Attachment No. PC 8

Proposed Final Landscaping Plans

LANDSCAPE ARCHITECTURAL DRAWINGS for

MARINER'S POINTE

WEST COAST HIGHWAY. at DOVER
NEWPORT BEACH, CA

SPECIFIC PLAN NOTES

PROJECT PLAN APPROVED BY SITE PLAN REVIEW # 2009 - 02

GENERAL NOTES:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.

2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND SHALL BE HELD LIABLE FOR ALL DAMAGE INCURRED DURING CONSTRUCTION.

3. CONTRACTOR SHALL OBTAIN A CURRENT STRUCTURAL SOILS REPORT. THIS SOILS REPORT SHALL SUPERSEDE THE RECOMMENDATIONS AND DETAILS SHOWN ON THESE PLANS AND SPECIFICATIONS.

4. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL SLEEVES AS INDICATED ON THE IRRIGATION PLANS WITH PAVING CONTRACTOR.

5. REFER TO SPECIFICATIONS FOR ACCEPTED STANDARDS OF MATERIALS AND WORKMANSHIP.

6. ALL FORMS AND ALIGNMENT OF HARDSCAPE ITEMS SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO POURING. (CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT A MINIMUM OF 48 HOURS PRIOR TO THE INSPECTION.)

7. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AND/OR GRADE DIFFERENCES WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATIONS.

8. THE LOCATION OF FEATURES TO BE CONSTRUCTED, NOT SPECIFICALLY DIMENSIONED, MAY BE DETERMINED BY SCALE. VERIFY ALL SUCH CONDITIONS WITH OWNER'S NOTIFICATION.

9. ALL CURVE-TO-CURVE AND CURVE-TO-TANGENT LINES SHALL BE NEAT, TRIM, SMOOTH, AND UNIFORM.

10. ALL CONSTRUCTION AND INSTALLATION OF LANDSCAPE ITEMS SHALL BE PER LOCAL CODES AND ORDINANCES.

11. CONTRACTOR SHALL FULLY GUARANTEE ALL WORK FOR A ONE-YEAR PERIOD FROM OWNER'S ACCEPTANCE OF WORK.

12. CONTRACTOR SHALL BE RESPONSIBLE FOR WEED ABATEMENT DURING THE CONTRACTOR'S MAINTENANCE PERIOD.

13. THE LANDSCAPE CONTRACTOR IS TO ENSURE THAT IRRIGATION AND DRAIN LINES ARE LOCATED AND INSTALLED SO THAT THE MATERIALS SHOWN ON THE PLANTING PLANS CAN BE ACCOMMODATED.

14. IF ANY CONCRETE WORK SHOWN ON THESE PLANS ABUTS WOOD SIDING ON BUILDINGS, INSTALL GALVANIZED METAL FLASHING TO PROTECT WOOD SIDING.

15. THE CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION REFERENCED IN THE PLANS AND SPECIFICATIONS. ANY CONSTRUCTION NOT MEETING THE APPROVAL OF THE OWNER OR THE LANDSCAPE ARCHITECT SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE WITH ACCEPTABLE CONSTRUCTION.

16. ALL DIMENSIONS SHALL BE VERIFIED AGAINST EXISTING CONDITIONS AND ANY DISCREPANCIES REPORTED TO THE OWNER'S REPRESENTATIVE.

MAINTENANCE RESPONSIBILTY NOTE:

OWNER WILL BE RESPONSIBLE to MAINTAIN ALL LANDSCAPE AREAS within THE LIMIT of WORK SHOWN on THESE PLANS.

UNDERGROUND SERVICE ALERT

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TWO WORKING DAYS BEFORE YOU DIG

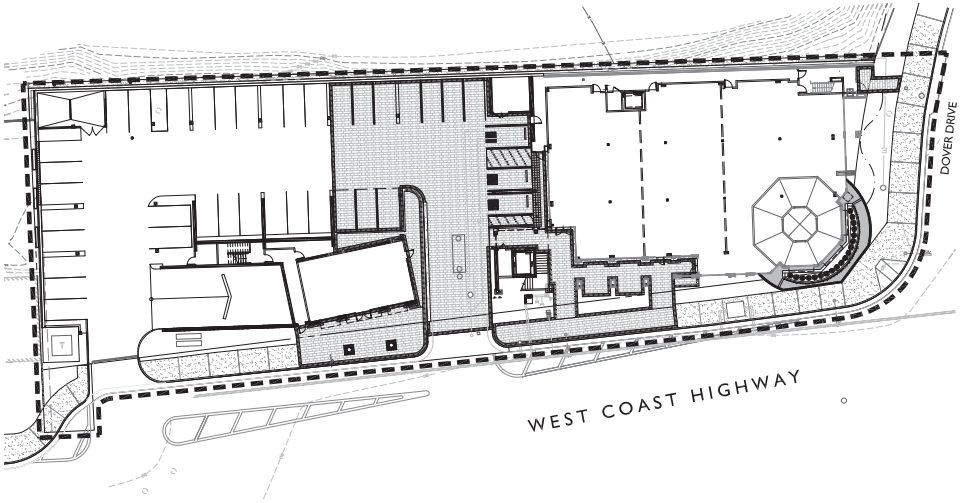
ABBREVIATIONS

ARCH.	ARCHITECT (ARCHITECTURAL)	ID	INSIDE DIAMETER
B.S.	BOTTOM OF STEPS	INV.	INVERT (ELEVATION)
C.B.	CATCH BASIN	L.A.	LANDSCAPE ARCHITECT
C.F.	CURB FACE	LP	LOW POINT
C.J.	COLD JOINT	MAX.	MAXIMUM
C.L.	CENTERLINE	MIN.	MINIMUM
CMU	CONCRETE MASONRY UNIT	N.I.C.	NOT IN CONTRACT
C.O.	CLEAN OUT	N.T.S.	NOT TO SCALE
COMP	COMPACTED	O.C.	ON CENTER
CONC.	CONCRETE	P.A.	PLANTING AREA
CONT.	CONTINUOUS	PERF.	PERFORATED
DIA.	DIAMETER	POC	POINT OF CONNECTION
EA.	EACH	R	RADIUS
EJ	EXPANSION JOINT	REBAR	REINFORCING BAR
F.F.E.	FINISH FLOOR ELEVATION	SIM.	SIMILAR
F.G.	FINISH GRADE	S.L.	SCORE LINE
FOS	FACE OF STRUCTURE	SQ.	SQUARE
F.L.	FLOW LINE	T.C.	TOP OF CURB
F.S.	FINISH SURFACE	T.G.	TOP OF GRATE
FTG.	FOOTING	T.S.	TOP OF STEPS
G.C.	GROUND COVER	TYP.	TYPICAL
HORIZ.	HORIZONTAL	VERT.	VERTICAL
HP	HIGH POINT	W/	WITH
		W/O	WITHOUT
		W.W.M.	WELDED WIRE MESH

NOTES:

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF MJS DESIGN GROUP (A CALIFORNIA CORPORATION) AND SHALL NOT BE USED ON ANY OTHER WORK EXCEPT BY WRITTEN AUTHORIZATION FROM MJS DESIGN GROUP. WRITTEN DIMENSIONS TAKE PREFERENCE OVER SCALED DIMENSIONS AND SHALL BE VERIFIED ON THE JOB SITE AND ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF MJS DESIGN GROUP PRIOR TO COMMENCEMENT OF ANY WORK.

NOTES

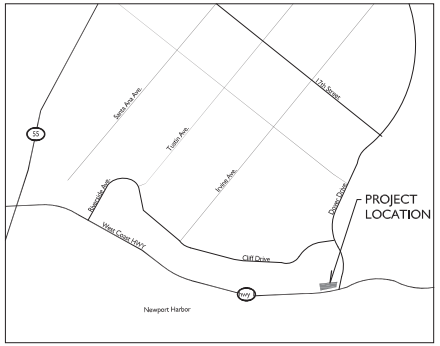


KEY MAP

SCALE: N.T.S.

LT.1	TITLE SHEET
LC.1	LANDSCAPE CONSTRUCTION PLAN
LC.2	CONSTRUCTION NOTES and FINISH SCHEDULE
LC.3 thru LC.4	LANDSCAPE CONSTRUCTION DETAILS
LC.5	LANDSCAPE CONSTRUCTION SPECIFICATIONS
LI.1	LANDSCAPE IRRIGATION PLANS
LI.2	IRRIGATION LEGEND, NOTES and CALCULATIONS
LI.3	IRRIGATION DETAILS
LI.4	IRRIGATION SPECIFICATIONS
LP.1	TREE, VINE and TURF PLANS
LP.2	SHRUB PLANS
LP.3	PARKING GARAGE PLANTING PLAN
LP.4	PLANTING DETAILS
LP.5	PLANTING SPECIFICATIONS

SHEET INDEX



NOT TO SCALE

VICINITY MAP

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18582 BEACH BOULEVARD
HUNTINGTON BEACH,CA
92648

CLIENT:

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PH: 949.723.5854
CONTACT: TOD RIDGEWAY

OWNER

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FAX: 714.774.4690
CONTACT: GLEN GWATNEY

ELECTRICAL ENGINEER:

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2 EXECUTIVE CIRCLE
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IRVINE, CA 92614
PH: 949.253.3479
CONTACT: TOM RUZIKA

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LAKE FOREST, CA 92630
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M.E.P.:

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RD #140
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CONTACT: MATT WALLER

CONSULTANTS

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PLANNING DEPARTMENT
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GOVERNING AGENCIES

Issued For:

3.26.12	1st CITY SUBMITTAL
5.29.12	PLANNING COMMISSION

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MJSDesign Group.
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PROJECT:

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V.B.A.S. PROPERTIES Inc.

18582 BEACH BOULEVARD
HUNTINGTON BEACH,CA
92648

Stamp:

LICENSED LANDSCAPE ARCHITECT
MARIAN SCHAFFTER
Signature
03.13.13
Expiration Date
6.30.13
Date
STATE OF CALIFORNIA

Job No.: -
Drawn By: MJS
Checked By: MS
Plan Date: MAY 29, 2012
Scale: N/A

Title:

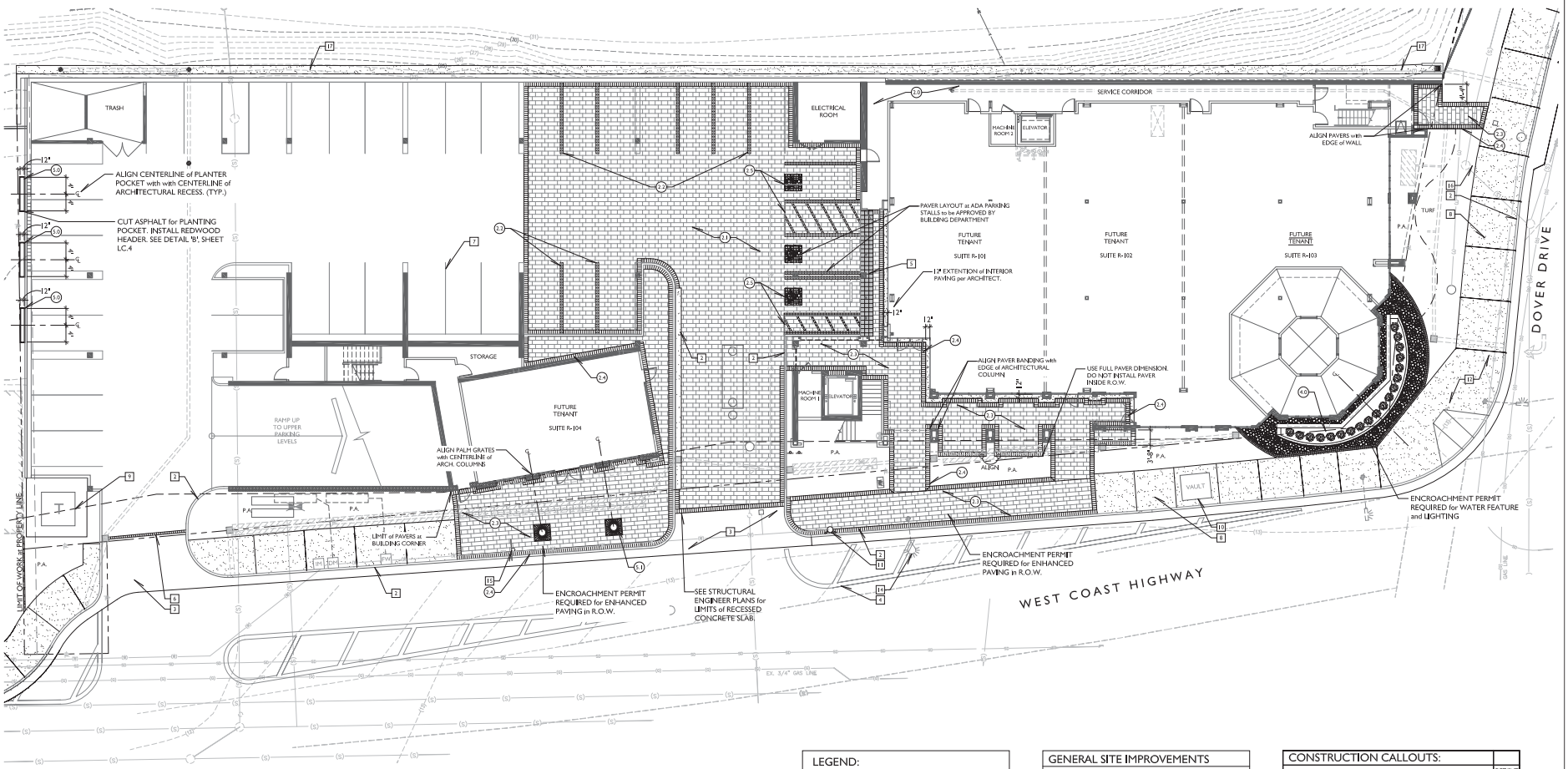
TITLE SHEET

Sheet No.:

LT.1

Plan Status:

PERMIT/CONSTRUCTION DOCUMENTS



LEGEND:

⌒	ALIGN
CLR	CLEAR
℄	CENTERLINE
EQ.	EQUAL
F.O.C.	FACE OF CURB
F.O.P.	FACE OF PILASTER
F.O.W.	FACE OF WALL
MIN.	MINIMUM
MAX.	MAXIMUM
P.A.	PLANTING AREA
R=	RADIUS EQUALS
TYP.	TYPICAL
(1.2)	CONSTRUCTION CALLOUT
- - - - -	CAULKED EXPANSION JOINT (TO MATCH PAVING)
⊕	POINT-OF-BEGINNING

FIELD VERIFY ALL UTILITY LOCATIONS PRIOR to CONSTRUCTION.

GENERAL SITE IMPROVEMENTS

1. ADA RAMP. BY CIVIL ENGINEER.
2. CURB and GUTTER. BY CIVIL ENGINEER.
3. CONCRETE DRIVE APRON. BY CIVIL ENGINEER.
4. ASPHALT PAVING and STRIPING. BY OTHERS.
5. TRUNCATED DOMES. by CIVIL ENGINEER
6. TRENCH DRAIN. BY CIVIL ENGINEER.
7. PARKING LOT STRIPING by OTHERS.
8. CONCRETE SIDEWALK. BY CIVIL ENGINEER.
9. TRANSFORMER PAD. BY OTHERS.
10. UNDERGROUND UTILITIES. BY OTHERS.
11. FIRE HYDRANT. PER CIVIL ENGINEER.
12. EXISTING CITY SIDEWALK.
13. EXISTING CURB and GUTTER.
14. EXISTING LIGHT POLE.
15. EXISTING BUS STOP SIGN.
16. EXISTING SIGN POLE.
17. CONCRETE SWALE. by CIVIL ENGINEER

CONSTRUCTION CALLOUTS:

		DET/SHT
	FLATWORK	
2.0	PEDESTRIAN CONCRETE PAVING	A, LC.3
2.1	INTERLOCKING CONCRETE VEHICULAR PAVERS on SLAB	B, LC.3
2.2	PARKING STALL PAVER BAND	C, LC.3
2.3	INTERLOCKING CONCRETE PEDESTRIAN PAVERS 60 mm	D, LC.3
2.4	PAVER BANDING as SHOWN on PLAN	B, LC.3
2.5	PAVER ADA PARKING STALL STRIPING - BLDG. DEPT. APPROVAL REQ'D.	C, LC.3
	WATER FEATURE	
4.0	WATER FEATURE - ENCROACHMENT PERMIT REQUIRED	A, LC.4
	SITE IMPROVEMENTS	
6.0	REDWOOD HEADER	E, LC.3
6.1	TREE GRATE	F, LC.3

NORTH

SCALE: 1" = 10'

0 5' 10' 20'

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LICENSED LANDSCAPE ARCHITECT
MARIAN SCRATTISH, AIA
Date 03.13.13
Expiring Date 6.30.13
Seal
STATE OF CALIFORNIA

Job No.: -

Drawn By: MJS

Checked By: MS

Plan Date: MAY 29, 2012

Scale: 1" = 10'

Title:

LANDSCAPE CONSTRUCTION PLAN

Sheet No.:

LC.1

Plan Status:

PERMIT/CONSTRUCTION DOCUMENTS

198

CONSTRUCTION NOTES

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4. THE LOCATION OF FEATURES TO BE CONSTRUCTED, NOT SPECIFICALLY DIMENSIONED MAY BE DETERMINED BY SCALE. VERIFY ALL SUCH CONDITIONS WITH OWNER'S REPRESENTATIVE.

5. ALL CURVE-TO-CURVE AND CURVE-TO-TANGENT LINES SHALL BE NEAT, TRIM, SMOOTH, AND UNIFORM.

6. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL SLEEVES AS INDICATED ON THE IRRIGATION PLANS WITH PAVING CONTRACTOR.

7. ALL FORMS AND ALIGNMENT OF HARDSCAPE ITEMS SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO POURING. (CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHTECT A MINIMUM OF 48 HOURS PRIOR TO THE INSPECTION.)

PAVER NOTES:

1. PAVER SHALL BE CLEAN AND FREE FROM FOREIGN MATERIALS BEFORE INSTALLATION.

2. INSTALLATION SHOULD START FROM A CORNER OR STRAIGHT EDGE AND PROCEED FORWARD OVER THE UNDISTURBED SAND LAYING COURSE.

3. PAVING WORK SHALL BE PLUMB, LEVEL, AND TRUE TO LINE GRADE; SHALL BE INSTALLED PROPERLY, COINCIDE AND ALIGN, WITH ADJACENT WORK AND ELEVATIONS.

4. PAVING STONES SHOULD BE INSTALLED HAND TIGHT ON THE UNDISTURBED SAND LAYING COURSE. STRING LINES SHOULD BE USED TO HOLD PATTERN LINES TRUE.

5. GAPS BETWEEN THE EDGE OF THE PAVER SURFACE SHALL BE FILLED WITH STANDARD PAVERS OR WITH PAVERS CUT TO FIT. CUT PAVERS SHOULD BE NO SMALLER THAN ONE THIRD THE SIZE OF FULL PAVERS. CARE SHOULD BE TAKEN WHEN ESTABLISHING THE LAYING PATTERN TO INSURE THAT LESS THAN ONE THIRD PAVERS ARE MINIMIZED.

6. PAVERS ARE SET INTO THE SAND LAYING COURSE BY ROLLER OR PLATE VIBRATOR CAPABLE OF 3,000 TO 5,000 COMPACTION FORCE. VIBRATION SHALL BE CONDUCTED IN CROSSING PATHS UNTIL THE PAVEMENT SURFACE IS SMOOTH AND REQUIRED ELEVATION IS ACHIEVED. GAPS BETWEEN PAVERS SHOULD AT THIS POINT SHOULD BE FILLED TO ABOUT TWO THIRDS OF THE PAVERS FULL HEIGHT. GAPS BETWEEN EDGES SHOULD BE NO MORE THAN 3/16" WIDE AFTER VIBRATION. GAPS GREATER THAN 3/16" SUGGEST THAT LESS THAN SATISFACTORY INTERLOCK WILL BE ACHIEVED. PAVERS WITHIN THREE FEET OF UNRESTRAINED EDGES MUST NOT BE COMPACTED.

7. ONCE PAVERS ARE VIBRATED INTO PLACE. CLEAN, DRY SAND SHALL BE BROOMED OVER THE PAVEMENT SURFACE AND VIBRATED ONCE MORE INTO THE REMAINING UNFILLED GAPS BETWEEN PAVERS TO THE HEIGHT OF THE JOINT BEVEL. SURPLUS SAND SHOULD BE SWEPT FROM THE PAVEMENT SURFACE AND DISPOSED OF.

8. THE COMPLETED PAVING STONE INSTALLATION SHOULD BE WASHED DOWN AND CLEANED TO PROVIDE A CLEAN FINISHED WORKMANLIKE INSTALLATION.

LIST OF INSPECTIONS

THE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE 48 HOURS IN ADVANCE OF, AND COORDINATE, THE FOLLOWING INSPECTIONS (BUT NOT LIMITED TO):

1. PRE-JOB CONFERENCE.

2. AT COMPLETION OF FINISH GRADING.

3. LAYOUT OF SHOVEL CUTS BUT PRIOR TO INSTALLATION.

4. LAYOUT OF PAVING BUT PRIOR TO INSTALLATION.

5. LAYOUT OF WALLS AND PILASTERS BUT PRIOR TO INSTALLATION.

6. DURING ENTIRE IRRIGATION INSTALLATION TO VERIFY AND INSPECT THE FOLLOWING (BUT NOT LIMITED TO):

a. POINT OF CONNECTIONS
b. BACKFLOW PREVENTION DEVICES
c. TRENCHING FOR PIPES
d. ELECTRICAL CONNECTIONS
e. CONTROL VALVES
f. COVERAGE

7. AT DELIVERY OF ALL PLANT MATERIALS TO THE SITE.

8. WHEN TREES AND SHRUBS ARE SPACED FOR PLANTING BUT BEFORE HOLES ARE EXCAVATED.

9. AT PRE-MAINTENANCE INSPECTION.

10. AT FINAL INSPECTION.

CONCRETE PAVING NOTES

1. THE CONTRACTOR SHALL VERIFY WITH PROJECT STRUCTURAL SOILS ENGINEER THE NEED FOR REINFORCING, BASE MATERIALS, PRESATURATION, AND OTHER REQUIREMENTS FOR PAVING AREAS.

2. ALL CONCRETE PAVING SECTIONS SHALL BE A MINIMUM OF 3 1/2" THICK UNLESS OTHERWISE NOTED.

3. PAVING AND CONCRETE CONTRACTOR(S) SHALL COORDINATE HIS WORK WITH ELECTRICIAN, DRAIN LINE CONTRACTOR AND IRRIGATION CONTRACTOR FOR SLEEVING, PIPING, AND CONDUIT UNDER ALL PAVING AS REQUIRED.

4. THE CONTRACTOR SHALL HOLD FINISH GRADE (1") INCH BELOW FINISH SURFACE.

5. THE CONTRACTOR SHALL SLOPE ALL FINISH SURFACE AREAS A MINIMUM OF ONE PERCENT. UNLESS NOTED OTHERWISE.

6. ALL WALKS SHALL HAVE CROSS FALL OF ONE PERCENT MINIMUM.

7. REFER TO FINISH SCHEDULE FOR CONCRETE FINISH.

8. ALL WALK INTERSECTIONS SHALL BE 90 DEGREES UNLESS NOTED OTHERWISE.

9. ALL RADII AT WALK INTERSECTIONS SHALL BE 36" UNLESS NOTED OTHERWISE.

10. FULL DEPTH EXPANSION JOINTS ARE TO BE SPACED AT MAXIMUM 20' O.C., SCORE LINES TO BE MAXIMUM 10' O.C.

11. ALL FORMS AND ALIGNMENT OF PAVING SHALL BE INSPECTED AND CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT A MINIMUM OF 48 HOURS PRIOR TO INSPECTION.

12. REFER TO PRECISE GRADING PLAN FOR FINISH GRADES AND DRAINAGE.

FOUNTAIN NOTES

1. THE FOUNTAIN KIT SHALL BE INSTALLED IN CONFORMANCE WITH GOVERNING CODES AND ORDINANCES, AND MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS.

2. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL SPECIFIED EQUIPMENT.

3. THE CONTRACTOR SHALL CLEAN, SERVICE AND MAINTAIN THE FOUNTAIN AND EQUIPMENT FOR A MINIMUM OF 60 DAYS.

4. THE CONTRACTOR SHALL PROVIDE OWNER/DEVELOPER OR H.O.A. WITH ALL SERVICE MANUALS, CATALOGS, ETC. FOR EQUIPMENT PROVIDED AND INSTALLED.

SUPPLIER:

SLEEVING AND SERVICE PROVISIONS SHALL BE COORDINATED WITH ALL OTHER APPROPRIATE CONTRACTORS.

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LANDSCAPE CONSTRUCTION NOTES

SYMBOL	ITEM	MANUFACTURER/SUPPLIER	COLOR	FINISH	COMMENTS
FLATWORK					
2.0	NATURAL GRAY CONCRETE PAVING with SAW CUTS PER PLAN	N/A	NATURAL GRAY	"ACID ETCH" (SEE COMMENTS)	APPLY TOPCAST WASH RETARDER (03 ACID ETCH FINISH) AVAILABLE THRU GRACE CONST. PRODUCTS OR EQUAL 877-423-6499 WITH MATTE IMPREGNATING SEALER. CONTRACTOR TO PROVIDE CUT SHEET TO L.A. FOR APPROVAL.
2.1, 2.3, 2.4	COMBO-STONE 5pc, 6cm	ACKERSTONE CONTACT: MIKE MILLARD 949.241.6669	COLORS: DIRT WOOD SOLID FM 30% TAN/LIGHT CHARCOAL BLEND FM 70%	NO CHAMFER LIGHT SHOT BLAST	PATTERN: RANDOM ASHLAR for FIELD (6" x 12" PAVER BANDING with TAN/ LIGHT CHARCOAL BLEND FLAT TOP/NO CHAMFER INSTALL CLASS 2 ROAD BASE SAND SET SEAL WITH SURBOND SB 1300 OR EQUAL JOINT SAND-LOGICAL RESOURCE POLYMERIC OR EQUAL
2.5, 2.2	ADA PARKING STALL PAVER KIT 48" x 48" 6cm 4 x 8" x 60cm STALL BANDING	ACKERSTONE CONTACT: MIKE MILLARD 949.241.6669	SEE DETAIL		
SITE FURNISHINGS					
4.0	METAL TREE GRATE	URBAN ACCESSORIES 877.487.0488	T.B.D.	T.B.D.	

FINISH SCHEDULE

Issued For:

3.26.12	1ST CITY SUBMITTAL
5.29.12	PLANNING COMMISSION

Revisions:

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18582 BEACH BOULEVARD
HUNTINGTON BEACH, CA
92648

Stamp:

LICENSED LANDSCAPE ARCHITECT
MARK JAMES SCHAFFER
No. 3144
03.13.13
Renewal Date
5.29.12
Date
STATE OF CALIFORNIA

Job No.: -
Drawn By: MJS
Checked By: MS
Plan Date: MAY 29, 2012
Scale: SEE DETAIL

Title:
CONSTRUCTION NOTES and FINISH SCHEDULE

Sheet No.:
LC.2

Plan Status:
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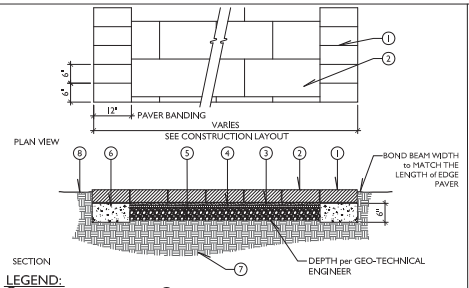


LEGEND:

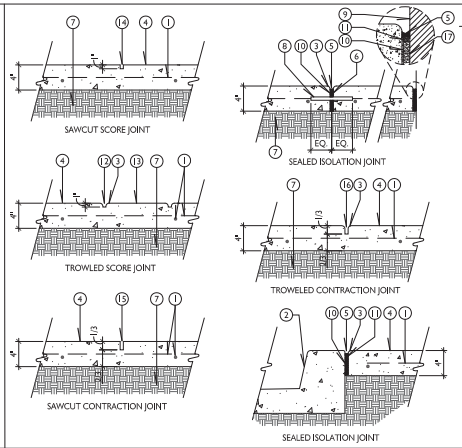
1. 6" x 12" x 60mm PEDESTRIAN INTERLOCKING CONCRETE PAVER BANDING - SEE FINISH SCHEDULE.
2. 60mm PEDESTRIAN INTERLOCKING CONCRETE PAVER FIELD- SEE FINISH SCHEDULE.
3. 1" DEPTH CLEAN NON-PLASTIC SAND LAYING COURSE
4. GEOTEXTILE FABRIC
5. CLASS 2 ROAD BASE 95% COMPACTION
   4" when LOCATED AT LEAST 20 FT. FROM TOP OF SLOPE
   6" when LOCATED LESS THAN 20 FT. FROM TOP OF SLOPE
6. CONCRETE SUBGRADE BOND BEAM - WET SET PAVER BAND
7. COMPACTED SUB-GRADE PER GEOTECHNICAL REPORT
8. FINISH GRADE

NOTES:

1. SEE CONSTRUCTION PLAN for PAVER PATTERN.
2. SEAL with SURBOND SB 1300 or EQUAL.
3. JOINT SAND to be LOGICAL RESOURCE POLYMERIC or EQUAL.

