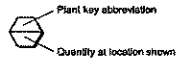


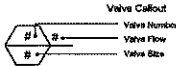
MRCA  
Attachment  
March 14, 2012  
Agenda Item VI(j)

**SYMBOLS**

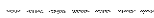
Planting Labels:



Irrigation Labels:



Limit of Scope of Work:



# Ballona Creek Trail and Bike Path Greenway Improvements

**BALLONA  
CREEK TRAIL:  
Greenway  
Improvements**

Los Angeles, California

A PROJECT OF:  
Mountains Recreation  
and Conservation  
Authority

578 West Avenue 28, Suite 100  
Los Angeles, CA 90065  
(323) 221-8944

LANDSCAPE ARCHITECT  
Mountains Recreation  
and Conservation  
Authority

578 West Avenue 28, Suite 100  
Los Angeles, CA 90065  
(323) 221-8944

SURVEYOR:  
Grimes Surveying &  
Mapping, Inc.

5248 Huntington Drive South  
Los Angeles, CA 90032  
(323) 223-1011

IRRIGATION CONSULTANT:  
Jeff Hutchins  
625 N. Hoback Ave.  
San Dimas, CA 91773  
(909) 552-4426

**PROJECT INFORMATION**

MOUNTAINS RECREATION AND CONSERVATION AUTHORITY  
570 WEST AVENUE 28, SUITE 100  
LOS ANGELES, CA 90065  
PHONE: (323) 221-8944 extension 107  
FAX: (323) 221-8934  
CONTACT: ANA PETRILIC

PROJECT ADDRESS VARIOUS PLANTING BED LOCATIONS ALONG  
BALLONA CREEK BETWEEN INGLEDWOOD  
BLVD. AND 405 FREEWAY.

**INDEX OF DRAWINGS**

G-101	PROJECT COVER SHEET
G-102	GENERAL NOTES
S-101	SURVEY (for reference only)
L-101 - L-103	DEMOLITION PLAN
L-201 - L-203	SITE PLAN
L-300 - L-304	IRRIGATION PLAN
L-305	HYDROZONE PLAN
L-400	PLANTING NOTES & LEGEND
L-401 - L-403	PLANTING PLAN
L-404	PLANTING DETAILS

**OWNERSHIP OF DOCUMENTS**

Original drawings and other documents, as instruments of professional service, are the property of the Mountains Recreation and Conservation Authority (MRCA). No reproduction, copying or use is authorized on other projects except by written agreement of the MRCA.

**PROJECT INFORMATION**

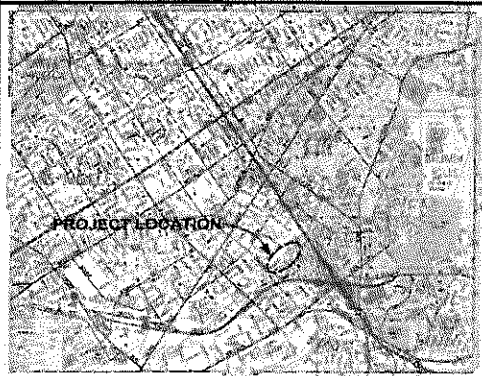
PROJECT LOCATION: Planting beds along Ballona Creek Trail and Bike Path located between Inglewood Boulevard and 405 Freeway.

**SCOPE OF WORK**

Improvement of existing planting beds along Ballona Creek Trail and Bike Path located between Inglewood Boulevard and 405 Freeway, consisting of native plant landscaping, irrigation and installation of wayfinding and interpretive signage.

**VICINITY MAP**

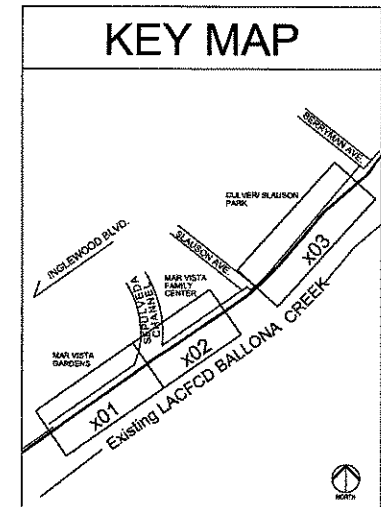
Thomas Guide page 872 - Grid F5



**ABBREVIATIONS**

AC Asphaltic Concrete	DIA Diameter	GC Ground Cover	PSI Pounds per Square Inch
AC Acres	DN Down	HB Hose Bid	PVC Poly Vinyl Chloride Pipe
AD Area Drain	DWG Drawing	HP High Point	R Radius
AMPS Amperes	E East	ID Inside Diameter	RW Redwood
BC Beginning of Curve	EA Each	IN Inch	RCP Reinforced Concrete Pipe
BOC Bottom of Curb	EC End of Curve	INV Invert	RT Right Of Way
BLDG Building	EFF Effluent Water	L Length of Curve	RT Right
BM Bench Mark	EL Elevation	LA Landscape Architect	S South
BOW Back of Wall	ELECT Electrical	LBS Pounds	SG Square
BOC Back of Curb	ENCL Enclosure	LC Landscape Contractor	SF Square Feet
BS Bottom of Slope	EQ Equal	LF Linear Feet	SY Square Yards
BW Bottom of Wall	EJ Expansion Joint	LP Low Point	STA Station
CB Catch Basin	EXST Existing	M Meter	SS Stainless Steel
CF Cubic Feet	FD Floor Drain	MAX Maximum	T Tangent
CI Cast Iron	FFE Finished Floor Elevation	MH Manhole	TC Top of Curb
CL Center Line	FG Finished Grade	MIN Minimum	T&G Tongue and Groove
CCJ Concrete Control Joint	FH Fire Hydrant	MISC Miscellaneous	TW Top of Wall
CO Clean Out	FIN Finished	N North	TS Top of Step
CONC Concrete	FL Flow Line	NIC Not In Contrast	TYP Typical
CONST Construction	FOC Face of Curb	NTS Not To Scale	VC Vertical Curve
CONT Continuous	FOW Face of Wall	NO Number	VAR Varies
CY Cubic Yards	FS Finished Surface	NGM Nominal Dimension	VCP Vertified Clay Pipe
DBL Double	FT Foot	OC On Center	W West
DD Deck Drain	GA Gauge	OD Outside Diameter	WI With
DEMO Demolition	GALV Galvanized	PC Point of Curvature	W/O Without
DET Detail	GAL Galfen	PCB Point of Beginning	WWM Woven Wire Mesh
DF Douglas Fir	GB Grade Break	PL Property Line	WM Water Meter
DRP Drinking Fountain	GEN CO General Contractor	PT Point of Tangency	

**KEY MAP**



LS110519000



REVISIONS:

1.4.26.11	Revision
2.8.12.11	Revision
3.1.23.12	Revision
4.	

DATE: 12-15-2010  
DRAWN: MG  
CHECKED: LS  
PROJECT: 9104-7190  
SCALE: N/A

**TITLE  
SHEET**

**G-101**

### TREE PROTECTION NOTES

1. NO EXISTING TREES SHALL BE REMOVED EXCEPT THOSE SPECIFICALLY NOTED ON DEMOLITION PLANS.
2. NO EQUIPMENT SHALL BE OPERATED OR PARKED UNDER A TREE. NO MATERIALS SHALL BE STORED WITHIN THE DRIPLINE OF AN EXISTING TREE OR LEANED AGAINST A TRUNK. SOIL SHALL NOT BE STOCKPILED OR COMPACTED WITHIN THE DRIPLINE OF A TREE.
3. SOIL SURFACE WITHIN THE TREE DRIPLINE IN AREAS OF CONSTRUCTION SHALL BE PROTECTED WITH THREE INCHES OF MULCH OR WITH OVERLAPPING 0.75-INCH THICK PLYWOOD SHEETS.
4. SURFACE IRRIGATION SHALL NOT BE INSTALLED WITHIN THE DRIPLINE OF A TREE EXCEPT FOR TEMPORARY IRRIGATION DESIGNED FOR PLANT ESTABLISHMENT.

IN THE EVENT THAT EARTHWORK WITHIN THE DRIPLINE OF A TREE IS REQUIRED, LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE SHALL BE PRESENT.

### GENERAL NOTES

1. CONTRACTOR SHALL INSTALL ALL IMPROVEMENTS IN ACCORDANCE WITH STATE OF CALIFORNIA AND COUNTY OF LOS ANGELES REQUIREMENTS. IN CASE OF DISCREPANCY BETWEEN THESE PLANS AND THE GOVERNING AGENCY'S REQUIREMENTS, THE MOST STRINGENT REQUIREMENT WILL APPLY.
2. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL CONDITIONS PRIOR TO SUBMITTING A PROPOSAL OF COST FOR CONSTRUCTION.
3. CONTRACTOR SHALL READ THESE PLANS AND NOTES COMPLETELY AND BRING ANY DISCREPANCIES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE IMMEDIATELY UPON DISCOVERY.
4. EXTRA WORK SHALL BE APPROVED IN WRITING BY THE OWNER PRIOR TO COMMENCEMENT OF WORK.
5. IT IS THE RESPONSIBILITY OF THE SUB-CONTRACTORS TO FAMILIARIZE THEMSELVES WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, UTILITIES, SEWERS, WATER LINES, ETC. AND FURTHERMORE, TO COORDINATE WORK WITH OTHER SUB-CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES UNDER PAVING, ELECTRICAL CONNECTIONS, WATER HOOK-UPS, ETC.
6. ALL REQUIREMENTS OF THE 2010 LACBC/2007 CBC, SPPWC, AND GREENBOOK DOCUMENTS (SPPWC) SHALL APPLY TO THE WORK SPECIFIED HEREIN UNLESS OTHERWISE MODIFIED BY THESE DOCUMENTS.
7. CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED TO COMPLETE THE WORK SPECIFIED.
8. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT AT 811 OR 1-800-227-2529 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.
9. CONTRACTOR SHALL NOTIFY THE OWNER 48 HOURS PRIOR TO STARTING CONSTRUCTION.
10. CONTRACTOR TO COORDINATE A PRE-CONSTRUCTION MEETING ON SITE 48 HOURS PRIOR TO START OF CONSTRUCTION. NOTIFY OWNER, LANDSCAPE ARCHITECT, AND ALL SUB-CONTRACTORS.
11. CONTRACTOR TO SUBMIT REQUESTS FOR MEETINGS, OBSERVATIONS, AND APPROVALS BY THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE AT LEAST 48 HOURS PRIOR TO THE DATE AND TIME PROPOSED.
12. OBTAIN GOVERNING AGENCY'S, INSPECTOR'S AND LANDSCAPE ARCHITECT'S REVIEW AND APPROVAL OF WORK IN PROGRESS AT VARIOUS TIMES DURING CONSTRUCTION. THE FOLLOWING REVIEWS/MEETINGS ARE MANDATORY. PROVIDE 48 HOURS NOTICE FOR EACH REQUESTED VISIT.
  - \* PRE-JOB CONFERENCE
  - \* CONSTRUCTION STAKING
  - \* MAIN LINE PRESSURE TEST AND TRENCH DEPTHS PRIOR TO BACKFILL OF TRENCHES
  - \* COVERAGE TEST UPON COMPLETION OF SPRINKLER INSTALLATION
  - \* FINAL GRADING REVIEW
  - \* PLANT MATERIAL APPEARANCE AND QUALITY REVIEW
  - \* PLANT MATERIAL LOCATION AND MEDIUM REVIEW
  - \* SOIL PREPARATION AND PLANTING INSTALLATION METHODS
  - \* FINAL WALK THROUGH (AT COMPLETION OF PLANTING INSTALLATION)
  - \* FINAL WALK THROUGH (AT COMPLETION OF MAINTENANCE PERIOD)
13. ANY GRADING REQUIRED UNDER EXISTING OAK AND WALNUT TREES TO BE DONE BY HAND.

DIRECT ANY QUESTIONS REGARDING THESE PLANS TO :  
MOUNTAINS RECREATION AND CONSERVATION AUTHORITY  
570 W. AVENUE 28, MRCA BUILDING  
LOS ANGELES, CALIFORNIA 90065  
ATTN: LAURA A. SALTZMAN (323) 221-9944 x185

### CONSTRUCTION NOTES

1. DRAWING IS DIAGRAMMATIC. CONTRACTOR TO VERIFY ALL CONDITIONS AND LOCATIONS ON SITE PRIOR TO THE START OF CONSTRUCTION. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY IF ANY ERRORS OR DISCREPANCIES ARE FOUND, BEFORE PROCEEDING WITH ANY WORK.
2. DO NOT SCALE DRAWINGS. USE DIMENSIONS AS INDICATED ON PLAN.
3. DO NOT WILLFULLY PROCEED WITH CONSTRUCTION WHEN IT IS OBVIOUS THAT OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN APPARENT DURING DESIGN. OBTAIN DIRECTION BEFORE PROCEEDING WITH CONSTRUCTION IN SUCH CASES.
 

IF CONDITIONS ARE ENCOUNTERED AT THE SITE WHICH ARE SUBSURFACE OR OTHERWISE CONCEALED PHYSICAL CONDITIONS WHICH DIFFER MATERIALLY FROM THOSE INDICATED IN THE PLANS, THEN CONTRACTOR SHALL PROMPTLY NOTIFY OWNER BEFORE CONDITIONS ARE DISTURBED AND IN NO EVENT LATER THAN 3 DAYS AFTER FIRST OBSERVANCE OF THE 10 CONDITIONS.
4. THE LOCATION OF ALL SERVICE RUNS, SUCH AS WATER SUPPLY, ELECTRICAL (OVERHEAD AND UNDERGROUND), TELEPHONE, SANITARY SEWER, ETC. SHOULD BE ASCERTAINED BEFORE WORK IS STARTED. WHERE THEY WILL BE AFFECTED BY EXCAVATION OR WHERE MACHINES MAY BE WORKING NEARBY, THEY SHOULD BE CAREFULLY SEALED, PROTECTED, OR DIVERTED. NOTIFY LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE OF ANY CONFLICT WITH PROPOSED IMPROVEMENTS.
5. COORDINATE ALL UTILITY RUNS AND INSTALLATIONS (EXISTING AND NEW) PRIOR TO PAVING INSTALLATION. VERIFY ALL SLEEVES AND ELECTRIC SOURCES FOR IRRIGATION CLOCK AND LIGHTING WITH PROPER SUB-CONTRACTORS.
6. OBTAIN INSPECTION AND APPROVAL OF ALL FORMS PRIOR TO PLACING PAVING AND DECOMPOSED GRANITE ELEMENTS.
7. TRANSITIONS FROM EXISTING PAVING TO NEW PAVING SHALL BE FLUSH.
8. REFER TO PLANS, SPECIFICATIONS AND SHEET NOTES FOR ADDITIONAL NOTES AND INFORMATION REGARDING THE CONSTRUCTION OF THIS PROJECT.
9. CONSTRUCT ALL WALLS, PAVING, DRAIN LINES, SLEEVING, ETC. PER PLAN AND DETAILS.
10. CONCRETE TO SLOPE FROM FOUNDATION TOWARDS DRAIN INLETS AND DRAINAGE SWALES AT A MINIMUM RATE OF 1/4" PER FOOT. INSTALL CONCRETE FORMS WITH LONG, SMOOTH GRADIENTS TO ELIMINATE DIPS, RIDGES, ABRUPT CHANGES OF GRADE, AND SHARP TRANSITIONS.
11. UNLESS OTHERWISE INDICATED, INSTALL EXPANSION JOINTS IN CONCRETE @ MAX. 10' O.C. INSTALL CRACK CONTROL JOINTS @ MAX. 5' O.C. ZIP JOINTS WILL NOT BE ALLOWED. INSTALL E.S. AND C.C.'S AT 90° TO THE EDGE OF CONCRETE PAVING. SEE PLAN FOR ADDITIONAL INFORMATION AND LOCATIONS.
12. OBTAIN INSPECTION AND APPROVAL OF ALL FORMS PRIOR TO PLACING CONCRETE.
13. PRIOR TO PLACING CONCRETE, SUFFICIENTLY MOISTEN THE SUBGRADE AND PROVIDE SUBGRADE PREPARATIONS PER THE SOILS ENGINEER.
14. INSTALL TYPE II CONCRETE THAT OBTAINS A MINIMUM COMPRESSIVE STRENGTH OF 2,500 P.S.I. AT 28 DAYS. CONCRETE IS TO BE A NATURAL GREY COLOR UNLESS OTHERWISE SPECIFIED ON THESE PLANS AND DETAILS. CONCRETE TO BE HEAVY BROOM FINISH. SUBMIT SAMPLE TO OWNER AND LANDSCAPE ARCHITECT PRIOR TO LAYING OUT FORMS. INSTALL CONCRETE FLATWORK PER RECOMMENDATIONS OF SOILS ENGINEER AND SOILS REPORT. IN CASE OF CONFLICT BETWEEN SOILS REPORT AND DETAILS, THE MOST STRINGENT REQUIREMENT SHALL APPLY.
15. CLEAN UP AND REMOVE ALL DEBRIS FROM SITE PRIOR TO REQUESTING FINAL APPROVAL. GRADE ALL AREAS WITHIN 0.5 INCH OF FINISH GRADES. NOTE AREAS OF ADDITIONAL GRADING AND COORDINATE WITH LANDSCAPE ARCHITECT AS REQUIRED.
16. BACKFILL AND COMPACT BEHIND ALL WALLS AND MASONRY STRUCTURES, AS REQUIRED ON DRAWINGS AND DETAILS. BACKFILL PLANTERS WITH TOP GRADE SANDY-LOAM TOPSOIL PER PLANTING NOTES.

## BALLONA CREEK TRAIL: Greenway Improvements

Los Angeles, California

A PROJECT OF:  
Mountains Recreation and Conservation Authority

570 West Avenue 28, Suite 100  
Los Angeles, CA 90065  
(323) 221-9944

LANDSCAPE ARCHITECT  
Mountains Recreation and Conservation Authority

570 West Avenue 28, Suite 100  
Los Angeles, CA 90065  
(323) 221-9944

SURVEYOR:  
Grimes Surveying & Mapping, Inc.

