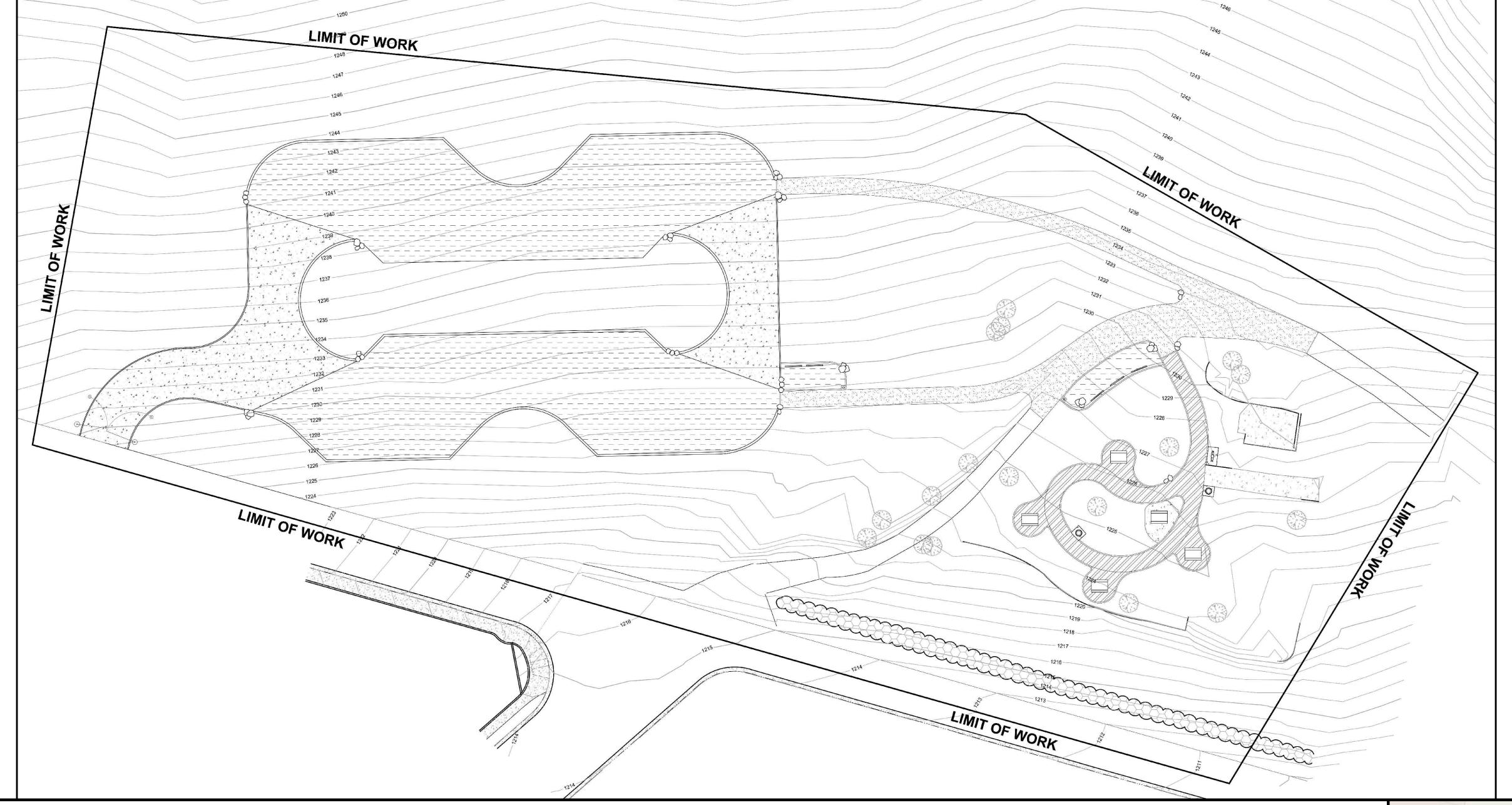
BUREAU OF ENGINEERING DEPARTMENT OF PUBLIC WORKS CITY OF LOS ANGELES LOPEZ CANYON EQUESTRIAN STAGING AREA



PROJECT TEAM

OWNER: DEPARTMENT OF PUBLIC WORKS
BUREAU OF SANITATION
1149 S. Broadway Street

Los Angeles, CA 90015

DEPARTMENT OF PUBLIC V

CLIENT: DEPARTMENT OF PUBLIC WORKS
BUREAU OF SANITATION
Enrique C. Zaldivar, Director
1149 S. Broadway Street
Los Angeles, CA 90015

COUNCIL DISTRICT OFFICE 7

DISTRICT 7: Richard Alarcon, Councilmember 200 N. Spring Street, Room 470

PROJECT DEPARTMENT OF PUBLIC WORKS

MANAGEMENT: DEPARTMENT OF PUBLIC WORKS

ARCHITECTURAL DIVISION

1149 South Broadway Street, Suite 830

Los Angeles, CA 90015
Principal Architect: Mahmood Karimzadeh, A.I.A.
Project Manager: Renee Curtis
T: 213.485.4299
F: 213.485.4836

DESIGN: DEPARTMENT OF PUBLIC WORKS
ARCHITECTURAL DIVISION
1149 South Broadway Street, Suite 83

1149 South Broadway Street, Suite 830
Los Angeles, CA 90015
Principal Architect: Mahmood Karimzadeh, A.I.A.
Landscape Architect: Nishith Dhandha

BID AND DEPARTMENT OF PUBLIC WORKS

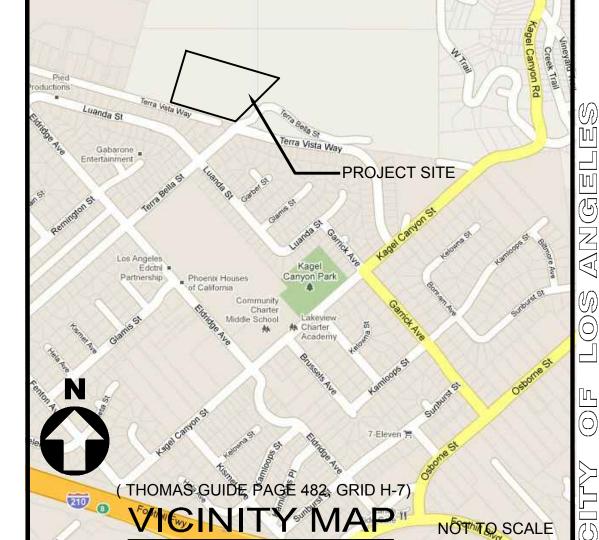
AWARD: PROJECT AWARD AND CONTROL DIVISION
Division Engineer: Ted Allen

CONSTRUCTION DEPARTMENT OF PUBLIC WORKS

MANAGEMENT: CONSTRUCTION MANAGEMENT DIVISION
200 North Spring Street, Suites 1400/1725
Los Angeles, CA 90012

Group Manager: Jose Fuentes

SURVEY: DEPARTMENT OF PUBLIC WORKS
SURVEY DIVISION
Division Engineer: Tony Pratt
Anthony.Pratt@lacity.org





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ABBREVIATIONS

GATE VALVE ASPHALT CONCRETE **HOSE BIB** HB AD ATRIUM DRAIN/AREA DRAIN HP **HIGH POINT AMPERES** ID **INSIDE DIAMETER AWG** AMERICAN WIRE GAUGE INVERT ELEVATION BC BOTTOM OF CURB/BEGIN CURB IRRG IRRIGATION **BDRY** BOUNDARY LANDSCAPE ARCHITECT LA BLDG BUILDING LP **LOW POINT** BM **BENCH MARK** LBS POUNDS BOW **BACK OF WALL** LS LANDSCAPE **BACK OF CURB** MAX MAXIMUM BS **BOTTOM OF STEP** MAINT MAINTENANCE **BOTTOM OF WALL** MFG **MANUFACTURER** COMPACT MIN MINIMUM CATCH BASIN NIC NOT IN CONTRACT C-C CENTER TO CENTER OC ON CENTER CF CURB FACE OD OUTSIDE DIAMETER CL CENTER LINE PΑ PLANTING AREA CMU **CONCRETE MASONRY UNIT** PB PULL BOX CONC CONCRETE PLPROPERTY LINE CONST CONSTRUCTION/CONSTRUCT PVC POLY VINYL CHLORIDE CONT CONTINUOUS POB POINT OF BEGINNING DD DECK DRAIN POC POINT OF CONNECTION DEMO **DEMOLITION** PP POWER POLE DBL STK DOUBLE STAKE PSI POUNDS PER SQUARE INCH DET DETAIL PW POTABLE WATER DF DRINKING FOUNTAIN QC QUICK COUPLER DIA DIAMETER R/RAD RADIUS "R" DIP DUCTILE IRON PIPE RAP RECREATION AND PARKS DEPARTMENT DN RE RIM ELEVATION DOT DEPARTMENT OF TRANSPORTATION **RCV** REMOTE CONTROL VALVE DWG DRAWING ROW RIGHT OF WAY DWP DEPARTMENT OF WATER AND POWER **REF LINE** REFERENCE LINE DWY DRIVEWAY REINF REINFORCED EFF EFFLUENT WATER REQD REQUIRED EL **ELEVATION** SCH SCHEDULE **ELECT** ELECTRIC/ELECTRICAL SF SQUARE FEET END OF CURVE END OF CURVE SGL STK SINGLE STAKE (XXX.XX) **EX ELEVATION** SHT SHEET XXX.XX **NEW CONSTRUCTION ELEVATION** SL SCORE LINE **ENCL ENCLOSURE** SMH SEWER MAINTENANCE HOLE EQ **EQUAL** SPEC SPECIFICATION **EXP JT EXPANSION JOINT** STA STATION **EXIST EXISTING** STD STANDARD EC END OF CURB SOV SHUT OFF VALVE FLOW LINE SIN SIGNAL FIN FINISHED TF TOP OF FOOTING FOC FACE OF CURB TYP **TYPICAL** FOW FACE OF WALL TP TOP OF PAVING FF FINISHED FLOOR TC TOP OF CURB FG FINISHED GRADE TS TOP OF STEP FS FINISHED SURFACE TW TOP OF WALL FFE FINISHED FLOOR ELEVATION V **VOLTS** FD FLOOR DRAIN W/ WITH GΑ GAUGE W/O WITHOUT **GALV GALVANIZED** WO

GAL

GB

GC

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GPM

GALLON(S)

GRADE BREAK

GROUND COVER

GALLONS PER MINUTE

WORK ORDER

YARDS

WEAKENED PLANE JOINT

WPJ

YDS

PROJECT DESCRIPTION

SCOPE OF WORK:

- Installation of a new aggregate surface staging area for equestrian loading and unloading.
- Installation new horse and pedestrian pathways.
- Installation of new picnic tables, drinking fountain, landscaping and irrigation.
- Installation of new horse waterer and equestrian hitching posts.

SHEET INDEX

GENERAL

G001 **COVER SHEET GENERAL NOTES**

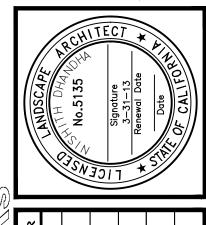
LANDSCAPE

L703

L001	LANDSCAPE CONSTRUCTION NOTES, SHEET 1
L002	LANDSCAPE CONSTRUCTION NOTES, SHEET 2
L003	LANDSCAPE CONSTRUCTION NOTES, SHEET 3
L004	LANDSCAPE CONSTRUCTION NOTES, SHEET 4
L101	SITE SURVEY, SHEET 1
L102	SITE SURVEY, SHEET 2
L201	DEMOLITION PLAN, SHEET 1
L202	DEMOLITION PLAN, SHEET 2
L301	GRADING AND DRAINAGE PLAN, SHEET 1
L302	GRADING AND DRAINAGE PLAN, SHEET 2
L401	CONSTRUCTION PLAN, SHEET 1
L402	CONSTRUCTION PLAN, SHEET 2
L403	CONSTRUCTION DETAILS, SHEET 1
L404	CONSTRUCTION DETAILS, SHEET 2
L405	CONSTRUCTION DETAILS, SHEET 3
L501	LAYOUT PLAN, SHEET 1
L502	LAYOUT PLAN, SHEET 2
L601	IRRIGATION PLAN, SHEET 1
L602	IRRIGATION PLAN, SHEET 2
L603	IRRIGATION DETAILS, SHEET 1
L604	IRRIGATION DETAILS, SHEET 2
L701	PLANTING PLAN, SHEET 1
L702	PLANTING PLAN, SHEET 2

PLANTING DETAILS





INEER	DATE:					
CITY ENGINEER		5135				. ARCHITECT
EE MOORE, P.E.	ARCHITECTURAL DIVISION	1HA LIC. NO. 5135	НА	НА		MAHMOOD KARIMZADEH, A.I.A., PRINCIPAL ARCHITECT
EE MO	ARCHITEC	NISHITH DHANDHA	NISHITH DHANDHA	NISHITH DHANDHA	JANE ADRIAN	MAHMOOD KAR

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GENERAL

The General Conditions and General Requirements, the Standard Specifications for Public Works Construction, hereinafter referred to as SSPWC, latest edition with the current yearly supplements; and the 2002 Edition of the Additions and Amendments to the SSPWC, shall be made a part of these plans. Website: http://eng.lacity.org/techdocs/stdplans/s-600/s61028.pdf

Where conflicts occur between the General Conditions and General Requirements and the Standard Specifications for Public Works Construction, the General Conditions and General Requirements shall take precedence.

Where conflicts occur between these Specifications and the SSPWC these SPECIFICATIONS shall take precedence.

Subsections included within these SPECIFICATIONS modify or add to the corresponding subsection (by number) of the SSPWC, latest edition with current yearly supplements; where options for materials and/or methods appear in the SSPWC, the option listed hereon shall be

This improvement consists only of work called for on these plans.

PLANS AND SPECIFICATIONS

The General Contractor shall be responsible for issuing a complete set of plans and specifications to all Sub-Contractors.

- Indicates approvals or submittals, including items to be turned over at the pre-operational final. All approvals and submittals shall be transmitted to the Project
- Indicates required field inspections with the Contract Administration Inspector and the Project Manager. Notify all party's three (3) days prior to the required inspection.

SCHEDULE OF WORK

The Contractor shall submit a Schedule of Work for approval to the Project Manager prior to the commencement of work. The Project Manager, Contractor and Department Maintenance Personnel shall coordinate the Contractor's schedule of work with ongoing Department maintenance of the facility outside the work area and the Contractor's maintenance of the area within the work area, as defined in the maintenance portion of the Landscape Planting Section. The Contractor shall schedule all work in accordance with the General Conditions Article 12. The work area shall be as defined on the Title Sheet, or as indicated on the Plans by means of a contract limit line.

JOB START MEETING

The Contractor shall schedule a Job Start Meeting with the Project Manager after receipt of the Notice To Proceed. This meeting shall include the following participants: the Project Manager, Contract Administration Inspector (BCA), Landscape Architect, and Region Maintenance personnel, prior to the commencement of meeting to review the content of the plans and discuss the coordination of the project with the Department's operations at the project site. The pre-construction meeting can be held at the same time as the Job Start Meeting at the Contractors discretion.

√INSPECTIONS

All work and materials are subject to inspection and approval by the Project Manager. Any work done without proper inspection will be subject to rejection. As indicated in Section 2-11 of the Standard Specifications for Public Works Construction.

The Contractor shall notify the Contract Administration Inspector and Project Manager three (3) days prior to inspection of the following for approval:

- $\sqrt{1}$. **ROUGH GRADING:** When forms have been set, to approve alignment. Offsets or vertical controls shall be verifiable in the field, or be provided in grade sheet form, and submitted to the Project Manager for approval prior to the inspection.
- $\sqrt{2}$. TREE TAGGING: Tagging of 24" box or larger trees at the grower with Recreation and Parks tags. This inspection will be for compliance with the caliper, height and spread requirements given on the plant legend and general health and appearance of plants.
- $\sqrt{3}$. ON-SITE PLANT MATERIAL INSPECTION: The inspection of all plant materials under 24" box size at the job site. This inspection will be for compliance with the caliper, height and spread requirements given on the plant legend and to confirm the general health and appearance of plants. The Contractor shall also stake all tree planting locations at this time for approval.
- $\sqrt{4}$. IRRIGATION PRESSURE AND COVERAGE TESTS: The pressure test shall take place under the direction of the Contract Administration Inspector. Following the pressure test the entire irrigation system shall be tested for coverage under the direction of the Project Manager. The coverage test shall cycle through each station of the irrigation system from the automatic controller for all new or revised irrigation systems. Existing irrigation systems shall be tested prior to new construction. The BCA Inspector, Project Manager, Contractor and Region maintenance shall be notified three (3) days before the scheduled
- $\sqrt{5}$. FINISH GRADE REVIEW: For all finish grades in planting areas following rolling and prior to turf or landscape planting.
- $\sqrt{6}$. **PRE-FINAL INSPECTION:** Pre-final inspection shall be in accordance with Article 46 of the General Conditions.
- $\sqrt{7}$. CONTRACT FINAL INSPECTION: Contract final inspection shall be in accordance with Article 47 of the General Conditions.
- $\sqrt{8}$. IN-PLANT INSPECTION: Contractor shall be responsible for scheduling all in-plant inspections with the Bureau of Contract Administration plant inspection. In-plant inspection shall be required, but not limited to, the following items:
- Galvanizing

Sheet Version 2.2

- 4. Portland cement concrete & base 5. Asphalt concrete and base
- 3. Grates and frames
- 2. Chain link fabric
 - 7. Painting of tubular steel fencing 8. Painting of tubular steel fencing
 - 9. Fabrication of "Rino" gates
 - 10. Painting of "Rino gates

6. Fabrication of tubular steel fencing

MATERIALS SUBMITTAL

The Contractor shall make required submittals in accordance with Article 10 of the General Requirements.

$\sqrt{}$ RECORD DRAWINGS (AS-BUILTS) SUBMITTALS

Record drawings shall be in accordance with Article 8 of the General Requirements

√ LAYOUT OF WORK, GRADE SHEET APPROVAL

All spot elevations, grading contour lines, and grades shown on the plans for grading, pavement and drainage improvements shall be staked by a California licensed Land Surveyor provided by the Contractor at no additional cost to the City. Grade stakes shall be a minimum size of 1" x 2" and shall be driven a minimum of 12" into ground; each grade stake shall be protected by a flagged lath projecting 24" above ground; grade stakes disturbed by on-site activities shall be reset by the Surveyor. If specified on the plan the Contractor shall have his surveyor provide grade sheets. The grade sheets shall be submitted to the Project Manager for approval one week in advance of any grading operations.

UNDERGROUND SUBSTRUCTURES

The construction plans provided to the Contractor will show existing on-site underground substructures to the extent of the Department's records. Service lines from other public utilities, including the Department of Water and Power shall be located by notifying **UNDERGROUND SERVICE ALERT at 1 - (800) 422-4133** prior to commencing any excavation.

TREE PROTECTION - EXISTING TREES

All trees to remain in place shall be protected using the following guidelines:

- 1. No equipment is to be parked or operated under a tree. No materials shall be stored under a tree. Do not compact soil within the drip line of the tree.
- 2. All work shall be in accordance with the City of Los Angeles Native Tree Ordinance.
- 3. No chemical herbicides are to be used within 100 feet of the tree's drip line. 4. Do not nail grade stakes or anything else to trees.
- 5. Any approved pruning shall be authorized by the Project Manager and done by a qualified Arborist.
- 6. No roots over two (2) inches in diameter are to be cut during the course of
- construction without the approval of the Project Manager. 7. No Irrigation trenching shall pass closer than eight (8) feet of the base of any tree.
- 8. If any contractor is unsure of a tree to remain in place or to be removed they are to contact the Project Manager immediately and prior to taking any action.

1. GENERAL EARTHWORK

METHODS

The Grading Plan when approved by the District Engineer shall be on the job at all times.

All grades between contours and/or spot elevations shall be assumed to be straight grades. There shall be no localized depressions or humps, (308-2.1).

The Contractor shall verify all grades and amounts of cut and fill before commencing work.

The area to be filled shall be cleared of all vegetative material, except the existing trees to remain. Protect remaining trees during all construction.

All fill soil shall be compacted to 90% relative compaction and the Contractor shall obtain and pay for all soil compaction tests. Locations where compaction testing is required are shown on the plans with the symbol. The BCA Inspector may modify the exact location in the field, depending on field conditions, if permission is granted from the Project Manager. The total number of compaction test shall be no less than the number shown by the symbol. Minimum compaction of earthwork shall be 90% relative compaction unless noted otherwise.

Prior to placing fill rip existing subgrade to a depth of 6 inches. Intermix first 6 inches of fill placed with ripped subgrade to eliminate interface lens. Place remaining fill in 8" lifts.

The source of import soil shall be approved by the Project Manager prior to any grading operations. The Contractor shall be required to provide an Agricultural Suitability soil test to establish the suitability of imported soil and that soil concentrations of boron and salinity are within agricultural limits. The Contractor shall, at his own expense, amend the soil according to the recommendations of the soils report.

Fill material 24 inches, or more, below the finish grade may contain up to 25 percent broken concrete or bituminous paving with maximum dimension of 3 inches of any piece. The top 24 inches of fill may contain up to 10 percent broken concrete or bituminous paving with a maximum dimension of 1-1/2 inches of any piece. Where the plans call for turf, the top 6" of soil shall have no object larger than 1" in least dimension.

The contractor shall be responsible for removal and disposal of all excess soil and debris from the work area, (300-1.3.1, 300-2.6). No soil or debris shall be disposed of on Recreation and Parks Property without the permission of the Project Manager.

The Contractor shall conform to Section 7-8.1 of the SSPWC latest edition with the current yearly supplements for clean up and dust control.

Ground water conditions encountered during the course of the work shall be brought to the attention of the District Engineer. Geological reports shall be provided when requested by the District Engineer and Construction Division. Geology and Soils Engineering Section.

If any grading operation covered by this section shall extend into or through, or shall be commenced during the period of October 15 to April 15, the contractor shall be required to submit plans of the temporary erosion control methods and devices he proposes to use in connection with the grading operations to be performed during that period. Said plans shall be submitted to the City Engineer for approval on or before September 15 or at least 30 days before any grading is performed during said period.

DISTRICT ENGINEER DATE "General Specifications for all Grading Plans" - Building and Safety form B-164 is hereby made a part of these plans.

The Contractor shall at no additional cost to the Department engage the services of an approved California licensed Soils Engineer and approved soils testing laboratory to provide subgrade, pipe bedding, and fill compaction control. The Soils Engineer shall perform field observation and testing during grading to assist the Contractor in obtaining the proper moisture content, compactive effort and degree of compaction. Where compaction is less than required, additional compaction effort shall be made with adjustment of moisture content, as necessary, until the specified compaction is obtained.

