

GENERAL NOTES

LAYOUT NOTES

- CONTRACTOR SHALL BE REQUIRED TO OBTAIN NECESSARY BUILDING PERMITS AND INSPECTIONS FOR ANY POOLS, PONDS, WALLS, ETC. FOR CONSTRUCTION.
- THE CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS, DISTANCES, AND CONDITIONS PRIOR TO STARTING WORK. ANY DISCREPANCIES SHALL BE PROMPTLY REPORTED TO THE LANDSCAPE ARCHITECT.
- PLUS/ MINUS DIMENSIONS ARE GIVEN FOR IMPROVEMENTS THAT MAY VARY SLIGHTLY. ALL OTHER DIMENSIONS ARE EXACT. CONTRACTOR TO STAKE PROPOSED WORK PRIOR TO CONSTRUCTION FOR OWNER AND LANDSCAPE ARCHITECT TO REVIEW.
- ANY CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE CONSTRUCTION DRAWING AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH WORK.
- ALL WORK SHALL COMPLY TO THE UNIFORM BUILDING CODE, LATEST EDITION, AS ADOPTED BY THE COUNTY OF HAWAII.
- THE CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY, AND ENVIRONMENTAL QUALITY.
- IN THE EVENT THAT SUBSURFACE CULTURAL REMAINS SUCH AS ARTIFACTS, BURIALS, OR DEPOSITS OF SHELLS OR CHARCOAL ARE ENCOUNTERED DURING THE EXCAVATION WORK, THE CONTRACTOR SHALL STOP WORK IN THE AREA OF THE FIND IMMEDIATELY.
- PRIOR TO COMMENCEMENT OF WORK, THE SUCCESSFUL BIDDER SHALL MEET WITH THE LANDSCAPE ARCHITECT AND OWNERS REPRESENTATIVE TO REVIEW PLANS AND SITE CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SLEEVING REQUIRED FOR ELECTRICAL AND IRRIGATION.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL, ELECTRICAL, CIVIL AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION AND SHALL COORDINATE WITH ALL OTHER TRADES TO ENSURE INTEGRITY OF WORK.

CONSTRUCTION NOTES

- COORDINATE AND LOCATE ANY IRRIGATION AND ELECTRICAL SLEEVES PRIOR TO CONCRETE POUR; SEE LOCATIONS ON DRAINAGE AND IRRIGATION PLANS.
- ELECTRICAL IMPROVEMENTS TO CONFORM TO APPLICABLE CODES AND TO BE INSTALLED BY A CERTIFIED ELECTRICIAN. LOCATION OF LIGHT SWITCHES AND ELECTRICAL OUTLETS TO BE APPROVED BY OWNER PRIOR TO INSTALLATION. SWITCHING, TRANSFORMER AND ACTUAL LIGHT LOCATIONS TO BE DETERMINED IN THE FIELD AT THE TIME OF INSTALLATION.
- CONTRACTOR TO SECURE APPLICABLE BUILDING PERMITS FROM APPROPRIATE GOVERNING MUNICIPALITY AND TO CONFORM TO ALL APPLICABLE CODES.
- CONTRACTOR TO COMPLY WITH DETAILS AND SPECIFICATIONS AS SHOWN ON PLANS. NOTIFY LANDSCAPE ARCHITECT AND OWNER WHERE AND WHEN THERE ARE ITEMS TO BE REVIEWED.
- OBSERVATION VISITS TO THE JOB SITE BY THE LANDSCAPE ARCHITECT DO NOT INCLUDE INSPECTIONS OF CONSTRUCTION METHODS AND SAFETY CONDITIONS AT THE WORK SITE. THESE VISITS SHALL NOT BE CONSTRUED AS CONTINUOUS AND DETAILED INSPECTIONS.
- CONSTRUCTION DETAILING, MATERIALS, EQUIPMENT AND PRODUCTS OTHER THAN THOSE SPECIFIED WITHIN THESE PLANS MAY BE CONSIDERED FOR USE PROVIDED PRIOR WRITTEN APPROVAL IS OBTAINED FROM OWNER, THE LANDSCAPE ARCHITECT OR THE APPLICABLE GOVERNING AUTHORITY (AS REQUIRED) PRIOR TO IMPLEMENTATION.
- CONTRACTOR SHALL FURNISH CONTRACT CLOSE OUT DOCUMENTS AND AS-BUILT PLAN INFORMATION FOR IRRIGATION AND DRAINAGE LINE RUNS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND FAMILIARIZING OWNER'S MAINTENANCE PERSONNEL WITH SYSTEM OPERATIONS AND CONTROLS.

GRADING AND DRAINAGE NOTES

- EXISTING GRADES ARE BASED ON INFORMATION TAKEN DIRECTLY FROM CIVIL ENGINEER'S PLANS. VERIFY EXISTING GRADES FOR ACCURACY PRIOR TO THE START OF GRADING AND NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY SHOULD CONFLICTS ARISE.
- PRIOR TO ANY DIGGING, VERIFY UNDERGROUND UTILITY LOCATIONS WHICH MAY INTERFERE WITH THE WORK TO BE DONE. VERIFY EXISTING SLEEVING LOCATIONS. NOTIFY THE OWNER AND LANDSCAPE ARCHITECT IMMEDIATELY SHOULD CONFLICTS ARISE.
- IT IS THE INTENT OF THESE DOCUMENTS TO BLEND THE TRANSITION FROM CONSTRUCTED ELEMENTS INTO THE NATURAL SETTING OF THE SITE. CONTOURS, SPOT ELEVATIONS, AND GRADING LIMITS INDICATED ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD AT THE LANDSCAPE ARCHITECT'S REQUEST. VERIFY GRADING LIMITS AND REQUIREMENTS WITH THE LANDSCAPE ARCHITECT PRIOR TO GRADING WORK.
- AFTER ROUGH GRADING HAS BEEN COMPLETED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING/REFINING GRADING CONDITIONS AFTER BOXED TREE AND IRRIGATION MAINLINE INSTALLATION IN PRIOR TO SMALL PLANT LAYOUT.
- TOP AND TOE OF EXISTING CONSTRUCTED SLOPES SHALL BE "FEATHERED" UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT TO PROVIDE A "NATURAL" TRANSITION TO NATIVE GRADES.
- ALL REQUIRED FILL SHALL BE COMPACTED PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS TO PREVENT FUTURE SETTLING AND MAINTAIN STRUCTURAL STABILITY.
- FINISH GRADE SHALL BE ADJUSTED IN THE FIELD BY THE LANDSCAPE ARCHITECT AS REQUIRED. ALL FINISH GRADING SHALL BE UNIFORM AND SMOOTH.
- ALL GRADING TO BE IN CONFORMANCE WITH LOCAL BUILDING CODES. CONTRACTOR IS TO SECURE REQUIRED PERMITS.
- THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO VERIFY EXISTING CONDITIONS AND GRADES IN THE FIELD.
- ALL AREAS TO RECEIVE PLANTING SHALL BE ROUGH SHAPED TO ELEVATIONS SHOWN ON PLANS & DETAILS PRIOR TO COMMENCEMENT OF ANY PLANTING & IRRIGATION WORK UNDER THIS CONTRACT. THE CONTRACTOR WILL BE REQUIRED TO PERFORM FINISH GRADING FOR PROPER ROCK PLACEMENT, MOUNDING OR REPAIR WORK RESULTING FROM WORK PERFORMED UNDER THIS CONTRACT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINE GRADING AND PROPER SURFACE DRAINAGE IN ALL AREAS. FINE GRADING SHALL BE COMPLETED AS INDICATED BY CONTOURS AND SPOT ELEVATIONS ON THE PLANS. PROPOSED ELEVATIONS SHOWN ARE FINISHED (COMPACTED) GRADE.

