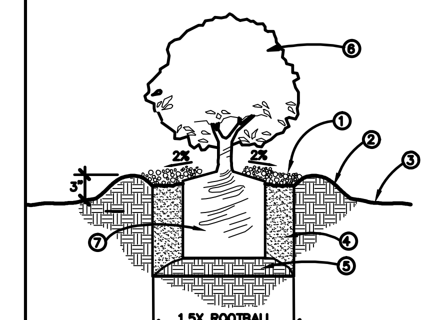
VINE PLANTING — 3/4"=1'-0" NTS



LEGEND:

1. BACKFILL WATER BASIN W/ 3" OF UNCOMPACTED MULCH. KEEP MULCH AWAY FROM CROWN.
2. FORM 3" HIGH BERM AT 3'-0" DIA. AROUND BASIN. EXCAVATE TO FORM BERM.
3. EXISTING SLOPE
4. BACKFILL MIX. REFER TO SPECIFICATIONS.
5. FOOT TAMP NATIVE SOIL
6. SET TOP OF ROOT BALL 1" ABOVE ADJACENT GRADE (DOWN SLOPE SIDE)
7. EXISTING GRADE

(E) SHRUB PLANTING ON SLOPE — NTS



LEGEND:

1. BACKFILL WATER BASIN W/ 3" OF UNCOMPACTED MULCH. KEEP MULCH AWAY FROM CROWN.
2. FORM 3" HIGH BERM AROUND BASIN.
3. FINISH GRADE
4. BACKFILL MIX. REFER TO SPECIFICATIONS.
5. FOOT TAMP NATIVE SOIL
6. SHRUB/GROUND COVER
7. ROOT BALL. SET TOP OF ROOT BALL 1" ABOVE FINISH GRADE

(B) SHRUB PLANTING — NTS

(L) VINE PLANTING — 3/4"=1'-0"

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED LANDSCAPE ARCHITECT
JOHN DOE
NO. 12345
EXP. 1/1/2012
STATE OF CALIFORNIA

PROJECT LANDSCAPE ARCHITECT DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

LOS ANGELES RIVER HEADWATERS PROJECT

PLANTING DETAILS

LS-4.13

DATE 10/6/2011 | PCA EF1931013W | FCC0001174 | SHEET 13 OF 16