HABITAT EBSV - AFFORDABLE HOUSING AT 98-100 CASTRO STREET, SAN LEANDRO
ZONING PERMIT SET

PROJECT DESCRIPTION

THIS PROJECT PROPOSES THE SUBDIVISION OF THE EXISTING VACANT LOT AT 98-100 CASTRO STREET INTO 3 SEPARATE PARCELS, INCLUDING EASEMENTS FOR INGRESS / EGRESS FOR THE BENEFIT OF ALL PARCELS. EACH PARCEL INCLUDES A SINGLE FAMILY RESIDENCE. MAINTENANCE AND RESPONSIBILITY FOR THE DRIVEWAY EASEMENT AND PARCEL 3 ACCESS EASEMENT SHALL BE ENCOMPASSED WITHIN THE FRAMEWORK OF THE DEVELOPMENT'S COVENANTS, CONDITIONS, AND RESTRICTIONS (CC&R).

ADDITIONALLY, ALL 3 UNITS WITHIN THE PROJECT SHALL BE BELOW MARKET RATE (BMR) UNITS.

THE INTENDED STRUCTURE FOR EACH UNIT IS TO USE INSULATED CONCRETE FORMS. THE CONCRETE USED WITHIN THE FORMS WILL USE A NEW AGGREGATE WHICH ABSORBS CARBON DIOXIDE IN IT'S CREATION, AND THE INSULATION OF THE FORMS THEMSELVES USE A BIO-MASS WITH A GREATLY REDUCED CARBON FOOTPRINT COMPARED TO ALTERNATIVES. THE PROJECT AIMS TO BE NET-ZERO, OR BETTER, IN ENERGY CONSUMPTION **AND** IN EMBODIED CARBON.

OCCUPANCY - R3

CONSTRUCTION CLASSIFICATION - IIB
THE WALLS PROPOSED WILL USE AN INSULATED CONCRETE FORM (ICF) SYSTEM, ALLOWING FOR 4" OR 8" THICK POURED-IN-PLACE REINFORCED CONCRETE STRUCTURE. PROPOSED FLOOR AND ROOF STRUCTURES WILL BY FRAMED WITH CONVENTIONAL AND ENGINEERED LUMBER.

FIRE SPRINKLER NOTES
FIRE SPRINKLER SYSTEM, IN COMPLIANCE WITH NFPA 13, TO BE INSTALLED IN ALL BUILDINGS

BUILDING DEPARTMENT NOTES
PLAN CHECK COMMENTS MADE 12/20/2022 HAVE BEEN RECEIVED AND NOTED. PLANS WILL COMPLY AT TIME OF BUILDING PERMIT SUBMITTAL

DRAWING INDEX

ARCHITECTURAL + CIVIL SHEETS

BUILDING PLANNING / ZONING

SCOPE OF WORK

THIS PROJECT REQUESTS CONDITIONAL USE PERMIT FROM BZA FOR DIVIDING AN EXISTING PARCEL INTO 3 SINGLE FAMILY LOTS

PROJECT SEEKS ADMINISTRATIVE SITE PLAN REVIEW

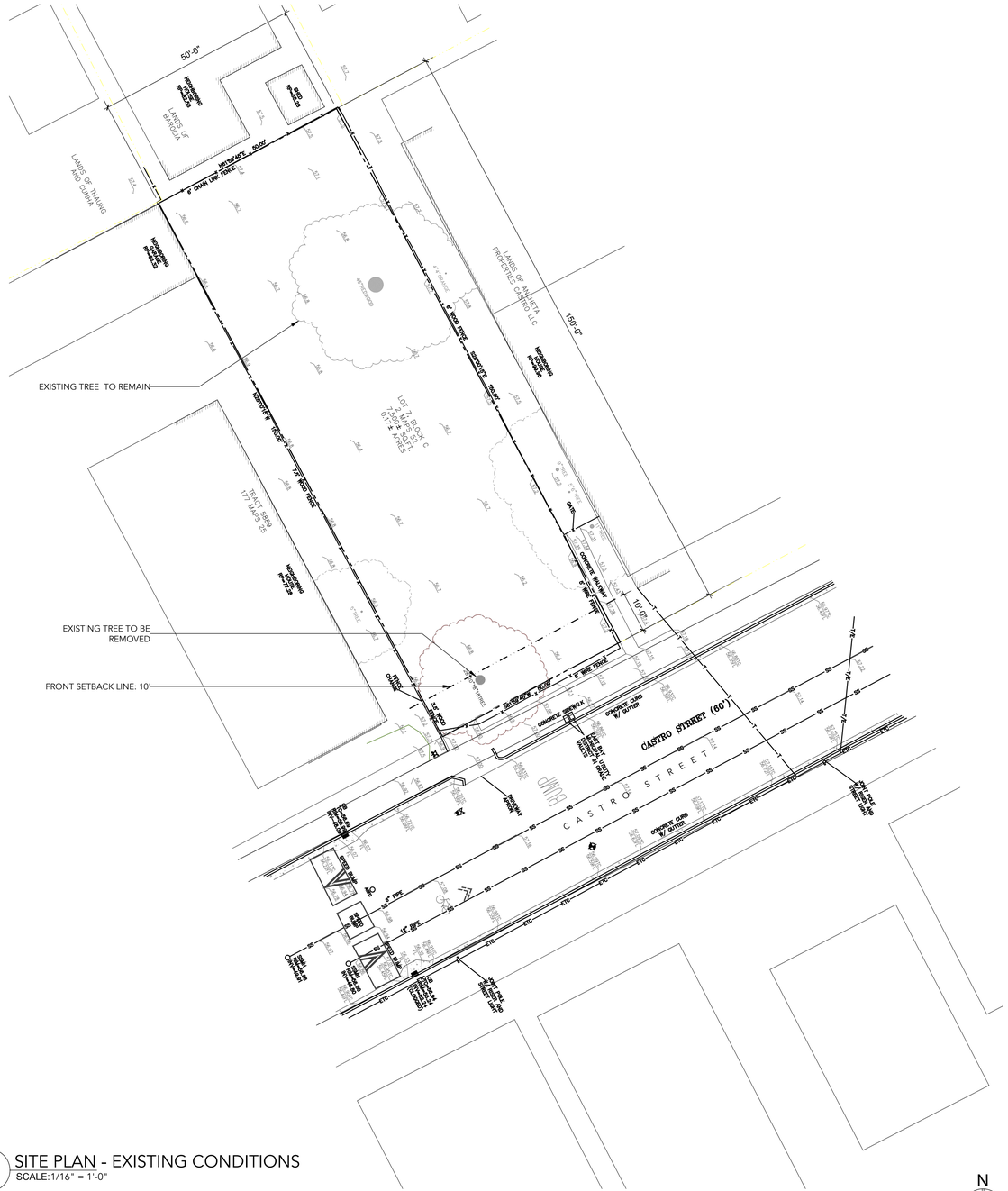
PROJECT SEEKS ADMINISTRATIVE EXCEPTION TO MINIMUM LOT SIZE

PROJECT SEEKS FENCE MODIFICATION FOR TRASH ENCLOSURE HEIGHTS ONLY

AFFORDABILITY: HOMES WILL BE BELOW MARKET RATE CAPPED AT 120% AMI

THIS PROJECT IS NOT SEEKING A DENSITY BONUS

EXISTING SITE PHOTOS



1 SITE PLAN - EXISTING CONDITIONS
SCALE: 1/16" = 1'-0"

LICENSED ARCHITECT
JASMIT SINGH RANGR
C-37954
31 OCT 2025
RENEWAL DATE
STATE OF CALIFORNIA

RANGR STUDIO
1234 GRIZZLY PEAK, BERKELEY, CA 94708
VOICE / SMS: 212.727.9911
EMAIL: INFO@RANGR.COM

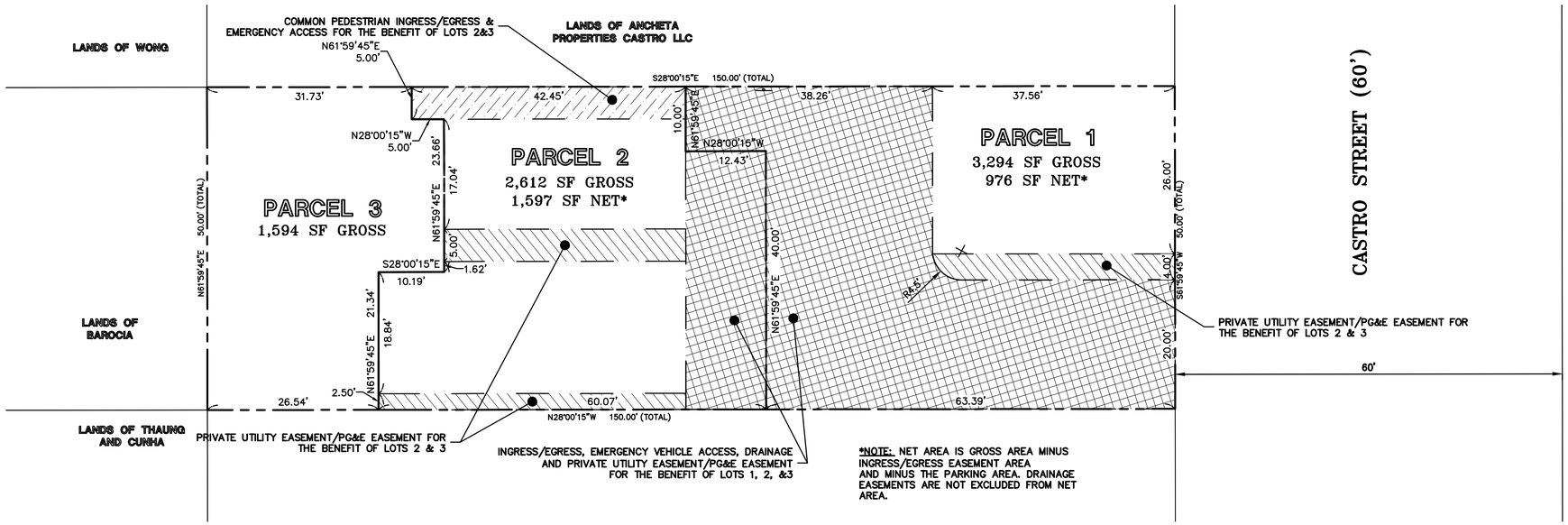
HABITAT
98-100 CASTRO STREET, SAN LEANDRO, CA 94577
PROJECT APN #: 077-0550-011

DRAWING INDEX, SYMBOLS LEGEND, SITE PHOTOS

DATE: 29 FEBRUARY 2024	ISSUED: FOR REVIEW
REV 1: -	REV 3: -
REV 2: -	REV 4: -

A010

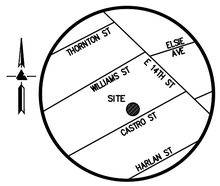
TENTATIVE PARCEL MAP
SUBDIVISION
98-100 CASTRO STREET
SAN LEANDRO, CALIFORNIA



*NOTE: NET AREA IS GROSS AREA MINUS INGRESS/EGRESS EASEMENT AREA AND MINUS THE PARKING AREA. DRAINAGE EASEMENTS ARE NOT EXCLUDED FROM NET AREA.

0 5 10 20

SCALE: 1" = 10'



VICINITY MAP
NO SCALE

PROPOSED

HATCH LEGEND

- INGRESS/EGRESS, EMERGENCY VEHICLE ACCESS, DRAINAGE AND PUBLIC UTILITY EASEMENT
- PUBLIC UTILITY EASEMENT
- COMMON PEDESTRIAN INGRESS/EGRESS

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		BOUNDARY
		PROPERTY LINE
		RETAINING WALL
		LANDSCAPE RETAINING WALL
	RW RW	RAINWATER TIGHTLINE
	SUB	SUBDRAIN LINE
	TL	TIGHTLINE
SD	SD	STORM DRAIN LINE
SS	SS	SANITARY SEWER LINE
W	W	WATER LINE
G	G	GAS LINE
P	SDP	STORM DRAIN PRESSURE LINE
P	SSP	SANITARY SEWER PRESSURE LINE
JT	JT	JOINT TRENCH
		SET BACK LINE
		EARTHEN SWALE
222.57 INV	222.57 INV	SPOT ELEVATION
		FLOW DIRECTION
	D	DEMOLISH/REMOVE
		BENCHMARK
200	200	CONTOURS
XX" TREE	XX" TREE	TREE TO BE REMOVED
	TP	TREE PROTECTION FENCING
	POR	POINT OF OVERFLOW RELEASE

ABBREVIATIONS

AB	AGGREGATE BASE	LF	LINEAR FEET
AC	ASPHALT CONCRETE	MAX	MAXIMUM
ACC	ACCESSIBLE	MH	MANHOLE
AD	AREA DRAIN	MIN	MINIMUM
BC	BEGINNING OF CURVE	MON.	MONUMENT
B & D	BEARING & DISTANCE	MRO	METERED RELEASE OUTLET
BM	BENCHMARK	(N)	NEW
BUB	BUBBLER BOX	NO.	NUMBER
BW/FG	BOTTOM OF WALL/FINISH GRADE	NTS	NOT TO SCALE
CB	CATCH BASIN	O.C.	ON CENTER
C & G	CURB AND GUTTER	O/	OVER
℄	CENTER LINE	(PA)	PLANTING AREA
CPP	CORRUGATED PLASTIC PIPE (SMOOTH INTERIOR)	PED	PEDESTRIAN
		PIV	POST INDICATOR VALVE
		PSS	PUBLIC SERVICES EASEMENT
CO	CLEANOUT	P.	PROPERTY LINE
COTG	CLEANOUT TO GRADE	PP	POWER POLE
CONC	CONCRETE	PUE	PUBLIC UTILITY EASEMENT
CONST	CONSTRUCT or –TION	PVC	POLYVINYL CHLORIDE
CONC COR	CONCRETE CORNER	R	RADIUS
CY	CUBIC YARD	RCP	REINFORCED CONCRETE PIPE
D	DIAMETER	RIM	RIM ELEVATION
DI	DROP INLET	RW	RAINWATER
DIP	DUCTILE IRON PIPE	R/W	RIGHT OF WAY
EA	EACH	S	SLOPE
EC	END OF CURVE	S.A.D.	SEE ARCHITECTURAL DRAWINGS
EG	EXISTING GRADE	SAN	SANITARY
EL	ELEVATIONS	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	SDMH	STORM DRAIN MANHOLE
EQ	EQUIPMENT	SHT	SHEET
EW	EACH WAY	S.L.D.	SEE LANDSCAPE DRAWINGS
(E)	EXISTING	SPEC	SPECIFICATION
FC	FACE OF CURB	SS	SANITARY SEWER
FF	FINISHED FLOOR	SSCO	SANITARY SEWER CLEANOUT
FG	FINISHED GRADE	SSMH	SANITARY SEWER MANHOLE
FH	FIRE HYDRANT	ST.	STREET
FL	FLOW LINE	STA	STATION
FS	FINISHED SURFACE	STD	STANDARD
G	GAS	STRUCT	STRUCTURAL
GA	GAGE OR GAUGE	T	TELEPHONE
GB	GRADE BREAK	TC	TOP OF CURB
HDPE	HIGH DENSITY CORRUGATED POLYETHYLENE PIPE	TOW	TOP OF WALL
		TEMP	TEMPORARY
HORIZ	HORIZONTAL	TP	TOP OF PAVEMENT
HI PT	HIGH POINT	TW/FG	TOP OF WALL/FINISH GRADE
H&T	HUB & TACK	TYP	TYPICAL
ID	INFILTRATIVE DEVICE	VC	VERTICAL CURVE
INV	INVERT ELEVATION	VCP	VITRIFIED CLAY PIPE
JB	JUNCTION BOX	VERT	VERTICAL
JT	JOINT TRENCH	W/	WITH
JP	JOINT UTILITY POLE	W, WL	WATER LINE
L	LENGTH	WM	WATER METER
LNDG	LANDING	WWF	WELDED WIRE FABRIC

FEMA FLOOD NOTE

PROPERTY COMPLETELY OUT OF SPECIAL FLOOD HAZARD AREA (SFHA)

FLOOD INSURANCE RATE MAP No.: 06001C0257G EFFECTIVE DATE: AUGUST 3, 2009

EASEMENT NOTE

THERE ARE NO RECORD EASEMENTS PER PRELIMINARY TITLE REPORT ISSUED BY OLD REPUBLIC TITLE COMPANY, ORDER NO. 1117025169–JM, DATED AS OF MARCH 21, 2022

TREE NOTE

TREE SIZE, TYPE AND DRIPLINES ARE BASED ON A VISUAL OBSERVATION. FINAL DETERMINATION SHOULD BE MADE BY THE PROJECT ARBORIST.

NOTES

ALL DISTANCES AND DIMENSIONS ARE IN FEET AND DECIMALS.

BUILDING FOOTPRINTS ARE SHOWN TO FINISHED MATERIAL (STUCCO/SIDING) AT GROUND LEVEL.

FINISH FLOOR ELEVATIONS ARE TAKEN AT DOOR THRESHOLD (EXTERIOR).

THE AREA OF THE SURVEYED LOT IS 7,500± SQUARE FEET / 0.17± ACRES

UTILITY NOTE

ALL UNDERGROUND PIPE TYPES, SIZES AND LOCATION SHOWN ON THIS SURVEY ARE BASED ON VISUAL OBSERVATION. ANY USE OF THIS INFORMATION SHOULD BE VERIFIED, BEFORE ITS USE, WITH THE CONTROLLING MUNICIPALITY OR UTILITY PROVIDER. THIS SURVEY MAKES NO GUARANTEE OF THE INSTALLED ACTUAL LOCATION, DEPTHS OR SIZE.

BENCHMARK

CITY OF SAN LEANDRO BENCHMARK CASTRO–E.14TH. CINCH NAIL TOP OF C.B. SW CORNER. ELEVATION = 55.38' (ADJUSTED TO NAVD 88 DATUM)

SITE BENCHMARK

SURVEY CONTROL POINT MAG AND SHINER SET IN ASPHALT ELEVATION = 56.91' (ADJUSTED TO NAVD 88 DATUM)

PROJECT DATA

TRACT NO.	
RECORD OWNER(S):	HABITAT FOR HUMANITY EAST BAY SILICON VALLEY ATTN: LAJUAN RAMSEY 2619 BROADWAY OAKLAND, CA 94612
SUBDIVIDER:	HABITAT FOR HUMANITY EAST BAY SILICON VALLEY ATTN: LAJUAN RAMSEY 2619 BROADWAY OAKLAND, CA 94612
ENGINEER:	LEA & BRAZE ENGINEERING INC. 2495 INDUSTRIAL PARKWAY WEST HAYWARD, CA 94545 (510) 887–4086 CONTACT: PETE CARLINO
PARCEL AREAS:	PARCEL 1 1,594 SF PARCEL 2 2,612 SF PARCEL 3 3,294 SF
ASSESSOR'S PARCEL NO.	077–0550–011
EXISTING AND PROPOSED ZONING:	DA–3
INTENT USE:	3 SINGLE FAMILY DETACHED RESIDENTIAL LOTS
FEMA FLOOD ZONE:	FLOOD ZONE "X"
UTILITIES SERVICES:	
WATER SUPPLY:	EAST BAY MUNICIPAL UTILITY DISTRICT
SEWAGE DISPOSAL:	CITY OF SAN LEANDRO
GAS & ELECTRICAL:	PACIFIC GAS & ELECTRIC
TELEPHONE:	AT&T/T–MOBILE/SPRINT/VERIZON
CABLE:	AT&T/COMCAST
GARBAGE SERVICE PROVIDER:	WASTE MANAGEMENT
FIRE DISTRICT:	ALAMEDA COUNTY FIRE DEPARTMENT

OWNER'S INFORMATION

OWNER:
HABITAT FOR HUMANITY EAST BAY SILICON VALLEY
ATTN: LAJUAN RAMSEY
2619 BROADWAY
OAKLAND, CA 94612

APN: 077–0550–011

REFERENCES

THIS TENTAVE MAP PLAN IS SUPPLEMENTAL TO:

1. TOPOGRAPHIC SURVEY BY LEA & BRAZE ENGINEERING, INC. ENTITLED:
   "TOPOGRAPHIC SURVEY"
   98–100 CASTRO STREET
   SAN LEANDRO, CA 94577
   DATED: 04–28–22
   JOB#: 2212278
2. SITE PLAN BY HABITAT FOR HUMANITY EAST BAY SILICON VALLEY ENTITLED:
   "ZONING"
   98–100 CASTRO STREET
   SAN LEANDRO, CA 94577

THE CONTRACTOR SHALL REFER TO THE ABOVE NOTED SURVEY AND PLAN, AND SHALL VERIFY BOTH EXISTING AND PROPOSED ITEMS ACCORDING TO THEM.