GRADING AND DRAINAGE NOTES (CONT)

- CONTRACTOR SHALL BRING ANY GRADING DISCREPANCIES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR A DECISION PRIOR TO PROCEEDING.
- ALL EXISTING DRAINAGE STRUCTURES SHALL BE PROTECTED AND MAINTAINED DURING CONSTRUCTION.
- CONTRACTOR TO PROVIDE A MINIMUM OF 1.5% SLOPE FOR A DISTANCE OF FIVE FEET AWAY FROM ALL EXISTING AND PROPOSED STRUCTURES. ENSURE POSITIVE DRAINAGE TOWARD DRAINAGE SWALES AND CATCH BASINS IN ALL LOCATIONS TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL PROTECT ALL WORK FROM EROSION UNTIL FINAL ACCEPTANCE.
- THE CONTRACTOR IS REQUIRED TO IMPORT CLEAN TOPSOIL FOR PLANTING. NEW TOPSOIL SHALL BE SOILS PLUS 1/3 MIX WITH ADDITIONAL AMENDMENTS AS REQUIRED. TOPSOIL DEPTH SHALL BE 12" MIN FOR SHRUB AND GROUNDCOVER PLANTING BEDS AND 8" MIN FOR TURF AREAS. ALL LARGE CONTAINER MATERIAL AND ANY SMALL SHRUBS OUTSIDE THE PERIMETER WALLS SHALL BE PLANTED WITH THIS MIX AS BACKFILL. THE LANDSCAPE CONTRACTOR MUST VERIFY THE EXISTING SUBGRADE WITH THE GENERAL CONTRACTOR PRIOR TO TOPSOIL IMPORTATION TO CONFIRM THE SUBBASE IS DEEP ENOUGH TO RECEIVE THE MINIMUM SOIL DEPTHS.

PLANTING NOTES

- PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL MEET WITH THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE TO REVIEW THE PLANS, AND WALK THE SITE.
- THE LOCATION AND PROTECTION OF ALL UTILITIES, STRUCTURES AND LANDSCAPING IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. CONTRACTOR SHALL NOTIFY ALL NECESSARY UTILITY COMPANIES 48 HOURS MINIMUM PRIOR TO DIGGING FOR VERIFICATION OF ALL UNDERGROUND UTILITIES. LANDSCAPE CONTRACTOR SHALL FIELD ADJUST LOCATIONS OF PLANT MATERIAL AS NECESSARY TO AVOID DAMAGE TO EXISTING UNDERGROUND UTILITIES AND/OR EXISTING ABOVE GROUND ELEMENTS. ALL CHANGES REQUIRED SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE AND SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT.
- A QUALIFIED SUPERVISOR SHALL BE PRESENT ON SITE AT ALL TIMES DURING PLANTING.
- PLANT TREES AND SHRUBS PLUMB, AND FACED TO GIVE THE BEST APPEARANCE OR RELATIONSHIP TO ADJACENT PLANTS, OR VIEWS.
- PLANT LOCATIONS ARE DIAGRAMMATIC AND MAY BE ADJUSTED IN THE FIELD AT THE LANDSCAPE ARCHITECT'S REQUEST PRIOR TO INSTALLATION. CARE SHALL BE TAKEN TO SPOT PLANT MATERIAL TO PROVIDE OPTIMUM GROWTH CONDITIONS AND MAXIMUM AESTHETICS. DO NOT INSTALL PLANT MATERIAL IN ANY AREA WHICH WILL CAUSE HARM TO ADJACENT IMPROVEMENTS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL PLANT MATERIAL LOCATIONS WITH OTHER TRADES PRIOR TO INSTALLATION. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE LOCATIONS OF EXISTING AND FUTURE UNDERGROUND SERVICES AND IMPROVEMENTS WHICH MAY CONFLICT WITH THE WORK TO BE DONE. NOTIFY THE OWNER AND LANDSCAPE ARCHITECT IMMEDIATELY SHOULD CONFLICTS ARISE.
- NOTIFY OWNER AND THE LANDSCAPE ARCHITECT IMMEDIATELY SHOULD SOIL CONDITIONS BE PRESENT WHICH PREVENT PROPER SOIL DRAINAGE AND ALLOW WATER TO STAND IN PLANTING PITS.
- VERIFY PLANT QUANTITIES PRIOR TO INSTALLATION. QUANTITIES ARE LISTED FOR CONVENIENCE ONLY, THE ACTUAL NUMBER OF SYMBOLS INDICATED ON THE PLANTING PLAN SHALL HAVE PRIORITY OVER QUANTITIES DESIGNATED. NOTIFY THE LANDSCAPE ARCHITECT OF QUANTITY DISCREPANCIES OR UNLABELED MASSINGS IMMEDIATELY.
- SMALL PLANTS SHALL BE SPOTTED BY THE LANDSCAPE CONTRACTOR FOR LANDSCAPE ARCHITECT'S REVIEW PRIOR TO PLANTING, AND ONLY AFTER IRRIGATION MAINLINE AND LATERALS HAVE BEEN INSTALLED AND LANDSCAPE FINE GRADE HAS BEEN RE-ESTABLISHED.
- ALL PLANTS SHOULD BE LOCATED AWAY FROM TRANSFORMERS, FIRE HYDRANTS, LIGHT FIXTURES ETC., AND PLACED TO ALLOW PROPER MAINTENANCE ACCESS.
- VINES SPECIFIED SHALL BE INSTALLED WITH VINE RUNNERS ESPALIERED TO THE ADJACENT WALLS, COLUMNS OR TREES WHERE SHOWN WITH NURSERY STAKES REMOVED. CONTRACTOR SHALL SUBMIT FASTENER INFORMATION TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.
- LIMIT OF LANDSCAPE PLANTING ZONES SHOWN ON PLANS MAY BE REVISED DURING CONSTRUCTION TO ADJUST FOR FIELD CONDITIONS. CONFIRM ALL ZONE LIMITS WITH THE LANDSCAPE ARCHITECT PRIOR TO IRRIGATION AND PLANTING OPERATIONS.
- THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES IN PLANT LOCATIONS OR INSUFFICIENT PLANT QUANTITIES DUE TO DIFFERENCES IN PLAN AND ACTUAL FIELD CONDITIONS.
- NOTIFY THE LANDSCAPE ARCHITECT 30 DAYS PRIOR TO PLANTING OPERATIONS FOR APPROVAL OF ALL PLANT MATERIAL AT PLACE OF GROWTH. ALL PLANT MATERIAL NOT APPROVED BY THE LANDSCAPE ARCHITECT WILL BE SUBJECT TO REJECTION.
- ALL PLANT MATERIALS SHALL BE OF THE QUALITY AND SIZE IN ACCORDANCE WITH THE AMERICAN STANDARDS FOR NURSERY STOCK GUIDELINES.
- ALL LANDSCAPE AREAS SHALL BE GRADED TO A SMOOTH EVEN SURFACE PRIOR TO ANY PLANT INSTALLATION. ALL PLANT MATERIALS SHALL BE INSTALLED USING GOOD HORTICULTURAL PRACTICES IN ACCORDANCE WITH THE PLANS AND DETAILS.
- THIS WORK INCLUDES, BUT IS NOT LIMITED TO THE FURNISHING OF ALL LABOR, MATERIALS, EQUIPMENT, FINAL GRADING, SEEDING, SOIL AMENDMENTS, ETC., AS MAY BE REQUIRED FOR A COMPLETE INSTALLATION.
- TREES SHALL BE STAKED/GUYED ONLY AS DIRECTED BY THE LANDSCAPE ARCHITECT.
- THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL WASTE MATERIAL GENERATED FROM THE PLANTING OPERATIONS.
- THE CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT, OPERATE OR PARK EQUIPMENT UNDER THE BRANCHES OF ANY EXISTING PLANT TO REMAIN EXCEPT AS ACTUALLY REQUIRED FOR CONSTRUCTION IN THOSE AREAS. THE CONTRACTOR SHALL PROVIDE FENCES OR OTHER BARRIERS AS NECESSARY AT THE DRIP LINE OR AROUND TREE TRUNKS TO PROTECT EXISTING PLANTS FROM DAMAGE DURING CONSTRUCTION CALLED FOR BY THE PLANS.
- LANDSCAPE CONTRACTOR SHALL COORDINATE ALL WORK WITH RELATED CONTRACTORS AND WITH THE GENERAL CONSTRUCTION OF THE PROJECT.
- ROOT BARRIERS, IF INDICATED, SHALL BE INSTALLED AS PER THE PLANS.
- CONTRACTOR SHALL STAKE TREE AND PALM LOCATIONS PER THE PLANS FOR APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO PLANTING.
- CRANE SERVICES MAY BE REQUIRED FOR THE INSTALLATION OF SPECIMEN TREES IN INACCESSIBLE AREAS. COORDINATE ALL CRANE OPERATIONS AND SCHEDULING WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION.