Scale: 3/4" = 1'-0"

(D) PEDESTRIAN CONCRETE PAVERS

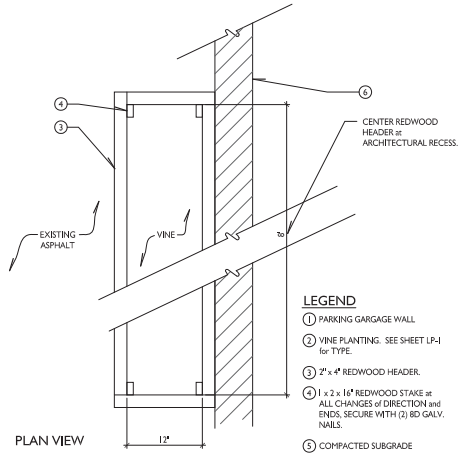


LEGEND:

1. REINFORCING per GEOTECHNICAL REPORT (CONTINUOUS) and CENTERED IN SLAB
2. CONCRETE CURB per CIVIL ENGINEER
3. 1/8" RADIUS EDGE (BOTH SIDES)
4. CONCRETE PAVING - SEE FINISH SCHEDULE for COLOR and FINISH
5. POLYURETHANE TWO-PART JOINT SEALANT or APPROVED EQUAL. SET JUST BELOW FINISH SURFACE. DEPTH per MANUFACTURER'S SPECIFICATIONS. COLOR and TEXTURE to MATCH ADJACENT CONCRETE PAVING.
6. 1/2" WIDE "COLD" JOINT - ALL SECTIONS of PAVING on EITHER SIDE of THE JOINT SHALL be "STITCHED" TOGETHER by USE of 18" LONG #4 DOWELS at 18" o.c.
7. COMPACTED SUBGRADE per GEOTECHNICAL SOILS REPORT
8. 18" LONG #4 "SPEED DOWELS" (or APPROVED EQUAL) at 18" o.c.
9. VERTICAL SURFACE
10. 1/2" WIDE ASPHALT IMPREGNATED FIBER EXPANSION BOARD (or APPROVED EQUAL) to FULL DEPTH
11. PROVIDE BACKER ROD CONTINUOUS ALONG BUILDING WALL FOUNDATIONS and SLABS - SEE ALSO ITEM #17 THIS DETAIL.
12. 3/16" ± WIDE x 1/2" DEEP TROWELED SCORE JOINT. 1/8" RADIUS on BOTH EDGES. WHERE JOINT IS to ACT as a CONTRACTION JOINT - SEE ITEM #16, THIS DETAIL, FOR ADDITIONAL CONTRACTION JOINT REQUIREMENTS.
13. BAND FORMED BY and BETWEEN TWO SAWCUT or TROWELED SCORE JOINTS IF/AS APPLICABLE and SPECIFIED on PLAN
14. 1/8" to 3/16" WIDE x 1/2" DEEP SAWCUT SCORE JOINT - LOCATE WHERE INDICATED on PLAN
15. 1/8" to 3/16" WIDE SAWCUT CONTRACTION JOINT. JOINT DEPTH SHALL BE 1/3 DEPTH of CONCRETE PAVING. LOCATE CONTRACTION JOINT SO AS to FORM, AS NEAR AS POSSIBLE, 8' to 12' SQUARE PAVING SECTIONS. SAWCUT JOINTS AS SOON AS POSSIBLE, NO LATER than 8 to 24 HOURS after PAVING INSTALLATION and WHILE THE CONCRETE is STILL PLASTIC.
16. 3/16" WIDE TROWELED CONTRACTION JOINT. JOINT DEPTH SHALL BE 1/3 DEPTH of CONCRETE PAVING. LOCATE CONTRACTION JOINTS SO AS to FORM, AS NEAR AS POSSIBLE, 8' to 12' SQUARE PAVING SECTION
17. 1/2" WIDE SEALED ISOLATION JOINTS SHALL BE INSTALLED In LOCATIONS WHERE PAVING ABUTS WALLS, COLUMNS, CURBS and OTHER POINTS of RESTRAINT INCLUDING DRAINS, MANHOLES, UTILITY BOXES/COVERS, STEPS etc. JOINTS SHALL INCLUDE EXPANSION BOARD, BACKERROD, and SEALANT to MATCH CONCRETE COLOR.

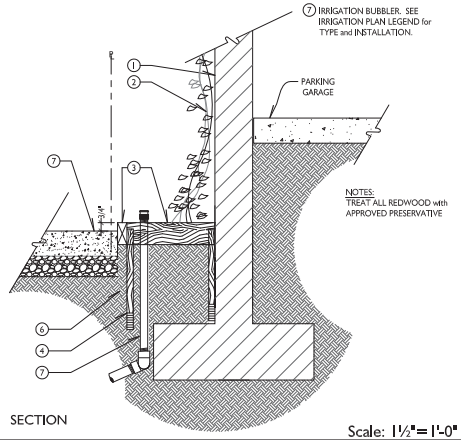
Scale: 1 1/2" = 1'-0"

(A) PEDESTRIAN CONCRETE PAVING



LEGEND

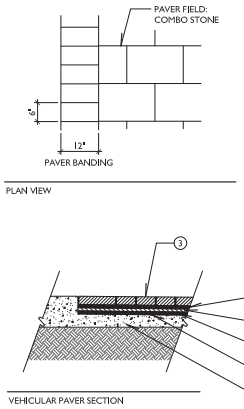
1. PARKING GARAGE WALL
2. VINE PLANTING. SEE SHEET LP-1 for TYPE.
3. 2" x 4" REDWOOD HEADER.
4. 1 x 2 x 16" REDWOOD STAKE at ALL CHANGES of DIRECTION and ENDS, SECURE WITH (2) 8D GALV. NAILS.
5. COMPACTED SUBGRADE
6. EXISTING ASPHALT
7. IRRIGATION BUBBLER. SEE IRRIGATION PLAN LEGEND for TYPE and INSTALLATION.



NOTES:
TREAT ALL REDWOOD with APPROVED PRESERVATIVE

Scale: 1½" = 1'-0"

(E) REDWOOD HEADER at VINE PLANTING



LEGEND:

1. ADJACENT VEHICULAR CONCRETE PAVING.
2. CONCRETE SLAB with DEPRESSION. PER STRUCTURAL ENGINEER.
3. 80mm *VEHICULAR* CONCRETE INTERLOCKING PAVER
4. ¾" DEPTH CLEAN NON-PLASTIC SAND LAYING COURSE VEHICULAR PAVING AREAS SAND ONLY REFILL JOINTS AFTER 30 DAYS.
5. COMPACTED SUB-GRADE PER GEOTECHNICAL ENGINEER.
6. PERMEABLE VEHICULAR MEMBRANE BY OTHERS.
7. VEHICULAR GEO-GRID BY OTHERS.
8. WATERPROOFING BY OTHERS.

PAVER NOTES.

PAVER SHALL BE CLEAN AND FREE FROM FOREIGN MATERIALS BEFORE INSTALLATION.

INSTALLATION SHOULD START FROM A CORNER OR STRAIGHT EDGE AND PROCEED FORWARD OVER THE UNDISTURBED SAND LAYING COURSE.

PAVING WORK SHALL BE PLUMB, LEVEL, AND TRUE TO LINE GRADE; SHALL BE INSTALLED PROPERLY, COINCIDE AND ALIGN, WITH ADJACENT WORK AND ELEVATIONS.

PAVING STONES SHOULD BE INSTALLED HAND TIGHT ON THE UNDISTURBED SAND LAYING COURSE. STRING LINES SHOULD BE USED TO HOLD PATTERN LINES TRUE.

GAPS BETWEEN THE EDGE OF THE PAVER SURFACE SHALL BE FILLED WITH STANDARD PAVERS OR WITH PAVERS CUT TO FIT. CUT PAVERS SHOULD BE NO SMALLER THAN ONE THIRD THE SIZE OF FULL PAVERS. CARE SHOULD BE TAKEN WHEN ESTABLISHING THE LAYING PATTERN TO INSURE THAT LESS THAN ONE THIRD PAVERS ARE MINIMIZED.

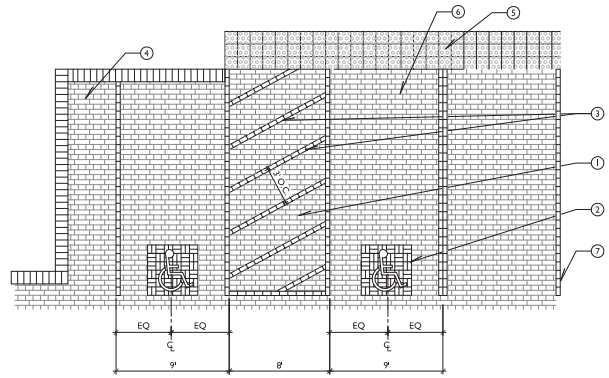
PAVERS ARE SET INTO THE SAND LAYING COURSE BY ROLLER OR PLATE VIBRATOR CAPABLE OF 3,000 TO 5,000 COMPACTION FORCE. VIBRATION SHALL BE CONDUCTED IN CROSSING PATHS UNTIL THE PAVEMENT SURFACE IS SMOOTH AND REQUIRED ELEVATION IS ACHIEVED. GAPS BETWEEN PAVERS SHOULD AT THIS POINT SHOULD BE FILLED TO ABOUT TWO THIRDS OF THE PAVERS FULL HEIGHT. GAPS BETWEEN EDGES SHOULD BE NO MORE THAN 3/16" WIDE AFTER VIBRATION. GAPS GREATER THAN 3/16" SUGGEST THAT LESS THAN SATISFACTORY INTERLOCK WILL BE ACHIEVED. PAVERS WITHIN THREE FEET OF UNRESTRAINED EDGES MUST NOT BE COMPACTED.

ONCE PAVERS ARE VIBRATED INTO PLACE. CLEAN, DRY SAND SHALL BE BROOMED OVER THE PAVEMENT SURFACE AND VIBRATED ONCE MORE INTO THE REMAINING UNFILLED GAPS BETWEEN PAVERS TO THE HEIGHT OF THE JOINT BEVEL. SURPLUS SAND SHOULD BE SWEPT FROM THE PAVEMENT SURFACE AND DISPOSED OF.

THE COMPLETED PAVING STONE INSTALLATION SHOULD BE WASHED DOWN AND CLEANED TO PROVIDE A CLEAN FINISHED WORKMANLIKE INSTALLATION.

(B) INTERLOCKING CONCRETE PAVERS OVER CONCRETE SLAB

Scale: 3/4" = 1'-0"



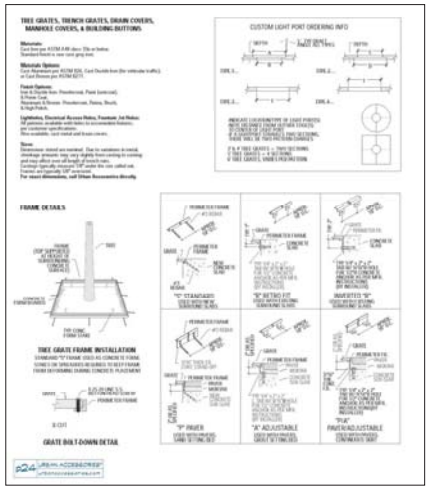
LEGEND:

1. 80mm INTERLOCKING PAVER - CUT BETWEEN PAVER STRIPING. SEE FINISH SCHEDULE FOR COLOR AND FINISH. SEE DETAIL THIS SHEET FOR SECTION.
2. 47" x 47" INTERLOCKING CONCRETE PAVERS HANDICAPPED PARKING KIT
   MANUF: ACKER-STONE
   COLOR: BLUE/WHITE
   CONTACT: MIKE MILLARD
   PH: 949.241.6669
3. 2 - ROWS 4" x 8" INTERLOCKING CONCRETE PAVER ADA STRIPING
   MANUF: ACKER-STONE
   STYLE: HOLLAND STONE
   SIZE: 4" x 8"
   THICKNESS: 80mm
   COLOR: ADA BLUE
   FINISH: STANDARD
   CONTACT: MIKE MILLARD
   PH: 949.241.6669
4. ADJACENT 80mm PAVER FIELD with BANDING.
5. ADJACENT TRUNCATED DOMES. DETAIL PER CIVIL ENGINEER PLANS.
6. WHEEL STOP BY OTHERS.
7. CONCRETE INTERLOCKING PAVER at STANDARD STALL - SEE FINISH SCHEDULE.

NOTES:
1. PARKING DIMENSIONS AS PROVIDED BY ARCHITECT

Scale: 1/4" = 1'-0"

(C) PAVER LAYOUT AT ADA PARKING STALL



(F) TREE GRATE CUT SHEET

SCALE: N.T.S.

200

Issued For:	
3.26.12	1st CITY SUBMITTAL
5.29.12	PLANNING COMMISSION

Revisions:

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MARINER'S POINTE

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AT DOVER
NEWPORT BEACH, CA

CLIENT:

V.B.A.S. PROPERTIES Inc.

18582 BEACH BOULEVARD
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92648

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LICENSED LANDSCAPE ARCHITECT
MARIAN SCHOTTENFELD
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03.13.13
Expiration
6.30.13
Date
STATE OF CALIFORNIA

Job No.: -
Drawn By: MJS
Checked By: MS
Plan Date: MAY 29, 2012
Scale: SEE DETAIL

Title:

LANDSCAPE CONSTRUCTION DETAILS

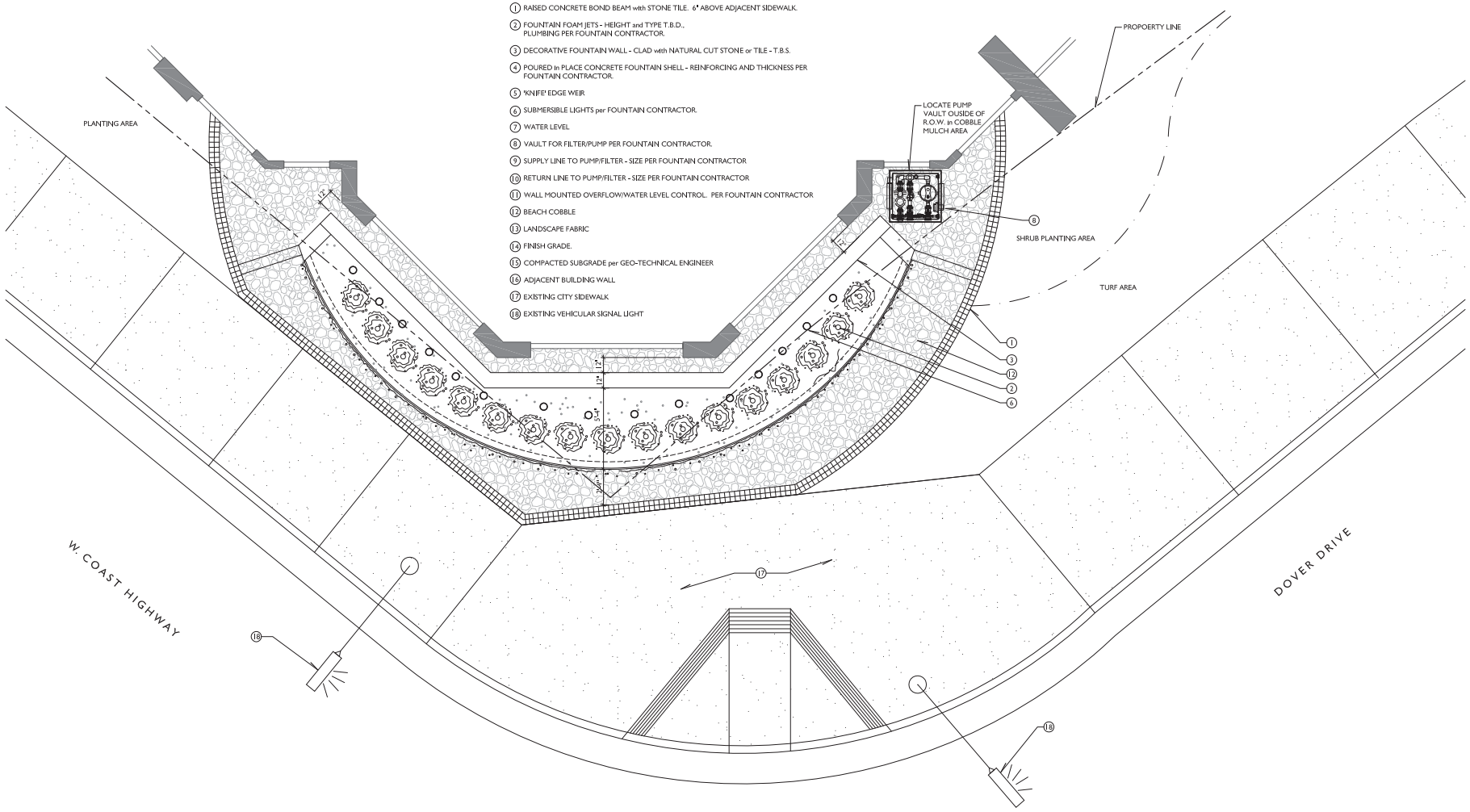
Sheet No.:

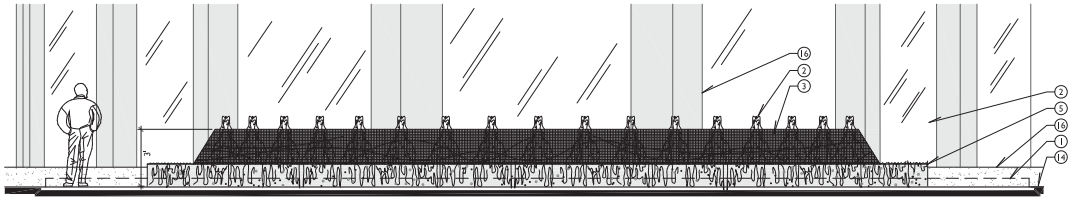
LC.3

Plan Status:
PERMIT/CONSTRUCTION DOCUMENTS

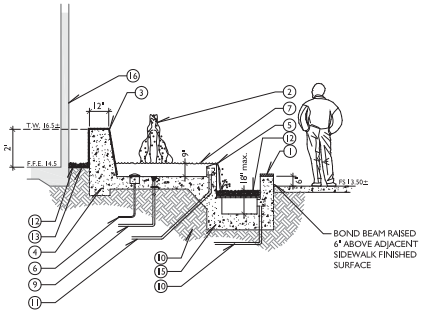
LEGEND:

1. RAISED CONCRETE BOND BEAM with STONE TILE. 6" ABOVE ADJACENT SIDEWALK.
2. FOUNTAIN FOAM JETS - HEIGHT and TYPE T.B.D., PLUMBING PER FOUNTAIN CONTRACTOR.
3. DECORATIVE FOUNTAIN WALL - CLAD with NATURAL CUT STONE or TILE - T.B.S.
4. POURED in PLACE CONCRETE FOUNTAIN SHELL - REINFORCING AND THICKNESS PER FOUNTAIN CONTRACTOR.
5. 'KNIFE' EDGE WEIR
6. SUBMERSIBLE LIGHTS per FOUNTAIN CONTRACTOR.
7. WATER LEVEL
8. VAULT FOR FILTER/PUMP PER FOUNTAIN CONTRACTOR.
9. SUPPLY LINE TO PUMP/FILTER - SIZE PER FOUNTAIN CONTRACTOR
10. RETURN LINE TO PUMP/FILTER - SIZE PER FOUNTAIN CONTRACTOR
11. WALL MOUNTED OVERFLOW/WATER LEVEL CONTROL. PER FOUNTAIN CONTRACTOR
12. BEACH COBBLE
13. LANDSCAPE FABRIC
14. FINISH GRADE.
15. COMPACTED SUBGRADE per GEO-TECHNICAL ENGINEER
16. ADJACENT BUILDING WALL
17. EXISTING CITY SIDEWALK
18. EXISTING VEHICULAR SIGNAL LIGHT





FRONT ELEVATION



NOTES:
1. FOOTING TO BE POURED AGAINST UNDISTURBED SOIL OR RECOMPACTED SOIL PER SOILS REPORT.
2. REINFORCING per STRUCTURAL ENGINEER'S RECOMMENDATIONS.
3. FOUNTAIN CONTRACTOR TO SUBMIT SHOP DRAWINGS TO THE LANDSCAPE ARCHITECT FOR APPROVAL.
4. WATER LEVEL NOT TO EXCEED 18".

ENCROACHMENT PERMIT REQUIRED

Ⓐ WATER FEATURE at CORNER

Scale: 3/8" = 1'-0"

FOA-COM-ATO

201

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5.29.12	PLANNING COMMISSION

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PROJECT:

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Stamp:

LICENSED LANDSCAPE ARCHITECT
MARK-ALAN SCHATTINGER 9734
03.31.13
5.29.12
STATE OF CALIFORNIA

Job No.: -
Drawn By: MJS
Checked By: MS
Plan Date: MAY 29, 2012
Scale: SEE DETAIL

Title:

LANDSCAPE CONSTRUCTION DETAILS

Sheet No.:

LC.4

Plan Status:
PERMIT/CONSTRUCTION DOCUMENTS

A. GENERAL NOTES

1. BIDDING: IT SHALL BE THE OWNER'S RESPONSIBILITY IN INVITING AND OBTAINING BIDS, SETTING ITS PROVISIONS AND INSTRUCTIONS TO BIDDERS, SECURING THEIR BONDS AND WORKERS COMPENSATION INSURANCE CERTIFICATES, ETC. TO FULLY ENSURE THE QUALITY AND TIMELY COMPLETION OF THE PROJECT.

2. SCOPE OF WORK: CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY TO FURNISH AND INSTALL ALL ELEMENTS AS SHOWN ON THE DRAWING AND SPECIFIED HEREIN.

3. PLAN VERIFICATION: THE DRAWING AND SPECIFICATIONS REPRESENT THE FINISH CONSTRUCTION PRODUCT. THESE DOCUMENTS MAY CONTAIN ERRORS, OMISSIONS, CONTRADICTIONS, ETC. THE CONTRACTOR SHALL REVIEW ALL DOCUMENTS THOROUGHLY AND SHALL NOTIFY THE LANDSCAPE ARCHITECT AND OWNER IMMEDIATELY UPON ANY SUCH DISCREPANCY. GOVERNING CODES SHALL THEN APPLY.

4. LICENSE: THE CONTRACTOR SHALL BE A CALIFORNIA LICENSED CONTRACTOR.

5. UNIFORM BUILDING CODE: ALL CONSTRUCTION WITHIN THESE DRAWINGS SHALL CONFORM TO THE CURRENT EDITION OF THE UNIFORM BUILDING CODE AND ALL APPLICABLE GOVERNING CODES AND ORDINANCES.

6. FIELD VERIFICATION: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. OWNER AND LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.

7. DIMENSIONS: ALL SCALE DIMENSIONS ARE APPROXIMATE. WRITTEN DIMENSIONS ON DETAILS AND PLANS TAKE PRECEDENCE OVER SCALED DIMENSIONS.

8. METHODS OF CONSTRUCTION: THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, SEQUENCES, PROCEDURES AND TECHNIQUES. THE LANDSCAPE ARCHITECTURAL FIRM IS NOT LIABLE FOR CONSTRUCTION METHODS.

9. UTILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES, ELECTRICAL CABLES, CONDUITS, AND IRRIGATION LINES PRIOR TO ANY CONSTRUCTION, SO THAT PROPER PRECAUTIONS MAY BE TAKEN NOT TO DAMAGE SUCH IMPROVEMENTS.

10. PERMITS AND INSPECTIONS: THE CONTRACTOR SHALL OBTAIN, COORDINATE AND PAY FOR ALL PERMITS, FEES AND AGENCY INSPECTIONS AS REQUIRED.

11. SHOP DRAWINGS: SHOP DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR FOR THE CLARIFICATION OF ALL DESIGN CONCEPT DETAILS, IF REQUIRED BY OWNER OR GOVERNING AUTHORITY.

12. LIABLE FOR DAMAGE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY ITS OPERATIONS TO UTILITIES, PLANTING, CONSTRUCTION, PERSONS, PROPERTY, ETC. AND SHALL PROVIDE PROTECTIVE MEANS TO GUARD AGAINST DAMAGE.

13. LIABLE FOR ENCROACHMENT: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ENCROACHMENT ONTO ADJACENT PROPERTY, RIGHT-OF-WAYS, EASEMENTS, SETBACKS OR ANY OTHER LEGAL PROPERTY RESTRICTIONS EITHER MARKED OR UNMARKED.

14. SITE MAINTENANCE: CONTRACTOR SHALL KEEP THE PROJECT SITE CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL DEBRIS SHALL BE REMOVED FROM SITE PER LOCAL CODE AND ORDINANCES.

15. SAFETY: THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS DURING CONSTRUCTION.

16. MATERIALS: ALL MATERIALS AND EQUIPMENT SPECIFIED IN THESE DRAWINGS SHALL BE NEW AND IN PERFECT CONDITION WHERE INSTALLED. CONTRACTOR SHALL ALLOW AT LEAST 6-8 WEEKS FROM TIME OF PLACEMENT OF ORDER UNTIL DELIVERY ON ANY SPECIFIED ITEM UNLESS OTHERWISE NOTED ON PLANS.

17. SUBSTITUTIONS: DESIGN, MATERIAL, EQUIPMENT AND PRODUCTS OTHER THAN THOSE DESCRIBED OR INDICATED ON DRAWINGS MAY BE CONSIDERED FOR USE. APPROVAL FOR SUBSTITUTIONS SHALL BE OBTAINED FROM THE OWNER AND LANDSCAPE ARCHITECT. ALL SUBSTITUTIONS SHALL CONFORM TO LOCAL CODES AND ORDINANCES.

18. GUARANTEE: ALL WORK PERFORMED BY CONTRACTOR SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR FROM THE TIME OF COMPLETION AS DIRECTED BY OWNER, OR UNLESS OTHERWISE SPECIFIED HEREIN.

B. FIELD OBSERVATIONS

1. REQUIRED FIELD OBSERVATION WORK: THESE PLANS WERE PREPARED WITH THE UNDERSTANDING THAT THE OWNER OF SAID PLANS WILL USE PROFESSIONAL DESIGN ASSOCIATES TO PROVIDE "FULL" CONTRACT SERVICES INCLUDING FIELD OBSERVATION SERVICES DURING CONSTRUCTION. FAILURE TO USE PROFESSIONAL DESIGN ASSOCIATES TO PROVIDE AND COMPLETE THE FIELD OBSERVATION SERVICES SET FORTH HEREIN WILL SIGNIFICANTLY INCREASE THE MISINTERPRETATION OF THE INTENT OF THE DESIGN. UNAUTHORIZED MODIFICATIONS THERETO, AND FAILURE TO DETECT ERRORS AND OMISSIONS IN THE PLANS AND SPECIFICATIONS BEFORE THEY BECOME COSTLY MISTAKES BUILT INTO THE PROJECT. THEREFORE, IN THE EVENT THAT PROFESSIONAL DESIGN ASSOCIATES IS OTHERWISE PRECLUDED FROM COMPLETING THE FIELD OBSERVATION SERVICES SET FORTH HEREIN, THE OWNER, OR SUBSEQUENT OWNER (INDIVIDUALS OR CORPORATIONS WHO HAVE PURCHASED THESE PLANS WITH THE PROJECT), AGREES TO HOLD HARMLESS, INDEMNIFY, AND DEFEND PROFESSIONAL DESIGN ASSOCIATES AND THEIR CONSULTANTS FROM AND AGAINST ANY AND ALL CLAIMS.

2. FIELD OBSERVATION COORDINATION: THE FOLLOWING OBSERVATIONS SHALL BE INITIATED BY THE CONTRACTOR AND COORDINATED THROUGH THE OWNER (JOB SUPERINTENDENT). THE CONTRACTOR SHALL NOTIFY THE OWNER (JOB SUPERINTENDENT) AND LANDSCAPE ARCHITECT NOT LESS THAN FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY OBSERVATION. CONTINUED WORK WITHOUT OBSERVATION OF THESE PHASES OF WORK IS AT THE CONTRACTOR'S RISK, WITH ANY REQUIRED CHANGES OR MODIFICATIONS TO BE AT CONTRACTOR'S EXPENSE THE OWNER (JOB SUPERINTENDENT) SHALL INFORM THE LANDSCAPE ARCHITECT AS TO THE PURPOSE AND TIME OF THE OBSERVATION FORTY-EIGHT (48) HOURS IN ADVANCE.

3. JOB SITE MEETINGS AND REQUIRED INSPECTIONS:

A. PRE-JOB MEETING ON SITE – PRIOR TO COMMENCEMENT OF WORK
B. DURING SOIL PREPARATION FOR PLANTING AND IRRIGATION.
C. CONSTRUCTION STAKING AND LAYOUT OBSERVATION.
D. ROUGH CONSTRUCTION PROGRESS OBSERVATION (FORMING, ETC.).
E. AT COMPLETION OF SOIL PREPARATION.
F. PRESSURE TEST IRRIGATION, MAINS AND LATERALS.
G. COVERAGE OF IRRIGATION SYSTEM.
H. COMPLETION OF WEED CONTROL.
I. PLANT MATERIAL SPOTTING CHECK.
J. GRADING CHECK PRIOR TO GROUNDCOVER.
K. COMPLETION OF PLANTING.
L. 30, 60 & 90-DAY MAINTENANCE INSPECTIONS.
M. FINAL OBSERVATION/PROJECT CERTIFICATION.

C. DRAINAGE NOTES

1. SCOPE OF WORK: CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES FOR THE INSTALLATION OF A SUBSURFACE DRAINAGE SYSTEM.

2. LICENSE: THE DRAINAGE CONTRACTOR SHALL BE A C-27 LICENSED LANDSCAPE CONTRACTOR OR LICENSED PER APPROPRIATE LOCAL CODES.

3. UNIFORM BUILDING CODE: ALL DRAINAGE CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF THE UNIFORM BUILDING CODE AND ALL APPLICABLE GOVERNING AGENCIES.

4. APPROVALS / CERTIFICATIONS: THE CONTRACTOR SHALL INITIATE AND COORDINATE THROUGH THE OWNER ALL REQUIRED AGENCY APPROVALS. CONTRACTOR SHALL COOPERATE WITH THE OWNER AND OWNER'S ENGINEER FOR LINE AND GRADE INSPECTION.

5. FIELD VERIFICATION: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. OWNER AND LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.