5248 Huntington Drive South  
Los Angeles, CA 90032  
(323) 223-1017

IRRIGATION CONSULTANT:  
Jeff Hutchins  
425 N. Hobson Ave.  
San Dimas, CA 91773  
(909) 589-4438



#### REVISIONS:

- |            |          |
|------------|----------|
| 1. 4.26.11 | Revision |
| 2. 8.12.11 | Revision |
| 3. 1.23.12 | Revision |
| 4.         |          |

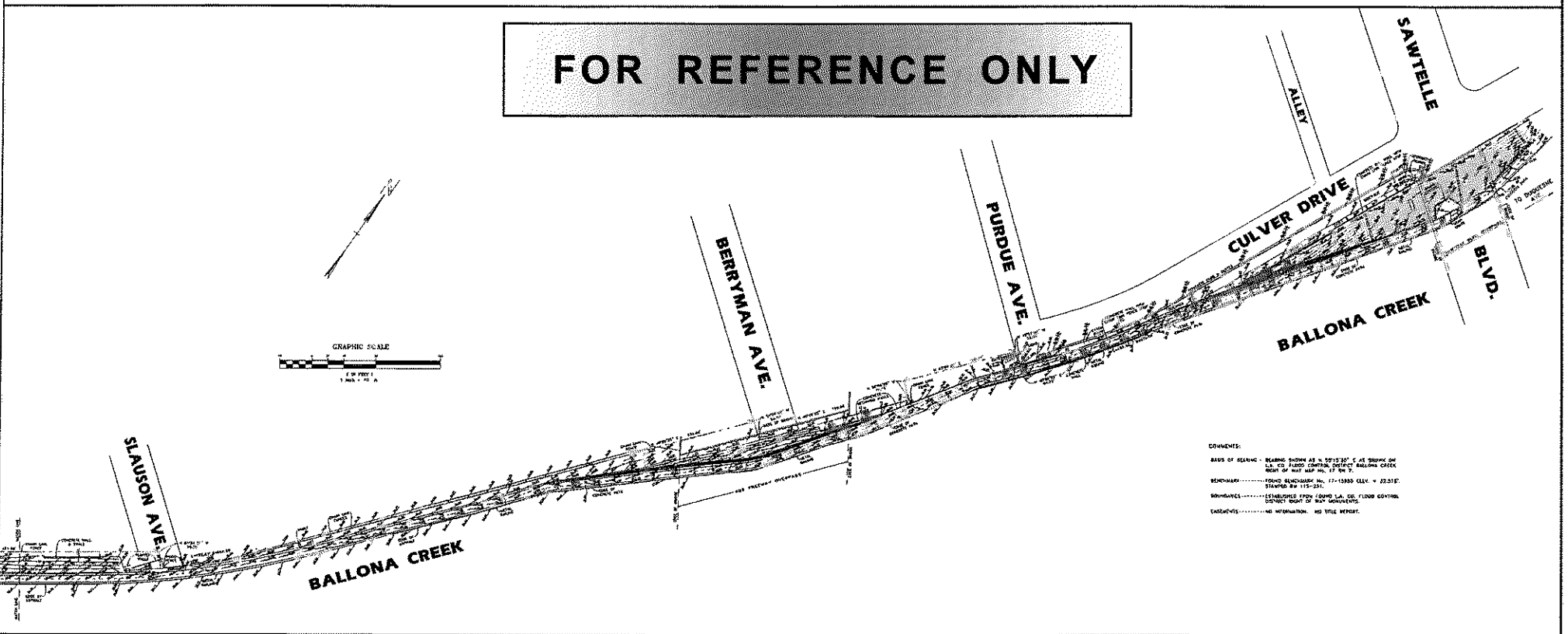
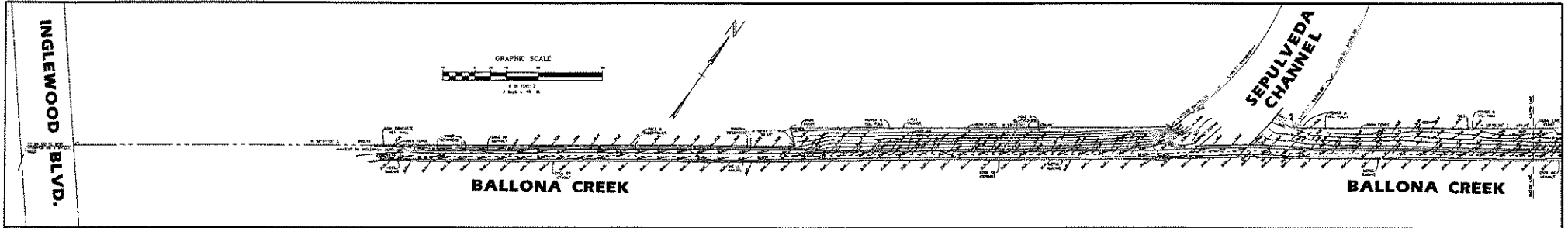
DATE: 12-15-2010  
DRAWN: MG  
CHECKED: LS  
PROJECT: 9104-7190  
SCALE: N/A

## GENERAL NOTES

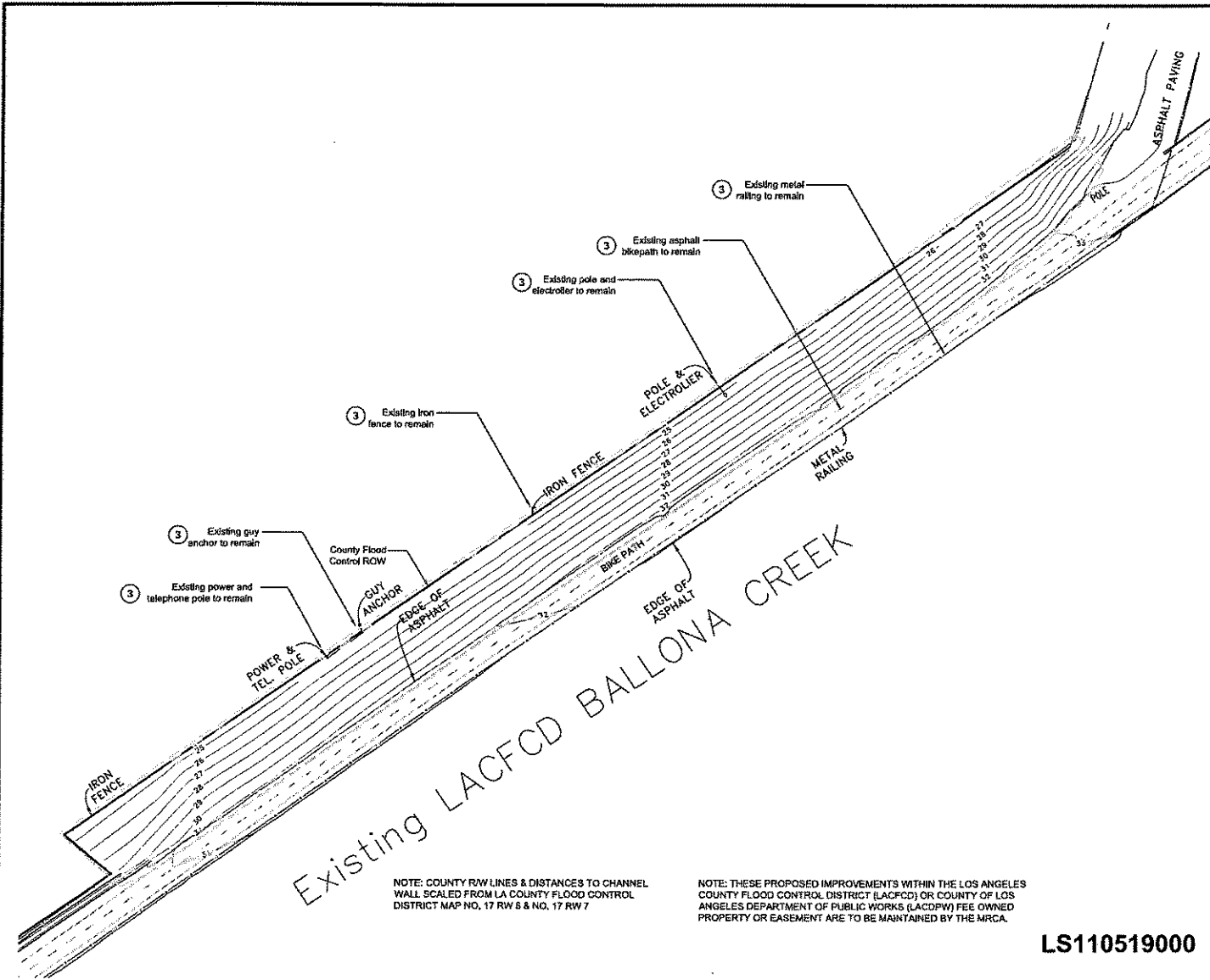
# G-102

2 OF 19

LS110519000



COMMENTS:  
 BARS OF READING - READING SHOWN AS A 55°15'10" E AT 5000' ON  
 S.E. 1/4 T20N 03W, DISTRICT OF BALLONA CREEK,  
 DISTRICT OF S.W. 1/4 SEC. 17, T. 20N. 3.  
 BENCHMARK - FOUND BENCHMARK NO. 17-13885 (44) - 22.51';  
 STAMPED BY 11-1-2011.  
 BOUNDARIES - ESTABLISHED FROM LANDS L.A. CO. FLOOD CONTROL  
 DISTRICT DIST. OF SAN ANTONIO.  
 CALCULATED - NO INFORMATION, NO TITLE HEREIN.

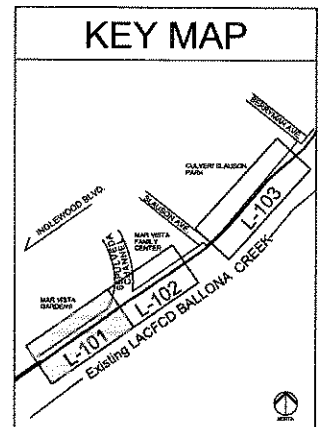


NOTE: COUNTY ROW LINES & DISTANCES TO CHANNEL WALL SCALED FROM LA COUNTY FLOOD CONTROL DISTRICT MAP NO. 17 RW 6 & NO. 17 RW 7

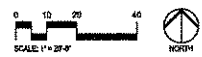
NOTE: THESE PROPOSED IMPROVEMENTS WITHIN THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT (LACFCD) OR COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS (LACDPW) FEE OWNED PROPERTY OR EASEMENT ARE TO BE MAINTAINED BY THE MRCA.

- ### DEMOLITION NOTES
- CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO ANY DEMOLITION WORK. CALL DIG-ALERT (800) 422-4133 A MINIMUM OF 2 WORKING DAYS BEFORE PROJECTED START OF DEMOLITION.
  - DRAWING IS DIAGRAMMATIC - CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND LOCATIONS ON SITE. CONTRACTOR IS TO VISIT SITE BEFORE BIDDING DEMOLITION.
  - EXECUTE WORK AS TO PROTECT ADJACENT PROPERTY, BUILDINGS, PLANT MATERIAL, ETC. PROTECT AND MAINTAIN EXISTING ACTIVE UTILITIES THROUGHOUT THE DEMOLITION PERIOD. ANY UTILITY WHICH IS DAMAGED OR BROKEN SHALL BE REPAIRED AT NO COST TO THE OWNER. CONTRACTOR SHALL REPAIR AT HIS OWN EXPENSE ANY PROPERTY DAMAGE RESULTING FROM CARELESS DEMOLITION.
  - CONTRACTOR SHALL MAINTAIN A NEAT AND ORDERLY WORK AREA AND SHALL REMOVE ALL DEBRIS PROMPTLY FROM JOB SITE. CONTRACTOR IS RESPONSIBLE FOR ALL REMOVAL AND DISPOSAL FEES AND CONTROLLING DUST.
  - PRIOR TO PLANT REMOVAL, CONTRACTOR TO WALK SITE WITH LANDSCAPE ARCHITECT TO VERIFY/TAG PLANTS WHICH ARE TO BE SAVED AND/OR RELOCATED ALONG WITH THOSE PLANTS SCHEDULED FOR DISPOSAL.
  - DO NOT REMOVE ANY ITEM IF IT IS NOT SPECIFICALLY CALLED OUT FOR DEMOLITION. CONTACT OWNER AND LANDSCAPE ARCHITECT IF THERE ARE QUESTIONS.
  - REUSE OF ON SITE SOIL MATERIALS ENCOURAGED. SEPARATION OF GRADING MATERIALS INTO FINES, AGGREGATE, AND BOULDERS RECOMMENDED.
  - RETAIN TOP SOIL SEPARATELY. COVER TO PROTECT.
  - IF CONDITIONS ARE ENCOUNTERED AT THE SITE WHICH ARE SUBSURFACE OR OTHERWISE CONCEALED PHYSICAL CONDITIONS WHICH DIFFER MATERIALLY FROM THOSE INDICATED IN THE PLANS, THEN CONTRACTOR SHALL PROMPTLY NOTIFY OWNER BEFORE CONDITIONS ARE DISTURBED AND IN NO EVENT LATER THAN 10 DAYS AFTER FIRST OBSERVANCE OF THE CONDITIONS.

- ### DEMOLITION KEY
- ① TO BE REMOVED
  - ② EXISTING PLANT MATERIAL TO BE REMOVED UP TO LIMIT OF WORK; SEE DEMO NOTE #5 ON THIS SHEET BEFORE REMOVAL OPERATIONS.
  - ③ PROTECT IN PLACE
  - ⊖ EXISTING TREE - PROTECT IN PLACE
  - ⊗ REMOVE TREE
- --- --- --- --- LIMIT OF WORK LINE



LS110519000



**BALLONA CREEK TRAIL: Greenway Improvements**

Los Angeles, California

A PROJECT OF:  
**Mountains Recreation and Conservation Authority**  
 570 West Avenue 26, Suite 100  
 Los Angeles, CA 90065  
 (323) 221-9944

LANDSCAPE ARCHITECT  
**Mountains Recreation and Conservation Authority**  
 570 West Avenue 26, Suite 100  
 Los Angeles, CA 90065  
 (323) 221-9944

SURVEYOR:  
**Grimes Surveying & Mapping, Inc.**  
 5248 Huntington Drive South  
 Los Angeles, CA 90032  
 (323) 223-1011

IRRIGATION CONSULTANT:  
**Jeff Hutchins**  
 625 N. Harbor Ave.  
 San Dimas, CA 91773  
 (951) 928-4458

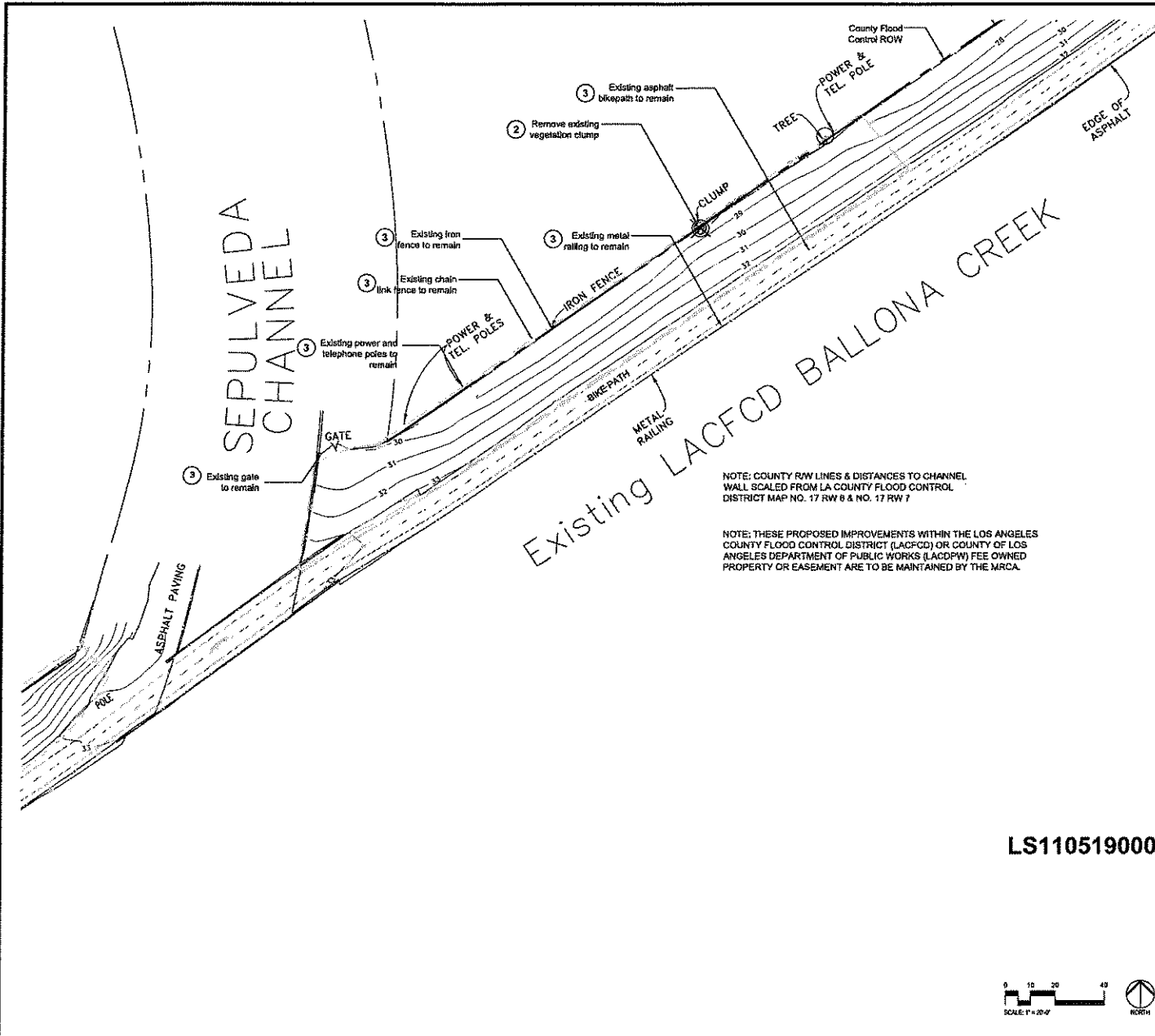
REVISIONS:  
 1.4.26.11 Revision  
 2.8.12.11 Revision  
 3.1.23.12 Revision  
 4.