PLANTING NOTES (CONT)

- UNLESS OTHERWISE SPECIFIED, TOP SOIL DEPTH SHALL BE 8" MIN FOR LAWN AND 12" MIN FOR SHRUB AREAS. TOPSOIL SHALL BE SOIL PLUS 1/3 RD. MIX.
- UNLESS OTHERWISE PREVIOUSLY APPROVED BY THE LANDSCAPE ARCHITECT, NO FIELD STOCK SHRUBS WILL BE APPROVED FOR THE PROJECT.
- NURSERY PLANT MATERIAL THAT HAS OUTGROWN ITS CONTAINER AND HAS BEEN ROOTED IN THE GROUND WILL BE REJECTED.
- NURSERY PLANT MATERIAL THAT HAS SUFFERED DEHYDRATION DURING DELIVERY OR WHILE AWAITING PLANTING MAY BE REJECTED.
- ALL PLANT MATERIAL SHALL BE PLANTED IN WETTED PLANTING PITS WITH PROPER FERTILIZATION TABS.
- THE CONTRACTOR SHALL CONFIRM WITH THE L.A. THAT ALL PLANT MATERIAL SPECIFIED FOR THE PROJECT HAS BEEN PROCURED AND IS IN TOP SHAPE NO LESS THAN 60 DAYS FROM COMMENCEMENT OF INSTALLATION.

STANDARD NOHEA NOTES

TOP SOIL NOTES:

- MLRA CDC REQUIRES 9" MINIMUM DEPTH FOR TURF AREAS, 18" MINIMUM DEPTH FOR PLANTING BEDS, 36" MINIMUM DEPTH FOR THREE PLANTING PITS.
- ALL TOPSOIL SHALL BE SOIL PLUS "1/3 MIX" OR BETTER.

IRRIGATION NOTES:

- THIS RESIDENCE WILL BE INSTALLED WITH A FULLY AUTOMATED IRRIGATION SYSTEM THAT MEETS THE REQUIREMENTS OF THE MLRA CDC AS FOLLOWS:
 - BACKFLOW PREVENTER - FEBCO 1" OR EQUAL
 - IRRIGATION CONTROLLER - TORO EVOLUTION 8 - 12 STATION, OR EQUAL
 - ALL MAINLINE SHALL BE 1-1/4"
 - ALL VALVES SHALL BE TORO 1" TPV SERIES, OR EQUAL
 - LAWN POP-UPS TORO PRX 4", 6" OR EQUAL, TORO STREAM AND FLOOD BUBBLERS AS NEEDED
 - DRILINE NETAFIM TLCV9-12, SPACED AT 16" O.C.
 - ALL SPRAY AND DRIP SHALL BE SPACED 16" MINIMUM AWAY FROM BUILDINGS

PLANTING NOTES:

- EACH LOT SHALL HAVE 3 SHADE TREES.
- LAWN AREAS SHOULD NOT EXCEED APPX. 40% OF THE TOTAL LANDSCAPE AREA.
- 50% OF SHRUB PLANTING SHALL BE 2-3 GALLON SIZE MINIMUM.
- 50% OF SHRUB PLANTING SHALL BE 1 GALLON SIZE MINIMUM.
- 4" POTS/1 GAL GROUNDCOVERS SHALL PROVIDE 100% COVERAGE IN 6 MONTHS.
- ALL UTILITIES SHALL BE SCREENED FROM PUBLIC VIEW.

LIGHTING NOTES:

- NO LANDSCAPE LIGHTING IS PROPOSED IN THIS IMPROVEMENT SET. SHOULD LIGHTING BE PROPOSED AT ANY TIME IT WILL NEED TO BE APPROVED.
- PER HAWAII COUNTY CODE, ALL LIGHTING FIXTURES MUST BE TURNED OFF NO LATER THAN 11:00 PM. ACCENT LIGHTS AIMED ABOVE A HORIZONTAL PLANE ARE DISCOURAGED

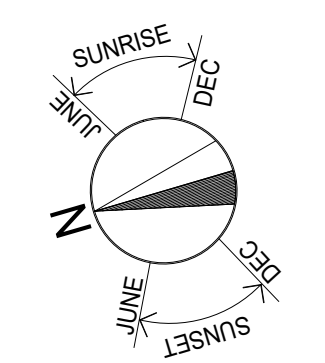
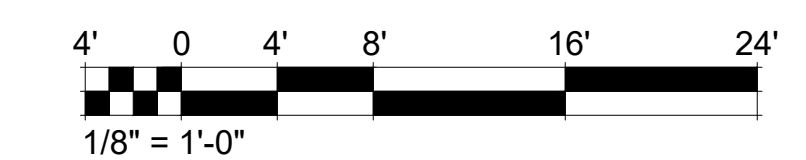
THE MLRA CDC MAY WALK THE SITE TO CONFIRM THE LANDSCAPE IS COMPLETE AND CONFORMS TO THE CDC GUIDELINES.

