

739 SUTTER AVENUE

BY GE SUN

PALO ALTO, CA

STREAMLINED HOUSING DEVELOPMENT REVIEW SET - RESUBMITTAL 3



NOTE: Landscape shown for graphical representation only. See landscape drawings for more information on sizing, spacing, and landscape details.



739 SUTTER AVENUE

PALO ALTO, CA

SB330 / STREAMLINED HOUSING DEVELOPMENT REVIEW SET

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PROJECT DATA:

DEVELOPMENT SUMMARY		
Site APN	127-35-200	
GP Designation	Multi-Family	
Zoning	RM-20	
Site Area (Gross)	0.38	acres
Site Area (Net - Excludes proposed private street area)	0.30	acres
	Standard	Proposed
Density per GP	40 du max	31.3 du
Density	20 du max	
Total Number of Units	15.3 du max	12 du
	Base Units	8 du
Affordable % (@ Low Affordability)		25% (2 of 8 units)
	Bonus Units	4 du
Lot Area (Gross)	8,500	16,707 sf
Lot Area (Net)		13,093 sf
Lot Width	70 ft	133 ft
Lot Depth	100 ft	125 ft
Site Coverage	5,847 sf max	8,294 sf
	35% max	50%
FAR (per Zoning Ordinance)	1.25 max	1.4
Floor Area	16,366 sf max	18,239 sf
Building Height	30 ft max	36'-6" ft
Setbacks - Front Yard	20 ft	10 ft bldg
		5 ft porch
Setbacks - Interior Side Yard	10 ft	4.6 ft min
Side Daylight Plane Requirements	10' initial height + 45 degree angle	10' initial height + 82 degree angle
Setbacks - Interior Rear Yard	10 ft	12 ft
Rear Daylight Plane Requirements	10' initial height + 45 degree angle	10' initial height + 45 degree angle
Landscape / Open Space Coverage	35% min	36%
	5,847 sf min	6,074 sf
	landscaping area	2,278 sf total
Usable Open Space	150 sf / unit	316 sf / unit
	1,800 sf total	3,796 sf total
	common open space	75 sf / unit
		1,528 sf total
	private open space	50 sf / unit min
		91 sf / unit min
	600 sf total	2,268 sf total
Parking Summary per Zoning	Standard	Proposed
Total Parking	24 stalls min	24 stalls
	2 stalls / unit	2 stalls / unit
Max Tandem Percentage	25% max	58%
Long Term Bike Parking	1 stalls / unit	1 stalls / unit
Short Term Bike Parking	1 stall / 10 units	1 stall / 6 units

PROJECT DESCRIPTION:

The proposed project would demolish the existing 8-unit apartment building located at 739 Sutter Avenue and construct twelve new townhome units on the project site. The proposed units are 3-stories in height and range from +/- 1,119 to 1,537 square feet of living space per unit. Each unit includes a two-car garage and a deck to provide private open space. The proposed project envisions a contemporary architectural style. The proposal offers two of the eight "base units" (25%) as Affordable Housing (at the Low Income level) and anticipates use of Density Bonus Law to allow flexibility in development standards. A 50% Density Bonus is requested in addition to related waivers, concessions, and incentives. The project will not utilize a vibratory rollers or pile drivers for construction. Best management practices for the protection of archeological resources, if uncovered, including evaluation and proper treatment of a resource, if uncovered. Best management practices for the protection of nesting birds, including a pre-construction survey for nesting birds prior to demolition activities/tree removal.

BUILDING DATA:

APPLICABLE CODES

2022 CBC - CA Building Code
 2022 CMC - CA Mechanical Code
 2022 CPC - CA Plumbing Code
 2022 CFC - CA Fire Code

BUILDING TYPE:

3 Story Condo Mapped Townhomes

OCCUPANCY GROUP:

R-2

CONSTRUCTION TYPE:

Type VB

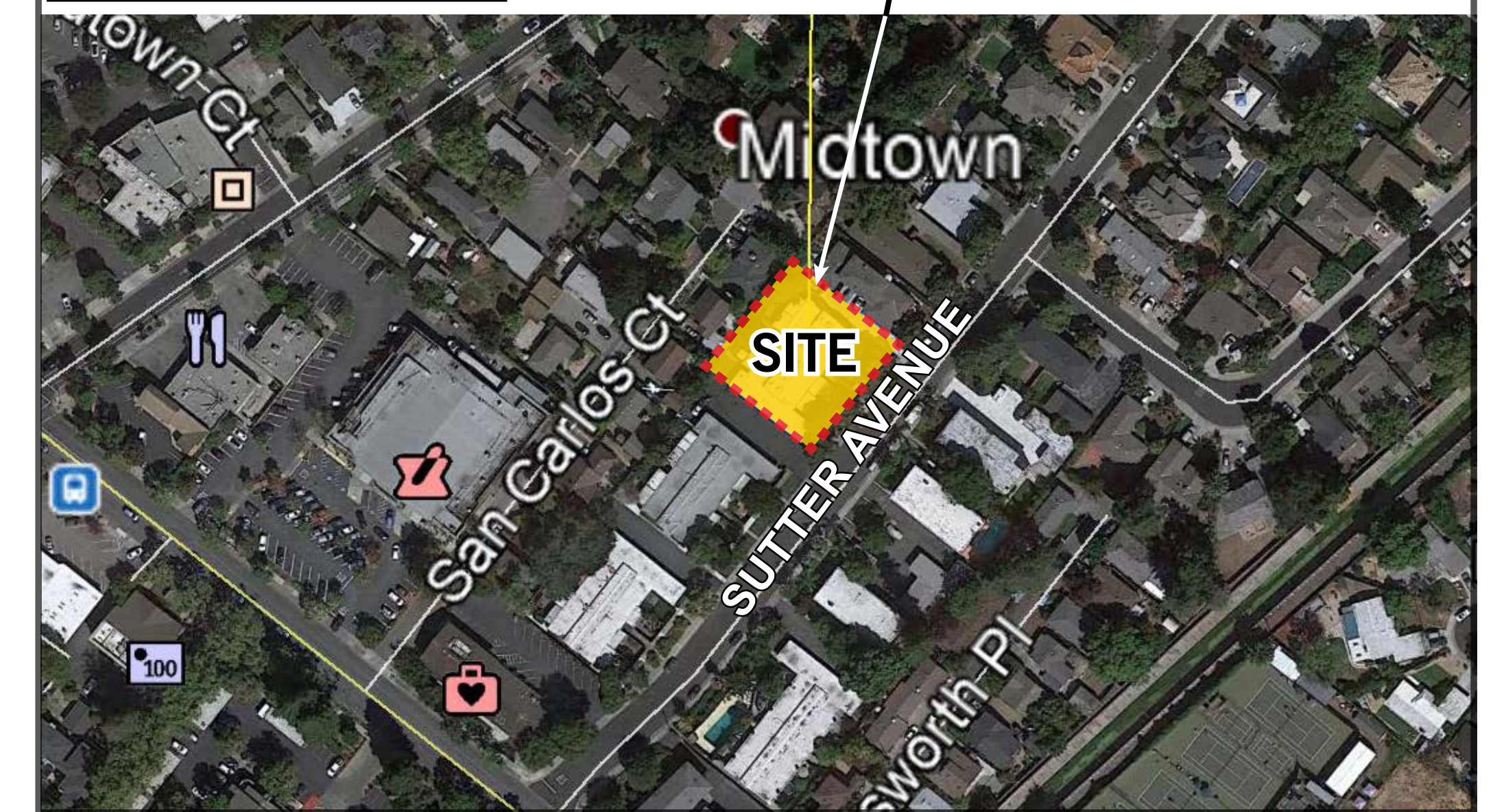
ALLOWABLE HEIGHT:

3-Stories

SPRINKLER SYSTEM:

NFPA 13

VICINITY MAP:



PROJECT TEAM INFO:

Client:

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 5865 Owens Drive
 Pleasanton, CA 94588
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Email: krodriques@dahlingroup.com

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Anyi Landscape
 Tel: 650-533-0107
 Contact: Anyi Huang

Email: anyihuang@gmail.com

Civil:

BKF Engineers
 1730 N. First St.m Suite 600
 San Jose, CA 95112
 Tel: 408-467-9173
 Contact: Phong Kiet, PE

Email: pkiet@bkf.com

ARCHITECTURAL DATA:

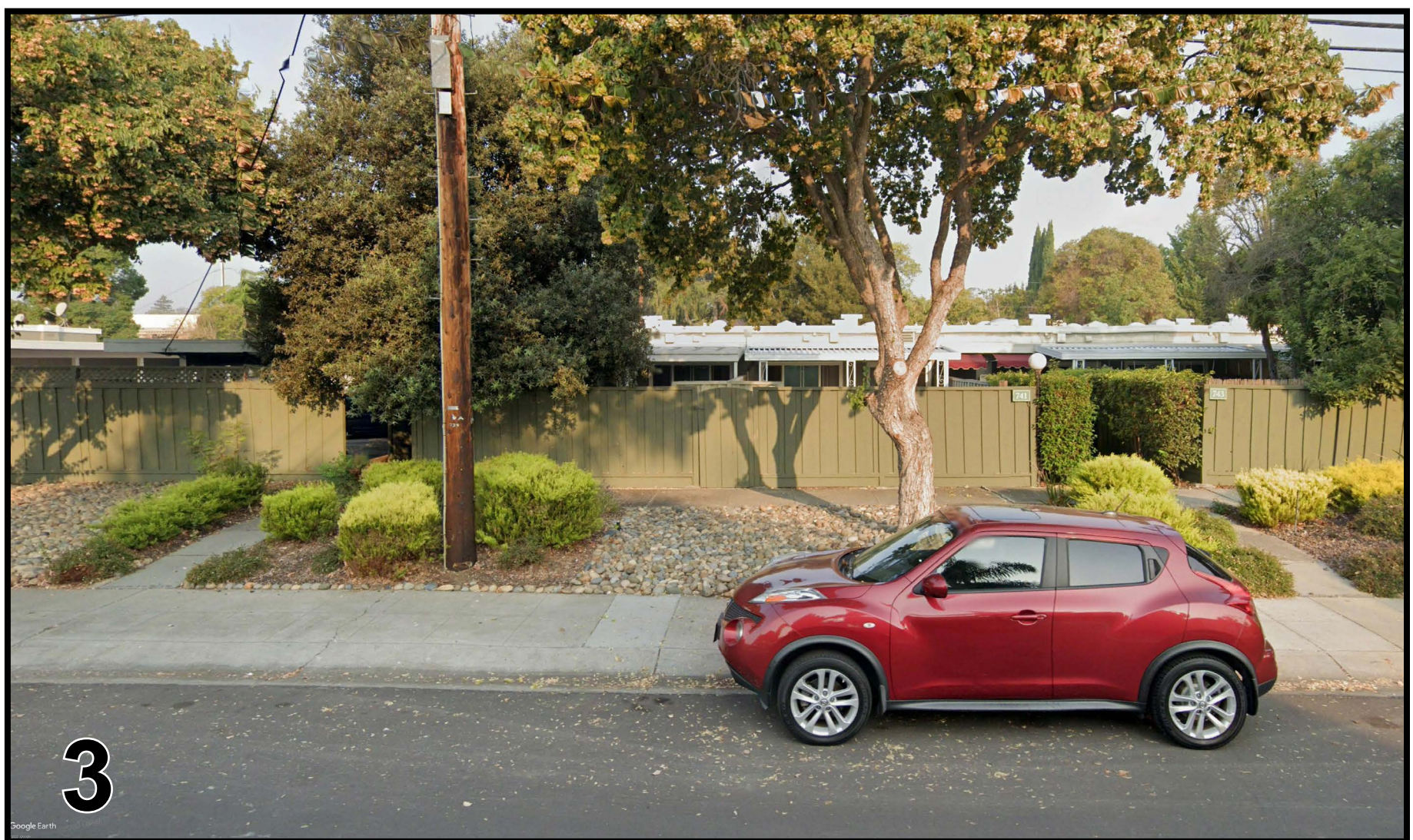
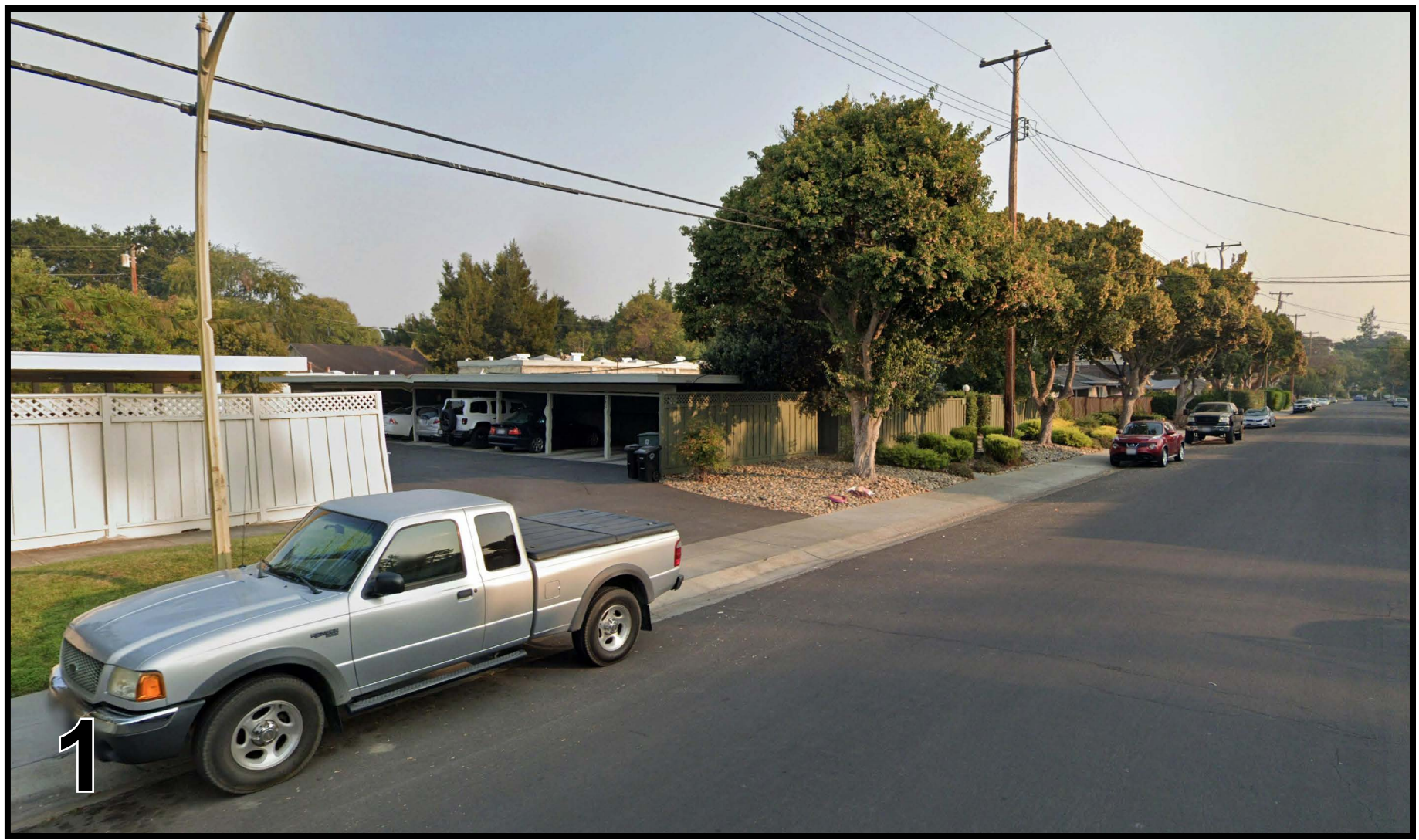
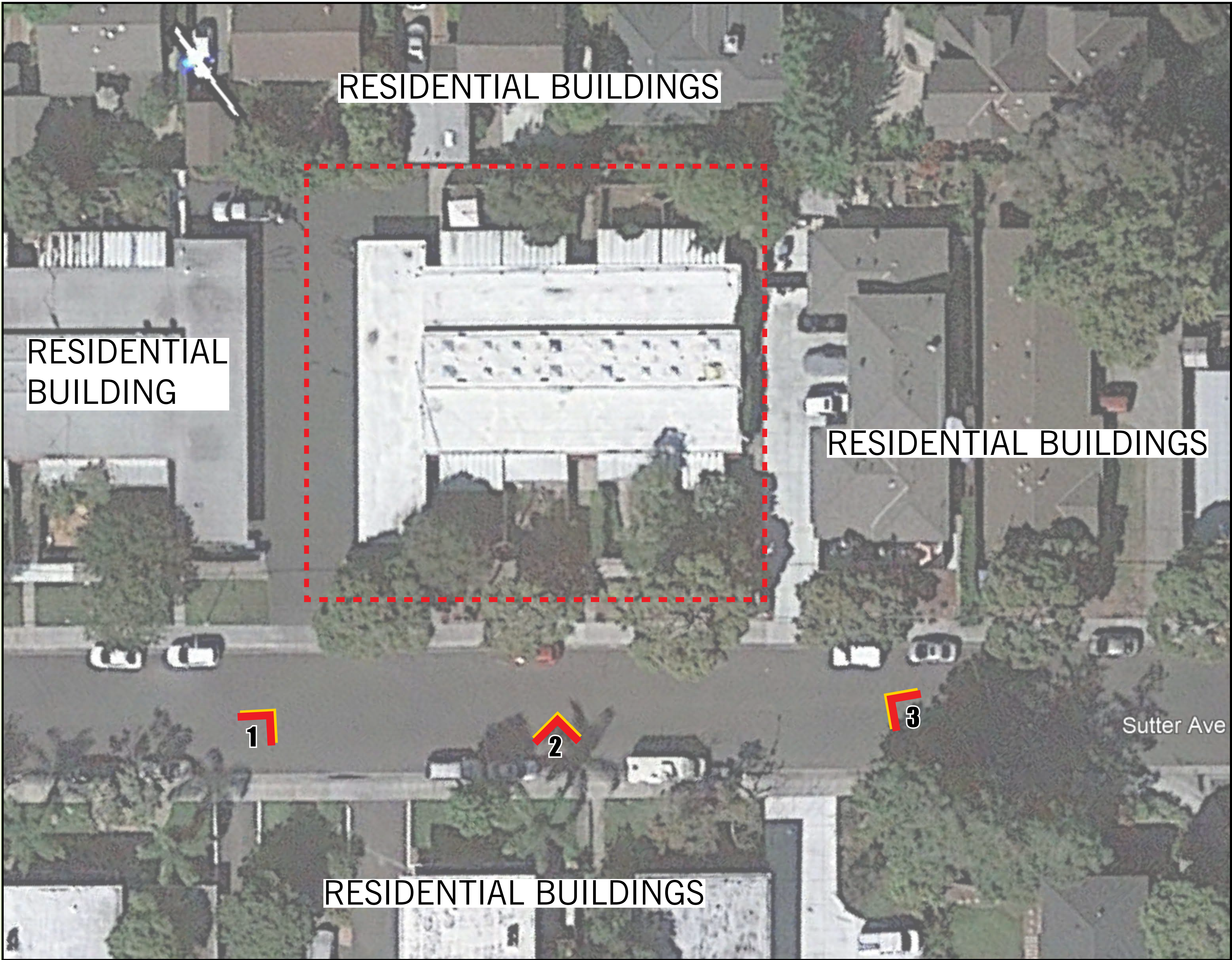
unit name	bedroom count	bathroom count	unit count	living area / unit		garage area / unit		stoop area / unit ³	deck area / unit ⁴	roof deck area / unit	private os / unit	total private os
				(net sf) ¹	(gross sf) ²	(net sf) ¹	(gross sf) ²	(gross sf) ²	(gross sf) ²	(gross sf) ²	(gross sf) ²	(gross sf) ²
plan 1	3	4	1	1,519	1,643	449	477	48	96	341	341	341
plan 1x	3	4	2	1,537	1,688	430	458	48	96	304	304	608
plan 1y	3	3.5	2	1,524	1,645	448	479	48	96	341	341	682
plan 2	3	3	5	1,119	1,232	529	572	22	91	N/A	91	455
plan 2x	3	3	2	1,171	1,299	514	556	22	91	N/A	91	182
total			12									2,268