DATE: 12-15-2010  
 DRAWN: MG  
 CHECKED: LS  
 PROJECT: 9104-7190  
 SCALE: As noted

**DEMOLITION PLAN AREA 1**

**L-101**

3 OF 19



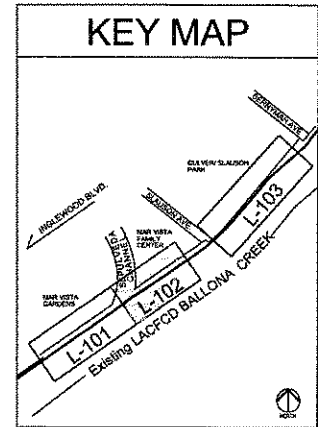
**DEMOLITION NOTES**

- CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO ANY DEMOLITION WORK. CALL DIG-ALERT (800) 422-4133 A MINIMUM OF 2 WORKING DAYS BEFORE PROJECTED START OF DEMOLITION.
- DRAWING IS DIAGRAMMATIC - CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND LOCATIONS ON SITE. CONTRACTOR IS TO VISIT SITE BEFORE BIDDING DEMOLITION.
- EXECUTE WORK AS TO PROTECT ADJACENT PROPERTY, BUILDINGS, PLANT MATERIAL, ETC. PROTECT AND MAINTAIN EXISTING ACTIVE UTILITIES THROUGHOUT THE DEMOLITION PERIOD. ANY UTILITY WHICH IS DAMAGED OR BROKEN SHALL BE REPAIRED AT NO COST TO THE OWNER. CONTRACTOR SHALL REPAIR AT HIS OWN EXPENSE ANY PROPERTY DAMAGE RESULTING FROM CARELESS DEMOLITION.
- CONTRACTOR SHALL MAINTAIN A NEAT AND ORDERLY WORK AREA AND SHALL REMOVE ALL DEBRIS PROMPTLY FROM JOB SITE. CONTRACTOR IS RESPONSIBLE FOR ALL REMOVAL AND DISPOSAL FEES AND CONTROLLING DUST.
- PRIOR TO PLANT REMOVAL, CONTRACTOR TO WALK SITE WITH LANDSCAPE ARCHITECT TO VERIFY/TAG PLANTS WHICH ARE TO BE SAVED AND/OR RELOCATED ALONG WITH THOSE PLANTS SCHEDULED FOR DISPOSAL.
- DO NOT REMOVE ANY ITEM IF IT IS NOT SPECIFICALLY CALLED OUT FOR DEMOLITION. CONTACT OWNER AND LANDSCAPE ARCHITECT IF THERE ARE QUESTIONS.
- REUSE OF ON SITE SOIL MATERIALS ENCOURAGED, SEPARATION OF GRADING MATERIALS INTO FINES, AGGREGATE, AND BOLDERS RECOMMENDED.
- RETAIN TOP SOIL SEPARATELY. COVER TO PROTECT.
- IF CONDITIONS ARE ENCOUNTERED AT THE SITE WHICH ARE SUBSURFACE OR OTHERWISE CONCEALED PHYSICAL CONDITIONS WHICH DIFFER MATERIALLY FROM THOSE INDICATED IN THE PLANS, THEN CONTRACTOR SHALL PROMPTLY NOTIFY OWNER BEFORE CONDITIONS ARE DISTURBED AND IN NO EVENT LATER THAN 10 DAYS AFTER FIRST OBSERVANCE OF THE CONDITIONS.

NOTE: COUNTY ROW LINES & DISTANCES TO CHANNEL WALL SCALED FROM LA COUNTY FLOOD CONTROL DISTRICT MAP NO. 17 RW 6 & NO. 17 RW 7

NOTE: THESE PROPOSED IMPROVEMENTS WITHIN THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT (LACFCD) OR COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS (LADPW) FEE OWNED PROPERTY OR EASEMENT ARE TO BE MAINTAINED BY THE MRCA.

- DEMOLITION KEY**
- ① TO BE REMOVED
  - ② EXISTING PLANT MATERIAL TO BE REMOVED UP TO LIMIT OF WORK; SEE DEMO NOTE #5 ON THIS SHEET BEFORE REMOVAL OPERATIONS.
  - ③ PROTECT IN PLACE
  - ④ EXISTING TREE - PROTECT IN PLACE
  - ⊗ REMOVE TREE
- LIMIT OF WORK LINE



LS110519000



**BALLONA CREEK TRAIL: Greenway Improvements**

Los Angeles, California

A PROJECT OF:  
**Mountains Recreation and Conservation Authority**  
 570 West Avenue 26, Suite 100  
 Los Angeles, CA 90065  
 (323) 223-9944

LANDSCAPE ARCHITECT  
**Mountains Recreation and Conservation Authority**  
 570 West Avenue 26, Suite 100  
 Los Angeles, CA 90065  
 (323) 223-9944

SURVEYOR:  
**Grimes Surveying & Mapping, Inc.**  
 5248 Huntington Drive South  
 Los Angeles, CA 90022  
 (323) 223-1011

IRRIGATION CONSULTANT:  
**Jeff Hutchins**  
 620 N. Hollywood Ave.  
 San Dimas, CA 91773  
 (909) 598-4436



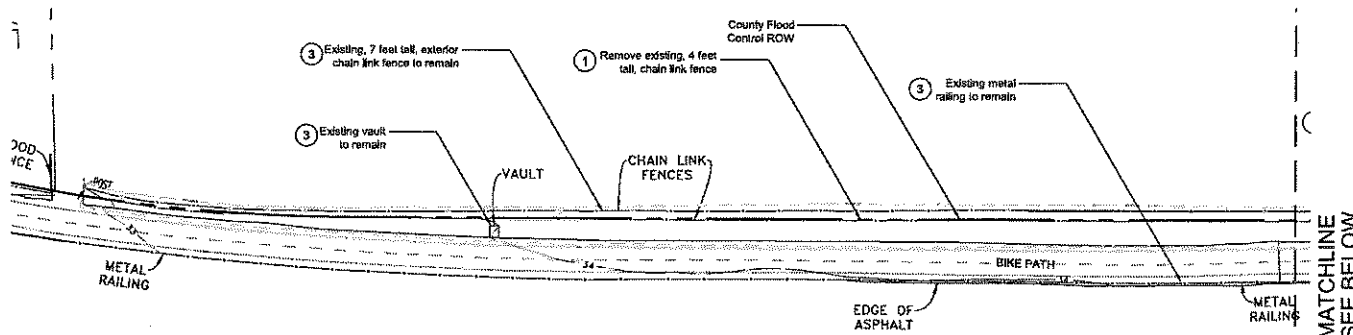
**REVISIONS:**

1.4.26.11	Revision
2.8.12.11	Revision
3.1.23.12	Revision
4.	

DATE: 12-15-2010  
 DRAWN: MG  
 CHECKED: LS  
 PROJECT: 9104-7190  
 SCALE: As noted

**DEMOLITION PLAN AREA 2**

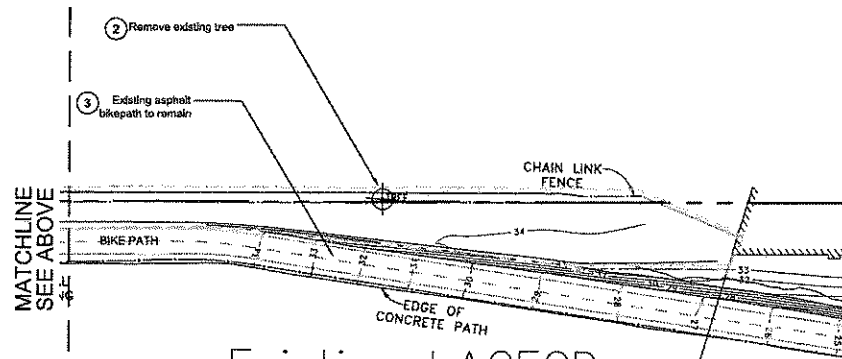
**L-102**  
 4 OF 19



### Existing LACFCD BALLONA CREEK

NOTE: COUNTY ROW LINES & DISTANCES TO CHANNEL WALL SCALED FROM LA COUNTY FLOOD CONTROL DISTRICT MAP NO. 17 RW 6 & NO. 17 RW 7

NOTE: THESE PROPOSED IMPROVEMENTS WITHIN THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT (LACFCD) OR COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS (LACDPW) FEE OWNED PROPERTY OR EASEMENT ARE TO BE MAINTAINED BY THE MRCA.



### Existing LACFCD BALLONA CREEK

LS110519000



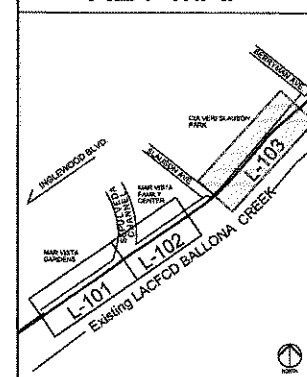
#### DEMOLITION NOTES

- CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO ANY DEMOLITION WORK. CALL DIG-ALERT (800) 422-4133 A MINIMUM OF 2 WORKING DAYS BEFORE PROJECTED START OF DEMOLITION.
- DRAWING IS DIAGRAMMATIC - CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND LOCATIONS ON SITE. CONTRACTOR IS TO VISIT SITE BEFORE BIDDING DEMOLITION.
- EXECUTE WORK AS TO PROTECT ADJACENT PROPERTY, BUILDINGS, PLANT MATERIAL, ETC. PROTECT AND MAINTAIN EXISTING ACTIVE UTILITIES THROUGHOUT THE DEMOLITION PERIOD. ANY UTILITY WHICH IS DAMAGED OR BROKEN SHALL BE REPAIRED AT NO COST TO THE OWNER. CONTRACTOR SHALL REPAIR AT HIS OWN EXPENSE ANY PROPERTY DAMAGE RESULTING FROM CARELESS DEMOLITION.
- CONTRACTOR SHALL MAINTAIN A NEAT AND ORDERLY WORK AREA AND SHALL REMOVE ALL DEBRIS PROMPTLY FROM JOB SITE. CONTRACTOR IS RESPONSIBLE FOR ALL REMOVAL AND DISPOSAL FEES AND CONTROLLING DUST.
- PRIOR TO PLANT REMOVAL, CONTRACTOR TO WALK SITE WITH LANDSCAPE ARCHITECT TO VERIFY TAG PLANTS WHICH ARE TO BE SAVED AND/OR RELOCATED ALONG WITH THOSE PLANTS SCHEDULED FOR DISPOSAL.
- DO NOT REMOVE ANY ITEM IF IT IS NOT SPECIFICALLY CALLED OUT FOR DEMOLITION. CONTACT OWNER AND LANDSCAPE ARCHITECT IF THERE ARE QUESTIONS.
- REUSE OF ON SITE SOIL MATERIALS ENCOURAGED. SEPARATION OF GRADING MATERIALS INTO FINES, AGGREGATE, AND BOULDERS RECOMMENDED.
- RETAIN TOP SOIL SEPARATELY. COVER TO PROTECT.
- IF CONDITIONS ARE ENCOUNTERED AT THE SITE WHICH ARE SUBSURFACE OR OTHERWISE CONCEALED PHYSICAL CONDITIONS WHICH DIFFER MATERIALLY FROM THOSE INDICATED IN THE PLANS, THEN CONTRACTOR SHALL PROMPTLY NOTIFY OWNER BEFORE CONDITIONS ARE DISTURBED AND IN NO EVENT LATER THAN 10 DAYS AFTER FIRST OBSERVANCE OF THE CONDITIONS.

#### DEMOLITION KEY

- ① TO BE REMOVED
- ② EXISTING PLANT MATERIAL TO BE REMOVED UP TO LIMIT OF WORK; SEE DEMO NOTE #5 ON THIS SHEET BEFORE REMOVAL OPERATIONS.
- ③ PROTECT IN PLACE
- ⊖ EXISTING TREE - PROTECT IN PLACE
- ⊗ REMOVE TREE
- LIMIT OF WORK LINE

#### KEY MAP



#### BALLONA CREEK TRAIL: Greenway Improvements

Los Angeles, California

A PROJECT OF:  
Mountains Recreation and Conservation Authority  
575 West Avenue 26, Suite 100  
Los Angeles, CA 90065  
(323) 221-8944

LANDSCAPE ARCHITECT  
Mountains Recreation and Conservation Authority  
570 West Avenue 26, Suite 100  
Los Angeles, CA 90065  
(323) 221-9044

SURVEYOR:  
Grimes Surveying & Mapping, Inc.  
5249 Huntington Drive South  
Los Angeles, CA 90032  
(323) 223-1011

IRRIGATION CONSULTANT:  
Jeff Hutchins  
625 N. Harbor Ave.  
San Dimas, CA 91773  
(909) 568-4436

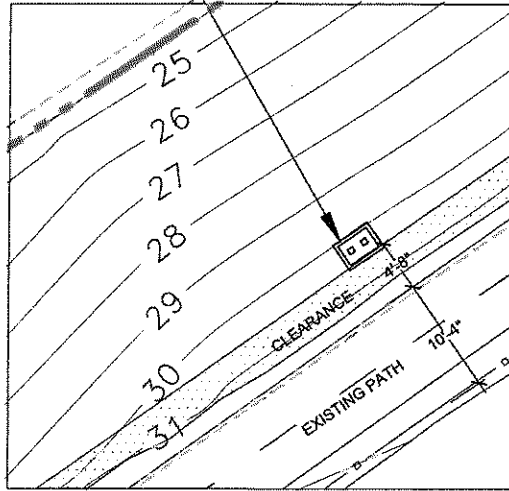


REVISIONS:
1.4.26.11 Revision
2.8.12.11 Revision
3.1.23.12 Revision
4.

DATE: 12-15-2010  
DRAWN: MG  
CHECKED: LS  
PROJECT: 9104-7190  
SCALE: As noted

#### DEMOLITION PLAN AREA 3

L-103



1 INTERPRETATIVE PANEL DETAIL PLAN  
 NTS

New interpretive panel and exhibit frame; see detail #7 sheet L-404

+/- 39'-7" to channel wall

POLE & ELECTROLYZER  
 N 55° 15' 30" E  
 475.68'

METAL RAILING

END OF PLANTING BED, AREA 1

+  
 STATION  
 189 + 00

New interpretive panel and exhibit frame; see detail #7 sheet L-404

POWER & IFL POLE

Planting Bed Width  
 County Flood Control ROW  
 GUY ANCHOR  
 EDGE OF ASPHALT

EDGE OF ASPHALT

Existing surface material. Width ranges from +/- 1'-10" to +/- 4'-3". Length is +/- 470'-4".

NOTE: MAINTAIN EXISTING SURFACE MATERIAL BETWEEN EXISTING ASPHALT BIKEPATH AND NEW PROPOSED PLANTINGS, MINIMUM WIDTH: 2' UP TO 4' MAX, UNLESS OTHERWISE INSTRUCTED BY PROJECT LANDSCAPE ARCHITECT. PATHWAY TO SLOPE AT A MINIMUM OF 2% AWAY FROM ASPHALT EDGE TOWARDS PLANTING AREA. REGRADE WITH EXCAVATED SOIL FROM PLANTING FITS (AS REQUIRED) AND COMPACT TO 90% RELATIVE COMPACTION IN ORDER TO CREATE SMOOTH TRANSITION BETWEEN ASPHALT AND DIRT PATHWAY.

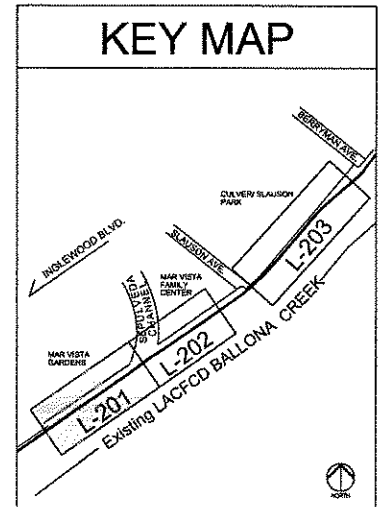
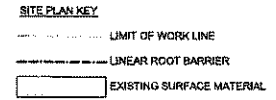
NOTE: STATIONS ARE COPIED FROM LA COUNTY FLOOD CONTROL DISTRICT AS-BUILTS NO. 17-R7.1 AND NO. 17-R8.

AREA 1 BEGIN WORK: PLANTING BED CONTINUES FOR 470'-4" LINEAR FEET

+  
 STATION  
 186 + 00

LINEAR ROOT BARRIER NOTES

1. DeepRoot LINEAR ROOT CONTROL BARRIERS MODEL # UB 24-1 (OR APPROVED EQUAL) TO BE PLACED AT 25'-0" O.C. OF ALL TREE TRUNKS LOCATED WITHIN 8'-0" TO 10'-0" OF ASPHALT EDGE OR RETAINING WALL. CONTACT: WWW.DEEPROOT.COM
2. INSTALL ROOT BARRIERS PER MANUFACTURER'S RECOMMENDATIONS.



LS110519000



BALLONA CREEK TRAIL: Greenway Improvements

Los Angeles, California

A PROJECT OF:  
 Mountains Recreation and Conservation Authority

570 West Avenue 28, Suite 100  
 Los Angeles, CA 90055  
 (323) 221-8844

LANDSCAPE ARCHITECT  
 Mountains Recreation and Conservation Authority

570 West Avenue 25, Suite 100  
 Los Angeles, CA 90055  
 (323) 221-8944

SURVEYOR:  
 Grimes Surveying & Mapping, Inc.