MAINTENANCE AND GUARANTEE NOTES

- LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT 4 DAYS PRIOR TO PROJECT COMPLETION TO SCHEDULE A SUBSTANTIAL COMPLETION WALK. DURING THE WALK THE LANDSCAPE ARCHITECT WILL PREPARE A PUNCHLIST OF WORK TO BE CORRECTED. THE MAINTENANCE PERIOD WILL BEGIN WHEN ALL PUNCHLIST ITEMS HAVE BEEN CORRECTED.
- LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE LANDSCAPE FOR 90 CALENDAR DAYS (MIN), OR AS SPECIFIED BY CONTRACT.
- LANDSCAPE CONTRACTOR SHALL PROVIDE A 90 DAY (MIN) WARRANTEE ON ALL SMALL PLANTS AND A 1 YEAR GUARANTEE TO WARRANTEE ALL TREES AND IRRIGATION COMPONENTS FROM THE DATE OF FINAL ACCEPTANCE.
- PLANTS FOUND TO BE IN AN UNHEALTHY CONDITION DURING THE WARRANTEE PERIOD SHALL BE REMOVED AND REPLACED AT THE LANDSCAPE CONTRACTORS EXPENSE. NEW PLANT MATERIAL SHALL RECEIVE THE SAME WARRANTEE.
- LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT ONE WEEK PRIOR TO END OF MAINTENANCE PERIOD TO CONFIRM THAT ALL PUNCHLIST ITEMS HAVE BEEN COMPLETED AND THAT THE PROJECT IS READY FOR A FINAL ACCEPTANCE WALK.
- AS-BUILT PLANS SHALL BE PREPARED BY THE LANDSCAPE CONTRACTOR FOR "BACKBONE" IRRIGATION SYSTEM LAYOUT AND LIGHTING WIRING RUNS. PLANS WILL BE REQUIRED TO BE TURNED OVER TO THE GENERAL CONTRACTOR DURING THE FINAL ACCEPTANCE WALK. FINAL ACCEPTANCE WILL NOT BE GRANTED WITHOUT THESE PLANS.

SHEET INDEX

- L0.1 COVER SHEET & GENERAL NOTES
- L1.0 PLANTING PLAN
- L2.0 IRRIGATION PLAN



Exp: _____

This work was prepared by me or under my supervision and construction of this project will be under my observation.

MAHANEY ENVIRONMENTAL DESIGN
67-1228 Halalena Place
Kamuela HI 96743
(808) 895-0826
WWW.HAWAII LANDSCAPE ARCHITECT.COM
MARK@HAWAII LANDSCAPE ARCHITECT.COM

NO.	DATE	REVISION

PROJECT NUMBER _____

LOT 30

NOHEA AT MAUNA LANI
68-1038 AKEA PLACE
KAMUELA, HI 96743

TMK: 3-6-8-043:013

DRAWN BY: _____ MS
 CHECKED BY: _____ MM
 DATE: 8/3/2022
 SCALE: _____

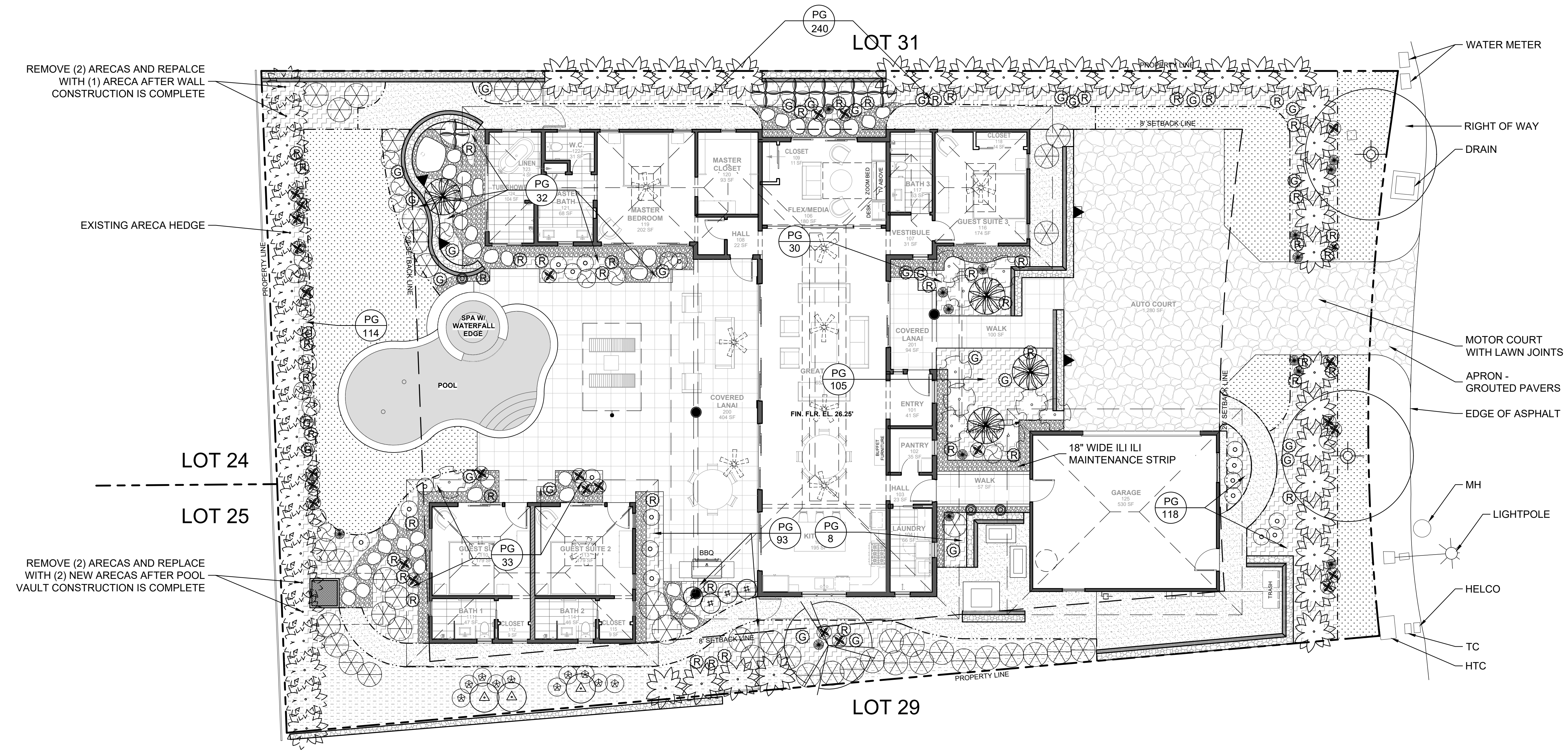
SHEET TITLE:
COVER SHEET & GENERAL NOTES

SHEET NUMBER:
L 0.1

This work was prepared by me or under my supervision and construction of this project will be under my observation.