NOTES

1	Gross area measured from outside face of framing. Excludes garage area, porches, and decks.
2	Net area measured from inside face of stud wall. Excludes garage area, porches, and decks.
3	Stoop area not included in private open space calculation. Minimum dimension is less than 6'.
4	Plan 1 deck area not included in private open space calculation. Minimum dimension is less than 6'.

TITLE SHEET





SITE CONTEXT AND SITE PHOTOS



NEIGHBORING CONTEXT PERSPECTIVE

NOTE: Landscape shown for graphical representation only. See landscape drawings for more information on sizing, spacing, and landscape details.



PROJECT DATA:

DEVELOPMENT SUMMARY		
Site APN	127-35-200	
GP Designation	Multi-Family	
Zoning	RM-20	
Site Area (Gross)	0.38 acres	
Site Area (Net - Excludes proposed private street area)	0.30 acres	
	Standard	Proposed
Density per GP	40 du max	31.3 du
Density	20 du max	
Total Number of Units	15.3 du max	12 du
	Base Units	8 du
	Affordable % (@ Low Affordability)	25% (2 of 8 units)
	Bonus Units	4 du
Lot Area (Gross)	8,500	16,707 sf
Lot Area (Net)		13,093 sf
Lot Width	70 ft	133 ft
Lot Depth	100 ft	125 ft
Site Coverage	5,847 sf max	8,294 sf
	35% max	50%
FAR (per Zoning Ordinance)	1.25 max	1.4
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		5 ft porch
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	5,847 sf min	6,074 sf
	landscaping area	2,278 sf total
Usable Open Space	150 sf / unit	316 sf / unit
	1,800 sf total	3,796 sf total
	common open space	127 sf / unit
		1,528 sf total
	private open space	50 sf / unit min
		91 sf / unit min
	600 sf total	2,268 sf total
Parking Summary per Zoning		
Total Parking	Standard	Proposed
	24 stalls min	24 stalls
	2 stalls / unit	2 stalls / unit
Max Tandem Percentage	25% max	58%
Long Term Bike Parking	1 stalls / unit	1 stalls / unit
Short Term Bike Parking	1 stall / 10 units	1 stall / 6 units

ARCHITECTURAL DATA:

unit name	bedroom count	bathroom count	unit count	living area / unit		garage area / unit		stoop area / unit ³	deck area / unit ⁴	roof deck area / unit	private os / unit	total private os
				(net sf) ¹	(gross sf) ²	(net sf) ¹	(gross sf) ²	(gross sf) ²	(gross sf) ²	(gross sf) ²	(gross sf) ²	(gross sf) ²
plan 1	3	4	1	1,519	1,643	449	477	48	96	341	341	341
plan 1x	3	4	2	1,537	1,688	430	458	48	96	304	304	608
plan 1y	3	3.5	2	1,524	1,645	448	479	48	96	341	341	682
plan 2	3	3	5	1,119	1,232	529	572	22	91	N/A	91	455
plan 2x	3	3	2	1,171	1,299	514	556	22	91	N/A	91	182
total			12									2,268

NOTES

¹ Gross area measured from outside face of framing. Excludes garage area, porches, and decks.

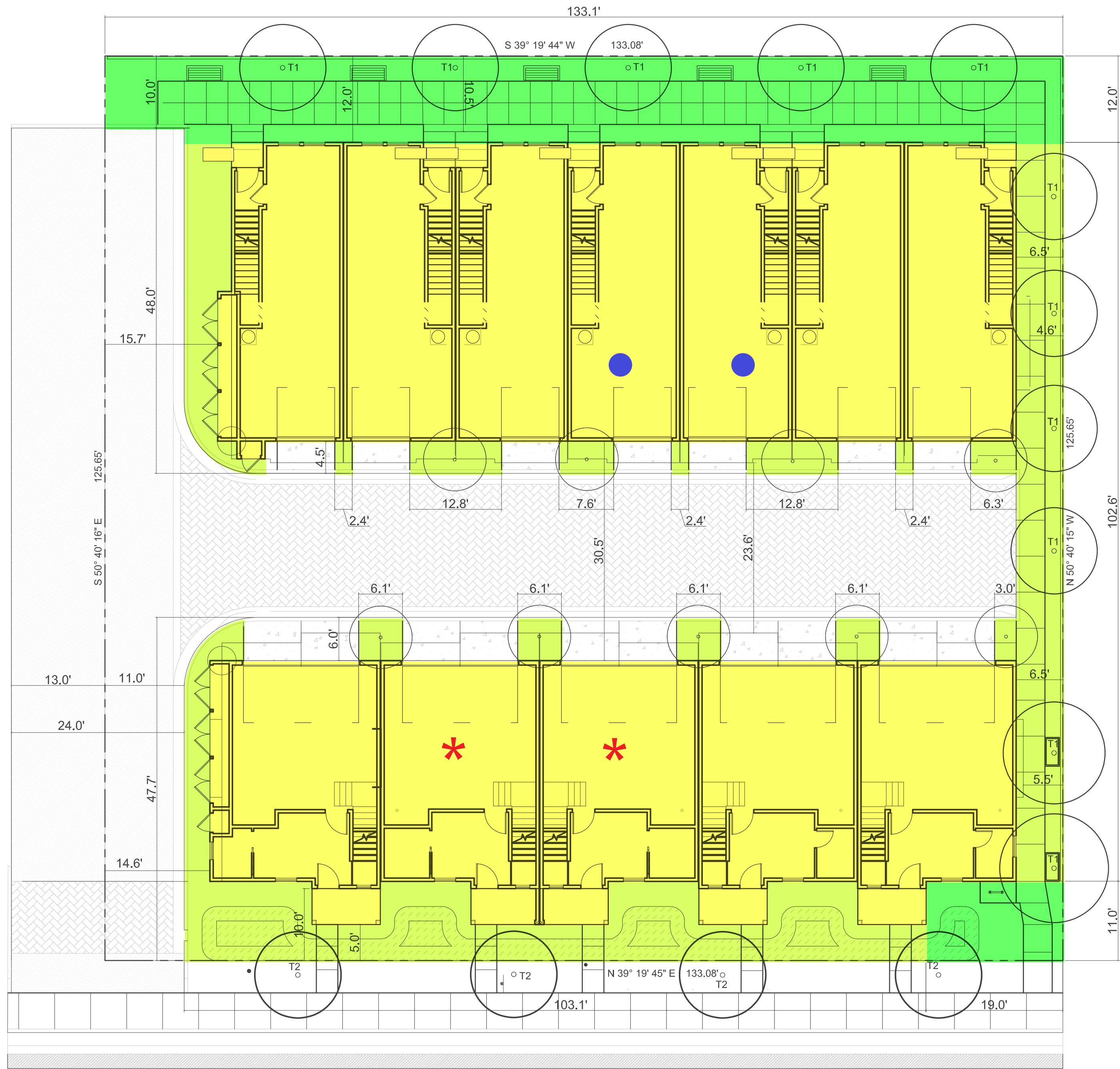
² Net area measured from inside face of stud wall. Excludes garage area, porches, and decks.

³ Stoop area not included in private open space calculation. Minimum dimension is less than 6'.

⁴ Plan 1 deck area not included in private open space calculation. Minimum dimension is less than 6'.

For density bonus requests and project waivers and concessions, please see attached project description document.

- * Adaptable Units Locations
- Affordable Units Locations



Common open space: 1,528 sf

Landscaping Area: 2,278 sf

Private open space: 2,268 sf

*Note: See Architectural Data table on this sheet A0.4 for calculations.

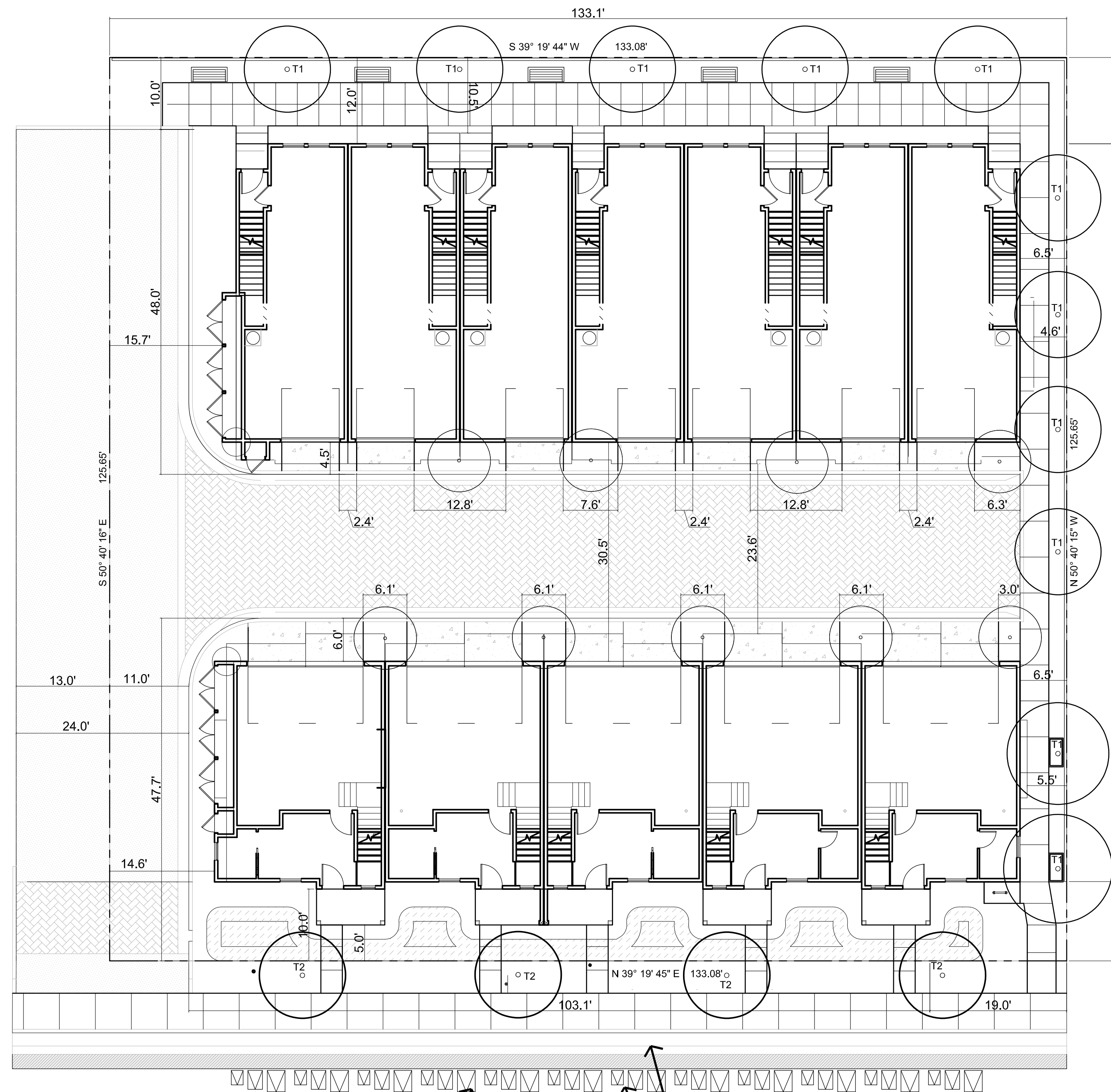
Landscape / Open space coverage: 6,074 sf

SITE PLAN



JOB NO. 1447.003
DATE 10-02-2023
5865 Owens Drive
Pleasanton, CA 94588
925-251-7200





(1) 96 GALLON RECYCLING BIN, (1) 64 GALLON GARBAGE BIN AND (1) 32 GALLON COMPOST BIN PER UNIT.