5248 Huntington Drive South  
 Los Angeles, CA 90032  
 (323) 223-1011

IRRIGATION CONSULTANT:

Jeff Hutchins  
 425 N. Hollywood Ave.  
 San Dimas, CA 91773  
 (909) 598-4438



REVISIONS:

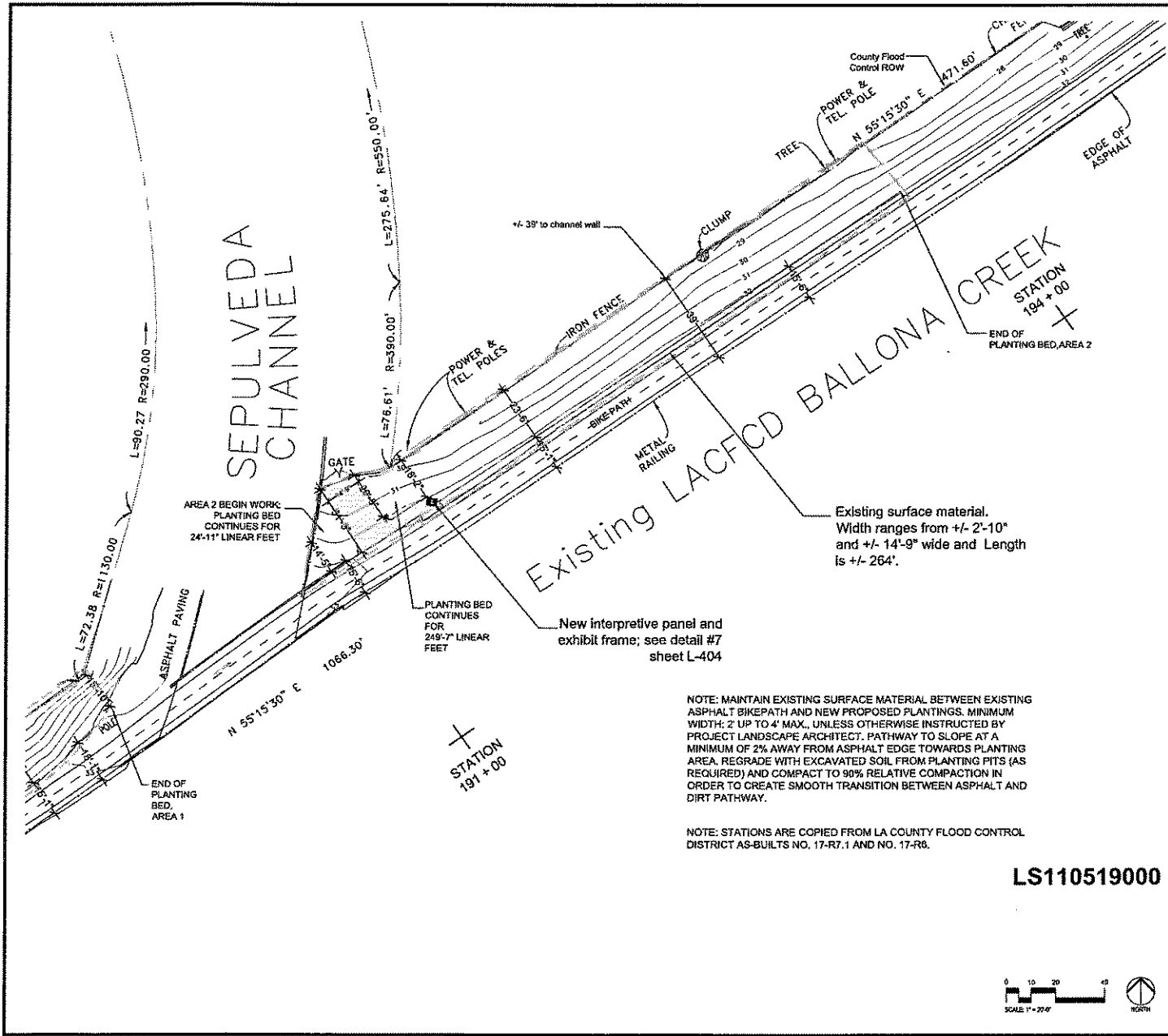
1.4.26.11	Revision
2.8.12.11	Revision
3.1.23.12	Revision
4.	

DATE: 12-15-2010  
 DRAWN: MG  
 CHECKED: LS  
 PROJECT: 9104-7190  
 SCALE: As noted

SITE PLAN AREA 1

L-201





**LINEAR ROOT BARRIER NOTES**

1. DeepRoot LINEAR ROOT CONTROL BARRIERS MODEL # LR 24-1 (OR APPROVED EQUAL) TO BE PLACED AT 25'-0" O.C. OF ALL TREE TRUNKS LOCATED WITHIN 8'-0" TO 10'-0" OF ASPHALT EDGE OR RETAINING WALL. CONTACT: WWW.DEEPROOT.COM
2. INSTALL ROOT BARRIERS PER MANUFACTURER'S RECOMMENDATIONS.

**BALLONA CREEK TRAIL: Greenway Improvements**

Los Angeles, California  
A PROJECT OF:  
Mountains Recreation and Conservation Authority  
570 West Avenue 28, Suite 100  
Los Angeles, CA 90055  
(323) 221-8944

LANDSCAPE ARCHITECT  
Mountains Recreation and Conservation Authority  
670 West Avenue 26, Suite 100  
Los Angeles, CA 90065  
(323) 221-8944

SURVEYOR:  
Grimes Surveying & Mapping, Inc.  
6248 Huntington Drive South  
Los Angeles, CA 90032  
(323) 278-1011

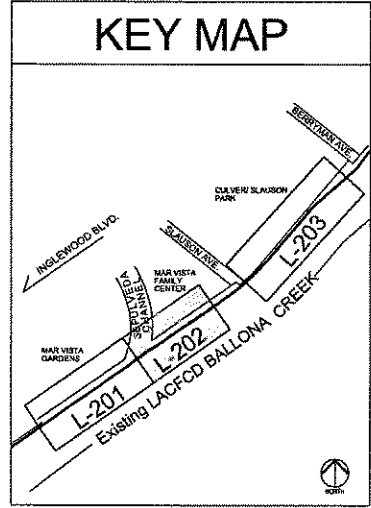
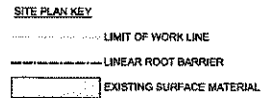
IRRIGATION CONSULTANT:  
Jeff Hutchins  
622 N. Hollywood Ave.  
Van Nuys, CA 91417  
(805) 939-4436

Existing surface material.  
Width ranges from +/- 2'-10"  
and +/- 14'-9" wide and Length  
is +/- 264'.

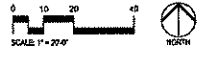
New interpretive panel and  
exhibit frame; see detail #7  
sheet L-404

NOTE: MAINTAIN EXISTING SURFACE MATERIAL BETWEEN EXISTING ASPHALT BIKEPATH AND NEW PROPOSED PLANTINGS. MINIMUM WIDTH: 2' UP TO 4' MAX., UNLESS OTHERWISE INSTRUCTED BY PROJECT LANDSCAPE ARCHITECT. PATHWAY TO SLOPE AT A MINIMUM OF 2% AWAY FROM ASPHALT EDGE TOWARDS PLANTING AREA. REGRADE WITH EXCAVATED SOIL FROM PLANTING PITTS (AS REQUIRED) AND COMPACT TO 90% RELATIVE COMPACTION IN ORDER TO CREATE SMOOTH TRANSITION BETWEEN ASPHALT AND DIRT PATHWAY.

NOTE: STATIONS ARE COPIED FROM LA COUNTY FLOOD CONTROL DISTRICT AS-BUILTS NO. 17-R7.1 AND NO. 17-R6.



LS110519000



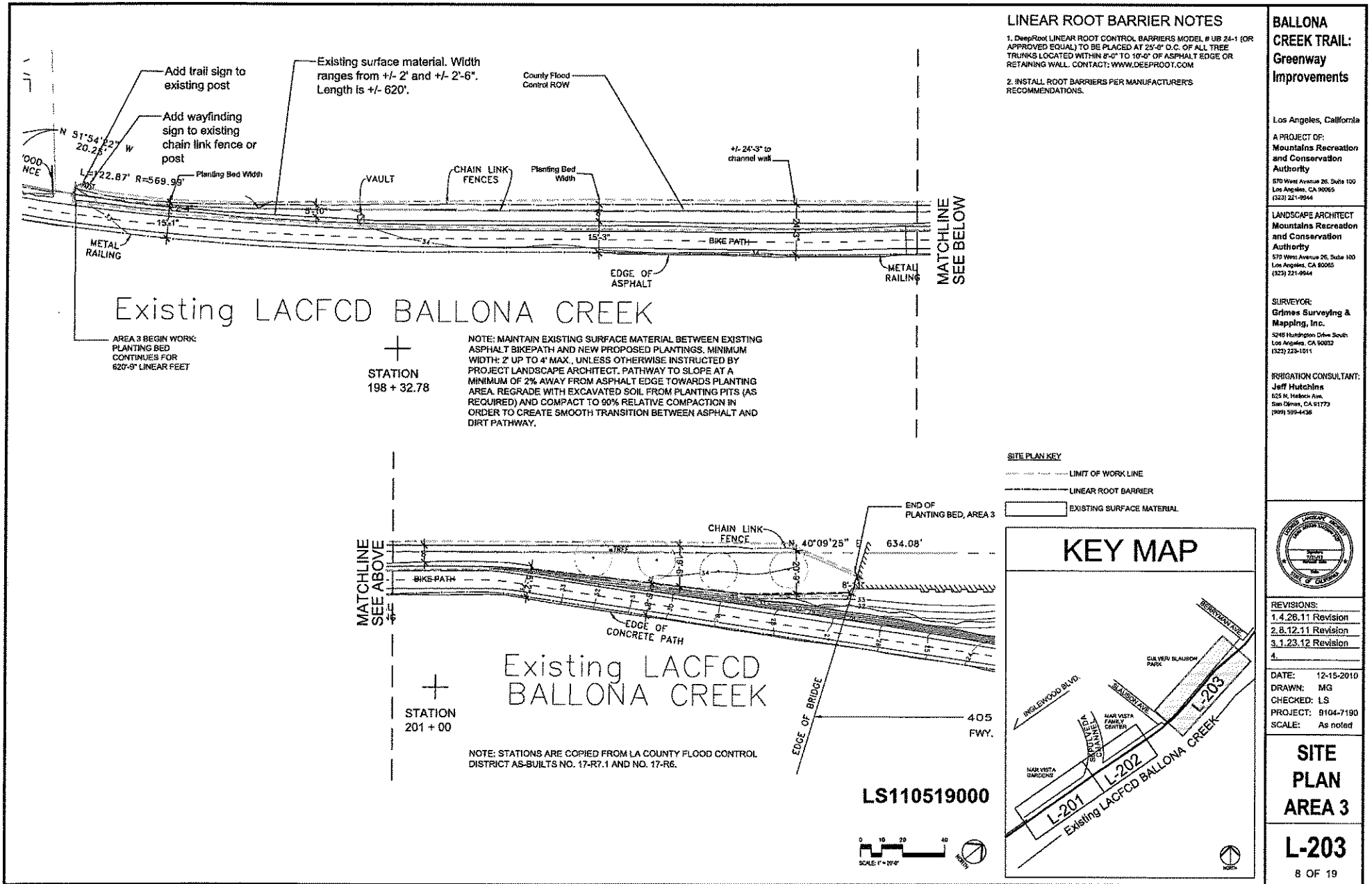
**REVISIONS:**

1.	4.26.11	Revision
2.	8.12.11	Revision
3.	1.23.12	Revision
4.		

DATE: 12-15-2010  
DRAWN: MG  
CHECKED: LS  
PROJECT: 9104-7190  
SCALE: As noted

**SITE PLAN AREA 2**

**L-202**  
7 OF 19



**BALLONA CREEK TRAIL: Greenway Improvements**

Los Angeles, California

A PROJECT OF:  
**Mountains Recreation and Conservation Authority**  
570 West Avenue 26, Suite 100  
Los Angeles, CA 90065  
(323) 221-9944

LANDSCAPE ARCHITECT  
**Mountains Recreation and Conservation Authority**  
570 West Avenue 26, Suite 100  
Los Angeles, CA 90065  
(323) 221-9944

SURVEYOR:  
**Grimes Surveying & Mapping, Inc.**  
5248 Huntington Drive South  
Los Angeles, CA 90032  
(323) 225-1011

IRRIGATION CONSULTANT:  
**Jeff Hutchins**  
125 N. Harbor Ave.  
San Diego, CA 91772  
(951) 529-4436



REVISIONS:

1.4.26.11	Revision
2.8.12.11	Revision
3.1.23.12	Revision
4.	

DATE: 12-15-2010  
DRAWN: MG  
CHECKED: LS  
PROJECT: 9104-7190  
SCALE: As noted

**SITE PLAN AREA 3**

**L-203**

8 OF 19

**CRITICAL ANALYSIS**

Generated: 2011-09-01 19:48

P.O.C. NUMBER:01  
Water Source Information: DWP

**FLOW AVAILABLE**  
Water Meter Size: 2"  
Flow Available: 104.00 gpm

**PRESSURE AVAILABLE**  
Static Pressure at POC: 66.00 psi  
Elevation Change: 5.00 ft  
Service Line Size: 12"  
Length of Service Line: 26.60 ft  
Pressure Available: 64.00 psi

**DESIGN ANALYSIS**  
Maximum Station Flow: 15.52 gpm  
Flow Available at POC: 104.00 gpm  
Residual Flow Available: 88.36 gpm

Critical Station: 5  
Design Pressure: 40.00 psi  
Loss Elev. High head to valve: -0.43 psi  
Pipe Loss Critical Head: 2.45 psi  
Loss Fitting Factor: 0.28 psi  
Loss Through Valve: 3.90 psi  
Pressure Req. at Critical Station: 45.17 psi  
Loss for Fittings: 0.77 psi  
Loss for Main Line: 8.57 psi  
Loss for POC to Valve Elevation: 0.22 psi  
Loss for Backflow: 6.50 psi  
Loss for Master Valve: 0.45 psi  
Loss for Water Meter: 0.40 psi  
Critical Station Pressure at POC: 64.00 psi  
Pressure Available: 64.00 psi  
Residual Pressure Available: 0.92 psi

P.O.C. NUMBER:02  
Water Source Information: DWP

**FLOW AVAILABLE**  
Water Meter Size: 2"  
Flow Available: 120.00 gpm

**PRESSURE AVAILABLE**  
Static Pressure at POC: 64.00 psi  
Elevation Change: 5.00 ft  
Service Line Size: 8"  
Length of Service Line: 20.00 ft  
Pressure Available: 62.50 psi

**DESIGN ANALYSIS**  
Maximum Station Flow: 23.16 gpm  
Flow Available at POC: 120.00 gpm  
Residual Flow Available: 99.84 gpm

Critical Station: 4  
Design Pressure: 40.00 psi  
Loss Elev. High head to valve: 0.00 psi  
Pipe Loss Critical Head: 4.88 psi  
Loss Fitting Factor: 0.47 psi  
Loss Through Valve: 3.90 psi  
Pressure Req. at Critical Station: 49.06 psi  
Loss for Fittings: 0.18 psi  
Loss for Main Line: 2.05 psi  
Loss for POC to Valve Elevation: 0.00 psi  
Loss for Backflow: 6.00 psi  
Loss for Master Valve: 0.45 psi  
Loss for Water Meter: 0.40 psi  
Critical Station Pressure at POC: 59.14 psi  
Pressure Available: 59.00 psi  
Residual Pressure Available: 3.88 psi

**VALVE SCHEDULE**

NUMBER	MODEL	SIZE	TYPE	PSI	PSI @ POC	GPM	HEAD ELEV.	VALVE ELEV.	PRECIP.
1	Rain Bird PEB	2"	Shrub Rotary	47.01	56.36	7.92	0.00 ft	0.00 ft	0.40 in/h
2	Rain Bird PEB	1-1/2"	Shrub Rotary	48.29	55.08	8.50	0.00 ft	1.00 ft	0.52 in/h
3	Rain Bird PEB	2"	Shrub Rotary	46.22	56.01	8.04	0.00 ft	1.00 ft	0.33 in/h
4	Rain Bird PEB	1-1/2"	Shrub Rotary	49.05	58.14	11.88	0.00 ft	0.00 ft	0.55 in/h
5	Rain Bird PEB	2"	Shrub Rotary	45.17	53.08	15.53	-1.00 ft	0.50 ft	0.22 in/h
6	Rain Bird PEB	2"	Shrub Rotary	46.07	62.71	15.62	-1.00 ft	0.00 ft	0.22 in/h
7	Rain Bird PEB	2"	Shrub Rotary	50.39	62.82	15.50	7.00 ft	-7.00 ft	0.22 in/h
8	Rain Bird PEB	2"	Shrub Rotary	50.54	62.44	15.39	6.00 ft	-7.00 ft	0.22 in/h
9	Rain Bird PEB	1-1/2"	Shrub Rotary	45.51	56.11	20.18	0.00 ft	0.50 ft	0.33 in/h
10	Rain Bird PEB	1-1/2"	Shrub Rotary	44.55	53.23	6.82	0.00 ft	1.00 ft	0.61 in/h

