ABBREVIATIONS

ABV.		FDN.	FOUNDATION	PRCST.	PRECAST
ACC.	ACCESS	F.S. FURR.	FURRING	P.S.I.	POUNDS/SQUARE INCH
ACOUS.	ACOUSTICAL	FUT.	FUTURE	PVC.	POLYVINYLCHLORIDE
A.T.	ACOUSTICAL TILE	• ••••		0 -	
ADJ.		GALV.	GALVANIZED	QT	QUARRY TILE
A.F.F. AGR.	AGGREGATE	GA. GL.	GLASS	RAD.	RADIUS
ALUM., AL.	ALUMINUM	G.B.	GRAB BAR	R.W.L.	RAIN WATER LEADER
ALT.	ALTERNATE	G.F.R.G.	GLASS FIBER REINFORCED GYPSUM	R.A.F.	RAISED ACCESS FLOOR
ANG., L	ANGLE	GR.	GRADE	RDWD.	REDWOOD
APPROX. A P	APPROXIMATE ACCESS PANEL	GND. GSM	GRUUND GALVANIZED STEEL METAL	REF. REFI	
ARCH.	ARCHITECTURAL	GVL.	GRAVEL	REFR.	REFRIGERATOR
A.D.	AREA DRAIN	GYP.	GYPSUM	RET.	RETAINING
ASB.	ASBESTOS	GYP. BD.	GYPSUM WALLBOARD	RGST.	REGISTER
ASPH.	ASPHALT			REINF.	REINFORCED
@ ∆HU		HDW. HDWD		REQ D. RES	REQUIRED, REQUIREMENTS
/ 10.		HT.	HEIGHT	REV.	REVISION
BM.	BEAM	HC.	HANDICAP	R.	RISER
BET.	BETWEEN	Н.	HIGH	R.D.	ROOF DRAIN
BITUM.	BITUMINOUS	H.M.		RM.	
BLK. BLKG	BLOCK	HRZ. H.B.	HORIZONTAL HOSE BIBB	R.U.	RUUGH UPENING
BD.	BOARD	H.S.	HEAT STRENGTHENED	SAM.	SELF ADHERED MEMBRANE
BOT.	BOTTOM	HVAC	HEATING/ VENTILATING/ AIR	SCHED.	SCHEDULE
BLDG.	BUILDING	ЦD		SECT.	SECTION
BIOHAZ. BSMT	BIOHAZARD	Π K .	ΠΟΟΚ	S.SK. Sht	SERVICE SINK
DOMT.		I.D.	INSIDE DIAMETER	SH.	SHELF
CAB.	CABINET	I.R.	INSIDE RADIUS	SHWR.	SHOWER
C.I.	CAST IRON	IN.	INCH	SIM.	SIMILAR
C.I.P.	CAST IN PLACE	INCL.		S.D.	SOAP DISPENSER
CIKG		INFU. INSUL	INSULATION	S.C.	SOLID CORE
CLG.	CEILING	INT.	INTERIOR	S.O.G.	SLAB ON GRADE
CEM.	CEMENT	ISOL.	ISOLATION	SPEC.	SPECIFICATION
CT.	CENTER			SQ.	SQUARE
CER.	CERAMIC	JAN. IT INT		S.S.	STAINLESS STEEL
CH.		JT., JINT.	JOINT	STD. STA	STANDARD
CL	CENTERLINE	KIT.	KITCHEN	STA. STL.	STEEL
CLR.	CLEAR			STO.	STORAGE
CLO.	CLOSET	L.	LENGTH	STRUCT'L.	STRUCTURAL
COL.	COLUMN	L.B.		SUSP.	SUSPENDED
CONC.		LAD. LAM.	LABORATORT I AMINATE	SYM.	
CONN. CONSTR.	CONSTRUCTION	LAV.	LAVATORY	SUPV. S.U.	SOILED UTILITY
CONT.	CONTINUOUS	LT.	LIGHT		
CORR.	CORRIDOR	LKR.		TEL.	TELEPHONE
CNTR.	COUNTER	LOC.	LOCATED, LOCATION	T.V.	TELEVISION
CISK.		LVN.	LOOVER	TEMP. TER	
C.W.	CURTAIN WALL	M.H.	MANHOLE	THK.	THICK
		MFR.	MANUFACTURER	T.P.D.	TOILET PAPER DISPENSER
DBL.	DOUBLE	M.O.	MASONRY OPENING	T. + G.	TONGUE + GROOVE
DEMO.	DEMOLISH	ΜΑΤ. ΜΔΧ	MATERIAL MAXIMI IM	Т.О.	TOP OF
DEPT. DFT	DEPARTMENT	MECH.	MECHANICAL	Т.О.С. Т О Р	TOP OF CORB, TOP OF CONC.
D.F.	DOUGLAS FIR	M.B.	MECHANICAL BOLT		PARAPET
DIA.	DIAMETER	M.E.P.	MECHANICAL, ELECTRICAL +	T.O.S.	TOP OF STEEL, TOP OF SLAB
DIAG.	DIAGONAL	МЕРТ	MECHANICAL FLECTRICAL +	1.О.W. тр	
DIM. DISP	DIMENSION		PLUMBING + TELE.	т.в. Т.	TREAD
D.O.	DOOR OPENING	M.C.	MEDICINE CABINET	TYP.	TYPICAL
DN.	DOWN	MED.		TOI.	TOILET
D.S.	DOWNSPOUT	MEMD.	MEZZANINE		
DWR.		MTL.	METAL	UNF. UR	
DWG. DF.	DRINKING FOUNTAIN	MIN.	MINIMUM	U.N.O.	UNLESS NOTED OTHERWISE
DSP.	DRY STANDPIPE	MIR.	MIRROR		
		MID. MISC	MUUNTED MISCELLANEOUS	VERT.	VERTICAL
EA.	EACH	MUL.	MULLION	VESI. VTP	
E EDF	EAST ELECTRIC DRINKING FOUNTAIN			VIF.	VERIFY IN FIELD
E.W.F.	ELECTRIC WATER COOLER	(N)	NEW		
ELEC.	ELECTRICAL	N.		WSCT.	WAINSCOT
E.P.	ELECTRICAL PANEL BOARD	N.T.S.	NOT TO SCALE	₩.C. \\//¤	
EL. ELEV		NO.	NUMBER	WT.	WEIGHT
EMER.	EMERGENCY	N.S.	NURSE STATION	W.	WEST
ENCL.	ENCLOSURE	N.S. ſ.	NON STRESS TEST	WIN.	WINDOW
EQ.	EQUAL	O/	OVER	W/	WITH
EQUIP.		OBS.	OBSERVATION	WD	WOOD
(E) FOS	EDGE OF SLAB	OFF.	OFFICE	WPT.	WORKING POINT
EXP.	EXPANSION	0.C.	ON CENTER	W.W.F.	WELDED WIRE FABRIC
E.J.	EXPANSION JOINT	OPNG. OPP	OPPOSITE		
EXH.	EXHAUST	O.D.	OUTSIDE DIAMETER	YD.	YARD
EXPU. EXT		O.A.	OVERALL		
E.W.	EACH WAY	0.F.C.I.	OWNER FURNISHED CONTRACTOR		
EXTR.	EXTRUSION	0.F 0 I	OWNER FURNISHED OWNER		
		J., , J., ,	INSTALLED		
F.U.C. F O F	FACE OF CONCRETE	0.R.	OUTSIDE RADIUS		
F.O.G.	FACE OF GYP. BD.	DD	ΡΔIR		
F.O.S.	FACE OF STUD	PERF	PERFORATED		
FIN.	FINISH	PIV.	PIVOT		
F.FL.	FINISH FLOOR LINE	PNL.	PANEL		
гı. F.A	FEET, FOOT FIRE ALARM	PNT.			
F.E.	FIRE EXTINGUISHER	PTD.	FREFADRICATE		
F.E.C.	FIRE EXTINGUISHER CABINET	P.T.R.	PAPER TOWEL RECEPTACLE		
F.H.C.	FIRE HOSE CABINET	PTD.	PAINTED		
FPKF. FI AQH	FIKE PKUUF FLASHING	PTN.			
г <u>сло</u> п. F.B.	FLAT BAR	Р.А. рі др	PLANTED AREA PLASTER		
FLEX.	FLEXIBLE	P.LAM.	PLASTIC LAMINATE		
FL.	FLOOR	PL.,PLT.	PLATE		
F.D.	FLOOR DRAIN	PLYWD.	PLYWOOD		
		۲ſ.	POINT		
FTG.	FOOTING				

	<u>GENERAL NOTES</u>	DRAWIN	<u>G INDEX</u>
1. 2.	ALL WORK SHALL CONFORM TO TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR) GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL	GENERAL G001	PROJECT INFORMATION, GE SYMBOLS, VICINITY MAP, & L
3.	ORDINANCES. THE WORK SHALL CONFORM TO THE APPLICABLE BUILDING CODE, AND ALL OTHER ORDINANCES, CODES, AND REGULATIONS LISTED IN THE SPECIFICATIONS OR ON THE DRAWINGS, AND REQUIRED BY LOCAL BUILDING AUTHORITIES. THE GOVERNING CODES	G010 G100	LIMIT OF WORK SITE PLAN + SPECIFICATIONS
	RULES, AND REGULATIONS ARE COLLECTIVELY REFFERED TO AS "THE CODE". CONTRACTOR SHALL REPORT ANY INCONSISTENCIES, CONFLICTS OR OMISSIONS HE MAY DISCOVER TO THE OWNER'S PROJECT MANAGER FOR INTERPRETATION PRIOR TO PERFORMING THE WORK.	CIVIL C000 C100 C110	TITLE SHEET EROSION CONTROL PLAN DEMOLITION PLAN
4.	CONSTRUCTION SHALL COMPLY WITH PERTINENT HEALTH AND SAFETY REGULATIONS FOR REQUIRED METHODS PROTECTING PUBLIC AND CONSTRUCTION WORKER'S HEALTH AND SAFETY DURING THE CONSTRUCTION PERIOD.	C200 C201 C210 C400	GRADING AND DRAINAGE PL GRADING AND DRAINAGE DE WALL PROFILE UTILITY PLAN
5.	BEFORE ORDERING ANY MATERIAL, OR DOING ANY WORK, THE CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AT THE BUILDING SITE AND SHALL BE RESPONSIBLE FOR CORRECTNESS OF SAME.	LANDSCAPE	LANDSCAPE PLAN SOUTH
6.	DIMENSIONS SHALL BE AS INDICATED ON THE DRAWINGS. CLARIFICATIONS, IF REQUIRED, SHALL BE OBTAINED FROM THE OWNER'S PROJECT MANAGER. THE DRAWING SHALL NOT BE SCALED.	L102 L201 L202	LANDSCAPE PLAN MID SOUT IRRIGATION PLAN - SOUTH IRRIGATION PLAN - MID SOU
7.	ALL ITEMS MARKED N.I.C. ON THE SPECIFICATIONS AND DRAWINGS MEANS NOT IN CONTRACT.	L203 L204	IRRIGATION LEGEND AND NO IRRIGATION DETAILS
8.	DO NOT MAKE ANY SUBSTITUTIONS WITHOUT PERMISSION OF THE OWNER'S PROJECT MANAGER OR THE OWNER.	L500 L501	LANDSCAPE DETAILS PLANTING SPECS
9.	THE OWNER, ARCHITECT, CONSULTANTS, AND ALL INSPECTORS FROM PERTINENT AGENCIES SHALL BE PERMITTED ACCESS TO THE JOB SITE AT ALL TIMES DURING NORMAL WORKING HOURS.	STRUCTURA S0.1	L GENERAL NOTES
10.	DETAILS ARE INTENDED TO SHOW THE INTENT OF THE DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT THE FIELD DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK OF THE CONTRACT.	S0.2 S1.1 S2.1	GENERAL NOTES TYPICAL DETAILS RETAINING WALL PLAN
11.	THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHODS OF CONSTRUCTION MEANS, METHODS, TECHNICHER, SECURING AND PROCEDURES INCLUDING, BUT NOT UNITED TO PRACING	S3.1 ELECTRICAL	DETAILS
	AND SHORING. OBSERVATION VISITS TO THE SITE BY FIELD REPRESENTATIVES OF THE ARCHITECT AND/OR ENGINEER SHALL NOT INCLUDE INSPECTIONS OF THE PROTECTIVE MEASURES TO THE CONSTRUCTION PROCEDURES.	E100 E101 E102 F110	GENERAL NOTES, ABBREVIA OUTDOOR TITLE 24 PAGE 1 OUTDOOR TITLE 24 PAGE 2 - SITE ELECTRICAL DEMOLITION
12.	ANY SUPPORT SERVICES PERFORMED BY THE ARCHITECT AND/OR ENGINEER DURING THE CONSTRUCTION SHALL BE DISTINGUISHED FROM CONTINUOUS AND DETAILED INSPECTION SERVICES WHICH IS FURNISHED BY OTHERS. THESE SUPPORT SERVICES PERFORMED BY THE ARCHITECT AND/OR AFTER COMPLETION OF CONSTRUCTION, ARE PERFORMED	E130 E131 E200 E300	SITE LIGHTING PLAN - NEW A LIGHTING PHOTOMETRIC PL MYERS PEDESTAL 'A' AND PA ELECTRICAL DETAILS
	SULELY FUR THE PURPUSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING	TD (1105 6	

TRANSPORTATION SS1 SIGNING & STRIPING PLAN - CITY OF REDONDO BEACH SS2 SIGNING & STRIPING PLAN - CITY OF REDONDO BEACH TS1 PROSPECT/ DIAMOND VIDEO DETECTION DELTA CHANGE

- GENERAL CONFORMANCE WITH CONTRACT DOCUMENTS, BUT DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSTRUED AS SUPERVISION OF CONSTRUCTION.
- 13. IN THE EVENT OF CONFLICTING REQUIREMENTS BETWEEN ITEMS ON THE DRAWING OR BETWEEN ITEMS IN THE SPECIFICATIONS, OR BETWEEN ITEMS ON THE DRAWINGS AND IN THE SPECIFICATIONS, THE MORE STRINGENT OR COSTLY SHALL GOVERN, UNLESS DECIDED OTHERWISE BY THE OWNER'S PROJECT MANAGER.
- 14. THE GENERAL CONTRACTOR AND FABRICATOR SHALL COORDINATE AND SCHEDULE REQUIRED MEETINGS AND SITE VISITS WITH THE OWNER'S PROJECT MANAGER TO COINCIDE ON SAME DAY WHENEVER POSSIBLE.
- 15. ARCHITECT MAKES NO GUARANTEES FOR PRODUCTS NAMED BY TRADE NAME OR MANUFACTURER.
- 16. THE CONTRACTOR AND FABRICATOR SHALL COORDINATE WORK WITH ALL TRADES ON THE PROJECT. ANY CHANGES OR DELAYS ARISING FROM CONFLICTS BETWEEN TRADES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND FABRICATOR.
- 17. AT THE TIME OF BID SUBMITTAL, THE GENERAL CONTRACTOR AND FABRICATOR SHALL ADVISE OWNER'S PROJECT MANAGER IN WRITING OF ANY SPECIFIED MATERIALS OR EQUIPMENT WHICH ARE EITHER UNAVAILABLE OR WILL CAUSE A DELAY IN THE CONSTRUCTION COMPLETION SCHEDULE.
- 18. THE CONTRACTOR AND FABRICATOR SHALL SUBMIT ALL PERTINENT SHOP DRAWINGS TO OWNER'S PROJECT MANAGER FOR REVIEW, ALLOWING ADEQUATE TIME FOR SUCH REVIEW AND CORRECTIVE ACTION, SHOULD IT BE REQUIRED.
- 19. ALL MATERIALS USED SHALL BE NEW, FIRST QUALITY UNLESS NOTED OTHERWISE.
- 20. THE GENERAL CONTRACTOR AND FABRICATOR SHALL PROVIDE FULL PROTECTION FOR THE PUBLIC.
- 21. THE GENERAL CONTRACTOR AND FABRICATOR SHALL BE RESPONSIBLE FOR MAINTAINING FULL TIME SUPERVISION AND SECURITY FOR ALL PUBLIC AND PRIVATE PROJECT AREAS.
- 22. REFER TO DIVISION 00 AND DIVISION 01 PROJECT MANUAL FOR BID AND GENERAL
- REQUIREMENTS.

SYMBOLS



ORMATION, GENERAL NOTES, ABBREVIATIONS, ICINITY MAP, & LOT LINE DETERMINATIONS RK SITE PLAN + WATERPROOFING

ID DRAINAGE PLAN ID DRAINAGE DETAILS

PLAN MID SOUTH PLAN - MID SOUTH LEGEND AND NOTES

DTES, ABBREVIATIONS, SYMBOLS & DRAWING LIST ITLE 24 PAGE 2 - INSTALLATION CERTIFICATION

RICAL DEMOLITION PLAN IG PLAN - NEW WORK IOTOMETRIC PLAN ESTAL 'A' AND PANEL SCHEDULE

PROJECT INFORMATION

PROJECT ADDRESS:

OWNER:

PROJECT DESCRIPTION:

OWNER PROJECT MANAGER:

CONSULTANT TEAM

ARCHITECT:

CIVIL ENGINEER:

STRUCTURAL ENGINEER:

LANDSCAPE ARCHITECT

ELECTRICAL ENGINEER:

TRANSPORTATION CONSULTANT:

GEOTECHNICAL ENGINEER:

514 N. PROSPECT AVENUE REDONDO BEACH, CA 90277

THE PROJECT IS LOCATED AT FLAGLER LANE IN THE CITY OF REDONDO BEACH IN THE SOUTH BAY REGION OF LOS ANGELES COUNTY. THIS PROJECT LIMITS ARE GENERALLY FROM THE INTERSECTION OF DIAMOND STREET AND PROSPECT AVENUE TO THE CITY LINE OF REDONDO BEACH AT THE FLAGLER ALLEY. REFER TO THE LIMIT OF WORK SITE PLAN ON G100.

CLASS III SHARROWS ON DIAMOND STREET AT PROSPECT AVENUE TRANSITIONS TO A CLASS I BIKE PATH AT FLAGLER ALLEY. NEW RETAINING WALL, REGRADING WORK, LANDSCAPING AND IRRIGATION, STREET LIGHTING AND METER, SIGNAGE, PAVING AND STRIPING. NEW VIDEO DETECTION AND PEDESTRIAN IMPROVEMENTS AT THE DIAMOND STREET AND PROSPECT AVENUE INTERSECTION

BEACH CITIES HEALTH DISTRICT 514 N. PROSPECT AVENUE REDONDO BEACH, CA 90277

CBRE | HEERY 400 SOUTH HOPE STREET, 25TH FLOOR LOS ANGELES, CA 90071

PAUL MURDOCH ARCHITECTS 6310 SAN VICENTE BLVD SUITE 400 LOS ANGELES, CA 90048

LABIB FUNK + ASSOCIATES 319 MAIN STREET EL SEGUNDO, CA 90245

LABIB FUNK + ASSOCIATES 319 MAIN STREET EL SEGUNDO, CA 90245

PAMELA BURTON & COMPANY 1430 OLYMPIC BLVD SANTA MONICA, CA 90404

LUCCI & ASSOCIATES, INC 3251 CORTE MALPASO, SUITE 511 CAMARILLO, CA 93012

FEHR & PEERS 600 WILSHIRE BOULEVARD, SUITE 1050 LOS ANGELES, CA 90017

FEFFER GEOTECHNICAL CONSULTING 1990 S. BUNDY DRIVE, SUITE 400 LOS ANGELES, CA 90025

APPLICABLE CODES + STANDARDS

2019 CALIFORNIA STANDARDS BUILDING CODE 2019 CALIFORNIA ELECTRICAL CODE

2010 AMERICANS WITH DISABILITIES ACT (ADA) TITLE II

LOT LINE DETERMINATIONS



THESE PLANS HAVE BEEN REVIEWED BY

FEFFER GEOLOGICAL AND CONFORM TO THE



VICINITY MAP







PAUL MURDOCH ARCHITECTS

6310 SAN VICENTE BLVD SUITE 400 LOS ANGELES, CALIFORNIA 90048 310 358-0993

THE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGN, AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT. AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS, OR USED IN CONNECTION WITH ANY WORK OR PROJECT THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT. VISUAL CONTACT WITH THESE DRAWINGS OF SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR REVIEW BEFORE PROCEEDING WITH FABRICATION



DATE REVISION

DIAMOND STREET + FLAGLER LANE BIKE PATH **REDONDO BEACH**

DIAMOND LANE REDONDO BEACH, CA 90277 FLAGLER LANE & TOWERS STREET TORRANCE, CA 90503

PMA PROJECT NO. 20007

AWING TITLE PROJECT INFORMATION, GENERAL NOTES, ABBREVIATIONS, SYMBOLS, VICINITY MAP & LOT LINE DETERMINATIONS

AS INDICATED

04/12/2023

AO

SHEET NO.



G001

CHECKED PM



SECTION 071326 – SELF-ADHERING SHEET WATERPROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.
- **1.2 SECTION INCLUDES**
- A. BELOW-GRADE RUBBERIZED ASPHALT, SELF-ADHERING, SHEET MEMBRANE WATERPROOFING SYSTEM.
- B. PREFABRICATED DRAINAGE PANEL COMPOSITE. C. PROTECTION BOARD.
- **1.3 ACTION SUBMITTALS**
- A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA, INSTALLATION INSTRUCTIONS, USE LIMITATIONS AND RECOMMENDATIONS. INCLUDE CERTIFICATION OF DATA INDICATING VOC (VOLATILE ORGANIC COMPOUND) CONTENT OF ALL COMPONENTS OF THE WATERPROOFING SYSTEM.
- B. SAMPLES: SUBMIT REPRESENTATIVE SAMPLES OF THE FOLLOWING FOR APPROVAL:
- 1.SHEET MEMBRANE. 2.PREFABRICATED DRAINAGE COMPOSITE. **3.PROTECTION BOARD.**
- 1.4 INFORMATIONAL SUBMITTALS
- A. WARRANTY: SAMPLE OF SPECIAL WARRANTY.
- **1.5 CLOSEOUT SUBMITTALS** A. WARRANTY: EXECUTED SPECIAL WARRANTY SPECIFIED IN THIS SECTION.
- 1.6 QUALITY ASSURANCE
- A. MANUFACTURER: SHEET MEMBRANE WATERPROOFING SYSTEMS SHALL BE MANUFACTURED AND MARKETED BY A FIRM WITH A MINIMUM OF 20 YEARS EXPERIENCE IN THE PRODUCTION AND SALES OF SELF-ADHESIVE SHEET MEMBRANE WATERPROOFING. MANUFACTURERS PROPOSED FOR USE. BUT NOT NAMED IN THESE SPECIFICATIONS SHALL SUBMIT EVIDENCE OF ABILITY TO MEET ALL REQUIREMENTS SPECIFIED. AND INCLUDE A LIST OF PROJECTS OF SIMILAR DESIGN AND COMPLEXITY COMPLETED WITHIN THE PAST 5 YEARS.
- B. INSTALLER: A FIRM WHICH HAS AT LEAST 3 YEARS OF EXPERIENCE IN WORK OF THE TYPE REQUIRED BY THIS SECTION. C. SOURCE QUALITY CONTROL: FOR EACH TYPE OF MATERIAL REQUIRED FOR THE WORK OF THIS SECTION, PROVIDE PRIMARY MATERIALS WHICH ARE THE PRODUCTS OF ONE MANUFACTURER.
- D. PRE-INSTALLATION CONFERENCE: A PRE-INSTALLATION CONFERENCE SHALL BE HELD PRIOR TO COMMENCEMENT OF FIELD OPERATIONS TO ESTABLISH PROCEDURES TO MAINTAIN OPTIMUM WORKING CONDITIONS AND TO COORDINATE THIS WORK WITH RELATED AND ADJACENT WORK. AGENDA FOR MEETING SHALL INCLUDE REVIEW OF SPECIAL DETAILS AND FLASHING.
- 1.7 DELIVERY, STORAGE AND HANDLING
- A. DELIVER MATERIALS AND PRODUCTS IN LABELED PACKAGES. STORE AND HANDLE IN STRICT COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS, RECOMMENDATIONS AND MATERIAL SAFETY DATA SHEETS. PROTECT FROM DAMAGE FROM SUNLIGHT, WEATHER, EXCESSIVE TEMPERATURES AND CONSTRUCTION OPERATIONS. REMOVE DAMAGED MATERIAL FROM THE SITE AND DISPOSE OF IN ACCORDANCE WITH APPLICABLE REGULATIONS.
- B. DO NOT DOUBLE-STACK PALLETS OF MEMBRANE ON THE JOB SITE. PROVIDE COVER ON TOP AND ALL SIDES, ALLOWING FOR ADEQUATE VENTILATION. C. PROTECT PRIMER, MASTIC AND ADHESIVE FROM MOISTURE AND POTENTIAL SOURCES OF IGNITION.
- D. STORE DRAINAGE COMPOSITE OR PROTECTION BOARD FLAT AND OFF THE GROUND. PROVIDE COVER ON TOP AND ALL SIDES. E. SEQUENCE DELIVERIES TO AVOID DELAYS, BUT MINIMIZE ON-SITE STORAGE.
- **1.8 SITE CONDITIONS**

A. PERFORM WORK ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS ARE WITHIN THE LIMITS ESTABLISHED BY THE MANUFACTURER OF THE MATERIALS AND PRODUCTS USED. B. PROCEED WITH INSTALLATION ONLY WHEN SUBSTRATE CONSTRUCTION AND PREPARATION WORK IS COMPLETE AND IN CONDITION TO RECEIVE SHEET MEMBRANE WATERPROOFING.

- 1.9 WARRANTY
- A. SPECIAL MANUFACTURER'S WARRANTY: MANUFACTURER'S STANDARD FORM IN WHICH MANUFACTURER AGREES TO REPLACE WATERPROOFING MATERIAL THAT DOES NOT COMPLY WITH REQUIREMENTS OR THAT FAILS TO REMAIN WATERTIGHT WITHIN SPECIFIED WARRANTY PERIOD
- 1.WARRANTY DOES NOT INCLUDE FAILURE OF WATERPROOFING DUE TO FAILURE OF SUBSTRATE PREPARED AND TREATED ACCORDING TO REQUIREMENTS OR FORMATION OF NEW JOINTS AND CRACKS IN SUBSTRATE EXCEEDING 1/16 INCH (1.6 MM) IN WIDTH. 2.WARRANTY PERIOD: FIVE YEARS FROM DATE OF SUBSTANTIAL COMPLETION.

2.1 MATERIALS A. SHEET MEMBRANE WATERPROOFING: BITUTHENE 3000/LOW TEMPERATURE MEMBRANE BY GCP APPLIED TECHNOLOGIES A SELF-ADHESIVE, COLD-APPLIED COMPOSITE SHEET CONSISTING OF A THICKNESS OF 1.4 MM (0.056 IN.) OF RUBBERIZED ASPHALT AND 0.1 MM (0.004 IN.) OF CROSS-LAMINATED, HIGH DENSITY POLYETHYLENE FILM. PROVIDE RUBBERIZED ASPHALT MEMBRANE COVERED WITH A RELEASE SHEET WHICH IS REMOVED DURING INSTALLATION. NO SPECIAL ADHESIVE OR HEAT SHALL BE REQUIRED TO FORM LAPS.

B. PROTECTION BOARD: 1.EXPANDED POLYSTYRENE PROTECTION BOARD: 25 MM (1 IN.) THICK FOR VERTICAL APPLICATIONS WITH THE FOLLOWING CHARACTERISTICS. ADHERE TO WATERPROOFING MEMBRANE WITH BITUTHENE PROTECTION BOARD ADHESIVE.

- A. NORMAL DENSITY: 16 KG/M³ (1.0 LB/FT³) B. THERMAL CONDUCTIVITY, K FACTOR: 0.24 AT 5°C (40°F), 0.26 AT 24°C (75°F)
- C. THERMAL RESISTANCE, R-VALUE: 4 PER 25 MM (1 IN.) OF THICKNESS

2.2 AUXILIARY MATERIALS

A. GENERAL: FURNISH AUXILIARY MATERIALS RECOMMENDED BY WATERPROOFING MANUFACTURER FOR INTENDED USE AND COMPATIBLE WITH SHEET WATERPROOFING. 1.FURNISH LIQUID-TYPE AUXILIARY MATERIALS THAT COMPLY WITH VOC LIMITS OF AUTHORITIES HAVING JURISDICTION

PRIMER: LIQUID WATERBORNE PRIMER RECOMMENDED FOR SUBSTRATE BY MANUFACTURER OF SHEET WATERPROOFING MATERIAL. B. SURFACE CONDITIONER: LIQUID, WATERBORNE SURFACE CONDITIONER RECOMMENDED FOR SUBSTRATE BY MANUFACTURER OF SHEET WATERPROOFING MATERIAL. C. LIQUID MEMBRANE: BITUTHENE LIQUID MEMBRANE; ELASTOMERIC, TWO-COMPONENT LIQUID, COLD FLUID APPLIED, TROWEL GRADE OR LOW

VISCOSITY. D. SUBSTRATE PATCHING MEMBRANE: LOW-VISCOSITY, TWO-COMPONENT, ASPHALT-MODIFIED COATING. E. METAL TERMINATION BARS: ALUMINUM BARS, APPROXIMATELY 1 BY 1/8 INCH (25 BY 3 MM) THICK, PREDRILLED AT 9-INCH (229-MM) CENTERS.

PART 3 - EXECUTION

3.1 EXAMINATION A. THE INSTALLER SHALL EXAMINE CONDITIONS OF SUBSTRATES AND OTHER CONDITIONS UNDER WHICH THIS WORK IS TO BE PERFORMED AND NOTIFY THE CONTRACTOR, IN WRITING, OF CIRCUMSTANCES DETRIMENTAL TO THE PROPER COMPLETION OF THE WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.

3.2 PREPARATION A. REFER TO MANUFACTURER'S LITERATURE FOR REQUIREMENTS FOR PREPARATION OF SUBSTRATES. SURFACES SHALL BE STRUCTURALLY SOUND AND FREE OF VOIDS, SPALLED AREAS, LOOSER AGGREGATE AND SHARP PROTRUSIONS. REMOVE CONTAMINATES SUCH AS GREASE, OIL AND WAX FROM EXPOSED SURFACES. REMOVE DUST, DIRT, LOOSE STONE AND DEBRIS. USE REPAIR MATERIALS AND METHODS WHICH ARE ACCEPTABLE TO MANUFACTURER OF SHEET MEMBRANE WATERPROOFING.

B. CAST-IN-PLACE CONCRETE SUBSTRATES: 1.DO NOT PROCEED WITH INSTALLATION UNTIL CONCRETE HAS PROPERLY CURED AND DRIED (MINIMUM 7 DAYS FOR NORMAL STRUCTURAL CONCRETE AND MINIMUM 14 DAYS FOR LIGHTWEIGHT STRUCTURAL CONCRETE).

2.FILL FORM TIE ROD HOLES WITH CONCRETE AND FINISH FLUSH WITH SURROUNDING SURFACE. 3.REPAIR BUGHOLES OVER 13 MM (0.5 IN.) IN LENGTH AND 6 MM (0.25 IN.) DEEP AND FINISH FLUSH WITH SURROUNDING SURFACE. 4.REMOVE SCALING TO SOUND, UNAFFECTED CONCRETE AND REPAIR EXPOSED AREA.

5. GRIND IRREGULAR CONSTRUCTION JOINTS TO SUITABLE FLUSH SURFACE. MASONRY SUBSTRATES: APPLY WATERPROOFING OVER CONCRETE BLOCK AND BRICK WITH SMOOTH TROWEL-CUT MORTAR JOINTS OR PARGE COAT. C. WOOD SUBSTRATES: APPLY WATERPROOFING MEMBRANE OVER SECURELY FASTENED SOUND SURFACE. ALL JOINTS AND FASTENERS SHALL

BE FLUSH TO CREATE A SMOOTH SURFACE. D. RELATED MATERIALS: TREAT JOINTS AND INSTALL FLASHING AS RECOMMENDED BY WATERPROOFING MANUFACTURER.

- 3.3 INSTALLATION
- A. REFER TO MANUFACTURER'S LITERATURE FOR RECOMMENDATIONS ON INSTALLATION, INCLUDING BUT NOT LIMITED TO, THE FOLLOWING: 1.APPLY PRIMER AT THE RATE RECOMMENDED BY MANUFACTURER. RECOAT AREAS NOT WATERPROOFED IF CONTAMINATED BY DUST. MASK AND PROTECT ADJOINING EXPOSED FINISH SURFACES TO PROTECT THOSE SURFACES FROM EXCESSIVE APPLICATION OF PRIMER. 2. DELAY APPLICATION OF MEMBRANE UNTIL PRIMER IS COMPLETELY DRY. DRY TIME WILL VARY WITH WEATHER CONDITIONS. 3.SEAL DAILY TERMINATIONS WITH TROWELED BEAD OF MASTIC.
 - VERTICAL SURFACES: APPLY MEMBRANE IN LENGTH UP TO 8-FEET (2.5M). OVERLAP ALL SEAMS AT LEAST 2-INCHES (50MM). ON HIGHER WALLS APPLY MEMBRANE IN TWO OR MORE SECTIONS WITH THE UPPER OVERLAPPING THE LOWER BY AT LEAST 2-INCHS (50MM). ROLL ALL MEMBRANE WITH A HAND ROLLER.
- B. TERMINATE THE MEMBRANE AT GRADE LEVEL. SECURE INTO A REGLET OR TERMINATION BAR TO ENSURE A TIGHT SEAL.
- C. TERMINATE MEMBRANE AT THE BASE OF THE WALL IF THE BOTTOM OF THE INTERIOR FLOOR SLAB IS AT LEAST 6-INCHES (150MM) ABOVE THE FOOTING. OTHERWISE, USE APPROPRIATE INSIDE CORNER DETAIL WHERE THE WALL AND FOOTING MEET. D. WHERE REQUIRED, APPLY PROTECTION BOARD AND RELATED MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. E. MEMBRANE REPAIRS:
- 1.PATCH TEARS AND INADEQUATELY LAPPED SEAMS WITH MEMBRANE. CLEAN MEMBRANE WITH DAMP CLOTH AND DRY. 2.SLIT FISHMOUTHS AND REPAIR WITH A PATCH EXTENDING 6-INCHES (150MM) IN ALL DIRECTION FROM THE SLIT AND SEAL EDGES OF THE PATCH WITH BITUTHENE LIQUID MEMBRANE. 3. INSPECT THE MEMBRANE THOROUGHLY BEFORE COVERING AND MAKE ANY REPAIRS.
- 3.4 MOLDED-SHEET DRAINAGE PANEL INSTALLATION

A. PLACE AND SECURE MOLDED-SHEET DRAINAGE PANELS, WITH GEOTEXTILE FACING AWAY FROM WALL OR DECK SUBSTRATE, ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. USE ADHESIVES OR MECHANICAL FASTENERS THAT DO NOT PENETRATE WATERPROOFING. LAP EDGES AND ENDS OF GEOTEXTILE TO MAINTAIN CONTINUITY. PROTECT INSTALLED MOLDED-SHEET DRAINAGE PANELS DURING SUBSEQUENT CONSTRUCTION.

- 1.FOR VERTICAL APPLICATIONS, INSTALL PROTECTION BOARD BEFORE INSTALLING DRAINAGE PANELS. PLACE BACKFILL AS SOON AS POSSIBLE. USE CARE DURING BACKFILL OPERATION TO AVOID DAMAGE TO THE WATERPROOFING SYSTEM. FOLLOW GENERALLY ACCEPTED PRACTICES FOR BACKFILLING AND COMPACTION. BACKFILL SHOULD BE ADDED AND COMPACTED IN 6-INCH
- (150MM) TO 12-INCH (300MM) LIFTS. B. FOR AREAS WHICH CANNOT BE FULLY COMPACTED, INSTALL TERMINATION BAR ACROSS THE TOP TERMINATION OF THE MEMBRANE.
- 3.5 CLEANING A. REMOVE ANY MASKING MATERIALS AFTER INSTALLATION. CLEAN ANY STAINS ON MATERIALS WHICH WOULD BE EXPOSED IN THE COMPLETED WORK.

B. CONSTRUCTION WASTE MANAGEMENT: MANAGE CONSTRUCTION WASTE IN ACCORDANCE WITH PROVISIONS OF SECTION 01 74 19 CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL.

3.6 PROTECTION A. PROTECT COMPLETED MEMBRANE WATERPROOFING FROM SUBSEQUENT CONSTRUCTION ACTIVITIES AS RECOMMENDED BY MANUFACTURER. END OF SECTION 071326

1" = 40'-0"

SYMBOL LEGEND

PAUL MURDOCH ARCHITECTS

6310 SAN VICENTE BLVD SUITE 400 LOS ANGELES, CALIFORNIA 90048 310 358-0993

THE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGN, AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT. AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS, OR USED IN CONNECTION WITH ANY WORK OR PROJECT THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED WITHOUT THI WRITTEN CONSENT OF THE ARCHITECT. VISUAL CONTACT WITH THESE DRAWINGS O SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR REVIEW BEFORE PROCEEDING WITH FABRICATION

DATE

REVISION

DIAMOND STREET + FLAGLER LANE BIKE REDORBO BEACH

DIAMOND LANE REDONDO BEACH, CA 90277 **FLAGLER LANE & TOWERS** STREET TORRANCE, CA 90503

MA PROJECT NO. 20007

WING TITL

LIMIT OF WORK SITE PLAN + WATERPROOFING SPECIFICATIONS

As indicated

04/12/2023

SHEET NO.

CHECKED

PM

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CITY OF REDONDO BEACH DEPARTMENT OF ENGINEERING & BUILDING SERVICES GENERAL ENGINEERING NOTES

A.	MYLAR COPY OF THE RECORDED TRACT MAP/PARCEL MAP SHALL BE SUBMITTED TO THE CITY ENGINEER, PRIOR TO REQUESTING FINAL BUILDING INSPECTION.
В.	RECORDED COPY OF THE REQUIRED COVENANT/EASEMENT/DEED/DEED RESTRICTION SHALL BE SUBMITTED TO THE CITY ENGINEER, PRIOR TO REQUESTING FINAL BUILDING INSPECTION.

- ALL EASEMENTS, OIL WELLS, SUBSTRUCTURES, SUPERSTRUCTURES, LANDSCAPE, HARDSCAPE, UTILITY POLES, UTILITY BOXES, UTILITY VENTS, UTILITY VAULTS, UTILITY CABINETS, UTILITY OVERHEAD LINES AND WATER HYDRANTS ARE SHOWN ON THIS SITE PLAN.
- CONTRACTOR, AT ITS SOLE COST, SHALL ENSURE THAT PERMITTED WORK WILL NOT CREATE POTENTIAL FLOODING OF NEIGHBORING IMPROVEMENTS, NOR WILL IT ALTER THE EXISTING COURSE OF WATER FLOW.
- CONTRACTOR SHALL NOTIFY CITY ENGINEERING DIVISION 48 HOURS PRIOR TO COMMENCING ANY WORK IN PUBLIC RIGHT OF WAY.
- WORK IN PUBLIC RIGHT OF WAY, SHALL COMPLY WITH THE LATEST EDITION OF APWA STANDARD PLANS AND SPECIFICATIONS, AND SHALL BE EXECUTED TO THE SATISFACTION OF CITY ENGINEER AND/OR HIS REPRESENTATIVE.
- WORK IN PUBLIC RIGHT OF WAY SHALL BE PERFORMED BY LICENSED CONTRACTORS. CONTRACTORS AND SUBCONTRACTORS SHALL POSSESS VALID REDONDO BEACH BUSINESS LICENSES.
- H. CONTRACTOR SHALL MAINTAIN CONSTRUCTION PERMITS AND AN APPROVED SET OF PLANS ON SITE AT ALL TIME. CONTRACTOR SHALL SURRENDER ALL REQUIRED CONSTRUCTION DOCUMENTS TO THE CITY ENGINEER AND/OR HIS REPRESENTATIVE UPON DEMAND.
- PRIOR TO ISSUANCE OF THE BUILDING/ENGINEERING PERMIT, CONTRACTOR MUST PROVIDE PROOF OF INSURANCE. CONTRACTOR SHALL MAINTAIN ON CITY FILES APPROVED ONE MILLION DOLLAR GENERAL LIABILITY NAMING THE CITY ADDITIONAL INSURED, WITH 30-DAY CANCELLATION NOTICE. THE INSURANCE POLICY SHALL STATE "THE CITY OF REDONDO BEACH. ITS OFFICERS. ELECTED OFFICIALS, ATTORNEYS, EMPLOYEES, MEMBERS OF BOARDS AND COMMISSIONS, AGENTS AND VOLUNTEERS ARE HEREBY NAMED ADDITIONAL INSURED." THE CERTIFICATE OF INSURANCE MUST STATE THAT THE INSURANCE IS "PRIMARY" AND NOT EXCESS. THE CANCELLATION CLAUSE SHALL STATE "SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT.'
- CONTRACTOR SHALL REPLACE AT ITS SOLE COST, DAMAGED SIDEWALK, DRIVEWAYS, CURB, GUTTER AND PAVEMENT TO THE SATISFACTION OF THE CITY ENGINEER AND/OR HIS REPRESENTATIVE.
- K. CONSTRUCT NEW COMMERCIAL CONCRETE DRIVEWAY TYPE ____ WHERE NOTED ON SITE PLAN. NEW CONCRETE SHALL BE CLASS 520-C-2500.
- CONSTRUCT NEW CONCRETE SIDEWALK WHERE NOTED ON SITE PLAN. NEW SIDEWALK SHALL MATCH EXISTING. NEW CONCRETE SHALL BE CLASS 520-C-2500.
- M. CONSTRUCT NEW CONCRETE CURB AND GUTTER WHERE NOTED ON SITE PLAN. NEW CURB SHALL HAVE FACE HEIGHT OF 6 INCHES OR MATCH EXISTING. NEW GUTTER SHALL BE 12 INCHES WIDE OR MATCH EXISTING. NEW CONCRETE SHALL BE CLASS 520-C-2500.
- N. CONSTRUCT NEW FULL-DEPTH ASPHALT CONCRETE PAVEMENT WHERE NOTED ON SITE PLAN. NEW ASPHALTIC CONCRETE SHALL BE CLASS D1-PG-64-10.
- O. CONSTRUCT NEW CONCRETE CURB RAMP WITH ADJACENT 3-FOOT MINIMUM ASPHALTIC CONCRETE PAVEMENT, WHERE NOTED ON SITE PLAN. NEW CONCRETE SHALL BE CLASS 520-C-2500. NEW ASPHALTIC CONCRETE SHALL BE CLASS D1-PG-64-10.
- P. NEW SEWER LATERAL SHALL BE CONNECTED TO MAIN SEWER LINE WITHIN PROPERTY FRONTAGE. SEWER LATERAL SHALL BE PERPENDICULAR TO MAIN SEWER LINE. MINIMUM SEWER LATERAL DIAMETER SHALL BE 4-INCH. NO CONNECTION TO EXISTING SEWER IS ALLOWED UNLESS THE EXISTING SEWER MEETS THE CURRENT CODE REQUIREMENTS AND THE APPROVAL OF THE BUILDING DIVISION. QUALITY/QUANTITY OF SEWAGE CONSTITUENTS SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE WASTEWATER ORDINANCE OF THE SANITATION DISTRICTS OF LOS ANGELES COUNTY. PROVIDE 6-INCH CLEAN-OUT IMMEDIATELY BEHIND SIDEWALK. ENCASE CLEAN-OUT IN CONCRETE BOX MARKED "S" OR "SEWER". DESIGN SHALL BE PERFORMED BY A REGISTERED CIVIL ENGINEER.
- Q. NEW PUBLIC OR QUASI-PUBLIC UTILITY FACILITIES SHALL BE LOCATED IN PUBLIC PARKWAY (THE LANDSCAPED AREAS BETWEEN THE CURB AND THE SIDEWALK OR THE CITY'S RIGHT OF WAY LINE), OUTSIDE OF CURB RAMPS, DRIVEWAYS AND SIDEWALK. UNLESS OTHERWISE NOTED ON SITE PLAN.
- R. TRAFFIC DELINEATION SHALL BE EXECUTED IN ACCORDANCE WITH THE LATEST EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA-MUTCD) AND TO THE SATISFACTION OF THE CITY ENGINEER AND/OR HIS REPRESENTATIVE.
- S. COMMERCIAL VEHICLES TRANSPORTING SOIL, EQUIPMENT OR CONSTRUCTION MATERIALS, AND HAVING UNLADEN WEIGHT AS DEFINED IN SECTION 660 OF CVC OF 6,000 POUNDS OR MORE OR HAVING MANUFACTURER'S GROSS WEIGHT RATING AS DEFINED IN SECTION 390 OF CVC OF 10,000 POUNDS OR MORE SHALL USE DESIGNATED TRUCK ROUTE TO COMMUTE TO PROJECT SITE. ANY COMMERCIAL VEHICLE HAVING A FULLY LADEN WEIGHT OF 20,000 POUNDS OR MORE SHALL NOT USE CONDITIONAL TRUCK ROUTE.
- T. PUBLIC WORKS INSPECTOR SHALL INSPECT ALL STREET IMPROVEMENTS; ALL SEWER SYSTEMS INCLUDING ALL PIPING, TRENCHING, BACKFILLING AND SEWER EJECTOR; ALL STORM DRAIN SYSTEMS INCLUDING ALL PIPING, TRENCHING, BACKFILLING, CATCH BASINS, SUMP PUMPS AND OIL/WATER SEPARATOR. FIRST INSPECTION SHALL TAKE PLACE AFTER FORMS ARE IN PLACE FOR SIDEWALKS, DRIVEWAYS, ETC. OR AT THE TIME OF CONSTRUCTING THE SEWER LINE SADDLE. SECOND INSPECTION SHALL TAKE PLACE WHILE SIDEWALKS, DRIVEWAYS, ETC., ARE BEING POURED AND FINISHED OR AT THE TIME OF BACKFILLING. BACKFILLING, COMPACTION AND TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH CITY STANDARDS AND TO THE SATISFACTION OF THE CITY ENGINEER AND/OR HIS REPRESENTATIVE. FINAL INSPECTION WILL BE MADE AFTER CITY BUILDING DIVISION HAS MADE THEIR FINAL INSPECTION. AT THAT TIME, IF ALL WORK PERTAINING TO PUBLIC RIGHT OF WAY IS IN GOOD ORDER, THE PERMIT DEPOSITS WILL BE RELEASED, LESS ANY AND ALL CHARGES.
- CONTRACTOR SHALL ARRANGE FOR PUBLIC WORKS INSPECTION 24 HOURS IN ADVANCE. CONTRACTOR SHALL CONTACT THE ENGINEERING SERVICES DIVISION AT (310) 937-6653 BEFORE 3:00 P.M. FOR ALL INSPECTION REQUESTS. CALLS RECEIVED AFTER 3:00 P.M. SHALL NOT BE SCHEDULED FOR NEXT BUSINESS DAY INSPECTION.
- V. CONTRACTOR SHALL SUBMIT COMPACTION REPORTS AND CONCRETE/ASPHALT CLASS CERTIFICATES TO THE ENGINEERING SERVICES DIVISION PRIOR TO REQUESTING FINAL INSPECTION.
- W. DUST CONTROL SHALL BE ENFORCED TO THE SATISFACTION OF THE CITY ENGINEER AND/OR HIS REPRESENTATIVE THROUGHOUT CONSTRUCTION.
- X. NOISE CONTROL SHALL BE ENFORCED TO THE SATISFACTION OF THE CITY ENGINEER AND/OR HIS REPRESENTATIVE THROUGHOUT CONSTRUCTION. ACTUAL CONSTRUCTION ACTIVITIES IN PUBLIC RIGHT OF WAY MAY OCCUR FROM 7:00 A.M. TO 6:00 P.M., MONDAY THROUGH FRIDAY. NO WORK IN PUBLIC RIGHT OF WAY SHALL OCCUR ON SATURDAYS WITHOUT PRIOR AUTHORIZATION FROM THE CITY ENGINEER AND/OR HIS REPRESENTATIVE. AUTHORIZED WORK ON SATURDAYS SHALL OCCUR FROM 9:00 A.M. TO 5:00 P.M. NO WORK IN PUBLIC RIGHT OF WAY SHALL OCCUR ON SUNDAYS OR NATIONAL HOLIDAYS
- Y. PUBLIC RIGHT OF WAY SHALL BE KEPT CLEAR AND CLEAN TO THE SATISFACTION OF THE CITY ENGINEER AND/OR HIS REPRESENTATIVE THROUGHOUT CONSTRUCTION. NO STORAGE OF DEBRIS, MATERIALS OR EQUIPMENT SHALL BE ALLOWED ON PUBLIC RIGHT OF WAY WITHOUT PRIOR WRITTEN CONSENT FROM THE CITY ENGINEER AND/OR HIS REPRESENTATIVE SUCH CONSENT SHALL BE RENEWED DAILY. IF CITY CREWS ARE CALLED UPON TO PERFORM WORK OF CONTRACTOR, REGARDING CITY RIGHT OF WAY, CONTRACTOR SHALL BE CHARGED FOR ALL EXPENSES INCURRED BY CITY CREWS.
- Z. CONTRACTOR SHALL LOCATE AND PROTECT IN PLACE EXISTING UTILITIES AT ITS SOLE COST. CONTRACTOR SHALL REPAIR, AT ITS COST AND TO THE SATISFACTION OF THE CITY ENGINEER. HIS REPRESENTATIVE AND/OR TO THE UTILITY COMPANIES, ANY DAMAGE INFLICTED BY CONTRACTOR ON EXISTING UTILITIES.
- AA. CONTRACTOR SHALL LOCATE AND PROTECT IN PLACE EXISTING SURVEY POINTS AT ITS SOLE COST. CONTRACTOR SHALL RE-ESTABLISH DAMAGED SURVEY POINTS, AT ITS SOLE COST, AND TO THE SATISFACTION OF THE CITY ENGINEER AND/OR HIS REPRESENTATIVE.
- BB. CONTRACTOR SHALL REPLACE AT ITS SOLE COST, REMOVED/DAMAGED TREES/LANDSCAPING WITHIN PUBLIC RIGHT OF WAY, TO THE SATISFACTION OF THE CITY ENGINEER AND/OR HIS REPRESENTATIVE.