A SIGN SHALL BE PROVIDED THAT INDICATES THAT PARKING IS NOT ALLOWED DURING REFUSE SERVICE HOURS.

BINS ARE TO BE BROUGHT TO THE STAGING AREA ALONG SUTTER AVENUE FOR SERVICE AND IMMEDIATELY BROUGHT BACK IN PLACE AFTER SERVICING.

SUTTER AVE

TRASH STAGING AREA EXHIBIT

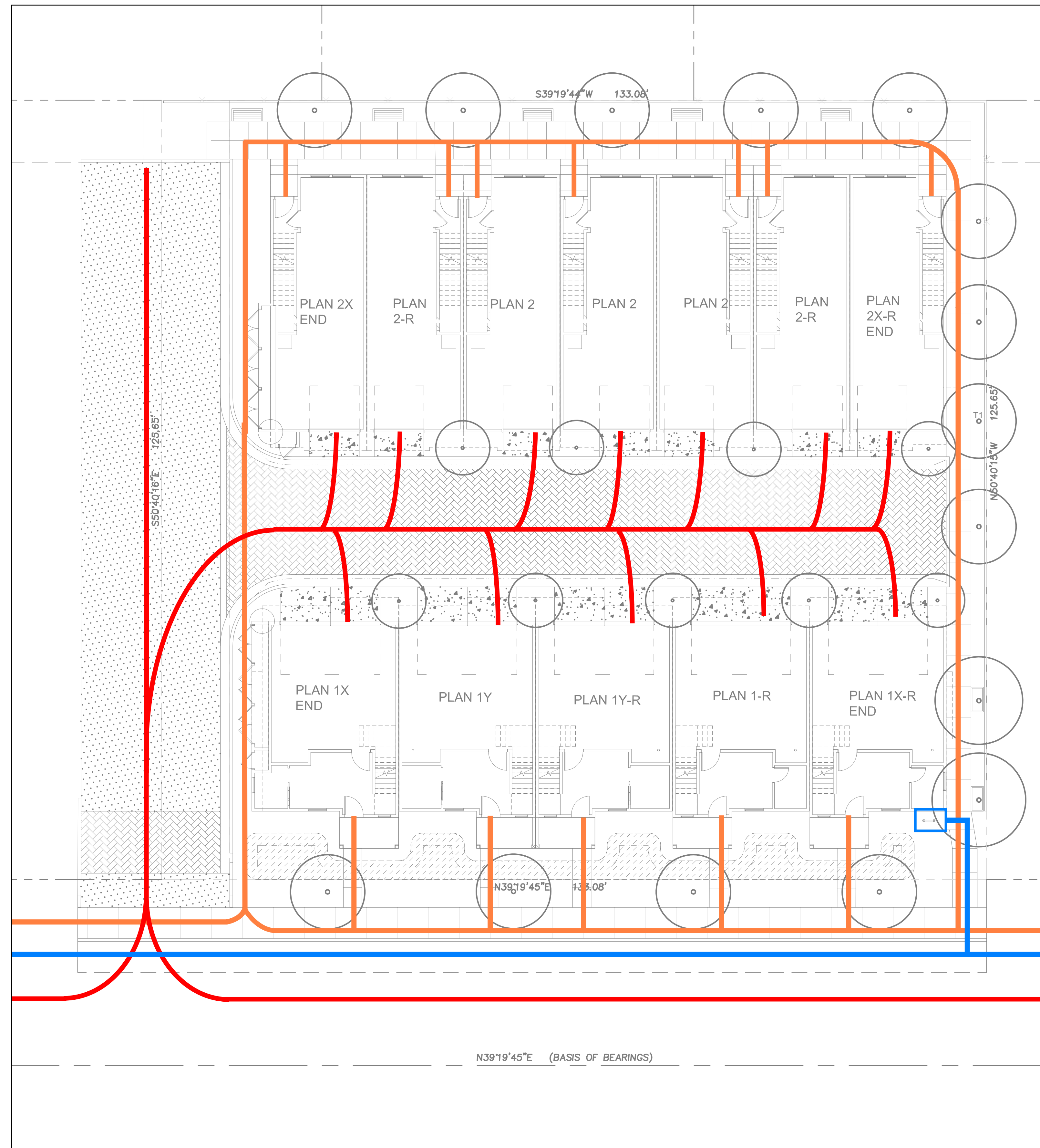


JOB NO. 1447.003
 DATE 12-02-22
 5865 Owens Drive
 Pleasanton, CA 94588
 925-251-7200