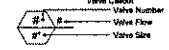
**IRRIGATION NOTES**

- THIS DESIGN IS DIAGRAMMATIC. ALL PAVING, WALKWAYS, ETC. SHOWN WITH PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY. INSTALL ALL COMPONENTS IN PLANTING AREAS UNLESS OTHERWISE SPECIFIED.
- SET ALL VALVES AND CHECK COUPLERS NEXT TO WALKS OR PAVED SURFACES. IN LOCATIONS WITH NO ADJACENT PAVING, COORDINATE FINAL LOCATION WITH OWNER.
- ALL SPRINKLER HEADS ARE TO HAVE TRIPLE SWING JOINTS (EXCEPT WHERE NOTED ON PLANS).
- NO SUBSTITUTIONS OF SMALLER PIPE SIZES SHALL BE PERMITTED, BUT SUBSTITUTIONS OF LARGER SIZES MAY BE APPROVED.
- ALL DAMAGED AND REJECTED PIPE SHALL BE REMOVED FROM THE SITE AT THE TIME OF THE SAID REJECTION.
- CONTROLLER LOCATION SHOWN IS DIAGRAMMATIC. OBTAIN FINAL LOCATION APPROVAL FROM THE LANDSCAPE ARCHITECT AND OWNER PRIOR TO INSTALLATION.
- CONTRACTOR SHALL PROVIDE AND PAY FOR BACKFLOW DEVICE INSPECTION. INSPECTION TO BE PERFORMED BY AN INSPECTOR CERTIFIED BY LOS ANGELES COUNTY DEPARTMENT OF HEALTH SERVICES (DASHS). THE INSPECTION CERTIFICATION SHALL BE COMPLETED AND SUBMITTED TO THE WATER PURVEYOR, AND A COPY SHALL BE SUBMITTED TO THE ENGINEER AND LANDSCAPE ARCHITECT.
- BEFORE COMMENCING ANY WORK, OBTAIN AN UNDERGROUND SERVICE ALERT (USA) NUMBER BY CALLING 1-800-422-4133. ALLOW TWO (2) WORKING DAYS AFTER THE USA NUMBER IS OBTAINED AND BEFORE THE EXCAVATION WORK IS STARTED SO THAT UTILITY OWNERS CAN BE NOTICED.
- ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE UNLESS OTHERWISE SPECIFIED. HEADS SHALL BE SETBACK FAR ENOUGH FROM PLANTS SO WATER WILL NOT BE BLOCKED BY PLANTS IN THE NEAR FUTURE CAUSING EXCESSIVE RUN-OFF.
- FLUSH AND ADJUST ALL SPRINKLER HEADS AND VALVES FOR OPTIMUM COVERAGE WITH MINIMAL OVER SPREAD INTO WALKS, STREETS, ETC.
- IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO BE FAMILIAR WITH THE EXISTING SITE CONDITIONS, UTILITIES, GRADE DIFFERENCES, LOCATION OF WALLS, ETC. THE IRRIGATION CONTRACTOR SHALL REMOVE OR REPLACE ALL ITEMS DAMAGED BY HIS WORK. HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES AND LATERALS UNDER ROWWAYS AND PAVING, ETC.
- THE SPRINKLER SYSTEM DESIGN IS BASED ON A MINIMUM OPERATING PRESSURE OF 4.0 PSI AND A MAXIMUM FLOW DEMAND OF 7.0 G.P.M. THE CONTRACTOR SHALL VERIFY WATER PRESSURES PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN WATER PRESSURE INDICATED ON THE OWNERS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE ARCHITECT.
- DO NOT UNLITERALLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT THERE ARE UNKNOWN OBSTRUCTIONS OR GRADE DIFFERENCES IN THE AREA. DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BRINGED TO THE ATTENTION OF THE ARCHITECT. IN THE EVENT THAT THIS INFORMATION IS NOT GIVEN, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY NECESSARY REVISIONS.
- ALL SPRINKLER EQUIPMENT NOT OTHERWISE DETAILLED ON SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
- THE INTENT OF THE DESIGN IS TO PROVIDE 100% COVERAGE TO ALL PLANTING AREAS. AS PART OF THE SCOPE OF WORK, THE CONTRACTOR WILL PROVIDE ANY ADDITIONAL HEADS, SPECIAL HEADZONES, OR PATTERNS TO ACHIEVE PROPER COVERAGE WITH A MINIMUM OF OVER SPREAD AT NO ADDITIONAL COST TO THE OWNER.
- INSTALLATION OF CONTROL WIRING SHALL FOLLOW MANUFACTURER'S ROUTING.
- PROVIDE SLEEVES AS SHOWN ON DRAWING. USE 2 TIMES DIAMETER MIN. (AND NOT LESS THAN 2") SDR 10 P.V.C. MIN. DEPTH 24" TO TOP OF LINE.
- LOCATE VALVE CHART BY CONTRACTOR - REMOVE AND ENCASE IN PLASTIC (AS BUILT).
- WARRANTY: THE INSTALLED SPRINKLER SYSTEM SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK. SHOULD ANY TROUBLE DEVELOP WITHIN THE TIME SPECIFIED DUE TO DEFECTS IN FACTORY MATERIAL OR WORKMANSHIP, THE TROUBLE SHALL BE CORRECTED BY THE CONTRACTOR WITHOUT EXPENSE TO THE OWNER.
- CONTRACTOR TO INSTALL LATERAL LINE CHECK VALVES AS NEEDED TO ELIMINATE LOW HEAD LEAKAGE.
- REFER TO GENERAL NOTES FOR ADDITIONAL INFORMATION REGARDING THIS SECTION OF WORK.

**IRRIGATION SCHEDULE**

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	ARG	PSI	GPM	RADIUS	DETAIL
⊙	Hunter MP1000 w/MPR40-12-CV Shrub Rotator, 12" pop-up with check valve, MP Rotator nozzle. M=Maroon adj arc 90 to 210, L=Light Blue 210 to 270 arc, O=Olive 260 arc, on MPR40 12" pop-up body.	11	Aq	40		13'	1A.3.04
⊙	Hunter MP2000 w/MPR40-12-CV Shrub Rotator, 12" pop-up with check valve, MP Rotator nozzle. K=Black adj arc 90-210, G=Green adj arc 210-270, R=Red 360 arc, on MPR40 12" pop-up body.	32	Aq	40		19'	1A.3.04
⊙	Hunter MP3000 w/MPR40-12-CV Shrub Rotator, 12" pop-up with check valve, MP rotary nozzle. B=Blue adj arc 90-210, T=Yellow adj arc 210-270, A=Grey 360 arc, on MPR40 12" pop-up body.	35	Aq	40		30'	1A.3.04
⊙	Hunter MP Corner w/MPR40-12-CV Shrub Rotator, 12" pop-up with factory installed check valve, MP Rotator nozzle. T=Turquoise adj arc 45-105, on MPR40 12" pop-up body.	2	Aq	40		13'	1A.3.04
⊙	Hunter MP Strip w/MPR40-12-CV Shrub Rotator, 12" pop-up with factory installed check valve, MP Rotator nozzle. LST=heavy left strip, SST=Brown slide strip, RST=Copper right strip, on MPR40 12" pop-up body.	3	LCS	40	0.22	5x15'	1A.3.04
⊙	Hunter MP Strip w/MPR40-12-CV Shrub Rotator, 12" pop-up with factory installed check valve, MP Rotator nozzle. LST=heavy left strip, SST=Brown slide strip, RST=Copper right strip, on MPR40 12" pop-up body.	4	RCS	40	0.22	5x15'	1A.3.04
⊙	Hunter MP Strip w/MPR40-12-CV Shrub Rotator, 12" pop-up with factory installed check valve, MP Rotator nozzle. LST=heavy left strip, SST=Brown slide strip, RST=Copper right strip, on MPR40 12" pop-up body.	89	SST	40	0.44	5x30'	1A.3.04

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
⊙	Rain Bird PEB Electric Remote Control Valve	10	2A.3.04
X	Nibco T-113 Class 125 bronze gate shut off valve with wheel handle, same size as pipe diameter	2	4A.3.04
⊙	Wilkins 850XL 1-1/2" Double Check Valve Assembly	1	5A.3.04
⊙	Wilkins 850XL 2" Double Check Valve Assembly	1	5A.3.04
⊙	DIG LEFT 2ET Photo-voltic ET controller	1	6A.3.04
⊙	DIG LEFT 2ET Photo-voltic ET controller	1	6A.3.04
⊙	DIG LEFT 2ET Photo-voltic ET controller	1	6A.3.04
⊙	DIG LEFT 2ET Photo-voltic ET controller	1	6A.3.04
⊙	DIG LEFT 2ET Photo-voltic ET controller	1	6A.3.04
⊙	DIG LEFT 2ET Photo-voltic ET controller	1	6A.3.04
⊙	LETT WWS Weather station	2	7A.3.04
⊙	Water Meter 2" DWP	1	
⊙	Water Meter 2" DWP	1	
---	Irrigation Lateral Line, PVC Schedule 40	2,858 ft	6A.3.04
---	Irrigation Mainline, PVC Class 315	2,266 ft	6A.3.04



**BALLONA CREEK TRAIL: Greenway Improvements**

Los Angeles, California

A PROJECT OF:  
Mountains Recreation and Conservation Authority  
570 West Avenue 28, Suite 100  
Los Angeles, CA 90055  
(323) 221-9944

LANDSCAPE ARCHITECT  
Mountains Recreation and Conservation Authority  
570 West Avenue 28, Suite 100  
Los Angeles, CA 90055  
(323) 221-9944

SURVEYOR:  
Grimes Surveying & Mapping, Inc.  
2248 Huntington Drive South  
Los Angeles, CA 90032  
(323) 223-1911

IRRIGATION CONSULTANT:  
Jeff Hutchins  
825 N. Hollywood Ave.  
Van Nuys, CA 91417  
(805) 995-4138

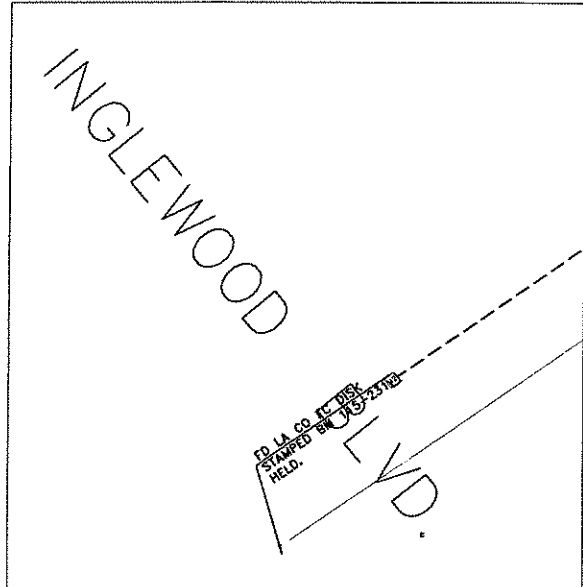
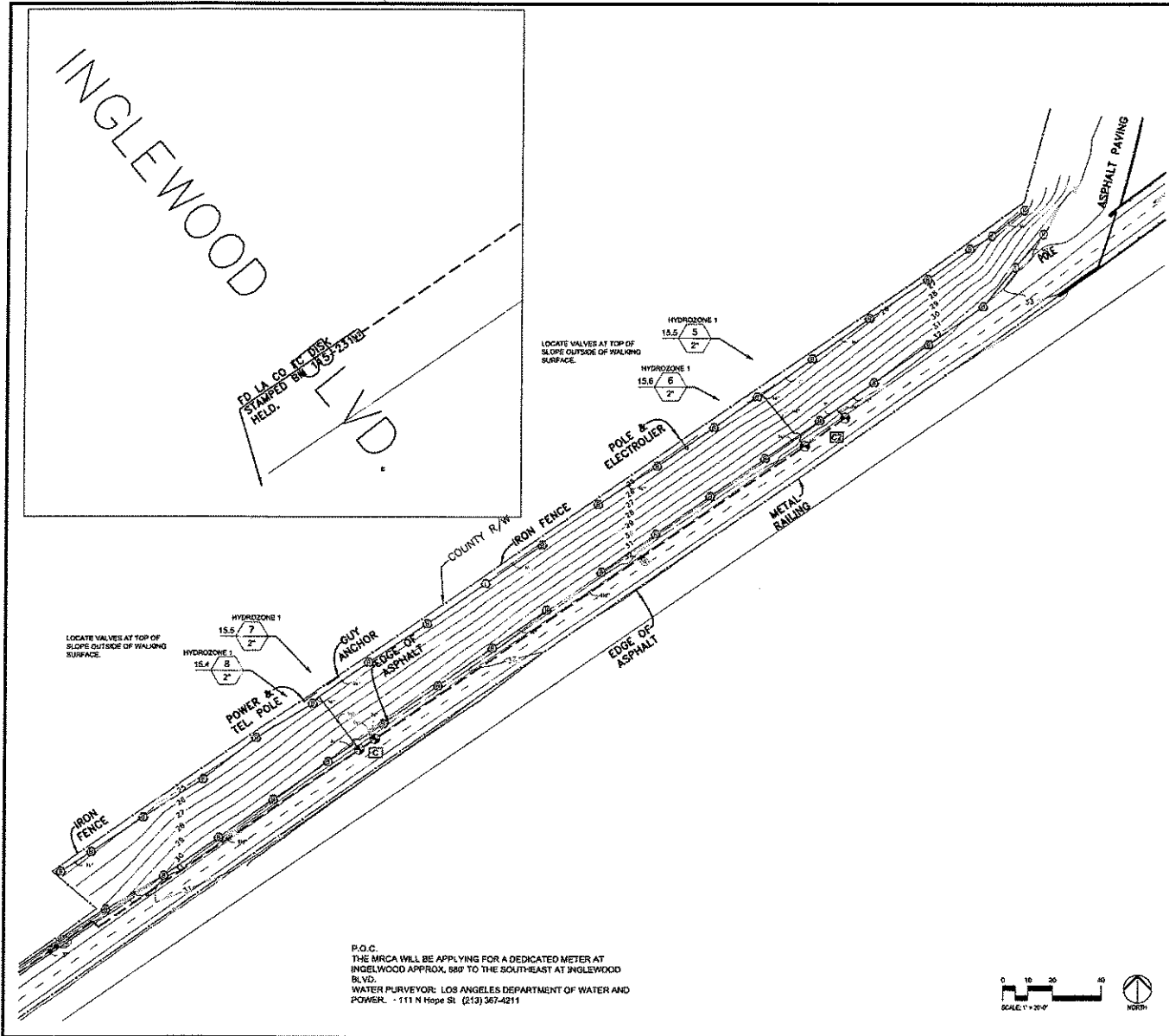


- REVISIONS:**
- 4.26.11 REVISION
  - 8.12.11 REVISION
  - 1.23.12 REVISION
  -

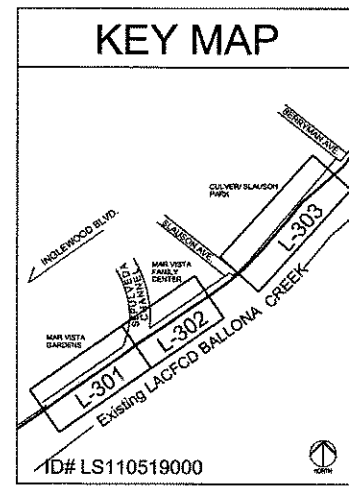
DATE: 12-15-2010  
DRAWN: JPH  
CHECKED: JBB  
PROJECT: 9104-7190  
SCALE: As noted

**IRRIGATION NOTES**

**L300**  
9 OF 19



P.O.C.  
 THE MRCA WILL BE APPLYING FOR A DEDICATED METER AT  
 INGELWOOD APPROX. 880' TO THE SOUTH-EAST AT INGLEWOOD  
 BLVD.  
 WATER PURVEYOR: LOS ANGELES DEPARTMENT OF WATER AND  
 POWER - 111 N Hope St. (213) 367-4211



**BALLONA CREEK TRAIL: Greenway Improvements**

Los Angeles, California

A PROJECT OF:  
 Mountains Recreation and Conservation Authority  
 570 West Avenue 28, Suite 100  
 Los Angeles, CA 90065  
 (323) 221-2644

LANDSCAPE ARCHITECT  
 Mountains Recreation and Conservation Authority  
 570 West Avenue 28, Suite 100  
 Los Angeles, CA 90065  
 (323) 221-2644

SURVEYOR:  
 Grimes Surveying & Mapping, Inc.  
 5243 Huntington Drive South  
 Los Angeles, CA 90032  
 (323) 225-1011

IRRIGATION CONSULTANT:  
 Jeff Hutchins  
 835 N. Hollywood Ave.  
 San Dimas, CA 91773  
 (909) 528-4130

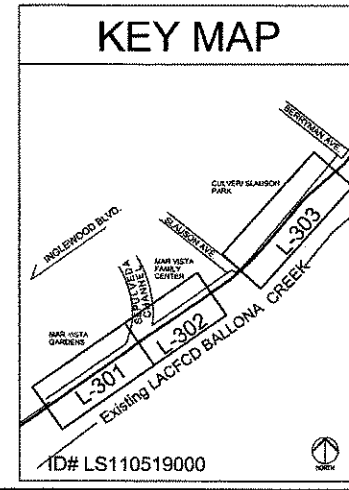
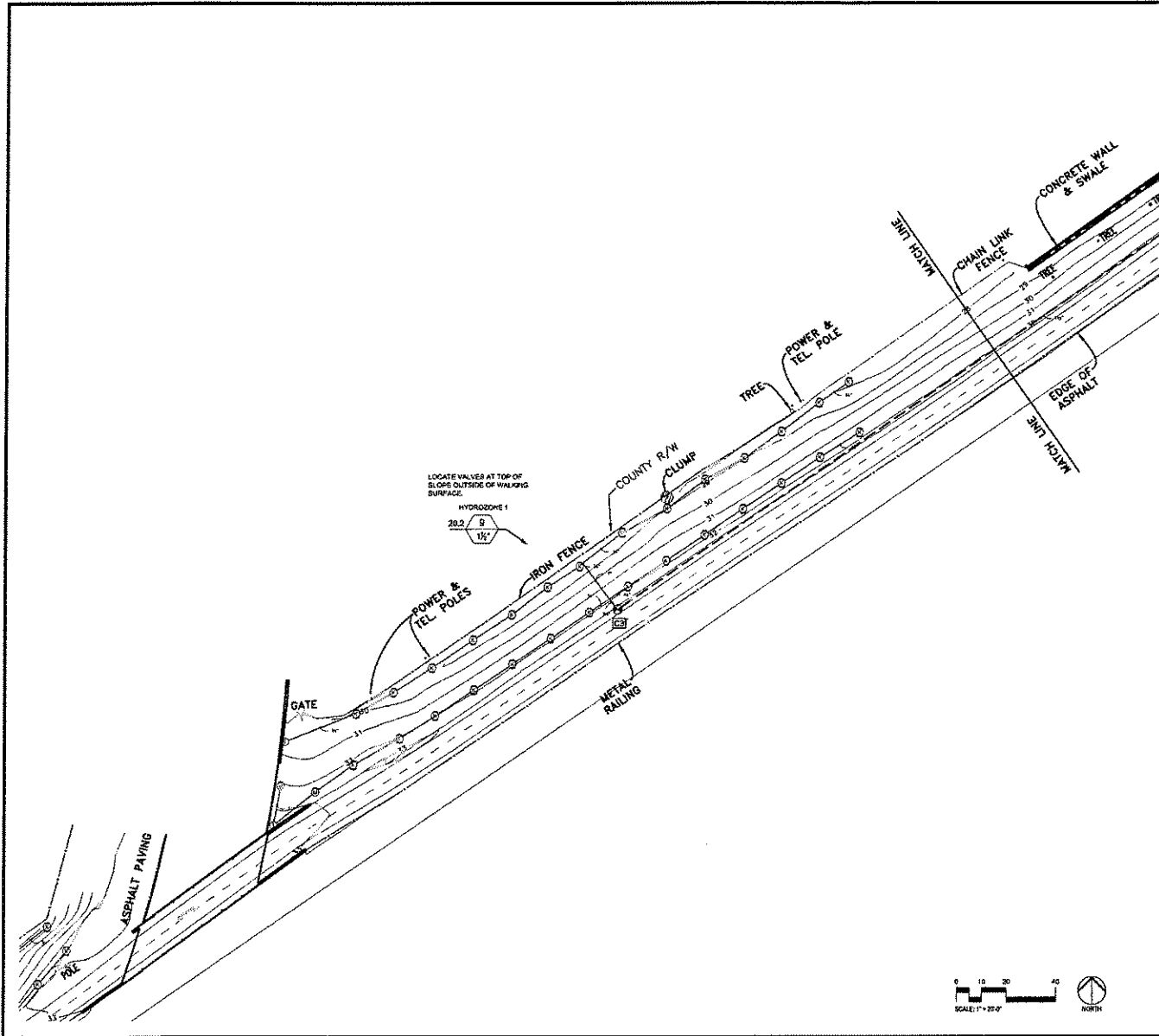
REVISIONS:  
 1. 4.26.11 REVISION  
 2. 8.12.11 REVISION  
 3. 1.23.12 REVISION  
 4.

