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GENERAL NOTES

1. ALL LANDSCAPING AND IRRIGATION SHALL CONFORM TO THE CITY OF SOLANA BEACH DEVELOPMENT GUIDELINES, ZONING ORDINANCE CHAPTER 17.56 LANDSCAPING REGULATIONS AND ALL OTHER LANDSCAPE RELATED CITY AND REGIONAL STANDARDS.
2. ALL REQUIRED LANDSCAPE AREAS SHALL BE MAINTAINED BY THE DEVELOPER. THE MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION. DISEASED OR DEAD PLANT MATERIAL SHALL BE SATISFACTORILY TREATED OR REPLACED.
3. ALL TREES WITHIN 5' OF IMPROVEMENTS SUCH AS, WALKS, CURBS, PAVING, ETC. SHALL BE INSTALLED WITH CITY APPROVED ROOT BARRIERS.
4. CONTRACTORS ON THE JOB SHALL CARRY INSURANCE SATISFACTORY TO THE OWNER, AND SHALL PROVIDE CERTIFICATION OF COVERAGE UPON REQUEST. CONTRACTOR SHALL NOT CAUSE THIS POLICY TO BE CANCELED OR PERMIT IT TO LAPSE, AND THE INSURANCE POLICY SHALL INCLUDE A CLAUSE TO THE EFFECT THAT THE POLICY SHALL NOT, AT ANY TIME DURING THE CONSTRUCTION PERIOD, BE CANCELED, REDUCED, RESTRICTED, OR LIMITED UNTIL FIFTEEN (15) DAYS AFTER ALL ADDITIONAL INSURED HAVE RECEIVED WRITTEN NOTICE AS EVIDENCED BY RETURNED RECEIPTS OF REGISTERED OR CERTIFIED LETTERS.
5. THE CONTRACTOR AGREES TO HOLD THE LANDSCAPE ARCHITECT HARMLESS FROM ANY CLAIMS ARISING OUT OF HIS OPERATIONS OR THE OPERATIONS OF ANY OF HIS SUBCONTRACTORS, MATERIALS SUPPLIERS, OR AGENTS.
6. THE CONTRACT DRAWINGS REPRESENT THE FINISHED CONSTRUCTION AND DO NOT INDICATE METHODS, PROCEDURES, OR SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO MAINTAIN THE INTEGRITY OF STRUCTURES DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, CONSTRUCTION, AND MAINTENANCE OF ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING.
7. ALL LOCAL, MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THE PROJECT SPECIFICATIONS AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR THE ENFORCEMENT OF FEDERAL AND STATE OF CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH REGULATIONS AND REQUIREMENTS.
8. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL-EXISTING AND NEW UTILITIES, STRUCTURES, AND SERVICES BEFORE WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE OWNER AND THE LANDSCAPE ARCHITECT.
9. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, LANDSCAPING, AND FEATURES TO REMAIN ON, AND ADJACENT TO, THE PROJECT SITE DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR, AT HIS OWN EXPENSE, ALL DAMAGE RESULTING FROM HIS OPERATIONS OR NEGLIGENCE.
10. IN AN EMERGENCY THREATENING THE SAFETY OF LIFE, WORK OR ADJOINING PROPERTY, THE CONTRACTOR IS HEREBY INSTRUCTED TO ACT AT HIS DISCRETION TO PREVENT SUCH LOSS OR INJURY.
11. THE CONTRACTOR SHALL OBTAIN AND REVIEW THE PERTINENT ENGINEERING AND ARCHITECTURAL PLANS BEFORE BEGINNING WORK. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL DIMENSIONS PRIOR TO SUBMITTING A BID. PERMITS FOR ANY CONSTRUCTION DEPICTED IN THESE PLANS SHALL BE OBTAINED BY THE CONTRACTOR.
12. CONTRACTOR SHALL HAVE A VALID CONTRACTOR'S LICENSE AND A CITY BUSINESS LICENSE REQUIRED FOR THE PARTICULAR WORK BEING DONE. CONTRACTOR SHALL NOT ALLOW LICENSES TO LAPSE DURING THE CONTRACT PERIOD.
13. DO NOT SCALE ANY DRAWING IN THIS SET. ALL WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER THE SCALE SHOWN ON THE PLANS, SECTIONS, AND DETAILS.
14. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT BEFORE START OF CONSTRUCTION (3 WORKING DAYS OR 72 HOURS).
15. PLANT MATERIAL SHALL BE INSPECTED BY THE PLANNING DIVISION PRIOR TO INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT THE PLANNING DIVISION, LANDSCAPE ARCHITECT AND DEVELOPER TO SCHEDULE THE INSPECTION.
16. ALL LANDSCAPING SHALL BE INSPECTED AND APPROVED BY THE PLANNING DIVISION PRIOR TO BUILDING OCCUPANCY. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT THE PLANNING DIVISION, LANDSCAPE ARCHITECT AND DEVELOPER TO SCHEDULE THE INSPECTION.
17. THE CONTRACTOR IS REQUIRED TO SUBMIT ITEMS ON LT-2 TO THE LANDSCAPE ARCHITECT AND OBTAIN HIS APPROVAL PRIOR TO DELIVERY TO THE SITE AND PROCEEDING WITH CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN THE LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO DELIVERY OF THE ABOVE ITEMS TO THE SITE.
18. FOR ALL CONCRETE PAVING AND HARDSCAPE PAVERS, THE CONTRACTOR SHALL PREPARE HARDSCAPE MATERIAL SAMPLES 4"x4" SQUARES, LABELED AND NUMBERED APPROXIMATELY WITH SPECIFIED MATERIALS, COLORS, TEXTURES, AND OTHER TREATMENTS CALLED OUT FOR REVIEW AND APPROVAL BY THE CITY PLANNING DEPARTMENT INSPECTOR, THE CLIENT AND LANDSCAPE ARCHITECT. THESE SAMPLES SHALL BE LOCATED AND REMAIN PROTECTED ON-SITE FOR THE DURATION OF THE PROJECT CONSTRUCTION PERIOD AND FOR REFERENCE AND QUALITY CONTROL PURPOSES.
19. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED NO LESS THAN 72 HOURS IN ADVANCE OF THE START OF CONSTRUCTION, ANY SITE OBSERVATION, OR MEETINGS. SITE OBSERVATIONS SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - A. PRE-CONSTRUCTION MEETING.
 - B. LANDSCAPE GRADING AND SOIL AMENDING.
 - C. LANDSCAPE CONSTRUCTION AND INSTALLATION.
 - D. SPOTTING OF TREES AND SPECIMEN PLANTS.
 - E. IRRIGATION MAINLINE PRESSURE, COVERAGE AND WIRE CONTINUITY TESTS.
 - F. PLANTING.
 - G. PRE-MAINTENANCE (SUBSTANTIAL CONFORMANCE WALK THROUGH).
 - H. POST-MAINTENANCE (FINAL WALK THROUGH).
 - I. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THESE MEETINGS AND INSURE THE LANDSCAPE ARCHITECT IS PRESENT AT THE SITE AS WELL AS THE DEVELOPER.
20. UPON COMPLETION OF THE MAINTENANCE PERIOD BY THE CONTRACTOR AND AFTER FINAL WALK-THROUGH, A "CERTIFICATE OF SUBSTANTIAL COMPLETION" SHALL BE SUBMITTED TO THE CITY AND THE DEVELOPER. THE CERTIFICATE SHALL BE PROVIDED BY THE LANDSCAPE ARCHITECT, LANDSCAPE CONTRACTOR, GENERAL CONTRACTOR AND OTHER LICENSED OR CERTIFIED PROFESSIONALS INVOLVED WITH CONSTRUCTION INDICATED ON THESE PLANS. THE CERTIFICATE SHALL INDICATE THAT PLANT MATERIALS AND IRRIGATION SYSTEM HAVE BEEN INSTALLED IN ACCORDANCE WITH THE PLANS, HYDROSTATIC AND COVERAGE TESTS FOR THE IRRIGATION SYSTEM HAVE BEEN OBSERVED BY THE LANDSCAPE ARCHITECT AND FOUND TO BE ACCEPTABLE. ALSO, THE CERTIFICATE SHALL INCLUDE A LIST OF OBSERVED DEFICIENCIES, ITEMS THAT WILL REQUIRE CORRECTION, REPLACEMENT OR OBSERVATION.
21. ANY DISCREPANCIES BETWEEN THE FIELD CONDITIONS AND THE CONTRACT DOCUMENTS AND/OR DESIGN INTENT AFFECTING THE SUCCESSFUL COMPLETION AND COST OF THE PROJECT SHALL BE REPORTED TO THE OWNER AND THE LANDSCAPE ARCHITECT IMMEDIATELY. ALL WORK RELATED TO THE PROBLEM AREA SHALL CEASE UNTIL THE DISCREPANCIES HAVE BEEN RESOLVED BY THE OWNER AND LANDSCAPE ARCHITECT IN WRITING. ANY CONTINUATION OF WORK PRIOR TO THE RESOLUTION OF DISCREPANCIES IS AT THE CONTRACTORS RISK AND EXPENSE.
22. ANY AND ALL CHANGES TO THE LANDSCAPE CONSTRUCTION, IRRIGATION AND PLANTING PLANS AS A RESULT OF CONSTRUCTION OR VALUE ENGINEERING SHALL BE DOCUMENTED AND SUBMITTED BY THE CONTRACTOR TO THE OWNER AND LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. ONCE ACCEPTED, THE CONTRACTOR IS REQUIRED TO DOCUMENT THE APPROVED CHANGES ON AN AS-BUILT SET OF DRAWINGS TO BE MAINTAINED ON-SITE DURING CONSTRUCTION AND SUBMITTED TO THE OWNER AND LANDSCAPE ARCHITECT AT THE COMPLETION OF THE PROJECT.
23. NO REVISIONS OR CHANGES SHALL BE MADE TO THESE PLANS WITHOUT REVIEW AND WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT THROUGH A RFI 'REQUEST FOR INFORMATION' SUBMITTED BY THE CONTRACTOR.
24. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS & PROPERTY THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY & NOT BE LIMITED TO NORMAL WORKING HOURS & THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, & HOLD THE OWNER, THE CITY/COUNTY OF LOCAL JURISDICTION, & THE LANDSCAPE ARCHITECT HARMLESS FROM ANY & ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER, THE CITY/COUNTY OF LOCAL JURISDICTION, OR THE LANDSCAPE ARCHITECT.
25. ALL DRAWINGS AND MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF THE LANDSCAPE ARCHITECT AND THE SAME MAY NOT BE DUPLICATED, USED OR DISCLOSED WITHOUT WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT.

LANDSCAPE CONSTRUCTION PLANS FOR

THE PEARL

CITY CASE # 17-11-05

COASTAL COMMISSION PERMIT # 6-14-1033

561 SOUTH SIERRA AVE.
CITY OF SOLANA BEACH, CA
(APN 298-211-81)

LEED REQUIREMENTS

LEED REQUIREMENTS - DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND OTHER ALL SPECIFICATIONS APPLY TO THIS SECTION. THIS SECTION INCLUDES GENERAL REQUIREMENTS AND PROCEDURES FOR COMPLIANCE WITH CERTAIN U.S. GREEN BUILDING COUNCILS (USGBC) LEED PREREQUISITES AND CREDITS NEEDED FOR THE PROJECT TO OBTAIN LEED CERTIFICATION UNDER THE LEED FOR HOMES 2008 FOR MULTIFAMILY MID-RISE CALIFORNIA UPDATED 4/1/2011, RATING SYSTEM. OTHER LEED PREREQUISITES AND CREDITS NEEDED TO OBTAIN LEED CERTIFICATION ARE DEPENDENT ON DESIGN AND MATERIAL SELECTIONS AND MAY NOT BE SPECIFICALLY IDENTIFIED AS LEED REQUIREMENTS. COMPLIANCE WITH REQUIREMENTS NEEDED TO OBTAIN LEED PREREQUISITES AND CREDITS MAY BE USED AS ONE CRITERION TO EVALUATE SUBSTITUTION REQUESTS. PLEASE REVIEW AND COMPLY WITH THE LEED FOR HOMES MID-RISE CALIFORNIA PROJECT CHECKLIST, LEED FOR HOMES 2008 REFERENCE GUIDE, LEED FOR HOMES MULTIFAMILY MID RISE CALIFORNIA RATING SYSTEM, ENERGY STAR HIGH RISE TESTING AND VERIFICATION PROTOCOL AND ENERGY STAR THERMAL BYPASS CHECKLIST. ADDITIONAL LEED PREREQUISITES AND CREDITS NEEDED TO OBTAIN THE INDICATED LEED CERTIFICATION ARE DEPENDENT ON THE ARCHITECT'S DESIGN, OTHER CONSULTANT'S ASPECTS OF THE PROJECT AND PERFORMANCE TESTING. LEED SUBMITTALS WILL BE REQUIRED IN ADDITION TO OTHER SUBMITTAL REQUIREMENTS TO IDENTIFY MATERIAL COMPLIANCE AND ASSOCIATED COST AND PERCENTAGES AS IT PERTAINS TO CONSTRUCTION WASTE MANAGEMENT, RECYCLED CONTENT AND REGIONAL MATERIALS.

TO THE CONTRACTOR:

NO SUBSTITUTIONS OR CHANGES SHALL BE MADE TO THE HARDSCAPE MATERIALS, PLANT MATERIALS AND IRRIGATION SYSTEM WITHOUT REVIEW AND WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT AND CITY OF SOLANA BEACH THROUGH A REQUEST FOR INFORMATION (RFI) SUBMITTED BY THE CONTRACTOR.

I. PLANT MATERIAL SELECTION:

- A. NO INVASIVE PLANTS ARE PROPOSED FOR THE PROJECT.
- B. 90% OF THE PLANTS MATERIALS USED FOR THE SITE ARE DROUGHT-TOLERANT PLANTS. 50% OF THE PLANTS USED ON THE SITE ARE CALIFORNIA NATIVE PLANTS.
- C. NO TURF IS PROPOSED FOR THE PROJECT.
- D. 2 - 3" ORGANIC OR ROCK MULCH LAYER PER PLAN AND SOIL AMENDMENTS ARE PROPOSED IN ALL PLANTING AREAS WITH TREES, SHRUBS AND GROUNDCOVER.
- E. ALL COMPACTED SOIL MUST BE TILTED TO AT LEAST 6 INCHES.

2. IRRIGATION SYSTEMS:

- A. THE OVERALL IRRIGATION WATER DEMAND HAS BEEN REDUCED BY APPROXIMATELY 50%.
- B. THE IRRIGATION SYSTEMS HAS BEEN DESIGNED TO MEET THE FOLLOWING CRITERIA:
 - I. A CENTRAL SHUT-OFF VALVE IS INCLUDED.
- III. A SEPARATE METER FOR THE IRRIGATION SYSTEM.
- IV. USE DRIP IRRIGATION FOR AT ALL OF LANDSCAPE PLANTING BEDS TO MINIMIZE EVAPORATION.
- V. SEPARATE ZONES FOR EACH TYPE OF BEDDING AREA BASED ON WATERING NEEDS.
- VI. A CONTROLLER THAT ACTIVATES THE VALVES FOR EACH WATERING ZONE AT THE BEST TIME OF DAY TO MINIMIZE EVAPORATIVE LOSSES WHILE MAINTAINING HEALTHY PLANTS AND OBEYING LOCAL REGULATIONS AND WATER USE GUIDANCE.
- VII. PRESSURE-REGULATION DEVICES HAVE BEEN INSTALLED TO MAINTAIN OPTIMAL PRESSURE AND PREVENT MISTING.
- VIII. HIGH-EFFICIENCY NOZZLES WITH AN AVERAGE DISTRIBUTION UNIFORMITY (DU) OF AT LEAST 0.70 HAVE BEEN USED.
- IX. CHECK VALVES IN HEADS THAT HAVE BEEN INSTALLED.
- X. A RAIN SENSOR HAVE BEEN INSTALLED.

C. TO THE CONTRACTOR:

- I. INSTALL THE IRRIGATION SYSTEM SO THAT ALL HEADS ARE OPERATING AND DELIVERING WATER ONLY TO INTENDED ZONES.
- II. ANY SWITCHES OR SHUT-OFF VALVES SHALL BE INSTALLED PER PLAN AND ARE WORKING PROPERLY.
- III. CONTROLLERS SHOULD BE SET PROPERLY.
- IV. OVERHEAD IRRIGATION SYSTEM SHOULD NOT HIT ANY STRUCTURES OR HARDSCAPE.

3. PEST CONTROL:

NON-TOXIC PEST OR FERTILIZER MATERIALS SHALL BE USED ON SITE.

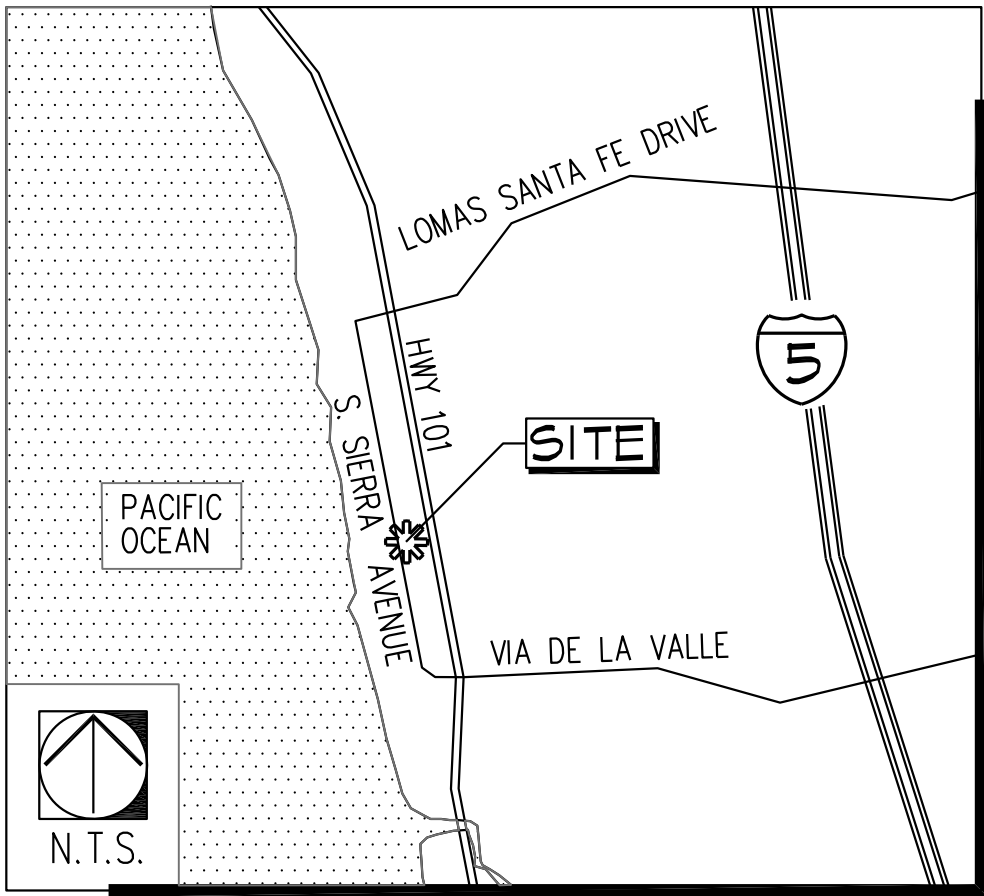
4. HARDSCAPE DESIGN:

- A. LIGHT COLOR GRAY CONCRETE SHALL BE USED TO REDUCE THE LOCAL HEAT ISLAND EFFECTS.

5. SURFACE WATER MANAGEMENT:

- A. % OF ON-SITE PLANTING AREA WITHIN THE SITE IS 9.6 %.
- B. RUN-OFF FROM THE PARKING AREA IS DIRECTED TOWARDS LANDSCAPE BIO-SWALES.
- C. RUN-OFF FROM THE ROOF IS DIRECTED TOWARD BIO-RETENTION LANDSCAPE AREAS.

LOCATION MAP



DEVELOPER

THE PEARL SOLANA BEACH, LP
DEVELOPMENT CORPORATION
P.O. BOX 1700
TEMECULA, CA 92593-1700
PHONE: (619) 846-3532
CONTACT: MIKE VanBUSKIRK

CONSULTANTS

LANDSCAPE ARCHITECT

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CONTACT: MIKE BURNETT

CIVIL ENGINEERING

SWS ENGINEERING & SURVEYING, INC.
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SAN MARCOS, CA 92069
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FAX: (760) 744-0046
CONTACT: TRACY SANTUCCI

MAINTENANCE NOTES

1. ALL ON-SITE LANDSCAPE AREAS SHALL BE MAINTAINED BY A QUALIFIED LANDSCAPE COMPANY HIRED BY THE DEVELOPER OR THE FUTURE PROPERTY MANAGEMENT COMPANY. LANDSCAPED AREAS SHALL BE FREE OF DEBRIS AND LITTER AND ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION. DISEASED OR DEAD PLANT MATERIAL SHALL BE SATISFACTORILY TREATED OR REPLACED.
2. THE PROPERTY DEVELOPER/MANAGEMENT COMPANY SHALL ENSURE LANDSCAPE MAINTENANCE PROVIDERS USE INTEGRATED PEST MANAGEMENT PRACTICES TO PREVENT FERTILIZERS, PESTICIDES, YARD WASTE, AND OTHER POLLUTANTS FROM ENTERING THE STORM DRAINAGE.

LANDSCAPE SHEET INDEX

SHEET NUMBER	TITLE
1	LT-1 LANDSCAPE TITLE SHEET
2	LT-2 LANDSCAPE GENERAL NOTES
3	LC-1 LANDSCAPE CONSTRUCTION PLAN
4	LC-2 LANDSCAPE CONSTRUCTION DETAILS
5	LI-1 IRRIGATION PLAN
6	LI-2 IRRIGATION DETAILS
7	LI-3 IRRIGATION DETAILS
8	LI-4 IRRIGATION NOTES AND CALCULATIONS
9	LI-5 IRRIGATION CALCULATIONS
10	LP-1 TREE REMOVAL PLAN
11	LP-2 PLANTING PLAN
12	LP-3 PLANTING DETAILS

STATEMENT:

"I AM FAMILIAR WITH THE REQUIREMENTS FOR LANDSCAPE AND IRRIGATION PLANS CONTAINED IN THE CITY OF SOLANA BEACH WATER EFFICIENT LANDSCAPE REGULATIONS. I HAVE PREPARED THIS PLAN IN COMPLIANCE WITH THOSE REGULATIONS AND THE LANDSCAPE DESIGN MANUAL. THE PLAN IMPLEMENTS THOSE REGULATIONS TO PROVIDE EFFICIENT USE OF WATER."

_____, DATE: 05/16/2018
MOHAMED ZAKI, M. ZAKI DESIGN, INC.

CITY SUBMITTAL BLOCK:

1st CITY SUBMITTAL	6-27-2016
2nd CITY SUBMITTAL	6-04-2018



Landscape Architect

Developer

Hitzke
Development
Corporation

P.O. BOX 1700, TEMECULA, CA 92593 (760) 798-9809

The Pearl

A MIXED USE DEVELOPMENT
SOUTH SIERRA AVENUE, SOLANA BEACH CA

1st CITY SUBMITTAL 6/27/2016

2nd CITY SUBMITTAL 6/04/2018

MZDI JOB # 11-003



LANDSCAPE
TITLE SHEET

LT.1
SHEET 1 OF 12

FUTURE MAINTENANCE & OPERATIONAL NOTES AFTER ACCEPTANCE OF THE PROJECT BY THE DEVELOPER & AFTER THE COMPLETION OF THE MAINTENANCE PERIOD BY THE CONTRACTOR.

IT IS THE DEVELOPER/OWNER'S RESPONSIBILITY TO SUPPLY THESE PLANS WITH THE FOLLOWING NOTES AND SPECIFICATIONS ALONG WITH CONTRACTOR DRAWN "AS-BUILT" PLANS TO ANY AND ALL FUTURE OWNERS, MAINTENANCE COMPANIES, PROPERTY MANAGEMENT AND HOMEOWNERS ASSOCIATIONS.

1. THE PURPOSE OF THIS SPRINKLER SYSTEM IS TO PROVIDE ONLY SUFFICIENT WATER TO MAINTAIN PLANT LIFE DURING DRY WEATHER CONDITIONS OR SUMMER SEASONS. TIME CLOCKS SHALL BE READJUSTED CONTINUOUSLY THROUGHOUT THE SEASON, ON A WEEKLY BASIS IF NECESSARY, TO PROVIDE WATER ONLY WHEN THE SOIL IS DRY AT A DEPTH OF 4" THE FIRST INITIAL GROWING SEASON AND 6" THE FOLLOWING YEARS. IF THE GROUND IS MOIST EITHER AT THE SURFACE OR A DEPTH OF 4" (DURING THE FIRST YEAR AFTER INITIAL PLANT ESTABLISHMENT) OR IS MOIST AT A DEPTH OF 6" THEREAFTER, SHUT THE TIME CLOCKS OFF AND DO NOT APPLY ADDITIONAL WATER UNTIL SOIL HAS BEEN ALLOWED TO DRY. READJUST TIME CLOCK PRIOR TO TURNING VALVES BACK ON. IF RAIN IS FORECAST OR IS IMMINENT, ALL IRRIGATION SYSTEMS SHALL BE SHUT-OFF AND NOT REACTIVATED UNTIL THE SOIL HAS DRIED TO THE ABOVE DEPTHS.

2. IF ANY SUBSURFACE DRAINAGE, OR RUN-OFF IS VISIBLE AT LOW AREAS, ACROSS SIDEWALKS, OR AT LOWER PORTIONS OF SLOPES IMMEDIATELY SHUT THE VALVES OFF TO ALLOW THE AREA TO COMPLETELY DRY OUT. IF THIS CONDITION CONTINUES AFTER SUBSEQUENT WATERING, A QUALIFIED GEOLOGIST OR GEOTECHNICAL ENGINEER MUST BE RETAINED TO PROVIDE RECOMMENDATIONS TO ELIMINATE SUBSURFACE WATER OR DRAINAGE PROBLEMS. IF DURING NORMAL IRRIGATION, PONDING TAKES PLACE ON ANY LANDSCAPE AREA, DRIVES, PARKING AREAS OR ANY OTHER AREA, THE IRRIGATION SYSTEM SHALL BE IMMEDIATELY SHUT-OFF AND A LICENSED CIVIL ENGINEER SHALL BE IMMEDIATELY CONTACTED TO PROVIDE RECOMMENDATIONS FOR POSITIVE AND PROPER DRAINAGE.

3. INSPECTIONS OF IRRIGATION SYSTEM SHALL BE MADE ON A DAILY BASIS, BY THE LANDSCAPE MAINTENANCE PERSONNEL, TO OBSERVE AND PROVIDE REPAIRS OR REMEDIES TO THE FOLLOWING UNACCEPTABLE PROBLEMS:

- A. OVER-SPRAY ON SIDEWALKS, STREETS, PAVED AREAS, FENCES, PARKING AREAS, WALLS, BUILDINGS OR OTHER STRUCTURES.
- B. DRAINAGE OR RUN-OFF ACROSS SIDEWALKS, PAVING OR STREETS.
- C. DAMAGED OR IMPROPERLY OPERATING HEADS, PIPING, VALVES, CONTROLLERS OR OTHER IRRIGATION EQUIPMENT.

IF WATER IS OBSERVED ON STREETS OR PUBLIC SIDEWALKS, PROPER WARNING SIGNS OR BARRIERS SHALL BE ERECTED IMMEDIATELY TO ENSURE SAFETY AND PROTECTION OF THE PUBLIC. THE WET AREA SHALL BE DRIED IMMEDIATELY BY MECHANICALLY REMOVING WATER.

4. ONLY LICENSED AND QUALIFIED LANDSCAPE CONTRACTORS AND LANDSCAPE MAINTENANCE INDIVIDUALS SHALL PROVIDE OR MAKE REPAIRS TO IRRIGATION SYSTEM.

5. AT ALL TIMES, THE LANDSCAPE CONTRACTOR OR MAINTENANCE CONTRACTOR SHALL ASSIGN A QUALIFIED INDIVIDUAL OR INDIVIDUALS TO INSPECT AND MONITOR THE IRRIGATION SYSTEM. OWNERS AND HOMEOWNERS REPRESENTATIVES SHALL BE SUPPLIED WITH 24 HOUR EMERGENCY PHONE NUMBERS FOR USE IN REPORTING BROKEN OR DAMAGED IRRIGATION EQUIPMENT.

6. ALL IRRIGATION EQUIPMENT REQUIRES CONTINUOUS MAINTENANCE, CLEANING, ADJUSTMENT, PARTS REPLACEMENT AND INSPECTION. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR OR LANDSCAPE MAINTENANCE COMPANY TO PROVIDE THESE SERVICES ON A CONTINUAL AND REGULAR BASIS AND SCHEDULE.

7. WATER SHALL BE APPLIED TO PLANTING AREAS IN SHORT INTERVALS TO PROHIBIT ANY SURFACE PONDING OR RUN-OFF AND AT NO TIME SHALL WATER BE APPLIED TO CAUSE SOIL SATURATION.

8. OVERWATERING CAN RESULT IN DEATH OF PLANTS, POSSIBLE SOIL EXPANSION AND DAMAGE TO CONCRETE AND ASPHALT PAVING, DAMAGE TO FOUNDATIONS AND POSSIBLE LOSS OF SOIL COMPACTION. A QUALIFIED GEOTECHNICAL ENGINEER SHALL BE RETAINED TO PROVIDE SITE INSPECTIONS AT LEAST ON AN ANNUAL BASIS TO INSPECT FOR EXCESS SOIL MOISTURE.