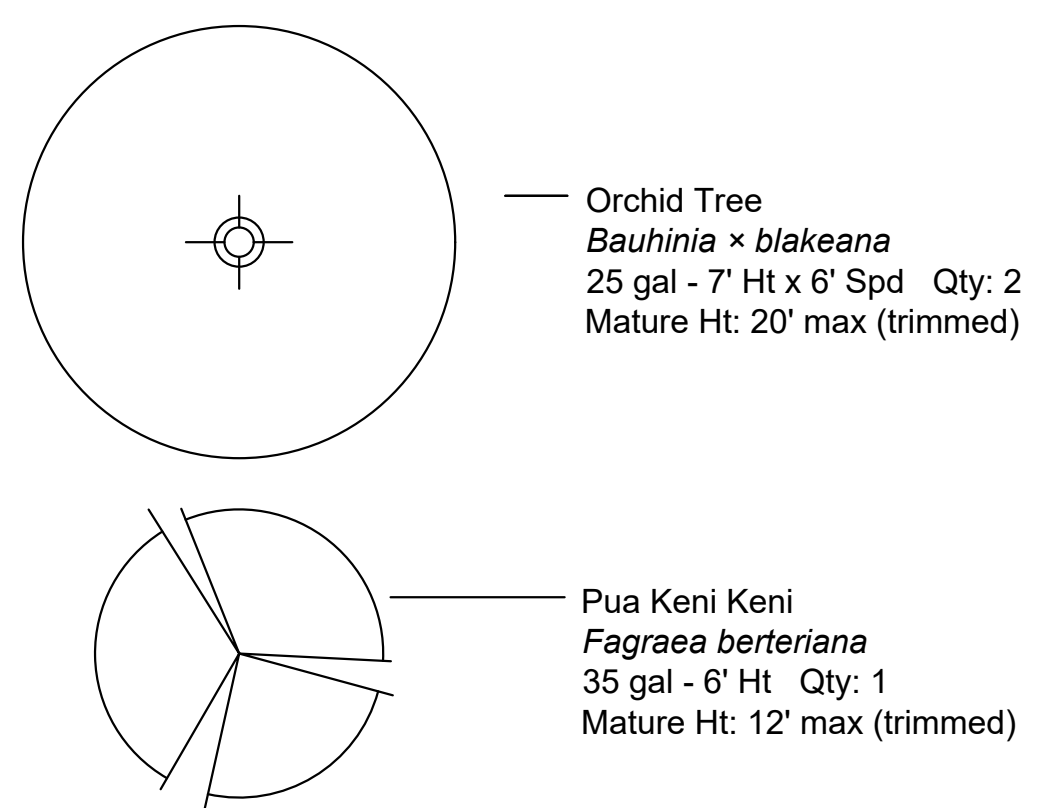


MAHANEY ENVIRONMENTAL DESIGN
67-1228 Halalela Place
Kamuela HI 96743
(808) 895-0826
WWW.HAWAIIANLANDSCAPEARCHITECT.COM
MARK@HAWAIIANLANDSCAPEARCHITECT.COM