DATE: 12-15-2010  
 DRAWN: JPH  
 CHECKED: BBB  
 PROJECT: 9104-7190  
 SCALE: As note

**IRRIGATION PLAN**

**L301**

10 OF 19



**BALLONA CREEK TRAIL: Greenway Improvements**

Los Angeles, California

A PROJECT OF:  
**Mountains Recreation and Conservation Authority**  
 579 West Avenue 26, Suite 100  
 Los Angeles, CA 90025  
 (323) 221-8944

LANDSCAPE ARCHITECT  
**Mountains Recreation and Conservation Authority**  
 579 West Avenue 26, Suite 100  
 Los Angeles, CA 90025  
 (323) 221-8944

SURVEYOR:  
**Grimes Surveying & Mapping, Inc.**  
 5248 Huntington Drive South  
 Los Angeles, CA 90032  
 (323) 223-1011

IRRIGATION CONSULTANT:  
**Jeff Hutchins**  
 825 N. Hollywood Ave.  
 San Dimas, CA 91773  
 (919) 589-4436



REVISIONS:

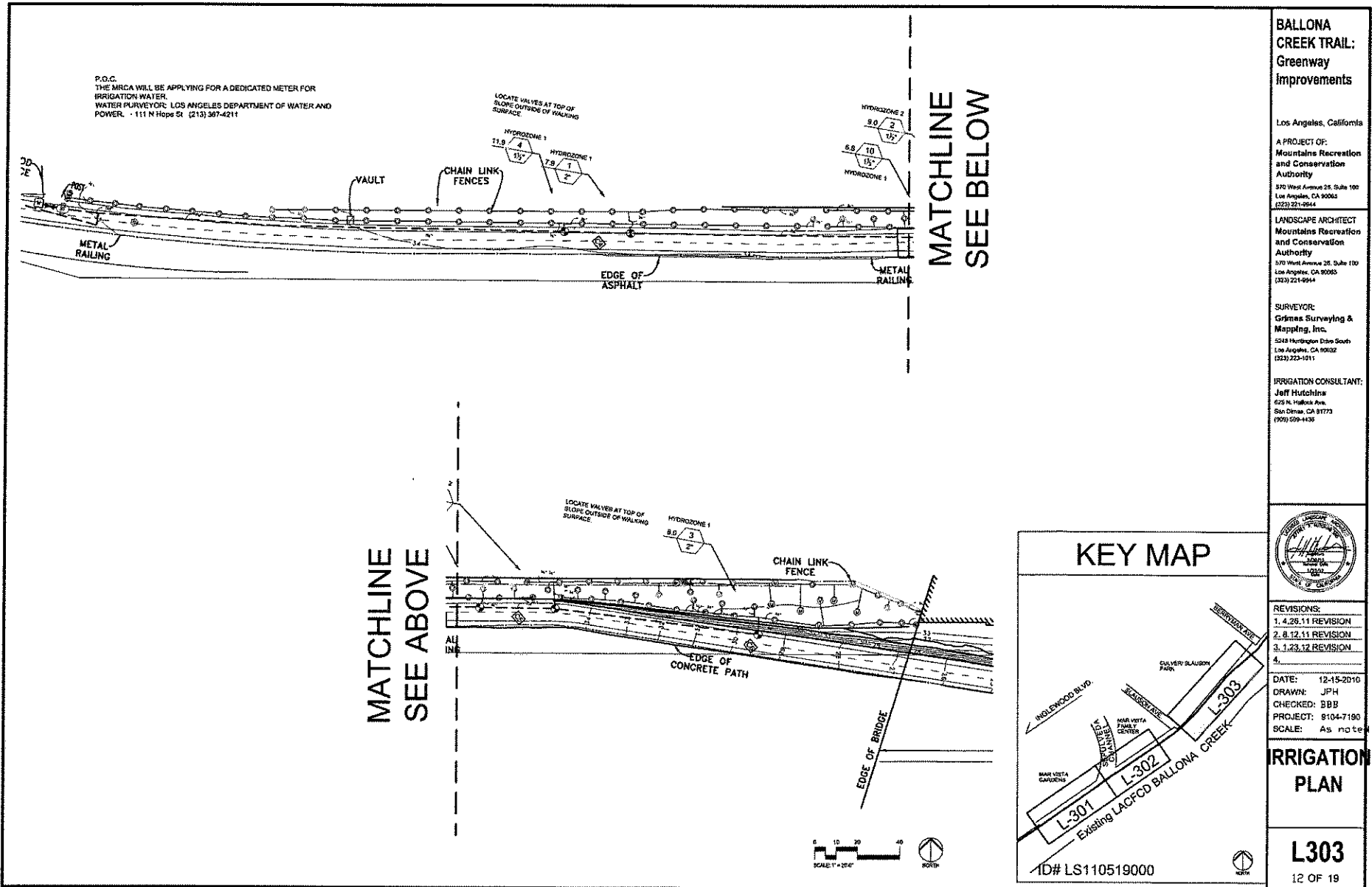
1.	4.26.11	REVISION
2.	8.12.11	REVISION
3.	1.23.12	REVISION
4.		

DATE: 12-15-2010  
 DRAWN: JPH  
 CHECKED: BBB  
 PROJECT: 9104-7190  
 SCALE: As noted

**IRRIGATION PLAN**

**L302**  
 11 OF 19

ID# LS110519000



**BALLONA CREEK TRAIL: Greenway improvements**

Los Angeles, California  
 A PROJECT OF:  
 Mountains Recreation and Conservation Authority  
 570 West Avenue 25, Suite 100  
 Los Angeles, CA 90063  
 (323) 221-2644

LANDSCAPE ARCHITECT  
 Mountains Recreation and Conservation Authority  
 570 West Avenue 25, Suite 100  
 Los Angeles, CA 90063  
 (323) 221-2644

SURVEYOR:  
 Grimes Surveying & Mapping, Inc.  
 5242 Huntington Drive South  
 Los Angeles, CA 90032  
 (323) 223-1011

IRRIGATION CONSULTANT:  
 Jeff Hutchins  
 625 N. Hollywood Ave.  
 San Dimas, CA 91773  
 (909) 599-4436



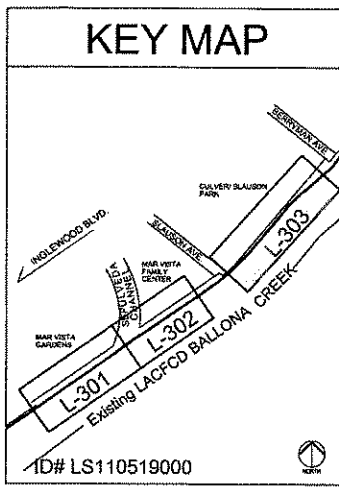
REVISIONS:

1.	4.26.11	REVISION
2.	8.12.11	REVISION
3.	1.23.12	REVISION
4.		

DATE: 12-15-2010  
 DRAWN: JPH  
 CHECKED: BBB  
 PROJECT: 8104-7190  
 SCALE: As noted

**IRRIGATION PLAN**

**L303**  
 12 OF 19



**BALLONA CREEK TRAIL:  
Greenway Improvements**

Los Angeles, California

A PROJECT OF:  
Mountains Recreation and Conservation Authority

LANDSCAPE ARCHITECT  
Mountains Recreation and Conservation Authority

SURVEYOR:  
Grimes Surveying & Mapping, Inc.

IRRIGATION CONSULTANT:  
Jeff Hutchins



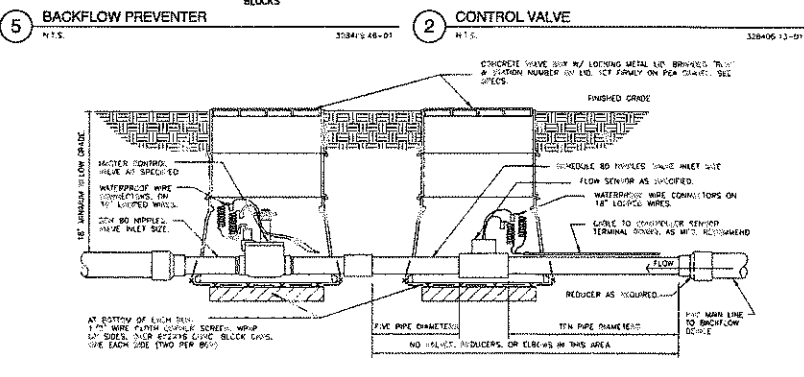
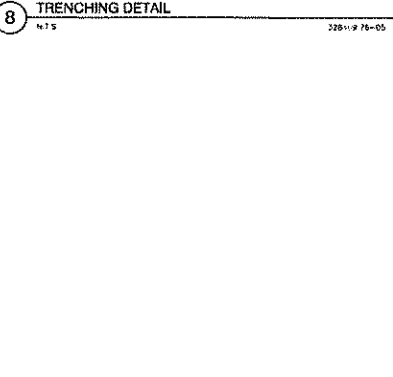
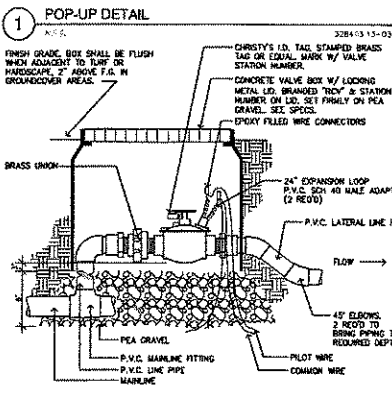
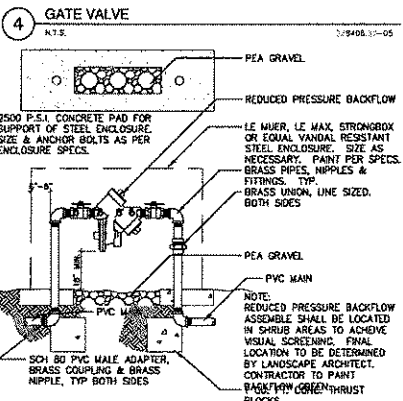
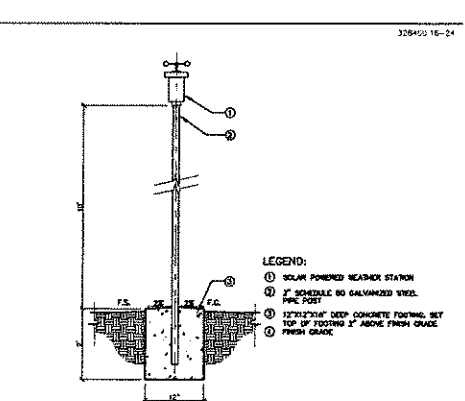
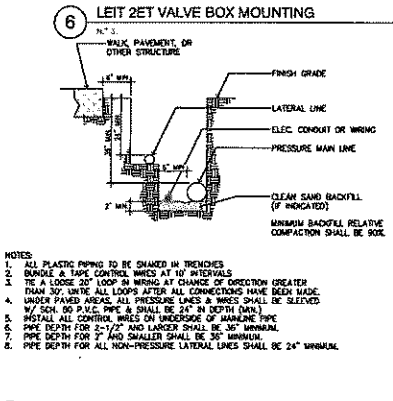
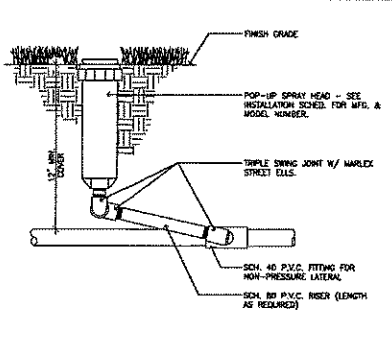
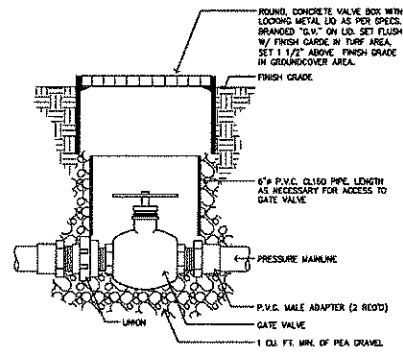
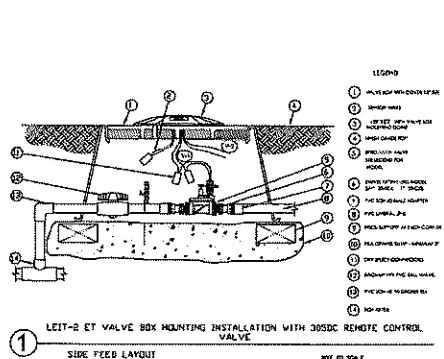
REVISIONS:

1.	4.26.11 REVISION
2.	8.12.11 REVISION
3.	1.23.12 REVISION
4.	

DATE: 12-15-2010  
DRAWN: JPH  
CHECKED: BBB  
PROJECT: 9104-7190  
SCALE: As noted

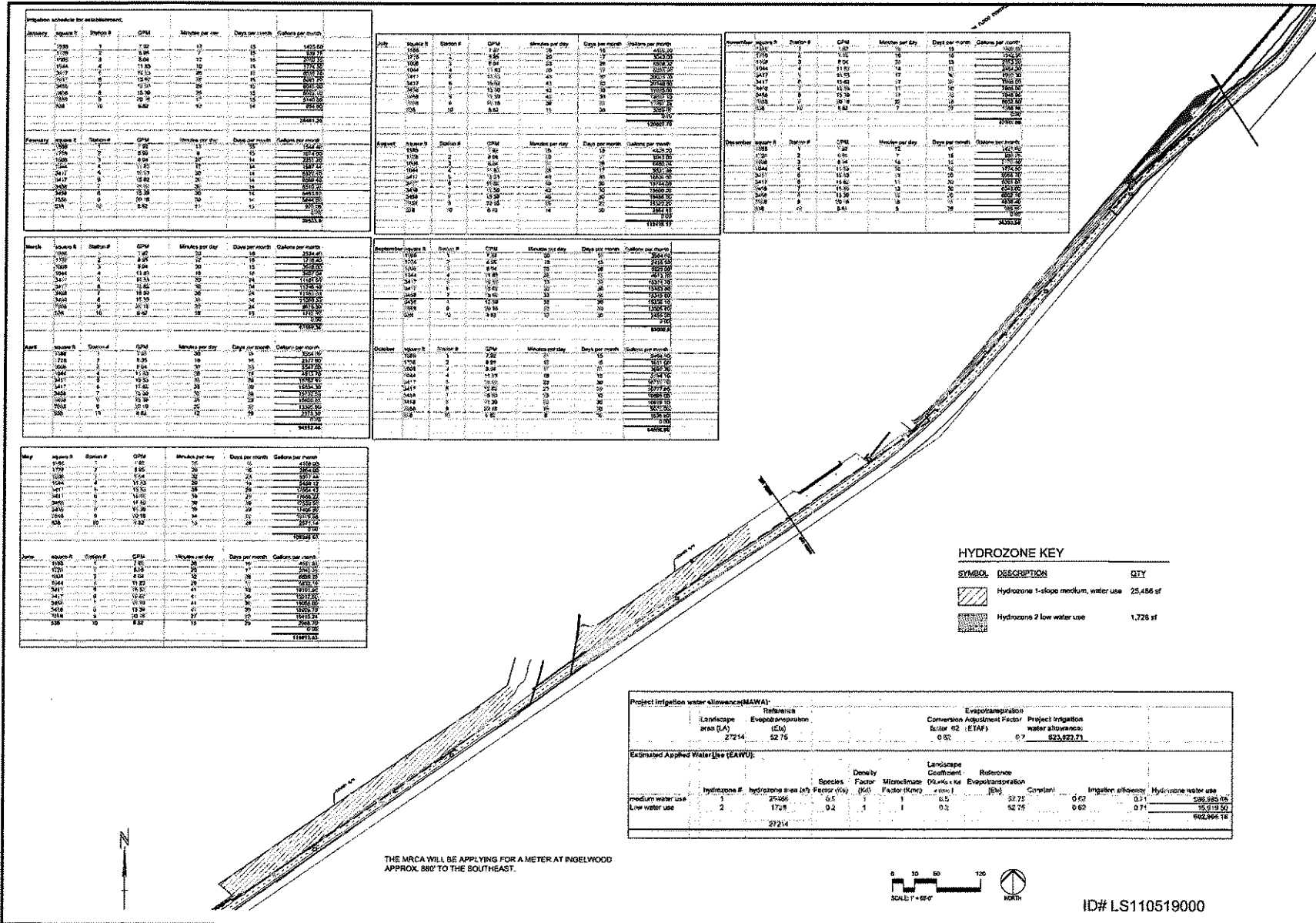
**IRRIGATION DETAILS**

**L304**  
13 OF 19



- NOTES:
1. ALL PLASTIC PIPING TO BE CHANGED IN TRENCHES
  2. BRANDED & TAPE CONTROL WIRES AT 10' INTERVALS
  3. TIE A LOOSE 20' LOOP IN WIRING AT CHANGE OF DIRECTION GREATER THAN 30'. UNITS ALL LOOPS AFTER ALL CONNECTIONS HAVE BEEN MADE
  4. UNDER PAVED AREAS, ALL PRESSURE LINES & WIRES SHALL BE SLEAVED
  5. 1/2\"/>
  - 6. PIPE DEPTH FOR 2\"/>
  - 7. PIPE DEPTH FOR 2\"/>
  - 8. PIPE DEPTH FOR ALL NON-PRESSURE LATERAL LINES SHALL BE 24\"/>

ID# LS110519000  
1 1/2\"/>



**BALLONA CREEK TRAIL: Greenway Improvements**

Los Angeles, California

A PROJECT OF:  
Mountains Recreation and Conservation Authority  
570 West Avenue 26, Suite 100  
Los Angeles, CA 90063  
(323) 221-9944

LANDSCAPE ARCHITECT  
Mountains Recreation and Conservation Authority  
570 West Avenue 26, Suite 100  
Los Angeles, CA 90063  
(323) 221-9944

SURVEYOR:  
Grimes Surveying & Mapping, Inc.  
4244 Huntington Drive South  
Los Angeles, CA 90032  
(323) 223-1011

IRRIGATION CONSULTANT:  
Jeff Hultzhine  
820 N. Hollywood Ave.  
San Dimas, CA 91773  
(909) 598-4452

REVISIONS:  
1. 4.26.11 REVISION  
2. 8.12.11 REVISION  
3. 1.23.12 REVISION  
4.