THE RESPONSIBILITY OF ENSURING THAT THE ABOVE PRECAUTIONS, REPAIRS AND CONTINUING MAINTENANCE ARE PROPERLY PERFORMED IS THE RESPONSIBILITY OF THE DEVELOPER/OWNER AND EVENTUALLY THE PROPERTY MANAGEMENT OR THE HOMEOWNERS ASSOCIATION. THE LANDSCAPE ARCHITECT HAS BEEN RETAINED TO PREPARE THESE PLANS ONLY AND DOES NOT PROVIDE POST CONSTRUCTION REVIEWS NOR REVIEWS OF ON-SITE MAINTENANCE. THE LANDSCAPE ARCHITECT DOES NOT ASSUME RESPONSIBILITY NOR LIABILITY OF MAINTENANCE OR REVIEW OF MAINTENANCE WORK OR REPAIRS OR DAMAGES RESULTING FROM LACK OF REPAIRS, MAINTENANCE, ADJUSTMENTS, OR IMPROPER INSTALLATION OF IRRIGATION EQUIPMENT.

GUARANTEES & REPLACEMENTS BY THE CONTRACTOR

1. GUARANTEE SHRUBS, VINES AND GROUND COVERS, INCLUDING TURF AREAS, TO REMAIN HEALTHY AND VIGOROUSLY GROWING FOR 120 DAYS FROM COMPLETION DATE OF THE CONTRACT MAINTENANCE PERIOD.
2. GUARANTEE TREES AND PALMS TO LIVE IN A HEALTHY CONDITION FOR A PERIOD OF ONE YEAR FROM COMPLETION DATE OF THE CONTRACT MAINTENANCE PERIOD.
3. REPLACE WITHIN 14 DAYS, PLANTS FOUND TO BE DEAD OR NOT IN A VIGOROUS CONDITION AS DETERMINED BY THE LANDSCAPE ARCHITECT NOTED WITHIN THE GUARANTEE PERIOD.
4. USE PLANTS FOR REPLACEMENT OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. FURNISH, PLANT AND FERTILIZE AS ORIGINALLY SPECIFIED.
5. THE ENTIRE IRRIGATION SYSTEM INCLUDING PLANTER POTS WITH BUILT-IN INTERNAL RESERVOIR SELF WATERING SYSTEM SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE TIME OF TURNOVER TO THE OWNER FOLLOWING THE CONTRACT MAINTENANCE PERIOD. THE GUARANTEE SHALL COVER ALL MATERIALS AND WORKMANSHIP OF THE INSTALLATION AT NO COST TO THE OWNER.

MAINTENANCE BY THE CONTRACTOR

1. MAINTENANCE PERIOD SHALL BEGIN ON THE FIRST DAY AFTER ALL LANDSCAPE AND IRRIGATION WORK ON THE PROJECT IS COMPLETE, CHECKED, ACCEPTED, AND WRITTEN APPROVAL FROM THE OWNER AND LANDSCAPE ARCHITECT IS GIVEN TO BEGIN THE MAINTENANCE PERIOD. MAINTENANCE PERIOD SHALL CONTINUE THEREAFTER FOR NO LESS THAN 120 CONTINUOUS CALENDAR DAYS.
2. CONTINUOUSLY MAINTAIN ALL INVOLVED AREAS DURING THE PROGRESS OF THE LANDSCAPING OPERATIONS AND DURING THE MAINTENANCE PERIOD UNTIL THE FINAL ACCEPTANCE OF THE WORK.
3. REGULAR PLANTING MAINTENANCE OPERATIONS SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS PLANTED. PLANTS SHALL BE KEPT IN A HEALTHY, GROWING CONDITION AND IN A VISUALLY PLEASING APPEARANCE BY WATERING, PRUNING, TRIMMING, EDGING, FERTILIZING, RE-STAKING, PEST AND DISEASE CONTROLLING, SPRAYING, WEEDING, CLEANING-UP AND OTHER OPERATIONS OF MAINTENANCE. LANDSCAPE AREAS SHALL BE KEPT FREE OF WEEDS, NOXIOUS GRASS, AND OTHER UNDESIRED VEGETATIVE GROWTH AND DEBRIS. PLANTS FOUND TO BE DEAD OR IN AN IMPAIRED CONDITION SHALL BE REPLACED IMMEDIATELY.
4. IRRIGATION SYSTEM SHALL REQUIRE CONTINUOUS MAINTENANCE, CLEANING, ADJUSTMENT, PART REPLACEMENT AND INSPECTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THESE SERVICES ON A CONTINUAL AND REGULAR BASIS DURING THE MAINTENANCE PERIOD TO INSURE THE IRRIGATION SYSTEM IS PROPERLY OPERATED WITHOUT ANY PROBLEMS.
5. COMPLETION DATE OF THE CONTRACT MAINTENANCE PERIOD WILL BE EXTENDED, WHEN IN THE OPINION OF THE LANDSCAPE ARCHITECT, IMPROPER MAINTENANCE OR THE UNHEALTHY CONDITION OF PLANTED MATERIAL IS EVIDENT AT THE TERMINATION OF THE SCHEDULED MAINTENANCE PERIOD. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ADDITIONAL LANDSCAPE MAINTENANCE UNTIL LANDSCAPING IS COMPLETED AND ACCEPTABLE.
6. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR MAINTAINING ADEQUATE PROTECTION OF LANDSCAPE AREAS. REPAIR DAMAGED AREAS IMMEDIATELY.

DECLARATIONS AND DISCLAIMERS FOR LANDSCAPE ARCHITECTURE

BY USE OF THESE DRAWINGS BEARING THE SEAL AND SIGNATURE OF THE LANDSCAPE ARCHITECT, FOR ANY REASON, THE USER ACKNOWLEDGES AND ACCEPTS THE FOLLOWING:

1. PLANT MATERIAL IS A DYNAMIC, UNPREDICTABLE, LIVING ORGANISM THAT CAN CREATE HAZARDS TO PEOPLE AND BUILT STRUCTURES.
2. THIS PROJECT FEATURES PLANTING IN CONTAINERS AND IN SPACES CONFINED ON ALL SIDES BY BUILDING STRUCTURES. PLANTS GROWN IN CONTAINERS OR CONFINED SPACES WILL NOT ACHIEVE SIZES OR CHARACTERISTICS AS THE SAME PLANTS GROWN IN UNRESTRICTED, NATURAL CONDITIONS. ROOTS WILL GROW TO THE EDGES OF CONFINED AREAS AND MUST BE REGULARLY INSPECTED BY PLANT CARE PROFESSIONALS WITH A COMPLETE CLT CERTIFICATION TO INSURE NO DAMAGE TO THE CONTAINER, BUILDING STRUCTURE, OR WATERPROOFING COMPONENTS.
3. PLANT MATERIALS USED ON THIS PROJECT HAVE VARYING WATER USE REQUIREMENTS THAT ARE DETERMINED FROM SEASON TO SEASON, WEATHER CONDITIONS, TYPE OF PLANT, AND BY LOCATION. WATER APPLICATION MUST BE ADJUSTED AS NECESSARY. PLANT MATERIAL, PLANTING SOIL AND IRRIGATION SYSTEMS REQUIRE CONTINUOUS, ON-GOING, PROFESSIONAL MONITORING. IMPROPER MAINTENANCE AND MONITORING CAN LEAD TO SIGNIFICANT DAMAGE. THE LANDSCAPE ARCHITECT HAS NO CONTROL OVER THE MAINTENANCE OF THE WORK REPRESENTED ON THESE DRAWINGS AND THEREFORE DISCLAIMS ANY RESPONSIBILITY FOR DAMAGES CAUSED BY PLANT GROWTH AND/OR THE APPLICATION OF IRRIGATION WATER.
4. THE LANDSCAPE ARCHITECT HAVE HAD NO CONTROL OVER, AND TAKE NO RESPONSIBILITY FOR ANY COMPONENTS OF THE PROJECT OTHER THAN WHAT IS EXPLICITLY ILLUSTRATED ON THE DRAWINGS SIGNED AND SEALED BY THE LANDSCAPE ARCHITECT. WORK NOTED AS 'BY OTHERS' IS SHOWN FOR REFERENCE ONLY.
5. UNLESS THESE PLANS ARE CLEARLY MARKED 'FOR CONSTRUCTION' AND BEAR THE SEAL AND SIGNATURE OF A LICENSED LANDSCAPE ARCHITECT THEY MAY NOT BE USED FOR CONSTRUCTION.
6. DESIGN OR INDICATION OF STRUCTURE, PENETRATIONS THROUGH STRUCTURE, DRAINAGE, PROTECTION, ROOT BARRIERS AND WATERPROOFING IN PLANTERS BY OTHERS IS SHOWN ON THESE LANDSCAPE ARCHITECTURAL DRAWINGS FOR REFERENCE ONLY, AND IS NOT FOR CONSTRUCTION. PLEASE REFER TO APPROPRIATE PLANS BY OTHERS FOR CONSTRUCTION INFORMATION.

1. CONTAINER PLANTING:

- A. BECAUSE OF THE SPECIAL NEEDS OF PLANTS IN POTS, THE LANDSCAPE MAINTENANCE PERSONNEL WHO CARE FOR POTTED PLANTS SHALL HAVE COMPLETE CLT CERTIFICATION. THE DEVELOPER OR FUTURE MANAGEMENT COMPANY IS REQUIRED TO CONSULT WITH A CERTIFIED ARBORIST ON AN ANNUAL BASIS TO EVALUATE EXISTING PLANTS, PLANTERS ON STRUCTURE AND POTTED PLANTS.
- B. THE LANDSCAPE MAINTENANCE PERSONNEL FOR THE SITE WILL NEED TO POSSESS KNOWLEDGE OF THE WATER NEEDS FOR THE POTTED PLANTS. IT WILL BE THE SOLE RESPONSIBILITY OF THE LANDSCAPE MAINTENANCE PERSONNEL TO DETERMINE THE WATER NEEDS FOR ALL PLANTS IN POTS. ALSO THE LANDSCAPE MAINTENANCE PERSONNEL WILL NEED TO CONSIDER THE POTS EXPOSURE TO RAINFALL.
- C. CARE FOR THE POTTED PLANTS WILL BE PROBLEMATIC DUE TO THE DIVERSITY OF PLANTS, PLANT ARRANGEMENT IN POTS AND THE DIFFERENT SIZE OF POTS. ALSO THE LOCATION OF THE POTS AS FAR AS BOTH SUN AND SHADE EXPOSURE WILL AFFECT THE PLANTS CARE. EACH PLANT IN A POT WILL NEED TO BE GIVEN INDIVIDUAL CARE DUE TO ITS SPECIFIC POTTED SITUATION. THE LANDSCAPE MAINTENANCE PERSONNEL WILL NEED TO UNDERSTAND THE SPECIFIC NEED FOR EACH PLANT DUE TO PLANT TYPE, SIZE, AND SUN/SHADE EXPOSURE.
- D. DUE TO THE LIMITED GROWTH MEDIUM OF PLANTS IN POTS, THE POTTED PLANTS WILL NEED TO BE REMOVED PERIODICALLY FOR BOTH THE HEALTH OF THE PLANT, AND SO THAT THE POTS ARE NOT DAMAGED BY THE PLANTS. THE LANDSCAPE MAINTENANCE PERSONNEL WILL NEED TO REMOVE AND REPLACE PLANTS IN POTS ON A PERIODIC BASIS. EACH PLANT WILL NEED TO RECEIVE INDIVIDUAL CONSIDERATION FOR REMOVAL BY A CERTIFIED ARBORIST.

RECORD DRAWINGS

1. BEFORE FINAL ACCEPTANCE OF WORK, THE CONTRACTOR SHALL PROVIDE A RECORD SET OF DRAWINGS SHOWING THE SPRINKLER SYSTEM AS INSTALLED. INFORMATION SHALL BE ON BLACK MYLAR FOR REPRODUCTION PURPOSES.
2. ANY CHANGES IN LOCATION OF ITEMS OR TYPE OF INSTALLATIONS FROM THAT SHOWN ON DRAWINGS SHALL BE SO INDICATED ON THE RECORD DRAWINGS.
3. VALVES SHALL BE NUMBERED AND CORRESPONDING NUMBERS SHALL BE SHOWN ON THE RECORD DRAWINGS.
4. CONTROLLER, BACKFLOW ASSEMBLIES, REMOTE CONTROL VALVES, BALL VALVES, AND QUICK COUPLER VALVES SHALL BE LOCATED BY MEASURED DIMENSIONS. DIMENSIONS SHALL BE GIVEN TO PERMANENT OBJECTS AND SHALL BE TO THE NEAREST FOOT.
5. ON THE INSIDE SURFACE OF THE COVER OF THE AUTOMATIC CONTROLLER, PREPARE AND MOUNT A COLOR-CODED CHART SHOWING THE VALVES, MAINLINE, AND SPRINKLER HEADS SERVICED BY THE CONTROLLER. ALL VALVES SHALL BE NUMBERED TO MATCH THE OPERATION SCHEDULE AND THE DRAWINGS. THIS CHART SHALL BE A PLOT PLAN, SHOWING BUILDING, WALKS, ROADS AND WALLS. A PHOTOSTATIC PRINT OF THIS PLAN, REDUCED AS NECESSARY AND LEGIBLE IN ALL DETAILS, SHALL BE MADE TO A SIZE THAT WILL FIT INTO THE CONTROLLER COVER. THIS PRINT SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT AND SHALL BE HERMETICALLY SEALED IN PLASTIC. THIS PLAN SHALL THEN BE SECURED TO THE BACK OF THE ENCLOSURE DOOR.
6. ON THE LID OF EACH REMOTE CONTROL VALVE BOX, HEAT IMPRINT THE VALVE DESIGNATION NUMBER AND INSTALL CHRISTY'S VALVE ID TAG ON ALL IRRIGATIONREMOTE CONTROLL VALVES.
7. IMMEDIATELY UPON THE INSTALLATION OF ANY BURIED PIPE OR EQUIPMENT, THE CONTRACTOR SHALL INDICATE ON THE DRAWINGS THE LOCATIONS OF SAID EQUIPMENT. DIMENSIONS SHALL BE GIVEN FROM PERMANENT OBJECTS SUCH AS BUILDINGS, SIDEWALKS, CURBS AND DRIVENWAYS.

RECOMMENDED MINIMUM LANDSCAPE MAINTENANCE SCHEDULE

WEEKLY TASKS

- Check all irrigation equipment and adjust/align as required.
- Inspect all landscape areas for pests/pathogens.
- Weed all shrub/groundcover areas as needed.
- Remove landscape debris.
- Repair planting wells and /or grade around plants to eliminate runoff.
- Perform corrective pruning to eliminate hazards and damage to plant.
- Repair irrigation equipment with originally specified materials.

MINIMUM RECOMMENDED YEARLY MAINTENANCE SCHEDULE							
Month	Adjust Irrigation Schedule	Inspect Tree Staking	Flush Drip Valves	Add Mulch	Prune Trees & Shrubs	Fertilize As Needed	Irrigation Winterization Flush
January	X	X					
February	X	X			X		
March	X	X	X	X		X	
April	X	X					
May	X	X			X		
June	X	X	X	X			
July	X	X					
August	X	X					
September	X	X	X	X			
October	X	X			X	X	
November	X	X					
December	X	X	X	X			X

SOIL MANAGEMENT PLAN (REQUIRED)

1. PER THE CITY OF SOLANA BEACH MUNICIPAL CODE WATER EFFICIENT LANDSCAPE REGULATIONS, SOIL SAMPLES WILL BE TAKEN FROM A DEPTH OF 12 INCHES BELOW THE FINAL FINISH GRADE FROM THE PROJECT SITE AND WILL BE SENT TO A CERTIFIED SOIL LABORATORY TEST FACILITY TO PERFORM THE SOIL TESTS AND PROVIDE RECOMMENDATIONS FOR PLANTING.
2. THE SOIL TESTS SHALL INCLUDED THE FOLLOWING: SOIL TYPE AND CHARACTERISTICS, TEXTURE AND INFILTRATION RATE, AVAILABLE WATER HOLDING CAPACITY, PH, TOTAL SOLUBLE SALTS, SODIUM, ANY LIMITING SOIL CHARACTERISTICS AND RECOMMENDATIONS REGARDING SOIL CONDITIONS, AND THE REMEDIATION EFFORTS NECESSARY TO MITIGATE LIMITING SOIL CONDITIONS. ALSO, REPORTS WITH THE RECOMMENDATIONS SHALL BE PROVIDED FOR NEW TREES, SHRUBS AND GROUNDCOVER, TURF PLANTING, AS WELL AS RECOMMENDATIONS FOR SOIL AMENDMENT.
3. THE SOIL TEST RESULTS WILL NEED TO BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO THE START OF PLANTING OPERATION.
4. THE TEST RESULTS WILL BE SUBMITTED YO THE CITY UPON APPROVAL OF THE LANDSCAPE ARCHITECT.

SUBMITTALS:

1. THE CONTRACTOR SHALL FURNISH THE ARTICLES, EQUIPMENT, MATERIALS, SHOP DRAWINGS, OR PROCESSES SPECIFIED BY NAME IN THE DRAWINGS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT CATALOG DATA AND FULL DESCRIPTIVE LITERATURE FOR APPROVAL OF ITEMS SPECIFIED.
3. EQUIPMENT OR MATERIALS INSTALLED OR FURNISHED WITHOUT THE PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT MAY BE REJECTED AND THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND REPLACE SUCH MATERIALS FROM THE SITE AT HIS OWN EXPENSE.
4. APPROVAL OF ANY ITEM, ALTERNATE OR SUBSTITUTE, INDICATES ONLY THAT THE PRODUCT(S) APPARENTLY MEET THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS ON THE BASIS OF THE INFORMATION OR SAMPLES SUBMITTED.
5. MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTY SHALL ONLY SUPPLEMENT THE GUARANTEE.
6. NEW BACKFLOW PREVENTER SHALL BE TESTED BY A CERTIFIED TESTER AND THE RESULTS MUST BE GIVEN TO THE CITY INSPECTOR AND LANDSCAPE ARCHITECT.

SUBMIT THE FOLLOWING:

A. IRRIGATION SYSTEM:

- CATALOG DATA FOR IRRIGATION HEADS AND NOZZLES, DRIP TUBING, VALVES, QUICK COUPLERS, SENSORS, CONTROLLERS, MASTER VALVES, FLOW METERS, PIPES, VALVE BOXES, WIRE AND CABLE FOR THE IRRIGATION SYSTEM
- BACKFLOW PREVENTER CERTIFICATION

B. LANDSCAPE:

- ALL PLANT MATERIALS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO DELIVERY TO THE SITE. THE LANDSCAPE ARCHITECT RETAINS THE RIGHT TO REJECT UNSATISFACTORY OR DEFECTIVE PLANT MATERIALS AFTER DELIVERT TO THE SITE. ALL REJECTED PLANT MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED WITH SATISFACTORY AND APPROVED MATERIAL.
- MANUFACTURER'S OR VENDOR'S CERTIFIED ANALYSIS FOR SOIL AMENDMENTS AND FERTILIZER MATERIALS.
- TREE STAKES AND TYING SUPPORTS WITH PRODUCT INFORMATION.
- ROOT CONTROL BARRIER PRODUCT DATA.
- WEED BARRIER PRODUCT DATA.
- MULCH PRODUCT DATA.
- VENDOR'S CERTIFICATION
- UPON COMPLETION OF GRADING OPERATIONS, SUBMIT ONE REPRESENTATIVE SOIL SAMPLE FOR EACH DIFFERENT SOIL TYPE AND CONDITION FOR AGRICULTURAL SUSTAINABILITY TESTING. SOIL SAMPLES SHALL REPRESENT A CROSS SECTION OF SOIL CONDITIONS PRESENT AT THE SITE. SUBMIT ONE SAMPLE OF ORGANIC SOIL AMENDMENT FOR TESTING.
- SOIL AND AMENDMENT TESTS SHALL BE PERFORMED BY SOIL AND PLANT LABORATORY, P.O. BOX 6566, ORANGE, CA 92613, PHONE (714) 282-8117. TESTS SHALL INDICATE ORGANIC MATTER CONTENT, N, P, K, pH, EC, BORON, SOIL TEXTURE, RECOMMENDATIONS FOR AMENDMENTS, LEACHING AND MAINTENANCE FERTILIZATION.
- SOIL TEST RESULTS AND RECOMMENDATIONS OF THE LABORATORY SHALL BE SUBMITTED TO THE CITY FOR INCORPORATION INTO THE CONTRACT DOCUMENTS. REFER TO SOIL MANAGEMENT NOTES AND REQUIREMENTS ON SHEET LP-1.
- PLANTER POTS AND BUILT-IN INTERNAL RESERVOIR SELF WATERING SYSTEM CATALOG DATA AND COLOR.

C. SITE FURNITURE AND PLANTER POTS:

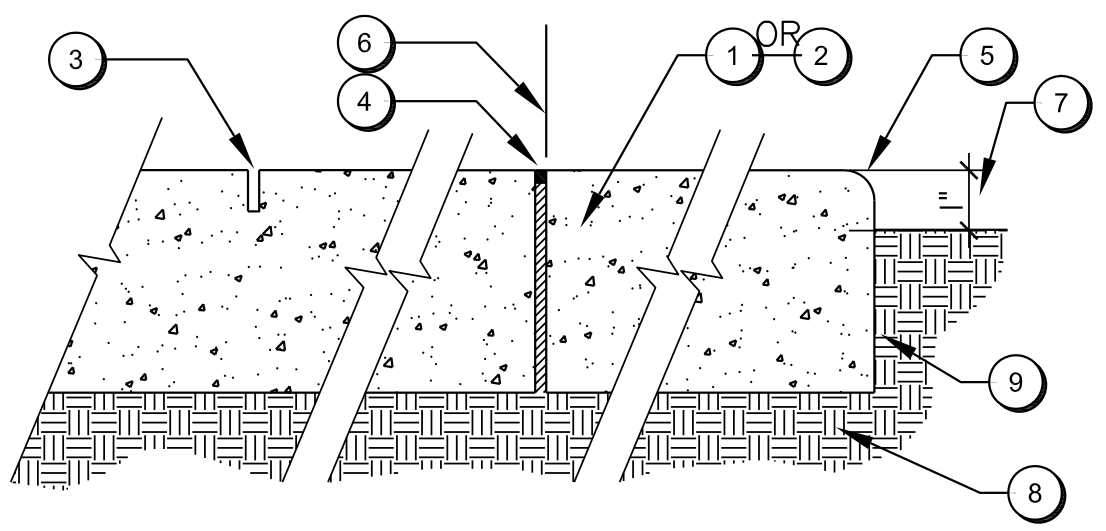
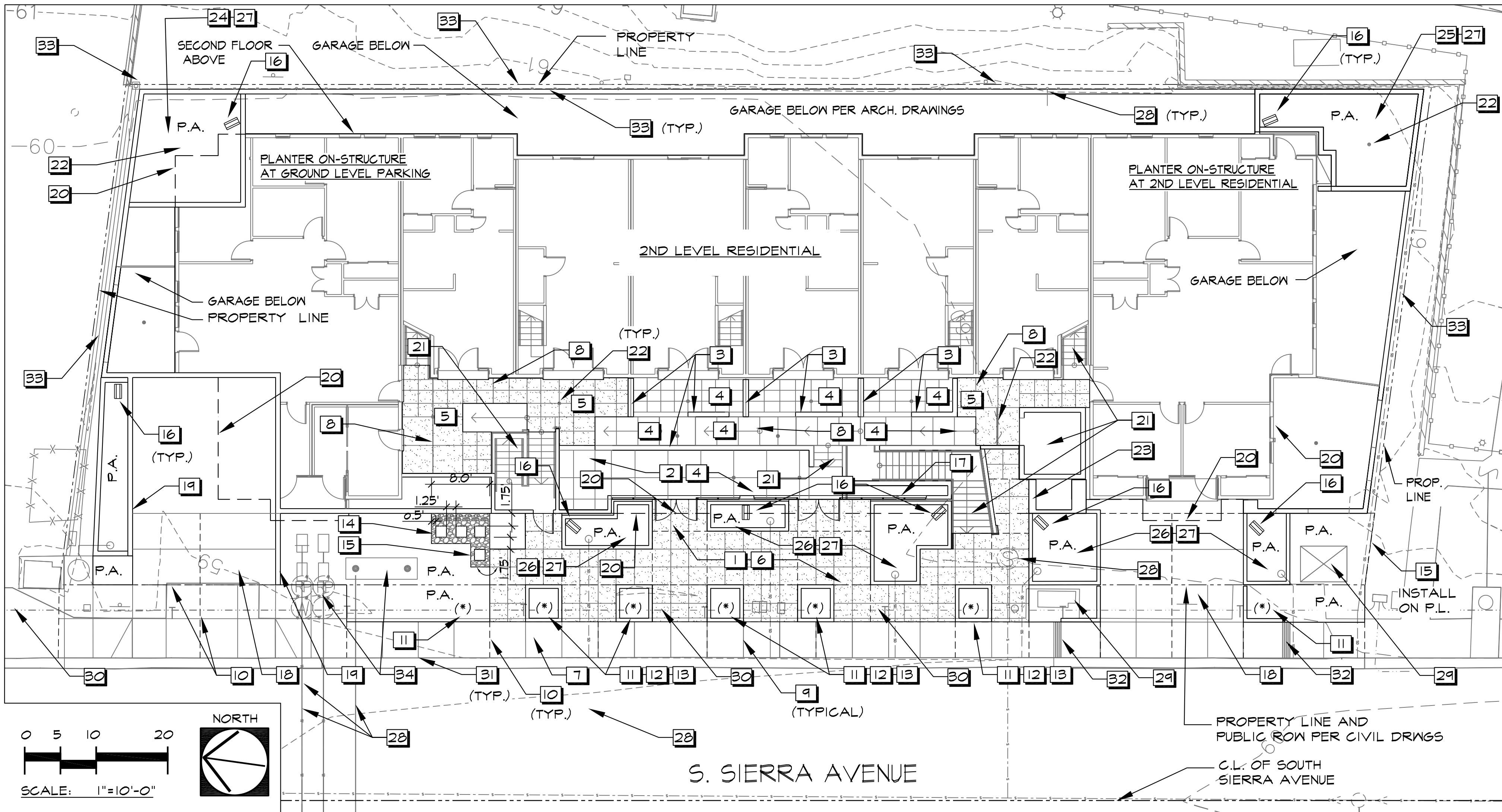
- PICNIC TABLES, BENCHES AND TRASH ENCLOSURES CATALOG DATA AND COLORS.
- PLANTER POTS CATALOG DATA AND COLORS.

VALVE BOX NOTES AND REQUIREMENTS

1. VALVE BOXES SHALL BE PLASTIC, SAND COLOR, WITH RODENT PROTECTION SUCH AS "BOX GUARD" OR EQUIVALENT AND SAND COLOR LOCKING LID.
2. VALVE BOX SHALL BE PROVIDED WITH BOLT DOWN LID, STAINLESS STEEL BOLT AND WASHER. (DO NOT CUT ADDITIONAL HOLES IN BOX.)
3. ALL OPENINGS TO BE FULLY ENCLOSED TO PREVENT RODENT DAMAGE.
4. ON THE LID OF EACH IRRIGATION REMOTE CONTROL VALVE BOX (ICV # XX), QUICK COUPLER (QC), MASTER VALVE (MV), FLOW METER (FM)AND SPLICE BOX (SB), HEAT IMPRINT THE VALVE TYPE DESIGNATION AND NUMBER FOR THE REMOTE CONTROL VALVES.
5. INSTALL CHRISTY'S VALVE ID TAG ON ALL IRRIGATION REMOTE CONTROL VALVES.

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NOTES:

1. ALL WALKS TO HAVE A MIN. 1% CROSS PITCH PER CIVIL DRAWINGS.

2. PROVIDE EXPANSION JOINT AS SHOWN ON PLAN, AT BACK OF CURBS, CURB RETURNS, ADJACENT TO WALLS, STRUCTURES, FACE OF BUILDINGS AND AT 45 FEET INTERVALS, UNLESS INDICATED OTHERWISE. & WHEN NEW CONCRETE MEETS EXISTING CONCRETE AND ALONG THE FACE OF BUILDING.

3. TOOLED OR SAWCUT SCORE LINE LOCATIONS SHALL BE PER PLAN.

- ① **NATURAL GRAY CONCRETE PAVEMENT:**
NATURAL GRAY CONCRETE, MEDIUM BROOM FINISH TO MATCH PUBLIC SIDEWALK CONCRETE PAVEMENT PER CITY STANDARDS AND SPECIFICATIONS.
CONCRETE STRENGTH, THICKNESS AND REINFORCEMENT PER CIVIL PLANS AND GEOTECHNICAL REPORT.
- ② **ENHANCED CONCRETE PAVEMENT:** EXPOSED AGGREGATE CONCRETE PAVEMENT WITH THREE-EIGHTHS (3/8) INCH CARROLL CANYON EXPOSED AGGREGATE FROM KRC ROCK OR APPROVED EQUAL. AGGREGATE SHALL BE INTEGRALLY MIXED INTO THE CONCRETE AT THE CONCRETE BATCH PLANT, TREATED WITH A SURFACE RETARDANT, AND POWER WASHED WITHIN 24 HOURS TO EXPOSE THE AGGREGATE.
CONCRETE SHALL BE 2500 PSI @ 28 DAYS. CONCRETE STRENGTH, THICKNESS AND REINFORCEMENT PER CIVIL PLANS AND GEOTECHNICAL REPORT.
- ③ **SAWCUT OR TOOLED SCORELINE:**
TYPICAL 1 / 8" WIDTH X 1 / 2" DEEP.
FOR TOOLED JOINTS, PROVIDE 1 / 8" RADIUS TROWELLED EDGES.
- ④ **EXPANSION JOINTS:**
TYPICAL 3 / 8" WIDTH, MAXIMUM 1 / 2".
FOR TOOLED JOINTS, PROVIDE 1 / 8" RADIUS TROWELLED EDGES.
PROVIDE EXPANSION JOINT FILLER MATERIAL WITH SEALANT.
SEALANT COLOR SHALL BE DARK GRAY BY VULCAN OR EQUAL.
- ⑤ PROVIDE 1 / 2" RADIUS TROWELLED EDGES.
- ⑥ FACE OF WALL OR CURBS - WHERE OCCURS
- ⑦ TYPICAL 1-INCH ADJACENT TO PLANTING AREAS.
- ⑧ COMPACTED SUBGRADE PER GEOTECHNICAL REPORT, CIVIL DRAWINGS AND SPECIFICATIONS.
- ⑨ ALL EXCESS CONCRETE SHALL BE REMOVED BY THE CONTRACTOR PRIOR TO BACKFILLING AND PLANTING.

