

DEMOLITION / HARDSCAPE LEGEND

SYMBOL

SYMBOL

EXISTING STAMPED CONCRETE PAVING.
PROTECT IN PLACE.

EXISTING STAMPED CONCRETE PAVING.
DEMOLISH AND REMOVE.
APPROX. 775 S.F.

EXISTING CONCRETE HEADER TO BE REMOVED
EXPANSION JOINT IN NEW CONCRETE PAVING

EXISTING RETES, SHRUBS AND TURF.
DEMOLISH AND REMOVE.
APPROX. 7,700 S.F.

EXISTING SIGNAL / SIGNAGE

NEW INTEGRAL COLOR STAMPED CONCRETE PAVING. MATCH PATTERN STYLE AND DEPTH TO EXISTING.

APPROX. 2,50 S.F.

MULCHED PLANTING AREA.
SEE PLANTING PLAN.
APPROX. 6,400 S.F.

DEMOLITION NOTES:

DNH

EXISTING SHRUBS, TREES AND TURF TO BE DEMOLISHED AND REMOVED. CONTRACTOR SHALL BE RESPONSBLE FOR THE COMPLETE REMOVAL OF LEAVES, STEMS, ROOTS ASSOCIATED WITH EXISTING PLANT MATERIALS TO A MINIMUM DEPTH OF 12" BELOW FINISH GRADE. SEE LEGEND.



EXISTING STAMPED CONCRETE PAVING TO BE REMOVED. CONTRACTOR SHALL BE RESPONSBLE FOR THE COMPLETE REMOVAL AND DISPOSAL OF DESIGNATED EXISTING CONCRETE AREAS PER THE PLAN AND LEGEND.



EXISTING CONCRETE HEADER TO BE REMOVED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE REMOVAL AND DISPOSAL OF ALL EXISTING CONCRETE HEADER PER THE PLAN AND LECEND.



EXISTING IRRIGATION SYSTEM (NOT SHOWN). CONTRACTOR SHALL BE RESPONSBLE FOR THE COMPLETE REMOVAL OF THE ALL IRRIGATION SYSTEM COMPONENTS, INCLUDING BUT NOT LIMITED TO SPRAY HEADS, LATERAL LINES, VALVE BOXES, QUICK COUPLERS, ISOLATION VALVES, PRESSURE SUPPLY LINE AND CONTROL / COMMON WIRNG. CONTRACTOR SHALL NOT REMOVE EXISTING IRRIGATION CONTROLLER, ENCLOSURE OR ANY ASSOCIATED COMPONENTS. SEE IRRIGATION PLAN FOR ADDITIONAL NOTES.

HARDSCAPE NOTES:



EXISTING STAMPED CONCRETE PAVING. PROTECT IN PLACE.



NEW STAMPED CONCRETE PAVING. CONTRACTOR SHALL BE RESPONSIBLE FOR MATCHING STAMP PATTERN OF NEW CONCRETE PAVING WITH EXISTING. INSTALL PER LEGEND, SPECIFICATIONS AND DETAILS IHOI / IHO2. CONTRACTOR SHALL PROVIDE 5' X 5' MOCK UP CONCRETE PAD FOR APPROVAL PRIOR TO INSTALLATION WITHIN THE MEDIAN.



EXPANSION JONT BETWEEN EXISTING HARDSCAPE AND NEW HARDSCAPE AND WITHIN NEW HARDSCAPE PORTIONS, NSTALL PER LEGEND AND DETAILS H-OI / H-OZ.



TOOLED SCORE JONT IN NEW HARDSCAPE, INSTALL PER LEGEND AND DETAIL H-O3.



CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETELY POWER WASHING ALL EXISTING HARDSCAPE AREAS CURBING AND GUTTER AFTER THE INSTALLATION OF NEW CONCRETE AND PLANT MATERIALS, BUT PRIOR TO THE INSTALLATION OF BARK MULCH. ONCE ALL EXISTING CONCRETE AREAS HAVE BEEN PRESSURE WASHED AND ALLOWED TO COMPLETELY DRY, CONTRACTOR SHALL APPLY CONCRETE STAIN TO ALL HARDSCAPE AREA WITHIN THE CONCRETE CURB AND GUTTER, DO NOT PAINT CONCRETE CURBING OR GUTTER.

STAN SAMPLE, COLOR AND SPECIFICATIONS SHALL BE SUBMITTED BY CONTRACTOR PRIOR TO APPLICATION. STAN SHALL BE A REACTIVE WATER-BASED SOLUTION OF METALLIC SALTS WHICH REACT WITH THE CALCIUM HYDROXIDE IN THE CURED CONCRETE SUBSTRATE TO PRODUCE PERMANENT, VARREGATED OR TRANSLUCENT COLOR EFFECTS.

SUBMIT STAIN COLORS IN THE FADED TERACOTTA / BROWN RANGE.



PLANTING / MULCHED AREA PER PLANTING PLAN.



WHERE EXISTING TRAFFIC SIGNAGE IS LOCATED IN AREAS TO BE DEMOLISHED AND BECOME PERMANENT HARDSCAPE, CONTRACTOR SHALL REMOVE THE SIGNS WITH THE APPROVAL OF THE COUNTY OF RIVERSIDE DEPARTMENT OF TRANSPORTATION AND INSTALL THE NEW CONCRETE LEAVING A 12' X 12' CUT-OUT IN THE CONCRETE FOR SIGN RE-INSTALLATION. SIGN SHALL BE RE-INSTALLED WITHIN THE 12' X 12' CUT OUT, AND BACKFILLED WITH 3/4' CRUSHED GRAVEL.

PLANTING LEGEND FOR SHRUBS

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QUANTITY	MATURE SIZE	WATER USE	DETAIL	
①	WESTRINGIA FRUTICOSA WES 05	COAST ROSEMARY 'MUNDI	5 GAL.	AS SHOWN	30	2' H X 4' W	L	P-OI	
O	CISTUS SALVIFOLIUS	SAGELEAF ROCKROSE	5 GAL	AS SHOWN	1 160	2' H X 4' W	L	P-01	
*	HESPERALOE PARVIFLORA	RED YUCCA	5 GAL	AS SHOWN	25	3' - 4' H X 3' - 4'	W L	P-OI	
0	LANTANA HYBRID 'GOLD RUSH'	GOLD RUSH LANTANA	I GAL	AS SHOWN	96	ľ - 2' H X 4' - 6' W	L	P-01	
•	CAREX TUMICOLA	BERKELY SEDGE	I GAL	AS SHOWN	309	1 - 2 H X I - 2 W	М	P-OI	

PLANTING NOTES:



FOR THE SHRUB INSTALLATION

- A: PRIOR TO PROCEEDING WITH SHRUB INSTALLATION, THE CONTRACTOR IS RESPONSIBLE FOR CLEARLY MARKING THE SHRUB AREA BOUNDARIES AND INDIVIDUAL SHRUB LOCATIONS WITH MARKING PAINT. PRIOR TO BEGINNING SHRUB INSTALLATION, THE CONTRACTOR SHALL REQUEST A WALK THROUGH WITH THE OWNER AND/OR OWNER'S REPRESENTATIVE TO VERIFY THE SHRUB AREA BOUNDARIES AND INDIVIDUAL SHRUB LOCATIONS.
- B. UPON SUCCESSFUL WALK THROUGH OF SHRUB AREA BOUNDARES AND NOIVIDUAL SHRUB LOCATIONS, THE CONTRACTOR SHALL PROCEED WITH SHRUB INSTALLATION. ONCE THE SHRUB INSTALLATION IS COMPLETE, THE INSTALLING CONTRACTOR SHALL REQUEST A WALK THROUGH FOR SUBSTANTIAL COMPLETION WITH THE OWNER AND/OR OWNER'S REPRESENTATIVE. THE OWNER AND/OR OWNER'S REPRESENTATIVE WILL PROVIDE WRITTEN DOCUMENTATION OF THE SUBSTANTIAL COMPLETION WALK THROUGH TO THE CONTRACTOR AND THE OWNER, IN THE FORM OF A PUNCH LIST NOTING ANY OUTSTANDING CONSTRUCTION ITEMS. THIS WALK THROUGH AND ANY RESULTING OUTSTANDING ITEMS SHALL BE COMPLETED AND/OR ADDRESSED PRIOR TO REQUESTING A FINAL WALK THROUGH OR CONTINUING WITH FURTHER CONSTRUCTION.
- C. ONCE THE SUBSTANTIAL COMPLETION PUNCH LIST HAS BEEN COMPLETIELY ADDRESSED, THE INSTALLING CONTRACTOR SHALL REQUEST A FINAL WALK THROUGH WITH THE OWNER AND/OR OWNER'S REPRESENTATIVE WILL PROVIDE WRITTEN DOCUMENTATION OF THE FINAL WALK THROUGH TO THE CONTRACTOR AND THE OWNER BY COMPARING THE PUNCH LIST WITH FIELD CONDITIONS. AFTER SUCCESSFULLY COMPLETING A FINAL WALK THROUGH FOR SHRUB PLANTING THE CONTRACTOR MAY BEGIN THE MAINTENANCE PERIOD AS DESCRIBED IN THE SPECIFICATIONS. SUCCESSFUL COMPLETION OF A FINAL WALK THROUGH MEANS THAT THERE ARE NO OUTSTANDING ITEMS ON THE PUNCH LIST THAT HAVE NOT BEEN RESOLVED TO THE SATISFACTION OF THE OWNER AND/OR OWNER'S REPRESENTATIVE.



SHAUB PLANTING SHALL BE INSTALLED PER SPECIFICATIONS AND RCTLMA STANDARD DETAIL P-OI.



BARK MULCH
INSTALL 3' OF APPROVED BARK MULCH MATERIAL OVER
ALL NEWLY PLANTED AREAS ONCE RRIGATION AND PLANTING
INSTALLATIONS HAVE BEEN APPROVED. INSTALL BARK MULCH PER
RCTLMA STANDARD DETAIL P-02.

GENERAL PLANTING NOTES:

- I. THESE PLANS WERE PREPARED USING BASE INFORMATION PROVIDED BY THE COUNTY OF RIVERSIDE TRANSPORTATION AND LAND MANAGEMENT AGENCY. THE CONTRACTOR IS RESPONSBLE FOR VERFYING THE ACCURACY OF THIS BASE COMPARED TO ACTUAL FIELD CONDITIONS PRIOR TO ORDERING MATERIALS AND/OR BEGINNING WORK AND IMMEDIATELY NOTIFYING THE OWNER AND/OR OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES. IN THE EVENT THAT THE CONTRACTOR FALS TO VERIFY THE ACCURACY OF THE BASE INFORMATION AND/OR FALS TO IMMEDIATELY NOTIFY THE OWNER AND/OR OWNER'S REPRESENTATIVE OF DISCREPANCIES PRIOR TO ORDERING MATERIALS AND/OR BEGINNING WORK, THEN THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ANY AND ALL ADDITIONAL LABOR AND MATERIALS AS DRECTED BY THE OWNER AND/OR OWNER'S REPRESENTATIVE TO RESOLVE SUCH DISCREPANCIES AT NO ADDITIONAL COST TO THE OWNER.
- 2. THE CONTRACTOR IS RESPONSBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY AND ALL DAMAGES WHICH OCCUR DUE TO THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR REPLACING ANY EQUIPMENT AND/OR MATERIALS OUTSDE OF THE LIMIT OF WORK, WHICH ARE DAMAGED DURING CONSTRUCTION WITH MATERIALS IN-KIND, AT NO ADDITIONAL COST TO THE OWNER.
- REFER TO THE PLANTING DETAILS AND SPECIFICATIONS FOR NSTALLATION AND EXECUTION PROCEDURES AND FOR MAINTENANCE REQUIREMENTS.
- 5. THE PLANTING PLAN IS DIAGRAMMATIC. ALL PLANT LOCATIONS ARE APPROXIMATE. QUANTITIES SHOWN ON THE PLANTING PLAN ARE APPROXIMATE AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. CONTRACTOR SHALL VERIFY IN THE FIELD QUANTITIES NEEDED TO CONVEY THE INTENT OF THE PLANTING PLAN AND NOTIFY THE OWNER AND/OR OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN QUANTITIES AND SYMBOLS SHOWN.
- THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING A SOIL TEST, AND AMENDING THE PROJECT SITE SOIL PER THE RECOMMENDATIONS OF THE SOIL TEST RESULTS.
- 7. EXISTING TRAFFIC SIGNAL AND SIGNAGE SHOWN FOR REFERENCE ONLY.
 CONTRACTOR SHALL BE RESPONSBILE FOR VERFYING THE EXACT
 LOCATION AND CONDITION OF EACH SIGNAL. / SIGN PRIOR BEGINNING
 CONSTRUCTION. IF IT IS FOUND THAT TRAFFIC SIGNAGE MUST BE
 REMOVED / MOVED TO COMPLETE CONSTRUCTION OF NEW HARDSCAPE,
 RRIGATION OR PLANTING, CONTRACTOR MUST FIRST COORDINATE AND
 RECEIVE APPROVAL FOR SIGNAGE REMOVAL AND REPLACEMENT WITH
 COUNTY OF RIVERSIDE DEPARTMENT OF TRANSPORTATION
 DEPOESBILTATIVE

DESIGNED BY

APPROVED BY:

PEDLEY ROAD

MEDIAN IMPROVEMENT

PLANTING LEGEND

AND PLANTING NOTES

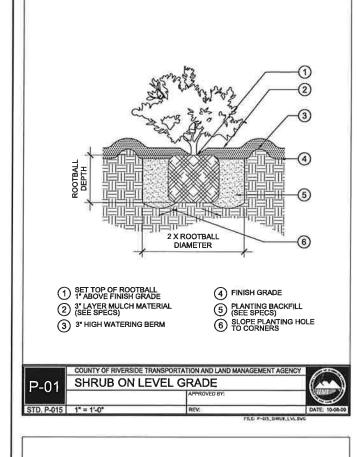
STA 52+00 TO STA 62+00

SHEET No. P-02

PROJECT CI-0528

ARCHIVE 954-99

SHEET 12 OF 25



r 4

4" MIN.

1 EXISTING 4" THICK CONCRETE SLAB 4 TWO PART POLYURETHANE SEALANT MATCH COLOR OF ADJACENT SURFACE ADJACENT SURFACE

COUNTY OF RIVERSIDE TRANSPORTATION AND LAND MA

2 1/2" X 12: STEEL DOWEL @ 24" O.C.
SLEEVE ONE SIDE. CENTER IN SLAB
NOTE: DRILL AND SET STEEL DOWEL IN

5 PER GEOTECHNICAL REPORT

6 EXPANSION JOINT FILLER

7) NEW 4" THICK CONCRETE SLAB

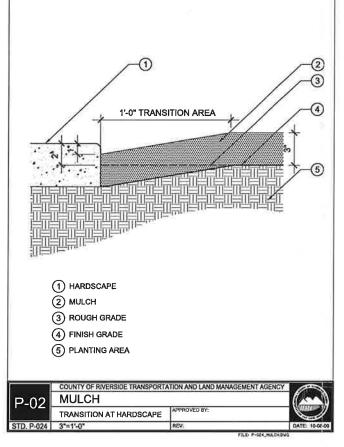
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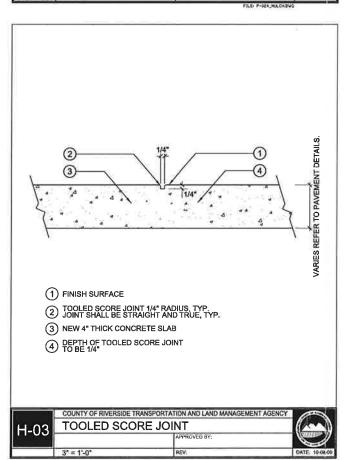
EXISTING CONCRETE WHEN CONNECTING TO NEW CONCRETE

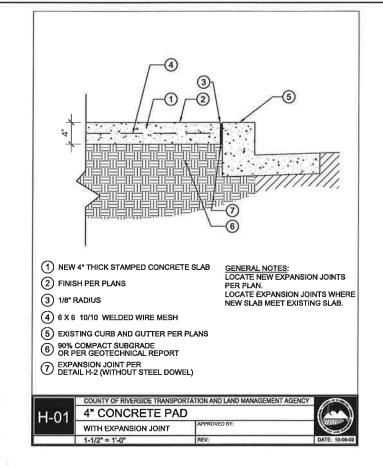
EXPANSION JOINT

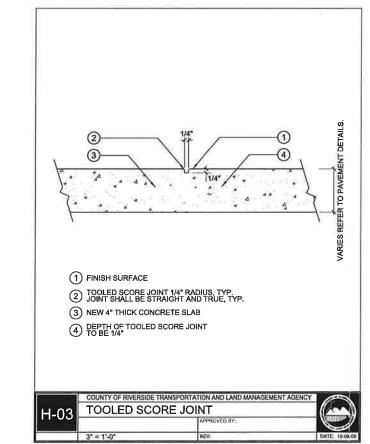
ON EXISTING CONCRETE PAD

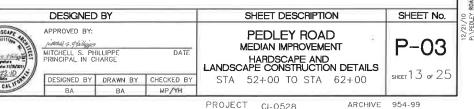
(3) 1/8" RADIUS











SECTION 329300 LANDSCAPING

PART 1 - GENERAL

101 SUMMARY

- A. THE WORK INCLUDES ALL SERVICES, LABOR, MATERIALS, TRANSPORTATION AND EQUIPMENT NECESSARY TO PERFORM THE WORK INDICATED ON THE DRAWINGS AND AS SPECIFIED.
- 102 RELATED REQUIREMENTS:
 - A. SECTION 328400 IRRIGATION SYSTEM
- B. SECTION 320533 LANDSCAPE MAINTENANCE

103 SUBMITTALS

- A SUBMIT CERTIFICATES OF COMPLIANCE AND INVOICES FOR SOIL AMENDMENTS, FERTILIZERS, AND PLANT MATERIALS, WITH QUANTITIES OF EACH.
- B. SHRUB AND TREE SAMPLES: SUBMIT 3 SAMPLES OF EACH VARIETY AND SIZE OF PLANT MATERIALS AT THE SITE A MINIMUM OF 15 DAYS BEFORE PLANTING OPERATIONS. ACCEPTED SAMPLES SHALL REMAIN ON THE SITE AND SHALL BE MAINTAINED AS STANDARDS OF COMPARISON FOR PLANT MATERIALS TO BE FURNISHED. SAMPLES MAY BE INCORPORATED INTO THE WORK
- C. A SAMPLE OF THE SOIL AMENDMENTS AND PROPOSED MULCH MATERIAL(S), INCLUDING MANUFACTURER OR SUPPLIER CERTIFICATE OR INVOICE, SHALL BE DELIVERED TO THE LANDSCAPE ARCHITECT WITHIN THIRTY-FIVE (35) DAYS AFTER RECORDING OF THE CONTRACT.
- 1.04 GUARANTEES AND REPLACEMENTS:
- A SHRUBS AND GROUNDCOVERS SHALL BE GUARANTEED TO REMAIN HEALTHY AND VIGOROUSLY GROWING FOR A PERIOD OF NINETY (90) DAYS FROM DATE OF FINAL ACCEPTANCE OF MAINTENANCE PERIOD OF PROJECT.
- B. PLANTS FOUND TO BE DEAD OR NOT IN A VIGOROUS CONDITION WITHIN THE MAINTENANCE
 AND GUARANTEE PERIODS SHALL BE REPLACED WITHIN FOURTEEN (14) DAYS AT
 CONTRACTORS EXPENSE.
- C. PLANTS USED FOR REPLACEMENT SHALL BE THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED, PLANTED AND FERTILIZED AS ORIGINALLY SPECIFIED. THE EXPENSE OF ALL REPAIR WORK ON EXISTING IMPROVEMENTS DAMAGED DURING REPLACEMENT SHALL BE BORNE BY THE CONTRACTOR

105 QUALITY ASSURANCE

- A REVIEWS HEREIN SPECIFIED SHALL BE MADE BY THE LANDSCAPE ARCHITECT OR LANDSCAPE INSPECTION. THE CONTRACTOR SHALL REQUEST REVIEW IN WRITING A MINIMUM OF 48 HOURS IN ADVANCE, FOR THE FOLLOWING PARTS OF WORK:
- PRE-JOB MEETING TO INTRODUCE LANDSCAPE ARCHITECT, LANDSCAPE INSPECTOR, CONTRACTOR, JOB PROJECT MANAGER AND JOB SUPERINTENDENT AND TO DISCUSS THE PARTICULAR REQUIREMENTS OF THE JOB.
- 2. INCORPORATION OF SOIL CONDITIONING AND FERTILIZING INTO THE SOIL. OBSERVATION SHALL BEGIN PRIOR TO AMENDMENTS BEING ROTOTILLED INTO THE SOIL AMENDMENT MATERIALS SHALL BE DISTRIBUTED IN PILES AROUND THE SITE IN QUANTITIES CORRESPONDING TO THE SOILS ANALYSIS RECOMMENDATIONS "PER 1,000 SQ. FT.". INVOICES SHOWING MATERIALS AND QUANTITIES PURCHASED SHALL BE AVAILABLE FOR REVIEW.
- UPON COMPLETION OF GRADING PRIOR TO PLANTING. REVIEW OF PLANT MATERIALS IS TO COINCIDE WITH THIS REVIEW.
- WHEN SHRUBS ARE SPOTTED IN PLACE FOR PLANTING, BUT BEFORE PLANTING HOLES ARE EXCAVATED.
- UPON COMPLETION OF FINISH GRADES AND PLANTING. APPLICATION OF PRE-EMERGENT HERBICIDE IS TO COINCIDE WITH THIS REVIEW.
- WHEN PLANTING, AND ALL OTHER INDICATED AND SPECIFIED WORK, EXCEPT THE MAINTENANCE PERIOD, HAS BEEN COMPLETED. ACCEPTANCE, IN WRITING, SHALL ESTABLISH BEGINNING OF THE MAINTENANCE PERIOD.
- FINAL REVIEW AT THE COMPLETION OF THE MAINTENANCE PERIOD. CONTINGENT ON ACCEPTANCE, THIS REVIEW SHALL ESTABLISH THE BEGINNING DATE FOR THE GUARANTEE PERIOD.