6. UTILITIES: CONTRACTOR SHALL LOCATE AND TAKE ALL PRECAUTIONS NECESSARY TO PREVENT UNDERMINING AND DAMAGE TO EXISTING UTILITIES.

7. COORDINATION: CONTRACTOR SHALL COORDINATE WITH APPROPRIATE TRADES TO LOCATE PIPE (IRRIGATION, EXISTING DRAINAGE, ELECTRICAL, ETC.) INFRINGING WITH DRAIN AND DRAIN LINES LOCATIONS BEFORE STARTING WORK.

8. TRENCHING: PIPE TRENCH SHALL BE EXCAVATED STRAIGHT AND TRUE TO GRADE. IN GENERAL THE TRENCH WIDTH SHOULD NOT EXCEED THE DIAMETER OF THE PIPE PLUS TWO FEET. TRENCH BOTTOM SHALL BE GRADED AND PREPARED TO PROVIDE A FIRM AND UNIFORM BEARING SURFACE THROUGHOUT ENTIRE LENGTH OF PIPE.

9. SUBGRADE: ALL SUBGRADE STABILIZERS FOR SUBSURFACE DRAINAGE SYSTEM SHALL BE PER STRUCTURAL SOILS REPORT.

10. SWALES: SWALE LINE SHALL HAVE A 2% MINIMUM PITCH CONTINUALLY TO THE DRAIN INLET TO THE CATCH BASIN OR DISCHARGE POINT. SWALES SHALL HAVE A GENTLE UNIFORM CROSS PITCH WITHOUT ANY UNEVEN OR ABRUPT TRANSITIONS.

11. DRAINS: DRAIN INLETS OR CATCH BASIN SHALL BE LOCATED AT SWALE LOW POINTS. ALL AREA DRAINS, CATCH BASINS, ETC. SHALL CONFORM TO ALL SPECIFICATIONS AND RECOMMENDED INSTALLATION PROCEDURES OF MANUFACTURER.

12. DRAIN LINES: ALL DRAIN LINES SHALL BE ø4" (UNLESS OTHERWISE SPECIFIED BY OWNER) SDER 35, OR APPROVED BY LANDSCAPE ARCHITECT NON-PERFORATED TUBING, SOLVENT WELD ALL CONNECTIONS. ALL DRAIN LINES ON SLOPES TO BE SCHEDULE 40 PVC OR APPROVED BY LANDSCAPE ARCHITECT. ALL DRAINAGE PIPE SHALL BE INSTALLED PER MANUFACTURE'S SPECIFICATIONS. ALL CHANGES IN DIRECTION IN THE DRAIN LINE SHALL BE WITH 45° ANGLE FITTINGS. INSTALL DRAIN LINE 12" BELOW FINISH GRADE MINIMUM, EXCEPT WHERE DRAIN LINES DAYLIGHT AT CURB. INVERT OF CURB DRAINS SHALL BE LOCATED MINIMUM OF 1" ABOVE GUTTER FLOW LINE, AND SHALL HAVE A MINIMUM CLEARANCE OF 2" TOP OF CURB AND TERMINATE AT LEAST 1" BACK OF CURB FACE. DRAIN LINES SHALL BE INSTALLED WITH A 1% SLOPE FROM THE DRAIN INLET TO THE DRAIN OUTLET.

13. CONNECTIONS: ALL SUBSURFACE AND SURFACE DRAINAGE SYSTEMS SHALL BE CONTAINED WITHIN THE PROPERTY IT SERVES. ALL DRAIN INLETS SHALL BE CONNECTED TO A CENTRALIZED SYSTEM WITH DRAIN OUTLET WHICH EXITS AT CURB FACE OR CONNECTS INTO STORM DRAIN SYSTEM PER CIVIL ENGINEER.

14. BACKFILLING: ALL BACKFILLING SHALL BE DONE IN ACCORDANCE WITH STRUCTURAL SOILS REPORT.

15. INSTALLATION UPKEEP: INTERIOR OF PIPE SHALL BE THOROUGHLY CLEANED OF ALL FOREIGN MATTER PRIOR TO, DURING AND AFTER INSTALLATION. CONTRACTOR SHALL MAINTAIN THE PROJECT SITE THROUGHOUT THE PROGRESS OF THE WORK IN A REASONABLE, DRY WORKABLE CONDITION FREE OF SURFACE WATER.

16. DEFECTS: ALL DEFECTS IN DRAINAGE SYSTEM SHALL BE CORRECTED THROUGH THE GUARANTEE PERIOD SPECIFIED HEREIN AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

D. CONCRETE NOTES

1. SCOPE OF WORK: CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES FOR THE INSTALLATION OF ALL CONCRETE FLATWORK INDICATED ON THESE PLANS.

2. PLAN VERIFICATION: THE CONTRACTOR SHALL NOTIFY OWNER AND LANDSCAPE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR OMISSIONS ON ALL DRAWINGS.

3. LICENSE: THE CONCRETE CONTRACTOR SHALL BE A C-8 CALIFORNIA LICENSED CONTRACTOR, OR A C-27 LICENSED LANDSCAPE CONTRACTOR IF CONCRETE IS APPURTENANT TO LANDSCAPE WORK.

4. UNIFORM BUILDING CODE: ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF THE UNIFORM BUILDING CODE AND ALL APPLICABLE GOVERNING AGENCIES.

5. FIELD VERIFICATION: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. OWNER AND LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.

6. COORDINATION: CONTRACTOR SHALL COORDINATE WITH APPROPRIATE TRADES TO LOCATE PIPE SLEEVES, (IRRIGATION, DRAINAGE, ELECTRICAL ETC.), BENEATH OR EMBEDDED IN CONCRETE BEFORE STARTING WORK.

7. SOIL PREPARATION: ALL EXCAVATION, GRADING, COMPACTION, ETC. SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE STRUCTURAL SOILS REPORT. ALL SOIL MODIFICATIONS SHALL BE UNDER THE SUPERVISION OF A SOILS ENGINEER.

8. SUBGRADE: ALL SUBGRADE MATERIAL, SAND, CRUSHED AGGREGATE, ETC., AND THEIR COMPACTION SHALL BE PER STRUCTURAL SOILS ENGINEER SPECIFICATIONS.

9. ROCK AND SAND SPECIFICATIONS: SAND AND AGGREGATE FOR CONCRETE SHALL BE CLEAN, NATURAL MATERIALS CONFORMING TO ASTM DESIGNATION C33.

10. WATER: WATER FOR CONCRETE SHALL BE CLEAN AND FREE FROM DELETERIOUS SUBSTANCES.

11. CEMENT: CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO CURRENT REQUIREMENTS OF ASTM C-150, TYPE 1 OR TYPE II. CEMENT SHALL BE OF THE SAME BRAND AND TYPE USED THROUGHOUT THE PROJECT.

12. MIXING: PROPORTIONING AND MIXING OF CEMENT, AGGREGATE, ADMIXTURE AND WATER TO ATTAIN REQUIRED PLASTICITY AND STRENGTH SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE ACI MANUAL OF CONCRETE PRACTICE AND THE PCA "DESIGN AND CONTROL OF CONCRETE MIXTURES".

13. COMPRESSIVE STRENGTH OF CONCRETE: ALL CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2,000 P.S.I. AT 28 DAYS WITH A SLUMP NOT TO EXCEED 4" CONFORMING WITH ASTM C-39. CONCRETE SHALL CONSIST OF A MINIMUM 5 SACK PORTLAND CEMENT/SAND/GRAVEL MIX, CONFORMING WITH ASTM C-150.

14. CONCRETE FORMS: OWNER AND LANDSCAPE ARCHITECT SHALL APPROVE ALL CONCRETE FORMS PRIOR TO POURING FLATWORK. FORMS SHALL BE CONSTRUCTED ACCURATELY TO DIMENSIONS, PLUMB AND TRUE TO LINE AND GRADE. FORMS SHALL BE SUBSTANTIAL, MORTAR TIGHT, BRACED AND TIED SO AS TO MAINTAIN POSITION AND SHAPE DURING PLACING OF REINFORCING AND CONCRETE. FORMS SHALL BE THOROUGHLY CLEANED OUT BEFORE CONCRETE IS PLACED AND FORMS SHALL BE REMOVED WITHOUT DAMAGE TO CONCRETE. CARE SHALL BE TAKEN IN ALL DETAILS OF FORMING, SETTING, REINFORCING, MIXING AND PLACING ALL CONCRETE EXPOSED IN FINISH WORK TO OBTAIN SMOOTH, EVEN SURFACES OF DENSE CONCRETE, AND CLEAN SHARP INSIDE AND OUTSIDE CORNERS. FORMS SHALL REMAIN IN PLACE LONG ENOUGH TO ALLOW CONCRETE TO SET PROPERLY.

15. CONCRETE REINFORCING STEEL: CONCRETE, AS INDICATED PER PLANS, WITH STEEL SHALL BE GRADE 60, DEFORMED BILLET STEEL CONFORMING TO ASTM A-615. LOCATE IN CENTER OF POUR TYPICAL WITH 2" MINIMUM CLEAR ALL EDGES.

16. WIRE MESH REINFORCEMENT: CONCRETE, AS INDICATED PER PLANS, TO HAVE 6 X 6 #10 WELDED WIRE MESH OR STEEL AS REQUIRED BY STRUCTURAL ENGINEER. LOCATE IN CENTER OR POUR TYPICAL WITH 2" MINIMUM CLEAR ALL EDGES.

17. THICKNESS OF CONCRETE: ALL CONCRETE FLATWORK SHALL HAVE A MINIMUM THICKNESS OF 4". ALL THICKENED EDGES FOR CONCRETE FLATWORK SHALL BE PER PLANS. A 1/2" RADIUS, OR PER PLANS, SHALL BE PROVIDED AT ALL EXPOSED EDGES AND/OR CORNERS.

18. CONCRETE FINISH: FINISH COURSE SHALL BE BROUGHT TO THE PROPER GRADE AND TO A UNIFORM SURFACE. CONCRETE COLORS AND FINISHES WILL BE PER CONSTRUCTION PLAN. ALL NATURAL CONCRETE WITH MEDIUM BROOM FINISH.

19. BROOM FINISH: BROOM FINISH (WHERE INDICATED ON DRAWINGS), AFTER FINISH TROWELING, DRAW THE FOLLOWING BROOM TYPES ACROSS PERPENDICULAR TO TRAFFIC FLOW OR IN THE DIRECTION AS INDICATED ON THE DRAWINGS.
    * FINE BROOM – FINE OR SOFT TEXTURED BRISTLES
    * MEDIUM BROOM – MEDIUM STIFF BRISTLES
    * HEAVY BROOM – COARSE OR STIFF BRISTLES

20. ROCK SALT FINISH: APPLY ROCK SALT EVENLY OVER ENTIRE SURFACE JUST PRIOR TO FINISH TROWELING. PRESS SALT INTO THE SURFACE WITH TROWEL OR ROLLER SO THAT SALT IS EMBEDDED JUST BELOW SURFACE LEAVING THE TOPS OF THE CRYSTALS EXPOSED. ALLOW CONCRETE TO CURE. FINISH SHALL BE LIGHT, MEDIUM OR HEAVY PER DIRECTION OF LANDSCAPE ARCHITECT.

21. RETARDANT FINISH: CONCRETE SURFACE SHALL BE EXPOSED USING LITHACHROME CONCRETE SURFACE RETARDER OR APPROVED EQUAL. APPLY IN ACCORDANCE TO ALL SPECIFICATIONS AND RECOMMENDED INSTALLATION PROCEDURES OF MANUFACTURE, AGGREGATE FOR CONCRETE 60-40 PEA GRAVEL BLEND.

22. COLORED CONCRETE: COLORS PER CONSTRUCTION PLAN OR FINISH SCHEDULE. COLORS SHALL BE OF THE INTEGRAL TYPE MANUFACTURED BY L.M. SCOFIELD COMPANY OR APPROVED EQUAL. SURFACES DIRECTED BY LANDSCAPE ARCHITECT SHALL BE SEALED WITH LITHOCHROME COLORWAX OR APPROVED EQUAL. APPLY IN ACCORDANCE TO ALL SPECIFICATIONS AND RECOMMENDED INSTALLATION PROCEDURES OF MANUFACTURE

23. STAMPED CONCRETE: CONTRACTOR SHALL INSTALL STAMP CONCRETE PATTERNS TO CONFORM TO ALL SPECIFICATIONS AND RECOMMENDED INSTALLATION PROCEDURES OF MANUFACTURE, AND SHALL USE MANUFACTURE'S RECOMMENDED PATTERNS, TOOLS AND FORMS. CONTRACTOR SHALL USE RUBBER STAMPS OR AS APPROVED BY LANDSCAPE ARCHITECT. COLOR HARDENER SHALL MATCH CONCRETE COLOR AND BE APPLIED PER MANUFACTURE'S RECOMMENDATIONS RELEASE AGENTS, AS PER PLANS, SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATIONS.

24. CONCRETE SAMPLE: CONTRACTOR SHALL PROVIDE OWNER WITH A 2' x 2' SAMPLE OF ALL CONCRETE FINISHES & STAMP PATTERNS AS PER PLANS. SAMPLES SHALL BE APPROVED BY OWNER AND LANDSCAPE ARCHITECT PRIOR TO POURING FLATWORK.

25. CURING: CURE CONCRETE IN ACCORDANCE WITH REQUIREMENTS OF THE CURRENT ACI MANUAL OF CONCRETE PRACTICE.

26. POSITIVE DRAINAGE: CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DRAINAGE, WITHOUT PONDING ON ALL CONCRETE SURFACES. ALL CONCRETE FLATWORK SHALL SLOPE MINIMUM 1% AWAY FROM BUILDINGS, WALLS, ETC., IN THE DIRECTION OF SITE DRAINAGE.

27. CONCRETE JOINTS: CONTRACTOR SHALL INSTALL JOINTS AS NOTED OR PER STRUCTURAL ENGINEERS SPECIFICATIONS. CONCRETE WALKS (LESS THAN 8' – 0"): A TOOLED CONTROL JOINT, AT 1/4 DEPTH OF CONCRETE, SHALL BE PLACED 5' – 0" O.C. MAX., AT ALL CHANGES IN DIRECTION AND AT ALL INSIDE CORNERS. EXPANSION JOINTS WITH PREMOLDED 3/8" ASPHALTIC JOINT OR ETHAFOAM FELT AS PER OWNER'S SPECIFICATIONS, SHALL BE PLACED 20' – 0" O.C. MAX. CONCRETE PAVING: A TOOLED CONTROL JOINT AT 1/4 DEPTH OF CONCRETE, SHALL BE PLACED AT PLUS/MINUS 40 SQ. FEET MAXIMUM, ALL CHANGES IN DIRECTION AND AT ALL INSIDE CORNERS. EXPANSION JOINTS WITH PREMOLDED 3/8" ASPHALTIC JOINT OR ETHAFOAM FELT AS PER OWNER'S SPECIFICATIONS, SHALL BE PLACED AT ±160 SQ. FT. MAX.

28. ADJOINING EXISTING CONCRETE SURFACES: CONCRETE DESIGNATED ON PLANS TO MEET ALL EXISTING CONCRETE WALKS, DRIVEWAYS ETC. SHALL BE FLUSH AND INCLUDE AN EXPANSION JOINT BETWEEN THE SURFACES.

29. DEFECTS: ALL DEFECTS IN CONCRETE WORK SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

E. MASONRY NOTES

1. SCOPE OF WORK: CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES TO CONSTRUCT MASONRY STRUCTURES INDICATED ON THESE PLANS.

2. PLAN VERIFICATION: THE CONTRACTOR SHALL NOTIFY OWNER AND LANDSCAPE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR OMISSIONS ON ALL DRAWINGS.

3. LICENSE: THE MASONRY CONTRACTOR SHALL BE A C-29 CALIFORNIA LICENSED MASONRY CONTRACTOR, OR A C-27 LICENSED LANDSCAPE CONTRACTOR IF MASONRY IS APPURTENANT TO LANDSCAPE WORK.

4. UNIFORM BUILDING CODE: ALL MASONRY CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF THE UNIFORM BUILDING CODE, MASONRY DESIGN MANUAL AND ALL APPLICABLE GOVERNING AGENCIES.

5. FIELD VERIFICATION: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. OWNER AND LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.

6. COORDINATION: CONTRACTOR SHALL COORDINATE WITH APPROPRIATE TRADES TO LOCATE PIPE SLEEVES, IRRIGATION, DRAINAGE, ELECTRICAL ETC., BENEATH OR EMBEDDED IN MASONRY WALLS, BEFORE STARTING WORK.

7. SOIL PREPARATION: ALL EXCAVATION, GRADING, COMPACTION, ETC. SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE STRUCTURAL SOILS REPORT. ALL SOIL MODIFICATIONS SHALL BE UNDER THE DIRECTION OF A SOILS ENGINEER.

8. ROCK AND SAND SPECIFICATIONS: SAND AND AGGREGATE FOR MASONRY SHALL BE CLEAN NATURAL MATERIALS CONFORMING TO ASTM DESIGNATION C-144 AND C-404.

9. WATER: WATER FOR CONCRETE SHALL BE CLEAN AND FREE FROM DELETERIOUS SUBSTANCES.

10. CEMENT: CEMENT SHALL BE PORTLAND CEMENT TO CONFORMING TO CURRENT REQUIREMENTS OF ASTM C-150, TYPE I OR TYPE II.

11. CONCRETE BLOCK: MASONRY UNITS SHALL BE TYPE II UNITS CONFORMING TO ASTM C-90 AND IN ADDITION THE REQUIREMENTS OF THE QUALITY CONTROL STANDARDS OF THE CONCRETE MASONRY ASSOCIATION OF CALIFORNIA. SIZE, TEXTURE & COLOR SHALL BE SHOWN ON DRAWINGS.

12. EXECUTION: LAY MASONRY IN STRAIGHT COURSES IN RUNNING BOND, TRUE TO PLANE AND PLUMB WITHIN 1/8" IN 10 FEET. FACES OF MASONRY UNITS SHALL BE ALL IN ONE PLANE. MAKE HORIZONTAL AND VERTICAL MORTAR JOINTS 3/8" THICK. TOOL ALL JOINTS FLUSH. CUT UNITS WITH MASONRY SAW.

13. MORTAR: MORTAR SHALL BE TYPE 'S' AND CONFORM TO ASTM C-270. UNIFORMLY MIX IN THE RATIO 1 PART PORTLAND CEMENT TO 1/2 PART HYDRATED LIME OT 3 PART SAND. MORTAR TO MATCH COLOR OF BLOCK OR PER PLAN.

14. GROUT: GROUT SHALL BE A FLUID CONSISTENCY AND MIXED IN THE RATIO BY VOLUME, 1 PART CEMENT, 3 PARTS SAND, OR 1 PART CEMENT, 3 PARTS SAND, 2 PARTS PEAGRAVEL. GROUT SHALL ATTAIN A MINIMUM COMPRESSION STRENGTH OF 2,000 P.S.I. @ 28 DAYS.

15. COMPRESSIVE STRENGTH OF CONCRETE: ALL CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2,000 P.S.I. AT 28 DAYS OR PER STRUCTURAL ENGINEER'S RECOMMENDATIONS WITH A SLUMP NOT TO EXCEED 4" CONFORMING WITH ASTM C-39. CONCRETE SHALL CONSIST OF A MINIMUM 5 SACK PORTLAND CEMENT/SAND/GRAVEL MIX, CONFORMING WITH ASTM C-150.

16. MASONRY REINFORCING STEEL : STEEL SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 EXCEPT THAT 1/4" TIES MAY BE PLAIN BARS. WIRE REINFORCEMENT SHALL CONFORM TO ASTM A-82.

17. REBAR: ACCURATELY PLACE REINFORCING STEEL AS SHOWN ON THE DRAWINGS OR PER STRUCTURAL ENGINEER, POSITIVELY SECURED AND SUPPORTED, NOT EXCEEDING 200 BAR DIAMETERS. IN SUCH A MANNER THAT NO MOVEMENT OCCURS WHEN GROUT IS POURED. REINFORCING AND THE WIRES SHALL BE EMBEDDED IN THE GROUT. LENGTH OF LAPPED SPLICE SHALL BE A MINIMUM OF 40 BAR DIAMETERS FOR TENSION, 30 BAR DIAMETERS FOR COMPRESSION, OR AS PER STRUCTURAL ENGINEER RECOMMENDATIONS. THE THICKNESS OF THE GROUT BETWEEN MASONRY UNITS AND REINFORCING SHALL BE A MINIMUM OF 1/4" FOR FINE GROUT AND 1/2" MINIMUM FOR COURSE GROUT.

18. FOOTINGS: CONCRETE FOOTINGS SHALL BE OF THE SIZE AND TYPE AS INDICATED ON DRAWINGS OR AS PER STRUCTURAL ENGINEER'S SPECIFICATIONS. EARTHFORMS MAY BE USED FOR FOOTINGS ONLY WHERE SOIL IS FIRM AND STABLE AND CONCRETE WILL NOT BE EXPOSED.

19. WELDING: WELDING OF REINFORCING STEEL SHALL CONFORM TO AWS D12-1 AND REQUIREMENTS OF THE AMERICAN WELDING SOCIETY.

20. GROUTING: ALL MASONRY SHALL BE REINFORCED, GROUT SOLID ALL CELLS WHICH CONTAIN REBAR, BOLTS ETC. GROUT CELLS BELOW GRADE SOLID. ALL REINFORCEMENT, BOLTS ETC. IN MASONRY SHALL HAVE A MINIMUM GROUT COVERAGE OF 3/4".

21. BELOW GRADE CONSTRUCTION: MASONRY CONTRACTOR SHALL BE RESPONSIBLE FOR BACKFILLING ALL WALLS TO GRADES PER PLAN (OR PER CIVIL ENGINEER), FINISH GRADE FOR RUNOFF SWALE BEHIND ALL WALLS, PERFORATED DRAIN LINES COMPLETE AND CONNECTED TO DRAINAGE SYSTEM OR STREET, WATERPROOFING ALL WALLS BELOW GRADE AND ALL EXCAVATION NECESSARY FOR THE EXECUTION OF MASONRY WORK. FILL SOIL PER STRUCTURAL ENGINEER WALLS. ALL RETAINING WALLS SHALL BE ADEQUATELY SHORED DURING BACKFILL OPERATION.

22. EXPANSION JOINTS: CONTRACTOR SHALL PROVIDE EXPANSION JOINTS AT CORNERS AND AT 30' – 0" ON CENTER OR AS REQUIRED BY GOVERNING AGENCY.

23. SURPLUS SOIL: MASONRY CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING ALL 'SPOILS' OR SURPLUS SOIL ON SITE AS A RESULT OF MASONRY WORK.

24. MASONRY SAMPLE: CONTRACTOR SHALL PROVIDE TO OWNER A 4' x 6' SAMPLE PANEL OF ALL MASONRY WALL TYPES ON PLANS. SAMPLES SHALL BE APPROVED BY OWNER AND LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.

25. STUCCO APPLICATION: ALL STUCCO WORK SHALL CONFORM TO LATHING AND PLASTERING REFERENCE SPECIFICATIONS OF THE CALIFORNIA LATHING AND PLASTERING CONTRACTOR'S ASSOCIATION, INC. AND STANDARDS FOR PUBLIC WORK CONSTRUCTION. STUCCO APPLICATION SHALL CONFORM TO ALL SPECIFICATIONS AND RECOMMENDED INSTALLATION PROCEDURES OF MANUFACTURER.

26. PLASTER PROPORTIONS: PLASTER FINISH TO INCLUDE:

SCRATCH COAT – 3/8" THICK
1 PART PORTLAND CEMENT PLASTER AND 4 PARTS DAMP LOOSE SAND
BROWN COAT – 3/8" THICK
1 PART PORTLAND CEMENT PLASTER AND UP TO 5 PARTS DAMP LOOSE SAND
COLOR FINISH COAT – 1/8" THICK
PORTLAND CEMENT PLASTER MIX WITH WATER ONLY

PORTLAND CEMENT PLASTER MIX INCLUDES:
1 PART PORTLAND CEMENT
1/4 PART HYDRATED LIME
WATERPROOFING ADMIXTURE (PER MANUFACTURE'S SPECS.)

27. PLASTER FINISH: ALL PLASTER FINISHES, TEXTURES AND COLORS SHALL MATCH REFERENCED ARCHITECTURE OR AS DIRECTED BY OWNER. CONTRACTOR SHALL SUPPLY A 2' x 2' SAMPLE OF ALL PLASTER FINISHES FOR OWNER'S APPROVAL.

28. WATER SEAL: APPLY WATER SEALER TO ALL PLASTER FINISHES UNLESS OTHERWISE APPROVED IN WRITING BY OWNER.

29. MASONRY VENEER/TILE: ALL TILE, BRICKS, PAVERS, PRECAST CONCRETE VENEER AND CAPS SPECIFIED ON PLANS TO BE APPLIED PER MANUFACTURER'S RECOMMENDATIONS.

30. SPECIAL MASONRY WALL MATERIALS: ALL SPECIAL WALL MATERIALS, FOAM ETC. SHALL CONFORM TO ALL SPECIFICATIONS AND RECOMMENDED INSTALLATION PROCEDURES OF MANUFACTURER.

31. DEFECTS: ALL DEFECTS IN MASONRY WORK SHALL BE CORRECTED THROUGH THE GUARANTEE PERIOD SPECIFIED HEREIN AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

F. CARPENTRY NOTES

1. PLAN VERIFICATION: THE CONTRACTOR SHALL NOTIFY OWNER AND LANDSCAPE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR OMISSIONS ON ALL DRAWINGS.

2. LICENSE: THE CARPENTRY CONTRACTOR SHALL BE A C-29 CALIFORNIA LICENSED CARPENTRY CONTRACT OR A C-27 LICENSED LANDSCAPE CONTRACTOR IF CARPENTRY IS APPURTENANT TO LANDSCAPE WORK.

3. UNIFORM BUILDING CODE: ALL CARPENTRY CONSTRUCTION SHALL CONFORM TO THE APPLICABLE EDITION OF THE UNIFORM BUILDING CODE AND ALL GOVERNING AGENCY CODES.

4. FIELD VERIFICATION: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. OWNER AND LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.

5. DELIVERY AND STORAGE: ALL MATERIALS, IN SO FAR AS IS PRACTICAL, SHALL BE DELIVERED TO THE SITE IN THE MANUFACTURER'S ORIGINAL CONTAINERS AND SHALL BEAR THE TRADEMARKS AND NAMES THEREOF. GRADE MARK SHALL BE STAMPED ON ALL STANDARD YARD-DIMENSION LUMBER OR CERTIFIED FOR COMPLIANCE. EACH PIECE OF TREATED LUMBER SHALL BE STAMPED. LUMBER SHALL BE CAREFULLY STACKED TO PREVENT WARPING AND SHALL BE KEPT DRY.

6. CONNECTIONS: MEMBERS SHALL BE ACCURATELY CUT AND FITTED AND SOLIDLY FASTENED TOGETHER TO PRODUCE PLUMB, LEVEL AND RIGID CONSTRUCTION. SLICING OF FRAMING MEMBERS BETWEEN SUPPORTS IS PROHIBITED. FACES OF ALL MEMBERS SHALL BE INSTALLED IN EVEN TRUE PLANES. NAILING, SPIKING AND BOLTING SHALL BE DONE IN ACCORDANCE WITH UNIFORM BUILDING CODE. METAL CONNECTORS AND JOIST HANGERS SHALL BE LOCATED WHERE SHOWN OR PER UNIFORM BUILDING CODE. DRILL HOLES FOR BOLTS THE SAME DIAMETER AS THE BOLT SHANK PLUS 1/16". PROVIDE WASHER UNDER BOLT HEADS AND NUTS. ALL THROUGH BOLTS LENGTHS ARE TO BE WIDTH OF MEMBERS PLUS 1" OR SIZE PER PLAN. LAG SCREWS ARE NOT TO BE DRIVEN. DRILL HOLES FOR LAGS FIRST TO DIAMETER AND DEPTH OF THREAD, FOLLOWED BY DRILLING TO 75% OF SHANK DIAMETER AND DEPTH OF THREAD. WOOD SCREWS SHALL NOT BE DRIVEN. PROVIDE SUB-DRILLED HOLES FOR ALL SCREWS OR USE SELF-DRILLING SCREWS. TIGHTEN BOLTS AND SCREWS AT INSTALLATION AND RETIGHTEN JUST PRIOR TO COMPLETION OF PROJECT. ALL CONNECTIONS NOT DESIGNATED ON PLANS SHALL BE PER UNIFORM BUILDING CODE S129 NAIL AND CONNECTION SCHEDULES.

7. LUMBER QUALITY: ALL LUMBER TO BE DOUGLAS FIR, GRADE NO. 1 SELECT, SMOOTH FOUR SIDES, UNLESS OTHERWISE NOTED PER PLANS. ALL LUMBER SHALL BE IDENTIFIED AS TO SPECIES, GRADE, AND STAMPED BY WEST COAST LUMBER INSPECTION BUREAU.

8. PRESSURE TREATED LUMBER: ALL WOOD BEARING ON CONCRETE MASONRY, ON OR BURIED INTO GRADE, OR SPECIFIED PER PLANS SHALL BE PRESSURE TREATED DOUGLAS FIR NUMBER 2 UNLESS OTHERWISE NOTED.

9. HARDWARE: ALL NAILS, CONNECTORS, OR OTHER HARDWARE SHALL BE HOT DIPPED GALVANIZED OR CADMIUM PLATED, UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL PAINT ALL HARDWARE (PER PAINTING AND STAINING NOTES) TO MATCH WOOD FINISH.

10. FOOTINGS: CONCRETE FOOTINGS SHALL BE OF THE SIZE AND TYPE AS INDICATED ON DRAWINGS OR AS PER STRUCTURAL ENGINEER'S SPECIFICATIONS. EARTHFORMS MAY BE USED FOR FOOTINGS ONLY WHERE SOIL IS FIRM AND STABLE AND CONCRETE WILL NOT BE EXPOSED.