A GRAY OR ENHANCED CONCRETE PAVEMENT AND JOINTS
NO SCALE

GENERAL NOTES:

1. REFER TO CIVIL DRAWINGS FOR EXISTING AND PROPOSED UTILITIES, GRADING, PROPERTY LINES, EASEMENTS, RIGHT-OF-WAY LINE, NEW CURB & GUTTER, DRIVEWAY ENTRY, ASPHALT PAVEMENT, WATER QUALITY BIO-SWALES AND RETENTION PLANTER DETAILS, SIDEWALK WITHIN RIGHT-OF-WAY AND BUILDING LOCATION.
2. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDINGS, VEHICULAR AND PEDESTRIAN ENTRIES, PARKING SPACES FOR VEHICULAR, ADA PARKING, STAIRS, TRASH AND RECYCLING ENCLOSURES, LOADING SPACES AND MAIL BOX LOCATION.
3. SEE SHEET LC-2 FOR CONSTRUCTION DETAILS.
4. SEE SHEETS LT-1 & LT-2 FOR GENERAL NOTES, MAINTENANCE, GUARANTEES, SUBMITTALS AND RECORD DRAWINGS REQUIREMENTS.
5. ALL WATER PROOFING DETAILS, LOCATIONS AND SPECIFICATIONS BY OTHERS.

STAKING NOTES:

6. REFER TO CIVIL DRAWINGS FOR ALL BOUNDARY INFORMATION, PROPERTY LINES AND PUBLIC ROW.
7. REFER TO CIVIL DRAWINGS FOR ALL STREET, PARKING, PUBLIC SIDEWALK, CURB AND GUTTER HORIZONTAL CONTROL AND STAKING.
8. REFER TO ARCHITECTURAL AND CIVIL DRAWINGS FOR ALL BUILDING, TRASH ENCLOSURE AND ELECTRICAL TRANSFORMER LOCATIONS, STAKING AND HORIZONTAL CONTROL, INCLUDING OUTDOOR PATIOS AND STAIRS.

ENHANCED CONCRETE SAMPLES:

9. CONTRACTOR SHALL SUBMIT COLOR SAMPLES FOR ENHANCED PAVING AND GRAVEL TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO ORDERING, DELIVERY TO THE SITE AND CONSTRUCTION.
10. REFER TO GENERAL NOTE # 18 ON SHEET LT-1 AND SUBMITTAL NOTES ON SHEET LT-1 FOR ADDITIONAL REQUIREMENTS REGARDING ENHANCED CONCRETE SAMPLES.

CONSTRUCTION PLAN KEYNOTES:

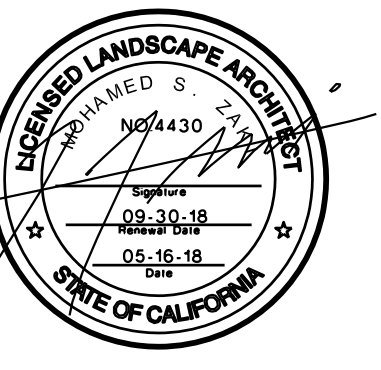
- ① SOUTH SIERRA AVENUE PLAZA WITH ENHANCED CONCRETE PAVEMENT, SCORING, AND ORNAMENTAL TREES. (H LC-2)
- ② 2ND FLOOR RESIDENTIAL COMMON AREA AND PATIOS WITH ENHANCED CONCRETE TOPPING SLAB. SLOPES, GRADING AND DRAIN LOCATIONS PER ARCHITECTURAL DRAWINGS. CONCRETE FINISH: SAME SPEC'S AS KEYNOTE # (4) BELOW. (H LC-2)
- ③ PRIVATE PATIO WALLS FOR RESIDENTIAL UNITS PER ARCHITECTURAL DRAWINGS. (H LC-2)
- ④ PEDESTRIAN TOPPING SLAB ON TOP OF GARAGE. INTEGRAL COLOR CONCRETE BY DAVIS COLOR (800)356-4848 OR APPROVED EQUAL.
COLOR: PEBBLE
FINISH: SANDBLAST
REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR TOPPING SLAB THICKNESS AND SPECIFICATIONS. (H LC-2)
- ⑤ PEDESTRIAN TOPPING SLAB ON TOP OF GARAGE. EXPOSED AGGREGATE CONCRETE PAVEMENT WITH THREE-EIGHTHS (3/8) INCH CARROLL CANYON EXPOSED AGGREGATE FROM KRC ROCK OR APPROVED EQUAL. AGGREGATE SHALL BE INTEGRALLY MIXED INTO THE CONCRETE AT THE CONCRETE BATCH PLANT, TREATED WITH A SURFACE RETARDANT, AND POWER WASHED WITHIN 24 HOURS TO EXPOSE THE AGGREGATE. REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR TOPPING SLAB THICKNESS AND SPECIFICATIONS. (H LC-2)
- ⑥ EXPOSED AGGREGATE CONCRETE PAVEMENT ON-GRADE (A LC-1 B LC-2)
- ⑦ GRAY CONCRETE SIDEWALK ON-GRADE PER CIVIL DRAWINGS (A LC-1 B LC-2)
- ⑧ SCORE JOINT ON TOPPING SLAB / PODIUM (H LC-2)
- ⑨ SCORE JOINT ON-GRADE (A LC-1)
- ⑩ EXPANSION JOINT ON GRADE (A LC-1)
- ⑪ (*): POTHOLES WHERE SHOWN (TOTAL 7) ARE REQUIRED TO DETERMINE THE EXACT LOCATION OF UNDERGROUND AT&T UTILITY LINES. PROPOSED TREES SHALL BE PLANTED A MINIMUM OF 2 FEET CLEARANCE FROM THE UTILITY LINE. REPORT ANY DISCREPANCIES TO THE DEVELOPER AND LANDSCAPE ARCHITECT. DO NOT DAMAGE EXISTING UNDERGROUND UTILITY LINE. (A LC-1 D LC-2 E LC-2)
- ⑫ 6" X6" GRAY CONCRETE BAND TO BE INSTALLED FOR TREE GRATE ATTACHMENT. TOP OF BAND CURB IS FLUSH WITH ADJACENT SIDEWALK. (A LC-1 D LC-2 E LC-2)
- ⑬ STREET TREES IN 48" SQUARE TREE GRATE. (D LC-2 E LC-2)
- ⑭ 18X18" CONCRETE PAVERS SET IN ROCK MULCH FOR GAS METER ACCESS. (C LC-2)
- ⑮ ALUMINUM EDGE HEADER. (C LC-2)
- ⑯ SPLASH BLOCK WITH ROCKS AT DOWNSPOUT DISCHARGE PIPE. PROVIDE ONE SPLASH BLOCK FOR EACH DISCHARGE PIPE. (F LC-2)
- ⑰ PLANTER PER ARCHITECTURAL, STRUCTURAL AND PLUMBING DRAWINGS. PLANTER POTS AND PLANTS PER PLANTING PLAN SHEET LP-2.
- ⑱ NEW GRAY VEHICULAR CONCRETE PAVEMENT DRIVEWAY ENTRY TO THE GARAGE PER ARCHITECTURAL, CIVIL AND STRUCTURAL DRAWINGS.
- ⑲ RETAINING WALL PER ARCHITECTURAL, CIVIL AND STRUCTURAL DRAWINGS.
- ⑳ BUILDING ABOVE PER ARCHITECTURAL DRAWINGS
- ㉑ STAIRS, RAILING AND ELEVATOR PER ARCHITECTURAL DRAWINGS
- ㉒ PODIUM AND/OR PLANTER DRAIN PER ARCH. CIVIL & PLUMBING DRAWINGS
- ㉓ MAIL BOXES PER ARCHITECTURAL DRAWINGS.
- ㉔ CONCRETE BLOCK PLANTER ON-STRUCTURE AT GROUND LEVEL PARKING. (G LC-2)
- ㉕ CONCRETE BLOCK PLANTER ON-STRUCTURE OF 2ND FLOOR RESIDENTIAL. (G LC-2)
- ㉖ CONCRETE BLOCK PLANTER ON-GRADE AT STREET ELEVATION FOR BIO-FILTRATION PER ARCHITECTURAL, STRUCTURAL AND CIVIL DRAWINGS.
- ㉗ RAISED PLANTER WALLS WITH WATERPROOFING FOR ROOF RUN-OFF AND WATER QUALITY TREATMENT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR WALL DETAILS, FINISHES, CROSS SECTIONS, DIMENSIONS, STRUCTURAL SLAB DESIGN AND WATERPROOFING. REFER TO CIVIL DRAWINGS FOR STORM DRAINAGE DETAILS, DIMENSIONS, SOIL MIX, STORM DRAINAGE PIPES, INLET LOCATIONS, OVERFLOW AND SUBSURFACE DRAINAGE. REFER TO PLUMBING DRAWINGS FOR STORM DRAIN CONNECTION AND PIPING INSIDE BUILDING. (G LC-2)
- ㉘ EXISTING AND/OR PROPOSED UTILITIES PER CIVIL OR DRY UTILITY CONSULTANT DRAWINGS.
- ㉙ ELECTRICAL TRANSFORMER OR CABLE BOX PER CIVIL AND DRY UTILITY CONSULTANT DRAWINGS.
- ㉚ AT&T UNDERGROUND UTILITY LINE PER DRY UTILITY CONSULTANT.
- ㉛ NEW CURB AND/OR CURB & GUTTER PER CIVIL DRAWINGS.
- ㉜ NEW ADA CURB RAMP PER CIVIL DRAWINGS.
- ㉝ CONCRETE BROW DITCH, STORM DRAINS, PIPES AND GRADING PER CIVIL DRAWINGS.
- ㉞ BACKFLOW PREVENTERS PER CIVIL DRAWINGS.
- P.A. = PLANTING AREA

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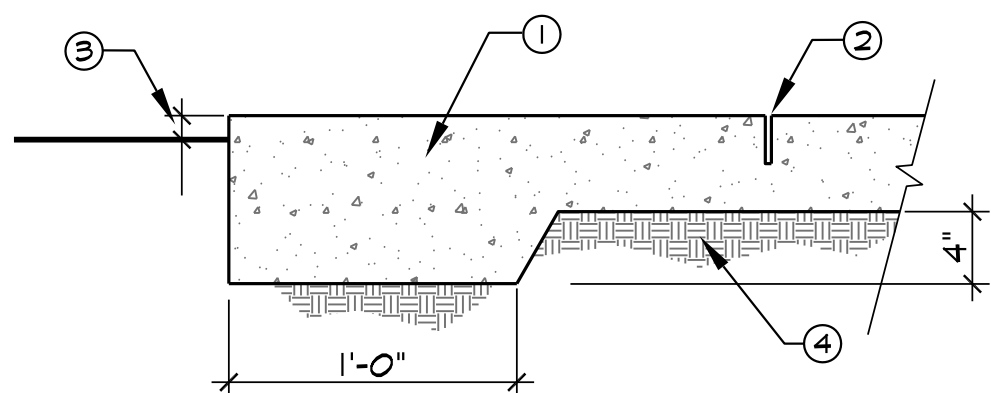
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The Pearl
A MIXED USE DEVELOPMENT
SOUTH SIERRA AVENUE, SOLANA BEACH CA

1st CITY SUBMITTAL 6/27/2016
2nd CITY SUBMITTAL 6/04/2018



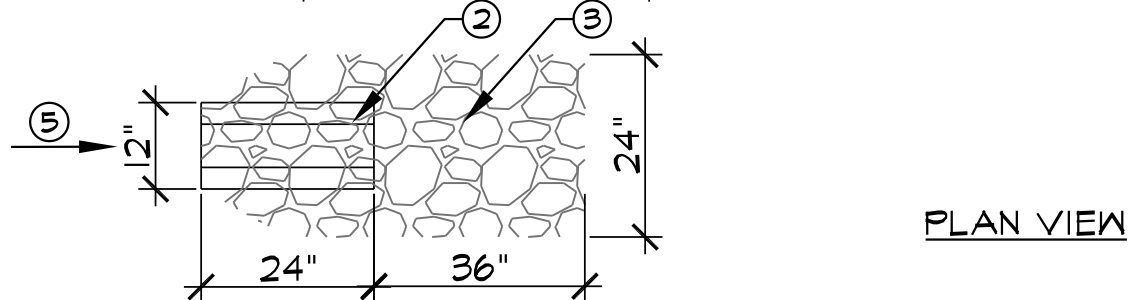
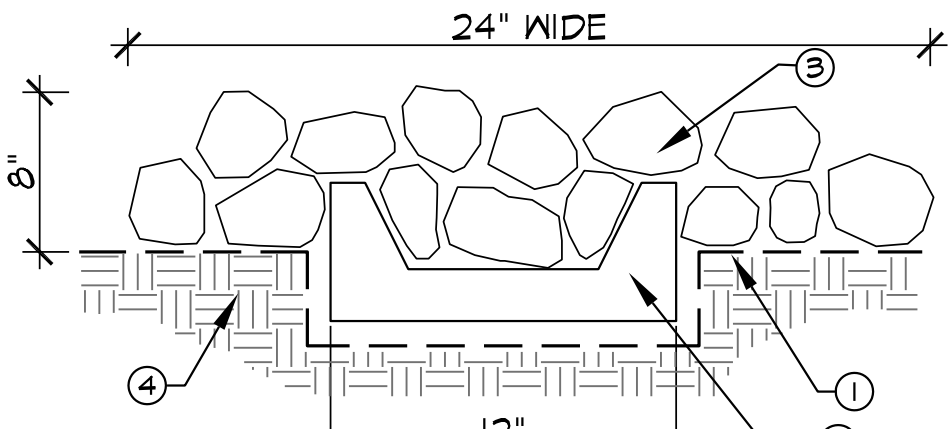
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- 1 CONCRETE PAVEMENT PER DETAIL (A), SHEET LC-1.
2 EXPANSION JOINT, WEAKENED JOINT OR SCORE JOINT AS SHOWN ON PLAN AND ON DETAILS A & B, SHEET LC-1.
3 TYP. 1" ADJACENT TO PLANTING AREAS
4 COMPACTED SUBGRADE PER GEOTECHNICAL RECOMMENDATIONS.

B THICKENING EDGE FOR PEDESTRIAN CONCRETE PAVEMENT

NO SCALE

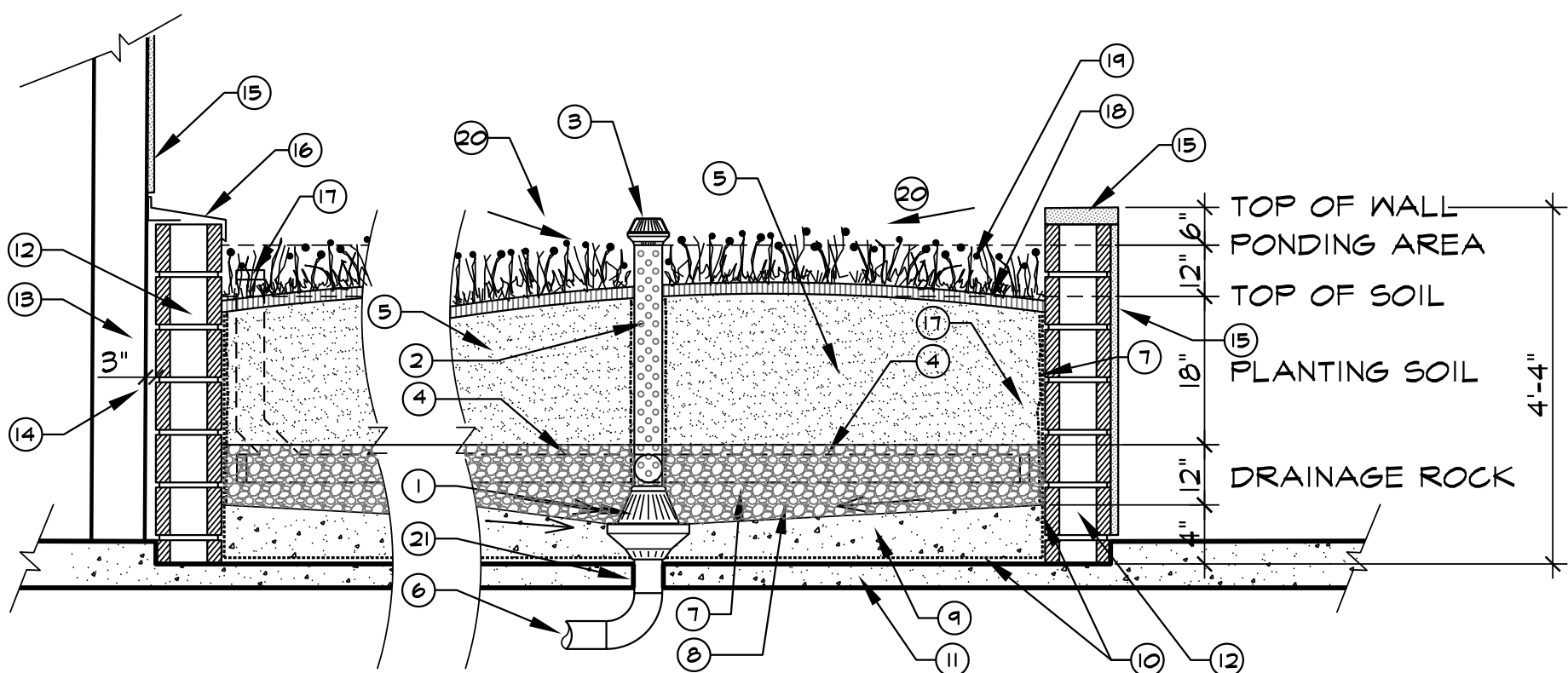


- 1 FILTER FABRIC
2 CONCRETE SPLASH BLOCK (MIN. 2 FEET LONG)
3 COBBLE SIZE 2 TO 6" EQUIVALENT DIAMETER ROCK., ASSORTED MAUVE, GRAYS, TAN AND GREEN. LARGER ROCKS WILL BE INSTALLED AT THE BOTTOM OF THE ROOF DISCHARGE PIPE.
4 PLANTER'S SOIL BACKFILL
5 REFER TO ARCH. AND PLUMBING DRAWINGS FOR LOCATION AND DETAILS OF DOWNSPOUT DISCHARGE PIPES.

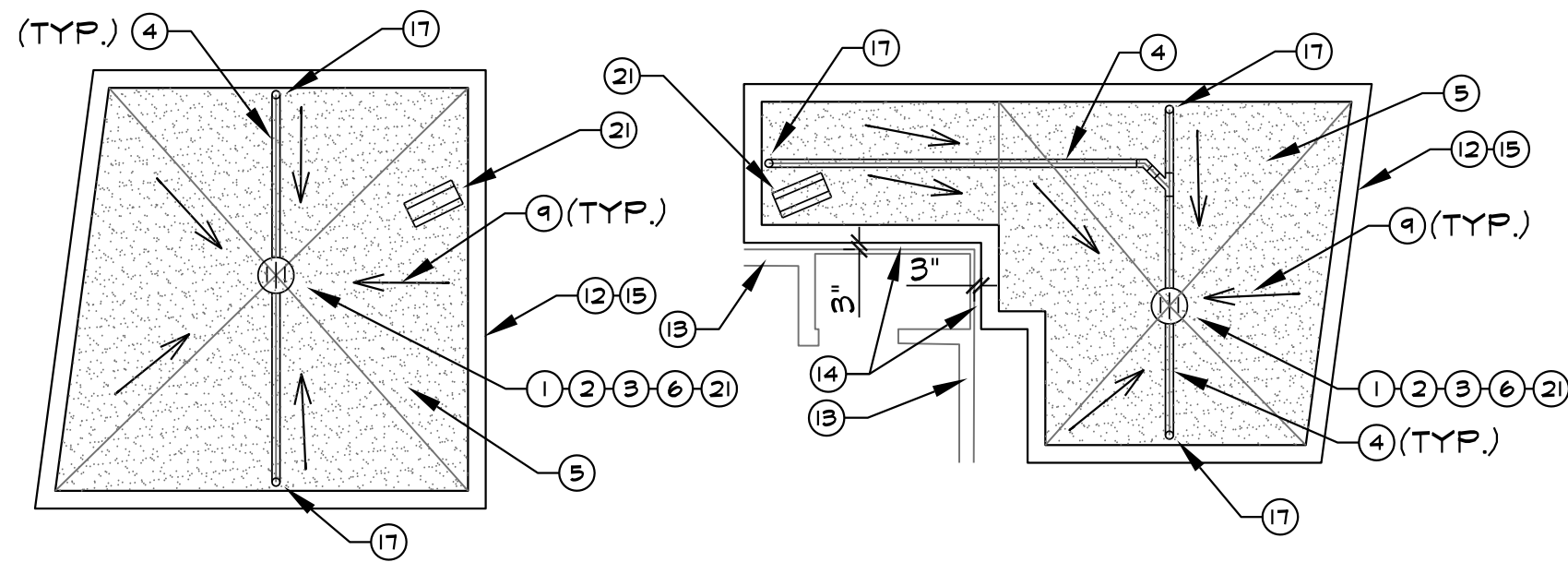
NOTE: SEE CONSTRUCTION PLAN SHEET LC-1 FOR LOCATION OF SPLASH BLOCKS. COORDINATE LOCATION WITH DOWNSPOUT DISCHARGE PIPES.

F SPLASH BLOCK W/ ROCKS

NO SCALE



CROSS SECTION

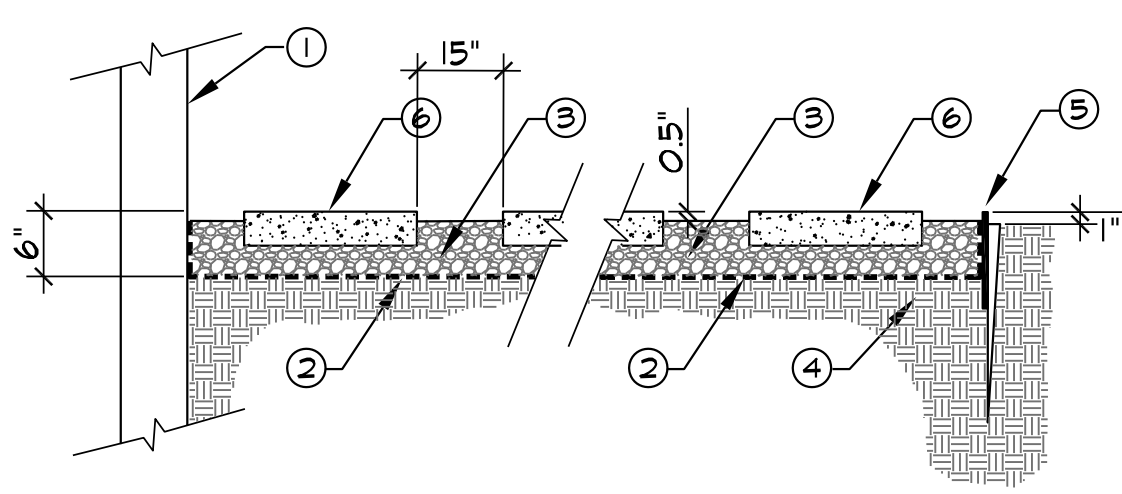


PLAN VIEW
NORTHEAST PLANTER ON-STRUCTURE
AT GROUND LEVEL PARKING

PLAN VIEW
SOUTHEAST PLANTER ON-STRUCTURE
AT 2ND LEVEL RESIDENTIAL

G DIAGRAMMATIC PLANTER ON-STRUCTURAL SLAB DETAIL FOR BIOFILTRATION

NO SCALE



- 1 HARDSCAPE EDGE (WALL, MOW CURB, FACE OF BUILDING)
2 FILTER FABRIC, MIRAFI 140N OR APPROVED EQUAL.
3 6" DEEP ROCK MULCH. SIZE: 3/4" TO 1". COLOR: CALIFORNIA GOLD BY KRC OR APPROVED EQUAL.
4 90% COMPACTED AND APPROVED SUBGRADE PER GEOTECHNICAL REPORT.
5 ALUMINUM EDGE - PERMALOC CLEANLINE, 3/16" x 5 1/2" DEEP, ALUMINUM STAKES AT 3' O.C. BLACK, ANODIZED FINISH BY PERMALOC (800) 356-9660 OR APPROVED EQUAL.
6 18" x 18" x 2-1/2" PRECAST CONCRETE PAVERS

C ALUMINUM EDGE, CONCRETE PAVERS AND GRAVEL ON GRADE

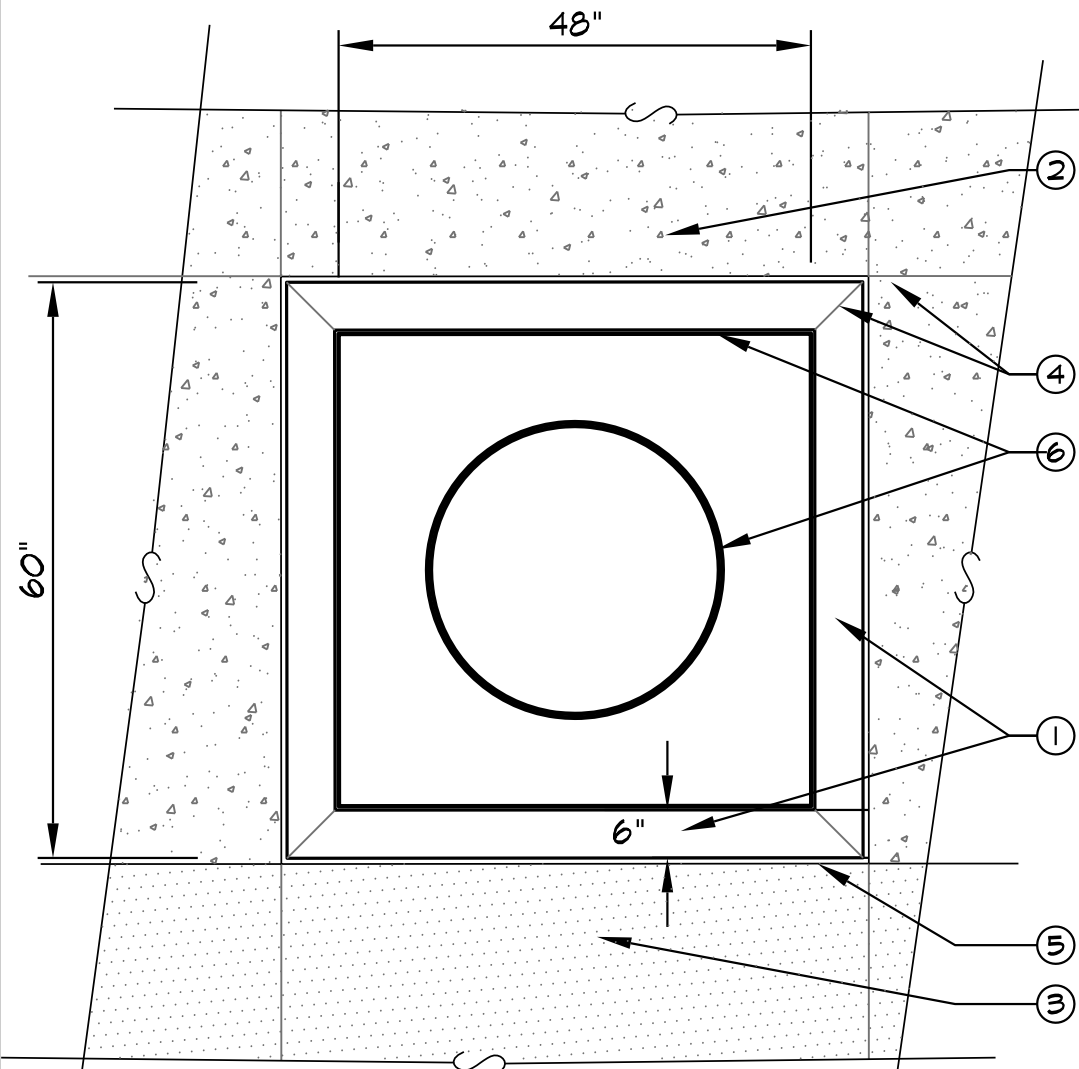
NO SCALE

KEY NOTES:

- 1 MULTI-LEVEL PLANTER AREA DRAIN PRODUCT # 1905 WITH 4-INCH PERFORATED STANDPIPE BY JAY R. SMITH MFG. CO. OR APPROVED EQUAL - REFER TO ARCH./PLUMBING DRAWINGS FOR INSTALLATION DETAILS. SUBMIT PRODUCT DATA FOR APPROVAL PRIOR TO ORDERING AND INSTALLATION.
2 6" PERFORATED STANDPIPE WRAPPED WITH FILTER FABRIC - REFER TO PLUMBING DRAWINGS FOR LOCATION, CONNECTION AND OUTLET. (PART OF THE MULTI-LEVEL PLANTING AREA DRAIN, PRODUCT # 1905 BY JAY R. SMITH)
3 6" BRONZE DOME GRATE COVERED W/STAINLESS STEEL MESH SCREEN FOR OVERFLOW. REFER TO ARCH. AND PLUMBING DRAWINGS FOR DETAILS. (PART OF THE MULTI-LEVEL PLANTING AREA DRAIN, PRODUCT # 1905 BY JAY R. SMITH) SET TOP OF DRAIN MINIMUM 2" BELOW TOP OF PLANTER WALL.
4 6" PVC SCH 40 PERFORATED PIPE (HOLES DOWN). SLOPE @ 1% MIN. PROVIDE CLEANOUTS AT UPSTREAM END OF SUBDRAIN - REFER TO CIVIL AND PLUMBING DRAWINGS FOR LAYOUT AND LOCATION.
5 MINIMUM 18-INCHES LIGHT WEIGHT PLANTING SOIL FOR WATER QUALITY PLANTER PER COUNTY OF SAN DIEGO LOW IMPACT DEVELOPMENT HANDBOOK: APPENDIX G - BIOFILTRATION SOIL SPECIFICATION AND SOIL REQUIREMENTS INDICATED ON THE CIVIL DRAWINGS.
6 SEE PLUMBING DRAWINGS FOR CONTINUATION.
7 FILTER FABRIC MIRAFI 140N OR APPROVED EQUAL
8 MINIMUM 12-INCHES CLASS 2 PERMEABLE DRAINAGE ROCK PER CALTRANS SPEC. 68-2.02F AND SPECIFICATION INDICATED ON CIVIL DRAWINGS.
9 PROTECTIVE CONCRETE SLAB, MIN. 2 3/4" - MAX. 4" THICKNES AND MIN. 2% SLOPE TOWARDS DRAIN STRUCTURE - SEE ARCH. & STRUCTURAL DRAWINGS FOR DETAILS.
10 WATERPROOFING MEMBRANE AND PROTECTIVE BOARD SPECIFICATIONS & DETAILS BY OTHERS PER PER WATERPROOFING MANUFACTURER SPECIFICATIONS AND INSTALLER.
11 STRUCTURAL SLAB PER ARCHITECTURAL AND STRUCTURAL DRAWINGS.
12 PLANTER CMU BLOCK WALL PER ARCH. & STRUCTURAL DRAWINGS
13 RESIDENTIAL UNIT WALL PER ARCH. & STRUCTURAL DRAWINGS
14 3-INCH GAP BETWEEN RESIDENTIAL UNIT AND PLANTER WALLS PER ARCHITECTURAL AND STRUCTURAL DRAWINGS
15 WALL FINISH AND CAP PER ARCHITECTURAL DRAWINGS, DETAILS AND SPECIFICATIONS.
16 STAINLESS STEEL CAP AND "J" FLASHING PER ARCHITECTURAL DRAWINGS, DETAILS & SPEC'S.
17 4" CLEAN-OUT AND PIPE END CAP.
18 3" LAYER OF MEDIUM GRIND, SHREDDED REDWOOD BARK MULCH.
19 PROPOSED SHRUBS & GROUND COVER PER PLANTING PLAN
20 MAXIMUM 2% SLOPE FROM EDGE OF PLANTER TO DRAIN.
21 REFER TO ARCHITECTURAL, STRUCTURAL AND PLUMBING DRAWINGS FOR SLAB PENETRATION DETAIL.
22 SPLASH BLOCK. REFER TO DETAIL F THIS SHEET. REFER TO ARCHITECTURAL AND PLUMBING DRAWINGS FOR LOCATION AND DETAILS OF THE DOWNSPOUT DISCHARGE PIPES.