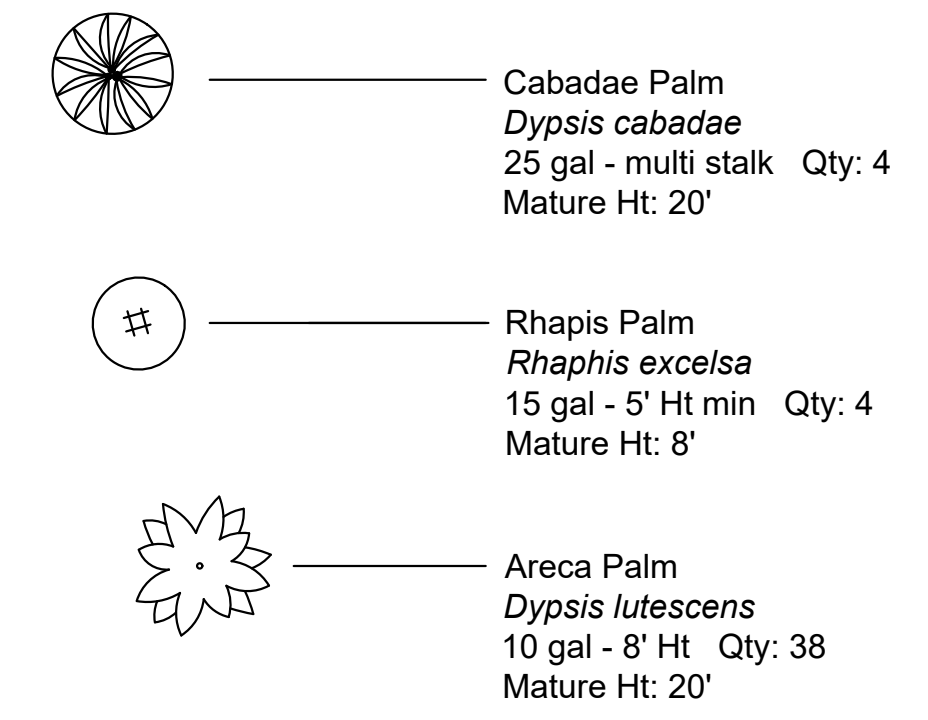


PLANTING LEGEND

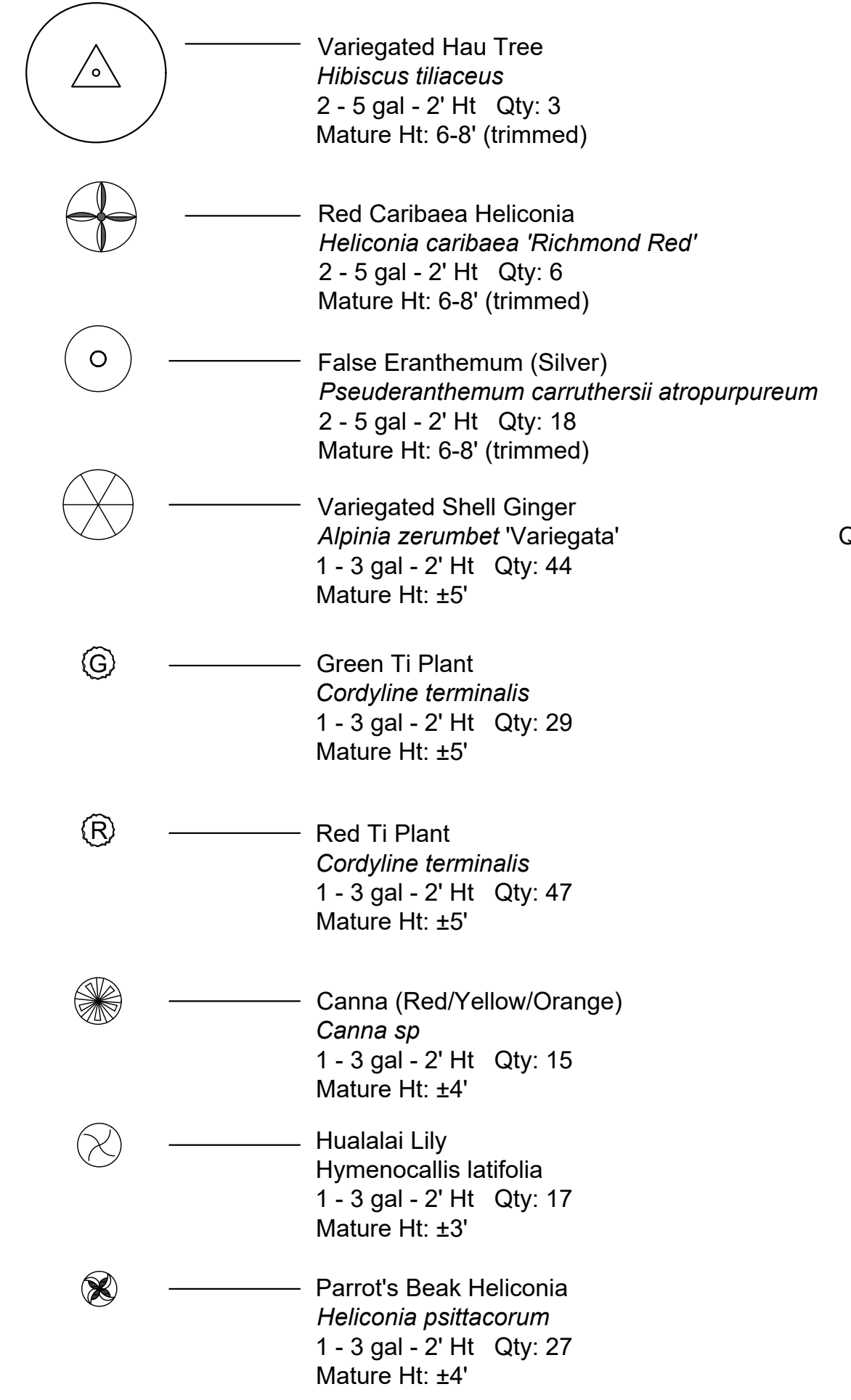
TREES



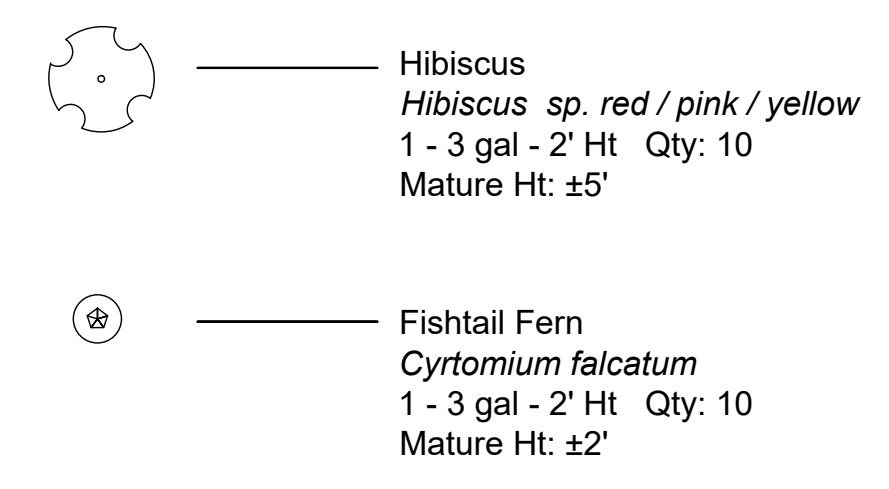
PALMS



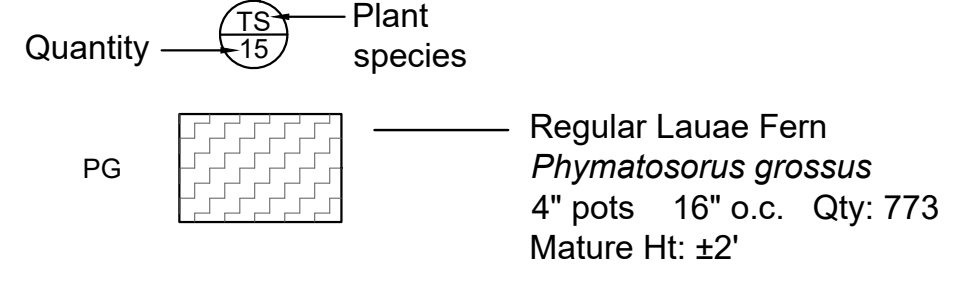
SHRUBS



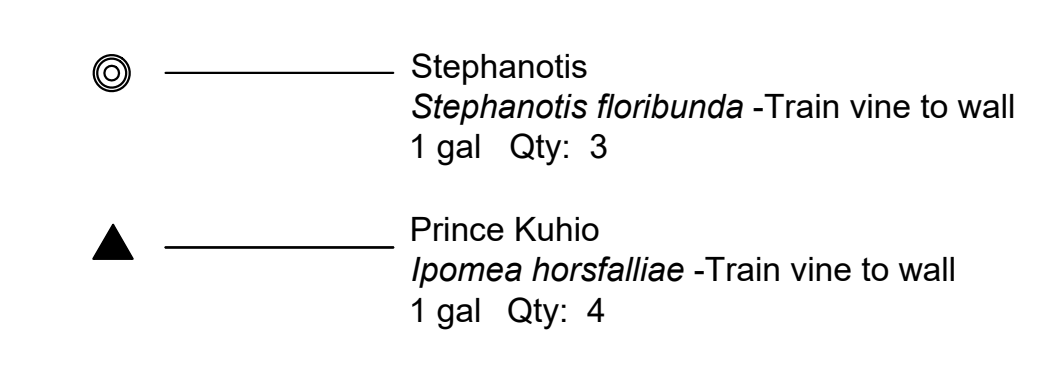
SHRUBS



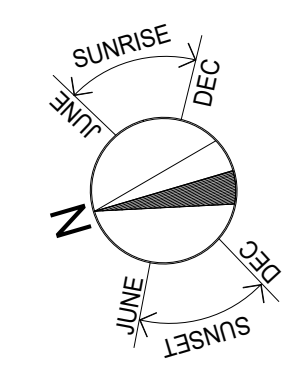
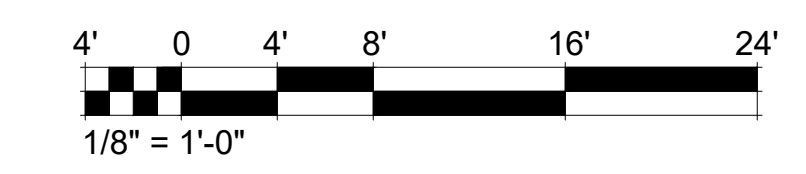
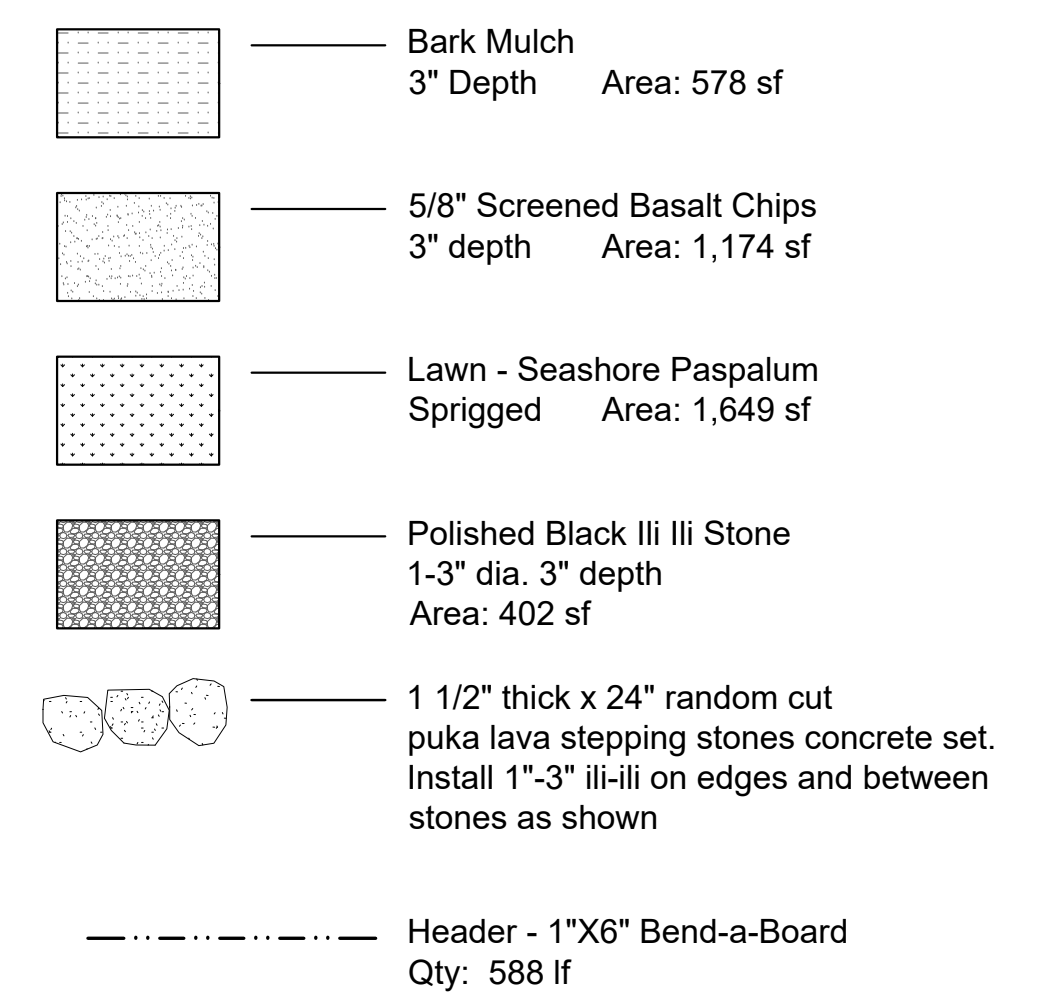
GROUNDCOVERS



