GENERAL NOTES

1. ALL REFERENCED SPECIFICATIONS. CODES. DRAWINGS AND DETAILS SHALL BE INCORPORATED INTO THESE PLANS AND MADE A PART HEREOF AS IF SPELLED OUT OR DELINEATED IN THEIR ENTIRETY HEREON.

2. GRADING OR OTHER CONSTRUCTION WORK OFFSITE IS NOT PERMITTED WITHOUT PRIOR WRITTEN PERMISSION OF THE AFFECTED OFFSITE PROPERTY OWNERS.

3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE PROJECT'S CONDITIONS OF APPROVAL AND ABIDE BY THEIR REQUIREMENTS AS APPLICABLE.

4. GEOTECHNICAL REPORTS AND ANY UPDATES SHALL BE INCORPORATED INTO THESE PLANS AND MADE A PART HEREOF AS IF SPELLED OUT IN THEIR ENTIRETY HEREON. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE APPLICABLE REPORTS AND ABIDE BY THEIR RECOMMENDATIONS. IF THE CONTRACTOR DETERMINES THERE IS A CONFLICT BETWEEN THESE PLANS AND THE REPORTS, HE SHALL PHONE AND NOTIFY IN WRITING BOTH THE PREPARER OF THESE PLANS AND THE REPORT PRIOR TO PROCEEDING. HE WILL WAIT FOR A WRITTEN RESPONSE CLARIFYING THE DISCREPANCY.

5. BEFORE BEGINNING WORK, THE CONTRACTOR SHALL CONTACT THE OWNER, PERMIT AGENCY, THE UTILITY COMPANIES, THE SOILS ENGINEER, AND THE ENGINEER / LANDSCAPE ARCHITECT (ROB FOWLER LANDSCAPE ARCHITECTURE), AND SHALL DETERMINE FROM EACH: (1) SCOPE OF WORK TO BE OBSERVED AND BY WHOM, (2) SCOPE OF TESTING, AND (3) ADVANCE NOTICE REQUIRED (MINIMUM OF 48 HOURS). DURING THE COURSE OF WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR OBSERVATION AND TESTING AS STIPULATED PURSUANT TO ABOVE DETERMINATIONS. WORK NOT OBSERVED AND TESTED WILL BE SUBJECT TO REJECTION.

6. BEFORE BEGINNING WORK, THE CONTRACTOR SHALL DETERMINE OR VERIFY THE LOCATION AND FLOWLINE ELEVATION OF ALL EXISTING WATER, SEWER, AND DRAINAGE STRUCTURES AND/OR CONDUITS TO BE JOINED BY NEW CONSTRUCTION. IF DIFFERENCES ARE OBSERVED THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER BY PHONE AND IN WRITING.

7. EXISTING PERMANENT SURVEY MONUMENTS SHOWN ON THE PLANS, INCLUDING PROPERTY CORNERS AND BENCHMARKS, SHALL BE PRESERVED BY THE CONTRACTOR OR SHALL BE TIED-OUT PRIOR TO CONSTRUCTION AND RE-SET AFTER CONSTRUCTION BY A LICENSED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.

8. THE ROUGH GRADING CONTRACTOR SHALL GRADE TO SUBGRADE.

9. AREAS TO RECEIVE FILL MATERIAL AND AREAS TO RECEIVE BUILDINGS, WALLS, PAVEMENT, SIDEWALKS AND OTHER STRUCTURAL IMPROVEMENTS SHALL BE PREPARED AS RECOMMENDED BY, AND UNDER THE OBSERVATION AND TESTING OF THE SOILS ENGINEER. RECOMMENDATIONS FOR OVER-EXCAVATION, ADDITIONAL SCARIFICATION, BACKFILL AND RECOMPACTION ARE TO BE PROVIDED BY THE PROJECT SOILS ENGINEER.

10. IF NOT DIMENSIONED, LOCATION OF FINISH GRADE ELEVATIONS AND FEATURES SUCH AS SWALES, RIDGE UNES, ETC. SHALL BE DETERMINED BY SCALE FROM KNOWN POINTS SHOWN ON THE PLANS. UNIFORM GRADIENTS OR VERTICAL CURVES, AS APPROPRIATE, SHALL BE ASSUMED BETWEEN CONTROL ELEVATIONS SHOWN ON THE PLANS.

GENERAL REQUIREMENTS OF CONTRACTOR

1. THE CONTRACTOR SHALL MAINTAIN A COMPLETE AND ACCURATE RECORD OF ALL CHANGES OF CONSTRUCTION FROM THAT SHOWN IN THESE PLANS AND SPECIFICATIONS FOR THE PURPOSE OF PROVIDING A BASIS FOR CONSTRUCTION RECORD DRAWINGS. NO CHANGES SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE PROJECT ENGINEER AND THE AGENCY HAVING JURISDICTION. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL DELIVER THIS RECORD OF ALL CONSTRUCTION CHANGES TO THE ENGINEER ALONG WITH A LETTER WHICH DECLARES THAT THE PROJECT WAS CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS, SPECIFICATIONS AND APPROVED CHANGE ORDERS.

   CAUTION: THE ENGINEER / LANDSCAPE ARCHITECT WHO PREPARED THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES OR USES OF THESE PLANS. ALL CHANGES TO THESE PLANS MUST BE APPROVED IN WRITING BY THE PROJECT ENGINEER.

2. THE CONTRACTOR SHALL PROMPTLY NOTIFY THE PROJECT ENGINEER, OWNER AND THE PUBLIC WORKS INSPECTOR BY PHONE AND IN WRITING UPON DISCOVERY OF, AND BEFORE DISTURBING, ANY PHYSICAL CONDITIONS DIFFERING FROM THOSE REPRESENTED BY APPROVED PLANS AND SPECIFICATIONS.

3. THE CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES. THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONALS HARMLESS FROM ALL LIABILITY AND CLAIMS. REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT. EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONALS.

4. THE CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR PROTECTION OF PUBLIC AND PRIVATE PROPERTY IN THE VICINITY OF THE JOB SITE AND FURTHER AGREES TO, AT CONTRACTOR'S EXPENSE, REPAIR OR REPLACE TO THE ORIGINAL CONDITION, ALL EXISTING IMPROVEMENTS WITHIN OR IN THE VICINITY OF THE JOB SITE WHICH ARE NOT DESIGNATED FOR REMOVAL AND WHICH ARE DAMAGED OR REMOVED AS A RESULT OF CONTRACTOR'S OPERATIONS.

5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL AND SAFETY AND SHALL FURNISH, INSTALL, AND MAINTAIN SUCH FENCING, SIGNS, LIGHTS, TRENCH PLATES, BARRICADES, AND/OR OTHER PROTECTION AS IS NECESSARY FOR SAID CONTROL AND SAFETY.

6. EXISTING BURIED CONDUITS AND STRUCTURES KNOWN TO THE ENGINEER ARE SHOWN ON THESE PLANS. HOWEVER, ALL SUCH CONDUITS AND STRUCTURES MAY NOT BE SHOWN AND THE LOCATIONS OF THOSE SHOWN ARE APPROXIMATE ONLY AND HAVE NOT NECESSARILY BEEN INDEPENDENTLY VERIFIED BY THE PREPARER OF THESE PLANS.

7. THE CONTRACTOR SHALL INDEPENDENTLY VERIFY THE PRESENCE OF BURIED CONDUITS AND STRUCTURES, BOTH ACTIVE AND ABANDONED-IN-PLACE AND, BEFORE COMMENCING WORK, CONTRACTOR SHALL DETERMINE THE EXACT LOCATION INCLUDING DEPTHS OF ALL EXISTING UNDERGROUND UTILITIES. CONDUITS AND STRUCTURES. INCLUDING SERVICE CONNECTIONS. WHICH MAY AFFECT OR BE AFFECTED BY HIS OPERATIONS. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH OCCUR AS A RESULT OF CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, CONDUITS AND STRUCTURES.

8. UPON ENCOUNTERING EXISTING BURIED CONDUITS OR STRUCTURES NOT SHOWN OR LOCATED DIFFERENTLY THAN SHOWN ON THE PLANS, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER AND THE OWNER OF THE CONDUIT OR STRUCTURE BY PHONE AND IN WRITING. IF SUCH CONDUIT OR STRUCTURE AFFECTS OR IS AFFECTED BY THE WORK, CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION AND DIRECTION BEFORE PROCEEDING WITH THE WORK. EXCEPTING THAT IN AN EMERGENCY AFFECTING SAFETY OF LIFE, WORK OR ADJACENT PROPERTY, CONTRACTOR SHALL ACT AT ONCE WITHOUT INSTRUCTIONS TO PREVENT INJURY OR LOSS.

GRADING & GEOTECHNICAL SPECIFICATIONS

1. ALL WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE 20O1 EDITION OF THE CALIFORNIA BUILDING CODE, SECTION 303-4 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. AMERICAN CONCRETE INSTITUTE SPECIFICATIONS, THE PROJECT GEOTECHNICAL REPORT BY, AND THE PROJECT PLANS AND PROJECT SPECIFICATIONS.

2. MATERIALS AND CONSTRUCTION METHODS FOR CONCRETE FOOTINGS AND MASONRY WALLS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2001 CALIFORNIA BUILDING CODE CHAPTERS 18. 19. AND 21. AND THE SPECIFICATIONS FOR STRUCTURAL CONCRETE IN ACI 301-05. IN ADDITION TO THE ABOVE, THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT IMPROVEMENTS IN ACCORDANCE WITH THE INDUSTRY STANDARD OF CARE.

3. PRIOR TO CONSTRUCTION, A GRADING PERMIT SHALL BE OBTAINED FOR WALL CONSTRUCTION FROM THE DEPARTMENT OF BUILDING & SAFETY. FOR WALL CONSTRUCTION ADJACENT TO PROPERTY LINES, SUCH LINES SHALL BE ESTABLISHED BY A LICENSED SURVEYOR.

4. CONCRETE FOR USE IN FOOTINGS SHALL HAVE A MAXIMUM ENTRAINED AIR CONTENT OF 3 PERCENT. THE MAXIMUM WATER-CEMENT RATIO SHALL BE 0.50 UNLESS OTHERWISE NOTED. THE MAXIMUM SLUMP SHALL BE 4-INCHES.

5. PORTLAND CEMENT CONCRETE FOR FOOTINGS SHALL REACH A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI WITHIN 28 DAYS UNLESS OTHERWISE NOTED. CEMENT SHALL BE PORTLAND CEMENT TYPE 2 OR TYPE 5. AGGREGATES USED FOR CONCRETE CONSTRUCTION SHALL BE NONREACTIVE WHEN TESTED IN ACCORDANCE WITH ASTM DESIGNATION C2B9 AND EVALUATED IN ACCORDANCE WITH APPENDIX A-1 OF ASTM C33-. CONTRACTOR SHALL PROVIDE EVIDENCE OF RECENT TESTING AND EVALUATION OF AGGREGATES FROM SUPPLIER PRIOR TO CONSTRUCTION.

6. UNLESS OTHERWISE NOTED IN THE GEOTECHINCAL REPORT OR THESE PLANS. FOOTINGS SHALL BE PLACED A MINIMUM OF 12 INCHES INTO UNDISTURBED SOIL OR COMPACTED FILL SOIL. STEP FOOTING PER PROFILE OR AS REQUIRED TO FIT FIELD CONDITIONS.

7. CONCRETE MASONRY UNITS SHALL CONFORM TO UBC STANDARD NO. 21-4, HOLLOW AND SOLID LOAD-BEARING CONCRETE MASONRY UNITS. GRADE N TYPE-1 OR TYPE-2 UNITS. MEDIUM WEIGHT BLOCK.

8. MORTAR CEMENT SHALL CONFORM TO UBC STANDARD 21-14 FOR REINFORCED MASONRY, TYPE M OR S. THE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 2,100 PSI.PRE-BLENDED MORTAR IS ALSO ACCEPTABLE PROVIDED IT CONFORMS TO ASTM C-270.

9. MORTAR FOR REINFORCED MASONRY SHALL CONFORM TO UBC STANDARD 21-15. TYPE M OR TYPE S. THE AVERAGE COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 1.800 PSI. 10. GROUT SHALL CONFORM TO CBC STANDARD NO. 21-19 PORTLAND OR BLENDED CEMENT. GROUT FOR MASONRY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AT 28 DAYS.

11. ALL REINFORCING STEEL SHALL BE GRADE 60 PER ASTM A6I 5 OR A70B. MINIMUM LAP SPLICE SHALL BE 40 BAR DIAMETERS UNLESS OTHERWISE NOTED. REINFORCING SHALL BE CLEAN AND FREE FROM LOOSE RUST AND OTHER COATINGS THAT WOULD INHIBIT REINFORCING BOND.

12. REINFORCEMENT SHALL BE SECURED AGAINST DISPLACEMENT PRIOR TO GROUTING OR PLACEMENT OF CONCRETE BY WIRE POSITIONERS OR OTHER SUITABLE DEVICES AT INTERVALS NOT EXCEEDING 200 BAR DIAMETERS.

13. REMOVE MORTAR DROPPINGS AND OVERHANGS FROM THE FOUNDATION OR BEARING SURFACE, CELL WALLS, AND REINFORCING. BEFORE PLACING GROUT, CLEAN CELLS OF DELETERIOUS MATERIALS. OVERHANGING MORTAR. AND ANY OTHER OBSTRUCTIONS BEFORE GROUTING.

14. LAY BLOCK IN RUNNING BOND. UNLESS OTHERWISE NOTED. USE SPECIAL SHAPED UNITS FOR BOND BEAMS AT THE LOCATION OF HORIZONTAL STEEL TOOL EXPOSED JOINTS CONCAVE. FLUSH CUT JOINTS SHALL BE MADE WHERE MASONRY SURFACES ARE TO RECEIVE COATINGS.

15. IN ACCORDANCE WITH CHAPTER 21 CF THE CBC, ALL CELLS FOR WALLS SHALL BE FILLED WITH GROUT AND ADEQUATELY CURED PRIOR TO BACKFILLING. SEGREGATION OF GROUT MATERIALS SHALL BE AVOIDED. ALL GROUT SHALL BE MECHANICALLY VIBRATED IN PLACE BEFORE LOSS OF PLASTICITY IN A MANNER TO FILL THE GROUT SPACE. GROUT LIFTS IN EXCESS OF 5' SHALL UTILIZE CLEAN-OUTS GROUTING OF ANY SECTION DF WALL SHALL BE COMPLETE IN ONE DAY WITH NO INTERRUPTIONS IN EXCESS OF ONE HOUR.

16. THE LOCATION OF THE VERTICAL REINFORCEMENT AS SHOWN IN THE DETAILS IS TO BE MEASURED FROM THE INDICATED SURFACE TO THE NEAREST SURFACE OF THE REINFORCING BAR (CLEAR DISTANCE).

17. FOOTING EXCAVATION SHALL BE INSPECTED AND APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL.

18. DRAINAGE BEHIND THE WALL IS REQUIRED FOR WALLS RETAINING MORE THAN 3-FEET OF SOIL. A 12-INCH HIGH AND 12-IN WIDE FABRIC WRAPPED GRAVEL DRAIN WITH 4-INCH PERFORATED PVC DRAIN LINE SHALL BE PLACED AT THE TOP OF FOOTING ON THE RETAINING SIDE OF THE WALL. A 12-INCH WIDE GRAVEL COLUMN SHALL BE PLACED ON TOP OF THIS "FRENCH DRAIN" TO WITHIN 12-INCHES DF THE FINISH SURFACE FILTER FABRIC SHALL BE MIRAFI 140-NC OR APPROVED EQUIVALENT. MIRADRAIN 6000 SYSTEM WITH PERFORATED DRAIN PIPE MAY BE SUBSTITUTED FOR THE GRAVEL AND FRENCH DRAIN.

19. THE PERFORATED DRAIN SHALL EXTEND TO DAYLIGHT OR PERIODIC DRAINAGE THROUGH THE FACE OF WALL SHALL BE PROVIDED. HEAD JOINTS MAY BE OMITTED IN THE FIRST COURSE ABOVE FINISH GRADE PROVIDED SPEED-BLOCK IS NOT USED. WHERE SPEED-BLOCK IS USED. THE WALL SHALL BE CORED AND SLEEVED WITH 1-INCH DIAMETER SLEEVES AT 2-FEET ON CENTER, OR 2-INCH DIAMETER SLEEVES AT B-FEET ON CENTER. THE CORING AND SLEEVING SHALL BE DONE PRIOR TO GROUTING THE WALL HOLES SHALL BE ANGLED SO AS TO PROMOTE DRAINAGE AND SHALL BE AT LEAST 3-INCHES ABOVE FINISH GRADE. AT THE CONTRACTORS

    OPTION. THE CORING MAY BE PERFORMED AFTER THE WALL IS GROUTED, PROVIDED THE HOLES DO NOT DAMAGE THE VERTICAL STEEL LOCATION OF THE VERTICAL STEEL SHALL BE MARKED PRIOR TO GROUTING OR AFTER BY X-RAY OR OTHER APPROVED METHODS.

20. GRANULAR BACKFILL MATERIAL SHALL BE PLACED BEHIND THE GRAVEL AND A 45 DEGREE LINE PROJECTED FROM THE BOTTOM OF FOOTING UP TO THE FINISHED SURFACE (BEHIND THE WALL). THE GRANULAR BACKFILL MATERIAL IS DEFINED AS HAVING NO MORE THAN 35% PASSING THE 200 SIEVE. THE TOP 12" TO 24" OF FINAL BACKFILL SHALL BE NATIVE OR TOP SOIL TO PROMOTE PLANT GROWTH.

21. PRIOR TO BACKFILL OR THE APPLICATION OF THE DRAINAGE SYSTEM BEHIND THE WALL, THE RETAINING PORTION OF THE STEM SHALL BE SEALED WITH HYDROSTOP WATER REPELLENT SEALER K-770 BY KRYTON (1-80O-267-8280) OR APPROVED EQUIVALENT.

GRADING & LANDSCAPE PLANS FOR:

MARQUEZ RESIDENCE

SURVEY NOTES

TOPOGRAPHIC INFORMATION SHOWN IN THESE PLANS IS BASED ON A SURVEY PREPARED BY WATERS LAND SURVEYING. THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM NADB3 ZONE 5 (EPOCH 2OO4.0) AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS) AND/OR CONTINUOUS OPERATING REFERENCE STATIONS (CORS) SPKI SI A0A1 BEING 556-56-34E AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC) AND/OR THE NATIONAL GEODETIC SURVEY (NGS), RESPECTIVELY.

TRENCHING AND BACKFILLING

1. ALL TRENCHING, BEDDING AND BACKFILL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE PLANS.

2. WATER ENCOUNTERED IN TRENCH OR STRUCTURE EXCAVATION SHALL BE REMOVED BY THE CONTRACTOR TO THE SATISFACTION OF THE SOILS ENGINEER TO PROVIDE DRY CONDITIONS DURING CONSTRUCTION OF PIPE OR STRUCTURE.

3. TRENCH OR STRUCTURE EXCAVATION SUBGRADE SHALL BE OBSERVED BY THE SOILS ENGINEER PRIOR TO PLACEMENT OF BEDDING MATERIAL. WET OR UNSTABLE SOIL ENCOUNTERED IN THE BOTTOM OF THE EXCAVATION AND DEEMED BY THE SOILS ENGINEER TO BE INCAPABLE OF PROPERLY SUPPORTING THE PIPE OR STRUCTURE BEING CONSTRUCTED, SHALL BE REMOVED TO THE DEPTH RECOMMENDED BY THE SOILS ENGINEER AND THE EXCAVATION BACKFILLED TO THE BOTTOM OF THE PIPE OR STRUCTURE GRADE WITH SUITABLE MATERIAL RECOMMENDED BY THE SOILS ENGINEER.

4. BEDDING AND BACKFILL MATERIAL SHALL BE TESTED FOR COMPLIANCE WITH APPLICABLE REQUIREMENTS BY THE SOILS ENGINEER.

5. BACKFILL COMPACTION SHALL BE TESTED IN ACCORDANCE WITH ASTM STANDARD D-1557, LATEST REVISION. AND REPORTED BY THE SOILS ENGINEER.

6. COMPACTION BY FLOODING OR JETTING IS NOT PERMITTED UNLESS SPECIFICALLY APPROVED BY THE SOILS ENGINEER.

7. TRENCH BACKFILL SHALL NOT BE PLACED UNTIL BEDDING AND INITIAL (PIPE ZONE) BACKFILL HAVE BEEN OBSERVED. TESTED AND APPROVED.

8. ALL WORK INVOLVING EXCAVATION INCLUDING THAT FOR SEWER AND UTILITY CONDUITS AND ALL SERVICE CONNECTIONS AND METER BOXES SHALL BE COMPLETED. OBSERVED AND APPROVED BY THE PUBLIC WORKS DEPARTMENT AND THE STRUCTURAL BACKFILL OBSERVED, TESTED FOR COMPACTION AND APPROVED BEFORE AGGREGATE BASE. PAVING OR OTHER PERMANENT SURFACE CONSTRUCTION MAY COMMENCE.

9. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE HEALTH AND SAFETY LAWS, ORDINANCES, REGULATIONS, RULES, AND STANDARDS INCLUDING ALL REQUIREMENTS OF THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AND OF CAL-OSHA.

10. CONTRACTOR SHALL FURNISH. INSTALL, AND MAINTAIN SUCH SHEETING, SHORING, BRACING, AND/OR OTHER PROTECTION AS IS NECESSARY TO PREVENT FAILURE OF TEMPORARY EXCAVATIONS AND EMBANKMENTS AND TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS, TEMPORARY IMPROVEMENTS AND PARTIALLY COMPLETED PORTIONS OF THE WORK. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SUFFICIENCY OF SUCH SUPPORTS AND/OR OTHER PROTECTION.

11. THE CONTRACTOR SHALL EXPOSE AND VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING IMPROVEMENTS PRIOR TO BEGINNING WORK

STORM DRAIN SPECIFICATIONS

STORM DRAINS, DROP INLETS, TRENCHING, BACKFILLING, ETC., SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE LATEST EDITION OF THE LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS STANDARD PLANS EXCEPT AS MODIFIED BY THESE PLANS.

MISCELLANEOUS DRAINAGE FACILITIES SHALL BE CONSTRUCTED AS SHOWN ON TYPICAL DETAILS. SECTIONS AND NOTES ON THESE PLANS.

WATER UTILITY NOTES

1. ALL MATERIAL AND WORK SHALL BE IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS; STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK), ZD06 EDITION (SSPWC); AND THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK), 2006 EDITION (SPPWC).

2. ALL MATERIAL INSTALLED BY THE CONTRACTOR SHALL BE INSPECTED AND APPROVED BY OWNER OR HIS REPRESENTEE PRIOR TO BACKFILL OPERATIONS.

3. THE CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS IN OR ADJACENT TO THE WORK AREA. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS FROM DAMAGE. ALL IMPROVEMENTS DAMAGED BY THE CONTRACTOR'S ACTIONS SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED TO THE OWNER'S SATISFACTION AT THE CONTRACTORS EXPENSE WITH NO ADDITIONAL COMPENSATION.

4. CONCRETE FOR WATER IMPROVEMENTS SHALL BE CLASS 45O-C-2OOO UNLESS NOTED OTHERWISE AND ALL CONCRETE WORK SHALL BE PER THE GREENBOOK. REINFORCING STEEL SHALL BE DEFORMED STEEL BARS OR COLD-DRAWN STEEL WIRE MEETING THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT ASTM A615 GRADE 60.

5. SURPLUS AND UNUSABLE MATERIAL WHICH IS NOT SUITABLE FOR USE IN THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AWAY FROM THE JOB SITE IN A MANNER AND AT A LOCATION ACCEPTABLE TO ALL APPLICABLE AGENCIES.

6. ALL OPEN TRENCH OPERATIONS SHALL BE IN ACCORDANCE WITH SECTION 3D6-1 OF SSPWC. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHEETING, SHORING AND BRACING OR EQUIVALENT METHOD, FOR THE PROTECTION OF LIFE OR LIMB, WHICH SHALL CONFORM TO APPLICABLE SAFETY ORDERS. INCLUDING CAL-OSHA SAFETY ORDERS. ARTICLE 6. THE CONTRACTOR SHALL SUBMIT TO THE OWNER A DETAILED PLAN SHOWING THE DESIGN OF SHORING, BRACING, SLOPING, OR OTHER PROVISIONS TO BE MADE FOR WORKER PROTECTION FROM THE HAZARD OF CAVING GROUND DURING THE EXCAVATION OF SUCH TRENCH OR TRENCHES. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY FOR ALL NECESSARY EXCAVATIONS PRIOR TO THE START OF WORK. IN ACCORDANCE WITH THE CALIFORNIA CODE OF REGULATIONS. TITLE B. CHAPTER 3.2, ARTICLE 2, SECTION 341 AND SSPWC SECTION 7-10.4.1.

7. ELEVATIONS NOTED ARE EXPRESSED IN FEET ABOVE MEAN SEA LEVEL (MSL) AND DISTANCES ARE EXPRESSED IN FEET.

8. DIMENSIONED DISTANCES SHALL TAKE PRECEDENCE OVER SCALED DISTANCES.

9. THE CONTRACTOR SHALL COMPLY WITH THE STATE DEPARTMENT OF HEALTH SERVICES CRITERIA FOR THE SEPARATION OF WATER MAINS AND SANITARY SEWERS AS SET FORTH IN TITLE 22, SECTION 64630 OF THE CALIFORNIA ADMINISTRATIVE CODE.

10. THE CONTRACTOR SHALL NOT OPERATE VALVES ON THE EXISTING SYSTEM. ONLY WATER PURVEYOR PERSONNEL ARE PERMITTED TO OPERATE VALVES ON THE EXISTING SYSTEM.

11. CONNECTIONS TO EXISTING WATER LINES SHALL BE DONE ONLY IN THE PRESENCE OF THE WATER PURVEYOR INSPECTOR.

12. MINIMUM COVER OVER PIPELINES SHALL BE 2.5-FEET AS MEASURED FROM THE FINISHED SURFACE.

13. PIPES SHALL HAVE CONSTANT SLOPES BETWEEN NOTED INVERT ELEVATIONS AND SHALL BE CONNECTED SUCH THAT A SMOOTH, CONTINUOUS FLOW PATH IS MAINTAINED.

14. PIPE FITTINGS AND APPURTENANCES ARE NOT CALLED OUT BUT ARE REQUIRED TO BE PROVIDED BY THE CONTRACTOR TO PROVIDE A COMPLETE AND OPERATIONAL PIPING SYSTEM.

15. ALL PVC PIPE. INSTALLATION AND PRESSURE TESTING SHALL MEET THE REQUIREMENTS OF AWWA C-B05 AND C-9D0 (CLASS 200), AS APPLICABLE.

16. WATER LINES SHALL BE HYDROSTATICALLY TESTED AFTER INSTALLATION, BACK FILLING, AND COMPACTION. ALL TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE WATER PURVEYOR INSPECTOR.

17. ALL NEW SECTIONS OF WATER LINE MUST BE PRESSURE-TESTED AND CHLORINATED SEPARATELY BEFORE ANY CONNECTIONS WILL BE ALLOWED TO THE EXISTING SYSTEM. AFTER TESTING, CHLORINATION, AND BACTERIOLOGICAL RESULTS ARE ACCEPTED BY THE WATER PURVEYOR. LINES MUST BE FLUSHED OF EXCESS CHLORINE IN COMPLIANCE WITH APPLICABLE WATER DISCHARGE REGULATIONS. ONLY THEN WILL CONNECTION BE ALLOWED TO EXISTING LINES.

18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ISOLATING DISSIMILAR METALS THAT HAVE THE POTENTIAL FOR GALVANIC CORROSION WHETHER OR NOT THE ISOLATOR IS SPECIFICALLY CALLED OUT ON THE PLANS.

WHEN APPLICABLE:

RESERVE FOR CITY ENGINEER

ENGINEERING PERMIT NO:_____

WDID NO:_____

RETAINING WALL PROJECT NO:_____

CONSTRUCTION SITE PRIORITY:_____

GRADING PLANS FOR:

MARQUEZ RESIDENCE

COUNTY OF SANTA BARBARA CALIFORNIA
DEVELOPMENT SERVICES DEPARTMENT
SHEET 1 OF SHEETS

I.O. NO. _____
PROJECT NO._____
V.T.M._____

FOR CITY ENGINEER _____ DATE _____

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	XXX			
AS-BUILTS				

XXXX-XXXX
NAD83 COORDINATES
XXX-XXXX
LAMBERT COORDINATES

CONTRACTOR_____ DATE STARTED_____
INSPECTOR_____ DATE COMPLETED_____

OWNER/APPLICANT

TIM & BERNIE MARQUEZ
1379 Oak Creek Canyon Rd.
Montecito, CA 93108

TOPOGRAPHY SOURCE

WATERS LAND SURVEYING, INC.
5553 HOLLISTER AVE. - STS. 7&8 - GOLETA, CALIFORNIA 93117
PHONE: (805) 967-4416
TOPO SOURCE DATE: SEPTEMBER 2011

BENCHMARK

LOCAL BENCHMARK @ WESTERLY DROP INLET ON TOP OF CONCRETE CURB ELEVATION = 685.73'

TOTAL DISTURBED AREA

TOTAL SITE DISTURBED AREA IN ACRES IS REQUIRED FOR STORM WATER PURPOSES

GRADING QUANTITIES

CUT QUANTITIES..... 152 [CYD]

FILL QUANTITIES..... 164 [CYD]

IMPORT..... 12 [CYD]

MAX. CUT DEPTH 4 [FT]

MAX CUT SLOPE RATIO (2:1MAX) 2 : 1

MAX. FILL DEPTH 4 [FT]

MAX FILL SLOPE RATIO (2:1MAX) 2 : 1

THIS PROJECT PROPOSES TO EXPORT _____ CUBIC YARDS OF MATERIAL FROM THIS SITE. ALL EXPORT MATERIAL SHALL BE DISCHARGED TO A LEGAL DISPOSAL SITE. THE APPROVAL OF THIS PROJECT DOES NOT ALLOW PROCESSING AND SALE OF THE MATERIAL. ALL SUCH ACTIVITIES REQUIRE A SEPARATE CONDITIONAL USE PERMIT.

ASSESSORS PARCEL NUMBER

011-280-31 & 32

SHEET INDEX

	SHEET #/RANGE
TITLE SHEET	G-1
SURVEY	G-2
GRADING	G-3
DRAINAGE	G-4
GRADING DETAILS	G-5
DEMOLITION / TREE PROTECTION	L-1
LAYOUT PLAN	L-2
HARDSCAPE DETAILS	L-3
SITE PERSPECTIVES	L-4
SITE PERSPECTIVES	L-5
PLANTING - TREES	L-6
PLANTING - SHRUBS	L-7
IRRIGATION	L-8
LIGHTING	L-9

PRIVATE WATER AND WASTEWATER

THE PRIVATE WATER/SEWER SYSTEM IS DESIGNED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE AND IS SHOWN ON THESE PLANS AS "INFORMATION ONLY". A SEPARATE PLUMBING PERMIT IS REQUIRED FOR CONSTRUCTION AND INSPECTION OF THE SYSTEM.

TRAFFIC CONTROL - WHEN APPLICABLE

THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN (11"X17") FOR APPROVAL PRIOR TO STARTING WORK. CONTRACTOR SHALL OBTAIN A TRAFFIC CONTROL PERMIT A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO STARTING WORK, AND A MINIMUM OF FIVE (5) DAYS IF WORK WILL AFFECT A BUS STOP OR AN EXISTING TRAFFIC SIGNAL, OR IF WORK WILL REQUIRE A ROAD OR ALLEY CLOSURE.

PROJECT SYMBOLS

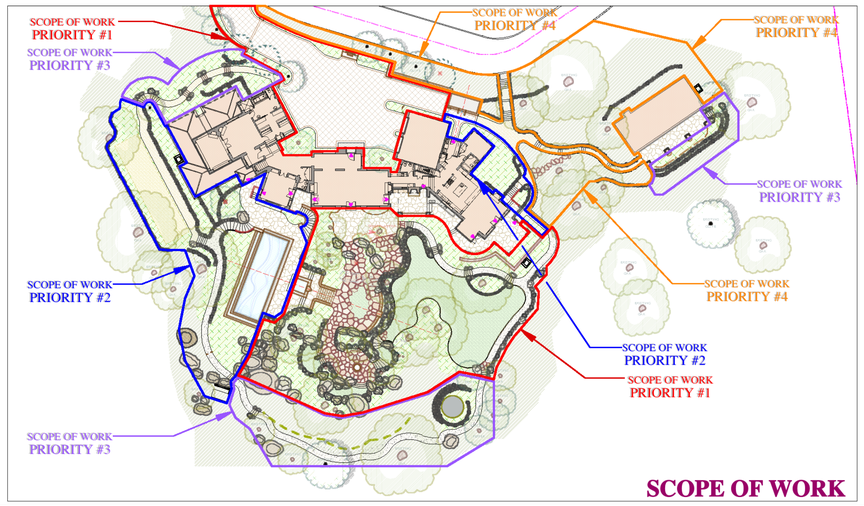
NORTH

DETAIL NUMBER (3 / L-1)
SHEET NUMBER

DETAIL NUMBER (1 / A1)
SHEET NUMBER

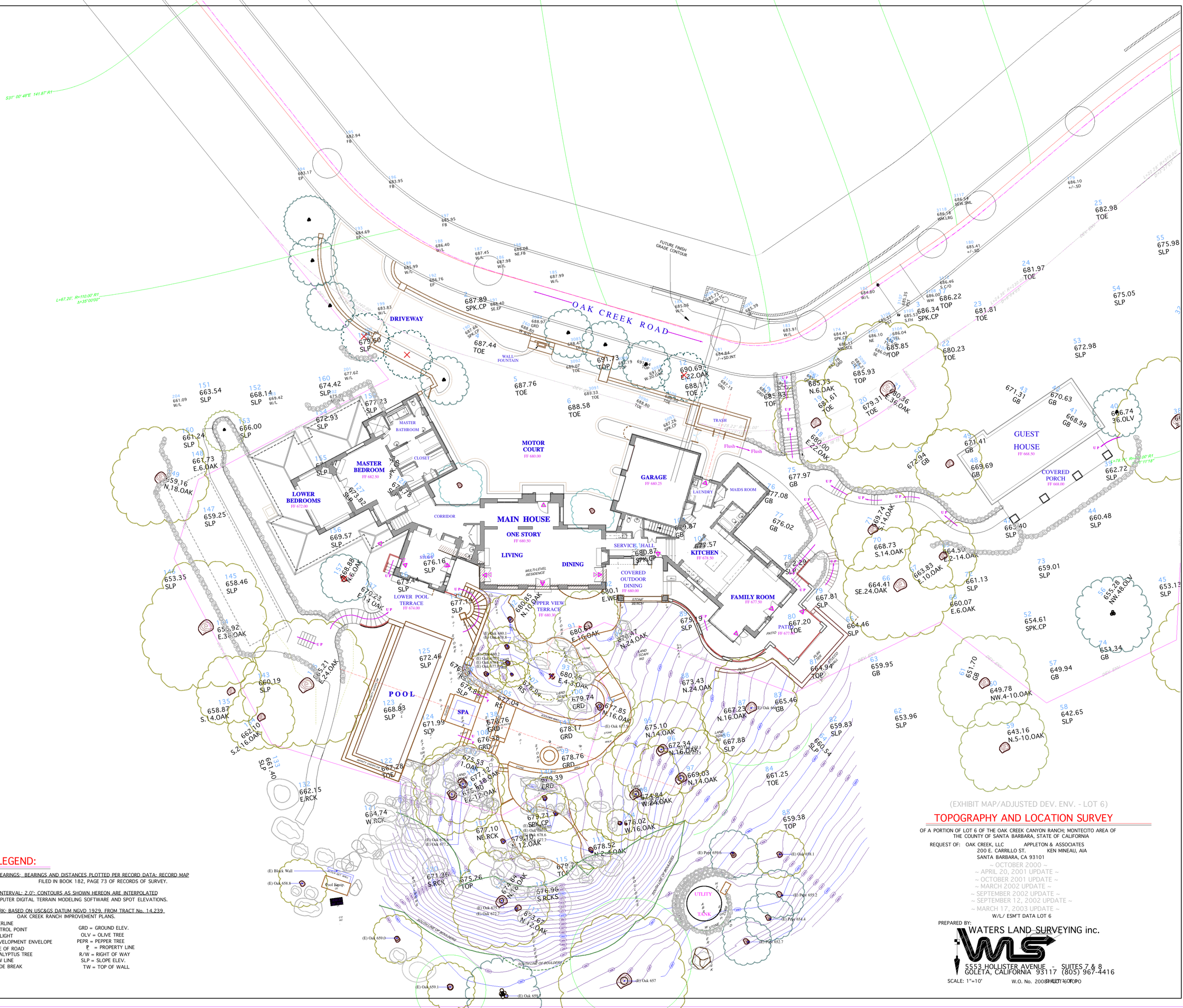
ELEVATION OR CROSS-SECTION CALLOUT (1 / A1 — 1 / A1)

OVERALL PLAN



SCOPE OF WORK

KEY MAP
NOT TO SCALE



MAP LEGEND:

BASIS OF BEARINGS: BEARINGS AND DISTANCES PLOTTED PER RECORD DATA: RECORD MAP FILED IN BOOK 182, PAGE 73 OF RECORDS OF SURVEY.