Upon completion of grading, the Contractor shall furnish the Department of Recreation & Parks compaction report, certified by the Soils Engineers, showing the results of compaction tests of fill, subgrade and bedding and certifying that fill, subgrade and pipe bedding compaction complies with the percentage compaction specified.

2. CONCRETE

All concrete construction shall be as specified in this Section unless specified otherwise in these Specifications.

MATERIALS

BASE MATERIAL

Base material for Portland Cement concrete shall be (CMB) crushed miscellaneous base, (200-2.4).

CONCRETE SPECIFIED BY CLASS

Placed concrete shall be class 520-C-2500, maximum 4 inch slump. Pumped concrete shall be class 560-E-2500, maximum 6 inch slump. A complete delivery receipt shall be required for each truckload of concrete delivered. The receipt shall be given to the BCA Inspector, (201-1.1.2).

All cement shall be Type II, low alkali Portland cement conforming to ASTM C150 (201-1.2).

AGGREGATES

The aggregates for all concrete construction shall be fractured face aggregates obtained from a quarry in the San Gabriel River drainage area only and shall be certified non-reactive by an approved testing laboratory as approved by the Bureau of Contract Administration, (201-1.2.2).

COMBINED AGGREGATE GRADINGS

Combined aggregate gradings for Portland Cement shall be as specified under this section, (201-1.3.2).

EXPANSION JOINTS

Expansion joints shall use a 3/8 inch thick asphalt impregnated felt expansion joint.

JOINT URETHANE SEALANT

When specified, expansion joint material shall be urethane elastomeric sealant for concrete pavement shall be Lithoseal Trafficalk-G3 by L. M. Scofield Company, or an approved equal, (201-3). Color to match concrete.

EXPANSION JOINT PREMOLDED ASPHALTIC JOINT MATERIAL

When specified, expansion joint material shall be 1/4 inch thick asphaltic joint material as manufactured by Sealtight Co., or an approved equal, (201-3).

DOWELS (EXPANSION AND END-OF-POUR JOINTS)

Shall be grade 40 or grade 60 billet steel, (201-2.2).

END OF POUR JOINTS

End of pour joints shall be 1/4 inch thick asphaltic joint material as manufactured by Sealtight Co., or an approved equal, (201-3).

COLORED CONCRETE ADMIXTURES

Admixtures for colored concrete shall be Lithochrome Color Hardener by L.M. Scofield Company (800) 800-9900, or Davis Mix-in Colors for concrete by Davis Colors, (800) 800-6856, or an approved equal.

METHODS

SUBGRADE AND BASE PREPARATION AND COMPACTION

Subgrade under all concrete shall be prepared and compacted in accordance with this section

Locations where compaction testing is required are shown on the plans with the symbol \oplus The BCA Inspector may modify the exact location in the field, depending on field conditions, if permission is granted from the Project Manager. The total number of compaction tests shall be no less than two (2) or the number indicated on the plans.

The Contractor shall provide compaction tests for both subgrade and base material, if applicable, at the locations indicated on the construction plans. Results of the compaction tests shall be submitted to the Project Manager for approval prior to the pouring of concrete. Minimum subgrade and base compaction shall be 90% relative compaction.

EXPANSION JOINTS

Shall be placed against previously constructed concrete structures or as indicated in the plans (303-5.4.2) and the applicable details.

√√ CONCRETE SURFACE FINISHING

Concrete walks, pads, or mow strips shall have a medium broom finish, unless otherwise noted on the plans. The Contractor shall prepare a minimum three foot by three foot sample for approval by the Project Manager before any concrete is placed, (303-5.5.3). Any sidewalk in the public street right of way constructed as a portion of this contract shall be finished as directed by the BCA Inspector.

COLORED CONCRETE ADMIXTURES

Colored concrete admixtures shall be formulated and mixed according to manufacturer's printed instructions. Calcium chloride set-accelerators shall not be used.

PAVEMENT MARKINGS

Paint for parking stalls and game courts shall be regular dry type non-reflective paint, applied to a wet film thickness of 7 mil. Paint shall be Zone-Loc, Traffic Line Paint, as manufactured by Morton, or an approved equal, in the specified color, (310-5.6 and 210.6)

3. NATURAL AGGREGATE PAVEMENT SYSTEM

MATERIALS

"Stalok Aggregate Surface for Roads, Firelanes, Driveways and Parking Lots" or approved equal, manufactured by Stabilizer Solutions, Inc. 205 South 28th St., Phoenix, AZ 85034; phone (602) 225-5900, (800) 336-2468; fax (602) 225-5902; website stabilizersolutions.com; email lphubbs@stabilizersolutions.com. Distributor: West Coast Sand and Gravel, 800-522-0282.

- Stalok aggregate binding is a solely owned patented process
- Blending procedures are performed only by a licensed Stalok blender and can only be sold through licensed Stalok Dealers.

AGGREGATE SPECIFICATIONS

Crushed stone shall consist of inert materials that are hard, durable, with stone free from surface coatings and deleterious materials. Gradation requirements shall be as follows:

Percent Passing by Weight
98-100
90-100
65-80
48-63
40-49
30-40
20-27
10-18
10-12

- 1. R-value minimum of 70 determined by ASTM D 2488 Methodology (R-value is a measure of wear resistance)
- 2. Sand equivalent an engineering measurement of the proportion of sand to silt and clay, will stay at a range of 30-55. As determined by ASTM D 2419 methodology.

METHODS

PERFORMANCE REQUIREMENTS

The following standards and definitions are applicable to the work of this Section to the extent referenced herein:

- Standard Specifications: Highway Department, Standard Specifications for Highways and Bridges, latest edition.
- ASTM: American Society for Testing and Materials.
- AASHTO: American Association of State Highway and Transportation Officials.

SAMPLES AND SUBMITTALS

3. Construction Samples:

2. Sample of aggregate for strength and color for Stalok aggregate surfacing - road and firelane.

1. Sieve analysis of aggregate for Stalock aggregate surfacing for road and firelanes.

- Stalok aggregate road and firelane surfacing: Construct a 5' x 5' sample of finished path
- as directed by the Project Manager on site.
- Schedule mock-up construction so that mock-up can be accepted a minimum of 10 days prior to the application of paving surfaces represented by the mock-up.
- Locate mock-up panel(s) in areas as directed by the Project Manager.
- Continue to construct mock-ups until acceptable mock-up is produced (at no cost to the City). Acceptable mock-up shall be standard for texture, color and workmanship.
- Use same setting bed and joint mixes used in accepted mock-up in final work.
- Protect accepted mock-ups from damage until completion and acceptance of the work represented by the mock-ups.
- Remove mock-up panel(s) from the site at completion of the project, unless otherwise instructed by Project Manager.

QUALITY ASSURANCE Installer Qualifications: Installer to provide evidence to indicate successful experience in

installation of Stalok aggregate surfacing.

PREPARATION

BLENDING Stalok aggregate binding is a solely owned patented process. Blending procedures are performed only by a licensed Stalok blender and can only be sold through licensed Stalok

Pre-soak base material with water prior to installing Stalok Aggregate Paving material.

SUBGRADE AND COMPACTION

Sub-grade under all Stalok natural paving systems shall be prepared and compacted in accordance with this section (301-1) Locations where compaction testing is required are shown on the plans with the symbol \bigoplus The BCA Inspector may modify the exact location in the field, depending on field conditions with consent of the Project Manager. Results of the compaction test shall be submitted to the Project Manager for approval. The total number of compaction test shall be no less than two (2) or the number shown on the plans. Minimum compaction for Stalok surfaces shall be 90% relative compaction.

Subgrade Preparation:

- Refer to Geotechnical Report for subgrade preparation prior to placement of fill or aggregate base.
- Grade subgrade with uniform slope between points where elevations are given.
- Grade subgrade surface to within 0.05 foot of finish grade minus aggregate base and aggregate paving thickness.
- Fill and compact any depressions and remove loose material to finish true to line and grade, presenting a smooth, compacted and unyielding surface, except where indicated
- otherwise. Remove debris, loose dirt and other extraneous materials.
- All proper drainage design elements should be in place. Ditches, drains, and drain pipes should be installed to assure protection of the pavement and base from cross flows of water. All water flow should be directed off of and away from the pavement and base.

EDGING MATERIALS

Edging materials must be in place prior to the beginning of paving placement. The natural pavement surface have a crown in the middle or a slope from one side to the other, see plans. The Stalok natural pavement compacted surface should be no less than 1/8" above the edging material to assure proper drainage.

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1. Compaction can be achieved by a 5-ton Double-Drum Roller

- Compact material making 8 to 10 passes.
- 3. Use plate compactor on edges and hard to get areas.
- Loose material shall not be present on final surface.

WATERING

Water the surface area with a light spray following compaction. Contractor shall take care as to not disturb the aggregate surface with the spray action.

TOLERANCES

- In-Place Compacted Thickness:
 - Aggregate Base Course: Maximum 1/2 inch plus, minus 0 inch.
- Aggregate Paving Surface Course: Maximum 3/16 inch plus, minus 0 inch. Finished Surface Smoothness:
 - Subgrade: Plus or minus 0.08 foot.
 - Aggregate Base Course: Maximum 3/8 inch in 10 feet 0 inch.
 - Aggregate Paving Surface Course: Maximum 3/16 inch in 10 feet 0 inch any

FIELD PERFORMANCE AND CORRECTIONS

- Density Tests:
- Perform tests in accordance with ASTM D 2950.
- Perform tests at within 48 hours after final compaction. Perform number of tests as specified by project engineer.
- Natural Pavement Finished Surface Smoothness:
 - Test pavement continuously following initial compaction for smoothness and correct profile by laying a 10-foot straightedge on the paving finished surface parallel to road or path centerline.
 - Surface shall not vary more than 3/16 inch, except at intersections or changes
- Correct areas not meeting specified surface tolerance immediately after initial
- Natural Pavement Course Thickness:

Correct areas not meeting specifications immediately after initial compaction.

PROTECTION

- Protect Surface:
- Natural Pavement: Protect surface and edges from traffic for minimum 72 hours by using barricades, fencing or other accepted methods.
- Drainage:
 - Provide drainage during construction to prevent water from collecting or
- standing on areas to be paved or areas of freshly placed pavement

$\sqrt{\sqrt{}}$ INSPECTION

Finished surface shall be uniform and solid, with no evidence of chipping or cracking. Dried, compacted paving material shall be firm to full depth with no soft areas. Loose material shall not be presented on the surface.

MAINTENANCE

Remove debris, such as paper, grass clippings, leaves or other organic material by mechanically blowing or hand raking the surface as needed. Any plowing program required during winter months shall involve the use of a rubber baffle on the plow blade or wheels on the plow that lifts the blade 1/4" off the paving surface.

REPAIRS

- Excavate damaged area to the depth of the Stalok aggregate and square off sidewalls.
- If area is dry, moisten damaged portion lightly.
- Apply moistened pre-blended stalok aggregate to excavated area to finish grade.
- Compact with an 8" to 10" hand tamp or 1000 lb. Roller

WARRANTY

Submit a written warranty executed by the installer agreeing to repair or replace components of stalok surfacing that fail in materials or workmanship within the specified warranty period. Failures include, but are not limited to, the following:

- Premature wear and tear, provide the material is maintained in accordance with
- manufacturer's written maintenance instructions.
- Failure of system to meet performance requirements.

Warranty Period: Contractor shall provide warranty for performance of product. Contractor shall warranty installation of product for the time of one year from completion.

• Contractor shall provide, for a period of sixty days, unconditional maintenance and repairs

7. IRRIGATION SYSTEMS

MATERIALS

SOLVENT WELDED PLASTIC PIPE

Schedule 40 PVC plastic pipe shall be used for pipe sizes up to and including 1 1/2 inch diameter on both the discharge and supply side of control valves, (212-2.1.3). Class 315 PVC plastic pipe shall be used for pipe sizes from 2 inch up to and including 3 inch diameter.

RESTRAINED PLASTIC PIPE

Class 150, DR 18, C900 PVC pipe shall be used for pipe sizes of 4inch up to and including 10inch diameter.

REMOTE CONTROL VALVES

All remote control valves shall be electrically operated with body of cast brass or bronze construction, (212-2.2.4) and installed per details.

CONTROL WIRE

Sheet Version 2.2

Connection between the automatic controller(s) and the remote control valves shall be made with direct burial 14 gage, AWG-UF, 600 volt, copper wire. Wires shall be provided in the following colors: red, yellow, blue, green, orange, tan, purple, pink, brown, gray, and white.

CONTROL WIRE CONNECTIONS

Control wire connections shall be made with 3-M brand of DBY or DBR Direct Burial Splice kits, or approved equal. The splice kit shall consist of a one-piece malleable plastic bulb body with internal locking fingers, filled with re-enterable gel sealant and a Scotchlok Electrical Spring Connector. Materials shall be as follows:

- Connector shall be a flame retardant PVC insulator with a steel spring and shell within. Connector shall be a non-crimping system
- Tube material shall be clear see-through polypropylene.
- Gel material shall be hixotropic calcium organic complex.

Wire sizes and numbers of wires shall be as shown below:

NO. AND SIZE OF WIRE CONNECTOR Max. 4-12 gage UF wires 3M Model DBY Yellow Max. 3-14 gage UF wires 3M Model DBR Red

√ QUICK COUPLING VALVES AND ASSEMBLIES

Quick couplers shall be 1 inch i.p.s., two piece, brass or bronze construction equipped with a cover, unless otherwise specified on plans. The Contractor shall provide one quick coupler key with hose swivel for each five quick couplers installed. Contractor shall supply a minimum of one quick coupler key with hose swivel, (212-2.2.6) and shall be installed per details.

√ VALVE BOXES

Valve boxes shall be of Portland Cement concrete with a cast iron frame and hinged double toggle locking cover. The inside dimensions of the box shall be 10 1/2 inches by 17 1/4 inches, Model 363 1/2 HFL by Eisel Enterprises Inc., or approved equivalent. The cast iron cover shall be permanently embossed, "GV" for gate valve, "RCV" for remote control valves, "QC" for quick coupler valves, MV for Master Valves, or FM for Flow Meter. Paint is not acceptable. Contractor shall supply one (1) valve box cover key for each five (5) valve boxes installed. Provide a minimum of two (2) cover keys, (212-2.2.7). Boxes are to be installed per details.

√ DOMESTIC WATER LINES FOR DRINKING FOUNTAINS

Install water piping in accordance with the latest edition of the Uniform Building Code and all local ordinances. Prior to allowing human consumption of water from newly installed drinking fountains the contractor shall perform domestic sterilization procedures as indicated in applicable details and meet standards indicated. New drinking fountains shall be turned off or otherwise made inoperable until this testing is successfully accomplished.

Domestic Cold Water Piping ABOVE GRADE: Piping shall be ASTM B88 Type "L" seamless hard drawn copper tubing with ANSI B 16.22 wrought copper fittings. Joints shall be made up with lead-free, nickel bearing alloy solder such as Harris Bridget.

Domestic Cold Water Piping BELOW GRADE: Piping shall be ASTM B88 Type "K" seamless hard drawn copper tubing with ANSI B 16.22 wrought copper fittings. Joints shall be made up with lead-free, nickel bearing alloy solder such as Harris Bridget.

METHODS

EXISTING IRRIGATION SYSTEM REPAIR - GENERAL

The Contractor shall reconstruct any existing irrigation lines that are to remain in service, when they interfere or are damaged by construction. Reconstruction of the irrigation lines shall conform to the applicable sections of the Standard Specifications using all new materials except existing irrigation heads, which may be reinstalled. When modifications to an existing irrigation system are part of the project, the Contractor shall verify the operation of all existing irrigation controllers, remote control valves, quick coupling valves, and irrigation heads prior to the commencement of work. The Project Manager shall be notified, in writing, of any inoperable equipment encountered.

 $\sqrt{\sqrt{}}$ Maintain 12 inches of cover over all lateral lines and 24 inches of cover over mainlines 3" and smaller in diameter. Mainlines 4" and larger in diameter shall have 30" of cover over the top of the pipe. Reconnect existing remote control valves with approved watertight connectors, (308-5).

NEW PIPELINE INSTALLATION - GENERAL

- $\sqrt{\sqrt{}}$ When pipelines run parallel they shall be separated horizontally by a minimum distance of 12". When pipelines cross each other they shall be separated vertically by a minimum distance of 3".
- $\sqrt{\sqrt{}}$ No irrigation trenching shall pass closer than eight feet of the base of any tree. No tree root larger than 2" diameter shall be cut without approval of the Project Manager.

COVER OVER MAINLINES:

 $\sqrt{\sqrt{}}$ Maintain 24 inches of cover over mainlines 3" and smaller in diameter. Mainlines 4" and larger in diameter shall have 30" of cover over the top of the pipe, (308-5.2). All trenching shall be per details.

COVER OVER LATERAL LINES:

 $\sqrt{\ }$ Maintain 12 inches of cover over all lateral lines.

Pipe bedding and backfill: bedding shall surround the pipe to one foot above the top of the pipe. Bedding shall be placed in 6 inch lifts. All bedding shall be densified by water jetting. Water jetting shall be sufficient to thoroughly wet bedding material around the pipe, (306-1.2.1). There shall be no rocks over 1/2" in greatest dimension and no organic matter placed in the bedding material. Backfill shall be the material placed above the bedding. Backfill shall be placed in one-foot lifts and densified by water jetting. Jetting shall be continued until backfill collapses and water is forced to the surface, (306-1.3.1). Pipe trenches thoroughly densified by water settling shall have a minimum relative compaction of 85%. There shall be no rocks over 2" in greatest dimension or organic matter in the backfill. Trench areas which exhibit insufficient densification shall be subject to compaction tests as requested by the Contract Administration Inspector or the Project Manager. All such compaction tests shall be at the expense of the Contractor. Additional tests may be required until the 85% minimum compaction is achieved. Finished trenches shall match finish grades flush with adjacent finish grades. The Contractor shall be responsible for maintaining the trenches flush and smooth until final acceptance of the project. Trenches in existing lawn shall be repaired per method A lawn repair of the Landscape Planting section of the Specifications.

The maximum trench width shall be two and a half diameters of the pipe.

PIPES CROSSING UNDER PAVING:

Where irrigation piping crosses a vehicular roadway or other paving having a width of less than 25 feet, a PVC Schedule 40 PVC sleeve which is a minimum of two pipe sizes larger than the piping to pass through it, shall be jacked under the paving at a depth of 36" minimum. Where remote control wiring crosses under paving having a width of less than 25 feet, a 3 inch PVC Schedule 40 PVC sleeve shall be jacked under the paving at a depth of 36" minimum. All sleeves shall extend 3' minimum beyond the edges of paving.

Where irrigation piping crosses a vehicular roadway or other paving having a width greater than 25 feet, a trench shall be excavated across the roadway or paving to accommodate a Class 315 PVC sleeve a minimum of two pipe sizes larger than the piping to pass through it, at a depth of 36" below the bottom of the paving, as measured from the top of the sleeve. Where remote control wiring crosses under paving having a width greater than 25 feet, a 3 inch Schedule 40 PVC sleeve shall be installed at a depth of 36" below the bottom of the paving, as measured from the top of the sleeve. The backfill of the trench shall be a 2 sack cement slurry. The slurry shall extend from the bottom of the trench to within one inch of the bottom of the existing paving. The trench in the existing paving shall be repaired with a like paving material and join the existing paving both horizontally and vertically.

REMOTE CONTROL WIRING UNDER PAVING

Remote control wire under paving shall be placed in a 3" class 315 PVC sleeve buried at a depth of 36. Roadways less than 25 feet in width shall have the sleeve jacked under the roadway.

FITTINGS ON MAINLINES:

All outlets from a mainline shall be accomplished with line sized tees with an outlet of the specified size. No saddle tees shall be permitted.

INSTALLATION OF VALVE BOXES

Boxes shall be set flush with existing grade, including sloped areas, and all soil within 12 inches of the perimeter of the box shall be compacted by water settlement as indicated in the trench repair section of this specification. Boxes are to be positioned per details.

LAYOUT OF PIPING

Pipe layout as shown on irrigation plan is schematic. Contractor may route piping in the most expedient manner consistent with the requirements set forth herein, including avoidance of tree roots. Contractor shall adhere to As-Built requirements as shown below.

PLACEMENT OF IRRIGATION HEADS

Note: Department of Recreation and Parks irrigation plans are designed, as a minimum standard, for head-to-head coverage. Head locations shall be scaled from center of head symbol directly from the irrigation plan. Accuracy of placement shall be within plus or minus two feet for all rotary heads having a throw of 25 feet or greater; within plus or minus 12 inches for all head types with a throw of under 25 feet. Where heads are located adjacent to paving, the heads shall be placed within three inches of such paving.

INSTALLATION OF IRRIGATION HEADS

Sprinkler heads in lawn areas shall be set flush with finish grade at initial installation and protected during construction. All soil 12 inches from the perimeter of the head shall be compacted by water jetting as indicated in this specification, or set in sand as shown on details.

(Applies to cast iron and brass gear driven rotary pop-up heads only.) The Contractor shall supply to the Project Manager one rotor maintenance kit per 100 heads, or one kit minimum if less than 100 heads, (308-5.4.4).

SPRINKLER HEAD RISER

All plastic sprinkler heads shall be installed on swing joint assemblies as shown on details. Swing joint assemblies for Thompson gear driven rotary pop-up heads shall be fabricated of Schedule 40 galvanized steel pipe and fittings as specified in details.

AUTOMATIC CONTROL SYSTEM INSTALLATION

The foundation of the automatic controller shall be per details. Each remote control valve shall have a separate 24 volt control wire from the automatic irrigation controller.

$\sqrt{\ }$ LOW VOLTAGE WIRE CONNECTIONS

Connectors shall be DBY or DBR as manufactured by 3M Corp. Control wires shall be stripped of 1/2 inch insulation, inserted into the electrical spring connector, and the connector twisted in a clockwise direction until the wires are tight. Insert the completed splice into the gel-filled tube, and check visually to confirm that the wire nut has been pushed past the fingers and is seated in the bottom of the tube. Position wires in wire channels and close insulator cover.