SHEET INDEX

USA NORTH 811 Call 811 Before You Dig

NOTE:
FOR CONSTRUCTION STAKING SCHEDULING OR QUOTATIONS PLEASE CONTACT ALEX ABAYA AT LEA & BRAZE ENGINEERING (510)887–4086 EXT 116. aabaya@leabraze.com

* BUILDING PAD NOTE: ADJUST PAD LEVEL AS REQUIRED. REFER TO STRUCTURAL PLANS FOR SLAB SECTION OR CRAWL SPACE DEPTH TO ESTABLISH PAD LEVEL.

REGISTERED PROFESSIONAL ENGINEER PETER CARLINO No. C79555 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS I LAND SURVEYORS
MAIN OFFICE: 2495 INDUSTRIAL PKWY WEST HAYWARD, CALIFORNIA 94545 (510) 887–4086
REGIONAL OFFICES: ROSEVILLE DUBLIN SAN JOSE
WWW.LEABRAZE.COM

HABITAT FOR HUMANITY
98–100 CASTRO STREET
SAN LEANDRO, CALIFORNIA
APN: 077–0550–011
ALAMEDA COUNTY

TITLE SHEET

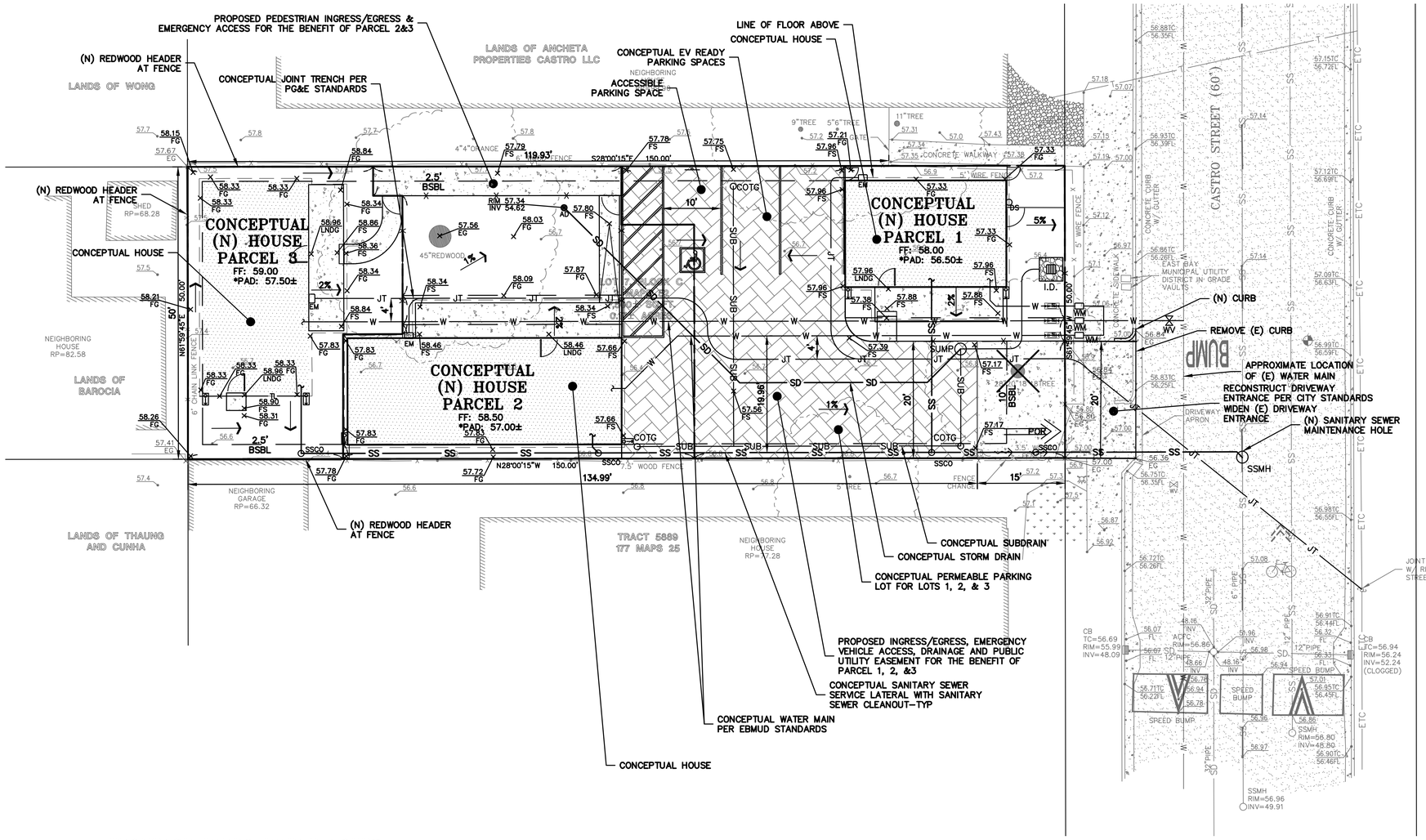
REVISIONS	BY
–	–
–	–
–	–
–	–
–	–

JOB NO:	2212279
DATE:	03–23–23
SCALE:	AS NOTED
DESIGN BY:	KA
CHECKED BY:	JH

SHEET NO:

TM–1

01 OF 05 SHEETS



FLATWORK

FINISHED GRADES AT BUILDING PERIMETER SHALL BE SLOPED AT A MINIMUM OF 5% FOR THE FIRST 10' AWAY FROM THE BUILDING PER CBC 1804.4 OR TO AN APPROVED DRAINAGE SWALE OR STRUCTURE. GRADES SHALL CONTINUE TO SLOPE TOWARDS POSITIVE DRAINAGE AND A POSITIVE OUTFALL. MAINTAIN 8" CLEARANCE BETWEEN FINISH EARTHEN GRADE AND BOTTOM OF MUD SILL AT ALL TIMES PER CBC 2304.12.1.2 UNLESS STRUCTURAL DETAILING ALLOWS LESS. REFER TO STRUCTURAL PLANS FOR FOUNDATION DESIGN AND DETAILS.

SLOPE GARAGE SLAB 1% MINIMUM (1/8" PER FOOT) FROM BACK TO FRONT TO ALLOW FOR ADEQUATE DRAINAGE. MAINTAIN 1/2· TO 1· LIP BETWEEN GARAGE SLAB AND DRIVEWAY. SEE PLANS FOR SPECIFIC DROP

PROVIDE 2% SLOPE ACROSS FLAT WORK AND/OR PAVING PER CBC 1804.4. SLOPE TOWARDS POSITIVE DRAINAGE AS SHOWN ON PLAN.

(N) CONCRETE DRIVEWAY.

STORM DRAIN

CONSTRUCT (N) EARTHEN SWALE SLOPED AT 1% MINIMUM TOWARDS POSITIVE OUTFALL.
CONNECT RAIN WATER DOWNSPOUTS TO 4" PVC (SDR-35) TIGHTLINE, SLOPED AT 1% MINIMUM. DIRECT TO NEAREST STORM DRAIN LINE AS SHOWN ON PLANS. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS. TIGHTLINE MAY BE PLACED IN COMMON TRENCH WITH SUBDRAIN LINES, HOWEVER, DO NOT CONNECT TO SUBDRAIN LINES.

INSTALL (N) INFILTRATIVE DEVICE FOR ONSITE DRAINAGE.

UTILITIES

INSTALL (N) SANITARY SEWER LATERALS. USE 4" PVC (SDR-26) SLOPED AT 2% MINIMUM. CONNECT TO (E) SEWER MAIN AS SHOWN. PROVIDE CLEANOUT TO GRADE AT BUILDING AND BEHIND PROPERTY LINE AND AT MAJOR CHANGES IN DIRECTION AS SHOWN. REUSE (E) LATERAL IF POSSIBLE. CONNECT PER DISTRICT STANDARDS.

INSTALL (N) ENVIRONMENTAL ONE SEWER EJECTOR SYSTEM.

CONNECT (N) WATER SERVICE PER WATER DISTRICT STANDARDS. UPGRADE (E) WATER METER PER WATER DISTRICT STANDARDS AS APPLICABLE. INSTALL (N) 2" MINIMUM SERVICE LINE TO (N) RESIDENCE OR AS DIRECTED BY FIRE SPRINKLER DESIGNER.

INSTALL (N) JOINT TRENCH FOR SERVICES INCLUDING GAS, CATV & ELECTRIC FROM NEAREST POINT OF CONNECTION. DESIGN BY OTHERS.

ENCROACHMENT PERMIT FOR CONSTRUCTION IN THE STREET REQUIRED
CONSTRUCTION CONDUCTED IN THE CITY RIGHT-OF-WAY MUST HAVE A "PERMIT FOR CONSTRUCTION IN THE STREET" THAT MUST BE OBTAINED FROM THE ENGINEERING & TRANSPORTATION DEPARTMENT PRIOR TO COMMENCEMENT OF WORK. ANY CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY, EASEMENTS, OR OTHER PROPERTY CONTROLLED BY THE CITY/TOWN/COUNTY MUST CONFORM TO STANDARDS ESTABLISHED IN THE CITY STANDARD SPECIFICATIONS FOR THE UTILITIES DEPT. AND THE PUBLIC WORKS DEPT.

CONTRACTOR TO CONTACT USA 48 HOURS PRIOR TO CONSTRUCTION/ EXCAVATION IN THE RIGHT-OF-WAY.

ANY/ALL PUBLIC IMPROVEMENTS THAT ARE DAMAGED BY THE OWNER OR HIS/HER CONTRACTOR WHILE WORKING ON THIS PROJECT WILL BE THE RESPONSIBILITY OF THE OWNER TO REPAIR, RESTORE, OR REPLACE IN KIND. REPLACEMENT, REPAIR, OR RESTORATION WORK MUST BE IN COMPLIANCE WITH THE CITY STANDARD SPECIFICATIONS FOR CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY.

DRAINAGE INSPECTIONS NOTE
LEA & BRAZE ENGINEERING, INC. SHOULD BE NOTIFIED TO INSPECT ALL STORM DRAINAGE AS IT IS INSTALLED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT LEA & BRAZE ENGINEERING, INC. PRIOR TO START OF CONSTRUCTION TO SET UP A PRE-CONSTRUCTION MEETING, AND TO CALL AT LEAST 48 HOURS IN ADVANCE OF ANY INSPECTIONS. PIPES ARE TO REMAIN UNCOVERED UNTIL AN INSPECTION OCCURS.

POINT OF CONTACT:
PETER CARLINO
LEA & BRAZE ENGINEERING, INC.
(510)887-4086 pcarlino@leabraze.com

USA NORTH 811 Call 811 Before You Dig

NOTE:
FOR CONSTRUCTION STAKING SCHEDULING OR QUOTATIONS PLEASE CONTACT ALEX ABAYA AT LEA & BRAZE ENGINEERING (510)887-4086 EXT 116. aabaya@leabraze.com

*** BUILDING PAD NOTE:** ADJUST PAD LEVEL AS REQUIRED. REFER TO STRUCTURAL PLANS FOR SLAB SECTION OR CRAWL SPACE DEPTH TO ESTABLISH PAD LEVEL.

FRONTAGE IMPROVEMENT NOTES:

i. "ALL EXISTING CRACKED OR DAMAGED FEATURES ALONG THE PROPERTY FRONTAGE MUST BE REPAIRED IN KIND. ALL FRONTAGE IMPROVEMENT WORK SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE CITY STANDARD DETAILS." HTTPS://WWW.SANLEANDRO.ORG/DOCUMENTCENTER/INDEX/112

ii. "ANY FRONTAGE IMPROVEMENTS WHICH ARE DAMAGED AS A RESULT OF CONSTRUCTION WILL BE REQUIRED TO BE REPLACED."

iii. "AN ENCROACHMENT PERMIT FROM THE ENGINEERING DIVISION IS REQUIRED PRIOR TO ANY CONSTRUCTION ACTIVITIES IN THE PUBLIC RIGHT OF WAY."

GRADING AND DRAINAGE NOTES:

1. GRADES WITHIN THE FIRST 10 FEET ADJACENT TO A STRUCTURE MUST HAVE A 5% SLOPE ON PERVIOUS SURFACES, AND A 2% SLOPE ON IMPERVIOUS SURFACES PER 1804.A4 OF THE CALIFORNIA BUILDING CODE (CBC).

UNDER NO CIRCUMSTANCE SHALL DRAINAGE RESULTING FROM THIS PROJECT, DURING OR POST CONSTRUCTION, DIRECTLY SHEETFLOW ACROSS AN ADJOINING PROPERTY. RUNOFF SHALL BE CONTAINED ON-SITE UP TO THE 10-YEAR STORM.

NOTE:
ALL EARTHWORK AND SITE DRAINAGE, INCLUDING EXCAVATION FOR THE BASEMENT, EXCAVATIONS FOR DRILLED PIER FOUNDATIONS, PLACEMENT OF ENGINEER FILL, PREPARATION OF SUBGRADE BENEATH THE BASEMENT MAT AND ANY AT GRADE SLAB, BASEMENT RETAINING WALL BACKFILL, AND FINAL SURFACE DRAINAGE INSTALLATION SHOULD BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. THE SOIL ENGINEER SHOULD BE PROVIDED AT LEAST 48 HOURS ADVANCE NOTIFICATION OF ANY EARTHWORK OPERATIONS AND SHOULD BE PRESENT TO OBSERVE AND TEST, AS NECESSARY, THE EARTHWORK AND FOUNDATION INSTALLATION PHASES OF THE PROJECT.

ARBORIST NOTE:
THE PROJECT ARBORIST SHALL BE PRESENT AT ALL TIMES DURING CONSTRUCTION OF IMPROVEMENTS ADJACENT TO EXISTING HERITAGE TREES. ADDITIONAL RECOMMENDATIONS FOR TREE PROTECTION WILL FURNISHED IN THE FIELD AND SUBJECT TO PUBLIC WORKS WHERE REQUIRED.

ESTIMATED EARTHWORK QUANTITIES

CUBIC YARDS	TOTAL CUBIC YARDS
CUT	0
FILL	250
IMPORT	250

NOTE:
GRADING QUANTITIES REPRESENT BANK YARDAGE. IT DOES NOT INCLUDE ANY SWELLING OR SHRINKAGE FACTORS AND IS INTENDED TO REPRESENT IN-SITU CONDITIONS. QUANTITIES DO NOT INCLUDE OVER-EXCAVATION, TRENCHING, STRUCTURAL FOUNDATIONS OR PIERS, OR POOL EXCAVATION (IF ANY). NOTE ADDITIONAL EARTHWORKS, SUCH AS KEYWAYS OR BENCHING MAY BE REQUIRED BY THE GEOTECHNICAL ENGINEER IN THE FIELD AT TIME OF CONSTRUCTION. CONTRACTOR TO VERIFY QUANTITIES.

DEVELOPMENT INFORMATION

TOTAL SITE AREA	7,500 SQUARE FEET (0.17 ACRE)			
TOTAL DISTURBED AREA	7,500 SQUARE FEET (0.17 ACRE)			
IMPERVIOUS AREA	EXISTING TOTAL S.F.	REMOVED TOTAL S.F.	NEW TOTAL S.F.	PROPOSED TOTAL S.F.
RESIDENCE	0	0	2,018	2,018
DRIVEWAY & PARKING	0	0	334	334
PATIOS, WALKWAYS & PADS	0	0	817	817
TOTAL IMPERVIOUS AREA	0	0	3,169	3,169
NET CHANGE IN IMPERVIOUS AREA	+ 3,169 SQUARE FEET (NET INCREASE)			
PERVIOUS PAVING				
PERMEABLE DRIVEWAY	0	0	2,368	2,368
TOTAL PERVIOUS PAVING	0	0	2,368	2,368
NET CHANGE IN PERVIOUS PAVING	+ 2,368 SQUARE FEET (NET INCREASE)			
TOTAL DEVELOPED AREA	0	0	5,537	5,537
NET CHANGE IN DEVELOPED AREA	+ 5,537 SQUARE FEET (NET INCREASE)			
FLOOR AREA	REFER TO THE ARCHITECTURAL PLANS FOR PROPOSED FLOOR AREA CALCULATIONS			

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REGISTERED PROFESSIONAL ENGINEER PETER CARLINO No. C79555 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

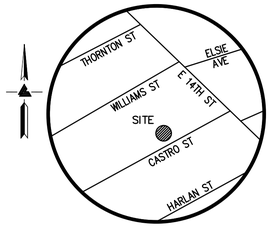
HABITAT FOR HUMANITY
98-100 CASTRO STREET
SAN LEANDRO, CALIFORNIA
APN: 077-0550-011
ALAMEDA COUNTY

PRELIMINARY GRADING, DRAINAGE, AND UTILITY PLAN

REVISIONS	BY
-	-
-	-
-	-
-	-
-	-

JOB NO:	2212279
DATE:	03-23-23
SCALE:	AS NOTED
DESIGN BY:	KA
CHECKED BY:	JH
SHEET NO:	TM-2

02 OF 05 SHEETS



VICINITY MAP
NO SCALE

LEGEND AND NOTES

- BOUNDARY LINE
- BUILDING OVERHANG LINE
- ETC — ELECTRICAL/TELEPHONE/CABLE TV OVERHEAD LINE
- T/E — TELEPHONE/ELECTRICAL OVERHEAD LINE
- T — TELEPHONE OVERHEAD LINE
- x — FENCE LINE
- FLOW LINE
- SS — SANITARY SEWER LINE
- ACFC — ALAMEDA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT MANHOLE
- BENCHMARK
- EB — ELECTRICAL BOX
- FIRE HYDRANT
- FL — FLOW LINE
- GV — GAS VALVE
- INV — INVERT
- JOINT POLE
- M— — MULTI-TRUNK TREE
- RP — ROOF PEAK
- SSMH — SANITARY SEWER MAINTENANCE HOLE
- TC — TOP OF CURB
- TW — TOP OF RETAINING WALL
- WV — WATER VALVE
- XXX.XX — SPOTGRADE
- ASPHALT
- CONCRETE
- LAWN
- RIVER ROCK

LANDS OF WONG

LANDS OF ANCHETA PROPERTIES CASTRO LLC

NEIGHBORING HOUSE RP=99.90

LANDS OF BAROCIA

NEIGHBORING HOUSE RP=82.58

LANDS OF THAUNG AND CUNHA

NEIGHBORING GARAGE RP=66.32

TRACT 5889
177 MAPS 25

NEIGHBORING HOUSE RP=77.28

LOT 7, BLOCK C
2 MAPS 52
7,500± SQ.FT.
0.17± ACRES

SHED RP=68.28

4"4"ORANGE

45"REDWOOD

9"TREE

5"6"TREE

11"TREE

28"20"18"18TREE

5"TREE

6' WOOD FENCE S28°00'15"E 150.00'

N28°00'15"W 150.00' 7.5' WOOD FENCE

5' WIRE FENCE

3.5' WOOD FENCE

FENCE CHANGE

6' CHAIN LINK FENCE N61°59'45"E 50.00'

S61°59'45"W 50.00'

GATE

CONCRETE WALKWAY

CONCRETE SIDEWALK

CONCRETE CURB W/ GUTTER

CASTRO STREET (60')

EAST BAY MUNICIPAL UTILITY DISTRICT IN GRADE VAULTS

DRIVEWAY APRON

JOINT POLE W/ RISER AND STREET LIGHT

SPEED BUMP

CB TC=56.69 RIM=55.99 INV=48.09

ACFC RIM=56.86 INV=48.16

CB TC=56.94 RIM=56.24 INV=52.24 (CLOGGED)

SSMH RIM=56.80 INV=48.80

SSMH RIM=56.96 INV=49.91

32"PIPE

6" PIPE

12" PIPE

FEMA FLOOD NOTE

PROPERTY COMPLETELY OUT OF SPECIAL FLOOD HAZARD AREA (SFHA)

FLOOD INSURANCE RATE MAP
No.: 06001C0257G
EFFECTIVE DATE: AUGUST 3, 2009

EASEMENT NOTE

THERE ARE NO RECORD EASEMENTS PER PRELIMINARY TITLE REPORT ISSUED BY OLD REPUBLIC TITLE COMPANY, ORDER NO. 1117025169-JM, DATED AS OF MARCH 21, 2022

TREE NOTE

TREE SIZE, TYPE AND DRIPLINES ARE BASED ON A VISUAL OBSERVATION. FINAL DETERMINATION SHOULD BE MADE BY THE PROJECT ARBORIST.