CONTOUR INTERVAL: 2.0': CONTOURS AS SHOWN HEREON ARE INTERPOLATED USING COMPUTER DIGITAL TERRAIN MODELING SOFTWARE AND SPOT ELEVATIONS.

BENCH MARK: BASED ON USC&GS DATUM NGVD 1929, FROM TRACT No. 14,239. OAK CREEK RANCH IMPROVEMENT PLANS.

℄ CENTERLINE
CP = CONTROL POINT
DL = DAYLIGHT
D/E = DEVELOPMENT ENVELOPE
ER = EDGE OF ROAD
EUC = EUCALYPTUS TREE
FL = FLOW LINE
GB = GRADE BREAK
GRD = GROUND ELEV.
OLV = OLIVE TREE
PEPR = PEPPER TREE
P = PROPERTY LINE
R/W = RIGHT OF WAY
SLP = SLOPE ELEV.
TW = TOP OF WALL

(EXHIBIT MAP/ADJUSTED DEV. ENV. - LOT 6)

TOPOGRAPHY AND LOCATION SURVEY

OF A PORTION OF LOT 6 OF THE OAK CREEK CANYON RANCH; MONTECITO AREA OF THE COUNTY OF SANTA BARBARA, STATE OF CALIFORNIA

REQUEST OF: OAK CREEK, LLC, 200 E. CARRILLO ST., SANTA BARBARA, CA 93101 — APPLETON & ASSOCIATES, KEN MINEAU, AIA

~ OCTOBER 2000 ~
~ APRIL 20, 2001 UPDATE ~
~ OCTOBER 2001 UPDATE ~
~ MARCH 2002 UPDATE ~
~ SEPTEMBER 2002 UPDATE ~
~ SEPTEMBER 12, 2002 UPDATE ~
~ MARCH 17, 2003 UPDATE ~
W/L/ ESM'T DATA LOT 6

PREPARED BY:
WATERS LAND SURVEYING inc.
5553 HOLLISTER AVENUE - SUITES 7 & 8
GOLETA, CALIFORNIA 93117 (805) 967-4416

SCALE: 1"=10' W.O. No. 2008-16

Robert Andrew Fowler
LANDSCAPE ARCHITECT
CA. LIC. #2698
315 WEST HALEY STREET #202
SANTA BARBARA, CA. 93101
PH:(805)730-7555 F:(805)730-1640
www.RAFLARCH.com
E-Mail:RAFLARCH@aol.com

DATE: 11-15-2011
- ☐ PRELIMINARY
- ☐ AGENCY REVIEW
- ■ ISSUED FOR BIDDING
- ☐ ISSUED FOR CONSTRUCTION

GRADING & DRAINAGE PLAN
EXISTING SURVEY

REVISIONS: DATE:

STAMP

REGISTERED LANDSCAPE ARCHITECT — ROBERT ANDREW FOWLER — Signature — Date — STATE OF CALIFORNIA

PROJECT / OWNER:
TIM & BERNIE MARQUEZ RESIDENCE
1379 Oak Creek Canyon Road ~ Montecito, California 93108
APN: 011-280-31 & 32

DRAWING:
EXISTING SURVEY

JOB #: RF11-03
CADD BY: R.A. Fowler
DATE: 12 / 31 / 2011

SHEET
G-2
2 OF 15

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GRADING NOTES:

1. All grading shall conform in accordance with local ordinances and all other standards pertaining thereto.
2. All surface vegetation shall be removed from the site prior to start of grading operations. Trees or shrubs indicated on the plans to remain shall be protected in place. Attention shall be given to removing root structures of larger plants. Cavities from which plants were removed shall be cleaned of debris and recompacted.
3. General Contractor shall remove all topsoil from area to be graded where feasible; topsoil shall be stockpiled for later use. Surplus excavated soil, if free of excessive rock, shall likewise be stockpiled for landscape fill use. After rough grading operations are complete the topsoil shall be evenly redistributed over the site, if feasible. Prior to redistribution, the rough grade shall be ripped in order to provide a mixing of topsoil with subsoil.
4. All surface drainage shall be as indicated on the plans. Positive drainage shall be provided away from buildings at Min. 1% slope.
5. Grading plan indicates 0.5% minimum slope toward all drain inlets. Drain pipe shall have a 2% minimum slope.
6. All drainage equipment and facilities shall be installed per manufacturer's specifications.
7. At all drain pipe intersections not intersected by a drain inlet/catch basin shall be installed with either a cleanout or at an angle of intersection of 45°.
8. Rough grading and adjoining hardscape that includes retaining walls, flatwork and all other drainage facilities outside the construction area (buildings, decks, walls, etc.) are the responsibility of the Concrete Contractor. Concrete Contractor shall coordinate operations to facilitate landscape work and shall provide rough grade within .10 foot of finish grade indicated on the plans.
9. Finish grading, installation of planting, irrigation and landscape lighting, and final spot elevations of the inline drains are the responsibility of the Landscape Contractor. Concrete & Landscape Contractor shall interface and coordinate their respective operations to facilitate and complete their respective work. Landscape Contractor shall photo-document and notify in writing to the General Contractor and Landscape Architect if rough grade are not acceptable or within .10 foot of finish grade as indicated on the plans where additional delays or expense may be incurred by Owner.
10. Contractor to verify **As-Built** locations of all utilities. Notify Landscape Architect prior to drainage layout of any conflict between new drainage (gravity Lines) and existing utility lines.

GRADING CALCS

CUT:	152 CU. YD.
FILL:	164 CU. YD.
CHANGE:	12 CU YD.

ABBREVIATIONS

CO	Clean-Out
CB	Catch Basin
DD	Brass Deck Drain
Inv.	Invert Elevation
EE	Existing Spot Elevation
FF	Finish Floor
FS	Finish Surface
FG	Finish Grade
TW	Top of Wall
BW	Base of Wall
TF	Top of Fence
HP	High Point
TF	Top of Fence
TP	Base of Fence
BF	Top of Pier
T	Tread
R	Riser
TS	Top of Step
BS	Bottom of Step
Ht.	Height
Min.	Minimum
Max.	Maximum
(E)	Existing
(N)	New
Typ.	Typical
FL	Flush

City of Santa Barbara
Building & Safety Division
Residential Handrail & Guard Requirements

Community Development
630 Garden Street
805-564-5485

The following requirements are for handrails and guards in residential occupancies that serve only one dwelling unit. Some of these requirements do not apply to multi-family and commercial occupancies.

Handrails: §1012, 2007 CBC
Residential stairways with 4 or more risers are required to have a continuous handrail the full length of the stairs. The top of handrails shall not be placed less than 34 inches nor more that 38 inches above the nosing of the treads. Handrails shall be continuous except at landings where a newel post may interrupt; or at the lowest tread a volute, turnout or starting ease is permissible. Ends shall be returned to walls, guards or the walking surface or be continuous into an adjacent rail. The handgrip portion of handrails shall not be less than 1 ¼ inches nor more than 2 inches in cross-sectional dimension or the shape shall provide an equivalent gripping surface. If the handrail is not circular, it shall have a perimeter dimension of at least 4 inches and not greater than 6 ¼ inches with a maximum cross section dimension of 2 ¼ inches. Handrail edges shall have a minimum radius of .01 inches. Brackets or balusters attached to the bottom of handrails shall not project horizontally beyond the sides of the handrails within 1 ½ inches of the bottom of the rail. Handrails projecting from a wall shall have a space of not less than 1 ½ inches between the wall and handrail. Each handrail may project into the required stairway width a distance of 4 ½ inches from each side of a stairway. The mounting of handrails shall be such that the completed handrail and supporting structure are capable of withstanding a load of at least 200 pounds applied in any direction at any point on the rail.

Guards: §1013, 2007 CBC
Guards shall be located along open-sided walking surfaces, mezzanines, industrial equipment platforms, stairways, ramps, an landings that are located more than 30 inches above the floor or grade below. The top of guardrails shall not be less than 42 inches in height. When within individual dwelling units of R-2 occupancies or R-3 occupancies, guards whose top rail serves as a handrail, shall have a height not less than 34 inches and not more than 38 inches. On interior R-2 or R-3 stairways, open guardrails shall have intermediate rails or an ornamental pattern such that a sphere 4 3/8 inches in diameter cannot pass through. The triangular openings formed by the riser, tread and bottom element of the guardrail at the open side of a stairway may be of such size that a sphere of 6 inches in diameter cannot pass through. The top rail of the guardrail must be able to withstand a load per lineal foot of 50 pounds applied horizontally at a right angle. Intermediate rails, panel fillers and their connections shall be capable of withstanding a load of 50 pounds per square foot applied horizontally at right angles over the entire tributary area, including openings and spaces between rails.

Window Guards: §1405.12, 2007 CBC
Windows which are installed in exterior walls of one and two-family and multiple family dwellings of occupancy groups R-2 and R-3 whose sill portion of operable window is above 72 inches above the exterior finished grade or other surface shall:

- Have the lowest part of the clear opening of the window shall be a minimum of 24 inches above finished floor of the room it is located in.
- Glazing between finished floor and a height of 24 inches shall be fixed or have openings such that a 4 inch diameter sphere cannot pass.
- Openings between finished floor and a height of 24 inches may have guards which comply with ASTM F2006 or ASTM F2090.

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SANTA BARBARA COUNTY BUILDING & SAFETY DIVISION GRADING NOTES

1. All grading shall conform to Santa Barbara County Code Chapter 14 and standards and requirements pertaining thereto, these construction drawings and the recommendations of the soils engineer and engineering geologist.
2. Contractor to notify the county grading inspector and soils laboratory at least **48 hours** before start of grading work or any pre-construction meeting.
3. Contractor shall employ all labor, equipment and methods required to prevent his operations from producing dust in amounts damaging to adjacent property, cultivated vegetation and domestic animals or causing a nuisance to persons occupying buildings in the vicinity of the job site. Contractor shall be responsible for damage caused by dust from his grading operation.
4. Before beginning work requiring exporting or importing of materials, the contractor shall obtain approval from Public Works Road Division for haul routes used and methods provided to minimize the deposit of soils on county roads. Grading/road inspectors shall monitor this requirement with the contractor.
5. The geotechnical engineer shall provide observation and testing during grading operations in the field and shall submit a final report stating that all earth work was properly completed and is in substantial conformance with the requirements of the grading ordinance.
6. Areas to be graded shall be cleared of all vegetation including roots and other unsuitable material for a structural fill, then scarified to a depth of 6" prior to placing of any fill. Call grading inspector for initial inspection.
7. A thorough search shall be made for all abandoned man-made facilities such as septic tank systems, fuel or water storage tanks, and pipelines or conduits. Any such facilities encountered shall be removed and the depression properly filled and compacted under observation of the geotechnical engineer.
8. Areas with existing slopes which are to receive fill material shall be keyed and benched. The design and installation of the keyway shall be per the geotechnical engineer's recommendation or per County Standard Detail No. G-13.
9. Fill material shall be spread in lifts not exceeding 6" in compacted thickness, moistened or dried as necessary to near optimum moisture content and compacted by an approved method. Fill material shall be compacted to a minimum of 90% maximum density as determined by 1967 ASTM D – 1557 – 91 modified proctor (AASHO) test or similar approved methods. Some fill areas may require compaction to a greater density if called for in the construction documents. Soil tests shall be conducted at not less than one test for each 18" of fill and/or for each 500 cubic yards of fill placed.
10. Cut slopes shall not exceed a grade of 1 ½ horizontal to 1 vertical. Fill and combination fill and cut slopes shall not exceed 2 horizontal to 1 vertical. Slopes over three feet in vertical height shall be planted with approved perennial or treated with equally approved erosion control measures prior to final inspection.
11. Surface drainage shall be provided at a minimum of 2% for 5 feet away from the foundation line or any structure.
12. All trees that are to remain on site shall be temporarily fenced and protected around the drip line during grading.
13. An erosion and sediment control plan shall be required as part of the grading plan and permit requirements.
14. "Best Management Practices for Construction Activities: Eroded sediments and other pollutants must be retained onsite and may not be transported from the site via sheet flow, swales, area drains, natural drainage courses, or wind. Stockpiles of earth and other construction related materials must be protected from being transported from the site by the forces of wind or water. Fuels, oils, solvents, and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills may not be washed into the drainage system. Excess or waste concrete may not be washed into public way or any other drainage system. Provisions must be made to retain concrete wastes on site until they can be disposed as a solid waste. Trash and construction related solid waste must be deposited into a covered waste receptacle to prevent contamination of rainwater and dispersal by wind. Sediments and other material may not be tracked from ta the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental deposition must be swept up immediately and may not be washed down by rain or other means. Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to minimize erosion by wind and water."
15. If grading occurs during Nov 1 through Apr 15, no grading shall occur unless approved erosion and sediment control measures are in place. Discharges of sediment from the project site may result in a Stop Work Order"
16. All earthwork on hillsides, sloping or mountainous terrain shall be stabilized to protect and prevent loss of soils, as necessary, year-round.

Earthwork estimates:

Excavation: 152 cubic yards; **Import**: 164 cubic yards; **Export**: 0 cubic yards; **Fill**: 12 cubic yards

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GRADING PREPARATION NOTES:

(CONTRACTORS/OWNER/CONSULTANTS MUST READ FULL REPORT FOR ALL DETAILS AND ITEMS RELATED TO SOILS, FOUNDATIONS AND CONSTRUCTION.)

5.1 **CLEARING AND STRIPPING**

1. ALL SURFACE AND SUBSURFACE DELETERIOUS MATERIALS SHOULD BE REMOVED FROM THE PROPOSED BUILDING AND PAVEMENT AREAS AND DISPOSED OF OFF-SITE. THIS INCLUDES, BUT IS NOT LIMITED TO ANY BURIED UTILITY LINES, LOOSE FILLS, SEPTIC SYSTEMS, DEBRIS, BUILDING MATERIALS, AND ANY OTHER SURFACE AND SUBSURFACE STRUCTURES WITHIN PROPOSED BUILDING AREAS. VOIDS LEFT FROM SITE CLEARING, SHOULD BE CLEANED AND BACKFILLED AS RECOMMENDED FOR STRUCTURAL FILL.

2. ONCE THE SITE HAS BEEN CLEARED, THE EXPOSED GROUND SURFACE SHOULD BE STRIPPED TO REMOVE SURFACE VEGETATION AND ORGANIC SOIL. THE SURFACE MAY BE DISCED, RATHER THAN STRIPPED, IF THE ORGANIC CONTENT OF THE SOIL IS NOT MORE THAN THREE PERCENT BY WEIGHT. IF STRIPPING IS REQUIRED, DEPTHS SHOULD BE DETERMINED BY A MEMBER OF OUR STAFF IN THE FIELD AT THE TIME OF STRIPPING. STRIPPINGS MAY BE EITHER DISPOSED OF OFF-SITE OR STOCKPILED FOR FUTURE USE IN LANDSCAPE AREAS IF APPROVED BY THE LANDSCAPE ARCHITECT.

5.2 **PREPARATION OF BUILDING PADS**

1. THE INTENT OF THESE RECOMMENDATIONS IS TO MOISTURE CONDITION AND RECOMPACT THE LOOSE SOILS IN THE UPPER 3 TO 4 FEET AND SUPPORT THE BUILDING FOOTINGS ON COMPACTED SOIL.

2. THE BUILDING PAD AREA SHOULD BE OVEREXCAVATED TO A DEPTH OF FOUR (4) FEET BELOW EXISTING GRADES OR TWO (2) FEET BELOW THE BOTTOM OF THE DEEPEST FOOTING, WHICHEVER IS GREATER. THE EXPOSED SURFACE SHOULD THEN BE SCARIFIED TO A DEPTH OF 12 INCHES, MOISTURE CONDITIONED TO NEAR OPTIMUM AND COMPACTED TO AT LEAST NINETY (90) PERCENT OF MAXIMUM DRY DENSITY. THE LATERAL LIMITS OF OVEREXCAVATION AND SCARIFICATION SHOULD BE AT LEAST 5 FEET BEYOND THE PERIMETER BUILDING AND FOOTING LINES. THE UPPER 36 INCHES OF THE PAD SHOULD CONSIST OF NATIVE SANDS OR A SUITABLE NON-EXPANSIVE MATERIAL SUCH AS DECOMPOSED GRANITE OR CLASS II/III BASE. FILL AND CUT SLOPES SHOULD BE CONSTRUCTED AT A MAXIMUM SLOPE OF 3:1 (HORIZONTAL TO VERTICAL).

3. IN ORDER TO HELP MINIMIZE POTENTIAL SETTLEMENT PROBLEMS ASSOCIATED WITH STRUCTURES SUPPORTED ON A NON-UNIFORM THICKNESS OF COMPACTED FILL, THE SOILS ENGINEER SHOULD BE CONSULTED FOR SPECIFIC SITE RECOMMENDATIONS DURING GRADING. IN GENERAL, ALL PROPOSED CONSTRUCTION SHOULD BE SUPPORTED BY A UNIFORM THICKNESS OF COMPACTED SOIL.

4. THE ABOVE GRADING IS BASED ON THE STRENGTH CHARACTERISTICS OF THE MATERIALS UNDER CONDITIONS OF NORMAL MOISTURE THAT WOULD RESULT FROM RAIN WATER AND DO NOT TAKE INTO CONSIDERATION THE ADDITIONAL ACTIVATING FORCES APPLIED BY SEEPAGE FROM SPRINGS OR SUBSURFACE WATER. AREAS OF OBSERVED SEEPAGE SHOULD BE PROVIDED WITH SUBSURFACE DRAINS TO RELEASE THE HYDROSTATIC PRESSURES.

5. THE NEAR-SURFACE SOILS MAY BECOME PARTIALLY OR COMPLETELY SATURATED DURING THE RAINY SEASON. GRADING OPERATIONS DURING THIS TIME PERIOD MAY BE DIFFICULT SINCE THE SATURATED MATERIALS MAY NOT BE COMPACTABLE AND THEY MAY NOT SUPPORT CONSTRUCTION EQUIPMENT. CONSIDERATION SHOULD BE GIVEN TO THE SEASONAL LIMIT OF THE GRADING OPERATIONS ON THE SITE.
ALL FINAL GRADES SHOULD BE PROVIDED WITH A POSITIVE DRAINAGE GRADIENT AWAY FROM FOUNDATIONS. FINAL GRADES SHOULD PROVIDE FOR RAPID REMOVAL OF SURFACE WATER RUNOFF. PONDING OF WATER SHOULD NOT BE ALLOWED ON BUILDING PADS OR ADJACENT TO FOUNDATIONS.

5.3 **PREPARATION OF PAVED AREAS**

1. PAVEMENT AREAS SHOULD BE SCARIFIED TO A DEPTH OF 12 INCHES BELOW EXISTING GRADE OR FINISHED SUBGRADE. THE SOIL SHOULD THEN BE WETTED TO SLIGHTLY ABOVE OPTIMUM MOISTURE CONTENT TO A DEPTH OF TWO (2) FEET AND COMPACTED WITH HEAVY VIBRATORY EQUIPMENT SUCH THAT THE UPPER ONE (1) FOOT IS AT A MINIMUM OF 90 PERCENT OF MAXIMUM DRY DENSITY.

2. THE UPPER 6 INCHES OF SUBGRADE BENEATH ALL PAVED AREAS SHOULD BE COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION. SUBGRADE SOILS SHOULD NOT BE ALLOWED TO DRY OUT OR HAVE EXCESSIVE CONSTRUCTION TRAFFIC BETWEEN THE TIME OF WATER CONDITIONING AND COMPACTION, AND THE TIME OF PLACEMENT OF THE PAVEMENT STRUCTURAL SECTION.

5.4 STRUCTURAL FILL

1. ON-SITE SOILS FREE OF ORGANIC AND DELETERIOUS MATERIAL ARE SUITABLE FOR USE AS STRUCTURAL FILL. STRUCTURAL FILL SHOULD NOT CONTAIN ROCKS LARGER THAN 6 INCHES IN GREATEST DIMENSION, AND SHOULD HAVE NO MORE THAN 15 PERCENT LARGER THAN 2.5 INCHES IN GREATEST DIMENSION.

2. IMPORT SHOULD BE FREE OF ORGANIC AND OTHER DELETERIOUS MATERIAL AND SHOULD HAVE LOW EXPANSION POTENTIAL, WITH A PLASTICITY INDEX OF 12 OR LESS. BEFORE DELIVERY TO THE SITE, A SAMPLE OF THE PROPOSED IMPORT SHOULD BE TESTED IN OUR LABORATORY TO DETERMINE ITS SUITABILITY FOR USE AS STRUCTURAL FILL.

3. STRUCTURAL FILL USING ON-SITE INORGANIC SOIL OR APPROVED IMPORT SHOULD BE PLACED IN LAYERS, EACH NOT EXCEEDING EIGHT INCHES IN THICKNESS BEFORE COMPACTION. ON-SITE INORGANIC OR IMPORTED SOIL SHOULD BE CONDITIONED WITH WATER, OR ALLOWED TO DRY, TO PRODUCE A SOIL WATER CONTENT AT APPROXIMATELY OPTIMUM VALUE, AND SHOULD BE COMPACTED TO AT LEAST 90 PERCENT RELATIVE COMPACTION BASED ON ASTM 01557-91.

SEE SOILS REPORT FOR COMPLETE DETAILS AND OTHER RECOMMENDATIONS.

SCOPE OF WORK
PRIORITY #1

SCOPE OF WORK
PRIORITY #3

SCOPE OF WORK
PRIORITY #2

SCOPE OF WORK
PRIORITY #4

SCOPE OF WORK

CONTRACTORS SHALL PROVIDE A SUBTOTAL FOR EACH PRIORITY AREA FOR ALL HARDSCAPE & LANDSCAPE IMPROVEMENTS IN THESE AREAS.

PRIORITY #1 - REAR TERRACE PROMENADE - Involves:
≈ 65% HARDSCAPE IMPROVEMENTS
≈ 35% LANDSCAPE IMPROVEMENTS
PRIORITY #1 - FRONT MOTORCOURT - Involves:
≈ 5% HARDSCAPE IMPROVEMENTS
≈ 95% LANDSCAPE IMPROVEMENTS

PRIORITY #2 - POOL AREA & WEST SIDE FRUIT TREE ORCHARD - Involves:
≈ 65% HARDSCAPE IMPROVEMENTS
≈ 35% LANDSCAPE IMPROVEMENTS
PRIORITY #2 - EAST SIDE PLANTERS b/w House & D. G. PATH - Involves:
≈ 100% LANDSCAPE IMPROVEMENTS

PRIORITY #3 - AREA IN FRONT OF GUEST HOUSE - Involves:
≈ 50% HARDSCAPE IMPROVEMENTS
≈ 50% LANDSCAPE IMPROVEMENTS
PRIORITY #3 - SOUTH SIDE CONNECTING PATHWAY & STEPS - Involves:
≈ 50% HARDSCAPE IMPROVEMENTS
≈ 50% LANDSCAPE IMPROVEMENTS
PRIORITY #3 - NORTHWEST SIDE CONNECTING PATH & STEPWAY - Involves:
≈ 60% HARDSCAPE IMPROVEMENTS
≈ 40% LANDSCAPE IMPROVEMENTS

PRIORITY #4 - AREA BEHIND GUEST HOUSE - Involves:
≈ 35% HARDSCAPE IMPROVEMENTS
≈ 65% LANDSCAPE IMPROVEMENTS
PRIORITY #4 - AREA ALONG STREET - Involves:
≈ 100% LANDSCAPE IMPROVEMENTS
PRIORITY #4 - AREA BETWEEN HOUSE & GUEST HOUSE- Involves:
≈ 2% HARDSCAPE IMPROVEMENTS
≈ 98% LANDSCAPE IMPROVEMENTS

NOTE:
* ESTIMATED ELEVATION

OAK CREEK ROAD
DRIVEWAY
WALL FOUNTAIN
TRASH
MASTER BATHROOM
CLOSET
MASTER BEDROOM
FF 682.50
LOWER BEDROOMS
FF 672.00
MOTOR COURT
FF 680.00
GARAGE
FF 680.25
LAUNDRY
MAIDS ROOM
CORRIDOR
MAIN HOUSE
ONE STORY
FF 680.50
STUDY
LIVING
DINING
SERVICE HALL
KITCHEN
FF 678.50
COVERED OUTDOOR DINING
FF 680.00
FAMILY ROOM
FF 677.50
PATIO
FF 677.00
GUEST HOUSE
FF 668.50
COVERED PORCH
FF 668.00
LOWER POOL TERRACE
FF 674.00
UPPER VIEW TERRACE
FF 680.30
POOL
SPA
Swale
UTILITY TANK
GOLF TEE-OFF
(E) Walkway
(N) Walkway
Top Stair is Flush w/ Adjacent Grade, Typ.
Flush
(N) 2.5' Ht. Wall
(N) 3' Ht. Wall
(N) 2' Ht. Wall
(E) 2' Ht. Wall
(E) Block Wall
Pool Equip.
(E) Flagstone Removed to Create (N) Planter
(E) Flagstone
(N) Flagstone
Remove & Transplant (E) Oak
(E) Oak 676.3
(E) Oak 679.5
(E) Oak 677.0
(E) Oak 680.1
(E) Oak 678.8
(E) Oak 672.5 Retaining Wall Around (E) Oak Tree
(E) Oak 672.1
(E) Oak 673.5
(E) Oak 675.5
(E) Oak 677.7
(E) Oak 680.7
(E) Oak 680.0
(E) Oak 675.6
(E) Oak 677.2
(E) Oak 678.5
(E) Oak 679.0
(E) Oak 655.2
(E) Oak 654.4
(E) Oak 652.7
(E) Oak 657
(E) Oak 659.1
(E) Oak 659.2
(E) Oak 659.0
(E) Oak 655.3
(E) Oak 658.1
(E) Pine 656.0
(E) Oak 666.7
Top of Fire Bowl Pedastal 682.5
Top of Seat Wall 681.5
Bottom of S.W. 680
FS 680
Top of Fire Pit 681.5
Bottom of F.P. 680
Boulder Terminations to be 6" or More Above Top Elev. of All Seat Wall and Stepway Terminal Conditions, Typ.
Lawn to Drain to Flagstone
HP 680.3 Crown
TW 679.7
TW 677.2
(E) 3T 3R BS 674.1 1' Ht. Fountain Base
FS 675.7 (E) 3T 3R TS 675.6 BS 674.1
FS 678.5* 4T 4R TS 678.5 BS 677 FS 677*
FS 675.5* 3T 3R TS 675.5 BS 674 FS 674*
FS 672.5* 3T 3R TS 672.5 BS 671 FS 671*
FS 669* 4T 4R TS 669 BS 667 FS 667*
FS 665.5* 4T 4R TS 665.5 BS 663.5 FS 663.5*
FS 663.5* 3T 3R TS 663.5 BS 663 FS 662*
FS 661.5* 3T 3R TS 661.5 BS 660 FS 660*
FS 678.5 3T 3R BS 678.5 TS 680
FS 680 3T 3R TS 680 BS 678.5 FS 678.5
FS 677.5 3T 5R BS 677.5 TS 680
FS 676 3T 3R BS 676 TS 677.5
FS 675 4T 4R TS 675 BS 673 FS 673
FS 670 4T 4R TS 670 BS 668 FS 668
FS 663 4T 4R BS 663 TS 665 FS 665
8T 8R BS 675.7 TS 679.7
FS 679.7
FS 680
FS 680.3
FS 680
Swale
135'
U P

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DATE: 11-15-2011
- ☐ PRELIMINARY
- ☐ AGENCY REVIEW
- ■ ISSUED FOR BIDDING
- ☐ ISSUED FOR CONSTRUCTION

GRADING & DRAINAGE PLAN
GRADING PLANS

REVISIONS: DATE:

STAMP
REGISTERED LANDSCAPE ARCHITECT
ROBERT ANDREW FOWLER 2698
Signature
Date
STATE OF CALIFORNIA

PROJECT / OWNER:
TIM & BERNIE MARQUEZ RESIDENCE
1379 Oak Creek Canyon Road ~ Montecito, California 93108
APN: 011-280-31 & 32

DRAWING:
GRADING PLAN

JOB #: RF11-03
CADD BY: R.A. Fowler
DATE: 12 / 31 / 2011

SHEET
G-3
3 OF 15

N W E S

GRAPHIC SCALE
(IN FEET)
0 10 15 20
SCALE: 1" = 10' - 0"

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EROSION CONTROL NOTES

1. THE GRADING PERMIT HOLDER AND THE OWNER/DEVELOPER SHALL COMPLY WITH EROSION CONTROL MEASURES REQUIRED BY THE CITY OF SANTA BARBARA STANDARD POLICY. EROSION CONTROL MEASURES CAPABLE OF PREVENTING THE MIGRATION OF DIRT AND DUST OFF SITE, IN A MANNER ACCEPTABLE TO THE CITY OF SANTA BARBARA, SHALL BE IMPLEMENTED AND MAINTAINED DURING ALL CONSTRUCTION, EARTH MOVING AND GRADING PHASES OF A PROJECT. FAILURE TO DO SO WILL RESULT IN THE ISSUANCE OF A "STOP WORK" ORDER, WHICH WILL NOT BE RELEASED UNTIL SUCH TIME AS AN ADEQUATE PROGRAM IS IMPLEMENTED.

2. DURING THE CLEARING, EARTH MOVING AND GRADING PHASES OF THE PROJECT WATER TRUCKS OR SPRINKLER SYSTEMS SHALL BE USED IN SUFFICIENT QUANTITIES TO PREVENT DUST FROM LEAVING THE SITE. IN ADDITION, THE ENTIRE AREA OF DISTURBED SOILS SHALL BE WETTED DOWN DURING THE EARLY MORNING HOURS AND AT THE END OF EACH DAY IN SUCH A MANNER AS TO CREATE A CRUST.

3. DURING THE CONSTRUCTION PHASE OF THE PROJECT, WATER TRUCKS OR SPRINKLER SYSTEMS SHALL BE USED TO KEEP ALL AREAS OF VEHICULAR MOVEMENT DAMP ENOUGH TO PREVENT DUST RAISED FROM LEAVING THE SITE. AS A MINIMUM, THIS WILL INCLUDE THE WETTING DOWN OF SUCH AREAS IN THE LATE MORNING HOURS AND AT THE CLOSE OF EACH DAY'S ACTIVITIES. INCREASED WATERING FREQUENCY WILL BE REQUIRED WHENEVER WIND SPEEDS EXCEED 20 MILES PER HOUR.

4. ALL TRUCKS HAULING SOIL MATERIALS TO AND FROM THE SITE SHALL BE COVERED WITH A TARP TO PREVENT DUST FROM BLOWING OFF THE TRUCK.

5. ALL ALLEYWAYS, CIRCULATION ROUTES, HAUL ROUTES, STREETS AND SIDEWALKS SHALL BE KEPT CLEAN AND CLEAR OF DIRT, DUST AND DEBRIS IN A MANNER ACCEPTABLE TO THE CITY OF SANTA MARIA. AS A MINIMUM, SAID AREAS SHALL BE CLEANED AT THE END OF EACH WORKING DAY OR MORE OFTEN IF DIRECTED BY CITY PERSONNEL. THE FLUSHING OF DIRT OR DEBRIS TO STORM DRAIN OR SANITARY SEWER FACILITIES SHALL NOT BE PERMITTED. FAILURE TO KEEP THESE AREAS CLEAN WILL RESULT IN THE ISSUANCE OF A "STOP WORK" ORDER, WHICH WILL NOT BE RELEASED UNTIL SUCH TIME AS THE AREA IS CLEANED IN A MANNER ACCEPTABLE TO THE CITY. EARTH MOVING AND GRADING ACTIVITIES SHALL BE LIMITED TO THE HOURS BETWEEN 7:00 A.M. AND 6:00 P.M.

6. AFTER THE COMPLETION OF THE CLEARING, GRADING, OR EXCAVATION PHASE, THE ENTIRE AREA OF DISTURBED SOIL SHALL BE TREATED TO PREVENT WIND PICK UP OF THE SOIL. ANYONE OF THE FOLLOWING METHODS MAY ACCOMPLISH THIS:

   A) THE SEEDING AND OR WATERING OF THE SITE UNTIL SUCH TIME AS THE GROUND COVER HAS TAKEN ROOT.

   B) THE SPREADING OF SOIL BINDERS.

   C) THE WETTING DOWN OF THE AREA IN SUCH A MANNER AS TO CREATE A CRUST ON THE SURFACE AND THE REPEATED SOAKING OF THE AREA, AS NECESSARY, TO MAINTAIN THE CRUST AND PREVENT SOIL BLOWING.

7. THE CONTRACTOR OR BUILDER SHALL DESIGNATE A PERSON OR PERSONS TO MONITOR THE DUST CONTROL PROGRAM AND TO ORDER INCREASED WATERING, AS NECESSARY TO PREVENT THE TRANSPORT OF DUST OFF-SITE. THIS PERSON'S DUTY SHALL INCLUDE HOLIDAY AND WEEKEND PERIODS WHEN WORK MAY NOT BE IN PROGRESS. THE NAME AND TELEPHONE NUMBER OF SUCH PERSON OR PERSONS SHALL BE PROVIDED TO THE CITY OF SANTA BARBARA COMMUNITY DEVELOPMENT DEPARTMENT AND PUBLIC WORKS DEPARTMENT.

8. LONG TERM MAINTENANCE OF DRAINS

   EVERY YEAR, PRIOR TO THE FIRST RAIN, EACH INLET BOX SHALL BE INSPECTED, CLEANED OF ALL DEBRIS AND FILTER FABRIC REPLACED.

   DRAIN LINES SHOULD BE FLUSHED AS NEEDED.

   DURING EACH RAIN EVENT, DRAIN SYSTEM SHOULD BE INSPECTED AND ANY BLOCKAGE OR DEBRIS SHOULD BE CLEANED IMMEDIATELY.

ELECTRICAL & GAS LEGEND

110 VOLT ELECTRICAL CONNECTION REQUIRED

220 VOLT ELECTRICAL CONNECTION REQUIRED

GAS LINE REQUIRED

NOTE:COORDINATE & DISCUSS W/ ARCH & LANDSCAPE ARCH FOR LOCATIONS OF INTERIOR SWITCHES

EROSION / SEDIMENTATION CONTROL AND STORMWATER QUALITY MANAGEMENT NOTES

THE OWNER/CONTRACTOR SHALL REMAIN RESPONSIBLE FOR THE CLEANUP OF ANY MUD OR DIRT THAT IS TRACKED ONTO STREETS OR PAVED AREAS, EVEN WITH THE INSTALLATION OF GRAVEL CONSTRUCTION ENTRANCES.