LEGEND

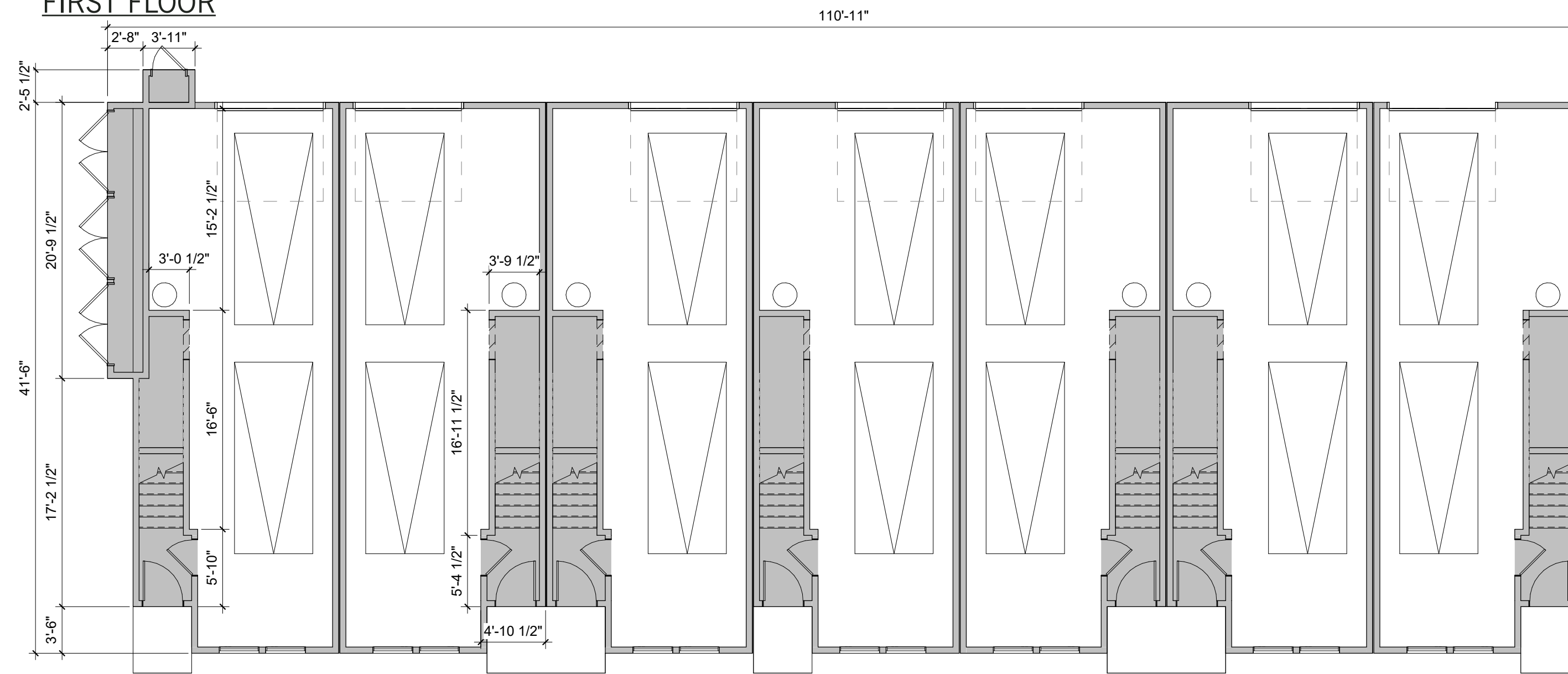
- VEHICLE
- PEDESTRIAN
- BICYCLE



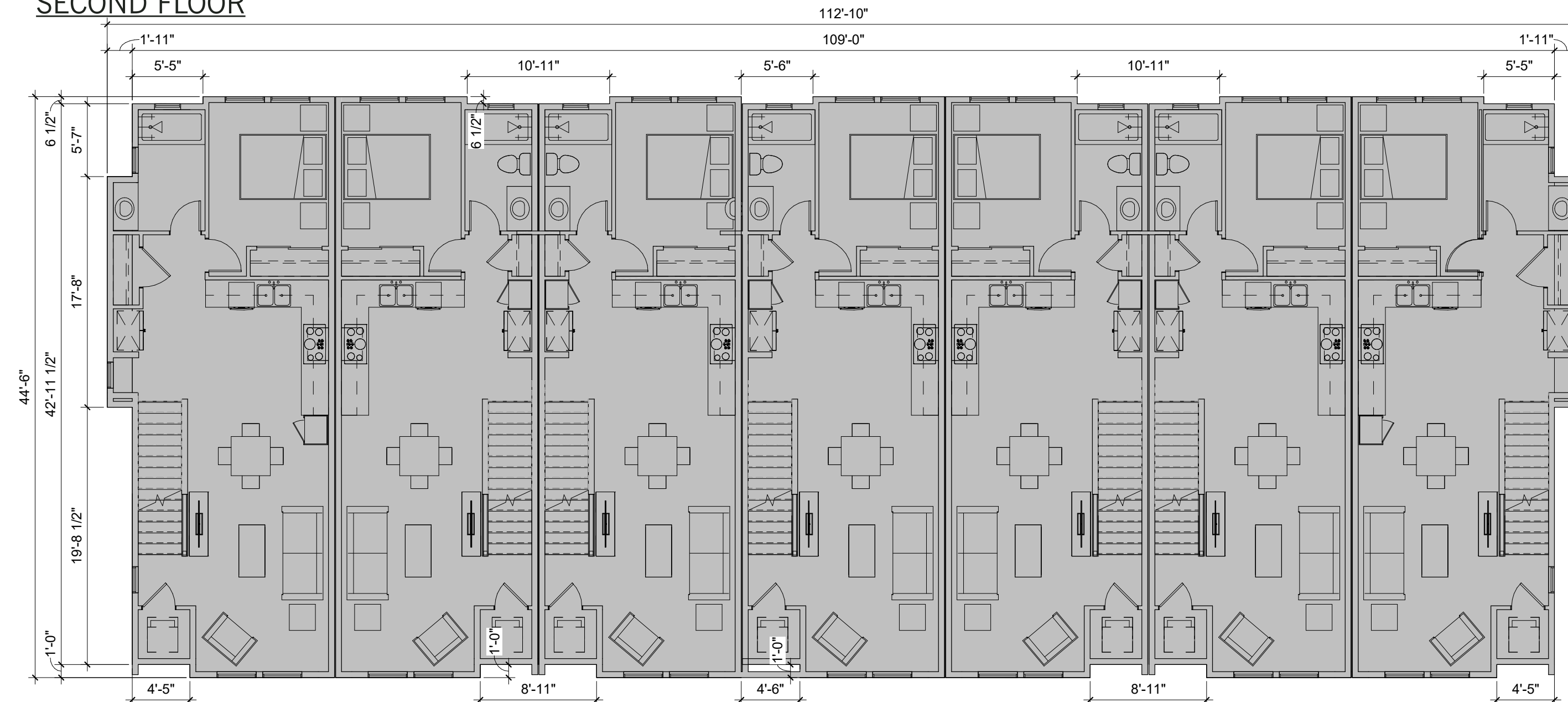
CIRCULATION DIAGRAM



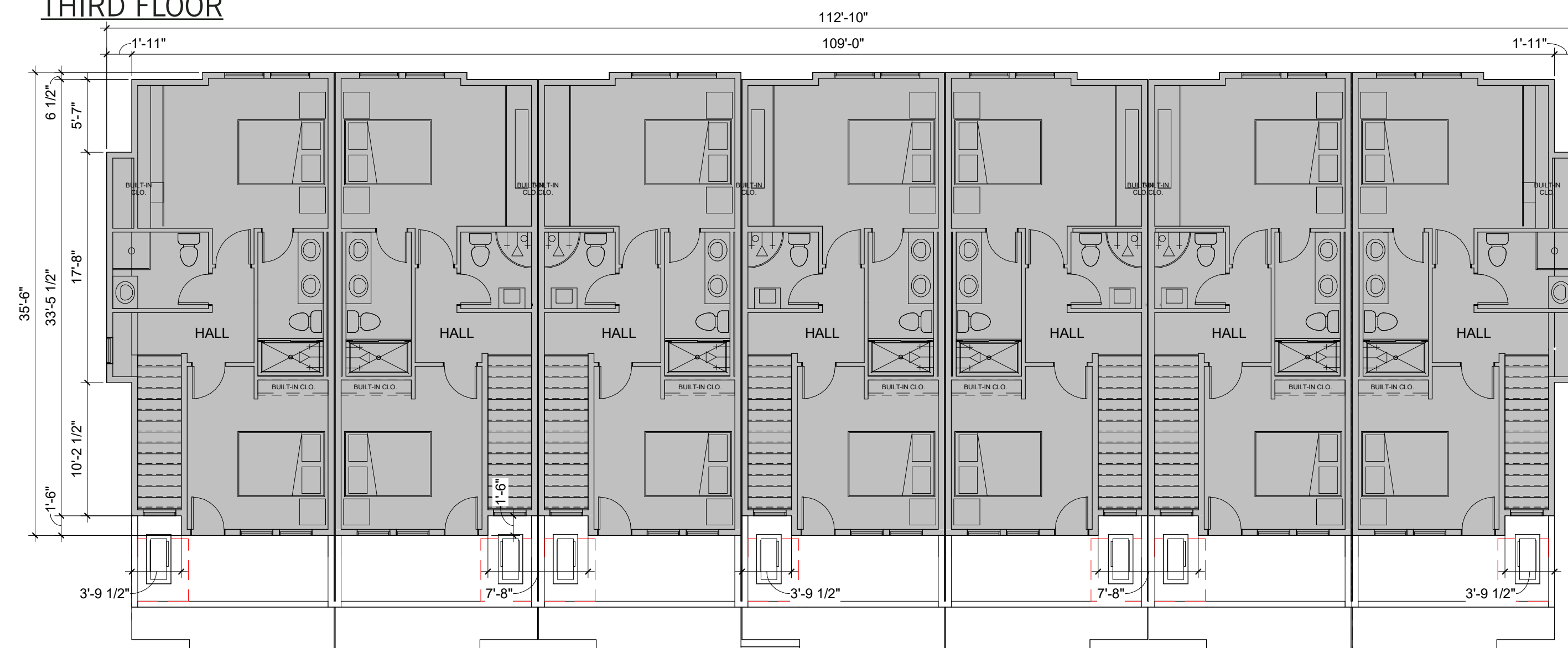
BUILDING 2
FIRST FLOOR



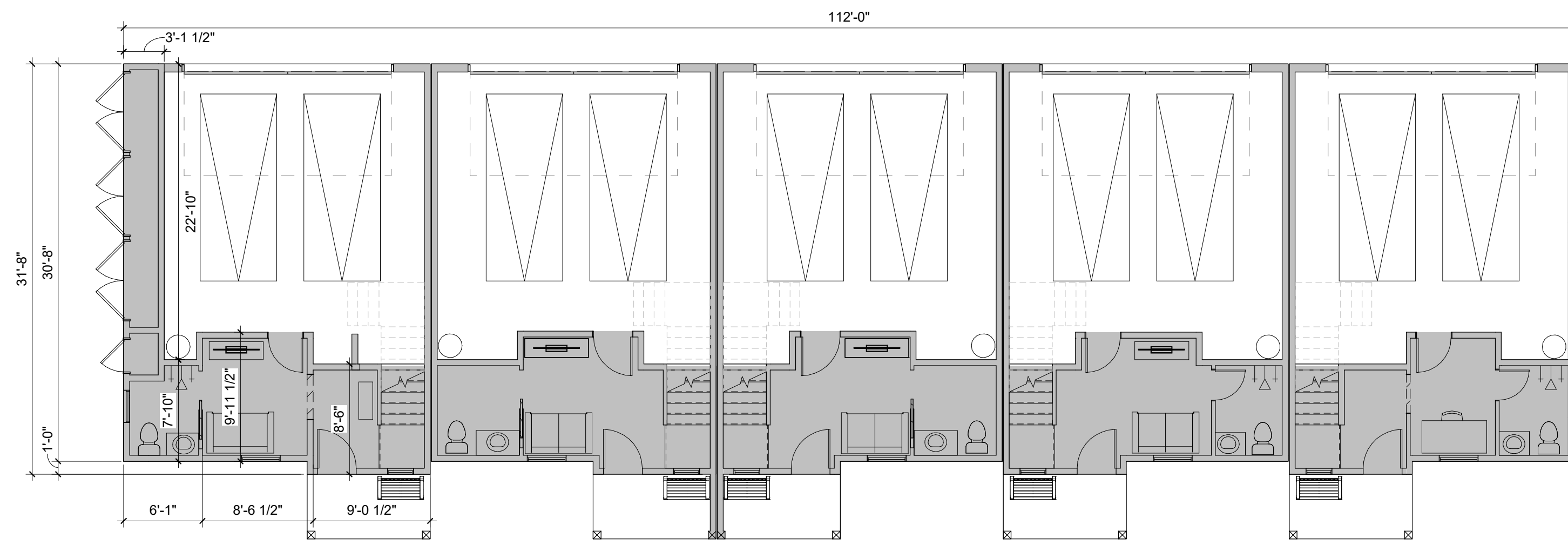
SECOND FLOOR



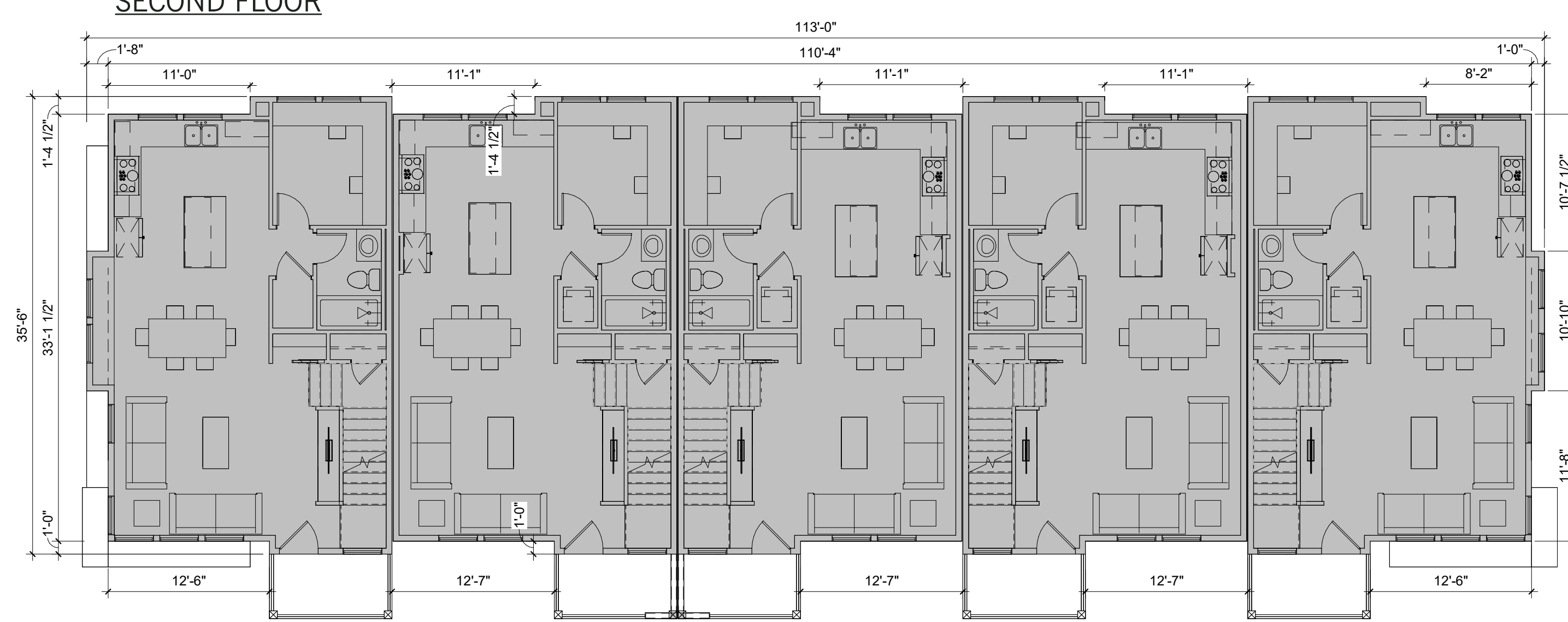
THIRD FLOOR



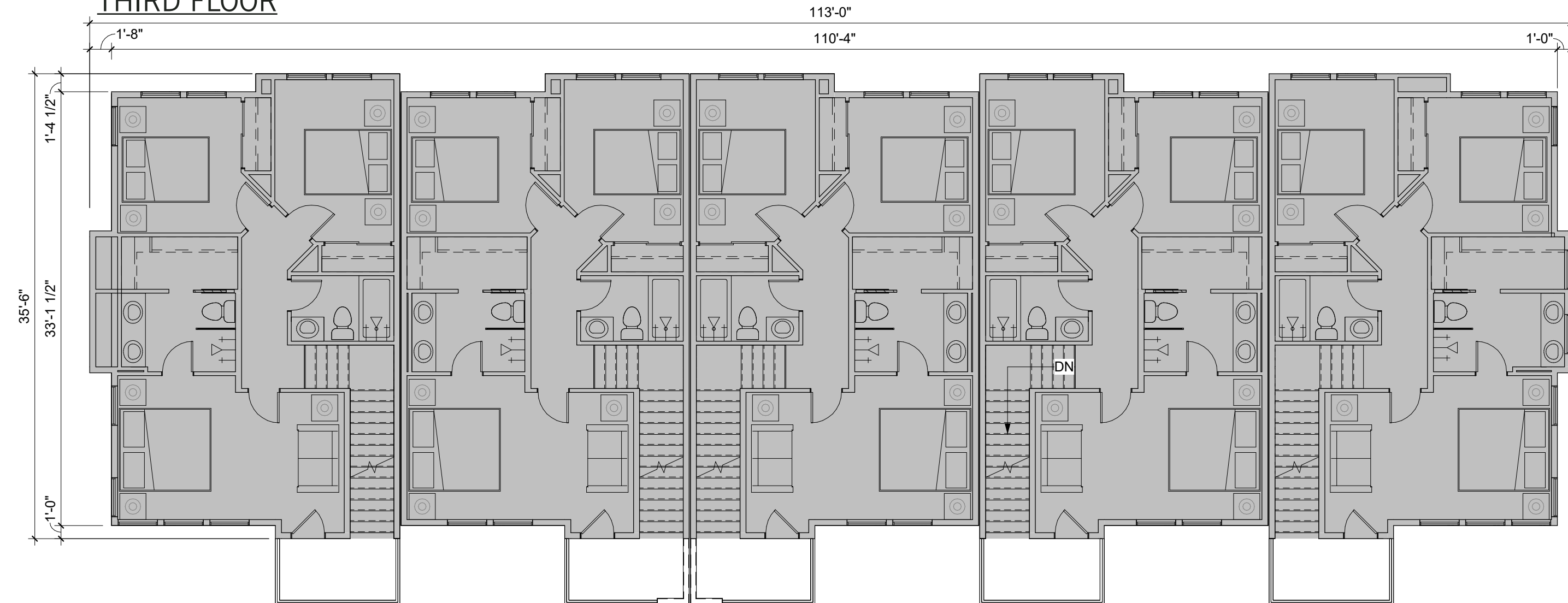
BUILDING 1
FIRST FLOOR



SECOND FLOOR



THIRD FLOOR



FLOOR AREA (GROSS SF ¹)	
building 1 subtotal	8,736
first Floor	1,116
second Floor	3,810
third Floor	3,810
building 2 subtotal	9,503
first Floor	760
second Floor	4,866
third Floor	3,877
project total	18,239

NOTES

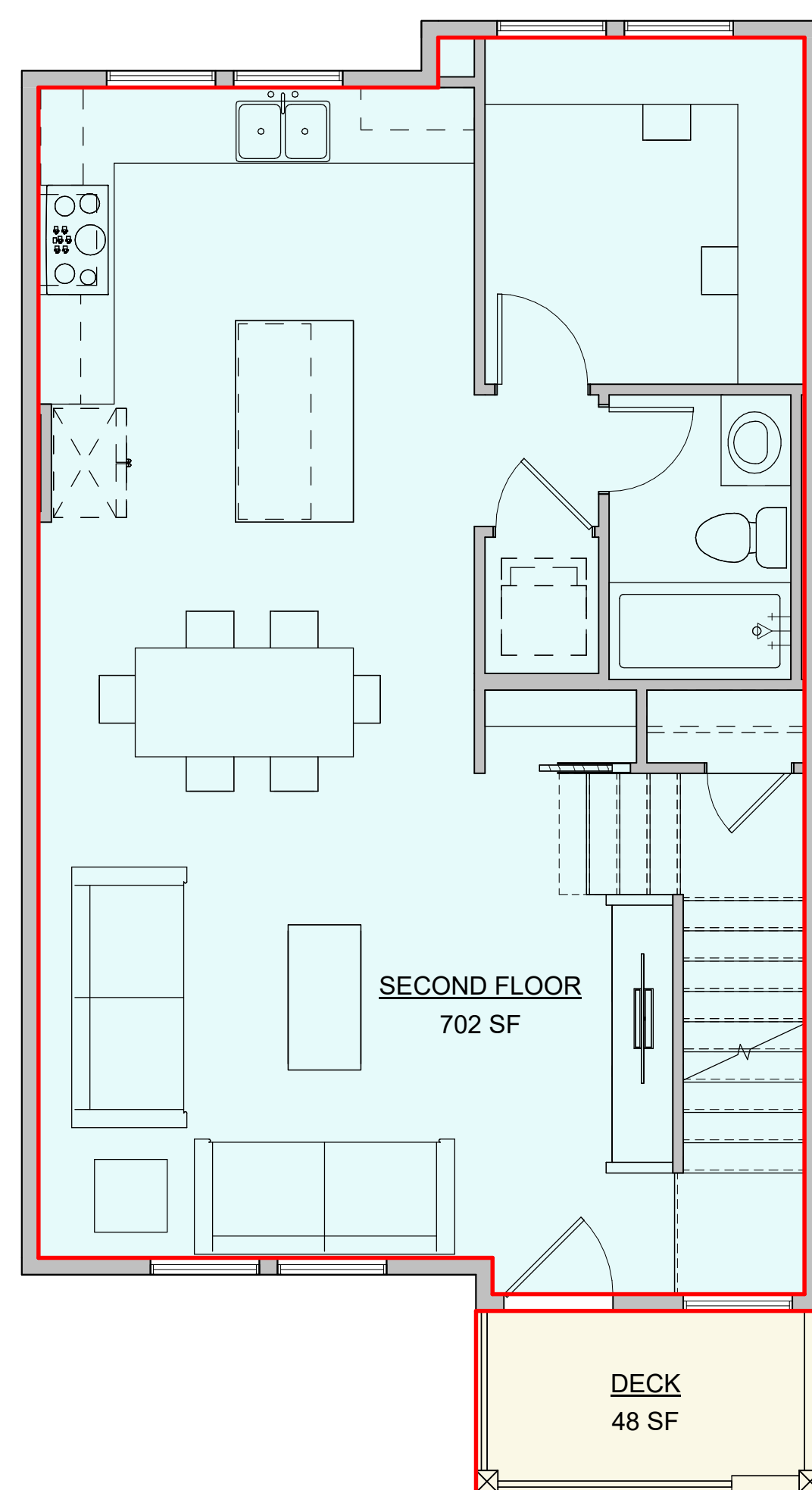
1 Gross area measured from outside face of framing. Excludes garage area, porches, and decks.