CONTROL WIRE

Connection between the automatic controller(s) and the remote control valves shall be made with direct burial 14 gage, AWG-UF, 600 volt, copper wire. Wires shall be color coded as

CONTROLLER WIRE	CONTROLLER	CONTROLLER	CONTROLLER	CONTROLLER
COLOR	STATION	STATIONS	STATIONS	STATIONS
RED	1	11	21	31
YELLOW	2	12	22	32
BLUE	3	13	23	33
GREEN	4	14	24	34
ORANGE	5	15	25	35
TAN	6	16	26	36
PURPLE	7	17	27	37
PINK	8	18	28	38
BROWN	9	19	29	39
GRAY	10	20	30	40

CONTROLLER	TAPE BUNDLE COLOR
Α	RED
В	YELLOW
С	BLUE
D	GREEN
E	WHITE
F	BLACK

INSTALLATION OF IRRIGATION CONTROL WIRING

Wire bundles shall be taped at 5' o.c. Lay bundles in the mainline trench. Do not tape bundles to the mainline piping.

 $\sqrt{\sqrt{}}$ The Contractor shall run two extra black control wires from the automatic controller to the farthest valve on the system, or to the farthest valve at each end of the controller area, if the farthest area extends in two directions from the controller.

Each controller shall have a separate 14 gage, AWG-UF, 600 volt, WHITE common wire for each 10 consecutive stations on each irrigation controller.

stations 1-10 Common 1, Common 2, stations 11-20 stations 21-30 Common 3,

Wire shall not be taped to mainline (308-5.5). If control wires run in same trench as lateral lines, or are dead headed, wire depth shall be maintained at 24". For installation, see details.

$\sqrt{\sqrt{}}$ IRRIGATION SYSTEM FLUSHING AND TESTING

The irrigation system shall be flushed in the presence of the BCA Inspector. Flushing shall start with the valve closest to the point of connection and proceed with each consecutive valve toward the valve farthest from the point of connection. Each lateral system shall have each riser capped during the flushing commencing with the riser closest to the valve and proceeding to the farthest riser. After the entire irrigation system has been flushed the system shall be pressure tested in accordance with section 308-5.6 of the SSPWC.

 $\sqrt{\sqrt{}}$ The irrigation system mainlines shall be pressure tested following the flushing of the complete system. The mainlines shall be tested for 24 hours at 125 p.s.i. with all control valves in place and closed. During the test, the Contractor shall provide pressure gauges downstream from the backflow device and upstream from the farthest remote control valve in the system. Air pressure testing of the irrigation system is acceptable if approved by the Project Manager.

√ RECORD DRAWINGS (AS-BUILTS) AND CONTROLLER CHARTS

As built plans shall be maintained daily throughout the construction period and turned over to the Project Manager at the Operational Final Inspection, as indicated in the General section of these Specifications in the Record Drawings Submittal section.

The Contractor shall provide two copies of a controller chart showing the irrigation system installed. The chart shall be done on a half size photographic reproduction of the irrigation plan and shall reflect the as-built data. Each station shall be shown in a different color and control wire locations shall be indicated. The complete plan shall be laminated on each side with a 20 mil acrylic plastic sheet. A 3/4" brass grommet shall be placed in each top corner. The Contractor shall obtain approval of the controller chart from the Project Manager, before proceeding with the plastic lamination.

WARRANTY FOR IRRIGATION SYSTEM WORK

The entire sprinkler irrigation system shall be warranted to be free from defects in materials and workmanship, and installed in accordance with these Specifications and the SSPWC. The Contractor shall be required to repair or replace any defects in material or workmanship which may develop within one (1) calendar year from the date of acceptance, ordinary wear and tear and unusual abuse or neglect excepted. Further, the Contractor shall be required to make any necessary repairs within 24 hours of notification at no cost to the Department. If the Contractor or his agent fail to make such repairs within the stipulated time, the Department shall make such repairs or have repairs made by a third party and bill the Contractor for all expenses that accrue from making such repairs.

GUARANTEE AGAINST SETTLEMENT

If, within one (1) calendar year from the date of acceptance, settlement occurs along mainlines, lateral lines, at valve boxes, or other irrigation related appurtenances, and adjustments in pipes valves and sprinkler heads are required to bring the system, sod, or paving to the level of the permanent grades, the Contractor shall make all adjustments without additional cost to the Department, including complete restoration of any planting, paving, or other improvements damaged as a result of settlement.

FIRE LINE/IRRIGATION MAINLINE INSTALLATION, (RESTRAINED PIPE JOINTS), C900

Fire line/Mainline piping 4" to 10" diameter, if indicated on the plan, shall be Class 150, DR 18, C-900 PVC with Pacific Western 'Twin Seal' joints, or equal, provide 36" of cover over the top of pipe. All fittings shall be ductile iron, AWWA C153, compact configuration, with mechanical joints. All ductile iron compact configuration fittings shall be of U.S. manufacture All fitting to pipe joints shall be restrained with an EBAA 2000 series 'Megalug' retainer gland. Retainer gland bolts shall be tightened as specified in the manufacturer's instructions. All bolts shall be tightened using a torque wrench only. Tighten each 'Megalug' wedge nut in an alternate sequence with a torque wrench. The maximum torque on the 'Megalug' wedge nuts shall be 30 ft./lbs. The Contractor shall verify the torque of the bolts with a torque wrench to the BCA Inspector and shall have a torque wrench available on site until job acceptance.

Two joints, each side of the fittings or valves, shall be installed with EBAA 1600 series ductile iron bell retainers. The maximum torque of the side bolts of the bell retainer shall be 90 ft./lbs. There shall be a minimum of 25 feet of pipe between the fitting and the bell retainer farthest

The 'Megalug' restrainer gland and the bell restrainer work as a unit to fully restrain the pipe. There is no need for thrust blocks on the system.

STEEL PIPELINE

Joints shall be made with Teflon tape applied to the male threads only, (308-5.2.2).

PLASTIC PIPELINE-SOLVENT WELDED OR THREADED ENDS

Prior to the application of the P.V.C. solvent cement, prepare all surfaces to be solvent welded with tetrahydrofuran primer tinted purple. Teflon tape shall be used on all plastic male pipe threads, (308-5.2.3).

√ BACKFLOW DEVICE INSTALLATION AND CERTIFICATION

The Contractor shall obtain certification of the backflow device and submit two copies of the certification to the Project Manager at the Operational Final. The backflow certification shall be made on the County Health Department standard form and filed with the County Health Department, Cross Connection Section, Room 150, 2525 Corporate Place, Monterey Park, CA, 91754. The contractor shall paint all backflow prevention devices above ground with two coats of forest green enamel. Mask all identification tags prior to painting, (308-5.3). After certification remove all test cocks, replace with threaded brass plugs, and deliver test cocks to Project Manager.

DRAWING NO.

PLOTTED: 5/18/2012 9:30 AM

 $/\sqrt{}$ CHAIN LINK FENCING Chain link fencing materials shall be as specified in details RP 500-506 and Section (206-6).

Pipes for posts, braces and rails shall be Class 1, Schedule 40, ASTM F 1083 or. Class 1A, with a minimum 50,000 psi yield strength. Class 1 pipe shall be galvanized as indicated in this section of the Specifications. Class 1A pipe shall have a minimum hot dipped zinc coating of 0.9 oz./Sq. Ft., 15 micrograms of chromate per square inch and a minimum or 3 mils of acrylic coating on the exterior of the pipe. The interior coating of Class 1A pipe shall be hot dipped galvanized with .9 oz/ Sq. Ft. Zinc. Materials for chain link fence posts, rails and braces shall be sized as follows:

NOMINAL SIZE (Inches)	ACTUAL O.D. (Inches)	Class 1 Pipe Wall Thickness	Class 1 Weight Lbs per lin. ft.	Class 1A Pipe Wall Thickness	Class 1A Weight Lbs/L.F. (Pounds)
1 1/4"	1 5/8"	.140	2.27	.110	1.82
1 1/2"	1 7/8"	.145	2.72	.120	2.28
2"	2 3/8"	.154	3.65	.130	3.12
2 1/2"	2 7/8"	.203	5.79	.160	4.64
3"	3 1/2"	.216	7.57	.160	5.71
3 1/2"	4"	.226	9.11	.160	6.56
4"	4 1/2"	.237	10.79	NA	NA
6"	6 5/8"	.280	18.97	NA	NA

CHAIN LINK FABRIC

Galvanized steel chain link fabric shall conform to ASTM A 392, Class 2, 1.00 0z./Sq.Ft. zinc. Fabric shall be 9 gauge and be woven in a 2" mesh unless otherwise indicated on the plan. Top and bottom selvages shall be knuckled.

PVC coated galvanized steel fabric, when specified, shall conform to ASTM F 668, Class 2b, "fused and adhered", and meet the galvanizing requirements contained in this section of the Specifications, (206-6.3).

STEEL SHAPES

All structural steel shapes shall be as specified in the applicable detail.

$\sqrt{}$ GALVANIZING

Where called out, metal products shall be hot dipped galvanized in accordance with TABLE 210-3.2(A) of the SSPWC.

MANUFACTURER'S CERTIFICATE OF COMPLIANCE

The manufacturer of the Chain link fabric, fence posts, rails and braces shall provide the Contractor a Certificate of compliance for each shipment sent to the project site. The Certificate shall state that the materials delivered conform the specification for materials as indicated in Section 8 of these Specifications. The Certificate of Compliance shall be delivered to the Project Manager and BCA Inspector before any fencing materials are installed at the project

REPAIRING OF DAMAGED GALVANIZED SURFACES

Galvanized surfaces which have been damaged in transport or during installation shall be re-coated using the metalizing process or zinc oxide, zinc dust paint per Section 210-3.5 of the Standard Specification.

TUBULAR STEEL SHAPES

Cold formed shapes for tubular steel fencing shall conform to ASTM A 500, Grade B, in the size and wall thickness shown on the plans and details. Unless specified on the plans all post and rails shall be 3/16" thick. All pickets for fencing shall be 11 gauge.

TUBULAR STEEL WELDING

Shall conform to the AWS code for procedures, appearance and quality. All welds shall be ground smooth. All fabricated metal fencing panels shall be shop assembled and welded.

PAINTING (TUBULAR STEEL AND CHAIN LINK FENCING WHEN REQUIRED)

"Factory" coated tubular steel fencing or chain link fencing shall be exempted from this requirement. All other shop fabricated tubular steel fencing or fencing constructed on site shall be painted in accordance with the requirements for painting "Ferrous Metal (Non-galvanized) Surfaces" below. The two finish coats shall be black unless otherwise specified.

METHODS

CHAIN LINK FENCE

Chain link fence shall be installed and stretched tight between posts.

All connection bolts shall not extend more than 1/4 inch past the end of the nut and be free from burrs.

TUBULAR STEEL PAINTING

Prior to priming and painting, all steel shall be made free of loose mill scale, rust, oil and grease. Welds shall be smoothed by grinding. Damage to "factory" coated tubular steel or chain link fencing shall be repaired after installation by sanding damaged paint surfaces and by applying one coat of manufacturer specified primer and two new coats of specified color coat.

9. PAINTING

MATERIALS

Paint systems, catalog names, and product numbers listed below are based on products of Dunn-Edwards Corporation. This shall be considered the standard of quality against which the Project Manager will judge equivalency. Equivalent materials from alternate manufacturers will be considered as an approved equal. Contractor's material submittal for proposed alternate must include complete material specifications from manufacturer. Paint systems described below are for specific surfaces as indicated. In addition to the information provided herein, paint materials shall also be governed by the requirements set forth in section 210-1 of the SSPWC.

Ferrous Metal Tubular Shapes (Non-Galvanized), Semi-Gloss Painting Sequence Finishing Recoat And Drying Coverage At Required Wet

	Schedule	Time	Required Wet	Film/Dry Fi
			Film Thickness	Thicknes
1 st coat: 100% Acrylic	Compo (42-1)	Dry to touch: 4 – 6	450 square feet	3.6 wet mils;
		hrs.; Recoat: 24 hrs.†	per gallon	2.0 dry mils
2 nd coat: 100% Acrylic	Permasheen (W	Dry to touch: 30 min.;	375 square feet	3.5 wet mils;
	901)	Recoat: 4 hrs.	per gallon	dry mils
3 rd coat 100% Acrylic	Permasheen (W	Dry to touch: 30 min.;	375 square feet	3.5 wet mils;
	901)	Recoat: 4 hrs.	per gallon	dry mils

† Must be recoated within 10 days of application.

Non ferrous metals (Galvanized steel, Aluminum), Semi-Gloss

raming Sequence	Schedule	Drying Time	Required Wet Film Thickness	Film/Dry Film Thickness
Pre-coat: galvanized steel only. Acid etch*	Galva-etch (GE 123)	n/a	n/a	n/a
1 st coat: Alkyd primer	Galv-Alum (QD 43-7)	Dry to touch: 30 min.; recoat: 2 hrs. † Max. 48 hrs.	350 square feet per gallon	4.6 wet mils; 2.0 dry mils
2 nd coat: Synthetic alkyd white corrosion inhibiting primer	Permasheen (W 901)	Dry to touch: 30 min.; Recoat: 4 hrs.	375 square feet per gallon	3.5 wet mils; 2.0 dry mils
3 rd coat: Semigloss enamel acrylic latex exterior enamel	Permasheen (W 901)	Dry to touch: 30 min.	375 square feet per gallon	4.2 wet mils; 1.5 dry mils

* Galva-etch is a water reducible acid pre-treatment for galvanized metals. Do not use on

† Recoat time for Galv-Alum is 2 hours if material is sprayed, 16 hours if brushed or rolled. Second coat must be applied within 48 hours

Concrete (Poured-in-Place) and Concrete Block (Flat Finish)

Painting Sequence	Finishing Schedule	Recoat And Drying Time	Coverage At Required Wet Film Thickness	Required Wet Film/Dry Film Thickness
1 st coat: 100% Acrylic	Super-Loc (W 718)	Dry to touch: 2 – 4 hrs.; recoat: 6 – 8 hrs. Full cure: 7 days	150 – 350 square feet per gallon	3.6 wet mils; 1.5 dry mils
2 nd coat: 100% Acrylic	Evershield (W 701)	Dry to touch: 30 min.; Recoat: 4 hrs.	375 square feet per gallon	3.5 wet mils; 2.0 dry mils
3 rd coat: 100% Acrylic	Evershield (W 701)	Dry to touch: 30 min.	375 square feet per gallon	4.2 wet mils; 1.5 dry mils

Concrete (Poured-in-Place) and Concrete Block (Semi-Gloss)

Painting Sequence	Finishing Schedule	Recoat And Drying Time	Coverage At Required Wet Film Thickness	Required Wet Film/Dry Film Thickness
1 st coat: 100% Acrylic	Super-Loc (W 718)	Dry to touch: 2 – 4 hrs.; recoat: 6 – 8 hrs. Full cure: 7 days	150 – 350 square feet per gallon	3.6 wet mils; 1.5 dry mils
2 nd coat: 100% Acrylic	Permasheen (W 901)	Dry to touch: 30 min.; Recoat: 4 hrs.	375 square feet per gallon	3.5 wet mils; 2.0 dry mils
3 rd coat: 100% Acrylic	Permasheen (W 901)	Dry to touch: 30 min.; Recoat: 4 hrs.	375 square feet per gallon	3.5 wet mils; 2.0 dry mils

Primers Sealer and Undercoaters

rimers, Sealer, and OnderCoaters							
Alkyd based	Block-it (QD 42-58) Quick-dry pigmented primer/sealer	Dry to touch: 30 min.; Recoat: 1 hr.	435 square feet per gallon	3.7 wet mils; 1.5 dry mils			

Wood, Plywood, Synthetic Wood (Semi-Gloss)

Painting Sequence	Finishing Schedule	Recoat And Drying Time	Coverage At Required Wet Film Thickness	Required Wet Film/Dry Film Thickness
1 st coat: 100% Acrylic	Compo (42- 1)	Dry to touch: 4 – 6 hrs.; Recoat: 24 hrs. †	450 square feet per gallon	3.6 wet mils; 2.0 dry mils
2 nd coat: 100% Acrylic	Permasheen (W 901)	Dry to touch: 30 min.; Recoat: 4 hrs.	375 square feet per gallon	3.5 wet mils; 2.0 dry mils
3 rd coat: 100% Acrylic	Permasheen (W 901)	Dry to touch: 30 min.; Recoat: 4 hrs.	375 square feet per gallon	3.5 wet mils; 2.0 dry mils

† Must be recoated within 10 days of application.

METHODS

GENERAL

Refer also to section 310-1of the SSPWC.

COLOR SPECIFIED

Colors shall be selected from color chip samples provided by manufacturer of paint system approved for use by the Project Manager.

CONDITION OF SURFACES TO BE PAINTED

Contractor shall verify condition of surfaces to be painted prior to commencement of painting work. Work of other trades that been left or installed in a condition that is not suitable to receive paint, stain, or other specified coatings shall be immediately called to the attention of the Project Manager. Painting of defective or unsuitable surface implies acceptance of the surfaces.

PROTECTION OF EXISTING WORK

The Contractor shall take all necessary precautions to protect previously installed work and materials which may be affected by work. Items to be protected include, but are not limited to, turfgrass, shrubs, trees, ground cover, prefinished surfaces, and adjacent surfaces. Contractor shall furnish at his expense sufficient drop cloths, shields, and other protective devices necessary to prevent spray or splatter from fouling surfaces not being painted. Contractor shall be responsible for protecting equipment and fixtures from damage resulting from use of fixed, movable and hanging scaffolding, planking and staging, (310-1.4)

PROTECTION OF NEW PAINTING

"WET PAINT" signs, barricades, and such other devices as are required to protect newly finished surfaces shall be provided. Contractor shall be responsible for removal of signs protective materials, and temporary protective wrappings provided by others for protection of their work after completion of painting operations.

SURFACE PREPARATION, GENERAL

The Contractor shall perform preparation and cleaning procedures in strict accordance with coating manufacturer's instructions for each substrate condition, (310-2)

$\sqrt{\ }$ SURFACE PREPARATION FOR WOOD SURFACES

Wood surfaces shall be prepared for painting in accordance with section 310-4 of the SSPWC.

APPLICATION

The Contractor shall apply painting and finishing materials in accordance with the manufacturer's printed instructions. Application methods and techniques that are best suited for the materials and surfaces to which coatings are being applied shall be used, (310-5)

tinted to the approximate color of the finish coat. The Contractor shall apply additional coats when undercoats, stains, or other conditions show through the final paint coat, until paint film is of uniform finish, color and appearance.

Each material shall be applied at not less than the manufacturer's recommended spreading rate and mil thickness. The total dry-film thickness of coatings shall not be less than 1.2 mils for each required coat.

CLEANING. TOUCH-UP AND REFINISHING

The Contractor shall remove all spattering, spots and blemishes caused by work done throughout the work period. Upon completion of painting, the Contractor shall remove all rubbish, paint cans and accumulated materials resulting form work and dispose of off site. All areas of work shall be left in a clean, orderly condition. Runs, sags, misses, holidays, stains, or any other defects in the painted surfaces, including inadequate coverage and mil thickness, shall be satisfactorily touched up, refinished, or repaired a necessary to produce a result satisfactory to the Project Manager.

10. LANDSCAPE PLANTING

MATERIALS

AMMONIUM PHOSPHATE

Shall be a standard agricultural grade of ammonium phosphate having guaranteed analysis of

GYPSUM

Shall be agricultural grade.

ESTABLISH - GENERAL PURPOSE FERTILIZER

Shall have a minimum analysis of 1-1.3-5,(N-P-K), derived from rock phosphate, peat moss, chicken manure, sand, sulfate of potash, gypsum, and EDDHA chelate. As manufactured by Earth Works Soil Amendment, Inc., (310) 322-9702, or an approved equal.

HYDROSEED MULCH FIBER

Shall consist of virgin wood fiber of Aspen or Alder. It shall not contain any waste paper, newsprint or straw material. The mulch shall contain a green dye to facilitate application. Fiber shall be as manufactured by Conwed Co., (Green Tag), Silva-Fiber by Weyerhauser Co., or an approved equal, (212-1.2 (e)).

HYDROSEED STABILIZER

Shall consist of natural muciloid materials supplied by Ecology Controls M-binder, (805) 684-0436, no equal.

HYDROBLEND SOIL ACTIVATOR

Shall have a minimum analysis of 1.2-1.4-5, (N-P-K), derived from rock phosphate, peat moss, chicken manure, sulfate of potash, gypsum. As manufactured by Earth Works Inc., (310) 322-9702, or an approved equal.

FEATHER MEAL

Shall have a minimum analysis of 12-0-0,(N-P-K), derived from feathermeal. As manufactured by Earth Works Inc., (310) 322-9702, or an approved equal.

NITROFORM UREAFORM

Shall be a standard commercial grade of nitroform having a guaranteed analysis of 38-0-0.

ORGANIC AMENDMENT

Shall be type I organic soil amendment, consisting of nitrolized fir shavings.

OVERSEED TOPDRESSING, EARTH WORKS ORGANIC TOPDRESSING

Shall be, derived from composted wood products, peat moss, chicken manure and a wetting agent. As manufactured by Earth Works Inc., (310) 322-9702, or an approved equal.

POTASSIUM SULFATE

Shall be a standard agricultural grade of potassium sulfate having guaranteed analysis of

ROUNDUP

Shall be a water-soluble herbicide for non-selective control of weeds containing 480 grams per liter of the active ingredient Isopropylamine salt of N-(phosphonomethyl) Glycine (Glyphosate) per U.S. gallon, as manufactured by Monsanto Chemical Company, or approved equal.

PRE-EMERGENT HERBICIDE

FERTILIZER TABLETS

Shall be Balan Granular, by Elanco, or an approved equal. All pre-emergent herbicides, when required, shall be specified and applied by a licensed Pest Control Advisor.

Shall be fertilizer tablets shall be Agriform 21 gram, 20-10-5, available from Western Farm Service, (805) 487-4961

MULCH

Shall be seasoned tree chip mulch, free all foreign matter including weed and tree seeds. Mulch chip size shall be minimum one (1) inch in diameter and not more than two (2) inches in diameter. Submit sample of mulch and source to Landscape Architect/Project Manager for approval prior to application.

TURFGRASS SEED

Seed for seeding turf areas shall be:

- Perennial Ryegrass seed (Lolium perenne). Cultivar shall be one of the following: Derby,
- Common Bermuda grass Seed (Cynodon dactylon), 50% shall be hulled and 50% unhulled.

WATER HOLDING POLYMER Shall be "Broadleaf P-4"

METHODS

TOPSOIL PREPARATION - GENERAL

The type and thickness of topsoil shall be as shown on the plans. If not shown, the topsoil shall be the existing class "C" on-site topsoil. Remove all stones over 1 inch in greatest dimension, to a depth of 6 inches below finish grade, (308-2.3.1).

Prior to planting, the top two (2) inches of all areas (including slopes) shall be free of weeds, stones, and other deleterious matter one (1) inch in diameter and larger.