GENERAL NOTES

- 1. ALL NEW CONSTRUCTION SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND LATEST EDITIONS OF THE CALIFORNIA BUILDING CODE, "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", AND CITY OF REDONDO BEACH LOCAL ORDINANCES AS APPLICABLE.
- ALL GRADING WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS AND RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL INVESTIGATION "GEOTECHNICAL INVESTIGATION REPORT, PROPOSED BIKE PATH PROJECT " DATED SEPTEMBER 25, 2020 BY CONVERSE CONSULTANTS.
- THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS.
- PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL JOIN CONDITIONS FOR GRADING. DRAINAGE AND UNDERGROUND FACILITIES INCLUDING LOCATION AND ELEVATION OF EXISTING UNDERGROUND FACILITIES AT CROSSINGS WITH PROPOSED UNDERGROUND FACILITIES. IF CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND SHALL NOT BEGIN CONSTRUCTION UNTIL THE CHANGED CONDITIONS HAVE BEEN EVALUATED.
- ALL DRAWINGS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR ARCHITECT.
- THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR. UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.
- NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
- THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITY INFORMATION SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
- 9. IF AT ANY TIME DURING GRADING OPERATIONS, ANY UNFAVORABLE GEOLOGICAL CONDITIONS ARE ENCOUNTERED, GRADING IN THAT AREA WILL STOP UNTIL APPROVED CORRECTIVE MEASURES ARE OBTAINED.
- THE PROPOSED GRADE IS THE FINAL GRADE AND NOT THE ROUGH GRADE. THE 10 CONTRACTOR SHALL SUBTRACT THE THICKNESS OF THE PAVED SECTION AND/OR LANDSCAPE TOPSOIL SECTION TO ARRIVE AT THE ROUGH GRADE ELEVATION.
- 11. STRAIGHT GRADE SHALL BE MAINTAINED BETWEEN CONTOUR LINES AND SPOT ELEVATIONS UNLESS OTHERWISE SHOWN ON THE PLANS.
- 12. ALL DEBRIS AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT APPROVED DISPOSAL SITES. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS FOR THE TRANSPORTATION OF MATERIAL TO AND FROM THE SITE.
- 13. ALL FILL SOILS OR SOILS DISTURBED OR OVEREXCAVATED DURING CONSTRUCTION SHALL BE COMPACTED PER THE REQUIREMENTS OF THE SOILS REPORT BUT NOT LESS THAN 90% MAXIMUM DENSITY AS DETERMINED BY A.S.T.M. SOIL COMPACTION TEST D-1557.
- 14. THE CONTRACTOR SHALL OBTAIN AN O.S.H.A. PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO THE CONSTRUCTION OF TRENCHES OR EXCAVATIONS WHICH ARE FIVE FEET OR DEEPER.
- 15. DIMENSIONS TO PIPELINES ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
- 16. ALL WATER LINES SHALL BE INSTALLED WITH 36" MINIMUM COVER FROM TOP OF PIPE TO FINISHED GRADE, UNLESS OTHERWISE NOTED.
- 17. THRUST BLOCKS SHALL BE INSTALLED AT WATERLINE HORIZONTAL AND VERTICAL BENDS. TEES, CAPPED ENDS AND REDUCERS ACCORDING TO THE DETAILS PROVIDED ON THESE PLANS.
- 18. CONSTRUCTION STAKING FOR IMPROVEMENTS SHOWN ON THESE PLANS SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR. CONSTRUCTION STAKING SURVEYOR SHALL BE RESPONSIBLE FOR COORDINATION OF THESE PLANS WITH SOURCE DRAWINGS PREPARED BY ARCHITECT, LANDSCAPE ARCHITECT, STRUCTURAL ENGINEER, MEP CONSULTANT AND ANY OTHER DISCIPLINE PRIOR TO START OF STAKING AND CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S PROJECT MANAGER PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED.
- 19. THE CONTRACTOR SHALL REPLACE ALL EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION TO MATCH EXISTING, INCLUDING PERMANENT TRENCH RESURFACING. 20. CONTRACTOR TO CONTACT UNDERGROUND SERVICE ALERT (800–227–2600) PRIOR TO
- EXCAVATION.
- 21. ALL DIMENSIONS ARE IN FEET OR DECIMALS THEREOF.
- 22. ALL CURB DIMENSIONS AND RADII ARE TO PAVEMENT FACE OF CURB.
- 23. CONTRACTOR TO BE AWARE OF ALL OVERHEAD LINES AT ALL TIMES, SO AS NOT TO DISTURB THEM.
- WATER SHALL BE PROVIDED ONSITE AND USED TO CONTROL DUST DURING CONSTRUCTION 24. OPERATIONS.
- 25. CONTRACTOR SHALL OBTAIN ANY NECESSARY PERMITS FROM THE CITY OF REDONDO BEACH FOR ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- STORM DRAINAGE SYSTEMS SHOWN ON THESE PLANS HAVE BEEN DESIGNED FOR THE 26. FINAL SITE CONDITION AT COMPLETION OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ADEQUATE DRAINAGE OF THE SITE, DURING INTERIM CONDITIONS OF CONSTRUCTION.
- 27. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS, INCLUDING NPDES, FROM THE APPROPRIATE JURISDICTIONAL AGENCIES FOR DISCHARGE OF GROUNDWATER THAT MAY BE NECESSARY TO ACCOMPLISH EXCAVATIONS SHOWN ON THESE PLANS.
- 28. REFER TO DIVISION 1 PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.

VICINITY MAP NOT TO SCALE

LEGAL DESCRIPTIONS

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF REDONDO BEACH, IN THE COUNTY OF LOS ANGELES, STATE

SITE ADDRESS: 514 N. PROSPECT AVE. REDONDO BEACH, CA 90277

P.M. NO. 13030 P.M.B. 144–3 APN 7502-017-901

FLOOD ZONE FLOOD ZONE X

ESTIMATED EARTHWORK QUANTITIES

CUT: REMOVAL AND RECOMPACTION	43 CUBIC YARDS 427 CUBIC YARDS
FILL:	58 CUBIC YARDS
NET (FILL/IMPORT):	<u>15</u> CUBIC YARDS

EARTHWORK CALCULATION NOTES:

- 1. THE ESTIMATED QUANTITIES PROVIDED ABOVE ARE TO BE USED FOR JURISDICTIONAL PLAN CHECKING AND PERMITTING PURPOSES ONLY.
- 2. ESTIMATED EARTHWORK ABOVE IS BASED ON DESIGN FINISH GRADES TO EXISTING GRADES AND/OR CONTOURS AS PROVIDED ON THE BASE SURVEY. THE ESTIMATED EARTHWORK DOES NOT ACCOUNT FOR THE THICKNESS OF PAVEMENTS, FOUNDATIONS AND SLABS ON GRADE, FOOTINGS, CLEARING AND GRUBBING, OVER EXCAVATION AND RECOMPACTION, AND CONSTRUCTION MEANS AND METHODS.
- 3. THE ESTIMATED EARTHWORK QUANTITIES DO NOT INCLUDE SHRINKAGE AND/OR EXPANSION FACTORS DUE TO COMPACTION OR OVER EXCAVATION QUANTITIES.
- 4. THE CONTRACTOR SHALL CALCULATE HIS OWN EARTHWORK QUANTITIES NECESSARY FOR HIS BID AND WORK.
- 5. ESTIMATED EARTHWORK QUANTITIES ABOVE ASSUME THAT ALL ONSITE MATERIALS ARE SUITABLE FOR BACKFILLING. HOWEVER, ACTUAL EXISTING ONSITE MATERIALS AND IMPORTED MATERIALS MUST FIRST BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO INSTALLATION, REMOVAL, REPLACEMENT.

LEGEND

<u>SITE</u>	
	CURB/BACK OF CURB/GUTTER
	RETAINING WALL/SITE WALL
	PROPERTY LINE/RIGHT OF WAY
	CENTER LINE
X	FENCE
EROSION CONTROL	
	GRAVEL DBAGS
	FIBER ROLL
	PROPOSED BUILDING EXCAVATION OUTLINE
+ +	EXISTING DRAINAGE DIRECTION OF FLOW
GRADING	
100	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
$\cdot \! \rightarrow \! $	FLOW LINE
GB	GRADE BREAK LINE
R	RIDGE LINE
	EARTHEN SWALE
	SAWCUT
00	LIMITS OF GRADING
· ·	GRADING BENCH
	GRADED SLOPE (HORIZONTAL:VERTICAL)
4" SD	STORM DRAIN
	STORM DRAIN INLET

ABBREVIATIONS

BCF

BW

BLDO

BOS

RMF

C&G

CB

CMU

CO

CF

(F)

ECR

EL. OR

EX. OR

ELEC

EM

FDC

GPM

HDPE

GV

MA'

FG

CONC

	BACK OF WALK
	DACK OF WALK
	BENCH MARK
	BOTTOM OF STAIRS
	BEST MANAGEMENT PRACTICES
	CURB AND GUTTER
	CATCH BASIN
	CAST IRON
	CENTER LINE
	CONCRETE MASONRY UNIT
	CLEANOUT
	PORTLAND CEMENT CONCRETE
	CURB FACE
	DOMESTIC WATER
	EAST
	END CURVE RETURN
	EDGE OF GUTTER
ELEV	ELEVATION
	ELECTRIC, ELECTRICAL
	ELECTRICAL METER
EXIST.	EXISTING
	FIRE DEPARTMENT CONNECTION
	FINISHED FLOOR
	FINISHED GRADE (LANDSCAPE)
	FINISHED SURFACE (HARDSCAPE)
	FLOW LINE
	FOOT OR FEET
	FIXTURE UNITS
	FIRE WATER
	GALLONS PER MINUTE
	GATE VALVE
	HIGH DENSITY POLYETHYLENE
	HIGH POINT
	INVERT
	LOW POINT
	MAXIMUM
	MINIMUM

BEACH CITIES HEALTH DISTRICT BIKE PATH CIVIL PLANS

OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 1

0000	
0000	TITLE SHEET
C100	EROSION CONTROL PLAN
C110	DEMOLITION PLAN
C200	GRADING AND DRAINAGE PLAN
C201	GRADING AND DRAINAGE DETAILS
C210	WALL PROFILE
C400	UTILITY PLAN
	C000 C100 C110 C200 C201 C210 C400

GEOTECHNICAL ENGINEER'S STATEMENT

THESE PLANS HAVE BEEN REVIEWED BY FEFFER GEOLOGICAL AND CONFORM TO THE **GEOTECHNICAL RECOMMENDATIONS WITHIN** OUR REPORT(S) 2923-27 DATE 9/25/20 FG # 4/06/23 5/3/23 SIGNATURE

STAMP

MANHOLE

NOT TO SCALE

PLANTER AREA

POINT OF CONNECTION

POST INDICATOR VALVE

POLYVINYL CHLORIDE

POINT OF COMPOUND CURVE

POINT OF REVERSE CURVE

PRESSURE REDUCING VALVE

RECTANGULAR CAST IRON PIPE

SANITARY SEWER MANHOLE

STORM DRAIN MANHOLE

NORTH

RADIUS

SOUTH

ROOF DRAIN

RIGHT-OF-WAY

SLOPE EQUALS

STORM DRAIN

STREET LIGHT

STANDARD

SANITARY SEWER

TOP OF CURB

TOP OF GRATE

TOP OF STAIRS

TRAFFIC SIGNAL

TRAFFIC SIGNAL BOX

TOP OF WALL

TYPICAL

VAULT

WEST

WATER

WATER METER

WATER VALVE

TELEVISION

VERIFY IN FIELD

VITRIFIED CLAY PIPE

TELEPHONE

NOTES:

- 1. BAG MATERIAL: BAGS SHOULD BE WOVEN POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE FABRIC, MINIMUM UNIT WEIGHT OF 4 OUNCES/YD², MULLEN BURST STRENGTH EXCEEDING 300 LB/IN² IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM DESIGNATION D3786, AND ULTRAVIOLET STABILITY EXCEEDING 70% IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM DESIGNATION D4355.
- 2. BAG SIZE: EACH GRAVEL-FILLED BAG SHOULD HAVE A LENGTH OF 18 IN., WIDTH OF 12 IN., THICKNESS OF 3 IN., AND MASS OF APPROXIMATELY 33 LBS. BAG DIMENSIONS ARE NOMINAL, AND MAY VARY BASED ON LOCALLY AVAILABLE MATERIALS.
- 3. FILL MATERIAL: FILL MATERIAL SHALL BE 0.5 TO 1.0 INCH CRUSHED ROCK, CLEAN AND FREE OF CLAY, ORGANIC MATTER, AND OTHER DELETERIOUS MATERIAL, OR OTHER SUITABLE OPEN-GRADED, NON-COHESIVE, POROUS GRAVEL.
- 4. TURN THE ENDS OF GRAVEL BAG BARRIER UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND BARRIER. 5. USE PYRAMID APPROACH WHEN STACKING BAGS.
- 1 ER2-GRAVEL BAG BARRIER

<u>LEGEND</u>	
	LIMIT LINE OF WORK
	PROPERTY LINE
	CITY BOUNDARY
	SANDBAG BARRIER
X	CONSTRUCTION FENCE
← ←	DIRECTION OF FLOW

EROSION CONTROL NOTES

(E1) PLACE TEMPORARY CONSTRUCTION FENCE.

(E2) PLACE GRAVEL BAGS TRIPLE ROW PER DETAIL 1, HEREON.

NOTES:

- 1 ALL WORK SHOWN WITHIN THE BOUNDARY OF TORRANCE IS SHOWN FOR REFERENCE ONLY. WORK SHALL BE PERFORMED UNDER SEPARATE PERMIT.
- . REFER TO DIVISION 1 OF THE PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.

EROSION CONTROL NOTES

- 1. TEMPORARY EROSION CONTROL DEVICES SHOWN ON THE GRADING PLAN WHICH INTERFERE WITH THE WORK SHALL BE RELOCATED OR MODIFIED AS AND WHEN THE INSPECTOR SO DIRECTS AS THE WORK PROGRESSES TO MEET "AS GRADED" CONDITIONS.
- 2. ALL LOOSE SOIL AND DEBRIS SHALL BE REMOVED FROM THE STREET AREAS UPON STARTING OPERATIONS AND PERIODICALLY THEREAFTER AS DIRECTED BY THE INSPECTOR
- 3. WHEN THE INSPECTOR SO DIRECTS, A 12-INCH BERM SHALL BE MAINTAINED ALONG THE TOP OF THE SLOPE OF THOSE FILLS ON WHICH GRADING IS NOT IN PROGRESS.
- 4. STORM AND SEWER DRAIN TRENCHES THAT ARE CUT THROUGH BASIN DIKES OR BASIN INLET DIKES SHALL BE PLUGGED WITH SANDBAGS.
- 5. EXCEPT WHEN THE INSPECTOR DIRECTS OTHERWISE, ALL DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS FORECAST, AND SHALL BE MAINTAINED DURING THE RAINY SEASON (OCTOBER 15 TO APRIL 15).
- 6. SANDBAGS SHALL BE STOCKPILED ON SITE, READY TO BE PLACED IN POSITION WHEN RAIN IS FORECAST, OR WHEN THE INSPECTOR SO DIRECTS.
- 7. A "STANDBY EMERGENCY CREW" SHALL BE ALERTED BY THE PERMITTEE OR THE CONTRACTOR TO PERFORM EMERGENCY WORK DURING RAINSTORMS. THE PARTY TO BE CONTACTED IS: NAME: ___ (TO BE FILLED IN BY CONTRACTOR) PHONE NUMBER:

DUST CONTROL NOTES

- 1. DUST SHALL BE CONTROLLED BY WATERING AND/OR APPLYING A DUST PALLIATIVE. THE DUST PALLIATIVE SHALL BE APPLIED IN THE AMOUNT AT THE LOCATIONS AS DIRECTED BY THE ENGINEER.
- 2. WATER FOR DUST CONTROL SHALL BE APPLIED BY MEANS OF PRESSURE TYPE DISTRIBUTORS OR PIPE LINES EQUIPPED WITH A SPRAY SYSTEM OR HOSES WITH NOZZLES THAT WILL INSURE A UNIFORM APPLICATION OF WATER.
- 3. UNLESS WATER IS APPLIED BY MEANS OF PIPE LINES, AT LEAST ONE MOBILE UNIT WITH A MINIMUM CAPACITY OF 100 GALLONS SHALL BE AVAILABLE FOR APPLYING WATER.
- 4. ALL SOIL MATERIALS OR DEBRIS TRUCKED FROM THE SITE SHALL BE COVERED AND SPRINKLED PRIOR TO ENTERING PUBLIC STREETS.
- 5. PROVIDE FOR WET SUPPRESSION OR CHEMICAL STABILIZING OF EXPOSED SOILS.
- 6. PROVIDE FOR RAPID CLEAN-UP OF SEDIMENTS DEPOSITED ON THE PAVED ROADS.
- 7. LIMIT THE AMOUNT OF AREAS DISTURBED BY CLEARING & EARTH MOVING OPERATIONS BY SCHEDULING THESE ACTIVITIES IN PHASES.

THESE PLA FEFFER GEO GEOTECHN OUR REPO	NS HAVE BEEN F OLOGICAL AND IICAL RECOMME RT(S)	REVIEWED BY CONFORM TO THE ENDATIONS WITHIN
FG #	2923-27	DATE 9/25/20
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BMP NOTES

THE FOLLOWING BMPS AS OUTLINED IN, BUT NOT LIMITED TO, THE BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORMWATER QUALITY TASK FORCE, SACRAMENTO, CALIFORNIA, JULY 2012, MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY CITY INSPECTORS): EROSION CONTROL EC1-SCHEDULING EC2-PRESERVATION OF EXISTING VEGETATION EC3-HYDRAULIC MULCH EC4-HYDROSEEDING EC5-SOIL BINDERS EC6-STRAW MULCH EC7-GEOTEXTILES AND MATS EC8-WOOD MULCHING EC9-EARTH DIKES AND DRAINAGE SWALES

- EC10-VELOCITY DISSIPATION DEVICES EC11-SLOPE DRAINS EC12-STREAMBANK STABILIZATION EC13-RESERVED
- EC14-COMPOST BLANKET EC15-SOIL PREPARATION/ROUGHENING EC16-NON-VEGETATIVE STABILIZATION

TEMPORARY SEDIMENT CONTROL

SE1-SILT FENCE SE2-SEDIMENT BASIN SE3-SEDIMENT TRAP SE4-CHECK DAM SE5-FIBER ROLLS SE6-GRAVEL BAG BERM SE7-STREET SWEEPING AND VACUUMING SE8—SANDBAG BARRIER SE9–STRAW BALE BARRIER SE10-STORM DRAIN INLET PROTECTION SE11-ACTIVE TREATMENT SYSTEMS SE12-MANUFACTURED LINEAR SEDIMENT CONTROLS SE13-COMPOST SOCKS AND BERMS

SE14-BIOFILTER BAGS EQUIPMENT TRACKING CONTROL

TC1-STABILIZED CONSTRUCTION ENTRANCE/EXIT TC2-STABILIZED CONSTRUCTION ROADWAY TC3-ENTRANCE/OUTLET TIRE WASH

WIND EROSION CONTROL WE1-WIND EROSION CONTROL

NON-STORMWATER MANAGEMENT

NS1-WATER CONSERVATION PRACTICES
NS2-DEWATERING OPERATIONS
NS3-PAVING AND GRINDING OPERATIONS
NS4-TEMPORARY STREAM CROSSING
NS5-CLEAR WATER DIVERSION
NS6-ILLICIT CONNECTION/DISCHARGE
NS7-POTABLE WATER/IRRIGATION
NS8-VEHICLE AND EQUIPMENT CLEANING
NS9-VEHICLE AND EQUIPMENT FUELING
NS10-VEHICLE AND EQUIPMENT MAINTENANCE
NS11-PILE DRIVING OPERATIONS
NS12-CONCRETE CURING
NS13-CONCRETE FINISHING
NS14-MATERIAL OVER WATER
NS15-DEMOLITION ADJACENT TO WATER

<u>WASTE MANAGEMENT & MATERIALS</u> POLLUTION CONTROL

NS16-TEMPORARY BATCH PLANTS

WM1-MATERIAL DELIVERY AND STORAGE WM2-MATERIAL USE WM3-STOCKPILE MANAGEMENT WM4-SPILL PREVENTION AND CONTROL WM5-SOLID WASTE MANAGEMENT WM6-HAZARDOUS WASTE MANAGEMENT WM7-CONTAMINATED SOIL MANAGEMENT WM8-CONCRETE WASTE MANAGEMENT WM9-SANITARY/SEPTIC WASTE MANAGEMENT WM10-LIQUID WASTE MANAGEMENT

PAUL MURDOCH ARCHITECTS

6310 SAN VICENTE BLVD SUITE 400 LOS ANGELES, CALIFORNIA 90048 310 358-0993

THE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGN, AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT, AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS, OR USED IN CONNECTION WITH ANY WORK OR PROJECT THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT. VISUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR REVIEW BEFORE PROCEEDING WITH FABRICATION

319 Main Street El Segundo, CA 90245 Tel: 213.239.9700

JLA Job No. 19725

NO. DATE REVISION

DIAMOND STREET + FLAGLER LANE BIKE PATH REDONDO BEACH

DIAMOND LANE REDONDO BEACH, CA 90277 FLAGLER LANE & TOWERS

STREET TORRANCE, CA 90503

PMA PROJECT NO. 20007

DRAWING TITLE

EROSION CONTROL PLAN

05/02/23

SHEET NO.

C100

CHECKED

KP

<u>LEGEND</u>

LIMIT LINE OF WORK ----- PROPERTY LINE CITY BOUNDARY

- LIMIT OF LANDSCAPE DEMOLITION SEE DEMOLITION NOTE 5
- COLD MILL SEE DEMOLITION NOTE 7
- ASPHALT DEMOLITION SEE DEMOLITION NOTE

DEMOLITION NOTES

- (1) DEMO EXISTING ITEM AS NOTED.
- (2) PROTECT EXISTING ITEM IN PLACE. ITEM AS NOTED.
- (3) ADJUST EXISTING ITEM TO GRADE. ITEM AS NOTED.
- (4) SAWCUT TO LIMITS AS SHOWN. JOIN TO EXISTING PAVING AT LOCATION. SEE SHEET C200.
- 5 CLEAR AND GRUB AS REQUIRED FOR GRADING ACTIVITY. APPROXIMATE LIMITS SHOWN HEREON.
- (6) CUT SIDEWALK AS REQUIRED FOR NEW LIGHT POLE FOOTINGS.
- (7) COLD MILL/UNCLASSIFIED EXCAVATION TO A DEPTH OF 6", INSTALL 2" C2 (PG-64-10) OVER 4" B (PG-64-10).

SCALE: 1"=20'

- 1 ALL WORK SHOWN WITHIN THE BOUNDARY OF TORRANCE IS SHOWN FOR REFERENCE ONLY. WORK SHALL BE PERFORMED UNDER SEPARATE PERMIT.
- 2. SEE STRIPING AND SIGNAGE PLANS FOR SIGNAGE AND STRIPING REMOVALS.
- GENERAL DEMOLITION NOTES
- 1. CONTRACTOR TO CLEAR PROJECT SITE AREA WITHIN THE CONFINES OF THE DEMOLITION LIMIT LINE. THE CONTRACTOR SHALL DEMOLISH AND REMOVE FROM THE SITE ALL EXISTING UTILITIES, STRUCTURES, PLANTERS, TREES, AND ALL OTHER SITE FEATURES, UNLESS OTHERWISE NOTED ON THE PLAN.
- 2. REMOVAL OF LANDSCAPING SHALL INCLUDE ROOTS AND ORGANIC MATERIALS.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS AND SHALL PAY ALL FEES NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF THE DEMOLITION WORK.
- 5. THE CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING ABOVE AND UNDERGROUND UTILITIES. LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND ARE SHOWN FOR GENERAL INFORMATION ONLY.
- 6. DAMAGE TO ANY EXISTING UTILITIES AND SERVICES TO REMAIN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.
- 7. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT DEBRIS AND UNSUITABLE MATERIALS FROM ENTERING STORM DRAINS, SANITARY SEWERS AND STREETS.
- 8. DUST CONTROL SHALL BE IMPLEMENTED DURING DEMOLITION.
- 9. DEMOLITION IS LIMITED TO WITHIN DEMOLITION LIMIT LINE UNLESS NOTED OTHERWISE.
- 10. THE CONTRACTOR SHALL VERIFY THE LOCATION AND QUANTITY OF EXISTING SURFACE STRUCTURES AND SHALL BE SOLELY RESPONSIBLE FOR ANY UNIDENTIFIED UTILITIES, IMPROVEMENTS, TREES, ETC. TO BE DEMOLISHED AND REMOVED WITHIN THE DEMOLITION LIMIT LINE, INCLUDING APPURTENANT FOUNDATIONS OR SUPPORTS.
- 11. DEMOLITION CALLOUTS IN THIS SECTION ARE REPRESENTATIVE OF WHAT IS TO BE DONE, NOT AN ITEMIZED ACCOUNTING FOR EACH PIPE, CATCH BASIN, MANHOLE, VAULT, ETC. THAT IS TO BE DEMOLISHED, REMOVED AND DISPOSED OF.

A SECTION A C200 1"=5'

B SECTION B C200 1"=5'

<u>LEGEND</u>

*:

- LIMITS OF COLD MILL
- CONCRETE SIDEWALK PAVING
- ASPHALT PAVING
- LANDSCAPE PER LANDSCAPE PLANS
- ---------- DAYLIGHT LINE
- ---- PROPERTY LINE
- - CITY BOUNDARY
- LIMIT LINE OF WORK
- RETAINING WALL
- ______ FOUNDATION DRAIN. SHOWN SCHEMATICALLY, SEE DETAIL 1, SHEET C201

CONSTRUCTION NOTES

- (P1) ASPHALT PAVEMENT PER DETAIL 2, SHEET C201.
- (P2) INSTALL CONCRETE SIDEWALK PAVING PER DETAIL 4, SHEET C201.
- (P3) INSTALL 6" CONCRETE CURB PER APWA STD. PLAN 120-3 (A1-6).
- (P4) RETAINING WALL PER STRUCTURAL PLANS. HEIGHT SHOWN HEREON. SEE DETAIL **1**, SHEET C201 FOR SUBDRAINAGE DETAIL.
- (P5) STREET TREE PER LANDSCAPE PLANS.
- (P6) STREET LIGHT SHOWN FOR REFERENCE ONLY SEE ELECTRICAL PLANS. PROVIDE NEW SIDEWALK PAVING AT LIGHT POLE FOOTINGS. LIMIT OF FOOTINGS SHOWN FOR REFERNCE.
- (P7) COLD MILL/UNCLASSIFIED EXCAVATION TO A DEPTH OF 6", INSTALL 2" C2(PG-64-10) OVER 4" B(PG-64-10).
- (P8) SAWCUT TO LIMITS AS SHOWN. SEE NOTE 4.
- (P9) WALL FOOTING PER STRUCTURAL PLANS. SHOWN FOR REFERENCE ONI Y

<u>NOTES:</u>

- 1. THE COMPACTED FILL MATERIALS PLACED BEHIND THE RETAINING WALL SHOULD BE COMPACTED AND BENCHED INTO COMPETENT EARTH MATERIAL IN THE BACK-CUT SLOPE WITH MINIMUM 2 TO 3 FOOT WIDE BENCH STEPS. A MINIMUM 10-FOOT WIDE BY 2' DEEP FILL KEY MAY BE REQUIRED FOR LARGER FILL SLOPES ALONG THE BASE OF THE SLOPE.
- 2. INSTALL JOINTS IN SIDEWALK PER APWA STD. PLAN 112-1.
- 3. PROPOSED JOIN LOCATIONS SHOWN HEREON, SHALL JOIN TO EXISTING IMPROVEMENTS PER APWA STD. PLAN 113-1, 132-3, AND/OR 133-3.
- 4. ALL WORK SHOWN WITHIN THE BOUNDARY OF TORRANCE IS SHOWN FOR REFERENCE ONLY. WORK SHALL BE PERFORMED UNDER SEPARATE PERMIT.
- 5. A CAL-OSHA PERMIT IS REQUIRED FOR EXCAVATIONS DEEPER THAN 5' AND FOR SHORING AND/OR UNDERPINNING.
- 6. OVER-EXCAVATION SHALL BE PERFORMED FOR PROPOSED FOOTINGS PER THE RECOMMENDATIONS IN THE PROJECT GEOTECHNICAL REPORT.

THESE PLANS HAVE BEEN REVIEWED BY FEFFER GEOLOGICAL AND CONFORM TO THE GEOTECHNICAL RECOMMENDATIONS WITHIN OUR REPORT(S) 2923-27 DATE 9/25/20 4/06/23 FG # 5/3/23

<u>1.8%</u>

SCALE: 1"=20'

------/-

A.C. PAVEMENT TYPE	ASPHALT CONCRETE (INCHES)	BASE COURSE (INCHES)	RECOMPACTED SUBGRADE (INCHES)
VEHICULAR PARKING (ASSUMED TI =7)	3"	4.5"	12"
HEAVY TRUCK TRAFFIC (ASSUMED TI=10)	5"	7"	12"

NOTE: 1. PAVEMENT SECTIONS ARE BASED ON RECOMMENDATIONS FROM THE PROJECT GEOTECHNICAL REPORT. ALL PAVING SHALL BE IN ACCORDANCE WITH THE CITY OF

REDONDO BEACH AND GREENBOOK LATEST REQUIREMENTS AND SPECIFICATIONS.

2. WHERE ASPHALT ABUTES LANDSCAPE, CONTRACTOR TO INSTALL METAL EDGE PER LANDSCAPE PLANS.

2. REFER TO CITY STANDARDS AND SPECIFICATIONS FOR COLOR, PATTERN, TEXTURE, AND FINISH.

- 3. PAVEMENT SECTIONS ARE BASED ON RECOMMENDATIONS FROM THE PROJECT GEOTECHNICAL REPORT.
- ALL PAVING SHALL BE IN ACCORDANCE WITH THE CITY OF REDONDO BEACH AND GREENBOOK LATEST REQUIREMENTS AND SPECIFICATIONS. 3 CONCRETE WALK DETAIL C201 N.T.S.

B PROFILE B

<u>LEGEND</u>

oo	DAYLIGHT LINE
	PROPERTY LINE
	CITY BOUNDARY
	RETAINING WALL

THESE PLANS HAVE BEEN REVIEWED BY FEFFER GEOLOGICAL AND CONFORM TO THE GEOTECHNICAL RECOMMENDATIONS WITHIN OUR REPORT(S) FG # 2923-27 DATE 9/25/20 4/06/23 5/3/23

10' SCALE: 1"=20' <u>STA</u> 2+48.47 STA 2+19.54 131.46 TW (H=3.96') ଅ∎≿ STA 2+50

<u>LEGEND</u>

CONSTRUCTION NOTES

IRRIGATION WATER

- IR1) CONTRACTOR TO ORDER AND COORDINATE NEW IRRIGATION WATER SERVICE CONNECTION TO EXISTING RECYCLED WATER LINE FROM CALIFORNIA WATER SERVICE.
- (IR2) 1" IRRIGATION WATER METER WITH TRAFFIC RATED METER BOX. CONTRACTOR TO COORDINATE WATER SERVICE CONNECTION WITH CALIFORNIA WATER SERVICE.
- (IR3) INSTALL 1" PVC WATER PIPE.
- (R4) CALIFORNIA WATER SERVICE APPROVED 1" REDUCED PRESSURE BACKFLOW PREVENTOR. SEE PLUMBING PLANS FOR DETAILS.
- (IR5) POINT OF CONNECTION TO IRRIGATION SYSTEM. SEE IRRIGATION DRAWINGS FOR CONTINUATION, DETAIL AND SPECIFICATION. NOTES:
- 1 ALL WORK SHOWN WITHIN THE BOUNDARY OF TORRANCE IS SHOWN FOR REFERENCE ONLY. WORK SHALL BE PERFORMED UNDER SEPARATE PERMIT.
- 2. CONTRACTOR SHALL POTHOLE AND VERIFY ALL UTILITY POINT OF CONNECTIONS NOTED HEREON PRIOR CONSTRUCTION. ANY DISCREPANCIES SHALL BE PROVIDED TO THE ENGINEER OF RECORD PRIOR TO INSTALLATION.

PLANT SCHEDULE SOUTH

TREES	BOTANICAL NAME	COMMON NAME	CONT	WUCOLS	SPACING	QTY
	GEIJERA PARVIFLORA	AUSTRALIAN WILLOW	36" BOX	L		6
SHRUBS	BOTANICAL NAME	COMMON NAME	CONT	WUCOLS	SPACING	QTY
()	DIETES GRANDIFLORA	FORTNIGHT LILY	5 GAL	L	18" O.C.	28
	RHAPHIOLEPIS UMBELLATA 'MINOR'	DWARF YEDDA HAWTHORN	5 GAL	L	30" O.C.	24

PLANT SCHEDULE MID SOUTH

REES	BOTANICAL NAME	COMMON NAME	CONT	WUCOLS	SPACING
••	CERCIS OCCIDENTALIS	WESTERN REDBUD MULTI-TRUNK	15 GAL	L	
	HETEROMELES ARBUTIFOLIA	ΤΟΥΟΝ	15 GAL	L	
•	LAGERSTROEMIA X `MUSKOGEE`	CRAPE MYRTLE	36" BOX	М	
	PLATANUS RACEMOSA	CALIFORNIA SYCAMORE	15 GAL		
IRUBS	BOTANICAL NAME	COMMON NAME	CONT	WUCOLS	SPACING
	BACCHARIS PILULARIS 'PIGEON POINT'	PIGEON POINT COYOTE BRUSH	1 GAL	L	60" 0.C.
	CEANOTHUS GRISEUS HORIZONTALIS 'YANKEE POINT'	YANKEE POINT CARMEL CREEPER	1 GAL	L	60" 0.C.
*	DIETES GRANDIFLORA	FORTNIGHT LILY	5 GAL	L	18" O.C.
	MUHLENBERGIA RIGENS	DEER GRASS	1 GAL	L	36" O.C.
	OPUNTIA LITTORALIS	SHORE CACTUS	5 GAL	L	PER PLAN
	SALVIA X `ALLEN CHICKERING`	ALLEN CHICKERING SAGE	1 GAL	L	48" O.C.
NES	BOTANICAL NAME	COMMON NAME	CONT	WUCOLS	SPACING
A	FICUS PUMILA	CREEPING FIG	5 GAL	L	PER PLAN

THESE PLANS ARE DIAGRAMMATIC, TREE BUBBLERS AND LATERAL LINES ARE SHOWN WITHIN THE PAVING FOR CLARITY ONLY, THE ACTUAL LOCATIONS SHALL BE WITHIN THE PLANTER. THE TREE BUBBLERS SHALL BE ALIGNED WITH TREES AS SHOWN ON THE PLANTING PLANS, AND AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE. THE CONTRACTOR SHALL CONFIRM ALL LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.

NOTE B: PRIOR TO START OF CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE OWNER AND LANDSCAPE ARCHITECT A SCALED SHOP DRAWING INDICATING THE PROPOSED LOCATIONS FOR THE IRRIGATION EQUIPMENT LISTED BELOW. THE SHOP DRAWING SHALL BE PREPARED TO THE SATISFACTION OF THE OWNER AND LANDSCAPE ARCHITECT. SHOP DRAWINGS MUST INCLUDE THE PROPOSED LOCATIONS FOR THE FOLLOWING ITEMS:

1. POINT OF CONNECTION (INCLUDING WATER POC, BACK FLOW DEVICES, MASTER CONTROL VALVES, FLOW SENSORS, ETC.)

ISOLATION VALVES AUTOMATIC CONTROL VALVES (INDICATE STATION NUMBER) QUICK COUPLING VALVES

IRRIGATION CONTROLLER(S) RELATED EQUIPMENT (AS MAY BE DIRECTED).

EACH PIECE OF AFOREMENTIONED EQUIPMENT SHALL HAVE IT'S PROPOSED INSTALLED LOCATION SHOWN ON THE SHOP DRAWINGS. THE SYMBOL FOR EACH PRODUCT SHALL BE A SCALED REPRESENTATION OF THE FOOTPRINT OF THE EQUIPMENT OR THE VALVE BOX IN WHICH THE EQUIPMENT IS INSTALLED. CONTRACTOR SHALL INSTALL ALL VALVE BOXES AND RELATED EQUIPMENT PER THE OWNER APPROVED SHOP DRAWINGS. ONCE THE SHOP DRAWING LOCATIONS ARE APPROVED, THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE WILL ALLOW NO ADJUSTMENTS TO THE APPROVED VALVE BOX PLACEMENT WITHOUT PRIOR WRITTEN ACCEPTANCE. ANY IRRIGATION EQUIPMENT INSTALLED WITHOUT PRIOR APPROVAL WITH SHOP DRAWINGS WILL BE SUBJECT TO RELOCATION BASED ON DIRECTION BY THE LANDSCAPE ARCHITECT AT THE CONTRACTOR'S EXPENSE.

IRRIGATION CONTROLLER IS A WEATHER BASED CONTROLLER. BUILDINGS ON SITES WITH OVER 2,500 SQ. FT. OF CUMULATIVE IRRIGATED LANDSCAPED AREAS SHALL HAVE IRRIGATION CONTROLLERS WHICH ARE EITHER WEATHER OR SOIL BASED (PER SECTION 4.304.2)

SEPARATE SUBMETERS SHALL BE INSTALLED IN ANY NEW ADDITION OR SPACE WITHIN THE ADDITION THAT IS PROJECTED TO CONSUME MORE THAN 1,000 GAL/DAY.

BUILDINGS ON SITES WITH OVER 500 SQ. FT. OF CUMULATIVE LANDSCAPED AREAS SHALL HAVE SEPERATE METERS OR SUB METERS FOR OUTDOOR WATER USE (PER SECTION 4.304.3)

A DEDICATED WATER SERVICE METERS OR PRIVATE SUB-METERS SHALL BE INSTALLED FOR ALL (NON RESIDENTIAL IRRIGATED LANDSCAPES OF AT LEAST 1,000 SQUARE FEET) (RESIDENTIAL IRRIGATED LANDSCAPES OF AT LEAST 5,000 SQUARE FEET).

PRESSURE REGULATING DEVICES ARE REQUIRED IF WATER PRESSURE IS BELOW OR EXCEEDS THE RECOMMENDED PRESSURE OF THE SPECIFIED IRRIGATION DEVICES.

ALL IRRIGATION EMISSION DEVICES WILL MEET THE CRITERIA AS SET FORTH IN MWELO SECTION 492.7(a)(1)(M) AND SHALL BE INSTALLED AND OPERATED ACCORDING TO MANUFACTURER'S INSTRUCTIONS/RECOMMENDATIONS. NO OVERHEAD IRRIGATION WITHIN 24" OF ANY NON-PERMEABLE SURFACE

AUTOMATIC LANDSCAPE IRRIGATORS SHALL BE INSTALLED IN SUCH A WAY THAT IT DOESN'T SPRAY ON THE BUILDING. AREAS LESS THAN 10-FEET IN WIDTH IN ANY DIRECTION SHALL BE IRRIGATED WITH SUBSURFACE OR DRIP IRRIGATION.

CHECK VALVES OR ANTI-DRAIN VALVES ARE REQUIRED ON ALL SPRINKLER HEADS WHERE LOW POINT DRAINAGE COULD OCCUR.

MATERIALS DELIVERED TO THE CONSTRUCTION SITE SHALL BE PROTECTED FROM RAIN OR OTHER SOURCES OF MOISTURE. FOR PROJECTS THAT INCLUDE LANDSCAPE WORK, THE LANDSCAPE

CERTIFICATION, FORM GRN 12, SHALL BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL. (PER STATE ASSEMBLY BILL NO. 1881) AN OPERATIONS AND MAINTENANCE MANUAL INCLUDING, AT MINIMUM, THE

ITEMS LISTED IN SECTION 4.410.1, SHALL BE COMPLETED AND PLACED IN THE BUILDING AT THE TIME OF FINAL INSPECTION.

AN OPERATIONS AND SYSTEMS MANUAL, SHALL BE PROVIDED TO THE OWNER OR REPRESENTATIVE AND TO THE FIELD INSPECTOR AT THE TIME OF FINAL INSPECTION.

A CERTIFICATION OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED EITHER BY THE DESIGNER OF THE LANDSCAPE PLANS, IRRIGATION PLANS, OR THE LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT. A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT

WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES. AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED AT THE TIME OF FINAL

INSPECTION. AT THE TIME OF FINAL INSPECTION, THE PERMIT APPLICANT MUST PROVIDE THE OWNER OF THE PROPERTY WITH A CERTIFICATE OF COMPLETION, CERTIFICATE OF INSTALLATION, IRRIGATION SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE.

FOR SOILS LESS THAN 6% ORGANIC MATTER IN THE TOP 6 INCHES OF SOIL, COMPOST AT A RATE OF A MINIMUM OF FOUR CUBIC YARDS PER 1,000 SQUARE FEET OF PERMEABLE AREA SHALL BE INCORPORATED TO A DEPTH OF SIX INCHES INTO THE SOIL.

A MINIMUM 3-INCH LAYER OF MULCH SHALL BE APPLIED ON ALL EXPOSED SOIL SURFACES OF PLANTING AREAS EXCEPT TURF AREAS, CREEPING OR ROOTING GROUNDCOVERS, OR DIRECT SEEDING APPLICATIONS WHERE MULCH IS CONTRAINDICATED.

A FINAL REPORT FOR THE TESTING AND ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED PRIOR TO FINAL APPROVAL BY THE FIELD INSPECTOR. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.

I HAVE COMPLIED WITH THE CRITERIA OF THE IRRIGATION GUIDELINES AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN

Somthen

SIGNATURE:

sweeney + associates IRRIGATION DESIGN AND CONSULTING w: www.sweeneyassoc.com f: (951) 461-6850

I AGREE TO COMPLY WITH THE REQUIREMENTS OF THE WATER EFFICIENT LANDSCAPE ORDINANCE AND SUBMIT A COMPLETE LANDSCAPE DOCUMENTATION PACKAGE

- NORTH

20' 38730 Sky Canyon Drive, Suite C Murrieta, Ca 92563 e: info@sweeneyassoc.com|t: (951) 461-6830

PAUL MURDOCH ARCHITECTS

6310 SAN VICENTE BLVD SUITE 400 LOS ANGELES, CALIFORNIA 90048 310 358-0993

THE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGN, AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT, AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS, OR USED IN CONNECTION WITH ANY WORK OR PROJECT THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT. VISUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR REVIEW BEFORE PROCEEDING WITH FABRICATION

DATE REVISION

DIAMOND STREET + FLAGLER LANE BIKE PATH TORRANCE

DIAMOND LANE REDONDO BEACH, CA 90277 **FLAGLER LANE & TOWERS** STREET TORRANCE, CA 90503

PMA PROJECT NO. 20007 RAWING TITLE

IRRIGATION PLAN -SOUTH

1" = 10'-0"

05/01/23

SHEET NO.