FLOOR AREA DIAGRAMS



NET AREA LEGEND

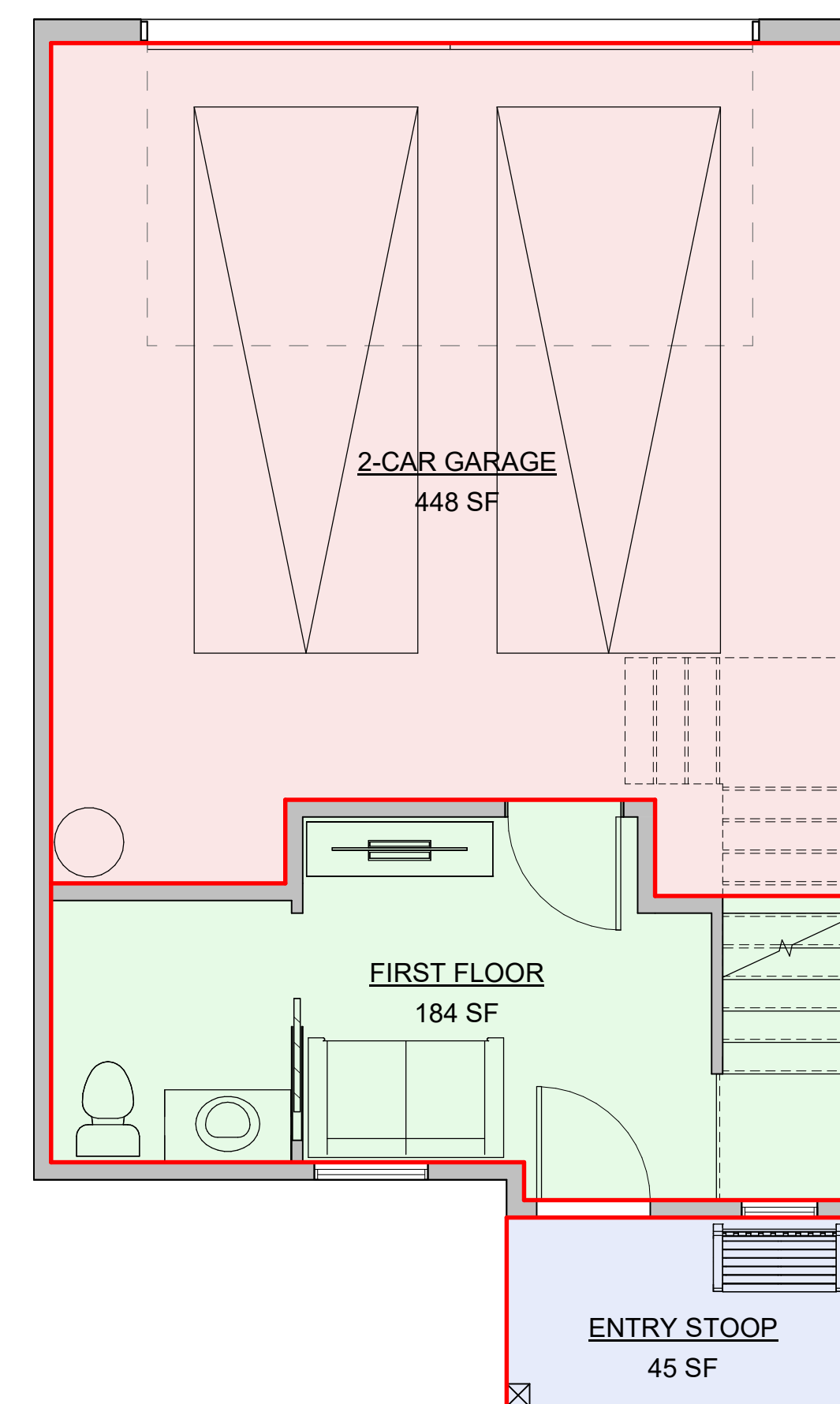
- DECK
- SECOND FLOOR



2 PLAN 1 SECOND FLOOR PLAN, ELEVATION A 1
1/4" = 1'-0"

NET AREA LEGEND

- 2-CAR GARAGE
- ENTRY STOOP
- FIRST FLOOR



1 PLAN 1Y FIRST FLOOR PLAN, ELEVATION A 1
1/4" = 1'-0"

NET AREA

MEASURED FROM INSIDE FACE OF STUD WALL.

PLAN 1Y - 3 BR / 3.5 BA	
Name	AREA (SF)
FIRST FLOOR	184
SECOND FLOOR	702
THIRD FLOOR	634
TOTAL LIVING AREA	1520

2-CAR GARAGE	448
DECK	48
DECK	48
ENTRY STOOP	45
ROOF DECK	341

PLAN 1 - 3 BR / 4 BA	
Name	AREA (SF)
FIRST FLOOR	183
SECOND FLOOR	702
THIRD FLOOR	634
TOTAL LIVING AREA	1519

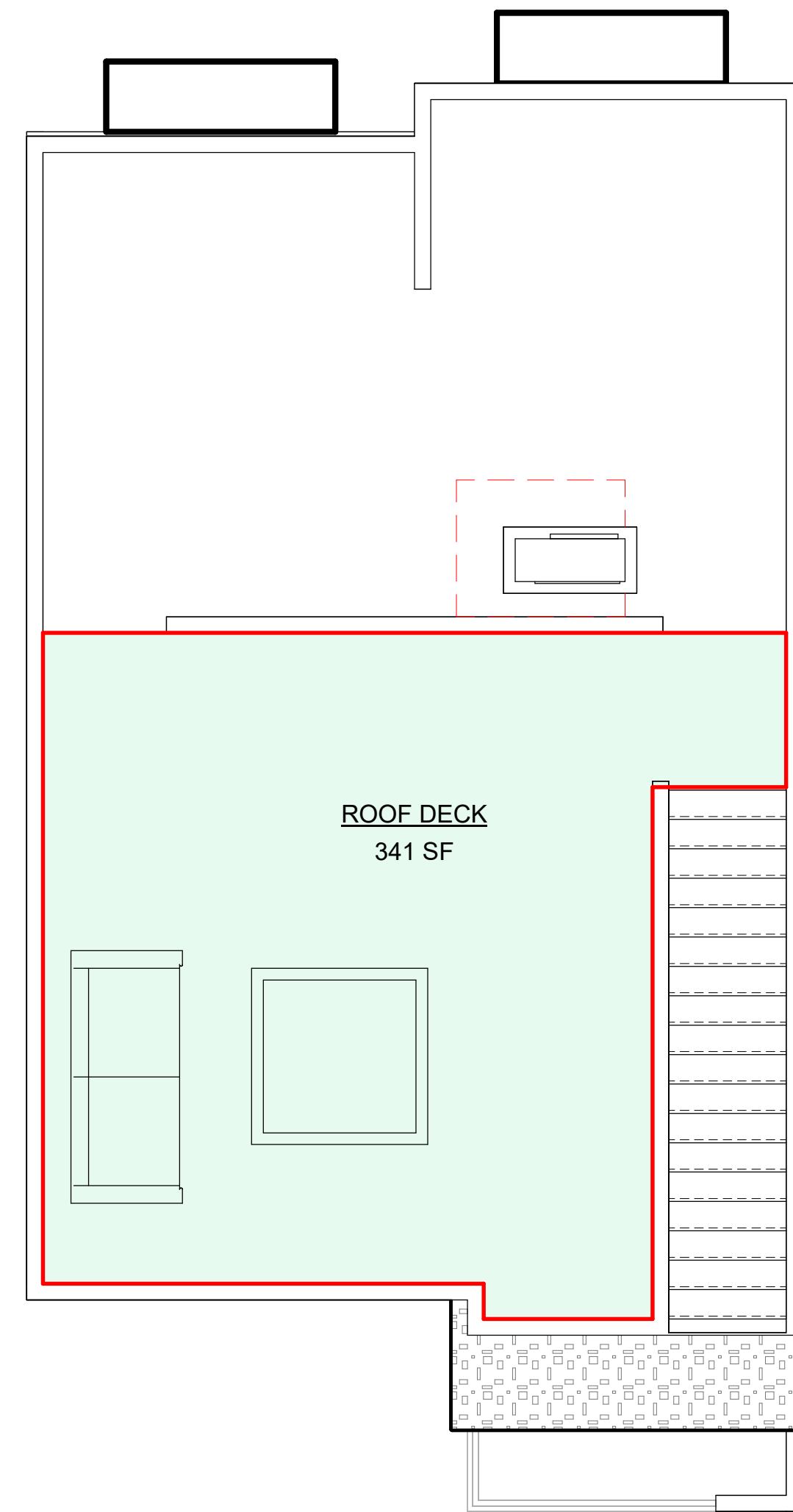
2-CAR GARAGE	449
DECK	47
DECK	48
ENTRY STOOP	48
ROOF DECK	341

FLOOR AREA DIAGRAMS



NET AREA LEGEND

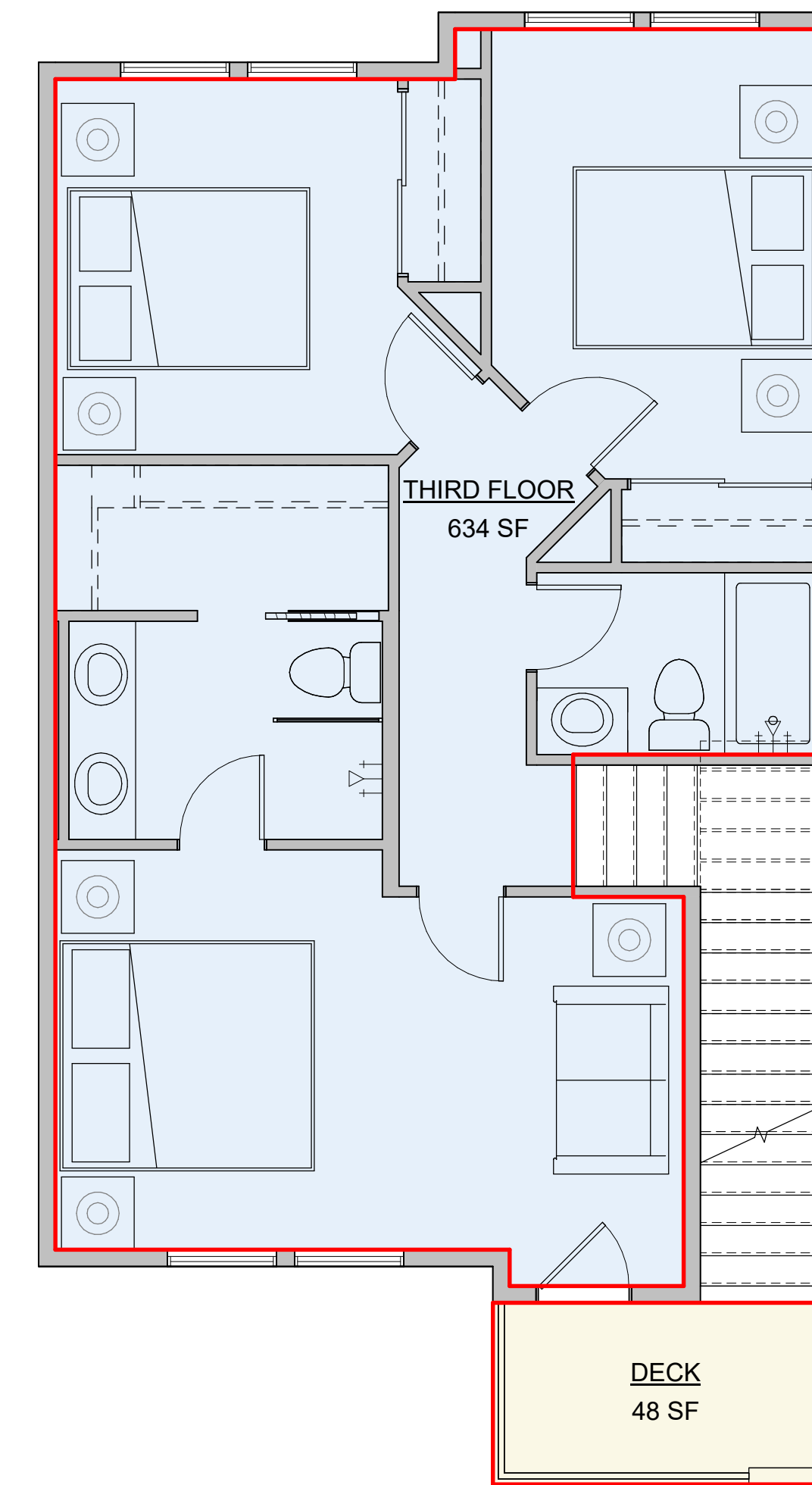
ROOF DECK



2 PLAN 1 ROOF PLAN, ELEVATION A 1
1/4" = 1'-0"

NET AREA LEGEND

DECK
THIRD FLOOR



1 PLAN 1 THIRD FLOOR PLAN, ELEVATION A
1/4" = 1'-0"

NET AREA

MEASURED FROM INSIDE FACE OF STUD WALL.

PLAN 1Y - 3 BR / 3.5 BA

Name	AREA (SF)
FIRST FLOOR	184
SECOND FLOOR	702
THIRD FLOOR	634
TOTAL LIVING AREA	1520
2-CAR GARAGE	448
DECK	48
DECK	48
ENTRY STOOP	45
ROOF DECK	341

PLAN 1 - 3 BR / 4 BA

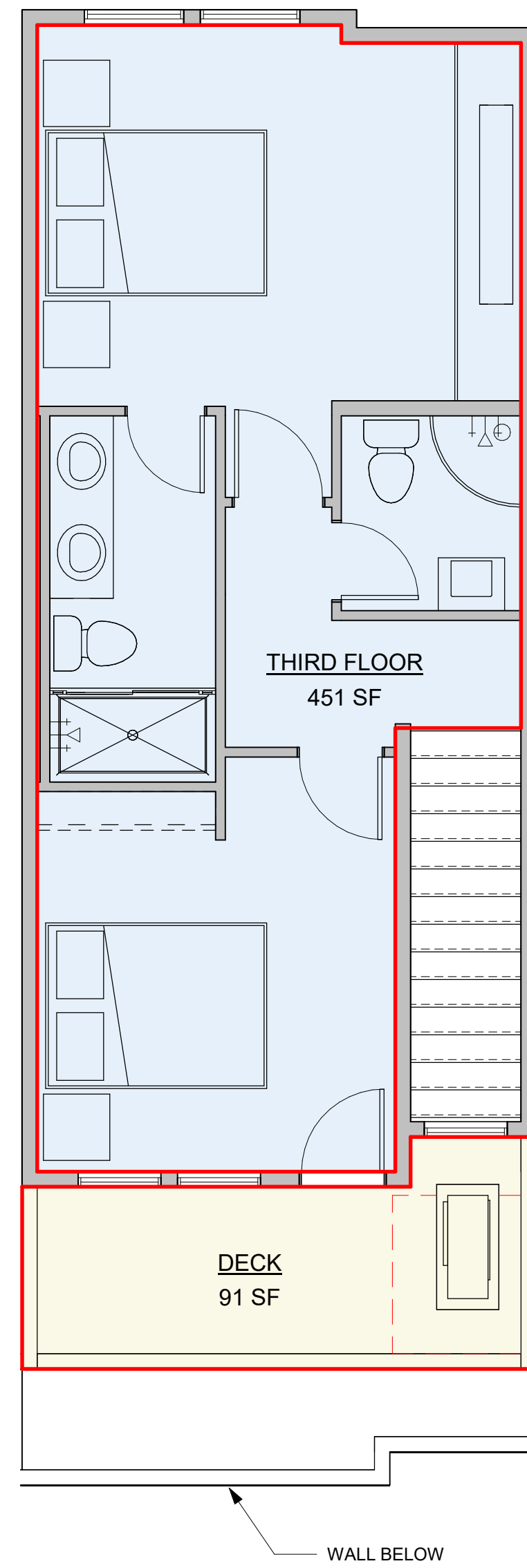
Name	AREA (SF)
FIRST FLOOR	183
SECOND FLOOR	702
THIRD FLOOR	634
TOTAL LIVING AREA	1519
2-CAR GARAGE	449
DECK	47
DECK	48
ENTRY STOOP	48
ROOF DECK	341