TOPSOIL PREPARATION

If not otherwise specified, all lawn and ground cover areas shall receive the following soil • 3 cubic yards, Type I organic soil amendment per 1,000 sq. ft., (.003 CY/Sq.Ft.)

- 75 lbs of Establish per 1,000 sq.ft., (.075 Lbs./Sq.Ft.)
- 5 lbs. of Feathermeal, 12-0-0, per 1,000 sq. ft., (.005 Lbs./Sq.Ft.)

The soil preparation materials shall be cultivated into the soil to a depth of 6 inches minimum and thoroughly watered, (308-2.3.1).

√√ FINISH GRADING (FOR LAWN AREAS)

Finish grading of lawn areas shall take place after the soil has dried out to a workable condition following the soil preparation operations. The soil shall be remodeled and smoothed to the required grades and contours, then rolled in two directions at right angles with a water ballast roller weighing 200 to 300 pounds. Any resulting irregularities in the grade after the initial rolling shall be re-raked, cut or filled, then re-rolled until the grade is free from irregularities. No heavy objects shall be taken over the areas at any time. The final finish grade shall be uniform, without abrupt changes in grade, within one-tenth of a foot of the grades shown on the plan, and approved by the Project Manager prior to seeding, (308-2.4).

WEED ABATEMENT ("GROW AND KILL")

Weed abatement shall apply to all turf and planting areas. The abatement operation shall be commenced only after removals, grading, hardscape, construction, installation of irrigation system, soil preparation, and fine grading of turf and planting areas have been completed.

NOTE: It is required that herbicides be applied by a licensed PEST CONTROL APPLICATOR.

CONTRACTOR RESPONSIBILITY DURING WEED ABATEMENT OPERATION AND APPLICATION PRECAUTIONS

The Contractor shall abide by all laws and codes governing weed abatement operations including but not limited to CAL-OSHA requirements and The Healthy School Act which includes 72 hour notice to employees and patrons, submittal of a "Pest Control Recommendation Form" to RAP, and a completed and accurate MSDS (Material Safety Data Sheet) to be at the site of application. The area of application shall be posted as such and barricaded for public safety and information. On sites over ½ acre in size the contractor shall utilize a Project Manager approved plan of phasing the application.

The Contractor is responsible or any and all damage done to plant materials outside of the treatment area. Contractor shall replace, in kind and size, any plant material damaged or killed through the application of herbicide.

Any Contractor, who is obligated under contract with the Department for the construction or refurbishment of a park facility that involves the intended use of herbicides or other pesticides, must first notify the pest management supervisor of the Forestry Division. Prior to any approved pesticide applications at any recreation/child care center, the contractor is also required to notify the recreation director-in-charge at least 72 hours in advance of the date/s of application. This is to conform to the State of California Healthy Schools Act of 2000(AB2260). Also, all pest control work performed at any facility should fall within the guidelines of the Department's IPM programs. In addition, each individual project will require a written recommendation by a licensed Pest Control Advisor for any pesticide application.

Any questions regarding pesticide application and procedures at Recreation and Parks facilities shall be directed to the Project Manager and the RAP Forestry group, Vegetative Management (213) 485-4826.

In addition to the afore listed responsibilities the following precautions shall be observed in handling and applying herbicide:

1. Before applying, Contractor shall read and understand all instructions provided by the manufacturer.

2. Product shall not be used when winds are gusty or in excess of 3 miles per hour, or

material. Use cardboard, plywood, or other appropriate material to shield plant

- when any other conditions exist, which would result in drift. Avoid combinations of pressure and nozzle type or adjustment that result in mist.
- 4. Do not apply during rain, or if rain is forecast within twelve hours. If rain occurs within twelve hour period, material must be reapplied after plant growth has dried out. 5. Contractor shall observe extreme care not to allow spray to contact desirable plant
- materials outside of the treatment area from overspray. Do not apply to bare ground.
- 7. Do not add any other products to any herbicide mix, including spreader stickers or surfactants, unless required by the label directions and approved by the Department's Pest Control Advisor (PCA).

WEED ABATEMENT: GROW AND KILL METHOD

Contractor shall follow the "grow and kill" steps set forth below:

Clear site of all dead or living vegetative growth by hand or mechanical

Step 2. Thoroughly water all turf and planting areas daily to keep soil evenly moist for a period of at least two weeks.

Step 3. At the conclusion of the growth period, treat all plants within the treatment area with Roundup at an application rate of five (5) quarts of Roundup mixed in 50 gallons of clean water per acre applied by spraying. Thoroughly moisten all plant material with herbicide.

Step 4. Do not water or otherwise disturb treated areas for a period of two (2) weeks. Step 5. After two week kill period, remove all dead plant growth. If any living plants are observed, entire plant, including roots, shall be removed by hand. Minimize physical disturbance of the soil.

WEED SUPPRESSION (NON-HERBICIDE WEED REMOVAL)

Weed suppression, shall apply to all turf and planting areas. The suppression operation shall be commenced only after removals, grading, hardscape construction, installation of irrigation system, soil preparation, and fine grading of turf and planting areas have been completed. Contractor shall thoroughly water all turf and planting areas for a period of two weeks minimum prior to commencing removal. Contractor shall clear site of all dead vegetation and living weeds by hand or mechanical means. All removed vegetation shall be properly disposed of off

TREE AND SHRUB PLANTING

Plant pits for all 1 gallon, 5 gallon, 15 gallon, and all boxed size trees, shall be twice the width and equal to the depth of the container rootball. Note that this requirement differs from the SSPWC (308-4.5).

Unless otherwise specified, the backfill mix for all plants shall be 60% percent on site soil and 40% percent Type I organic soil amendment and 1 lb. of "Establish," general purpose fertilizer per gallon of container, or 1 lb. per each 4" of box size. "Broadleaf P-4" water holding poylmer shall also be added to the backfill mix at the rate of 1 oz. per foot of rootball diameter.

Each plant pit shall also receive "Agriform" slow release fertilizer tablets, 21 gram, 20-10-5, as shown in the relevant planting details, and as follows:

- 1 gallon 1 tablet • 5 gallon - 2 tablets
- 15 gallon 6 tablets
- Larger than 15 gallon size 2 tablets per half inch of trunk diameter

Space tablets evenly around the perimeter of the rootball, approximately 3 inches below finish surface. After shrub or tree has been planted, water by hand to hydrate polymer.

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PLOTTED: 5/18/2012 9:30 AM

Remove all watering basins around trees planted in lawn areas at the end of the maintenance period. All trees planted in lawn areas shall have a 36 inch diameter unplanted area around each tree.

METHOD "A" LAWN PLANTING - REPAIR, SEEDING

Irrigation trenches shall be fully compacted and the grade brought flush with the adjacent undisturbed finish grade. Irrigation trench areas and areas where equipment has damaged the existing lawn shall be seeded per this section.

Sow seed at a rate of three (3) pounds of common Bermuda per 1,000 sq. ft. and six (6) pounds of perennial ryegrass per 1,000 sq. ft. Mulch all seed with 1/4"(or 3/4 cubic yard per 1,000 sq. ft.) of Bio-organic Finale.

Alternate method: Existing sod may be carefully cut, removed and reused to sod trenches after backfilling and densification.

METHOD "B" LAWN PLANTING, HYDROSEEDING

- The lawn seed mix for lawn planting shall contain the following materials at the rates specified:
 - A.Mulch Fiber 1,500 lbs./acre (.0345 Lbs./Sq.Ft.)
 - B.Stabilizer 120 lbs./acre, (.0028 Lbs./Sq.Ft.)
- C.Fertilizer Hydroblend, at 3,000 lbs. per acre, (.0688 Lbs./Sq.Ft.).
- D.Seed by Weight:
 - 6 lbs. Derby Supreme, perennial rye grass (.006 lbs./sq. ft.)
 - 3 lbs. Common Bermuda grass, (1 ½ lb. hulled & 1 ½ lb. unhulled) per 1,000 sq. ft., (.0015 lbs./sq. ft., hulled & unhulled)

The Contractor shall supply a delivery receipt to the BCA Inspector certifying conformance with the specified hydroseed mix and indicating that the slurry has not been mixed for longer than two hours. Slurry which has been mixed longer than two hours shall be recharged with 50 percent more of the specified seed mix, at the Contractor's expense, (308-4.8.2(b)). Delivery tickets shall be forwarded to the Project Manager.

SOD LAWN

The sod shall be machine cut to between 1/4" and 5/8" thick, not including top growth or thatch. Sod shall be laid on a grade which has been amended and finish graded in accordance with the topsoil preparation and finish lawn grading specifications of the Specifications. The sod strips shall be laid tight against the adjacent strip with adjacent ends forming a running bond pattern. After laying the sod, roll with a minimum 300 lb. water ballast roller and irrigate.

The sod shall be Available at

MULCHING

All planting areas except lawn and lawn-like substitute (i.e. yarrow lawns) shall receive a minimum two (2) inch deep layer of tree chip mulch per the Planting Details and these Landscape Construction Notes. Mulch shall be spread evenly throughout planting beds and tree watering basins. Do not bury ground cover.

√ MAINTENANCE AND PLANT ESTABLISHMENT

The Contractor shall be responsible for maintenance within the area of work throughout the period of construction and the plant establishment period. The maintenance shall include continuous operations of picking up trash and emptying trash cans daily, watering, the removal of all weeds in planting areas and all broad leaf weeds in lawn areas, mowing, rolling, trimming, edging, cultivation, fertilization, spraying, control of pests, insects and rodents, reseeding, plant replacement (irrespective of cause), or any other operations necessary to assure normal plant growth and the collection and removal of all trash daily. Any malfunctions of, or damage to, the irrigation sys

The plant establishment period shall be for a period of 49 days unless extended as described in this section. The plant establishment period shall be started when all planting and related work has been completed, in accordance with the contract documents. The beginning of the plant establishment period shall be determined by an on site review by the Project Manager. Trees and shrubs shall be healthy and vigorous at the completion of the maintenance period. Broken or vandalized tree stakes shall be repaired to a condition as initially installed within seven (7) days of damage.

All lawn areas shall have 95 percent coverage with bare areas not exceeding three square inches. All lawns shall be of the grass specified and be free from all broad leaf weeds. The lawn shall not be allowed to grow higher than three (3) inches and shall be mowed to a one and one half (1 ½) inch height. The lawn shall be mowed at least twice during the plant establishment period.

The entire area of work shall be kept free of weeds, trash or other debris during the maintenance period. The Contractor shall maintain the area of work at maximum seven (7) day intervals and perform any needed mowing of existing lawns within the area of work when the grass reaches a four (4) inch height.

Five weeks after lawn seeding the Contractor shall apply a slow release 38-0-0 granular fertilizer at a rate of 15 pounds per 1000 sq. ft. to all lawn areas. The fertilizer shall be applied in the presence of the BCA Inspector.

The Contractor shall immediately replace any and all plant materials and/or grass which, for any reason dies or is damaged while under the Contractors care. Replacement shall be made with seed and/or plants as indicated or specified for the original planting.

All shrubs and ground covers shall be guaranteed for a period of ninety (90) days from the end of the plant establishment period. All trees and shrubs 15 gallon size or larger shall be guaranteed for a period of one (1) year from the end of the plant establishment period.

The designated plant establishment period is part of the total contract time. The plant establishment period will be extended at fourteen (14) day intervals if, at the end of the plant establishment period, the planting, irrigation and other improvements do not reflect the intent of the plans and Specifications. All extensions of the plant establishment period shall be subject to the assessment of liquidated damages, (308-6).

11. BASEBALL FIELDS

MATERIALS

√ INFIELD MIX

The top 4 inches of the skinned infield shall be "PRO RED" STABILIZED INFIELD MIX as distributed by Stabilizer Solutions, Inc. (800) 336-2468 or an approved equal. The infield mix shall consist of crushed aggregate screenings, with the following gradations per ASTM F1632 methodology:

US SIEVE SIZE	% RETAINED	US SIEVE SIZE	% RETAIN		
#18	23.4%	#140	8.4%		
#35	20.8%	#270	3.9%		
#60	12.6%				

Sand equivalent as determined by ASTM D2419 shall have a minimum of 30. R-Value as determined by ASTM D 2488 shall have a minimum of 70.

Stabilizer shall be "Stabilizer" (TM), a non-toxic, colorless, odorless, non-staining concentrated organic powder that binds soil and crushed aggregate screenings together, creating a natural appearance and firm surface as distributed by Stabilizer Solutions (800) 336-2468 or approved equal. Product shall have 64% pre-consumer recycled content.

METHODS

The Stabilized Infield Mix shall be premixed by the distributor when delivered to the site.

PLACEMENT

After pre-blending, place the Stabilized Infield Mix on prepared sub-grade compacted to 90% relative compaction. Pre-soak base material with water prior to installing Stabilized Infield Mix and allow to dry. Level to desired grade and cross section of 4" minimum depth. Allow for an approximate 1" cushion for compaction. A 10' by 10' area centered over each future base pad location shall be six (6) inches deep in lieu of the standard four (4) inches depth for the rest of the infield. Grade infield area so that all areas achieve a 1% minimum slope unless indicated differently in the Construction Drawings, and no depressions are created that can retain water

WATERING

Water heavily to achieve full depth moisture penetration of the entire Stabilized Infield Mix Profile. Stabilizer is water-activated: to achieve adequate saturation of Stabilized Infield Mix Profile, a minimum of 25 to 45 gallons of water per ton must be applied. During water application randomly test for penetration depth using a probing device until the entire profile is adequately wetted.

COMPACTION

Upon thorough moisture penetration, compact aggregate screenings to 85% relative compaction with a min. 1,000 lb. static drum roller. **Do not begin compaction for 6 hours** after placement. Compaction must be completed within 24 hours of wetting.

Take care in compacting Stabilized Infield Mix when adjacent to planting and irrigation systems. Hand tamping with 8" or 10" hand tamp is recommended in areas where large equipment could damage irrigation or hardscape.

√√ INSPECTION

The finished surface of Stabilized Infield Mix shall be smooth, uniform and solid. There shall be no evidence of chipping or cracking. Cured and compacted Infield shall be firm throughout profile with no spongy areas. Loose material shall not be present on the surface. Any significant irregularities in the surface shall be repaired to the uniformity of entire installation.

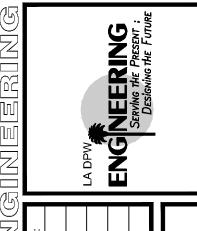
12. SITE FURNISHINGS

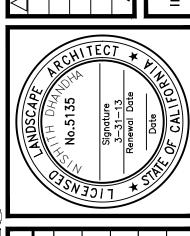
METHODS

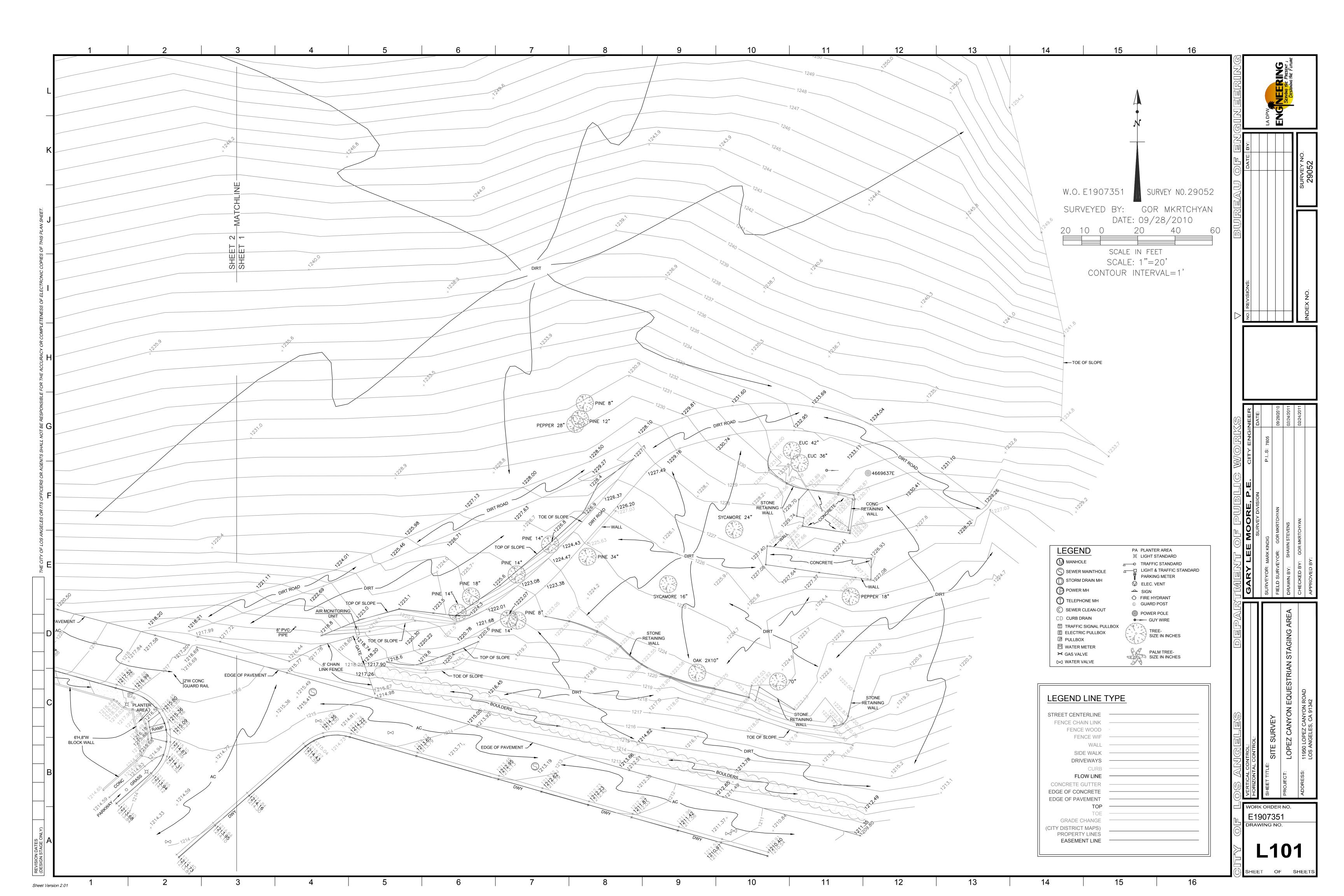
Install all site furnishings per the manufacturer's specifications and installation instructions. The Contractor shall submit the installation instructions, for each different piece of equipment installed, as part of the materials approval list.