1.06 MAINTENANCE

- A THE CONTRACTOR SHALL CONTINUOUSLY MAINTAIN ALL INVOLVED AREAS DURING THE PROGRESS OF THE WORK AND DURING THE MAINTENANCE PERIOD UNTIL THE FINAL ACCEPTANCE OF THE WORK.
- B. THE MAINTENANCE PERIOD BEGINS ON THE FIRST DAY AFTER WRITTEN ACCEPTANCE OF PLANTING OPERATIONS IS RECEIVED FROM THE LANDSCAPE ARCHITECT, AND SHALL CONTINUE THEREAFTER FOR NO LESS THAN THIRTY (30) CONTINUOUS CALENDAR DAYS.
- C. THE CONTRACT COMPLETION DATE OF THE CONTRACT MAINTENANCE PERIOD WILL BE EXTENDED, WHEN IN THE OPINION OF THE LANDSCAPE ARCHITECT, IMPROPER MAINTENANCE OR POSSIBLE POOR OR UNHEALTHY CONDITION OF PLANTED MATERIAL OR POORLY ESTABLISHED NON-COVERING SHRUB AREAS ARE EVIDENT AT THE TERMINATION OF THE SCHEDULED MAINTENANCE PERIOD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL MAINTENANCE OF THE WORK UNTIL WORK IS COMPLETED AND ACCEPTABLE.
- D. SEE SECTION 320533 FOR SPECIFIC MAINTENANCE REQUIREMENTS.

107 GENERAL REQUIREMENTS:

- A. THE TERM 'PLANTING AREA' SHALL MEAN ALL AREAS TO BE PLANTED WITH SHRUBS AND GROUNDCOVERS.
- B. ACTUAL PLANTING SHALL BE PERFORMED DURING THOSE PERIODS WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE IN ACCORDANCE WITH LOCALLY ACCEPTED HORTICULTURAL PRACTICE.
- C. ALL ROCK AND OTHER GROWTH OR DEBRIS ACCUMULATED DURING THE DURATION OF THE PROJECT SHALL BE REMOVED FROM THE SITE.
- D. PRIOR TO EXCAVATION FOR PLANTING OR PLACING OF PLANT MATERIALS, LOCATE ALL UNDERGROUND IMPROVEMENTS, UTILITY LINES, ETC. AND TAKE PROPER PRECAUTIONS TO AVOID DAMAGE. IN THE EVENT OF A CONFLICT BETWEEN SUCH LINES AND PLANT LOCATIONS, NOTIFY LANDSCAPE ARCHITECT AND RECEIVE DIRECTION PRIOR TO PROCEEDING. THE CONTRACTOR ASSUMES RESPONSIBILITY FOR MAKING REPAIRS FOR DAMAGES RESULTING FROM WORK AS HEREIN SPECIFIED.
- E GRADING AND SOIL PREPARATION WORK SHALL BE PERFORMED ONLY DURING THE PERIOD WHEN BENEFICIAL AND OPTIMUM RESULTS MAY BE OBTAINED. IF THE MOISTURE CONTENT OF THE SOIL SHOULD REACH SUCH A LEVEL THAT WORKING IT WOULD DESTROY SOIL STRUCTURE, SPREADING AND GRADING OPERATIONS SHALL BE SUSPENDED UNTIL THE MOISTURE CONTENT IS INCREASED OR REDUCED TO ACCEPTABLE LEVELS AND THE DESIRED RESULTS ARE LIKELY TO BE OBTAINED.
- F. SCALED DIMENSIONS ARE APPROXIMATE. BEFORE PROCEEDING WITH WORK, CAREFULLY CHECK AND VERIFY DIMENSIONS AND IMMEDIATELY INFORM THE LANDSCAPE ARCHITECT OF DISCREPANCIES BETWEEN THE DRAWINGS AND SPECIFICATIONS AND ACTUAL CONDITIONS.
- G. QUANTITIES FOR PLANT MATERIALS ARE SHOWN FOR CONVENIENCE ONLY, AND NOT GUARANTEED. CHECK AND VERIFY COUNT AND SUPPLY SUFFICIENT NUMBER TO FULFILL INTENT OF DRAWINGS.
- H. ADEQUATELY STAKE, BARRICADE, AND PROTECT IRRIGATION EQUIPMENT, MANHOLES, UTILITY LINES, AND OTHER EXISTING PROPERTY DURING ALL PHASES OF THE SOIL AMENDING AND GRADING OPERATIONS.
- L REJECTION AND SUBSTITUTION: PLANTS NOT CONFORMING TO THE REQUIREMENTS HEREIN SPECIFIED SHALL BE CONSIDERED DEFECTIVE, AND SUCH PLANTS, WHETHER IN PLACE OR NOT, SHALL BE MARKED AS REJECTED AND BE IMMEDIATELY REMOVED FROM THE SITE OF THE WORK AND REPLACED WITH ACCEPTABLE PLANT MATERIALS. THE PLANT MATERIALS SHALL MEET ALL APPLICABLE INSPECTIONS REQUIRED BY LAW. PLANTS SHALL BE OF THE SPECIES, VARIETY, SIZE, AGE, FLOWER COLOR AND CONDITION AS SPECIFED HEREIN AND/OR AS INDICATED ON THE DRAWINGS. UNDER NO CONDITION WILL THERE BE ANY SUBSTITUTION OF PLANT SPECIE, VARIETY, OR REDUCED SIZES FOR THOSE LISTED ON THE ACCOMPANYING DRAWINGS, EXCEPT WITH THE EXPRESSED WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT.
- J. ALL UTILITIES (WATER AND ELECTRICITY) USED DURING THE INSTALLATION AND MAINTENANCE OF THE LANDSCAPING AND IRRIGATION SYSTEMS FOR THIS PROJECT SHALL BE PAID FOR BY THE OWNER.

1.08 FINAL SOIL AMENDMENT QUANTITIES:

- A UPON COMPLETION OF ALL BACKFILL AND/OR ROUGH GRADING OF PLANTED AREAS, A MINIMUM OF THREE (3) REPRESENTATIVE SAMPLES OF EXISTING SOIL FOUND IN THE PLANTING AREAS SHALL BE TAKEN BY THE CONTRACTOR AND AT HIS/HER EXPENSE SENT TO AN INDEPENDENT SOIL TESTING LABORATORY FOR AN AGRICULTURAL SUITABILITY ANALYSIS AND RECOMMENDATIONS FOR QUANTITY AND APPLICATION RATE OF AMENDMENTS AND INCLUDE ANY CORRECTIVE MEASURES REQUIRED TO ADJUST PH OR SALT TO ACCEPTABLE LEVELS. THESE RECOMMENDATIONS SHALL THEN BE COMPARED WITH THOSE LISTED IN PARAGRAPHS 202 AND 3.01 AND THE CONTRACT MODIFIED ACCORDINGLY.
- 109 SOIL PREPARATION CONFORMANCE
- A. AMENDMENT MATERIALS SHALL BE DISTRIBUTED IN PILES AROUND THE SITE IN QUANTITIES CORRESPONDING TO THE SOILS ANALYSIS "PER 1,000 SQ. FT." RECOMMENDATIONS. INVOICES SHOWING MATERIALS AND QUANTITIES PURCHASED SHALL BE AVAILABLE FOR REVIEW. THE LANDSCAPE ARCHITECT WILL COMPARE THE DISTRIBUTION PILES AND TOTAL QUANTITIES OF EACH MATERIAL FURNISHED AGAINST THE SOILS ANALYSIS RECOMMENDATIONS. IF THE MINIMUM RATES OF APPLICATION HAVE NOT BEEN MET, THE LANDSCAPE ARCHITECT WILL REQUIRE THE DISTRIBUTION OF ADDITIONAL QUANTITIES OF THESE MATERIALS TO FULFILL THE MINIMUM APPLICATION REQUIREMENTS SPECIFIED. AFTER APPROVAL BY THE LANDSCAPE ARCHITECT OF THE DISTRIBUTION AND QUANTITIES OF SOIL AMENDMENTS, THE CONTRACTOR WILL THEN COMMENCE WITH SOIL CONDITIONING OPERATIONS PER SECTION 3.01.

110 PLANT MATERIAL QUANTITY CONFORMANCE

A AFTER INSTALLATION OF PLANT MATERIALS, AND COINCIDING WITH THE PRE-MAINTENANCE OBSERVATION, THE LANDSCAPE ARCHITECT, WITH THE HERETOFORE SPECIFIED SIGNED COPIES OF THE REQUIRED CERTIFICATES, TRIP SLIPS AND INVOICES FOR THE PLANT MATERIALS AND RELATED ITEMS, WILL INVENTORY SUCH MATERIAL, COMPARING THE TOTAL AREA AND/OR THE AMOUNTS SPECIFIED. IF THE MINIMUM AMOUNTS HAVE NOT BEEN FURNISHED, THE LANDSCAPE ARCHITECT MAY REQUIRE THE INSTALLATION OF ADDITIONAL MATERIALS TO FULFILL THE MINIMUM REQUIREMENTS SPECIFIED OR REQUIRE THAT THE CONTRACTOR PROVIDE CREDIT(S) TO THE OWNER.

PART 2 - PRODUCTS

201 SOIL AMENDMENT AND FERTILIZER:

- A PROVIDE SINGLY OR IN COMBINATION AS REQUIRED TO MEET SPECIFIED REQUIREMENTS FOR TOPSOIL SOIL CONDITIONERS SHALL BE NONTOXIC TO PLANTS.
 - COMPOSTED DERIVATIVES: GROUND BARK, NITROLIZED SAWDUST, HUMUS, OR OTHER WOOD GREEN WASTE MATERIAL FREE OF STONES, STICKS, AND SOIL STABILIZED WITH NITROGEN AND HAVING THE FOLLOWING PROPERTIES:
 - 2. PARTICLE SIZE: MINIMUM PERCENT BY WEIGHT PASSING:

BL.	NO.	4	MESH	SCREEN

b. NO. 8 MESH SCREEN

3. NITROGEN CONTENT: MINIMUM PERCENT BASED ON DRY WEIGHT:

a. FIR SAWDUST 0 b. FIR OR PINE BARK 1

- B. GYPSUM SHALL BE A COMMERCIALLY PROCESSED AND PACKAGED GYPSUM (CASO, 2H 0) WITH MINIMUM 80% GRADE CONTAINING 14% MINIMUM COMBINED SIJI FI IR
- C. IRON SULPHATE: FERRIC OR FERROUS SULPHATE IN PELLETED OR GRANULAR FORM CONTAINING NOT LESS THEN 18 PERCENT METALLIC IRON. MATERIAL SHALL CONFORM TO THE AGRICULTURAL CODE OF THE STATE OF CALIFORNIA.
- D. PRE-PLANT FERTILIZER FOR INCORPORATION WITH ROTOTILLING OR PLANT PIT BACKFILL MIX SHALL BE OF A UNIFORM "BEADED" HOMOGENEOUS GRANULAR COMPOSITION SUITABLE FOR APPLICATION WITH APPROVED EQUIPMENT AND SHALL CONTAIN THE FOLLOWING MINIMUM AVAILABLE PERCENTAGES BY WEIGHT OF PLANT FOOD:

NITROGEN 5% MINIMUM
PHOSPHORIC ACID 3% MINIMUM
POTASH 1% MINIMUM
IRON 1%
MANGANESE .05%
ZINC .05%
HUMIC ACIDS (DERIVED FROM COMPOST)
SOIL PENETRANT (ALKYL NAPHTHALENE SODIUM SULFONATE)

POST-PLANTING FERTILIZER FOR MAINTENANCE PERIOD FERTILIZATION: ORGANIC BASE, LONG LASTING, NONBURNING, CONTROLLED SLOW RELEASE, FREE FLOWING, UNIFORM IN COMPOSITION, SUITABLE FOR APPLICATION WITH

APPROVED EQUIPMENT, AND SHALL CONTAIN THE FOLLOWING MINIMUM AVAILABLE PERCENTAGES OF WEIGHT OF PLANT FOOD:

NITHOGEN 12% MINIMUM

WARNING SOME FERTILIZERS CONTAIN CHELATED IRON WHICH HAS CAUSED STAINING OF CONCRETE SURFACES IN OTHER PROJECTS. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL IRON STAINS FROM CONCRETE BY SANDBLASTING, OR AS DIRECTED BY ARCHITECT, AT NO ADDITIONAL COST TO THE OWNER.

F. PLANTING TABLETS: TIGHTLY COMPRESSED CHIP TYPE COMMERCIAL GRADE PLANTING TABLETS OF VARYING WEIGHTED SIZES WITH THE FOLLOWING AVAILABLE PERCENTAGES BY WEIGHT OF PLANT FOOD:

NITROGEN PHOSPHORIC ACID POTASH

PHOSPHORIC ACID

20% MINIMUM 10% MINIMUM 5% MINIMUM

8% MINIMUM

202 PLANTING BACKFILL:

A PLANTING BACKFILL SHALL BE A THOROUGHLY BLENDED MIXTURE OF TOPSOIL AMENDMENTS AT THE FOLLOWING MIXTURE:

SOIL CONDITIONER STOCK-PILED ON SITE SOIL IRON SULPHATE GYPSUM PRE-PLANT FERTILIZER

L 3 PARTS
2 LBS/PER CU, YD, OF MIX
10 LBS/PER CU, YD, OF MIX
4 LBS/PER CU, YD, OF MIX

SOIL TO BE USED AS PLANTING MEDIUM FOR THE PROJECT SHALL BE FERTILE, WELL-DRAINED, OF UNIFORM QUALITY, FREE OF STONES OVER 1 INCH DIAMETER, STICKS, OILS, CHEMICALS, PLASTER, CONCRETE AND OTHER DELETERIOUS MATERIALS. ON-SITE SOIL MAY BE STOCKPILED FOR RE-USE PROVIDED IT MEETS ALL REQUIREMENTS.

203 PLANT MATERIALS

- A NOMENCLATURE: THE SCIENTIFIC AND COMMON NAMES OF PLANTS HEREIN SPECIFIED CONFORM WITH THE APPROVED NAMES GIVEN IN 'SUNSET WESTERN GARDEN BOOK', PUBLISHED BY LANE PUBLISHING COMPANY, MENLO PARK, CALIFORNIA, LATEST EDITION. SEE LIST OF PLANT MATERIAL ON DRAWINGS.
- B. QUALITY AND SIZE OF ALL PLANTS SHALL BE NO. 1 OF PINTO TAG STOCK. THEY SHALL BE VIGOROUS, OF NORMAL GROWTH, FREE FROM DISEASE, INSECTS, INSECT EGGS, AND/OR EXCEED THE MEASUREMENTS SPECIFIED OR THE AMERICAN STANDARDS FOR NURSERY STOCK. PINTO TAGS SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT.
- C. CONTAINER STOCK (I GAL, 5 GAL, AND 15 GAL) SHALL HAVE GROWN IN CONTAINERS FOR AT LEAST SIX MONTHS, BUT NOT OVER TWO YEARS. NO CONTAINER PLANTS THAT HAVE CRACKED OR BROKEN BALLS OF EARTH, WHEN TAKEN FROM THE CONTAINER, SHALL BE PLANTED, EXCEPT UPON SPECIAL APPROVAL NO TREES WITH DAMAGED ROOTS OR BROKEN BALLS SHALL BE PLANTED AND NO SHRUBS, VINES OR GROUNDCOVERS SHALL BE PLANTED THAT ABE "POT-SOLIND" OR THAT HAVE DAMAGED ROOTS.
- PLANTED THAT ARE 'POT-BOUND' OR THAT HAVE DAMAGED ROOTS.

 D. PRUNING SHALL NOT BE DONE, PRIOR TO DELIVERY, EXCEPT BY WRITTEN APPROVAL.
- E OBSERVATION OF PLANT MATERIALS, REQUIRED BY COUNTY AUTHORITIES, SHALL BE A RESPONSIBILITY OF THE CONTRACTOR, AND WHERE NECESSARY, THE CONTRACTOR SHALL HAVE SECURED PERMITS OR CERTIFICATES PRIOR TO DELIVERY OF PLANTS TO SITE.
- F. PLANTS SHALL BE SUBJECT TO OBSERVATION AND APPROVAL OR REJECTION, AT THE PROJECT SITE AT ANY TIME BEFORE OR DURING PROGRESS OF WORK, FOR SIZE, VARIETY, CONDITION, LATENT DEFECTS AND INJURIES. REJECTED PLANTS SHALL BE REMOVED FROM THE PROJECT SITE IMMEDIATELY.
- G. SUBSTITUTIONS WILL NOT BE PERMITTED EXCEPT THAT IF PROOF IS SUBMITTED THAT ANY PLANT SPECIFIED IS NOT OBTAINABLE, A PROPOSAL WILL BE CONSIDERED FOR USE OF THE NEAREST EQUIVALENT SIZE, VARIETY AND COST.
- H. QUANTITIES SHALL BE FURNISHED AS NEEDED TO COMPLETE WORK AS
- L THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO OBSERVE ROOT CONDITION OF ANY SPECIES, PARTICULARLY THOSE GROWN FROM SEED, AND IF FOUND DEFECTIVE, TO REJECT THE PLANTS REPRESENTED BY THE DEFECTIVE SAMPLE.
- J. IDENTIFY PLANT SPECIES OR VARIETIES CORRECTLY ON LEGIBLE, WEATHER-PROOF LABELS ATTACHED SECURELY AT THE JOB SITE. THERE SHALL BE A MINIMUM OF ONE LABELED PLANT FOR EACH 5 PLANTS IN A LOT.
- K. GROUNDCOVER PLANTS SHALL BE HEALTHY VIGOROUS ROOTED CUTTINGS GROWN IN FLATS UNTIL TRANSPLANTING.

2.04 HERBICID

. WEED CONTACT SPRAY, POST EMERGENT, SYSTEMIC PRODUCT WITH NO SOIL RESIDUAL ACTIVITY FORMULATED AS A WATER SOLUBLE LIQUID CONTAINING 50% GLYPHOSATE AND 14.5% SURFACTANT WITH SURFLAN ADDITIVE

205 MULCHING MATERIAL:

A. MULCHING MATERIAL SHALL BE 3/8" - 1/2" DIA SCREENED FIR BARK OR APPROVED EQUAL, APPROVED IN WRITING, BY THE LANDSCAPE ARCHITECT.

APPROVED BY:

APPROVED BY:

MITCHELL S. PHILLIPPE
PRINCIPAL IN CHARGE

DATE

DESIGNED BY DRAWN BY CHECKED BY
BA BA MP/YH

SHEET DESCRIPTION

PEDLEY ROAD
MEDIAN IMPROVEMENT
LANDSCAPE
SPECIFICATIONS

STA 52+00 TO STA 62+00

SHEET No.

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PART 3 - EXECUTION

3.01 LEACHING, SOIL CONDITIONING, ROTOTILLING AND FERTILIZING:

E. DEEP WATER LEACHING:

- AFTER COMPLETE INSTALLATION AND TESTING OF THE IRRIGATION SYSTEM, ALL AREAS SHALL BE DEEP WATER LEACHED AND COMPACTED AND SETTLED BY CONTINUOUS APPLICATION OF IRRIGATION WATER UNTIL THE SOIL HAS RECEIVED A MINIMUM OF 12° OF WATER.
- 2. AFTER LEACHING OPERATION, SOIL SAMPLES SHALL BE TAKEN BY CONTRACTOR PER LANDSCAPE ARCHITECTS DIRECTION AND GIVEN TO THE OWNER'S SOIL LABORATORY FOR TESTING. SOIL TEST SHALL MEET THE FOLLOWING REQUIREMENTS:

- MAXIMUM 3.0 MAXIMUM 750

- MINIMUM 6.00
- 3. DEEP WATER LEACHING SHALL BE DONE PRIOR TO THE APPLICATION OF THE
- 4. CARE SHALL BE TAKEN THAT THE RATE OF APPLICATION OF WATER DOES NOT CAUSE EROSION OR SLUFFING OF SOILS. DO NOT UNDERTAKE LEACHING
- 5. ALL DEPRESSIONS, VOIDS, EROSION SCARS AND SETTLED TRENCHES GENERATED BY THE DEEP WATERING SHALL BE FILLED WITH CONDITIONED TOPSOIL AND BROUGHT TO FINISH GRADE PRIOR TO DIGGING PLANTING PITS.
- B. AFTER LEACHING OPERATIONS AND AFTER THE AREAS HAVE BEEN GRADED, FOLLOW THE SOIL PREPARATION CONFORMANCE PROCEDURES PER SECTION 109, AFTER APPROVAL BY THE LANDSCAPE ARCHITECT OF THE REQUIREMENTS IN SECTION 109, THE SOIL CONDITIONING AND AMENDMENT MATERIALS SHALL BE EVENLY SPREAD OVER ALL PLANTING AREAS AND SHALL BE THOROUGHLY SCARIFIED TO AN AVERAGE DEPTH OF SIX (8) INCHES BY ROTOTILLING A MINIMUM OF TWO (2) ALTERNATING PASSES:

THE FOLLOWING MATERIALS AND QUANTITIES ARE TO BE USED AS A BASIS FOR BIDDING, AND MAY BE MODIFIED BASED ON SOIL ANALYSIS RESULTS.

SOIL CONDITIONER: SOIL SULPHUR: IRON SULPHATE:

PRE-PLANT FERTILIZER

4 CU. YD. PER 1,000 SQ. FT. 20 LBS/PER 1,000 SQ. FT. 20 LBS/PER 1000 SQ. FT. 20 LBS/PER 1000 SQ. FT.

- FERTILIZER SHALL BE INCORPORATED INTO THE TOP SIX (6) INCHES OF FINISH GRADE. FERTILIZER SHALL BE APPLIED AFTER LEACHING OPERATION.
- 2 THE THOROUGHNESS AND COMPLETENESS OF THE ROTOTILLING AND INCORPORATION OF THE SOIL CONDITIONERS/AMENDMENTS SHALL BE ACCEPTED BY THE LANDSCAPE ARCHITECT IN WRITING, PRIOR TO DIGGING PLANTING PITS, FOR SLOPES 21 AND STEEPER, OR AS PER THE DRAWINGS, OMIT SOIL CONDITIONER APPLICATION AND ROTOTILLING.