VINES



MATERIALS



NO.	DATE	REVISION

PROJECT NUMBER

LOT 30

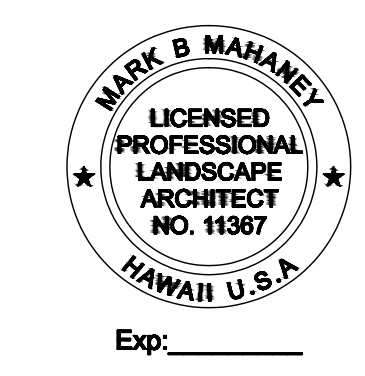
NOHEA AT MAUNA LANI
68-1038 AKEA PLACE
KAMUELA, HI 96743

TMK: 3-6-8-043:013

DRAWN BY: MS
CHECKED BY: MM
DATE: 8/3/2022
SCALE: 1/8" = 1'-0"

SHEET TITLE:
PLANTING PLAN

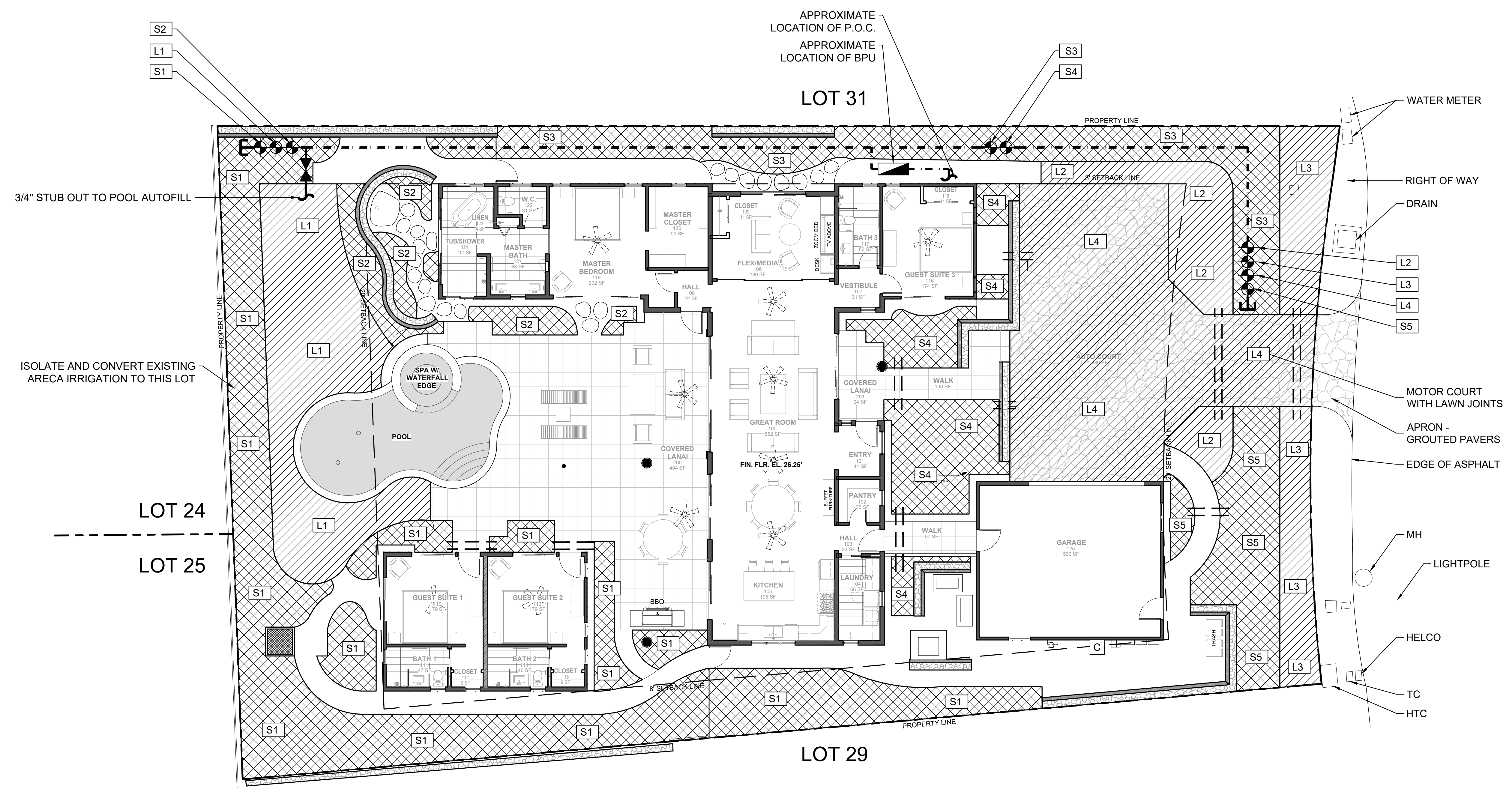
SHEET NUMBER:
L 1.0



This work was prepared by me or under my supervision and construction of this project will be under my observation.



MAHANEY ENVIRONMENTAL DESIGN
67-1228 Halaena Place
Kamuela HI 96743
(808) 895-0826
WWW.HAWAIIANLANDSCAPEARCHITECT.COM
MARK@HAWAIIANLANDSCAPEARCHITECT.COM



GENERAL IRRIGATION NOTES:

THE IRRIGATION PLAN IS DIAGRAMMATIC AND SUBJECT TO BEING ADJUSTED IN THE FIELD BY THE CONTRACTOR TO ADAPT TO EXISTING SITE CONDITIONS. ALL MATERIALS AND METHODS OF INSTALLATION SHALL BE DONE TO TYPICAL HIGH-END RESIDENTIAL IRRIGATION STANDARDS. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE COMPLETE AND PROPER IRRIGATION COVERAGE TO ALL LANDSCAPE AREAS. ANY QUESTIONS SHOULD BE DIRECTED TO THE LANDSCAPE ARCHITECT IMMEDIATELY.

LAWN SPRAY SYSTEMS SHALL BE COMPRISED OF 4" AND 6" POP-UPS. STREAM AND FLOOD BUBBLERS MAY BE USED AS NEEDED.

THE STATIC WATER PRESSURE MINIMUM IS CRITICAL TO THE LAYOUT AND DESIGN OF THE SYSTEM. ANY REDUCTION IN STATIC WATER PRESSURE BASED ON EXISTING CONDITIONS MAY REQUIRE ADDITIONAL VALVES AND CIRCUITING TO COMPENSATE FOR THE LOWER PRESSURE. NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY IF THE EXISTING STATIC PRESSURE IS BELOW 60 PSI.