GRATE NOTES:

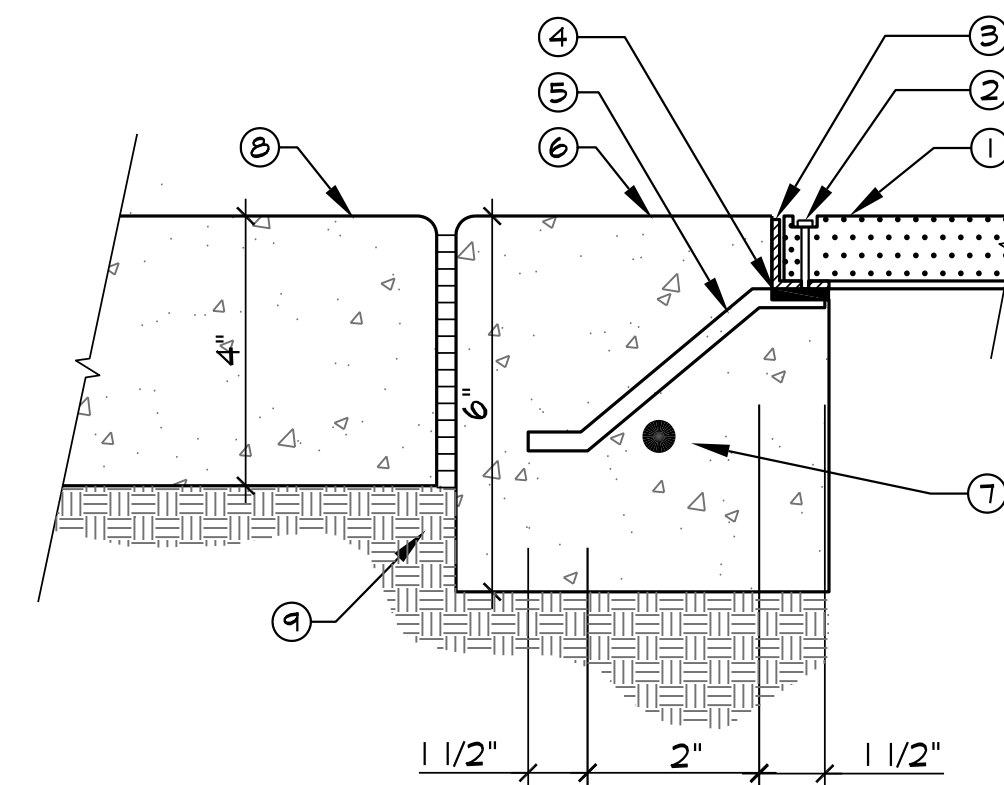
1. TREE GRATES SHALL BE SP STYLE AS MANUFACTURED BY SOUTH BAY FOUNDRY, INC. OF SANTEE, CA (619) 956-2180 OR APPROVED EQUAL. TREE GRATE SIZES ARE INDICATED ON DETAIL D, THIS SHEET.
2. ALL TREE GRATES SHALL HAVE FACTORY APPLIED FINISH, CONSISTING OF ONE COAT PRIMER AND ONE COAT BLACK ENAMEL. TOP FINISH SHALL BE A SLIP-RESISTANT COATING SUCH AS 'SHARK GRIP' BY SHERWIN WILLIAMS OR APPROVED EQUAL. WHEN APPLIED FOLLOWING MANUFACTURER'S INSTRUCTION, THE SLIP-RESTAST COATING SHALL PROVIDE A MINIMUM STATIC COEFFICIENT OF 0.6 OR THE MINIMUM RECOMMENDATIONS FOR COMPLIANCE WITH CALIFORNIA TITLE 24 OR THE ADAAG REQUIREMENTS, WHICHEVER IS MOST STRINGENT. THE MAXIMUM SIZE OF GRID OPENINGS SHALL BE NO LARGER THAN 1/4".



D TREE GRATE PLAN DETAIL

NO SCALE

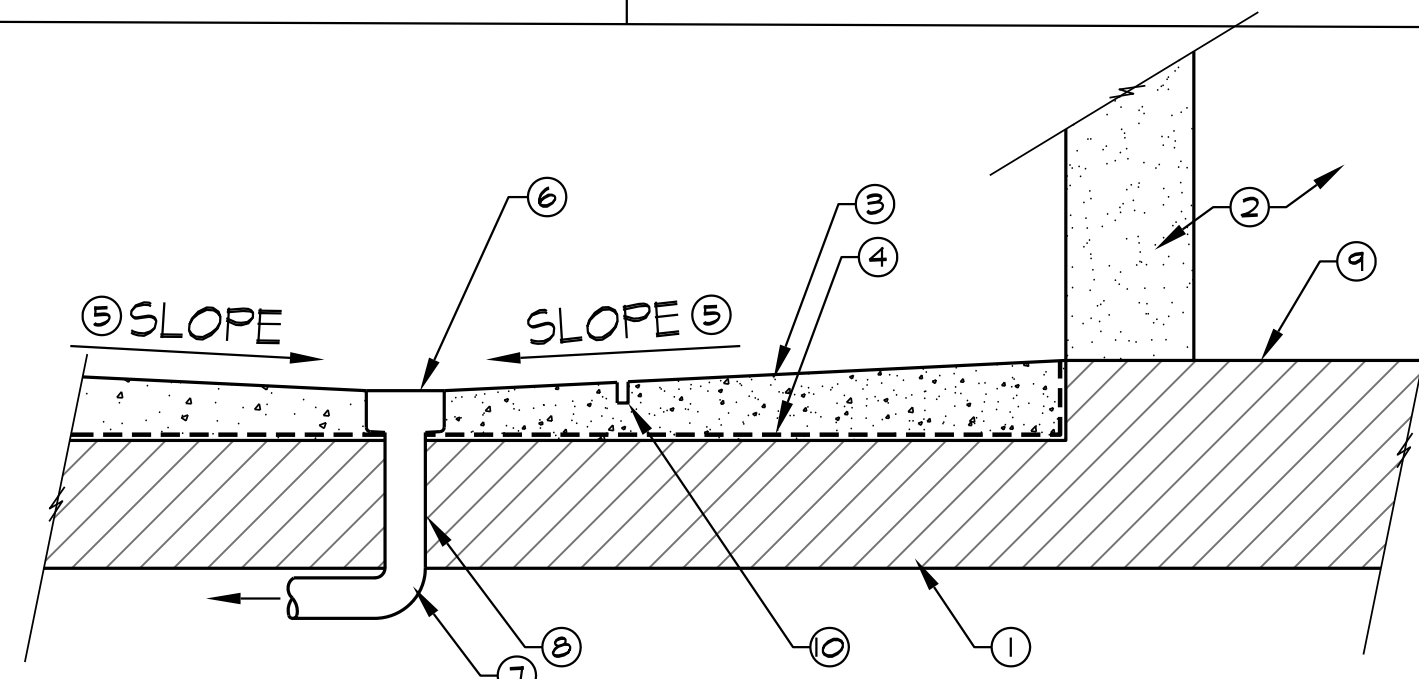
- 1 6" X6" GRAY CONCRETE BAND CURB TO SUPPORT TREE GRATE (TOP OF BAND CURB IS FLUSH WITH ADJACENT SIDEWALK. REFER TO DETAIL A, SHEET LC-1 FOR CONCRETE PAVEMENT DETAILS.
2 ENHANCED CONCRETE SIDEWALK PER CONSTRUCTION PLAN AND DETAIL A, SHEET LC-1
3 GRAY CONCRETE SIDEWALK PER CONSTRUCTION PLAN AND DETAIL A, SHEET LC-1
4 SCORE JOINT PER DETAIL A, SHEET LC-1
5 EXPANSION JOINT PER DETAIL B, SHEET LC-1. PROVIDE EXPANSION JOINTS BETWEEN 6" CURB AND ADJACENT PAVEMENTS.
6 48" SQUARE TREE GRATE PER NOTES, SPEC'S AND DETAILS THIS SHEET.



- 1 TREE GRATE. SEE GRATE NOTES AND SPEC'S THIS SHEET.
2 ANTI-FILFER BOLT.
3 STEEL ANGLE FRAME PER MANUFACTURER'S RECOMMENDATIONS..
4 BLOCK OUT UNDER FRAME WITH 1/4" MIN. MATERIAL SUCH AS WOOD OR FOAM BEFORE CONCRETE IS POURED.
5 STEEL CONCRETE ANCHORS @ 18" O.C. PER MANUFACTURER'S RECOMMENDATIONS..
6 6X6" CONCRETE BAND CURB PER PLAN AND DETAIL D, THIS SHEET.
7 #4 REBAR.
8 CONCRETE SIDEWALK PAVING PER PLAN AND DETAILS A, SHEET LC-1 AND D, THIS SHEET.
9 90% COMPACTED SUBGRADE OR PER GEOTECHNICAL REPORT.

E TREE GRATE ATTACHMENT DETAIL

NO SCALE



- 1 STRUCTURAL PODIUM SLAB PER ARCH. AND STRUCTURAL DRAWINGS.
2 WALL & RESIDENTIAL UNIT PER ARCHITECTURAL AND STRUCTURAL DRAWINGS
3 TOPPING SLAB (MIN 2.75"-MAX 4" THICKNESS) PER ARCH. AND STRUCTURAL DRAWINGS). TOPPING SLAB SURFACE FINISH SHALL BE PER THE FINISHES INDICATED ON THE CONSTRUCTION PLAN.
4 WATERPROOF MEMBRANE BY OTHERS AND PER MANUFACTURER / INSTALLER.
5 SLOPE MINIMUM 1%, MAXIMUM 2% IN ANY DIRECTION PER ARCH. PLANS.
6 DECK DRAIN PER ARCHITECTURAL, STRUCTURAL & PLUMBING DRAWINGS.
7 REFER TO PLUMBING DRAWING FOR CONTINUATION.
8 REFER TO STRUCTURAL/PLUMBING DRAWINGS FOR SLAB PENETRATION DETAIL.
9 REFER TO ARCHITECTURE DRAWING FOR UNIT FLOOR ELEVATION.
10 SCORE JOINT: SAW CUT 1/8" WIDE X 1" DEEP.

TOPPING SLAB NOTES:

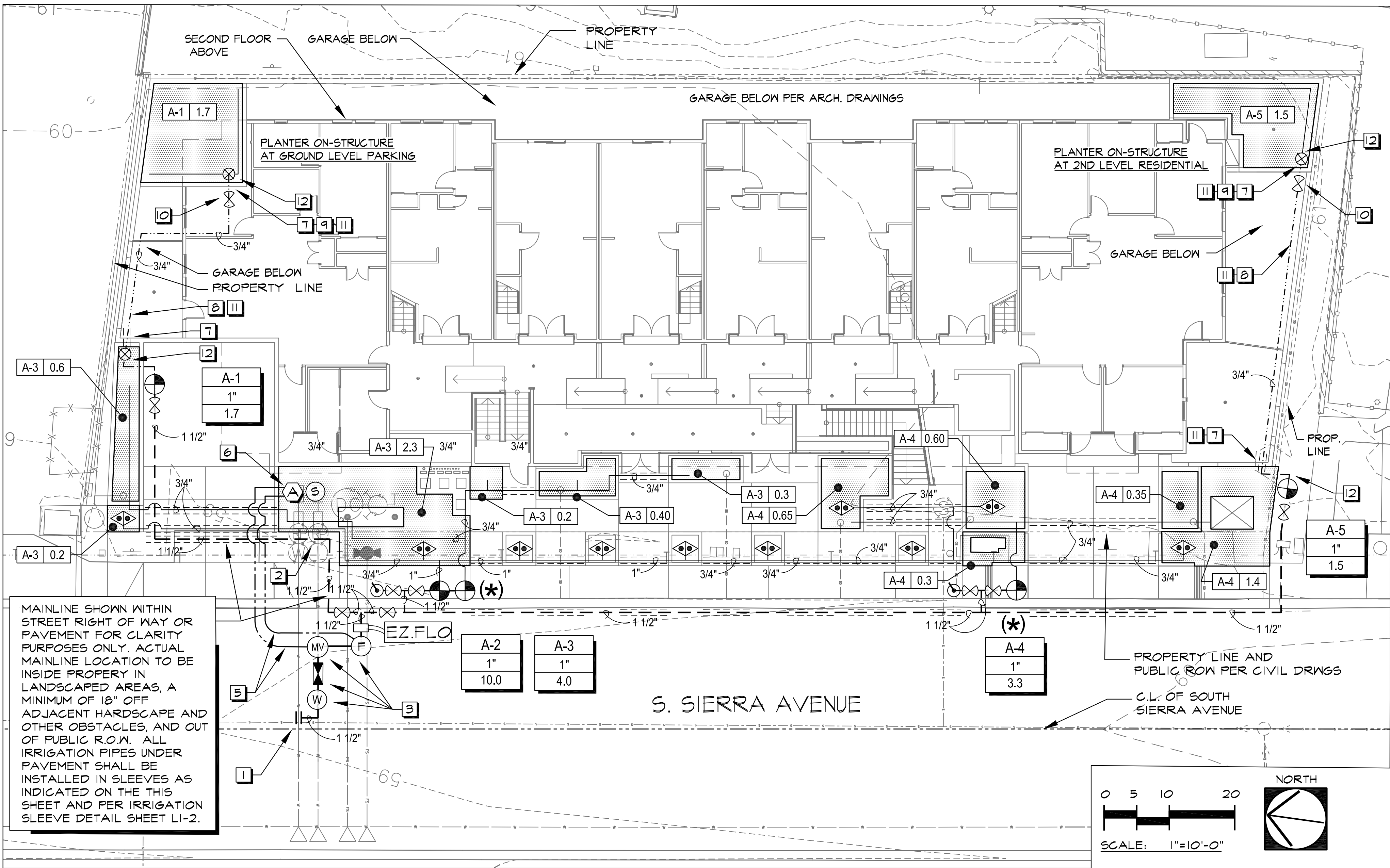
1. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR P/T STRUCTURAL SLAB, TOPPING SLAB AND WATERPROOF MEMBRANE DETAILS.
2. FINAL ELEVATIONS SHALL BE VERIFIED BY CONTRACTOR AND CONFIRMED IN FIELD.
3. CONTRACTOR SHALL ENSURE MIN. 1% GRADIENT IN TOPPING SLAB CONDITIONS. ANY DISCREPANCIES FOUND IN THE FIELD SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT AND OWNER'S AUTHORIZED REPRESENTATIVE.
4. CONTRACTOR SHALL REFER TO ARCHITECTURAL, PLUMBING AND STRUCTURAL DRAWINGS FOR FINAL LOCATIONS OF DRAINS/DRAIN PENETRATIONS RELATING TO P/T DECK AND PIPING.
5. SLOPES, RIDGES & DRAIN LOCATIONS FOR THE TOPPING SLAB SHALL BE AS INDICATED ON THE ARCHITECTURAL DRAWINGS. TOPPING SLAB SLOPES AND ELEVATIONS ARE SHOWN ON THE ARCHITECTURAL DRAWINGS. TOPPING SLAB THICKNESS SHALL BE A MINIMUM OF 2.75" AND MAXIMUM OF 4" PER THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.

H DIAGRAMMATIC P/T & TOPPING SLABS SECTION DETAIL

NO SCALE

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MAINLINE SHOWN WITHIN STREET RIGHT OF WAY OR PAVEMENT FOR CLARITY PURPOSES ONLY. ACTUAL MAINLINE LOCATION TO BE INSIDE PROPERTY IN LANDSCAPED AREAS, A MINIMUM OF 18" OFF ADJACENT HARDSCAPE AND OTHER OBSTACLES, AND OUT OF PUBLIC R.O.W. ALL IRRIGATION PIPES UNDER PAVEMENT SHALL BE INSTALLED IN SLEEVES AS INDICATED ON THE THIS SHEET AND PER IRRIGATION SLEEVE DETAIL SHEET LI-2.

IRRIGATION KEY NOTES

- POINT OF CONNECTION (POC): REFER TO CIVIL AND PLUMBING DRAWINGS FOR NEW 1-1/2" IRRIGATION SERVICE LINE CONNECTION TO RESIDENTIAL DOMESTIC WATER LINE SERVICE LINE, 1" WATER METER, BACKFLOW PREVENTER LOCATION AND DETAILS. SEE POC LOCATIONS AND NOTES THIS SHEET. SEE IRRIGATION POC DIAGRAM DETAIL V, SHEET LI-4
- ACTUAL LOCATIONS OF IRRIGATION WATER METER AND BACKFLOW PREVENTER PER CIVIL DRAWINGS.
- WATER METER, BACKFLOW PREVENTER, MASTER VALVE AND FLOW SENSOR ARE SHOWN WITHIN PAVEMENT FOR CLARITY PURPOSES ONLY. ACTUAL LOCATIONS ARE IN PLANTING AREA.
- IRRIGATION VALVE BOX IN PAVED AREA
- IRRIGATION CONTROL WIRES FOR CONNECTION BETWEEN THE CONTROLLER & MASTER VALVE/FLOW SENSOR SHALL BE INSTALLED IN 1 1/2" PVC SLEEVE PER DETAIL I/LI-2.
- CONTROLLER & SOLAR SYNC SHALL BE WALL MOUNTED ON THE SOUTH FACE OF BUILDING PER MANUFACTURER'S SPEC'S AND RECOMMENDATIONS. COORDINATE LOCATION WITH DEVELOPER AND LANDSCAPE ARCHITECT.
- GARAGE WALL OR STRUCTURAL FLOOR SLAB PENETRATION. REFER TO ARCHITECTURAL & PLUMBING DRAWINGS FOR DETAILS & SPECIFICATIONS.
- COPPER PIPE TYPE (K) ATTACHED TO THE GARAGE CEILING OR INSIDE WALL BY THE PLUMBING CONTRACTOR. LOCATION IS DIAGRAMMATIC AND IS PROVIDED AS A GUIDE TO THE LAYOUT AND INSTALLATION OF STANDARD IRRIGATION EQUIPMENT. REFER TO PLUMBING DRAWING FOR DETAILS AND EXACT LOCATION OF ALL PIPING INSIDE THE GARAGE. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ACTUAL LAYOUT, LOCATION AND COORDINATION BETWEEN THE IRRIGATION PIPING AND ALL OTHER PIPING INSIDE THE GARAGE.
- IRRIGATION POINT OF CONNECTION FROM GARAGE. SEE DETAIL T, SHEET LI-4.
- SHUT-OFF VALVE (BALL VALVE) ON COPPER PIPE LOCATED PRIOR TO SLAB PENETRATION TO PLANTER.
- FOR ALL IRRIGATION PIPING WITHIN GARAGE INSTALLED BY THE PLUMBER CONTRACTOR, LANDSCAPE CONTRACTOR TO REFER TO PLUMBING DRAWINGS AND COORDINATE HIS/HER WORK WITH THE PLUMBER CONTRACTOR.
- LIMIT OF WORK BY THE LANDSCAPE CONTRACTOR: ON-GRADE IRRIGATION SYSTEM AND PIPING OUTSIDE BUILDING AND DRIP IRRIGATION SYSTEM WITHIN LANDSCAPE AREAS AT PLANTERS ON STRUCTURE LOCATED AT GROUND LEVEL PARKING AND SECOND LEVEL RESIDENTIAL.

STATEMENT OF WATER CONSERVATION

- PER CONDITIONS OF APPROVAL, ALL PLANTS USED WITHIN THE PROJECT AREA ARE DROUGHT TOLERANT AND NON-INVASIVE PLANT MATERIALS.
- WATER CONSERVING IRRIGATION SYSTEM IS INCORPORATED INTO THE PROJECT TO CONSERVE WATER USAGE AS INDICATED BELOW.
- PLEASE NOTE THE FOLLOWING PRINCIPLES OF DESIGN UTILIZED ON THIS PROJECT DIRECTED SPECIFICALLY AS CONSERVING WATER AND IMPROVING THE EFFICIENCY OF THE IRRIGATION SYSTEM:
 - UTILIZATION OF HIGH-EFFICIENCY DRIP SYSTEM.
 - IRRIGATION ZONES SEPARATED BY PLANT MATERIAL TYPES.
 - IRRIGATION ZONES SEPARATED BY EXPOSURE AND ORIENTATION.
 - UTILIZATION OF CONTROLLER WITH WATER BUDGETING FEATURE.
- IRRIGATION METHODS: DRIP FOR SHRUBS AND GROUND COVER, POP-UP STREAM BUBBLERS FOR TREES, LARGE SHRUBS AND VINES.

(SEE SHEET LI-5 FOR WATER USE CALCULATIONS)

SLEEVING NOTE:

1) DUE TO THE SCALE OF THE DRAWING, NOT ALL REQUIRED SLEEVES ARE SHOWN ON THE IRRIGATION PLAN. THE CONTRACTOR IS REQUIRED TO INSTALL ALL IRRIGATION MAIN AND LATERAL PIPES LOCATED UNDER PAVEMENT IN SLEEVES PER DETAILS H AND I, SHEET LI-2.

IRRIGATION SYMBOL LEGEND

- | | | |
|------|---|--------------------|
| ± | 1" Point of Connection (Potable) - Refer to Civil & Plumbing Drawings | N/A |
| (W) | 1" Water Meter and 1-1/2" Service Line per Water District Standards - Refer to Civil Drawing | N/A |
| ☒ | 1" Reduced Pressure Backflow Preventer in a S.S. Enclosure. Backflow shall be FEBCO 825T with "High Range" Pressure Regulator and High Range Wye Strainer by Febco. Enclosure shall be Strong Box, Smooth Touch, Vandal Resistant Stainless Steel. Size to fit Backflow Preventer (Water District AND City Approval is Required Prior to Ordering, Delivery to the Site and Installation). | A/LI-2 |
| (MV) | 1-1/2" Brass Master Control Valve (Normally Closed) Buckner Superior 3200 Series # 3200150 | C/LI-2 |
| (F) | Flow Sensor - Hunter HFS & FCT-100 | N/A |
| (A) | Automatic Irrigation Controller - Hunter I-CORE 12-Station with SOLAR SYNC SENSOR AND Hunter IGR-KIT Remote Control Kit Installed in Stainless Steel Wall Mounted Cabinet. Contractor to Coordinate Location with City Owner and Landscape Architect. (Controller Electrical Requirements per Manufacturer - INPUT: 120 /240 VAC, 50 / 60 HZ). Model # IC-600-ss with one ICM-600 Plug-in Expansion Module. | B/LI-2 |
| (S) | HARDWARE Solar Sync Sensor by Hunter WITH MOUNTING ARM | B/LI-2 |
| ⊙ | Electric Remote Control Valve - Hunter IGV-XXXG Size as Indicated on Plan. | G/LI-2 |
| ⊙ | Drip Zone Control: Hunter IGV-101 w/ HY-100-75 Filter | R/LI-3 |
| ⊙ | Do not install Pressure Regulator Due to low Existing Pressure. Flows 0.5-15 GPM. | |
| ⊗ | Ball Valve - Nibco, 100% Brass Construction - Line Size | D/LI-2 |
| ⊗ | Quick Coupler - Hunter HQ-44LR-AW w/ Key & Swivel Ell | J/LI-2 |
| ⊗ | Concrete Irrigation Valve Box in Paved Areas | K/LI-2 |
| ⊗ | Irrigation Point of Connection from Plumbing Drawings | T/LI-4 |
| --- | Pressure Mainline - Sch 40 PVC (See Specifications) | H&I/LI-2 |
| --- | Non-Pressure Lateral Lines - Pipe CL 200 PVC (Minimum Irrigation Lateral Line Diameter = 3/4") | H&I/LI-2 |
| --- | Copper TYPE 'K' Irrigation Line by the Plumber Contractor. Refer to Plumbing Drawings, Building Permit Set for Exact Location of Pipe & Irrigation Control Conduits Inside the Garage. | U/LI-4 |
| --- | Sleeves - PVC Schedule 40 or 80 per Details | H&I/LI-2 |
| --- | 14 AWG CONTROL WIRES BETWEEN CONTROLLER, MASTER VALVE AND FLOW METER INSTALLED IN CONDUIT AND PULL BOX. | H&I/LI-2
T/LI-3 |

SUBSURFACE POLYETHYLENE DRIP LINE BY HUNTER INDUSTRIES, MODEL # PLD-06, 0.6 GPH EMITTERS 12" ON CENTER, INSTALL TUBING ROWS A MAXIMUM OF 18" ON CENTER IN PLANTING AREAS, BURY 4" BELOW FINISH GRADE. INSTALL WITH PLD-LOG FITTINGS (REQUIRED). DRIP LINE LAYOUT BY THE CONTRACTOR PER THESE DRAWINGS AND THE MANUFACTURER'S DETAILS, DESIGN GUIDE AND SPECIFICATIONS. REFER TO DETAILS L THROUGH S, SHEET LI-3.

EZFLG FERTIGATION TANK - EZ FLOW MODEL # EZ001-FX AND COUPLING F/LP-2 BALL VALVE CONNECTOR. INSTALL IN 17"X12"X11 3/4" PLASTIC VALVE PER MANUFACTURER'S SPECIFICATIONS & RECOMMENDATIONS.

(*) Install Two Extra Control Wires to Each Valve Cluster as indicated on The plan per Irrigation Note # 14, Sheet LI-3.

VALVE IDENTIFICATION LEGEND:

A-X	Controller Station Number
X"	Remote Control Valve Size
XX.X	Gallons Per Minute (Flow)

DRIP ZONE IDENTIFICATION

A-X	Controller Station Number
A-X XX	Gallons Per Minute (Flow)

IRRIGATION LEGEND FOR SPRINKLER HEADS

LARGE SHRUB OR VINE BUBBLER		PSI	GPM	RADIUS	DETAIL
⊙	4" HUNTER PROS-04-PRS 30-CV-MSBN-50Q	30	0.50	1.5'	E/LI-2
TREE BUBBLER					
⊙	4" HUNTER PROS-04-PRS 30-CV-MSBN-50Q	30	0.50	1.5'	E/LI-2
USE TWO PER TREE - EACH SYMBOL ON PLAN REPRESENTS TWO HUNTER PROS-04-PRS 30-CV-MSBN-50Q FOR A TOTAL OF 1 GPM PER TREE)					

IRRIGATION PLAN NOTES

1. POINT OF CONNECTION (POC) SHALL BE A 1" DESIGNATED IRRIGATION WATER METER WITH A 1-1/2" SERVICE LINE. VERIFY THE ACTUAL LOCATION, SIZE AND WATER PRESSURE IN THE FIELD PRIOR TO STARTING WORK. IF ANY OF THE POC INFORMATION SHOWN ON THESE DRAWING IS FOUND TO BE DIFFERENT THAN THE ACTUAL POC INFORMATION, IMMEDIATELY NOTIFY THE OWNER AND LANDSCAPE ARCHITECT. SHOULD THE CONTRACTOR FAIL TO VERIFY THE POC INFORMATION, ANY CHANGES REQUIRED BY LOW PRESSURE OR VOLUME SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. AVAILABLE WATER PRESSURE INFORMATION HAS BEEN PROVIDED BY SANTA FE IRRIGATION DISTRICT (SFID) ON 4/20/2016, VIA AN EMAIL TO ALLAN MARTIN WITH BTA PLUMBING ENGINEERS.