NOTES

ALL DISTANCES AND DIMENSIONS ARE IN FEET AND DECIMALS.

BUILDING FOOTPRINTS ARE SHOWN TO FINISHED MATERIAL (STUCCO/SIDING) AT GROUND LEVEL.

FINISH FLOOR ELEVATIONS ARE TAKEN AT DOOR THRESHOLD (EXTERIOR).

THE AREA OF THE SURVEYED LOT IS 7,500± SQUARE FEET / 0.17± ACRES

UTILITY NOTE

ALL UNDERGROUND PIPE TYPES, SIZES AND LOCATION SHOWN ON THIS SURVEY ARE BASED ON VISUAL OBSERVATION. ANY USE OF THIS INFORMATION SHOULD BE VERIFIED, BEFORE ITS USE, WITH THE CONTROLLING MUNICIPALITY OR UTILITY PROVIDER. THIS SURVEY MAKES NO GUARANTEE OF THE INSTALLED ACTUAL LOCATION, DEPTHS OR SIZE.

BENCHMARK

CITY OF SAN LEANDRO BENCHMARK
CASTRO-E.14TH.
CINCH NAIL TOP OF C.B. SW CORNER.
ELEVATION = 55.38'
(ADJUSTED TO NAVD 88 DATUM)

SITE BENCHMARK

SURVEY CONTROL POINT
MAG AND SHINER SET IN ASPHALT
ELEVATION = 56.91'
(ADJUSTED TO NAVD 88 DATUM)

0 4 8 16

SCALE: 1" = 8'

LICENSED LAND SURVEYOR
GREGORY F. BRAZE
No. 7623
STATE OF CALIFORNIA

LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS I LAND SURVEYORS
MAIN OFFICE: 2495 INDUSTRIAL PKWY WEST HAYWARD, CALIFORNIA 94545 (510) 887-4086
REGIONAL OFFICES: ROSEVILLE DUBLIN SAN JOSE
WWW.LEABRAZE.COM

98-100 CASTRO STREET
SAN LEANDRO
CALIFORNIA
APN: 077-0550-011
ALAMEDA COUNTY

TOPOGRAPHIC SURVEY

–	–
–	–
–	–
–	–
REVISIONS	BY
JOB NO:	2212278
DATE:	4-28-22
SCALE:	1"=8'
BNDY BY:	RM
FIELD BY:	MF
DRAWN BY:	SM
SHEET NO:	SU1

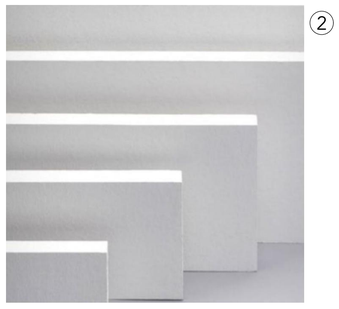
1 OF 1 SHEETS

1 ELEVATION - MATERIALS

SCALE: 1/16" = 1'-0"

MATERIALS

1 HARDIE PANEL
VERTICAL SIDING
SMOOTH ARCTIC WHITE
120" X 48"
EXTERIOR WALLS



2 HARDIE TRIM
5/4 RUSTIC
ARCTIC WHITE
3 1/2" WIDTH, 1" THICKNESS
WINDOWS AND DOORS

3 CERTAINTEED LANDMARK SOLARIS
SILVER BIRCH
MAIN ROOFS, PORCH ROOFS

4 WOOD FENCE
PAINTED WHITE

5 MILGARD TUSCANY
EXTERIOR SWINGING DOOR
WHITE VYNYL

6 MILGARD STYLELINE
SINGLE HUNG WINDOWS
WHITE VYNYL

7 CEDAR
ROOF FASCIA, PORCH ROOF FASCIA
PORCH COLUMNS, PORCH SIDING

../../../Desktop/Screenshot 2024-02-27 at 3.44.54 PM.png

LICENSED ARCHITECT
JASMIT SINGH RANGR
C-37954
31 OCT 2025
RENEWAL
STATE OF CALIFORNIA

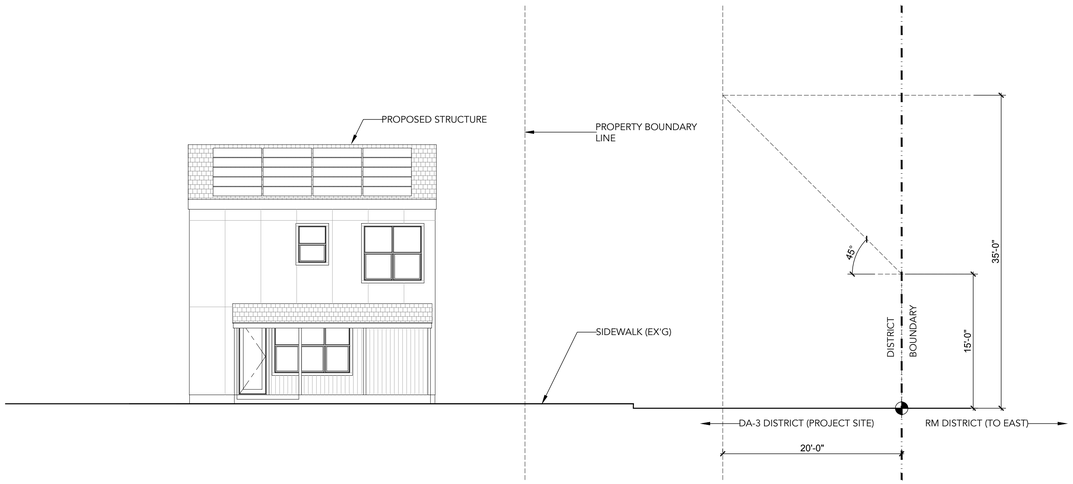
RANGR STUDIO
1234 GRIZZLY PEAK, BERKELEY, CA 94708
VOICE / SMS: 212.727.9911
EMAIL: INFO@RANGR.COM

HABITAT
98-100 CASTRO STREET, SAN LEANDRO, CA 94577
PROJECT APN #: 077-0550-011

MATERIALS

DATE:	29 FEBRUARY 2024	ISSUED:	FOR REVIEW
REV 1:	-	REV 3:	-
REV 2:	-	REV 4:	-

A015

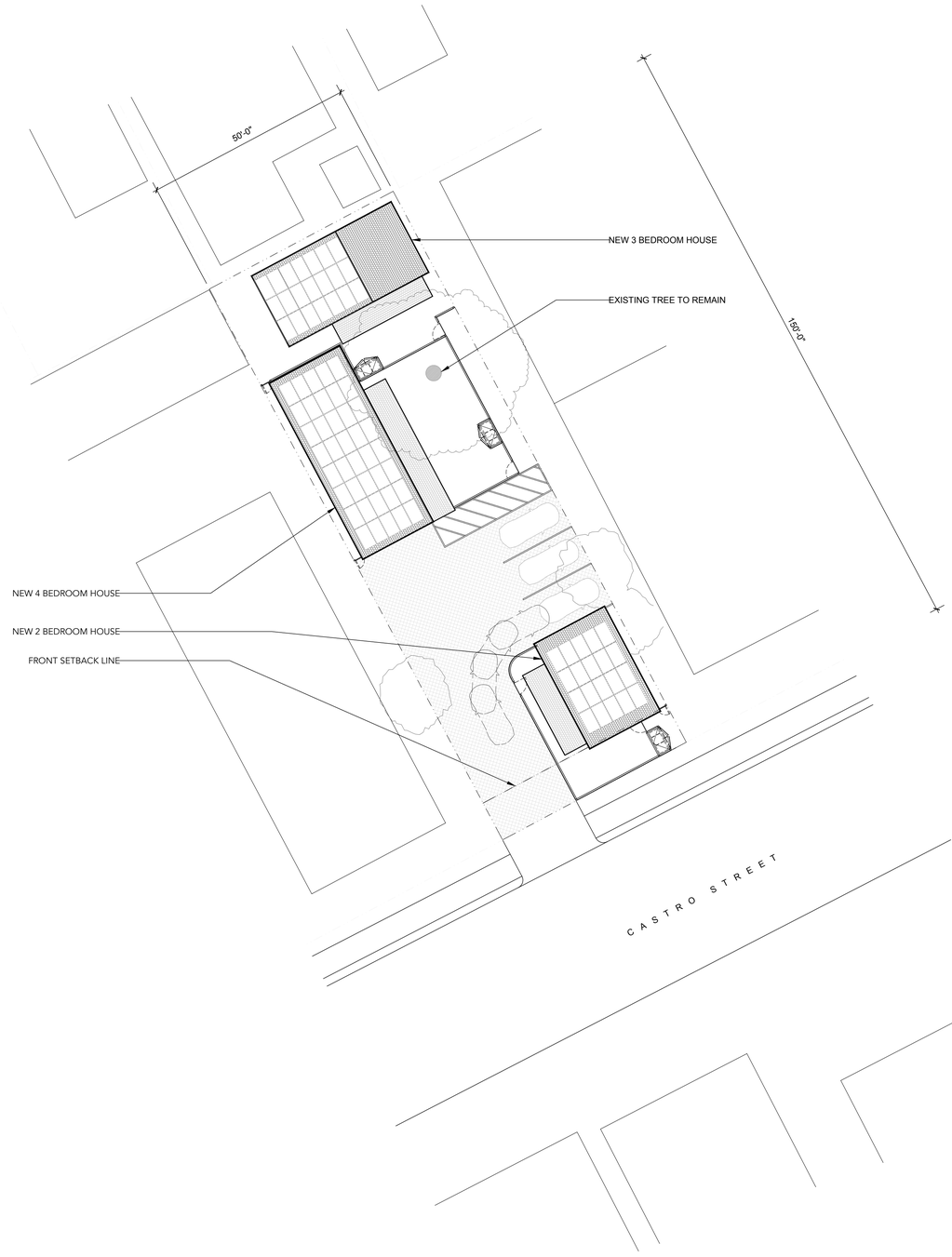


2 DAYLIGHT PLANE SECTION
SCALE: 1/8" = 1'-0"

ZONING INFORMATION

ZONING	DA3
GENERAL PLAN LAND USE	MUD - DOWNTOWN MIXED USE

CODE SECTION	NAME	REQUIREMENT	PARCEL 1	PARCEL 2	PARCEL 3
2.08.300	LOT AREA	5,000 SF MIN.	3,294 SF	2,612 SF	1,594 SF
	LOT WIDTH	50 FT MIN.	50'-1 7/8"	55'-1 1/2"	51'-2 5/8"
2.08.308	MINIMUM YARDS				
	FRONT:	10-15 FT MIN.	10'-0"	23'-4 3/4"	10'-3/8"
	SIDE A	N/A	2'-6"	0'-9 3/8"	2'-6"
	SIDE B	N/A	23'-4"	12'-5 5/8"	11'-3 5/8"
	SIDE C	N/A	N/A	0'-7 3/4"	5'-10 1/4"
	REAR:	N/A	25'-10"	2'-6"	2'-6"
2.08.312	HEIGHT OF STRUCTURES RESIDENTIAL AND MIXED-USE RESIDENTIAL DEVELOPMENT				
	MINIMUM HEIGHT (FT.) RESIDENTIAL AND MIXED-USE	N/A	N/A	N/A	N/A
	RESIDENTIAL DEVELOPMENT MAXIMUM HEIGHT (FT.)	50 FT MAX.	28'-11 3/4"	28'-11 3/4"	30'-3 7/16"
2.08.316	LOT COVERAGE	100% MAX.	19.1%	40.4%	50.5%
2.08.320	FLOOR AREA RATIO (FAR)				
	F.A.R.	3.5 MAX.	0.30	0.65	0.82
2.08.324	SITE LANDSCAPING	5% MIN.	19.0%	39.7%	58.3%
	MAXIMUM DENSITY	100 DU/ACRE	13.2 DU/ACRE	16.7 DU/ACRE	27.3 DU/ACRE



1 SITE PLAN - PROPOSED
SCALE: 1/16" = 1'-0"

N

LICENSED ARCHITECT
JASMIT SINGH RANGR
C-37954
31 OCT 2025
RENEWAL DATE
STATE OF CALIFORNIA

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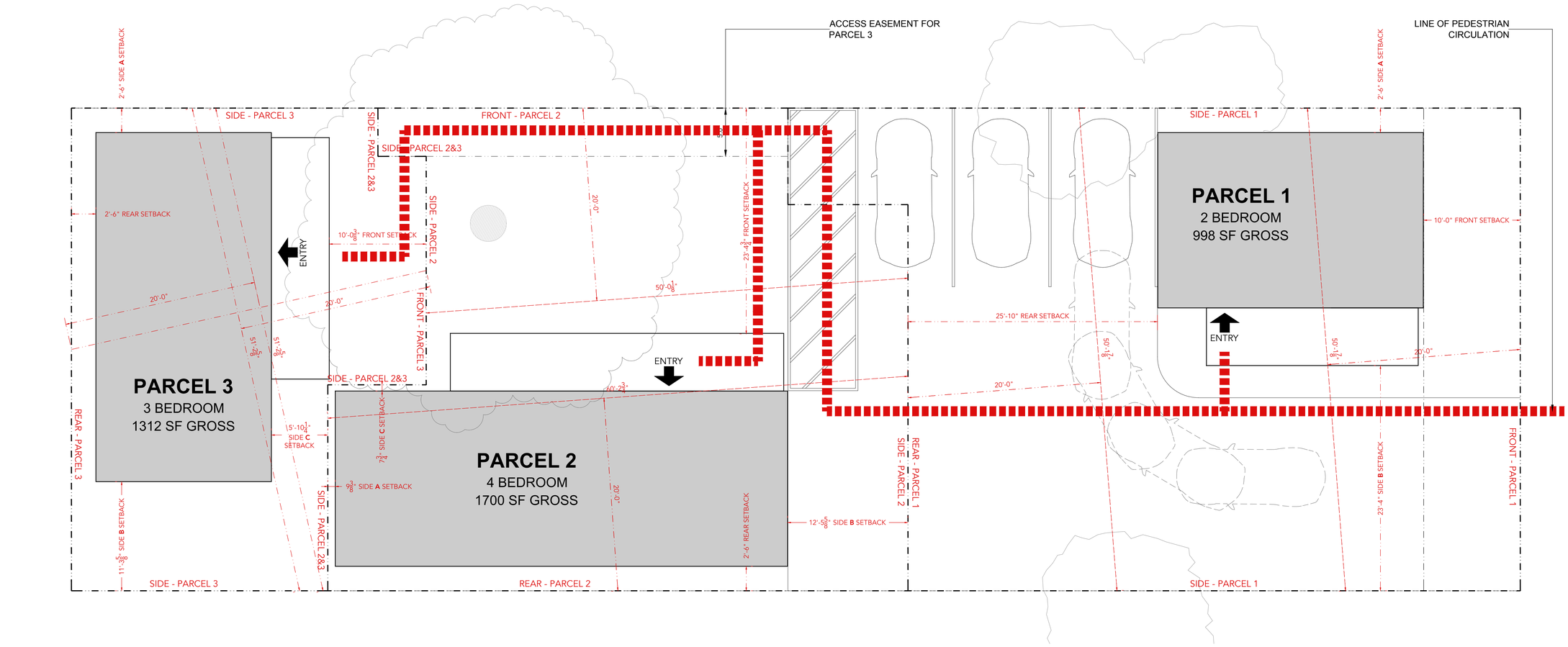
HABITAT
98-100 CASTRO STREET, SAN LEANDRO, CA 94577
PROJECT APN #: 077-0550-011