3.02 FINISH GRADING:

- A FINISH GRADES SHALL BE AS INDICATED ON LANDSCAPE AND CIVIL DRAWINGS. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT FOR A DECISION SHOULD ANY DISCREPANCIES EXIST BETWEEN THE DRAWINGS AND SITE CONDITIONS.
- B. MOLDING AND ROUNDING OF THE GRADES SHALL BE PROVIDED AT ALL CHANGES IN SLOPE
- C. ALL UNDULATIONS AND IRREGULARITIES IN THE PLANTING SURFACES RESULTING FROM TILLAGE, ROTOTILLING AND ALL OTHER OPERATIONS SHALL BE LEVELED AND FLOATED OUT BEFORE PLANTING OPERATIONS ARE INITIATED.
- D. TAKE EVERY PRECAUTION TO PROTECT AND AVOID DAMAGE TO EROSION CONTROL MATERIALS, SPRINKLER HEADS, IRRIGATION LINES, AND OTHER UNDERGROUND UTILITIES DURING GRADING AND CONDITIONING OPERATIONS.
- E. FINAL FINISH GRADES SHALL INSURE POSITIVE DRAINAGE OF THE SITE WITH ALL SURFACE DRAINAGE AWAY FROM BUILDINGS, WALLS, AND TOWARD ROADWAYS, DRAINS AND CATCH BASINS.
- F. FINAL GRADES SHALL BE ACCEPTED BY THE LANDSCAPE ARCHITECT/OWNER'S REPRESENTATIVE IN WRITING ON COMPANY LETTERHEAD PRIOR TO DIGGING PLANTING PITS AND/OR BEFORE PLANTING OPERATIONS WILL BE ALLOWED TO BEGIN.
- G. PLANTING SURFACES SHALL BE GRADED WITH NO LESS THAN 2 PERCENT SURFACE SLOPE FOR POSITIVE DRAINAGE

A. THE LAYOUT OF LOCATIONS FOR PLANTS AND OUTLINES OF GROUNDCOVER BEDS TO BE PLANTED SHALL BE ACCEPTED BY THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO DIGGING PLANT PITS FOR PLANTING. ALL SUCH LOCATIONS SHALL BE CHECKED BY THE CONTRACTOR FOR POSSIBLE INTERFERENCE WITH EXISTING UNDERGROUND PIPING PRIOR TO EXCAVATION OF HOLES. IF UNDERGROUND CONSTRUCTION OR UTILITY LINES ARE ENCOUNTERED IN THE EXCAVATION OF PLANTING AREAS, OTHER LOCATIONS FOR THE PLANTING MAY BE SELECTED BY THE LANDSCAPE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER. DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

A. PLANTING SHRUBS:

- ALL EXCAVATED HOLES SHALL HAVE VERTICAL SIDES WITH ROUGHENED SURFACES AND SHALL BE OF THE MINIMUM SIZES INDICATED ON DRAWINGS HOLES SHALL BE, IN ALL CASES, LARGE ENOUGH TO PERMIT HANDLING AND PLANTING WITHOUT INJURY OR BREAKAGE OF ROOT BALLS OR ROOTS.
- 2. EXCAVATION SHALL INCLUDE THE STRIPPING AND STACKING OF ALL ACCEPTABLE SOIL ENCOUNTERED WITHIN THE AREAS TO BE EXCAVATED FOR PLANT PITS AND PLANTING BEDS. PROTECT ALL AREAS THAT ARE TO BE TRUCKED OVER AND UPON WHICH SOIL IS TO BE TEMPORARILY STACKED PENDING ITS RE-USE FOR THE FILLING OF HOLES, PITS AND BEDS.
- 3. EXCESS SOIL, GENERATED FROM THE PLANTING HOLES SHALL BE SPREAD EVENLY ON THE SITE WITHIN THE TOLERANCES INDICATED IN SECTION 3.02, OR AS DIRECTED BY THE LANDSCAPE ARCHITECT.
- 4. THE PLANTS SHALL BE PLANTED AT APPROVED LOCATIONS WITH THE HERETOFORE SPECIFIED PLANT PIT FERTILIZER AND SOIL PLANTING BACKFILL PLACE PLANT PIT FERTILIZER AFTER TWO THIRDS OF BACKFILL MATERIAL IS INSTALLED AT THE RATES SPECIFIED BY THE MANUFACTURER AND SOILS
- 5. THE PLANTS SHALL BE PLACED IN THE PLANTING PITS, WHICH HAVE BEEN HAND-TAMPED, AND WATER SETTLED TO THE ROOTBALL BASE LEVELS PRIOR TO THE PLACEMENT OF THE PLANTS. AFTER SETTING THE PLANTS, THE REMAINING BACKFILL MATERIAL SHALL BE CAREFULLY TAMPED AND SETTLED AROUND EACH ROOTBALL TO FILL ALL VOIDS.
- 6 FACH SHRUB SHALL BE PLACED IN THE CENTER OF THE HOLE AND SHALL BE ET PLUMB AND HELD RIGIDLY IN POSITION UNTIL THE PLANTING BACKFILL HAS BEEN TAMPED AROUND EACH ROOTBALL.
- 7. ALL PLANTS SHALL BE SET AT SUCH A LEVEL THAT AFTER SETTLING THEY BEAR THE SAME RELATIONSHIP TO THE SURROUNDING FINISH GRADE AS THEY BORE TO THE SOIL LINE GRADE IN THE CONTAINER, UNLESS OTHERWISE
- 8. NO PLANT WILL BE ACCEPTED IF THE ROOTBALL IS BROKEN OR CRACKED, EITHER BEFORE, DURING, OR AFTER THE PROCESS OF INSTALLATION,
- PLANTS SHALL BE THOROUGHLY WATERED INTO THE FULL DEPTH OF EACH PLANTING HOLE IMMEDIATELY AFTER PLANTING.
- 10. INSTALL SHRUBS AS SHOWN ON THE DRAWINGS.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURFACE AND SUBSURFACE DRAINAGE REQUIRED WHICH MAY AFFECT HIS GUARANTEE OF
- 12. PRUNING AFTER PLANTING SHALL BE REQUIRED ON ALL TREES, SHRUBS, AND VINES WHEN NECESSARY TO PROVIDE THE SPECIFIED OR APPROVED STANDARD SHAPES, FORM AND/OR SIZES CHARACTERISTIC TO EACH PLANT. PRUNING MAY INCLUDE THINNING, AND/OR CUTTING AND SHALL BE UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT OR CERTIFIED ARBORIST.

HERBICIDE APPLICATION:

C. HERBICIDE OR PESTICIDE APPLICATIONS SHALL BE PERFORMED ONLY BY PERSONNEL LICENSED FOR SUCH WORK BY THE STATE OF CALIFORNIA

RODENT REPELLENT: 3.05

A. ONCE PLANTS HAVE BEEN PLANTED AND WATERED IN, APPLY RODENT REPELLENT FOR PLANTS INDICATED ON PLANT LEGENDS ON THE DRAWINGS AROUND THE ENTIRE PERIMETER OF THE PLANTING AREA AT APPLICATION RATES AND WITH METHODS AS SPECIFIED BY THE MANUFACTURER.

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LANDSCAPE AREAS SHALL BE COVERED WITH THE SPECIFIED MULCHING MATERIAL TO THE MINIMUM DEPTH INDICATED ON THE DRAWINGS.

3.07 CLEAN-UP:

AS THE PROJECT PROGRESSES ON A DAILY BASIS, THE CONTRACTOR SHALL MAINTAIN ALL AREAS IN A NEAT MANNER AND REMOVE UNSIGHTLY DEBRIS AS NECESSARY, REMOVE ALL DEBRIS AND CONTAINERS USED IN ACCOMPLISHING WORK AND SWEEP AND CLEAN ALL SIDEWALKS, ASPHALT, AND CONCRETE AREAS ADJACENT TO PLANTINGS.

3.08 SITE OBSERVATION & WALK-THROUGHS FOR SUBSTANTIAL COMPLETION:

A. GENERAL OBSERVATION: THE LANDSCAPE ARCHITECT WILL VISIT THE CONSTRUCTION SITE AT INTERIM TIMES DURING THE CONSTRUCTION PROCESS TO ACCESS CONSTRUCTION PROGRESS REGARDING INSTALLATION OF LANDSCAPE MATERIAL TO BE IN COMPLIANCE WITH THE DRAWINGS, DETAILS, SPECIFICATIONS AND SITE CONDITIONS. THE LANDSCAPE ARCHITECT WILL PREPARE A SITE REPORT AFTER EACH VISIT NOTING PROGRESS OF INSTALLATION, VERBAL COMMUNICATION WITH THE CONTRACTOR AND IDENTIFYING ANY FIELD ADJUSTMENTS NECESSARY THAT REQUIRE MODIFICATIONS TO THE DESIGNED LANDSCAPE. A COPY OF THIS SITE REPORT WILL BE DELIVERED TO BOTH THE OWNER AND THE CONTRACTOR THE CONTRACTOR IS RESPONSIBLE TO IMMEDIATELY ADDRESS EACH ITEM ON THE SITE REPORT BEFORE PROCEEDING WITH FURTHER CONSTRUCTION.

B. WALK THROUGH FOR SUBSTANTIAL COMPLETION (PUNCH LIST #1):

- 1 BEFORE REQUESTING A WALK THROUGH FOR SUBSTANTIAL COMPLETION THE FOLLOWING REQUIREMENTS MUST BE ENTIRELY SATISFIED:
- a. THE ENTIRE PLANTING AREA IS COMPLETELY INSTALLED, AND WHEN LETTERS OF ACCEPTANCE AS DESCRIBED ABOVE HAVE BEEN OBTAINED FROM THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE. IF THE CONTRACTOR FAILED TO NOTIFY THE LANDSCAPE ARCHITECT FOR ANY OF THE ABOVE ITEMS AS LISTED ABOVE THAN THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ANY DESIGN MODIFICATIONS DIRECTED BY THE LANDSCAPE ARCHITECT DURING THE WALK THROUGH FOR SUBSTANTIAL COMPLETION ANY OF THESE ISSUES AT NO ADDITIONAL COST TO THE OWNER
- b. ALL INVOICES, PINTO TAGS AND RECEIPTS HAVE BEEN DELIVERED TO THE LANDSCAPE ARCHITECT AND/OR OWNERS REPRESENTATIVE.
- 2. ONCE THE ABOVE REQUIREMENTS HAVE BEEN MET A WALK THROUGH FOR SUBSTANTIAL COMPLETION MAY BE REQUESTED. THE FOLLOWING PROCEDURES WILL BE USED DURING THE WALK THROUGH:
 - a. CONTRACTOR MUST HAVE (2) TWO PERSONNEL AVAILABLE WITH RADIO
- A VISUAL WALK THROUGH OF THE ENTIRE SITE WILL TAKE PLACE CONSISTING OF AN EXAMINATION OF PLANTING AREAS AS COMPARED TO THE DRAWINGS, AND INSTALLATION PROCEDURES AS SHOWN ON THE DETAILS AND SPECIFICATIONS. A PUNCH LIST WILL BE ESTABLISHED OF DEFICIENCIES IN THE CONSTRUCTION AND WORKMANSHIP OF THE LANDSCAPED AREA AS COMPARED TO THE CONSTRUCTION DRAWINGS. DETAILS, AND SPECIFICATIONS.
- 3. ONCE THE WALK THROUGH FOR SUBSTANTIAL COMPLETION HAS BEEN COMPLETED THE LANDSCAPE ARCHITECT WILL PROVIDE A COPY OF ALL PUNCH LIST ITEMS TO THE OWNER FOR REVIEW AND DISTRIBUTION TO THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, REPLACE, AND ADJUST ALL ITEMS ON THE PUNCH PRIOR TO REQUESTING A FINAL WALK

C. FINAL WALK THROUGH:

- BEFORE COMMENCEMENT OF A FINAL WALK THROUGH IS REQUESTED, EACH ITEM ON THE WALK THROUGH FOR SUBSTANTIAL COMPLETION (PUNCH LIST #1) MUST BE THOROUGHLY SATISFIED, ADDRESSED, AND RESOLVED BY THE
- 2. ONCE THE ABOVE REQUIREMENT HAS BEEN MET A FINAL WALK THROUGH MAY BE REQUESTED. THE FOLLOWING PROCEDURES WILL BE USED:
- a. CONTRACTOR MUST HAVE (2) TWO PERSONNEL AVAILABLE WITH RADIO COMMUNICATION FOR THE ENTIRE LENGTH OF THE WALK THROUGH
- UNLESS NEW ISSUES ARISE BETWEEN WALK THROUGHS, ONLY THOSE ITEMS AS INDICATED ON THE WALK THROUGH FOR SUBSTANTIAL COMPLETION PUNCH LIST WILL BE ADDRESSED. THIS VISUAL WALK THROUGH WILL CONSIST OF WALKING THROUGH THE PUNCH LIST ITEMS CREATED AT THE TIME OF THE WALK THROUGH FOR SUBSTANTIAL COMPLETION, AND EXAMINING OUTSTANDING ITEMS. ANY REMAINING DEFICIENCIES IN THE CONSTRUCTION AND WORKMANSHIP OF TH LANDSCAPE AS COMPARED TO THE PUNCH LIST GENERATED AT THE TIME OF THE WALK THROUGH FOR SUBSTANTIAL COMPLETION, CONSTRUCTION DRAWINGS, DETAILS AND SPECIFICATIONS WILL BE NOTED
- ONCE THE FINAL WALK THROUGH IS COMPLETED AND ALL ITEMS CREATED ON THE FINAL PUNCH LIST HAVE BEEN ADDRESSED, THE MAINTENANCE PERIOD MAY BEGIN, ANY ADDITIONAL WALK THROUGHS REQUIRED DUE TO CONTRACTORS' INABILITY TO ADDRESS ALL ISSUES ON THE PUNCH LISTS DESCRIBED ABOVE WILL BE PROVIDED AT THE CONTRACTOR'S EXPENSE

3.09 MAINTENANCE PERIOD:

- A THE MAINTENANCE PERIOD SHALL LAST FOR THIRTY (30) DAYS AFTER NOTIFICATION FROM THE LANDSCAPE ARCHITECT OF A SUCCESSFUL FINAL WALK THROUGH AND WILL BEGIN ONCE ALL ITEMS ON THE FINAL WALK THROUGH PUNCH LIST HAVE BEEN SATISFACTORILY ADDRESSED BY A WRITTEN STATEMENT INDICATING SUCH FROM THE LANDSCAPE ARCHITECT TO THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND FOLLOWING ANY MAINTENANCE MANUALS CREATED SPECIFICALLY FOR THE PROJECT FROM THE OWNER AT THE BEGINNING OF THE MAINTENANCE PERIOD.
- 2 ONCE THE CONTRACTOR HAS FULFILLED ALL MAINTENANCE AGREEMENT OBLIGATIONS THE MAINTENANCE PERIOD WILL END SEE SECTION 320533 LANDSCAPE MAINTENANCE, FOR MAINTENANCE RESPONSIBILITIES.

END OF SECTION 329300

DESIGNED BY SHEET DESCRIPTION APPROVED BY PEDLEY ROAD MEDIAN IMPROVEMENT DATE LANDSCAPE SPECIFICATIONS STA DESIGNED BY DRAWN BY CHECKED BY 52+00 TO STA 62+00 BA RΔ MP /YH

SHEET No.

P-05

SHEET 15 OF 25

SECTION 320533 LANDSCAPE MAINTENANCE

PART 1 - GENERAL

1.01 SUMMARY

- A THE WORK INCLUDES ALL SERVICES, LABOR, MATERIALS, TRANSPORTATION AND EQUIPMENT NECESSARY TO PERFORM THE WORK INDICATED ON THE DRAWINGS AND AS SPECIFIED. THE CONDITIONS OF THE CONTRACT APPLY TO THIS SECTION AS FULLY AS IF REPEATED HEREIN.
- 102 RELATED REQUIREMENTS:
 - A. SECTION 328400 IRRIGATION SYSTEM
- B. SECTION 329300 LANDSCAPING
- 103 DEFINITION
- A PESTICIDE: INCLUDES ANY OF THE FOLLOWING:
 - FUMIGANT
 HERRICIDE
 - 2 HERBICIDE
 - 3. INSECTICIDE
 - 5. RODENT REPELLENTS
- PLANTING BED: AN AREA COMPRISED OF TREES, SHRUBS, FLOWERS, AND GROUND COVER, EXCLUDING GRASS.
- 104 DELIVERY, STORAGE AND HANDLING OF MATERIALS FOR PERMENANTLY IRRIGATED AND TEMPORARILY IRRIGATED SLOPES AND FLAT AREAS:
 - A. FERTILIZER, GYPSUM, AND IRON SULPHATE: DELIVER TO THE SITE IN ORIGINAL CONTAINERS BEARING MANUFACTURERS CHEMICAL ANALYSIS, NAME, TRADE NAME, OR TRADEMARK, AND INDICATION OF CONFORMANCE TO STATE AND FEDERAL LAWS. INSTEAD OF CONTAINERS, FERTILIZER, AND GYPSUM MAY BE FURNISHED IN BULK WITH A CERTIFICATE INDICATING THE ABOVE INFORMATION.
 - B. PESTICIDES: DELIVER TO THE SITE IN ORIGINAL CONTAINERS WITH LEGIBLE LABEL INDICATING ENVIRONMENTAL PROTECTION AGENCY (EPA) REGISTRATION NUMBER AND MANUFACTURER'S REGISTERED USES.
- 105 STORAGE FOR PERMANENTLY PRRIGATED AND TEMPORARILY IRRIGATED SLOPES AND FLAT AREAS:
- A FERTILIZER, GYPSUM, IRON SULPHATE, AND MULCH: STORE IN DRY LOCATIONS AWAY
- B. PESTICIDES: DO NOT STORE WITH OTHER MAINTENANCE MATERIAL. STORE HERBICIDES 'DOWNWIND,' RELATIVE TO THE AIRFLOW FROM OTHER PESTICIDES.

PART 2 - PRODUCTS

- 201 PH ADJUSTERS:
- A SEE SPECIFICATION SECTION: 329300 LANDSCAPING
- 202 SOIL CONDITIONERS:
- A. SEE SPECIFICATION SECTION: 329300 LANDSCAPING
- 203 PLANTING BACKFILL:
- A. SEE SPECIFICATION SECTION: 329300 LANDSCAPING
- 204 FERTILIZERS:
- A. SEE SPECIFICATION SECTION; 329300LANDSCAPING
- 205 WATER
- A SEE SPECIFICATION SECTION: 329300 LANDSCAPING
- 206 PESTICIDES:
 - A SEE SPECIFICATION SECTION: 329300 LANDSCAPING

PART 3 - EXECUTION

MAINTENANCE REQUIREMENTS DURING THE THIRTY (30) DAY MAINTENANCE PERIOD:

A. SHRUBS:

- THE CONTRACTOR IS RESPONSIBLE FOR THE RESTORATION AND MAINTENANCE OF ALL VEGETATION INCLUDED IN THESE SPECIFICATIONS FOR THE DURATION OF THE MAINTENANCE PERIOD. DURING THE FIRST TWO WEEKS OF THE MAINTENANCE PERIOD, THE CONTRACTOR SHALL CONDUCT A SURVEY OF ALL AREAS AND IDENTIFY BY QUANTITY, SPECIES, AND LOCATION, ALL DEAD, DYING, AND DISEASED VEGETATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING DYING AND DISEASED VEGETATION TO A HEALTHY STATE IN ACCORDANCE WITH ACCEPTED HORTICULTURAL PRACTICE AND TREATMENT. THE ARCHITECT AND/OR OWNERS REPRESENTATIVE WILL BE THE FINAL AUTHORITY IN DETERMINING WHICH VEGETATION IS CONSIDERED DEAD OR IRREPARABLY DAMAGED, RESTORATION AND REPLACEMENT OF VEGETATION IS CONSIDERED ROUTINE MAINTENANCE AND SHALL BE ACCOMPLISHED AS OFTEN AS NECESSARY DURING THE MAINTENANCE PERIOD. VEGETATION REPLACEMENT SHALL BE ACCOMPLISHED WITHIN 5 DAYS AFTER THE CONTRACTOR DISCOVERS OR HAS BEEN NOTIFIED OF THE SITUATION. DISEASED OR DEAD VEGETATION SHALL BE REMOVED AND REPLACED WITH HEALTHY PLANTS OF THE SAME SPECIES. ALL REPLACEMENT PLANTS MUST BE APPROVED BY THE ARCHITECT AND/OR OWNER'S REPRESENTATIVE BEFORE PLANTING.
- 2 PLANTING BEDS SHALL BE CULTIVATED, PRUNED, TRIMMED, WEEDED, IRRIGATED, FERTILIZED, MULCHED, AND OTHERWISE MAINTAINED IN A MANNER THAT PRESENTS A PROFESSIONALLY LANDSCAPED APPEARANCE AT ALL TIMES. PLANT BEDS SHALL BE KEPT WEED, GOPHER, SQUIRREL, RABBIT AND PEST FREE. GROUND COVER SHALL NOT BE ALLOWED TO GROW INTO FLOWERS, SHRUBS OR TREES. PLANTING BEDS SHALL BE MAINTAINED IN A MANNER THAT PROVIDES BALANCE BETWEEN THE VARIOUS TYPES OF VEGETATION, AND PREVENTS DOMINANCE OF ANY ONE SPECIES. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN A MINIMUM OF THREE-INCH LAYER OF MULCH IN ALL PLANTING BEDS WITH A SLOPE GRADIENT OF 31 OR LESS. THE CONTRACTOR SHALL PROVIDE FOR THE SPECIAL NEEDS OF VARIOUS SPECIES. DISEASED OR DEAD VEGETATION SHALL BE REMOVED AND REPLACED WITH HEALTHY PLANTS OF THE SAME SPECIES.
- 3. THE CONTRACTOR SHALL NOT USE STEEL BOW TYPE RAKES OR EQUIPMENT OF SIMILAR DESIGN TO CLEAN PLANT BEDS. LIGHTWEIGHT FAN RAKES OR VACUUM EQUIPMENT MAY BE USED. THE CONTRACTOR SHALL MAINTAIN THE SOIL LEVEL IN THE PLANT BEDS, AND ENSURE ALL SURFACE ROOT SYSTEMS AND IRRIGATION PIPING ARE COVERED AS REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE CAUSED BY CONTRACTOR OPERATIONS AT NO ADDITIONAL COST TO THE OWNER.
- 4. SHRUBS AND VINES SHALL BE TRIMMED PRUNED, IRRIGATED, FERTILIZED TO PRESENT A HEALTHY AND MANICURED APPEARANCE. SHRUBS AND VINES WILL NOT BE ALLOWED TO ENCROACH INTO GRASS AREAS. A DEFINITE BREAK SHALL BE MAINTAINED BETWEEN GRASS AND SHRUB AREAS. IN SUCH AREAS THE CONTRACTOR SHALL MAINTAIN A HEALTHY AND WELL-BALANCED LANDSCAPE.
- 5. ALL SHRUBS, VINES, AND OTHER CULTIVATED PLANTS SHALL BE TRIMMED AND PRUNED ACCORDING TO THEIR NATURAL GROWTH CHARACTERISTICS FOR PROPER HEALTH AND ATTRACTIVE APPEARANCE. ALL CLIPPINGS SHALL BE REMOVED AND DISPOSED OF BY THE END OF EACH DAY. PRUNING SHALL, BE ACCOMPLISHED AS NECESSARY IN ACCORDANCE WITH CONDITIONS (A) THROUGH (D) SPECIFIED BELOW. SHRUBS AND VINES SHALL BE TRIMMED TO SHAPE FOR AESTHETIC APPEARANCE AND HEALTH AT THE FREQUENCY SPECIFIED IN THIS SECTION.
- A REMOVE GROWTH IN FRONT OF WINDOWS, OVER ENTRANCE WAYS OR WALKS, AND ANY GROWTH WHICH WILL OBSTRUCT VISION AT STREET INTERSECTIONS. SHRUBS AROUND PERIMETER OF BUILDINGS SHALL BE TRIMMED TO MAINTAIN NATURAL GROWTH CHARACTERISTICS.
- B. REMOVE DEAD, DAMAGED OR DISEASED BRANCHES OR LIMBS AND CROSSING, RUBBING AND INTERFERING BRANCHES.
- C. EVENLY FORM AND BALANCE THE SHRUB TO NATURAL GROWTH CHARACTRISTICS. HEDGES ARE TO BE TRIMMED TO MAINTAIN THEIR NATURAL GROWTH CHARACTERISTICS AND NOT ALLOWED TO OBSTRUCT PEDESTRIAN WALKWAYS. SHRUBS SHALL BE ALLOWED TO COMPLETELY FILL PLANTER BEDS. SHRUBS, HEDGES AND VINES SHALL NOT BE TRIMMED INTO ROUND, SQUARE AND OR GEOMETRIC SHAPES, SIDE GROWTH SHALL BE ALLOWED TO GROW UNLESS GROWTH IS IN FRONT OF WINDOWS, OVER ENTRANCE WAYS, STREETS, DRIVEWAYS, PARKING AREA OR WALKS, AND/OR ANY GROWTH WHICH WILL OBSTRUCT VISION AT STREET INTERSECTIONS.
- D. REMOVE GROWTH AGAINST OR OVER STRUCTURES AND INTO ANY TYPE OF ELECTRICAL OR TELEPHONE LINES (LEAVE GROWTH ON BLOCK WALLS).
- 6. SHRUBS SHALL BE PRUNED TO EVENLY FORM AND BALANCE PLANT TO NATURAL GROWTH CHARACTERISTICS. SHOOTS, SUCKERS, AND BRANCHES OF SHRUBS NOT CONFORMING TO DESIRED SHAPE AND SIZE SHALL BE REMOVED. RETAIN TYPICAL GROWTH HABIT OF INDIVIDUAL PLANTS WITH AS MUCH HEIGHT AND SPREAD AS IS PRACTICAL. SHRUBS SHALL BE ALLOWED TO COMPLETELY FILL PLANTER BEDS.
- ANY DEPRESSION OR MOUND AROUND THE BASE OF SHRUBS INTENDED TO RETAIN WATER IN PLACE FOR PROPER IRRIGATION SHALL BE MAINTAINED IN GOOD CONDITION TO PERMIT THE MOST EFFICIENT APPLICATION OF WATER AND REDUCE WASTE.
- 6. DO NOT FERTILIZE NATIVE PLANT MATERIAL AS SHOWN ON THE PLANTING LEGEND DURING THE MAINTENANCE PERIOD.

B. WEEDS, RODENT AND PEST CONTROL:

- WEED AND PEST CONTROL SHALL BE PERFORMED TO PREVENT ENCROACHMENT OF UNDESIRABLE VEGETATION AND NOXIOUS WEEDS, AND INFESTATION OF PEST (RODENT, INSECT AND FUNGUS) INTO ESTABLISHED LANDSCAPES, INCLUDING LAWNS AND AROUND TREES, SHRUBS, FLOWER BEDS, ETC. NOXIOUS WEEDS IN LANDSCAPED AND NATURAL GROWTH AREAS, PLANT BEDS AND LANDSCAPED AREAS SHALL NOT BE ALLOWED TO ESTABLISH THEMSELVES AND BE MAINTAINED WEED FREE ADDITIONALLY, WEED CONTROL IS TO BE PERFORMED TO ELIMINATE GRASS AND WEEDS IN CRACKS AND JOINTS ON ALL PAVED AND CONCRETED AREAS. WEED CONTROL IS TO BE PERFORMED TO PREVENT THE ENCROACHMENT OF VEGETATION INTO PERIMETER FENCES AND FIRE BREAKS. RODENT CONTROL SHALL BE PERFORMED AS REQUIRED TO MAINTAIN HEALTHY VIGOROUS PLANT GROWTH. LIVE OR DEAD RODENTS SHALL BE REMOVED WITHIN 24 HOURS FROM THE PROJECT PROPERTY AND PROPERLY DISPOSED OF. TREES, SHRUBS, TURF AND VEGETATION SHALL BE PROTECTED FROM ALL VARIETIES OF INSECT AND RODENT DAMAGE. PESTICIDES MAY BE USED TO CONTROL PESTS. PESTICIDES AND HERBICIDES SHALL BE VESD IN A MANNER, WHICH WILL NOT AFFECT LANDSCAPE PLANTS HEALTH.
- 2. ALL PESTICIDES, INCLUDING HERBICIDES, INSECTICIDES, FUNGICIDES, ETC, SHALL BE APPLIED ONLY BY PERSONS HOLDING A VALID STATE LICENSE FOR EACH CATEGORY OF PEST CONTROL WORK INVOLVED. ANY REQUIRED STATE, COUNTY, OR LOCAL PERMITS FOR POSSESSION, PROCUREMENT, OR USE OF ANY PESTICIDE SHALL BE OBTAINED AND COMPLIED WITH AT NO ADDITIONAL EXPENSE TO THE OWNER.
- 3. ALL PESTICIDES SHALL BE PROCURED, TRANSPORTED, STORED, HANDLED, AND APPLIED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S LABEL, WHICH SHALL BE REGISTERED WITH THE ENVIRONMENTAL PROTECTION AGENCY AND THE STATE OF CALIFORNIA. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE FEDERAL INSECTICIDE, FUNGICIDE, AND RODDENTICIDE ACT, 40 CFR TO-17, CCT ITILE 3, AND CCR TITLE 8. ALL PESTICIDE CONTAINERS SHALL BE MANAGED IN ACCORDANCE WITH THE REQUIREMENTS OF CCR TITLE 3, SECTION 6684 AND DISPOSED OF IN ACCORDANCE WITH CCR TITLE 22. EACH PESTICIDE FORMULATION SHALL BE REGISTERED FOR USE UNDER THE PARTICULAR ENVIRONMENTAL CONDITIONS UNDER WHICH IT WAS APPLIED. THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO PREVENT ANY DAMAGE OR ILLEGAL CONTAMINATION BY PESTICIDES TO VEGETATION, WATER, FISH, ANIMALS, AND HUMANS. THE CONTRACTOR SHALL BE HELD RESPONSIBLE AND LIABLE FOR ALL DAMAGE, CONTAMINATION, AND EFFECTS RESULTING FROM CONTRACTOR'S PESTICIDE LISE
- 4. PESTICIDE SPRAYING SHALL BE PERFORMED ONLY ON STILL DAYS AND WILL BE STOPPED WHEN UNFAVORABLE WEATHER OR OTHER CONDITIONS EXIST WHICH WOULD UNDULY INCREASE THE HAZARD TO PERSONNEL OR DESIRABLE VEGETATION BY DRIFT, RUNOFF, OR LEACHING THROUGH THE SOIL ANY PROJECT PROPERTY OR DESIRABLE VEGETATION DAMAGED BY THE CONTRACTOR DUE TO PESTICIDE APPLICATIONS SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- 5. PESTICIDE RINSE WATER OR EXCESS PESTICIDES FROM CONTRACTOR OPERATIONS SHALL BE COLLECTED BY THE CONTRACTOR IN AN APPROPRIATE RECEPTACLE AND DISPOSED OF AT AN APPROVED DISPOSAL SITE; OR SHALL BE APPLIED TO A SIMILAR TARGET AREA TO WHICH THE ORIGINAL APPLICATION WAS MADE AND IN THE SAME MANNER OF APPLICATION IF ALLOWED BY THE EPA REGISTERED LABEL
- 6. JOB SITE PESTICIDE APPLICATIONS SHALL BE MADE BY PERSONNEL CAPABLE OF IDENTIFYING THE PEST SPECIES TO BE CONTROLLED, KNOWLEDGEABLE OF CONTROL TECHNIQUES, AND ABLE TO APPLY PESTICIDE ACTIVE INGREDIENTS AT PRESCRIBED DOSAGES AND RATES OF APPLICATION, AS REQUIRED BY THE LABEL TO ACHIEVE THE REQUIRED CONTROL UNDER JOB SITE CONDITIONS, WITHOUT DANGER TO PEOPLE, PETS OR OTHER NON-TARGET ANIMALS, PLANTS, OR PROPERTY.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING A SPILL KIT ON SERVICE VEHICLES AND FOR REPORTING AND CLEANING PESTICIDE SPILLS AS REQUIRED BY STATE LAWS AND REGULATIONS. THE CONTRACTOR SHALL SUBMIT A WRITTEN REPORT OF SPILLS ON OR IN PROJECT PROPERTY, WITHIN 8 HOURS OF INCIDENT TO THE OWNER ON COMPANY LETTERHEAD.

C. IRRIGATION AND IRRIGATION SYSTEM MAINTENANCE:

- THE CONTRACTOR SHALL PLAN AND ADJUST IRRIGATION SCHEDULES FOR AUTOMATIC, HAND OR PORTABLE IRRIGATION SYSTEMS BASED ON MINIMAL WATER REQUIREMENTS WITH THE FOLLOWING CONSIDERATIONS:
- THE PRECIPITATION RATES OF IRRIGATION COMPONENTS
 SOIL WATER INFILTRATION RATE AND HOLDING CAPACITY
- c. EXPOSURE
- d. PLANT MATERIAL
- e. SITE CLIMATE CONDITIONS
 - ET (EVAPOTRANSPIRATION) RATE SLOPE

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ADJUST CONTROLLERS AND/OR HAND/PORTABLE IRRIGATION APPLICATION TO COMPENSATE FOR WEEKLY ENVIRONMENTAL CHANGES FOR THE DURATION OF THE MAINTENANCE PERIOD. THE CONTRACTOR SHALL PERFORM IRRIGATION IN A MANNER THAT PROMOTES THE HEALTH, GROWTH, COLOR AND APPEARANCE OF CULTIVATED VEGETATION

- 2. IRRIGATION INCLUDES WATERING OF SHRUBS AND PLANTS FOR BOTH PERMANENTLY IRRIGATED SLOPES AND FLAT AREAS, CARE SHALL BE EXERCISED BY REGULATING THE TIME AND EQUIPMENT TO PREVENT WASTING OF WATER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO APPLY ENOUGH WATER TO ASSURE AND MAINTAIN THE HEALTH AND VIGOR OF ALL SHRUBS AND PLANTED AREAS. IRRIGATION CONTROLLERS SHALL BE PROGRAMMED FOR NO IRRIGATION DURING PERIODS OF RAIN THAT EXCEED TWELVE HOURS OF RAINFALL IN ONE DAY OR DURING RAIN STORMS OF ONE DAY OR MORE. ONCE RAIN HAS SUBSIDED CONTROLLERS SHALL BE REPROGRAMMED FOR IRRIGATION OPERATIONS. CONTROLLERS SHALL ALSO BE CHECKED AND RESET IF NECESSARY AFTER POWER OUTAGES.
- 3. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT NECESSARY TO PERFORM ALL IRRIGATION OPERATIONS. IN THE EVENT THAT AN AREA HAS NO WATER SUPPLY DUE TO A SYSTEM FAILURE, THE CONTRACTOR SHALL PROVIDE A SUPPLY BY EITHER HOSE OR TRUCK ALL VALVES AND VALVE BOX COVERS SHALL BE KEPT CLOSED AT ALL TIMES EXCEPT WHEN IN ACTUAL USE.
- 4. IRRIGATION EQUIPMENT SHALL BE KEPT CLEAR OF ANY OBSTRUCTIONS INCLUDING PLANT MATERIAL DIRT OR OTHER DEBRIS SURROUNDING SPRINKLER HEADS, WHICH PREVENTS PROPER OPERATION, SHALL BE REMOVED. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO PROJECT PROPERTY CAUSED BY CARELESS HANDLING OF IRRIGATION EQUIPMENT INCLUDING SLOPE FAILURE AT NO ADDITIONAL COST TO THE OWNER.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF ALL COMPONENTS OF THE IRRIGATION SYSTEM FOR THE DURATION OF THE MAINTENANCE PERIOD. THIS INCLUDES IRRIGATION EQUIPMENT ITEMS AS SHOWN ON THE ORIGINAL IRRIGATION DRAWINGS. MAINTENANCE AND REPAIRS OF IRRIGATION EQUIPMENT DURING THE MAINTENANCE PERIOD SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER. MAINTENANCE SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
- A. REPAIR OR REPLACE BROKEN, MISSING, OR DEFECTIVE DRIP TUBING AND COMPONENTS. REPAIRS SHALL INCLUDE ALL FITTINGS AS SPECIFIED IN THE ORIGINAL IRRIGATION DRAWINGS.
- B. REPAIR OR REPLACE DEFECTIVE OR MALFUNCTIONING CONTROL VALVES (ELECTRIC AND/OR MANUAL) AND MASTER VALVES. CLEAN AND SERVICE VALVES. THE CONTRACTOR SHALL REPLACE ANY DAMAGED OR MISSING VALVE BOXES OR VALVE LIDS. VALVE BOX LIDS SHALL BE KEPT IN PLACE AT ALL TIMES. BARRICADES SHALL BE PLACED OVER ANY VALVE BOXES WITH MISSING LIDS UNTIL REPLACED. VALVE BOXES SHALL BE KEPT LEVEL WITH EXISTING GRADE AS SHOWN ON THE DRAWINGS.
- C. MAINTAIN, SERVICE, REPAIR OR REPLACE CONTROLLER SYSTEMS AS SPECIFIED BY THE PRODUCT MANUFACTURER.
- D. SYSTEM REPAIRS AND REPLACEMENT SHALL BE ACCOMPLISHED WITH NEW PARTS AND EQUIPMENT THAT ARE IDENTICAL TO EXISTING.
- E. THE CONTRACTOR IS RESPONSIBLE FOR REQUIRED IRRIGATION BY ANY MEANS DURING THE PERIODS OF SYSTEM BREAKDOWN.

D. FERTILIZER APPLICATION DURING THE MAINTENANCE PERÍOD

- APPLY FERTILIZER IN A MANNER THAT PROMOTES HEALTH, GROWTH, COLOR AND APPEARANCE OF CULTIVATED VEGETATION AT APPLICATIONS RATES DESCRIBED IN SECTIONS 329300 LANDSCAPING FOR THE DURATION OF THE MAINTENANCE PERIOD.
- E. FALLEN VEGETATION AND DEBRIS REMOVAL:
 - 1. THE CONTRACTOR SHALL POLICE THE ENTIRE PROJECT AREA INCLUDING ALL PAYED AREAS, PLANTERS, LAWN AREAS, SIDEWALKS (INCLUDING COMMON AREA SIDEWALKS) AND TRASH ENCLOSURES AND COLLECT FALLEN LEAVES, BRANCHES AND LIMBS REGARDLESS OF LENGTH OR DIAMETER, DEAD VEGETATION, PAPER, TRASH, CIGARETTE BUTTS, GARBAGE, ROCKS, AND ANY AND ALL OTHER DEBRIS TO PREVENT UNSIGHTLY AND INORDINATE ACCUMULATIONS DURING NORMAL MAINTENANCE WORKING HOURS. SIDEWALKS SHALL BE SWEPT OR WASHED AS NECESSARY TO KEEP FREE OF TRASH AND GRAFFITI. COLLECTED ITEMS SHALL BE PROMPTLY REMOVED AND TAKEN TO A LEGAL DISPOSAL SITE.

F. REMOVAL OF DEAD ANIMALS:

 REMOVAL AND LEGAL DISPOSAL OF ANIMAL CARCASSES ARE CONSIDERED A NORMAL MAINTENANCE TASK FOR THE DURATION OF THE MAINTENANCE PERIOD. DEAD CARCASSES SHALL BE LEGALLY REMOVED IMMEDIATELY WHEN DISCOVERED BY THE CONTRACTOR.

SHEET No.

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WHILE PREVENTING OVER WATERING, WATER RUN-OFF, EROSION AND PONDING.

DESIGNED BY

APPROVED BY:

MITCHELL S. PHILLIPPE DATE

PRINCIPAL IN CHARGE

DESIGNED BY DRAWN BY CHECKED BY

BA BA MP/YH

PEDLEY ROAD
MEDIAN IMPROVEMENT
LANDSCAPE
SPECIFICATIONS
STA 52+00 TO STA 62+00

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G. EROSION CONTROL:

- 1 THE CONTRACTOR IS RESPONSIBLE FOR DAILY VISUAL INSPECTION OF SLOPES AND IMMEDIATELY REPORTING AREAS EXPERIENCING EROSION TO THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE ON THE SAME DAY NOTICED. IF THE CONTRACTOR FAILS TO NOTIFY THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE OF AREAS EXPERIENCING EROSION ON THE SAME DAY NOTICED, THEN THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ANY EROSION CONTROL MEASURES AND/OR REPAIRS AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
- 2 UPON NOTIFICATION AND AGREEMENT OF THE APPLICABLE EROSION CONTROL MEASURE BY THE LANDSCAPE ARCHITECT, THE OWNER AND THE CONTRACTOR, THE CONTRACTOR IS RESPONSIBLE FOR IMMEDIATELY REPAIRING AND CORRECTING ANY PROGRESSIVE BILLING THAT MAY OCCUR.
- 3. EROSION CONTROL MEASURES MAY INCLUDE BUT NOT BE LIMITED TO:
- a. FILLING
- b. RAKING
- c. REDIRECTING RUNOFF
- PROPERLY PROGRAMMING IRRIGATION OPERATIONS
- REPLANTING
- PROVIDING ADDITIONAL EROSION CONTROL MATERIALS SUCH AS:
- 1) JUT MATTING
- FILTER FABRI
- HAY BALES
- 4) HAY ROLLS 5) SILT FENCING
- 6) SAND BAGS
- 7) AND/OR OTHER EROSION CONTROL ITEMS AS REQUIRED TO MAINTAIN HEALTHY PLANT MATERIAL AND STABLE SLOPES.
- 4. ADDITIONAL EROSION CONTROL MEASURES REQUIRED DUE TO IRRIGATION OPERATIONS PROGRAMMED BY THE CONTRACTOR THAT DID NOT TAKE INTO ACCOUNT CYCLE AND SOAK FUNCTIONS OF THE CONTROLLER WILL BE INSTALLED AND/OR REPAIRED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
- H. FREQUENCY OF MAINTENANCE OPERATIONS

FREQUENCY: SHRUB AND VINE RESTORATION AND REPLACEMENT: AS REQUIRED WEEDING: PRUNING: AS REQUIRED TREE REPLACEMENT: AS REQUIRED TREE STAKING: AS REQUIRED PESTICIDE APPLICATIONS: DEBRIS REMOVAL & DISPOSAL: AS REQUIRED AS REQUIRED IRRIGATION SYSTEM MAINTENANCE: AS REQUIRED FERTILIZER APPLICATION: AS REQUIRED FALLEN VEGETATION AND DEBRIS REMOVAL: TWICE WEEKLY REMOVAL OF DEAD ANIMALS: AS REQUIRED RE-MULCHING (MAINTAINED AT 3 INCHES): AS REQUIRED EROSION CONTROL: AS REQUIRED

- L AT THE END OF THE THIRTY (30) DAY MAINTENANCE PERIOD, THE CONTRACTOR SHALL REQUEST A POST-MAINTENANCE WALK THROUGH WITH THE LANDSCAPE ARCHITECT. PRIOR TO REQUESTING THIS WALK THROUGH THE FOLLOWING REQUIREMENTS MUST BE ENTIRELY SATISFIED:
 - ANY OUTSTANDING MAINTENANCE ITEMS THAT WERE PREVIOUSLY DIRECTED TO BE COMPLETED BY THE RESTORATION SPECIALIST.
- J. PRELIMINARY POST MAINTENANCE WALK THROUGH: ONCE THE ABOVE REQUIREMENTS HAVE BEEN MET A PRELIMINARY POST MAINTENANCE WALK THROUGH MAY BE SCHEDULED. AT THE PRELIMINARY POST MAINTENANCE WALK THROUGH, THE FOLLOWING PROCEDURES WILL BE USED:
- CONTRACTOR MUST HAVE (2) TWO PERSONNEL AVAILABLE WITH RADIO COMMUNICATION FOR THE ENTIRE LENGTH OF THE WALK THROUGH.
- 2 A VISUAL WALK THROUGH OF THE ENTIRE LANDSCAPE AREA WILL TAKE PLACE CONSISTING OF AN EXAMINATION OF PLANTING AREAS AND NOTING ANY REMAINING MAINTENANCE ITEMS TO BE COMPLETED.
- 3. ONCE THE PRELIMINARY POST MAINTENANCE WALK THROUGH HAS BEEN COMPLETED, THE LANDSCAPE ARCHITECT SHALL PREPARE A PUNCH LIST OF OUTSTANDING ITEMS TO BE COMPLETED AND WILL PROVIDE A COPY OF THIS LIST TO THE OWNER AND CONTRACTOR FOR REVIEW AND USE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, REPLACE, AND ADJUST ALL ITEMS ON THE PUNCH LIST PRIOR TO REQUESTING A FINAL POST MAINTENANCE WALK THROUGH.
- K. FINAL POST MAINTENANCE WALK THROUGH; BEFORE COMMENCEMENT OF A FINAL POST MAINTENANCE WALK THROUGH, EACH ITEM ON THE PRELIMINARY POST MAINTENANCE WALK THROUGH PUNCH LIST MUST BE THOROUGHLY SATISFIED, ADDRESSED, AND RESOLVED BY THE CONTRACTOR. ONCE THE ABOVE REQUIREMENT HAS BEEN MET A FINAL POST MAINTENANCE WALK THROUGH MAY BE REQUESTED. AT THE FINAL POST MAINTENANCE WALK THROUGH, THE FOLLOWING PROCEDURES WILL BE USED:
 - 1 CONTRACTOR MUST HAVE (2) TWO PERSONNEL AVAILABLE WITH RADIO COMMUNICATION FOR THE ENTIRE LENGTH OF THE WALK THROUGH.
 - 2. ONLY THOSE ITEMS AS INDICATED ON THE PRELIMINARY POST MAINTENANCE WALK THROUGH PUNCH LIST WILL BE ADDRESSED. THIS VISUAL WALK THROUGH WILL CONSIST OF WALKING THROUGH THE PUNCH LIST ITEMS CREATED AT THE TIME OF THE PRELIMINARY POST MAINTENANCE WALK THROUGH, AND EXAMINING OUTSTANDING ITEMS. ANY REMAINING DEFICIENCIES IN THE MAINTENANCE OF THE WETLANDS MITIGATION WILL BE NOTED.