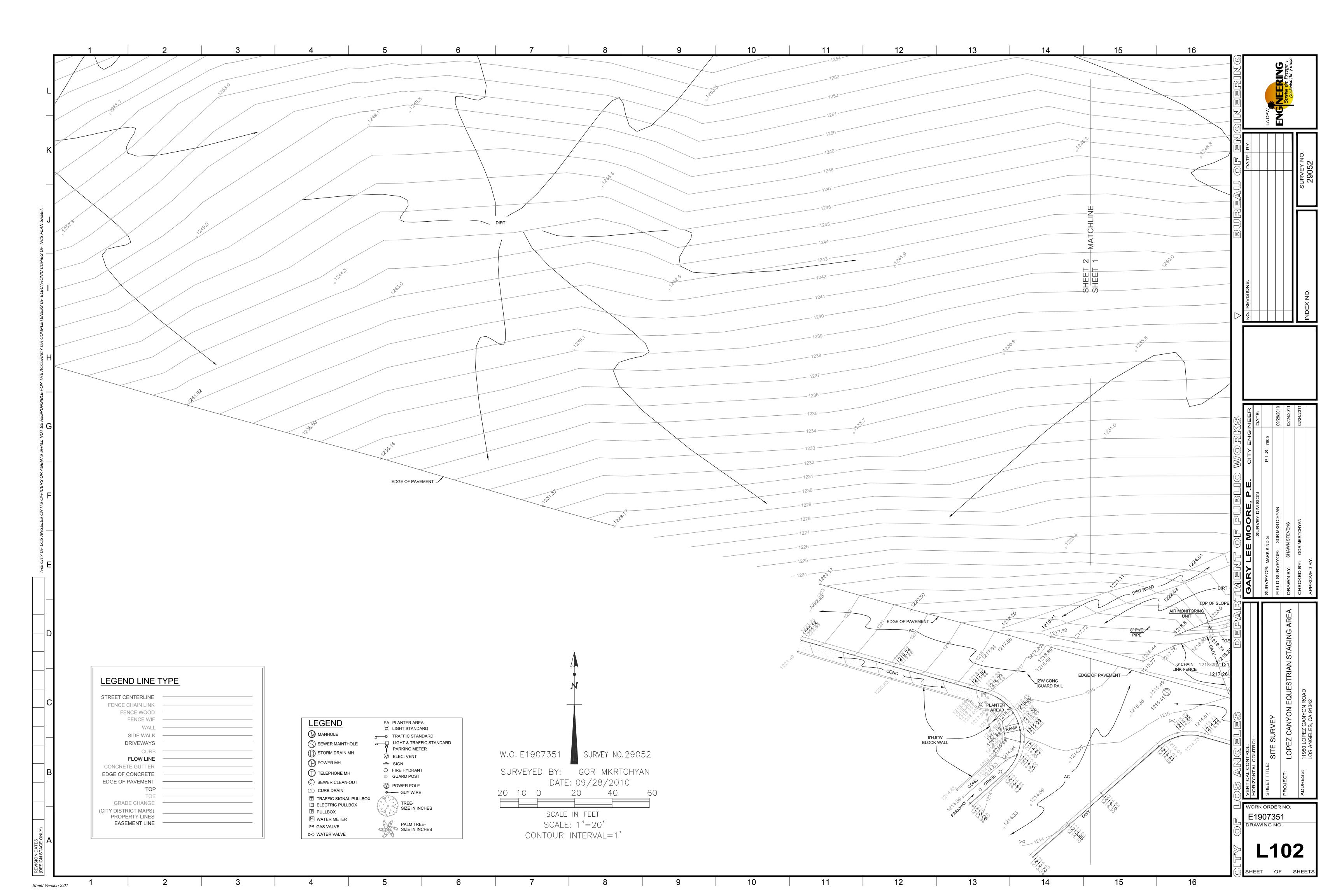
END OF SPECIFICATIONS

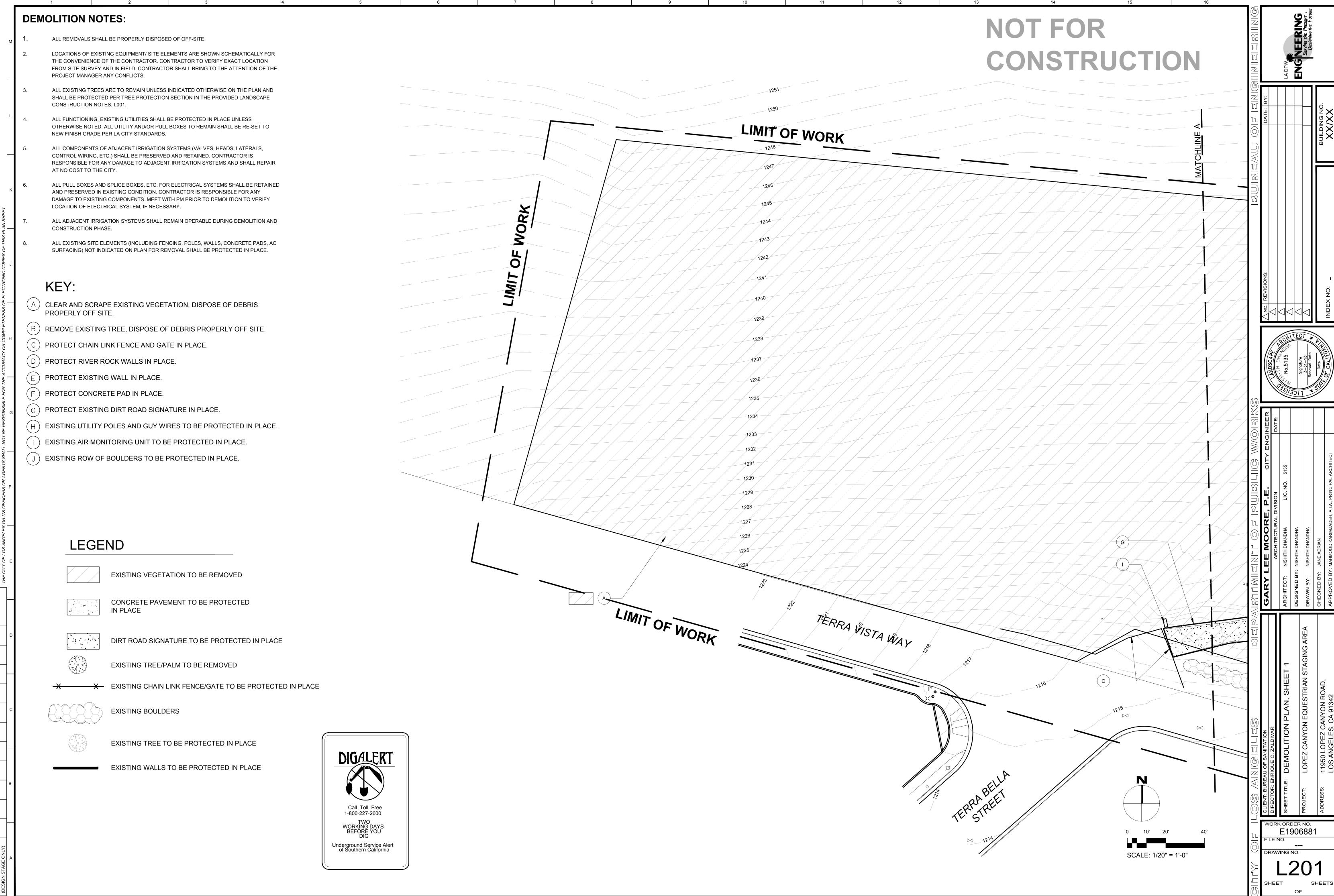
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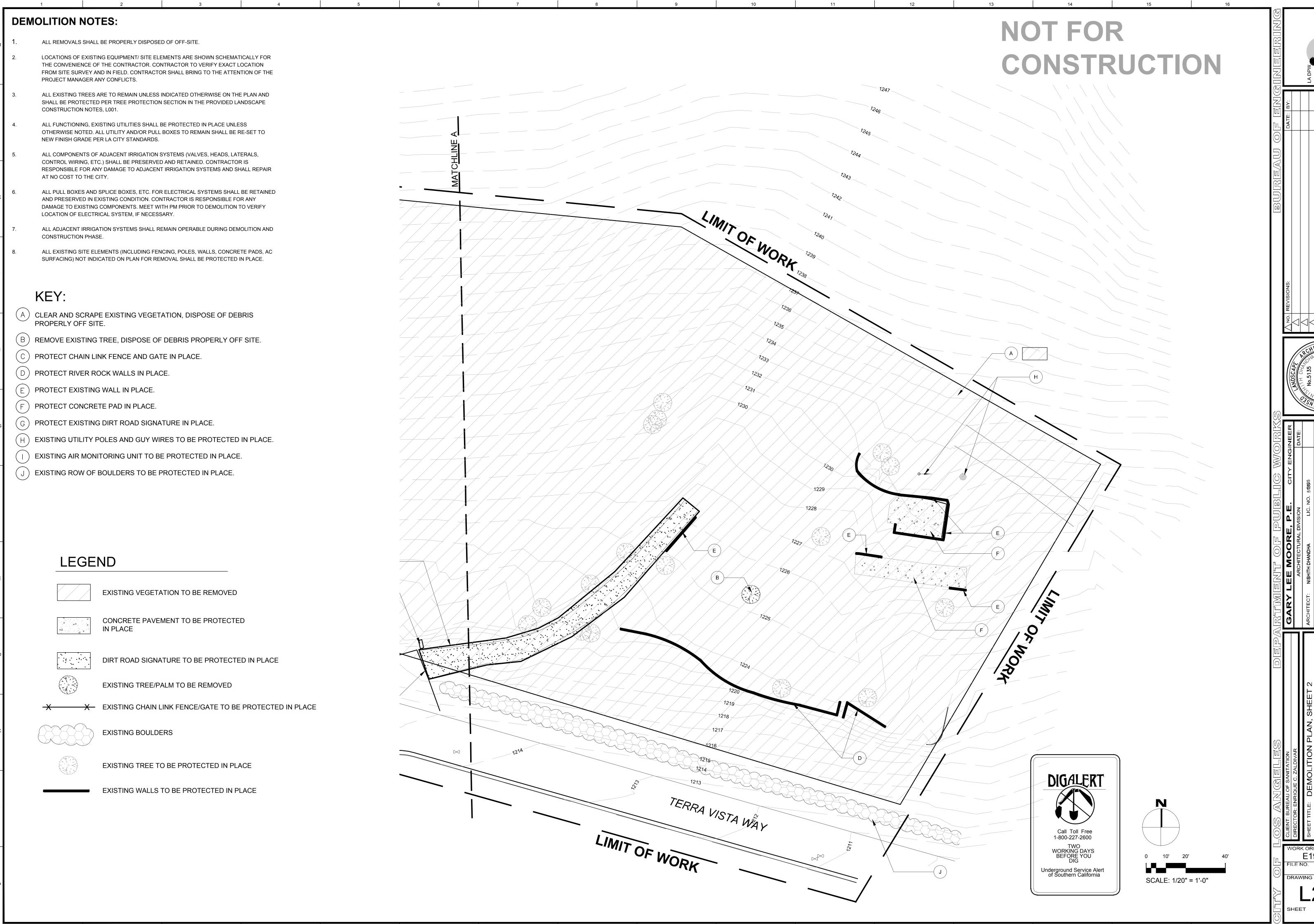








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GRADING NOTES:

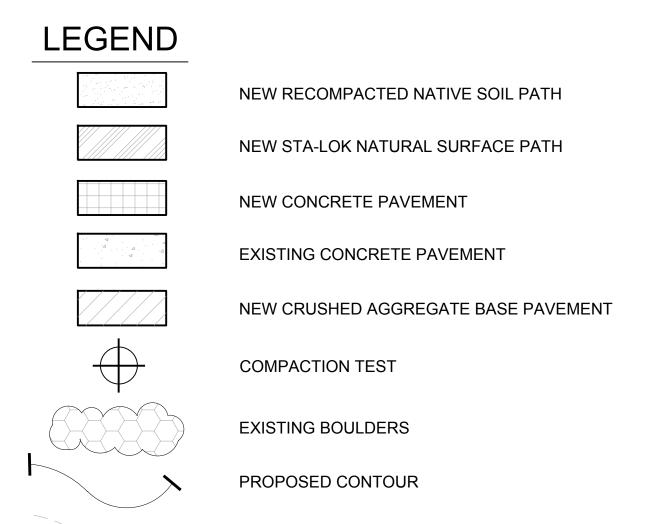
- 1. ALL REQUIRED FILL OR BACKFILL SHALL BE PLACED IN LOOSE LEVEL LIFTS NOT EXCEEDING 8 INCHES IN THICKNESS, MOISTURE CONDITIONED BETWEEN OPTIMUM MOISTURE CONTENT AND A FEW PERCENT ABOVE THE OPTIMUM MOISTURE CONTENT. MAN-MADE FILL SHALL BE MECHANICALLY COMPACTED TO A MIN. RELATIVE COMPACTION OF 90% MAX. DRY DENSITY PER ASTM METHOD D-1557.
- 2. THE REQUIRED FILL MATERIALS SHALL BE PLACED IN LEVEL, UNIFORM LAYERS NOT EXCEEDING 6" IN THICKNESS WHEN COMPACTED. EACH LAYER SHALL BE THOROUGHLY MIXED DURING SPREADING TO INSURE UNIFORMITY OF MATERIAL AND MOISTURE IN EACH LAYER.
- 3. ALL WORK SHALL COMPLY TO CITY GRADING REGULATIONS.
- 4. THE APPROVED SET OF PLANS SHALL BE ON THE JOB SITE AT ALL TIMES.
- 5. PROTECTIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT ADJACENT PROPERTIES AND FIXED IMPROVEMENTS IN THE PUBLIC RIGHT-OF-WAY DURING GRADING OPERATIONS.
- 6. DUST SHALL BE CONTROLLED BY WATERING.
- 7. NO TRENCHES OR EXCAVATION 5'-0" OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND SHALL BE ALLOWED. AN EXCEPTION WILL BE MADE ONLY IF A NECESSARY PERMIT IS OBTAINED FROM THE STATE OF CALIFORNIA (CAL/OSHA) PRIOR TO THE COMMENCEMENT OF THE ACTIVITY.
- 8. REFER TO THE CONSTRUCTION AND LAYOUT PLAN FOR ADDITIONAL DIMENSIONS, TIES, OR OTHER STAKING DATA.
- 9. FOR REFERENCE TO EXISTING CONDITIONS, SEE SITE SURVEY, L101-102.

10. GRADING AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE WRITTEN SPECIFICATIONS. ALL OTHER GRADING ISSUES NOT COVERED HEREIN OR WITHIN THE WRITTEN SPECIFICATIONS SHALL BE GOVERNED BY THE STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION (SSPWC), LATEST EDITION APPROVED BY THE CITY OF LOS ANGELES, DEPARTMENT OF PUBLIC WORKS.

11. CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPP), PER SECTION 5 - ENVIRONMENTAL CONTROL AND MITIGATION OF THE GENERAL REQUIREMENTS FOR APPROVAL AND CERTIFICATION BY PROJECT MANAGER PRIOR TO THE START OF ANY GRADING ACTIVITIES. ONCE APPROVED BY THE CITY, THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH THE FILING OF THE "NOTICE OF INTENT" (NOI) WITH STATE WATER RESOURCES CONTROL BOARD AND BEGIN THE IMPLEMENTATION OF THE SWPP.

12. STRAIGHT GRADE SHALL BE RUN BETWEEN CONTOURS AND SPOT ELEVATIONS UNLESS OTHERWISE INDICATED.

13. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY METHODS, MATERIALS, AND LABOR TO EFFECTIVELY CONTROL ANY EROSION ACTIVITY THAT MAY OCCUR DURING THE COURSE OF GRADING AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL OBTAIN THE APPROVAL FROM THE PROJECT ENGINEER PRIOR TO IMPLEMENTATION OF ANY EROSION CONTROL ACTIVITY.



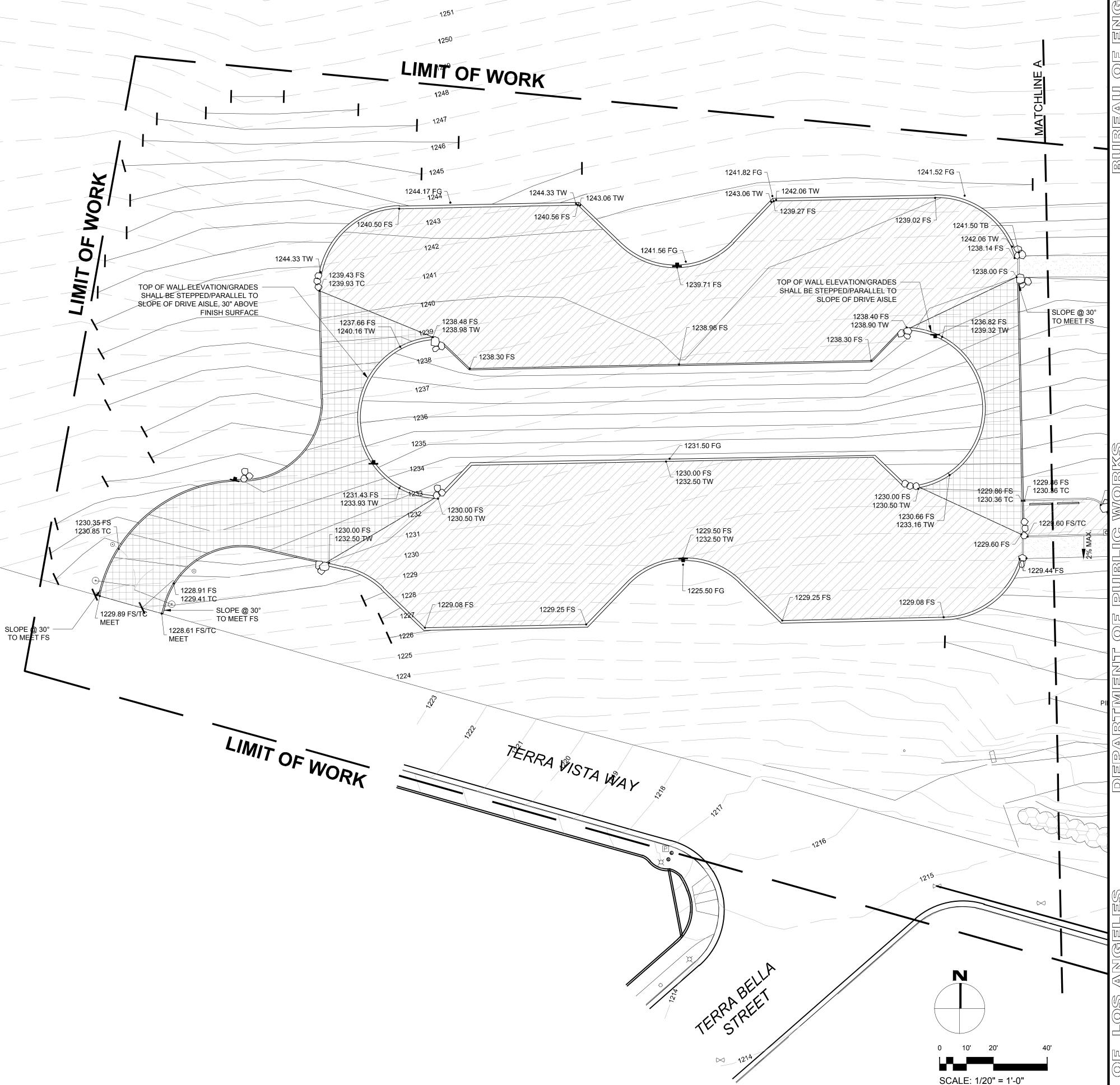
EXISTING CONTOUR

ABBREVIATIONS

- TB TOP OF BOULDER BB BOTTOM OF BOULDER TC TOP OF CURB
- BC BOTTOM OF CURB FG FINISH GRADE
- FS FINISH SURFACE TW TOP OF WALL
- BW BOTTOM OF WALL INV INVERT ELEVATION GB GRADE BREAK
- FL FLOW LINE EX EXISTING HPS HIGH POINT SWALE
- LP LOW POINT PA PLANTING AREA DI DRAIN INLET TS TOP OF STEP
- BS BOTTOM OF STEP (173.2) EXISTING GRADE DIRECTION OF FLOW



NOT FOR CONSTRUCTION





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DRAWING NO. ∟301

PLOTTED: 5/18/2012 9:34 AM

GRADING NOTES:

- 1. ALL REQUIRED FILL OR BACKFILL SHALL BE PLACED IN LOOSE LEVEL LIFTS NOT EXCEEDING 8 INCHES IN THICKNESS, MOISTURE CONDITIONED BETWEEN OPTIMUM MOISTURE CONTENT AND A FEW PERCENT ABOVE THE OPTIMUM MOISTURE CONTENT. MAN-MADE FILL SHALL BE MECHANICALLY COMPACTED TO A MIN. RELATIVE COMPACTION OF 90% MAX. DRY DENSITY PER ASTM METHOD
- 2. THE REQUIRED FILL MATERIALS SHALL BE PLACED IN LEVEL, UNIFORM LAYERS NOT EXCEEDING 6" IN THICKNESS WHEN COMPACTED. EACH LAYER SHALL BE THOROUGHLY MIXED DURING SPREADING TO INSURE UNIFORMITY OF MATERIAL AND MOISTURE IN EACH LAYER.
- 3. ALL WORK SHALL COMPLY TO CITY GRADING REGULATIONS.
- 4. THE APPROVED SET OF PLANS SHALL BE ON THE JOB SITE AT ALL TIMES.
- 5. PROTECTIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT ADJACENT PROPERTIES AND FIXED IMPROVEMENTS IN THE PUBLIC RIGHT-OF-WAY DURING GRADING OPERATIONS.
- 6. DUST SHALL BE CONTROLLED BY WATERING.
- 7. NO TRENCHES OR EXCAVATION 5'-0" OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND SHALL BE ALLOWED. AN EXCEPTION WILL BE MADE ONLY IF A NECESSARY PERMIT IS OBTAINED FROM THE STATE OF CALIFORNIA (CAL/OSHA) PRIOR TO THE COMMENCEMENT OF THE ACTIVITY.
- 8. REFER TO THE CONSTRUCTION AND LAYOUT PLAN FOR ADDITIONAL DIMENSIONS, TIES, OR OTHER STAKING DATA.
- 9. FOR REFERENCE TO EXISTING CONDITIONS, SEE SITE SURVEY, L101-102.

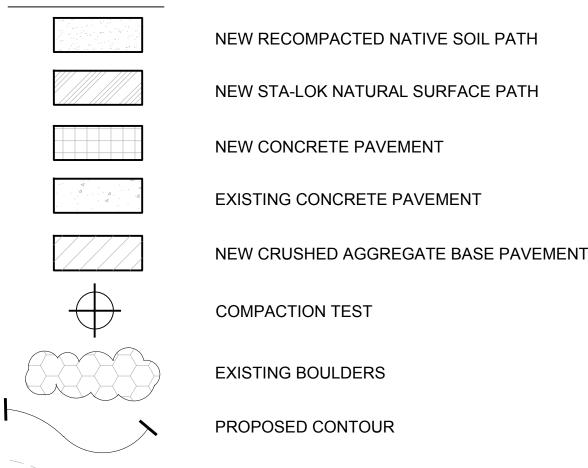
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EXISTING CONTOUR

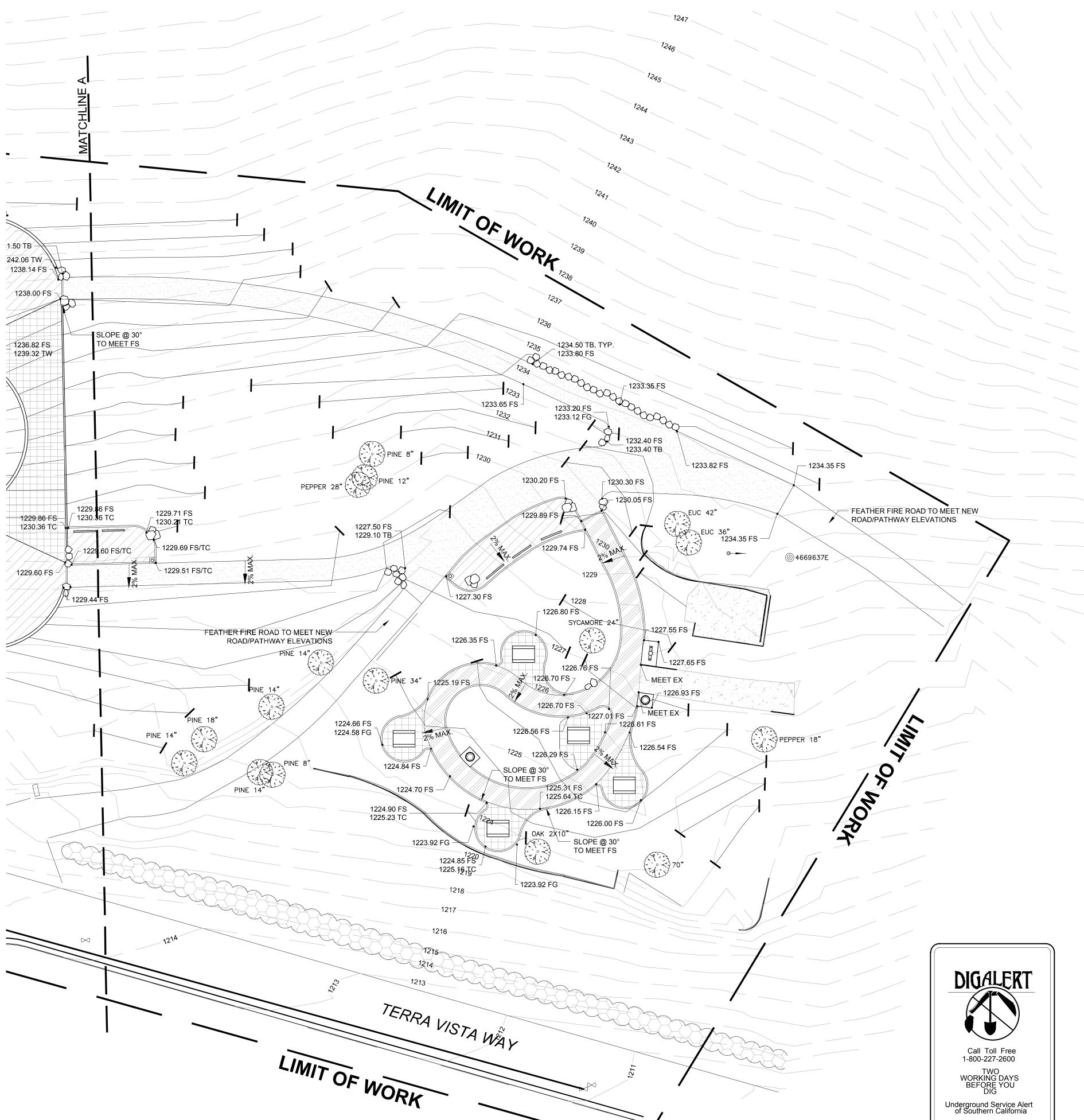
ABBREVIATIONS

INV INVERT ELEVATION

GB GRADE BREAK

- FL FLOW LINE TB TOP OF BOULDER BB BOTTOM OF BOULDER EX EXISTING HPS HIGH POINT SWALE TC TOP OF CURB LP LOW POINT BC BOTTOM OF CURB PA PLANTING AREA FG FINISH GRADE DI DRAIN INLET FS FINISH SURFACE TW TOP OF WALL **BW BOTTOM OF WALL**
 - TS TOP OF STEP BS BOTTOM OF STEP (173.2) EXISTING GRADE DIRECTION OF FLOW