11. DEFECTS: ALL DEFECTS IN CARPENTRY WORK SHALL BE CORRECTED THROUGH GUARANTEE PERIOD SPECIFIED HEREIN AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

G. TUBULAR STEEL / METAL NOTES

1. SCOPE OF WORK: CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES FOR THE INSTALLATION OF ALL TUBULAR STEEL / METAL WORK INDICATED ON THESE PLANS.

2. PLAN VERIFICATION: THE CONTRACTOR SHALL NOTIFY OWNER AND LANDSCAPE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR OMISSIONS ON ALL DRAWINGS.

3. LICENSE: THE TUBULAR STEEL CONTRACTOR SHALL BE A C-23 CALIFORNIA LICENSED TUBULAR STEEL FENCE CONTRACTOR.

4. UNIFORM BUILDING CODE: ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE CURRENT EDITION OF THE UNIFORM BUILDING CODE AND ALL APPLICABLE GOVERNING AGENCIES.

5. FIELD VERIFICATION: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. OWNER AND LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.

6. WORKMANSHIP: ALL TUBULAR STEEL WORK SHALL BE PLUMB, STRAIGHT AND TO LINE AND HEIGHT, LEVEL WITH ACCURATE ANGEL AND SURFACES AS INDICATED ON DRAWINGS.

7. MATERIAL STANDARDS: ALL METAL WORK SHALL BE FREE OF DEFECTS WHICH IMPAIR STRENGTH, DURABILITY AND APPEARANCE. STEEL BARS, PLATES, ETC. SHALL CONFORM TO ASTM A-36.

8. WELDING: WELDING OF TUBULAR STEEL SHALL CONFORM TO AWS D12-1 AND REQUIREMENTS OF THE AMERICAN WELDING SOCIETY. WELD ALL CONNECTIONS CONTINUOUS AND SOLID. GRIND ALL WELDS SMOOTH.

9. FOOTINGS: CONCRETE FOOTINGS SHALL BE OF THE SIZE AND TYPE AS INDICATED ON DRAWINGS OR AS PER STRUCTURAL ENGINEER'S SPECIFICATIONS. EARTHFORMS MAY BE USED FOR FOOTINGS ONLY WHERE SOIL IS FIRM AND STABLE AND CONCRETE WILL NOT BE EXPOSED.

10. CAPS: CONTRACTOR SHALL CAP ALL EXPOSED ENDS OF TUBING.

11. PAINT: ALL EXPOSED SURFACES TO BE PAINTED WITH 1 COAT OXIDE BASE PRIMER AND PAINTED WITH 2 COATS OF RUST INHIBITING ENAMEL PAINT. COLOR AND FINISH PER DRAWINGS.

12. CLEANING: AFTER ERECTION, CLEAN OFF ALL RUST, SCALE AND OIL. CLEAN FIELD WELDS, BOLTS AND ABRADED AREAS. TOUCH UP ALL AREAS WITH THE SAME MATERIAL AS USED FOR THE SHOP COAT LEAVING ALL SURFACES READY TO RECEIVE FINISH COATS.

13. DEFECTS: ALL DEFECTS IN TUBULAR STEEL/METAL WORK SHALL BE CORRECTED THROUGH THE GUARANTEE HEREIN, AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

H. PAINTING AND STAINING NOTES

1. SCOPE OF WORK: CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES FOR THE SANDING, PRIMING, PAINTING OR STAINING OF ALL MATERIALS INDICATED ON THESE PLANS.

2. PLAN VERIFICATION: THE CONTRACTOR SHALL NOTIFY OWNER AND LANDSCAPE IMMEDIATELY ARCHITECT OF ANY DISCREPANCIES OR OMISSIONS ON ALL DRAWINGS.

3. UNIFORM BUILDING CODE: ALL PAINTING AND STAINING SHALL CONFORM TO THE CURRENT EDITION OF THE UNIFORM BUILDING CODE AND ALL APPLICABLE GOVERNING AGENCIES.

4. FIELD VERIFICATION: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. OWNER AND LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.

5. MATERIALS: ALL PAINTS AND STAINS SHALL BE AS INDICATED ON DRAWING AND SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. ALL PAINT SHALL MEET THE REQUIREMENTS OF THE APPROPRIATE AIR POLLUTION CONTROL DISTRICT. PAINT SHALL BE HOMOGENOUS, FREE OF CONTAMINANTS AND OF A CONSISTENCY SUITABLE FOR THE USE FOR WHICH IT IS SPECIFIED. THE PIGMENT SHALL BE PROPERLY DISPERSED THROUGHOUT THE MATERIAL SUCH THAT THE PIGMENT DOES NOT SETTLE APPRECIABLY, DOES NOT CAKE OR THICKEN IN THE CONTAINER, OR BECOME GRANULAR OR CURDLED.

6. DELIVERY: PAINT MATERIALS SHALL BE DELIVERED TO THE WORK SITE IN NEW, UNOPENED, AIRTIGHT CONTAINERS, APPROPRIATELY IDENTIFIED WITH THE MANUFACTURER'S NAME, DATE OF MANUFACTURE, TYPE OF PAINT OR PAINT MATERIAL A AND LOT OR BATCH NUMBER.

7. EXECUTION: PAINT SHALL BE APPLIED ONLY ON THOROUGHLY DRY SURFACES AND DURING PERIODS OF FAVORABLE WEATHER. SURFACES TO BE PAINTED OR STAINED SHALL BE FREE FROM DUST, GREASE, OR OTHER DELETERIOUS SUBSTANCES THAT WOULD PREVENT BONDING.

8. APPLICATION: PAINTING SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER AND IN ACCORDANCE WITH ALL CODES AND REGULATIONS. UNLESS OTHERWISE SPECIFIED, PAINT SHALL BE APPLIED BY BRUSH, ROLLER OR SPRAY METHODS. FINISHED SURFACES SHALL BE UNIFORM AND FREE OF DEFECTS (DRIPS, RUNS BRUSH MARKS, THINK AREAS, ETC.).

9. PAINTING LUMBER: UNLESS OTHERWISE SPECIFIED, ALL NEW LUMBER REQUIRING PAINTING SHALL CONSIST OF A PRIMER AND TWO FINISH COATS FOR WOOD STRUCTURES. WOOD SURFACES DESIGNATED TO BE PAINTED SHALL BE CLEANED. WHEN PERMITTED BY THE JOB SUPERINTENDENT, THE FIRST COAT OF PAINT MAY BE APPLIED PRIOR TO ERECTION. AFTER THE FIRST COAT HAS DRIED AND THE LUMBER IS IN PLACE, ALL CRACKS, CHECKS, NAIL HOLES, ETC. SHALL BE PUTTIED FLUSH WITH THE SURFACE AND ALLOWED TO DRY BEFORE THE SECOND COAT IS APPLIED. SKIPS, HOLIDAYS, THIN AREAS OR OTHER DEFICIENCIES IN ANY ONE COAT OF PAINT SHALL BE CORRECTED BEFORE THE SUCCEEDING COAT IS APPLIED. THE SURFACE OF ANY PAINT COAT BEING COVERED SHALL BE FREE OF DELETERIOUS MATERIAL BEFORE ADDITIONAL PAINT IS APPLIED.

10. SURFACE PREPARATION FOR PAINTING GALVANIZED SURFACES: GALVANIZED SURFACES SHALL BE PREPARED FOR PAINTING BY HAND SCRAPING OR WIRE BRUSHING. AFTER HAND CLEANING, ALL GALVANIZED SURFACES SHALL BE CLEANED BY SOLVENT CLEANING PROCEDURES FOR REMOVING DETRIMENTAL FOREIGN MATTER SUCH AS OIL, GREASE, SOIL, ETC. AFTER WASHING, ALL AREAS SHALL BE ROUGHENED BY ABRASIVE BLASTING. GALVANIZING SHALL NOT BE REMOVED BY THIS OPERATION.

11. EXISTING WOOD SURFACE PREPARATION: WOOD SURFACES SHALL BE PREPARED FOR PAINTING BY REMOVING ALL CRACKED OR PEELED PAINT, LOOSE CHALKY PAINT, DIRT AND OTHER FOREIGN MATTER BY WIRE BRUSHING, SCRAPING, SANDING OR OTHER APPROVED MEANS IMMEDIATELY PRIOR TO PAINTING. ALL SURFACES SHALL BE WIPED OR DRY BRUSHED TO REMOVE ANY DUST OR CHALKY RESIDUE THAT MAY RESULT FROM CLEANING OPERATIONS. ALL WOOD DESIGNATED TO BE PAINTED SHALL BE THOROUGHLY DRY BEFORE PAINT IS APPLIED.

12. FINISH SAMPLE: CONTRACTOR SHALL PROVIDE OWNER WITH A SAMPLE OF ALL PAINTS AND STAINS COLORS AS PER PLANS. SAMPLES SHALL BE APPROVED BY OWNER AND LANDSCAPE ARCHITECT.

13. DEFECTS: THE CONTRACTOR SHALL PROTECT ALL PARTS OF THE STRUCTURE OR ADJACENT IMPROVEMENTS AGAINST DISFIGUREMENT AS A RESULT OF ITS PAINTING OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY ITS OPERATIONS TO VEHICLES, PERSONS OR PROPERTY AND SHALL PROVIDE AT ITS EXPENSE PROTECTIVE MEANS TO GUARD AGAINST SUCH DAMAGE.

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03.31.13
Renewal Date
5.29.12
Date
STATE OF CALIFORNIA

Job No.: -
Drawn By: MJS
Checked By: MS
Plan Date: MAY 29, 2012
Scale: SEE DETAIL

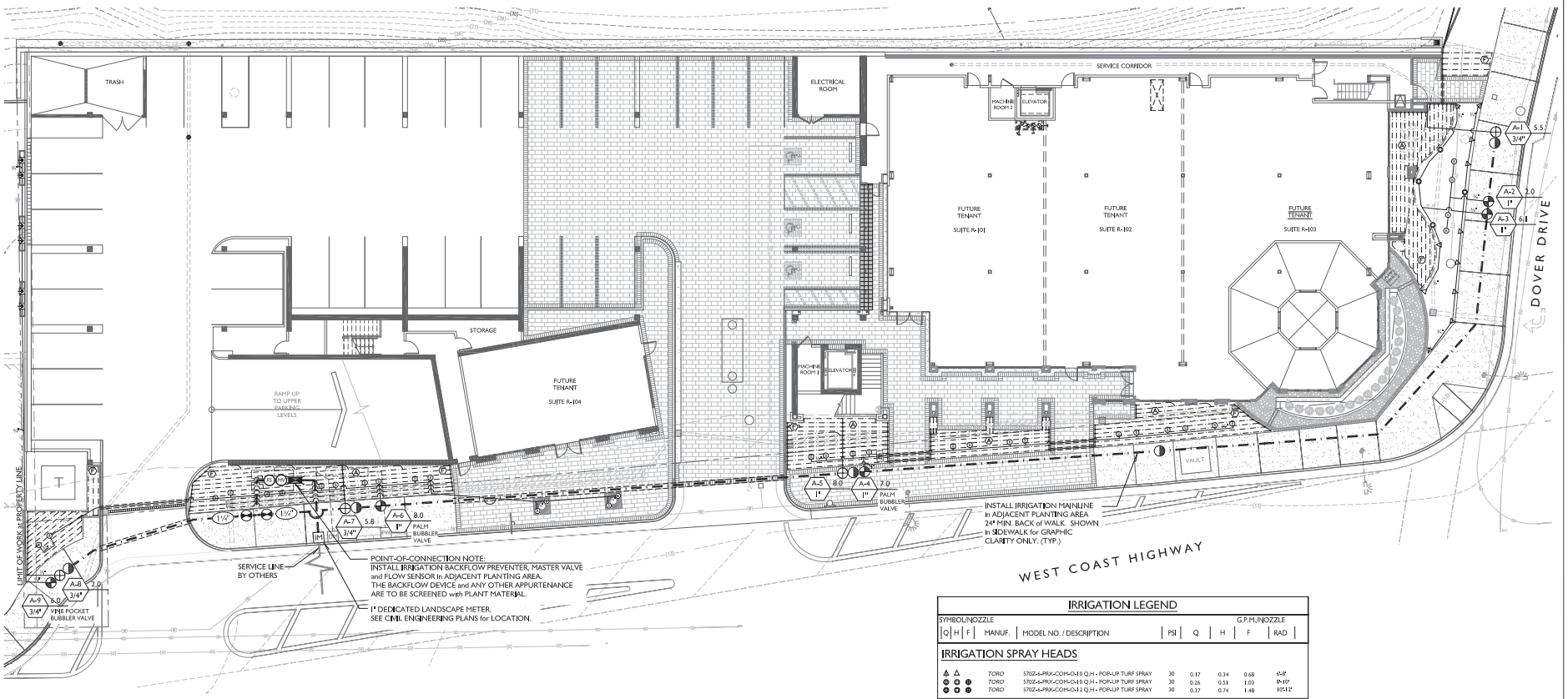
Title:

LANDSCAPE CONSTRUCTION SPECIFICATIONS

Sheet No.:

LC.5

Plan Status:
PERMIT/CONSTRUCTION DOCUMENTS



IRRIGATION LEGEND

SYMBOL/NOZZLE Q	H	F	MANUF.	MODEL NO. / DESCRIPTION	PSI	G.P.M./NOZZLE Q	H	F	RAD
IRRIGATION SPRAY HEADS									
			TORO	570Z-6-PRX-COM-0-10 Q.H. - POP-UP TURF SPRAY	30	0.17	0.34	0.68	6'-8'
			TORO	570Z-6-PRX-COM-0-10 Q.H. - POP-UP TURF SPRAY	30	0.26	0.51	1.03	8'-10'
			TORO	570Z-6-PRX-COM-0-12 Q.H. - POP-UP TURF SPRAY	30	0.37	0.74	1.48	10'-12'
IRRIGATION BUBBLER HEADS									
			RAINBIRD	RWS-B-C-1400-04 ROOT WATERING SYSTEM or APPROVED EQUAL. (2 BUBBLERS per TREE).	30	0.50			0'
			RAINBIRD	1400 SERIES BUBBLERS on RISER.	30	1.0			0-2'

IRRIGATION UTILITIES

M	WATER METER	1" DEDICATED LANDSCAPE METER and SERVICE LINE by OTHERS.
	FEBCO 825Y	1" BACKFLOW PREVENTION UNIT - TO BE INSTALLED in STRONG BOX ENCLOSURE SBBC-LOW PROFILE SMOOTH TOUCH, POWDER COATED COLOR GREEN.
	WILKINS KING BROS.	GATE VALVE - BLOCKED TRUE UNION PVC - 2" & SMALLER (LOCATE IN PLANTING AREAS - SHOWN FOR CLARITY ONLY)
	RAINBIRD	33-RC 3/4" QUICK COUPLER VALVE with LOCKING RUBBER CAP
	RAINBIRD	PEB SERIES - PLASTIC INDUSTRIAL ELECTRIC REMOTE CONTROL VALVE (SIZE AS SHOWN ON PLAN).
MV	RAINBIRD	1" MASTER VALVE - PEB SERIES
FS	RAINBIRD	1" FLOW SENSOR - FS100

IRRIGATION CONTROLLER

	RAINBIRD	ESP-LXME WALL MOUNT CONTROLLER with RAINBIRD WEATHER SMART ET MANAGER and NECESSARY ACCESSORIES. WEATHER REACH SIGNAL PROVIDER 1-(877)-351-6588. ALLOW TWO EXTRA AVAILABLE STATIONS MIN. INCLUDING MASTER VALVE STATION.
NO SYMBOL	RAINBIRD	WR2-RC WIRELESS RAIN SENSOR. INSTALL per MANUFACTURER'S SPECIFICATIONS.
E	120 VOLT ELECTRICAL POWER for CONTROLLER	PROVIDED BY ELECTRICIAN. FIELD VERIFY ACTUAL LOCATION.

SUBSURFACE IRRIGATION

	RAINBIRD	XCZ-075, -100, -150-B-COM REMOTE CONTROL VALVE ZONE KIT with PRESSURE REGULATOR
	NETAFIM	NETAFIM TECHLINE-CV and TECHFILTER with 0.60 GPH EMITTERS 12" ON CENTER. ALL TUBING SHALL BE INSTALLED 4" BELOW FINISHED SOIL GRADE W/ 5" WIRE STAKES FIVE (4) FEET ON CENTER; VERIFY THE LAYOUT AND 12" SPACING IN THE FIELD PRIOR TO STARTING WORK. INSTALL and MAINTAIN/REPLACE DRIP SYSTEM per MANUFACTURER'S SPECIFICATIONS.
	NETAFIM	NETAFIM FITTINGS FOR CONNECTION BETWEEN PVC LATERAL LINES AND NETAFIM TUBING
	AS APPROVED	SUPPLY/EXHAUST PVC HEADER. SIZE per LEGEND SEE BELOW.
FV	NETAFIM	TECHLINE CV MANUAL LINE FLUSH VALVE. - PROVIDE SCH 40 OR SCH 80 SOLVENT-WELD BALL VALVE FOR FLUSH OFF OF PCV EXHAUST MANIFOLD PRESIZED PER PLAN). INSTALL FLUSH VALVE INSIDE 6" ROUND VALVE BOX, ONE AT THE END OF ANY TECHLINE CV LATERAL or PVC EXHAUST HEADER. INSTALL MINIMUM OF ONE FLUSH VALVE PER MAXIMUM OF 800' OF TUBING. MULTIPLE FLUSH VALVES MAY BE REQUIRED WITHIN TECHLINE-CV LAYOUT. ALWAYS INSTALL VALVES IN OPPOSITE DIRECTIONS OF THE PVC/DRIP CONNECTION MANIFOLD.
A	RAINBIRD	ARV-100 AIR/VACUUM RELIEF VALVE INSTALLED WITH A FT-050 COMBINATION TEE AND A 3/4" x 1/2" REDUCER BUSHING. INSTALL AIR RELIEF ASSEMBLY INSIDE A 6" ROUND VALVE BOX AT THE HIGH POINT OF EACH PLANTER, MIN. 1 ARV PER 500' OF DISTRIBUTION TUBING. USING AIR RELIEF LATERAL, CONNECT AIR RELIEF VALVE TO ALL TECHLINE LATERALS WITHIN THE ELEVATED AREA. MULTIPLE ARVS SHALL BE REQUIRED PER RCV WITHIN UNDULATING AREAS. VERIFY QUANTITY PRIOR TO STARTING WORK. FLUSH VALVES and AIR RELIEF VALVES SHOWN DIAGRAMMATICALLY. INSTALL VALVE BOX 18" FROM PAVING AND AT HIGH POINTS OF PLANTER AREA. INSTALL ALL AIR VACUUM RELIEF EQUIPMENT PER MANUFACTURER'S SPECIFICATIONS.

IRRIGATION PIPING

	AS APPROVED	NON-PRESSURE LATERAL PVC PIPE SCH. 40 FOR SIZES 3/4" - 2" W/ PVC SCH. 40 FITTINGS - BURY MIN. 12" BELOW GRADE (SIZE AS NOTED ON PLAN).
	AS APPROVED	PRESSURE MAINLINE SCH. 40 PVC IN PLANTER AREA FOR SIZES 3/4" - 1 1/2". FOR 2" & LARGER USE CLASS 315 PVC- BURY MIN. 18" BELOW GRADE (SIZE AS NOTED ON PLAN).
	AS APPROVED	PVC PIPE SCH. 40 SLEEVING, TWICE THE DIAMETER OF PIPE OR WIRE BUNDLE CARRIED - EXTEND 12" BEYOND EDGE OF PAVING & PLACE BELOW ALL PAVINGS, HARDSCAPE, ETC., AND AS DIRECTED BY OWNERS AUTHORIZED REPRESENTATIVE.
NO SYMBOL	AS APPROVED	INSTALL CONCRETE THRUST BLOCK on ALL ANGLED MAINLINE

VALVE KEY:

VALVE NUMBER
GPM
A-9 23.18
1" VALVE SIZE

TECHLINE SUPPLY/EXHAUST LATERAL PIPE SIZING:

ZONE FLOW	PIPE SIZE
0 - 5 GPM	TECHLINE TUBING or 1/2" PVC
5 - 8 GPM	3/4" PVC
8.1 - 13 GPM	1" PVC
13.1 - 22 GPM	1 1/4" PVC
22.1 - 30 GPM	1 1/2" PVC

CITY of NEWPORT BEACH MUNICIPAL CODE 14.17 - WATER ORDINANCE NOTE

THE IRRIGATION SYSTEM WAS DESIGNED to MEET THE REQUIREMENTS of THE CITY of NEWPORT BEACH MUNICIPAL CODE 14.17 WATER EFFICIENT LANDSCAPE ORDINANCE.

REFERENCE NOTES:

FOR GENERAL IRRIGATION NOTES & CALCULATIONS SEE SHEET LI.2
FOR ESTIMATED WATER USE & SCHEDULE SEE SHEET LI.2
FOR IRRIGATION DETAILS SEE SHEETS LI.3
FOR IRRIGATION SPECIFICATIONS SEE SHEET LI.4

NORTH
0 5' 10' 20'
SCALE: 1" = 10'

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Issued For:	
3.26.12	1st CITY SUBMITTAL
5.29.12	PLANNING COMMISSION

Revisions:

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PROJECT:

MARINER'S POINTE

WEST COAST HIGHWAY
AT DOVER
NEWPORT BEACH, CA

CLIENT:

V.B.A.S. PROPERTIES Inc.

18582 BEACH BOULEVARD
HUNTINGTON BEACH, CA
92648

Stamp:

LICENSED LANDSCAPE ARCHITECT
MARIAN SCHAFFTER MJS
Signature
03.13.13
Expiration Date
6.30.13
Date
STATE OF CALIFORNIA

Job No.: -
Drawn By: MJS
Checked By: MS
Plan Date: MAY 29, 2012
Scale: 1" = 10'

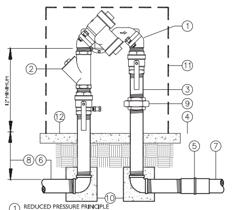
Title:

LANDSCAPE IRRIGATION PLAN

Sheet No.:

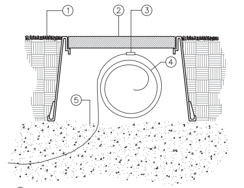
LI.1

Plan Status:
PERMIT/CONSTRUCTION DOCUMENTS



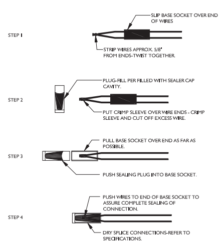
1. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER
2. WYE STRAINE
3. BRASS FISER
4. FINISH GRADE
5. THREADED BY SLIP COUPLING
6. FROM WATER SOURCE
7. PVC PRESSURE SUPPLY LINE, SEE SPECIFICATIONS
8. TRENCH DEPTH, REFER TO SPECIFICATIONS
9. BRASS UNION
10. ONE CUBIC FOOT CONCRETE STABILIZER
11. BACKFLOW ENCLOSURE PER IRRIGATION LEGEND. INSTALL per MANUFACTURER'S SPECIFICATIONS.
12. CONCRETE FOOTING

(E) BACKFLOW PREVENTER

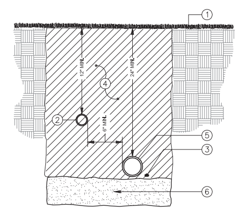


1. FINISH GRADE
2. RECTANGULAR VALVE BOX REFER TO SPECIFICATIONS
3. SPARE WIRE LABEL
4. CONTROL AND/OR COMMON WIRE, REFER TO SPECIFICATIONS
5. PEA GRAVEL BACKFILL (ONE CUBIC FOOT MINIMUM)

(A) SPARE WIRE BOX
FOR IRRIG. CONTROL & COMMON WIRE (ONE SHOWN)



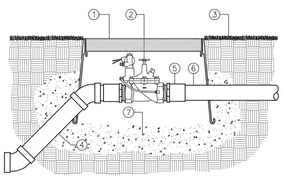
(F) WIRE CONNECTOR



1. FINISH GRADE
2. LATERAL LINE
3. CONTROL WIRES
4. CLEAN BACKFILL (REFER TO SPECIFICATIONS)
5. PRESSURE SUPPLY LINE
6. SAND BEDDING (REFER TO SPECIFICATIONS)

INSTALL ALL CONTROL WIRE ON THE UNDERSIDE OF THE PRESSURE SUPPLY LINE

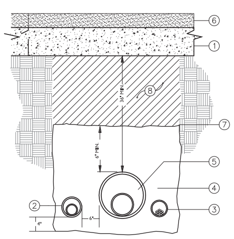
(B) TRENCHING
IN LANDSCAPE AREAS



1. RECTANGULAR PLANSTIC VALVE BOX GREEN IN COLOR
2. ELECTRIC REMOTE CONTROL VALVE
3. FINISH GRADE
4. PRESSURE SUPPLY LINE
5. PVC MALE ADAPTOR (2 REQUIRED)
6. PVC PRESSURE SUPPLY LINE FROM BASKET STRAINER
7. 3/4" CRUSHED ROCK SUMP (ONE CUBIC FOOT)

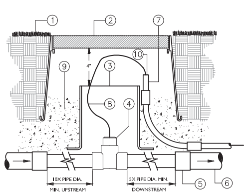
NOTE: VALVE SHALL HAVE A MINIMUM OF 4" CLEARANCE FROM THE BOTTOM OF THE VALVE BOX LID, AND 2" MINUMUM CLEARANCE FROM THE BOTTOM OF VALVE AND TOP OF GRAVEL SUMP.

(G) MASTER VALVE (Normally Open)



1. SUBGRADE
2. LATERAL LINE (IN SLEEVE)
3. CONTROL WIRES (IN CONDUIT)
4. CLEAN GRANITE SAND
5. PRESSURE SUPPLY LINE (IN SLEEVE)
6. FINISH SURFACE
7. SOIL SEPARATOR
8. 90% CLEAN BACK-FILL

(C) TRENCHING
UNDER HARDSCAPE



1. FINISH GRADE
2. RECTANGULAR VALVE BOX
3. 8" DIA. CL 160 PVC SLEEVE BOTTOM TO BE FLARED AND CONTACT TOP OF PRESSURE SUPPLY LINE
4. FLOW SENSOR, REFER TO PLANS FOR MODEL NUMBER AND SIZE
5. PVC REDUCING COUPLER (2 REQUIRED)
6. PVC PRESSURE SUPPLY LINE
7. 3/4" ELECTRICAL CONDUIT
8. BELDEN #9889 CABLE FROM SENSOR LEADS TO DATA DECODER, REFER TO PLANS FOR LOCATION
9. 3/4" GRAVEL SUMP 1 CU. FT.
10. CONDUIT BUSHING

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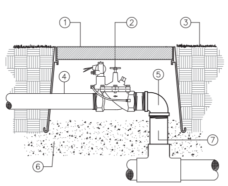
(H) FLOW SENSOR



1. RECTANGULAR PLASTIC VALVE BOX GREEN IN COLOR
2. ELECTRIC REMOTE CONTROL VALVE
3. FINISH GRADE
4. PVC LATERAL LINE
5. PVC SCH. 40 90 DEGREE ELL
6. 3/4" CRUSHED ROCK SUMP
7. PRESSURE SUPPLY LINE

(D) REMOTE CONTROL VALVE

PRESSURE LOSS CALCULATIONS

P.O.C. # A
FRICTION LOSS CALCULATIONS — longest run - TURF SPRAY

WATER METER NO. 1 — SIZE 1"
ELEVATION 13' ±
STATIC PRESS. HIGH 90 — LOW 80
INFO. SOURCE: -
PHONE: -
DATE OF INFO. -
H.G.L. N/A
METER ELEV. 13 ± / N/A × .433 =
REMOTE CONTROL VALVE No. A-3 — SIZE 1"
MAX. DEMAND 6.1 GPM
ELEV. OF HIGHEST HEAD 14' ±
PRESS. AT RCV N/A PSI

QTY.	SIZE			
1	1"	WATER METER	0.1	PSI
		PRESS. REGULATOR (FALL OFF)		PSI
1	1"	BACKFLOW PREVENTER	10	PSI
1	1"	FLOW METER	-	PSI
1	1"	MASTER VALVE	-	PSI
N/A	1"	GATE VALVE	-	PSI
N/A	1"	MAINLINE		PSI
370'	1½"	MAINLINE	0.5	PSI
N/A	1½"	MAINLINE		PSI
N/A	2"	MAINLINE		PSI
1	1"	CONTROL VALVE	1.7	PSI
N/A	3/4"	LATERAL LINE		PSI
N/A	1"	LATERAL LINE		PSI
N/A	1¼"	LATERAL LINE		PSI
N/A	1½"	LATERAL LINE		PSI
		FITTING LOSS (10%)	1.2	PSI
		ELEVATION CHANGE (+/-)	0.4	PSI
		TOTAL SYSTEM LOSS:	14	PSI
		PRESSURE TO OPERATE HEAD	30	PSI
		TOTAL PRESSURE REQUIRED:	44	PSI
		LOWEST STATIC PRESSURE AVAILABLE	80	PSI
		PRE-SET REGULATED PRESSURE (IF REQ'D)	70	PSI
		RESIDUAL WATER PRESSURE	26	PSI
		REQ'D RESIDUAL WATER PRESSURE	15-20 PSI	

WATER PRESSURE NOTE:

THIS IRRIGATION SYSTEM WAS DESIGNED for a MINIMUM REQUIRED STATIC WATER PRESSURE of 70 PSI. CONTRACTOR SHALL VERIFY EXISTING STATIC WATER PRESSURE PRIOR to COMMENCING WORK. IF STATIC WATER PRESSURE IS LESS THAN THE 70 PSI MINIMUM REQUIRED PRESSURE, THEN CONTRACTOR SHALL NOTIFY MJS DESIGN GROUP IMMEDIATELY for DIRECTION on HOW to PROCEED. FAILURE TO NOTIFY MJS DESIGN SHALL PLACE ALL REQUIRED REPAIRS/EQUIPMENT and OTHER RELATED COST AS THE FULL RESPONSIBILITY of THE IRRIGATION CONTRACTOR.