MP/YH

3. ONCE THE FINAL POST MAINTENANCE WALK THROUGH IS COMPLETED AND ANY OUTSTANDING ITEMS CREATED ON THE FINAL PUNCH LIST HAVE BEEN ADDRESSED THE MAINTENANCE PERIOD MAY END. ANY ADDITIONAL WALK THROUGHS REQUIRED DUE TO CONTRACTORS' INABILITY TO ADDRESS ALL ISSUES ON THE PUNCH LISTS DESCRIBED ABOVE WILL BE PROVIDED AT THE CONTRACTORS EXPENSE.

END OF SECTION 320533

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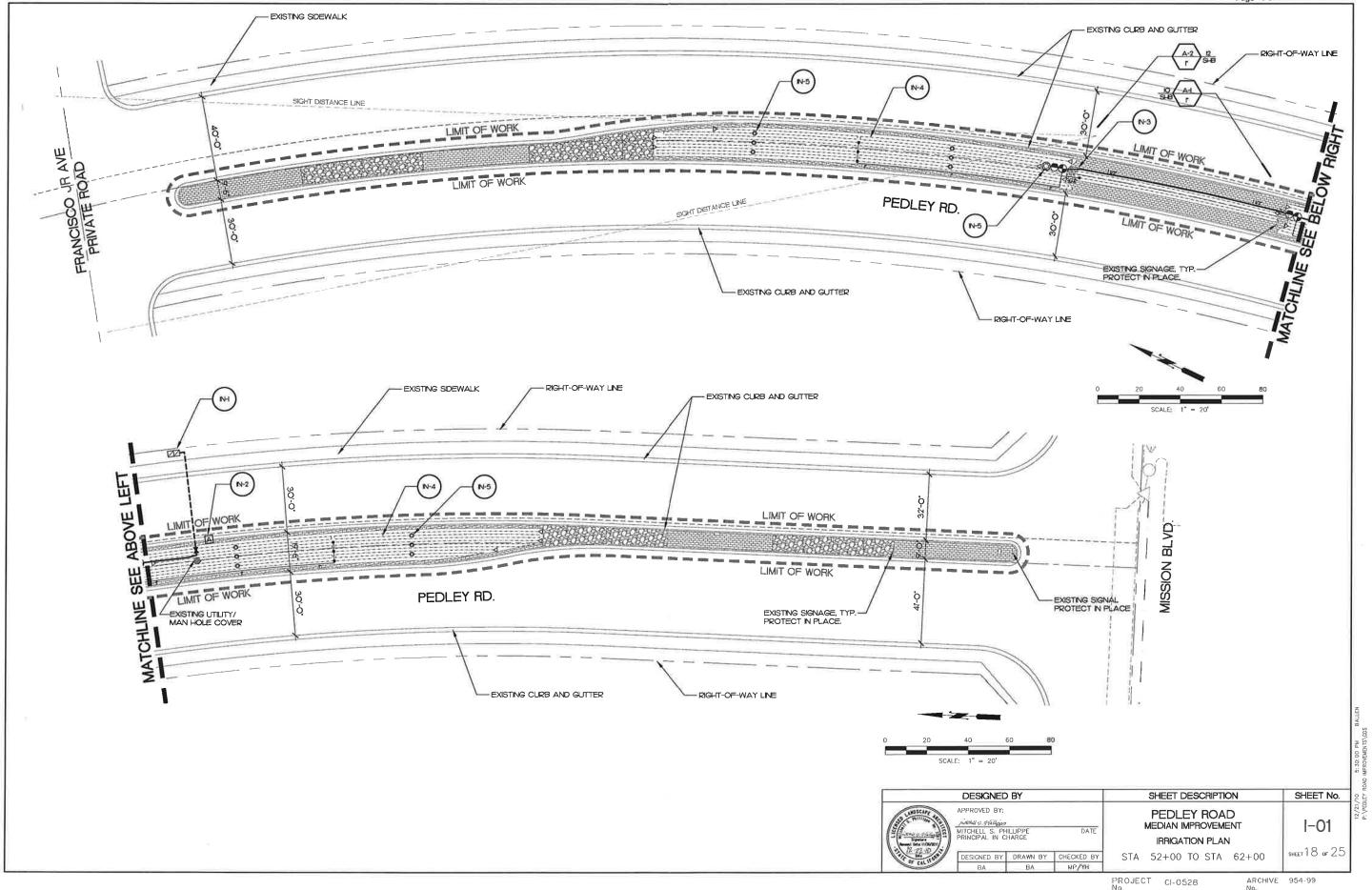
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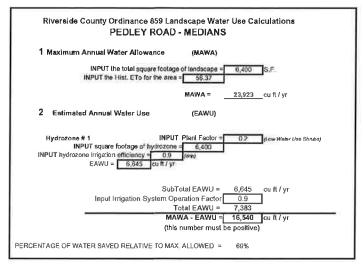
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IRRIGATION LEGEND:

SYMBOL	MANUFACTURER:	MODEL NUMBER	DESCRIPTION	DETAIL
•	IRRITROL IRRITROL TORO DIG CORP. DIG CORP.	700 SERIES OMR-100 ALFSIOI50-X LEMA 1600 HE 30-924	ELECTRIC CONTROL VALVE OMN REGULATOR FOR ELECTRIC CONTROL VALVE PLASTIC Y-MODEL FILTER DC LATCLING SOLENOID SOLENOID PLASTIC ADAPTER	101 101 101 101 101
-	RAN BIRD RAN BIRD RAN BIRD	33DLRC 33DK SH-O	QUICK COUPLING VALVE QUICK COUPLING VALVE KEY (PROVIDE 2) HOSE SWIVEL FOR VALVE KEY (PROVIDE 2)	HO
•	TORO	VARIES	5/8" LOCK-EZE FITTINGS FOR DRIP LINE	HO2 THRU HO5
0	TORO	YD-500-34	AR/VACUUM RELIEF VALVE	H05
Δ	SPEARS	2122	MANUAL FLUSH VALVE	HO6
A	EXISTING DIG CORP. DIG CORP.	LETT 4004 LETT KEY	RRIGATION CONTROLLER ENCLOSURE SOLAR POWERED RRIGATION CONTROLLER KEY FOR SOLAR POWERED RRIGATION CONTROLLES (PROVIDE A TOTAL OF 4)	?
(2)	APPROVED	APPROVED	SPARE WIRE BOX	HI
	TORO	T-PCBI853-18-500	BROWN PRESSURE COMPENSATING DRIP LINE W/STEEL STAPLE MODEL # SS6-50	HO2 THRU HO5 HO3
15	APPROVED	PVC SCH4O	NON-PRESSURE LATERAL LINE (MINIMUM 18° COVERAGE)	H07 E H08
	EXISTING		IRRIGATION SLEEVE AND WIRE CONDUIT	HO8
	APPROVED	PVC SCH4O	PRESSURE SUPPLY LINE (MINIMUM 12" COVERAGE)	HO7 & HO8
	EXISTING	EXISTING	IRRIGATION SERVICE LATERAL	
H	NIBCO	T-113-K	ISOLATION GATE VALVE WITH CROSS HANDLE	I-I2
	EXISTING VIT PRODUCTS VIT PRODUCTS	EXISTING SBBC-30SS QP-30BF	BACKFLOW PREVENTION DEVICE VANDAL RESISTANT BACKFLOW ENCLOSURE (POWDER COAT ENCLOSURE GREEN) QUICK PAD FOR BACKFLOW ENCLOSURE	H3 H3 H3

WATER USE CALCULATIONS:



RUN TIMES:

Pedley Road

MINIMUM IRRIGATION RUN TIMES FOR CONTROLLER "A"

SYSTEM RUN TIME WATER DAYS PER WEEK:

CIMIS STN. 44	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
Eto Average per month	2.49	2.91	4.16	5.27	5.94	6.56	7.22	6.92	5.35	4.05	2.94	2.56
Eto Average per month Eto Average per day	0.080	0.104	0.134	0.176	0.192	0.219	0.233	0.223	0.178	0.131	0.098	0.083

				RT/DAY	RT/DAY	RT/DAY	RT/DAY	RT/DAY	RT/DAY	RT/CAY	RT/DAY	RT/DAY	RT/DAY	RT/DAY	RT/DA'
STA	SYSTEM TYPE	PLANT TYPE	GPM	JAN.	FEB.	MAR	APR.	MAY	JUN.	JUL	AUG.	SEP.	OCT.	NOV.	DEC.
A-1	DRIP	SHB	10	3.0	3.8	5.0	6.5	7.1	8.1	8.6	8.3	6.6	4.8	3.6	3.1
A-2	DRIP	SHB	12	3.0	3.8	5.0	8.5	7.1	8.1	8.6	8.3	6,6	4.8	3.6	3.1

Г	CONTROLLER A - TOTAL MINUTES PER DAY CONTROLLER A - TOTAL HOURS PER DAY	5.95	7.70	9.94	13.01	14,19	16.20	17.25	16.54	13.21	9.68	7.26	6.12
Г	CONTROLLER A - TOTAL HOURS PER DAY	0.10	0.13	0.17	0.22	0.24	0.27	0.29	0.28	0.22	0.16	0.12	0.10

Pedley Road

ESTABLISHMENT IRRIGATION RUN TIMES FOR CONTROLLER "A"

Updaled: 12-21-10 SYSTEM RUN TIME WATER DAYS PER WEEK:

2.49 2.91 4.16 5.27 5.94 6.56 7.22 0.080 0.104 0.134 0.176 0.192 0.219 0.233

				RT/DAY	RT/DAY	RT/DAY	RT/DAY	RT/DAY	RT/DAY	RT/CAY	RT/DAY	RT/DAY	RT/DAY	RT/DAY	RT/DA
STA.	SYSTEM TYPE	PLANT TYPE	GPM	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL	AUG	SEP.	OCT.	NOV.	DEC.
A-1	DRIP	SHB	10	4.2	5.4	7.0	9.1	10.0	11.4	12.1	11.6	9,3	6.8	5.1	4.3
A-2	DRIP	SHB	11	4.2	5.4	7.0	9.1	10.0	11.4	12.1	11.6	9.3	6.8	5.1	4.3

CONTROLLER A - TOTAL MINUTES PER DAY												
CONTROLLER A - TOTAL HOURS PER DAY	0.14	0.18	0.23	0.30	0.33	0.38	0.40	0.39	0.31	0.23	0.17	0.14

STATION NUMBER GALLONS PER MINUTE ELECTRIC CONTROL VALVE SIZE CONSTRUCTION NOTE

ALL PRODUCTS LISTED ABOVE SHALL BE INSTALLED AS SPECIFIED OR AS APPROVED EQUAL

GENERAL IRRIGATION NOTES:

- THESE PLANS WERE PREPARED USING BASE INFORMATION PROVIDED BY THE COUNTY OF RIVERSIDE TRANSPORTATION AND LAND MANAGEMENT AGENCY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF THIS BASE COMPARED TO ACTUAL FIELD CONDITIONS PRIOR TO ORDERING MATERIALS AND/OR BEGINNING WORK AND IMMEDIATELY NOTIFYING THE LANDSCAPE ARCHTECT OF ANY DISCREPANCIES. IN THE EVENT THAT THE CONTRACTOR FALS TO VERIFY THE ACCURACY OF THE BASE INFORMATION AND/OR FALS TO IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT OF DISCREPANCES PRIOR TO ORDERING MATERIALS AND/OR BEGINNING WORK, THEN THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ANY AND ALL ADDITIONAL LABOR AND MATERIALS AS DIRECTED BY THE LANDSCAPE ARCHITECT TO RESOLVE SUCH DISCREPANCIES AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY AND ALL DAMAGES WHICH OCCUR DUE TO THE CONTRACTOR'S FALLIRE TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR REPLACING ALL EQUIPMENT AND/OR MATERIALS OUTSIDE OF THE LIMIT OF WORK WHICH ARE DAMAGED DURING CONSTRUCTION, WITH MATERIALS IN-KIND, AT NO ADDITIONAL COST TO THE OWNER.
- REFER TO THE IRRIGATION DETAILS, LEGEND AND SPECIFICATIONS FOR PRODUCT INSTALLATION AND EXECUTION PROCEDURES.
- SYSTEM FLOW VELOCITIES SHALL NOT EXCEED 5 FEET PER SECOND, IN THE EVENT THAT RRIGATION ZONES ARE ALTERED DURING CONSTRUCTION, THE CONTRACTOR ASSUMES THE RESPONSIBILITY OF SIZING THE LATERAL LINES ACCORDINGLY, AT NO ADDITIONAL COST TO THE
- PRIOR TO REQUESTING A WALK THROUGH FOR SUBSTANTIAL COMPLETION, ALL REQUIREMENTS IN THE CONSTRUCTION NOTES AND SPECIFICATIONS SHALL BE COMPLETED BY THE CONTRACTOR. REFER TO SPECIFICATIONS FOR QUALITY CONTROL MEASURES.
- DURING THE FINAL WALK THROUGH OF CONSTRUCTION IF IT IS FOUND THAT THE TUBING SPACING WAS NOT COMPLETED PER PLAN AND/OR THE MANUFACTURER'S RECOMMENDATIONS THEN THE CONTRACTOR SHALL ADD ADDITIONAL TUBING RUNS, OR RE-ALIGN TUBING RUNS AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE
- CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING ALL FITTINGS AND MATERIALS FOR INSTALLATION OF COMPLETE IRRIGATION SYSTEM PER PLANS.
- LOCATION OF IRRIGATION LINES AND SYMBOLS ARE DIAGRAMMATIC. ALL IRRIGATION SHALL BE PLACED IN PLANTING AREAS EXCEPT WHEN CROSSING PAVEMENT
- NO LOW HEAD DRAINAGE ALLOWED.

CONSTRUCTION NOTES:

- EXISTING BACKFLOW PREVENTION DEVICE LOCATION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING BACKFLOW PREVENTION DEVICE IN THIS APPROXIMATE LOCATION. ONCE CONTRACTOR HAS LOCATED BACKFLOW PREVENTION DEVICE, CONTRACTOR SHALL SHUT DOWN WATER SUPPLY AT WATER METER, ONCE WATER SUPPLY HAS BEEN SHUT DOWN, CONTRACTOR SHALL REMOVE EXISTING BACKFLOW PREVENTION DEVICE AND CONCRETE PAD, DISPOSING OF ALL CILD PPING AND CONCRETE. CONTRACTOR SHALL THEN RE-INSTALL BACKFLOW PREVENTION DEVICE WITH ALL NEW PPING FROM THE WATER METER AND VANDAL BEEN SHALL BACKFLOW PREVENTION DEVICE WITH ALL NEW PPING FROM THE WATER METER AND VANDAL BEEN SHALL THE RESISTANT CASES. VANDAL RESISTANT CAGE / OLICK PAD PER DETAL H4, THIS SHEET. ONCE BACKFLOW HAS BEEN INSTALLED, CONTRACTOR SHALL CONNECT NEW BACKFLOW PIPING TO EXISTING IRRIGATION SERVICE LATERAL THAT CROSSES THE NORTH BOUND LANE OF PEDELY ROAD USING ALL APPROPRIATE FITTINGS. FINALLY, CONTRACTOR SHALL INSTALL ISOLATION GATE GATE VALVE IN MEDIAN, ON MEDIAN SIDE OF EXISTING RRIGATION SERVICE LATERAL PER DETAL H3, USING ALL APPROPRIATE FITTINGS, ISOLATION GATE VALVE SHALL SERVE AS TRANSITON BETWEEN EXISTING RRIGATION SERVICE LATERAL AND NEW PORTION OF PRESSURE SUPPLY LINE.
- EXISTING RRIGATION CONTROLLER LOCATION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING RRIGATION CONTROLLER ENCLOSURE AND CONTROLLER IN THIS APPROXIMATE LOCATION. ONCE THE CONTRACTOR HAS LOCATED THE EXISTING RRIGATION CONTROLLER. CONTRACTOR SHALL REMOVE CONTROLLER CURRENTLY MOUNTED INSIDE ENCLOSURE AND REPLACE WITH NEW IRRIGATION CONTROLLER PER LEGEND, PROTECTING ENCLOSURE IN PLACE. ONCE NEW IRRIGATION CONTROLLER HAS BEEN INSTALLED, CONTRACTOR SHALL BE RESPONSIBLE FOR THE THE INSTALLATION OF NEW CONTINUOUS 14 GAUGE CONTROL WIRE AND COMMON WIRE TO THE NEW BLECTRIC CONTROL VALVES. CONTRACTOR SHALL LABEL ALL WIRES WITHIN I'OF THE TERMINAL STRP AND AT EACH NEW CONTROL VALVE PER LOCAL GOVERNING CODES AND REGULATIONS. CONTRACTOR SHALL ALSO BE RESPONSBLE FOR ADDING (2) TWO CONTINUOUS GREEN SPARE WIRES AND (1) ONE CONTINUOUS WHITE SPARE WIRE TO EACH END OF RIGATION PRESSURE SUPPLY LINE ON MEDIAN PROJECT. SPARE WIRES SHALL BE COLED IN LAST VALVE BOX FOR FUTURE USE PER DETAIL.

CONTROL AND COMMON WIRE FOR CONTROLLERS A SHALL BE CODED AS FOLLOWS:

WIRE CONNECTION WIRE COLOR: COMMON WIRE CONTROLLER A WHITE WITH RED STRIPE

EXISTING SLEEVE AND WIRE CONDUIT LOCATION MAY VARY. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING SLEEVE(S) AND WIRE CONDUIT(S) BETWEEN PLANTING AREAS PRIOR TO BEGINNING ANY WORK. IF SLEEVES ARE NOT FOUND OR ARE NOT OF SUFFICIENT SIZE FOR PRESSURE SUPPLY LINE, LATERAL LINE OR WIRES LINE CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER AND/OR OWNER'S REPRESENTATIVE. IF CONTRACTOR FALS TO NOTIFY OWNER AND IT IS FOUND THAT IN FACT SLEEVING OR WIRE CONDUIT DO NOT EXIST CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ANY SLEEVING AND / OR WIRE CONDUIT AT THE DIRECTION OF THE OWNER AT NO ADDITIONAL COST INCLUDING REMOVAL AND

SUB SURFACE PRESSURE COMPENSATING DRIP LINE.

CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING ALL EARTHWORK AND PLANTING OPERATIONS PRIOR TO LAYING OUT PRESSURE COMPENSATING DRIP LINE.

DRP LINE LAYOUT SHOWN IS DIAGRAMMATIC AND FOR REFERENCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR STARTING FIRST ROW OF DRP LINE 12' FROM THE HARDSCAPE EDGE AND SPACING EACH LINE AFTER THAT AT 18' ON CENTER FOR EVEN DISTRIBUTION OF WATER TO

CONTRACTOR SHALL BE RESPONSIBLE FOR USING DETAILS AND MANUFACTURERS SPECIFICATIONS FOR LAYOUT OF ON-GRADE DRIP LINE. BEFORE INSTALLATION OF ACTUAL DRIP LINE CONTRACTOR SHALL CLEARLY MARK DRIP LINE LAYOUT FOR APPROVAL ON THE FIRST ZONE BEFORE COMMENCING WORK.

CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR USING STEEL STAPLES AT 4' - 6' ON CENTER ALONG ALL DRP LINE RUNS AND AT ALL FITTINGS PER MANUFACTURER'S SPECIFICATIONS.

AT NO TIME SHALL DRIP LINE EXCEED FACTORY SPECIFICATIONS.

SCRATCH DRIP LINE 3" - 4" INTO FINISH GRADE.

- AR/VACUUM RELIEF VALVES ARE SHOWN DIAGRAMMATICALLY. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AR / VACULIM RELEF VALVES AT ALL HIGH POINTS ON DRIP LINE PER MANUFACTURERS SPECIFICATIONS. INSTALL (1) ONE AR / VACULIM RELIEF VALVE PER EACH
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXTENSION OF (2) TWO CONTINUOUS GREEN SPARE WIRES AND (1) ONE CONTINUOUS WHITE SPARE WIRE TO THIS APPROXIMATE LOCATION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOOPING (1) ONE OF THE CONTINUOUS GREEN SPARE WIRES THROUGH EACH VALVE BOX AS SHOWN ON DETAIL H2.