A SILT FENCE OR STRAW WATTLE DIKE SHALL BE INSTALLED ALONG THE DOWN SLOPE EDGE OF THE DISTURBED AREA, PRIOR TO THE COMMENCEMENT OF GRADING. THE SEDIMENT FILTER STRUCTURES WILL BE LOCATED SO THAT ALL RUNOFF FROM THE CONSTRUCTION SITE IS FILTERED, OR PASSES THROUGH A SEDIMENT DETENTION BASIN PRIOR TO CROSSING A PROPERTY LINE, ENTERING A CREEK OR ENTERING A STORM DRAIN SYSTEM. SILT FENCES AND STRAW WATTLES SHALL BE INSTALLED ACCORDING TO THE LATEST EDITION OF *THE ASSOCIATION OF BAY AREA GOVERNMENTS MANUAL OF STANDARDS FOR EROSION AND SEDIMENT CONTROL PLANS.*

THE INSTALLATION OF EROSION CONTROL BLANKETS SHOULD BE CONSIDERED FOR ALL DISTURBED SLOPES STEEPER THAN 2.5H:1V AND GREATER THAN 20 FEET IN SLOPE LENGTH. INSTALLATION OF STRAW WATTLES STAKED ON CONTOUR SHOULD BE CONSIDERED FOR ALL SLOPES STEEPER THAN 4H:1V, WITH SLOPE LENGTHS GREATER THAN 30 FEET.

THE EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE AND BE MAINTAINED IN GOOD CONDITION UNTIL ALL DISTURBED SOIL AREAS ARE PERMANENTLY STABILIZED BY INSTALLATION AND ESTABLISHMENT OF LANDSCAPING, GRASS, MULCHING, OR ARE OTHERWISE COVERED AND PROTECTED FROM EROSION.

GRADING NOTES

1. ALL GRADING SHALL CONFORM IN ACCORDANCE WITH LOCAL ORDINANCES AND ALL OTHER STANDARDS PERTAINING THERETO.

2. ALL SURFACE VEGETATION SHALL BE REMOVED FROM THE SITE PRIOR TO START OF GRADING OPERATIONS. TREES OR SHRUBS INDICATED ON THE PLANS TO REMAIN SHALL BE PROTECTED IN PLACE. ATTENTION SHALL BE GIVEN TO REMOVING ROOT STRUCTURES OF LARGER PLANTS. CAVITIES FROM WHICH PLANTS WERE REMOVED SHALL BE CLEANED OF DEBRIS AND RECOMPACTED.

3. GENERAL CONTRACTOR SHALL REMOVE ALL TOPSOIL FROM AREA TO BE GRADED WHERE FEASIBLE; TOPSOIL SHALL BE STOCKPILED FOR LATER USE. SURPLUS EXCAVATED SOIL, IF FREE OF EXCESSIVE ROCK, SHALL LIKEWISE BE STOCKPILED FOR LANDSCAPE FILL USE. AFTER ROUGH GRADING OPERATIONS ARE COMPLETE THE TOPSOIL SHALL BE EVENLY REDISTRIBUTED OVER THE SITE, IF FEASIBLE. PRIOR TO REDISTRIBUTION, THE ROUGH GRADE SHALL BE RIPPED IN ORDER TO PROVIDE A MIXING OF TOPSOIL WITH SUBSOIL.

4. ALL SURFACE DRAINAGE SHALL BE AS INDICATED ON THE PLANS. POSITIVE DRAINAGE SHALL BE PROVIDED AWAY FROM BUILDINGS AT MIN. 1% SLOPE.

5. GRADING PLAN INDICATES 0.5% MINIMUM SLOPE TOWARD ALL DRAIN INLETS. DRAIN PIPE SHALL HAVE A 2% MINIMUM SLOPE.

6. ALL DRAINAGE EQUIPMENT AND FACILITIES SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

7. AT ALL DRAIN PIPE INTERSECTIONS NOT INTERSECTED BY A DRAIN INLET/CATCH BASIN SHALL BE INSTALLED WITH EITHER A CLEANOUT OR AT AN ANGLE OF INTERSECTION OF 45°.

8. ROUGH GRADING AND ADJOINING HARDSCAPE THAT INCLUDES RETAINING WALLS, FLATWORK AND ALL OTHER DRAINAGE FACILITIES OUTSIDE THE CONSTRUCTION AREA (BUILDINGS, DECKS, WALLS, ETC.) ARE THE RESPONSIBILITY OF THE CONCRETE CONTRACTOR. CONCRETE CONTRACTOR SHALL COORDINATE OPERATIONS TO FACILITATE LANDSCAPE WORK AND SHALL PROVIDE ROUGH GRADE WITHIN .10 FOOT OF FINISH GRADE INDICATED ON THE PLANS.

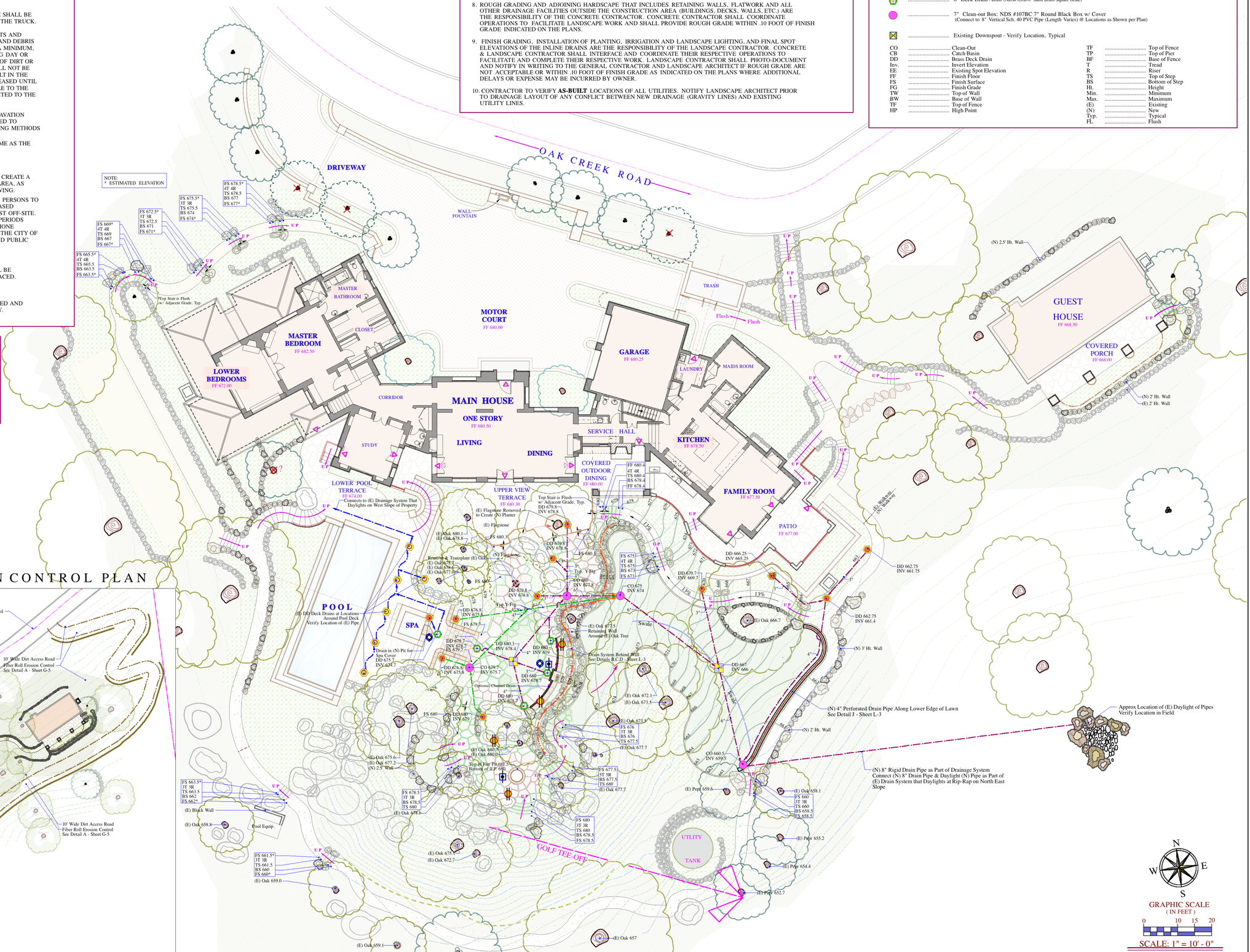
9. FINISH GRADING, INSTALLATION OF PLANTING, IRRIGATION AND LANDSCAPE LIGHTING, AND FINAL SPOT ELEVATIONS OF THE INLINE DRAINS ARE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. CONCRETE & LANDSCAPE CONTRACTOR SHALL INTERFACE AND COORDINATE THEIR RESPECTIVE OPERATIONS TO FACILITATE AND COMPLETE THEIR RESPECTIVE WORK. LANDSCAPE CONTRACTOR SHALL PHOTO-DOCUMENT AND NOTIFY IN WRITING TO THE GENERAL CONTRACTOR AND LANDSCAPE ARCHITECT IF ROUGH GRADE ARE NOT ACCEPTABLE OR WITHIN .10 FOOT OF FINISH GRADE AS INDICATED ON THE PLANS WHERE ADDITIONAL DELAYS OR EXPENSE MAY BE INCURRED BY OWNER.

10. CONTRACTOR TO VERIFY **AS-BUILT** LOCATIONS OF ALL UTILITIES. NOTIFY LANDSCAPE ARCHITECT PRIOR TO DRAINAGE LAYOUT OF ANY CONFLICT BETWEEN NEW DRAINAGE (GRAVITY LINES) AND EXISTING UTILITY LINES.

GRADING KEY

- SDR 35 PVC Storm Drain (3" to 8" Diameter - 24" Typ. Depth - 12" Min. Depth)
- (N) ADS Perforated French Drain Pipe @ Retaining Walls, Typical (Approximate Locations - Verify in Field)
- (N) ADS Perforated French Drain Pipe, Typical
- Direction of Surface Flow
- NDS 6" Atrium Drain Grate & Catch Basin (NDS#981B-9" Dome Black Plasti. Grate & NDS#900 or #900-4 Black Plast. C. Basin) (Requires either #1206, #1243, #1244, #1245 or #1266 Universal Outlet for each Opening)
- Existing Drain
- NDS 9" Drain Grate & Catch Basin (NDS#980B-9" Square Black Plastic Grate & NDS#900 or #900-4 Black Plastic Catch Basin) (Requires either #1206, #1243, #1244, #1245 or #1266 Universal Outlet for each Opening)
- NDS 12" Drain Grate & Catch Basin (NDS#1815-18" Square Galv. Steel Grate & NDS#1800 Black Plastic Catch Basin) (Requires either #1206, #1243, #1244, #1245 or #1266 Universal Outlet for each Opening)
- 9" Deck Drain - Brass (NDS#920B-9" Satin Brass Square Grate)
- 6" Deck Drain - Brass (NDS#920B-6" Satin Brass Square Grate)
- 7" Clean-out Box: NDS #107BC 7" Round Black Box w/ Cover (Connect to 8" Vertical Sch. 40 PVC Pipe (Length Varies) @ Locations as Shown per Plan)
- Existing Downspout - Verify Location, Typical

CO	Clean-Out	TF	Top of Fence
CB	Catch Basin	TP	Top of Pier
DD	Brass Deck Drain	BF	Base of Fence
Inv.	Invert Elevation	T	Tread
EE	Existing Spot Elevation	R	Riser
FF	Finish Floor	TS	Top of Step
FS	Finish Surface	BS	Bottom of Step
FG	Finish Grade	Ht.	Height
TW	Top of Wall	Min.	Minimum
BW	Base of Wall	Max.	Maximum
TF	Top of Fence	(E)	Existing
HP	High Point	(N)	New
		Typ.	Typical
		FL	Flush



ACCESS ROAD /EROSION CONTROL PLAN

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DATE: 11-15-2011

- ☐ PRELIMINARY
- ☐ AGENCY REVIEW
- ■ ISSUED FOR BIDDING
- ☐ ISSUED FOR CONSTRUCTION

GRADING & DRAINAGE PLAN

DRAINAGE & EROSION CONTROL PLANS

REVISIONS: DATE:

STAMP

REGISTERED LANDSCAPE ARCHITECT ROBERT ANDREW FOWLER 2698 Signature Date STATE OF CALIFORNIA

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A FIBER ROLLS

Limitations

- Runoff and erosion may occur if fiber roll is not adequately trenched in.
- Fiber rolls at the toe of slopes greater than 1:5 may require the use of 500 mm (20" diameter) or installations achieving the same protection (i.e., stacked smaller diameter fiber rolls, etc.).
- Fiber rolls may be used for drainage inlet protection if they can be properly anchored.
- Difficult to move once saturated.
- Fiber rolls could be transported by high flows if not properly staked and trenched in.
- Fiber rolls have limited sediment capture zone.
- Do not use fiber rolls on slopes subject to creep, slumping, or landslide.

Standards and Specifications

Fiber Roll Materials

- Fiber rolls shall be either:

  (1) Prefabricated rolls.

  (2) Rolled tubes of erosion control blanket.

Assembly of Field Rolled Fiber Roll

- Roll length of erosion control blanket into a tube of minimum 200 mm (8 in) diameter.
- Bind roll at each end and every 1.2 m (4 ft) along length of roll with jute-type twine.

Installation

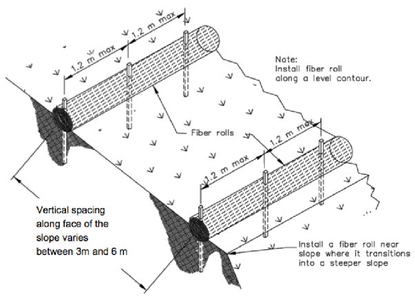
- Slope inclination of 1:4 or flatter: fiber rolls shall be placed on slopes 6.0 m apart.
- Slope inclination of 1:4 to 1:2: fiber rolls shall be placed on slopes 4.5 m apart.
- Slope inclination 1:2 or greater: fiber rolls shall be placed on slopes 3.0 m apart.
- Stake fiber rolls into a 50 to 100 mm (2 to 4 in) trench.
- Drive stakes at the end of each fiber roll and spaced 600 mm (2 ft) apart if Type 2 installation is used (refer to Page 4). Otherwise, space stakes 1.2 m (4 ft) maximum on center if installed as shown on Pages 5 and 6.
- Use wood stakes with a nominal classification of 19 by 19 mm (3/4 by 3/4 in), and minimum length of 600 mm (24 in).
- If more than one fiber roll is placed in a row, the rolls shall be overlapped; not abutted.

Removal

- Fiber rolls are typically left in place.
- If fiber rolls are removed, collect and dispose of sediment accumulation, and fill and compact holes, trenches, depressions or any other ground disturbance to blend with adjacent ground.

Maintenance and Inspection

- Repair or replace split, torn, unraveling, or slumping fiber rolls.
- Inspect fiber rolls when rain is forecast. Perform maintenance as needed or as required by the RE.
- Inspect fiber rolls following rainfall events and a least daily during prolonged rainfall. Perform maintenance as needed or as required by the RE.
- Maintain fiber rolls to provide an adequate sediment holding capacity. Sediment shall be removed when the sediment accumulation reaches three quarters (3/4) of the barrier height. Removed sediment shall be incorporated in the project at locations designated by the RE or disposed of outside the highway right-of-way in conformance with the Standard Specifications.



TYPICAL FIBER ROLL INSTALLATION
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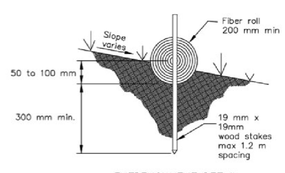

ENTRENCHMENT DETAIL
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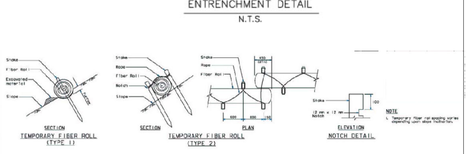
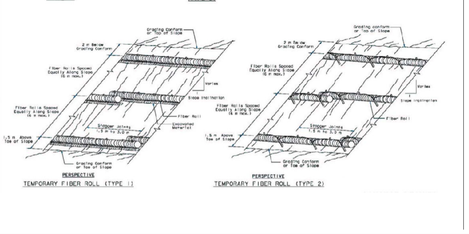
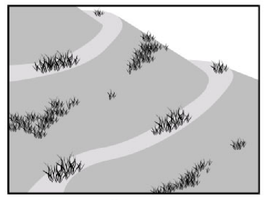
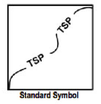




B HYDROSEEDING





Standard Symbol

BMP Objectives
- ● Soil Stabilization
- ○ Sediment Control
- ○ Tracking Control
- ● Wind Erosion Control
- ○ Non-Storm Water Management
- ○ Materials and Waste Management

Definition and Purpose

Hydroseeding typically consists of applying a mixture of wood fiber, seed, fertilizer, and stabilizing emulsion with hydro-mulch equipment, which temporarily protects exposed soils from erosion by water and wind. This is one of five temporary soil stabilization alternatives to consider.

Appropriate Applications

- Hydroseeding is applied on disturbed soil areas requiring temporary protection until permanent vegetation is established or disturbed soil areas that must be re-disturbed following an extended period of inactivity.

Limitations

- Hydroseeding may be used alone only when there is sufficient time in the season to ensure adequate vegetation establishment and erosion control. Otherwise, hydroseeding must be used in conjunction with a soil binder or mulching (i.e., straw mulch), refer to BMP SS-5, Table 1 for options.
- Steep slopes are difficult to protect with temporary seeding.
- Temporary seeding may not be appropriate in dry periods without supplemental irrigation.
- Temporary vegetation may have to be removed before permanent vegetation is applied.
- Temporary vegetation is not appropriate for short-term inactivity.

Standards and Specifications

To select appropriate hydroseeding mixtures, an evaluation of site conditions shall be performed with respect to:

- Soil conditions
- Site topography
- Season and climate
- Vegetation types
- Maintenance requirements
- Sensitive adjacent areas
- Water availability
- Plans for permanent vegetation

- Selection of hydroseeding mixtures shall be approved by the District Landscape Architect and the Construction Storm Water Coordinator.

The following steps shall be followed for implementation:

- Seed mix shall comply with the Standard Specifications Section 20-2.10, and the project's special provisions.
- Hydroseeding can be accomplished using a multiple-step or one-step process; refer to the special provisions for specified process. The multiple-step process ensures maximum direct contact of the seeds to soil. When the one-step process is used to apply the mixture of fiber, seed, etc., the seed rate shall be increased to compensate for all seeds not having direct contact with the soil.
- Prior to application, roughen the slope, fill area, or area to be seeded with the furrows trending along the contours. Rolling with a crimping or punching type roller or track walking is required on all slopes prior to hydroseeding. Track walking shall only be used where other methods are impractical.
- Apply a straw mulch to keep seeds in place and to moderate soil moisture and temperature until the seeds germinate and grow, refer to Standard Specifications Sections 20-2.06 and 20-3.03.
- All seeds shall be in conformance with the California State Seed Law of the Department of Agriculture. Each seed bag shall be delivered to the site sealed and clearly marked as to species, purity, percent germination, dealer's guarantee, and dates of test; provide the Resident Engineer (RE) with such documentation. The container shall be labeled to clearly reflect the amount of Pure Live Seed (PLS) contained. All legume seed shall be pellet-inoculated. Inoculant sources shall be species-specific and shall be applied at a rate of 2 kg of inoculant per 100 kg of seed (2-lb inoculant per 100-lb seed), refer to Standard Specifications Section 20-2.10.
- Commercial fertilizer shall conform to the requirements of the California Food and Agricultural Code. Fertilizer shall be pelleted or granular form.
- Follow-up applications shall be made as needed to cover weak spots, and to maintain adequate soil protection.
- Avoid over-spray onto the traveled way, sidewalks, lined drainage channels, and existing vegetation.

Maintenance and Inspection

- All seeded areas shall be inspected for failures and re-seeded, fertilized, and mulched within the planting season, using not less than half the original application rates. Any temporary revegetation efforts that do not provide adequate cover must be reapplied at a scheduled recommended by the Caltrans Landscape Architect or RE.
- After any rainfall event, the Contractor is responsible for maintaining all slopes to prevent erosion.

C HYDRAULIC MULCH

Definition and Purpose

Hydraulic mulch consists of applying a mixture of shredded wood fiber or a hydraulic matrix and a stabilizing emulsion or tackifier with hydroseeding equipment, which temporarily protects exposed soil from erosion by raindrop impact or wind. This is one of five temporary soil stabilization alternatives to consider.

Appropriate Applications

- Hydraulic mulch is applied to disturbed areas requiring temporary protection until permanent vegetation is established or disturbed areas that must re-disturbed following an extended period of inactivity.

Limitations

- Wood fiber hydraulic mulches are generally short-lived (only last a part of a growing season) and need 24 hours to dry before rainfall occurs to be effective.
- Paper mulches are not permitted.
- Avoid use in areas where the mulch would be incompatible with immediate future earthwork activities and would have to be removed.

Standards and Specifications

- Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical.
- Hydraulic matrices require 24 hours to dry before rainfall occurs to be effective unless approved by the Resident Engineer.
- Avoid mulch over-spray onto the traveled way, sidewalks, lined drainage channels, and existing vegetation.
- Selection of hydraulic mulches by the Contractor must be approved by the Resident Engineer (RE) or Construction Storm Water Coordinator.
- Materials for wood fiber based hydraulic mulches and hydraulic matrices shall conform to Standard Specifications Section 20-2.07.
- Hydraulic Mulch
- Wood fiber mulch is a component of hydraulic applications. It is typically applied at the rate of 2,250 to 4,500 kilograms per hectare (kg/ha) (2,000 to 4,000 lb/ac) with 0-5% by weight of a stabilizing emulsion or tackifier (e.g., guar, psyllium, acrylic copolymer) and applied as a slurry. This type of mulch is manufactured from wood or wood waste from lumber mills or from urban sources. Specifications for wood fiber mulch can be found in Standard Specifications Sections 20-2.07 and 20-2.08.
- Hydraulic matrix is a combination of wood fiber mulch and a tackifier applied as a slurry. It is typically applied at the rate of 2,250 to 4,500 kilograms per hectare (kg/Ha) with 5-10% by weight of a stabilizing emulsion or tackifier (e.g., guar, psyllium, acrylic copolymer).
- Hydraulic Matrix

C HYDRAULIC MULCH

- Hydraulic Matrix
- Hydraulic matrix is a combination of wood fiber mulch and tackifier applied as a slurry. It is typically applied at the rate of 2,250 to 4,500 kg/ha with 5-10% by weight of a stabilizing emulsion or tackifier (e.g., guar, psyllium, acrylic copolymer).
- Bonded Fiber Matrix
- Bonded fiber matrix (BFM) is a hydraulically-applied system of fibers and adhesives that upon drying forms an erosion-resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,400 kg/ha to 4,500 kg/ha based on the manufacturer's recommendation. The biodegradable BFM is composed of materials that are 100% biodegradable. The binder in the BFM should also be biodegradable and should not dissolve or disperse upon re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during or immediately after rainfall if the soil is saturated. Depending on the product, BFMs require 12 to 24 hours to dry to become effective.

Maintenance and Inspections

- Maintain an unbroken, temporary mulched ground cover throughout the period of construction when the soils are not being reworked. Inspect before expected rain storms and repair any damaged ground cover and re-mulch exposed areas of bare soil.
- After any rainfall event, the Contractor is responsible for maintaining all slopes to prevent erosion.

D CONCRETE WASTE MANAGEMENT

Temporary Concrete Washout Facility (Type Below Grade)

- Temporary concrete washout facility Type "Below Grade" shall be constructed as shown on page 6, with a recommended minimum length and minimum width of 3m (10 ft). The quantity and volume shall be sufficient to contain all liquid and concrete waste generated by washout operations. The length and width of a facility may be increased, at the Contractor's expense, upon approval of the RE. Lath and flagging shall be commercial type.
- Plastic lining material shall be a minimum of 10-mil polyethylene sheeting and shall be free of holes, tears or other defects that compromise the impermeability of the material.
- The soil base shall be prepared free of rocks or other debris that may cause tears or holes in the plastic lining material.

Removal of Temporary Concrete Washout Facilities

- When temporary concrete washout facilities are no longer required for the work, as determined by the RE, the hardened concrete shall be removed and disposed of in conformance with the provisions in Standard Specifications Section 15-3.02. Disposal of PCC slurries or liquid waste shall be disposed of outside the highway right-of-way in conformance with provisions of Standard Specifications Section 7-1.13. Materials used to construct temporary concrete washout facilities shall become the property of the Contractor, shall be removed from the site of the work, and shall be disposed of outside the highway right-of-way in conformance with the provisions of the Standard Specifications, Section 7-1.13.
- Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities shall be backfilled and repaired in conformance with the provisions in Standard Specifications Section 15-1.02, "Preservation of Property."

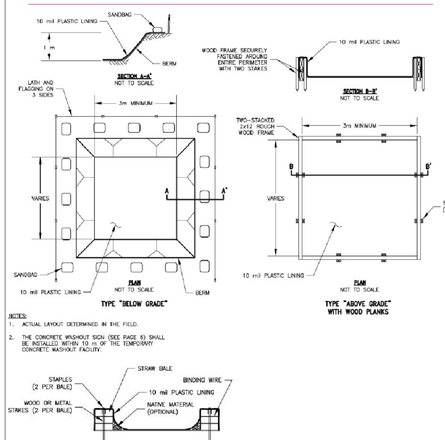
Maintenance and Inspection

- The Contractor's Water Pollution Control Manager (WPCM) shall monitor on site concrete waste storage and disposal procedures at least weekly or as directed by the RE.
- The WPCM shall monitor concrete working tasks, such as saw cutting, coring, grinding and grooving daily to ensure proper methods are employed or as directed by the RE.
- Temporary concrete washout facilities shall be constructed above grade or below grade at the option of the Contractor. Temporary concrete washout facilities shall be constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations.
- Temporary washout facilities shall have a temporary pit or bermed areas of sufficient volume to completely contain all liquid and waste concrete materials generated during washout procedures.
- Perform washout of concrete mixer trucks in designated areas only.
- Wash concrete only from mixer truck chutes into approved concrete washout facility. Washout may be collected in an impermeable bag for disposal.
- Pump excess concrete in concrete pump bin back into concrete mixer truck.
- Concrete washout from concrete pumper bins can be washed into concrete pumper trucks and discharged into designated washout area or properly disposed offsite.
- Once concrete wastes are washed into the designated area and allowed to harden, the concrete shall be broken up, removed, and disposed of per BMP WM-5, "Solid Waste Management", and in conformance with the provisions in Standard Specifications Section 15-3.02, "Removal Methods."

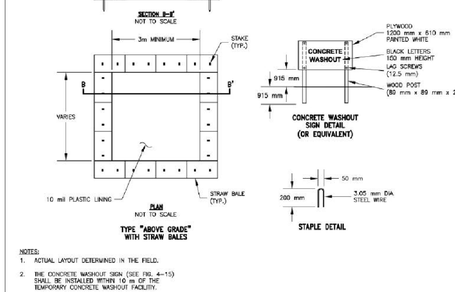
Temporary Concrete Washout Facility Type "Above Grade"

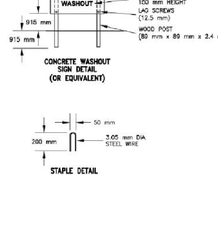
- Temporary concrete washout facility Type "Above Grade" shall be constructed as shown on Page 5 or 6, with a recommended minimum length and minimum width of 3 m (10 ft), but with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. The length and width of a facility may be increased, at the Contractor's expense, upon approval from the RE.
- Straw bales, wood stakes, and sandbag materials shall conform to the provisions in BMP SC-9, "Straw Bale Barrier."
- Plastic lining material shall be a minimum of 10-mil polyethylene sheeting and shall be free of holes, tears or other defects that compromise the impermeability of the material.
- Portable delineators shall conform to the provisions in Standard Specifications Section 12-3.04, "Portable Delineators.". The delineator bases shall be cemented to the pavement in the same manner as provided for cementing pavement markers to pavement in Standard Specifications Section 85-1.06, "Placement." Portable delineators shall be applied only to a clean, dry surface.
- Temporary concrete washout facilities shall be maintained to provide adequate holding capacity with a minimum freeboard of 100 mm (4 inches) for above grade facilities and 300 mm (12 inches) for below grade facilities. Maintaining temporary concrete washout facilities shall include removing and disposing of hardened concrete and returning the facilities to a functional condition. Hardened concrete materials shall be removed and disposed of in conformance with the provisions in Standard Specifications Section 15-3.02, "Removal Methods."
- Existing facilities must be cleaned, or new facilities must be constructed and ready for use once the washout is 75% full.
- Temporary concrete washout facilities shall be inspected for damage (i.e. tears in PVC liner, missing sand bags, etc.). Damaged facilities shall be repaired.

D CONCRETE WASTE MANAGEMENT



NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN (SEE PAGE 6) SHALL BE INSTALLED WITHIN 10 m OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

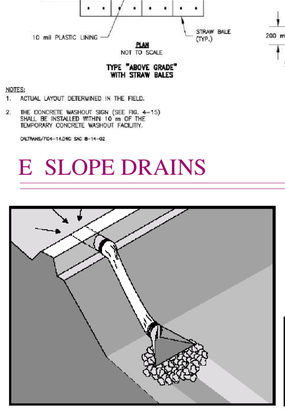




NOTES:
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN (SEE FIG. 4-15) SHALL BE INSTALLED WITHIN 10 m OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

CALTRANS/TCH-11JUNE 99C B-11-02

E SLOPE DRAINS



Standard Symbol

BMP Objectives
- ● Soil Stabilization
- ○ Sediment Control
- ○ Tracking Control
- ○ Wind Erosion Control
- ○ Non-Storm Water Management
- ○ Materials and Waste Management

Definition and Purpose

A slope drain is a pipe used to intercept and direct surface runoff or groundwater into a stabilized watercourse, trapping device or stabilized area. Slope drains are used with lined ditches to intercept and direct surface flow away from slope areas to protect cut or fill slopes.

Appropriate Applications

- Slope drains may be used on construction sites where slopes may be eroded by surface runoff.
- This BMP may be implemented on a project-by-project basis with other BMPs when determined necessary and feasible by the Resident Engineer (RE).

Limitations

- Severe erosion may result when slope drains fail by overtopping, piping, or pipe separation.

Standards and Specifications

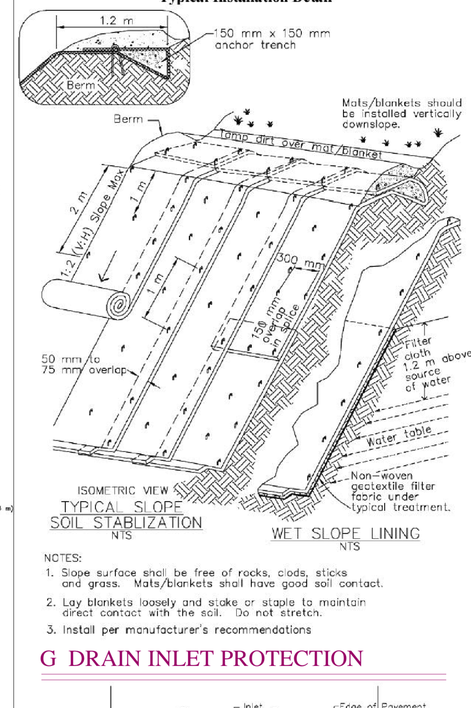
- When using slope drains, limit drainage area to 4 ha (10 ac) per pipe. For larger areas, use a rock-lined channel or a series of pipes.
- Maximum slope generally limited to 1:2 (V:H), as energy dissipation below steeper slopes is difficult.
- Direct surface runoff to slope drains with interceptor dikes. See BMP SS-8, "Earth Dikes/Drainage Swales, and Lined Ditches."
- Slope drains can be placed on or buried underneath the slope surface.
- Recommended materials are PVC, ABS, or comparable pipe.
- When installing slope drains:
  - Install slope drains perpendicular to slope contours.
  - Compact soil around and under entrance, outlet, and along length of pipe.
  - Securely anchor and stabilize pipe and appurtenances into soil.
  - Check to ensure that pipe connections are water tight.
  - Protect area around inlet with filter cloth. Protect outlet with riprap or other energy dissipation device. For high energy discharges, reinforce riprap with concrete or use reinforced concrete device.
  - Protect inlet and outlet of slope drains; use standard flared end section a entrance and exit for pipe slope drains 300 mm (12in) and larger.

Maintenance and Inspection

- Inspect before and after each rain storm, and twice monthly until the tributary drainage area has been stabilized. Follow routine inspection procedures for inlets thereafter.
- Inspect outlet for erosion and downstream scour. If eroded, repair damage and install additional energy dissipation measures. If downstream scour is occurring, it may be necessary to reduce flows being discharged into the channel unless other preventative measures are implemented.
- Inspect slope drainage for accumulations of debris and sediment.
- Remove built-up sediment from entrances, outlets, and within drains as required.
- Make sure water is not ponding onto inappropriate areas (e.g., active traffic lanes, material storage areas, etc.).

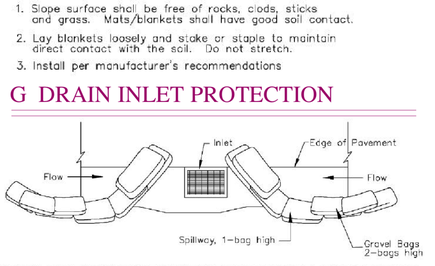
F JUTE NEEDING

Typical Installation Detail

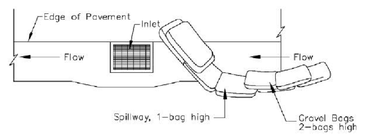


NOTES:
1. Slope surface shall be free of rocks, clods, sticks and grass. Mats/blankets shall have good soil contact.
2. Lay blankets loosely and stake or staple to maintain direct contact with the soil. Do not stretch.
3. Install per manufacturer's recommendations

G DRAIN INLET PROTECTION



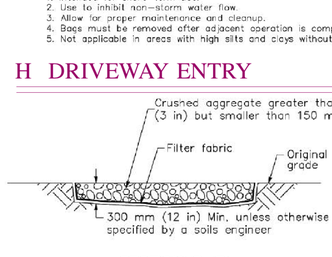
TYPICAL PROTECTION FOR INLET WITH OPPOSING FLOW DIRECTIONS



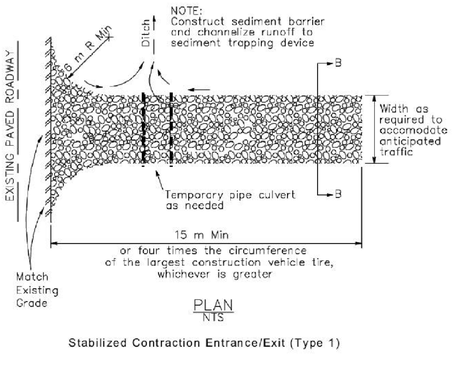
TYPICAL PROTECTION FOR INLET WITH SINGLE FLOW DIRECTION

NOTES:
1. Intended for short-term use.
2. Use to inhibit non-storm water flow.
3. Allow for proper maintenance and cleanup.
4. Bags must be removed after adjacent operation is completed
5. Not applicable in areas with high silts and clays without filter fabric.