NOT FOR CONSTRUCTION



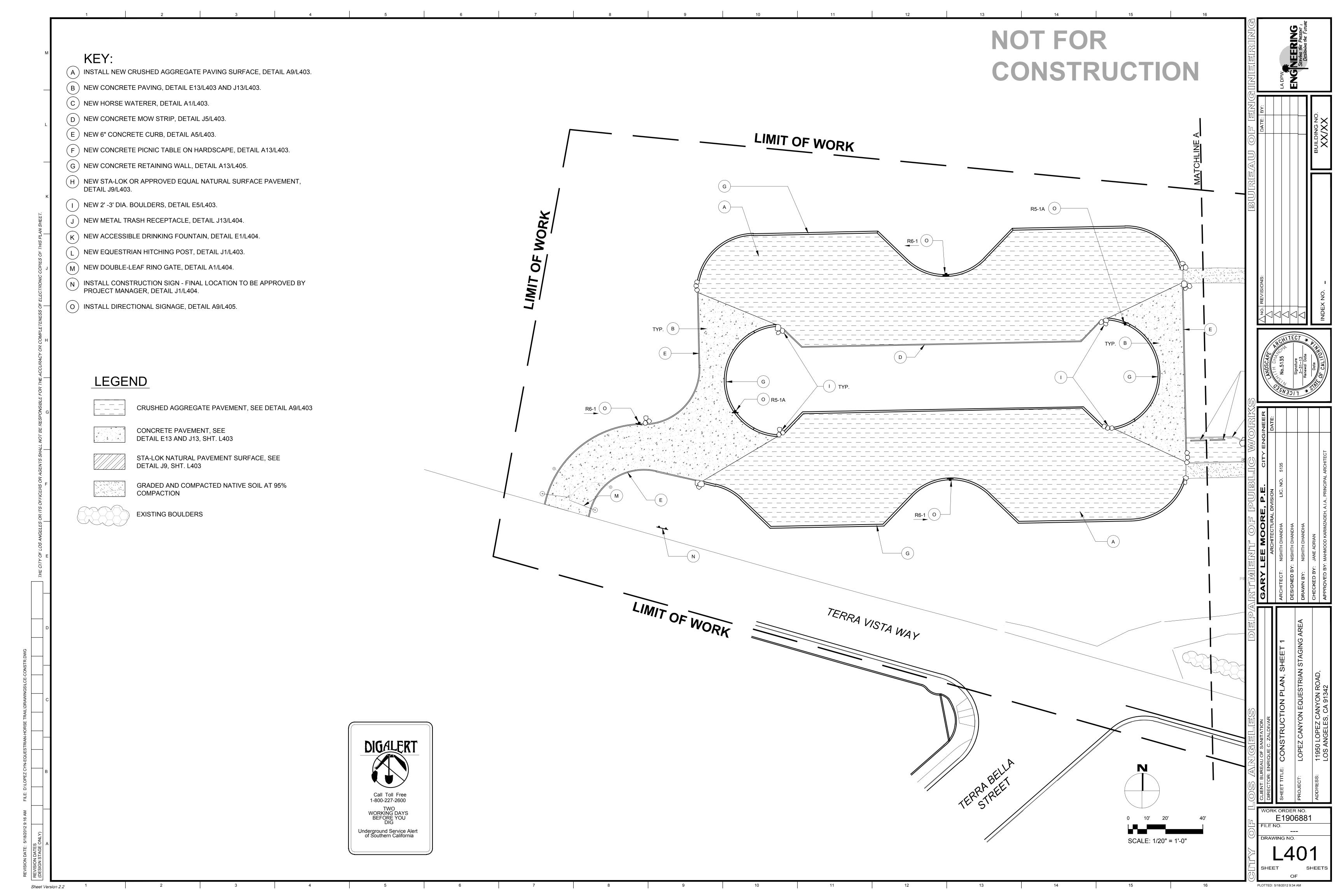


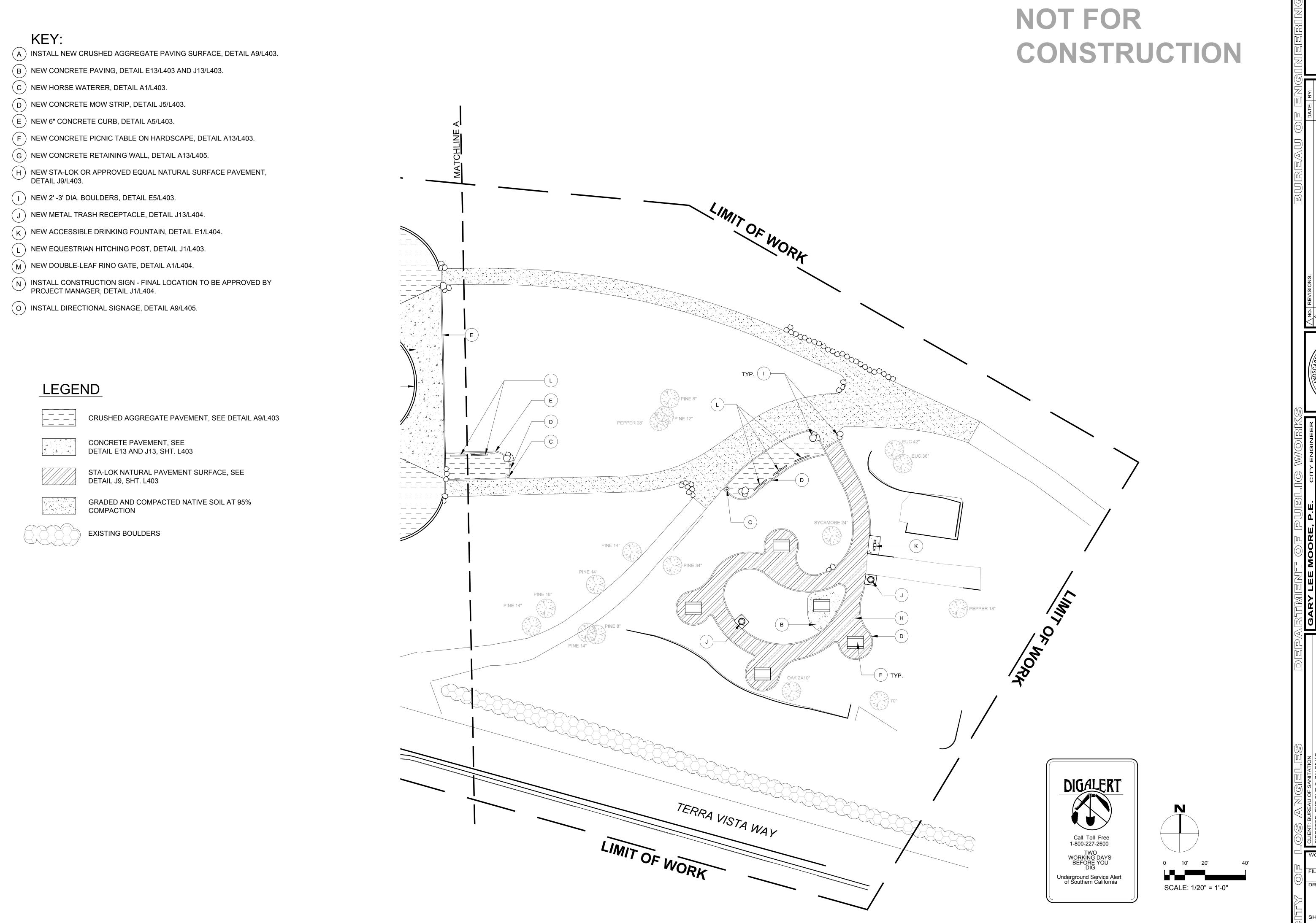


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DRAWING NO. L302

SCALE: 1/20" = 1'-0"







BUILDING NO.

No.5135

Signature
3-31-13

Renewal Date

E. CITY ENGINEER

ON DATE:

IC. NO. 5135

ARCHITECT: NISHITH DHANDHA

DESIGNED BY: NISHITH DHANDHA

DRAWN BY: NISHITH DHANDHA

CHECKED BY: JANE ADRIAN

STRUCTION PLAN, SHEET 2

Z CANYON EQUESTRIAN STAGING ARE/
LOPEZ CANYON ROAD,

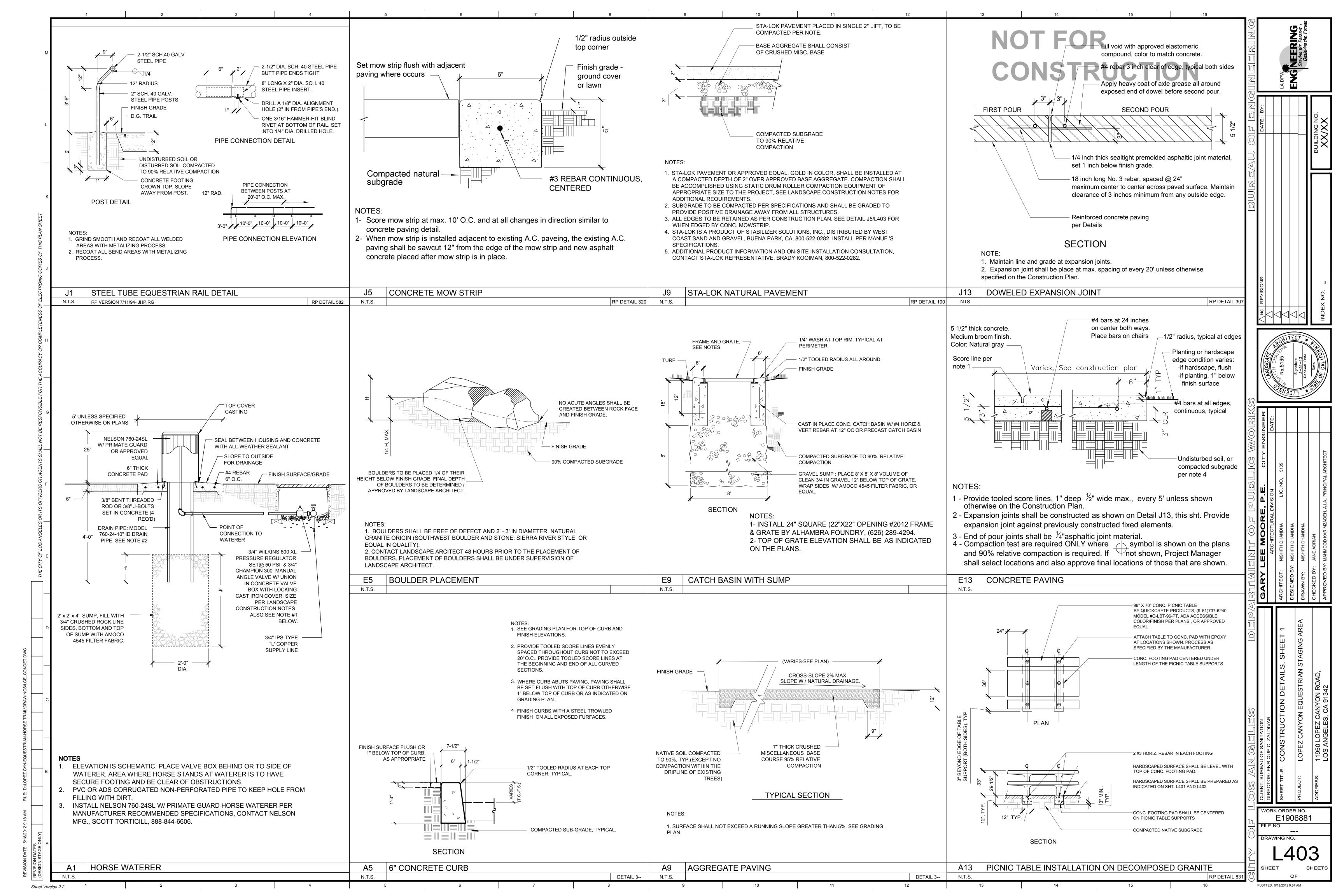
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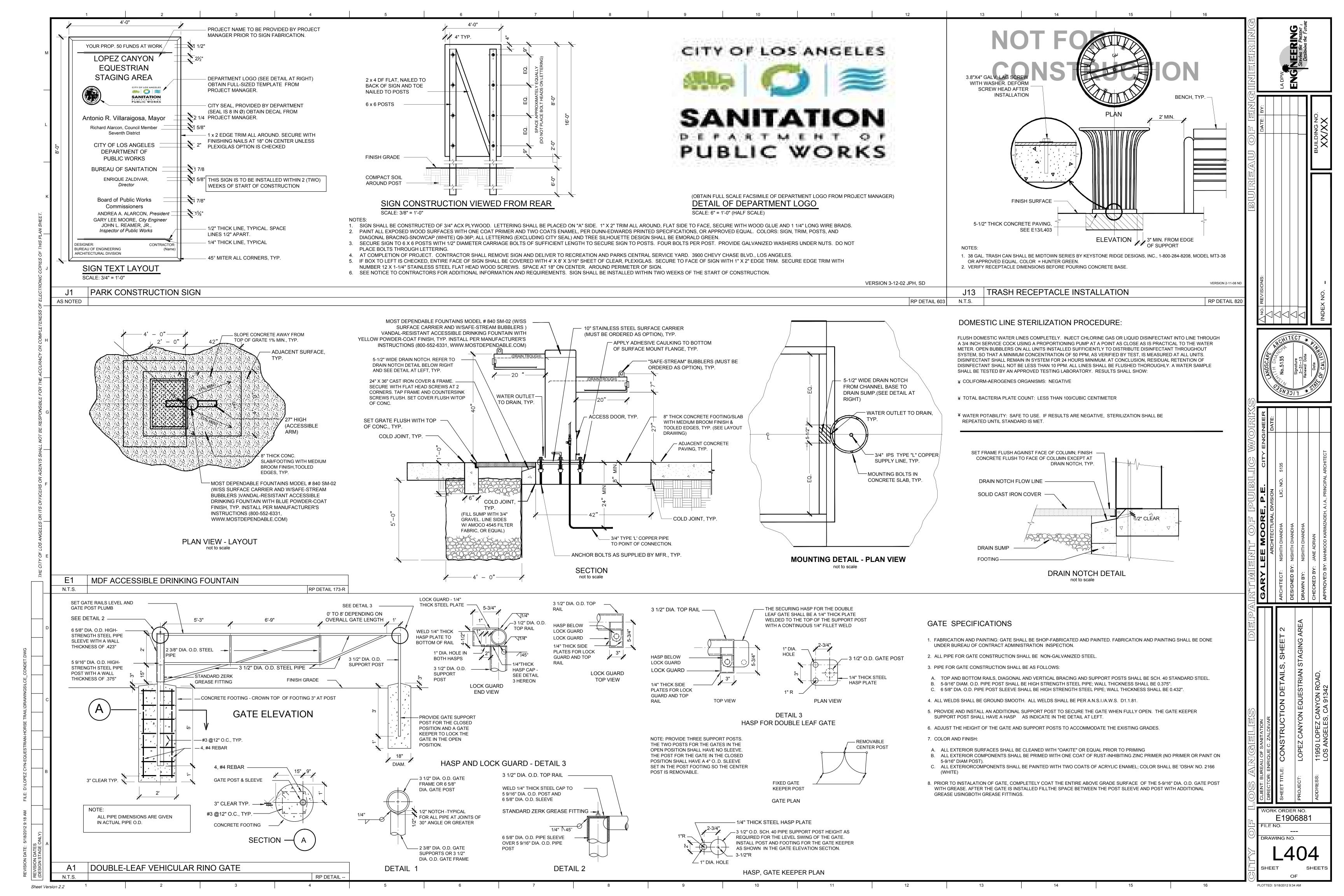
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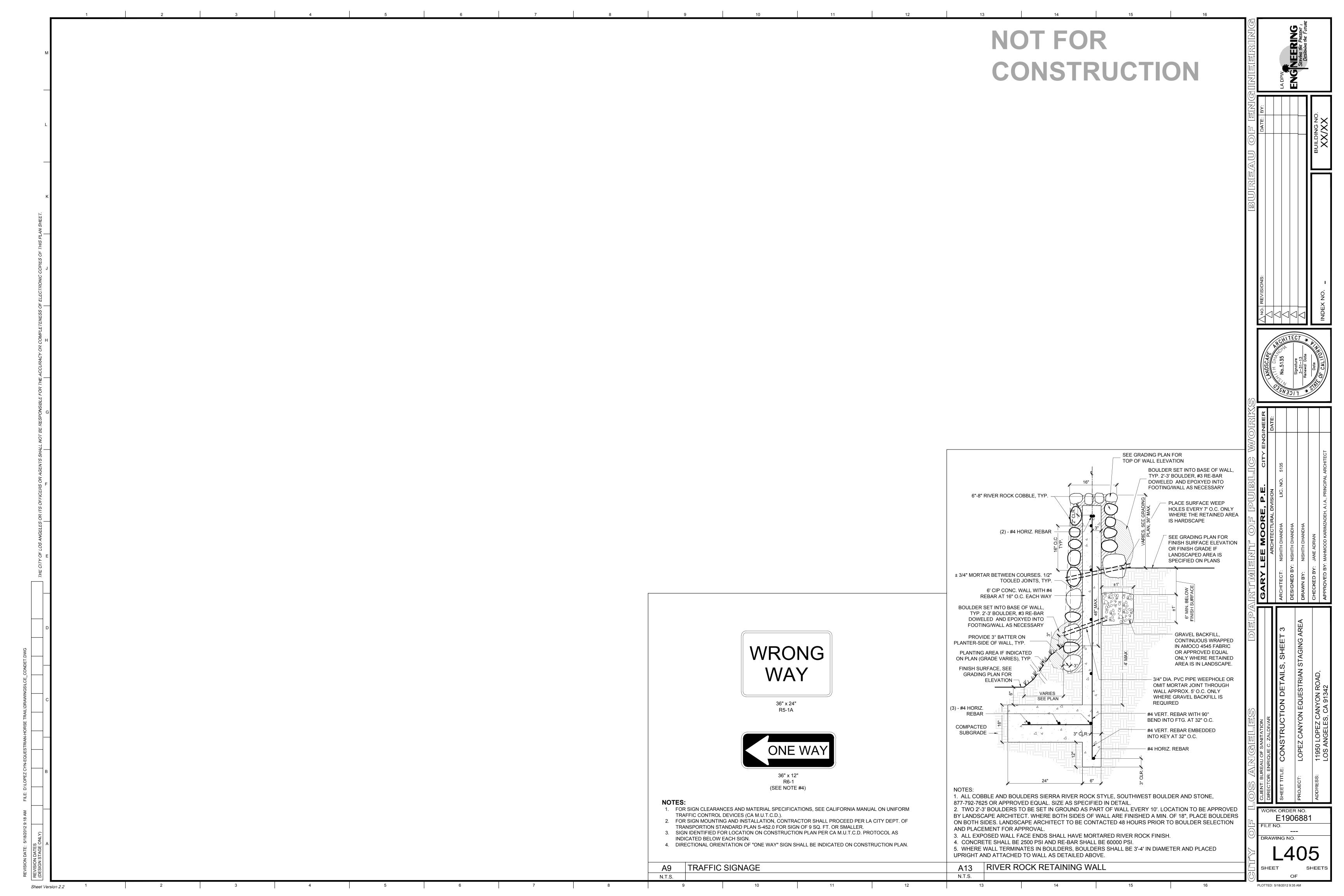
WORK ORDER NO.
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CRUSHED AGGREGATE PAVEMENT

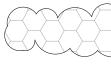
CONCRETE PAVEMENT



STA-LOK NATURAL PAVEMENT SURFACE



GRADED AND COMPACTED NATIVE SOIL AT 95% COMPACTION



EXISTING BOULDERS



POINT OF BEGINNING (P.O.B.)