SITE PLAN - PROPOSED

DATE: 29 FEBRUARY 2024	ISSUED: FOR REVIEW
REV 1: -	REV 3: -
REV 2: -	REV 4: -

A020



N

1 PARCEL DIVISION PLAN
SCALE: 3/16" = 1'-0"

LICENSED ARCHITECT
JASMIT SINGH
RANGR
C-37854
31 OCT 2025
RENEWAL DATE
STATE OF CALIFORNIA

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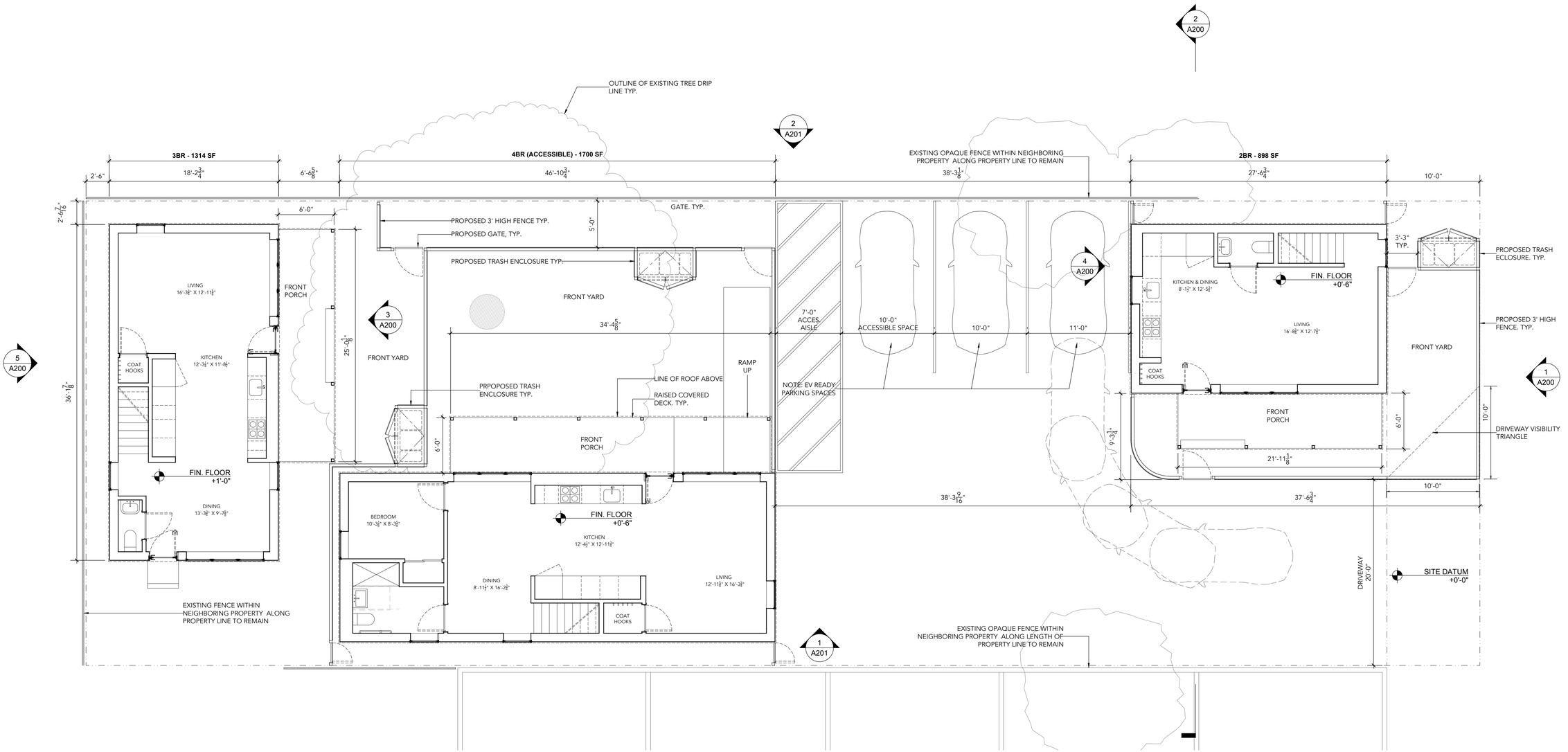
HABITAT
98-100 CASTRO STREET, SAN LEANDRO, CA 94577
PROJECT APN #: 077-0550-011

PARCEL DIVISION PLAN

DATE:	29 FEBRUARY 2024	ISSUED:	FOR REVIEW
REV 1:	-	REV 3:	-
REV 2:	-	REV 4:	-

A030



N

1 GROUND FLOOR PLANS

SCALE:3/16" = 1'-0"

LICENSED ARCHITECT
JASMIT SINGH RANGR
C-37954
31 OCT 2025
RENEWAL DATE
STATE OF CALIFORNIA

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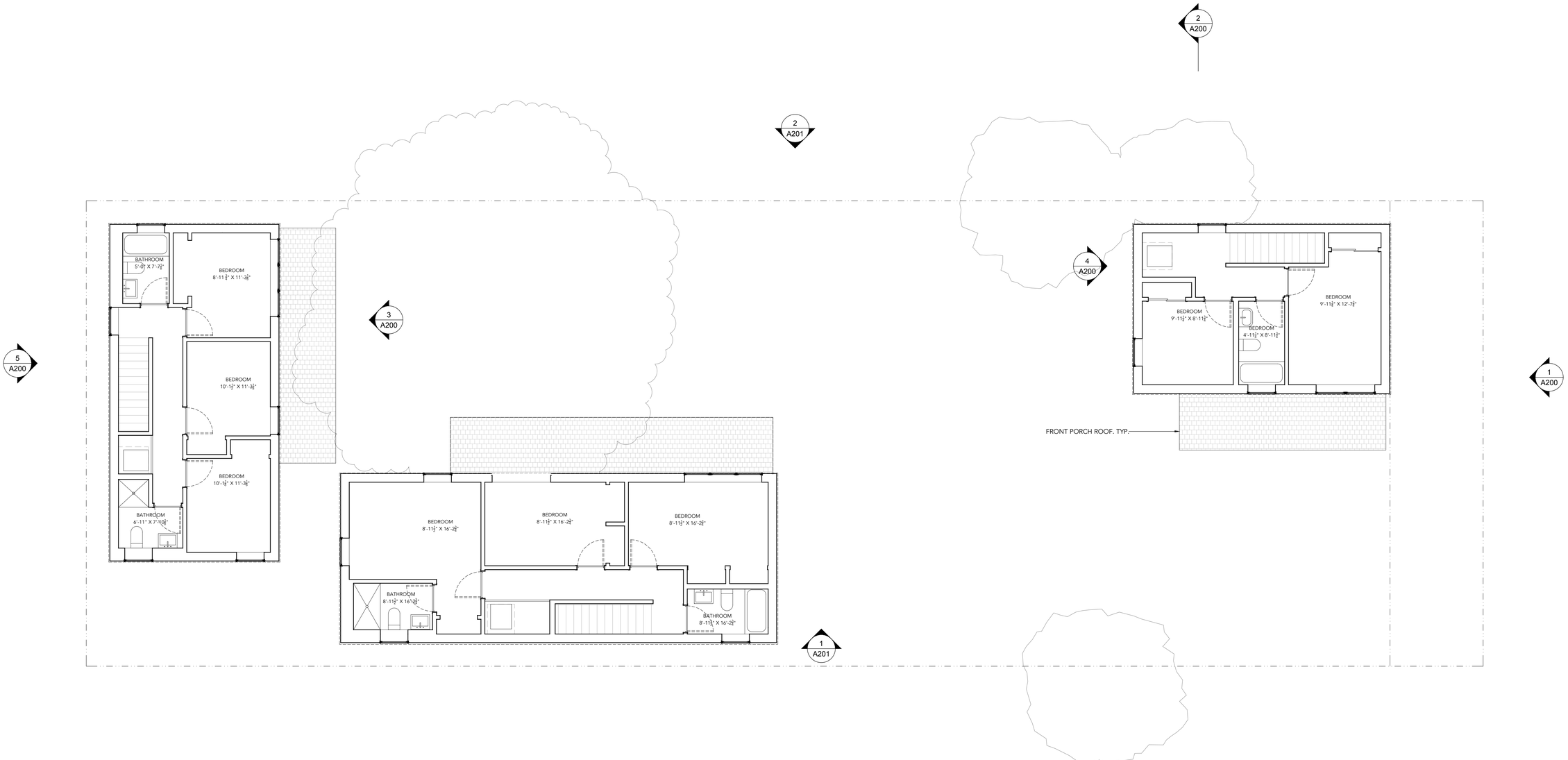
HABITAT
98-100 CASTRO STREET, SAN LEANDRO, CA 94577
PROJECT APN #: 077-0550-011

FLOOR PLANS - GROUND FLOOR

DATE: 29 FEBRUARY 2024	ISSUED: FOR REVIEW
REV 1: -	REV 3: -
REV 2: -	REV 4: -

A100



N

1 SECOND FLOOR PLANS
SCALE:3/16" = 1'-0"

LICENSED ARCHITECT
JASMIT SINGH RANGR
C-37954
31 OCT 2025
RENEWAL DATE
STATE OF CALIFORNIA

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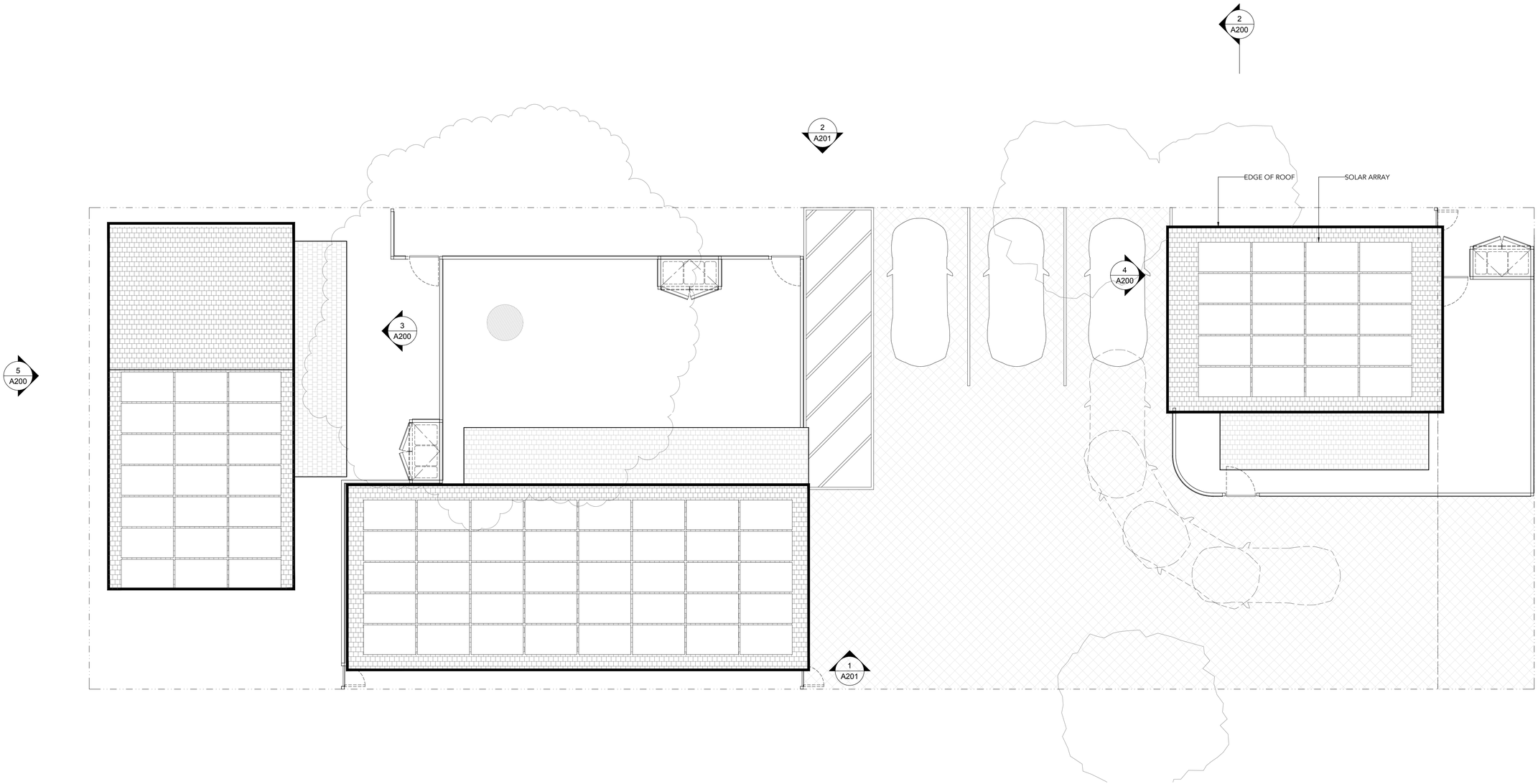
HABITAT	**FLOOR PLANS - SECOND FLOOR**		A101
98-100 CASTRO STREET, SAN LEANDRO, CA 94577	DATE: 29 FEBRUARY 2024	ISSUED: FOR REVIEW	
PROJECT APN #: 077-0550-011	REV 1: -	REV 3: -	
	REV 2: -	REV 4: -	



1 ROOF PLANS
SCALE:3/16" = 1'-0"

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LICENSED ARCHITECT
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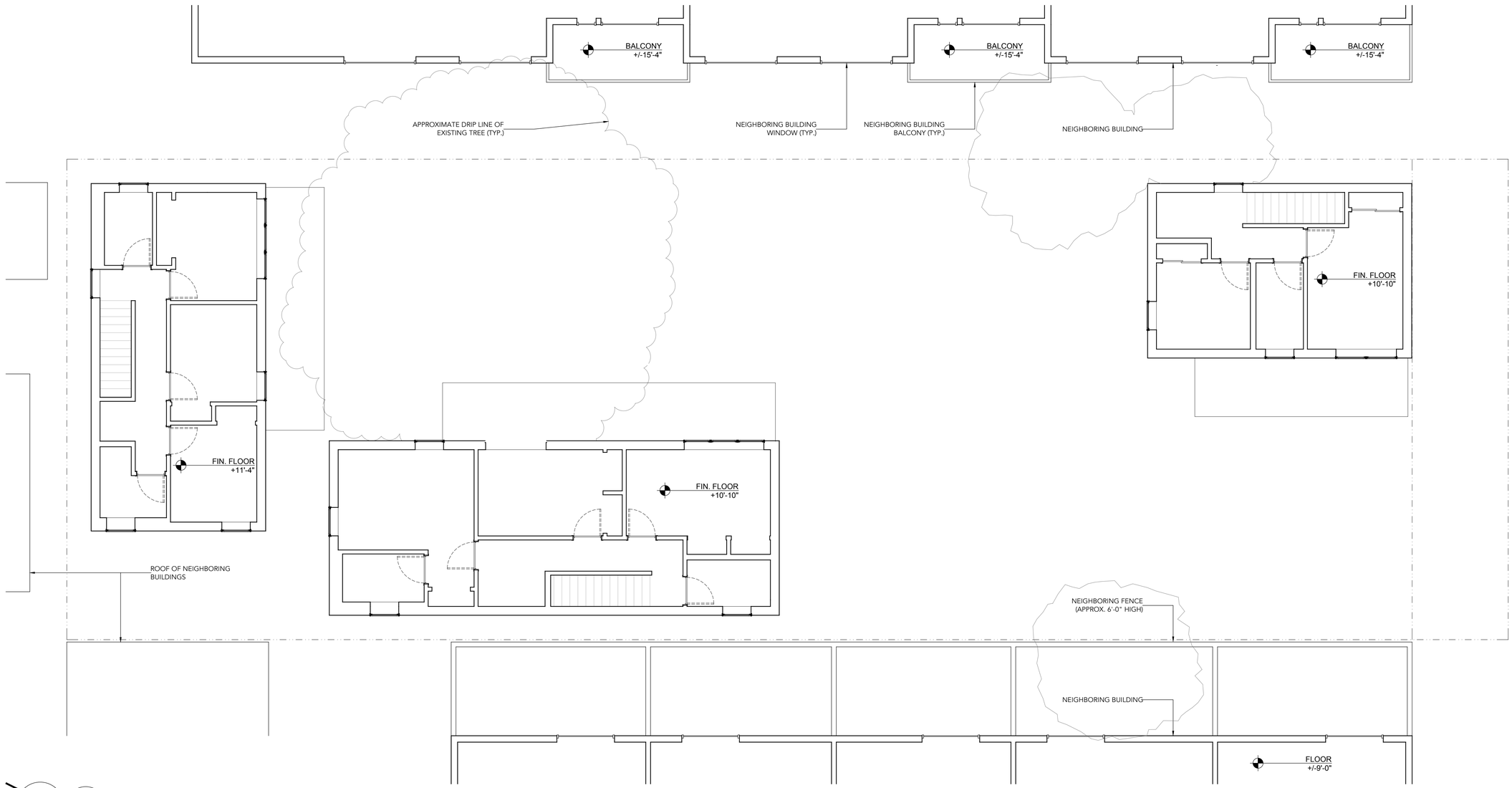
C-37854
31 OCT 2025
RENEWAL DATE
STATE OF CALIFORNIA

HABITAT
98-100 CASTRO STREET, SAN LEANDRO, CA 94577
PROJECT APN #: 077-0550-011

ROOF PLAN

DATE: 29 FEBRUARY 2024	ISSUED: FOR REVIEW
REV 1: -	REV 3: -
REV 2: -	REV 4: -

A103



1 SECOND FLOOR NEIGHBORING BUILDING PLANS

SCALE:3/16" = 1'-0"

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HABITAT
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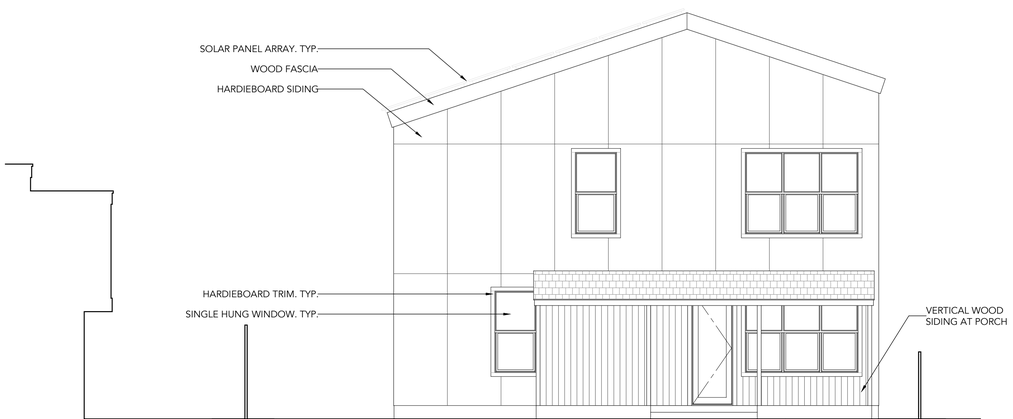
PROJECT APN #: 077-0550-011