SFID PRESSURE ZONE H&L =	202 FEET
SURFACE ELEVATION OVER PIPE=	62 FEET
DEPTH OF PIPE=	3 FEET
CALCULATED STATIC PRESSURE AT SFID WATER MAIN=	62 PSI
RESIDUAL WATER PRESSURE @ POC=	62 PSI
DESIGN WATER PRESSURE =	30 PSI FOR TREE BUBBLERS & 25 PSI FOR DRIPLINE
MAXIMUM SYSTEM DEMAND =	10.0 GPM
MAXIMUM VELOCITY=	5 FT./SEC.

(SEE SHEET LI-4 FOR PRESSURE LOSS CALCULATIONS)

2. CONTRACTOR SHALL ADJUST ALL HEADS AS REQUIRED TO ACCOMMODATE ANY VERTICAL OBSTRUCTIONS THAT MAY OCCUR, INCLUDING BUT NOT LIMITED TO LIGHT POLES, FIRE HYDRANTS, ETC. VERIFY ALL HEAD LAYOUT WITH OWNER'S AUTHORIZED REPRESENTATIVE AND LANDSCAPE ARCHITECT PRIOR TO COMMENCING WORK.

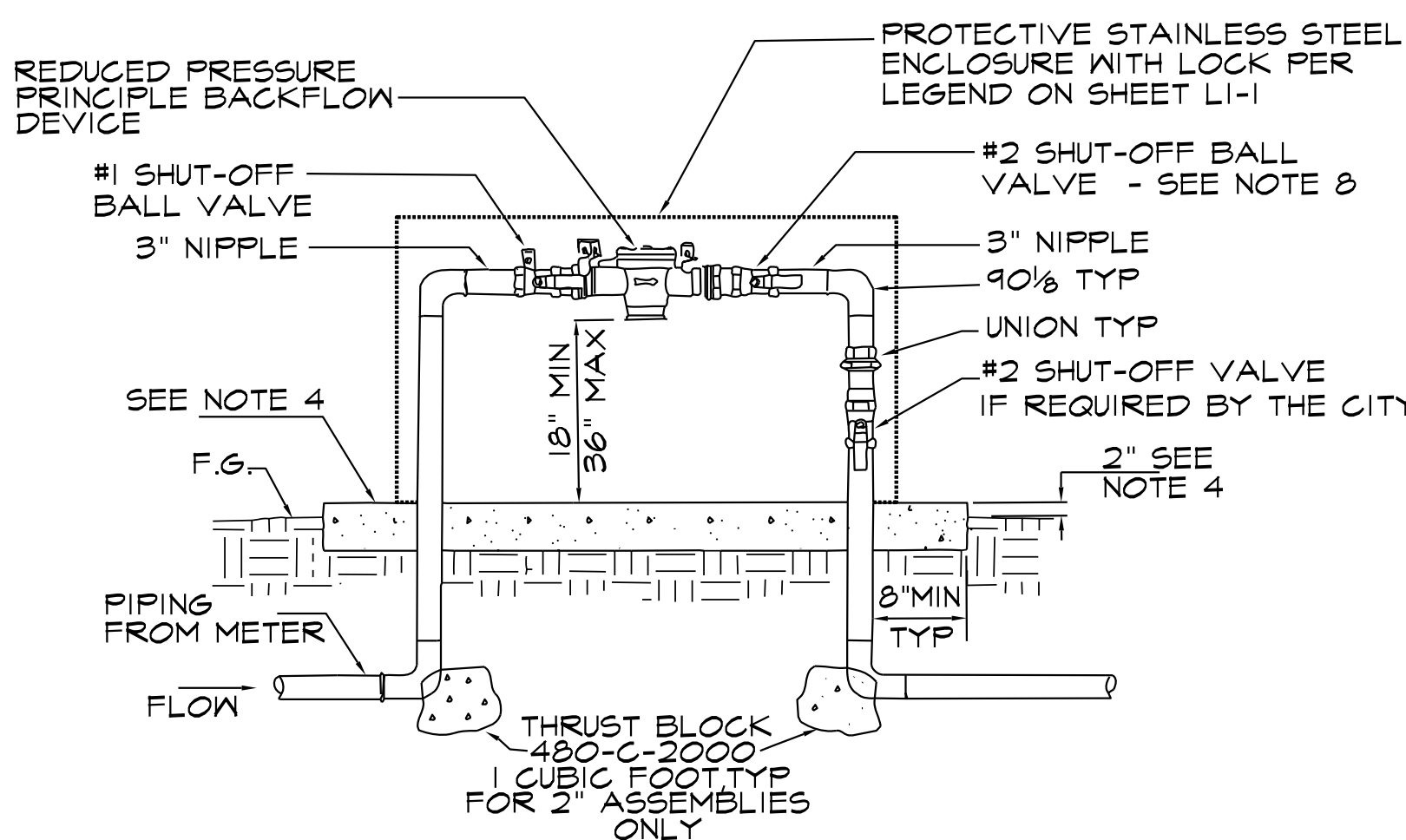
IRRIGATION PLAN REFERENCE SHEETS

1. REFER TO SHEET LI-2, LI-3 AND LI-4 FOR IRRIGATION DETAILS, SHEET LI-4 FOR IRRIGATION NOTES AND PRESSURE LOSS CALCULATIONS AND SHEET SHEET LI-5 FOR SUGGESTED WATERING SCHEDULE AND WATER USE CALCULATIONS.

2. REFER TO SHEETS LI-1 & LT-2 FOR GENERAL NOTES, LEED REQUIREMENTS, RECORD DRAWINGS REQUIREMENTS, MAINTENANCE SCHEDULE, GENERAL MAINTENANCE, GUARANTEES, REPLACEMENTS AND SOIL MANAGEMENT PLAN.

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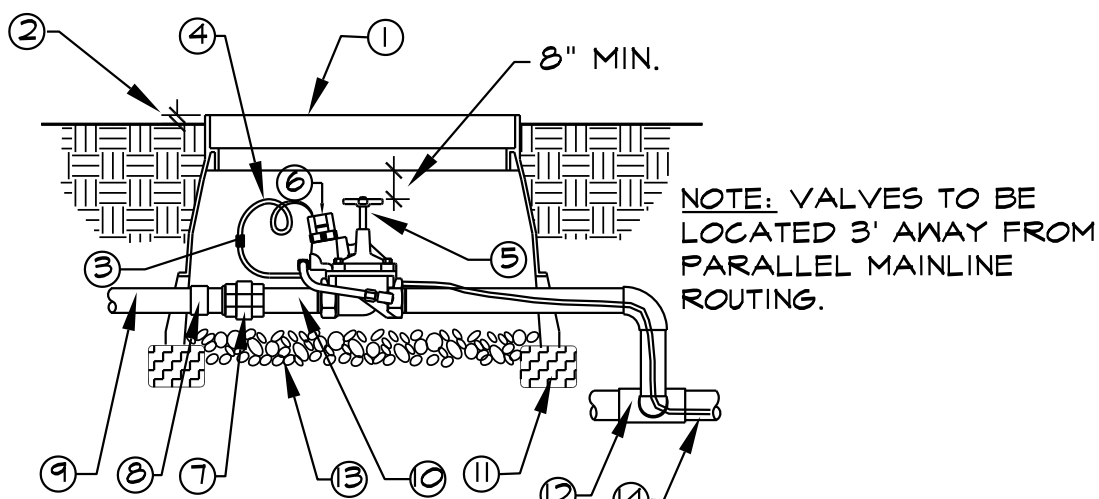
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1. ALL PIPING FROM THE METER THROUGH THE BACKFLOW PREVENTER ASSEMBLY SHALL BE TYPE M OR L COPPER WITH SOLDERED JOINTS.
2. CLOSE NIPPLES SHALL NOT BE USED.
3. TEFLON TAPE SHALL BE USED ON ALL THREADED CONNECTIONS.
4. CONCRETE PAD SHALL BE 4' THICK AND 18' WIDE (MIN) (520-C-2500) COMPACTED TO 95% RELATIVE COMPACTION OVER NATIVE SOIL. CONCRETE PAD TO BE 2' ABOVE GRADE UNLESS INSTALLED IN LAWN AREA WHERE IT WILL BE AT GRADE.
5. ALL PIPE BELOW GRADE SHALL BE WRAPPED AS REQUIRED BY AGENCY.
6. BACKFLOW PREVENTER ASSEMBLY SHALL BE TESTED UPON INSTALLATION BY A CERTIFIED BACKFLOW DEVICE TESTER. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH WRITTEN TEST RESULTS COMPLETED BY A CERTIFIED BACKFLOW TESTER PRIOR TO BACKFLOW PREVENTOR ASSEMBLIES ACCEPTANCE BY THE ENGINEER.
7. A REGULATOR MAY BE INSTALLED UPSTREAM OF THE BACKFLOW PREVENTER ASSEMBLY WHEN WATER PRESSURE EXCEEDS BACKFLOW PREVENTER ASSEMBLY RATING.
8. WYE STRAINER AND DOWNSTREAM REGULATOR, WHEN REQUIRED, SHALL BE LOCATED DOWNSTREAM OF THE # 2 SHUT OFF VALVE.

A BACKFLOW PREVENTER R.P. ASSEMBLY

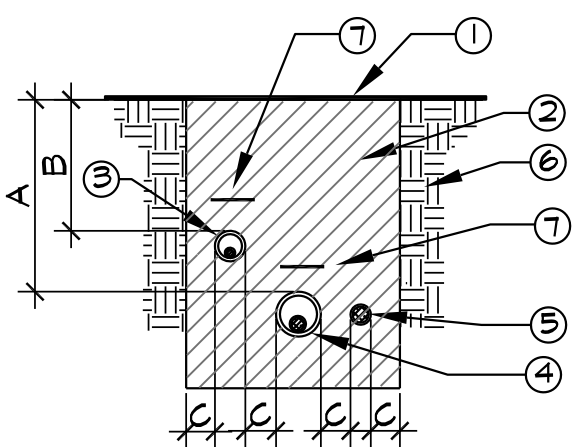
NO SCALE



- 1 VALVE BOX PER NOTES ON SHEET LI-4.
- 2 ONE INCH
- 3 WATERTIGHT WIRE CONNECTORS.
- 4 CONTROL WIRES, BUNDLE AND TAPE (W/36" MIN. EXTRA WIRE).
- 5 REMOTE CONTROL VALVE.
- 6 SOLENOID.
- 7 PVC SCH 80 UNION.
- 8 PVC SCH 80 FEMALE ADAPTER.
- 9 PVC NON-PRESSURE PIPE.
- 10 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED).
- 11 2X4 BRICK OR CONCRETE BLOCKING.
- 12 PVC SCH 80 TEE.
- 13 4" MIN. OF PEA GRAVEL.
- 14 PVC PRESSURE PIPE ON GRADE GRADE OR COPPER PIPE TYPE 'K' OVER STRUCTURE.

G REMOTE CONTROL VALVE

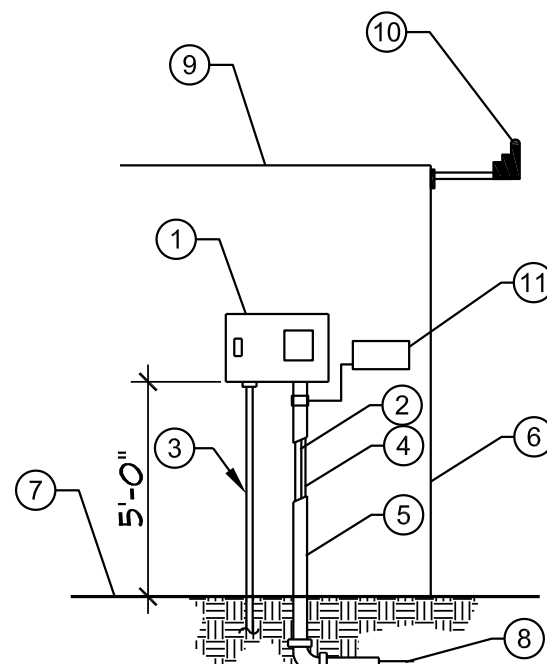
NO SCALE



NOTE:
CONTRACTOR SHALL GUARANTEE TRENCH LINES FROM SETTLING FOR ONE YEAR.

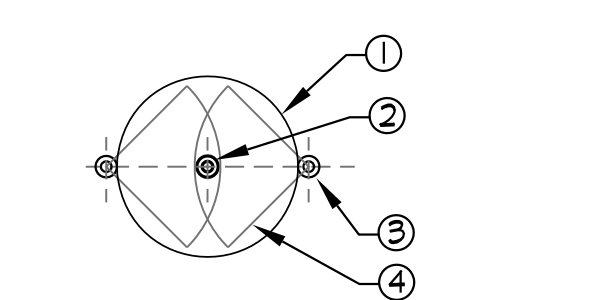
H TRENCHING UNDER PLANTING AREAS

NO SCALE

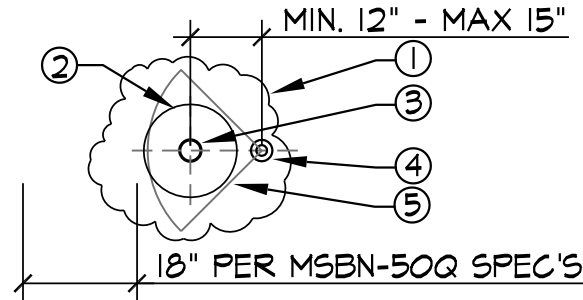


B WALL MOUNTED CONTROLLER & SOLAR SYNC SENSOR

NO SCALE



- TREES:
- IRRIGATION HEADS SHALL BE LOCATED AT THE EDGE AND ON OPPOSITE SIDE OF THE TREE ROOT BALL.

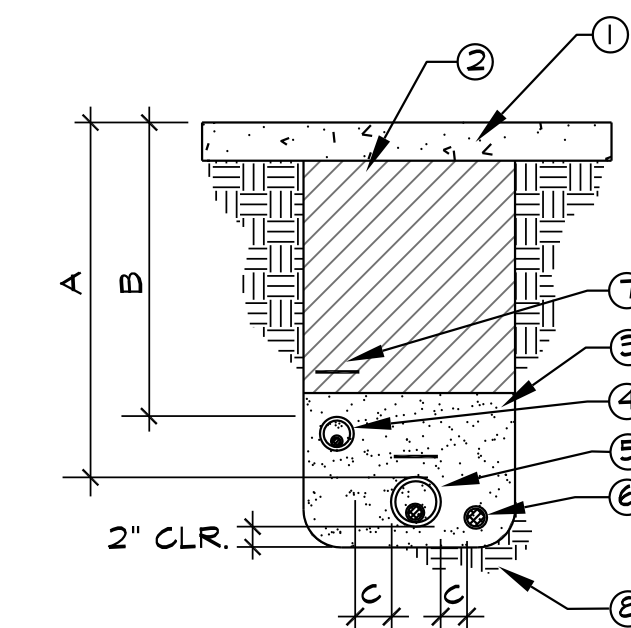


- VINE:
- IRRIGATION HEAD SHALL BE LOCATED MINIMUM 12", MAXIMUM 15" FROM CENTER OF PLANT.

4" POP-UP MSBN-50Q HEAD LOCATIONS FOR TREES AND VINES.

E MSBN BUBBLER NOZZLE OR MP ROTATOR ON POP-UP IRRIGATION HEAD

NO SCALE



DIMENSION	A	B	C
	FED. VEH.	FED. VEH.	
1/2" TO 2" PIPE SIZE	24"	30"	18"
OVER 2"	24"	36"	18"
PVC SCHEDULE RATING	40	80	40

SLEEVING NOTE:

1) DUE TO THE SCALE OF THE DRAWING ON THE IRRIGATION PLAN, NOT ALL REQUIRED SLEEVES ARE SHOWN ON THE IRRIGATION PLAN. THE CONTRACTOR IS REQUIRED TO INSTALL ALL IRRIGATION MAIN AND LATERAL PIPES LOCATED UNDER PAVEMENT IN SLEEVES AS SHOWN ON THIS DETAIL.

2) SLEEVES SHALL BE INSTALLED AT ALL LOCATION OF PIPE PENETRATIONS AT WATER QUALITY BIO-RETENTION PLANTERS PER ARCH, PLUMBING AND STRUCTURAL DETAILS.

3) SLEEVE SIZES AND PVC SCHEDULE RATING SHALL BE AS SHOWN ON THE DETAIL.

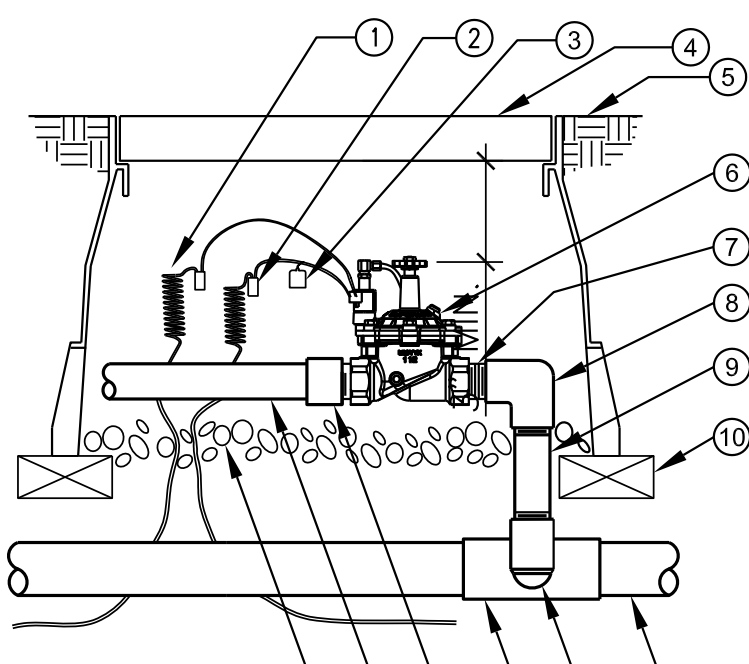
4) SLEEVES SHALL BE 2 TIMES THE DIAMETER OF PIPELINE.

5) ALL SLEEVES TO RUN A MIN. OF 12" BEYOND HARDSCAPE EDGES.

6) SAND BACKFILL IS REQUIRED IN TRENCHES UNDER PAVEMENT (TYP. ALL SITUATION). LAY PIPE ON 2" SAN BED TYPICAL, ALL TRENCHES SAND TO EXTEND 6" ABOVE PIPE.

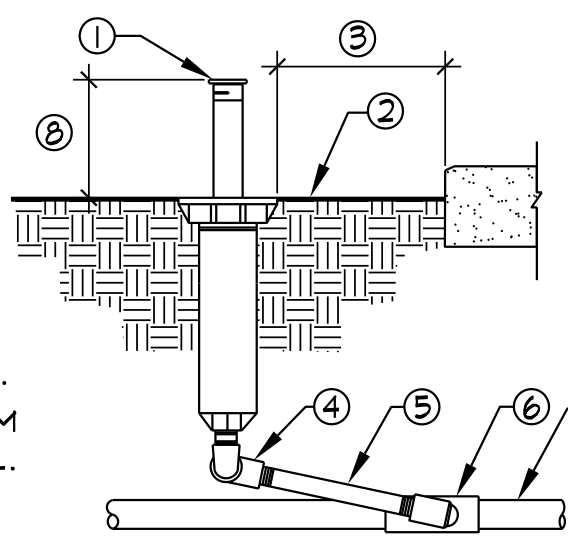
I TRENCHING & SLEEVING UNDER PAVEMENT

NO SCALE

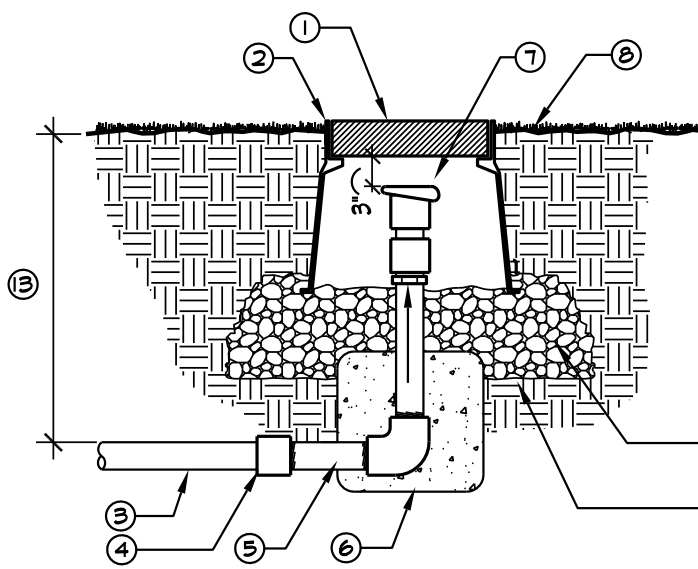


C MASTER CONTROL VALVE

NO SCALE



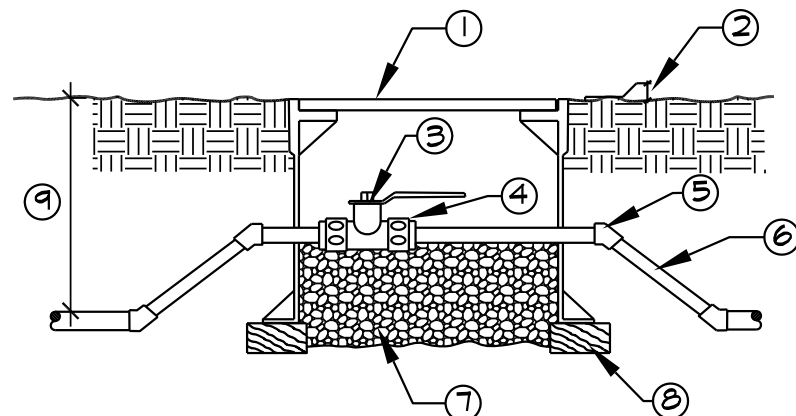
SECTION



- 1 VALVE BOX PER NOTES ON SHEET LI-4
- 2 FLUSH IN LAWN AREAS, 2" IN SHRUB AREAS
- 3 1 1/2" PVC SCH. 40 IRRIGATION LINE
- 4 PVC SCH. 80 ADAPTER
- 5 BRASS NIPPLES AND RISERS (TYP.) LENGTH AS REQUIRED
- 6 1 CU. FT. CONCRETE FOOTING
- 7 QUICK COUPLING VALVE
- 8 FINISH GRADE
- 9 3/4" CLEAN PEA GRAVEL SUMP IN, UNDER, AND AROUND VALVE BOX.
- 10 ISOLATION BALL VALVE. - SEE DETAIL THIS SHEET (ALL QUICK COUPLERS SHALL BE SEPARATED FROM THE MAINLINE BY AN ISOLATION VALVE) AS INDICATED ON THE SCHEMATIC PLAN (THIS DETAIL).
- 11 90° BRASS ELBOW
- 12 IRRIGATION MAINLINE.
- 13 DEPTH - SEE TRENCHING DETAILS.

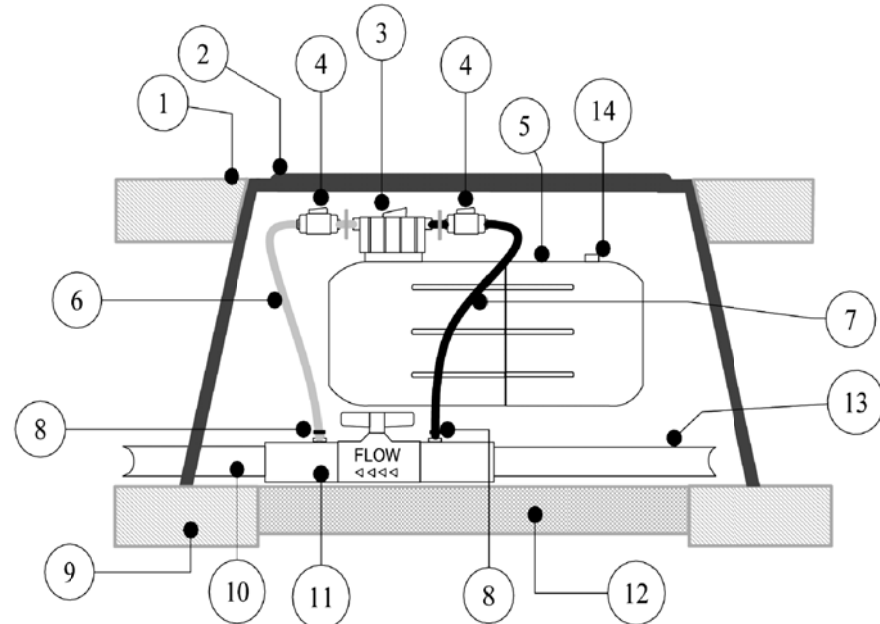
J QUICK COUPLER VALVE

NO SCALE



D BRASS BALL VALVE

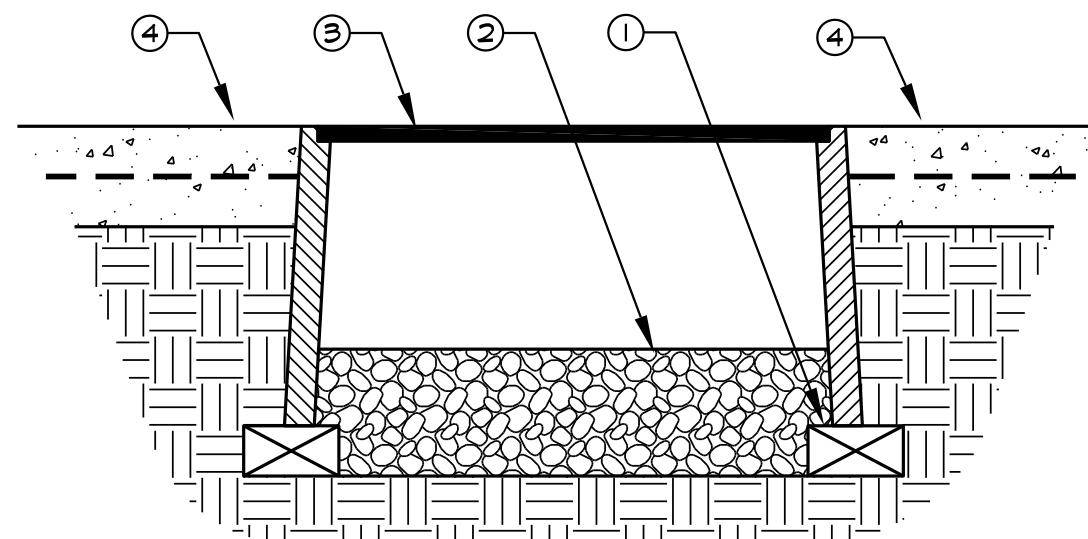
NO SCALE



- NOTE:
- 1) ITEMS 3, 4, 5, 6, 7 AND 8 ARE INCLUDED WITH THE EZ-FLO SYSTEM. ITEM 11 IS PURCHASED SEPARATELY.
- 2) DETAIL HAS BEEN PROVIDED BY EZ-FLO FERTILIZING SYSTEMS, INC.