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PEDLEY ROAD MEDIAN IMPROVEMENT

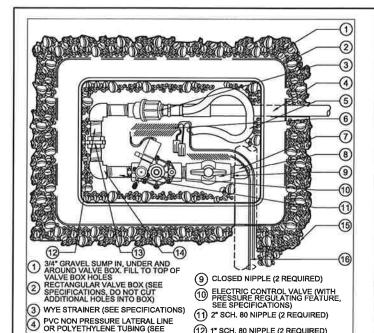
SHEET DESCRIPTION

IRRIGATION LEGEND AND NOTES STA 52+00 TO STA 62+00 SHEET No.

PROJECT CI-0528

ARCHIVE 954-99

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SPECIFICATIONS)

18" LENGTH OF POLYETHYLENE TUBING (3) SCH. 80 PVC UNION (LINE SIZE)

© USE 1/2" PVC SCRAP TO WRAP 12" OF PVC SCH. 40 FIP X FIP ELL

B ADDITIONAL WIRE BEFORE CONNECTING (12 REQUIRED)

PVC SCH. 40 FIP X FIP ELL CONNECTING (13 REQUIRED)

RISER FROM PVC PRESSURE SUPPLY LINE (13 REVEL SUMP)

DRIP VALVE ASSEMBLY

WITH BALL VALVE

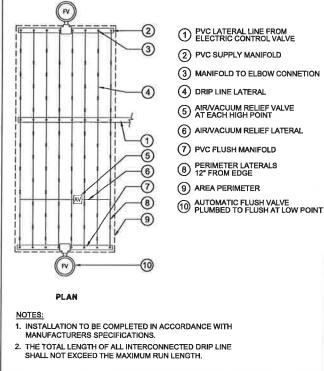
8 SCH. 80 PVC BALL VALVE (LINE SIZE)

16 SPARE WIRE, LOOP IN VALVE BOX AND TERMINATE AT SPARE WIRE BOX

SPECIFICATIONS)

STD. I-036 3"= 1'-0"

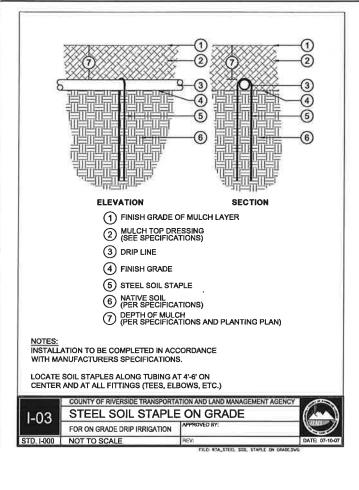
(12) 1" SCH. 80 NIPPLE (2 REQUIRED)

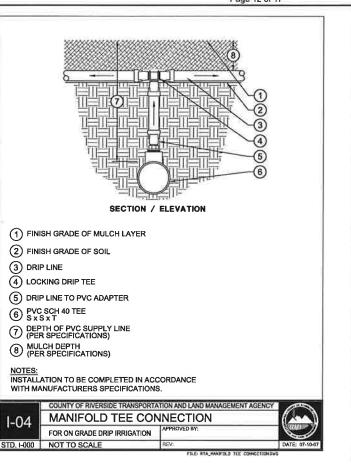


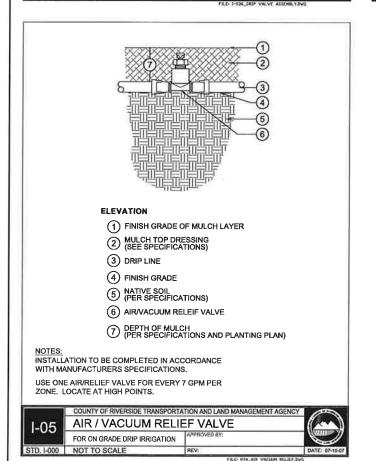
CENTER FEED LAYOUT

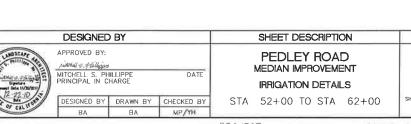
FOR ON GRADE DRIP IRRIGATION

STD. I-000 NOT TO SCALE

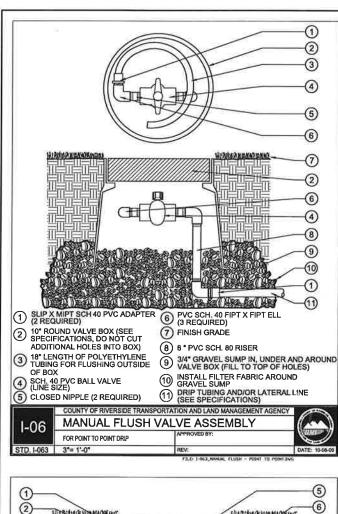


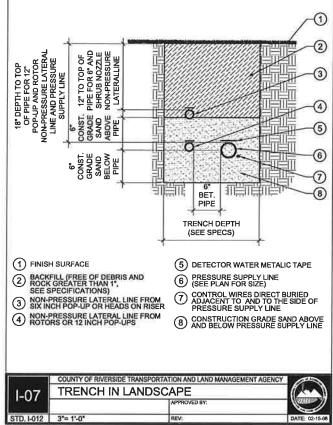


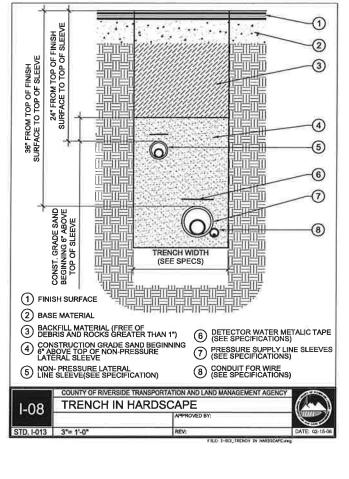


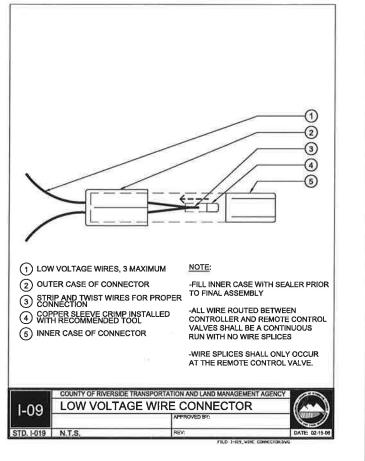


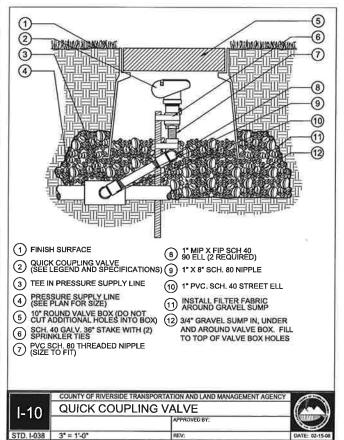
SHEET No. 1-03 SHEET 20 OF 25

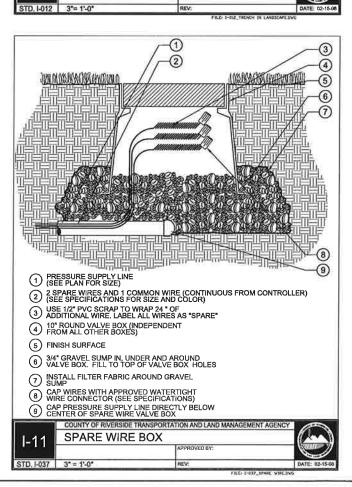














DESIGNED BY APPROVED BY: MITCHELL S. PHILLIPPE PRINCIPAL IN CHARGE DESIGNED BY DRAWN BY CHECKED BY BA BA MP/YH

SHEET DESCRIPTION PEDLEY ROAD MEDIAN IMPROVEMENT IRRIGATION DETAILS

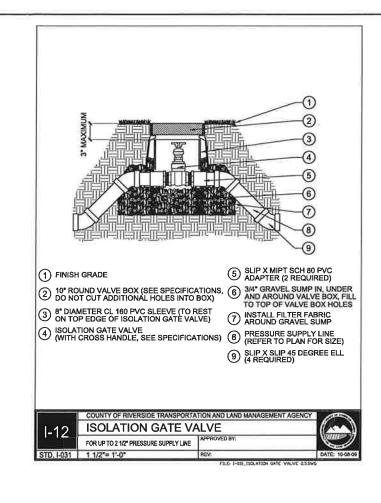
STA 52+00 TO STA 62+00

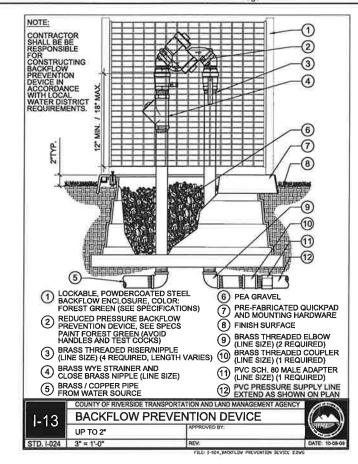
I-04 SHEET 21 OF 25

SHEET No.

PROJECT CI-0528

ARCHIVE 954-99





DESIGNED BY

APPROVED BY:

PEDLEY ROAD

MEDIAN IMPROVEMENT

IRRIGATION DETAILS

DESIGNED BY DRAWN BY CHECKED BY

BA BA BA MP/YH

BY

SHEET DESCRIPTION

PEDLEY ROAD

MEDIAN IMPROVEMENT

IRRIGATION DETAILS

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SHEET 22 OF 25

SECTION 328400 IRRIGATION SYSTEM

PART 1 - GENERAL

101 SUMMARY:

- THIS SECTION COVERS THE FURNISHINGS OF ALL MATERIALS AND PERFORMING ALL OPERATIONS TO PROVIDE A COMPLETE OPERABLE LANDSCAPE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS INCLUDING THE FOLLOWING
 - TRENCHING, STOCKPILING EXCAVATED MATERIALS AND REFILLING TRENCHES.
 - 2 IRRIGATION SYSTEM COMPONENTS INCLUDING BUT NOT LIMITED TO: PIPING, BACKFLOW PREVENTION DEVICES AND ENCLOSURES, VALVES, FITTINGS, DRIP IRRIGATION, CONTROL SYSTEM CONTROLLERS, WIRING AND FINAL ADJUSTMENTS AS DETERMINED BY THE ARCHITECT TO INSURE EFFICIENT AND
 - 3. PIPE CONNECTIONS TO WATER METERS AND BACKFLOW PREVENTION DEVICES.
- 4. TESTING AND INSPECTION OF IRRIGATION SYSTEM.
- 5. CLEAN-UP AND MAINTENANCE

GENERAL REQUIREMENTS:

- CODE REQUIREMENTS SHALL BE THOSE OF STATE AND MUNICIPAL CODES AND REGULATIONS LOCALLY GOVERNING THIS WORK, PROVIDING THAT ANY REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS, NOT CONFLICTING THEREWITH BUT EXCEEDING THE CODE REQUIREMENTS SHALL GOVERN, UNLESS WRITTEN PERMISSION TO THE CONTRARY IS GRANTED BY THE ARCHITECT.
- C. CONFORM TO THE REQUIREMENTS OF THE REFERENCE INFORMATION LISTED BELOW EXCEPT WHERE MORE STRINGENT REQUIREMENTS ARE SHOWN OR SPECIFIED IN THE MOST CURRENT SET OF CONSTRUCTION DOCUMENTS:
- AMERICAN SOCIETY FOR TESTING MATERIAL (ASTM), FOR TEST METHODS SPECIFICALLY REFERENCED IN THIS SECTION.
- 2. UNDERWRITER'S LABORATORIES (UL), FOR UL WIRES AND CABLES.
- WORK INVOLVING SUBSTANTIAL PLUMBING FOR INSTALLATION OF BRASS PIPING, BACKFLOW PREVENTION DEVICES AND OTHER RELATED WORK SHALL BE EXECUTED BY A LICENSED AND BONDED PLUMBING CONTRACTOR. ANY NECESSARY PERMITS SHALL BE OBTAINED PRIOR TO BEGINNING WORK.
- E. SPECIFIED DEPTHS OF PRESSURE SUPPLY LINES, LATERALS AND PITCH OF PIPES AS STATED IN THIS SECTION ARE MINIMUMS. SETTLEMENT OF TRENCHES LOWER THAN GRADES SPECIFIED ON THE FINAL GRADING PLANS IS CAUSE FOR REMOVAL OF FINISH GRADE TREATMENT, REFILLING TRENCHES, RECOMPACTING AND REPAIRING OF FINISH GRADE TREATMENT.
- F. FOLLOW CURRENT PRINTED MANUFACTURER'S SPECIFICATIONS AND DRAWINGS FOR ITEMS OR INFORMATION NOT SPECIFIED OR GRAPHICALLY INDICATED IN THE MOST
- G. SCALED DIMENSIONS ARE APPROXIMATE AND AT TIMES IT IS NOT POSSIBLE TO INDICATE OFFSETS, FITTINGS AND OTHER RELATED EQUIPMENT GRAPHICALLY ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR MINOR CHANGES CAUSED BY ACTUAL SITE CONDITIONS, BEFORE PROCEEDING WITH ANY WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL DIMENSIONS OF RELATED ARCHITECTURAL ELEMENTS, UTILITIES AND LANDSCAPING AND FURNISH AND INSTALL REQUIRED FITTINGS
- H. DO NOT INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE CONSTRUCTION DRAWINGS WHEN IT IS OBVIOUS THAT ACTUAL FIELD CONDITIONS SUCH AS PHYSICAL OBSTRUCTIONS, GRADING DISCREPANCIES AND FIELD DIMENSIONS VARY FROM THOSE RECORDED ON THE CONSTRUCTION DRAWINGS, IMMEDIATELY BRING ANY SUCH DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT PRIOR TO ANY SUCH DISCREPANCIES TO THE ATTENTION OF THE ATTENTION NECESSARY REVISIONS, AS DETERMINED BY THE ARCHITECT.

EXISTING FIELD CONDITIONS:

- PRESERVE AND PROTECT ALL EXISTING TREES, PLANTS, MONUMENTS, STRUCTURES, HARDSCAPE AND ARCHITECTURAL ELEMENTS FROM DAMAGE DUE TO WORK IN THIS SECTION. IN THE EVENT THAT DAMAGE DOES OCCUR TO INANIMATE OBJECT AND STRUCTURES, THE CONTRACTOR WILL REPAIR OR REPLACE SUCH DAMAGE TO THE SATISFACTION OF THE OWNER OR OWNER'S REPRESENTATIVE. DAMAGE OR INJURY TO LIVING PLANT MATERIAL WILL BE REPLACED BY THE CONTRACTOR AT THE
- B. PROTECT, MAINTAIN AND COORDINATE WORK WITH OTHER CONTRACTS, SPECIFICATIONS, TRADES, AND UTILITIES, EXTREME CARE SHALL BE EXERCISED IN EXCAVATING AND WORKING IN THE AREA DUE TO EXISTING UTILITIES, CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES CAUSED BY THEIR OPERATIONS. IN THE EVENT THAT DAMAGE DOES OCCUR. THE COSTS OF SUCH REPAIRS SHALL BE PAID BY THE CONTRACTOR UNLESS OTHER ARRANGEMENTS HAVE BEEN MADE WITH THE
- C. USE CAUTION WHERE TRENCHES AND PIPING CROSS EXISTING ROADWAYS. SIDEWALKS, HARDSCAPE, PATHS OR CURBS. IN THE EVENT THAT DAMAGE DOES OCCUR, THE CONTRACTOR WILL REPAIR SUCH DAMAGE AT THE CONTRACTOR'S

REQUIRED DOCUMENTS:

A SUBMITTALS

SUBMIT (6) SIX SETS OF ALL IRRIGATION EQUIPMENT TO BE USED, MANUFACTURER'S BROCHURES, SERVICE MANUALS, GUARANTEES, AND OPERATING INSTRUCTIONS FOR APPROVAL TO THE ARCHITECT PRIOR TO REGINNING WORK, SUBMITTALS SHOULD BE IN A BOUND FORM COMPLETE WITH TABLE OF CONTENTS. THE CONTRACTOR SHALL NOT PROCEED WITH WORK IN THE FIELD UNTIL THIS SUBMITTAL IS APPROVED IN ITS ENTIRETY BY

B. SERVICE MANUALS

1 THE CONTRACTOR SHALL FURNISH (4) FOUR SERVICE MANUALS TO THE OWNER PRIOR TO SCHEDULING A WALK THROUGH FOR SUBSTANTIAL COMPLETION. MANUALS SHALL BE SUBMITTED IN A BOUND FORM COMPLETE WITH A TABLE OF CONTENTS, AND WORKMANSHIP FORM ON COMPANY LETTERHEAD COPY OF CONTRACTOR'S WARRANTY, COPY OF THE LETTER OF CERTIFICATION FOR THE CENTRAL CONTROL SYSTEM ON THE CENTRAL CONTROL SYSTEM MANUFACTURER'S LETTERHEAD AND SHALL CONTAIN COMPLETE ENLARGED DRAWINGS OF ALL EQUIPMENT INSTALLED SHOWING COMPONENT WARRANTIES AND CATALOG NUMBERS TOGETHER WITH THE MANUFACTURER'S NAME AND ADDRESS. MANUALS SHALL INCLUDE OPERATION INSTRUCTIONS. MANUALS SHALL BE SUBJECT TO APPROVAL BY THE OWNER OR OWNER'S REPRESENTATIVE AS TO COMPLETENESS.

C. RECORD DRAWINGS/AS-BUILTS

- 1 PRIOR TO BEGINNING WORK IN THE FIELD THE CONTRACTOR SHALL SECURE A COMPLETE SET OF IRRIGATION PLANS AT THE ORIGINAL SCALE COMPLETE WITH DETAILS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING A SET OF BLUELINE PRINTS FOR EVERY WEEK ON THE PROJECT. AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL RECORD ALL WORK ACCOMPLISHED FOR THAT DAY ON THE SET OF BLUELINE PRINTS IN RED INK THESE RECORD DRAWINGS SHALL BE BROUGHT UP TO DATE AT THE END OF EACH WORK WEEK THE DRAWINGS SHOULD INDICATE THE FOLLOWING:
- a. ANY ZONING CHANGES,
- b. DIMENSION FROM TWO PERMANENT POINTS OF REFERENCE (BUILDING CORNERS, FIXED HARDSCAPE CORNERS, ROAD INTERSECTIONS, PERMANENT EXISTING UTILITIES) THE LOCATION OF THE FOLLOWING ITEMS:
 - WATER METERS.

 - CONNECTION TO EXISTING WATER LINES.
 ROUTING OF PRESSURE SUPPLY LINES AT EVERY 50' ALONG ROUTING.
- BACKFLOW PREVENTION DEVICES
- ISOLATION GATE VALVES
- DRIP VALVE ASSEMBLIES
- CONTROL SYSTEM CONTROLLERS
- CONTROL WIRE ROUTING (IF ROUTED SEPARATELY FROM PRESSURE SUPPLY LINE).
- .10 CONTROL WIRE SPLICES THAT ARE OUTSIDE OF THE CONTROLLER. .fl OTHER EQUIPMENT AS DIRECTED BY THE ARCHITECT
- 2. PRIOR TO SCHEDILING A WALK THROUGH FOR SUBSTANTIAL COMPLETION PROVIDE A RECORD SET OF FIELD AS-BUILT DRAWINGS AS DESCRIBED ABOVE TO THE ARCHITECT FOR REVIEW. AFTER REVIEW THE ARCHITECT WILL RETURN THE AS-BUILT SET TO THE FIELD FOREMAN REQUESTING FURTHER INFORMATION OR WILL NOTIFY THE OWNER THAT THE RECORD SET OF FIELD AS-BUILTS DRAWINGS ARE COMPLETE. AFTER APPROVAL FROM THE OWNER, A WALK THROUGH FOR SUBSTANTIAL COMPLETION MAY BE SCHEDULED.
- THE COUNTY REPRESENTATIVE AND THE CONTRACTOR SHALL VERIFY THE FINAL AS-BUILTS AT THE TIME OF THE FINAL WALK THROUGH AND ONCE SUCCESSFUL THE ARCHITECT SHALL DELIVER THE FINAL SET OF AS BUILT DRAWINGS TO THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO INITIATING THE MAINTENANCE PERIOD FOR THE CONTRACTOR.

D. CONTROLLER CHARTS

- PRIOR TO SCHEDULING A WALK THROUGH FOR SUBSTANTIAL COMPLETION, PROVIDE A RECORD SET OF FIELD CONTROLLER CHARTS WHICH HAVE COLOR CODED EACH STATION WITHIN EACH CONTROLLER TO THE COUNTY REPRESENTATIVE FOR REVIEW. AFTER REVIEW, THE ARCHITECT WILL RETURN THE CONTROLLER CHARTS TO THE FIELD FOREMAN REQUESTING FURTHER INFORMATION OR WILL NOTIFY THE OWNER THAT THE RECORD SET OF CONTROLLER CHARTS ARE COMPLETE. AFTER APPROVAL FROM THE OWNER, A WALK THROUGH FOR SUBSTANTIAL COMPLETION MAY BE SCHEDULED.
- THE COUNTY REPRESENTATIVE AND THE CONTRACTOR SHALL VERIFY FACH CONTROLLER CHART AT THE TIME OF THE FINAL WALK THROUGH AND ONCE SUCCESSFUL THE CONTRACTOR SHALL DELIVER THE FINAL SET OF CONTROLLER CHARTS TO THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO INITIATING THE MAINTENANCE PERIOD. THE CONTROLLER CHART SENT TO THE OWNER SHALL BE HERMETICALLY SEALED BETWEEN TWO (2) PIECES OF MINIMUM 20 MILS THICK PLASTIC.
- THE CONTRACTOR SHALLL PERMANENTLY PLACE THE CONTROLLER CHART INSIDE OF THE APPLICABLE CONTROLLER.