CHECKED

L201

DOMESTIC WATER PRESSURE LOSS CALCULATIONS

WATER METER NUMBER	1 WATER MET	ER SIZE	(Inches	5)	N/A	WATER METE	ERNUMBER	1	WATER MET	ER SIZE	(Inche	s)	1.00
HYDRAULIC GRADE LINE (FT)	147 POC ELEVA	TION (FT)		147	HYDRAULIC (GRADE LINE (FT)	0	WATER MET	ER ELE	VATIO	N (FT)	0
ELEVATION DIFFERENCE (FT)	0 STATIC PRE	SSURE (PSI)		62.0	ELEVATION E	DIFFERENCE (FT)	0	STATIC PRES	SURE REC	ጋ. @ P	OC (PSI)	53.0
REMOTE CONTROL VALVE #	B4 REMOTE CC	NTROL V	ALVE	SIZE (In.)	1.00	REMOTE CON	NTROL VALVE #	C1	REMOTE CO	NTROL \	VALVE	SIZE (In.)	1.50
R.C.V. DEMAND (GPM)	7 TOTAL DEM/	AND (GP	M)		22	R.C.V. DEMA	ND (GPM)	11	TOTAL DEMA	AND (GP	M)		11
HIGHEST HEAD SERVED (FT)	160 STATIC PRE	SSURE A	AT HIGH	IEST HEAD	-5.6	HIGHEST HE	AD SERVED (FT)	0	STATIC PRE	SSURE A	AT HIG	HEST HEAD	0.0
S+a Sweeney + associates	PRESSURE LOSS CALCUL BY SWEENEY & ASSOCIA OTHER PERSON, COMPAN WRI	ATION IS TES, IN NY OR P ITEN PE	S PROV C. UNA ROJEC ⁻ RMISS	'IDED FOR T .UTHORIZED T IS FORBIDI ION.	THIS PROJECT USE BY ANY DEN WITHOUT	S+a SWE	Beney + associates	PRESSURE L BY SWEENE OTHER PERS	OSS CALCUL Y & ASSOCIA ON, COMPAN WRI	ATION IS ATES, ING NY OR PI ITEN PE	3 PRO C. UN, ROJEC	VIDED FOR T AUTHORIZED XT IS FORBID SION.	THIS PROJECT) USE BY ANY DEN WITHOUT
SIZE (Inches) DESCRIPTION		FLOW	#	LOSS		SIZE (Inches)	DESCRIPTION			FLOW	#	LOSS	
2.00 FLOW SENSOR		22	8	1.00	PSI	1.00	SERVICE LINE (50 FT OF	TYPE K COP	PER)	11	1	2.47	PSI
2.00 ISOLATION VALVES (BA	LL TYPE)	22	9	1.00	PSI	1.00	WATER METER (XXXX T)	PE)	,	11	2	0.80	PSI
2.00 375 FEET OF MAINLINE:	CL. 315 PVC	22	10	0.15	PSI	2.00	FILTRATION (WYE FILTE	R)		11	4	3.00	PSI
2.00 10 - 90 DEGREE ELBOW	/S	22	13	0.07	PSI	1.00	MASTER CONTROL VAL	VÉ		11	7	0.75	PSI
1.50 REMOTE CONTROL VAL	VE ASSEMBLY	7	14	3.50	PSI	1.00	FLOW SENSOR			11	8	0.50	PSI
10% LATERAL LINE LOSSES		7	15	4.00	PSI	1.00	ISOLATION VALVES (BA	LL TYPE)		11	9	0.50	PSI
20% FITTING LOSS (IN ADDIT	ION TO ELBOWS SHOWN)	N/A	<mark>16</mark>	0.03	PSI	1.00	50 FEET OF MAINLINE: \$	SCH. 40 PVC		11	10	1.85	PSI
13.00 ELEVATION CHANGE (P	.O.C. TO HIGHEST HEAD)	N/A	17	5.63	PSI	1.00	5 - 90 DEGREE ELBOWS	6		11	13	1.88	PSI
TOTAL SYSTEM PRESSURE LOSS (SU	JM OF #1 THRU #17)		18	15.4	PSI	1.00	REMOTE CONTROL VAL	VE ASSEMBL	Y	11	14	3.00	PSI
PRESSURE REQUIRED AT HEAD (OPE	RATING PRESSURE)		19	40.0	PSI	10%	LATERAL LINE LOSSES			11	15	3.00	PSI
TOTAL PRESSURE REQUIRED (SUM O	F #18 AND #19)		20	55.4	PSI	20%	FITTING LOSS (IN ADDIT	ION TO ELBOV	VS SHOWN)	N/A	16	0.37	PSI
STATIC WATER PRESSURE (FROM AB	BOVE)		21	62.0	PSI	0.00	ELEVATION CHANGE (P	.O.C. TO HIGH	EST HEAD)	N/A	17	0.00	PSI
RESIDUAL PRESSURE (SUBTRACT #20	0 FROM #21)		22	6.6	PSI	TOTAL SYSTE	M PRESSURE LOSS (SU	M OF #1 THRU	J #17)		18	18.1	PSI
SET PRV OR MCV AT (#20 PLUS 10 PS	SI)		23	N/A	PSI	PRESSURE F	REQUIRED AT HEAD (OPE	RATING PRES	SURE)		19	30.0	PSI
PRESSURE BOOST, IF REQUIRED (SE	T TO ACHIEVE 20 PSI RESI	DUAL)	24	N/A	PSI	TOTAL PRES	SURE REQUIRED (SUM O	F #18 AND #19)		20	48.1	PSI
						STATIC WATE	ER PRESSURE (FROM AB	OVE)			21	53.0	PSI
						RESIDUAL PR	RESSURE (SUBTRACT #20) FROM #21)			22	4.9	PSI
						SET PRV OR	MCV AT (#20 PLUS 10 PS	i)			23	N/A	PSI
						PRESSURE E	BOOST, IF REQUIRED (SE	T TO ACHIEVE	20 PSI RESI	DUAL)	24	N/A	PSI

RECYCLED WATER PRESSURE LOSS CALCULATIONS

(FUTURE RECYCLED) WATER MAINLINE DOWNSTREAM OF A BACK FLOW DEVICE. THE WATER MOVING) WATER PRESSURE IS ACCEPTABLE FOR POTABLE WATER SYSTEMS OR ON POTABLE WATER SYSTEMS REQUIRING A PUMP, ONLY THE MEASUREMENT OF DYNAMIC (WATER MOVING THROUGH THE METER) WATER PRESSURE, SHALL BE THESE DRAWING IS FOUND TO BE DIFFERENT THAN THE ACTUAL POC INFORMATION GATHERED IN THE FIELD, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT AND IRRIGATION CONSULTANT. SHOULD THE CONTRACTOR FAIL TO VERIFY THE POC INFORMATION AS SHOWN HEREIN, ANY CHANGES REQUIRED BY LOW PRESSURE OR VOLUME SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

WATER PRESSURE AT POC: 62 PSI (STATIC) DESIGN WATER PRESSURE: 55 PSI MAXIMUM SYSTEM DEMAND: 22 GPM RESIDUAL WATER PRESSURE: 7 PSI

NOTE B: POINT OF CONNECTION (POC) #2 SHALL BE A 1" RECYCLED WATER METER WITH A 1" METER SIZE AND WATER PRESSURE IN THE FIELD PRIOR TO STARTING WORK. PRESSURE, SHALL BE ACCEPTABLE. THE DYNAMIC WATER PRESSURE SHALL BE POC INFORMATION GATHERED IN THE FIELD, IMMEDIATELY NOTIFY THE LANDSCAPE

WATER PRESSURE REQUIRED AT POC: 53 PSI (DYNAMIC) DESIGN WATER PRESSURE: PSI 48 MAXIMUM SYSTEM DEMAND: 11 GPM RESIDUAL WATER PRESSURE:

NOTE C: THE IRRIGATION MATERIALS LEGEND. THE CONTROLLER SHALL BE INSTALLED IN THE ELECTRICAL POWER SUPPLY AT THIS LOCATION WITH THE OWNER'S AUTHORIZED REPRESENTATIVE. FINAL LOCATION OF CONTROLLER AND ELECTRICAL POINT OF TO STARTING WORK.

NOTE D:

NOTE A:

ADJACENT HARDSCAPE AND OTHER OBSTACLES, TYPICAL. NOTE E:

OBSTRUCTIONS THAT MAY OCCUR IN THE LANDSCAPE, INCLUDING BUT NOT LIMITED TO STARTING WORK.

NOTE F: THESE PLANS ARE DIAGRAMMATIC, TREE BUBBLERS AND LATERAL LINES ARE SHOWN WITHIN THE PAVING FOR CLARITY ONLY, THE ACTUAL LOCATIONS SHALL BE WITHIN THE PLANTER. THE TREE BUBBLERS SHALL BE ALIGNED WITH TREES AS SHOWN ON THE PLANTING PLANS, AND AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE. THE CONTRACTOR SHALL CONFIRM ALL LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK. NOTE G:

FOR THE IRRIGATION EQUIPMENT LISTED BELOW. THE SHOP DRAWING SHALL BE PREPARED TO THE SATISFACTION OF THE OWNER AND LANDSCAPE ARCHITECT. SHOP DRAWINGS MUST INCLUDE THE PROPOSED LOCATIONS FOR THE FOLLOWING ITEMS:

CONTROL VALVES, FLOW SENSORS, ETC.) ISOLATION VALVES

- AUTOMATIC CONTROL VALVES (INDICATE STATION NUMBER) QUICK COUPLING VALVES
- IRRIGATION CONTROLLER(S) RELATED EQUIPMENT (AS MAY BE DIRECTED).

RELATED EQUIPMENT PER THE OWNER APPROVED SHOP DRAWINGS. ONCE THE SHOP DRAWING LOCATIONS ARE APPROVED, THE LANDSCAPE ARCHITECT OR OWNER'S INSTALLED WITHOUT PRIOR APPROVAL WITH SHOP DRAWINGS WILL BE SUBJECT TO EXPENSE.

COUNTY OF LOS ANGELES - DEPARTMENT OF HEALTH SERVICES	
PUBLIC HEALTH PROGRAMS AND SERVICES - ENVIRONMENTAL HEALTH	
CROSS-CONNECTION & WATER POLLUTION CONTROL PROGRAM	
5050 Commerce Drive, Rm 116, Baldwin Park, CA 91706	

A GUIDE TO SAFE RECYCLED WATER USE, PIPELINE CONSTRUCTION AND INSTALLATION

GUIDELINES FOR PRO INTRODUCTION: AS A RESULT OF INCREASING AVAILABILITY OF RECYCLED WATER AND THE CONSEQUENT NEED OR DESIRE FOR THE TRANSMISSION AND USE THEREOF, THIS DEPARTMENT HAS FOUND IT NECESSARY TO DEVELOP THE FOLLOWING GUIDELINES FOR **RECYCLED WATER** PIPELINE CONSTRUCTION, INSTALLATION AND SAFE RECYCLED WATER USE FOR THE PROTECTION OF DOMESTIC WATER SUPPLIES AND PUBLIC HEALTH. 1. RECYCLED WATER SHALL MEET REQUIREMENTS SPECIFIED IN "WATER RECLAMATION CRITERIA": TITLE 22, DIVISION 4, CHAPTER 3, SECTION 60301 THROUGH 60355 OF THE CALIFORNIA CODE OF REGULATIONS AND REGULATIONS

- AND GUIDELINES OF THE REGULATORY AGENCIES. 2. RECYCLED WATER USE SHALL BE COMPATIBLE WITH STATE DEPARTMENT OF HEALTH SERVICES AND REGIONAL WATER QUALITY CONTROL BOARD REQUIREMENTS.
- 3. PLANS AND SPECIFICATIONS FOR RECYCLED WATER DISTRIBUTION, USE AND OPERATIONAL PRACTICES SHALL BE SUBMITTED FOR REVIEW AND APPROVAL TO THE COUNTY OF LOS ANGELES DEPARTMENT OF HEALTH SERVICES PRIOR TO IMPLEMENTATION.
- 4. PRIOR TO COMMENCING CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE LOS ANGELES COUNTY DEPARTMENT OF HEALTH SERVICES TO ARRANGE FOR INSPECTION OF ALL ON-SITE RECYCLED AND POTABLE WATER WORK. NO EXCAVATION OR OPEN TRENCH MAY BE BACKFILLED WITHOUT FIRST SECURING HEALTH DEPARTMENT APPROVAL. IF ANY PIPING, RECYCLED OR POTABLE, IS INSTALLED PRIOR TO PLAN CHECK APPROVAL AND/OR INSPECTION, ALL OR ANY PORTION OF THE SYSTEM MAY BE REQUIRED TO BE EXPOSED AND CORRECTED AS NECESSARY.
- 5. A LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH APPROVED TEMPORARY WATER CONNECTION TO A POTABLE WATER SUPPLY, VIA A DEDICATED, APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE, SHALL BE UTILIZED FOR THE PURPOSES OF FLUSHING, PRESSURE TESTING, CONSTRUCTION USES, INITIAL LANDSCAPE USE AND THE FINAL CROSS CONNECTION PRESSURE TEST.
- 6. SEPARATION IN ORDER TO MINIMIZE CONSTRUCTION ACCIDENTS RESULTING IN PIPELINE BREAKS. INFILTRATION OF WATER FROM LEAKING WATER LINES INTO DOMESTIC WATER LINES. OR ACCIDENTAL CROSS-CONNECTIONS BETWEEN RECYCLED WATER AND POTABLE WATER SYSTEMS, MAXIMUM ATTAINABLE SEPARATION OF RECYCLED WATER LINES AND POTABLE WATER LINES SHALL BE PRACTICED.
- PARALLEL CONSTRUCTION: THERE SHALL BE AT LEAST A TEN FOOT (10') SEPARATION, ALL DISTANCES MEASURED FROM PIPELINE OUTSIDE DIAMETER.
- <u>CROSS-OVER CONSTRUCTION:</u> AS PERPENDICULAR AS POSSIBLE; ONE FOOT (1') SEPARATION, WITH POTABLE ABOVE RECYCLED; FULL PIPE LENGTH CENTERED OVER CROSSING.
- ALTERNATE CROSS-OVER CONSTRUCTION (DISTANCE NOT MAINTAINED): EITHER THE POTABLE OR RECYCLED WATER LINES MAY BE SLEEVED WITH THE SAME CLASS PIPING FOR ONE FULL PIPE LENGTH (MINIMUM TEN FEET) CENTERED OVER THE CROSS-OVER.
- THE RECYCLED WATER SYSTEM SHALL BE CONSTRUCTED IN CONFORMANCE WITH POTABLE WATER SYSTEM CONSTRUCTION STANDARDS AND IN ACCORDANCE WITH ALL OTHER GOVERNING CODES, RULES AND REGULATIONS.
- UNUSED OR ABANDONED POTABLE WATER LINES ARE TO BE SEVERED AS CLOSE TO WATER MAINS AS PRACTICAL, CAPPED AND A TEN- FOOT SECTION OF ABANDONED LINE REMOVED AND CEMENTED UNDER HEALTH DEPARTMENT SUPERVISION.
- EXISTING ON-SITE PIPING TO THE EXTENT FEASIBLE, MAXIMUM SEPARATION OF RECYCLED WATER AND POTABLE WATER LINES SHALL BE PRACTICED UPON SYSTEM ADDITION OR MODIFICATION. 7. IDENTIFICATION: - ALL RECYCLED WATER LINES (PRESSURE/NON-PRESSURE), VALVE BOXES, HYDRANTS AND APPURTENANCES SHALL BE IDENTIFIED TO CLEARLY DISTINGUISH BETWEEN RECYCLED WATER, NON-POTABLE AND
- POTABLE WATER SYSTEMS. RECYCLED WATER - ALL BURIED RECYCLED WATER LINES (PRESSURE/NON-PRESSURE) SHALL BE PURPLE COLORED PIPE WITH
- CONTINUOUS WORDING "CAUTION RECYCLED WATER" PRINTED ON OPPOSITE SIDES OF THE PIPE.
- PROJECTS UTILIZING EXTENSIVE PIPELINE INSTALLATION SHALL USE PURPLE PIPE PROPERLY STENCILED/LABELED. FOR LIMITED APPLICATION, THE USE OF CONTINUOUS LETTERING ON THREE INCH (3") MINIMUM WIDTH PURPLE TAPE WITH ONE INCH BLACK OR WHITE CONTRASTING LETTERING BEARING THE CONTINUOUS WORDING "CAUTION RECYCLED WATER" PERMANENTLY AFFIXED AT FIVE FOOT INTERVALS ATOP ALL HORIZONTAL PIPING, LATERALS AND MAINS IS AN ACCEPTABLE ALTERNATIVE TO PURPLE PIPE. IF PURPLE PIPE IS UNAVAILABLE IN THE SIZE REQUIRED BY THE PROJECT DESIGN. IDENTIFICATION TAPE SHALL EXTEND TO ALL VALVE BOXES AND/OR VAULTS, EXPOSED PIPING, HYDRANTS AND QUICK COUPLERS.
- POTABLE WATER ALL POTABLE WATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE AND ALL OTHER GOVERNING CODES, RULES AND REGULATIONS. BURIED POTABLE WATER LINES SHALL BE IDENTIFIED BY CONTINUOUS LETTERING ON THREE INCH (3") MINIMUM WIDTH BLUE OR GREEN TAPE WITH ONE INCH WHITE LETTERING BEARING THE CONTINUOUS WORDING "POTABLE WATER" PERMANENTLY AFFIXED AT FIVE FOOT INTERVALS ATOP ALL HORIZONTAL PIPING. LATERALS AND MAINS. IDENTIFICATION TAPE SHALL EXTEND TO ALL VALVE BOXES AND/OR VAULTS, EXPOSED PIPING AND HYDRANTS.
- IDENTIFICATION TAPE IS NOT NECESSARY FOR EXTRUDED COLORED PVC WITH CONTINUOUS WORDING "POTABLE WATER" PRINTED IN CONTRASTING LETTERING ON OPPOSITE SIDES OF THE PIPE.
- NON-POTABLE WATER ALL NON-POTABLE IRRIGATION/INDUSTRIAL WATER LINES (PRESSURE/NON-PRESSURE) SHALL BE IDENTIFIED BY CONTINUOUS LETTERING ON THREE INCH (3") MINIMUM WIDTH TAPE WITH ONE INCH CONTRASTING LETTERING BEARING THE CONTINUOUS WORDING "NON-POTABLE WATER" PERMANENTLY AFFIXED AT TEN FOOT INTERVALS ATOP ALL HORIZONTAL PIPING, LATERALS, AND MAINS. IDENTIFICATION TAPE SHALL EXTEND TO ALL VALVE BOXES AND/OR VAULTS, EXPOSED PIPING, HYDRANTS AND QUICK COUPLERS. NON-POTABLE WATER IS WATER SUPPLIED FROM THE POTABLE WATER SYSTEM THROUGH AN APPROPRIATE BACKFLOW PREVENTER.
- EXPOSED PIPING, VALVE BOXES, VAULTS, CONTROL VALVES, QUICK COUPLING VALVES, OUTLETS AND RELATED APPURTENANCES SHALL BE COLOR CODED AND LABELED OR TAGGED TO DIFFERENTIATE BETWEEN RECYCLED WATER, POTABLE WATER AND NON-POTABLE WATER SYSTEMS, I.E.,
- i. "CAUTION RECYCLED WATER DO NOT DRINK" IN BLACK OR WHITE CONTRASTING LETTERING ON A PURPLE BACKGROUND. ii. "POTABLE WATER" IN WHITE LETTERING ON A BLUE BACKGROUND. iii. "NON-POTABLE WATER - DO NOT DRINK" IN CONTRASTING LETTERING FROM THE BACKGROUND.
- TAGS SHALL BE IDENTIFIED WITH THE APPROPRIATE WORDING ON BOTH SIDES. TAGS IDENTIFYING RECYCLED WATER SHALL HAVE THE APPROPRIATE WORDING ON ONE SIDE AND SYMBOL ON THE OPPOSITE SIDE.
- AQUIFERS SHALL BE PROTECTED AGAINST CONTAMINATION FROM RECYCLED WATER INFILTRATION VIA DETERIORATED OR INADEQUATELY PROTECTED WATER WELL CASINGS BY CORRECTING THESE PHYSICAL DEFICIENCIES. RECYCLED WATER SHALL NOT BE SPRAYED ON WELL PUMP INSTALLATIONS AND APPURTENANCES. A FIFTY FOOT BUFFER IS REQUIRED AROUND EACH WATER WFII
- 9. AN ON-SITE WATER SUPERVISOR HAVING THE RESPONSIBILITY FOR THE PROTECTION OF THE POTABLE WATER SYSTEM FROM CROSS-CONNECTIONS, SHALL BE APPOINTED AS PROVIDED FOR UNDER TITLE 17, SECTION 7586, CALIFORNIA CODE OF REGULATIONS. THE WATER SUPERVISOR SHALL BE RESPONSIBLE FOR INSTALLATION, OPERATION, AND MAINTENANCE OF THE RECYCLED WATER AND POTABLE WATER SYSTEMS, PREVENTION OF POTENTIAL HAZARDS, IMPLEMENTING THESE GUIDELINES AND COORDINATION WITH THE CROSS-CONNECTION CONTROL PROGRAM OF THE WATER PURVEYOR AND THIS DEPARTMENT. AUTHORIZATIONS FOR PIPING CHANGES OR ADDITIONS TO EITHER THE POTABLE OR RECYCLED WATER SYSTEMS SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE WATER SUPERVISOR. THE NAME AND POSITION OF THIS INDIVIDUAL SHALL BE REPORTED TO THE WATER PURVEYOR AND THE COUNTY OF LOS ANGELES DEPARTMENT OF HEALTH SERVICES.
- 10. AS-BUILT PLANS SHALL BE PREPARED AND UPDATED AS NECESSARY BY THE USER SHOWING THE LOCATION OF RECYCLED WATER AND POTABLE WATER SYSTEM PIPING.
- 11. IN AREAS OF PUBLIC ACCESS TO RECYCLED WATER SYSTEMS, HOSE BIBBS SHALL NOT BE PERMITTED IN ORDER TO PREVENT THE UNAUTHORIZED USE OF RECYCLED WATER. QUICK-COUPLERS ARE PERMISSIBLE IN LIEU OF HOSE BIBB OUTLETS AND SHALL ONLY BE CONNECTED TO RECYCLED WATER LINES. ALL QC SHALL BE OF DIFFERING SIZE FROM QC USED ON POTABLE WATER FED SYSTEMS. IN AREAS NOT ACCESSIBLE TO THE PUBLIC, HOSE BIBBS MAY BE PERMITTED PROVIDED THEY ARE PROPERLY IDENTIFIED WITH PERMANENTLY AFFIXED TAGS, LABELS, OR PLATES WITH THE WORDING "RECYCLED WATER - DO NOT DRINK" IN ENGLISH AND SYMBOL.
- 12. EXPOSURE OF DRINKING FOUNTAINS AND PICNIC TABLES TO DIRECT RECYCLED WATER SPRAY SHALL BE MINIMIZED BY A COMBINATION OF SELECTIVE LOCATION OF SUCH EQUIPMENT AND BY APPROPRIATE IRRIGATION SYSTEM DESIGN. RECYCLED WATER SPRAYING SHALL BE DONE IN HOURS OF LEAST PUBLIC EXPOSURE.
- AREAS WHERE RECYCLED WATER IS RELEASED, USED OR IMPOUNDED SHALL BE POSTED (E.G., RECYCLED WATER DO NOT DRINK), TO INFORM THE PUBLIC THAT RECYCLED WATER IS BEING USED. IRRIGATION PRACTICE SHALL BE CONTROLLED TO PREVENT SURFACE RUNOFF OF RECYCLED WATER FROM LANDS OWNED OR CONTROLLED BY THE USER
- 13. DUAL PLUMBED FACILITIES:
- AN ENGINEERING REPORT SHALL BE SUBMITTED TO BOTH LOS ANGELES COUNTY AND STATE OF CALIFORNIA PUBLIC HEALTH DEPARTMENTS FOR REVIEW IN ADDITION TO THE PROJECT PLAN SUBMITTAL. ALL RECYCLED WATER SUPPLY LINES SHALL BE BARBERSHOP WRAPPED WITH LABELING CLEARLY MARKED. BACKUP SUPPLY FROM A DOMESTIC SOURCE SHALL CONSIST OF A TANK WHICH IS PROPERLY AIR GAPPED.
- ALL CONTROL VALVES ON RECYCLED SYSTEM SHALL BE TAMPER PROOF BY THE USE OF SEALS. • SEPARATE RECYCLED WATER METERS MAY BE REQUIRED; ONE DEDICATED FOR IRRIGATION AND THE OTHER FOR INTERNAL USE.
- 14. BACKFLOW PROTECTION • THERE SHALL BE NO INTERCONNECTION BETWEEN THE POTABLE WATER SYSTEM AND THE RECYCLED WATER SYSTEM WITHIN THE USER'S PREMISES. AN APPROVED BACKFLOW DEVICE IS REQUIRED ON ALL DOMESTIC WATER AND FIRE WATER SYSTEMS. • A PRESSURE TEST MUST BE UTILIZED TO CONFIRM THE PHYSICAL SEPARATION OF THE RECYCLED AND POTABLE WATER SYSTEMS. SAID TESTING SHALL BE PERFORMED IN CONJUNCTION WITH THE WATER PURVEYOR AND THIS DEPARTMENT AND CONDUCTED BEFORE THE
- INTRODUCTION OF RECYCLED WATER. CONTACT THE LOCAL WATER PURVEYOR REGARDING REQUIRED BACKFLOW PROTECTION AT THE POTABLE WATER SERVICE
- CONNECTION(S) TO RECYCLED WATER USE SITES. IN ORDER TO MAINTAIN THE WATER QUALITY IN A RECYCLED WATER DISTRIBUTION SYSTEM A BACKFLOW PREVENTION DEVICE(S) MAY BE REQUIRED AT THE RECYCLED WATER METER OR AT SPECIFIC ON-SITE LOCATIONS WHERE SAID USE COULD DEGRADE THE QUALITY OF THE

RECYCLED WATER SUPPLY.

15. WATER SUPERVISOR ALL DESIGNATED RECYCLED WATER SUPERVISORS SHALL PROVIDE PROOF OF TRAINING IN THE USE OF RECYCLED WATER. THE MAINTENANCE OF THE SITE UNDER THEIR CARE AND CODE COMPLIANCE AS OUTLINED BY COUNTY AND STATE REGULATIONS FOR THE PROPER USE OF RECYCLED WATER SYSTEMS.

- ALL IRRIGATION SYS **GUIDANCE POLICIES** DOMESTIC WATER L FUTURE RECYCLED \
- 1. PRIOR TO BEING **TEMPORARILY S** PRESSURE PRING
- 2. DETAILED PLANS DEPARTMENT PF PIPELINE CONST
- 3. A REDUCED PRE SPECIFICATION (
- 4. A DOUBLE CHEC MANUFACTURER
- 5. THIS DEPARTME RECYCLED IRRIG

PRESSURE TEST ON **BEFORE CONNECTIN** TO ENSURE THE ABS SUPERVISION OF THI

- 1. POTABLE WATER WITH THE POTAE REDUCED PRESS
- 2. THE PROPOSED OPERATING THE ETC. 3. ONCE THE PROP
- WATER SYSTEM SPECIFIED BY T THIS POINT THEF DOMESTIC/POTA
- 4. AT THE END OF SITE, FOR CROSS
- 5. THE PROPOSED SIGNIFICANT BAC PROPOSED RECY
- 6. THE DOMESTIC/F 7. THE DOMESTIC/F COMPLETELY DF SPECIFIED WOU COMPLEXITY OF FLOW TO THE PR
- USE SITE, FOR CI 8. THE POTABLE W
- THE INLET OR IN UPON SUCCESSFUL WATER SUPPLY TO
- AND THE USER'S REC FOUR YEAR PRESSU ON SITES WHERE BO
- USING THE FOLLOWIN

- CROSS-CONNEC
- 4. THE POTABLE W SHALL BE COMP
- 5. AT THE END OF OPERATING EAC
- 6. THE POTABLE W THE INLET OR IN

EMERGENCY CROSS

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5.	CONDUCT A CF
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	MAINTAINING A
-	

7. FLUSH THE POT 8. IF THE RESULTS 9. REMOVE WARNI

- 1. ALL LOCAL MUN INTO AND MADE 2. THE CONTRACT UTILITIES, STRU
- CONDITIONS SH 3. THE CONTRACT
- 4. THE CONTRACT
- 5. THIS DESIGN IS
- 6. THE CONTRACT EXIST THAT WE
- REPRESENTAT BY THE OWNER
- 7. INSTALL ALL EQ STATE REQUIRE
- ACTUAL LOCATI 8. OWNER'S AUTH
- 9. CONTRACTOR MAIN LINE. LABE
- 10. ALL PIPE UNDER AREAS TO BE I
- SHOWN ON THE 11. ALL QUICK COU REMOTE CONT 18" OF HARDSC
- 12. ALL HEADS ARE ONTO BUILDING REPLACEMENT NOZZLES WITH A
- 13. CONTRACTOR