F EZ-FLO FERTILIZING SYSTEM MODEL # EZ001-CX (1.5 GALLON CAPACITY)

NO SCALE



K IRRIGATION VALVE BOX IN PAVED AREAS

NO SCALE



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The Pearl

A MIXED USE DEVELOPMENT
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1st CITY SUBMITTAL 6/27/2016

2nd CITY SUBMITTAL 6/04/2018

MZDI JOB # 11-003



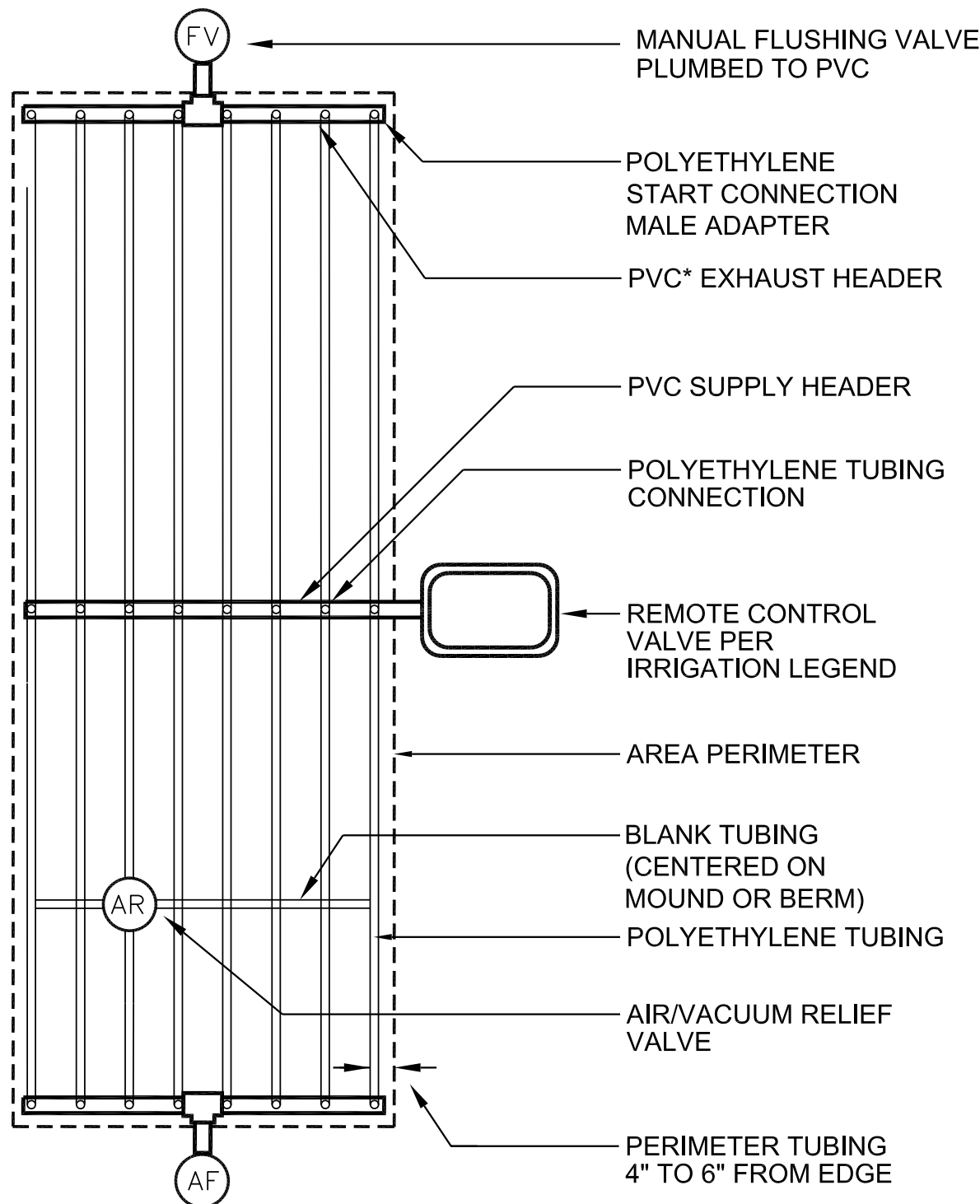
IRRIGATION
DETAILS

LI.2

SHEET 6 OF 12

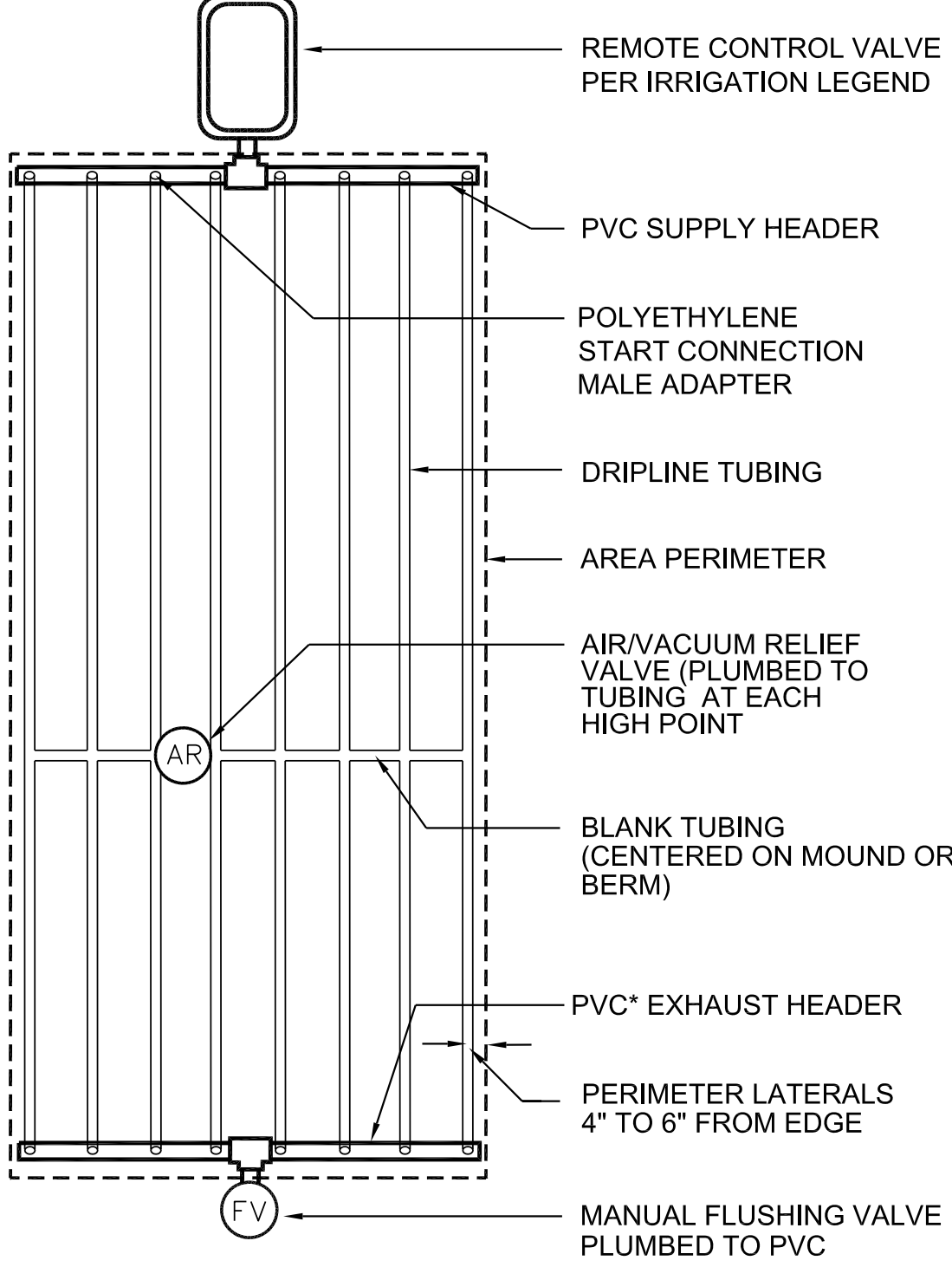
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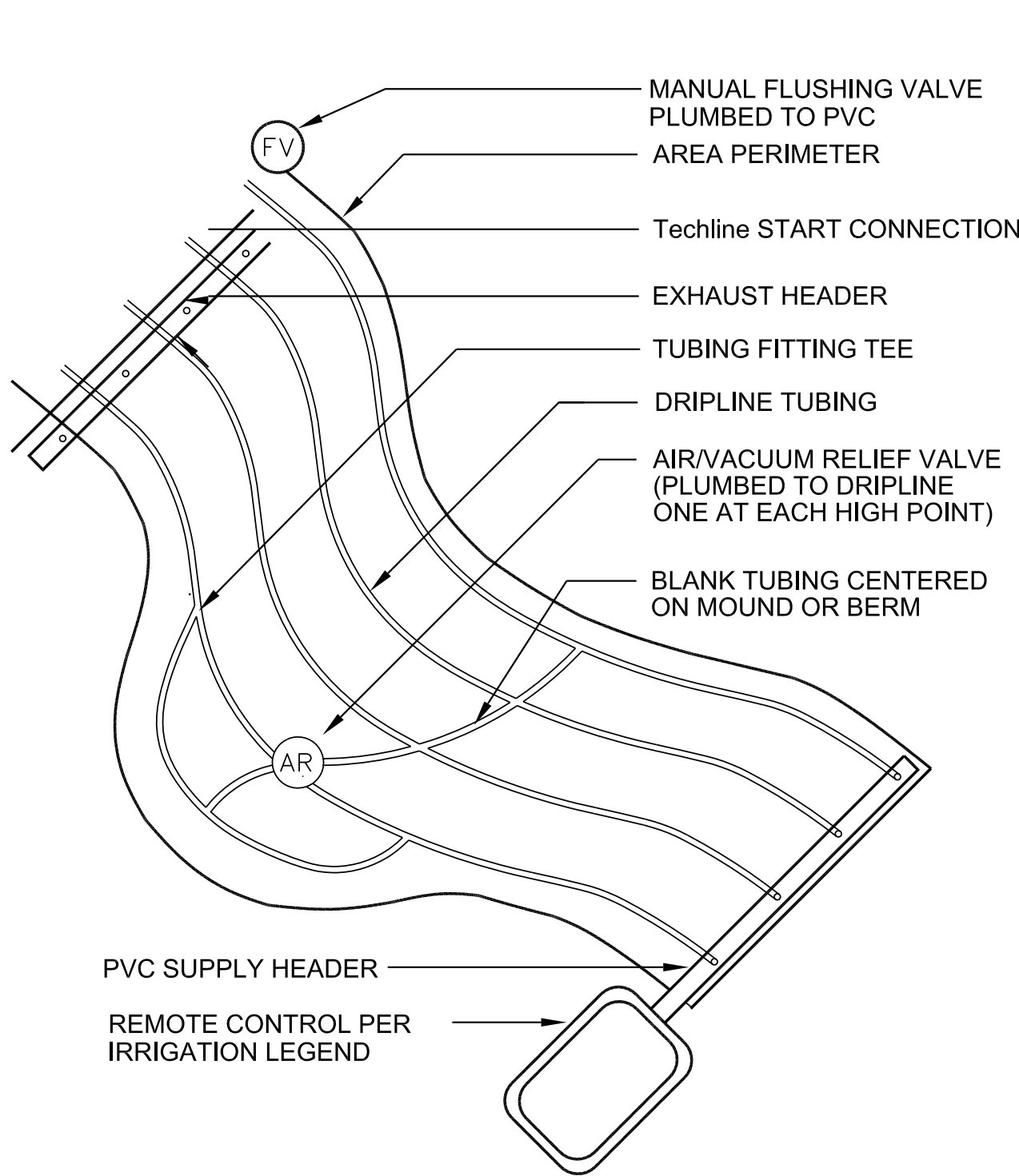


NOTE:
FOR EACH PLANTING AREA CONTROLLED BY ON IRRIGATION CONTROL VALVE, PROVIDE AN AIR RELIEF VALVE AT THE HIGHEST ELEVATION POINT AND A MANUAL FLUSH VALVE AT THE LOWEST ELEVATION POINT OF THE PLANTING AREA.

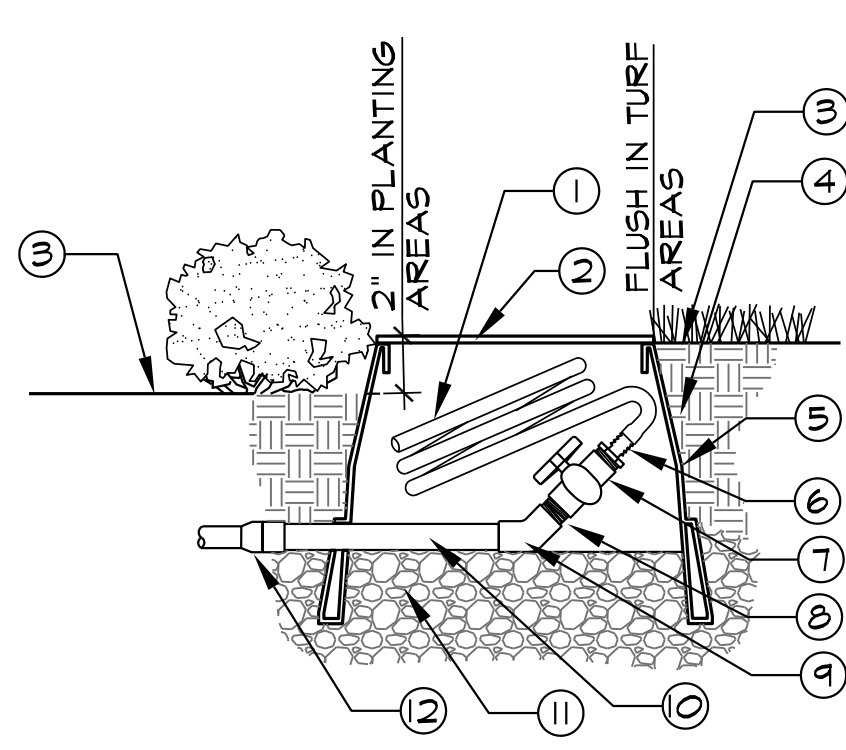
L DRIP TUBING CENTER FEED LAYOUT
NO SCALE



M DRIP TUBING END FEED LAYOUT
NO SCALE

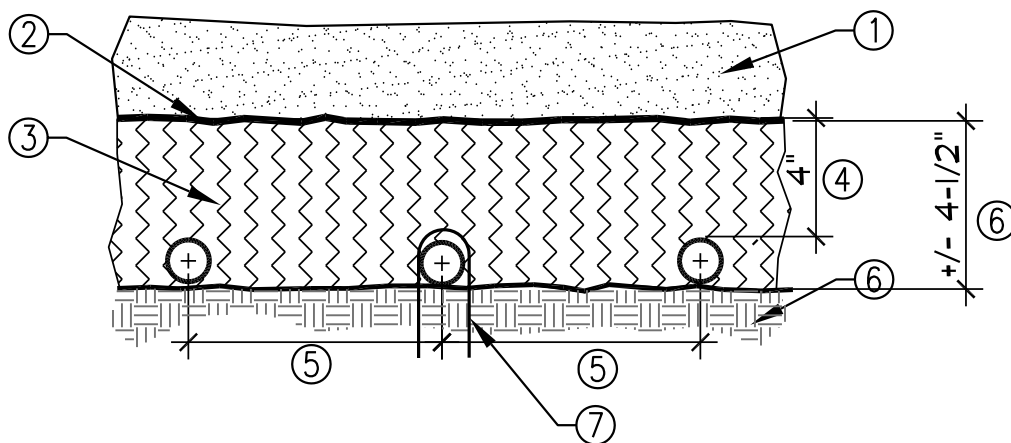


N IRREGULAR AREAS - ODD CURVES
NO SCALE



- 24", MINIMUM LENGTH OF 1/2" RUBBER HOSE.
 - DIA. 10" ROUND VALVE BOX WITH BOLT DOWN LID, STAINLESS STEEL BOLT AND WASHER. VALVE BOX PER NOTES ON SHEET LI-4
 - FINISH GRADE.
 - BACKFILL MATERIAL.
 - FILTER FABRIC. WRAP 1 LAYER AROUND BOX COVERING HOLES.
 - PVC SCH 40, 3/4" MIPT X 1/2" BARB HOSE ADAPTER.
 - PVC SCH 40, 3/4" FIPT X FIPT BALL VALVE.
 - PVC SCH 40, 3/4" TREADED NIPPLE.
 - PVC SVH 40, 45 DEGREE ELL.
 - TERMINAL END OF NON-PRESSURE LATERAL LINE, SEE PLAN FOR SIZE.
 - 3/4" GRAVEL BASE AND SUMP. (COMPACT GRAVEL FOR BOX BASE, DO NOT USE BLOCKS OR BRICKS FILL GRAVEL TO BOTTOM OF VALVE.
 - POLY / PVC ADAPTER WHEN APPLICABLE.
- NOTE: USE TEFLON TAPE ON ALL THREADED CONNECTIONS.

O DRIP END MANUAL FLUSH VALVE
NO SCALE

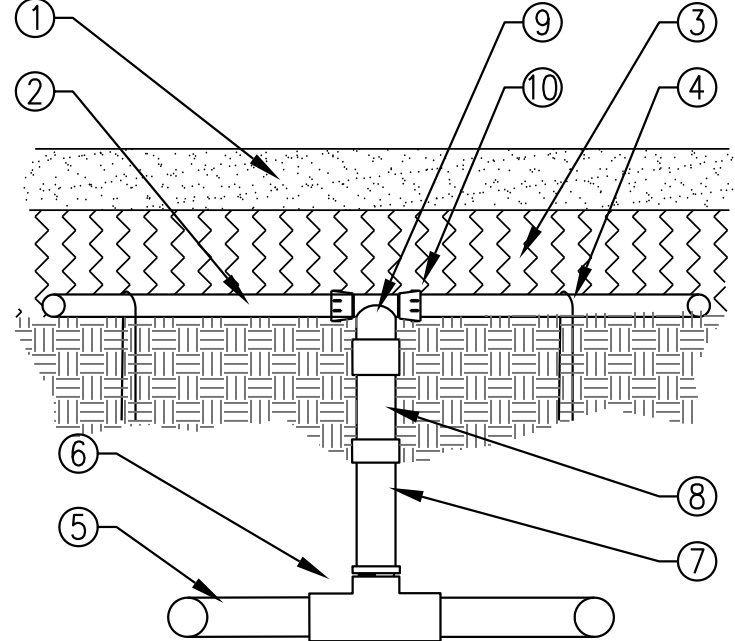


- MULCH LAYER.
- TOP OF PLANTING SOIL.
- PLANTING SOIL: PROVIDE 4" CONSISTENT SOIL PROFILE WITH 80% COMPACTION ABOVE AND BELOW DRIPLINE TUBING.
- BACKFILL FINAL 4" OF SOIL OVER TUBING AFTER INSTALLATION OF TUBING.
- TECHLINE LATERAL SPACING AT 18" O.C. PER LEGEND ON IRRIGATION PLAN.
- SOIL LEVEL IN PLANTING AREAS TO BE BROUGHT TO 4-1/2" BELOW FINISH GRADE OF TOP OF PLANTING SOIL AND PROPERLY COMPACTED PER SPECIFICATIONS PRIOR TO INSTALLATION OF THE TUBING..
- SECURE TUBING TO GRADE USING WIRE HOOP STAKES AT 5' ON CENTER.

DRIP TUBING INSTALLATION NOTES:

- POLYETHYLENE TUBING SHALL BE LAID OUT IN AS STRAIGHT A LINE AS POSSIBLE ONE HOUR PRIOR TO INSTALLATION TO INCREASE FLEXIBILITY OF PIPE AND EASE OF INSTALLATION.
- TURN RADIUS NO TIGHTER THAN 18 INCHES WITH POLYETHYLENE TUBING. USE ELBOWS IN SHARP CORNERS TO AVOID BENDING OF PIPE.
- AS INDICATED ON THE DETAIL, TUBING SHALL BE INSTALLED APPROXIMATELY 4 - 1/2 INCHES BELOW GRADE AT A UNIFORM DEPTH. STAKE LINE SECURELY IN PLACE WITH JUTE MESH OR WIRE LOOP STAPLES AT MAXIMUM 5 FEET ON CENTER. STAKE END OF LINE SECURELY.
- POSITION TUBING IN PARALLEL ROWS WITH SPACING AS INDICATED ON THE IRRIGATION LEGEND. PLANT MATERIAL SHALL BE PLACED ADJACENT TO IRRIGATION EMITTERS. COORDINATE LOCATION OF PLANTS WITH EMITTER INSTALLATION.
- GOOF PLUGS SHALL BE INSTALLED IN TUBING WHERE THERE IS NO PLANT MATERIALS.
- THE PERIMETER ROW OF DRIPLINE TUBING SHALL BE INSTALLED A MAXIMUM OF 4" FROM THE EDGE OF ANY HARD SURFACE. ALL SUBSEQUENT INTERIOR ROWS SHALL BE ADJUSTED AN EVEN SPACING ACROSS THE PLANTER WITHOUT EXCEEDING THE SPACING SPECIFIED ON THE IRRIGATION LEGEND.
- FOR SINGLE LINE ROW OF SHRUBS, A MINIMUM OF TWO TUBING ARE REQUIRED ON BOTH SIDES OF THE SHRUB ROOT BALL.

P DRIPLINE TUBING SUBGRADE INSTALLATION
NO SCALE

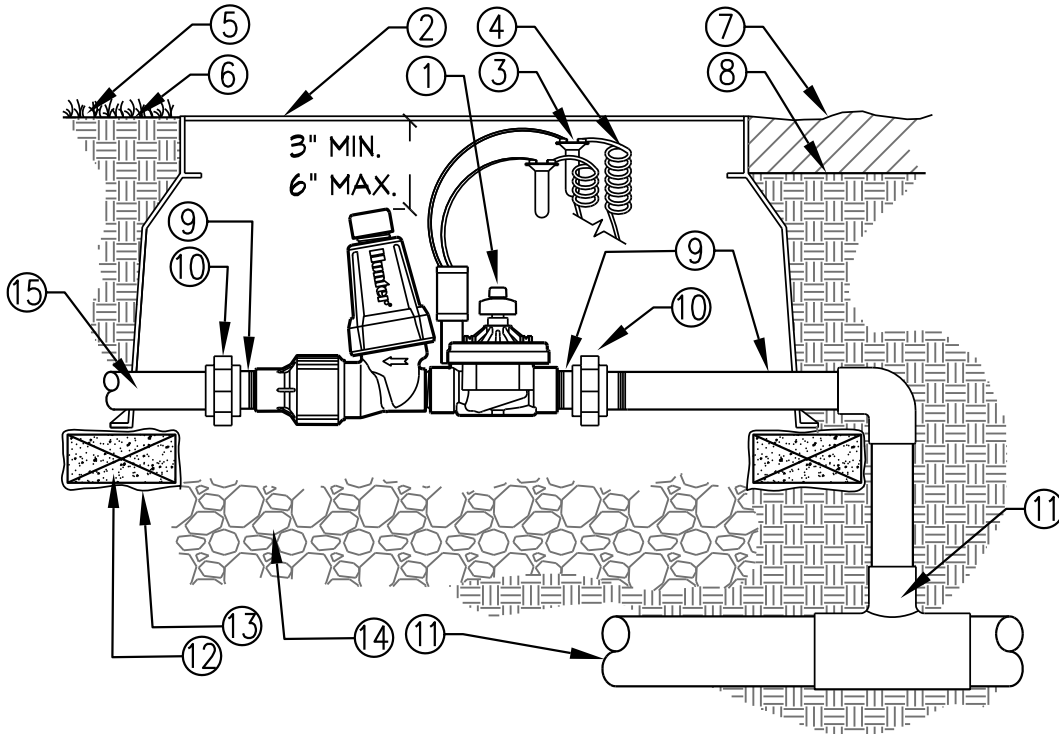


- MULCH LAYER.
- POLYETHYLENE IN LINE DRIPLINE TUBING PER IRRIGATION LEGEND.
- PLANTING SOIL AND BACKFILL OVER TUBING PER DETAIL BELOW.
- 9" PVC COATED WIRE STAKE BY GPH IRRIGATION PRODUCTS. INSTALL AT 5 FEET ON CENTER.
- PVC DRIPLINE TUBING SUPPLY LATERAL LINE. SIZE AS INDICATED ON PLAN.
- SCH. 40 PVC SLIP XSLIPX 1/2" FIPT TEE FITTING, HEADER SIZE BY 1/2".
- FLEXIBLE NIPPLE 1/2" MIPT X 1/2" FIPT X 6" LENGTH BY GPH IRRIGATION PRODUCTS.
- SCH. 80 PVC THREADED NIPPLE, 1/2" X LENGTH AS REQUIRED.
- SCH. 40 PVC THREADED TEE OR 90 1/2 ELL FITTING, 1/2" SIZE.
- 1/2" MIPT X 1/2" BARB MALE ADAPTER FITTING, TWO (2) REQUIRED FOR TEE FITTING, ONE (1) FOR 90 1/2 ELL.

NOTES:

- DRIPLINE TUBING CONNECTION IS REQUIRED FOR ALL CONNECTION BETWEEN DRIPLINE TUBING AND PVC HEADERS.
- FOR CONNECTIONS AT END RUNS OF TUBING, USE 90 1/2 ELL FITTING AND ONE ADAPTOR FITTING FOR CONNECTION.
- FOR CONNECTIONS IN THE MIDDLE OF RUNS OF TUBING, USE A TEE FITTING AND TWO ADAPTOR FITTINGS FOR CONNECTION.

Q DRIPLINE TUBING CONNECTION
NO SCALE

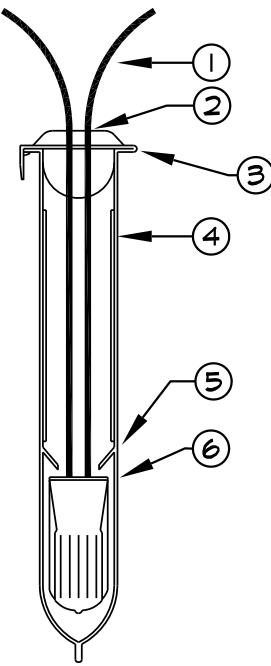


- HUNTER DRIPLINE ZONE CONTROL PER LEGEND.
- IRRIGATION STANDARD VALVE BOX PER PLAN HEAT STAMP LID WITH "RCV" IN 2" LETTERS
- WATERPROOF CONNECTORS (2)
- 18"-24" COILED WIRE TO CONTROLLER
- FINISHED GRADE IN TURF
- ADJACENT TURF
- ADJACENT MULCH
- FINISHED GRADE IN PLANTER BED
- SCH. 80 T.O.E. NIPPLE - MATCH SIZE TO VALVE AND UNION - LENGTH AS NEEDED
- PVC SLIP UNION
- MAINLINE LATERAL AND FITTINGS
- BRICK SUPPORTS (4)
- FILTER FABRIC - WRAP TWICE AROUND BRICK SUPPORTS
- 3/4" WASHED GRAVEL - 4" MIN. DEPTH
- IRRIGATION LATERAL

NOTE:

ISOLATION "BALL" VALVE IS NOT SHOWN ON THIS DETAIL. BALL VALVE IS REQUIRED AS INDICATED ON THE IRRIGATION PLAN AND DETAIL D / LI-2

R LOW VOLUME DRIPLINE CONTROL KIT
NO SCALE



SECTION VIEW

NOTES:

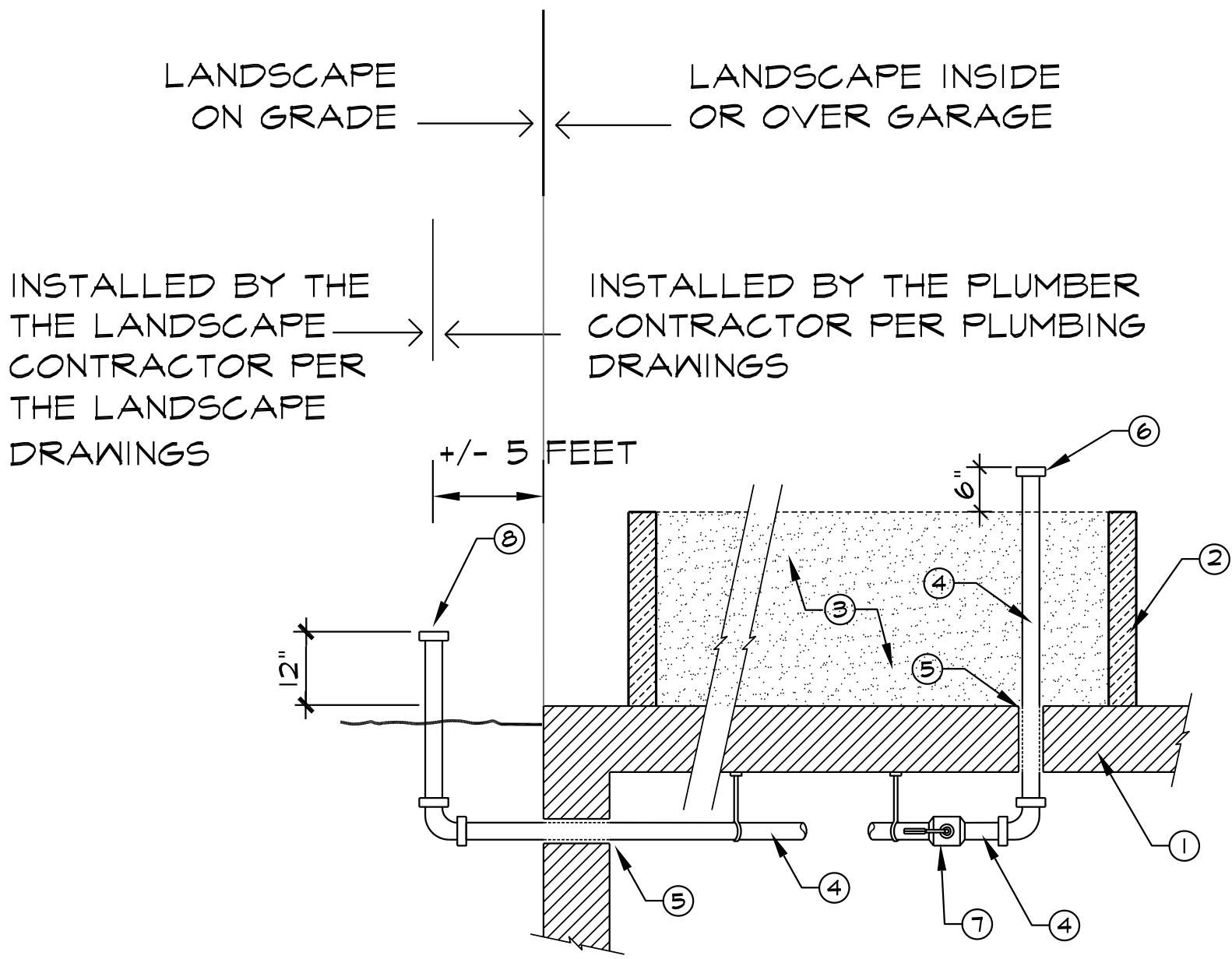
- WIRE CONNECTOR SHALL BE A 3M DBY DIRECT BURY SPLICE KIT OR APPROVED EQUAL.
- KIT SHALL INCLUDE A SCOTCHLOK Y SPRING CONNECTOR, A POLYPROPYLENE TUBE AND A WATERPROOF SEALING GEL. TUBE SHALL BE SUPPLIED PRE-FILLED WITH GEL.
- DIRECT BURY SPLICE KIT SHALL BE USED TO ELECTRICALLY CONNECT 2 - 3 #14 OR 2 #12 PRE-STRIPPED COPPER WIRES. LARGER WIRES OR GREATER QUANTITIES OF WIRES SHALL REQUIRE A LARGER APPROVED WIRE CONNECTION.
- ALL WIRE CONNECTIONS SHALL BE WATER PROOF AND LOCATED IN A SPLICE VALVE BOX.