H DRIVEWAY ENTRY



SECTION B-B
NTS



PLAN
NTS

Stabilized Contraction Entrance/Exit (Type 1)

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DATE: 11-15-2011
- ☐ PRELIMINARY
- ☐ AGENCY REVIEW
- ■ ISSUED FOR BIDDING
- ☐ ISSUED FORCONSTRUCTION

GRADING & DRAINAGE PLAN

DRAINAGE & EROSION CONTROL DETAILS

REVISIONS: DATE:

STAMP

REGISTERED LANDSCAPE ARCHITECT — ROBERT ANDREW FOWLER — No. 2698 — Signature — Date — STATE OF CALIFORNIA

PROJECT / OWNER:

TIM & BERNIE MARQUEZ RESIDENCE
1379 Oak Creek Canyon Road ~ Montecito, California 93108
APN: 011-280-31 & 32

DRAWING:
DRAINAGE & EROSION CONTROL DETAILS

JOB #: RF11-03
CADD BY: R.A. Fowler
DATE: 12 / 31 / 2011

SHEET
G-5
5 OF 15

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DEMOLITION KEY

11 — **(N) MOTORCOURT PLANTING AREA – REMOVE (E) COBBLE PAVING & ADD PLTG. & IRRIG. AS SHOWN**
- SEE PLANTING, IRRIGATION & LIGHTING PLANS FOR ADDITIONAL INFORMATION UPDATES

44 — **(E) ACCENT PLANTINGS /SUCCULENTS - TO BE TRANSPLANTED**
- L. CONT.R. SHALL COORDINATE w/ L. ARCH. TO IDENTIFY UNDERSTORY PLANTS TO BE TRANSPLANTED
- LANDSCAPE CONTRACTOR SHALL STOCKPILE & MAINTAIN PLANTS UNTIL READY FOR REPLANTING

46 — **(N) PLANTER IN (E) FLAGSTONE PAVING AREA**
- REMOVE/JACHAMMER (E) STONE PAVING AS SHOWN – REUSE STONE WHERE POSSIBLE
- CONTRACTOR TO PROVIDE STUBOUTS TO CONNECT TO: (E)/(N) Drain Lines, Irrigation & Lighting

53 — **(E) NATIVE SITE BOULDER - REMOVE PORTIONS - AS DIRECTED BY LANDSCAPE ARCHITECT**
- REMOVE (JACKHAMMER) PORTION AS NEEDED TO ACCOMMODATE (N) CONSTRUCTION
- COORDINATE w/ LANDSCAPE ARCHITECT TO DISCUSS DETAILS OF ROCK REMOVAL & RESHAPING

54 — **(E) STONE STEPWAY - TO BE REMOVED**
- DEMOLISH & REMOVE DEBRIS FROM SITE – REUSE STONE WHERE POSSIBLE

55 — **(E) STONE TERRACE / WALKWAY - TO BE REMOVED**
- DEMOLISH & REMOVE DEBRIS FROM SITE – REUSE STONE WHERE POSSIBLE

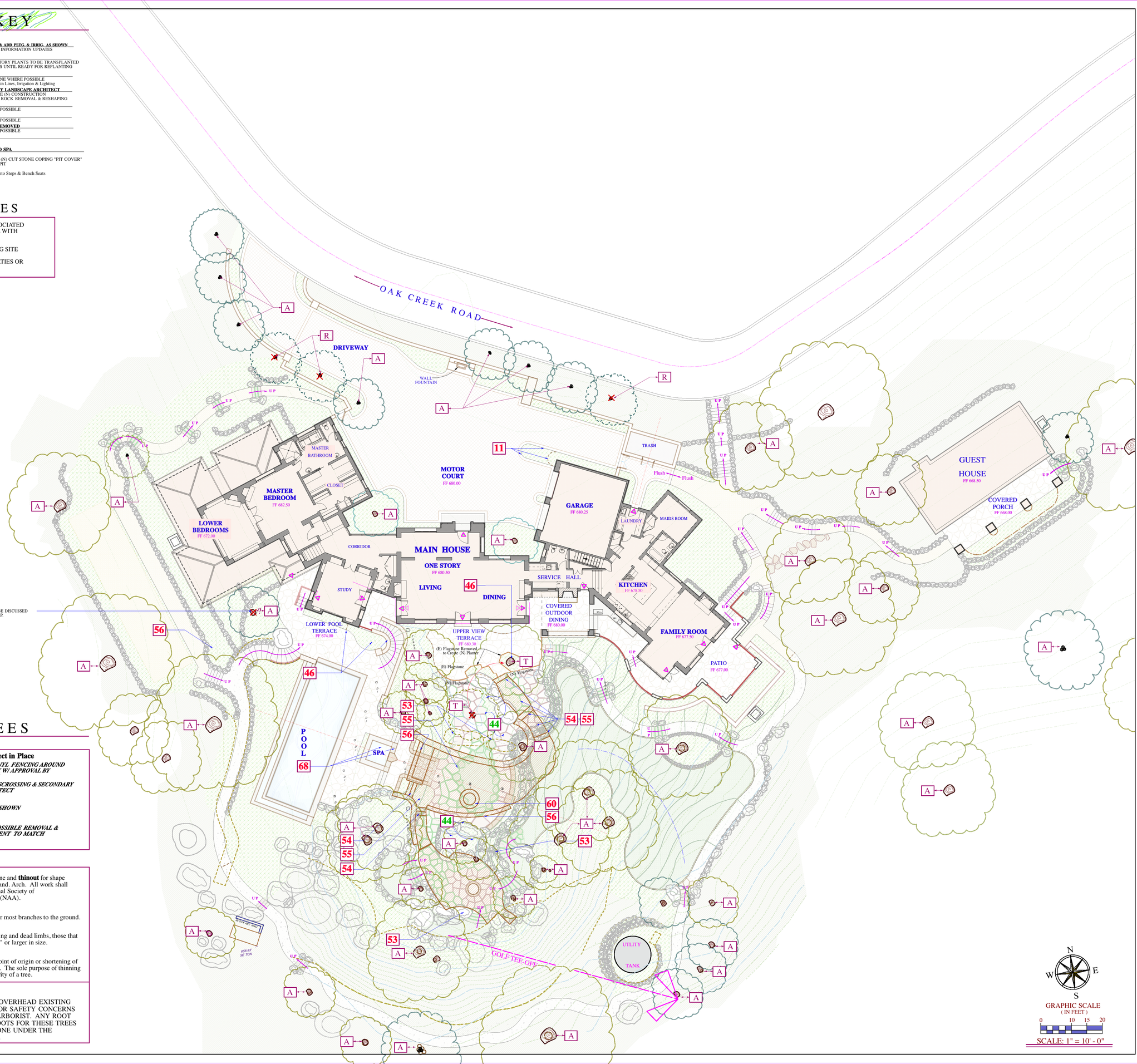
56 — **(E) STONE SEAT-WALL w/ STONE CAP or COBBLE WALL - TO BE REMOVED**
- DEMOLISH & REMOVE DEBRIS FROM SITE – REUSE STONE WHERE POSSIBLE

60 — **(E) FIREPIT - TO BE REMOVED**
- DEMOLISH & REMOVE DEBRIS FROM SITE

68 — **(N) PLASTER REFINISH & (N) AUTOMATIC COVER @ (E) RAISED SPA**
- ±6' - 8" SQUARE (Verify Final Dimensions)
- INSTALL (N) AUTOMATIC SPA COVER - To Match (E) Pool Cover w/ (N) CUT STONE COPING "PIT COVER"
- REMOVE & REPLACE (E) CUT STONE COPING @ (N) SPA COVER PIT
- REFINISH w/ 'PEBBLE SHEEN' or 'PEBBLE FINA' FINISH
- OWNER'S OPTION: ADD 'GEMZ' - 'AEGEAN SEA' TILE ACCENTS onto Steps & Bench Seats

DEMOLITION NOTES

1. CONTRACTOR SHALL OBTAIN ALL PERMITS ASSOCIATED WITH DISPOSING OF ALL ITEMS IN ACCORDANCE WITH ALL LOCAL ORDINANCES & PROVISIONS
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SITE DURING REMOVAL SO THAT THE CONTRACTORS OPERATIONS DO NOT EFFECT ADJACENT PROPERTIES OR RIGHT OF WAYS.



EXISTING TREES

PROTECT IN PLACE

Existing Oak, Olive & Pepper Trees - Protect in Place

A — ** PROVIDE TEMPORARY PROTECTIVE ORANGE VINYL FENCING AROUND DRIP LINE OR NO CLOSER THEN 5' FROM TRUNK W/ APPROVAL BY PROJECT ARBORIST OR LANDSCAPE ARCHITECT*

A — ** PRUNE FOR SHAPE - REMOVE DEADWOOD, CRISSCROSSING & SECONDARY BRANCHES AS DIRECTED BY LANDSCAPE ARCHITECT*

T — ** TRANSPLANT (E) OAK TREE TO 9N LOCATION AS SHOWN PRUNE, FEED & WATER AS NEEDED*

R — ** DISCUSS WITH LANDSCAPE ARCHITECT FOR POSSIBLE REMOVAL & PROVIDE PRICE FOR FIELD GROWN REPLACEMENT TO MATCH ADJACENT EXISTING OLIVE TREE AS SHOWN*

FOR EXISTING TREES

A — Prune existing tree of **deadwood or dead** branchesand prune and **thinout** for shape and a "clean" appearance as per direction or approval by Land. Arch. All work shall conform to industry standards as setforth by the International Society of Arboriculture (ISA) and the National Arborist Association (NAA).

DRIPLINE:
Defined as the imaginary line extending from the ends of the outer most branches to the ground.

DEADWOOD:
Defined as the cleaning out or removing of broken , diseased, dying and dead limbs, those that cross or are weakly attached, those that are of low vigor and are 2" or larger in size.

THINOUT:
Defined as the selective pruning of live lateral branches ar their point of origin or shortening of a branch by cutting to a large enough to assume the terminal role. The sole purpose of thinning out the tree is to blance weight and/or to improve structural integrity of a tree.

NOTE: (RE: EXISTING CANOPY TREES)

OWNER/ CONTRACTOR TO DEADWOOD AND PRUNE OVERHEAD EXISTING TREE CANOPIES FOR AESTHETICS CONCERNS AND FOR SAFETY CONCERNS ON A TIMELY BASIS AS DIRECTED BY A CERTIFIED ARBORIST. ANY ROOT PRUNING OR CUTTING OF STRUCTURAL SUPPORT ROOTS FOR THESE TREES TO ACCOMMODATE NEW STRUCTURES SHALL BE DONE UNDER THE DIRECTION & APPROVAL OF A CERTIFIED ARBORIST.

GRAPHIC SCALE (IN FEET)
0 10 15 20
SCALE: 1" = 10' - 0"

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DATE: 11-15-2011
- ☐ PRELIMINARY
- ☐ AGENCY REVIEW
- ■ ISSUED FOR BIDDING
- ☐ ISSUED FOR CONSTRUCTION

HARDSCAPE
DEMOLITION PLAN
HARDSCAPE ~ LANDSCAPE PLANS

REVISIONS: DATE:

STAMP
REGISTERED LANDSCAPE ARCHITECT
ROBERT ANDREW FOWLER 2698
Signature
Date
STATE OF CALIFORNIA

PROJECT / OWNER:
TIM & BERNIE MARQUEZ RESIDENCE
1379 Oak Creek Canyon Road ~ Montecito, California 93108
APN: 011-280-31 & 32

DRAWING:
DEMOLITION PLAN

JOB #: RF11-03
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L-1
6 OF 15

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SITE PLAN LEGEND - REFER TO 3-D VIEW SNAPSHOTS ON SHEETS L-4 & L-5 TO ASSIST IN UNDERSTANDING OF OVERALL DESIGN INTENT

*** - *ADD ALTERNATE BID ITEM – CONTRACTOR SHALL PROVIDE SEPARATE PRICE TO ADD THIS ITEM AS AN ADDITIONAL COST TO OWNER*

1. **(E) FRONT DOOR DECORATIVE STONE LANDING**
2. **(E) STONE PIER w/ STONE CAP - ASHLAR**
   - PROTECT IN PLACE
   - "THREE RIVERS" or 'MULTI-COLOR SUNSET' – VERIFY MATERIAL NAME IN ORDER TO MATCH EXIST.
   - 'RANDOM ASHLAR' STYLE STONE PATTERN
3. **(E) STUCCO FREE-STANDING MASONRY SCREEN WALL w/ STONE CAP**
   - PROTECT IN PLACE
4. **(E) STONE COLUMN w/ STONE CAP - ASHLAR**
   - PROTECT IN PLACE
   - "THREE RIVERS" or 'MULTI-COLOR SUNSET' – VERIFY MATERIAL NAME IN ORDER TO MATCH EXIST.
   - 'RANDOM ASHLAR' STYLE STONE PATTERN
5. **(E) STUCCO MASONRY RETAINING WALL w/ STONE CAP**
   - PROTECT IN PLACE
6. **(E) STONE RETAINING WALL w/ STONE CAP - ASHLAR**
   - PROTECT IN PLACE
   - "THREE RIVERS" or 'MULTI-COLOR SUNSET' – VERIFY MATERIAL NAME IN ORDER TO MATCH EXIST.
   - 'RANDOM ASHLAR' STYLE STONE PATTERN
7. **(E) DRIVEWAY / MOTOR COURT– STONE COBBLE PAVING FIELD w/ PERIMETER STONE BAND**
   - PROTECT IN PLACE
8. **(E) UTILITY VEHICLE PARKING / WALKWAY PAVING**
   - STONE COBBLE PAVING FIELD w/ PERIMETER STONE BAND - MATCHES MOTORCOURT
   - PROTECT IN PLACE
9. **(E) WALL FOUNTAIN w/ DECORATIVE STONE BACKSPLASH**
   - PROTECT IN PLACE
10. **(N) UNDERSTORY UNDERSTORY PLANTINGS @ (E) MOTORCOURT PLANTING AREA**
    - INCORPORATE (E) PLANTINGS WORTH SAVING WHEREVER POSSIBLE
    - SEE PLANTING, IRRIGATION & LIGHTING PLANS FOR ADDITIONAL INFORMATION UPDATES
11. **(N) MOTORCOURT PLANTING AREA – REMOVE (E) COBBLE PAVING & ADD PLTG. & IRRIG. AS SHOWN**
    - INSTALL COBBLE PERIMETER BAND TO MATCH EXISTING @ ENLARGED PLANTING AREA
    - SEE PLANTING, IRRIGATION & LIGHTING PLANS FOR ADDITIONAL INFORMATION UPDATES
12. **(E) GARDEN GATES:**
    - RUSTIC WOOD PLANK w/ DECORATIVE IRON ACCENTS
    - PROTECT IN PLACE
13. **(E) TRASH ENCLOSURE – STUCCO MASONRY WALL w/ STONE CAP w/ GARDEN GATES**
    - PROTECT IN PLACE
14. **(E) FLAT – D. G. (DECOMPOSED GRANITE) PATHWAY w/ (E) VINYL HEADER EDGING**
    - PROTECT IN PLACE
15. **(E) RAMPED – D. G. (DECOMPOSED GRANITE) PATHWAY w/ (E) VINYL HEADER EDGING**
    - PROTECT IN PLACE
16. *** **(N) COBBLE EDGING - TO REPLACE (E) VINYL EDGING @ (E) D. G. PATHWAYS , Typical**
    - INSTALL (N) V. B. STONE COBBLE EDGE TO CONTAIN D. G. PAVING
    - APPLY +/- 1" (N) D. G. TOP REFRESH LAYER & INCORPORATE D. G. STABILIZER TO (E) D. G. PATHWAYS
    - D. G. STABILIZER & APPLICATION RATES by ***Stabilizer Solutions, Inc.*** @ www.stabilizersolutions.com
17. **(E) STONE STEPWAY - w/ ADJOINING HARDSCAPE**
    - PROTECT IN PLACE
18. **(E) STONE STEPWAY - w/ ADJOINING LANDSCAPING**
    - PROTECT IN PLACE
19. **(E) UNDERSTORY PLANTINGS**
    - PROTECT IN PLACE ~ INCORPORATE (E) PLANTINGS WORTH SAVING WHEREVER POSSIBLE
    - SEE PLANTING, IRRIGATION & LIGHTING PLANS FOR ADDITIONAL INFORMATION UPDATES
    - 'MULTI-COLOR SUNSET' – VERIFY MATERIAL NAME IN ORDER TO IDENTIFY UNDERSTORY PLANTS WORTH SAVING
20. **(E) COBBLE / BOULDER MIX RETAINING WALL**
    - PROTECT IN PLACE (≈**1' to 3'** HEIGHT)
21. **(E) COBBLE / BOULDER MIX RETAINING WALL**
    - PROTECT IN PLACE (≈**3 to 5'** HEIGHT)
22. **(N) GARDEN TERRACE AREA w/ DECOMPOSED GRANITE PAVING w/ STABILIZER**
    - 4" DEPTH - INSTALL IN 1" LIFTS
    - COMPACTED AS SHOWN PER PLAN, Typical
23. **(N) PEDESTRIAN PATHWAY w/ DECOMPOSED GRANITE PAVING w/ STABILIZER**
    - 4" DEPTH - DECORATIVE GRAVEL (3/8" 'Del-Rio' Gravel) or WALK-ON BARK (1/2" 'Sequoia - Walk-on')
    - **OPTION #1:** CONTAIN w/ (N) COBBLE EDGING, Typical
    - **OPTION #2:** CONTAIN w/ REDWOOD HEADERBOARD (DEDUCT ALTERNATE BID), Typical as follows:
      (1'-1"x 6" @ STRAIGHT SECTIONS – 2-1"x 6" @ CURVED SECTIONS – 3-1/2" x 6" @ TIGHT RADIUS CURVED SECTIONS)
24. **(N) PEDESTRIAN PATHWAY w/ DECORATIVE GRAVEL or WALK-ON BARK PAVING**
    - 4" DEPTH - DECORATIVE GRAVEL (3/8" 'Del-Rio' Gravel) or WALK-ON BARK (1/2" 'Sequoia - Walk-on')
    - **OPTION #1:** CONTAIN w/ (N) COBBLE EDGING, Typical
    - **OPTION #2:** CONTAIN w/ REDWOOD HEADERBOARD (DEDUCT ALTERNATE BID), Typical as follows:
      (1'-1"x 6" @ STRAIGHT SECTIONS – 2-1"x 6" @ CURVED SECTIONS – 3-1/2" x 6" @ TIGHT RADIUS CURVED SECTIONS)
25. **(N) STONE STEPS w/ ADJOINING LANDSCAPING** (H L-3)
    - CHEROKEE CREEK ~ CUT STONE SLABS - AS SHOWN PER PLAN
    - INCORPORATE ≈12" TREADS & 6" RISERS, Typ. (10" TREADS & 7.5" RISERS IF APPROVED BY L. ARCH.)
26. **(N) ANCHOR BOULDER @ (E) HARDSCAPE-LANDSCAPE ELEMENT** (H L-3 SIM.)
    - INSTALL (N) ≈2 x 3' up to ≈4' x 5' 'SANTA BARARA' SANDSTONE ANCHOR BOULDERS @ (E) STONE STEPS
    - PROTECT (E) STONE STEPWAY IN PLACE
27. **(N) STONE STEPWAY - w/ (N) ANCHOR BOULDERS** (H L-3)
    - CHEROKEE CREEK ~ CUT STONE SLABS - AS SHOWN PER PLAN
    - INCORPORATE ≈12" TREADS & 6" RISERS, Typ. (10" TREADS & 7.5" RISERS IF APPROVED BY L. ARCH.)
28. **(E) AIR CONDITIONING UNITS, TYPICAL**
    - PROTECT IN PLACE
    - SCREEN AS DIRECTED BY LANDSCAPE ARCHITECT
29. **(E) FLAGSTONE PAVING w/ GROUTED JOINTS @ REAR TERRACE**
    - CHEROKEE CREEK ~ FIVE-SIDED/ VARIED SIZES - AS SHOWN PER PLAN
    - PROTECT IN PLACE
30. **(E) STONE SEAT WALL w/ STONE CAP -ASHLAR**
    - PART OF ARCHITECT'S COVERED TERRACE - PROTECT IN PLACE
    - 18"-22" HT w/ STONE CAP
    - "THREE RIVERS" or 'MULTI-COLOR SUNSET' – VERIFY MATERIAL NAME IN ORDER TO MATCH EXIST.
    - 'RANDOM ASHLAR' STYLE STONE PATTERN
31. **(E) WROUGHT IRON HAND-RAIL /RAILING**
    - PROTECT IN PLACE
32. **(E) OUTDOOR BBQ / SINK / LIMESTONE COUNTERTOP**
    - PROTECT IN PLACE
33. **(E) OUTDOOR FIREPLACE w/ LIMESTONE HEARTH**
    - PROTECT IN PLACE
34. **(N) COBBLE / BOULDER GRAVITY RETAINING WALL** (E L-4) (B-D L-4 SIM.)
    - (≈**1' to 3'** HEIGHT w/ BATTER)
    - PRICE CONSTRUCTIONS OPTIONS 'A' - 'B' - 'C' - TO DISCUSS COSTS/BENEFITS WITH LAND. ARCHITECT
35. **(N) COBBLE / BOULDER GRAVITY RETAINING WALL** (E L-4) (B-D L-4 SIM.)
    - (≈**3' to 5'** HEIGHT w/ BATTER)
    - PRICE CONSTRUCTIONS OPTIONS 'A' - 'B' - 'C' - TO DISCUSS COSTS/BENEFITS WITH LAND. ARCHITECT
36. **(N) COBBLE / BOULDER TREE WELL RETAINING WALL** (E L-3) (B-D L-3 SIM.)
    - (≈**1' to 5'** HEIGHT VERTICAL TREE WELL/ WALL)
    - PRICE CONSTRUCTIONS OPTIONS 'A' - 'B' - 'C' - TO DISCUSS COSTS/BENEFITS WITH LAND. ARCHITECT
37. **(E) ROCK OUTCROP / NATIVE SITE BOULDER ACCENTS**
    - PROTECT IN PLACE
38. **(N) STONE VENEER STEPWAY OVER REINFORCED CONCRETE SLAB @ (N) STONE VENEER RET'G. WALL** (G L-3)
    - "THREE RIVERS", ETC.... – VERIFY MATERIAL NAME IN ORDER TO MATCH NEARBY (E) STONE STEPWAYS
    - TREADS & RISERS - TO MATCH NEARBY (E) STONE STEPWAYS (FIVE-SIDED RISERS – CANTILEVER TREADS)
    - INCORPORATE ≈12" TREADS & 6" RISERS, Typ. (10" TREADS & 7.5" RISERS IF APPROVED BY L. ARCH.)
39. **(N) STEPPING STONES**
    - CHEROKEE CREEK FLAGSTONES - 3" THICK- SIZES VARY 18" to 36" - MIN. SIZE 18" x 18"
    - WET-SET IN PLACE ON INDIVIDUAL 4" THICK MORTAR SETTING BED
40. **(N) CUT STONE / SHOW STRIP LAWN EDGING, Typical** (I L-3)
    - **OPTION #1:** EDGE w/ (N) CHEROKEE CREEK CUT STONE
      (SIZES VARY b/w ≈6" TO 18" LONG x 6" THICK, Typical)
    - **OPTION #2:** CONTAIN w/ REDWOOD HEADERBOARD (DEDUCT ALTERNATE BID), Typical as follows:
      (1'- 1"x 6" @ STRAIGHT SECTIONS – 2 - 1"x 6" @ CURVED SECTIONS - 3 - 1/2" x 6" @ TIGHT RADIUS CURVED SECTIONS)
41. **(N) FLAGSTONE PAVING w/ GROUTED JOINTS @ REAR TERRACE - MAIN CIRCULATION AREAS**
    - CHEROKEE CREEK – ≈3" THICK
    - FIVE-SIDED / VARIED SIZES AS SHOWN PER PLAN
    - MORTAR IN PLACE ON 4" THICK REINFORCED CONCRETE SLAB or WET-SET IN PLACE ON INDIVIDUAL CONC. PAD & CONNECT TO MAIN SLAB w/ EPOXY COATED STEEL AS NEEDED
    - 1"- 2" WIDE GROUTED JOINTS
    - COORDINATE w/ LAND. ARCHITECT TO DELINEATE (N) REINFORCED SLAB AREAS versus WET-SET AREAS
42. **(N) FLAGSTONE PAVING w/ DECOMPOSED GRANITE JOINTS**
    - CHEROKEE CREEK – 3" THICK
    - FIVE-SIDED / VARIED SIZES AS SHOWN PER PLAN
    - WET-SET IN PLACE ON INDIVIDUAL CONC. PAD
    - ≈ 3"-5" DECOMPOSED GRANITE JOINTS
43. **(N) FLAGSTONE PAVING w/ PLANTED JOINTS**
    - CHEROKEE CREEK – ≈3" THICK
    - FIVE-SIDED / VARIED SIZES AS SHOWN PER PLAN
    - WET-SET IN PLACE ON INDIVIDUAL CONC. PAD
    - ≈ 4"-6" PLANTED JOINTS
44. **(E) & (N) LANDSCAPING / SUCCULENTS - TO BE TRANSPLANTED**
    - L. CONTR. SHALL COORDINATE w/ L. ARCH. TO IDENTIFY UNDERSTORY PLANTS TO BE TRANSPLANTED
    - LANDSCAPE CONTRACTOR SHALL STOCKPILE & MAINTAIN PLANTS UNTIL READY FOR REPLANTING
45. **(N) TRANSPLANTED OAK**
    - ADD ALTERNATE BID ITEM: INSTALL OAK IN 56" DIAMETER PLANTER w/ (N) TREE GRATE
    - TREE GRATE - 56" DIAMETER BY 'NEENHAH' – MODEL: R-8848-1
    - AVAILABLE FROM: NPCO, Los Angeles (866) 765-0836) (WWW.NPCO.COM)
    - ALTERNATE BID ITEM: INSTALL (N) OAK IN 60" BOX – QUERCUS AGRIFOLIA (COAST LIVE OAK)
46. **(N) PLANTER IN (E) FLAGSTONE PAVING AREA**
    - REMOVE/JACHAMMER (E) STONE PAVING AS SHOWN ~ REUSE STONE WHERE POSSIBLE
    - CONTRACTOR TO PROVIDE STUBOUTS TO CONNECT TO (E)/(N) Drain Lines, Irrigation & Lighting
47. **(N) ORNAMENTAL UNDERSTORY PLANTINGS @ (E) or (N) SIDE & REAR YARD PLANTING AREA**
    - SEE PLANTING, IRRIGATION & LIGHTING PLANS FOR ADDITIONAL INFORMATION UPDATES
48. **(N) NATIVE / XERISCAPE UNDERSTORY PLANTINGS @ (E) or (N) SIDE & REAR YARD PLT'G AREA**
    - SEE PLANTING, IRRIGATION & LIGHTING PLANS FOR ADDITIONAL INFORMATION UPDATES
49. **(E) SPECIMEN OAK TREE GROVE**
    - PROTECT IN PLACE & CANOPY PRUNE FOR SHAPE AS DIRECTED BY LANDSCAPE ARCHITECT
    - ROOT CONSTRUCTION OPTIONS 'A' – 'B' – 'C' - TO DISCUSS COSTS/BENEFITS WITH LAND. ARCHITECT
50. **(N) SOD LAWN AREA**
    - SEE PLANTING, IRRIGATION & LIGHTING PLANS FOR ADDITIONAL INFORMATION UPDATES
51. **(N) PLANTED JOINTS @ (N) STONE STEPWAY**
    - ADJUST (N) SPRAY OR DRIP IRRIGATION SYSTEM TO IRRIGATE (N) STEPWAY PLANTING JOINTS
    - SEE PLANTING, IRRIGATION & LIGHTING PLANS FOR ADDITIONAL INFORMATION UPDATES
52. **(N) SUCCULENT PLANTINGS MIX @ (E) ROCK OUTCROP**
    - SEE PLANTING, IRRIGATION & LIGHTING PLANS FOR ADDITIONAL INFORMATION UPDATES
53. **(E) NATIVE SITE BOULDER - REMOVE PORTIONS - AS DIRECTED BY LANDSCAPE ARCHITECT**
    - REMOVE (JACKHAMMER) PORTIONS AS NEEDED TO ACCOMMODATE (N) CONSTRUCTION
    - COORDINATE w/ LANDSCAPE ARCHITECT TO DISCUSS DETAILS OF ROCK REMOVAL & RESHAPING
54. **(E) STONE STEPWAY - TO BE REMOVED**
    - DEMOLISH & REMOVE DEBRIS FROM SITE ~ REUSE STONE WHERE POSSIBLE
55. **(E) STONE TERRACE / WALKWAY - TO BE REMOVED**
    - DEMOLISH & REMOVE DEBRIS FROM SITE ~ REUSE STONE WHERE POSSIBLE
56. **(E) STONE SEAT WALL w/ STONE CAP or COBBLE WALL - TO BE REMOVED**
    - DEMOLISH & REMOVE DEBRIS FROM SITE ~ REUSE STONE WHERE POSSIBLE
57. **(N) STONE RETAINING WALL w/ STONE CAP ~ 5-SIDED**
    - 24" - 60" HT w/ STONE CAP 2"-3" THICK
    - "FIVE-SIDED" STYLE STONE PATTERN TO MATCH POOL & SPA WALL STONE VENEERS
58. **(E) STONE WALL w/ STONE CAP ~ 5-SIDED**
    - PROTECT IN PLACE
    - "FIVE-SIDED" STYLE STONE PATTERN
59. **(N) STONE SEATWALL w/ STONE CAP~ 5-SIDED** (A-D L-3)
    - 18"-24" HT w/ STONE CAP 2"-3" THICK ~ VERIFY IN FIELD w/ LANDSCAPE ARCHITECT
    - "THREE RIVERS' or 'MULTI-COLOR SUNSET ~ VERIFY MATERIAL NAME IN ORDER TO MATCH EXIST.
    - "FIVE-SIDED" STYLE STONE PATTERN TO MATCH POOL & SPA WALL STONE VENEERS
60. **(E) FIREPIT - TO BE REMOVED**
    - DEMOLISH & REMOVE DEBRIS FROM SITE
61. **(N) FIREPIT**
    - REROUTE (N) GAS LINE FROM (E) EXISTING FIREPIT LOCATION
62. **(N) GAS LOCATION STUBOUTS FOR FUTURE GAS HEATERS / LAMPS**
    - REROUTE (N) GAS LINE FROM (E) EXISTING FIREPIT TO (N) LOCATIONS AS SHOWN
63. **(N) SYNTHETIC TURF GOLF TEE-OFF AREA**
    - INSTALL SUBSTITUTE 'SYN-LAWN' 'SYNFESCUE PREMIUM 250' or 'ENVYLAWN' or EQUAL.
    - DEDUCT ALTERNATE BID ITEM: SUBSTITUTE 'SYN-TURF' w/ (N) SOD LAWN
64. **(E) UTILITY TANK**
    - PROTECT IN PLACE
    - LANDSCAPE SCREEN AS DIRECTED BY LANDSCAPE ARCHITECT
    - SEE PLANTING, IRRIGATION & LIGHTING PLANS FOR ADDITIONAL INFORMATION UPDATES
65. **(N) STONE PEDESTAL FOR GARDEN ART / FOCAL WATER FEATURE**
    - 'SANTA BARBARA STONE' ≈16" THICK x 16" SQUARE STONE PEDESTAL
    - SEE HARDSCAPE DETAILS
    - SECURE IN PLACE w/ MORTAR or STAINLESS STEEL ANCHOR BOLTS or AS DIRECTED BY LAND. ARCH.
66. **(N) FIRE / WATER EFFECTS** (F L-3)
    - 'ESSEX' FIREBOWL FROM *WWW.GRANZEFFECTSINC.COM*
    - PROVIDE & HARDWIRE 220V ELECTRICAL SOURCE
67. **(E) POOL EQUIPMENT**
    - PROTECT IN PLACE
68. **(N) PLASTER REFINISH & (N) AUTOMATIC COVER @ (E) RAISED SPA**
    - ≈6' - 8" SQUARE (Verify Final Dimensions)
    - INSTALL (N) AUTOMATIC SPA COVER - To Match (E) Pool Cover w/ (N) CUT STONE COPING 'PIT COVER'
    - REMOVE & REPLACE (E) CUT STONE COPING (N) SPA COVER PIT
    - REFINISH w/ 'PEBBLE SHEEN' or 'PEBBLE FINA' FINISH
    - OWNER'S OPTION: ADD 'GEMZ' - 'AEGEAN SEA' TILE ACCENTS onto Steps & Bench Seats
69. **(N) PLASTER REFINISH @ (E) SWIMMING POOL w/ AUTOMATIC COVER & INFINITY EDGE**
    - ≈15' - 0" WIDE x 46' - 0" LONG (Verify Final Dimensions)
    - REFINISH w/ 'PEBBLE SHEEN' or 'PEBBLE FINA' FINISH
    - OWNER'S OPTION: ADD 'GEMZ' - AEGEAN SEA' TILE ACCENTS onto Steps, Love Seat & 'Baja' Bench
70. **(N) LANDSCAPE ANCHOR BOULDERS, TYPICAL** (A L-3)
    - INSTALL AS SHOWN PER PLAN
    - (SIZES VARY: ≈4' x 5', 3' x 5', 4' x 4', 4' x 3' (Width x Length))
    - INSTALL FIRST & THEN BUILD UP SUPPORTING WALL, STEPS OR OUTCROP
71. **(N) FOCAL POINT GARDEN ART ACCENT FEATURE** (F L-3 SIM.)
    - SCULPTURE, GARDEN ART TO BE SELECTED BY OWNER / LANDSCAPE ARCHITECT
    - SET ON (N) 'SANTA BARBARA' STONE PEDESTAL (20" Square x 12" Tall) ~ SECURE IN PLACE in Conc. Fdn.
72. **(N) CERAMIC FOUNTAIN URN** (F L-3 SIM.)
    - SCULPTURE, GARDEN ART TO BE SELECTED BY OWNER / LANDSCAPE ARCHITECT
    - SET ON (N) 'SANTA BARBARA' STONE PEDESTAL (20" Square x 12" Tall) ~ SECURE IN PLACE in Conc. Fdn.
    - HARDWIRE TO 220V WATERPROOF GFI OUTLET
    - CONTRACTOR TO STUB-OUT FOR THE FOLLOWING:
    - Irrigation - 11/2" Sch. 80 PVC Sleeve ~ Lighting - 1" Electrical Conduit ~ Drainage - 3" Sch. 80 PVC Rigid Pipe
73. **(E) BOCCE BALL COURT - CONVERT TO CITRUS ORCHARD**
    - DEMOLISH & REMOVE DEBRIS FROM SITE ~ REUSE D.G. WHERE POSSIBLE
    - CONTRACTOR TO PROVIDE STUBOUTS - TO CONNECT TO (E) or (N) IRRIGATION
74. **(N) FRUIT TREE ORCHARD, TYPICAL**
    - CONTRACTOR TO PROVIDE STUBOUTS - TO CONNECT TO (E) or (N) DRAINAGE, IRRIGATION & LIGHTING
    - SEE PLANTING, IRRIGATION & LIGHTING PLANS FOR ADDITIONAL INFORMATION UPDATES

GENERAL CONSTRUCTION NOTES

NOTE:
SEE ARCHITECT'S OR CIVIL ENGINEER'S DRAWINGS AND COORDINATE HARDSCAPE W/ OVERALL DRAINAGE PATTERNS AND GRADE CHANGES/AS INDICATED BY BUILDING ARCHITECT OR CIVIL ENGINEER. (IE.- STEP LOCATIONS.). COORDINATE W/ LANDSCAPE ARCHITECT & VARIOUS TRADE CONTRACTORS FOR DESIGN INTENT OF SPOT ELEVATIONS, PAVING WARPING & GRADE CHANGES FOR HARDSCAPED AREAS.

GENERAL CONSTRUCTION / MASONRY NOTES

GENERAL
1. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE UNIFORM BUILDING CODE AND STANDARDS.
2. ALL FOOTINGS SHALL BE PLACED A MINIMUM OF 20" INTO UNDISTURBED NATURAL SOIL OR RECOMPACTED FILL.

CONCRETE
1. ALL CONCRETE SHALL BE HARDROCK WITH A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF F'C=2,500 PSI AND CONFORM TO ASTM C-94.
2. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS FOR MIXING, PLACING, FINISHING, CURING, AND PROTECTING CONCRETE. DO NOT POUR DURING UNFAVORABLE WEATHER CONDITIONS.
3. ALL CONCRETE SHALL BE PROPERLY CONSOLIDATED DURING PLACEMENT, ALL REINFORCING STEEL AND EMBEDDED ITEMS SHALL BE SECURELY TIED IN PLACE TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT.
4. ALL REINFORCING BARS SHALL BE FREE OF RUST, GREASE, MILL SCALE OR ANY MATERIAL, WHICH MIGHT AFFECT ITS BOND TO CONCRETE. ALL BAR BENDS SHALL BE MADE COLD.
5. ALL REINFORCING STEEL SHALL BE DEFORMED AND SHALL CONFORM TO ASTM A 615, MIN. 40 GRADE, (EXCEPT #6 BARS SHALL BE 60 GRADE.). BAR SPLICES SHALL BE MADE ONLY IN HORIZONTAL REINFORCING STEEL AND SHALL BE 36 BAR DIAMETERS.

MASONRY
1. ALL MASONRY WORK SHALL CONFORM TO CHAPTER 21 OF THE UNIFORM BLDG. CODE.
2. MORTAR PROPORTIONS SHALL CONFORM TO UBC TABLE 21-A, TYPE "S".
3. GROUT SHALL BE PROPERLY CONSOLIDATED BY "PUDDLING" OR MECHANICAL VIBRATORS. ALL REINFORCING STEEL AND EMBEDDED ITEMS SHALL BE PROPERLY SECURED IN POSITION PRIOR TO GROUTING.