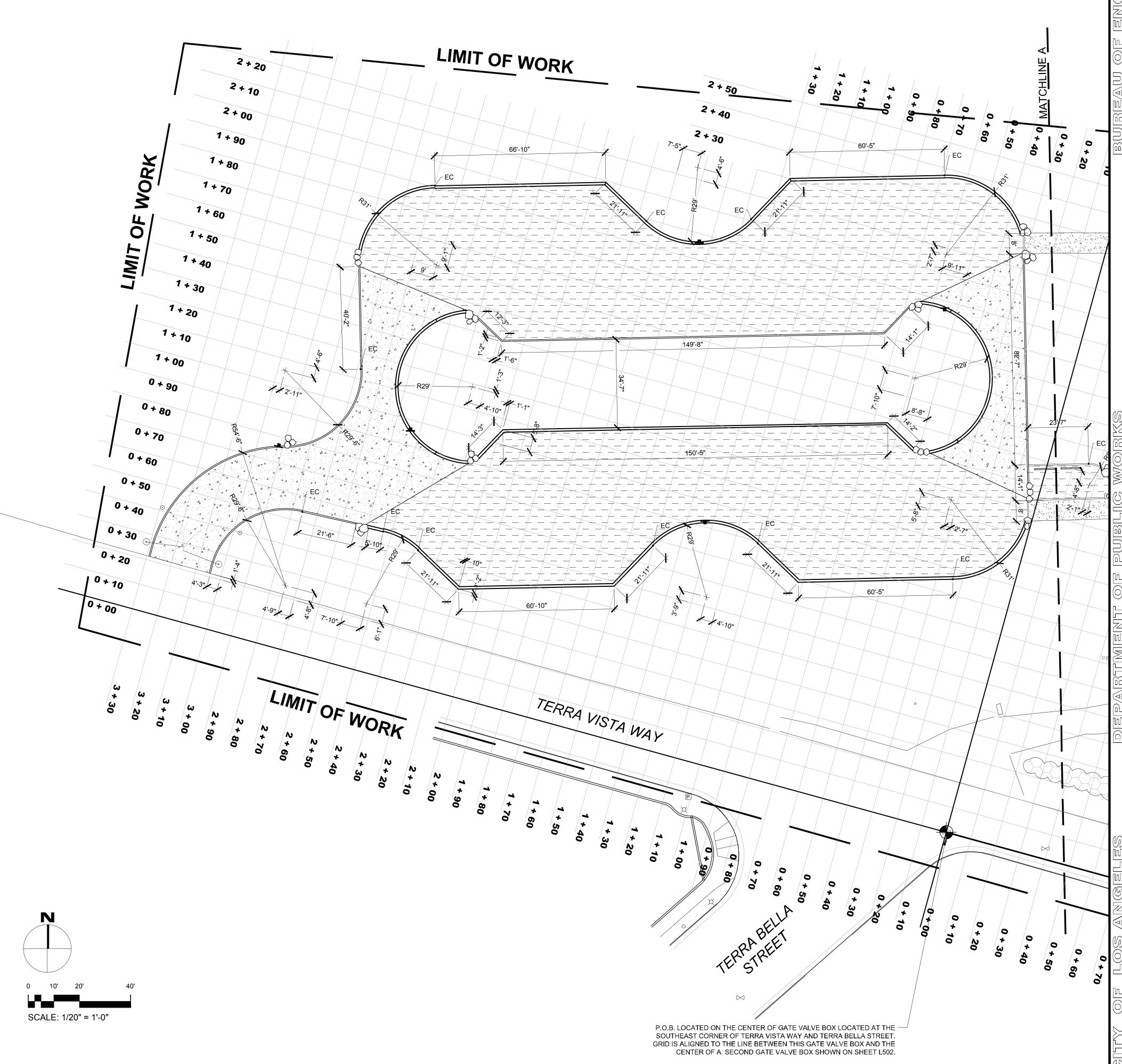
ABBREVIATIONS

END OF CURVE

NOTES

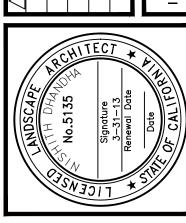
Sheet Version 2.2

- 1. UN-RADIUSED CURVES OR UN-DIMENSIONED ELEMENTS SHALL BE STAKED PER GRID.
- 2. LANDSCAPE ARCHITECT SHALL APPROVE ALL STAKING PRIOR TO CONSTRUCTION.









E1906881

DRAWING NO. ∟501

NOT FOR CONSTRUCTION

LEGEND

CRUSHED AGGREGATE PAVEMENT

4 4 4

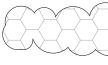
CONCRETE PAVEMENT



STA-LOK NATURAL PAVEMENT SURFACE



GRADED AND COMPACTED NATIVE SOIL AT 95% COMPACTION



EXISTING BOULDERS



POINT OF BEGINNING (P.O.B.)

ABBREVIATIONS

EC END OF CURVE

NOTES

- 1. UN-RADIUSED CURVES OR UN-DIMENSIONED ELEMENTS SHALL BE STAKED PER GRID.
- 2. LANDSCAPE ARCHITECT SHALL APPROVE ALL STAKING PRIOR TO CONSTRUCTION.





LA DPW

BUILDING NO.

INDEX NO. _

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Signature

3-31-13

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Date

Date

CALIFORN

ANDSCAPE

ARCHITECTURAL DIVISION

AITH DHANDHA

LIC. NO. 5135

AITH DHANDHA

E ADRIAN

ARCHITECT: NISHITH DH
DESIGNED BY: NISHITH DH
DRAWN BY: NISHITH DH
CHECKED BY: JANE ADRIA

ENRIGUE C. ZALDIVAR

EN LAYOUT PLAN, SHEET 2

LOPEZ CANYON EQUESTRIAN STAGI

11950 LOPEZ CANYON ROAD,

WORK ORDER NO.
E1906881

FILE NO.

FILE NO.

DRAWING NO.

L502

SHEET SHEET

Sheet Version 2.2

NOTES:

- 1. IRRIGATION PLANS ARE DIAGRAMMATIC. ALL LINES SHALL BE PLACED PER DETAIL AND SPECIFICATION AND WHERE POSSIBLE WITHIN THE LANDSCAPE AREAS, SLEEVE WHERE NECESSARY.
- 2. CONTRACTOR TO COORDINATE ALL WORK WITH THE ASSIGNED CITY DEPARTMENT'S LANDSCAPE MAINTENANCE GROUP. PROJECT MANAGER TO PROVIDE CONTACT INFORMATION.
- 3. CONTRACTOR SHALL PROVIDE 100% HEAD TO HEAD COVERAGE. 3. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING AND RE-SETTING IRRIGATION BOXES, HEADS AND OTHER EXISTING EQUIPMENT TO REMAIN AFFECTED DURING CONSTRUCTION AND GRADING TO PROPER HEIGHTS RELATIVE TO FINISH GRADE.
- 4. VALVE MANIFOLDS SHALL BE PLACED IN LANDSCAPED AREAS ADJACENT TO HARDSCAPED PATHS.
- 5. STATIC WATER PRESSURE VARIES FROM A HIGH OF 128 PSI TO A LOW OF 71 PSI PER INFORMATION PROVIDED BY LA DEPARTMENT OF WATER AND POWER ON 04/18/12. CONTRACTOR TO VERIFY AVAILABLE PRESSURE WITH PRIOR TO COMMENCEMENT OF IRRIGATION WORK.

			IRRIGATION MATE	RIAL	<u>LE</u>	GE	END					
YMBOL	DESCRIPTI	ON	MFG / MODEL NO.		PSI	G	ЭРМ	RADIUS/ SPACING	DETAIL	REMARKS:		
•	POP-UP SPRAYHEAD		HUNTER PROS-06-PRS40-CV -MP3000360, GRAY		40		3.64	30'/28'	E13/L603	ADJUST IN FIELD.		
0	POP-UP SPRAYHEAD		HUNTER PROS-06-PRS40-CV -MP2000360, RED		40	- 1.17		19'/18'	E13/L603	ADJUST IN FIELD.		
	POP-UP SPRAYHEAD		HUNTER PROS-06-PRS40-CV -MP300090, BLUE		40	1.82 (HALF)		30'/28'	E13/L603	ADJUST IN FIELD.		
	POP-UP SPRAYHEA	.D	HUNTER PROS-06-PRS40-CV -MP200090, BLACK	40		0.74 (HALF)		19'/18'	E13/L603	ADJUST IN FIELD.		
\triangle	POP-UP SPRAYHEA	.D	HUNTER PROS-06-PRS40-CV -MP100090, MAROON HUNTER PROS-06-PRS40-CV -MPCORNER, TURQUOISE		40		0.37 IALF)	14'/12'	E13/L603	ADJUST IN FIELD.		
•	POP-UP SPRAYHEA				40	0.19 (45°)		14'/12'	E13/L603	ADJUST IN FIELD.		
•	ROOT WATERING SYSTEM		G RAINBIRD RWS-M-B-C-1402		30	(0.5		A13/L604	ADJUST IN FIELD.		
		IF	RRIGATION MATERIAL	LEG	ENI)		(CONTINU	JED)			
SYMBOL	MFG		DESCRIPTION	MOD			DETA	AL REI	MARKS:			
С	LEIT	MOUN STEEL	SOLAR CONTROLLER AND 32" TING POLE W/ STAINLESS ENCLOSURE AND RAMMING KEY AND SENSOR TER	LEIT40 MCOL ENCL LEIT 6 SKIT 8	. 4000 4000, (EY,	,	E13/L6	604 CONTE ALL WE SANITA SUPER MANUE	SEE PLAN FOR LOCATION. CONTRACTOR TO COORD. ALL WORK WITH BUREAU OF SANITATION MAINTENANCE SUPERVISOR. INSTALL PER MANUFACTURER'S SPECS. AND RECOMMENDATIONS			
P	WILKINS	LINE-S VALVE	BIZED PRESSURE REGULATING	500 S	ERIE	lies _		MANUF AND F	INSTALL PER MANUFACTURER'S SPECS. AND RECOMMENDATIONS			
M	RAINBIRD	2" MA	STER VALVE	200-	GB-R	E5/L60		MANUF AND F	INSTALL PER MANUFACTURER'S SPECS. AND RECOMMENDATIONS			
•			CTRIC REMOTE CONTROL VE - SIZE PER PLAN		GB-R SERIES		E5/L60 A5/L60 A9/L60	$\begin{array}{c c} 03 \\ 03 \\ 03 \end{array}$ LOCAT	SEE PLAN FOR SIZES AND LOCATION. INSTALL PER MANUFACTURER'S SPECS. AND RECOMMENDATIONS			
X	FEBCO	NEW 2	V 2" BACKFLOW PREVENTER		825Y		E1/L60 A1/L60		INSTALL ENCLOSURE PER DETAIL.			
\otimes	NIBCO	LINE-S	SIZED GATE VALVE	T-113 OR AS SPECIFIED IN DETAIL			A9/L60 J1/L60		SEE PLAN FOR LOCATIONS.			
VAI SW STE VAI		VALVI SWIVI STEEI	WO PIECE, QUICK COUPLER LVE W/ 44KEY AND SH-1 HOSE IVEL. PROVIDE 3/4" DIA. GALV. EEL PIPE SECURED TO Q.C. LVE W/2 STAINLESS STEEL AMPS		44-LRC		J5/L60 E9/L60	⁾⁴ APPRO	LL PER DETAIL AS DPRIATE ON MAINLINE CATIONS SHOWN ON			
W	HUNTER RAI		SENSOR W/ CONDUIT MOUNT		MINI-CLIK-C		J13/L604 SEE PL		AN FOR LOCATION.			
M			1-1/2" WATER METER					CONTRACTOR TO PROVIDE SERVICE				
			IRRIGATION MATER	RIAL	LEC	ЭE	ND	(CC	NTINUED)		
SYMBOL			DESCRIPTION									
— M — M—			NEW IRRIGATION PRESSURE MAINLINE - SIZE AS NOTED ON PLAN2" AND SMALLER: SCH. 40 PVC, SOLVENT WELD, 3" AND LARGER: CLASS 200 PVC (INSTALL MIN. 24" BELOW FINISH GRADE). SEE DET. E9/L603 AND J9/L603.									
			NEW DOMESTIC WATER LINE - TYPE 'L' COPPER PIPE. SEE DET. E9/L603 FOR INSTALLATION. SEE PLAN DETAIL, L601 FOR P.O.C. LOCATION. INSTALL WITH MIN. 24" OF COVER. NEW IRRIGATION NON-PRESSURE LATERAL - SCH. 40 PVC UP TO 2", 2" UP TO 3" CLASS 200 PVC (INSTALL MIN. 12" BELOW FINISH GRADE. SEE DET. E9/L603.									
NO ⁻	Γ SHOWN	F	PROVIDE 2" SCH. 40 P.V.C. SLEE	VING F	OR A	ALL	WIRIN	IG. SEE DE	T. E9/L603	, J13/L603.		
	1		—— STATION SEQUENCE									
	30		FLOW (GPM)									
	2"		VALVE SIZE									

LEGEND

CRUSHED AGGREGATE PAVEMENT



CONCRETE PAVEMENT

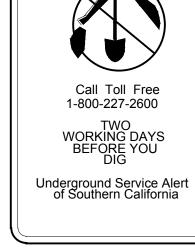
EXISTING BOULDERS



STA-LOK NATURAL PAVEMENT SURFACE

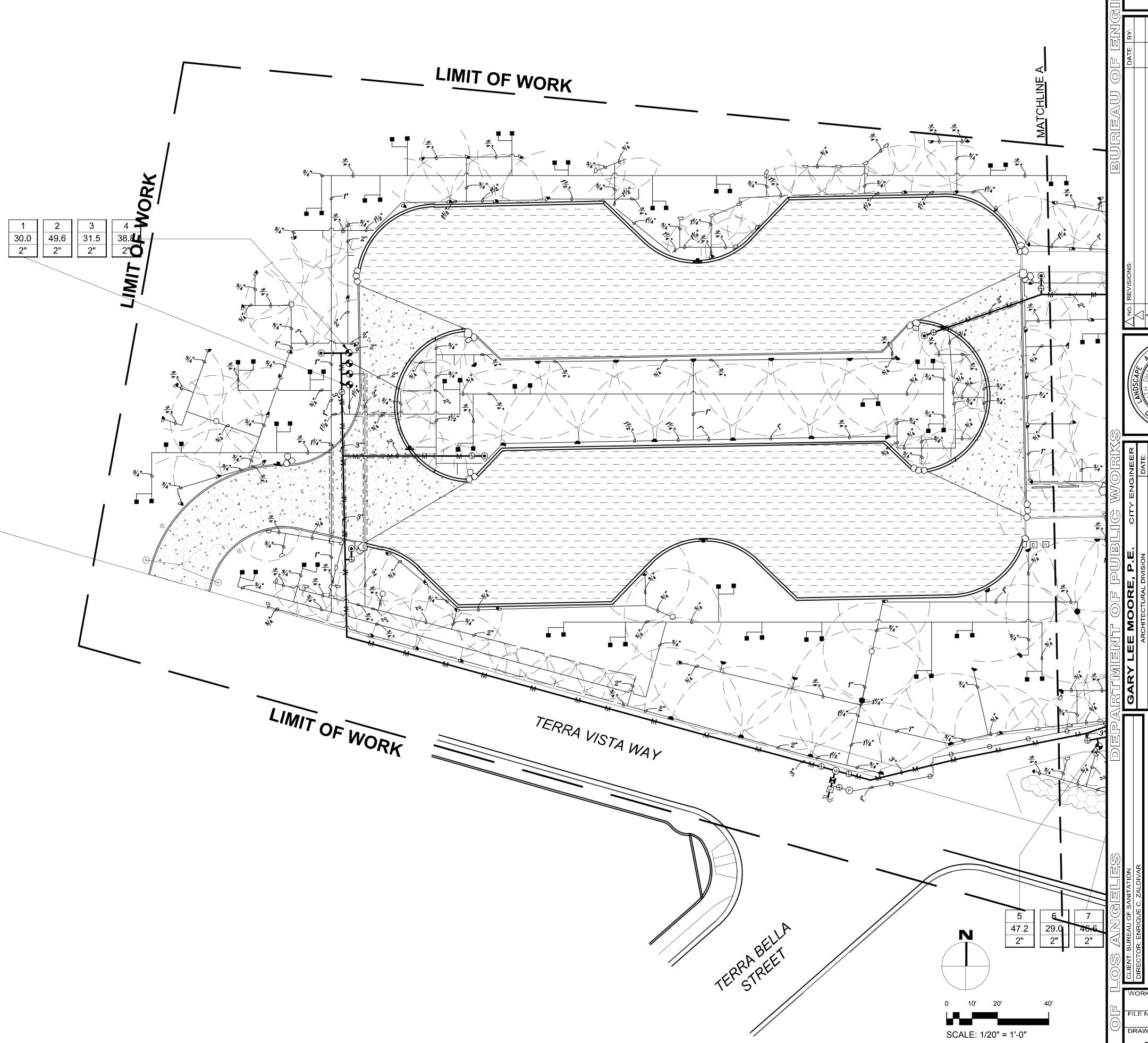


GRADED AND COMPACTED NATIVE SOIL AT 95% COMPACTION



DIGALERT

NOT FOR CONSTRUCTION





work order no. E1906881

DRAWING NO. L60¹

NOTES:

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- 3. CONTRACTOR SHALL PROVIDE 100% HEAD TO HEAD COVERAGE. 3. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING AND RE-SETTING IRRIGATION BOXES, HEADS AND
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	1		IRRIGATION MATE	-1 \1/\L		<u> </u>			T			
SYMBOL	DESCRIPTI	ON	MFG / MODEL NO.		PSI	G	PM	RADIUS/ SPACING	DETAIL	REMARKS:		
•	POP-UP SPRAYHEAD		HUNTER PROS-06-PRS40-CV -MP3000360, GRAY		40		64	30'/28'	E13/L603	ADJUST IN FIELD.		
O POP-UP SPRAYHEAD		D	HUNTER PROS-06-PRS40-CV -MP2000360, RED		40		47	19'/18'	E13/L603	ADJUST IN FIELD.		
	SPRAYHEAD POP-UP SPRAYHEAD		HUNTER PROS-06-PRS40-CV -MP300090, BLUE HUNTER PROS-06-PRS40-CV -MP200090, BLACK HUNTER PROS-06-PRS40-CV -MP100090, MAROON		40	(HA	.82 ALF)	30'/28'	E13/L603	ADJUST IN FIELD.		
					40	(HALF)		19'/18'	E13/L603	ADJUST IN		
					40	0.37 (HALF) 0.19	14'/12'	E13/L603	ADJUST IN FIELD.			
•	POP-UP SPRAYHEA		HUNTER PROS-06-PRS40-CV -MPCORNER, TURQUOISE		40		45°)		E13/L603	ADJUST IN FIELD.		
•	SYSTEM	ERING	RAINBIRD RWS-M-B-C-1402		30	0	1.5		A13/L604	ADJUST IN FIELD.		
		IF	RRIGATION MATERIAL	LEG	END)		(CONTINI	JED)			
YMBOL	MFG		DESCRIPTION	MOD			DETA	AIL REI	REMARKS:			
С	MOU! STEE		SOLAR CONTROLLER AND 32" TING POLE W/ STAINLESS . ENCLOSURE AND RAMMING KEY AND SENSOR FER	LEIT4 MCOL ENCL LEIT I SKIT 8	. 4000 4000, KEY,	4000, E13/L604 1000, EY,		604 CONTE ALL WE SANITA SUPER MANUE	SEE PLAN FOR LOCATION. CONTRACTOR TO COORD. ALL WORK WITH BUREAU OF SANITATION MAINTENANCE SUPERVISOR. INSTALL PER MANUFACTURER'S SPECS. AND RECOMMENDATIONS			
P	WILKINS	LINE-S VALVE	SIZED PRESSURE REGULATING	500 S	ERIE	S _		MANUF	INSTALL PER MANUFACTURER'S SPECS. AND RECOMMENDATIONS			
M	RAINBIRD	2" MAS	STER VALVE	200-	GB-R	E5/L60		³ Manuf	INSTALL PER MANUFACTURER'S SPECS. AND RECOMMENDATIONS			
•	RAINBIRD		RIC REMOTE CONTROL E - SIZE PER PLAN	1	B-R RIES		E5/L60 A5/L60 A9/L60	13 13 LOCAT 13 MANUF	SEE PLAN FOR SIZES AND LOCATION. INSTALL PER MANUFACTURER'S SPECS. AND RECOMMENDATIONS			
X	FEBCO	NEW 2	" BACKFLOW PREVENTER	825`			E1/L60 A1/L60		INSTALL ENCLOSURE PER DETAIL.			
\otimes	NIBCO		SIZED GATE VALVE	SPE			A9/L60 J1/L60		SEE PLAN FOR LOCATIONS.			
•	VALV SWIV STEE		D PIECE, QUICK COUPLER E W/ 44KEY AND SH-1 HOSE EL. PROVIDE 3/4" DIA. GALV. L PIPE SECURED TO Q.C. E W/2 STAINLESS STEEL PS	44-LF	·LRC		J5/L60 E9/L60	4 APPRO	LL PER DETAIL AS DPRIATE ON MAINLINE CATIONS SHOWN ON			
			SENSOR W/ CONDUIT MOUNT	MINI-	MINI-CLIK-C J13/					OCATION.		
M NEV		NEW 1	-1/2" WATER METER						CONTRACTOR TO PROVIDE SERVICE			
		ı	IRRIGATION MATER	RIAL	LEG	3EN	ND_	(CC	NTINUED)		
SYMBOL	-		DESCRIPTION									
			NEW IRRIGATION PRESSURE MAINLINE - SIZE AS NOTED ON PLAN2" AND SMALLER: SCH. 40 PVC, SOLVENT WELD, 3" AND LARGER: CLASS 200 PVC (INSTALL MIN. 24" BELOW FINISH GRADE). SEE DET. E9/L603 AND J9/L603.									
-0-	0	INSTALLATION. SEE PLAN DETAIL MIN. 24" OF COVER.				YPE 'L' COPPER PIPE. SEE DET. E9/L603 FOR L, L601 FOR P.O.C. LOCATION. INSTALL WITH						
			NEW IRRIGATION NON-PRESSURE LATERAL - SCH. 40 PVC UP TO 2", 2" UP TO 3" CLASS 200 PVC (INSTALL MIN. 12" BELOW FINISH GRADE. SEE DET. E9/L603.									
		(P.V.C. SLEEVE (UNDER ALL PAVINSTALL MIN. 36" BELOW FINISH	H GŔAE	DE). S	SEE	DET. I	E9/L603 FO	R INSTALI			
NO	TSHOWN	F	PROVIDE 2" SCH. 40 P.V.C. SLEE	EVING F	·UK A	4LL \	vviKIN	G. SEE DE	ı. ⊑ 9/L603	, J13/L603.		
	1 30	-	STATION SEQUENCE FLOW (GPM)									