IRRIGATION CONTROLLER SCHEDULE

ET_o DATA MONTHLY	JAN	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
	2.2	2.7	3.7	4.5	4.6	5.4	6.2	6.1	4.7	3.7	2.5	2.0	= 48.2

IRRIGATION SCHEDULE: NETAFIM TECHLINE-CV with an AVERAGE PRECIPITATION RATE of 0.65"/hr. ±

		PRECIP. RATE	SCHEDULING DATA
JAN	20.3 min.	0.65" / hr.	EVERY 4th DAY
FEB	18.7 min.	"	EVERY 3rd DAY
MAR	17.1 min.	"	EVERY other DAY
APR	20.8 min.	"	EVERY other DAY
MAY	21.2 min.	"	EVERY other DAY
JUN	25.0 min.	"	EVERY other DAY
JUL	14.3 min.	"	EVERY DAY
AUG	14.1 min.	"	EVERY DAY
SEP	21.7 min.	"	EVERY other DAY
OCT	17.1 min.	"	EVERY other DAY
NOV	23.1 min.	"	EVERY 4th DAY
DEC	23.1 min.	"	EVERY 5th DAY

IRRIGATION SCHEDULE: TORO PRECISION SPRAY NOZZLES with an AVERAGE PRECIPITATION RATE of 1.00"/hr. ±

		PRECIP. RATE	SCHEDULING DATA
JAN	13.2 min.	1.00" / hr.	EVERY 4th DAY
FEB	12.2 min.	"	EVERY 3rd DAY
MAR	11.1 min.	"	EVERY other DAY
APR	13.5 min.	"	EVERY other DAY
MAY	13.8 min.	"	EVERY other DAY
JUN	16.2 min.	"	EVERY other DAY
JUL	9.3 min.	"	EVERY DAY
AUG	9.2 min.	"	EVERY DAY
SEP	14.1 min.	"	EVERY other DAY
OCT	11.1 min.	"	EVERY other DAY
NOV	15.0 min.	"	EVERY 4th DAY
DEC	15.0 min.	"	EVERY 5th DAY

WATERING SCHEDULE NOTES and HOURS of OPERATION:

- THIS SCHEDULE IS INTENDED AS A STARTING POINT ONLY.
- THE IRRIGATION CONTRACTOR SHALL ADJUST RUN TIMES FOR ACTUAL SITE CONDITIONS and MICRO-CLIMATES.
- SPLIT RUN TIMES MAY BE REQUIRED for SLOPE CONDITIONS and VARYING SOIL INFILTRATION RATES.
- APPLICATION RATE SHALL NOT EXCEED THE INFILTRATION RATE of THE SOIL.
- WATER WINDOW SHALL BE BETWEEN THE HOURS of 10:00 P.M. and 6:00 A.M.

GENERAL IRRIGATION NOTES:

1. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, STRUCTURES AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK AT NO EXPENSE TO THE OWNER. HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES AND LATERAL LINES THROUGH WALLS, UNDER ROADWAYS, DRIVES, AND PAVING, ETC.

2. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC., SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHEREVER POSSIBLE. THE CONTRACTOR SHALL LOCATE ALL VALVES IN SHRUB AREAS UNLESS OTHERWISE DIRECTED BY THE OWNER'S REPRESENTATIVE.

3. THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE AND THE MAXIMUM FLOW DEMAND SHOWN ON THE IRRIGATION DRAWINGS AT EACH POINT OF CONNECTION. THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO EACH CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT PRESSURE DIFFERENCES ARE NOT REPORTED PRIOR TO THE START OF CONSTRUCTION, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISION NECESSARY

4. DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.

5. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE UNLESS OTHERWISE SPECIFIED.

6. ALL SPRINKLERS INSTALLED NEXT TO BUILDINGS AND WALLS SHALL BE LOCATED TWELVE (12) INCHES AWAY FROM THE STRUCTURE.

7. THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS AND VALVES FOR OPTIMUM COVERAGE AND TO PREVENT OVER SPRAY ONTO WALKS, STREETS, WALLS, ETC. THIS SHALL INCLUDE USE OF PRESSURE COMPENSATING DEVICES AS PART OF OR UNDER THE NOZZLE, SELECTING THE BEST DEGREE OF ARC TO FIT THE EXISTING SITE CONDITIONS AND TO THROTTLE THE FLOW CONTROL AT EACH REMOTE CONTROL VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM.

8. THE CONTRACTOR SHALL ALLOW FOR A ASSORTMENT OF 'VARIABLE ADJUSTABLE NOZZLES' TO BE INSTALLED IN AREAS WHERE STANDARD PATTERN NOZZLES ARE NOT APPLICABLE AND TO ALLOW BETTER COVERAGE OF THE PLANTED AREAS WITHOUT OVER SPRAY ONTO HARDSCAPE ELEMENTS.

9. 120 VAC POWER SOURCE FOR THE CONTROLLER SHALL BE PROVIDED UNDER THE ELECTRICAL SECTION OF THE SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO COORDINATE ELECTRICAL SERVICE WITH THE GENERAL CONTRACTOR AND SHALL MAKE THE FINAL CONNECTION FORM THE ELECTRICAL SOURCE TO THE CONTROLLER.

10. ALL MAIN LINE PIPING AND CONTROL WIRES UNDER PAVING SHALL BE INSTALLED IN SEPARATE SLEEVES. MAIN LINE SLEEVE SIZE SHALL BE A MINIMUM OF TWICE (2X) THE DIAMETER OF THE PIPE TO BE SLEEVED. CONTROL WIRE SLEEVES SHALL BE OF SUFFICIENT SIZE FOR THE REQUIRED NUMBER OF WIRES UNDER PAVING. IN ADDITION TO THE CONTROL WIRE SLEEVES SHOWN ON THE DRAWINGS, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF CONTROL WIRE SLEEVES OF SUFFICIENT SIZE UNDER ALL PAVED AREAS.

11. ALL LATERAL LINE PIPING UNDER PAVING WITHOUT A SLEEVE SHALL BE PVC SCHEDULE 40 PIPE AND SHALL BE INSTALLED PRIOR TO PAVING.

12. PIPE SIZES SHALL CONFORM TO THOSE SHOWN ON THE DRAWINGS NO SUBSTITUTIONS OF SMALLER PIPE SHALL BE PERMITTED BUT SUBSTITUTIONS OF LARGER SIZES MAY BE APPROVED. ALL DAMAGED AND REJECTED PIPE SHALL BE REMOVED FROM THE SITE AT THE TIME OF SAID REJECTION.

13. FINAL LOCATION OF THE AUTOMATIC CONTROLLER LOCATION SHALL BE APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

14. ALL POP-UP TYPE SPRINKLER HEADS INSTALLED IN SHRUB AND GROUND COVER AREAS SHALL BE INSTALLED SO THAT THE TOP OF THE SPRINKLER HEAD IS 1-INCH ABOVE FINISH GRADE.

15. ALL POP-UP TYPE SPRINKLER HEADS INSTALLED IN LAWN AREAS SHALL BE INSTALLED SO THAT THE TOP OF THE SPRINKLER HEADS ARE FLUSH WITH ADJACENT SIDEWALK OR CURB.

16. AFTER RECEIVING NOTIFICATION BY THE OWNER'S AUTHORIZED REPRESENTATIVE, THE IRRIGATION CONTRACTOR, WITHIN TEN (10) DAYS SHALL ADJUST ALL LAWN HEADS SO THAT THE TOP OF THE SPRINKLER HEAD IS 1/4-INCH ABOVE FINISH GRADE.

17. ALL EQUIPMENT INSTALLED IN VALVE BOXES SHALL BE INSTALLED PER DETAIL DRAWINGS WITHOUT CUTTING SIDE WALLS OF THE VALVE BOX. CUT VALVE BOXES WILL BE REPLACED WITH NEW VALVE BOXES AS INSPECTED BY THE OWNERS AUTHORIZED REPRESENTATIVE AT THE CONTRACTOR'S OWN EXPENSE.

18. THE CONTRACTOR SHALL RUN SPARE WIRES AND ONE (1) COMMON WIRE FROM THE CONTROLLER TO EACH END OF THE MAIN LINE. HE SHALL EXTEND THE GROUPING OF WIRE 10', MAKING A COIL TO FIT INSIDE A RECTANGULAR PULL BOX. LABEL THE LID OF THE PULL BOX 'SW'.

19. ALL SPRINKLER EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.

20. ADV. (ANTI DRAIN VALVE) UNITS AS SHOWN IN THE DETAIL DRAWINGS ARE FOR TYPICAL INSTALLATION ONLY, AND MAY NOT BE REQUIRED ON ALL HEADS. PRIOR TO INSTALLATION THE CONTRACTOR SHALL VERIFY WITH THE ON SITE GRADES IF THERE IS AN ELEVATION DIFFERENCE OF 24" OF MORE BETWEEN THE HIGHEST HEAD AND LOWEST HEAD ON A SYSTEM, THE ADV. SHALL BE INSTALLED PER DETAIL DRAWING.

21. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILED INFORMATION.

VALVE LOCATION NOTE:

THE LANDSCAPE CONTRACTOR SHALL STAKE OUT EACH ELECTRICAL CONTROL VALVE AND ISOLATION VALVE LOCATION FOR REVIEW AND APPROVAL BY OWNER PRIOR TO INSTALLATION OF ALL VALVES. FINAL LOCATION AND EXACT POSITIONING FOR ELECTRIC CONTROL VALVES AND ISOLATION VALVES SHALL BE DETERMINED BY THE OWNER. MINOR MODIFICATIONS OF ELECTRIC CONTROL VALVES AND ISOLATION VALVE LOCATIONS AS REQUESTED BY THE OWNER SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. FAILURE TO OBTAIN OWNER'S APPROVAL PRIOR TO THE INSTALLATION SHALL CAUSE THE CONTRACTOR TO MAKE OWNER DIRECTED REVISIONS AT NO ADDITIONAL COST TO THE OWNER. IN GENERAL, UNLESS OTHERWISE DIRECTED BY OWNER, ALL VALVES SHALL BE INSTALLED THREE FEET FROM EDGE OF HARDSCAPE, WALK OR CURB IN SHRUB PLANTING AREAS.

MAXIMUM APPLIED WATER ALLOWANCE and ESTIMATED APPLIED WATER USE CALCULATIONS:

M.A.W.A

MAWA = (ET_o) x (.70) x (Landscape Area) x (.62)
Site Landscape Area = (48.2) x (.70) x (2,501 s.f.) x (.62) = 52,318 gal./yr.

E.A.W.U.

$$EAWU = \frac{(ET_o) \times (\text{Plant Factor}) \times (\text{Hydrozone Area}) \times (.62)}{\text{Irrigation Efficiency (62.5\%)}}$$

Hydrozone 1 TURF - Pop-up Spray Irrigation $= \frac{(48.2) \times (.70) \times (468\ s.f.) \times (.62)}{72.0\%}$ = 13,597 gal./yr.

Hydrozone 2 SITE WIDE - Sub-Surface Irrigation $= \frac{(48.2) \times (.55) \times (2{,}010\ s.f.) \times (.62)}{90.0\%}$ = 36,708 gal./yr.

Hydrozone 3 VINE POCKETS - Bubblers $= \frac{(48.2) \times (.40) \times (23\ s.f.) \times (.62)}{85.0\%}$ = 324 gal./yr.

ESTIMATED APPLIED WATER USE TOTAL = 50,629 gal./yr.

$$\frac{50{,}629\ gal./yr.}{748\ gal.} = 67.7\ cu.ft./yr.$$

CITY of NEWPORT BEACH MUNICIPAL CODE 14.17 - WATER ORDINANCE NOTE

THE IRRIGATION SYSTEM WAS DESIGNED to MEET THE REQUIREMENTS of THE CITY of NEWPORT BEACH MUNICIPAL CODE 14.17 WATER EFFICIENT LANDSCAPE ORDINANCE.

Issued For:

3.26.12	1sT CITY SUBMITTAL
5.29.12	PLANNING COMMISSION

Revisions:

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PROJECT:
MARINER'S POINTE

WEST COAST HIGHWAY
AT DOVER
NEWPORT BEACH, CA

CLIENT:
V.B.A.S. PROPERTIES Inc.
18582 BEACH BOULEVARD
HUNTINGTON BEACH,CA
92648

Stamp:
LICENSED LANDSCAPE ARCHITECT — MARK ALAN SCHATTINGER #3235 — Signature — 03.31.13 Renewal Date — 5.29.12 Date — STATE OF CALIFORNIA

Job No.: -
Drawn By: MJS
Checked By: MS
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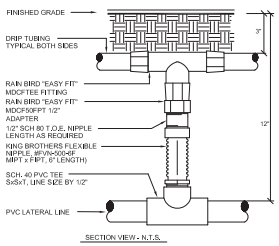
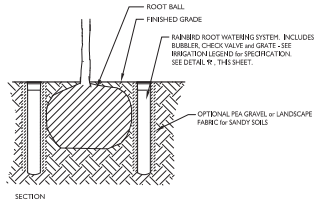
Title:
IRRIGATION DETAILS, NOTES & CALCULATIONS

Sheet No.:
LI.2

Plan Status:
PERMIT/CONSTRUCTION DOCUMENTS



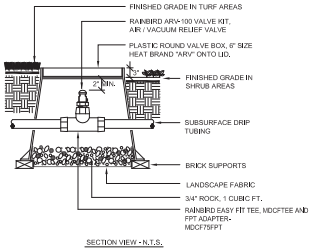
(M) DRIPLINE CONNECTION



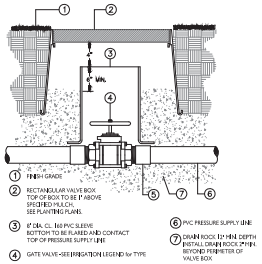
NOTES:

1. POSITION RWS UNITS (2 per TREE) EVENLY SPACED AROUND ROOT BALL. INSTALL PRODUCT with TOP EVEN with GROUND SURFACE.
2. INSTALL in ACCORDANCE with MANUFACTURER'S SPECIFICATIONS.

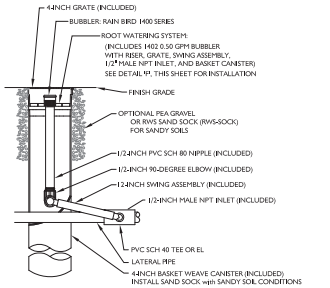
(Q) DEEP ROOT WATERING SYSTEM
(BELOW GRADE)



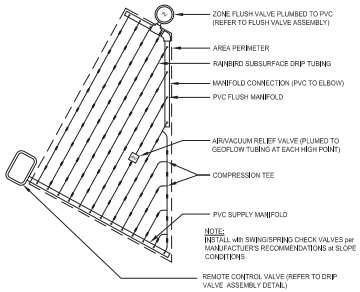
(M) TECHLINE AIR RELIEF VALVE



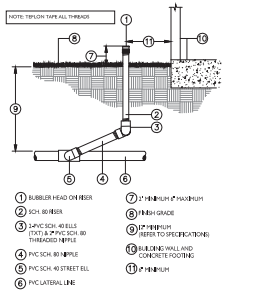
(I) ISOLATION VALVE



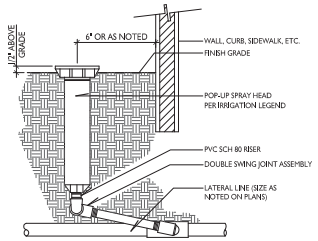
(R) DEEP ROOT WATERING SYSTEM
(BELOW GRADE)



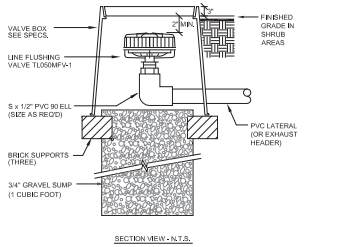
(N) DRIPLINE TUBING LAYOUT (IRREGULAR AREAS)



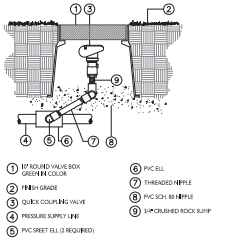
(J) BUBBLER ON RISER



(S) POP-UP SPRAY HEAD

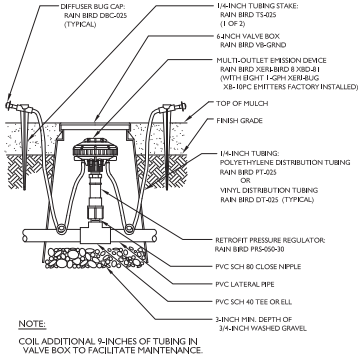


(O) DRIP FLUSH VALVE



NOTE: ALL PIPE AND FITTING USED WITH RECYCLED WATER SHALL BE PURPLE IN COLOR.

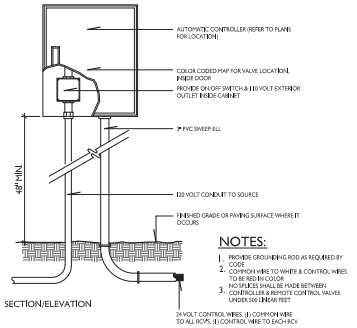
(K) QUICK COUPLING VALVE



NOTE:

COIL ADDITIONAL 9-INCHES OF TUBING IN VALVE BOX TO FACILITATE MAINTENANCE.

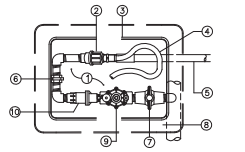
(T) XERI-BIRD with EMITTERS in VALVE BOX



NOTES:

1. PROVIDE GROUNDING ROD AS REQUIRED BY CODE
2. COMMON WIRE TO WHITE & CONTROL WIRES TO BE RED IN COLOR
NO SPLICES SHALL BE MADE BETWEEN
3. CONTROLLER & REMOTE CONTROL VALVES UNDER 500 LINEAR FEET

(P) WALL MOUNT CONTROLLER



(L) DRIP VALVE ASSEMBLY

205

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5.29.12	PLANNING COMMISSION

Revisions:

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PROJECT:

MARINER'S POINTE

WEST COAST HIGHWAY
AT DOVER
NEWPORT BEACH, CA

CLIENT:

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LICENSED LANDSCAPE ARCHITECT
MARIAN SCHOTTENSTEIN
03.13.13
Expiration
6.30.13
Date
STATE OF CALIFORNIA

Job No.: -
Drawn By: MJS
Checked By: MS
Plan Date: MAY 29, 2012
Scale: N.T.S.

Title:

IRRIGATION DETAILS

Sheet No.:

LI.3

Plan Status:
PERMIT/CONSTRUCTION DOCUMENTS

A. GENERAL NOTES

1. BIDDING: IT SHALL BE THE OWNER'S RESPONSIBILITY IN INVITING AND OBTAINING BIDS, SETTING ITS PROVISIONS AND INSTRUCTIONS TO BIDDERS, SECURING THEIR BONDS AND WORKERS COMPENSATION INSURANCE CERTIFICATES, ETC. TO FULLY ENSURE THE QUALITY AND TIMELY COMPLETION OF THE PROJECT.

2. SCOPE OF WORK: CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY TO FURNISH AND INSTALL A COMPLETE IRRIGATION SYSTEM AS PER THE DRAWINGS AND SPECIFIED HEREIN.

3. PLAN VERIFICATION THESE DOCUMENTS MAY CONTAIN ERRORS, OMISSIONS, CONTRADICTIONS, ETC. THE CONTRACTOR SHALL REVIEW ALL DOCUMENTS THORUGHLY AND SHALL NOTIFY THE LANDSCAPE ARCHITECT AND OWNER IMMEDIATELY UPON ANY SUCH DISCOVERY OF DISCREPANCY. GOVERNING CODES SHALL THEN APPLY.

4. LICENSE: THE CONTRACTOR SHALL BE A C-27 CALIFORNIA STATE LICENSED IRRIGATION CONTRACTOR.

5. ORDINANCES AND REGULATIONS: ALL IRRIGATION WORK WITHIN THESE DRAWINGS AND SPECIFICATIONS SHALL CONFORM TO ALL APPLICABLE GOVERNING CODES AND ORDINANCES (LOCAL, COUNTY & STATE).

6. PERMITS AND INSPECTIONS: THE CONTRACTOR SHALL OBTAIN, COORDINATE AND PAY FOR ALL PERMITS, FEES AND AGENCY INSPECTIONS AS REQUIRED.

7. FIELD VERIFICATION: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES OR DISCREPANCIES IN AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN IRRIGATION DESIGN. THE LANDSCAPE ARCHITECT AND OWNER SHALL BE NOTIFIED IMMEDIATELY UPON ANY DISCOVERY OF DISCREPANCIES. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.

8. LIABLE FOR ENCROACHMENT: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ENCROACHMENT ONTO ADJACENT PROPERTY, RIGHT-OF-WAYS, EASEMENTS, SET-BACKS OR ANY OTHER LEGAL PROPERTY RESTRICTIONS EITHER MARKED OR UNMARKED.

9. METHODS OF CONSTRUCTION: THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, SEQUENCES, PROCEDURES AND TECHNIQUES. THE LANDSCAPE ARCHITECTURAL FIRM IS NOT LIABLE FOR CONSTRUCTION METHODS.

10. SAFETY: THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS DURING CONSTRUCTION.

11. UTILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES, ELECTRICAL CABLES, CONDUITS, AND EXISTING IRRIGATION LINES PRIOR TO ANY CONSTRUCTION, SO THAT PROPER PRECAUTIONS MAY BE TAKEN NOT TO DAMAGE SUCH IMPROVEMENTS.

12. LIABLE FOR DAMAGE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY ITS OPERATIONS TO UTILITIES, PLANTING, CONSTRUCTION, PERSONS, PROPERTY, ETC. AND SHALL PROVIDE PROTECTIVE MEANS TO GUARD AGAINST DAMAGE.

13. COORDINATION: CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION WITH APPROPRIATE TRADES THROUGH THE OWNER BEFORE STARTING WORK.

14. IRRIGATION PLANS: THE IRRIGATION PLANS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS DURING INSTALLATION TO AVOID CONFLICTS BETWEEN, PLANTING, ARCHITECTURAL FEATURES AND EXISTING UTILITIES. INTENT OF IRRIGATION DESIGN IS FULL COVERAGE, BALANCED SYSTEM.

15. DIMENSION: ALL SCALE DIMENSIONS ARE APPROXIMATE. WRITTEN DIMENSIONS ON DETAILS AND PLANS TAKE PRECEDENCE OVER SCALED DIMENSIONS.

16. IRRIGATION NOTES: SEE GENERAL NOTES ON THE DRAWINGS FOR ADDITIONAL WORK REQUIRED, BUT NOT SPECIFICALLY MENTIONED IN THESE SPECIFICATIONS. ALL WORK CALLED FOR ON THE DRAWINGS BY NOTES SHALL BE FURNISHED AND INSTALLED WHETHER OR NOT SPECIFICALLY MENTIONED IN THE SPECIFICATIONS AND/OR DETAILS.

17. POINT OF CONNECTION (P.O.C.) VERIFICATION: LOCATION OF THE POINT OF CONNECTION SHOWN ON THE DRAWINGS MAYBE APPROXIMATE ONLY. THE CONTRACTOR SHALL APPROVE FINAL (P.O.C.) LOCATION WITH THE OWNER (JOB SUPERINTENDENT) THE CONTRACTOR SHALL VERIFY THE STATIC PRESSURE, METER SIZE AND SIZE OF SERVICE TO THE METER (P.O.C.) AT EACH POINT OF CONNECTION.

18. MATERIALS: ALL MATERIALS AND EQUIPMENT SPECIFIED IN THESE DRAWINGS SHALL BE NEW AND IN PERFECT CONDITION WHERE INSTALLED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

19. SUBSTITUTIONS: DESIGN, MATERIAL, EQUIPMENT AND PRODUCTS OTHER THAN THOSE DESCRIBED OR INDICATED ON DRAWINGS MAY BE CONSIDERED FOR USE. WRITTEN APPROVAL FOR SUBSTITUTIONS SHALL BE OBTAINED FROM THE OWNER AND LANDSCAPE ARCHITECT. ALL SUBSTITUTIONS SHALL CONFORM TO LOCAL CODES AND ORDINANCES. ANY EQUIPMENT OR MATERIALS INSTALLED WITHOUT APPROVAL BY THE OWNER OR LANDSCAPE ARCHITECT MAY BE REJECTED AND REMOVED AT CONTRACTOR'S EXPENSE.

20. FITTINGS: DUE TO THE SCALE OF DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC., WHICH MAYBE REQUIRED. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF THE WORK AND PLAN THE WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITIONS.

21. NOTICE OF COMPLETION: THE COMPLETION OF THE CONTRACT SHALL BE ACCEPTED, AND NOTICE OF COMPLETION RECORDED ONLY WHEN THE ENTIRE CONTRACT IS COMPLETED TO THE SATISFACTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE.

22. OPERATING INSTRUCTIONS: AFTER THE SYSTEM HAS BEEN COMPLETED, THE CONTRACTOR SHALL INSTRUCT THE OWNER'S AUTHORIZED REPRESENTATIVE IN THE OPERATION AND MAINTENANCE OF THE SYSTEM AND SHALL FURNISH A COMPLETE SET OF OPERATING INSTRUCTIONS.

23. SITE MAINTENANCE: CONTRACTOR SHALL KEEP THE PROJECT SITE CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL DEBRIS SHALL BE REMOVED FROM SITE PER LOCAL CODE AND ORDINANCES.

24. GUARANTEE: THE ENTIRE IRRIGATION SYSTEM INCLUDING ALL WORK DONE UNDER THIS CONTRACT, SHALL BE GUARANTEED AGAINST ALL DEFECTS AND FAULT OF MATERIAL AND WORKMANSHIP, AND SHALL BE MAINTAINED IN PREFECT WORKING ORDER FOR ONE (1) YEAR FROM DATE OF COMPLETION BY THE CONTRACTOR WITHOUT EXPENSE TO THE OWNER ALL MATERIALS USED SHALL CARRY A MANUFACTURER'S GUARANTEE OF MINIMUM ONE (1) YEAR. ANY SETTLING OF BACKFILLED TRENCHES WHICH MAY OCCUR DURING THE ONE YEAR PERIOD FINAL ACCEPTANCE SHALL BE REPAIRED TO THE OWNER'S SATISFACTION BY THE CONTRACTOR WITHOUT EXPENSE TO THE OWNER – INCLUDING THE COMPLETE RESTORATION OF ALL DAMAGED PLANTING, PAVING OR OTHER IMPROVEMENTS OF ANY KIND.

B. FIELD OBSERVATIONS

1. REQUIRED FIELD OBSERVATION WORK: THESE PLANS WERE PREPARED WITH THE UNDERSTANDING THAT THE OWNER OF SAID PLANS WILL USE PROFESSIONAL DESIGN ASSOCIATES TO PROVIDE "FULL" CONTRACT SERVICES INCLUDING FIELD OBSERVATION SERVICES DURING CONSTRUCTION. FAILURE TO USE PROFESSIONAL DESIGN ASSOCIATES TO PROVIDE AND COMPLETE THE FIELD OBSERVATION SERVICES SET FORTH HEREIN WILL SIGNIFICANTLY INCREASE THE MISINTERPRETATION OF THE INTENT OF THE DESIGN. ANY UNAUTHORIZED MODIFICATIONS THERETO, AND FAILURE TO DETECT ERRORS AND OMISSIONS IN THE PLANS AND SPECIFICATIONS CAN BECOME COSTLY MISTAKES BUILT INTO THE PROJECT. THEREFORE, IN THE EVENT THAT PROFESSIONAL DESIGN ASSOCIATES IS OTHERWISE PRECLUDED FROM COMPLETING THE FIELD OBSERVATION SERVICES SET FORTH HEREIN, THE OWNER, OR SUBSEQUENT OWNER (INDIVIDUALS OR CORPORATIONS WHO HAVE PURCHASED THESE PLANS WITH THE PROJECT), AGREES TO HOLD HARMLESS, INDEMNIFY, AND DEFEND PROFESSIONAL DESIGN ASSOCIATES AND THEIR CONSULTANTS FROM AND AGAINST ANY AND ALL CLAIMS.

2. FIELD OBSERVATION COORDINATION: THE FOLLOWING OBSERVATIONS SHALL BE INITIATED BY THE CONTRACTOR AND COORDINATED THROUGH THE OWNER (JOB SUPERINTENDENT). THE CONTRACTOR SHALL NOTIFY THE OWNER (JOB SUPERINTENDENT) AND LANDSCAPE ARCHITECT NOT LESS THAN FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY OBSERVATION. CONTINUED WORK WITHOUT OBSERVATION OF THESE PHASES OF WORK IS AT THE CONTRACTOR'S RISK, WITH ANY REQUIRED CHANGES OR MODIFICATIONS TO BE AT THE CONTRACTOR'S EXPENSE. THE OWNER (JOB SUPERINTENDENT) SHALL INFORM THE LANDSCAPE ARCHITECT AS TO THE PURPOSE AND TIME OF THE OBSERVATION FORTY-EIGHT (48) HOURS IN ADVANCE.

3. CLOSING OF NON INSPECTED WORK THE CONTRACTOR SHALL NOT ALLOW NOR CAUSE ANY OF THE WORK TO BE COVERED OR ENCLOSED UNTIL IT HAS BEEN INSPECTED, TESTED AND APPROVED BY THE CONSULTING ENGINEER OR AUTHORIZED REPRESENTATIVE AND/OR GOVERNMENTAL AUTHORITY HAVING JURISDICTION OVER THE WORK. SHOULD ANY OF THE WORK BE ENCLOSED OR COVERED BEFORE SUCH INSPECTION AND TEST, HE SHALL UNCOVER HIS WORK AT HIS OWN EXPENSE. AFTER IT HAS BEEN INSPECTED, TESTED AND APPROVED, THE CONTRACTOR SHALL MAKE ALL REPAIRS NECESSARY TO THE OWNER'S SATISFACTION.