- ABSOLUTE SEPARAT 1. THE RECYCLED
- **REMAIN DEACTIV** 2. AT THE END OF CROSS-CONNEC
- 3. THE RECYCLED BACKFLOW OF W

FOLLOWING PROCED

COUNTY OF LOS ANGELES - DEPARTMENT OF HEALTH SERVICES PUBLIC HEALTH PROGRAMS AND SERVICES - ENVIRONMENTAL HEALTH CROSS-CONNECTION &	SYMBOL		IRRIGATION MATERIAL LEGEND
WATER POLLUTION CONTROL PROGRAM 5050 Commerce Drive, Baldwin Park, CA 91706 (626) 430-5290	Q T H F	MANUFACTURER	MODEL NO. / DESCRIPTION FLOW RATE (GPM) PSI RADIUS P.R. (TRI. RD-06-S (RD-06-S-NP FOR REDONDO BEACH TREES) 6" POP-UP BUBBLER HEAD WITH A 50 (10 TOTAL) 30 1 ET 1 00 IN /F
GUIDELINES FOR PROPOSED RECYCLED WATER SYSTEMS ALL IRRIGATION SYSTEMS CONVERTED TO RECYCLED WATER SHALL BE INSTALLED IN ACCORDANCE WITH CURRENT REGULATIONS AND ENVIRONMENTAL HEALTH GUIDANCE POLICIES RELATED TO RECYCLED WATER INCLUDING. BUT NOT LIMITED TO, THE REQUIREMENTS FOR COLOR CODING AND LABELING, SEPARATION FROM	v		HUNTER MSBN-50Q STREAM BUBBLER NOZZLE EACH SYMBOL REPRESENTS TWO (2) BUBBLER TO PROVIDE A TOTAL OF TWO (2) BUBBLERS PER TREE. PLACE THE BUBBLER HEADS SIX (6) INCHES FROM THE ROOT BALL OF THE TREE AND ON OPPOSITE SIDES OF TREE. AD JUST BUBBLER STREAMS TO WET THE ROOT BALL AND AD JACENT AMENDED SOIL
DOMESTIC WATER LINES AND SEWERS, AND INSTALLATION OF APPROPRIATE BACKFLOW PROTECTION. A CONNECTION BETWEEN A DOMESTIC WATER SUPPLY AND A FUTURE RECYCLED WATER MAIN SHALL BE DESIGNED IN ACCORDANCE WITH THE FOLLOWING:			WITHOUT HITTING THE TRUNK OF THE TREE. RD-12-S-P30-E 12" POP-UP SHRUB HEAD WITH & SERIES HE-VAN AD JUSTABLE ARC NOZZI E 29, 39, 59, 1, 17, 30, 8, ET 2, 03, IN /F
1. PRIOR TO BEING SUPPLIED WITH RECYCLED WATER, ALL PROPOSED RECYCLED WATER IRRIGATION SYSTEMS SHALL BE TEMPORABILY SUPPLIED FROM A DOMESTIC WATER SYSTEM THROUGH AN APPROVED AND DEDICATED REDUCED	$\bullet \bullet \bullet \bullet$	RAIN BIRD	RD-12-S-P30-F 12" POP-UP SHRUB HEAD WITH 10 SERIES HE-VAN ADJUSTABLE ARC NOZZLE .23, .39, .17 .30 0 FT 2.03 IN./F RD-12-S-P30-F 12" POP-UP SHRUB HEAD WITH 10 SERIES HE-VAN ADJUSTABLE ARC NOZZLE .45, .59, .89, 1.78 .30 10 FT 1.98 IN./F
PRESSURE PRINCIPLE BACKFLOW PREVENTER UNTIL THE SYSTEM HAS BEEN CHECKED FOR CROSS-CONNECTIONS.		RAIN BIRD RAIN BIRD	RD-12-S-P30-F 12" POP-UP SHRUB HEAD WITH 12 SERIES HE-VAN ADJUSTABLE ARC NOZZLE .59, .79, 1.18, 2.37 30 12 FT 1.83 IN./F RD-12-S-P30-F 12" POP-UP SHRUB HEAD WITH 15 SERIES HE-VAN ADJUSTABLE ARC NOZZLE .93, 1.23, 1.85, 3.70 30 15 FT 1.83 IN./F
2. DETAILED PLANS AND SPECIFICATIONS FOR THE DISTRIBUTION SYSTEM AND CONNECTIONS SHALL BE SUBMITTED TO THIS DEPARTMENT PRIOR TO CONSTRUCTION. REFERENCE THE "A GUIDE FOR THE SAFE RECYCLED WASTEWATER USE, PIPELINE CONSTRUCTION AND INSTALLATION."	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	RAIN BIRD RAIN BIRD	RD-12-S-P45-F 12" POP-UP SHRUB HEAD WITH R-VAN18 (Q/T/H) / R-VAN18-360 NOZZLES .50, .62, 1.17, 1.85 40 18 FT 0.70 IN./H RD-12-S-P45-F 12" POP-UP SHRUB HEAD WITH R-VAN24 (Q/T/H) / R-VAN24-360 NOZZLES .84, 1.16, 1.68, 3.48 40 24 FT 0.70 IN./H
 A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATION ON ALL DOMESTIC WATER SERVICES LOCATED AT THE PARCEL BOUNDARY. 	NO SYMBOL	RAIN BIRD	MPR-25/30/35 NOZZLES ARE NOT SUPPLIED AS STANDARD NOZZLES WITH THE RAIN BIRD 5000 SERIES ROTOR HEADS. THE CONTRACTOR MUST ORDER THESE NOZZLES SEPARATELY AS AN ADDITIONAL COMPONENT FOR THE ROTOR HEADS. ONLY THE COLOR CODED MPR SERIES
4. A DOUBLE CHECK ASSEMBLY OR A DOUBLE CHECK DETECTOR CHECK ASSEMBLY SHALL BE INSTALLED ACCORDING TO MANUEACTURER'S SPECIFICATION ON ALL FIRE MAINS AND LOCATED AT THE PARCEL BOUNDARY.		NETAFIM	NOZZLES SHALL BE ACCEPTABLE IN THE ROTOR HEADS. SUB-SURFACE DRIP TUBING AS DESCRIBED BELOW: 0.53 GPH / EMITTER 30 N/A 0.70 IN./F
5. THIS DEPARTMENT SHALL BE NOTIFIED PRIOR TO THE CONVERSION FROM THE TEMPORARY DOMESTIC WATER USE IN THE			TLHCVXR5-CS-12 SUBSURFACE DRIP TUBING (BROWN EXTERIOR COLOR WITH A COPPER OXIDE STRIPE) WITH 0.53 GPH, PRESSURE COMPENSATING EMITTERS INTERNALLY INSTALLED IN THE DRIP TUBING AT 12" O.C. SPACING. DRIP TUBING SHALL BE EQUIPPED WITH A CONTINUOUS EXTERIOR CUP STRIPE. COPPER OXIDE INFUSED EMITTERS AND A PHYSICAL BARRIER TO PREVENT ROOT INTRUSION INTO THE DRIP EMITTER. DRIP EMITTERS SHA
RECYCLED IRRIGATION SYSTEM TO RECYCLED WATER.			CONTINUOUS FLUSHING TYPE AND EQUIPPED WITH A CHECK VALVE AND ANTI-SIPHON FEATURE. DRIP TUBING SHALL BE INSTALLED 4" BELOW THE FINISHED SOIL GRADE (NOT COUNTING MULCH) AND IN PARALLEL ROWS A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIMETER ROW OF DRIP TUBING SHALL SO A MAXIMUM OF 16" ON CENTER. THE PERIME
BEFORE CONNECTING THE USER'S RECYCLED WATER SYSTEM TO THE SUPPLIER'S RECYCLED WATER SYSTEM, A SEPARATION TEST SHALL BE PERFORMED. THIS TEST IS TO ENSURE THE ABSOLUTE SEPARATION OF THE PROPOSED RECYCLED AND POTABLE WATER SYSTEMS. THE SEPARATION TEST SHALL BE DONE UNDER THE SUPERVISION OF THIS DEPARTMENT USING THE FOLLOWING PROCEDURE (ON CONVERSIONS THIS PROCEDURE IS USUALLY COMPLETED AS A PRELIMINARY INSPECTION			INSTALLED A MAXIMUM OF 4" FROM THE EDGE OF ANY HARDSCAPE OR TURF EDGE. ALL SUBSEQUENT INTERIOR ROWS SHALL BE ADJUSTED TO PRO AN EVEN SPACING ACROSS THE PLANTER WITHOUT EXCEEDING 16" MAXIMUM SPACING. INSTALL 9" PVC COATED GALVANIZED TUBING STAKES A MAXIMUM OF FIVE (5) FEET ON CENTER ALONG THE LENGTH OF THE TUBING. TUBING STAKES SHALL BE MODEL #GDTS140900 AS MANUFACTURED B GPH IRRIGATION PRODUCTS (866) 582-9684. THE LINES SHOWN ON THE PLANS REPRESENT THE APPROXIMATE DIRECTION AND SPACING OF THE DRI TUBING DOWS. SEE SPACING DECUMPEMENTS ABOVE AND IN DETAILS.
 WHICH WOULD COINCIDE WITH THE PLAN CHECK PROCESS): POTABLE WATER SHALL BE USED DURING THE INITIAL TESTING OF THE PROPOSED ON-SITE RECYCLED WATER SYSTEM, WITH THE POTABLE WATER SYSTEM SEPARATED FROM THE PROPOSED RECYCLED WATER SYSTEM BY AN APPROVED 	NO SYMBOL	NETAFIM	CONNECTION BETWEEN HCVXR-CS DRIP TUBING AND PVC SUPPLY AND DISCHARGE HEADERS SHALL BE MADE USING TL DRIP LINE BARBED FITTINGS SCH. 40 PVC THREADED FITTINGS, SCH. 80 NIPPLES AND FLEXIBLE NIPPLES. WHEN THE CONNECTION IS AT THE END RUN OF THE TUBING USE A 1/2" 40 PVC THREADED 90° ELBOW, A 1/2" X LENGTH AS REQUIRED SCH. 80 PVC THREADED NIPPLE, A 1/2" X 6" MIPT X FIPT FLEXIBLE NIPPLE, AND A TL050N 17mm BARB X 1/2" MIPT ADAPTER FITTING. WHEN THE CONNECTION IS IN THE MIDDLE OF THE TUBING RUN USE A 1/2" SCH. 40 PVC THREADED TEF
 THE PROPOSED RECYCLED WATER SYSTEM SHALL BE CHECKED COMPLETELY FOR FLOW TO INSURE THE PROPER OPERATION OF EACH WATER OUTLET, I.E. OPERATING THE CONTROL UNITS AND VERIFYING THE OPERATION OF EACH STATION, QUICK COUPLER, 			FITTING, A 1/2" X LENGTH AS REQUIRED SCH. 80 PVC THREADED NIPPLE, A 1/2" X 6" MIPT X FIPT FLEXIBLE NIPPLE, AND TWO (2) TL050MA 17mm BARB > MIPT ADAPTERS. ALL END RUNS OF TUBING SHALL BE CONNECTED WITH A PVC DISCHARGE HEADER. FLEXIBLE NIPPLES SHALL BE MODEL #GFN050 AS MANUFACTURED BY GPH IRRIGATION PRODUCTS (866) 582-9684.
ETC.			TL SERIES 17mm BARBED FITTINGS FOR CONNECTIONS BETWEEN DRIP TUBING (TUBING-TO-TUBING ONLY). NO HEATING OF TUBING SHALL BE ALLON
WATER SYSTEM SHALL BE COMPLETELY DRAINED AND REMAIN DEACTIVATED FOR AN ADEQUATE PERIOD OF TIME TO BE SPECIFIED BY THIS DEPARTMENT. THE TIME SPECIFIED WOULD DEPEND ON THE SIZE AND COMPLEXITY OF THE SYSTEM. AT THIS POINT THERE WOULD BE NO-FLOW TO THE PROPOSED RECYCLED WATER SYSTEM AND POSITIVE FLOW TO THE DOMESTIC/POTABLE WATER SYSTEM.	*	NETAFIM	WHERE VINES ARE PLANTED ON WALLS, FENCES OR COLUMNS WITHIN THE DRIP TUBING ZONES, ADDITIONAL DRIP EMITTERS SHALL BE REQUIRED F THESE VINE PLANTINGS. THE CONTRACTOR SHALL INSTALL TWO (2) SPCV10 1 GPH DRIP EMITTERS PER VINE PLANTING. THESE ADDITIONAL EMITTE SHALL BE PUNCHED DIRECTLY INTO THE DRIP TUBING. EMITTERS SHALL BE INSTALLED USING A SPDT EMITTER INSTALLATION TOOL. EACH DRIP
4. AT THE END OF THE SHUTDOWN PERIOD, ALL OF THE PROPOSED RECYCLED WATER USES (EG, DEVICES OR STATIONS) SHALL BE TESTED, THROUGHOUT THE ENTIRE SITE, FOR CROSS-CONNECTIONS BY CHECKING FOR FLOW.	Ē	GPH IRRIGATION/	BUG CAP. LOCATE EMITTERS DIRECTLY OVER THE ROOT BALL OF THE VINE PLANTINGS. GDFN DRIP FLUSH / INDICATOR NOZZLE, ORANGE IN COLOR, INSTALLED ONTO A RAIN BIRD 1812 12" POP-UP SPRINKLER BODY (NO PRS DEVICE).
 THE PROPOSED RECYCLED WATER INLET SHALL THEN BE CHECKED TO DETERMINE IF THERE IS ANY BACK PRESSURE OR SIGNIFICANT BACKFLOW OF WATER. IF THERE IS NO FLOW DETECTED AT THE INLET OR IN ANY OF THE USES THAT WOULD SUGGEST A CROSS- CONNECTION, THE 	MD	RAIN BIRD P.O.C.	THE FLUSH NOZZLE SHALL BE CLOSED FOR NORMAL OPERATION OF THE DRIP SYSTEM. 1" RECYCLED (RECLAIMED) DEDICATED IRRIGATION WATER METER WITH 1" SERVICE LINE. VERIFY SIZE, LOCATION AND PRESSURE IN FIELD.
	S	YARDNEY	SB-2, 2" FLANGED STEEL BASKET STRAINER WITH 80 MESH STAINLESS STEEL FILTER ELEMENT, PRESSURE GAGE AND A BRASS BALL TYPE DRAIN VA INSTALL ON DOWNSTREAM SIDE OF RECYCLED WATER POINT OF CONNECTION. INSTALL INSIDE A JUMBO RECTANGULAR VALVE BOX.
 THE DOMESTIC/POTABLE WATER STSTEM SHALL BE CHECKED COMPLETELY FOR FLOW TO INSURE THE PROPER OPERATION OF EACH WATER OUTLET. THE DOMESTIC/POTABLE WATER TO THE USE SITE WILL BE SHUT OFF AT THE POTABLE WATER BACKFLOW PREVENTION DEVICE. THE POTABLE SYSTEM SHALL BE 		BUCKNER	3200-150 1 1/2" NORMALLY CLOSED, BRASS MASTER CONTROL VALVE. WIRE MCV TO THE CONTROLLER USING A SEPARATE PILOT AND GROUND WIRE, ROUTE INSIDE CONDUIT WITH FLOW SENSOR WIRE. INSTALL INSIDE A STANDARD RECTANGULAR VALVE BOX.
COMPLETELY DRAINED AND THE SYSTEM WILL REMAIN DEACTIVATED FOR AN ADEQUATE PERIOD OF TIME TO BE SPECIFIED BY THIS DEPARTMENT. THE TIME SPECIFIED WOULD DEPEND ON THE SIZE AND COMPLEXITY OF THE SYSTEM, AT THIS POINT THERE WOULD BE NO FLOW TO THE DOMESTIC/POTABLE SYSTEM AND POSITIVE	V	BUCKNER	3200-100 1" NORMALLY CLOSED, BRASS MASTER CONTROL VALVE. WIRE MCV TO THE CONTROLLER USING A SEPARATE PILOT AND GROUND WIRE, ROUTE INSIDE CONDUIT WITH FLOW SENSOR WIRE. INSTALL INSIDE A STANDARD RECTANGULAR VALVE BOX.
FLOW TO THE PROPOSED RECYCLED WATER.AT THE END OF THE SHUTDOWN PERIOD, ALL OF THE POTABLE WATER FIXTURES SHALL BE TESTED, THROUGHOUT THE USE SITE, FOR CROSS-CONNECTIONS BY OPERATING EACH FIXTURE AND CHECKING FOR FLOW. 8. THE POTABLE WATER INLET SHALL THEN BE CHECKED TO DETECT IF THERE IS BACK PRESSURE OR SIGNIFICANT BACKFLOW OF WATER. IF NO FLOW IS DETECTED AT	E	CREATIVE SENSOR TECH.	FSI-T10-001 1" PVC TEE, IMPELLER TYPE FLOW SENSOR, WIRE TO CONTROLLER USING TWO (2) #14UF AWG WIRES INSIDE A 1 1/4" SCH. 40 PVC (GRAY) ELECTRICAL CONDUIT, WITH MASTER CONTROL VALVE WIRES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND INSIDE A STANDARD RECTANGULAR VALVE BOX. MULTIPLE FLOW SENSORS SHALL REQUIRE SEPARATE CONDUIT RUNS. CONTACT CREATIVE SENSOR TECHNOLOGY'S REPRESENTATIVE. GENTILE & ASSOCIATES (STEVEN KIM) AT (760) 214-5734 FOR FURTHER INFORMATION
THE INLET OR IN ANY OF THE FIXTURES THAT WOULD SUGGEST A CROSS-CONNECTION, THE POTABLE WATER CONNECTION SHALL BE REACTIVATED. UPON SUCCESSFUL COMPLETION OF THE PRESSURE TEST, ENSURING NO CROSS-CONNECTIONS BETWEEN THE POTABLE AND RECYCLED WATER SYSTEMS, THE POTABLE WATER SUPPLY TO THE PROPOSED RECYCLED IRRIGATION SYSTEM SHALL THEN BE SEVERED, THE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER REMOVED	E	CREATIVE SENSOR TECH.	FSI-T10-001 1" PVC TEE, IMPELLER TYPE FLOW SENSOR, WIRE TO CONTROLLER USING TWO (2) #14UF AWG WIRES INSIDE A 1 1/4" SCH. 40 PVC (GRAY) ELECTRICAL CONDUIT, WITH MASTER CONTROL VALVE WIRES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND INSIDE A STANDARD RECTANGULAR VALVE BOX. MULTIPLE FLOW SENSORS SHALL REQUIRE SEPARATE CONDUIT RUNS. CONTACT CREATIVE SENSOR TECHNOLOGY'S
AND THE USER'S RECYCLED WATER SYSTEM CONNECTED TO THE WATER UTILITY'S RECYCLED WATER SYSTEM. FOUR YEAR PRESSURE TEST OF SYSTEM	►+◄	LASCO	REPRESENTATIVE, GENTILE & ASSOCIATES (STEVEN KIM) AT (760) 214-5734 FOR FURTHER INFORMATION. V20101N-SC 2" SLO-CLOSE SCH. 80 PVC, TRUE-UNION BALL VALVE WITH SOLVENT WELD SOCKET CONNECTIONS, LINE SIZE PER MAINLINE. INSTALL INSIDE A 10" ROUND VALVE BOX.
ON SITES WHERE BOTH RECYCLED WATER AND POTABLE WATER ARE PRESENT, A PERIODIC SEPARATION TEST SHALL BE PERFORMED. THIS TEST IS TO ENSURE THE ABSOLUTE SEPARATION OF THE RECYCLED AND POTABLE WATER SYSTEMS. THE SEPARATION TEST SHALL BE DONE UNDER THE SUPERVISION OF THIS DEPARTMENT USING THE FOLLOWING PROCEDURE:	Q ●	RAIN BIRD RAIN BIRD	44LRC 1" QUICK COUPLER VALVE WITH LOCKING VINYL COVER AND A LASCO G13S-218 SWING JOINT. INSTALL INSIDE A 10" ROUND VALVE BOX. 1X0-PESBR-PRS-D PRESSURE REGULATING, PLASTIC REMOTE CONTROL VALVE (RCV), SIZE AS SHOWN (1", AND 1 1/2" SIZES), SET PRS-D PRESSURE
1. THE RECYCLED WATER SYSTEM SHALL BE CHECKED FOR OPERATIONAL INTEGRITY AND THEN COMPLETELY DRAINED AND REMAIN DEACTIVATED FOR AN ADEQUATE REPIOD OF TIME TO BE SPECIFIED BY THIS DEPARTMENT.			REGULATOR TO PROVIDE THE OPERATING PRESSURE OF THE SPRINKLER / BUBBLER HEAD AT THE HIGHEST OR FARTHEST HEAD ON THE CONTROL VALVE ZONE (MEASURE PSI AT HEAD). INSTALL THE RCV INSIDE A STANDARD RECTANGULAR VALVE BOX.
2. AT THE END OF THE SHUTDOWN PERIOD, ALL OF THE RECYCLED WATER USES (E.G., DEVICES OR STATIONS) SHALL BE TESTED, THROUGHOUT THE ENTIRE SITE, FOR	T	RAIN BIRD	100-PESBR PLASTIC DRIP REMOTE CONTROL VALVE, SIZE AS SHOWN (1" SIZE). INSTALL A RAIN BIRD LCRBY-100D DISC FILTER AND A SENNINGER 1" PMR-40-MF PRESSURE REGULATOR DOWNSTREAM SIDE OF EACH DRIP REMOTE CONTROL VALVE (DRCV). INSTALL THE DRCV ASSEMBLY INSIDE A JUMBO RECTANGULAR VALVE BOX. SIZE AS REQUIRED TO FIT ASSEMBLY.
CROSS-CONNECTIONS BY CHECKING FOR FLOW.			EXISTING RAIN BIRD PEB REMOTE CONTROL VALVE, PROTECT IN PLACE
BACKFLOW OF WATER. IF THERE IS NO FLOW DETECTED AT THE INLET OR IN ANY OF THE USES THAT WOULD SUGGEST A CROSS-CONNECTION, THE RECYCLED WATER CONNECTION SHALL BE REACTIVATED.		I.T.S. RAIN BIRD	IMPERIAL TECHNICAL SERVICES RAIN BIRD CONTROLLER ASSEMBLY, MOD. # ICA6-RB3-24/SP/IQ-GPRS-1/RSE/IFS-100C/MP16, CONTACT DARYL GREEN @ 949.584.7311 AT IMPERIAL TECHNICAL SERVICES
4. THE POTABLE WATER SHALL BE CHECKED FOR OPERATIONAL INTEGRITY AND THEN IT SHALL BE SHUT OFF AT THE POTABLE WATER METER. THE POTABLE SYSTEM SHALL BE COMPLETELY DRAINED AND THE SYSTEM WILL REMAIN DEACTIVATED FOR AN ADEQUATE PERIOD OF TIME TO BE SPECIFIED BY THIS DEPARTMENT.		RAIN BIRD	CONTACT DARYL GREEN @ 949.584.7311 AT IMPERIAL TECHNICAL SERVICES
5. AT THE END OF THE SHUTDOWN PERIOD, ALL OF THE POTABLE WATER FIXTURES SHALL BE TESTED, THROUGHOUT THE USE SITE, FOR CROSS-CONNECTIONS BY	NO SYMBOL	PAIGE ELECTRIC	THE CONTROLLER SHALL BE GROUNDED USING A #182000 5/8" X 8 FOOT COPPER CLAD GROUND ROD, A #182005 CAST BRONZE ROD CLAMP AND
 THE POTABLE WATER INLET SHALL THEN BE CHECKED TO DETECT IF THERE IS BACK PRESSURE OR SIGNIFICANT BACKFLOW OF WATER. IF NO FLOW IS DETECTED AT THE INLET OR IN ANY OF THE FIXTURES THAT WOULD SUGGEST A CROSS-CONNECTION, THE POTABLE WATER CONNECTION SHALL BE REACTIVATED. 	R	RAIN BIRD N/A	RSD-BEX WIRED RAIN SENSOR, MOUNT IN RGVRSS ENCLOSURE ON THE SIDE OF THE CONTROLLER ENCLOSURE, WIRE TO THE CONTROLLER. 120 VOLT ELECTRICAL POWER FOR CONTROLLER, PROVIDED BY ELECTRICIAN, VERIFY ACTUAL LOCATION IN FIELD
EMERGENCY CROSS-CONNECTION RESPONSE PLAN: IN THE EVENT A BACKFLOW INCIDENT IS SUSPECTED OR OCCURS THE		AS APPROVED	PURPLE PVC PIPE 3/4" - 2" SCH. 40, SOLVENT WELD WITH SCH. 40 PVC FITTINGS, AS LATERAL LINES INSTALLED 12" BELOW FINISHED GRADE
FOLLOWING PROCEDURES SHALL BE IMPLEMENTED IMMEDIATELY.		AS APPROVED	PURPLE PVC PIPE 2" CL. 315 SOLVENT WELD WITH SCH. 80 PVC FITTINGS, AS MAINLINES INSTALLED 18" BELOW FINISHED GRADE
 KEEP POTABLE WATER SYSTEM PRESSURIZED AND POST DO NOT DRINK SIGNS AT ALL POTABLE WATER FIXTURES AND OUTLETS. IMMEDIATELY SHUT DOWN THE RECYCLED WATER SYSTEM TO THE FACILITY AT THE METER. 		EXISTING AS APPROVED	EXISTING 2" MAINLINE, PROTECT IN PLACE PVC PIPE SCH. 40 AS SLEEVING, 2.5 TIMES THE DIAMETER OF PIPE OR WIRE BUNDLE CARRIED (2" MINIMUM SIZE) INSTALL ALL PIPE AND WIRE UNDER
3. THE WATER PURVEYOR SHALL COLLECT WATER SAMPLES AND PERFORM A 24-HOUR BACTERIOLOGICAL ANALYSIS. WATER SAMPLES SHOULD BE COLLECTED FROM THE CLOSEST ACCEPTABLE POINT TO THE CROSS-CONNECTION. 4. IDENTIFY THE CALLSE AND LOCATION OF BACKELOW AND FLIMINATE THE CROSS-CONNECTION.		14000	PAVING, HARDSCAPE, ETC. (OR AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE) INSIDE SLEEVES. SLEEVES UNDER PEDESTRIAN PAVING SHALL BE INSTALLED 24" BELOW FINISHED GRADE. SLEEVES UNDER VEHICULAR PAVING SHALL BE INSTALLED 36" BELOW FINISHED GRADE.
 CONDUCT A CROSS-CONNECTION PRESSURE TEST TO VERIFY THAT ALL CROSS-CONNECTIONS WERE ELIMINATED. IF THE BACTERIOLOGICAL ANALYSIS CONDUCTED IN STEP 3 IS POSITIVE, CHLORINATE THE POTABLE WATER SYSTEM 	NO SYMBOL	LASCO	ALL FITTINGS USED WITH SOLVENT WELD MAINLINE PIPE SHALL BE SCH. 80 PVC FITTINGS, GRAY IN COLOR, AND SIZED TO MATCH THE MAINLINE PIPE. ALL FITTINGS USED WITH SOLVENT WELD LATERAL LINE PIPE SHALL BE SCH. 40 PVC, WHITE IN COLOR, AND SIZED TO MATCH THE LATERAL LINE PIPE. ALL THREADED PVC NIPPLES SHALL BE SCH. 80 PVC PIPE, DARK GRAY IN COLOR, WITH MOLDED THREADS.
MAINTAINING A CHLORINE RESIDUAL OF AT LEAST 50 MG/L FOR 24 HOURS. OTHERWISE PROCEED TO STEP 9. 7. FLUSH THE POTABLE WATER SYSTEM AFTER 24 HOURS AND PERFORM STANDARD BACTERIOLOGICAL ANALYSIS. 8. IF THE RESULTS FROM STEP 7 ARE ACCEPTABLE, PROCEED TO STEP 9. OTHERWISE, REPEAT STEP 6-7. 9. REMOVE WARNING SIGNS AND REACTIVATE SYSTEMS.	NO SYMBOL	WELD-ON	ALL SOLVENT WELD CONNECTIONS FOR BOTH MAINLINE AND LATERAL LINE SHALL BE MADE USING THE TWO-STEP PROCESS OF PRIMER AND SOLVE CEMENT. PRIMER SHALL BE P-68 LOW VOC "PURPLE PRIMER". SOLVENT CEMENT SHALL BE 705 LOW VOC, GRAY COLORED "MEDIUM BODIED" CEMEN USE DAUBERS SIZED AT LEAST ONE-HALF THE SIZE OF THE LARGEST PIPE BEING JOINED. ALL SOLVENT CEMENTED JOINTS SHALL BE MADE PER THE PIPE AND FITTING MANUEACTURER'S RECOMMENDATIONS.
IRRIGATION NOTES	NO SYMBOL	AS APPROVED	11/4" SCH. 40 PVC, GRAY ELECTRICAL CONDUIT FOR FLOW SENSOR / MASTER VALVE WIRES OR CENTRAL CONTROL COMMUNICATION CABLE, PROVID PULL BOX AT A MAXIMUM OF 200 FEET ON CENTER FOR A 3 FOOT WIRE LOOP OR ANY SPLICES. INSTALL INSIDE A STANDARD RECTANGULAR VALVE
1. ALL LOCAL MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED	NO SYMBOL NO SYMBOL	GPH IRRIGATION NDS (K.B.I.)	GDBRY6 DIRECT BURIAL, 100% SILICONE GEL, WATER-PROOF WIRE CONNECTORS FOR USE ON ALL WIRE SPLICES AND CONNECTIONS KSC-XXX-S SWING CHECK VALVE, LATERAL LINE SIZE, INSTALL ONE (1) ON THE DOWNSTREAM SIDE OF EACH RCV WHEN THE RCV IS LOWER THAN TH
INTO AND MADE A PART OF THESE SPECIFICATIONS AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR.	NO SYMBOL	NDS (K.B.I.)	SPRINKLERS, BUBBLERS OR DRIP EMITTERS. INSTALL WITHIN SPRINKLER / BUBBLER / DRIP ZONES AS REQUIRED TO PREVENT LOW HEAD DRAINAGE KC-XXX-S SPRING CHECK VALVE, LATERAL LINE SIZE, INSTALL ONE (1) ON THE DOWNSTREAM SIDE OF EACH RCV WHEN THE RCV IS HIGHER THAN TH
 THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTORES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL OPTIME THE DEPTIMENT ENGINEERING OF ADOUTECTURAL PLANS REFORE RECOMMENCING WORK. 	NO SYMBOL	RAIN BIRD	SPRINKLERS, BUBBLERS OR DRIP EMITTERS. INSTALL WITHIN SPRINKLER / BUBBLER / DRIP ZONES AS REQUIRED TO PREVENT LOW HEAD DRAINAGE ALL VALVE BOXES SHALL BE VB SERIES, PLASTIC TYPE WITH OVERLAPPING LIDS. VALVE BOX BODIES SHALL BE BLACK IN COLOR. LIDS FOR BOXES (RECYCLED SYSTEM 'C' SHALL BE PURPLE. LIDS FOR VALVE BOXES ON DOMESTIC SYSTEM 'B' (FUTURE RECYCLED AREAS) SHALL BE BLACK. ALL BOX SHALL BE SECURED WITH A BAIN BIRD VB-LOCK-H HEXAGON HEAD BOLT. WASHER AND CUP. BOXES SHALL BE AS SHOWN BELOW:
 THE CONTRACTOR SHALL OBTAIN THE PERTINENT ENGINEERING OR ARCHITECTORAL PLANS BEFORE BEGINNING WORK. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK. 			DESCRIPTION SHRUB AREAS (BLACK BOXES AND LIDS) RECYCLED VALVES (PURPLE)
5. THIS DESIGN IS DIAGRAMMATIC. ALL EQUIPMENT SHOWN IN PAVED AREAS IS FOR DESIGN CLARITY ONLY AND IS TO BE INSTALLED WITHIN PLANTING AREAS.			10" ROUND BOXES VB-10RNDB (BOX) AND VB-10RNDBKL (LID) VB-10RVD-B BODY AND VB-10RNDPL LID STANDARD RECTANGULAR BOXES VB-STDB (BOX) AND VB-STDBKL (LID) VB-STD-B BODY AND VB-STDPL LID JUMBO RECTANGULAR BOXES VB-JMBB (BOX) AND VB-JMBBKL (LID) VB-STD-B BODY AND VB-STDPL LID
6. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY EQUIPMENT AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN CONDITIONS EXIST THAT WERE NOT EVIDENT AT THE TIME THESE PLANS WERE PREPARED. ANY SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO ANY WORK OR THE IRRIGATION CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY FIELD CHANGES DEEMED NECESSARY BY THE OWNER.			
7. INSTALL ALL EQUIPMENT AS SHOWN IN THE DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH LOCAL CITY, COUNTY AND STATE REQUIREMENTS FOR POTH FOUR MENT AND INSTALL ATION.			VALVE CALLOUT LEGEND
8. ACTUAL LOCATION FOR THE INSTALLATION OF THE BACKFLOW PREVENTER AND THE AUTOMATIC CONTROLLER IS TO BE DETERMINED IN THE FIELD BY THE			VALVE SIZE IN INCHES
9. CONTRACTOR IS TO PROVIDE AN ADDITIONAL PILOT WIRE FROM CONTROLLER ALONG ENTIRETY OF MAIN LINE TO THE LAST ROVION FACH AND EVERY LEGIOF			A20 1" 35 30 - OPERATING PRESSURE (PSI) 1,750' - LENGTH OF DRIP TUBING
 MAIN LINE. LABEL SPARE WIRES AT BOTH ENDS. 10. ALL PIPE UNDER PAVED AREAS TO BE INSTALLED IN SLEEVING TWICE THE DIAMETER OF THE PIPE CARRIED. SEE LEGEND FOR TYPE. ALL WIRE UNDER PAVED AREAS TO BE INSTALLED IN SLEEVING TWICE THE DIAMETER OF THE PIPE CARRIED. SEE LEGEND FOR TYPE. ALL WIRE UNDER PAVED AREAS TO BE INSTALLED IN A SCH. 40 SLEEVE THE SIZE BEOLUDED TO FASH Y DUILL WIRE THROUGH. ALL OL FEVER TO BE INSTALLED IN SLEEVE THE SIZE BEOLUDED TO FASH Y DUILL WIRE THROUGH. ALL OL FEVER TO BE INSTALLED IN SLEEVE THE SIZE BEOLUDED TO FASH Y DUILL WIRE THROUGH. ALL OL FEVER TO BE INSTALLED IN SLEEVE THE SIZE BEOLUDED TO FASH Y DUILL WIRE THROUGH. ALL OL FEVER TO BE INSTALLED IN SLEEVE THE SIZE BEOLUDED TO FASH Y DUILL WIRE THROUGH. ALL OL FEVER TO BE INSTALLED IN SLEEVE THE SIZE BEOLUDED TO FASH Y DUILL WIRE THROUGH. ALL OL FEVER TO BE INSTALLED IN A SCH. 40 SLEEVE THE SIZE BEOLUDED TO FASH Y DUILL WIRE THROUGH. ALL OL FEVER TO BE INSTALLED IN A SCH. 40 SLEEVE THE SIZE BEOLUDED TO FASH Y DUILL WIRE THROUGH. ALL OL FEVER TO BE INSTALLED IN A SCH. 40 SLEEVE THE SIZE BEOLUDED TO FASH Y DUILL WIRE THROUGH. ALL OL FEVER TO BE INSTALLED IN A SCH. 40 SLEEVE THE SIZE BEOLUDED TO FASH Y DUILL WIRE THROUGH. ALL OL FEVER TO BE INSTALLED IN A SCH. 40 SLEEVE THE SIZE BEOLUDED TO FASH Y DUILL WIRE THROUGH. ALL OL FEVER TO SERVE THROUGH TO FASH Y DUILL WIRE THROUGH TO FASH Y DUILL Y DUILL WIRE THROUGH TO FASH Y DUILL WIRE THROUGH TO FASH Y DUILLY WIRE THROUGH TO FASH Y DUILLY Y DU			HZ1 DT 0.70 1,500 - ZONE AREA (SFT) TUBING
ANEAS TO BE INSTALLED IN A SUR. 40 SLEEVE THE SIZE REQUIRED TO EASILY PULL WIRE THROUGH. ALL SLEEVES TO BE INSTALLED WITH A MINIMUM DEPTH AS SHOWN ON THE SLEEVING DETAILS. SLEEVES TO EXTEND AT LEAST 12" PAST THE EDGE OF THE PAVING. 11. ALL QUICK COUPLER AND REMOTE CONTROL VALVES TO BE INSTALLED IN SHRUB OR GROUND COVER AREAS WHERE POSSIBLE. ALL QUICK COUPLER AND			IRRIGATION METHOD SEE CHART HYDROZONE NUMBER SEE CHART
REMOTE CONTROL VALVES TO BE INSTALLED AS SHOWN ON THE INSTALLATION DETAILS. INSTALL ALL QUICK COUPLER AND REMOTE CONTROL VALVES WITHIN 18" OF HARDSCAPE. 12. ALL HEADS ARE TO BE INSTALLED WITH THE NOZZLE. SCREEN AND ARCS SHOWN ON THE PLANS ALL HEADS ARE TO BE ADJUSTED TO PREVENT OVERSPRAY			HYDROZONE DESCRIPTION CHART IRRIGATION METHOD DESCRIPTION CHART
ONTO BUILDINGS, WALLS, FENCES AND HARDSCAPE. THIS INCLUDES, BUT NOT LIMITED TO, ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW, REPLACEMENT OF PRESSURE COMPENSATING SCREENS, REPLACEMENT OF NOZZLES WITH MORE APPROPRIATE RADIUS UNITS AND THE REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNITS.		NUMBERDESCRIPHZ 1LOW WAHZ 2MODERA	PTION OF THE HYDROZONEWUCOLSPLANT FACTORLETTERSDESCRIPTION OF THE IRRIGATIONTYPEIR. EFFICIENCYATE WATER USE PLANTINGSL0.30SSPRAY HEADSSPRAY0.75ATE WATER USE PLANTINGSM0.40RROTARY HEADSSPRAY0.75
13. CONTRACTOR SHALL INSTALL ADDITIONAL CHECK VALVES TO HEADS AND LATERALS AS REQUIRED TO PREVENT LOW HEAD DRAINAGE.		HZ 3 LOW WA	ATER USE TREES L 0.30 DT DRIP 0.81 ATE WATER USE TREES M 0.40 TD TDEE DUBDUEDO DDID 0.04

14. THE CONTRACTOR SHALL USE PROPER GROUNDING TECHNIQUES FOR GROUNDING THE CONTROLLER AND RELATED EQUIPMENT PER MANUFACTURERS SPECIFICATIONS. SWEENEY AND ASSOCIATES RECOMMENDS MEASURING FOR PROPER GROUND AT LEAST ONCE ANNUALLY, AND NECESSARY ADJUSTMENTS MADE TO COMPLY WITH MANUFACTURER SPECIFICATIONS.

15. THE CONTRACTOR IS REQUIRED TO CONTACT DIGALERT OR 811 A MINIMUM OF TWO (2) DAYS PRIOR TO THE START OF ANY EXCAVATIONS ON THE PROJECT AND SPECIFICALLY PRIOR TO THE INSTALLATION OF ANY GROUNDING RODS. DIAL 811 OR LOG ONTO WWW.DIGALERT.ORG TO START A PROJECT TICKET. DIGALERT AND 811 IS A FREE SERVICE PROVIDED TO THE PROJECT. FAILURE TO CONTACT AND HAVE THE EXISTING UTILITIES IDENTIFIED, LOCATED AND MARKED SHALL MAKE THE CONTRACTOR SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGES.

IRRIGATION MATERIAL LEGEND

	HYDROZONE DESCRIPTION CHART				IRRIGATION METHOD DESCRIPTION CHART			
NUMBER	DESCRIPTION OF THE HYDROZONE	WUCOLS	PLANT FACTOR		LETTERS	DESCRIPTION OF THE IRRIGATION	TYPE	IR. EFFICIENCY
HZ 1	LOW WATER USE PLANTINGS	L	0.30		S	SPRAY HEADS	SPRAY	0.75
HZ 2	MODERATE WATER USE PLANTINGS	М	0.40		R	ROTARY HEADS	SPRAY	0.75
HZ 3	LOW WATER USE TREES	L	0.30		DT	DRIP TUBING	DRIP	0.81
HZ 4	MODERATE WATER USE TREES	М	0.40		TB	TREE BUBBLERS	DRIP	0.81
				-				

HAVE COMPLIED WITH THE CRITERIA OF THE IRRIGATION GUIDELINES AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN

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PAUL MURDOCH ARCHITECTS

6310 SAN VICENTE BLVD SUITE 400 LOS ANGELES, CALIFORNIA 90048 310 358-0993

THE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGN, AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT. AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS, OR USED IN CONNECTION WITH ANY WORK OR PROJECT THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT. VISUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS, CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR REVIEW BEFORE PROCEEDING WITH FABRICATION

HANDSCAPE HANDSCAPE PSOMAS Signature 12/31/23 Renewal Date 5/01/23 Date OF CALIFORM
· OF NE

NO. DATE REVISION

DIAMOND STREET + FLAGLER LANE BIKE PATH TORRANCE

DIAMOND LANE REDONDO BEACH, CA 90277 **FLAGLER LANE & TOWERS** STREET

PMA PROJECT NO. 20007 RAWING TITLE

IRRIGATION LEGEND AND NOTES

N.T.S.

05/01/23

SHEET NO.

CHECKED

_203

TORRANCE, CA 90503

	*	
RIP LINE OF CANOPY TREE OR PALM MENDED BACKFILL MIX, SEE PLANTING PLANS NDISTURBED SOIL OOT BALL OF TREE OR PALM ' POP-UP STREAM BUBBLER HEAD WITH 90° ARC PATTERN THREE (3) STREAM UBBLER NOZZLE, SEE THE LEGEND FOR ALL EQUIRED COMPONENTS. ADJUST THE OZZLE STREAMS TO WET THE ROOT BALL ND AMENDED SOIL AREA WITHOUT HITTING. HE TRUNK OF THE TREE OR PALM. SEE OP-UP SPRINKLER DETAIL FOR INSTALLATION. '4" PVC LATERAL LINE PIPE '4" PVC TEE FITTING	SHRUBS OR GROUND COVERS, SEE PLANTING PLANS MULCH LAYER, SEE PLANTING PLANS TURF, SEE PLANTING PLANS TURF, SEE PLANTING PLANS FINISHED GRADE AMENDED SITE SOIL MULCH LAYER, SEE PLANTING PLANS FINISHED GRADE AMENDED SITE SOIL 4" IN SHRUB BEDS INLINE DRIP TUBING WITH INTERNAL DRIP EMITTERS, SEE LEGEND FOR BRAND, MODEL AND PERFORMANCE 1/2" MIPT X 17mm BARB MALE ADAPTER HITTING, TWO (2) REQUIRED FOR TEE FITTING, ONE (1) FOR 90" ELL SCH. 40 PVC THREADED TEE OR 90" ELL FITTING, IVO (2) REQUIRED FOR TEE FITTING, ONE (1) FOR 90" ELL SCH. 40 PVC THREADED NIPPLE, 1/2" X LENGTH AS REQUIRED GPH IRRIGATION PRODUCTS FLEXIBLE NIPPLE, #GFN050600, 1/2" MIPT X 1/2" FIPT TEE FITTING, HEADER SIZE BY 1/2" DRIP TUBING SUPPLY OR DISCHARGE HEADER PVC LATERAL LINE PIPE, 1"MINIMUM SIZE, OTHERWISE SIZE PER THE DRAWINGS CEN HERGATION PRODUCTS I' DVC	DRIPLINE TUBI EXTENDS TO L SHOWN ON PL CENTER FEED HEADER, USE CONNECTION F DRIPLINE AND DRIPLINE AND DRIP CONTROL SEE PLANS AN FOR INSTALLA
OT BALL. OT BALL. ©copyright 2014 Sweeney & Associates, Inc.	COATED WIRE STAKE, #GDTS140900, INSTALLED FIVE (5) FEET ON CENTER NOTE: DRIP TUBING CONNECTION REQUIRED FOR ALL CONNECTIONS BETWEEN DRIP TUBING AND PVC HEADERS. FOR CONNECTIONS AT END RUNS OF TUBING, USE A 90° ELL FITTING AND ONE ADAPTER FITTING FOR CONNECTION. FOR CONNECTIONS IN THE MIDDLE OF RUNS OF TUBING, USE A TEE FITTING AND TWO ADAPTER FITTINGS FOR THE CONNECTION. SECTION VIEW - N.T.S. @copyright 2014 Sweeney & Associates, Inc.	PVC LATERAL I GRID OF DRIPL PLANS FOR SIZ INSTALLED 12"
UT	(C) DRIP CONNECTION	(D) DRIP
ON DRIP TUBING DETAILS. SPH DRIP EMITTERS TO PROVIDE S, MINIMUM 3" FROM INTERNAL EMITTERS. TO DIRECT WATER FROM EMITTER AND THE END OF EACH LENGTH BING DOWN TO THE SOIL GRADE ON CENTER. - VINE PLANTING, SEE PLANTING PLANS PLANTING OR GROUND COVER, SEE PLANTING PLANS - 1 GPH EMITTER, PUNCH INTO DRIP TUBING - 1/4" TUBING, STAKE & BUG CAP, 1 / EMITTER - 1/4" TUBING, STAKE & BUG CAP, 1 / EMITTER	NSTALL POP-UP INDICATOR HEAD 10" OFF OF PAVEMENT OR THE EDGE OF PLANTED AREA SERVED BY DRIP TUBING 00EL #GDFN. ORANGE COLORED NOZLE TO REMAIN IN THE CLOSED DOSITION DURING SYSTEM OPERATION AND OPENED FOR SYSTEM FLUSHING DIRECT FLUSH STREAM INTO PLANTER. INSTALL POP-UP INDICATOR HEAD 12" ABOVE FINISHED GRADE IN SHRUB AND GROUND COVER AREAS UNDISTURBED SOIL UNDISTURBED SOIL DISCHARGE HEADER SHALL BE INSTALL D12" BELOW FINISHED SOIL GRADE, TYPICAL SCH 40 PVC SXST TEE FITTING, LATERAL X LATERAL S1/2" SIZE WITH FIFT THEADS INTO HEAD, SEE LEGEND PRE-ASSEMBLE D2 POLY. TRIPLE SWING JOINT, 1/2" MIPT INLET AND OUTLET WITH A 12" LAY LEWGTH, GPH IRRIGATION MORE HEADSIZE VITH PRE-ASSEMBLE D2 POLY. TRIPLE SWING JOINT, 1/2" MIPT INLET AND OUTLET WITH A 12" LAY LEWGTH, GPH IRRIGATION MOLE HEADSIZE VITH PRE-ASSEMBLE D2 POLY. TRIPLE SWING JOINT, 1/2" MIPT INLET AND OUTLET WITH A 12" LAY LEWGTH, GPH IRRIGATION MOLE HEADSIZE VITH PRE-ASSEMBLE D2 POLY. TRIPLE SWING SOUNT, 1/2" MIPT INLET AND OUTLET WITH A 12" LAY LEWGTH, GPH IRRIGATION MOLE HEADSIZE VITH PRE-ASSEMBLE D2 POLY. TRIPLE SWING SOUNT, 1/2" MIPT INLET AND OUTLET WITH A 12" LAY LEWGTH, GPH IRRIGATION MOLE LIFE ADD SIZE AS SHOWN ON LEGEND, PRE-ASSEMBLE D2 POLY. TRIPLE SWING SOUNT, 1/2" MIPT INLET AND OUTLET WITH A D2" LAY LEWGTH, GPH IRRIGATION MOLE LIFE ADD SIZE AS SHOWN ON LEGEND, PRE-ASSEMBLE D2 POLY. TRIPLE SWING SOUNT, 1/2" MIPT INLET AND SIZE AS SHOWN ON LEGEND, PRE-ASSEMBLE D2 POLY. TRIPLE SWING SOUNT, 1/2" MIPT INLET AND SIZE AS SHOWN ON LEGEND, PRE-ASSEMBLE D2 POLY. TRIPLE SWING SOUNT, 1/2" MIPT INLET AND SIZE AS SHOWN ON LEGEND, PRE-ASSEMBLE D2 POLY. TRIPLE SWING SOUNT, 1/2" MIPT INLET AND SIZE AS SHOWN ON LEGEND, PRE-ASSEMBLE D2 POLY. TRIPLE SWING SOUNT, 1/2" MIPT INLET AND SIZE AS SHOWN ON LEGEND, PRE-ASSEMBLE D2 POLY. TRIPLE SWING SOUNT INCERT ADD SIZE AS SHOWN ON LEGEND, PRE-ASSEMBLE D2 POLY. TRIPLE SWING SOUND AND D2 POLY. TRIPLE SWING SOUND AND POLY. TRIPLE SWING SOUND AND POLY. TRIPLE AND SIZE AS S	PVC MAINLINE PIPE FF WATER METER, USE S PVC 45° ELBOW FITTIN ADJUST PIPE DEPTH IN VALVE BOX. SCH. 80 PVC, LOOSE R FLANGE WITH SLIP EN
PLAN VIEW - N.T.S. ©copyright 2014 Sweeney & Associates, Inc.	INSTALL INDICATOR HEAD 10" FROM THE EDGE OF PAVING OR THE PLANTER EDGE. INSTALL ORANGE COLORED INDICATOR NOZZLE ON POP-UP HEAD AND ADJUST TO FULLY CLOSED. SECTION VIEW - N.T.S. ©copyright 2014 Sweeney & Associates, Inc.	NOTE: USE STANDARD OPENIN
	(G) FLUSH VALVE/INDICATOR HEAD	(H) RCW
URF AREAS ALVE BOX WITH BLACK COLORED E STAINLESS STEEL BOLT AND LOCK-KIT. O LID. INSTALL A CHRISTY'S MODEL 3800 LVE MARKER ONTO BOX LID. FINISHED GRADE IN SHRUB AREAS LASCO "SLO-CLOSE" SCH. 80 PVC, TRU-UNION BALL VALVE, WITH HDPE	FINISHED GRADE IN TURF AREAS RECYCLED WATER WARNING TAG, CHRISTY'S MODEL ID-MAX-P2-RC009 PLASTIC 10" ROUND VALVE BOX WITH BLACK COLORED T-COVER AND CAPTIVE STAINLESS STEEL BOLT ANDLOCK-KIT. HEAT BRAND "QCV" ONTO LID. INSTALL A CHRISTY'S MODEL 3800 RECYCLED WATER VALVE MARKER ONTO BOX LID. FINISHED GRADE IN SHRUB AREAS QUICK COUPLING VALVE WITH 1" FIPT INLET THREADS, ACME QUILL THREADS, AND A	
BUTT FUSED CONNECTIONS. 2" SIZE PER MANIFOLD MAINLINE RECYCLED WATER WARNING TAG, CHRISTY'S MODEL ID-MAX-P2-RC009 6" DIAMETER PVC CL. 160 PIPE, LENGTH AS REQUIRED, 12" MINIMUM BRICK SUPPORTS, THREE (3) REQUIRED ONE CUBIC FOOT OF 3/4" CRUSHED GRAVEL PVC IRRIGATION MAINLINE, SEE LEGEND FOR SPECIFICATION	LOCKING, PURPLE COLOR CODED CAP 3/4" CRUSHED GRAVEL, 4" MINIMUM DEPTH LANDSCAPE FABRIC TO COVER BOTTOM AND ALL SIDES OF VALVE BOX BRICK SUPPORTS, THREE (3) REQUIRED REBAR STAKES, #3 X 24" LONG, TWO (2) REQUIRED LASCO SNAP-LOK PVC SWING JOINT WITH O-RINGS, A MALE 1" MIPT THREADED PVC INLET, PVC STABILIZER ELBOW, 12" LAY LENGTH AND SNAP-LOK COLLAR.	PVC PIPE, AS LATERAL LINE, SIZE PER PLANS, TYPE PER LEGEND BRICK SUPPORTS, FOUR (4) REQUIRED LASCO #896 PVC UNION – SLIP X MIPT, SIZE PER RC TWO (2) PER ASSEMBLY LANDSCAPE FABRIC TO – COVER BOTTOM AND ALL SIDES OF VALUE POY
	USE #G13S-212 WITH A 1" MIPT THREAD BRASS OUTLET. SCH. 80 PVC SST MAINLINE TEE FITTING, MAINLINE SIZE X 1" FIPT FOR CONNECTION TO THE SWING JOINT ***QUICK COUPLERS SHALL BE OF A TYPE APPROVED FOR RECYCLED WATER.*** NOTE: WHEN QCV IS LOCATED ON A MANIFOLD, USE A SCH. 80 SXT 90° ELBOW IN PLACE OF THE TEE FITTING. SIZE THE ELBOW AS MANIFOLD MAINLINE SIZE X 1" FIPT. USE A NON-HARDENING, TEFLON ASSEMBLY PASTE ON ALL THREADED FITTINGS. *OMIT PURPLE RECYCLED WATER BOXES AND WARNING TAGS ON FUTURE RECYCLED VALVES <u>SECTION VIEW - N.T.S.</u> @copyight 2014 Sweeney & Aerocidee, Inc.	NOTE: USE AN APPROVED, NON USE STANDARD BOX OPE *OMIT PURPLE RECYCL

Average ETAF

			,			,	5
	Beach Cities	s Bike Path					
•	Diamond L	ane			S+a S	weeney	+ associates
·	Redondo B	each, Califo	rnia 90277		IR F	RIGATION DESI	GN AND CONSULTING
	_						
rence Evapo	otranspirati	on (ETo)	50.1	ln./Yr.	Residentia	I Project?	No
ne #	Plant	Irrigation	Irrigation	ETAF	Landscape	ETAF	Estimated Total
ing	Factor	Method ^b	Efficiency	(PF / IE)	Area	x	Water Use
ion ^a			(IE)°		(Sq. Ft.)	Area	(ETWU)ª
ape Areas	1						
e Plantings				1.00	460	460	14,289
ees				1.00	1,375	1,375	42,710
				Totals:	1,835	1,835	
			Estimate	d Total Wa	ter Use (ET	WU) Total:	56,999
		Max	imum Appl	ied Water	Allowance (MAWA)":	<mark>56,999</mark>
Planting D	escription		^b Irrigation	Method		Irrigation	Efficiency
			Overhead S	pray of		0.75 for Spr	ay
			Drip			0.81 for Dri	p
e Plantings							
r Use Plantin	ngs						
l Gallons Re	equired) =	ЕТо х 0.62 х	ETAF x Area	1			
conversion fa	ctor that co	nverts acre-i	nches/acre/y	ear to gallo	ns/square foo	ot/year.	
al Gallons A	llowed) =	ETo x 0.62 x	[(ETAF x LA)	+ ((1 - ETA	F) x SLA)]		
onversion fa	ctor that co	nverts acre-i	nches/acre/y	ear to gallo	ns/square foo	ot/year,	
dscape area	in square fe	et, SLA is the	e total specia	l landscape	area in squa	re feet,	
for residentio	al projects ai	nd 0.45 for r	non-residenti	al projects.			
tion Adjustr	nent Facto	r (ETAF) Ca	lculations				
							- <i></i>
0!							0.45
ape Areas			All Landsca	ape Areas			
а	0		Total ETAF	x Area	1,835		
	0		Total Area		1,835		
	#DIV/0!		Average ET	AF	1		

This worksheet is filled o	ut by the proj	ect applicant	t and it is a re	quired eleme	ent of the Lan	dscape Docu	mentatio
Project Name:	Beach Citie	s Bike Path					
Project Address	Diamond L	ane			s+a s	weeney	+ ass
	Redondo B	each, Califo	rnia 90277		, IR	RIGATION DES	IGN AND
Reference Evap	otranspirati	ion (ETo)	50.1	In./Yr.	Residentia		
Hydrozone #	Plant	Irrigation	Irrigation	ETAF	Landscape	ETAF	Estima
/ Planting	Factor	Method	Efficiency	(PF / IE)	Area	X	Wa
Description ^a			(12)*		(34. г)	Area	(E
Regular Landscape A	reas	Overhead					
Plantings	0.20	/ Drip	0.75	0.27	3,284	887	2
2. Moderate Water Use Plantings	0.40	Drip	0.81	0.50	219	110	3
3. Low Water Use Trees	0.30	Bubblers	0.81	0.38	1,750	665	2
4. Medium Water Use Trees	0.40	Bubblers	0.81	0.50	375	188	
				Totals:	5,628	1,849	
			Estimate	d Total Wa	ter Use (ET	WU) Total:	5
		Max	cimum Appl	lied Water	Allowance	(MAWA)९:	7
^a Hydrozone # / Plant	ing Descrip	otion	^b Irrigation	Method		^c Irrigation	Efficie
E.g.			Overhead S	pray of		0.75 for Spr	ay
1.) Front Lawn			Drip			0.81 for Dri	p
2.) Low Water Use Plant	ings						
3.) Medium Water Use F	Plantings						
^a ETWU (Annual Gallo	ons Require	d) = ETo x (0.62 x ETAF >	(Area			
Where 0.62 is a convers	ion factor th	at converts o	acre-inches/a	acre/year to	gallons/squa	ire foot/year	
° MAWA (Annual Gall	ons Allowed	$d) = ETo \times 0$	0.62 x [(ETAF	x LA) + ((1	- ETAF) x SL	4)]	
Where 0.62 is a convers	ion factor th	at converts o	acre-inches/a	acre/year to	gallons/squa	ire <mark>f</mark> oot/year	,
LA is the total landscape	area in squ	are feet, SLA	is the total s	special lands	cape area in	square feet,	
and ETAF is 0.55 for res	idential proje	ects and 0.45	for non-res	idential proj	ects.		
Evapotranspiration A	djustment F	actor (ETA	F) Calculati	ons			
This non-residential n	roject com	lies with t	he WELO av	nd its aver		less than	0 15
into non-restaential p					AYE LIAF IS		J.+J
Pequiar Landscone Ar	835						
	1.940			v Aroa	1.940		
Total Area	5,628		Total Area	Alea	5,628		
	0.33		Average FI	FAF	0.33		

Average ETAF

	0.00	1.05	0.75	0.C	5.9	1.5	1.1	0.1	1.9
Spray	Number o	of Zones:	4	23.2	23.6	29.2	30.7	34.7	31.6
Moderate Water Use Planters	0.80	0.70	0.81	14.0	14.3	17.7	18.6	21.0	19.1
Drip Tubing	Number o	of Zones:	1	14.0	14.3	17.7	18.6	21.0	19.1
Low Water Use Trees	0.40	1.00	0.81	4.9	5.0	6.2	6.5	1.4	6.7
Bubblers	Number o	of Zones:	1	4.9	5.0	6.2	6.5	1.4	6.7
Moderate Water Use Trees	0.40	1.00	0.81	4.9	5.0	6.2	6.5	7.4	6.7
Bubblers	Number c	of Zones:	1	4.9	<mark>5.</mark> 0	6.2	6.5	7.4	6.7
Tota	l Number o	of Zones:	9	77	79	97	102	116	105
Total C	ontroller R	Run Time	in Hours:	1.29	1.31	1.62	1.71	1.93	1.75
				JAN	FEB	MAR	APR	MAY	JUN
	. <u></u>			IR	RIGATI	ON CO	TROL	LER RU	
POC or Controller				JAN	FEB	MAR	APR	MAY	JUN
	ETC	o / Month	(Inches):	2.20	2.70	3.70	4.70	5.50	5.80
	E	To / Day	(Inches):	0.07	0.10	0.12	0.16	0.18	0.19
V	Irriga	tion Days	s/Week:	3	4	4	5	5	6
Plant / Irrig. Type	AKc	Pr Rate	IE	JAN	FEB	MAR	APR	MAY	JUN
Low Water Use Planters	0.80	0.70	0.81	14.0	14.3	17 7	18.6	21.0	19.1
Drip Tubing	Number o	of Zones:	1	14.0	14.3	17.7	18.6	21.0	19.1
			•						
Moderate Water Use Trees	0.40	1.00	0.81	4.9	5.0	6.2	6.5	7.4	6.7
Bubblers	Number o	of Zones:	1	4.9	5.0	6.2	6.5	7.4	6.7
Tota	Number o	of Zones:	2	19	19	24	25	28	26
Total C	ontroller R	un Time i	n Hours:	0.32	0.32	0.40	0.42	0.47	0.43
				JAN	FEB	MAR	APR	MAY	JUN
		بد عماییامم	e intende	d only fo	r compli	ance wit	h local n	nunicina	l codes
Note:	Those sch				n compi	ance wh	in local l	inanii cipa	o that a
Note:	These sch represent	the MAXI	MUM REA	SONABL	E run tin	nes and a	are used	to ensur	
Note:	These sch represent allowed.	the MAXI	MUM REA	SONABL	E run tin lude rair	nes and a nfall, site	are used soil type	to ensur	ic expo
Note:	These sch represent allowed. position.	the MAXI These sci It is solely	MUM REA	SONABL o not inc onsibility	E run tin lude rair of the in	nes and a nfall, site rigation	are used soil type contract	to ensur es, specif or to pro	ic expo aram th
Note:	These sch represent allowed. position. water for	the MAXI These sci It is solely the lands	MUM REA hedules do y the respo cape. All	SONABL o not inc onsibility smart co	E run tin lude rair of the in ontrollers	nes and a nfall, site rrigation shall be	are used soil type contracte progran	to ensur es, specif or to prog nmed usi	ic expo gram the
Note:	These sch represent allowed. position. water for data, soil	the MAXI These sci It is solely the lands moisture	MUM REA hedules do y the resp cape. All sensors, a	SONABL o not inc onsibility smart co and rain	E run tin lude rair of the in ontrollers shut off c	nes and a nfall, site rigation shall be levices a	are used soil type contracte progran s require	to ensur es, specif or to pro- nmed usi ed. Cont	ic expo gram th ing the ractor s

				IR	RIGATI	ON CO	NTROL	LER RU	JN TIME	S						
POC or Controller				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	-
	ET	o / Month	(Inches):	2.20	2.70	3.70	4.70	5.50	5.80	6.20	5.90	5.00	3.90	2.60	1.90	
ĸ		ETo / Day	(Inches):	0.07	0.10	0.12	0.16	0.18	0.19	0.20	0.19	0.17	0.13	0.09	0.06	
	Irrig	ation Days	s/Week:	3	4	4	5	5	6	6	6	5	4	4	3	
Plant / Irrig. Type	AKc	Pr Rate	IE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	1
/ater Use Planters	0.80	0.70	0.75	15.1	15.4	19.1	20.1	22.7	20.6	21.3	20.3	21.3	20.1	13.9	13.1	N
Heads	Number	of Zones:	2	30.3	30.9	38.2	40.1	45.4	41.2	42.7	40.6	42.7	40.3	27.7	26.2	٦
ater Use Planters	0.80	1.83	0.75	5.8	5.9	7.3	7.7	8.7	7.9	8.2	7.8	8.2	7.7	5.3	5.0	Ν
	Number	of Zones:	4	23.2	23.6	29.2	30.7	34.7	31.6	32.6	31.1	32.6	30.8	21.2	20.0	٦
ate Water Use Planters	0.80	0.70	0.81	14.0	14.3	17.7	18.6	21.0	19.1	19.8	18.8	19.8	18.6	12.8	12.1	Ν
ubing	Number	of Zones:	1	14.0	14.3	17.7	18.6	21.0	19.1	19.8	18.8	19.8	18.6	12.8	12.1	1
/ater Use Trees	0.40	1.00	0.81	4.9	5.0	6.2	6.5	7.4	6.7	6.9	6.6	6.9	6.5	4.5	4.2	Ν
ers	Number	of Zones:	1	4.9	5.0	6.2	6.5	7.4	6.7	6.9	6.6	6.9	6.5	4.5	4.2	٦
ate Water Use Trees	0.40	1.00	0.81	4.9	5.0	6.2	6.5	7.4	6.7	6.9	6.6	6.9	6.5	4.5	4.2	Ν
ers	Number	of Zones:	1	4.9	5.0	6.2	6.5	7.4	6.7	6.9	6.6	6.9	6.5	4.5	4.2	1
Tota	Number	of Zones:	9	77	79	97	102	116	105	109	104	109	103	71	67	Т
Total C	ontroller	Run Time	in Hours:	1.29	1.31	1.62	1.71	1.93	1.75	1.81	1.73	1.81	1.71	1.18	1.11	7
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
				IR	RIGATI		ITROL	LER RU	IN TIME	S						
POC or Controller				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	
^	ET	o / Month	(Inches):	2.20	2.70	3.70	4.70	5.50	5.80	6.20	5.90	5.00	3.90	2.60	1.90	
		ETo / Day	(Inches):	0.07	0.10	0.12	0.16	0.18	0.19	0.20	0.19	0.17	0.13	0.09	0.06	
	Irrig	ation Days	s/Week:	3	4	4	5	5	6	6	6	5	4	4	3	
Plant / Irrig. Type	AKc	Pr Rate	IE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	
ater Use Planters	0.80	0.70	0.81	14.0	14.3	17.7	18.6	21.0	19.1	19.8	18.8	19.8	18.6	12.8	12.1	N
ubina	Number	of Zones:	1	14.0	14.3	17.7	18.6	21.0	19.1	19.8	18.8	19.8	18.6	12.8	12.1	Т
ate Water Use Trees	0.40	1.00	0.81	4.9	5.0	6.2	6.5	7.4	6.7	6.9	6.6	6.9	6.5	4.5	4.2	N
ers	Number	of Zones:	1	4.9	5.0	6.2	6.5	7.4	6.7	6.9	6.6	6.9	6.5	4.5	4.2	Т
Total	Number	of Zones:	2	19	19	24	25	28	26	27	25	27	25	17	16	T
Total C	ontroller F	Run Time	in Hours:	0.32	0.32	0.40	0.42	0.47	0.43	0.44	0.42	0.44	0.42	0.29	0.27	Т
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
	_	<u> </u>														
Note:	These sc	nedules ai	re intende	a only fo	or compli	ance wit	in local n	nunicipa	codes a	nd the w	ater efficience	cient lan	dscape o	rdinance	. These	c c

SLEEVES SHALL BE TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE CARRIED WITHIN, EXCEPT WHEN USING BELL AND GASKET PIPING WHERE MAINLINE SLEEVES SHALL BE 2.5 TIMES THE SIZE OF THE PIPE. SECTION VIEW - N.T.S © copyright 2019 Sweeney & Associates, Inc.