FLOOR AREA DIAGRAMS



NET AREA LEGEND

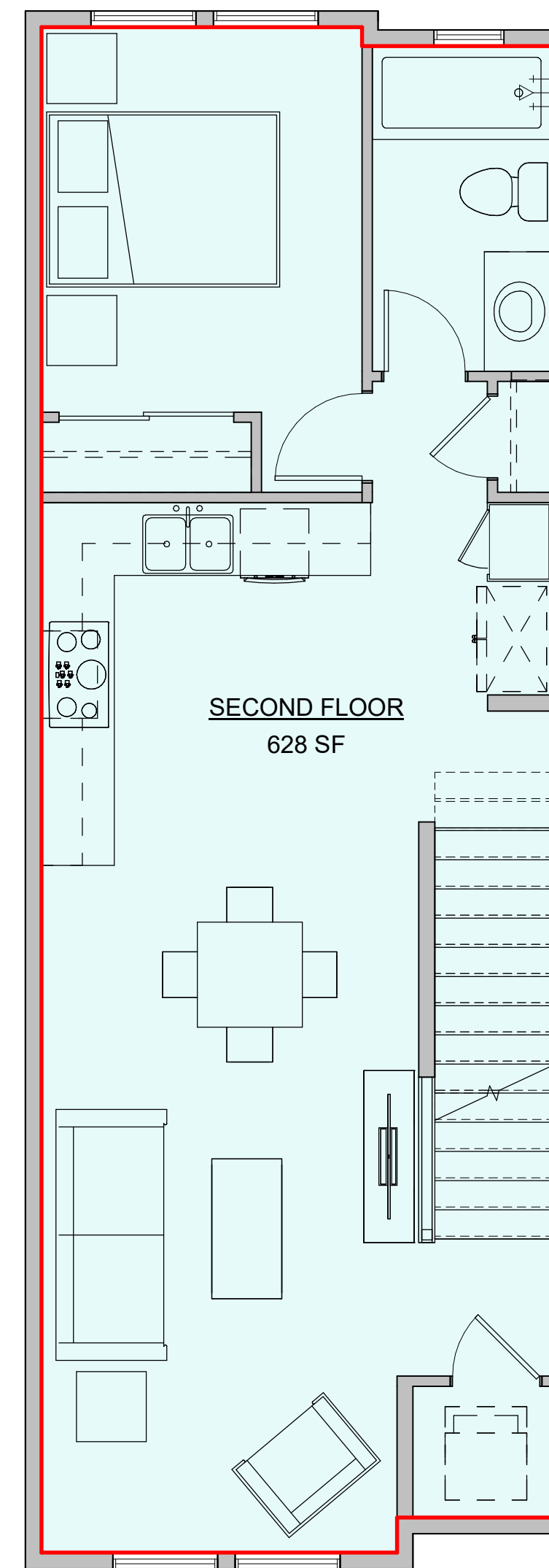
- DECK
- THIRD FLOOR



3 PLAN 2 THIRD FLOOR PLAN,
ELEVATION A
1/4" = 1'-0"

NET AREA LEGEND

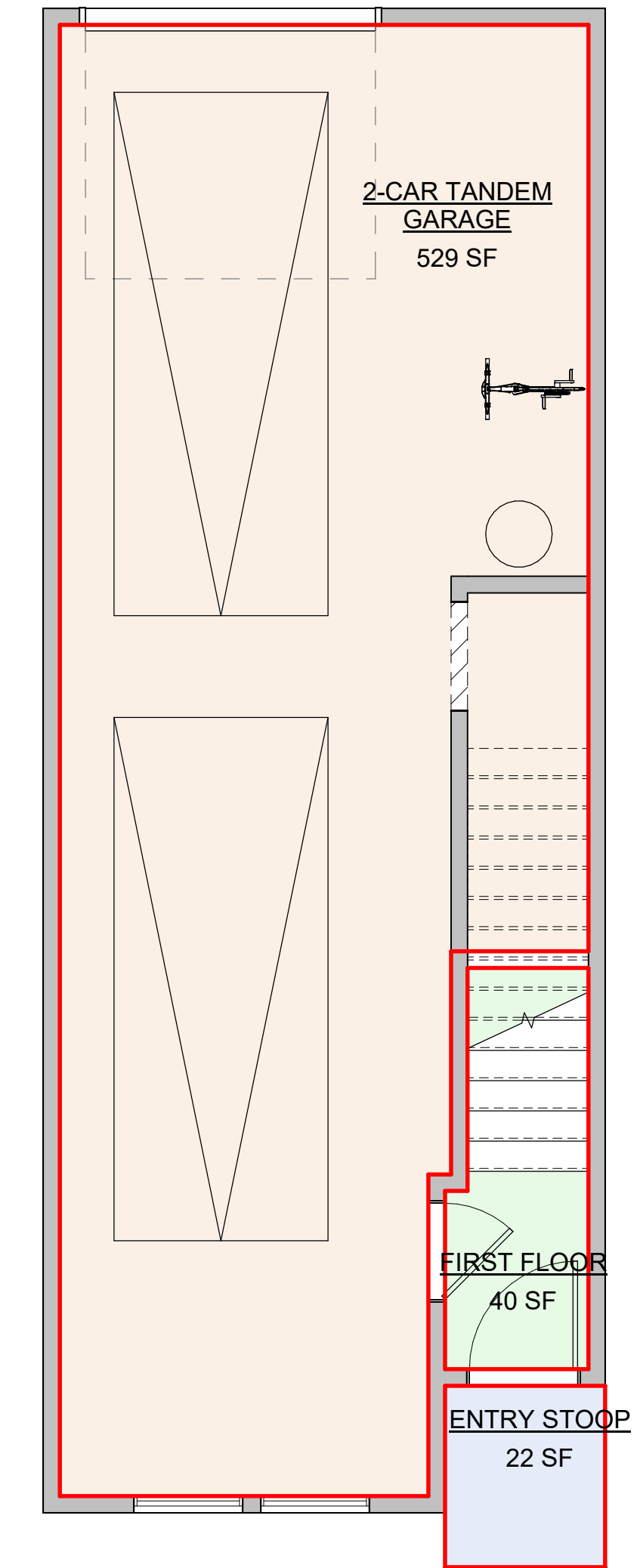
- SECOND FLOOR



2 PLAN 2 SECOND FLOOR PLAN,
ELEVATION A
1/4" = 1'-0"

NET AREA LEGEND

- 2-CAR TANDEM GARAGE
- ENTRY STOOP
- FIRST FLOOR



1 PLAN 2 FIRST FLOOR PLAN,
ELEVATION A
1/4" = 1'-0"

NET AREA
MEASURED FROM INSIDE FACE OF STUD WALL.

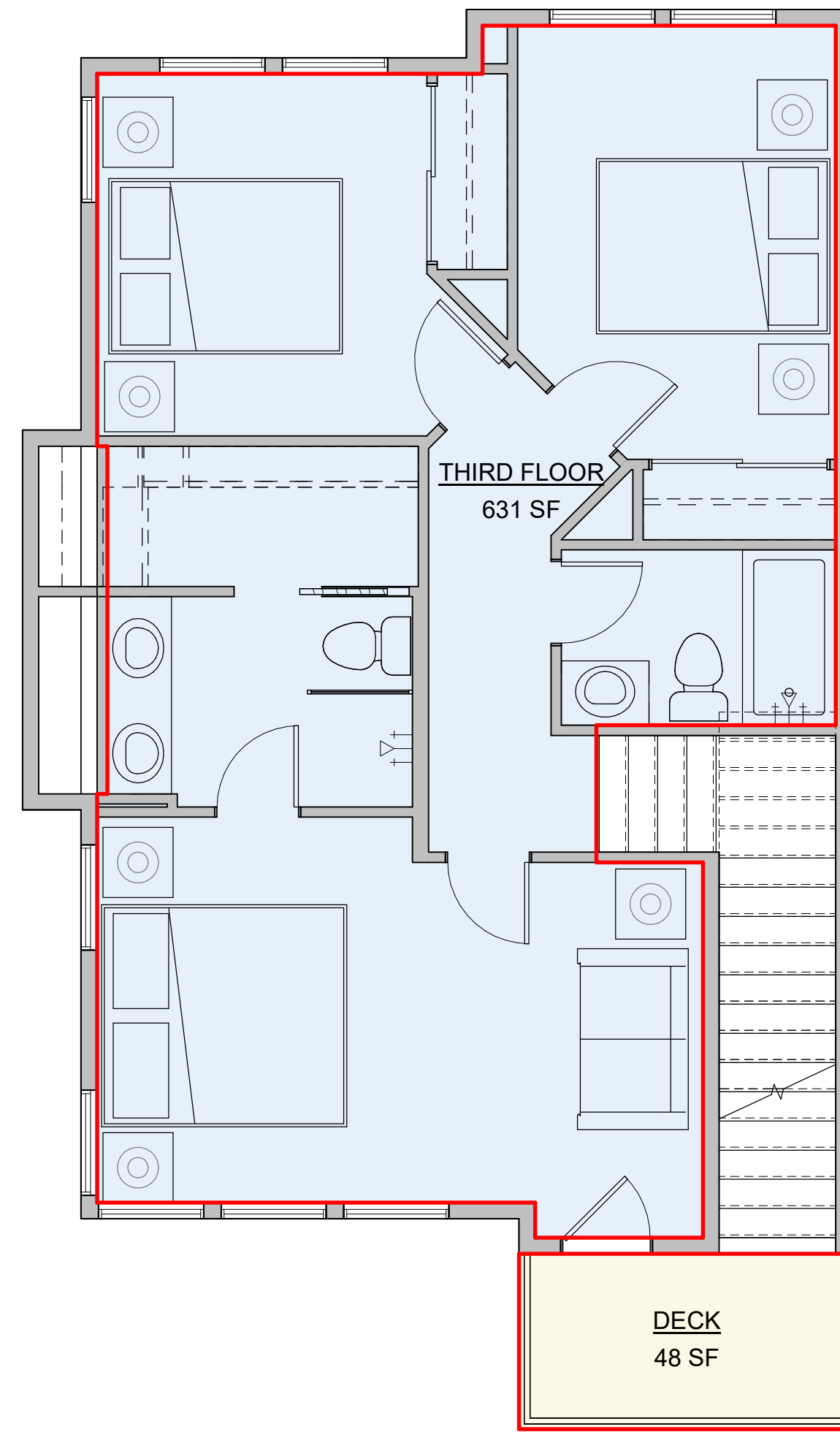
PLAN 2 - 3 BR / 3 BA	
Name	AREA (SF)
FIRST FLOOR	40
SECOND FLOOR	628
THIRD FLOOR	451
TOTAL LIVING AREA	1119
2-CAR TANDEM GARAGE	529
DECK	91
ENTRY STOOP	22