4. JOB SITE MEETINGS AND REQUIRED INSPECTIONS:
   - A. PRE-JOB MEETING ON SITE – PRIOR TO COMMENCEMENT OF WORK
   - B. IRRIGATION MAINLINE AND EQUIPMENT LAYOUT.
   - C. PRESSURE TEST IRRIGATION, MAINS AND LATERALS
   - D. IRRIGATION COMPLETION / COVERAGE TEST UPON COMPLETION OF THE IRRIGATION SYSTEM INSTALLATION AND PRIOR TO ANY PLANTING, THE CONTRACTOR SHALL ADJUST SPRINKLER HEADS TO EVENLY AND PROPERLY DISTRIBUTE THE RATE OF PRECIPITATION OF THE WATER AND SHALL DETERMINE IF THE COVERAGE OF THE PLANTING AREAS IS COMPLETE AND ADEQUATE. CONTRACTOR SHALL MAKE ADJUSTMENTS TO PROVIDE OPTIMUM PERFORMANCE AND PREVENT UNNECESSARY OVER SPRAY ON ALL WALKS, ROADWAYS AND BUILDINGS. THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK REQUIRED TO CORRECT ANY INADEQUACIES OF COVERAGE DISCLOSED BY THE COVERAGE TEST.

C. MATERIALS NOTES

1. GENERAL: THE FOLLOWING LIST COMPRISES THE PRINCIPLE MATERIALS BUT DOES NOT SET THE LIMITATION FOR MATERIALS REQUIRED. IT SHALL BE UP TO THE CONTRACTOR TO SHOW THAT AMPLE QUANTITIES OF THE REQUIRED MATERIALS WERE USED AND INSTALLED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.

2. PRESSURED MAINLINE: PIPE FROM SOURCE OF SUPPLY TO CONTROL VALVES AND HOSE BIBS 2" OR LARGER SHALL BE CLASS 315 SDR 13.5 TYPE 1220 P.V.C. CONFORMING TO ASTM D2241, ASTM D1784 EXTRUDED FROM VIRGIN MATERIALS. ALL PIPE LESS THAN 2" SHALL BE SCHEDULE 40 TYPE 1220 P.V.C. CONFORMING TO ASTM D1785, ASTM D1784 ALL PLASTIC PIPE SHALL BE MARKED SHALL BE EXTRUDED FROM VIRGIN MATERIALS WITH THE MANUFACTURER'S NAME TYPE AND CLASS OF PIPE, SIZE AND NSF APPROVAL.

3. LATERAL LINE BELOW GRADE: NON-PRESSURIZED LATERAL LINE PIPE SHALL BE CLASS 200 SDR 21 TYPE 1220 P.V.C. CONFORMING TO ASTM D2241, D1784. P.V.C. PIPING SHALL BE EXTRUDED FROM VIRGIN MATERIALS. ALL PLASTIC PIPE SHALL BE MARKED WITH THE MANUFACTURER'S NAME TYPE AND CLASS OF PIPE, SIZE AND NSF APPROVAL.

4. LATERAL LINE ON GRADE: NON-PRESSURED LATERAL LINE PIPE ON GRADE SHALL BE SCHEDULE 40 U.V.R. CONFORMING TO ASTM D1785, ASTM D1784 AND ASTM G-53. MANUFACTURED BY BROWNLINE PIPE COMPANY OR AS INDICATED ON LEGEND. P.V.C. PIPING SHALL BE EXTRUDED FROM VIRGIN MATERIALS. ALL PLASTIC PIPE SHALL BE MARKED WITH THE MANUFACTURER'S NAME TYPE AND CLASS OF PIPE, SIZE AND NSF APPROVAL.

5. PLASTIC PIPE FITTINGS: SHALL BE SCHEDULE 40 P.V.C. (CONFORMING TO ASTM D1785, D2466) TAPERED SOCKET TYPE, SUITABLE FOR EITHER SOLVENT WELD OR SCREWED CONNECTIONS, FLANGE AND SADDLE TEES WILL NOT BE ALLOWED. SOLVENT SHALL BE AS RECOMMENDED BY THE PIPE AND FITTING MANUFACTURER.

6. BRASS PIPE AND FITTINGS: BRASS PIPE SHALL BE RED BRASS, SCHEDULE 40 SCREWED PIPE CONFORMING TO FEDERAL SPECIFICATIONS NO. WW – P-351. FITTINGS SHALL BE RED BRASS CONFORMING TO FEDERAL SPECIFICATION NO. WW-P-460.

7. COPPER PIPE AND FITTINGS: COPPER PIPE SHALL BE TYPE K (HARD-DRAWN) CONFORMING TO ASTM B88. FITTING SHALL BE WROUGHT SOLDER JOINT TYPE IN ACCORDANCE WITH ANSI B 16.22 JOINTS SHALL BE SOLDERED IN ACCORDANCE TO ASTM B-206 AND FEDERAL SPECIFICATIONS QQB 00655.

8. STEEL PIPE: GALVANIZED STEEL PIPE SHALL BE ASA SCHEDULE 40 MILLED STEEL SCREWED PIPE WITH MEDIUM GALVANIZED SCREWED BEADED MALLEABLE IRON FITTINGS. STEEL PIPE SHALL BE INSTALLED ON GRADE SECURED TO SURFACE PER DETAIL.

9. BALL VALVES: SHALL BE BRONZE OR PLASTIC BODY AS INDICATED ON DRAWINGS. 125 P.S.I. MINIMUM, HEAVY DUTY, FEDERAL SPECIFIED, CROSS HANDLE. INSTALL WITH N.D.S. TYPE PLASTIC OR EQUAL ACCESS BOX AND LID.

10. CONTROL VALVES: SHALL BE AS INDICATED ON THE DRAWINGS WITH FLOW ADJUSTMENT AND MANUAL BLEED DEVICE, INSTALLED, UNLESS OTHERWISE INDICATED, IN ONE OF THE FOLLOWING TYPE BOXES AS INDICATED ON THE DRAWINGS. CONNECT TO CONTROLLERS IN THE OPERATING SEQUENCE INDICATED ON THE DRAWINGS.

11. CONTROL WIRE: CONNECTIONS BETWEEN THE AUTOMATIC CONTROLLERS AND THE ELECTRONIC CONTROL VALVES SHALL BE UF, SOLID COPPER WIRE, VINYL INSULATED 600 V. RATING, FOR DIRECT BURIAL INSTALLATIONS. CODING SHALL BE COLOR WIRE FOR PILOT WIRE. WHITE FOR COMMON GROUND WIRE. MINIMUM WIRE SIZES SHALL BE 14 GAUGE BURIED 18" BELOW GRADE. USE APPROVED WATER PROOF WIRE CONNECTORS AND SEALER ON ALL SPLICES. A 24" EXPANSION PIG TAIL COIL SHALL BE PROVIDED AT EACH CONTROL VALVE AND AT EACH CHANGE IN DIRECTION OF THE WIRE RUN. WIRING SHALL OCCUPY THE SAME TRENCH AND SHALL BE INSTALLED ALONG THE SAME ROUTE AS PRESSURE SUPPLY OR LATERAL LINES WHEREVER POSSIBLE.

12. AUTOMATIC CONTROLLER: SHALL BE AS INDICATED ON THE DRAWINGS, COMPLETE WITH ELECTRICAL HOOKUP AND PROPER MOUNTING. ANY CONTROL WIRE EXPOSED AT THE CONTROLLER SHALL BE ENCASED IN ELECTRICAL CONDUIT OF THE SIZE REQUIRED. OUTDOOR CONTROLLERS SHALL BE WITHIN A VANDAL RESISTANT ENCLOSURE AND EQUIPPED WITH AN ON/OFF SWITCH FOR 110 VOLT POWER SUPPLY TO CONTROLLER.

13. IRRIGATION HEADS: SHALL BE OF THE TYPES AND SIZES INDICATED ON THE DRAWINGS. ALL HEADS SHALL BE ADJUSTABLE, RISER NIPPLES SHALL BE THE SAME SIZE AS THE RISER OPENING IN THE BODY.

14. BACKFLOW DEVICES: BACKFLOW PREVENTORS AND/OR VACUUM BREAKERS SHALL BE AS INDICATED ON THE DRAWINGS AND AS APPROVED BY AUTHORITIES HAVING JURISDICTION. INSTALLED TO MEET LOCAL CODES. ALL IRRIGATION SYSTEMS USING POTABLE WATER SOURCE REQUIRE BACKFLOW PREVENTION.

15. CHECK VALVES: CONTRACTOR SHALL INSTALL ANTI-DRAIN VALVES AS REQUIRED TO PREVENT LOW HEAD DRAINAGE. ANY HEAD THAT DRAINS FOR MORE THAN ONE MINUTE REQUIRES AN ANTI-DRAIN VALVE.

16. ATMOSPHERIC VACUUM BREAKERS: SHALL BE HEAVY DUTY BRASS AND FEDERAL SPECIFIED. INSTALL ON NON-CONSTANT PRESSURE LINES (LATERAL LINE) PER MANUFACTURE'S SPECIFICATIONS. LOCATION PER DRAWINGS.

17. PRESSURE REGULATORS: SHALL BE BRONZE OR PLASTIC BODY AS INDICATED ON DRAWINGS. FACTORY SET P.S.I. AS SPECIFIED PER DRAWINGS.

18. QUICK COUPLERS: SHALL BE HEAVY DUTY BRASS WITH COLORIZED RUBBER COVER AND TWO (2) PIECE BODY DESIGN. LOCATION PER DRAWINGS.

19. RISERS: ALL RISERS TO QUICK COUPLERS AND BACK FLOW DEVICES SHALL BE SCHEDULE 40 BRASS OF THE REQUIRED SIZES, RISERS TO IRRIGATION HEADS SHALL BE SCHEDULE 80 TYPE 1220 P.V.C. CONFORMING TO ASTM 2464.

20. VALVE BOXES: INSTALL ALL VALVES, EXCEPT ANTI-SIPHON VALVES, IN PREMOLDED HIGH IMPACT PLASTIC VALVE BOX. USE ROUND BOX FOR QUICK COUPLERS AND RECTANGULAR BOX FOR ALL OTHER VALVES. N.D.S (OR APPROVED EQUAL) WITH GREEN LID. LOCATE IN SHRUB PLANTING AREAS WHENEVER POSSIBLE.

D. PLASTIC PIPE NOTES

1. HANDLING: THE CONTRACTOR SHALL EXERCISE CARE IN HANDLING, LOADING AND STORING P.V.C. PIPE AND FITTINGS. ALL P.V.C. PIPE SHALL LIE FLAT SO NOT TO SUBJECT IT TO NDUE BENDING OF CONCENTRATED EXTERNAL LOAD AT ANY POINT. P.V.C. PIPE AND FITTINGS SHALL NOT BE STORED IN DIRECT SUNLIGHT. ANY SECTION OF PIPE THAT HAS BEEN DENTED OR DAMAGED WILL BE DISCARDED.

2. LOCATIONS: PIPE LINES SHALL BE INSTALLED IN THE LOCATIONS AND OF THE SIZES SHOWN ON THE DRAWINGS OR HEREIN SPECIFIED. WHERE PIPING ON THE DRAWINGS IS SHOWN UNDER PAVED AREAS BUT RUNNING PARALLEL AND ADJACENT TO PLANTING AREAS, THE INTENT OF THE DRAWINGS IS TO INSTALL THE PIPING IN THE PLANTING AREA.

3. PIPE CLEARANCE: UNDERGROUND LINES UP TO 2" INCLUSIVE SHALL HAVE A MINIMUM HORIZONTAL CLEARANCE OF 12" FROM LINES OF OTHER TRADES. THIS REQUIREMENT DOES NOT APPLY TO ANY LINES CROSSING AT ANGLES FROM 45° WITH EACH OTHER. A MINIMUM 2" VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN LINES WHICH CROSS BETWEEN THESE ANGLES. NO LINE SHALL BE INSTALLED PARALLEL TO AND DIRECTLY OVER ANOTHER LINE.

4. ASSEMBLY: ALL PIPE SHALL BE ASSEMBLED FREE FROM DIRT. THE MAIN LINE SUPPLY SHALL BE FLUSHED OUT AND TESTED FOR LEAKS BEFORE BACK FILLING AND WITH CONTROL VALVES IN PLACE AND BEFORE LATERAL PIPES ARE CONNECTED TO VALVES. EACH SECTION OF LATERAL PIPE SHALL BE FLUSHED OUT BEFORE SPRINKLER HEADS ARE ATTACHED.

5. UNDER CONCRETE: GENERALLY, PIPING UNDER CONCRETE SHALL BE DONE BY JACKING, BORING OR HYDRAULIC DRIVING. WRITTEN PERMISSION TO CUT OR BREAK SIDEWALKS AND/OR CONCRETE MUST BE OBTAINED FROM THE OWNER'S AUTHORIZED REPRESENTATIVE. NO HYDRAULIC RIVING WILL BE PERMITTED UNDER ASPHALTIC CONCRETE PAVING.

6. INSTALLATION PROCEDURES: EXCEPT AS NOTED IN OTHER PARTS OF THIS SPECIFICATION OR IN THE DRAWINGS, INSTALLATION OF PIPE AND FITTINGS SHALL BE AS OUTLINE IN MANUALS AS FURNISHED BY PIPE MANUFACTURER WHICH SHALL BE DEEMED AND CONSTRUED AS PART OF THIS SPECIFICATION. PLASTIC PIPE SHALL NOT BE LAID WHEN THERE IS WATER IN TRENCH.

7. PIPE DEPTH: PROVIDE A MINIMUM 24" OF EARTH COVERAGE FOR ALL PRESSURE MAINLINE PIPE 3" AND LARGER. PROVIDE A MINIMUM 18" OF EARTH COVERAGE FOR ALL PRESSURE MAINLINE PIPE UP TO AND INCLUDING 2 1/2". PROVIDE A MINIMUM OF 12" OF EARTH COVERAGE FOR ALL NON PRESSURE LATERAL LINES.

8. SITE MAINTENANCE: ALL LUMBER, RUBBISH AND LARGE ROCKS SHALL BE REMOVED FROM THE TRENCHES. PIPE SHALL HAVE A FIRM, UNIFORM BEARING FOR THE ENTIRE LENGTH OF EACH PIPE LINE TO PREVENT UNEVEN SETTLEMENT. PAD THE TRENCHES WITH DIRT OR SAND IF THE SOIL IS EXTREMELY ROCKY.

9. TREE LOCATIONS: TREE LOCATIONS TAKE PRIORITY OVER IRRIGATION PIPING. STAKE TREE LOCATIONS PRIOR TO TRENCHING PIPE.

10. EXPANSION: PLASTIC PIPE WILL EXPAND APPROXIMATELY SIX IN. (6") PER THOUSAND FT. (1000') BETWEEN DAY AND NIGHT TEMPERATURES IN HOT CLIMATE. THEREFORE, PIPE SHALL BE SNAKED FROM SIDE TO SIDE OF TRENCH BOTTOM TO ALLOW FOR EXPANSION AND CONTRACTION.

11. PIPE MAINTENANCE: ALL FOREIGN MATTER OR DIRT SHALL BE REMOVED FROM THE INSIDE OF THE PIPE BEFORE IT IS LOWERED INTO POSITION IN THE TRENCH AND IT SHALL BE KEPT CLEAN BY APPROVED MEANS DURING AND AFTER LAYING OF THE PIPE.

12. SLEEVING: IRRIGATION LINES THAT ARE UNDER STREETS AND PAVING OVER SEVEN (7) FEET WIDE SHALL BE INSTALLED BY THE OWNER. SLEEVES UNDER PAVING AND STREETS SHALL BE SCHEDULE 40 AND TWO TIMES THE DIAMETER OF THE PIPE AND/ OR ADEQUATE FOR INSTALLATION OF WIRE. SLEEVING SHALL BE COORDINATED WITH IRRIGATION CONTRACTOR PRIOR TO BEGINNING OF WORK.

13. JOINTS: JOINTS ON RISERS SHALL BE AS SHOWN ON DETAILS.

14. THREADED CONNECTIONS: ON PLASTIC TO STEEL CONNECTIONS, THE CONTRACTOR SHALL WORK THE STEEL CONNECTIONS FIRST. NON-HARDENING PIPE PERMATEX #2 TEFLON TAPE SHALL BE USED ON ALL THREADED PLASTIC TO STEEL JOINTS, AND LIGHT WRENCH PRESSURE IS ALL THAT SHALL BE USED.

15. SOLVENT CONNECTIONS: FOR P.V.C. PIPE CONTRACTOR SHALL USE SOLVENT PRIMER AND SOLVENT CEMENT RECOMMENDED BY THE MANUFACTURER AND CONFORMING TO ASTM D-2564. FOR UVR-P.V.C. SOLVENT CEMENT SHALL BE BROWNLINE BOND-TITE CEMENT (CONFORMING TO THE REQUIREMENTS OF ASTM D-2564) APPLY WITH AN APPROVED PRIMER PRIOR TO APPLICATION OF CEMENT. ALL PIPE AND FITTINGS SHALL BE THOROUGHLY CLEANED OF DIRT, DUST AND MOISTURE BEFORE APPLYING SOLVENT. THE CONTRACTOR WILL MAKE SOLVENT WELD JOINTS WITH NON-SYNTHETIC BRISTLE BRUSH IN THE FOLLOWING SEQUENCE:
   - A. APPLY A LIBERAL, EVEN COAT OF SOLVENT TO THE INSIDE OF THE FITTING.
   - B. THEN APPLY A LIBERAL, EVEN COAT OF SOLVENT TO THE OUTSIDE OF THE PIPE, MAKING SURE THAT THE COATED AREA IS EQUAL TO THE DEPTH OF THE FITTING SOCKET.
   - C. INSERT THE PIPE QUICKLY INTO THE FITTING AND TURN THE PIPE APPROXIMATELY 1/4 TURN TO DISTRIBUTE THE SOLVENT AND REMOVE AIR BUBBLES. HOLD THE JOINT FOR APPROXIMATELY 15 SECONDS SO THE FITTING DOES NOT PUSH OFF THE PIPE.
   - D. USE A CLEAN RAG AND WIPE OFF ALL EXCESS SOLVENT TO PREVENT WEAKENING THE JOINT.
   - E. BE SURE THAT IN GOING TO THE NEXT JOINT THAT THE PIPE IS NOT TWISTED, DISTURBING THE LAST COMPLETED JOINT.
   - F. ALLOW AT LEAST 15 MINUTES SET UP TIME FOR EACH.

16. PRESSURE LINE TESTING: ALL TESTS ON PRESSURE LINES SHALL BE COMPLETE PRIOR TO BACKFILLING; HOWEVER, SUFFICIENT BACKFILL MATERIAL MAY BE PLACED IN TRENCHES BETWEEN FITTINGS TO ENSURE THE STABILITY OF THE LINE PRESSURE. IN ALL CASES, FITTINGS AND COUPLINGS MUST BE OPEN TO VISUAL INSPECTION FOR THE FULL PERIOD OF THE TEST. NO TESTING SHALL BE DONE UNTIL THE LAST SOLVENT WELDED JOINT HAS HAD TWELVE (12) HOURS TO SET AND CURE. PRESSURE LINES SHALL BE TESTED UNDER 150 P.S.I. WORKING PRESSURE FOR A PERIOD OF FOUR (4) HOURS AND PROVEN TIGHT. IF LEAKS OCCUR, THE JOINT OR JOINTS SHALL BE REPLACED AND THE TESTS REPEATED.

17. BACKFILLING OF TRENCHES: BECAUSE OF THE EXPANSION AND CONTRACTION OF PLASTIC PIPE, BACKFILLING SHALL BE DONE IN THE COOL PART OF THE DAY, ESPECIALLY IN HOT CLIMATES. TRENCHES SHALL BE BACKFILLED WITH THE EXCAVATED MATERIALS APPROVED FOR BACKFILLING, FREE FROM LARGE CLODS OF EARTH OR STONES. BACKFILL SHALL BE MECHANICALLY COMPACTED IN THE LANDSCAPED AREAS TO A DRY DENSITY EQUAL TO ADJACENT UNDISTURBED SOIL IN PLANTING AREAS. BACKFILL WILL CONFORM TO ADJACENT GRADES WITHOUT DIPS, SUNKEN AREAS, HUMPS OR OTHER SURFACE IRREGULARITIES.

18. TRENCHING AND BACKFILLING UNDER PAVING: TRENCHES LOCATED UNDER WHERE PAVING, CONCRETE OR ASPHALT WILL BE INSTALLED SHALL BE BACKFILLED IN ACCORDANCE WITH RECOMMENDATION OF STRUCTURAL SOILS REPORT.

19. PLASTIC PIPE GUARANTEE: SPECIFICATIONS AND LITERATURE SHALL BE SUBMITTED FOR APPROVAL PRIOR TO SUBMISSION OF BID. SUBMISSION OF SAMPLES MAY ALSO BE REQUIRED. PLASTIC PIPE MANUFACTURER'S GUARANTEE SHALL COVER WORKMANSHIP OF MATERIALS FOR ALL PLASTIC PIPE FITTINGS.

20. DEFECTS: ALL DEFECTS IN INSTALLATION OF PLASTIC PIPE SHALL BE CORRECTED THROUGH THE GUARANTEE PERIOD SPECIFIED HEREIN AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

E. IRRIGATION EQUIPMENT NOTES

1. IRRIGATION EQUIPMENT: ALL IRRIGATION EQUIPMENT SHALL BE INSTALLED PER THE SPECIFICATION AND RECOMMENDED INSTALLATION PROCEDURES OF THE MANUFACTURER AND CONFORM TO ALL APPLICABLE GOVERNING CODES AND ORDINANCES (LOCAL, COUNTY & STATE).

2. SHRUB IRRIGATION HEADS: HEADS IN GROUND COVER AND PLANTING AREAS SHALL BE INSTALLED ON NIPPLES HIGH ENOUGH TO BE ABOVE THE SURROUNDING PLANTING AS DIRECTED, OR AS INDICATED ON THE PLANS. WHERE HIGH SHRUBS ARE PLANTED, LONGER RISERS SHALL BE INSTALLED AS DIRECTED BY THE LANDSCAPE ARCHITECT. SHRUB HEADS ADJACENT TO WALKWAYS OR PARKING SHALL BE INSTALLED ON AN APPROVED HI-POP HEAD PER PLAN. RISERS SHALL BE LOCATED AS SPECIFIED PER PLANS ADJACENT TO WALLS AND BUILDINGS ONLY. IN NO CASE SHALL THE SPACING OF HEADS EXCEED THE MAXIMUM RECOMMENDED BY THE MANUFACTURER.

3. PRESSURE COMPENSATING SCREENS: CONTRACTOR SHALL INSTALL PRESSURE COMPENSATING SCREENS IN IRRIGATION HEADS AS NECESSARY TO ENSURE UNIFORM COVERAGE AND MINIMUM OVERTHROW OF AREA.

4. CONTROL VALVES: ALL CONTROL VALVES ON LINE SHALL BE INSTALLED AS INDICATED ON DETAILS AND BE THE TYPE SPECIFIED IN THE LEGEND. LOCATE CONTROL VALVES IN SHRUB PLANTING AREAS WHEREVER POSSIBLE.

5. BACKFLOW DEVICES: LOCATE BACKFLOW DEVICES, ATMOSPHERIC VACUUM BREAKERS AND ANTI-SIPHON VALVES IN SHRUB AREAS ONLY UNLESS OTHERWISE APPROVED BY OWNER.

6. DEFECTS: ALL DEFECTS IN INSTALLATION OF IRRIGATION EQUIPMENT SHALL BE CORRECTED THROUGH THE GUARANTEE PERIOD SPECIFIED HEREIN AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

F. RECORD AND AS-BUILT DRAWINGS

1. ITEMIZED LIST: CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT AN ITEMIZED LIST OF EQUIPMENT.

2. AS-BUILTS: THE CONTRACTOR SHALL PROVIDE AND KEEP UP-TO DATE COMPLETE "AS-BUILT" DRAWINGS INDICATING LOCATIONS, SIZES AND KINDS OF EQUIPMENT INSTALLED. PRINTS FOR THIS PURPOSE MAY BE OBTAINED FROM THE LANDSCAPE ARCHITECT AT COST. THIS SET OF DRAWINGS SHALL BE KEPT ON THE SITE AND SHALL BE USED ONLY AS A RECORD SET. CONTRACTOR SHALL FURNISH "AS-BUILT" DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.

3. AS-BUILT FORMAT: BEFORE THE DATE OF FINAL OBSERVATION THE CONTRACTOR SHALL TRANSFER ALL IRRIGATION INFORMATION TO AN OZALID SEPIA MYLAR, PRODUCED FROM THE LANDSCAPE ARCHITECT. ALL WORK SHALL BE NEAT, IN INK AND SUBJECT TO APPROVAL OF THE OWNER. THE CONTRACTOR SHALL DIMENSION FROM TWO PERMANENT POINTS OF REFERENCES, BUILDING CORNERS, SIDEWALKS, LIGHT POLES, ETC. THE LOCATION OF THE FOLLOWING ITEMS.
   - A. CONNECTION TO EXISTING WATER LINES.
   - B. CONNECTION TO EXISTING ELECTRICAL POWER.
   - C. GATE VALVES, BACKFLOW PREVENTION UNITS AND CONTROLLERS.
   - D. ROUTING OF IRRIGATION PRESSURE LINES (DIMENSION MAX. 100').
   - E. IRRIGATION CONTROL VALVES.
   - F. ROUTING OF CONTROL WIRE.
   - G. QUICK COUPLING VALVES.
   - H. OTHER RELATED EQUIPMENT AS DIRECTED BY OWNER.

4. DEILIVERY: ON THE DATE OF FINAL APPROVAL THE CONTRACTOR SHALL DELIVER ONE SET OF SEPIA MYLARS OF "AS-BUILTS" PLANS TO THE OWNER. DELIVERY OF MYLARS WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING INFORMATION THAT MAY BE OMITTED FROM PRINTS.

5. CONTROLLER CHARTS: CONTROLLER CHARTS SHALL BE PREPARED BY THE CONTRACTOR AFTER APPROVAL OF THE "AS-BUILT". THE CHART SHALL SHOW BY COLOR CODING THE AREA CONTROLLED BY EACH AUTOMATIC IRRIGATION CONTROLLER.

6. CONTROLLER CHART FORMAT: THE CONTROLLER CHART SHALL BE A XEROX REDUCTION OF THE "AS BUILT" TO THE MAXIMUM SIZE OF THE CONTROLLER DOOR WILL ALLOW (CONTROLLER SEQUENCE NUMBERS MUST BE LARGE ENOUGH TO BE LEGIBLE AT THE REDUCED FORMAT). UPON COMPLETION THE CHART SHALL BE HERMETICALLY SEALED BETWEEN TWO PIECES OF PLASTIC. CHARTS SHALL BE COMPLETED AND APPROVED PRIOR TO THE FINAL IRRIGATION FIELD OBSERVATION

G. EQUIPMENT TO BE FURNISHED

1. MAINTENANCE TOOLS: SUPPLY THE APPROPRIATE MAINTENANCE PERSONNEL WITH THE FOLLOWING TOOLS:
   - A. TWO SETS OF SPECIAL TOOLS REQUIRED FOR REMOVING, DISASSEMBLING AND ADJUSTING EACH TYPE OF IRRIGATION HEAD AND VALVE SUPPLIED.
   - B. TWO (2) KEYS FOR EACH AUTOMATIC CONTROLLER.
   - C. ONE (1) QUICK COUPLER KEY AND MATCHING HOSE SWIVEL FOR EVERY (5) QUICK COUPLING VALVE INSTALLED.
   - D. THE ABOVE LISTED EQUIPMENT SHALL BE TURNED OVER TO THE OWNER AT THE CONCLUSION OF WORK AND BEFORE FINAL OBSERVATION CAN OCCUR.

H. AS-BUILTS

1. AS-BUILTS: THE CONTRACTOR SHALL PROVIDE THE OWNER ONE (1) SET OF COMPLETE "AS BUILT" INFORMATION ON AN OZALIO SEPIA MYLAR PRODUCED FROM THE LANDSCAPE ARCHITECT.

2. MAINTENANCE PROGRAM: THE CONTRACTOR SHALL PROVIDE THE OWNER ONE (1) SET OF MAINTENANCE GUIDLINES AS RECOMMENDED BY THE MANUFACTURER/SUPPLIER.

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5.29.12	PLANNING COMMISSION

Revisions:

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PROJECT:

MARINER'S POINTE

WEST COAST HIGHWAY
AT DOVER
NEWPORT BEACH, CA

CLIENT:

V.B.A.S. PROPERTIES Inc.