WIRE CONNECTION (S)

KIT SHALL INCLUDE A SCOTCHLOK SPRING CONNECTOR, A POLYPROPYLENE TUBE AND A 100% SILICONE WATERPROOF SEALING GEL. TUBE SHALL BE SUPPLIED PRE-FILLED WITH GEL.

· SEPARATION BETWEEN PIPES AND TRENCH WALLS, SEE CHART

- LOW VOLTAGE CONTROL WIRES, OR CONDUIT, IN SLEEVE - CLEAN SOIL PIPE BEDDING, SEE CHART

UNDISTURBED SITE SOIL - SAND BACKFILL COMPACTED TO EQUAL DENSITY OF EXISTING SOIL OR PAVING BASE MATERIAL - IRRIGATION LATERAL LINE IN SLEEVE - IRRIGATION MAINLINE IN SLEEVE

WIRE CONNECTOR SHALL BE A GPH IRRIGATION GDBRY6 DIRECT BURY SPLICE KIT.

PLANTING SPECIFICATIONS 32 9000

PART 1 GENERAL

- 1.1 SUMMARY
- A.SECTION INCLUDES:
- 1. PLANTS, PLANTING AND NECESSARY PLANTING OPERATIONS INCLUDING WATERING AND
- PRUNING. 2. REPLACEMENT OF UNSATISFACTORY PLANT MATERIAL
- 3. PROTECTION, MAINTENANCE AND WARRANTY OF WORK.
- 1.2 REFERENCES
- A.AGRICULTURE CODE OF THE STATE OF CALIFORNIA.
- B. ANSI Z60-1 NURSERY STOCK.
- 1.3 DEFINITIONS
- A.NOMENCLATURE: PLANT NAMES CONFORM TO "STANDARDIZED PLANT NAMES" BY AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE, EXCEPT IN CASES NOT COVERED THEREIN. IN THESE INSTANCES THE CUSTOM OF THE NURSERY TRADE IS FOLLOWED.
- B. SUBSTITUTIONS: ALLOWED WHEN SPECIFIED MATERIAL IS UNAVAILABLE BUT ONLY WITH THE ACCEPTANCE BY THE LANDSCAPE ARCHITECT AND UPON CONTRACTOR'S WRITTEN REQUEST FOR SUCH SUBSTITUTIONS.
- C.PLANT QUANTITIES ON PLANTING PLAN.
- 1. PLANT TOTALS GIVEN ON THE DRAWINGS ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. CONTRACTOR IS RESPONSIBLE FOR QUANTITY TAKE-OFFS AND SHALL PROVIDE ALL INDICATED AND REQUIRED PLANTING.
- D.INSPECTION: APPROVAL OR REJECTION IS RESERVED AT THE PLACE OF GROWTH AND/OR AT THE PROJECT SITE. PLANTS SHALL BE INSPECTED FOR SIZE, CONDITION, DEFECTS OR INJURY. ALL PLANTS SHALL BE TRUE TO NAME, AND ONE OF EACH BUNDLE OR LOT SHALL BE TAGGED WITH THE NAME AND SIZE OF THE PLANTS IN ACCORDANCE WITH THE STANDARDS OF PRACTICE RECOMMENDED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. PROMPTLY REMOVE REJECTED MATERIAL FROM THE SITE.
- 1.4 SUBMITTALS
- A.RECORD DOCUMENTS: PROVIDE RECORD DOCUMENTS TO FURNISH AN ACCURATE RECORD OF THE FINAL PLANTING INSTALLATION, INCLUDING BUT NOT LIMITED TO: 1. PLANT MATERIAL SUBSTITUTIONS WITH SIZE, GENUS AND SPECIES.
- 2. REPLACEMENTS DUE TO TREE FAILURE (EXISTING AND TRANSPLANTED TREES). 3. MATERIAL SUBSTITUTIONS. 4. REVISIONS TO THE SCOPE OF THE WORK.
- B.CERTIFICATES OF INSPECTION: CONFORM TO REQUIREMENTS OF FEDERAL, STATE AND COUNTY LAWS REQUIRING INSPECTION FOR PLANT DISEASES AND INFESTATIONS OF INSECTS OR THEIR EGGS. ACCOMPANY EACH SHIPMENT, INVOICE OR ORDER WITH INSPECTION CERTIFICATES REQUIRED BY LAW.
- C.FERTILIZER ANALYSIS. ALSO PROVIDE LABELS OF EACH FERTILIZER USED AND THE QUANTITIES USED AT EACH APPLICATION.
- D. SOIL CONDITIONER ANALYSIS.
- E. TESTING AGENCY ANALYSIS OF ON-SITE AND IMPORTED TOP SOILS.
- F. SAMPLES OF BARK MULCH AND SOIL CONDITIONER.
- G.HERBICIDES, PESTICIDES, FUNGICIDES: FURNISH MANUFACTURER'S CERTIFICATION BY THE USDA, DESCRIPTION OF INGREDIENTS, AND RECOMMENDATIONS FOR USAGE AND APPLICATION RATES FOR EACH MATERIAL TO BE USED AND DATES OF APPLICATION.
- H.PHOTOGRAPHS OF TREES.
- I. TREE STAKING MATERIALS J. STEEL HEADER PRODUCT DATA
- 1.5 QUALITY ASSURANCE
- A QUALITY: CONFORM TO THE STATE OF CALIFORNIA "GRADING CODE FOR NURSERY STOCK". PROVIDE FIRST GRADE PLANTS, OF NORMAL GROWTH, VIGOROUS, FREE FROM DISEASE, INSECT PESTS, AND INSECT EGGS, WITH HEALTHY NORMAL ROOT SYSTEMS. B.NURSERY QUALIFICATIONS: COMPANIES SPECIALIZING IN GROWING AND CULTIVATING
- PLANTS WITH THREE YEARS DOCUMENTED EXPERIENCE. C.INSTALLER QUALIFICATIONS: COMPANY SPECIALIZING IN INSTALLING AND PLANTING
- PLANTS WITH 5 YEARS DOCUMENTED EXPERIENCE. D. TREE PRUNER QUALIFICATIONS: COMPANY SPECIALIZING IN PRUNING TREES WITH PROOF OF CERTIFICATION BY ISA (INTERNATIONAL SOCIETY OF ARBORISTS).
- E. MAINTENANCE SERVICES: PERFORMED BY INSTALLER.
- F. PROTECT ALL PLANT MATERIALS FROM WINDS AND DIRECT. HOT SUN. WATER AS NECESSARY TO PREVENT WATER STRESS.
- 1.6 REGULATORY REQUIREMENTS
- A.PROVIDE CERTIFICATE OF COMPLIANCE FROM AUTHORITY HAVING JURISDICTION INDICATING APPROVAL OF PLANTS, FERTILIZER AND HERBICIDE MIXTURE. PLANT MATERIALS: DESCRIBED BY ASTM Z60.1, FREE OF DISEASE OR HAZARDOUS INSECTS.
- B. CONFORM TO THE AGRICULTURE CODE OF THE STATE OF CALIFORNIA. 1.7 JOB CONDITIONS
- A.ALL SCALED DIMENSIONS ARE APPROXIMATE. BEFORE PROCEEDING WITH WORK, CAREFULLY CHECK AND VERIFY ALL DIMENSIONS AND QUANTITIES, AND IMMEDIATELY INFORM THE LANDSCAPE ARCHITECT OF DISCREPANCIES BETWEEN THE INFORMATION ON THE DRAWINGS AND ACTUAL CONDITIONS. REFRAIN FROM DOING ANY WORK IN SAID AREAS UNTIL GIVEN INSTRUCTIONS.
- B.DO NOT PERMIT TRUCKS AND VEHICLES TO PASS OVER CURBS, SIDEWALKS, OR PAVING, WITHOUT ADEQUATE PROTECTIONS AGAINST DAMAGE.
- C.PROTECT AND MAINTAIN EXISTING TREES, SHRUBS AND GROUNDCOVERS. PROVIDE ADEQUATE WATER AND FERTILIZATION TO MAINTAIN HEALTHY GROWTH.
- 1.8 SEQUENCING AND SCHEDULING A.NOTIFY ARCHITECT IN WRITING, ALLOWING AT LEAST SEVEN (7) WORKING DAYS NOTICE FOR THE FOLLOWING:
- 1. INITIAL MEETING WITH LANDSCAPE CONTRACTOR AT SITE PRIOR TO START OF ANY WORK. 2. PLANT MATERIAL ACCEPTANCE AT SOURCE AND ON-SITE BY LANDSCAPE CONTRACTOR.
- 3. FINAL LOCATION OF PLANTS PRIOR TO PREPARATION OF PLANTING PITS. 4. FINAL INSPECTION.
- 1.9 WARRANTY
- A.WARRANT ALL TREES, SHRUBS AND GROUNDCOVERS IN THE WORK TO LIVE AND GROW FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. TREES FOUND TO BE DEAD. MISSING OR IN POOR CONDITION, SHALL BE REPLACED IMMEDIATELY.
- B.REPLACEMENT MATERIAL AT CONTRACTOR'S EXPENSE SHALL BE TO THE SAME SPECIFICATIONS REQUIRED FOR ORIGINAL PLANTING.
- C.REPLACEMENTS SHALL HAVE THE SAME WARRANTY AS THAT SPECIFIED FOR THE ORIGINAL PLANT MATERIAL.

PART 2 PRODUCTS

- 2.1 MATERIALS A. ALL REQUIRED MATERIALS SHALL BE OF STANDARD, APPROVED, FIRST GRADE QUALITY, IN FIRST CLASS CONDITION AND IN AMPLE QUANTITIES. THE FOLLOWING PRODUCTS COMPRISE THE PRINCIPAL MATERIALS BUT DO NOT SET THE LIMITATION FOR MATERIALS REQUIRED TO COMPLETE THE INTENDED DEVELOPMENT.
- 2.2 TOP SOIL
- A. WHERE TOP SOIL IS REQUIRED, PROVIDE SANDY LOAM, FERTILE, FRIABLE, NATURAL TOP SOIL, FREE FROM DECAY, SUBSOIL, ROCKS, STICKS, AND OTHER FOREIGN MATERIALS. DO NOT TAKE FROM AREAS IN WHICH NOXIOUS WEEDS, INCLUDING WITHOUT LIMITATION. LPOMOEA TRICOLOR (MORNING GLORY), OXALIS CORNICULATA (OXALIS). CYNODON DACTYLON (BERMUDA GRASS), OR CYPERUS HYDRA (NUT GRASS) ARE FOUND. SOIL SHALL BE FREE OF DELETERIOUS AND HARMFUL FACTORS.
- B. "UNCLASSIFIED" TOP SOIL: SOIL FOUND IN THE DESIGNATED LANDSCAPE AREA, INCLUDING SOIL COMPACTED IN PLACE AS PART OF THE EARTHWORK SPECIFIED FOR THE PROJECT. TEST SAMPLES OF ON-SITE SOILS SHALL BE TAKEN UNDER THE SUPERVISION OF AND AS DIRECTED BY THE LANDSCAPE ARCHITECT. SOIL AMENDMENTS SHALL BE ADDED IN ACCORDANCE TO THE SOILS TESTING LABORATORY'S RECOMMENDATION UPON APPROVAL OF THE ARCHITECT.
- C. "IMPORTED" TOPSOIL: FROM A SOURCE OUTSIDE THE LIMITS OF THE PROJECT SELECTED BY THE CONTRACTOR AND IN COMPLIANCE WITH THE REQUIREMENT SPECIFIED HEREIN.
- AND WORK INTO PLANTING CONDITION ELIMINATION ALL FOREIGN MATERIAL PRIOR TO ANY PLANTING. APPLY AND COMBINE SOIL CONDITIONER PER SOIL TESTING LABORATORY'S RECOMMENDATIONS.
- F. WATER PERCOLATION TEST FOR NEW STREET TREE: CARRY OUT ONE TEST AT PLANTING LOCATION WITH HOLES 3' X 3' BY 2' DEEP. FILL HOLES WITH WATER AND ALLOW TO DRAIN. REFILL HOLE AND MEASURE DROP IN LEVEL OVER A PERIOD OF 4 HOURS OR MORE. REPORT TEST RESULTS TO ARCHITECT. DROP OF LESS THAN 1" PER HOUR WILL REQUIRE REMEDIAL MEASURES AT NO ADDED COST TO THE OWNER
- 2.3 SOIL CONDITIONER
- A.NITROGEN STABILIZED WOOD RESIDUALS, CONSISTING OF NOT LESS THAN 90% ORGANIC WOOD MATERIALS, 0.75% NITROGEN, 0.01% WETTING AGENT. COMPOSTED LEACHED AND AGED FOR 10 TO 12 MONTHS, AND PH FACTOR BETWEEN 6.0 AND 7.25. 2.4 MYCORRHIZAL FUNGI
- A.MYCORRHIZAL FUNGI SHALL BE ADDED IN ALL PLANTING, REGARDLESS OF SOILS
- REPORT. 1. LIVE SPORES OF ENDOMYCORRHIZAL FUNG 2. MINIMUM OF 1,000 SPORES OF VESICLAR ARBUSCULAR (VA) FUNGI PER 3-OUNCE
- PACK. VA COCKTAIL INCLUDES: ENTREPHOSPORA COLUMBIANA, GGLOMUIS ETUNICATUM, GLOMUS CLARUM AND GLOMUS SP.
- **PISOLITHUS TINCTORIUS PER 3-OUNCE PACKET.** 4. MYCORRHIZAL FUNGI ARE AVAILABLE FROM: MITCHELL PEST CONTROL, INC., 305 AGOSTINO RD., SAN GABRIEL, CA 91775-2599, (800) 427-4151, (818) 287-1106, FAX (818)
- 287-6518; TRI-C ENTERPRISES, LLC, 4011 SCHAEFER AVENUE, CHINO, CA 91710, 927-3311, FAX (909) 590-3301. 2.5 MULCH
- A. BARK MULCH
- 1. ORGANIC MULCH: FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS, CONSISTING OF THE FOLLOWING: A. TYPE: SHREDDED BARK
 - B. SIZE RANGE: 3 INCHES MAXIMUM, 1/2 INCH MINIMUM
 - C. COLOR: NATURAL.
- 2. UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS, ALL PLANTED AREAS ARE TO BE TOP DRESSED WITH A 3" LAYER OF BARK MULCH.
- B. UNSTABILIZED DECOMPOSED GRANITE MULCH 1. DECOMPOSED GRANITE SHALL BE FREE OF DELETERIOUS MATERIALS WITH NO SILT OR CLAY PRESENT. COLOR TO BE "CALIFORNIA GOLD"
- 2. DECOMPOSED GRANITE MIX: A.THE DRY STATIC COEFFICIENT OF FRICTION SHALL BE GREATER THAN .60
 - B. SAND AND CRUSHED STONE SHALL CONSIST OF INERT MATERIALS THAT ARE HARD AND DURABLE, WITH STONE FREE FROM SURFACE COATINGS AND DELETERIOUS MATERIALS. GRADATION REQUIREMENTS SHALL BE AS
 - PASSING A SQUARE MESH SIEVE AASHTO T11-82 AND T2782
- 2.6 FERTILIZERS
- A. TO BE BASED UPON THE RECOMMENDATIONS FROM THE SOILS TEST PERFORMED BY A CERTIFIED LABORATORY.
- B. CONTROLLED RELEASE TYPE WITH COATED AND UNCOATED PILLS FORMULATED AS 16-7-12 (+2% IRON), AGRIFORM 16-7-12 (+ IRON), OR EQUAL (NO KNOWN EQUAL).
- C.PLANTING TABLETS OF 20-10-5 ANALYSIS, 21 GRAMS; AGRIFORM 20-10-5, OR EQUAL, (NO
- KNOWN EQUAL).
- D. AMMONIUM NITRATE.
- E. AGRICULTURAL GYPSUM STANDARD IN TRADE. F. SOIL SULFUR - 95% TEST PURE ELEMENTAL SULFUR AGRICULTURAL OR LANDSCAPE GRADE, DRY FREE-FLOWING GRANULAR OR POWDERED UNIFORM MATERIAL.
- 2.7 HERBICIDES
- A.SELECTIVE PRE-EMERGENCE TYPE, 5% TRIFLURALIN. TREFLAN (ELANCO PRODUCTS CO.) OR AS RECOMMENDED BY A LICENSED PEST ADVISOR. B. SELECTIVE PRE-EMERGENCE TYPE 5% DIPHENAMID. DYMID (ELANCO PRODUCTS CO.) OR
- AS RECOMMENDED BY A LICENSED PEST ADVISOR. 2.8 PREPARED BACKFILL MIX
- A. TO BE BASED UPON THE RECOMMENDATIONS FROM THE SOILS TEST PERFORMED BY A CERTIFIED LABORATORY.
- B. MIX (FOR BIDDING PURPOSES):
- 1. 60% BY VOLUME EXCAVATED SOIL. 2.40% BY VOLUME NITROGEN STABILIZED WOOD RESIDUAL.
- 3. 2 LB. PER CU. YD. SOIL SULFUR (IF REQUIRED BY TESTING LABORATORY). 4. 2 LBS. FERTILIZER PER CU. YD. [16-7-12 (+ IRON)].

D.IN ALL PLANTING BEDS, CULTIVATE THE TOP SOIL TO A MINIMUM DEPTH OF 12 INCHES

E. NUTRIENT LEVELS TO SUPPORT HEALTHY PLANT GROWTH, AT NO ADDITIONAL COST.

3. LIVE SPORES OF AN ECTOMYCORRHIZAL FUNGUS MINIMUM OF 60 MILLION SPORES OF

FOLLOWS: CRUSHED STONE SIEVE ANALYSIS PERCENTAGE OF WEIGHT

2.9 PLANT MATERIALS

A.CALIFORNIA STANDARD GRADING CODE NO. 1. GRADE.

- B. PLANTS SHALL BE IN CONFORMANCE WITH THE CALIFORNIA STATE DEPARTMENT OF AGRICULTURE'S REGULATION FOR NURSERY INSPECTIONS, RULES, AND RATINGS. PLANTS SHALL BE HEALTHY, VIGOROUS, AND FREE OF INSECT INFESTATIONS, PLANT DISEASES, SUNSCALDS, FROST BURNS, ABRASIONS, OR OTHER DISFIGUREMENT. PLANTS SHALL BE GROWN IN CLIMATIC CONDITIONS SIMILAR TO THAT OF THE PLANTING SITE, AND WELL HARDENED OFF. PLANTS SHALL HAVE VIGOROUS FIBROUS ROOT SYSTEMS WHICH ARE NOT ROOTBOUND OR POT BOUND. THE LANDSCAPE ARCHITECT IS THE SOLE JUDGE AS TO ACCEPTABILITY OF PLANT MATERIAL.
- C. THE SIZE OF THE PLANTS WILL CORRESPOND WITH THAT NORMALLY EXPECTED FOR SPECIES AND VARIETY OF COMMERCIALLY AVAILABLE NURSERY STOCK OR AS SPECIFIED ON DRAWINGS.
- D. THE LANDSCAPE ARCHITECT SHALL APPROVE PLANT MATERIAL PRIOR TO PLANTING. PLANTS SHALL BE SUBJECT TO REVIEW AND APPROVAL OF LANDSCAPE ARCHITECT AT PLACE OF GROWTH OR UPON DELIVERY FOR CONFORMITY TO SPECIFICATIONS, AND FOR INJURY, INSECT INFESTATION, AND TREES AND SHRUBS FOR IMPROPER PRUNING SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF REVIEW AND REJECTION DURING PROGRESS OF THE WORK. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REFUSE REVIEW IF, IN HIS/HER JUDGMENT, A SUFFICIENT QUANTITY OF PLANTS IS NOT AVAILABLE FOR REVIEW.
- E. ALL PLANTS NOT CONFORMING TO THE REQUIREMENTS HEREIN SPECIFIED SHALL BE CONSIDERED DEFECTIVE, AND SUCH PLANTS, WHETHER IN PLACE OR NOT, SHALL BE MARKED AS REJECTED AND IMMEDIATELY REMOVED FROM THE SITE AND REPLACED WITH NEW PLANTS AT THE CONTRACTOR'S EXPENSE.
- F. SUBSTITUTE PLANT MATERIAL WILL NOT BE PERMITTED UNLESS SPECIFICALLY APPROVED IN WRITING BY THE OWNER'S PROJECT MANAGER.
- 2.10 GUYING AND STAKING MATERIALS
- A. WOOD STAKES SHALL BE LODGEPOLE PINE. STAKES SHALL BE STRAIGHT SHAFTS, SHAVED AND CUT CLEAN AND BARE OF BRANCHES AND STUBS, OF UNIFORM THICKNESS WITH A MINIMUM DIAMETER OF 2", FREE OF LOOSE KNOTS, SPLITS OR BENDS. STAKES SHALL BE 2" IN DIAMETER AND TEN (10) FEET IN LENGTH.
- B. TREE TIES FOR STAKED TREES SHALL BE FLEXIBLE NON-DETERIORATING, SELF-FASTENING, BLACK RUBBER TIES OF SIZES REQUIRED TO ADEQUATELY SUPPORT TREES, SUCH AS CINCH-TIES, BY V.I.T. PRODUCTS (800) 729.1314 OR APPROVED EQUAL. 2.11 ROOT BARRIERS
- A.DEEP ROOT BARRIERS, UB 24-2 IN LINEAR APPLICATION PER DETAIL, BY DEEP ROOT CORP. AVAILABLE THROUGH DEEP ROOT CORP. (714) 766-8835, CENTURY PRODUCTS, (714) 961-1341 OR EQUAL.
- 2.12 STEEL HEADER
- A.SIZE 1/4" X 5" INSTALL PER MANUFACTURER INSTRUCTIONS. COLOR: BLACK
- PART 3 EXECUTION
- 3.1 SITE PREPARATION AND GRADING
- A.PREPARATORY CLEANING 1. COMPLETELY REMOVE ALL WEEDS, ROCKS OVER 1" IN DIAMETER AND DEBRIS FROM
- WORK AREAS PRIOR TO STARTING FINISH GRADING AND SOIL WORK. 2. PROVIDE A WEED ABATEMENT PROGRAM PREPARED BY A LICENSED PEST CONTROL ADVISOR FOR APPROVAL BY THE ARCHITECT, LISTING METHODS AND MATERIALS TO BE USED. KEEP ALL PLANTING AREAS FREE OF WEEDS FOR THE DURATION OF THIS CONTRACT. PLANTING OPERATIONS SHALL NOT OCCUR UNTIL ALL PLANTING AREAS ARE 100% FREE OF WEEDS. WEED ABATEMENT SHALL OCCUR NO LESS THAN 21 DAYS BEFORE PLANTING.
- **B. EARTHWORK AND TOPSOIL REPLACEMENT**
- 1. EXCAVATE AND BACKFILL IRRIGATION SYSTEM. 2. PREPARE FOR THE SPREADING, DENSIFICATION, CULTIVATION AND RAKING OF TOPSOIL, INCLUDING FERTILIZATION AND CONDITIONING.
- C.PRELIMINARY GRADING
- 1. SCARIFY THE EXISTING SOIL TO A DEPTH OF 12 INCHES PRIOR TO BACKFILLING WITH TOPSOIL. SCARIFY AND CULTIVATE "UNCLASSIFIED" TOPSOIL AS DESCRIBED IN SUBSECTION 2.2.B., TO A FINELY DIVIDED CONDITION TO A DEPTH OF 12 INCHES MINIMUM BELOW FINISH GRADE. REMOVE DURING PRELIMINARY GRADING OPERATION ALL STONES OVER 1 INCH IN GREATEST DIMENSION. PREPARE GRADES TO WITHIN ONE TENTH OF A FOOT OF THE FINISH GRADE.
- D.FINISH GRADING: 1. THE SOIL SHALL NOT BE WORKED WHEN THE MOISTURE CONTENT IS SO GREAT THAT EXCESSIVE COMPACTION WILL OCCUR. NOR SO DRY THAT DUST WILL FORM, OR CLODS WILL NOT READILY BREAK UP.
- 2. FINISH GRADE: ALL PLANTING AREAS, AFTER SOIL PREPARATION, SETTLEMENT AND PLANTING, SHALL BE THE GRADES AS SHOWN ON THE DRAWINGS AND AS HEREIN SPECIFIED. LOCAL DEPRESSED OR MOUNDED SURFACES EXCEPT AS SHOWN BY NOTE OR CONTOUR LINES WILL NOT BE ACCEPTED.
- a. UNLESS OTHERWISE INDICATED, SET ALL FINISH GRADES 1" BELOW CURBS,
- HEADERS AND WALKS THAT BORDER SHRUBS AND GROUNDCOVER AREAS. b. SET FINISH GRADES OF RAISED PLANTERS 3" BELOW TOP OF WALLS, OR 1" BELOW LINE OF DAMPROOFING.
- E.PRE-PLANT WEED CONTROL:
- 1. "GROW & KILL": IF WEEDS EXIST ON SITE AT THE BEGINNING OF WORK, SPRAY WITH A NON-SELECTIVE SYSTEMIC CONTACT HERBICIDE, RECOMMENDED BY AN APPROVED LICENSED LANDSCAPE PEST CONTROL ADVISOR AND APPLIED BY A LICENSED PEST CONTROL OPERATOR. LEAVE SPRAYED PLANTS INTACT TO ALLOW SYSTEMIC KILL AS DIRECTED BY ADVISOR. AFTER RECOMMENDED KILL PERIOD, WATER THOROUGHLY TO ENCOURAGE NEW WEED GROWTH, AND RE-APPLY SYSTEMIC HERBICIDE.
- 2. TREAT ALL PLANTING AREAS, EXCEPT FOR THOSE TO BE SEEDED, WITH PRE-EMERGENT HERBICIDE, RECOMMENDED BY AN APPROVED LICENSED LANDSCAPE PEST CONTROL ADVISOR AND APPLIED BY A LICENSED PEST CONTROL OPERATOR
- 3. MAINTAIN SITE WEED FREE UNTIL FINAL ACCEPTANCE BY OWNER'S PROJECT MANAGER BY UTILIZING MECHANICAL, MANUAL, OR CHEMICAL TREATMENT.
- 3.2 SOIL PREPARATION
- A. THOROUGHLY RIP AND CULTIVATE ALL AREAS TO A DEPTH OF NOT LESS THAN 12". B. AMENDMENT TO BE DETERMINED AFTER PROPER SOILS ANALYSIS AND TESTING HAVE BEEN DONE. USE A ROTOTILLER OR SIMILAR MACHINE TO TILL THE RECOMMENDED MATERIALS PER 1.000 SQUARE FEET INTO THE TOP 12" OF SOIL AND WATER IN. FOR BIDDING PURPOSES UNTIL SOIL TESTING RECOMMENDATIONS ARE KNOWN:
- 1. 4 CUBIC YARDS NITROGEN STABILIZED WOOD RESIDUALS.
- 2. 20 LBS. 16-7-12 (+IRON) FERTILIZER.
- 3.100 LBS. GYPSUM.
- 4. 50 LBS. SOIL SULFUR.
- C.RAKE, DRAG AND FLOAT TO CREATE A SMOOTH AND EVEN PLANTING BED. REMOVE ALL HARD AND NON-FRIABLE MATERIALS LARGER THAN 1" IN DIAMETER FROM THE TOP 2" OF THE PREPARED PLANTING AREAS.

- ARCHITECT.

- 3.5 TREE STABILIZATION
- ROOT BALLS OR ROOT MASSES.
- PLANTING.
- OF BOXED TREES.
- 3.6 GROUNDCOVER
- 3.7 MULCHING
- LAYER OF BARK MULCH.
- 3.8 CLEAN-UP AND REVIEW
- OR HOLIDAY.

- 3.9 MAINTENANCE SERVICE

END OF SECTION

3.3 TREE AND SHRUB PLANTING

A.SPOT TREES AND SHRUBS AS SHOWN ON THE DRAWINGS AND SECURE LANDSCAPE ARCHITECT'S APPROVAL BEFORE EXCAVATING PITS. PLACE PLANTING TABLETS ON TOP OF ROOTBALL FOR INSPECTION.

B.MAKE PLANT PITS CIRCULAR WITH VERTICAL SIDES TO SIZE AND DEPTH SHOWN ON DRAWINGS. THOROUGHLY SCARIFY SIDES OF AUGURED PITS.

C.PLACE PLANTING TABLETS APPROXIMATELY 2" AWAY FROM EDGE OF ROOTBALL AT THE APPLICATION RATES PRESCRIBED IN THE MANUFACTURERS WRITTEN INSTRUCTIONS. D.COMPLETE BACKFILLING USING PREPARED BACKFILL

E.BUILD 3" HIGH EARTH BERM AT EDGE OF ROOTBALL AND WATER THOROUGHLY. F. ROOT PRUNING: ALL PLANTS SHALL BE PROPERLY ROOT PRUNED, CENTERED IN PITS AND PLACED SO THAT WHEN SETTLED, THEY WILL BEAR THE SAME RELATIONSHIP TO THE FINISH GRADE AS IN THE CONTAINER.

G.ROOT BARRIERS: PROVIDE LINEAR ROOT BARRIERS TO 24" DEPTH FOR ALL TREES PLANTED WITHIN THREE FEET OF CONCRETE WALKS, DRIVES, CURBS, OR PLANTERS, AND UNDERGROUND UTILITIES. INSTALL AT PERIMETER OF PLANTER, PER MANUFACTURER'S SPECIFICATIONS. ROOT BALLS MUST NOT BE WRAPPED WITH ROOT BARRIER. ROOT BARRIER MUST EXTEND 1" ABOVE GRADE. CONFIRM PLACEMENT WITH

H.PRUNING: NECESSARY PRUNING SHALL BE DONE ONLY AFTER PLANTING.

3.4 ROOT BARRIER INSTALLATION

A.INSTALL ROOT BARRIER WHERE TREES ARE PLANTED WITHIN 60 INCHES OF PAVING OR OTHER HARDSCAPE ELEMENTS, SUCH AS WALLS, CURBS, AND WALKWAYS UNLESS **OTHERWISE SHOWN ON DRAWINGS**

B. ALIGN ROOT BARRIER VERTICALLY AND RUN IT LINEARLY ALONG AND ADJACENT TO THE PAVING OR OTHER HARDSCAPE ELEMENTS TO BE PROTECTED FROM INVASIVE ROOTS. C.INSTALL ROOT BARRIER CONTINUOUSLY FOR A DISTANCE OF 60 INCHES IN EACH DIRECTION FROM THE TREE TRUNK, FOR A TOTAL DISTANCE OF 10 FEET PER TREE. IF

TREES ARE SPACED CLOSER, USE A SINGLE CONTINUOUS PIECE OF ROOT BARRIER. 1. POSITION TOP OF ROOT BARRIER PER MANUFACTURER'S RECOMMENDATIONS. 2. OVERLAP ROOT BARRIER A MINIMUM OF 12 INCHES AT JOINTS.

3. DO NOT DISTORT OR BEND ROOT BARRIER DURING CONSTRUCTION ACTIVITIES. 4. DO NOT INSTALL ROOT BARRIER SURROUNDING THE ROOT BALL OF TREE

A. TRUNK STABILIZATION BY UPRIGHT STAKING AND TYING: INSTALL TRUNK STABILIZATION AS FOLLOWS UNLESS OTHERWISE INDICATED:

B. UPRIGHT STAKING AND TYING: STAKE TREES OF 2- THROUGH 5-INCH CALIPER. STAKE TREES OF LESS THAN 2-INCH CALIPER ONLY AS REQUIRED TO PREVENT WIND TIP OUT. USE A MINIMUM OF TWO STAKES OF LENGTH REQUIRED TO PENETRATE AT LEAST 18 INCHES BELOW BOTTOM OF BACKFILLED EXCAVATION AND TO EXTEND AT LEAST 72 INCHES ABOVE GRADE. SET VERTICAL STAKES AND SPACE TO AVOID PENETRATING

C.SUPPORT TREES WITH BANDS OF FLEXIBLE TIES AT CONTACT POINTS WITH TREE TRUNK. ALLOW ENOUGH SLACK TO AVOID RIGID RESTRAINT OF TREE. D.STAKING AND GUYING OF ALL TREES SHALL BE COMPLETED IMMEDIATELY UPON

E. ALL STAKES SHALL BE INSTALLED PLUMB AND AS INDICATED IN DETAILS. F. GUY LOCATIONS AND METHODS (IF REQUIRED) SHALL BE REVIEWED PRIOR TO PLANTING

G.BRING ANY CONFLICTS OF LOCATING GUYS OR STAKES TO THE ATTENTION OF

LANDSCAPE ARCHITECT. H.REMOVE NURSERY STAKES WHEN SITE STAKES HAVE BEEN INSTALLED.

A. SPACE AS INDICATED IN TRIANGULAR PATTERN IN NEAT ROWS.

B. GENTLY PULL PLANTS FROM FLATS AWAY FROM EACH OTHER. RETAINING AS MUCH OF THE SOIL AROUND THE ROOTS AS POSSIBLE.

C. WATER THOROUGHLY IMMEDIATELY AFTER PLANTING.

A.MULCH WATERING BASINS OF EACH TREE AND SHRUB WITH 2" LAYER OF MULCH. B. WHERE BEDS OF SHRUBS OR GROUNDCOVER OCCUR, MULCH ENTIRE BED WITH 2"

A.UPON COMPLETION OF ALL PLANTING, CLEAN SITE OF ALL DEBRIS, SUPERFLUOUS MATERIALS AND EQUIPMENT. BROOM OR FLUSH CLEAN ALL PAVING AND WALKS. B. CLEANUP SHALL BE PERFORMED AT THE END OF EACH WORKING DAY, WITH A MAXIMUM CLEANUP EFFORT (IN A MANNER SATISFACTORY TO THE CLIENT) FOR EACH WEEKEND

C.THE CONTRACTOR SHALL SWEEP THE SITE AND SHALL WASH DOWN ALL PAVEMENT WITHIN THE CONTRACT AREA, LEAVING THE PREMISES IN A CLEAN CONDITION. D. ALL WALKS SHALL BE LEFT IN A CLEAN AND SAFE CONDITION AT ALL TIMES.

E. ALL SCARS, RUTS, OR OTHER MARKS IN THE GROUND CAUSED BY THIS WORK SHALL BE REPAIRED AND THE GROUND LEFT IN A SMOOTH CONDITION THROUGHOUT THE SITE.

A.MAINTENANCE SERVICE FOR TREES, SHRUBS AND GROUNDCOVERS: PROVIDE MAINTENANCE BY SKILLED EMPLOYEES OF LANDSCAPE INSTALLER. BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTS ARE INSTALLED AND CONTINUE UNTIL PLANTINGS ARE ACCEPTABLY HEALTHY AND WELL ESTABLISHED, BUT NOT FOR LESS THAN MAINTENANCE PERIOD BELOW: 1. MAINTENANCE PERIOD: 12 MONTHS FROM DATE OF SUBSTANTIAL COMPLETION

CONCRETE

- 1. CONCRETE IS REINFORCED AND CAST-IN-PLACE UNLESS OTHERWISE NOTED. WHERE REINFORCING IS NOT SPECIFICALLY SHOWN OR WHERE DETAILS ARE NOT GIVEN. PROVIDE REINFORCING SIMILAR TO THAT SHOWN FOR SIMILAR CONDITIONS, SUBJECT TO REVIEW BY THE OWNER'S REPRESENTATIVE.
- 2. ALL PHASES OF WORK PERTAINING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", AND THE LATEST EDITION OF ACI 117 "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS"
- 3. ALL STRUCTURAL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AND A MAX WATER CEMENT RATIO, W/C, AS FOLLOWS: TYPE OF CONCRETE I OCATION STRENGTH W/C
- ALL LOCATIONS U.N.O. 4.000 PSI 0.50 NORMAL WEIGHT
- 4. NO MORE THAN ONE GRADE OF CONCRETE SHALL BE ON THE JOB SITE AT ANY ONE
- 5. ALL STRUCTURAL CONCRETE MIXES SHALL BE DESIGNED BY AN APPROVED LABORATORY AND SHALL BE STAMPED AND SIGNED BY A CIVIL ENGINEER LICENSED IN CALIFORNIA.
- 6. CONCRETE MIX PROPORTIONING SHALL MEET STATISTICAL STRENGTH REQUIREMENTS OF ACI 301 AND ACI 214R. MIX DESIGNS SHOWING COMPLIANCE WITH STRENGTH REQUIREMENTS TO BE SUBMITTED TO SEOR FOR REVIEW.
- 7. CONCRETE STRENGTH TEST REPORTS SHALL BE IN COMPLIANCE WITH ACI 318 AND SHALL BE SUBMITTED TO SEOR
- 8. CONCRETE MIXES SHALL BE PREPARED WITH TYPE II/V PORTLAND CEMENT CONFORMING TO ASTM C150. 9. CONCRETE MIX DESIGNS CONTAINING FLY ASH MAY BE USED.~FLY ASH SHALL
- CONFORM WITH ASTM C618 AND MAY REPLACE UP TO 15% PORTLAND CEMENT CONTENT BY WEIGHT FOR ELEVATED SLAB OR 25% FOR OTHER CASES. WHERE CONCRETE IS VISUALLY EXPOSED VERIFY WITH THE PROJECT ARCHITECT THE USE OF FLY ASH.
- 10. NORMAL WEIGHT CONCRETE AGGREGATES SHALL CONFORM TO ASTM C33. LIGHT WEIGHT CONCRETE AGGREGATES SHALL CONFORM TO ASTM C330.
- 11. WATER USED IN MIXING CONCRETE SHALL CONFORM WITH ASTM C1602.
- 12. THOROUGHLY CLEAN AND ROUGHEN ALL HARDENED CONCRETE AND MASONRY SURFACES TO RECEIVE NEW CONCRETE. INTERFACE SHALL BE ROUGHENED TO A FULL AMPLITUDE OF 1/4" WITH EXPOSED AGGREGATE UNLESS NOTED OTHERWISE.
- 13. KEY AND DOWEL POUR JOINTS AS SHOWN ON THE PLANS. ANY DEVIATION FROM POUR JOINTS SHOWN ON THE PLANS MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE.
- 14. WHERE ELEMENTS SUCH AS, BUT NOT LIMITED TO, CONDUITS, PIPES, AND DUCTWORK, ARE TO BE PLACED WITHIN OR THRU CONCRETE MEMBERS, DIRECT CONTACT OF SUCH MEMBERS WITH CONCRETE SHALL BE PREVENTED AS REQUIRED BY DESIGNER/SPECIFIER/SUPPLIER/INSTALLER OF SUCH ELEMENTS, AND AS NEEDED TO COMPLY WITH PLUMBING CODE AND/OR TO AVOID DAMAGE OF SUCH ELEMENTS. TYPICAL MEANS TO AVOID DIRECT CONTACT WITH CONCRETE SUCH AS SLEEVES, LAYERS OF COMPRESSIBLE MATERIALS, AIR GAPS, ETC. SHALL BE SPECIFIED BY, OR OBTAINED BY GC FROM, DESIGNER/SPECIFIER/SUPPLIER/INSTALLER OF SUCH ELEMENTS. REBAR DISPLACED BY SUCH ELEMENTS SHALL BE ARRANGED AS CLOSE AS PRACTICALLY POSSIBLE AROUND THE EMBEDDED ELEMENTS AND SHALL NOT BE INTERRUPTED.
- 15. NON-SHRINK CEMENT GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 7000 PSI. USE "QUIKRETE" (LARR #25451) OR "RAPID SET" (LARR #24654).
- 16. DEFECTIVE CONCRETE (VOIDS, ROCK POCKETS, HONEYCOMBS, CRACKING, ETC.) SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- 17. WHEN WATER OVER 3" IN DEPTH IS PRESENT IN THE DRILLED PILE HOLES: A. A CONCRETE MIX WITH A STRENGTH OF 1,000 PSI GREATER THAN THE SPECIFICATIONS LISTED ABOVE WITH A MINIMUM OF 5,000 PSI AND MAX W/C =0.42 WILL BE USED. B. AN ADMIXTURE THAT REDUCES THE PROBLEM OF SEGREGATION OF PASTE/AGGREGATES AND DILUTION OF PASTE SHALL BE INCLUDED.
- 18. TO MINIMIZE CONCRETE SHRINKAGE CRACKING IN CONCRETE SLABS, THE MAXIMUM SIZE OF CONCRETE POURS FOR SLABS ON GRADE, FORMED SLABS, AND SLABS ON METAL DECK. IS 200 FEET IN ANY DIRECTION. THE RATIO OF THE PLAN LENGTH (LONGER DIRECTION) TO WIDTH (SHORTER DIRECTION) DIMENSIONS SHALL NOT EXCEED 2 TO 1.
- 19. FORM WORK SHALL BE REMOVED IN A MANNER THAT MAINTAINS THE STRENGTH AND STABILITY OF THE STRUCTURE AT ALL TIMES. FORM WORK OF ELEVATED NON P.T. SLABS SHALL NOT BE REMOVED BEFORE ALL CONDITIONS BELOW ARE MET:
- A. THE SPECIFIED COMPRESSIVE STRENGTH IS REACHED B. FORM WORK IS LEFT IN PLACE AT LEAST 28 DAYS AFTER CONCRETE POUR, EXCEPT THAT FORM WORK CAN BE REMOVED 14 DAYS AFTER CONCRETE POUR IF FOLLOWED BY IMMEDIATE RE-SHORING OF THE SLAB ON THE SAME DAY. RE-SHORING SHALL BE MAINTAINED IN PLACE A MIN OF 28 DAYS AFTER CONCRETE
- C. NO STRIPPING OF FORMS IS ALLOWED BEFORE CONCRETE HAS CURED SUFFICIENTLY TO PREVENT SPALLING, CHIPPING OR OTHER DAMAGE DUE TO FORM REMOVAL.
- 20. FOAM USED IN OVER-FRAMING & BUILT UP SLAB APPLICATIONS SHALL CONFORM TO ASTM D6817 AND SHALL HAVE THE FOLLOWING PROPERTIES AT A MINIMUM: A. TYPICAL FLOOR AREAS: 7PSI COMPRESSIVE RESISTANCE AT 1% DEFORMATION.
- B. LOADING DOCKS, SIDEWALKS, AND OTHER HEAVILY LOADED AREAS: 15PSI COMPRESSIVE RESISTANCE AT 1% DEFORMATION. C. INSULATING FOAM AT NON-OCCUPIABLE ROOFS: 15PSI COMPRESSIVE RESISTANCE AT

ADDITIONAL NOTES FOR OUT OF STATE PROJECTS

10% DEFORMATION.

- 1. CONCRETE MUST BE MAINTAINED AT A MINIMUM TEMPERATURE OF 50° F AND KEPT MOIST FOR A MINIMUM OF 1 DAYS AFTER PLACEMENT. THE CONTRACTOR SHALL PROVIDE ADEQUATE EQUIPMENT TO ENSURE THAT CONCRETE IS HEATED AND PROTECTED FROM FREEZING UNTIL ADEQUATELY CURED. ALL FORMS, FILLERS AND REINFORCING SHALL BE FREE FROM ICE. SNOW AND FROST. THE GROUND ON WHICH CONCRETE IS TO BE PLACED SHALL BE FREE FROM ICE, SNOW AND FROST.
- ALTERNATELY, CONCRETE MUST BE PROTECTED FROM FREEZING FOR A MINIMUM OF 6 DAYS. THE CONCRETE MUST BE AT A MINIMUM TEMPERATURE OF 55" F AND A MAXIMUM TEMPERATURE OF 75° F WHEN PLACED. THE CONCRETE MUST BE PROTECTED FROM FREEZING. MAINTAINED AT A MINIMUM SURFACE TEMPERATURE OF 55' F AND KEPT MOIST FOR A MINIMUM OF 6 DAYS. PROTECTION MAY BE REDUCED TO 2 DAYS IF TYPE III PORTLAND CEMENT (ASTM C 150) IS USED IN THE MIX.
- 3. SUFFICIENT COMBUSTION HEATERS, TENTING, INSULATION BLANKETS, ETC. SHALL BE PROVIDED TO PROTECT CONCRETE AS NOTED ABOVE. NO MORE CONCRETE SHALL BE PLACED THAN CAN BE PROTECTED WITH THE AVAILABLE EQUIPMENT AND SUPPLIES. HEATERS SHALL BE PLACED AND DIRECTED TO AVOID AREAS OF OVERHEATING OR DRYING OF THE CONCRETE SURFACE. THE CONCRETE SURFACE SHALL NOT BE EXPOSED TO AIR TEMPERATURES GREATER THAN 15.
- 4. AT THE END OF THE PROTECTION PERIOD, THE SURFACE TEMPERATURE OF THE CONCRETE SHALL NOT DECREASE AT A RATE GREATER THAN 50° IN A 24-HOUR PERIOD UNTIL THE TEMPERATURE OF THE CONCRETE SURFACE IS WITHIN 20° OF THE AMBIENT (AIR) TEMPERATURE. AMBIENT AIR. PROTECTION AIR AND CONCRETE TEMPERATURES SHALL BE RECORDED AT A MINIMUM FREQUENCY OF TWICE PER 24-HOUR PERIOD.