CARPENTRY
1. ALL WOOD MEMBERS SHALL BE #1 DOUGLAS FIR (LARCH), SELECT EXPOSED, RESAWN, DENSE AND STAINED AS PER DETAILS.

stabilizer SOLUTIONS

Stabilizer Solutions, Inc.
205 S. 28th St.
Phoenix, AZ 85034
800-336-2468 (fax)602-225-5902
E-Mail: info@stabilizersolutions.com
Web: stabilizersolutions.com

SECTION 1

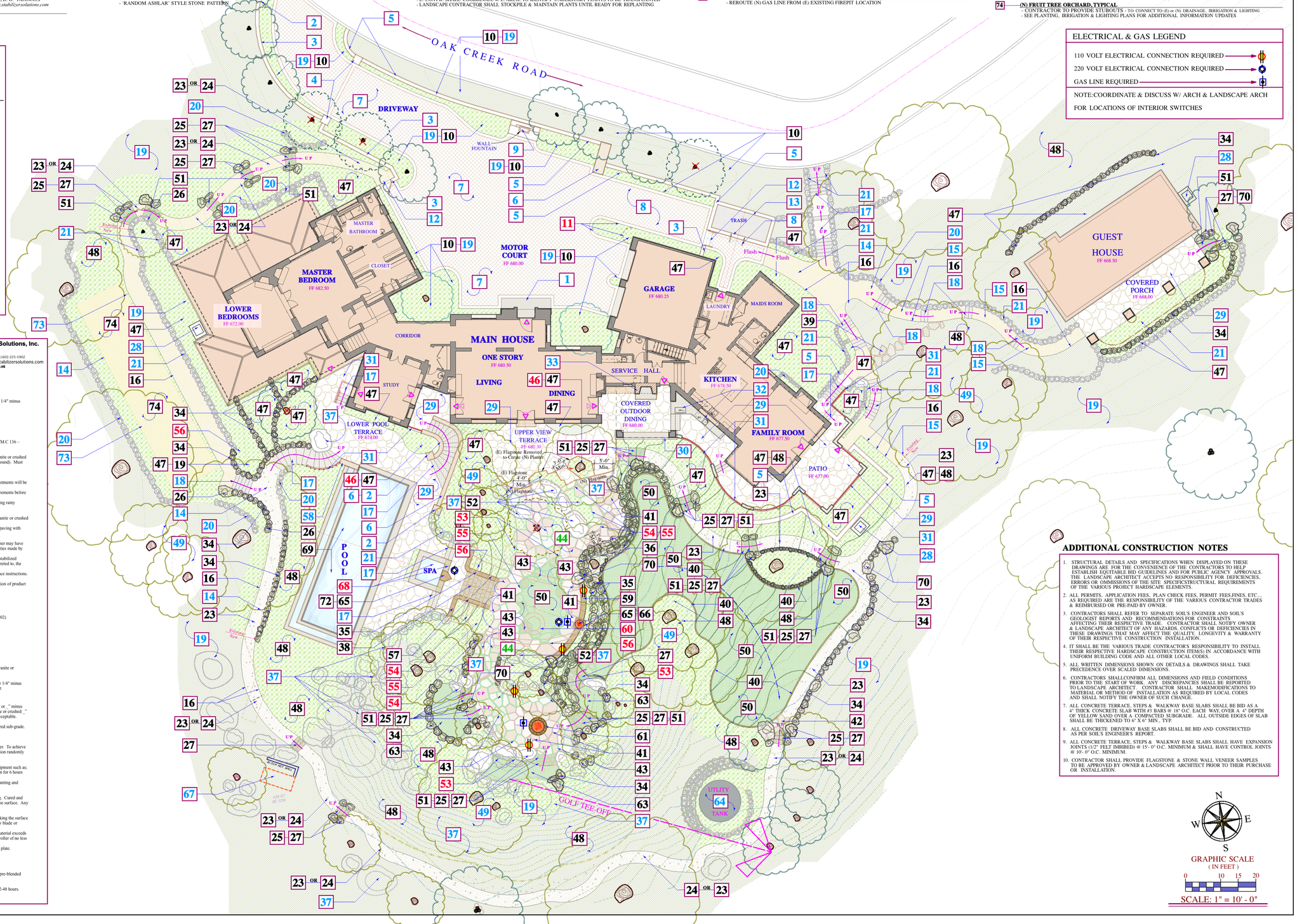
STABILIZED AGGREGATE PATHWAY

PART 1 - GENERAL
1.1 SUMMARY
A. This Section includes material and labor requirements for construction with Decomposed granite or crushed 3/8" or 1/4" minus aggregate paving with Stabilizer binder additive for the following items:
1. Stabilized aggregate pathway and patios
B. Related Sections:
1. Section 02100 – Site Preparation
2. Section 02200 – Earthwork
3. Section 02230 – Granular Materials
1.2 PERFORMANCE REQUIREMENTS
A. Perform gradation of decomposed granite material or 3/8" or 1/4" minus crushed aggregate in accordance with ASTM C 136 – Method for Sieve Analysis for Fine and Course.
1.3 SUBMITTALS
A. Products Data: For each product specified. Submit a 5 lb. sample and sieve analysis for grading of decomposed granite or crushed 3/8" or 1/4" minus aggregate to be sent to Stabilizer Solutions, Inc. prior to any construction – (allow 2 week turn around). Must be approved by Landscape Architect and owner.
B. Shop Drawings: Show details of installation, including plans and sections.
1.4 PROJECT/SITE CONDITIONS
A. Field Measurements: Each bidder is required to visit the site of the Work to verify the existing conditions. No adjustments will be made to the Contract Sum for variations in the existing conditions.
1. Where surfacing is indicated to fit with other construction, verify dimensions of other construction by field measurements before proceeding with the work.
B. Environmental Limitations: Do not install decomposed granite or crushed 3/8" or 1/4" minus aggregate paving during rainy conditions or below 40 degrees Fahrenheit and falling.
1.5 QUALITY ASSURANCE
A. Installer Qualifications: Installer to provide evidence to indicate successful experience in providing decomposed granite or crushed 3/8" or 1/4" minus aggregate paving containing Stabilizer binder additive
B. Mock-ups: Install 4 ft. wide x 10 ft. long mock-up of decomposed granite or 3/8" or 1/4" minus crushed aggregate paving with Stabilizer additive at location as directed by owner's representative.
1.6 WARRANTY
A. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.
B. Special Warranty: Submit a written warranty executed by the installer agreeing to repair or replace components of stabilized surfacing that fail in materials or workmanship within the specified warranty period. Failures include, but are not limited to, the following:
1. Premature wear and tear, provide the material is maintained in accordance with manufacturer's written maintenance instructions.
2. Failure of system to meet performance requirements.
C. Warranty Period: Contractor shall provide warranty for performance of product. Contractor shall warranty installation of product for the time of one year from completion.
D. Contractor shall provide, for a period of sixty days, unconditional maintenance and repairs as required.

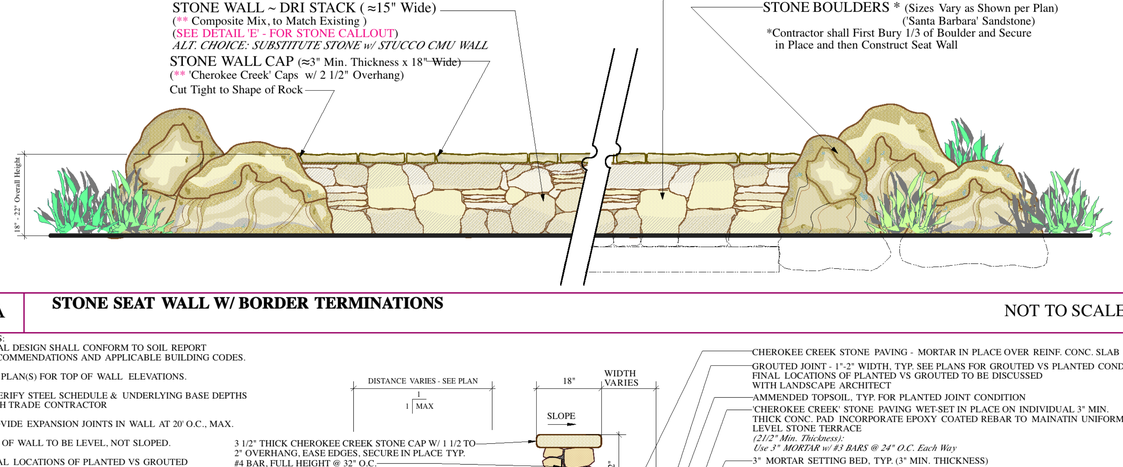
PART 2 - PRODUCTS
2.1 MANUFACTURERS
A. Stabilizer for crushed stone surfaces provided by the following manufacturer:
1. Stabilizer Solutions, Inc. 205 South 28th St., Phoenix, AZ 85034; phone (602) 225-5900, (800) 336-2468; fax (602) 225-5902; website stabilizersolutions.com; email lphubbs@stabilizersolutions.com
2.2 MATERIALS
A. Decomposed Granite or 3/8" or 1/4" crushed aggregate screenings
1. Crushed Stone Sieve Analysis Percentage of Weight Passing a Square Mesh Sieve AASHTO T11-82 and T27-82
1/4" MINUS AGGREGATE GRADATION
U.S. Sieve No. Percent Passing by Weight
3/8" 100; # 4 90 – 100; # 8 75 – 80; # 16 55 – 65; # 30 40 – 50; # 50 25 – 35; # 100 15 – 20; # 200 to 10 – 15
2. Acceptable local supplier list to be provided by Architect
B. Stabilized Binder
1. Patented, non-toxic, organic binder that is a colorless and odorless concentrated powder that binds decomposed granite or crushed 3/8" or 1/4" minus aggregate
2.3 EXCESS MATERIALS
A. Provide owner's authorized rep. With the following excess materials for use in future decomposed granite or 3/8" or 1/4" minus crushed aggregate paving repair: 40 to 50 lb. Bags of the aggregate paving blended with proper amount of Stabilizer.

PART 3 - EXECUTION
3.1 BLENDING STABILIZER
A. Blend 12 to 16 lbs (call manufacturer for exact blend) of Stabilizer per 1-ton of decomposed granite or crushed 3/8" or _" minus aggregate screenings. It is critical that Stabilizer be thoroughly and uniformly mixed throughout decomposed granite or crushed _" or 3/8" minus aggregate screenings. Bucket blending is not acceptable. Blending with a rake and or shovel is not acceptable.
3.2 PLACEMENT
A. After pre-blending, place the Stabilized decomposed aggregate or 3/8" or _" crushed aggregate screenings on prepared sub-grade. Level to desired grade and cross section.
B. Depth of pathways – 4" for heavy foot traffic and light vehicles.
3.3 WATERING
A. Water heavily to achieve full depth moisture penetration of the Stabilized pathway Profile. Water activates Stabilizer. To achieve saturation of Stabilized pathway Profile; 25 to 45 gallons of water per 1-ton must be applied. During water application randomly test for depth using a probing device to the final depth.
3.4 COMPACTION
A. Upon thorough moisture penetration, compact aggregate screenings to 85% relative compaction by compaction equipment such as; a 2 to 4-ton double drum roller or a 1,000 lb. Single drum roller with vibratory plate tamp. Do not begin compaction for 6 hours after placement and up to 48 hours.
B. Take care in compacting decomposed granite or crushed 3/8" or _" minus aggregate screenings when adjacent to planting and irrigation systems. Hand tamping with 8" or 10" hand tamp recommended
3.5 INSPECTION
A. Finished surface of pathway shall be smooth, uniform and solid. There shall be no evidence of chipping or cracking. Cured and compacted pathway shall be firm throughout profile with no spongy areas. Loose material shall not be present on the surface. Any significant irregularities in path surface shall be repaired to the uniformity of entire installation.
3.6 MAINTENANCE
A. Remove debris, such as paper, grass clippings, leaves or other organic material by mechanically blowing or hand raking the surface as needed. Any plowing program required during winter months shall involve the use of a rubber baffle on the plow blade or wheels on the plow that lifts the blade 1/4" off the paving surface.
B. During the first year, a minor amount of loose aggregate will appear on the paving surface (1/16" to 1/4"). If this material exceeds a 1/4", redistribute the material over the entire surface. Water thoroughly to the depth of 1". Compact with power roller of no less than 1000 lbs. This process should be repeated as needed.
C. If cracking occurs, simply sweep fines into the cracks, water thoroughly and hand tamp with an 8" – 10" hand tamp plate.
3.7 REPAIRS
A. Excavate damaged area to the depth of the Stabilized aggregate and square off sidewalls.
B. If area is dry, moisten damaged portion lightly.
C. Pre-bend the dry required amount of Stabilizer powder with the proper amount of aggregate in a concrete mixer.
D. Add water to the pre-blended aggregate and Stabilizer. Thoroughly moisten mix with 25 to 45 gallons per 1-ton of pre-blended material or to approximately 10% moisture content.
E. Apply moistened pre-blended aggregate to excavated area to finish grade.
F. Compact with an 8" to 10" hand tamp or 250 to 300 lb. roller. After repair is completed, keep traffic off areas for 12-48 hours.

END OF SECTION 1


OAK CREEK ROAD
DRIVEWAY
WALL FOUNTAIN
MOTOR COURT
FF 680.00
MASTER BEDROOM
FF 682.50
MASTER BATHROOM
CLOSET
LOWER BEDROOMS
FF 672.00
CORRIDOR
MAIN HOUSE
ONE STORY
FF 680.50
LIVING
DINING
STUDY
SERVICE HALL
GARAGE
FF 680.25
LAUNDRY
MAIDS ROOM
TRASH
KITCHEN
FF 674.50
COVERED OUTDOOR DINING
FF 680.00
FAMILY ROOM
FF 677.50
PATIO
FF 677.00
GUEST HOUSE
FF 668.50
COVERED PORCH
FF 668.00
LOWER POOL TERRACE
FF 674.00
UPPER VIEW TERRACE
FF 680.30
POOL
SPA
GOLF TEE-OFF
UTILITY TANK
64
(E) Flagstone Removed - to Create (N) Planter
(E) Flagstone 4'-0" Min.
(N) Flagstone
5'-0" Min.
(N) Flagstone
Existing Tree
Existing Tree to Remain
Existing Tree to be Removed
Existing Tree to be Removed
Existing Tree to be Removed

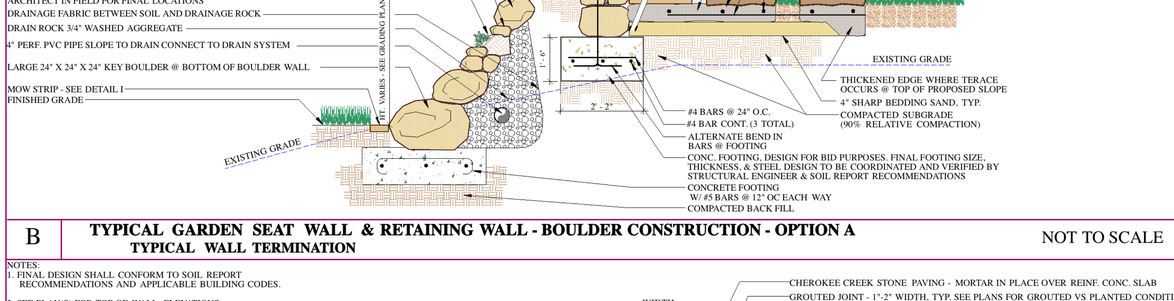
HARDSCAPE DETAILS



A STONE SEAT WALL W/ BORDER TERMINATIONS

NOT TO SCALE

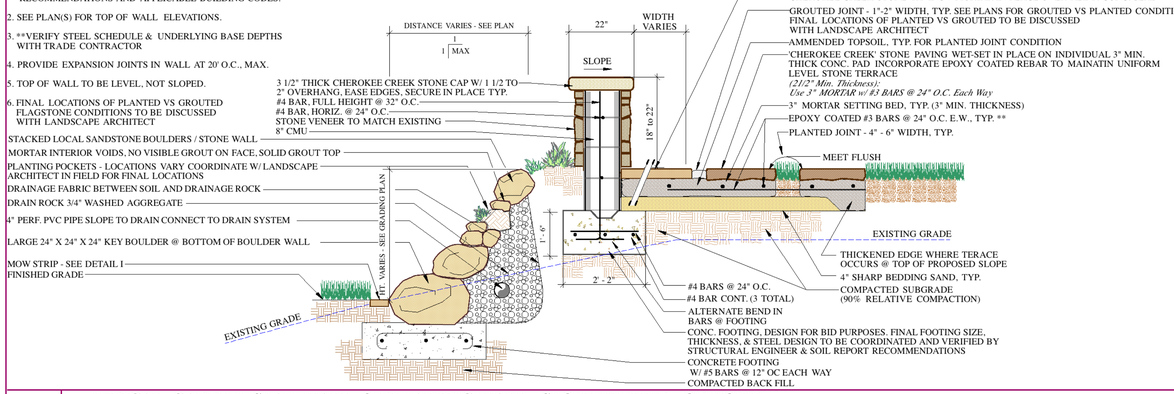
NOTES:
1. FINAL DESIGN SHALL CONFORM TO SOIL REPORT RECOMMENDATIONS AND APPLICABLE BUILDING CODES.
2. SEE PLAN(S) FOR TOP OF WALL ELEVATIONS.
3. **VERIFY STEEL SCHEDULE & UNDERLYING BASE DEPTHS WITH TRADE CONTRACTOR
4. PROVIDE EXPANSION JOINTS IN WALL AT 20' O.C., MAX.
5. TOP OF WALL TO BE LEVEL, NOT SLOPED.
6. FINAL LOCATIONS OF PLANTED VS GROUTED FLAGSTONE CONDITIONS TO BE DISCUSSED WITH LANDSCAPE ARCHITECT



B TYPICAL GARDEN SEAT WALL & RETAINING WALL - BOULDER CONSTRUCTION - OPTION A
TYPICAL WALL TERMINATION

NOT TO SCALE

NOTES:
1. FINAL DESIGN SHALL CONFORM TO SOIL REPORT RECOMMENDATIONS AND APPLICABLE BUILDING CODES.
2. SEE PLAN(S) FOR TOP OF WALL ELEVATIONS.
3. **VERIFY STEEL SCHEDULE & UNDERLYING BASE DEPTHS WITH TRADE CONTRACTOR
4. PROVIDE EXPANSION JOINTS IN WALL AT 20' O.C., MAX.
5. TOP OF WALL TO BE LEVEL, NOT SLOPED.
6. FINAL LOCATIONS OF PLANTED VS GROUTED FLAGSTONE CONDITIONS TO BE DISCUSSED WITH LANDSCAPE ARCHITECT



C TYPICAL GARDEN SEAT WALL & RETAINING WALL - STONE VENEER - OPTION B
TYPICAL WALL TERMINATION

NOT TO SCALE

NOTES:
1. FINAL DESIGN SHALL CONFORM TO SOIL REPORT RECOMMENDATIONS AND APPLICABLE BUILDING CODES.
2. SEE PLAN(S) FOR TOP OF WALL ELEVATIONS.
3. **VERIFY STEEL SCHEDULE & UNDERLYING BASE DEPTHS WITH TRADE CONTRACTOR
4. PROVIDE EXPANSION JOINTS IN WALL AT 20' O.C., MAX.
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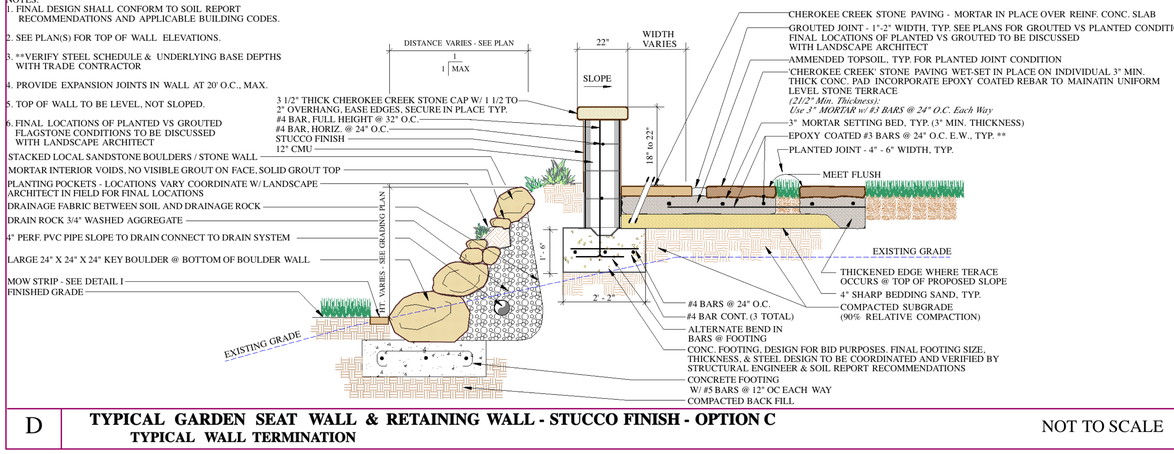
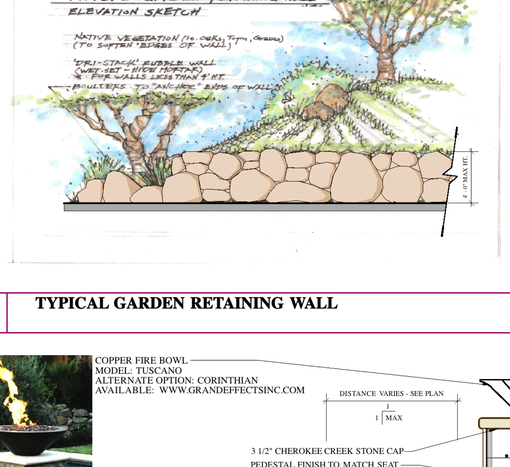
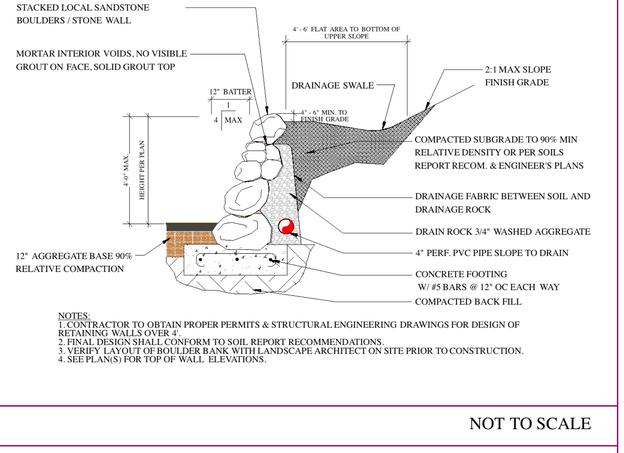


D TYPICAL GARDEN SEAT WALL & RETAINING WALL - STUCCO FINISH - OPTION C
TYPICAL WALL TERMINATION

NOT TO SCALE

ELEVATION



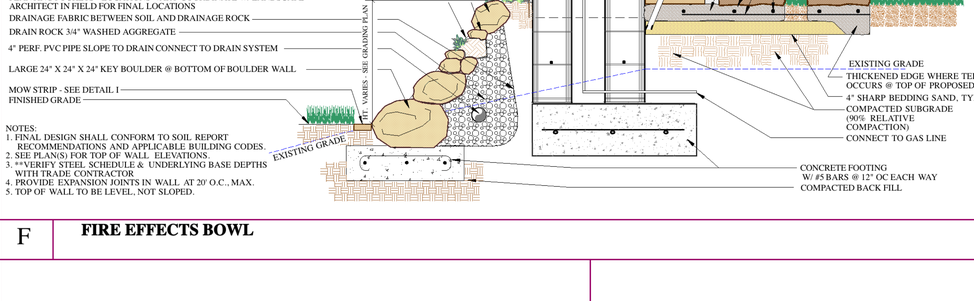


NOTES:
1. CONTRACTOR TO OBTAIN PROPER PERMITS & STRUCTURAL ENGINEERING DRAWINGS FOR DESIGN OF RETAINING WALLS OVER 4'.
2. FINAL DESIGN SHALL CONFORM TO SOIL REPORT RECOMMENDATIONS.
3. VERIFY LAYOUT OF BOULDER BANK WITH LANDSCAPE ARCHITECT ON SITE PRIOR TO CONSTRUCTION.
4. SEE PLAN(S) FOR TOP OF WALL ELEVATIONS.

E TYPICAL GARDEN RETAINING WALL

NOT TO SCALE

COPPER FIRE BOWL
MODEL: TUSCANO
ALTERNATE OPTION: CORINTHIAN
AVAILABLE: WWW.GRANDEFFECTSINC.COM



NOTES:
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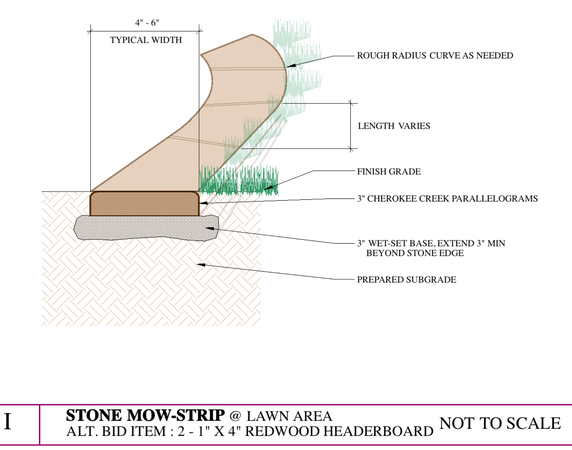
2. SEE PLAN(S) FOR TOP OF WALL ELEVATIONS.
3. **VERIFY STEEL SCHEDULE & UNDERLYING BASE DEPTHS WITH TRADE CONTRACTOR
4. PROVIDE EXPANSION JOINTS IN WALL AT 20' O.C., MAX.
5. TOP OF WALL TO BE LEVEL, NOT SLOPED.

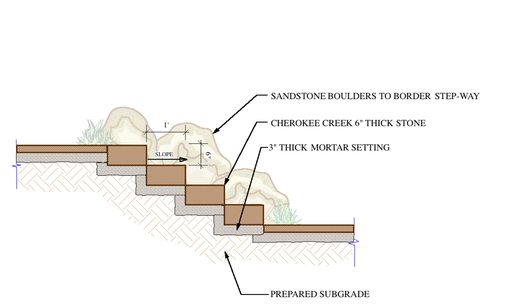
F FIRE EFFECTS BOWL

NOT TO SCALE



G STEP-WAY
CONC. SLAB W/ FLAGSTONE VENEER

NOT TO SCALE

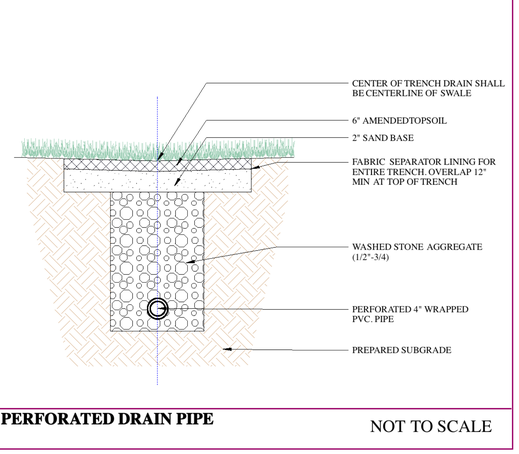


H STEP-WAY
WET-SET STONE ON GRADE

NOT TO SCALE

I STONE MOW-STRIP @ LAWN AREA
ALT. BID ITEM : 2 - 1" X 4" REDWOOD HEADERBOARD

NOT TO SCALE



J PERFORATED DRAIN PIPE

NOT TO SCALE

Robert Andrew Fowler
LANDSCAPE ARCHITECT
CA. LIC. #2698
315 WEST HALEY STREET #202
SANTA BARBARA, CA. 93101
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www.RAFLARCH.com
E-Mail:RAFLARCH@aol.com

DATE: 11-15-2011

- ☐ PRELIMINARY
- ☐ AGENCY REVIEW
- ■ ISSUED FOR BIDDING
- ☐ ISSUED FORCONSTRUCTION

HARDSCAPE
DETAILS & SPECIFICATIONS
HARDSCAPE ~ LANDSCAPE PLANS

REVISIONS: DATE:

STAMP

REGISTERED LANDSCAPE ARCHITECT
ROBERT ANDREW FOWLER 2698
Signature
Date
STATE OF CALIFORNIA

PROJECT / OWNER:
TIM & BERNIE MARQUEZ RESIDENCE
1379 Oak Creek Canyon Road ~ Montecito, California 93108
APN: 011-280-31 & 32

DRAWING:
HARDSCAPE DETAILS & SPECIFICATIONS

JOB #: RF11-03
CADD BY: R.A. Fowler
DATE: 12 / 31 / 2011

SHEET
L-3
8 OF 15

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PLANTING NOTES:

1. Prior to planting prepare existing on-site soil by rototilling to a depth of 12" with a 3" layer of Nitrogen fortified decomposed redwood, cedar or fir compost and 50 lbs. of Gro-Power Plus per 1000 Square Feet. Ammend planting holes with a mixture of two parts on-site soil with one part ammendment (Nitrogen fortified redwood shavings and 10 lbs. of Gro- Power Plus per cubic yard of backfill. Landscape Contractor must provide the Landscape Architect with Proof of Purchase of soil ammendments prior to Landscape Architect's approval for 50% progress payment.
2. All shrub and groundcover planting areas to be topdressed with a 2" depth of "Sequoia" Walk-on "Gorilla Hair" Redwood Bark. (Allott: Twelve Hundred Square Feet of 2" Depth Coverage)
3. ◇▷ : Symbol indicates those trees to to be installed with a root control barrier or root control panels by the Deep Root Corporation @ 1-714-898-0563 (or equal) per manufacturer's specifications and installation guidelines. **TOTAL:** = VERIFY ON PLANT LIST - FINAL NUMBER OF TREES NEEDING ROOT BARRIERS & INSTALLATION METHODOLOGY TO BE DISCUSSED WITH LANDSCAPE ARCHITECT.
4. Refer to Architect's and Engineer's Drawings for coordination of Site Improvements with proposed Landscape Architect designed Hardscape elements such as construction detailing and color, pattern and finishes, for walkways, rec area features, etc....
5. On all fill slopes with a gradient 4:1 or steeper and on all slopes with a gradient 3:1 or steeper, the Landscape Contractor shall install an acceptable erosion control device.(ie.-jute netting,etc...).
6. Final appearance of rough and finish grades as they pertain to the landscaping to be approved by the Landscape Architect. Landscape Contractor is to inspect the project site and notify the Landscape Architect and/or Owner in writing if water does not appear to drain from the trunk of each existing Tree to Remain and/or if all shrub planting areas appear not to have positive drainage or appear to have potential erosion problems.
7. (Alt.) Refers to alternate choices of plant materials listed for the benefit of the Owner to provide flexibility with suggested alternatives and as possible future container plants. Landscape Contractor shall not order nor plantalternates without Landscape Architect's approval.
8. The Plant List is provided for the convenience of the Landscape Contractor. In the event of a discrepancy between the Plan and the Plant List, the Plan shall supersede. Likewise, Lawn and Groundcover quantities when indicated are also provided for the convenience of the Landscape Contractor. The Landscape Contractor is responsible for complete coverage of the groundcover at the indicated required spacings.
9. Failure to notify or involve Robert Fowler & Associates with final plant locations by either the Owner or the Landscape Contractor shall absolve Robert Fowler & Associates of any liability for any problems due to improper plant selection or placement.
10. All plant material and patented plant material will not be accepted without nursery tags nor will any plant substitutions or alternates be accepted without the written permission of the Land. Arch.
11. Landscape Contractor to allow for provision of the following sizes of plants to be selected and located in field at time of planting per direction of Landscape Architect:
(7 Flats of 4" Annual/Perennial Color; 3 - 15 Gal. Plants; 7 - 5 Gal. Plants; 15 - 1 Gal. Plants)
12. Stepping Stones to be 'Cherokeee Creek' Flagstones (= 2' x 2' x 2" min. thickness) set on individual conc. pads for strength and for ease of leveling. Provide 4" planting space b/w stones.
13. Refer to Architect's Drawings & Sheet L-3 for construction detailing of Hardscape, as well as color, patterns and finishes, etc....
14. The intent of the Landscape Design is for the planting to emmulate and blend in with the "natural and random" appearance of the surrounding environs. Inherently, plant choices and their final locations may be adjusted in the field in an effort to allow the Owner & Landscape Architect flexibility in creating a landscape environment that blends into the surrounding neighborhood character and naturally emmulate surrounds.
15. All new lawn areas as shown per plan to be **'Garden Carpet' by Pacific Sod** @1-800-762-3027. Alternate Sod Choice: Southland's Marathon II.

SCOPE OF WORK

CONTRACTORS SHALL PROVIDE A SUBTOTAL FOR EACH PRIORITY AREA FOR ALL HARDSCAPE & LANDSCAPE IMPROVEMENTS IN THESE AREAS.