18582 BEACH BOULEVARD
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Stamp: LICENSED LANDSCAPE ARCHITECT · MARK ALAN SCHATTINGER #3235 · STATE OF CALIFORNIA · Signature · 03.31.13 Renewal Date · 5.29.12 Date

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Title: IRRIGATION SPECIFICATIONS

Sheet No.: LI.4

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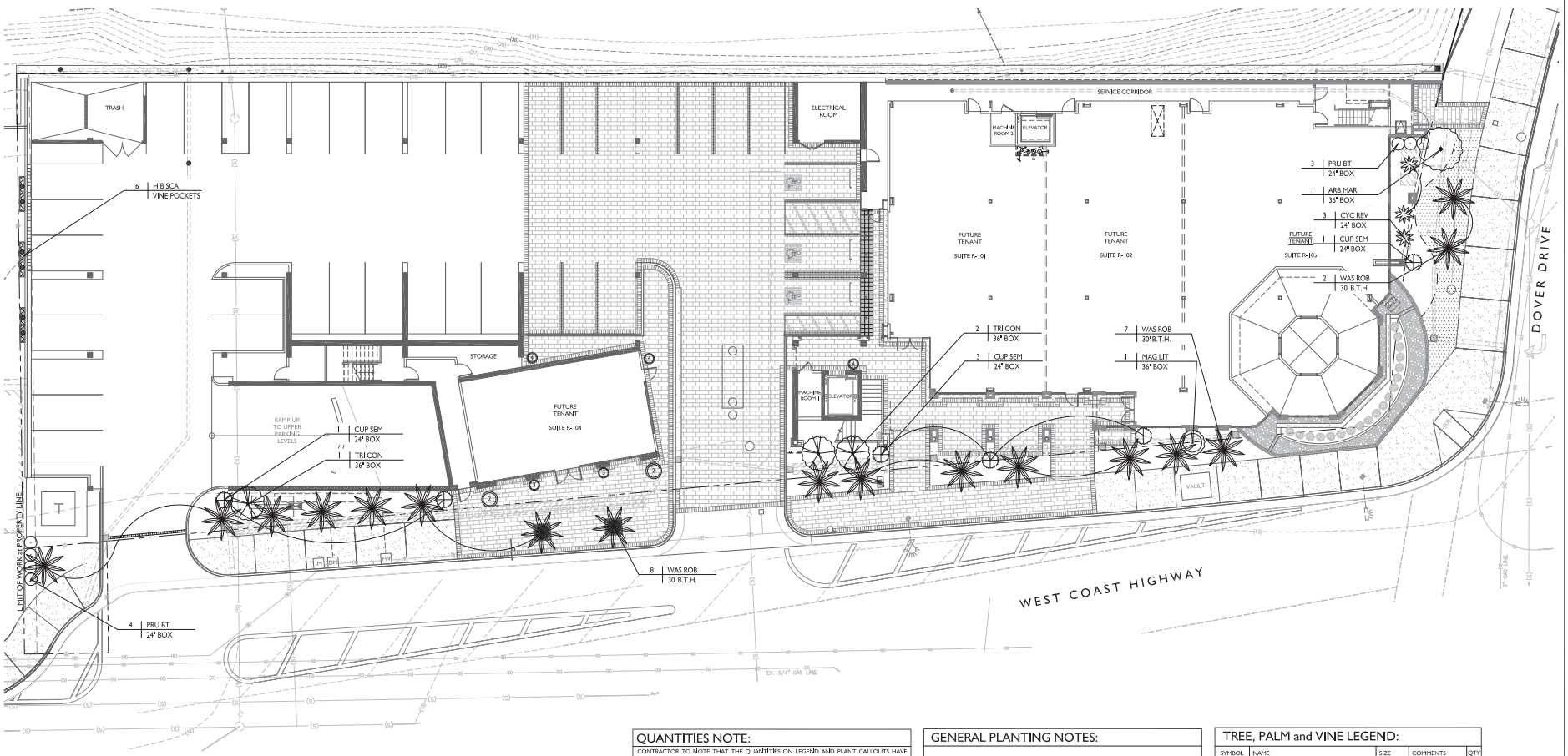

POT and PLANT SCHEDULE

SYMBOL	QTY	DESCRIPTION	FINISH	AVAILABLE FROM	PLANT MATERIAL (PER POT)
1	SEE SHEET LP.3 PLANTING and POTTERY SCHEDULE at UPPER LEVEL PARKING.				
2	2	WILSHIRE PLANTER 48" X 48" QR-WS4548P - LC	C6-T1 MISSION WHITE MATTE SEALER	QUICKCRETE ATTN: BRIAN GOTZ 714.309.6564	1 - 30" BOX *OLEA* 'SWAN HILL' - FRUITLESS OLIVE 6 - 1 GAL *ROSMARINUS* 'HUNTINGTON CARPET' 6-4" POTS *PELARGONIUM X DOMESTICUM* 'BRIGHT RED'
3	2	SAVANNAH 28"x12" QS-SAV2833P - LC	C6-T1 CHARCOAL GRAY MATTE SEALER	QUICKCRETE ATTN: BRIAN GOTZ 714.309.6564	1- 24" BOX *LIGUSTRUM* PYRAMID TOPIARY 4" POTS SEASONAL COLOR
4	3	GREENFIELD ROUND 20"x40" QR-GF2040P LITE CRETE	C6-T1 CHARCOAL GRAY MATTE SEALER	QUICKCRETE ATTN: BRIAN GOTZ 714.309.6564	1 - 20 GAL. *RHAPHIS EXCELSA* - LADY FINGER PALM 6 - 6" POTS HANGING COMMON IVY

POTS TO RECEIVE SELF-WATERING LINERS. AVAILABLE FORM:

TOTAL # OF TREES IN POTS: 5

PLANTER IRRIGATION NOTE:

* ALL POTS TO RECEIVE SELF WATERING SYSTEM. CWI CLASSIC BY PLANTER TECHNOLOGY (AVAIL. THRU. TOURNESOL) OR EQUAL. SEE SELF-IRRIGATION SYSTEM DETAILS SHEET LP.3)

QUANTITIES NOTE:

CONTRACTOR TO NOTE THAT THE QUANTITIES ON LEGEND AND PLANT CALLOUTS HAVE BEEN PROVIDED FOR QUICK REFERENCE ONLY. IT IS RECOMMENDED THAT THE CONTRACTOR NOT RELY ON THE ACCURACY OF THESE QUANTITIES AND PROVIDE THEIR OWN PLANT MATERIAL COUNTS AT THE TIME OF PREPARING BID. ANY DISCREPANCY IN THE PLANT QUANTITIES AND SIZES SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE LANDSCAPE ARCHITECT.

TREE ROOT BARRIER NOTE:

ROOT BARRIERS ARE REQUIRED WHERE TREES ARE PLANTED LESS THAN FIVE (5) FEET OF SIDEWALK, WALLS, BUILDINGS, STRUCTURES, CURBS, PAVING, PUBLIC IMPROVEMENTS WITHIN R.O.W. (TYP.), WATER, SEWER, STORM DRAIN, ETC. ROOT BARRIER SHALL BE INSTALLED AT HARDSCAPE EDGE WITH PERCOLATION TESTS OR UTILIZE STRUCTURAL SOIL. BARRIER SHALL BE THE LENGTH OF THE ULTIMATE CANOPY OF THE TREE.

TREE PLACEMENT NOTE:

CONTRACTOR TO LOCATE ALL DRAINLINES IN FIELD PRIOR TO THE INSTALLATION OF TREES AND PALMS. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICT WITH TREE LOCATIONS WITH STORM DRAIN LINES.

TREE STAKING NOTE:

ALL TRISTANIA CONFERTA AND ITALIAN CYPRESS TO BE STAKED WITH (2) 20' LONG GALVANIZED METAL POLES NON-THREADED. PAINTED BASALT GREEN.

AGRONOMIC SOILS REPORT NOTE:

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING TWO (2) AGRONOMIC SOIL TESTS AND INSTALLING PLANT MATERIAL PER REPORT AND SOIL RECOMMENDATIONS. LOCATIONS OF TESTS TO BE WEST COAST HIGHWAY AND DOVER DRIVE.

STREET TREE REQUIREMENT

PER MARINER'S POINTE SPECIFIC PLAN REQUIREMENTS

WEST COAST HIGHWAY FRONTAGE: 203 L.F.

MIN. PALMS REQUIRED: 1-24" BOX per 25 L.F.: 8 PALMS REQUIRED
15 PALMS PROVIDED

LIMITED USE AREA (LINE of SIGHT) NOTE:

ALL TREE BRANCHES to BE TRIMMED TO 8' HT. ABOVE FINISH GRADE.
ALL SHRUBS WITHIN LIMITED USE AREA TO BE MAINTAINED AT 24" HT. MAXIMUM.

GENERAL PLANTING NOTES:

1 PRIOR TO ANY FINE GRADING OR PLANTING, CONTRACTOR SHALL OBTAIN TWO (2) AGRONOMIC SOIL REPORTS AND SOIL AMENDMENT RECOMMENDATIONS PER SPECIFICATIONS, WHICH SHALL SUPERSEDE THOSE WITHIN THE SPECIFICATIONS.

2 LANDSCAPE ARCHITECT TO APPROVE ALL PLANT MATERIAL NOT LESS THAN 1 WEEK PRIOR TO ANTICIPATED DELIVERY DATE.

3 CONTRACTOR SHALL REMOVE ALL GROWER STAKES, TAGS AND RIBBONS.

4 LANDSCAPE CONTRACTOR SHALL MAINTAIN PROPER DRAINAGE AND DIRECT ALL WATER TO DRAINAGE INLETS SO AS TO PREVENT STANDING WATER.

5 THE LANDSCAPE CONTRACTOR SHALL MAINTAIN ALL PLANTED AREAS FOR A PERIOD OF 90 DAYS AFTER "START OF MAINTENANCE" PERIOD.

6 CONTRACTOR SHALL GUARANTEE SHRUBS FOR 6 MONTHS AND TREE MATERIAL FOR 12 MONTHS (1 YEAR).

7 LANDSCAPE ARCHITECT SHALL APPROVE PLANT MATERIAL PLACEMENT PRIOR TO INSTALLATION.

8 NO TREES/PALM SHALL BE PLANTED CLOSER THAN 5' TO A BUILDING OR ROOF STRUCTURE. NO TREES SHALL BE PLANTED CLOSER THAN 5' TO PAVING OR FREESTANDING WALLS UNLESS DIRECTED BY THE LANDSCAPE ARCHITECT.

9 TREES SHALL NOT BE PLANTED WHERE FUTURE GROWTH WILL OBVIOUSLY CONFLICT WITH ROOF OVERHANGS.

10 NO SHRUBS OR TREES SHALL BE PLANTED THAT WILL CREATE A VISUAL OBSTRUCTION TO SIGHT LINE OF VEHICLE TRAFFIC.

11 TREES PLANTED IN LANDSCAPE AREAS OF LESS THAN 5' IN WIDTH SHALL BE INSTALLED WITH APPROVED ROOT BARRIERS.

12 ANY PLANTING SHOWN ON THE PLANS OR EXISTING IN THE FIELD THAT CONTRADICTS THESE CRITERIA IS TO BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR RESOLUTION. FAILURE TO DO SO MAY RESULT IN THE CONTRACTOR TO REMOVE OR RELOCATE PLANT MATERIAL.

REFERENCE NOTES:

FOR PLANTING DETAILS SEE SHEET LP.4
FOR PLANTING SPECIFICATIONS SEE SHEET LP.5

LANDSCAPE MAINTENANCE NOTE:

ALL LANDSCAPING TO BE MAINTAINED BY PROPERTY OWNER INCLUDING ALL PLANTS INSIDE THE RIGHT-OF-WAY.

TREE, PALM and VINE LEGEND:

SYMBOL	NAME	SIZE	COMMENTS	QTY
TREES:	NOTE: TREES IN RESTRICTED USE AREA TO BE TRIMMED 8' ABOVE GROUND			
ARB MAR	ARBUTUS 'MARINA' ARBUTUS	36" BOX	STANDARD	1
CUP SEM	CUPRESSUS SEMPERVIRENS ITALIAN CYPRESS	24" BOX	SEE NOTE BELOW FOR STAKING	6
MAG GRA	MAGNOLIA G. 'LITTLE GEM' SOUTHERN MAGNOLIA	36" BOX	STANDARD	1
PRU BT	PRUNUS C. 'BRIGHT & TIGHT' CAROLINA CHERRY	24" BOX	COLUMN	7
TRI CON	TRISTANIA CONFERTA BRISBANE BOX	36" BOX	LOW BRANCH	3
PALMS:				
WAS ROB	WASHINGTONIA 'HYBRID' *ROBUSTA x FILIFERA* FAN PALM	20' B.T.H.	MATCH HEIGHTS SKINNED TRUNKS	17
CYC REV	CYCAS REVOLUTA SAGO PALM	24" BOX	MULTI	3
VINES:				
	BOUGAINVILLEA 'SAN DIEGO RED' BOUGAINVILLEA	15 GAL	STAKED ATTACH TO PALMS IN TREE WELLS	2
	HIBBERTIA SCANDENS GUINEA GOLD VINE	15 GAL	STAKED and ATTACH to GREEN SCREEN at WEST WALL	2
SODDED TURF (340 SF):				
	MARATHON II® SODDED TURF AVAILABLE FROM SOUTHLAND SOD FARMS OR EQUAL AS APPROVED BY THE LANDSCAPE ARCHITECT.			
ALL SHRUB AREAS	4 - 1" FOREST FLOOR BARK MULCH (3" THICK) AVAILABLE THROUGH AGUINAGA FERTILIZER COMPANY (949) 786-9558 or APPROVED EQUAL - SUBMIT SAMPLES to L.A. for APPROVAL			

NORTH

SCALE: 1" = 10'

0 5' 10' 20'

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PROJECT:

MARINER'S POINTE

WEST COAST HIGHWAY
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NEWPORT BEACH, CA

CLIENT:

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4.30.12
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Job No.: -

Drawn By: MJS

Checked By: MS

Plan Date: MAY 29, 2012

Scale: 1" = 10'

Title:

TREE, PALM, VINE & TURF PLAN

Sheet No.:

LP.1

Plan Status:

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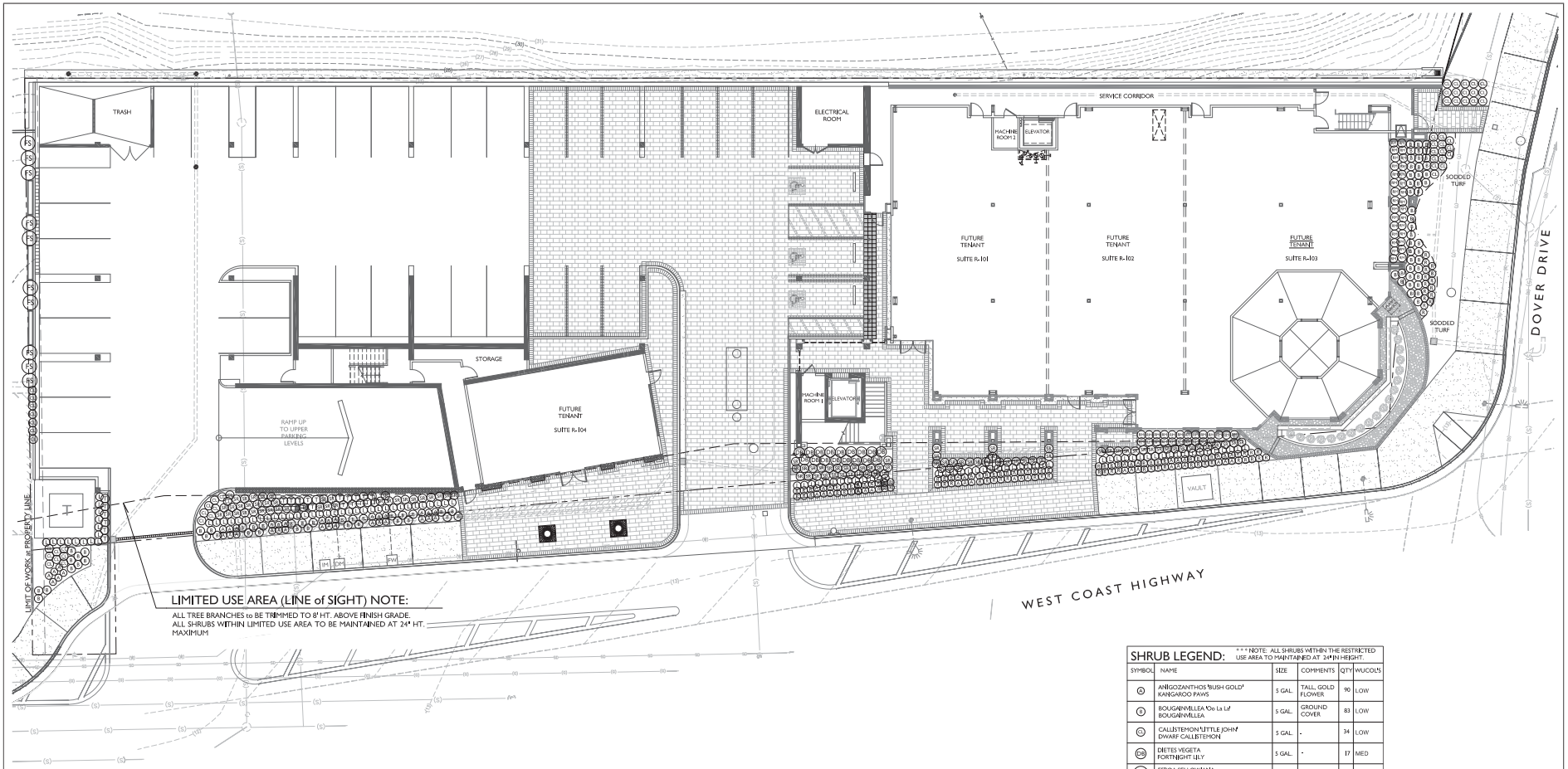

LIMITED USE AREA (LINE of SIGHT) NOTE:

ALL TREE BRANCHES to BE TRIMMED TO 8' HT. ABOVE FINISH GRADE.
ALL SHRUBS WITHIN LIMITED USE AREA TO BE MAINTAINED AT 24" HT. MAXIMUM

SHRUB LEGEND:

*** NOTE: ALL SHRUBS WITHIN THE RESTRICTED USE AREA TO MAINTAINED AT 24" IN HEIGHT.

SYMBOL	NAME	SIZE	COMMENTS	QTY	WUCOLS
A	ANIGOZANTHOS 'BUSH GOLD' KANGAROO PAWS	5 GAL.	TALL GOLD FLOWER	90	LOW
B	BOUGAINVILLEA 'Oo La La' BOUGAINVILLEA	5 GAL.	GROUND COVER	83	LOW
CL	CALLISTEMON 'LITTLE JOHN' DWARF CALLISTEMON	5 GAL.	-	34	LOW
DB	DIETES VEGETA FORTNIGHT LILY	5 GAL.	-	17	MED
FS	FEIJOA SELLOWIANA PINEAPPLE GUAVA	15 GAL.	ON SLOPE	10	LOW
L	LIGUSTRUM JAPONICUM 'TEXANUM' WAX LEAF PRIVET	5 GAL.	HEDGE PER SPECIFIC PLAN	100	MED
MH	RHAPHIOLEPIS UMBELLATUM MINOR YEDDA HAWTHORN	5 GAL.	-	49	MED
R	ROSEMARINUS 'HUNTINGTON CARPET' DWARF ROSEMARY	5 GAL.	-	120	LOW
SR	STRELITZIA REGINAE BIRD OF PARADISE	15 GAL.	-	102	MED
T	TRACHELOSPERMUM JASMINOIDES STAR JASMINE	5 GAL.	-	24	MED

QUANTITIES NOTE:

CONTRACTOR TO NOTE THAT THE QUANTITIES ON LEGEND AND PLANT CALLOUTS HAVE BEEN PROVIDED FOR QUICK REFERENCE ONLY. IT IS RECOMMENDED THAT THE CONTRACTOR NOT RELY ON THE ACCURACY OF THESE QUANTITIES AND PROVIDE THEIR OWN PLANT MATERIAL COUNTS AT THE TIME OF PREPARING BID. ANY DISCREPANCY IN THE PLANT QUANTITIES AND SIZES SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE LANDSCAPE ARCHITECT.

AGRONOMIC SOILS REPORT NOTE:

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ONE(1) AGRONOMIC SOIL TEST AND INSTALL PLANT MATERIAL PER REPORT AND SOIL RECOMMENDATIONS.

REFERENCE NOTES:

FOR GENERAL PLANTING NOTES SEE SHEET LP.1
FOR PLANTING DETAILS SEE SHEET LP.4
FOR PLANTING SPECIFICATIONS SEE SHEET LP.5

NORTH

0 5' 10' 20'
SCALE: 1" = 10'

208

Issued For:

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5.29.12	PLANNING COMMISSION

Revisions:

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PROJECT:

MARINER'S POINTE

WEST COAST HIGHWAY
AT DOVER
NEWPORT BEACH, CA

CLIENT:

V.B.A.S.
PROPERTIES Inc.

18582 BEACH BOULEVARD
HUNTINGTON BEACH,CA
92648

Stamp:

LICENSED LANDSCAPE ARCHITECT
MARY ANN SCHAFFTHALER
No. 3113
03.13.13
Expiration Date
4.30.12
Date
STATE OF CALIFORNIA

Job No.: -
Drawn By: MJS
Checked By: MS
Plan Date: MAY 29, 2012
Scale: 1" = 10'

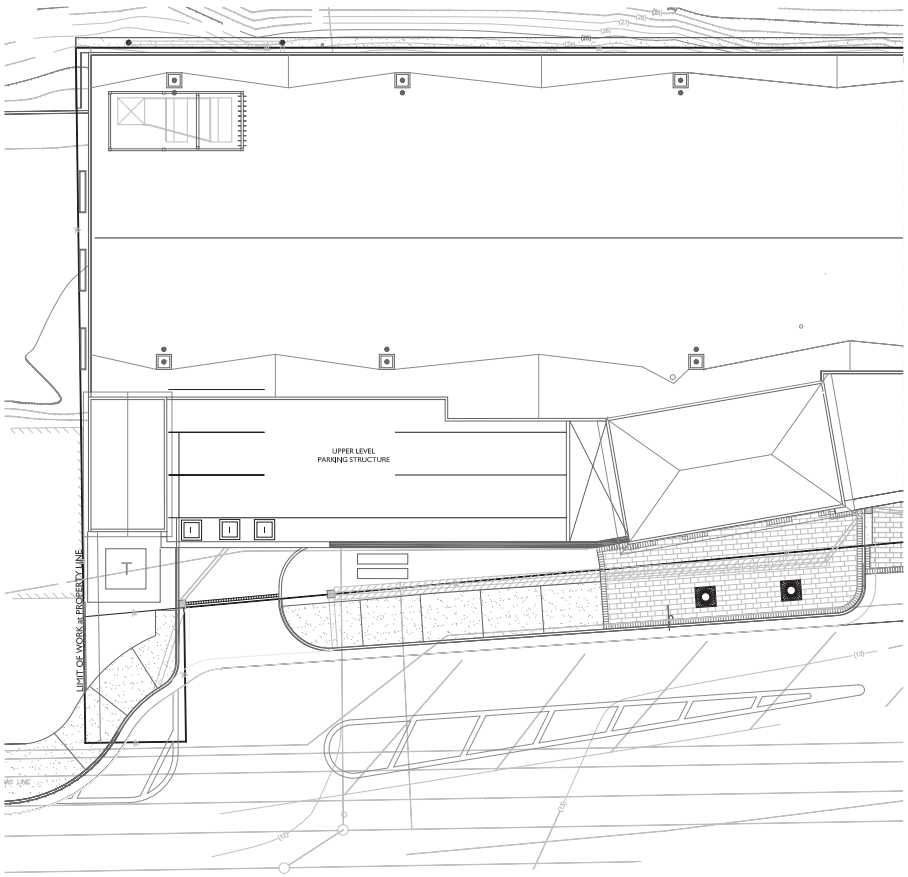
Title:

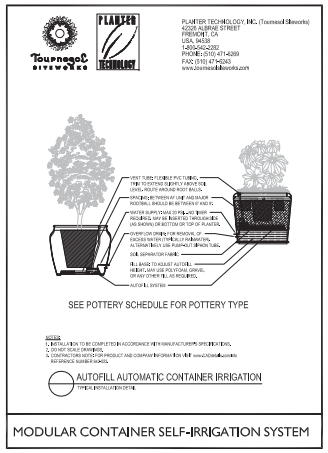
SHRUB PLANTING PLAN

Sheet No.:

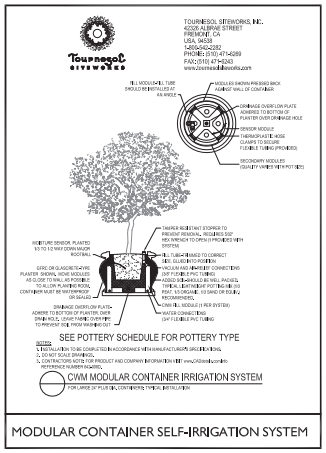
LP.2

Plan Status:
PERMIT/CONSTRUCTION DOCUMENTS





MODULAR CONTAINER SELF-IRRIGATION SYSTEM



MODULAR CONTAINER SELF-IRRIGATION SYSTEM

LEVEL 3 - PARKING GARAGE POTTERY and PLANT SCHEDULE

SYMBOL	QTY	DESCRIPTION	FINISH	AVAILABLE FROM	PLANT MATERIAL (PER POT)
I	3	CUE MPN-24* QS-CUE3035P - LC	CS-TI MISSION WHITE MATTE SEALER	QUICKCRETE ATTN: BRIAN GOTZ 714.309.6564	1 - 24" BOX *CUPRESSUS SEMPERVIRENS* - ITALIAN CYPRESS 3" DEPTH SMOOTH BLACK COBBLE

PLANTER IRRIGATION NOTE:

- ALL POTS TO RECEIVE SELF WATERING SYSTEM. CWI CLASSIC BY PLANTER TECHNOLOGY (AVAIL. THRU. TOURNESOL) OR EQUAL. SEE SELF-IRRIGATION SYSTEM DETAILS THIS SHEET.
- CONTRACTOR TO ORDER POTS PREDRILLED FOR DRAINAGE/IRRIGATION AS REQUIRED

NORTH

0 5' 10' 20'
SCALE: 1" = 10'

209

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Revisions:

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PROJECT:

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AT DOVER
NEWPORT BEACH, CA

CLIENT:

V.B.A.S. PROPERTIES Inc.

18582 BEACH BOULEVARD
HUNTINGTON BEACH,CA
92648

Stamp:

LICENSED LANDSCAPE ARCHITECT
MARIAN SCHAFFTER MS
Signature
03.13.13
Expiration Date
6.30.13
Date
STATE OF CALIFORNIA

Job No.: -
Drawn By: MJS
Checked By: MS
Plan Date: MAY 29, 2012
Scale: 1" = 10'

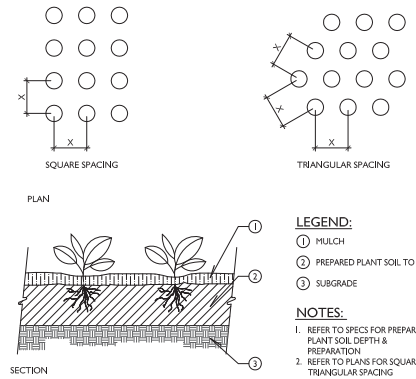
Title:

POTTERY PLANTING PLAN LEVEL 3

Sheet No.:

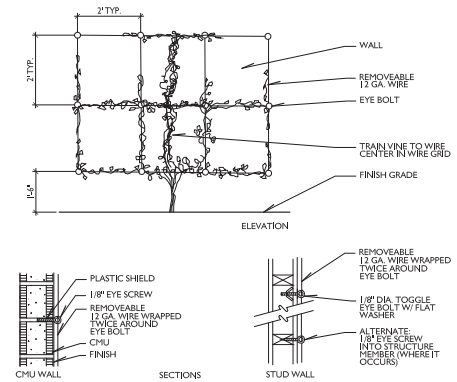
LP.3

Plan Status:
PERMIT/CONSTRUCTION DOCUMENTS



D SHRUB PLANTING

Scale: N.T.S.

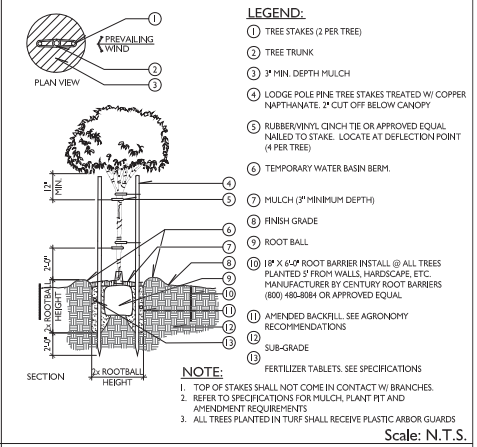


SPECIAL NOTE:

TO PROVIDE ACCESS TO COMMON H.O.A. WALL FOR REPAIRS OR PAINTING REMOVE WIRE FROM EYE BOLTSAND LAY ON GROUND.

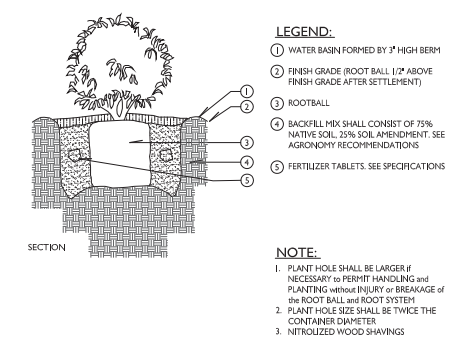
A VINE PLANTING on WALL

Scale: N.T.S.



Scale: N.T.S.

B TREE PLANTING (DBL. STAKING)



C SHRUB PLANTING

Scale: N.T.S.