FLOOR AREA DIAGRAMS



NET AREA LEGEND

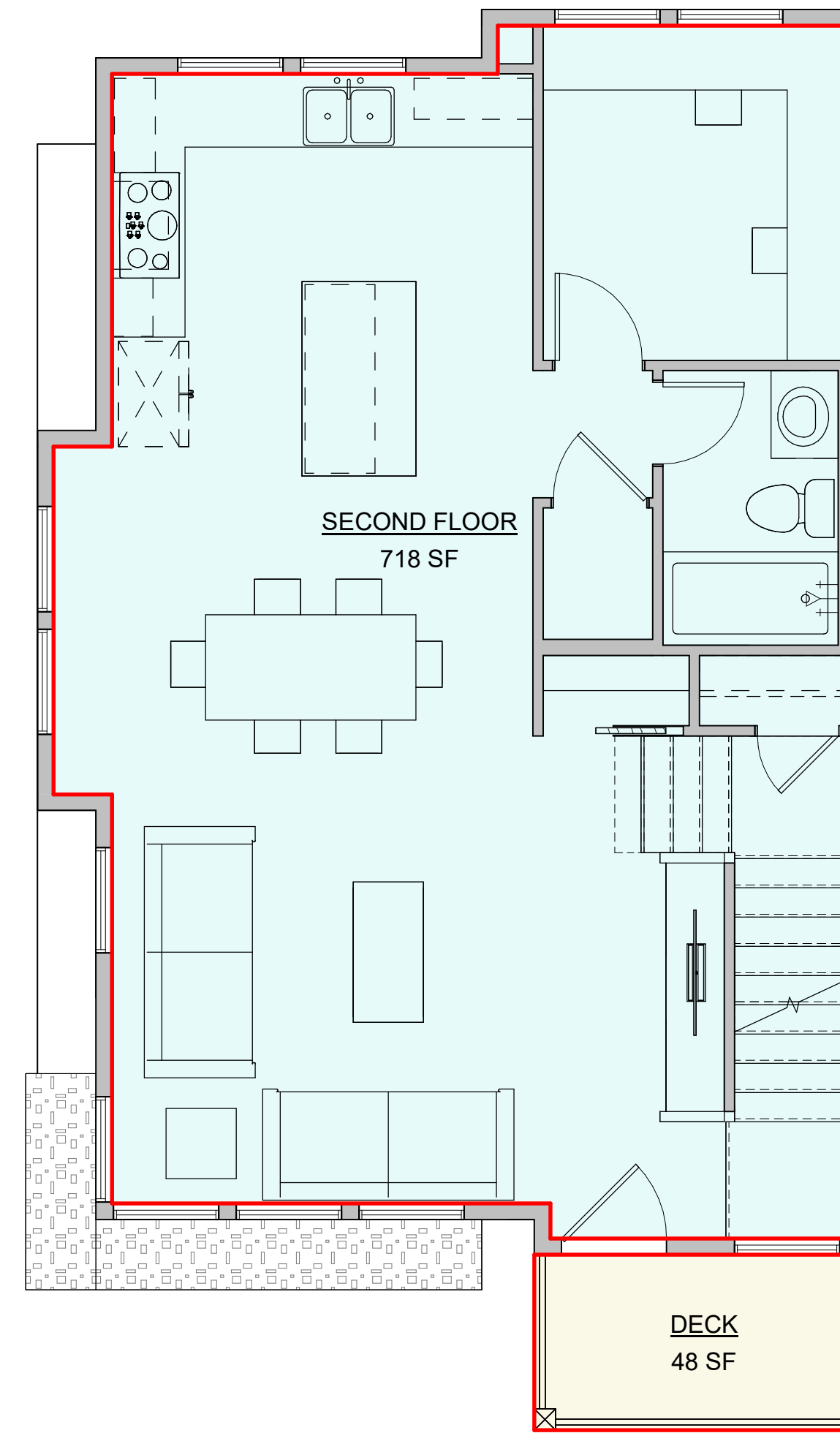
- DECK
- THIRD FLOOR



3 PLAN 1X (END UNIT VARIATION)
PARTIAL THIRD FLOOR PLAN
1/4" = 1'-0"

NET AREA LEGEND

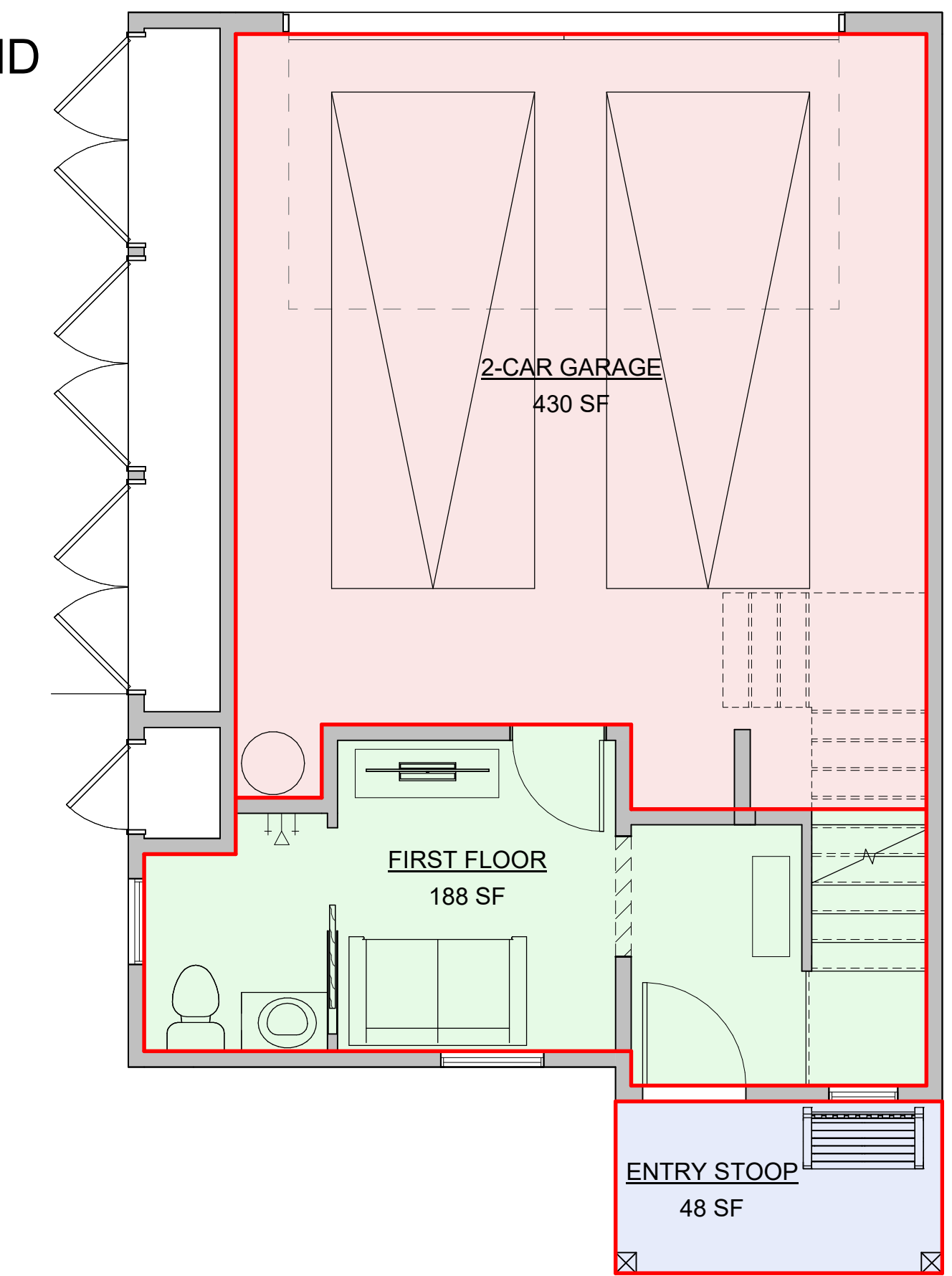
- DECK
- SECOND FLOOR



2 PLAN 1X (END UNIT VARIATION)
PARTIAL SECOND FLOOR PLAN
1/4" = 1'-0"

NET AREA LEGEND

- 2-CAR GARAGE
- ENTRY STOOP
- FIRST FLOOR



1 PLAN 1X (END UNIT VARIATION)
PARTIAL FIRST FLOOR PLAN
1/4" = 1'-0"

NET AREA
MEASURED FROM INSIDE FACE OF STUD WALL.

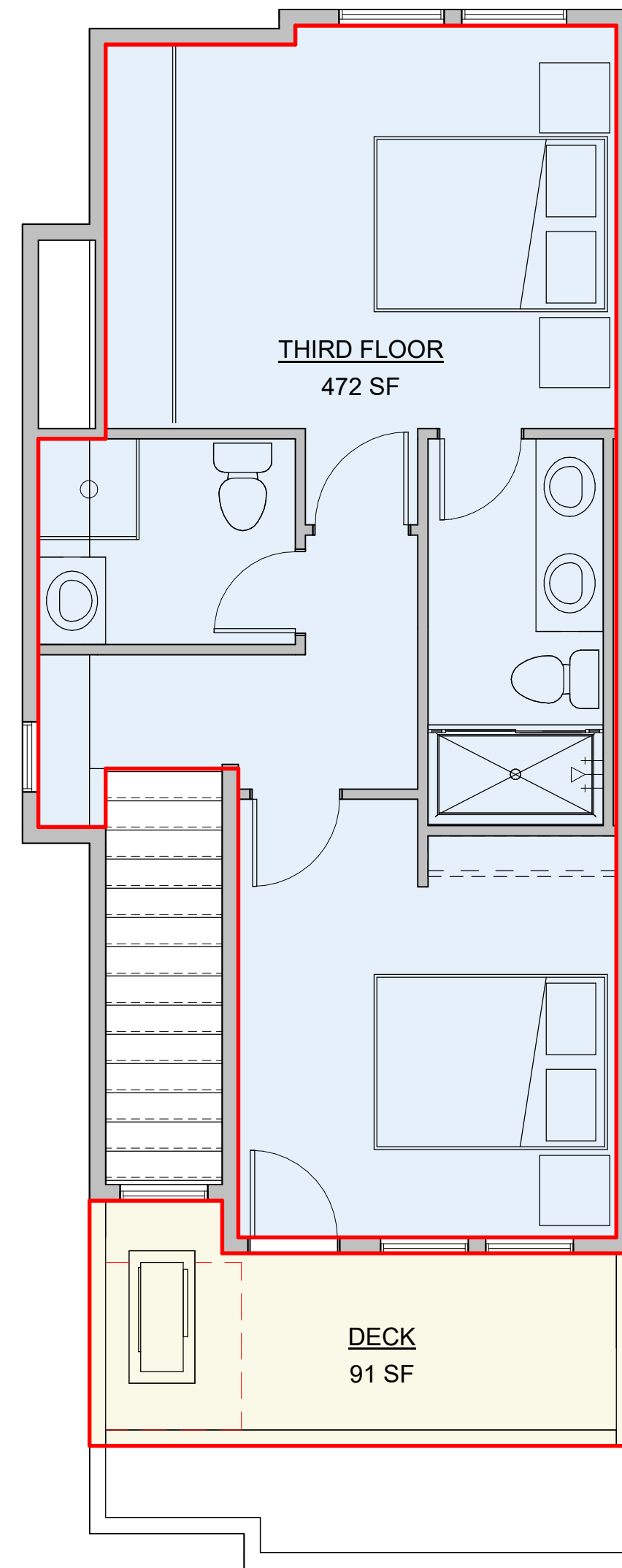
PLAN 1X - 3 BR / 4 BA	
Name	AREA (SF)
FIRST FLOOR	188
SECOND FLOOR	718
THIRD FLOOR	631
TOTAL LIVING AREA	1537
2-CAR GARAGE	430
DECK	48
DECK	48
ENTRY STOOP	48
ROOF DECK	281

FLOOR AREA DIAGRAMS



NET AREA LEGEND

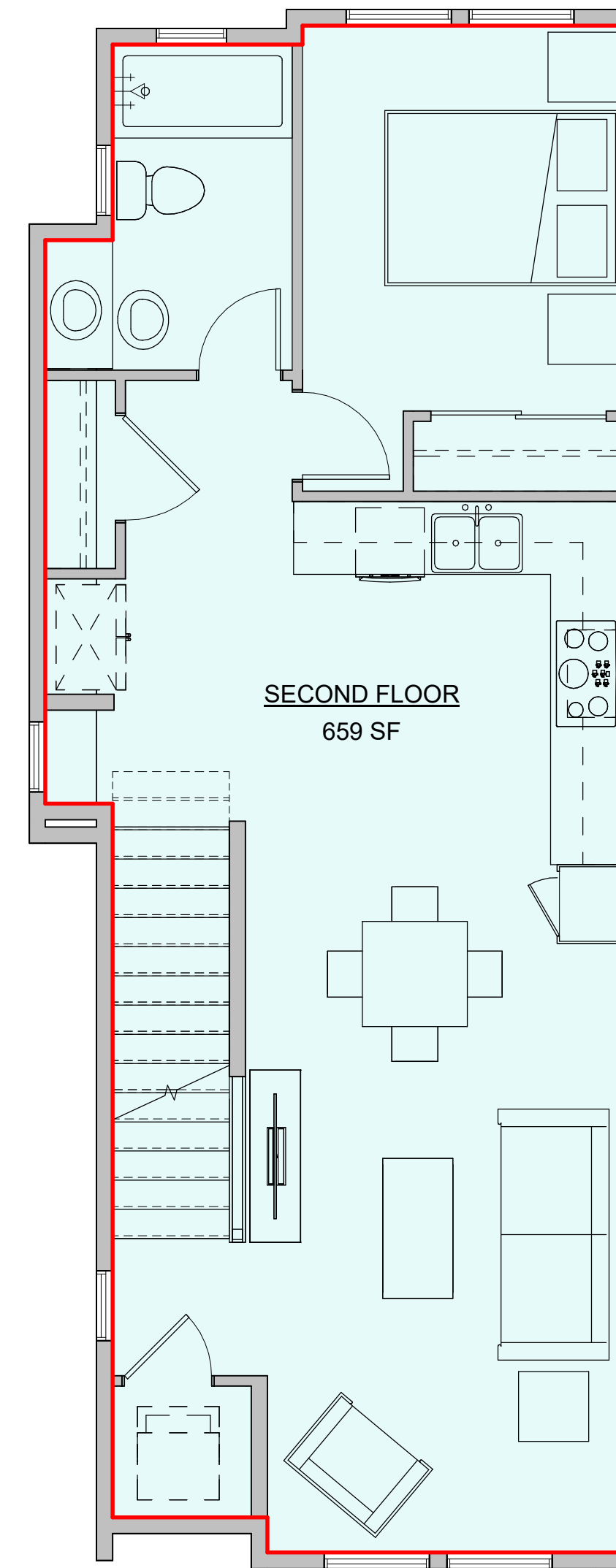
- DECK
- THIRD FLOOR



3 PLAN 2X (END UNIT VARIATION)
PARTIAL THIRD FLOOR PLAN
1/4" = 1'-0"

NET AREA LEGEND

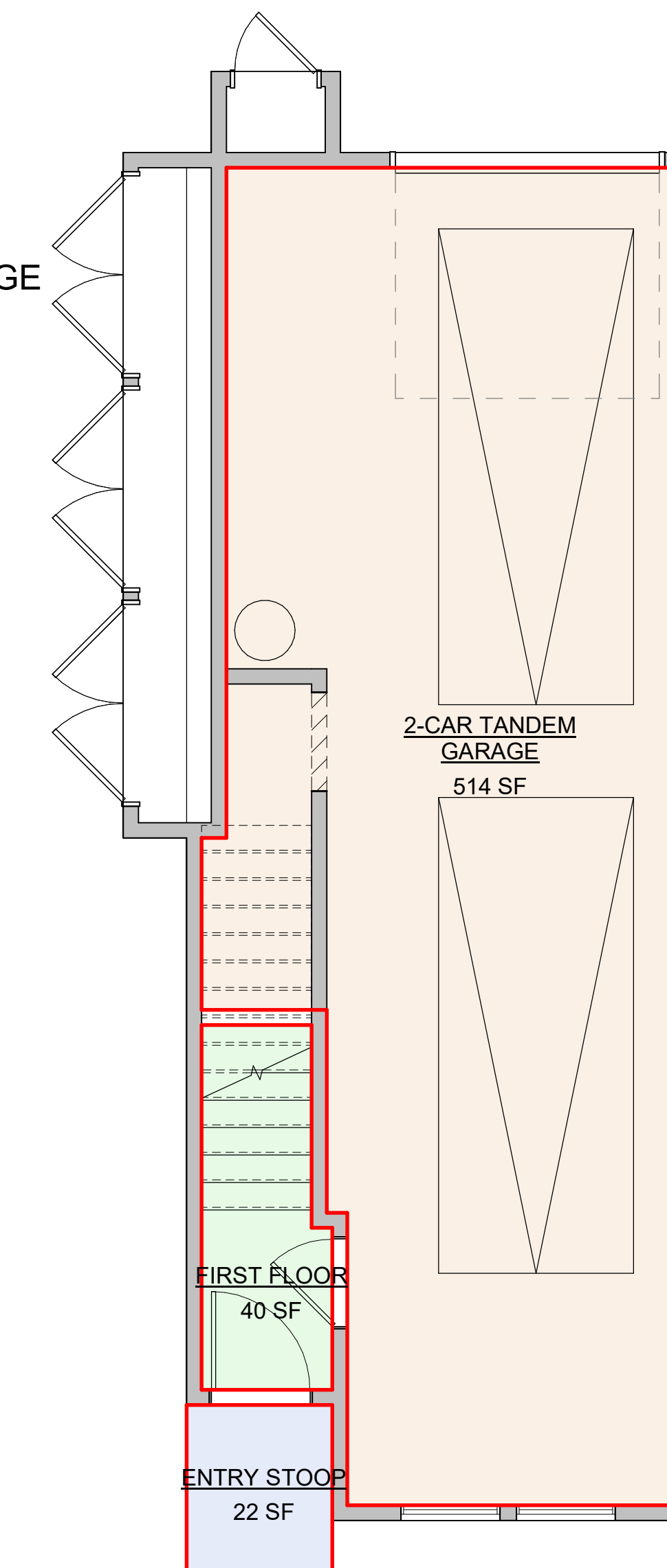
- SECOND FLOOR



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PARTIAL SECOND FLOOR PLAN
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1 PLAN 2X (END UNIT VARIATION)
PARTIAL FIRST FLOOR PLAN
1/4" = 1'-0"

NET AREA
MEASURED FROM INSIDE FACE OF STUD WALL.