PRIORITY #1 - REAR TERRACE PROMENADE - Involves:
≈ 65% HARDSCAPE IMPROVEMENTS
≈ 35% LANDSCAPE IMPROVEMENTS

PRIORITY #1 - FRONT MOTORCOURT - Involves:
≈ 5% HARDSCAPE IMPROVEMENTS
≈ 95% LANDSCAPE IMPROVEMENTS

PRIORITY #2 - POOL AREA & WEST SIDE FRUIT TREE ORCHARD - Involves:
≈ 65% HARDSCAPE IMPROVEMENTS
≈ 35% LANDSCAPE IMPROVEMENTS

PRIORITY #2 - EAST SIDE PLANTERS b/w House & D. G. PATH - Involves:
≈ 100% LANDSCAPE IMPROVEMENTS

PRIORITY #3 - AREA IN FRONT OF GUEST HOUSE - Involves:
≈ 50% HARDSCAPE IMPROVEMENTS
≈ 50% LANDSCAPE IMPROVEMENTS

PRIORITY #3 - SOUTH SIDE CONNECTING PATHWAY & STEPS - Involves:
≈ 50% HARDSCAPE IMPROVEMENTS
≈ 50% LANDSCAPE IMPROVEMENTS

PRIORITY #3 - NORTHWEST SIDE CONNECTING PATH & STEPWAY - Involves:
≈ 60% HARDSCAPE IMPROVEMENTS
≈ 40% LANDSCAPE IMPROVEMENTS

PRIORITY #4 - AREA BEHIND GUEST HOUSE - Involves:
≈ 35% HARDSCAPE IMPROVEMENTS
≈ 65% LANDSCAPE IMPROVEMENTS

PRIORITY #4 - AREA ALONG STREET - Involves:
≈ 100% LANDSCAPE IMPROVEMENTS

PRIORITY #4 - AREA BETWEEN HOUSE & GUEST HOUSE- Involves:
≈ 2% HARDSCAPE IMPROVEMENTS
≈ 98% LANDSCAPE IMPROVEMENTS

POTTED PLANTING

–	4	–	–	–	–	Anigozanthos f. 'Hybrid Red' (Kangaroo Paw)- Varied Sizes with
			12			Echeveria 'Perle von Nurnberg' (Lavender-Blue) in T. C. Pot - Style 'F.1-C'
–	17	–	–	–	–	Mandevillea splendens (Mandevillea) with
			51			Bacopa monnieri (Water Hyssop) in T. C. Pot - Style 'F.1-B'
–	7	–	–	–	–	Astelia chathamica (Silver Spear) with
		14				Lamium m. 'Beacon Silver' (Spotted Nettle) in T. C. (Terra Cotta) Pot - Style 'F.1-A'
–	8	–	–	–	–	Cordyline x 'Jurred' (Festival Grass) with
1		16				Hedera h. Needlepoint' (Needlepoint Ivy) in Terra Cotta Pot - Style 'F.2-A/B'
		–	–	–	–	Arbutus unedo 'Compacta' (Compact Strawberry Tree) with
–	8	2	–	–	–	Hemerocallis 'Bitsy' (Dwrf Yellow) in Terra Cotta/Ceramic Pot - Style 'F.3'
		16				Agave 'Nova' (Blue Agave) with
1		–	–	–	–	Cissus rhombifolia 'Ellen Danica' (Grape Ivy) in Terra Cotta Pot - Style 'F.1-B'
						Euphorbia 'Sticks on Fire' (Sticks on Fire--Upright Succulents)
–	8	2	–	–	–	Kalanchoe thyrsiflora (Red-Tinged Flapjacks)in (E) Pot-Sim. to Style 'F.1-A' (=16"ø)
		16				Nassella tenuissima (Mexican Feather Grass) with
1	–	–	–	–	–	Rosa floribunda 'Sun Flare' (Shrub Rose-Yellow Flowers) with
		2				Sedum rubrotinctum (Porks & Beans) in (E) Pot-Sim. to Style 'F.1-A' (=24"ø)

AVILA'S GARDEN ART
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Fontana, CA 92335
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601-50th Ave
Oakland, CA 94601
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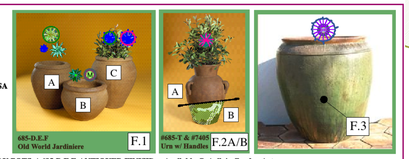
Fax (510)533-8190
2908 Adeline St
Berkeley, CA 94703
Tel: (510)549-3901
Fax: (510)540-6877



F.1 — **CLAY POTS (685-D.E.F. ANTIQUED FINISH) ~ Available @ Avila's Garden Art (Contractor To Provide Topsoil & Plants As Per Planting Plan) ('A': ≈24" HT. x 16" W; 'B: ≈18" HT. x 18" W; 'C': ≈30" HT. x 18" W)**

F.2A — **URN W/ HANDLES: F.2A ~ (#685-T ORIENTAL RUSTIC BROWN FINISH) ~ Available @ Avila's Garden Art (Contractor To Provide Topsoil & Plants As Per Planting Plan) ('C': ≈32" HT. x 18" W)**

F.2B — **RD JAR W/ HANDLES: F.2B ~ (#7405 ORIENTAL SEA FOAM GREEN) ~ Available @ AW Pottery USA (Contractor To Provide Topsoil & Plants As Per Planting Plan) ('C': ≈33" HT. x 19" W)**

F.3 — **DECORATIVE URNS w/ KEY - #7374-27" ORIENTAL SEA FOAM GREEN ~ Available @ AW Pottery USA (Contractor To Provide Topsoil & Plants As Per Planting Plan) (≈27" HT. x 24" W)**

E — **GARDEN ORNAMENTS - Owner's Options** — NOT TO SCALE

HARDSCAPE & GARDEN FURNITURE KEY

(Landscape Architect Suggested Locations & Guidelines for Optional Future Garden Ornaments/Furniture)

- **NEW POTTED PLANTINGS - Style 'F.1-A/B/C', Typical** (See Plant List for Plant Selection - See Plan for Pot Style Selection)
- **NEW POTTED PLANTINGS - Style 'F.2-A/B', Typical** (See Plant List for Plant Selection - See Plan for Pot Style Selection)
- **NEW POTTED PLANTINGS - Style 'F.3, Typical** (See Plant List for Plant Selection - See Plan for Pot Style Selection)
- **NEW FOUNTAIN URN on STONE PEDESTAL** (Water Feature - Complete Working Water Works by Hardscape Contractor)
- **NEW STONE PEDESTAL FOR GARDEN ART** (Install to Allow Access to Spa Cover Pit)
- **NEW "ADIRONDACK" HALF-CHAISE LOUNGE** *(Provided by Owner)*
- **NEW CHAISE LOUNGE** *(Provided by Owner)*
- **NEW OUTDOOR INDIVIDUAL SOFA ENSEMBLE** *(Provided by Owner)*
  - **~INDIVIDUAL SOFA CHAIRS - (30" x 30"Width)**
  - **~SIDE TABLE - (Teak or Ipe - 30" x 30")**
- **NEW DISTRESSED TEAK TABLE & CHAIRS** *(Provided by Owner)*
- **NEW DISTRESSED TEAK TABLE & CHAIRS - TWO TOP** *(Provided by Owner)*
- **NEW GAS STONE FIREPIT** *(Provide Gas Connection, Decorative Sand & Automatic Push Button Flame Accuator)*
- **NEW GAS FIRE BOWL** ~ 'ESSEX' by 'GRANDEFFECTSINC.COM' *(Provide Gas Connection, Decorative Glass & Automatic Push Button Flame Accuator)*
- **EXISTING OUTDOOR WOOD DINING TABLE & CHAIRS** *(Provided by Owner)*

GROUNDCOVERS

SYMBOL	2 Gal	1 Gal	4" Pot	Flat	(BOTANICAL NAME / COMMON NAME)	QUANTITY-SIZE
Approx. 200 Square Feet	–	–	–	✓	Festuca o. 'Glauca' (Blue Fescue) ~ w/ 'Del Rio' or Sim. Pea Gravel -2" Topdress (T.S. /Triangle Spacc) & L.S. (Lineal Spacc) @ 10" O.C. - (On Center) Spacing) AS DIRECTED BY L. ARCH.)	
Approx. 1,300 Square Feet	–	–	–	✓	Fragaria c. 'Lipstick' (Ornamental Strawberry) (T.S. /Triangle Spacc) & L.S. (Lineal Spacc) @ 12" O.C. - (On Center) Spacing) AS DIRECTED BY L. ARCH.)	
Approx. 4,550 Square Feet	–	✓	–	–	Cotoneaster d. 'Coral Beauty' (Prostrate Cotoneaster) (T.S. /Triangle Spacc) @ 36" O.C. - (On Center) Spacing) AS DIRECTED BY L. ARCH.)	
Approx. 350 Square Feet	–	–	–	✓	Dymondia margaretae (Dymondia) (T.S. /Triangle Spacc) @ 10" O.C. - (On Center) Spacing) AS DIRECTED BY L. ARCH.)	
Approx. 600 Square Feet	–	–	✓	–	Senecio malandraciae (Blue Chalksticks) (T.S. /Triangle Spacc) & L.S. (Lineal Spacc) @ 15" O.C. - (On Center) Spacing) AS DIRECTED BY L. ARCH.)	
Approx. 150 Square Feet	–	–	–	✓	Thymus praecox arcticus (Creeping Mother-of-Thyme) L.S. (Lineal Spacc) @ 12" O.C. - Single Row at Base Evene along Planter's Edge)	
Approx. 6,250 Square Feet	–	✓	–	–	Ceanothus g. h. 'Carmel Creeper' (Prostrate California Wild Lilac) (T.S. /Triangle Spacc) @ 60" O.C. - (On Center) Spacing) AS DIRECTED BY L. ARCH.)	
Square Feet					**Existing Shrubs & Groundcovers - Protect in place**	
Approx. 15,000 Square Feet					**Disturbed Areas - Hydro Mulch** (HydroMulch Seed Mix Disturbed Construction Areas for Erosion Control-To be Discussed w/ Land. Arch)	
Approx. 13,300 Square Feet					**Walk-on Bark** 'Sequoia - Gorilla Hair" Walk-on-Bark (Install as per Planting Note #2)	All Shrub & D.G. Beds
Approx. 3,050 Square Feet					**Sod Lawn - Marathon I** (Install as per Plg. Note #15)	
Approx. 1,225 S.F. of (E) D. G.	Approx. 2,100 S.F. of (E) D. G.				**Decomposed Granite Paving w/ Stabilizer** (3,325 S.F.) (4" Depth ~ Install in 1" Lifts)	Existing D. G. / New D. G.

SPECIMEN ACCENTS

SYMBOL	(BOTANICAL NAME / COMMON NAME)	QUANTITY-SIZE
Triple / Double / Single	**Phyllostachys nigra (Black Bamboo)** ALT.:Bambusa multiplex 'Alphonse Karr' (Clumping Bamboo - Cultivar)	1 - Multi Clumps @ 8' O.H. (O.H. = Overall Height)
Triple / Double / Single	**Cycas revoluta (Cycad)**	4 - Single Trunks @ 2'-6" B.T.H. 4 - Double Trks. @ 2.25/1.75' B.T.H. 4 -Triple -Trunk @ 2'/1.5'/1' B.T.H. (B.T.H. = Brown Trunk Height)
Triple / Double / Single	**Phoenix roebellenii (Pygmy Date Palm)**	3 - Single Trunks @ 2'-0" B.T.H. 3 - Double Trunks @ 2'/1.5' B.T.H. 3 - Triple -Trunk @ 2'/1'/1' B.T.H. (B.T.H. = Brown Trunk Height)
Existing	**Cupressus sempervirens (Italian Cypress)**	=9 - Existing (Protect in Place)
	Juniperus c. 'Columnaris Glauca' (Blue Column Juniper)	2 - Matched @ 6' O.H.
	Yucca rostrata (Specimen-Yucca) ALT.:Aloe thraskii (Tree Aloe) ALT.:Cordyline indivisia (Blue Dracaena)	1 - Single Trunk @ 5'-0" O.H. 1 - Single Trunk @ 4'-0" O.H. 1 - Single Trunk @ 2'-6' O.H. (O.H. = Overall Height)
	Aloe thraskii (Tree Aloe)	2 - Single Trunk @ 4'-0" O.H. 1 - Single Trunk @ 3'-0" O.H. (O.H. = Overall Height)
	Cordyline australis 'Burgandy Spire' (Specimen-Yucca) ALT.:Aloe thraskii (Tree Aloe)	1 - Single Trunk @ 4'-0" O.H. (O.H. = Overall Height)

VINES**

15 Gal	5 Gal	1 Gal	4" Pot	Liner	Flat	QUANTITY / SIZE	BOTANICAL / (COMMON NAME)	SYMBOL
–	2	–	–	–	–		Clematis 'Ville de Lyon' (Clematis Vine Form)	
–	2	–	–	–	–		Jasminum grandiflorum (Spanish Jasmine - Vine Form)	
–	3	–	–	–	–		Pandorea jasminoides 'Rosea' (Pink Bower -Vine Form)	
–	5	–	–	–	–		Disticictis 'Riviers' (Royal Trumpet -Vine Form)	
–	2	–	–	–	–		Hardenbergia violacea (Happy Wanderer -Vine Form)	
–	3	–	–	–	–		Bougainvillea ' Texas Dawn' - Espalier (Espaliered Bougainvillea on Wood Trellis)	
–	2	–	–	–	–		Alt.:Pyrostegia venusta (Flame Vine - Vine Form) Jasminum polyanthum (Pink Jasmine -Vine Form)	

** SECURE ALL VINES ADJACENT TO STRUCTURE w/ METAL CABLE, TURNBUCKLES & I-HOOKS as per Land. Architect

TREES

SYMBOL	(BOTANICAL NAME / COMMON NAME)	QUANTITY-SIZE 48" Box	36" Box	24" Box	15" Gal
FRUIT TREE	**Citrus 'Meyer's Lemon' (Meyer's Lemon Tree)** (Standard Tree Form) ***MIX - As per Land. Arch.*** **Citrus 'Dwarf Campbell' (Dwarf Valencia Orange Tree)** (Standard Tree Form)	–	–	–	5
	Miscellaneous Fruit Tree (To Be Selected by Owner Land. Arch.) (Upright Multi-Trunk Tree Form) (Standard Tree Form)	–	–	–	5
ALDER	**Alnus cordata (Italian Alder)** (Standard Tree Form) ALT.:Populus alba' 'Pyramidalis' (White Poplar) ALT.:Platanus acerfolia 'Bloodgood' (European Sycamore)	–	–	1	–
MARKHAMIA	**Markhamia hildebrandiana (Markhamia)** (Upright Multi-Trunk Tree Form)	–	3	–	–
GIANT BIRD	**Strelitzia nicolai** (Giant Bird-of-Paradise)	–	–	1	1
Small Flwrg Accent Multi	**Brugmansia 'Charles Grimaldi'** (Angel's Trumpet) ***AND/OR*** **Calliandra tweedii** (Brazalian Flame Bush) ***MIX - As per Land. Arch.*** (Multi-Trunk Broad Branching Form) ALT.:Chitalpa tashkentensis 'Pink Dawn' (Chitalpa)	–	–	2	–
JACARANDA BROAD - MULTI	**Jacaranda mimosifolia (Jacaranda)** (Multi-Trunk Tree Form)	1	–	–	–

TREES

SYMBOL	(BOTANICAL NAME / COMMON NAME)	QUANTITY-SIZE 3" @ =15'	Ht. & Sp
FIELD GROWN OLIVE	**Olea europaea - Match Existing** (Field Grown Olive) (Upright Multi-Trunk Tree Form)		
OLIVE UPRIGHT TRIPLE	**Olea europaea 'Fruitless'** (Fruitless Olive) (Multi-V-Trunk Upright Branching Form) ALT.:Metrosideros tomentosa (New Zealand Xmas Tree)	1	1 – –
ARBUTUS MARINA	**Cercis 'Forest Pansy'** (Purpleleaf Redbud) (Upright Multi-Trunk Tree Form) ALT.:Eriobotrya deflexa 'Coppertone (Bronze Loquat Cultivar)	–	12 –
	Arbutus 'Marina' (Madrone Cultivar) (Multi-Trunk Tree Form) ALT.:Metrosideros tomentosa (New Zealand Xmas Tree)	–	1 1 –
JAPANESE MAPLE	**Acer palmatum 'Sango Kaku'** (Japanese Maple) (Multi-Trunk Broad Branching Form) ALT.:Magnolia soulangiana 'Lilliputian' (Saucer Magnolia)	–	– 1 –
JACARANDA UPRIGHT - MULTI	**Jacaranda mimosifolia (Jacaranda)** (Multi-V-Trunk Upright Branching Form)	–	1 – –
	Pittosporum undulatum (Victorian Box) *(3 @ Upright Multi-Trunk /Std. Tree Form) *(13 @ Shrub Form)	–	* 3 * 13
M	**Michela champaca 'Alba'** (Champaca) (Multi-Trunk Broad Branching Form) ALT.:Chionanthus virginicus (Fringe Tree)	–	– 5 –

GRAPHIC SCALE (IN FEET)
0 10 15 20
SCALE: 1" = 10' - 0"

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DATE: 11-15-2011

- ☐ PRELIMINARY
- ☐ AGENCY REVIEW
- ■ ISSUED FOR BIDDING
- ☐ ISSUED FOR CONSTRUCTION

PLANTING PLAN

TREES ~ VINES & GROUNDCOVERS

HARDSCAPE ~ LANDSCAPE PLANS

REVISIONS: DATE:

STAMP

REGISTERED LANDSCAPE ARCHITECT ROBERT ANDREW FOWLER 2698 Signature Date STATE OF CALIFORNIA

PROJECT / OWNER:

TIM & BERNIE MARQUEZ RESIDENCE
1379 Oak Creek Canyon Road ~ Montecito, California 93108
APN: 011-280-31 & 32

DRAWING:

PLANTING PLAN

TREES ~ VINES & GROUNDCOVERS

JOB #: RF11-03
CADD BY: R.A. Fowler
DATE: 12 / 31 / 2011
SHEET
L-4
OF 15

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ADDITIONAL PLANTING NOTES:

AA. Maintenance period shall not begin until the Landscape Architect has inspected and approved installation of irrigation and planting. After approval, the maintenance and establishment period shall be NINETY days. The Land.Contractor shall notify the Landscape Architect one week prior to the end of the 90 day maintenance period to arrange for final inspection.

BB. Redwood Headerboard to be 2" x 4" on un interrupted straight runs; for a combination of curves and straight runs header to be a continuous run of 2-1" x 4"s laminated and notched as necessary on curves, miter cut and flush with intersecting hardscape and shall be installed wherever a lawn area is shown adjacent to a shrub or groundcover planting area.

CC. Brass Hose Bibbs where they occur shall be mounted 18" above finish grade with U-straps to a 4"x 4"x 36" redwood or treated post, saw off top of post @ 45 degrees, to allow easy operation. Risers and fittings shall be 1" galvanized.

DD. Owner's Option to Mix in listed Alternates / Install In-Field as Coordinated with Landscape Architect. Many varieties as indicated per Plant List are patented and only available thru 'Monrovia Nurseries'. Substitutes will not be accepted without approval by Land. Architect.

EE. Approximate Groundcover Square Foot Take-offs are provided as a convenience to the Land. Contractor. It is their responsibility to provide the minimum plant amounts needed (in the size as indicated) in order to completely cover the dirt areas at the spacings as indicated per plan.

FF. Stepping Stones where Shown shall be Square Snap-cut Oklahoma 18" x 18" x 3" Thick set on individual Concrete Pads. (Alt. Bid: Pre-Cast Concrete Pavers)

HIGH FIRE AREA / DEFENSIBLE SPACE GUIDELINES

UPON COMPLETION AND APPROVAL OF THE PRELIMINARY LANDSCAPE PLAN, A FINAL PLANTING PLAN CONSTRUCTION DOCUMENT WILL BE PREPAREDTHAT INCORPORATES, TO THE EXTENT FEASIBLE, DESIGN GUIDELINES TO HELP PROVIDE A REDUCED LEVEL OF RISK FROM WILDLAND FIRES. WE WILL INCORPORATE DESIGN GUIDELINES IN AN EFFORT TO MEET THE HIGH FIRE HAZARD AREA REQUIRED GUIDELINES IN AN EFFORT TO PROVIDE A REDUCEDLEVEL OF RISK FROM WILDLAND FIRES. A 'VEGETATION MODIFICATION ZONE WITHIN 100 FEET OF ANY STRUCTURE WILL BE IMPLEMENTED WHERE EXISTING NON-FIRE RESISTANT VEGETATION WILL BE REMOVED AND/OR MODIFIED AND PARTIALLY OR TOTALLY REPLACED WITH DROUGHT RESISTANT, FIRE RESISTANT PLANTINGS. SINGLE SPECIMEN TREES, ORNAMENTAL, SHRUBBERY & GROUNDCOVERS CAN BE RETAINED OR UTILIZED, AS LONG AS IT DOES NOT FORM A PATH THAT WILL CARRY FIRE. DESIGN OF PLANTINGS WILL INCORPORATE THE USE OF THE FOLLOWING LANDSCAPE ZONES:

ZONE #1 (0 TO 30 FEET FROM STRUCTURE)
ZONE #1 DESIGN WILL INCORPORATE A COMBINATION OF HARDSCAPE, NON-BIOTIC, NON FLAMMABLE MATERIALS WITH SOME ORNAMENTAL FOUNDATION ARCHITECTURAL ACCENT / COMPLIMENT PLANTINGS WITH A WIDE SWATH OF LAWN OR LOW GROUNDCOVER WILL BE PROPOSED.ALL PLANTINGS IN THIS ZONE WILL BE IRRIGATED AND MORE THAN LIKELY WITH AN OVERHEAD SPRAY SYSTEM OR A SPRAY /DRIP COMBO. MAINTAIN ALL HEDGES NOT MORE THAN 6 FEET IN HEIGHT AND 2 FOOT IN WIDTH AND ANNUALLY REMOVE ANY DEAD MATERIAL.

ZONE #2 (30 TO 50 FEET FROM STRUCTURE)
ZONE #2 DESIGN WILL MAINTAIN A REASONABLY OPEN CHARACTER. LOW /MEDIUM GROWING SHRUBS OR CLUSTERS OF SHRUBS NOT MORE THAN 10 FEET IN DIAMETER CAN BE PLANTED WITH A SPACING OF AT LEAST 18 FEET BETWEEN CLUSTERS. DO NOT PLANT SHRUBS UNDERNEATH THE CANOPY OF TREES. TREES SHOULD BE SPACED AT LEAST 30 FEET APART TO PREVENT CROWNS FROM TOUCHING ONCE FULLY GROWN. ALL PLANTINGSIN THIS ZONE WILL BE IRRIGATED WITH AN OVERHEAD SPRAY/ DRIP SYSTEM COMBO.

ZONE #3 (50 TO 70 FEET FROM STRUCTURE)
ZONE #3 DESIGN SHOULD INCORPORATE NATIVE AND MEDITERRANEAN PLANTINGS THAT REQUIRE IRRIGATION AND SHOULD NOT BE HIGHER THAN 5 TO 7 FEET. LOW /MEDIUM GROWING SHRUBS OR CLUSTERS OF SHRUBS NOT MORE THAN10 FEET IN DIAMETER CAN BE PLANTED WITH A SPACING OF AT LEAST 18 FEET BETWEEN CLUSTERS. DO NOT PLANT SHRUBS UNDERNEATH THE CANOPY OF TREES. TREES SHOULD BE SPACED AT LEAST 30 FEET APART TO PREVENT CROWNS FROM TOUCHING ONCE FULLY GROWN. MOST OR ALL PLANTINGS IN THIS ZONE WILL BE IRR IGATED WITH AN OVERHEAD SPRAY/ DRIP SYSTEM COMBO.

ZONE #4 (70 TO 100 FEET FROM STRUCTURE)
ZONE #4 DESIGN SHOULD INCORPORATE NATIVE PLANTINGS THAT DO NOT REQUIRE IRRIGATION ONCE ESTABLISHED. THERE IS NO LIMIT TO THE HEIGHT OF SHRUBS OR CLUSTERS OF SHRUBS NOT MORE THAN 10 FEET IN DIAMETER CAN BE PLANTED WITH A SPACING OF AT LEAST 18 FEET BETWEEN CLUSTERS OF TREES. TREES OR TIGHT TREE GROUPINGS SHOULD BE SPACED AT LEAST 30 FEET APART FROM OTHER TREES TO PREVENT CROWNS FROM TOUCHING ONCE FULLY GROWN.

SYMBOL	(BOTANICAL NAME / COMMON NAME)	QUANTITY-SIZE
GROUNDCOVERS	2 Gal 3 Gal 4" Pot Flat	
Approx. 200 Square Feet	Festuca o. 'Glauca' (Blue Fescue) ~ w/ 'Del Rio' or Sim. Pea Gravel -2" Topdress (T.S. /Triangle Space) & L.S. (Lineal Space) @ 10" O.C. - (On Center) Spacing) AS DIRECTED BY L. ARCH.)	
Approx. 1,300 Square Feet	Fragaria c. 'Lipstick' (Ornamental Strawberry) (T.S. /Triangle Space) & L.S. (Lineal Space) @ 12" O.C. - (On Center) Spacing) AS DIRECTED BY L. ARCH.)	
Approx. 4,550 Square Feet	Cotoneaster d. 'Coral Beauty' (Prostrate Cotoneaster) (T.S. /Triangle Space) @ 36" O.C. - (On Center) Spacing) AS DIRECTED BY L. ARCH.)	
Approx. 250 Square Feet	Dymondia margaretae (Dymondia) (T.S. /Triangle Space) @ 10" O.C. - (On Center) Spacing) AS DIRECTED BY L. ARCH.)	
Approx. 600 Square Feet	Senecio malandraciae (Blue Chalksticks) (T.S. /Triangle Space) & L.S. (Lineal Space) @ 15" O.C. - (On Center) Spacing) AS DIRECTED BY L. ARCH.)	
Approx. 150 Square Feet	ALT.:Bacopa monnieri 'Purple' (Water Hyssop) Thymus praecox arcticus (Creeping Mother-of-Thyme) L.S. (Lineal Space) @ 12" O.C. - Single Row of Blue Fescue along Planter's Edge)	
Approx. 6,250 Square Feet	ALT.:Myoporum parvifolium 'Burgandy Carpet' (Prostrate Myoporum) Ceanothus g. h. 'Carmel Creeper' (Prostrate California Wild Lilac) (T.S. /Triangle Space) @ 60" O.C. - (On Center) Spacing) AS DIRECTED BY L. ARCH.)	
Square Feet	ALT.:Arctostaphylos edmundsii 'Carmel Sur' (Little Sur Manzanita) **Existing Shrubs & Groundcovers - Protect in place**	
Square Feet	**Disturbed Areas - Hydro Mulch** (HydroMulch Seed Mix Disturbed Construction Areas for Erosion Control-To be Discussed w/ Land. Arch.)	
Approx. 13,300 Square Feet	**Walk-on Bark** "Sequoia - Gorilla Hair" Walk-on Bark (Install as per Planting Note #2)	All Shrub & G.C. Beds
Square Feet	**Sod Lawn - Marathon I** (Install as per Plg. Note #15)	
Approx. 1,225 S.F. of (E) D. G. / Approx. 2,100 S.F. of (E) D. G.	**Decomposed Granite Paving w/ Stabilizer** (3,325 S.F.) (4" Depth ~ Install in 1" Lifts)	Existing D. G. / New D. G.

PLANT LIST

SHRUBS & HERBACEOUS	QUANTITY / SIZE 15 Gal	5 Gal	1 Gal	6" Pots	Liners	Flats	BOTANICAL / COMMON NAME	SYMBOL
	–	4	–	–	–	–	Hibiscus r.s. 'Lipstick' (Tropical Hibiscus) ALT.: Escallonia fradesia (Escallonia)	
	–	12	–	–	–	–	Rosa 'Pink Flowers' (Garden Carpet Rose)	
	–	33	–	–	–	–	Erica carnea 'Ruby Glow' (Southern Heath)	
	–	1	–	–	–	–	Nandina domestica (Heavenly Bamboo)	
	NOT PROPOSED ON THIS SCHEME						Rosmarinus p. 'Collingwood Ingram' (Rosemary)	
	–	6	–	–	–	–	Guara lindheimeri (Scarley Guara) ALT.: Leymus condensatus (Giant Rye Grass)	
	–	–	11	–	–	–	Salvia c. 'Allen Chickering' (Cleveland Sage)	
	–	–	20	–	–	–	Ribes speciosum (Fuchsia Flowering Gooseberry)	
	–	–	47	–	–	–	Ceanothus thyrsiflorus 'Skylark' (Calif. Wild Lilac)	
	–	–	16	–	–	–	Romneya coulteri (Matilija Poppy)	
	–	–	8	–	–	–	Salvia greggii 'Salmon' (Autumn Sage)	
	–	–	17	–	–	–	Muhlenbergia rigens (Deer Grass)	
	–	–	–	18	–	–	Echeveria 'Perle von Nurnberg' (Succul./Lav-Blue) -3 Plants per Symbol**	
	–	–	–	18	–	–	Echeveria secunda"Afterglow' (Accent Succulent)**	
	–	–	–	18	–	–	Echeveria 'Afterglow' (Accent Succulent)**	
	–	–	–	36	–	–	Kalanchoe thyrsiflora (Red-Tinged Flapjack–Mid-Sized Succulent)**	
	–	–	–	66	–	–	Sempervivum tectorum (Hens & Chickens–Accent Succulent)**	
	–	7	–	–	–	–	Euphorbia 'Sticks on Fire' (Sticks on Fire–Upright Succulents)	
	–	–	–	9	–	–	Aeonium 'Schwartzkopf' (Upright Succulents)**	
	–	–	–	18	–	–	Sedum spath. 'Purpureum' (Stonecrop-Groundcover Succulent)**	
	–	–	–	15	–	–	Sedum rubrotinctum (Porks & Beans–Groundcover Succulent)**	
	–	–	–	15	–	–	Sedum morganianum (Donkey Tail–Cascading Succulent)**	
	–	–	–	18	–	–	Crassula 'Campfire' (Cascading Succulent)**	

SHRUBS & HERBACEOUS	QUANTITY / SIZE 15 Gal	5 Gal	1 Gal	6" Pots	Liners	Flats	BOTANICAL / COMMON NAME	SYMBOL
	–	–	9	–	–	–	Chrysanthemum m. 'Pink' (Pink Marguerite Daisy)	
	13	20	–	–	–	–	Agave Americana (Century Plant)	
	–	7	–	–	–	–	Callistemon citrinus 'Little John' (Dwarf Bottlebrush) ALT.:Grevillea x 'Noelii' (Noell Grevillea)	
	–	4	–	–	–	–	Canna 'Hybrid Bronze-Leaf/Red Flower' ALT.: Justicia brandegeana (Shrimp Plant)	
	–	40	–	–	–	–	Pittosporum tenuifolium 'Majorie Channon' (Black-Twigged Pittosporum)	
	–	1	–	–	–	–	Mahonia lomarifolia (Upright Mahonia) ALT.: Hedychium gardnerianum (Kahili Ginger)	
	–	–	127	–	–	–	Nassella tenuissima (Mexican Feather Grass)	
	–	–	86	–	–	–	Helictotrichon sempervirens (Blue Oat Grass)	
	11	–	–	–	–	–	Tibouchina heteromalla (Princess Flower)	
	–	–	29	–	–	–	Aspidium capense (Leatherleaf Fern)	
	–	–	5	–	–	–	Trachelospermum jasminoides (Star Jasmine)	
	–	60	–	–	–	–	Salvia 'Waverly' (Hybrid Sage)	
	–	10	–	–	–	–	Helichrysum petiolare 'Limelight' (Licorice Plant) ALT.:Nepeta x faassenii 'Dropmore' (Catmint) ALT.:Anisodontea x hypomandarum 'Dropmore' (Cape Mallow)	
	–	6	–	–	–	–	Abutilon hybridum 'Red' (Red Flowering Maple)	
	2	–	–	–	–	–	Cyperus papyrus (Papyrus)	
	–	25	–	–	–	–	Chondropetalum tectorum (Cape Rush)	
	–	9	–	–	–	–	Cotoneaster parnyi (Parneys Red Clusterberry)	
	–	29	–	–	–	–	Agave 'Nova' (Blue Agave) Agave 'Blue Flame' (Blue Agave) ALT.: Aloe striata (Coral Aloe)	
	–	3	–	–	–	–	Camellia s. 'Tanya' (Camell.-Arching Growth)	
	–	7	–	–	–	–	Lavetera bicolor (Mallow)	
	–	27	–	–	–	–	Agave 'Varieties' (Agave-To Match Exist.)	
	–	–	75	–	–	–	Elymus c. 'Canyon Prince' (Eulaia Grass)	

SHRUBS & HERBACEOUS	QUANTITY / SIZE 15 Gal	5 Gal	1 Gal	6" Pots	Liners	Flats	BOTANICAL / COMMON NAME	SYMBOL
	–	6	–	–	–	–	Astelia chathamica (Silver Spear)	
	–	12	–	–	–	–	Cordyline stricta (Ti Palm)	
	–	39	–	–	–	–	Hebe 'Variegated Autumn Glory' (Compact Variegated Hebe)	
	–	7	–	–	–	–	Woodwardia fimbriata (Giant Chain Fern)	
	–	17	–	–	–	–	Loropetalum rubrum 'Monraz' (Razzleberri Fringe Flower)	
	1	–	–	–	–	–	ALT.: Justicia brandegeana (Shrimp Plant) Strelizia reginae (Bird-of-Paradise)	
	–	–	24	–	–	–	Agapanthus o. 'Tinkerbell' (Variegated Lily-of-the-Nile)	
	–	–	54	–	–	–	Hemerocallis 'Yellow-Burgandy' (Daylily)	
	–	–	40	–	–	–	Hemerocallis 'Yellow-Burgandy' (Daylily)	
	–	1	–	–	–	–	Weistringa 'Wynabbie Gem' (Coast Rosemary)	
	–	26	–	–	–	–	Rosa 'Iceburg' (Shrub Rose) *Modern Landscape Rose – White Flowers*	
	–	25	–	–	–	–	Rosa floribunda 'Angel Face'/Simplicity' (Shrub Rose) *Modern Landscape Rose – Lavender to Mid Pink Flowers*	
	–	29	–	–	–	–	Rosa floribunda 'Sun Flare' (Shrub Rose - Yellow Flowers) *Modern Landscape Rose - Yellow Flowers*	
	–	–	2	–	–	–	Phormium t. 'Tiney Tiger' (Dwarf New Zealand Flax -Variegated)	
	–	9	–	–	–	–	Phormium t. 'Yellow Wave' (New Zealand Flax-Yellow)	
	–	–	2	–	–	–	Nandina domestica 'Fire Power' (Dwarf Heavenly Bamboo)	
	–	10	–	–	–	–	Pittosporum 'Creme de Mint' (Dwf. Varieg. Tobira)	
	–	23	–	–	–	–	Anigozanthos f. 'Harmony' (Tallest Kangaroo Paw)	
	–	14	–	–	–	–	Anigozanthos f. 'Pink Joey' (Mid-Sized Kangaroo Paw)	
	NOT PROPOSED ON THIS SCHEME						Anigozanthos f. 'Hybrid Dwarf Red' (Dwarf Kangaroo Paw)	
	5	4	–	–	–	–	Dicksonia antarctica (Tasmanian Tree Fern)	
	–	–	37	–	–	–	Heuchera sanguinea (Coral Bells)	
	–	83	–	–	–	–	Lavandula s. 'Otto Quest' (Spanish Lavender)	

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PLANTING PLAN

SHRUBS & HERBACEOUS ~ LANDSCAPE PLANS

REVISIONS: DATE:

STAMP

REGISTERED LANDSCAPE ARCHITECT — ROBERT ANDREW FOWLER — 2698 — Signature — Date — STATE OF CALIFORNIA

PROJECT / OWNER:

TIM & BERNIE MARQUEZ RESIDENCE
1379 Oak Creek Canyon Road ~ Montecito, California 93108
APN: 011-280-31 & 32

DRAWING:

PLANTING PLAN

SHRUBS & HERBACEOUS

GRAPHIC SCALE (IN FEET) 0 10 15 20

SCALE: 1" = 10' - 0"

JOB #: RF11-03
CADD BY: R.A. Fowler
DATE: 12 / 31 / 2011

SHEET L-5 OF 15

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PLAN KEY - IRRIGATION

Typical Overhead Spray Irrigation Area
(@ LAWN & LAWN SUBSTITUTE AREAS)

Typical Overhead Spray Irrigation Area
(@ ORNAMENTAL/XERISCAPE SHRUB & SHRUBBY GROUNDCOVER AREAS)

Typical Drip Irrigation Area
(@ ORNAMENTAL/XERISCAPE SHRUB & SHRUBBY GROUNDCOVER AREAS)

PIPE SIZE	SLEEVE SIZE
1/2"	2" Min.
3/4"	2" Min.
1"	2 1/2" Min.
1 1/4"	2 1/2" Min.
1 1/2"	3" Min.
2"	4" Min.

PIPE SIZE	GPM
1/2"	0.0 - 6.9
3/4"	7.0 - 9.9
1"	10.0 - 16.9
1 1/4"	17.0 - 26.99
1 1/2"	27.0 - 34.99
2"	35.0 - 55.99

ELECTRICAL & GAS LEGEND

110 VOLT ELECTRICAL CONNECTION REQUIRED

220 VOLT ELECTRICAL CONNECTION REQUIRED

GAS LINE REQUIRED

NOTE:COORDINATE & DISCUSS W/ ARCH & LANDSCAPE ARCH FOR LOCATIONS OF INTERIOR SWITCHES

IRRIGATION NOTES

1. It shall be the Contractor's responsibility to install the Irrigation System in accordance with all local codes.
2. Location of irrigation piping, valves and backflow preventer is diagrammatic. Piping shall be installed in planting or turf areas wherever possible.Supply lines and lateral lines shall be installed directly adjacent to paving and curbs wherever possible All valves shall be Installed in shrub planting areas and grouped (12" Min. between boxes) wherever possible, and shall be within 24" of an adjacent paved area or edge of lawn for accessibility.
3. Final location of Backflow Preventer shall be installed in a shrub planting area for ease of screening and in accordance with all local codes. Contractor shall assume responsibility for Proof of Certified Inspection by local health department. Adjust shrub plantings per direction of Landscape Architect to provide proper screening of this device.
4. All piping installed under paving or through walls or footings shall be Sch. 80 PVC and installed in Sch. 80 PVC sleeves and with "Tracer Wires" at a minimum depth of 24" as follows:

PIPE SIZE	SLEEVE SIZE	PIPE SIZE	SLEEVE SIZE
1/2"	2" Min.	1 1/4"	2 1/2" Min.
3/4"	2" Min.	1 1/2"	3" Min.
1"	2 1/2" Min.	2"	4" Min.