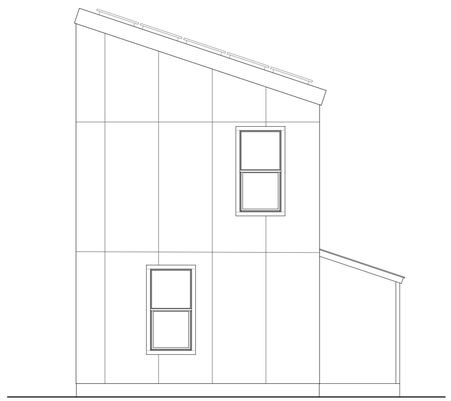
ADJACENT PROPERTIES

DATE:	29 FEBRUARY 2024	ISSUED:	FOR REVIEW
REV 1:	-	REV 3:	-
REV 2:	-	REV 4:	-

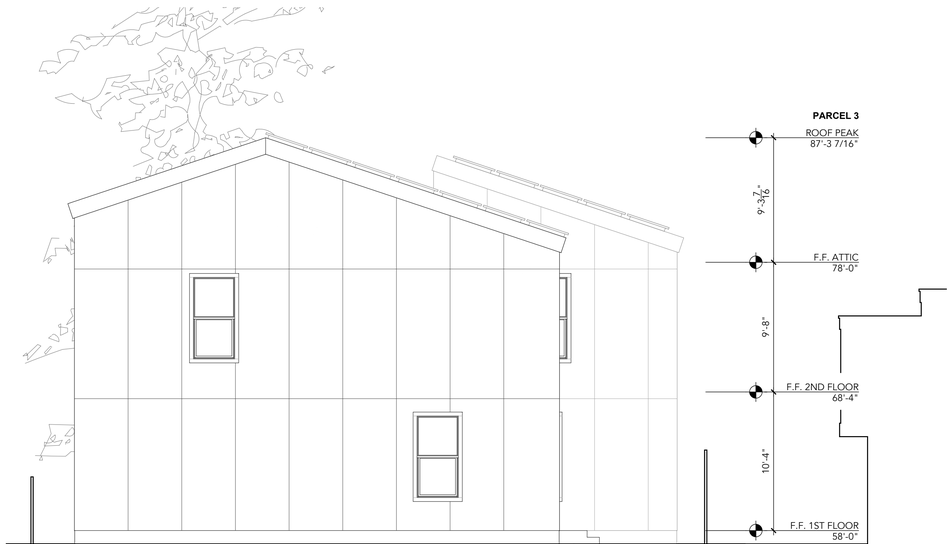
A120



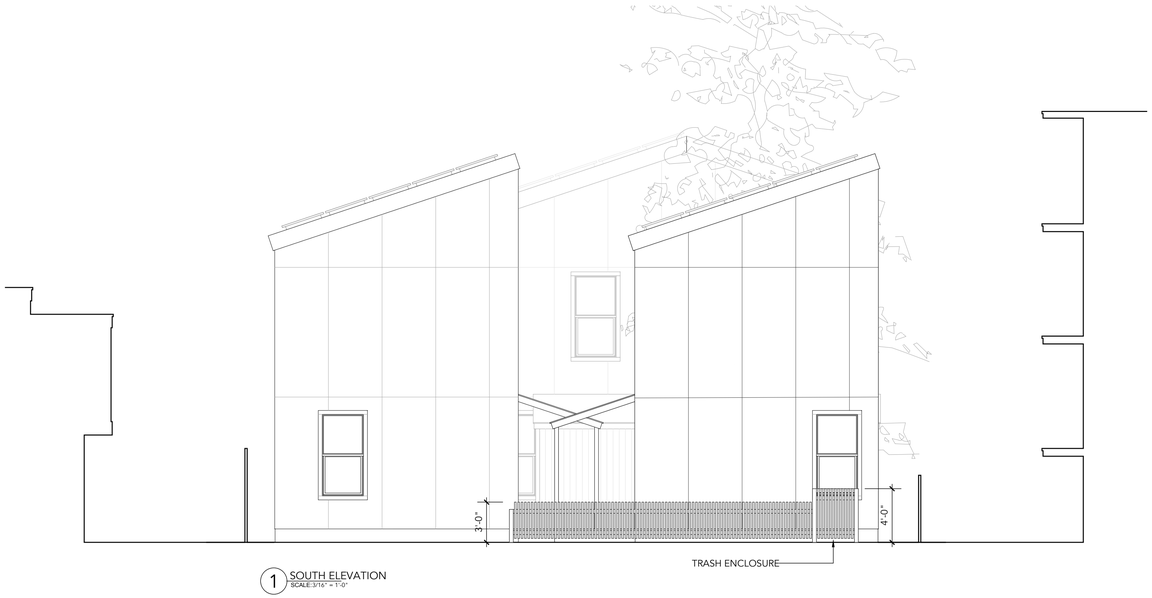
3 PARCEL 3 SOUTH ELEVATION
SCALE:3/16" = 1'-0"



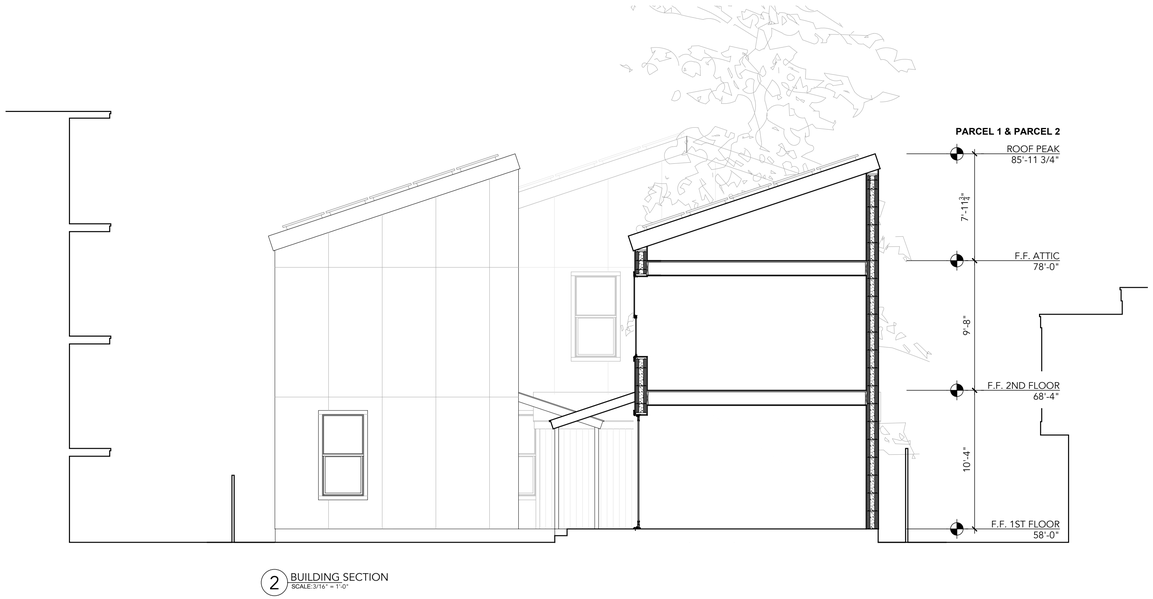
4 PARCEL 1 NORTH ELEVATION
SCALE:3/16" = 1'-0"



5 PARCEL 2 AND 3 NORTH ELEVATION
SCALE:3/16" = 1'-0"



1 SOUTH ELEVATION
SCALE:3/16" = 1'-0"



2 BUILDING SECTION
SCALE:3/16" = 1'-0"

LICENSED ARCHITECT
JASMIT SINGH
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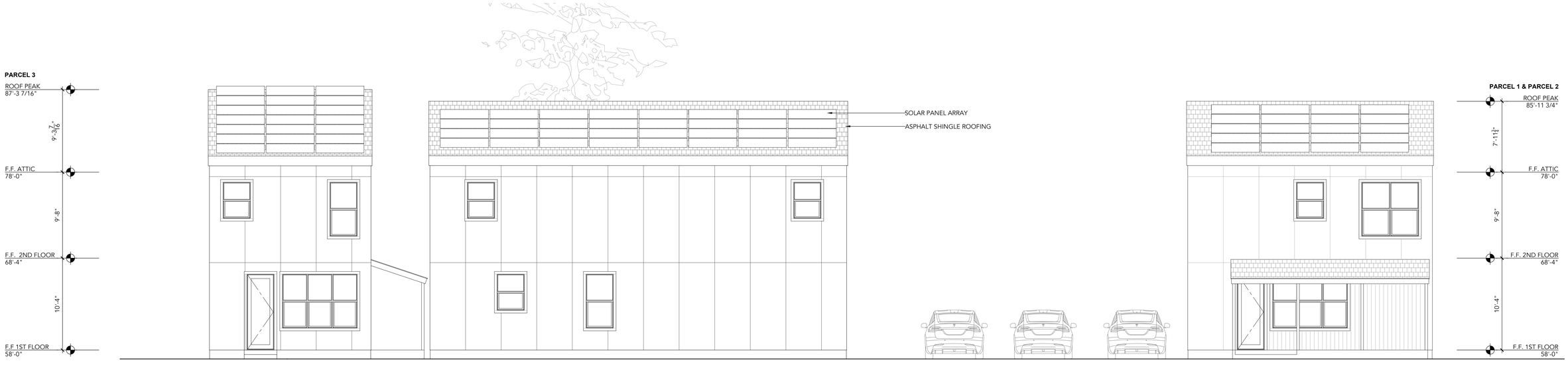
HABITAT
98-100 CASTRO STREET, SAN LEANDRO, CA 94577
PROJECT APN #: 077-0550-011

SECTIONS & ELEVATIONS

DATE:	29 FEBRUARY 2024	ISSUED:	FOR REVIEW
REV 1:	-	REV 3:	-
REV 2:	-	REV 4:	-

A200

2 EAST ELEVATION
SCALE: 3/16" = 1'-0"



1 WEST ELEVATION
SCALE: 3/16" = 1'-0"

LICENSED ARCHITECT
JASMIT SINGH RANGR
C-37954
31 OCT 2025
RENEWAL DATE
STATE OF CALIFORNIA

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98-100 CASTRO STREET, SAN LEANDRO, CA 94577
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SECTIONS & ELEVATIONS

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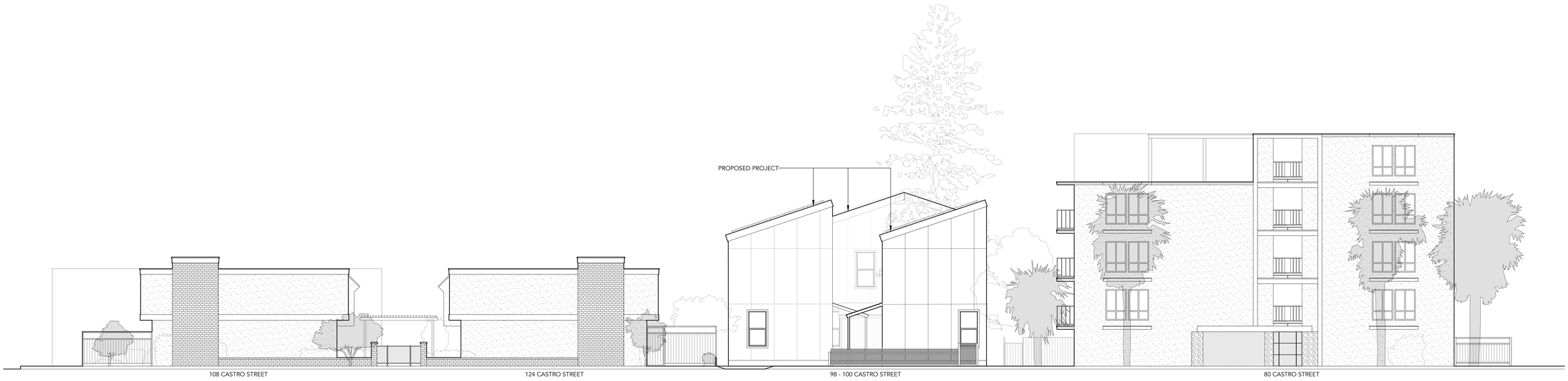
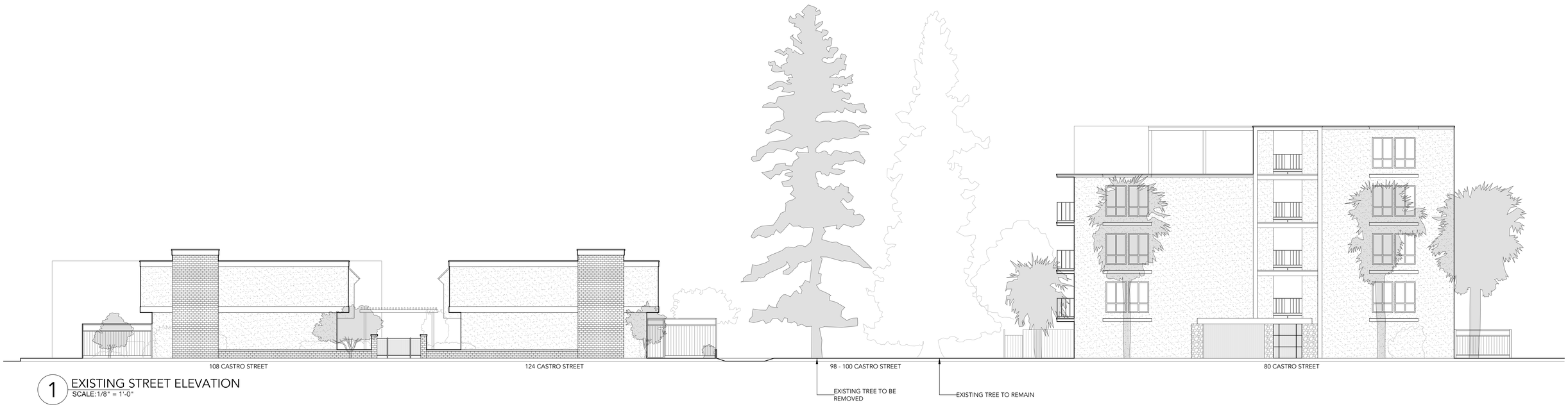
REV 1:	-	REV 3:	-
REV 2:	-	REV 4:	-

A201



2 PROPOSED STREET ELEVATION
SCALE: 1/8" = 1'-0"



1 EXISTING STREET ELEVATION
SCALE: 1/8" = 1'-0"

LICENSED ARCHITECT
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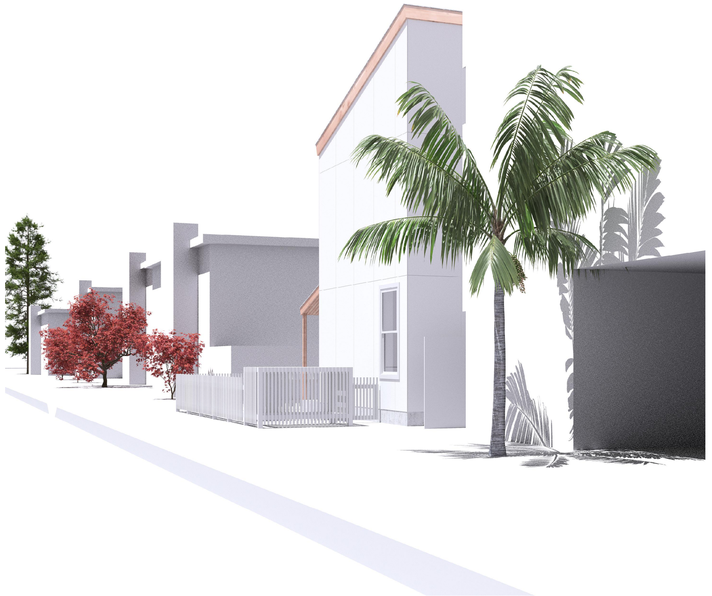
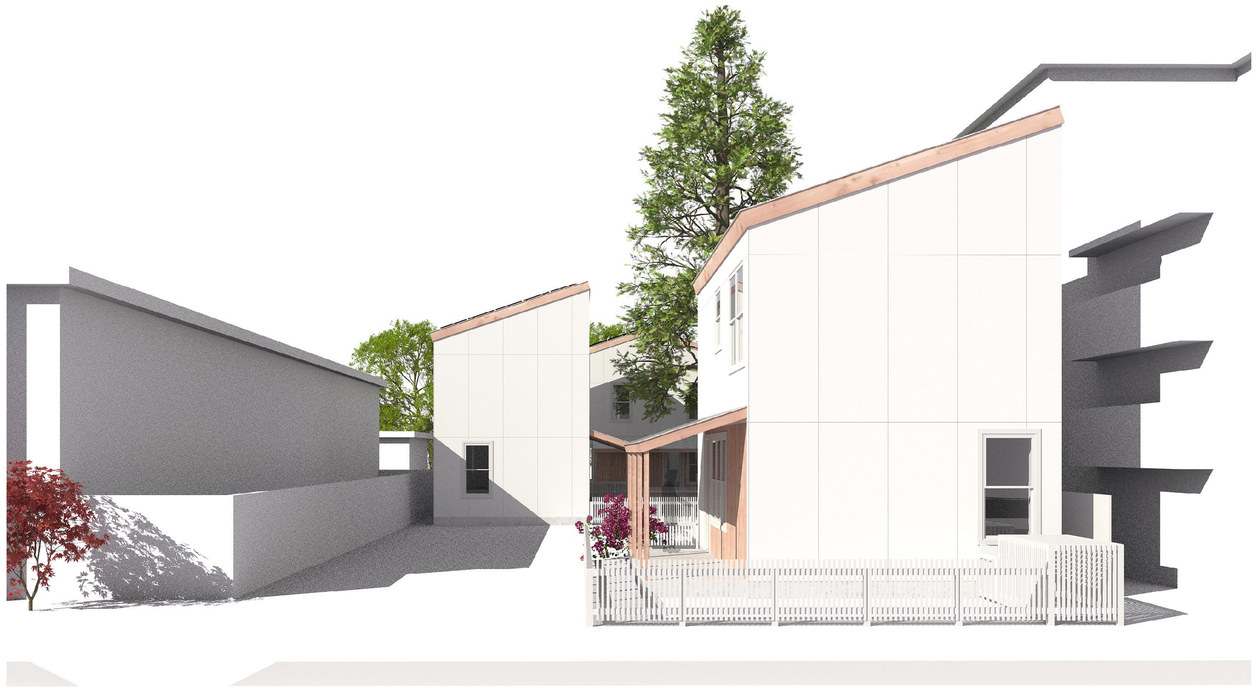
STREET ELEVATION

DATE:	29 FEBRUARY 2024	ISSUED:	FOR REVIEW
REV 1:	-	REV 3:	-
REV 2:	-	REV 4:	-

A210



STREET CONTEXT VIEW



STREET ELEVATION VIEW

PARCELS 2 & 3

LICENSED ARCHITECT
JASMIT SINGH RANGR
C-37954
31 OCT 2025
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HABITAT
98-100 CASTRO STREET, SAN LEANDRO, CA 94577
PROJECT APN #: 077-0550-011

RENDERINGS

DATE:	29 FEBRUARY 2024	ISSUED:	FOR REVIEW
REV 1:	-	REV 3:	-
REV 2:	-	REV 4:	-

A900

490: PURPOSE

PROMOTE THE NUMEROUS ENVIRONMENTAL, SOCIAL AND ECONOMIC BENEFITS OF LANDSCAPE THROUGH SUSTAINABLE PRACTICES AND THE EFFICIENT USE OF WATER.

491: DEFINITIONS

(aa) "HYDROZONE" MEANS A PORTION OF THE LANDSCAPE AREA HAVING PLANTS WITH SIMILAR WATER NEEDS. WATER NEEDS VARY DEPENDING ON SOLAR EXPOSURE, SPECIES, ROOTING DEPTH AND SOIL.

(ii) "LANDSCAPE AREA" MEANS ALL THE PLANTING AREAS, TURF AREAS AND WATER FEATURES IN A LANDSCAPE DESIGN PLAN. IT DOES NOT INCLUDE FOOTPRINTS OF BUILDINGS OR STRUCTURES, SIDEWALKS, DRIVEWAYS, PARKING LOTS, DECKS, PATIOS, GRAVEL OR STONE WALKS, OTHER PERVIOUS OR NON-PERVIOUS HARDSCAPES AND OTHER NON-IRRIGATED AREAS DESIGNATED FOR NON-DEVELOPMENT.

(zzz) "TURF" MEANS A GROUND COVER SURFACE OF MOWED GRASS.

492.3: PROJECT INFORMATION

DATE: FEBRUARY 2024

PROJECT APPLICANT: HABITAT FOR HUMANITY

PROJECT ADDRESS: 98-100 CASTRO ST., SAN LEANDRO, CA

TOTAL LANDSCAPE AREA (SF): 1,624

TURF AREA (SF): 348

NON-TURF PLANT MATERIAL AREA (SF): 1,276

PROJECT TYPE: NEW 3 UNIT RESIDENTIAL
(NEW, REHABILITATED, PUBLIC, PRIVATE, CEMETERY, HOMEOWNER-INSTALLED)

WATER SUPPLY TYPE : POTABLE
(POTABLE/RECYCLED/WELL)

LOCAL WATER PURVEYOR: EBMUD

492.3: LANDSCAPE DOCUMENTATION PACKAGE

- MWELO DOCUMENTATION
- LANDSCAPE DESIGN PLAN
- IRRIGATION DESIGN PLAN
- GRADING DESIGN PLAN: SEE CIVIL PLANS

NOTE THAT THIS LIST IS FOR MWELO COMPLIANCE ONLY AND IS NOT THE SAME AS THE SHEET LIST IN THE PROJECT PLAN SET.