DATE: 12-15-2010  
DRAWN: JPH  
CHECKED: BBB  
PROJECT: 9104-7190  
SCALE: As noted

**HYDROZONE PLAN**

**L305**

14 OF 19

Project irrigation water allowance (MAMA)			
Landscaping area (LA)	Reference (Ea)	Conversion Factor (ETAF)	Project irrigation water allowance
27214	52.75	0.90	623,922.21

Estimated Applied Water Use (EAWU)			
Hydrozone #	Hydrozone area (Ea)	Density Factor (DF)	Reference (Ea)
1	20496	0.5	1
2	1718	0.4	1
27214			

THE MRCA WILL BE APPLYING FOR A METER AT INGELWOOD APPROX. 880° TO THE SOUTHEAST.



ID# LS110519000



**PLANTING LEGEND**

Key	Common Name	Botanical Name	Size	Spacing	Estimated Quantity	Notes	Minimum Setback	Water Need: WUCOLS
<b>TREES</b>								
PLA	California Sycamore	<i>Platanus racemosa</i>	24" box	see plan	4	ALL MULTI-TRUNKED SPECIMENS WILL BE USED (TWO TRUNKS PER TREE MAX). PLACEMENT WILL BE IN THE FIELD UNDER THE SUPERVISION OF THE LANDSCAPE ARCHITECT	8'-0" min.	Moderate
<b>SHRUBS/GROUNDCOVER</b>								
RJV	Catalina Perfume	<i>Ribes viburnifolium</i>	5 gal.	36" o.c.	68			Low
SAL	Cleveland Sage	<i>Salvia clevelandii</i>	5 gal.	30" o.c.	67		4'-0" to 5'-0" min.	Very Low
<b>GRASSES</b>								
MUH	Deer Grass	<i>Muhlenbergia rigens</i>	1 gal.	4'-0" o.c.	593		2'-0" min.	Low
CAR	Carex praegracilis	<i>Western Meadow Sedge</i>	1 gal.	12" o.c.	3258			Medium
FES	Festuca rubra	<i>Creeping Red Fescue</i>	sod		4885 P2			Med-High
LEY	Leymus triticoides	<i>Creeping Wild Rye</i>	1 gal.	24" o.c.	1044			Medium
<b>PERENNIALS</b>								
SIS	Blue-Eyed Grass	<i>Sisyrinchium bellum</i>	1 gal.	12" o.c.	1631			Low

**PLANTING NOTES**

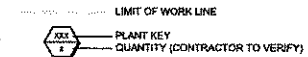
- DRAWING IS DIAGRAMMATIC. CONTRACTOR TO VERIFY ALL LOCATIONS AND CONDITIONS ON SITE. COUNT ALL PLANT MATERIAL BEFORE BIDDING.
- CONTRACTOR TO INSPECT ALL EXISTING CONDITIONS ON SITE AND LOCATE ALL EXISTING UTILITIES BEFORE CONSTRUCTION BEGINS.
- CONTRACTOR TO REPAIR AT HIS OWN EXPENSE ALL PROPERTY DAMAGE WHICH OCCURS DURING PROJECT INSTALLATION.
- NOTE ADDITIONAL REMARKS ON SPECIFIC PLANTS IN THE PLANT LIST.
- FINISH GRADE TO BE 2" BELOW ALL WALKS, CURBS AND PAVING.
- REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING THIS SECTION OF WORK.
- ALL PLANTING AREAS WITH LESS THAN A 2:1 SLOPE SHALL RECEIVE 3" MIN. 4" MAX. OF GORILLA HAIR MULCH AFTER INSTALLATION OF PLANT MATERIAL. HYDROSEEDED AREAS SHALL NOT BE MULCHED. SEE PLANT LEGEND FOR NOTES REGARDING SPECIFIC SPECIES
- WARRANTY:  
1) SHRUBS AND GROUNDCOVER SHALL BE GROWTH AND HEALTH GUARANTEED BY THE INSTALLER FOR A PERIOD OF ONE YEAR OR COMPLETION OF MAINTENANCE PERIOD, WHICHEVER IS LONGER. TREES SHALL BE INSTALLER GUARANTEED TO LIVE AND GROW IN AN UPRIGHT POSITION FOR A PERIOD OF ONE YEAR AFTER COMPLETION OF MAINTENANCE PERIOD.  
2) WITHIN 15 DAYS AFTER NOTIFICATION BY THE OWNER, REMOVE AND REPLACE FAILED PLANTINGS. REPLACEMENT PLANTINGS SHALL BE GUARANTEED PER SPECIFICATIONS.
- PRIOR TO PLANT REMOVAL, CONTRACTOR TO WALK SITE WITH LANDSCAPE ARCHITECT TO VERIFY TAG PLANTS WHICH ARE TO BE SAVED AND/OR RELOCATED ALONG WITH THOSE PLANTS SCHEDULED FOR DISPOSAL.
- JUTE ALL 2:1 SLOPES OR GREATER.
- ALL SHRUB MASS INSTALLATIONS TO BE TRIANGULAR SPACING. SEE DETAIL SHEET L-404.
- CONTRACTOR SHALL STAKE TREE LOCATIONS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO PLANTING. LANDSCAPE ARCHITECT TO APPROVE ORIENTATION/FACING OF ALL TREES 24" BOX OR LARGER AT TIME OF PLANTING.
- ALL PLANTS TO BE INSPECTED FOR PESTS, DISEASE, AND NOXIOUS WEEDS AT TIME OF DELIVERY. INFECTED PLANTS WILL NOT BE ACCEPTED. PLANT MATERIALS SHALL NOT BE ROOT-BOUND. PLANTS SHALL EXHIBIT HEALTHY GROWTH.
- PLANTS SHALL NOT BE PLACED WITHIN 12 INCHES OF SPRINKLER HEADS.

**SYMBOL KEY BOTANICAL NAME/COMMON NAME**

<b>TREES</b>	
	PLA PLATANUS RACEMOSA
<b>SHRUBS/PERENNIALS/GRASSES</b>	
	CAR CAREX PRAEGRACILIS WESTERN MEADOW SEDGE
	FES FESTUCA RUBRA CREEPING RED FESCUE
	LEY LEYMUS TRITICOIDES CREEPING WILD RYE
	MUH MUHLENBERGIA RIGENS / DEERGRASS
	SIS SISYRINCHIUM BELLUM BLUE EYED GRASS
	RJV RIBES VIBURNIFOLIUM / CATALINA PERFUME
	SAL SALVIA CLEVELANDII CLEVELAND SAGE

SEE SHEET L-203 FOR PLACEMENT OF LINEAR ROOT CONTROL BARRIERS

SEE L-400 FOR PLANTING LEGEND AND NOTES



**MAINTENANCE NOTES**

- THE MAINTENANCE PERIOD SHALL INCLUDE THE FOLLOWING WORK:
- DAILY OBSERVANCE OF WATERING OF ALL PLANT MATERIAL.
  - WEEDING AND REMOVAL OF ALL WEEDS FROM LANDSCAPED AREAS.
  - REPLACEMENT OF ANY DEAD, DYING, OR DAMAGED TREES, SHRUBS, OR GROUNDCOVERS.
  - FILLING OF DEPLETED MULCH AREAS.
  - ADJUSTMENT OF SPRINKLER HEAD HEIGHT AND WATERING PATTERN.
  - WEEKLY REMOVAL OF ALL TRASH, LITTER, AND FOREIGN DEBRIS.
  - PRIOR TO END OF MAINTENANCE PERIOD, CONTRACTOR SHALL CONTACT OWNER AND ARRANGE FOR A FINAL INSPECTION.
  - WITHIN 15 DAYS OF WRITTEN NOTIFICATION BY OWNER, CONTRACTOR SHALL REMOVE AND REPLACE ALL GUARANTEED PLANT MATERIALS WHICH FOR ANY REASON FAIL TO MEET THE REQUIREMENTS OF THE GUARANTEE. ALL SUCH REPLACEMENT MATERIALS SHALL BE GUARANTEED AS SPECIFIED FOR THE ORIGINAL MATERIAL.
  - DURATION OF MAINTENANCE PERIOD IS DEFINED IN THE CONTRACTOR CONTRACT WITH MRCA.

**BALLONA CREEK TRAIL: Greenway Improvements**

Los Angeles, California

A PROJECT OF:  
Mountains Recreation and Conservation Authority

570 West Avenue 26, Suite 100  
Los Angeles, CA 90065  
(323) 221-9944

LANDSCAPE ARCHITECT  
Mountains Recreation and Conservation Authority

570 West Avenue 26, Suite 100  
Los Angeles, CA 90065  
(323) 221-9944

SURVEYOR:  
Grimes Surveying & Mapping, Inc.  
3248 Huntington Drive South  
Los Angeles, CA 90032  
(323) 228-7011

IRRIGATION CONSULTANT:  
Jeff Hutchins  
625 N. Harbor Ave.  
San Dimas, CA 91773  
(909) 598-4436



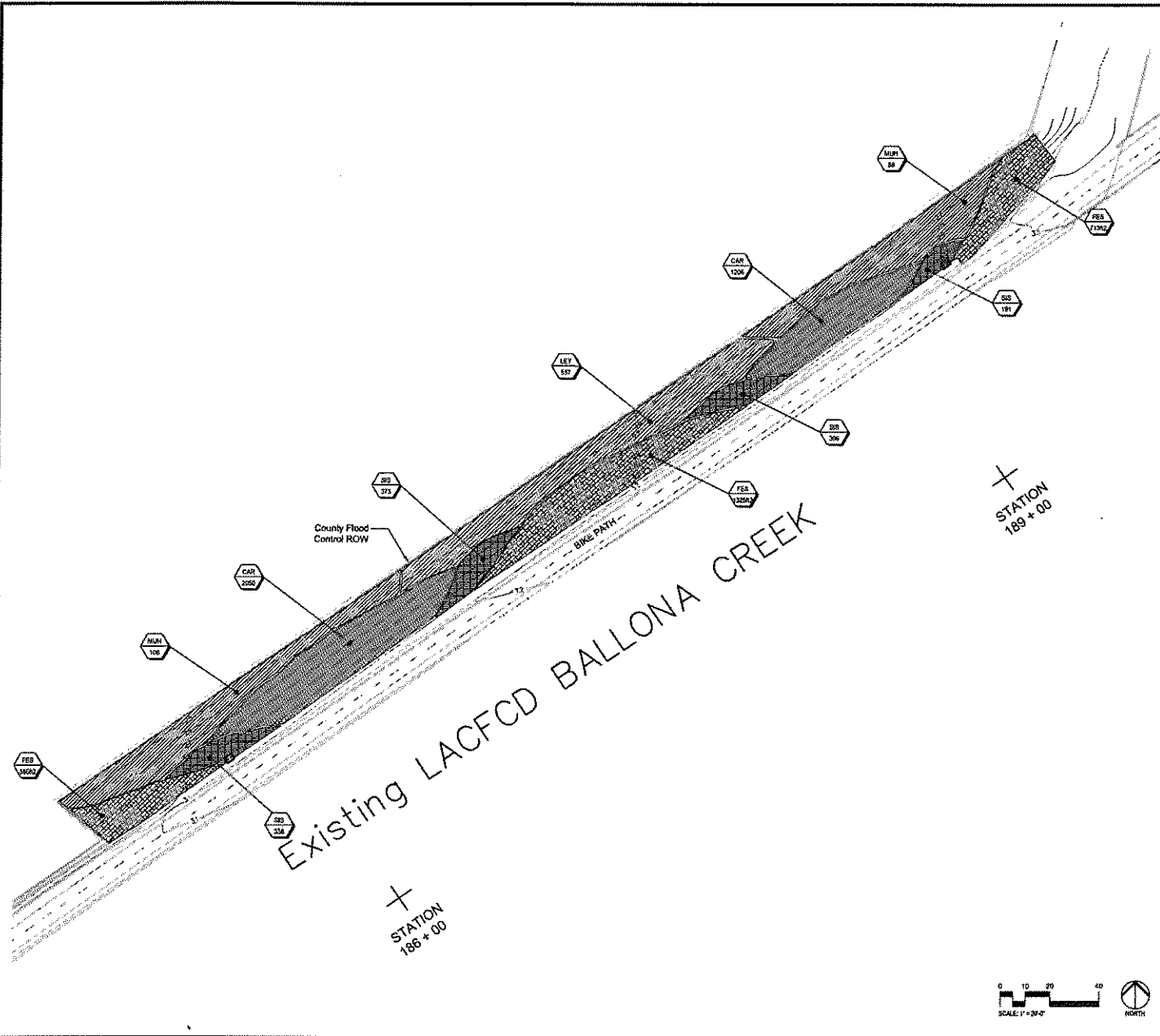
**REVISIONS:**

1.4.26.11	Revision
2.8.12.11	Revision
3.	
4.	

DATE: 12-15-2010  
DRAWN: MG  
CHECKED: LS  
PROJECT: 9104-7190  
SCALE: As noted

**PLANTING NOTES & LEGEND**

**L-400**

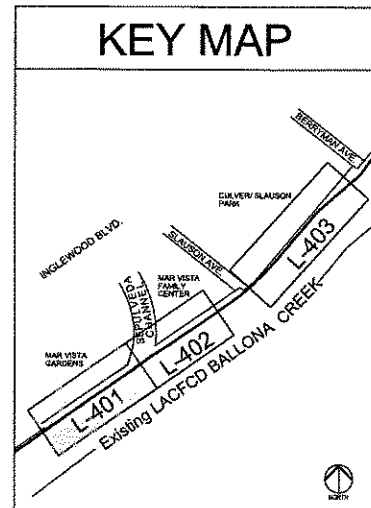


SYMBOL KEY	BOTANICAL NAME/Common Name
<b>TREES</b>	
○	PLA PLATANUS RACEMOSA
<b>SHRUBS/PERENNIALS/GRASSES</b>	
▨	CAR CAREX PRAEGRACILIS/WESTERN MEADOW SEDGE
▩	FES FESTUCA RUBRA/CREEPING RED FESCUE
▧	LEY LEYMUS TRITICOIDES/CREEPING WILD RYE
▦	MUH MÜHLENBERGIA RIGENS / DEERGRASS
▤	SIS SISYRINCHIUM BELLUM/BLUE EYED GRASS
○	RIV RIBES VIBURNIFOLIUM / CATALINA PERFUME
○	SAL SALVIA CLEVELANDI/CLEVELAND SAGE

SEE SHEET L-203 FOR PLACEMENT OF LINEAR ROOT CONTROL BARRIERS

SEE L-400 FOR PLANTING LEGEND AND NOTES

- LIMIT OF WORK LINE
- QUANTITY (CONTRACTOR TO VERIFY)



**BALLONA CREEK TRAIL: Greenway Improvements**

Los Angeles, California  
 A PROJECT OF:  
**Mountains Recreation and Conservation Authority**  
 570 West Avenue 25, Suite 100  
 Los Angeles, CA 90065  
 (323) 221-9944

LANDSCAPE ARCHITECT  
**Mountains Recreation and Conservation Authority**  
 570 West Avenue 25, Suite 100  
 Los Angeles, CA 90065  
 (323) 221-9944

SURVEYOR:  
**Grimes Surveying & Mapping, Inc.**  
 5248 Huntington Drive South  
 Los Angeles, CA 90052  
 (323) 223-1011