5. Landscape Contractor to allow for the following additional sprinkler heads to be used when necessary for complete coverage due to unforseen field conditions:
   6 - TORO 570 12" Pop-ups Heads & Nozzles; 2 - W.M. RC & 2 - R.B. QC Valves.
6. Exist. Static Water Press: Verify Proposed Meter Size: Exist. Min. Size of Service Line Required: Exist.
   Information provided by: Montecito Water District - Public Works Date: Not Applicable
7. The entire sprinkler irrigation system shall be guaranteed by the contractor for a period of one year from the date of acceptance of the work. Guarantee shall cover all materials and workmanship, including excavation and backfill. If at any time any part of the system fails to function adequately the contractor shall make all necessary repairs or adjustments immediately upon receipt of notice from the owner. Any damage to planting, structures or paving resulting from failure of the contractor to correct same shall be repaired by the contractor at his expense. Likewise, Contractor shall assume full responsibility for any damage caused to any and all underground structures or utilities during installation of the Irrigation System.
8. Valves shall be installed below grade in commercial plastic valve boxes as per detail. Install two valves in each box where possible. Install drip valves so that Y-filter is accessible for cleaning. Top of valve box shall be installed flush with finish grade, and the valve number shall be painted on the top of the box in an oil based paint.
9. All valve controller wire shall be installed in same trench with mainline and shall be solid copper, AWG multi-strand controller wire, direct burial using snaprite or equal wire connectors. At valves, coil at least 18" of extra wire for each connection.
10. Electrical Contractor to Supply 120V Connection in J-Box and Hardwire Automatic Irrigation Controller in Location as Shown per plan.
    Landscape Contractor to be proactive and Coordinate w/ General Contractor to ensure power availibility in location as Shown.

IRRIGATION LEGEND

	SYMBOL	MODEL	MODEL #	DESCRIPTION
A L-8		Hammonds	Series 667	Gate Valve - Line Size (Install in Valve Box)
		Rainbird	ET Manager	Weather Based Controller - Wall Mount (24 Stations) - See Plan
C L-8		Rainbird	RSD-BEx	Rain Sensor - 2 Locations - See Plan
F L-8		Irr-trol (Deduct Alternate)	MC-24 Plus	Solid State Controller - Wall Mount (24 Stations) - See Plan
O L-8		Weathermatic	11024F	Remote Control Valve - Size per Plan (Install in Valve Box)
B L-8		Rainbird	B401	Hose Bibb Garden Valve (Install as per Add'l. Note #CC)
		Rainbird	33DRC	Quick Coupler Valve (Installed in Valve Box)
G L-8	S	Wilkins	Series 600-1"	Standard Pressure Regulator - Line Size
	S	See Civil Drwgs.	825 -Y-1"	Reduced Pressure Backflow Preventer in Optional Enclosure - See Note #3
	S	Lasco, or equal	Sch. 40 PVC	Pressure Main Line - 2 " SIZE, TYP. - Except where shown differently
	S	Lasco, or equal	Sch. 40 PVC	Non-Pressure Lateral Line - 1", SIZE TYP. - Except where shown differently**

XX.XX / GPM — X — Valve No. & Sequence; X.X" — Valve Size
GPM - Total Section

** Upsize Pipe to 1/14" after 12 Heads or 15 GPM of Total Flow in Pipe.
** Upsize Pipe to 11/2" after 17 Heads or 25 GPM of Total Flow in Pipe.
** Upsize Pipe to 2" after 22 Heads or 35 GPM of Total Flow in Pipe.

DRIP IRRIGATION LEGEND

DRIP VALVE ASSEMBLY - Landscape Contractor shall include & install all Drip Irrigation items indicated with a "Check" Mark ✓

	SYMBOL	MODEL	MODEL #	DESCRIPTION
E L-8		Rainbird	XCZ-100-COM 1" (26/34)	**Remote Control Drip Valve Assembly** *(Install in Valve Box)* Includes 1FPT Ball Valve; 1-PEB RC Valve; RBY-C Series Commercial In-line Filter w/Stainless Steel Screen; PSI-M40X -100 Pressure Regulator & 3-Sch. 80 Close Nipples
		Rainbird	PC-05 thru PC-24	Pressure Compensating/Single Outlet Emitters
		Rainbird	XT-700	1/2" Polyethylene Tubing
		Rainbird	DT-25	1/4" Distribution Tubing
		Rainbird	LOC 16FGap	Compression Flush Cap
		Rainbird	LOC 16MM MPT Adapter	Compression Fittings
		Rainbird	LOC 16MM Tee/Adapter	Compression Fittings
		Rainbird	TS-025	Tubing/Wire Stakes
		Rainbird	DBC-025	Diffuser Bug Cap
		Rainbird	MC-025	1/4" Mounting Clip
	T	Rainbird	SEB-6X	Subterranean 6" Box for Tees @ Hard Pipe & Poly
		Rainbird	AR Valve Kit	Air Vacuum Relief Valve Kit - 1 per Drip Valve Section (Install at Highest Topo Elevation Point in Lateral Line)

Typ. Drip Irrigated Shrub Bed - Contractor shall Install Drip Emmitters, Poly Tubing as per Irr. Legend (Secure all Drip & Spaghetti Tubing in Place @ 5'-0" O.C. Maximum Spacing) (Install with Drip Irrigation Valve Assembly Components as Listed Above)

Use 3-PC-XX Emmitters per Tree; 2-PC-XX Emmitters per Shrub & 1 PC-XX Emmitter for G.C. Plant
Contractor shall consider and select appropriate Nozzle Size (in GPH) to correspond to a specified plant's inherent and local water needs. Thus, consider a specified plant's container size, solar exposure, inherent water use characteristics in order to install balance and properly distribute water to each plant in the appropriate amount and minimize the need to install separate valves for each "hydrozone".

Landscaped Areas with 1/2" Drip Poly Line, Typ. (Scratch Drip Line into Grade w/ a Minimum Cover of 2")

Landscaped Areas with an Overhead Spray System, Typ. (See Plan for Sprinkler Head & Main/Lateral Line Layout

T Tee Intersections in 6" Valve Box b/w Poly Tubing and Hard Pipe back to Valve, Typ. (Install Rigid Pipe in Sleeves at all Locations that Cross under Driveway or Walkway Paving)

Install Rigid Pipe in Sleeves at all Locations that Cross under Driveway or Walkway Paving, Typ.

Refers to point at which Irrigation Pipe extends vertically up or down into Masonry Structure

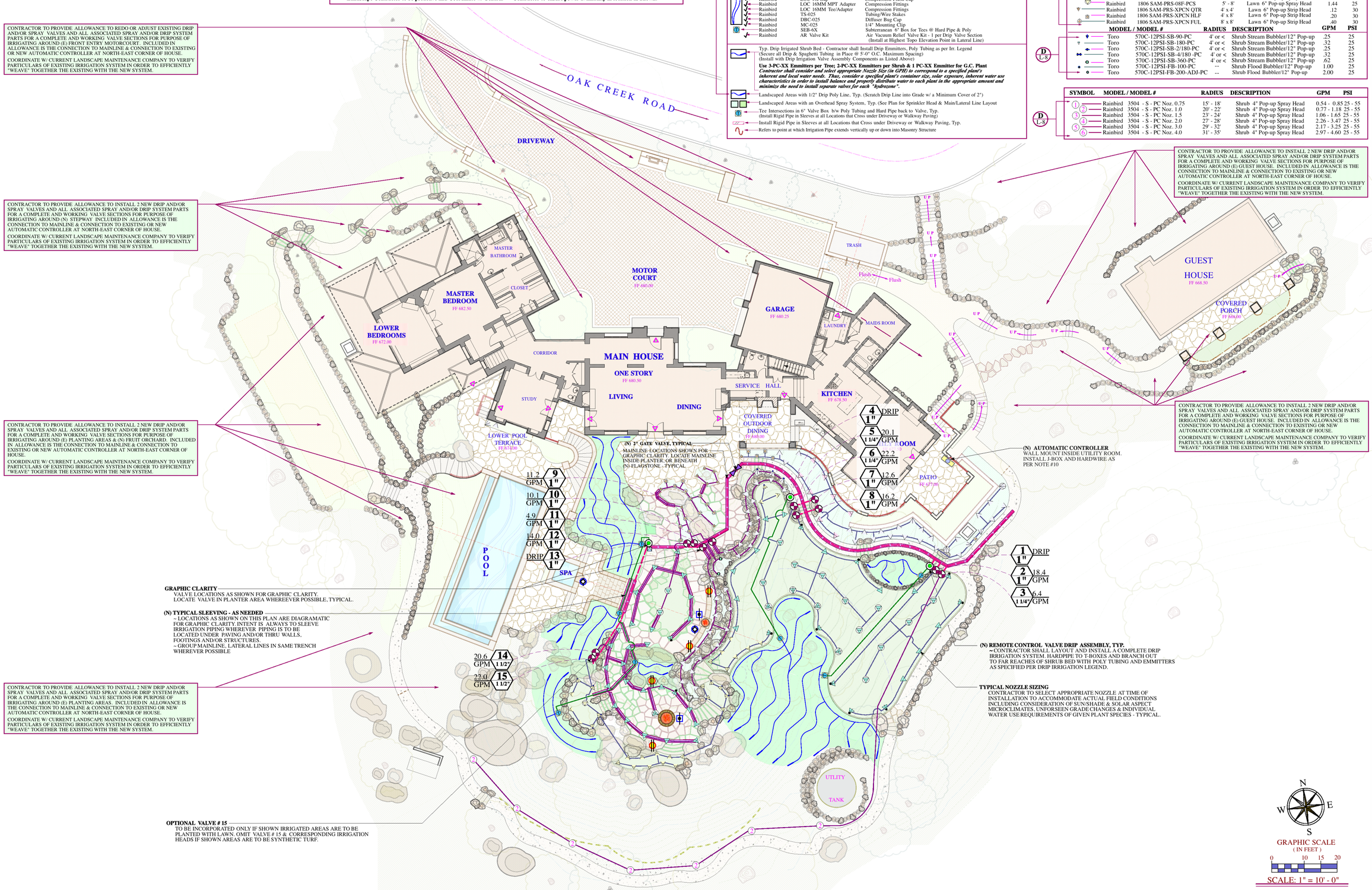
OVERHEAD SPRAY HEADS

	SYMBOL	MODEL	/ MODEL #	RADIUS	DESCRIPTION	GPM	PSI
D L-8		Rainbird	1812 SAM-PRS-12Q-PCS	10'-12'	Shrub 12" Pop-up Spray Head	.60	25
		Rainbird	1812 SAM-PRS-12T-PCS	10'-12'	Shrub 12" Pop-up Spray Head	.80	25
		Rainbird	1812 SAM-PRS-12H-PCS	10'-12'	Shrub 12" Pop-up Spray Head	1.20	25
		Rainbird	1812 SAM-PRS-12TT-PCS	10'-12'	Shrub 12" Pop-up Spray Head	1.61	25
		Rainbird	1812 SAM-PRS-12TQ-PCS	10'-12'	Shrub 12" Pop-up Spray Head	1.80	25
		Rainbird	1812 SAM-PRS-12F-PCS	10'-12'	Shrub 12" Pop-up Spray Head	2.40	25
		Rainbird	1812 SAM-PRS-08Q-PCS	5' - 8'	Shrub 12" Pop-up Spray Head	.36	25
		Rainbird	1812 SAM-PRS-08T-PCS	5' - 8'	Shrub 12" Pop-up Spray Head	.48	25
		Rainbird	1812 SAM-PRS-08H-PCS	5' - 8'	Shrub 12" Pop-up Spray Head	.72	25
		Rainbird	1812 SAM-PRS-08TT-PCS	5' - 8'	Shrub 12" Pop-up Spray Head	.96	25
		Rainbird	1812 SAM-PRS-08TQ-PCS	5' - 8'	Shrub 12" Pop-up Spray Head	1.08	25
		Rainbird	1812 SAM-PRS-08F-PCS	5' - 8'	Shrub 12" Pop-up Spray Head	1.44	25
		Rainbird	1812 SAM-PRS-15EST	4' x 15'	Shrub 12" Pop-up Strip Head	.60	30
		Rainbird	1812 SAM-PRS-15CST	4' x 15'	Shrub 12" Pop-up Strip Head	1.20	30
		Rainbird	1812 SAM-PRS-15SST	4' x 15'	Shrub 12" Pop-up Strip Head	1.45	30

	SYMBOL	MODEL	/ MODEL #	RADIUS	DESCRIPTION	GPM	PSI
D L-8		Rainbird	1806 SAM-PRS-12Q-PCS	10'-12'	Lawn 6" Pop-up Spray Head	.60	25
		Rainbird	1806 SAM-PRS-12T-PCS	10'-12'	Lawn 6" Pop-up Spray Head	.80	25
		Rainbird	1806 SAM-PRS-12H-PCS	10'-12'	Lawn 6" Pop-up Spray Head	1.20	25
		Rainbird	1806 SAM-PRS-12TT-PCS	10'-12'	Lawn 6" Pop-up Spray Head	1.61	25
		Rainbird	1806 SAM-PRS-12TQ-PCS	10'-12'	Lawn 6" Pop-up Spray Head	1.80	25
		Rainbird	1806 SAM-PRS-12F-PCS	10'-12'	Lawn 6" Pop-up Spray Head	2.40	25
		Rainbird	1806 SAM-PRS-08Q-PCS	5' - 8'	Lawn 6" Pop-up Spray Head	.36	25
		Rainbird	1806 SAM-PRS-08T-PCS	5' - 8'	Lawn 6" Pop-up Spray Head	.48	25
		Rainbird	1806 SAM-PRS-08H-PCS	5' - 8'	Lawn 6" Pop-up Spray Head	.72	25
		Rainbird	1806 SAM-PRS-08TT-PCS	5' - 8'	Lawn 6" Pop-up Spray Head	.96	25
		Rainbird	1806 SAM-PRS-08TQ-PCS	5' - 8'	Lawn 6" Pop-up Spray Head	1.08	25
		Rainbird	1806 SAM-PRS-08F-PCS	5' - 8'	Lawn 6" Pop-up Spray Head	1.44	25
		Rainbird	1806 SAM-PRS-XPCN QTR	4' x 4'	Lawn 6" Pop-up Strip Head	.12	30
		Rainbird	1806 SAM-PRS-XPCN HLF	4' x 8'	Lawn 6" Pop-up Strip Head	.20	30
		Rainbird	1806 SAM-PRS-XPCN FUL	8' x 8'	Lawn 6" Pop-up Strip Head	.40	30

	SYMBOL	MODEL / MODEL #	RADIUS	DESCRIPTION	GPM	PSI
D L-8		Toro 570C-12PSI-SB-90-PC	4' or <	Shrub Stream Bubbler/12" Pop-up	.25	25
		Toro 570C-12PSI-SB-180-PC	4' or <	Shrub Stream Bubbler/12" Pop-up	.32	25
		Toro 570C-12PSI-SB-2/180-PC	4' or <	Shrub Stream Bubbler/12" Pop-up	.25	25
		Toro 570C-12PSI-SB-4/180 -PC	4' or <	Shrub Stream Bubbler/12" Pop-up	.32	25
		Toro 570C-12PSI-SB-360-PC	4' or <	Shrub Stream Bubbler/12" Pop-up	.62	25
		Toro 570C-12PSI-FB-100-PC	--	Shrub Flood Bubbler/12" Pop-up	1.00	25
		Toro 570C-12PSI-FB-200-ADJ-PC	--	Shrub Flood Bubbler/12" Pop-up	2.00	25

	SYMBOL	MODEL / MODEL #	RADIUS	DESCRIPTION	GPM	PSI
D L-8	1	Rainbird 3504 - S - PC Noz. 0.75	15' - 18'	Shrub 4" Pop-up Spray Head	0.54 - 0.85	25 - 55
	2	Rainbird 3504 - S - PC Noz. 1.0	20' - 22'	Shrub 4" Pop-up Spray Head	0.77 - 1.18	25 - 55
	3	Rainbird 3504 - S - PC Noz. 1.5	23' - 24'	Shrub 4" Pop-up Spray Head	1.06 - 1.65	25 - 55
	4	Rainbird 3504 - S - PC Noz. 2.0	27 - 28'	Shrub 4" Pop-up Spray Head	2.26 - 3.47	25 - 55
	5	Rainbird 3504 - S - PC Noz. 3.0	29' - 32'	Shrub 4" Pop-up Spray Head	2.17 - 3.25	25 - 55
	6	Rainbird 3504 - S - PC Noz. 4.0	31' - 35'	Shrub 4" Pop-up Spray Head	2.97 - 4.60	25 - 55



CONTRACTOR TO PROVIDE ALLOWANCE TO REDO OR ADJUST EXISTING DRIP AND/OR SPRAY VALVES AND ALL ASSOCIATED SPRAY AND/OR DRIP SYSTEM PARTS FOR A COMPLETE AND WORKING VALVE SECTIONS FOR PURPOSE OF IRRIGATING AROUND (E) FRONT ENTRY MOTOR COURT. INCLUDED IN ALLOWANCE IS THE CONNECTION TO MAINLINE & CONNECTION TO EXISTING OR NEW AUTOMATIC CONTROLLER AT NORTH-EAST CORNER OF HOUSE.
COORDINATE W/ CURRENT LANDSCAPE MAINTENANCE COMPANY TO VERIFY PARTICULARS OF EXISTING IRRIGATION SYSTEM IN ORDER TO EFFICIENTLY "WEAVE" TOGETHER THE EXISTING WITH THE NEW SYSTEM.

CONTRACTOR TO PROVIDE ALLOWANCE TO INSTALL 2 NEW DRIP AND/OR SPRAY VALVES AND ALL ASSOCIATED SPRAY AND/OR DRIP SYSTEM PARTS FOR A COMPLETE AND WORKING VALVE SECTIONS FOR PURPOSE OF IRRIGATING AROUND (N) STEPWAY INCLUDED IN ALLOWANCE IS THE CONNECTION TO MAINLINE & CONNECTION TO EXISTING OR NEW AUTOMATIC CONTROLLER AT NORTH-EAST CORNER OF HOUSE.
COORDINATE W/ CURRENT LANDSCAPE MAINTENANCE COMPANY TO VERIFY PARTICULARS OF EXISTING IRRIGATION SYSTEM IN ORDER TO EFFICIENTLY "WEAVE" TOGETHER THE EXISTING WITH THE NEW SYSTEM.

CONTRACTOR TO PROVIDE ALLOWANCE TO INSTALL 2 NEW DRIP AND/OR SPRAY VALVES AND ALL ASSOCIATED SPRAY AND/OR DRIP SYSTEM PARTS FOR A COMPLETE AND WORKING VALVE SECTIONS FOR PURPOSE OF IRRIGATING AROUND (E) PLANTING AREAS & (N) FRUIT ORCHARD. INCLUDED IN ALLOWANCE IS THE CONNECTION TO MAINLINE & CONNECTION TO EXISTING OR NEW AUTOMATIC CONTROLLER AT NORTH-EAST CORNER OF HOUSE.
COORDINATE W/ CURRENT LANDSCAPE MAINTENANCE COMPANY TO VERIFY PARTICULARS OF EXISTING IRRIGATION SYSTEM IN ORDER TO EFFICIENTLY "WEAVE" TOGETHER THE EXISTING WITH THE NEW SYSTEM.

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COORDINATE W/ CURRENT LANDSCAPE MAINTENANCE COMPANY TO VERIFY PARTICULARS OF EXISTING IRRIGATION SYSTEM IN ORDER TO EFFICIENTLY "WEAVE" TOGETHER THE EXISTING WITH THE NEW SYSTEM.

CONTRACTOR TO PROVIDE ALLOWANCE TO INSTALL 2 NEW DRIP AND/OR SPRAY VALVES AND ALL ASSOCIATED SPRAY AND/OR DRIP SYSTEM PARTS FOR A COMPLETE AND WORKING VALVE SECTIONS FOR PURPOSE OF IRRIGATING AROUND (E) GUEST HOUSE. INCLUDED IN ALLOWANCE IS THE CONNECTION TO MAINLINE & CONNECTION TO EXISTING OR NEW AUTOMATIC CONTROLLER AT NORTH-EAST CORNER OF HOUSE.
COORDINATE W/ CURRENT LANDSCAPE MAINTENANCE COMPANY TO VERIFY PARTICULARS OF EXISTING IRRIGATION SYSTEM IN ORDER TO EFFICIENTLY "WEAVE" TOGETHER THE EXISTING WITH THE NEW SYSTEM.

CONTRACTOR TO PROVIDE ALLOWANCE TO INSTALL 2 NEW DRIP AND/OR SPRAY VALVES AND ALL ASSOCIATED SPRAY AND/OR DRIP SYSTEM PARTS FOR A COMPLETE AND WORKING VALVE SECTIONS FOR PURPOSE OF IRRIGATING AROUND (E) GUEST HOUSE. INCLUDED IN ALLOWANCE IS THE CONNECTION TO MAINLINE & CONNECTION TO EXISTING OR NEW AUTOMATIC CONTROLLER AT NORTH-EAST CORNER OF HOUSE.
COORDINATE W/ CURRENT LANDSCAPE MAINTENANCE COMPANY TO VERIFY PARTICULARS OF EXISTING IRRIGATION SYSTEM IN ORDER TO EFFICIENTLY "WEAVE" TOGETHER THE EXISTING WITH THE NEW SYSTEM.

(N) 3" GATE VALVE, TYPICAL
MAINLINE LOCATIONS SHOWN FOR GRAPHIC CLARITY. LOCATE MAINLINE INSIDE PLANTER OR BENEATH (N) FLAGSTONE, TYPICAL.

(N) AUTOMATIC CONTROLLER
WALL MOUNT INSIDE UTILITY ROOM. INSTALL J-BOX AND HARDWIRE AS PER NOTE #10

GRAPHIC CLARITY
VALVE LOCATIONS AS SHOWN FOR GRAPHIC CLARITY. LOCATE VALVE IN PLANTER AREA WHEREEVER POSSIBLE, TYPICAL.

(N) TYPICAL SLEEVING - AS NEEDED
- LOCATIONS AS SHOWN ON THIS PLAN ARE DIAGRAMATIC FOR GRAPHIC CLARITY. INTENT IS ALWAYS TO SLEEVE IRRIGATION PIPING WHEREVER PIPING IS TO BE LOCATED UNDER PAVING AND/OR THRU WALLS, FOOTINGS AND/OR STRUCTURES.
- GROUP MAINLINE, LATERAL LINES IN SAME TRENCH WHEREVER POSSIBLE

(N) REMOTE CONTROL VALVE DRIP ASSEMBLY, TYP.
- CONTRACTOR SHALL LAYOUT AND INSTALL A COMPLETE DRIP IRRIGATION SYSTEM. HARDPIPE TO T-BOXES AND BRANCH OUT TO FAR REACHES OF SHRUB BED WITH POLY TUBING AND EMMITTERS AS SPECIFIED PER DRIP IRRIGATION LEGEND.

TYPICAL NOZZLE SIZING
CONTRACTOR TO SELECT APPROPRIATE NOZZLE AT TIME OF INSTALLATION TO ACCOMMODATE ACTUAL FIELD CONDITIONS INCLUDING CONSIDERATION OF SUN/SHADE & SOLAR ASPECT MICROCLIMATES, UNFORSEEN GRADE CHANGES & INDIVIDUAL WATER USE REQUIREMENTS OF GIVEN PLANT SPECIES - TYPICAL.

OPTIONAL VALVE # 15
TO BE INCORPORATED ONLY IF SHOWN IRRIGATED AREAS ARE TO BE PLANTED WITH LAWN. OMIT VALVE # 15 & CORRESPONDING IRRIGATION HEADS IF SHOWN AREAS ARE TO BE SYNTHETIC TURF.

GRAPHIC SCALE (IN FEET)
0 10 15 20
SCALE: 1" = 10' - 0"

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E-Mail:RAFLARCH@aol.com

DATE: 11-15-2011
- PRELIMINARY
- AGENCY REVIEW
- ISSUED FOR BIDDING
- ISSUED FOR CONSTRUCTION

LANDSCAPE IRRIGATION PLAN
HARDSCAPE ~ LANDSCAPE PLANS

REVISIONS: DATE:

STAMP
REGISTERED LANDSCAPE ARCHITECT
ROBERT ANDREW FOWLER 2698
Signature
Date
STATE OF CALIFORNIA

PROJECT / OWNER:
TIM & BERNIE MARQUEZ RESIDENCE
1379 Oak Creek Canyon Road ~ Montecito, California 93108
APN: 011-280-31 & 32

DRAWING:
IRRIGATION PLAN

JOB #: RF11-03
CADD BY: R.A. Fowler
DATE: 12 / 31 / 2011
SHEET
L-6
11 OF 15

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LIGHTING LEGEND

SYMBOL	DESCRIPTION
T	*TRANSFORMER:* **14 Total Shown** FX LUMINAIRE * - PotenzaX-Series -PX-300-TPC-BZ - 300 Watt Transformer w/SuperBloX Terminal (7.50"W x 13.50"H x 6.00" Th) FX LUMINAIRE * - PotenzaX-Series -PX-600-TPC-BZ - 600 Watt Transformer w/SuperBloX Terminal (7.50"W x 13.50"H x 6.00" Th) FX LUMINAIRE * - PotenzaX-Series -PX-900-TPC-BZ - 900 Watt Transformer w/SuperBloX Terminal (7.50"W x 16.50"H x 6.00" Th) INSTALL EACH TRANSFORMER WITH AUTOMATIC PHOTO CELL
D L-7	*LOW VOLTAGE WIRE:* Nightscaping #12 - 2 AWM Direct Burial Cable 100' Max. Wire Run OR EQUAL Nightscaping #12 - 2 AWM Direct Burial Cable 100' Max. Wire Run Nightscaping #12 - 2 AWM Direct Burial Cable 100' Max. Wire Run Nightscaping #12 - 2 AWM Direct Burial Cable 100' Max. Wire Run OR Nightscaping #18 - 2 AWM Direct Burial Cable 250' Max. Wire Run 120 Volt Conduit
	A. All 120 Volt /Structure Mounted Lighting to be Installed by Licensed Electrician.
XXX L A Watts	**Optional LUTRON Stubout with WP GFI Outlet & Switch**
0	**Exterior Switch:** NEW LANDSCAPE SWITCH PROPOSED APPROXIATE LOCATION - CONTROLS PROPOSED LIGHTING CIRCUITS AS SHOWN *(MOUNT SWITCHES ONTO 4" x 4" REDWOOD POST/ MASONRY PIERS /WALLS AS DIRECTED BY LAND. ARCH.)*
$	**Interior Switch:** SWITCH LOCATION - CONNECT TO LUTRON SYSTEM CONTROLS PROPOSED LIGHTING CIRCUITS AS SHOWN - COORDINATE W/ARCHITECT'S DRAWINGS, OWNER & GENERAL CONTRACTOR FOR PRECISE LOCATIONS AND TO FINALIZE LIGHTING FUNCTIONS& CONTROLS.
	WP GFI Outlet: LOCATE AS SHOWN ON 4" x 4" REDWOOD POST OR MASONRY STRUCTURE CONNECT TO ELECTRICAL PANEL ON INDIVIDUAL CIRCUIT
8	**Circuit Number of Transformer**
	Suggested Sleeve Locations - For Landscape Lighting
	**FOR FX LIGHTING TECHNICAL SUPPORT & PRODUCT AVAILIBILITY (CONTACT BARRY ELDER @ 1-888-711-7960) OR EQUAL SUBSTITUTES MAY BE AVAILABLE - TO BE APPROVED BY OWNER & LANDSCAPE ARCHITECT.*

DETAIL SYMBOL	DESCRIPTION ~ FUNCTION
A L-7	*WALKWAY EDGE / PATHLIGHT along Garden Pathway & Stepways* **TEKA** * 12V IPF-1130/Natural 12V 10W MR G4 Natural Brown Patina Finish ***(MATCH EXISTING PATHLIGHTS)*** **FX Alternate:** *If Approved by Owner / Landscape Architect* FX LUMINAIRE * Del Mare DM-20-12R (7.00"D x 15.00"H) (DM-20-12R-CU) 20.0 Watts Xenon Lamp - Copper Finish **LED Alternate:** JoliSolidat JS-3LED (12" Riser) (JS-3LED-CU) 3 LED - Copper Finish
B L-7	*LANDSCAPE BACKLIGHT @ Specimen Plantings & Assorted Garden Accent Features* **FX LUMINAIRE *** LustroRame LR-20 (2.40"D x 6.00"H) (LR-20-F-CU-GS-SJ) 20.0 Watts MR-16 Halogen Lamp - Copper Finish ***(MATCH EXISTING BACKLIGHTS)*** **LED Alternate:** Chic Crevette CC-3LED (CC-3LED-CU-SJ) 3 LED - Copper Finish
C L-7	*LANDSCAPE UPLIGHT / SPOTLIGHT @ Specimen Trees & Assorted Garden Accent Features* **TEKA** * IPF-1116/Natural 50W MR 16 BP Natural Brown Patina Finish ***(MATCH EXISTING UP / SPOTLIGHTS)*** TEKA ACCESSORY Lite Shields/Hoods - Install all Uplights in Shields to Reduce 'Hot Spot' Glare **FX Alternate:** *If Approved by Owner / Landscape Architect* FX LUMINAIRE * LustroRame LR-35 (2.40"D x 6.00"H) (LR-35-F-CU-GS-SJ) 35.0 Watts MR-16 Halogen Lamp - Copper Finish **LED Alternate:** Grand Chien GC-9LED (GC-9LED-CU-SJ) 9 LED - Copper Finish
E L-7	*LANDSCAPE STEP / WALLLIGHT @ Stone Stepways* **B & K*** Mini - Micro Step Wall Lights 3.0 Watts Brass Finish ***(MATCH EXISTING STEP / WALLLIGHTS)*** **FX Alternate:** *If Approved by Owner / Landscape Architect* FX LUMINAIRE * LouverMassimo LM-20 (4.00"D x 3.50"H x 8.375 W) (LM-20-CU) 20 Watts Xenon Lamp - Copper Finish **LED Alternate:** Louver Massimo LM-2LED-CU (LM-2LED-CU) 2 LED - Copper Finish

LIGHTING NOTES:

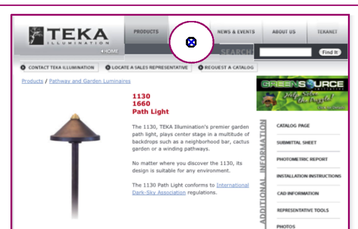
1. Contractor MUST notify Owner & Landscape Arch. 48 Hours in advance to set up night meeting to establish final exact locations of fixtures. Locate fixture as per Note #10 prior to meeting.
2. All electrical work shall be according to local codes and ordinances.
3. All landscape lighting shall be installed per local codes and ordinances.
4. Contractor shall install lighting system per manufacturer's instructions and specification.
5. All project electrical specifications shall apply to installation of landscape lighting fixtures.
6. Contractor shall coordinate with other trades for all electrical power service and line placement.
7. Verify lengths of runs and calculate wire size. Voltage drop shall not exceed 5%.
8. All landscape lighting circuits to be wired to 25 amp breakers at Sub Panel location as shown on plan.
9. Hard wire transformer into existing electrical outlet.
10. Contractor shall supply all necessary conduit and allow a 15' Radius of additional wire from point where light fixture symbol is shown on plan..
11. All conduit runs are diagrammatic. Contractor shall coordinate with other trades and understand proposed locations of of specimen trees. (See Planting Plan)
12. All conduit runs are diagrammatic. Contractor shall understand intent of switching as drawn on plan and coordinate with Architect Landscape Architect & Owner to meet intent of plan.

CONNECT LIGHTS TO (E) TRANSFORMER OR OPTIONAL (N) TRANSFORMER AS SHOWN

CONTRACTOR TO PROVIDE ALLOWANCE TO MODIFY & ADJUST EXISTING LANDSCAPE LIGHTING SYSTEM IN PLANTING AREAS IN AND AROUND EXISTING POOL & SPA TO ACCOMODATE NEW PLANTING DESIGN INCLUDED IN ALLOWANCE SHOULD BE THE CONNECTION TO NEAREST EXISTING OR NEW LIGHTING ELECTRICAL TRANSFORMERS. PROVIDE INSTALLED UNIT PRICES FOR A (N) PATH, UP/BACKLIGHT & 300 W TRANSFORMER TO MATCH EXISTING SHOULD A FEW ADDITIONAL FIXTURES BECOME NEEDED TO PROPERLY COMPLETE NEW DESIGN.

COORDINATE W/ CURRENT LANDSCAPE MAINTENANCE COMPANY TO VERIFY PARTICULARS OF EXISTING LIGHTING SYSTEM IN ORDER TO EFFICIENTLY "WEAVE" TOGETHER THE EXISTING WITH THE NEW SYSTEM.

LIGHTING DETAILS



A WALKWAY PATH / EDGE LIGHT — Not To Scale

LED Alternate: JoliSolidat JS-3LED (12" Riser) (JS-3LED-CU)
3 LED - Copper Finish

A-ALT. WALKWAY PATH / EDGE LIGHT — Not To Scale

LR-20 LED Alternate: Chic Crevette CC-3LED (CC-3LED-CU-SJ)
3 LED - Copper Finish
LR-35 LED Alternate: Grand Chien GC-9LED (GC-9LED-CU-SJ)
9 LED - Copper Finish

B C TREE/GARDEN ACCENT BACKLIGHT — Not To Scale

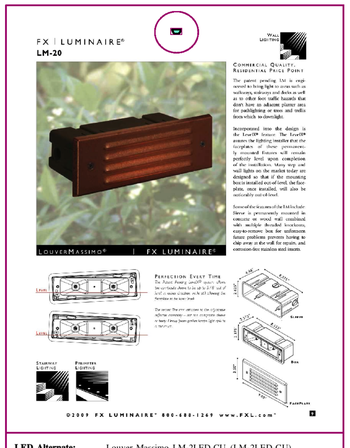
C-ALT. TREE UPLIGHT/ACCENT SPOTLIGHT — Not To Scale

D TRANSFORMER — Not To Scale

LED Alternate: Louver Massimo LM-2LED-CU (LM-2LED-CU)
TWO LED - Copper Finish

E STEP / WALL LIGHT — Not To Scale

Existing Electrical Subpanel @ Guest House's East Exterior Wall
(Verify Circuit Availability)



LED Alternate: Louver Massimo LM-2LED-CU (LM-2LED-CU)
TWO LED - Copper Finish

E-ALT. STEP / WALL LIGHT — Not To Scale

N W E S

GRAPHIC SCALE
(IN FEET)
0 10 15 20

SCALE: 1" = 10' - 0"

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DATE: 11-15-2011
- PRELIMINARY
- AGENCY REVIEW
- ISSUED FOR BIDDING
- ISSUED FOR CONSTRUCTION

LANDSCAPE LIGHTING PLAN

HARDSCAPE ~ LANDSCAPE PLANS

REVISIONS: DATE:

STAMP

REGISTERED LANDSCAPE ARCHITECT — ROBERT ANDREW FOWLER — No. 2698 — Signature — Date — STATE OF CALIFORNIA

PROJECT / OWNER:

TIM & BERNIE MARQUEZ RESIDENCE
1379 Oak Creek Canyon Road ~ Montecito, California 93108
APN: 011-280-31 & 32

DRAWING:

LIGHTING PLAN

JOB #: RF11-03
CADD BY: R.A. Fowler
DATE: 12 / 31 / 2011

SHEET
L-7
12 OF 15

THESE PLANS AND DESIGNS ARE THE PROPERTY OF ROBERT ANDREW FOWLER AND MAY NOT BE USED OR REPRODUCED WITHOUT WRITTEN CONSENT. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE UNIFORM BUILDING CODE AND ALL OTHER APPLICABLE CODES AND ORDINANCES. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB. ANY DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH THE WORK. © 2011

GENERAL CONDITIONS

1.01 Contract Documents
Contract documents shall consist of the specifications, general conditions and the drawings. It is the intent of these documents to specify all elements necessary to accomplish the work in the proper manner. The documents are considered as one, and each shall be bound by the other.

1.02 Verification
Verification of all measurements and site information on the drawings shall be the responsibility of the contractor. The contractor shall notify the owner's representative of any error or discrepancy on the contract documents or the work of others on the site. The contractor shall be held responsible for any damage or loss resulting from failure to provide such notification.

1.03 Personnel, Equipment and Materials
Personnel, equipment and materials necessary for completion of this project, except as noted on the contract documents, shall be provided by the contractor at his expense under this contract.

1.04 Survey, Permits and Regulations
A survey will be provided by the owner at the contractor's request. The contractor shall obtain and pay for all permits, and comply with all laws affecting the conduct of the work as shown on the contract documents, and shall notify the owner of any conflicts there with prior to starting work.