PART 2 - PRODUCTS

PIPING 201

- A. GENERAL PIPING:
- 1 PIPE SIZES SHOWN ARE NOMINAL INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- 2 PIPE SHALL BE IDENTIFIED WITH THE FOLLOWING INDELIBLE MARKINGS:
 - MANUFACTURER'S NAME.
 - NOMINAL PIPE SIZE. SCHEDULE OR CLASS.

 - PRESSURE RATING.
 NSF (NATIONAL SANITATION FOUNDATION) SEAL OF APPROVAL.
 - DATE OF EXTRUSION.

B. SOLVENT WELD PRESSURE SUPPLY LINE:

- 1. SOLVENT WELD PRESSURE SUPPLY LINE: (DOWNSTREAM OF BACKFLOW PREVENTION DEVICE) PVC SCH 40 (f - 1 1/2*)
 - MANUFACTURED FROM VIRGIN POLYVINYL CHLORIDE (PVC) COMPOUND IN ACCORDANCE WITH ASTM D2241 AND ASTM D1784; CELL CLASSIFICATION
 - b. TYPE 1 GRADE 1.
- 2. FITTINGS: STANDARD WEIGHT, SCHEDULE 80, INJECTION MOLDED PVC. COMPLYING WITH ASTM D1784 AND D2466, CELL CLASSIFICATION 12454-B.
- THREADS- INJECTION MOLDED TYPE (WHERE REQUIRED)
- TEES AND ELLS- SIDE GATED
- 3. THREADED NIPPLES: ASTM D2464, SCHEDULE 80 WITH MOLDED THREADS.
- 4. JOINT CEMENT AND PRIMER: TYPE AS RECOMMENDED BY MANUFACTURER OF PIPE AND FITTINGS

C. NON-PRESSURE LINES BELOW GRADE:

- 1. NON-PRESSURE LINES: (DOWNSTREAM OF ELECTRIC REMOTE CONTROL VALVE)
- 2. FITTINGS: STANDARD WEIGHT, SCHEDULE 40, INJECTION MOLDED PVC COMPLYING WITH ASTM D1784 AND D2466, CELL CLASSIFICATION 12454-B.
- a. THREADS- INJECTION MOLDED TYPE (WHERE REQUIRED)
- TEE\$ AND ELLS- SIDE GATED
- THREADED NIPPLES: ASTM D2464, SCHEDULE 80 WITH MOLDED THREADS.
- 3. JOINT CEMENT AND PRIMER: TYPE AS RECOMMENDED BY MANUFACTURER OF PIPE AND FITTINGS.

D. SLEEVING AND CONDUIT:

- 1 ALL PVC SLEEVING FOR PRESSURE SUPPLY LINE AND NON- PRESSURE SUPPLY LINE SHALL BE TWICE THE NOMINAL SIZE OF THE PIPE WITHIN AND USED FOR SLEEVES BELOW GRADE AS INDICATED IN THE FOLLOWING SLEEVE AND
- 2. SLEEVING AND CONDUIT MATERIAL UNDER HARDSCAPE:
 - a. PVC SCH 40 FOR 1 1/2" PRESSURE SUPPLY LINE.
- b. PVC SCH 40 FOR NON- PRESSURE LINES.
 c. (1) ONE 1 PVC SCH 40 CONDUIT FOR UP TO 5 WIRES.
- F BRASS PIPE AND FITTINGS:
- PRESSURE SUPPLY LINE (FROM POINT OF CONNECTION THROUGH BACKFLOW PREVENTION DEVICE) BRASS PIPE SHALL BE REGULAR WEIGHT, 85% RED BRASS, ANSI SCHEDULE 40 SCREWED PIPE
- 2. FITTINGS: MEDIUM BRASS, SCREWED AT 125 POUND CLASS.

BACKFLOW PREVENTION DEVICE 2" AND SMALLER 2.02

- A BACKELOW PREVENTION DEVICE: REDUCED PRESSURE PRINCIPAL BACKELOW BACKFLOW PREVENTION DEVICE. REDUCED PROSONIE PRINCIPAL BACK SAY.
 ASSEMBLY SHALL CONSIST OF AN APPROVED BRASS OR BRONZE BODY, BRASS
 CHECK VALVES, HYDRAULICALLY ACTUATED RELIEF VALVE, INLET AND DISCHARGE SHUTOFFS AND FIELD TEST COCKS, AS SPECIFIED ON DRAWINGS.
- B. BACKFLOW PREVENTION UNITS SHALL BE APPROVED BY THE FOUNDATION FOR PROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH
- C. BACKFLOW DEVICE ENCLOSURE SHALL BE CONSTRUCTED OF STAINLESS STEFL. TUBE AND WIRE CONSTRUCTION AND HAVE A SMOOTH SURFACE TO PROTECT AGAINST HANDLING INDUSTRY. ENCLOSURE SHALL HAVE A FULL RELEASE LOCKING MECHANISM AND PROVIDE EASY ACCESS FOR SERVICE AND REPAIRS. (PER

203 ISOLATION GATE VALVES FOR PRESSURE SUPPLY LINE

A. THREADED WITH RED BRONZE CROSS HANDLE AND SHALL BE SOLID WEDGE TYPE, WITH BRONZE BODY. (PER LEGEND)

QUICK COUPLING VALVES

- A. QUICK COUPLER VALVES SHALL HAVE A BODY CONSTRUCTED OF RED BRASS WITH A WALL THICKNESS GUARANTEED TO WITHSTAND NORMAL WORKING PRESSURE OF 150 P.S.I. WITHOUT LEAKAGE WITH FEMALE THREADS (PENNING AT BASE). QUICK COUPLER VALVE SHALL HAVE A HINGE COVER CONSTRUCTED OF RED BRASS WITH LEATHER LIKE VINYL COVER BONDED TO IT ON SUCH A MANNER THAT IT BECOMES PERMANENT TYPE OF COVER. QUICK COUPLERS USED WITH POTABLE WATER SHALL HAVE VINYL COVERS YELLOW IN COLOR.
- DRIP VALVE ASSEMBLIES:
- A. ELECTRIC REMOTE CONTROL VALVES: ELECTRIC CONTROL VALVES WITH PRESSURE REGULATING FEATURE TWO WAY SOLENOID, PILOT OPERATED MADE OF SYNTHETICS NON CORROSIVE MATERIAL! DIAPHRAGM ACTIVATED AND SLOW CLOSING, INCLUDE FREELY PIVOTED SEAT SEAL, RETAINED (MOUNTED) WITHOUT ATTACHMENT TO DIAPHRAGM.
- B. WYE STRAINER: 150 MESH SCREEN FOR POINT TO POINT DRIP AND INLINE
- C. ISOLATION BALL VALVE BALL SOCKET BALL VALVE WITH THERMOPLASTIC MOLDED ONE PIECE CONSTRUCTION AND TEFLON SEAT WITH EDPM

INLINE EMITTER TUBING:

A. INLINE EMITTER TUBING:

- THE DRIP TUBING SHALL BE A PRE-BONDED EMPTER TYPE. THE TUBING SHALL HAVE EMITTERS SPACED AT 12 OR 18 INCHES AND IN FLOW RATES OF .53 OR 10 GALLONS PER HOUR. WATER DISTRIBUTION SHALL BE VIA AN INTEGRATED TURBULENT FLOW PATH EMITTER WITH DUAL DISCHARGE PORTS ON OPPOSING SIDES OF THE TURING. THE TURING SHALL CONSIST OF NOMINAL-SIZED, LINEAR LOW-DENSITY 5/8" (15,8MM) POLYETHYLENE WITH AN OUTSIDE DIAMETER (O.D.) OF APPROXIMATELY .710" (18MM) AND AN INSIDE DIAMETER (I.D.) OF APPROXIMATELY .820" (16MM). THE EMITTERS SHALL BE MOLDED FROM VIRGIN POLYETHYLENE THE TUBING SHALL BE AVAILABLE IN PRESSURE-COMPENSATING VERSION THAT SHALL INCORPORATE A CIRCULAR SILICON RUBBER DISK DESIGNED TO FLUSH AT STARTUP, SHUTDOWN AND DURING THE IRRIGATION CYCLE TO INHIBIT DEBRIS COLLECTION.
- B. PRESSURE REGULATOR VALVES FOR INLINE EMITTER TUBING:
- THE PRESSURE REGULATOR VALVE(S) SHALL BE A SPRING-OPERATED PISTON TYPE WITH AN EXTERNALLY ACCESSIBLE REGULATION UNIT THAT CAN BE SERVICED WITHOUT REMOVING THE VALVE FROM THE SYSTEM. THE VALVE SHALL BE CONSTRUCTED FROM MOLDED BLACK PLASTIC WITH SIX DIFFERENT COLORED TOPS WITH INTERCHANGABLE SPRINGS DENOTING DIFFERENT PRESSURE REGULATION AND FLOW RANGES. OPERATING RANGES FOR THE VALVES SHALL BE FROM 15-50 PSI IN 5-PSI INCREMENTS. INLET AND OUTLET PORTS OF THE VALVE SHALL BE A COMBINATION OF MALE/FEMALE THREADS.
- C. AIR /VACUUM RELIEF VALVES FOR SUBSURFACE DRIP TUBING:
 - AIR / VACUUM RELIEF VALVES SHALL BE CONSTRUCTED OF GREY AND/OR BLACK PLASTIC WITH AN INTERNAL SLIDING POPPET VALVE THAT IS CAPABLE OF VENTING AIR OR PREVENTING VACUUM. THE MAIN BODY SHALL HAVE A 1/2" MALE PIPE THREAD (MPT). OPERATING PRESSURE RANGE FOR THE AIR/VACUUM RELIEF VALVE SHALL BE 7 PSI MINIMUM TO

FLUSH VALVE ASSEMBLIES:

A. SCHEDULE 80 BALL VALVE, THREADED SCHEDULE 80 NIPPLES AND FITTINGS WITH POLYETHYLENE TUBING FOR FLUSH HOSE.

SHEET DESCRIPTION SHEET No. PEDLEY ROAD MEDIAN IMPROVEMENT I-06 DATE IRRIGATION SPECIFICATIONS ян<u>ее</u>т 23 оғ 25 STA 52+00 TO STA 62+00 BA RA MP/YH

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208 VALVE BOXES:

- RECTANGULAR VALVE BOXES SHALL BE 9-1/2 INCH WIDE BY 16 INCH LONG AND 11 INCH HIGH. ROUND VALVE BOXES SHALL BE 10-INCH DIAMETER AND 10 1/4 INCH. ALL VALVE BOXES SHALL BE CONSTRUCTED OF RIGID POLYOLEFIN.
- B. VALVE BOXES SHALL HAVE LOCKING COVERS SECURE WITH A 3/8-INCH STAINLESS
- C. RECTANGLE VALVE BOXES SHALL BE USED FOR DRIP CONTROL VALVES
- D. ROUND VALVE BOXES SHALL BE USED FOR GATE VALVES QUICK COUPLER VALVES, FLUSH VALVE ASSEMBLIES AND SPARE WIRES.
- E. ALL VALVE BOXES TO BE GREEN IN COLOR UNLESS OTHERWISE SPECIFIED FOR
- F. HEAT BRAND ALL BOX LIDS WITH THE APPROPRIATE TWO-INCH HIGH IDENTIFICATION
- G. ALL VALVE BOXES SHALL RECEIVE LANDSCAPE FABRIC. LANDSCAPE FABRIC SHALL BE CONSTRUCTED OF 5.0 OZ. WEIGHT PROVEN POLYPROPYLENE WEED BARRIER WITH BURST STRENGTH OF 225 P.S.I. AND CAPABLE OF 12 GALLONS PER MINUTE OF WATER FLOW AND PUNCTURE STRENGTH OF 60 LBS. DEWITT PRO, MIRIFY OR APPROVED EQUAL
- H. ALL VALVE BOXES SHALL RECEIVE 2 CUBIC FEET OF 3/4-INCH GRAVEL
- VALVE TAG: MANUFACTURED FROM UV STABILIZED PLASTIC WITH 180LBS PULL OUT RESISTANCE AND HOT STAMPED FOR MAXIMUM VISIBILITY. TOP HOLE SHALL BE DESIGNED TO PASS A 16 GAUGE OR SMALLER SOLENOID PIGTAIL OR ATTACH WITH
- IRRIGATION SYSTEM CONTROLLER
- A. AS SPECIFIED ON IRRIGATION LEGEND
- 210 ELECTRIC CONTROL VALVE WIRE
 - A. LOW VOLTAGE:
 - 1. AWG UF UL APPROVED NO. 14 DIRECT BURIAL COPPER WIRE FOR ALL CONTROL WIRES AND NO. 14 DIRECT BURIAL COPPER WIRE FOR ALL COMMON WIRES.

 - CONTROL WIRES- AS SPECIFIED ON DRAWINGS
 - COMMON WIRES, AS SPECIFIED ON DRAWINGS
 - SPARE WIRES- GREEN / WHITE (LABELED AT TERMINATION)
 - 3. WIRE SPLICE CONNECTORS: 3M DBY DIRECT BURY SPLICE KITS.
- SAND BEDDING
- A. SAND BEDDING SHALL BE CONSTRUCTION GRADE.

PART 3 - EXECUTION

- PREPARATION
- EXAMINE FIELD CONDITIONS PRIOR TO BEGINNING WORK DESCRIBED IN THIS SECTION. GRADING OPERATIONS SHALL BE COMPLETED AND APPROVED PRIOR TO
- VERIFY ALL SLEEVE LOCATIONS BELOW FUTURE HARDSCAPE PRIOR TO BEGINNING WORK IN THIS SECTION. FLAG ALL EXISTING SLEEVES AND CONDUITS INSTALLED BY OTHER TRADES. REPORT ANY CONFLICTS AND DISCREPANCIES TO THE COUNTY REPRESENTATIVE IMMEDIATELY.
- C. IRRIGATION SYSTEM SHALL BE CONSTRUCTED TO THE SIZES AND GRADES AT THE LOCATIONS SHOWN ON THE DRAWINGS. MARK WITH POWDERED LIME OR MARKING PAINT ROUTING OF PRESSURE SUPPLY LINE AND STAKE THE LOCATION OF EACH ELECTRIC CONTROL VALVE AND OTHER RELATED EQUIPMENT FOR THE FIRST ZONE. ARCHITECT SHALL REVIEW STAKING AND DIRECT ANY NECESSARY CHANGES WITH THE CONTRACTOR PRIOR TO PROCEEDING TO OTHER ZONE. THIS REVIEW DOES NOT IN ANY WAY ALLEVIATE THE CONTRACTOR FROM THE RESPONSIBILITIES. ASSOCIATED WITH PROPER UNIFORMITY AND DISTRIBUTION OF HEAD PLACEMENT
- D. INSTALL SLEEVES, TO ACCOMMODATE PIPES AND WIRES, UNDER PAVING, HARDSCAPE AREAS, SIDEWALKS, AND PATHS PRIOR TO ASPHALT AND CONCRETE OPERATIONS. COMPACT BACKFILL AROUND SLEEVES TO 95% MODIFIED PROCTOF DENSITY WITHIN 2% OF OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM

3.02 EXCAVATION AND BACKFILLING OF TRENCHES

- A. TRENCH EXCAVATION SHALL AS MUCH AS POSSIBLE FOLLOW THE LAYOUT SHOWN ON THE DRAWINGS. TRENCHES SHALL BE STRAIGHT IN ALIGNMENT AND SUPPORT PIPE CONTINUOUSLY ON BOTTOM OF TRENCH. REMOVE ROCKS AND DEBRIS GREATER THAN I IN DIAMETER OVER EXCAVATE AS REQUIRED FOR BEDDING
- B. DEPTH OF TRENCH (IN LANDSCAPE AREAS):

PRESSURE SUPPLY LINE (3" AND SMALLER): 18" FROM TOP OF PIPE TO FINISH GRADE. NON-PRESSURE LINE: 12" FROM TOP OF PIPE TO FINISH GRADE CONTROL WIRING DIRECTLY AT SIDE AND BOTTOM OF PRESSURE SUPPLY LINE. PRESSURE SUPPLY LINE LOCATOR TAPE: 6" ABOVE TOP OF PIPE.

C. DEPTH OF TRENCH (UNDER ASPHALT PAVING OR CONCRETE):

PRESSURE SUPPLY LINE (3' AND SMALLER): 24' FROM TOP OF PIPE TO AGGREGATE

NON-PRESSURE LINE: 24' FROM TOP OF PIPE TO AGGREGATE BASE.
CONTROL WIRING DIRECTLY AT SIDE AND BOTTOM OF PRESSURE SUPPLY LINE.

- 1 PIPING LOCATED UNDER ASPHALT PAVING OR CONCRETE SHALL BE INSTALLED WITH THE APPROPRIATE SIZED SLEEVE AND BACKFILLED WITH SAND BEDDING (6" BELOW PIPE AND 6" ABOVE PIPE).
- 2. COMPACT BACKFILL MATERIAL IN 6° LIFTS AT 90% MAXIMUM DENSITY DETERMINED IN ACCORDANCE WITH ASTM D1557 USING MANUAL OR
- 3. SET IN PLACE, CAP, AND PRESSURE TEST PIPING IN THE PRESENCE OF THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO BACKFILLING.
- D. WIDTH OF TRENCH:

PIPE LESS THAN 3": 7" MINIMUM.

E. WIDTH BETWEEN TRENCHES:

IRRIGATION TRENCH TO IRRIGATION TRENCH: 6" MINIMI IM IRRIGATION TRENCH AND OTHER TRADE TRENCHES: 12" MINIMUM.

- BORING: BORING WILL ONLY BE PERMITTED WHERE PIPE MUST PASS UNDER AN OBSTRUCTION THAT CANNOT BE AVOIDED OR REMOVED. BACKFILL SHALL MATCH SURROUNDING SOIL DENSITY AND GRAIN. BORING UNDER EXISTING PAVING. SIDEWALKS, OR HARDSCAPE MAY BE PERMITTED AT CONTRACTOR'S OWN RISK CONTRACTOR IS RESPONSIBLE FOR ANY REPAIRS OR DAMAGE TO SUCH ITEMS AT
- G. BACKFILLING BACKFILLING OF TRENCHES MAY NOT BE DONE UNTIL ALL REQUIRED TESTING FOR THE IRRIGATION SYSTEM HAS BEEN COMPLETED.
- MATERIAL: EXCAVATED MATERIAL IS GENERALLY CONSIDERED TO BE ADEQUATE FOR BACKFILLING OPERATIONS. BEFORE BEGINNING THE BACKFILLING OPERATION, INSURE THAT BACKFILL MATERIAL IS FREE FROM DEBRIS AND ROCKS GREATER THAN 1' IN DIAMETER, AND IS NOT MIXED WITH TOPSOIL THESE MATERIALS AFTER SEPARATED FROM BACKFILL, SHALL BE LEGALLY DISPOSED OF AT CONTRACTOR'S EXPENSE
- 2. BEDDING: BED PRESSURE SUPPLY LINE WITH CONSTRUCTION GRADE SAND 6" ABOVE AND 6" BELOW PIPE AS SHOWN ON DETAILS. REMAINING BACKFILL MAY 3.07
- 3. BED ALL ELECTRICAL CONTROL WIRE TRENCHED SEPARATE FROM PRESSURE SUPPLY LINE, WITH CONSTRUCTION GRADE SAND 6" ABOVE AND 6" BELOW
- 4. WHEN BACKFILLING, SLIGHTLY MOUND FILLED TRENCHES FOR SETTLEMENT AFTER BACKFILLING IS COMPACTED. COMPACT BACKFILL TO A 90% MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557 WITH A MECHANICAL TAMPER. DO NOT LEAVE TRENCHES OPEN FOR A PERIOD GREATER THAN 48 HOURS. OPEN TRENCHES SHALL BE PROTECTED IN ACCORDANCE WITH CURRENT OSHA
- 5. SMOOTH TRENCHES TO FINISH GRADE PRIOR TO REQUESTING A WALK THROUGH FOR SUBSTANTIAL COMPLETION WITH THE ARCHITECT.

POINT OF CONNECTION(S) 3.03

POINT OF CONNECTION SHALL BE APPROXIMATELY AS SHOWN ON DRAWINGS.
CONNECT NEW UNDERGROUND PIPING AND VALVES AND PROVIDE ALL FLANGES, ADAPTERS, OR OTHER NECESSARY FITTINGS.