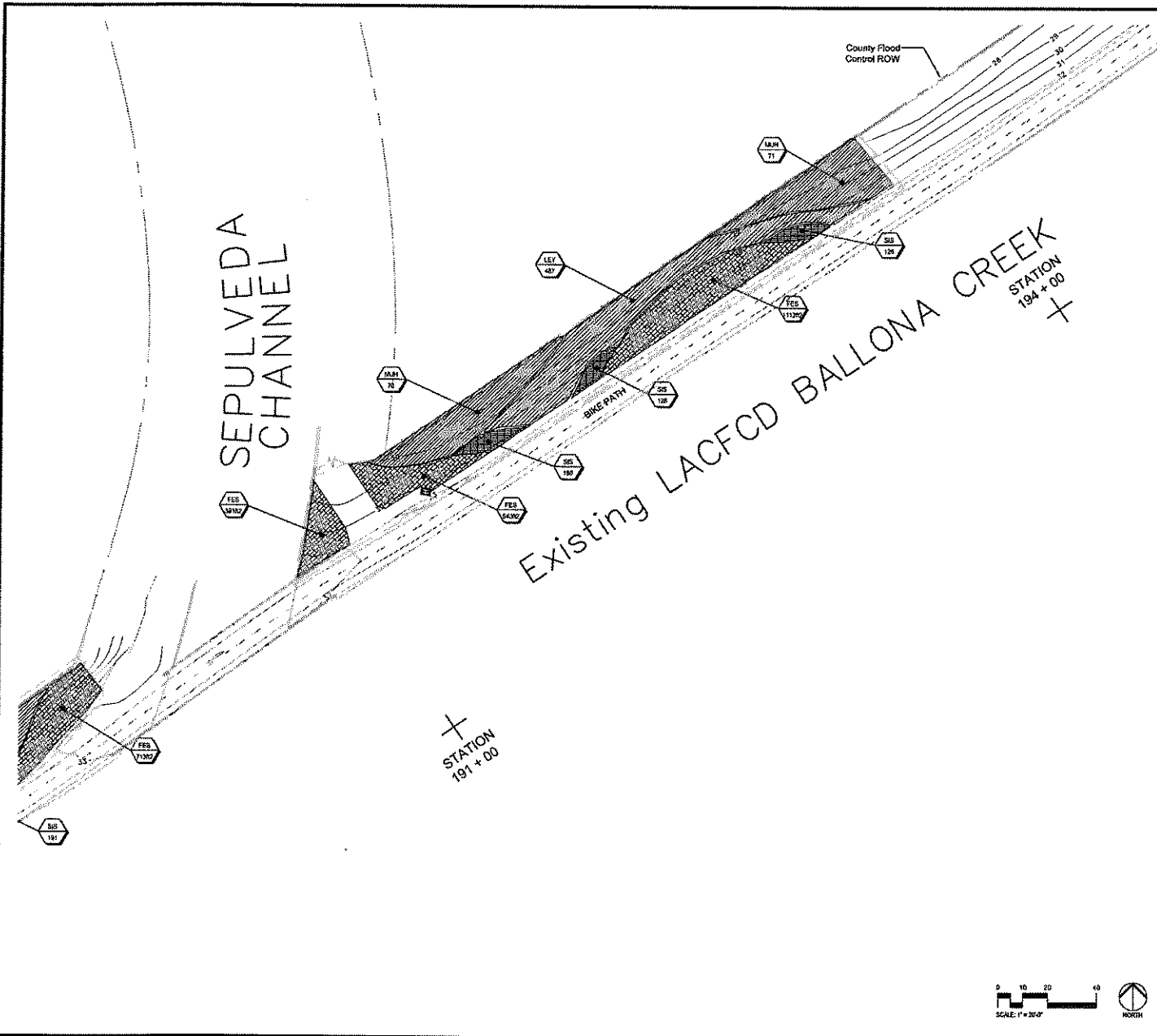
IRRIGATION CONSULTANT:  
**Jeff Hutchins**  
 425 N. Harbor Ave.  
 San Diego, CA 91773  
 (609) 589-4436



<b>REVISIONS:</b>	
1.	4.25.11 Revision
2.	8.12.11 Revision
3.	
4.	
DATE: 12-15-2010	
DRAWN: MG	
CHECKED: LS	
PROJECT: 9104-7190	
SCALE: As noted	

**PLANTING PLAN AREA 1**

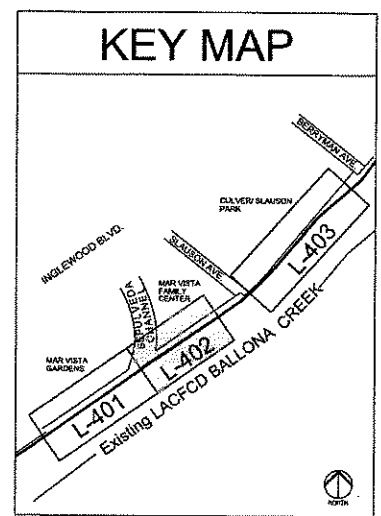
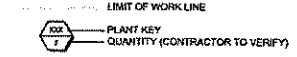
**L-401**  
 16 OF 19



SYMBOL KEY	BOTANICAL NAME/Common Name
<b>TREES</b>	
	PLA PLATANUS RACEMOSA
<b>SHRUBS/PERENNIALS/GRASSES</b>	
	CAR CAREX PRAEGRACILIS/WESTERN MEADOW SEDGE
	FES FESTUCA RUBRA/CREeping RED FESCUE
	LEY LEYMUS TRITICOIDES/CREeping WILD RYE
	MUH MUHLENBERGIA RIGENS /DEERGRASS
	SIS SISYRINCHIUM BELLUM/BLUE EYED GRASS
	RIV RIBES VIBURNIFOLIUM / CATALINA PERFUME
	SAL SALVIA CLEVELANDI/CLEVELAND SAGE

SEE SHEET L-203 FOR PLACEMENT OF LINEAR ROOT CONTROL BARRIERS

SEE L-400 FOR PLANTING LEGEND AND NOTES



**BALLONA CREEK TRAIL: Greenway Improvements**

Los Angeles, California  
 A PROJECT OF:  
**Mountains Recreation and Conservation Authority**  
 576 West Avenue 28, Suite 100  
 Los Angeles, CA 90065  
 (323) 221-9544

LANDSCAPE ARCHITECT  
**Mountains Recreation and Conservation Authority**  
 576 West Avenue 28, Suite 100  
 Los Angeles, CA 90065  
 (323) 221-9544

SURVEYOR:  
**Grimes Surveying & Mapping, Inc.**  
 5248 Huntington Drive South  
 Los Angeles, CA 90032  
 (323) 223-1011

IRRIGATION CONSULTANT:  
**Jeff Hutchins**  
 825 N. Halbeck Ave.  
 San Dimas, CA 91773  
 (909) 598-4438

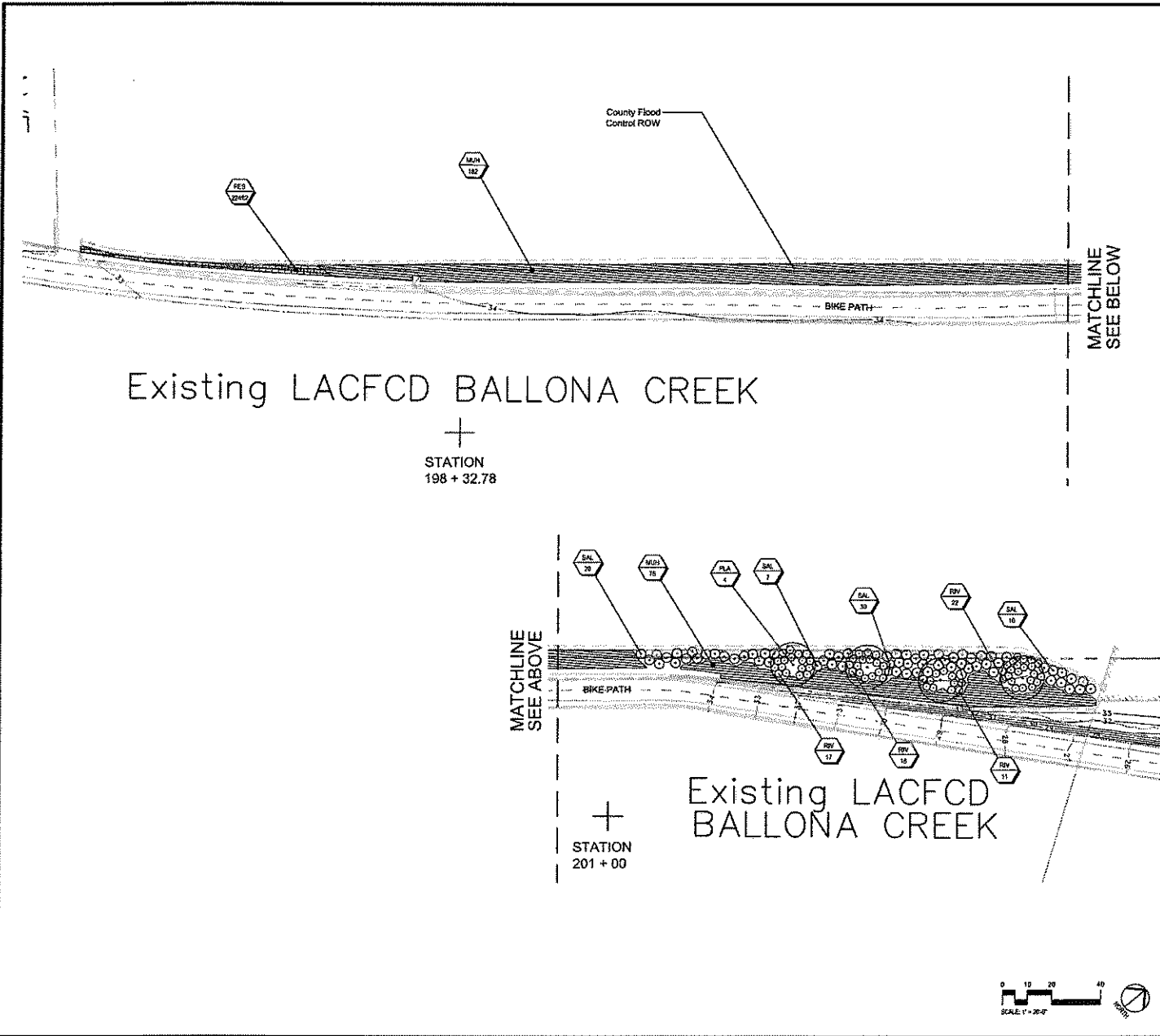


**REVISIONS:**

1.	4.26.11 Revision
2.	8.12.11 Revision
3.	
4.	

DATE: 12-15-2010  
 DRAWN: MG  
 CHECKED: LS  
 PROJECT: 9104-7190  
 SCALE: As noted

**PLANTING PLAN AREA 2**

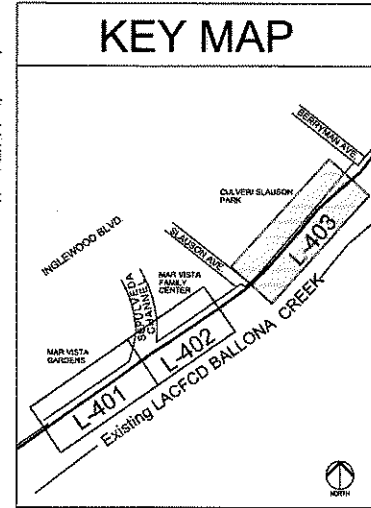


SYMBOL KEY	BOTANICAL NAME/COMMON NAME
<b>TREES</b>	
	PLA PLATANUS RACEMOSA
<b>SHRUBS/PERENNIALS/GRASSES</b>	
	CAR CAREX PRAEGRACILIS WESTERN MEADOW SEDGE
	FES FESTUCA RUBRA CREEPING RED FESCUE
	LEY LEYMUS TRITICOIDES CREEPING WLD RYE
	MUH MUHLENBERGIA RIENS / DEERGRASS
	SIS SISYRINCHIUM BELLUM BLUE EYED GRASS
	RIV RIBES VIBURNIFOLIUM / CATALINA PERFUME
	SAL SALVIA CLEVELANDI CLEVELAND SAGE

SEE SHEET L-203 FOR PLACEMENT OF LINEAR ROOT CONTROL BARRIERS

SEE L-400 FOR PLANTING LEGEND AND NOTES

PLANT KEY QUANTITY (CONTRACTOR TO VERIFY)



**BALLONA CREEK TRAIL: Greenway Improvements**

Los Angeles, California

A PROJECT OF:  
 Mountains Recreation and Conservation Authority

370 West Avenue 26, Suite 100  
 Los Angeles, CA 90065  
 (323) 221-9944

LANDSCAPE ARCHITECT  
 Mountains Recreation and Conservation Authority

370 West Avenue 26, Suite 100  
 Los Angeles, CA 90065  
 (323) 221-9944

SURVEYOR:  
 Grimes Surveying & Mapping, Inc.  
 3246 Huntington Drive South  
 Los Angeles, CA 90032  
 (323) 223-1011

IRRIGATION CONSULTANT:  
 Jeff Hutchins  
 825 N. Hollywood Ave.  
 San Diego, CA 91779  
 (619) 528-4426



REVISIONS:

1.	4.26.11	Revision
2.	8.12.11	Revision
3.		
4.		

DATE: 12-15-2010  
 DRAWN: MG  
 CHECKED: LS  
 PROJECT: 9104-7190  
 SCALE: As noted

**PLANTING PLAN AREA 3**

**L-403**

<p>perspective</p> <p>front elevation</p> <p>side elevation</p>	<p><b>Legend</b></p> <p>1. Pioneer Low profile 4x8x8 base - model #P-LP-38424; frame to allow for a 250" flat panel and 118" piece of Leader frame to be primed and painted with Pantone sample PMS #9556C. Frame size: 36.5" diam x 24.5" height. Trim size: 35.875" w x 23.875" h. Visual Area: 35" w x 23" h. 2500 Series. Contractor to install per manufacturer's instructions; verify all specifications with MRCA prior to installation.</p> <p>Manufacturer: PIONEER: 345 Oak Road Glenside, PA 15044 phone: 1.800.544.8428 or 1.724.263.4300 www.pioneergraphics.com</p> <p>2. Concrete footing: confirm dimensions</p> <p>3. Gravel base</p>	<p>TAPER CUT</p> <p>CROWN 2" ABOVE DOWN-SLOPE</p> <p>WATER BASIN</p> <p>NATURAL SLOPE</p> <p>ROOTBALL</p> <p>BACKFILL PER NOTES</p> <p>2x ROOTBALL</p>	<p>NO WIRE V.I.T. TREE TIE OR APPROVED EQUAL SUBMIT SAMPLE</p> <p>2" x 10'-0" LODGEPOLE STAKE, STAIN SAUCE GREEN</p> <p>CROWN 2" ABOVE GRADE</p> <p>ROOTBALL</p> <p>WATER BASIN, REMOVE ONCE PLANT IS ESTABLISHED.</p> <p>BACKFILL WITH NATURAL SOIL</p> <p>FINISH GRADE</p> <p>NATIVE SOIL</p>	<p><b>BALLONA CREEK TRAIL: Greenway Improvements</b></p> <p>Los Angeles, California</p> <p>A PROJECT OF: Mountains Recreation and Conservation Authority</p> <p>570 West Avenue 28, Suite 100 Los Angeles, CA 90055 (323) 221-9944</p> <p>LANDSCAPE ARCHITECT: Mountains Recreation and Conservation Authority</p> <p>570 West Avenue 28, Suite 100 Los Angeles, CA 90055 (323) 221-9944</p> <p>SURVEYOR: Grimes Surveying &amp; Mapping, Inc.</p> <p>5248 Hollywood Drive South Los Angeles, CA 90032 (323) 223-1011</p> <p>IRRIGATION CONSULTANT: Jeff Hutchins</p> <p>625 N. Hollywood Ave. Van Nuys, CA 91413 (805) 588-4436</p>
<p>7 INTERPRETIVE SIGNAGE</p>	<p>4 SHRUB ON SLOPE</p> <p>EDGE OF HARDSCAPE OR TURF</p> <p>1/2" O.C. SPACING</p> <p>SEE PLANT LEGEND FOR O.C. SPACING</p> <p>ESTABLISH FINISH GRADE 2" BELOW FINISH SURFACE OF HARDSCAPE/ALBS</p> <p>1/2" DEEP LAYER OF MULCH</p> <p>TILLED AND AMENDED PLANTING BED PER PLANTING NOTES</p> <p>UNSTERILIZED NATIVE SOIL SURFACE</p> <p>SECTION</p> <p>NOTES: ROOTBALL AREAS BEING AMENDED TO A DEPTH OF 12" BLEND AMENDMENTS WITH NATIVE SOIL TO AVOID ANY DISTINCT SOIL HORIZON. SEE PLANTING LEGEND FOR SPACING DIMENSIONS</p> <p>TRIANGULAR SPACING</p> <p>SQUARE SPACING</p>	<p>1 TREE STAKING</p> <p>V.I.T. TREE TIE OR APPROVED EQUAL SUBMIT SAMPLE</p> <p>2" x 10'-0" LODGEPOLE STAKE, STAIN SAUCE GREEN</p> <p>TAPER CUT</p> <p>CROWN 2" ABOVE DOWN SLOPE</p> <p>WATER BASIN, REMOVE ONCE PLANT IS ESTABLISHED.</p> <p>BACKFILL PER GENERAL NOTES</p> <p>FINISH GRADE</p> <p>NATIVE SLOPE</p>	<p>2 TREE ON SLOPE</p> <p>CROWN 1-1/2" TO 2" ABOVE GRADE</p> <p>WATER BASIN</p> <p>FINISH GRADE</p> <p>ROOTBALL</p> <p>BACKFILL PER NOTES</p> <p>2x ROOTBALL</p>	
<p>6</p>	<p>5 GROUNDCOVER PLANTING</p> <p><b>NOT USED</b></p>	<p>3 SHRUB PLANTING</p> <p>CROWN 1-1/2" TO 2" ABOVE GRADE</p> <p>WATER BASIN</p> <p>FINISH GRADE</p> <p>ROOTBALL</p> <p>BACKFILL PER NOTES</p> <p>2x ROOTBALL</p>	<p>REVISIONS:</p> <p>1. 4.26.11 Revision</p> <p>2. 8.12.11 Revision</p> <p>3.</p> <p>4.</p> <p>DATE: 12-15-2010</p> <p>DRAWN: MG</p> <p>CHECKED: LS</p> <p>PROJECT: 9104-7190</p> <p>SCALE: As noted</p> <p><b>DETAILS</b></p> <p><b>L-404</b></p> <p>19 OF 19</p>	