FOUNDATIONS

- 1. THE DESIGN OF THE FOUNDATION SYSTEM IS BASED UPON THE CRITERIA AND RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL INVESTIGATION REPORT TITLED GEOTECHNICAL INVESTIGATION REPORT, PREPOSED BIKE PATH PROJECT, BY CONVERSE CONSULTANTS. DATED SEPTEMBER 25, 2020, PROJECT 20-31-273-01
- PROJECT GEOTECHNICAL ENGINEER: FEFFER GEOLOGICAL CONSULTING 1990 S. BUNDY DRIVE, SUITE 400 LOS ANGELES, CA 90025 CONTACT: JOSHUA R. FEFFER TEL: 310.207.5048
- 2. THE GEOTECHNICAL INVESTIGATION REPORT IS PART OF THE CONSTRUCTION SET, AND ITS RECOMMENDATIONS SHALL BE FOLLOWED AND SHALL BE CONSIDERED MINIMUM REQUIREMENTS UNLESS MORE STRINGENT REQUIREMENTS ARE PRESENTED IN THE SPECIFICATIONS OR ON THE DRAWINGS.
- 3. PER GEOTECHNICAL INVESTIGATION REPORT, THE ALLOWABLE SOIL BEARING PRESSURES ARE AS FOLLOWS: B. CONTINUOUS FOOTING: 2000 PSF GRAVITY LOADS, INCREASE 250 PSF PER EACH
- ADDITIONAL FOOT INCREASE OF WIDTH AND DEPTH, UP TO A MAXIMUM OF 3000 PSF. SEE SOILS REPORT FOR ADDITIONAL INFORMATION.
- PLACING CONCRETE. THE GEOTECHNICAL ENGINEER SHALL INSPECT AND APPROVE ALL EXCAVATIONS, SOIL COMPACTION WORK PRIOR TO PLACEMENT OF ANY REBAR OR CONCRETE, SHORING INSTALLATIONS, BACKFILL MATERIALS AND BACK FILLING PROCEDURES
- 5. LOCATE AND PROTECT EXISTING UTILITIES TO REMAIN DURING AND/OR AFTER CONSTRUCTION.
- 6. REMOVE ABANDONED FOOTINGS, UTILITIES, ETC. WHICH INTERFERE WITH NEW CONSTRUCTION, UNLESS OTHERWISE INDICATED.
- 7. NOTIFY THE OWNER'S REPRESENTATIVE IF ANY BURIED STRUCTURES NOT INDICATED, SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC., ARE FOUND.
- 8. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, UNDERPINNING AND PROTECTION OF EXISTING CONSTRUCTION.
- 9. PLACE BACKFILL BEHIND RETAINING WALLS AFTER CONCRETE OR MASONRY HAS ATTAINED FULL DESIGN STRENGTH. BRACE BUILDING AND PIT WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTACHED FLOORS AND SLABS ON GRADE ARE COMPLETE AND HAVE ATTAINED FULL DESIGN STRENGTH.
- 10. THE CONTRACTOR SHALL PROVIDE CARE IN DRILLING, PLACEMENT OF STEEL REINFORCEMENT, AND POURING OF CONCRETE TO AVOID DISTURBANCE OF PILE BORING WALLS. THE STEEL REINFORCEMENT CAGE SHALL BE INSTALLED AND CONCRETE SHALL BE PLACED INTO THE PILE HOLE IMMEDIATELY AFTER THE HOLE IS DRILLED. PILE HOLES SHALL NOT BE LEFT OPEN OVERNIGHT. WHERE PILE SPACING IS LESS THAN THREE DIAMETERS, DRILLING SHALL NOT BE CARRIED OUT BEFORE THE PREVIOUSLY POURED PILE CONCRETE HAS SET FOR AT LEAST TWENTY FOUR HOURS.
- 11. IN THE EVENT OF SOIL OR WATER SEEPAGE INTO THE PILE EXCAVATION, CASING AND/OR THE USE OF "POLYMER-SLURRY" DRILLING FLUID MAY BE REQUIRED IF CAVING IS ENCOUNTERED BELOW THE WATER SEEPAGE LEVEL, IN ORDER TO ACHIEVE THE REQUIRED DEPTH, AND MAINTAIN AN OPEN EXCAVATION TO ALLOW FOR THE PLACEMENT OF REINFORCING STEEL AND CONCRETE. CASING SHALL BE PULLED AS THE PILE EXCAVATION IS FILLED WITH CONCRETE, MAINTAINING AT LEAST FIVE FEET OF CONCRETE HEAD INSIDE THE CASING. CONCRETE SHALL BE PLACED AND VIBRATED THROUGHOUT THE FULL LENGTH OF THE PILE SO THAT VOIDS DO NOT EXIST IN EITHER THE PILE BASE OR THE SHAFT. PLACEMENT PROCEDURES SHALL BE USED TO ENSURE THAT AGGREGATE_SEGREGATION DOES NOT OCCUR.
- 1. SHOTCRETE MAY BE USED IN LIEU OF POURED-IN-PLACE CONCRETE IN LOCATIONS WHERE ALL OF THE FOLLOWING CONDITIONS ARE MET: A. SHOTCRETE CONSTRUCTION COMPLIES WITH ALL REQUIREMENTS OF THE 2019 CALIFORNIA BUILDING CODE (2020 LOS ANGELES BUILDING CODE FOR PROJECTS WITHIN LOS ANGELES JURISDICTION)
- B. NON-CONTACT LAP SPLICES ARE PROVIDED C. REINFORCEMENT SIZE AND SPACING AS SHOWN ON THE DRAWINGS COMPLIES WITH ACI/CBC REQUIREMENTS FOR SHOTCRETE
- D. REBAR SIZE IS LIMITED TO: • #5 IN CITY OF LA. GC MAY APPLY FOR CODE MODIFICATION TO OBTAIN PERMIT TO USE LARGER DIAMETERS
- #8 IN ALL OTHER CASES E. REPRESENTATIVE MOCK UP PANELS ARE SHOT. DISASSEMBLED AND APPROVED FOR
- F. REPRESENTATIVE PANELS ARE SHOT AND APPROVED FOR ARCHITECTURAL FINISH QUALITY COMPARABLE TO POURED-IN-PLACE CONCRETE PRIOR TO CONCRETE PLACEMENT
- G. MEETS ALL REQUIREMENTS OUTLINED IN THE SPECIFICATIONS.
- AND STRENGTH AS CONVENTIONALLY FORMED AND PLACED REINFORCED CONCRETE. ALL MATERIALS SHALL MEET REQUIREMENTS OF ASTM C 1436.
- 3. ALL THE REQUIREMENTS OF CALIFORNIA BUILDING CODE SECTION 1913 & 1924 FOR WET MIX SHOTCRETE (SEE BELOW) AND ACI 506R-05 SHALL BE FOLLOWED FOR SHOTCRETE WORK, INCLUDING BUT NOT LIMITED TO PLACEMENT OF REINFORCING STEEL. TEST PANEL REQUIREMENTS AND CORES.
- 4. REINFORCING STEEL SHALL BE SECURELY TIED IN PLACE IN A MANNER THAT PREVENTS MOVEMENT DURING THE WET MIX SHOTCRETE APPLICATION.
- 5. THE HEIGHT OF A LAYER SHALL BE LIMITED TO NOT MORE THAN THREE FEET AND A SUCCEEDING LAYER SHALL NOT BE PLACED IN LESS THAN THREE HOURS. NO SLOUGHING OR SAGGING SHALL BE PERMITTED.
- 6. SLUMP SHALL BE 2" (+ OR 1/2") AND SHALL BE MEASURED AT THE POINT OF DISCHARGE FROM THE MIXER (EXCEPT THE BUILDING INSPECTOR MAY REQUIRE SLUMP TESTS AT THE DISCHARGE POINT WHERE WATER MAY HAVE BEEN ADDED).
- 7. A CAPABLE NOZZLEMAN'S HELPER WITH AN AIR BLOW PIPE SHALL BE PROVIDED TO ASSIST THE NOZZLEMAN IN KEEPING ALL REBOUND BUILD-UP OUT OF THE WORK ADDITIONAL WORKERS MAY BE REQUIRED TO TAKE THE REBOUND FROM THE WORK IF THE REBOUND CANNOT BE REMOVED BY THE AIR BLOW PIPE.
- 8. THE CONTRACTOR SHALL AGREE TO PROVIDE A DESIGNATED LIAISON BETWEEN HIS CREW, THE TESTING AGENCY AND THE BUILDING INSPECTOR. ONE DEPUTY SHALL BE ASSIGNED TO EACH NOZZLE.
- 9. SPECIAL PLACEMENT METHODS SHALL BE USED BEHIND STEEL EMBEDDED PLATES. KEYWAYS, ETC. FOR PROPER CONSOLIDATION AND ELIMINATION OF ANY VOIDS OR AIR POCKETS. NO KEYWAYS OR EMBEDMENTS SHALL BE PLACED IN THE FRONT FACE THAT WILL INTERFERE WITH THE STREAM FROM THE NOZZLE.
- 10. A COPY OF THE REDONDO BEACH INFORMATION BULLETIN/PUBLIC BUILDING CODE AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE. DOCUMENT NO. P/BC 2014-051.
- 11. STRENGTH TEST PANELS SHALL BE MADE IN ACCORDANCE WITH LABC SECTION 1924.10, ITEM 2. PREPARE AND TEST SPECIMENS IN COMPLIANCE WITH ASTM C 39 AND ASTM C 42. LOCATION OF SAMPLES WILL BE DESIGNATED BY THE ARCHITECT. SIZE SHALL BE 4 IN. IN DIAMETER. SEE SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS AND PROCEDURES.
- 12. A 4'x4' MOCK-UP PANEL SHALL BE SHOT, CURED, CORED, AND TESTED PRIOR TO COMMENCEMENT OF THE PROJECT. THE MOCK-UP PANEL SHALL BE REPRESENTATIVE OF THE PROJECT AND SIMULATE JOB CONDITIONS AS CLOSELY AS POSSIBLE. THE PANEL THICKNESS AND REINFORCING SHALL REPRODUCE THE THICKEST AND MOST CONGESTED AREA IN THE STRUCTURAL DESIGN. IT SHALL BE SHOT AT THE SAME ANGLE, USING THE SAME NOZZLEMAN AND WITH THE SAME CONCRETE MIX DESIGN THAT WILL BE USED ON THE PROJECT.
- 13. SHOTCRETE REQUIRES CONTINUOUS INSPECTION BY A REGISTERED DEPUTY INSPECTOR. CONTINUOUS INSPECTIONS SHALL BE PROVIDED FOR THE PLACEMENT OF ALL REINFORCING, THE PLACEMENT OF SHOTCRETE, AND THE ASSEMBLY, SHOOTING, TESTING, AND DISASSEMBLY OF TEST PANELS.
- 14. THE SHOTCRETE SUBCONTRACTOR SHALL PRESENT, UPON THE REQUEST OF A DEPARTMENT OF BUILDING AND SAFETY INSPECTOR. A "STATEMENT OF QUALIFICATIONS" SIGNED BY AN OFFICER OF THE SUBCONTRACTOR CORPORATIONS. BOTH THE SPECIFICATION AND STATEMENT SHALL INCLUDE. BUT NOT NECESSARILY BE LIMITED TO. THE FOLLOWING:
- A. THE DURATION AND TYPE OF STRUCTURAL SHOTCRETE EXPERIENCE (NOT INCLUDING SWIMMING POOLS) OF THE NOZZLEMAN, THE SUBCONTRACTING COMPANY, THE SUPERINTENDENT, AND HELPER.
- B. THE SUBCONTRACTOR'S LISTED EXPERIENCE SHALL REFERENCE SPECIFIC PROJECTS APPROVED IN THE CITY OF REDONDO BEACH.

4. REMOVE LOOSE SOIL AND STANDING WATER FROM FOUNDATION EXCAVATIONS PRIOR TO

STRUCTURAL QUALITY PRIOR TO CONCRETE PLACEMENT ON THE BUILDING

2. MIX DESIGN AND PLACEMENT OF SHOTCRETE TO BE OF SAME OR HIGHER QUALITY

STRUCTURAL OBSERVATION

- 1. PERIODIC STRUCTURAL OBSERVATION SHALL BE PROVIDED BY JOHN LABIB & ASSOCIATES, STRUCTURAL ENGINEERS, PER THE ATTACHED CITY DEPARTMENT OF BUILDING AND SAFETY BULLETIN P/BC 2017-024.
- 2. DEPUTY INSPECTOR MUST PERFORM INSPECTION BEFORE STRUCTURAL ENGINEER PERFORMS OBSERVATION. DEPUTY INSPECTOR'S REPORT MUST BE AVAILABLE AT THE TIME OF OBSERVATION. IF DEPUTY INSPECTION IS NOT COMPLETED, STRUCTURAL OBSERVATION REPORT WILL LIST MISSING INSPECTION AS DEFICIENCY.
- 3. CONTRACTOR SHALL KEEP LATEST ISSUED DRAWINGS, RFI'S RESPONSES, AND SKETCHES ON SITE, AND SHALL MAKE SUCH DOCUMENTS AVAILABLE TO THE STRUCTURAL OBSERVER AND DEPUTY INSPECTOR.
- 4. CONTRACTOR SHALL NOTIFY ENGINEER 3 BUSINESS DAYS BEFORE REQUIRED OBSERVATIONS. DELINQUENT NOTIFICATION MAY REQUIRE DEMOLITION OF COVERING MATERIAL TO FACILITATE OBSERVATION.
- 6. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION AT THE CONSTRUCTION SITE OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES AND THE COMPLETE STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS.
- 7. STRUCTURAL OBSERVATIONS PERFORMED BY STRUCTURAL OBSERVER DURING CONSTRUCTION ARE NOT THE CONTINUOUS OR PERIODIC SPECIAL INSPECTION SERVICES PERFORMED BY A LICENSED DEPUTY INSPECTOR, NOR THE INSPECTION BY THE CITY INSPECTOR, AND DO NOT WAIVE THE RESPONSIBILITY FOR THE SPECIAL INSPECTIONS OR CITY INSPECTIONS.
- 8. STRUCTURAL OBSERVATIONS DO NOT CONSTITUTE QUALITY CONTROL, DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE, AND SHALL NOT BE CONSIDERED AS SUPERVISION OF CONSTRUCTION.
- 9. THE OWNER SHALL EMPLOY A STATE OF CALIFORNIA REGISTERED CIVIL OR STRUCTURAL ENGINEER OR LICENSED ARCHITECT - THE STRUCTURAL OBSERVER - TO PERFORM THE STRUCTURAL OBSERVATIONS. THE DEPARTMENT OF BUILDING AND SAFETY OF AUTHORITY OF JURISDICTION REQUIRES THE USE OF THE ENGINEER OR HIS/HER DESIGNEE RESPONSIBLE FOR THE STRUCTURAL DESIGN WHO ARE INDEPENDENT OF THE CONTRACTOR
- 10. THE OWNER OR OWNER'S PROJECT MANAGER SHALL COORDINATE AND CALL FOR A MEETING BETWEEN THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, STRUCTURAL OBSERVER, CONTRACTOR, AFFECTED SUBCONTRACTORS AND DEPUTY INSPECTORS. THE PURPOSE OF THE MEETING SHALL BE TO IDENTIFY THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS THAT AFFECT THE VERTICAL AND LATERAL LOAD SYSTEMS OF THE STRUCTURE AND TO REVIEW SCHEDULING OF THE REQUIRED OBSERVATIONS.
- 11. THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEPS IN THE PROGRESS OF THE WORK THAT ALLOW FOR CORRECTION OF DEFICIENCIES WITHOUT SUBSTANTIAL EFFORT OR UNCOVERING OF THE WORK INVOLVED. AT A MINIMUM. THE LISTED SIGNIFICANT CONSTRUCTION STAGES ON THE FOLLOWING STRUCTURAL OBSERVATION/SIGNIFICANT CONSTRUCTION STAGES TABLE REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL OBSERVER.
- 12. A FINAL OBSERVATION REPORT AND THAT OF THE REGISTERED DEPUTY INSPECTOR MUST BE SUBMITTED WHICH SHOWS THAT ALL OBSERVED DEFICIENCIES WERE RESOLVED AND STRUCTURAL SYSTEM GENERALLY CONFORMS WITH THE APPROVED PLANS AND SPECIFICATIONS. THE DEPARTMENT OF BUILDING AND SAFETY (LADBS) WILL NOT ACCEPT THE STRUCTURAL WORK WITHOUT THIS FINAL OBSERVATION REPORT AND THAT OF THE REGISTERED DEPUTY INSPECTOR (WHEN PROVIDED) AND THE CORRECTION OF SPECIFIC DEFICIENCIES NOTED DURING NORMAL BUILDING INSPECTION.

STRUCTURAL OBSERVATION TABLE

STRUCTURAL OBSERVATION PROGRAM AND DESIGNATION OF THE

STRUCTURAL OBSERVER

PROJECT ADDRESS: 514 NORTH PROSPECT AVE. REDONDO BEACH, CA 90277 PERMIT APPL, NO.:

Owner: Architect:						r: DONALD HARRIS	
		5					
STRUCTURAL OBSERVATION (Only checked items are required)							
Firm or Individual to be Name: John Labib & A	respo ssocia	onsible for the Structur ates. Phor	al Obs ne: (213	ervation: 3) 239.9700		Calif. Registration: S	5121
FOUNDATION		WALL		FRAME		DIAPHRAGM / SLAB /	S.O.G.
Footings, Stem Walls, Piers	X	Concrete	X	Steel Moment Frame		Concrete	
Mat Foundation		Masonry	X	Steel Braced Frame		Steel Deck	
Caissons, Piles, Grade Beams		Wood		Concrete Moment Frame		Wood	
Step'g / Retain'g Found Hillside Special Anchors		Hardy Frames Strong Walls		Masonry Frame			
Others		Others		Others		Others	

DECLARATION BY OWNER

Description of Work:

I, the Owner of the project, declare that the above listed firm or individual is hired by me to be the Structural Observer

Signature Date

Signature

DECLARATION BY ARCHITECT OR ENGINEER OF RECORD (required if the Structural Observer is different from the Architect or Engineer of Record)

I, the Architect or Engineer of record for the project, declare that the above listed firm or individual is designated by me to be responsible for the Structural Observation

Date

THESE PLANS HAVE BEEN REVIEWED BY FEFFER GEOLOGICAL AND CONFORM TO TH GEOTECHNICAL RECOMMENDATIONS WITHIN OUR REPORT(S) FG # 2923-27 DATE 9/25/20 4/06/23 5/3/23

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<u>CODE</u> 2. LATERAL LOADS:

STATEMENT OF SPECIAL INSPECTION

1. CONTINUOUS AND PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE WORK AS DESCRIBED IN CBC 2019 CHAPTER 17. SEE INSPECTION SCHEDULE BELOW. ONLY CHECKED ITEMS ARE REQUIRED.

APPROVAL BY THE INSPECTOR DOES NOT MEAN APPROVAL OF FAILURE TO COMPLY WITH THE PLANS OR SPECIFICATIONS. ANY DETAIL THAT FAILS TO BE CLEAR OR IS AMBIGUOUS MUST BE REFERRED TO THE STRUCTURAL ENGINEER FOR INTERPRETATION OR CLARIFICATION.

3. FOR VERIFICATION AND INSPECTION OF SOILS SEE SOILS REPORT.

4. CONTINUOUS SPECIAL INSPECTION PER AWS D1.1 IS REQUIRED FOR ALL STRUCTURAL STEEL WELDING, EXCEPT FOR SINGLE PASS FILLET WELDS NOT EXCEEDING 5/16" IN SIZE. WELDING INSPECTORS SHALL BE REGISTERED AND/OR CERTIFIED BY THE JURISDICTION HAVING AUTHORITY AND SHALL AT A MINIMUM BE AWS Q.C.-1 CERTIFIED. IN ADDITION, WELDING INSPECTORS SHALL BE A CITY OF REDONDO BEACH REGISTERED DEPUTY STRUCTURAL STEEL INSPECTOR FOR WORK PERFORMED WITHIN THE CITY OF REDONDO BEACH.

5. STRUCTURAL WOOD. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR WALLS. SHEAR PANELS. AND DIAPHRAGMS. INCLUDING NAILING. BOLTING. ANCHORING AND OTHER FASTENING OF COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, SHEAR PANELS. AND HOLDOWNS. EXCEPTION: SPECIAL INSPECTION IS NOT REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS AND DIAPHRAGMS, INCLUDING NAILING, BOLTING anchoring and other fastening to other components of the SEISMIC-FORCE-RESISTING SYSTEM, WHERE THE FASTENER SPACING OF THE SHEATHING IS MORE THAN 4 INCHES ON CENTER (O.C.). INSPECTIONS SHALL BE PERFORMED BEFORE COVERING.

CONTRACTORS RESPONSIBLE FOR CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THIS STATEMENT OF SPECIAL INSPECTION SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE LADBS INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH A SYSTEM OR COMPONENT PER SEC 1704.4.

8. WHERE FABRICATION OF MEMBERS AND ASSEMBLIES IS PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP. SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE REQUIRED BY THIS SECTION. UNLESS THE FABRICATOR IS REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. APPROVAL SHALL BE BASED UPON REVIEW OF THE FABRICATOR'S WRITTEN PROCEDURAL AND QUALITY CONTROL MANUALS AND PERIODIC AUDITING OF FABRICATION PRACTICES BY AN APPROVED SPECIAL INSPECTION AGENCY. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE OF VERIFYING APPROVAL OF FABRICATOR.

	INSPECTION SCHE	DULE	
OF WORK	CODE REFERENCE	REMARKS	
RETE WORK	CBC TABLE 1705.3		\mathbf{X}
RETE WORK	CBC TABLE 1705.3		X
RCING STEEL	CBC TBL 1705.2.2 1705.3		X
ALLED ANCHORS	CBC TABLE 1705.3	SEE ALSO ICC APPROVAL	
TURAL STEEL	CBC 1705.2		
_ STEEL WELDING	CBC 1705.2		
ENGTH BOLTING	CBC 1705.2		
NRY WORK	CBC 1705.4		X
d diaphragms	CBC 1705.5.1		
FURAL WOOD	CBC 1705.10.1 & 1705.11.2	SEE NOTE ABOVE	
ORMED STEEL	CBC 1705.10.2 & 1705.11.3		
FOUND. ELEMENT	CBC TABLE 1705.7		
ACE DEEP FOUND.	CBC TABLE 1705.8		
CONDITION	CBC TABLE 1705.6	SEE SOILS REPORT FOR COMPLIANCE	\mathbf{X}

1. THE WORK SHALL COMPLY WITH THE 2019 CALIFORNIA BUILDING CODE.

SEISMIC IMPORTANCE FACTOR, le: 1

GENERAL

- 1. ALL NEW CONSTRUCTION SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND THE 2019 CALIFORNIA BUILDING CODE/REDONDO BEACH.
- 2. REFERENCE TO CODES, RULES, REGULATIONS, STANDARDS, MANUFACTURER'S INSTRUCTIONS OR REQUIREMENTS OF REGULATORY AGENCIES ARE TO THE LATEST PRINTED EDITION OF EACH IN EFFECT AT THE DATE OF SUBMISSION OF BID UNLESS THE DOCUMENT DATE IS SHOWN.
- 3. TYPICAL DETAILS AND GENERAL NOTES APPLY TO ALL PARTS OF THE WORK EXCEPT WHERE SPECIFICALLY DETAILED OR UNLESS NOTED OTHERWISE (U.N.O.)
- 4. THE STRUCTURAL DRAWINGS ILLUSTRATE THE NEW STRUCTURAL MEMBERS. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR NON-STRUCTURAL ITEMS WHICH REQUIRE SPECIAL PROVISIONS DURING THE CONSTRUCTION OF THE STRUCTURAL MEMBERS.
- 5. REFER TO ARCHITECTURAL DRAWINGS FOR FLOOR DEPRESSIONS, EDGE OF SLAB, OPENINGS, SLOPES, DRAINS, CURBS, PADS, EMBEDDED ITEMS, NON-BEARING PARTITIONS, ETC. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SLEEVES, OPENINGS, AND HANGERS FOR PIPES, DUCTS AND EQUIPMENT.
- 6. DRAWING DIMENSIONS ARE TO FACE OF STRUCTURE, JOINT CENTERLINE OR COLUMN GRID CENTERLINE UNLESS NOTED OTHERWISE. DO NOT SCALE THE DRAWINGS.
- 7. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL VERIFY ALL DIMENSIONS AND CONDITIONS WHICH IMPACT THE WORK, FIELD VERIFY SIZES, ELEVATIONS, HOLE LOCATIONS, ETC. PRIOR TO FABRICATION. THE LANGUAGE "BY OTHERS" USED IN THIS STRUCTURAL DRAWING SET INDICATES ELEMENTS OR PARTS OF WORK NOT WITHIN JLA SCOPE AND SHOWN OR REFERENCED FOR EASE OF COORDINATION ONLY. SUCH LANGUAGE SHALL NOT IMPLY THAT SUCH ELEMENTS OR PARTS OF WORK ARE EXCLUDED FROM THE CONTRACTOR'S SCOPE OF WORK.
- 8. CONTRACTOR SHALL CAREFULLY REVIEW THE DRAWINGS TO IDENTIFY THE SCOPE OF WORK REQUIRED. VISIT THE SITE TO RELATE THE SCOPE OF WORK TO EXISTING CONDITIONS AND DETERMINE THE EXTENT TO WHICH THOSE CONDITIONS AND PHYSICAL SURROUNDINGS WILL IMPACT THE WORK.
- 9. EXISTING CONDITIONS AS SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY. CONTRACTOR IS REQUIRED TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT CONDITIONS THAT CONFLICT WITH THE CONTRACT DOCUMENTS TO THE OWNER'S PROJECT MANAGER. DO NOT DEVIATE FROM THE CONTRACT DOCUMENTS WITHOUT WRITTEN DIRECTION FROM THE OWNER'S PROJECT MANAGER.
- 10. THE CONTRACTOR SHALL RESOLVE ANY CONFLICTS ON THE DRAWINGS OR IN THE SPECIFICATIONS WITH THE OWNER'S PROJECT MANAGER BEFORE PROCEEDING WITH THE WORK
- 11. ANY DEVIATION, MODIFICATION & SUBSTITUTION FROM THE APPROVED SET OF STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE OWNER'S PROJECT MANAGER REPRESENTATIVE FOR REVIEW/APPROVAL PRIOR TO ITS USE OR INCLUSION ON THE SHOP DRAWINGS & PRIOR TO PROCEEDING WITH THE WORK.
- 12. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY CONCRETE FORMWORK SHORING/RE-SHORING, EXCAVATION SHORING, DEMOLITION SHORING, BRACES, GUYS, HOIST BEAMS, ETC., REQUIRED TO SUPPORT ANY AND ALL LOADS THE BUILDING STRUCTURE AND COMPONENTS, EARTHWORK, OTHER STRUCTURES, AND UTILITIES ARE SUBJECTED TO DURING CONSTRUCTION. CONCRETE FORMWORK/CONCRETE RE-SHORING, DEMOLITION, AND EXCAVATION SHORING SYSTEMS MUST BE DESIGNED AND STAMPED BY A CIVIL OR STRUCTURAL ENGINEER LICENSED BY THE LOCAL JURISDICTION AND RETAINED BY THE CONTRACTOR. VISITS TO THE SITE BY JLA DOES NOT INCLUDE OBSERVATION OF THE ABOVE NOTED ITEMS.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE OF DEWATERING WHEN SO REQUIRED PER SOILS REPORT OR AS WARRANTED BY FIELD CONDITIONS.
- 14. THE CONTRACTOR SHALL PROVIDE MEANS, METHOD, TECHNIQUES, SEQUENCE AND PROCEDURE OF CONSTRUCTION AS REQUIRED. SITE VISITS PERFORMED BY JLA DO NOT INCLUDE INSPECTIONS OF MEANS AND METHODS OF CONSTRUCTION PERFORMED BY THE CONTRACTOR.
- 15. THE CONTRACTOR SHALL PROTECT ALL WORK, MATERIALS AND EQUIPMENT FROM DAMAGE AND SHALL PROVIDE PROPER STORAGE FACILITIES FOR MATERIALS AND EQUIPMENT DURING CONSTRUCTION.
- 16. A COPY OF ANY REQUIRED REDONDO BEACH RESEARCH REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.
- 17. ATTACHMENT OF NON-STRUCTURAL COMPONENTS SPECIFIED BY OTHERS TO STRUCTURAL ELEMENTS SHALL BE SPECIFIED BY THE NON-STRUCTURAL COMPONENT DESIGNER/SPECIFIER/INSTALLER. DESIGNER OF NON-STRUCTURAL ELEMENTS SHALL AT A MINIMUM SPECIFY THE CONNECTION TO THE STRUCTURE INCLUDING BUT NOT LIMITED TO: ANY TYPE OF CONNECTING HARDWARE, WIRE, HANGERS, FASTENERS, CLIPS, UNISTRUT MEMBERS. ATTACHMENT AND BRACING OF NON STRUCTURAL COMPONENTS SHALL MEET THE APPLICABLE BUILDING CODES. NON STRUCTURAL ELEMENTS SHALL INCLUDE, BUT NOT LIMITED TO: MEP AND HVAC EQUIPMENT & THEIR SUPPORTING PADS, INDUSTRIAL KITCHEN EQUIPMENT, PLATFORMS, FRAMES, ETC.; DUCTWORK, PIPES, CONDUITS, ARTWORK, GRILLES, GRATING, METAL SCREENS, ELEVATOR RAILS, STONE FINISH TILES, STONE CAPS, BRICK VENEER.
- 18. SPECIFICATIONS RELATED TO WATERPROOFING, INCLUDING BUT NOT LIMITED TO MEMBRANES, WATERSTOPS, SEALANTS, FLASHING, VAPOR BARRIER, ARE AS SPECIFIED BY ARCHITECT/WATER PROOFING CONSULTANT AND ARE EXCLUDED FROM JLA SCOPE.
- 19. ALLOW 10 BUSINESS DAYS FOR PROCESSING SHOP DRAWINGS AND SUBMITTALS AFTER RECEIPT. ALLOW 7 BUSINESS DAYS FOR RESPONDING TO REQUESTS FOR INFORMATION (RFI'S). PROVIDE 3 BUSINESS DAYS NOTICE FOR STRUCTURAL OBSERVATIONS.
- 20. REFER TO DIV.1 PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.

PAUL MURDOCH ARCHITECTS

6310 SAN VICENTE BLVD SUITE 400 LOS ANGELES, CALIFORNIA 90048 310 358-0993

THE DRAWINGS AND SPECIFICATIONS AND IDEAS DESIGN, AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT, AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS, OR USED IN CONNECTION WITH ANY WORK OR PROJECT THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT. VISUAL CONTACT WITH THESE DRAWINGS OF SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR REVIEW BEFORE PROCEEDING WITH FABRICATION

El Segundo, CA 90245 Tel: 213.239.9700 JLA Job No. 19725

NO. DATE REVISION

DIAMOND STREET + FLAGLER LANE BIKE PATH **REDONDO BEACH**

DIAMOND LANE REDONDO BEACH, CA 90277 **FLAGLER LANE & TOWERS** STREET TORRANCE, CA 90503

PMA PROJECT NO 20007

RAWING TITLE

GENERAL NOTES

AS NOTED

05/02/23

LFA

SHEET NO.

S0.

CHECKED AL / DH

MASONRY

- 1. COMPRESSIVE STRENGTH f'm:
- 2. BLOCKS:
- MORTAR:
- GROUT:

4.

- 8. REINFORCING STEEL:

- D. CLEANOUTS ARE PROVIDED AT THE BOTTOM COURSE OF MASONRY.
- OPENINGS.

MIN SPECIFIED MASONRY COMPRESSIVE STRENGTH SHALL BE f'm = 1,900 PSI, UNLESS OTHERWISE SPECIFIED ON THE PLANS.

BLOCKS SHALL BE CONCRETE MASONRY MEDIUM WEIGHT UNITS CONFORMING TO ASTM C-90 GRADE N-1. USE UNITS OPEN ONE END, AND BOND BEAM UNITS AT HORIZONTAL REINFORCING. WHEN BLOCKS ARE EXPOSED OBTAIN APPROVAL OF SUBMITTAL FROM ARCHITECT. UNITS SHALL ATTAIN A MINIMUM NET AREA COMPRESSIVE STRENGTH AS REQUIRED TO MEET THE SPECIFIED MASONRY COMPRESSIVE STRENGTH AS FOLLOWS:

A. 1,900 PSI FOR SPECIFIED f'm UP TO 1,900 PSI B. 2,000 PSI FOR SPECIFIED f'm UP TO 2,000 PSI C. 2,600 PSI FOR SPECIFIED f'm UP TO 2,250 PSI D. 3,250 PSI FOR SPECIFIED f'm UP TO 2,500 PSI E. 3,900 PSI FOR SPECIFIED F'M UP TO 2,750 PSI F. 4,500 PSI FOR SPECIFIED F'M UP TO 3,000 PSI

A. CONFORMING TO ASTM C-270, TYPE [S]. B. MIX PROPORTIONS SHALL CONFORM TO ASTM C-270. C. AGGREGATES SHALL CONFORM TO ASTM C-144.

A. CONFORMING TO ASTM C-476. B. ATTAINS THE MASONRY COMPRESSIVE STRENGTH I'M OR 2,000 PSI AT 28 DAYS, WHICHEVER IS GREATER. C. MIX PROPORTIONS SHALL CONFORM TO ASTM C-476

D. AGGREGATES SHALL CONFORM TO ASTM C-404. E. USE COARSE GROUT IN GROUT SPACES 2 INCHES OR MORE IN WIDTH AND IN CELLS TO BE GROUTED SOLID.

5. CEMENT: ASTM C-150, LOW ALKALI, TYPE I OR II PORTLAND CEMENT. (MASONRY CEMENT AND PLASTIC CEMENT SHALL NOT BE USED.)

6. ADMIXTURES: DO NOT USE ANY ADMIXTURES IN MORTAR OR GROUT WITHOUT APPROVAL BY THE ARCHITECT.

7. MEASURE MATERIALS FOR MORTAR AND GROUT IN CALIBRATED DEVICES. SHOVEL MEASUREMENTS ARE NOT ACCEPTABLE.

A. REBAR: ASTM A-615, GRADE 60 (FY=60KSI). B. JOINT REINFORCEMENT: ASTM A-951

10. LAP REINFORCING STEEL AT SPLICES WITH A MINIMUM 48 BAR DIAMETERS, UNLESS NOTED OTHERWISE. WHERE CLEAR DISTANCE BETWEEN BARS AT ADJACENT SPLICES IS 3 INCHES OR LESS, INCREASE LAP LENGTH 30% UNLESS SPLICES ARE STAGGERED AT LEAST 24 BAR DIAMETERS.

11. DOWELS FOR WALLS AND COLUMNS SHALL MATCH SIZE AND SPACING OF WALL AND COLUMN REINFORCING STEEL.

12. MASONRY WORK SHALL CONFORM TO THE LATEST ADOPTED EDITION OF THE LABC. AND SPECIFICATIONS OF THE LATEST EDITION THE MSJC.

13. CONCRETE BLOCK UNITS ARE TO BE STAGGERED & TO HAVE VERTICAL CONTINUITY OF CELLS UNOBSTRUCTED.

14. IF WORK IS STOPPED AN HOUR OR LONGER, PROVIDE HORIZONTAL CONSTRUCTION JOINT BY STOPPING GROUT 1 1/2" BELOW TOP OF MASONRY UNIT 15. SPECIAL INSPECTION IS REQUIRED FOR ALL MASONRY WORK.

16. GROUT ALL MASONRY WALLS SOLID.

17. GROUTING LIFTS SHALL NOT EXCEED 5'-0" IN HEIGHT IN ACCORDANCE WITH MSJC SPECIFICATIONS, EXCEPT AS NOTED BELOW.

18. GROUTING LIFTS GREATER THAN 5'-0" AND NOT MORE THAN 12'-8" (HIGH LIFT GROUT) CAN BE PLACED PROVIDED THAT:

A. THE MASONRY HAS CURED FOR AT LEAST 4 HOURS B. THE GROUT SLUMP IS MAINTAINED BETWEEN 10 AND 11 IN C. NO INTERMEDIATE REINFORCED BOND BEAMS ARE PLACED BETWEEN THE TOP AND BOTTOM OF THE POUR HEIGHT

19. THE CLEAR DISTANCE BETWEEN THE SURFACE OF A BAR AND ANY SURFACE OF A MASONRY UNIT SHALL BE NOT LESS THAN 1/4" FOR FINE COARSE GROUT AND NOT LESS THAN 1/2" FOR COURSE GROUT.

20. SECURE REBAR AGAINST DISPLACEMENT PRIOR TO GROUTING AT INTERVALS NOT GREATER THAN 200 BAR DIAMETERS.

21. TERMINATE HORIZONTAL BARS WITH A STANDARD HOOK AT THE JAMBS OF WALL

REINFORCEMENT

1. ALL REINFORCING BARS SHALL CONFORM TO ASTM A-615, GRADE 60.

- 2. WELDING OF REINFORCEMENT (INCLUDING TACK WELDING) SHALL NOT BE DONE UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS. WHERE SHOWN ON THE DRAWINGS, THE FOLLOWING SHALL APPLY:
- A. WELDED REBAR SHALL COMPLY WITH ASTM A-706 [Fy=60 KSI]

B. WELDING SHALL CONFORM TO AWS D1.4 C. WELDING OF REINFORCING STEEL SHALL BE PERFORMED BY WELDERS CERTIFIED BY THE CITY OF LA D. USE E90XX ELECTRODES

REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE COVER. SEE ACI FOR TOLERANCES:

- A. CONCRETE PILES B. CONCRETE POURED AGAINST EARTH (OTHER THAN PILES)
- C. CONCRETE NOT FORMED IN CONTACT WITH EARTH D. FORMED CONCRETE IN CONTACT WITH EARTH
- E. CONCRETE EXPOSED TO WEATHER (#6 AND LARGER)
- F. CONCRETE EXPOSED TO WEATHER (#5 AND SMALLER) 1-1/2" G. SLABS (INCLUDING SLAB SUPPORTING EARTH), WALLS, AND
- JOISTS NOT EXPOSED TO WEATHER (#11 AND SMALLER) 1" H. OTHER CONCRETE NOT EXPOSED TO WEATHER 1-1/2"
- 5. #5 AND LARGER REINFORCING BARS SHALL NOT BE SPLICED EXCEPT AS LOCATED AND DETAILED ON THE DRAWINGS. #4 AND SMALLER BARS WITH LENGTHS NOT SHOWN SHALL BE CONTINUOUS. PROVIDE CLASS 'B' SPLICE UNLESS NOTED OTHERWISE. ALL BARS IN MASONRY SHALL BE CONTINUOUS, LAPPING 48 BAR DIAMETERS, 2'-0" MINIMUM. HORIZONTAL WALL SPLICES SHALL BE STAGGERED. VERTICAL BARS SHALL NOT BE SPLICED EXCEPT AT HORIZONTAL SUPPORTS, SUCH AS FLOOR OR ROOF, UNLESS DETAILED OTHERWISE. ALL BARS ENDING AT THE FACE OF A WALL, COLUMN, OR BEAM SHALL EXTEND TO WITHIN 2" OF THE FAR FACE AND HAVE A 90 DEGREE HOOK, UNLESS OTHERWISE SHOWN.
- 6. BARS SHALL BE FIRMLY SUPPORTED AND ACCURATELY PLACED AS REQUIRED BY THE ACI STANDARDS, USING TIE AND SUPPORT BARS IN ADDITION TO REINFORCEMENT SHOWN WHERE NECESSARY FOR FIRM AND ACCURATE PLACING. PROVIDE DOWELS TO MATCH ALL REINFORCEMENT AT POUR JOINTS, UNLESS SHOWN OR NOTED OTHERWISE. ALL DOWELS AND BOLTS SHALL BE ACCURATELY SET IN PLACE BEFORE PLACING CONCRETE. NO WELDING OF REINFORCEMENT (INCLUDING TACK WELDING) SHALL BE DONE UNLESS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER. ALL SLAB AND BEAM REINFORCEMENT SHALL BE CHAIRED UP.
- 7. IN WALL REINFORCING, CURTAINS CONTAINING VERTICAL AND HORIZONTAL BARS OF THE SAME SIZE, VERTICAL BARS SHALL BE PLACED CLOSEST TO THE WALL SURFACE. IN CURTAINS WHICH VERTICAL AND HORIZONTAL BARS ARE OF DIFFERENT SIZES OR SPACING, THE LAYER WITH THE MOST STEEL SHALL BE PLACED CLOSEST TO THE NEAR SURFACE, UNLESS NOTED OTHERWISE ON PLAN.
- 8. ALL BARS INTERRUPTED BY STRUCTURAL STEEL SHALL EXTEND TO WITHIN 1" OF STRUCTURAL STEEL FLANGE OR WEB AND HAVE A 90 DEGREE HOOK, UNLESS OTHERWISE SHOWN.
- 9. DRAWINGS SHOW TYPICAL REINFORCING CONDITIONS. CONTRACTOR SHALL PREPARE DETAILED PLACEMENT DRAWINGS OF ALL CONDITIONS SHOWING QUANTITY, SPACING, SIZES, CLEARANCES, LAPS, INTERSECTIONS, AND COVERAGE REQUIRED BY THE STRUCTURAL DETAILS, APPLICABLE CODE, AND TRADE STANDARDS. CONTRACTOR SHALL NOTIFY REINFORCING INSPECTOR OF ANY ADJUSTMENTS FROM TYPICAL CONDITIONS WHICH ARE PROPOSED IN PLACEMENT DRAWINGS TO FACILITATE FIELD PLACEMENT OF REINFORCING STEEL AND CONCRETE.
- 10. ALL PRINCIPAL REBAR SHALL TERMINATE WITH A STANDARD HOOK MINIMUM UNLESS SPECIFICALLY DETAILED OTHERWISE. REBAR BENDS SHALL BE MADE COLD. REBAR SHALL NOT BE BENT AFTER ANY PORTION OF THE BAR IS ENCASED IN CONCRETE.
- 11. ALL LAP SPLICES ARE CLASS 'B' LAP SPLICES UNLESS NOTED OTHERWISE.
- 12. MECHANICAL COUPLER SHALL BE BAR-LOCK COUPLER SYSTEM (ICC ESR-2495, LARR #25342) FOR GRADE 60 CONFORMING TO ASTM A615 OR ASTM A706 OR LENTON MECHANICAL COUPLERS (ICC ESR-0129 LARR #24507) FOR GRADE 60, 75 CONFORMING TO ASTM A615 OR APPROVED EQUAL.
- 13. ALL WALL FOOTING REINFORCEMENT SHALL BEND AROUND ALL CORNERS AND EXTEND 36 BAR DIAMETERS OR 18 INCHES WHICHEVER IS LARGER. UNLESS NOTED OTHERWISE.
- 14. ALL SLABS ON GRADE LESS THAN 6" IN THICKNESS SHALL BE REINFORCED WITH #4 REBARS AT 16 INCHES ON CENTERS EACH WAY, UNLESS NOTED OTHERWISE. PROVIDE ONE (1) LAYER OF 6X6/W2.9XW2.9 WELDED WIRE FABRIC CONTINUOUS FOR EVERY 3" ARCHITECTURAL CONCRETE FILLS ABOVE THE STRUCTURAL SLAB.
- 15. ALL MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT PADS LESS THAN 4" THICK SHALL BE REINFORCED WITH AT LEAST ONE (1) LAYER OF 6X6/W2.9XW2.9 WELDED WIRE FABRIC AND HAVE HOOKED DOWELS (#3 AT 12' ON CENTERS) INTO THE STRUCTURAL SLAB. UNLESS NOTED OTHERWISE. FOR PADS GREATER THAN 4 INCHES THICK. USE REINFORCING AS SHOWN IN THE TYPICAL DETAILS.
- 16. ADDITIONAL REINFORCEMENT SHALL BE PROVIDED AROUND ALL SLAB AND WALL OPENINGS INCLUDING DIAGONAL BARS WITHOUT EXCEPTION.
- 17. ALL STRUCTURAL CONCRETE ELEMENTS REQUIRE REINFORCEMENT SINCE NO PLAIN CONCRETE ELEMENTS ARE USED. ALL CONCRETE SLABS SHALL HAVE A MINIMUM REINFORCEMENT PERCENTAGE OF 0.18 EACH WAY CONTINUOUS.
- 18. REINFORCING STEEL SHOP DRAWINGS SHALL INCLUDE SLAB OPENINGS, DEPRESSIONS, SLOPES, CURBS, DRAINS, AND SLAB EDGE LOCATIONS FROM ALL MEP TRADES. GENERAL CONTRACTOR IS RESPONSIBLE TO COORDINATE AND INDICATE ALL SLAB OPENINGS ON PLAN AND SUBMIT TO THE STRUCTURAL ENGINEER PRIOR TO SUBMITTAL OF REINFORCING SHOP DRAWINGS.
- 19. CONTRACTOR SHALL FURNISH MISCELLANEOUS REBAR IN ADDITION TO THE REBAR SPECIFIED ON THE STRUCTURAL DRAWINGS, WHICH SHALL BE INSTALLED AT EOR'S DISCRETION DURING CONSTRUCTION. THE AMOUNT OF ADDITIONAL REBAR SHALL BE 5 TONS OR 2% OF THE REBAR WEIGHT SPECIFIED PER STRUCTURAL DRAWINGS, WHICHEVER IS GREATER.

PAUL MURDOCH ARCHITECTS

6310 SAN VICENTE BLVD SUITE 400 LOS ANGELES, CALIFORNIA 90048 310 358-0993

THE DRAWINGS AND SPECIFICATIONS AND IDEAS DESIGN, AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT, AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS, OR USED IN CONNECTION WITH ANY WORK OR PROJECT THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT. VISUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR REVIEW BEFORE PROCEEDING WITH FABRICATION

El Segundo, CA 90245 Tel: 213.239.9700 JLA Job No. 19725

NO. DATE REVISION

DIAMOND STREET + FLAGLER LANE BIKE PATH

REDONDO BEACH

DIAMOND LANE REDONDO BEACH, CA 90277 FLAGLER LANE & TOWERS STREET TORRANCE, CA 90503

PMA PROJECT NO. 20007

RAWING TITLE

GENERAL NOTES

AS NOTED

05/02/23

S0.2

CHECKED AL / DH

LIGHT POLE FOOTING

NOTES:						
WHERE REINFORCING IS NOT SHOWN OT ON SECTIONS, DETAILS OR WALL ELEVAT						
MINIMUM REINFORCEMENT IN CO						
WALL THICKNESS 'T'	REINFORCING EACH WAY					
6"	#4 @ 12" @ C.L.					
8"	#4 @ 10" @ C.L.					
10"	# 4 @ 16" E.F.					
12"	#4 @ 12" E.F.					
14"	# 4 @ 12" E.F.					
16"	# 5 @ 15" E.F.					
18"	#5 @ 14" E.F.					
20"	# 5 @ 12" E.F.					