LEGEND

CRUSHED AGGREGATE PAVEMENT



CONCRETE PAVEMENT



STA-LOK NATURAL PAVEMENT SURFACE



GRADED AND COMPACTED NATIVE SOIL AT 95% COMPACTION

DIGALERT

Call Toll Free 1-800-227-2600

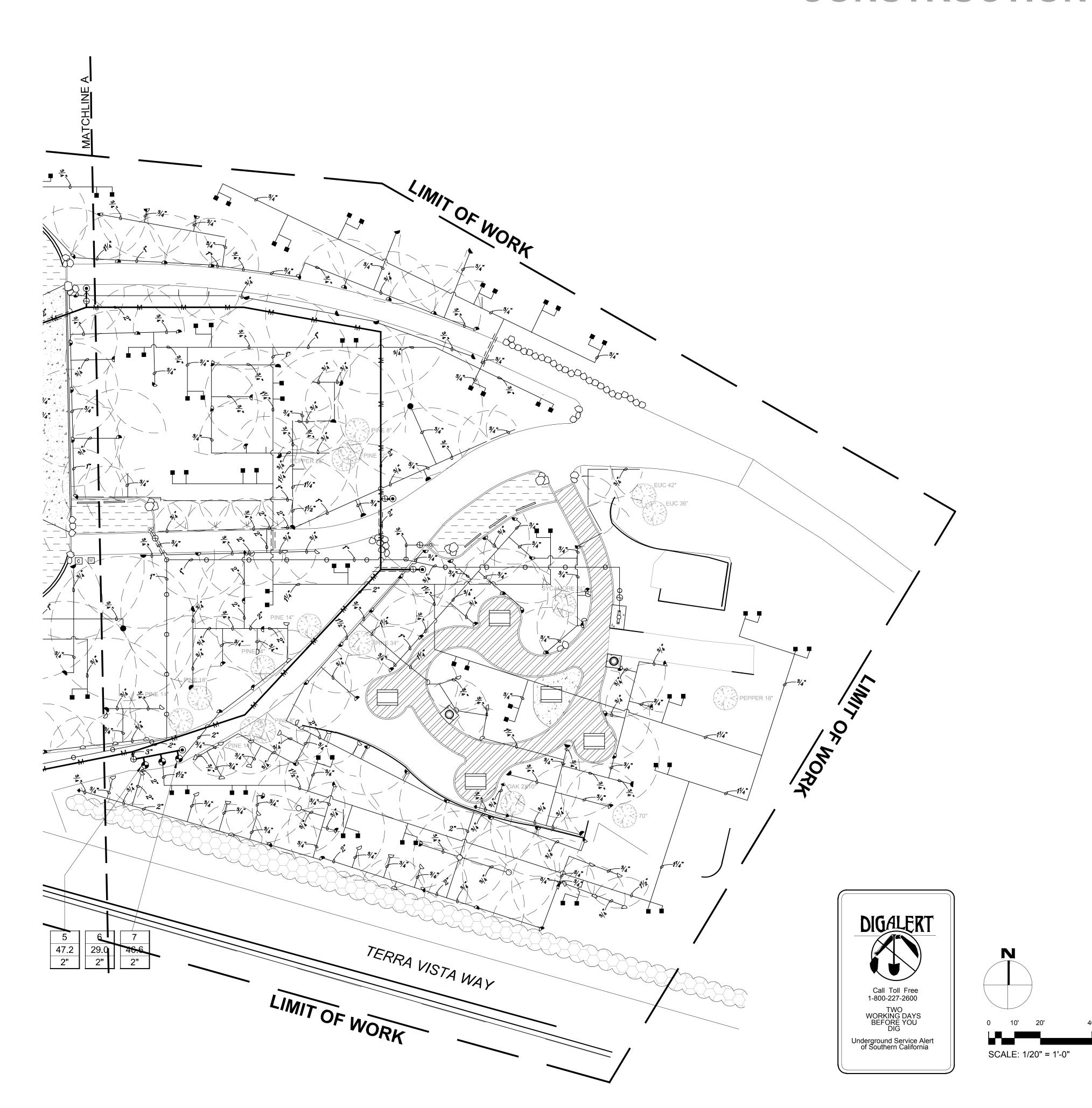
TWO WORKING DAYS BEFORE YOU DIG

Underground Service Alert of Southern California



EXISTING BOULDERS

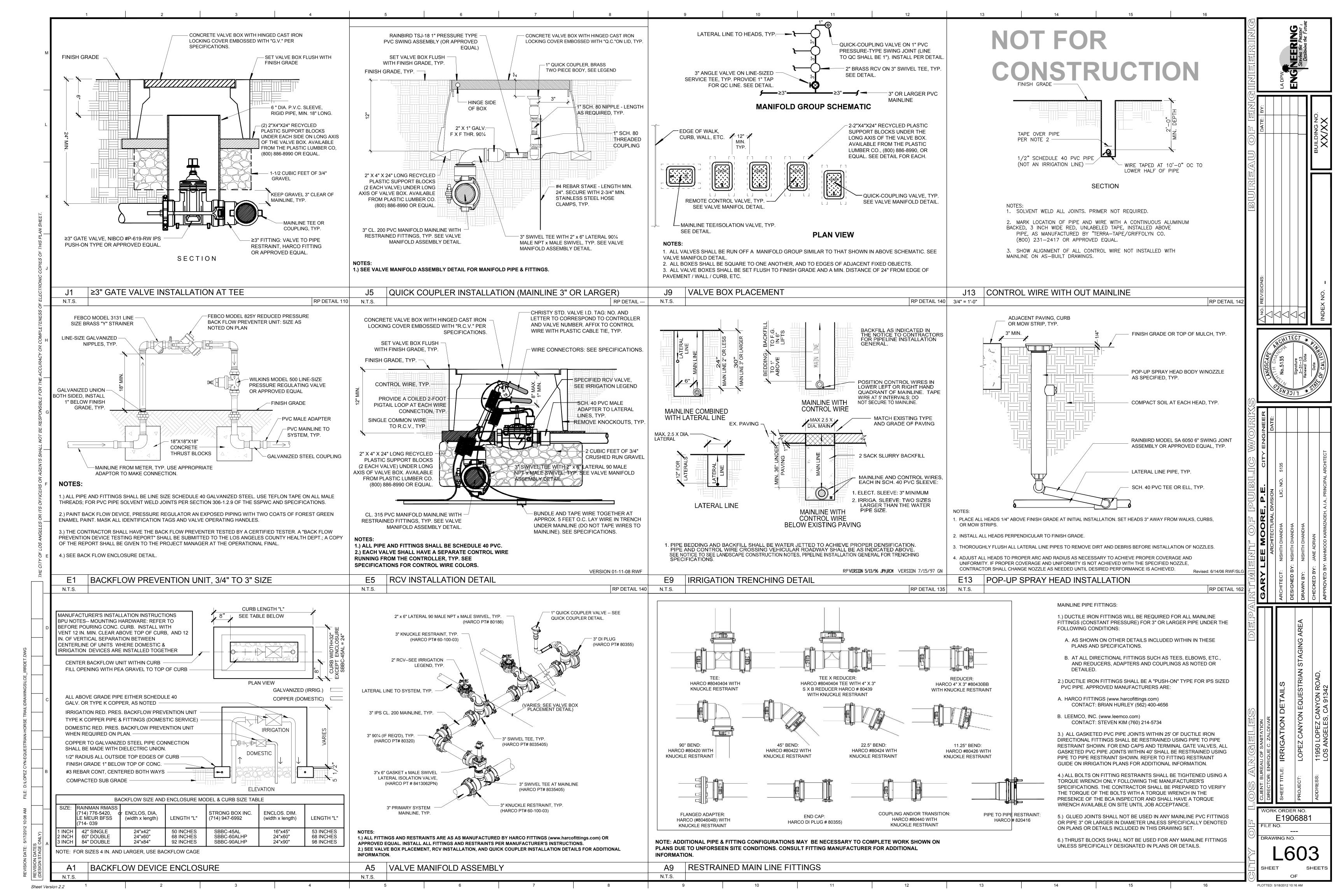
NOT FOR CONSTRUCTION

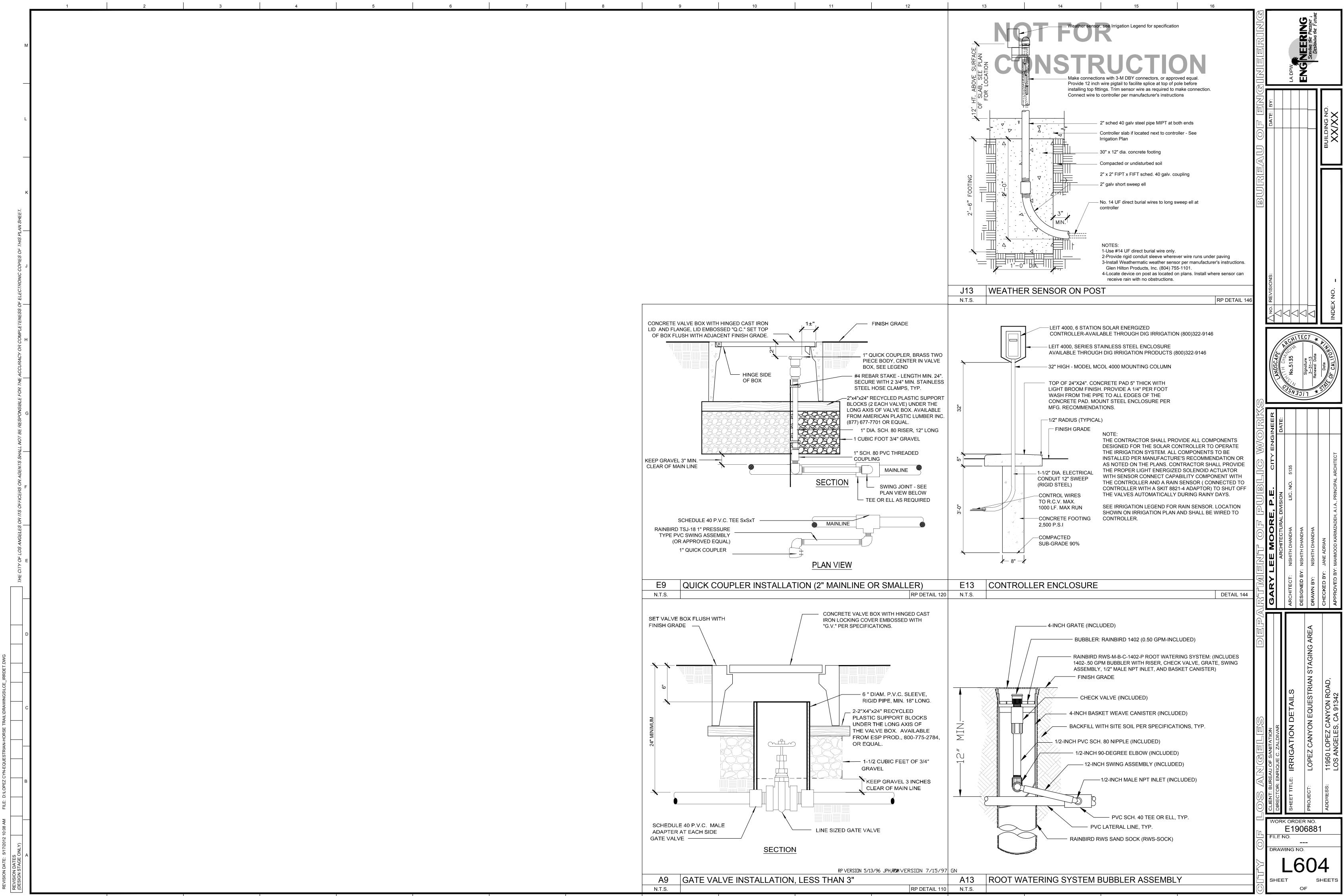




E1906881

L602





Sheet Version 2.2

PLOTTED: 5/18/2012 10:16 AM

NOT FOR NOTE: THE PLANTING LEGEND IS FOR THE CONVENIENCE OF THE CONTRACTOR. IN CASE OF DISCREPANCIES, THE PLANTING PLAN SHALL GOVERN. PLANTING LEGEND CONSTRUCTION SYM./ ABBREV. BOTANICAL NAME QTY SIZE COMMON NAME REMARKS TREES: TREES: 3-24" BOX STANDARD FORM PLATANUS RACEMOSA WESTERN SYCAMORE 24" BOX/15 GAL. INDICATED ON PLAN, ALL 15 GAL. SHALL BE NATURAL FORM 7-24" BOX STANDARD FORM INDICATED ON PLAN, ALL 15 GAL. SHALL BE NATURAL FORM QUERCUS AGRIFOLIA COAST LIVE OAK LIMIT OF WORK 7-24" BOX STANDARD FORM QUERCUS LOBATA VALLEY OAK INDICATED ON PLAN, ALL 15 GAL. SHALL BE NATURAL FORM SHRUBS: SHRUBS CALIFORNIA SAGEBRUSH ARTEMISIA CALIFORNICA 1 GAL. BACCHARIS PILULARIS 'PIGEON POINT' COYOTE BRUSH 1 GAL. ENCELIA CALIFORNICA 1 GAL./5 GAL. 50% 1-G / 50% 5-G, PLACE RANDOMLY CALIFORNIA BUCKWHEAT ERIOGONUM FASCICULATUM 'DANA 1 GAL. FLANNEL BUSH FREMONTODENDRON 'CALIFORNIA 15 GAL. HETEROMELES ARBUTIFOLIA TOYON 5 GAL./15 GAL. 50% 5-G / 50% 15-G, PLACE RANDOMLY GIANT WILD RYE 1 GAL./5 GAL. 50% 1-G / 50% 5-G, PLACE RANDOMLY LEYMUS CONDENSATUS 'CANYON 101 1 GAL. MONKEYFLOWER MIMULUS AURANTIACUS **DEER GRASS** MUHLENBERGIA RIGENS 1 GAL./5 GAL. 50% 1-G / 50% 5-G, PLACE RANDOMLY SUGAR BUSH RHUS OVATA 5 GAL./15 GAL. 50% 5-G / 50% 15-G, PLACE RANDOML) **EVERGREEN CURRANT** 121 1 GAL. RIBES VIBURNIFOLIUM MATILIJA POPPY ROMNEYA COULTERI 1 GAL./5 GAL. 50% 1-G / 50% 5-G, PLACE RANDOMLY BLACK SAGE SALVIA MELLIFERA 'TERA SECA' 1 GAL. NOTES: STAKE ALL TREES PER DET. A13/L703. SHRUB PLANTING PER DET. J13/L703. FOR SLOPE PLANTING USE DET. E13/L703. WHERE RANDOM PLACEMENT OF MIXED SIZES OF CONTAINER PLANTS IS REQUIRED, LANDSCAPE ARCHITECT SHALL APPROVE PLACEMENT PRIOR TO PLANTING. NOTIFY LANDSCAPE ARCHITECT 48 HOURS PRIOR TO INSPECTION. LANDSCAPE ARCHITECT SHALL APPROVE PLANT LAYOUT IN FIELD PRIOR TO INSTALLATION. 2-24" BOX TREES CONTRACTOR SHALL PROVIDE AN ALLOWANCE OF 24 1- GAL. SHRUBS AND 2 15-GAL. TREES FOR SPOTTING IN THE FIELD BY THE LANDSCAPE ARCHITECT. PLANT SPECIES SHALL BE SELECTED BY THE LANDSCAPE ARCHITECT. LEGEND CRUSHED AGGREGATE PAVEMENT CONCRETE PAVEMENT 2-24" BOX TREES STA-LOK NATURAL PAVEMENT SURFACE GRADED AND COMPACTED NATIVE SOIL AT 95% LIMIT OF WORK COMPACTION TERRA VISTA WAY EXISTING BOULDERS work order no. E1906881 SCALE: 1/20" = 1'-0" L701

Chart Varriage 2

NOTE: THE PLANTING LEGEND IS FOR THE CONVENIENCE OF THE CONTRACTOR. IN CASE OF DISCREPANCIES, THE PLANTING PLAN SHALL GOVERN. PLANTING LEGEND SYM./ ABBREV. BOTANICAL NAME COMMON NAME QTY SIZE REMARKS TREES: TREES: 3-24" BOX STANDARD FORM PLATANUS RACEMOSA WESTERN SYCAMORE 24" BOX/15 GAL. INDICATED ON PLAN, ALL 15 GAL. SHALL BE NATURAL FORM 7-24" BOX STANDARD FORM QUERCUS AGRIFOLIA COAST LIVE OAK INDICATED ON PLAN, ALL 15 GAL. SHALL BE NATURAL FORM 7-24" BOX STANDARD FORM QUERCUS LOBATA VALLEY OAK INDICATED ON PLAN, ALL 15 GAL. SHALL BE NATURAL FORM SHRUBS: SHRUBS:

1 GAL.

1 GAL.

15 GAL.

1 GAL.

1 GAL.

1 GAL.

101

121

1 GAL./5 GAL.

5 GAL./15 GAL.

1 GAL./5 GAL.

1 GAL./5 GAL.

5 GAL./15 GAL.

1 GAL./5 GAL.

50% 1-G / 50% 5-G, PLACE RANDOMLY

50% 5-G / 50% 15-G, PLACE RANDOMLY

50% 1-G / 50% 5-G, PLACE RANDOMLY

50% 1-G / 50% 5-G, PLACE RANDOMLY

50% 5-G / 50% 15-G, PLACE RANDOMLY

50% 1-G / 50% 5-G, PLACE RANDOMLY

CALIFORNIA SAGEBRUSH

CALIFORNIA BUCKWHEAT

COYOTE BRUSH

FLANNEL BUSH

GIANT WILD RYE

MONKEYFLOWER

EVERGREEN CURRANT

DEER GRASS

SUGAR BUSH

MATILIJA POPPY

BLACK SAGE

TOYON

1. STAKE ALL TREES PER DET. A13/L703.

ARTEMISIA CALIFORNICA

ENCELIA CALIFORNICA

BACCHARIS PILULARIS 'PIGEON POINT'

ERIOGONUM FASCICULATUM 'DANA

FREMONTODENDRON 'CALIFORNIA

LEYMUS CONDENSATUS 'CANYON

HETEROMELES ARBUTIFOLIA

MIMULUS AURANTIACUS

MUHLENBERGIA RIGENS

RIBES VIBURNIFOLIUM

ROMNEYA COULTERI

SALVIA MELLIFERA 'TERA SECA'

RHUS OVATA

- SHRUB PLANTING PER DET. J13/L703.
 FOR SLOPE PLANTING USE DET. E13/L703.
- 4. WHERE RANDOM PLACEMENT OF MIXED SIZES OF CONTAINER PLANTS IS REQUIRED, LANDSCAPE ARCHITECT SHALL APPROVE PLACEMENT PRIOR TO PLANTING. NOTIFY LANDSCAPE ARCHITECT 48 HOURS PRIOR TO INSPECTION.
- LANDSCAPE ARCHITECT SHALL APPROVE PLANT LAYOUT IN FIELD PRIOR TO INSTALLATION.
 CONTRACTOR SHALL PROVIDE AN ALLOWANCE OF 24 1- GAL. SHRUBS AND 2 15-GAL. TREES FOR SPOTTING IN THE FIELD BY THE LANDSCAPE ARCHITECT. PLANT SPECIES SHALL BE SELECTED BY THE LANDSCAPE ARCHITECT.

LEGEND

CRUSHED AGGREGATE PAVEMENT

4 4

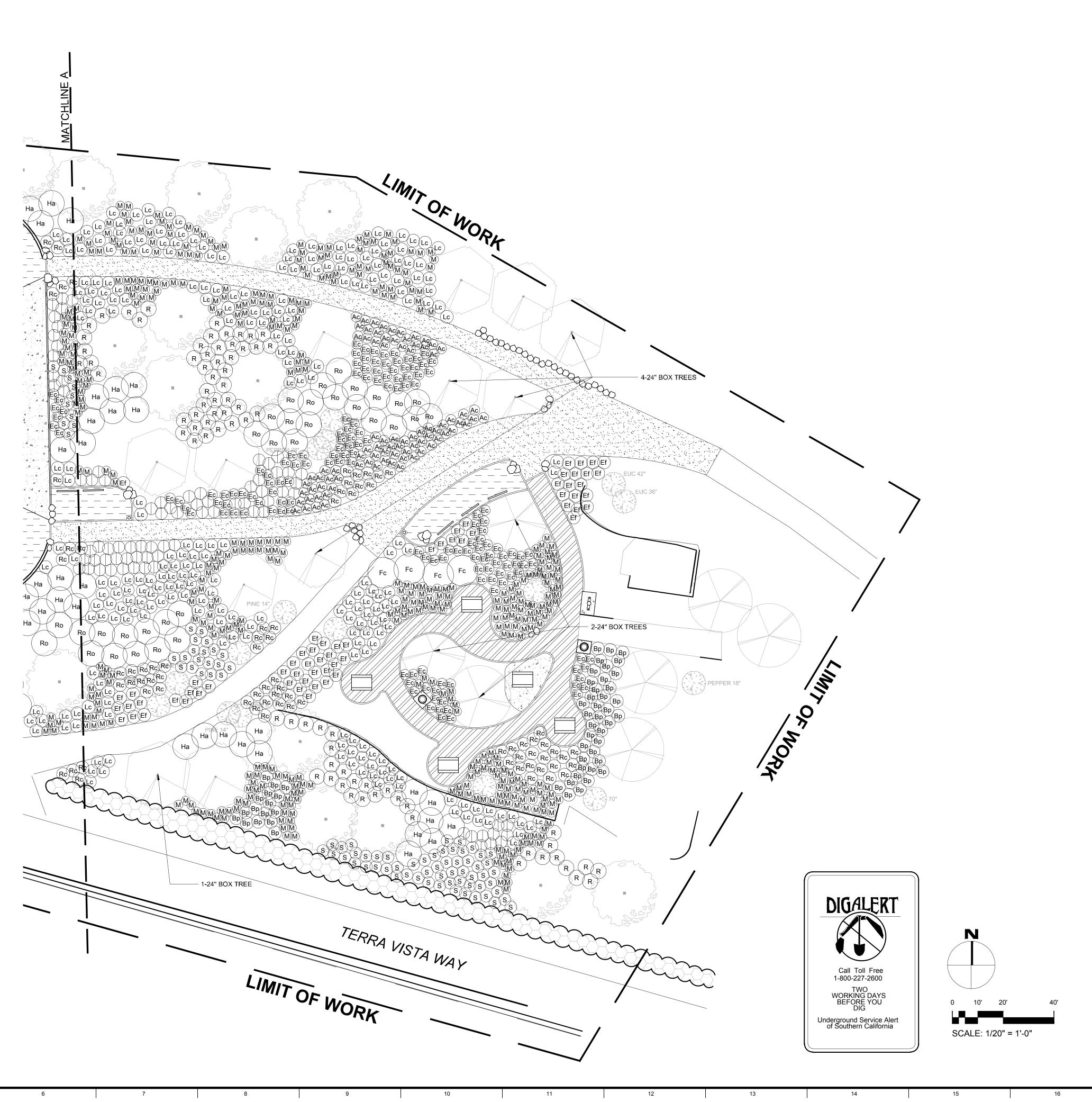
CONCRETE PAVEMENT

STA-LOK NATURAL PAVEMENT SURFACE

GRADED AND COMPACTED NATIVE SOIL AT 95% COMPACTION

EXISTING BOULDERS

NOT FOR CONSTRUCTION





ANDSCAPE

LANDSCAPE

LANDSCAPE

LOS Signature

3-31-13

Renewal Date

Da

RCHITECTURAL DIVISION
TH DHANDHA
TH DHANDHA
TH DHANDHA
TH DHANDHA
ADRIAN

ARCHITECT: NISHITH DHANDHA
DESIGNED BY: NISHITH DHANDHA
DRAWN BY: NISHITH DHANDHA
CHECKED BY: JANE ADRIAN

PLANTING PLAN, SHEET 2

LOPEZ CANYON EQUESTRIAN STAGING A

11950 LOPEZ CANYON ROAD,

DRK ORDER NO.
E1906881

E1906881
FILE NO.
--DRAWING NO.

L702

OF TED: 5/18/2012 10:17 AM

Short Varging 2.2