210

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Drawn By: MJS
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Scale: SEE DETAIL

Title:
PLANTING DETAILS

Sheet No.:
LP.4

Plan Status:
PERMIT/CONSTRUCTION DOCUMENTS

A. GENERAL NOTES

1. BIDDING: IT SHALL BE THE OWNER'S RESPONSIBILITY IN INVITING AND OBTAINING BIDS, SETTING ITS PROVISIONS AND INSTRUCTIONS TO BIDDERS, SECURING THEIR BONDS AND WORKERS COMPENSATION INSURANCE CERTIFICATES, ETC. TO FULLY ENSURE THE QUALITY AND TIMELY COMPLETION OF THE PROJECT.
2. SCOPE OF WORK: CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY TO FURNISH AND INSTALL A COMPLETE ALL LANDSCAPING PER THE DRAWINGS AND SPECIFIED WITHIN.
3. PLAN VERIFICATION: THESE DOCUMENTS MAY CONTAIN ERRORS, OMISSIONS, CONTRADICTIONS, ETC. THE CONTRACTOR SHALL REVIEW ALL DOCUMENTS THOROUGHLY AND SHALL NOTIFY THE LANDSCAPE ARCHITECT AND OWNER IMMEDIATELY UPON ANY SUCH DISCOVERY OF DISCREPANCY. GOVERNING CODES SHALL THEN APPLY.
4. LICENSE: THE CONTRACTOR SHALL BE A C-27 CALIFORNIA STATE LICENSED LANDSCAPE CONTRACTOR.
5. ORDINANCES AND REGULATIONS : ALL LANDSCAPE PLANTING WITHIN THESE DRAWINGS AND SPECIFICATIONS SHALL CONFORM TO ALL APPLICABLE GOVERNING CODES AND ORDINANCES (LOCAL, COUNTY & STATE).
6. PERMITS AND INSPECTIONS : THE CONTRACTOR SHALL OBTAIN, COORDINATE AND PAY FOR ALL PERMITS, FEES AND AGENCY INSPECTIONS AS REQUIRED.
7. FIELD VERIFICATION: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE LANDSCAPE ARCHITECT AND OWNER SHALL BE NOTIFIED IMMEDIATELY UPON ANY DISCOVERY OF DISCREPANCIES. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE LANDSCAPE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
8. LIABLE FOR ENCROACHMENT: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ENCROACHMENT ONTO ADJACENT PROPERTY, RIGHT-OF-WAYS, EASEMENTS, SET-BACKS OR ANY OTHER LEGAL PROPERTY RESTRICTIONS EITHER MARKED OR UNMARKED.
9. METHODS OF CONSTRUCTION: THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, SEQUENCES, PROCEDURES AND TECHNIQUES. THE LANDSCAPE ARCHITECTURAL FIRM IS NOT LIABLE FOR CONSTRUCTION METHODS.
10. SAFETY: THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS DURING CONSTRUCTION.
11. UTILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES, ELECTRICAL CABLES, CONDUITS, AND IRRIGATION LINES PRIOR TO ANY CONSTRUCTION, SO THAT PROPER PRECAUTIONS MAY BE TAKEN NOT TO DAMAGE SUCH IMPROVEMENTS.
12. INSURANCE: THE CONTRACTOR SHALL OBTAIN (AND KEEP IN FORCE DURING THE PERIOD OF THE CONTRACT) PUBLIC LIABILITY, WORKMAN'S COMPENSATION AND PROPERTY DAMAGE INSURANCE, AS REQUIRED BY ALL APPLICABLE CODES AND REGULATIONS.
13. LIABLE FOR DAMAGE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY ITS OPERATIONS TO UTILITIES, EXISTING PLANTING, CONSTRUCTION, PERSONS, PROPERTY, ETC. AND SHALL PROVIDE PROTECTIVE MEANS TO GUARD AGAINST DAMAGE.
14. COORDINATION: CONTRACTOR SHALL COORDINATE ALL LANDSCAPE CONSTRUCTION WITH APPROPRIATE TRADES THROUGH THE OWNER BEFORE STARTING WORK.
15. PLANTING PLANS: THE PLANTING PLANS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS DURING INSTALLATION TO AVOID CONFLICTS BETWEEN, EXISTING IRRIGATION, EXISTING PLANTING, ARCHITECTURAL FEATURES AND UTILITIES.
16. DIMENSIONS: ALL SCALE DIMENSIONS ARE APPROXIMATE. WRITTEN DIMENSIONS ON DETAILS AND PLANS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
17. PLANTING NOTES: SEE GENERAL NOTES ON THE DRAWINGS FOR ADDITIONAL WORK REQUIRED, BUT NOT SPECIFICALLY MENTIONED IN THESE SPECIFICATIONS. ALL WORK CALLED FOR ON THE DRAWINGS BY NOTES SHALL BE FURNISHED AND INSTALLED WHETHER OR NOT SPECIFICALLY MENTIONED IN THE SPECIFICATIONS AND/OR DETAILS.
18. MATERIALS: ALL MATERIALS AND EQUIPMENT SPECIFIED IN THESE DRAWINGS SHALL BE NEW AND IN PERFECT CONDITION OR THE BEST GRADE OF THEIR RESPECTIVE KINDS WHERE INSTALLED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
19. SUBSTITUTIONS: DESIGN, MATERIAL, EQUIPMENT AND PRODUCTS OTHER THAN THOSE DESCRIBED OR INDICATED ON DRAWINGS MAY BE CONSIDERED FOR USE. WRITTEN APPROVAL FOR SUBSTITUTIONS SHALL BE OBTAINED FROM THE OWNER AND LANDSCAPE ARCHITECT. ALL SUBSTITUTIONS SHALL CONFORM TO LOCAL CODES AND ORDINANCES. ANY EQUIPMENT OR MATERIALS INSTALLED WITHOUT APPROVAL BY THE OWNER OR LANDSCAPE ARCHITECT MAY BE REJECTED AND REMOVED AT CONTRACTOR'S EXPENSE.
20. NOTICE OF COMPLETION: THE COMPLETION OF THE CONTRACT SHALL BE ACCEPTED, AND NOTICE OF COMPLETION RECORDED ONLY WHEN THE ENTIRE CONTRACT IS COMPLETED TO THE SATISFACTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE.
21. SITE MAINTENANCE: CONTRACTOR SHALL KEEP THE PROJECT SITE CLEAN AND FREE FROM RUBBISH AND DEBRIS. ALL DEBRIS SHALL BE REMOVED FROM SITE PER LOCAL CODE AND ORDINANCES.
22. MAINTENANCE INSTRUCTIONS: AT THE COMPLETION OF THE 6 MONTH MAINTENANCE PERIOD, THE CONTRACTOR SHALL INSTRUCT THE AUTHORIZED REPRESENTATIVE ON HOW TO PROPERLY MAINTAIN AND CARE FOR LANDSCAPE PLANTINGS.
23. GUARANTEE: THE ENTIRE LANDSCAPE INCLUDING ALL WORK DONE UNDER THIS CONTRACT, SHALL BE GUARANTEED AGAINST ALL DEFECTS AND FAULT OF MATERIAL AND WORKMANSHIP, AND SHALL BE IN PERFECT WORKING ORDER FOR 90 DAYS FROM DATE OF COMPLETION BY THE CONTRACTOR WITHOUT EXPENSE TO THE OWNER. TREES SHALL BE GUARANTEED FOR ONE (1) YEAR. ALL MATERIALS USED SHALL CARRY A MANUFACTURER'S GUARANTEE OF MINIMUM ONE (1) YEAR. ANY SETTLING OF TREE/SHRUB WELLS WHICH MAY OCCUR DURING THE 90 DAY PERIOD FINAL ACCEPTANCE SHALL BE REPAIRED TO THE OWNER'S SATISFACTION BY THE CONTRACTOR WITHOUT EXPENSE TO THE OWNER -INCLUDING THE COMPLETE RESTORATION OF ALL DAMAGED PLANTING, PAVING OR OTHER IMPROVEMENTS OF ANY KIND.

B. FIELD OBSERVATIONS

1. REQUIRED FIELD OBSERVATION WORK: THESE PLANS WERE PREPARED WITH THE UNDERSTANDING THAT THE OWNER OF SAID PLANS WILL USE PROFESSIONAL DESIGN ASSOCIATES TO PROVIDE 'FULL' CONTRACT SERVICES INCLUDING FIELD OBSERVATION SERVICES DURING CONSTRUCTION. FAILURE TO USE PROFESSIONAL DESIGN ASSOCIATES TO PROVIDE AND COMPLETE THE FIELD OBSERVATION SERVICES SET FORTH HEREIN WILL SIGNIFICANTLY INCREASE THE MISINTERPRETATION OF THE INTENT OF THE DESIGN. ANY UNAUTHORIZED MODIFICATIONS THERETO, AND FAILURE TO DETECT ERRORS AND OMISSIONS IN THE PLANS AND SPECIFICATIONS CAN BECOME COSTLY MISTAKES BUILT INTO THE PROJECT. THEREFORE, IN THE EVENT THAT PROFESSIONAL DESIGN ASSOCIATES IS OTHERWISE PRECLUDED FROM COMPLETING THE FIELD OBSERVATION SERVICES SET FORTH HEREIN, THE OWNER, OR SUBSEQUENT OWNER (INDIVIDUALS OR CORPORATIONS WHO HAVE PURCHASED THESE PLANS WITH THE PROJECT), AGREES TO HOLD HARMLESS, INDEMNIFY, AND DEFEND PROFESSIONAL DESIGN ASSOCIATES AND THEIR CONSULTANTS FROM AND AGAINST ANY AND ALL CLAIMS.

2. FIELD OBSERVATION COORDINATION: THE FOLLOWING OBSERVATIONS SHALL BE INITIATED BY THE CONTRACTOR AND COORDINATED THROUGH THE OWNER (JOB SUPERINTENDENT). THE CONTRACTOR SHALL NOTIFY THE OWNER (JOB SUPERINTENDENT) AND LANDSCAPE ARCHITECT NOT LESS THAN FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY OBSERVATION. CONTINUED WORK WITHOUT OBSERVATION OF ANY REQUIRED CHANGES OR MODIFICATIONS TO BE AT THE CONTRACTOR'S EXPENSE. THE OWNER (JOB SUPERINTENDENT) SHALL INFORM THE LANDSCAPE ARCHITECT AS TO THE PURPOSE AND TIME OF THE OBSERVATION FORTY-EIGHT (48) HOURS IN ADVANCE.
3. CLOSING OF NOT INSPECTED WORK THE CONTRACTOR SHALL NOT ALLOW NOR CAUSE ANY OF THE WORK TO BE COVERED OR ENCLOSED UNTIL IT HAS BEEN INSPECTED, TESTED AND APPROVED BY THE CONSULTING ENGINEER OR AUTHORIZED REPRESENTATIVE AND/OR GOVERNMENTAL AUTHORITY HAVING JURISDICTION OVER THE WORK. SHOULD ANY OF THE WORK BE ENCLOSED OR COVERED BEFORE SUCH INSPECTION AND TEST, HE SHALL UNCOVER HIS WORK AT HIS OWN EXPENSE. AFTER IT HAS BEEN INSPECTED, TESTED AND APPROVED, THE CONTRACTOR SHALL MAKE ALL REPAIRS NECESSARY TO THE OWNER'S SATISFACTION.
4. JOB SITE MEETINGS AND REQUIRED INSPECTIONS:
   - A. PRE-JOB MEETING ON SITE- PRIOR TO COMMENCEMENT OF WORK
   - B. DURING SOIL PREPARATION
   - C. AT COMPLETION OF SOIL PREPARATION
   - D. COMPLETION OF WEED CONTROL
   - E. PLANT MATERIAL INSPECTION
   - F. GRADING CHECK PRIOR TO GROUND COVER
   - G. PROGRESS/INSTALLATION INSPECTION
   - H. COMPLETION OF PLANTING
   - I. 30, 60, & 90-DAY MAINTENANCE INSPECTIONS
5. COMPLETION: WORK SHALL BE COMPLETED UPON FINAL APPROVAL BY OWNER AND LANDSCAPE ARCHITECT. A FINAL INSPECTION SHALL BE HELD UPON THE COMPLETION OF THE WORK PROVIDING THE CONTRACTOR HAS COMPLETED THE INSTALLATION OF ALL PHASES OF THE CONTRACT AND CONFORMED TO ALL REQUIREMENTS OF THESE SPECIFICATIONS.

C. MATERIAL NOTES

1. GENERAL: THE FOLLOWING LIST COMPRISES THE PRINCIPLE MATERIALS BUT DOES NOT SET THE LIMITATION FOR MATERIALS REQUIRED. IT SHALL BE UP TO THE CONTRACTOR TO SHOW THAT AMPLE QUANTITIES OF THE REQUIRED MATERIALS WERE USED AND INSTALLED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.
2. SCOPE OF WORK: WORK SHALL CONSIST OF FURNISHING ALL MATERIALS, SERVICES AND EQUIPMENT NECESSARY TO COMPLETELY INSTALL ALL LANDSCAPE WORK AS INDICATED ON THE DRAWINGS AND HEREIN SPECIFIED.
3. PLANT MATERIALS: ALL PLANTS SHALL BE HEALTHY, WELL ESTABLISHED NURSERY STOCK, FREE FROM INSECTS AND THEIR EGGS AND DISEASES. PLANTS SHALL BE FURNISHED IN THE QUANTITIES REQUIRED TO COMPLETE THE WORK AS INDICATED ON THE DRAWINGS AND SHALL BE OF THE SPECIES AND SIZES INDICATED ON THE PLANT LIST. ALL PLANTS SHALL BE INSPECTED AND APPROVED PRIOR TO PLANTING.
4. REJECTION OF PLANT MATERIAL: THE OWNER OR LANDSCAPE ARCHITECT MAY REJECT ANY PLANT MATERIAL REGARDED AS UNSUITABLE AT ANY TIME AT NO ADDITIONAL COST TO THE OWNER.
5. HANDLING/STORAGE: ALL PLANTS SHALL BE HANDLED AND STORED SO THEY ARE ADEQUATELY PROTECTED FROM DRYING OUT, SUN, WIND BURN, VANDALISM OR ANY OTHER INJURY.
6. TREE TAGGING: ALL SPECIMEN TREES CALLED OUT ON PLAN TO BE TAGGED SHALL BE SELECTED BY LANDSCAPE ARCHITECT.
7. TREE STAKES AND GUYS: TREE STAKES SHALL BE LODGE POLE PINE OR CONSTRUCTION HEART REDWOOD. FURNISH AND INSTALL AS INDICATED ON DETAILS.
8. TREE TIES: SHALL BE FLEXIBLE NON-DETERIORATING SELF-FASTENING BLACK VINYL TREE TIES OF THE SIZES REQUIRED TO PROPERLY SUPPORT TREES, "CINCH TIES" OR EQUAL.
9. ROOT BARRIERS: CONTRACTOR SHALL INSTALL APPROVED ROOT BARRIERS ON ALL TREES WITHIN FIVE (5) FEET OF HARDSCAPE, STRUCTURES, ETC.
10. SOD: SOD VARIETY SHALL BE PER PLANS. SOD SHALL BE SUPPLIED BY PACIFIC SOD OR APPROVED EQUAL, PURCHASED FROM A RECOGNIZED TURF NURSERY, FIRST QUALITY, FRESH AND CLEAN.
11. AGRIFORM PLANTING TABLETS: SHALL BE 20-10-5 ANALYSIS PROLONGED RELEASE NITROGEN. 1 PER 1 GALLON, 2 PER 5 GALLON, 4 PER 15 GALLON, AND 6 PER BOX FOR SPECIMENS LARGER THAN 15 GALLON OR PER DRAWINGS.
12. COMMERICAL FERTILIZER: SHALL BEAR THE MANUFACTURER'S GUARANTEED STATEMENT OF ANALYSIS ND SHALL BE CONTROLLED RELEASE TYPE FERTILIZER WITH THE FOLLOWING MINIMUM REQUIREMENTS:

    16% NITROGEN - 7% PHOSPHORIC ACID - 12% POTASH (+ IRON)
13. REDWOOD SHAVINGS: SHALL BE PURE REDWOOD SAWDUST AND SHAVINGS OR NITROGEN FORTIFIED FIR RESULTING FROM MILLING OPERATIONS AND SHALL NOT CONTAIN STICKS, BLOCKS OF WOOD, OR OTHER FOREIGN MATTER. SOURCES OF SHAVINGS SHALL BE APPROVED BY LANDSCAPE ARCHITECT.
14. SOIL SULFUR: STANDARD COMMERCIAL BRAND, GUARANTEED ANALYSIS OF 99% SULFUR (EXPRESSED AS ELEMENTAL) SUPPLIED IN UNOPENED BAGS WITH ANALYSIS ATTACHED.
15. BONE MEAL: SHALL BE FINE GROUND, STEAMED, DRY MATERIAL WITH A MINIMUM ANALYSIS OF 1% NITROGEN - 30% PHOSPHORIC ACID - 69.5% UNDILUTED BONE.
16. SAMPLES: SAMPLES OF REDWOOD SHAVINGS, STEER MANURE, FERTILIZER AND SEED SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE STORED ON THE SITE UNTIL FURNISHING OF MATERIALS IS COMPLETED.
17. CERTIFICATES: CERTIFICATES FOR EACH DELIVERY OF BULK MATERIAL SHALL BE FURNISHED TO THE LANDSCAPE ARCHITECT BY THE CONTRACTOR. CERTIFICATES SHALL STATE THE SOURCE, QUANTITY AND TYPE OF MATERIAL AND DATE AND ADDRESS OF THE LOCATIONS IT WAS DELIVERED TO.

D. LANDSCAPE GRADING NOTES

1. SITE PREPARATION: THE CONTRACTOR SHALL REMOVE ALL WEEDS, ROCKS, DEBRIS, AND OTHER EXTRANEOUS MATERIALS FROM THE JOB SITE PRIOR TO PROCEEDING WITH ANY WORK.
2. SOIL PREPARATION: ALL SOIL PREPARATION SHALL BE INSTALLED AS PER THE SOIL AGRONOMY REPORT TO BE PROVIDED AND PAID FOR BY THE OWNER. SOILS REPORT SHALL CONTAIN FULL SOIL AMENDMENT RECOMMENDATIONS. THE REPORT SHALL BE IMMEDIATELY FORWARDED TO THE LANDSCAPE ARCHITECT UPON COMPLETION.
3. SOIL AMENDMENTS: THE SOIL AMENDMENTS SPECIFIED ARE FOR BIDDING PURPOSES ONLY. THE OWNER SHALL PROVIDE FOR A SOILS AGRONOMY REPORT FROM AN APPROVED SOILS LABORATORY AND/OR ANY ADDITIONAL SPECIFICATION PROVIDED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF PLANT MATERIALS.
4. COMPACTED SOIL : ALL COMPACTED SOIL MUST BE TILLED TO A DEPTH OF AT LEAST 6".
5. CULTIVATION DEPTH: ALL LANDSCAPE AREAS SHALL BE CULTIVATED TO A DEPTH OF 6".
6. AMENDMENT MIX: INCORPORATE THE FOLLOWING SOIL AMENDMENTS, OR PER SOILS REPORT, IN THE UPPER 6" OF ALL TILLING OR DISKING UNTIL ALL POCKETS AND LAYERS OF SOIL AND SOIL CONDITIONERS ARE ELIMINATED.

REDWOOD SHAVINGS	6 YARDS PER 1000 SQ. FT.
COMMERCIAL FERTILIZER	20 LBS. PER 1000 SQ. FT.
GYPSUM	100 LBS. PER 1000 SQ. FT.

7. FINISH GRADE: FINISH GRADES SHALL BE THOSE INDICATED ON THE DRAWINGS OR AS MAY BE CONTROLLED BY EXISTING INSTALLATIONS. GRADES NOT OTHERWISE INDICATED SHALL BE UNIFORM. STRAIGHT LEVELS BETWEEN POINTS WHERE ELEVATIONS ARE DETERMINED. FINISH GRADES SHALL BE SMOOTH AND EVEN OF A UNIFORM PLANE WITH AN ABRUPT CHANGES IN THE SURFACE. MINOR MODELING OF THE GROUND SURFACE MAY BE REQUIRED. GRADES SHALL PROVIDE FOR THE NATURAL RUN-OFF OF WATER WITHOUT LOW SPOTS OR POCKETS. FLOW LINES SHALL BE SET BY INSTRUMENT AND SHALL BE THE MAXIMUM GRADIENT POSSIBLE.
8. DRAINAGE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR POSITIVE DRAINAGE IN ALL PLANTING AREAS IN ACCORDANCE WITH THE PLANS, DETAILS AND SPECIFICATIONS OR AS SPECIFIED BY THE OWNER.
9. FINISH GRADE AT TURF AREAS: FINISH GRADE OF ALL TURF AREAS SHALL BE ONE INCH BELOW THE GRADE OF ADJACENT WALKS, PAVEMENTS, CURBS, ETC.
10. FINISH GRADE AT SHRUB AREAS: FINISH GRADE OF ALL SHRUBBERY AND GROUND COVER AREAS SHALL BE TWO INCHES BELOW THE GRADE OF ADJACENT WALKS, PAVEMENTS, CURBS, ETC., EXCEPT WHERE WATER FLOWS ACROSS SAME.

E. TREE AND SHRUB PLANTING NOTES

1. PLANT DEPTH: PLANT ALL PLANTS AT THEIR NATURAL GROWING DEPTH PER DETAIL, IN THE LOCATIONS SHOWN ON THE DRAWINGS.
2. EXCAVATED PITS: EXCAVATE PITS WITH SQUARE AND VERTICAL SIDES, 2 TIMES THE DIAMETER, AND 12" GREATER IN DEPTH THAN THE SIZE OF THE PLANT CONTAINER.
3. BACKFILL MIXTURE: BACKFILL TO BOTTOM OF ROOT BALL WITH PREPARED BACKFILL MIXTURE, TAP FIRMLY, SET PLANT IN CENTER OF PIT IN A VERTICAL POSITION, CROWN LEVEL WITH FINISH GRADE. BACKFILL BALANCE OF PIT WITH THE FOLLOWING PREPARED MIXTURE OR PER SOILS REPORT:

    10 PARTS TOP SOIL
    5 PARTS REDWOOD SHAVINGS
    1/4 LB. BONE MEAL
    AGRIFORM PLANT TABLETS, 1 PER GALLON, 2 PER 5 GALLON, 4 PER 15 GALLON, AND 6 PER BOX FOR SPECIMENS LARGER THAN 15 GALLON.
4. TREE LOCATIONS: TREE LOCATIONS TAKE PRECEDENCE OVER IRRIGATION LINES, CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NECESSARY.
5. WATER BASIN: CONSTRUCT A SIX INCH DEEP WATER BASIN, MULCH WITH A TWO INCH LAYER OF REDWOOD SHAVINGS, AND WATER THOROUGHLY, BACKFILLING WITH ADDITIONAL MIX WHERE VOIDS APPEAR.
6. TREE STAKES: ALL NURSERY STAKES SHALL BE REMOVED AND ALL TREES SHALL BE INSTALLED WITH LODGE POLE STAKES DRIVEN 3 FEET INTO THE GROUND. TREE STAKES SHALL NOT PIERCE THE ROOTBALL AND NOT INJURE TREE ROOTS. SEE TREE PLANTING DETAILS.
7. TREE TIES: TREE TIES SHALL BE FASTENED TO THE TREE AND STAKE BY LOOPING THE TIES IN FIGURE 8'S WITH THE INSIDE OF THE TREE TRUNK. FASTEN TIE TO THE STAKE WITH ONE GALVANIZED ROOFING NAIL.
8. DEFECTS: ALL DEFECTS IN TREE AND SHRUB PLANTING SHALL BE CORRECTED THROUGH THE GUARANTEE PERIOD SPECIFIED HEREIN AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

F. VINE PLANTING NOTES

1. GENERAL: ALL VINES SHALL BE PLANTED PER THE VINE PLANTING DETAIL, AND THE WOOD SUPPORT STAKE SHALL BE CAREFULLY REMOVED WITHOUT DAMAGE TO THE ROOTBALL.
2. WOOD FENCES: VINES ATTACHED TO WOOD FENCES SHALL BE SECURED WITH GALVANIZED NAILS OR GALVANIZED EYE SCREWS AND HEAVY DUTY VINE TIES.
3. MASONRY WALLS: ON MASONRY WALLS ATTACH WITH ADHESIVE TYPE VINE SUPPORTS WITH SILICONE ADHESIVE OR GALVANIZED EYE SCREWS AND WIRE (PER DETAIL). ATTACH VINE WITH HEAVY DUTY VINE TIES

G. MANAGEMENT and MAINTENANCE NOTES

1. MAINTENANCE PERIOD: THE MAINTENANCE PERIOD SHALL BE FOR SIX (6) MONTHS BEGINNING ON THE DAY OF THE CHECK INSPECTION AFTER ALL WORK HAS BEEN INSTALLED AND APPROVED BY THE LANDSCAPE ARCHITECT. THE MAINTENANCE PERIOD MAY BE EXTENDED TO INCLUDE ANY ADDITIONAL TIME THAT MAY BE REQUIRED TO MEET THE REQUIREMENTS OF THE WORK SPECIFIED.
2. GENERAL: THE GENERAL CARE AND MAINTENANCE OF ALL AREAS SHALL CONSIST OF PROPER WATERING, FERTILIZATION, WEEDING, RODENT CONTROL, CLEANUP, ETC.
3. SAFETY: ALL PLANT MATERIALS SHALL BE CHECKED AND MAINTAINED AS REQUIRED IN AN ONGOING PROGRAM TO ASSURE A SAFE ENVIRONMENT.
4. WATERING: WATER ALL PLANTINGS TO ASSURE CONTINUED GROWTH OF THE PLANTS. AREAS THAT DO NOT HAVE ADEQUATE IRRIGATION COVERAGE OR WHICH MAY REQUIRE ADDITIONAL DEEP WATERING SHALL BE WATERED BY HAND AS REQUIRED.
5. IRRIGATION COVERAGE: ADJUST ALL IRRIGATION HEADS IN EACH AREA AND ZONE OF EXPOSURE SO THAT THE OPTIMUM AMOUNT OF WATER IS APPLIED AT THE PROPER TIMES WITHOUT OVERTHROW ONTO WALLS, WALKS, ETC.
6. CULTIVATING AND WEEDING: CULTIVATE AND WEED ALL PLANTED AREAS AT REGULAR INTERVALS NOT TO EXCEED 15 DAYS. EXERCISE CARE WHEN CULTIVATING TO AVOID DAMAGE TO ROOTS OF THE GROWING PLANTS.
7. CHEMICAL HERBICIDES: A CERTIFIED TECHNICIAN SHALL APPLY CHEMICAL HERBICIDES TO CONTROL WEEDS AT THE OPTION OF THE CONTRACTOR AND UPON PRIOR APPROVAL BY THE LANDSCAPE ARCHITECT.
8. PEST AND DISEASE CONTROL: A CERTIFIED TECHNICIAN SHALL SPRAY AS NECESSARY TO CONTROL ALL INFESTATIONS.
9. RODENT CONTROL: THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO ELIMINATE ANY RODENTS ENCOUNTERED ON SITE.
10. PRUNING: ALL PRUNING SHALL BE IN ACCORDANCE WITH ARBORS GUIDELINES. DAMAGED, DEAD OR DRYING BRANCHES SHALL BE REMOVED BACK TO A POINT OF GROWTH.
11. PLANT REPLACEMENTS: DURING THE MAINTENANCE PERIOD, SHOULD ANY PLANT SHOW WEAKNESS AND PROBABILITY OF DYING, IT SHALL BE REPLACED BY THE CONTRACTOR WITHIN 5 DAYS OF NOTIFICATION TO DO SO. AT THE END OF THE MAINTENANCE PERIOD, ALL PLANT MATERIAL SHALL BE IN A HEALTHY, GROWING CONDITION.
12. CLEAN UP: DURING THE COURSE OF THE MAINTENANCE WORK, THE CONTRACTOR SHALL REMOVE SURPLUS MATERIALS AND DEBRIS FROM THE SITE AND SHALL MAINTAIN THE PREMISES IN A NEAT AND CLEAN CONDITION AT ALL TIMES.
13. FINAL INSPECTION: WILL BE HELD AT THE END OF THE SIC (6) MONTH MAINTENANCE PERIOD.

H. POST INSTALLATION MANAGEMENT and MAINTENANCE GUIDELINES

POST INSTALLATION MANAGEMENT AND MAINTENANCE GUIDELINES

1. *** IMPORTANT NOTE ***
   THIS PROJECT IS LEED CERTIFIED BY A THIRD PARTY. ANY PROPERTY MANAGER AND LEED CONSULTANT TO VERIFY THAT THE PROPOSED CHANGES WILL NOT EFFECT CERTIFICATION.
2. CONTROL ALL HARMFUL DISEASES AND PESTS. ALL CHEMICAL APPLICATIONS MUST BE PER STATE LICENSED ADVISORS AND APPLICATIONS.
3. PRUNING SHALL BE DONE TO KEEP PLANTS WITHIN SPECIAL LIMITATIONS, REMOVAL OF DEADWOOD, CROSS-BRANCHING, ETC., PER INTERNATIONAL SOCIETY OF ARBORICULTURE STANDARDS (ISA). PLANTS SHALL NEVER BE SHEARED UNLESS SPECIFIED ON THE APPROVED PLAN OR AS AN INDUSTRY STANDARD PRACTICE.
4. TREES ARE TO BE ALLOWED TO GROW TO THE DESIGNED SIZE TO PROVIDE MAXIMUM SHADING OF PAVED AREAS AND PRIVACY SCREENING FOR THE ADJACENT NEIGHBORS..
5. WATER SHALL BE APPLIED FOR OPTIMUM PLANT GROWTH WITH MINIMAL RUNOFF OR OVERSPRAY.
6. ALWAYS REPLACE IRRIGATION HEADS WITH SAME KIND OR MATCHING PRECIPITATION RATE.
7. BACKFLOW DEVICES ARE REQUIRED TO BE TESTED AND CERTIFIED ANNUALLY.
8. INSPECT TREE SUPPORTS FREQUENTLY AND REMOVE AS SOON AS PLANTS WILL STAND WITHOUT SUPPORT AND WILL BE ABLE TO RESIST WIND DAMAGE. NEVER ALLOW SUPPORT MATERIALS TO GIRDLE TRUNK OF BRANCHES.
9. LANDSCAPE IRRIGATION SHALL BE SCHEDULED DURING THE NIGHT OR EARLY MORNING HOURS.
10. A REGULAR MAINTENANCE SCHEDULE SHALL INCLUDE:
    - a) CHECKING, ADJUSTING and REPAIRING the IRRIGATION EQUIPMENT.
    - b) REPLENISHING MULCH to a MINIMUM OF 3" THICK
    - c) FERTILIZATION.
    - d) PRUNING.
    - e) WEEDING.
    - f) REMOVING LITTER IN ALL LANDSCAPED AREAS.

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