FG # 2923-27 DATE 9/25/20 4/06/23

GEOTECHNICAL RECOMMENDATIONS WITHIN

THESE PLANS HAVE BEEN REVIEWED BY

<u>PLAN NOTES – SHEETS AND GENERAL:</u>

- 101. GENERAL NOTES AND TYPICAL DETAILS SHEETS: SEE SO.1 THRU S1.2 SHEETS. GENERAL NOTES & TYPICAL DETAILS APPLY TO ALL PARTS OF THE WORK EXCEPT WHERE SPECIFICALLY DETAILED OR U.N.O. ON THE FLOOR PLANS AND PLAN NOTES
- 102. VERIFY ALL DIMENSIONS, ELEVATIONS, SLAB EDGES, SLAB DEPRESSIONS, SLAB OPENINGS, CURBS, FOOTING, PENETRATIONS, WALL OPENINGS WITH ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL & CIVIL DRAWINGS.

<u>PLAN NOTES – FOUNDATION:</u>

- 201. ALL GRADING & FOUNDATION WORK MUST BE OBSERVED AND APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF STEEL REINFORCEMENT AND POURING CONCRETE.
- 202. FOR LIMITS AND EXTENT OF OVER EXCAVATION SEE CIVIL DRAWINGS.
- 203. PER SOILS REPORT THE RECOMMENDED BEARING MATERIAL IS COMPACTED FILL AND COMPETENT SOILS.
- 204. ALL FOOTINGS SHALL BE THICKENED AS REQUIRED TO ACHIEVE A MINIMUM OF 12" EMBEDMENT INTO RECOMMENDED BEARING MATERIAL PER SOILS REPORT. UNLESS NOTED OTHERWISE MINIMUM THICKNESS SHALL BE 18". FOOTING THICKNESS SHOWN ON PLAN IS APPROXIMATE. CONTRACTOR TO VERIFY IN FIELD BASED ON ACTUAL DEPTH OF RECOMMENDED BEARING MATERIAL. NOTIFY ENGINEER IF ACTUAL FIELD CONDITIONS DIFFER. STEP FOOTINGS AND GRADE BEAMS PER TYPICAL DETAILS AS REQUIRED.
- 205. FOR SLAB ON GRADE SUB-GRADE PREPARATION SEE SOILS REPORT.
- 206. CONCRETE SLAB ON GRADE: 4" THICK, REINFORCED WITH #4 BARS AT 16" O.C. EACH WAY.
- 207. PER SOIL REPORT, RETAINING WALLS MUST BE PROVIDED WITH A SUBDRAIN. SEE SOILS REPORT AND CIVIL DRAWINGS FOR MORE DETAILS.

<u>SYMBOLS – FOUNDATION</u>				
777) _{77777.}	INDICATES CHANGE IN FLOOR ELEVATION			
	INDICATES RETAINING WALL			
	INDICATES CONCRETE FOOTING			
SS	INDICATES STEPPED FOOTING PER TYP. DETAIL			

Retaining Wall Plan SCALE: 1/16"=1'-0"

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319 Main Street El Segundo, CA 90245 Tel: 213.239.9700 JLA Job No. 19725

NO. DATE REVISION

DIAMOND STREET + FLAGLER LANE BIKE PATH **REDONDO BEACH**

DIAMOND LANE REDONDO BEACH, CA 90277 FLAGLER LANE & TOWERS STREET TORRANCE, CA 90503

PMA PROJECT NO. 20007

RAWING TITLE

RETAINING WALL PLAN

AS NOTED

05/02/23

DRAWN LFA

SHEET NO.

CHECKED

S2.1

	CO	CONCRETE STEM				1	FOOTI				
HEIGHT "R"	"F"	"T"	"A"	"B"	"F"	"T"	"A"	"B"	"W"	"D"	"[
3'-0"	2'	8"	#4 @ 16" O.C.	#4 @ 16" O.C.	2'	8"	#4 @ 16" O.C.	#4 @ 16" O.C.	0'-0"	24"	3'
6'-0"	2'	8"	#5 @ 16" O.C.	#4 @ 16" O.C.	2'	8"	#6 @ 16" O.C.	#4 @ 16" O.C.	0'-9"	24"	4'.

	GENERAL	_	NOTES
Α.	GENERAL	D.	EXECUTION
1.	SCOPE	1. 2.	CAREFULLY PROTECT ALL WALLS, TRIM, FLOORS, EQUIPMENT UTILITY LI SURFACES, LIMIT DAMAGE TO THE CONFINES AS MUCH AS POSSIBLE AN WHICH ARE DAMAGED BECAUSE OF THE INSTALLATION OF THIS WORK. EQUIPMENT, MATERIALS AND SUPPLIES REMOVED FOR PROTECTION SHA DAMAGED SHALL BE REPLACED WITH NEW MATERIALS OF LIKE KIND AN
2.	PERMITS AND CHARGES OBTAIN AND PAY FOR ALL NECESSARY CONSTRUCTION PERMITS, INSPECTION FEES, AND OTHER CHARGES BY AGENCIES HAVING JURISDICTION.	3.	DO ALL DRILLING, CUTTING, CHANNELING AND PATCHING REQUIRED TO SPECIFIED. M ALL HOLES, CURBS, ETC., IN FLOORS, CEILINGS AND WAL ALL NEW ELECTRICAL RACEWAYS, CABINETS, ENCLOSURES AND FITTING
3.	<u>REGULATIONS AND CODES</u> PROVIDE AND INSTALL ALL MATERIALS IN CONFORMANCE WITH THE 2019 C.E.C., CALIFORNIA ADMINISTRATIVE CODE TITLE 8, AND OTHER CODES AND REGULATIONS HAVING JURISDICTION. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE REQUIREMENTS OF THE INSPECTING AUTHORITY AND THE MANUFACTURERS RECOMMENDATIONS.	3. 4.	ALL CONDUIT RUNS SHALL BE CONCEALED, UNLESS SHOWN OTHERWISE EXISTING CONDITION SHOWN IS FROM AVAILABLE RECORD DRAWINGS A CONTRACTOR SHALL VERIFY ACTUAL EXISTING CONDITION AT SITE.
4.	VERIFYING EXISTING CONDITIONS BEFORE SUBMITTING BID, BECOME THOROUGHLY FAMILIAR WITH ACTUAL EXISTING CONDITIONS AT THE BUILDING. THE INTENT OF THE WORK IS SHOWN ON THE DRAWINGS AND DESCRIBED HEREINAFTER. BY THE ACT OF SUBMITTING A BID PROPOSAL FOR THE WORK, THE CONTRACTOR SHALL BE DEEMED TO HAVE MADE SUCH STUDY AND EXAMINATION AND TO ACCEPT ALL CONDITIONS PRESENT AT THE SITE. NO REQUEST FOR ADDITIONAL PAYMENT WILL BE CONSIDERED AS VALID, DUE TO FAILURE TO ALLOW FOR CONDITIONS WHICH MAY EXIST.	5. E.	ALL WORK SHOWN IS NEW UNLESS SPECIALLY INDICATED AS EXISTING MUST CONFORM WITH LOCAL AND STATE SEISMIC CODES. TELEPHONE SYSTEMS NOT USED.
5.	<u>COORDINATION</u> COORDINATE ALL WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTION REQUIRED WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT. ELECTRICAL EQUIPMENT LOCATIONS INDICATED ARE SHOWN DIAGRAMMATICALLY, EXACT LOCATION SHALL BE VERIFIED. SCALING OFF OF DRAWINGS SHALL BE DONE AT CONTRACTORS RISK. DO NOT SCALE DEVICES, LIGHTING FIXTURES OR ANY EQUIPMENT FROM PLANS. LIGHTING FIXTURE QUANTITIES AND LENGTHS SHALL BE CONTRACTORS RESPONSIBILITY. FIXTURES ARE SHOWN FOR CIRCUITING ONLY. CONTRACTOR TO VERIES SIZES & QUANTITIES PRIOR TO BID	F. G. 1.	<u>GROUNDING & BONDING</u> FURNISH AND INSTALL COMPLETE BONDING AND GROUNDING SYSTEM A MAINTAINED MECHANICALLY AND ELECTRICALLY THROUGHOUT THE SYS CARRIED IN ALL CONDUITS. <u>INSTALLATION</u> IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT A COMM FOR ALL THE FOURIMENT DESCRIPTED ON SHOWN AS DEFINE IN THIS OF
6.	SERVICE CONTINUITY UNINTERRUPTED EXISTING ELECTRICAL POWER SHALL BE MAINTAINED TO OTHER TRADES FOR TEMPORARY POWER AREAS OF THE SITE DURING CONSTRUCTION. PROVIDE ANY TEMPORARY SERVICES AS MAY BE REQUIRED. IDENTIFY AT BID TIME, ALL WORK TO BE DONE ON PREMIUM TIME AND THE TOTAL OVERTIME MAN-HOURS REQUIRED FOR COMPLETION.		POR ALL THE EQUIPMENT DESCRIBED OR SHOWN AS BEING IN THIS CON NECESSARY AND FURNISH AND INSTALL ALL APPARATUS, MATERIALS A APPLICABLE CODES, INCLUDING ITEMS REQUIRED BUT NOT NORMALLY CLAMPS, BOXES, CONNECTORS AND HARDWARE. REFER ALSO TO WRIT ELECTRICAL SECTIONS.
7.	AS BUILT PROVIDE RECORD DRAWINGS IN ACAD TO THE OWNER WITH ALL CHANGES NOTED THEREON AT THE COMPLETION OF THE PROJECT. RECORD DRAWINGS SHALL BE SIGNED AND DATED BY CONTRACTOR PRIOR TO RELEASE OF FINAL RETENTION OF ALL MONIES.	2.	PROCURE ALL PERMITS FROM LEGALLY CONSTITUTED AUTHORITIES, A AND TESTS IN CONNECTION THEREWITH. COMPLY WITH CODES: NOT APPLICABLE CODES. DETERMINE EXACT ROUTING OF CONCEALED FEEDERS AND BRANCH HO INSTALLATION WHEREVER POSSIBLE BUT SUBJECT TO APPROVAL OF A
8.	<u>GUARANTEE</u> CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE ALL LABOR AND MATERIALS ON ALL WORK AGAINST DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR.	4.	DO NOT RUN ANY CONDUIT IN SLAB IF ITS OUTSIDE DIAMETER EXCEED WITHIN THE MIDDLE OF THE SLAB. WHERE CONDUITS ARE GROUPED I CONDUITS CROSS EACH OTHER, THICKEN SLAB PROPORTIONATELY OV
9.	SHOP DRAWINGS SUBMIT SHOP DRAWINGS AND MATERIAL LIST FOR REVIEW PRIOR TO COMMENCING ANY WORK. ALL EQUIPMENT TO BEAR U.L. LABEL OR THAT OF ANOTHER ACCEPTABLE TESTING LABORATORY. SHOP DRAWINGS MUST BE STAMPED BY THE CONTRACTOR FOR CONFORMANCE PRIOR TO SUBMITTAL. SUBMIT THREE HARD COPY SETS OF SHOP DRAWINGS FOR REVIEW PRIOR TO PURCHASING ALL BREAKER MOUNTING HARDWARE, DISCONNECT SWITCHES, FUSES, CONTROLLERS, LIGHTING FIXTURES, LIGHT SWITCHES, RECEPTACLES, ETC.	5. 6.	OF THE LARGEST CONDUIT. REFER ALSO TO DETAILS SHOWN SIZE OUTLET BOXES IN CONFORMITY WITH CODE FOR NUMBER AND G LARGER. MINIMUM BOX SIZE SHALL BE 4" SQUARE BY 1-1/2" DEEP. ALL ELECTRICAL WORK SHALL BE INSTALLED SO AS TO BE READILY AC REPAIRING. ALL CONDUIT SHALL BE CONCEALED WHERE POSSIBLE. EX OR AT RIGHT ANGLES TO, COLUMN LINES OR BEAMS AND SEPARATED I THEY RUN LONG SIDE OR ACROSS SUCH LINES. CONDUIT SHALL NOT E
10.	CONTRACTOR DID CONTRACTOR'S BID SHALL BE BASED ON ALL WORK SHOWN ON THE PLANS AND AS SPECIFIED. IF CONTRACTOR PROPOSES TO SUBSTITUTE FOR EQUIPMENT SPECIFIED, HE SHALL SUBMIT HIS REQUEST FOR CONSIDERATION OF THE OWNER AND ENGINEER PRIOR TO BID IN WRITING. ALL SUBSTITUTIONS MUST BE REVIEWED BY THE ENGINEER IN WRITING. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR COMPLYING WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS, AND THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS OWN EXPENSE FOR ANY CHARGES RESULTING FROM HIS PROPOSED SUBSTITUTIONS WHICH AFFECT OTHER PARTS OF HIS OWN WORK, THE OWNER, ENGINEER OF RECORD OR THE WORK OF OTHER CONTRACTORS.	7.	SPECIFIC APPROVAL OF THE OWNERS REPRESENTATIVE. HANGERS SHA TO PIPING. HANGERS AND SUPPORT SYSTEMS ARE AN INTEGRAL PART EXPOSED TO PUBLIC VIEW MUST BE SHOWN IN DETAIL ON PLANS SUB HANGERS MUST BE UNIFORMLY SPACED AND NEATLY INSTALLED WITH SUPPORT FUNCTION. CONTRACTOR SHALL SELECT ACCESSORIES AND I PAINT ALL EXPOSED CONDUIT HANGERS TO MATCH THE ADJACENT FIN PANEL CIRCUIT DIRECTORY SHALL COMPLY WITH CEC 408.4.
В.	MATERIAL AND INSTALLATION ALL WORK AND MATERIAL SHALL CONFORM TO THE LATEST RULES OF THE GOVERNING ELECTRICAL CODE AND INSTALLATION SHALL BE OF THE LATEST INDUSTRY STANDARDS OF WORKMANSHIP.	8. H.	PROVIDE 90% COMPACTION OR SAND SLURRY OVER ALL UNDERGROUP
	ALL INSTALLED MATERIALS AND EQUIPMENT SHALL BE LISTED U.L., NRTL OR LISTED AND APPROVED BY AN APPROVED TESTING LABORATORY.	1.	MARKING - UNDERGROUND SYSTEM SHALL BE LEGIBLY MARKED "UNDE MEANS OF THE SYSTEM. THE MARKING SHALL BE OF SUFFICIENT DURA (250.21)(C)
1.	<u>CONDUITS</u> CONDUIT SHALL BE EMT, PVC, IMC, RIGID OR FLEXIBLE STEEL TYPE. CONDUIT SHALL BE MANUFACTURED IN ACCORDANCE WITH UL-1. A GROUND WIRE IS REQUIRED IN ALL FLEXIBLE CONDUIT AND UNDERGROUND CONDUIT. BUSHINGS SHALL BE INSTALLED ON ALL COMMUNICATION, TELEPHONE & SPEAKER CONDUITS. PROVIDE 3/16" NYLON PULL STRING IN ALL EMPTY CONDUITS. NO MC, BX OR AC90 SHALL BE PERMITTED. FLEXIBLE STEEL CONDUIT RUNS SHALL BE LIMITED TO A MAXIMUM LENGTH OF 6 FOOT. ALL CONNECTIONS SHALL BE COMPRESSION & NOT SCREW TYPE.	2.	THE ISSUANCE OF A PERMIT SHALL NOT PREVENT THE BUILDING OFFI PLANS OR FROM PREVENTING ANY VIOLATION OF THE CODES ADOPTE REGULATIONS. EACH MULTIWIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEAN CONDUCTORS AT THE PANELBOARD WHERE THE BRANCH CIRCUIT ORI
2.	FEEDERS AND BRANCH CIRCUITS IDENTIFICATION IDENTIFY FEEDERS WITH THE CORRESPONDING CIRCUIT DESIGNATION AT THE OVER-CURRENT DEVICE, LOAD END, AND IN PULL BOXES WITH E-Z CODE OR OTHER APPROVED WIRE MARKER. IDENTIFY BRANCH CIRCUITS WITH I.D. MARKERS, THE CORRESPONDING CIRCUIT DESIGNATION AT THE OVER-CURRENT DEVICE, AT ALL SPLICES, IN JUNCTION BOXES, AND IN OUTLETS. USE PLASTIC COATED SELF-STICKING MARKERS SUCH AS THOMAS & BETTS E-Z CODE FOR IDENTIFICATION OF CONDUCTORS. IDENTIFY SIGNAL & COMMUNICATION CABLES AT TERMINAL AND OUTLET UNIQUELY WITH PERMANENT LABELING.	4. 5. 6.	MULTIWIRE BRANCH CIRCUITS SUPPLYING POWER TO THE PARTITION SIMULTANEOUSLY ALL UNGROUNDED CONDUCTORS AT THE PANELBOA PROVIDE SEPARATE SUBMITTAL; OBTAIN ALL REQUIRED PERMITS, INS INSTALLATIONS AND/OR MODIFICATIONS FROM THE FIRE DEPARTMEN ALL NEW OVERCURRENT DEVICES INSTALLED IN EXISTING PANELS/SW INTERRUPTING CAPACITY OF THE EXISTING OVERCURRENT DEVICES
3.	CONDUCTORS DELIVER ALL CONDUCTORS TO THE JOB SITE IN ORIGINAL UNBROKEN CARTON OR REEL, PROPERLY TAGGED WITH U.L. LABEL, SIZE, TYPE, MANUFACTURER, TRADE NAME AND THE DATE OF MANUFACTURE. (MUST BE MANUFACTURED WITHIN 6 MONTHS) PROVIDE COPPER CONDUCTORS #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. PROVIDE STRANDED COPPER CONDUCTORS FOR ALL WIRING. USE CONDUCTORS WITH 90 C THHN/THWN 00 VOLTS INSULATION, UNLESS OTHERWISE NOTED. CONDUCTOR SIZE NO.1 AWG AND SMALLER WITH 90 DEGREE C INSULATION ARE TO USE THE 60 DEGREE COLUMN OF THE CODE, TABLE 310-16, TO DETERMINE AMPACITY. CONDUCTORS #1/0 AWG AND LARGER WITH 75 DEGREE AND 90 DEGREE INSULATION ARE TO USE THE 75 DEGREE COLUMN OF CODE, TABLE 310-16, TO DETERMINE AMPACITY. (110.14C) WHERE THE NUMBER OF CONDUCTORS IN A RACEWAY OR CABLE EXCEEDS THREE, THE ALLOWABLE AMPACITY OF EACH CONDUCTOR SHALL BE REDUCED PER TABLE 310.15(B)(3)(a).	7. 8. 9.	RACEWAY SEALS. CONDUITS OR RACEWAYS THROUGH WHICH MOISTU EITHER OR BOTH ENDS. MULTIPLE RACEWAYS CONTAINING MORE THAN 3 CURRENT CARRYING THE IDENTIFICATION OF EVERY CIRCUIT OF A PANEL BOARD AND SWI EVIDENT, AND SPECIFIC PURPOSE OR USE AND SHALL INCLUDE SUFFIC FROM ALL OTHERS. 2016 C.E.C 408.4 - PROVIDE MORE DETAIL ON PAN
4.	<u>LIGHTING FIXTURES</u> PROVIDE LIGHTING FIXTURES WITH ELECTRONIC DRIVERS PER SCHEDULE. NO SUBSTITUTIONS OF FIXTURES SHALL BE PROVIDED WITHOUT THE APPROVAL OF THE ENGINEER -OF-RECORD.		
5.	METER PEDESTAL METER PEDESTAL WITHIN PROJECT AREA SHALL BE OF THE COPPER BUS SINGLE PHASE, THREE WIRE DISTRIBUTED PHASING TYPE. CIRCUITING SHALL BE ARRANGED TO PROVIDE, AS NEARLY AS POSSIBLE, AN EVENLY BALANCED LOAD ON ALL PHASES. PANELBOARDS SHALL BE BOLT-ON CIRCUIT BREAKER TYPE. AVAILABLE FAULT CURRENT IS STATED ON PANELBOARD SCHEDULE. PROVIDE PANEL IDENTIFICATION NAMEPLATE (ENGRAVED ON-ADHESIVE 1/2" MINIMUM LETTERS) AND TYPEWRITTEN LIST OF CIRCUITS IN THE DIRECTORY FRAME.		THESE PLANS HAVE BEEN REVIEWED BY FEFFER GEOLOGICAL AND CONFORM TO TH GEOTECHNICAL RECOMMENDATIONS WITH OUR REPORT(S) FG # 2923-27 DATE 9/25/ 4/06/
6.	<u>ELECTRICAL CERTIFICATION</u> "ELECTRICIANS" PERFORMING WORK ON THIS PROJECT SHALL BE CURRENTLY CERTIFIED IN ACCORDANCE WITH THE STATE OF CALIFORNIA AB931 AND THE DIVISION OF APPRENTISHIP STANDARDS SECTION 3099.		5/3/23
C. 1.	DEMOLITION NOTIFY THE OWNER IMMEDIATELY WHEREVER EXISTING EQUIPMENT IS ENCOUNTERED WHICH MUST BE RELOCATED DUE TO THE NEW CONSTRUCTION, AND WHICH IS NOT INDICATED ON THE PLANS.		YH
2.	ALL REMOVED MATERIALS AND EQUIPMENT WHICH ARE SALVAGEABLE SHALL REMAIN THE PROPERTY OF THE OWNER. DELIVER SUCH SALVAGED MATERIALS AND EQUIPMENT ON THE PREMISES AS DIRECTED BY OWNER, AND NEATLY PILE OR STORE THEM AND PROTECT FROM DAMAGE. REMOVE FROM PREMISES AND DISPOSE OF ALL MATERIALS CONSIDERED BY THE OWNER TO BE SCRAP.		ſ
4.	ALL OVER-CURRENT PROTECTION AND DISCONNECT DEVICES NO LONGER UTILIZED BUT REMAINING AS LAST ACTIVE DEVICE SHALL BE LABELED AS 'SPARE'. COORDINATE ALL OUTAGES WITH OWNERS REPRESENTATIVE. DISCONNECT AND MAKE SAFE ALL ELECTRICAL SYSTEMS ON SITE AND IN WALL, FLOORS, AND CEILINGS SCHEDULED FOR REMOVAL.		
5.	REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION.		
6. 7	REMOVE ABANDONED WIRING TO SOURCE OF SUPPLY AND RE-LABEL DEVICES AS SPARES.		
7. 8.	WALLS AND FLOOR, AND PATCH SURFACES. DISCONNECT ABANDONED OUTLETS AND REMOVE DEVICES. REMOVE ABANDONED OUTLETS IF CONDUIT SERVICING THEM IS ABANDONED AND REMOVE. PROVIDE BLANK COVER FOR ABANDONED OUTLETS WHICH ARE NOT REMOVED.		
9.	DISCONNECT AND REMOVE ABANDONED LUMINAIRES. REMOVE BRACKETS, STEMS, HANGERS, AND OTHER		
10.	REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION WORK		
12.	PANEL AS APPROPRIATE. BEGINNING OF DEMOLITION MEANS CONTRACTOR ACCEPTS EXISTING CONDITIONS.		

		SY	'MBOLS			
, FLOORS, EQUIPMENT UTILITY LINES AND MATERIALS. WHEN WORKING ON FINISHED	\oplus	DUPLEX RECEPTACLE, WALL MOUNT	TED @ +18" AFF TO BOTTOM OF DEVICE, NEMA 5-2			
IFINES AS MUCH AS POSSIBLE AND RESTORE TO THE ORIGINAL CONDITION ALL SURFACES E INSTALLATION OF THIS WORK.		(2)DATA OUTLETS, 2 GANG FLOOR BOX WITH DEVICES AND 2 CAT 6 CABLES PER 1-1/4"C MINIMUM TO CABLE TRAY OR IDF.				
REMOVED FOR PROTECTION SHALL BE REPLACED IN ORIGINAL LOCATIONS. ANY MATERIALS	\bigcirc	SPECIAL OUTLET, TYPE AS REQUIRI	ED BY EQUIPMENT.			
IEW MATERIALS OF LIKE KIND AND QUALITY.		JUNCTION BOX (CEILING MTD.) SIZ	Æ PER TABLE AND NEC ARTICLE 370			
ING AND PATCHING REQUIRED TO INSTALL ELECTRICAL WORK AS INDICATED OR HEREIN) J	JUNCTION BOX (WALL MTD.) SIZE F	PER TABLE AND NEC ARTICLE 370			
INETS, ENCLOSURES AND FITTINGS PENETRATING INTO FIRE RATED ENVELOPES, SPACES, ETC.		THERMOSTAT - 36" TO 48" AFF, BO	TTOM & TOP OF BOX RESPECTIVELY			
LED, UNLESS SHOWN OTHERWISE. PROVIDE A PULL WIRE IN ALL EMPTY CONDUITS.	T	TRANSFORMER				
AVAILABLE RECORD DRAWINGS AND VISUAL FIELD SURVEY AND SHOWN FOR REFERENCE ONLY.		BRANCH CIRCUIT PANELBOARD - 24	40/120V, 1 , 3W			
XISTING CONDITION AT SITE.		4'X8'X3/4" TELEPHONE BACKBOARD REPRESENTATIVE.	, MARINE PLYWOOD AND PAINTED WITH FIRE RES			
CIALLY INDICATED AS EXISTING (X). ALL ELECTRICAL EQUIPMENT MOUNTING AND ANCHORAGE TE SEISMIC CODES.		CONDUIT RUN CONCEALED ABOVE	CEILING OR IN WALLS,			
		CONDUIT RUN CONCEALED BELOW	FLOOR OR UNDERGROUND			
	w	FLEXIBLE CONDUIT (WITH GROUND EXPOSED AREAS)	O CONDUCTOR, PROVIDE LIQUID TIGHT CONDUIT I			
DING AND GROUNDING SYSTEM AS REQUIRED BY CODES. CONTINUITY OF GROUNDING SHALL BE TRICALLY THROUGHOUT THE SYSTEM. A GREEN GROUNDING CODE SIZED CONDUCTOR SHALL BE	#10	 HASH MARKS INDICATE QUANTITY MARKS INDICATE (2)#12AWG. (PR CONDUITS.) 	OF #12 CONDUCTORS. NO HASH OVIDE GROUND CONDUCTOR IN ALL			
ND SPECIFICATIONS THAT A COMPLETE AND WORKABLE ELECTRICAL INSTALLATION BE PROVIDED	▲	 WHERE NO NUMBER IS INDICATED, # 12AWG(MIN.) CONDUIT SIZE IS A (3/4" CONDUIT MINIMUM). 	, THE CONDUCTORS ARE S REQUIRED BY ELECTRICAL CODE.			
OR SHOWN AS BEING IN THIS CONTRACT. TOWARD THIS END FURNISH ALL LABOR AND TOOLS ALL ALL APPARATUS, MATERIALS AND EQUIPMENT IN A FASHION COMPLYING WITH ALL IS REQUIRED BUT NOT NORMALLY SHOWN, SUCH AS LAMPS, COUPLINGS, HANGERS, BRACKETS, HARDWARE. REFER ALSO TO WRITTEN SPECIFICATIONS FOR GENERAL, MECHANICAL AND	-2LA 1-3	INDICATES A HOMERUN TO PNL 2L CKT 7 WITH DEDICATED NEUTRAL. -5,7	A, CKTS 1-3-5 WITH SHARED NEUTRAL &			
	│ 	3/4"C-2#12 & 1#12 GND	7			
Y CONSTITUTED AUTHORITIES, ARRANGE FOR ALL INSPECTIONS AND PAY ALL COSTS FOR FEES		3/4"C-3#12 & 1#12 GND				
THE COMPET WITH CODES. NOTHING IN THESE PLANS AUTHORIZES DEVIATION FROM		3/4"C-4#12 & 1#12 GND				
CEALED FEEDERS AND BRANCH HOMERUNS IN COOPERATION WITH OTHER TRADES TO SIMPLIFY		3/4"C-5#12 & 1#12 GND				
BUT SUBJECT TO APPROVAL OF ARCHITECT FOR VISUAL AND STRUCTURAL REASONS.	++ <u>+</u> 10	3/4"C-2#10 & 1#10 GND	DEDICATED NEUTRALS FOR CIRCUITS WHIC			
F ITS OUTSIDE DIAMETER EXCEEDS 1/3 THE THICKNESS OF THE SLAB. LOCATE CONDUITS	-+++	3/4"C-3#10 & 1#10 GND	CIRCUIT HANDLE TIES ON BREAKERS FEEDI			
CKEN SLAB PROPORTIONATELY OVER A HORIZONTAL AREA EQUAL TO TEN TIMES THE DIAMETER	-+++++10	3/4"C-4#10 & 1#10 GND				
LSO TO DETAILS SHOWN		3/4"C-5#10 & 1#10 GND				
WITH CODE FOR NUMBER AND GAUGE OF CONDUCTORS THEREIN, EXCEPT WHERE NOTED TO BE 3E 4" SQUARE BY 1-1/2" DEEP.	(1	SEE KEY NOTE #1 AS INDICATED O	N DRAWING			
TALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND	\$Р	SWITCH WITH PILOT LIGHT @ 42"	AFF			
CONCEALED WHERE POSSIBLE. EXPOSED CONDUIT SHALL BE IN STRAIGHT LINES PARALLEL WITH,	\$ 3ab	3-WAY SWITCH, a & b INDICATES L	IGHT FIXTURE TO BE SWITCHED (EACH A 3-WAY) I			
CH LINES. CONDUIT SHALL NOT BE RUN BELOW CABLE TRAYS OR LIGHT FIXTURES WITHOUT		SWITCH MOUNTED @ +42" AFF				
REPRESENTATIVE. HANGERS SHALL BE FASTENED TO STEEL, CONCRETE OR MASONRY, BUT NOT SYSTEMS ARE AN INTEGRAL PART OF THE VISUAL ENVIRONMENT. ALL HANGERS AND SUPPORTS	∲ М \$ a,b,c,d	MOTOR RATED SWITCH				
HOWN IN DETAIL ON PLANS SUBMITTED TO ENGINEER FOR APPROVAL OF APPEARANCE. ALL ED AND NEATLY INSTALLED WITH NO EXCESS MATERIAL BEYOND WHAT IS REQUIRED FOR THE HALL SELECT ACCESSORIES AND HARDWARE WITH A SMOOTH, NEAT FINISHED APPEARANCE AND ERS TO MATCH THE ADJACENT FINISHES.		— CIRCUIT SWITCH LEGS — WALL SWITCHES				
OMPLY WITH CEC 408.4.	60AS	DISCONNECT SWITCH, 60AMP SWIT	TCH, 35 AMP FUSE, 3 POLE W/ OVERCURRENT PROT			

MP

100AS 60AF

200AF) 150AT | 3P

O SLURRY OVER ALL UNDERGROUND CONDUITS, USE ONLY CLEAN FILL.

SHALL BE LEGIBLY MARKED "UNDERGROUND SYSTEM" AT THE SOURCE OR FIRST DISCONNECTING ING SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.

NOT PREVENT THE BUILDING OFFICIAL FROM REQUIRING THE CORRECTION OF ERRORS ON THESE /IOLATION OF THE CODES ADOPTED BY THE CITY, RELEVANT LAWS, ORDINANCES, RULES AND/OR

SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED WHERE THE BRANCH CIRCUIT ORIGINATES. (210.4)

PLYING POWER TO THE PARTITION SHALL BE PROVIDED WITH A MEAN TO DISCONNECT CONDUCTORS AT THE PANELBOARD WHERE THE BRANCH CIRCUIT ORIGINATES. (605.7)

TAIN ALL REQUIRED PERMITS, INSPECTIONS AND APPROVALS FOR ALL FIRE ALARM SYSTEM TIONS FROM THE FIRE DEPARTMENT.

NSTALLED IN EXISTING PANELS/SWITCHBOARDS SHALL MATCH THE MAKE, MODEL AND

CEWAYS THROUGH WHICH MOISTURE MAY CONTACT LIVE PARTS SHALL BE SEALED OR PLUGGED AT

MORE THAN 3 CURRENT CARRYING CONDUCTORS SHALL COMPLY WITH [2016 CEC, 310.15(B)(2)(A)]. CUIT OF A PANEL BOARD AND SWITCHBOARD SHALL BE LEGIBLY IDENTIFIED AS TO ITS CLEAR, R USE AND SHALL INCLUDE SUFFICIENT DETAIL TO ALLOW EACH CIRCUIT TO BE DISTINGUISHED - PROVIDE MORE DETAIL ON PANEL SCHEDULE CIRCUIT DESCRIPTIONS.

IS HAVE BEEN REVIEWED BY LOGICAL AND CONFORM TO THE ICAL RECOMMENDATIONS WITHIN

2923-27 DATE 9/25/20 4/06/23 5/3/23

COLOR CODE FOR CONDUCT PROVIDE CONDUCTOR COLOR CODE AS FOLLOWS: 120/208VAC,3 ,4W: BLUE,BLACK,RED FOR PHASE CONDUCTORS AND WHITE FOR NEUTRAL,

DERATING TABLE

(a) MORE THAN THREE CURRENT-CARRYING CONDUCTORS IN A RACEWAY OR CABLE. WHERE THE NUMBE CONDUCTORS IN A RACEWAY OR CABLE EXCEEDS THREE, THE ALLOWABLE AMPACITIES SHALL BE REDUCE FOLLOWING TABLE:

PERCENT OF VALUES I NUMBER OF CURRENT-CARRYING FOR AMBIENT TEMPER CONDUCTORS

WHERE SINGLE CONDUCTORS OR MULTICONDUCTOR CABLES ARE STACKED OR BUNDLED LONGER THAN 2 MAINTAINING SPACING AND ARE NOT INSTALLED IN RACEWAYS, THE ALLOWABLE AMPACITY OF EACH CON SHOWN IN THE ABOVE TABLE.

EXCEPTION NO. 1: WHERE CONDUCTORS OF DIFFERENT SYSTEMS, AS PROVIDED IN SECTION 300-3, ARE I RACEWAY OR CABLE, THE DERATING FACTORS SHOWN ABOVE SHALL APPLY TO THE NUMBER OF POWER AI 220, AND 230) CONDUCTORS ONLY.

EXCEPTION NO. 2: FOR CONDUCTORS INSTALLED IN CABLE TRAYS, THE PROVISIONS OF SECTION 318-11 S EXCEPTION NO. 3: DERATING FACTORS SHALL NOT APPLY TO CONDUCTORS IN NIPPLES HAVING A LENGTH (610mm).

EXCEPTION NO. 4: DERATING FACTORS SHALL NOT APPLY TO UNDERGROUND CONDUCTORS ENTERING OR IF THOSE CONDUCTORS HAVE PHYSICAL PROTECTION IN THE FORM OF RIGID METAL CONDUIT, INTERMED NONMETALLIC CONDUIT HAVING A LENGTH NOT EXCEEDING 10 FEET (3.05m) ABOVE GRADE AND THE NUM EXCEED FOUR.

EXCEPTION NO. 5: FOR OTHER LOADING CONDITIONS, ADJUSTMENT FACTORS AND AMPACITIES SHALL BE UNDER SECTION 310-15(b)

(FNC): SEE APPENDIX B, TABLE B-310-11 FOR ADJUSTMENT FACTORS FOR MORE THAN THREE CURRENT-CA RACEWAY OR CABLE WITH LOAD DIVERSITY.

(b) MORE THAN ONE CONDUIT, TUBE, OR RACEWAY. SPACING BETWEEN CONDUITS, TUBING, OR RACEWAY

SYMBOLS	LIST OF DRAWINGS
DUPLEX RECEPTACLE, WALL MOUNTED @ + 18" AFF TO BOTTOM OF DEVICE, NEMA 5-20R U.O.N.	SHEET DESCRIPTION E100 GENERAL NOTES, ABBREVIATIONS, SYMBOLS & DRAWING LIST
(2)DATA OUTLETS, 2 GANG FLOOR BOX WITH DEVICES AND 2 CAT 6 CABLES PER NOTES & SPECIFICATION. PROVIDE 1-1/4"C MINIMUM TO CABLE TRAY OR IDF. SPECIAL OUTLET, TYPE AS REQUIRED BY EQUIPMENT.	E101 OUTDOOR TITLE 24 PAGE 1 E102 OUTDOOR TITLE 24 PAGE 2 - INSTALLATION CERTIFICATION
JUNCTION BOX (CEILING MTD.) SIZE PER TABLE AND NEC ARTICLE 370	E110 SITE ELECTRICAL DEMOLITION PLAN E130 SITE LIGHTING PLAN - NEW WORK
JUNCTION BOX (WALL MTD.) SIZE PER TABLE AND NEC ARTICLE 370 THERMOSTAT - 36" TO 48" AFF, BOTTOM & TOP OF BOX RESPECTIVELY	E131 LIGHTING PHOTOMETRIC PLAN E200 MYERS PEDESTAL 'A' AND PANEL SCHEDULE
TRANSFORMER BRANCH CIRCUIT PANELBOARD - 240/120V, 1 , 3W	E300 ELECTRICAL DETAILS
4'X8'X3/4" TELEPHONE BACKBOARD, MARINE PLYWOOD AND PAINTED WITH FIRE RESISTANT PAINT, PER OWNERS REPRESENTATIVE.	
CONDUIT RUN CONCEALED ABOVE CEILING OR IN WALLS, CONDUIT RUN CONCEALED BELOW FLOOR OR UNDERGROUND	SCOPE OF WORK
FLEXIBLE CONDUIT (WITH GROUND CONDUCTOR, PROVIDE LIQUID TIGHT CONDUIT IN ALL EXPOSED AREAS)	
- HASH MARKS INDICATE QUANTITY OF #12 CONDUCTORS. NO HASH MARKS INDICATE (2)#12AWG. (PROVIDE GROUND CONDUCTOR IN ALL CONDUITS.)	PROVIDE NEW POWER METER PEDESTAL (FED FROM SCE) AND NEW BIKE PATH LIGHTING PLUS IRRIGATION CONTROLLER POWER FOR CITY OF REDONDO BEACH BIKE PATH.
- WHERE NO NUMBER IS INDICATED, THE CONDUCTORS ARE # 12AWG(MIN.) CONDUIT SIZE IS AS REQUIRED BY ELECTRICAL CODE. (3/4" CONDUIT MINIMUM).	
INDICATES A HOMERUN TO PNL 2LA, CKTS 1-3-5 WITH SHARED NEUTRAL & CKT 7 WITH DEDICATED NEUTRAL.	
5,7 3/4"C-2# 12 & 1# 12 GND	APPLICABLE CODES AND STANDARDS
3/4"C-3# 12 & 1# 12 GND 3/4"C-4# 12 & 1# 12 GND	1. 2019 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 1 8. CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, CALIFORNIA ACCESSIBILITY STANDARDS
3/4"C-5#12 & 1#12 GND > 1" CONDUIT MINIMUM IF UNDERGROUND (CONTRACTOR TO PROVIDE	2. 2019 CALIFORNIA BUILDING CODE (CBC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 19 CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 2 9. 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (2018 INTERNATIONAL BUILDING CODE (IBC) W/CALIFORNIA AMENDMENTS) 9. 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
3/4"C-2# 10 & 1# 10 GNDDEDICATED NEUTRALS FOR CIRCUITS WHICH DO NOT HAVE COMMON3/4"C-3# 10 & 1# 10 GNDCIRCUIT HANDLE TIES ON BREAKERS FEEDING THE CIRCUITS)	 3. 2019 CALIFORNIA ELECTRICAL CODE (CEC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 3 (2017 NATIONAL ELECTRICAL CODE (NEC) W/CALIEORNIA AMENIDMENTS) 10. 2019 CALIFORNIA MECHANICAL CODE (CMC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 4 (2017 NATIONAL ELECTRICAL CODE (NEC) W/CALIEORNIA AMENIDMENTS)
3/4"C-4# 10 & 1# 10 GND 3/4"C-5# 10 & 1# 10 GND	4. 2019 CALIFORNIA ENERGY CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 6 11. 2019 CALIFORNIA PLUMBING CODE (CPC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 5
SEE KEY NOTE # 1 AS INDICATED ON DRAWING SWITCH WITH PILOT LIGHT @ 42"AFF	5. 2019 CALIFORNIA FIRE CODE (CFC) (2018 UNIFORM PLUMBING CODE (UPC) W/CALIFORNIA AMENDMENT 5. 2019 CALIFORNIA FIRE CODE (CFC) (2018 UNIFORM PLUMBING CODE (UPC) W/CALIFORNIA AMENDMENT 6. 2018 UNIFORM PLUMBING CODE (UPC) W/CALIFORNIA AMENDMENT 7. 2018 UNIFORM PLUMBING CODE (UPC) W/CALIFORNIA AMENDMENT 7. 2018 UNIFORM PLUMBING CODE (UPC) W/CALIFORNIA AMENDMENT 7. 2018 UNIFORM PLUMBING CODE (UPC) W/CALIFORNIA AMENDMENTS 7. 2018 UNIFORM PLUMBING CODE OF REGULATIONS (CCR) 7. 2018 UNIFORM PLUMBING CODE OF REGULATIONS (CCR)
3-WAY SWITCH, a & b INDICATES LIGHT FIXTURE TO BE SWITCHED (EACH A 3-WAY) MOUNTED @ 42" AFF	6. 2019 CALIFORNIA REFERENCED STANDARDS CODE 13. 2019 NFPA 72 NATIONAL FIRE ALARM CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 12 13. 2019 NFPA 72 NATIONAL FIRE ALARM CODE
MOTOR RATED SWITCH	7. AMERICANS WITH DISABILITIES ACT (ADA) TITLE II - ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAG) 1990 STATE FIRE MARSHAL REGULATIONS AND AMENDMENTS TO-DATE
– CIRCUIT SWITCH LEGS – WALL SWITCHES	
DISCONNECT SWITCH, 60AMP SWITCH, 35 AMP FUSE, 3 POLE W/ OVERCURRENT PROTECTION U.O.N.	A AMPERES ECD ELECTRICAL CONTRACTOR MDF MAIN DISTRIBUTION FRAME TC TIME CLOCKS
METER PEDESTAL	AFAMP FRAME/AMP FUSEEMEMERGENCY LIGHT/FEEDERMIN.MINIMUMTTBTELEPHONE TERMIAFCAVAILABLE FAULT CURRENTEMTELECTRICAL METAL TUBINGMTDMOUNTEDTTCTELEPHONE TERMIAFFABOVE FINISHED FLOOREORENGINEER OF RECORDMTBMAIN TELEPHONE BACKBOARDTRTRANSFORMER
FUSED DISCONNECT SWITCH 100AMP SWITCH RATING WITH 60 AMP FUSES, 3 POLE	AIC AMP INTERRUPTING CURRENT EPR ETHYLENE PROPYLENE RUBBER MTG MOUNTING TVSS TRANSIENT VOLTA ARCH ARCHITECT (F) FRONT MV MEDIUM VOLTAGE SUPPRESSOR AS AMP SWITCH FS SHALLOW FLOOR BOX MH MAN HOLE TYP TYPICAL
MOLDED CASE CIRCUIT BREAKER 200 AMP FRAME, 150 AMP TRIP RATING, 3 POLE	ASTM AMERICAN SOCIETY OF FT FEET MFG MANUFACTURER UG UNDERGROUND TESTING MATERIAL(S) GC GENERAL CONTRACTOR NEC NATIONAL ELECTRICAL CODE UL UNDERWRITERS LA AT AMP TRIP GFI GROUND FAULT INTERRUPTER (N) NEW UON UNLESS OTHERWIS
CCTV-VERIFY MOUNTING LOCATION AND REQUIREMENTS WITH CLIENT/OWNER.	AWG AMERICAN WIRE GAGE GND GROUND NIC NOT IN CONTRACT UNSW UNSWITCHED BKBD BACKBOARD HP HORSEPOWER NL NIGHT LIGHT V VOLTS/VOLTAGE C CONDUIT OR CEILING ID IDENTIFICATION NO NORMALLY OPEN VA VOLT AMPS
POLE LIGHTING FIXTURE	CB CIRCUIT BREAKER IDF INTERMEDIATE DISTRIBUTION NC NORMALLY CLOSED VD VOLTAGE DROP CONT CONTINUATION FRAME OH OVERHEAD W WATTS/WATTAGE (CKT CIRCUIT IG ISOLATED GROUND P POWER OR POLE WP WEATHERPROOF
	CLG CEILING JB JUNCTION BOX PBO PROVIDED BY OTHERS W/ WITH CO CONDUIT ONLY K KILO PNL PANEL (X) EXISTING CTV CABLE TELEVISION KVA KILO VOLT AMPS=1000VA (R) REMOVED PHASE
	CW COLD WATER PIPE LCL LONG CONTINUOUS LOAD CONDUIT DIS DISCONNECT LV LOW VOLTAGE RM ROOM DS DISCONNECT SWITCH M METER SN SYSTEM NEUTRAL
LOR CODE FOR CONDUCTORS	DWG DRAWING MC METAL CLAD SPD SURGE PROTECTION DEVICE
UCTOR COLOR CODE AS FOLLOWS: AC,3 ,4W: BLUE,BLACK,RED FOR PHASE CONDUCTORS AND WHITE FOR NEUTRAL, GREEN FOR GROUND.	
DERATING TABLE	- SITE/AREA MAP
NEC # 310-8 ADJUSTMENT FACTORS	-
A RACEWAY OR CABLE EXCEEDS THREE, THE ALLOWABLE AMPACITIES SHALL BE REDUCED AS SHOWN IN THE E:	
BER OF CURRENT-CARRYING PERCENT OF VALUES IN TABLES AS ADJUSTED CONDUCTORS FOR AMBIENT TEMPERATURE IF NECESSARY	
4 THROUGH 6 80 7 THROUGH 9 70 10 THROUGH 20 50 21 TUROUGH 20 50	The second se
21 THROUGH 30 45 31 THROUGH 40 40 41 AND ABOVE 35	
NDUCTORS OR MULTICONDUCTOR CABLES ARE STACKED OR BUNDLED LONGER THAN 24 INCHES (610 mm) WITHOUT TING AND ARE NOT INSTALLED IN RACEWAYS, THE ALLOWABLE AMPACITY OF EACH CONDUCTOR SHALL BE REDUCED AS	
WHERE CONDUCTORS OF DIFFERENT SYSTEMS, AS PROVIDED IN SECTION 300-3, ARE INSTALLED IN A COMMON E, THE DERATING FACTORS SHOWN ABOVE SHALL APPLY TO THE NUMBER OF POWER AND LIGHTING (ARTICLES 210, 215,	
DUCTORS ONLY. FOR CONDUCTORS INSTALLED IN CABLE TRAYS, THE PROVISIONS OF SECTION 318-11 SHALL APPLY.	
DERATING FACTORS SHALL NOT APPLY TO CONDUCTORS IN NIPPLES HAVING A LENGTH NOT EXCEEDING 24 INCHES	
DERATING FACTORS SHALL NOT APPLY TO UNDERGROUND CONDUCTORS ENTERING OR LEAVING AN OUTDOOR TRENCH FORS HAVE PHYSICAL PROTECTION IN THE FORM OF RIGID METAL CONDUIT, INTERMEDIATE METAL CONDUIT, OR RIGID DUIT HAVING A LENGTH NOT EXCEEDING 10 FEET (3.05m) ABOVE GRADE AND THE NUMBER OF CONDUCTORS DOES NOT	
FOR OTHER LOADING CONDITIONS, ADJUSTMENT FACTORS AND AMPACITIES SHALL BE PERMITTED TO BE CALCULATED 0-15(b)	
IX B, TABLE B-310-11 FOR ADJUSTMENT FACTORS FOR MORE THAN THREE CURRENT-CARRYING CONDUCTORS IN A E WITH LOAD DIVERSITY.	
E CONDUIT, TUBE, OR RACEWAY. SPACING BETWEEN CONDUITS, TUBING, OR RACEWAYS SHALL BE MAINTAINED.	
	PROJECT AREA FOR CITY OF REDONDO BEACH