T WIRE CONNECTORS
NO SCALE

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GENERAL IRRIGATION NOTES

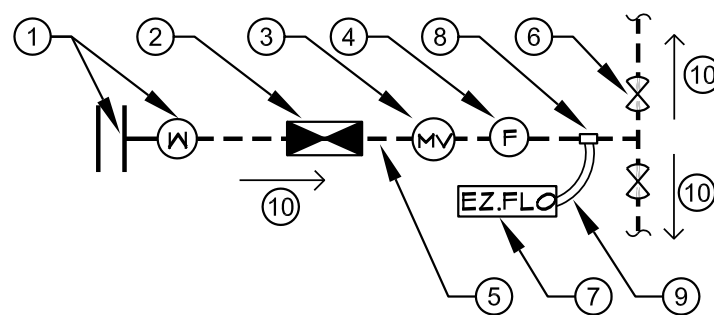
1. THE IRRIGATION PLAN IS DIAGRAMMATIC AND IS PROVIDED AS A GUIDE TO THE LAYOUT AND INSTALLATION OF STANDARD IRRIGATION EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACTUAL LAYOUT OF THE SPRINKLER HEADS AND PATTERNS TO PRECISELY FIT THE PLANTING AREAS OF EACH PLANTER IN ACCORDANCE WITH THESE NOTES.
2. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES AND OTHER ITEMS WHICH MAY BE REQUIRED. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF HIS WORK AND PLAN HIS WORK ACCORDINGLY FURNISHING SUCH FITTINGS, AND MATERIAL AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED.
3. CONTRACTOR SHALL NOT WILLFULLY INSTALL THE SYSTEM AS DESIGNED WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT WERE NOT KNOWN DURING THE DESIGN. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING CONDITIONS ON SITE AND CONTACTING THE ENGINEER; CONTRACTOR SHALL MAKE APPROPRIATE ADJUSTMENTS TO ENSURE THAT IRRIGATION COVERAGE IS 100% AS ACCEPTED BY THE ENGINEER.
4. ALL IRRIGATION EQUIPMENT IS TO BE INSTALLED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS SET FORTH IN THESE PLANS AND ALL OTHER CITY AND REGIONAL STANDARDS.
5. THE CONTRACTOR SHALL PROVIDE 100 PERCENT COVERAGE AND A MINIMUM OF 90% OVERLAP WHEN LAYING OUT THE IRRIGATION HEADS, TAKING INTO CONSIDERATION THE ACTUAL ADJUSTED RADIUS OF THE SPRINKLER TO BE USED.
6. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES IN THE PLANS OR OTHER SITUATIONS WHERE THE IRRIGATION SYSTEM CANNOT BE INSTALLED AS INDICATED IN THESE PLANS.
7. THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO WALKS, ROADWAYS AND/OR BUILDINGS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE BUT NOT BE LIMITED TO SELECTING THE BEST DEGREE OF ARC TO FIT THE EXISTING SITE CONDITIONS, THE INCLUSION OF PRESSURE COMPENSATION FITTINGS OR FLOW REDUCTION SCREENS, THROTTLING THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE AND COVERAGE FOR EACH SYSTEM.
8. THE CONTRACTOR SHALL PROVIDE AND KEEP UP TO DATE A COMPLETE "AS-BUILT" RECORD SET OF PRINTS WHICH SHALL BE CORRECTED DAILY AND SHOW EVERY CHANGE FROM THE ORIGINAL DRAWINGS. BEFORE THE TIME OF THE FINAL OBSERVATION, THE CONTRACTOR SHALL TRANSFER ALL INFORMATION FROM THE "AS-BUILT" SET TO A REPRODUCIBLE SEPIA, PROCURED FROM THE ENGINEER. ALL WORK SHALL BE NEAT AND LEGIBLE.
9. A THOROUGH FLUSH OF ALL LATERAL LINES IS REQUIRED BEFORE INSTALLATION OF IRRIGATION NOZZLES.
10. AFTER INSTALLATION OF HEADS, A SECOND FLUSH IS REQUIRED BEFORE CAPPING AND PRESSURIZING PVC LINE.
11. LANDSCAPE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF PVC ELECTRICAL CONDUIT ELL (FOR CONTROL WIRE FOR IRRIGATION CONTROLLER) WITH ELECTRICIAN.
12. CONTROL WIRES UNDER PAVING SHALL BE INSTALLED IN PVC SLEEVES. COORDINATE SLEEVE INSTALLATION WITH OTHER TRADES TO ENSURE PROPER AND TIMELY INSTALLATION IN LOCATIONS REQUIRED.
13. PROVIDE PULL BOXES FOR CONTROL WIRING AT ALL CHANGES OF DIRECTION AND WHERE RUNS EXCEED 200 FEET. SPLICES SHALL BE MADE IN PULL BOXES OR CONTROL VALVE BOXES ONLY.
14. INSTALL TWO SPARE CONTROL WIRES OF A DIFFERENT COLOR ALONG THE ENTIRE MAINLINE FROM THE FURTHEST VALVE ON EACH MAINLINE RUN TO THE CONTROLLER. LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES.
15. ALL WIRE CONNECTIONS SHALL BE AS SHOWN ON DETAIL S, SHEET LI-4.
16. CONTROLLER SHALL BE PROGRAMMED SO THAT WATER APPLICATION SHALL NOT EXCEED SOIL INFILTRATION RATE OR CAUSE RUN-OFF. APPLICATION RATE SHALL BE SUFFICIENT TO PREVENT ROOT STRESS.
17. INSTALL QUICK COUPLING VALVES AND REMOTE CONTROL VALVES PERPENDICULAR AND ADJACENT TO WALKS AND CURBS.
18. INSTALL VALVE BOXES PERPENDICULAR TO WALK, CURB, WALLS, FENCES OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM CURB/WALK. BOXES SHALL BE 6" APART. SHORT SIDE OF VALVE BOX SHALL BE PARALLEL TO WALK, CURB, WALLS, FENCES, ETC. INSTALL CHRISTY'S VALVE ID TAGS ON ALL IRRIGATION CONTROL VALVES.
19. IRRIGATION HEADS SHALL BE LOCATED A MINIMUM OF 3" FROM ALL BUILDINGS, WALLS, STUCCO WALLS AND WOOD FENCES. SHRUB SPRAYHEADS SHALL BE SET BACK FROM HARDSCAPE TWO INCHES.
20. ALL HEADS SHALL BE ADJUSTED TO ELIMINATE OVER-SPRAY ON WALKS, WALLS, FENCES, BUILDING AND OTHER FACILITIES.
21. INSTALL ALL IRRIGATION MAINLINE A MINIMUM OF 18" BELOW GRADE. LATERALS SHALL BE LOCATED A MINIMUM OF 12" BELOW GRADE. ALL PIPING UNDER PAVEMENT SHALL BE INSTALLED IN A SCHEDULE 40 PVC SLEEVES AS INDICATED ON THE IRRIGATION DETAIL SHEET LI-3.
22. ALL NOZZLE ARCS SHALL SELECTED TO FIT THE ANGLE OF THE SPACE WHERE NECESSARY. A VARIABLE ARC NOZZLE (VAN) SHALL BE INSTALLED TO COVER ANGLES LESS THAN 90 DEGREES OR OTHER DIFFICULT TO COVER ANGLES.
23. ALL IRRIGATION SYSTEMS ARE TO BE TESTED IN THE PRESENCE OF THE ENGINEER TO VERIFY PROPER COVERAGE, OPERATION AND ADJUSTMENT.
24. THE ENTIRE IRRIGATION SYSTEM SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE TIME OF TURNOVER TO THE OWNER. THE GUARANTEE SHALL COVER ALL MATERIALS AND WORKMANSHIP OF THE INSTALLATION.
25. PRESSURE TEST: ALL PRESSURE LINES SHALL BE TESTED UNDER A MINIMUM HYDROSTATIC PRESSURE OF 150 LBS. PER SQUARE INCH FOR 3 HOURS. ALL NONPRESSURE LINES SHALL BE TESTED UNDER THE OPERATING PRESSURE. BOTH SHALL BE PROVEN WATER TIGHT. CONTRACTOR TO SUPPLY ALL EQUIPMENT NEEDED FOR TESTING. IF LEAKS DEVELOP, THE JOINTS SHALL BE REPLACED AND THE TEST REPEATED UNTIL THE ENTIRE SYSTEM IS PROVEN WATER TIGHT. TESTS SHALL BE OBSERVED & APPROVED BY THE LANDSCAPE ARCHITECT & ENGINEER PRIOR TO BACKFILL.
26. CONTRACTOR SHALL ADJUST ALL HEADS AS REQUIRED TO ACCOMMODATE ANY VERTICAL OBSTRUCTIONS THAT MAY OCCUR, INCLUDING BUT NOT LIMITED TO LIGHT POLES, FIRE HYDRANTS, ETC. VERIFY ALL HEAD LAYOUT WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING WORK.



1. STRUCTURAL SLAB AND WALL - SEE ARCHITECTURAL & STRUCTURAL DRAWINGS FOR DETAILS, SLOPE, AND WATERPROOFING.
2. PLANTER WALL - SEE ARCHITECTURAL & STRUCTURAL DRAWINGS FOR DETAILS.
3. PLANTING MEDIUM PER CONTRACTOR'S SOIL REPORT.
4. COPPER TYPE 'K' PIPE BY PLUMBER. ALL PIPING WITHIN BUILDING SHALL BE INSTALLED & INSPECTED BY THE PLUMBER CONTRACTOR. REFER TO PLUMBING DRAWINGS FOR PIPE LAYOUT. (CONTRACTOR TO PRESSURE TEST ALL COPPER PIPES @ 100 PSI FOR 24 HOURS PRIOR TO IRRIGATION INSTALLATION BY THE LANDSCAPE/IRRIGATION CONTRACTOR).
5. WALL OR SLAB PENETRATION & SEAL PER ARCHITECTURAL & PLUMBING DETAILS AND SPECIFICATIONS.
6. IRRIGATION POINT OF CONNECTION FROM GARAGE AS INDICATED ON IRRIGATION PLAN AND LEGEND WITH THE SYMBOL (⊗). PLUMBER CONTRACTOR TO CAP COPPER PIPE MIN. SIX INCHES (6") ABOVE PLANTER WALL FOR FUTURE IRRIGATION INSTALLATION BY THE LANDSCAPE CONTRACTOR.
7. MAIN SHUT-OFF BALL VALVE ON COPPER PIPE PRIOR TO SLAB PENETRATION BY THE PLUMBER CONTRACTOR.
8. CAPPED STUB-OUT 12" ABOVE GRADE BY THE PLUMBER CONTRACTOR APPROXIMATELY 5 FEET FROM THE FACE OF BUILDING FOR PROPOSED IRRIGATION CONNECTION AND INSTALLATION BY THE LANDSCAPE/IRRIGATION CONTRACTOR.

U TYPICAL IRRIGATION CONNECTION FROM GARAGE

NO SCALE



1. IRRIGATION POINT OF CONNECTION TO RESIDENTIAL DOMESTIC LINE AND METER.
2. BACKFLOW PREVENTER.
3. MASTER VALVE.
4. FLOW METER.
5. IRRIGATION MAINLINE.
6. BALL VALVE.
7. EZ FLOW FERTILIZATION TANK.
8. COUPLING BALL VALVE CONNECTOR.
9. IN AND OUT FERTILIZER TUBES BETWEEN TANK AND COUPLING CONNECTOR.
10. DIRECTION OF WATER FLOW.

NOTE:
REFER TO IRRIGATION LEGEND ON SHEET LI-I FOR MATERIAL SPECIFICATIONS.

V IRRIGATION POINT OF CONNECTION DIAGRAM

NO SCALE

IRRIGATION PRESSURE LOSS CALCULATIONS

(LARGEST VALVE)

Control Valve No.: A-2 (Largest GPM)	GPM: 10	Size: 1"
A. SYSTEM HEAD GAIN OR LOSS		
Elevation at Meter		59.5
Pressure at Meter (PSI)		62.0
Elevation at Highest Head		59.5
Head Gain/Loss to Highest head (Elev. Diff. x 0.433)		0.0
TOTAL SYSTEM PRESSURE		62.0

B. PIPING LOSS					
SECTION	TYPE	SIZE	LENGTH	ACCUM. GPM	LOSS IN PSI
Mainlines					
1	SCH 40	1/ 1/2"	25	10.0	0.1
Lateral Lines					
1	CL 200	1"	5	10.0	0.1
2	CL 200	1"	15	8.0	0.1
3	CL 200	1"	15	7.0	0.1
4	CL 200	1"	15	6.0	0.1
5	CL 200	3/4"	15	5.0	0.2
6	CL 200	3/4"	25	4.0	0.2
7	CL 200	3/4"	16	3.0	0.1
8	CL 200	3/4"	25	1.0	0.0
TOTAL PIPING LOSS					0.8

C. MISCELLANEOUS LOSS/GAIN				
ITEM	SIZE			LOSS IN PSI
Water Meter	1"	1	6.5	6.5
Backflow Preventer	1"	1	13	13.0
Gate/Ball Valve	1.5"	3	0.2	0.6
Master Valve	1.5"	1	3.8	3.8
Control Valve	1"	1	3	3.0
10% Fittings Loss				0.1
TOTAL MISCELLANEOUS LOSSES				27.0

D. SYSTEM PRESSURE LOSS CALCULATION				
TOTAL SYSTEM LOSS (B + C)				27.8
MINIMUM PRESSURE REQUIRED AT LAST HEAI				30.0
DESIGN PRESSURE				57.8
TOTAL SYSTEM PRESSURE (From A Above)				62.0
RESIDUAL PRESSURE				4.2
RESIDUAL PRESSURE AS A % OF SYSTEM PRESURE				6.8%

(HIGHEST HEAD)

Control Valve No.: A-5 (Highest Head)	GPM: 1.5	Size: 1"
A. SYSTEM HEAD GAIN OR LOSS		
Elevation at Meter		59.5
Pressure at Meter (PSI)		62.0
Elevation at Highest Head		76.0
Head Gain/Loss to Highest head (Elev. Diff. x 0.433)		-7.1
TOTAL SYSTEM PRESSURE		54.9

B. PIPING LOSS					
SECTION	TYPE	SIZE	LENGTH	ACCUM. GPM	LOSS IN PSI
Mainlines					
1	SCH 40	1/ 1/2"	180	1.5	0.0
Lateral Lines					
1	CL 200	3/4"	60	1.5	0.1
TOTAL PIPING LOSS					0.1

C. MISCELLANEOUS LOSS/GAIN				
ITEM	SIZE			LOSS IN PSI
Water Meter	1"	1	6.5	6.5
Backflow Preventer	1"	1	13	13.0
Gate/Ball Valve	1.5"	6	0.2	1.2
Master Valve	1.5"	1	3.8	3.8
Control Valve	1"	1	3	3.0
10% Fittings Loss				0.0
TOTAL MISCELLANEOUS LOSSES				27.5

D. SYSTEM PRESSURE LOSS CALCULATION				
TOTAL SYSTEM LOSS (B + C)				27.6
MINIMUM PRESSURE REQUIRED AT DRIPLINI				25.0
DESIGN PRESSURE				52.6
TOTAL SYSTEM PRESSURE (From A Above)				54.9
RESIDUAL PRESSURE				2.3
RESIDUAL PRESSURE AS A % OF SYSTEM PRESURE				3.7%

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ESTIMATED TOTAL WATER USE (ETWU) WORKSHEET

The project's Estimated Total Water Use is calculated using the following formula:

$$0.62 \left(\frac{PF \times HA}{IE} + SLA \right)$$

ETWU = Estimated total water use per year (gallons per year)
ETo = Evapotranspiration rate (inches per year)

PF = Plant Factor from WUCOLS (see Definitions)
HA = Hydro-zone Area (square feet): Define hydro-zones by water use: very low, low, moderate and high
SLA = Special Landscape Area: Edible plants, irrigated with recycled water, & turf used for active play
0.62 = Conversion Factor (to gallons per square foot)
IE = Irrigation Efficiency

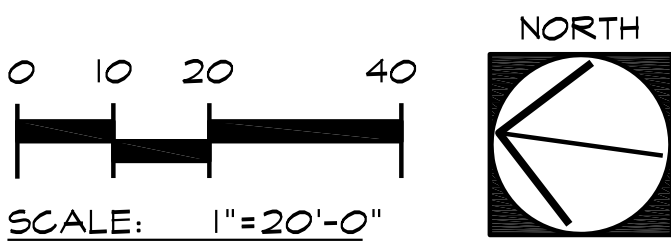
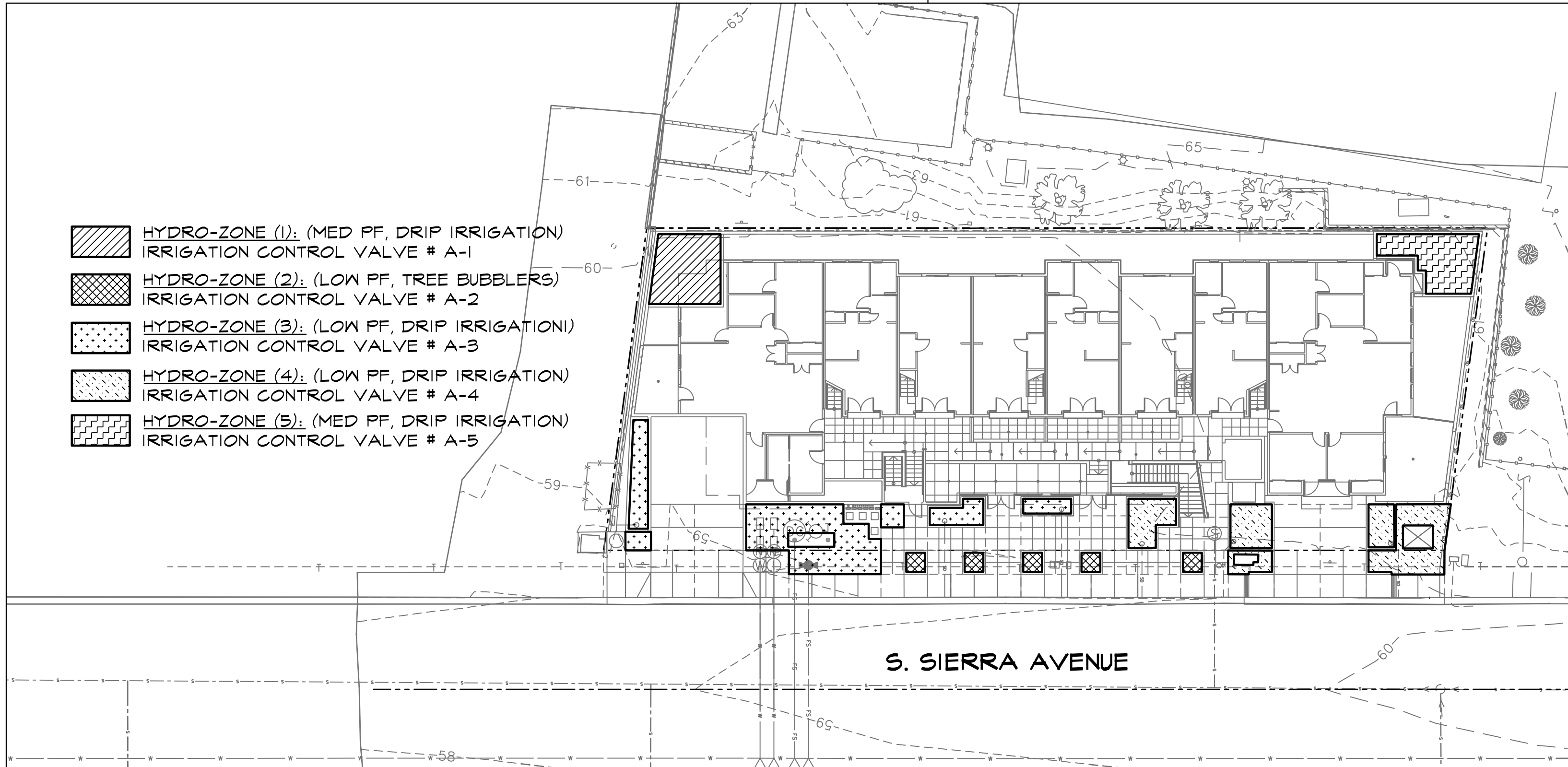
CITY OF SOLANA BEACH ESTIMATED TOTAL WATER USE (ETWU) WORKSHEET								
	Line	Hydro-zone Number (1 - 5 Below – use as many tables as necessary to complete all hydrozones)						
		1	2	3	4	5	SLA	
Evapotranspiration Rate (ETo) See "A" below	1	Use 41 (west of I-5) / 47 (east of I-5)						
Conversion Factor - .62	2	0.62						
(Line 1 x Line 2)	3	25.42 (west of I-5) / 29.14 (east of I-5)						
Plant Factor (PF) See "B" below	4	0.60	0.30	0.30	0.30	0.60	0	
Hydrozone Area (HA) - in square feet	5	220	144	578	386	202		
(Line 4 x Line 5)	6	132.00	43.2	173.40	115.80	121.20		
Irrigation Efficiency (IE) See "C" below	7	0.81	0.75	0.81	0.81	0.81		
(Line 6 ÷ Line 7)	8	162.96	57.60	214.08	142.96	149.63		
TOTAL of all Line 8 boxes + SLA	9	727.23						
Line 3 x Line 9 Estimated Total Water Use - ETWU (gallons per year) Total shall not exceed MAWA below	10	727.23 x 25.42 = 18,486.19 Gallons / 748 = 24.72 CCF						
A ETo - Evapotranspiration rate = 41 (west of I-5) 47 (east of I-5)		B PF - Plant Factor – Use WUCOLS values to determine the category for each species used. The highest water use PF must be used when more than one PF is shown in a hydro-zone. 0.1 = VLOW - Very Low Water Use Plants 0.3 = LW - Low Water Use Plants 0.6 = MW - Moderate Water Use Plants 1.0 = HW - High Water Use Plants			C IE – Irrigation Efficiency Spray = .55 Rotor = .70 Bubbler = .75 MP rotator = .75 Drip & Micro-spray = .81 A different IE may be used if supported by documentation subject to approval by the City Planner			

MAXIMUM APPLIED WATER APPLICATION (MAWA) calculation:

25.42 x [(0.55 x 1,530) + (1-0.55 x 0)] =
25.42 or 29.14 Total Landscape Area Total SLA

MAWA =
21,390.00 Gallons / 748 = 28.60 CCF

Evapotranspiration adjustment factor (ETAF) use .55 residential .45 non-residential



HYDRO-ZONE CHART

NOTE:
HYDRO-ZONE NUMBER IS THE SAME AND CORRESPOND TO THE IRRIGATION CONTROL VALVE NUMBER INDICATED ON IRRIGATION PLAN SHEET LI-1.

CODE COMPLIANCE IRRIGATION SCHEDULE

MATURITY RECOMMENDED IRRIGATION SCHEDULE

PROJECT INFORMATION

Project: The Pearl
Location: City of Solana Beach, California
Proj. #: 11-003
Date: Revised 8/03/2016
By: M Zaki Design, Inc.

Controller No.: A

Controller Description: Hunter I-CORE 12-Staion with Hunter SOLAR.SYNC ET Sensor & Module
Irrigation Schedule Description: 7-Day Water Window

Landscape irrigation is porhibited between the hours of 6:00 a.m. and 9:00 p.m.

Landscape irrigation shall be limited to the hours of 9:00 p.m. and 6:00 a.m.

Source of (Eto) data indicated below: CA Model Water Efficient Ordinance Dec. 2015

AREA EVAPOTRASPIRATION DATA

Rooting Depth = 7"

Normal Year Average ETo (Inches Per Month)
Normal Year Average ETo (Inches Per Day)

IRRIGATION SCHEDULE

VALVE	VALVE DESCRIPTION- MICRO CLIMATE	VALVE GPM	PRECIP. RATE (PR)	Micro Adj FACTOR	CROP COEF. (Kc)	SPKLR EFFIC.	Irrig Adj PCT	AVERAGE MINUTES PER DAY OF IRRIGATION - 7 DAYS PER WEEK											
								JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
A-1	Shrub & G.C Drip-Partial S/S	1.7	0.39	80%	0.6	81%	113%	10	12	16	19	19	20	22	23	19	13	10	10
A-2	Tree Bubbler-Partial S/S	10.0	0.96	80%	0.3	75%	100%	2	3	4	4	4	4	5	5	4	3	2	2
A-3	Shrub & G.C. Drip-Partial S/S	4.0	0.39	80%	0.3	81%	113%	5	6	8	9	9	10	11	12	9	7	5	5
A-4	Shrub & G.C. Drip-Partial S/S	3.3	0.39	80%	0.3	81%	113%	5	6	8	9	9	10	11	12	9	7	5	5
A-5	Shrub Drip-Full Sun	1.5	0.39	100%	0.6	81%	111%	13	15	20	24	24	26	27	29	24	16	13	13
TOTAL MINUTES PER DAY								35	42	56	65	65	70	76	81	65	46	35	35
TOTAL HOURS PER DAY								0.6	0.7	0.9	1.1	1.1	1.2	1.3	1.4	1.1	0.8	0.6	0.6

NOTES REGARDING THE IRRIGATION SCHEDULE:

- 1) THE TOTAL MINUTES PER DAY INDICATED ON THE IRRIGATION SCHEDULE SHALL BE ACCUMULATED INTO CYCLES PER WEEK AND A RECORD SHALL BE KEPT UP TO DATE WITH THE TOTAL IRRIGATION RUN TIME FOR EACH MONTH. THE IRRIGATION SCHEDULE SHALL BE GRADUALLY INCREASED AND DECREASED AS NECESSARY THROUGHOUT THE YEAR ACCORDING TO WEATHER CONDITIONS.
- 2) SCHEDULE 1 TO 7 CYCLES PER WEEK TO ACCOMMODATE THE CHANGES OF ET AND ENCOURAGE DEEP ROOTING. DURING THE HOT SUMMER MONTHS OF JUNE AND JULY, THE NUMBER OF CYCLES SHALL BE FIVE OR MORE, AND TIMES DURING THE COLD RAINY MONTHS OF DECEMBER AND JANUARY ONLY ONE OR TWO.
- 3) THE CONTRACTOR AND FUTURE LANDSCAPE MAINTENANCE CONTRACTOR SHALL NOT OVERRIDE THE ET SENSOR.
- 4) LANDSCAPE IRRIGATION IS PROHIBITED BETWEEN THE HOURS OF 10:00 A.M. AND 8:00 P.M. IRRIGATION TIME SHALL BE LIMITED TO THE HOURS OF 9:00 P.M AND 10:00 A.M.
- 5) THE SCHEDULES ARE INTENDED ONLY FOR COMPLIANCE WITH LOCAL MUNICIPAL CODES AND THE WATER EFFICIENT LANDSCAPE ORDINANCE. THESE CALCULATIONS REPRESENT THE MAXIMUM REASONABLE RUN TIMES AND ARE USED TO ENSURE THAT ALL IRRIGATION MAY BE COMPLETED DURING THE SPECIFIC WATERING WINDOW ALLOWED. THESE SCHEDULES DO NOT INCLUDE RAINFALL, SITE SOIL TYPE INSTALLED BY THE CONTRACTOR, SPECIFIC EXPOSURES (SHADE VERSUS SUN), ACTUAL IRRIGATION DAYS, OR SPECIFIC SLOPE POSITION. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO PROGRAM THE CONTROLLER AS REQUIRED TO APPLY THE CORRECT AMOUNT OF IRRIGATION WATER FOR THE LANDSCAPE.
- 6) ALL SMART CONTROLLERS SHALL BE PROGRAMMED USING THE SPECIFIC ET OR WATER WEATHER SENSING EQUIPMENT, SATELLITE PROVIDED ET DATA, SOIL MOISTURE SENSORS, AND RAIN SHUT OFF DEVICES AS REQUIRED.
- 7) CONTRACTOR SHALL PROVIDE A CONTROLLER SCHEDULE INSIDE THE CONTROLLER CABINET PRIOR TO FINAL TURNOVER OF THE PROJECT TO THE OWNER.