1.05 Protection
Protection of the public, and the work or property of others shall be adequately provided for by the contractor at his expense.

1.06 Changes in the Work
Changes in the work may be ordered by the owner. Adjustments to the contract price must be made for extras so required prior to execution of the work by the contractor.

1.07 Corrections
Corrections to work which fails to conform to the contract documents shall be made by the contractor for a period of ninety days from the completion of the project upon receipt of written notice from the owner, defects in materials and the work of subcontractors are likewise so guaranteed by the contractor, the irrigation system shall be further guaranteed for a period of one year.

1.08 The Landscape Architect
The Landscape Architect shall act as the authorized representative of the owner unless otherwise stated in writing by the owner, and shall have the authority to accept or reject materials or workmanship and make changes in work not involving extra cost. He will interpret the contract documents as necessary and may stop the progress of the work in order to ensure its proper execution.

1.09 Clarification of the Drawings before Bidding
Clarification of the drawings before bidding shall be the responsibility of the contractor. If the owner or the Landscape Architect is unavailable, contractor must qualify his bid according to questions unanswered or accept the interpretation of the owner or Landscape Architect on questionable areas as they occur during progress of the work.

1.10 Samples
Samples shall be provided by the contractor and shall be kept on-hand at the site at all times. Samples will provide the basis for judgment of quality of materials and installation. Samples must be approved by the Landscape Architect as acceptable quality prior to execution of any work involving the sampled material. Unacceptable samples must be removed from the site and replaced by the contractor at his expense.

1.11 Pre-Construction Conference
A pre-construction conference shall be held at least seven days prior to starting construction, and shall be for the purpose of reviewing work procedures, scheduling and administration.

IRRIGATION

Part 1 - Scope of Work
A. The contractor shall provide all labor and tools necessary to install the irrigation as shown on the plans and specifications. The finished system shall provide complete coverage and shall function correctly.
B. Related Work Specified Elsewhere: *PLANTING*

Part 2 - General Requirements
2.01 Layout
A. All scaled dimensions are approximate and shall be checked by the contractor prior to starting work. Location and spacing of all elements on the plans shall be as shown. Any deviation must be approved by the Landscape Architect or owner's representative.
B. The contractor shall check and verify finish grades on the site to ensure proper operation of the system as specified.

2.02 Point of Connection
The contractor shall verify and be familiar with the source of water supply to the system as indicated on the drawings.

2.03 Permits
The contractor shall obtain and pay for all necessary permits and fees pursuant to the execution of the work specified herein.

2.04 Local and State Laws
All local and state laws governing or relating to any portion of this work are hereby made part of these specifications and must be adhered to by the contractor.

2.05 Damages
The contractor shall be responsible for all existing buildings, paving and other structures on or adjacent to the site, and shall repair or replace any element damaged by his operation at his own expense.

2.06 Additional Materials
It is the contractor's responsibility to review the drawings and note where he believes additional materials may be required prior to submitting his bid. If no such changes are submitted by him the contractor will be responsible for achieving complete coverage of the system at his own expense.

2.07 Location of Equipment
A. The irrigation plan is diagrammatic. All valves shall be installed in shrub planting areas, and grouped wherever possible, and shall be within two feet of an adjacent paved area or edge of lawn. Locations of backflow prevention devices and other above-ground appurtenances shall be approved by the Landscape Architect prior to installation.
B. Piping under concrete or asphalt shall be installed before completion of concrete walks, decks or asphalt paving. Where piping on drawings is indicated under paved areas but running parallel and adjacent to planted areas or turf areas, install piping in planted areas. Supply lines and lateral lines shall be installed directly adjacent to paving and curbs wherever possible.

2.08 Manufacturers' Specifications
All irrigation materials shall be installed in accordance with specifications of respective manufacturers. All such specifications are considered part of these specifications after approval by the owner's representative. Detail drawings shall supercede such specifications where conflicts occur.

2.09 Field Conditions
The contractor shall not willfully install the sprinkler system as shown on the drawings where obvious field conditions make it such that the system will not operate as specified.

Part 3 - Materials
3.01 Type and Size
Materials and equipment shall be of the type and size shown on the drawings, and shall not be changed without prior permission by the landscape architect. No material other than that in new and perfect condition may be installed on this project unless approved by the owner or the landscape architect.

3.02 Piping and Fittings
A. Plastic piping shall conform to ASTM D1785, polyvinyl chloride (PVC) Plastic Pipe, Schedule 40. Pressure (supply) lines shall be Schedule 40 PVC. Non-pressure lines shall be Schedule 40 PVC.
B. All PVC piping installed under paving or through footings or walls shall shall be Sch. 80 PVC and installed in Sch. 80 PVC sleeves with "Tracer Wires".
C. All plastic fittings shall be injection molded PVC Schedule 40, NSF approved, or better.
D. All pipe joints shall be in accordance with the respective manufacturer's specifications. No PVC pipe shall be threaded except that which is so manufactured.
E. Solvent cement for welding plastic pipe and fittings joints shall conform to ASTM D2564 for Solvent Cements for Polyvinyl Chloride (PCV) Plastic Pipe and Fittings.
F. All galvanized pipe shall be threaded Schedule 40 hot dip galvanized steel pipe ASTM A120-61T, 150 pounds WOG. Pipe size as indicated is nominal inside diameter. Fittings shall be as indicated on the drawings.
G. All copper-to-galvanized steel connections shall be made with dielectric fittings.

3.03 Valves/Valve Boxes
A. All gate valves shall be threaded brass, 150 pounds, WOG, and of the size indicated on the drawings. Gate valves shall function as, or be eq. to, Jenkins Model # 370.
B. Automatic drain valves (for frost protection) shall be of the ball-check type, constructed of brass with a stainless steel ball. Valves shall have 1/2" male pipe thread connection and be eq. to 'Champion' ModelDV.
C. Manual and/or automatic control valves shall be of the type and size indicated on the drawings. Valves are to be installed in shrub planting areas, grouped wherever possible, and shall be within two feet of an adjacent paved area or edge of lawn. Valves are to be installed according to the manufacturer's specifications, and detail drawings.
D. Quick coupler valves shall be of the type and size indicated on the drawings.
E. All manual control valves, remote control valves, and gate valves shall be installed in valve access boxes with lockable covers. For single valves: 'Amtek' 10" diameter Superflexon pit and locking cover (or equal). For two valves: 'Amtek' 12" rectangular Superflexon pit and locking cover (or equal).

3.04 Backflow Preventer
The backflow preventer shall be of the type and size indicated on the accompanying drawings. The contractor shall be aware of any local codes which may prevent the use of the backflow preventer specified, and shall promptly notify the Landscape Architect of any such restriction.

3.05 Automatic Controllers
A. The automatic controllers shall be of the models and types indicated on the drawings. The controllers shall be installed according to the manufacturer's instructions.
B. 120-volt electrical power outlet shall be provided to the controller locations by others. Irrigation contractor is responsible for all electrical installation work which may be part of the irrigation system.

3.06 Control Wiring
A. Wire from the controller to valves shall be solid copper UL #14 600-volt direct burial. Use white for common wire and black for pilot wire. Place wire in common trench with irrigation main line where possible, taped at ten-foot intervals to the bottom of pipe. Where buried alone, wire shall be taped at ten-foot intervals in bundles.
B. Provide three-foot expansion coils at all valve locations.
C. Wire connections shall be made with 'Rainbird Snap-Tite' or 'Scotch-Lok' connectors.
D. All electrical work shall be performed in accordance with applicable codes.

Part 4 - Installation
4.01 Existing Utilities
The contractor shall verify the locations of existing underground utilities prior to excavation. Damage to any such utilities resulting from the contractor's work shall be repaired at his expense.

4.02 Excavation and Backfill
A. Trenches shall be cut to the required grade line at a true gradient to provide uniform support for the entire length of pipe. All piping shall be properly graded so that entire system of piping may be completely drained.
B. Trench width shall provide for a minimum 6" horizontal clearance between pipes in a common trench.
C. Trench depth shall be such as to provide a minimum 18" coverage over pressure main lines and control wiring, and 12" coverage over lateral lines.
D. Trenches shall not be backfilled until assembly is approved and testing is complete.
E. Backfill shall consist of well-broken site soil of homogeneous consistency. No stones, clods or organic debris shall be used as trench backfill.
F. Backfill areas shall be dressed off to conform to the adjacent grades without dips, sunken areas, humps or other irregularities.

4.03 Sprinkler Head Installation
A. Sprinkler heads, emitter outlets on risers, and valves shall be set perpendicular to finished grades unless otherwise indicated on plan.
B. Sprinklers having adjustable nozzles shall be adjusted for proper distribution of water over coverage pattern with a minimum of overthrow onto walkways, parking areas, or buildings.

4.04 Testing
A. All main lines and laterals with glued joints shall be pressure tested at a minimum pressure of 125 lbs. per sq. inch. Pressure shall be sustained in the lines for at least two hours. Leaking joints shall be replaced and retested until the entire system is watertight. The test shall be observed by the owner's representative and approved prior to backfill.
B. Upon completion of the system, and prior to planting, the sprinklers shall be adjusted to ensure complete coverage. Inadequacies shall be corrected at the contractor's expense. The owner or Landscape Architect shall be present during the testing and shall approve the completed system.

Part 5 - As-Built Drawings
A. The contractor shall keep a complete set of drawings on the site at all times, and shall regularly update the plan by indicating any deviations, as they occur on the drawings. One set only shall be used for this purpose, and shall be accessible to the Landsc.Arch. and the owner at all times during regular construction working hours.
B. Upon completion of the work, the drawings shall be given to the owner in a clean and accurate condition. Provision of the plans shall in no way relieve the contractor from supplying required information, which may have been omitted from the as-built plan.
C. Deviations shall be noted by dimension lines parallel or perpendicular to the element in question from two existing and fixed points on the plan.

Part 6 - Clean-Up
After all installation work has been completed, all trash, debris, and excess soil shall be removed from the site. All scars, ruts, and other marks on the ground left as a result of irrigation system installation shall be repaired. The contractor shall remove all trash from the job site at least once a week, on the last working day of the week. At no time shall dirt, mud, or debris be left on or adjacent to areas of public pedestrian travel so as to cause a safety hazard.

Part 7 - Guarantee
7.01 Repairs/Adjustments
The entire sprinkler irrigation system shall be guaranteed by the contractor for a period of one year from the date of acceptance of the work. Guarantee shall cover all materials and workmanship, including excavation and backfill. If at any time any part of the system fails to function adequately the contractor shall make all necessary repairs or adjustments immediately upon receipt of notice from the owner. Any damage to planting, structures or paving resulting from failure of the contractor to correct same shall be repaired by the contractor at his expense.

7.02 Owner Operation
A. Upon completion of the system the contractor shall provide instruction to the owner or his representative on the operation of the sprinklers, valves and controller. Instruction shall include a diagram of the system indicating the location of each valve and its designation on the controller panel.
B. If manual valves are installed, the contractor shall furnish the owner with a minimum of three manual valve keys designed for use with the system. Valve keys shall be 30" in length, manufactured by Champion Brass Manufacturing Co., L.A., CA.
C. At the time of acceptance, the contractor shall furnish the following items to the owner:
1. Two wrenches for disassembling and adjusting each type of sprinkler head (should they be necessary) for the brand of head used on this project.
2. Two sets of manufacturer's brochures describing and illustrating each brand of irrigation system equipment used on this project.
3. Two keys for opening valve boxes.

7.03 Temporary Repairs
It shall be the right of the owner to make temporary repairs as required in order to keep the sprinkler system in operation. Should the contractor fail to respond to the owner's notice of repairs needed in a timely manner, the owner may make the repairs or adjustments and charge the contractor the expense incurred.

END OF SECTION

PLANTING

Part 1 - Scope of Work
2.00 Contractor shall furnish all labor, materials and equipment necessary to provide and install plant materials as shown on the drawings. The contractor's work shall include:
A. Finish grading, molding and sculpting of the site to achieve the intent of the plans.
B. Prepare soil for planting and furnish all soil amendments.
C. Furnish and install all plant materials per the planting plan.
D. Prune plants as required.
E. Stake, tie and guy plant materials as specified.
F. Maintain the planting until such time as the project has been accepted.
G. Dispose of trash, debris and surplus materials.
H. Guarantee.

Part 2 - Site Conditions
2.01 Verification
The contractor shall verify the locations of underground utilities prior to excavation. Damage to any such utilities resulting from the contractor's work shall be repaired at his expense.

2.02 Soil Conditions
The contractor shall investigate the site for any subsurface drainage of unusual soil conditions which might prove detrimental to the success of the design as specified on the plan insofar as growth and survival of plant material is concerned. Should any such condition exist, the contractor shall notify the Landscape Architect and submit a proposal for corrective measures and their costs. Should the contractor fail to provide such notification, he will be held solely responsible for any corrections deemed necessary by the owner and the Landscape Architect should damage occur.

2.03 Field Conditions
The planting plan is diagrammatic. Scaled dimensions are approximate. Prior to proceeding with installation work, the contractor shall verify all dimensions with field conditions and notify the Landscape Architect of any deviation on the plan. Landscape Architect shall be the final authority in interpretation of the plan and in accommodation of unforeseen field conditions.

Part 3 - Materials
3.01 Soil Amendments
A. Soil amendment shall be nitrogen-fortified redwood shavings of 1/4" maximum dimension.
B. Topdressing shall be large sized 'Sequoia-NON-SHREDDED' Walk-on Redwood Bark for mulch purposes in shrub areas, applied to a depth of 2".
C. All other soil supplements shall be as indicated elsewhere in these specifications or as approved by the Land. Arch.

3.02 Fertilizer Tablets
All fertilizer tablets shall be 7 gram 'Gro-Power' tablets, manufactured by Southern California Organic Fertilizer Company, Inc., P.O. Box 769, Glendale, CA 91209.

3.03 Deep Root Planters
Deep root planters and control barriers shall be as manufactured by the Deep Root Corp., 7354 Bolsa Avenue, Westminster, CA 92638; (714) 898-0563 or 'Root Booster' by Shawtown Industries, 31123 Via Colinas #1106, Westlake, CA; (818) 706-2285. Planter or barrier model shall be as indicated on the planting plan and detail drawings. Installation shall be in accordance with the manufacturer's specifications and the landscape drawings.

Part 4 - Topsoil
A. Topsoil shall consist of a fertile, friable natural loam of uniform quality free from subsoil, clods, clay hard pan, organic debris and noxious weed seed or vegetable matter.
B. Soil imported for fill or topsoil use shall be tested for plant suitability prior to distribution on the site. Contractor shall coordinate with the general or building contractor to insure adherence to this restriction. The contractor responsible for importation of fill or topsoil assumes responsibility for any and all damage to plant materials resulting from harmful substances present in such imported soil.
C. Where engineer's or architect's drawings specify that existing grades are to be lowered, the topsoil on the site shall first be removed and stockpiled for redistribution on landscaped areas after rough grading and compaction.
D. Redistributed or imported topsoil shall be spread over landscaped areas only after the existing surfaces have been ripped to a depth of 12".

Part 5 - Plant Materials
5.01 Nomenclature
Plant names shall be as established by common usage in the commercial nursery trade.

5.02 Plant Materials Quality
A. Plants shall be sound, healthy, vigorous and free from disease, insects or insect larvae and shall be of normal size relative to their containers. Root bound plants will be rejected.
B. General quality of the plant material shall be subject to the approval of the landscape architect.
C. All plants furnished shall conform to the Calif. State Grading Code for nursery stock, and shall be Number#1 Grade.
D. Substitutions of alternate plants will only be approved upon substantial proof, submitted to the Landscape Architect, that specified material is not available. All substitutions must be approved by the Landscape Architect as to species and variety.

Part 6 - Plant Support
A. Plants shall be staked, guyed or tied per the detail drawings and as specified on the planting plan.
B. Stakes shall be located to prevent interference with the operation of the landscape irrigation system.

Part 7 - Underground Obstructions
Underground obstructions and irrigation system components, which may affect or be affected by specified plant materials in their intended locations shall be brought to the attention of the Landscape Architect prior to planting. Failure to adhere to this instruction shall leave the contractor liable for any cost involved in relocating plants.

Part 8 - Finish Grading
A. Till all areas as specified herein.
B. After tilling, all areas shall be brought to uniform grade by floating or hand raking.
C. Final finish grade of planting areas shall be 1/2" to 1" below top of adjoining paving and 6" minimum below finish floor elevation of any building.
D. No stone or debris or clods over 1" dimension shall be left on the graded planting surface.

Part 9 - Weed control
9.01 **Application**
A. Weed control operations shall be performed under the supervision of an individual licensed by the State of California to apply Agricultural Chemical Herbicides.
B. This specification is general in nature and shall be altered to accommodate unique site conditions upon agreement between the herbicide applicator and the landscape architect.
C. Apply non-selective herbicide on all areas to be planted. Allow to remain undisturbed for 15 days, then remove dead plant growth. Irrigate the treated areas for 15 days thereafter, and then apply a non-selective contact herbicide to all new growth.
D. Spot spray systemic herbicide on any Morning Glory, Bermuda Grass or Kikuyu Grass remaining and allow another 15 days before removal of dead growth and planting of ornamentals.

Part 10 - Soil Preparation
THE FOLLOWING SPECIFICATION IS FOR BID PURPOSES ONLY. THE PROJECT AWARDED LANDSCAPE CONTRACTOR SHALL OBTAIN SOIL SAMPLE(S) AND PROCEED AS PER PLANTING NOTE #4 ON PLANTING PLAN.
A. The entire area of the site shall be thoroughly tilled to a minimum depth of six inches.
B. The following materials shall be spread evenly over the planting areas at the rates indicated per one-thousand square feet:
1. Apply **_ lbs.** of *Commercial Trace Minerals*.
2. Apply **200 lbs.** of **'Gro-Power Plus'** *Fertilizer/Soil Conditioner.*
3. Apply **6 Cu. Yds.** *Nitrogen Fortified Redwood Shavings or Forest Humus.*
4. Apply **75 Lbs.** *Agricultural Gypsum.*
C. Rototill amendments and fertilizers into the solid to a depth of 6" and water thoroughly.

Part 11 - Planting Trees and Shrubs
11.01 Prior to Planting
A. Contractor shall commence planting operations only after completion and acceptance of the irrigation system, and soil surface is smooth and uniform after soil preparation.
B. Planting will not be allowed during times of extreme weather conditions, which might, in the opinion of the owner or theLandscape Architect, be harmful to the plant materials.
C. Locations of all plant materials shall be approved by the Landscape Architect prior to planting.
D. Contractor shall protect plants from adverse conditions and vandalism or theft at all times, and shall not distribute any more plants to planting locations than can be planted in one day of work.
E. During soil preparation operations the contractor shall remove any stones, debris and extraneous organic material, which becomes exposed.
F. Contractor shall furnish tags and certificates of delivery to the owner's representative or Landscape Architect for the purpose of verifying delivery for payment.

11.02 Planting
A. All plants shall be thoroughly watered in their containers within 24 hours of planting, and shall be watered again immediately after planting.
B. Plants shall be removed from containers only within one-half hour prior to planting. Contractor shall take care not to damage root balls when removing plants from containers.
C. Root balls shall be slightly loosened on the exterior 1/2" to encourage correct rooting.
D. All planting pits shall be excavated to twice the diameter of the root ball, and 6" greater than the depth. The bottom of the pit shall be loosened and retamped. The sides of the pit shall be scarified.
E. Plants shall be placed such that the top of the root ball is equal to the level of the ground around it. Plants, which settle, lower after planting shall be replanted at the proper level at the contractor's expense.
F. 'Gro-Power' Planting tablets shall be placed in planting pits at the following rates:
1 tablet per flatted plant or liner
3 tablets per one-gallon plant
6 tablets per five-gallon plant
12 tablets per fifteen-gallon plant
18 tablets per boxed specimen to 24" size
Use 2 additional tablets per inch of box size beyond 24"
G. Backfill shall consist of 6 parts site soil or imported topsoil to 4 parts nitrolized redwood shavings (by volume), plus 18 lbs. of 'Gro-Power Plus' per cubic yard of backfill mix.
H. Backfill shall be lightly compacted around the root balls during planting.
I. Pruning shall be done only at the direction of the landscape architect, and shall be done in accordance with normal horticultural practices.

Part 12 - Ground Cover Planting
12.01 Soil Preparation
A. Soil preparation shall be as set forth in these specifications and on the planting plan.
B. Fertilizer shall be added to the soil at the time of soil preparation per these specifications.
C. Ground cover planting beds shall be finish graded after full soil preparation and weed control prior to planting. After planting, beds shall be edged, cultivated, and brought to a smooth and even surface conforming to established grades after settling.

12.02 Planting
A. Planting pits for ground cover plants from flats shall be 4" diameter by 4" deep minimum, and shall be large enough to accept the plant root ball without cutting or crushing.
B. Each plant shall be watered with one cup minimum water at the time of planting. Ground cover areas shall be watered with the irrigation system at the completion of each section and as often thereafter as required to sustain growth.
C. Soil shall be pressed firmly around the roots of plants. Excess soil at the crown shall be removed.

12.03 Location/Spacing
A. Plants shall be located per the spacing indicated on the planting plan, triangular method.
B. Spacing of plants from adjoining pavement, lawn or other edges shall be half the spacing between the plants as specified on the planting plan.

Part 13 - Clean-Up
A. Upon completion of all planting operations the contractor shall remove from the project area all trash, debris and extraneous materials. If planting operations continue for longer than one week, the contractor shall clean the area on the last day of the workweek. At no time during the course of the work shall dirt, mud or debris be left on or adjacent to areas of public pedestrian travel so as to cause a safety hazard.
B. All nursery tags, labels, stakes and other items not specified to remain shall be removed from the site.

Part 14 - Protection
A. Contractor shall provide for protection of the job site and all planting areas until final acceptance of the work, and shall replace all damaged or stolen materials at his own expense.
B. Contractor shall protect all existing elements on the site, including the irrigation system, buildings, paving, etc., and any elements adjacent to the site. Damage to any such elements caused by the contractor's operations or neglect shall be repaired at his expense.

Part 15 - Guarantee
15.01 Trees and Shrubs
A. All trees and shrubs shall be guaranteed as to health for a period of ninety (90) days after completion of the maintenance period.
B. Any plant which suffers the loss of more than 30% of its leaf growth shall be replaced at the contractor's expense. Deciduous plants or plants which normally suffer planting shock may be accepted at the discretion of the Landscape Architect.

15.02 Replacement
Within ten (10) working days of receiving notice from the owner, the contractor shall replace in kind any plants deemed to be unacceptable under the terms herein stated. Replacement plants shall be installed per these specifications and the detail drawings, and shall be subject to the same guarantee as those originally planted.

Part 16 - Maintenance
A. Upon completion of the work and acceptance by the owner, the contractor shall maintain all planting areas for a period of ninety (90) days.
B. Maintenance shall include monitoring of the irrigation system, weeding, mowing, edging, fertilizing, reseeding and any other operations normally required for basic landscape care.
C. After ten days have elapsed beyond completion of installation work, the contractor shall apply pre-emergence weed killer over all planted areas.
D. During the maintenance period, any weed growth shall be removed by hand pulling at intervals of no more than ten (10) days.
E. At forty-five (45) days into the maintenance period, the contractor shall apply 6 lbs. of 'Turf Supreme' (16-6-8 plus zinc & iron) per 1,000 sq. ft. fertilizer to all planted areas.

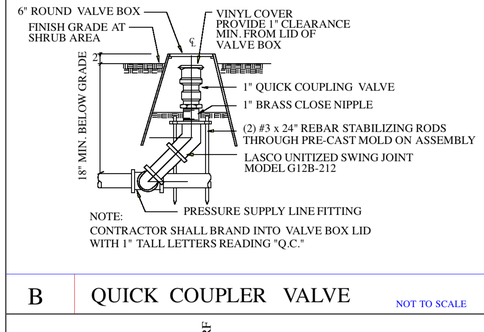
Part 17 - Inspection
17.01 Notification of Inspections
The Landscape Architect will inspect the work at intervals and critical times agreed upon at the preconstruction meeting. The contractor shall notify the Landscape Architect a minimum of three (3) days prior to specified inspections, and shall be present on the site at the time of each inspection.

17.02 Final Inspection
A. Final inspection of the work, for the purpose of approval to commence the maintenance period, shall be requested by the contractor when the following items have been finished:
1. Finish grading, including all prior soil preparation and weed control.
2. Complete and fully operational irrigation system.
3. Completion of all planting and seeding.
B. Items, which may be completed during the maintenance period, within ten (10) working days after acceptance of the work, may include the following:
1. Repair of bare spots by resodding, reseeding or replanting.
2. Replacement of dead, damaged or non-specified plant material.
3. Restaking, regraying or retying of trees or vines.
4. Adjustment of sprinkler heads to conform to finish grade or turf.
5. Filling of settled or eroded areas caused by normal irrigation operations.
C. Upon completion of the ninety (90) day maintenance period, and only after such deficiencies as were indicated at the time of final inspection have been remedied, the contractor shall request final maintenance inspection.

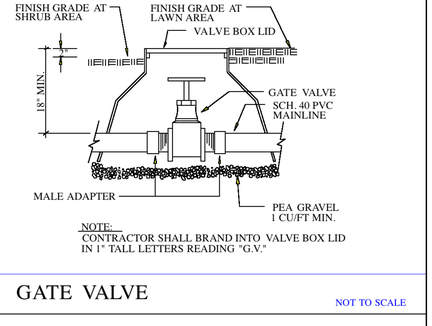
17.03 Final Maintenance Inspection
Upon completion of the final maintenance inspection the Landscape Architect will inform the contractor of deficiencies to be resolved. If no deficiencies are noted, the contractor is at that time relieved of further work except as noted in these specifications under "*Guarantee*". The guarantee period shall likewise begin at that time.

17.04 Extra Inspections
If deficiencies specified by the Landscape Architect have not been corrected at the time of the inspection for verification of correction, subsequent inspection costs for the Landscape Architect's time will be deducted from the contractor's final payment. This condition applies to all stages of work, including final maintenance inspection.

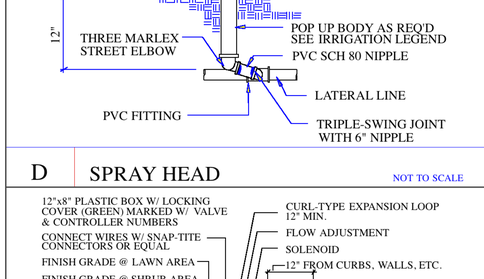
END OF SECTION.



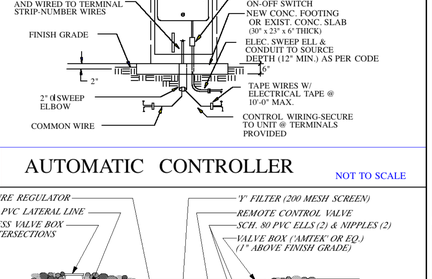
B QUICK COUPLER VALVE NOT TO SCALE



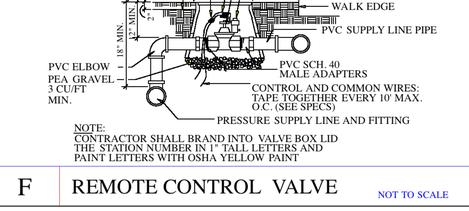
A GATE VALVE NOT TO SCALE



D SPRAY HEAD NOT TO SCALE



C AUTOMATIC CONTROLLER NOT TO SCALE



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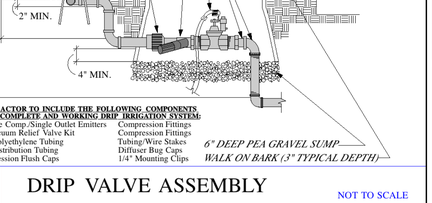
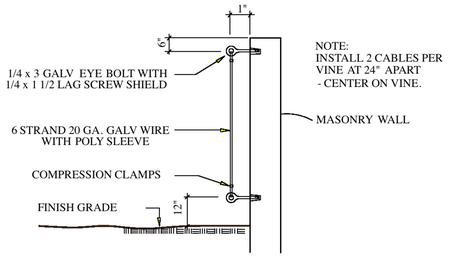
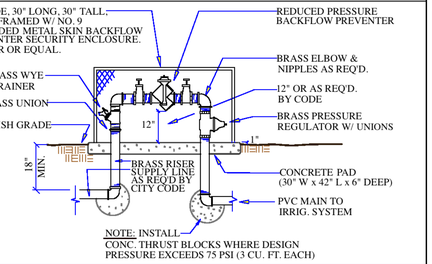


E DRIP VALVE ASSEMBLY NOT TO SCALE

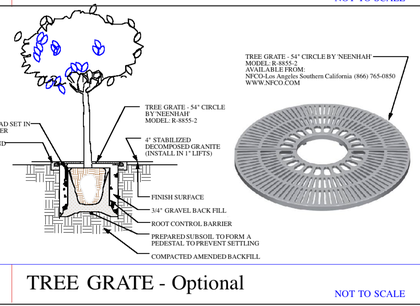


I OMIT NOT TO SCALE

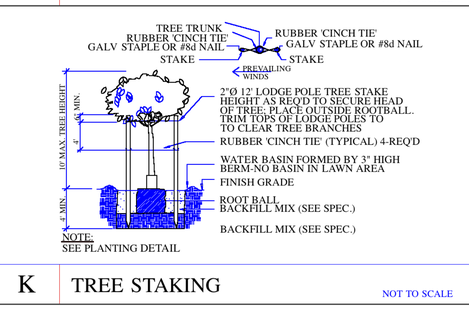


H VINE ATTACHMENT DETAIL NOT TO SCALE

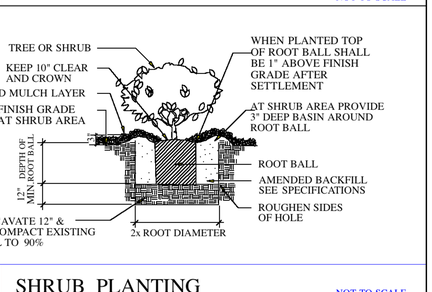
G BACKFLOW PREVENTER NOT TO SCALE



L TREE GRATE - Optional NOT TO SCALE



K TREE STAKING NOT TO SCALE



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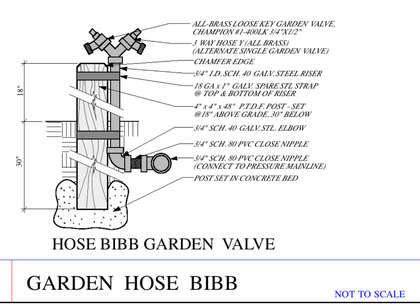

HOSE BIBB GARDEN VALVE

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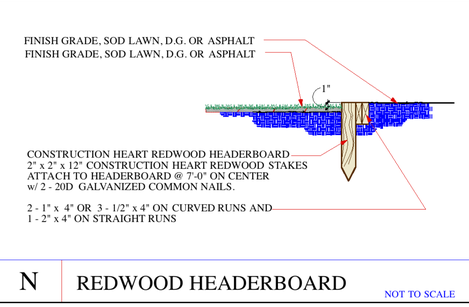

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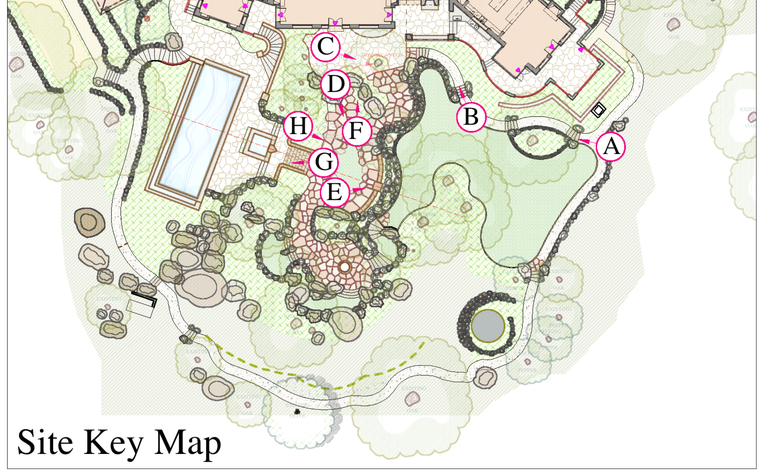

Site Key Map

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DATE: 11-15-2011

- ☐ PRELIMINARY
- ☐ AGENCY REVIEW
- ■ ISSUED FOR BIDDING
- ☐ ISSUED FOR CONSTRUCTION

SITE PERSPECTIVES
3-D VIEWS ~ #1
LANDSCAPE PLANS

REVISIONS: DATE:

STAMP

REGISTERED LANDSCAPE ARCHITECT
ROBERT ANDREW FOWLER #2698
Signature
Date
STATE OF CALIFORNIA

PROJECT / OWNER:

TIM & BERNIE MARQUEZ RESIDENCE
1379 Oak Creek Canyon Road ~ Montecito, California 93108
APN: 011-280-31 & 32

DRAWING:

3-D VIEWS
#1

JOB #: RF11-03
CADD BY: R.A. Fowler
DATE: 12 / 31 / 2011

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L-9
14 OF 15

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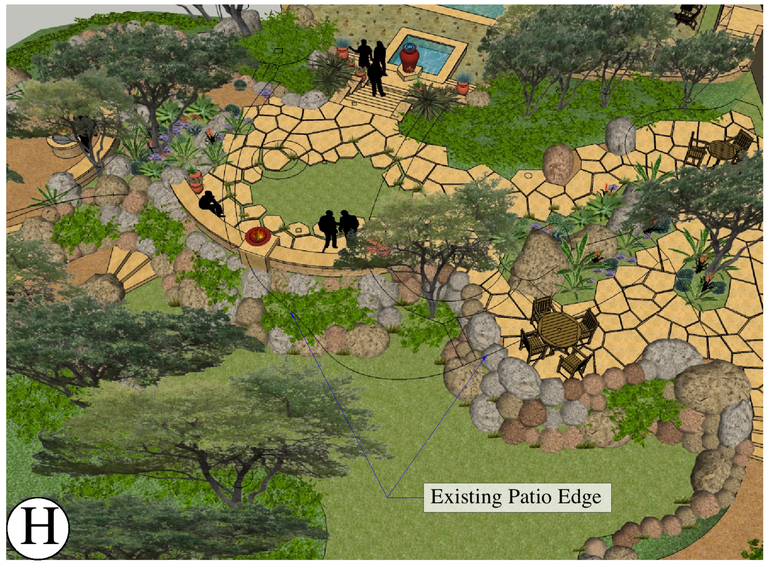

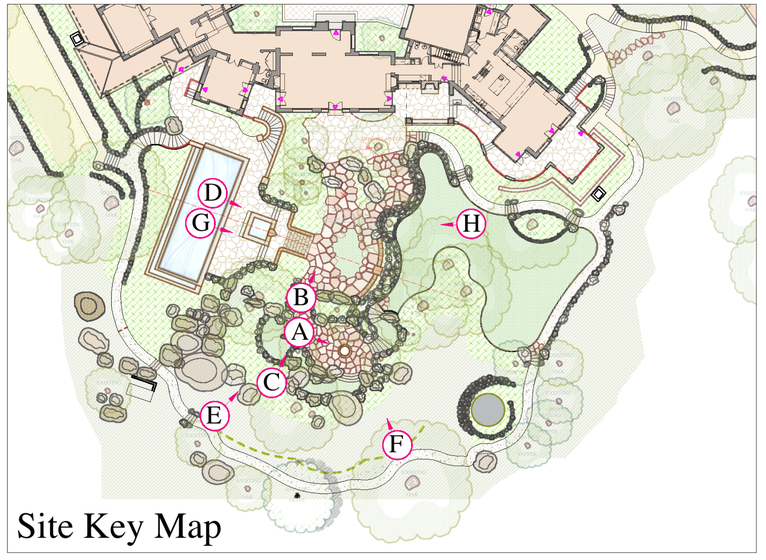

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SITE PERSPECTIVES
3-D VIEWS ~ #2
LANDSCAPE PLANS

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Date
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APN: 011-280-31 & 32

DRAWING:
3-D VIEWS
#2

JOB #: RF11-03
CADD BY: R.A. Fowler
DATE: 12 / 31 / 2011

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L-10
15 OF 15

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