STATE OF CALIFORNIA **Outdoor Lighting** NRCC-LTO-E (Created 11/19) CERTIFICATE OF COMPLIANCE Project Name: BEACH CITIES HEALTH DISTRICT BIKE PATH PROJECT Report Page: Project Address: 514 N Prospect Ave Suite 102, Redondo Beach, CA 90277 Date Prepared: DOCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Compliance documentation is accurate and complete Documentation Author Signature: Kenneth Wayne Lucci Documentation Author Name: KEN LUCCI LUCCI & ASOOCIATES Signature Date: Company: 3251 CORTE MALPASO, SUITE 511 CEA/ HERS Certification Identification (if applicable): Address: CAMARILLO, CA., 93012 City/State/Zip: Phone: 805 389-6520 **RESPONSIBLE PERSON'S DECLARATION STATEMENT** I certify the following under penalty of perjury, under the laws of the State of California: 1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer) 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. Responsible Designer Name: KEN LUCCI Responsible Designer Signature: Kenneth Wayne Lucci LUCCI & ASOOCIATES Date Signed: Company : 3251 CORTE MALPASO, SUITE 511 License: E8340 Address: City/State/Zip: CAMARILLO, CA., 93012 805 389-6520 Phone:

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards

Project Add	ne: BEAC	H CITIES HEALTH DISTRICT BIKE PATH PROJECT Report Page:	
Појсстлаа	ress: 514 N	I Prospect Ave Suite 102, Redondo Beach, CA 90277 Date Prepared:	
P. DECLAR	ATION OF	REQUIRED CERTIFICATES OF ACCEPTANCE	
Table Instru Table E. Add Certificatior	ctions: Sele ditional Ren n Provider (A	ctions have been made based on information provided in previous tables of this document. If any selection needs to be changed, p narks. These documents must be provided to the building inspector during construction and must be completed through an Accept ATTCP). For more information visit: <u>http://www.energy.ca.gov/title24/attcp/providers.html</u>	lease ex ance Tes
YES	NO	Form/Title	Fie
O	0	NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls area added to ≤ 20 luminaires.	
CA Building E STATE OF CALII Outdoor NRCC-LTO-E (C CERTIFICATI	FORNIA • Lighting reated 11/19) E OF COMPI	ncy Standards - 2019 Nonresidential Compliance: <u>http://www.energy.ca.gov/title24/2019standards</u>	NERGY CO
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CA Building E STATE OF CALII Outdoor NRCC-LTO-E (C CERTIFICATI Project Nam Project Add ¹ FOOTNOTI facilities. ² The Allowa ³ For lumina instead of m K. LIGHTIN This Section K. LIGHTIN This Section M. LIGHTIN This Section M. LIGHTIN This Section N. EXISTIN This Section N. EXISTIN This Section O. DECLAR Table Instru Table E. Add title24/2013 YES	FORNIA FORNIA		NERGY CC

STATE OF CALIFORNIA	
Outdoor Lighting	

Outdoor Lighting NRCC-LTO-E (Created 11/19) CERTIFICATE OF COMPLIANCE

Project Name:	BEACH CITIES HEALTH DISTRICT BIKE PATH PROJECT	Report Page:
Project Address:	514 N Prospect Ave Suite 102, Redondo Beach, CA 90277	Date Prepared:
Table Continued		
Table Continued		

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards

Table Instructions: Please complete	te this table for area	as using the					01					
allowance calculations per <u>§140.7</u>	 General Hardscap 	e Allowance				"Use it	or lose it'	" Allow	ances (sele	ect all that a	apply)	
is per <u>Table 140.7-A</u> while "Use it <u>Table 140.7-B</u> . Indicate which allo expand sections for user input. Lu the "Use it or lose it" allowances s	or lost it" Allowance wances are being u uminaires that quali shall not qualify for	es are per sed to fy for one of another "Use	\checkmark	General Hardscape Allowance	✓ Per Application	on 🗌	Sales Fro	ontage	Or Or	namental	F	er Speci
it or lose it" allowance.			Ta	able I (below)	Table J		Table K		Tak	ole L		Table N
Calculated General Hardscape Lig	hting Power Allowa	nce per <u>Table</u>	140.7	<u>/-A</u> (LZ 2 & 3)								
02	03	04		05	06	0	7		08	09		-
		Are	a Wa	ttage Allowance	(AWA)		Linear V	Vattage	e Allowanc	e (LWA)		Total (
Area Description	Surface Type	Illuminated	/	Allowed Density	Area Allowance	Perin	neter	Allowe	ed Density	Linear Allo	wance	AWA
		Area (ft²)		(W/ft²)	(Watts)	Leng	th (lf)	()	W/lf)	(Wat	ts)	(W
bike path	Concrete	4,400		0.03	132	42	20		0.4	168	;	3

Initial Wattage Allowance for Entire Site (Watts): 3

November 2019

Total General Hardscape Allowance (Watts):

J. LIGHTING ALLOWANCE: PER APPLICATION

able Instructions: Please comple	te this table for areas using t	he wattage a	llowance per	application fr	om <u>Table-140</u>	<u>).7-В</u> .			
01	02	03	04	05	06	07	08	09	10
		CALCULATED ALLOWANCE (Watts)				DESIG	SN WATTS		Additio
Area Description	Application per <u>Table</u> <u>140.7-B</u> ¹	# of Locations	Allowance per Location ² (Watts)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire ³	# of Luminaires³	Design Watts	Allowar (Watt
				0				0	
					Total	Design Watts	for this Area:	0	0
						Tota	al Allowance	Watts) All Areas:	0

Table Continued

November 2019

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NRCC-LTO-E

Page 7 of 7

2-19-2023

CALIFORNIA ENERGY COMMISSION

2-19-2023	Project Address: 514 N Prospect Ave	e Suite 102, Redondo Beach, CA 90277	Date Prepared:	\$120.0(.)	2-19
olain why in	¹ FOOTNOTES: Authority Having Juris ² For linear luminaires, wattage shou	diction may ask for Luminaire cut sheets t Id be indicated as W/If instead of Watts/I	o confirm wattage used for compliance (uminaire. Total linear feet for the lumin	per <u>§130.0(c)</u> aire should be indicated in column	05 instead of numb
t Technician	iuminaires. ³ Select "New" for new luminaires in "Existina to Remain" for existina lum	a new outdoor lighting project or for adde inaires within the project scope that are n	d luminaires in an alteration. Select "Al ot beina altered and are remainina. Sele	tered″ for replacement luminaires ect "Existina Reinstalled" for existir	in an alteration. Se a luminaires which
d Inspector Fail	being removed and reinstalled as part ⁴ Compliance with mandatory cutoff	rt of the project scope requirements is required for luminaires w	th initial lumen output ≥ 6,200 unless ex	empted by <u>§130.2(b)</u> .	5
	G. CUTOFF REQUIREMENTS (BUG	5)			
		LS			
	Table Instructions: Complete this tal	ble demonstrating compliance with contro are existing to remain (ie untouched) and	ls requirements for all new or altered lur luminaires which are removed and reins	ninaires installed as part of the per stalled (wiring only) do not need to	rmit application. Fo
	even if they are within the spaces co When an option having a * is selecte	vered by the permit application. d, the notes section of this table must be a	ompleted. The lighting controls section o	of the Compliance Summary Table	on the first page w
	show "DOES NOT COMPLY" if the not dropdown list to indicate not applica	tes are left blank. For each requirement in ble or an exemption.	columns 02 through 04, do not leave the	e field blank, instead select NA or E	xempt* from the
	Mandatory Controls 01	02	03	04	05
	Area Description	Shut-Off <u>§130.2(c)1</u>	Auto-Schedule <u>§130.2(c)2</u>	Motion Sensor <u>§130.2(c)3</u>	Field Inspec
	bike path	Other *	Yes	Yes	
	*NOTES: Controls with a * require a <i>EX: Not permitted by health & safety</i>	note in the space below explaining how co to be turned off; EXCEPTION 1 to <u>§130.2(</u>	empliance is achieved.		
	bike path	photocell and astronomical time clock	vith step dimming		
	I. LIGHTING POWER ALLOWANCE	E (per <u>§140.7</u>)	·		
	Table Continued				
November 2019	CA Building Energy Efficiency Standards -	2019 Nonresidential Compliance: http://www	energy ca gov/title24/2019standards		November
		· · · · · · · · · · · · · · · · · · ·			
(Contraction of the second seco	state of california Outdoor Lighting				
MMISSI19 NRCC-LTO-E	NRCC-LTO-E (Created 11/19) CERTIFICATE OF COMPLIANCE		Davis and Davis	CALIFORNIA EI	
Page 5 of 7 2-19-2023	Project Name: BEACH CITIES HEAL Project Address: 514 N Prospect Ave	e Suite 102, Redondo Beach, CA 90277	Date Prepared:		Page 2-19
cy vehicle	D. EXCEPTIONAL CONDITIONS	ale comments because of coloctions made	ar data antarad in tablac throughout the	form	
olumn 08	Table H. Outdoor Lighting Controls P	ermit Applicant Notes:	br data enterea in tables throughout the	John.	
6	bike path: photocell and astronom	ical time clock with step dimming			
	E. ADDITIONAL REMARKS	the permit applicant to the Authority Hay	na Jurisdiction.		
2					
	F. OUTDOOR LIGHTING FIXTURE	SCHEDULE			
2	Table Instructions: For new or altered existing lumingires remaining or beir	d lighting systems demonstrating compliants a moved within the spaces covered by the	nce with <u>§140.7</u> (ie Table I has expanded permit application in the Table below	for input), include all luminaires b For altered lighting systems using a	eing installed and o the Existing Power
?	method per <u>\$141.0(b)2L</u> (ie Table N I (ie, do not include existina luminaires	has expanded for input), include only new s remaining or existing luminaires beina m	luminaires being installed and replaceme oved).	ent luminaires being installed as po	art of the project sc
	Designed Wattage:	03 04	05 06	07 08 00	10
<pre>cplain why in</pre>	Name or	Watts per How Wattage is	Total Ex	cluded Cutoff F	Req. ≥ Req. ≥
. <u>gov/</u>	Item Tag	scription luminaire ^{1,2} determined	number Luminaire Status ³ luminaires ² §1	per Design Watts 0,200 min. 40.7(a) §130.2	2(b) ⁴ Pass
al lucas a abasis	P1 pole light 14 foot	Linear 71 Mfr. Spec ¹	3 New	□ 213 NA: <6,200) lumens
Fail		Linear			
Fail		Lincor			
Inspector Fail		Linear Linear		0	
Inspector Fail Image: Constraint of the second secon	* NOTES: Selections with a * require	Linear Linear a note in the space below explaining how	Total Designed compliance is achieved.	0 Watts: 213	
Inspector Fail Image: Image of the second	* NOTES: Selections with a * require EX: Luminaire is lighting a statue; EX	Linear Linear a note in the space below explaining how CEPTION 2 to <u>§130.2(b)</u> .	Total Designed compliance is achieved.	0 Watts: 213	
	* NOTES: Selections with a * require EX: Luminaire is lighting a statue; EX	Linear Linear a note in the space below explaining how CEPTION 2 to <u>§130.2(b)</u> .	Total Designed compliance is achieved.	0 Watts: 213	
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Inspector Fail	* NOTES: Selections with a * require EX: Luminaire is lighting a statue; EX	Linear Linear a note in the space below explaining how <i>CEPTION 2 to <u>§130.2(b)</u></i> .	Total Designed compliance is achieved.	0 Watts: 213	November
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Inspector Fail □ November 2019 MMISSI19 ○ NRCC-LTO-E Page 4 of 7 2-19-2023 Page 4 of 7 2-19-2023 Table M Total General AWA + LWA (Watts) 300 300 350 650 10 Additional Allowance (Watts)	* NOTES: Selections with a * require EX: Luminaire is lighting a statue; EX STATE OF CALIFORNIA Outdoor Lighting NRCC-LTO-E (Created 11/19) CERTIFICATE OF COMPLIANCE This document is used to demonstrate Project Name: BEACH CITIES HEAL Project Address: 514 N Prospect Ave A. GENERAL INFORMATION 01 Project Location (city) 02 Climate Zone 03 Outdoor Lighting Zone per Title LZ-0: Very Low - Undeveloped Parkland B. PROJECT SCOPE Table Instructions: Include any outdoo outlined in §140.7 or §141.0(b)2L for My project consists of: 01 ✓ New Lighting System 03 % of Existing Luminaires Being Please proceed to Table F. Outdoor 'FOOTNOTES: % of Existing Luminaire Calculation of Total A 01 02 General 02	Linear	Total Designed Total Designed compliance is achieved. State Compliance is achieved. State Compliance is achieved. State Compliance is achieved. Image: Compliance is achieved. Image: Complete Complete Complete is achieved. Image: Complete Complete is achieved. Image: Complete is achieved. <t< td=""><td>O Watts: 213 CALIFORNIA EI CALIFORNIA EI CALIFORNIA EI CALIFORNIA EI Califor outdoor lighting scopes using Califor outdoor lighting scopes using</td><td>November November Nergy commission NRCC- the prescriptive p Page 2-19 A,400 Approval Approval orescriptive path init Application) x 1 mit Application) x 1</td></t<>	O Watts: 213 CALIFORNIA EI CALIFORNIA EI CALIFORNIA EI CALIFORNIA EI Califor outdoor lighting scopes using	November November Nergy commission NRCC- the prescriptive p Page 2-19 A,400 Approval Approval orescriptive path init Application) x 1 mit Application) x 1
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CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards

November 2019

Droject Addrose		ment Agency:	Permit Number:
Project Address:	BEACH CITIES HEALTH DISTRICT BIKE PATH FLAGLER LANE & TOWERS STREET TORRANCE	REDONDO BEACH	Zip Code: 90277
DOCUMEN	TATION AUTHOR'S DECLARATION STATEMENT		
1. I certif Documentation	y that this Certificate of Installation documentation is accu ^{n Author Name:} KENETH W. LUCCI	rate and complete. Documentation Author Signature:	
Documentation	n Author Company Name: LUCCI AND ASSOCIATES INC.	Date Signed: 12/23/2020).
City/State/Zip:	51 CORTE MALPASO, #511 CAMARILLO, CA 93012-8094	Phone: 805 389-6520	
RESPONSIE	BLE PERSON'S DECLARATION STATEMENT		
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permi a com	t(s) issued for the building, and made available to the enfo pleted signed copy of this Certificate of Installation is requ	rcement agency for all applicable ins ired to be included with the docume	spections. I understand that entation the builder
provid Responsible Bu	les to the building owner at occupancy. ilder/Installer Name:	Responsible Builder/Installer Signature:	
Company Nam	e: (Installing Subcontractor or General Contractor or Builder/Owner)	Position With Company (Title):	
City/State/Zip:		Phone: Da	ite Signed:
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ATE OF CALIFORNIA NERGY MANAGEMENT CONTROL SYSTEM CC-NRCI-LTO-02-E (01/20) CERTIFICATE OF INSTALLATION Energy Management Control System or Lighting Control Syste Project Name: BEACH CITIES HEALTH DISTRICT BIKE PATH Project Address: ELACIER LANE & TOWERS STREET TORPANCE City:	OR LIGHTING	G CONTROL SYSTE CALIFORNIA ENERGY COMMIS N Perm	SION RCI-LTO-02 (Page 3 of - it Number:
Thack all that are applicable and in compliance with the Stan	REDONDO BEAC	H '	90277
 A. Single-Family Building Outdoor Lighting. Outdoor lighting attached to building, private pat controlled by a manual on and off switch and one Astronomical time clock control Photocontrol and either a motion sense Parking lots and carports with 8 vehicles or more outdoor lighting control requirements. Parking lots and carports with less than 8 vehicles following: Residential outdoor lighting control requirements 	dards: tios, entrances, balo of the following: or or an automatic per site: All lighting s per site: The lighting uirements in Section	conies, and porches: All ligh time switch control g must comply with nonres ing must comply with one o on 150.0(k)3A ection 130.2.	hting must sidential of the
 B. Low-Rise Residential Building Outdoor Lighting. All lighting attached to the residence or to other following: Section 150.0(k)3A. Section 130.2. 	buildings on the sa	me lot must comply with o	ne of the
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□ C. High-Rise Residential Building Outdoor Lighting.			
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 Outdoor lighting attached to the building that is of Section 150.0(k)3A. 	controlled from wit	hin the dwelling unit must	comply wit

s E	TATE OF CALIFORNIA ENERGY MANAGEMENT CONTROL SYS EC-NRCI-LTO-02-E (01/20)	EM OR LIGHTIN	G CONTROL SYS	STEM	
	CERTIFICATE OF INSTALLATION			NRCI-LT	TO-02
	Energy Management Control System or Lighting Contro	l System		(Page	2 of
	Project Name: BEACH CITIES HEALTH DISTRICT BIKE PATH	Enforcement Agency:		Permit Numbe	er:

Project Address: FLAGLER LANE & TOWERS STREET TORRANCE City: REDONDO BEACH Zip Code: 90277 D. The EMCS or Lighting Control System functions as one or more of the checked items below, and complies with the

- applicable requirements: 1. The installed controls meet applicable requirements for automatic scheduling controls in Section
 - 110.9(b)1.
 - Check all that are applicable to the installed controls: Time-switch controls
 - Astronomical time-switch controls
 - Multi-level time-switch controls Time-switch controls installed outdoors
- 2. The installed controls meet applicable requirements for motion sensing controls in Section 110.9(b)4.

PART 3 Requirements for which the control is being installed to comply with: Identify all requirements in the Standards for which the EMCS or Lighting Control System is installed to function as and complies with:

Check all that are in compliance with the Standards, Section 130.2:

A. During daytime, the installed EMCS or lighting control system turn off all controlled outdoor lighting. Check all that are applicable to the installed controls:

Photocontrols; Astronomical time-switch control;

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance

- Other control capable of automatically shutting OFF the outdoor lighting when daylight is available
- B. (Automatic scheduling control functionality) During normally unoccupied schedule, the installed EMCS or lighting control system function as one or more of the checked items below. Check all that are applicable to the installed
- controls: □ Reduce the outdoor lighting power between 50 percent and 90 percent.
- Turn the lighting off. C. (Automatic scheduling control functionality) For any override function included with the installed EMCS or
- lighting control system, the override function turns lighting on during its scheduled dim or off state for no more than 2 hours when an override is initiated.
- D. (Motion sensing control functionality) During unoccupied periods, the installed controls either reduce the lighting power of each controlled luminaire by at least 50 percent, or turn off the luminaire.
- E. (Motion sensing control functionality) After 15 minutes of vacancy in the outdoor area covered by the motion sensing controls, the installed controls either dim or turn off the lighting.
- F. (Motion sensing control functionality) No more than 1500 watts of lighting power is controlled by a single motion sensor.
- G. (Motion sensing control functionality) Motion sensing controls must be installed for the following luminaires, and may be installed for other outdoor lighting and in combination with other outdoor lighting controls. Check all that are applicable:
 - Outdoor luminaires other than building façade, ornamental hardscape, outdoor dining, or outdoor sales frontage lighting, where the bottom of luminaire is mounted 24 feet or less above grade. Outdoor wall mounted luminaires installed for building façade, ornamental hardscape or outdoor dining lighting that have a bilaterally symmetric distribution as described in the IES handbook (typically referred to as "wall packs") mounted 24 feet above grade or lower.

January 2020

					NRCI-I TO-02-
Energy Managemer	t Control S	ystem or Lighting Control	System		(Page 1 of 4)
Project Name: BEACH CI	IES HEALT	H DISTRICT BIKE PATH	Enforcement Agency:	- ·	Permit Number:
Project Address: FLAGLER	LANE & TO\	WERS STREET TORRANCE	City: REDONDO BEACH		Zip Code: 90277
GENERAL INFORMA	TION				
DATE OF BUILDING PE	RMIT:	PERMIT #:			
BUILDING TYPE	🗖 Non	residential Outdoor Lighting			
PHASE OF CONSTRUCTION	□ New	Construction	Addition	🛛 Altera	ation
SCOPE OF RESPONS	BILITY				
Enter the date of ap	proval by e	nforcement agency of the	certificate of Compliance	that provides	Date:
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A. All outdoor lighting controls and equipment have been installed in accordance with the manufacturer's instructions.

- B. All installed EMCS systems meet each respective lighting control for which it is installed for meeting requirements in Section 110.9, 130.2, 130.4, 150.0(k), and 150.2.
- C. Components of all installed lighting control systems meet applicable requirements in Section 110.9, 130.2, 130.4, 150.0(k), and 150.2.

2020 January 2020 CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance

ERTIFICATE OF INST	ALLATION				NRCI-LTO-01-E (Page 2 of 2)
pject Name: BEACH CITI	ES HEALTH DISTRI	ICT BIKE PATH	City:		Permit Number:
FLAGLER L	ANE & TOWERS STR		REDONDO BEACH		90277
. I certify that this Ce	HUR'S DECLARATION ertificate of Installation	STATEMENT n documentation is	s accurate and complete.		
ocumentation Author Name:	ny Name:		Documentation Author Signation	ature:	
ddress:			CEA Certification Identificati	on (If applicable):	
ity/State/Zip:			Phone:		
RESPONSIBLE PERSON	S DECLARATION STAT	EMENT	the State of Colifernia.		
 The constructed of Certificate of Insta given on the plans I reviewed a copy of for the scope of co that apply to the c I will ensure that a permit(s) issued fo completed signed the building owner esponsible Builder/Installer N ompany Name: (Installing Su ddress: 	Installed features, ma llation conforms to all and specifications app of the Certificate of Co onstruction or installati completed signed cop or the building, and ma copy of this Certificate r at occupancy. lame: bcontractor or General Contri	acterials, componer applicable codes a proved by the enfo impliance approve- tion identified on the tion have been me by of this Certificat de available to the e of Installation is re- ractor or Builder/Owner	And regulations, and the instal and regulations, and the instal arcement agency. d by the enforcement agency his Certificate of Installation, a et. e of Installation shall be posted e enforcement agency for all a required to be included with the Responsible Builder/Installe r) Position With Company (Titl CSLB License: Phone:	that identifies the identifies the identifies the identifies the ind I have ensured evails policable inspect the documentation or Signature:	gned:
A Building Energy Effic	iency Standards - 2019	9 Nonresidential Co	ompliance		January 2020
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PAUL MURDOCH ARCHITECTS 6310 SAN VICENTE BLVD SUITE 400 LOS ANGELES, CALIFORNIA 90048 310 358-0993 THE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGN, AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT, AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS, OR USED IN CONNECTION WITH ANY WORK OR PROJECT THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT. VISUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR REVIEW BEFORE PROCEEDING WITH FABRICATION الالا فقالدلالافان المشالك CONSULTING ELECTRICAL ENGINEERS 3251 CORTE MALPASO, #511 CAMARILLO, CA 93012-8094 (805) 389-6520 FAX (805) 389-6519 LUCCI & ASSOCIATES, INC. reserve their commonlaw copyright and other property rights in these plans. These plans and drawings are not to be reproduced, changed, or copied in any form or manner whatsoever without first obtaining the expressed written permission and consent of LUCCI & ASSOC. INC nor are they to be assigned to any third party without obtaining said written permission and consent. NO. DATE REVISION DIAMOND STREET + FLAGLER LANE BIKE PATH **REDONDO BEACH** DIAMOND LANE REDONDO BEACH, CA 90277 FLAGLER LANE & TOWERS STREET TORRANCE, CA 90503 PMA PROJECT NO. 20007 RAWING TITLE SHEET TITLE OUTDOOR TITLE 24 PAGE 2 -INSTALLATION CERTIFICATION SCALE AS NOTED DATE 4/12/2023 DRAWN CHECKED L.K./D.S. K.L. SHEET NO. E102 В

SCALE: 1"=40' 0 40 80

SHEET NOTES:

- 1. SCOPE: PROVIDE AND PERFORM DEMOLITION, PREPARATORY AND MISCELLANEOUS WORK IN AREAS AS INDICATED AND SPECIFIED, COMPLETE.
- 2. DEMOLITION AND REMOVAL OF EXISTING ELECTRICAL CONDUIT, WIRING AND
- EQUIPMENT REQUIRED TO COMPLETE THE PROJECT.
- 3. PREPARATION OF THE EXISTING BUILDING TO RECEIVE OR CONNECT THE NEW WORK. 4. MISCELLANEOUS DEMOLITION, CUTTING, ALTERATION, AND REPAIR WORK IN THE
- EXISTING BUILDING NECESSARY FOR THE COMPLETION OF THE ENTIRE PROJECT. 5. DISCONNECTING AND RECONNECTION OF ELECTRICAL EQUIPMENT AS REQUIRED BY
- THE CONSTRUCTION MODIFICATIONS. 6. EXISTING CONDITIONS: PRIOR TO BID MAKE A DETAILED SURVEY OF THE EXISTING
- CONDITIONS PERTAINING TO THE WORK. CHECK THE LOCATIONS OF ALL EXISTING STRUCTURES, EQUIPMENT AND WIRING (BRANCH CIRCUITING AND CONTROLS). CHECK FOR ANY HAZARDOUS MATERIALS WHICH MAY REQUIRE SPECIAL HANDLING. 7. SALVAGE AND DISPOSAL: ALL REMOVED MATERIAL OTHER THAN ITEMS TO BE REUSED
- SHALL BE RETURNED TO THE OWNER OR DISPOSED OF IN ACCORDANCE WITH INSTRUCTIONS FROM THE OWNER'S REPRESENTATIVE. DISPOSAL SHALL BE DONE IN ACCORDANCE WITH EPA AND GOVERNING BODY REQUIREMENTS AND REGULATIONS. CONTRACTOR SHALL PAY ALL FEES AND CHARGES FOR DISPOSAL.
- 8. SCHEDULE ALL WORK AND OUTAGES WITH TENANTS AND OWNERS WRITTEN APPROVAL.
- 9. CONTRACTOR SHALL LEAVE ALL CIRCUITS ENERGIZED TO DEVICES IN AREAS OUTSIDE OF DEMOLITION AREA EVEN IF FEEDERS ARE ROUTED THROUGH DEMOLITION AREA.

KEY NOTES:

- EXISTING POWER POLE & LIGHT TO REMAIN.
- 2 NOT USED.
- 3 EXISTING GUY WIRE AND ANCHOR TO REMAIN.

NO. DATE REVISION

DIAMOND STREET + FLAGLER LANE BIKE PATH **REDONDO BEACH**

DIAMOND LANE REDONDO BEACH, CA 90277 FLAGLER LANE & TOWERS STREET TORRANCE, CA 90503

PMA PROJECT NO. 20007

AS NOTED

4/12/2023

drawn

SHEET NO.

E110

В

CHECKED K.L.

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		80	MPH	90	MPH	100	MPH			
	NOMINAL MOUNTING HEIGHT	w/1.3 MAX EPA ¹ (SQFT)	3 GUST MAX WEIGHT ¹ (LBS) 765	w/1.3 MAX EPA ¹ (SQ FT) 23.8	GUST MAX WEIGHT (LBS)	w/1.3 MAX EPA ¹ (SQFT)	GUST MAX WEIGHT ¹ (LBS)	SHAFT BASE SQUARE ³ (IN)	SHAFT TOP SQUARE (IN)	WALL THK (GA)
	10-0	24.4	610	18.8	470	1/ 8	370	4.00	4.00	11
	14'-0"	10 0	498	15.0	378	11.7	203	4.00	4.00	11
	16'-0"	15.9	398	11.8	295	8.9	223	4.00	4.00	11
	18'-0"	12.6	315	9.2	230	6.7	168	4.00	4.00	11
		9.6	240	6.7	167	4.5	150	4.00	4.00	11
	20'-0"	17.7	443	12.7	343	9.4	235	5.00	5.00	11
		28.1	703	21.4	535	16.2	405	5.00	5.00	7
		4.8	150	2.6	100	1.0	50	4.00	4.00	11
	25'-0"	10.8	270	7.7	188	5.4	135	4.00	4.00	7
	20 0	9.8	245	6.3	157	3.7	150	5.00	5.00	11
		18.5	463	13.3	333	9.5	238	5.00	5.00	7
		6.7	168	4.4	110	2.6	65	4.00	4.00	1
	30'-0"	4.7	150	2.0	50	N/A	N/A	5.00	5.00	11
		10.7	201	12.2	101	3.9	225	00.0	00.0	7
		5.0	150	2.5	100	9.0 N/A	223 N/A	5.00	5.00	7
	35'-0"	12.4	310	7.6	190	4.2	105	6.00	6.00	7
	40'-0"	7.2	180	3.0	75	N/A	N/A	6.00	6.00	7
l	1. Maximu	m EPA (Ef	fective Proje	cted Area)	and weight	t values are	based on si	de mountec	fixtures onl	y. Consu
		`.								

mounted luminaires and/or brackets. Variations from sizes above are available upon inquiry at the factory. Satisfactory performance of poles is dependent upon the pole being properly attached to a supporting foundation of adequate design. 2. Structure weight is a nominal value which includes the pole shaft and base plate only. 3. Belled-bottom will have reduced thickness due to the cold-working process. However, the belled-bottom meets or exceeds the structural capacity of the original square section. In addition, the rounded section provides better fatigue resistance.

PRODUCT ORDERING CODES

MODEL 4	DESIGNATION	FIXTURE MOUNTING	FINISH SYSTEM	STANDARD COLOR OF
S	Select Correct Designation from the Load and Dimensional Data Chart.	Drill Mounting (See Orientation) D1 = (1) Drilling @ 270° D2 = (2) Drillings @ 90° & 270° D4 = (4) Drillings @ 0°, 90°, 180°, & 270° D5 = (2) Drillings @ 180° & 270° D6 = (3) Drillings @ 90°, 180°, & 270° Tenon Mounting P2 = 2.38" OD x 4" tenon P4 = 4.00" OD x 6" tenon P5 = 2.88" OD x 4" tenon P6 = 2.88" OD x 5" tenon P7 = 2.38" OD x 5" tenon P9 = Special Size (Specify) Other Options PC = Pole Cap PL = Plain Top (No Cap)	GV = Galvanized FP = Finish Painted OPTIONAL FPGV = Finish Paint over Galvanizing VP30 = V-PRO™ 30 System VP32 = V-PRO™ 32 System VP53 = V-PRO™ 53 System VP54 = V-PRO™ 54 System VP57 = V-PRO™ 57 System VP100 = V-PRO™ 100 System VP105 = V-PRO™ 105 System	GV = Galvanized BK = Black DB = Dark Bron: MB = Medium B WH = White LG = Light Gray CB = Bronze DG = Dark Gree ST = Sandstone HTG= Hunter Gre SG = Slate Gray SL = Silver SC = Special Co (Specify)

ALMONT INDUSTRIES, INC. 28800 IDA STREET, PO BOX 358 - VALLEY, NE 68064 USA 800.825.6668

val r		DS330 Fatigue Resistant Soft Square Steel Post	DS330 - Fatigue Resistar
Job Name:		Client Name:	
Product: DS33	0 Quote:	Date:	
Job Location - C Product: DS33	Tenon Top* Quote: Pole Cap - Plastic Pole Cap - Plastic Cross Section Soft Square Handhole Handhole Full Base Cover (Standard) Dart Square - 2T (Optional)	 Created By:	CAP DETAIL (S CAP DETAIL (S FULL BASE COVE
1'-6"	 Handhole * Consult factory on loa criteria for pole top mour luminaires and/or bracker 	ding nted ts.	POLE BASE AND HA

ALMONT INDUSTRIES, INC. 28800 IDA STREET, PO BOX 358 - VALLEY, NE 68064 USA 800.825.6668 VALMONTSTRUCTURES.COM

VALMONTSTRUCTURES.COM

ant Square Non-Tapered Steel Pole

2

- E131

Schedule											
Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	Lumen Multiplie r	LLF	Wattag
	S1	2	NLS Lighting	NV-1-T2-32L-7-40K- SINGLE	NV-1-T2-32L-7-40K-SINGLE @ 14'	LED	1	6925	1	0.92	71

L									
	Symbol	Qty	Lab	el	Arrar	ngeme	ent LL	F De	escripti
		2		4	SING	LE	0.9	950 N	V-1-T2-3
	Calculation Sumn	nary							
	Label	C	alcType	Units	Avg	Max	Min	Avg/Mir	Max/Min
	CalcPts_1	111	uminance	Fc	4.46	15.4	1.2	3.72	12.83

E131

	NEW PANEL																		
PANEL NUMBER A VOLTAGE 120/240 PHASE 1 WIRE 3 COPPER BUSS													3 NEMA 3R COPPER BUSS						
S	JU	RC	E		SCE	A.]		22,00	00							■ MAIN CIRCUIT BREAKER 100	_		
P	٩N	EL	LC	C	CATION PER SITE PLAN			BU	S AM	IPER	E RA	TI	[NG		100	_		EXTERIOR MOUNTING	
L C	M I S	R C P		-	CIRCUIT DESCRIPTION	LOAI	D(VA)	BR	KR	скт	PHAS	F	скт	BF	RKR	LOAI	D(VA)	CIRCUIT DESCRIPTION	L C
	Č	Ť	Ē		SPARE	A -	В	POLE 1	амр 20	1	A B	-	2	АМР 30	POLE	A -	В	SPARE C T É	
			3		POLE LIGHTS 'P1'		213			3] ┼─┥	-	4		2		-	SPARE 5	
	SPARE				SPARE	-				5	│┿ ─┤	- _	6	20		-		SPARE	
					SPARE		-			7	<u>│</u> ┼─┥	8			2		-	SPARE	
					TIME CLOCK	-				9	<u></u>	- [10	40		-		SPARE	
					LANDSCAPE CONTROLLER		100			11	+	-	12		2		-	SPARE	
					TOTALS	-	- 313 · · TOTALS								TOTALS				
L	C.I	V(OLT	AI	MPS: . PHASE	Α.					PHASE	ΞB		55					
Г _	ТОТ	AL V	/OL	T A	MPS: 368 PHASE	A -					PHASE	ΞB		368				·	
		Т	ΤОТ	AL	AMPS: 3 PHASE	A -					PHASE	ΞB		3					

FRONT VIEW

PAUL MURDOCH ARCHITECTS 6310 SAN VICENTE BLVD SUITE 400 LOS ANGELES, CALIFORNIA 90048 310 358-0993 THE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGN, AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT, AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS, OR USED IN CONNECTION WITH ANY WORK OR PROJECT THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT. VISUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR REVIEW BEFORE PROCEEDING WITH FABRICATION ىكلار كحرائيلكالككان المكالك CONSULTING ELECTRICAL ENGINEERS 3251 CORTE MALPASO, #511 CAMARILLO, CA 93012-8094 (805) 389-6520 FAX (805) 389-6519 LUCCI & ASSOCIATES, INC. reserve their commonlaw copyright and other property rights in these plans. These plans and drawings are not to be reproduced, changed, or copied in any form or manner whatsoever without first obtaining the expressed written permission and consent of LUCCI & ASSOC. INC nor are they to be assigned to any third party without obtaining said written permission and consent. DATE REVISION DIAMOND STREET FLAGLER LANE BIKE PATH **REDONDO BEACH** DIAMOND LANE REDONDO BEACH, CA 90277 FLAGLER LANE & TOWERS STREET TORRANCE, CA 90503 PMA PROJECT NO. 20007 RAWING TITLE SHEET TITLE MYERS PEDESTAL 'A' AND PANEL SCHEDULE SCALE AS NOTED)ATF 4/12/2023 DRAWN CHECKED L.K./D.S. K.L. SHEET NO. E200 В

B12

CHRISTY

COVER

/le:	Flush
iterial:	Reinforced Concrete
odel:	12" x 18"
eight:	26 lbs
tions:	Special Markings
rface:	Skid Resistant & Marked*
efficient of	
ction:	>0.6 ASTM 1028
rformance:	ASTM C 857, WUC 3.6
ver comes star arkings for man e and manufac	ndard with permanent ufacturer, load rating, mode turing location.

BODY

Material:	Reinforced Concrete wit
	Composite Cap
Model:	23" x 15"
Weight:	12" Depth: 96 lbs
Wall Type:	Straight
Mouseholes:	0 - 2
Performance:	ASTM C 857, WUC 3.6

EXTENSION

Material:Reinforced ConcreteDepth:12"Weight:103 lbs

LOAD RATING / NOTES

LIGHT DUTY PEDESTRIAN / GREENBELT

For use in non-vehicular traffic situations only. Weights and dimensions may vary slightly. Actual load rating is determined by the box and cover combination.

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STAMP "STREET LIGHT"

B12

CHRISTY[®]

COVER OPTIONS

Concrete, Flush Solid Concrete, Flush with AMR Opening Concrete, Flush with Cast Iron Reader Door Concrete, Flush with Concrete Reader Lid Cast Iron, Flush Solid Steel Checker Plate, Solid Steel Checker Plate, with Reader Door

COVER OPTIONS

Galvanizing (Steel Covers)

Cast Iron

Steel with 6" Round

Reader Door

Flush

Steel Checker Plate

Concrete with

Concrete Reader Lid

Concrete

with AMR Opening

All information contained on this sheet is current at the time of publication. Oldcastle reserves the right to discontinue or update product information without notice.

CHRISTY B12 PULL BOX 4 SCALE: NONE

- 1. SHEETS SS1 AND SS2 COVER SIGNING AND STRIPING WITHIN THE CITY OF REDONDO BEACH ONLY.
- 2. TRAFFIC CONTROL DEVICES AND SIGNAGE SHALL CONFORM TO 2014 (REVISION 3) EDITION OF CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CAMUTCD) & THE LATEST EDITION OF THE CALTRANS STANDARD PLANS AND SPECIFICATIONS.
- 3. ALL CONFLICTING STRIPING AND PAVEMENT MARKINGS SHALL BE COMPLETELY REMOVED BY WET SANDBLASTING PRIOR TO INSTALLATION OF NEW STRIPING AND MARKINGS.
- 4. EXISTING PAVEMENT MUST BE SWEPT CLEAN OF DEBRIS AND LOOSE GRAVEL PRIOR TO PAINTING.
- 5. ALL STRIPING AND PAVEMENT MARKINGS SHALL BE ALKYD THERMOPLASTIC WITH GLASS BEADS. MATERIAL SHALL CONFORM TO SPECIFICATION 8010-004 (TYPE II) FOR GLASS BEADS. APPLICATION SHALL CONFORM TO CALTRANS STANDARD SPECIFICATION SECTION 84-2. CONTRACTOR SHALL VERIFY LATEST MATERIALS SPECIFICATIONS AND SHALL NOTIFY CITY ENGINEER AND/OR THEIR REPRESENTATIVE OF ANY CHANGE PRIOR TO INSTALLATION.
- 6. LANE WIDTHS SHALL BE MEASURED BETWEEN THE CENTER LINES OF EACH ADJACENT SINGLE OR DOUBLE STRIPE(S) OR TOP OF CURBS AS APPROPRIATE. ACTUAL LANE WIDTHS MAY VARY FROM THOSE SHOWN ON PLAN(S) DUE TO TOPOGRAPHY AND STREET CURVATURE. ANY CHANGES TO STRIPED LANE WIDTHS FOR THOSE SHOWN ON PLAN(S) REQUIRE APPROVAL BY THE CITY ENGINEER AND/OR THEIR REPRESENTATIVE PRIOR TO CAT-TRACKING.
- 7. ALL STRIPING SHALL BE CAT-TRACKED AND APPROVED BY THE CITY ENGINEER AND/OR THEIR REPRESENTATIVE PRIOR TO FINAL INSTALLATION. A MINIMUM OF THREE DAYS NOTICE MUST BE PROVIDED TO THE CITY ENGINEER AND/OR THEIR REPRESENTATIVE, REDONDO BEACH: (310) 318-0661, FOR APPROVAL OF CAT-TRACKING AND/OR STRIPING.
- 8. SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS TO BE DETERMINED IN THE FIELD BY THE CITY ENGINEER.
- 9. ACCESS TO ALL PRIVATE PROPERTIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. NOTIFY ALL PROPERTY OWNERS AND OCCUPANTS WITHIN 1,000' OF WORK ZONE OF PLANNED LANE AND ROAD CLOSURES AT LEAST THREE (3) WORKING DAYS IN ADVANCE OF WORK.
- 10. BOTTOM EDGE OF SIGNS SHALL BE A MINIMUM OF 7' FROM TOP OF SIDEWALK (OR TOP OF CURB) IN ACCORDANCE WITH MUTCD SECTION 2A.18.
- 11. ALL WARNING SIGNS, INCLUDING ANY SUPPLEMENTAL PLAQUES SHALL BE FLUORESCENT YELLOW-GREEN BACKGROUND WITH A BLACK LEGEND AND BORDER UNLESS OTHERWISE NOTED.
- 12. ALL EXISTING SIGNS ARE TO REMAIN UNLESS OTHERWISE NOTED.
- 13. ALL COSTS TO RESTORE STRIPING, PAVEMENT MARKINGS, AND PAVEMENT MARKERS TO MATCH THE EXISTING CONDITION PER THE PRECEDING NOTES SHALL BE INCLUDED IN THE BID PRICE.

<u>LEGEND:</u>

	EXISTING ROADSIDE SIGN (TO REMAIN UNLESS OTHERWISE NOTED)
 	REMOVE EXISTING PAVEMENT STRIPE, ARROW OR LEGEND (BY WET BLASTING)
	EXISTING PAVEMENT MARKING ARROW

PAUL MURDOCH ARCHITECTS

6310 SAN VICENTE BLVD SUITE 400 LOS ANGELES, CALIFORNIA 90048 310 358-0993

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NO. DATE

REVISION

DIAMOND STREET + FLAGLER LANE BIKE PATH **REDONDO BEACH**

DIAMOND LANE REDONDO BEACH, CA 90277

PMA PROJECT NO. 20007 DRAWING TITLE

SIGNING & STRIPING PLAN -CITY OF REDONDO BEACH

SCALE___ AS SHOWN DATE_ April 12, 2023 DRAWN CHECKED

CS

RL SHEET NO.

SS1

PROPOSED SIGN DETAIL:

<u>R44A (CA)</u>

<u>R81 (CA) (MOD)</u> <u>R81B (CA)</u>

<u>OM4-3</u>

<u>W31 (CA)</u>

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<u>R61-5 (CA)</u>

<u>W14-2</u>

PROJECT NOTES (THIS SHEET ONLY):

- INSTALL SIGN POST PER LA COUNTY PUBLIC WORKS STANDARD PLAN 1920-1 WITH SIGNS AS SHOWN.
- 2 INSTALL BICYCLE SHARROW PAVEMENT MARKING PER CALTRANS STANDARD PLAN A24C.
- 3 INSTALL PAVEMENT MARKING ARROWS PER CALTRANS STANDARD PLAN A24A OR A24B.
- 4 INSTALL WHITE 29 INCH TALL K71 FLEXIBLE POST. US REFLECTOR OR CITY APPROVED EQUIVALENT.
- 5 INSTALL SIGN ON EXISTING SIGNAL MAST ARM.
- 6 INSTALL 8" DIAMETER WHITE RAISED PAVEMENT MARKERS, WITH 2' SPACING.
- 7 INSTALL CALTRANS DETAIL 38 AS SHOWN (45 DEGREES). EACH STRIPE SHALL BE 10' APART FROM EACH OTHER.
- 8 INSTALL 4" YELLOW DASHED STRIPE (3' LONG WITH 9' GAPS).
- 9 INSTALL YIELD LINES PER DETAIL A.
- 10 INSTALL SIGN ON EXISTING SIGNAL POLE ABOVE EXISTING R4-7 SIGN.
- 11 INSTALL SIGN ON STREET LIGHT POLE AS SHOWN ON ELECTRICAL PLANS.
- 12 INSTALL CONTINENTAL CROSSWALK MARKINGS PER CALTRANS STANDARD A24F WITH 2' YELLOW STRIPE, 3' GAP.

<u>LEGEND:</u>

- EXISTING ROADSIDE SIGN TO REMAIN UNLESS OTHERWISE NOTED 0
- INSTALL NEW ROADSIDE SIGN
- LEFT TURN ARROW (CALTRANS TYPE IV(L))
- THROUGH RIGHT ARROW (CALTRANS TYPE VII(R)) \mathbf{V}
- INSTALL NEW PAVEMENT DELINEATION CALTRANS DETAIL NUMBER <xxx>
- INSTALL NEW LIMIT LINE PER CALTRANS STANDARD PLAN A24E

 - INSTALL BICYCLE LANE MARKING PER CALTRANS STANDARD PLANS A24A AND A24C

		POLE	SCHEDULE									<u>ן</u> אַכ	Par Nort
GIGNAL H.P. SOD. VAP. M.A. M.A. WATTS	SIGNAL HE	ADS AND	PEDESTRIAN	PED.	PUSH BU	TTON	POLE	LOCATI		ILLUMINATE NAME_SIGN	D STREET	128	C
35'(N) 12'(N) 400(N)	SV-2-T(N)	2 MAS(N)	SP-1-T(N)	8	2P	E	-	6' 2	2.5' +	lospital		341	9 2 m 0
35'(N) 12'(N) 400(N)	SV-2-T(N)	- 2 MAS(N)	SP-1-T(N)	B(BIKE)	2 (2P)	W	5'	9' 2	4' - 2.5' F	- lospital		1}{	DETAIL B
 35'(N) 12'(N) 400(N)	TV-2-T(N)* SV-2-T(N)	- MAS(N)	SP-7-T(N)	B(BIKE) 2 B B(BIKE)	7P & 2P 6				2.5' -			$\left \right\rangle^{\cup}$	uuu S
15(N) 12(N) 400(N)	5-2-TW	2 MAS(N)	\$7.1.7(W)	2 B(N) B(AIKF) B(N)	7P & 2P 7 7P	E&S S	-	V 2 10' 2	2.5' C	rospect Diamona		1×e	26P 30 41
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- 12'(N) 400(N)	SV-2-T	2 MAS(N)	\$P_1_7(4)			Ē	-	5' 2	2.5' D	Diamond		I N	DETAIL A NOT TO SCALE
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