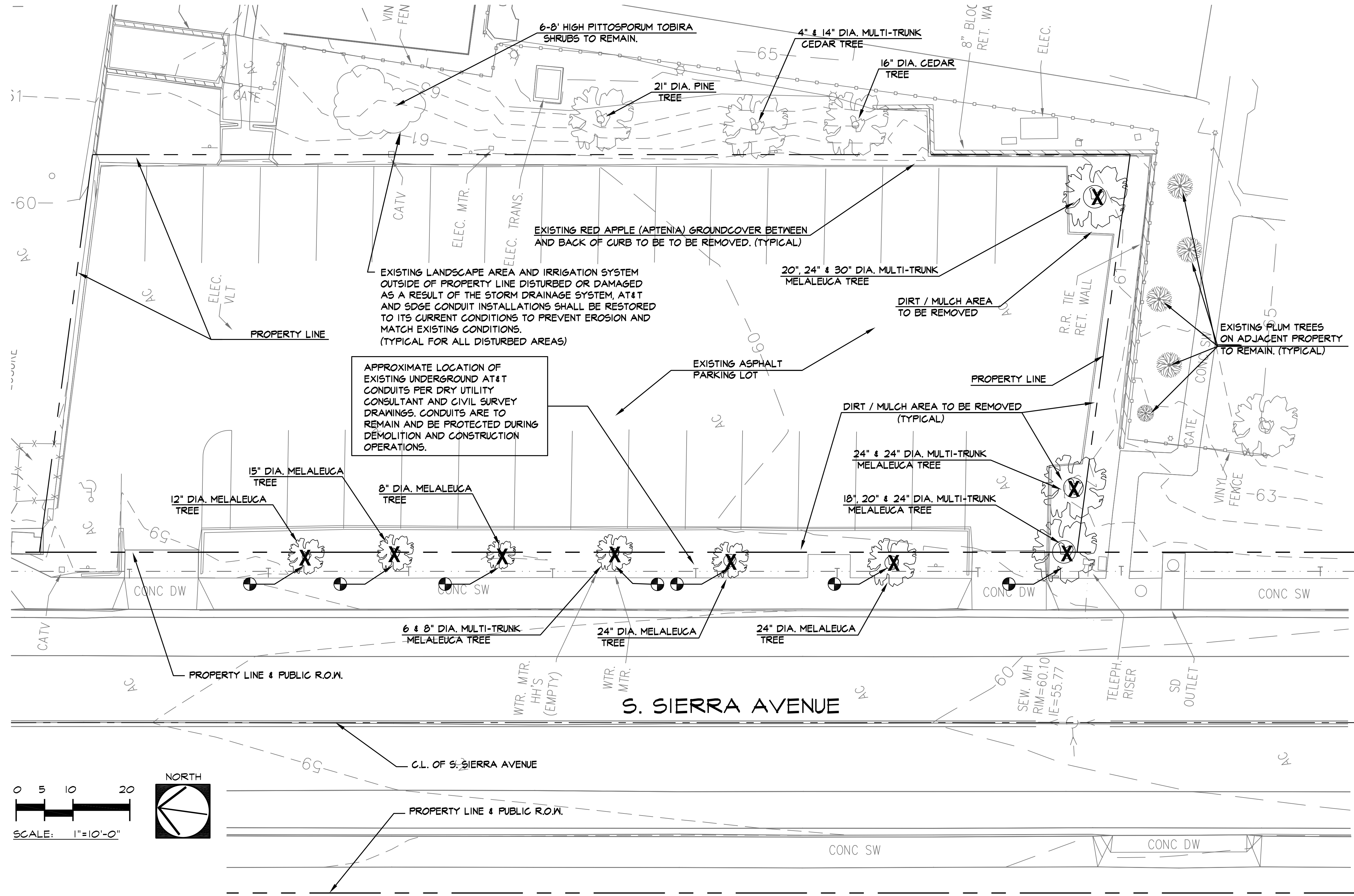


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EXISTING PLANT LEGEND

SYMBOL	DESCRIPTION
	EXISTING OFF-SITE TREES ON ADJACENT PROPERTY TO REMAIN AND BE PROTECTED DURING CONSTRUCTION.
	EXISTING OFF-SITE SHRUBS ON ADJACENT PROPERTY TO REMAIN AND BE PROTECTED DURING CONSTRUCTION.
	POTHOLES (TOTAL 7) ARE REQUIRED TO DETERMINE THE EXACT LOCATION OF UNDERGROUND AT&T UTILITY LINES IN RELATIONSHIP TO EXISTING TREES TO BE REMOVED. REPORT ANY CONFLICTS OR DISCREPANCIES TO THE DEVELOPER, DRY UTILITY CONSULTANTS, AT&T AND LANDSCAPE ARCHITECT. DO NOT REMOVE EXISTING TREE ROOTS IF IN CONFLICT WITH THE CONDUITS AND WILL RESULT IN DAMAGING EXISTING CONDUITS AND UNDERGROUND UTILITY LINE.
	EXISTING ON-SITE TREES TO BE REMOVED. (TOTAL NUMBER OF TREES TO BE REMOVED = 9 MELALEUCA TREES).
IMPORTANT NOTE TO THE CONTRACTOR: - THE EXISTING AT&T CONDUITS LOCATED ALONG THE FRONTAGE OF THE PROPERTY ARE TO REMAIN AND BE PROTECTED DURING DEMOLITION AND ALL CONSTRUCTION ACTIVITIES AND PHASES. - THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING REMOVAL OF EXISTING TREES ROOT BALLS. DO NOT DAMAGE EXISTING AT&T CONDUITS. - IMMEDIATELY CONTACT AT&T, DRY UTILITY CONSULTANTS AND THE DEVELOPER FOR DIRECTION IF REMOVAL OF BELOW GRADE TREE ROOTS WILL DAMAGE OR AFFECT THE EXISTING AT&T CONDUITS IN ANY WAY. - NO MECHANICAL TRENCHING OR EXCAVATION IS ALLOWED WITHIN THE AT&T EXISTING CONDUITS LOCATIONS. - THERE IS A POSSIBILITY THAT AT&T MAY REQUIRE THAT SOME EXISTING TREE ROOTS TO REMAIN IF THEIR REMOVAL WILL DAMAGE THEIR EXISTING CONDUITS. IF THIS OCCURS, COORDINATE THIS WITH BE KEPT BELOW FINISH GRADE IF DIRECTED BY AT&T.	
FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AT&T CONDUITS, REFER TO DRY UTILITY CONSULTANT DRAWINGS BY BUTSKO UTILITY DESIGN, INC. OF SAN DIEGO, CALIFORNIA. CONTACT: JOEL RADOVAN AND ADRIEL ARVIZU TELE: (858)676-9100	



TREE REMOVAL NOTES:

- EXISTING CONDITIONS WERE PREPARED FROM SITE SURVEY BY SWS ENGINEERING, INC. OF SAN MARCOS, CALIFORNIA.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND SERVICES INCLUDING AT & T STRUCTURES AND UNDERGROUND CONDUITS BEFORE WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE OWNER AND UTILITY REPRESENTATIVES.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, LANDSCAPING, AND FEATURES TO REMAIN ON, AND ADJACENT TO, THE PROJECT SITE DURING TREE REMOVAL. WORK WILL BE DONE WITH MINIMUM DISTURBANCE TO EXISTING GROUND COVER PLANTING AND WILL NOT GO BEYOND THE DESIGNATED AREA. CONTRACTOR SHALL REPAIR, AT HIS OWN EXPENSE, ALL DAMAGE RESULTING FROM HIS OPERATIONS OR NEGLIGENCE.
- IN AN EMERGENCY THREATENING THE SAFETY OF LIFE, WORK OR ADJOINING PROPERTY, THE CONTRACTOR IS HEREBY INSTRUCTED TO ACT AT HIS DISCRETION TO PREVENT SUCH LOSS OR INJURY.

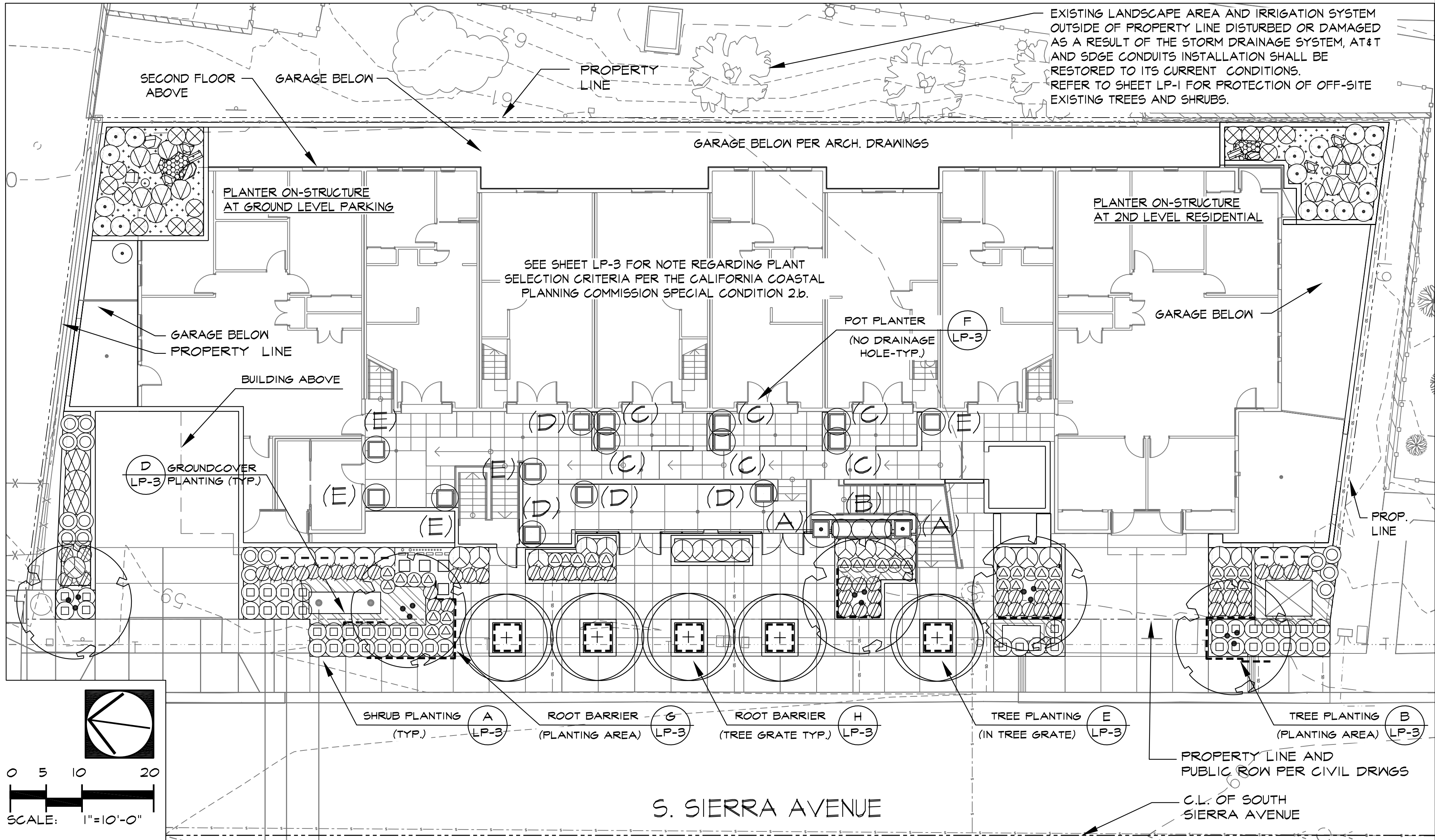
- THE CONTRACTOR SHALL OBTAIN AND REVIEW THE PERTINENT ENGINEERING AND ARCHITECTURAL PLANS BEFORE BEGINNING WORK. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING A BID AND START OF TREE REMOVAL WORK. PERMITS FOR ANY TREE REMOVAL WORK DEPICTED IN THESE PLANS SHALL BE OBTAINED BY THE CONTRACTOR.
- BEFORE ANY EXCAVATION WORK, CONTRACTOR SHALL CALL USA ALERT (800) 221-2600 AT LEAST TWO DAYS OR 48 HOURS PRIOR TO DIGGING.
- TREE CALIPER SIZE INDICATED ON THE DRAWING IS THE DIAMETER BREAST HEIGHT (DBH) OF THE TREE, WHICH IS THE DIAMETER OF THE TREE TRUNK MEASURED AT APPROXIMATELY 4.5 FEET ABOVE GROUND LEVEL.
- REMOVAL OF EXISTING TREES SHALL INCLUDE THE REMOVAL OF ALL BELOW GRADE ROOTS AND DEBRIS.
- CHIP REMOVED TREE TRUNKS AND BRANCHES AND DISPOSE OF OFF-SITE TO AN APPROVED RECYCLED FACILITY.
- FILL DEPRESSIONS RESULTED FROM CLEARING, GRUBBING AND TREE ROOT REMOVAL WITH SATISFACTORY APPROVED SOIL FILL MATERIALS. PLACE FILL MATERIALS IN HORIZONTAL LAYERS NOT EXCEEDING A LOOSE DEPTH OF EIGHT (8) INCHES AND COMPACT EACH LAYER TO A DENSITY EQUAL TO ADJACENT ORIGINAL GROUND OR AS INDICATED ON THE SOIL GEO-TECHNICAL REPORT.

TREE PROTECTION NOTES

- PROTECT EXISTING TREES TO REMAIN FROM INJURY DURING CONSTRUCTION OPERATIONS. DO NOT EXCAVATE OR FILL MORE THAN SIX INCHES UNDER THE CANOPY DRIPLINE. DO NOT STORE OR STOCKPILE EQUIPMENT OR MATERIALS UNDER THE TREE DRIPLINE.
- ALL TREES TO BE PROTECTED SHALL HAVE A 4' HIGH, ORANGE VINYL FENCE AROUND THE DRIPLINE THROUGHOUT THE ENTIRE CONSTRUCTION AND MAINTENANCE PERIOD.
- ALL TREES TO REMAIN SHALL HAVE A FOUR-INCH HIGH WATERING BASIN BUILT AROUND THE DRIPLINE AND SHALL BE HAND WATERED AS REQUIRED TO KEEP THE TREE IN A HEALTHY AND VIGOROUS CONDITION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING DAMAGED TREES AT A RATE OF THREE 24-INCH BOX TREES TO ONE OR AS DIRECTED BY THE DEVELOPER.

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SITE & PLANTING AREA CALCULATIONS

OFF-SITE PUBLIC ROW

(AREA BETWEEN FACE OF CURB & PROP. LINE = 1,868 SQ FT)

SIDEWALKS & DRIVEWAY ENTRIES PAVEMENT = 1,300 SQ FT
ENHANCED CONCRETE PAVEMENT = 260 SQ FT
PLANTING AREA = 308 SQ FT

ON-SITE STREET LEVEL AND GROUND LEVEL PARKING

SITE AREA = 12,720 SQ FT
BUILDING = 8,500 SQ FT
PARKING GARAGE BELOW & DRIVEWAY ENTRIES = 2,150 SQ FT
UTILITIES (ELEC. TRANSF., BFP, STORM DITCH) = 440 SQ FT
PEDESTRIAN HARDSCAPE PLAZA & ENTRIES = 610 SQ FT
PLANTING AREAS ON-GRADE = 440 SQ FT
BUILT-IN PLANTERS ON GRADE = 360 SQ FT
BUILT-IN PLANTER ON STRUCTURE @ GARAGE LEVEL = 220 SQ FT

2ND FLOOR RESIDENTIAL LEVEL

TOTAL BUILDING FOOTPRINT, INCLUDING TERRACES = 8,490 SQ FT
WALKWAY CIRCULATION = 643 SQ FT
CENTRAL PLAZA / COMMON AREA = 356 SQ FT
PRIVATE RESIDENTIAL PATIOS = 250 SQ FT
BUILT-IN PLANTERS ON STRUCTURE = 202 SQ FT

PLANTING AREA SUMMARY:

TOTAL ON-SITE PLANTING AREA, NOT INCLUDING PLANTER POTS ON 2ND FLOOR = 1,222 SQ FT (9.6% OF TOTAL SITE AREA)

TOTAL OFF-SITE PLANTING = 308 SQ FT

TOTAL ON-SITE & OFF-SITE PLANTING AREA = 1,530 SQ FT (12% OF TOTAL SITE AREA)

TOTAL FLOW-THROUGH PLANTER FOR STORMWATER QUALITY = +/- 752 SQ FT

COUNTY OF SAN DIEGO LANDSCAPE REQUIREMENTS:

(REQUIREMENTS PER COUNTY OF SAN DIEGO OFF-STREET DESIGN MANUAL SECTION III. LANDSCAPING A.2)

REQUIRED 14 SQ.FT OF PLANTING AREA PER EACH PARKING SPACE

TOTAL NUMBER OF PARKING SPACES = 53
REQUIRED PLANTING AREA = 53 x 14 = 742 SQ FT
PROVIDED PLANTING AREA = 1,222 SQ FT

PLANTING NOTES

- THE PLANTING PLANS ARE DIAGRAMMATIC. MINOR ADJUSTMENTS IN PLANT LOCATIONS AND TYPE MAY BE MADE AT THE DISCRETION OF LANDSCAPE ARCHITECT OR CITY INSPECTOR.
- CONTRACTOR SHALL INSTALL PLANTS IN THE FOLLOWING SEQUENCE:
A. TREES B. SHRUBS & ORNAMENTAL GRASSES C. GROUND COVER
- QUANTITIES ARE AN ESTIMATE ONLY FOR THE CONTRACTOR'S CONVENIENCE. PLAN SYMBOLS TAKE PRECEDENCE OVER QUANTITIES SHOWN.
- WHEN INSTALLING PLANTS, CONSIDER THE PLANT'S MATURE GROWTH SIZE AND SPREAD IN RELATION TO HARDSCAPE AND SPRINKLERS.
- LOCATE AND INSTALL PLANTS SO THAT THEY WILL NOT BLOCK SPRINKLERS THROUGHOUT THEIR GROWTH UNTIL MATURITY.
- DO NOT INSTALL A PLANT SO CLOSE THAT IT WILL ENCROACH ON THE HARDSCAPE AND CAUSE INCREASED PRUNING OR FUTURE MAINTENANCE.
- DO NOT DAMAGE PLANT ROOT BALL DURING TRANSPORTATION OR PLANTING PROCESS.
- ALL PLANT MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT AND SHALL BE REPLACED UPON REQUEST BEFORE OR AFTER PLANTING.
- ALL TYING MATERIAL, PLANTING TAGS, AND MARKING TAPES SHALL BE REMOVED AT THE TIME OF PLANTING.
- ALL TREES SHALL BE PLANTED IN A VERTICAL MANNER AND SHALL HAVE SUFFICIENT TIE-DOWNS TO ASSURE THEIR VERTICALITY DURING LIFE OF THE CONTRACT AND MAINTENANCE PERIOD.
- ROOT BARRIERS SHALL BE INSTALLED PER DETAILS ON SHEET LP-3.
- THE CONTRACTOR SHALL NOT ALLOW CONCRETE DUST OR OTHER POTENTIALLY TOXIC CONSTRUCTION MATERIAL TO BE SWEEP OR DRAINED INTO PLANTING AREAS OR DRAINAGE INLETS.
- PRE-PLANT FERTILIZER (COMMERCIAL GRADE), 100% ORGANIC, SLOW RELEASE SHALL BE MILOGRANITE (6-2-0) OR AS RECOMMENDED BY THE CONTRACTOR'S SOIL REPORT.
- PLANTING BACKFILL SHALL BE A THOROUGHLY BLENDED MIXTURE OF EXCAVATED SOIL FROM THE PLANTING PITS AND SOIL. PLANTING BACKFILL MIX SHALL BE APPLIED AS RECOMMENDED BY THE CONTRACTOR'S SOIL REPORT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SOIL SAMPLES (APPROXIMATELY 12" BELOW SURFACE GRADE), OBTAINING SOIL ANALYSIS TESTS, PROVIDING A COPY OF RESULTS INCLUDING RECOMMENDATIONS TO THE LANDSCAPE ARCHITECT. RECOMMENDATIONS FROM THE SOIL LAB FOR SOIL AMENDMENTS SHALL BE USED FOR ALL PLANTING AREAS. SEE REQUIREMENTS ON SHEET LT-2 FOR SOIL MANAGEMENT PLAN.

CITY REQUIRED NOTES:

- ALL LANDSCAPED AREAS PLANTED FROM A CONTAINER STOCK SHALL RECEIVE A MINIMUM 3" MEDIUM GRIND SHREDDED BARK MULCH LAYER EXCEPT IN ROCK MULCH AREAS OR GROUND COVER PLANTED FROM FLATS.
- SOIL PREPARATION SHALL INCLUDE A MINIMUM 4 CUBIC YARDS OF COMPOST / 1,000 SQUARE FEET INCORPORATED TO A DEPTH OF SIX (6) INCHES INTO THE SOIL.

PLANTING LEGEND NOTES:

- QUANTITIES ARE AN ESTIMATE ONLY FOR THE CONTRACTOR'S CONVENIENCE. PLAN SYMBOLS TAKE PRECEDENCE OVER QUANTITIES SHOWN. CONTRACTOR TO COMPUTE QUANTITIES FOR PLANTS LISTED BY ON-CENTER SPACING & SUBMIT TO THE LANDSCAPE ARCHITECT FOR APPROVAL.
- (*) FOR ALL PLANTS INDICATED TO BE PLANTED WITH ON-CENTER SPACING, UPON REVIEW BY THE LANDSCAPE ARCHITECT, INSTALLATION OF ADDITIONAL PLANTS WILL BE REQUIRED FOR AREAS THAT APPEAR TO BE SPARSE OR LACKING ADEQUATE PLANT SPACING OR COVERAGE.

SHEET REFERENCE NOTES:

- REFER TO CIVIL DRAWINGS FOR EXISTING AND PROPOSED UTILITIES, GRADING, PROPERTY LINES, EASEMENTS, RIGHT-OF-WAY LINE, NEW CURB & GUTTER, GARAGE DRIVEWAY ENTRIES, ASPHALT PAVEMENT, SIDEWALK WITHIN RIGHT-OF-WAY AND BUILDING LOCATION.
- REFER TO ARCHITECTURAL DRAWINGS FOR BUILDINGS, VEHICULAR AND PEDESTRIAN ENTRIES, PARKING SPACES FOR VEHICULAR, MOTORCYCLE AND BICYCLE, TRASH AND RECYCLING ENCLOSURES, LOADING SPACES AND MAIL BOX LOCATION.
- REFER TO SHEET LP-3 FOR PLANTING DETAILS.
- REFER TO SHEET LT-1 & LT-2 FOR GENERAL, LEED, MAINTENANCE, GUARANTEES AND RECORD DRAWINGS REQUIREMENTS.

PLANTING LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	NOTES	QTY.	WUCOLS
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TREES

	ACACIA BAILEYANA 'PURPUREA'	PURPLE FERNLEAF ACACIA	36" BOX	MULTI-TRUNK 5 (MIN. 3 TRUNKS)	L	
	ERYTHRINA CORALLOIDES 'BICOLOR' NAKED CORAL TREE (ERYTHRINA AMERICANA)		36" BOX	STD.	5	L

ON-GRADE SHRUBS & GROUND COVER

	AGAVE ATTENUATA 'BLUE GLOW'	AGAVE BLUE GLOW	5 GAL.	AS SHOWN	35	L
	AGAVE DESMETIANA 'VARIEGATA'	VARIEGATED SMOOTH AGAVE	5 GAL.	AS SHOWN	19	L
	ALOE STRIATA	CORAL ALOE	5 GAL.	AS SHOWN	54	L
	ANIGOZANTHOS 'BUSH DEVIL/RANGER'	RED KANGAROO PAWB	5 GAL.	AS SHOWN	15	L
	CISTANTHE GRANDIFLORA 'JAZZ TIME'	ROCK PURSLANE 'CALANDRINIA'	5 GAL.	AS SHOWN	47	L
	GALVEZIA SPECIOSA 'FIRECRACKER'	ISLAND BUSH SNAPDRAGON	5 GAL.	AS SHOWN	9	L
	ROSMARINUS OFFICINALIS 'PROSTRATUS'	ROSEMARY	5 GAL.	AS SHOWN	3	L

ON-GRADE GROUND COVER

	SENECIO MANDRALISCAE	BLUE CHALK STICKS	3 1/2" POTS, 15" O.C. AS REQ'D (*)	L		
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ON-STRUCTURE BIO-SWALE / BIO-RETENTION PLANTS

	CAREX PANSA	CALIFORNIA MEADOW SEDGE	1 GAL.	12" O.C. AS REQ'D (*)	M	
	JUNCUS EFFUSUS 'PACIFICUS'	QUARTZ CREEK SOFT RUSH	5 GAL.	AS SHOWN	13	M
	DIANELLA REVOLUTA 'LITTLE REV' OR DIANELLA CAERULEA 'KING ALFRED'	LITTLE REV FLAX LILY OR BLUE FLAX LILY	5 GAL.	AS SHOWN	14	M
	LEYMUS CONDENSATUS 'CANYON PRINCE'	CANYON PRINCE WILD RYE	5 GAL.	AS SHOWN	18	M

NOTE:
PLANT QUANTITIES INDICATED ABOVE DO NOT INCLUDE THE REQUIRED PLANTS TO BE PLANTER IN PLANTER POTS. REFER TO POT PLANTING LEGEND THIS SHEET FOR REQUIRED PLANTS QUANTITIES.

ROCK COBBLE

	COBBLE SIZE 2-6", ASSORTED MAUVE, GRAYS, TAN AND GREEN PER DETAIL F, SHEET LC.2		
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BOULDERS

	QUANTITY
	1-2' EQUIV. DIA. BOULDER ROCKS 10

PLANTER POTS LEGEND

PLANTER POTS: PLANTER POTS SHALL BE LIGHT FIBERGLASS AS MANUFACTURED BY OLD TOWN FIBERGLASS OF ORANGE, CA (714)633-3732 OR APPROVED EQUAL. ALL POTS SHALL BE PROVIDED WITH MATCHING BUILT-IN INTERNAL RESERVOIR SELF WATERING IRRIGATION SYSTEM AS RECOMMENDED BY THE MANUFACTURER.		
SYMBOL	QUANTITY	SPECIFICATIONS
	15	POT # (1): SQUARE CARDIFF PLANTER POT - CF2442 TOP LENGTH x WIDTH = 24"x24" BASE LENGTH x WIDTH = 18"x18", HEIGHT = 42"
	2	POT # (2): STANDARD SQUARE POT - 5L2432 LENGTH X WIDTH X HEIGHT = 24"x24"x32"
	1	POT # (3): STANDARD RECTANGULAR POT - RL962430 LENGTH X WIDTH X HEIGHT = 96"x24"x30"

POT PLANTING LEGEND

- (A) POT (A): (TOTAL TWO POTS)
STANDARD SQUARE PLANTER POT # (2) PER SPEC'S ON THIS SHEET. PLANT WITH ONE 15 GALLON PHORMIUM HYBRIDS MAORI QUEEN NEW ZEALAND FLAX. PROVIDE 3" LAYER OF MEDIUM SHREDDED REDWOOD MULCH.
- (B) POT (B): (TOTAL ONE POT)
STANDARD RECTANGULAR PLANTER POT # (3) PER SPEC'S ON THIS SHEET. PLANT EACH WITH THREE 5 GALLON ROSMARINUS OFFICINALIS 'PROSTRATUS' (TRAILING/CASCADING ROSEMARY). PROVIDE 3" LAYER OF MEDIUM SHREDDED REDWOOD MULCH.
- (C) POT (C): (TOTAL SIX POTS)
SQUARE CARDIFF PLANTER POT # (1) PER SPEC'S ON THIS SHEET. PLANT EACH WITH ONE 15 GALLON FATZIA JAPONICA (JAPANESE ARALIA) AND FOUR 1-GALLON CAREX FALACCA (BLUE SEDGE).
- (D) POT (D): (TOTAL FOUR POTS)
SQUARE CARDIFF PLANTER POT # (1) PER SPEC'S ON THIS SHEET. PLANT EACH WITH ONE 5- GALLON CORDYLINE x 'JURRed' P.P.14,224 (CORDYLINE FESTIVAL GRASS) WITH DECORATIVE BLACK PEBBLES.
- (E) POT (E): (TOTAL FIVE POTS)
SQUARE CARDIFF PLANTER POT # (1) PER SPEC'S ON THIS SHEET. PLANT EACH W/ ONE 5- GALLON ALOE STRIATA (CORAL ALOE) & FOUR 1-GALLON ECHEVERIA IMBRICATA (BLUE ROSE ECHEVERIA) W/DECORATIVE BLACK PEBBLES.

- ALL POTS SHALL BE PROVIDED WITH MATCHING BUILT-IN INTERNAL RESERVOIR SELF WATERING IRRIGATION SYSTEM AS RECOMMENDED BY THE MANUFACTURER.
- PEBBLES SHALL BE "BLACK MEXICAN BEACH PEBBLES", SIZE MIN. 1" TO MAX. 3" IN DIAMETER AS SUPPLIED BY KRC ROCK OR EQUAL. INSTALL TO A MINIMUM DEPTH OF 3-INCHES.

A SHRUB PLANTING
NO SCALE

B DOUBLE STAKING (15 GALLON TREES & LARGER)
NO SCALE

C VINE PLANTING DETAIL
NO SCALE

D GROUND COVER PLANTING DETAIL
NO SCALE

E TREE PLANTING DETAIL IN TREE GRATE
NO SCALE

G **ROOT CONTROL BARRIER**
NO SCALE

H ROOT BARRIER INSTALLATION DETAIL IN TREE GRATE
NO SCALE

NOTES REGARDING PLANT SELECTION

- ALL PROPOSED PLANTS ARE EITHER DROUGHT TOLERANT AND/OR NATIVE.
- THE PROPOSED PLANTS HAVE A LOW OR MEDIUM WATER FACTOR PER THE GUIDE TO ESTIMATING IRRIGATION WATER NEEDS OF LANDSCAPING IN CALIFORNIA PUBLISHED BY THE CALIFORNIA DEPARTMENT OF WATER RESOURCES, AUGUST 2000.
- NO PLANT SPECIES LISTED AS PROBLEMATIC AND/OR INVASIVE BY THE CALIFORNIA NATIVE PLANT SOCIETY, THE CALIFORNIA EXOTIC PEST PLANT COUNCIL, OR IDENTIFIED FROM TIME TO TIME BY THE STATE OF CALIFORNIA SHALL ARE PROPOSED OR ALLOWED TO NATURALIZE OR PERSIST ON THE SITE.
- NO PLANT SPECIES LISTED AS NOXIOUS WEED BY THE STATE OF CALIFORNIA OR THE U.S. FEDERAL GOVERNMENT ARE PROPOSED WITHIN THE PROPERTY.

MINIMUM TREE SEPARATION DISTANCES:

IMPROVEMENT/MINIMUM DISTANCE TO STREET TREE

- TRAFFIC SIGNALS (STOP SIGN): 20 FEET
- UNDERGROUND UTILITY LINES: 10 FEET
- ABOVE GROUND UTILITY STRUCTURES: 10 FEET
- DRIVEWAY (ENTRIES): 10 FEET
- INTERSECTIONS (INTERSECTING CURB LINES OF TWO STREETS): 25 FEET

PLANT TABLET LEGEND:

FERTILIZER APPLICATION RATE FOR PLANTS OR POTS

3 1/2" POTS _____	1 TABLET	5 GRAM
1 GALLON PLANT _____	1 TABLET	21 GRAM
5 GALLON PLANT _____	3 TABLETS	21 GRAM
15 GALLON PLANT _____	4 TABLETS	21 GRAM
24" BOX _____	6 TABLETS	21 GRAM
36" BOXES _____	8 TABLETS	21 GRAM