THE CONTRACTOR SHALL BE REQUIRED TO CREATE AN AS-BUILT PLAN OF THE "BACKBONE SYSTEM COMPONENTS" UPON COMPLETION. THE SUBMITTAL OF THIS PLAN IS REQUIRED FOR FINAL PROJECT ACCEPTANCE AND PAYMENT.

ALL MAINLINES TO HAVE A MINIMUM OF 18" OF COVER. (SCH 40 PVC PIPE). ALL LATERALS AND SUB-MAIN PIPE TO HAVE A MINIMUM OF 12" OF COVER. (SCH 40 PVC PIPE).

ABSOLUTELY NO ROCKS OR OTHER EXTRANEANEOUS MATERIALS TO BE USED IN BACKFILLING OF TRENCHES. ALL PIPING SHALL BE PROPERLY SEATED AND COVERED WITH SHADING.

CONTRACTOR TO REFER TO LANDSCAPE PLAN TO KEEP SPRINKLER EQUIPMENT AND ACCESSORY MATERIAL FROM INTERFERING WITH PROPER PLANTING, i.e. VERIFY ROOT BALL SIZE FOR PLANTING

CONTRACTOR SHALL PROVIDE 18" EXPANSION COILS AT EACH WIRE CONNECTION IN VALVE BOX (WRAP AROUND 3/4" PIPE 15 TIMES).

CONTRACTOR SHALL UTILIZE VALVE I.D. TAGS ON ALL REMOTE CONTROL VALVES. CONTRACTOR TO ADD EXTENSION RISER TO POP-UP HEADS WHEN NEEDED FOR PROPER COVERAGE.

CONTRACTOR SHALL INSTALL SPRINKLER EQUIPMENT 12" FROM FOUNDATIONS. ALSO INSTALL SPRINKLERS 4" FROM CURB OR WALKS.

INSTALL HEAD PROTECTION FOR ALL LAWN HEADS ADJACENT TO DRIVEWAY PAVING.

CONTRACTOR TO ADD EXTENSION RISER TO POP-UP HEADS WHEN NEEDED FOR PROPER COVERAGE.

WATER METER P.O.C. NOTES:

PROVIDE A CONNECTION TO THE EXISTING 5/8" DOMESTIC WATER METER.

FIELD VERIFY THE METER HAS 60 PSI (MINIMUM) STATIC PRESSURE AVAILABLE FOR IRRIGATION USE.

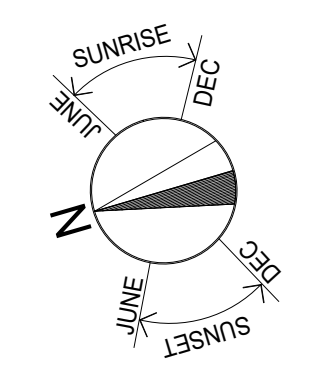
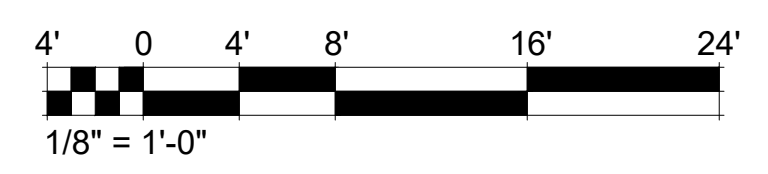
IRRIGATION LEGEND:

- IN LINE DRIP SYSTEM**
NETAFIM TLCV9-12 SURFACE DRIP LINE; SET LENGTHS ON GRADE IN PARALLEL ROWS 16" APART PROVIDING CONTINUOUS COVERAGE ACROSS ALL PROPOSED SHRUB/GROUND COVER PLANTING AREAS; TUBING MAY SIMPLY BE SET MEANDERING THROUGHOUT NARROWER PLANTERS AS REASONABLY EFFICIENT. PROVIDE COMPRESSION FITTINGS AND ADAPTORS PER MANUFACTURER'S SPECIFICATIONS; INSTALL #MDOFFCAP FLUSH END CAP WITH ADAPTOR AT TERMINUS OF EACH DRIP LINE RUN; OR FARTHEST POINT ON LOOP FROM RCV WITHIN ROUND BOX AS DETAILED. STAKE TO GRADE WITH THE "U" METAL STAKES AT 3' O.C., SPACING (MAX.); ALL DRIP LINES SHALL BE EVENLY AND NEATLY SPACED. MAINTAIN AN 8" OFFSET FROM PERIMETER DRIP LINES AND ADJACENT HEADERS, PAVING, ETC.
- SPRAY SYSTEMS**
TORO PRX, OR EQUAL, FOR HEAD TO HEAD COVERAGE IN THE TURF AREAS. USE 4" AND 6" POP-UP SPRINKLERS IN THE TURF AREAS. WHERE NECESSARY SPRAY AND FLOOD BUBBLERS MAY BE USED TO ENSURE FULL COVERAGE OF IRRIGATED AREAS.
- CONTROLLER**-TORO EVOLUTION 12 STATION, OR EQUAL. COORDINATE FINAL LOCATION ADJACENT ELECT. RECEPTACLE ON GARAGE BUILDING WALL WITH G.C.
- BACKFLOW PREVENTER** - FEBCO 1", OR EQUAL
- VALVE** - TORO 1" TPV SERIES 1" INLINE REMOTE CONTROL VALVE OR APPROVED EQUAL.
- NIBCO T-133 3/4" GATE VALVE**, ALL VALVE BOXES SHALL BE INSTALLED IN GROUND COVER AREAS (NOT LAWN) WITH BLACK BOX LIDS
- CONTROLLER STATION NUMBER**, S = SHRUB, L = LAWN
- MAIN LINE**: SCHEDULE 40 PVC PIPE WITH SCHEDULE 80 PVC FITTINGS 1-1/4" LINE SIZE, PROVIDE 18" (MIN.) COVER
- SINGLE 4" SCHEDULE 40 PVC SLEEVE** AT PAVING CROSSINGS UNLESS OTHERWISE NOTED. PROVIDE, 12" MIN COVER AND EXTEND 12" MIN BEYOND PAVEMENT EDGES. TAPE ENDS TO PREVENT SOIL INTRUSION AND CAREFULLY AS-BUILT SLEEVE LOCATION AND DEPTH.
- Not Shown** **LATERAL LINE**: SCHEDULE 40 PVC PIPE W/ SCHEDULE 80 PVC SOLVENT-WELDED FITTINGS; PROVIDE 12" (MIN.) COVER.

LATERAL LINE SIZE FLOW CHART

1-6 GPM - 3/4" PIPE
7-12 GPM - 1" PIPE
13-22 GPM - 1-1/4" PIPE
22-25 GPM - 1-1/2" PIPE

PEAK SYSTEM FLOW AT VALVES SHALL NOT EXCEED 25 GPM. USE SCH40 PVC PIPING FOR LATERALS



NO.	DATE	REVISION

PROJECT NUMBER

LOT 30

NOHEA AT MAUNA LANI
68-1038 AKEA PLACE
KAMUELA, HI 96743
TMK: 3-6-8-043:013

DRAWN BY: MS
CHECKED BY: MM
DATE: 8/3/2022
SCALE: 1/8" = 1'-0"

SHEET TITLE:
IRRIGATION PLAN

SHEET NUMBER:
L 2.0