- 3.04 INSTALLATION OF SOLVENT WELD POLYVINYL CHLORIDE PIPE (PVC)
- A. POLYVINYL CHLORIDE PIPE SHALL BE CUT WITH AN APPROVED PVC PIPE CUTTER DESIGNED ONLY FOR THAT PURPOSE
- B. ALL PLASTIC-TO-PLASTIC SOLVENT WELD JOINTS SHALL USE ONLY THE SOLVENT RECOMMENDED BY THE PIPE MANUFACTURER DO NOT INSTALL SOLVENT WELD PIPE
- C. PIPE ENDS AND FITTINGS SHALL BE WIPED WITH MEK, OR APPROVED EQUAL, BEFORE WELDING SOLVENT IS APPLIED. WELDED JOINTS SHALL BE GIVEN A MINIMUM OF 15 MINUTES TO SET BEFORE MOVING OR HANDLING.
- D. PIPE SHALL BE SNAKED FROM SIDE-TO-SIDE ON TRENCH BOTTOM TO ALLOW FOR EXPANSION AND CONTRACTIONS.
- E. ALL CHANGES OF DIRECTION OVER 15 DEGREES SHALL BE MADE WITH APPROPRIATE FITTINGS.
- F. WHEN PIPE LAYING IS NOT IN PROGRESS AT THE END OF EACH WORKING DAY, CLOSE PIPE ENDS WITH TIGHT PLUG OR CAP.
- Q. INSTALL PRESSURE SUPPLY LINE LOCATING TAPE ALONG THE ENTIRE LENGTH OF PRESSURE SUPPLY LINE.
- H. COORDINATE PRESSURE SUPPLY LINE WITH SAND BEDDING OPERATIONS.
- NO WATER SHALL BE PERMITTED IN THE PIPE UNTIL INSPECTIONS HAVE BEEN COMPLETED AND A PERIOD OF AT LEAST 24 HOURS HAS ELAPSED FOR SOLVENT WELD SETTING AND CURING.
- J. CENTER LOAD PIPE WITH SMALL AMOUNT OF BACKFILL TO PREVENT ARCHING AND SLIPPING UNDER PRESSURE. LEAVE JOINTS EXPOSED FOR INSPECTION DURING
- INSTALLATION OF BRASS PIPE:
- A. BRASS PIPING SHALL BE CUT BY A POWER HACKSAW, A CIRCULAR CUTTING MACHINE USING AN ABRASIVE WHEEL, OR BY MEANS OF A HAND HACKSAW. ALL PIPE SHALL BE REAMED AND ROUGH EDGES OR BURRS REMOVED SO THAT A SMOOTH AND UNOBSTRUCTED FLOW IS OBTAINED.
- B. ECCENTRIC REDUCING FITTINGS SHALL BE USED WHERE ANY CHANGE IN PIPE SIZE OCCURS. BUSHINGS SHALL NOT BE USED UNLESS SPECIFICALLY AUTHORIZED BY
- C. JOINT COMPOUND SHALL BE CAREFULLY AND SMOOTHLY PLACED ON THE MALE THREAD ONLY. ALL SCREWED JOINTS MUST BE TIGHTENED WITH TONGS OR WRENCHES, CAULKING OF ANY KIND WILL NOT BE PERMITTED.
- D. ALL EXPOSED PIPING UNDER STRUCTURAL SLABS SHALL BE STENCILED WITH "IRRIGATION MAIN" OR "IRRIGATION LATERAL" AS REQUIRED, AT TEN FOOT (10") INTERVALS IN BLACK LETTERING, 3/4" MINIMUM HIGH.
- BACKFLOW PREVENTION DEVICE
 - A. INSTALL BACKFLOW PREVENTION DEVICE, ENCLOSURE AND ASSOCIATED EQUIPMENT AT THE LOCATION AS SPECIFIED ON DRAWINGS.
 - B. COORDINATE INSTALLATION WITH LOCAL GOVERNING CODES AND ORDINANCES.
- ISOLATION GATE VALVES
- A INSTALL ISOLATION GATE VALVES IN SEPARATE VALVE BOXES AS SPECIFIED ON THE DRAWINGS.
- QUICK COUPLING VALVES
- A. INSTALL QUICK COUPLING VALVES IN SEPARATE VALVE BOX AS SPECIFIED ON THE
- ANGLED NIPPLE RELATIVE TO PRESSURE SUPPLY LINE SHALL BE NO GREATER THAN 45 AND NO LESS THAN 10.
- DRIP ELECTRIC CONTROL VALVES
 - INSTALL EACH ELECTRIC CONTROL VALVE IN A SEPARATE VALVE BOX SO THAT CROSS HANDLE IS 3" MIN. BELOW VALVE BOX COVER AS SPECIFIED ON THE DETAIL
 - B. GROUP ELECTRIC CONTROL VALVES TOGETHER AS SPECIFIED ON THE DRAWINGS ALLOWING A MAXIMUM OF 12 ' BETWEEN EACH VALVE BOX INSTALL VALVE BOXES IN THE SAME DIRECTION AND PARALLEL WITH ONE ANOTHER AND PERPENDICULAR TO PAVING, HARDSCAPE, SIDEWALKS AND PATHS.

- 3.10 VALVE BOXES
- A. INSTALL VALVE BOXES WITH EACH TYPE OF IRRIGATION EQUIPMENT SO THAT TOP OF VALVE BOX IS ABOVE FINISH GRADE AS SPECIFIED ON THE DETAIL DRAWINGS. VALVE BOX EXTENSIONS ARE NOT ACCEPTABLE.
- PLACE GRAVEL SUMP BELOW AND AROUND EACH VALVE BOX PRIOR TO INSTALLING VALVE BOX AS SPECIFIED ON THE DRAWINGS. PLACE REMAINING PORTION OF GRAVEL INSIDE VALVE BOX ALLOWING FILL ACCESS IN AND ROUND ALL FITTINGS. VALVE BOX SHALL BE FULLY SUPPORTED BY GRAVEL SUMP. NO BRICK OR WOOD SUPPORTS ARE ALLOWED.
- C. BRAND VALVE BOX LID OF ASSOCIATED EQUIPMENT AS FOLLOWS:

ELECTRIC CONTROL VALVE BOX LID WITH "CONTROLLER LETTER AND STATION

QUICK COUPLING VALVE BOX LID WITH THE LETTERS "QC". ISOLATION GATE VALVE BOX LID WITH THE LETTERS "QV". SPARE WIRE BOX LIDS WITH THE LETTERS "SW" WIRE SPLICE BOX LID WITH THE LETTERS "WS".

LETTER AND NUMBER SIZE OF BRAND SHALL BE NO LESS THAN IT AND NO GREATER THAN 1 1/2" IN HEIGHT AND SHALL BE 1/8" MAXIMUM IN DEPTH. PROVIDE SAMPLE BRANDING TO THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK

- D. WALK THROUGH FOR SUBSTANTIAL COMPLETION WILL NOT BE ALLOWED UNTIL ALL BRANDING IS COMPLETE.
- AUTOMATIC CONTROLLER UNIT
- A INSTALL AUTOMATIC CONTROLLER UNIT WHERE SHOWN ON DRAWINGS PER MANUFACTURER'S SPECIFICATIONS
- 3.12 ELECTRICAL WIRE
 - A LOW VOLTAGE WIRING:
 - BURY CONTROL WIRING IN SAME TRENCH AS PRESSURE SUPPLY LINE AS SPECIFIED.
 - 2. BUNDLE ALL 24 VOLT WIRES AT 20 INTERVALS WITH ELECTRICAL TAPE.
 - 3. PROVIDE EXPANSION LOOPS AT EVERY PRESSURE SUPPLY LINE ANGLE FITTING, INSIDE EACH ELECTRIC REMOTE CONTROL VALVE BOX, AND AT 250' LENGTH INTERVALS ALONG ROUTING. FORM EXPANSION LOOP BY WRAPPING WIRE A MINIMUM OF 10 TIMES AROUND A 3/4" PIPE AND WITHDRAWING PIPE AS SPECIFIED ON THE DRAWINGS.
 - 4. LIMIT SPLICING OF ELECTRICAL WIRING. PROVIDE EACH SPLICE MADE AT INTERVALS OR IN ELECTRIC CONTROL VALVE AND DRIP VALVE ASSEMBLY VALVE BOXES WITH 3M DBY DIRECT BURY SPLICE KITS.
 - 5. WIRE SPLICES OCCURRING AT INTERVALS OUTSIDE ELECTRIC CONTROL VALVE BOXES SHALL BE INSTALLED IN A SEPARATE VALVE BOX.
 - 6 PROVIDE (1) ONE ELECTRICAL CONTROL WIRE FOR EVERY ELECTRIC CONTROL VALVE. PIGGY BACKING LIKE ZONES ON THE SAME ELECTRICAL CONTROL WIRE IS NOT ALLOWED.
 - INSTALL (3) THREE SPARE #14-1 ELECTRICAL CONTROL WIRES FROM THE AUTOMATIC CONTROLLER UNIT PEDESTAL TO THE LAST ELECTRIC CONTROL VALVE ON EACH LEG OF PRESSURE SUPPLY LINE. LOCATE THE SPARE WIRES IN THEIR OWN VALVE BOX AS SPECIFIED ON THE DRAWINGS. IN ADDITION TO THESE SPARE WIRES, CHECK THE DRAWINGS FOR ANY ADDITIONAL WIRES THAT MAY BE REQUIRED AND LOCATE THEM IN THE SAME VALVE BOX AS THE SPARE WIRES.

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SHEET DESCRIPTION PEDLEY ROAD MEDIAN IMPROVEMENT

IRRIGATION SPECIFICATIONS STA 52+00 TO STA 62+00 sheet24 of 25

PROJECT CI-0528

SHEET No.

QUALITY CONTROL

- PRECONSTRUCTION MEETING: THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE ARCHITECT PRIOR TO BEGINNING CONSTRUCTION AND/OR ORDERING MATERIALS TO ESTABLISH A MEETING TO REVIEW AND DISCUSS PROJECT OBJECTIVES, CONCERNS AND TO REVIEW THE CONSTRUCTION DOCUMENTS TO INSURE A COMPLETE UNDERSTANDING OF REQUIRED INSTALLATION PROCEDURES
- GENERAL OBSERVATION: THE COUNTY REPRESENTATIVE WILL VISIT THE CONSTRUCTION SITE AT INTERIM TIMES DURING THE CONSTRUCTION PROCESS TO ACCESS CONSTRUCTION PROGRESS REGARDING INSTALLATION OF IRRIGATION EQUIPMENT TO BE IN COMPLIANCE WITH THE DRAWINGS, DETAILS, SPECIFICATIONS AND SITE CONDITIONS. THE COUNTY REPRESENTATIVE WILL PREPARE A SITE REPORT AFTER EACH VISIT NOTING PROGRESS OF INSTALLATION, VERBAL COMMUNICATION WITH THE CONTRACTOR AND IDENTIFYING ANY FIELD ADJUSTMENTS NECESSARY WHICH REQUIRE MODIFICATIONS TO THE DESIGNED IRRIGATION SYSTEM. A COPY OF THIS SITE REPORT WILL BE DELIVERED TO BOTH THE OWNER AND THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO IMMEDIATELY ADDRESS EACH ITEM ON THE SITE REPORT BEFORE PROCEEDING WITH FURTHER
- C. PRESSURE TESTING THE PRESSURE SUPPLY LINE: AFTER BACKFILLING, FLUSHING, AND PRIOR TO THE INSTALLATION OF EACH ELECTRIC CONTROL VALVE, ISOLATION BALL VALVE AND QUICK COUPLING VALVE THE IRRIGATION SYSTEM SHALL BE PRESSURE TESTED.
 - 1 PRESSURE TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE ARCHITECT AND OWNER OR OWNER'S REPRESENTATIVE UTILIZING THE FOLLOWING PROCEDURE
 - B. PRESSURIZE THE IRRIGATION SYSTEM TO 40 PSI GREATER THAN THE DESIGNATED STATIC PRESSURE OR 150 PSI WHICHEVER IS GREATER FOR A PERIOD OF NO LESS THAN 4 HOURS. THE PRESSURE GAUGE USED FOR THE PRESSURE TEST SHALL NOT EXCEED READINGS GREATER THAN 300PSL PRESSURE PUMP AND OTHER EQUIPMENT NECESSARY FOR THE TEST SHALL BE FURNISHED BY THE CONTRACTOR.
 - b. TEST IS ACCEPTABLE IF NO LEAKAGE OCCURS WITHIN THE SYSTEM FOR THE DURATION OF THE TESTING PERIOD.
 - C. IF LEAKS OCCUR, REPAIR SAID LEAKS AND BEGIN PRESSURE TEST AGAIN, REPEAT THIS OPERATION UNTIL NO LEAKS OCCUR IN THE IRRIGATION SYSTEM
 - d. BEFORE REQUESTING A WALK THROUGH FOR SUBSTANTIAL COMPLETION, THE ENTIRE IRRIGATION SYSTEM SHALL REMAIN UNDER PRESSURE FOR A PERIOD OF NO LESS THAN 48 HOURS.
 - 2. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ARCHITECT ONE DAY IN
- D. FLUSHING: CENTER LOAD ALL PIPING PRIOR TO FLUSHING. AFTER ALL NEW IRRIGATION PIPING AND RISERS ARE IN PLACE AND CONNECTED AND ALL NECESSARY DIVERSION WORK HAS BEEN COMPLETED AND PRIOR TO THE INSTALLATION OF SPRINKLER HEADS, ROTORS AND QUICK COUPLING VALVES. THOROUGHLY FLUSH PIPING SYSTEM UNDER FULL HEAD OF PRESSURE. AFTER THE FURTHERMOST RISER FROM THE POINT OF CONNECTION BEGINS TO FLUSH, CONTINUE FLUSHING FOR A DURATION OF FIVE MINUTES. AFTER THE SYSTEM IS THOROUGHLY FLUSHED, CAP ALL RISERS.
- E. WALK THROUGH FOR SUBSTANTIAL COMPLETION:
 - 1 BEFORE REQUESTING A WALK THROUGH FOR SUBSTANTIAL COMPLETION THE FOLLOWING REQUIREMENTS MUST BE ENTIRELY SATISFIED
 - a. THE ENTIRE IRRIGATION SYSTEM IS COMPLETELY INSTALLED, FLUSHED AND SATISFACTORILY PRESSURE TESTED. IF THE CONTRACTOR FAILED TO NOTIFY THE COUNTY REPRESENTATIVE FOR THE PRESSURE TEST AND FLUSHING PROCEDURES STATED ABOVE THAN THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ANY DESIGN MODIFICATIONS DIRECTED BY THE ARCHITECT DURING THE WALK THROUGH FOR SUBSTANTIAL COMPLETION REGARDING PRESSURE AND FLUSHING ISSUES.
 - ALL VALVE BOXES HAVE BEEN BRANDED
 - C. ALL AUTOMATIC CONTROLLERS ARE FULLY OPERABLE.
 d. RECORD AS-BUILT DRAWINGS HAVE BEEN SUBMITTED TO THE ARCHITECT FOR
 - REVIEW AS TO COMPLETENESS.
 - (4) FOUR SERVICES MANUALS HAVE BEEN DELIVERED TO THE OWNER OR OWNERS
- 2 ONCE THE ABOVE REQUIREMENTS HAVE BEEN MET A WALK THROUGH FOR SUBSTANTIAL COMPLETION MAY BE REQUESTED. THE FOLLOWING PROCEDURES WILL BE USED DURING THE WALK THROUGH:
 - 8. CONTRACTOR MUST HAVE (2) TWO PERSONNEL AVAILABLE WITH RADIO COMMUNICATION FOR THE ENTIRE LENGTH OF THE WALK THROUGH.
 - b. ALL VALVE BOX LIDS SHALL BE REMOVED FROM VALVE BOXES AND PLACED FACE UP ADJACENT TO THE VALVE BOX PRIOR TO REGINNING THE WALK THROUGH
 - C. THE WALK THROUGH WILL BE DIVIDED INTO (2) TWO SECTIONS AND PROCEED AS
 - VISUAL WALK THROUGH: THIS WILL CONSIST OF WALKING THROUGH THE ENTIRE IRRIGATION SYSTEM AND EXAMINING ALL COMPONENTS OF THE SYSTEM WITHOUT TURNING ON ZONES. A PUNCH LIST WILL BE ESTABLISHED OF DEFICIENCIES IN THE CONSTRUCTION AND WORKMANSHIP OF THE IRRIGATION SYSTEM AS COMPARED TO THE CONSTRUCTION DRAWINGS, DETAILS, AND
 - OPERATIONAL WALK THROUGH: THIS WILL CONSIST OF WALKING THROUGH THE ENTIRE IRRIGATION SYSTEM OBSERVING EACH ZONE IN A FULLY OPERABLE CONDITION, VALVES MUST BE ACTIVATED FROM THE AUTOMATIC CONTROLLER UNIT (MANUAL BLEEDING OF INDIVIDUAL ELECTRIC CONTROL VALVES WILL NOT BE ACCEPTABLE). A PUNCH LIST WILL BE ESTABLISHED OF DEFICIENCIES IN THE OPERATION OF EACH ZONE IN THE IRRIGATION SYSTEM EVALUATING BUT NOT LIMITED TO HEAD SPACING, ROW SPACING, NOZZLE SIZING CORRECT RADIUS OF THROW CORRECT STATIONING AS COMPARED TO THE CONSTRUCTION DRAWINGS, DETAILS, AND SPECIFICATIONS.

3. ONCE THE WALK THROUGH FOR SUBSTANTIAL COMPLETION HAS BEEN COMPLETED THE ARCHITECT WILL PROVIDE A COPY OF ALL PUNCH LIST ITEMS TO THE OWNER FOR REVIEW AND DISTRIBUTION TO THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, REPLACE, AND ADJUST ALL ITEMS ON THE PUNCH PRIOR TO REQUESTING A FINAL WALK THROUGH.

F. FINAL WALK THROUGH:

- BEFORE COMMENCEMENT OF A FINAL WALK THROUGH IS REQUESTED, THE FOLLOWING REQUIREMENTS MUST BE ENTIRELY SATISFIED:
- EACH ITEM ON THE WALK THROUGH FOR SUBSTANTIAL COMPLETION HAS BEEN THOROUGHLY ADDRESSED AND RESOLVED BY THE CONTRACTOR.
- ALL FINAL RECORD AS-BUILT DRAWINGS AND CONTROLLER CHARTS HAVE BEEN PRODUCED BY THE ARCHITECT FOR REVIEW BY THE ARCHITECT AND CONTRACTOR AT THE FINAL WALK THROUGH.
- 2. ONCE THE ABOVE REQUIREMENTS HAVE BEEN MET A FINAL WALK THROUGH MAY BE REQUESTED. THE FOLLOWING PROCEDURES WILL BE USED:
 - CONTRACTOR MUST HAVE (2) TWO PERSONNEL AVAILABLE WITH RADIO COMMUNICATION FOR THE ENTIRE LENGTH OF THE WALK THROUGH.
- ONLY THOSE VALVE BOX LIDS SHALL BE REMOVED FROM VALVE BOXES AS INDICATED ON THE WALK THROUGH FOR SUBSTANTIAL COMPLETION PUNCH LIST. THE VALVE BOX LIDS SHALL BE PLACED FACED UP ADJACENT TO THE VALVE BOX PRIOR TO BEGINNING THE FINAL WALK THROUGH.
- c. THE FINAL WALK THROUGH WILL BE DIVIDED INTO (2) TWO SECTIONS AND PROCEED AS FOLLOWS:
- VISUAL WALK THROUGH: THIS WILL CONSIST OF WALKING THROUGH THE PUNCH LIST ITEMS CREATED AT THE TIME OF THE WALK THROUGH FOR SUBSTANTIAL COMPLETION, EXAMINING ALL COMPONENTS OF THE SYSTEM WITHOUT TURNING ON ZONES. ANY REMAINING DEFICIENCIES IN THE CONSTRUCTION AND WORKMANSHIP OF THE IRRIGATION SYSTEM AS COMPARED TO THE PUNCH LIST GENERATED AT THE TIME OF THE WALK THROUGH FOR SUBSTANTIAL COMPLETION. CONSTRUCTION DRAWINGS, DETAILS AND SPECIFICATIONS WILL BE
- OPERATIONAL WALK THROUGH: THIS WILL CONSIST OF WALKING THROUGH THE PUNCH LIST ITEMS CREATED AT THE TIME OF THE WALK THROUGH FOR SUBSTANTIAL COMPLETION AND OBSERVING EACH. ZONE IN A FULLY OPERABLE CONDITION. VALVES MUST BE ACTIVATED FROM THE AUTOMATIC CONTROLLER UNIT (MANUAL BLEEDING OF INDIVIDUAL ELECTRIC CONTROL VALVES WILL NOT BE ACCEPTABLE). ANY REMAINING DEFICIENCIES IN THE OPERATION OF EACH ZONE IN THE IRRIGATION SYSTEM INCLUDING BUT NOT LIMITED TO HEAD SPACING, ROW SPACING, NOZZLE SIZING, CORRECT RADIUS OF THROW, CORRECT STATIONING AS COMPARED TO THE PUNCH LIST GENERATED AT THE TIME OF THE WALK THROUGH FOR SUBSTANTIAL COMPLETION CONSTRUCTION DRAWINGS, DETAILS, AND SPECIFICATIONS.
- 3. ONCE THE FINAL WALK THROUGH IS COMPLETED AND ALL ITEMS CREATED ON THE FINAL PUNCH LIST HAVE BEEN ADDRESSED THE MAINTENANCE PERIOD MAY BEGIN ANY ADDITIONAL WALK THROUGHS REQUIRED DUE TO CONTRACTORS' INABILITY TO ADDRESS ALL ISSUES ON THE PUNCH LISTS DESCRIBED ABOVE. WILL BE PROVIDED AT THE CONTRACTOR'S EXPENSE.

MAINTENANCE PERIOD

- A. THE MAINTENANCE PERIOD SHALL BE FOR THIRTY (30) DAYS AFTER NOTIFICATION FROM THE ARCHITECT OF A SUCCESSFUL FINAL WALK THROUGH AND WILL BEGIN ONCE ALL ITEMS ON THE FINAL WALK THROUGH PUNCH LIST HAVE BEEN SATISFACTORILY ADDRESSED BY A WRITTEN STATEMENT INDICATING SUCH FROM
 - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND FOLLOWING ANY MAINTENANCE MANUALS CREATED SPECIFICALLY FOR THE PROJECT FROM THE OWNER AT THE BEGINNING OF THE MAINTENANCE PERIOD.
- 2. AT THE END OF THE MAINTENANCE PERIOD AND PRIOR TO TURNING THE PROJECT OVER TO THE OWNER, THE CONTRACTOR SHALL DELIVER THE FOLLOWING TO THE OWNER:
- a. FOUR (4) CONTROLLER ACTIVATION KEYS. (PER LEGEND)
- b. TWO (2) QUICK COUPLER KEYS AND HOSE SWIVELS. (PER LEGEND)
- 3. ONCE THE CONTRACTOR HAS FULFILLED ALL MAINTENANCE AGREEMENT OBLIGATIONS AN HAS PROVIDED THE ABOVE ITEMS TO THE OWNER, THE MAINTENANCE PERIOD WILL END SEE SECTION 320533 LANDSCAPE MAINTENANCE FOR MAINTENANCE RESPONSIBILITIES

FND OF SECTION 328400

DESIGNED BY APPROVED BY WW. 9. 94Wa DATE DESIGNED BY DRAWN BY CHECKED BY

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PEDLEY ROAD MEDIAN IMPROVEMENT IRRIGATION SPECIFICATIONS

STA 52+00 TO STA 62+00

SHEET DESCRIPTION

HEET 25 OF 25

PROJECT CI-0528

ARCHIVE 954-99

SHEET No.