492.6: LANDSCAPE DESIGN PLAN

1. DESIGN THE LANDSCAPE TO MEET THE CRITERIA OF MWELO
2. SELECT PLANT MATERIAL WHICH CONSIDERS WATER USE, ENCOURAGES THE USE OF NATIVE SPECIES, AVOIDS INVASIVE SPECIES, ADDRESSES FIRE SAFETY AND IS SUITABLE TO THE MICROCLIMATE.
3. GROUP PLANTS IN HYDROZONES.
4. DELINEATE AND LABEL THE HYDROZONES ON THE LANDSCAPE DESIGN PLAN.
5. TURF DOES NOT EXCEED 25% OF THE TOTAL LANDSCAPE AREA

LAWN ALTERNATIVES:
1. THE LAWNS USE DROUGHT TOLERANT AND/OR NATIVE SPECIES. SUBSURFACE IRRIGATION IS USED. WATER USE IS SIGNIFICANTLY REDUCED RELATIVE TO TRADITIONAL LAWNS.
2. "LAWN" IDENTIFIED ON PLAN IS A NATIVE, MOW-FREE, SOD. THOUGH WUCOLS DOES NOT DISTINGUISH BETWEEN VARIOUS TURF SPECIES, THIS TURF WILL ACTUALLY BE A LOW WATER USE PLANT ONCE ESTABLISHED.

492.7: IRRIGATION DESIGN PLAN

1. THE DESIGN OF THE IRRIGATION SYSTEM CONFORMS TO THE HYDROZONES OF THE LANDSCAPE DESIGN PLAN.
2. THE SYSTEM IS DESIGNED TO REDUCE WATER USE TO THE MINIMUM AMOUNT TO SUSTAIN HEALTHY PLANT GROWTH AND TO PREVENT RUNOFF, LOW HEAD DRAINAGE AND OVERSPRAY.
3. BACKFLOW PROTECTION IS INSTALLED AT THE POINT OF CONNECTION.
4. A SEPARATE DEDICATED WATER METER OR SUBMETER IS PROVIDED.
5. A SMART CONTROLLER WITH NON-VOLATILE MEMORY AND UTILIZING EVAPOTRANSPIRATION OR SOIL MOISTURE DATA FOR SCHEDULING IS INSTALLED. WEATHER SENSORS ARE PROVIDED.
6. STATIC WATER PRESSURE AT THE POINT OF CONNECTION IS PROVIDED.
7. PRESSURE REGULATION IS PROVIDED.
8. A MASTER SHUT-OFF VALVE IS INSTALLED.
9. A FLOW SENSOR IS INSTALLED.
10. MANUAL SHUT-OFF VALVES ARE PROVIDED AS CLOSE AS POSSIBLE TO THE POINT OF CONNECTION.
11. SEPARATE VALVES ARE USED TO IRRIGATE EACH HYDROZONE.
12. TO AVOID RUNOFF AND OVERSPRAY OVERHEAD IRRIGATION IS NOT PERMITTED:
    A. IN AREAS LESS THAN 10 FEET WIDE
    B. WITHIN 24 INCHES OF ANY NON-PERMEABLE SURFACE
13. POST CONSTRUCTION REQUIREMENTS, INCLUDING AN AUDIT, ENSURE THAT THE SYSTEM MEETS THE DESIGN GOALS.

DIVERSION OF WASTE

50% OF LANDSCAPE CONSTRUCTION AND DEMOLITION WAST, BY WEIGHT, MUST BE DIVERTED FROM THE LANDFILL.

492.4: WATER EFFICIENT LANDSCAPE WORKSHEET

WATER EFFICIENT LANDSCAPE WORKSHEET

Castro

Reference Evapotranspiration (ET0) 41.8 PSI: not available on undeveloped site

ETWU: ESTIMATED TOTAL WATER USE=ETWU=ET0 X 0.62 X [((PF X HA) / IE) + SLA]

HYDROZONE	PLANTING DESCRIPTION	PLANT FACTOR	IRRIGATION METHOD	IRRIGATION EFFICIENCY (IE)	ETAF (PF/IE)	LANDSCAPE AREA (SF)	ETAF X AREA	INCHES / YEAR (IF REQ)	ETWU (GAL/YR)
Regular Landscape Areas									
1	Redwood Tree - existing	0.70	drip	0.81	0.86	172	148.64	7,189.60	3,852.21
2	trees & shrubs - shade	0.20	drip	0.81	0.25	690	170.37	28,842.00	4,415.32
3	no mow lawn - shade	0.40	drip	0.81	0.49	116	57.28	4,848.80	1,484.57
4	trees & shrubs - sun	0.20	drip	0.81	0.25	414	102.22	17,305.20	2,649.19
5	no mow lawn - sun	0.40	drip	0.81	0.49	232	114.57	9,697.60	2,969.14
SUBTOTAL					0.47	1,624		67,883.20	15,370.43
ETWU TOTAL								ETWU	15,370.43

MAWA: MAXIMUM ALLOWED WATER USE = (ET0)(0.62) [(ETAF X LA) + ((1-ETAF) X SLA)]

ET0	CONVERSION FACTOR	ETAF	ETAF X LA = D	1-ETAF X SLA = E	D+E				MAWA (GAL/YR)
41.80	0.62	0.55	893.20	0.00	893.20			MAWA	23,148.17
									ETWU COMPLIES WITH MAWA

ETWU AVERAGE ETAF MUST BE: RESIDENTIAL: < .55, NON-RESIDENTIAL: <.45
MAWA ETAF: RESIDENTIAL= 0.55, NON-RESIDENTIAL= 0.45
PLANT FACTOR: VL=0-0.1, L=0.2-0.3, M=0.4-0.6, H=0.7-1.0
IRRIGATION EFFICIENCY (IE): SPRAY=.75, DRIP=.81
MAX ALLOWED TURF AREA = 25% ACTUAL TURF AREA : 24%

MWELO WORKSHEET CALCULATIONS

THE CALCULATIONS IN THIS WORKSHEET WILL REQUIRE UPDATING ALONG WITH THE DEVELOPMENT OF THE PROJECT DESIGN.

492.7. (a)(2)(C) TREES

1. WHERE FEASIBLE (BUT NOT REQUIRED), TREES SHALL BE PLACED ON SEPARATE VALVES FROM SHRUBS, GROUNDCOVERS AND TURF.
2. AVOID BUBBLERS. THEY DO NOT FACILITATE THE APPROPRIATE IRRIGATION OF TREES. THEY ONLY PROVIDE WATER AT THE ROOT BALL WHICH WILL ENCOURAGE CIRCLING ROOTS AND PROMOTE CROWN ROT.
3. THE MATURE SIZE AND EXTENT OF THE ROOT ZONE SHALL BE CONSIDERED WHEN DESIGNING IRRIGATION FOR THE TREE.
4. APPROPRIATE TREE IRRIGATION MUST ENSURE THAT THE IRRIGATION DEVICE AND SCHEDULE PROVIDE THE BEST METHOD OF DELIVERING WATER TO THE ROOT ZONE AND WHICH EXPANDS AS IT GROWS.
5. PROVIDE DEEP AND INFREQUENT IRRIGATION

492.5: SOIL MANAGEMENT REPORT

1. PER MWELO SECTION 492.5 AND PER CHAPTER 4.16 OF THE CITY OF SAN LEANDRO ZONING CODE, A SOIL MANAGEMENT REPORT IS REQUIRED.
2. PER MWELO SECTION 492.5 (2)(B) SIGNIFICANT MASS GRADING IS PLANNED. WHEN SITE AND SOIL DISTURBANCE HAS ENDED, SUBMIT THIS REPORT AS PART OF THE CERTIFICATE OF COMPLETION.
3. NO SPECIAL AREAS OF QUALITY TOPSOIL TO BE PROTECTED DURING CONSTRUCTION ARE PRESENT.
4. NO CRITICAL SOIL LIMITATIONS (COMPACTION, WATER LOGGED SOILS OR WETLANDS, THIN, ERODED OREROSION PRONE SOILS) ARE PRESENT.
5. CONTRACTOR SHALL TEST SOIL AND PROVIDE SOIL ANALYSIS REPORT TO DESIGNER AND OWNER AFTER CONSTRUCTION IS COMPLETE AND BEFORE PLANTING IS INSTALLED.
6. CONDUCT SOIL SAMPLING IN ACCORDANCE WITH ALL LABORATORY PROTOCOLS.
7. THE SOIL TEST SHALL INCLUDE: SOIL TEXTURE, INFILTRATION RATE, PH, TOTAL SOLUBLE SALTS, SODIUM, ESSENTIAL NUTRIENTS, PERCENT ORGANIC MATTER AND RECOMMENDATIONS FOR ORGANIC AMENDMENTS AND COMPOST
8. SUBMIT SOIL TEST REPORT BY ACCREDITED SOILS LAB SOIL PLANT LAB. TAKE SAMPLES FROM A MINIMUM OF 3 LOCATIONS (FRONT, MIDDLE AND BACK) OF SITE. FOLLOW SAMPLING INSTRUCTIONS FROM LAB. REQUEST ORGANIC AMENDMENTS.

492.6 (a)(3) : SOIL PREPARATION, MULCH AND AMENDMENTS

1. SOIL AMENDMENTS: APPLY ACCORDING TO THE RECOMMENDATIONS OF THE SOIL REPORT AND WHAT IS APPROPRIATE FOR THE PLANTS SELECTED.
2. COMPOST: APPLY A MINIMUM OF FOUR CUBIC YARDS OF ORGANIC OMRI CERTIFIED COMPOST PER 1,000 SQUARE FEET OF PERMEABLE AREA.
3. SOIL PREPARATION:
   A. TOPDRESS PLANTING AREAS WITH A MINIMUM OF 6CY/1000 SF OF ORGANIC COMPOST TO THE ENTIRE PLANTING AREA.
   B. DO NOT TILL. TILLING DAMAGES SOIL STRUCTURE, RELEASES CARBON INTO THE ATMOSPHERE AND IMPACTS TREE ROOTS.
4. MOISTURE CONTENT: DO NOT WORK ON OR AROUND THE SOIL WHEN MOISTURE CONTENT IS SO GREAT THAT COMPACTION WILL OCCUR, NOR WHEN IT IS SO DRY THAT DUST WILL FORM, OR WHEN SOIL CLODS WILL NOT BREAK READILY. APPLY WATER IF NECESSARY TO BRING SOIL TO OPTIMUM MOISTURE CONTENT TO COMPLETE THE SPECIFIED WORK.
5. MULCH: APPLY A MINIMUM 3-INCH LAYER OF ORGANIC MULCH / ARBOR MULCH, ON ALL EXPOSED SOIL SURFACES FOR THE PURPOSE OF REDUCING EVAPORATION, SUPPRESSING WEEDS, MODERATING SOIL TEMPERATURE AND PREVENTING SOIL EROSION.
6. CONTRACTOR SHALL SUBMIT DOCUMENTATION VERIFYING IMPLEMENTATION OF SOIL ANALYSIS REPORT RECOMMENDATIONS TO THE LOCAL AGENCY WITH CERTIFICATE OF COMPLETION.

492.10: IRRIGATION SCHEDULING

DEVELOP SCHEDULING PARAMETERS TO CONSIDER:
1. FOR ZONES WITH DEEP ROOTED TREES SCHEDULE THE STATIONS TO RUN AT A LOW FREQUENCY AND LONG DURATION
2. FOR ZONES WITH MEDIUM ROOTED SHRUBS SCHEDULE THE STATIONS TO RUN AT A MEDIUM FREQUENCY AND MEDIUM DURATION .
3. FOR ZONES WITH SHALLOW ROOTED GROUNDCOVERS SCHEDULE THE STATIONS TO RUN AT A HIGH FREQUENCY AND SHORT DURATION.

490.1: APPLICABILITY

THIS PLAN SHEET IS FOR USE BY
1) NEW LANDSCAPES ≥ 500 SF. (IF BETWEEN 500 - 2,500 SF THE LOCAL AGENCY MAY ALLOW TO COMPLY WITH PRESCRIPTIVE MEASURES IN APPENDIX D.)
2) REHABILITATED LANDSCAPES ≥ 2,500 SF.

TITLE 24, PART 11, CALIFORNIA GREEN BUILDING CODE (CALGREEN)
https://codes.iccsafe.org/content/CAGBC2019JUL21S/cover

STATE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE:
https://water.ca.gov/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/Model-Water-Efficient-Landscape-Ordinance

PHASE 1: PRE-CONSTRUCTION SIGNATURES

REQUIRED AT BUILDING PERMIT PHASE

492.3: LANDSCAPE DOCUMENTATION PACKAGE

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

APPLICANT SIGNATURE DATE

492.6: LANDSCAPE DESIGN PLAN

I HAVE COMPLIED WITH THE CRITERIA OF CHAPTER 4.16 LANDSCAPE REQUIREMENTS OF THE ZONING CODE, INCLUDING ALL DESIGN STANDARDS AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN.

Mara Baldwin 02/29/23

SIGNATURE * DATE

*LICENSED LANDSCAPE ARCHITECT, LICENSED LANDSCAPE CONTRACTOR OR OTHER AUTHORIZED PERSON

492.7: IRRIGATION DESIGN PLAN

I HAVE COMPLIED WITH THE CRITERIA OF CHAPTER 4.16 LANDSCAPE REQUIREMENTS OF THE ZONING CODE, INCLUDING ALL DESIGN STANDARDS AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN.

Mara Baldwin 02/29/23

SIGNATURE * DATE

*LICENSED LANDSCAPE ARCHITECT, CERTIFIED IRRIGATION DESIGNER, LICENSED LANDSCAPE CONTRACTOR, OR OTHER PERSON AUTHORIZED TO DESIGN AN IRRIGATION SYSTEM

PHASE 2: POST-CONSTRUCTION SIGNATURES & ATTACHMENTS:

492.9 & APPENDIX C: CERTIFICATE OF COMPLETION

I CERTIFY THAT THE LANDSCAPE HAS BEEN INSTALLED PER THE APPROVED LANDSCAPE DOCUMENTATION PACKAGE.

SIGNATURE * DATE
*SIGNER OF THE LANDSCAPE DESIGN PLAN, THE SIGNER OF THE IRRIGATION DESIGN PLAN OR THE LICENSED LANDSCAPE CONTRACTOR

ATTACH APPENDIX C

492.10 & APPENDIX C PART 3: IRRIGATION SCHEDULING

ATTACH PARAMETERS FOR SETTING THE IRRIGATION SCHEDULE ON CONTROLLER.

492.11 & APPENDIX C PART 4: MAINTENANCE SCHEDULE

ATTACH SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE

492.12 & APPENDIX C PART 5: IRRIGATION AUDIT

LOCAL AGENCY OR THIRD PARTY CERTIFIED IRRIGATION AUDITOR SHALL PERFORM AUDIT. ATTACH LANDSCAPE IRRIGATION AUDIT REPORT.

492.5 & APPENDIX C PART 6: SOIL MANAGEMENT REPORT

ATTACH SOIL ANALYSIS REPORT

ATTACH DOCUMENTATION VERIFYING IMPLEMENTATION OF RECOMMENDATIONS FROM SOIL ANALYSIS REPOT

AGENCY STAMP

THIS SHEET IS FOR DOCUMENTATION OF THE STATE MANDATED WATER EFFICIENT LANDSCAPE REQUIREMENTS. THIS SHEET IS NOT FOR CONSTRUCTION. SEE THE FOLLOWING CONSTRUCTION DOCUMENTATION PLAN SHEETS, LEGEND, DETAILS AND SPECIFICATIONS

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LANDSCAPE ARCHITECTURE
panoramicdesigngroup@gmail.com

LICENSED LANDSCAPE ARCHITECT
MAURA BALDWIN
No. 5802
Signed 9/30/20
Renewal date
Date
STATE OF CALIFORNIA

CLIENT:

HABITAT FOR HUMANITY
EAST BAY SILICON VALLEY
2619 BROADWAY
OAKLAND, CA 94612
ATTN: LAJUAN RAMSEY

PROJECT:

CASTRO STREET
98-100 CASTRO ST.
SAN LEANDRO, CA 94577
APN #: 077-0550-011

SUBMITTAL:

12-18-23	PLANNING APPROVAL
2-29-24	RESPONSE TO COMMENTS

PRELIMINARY PLAN
NOT FOR BIDDING OR CONSTRUCTION

CALL BEFORE YOU DIG
811
NOTIFY UNDERGROUND SERVICE ALERT AT LEAST 48 HOURS IN ADVANCE OF EXCAVATING

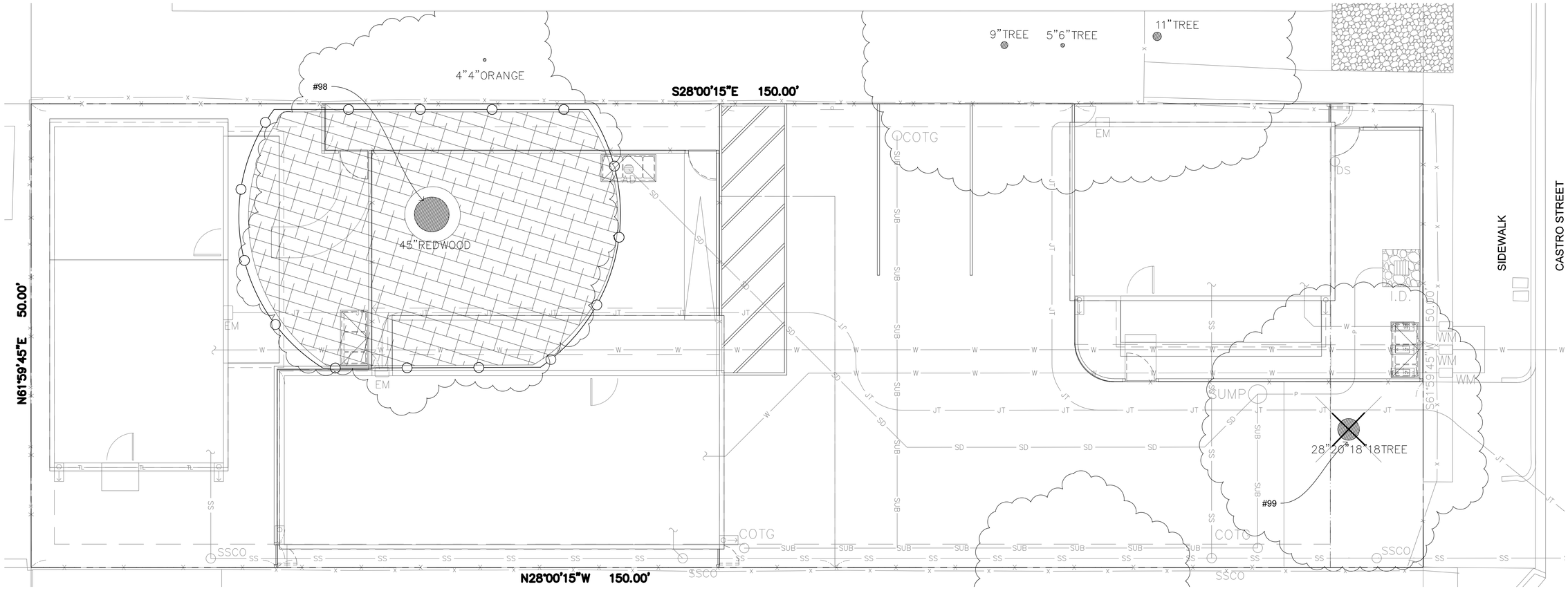
SHEET TITLE:

WATER EFFICIENT LANDSCAPE ORDINANCE DOCUMENTATION

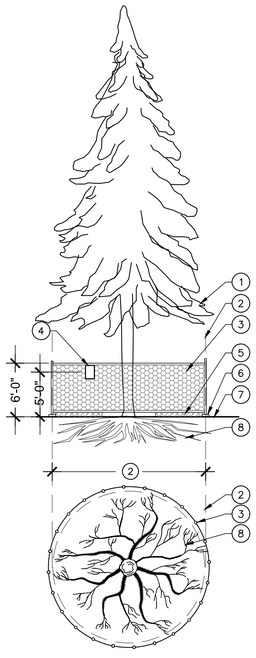
SHEET #:

L0.0

PLOT DATE: 240229



3/16" = 1'-0"



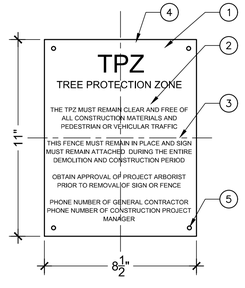
CROSS SECTION OF ROOT ZONE BELOW

1. TREE
2. DRIPLINE
3. CHAINLINK FENCING
4. TREE PROTECTION SIGN, SEE DETAIL
5. ARBOR MULCH
6. GRADE LEVEL RECTANGULAR METAL TUBING POST BASES
7. FINISH GRADE
8. ROOT ZONE BELOW, VARIES

BEST MANAGEMENT PRACTICES:

1. TREE ROOTS ARE INTERTWINED AND EXTEND FAR BEYOND DRIPLINE
2. COMPLY WITH ARBORICULTURAL BEST MANAGEMENT PRACTICES
3. VERIFY TREE LOCATIONS IN FIELD
4. INSTALL TREE PROTECTION PRIOR TO START OF ANY WORK ON SITE
5. PLACE FENCE WHERE SHOWN ON TREE PROTECTION PLAN. VERIFY LOCATION WITH PROJECT ARBORIST
6. PRUNE REDWOOD BRANCHES UP TO 10'
7. CHIP BRANCHES ON SITE AND RETAIN TO BE SPREAD AS ARBORMULCH IN TPZ
9. PROVIDE A 3-INCH DEPTH OF COMPOST OVER TPZ. SUBMIT SAMPLE TO PROJECT ARBORIST PRIOR TO INSTALLATION.
10. MAINTAIN A 6-INCH DEPTH OF ARBORMULCH OVER THE ENTIRE LANDSCAPE AREA FOR THE DURATION OF THE PROJECT. SUBMIT SAMPLE OF IMPORT ARBORMULCH TO PROJECT ARBORIST PRIOR TO INSTALLATION.
11. DO NOT USE GORILLA HAIR OR BARK MULCH.
10. ALLOW REDWOOD DUFF TO FALL FROM TREE AND REMAIN ON GROUND AS MULCH.
11. PREVENT ALL CONSTRUCTION ACTIVITIES AND PLACEMENT OF MATERIALS AND EQUIPMENT INSIDE FENCE
12. PREVENT ALL VEHICULAR AND PEDESTRIAN TRAFFIC INSIDE FENCE
13. INSPECT FENCE AND AREA INSIDE FENCE REGULARLY TO ENSURE COMPLIANCE WITH PROTECTION GUIDELINES
14. HAND DIG ALL AREAS OF EXCAVATION IN TPZ
15. OBTAIN APPROVAL OF PROJECT ARBORIST FOR CUTTING OF ROOTS OR BRANCHES LARGER THAN 2 INCH DIAMETER
16. PROJECT ARBORIST TO PERFORM REGULAR OBSERVATIONS OF TREES TO NOTE HEALTH & CONSTRUCTION IMPACTS
17. PROVIDE TEMPORARY IRRIGATION TO ALL TREES WITHIN THE FENCED AREA FOR THE DURATION OF THE PROJECT. PROVIDE WATERING SCHEDULE FOR OWNER'S REPRESENTATIVE REVIEW AND APPROVAL.
18. FENCE MAY BE ADJUSTED DURING CONSTRUCTION, WITH APPROVAL OF PROJECT ARBORIST.
19. TREE PROTECTION TO REMAIN IN PLACE UNTIL PROJECT COMPLETION, WITH APPROVAL OF PROJECT ARBORIST

1 TREE PROTECTION
SCALE: NTS



1. PROVIDE DURABLE WEATHER PROOF SIGN
2. PROVIDE TEXT IN ALL LANGUAGES COMMONLY SPOKEN ON SITE
3. PLACE HORIZONTAL CENTERLINE OF SIGNS AT 5' ABOVE GRADE
4. PROVIDE SIGNS AT CENTER OF EACH FENCE PANEL
5. SECURELY ATTACH SIGN TO TPZ FENCE

2 TREE PROTECTION ZONE SIGN
SCALE: 3"=1'-0"

TPR LEGEND	
SYMBOL	DESCRIPTION
•	(E) TREE TO REMAIN
×	(E) TREE TO BE REMOVED
○——○	TREE PROTECTION FENCING / LIMIT OF GRADING
TREE #	TREE CALLOUT. SEE SPECIES LEGEND.
	MULCH

EXISTING TREE LEGEND

TREE #	ABBRV	BOTANICAL NAME	COMMON NAME	DBH (INCHES)	CONDITION	DISPOSITION
#98	SEQ	SEQUOIA SEMPERVIRENS	COAST REDWOOD	54	GOOD	REMAIN
#99	CED	CEDRUS DEODARA	DEODAR CEDAR	16,16,17,25	GOOD	REMOVE
NO OTHER TREES FOUND ON SITE DRIPLINE IS AS SHOWN ON SURVEY						

TREE REMOVAL

1. CEDAR TO BE REMOVED FOR DEVELOPMENT.
2. CUT FLUSH TO GRADE. DO NOT GRIND OR REMOVE STUMP. IT PROVIDES IMPORTANT EROSION CONTROL, STORMWATER ABSORPTION AND SOIL NUTRIENTS AS IT DECOMPOSES.
3. CEDAR TO BE CHIPPED ON SITE. CHIPS TO BE STORED ONSITE OR SPREAD OVER ENTIRE SITE TO A DEPTH OF 1 FOOT TO REDUCE SOIL COMPACTION AND TO PROTECT REDWOOD TREE ROOTS WHICH COVER THE ENTIRE SITE.

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LICENSED LANDSCAPE ARCHITECT
LAURA BALDWIN
No. 5802
Renewal 9/30/26
Date
STATE OF CALIFORNIA

CLIENT:

HABITAT FOR HUMANITY
EAST BAY SILICON VALLEY
2619 BROADWAY
OAKLAND, CA 94612
ATTN: LAJUAN RAMSEY

PROJECT:

CASTRO STREET
98-100 CASTRO ST.
SAN LEANDRO, CA 94577
APN #: 077-0550-011

SUBMITTAL:

12-18-23	PLANNING APPROVAL
2-29-24	RESPONSE TO COMMENTS

PRELIMINARY PLAN
NOT FOR BIDDING OR CONSTRUCTION

CALL BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
811
NOTIFY UNDERGROUND SERVICE ALERT AT LEAST 48 HOURS IN ADVANCE OF EXCAVATING

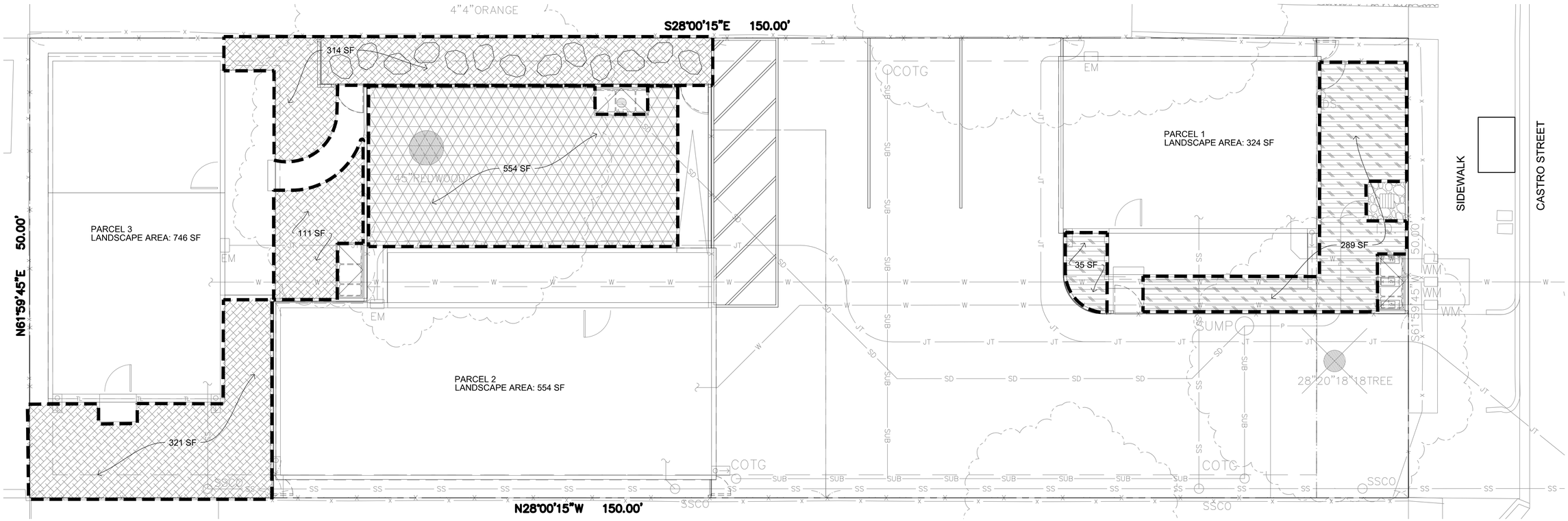
SHEET TITLE:

TREE PROTECTION & REMOVAL PLAN

SHEET #:

L1.0

PLOT DATE: 240229



3/16" = 1'-0"

LANDSCAPE AREA TABLE		
PARCEL	SYMBOL	AREA (SF)
1		324
2		554
3		746
TOTAL		1624

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No. 5802
Signed
9/30/26
Renewal date
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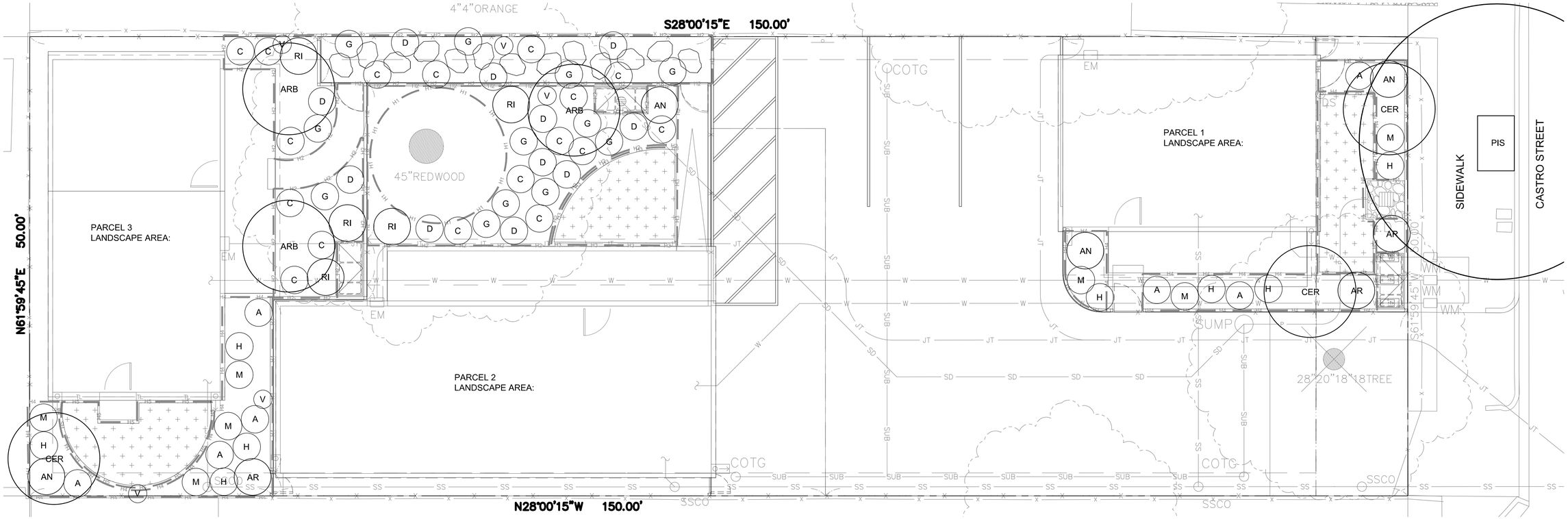
SHEET TITLE:

LANDSCAPE SITE PLAN
AREA CALCS PER PARCEL

SHEET #:

L2.0

PLOT DATE: 240229



3/16" = 1'-0"

HYDROZONE TABLE

H1 HYDROZONE AREA

HYDROZONE #	PLANT TYPE	AREA (SF)	SOLAR EXPOSURE	WUCOLS WATER USE	ROOTING DEPTH
H1	REDWOOD TREE	172	SOUTH - SUN	HIGH	DEEP
H2	SHRUBS	690	NORTH - SHADE	LOW	MODERATE
H3	LAWN - NATIVE, NO MOW	116	NORTH - SHADE	LOW	SHALLOW
H4	TREES & SHRUBS	414	SOUTH - SUN	LOW	DEEP
H5	LAWN - NATIVE, NO MOW	232	SOUTH - SUN	LOW	SHALLOW
TOTAL		1624			

TREES TO BE IRRIGATED WITH SEPARATE DEDICATED VALVES

SITE LEGEND

SYMBOL	ITEM	MATERIAL
SITE ELEMENTS		
	STEPPING STONES	3" THICK NAPA BASALT OR SIMILAR

PLANT LEGEND

ABBREVIATION	BOTANICAL NAME	COMMON NAME	HXW (FT)	CONTAINER SIZE	WATER USE	NATIVE	QUANTITY
STREET TREE							
PIS	PISTACIA CHINENSE	CHINESE PISTACHE	30X30	24 INCH BOX	LOW		1
ACCENT TREE							
CER	CERCIS OCCIDENTALIS	WESTERN REDBUD	10X10	15 GAL	VERY LOW	X	3
ARB	ARBUTUS UNEDO	STRAWBERRY TREE	10X10	15 GAL	LOW		3
MEDIUM SHRUBS							
RI	RIBES AUREUM	GOLDEN CURRANT	4X4	5 GAL	LOW	X	5
AN	ANIGOZANTHOS FLAVIDUS	KANGAROO PAW	4X3	5 GAL	LOW		4
AR	ARCTOSTAPHYLOS SPP	MANZANITA	4X4	5 GAL	LOW	X	3
SMALL SHRUBS							
A	ACHILLEA 'SALMON BEAUTY'	SALMON BEAUTY YARROW	2X3	1 GAL	LOW	X	7
C	CAREX TUMULICOLA	BERKELEY SEDGE	2X3	1 GAL	LOW	X	17

PLANT LEGEND

ABBREVIATION	BOTANICAL NAME	COMMON NAME	HXW (FT)	CONTAINER SIZE	WATER USE	NATIVE	QUANTITY
D	DIPLACUS (MIMULUS) 'JELLY BEAN LEMON'	LEMON MONKEY FLOWER	2X3	1 GAL	LOW	X	11
G	GERANIUM BIOKOVO	PINK CRANESBILL	1X3	1 GAL	LOW		12
H	HELICTOTRICHON SEMPERVIRENS	BLUE OAT GRASS	3X3	1 GAL	LOW		8
M	MONARDELLA VISCOSA	COYOTE MINT	2X3	1 GAL	LOW	X	7
VINES							
V	VITIS CALIFORNICA 'ROGERS RED'	CALIFORNIA GRAPE	15X15	1 GAL	LOW	X	5
GROUNDCOVERS							
	AGROSTIS PALENS	BENTGRASS	6" X SPREADING	SOD	LOW	X	
NCN: NO COMMON NAME							
WATER USE: WUCOLS (WATER USE CLASSIFICATION OF LANDSCAPE SPECIES, UCDAVIS)							
SYMBOLS IN LEGEND MAY NOT BE TO SCALE							

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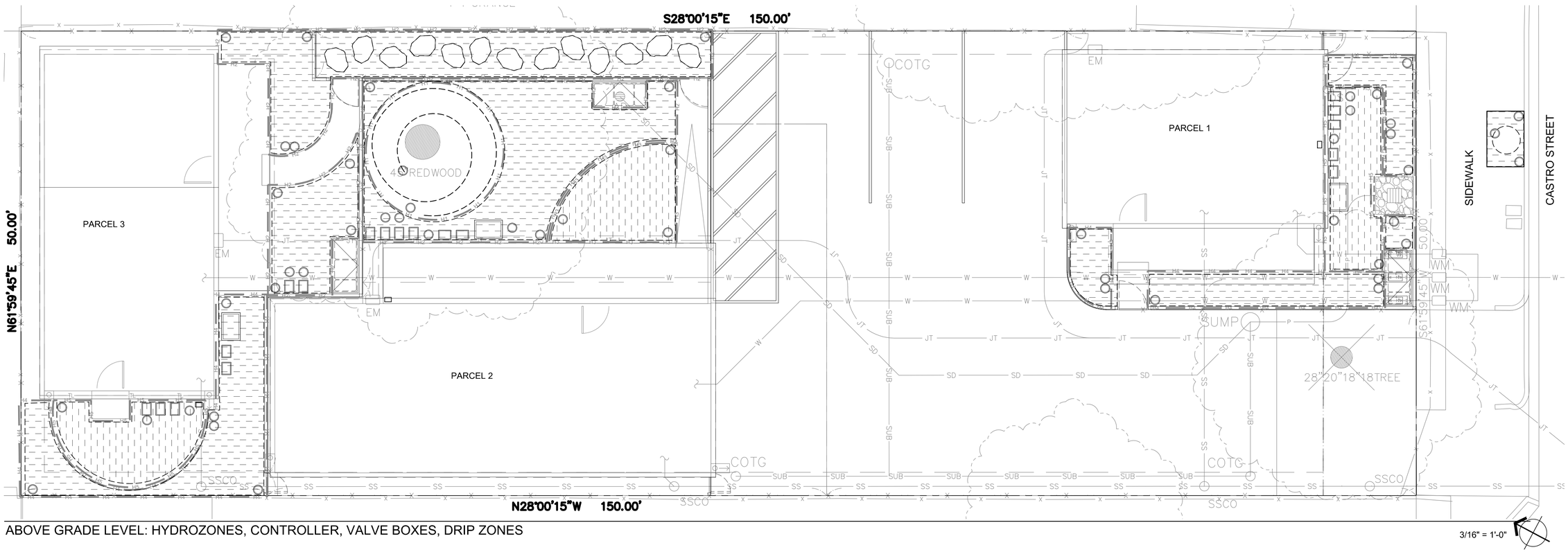
SHEET TITLE:

LANDSCAPE PLAN

SHEET #:

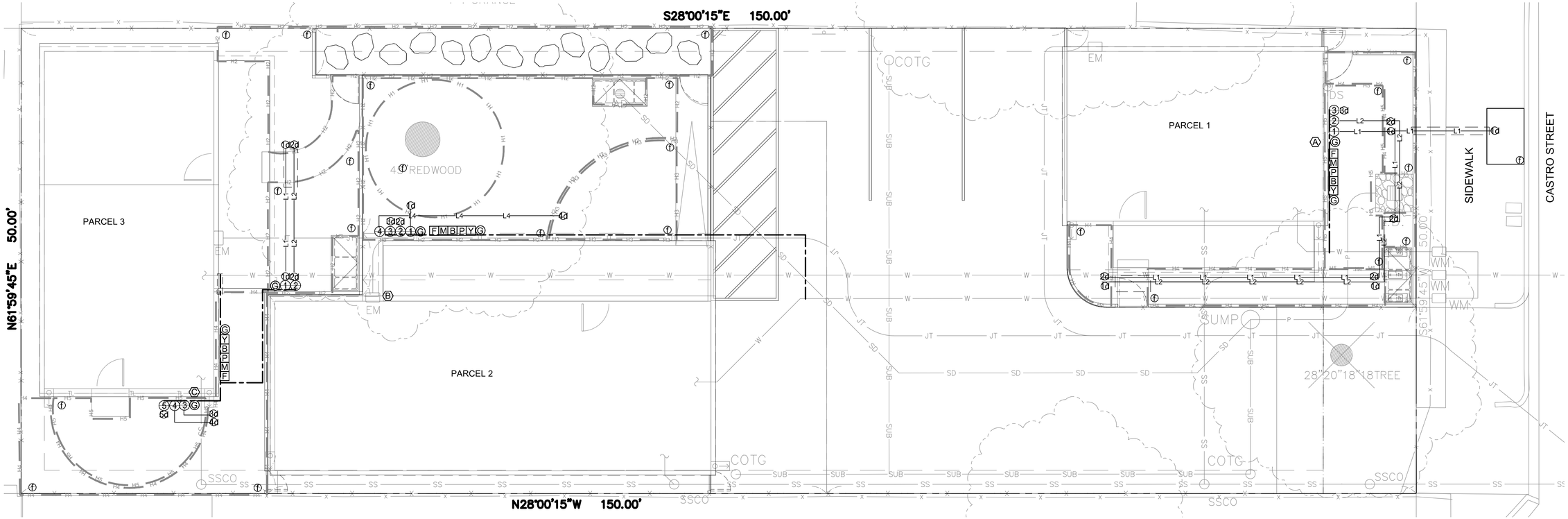
L2.1

PLOT DATE: 240229



ABOVE GRADE LEVEL: HYDROZONES, CONTROLLER, VALVE BOXES, DRIP ZONES

3/16" = 1'-0"



BELOW GRADE: HYDROZONES, POC EQUIPMENT, VALVES, PIPING, SLEEVES, DRIP TRANSITIONS, FLUSHOUTS

3/16" = 1'-0"

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12-18-23	PLANNING APPROVAL
2-29-24	RESPONSE TO COMMENTS

PRELIMINARY PLAN
NOT FOR BIDDING OR CONSTRUCTION

CALL BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
811
NOTIFY UNDERGROUND SERVICE ALERT AT LEAST 48 HOURS IN ADVANCE OF EXCAVATING

SHEET TITLE:

IRRIGATION PLAN

SHEET #:

L3.0

PLOT DATE: 240229

IRRIGATION LEGEND

SYMBOL	COMPONENT	MANUFACTURER	MODEL	NOTES / SIZE / MATERIAL / COLOR
PSI	NOT YET AVAILABLE, UNDEVELOPED SITE			AT POC, VERIFY IN FIELD
WEATHER BASED CONTROLLER - MWELO REQURED:				
Ⓐ	CONTROLLER	HUNTER	PRO-HC	6 STATIONS
	FLOW SENSOR / SUBMETER		HC-FLOW METER	
	SENSOR		RAIN-CLIK	
	ENCLOSURE			PLASTIC OUTDOOR WALL MOUNT
EQUIPMENT AT THE POINT OF CONNECTION - MWELO REQUIRED:				
Ⓗ	HOSE BIBB	WATTS	SC8-2	3/4", TO BE INSTALLED BY PLUMBER
Ⓖ	GATE VALVE	NIBCO	T-113	LEAD FREE LINE SIZE
Ⓨ	Y-STRAINER	WILKINS	SXL	LEAD FREE LINE SIZE
Ⓑ	BACKFLOW PREVENTER			
Ⓟ	PRESSURE REGULATOR	WATTS	LFN	LEAD FREE LINE SIZE
Ⓜ	MASTER VALVE	BUCKNER	3200	LEAD FREE LINE SIZE
Ⓕ	FLOW SENSOR / SUBMETER	HUNTER	HC-FLOW METER	LEAD FREE LINE SIZE
PIPE				
═ ═	SLEEVE			NOT USED
——M1——	MAINLINE (N)			SCH 40 PVC
——L——	LATERAL PIPE			SCH 40 PVC
——h——	HEADER PIPE			BLANK TUBING
——f——	FOOTER PIPE			BLANK TUBING
DRIP IRRIGATION ZONE TO INCLUDE:				
ⓗ	DRIP VALVE ASSEMBLY	HUNTER	ICZ LF DRIP CONTROL ZONE KIT WITH ICV REMOTE CONTROL VALVE, UNIONS AND ISOLATION VALVE	1" (MAX 20 GPM)
#d	TRANSITION TO DRIP ZONE	CUSTOM		WITH VALVE ZONE #. SEE DETAIL
ⓕ	DRIP FLUSHOUT	CUSTOM		SEE DETAIL
○□	VALVE BOXES			BLACK
IRRIGATION METHOD:				
	TREE & SHRUBS	NETAFIM		0.6 GPH EMITTERS. EMITTER SPACING: 12 INCHES ROW SPACING: 12 INCHES ROTATION VARIES
	LAWN	NETAFIM		0.6 GPH EMITTERS. EMITTER SPACING: 12 INCHES ROW SPACING: 12 INCHES ROTATION VARIES
NOTE: ALL EQUIPMENT AND PIPING TO BE 1"				
NOTE: TREE AND SHRUB VALVES SHARE THE SAME DRIP GRIDS BUT USE DIFFERENT PROGRAMS & SCHEDULES TO PROVIDE APPROPRIATE AMOUNTS OF WATER				

VALVE LEGEND

CONTROL - LER	VALVE #	PLANT TYPE	HYDRO - ZONE	AREA (SF)	GPM	SIZE
A	1	TREES (STREET & SITE)	H1	208	2.08	1"
	2	SHRUBS	H4	208	2.08	1"
	3	LAWN - NATIVE, NO MOW - SUN	H5	116	1.16	1"
B	1	REDWOOD TREE - EXST	H1	172	1.72	1"
	2	TREES	H4	266	2.66	1"
	3	SHRUBS	H4	266	2.66	1"
	4	LAWN - NATIVE, NO MOW - SUN	H5	116	1.16	1"
C	1	TREES - SHADE	H4	424	4.24	1"
	2	SHRUBS - SHADE	H4	424	5.24	1"
	3	TREES - SUN	H5	206	2.06	1"
	4	SHRUBS - SUN	H4	206	2.06	1"
	5	LAWN - NATIVE, NO MOW - SUN	H5	116	1.16	1"

NOTES:
1. VALVE ZONES MAY NOT BE THE SAME AS HYDROZONES. A HYDROZONE MAY BE SPLIT UP INTO MORE THAN ONE VALVE ZONE.
2. TREE AND SHRUB VALVES SHARE THE SAME DRIP GRIDS BUT USE DIFFERENT PROGRAMS & SCHEDULES TO PROVIDE APPROPRIATE AMOUNTS OF WATER

IRRIGATION SCHEDULES

IRRIGATION SCHEDULE			PROJECT: CASTRO		PLANT ESTABLISHMENT PERIOD (PEP)					
ANNUAL ET0:	41.8		IE or DU	0.85	WEEKLY ET0 (JULY)	1.40				
STATION / VALVE #	AREA (SF)	GPM	PEP PLANT WATER USE FACTOR (WUCOLS)	APPLICATION RATE / PRECIPITATION RATE (INCHES/HOUR)	WEEKLY RUN TIME (MINUTES)	DAYS PER WEEK	MINUTES PER DAY	HOURS PER WATERING DAY	GALS PER WATERING DAY	
CONTROLLER A										
1	208	2.08	0.80	0.96	82.35	3.00	27.45		57.10	
2	208	2.08	0.80	0.96	82.35	3.00	27.45		57.10	
3	116	1.16	0.80	0.96	82.35	3.00	27.45		31.84	
SUBTOTAL		5.32					82.35	1.37		146.04
CONTROLLER B										
1	172	1.72	0.80	0.96	82.35	3.00	27.45		47.22	
2	266	2.66	0.80	0.96	82.35	3.00	27.45		73.02	
3	266	2.66	0.80	0.96	82.35	3.00	27.45		73.02	
4	116	1.16	0.80	0.96	82.35	3.00	27.45		31.84	
SUBTOTAL		8.20					109.80	1.83		225.10
CONTROLLER C										
1	424	4.24	0.80	0.96	82.35	3.00	27.45		116.39	
2	424	4.24	0.80	0.96	82.35	3.00	27.45		116.39	
3	296	2.06	0.80	0.96	82.35	3.00	27.45		56.55	
4	206	2.06	0.80	0.96	82.35	3.00	27.45		56.55	
5	116	1.16	0.80	0.96	82.35	3.00	27.45		31.84	
SUBTOTAL		13.76					137.25	2.29		377.73
TOTALS								5.49		748.86

IRRIGATION SCHEDULE			PROJECT: CASTRO		FALL					
ANNUAL ET0:	41.8		IE or DU	0.85	WEEKLY ET0 (OCT)	0.69				
STATION / VALVE #	AREA (SF)	GPM	PEP PLANT WATER USE FACTOR (WUCOLS)	APPLICATION RATE / PRECIPITATION RATE (INCHES/HOUR)	WEEKLY RUN TIME (MINUTES)	DAYS PER WEEK	MINUTES PER DAY	HOURS PER WATERING DAY	GALS PER WATERING DAY	
CONTROLLER A										
1	208	2.08	0.20	0.96	10.15	3.00	3.38		7.04	
2	208	2.08	0.20	0.96	10.15	3.00	3.38		7.04	
3	116	1.16	0.80	0.96	40.59	3.00	13.53		15.69	
SUBTOTAL		5.32					20.29	0.34		29.76
CONTROLLER B										
1	172	1.72	0.70	0.96	35.51	3.00	11.84		20.36	
2	266	2.66	0.20	0.96	10.15	3.00	3.38		9.00	
3	266	2.66	0.20	0.96	10.15	3.00	3.38		9.00	
4	116	1.16	0.80	0.96	40.59	3.00	13.53		15.69	
SUBTOTAL		8.20					32.13	0.54		54.05
CONTROLLER C										
1	424	4.24	0.20	0.96	10.15	3.00	3.38		14.34	
2	424	4.24	0.20	0.96	10.15	3.00	3.38		14.34	
3	296	2.06	0.20	0.96	10.15	3.00	3.38		6.97	
4	206	2.06	0.20	0.96	10.15	3.00	3.38		6.97	
5	116	1.16	0.80	0.96	40.59	3.00	13.53		15.69	
SUBTOTAL		13.76					27.06	0.45		58.31
TOTALS								1.32		142.13

IRRIGATION SCHEDULE			PROJECT: CASTRO		SPRING					
ANNUAL ET0:	41.8		IE or DU	0.85	WEEKLY ET0 (MAR)	0.63				
STATION / VALVE #	AREA (SF)	GPM	PEP PLANT WATER USE FACTOR (WUCOLS)	APPLICATION RATE / PRECIPITATION RATE (INCHES/HOUR)	WEEKLY RUN TIME (MINUTES)	DAYS PER WEEK	MINUTES PER DAY	HOURS PER WATERING DAY	GALS PER WATERING DAY	
CONTROLLER A										
1	208	2.08	0.20	0.96	9.26	3.00	3.09		6.42	
2	208	2.08	0.20	0.96	9.26	3.00	3.09		6.42	
3	116	1.16	0.80	0.96	37.06	3.00	12.35		14.33	
SUBTOTAL		5.32					18.53	0.31		27.18
CONTROLLER B										
1	172	1.72	0.70	0.96	32.43	3.00	10.81		18.59	
2	266	2.66	0.20	0.96	9.26	3.00	3.09		8.21	
3	266	2.66	0.20	0.96	9.26	3.00	3.09		8.21	
4	116	1.16	0.40	0.96	18.53	3.00	6.18		7.16	
SUBTOTAL		8.20					23.16	0.39		42.19
CONTROLLER C										
1	424	4.24	0.20	0.96	9.26	3.00	3.09		13.09	
2	424	4.24	0.20	0.96	9.26	3.00	3.09		13.09	
3	296	2.06	0.20	0.96	9.26	3.00	3.09		6.36	
4	206	2.06	0.20	0.96	9.26	3.00	3.09		6.36	
5	116	1.16	0.40	0.96	18.53	3.00	6.18		7.16	
SUBTOTAL		13.76					18.53	0.31		46.08
TOTALS								1.00		115.44

IRRIGATION SCHEDULE			PROJECT: CASTRO		SUMMER					
ANNUAL ET0:	41.8		IE or DU	0.85	WEEKLY ET0 (JULY)	1.40				
STATION / VALVE #	AREA (SF)	GPM	PEP PLANT WATER USE FACTOR (WUCOLS)	APPLICATION RATE / PRECIPITATION RATE (INCHES/HOUR)	WEEKLY RUN TIME (MINUTES)	DAYS PER WEEK	MINUTES PER DAY	HOURS PER WATERING DAY	GALS PER WATERING DAY	
CONTROLLER A										
1	208	2.08	0.20	0.96	20.59	3.00	6.86		14.27	
2	208	2.08	0.20	0.96	20.59	3.00	6.86		14.27	
3	116	1.16	0.80	0.96	82.35	3.00	27.45		31.84	
SUBTOTAL		5.32					41.18	0.69		60.39
CONTROLLER B										
1	172	1.72	0.70	0.96	72.06	3.00	24.02		41.31	
2	266	2.66	0.20	0.96	20.59	3.00	6.86		18.25	
3	266	2.66	0.20	0.96	20.59	3.00	6.86		18.25	
4	116	1.16	0.80	0.96	82.35	3.00	27.45		31.84	
SUBTOTAL		8.20					65.20	1.09		109.67
CONTROLLER C										
1	424	4.24	0.20	0.96	20.59	3.00	6.86		29.10	
2	424	4.24	0.20	0.96	20.59	3.00	6.86		29.10	
3	296	2.06	0.20	0.96	20.59	3.00	6.86		14.14	
4	206	2.06	0.20	0.96	20.59	3.00	6.86		14.14	
5	116	1.16	0.80	0.96	82.35	3.00	27.45		31.84	
SUBTOTAL		13.76					54.90	0.92		118.31
TOTALS								2.69		288.37

IRRIGATION SCHEDULE			PROJECT: CASTRO		WINTER					
ANNUAL ET0:	41.8		IE or DU	0.85	WEEKLY ET0 (JAN)	0.34				
STATION / VALVE #	AREA (SF)	GPM	PEP PLANT WATER USE FACTOR (WUCOLS)	APPLICATION RATE / PRECIPITATION RATE (INCHES/HOUR)	WEEKLY RUN TIME (MINUTES)	DAYS PER WEEK	MINUTES PER DAY	HOURS PER WATERING DAY	GALS PER WATERING DAY	
CONTROLLER A										
1	208	2.08	0.20	0.96	5.00	3.00	1.67		3.47	
2	208	2.08	0.20	0.96	5.00	3.00	1.67		3.47	
3	116	1.16	0.80	0.96	20.00	3.00	6.67		7.73	
SUBTOTAL		5.32					10.00	0.17		14.67
CONTROLLER B										
1	172	1.72	0.70	0.96	17.50	3.00	5.83		10.03	
2	266	2.66	0.20	0.96	5.00	3.00	1.67		4.43	
3	266	2.66	0.20	0.96	5.00	3.00	1.67		4.43	
4	116	1.16	0.80	0.96	20.00	3.00	6.67		7.73	
SUBTOTAL		8.20					15.83	0.26		26.63
CONTROLLER C										
1	424	4.24	0.20	0.96	5.00	3.00	1.67		7.07	
2	424	4.24	0.20	0.96	5.00	3.00	1.67		7.07	
3	296	2.06	0.20	0.96	5.00	3.00	1.67		3.43	
4	206	2.06	0.20	0.96	5.00	3.00	1.67		3.43	
5	116	1.16	0.80	0.96	20.00	3.00	6.67		7.73	
SUBTOTAL		13.76					13.33	0.22		28.73
TOTALS								0.65		70.03

WATER MANAGEMENT PLAN

1. EXISTING SITE CONDITIONS: THE SITE IS FLAT, WITH SOUTHERLY SOLAR EXPOSURE. IT IS SURROUND BY BUILDINGS WHICH HELP TO SHELTER IT FROM WIND, BUT WHICH REDUCE SOLAR EXPOSURE.
2. ANNUAL PRECIPITATION RATES: AVERAGE ANNUAL PRECIPITATION IS 21 INCHES. THE RAINY SEASON IS ROUGHLY OCTOBER THROUGH MID-MAY. THE DRY SEASON IS ROUGHLY FROM MID-MAY THROUGH SEPTEMBER.
3. ANTICIPATED WATER REQUIREMENTS IN INCHES FOR EACH HYDROZONE:

IRRIGATION MAINTENANCE PLAN

1. MONITOR THE WATER USE OF THE LANDSCAPE TO ENSURE THAT IT COMPLIES WITH ETWU.
2. REVIEW CONTROLLER PROGRAMS AND MAKE ADJUSTMENTS AS NEEDED.
3. RUN EACH STATION AND INSPECT FOR RUNOFF, COVERAGE, LEAKS, WEAR AND TEAR.
4. MAKE ADJUSTMENTS AND REPAIRS TO RESTORE FULL FUNCTIONALITY AND EFFICIENCY.
5. REPLACEMENT OF EQUIPMENT TO USE NEW AND ORIGINAL MANUFACTURER PRODUCTS ONLY.
6. ENSURE THAT ALL DRIP LINES ARE COVERED WITH 3 INCHES OF ARBORMULCH. DO NOT ALLOW ANY DRIPLINES TO BE EXPOSED TO UV RADIATION.
7. DO NOT AERATE OR DETHATCH. THIS PRACTICE WILL PUNCTURE DRIPLINES.

P D G
PANORAMIC DESIGN GROUP
LANDSCAPE ARCHITECTURE
panoramicdesigngroup@gmail.com

LICENSED LANDSCAPE ARCHITECT
MAURA BALDWIN
No. 5802
Signature
9/30/26
Date
STATE OF CALIFORNIA

CLIENT:

HABITAT FOR HUMANITY
EAST BAY SILICON VALLEY
2619 BROADWAY
OAKLAND, CA 94612
ATTN: LAJUAN RAMSEY

PROJECT:

CASTRO STREET
98-100 CASTRO ST.
SAN LEANDRO, CA 94577
APN #: 077-0550-011

SUBMITTAL:

12-18-23	PLANNING APPROVAL
2-29-24	RESPONSE TO COMMENTS

PRELIMINARY PLAN
NOT FOR BIDDING OR CONSTRUCTION

CALL BEFORE YOU DIG
811
UNDERGROUND SERVICE ALERT
NOTIFY UNDERGROUND SERVICE ALERT AT LEAST 48 HOURS IN ADVANCE OF EXCAVATING

SHEET TITLE:

IRRIGATION LEGEND, NOTES, SCHEDULES

SHEET #:

L3.1

PLOT DATE: 240229