PLAN 2X - 3 BR / 3 BA	
Name	AREA (SF)
FIRST FLOOR	40
SECOND FLOOR	659
THIRD FLOOR	472
TOTAL LIVING AREA	1171

2-CAR TANDEM GARAGE	514
DECK	91
ENTRY STOOP	22

FLOOR AREA DIAGRAMS



	Code Section	Y	N	Plan Sheet, Spec or Attachment Reference	Compliance Path Verification																
					Plan Check	Rough GB Inspection I/R # 152	Final Inspection I/R # 153	Part 1	Part 1	Part 2	Part 2										
4.1 Planning and Design																					
Mandatory	Mandatory	4.106.2																			
	Tier 2 Mand.	PAMC 16.14.070/ A4.106.2.3																			
	Mandatory	4.106.3																			
	Tier 2 Mand.	A4.106.4																			
	Tier 2 Mand.	PAMC 16.14.070/ A4.106.5																			
	Tier 2 Mand.	PAMC 16.14.420/ A4.106.6																			
	Mandatory	PAMC 16.14.420/ A4.106.8.1																			
	Mandatory	PAMC 16.14.420/ A4.106.8.2																			
	Mandatory	PAMC 16.14.420/ A4.106.8.3																			
	Mandatory	PAMC 18.54.060/ A4.106.9																			
Electives (Chose 4)	Elective	A4.103.1																			
	Elective	A4.103.2																			
	Elective	PAMC 16.14.090/ A4.104.1																			
	Elective	PAMC 16.14.130/ A4.105.1																			
	Elective	PAMC 16.14.130/ A4.105.2																			
	Elective	A4.106.2.1																			
	Elective	A4.106.2.2																			
	Elective	A4.106.3																			
	Elective	A4.106.6																			
	Elective	A4.106.7																			
Mandatory	PAMC 16.17.110/ 2016 Title 24, Part 6																				
	Mandatory																				
4.3 Water Efficiency and Conservation																					
Mandatory	Mandatory	4.303.1.1																			
	Mandatory	4.303.1.2																			
	Mandatory	4.303.1.3.1																			
	Mandatory	4.303.1.3.2																			
	Mandatory	4.303.1.4.1																			
	Mandatory	4.303.1.4.2																			
	Mandatory	4.303.1.4.3																			
	Mandatory	4.303.1.4.4																			
	Mandatory	4.303.2																			
	Mandatory	4.304.1																			
Electives (Chose 3)	Mandatory	4.305.1																			
	Tier 2 Mand.	PAMC 16.14.230/ A4.305.3																			
	Elective	A4.303.1																			
	Elective	A4.303.2																			
	Elective	A4.303.3																			
	Elective	A4.303.4																			
	Elective	A4.303.5																			
	Elective	A4.304.1																			
	Elective	A4.304.2																			
	Elective	PAMC 16.14.220/ A4.304.3																			
Mandatory	Mandatory	PAMC 16.14.230/ A4.305.1																			
	Mandatory	PAMC 16.14.230/ A4.305.2																			
	Mandatory	PAMC 16.14.230/ A4.305.3																			
	Elective	A4.306.1																			
	4.4 Material Conservation and Resource Efficiency																				
	Mandatory	Tier 2 Mand.	PAMC 16.14.070 / A4.405.3.1																		
		Mandatory	4.406.1																		
		Mandatory	PAMC 16.14.260/ A4.408.1																		
		Mandatory	A4.408.2																		
		Mandatory	4.408.3																		
Mandatory		4.410.1																			
Mandatory		4.410.2																			
Elective		PAMC 16.14.250/ A4.403.2																			
Elective		A4.404.1																			
Electives (Chose 4)		Elective	A4.404.2																		
	Elective	A4.404.3																			
	Elective	A4.404.4																			
	Elective	A4.405.1																			
	Elective	A4.405.2																			
	Elective	A4.405.4																			
	Elective	A4.407.1																			
	Elective	A4.407.2																			
	Elective	A4.407.3																			
	Elective	A4.407.4																			

	Code Section	Y	N	Plan Sheet, Spec or Attachment Reference	Compliance Path Verification															
					Plan Check	Rough GB Inspection I/R # 152	Final Inspection I/R # 153	Part 1	Part 1	Part 2	Part 2									
4.5 Environmental Quality																				
Mandatory	Mandatory	4.503.1																		
	Mandatory	4.504.1																		
	Mandatory	4.504.2.1																		
	Mandatory	4.504.2.2																		
	Mandatory	4.504.2.3																		
	Mandatory	4.504.2.4																		
	Mandatory	4.504.3																		
	Mandatory	4.504.3.1																		
	Mandatory	4.504.3.2																		
	Tier 2 Mand.	PAMC 16.14.070/ A4.504.2																		
Mandatory	Mandatory	4.504.5																		
	Mandatory	4.505.2																		
	Mandatory	4.505.2.1																		
	Mandatory	4.505.3																		
	Mandatory	4.506.1																		
	Mandatory	4.507.2																		
	Mandatory	PAMC 16.14.410																		
	Elective	PAMC 16.14.265/ A4.504.1																		
	Elective	PAMC 16.14.270/ A4.504.3																		
	Elective	A4.506.2																		
Elective	A4.506.3																			
Elective	A4.509.1																			

Legend:
 Y - Yes; the measure is in the scope of work.
 N - No; the measure is not in the scope of work.
 PAMC - Palo Alto Municipal Code; locally amended
 [N] - New Construction
 [MF] - Multi-family dwellings
 [AA] - Additions and alterations

ADU Exception:
 Free standing detached Accessory Dwelling Units of new construction shall meet the following:
 1. California Green Building Standards Code Mandatory plus Tier 2 prerequisite requirements.
 2. No Planning and Design electives.
 3. Two (2) Water Efficiency and Conservation electives.
 4. Two (2) Material Conservation and Resource Efficiency electives.

The [Green Building Survey](#) is a required project submittal. The survey can be found at the following [link](#). The online survey shall be completed and a Green Building Survey Report will be sent in an email. Include a copy of the survey report on a separate page in this plan set. Please indicate the reference page here _____.

Special Inspector Acknowledgement

The project will be verified by a RESIDENTIAL GREEN BUILDING SPECIAL INSPECTOR

I have reviewed the project plans and specifications, and they are in conformance with the CALGreen mandatory and elective measures claimed. I have reviewed and understand the after-construction requirements below.

Signature (Green Building Special Inspector) _____

Print Name _____

Phone or Email _____

Certified Energy Analyst Acknowledgement

The project will be verified by a CERTIFIED ENERGY ANALYST

REQUIREMENT EFFECTIVE ON APRIL 1, 2020

The Certificate of Compliance shall be prepared and signed by a Certified Energy Analyst and the energy budget for the Proposed Design shall be no greater than the Standard Design Building.

I am a Certified Energy Analyst with the California Association of Building Energy Consultants as of the date of submission of a Certificate of Compliance as required under Section 10-103 of the Building Energy Efficiency Standards for Residential and Non-Residential Buildings.

Signature (Certified Energy Analyst) _____

Print Name _____

Phone or Email _____

SECTION TO BE COMPLETED AFTER CONSTRUCTION

After construction is complete submit the following at the City Development Center to schedule your final inspection:

Construction debris receipts from an approved facility using Green Halo.

If HERS testing was required per the homes energy report, attach the completed forms.

If there were alterations during construction that impacted the energy report (i.e. R values, U factors, Equipment Types) rerun the report and attach it.

I certify that:

CALGreen inspections were performed throughout construction.

The home has met the CALGreen measures as claimed on this sheet. Those required for landscaping may be excluded from this confirmation if verified within 6 months of final inspection.

Through a combination of onsite inspections and confirmation from the Contractor there have been no alterations that impacted the energy report for the home, unless the new report is provided as an attachment.

Signature (Green Building Special Inspector) _____

Sign only after project is complete

Print Name _____

CITY STAMPS ONLY

Table 1: Suitability for Conservation, continued
739 Sutter Ave., Palo Alto CA

Rating	Tree Characteristics	Conservation Potential
Low	These are trees in decline or with structural defects that can't be managed. The tree may be inappropriately located on the site, requiring ongoing management, often to the detriment of tree health and structure. Any benefits the tree provides are limited and outweighed by the costs of management.	English walnut #4, privet #5 and callery pear #6 (all off-site) were of Low suitability for conservation.

Project Impacts

The project proposes to demolish the existing structure and redevelop the site into 12 residential units. Walkways would be located along the northeastern and northwestern property boundaries, with the driveway in the existing location along the southern boundary. Bioretention would be installed along the Sutter Ave. frontage, and joint trench and sanitary sewer would be located in the driveway.

I reviewed the following plan(s) to estimate impacts to the trees. The plans included sufficient information about the proposed changes, including trunk locations for on-site trees, to make an accurate assessment of impacts to the trees.

- Preliminary Site and Grading Plan (Sheet C2), prepared by BKF Engineers (dated 4.29.2022).
- Preliminary Utility Plan (Sheet C3), prepared by BKF Engineers (dated 4.29.2022).

Retained Trees

All 5 off-site trees would be retained under the current design, including #4-8. None of the trees identified for preservation qualified as *Protected* trees. Table 2 (following page) provides the disposition, protected status and recommended action for each tree with color-coding to help clarify the severity of the potential impacts.

In general, off-site trees #4-7 will be exposed to limited impacts within 3 to 8 feet of their trunks. A new walkway would be constructed approximately 2.5 feet from the property line, in the area where the existing walkway is located. Excavation for a new storm drain would occur approximately 7 feet from the property line. Off-site tree #4 is already dead and I expect off-site trees #5-8 to tolerate any root loss associated with grading for the walkway and excavation for the storm drain.

Off-site tree #8 would be located an estimated 12' from the proposed storm drain trench and is also expected to tolerate the impacts of the proposed changes.

Specific and general **Tree Preservation Recommendations** are provided at the end of this document. Successful tree preservation is predicated on all contractors being aware of and required to follow the **Tree Preservation Recommendations**.

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Removed Trees

Street trees #1 and 2 and on-site tree #3 would be directly impacted by the proposed bioretention basins proposed along the Sutter Ave. frontage, requiring their removal. The basins would essentially be at the base of trees #1 and 2 to the northwest, and tree #3 would be within the walkway and impacted by trenching for the bioretention basin. Trees #1 and 2 qualified as *Protected* trees.

Table 2: Assessment of Impacts and Recommendations
739 Sutter Ave., Palo Alto CA

Tree #	Species	Diameter	Protected	Disposition	Impacts
1	Evergreen maple	24	Yes	Remove	Bioretention within 1x DBH
2	Evergreen maple	18	Yes	Remove	Bioretention within 1x DBH
3	Evergreen maple	20	No	Remove	Within Bioretention & walkway
4	English walnut	6.5,5.5	No	Preserve	Walkway w/ in 1x DBH, SD w/ in 3x DBH
5	Privet	8,8.6	No	Preserve	Walkway w/ in 1x DBH, SD w/ in 3x DBH
6	Callery pear	8	No	Preserve	Walkway w/ in 3x DBH, SD w/ in 5x DBH
7	Callery pear	10	No	Preserve	Walkway w/ in 3x DBH, SD w/ in 5x DBH
8	Callery pear	12	No	Preserve	Walkway w/ in 5x DBH

Color coding:
Root loss within 1x DBH Root loss within 3x DBH
Root loss within 2x DBH Root loss >5x DBH

Tree Preservation Recommendations

Preservation of trees during construction requires a deliberate and concerted effort from the planning stage, through demolition and construction and installation of plants and irrigation. Every contractor on the project must be made aware of the following recommendations for the protection of trees identified for preservation if the trees are to remain an asset and continue to provide benefits to the site for years to come.

Damage to trees on construction sites is typically associated with root injury and loss. Direct injury severs roots while indirect injury, such as soil compaction, creates an inhospitable environment for root growth. The following are meant to help reduce the potential for all tree damage.

Specific Tree Preservation Requirements

The primary recommendations for preservation of trees at the 739 Sutter Ave. site include:

- In this case, none of the trees proposed for preservation qualified as *Protected* and all were located off-site. As such, the trees do not require protection with fencing at the City prescribed distance of 10x the trunk diameter (as described in the Tree Technical Manual and shown on Sheet T1).
- Install sturdy fences around trees #4-8, enclosing those portions of their driplines that extend over the development site. I highly recommend 6" chain link on posts driven into the ground to minimize the potential for contractors to walk, store equipment and/or materials beneath trees to be preserved.
- Tree Protection Fencing shall be maintained in place until site work in the area commences (including sidewalk and storm drain line). Fencing shall be temporarily removed while site work occurs under supervision and direction of the Consulting Arborist.
- Have the Consulting Arborist present prior to excavations for the new garage foundation to help guide and monitor root pruning activities.

General Tree Preservation Requirements

In addition to the specific recommendations provided above, the following general recommendations are designed to minimize impacts to trees from site demolition, grading, utility work and construction.

Any work within the designated **TREE PROTECTION ZONE** must be approved and monitored by the Consulting Arborist. If fences have been erected at the limit of the **TREE PROTECTION ZONE** the fences will be temporarily removed and work performed under the direct supervision of the Consulting Arborist. Fences will be replaced following completion of the work based on the recommendations of the Consulting Arborist.

Design phase

- The Consulting Arborist must review all plans to adequately assess impacts to trees. These include, but are not limited to, improvement plans, utility and drainage plans, grading plans, landscape and irrigation plans and demolition plans.
- Tree Preservation Recommendations** prepared by the Consulting Arborist should be included on all plans.
- Plan to protect the soil/roots between trees #4-8 and the adjacent construction by placing 3-4" of wood chips, rock or metal plates in the area between the tree and the proposed work (within the **TREE PROTECTION ZONE** described in #4).
- Establish a **TREE PROTECTION ZONE (TPZ)** for trees to be preserved, in which no disturbance is permitted. **TREE PROTECTION ZONES** for trees #4-8 shall be established at their driplines and enclose those portions of their driplines that extend over the development site. No grading, excavation, construction or storage of materials shall occur within that zone.
- Underground services including utilities, sub-drains, water or sewer shall be routed around the **TREE PROTECTION ZONE**. Where encroachment cannot be avoided, special construction techniques such as hand digging or tunneling under roots shall be employed where necessary to minimize root injury.
- Irrigation systems must be designed so that no trenching will occur within the **TREE PROTECTION ZONE**.

Pre-demolition and construction phase

- The demolition contractor and construction superintendent shall meet with the Consulting Arborist before beginning work to discuss work procedures and tree protection.
- For trees #4-8 completely enclose the **TREE PROTECTION ZONE** prior to demolition, grubbing or grading. Fences shall be 6 ft. chain link and are to remain until all grading, construction and landscaping is completed. Place weather proof signs, 2' x 2', on the fencing that read "TREE PROTECTION ZONE Keep Out" (eg. one sign for each of the four compass points).
- Prune trees to be preserved to provide construction clearance, clean the crowns of dead branches and correct defects in structure.

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- All pruning shall be done by a State of California Licensed Tree Contractor (C61/D49). All pruning shall be done by Certified Arborist or Certified Tree Worker in accordance with the Best Management Practices for Pruning (International Society of Arboriculture, 2017) and adhere to the most recent editions of the American National Standard for Tree Care Operations (Z133.1) and Pruning (A300).
- All tree work shall comply with the Migratory Bird Treaty Act as well as California Fish and Wildlife Code 3503-3513 to not disturb nesting birds. To the extent feasible tree pruning and removal should be scheduled outside of the breeding season. Breeding bird surveys should be conducted prior to tree work. Qualified biologists should be involved in establishing work buffers for active nests.

Construction phase

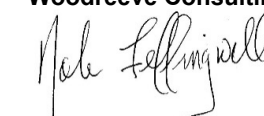
- Any contractor working in the vicinity of trees to be preserved are required to meet with the Consulting Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures.
- Any excavation that is expected to encounter tree roots must be approved and monitored by the Consulting Arborist. Roots shall be cut by manually exposing roots and pruning all roots $\geq 2"$ in diameter with a **sharp** saw. The Consulting Arborist will identify where root pruning is required and monitor all root pruning activities.
- If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.
- Fences have been erected to protect trees to be preserved. Fences define a specific **TREE PROTECTION ZONE** for each tree or group of trees. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission of the Consulting Arborist.
- Construction trailers, traffic and storage areas must remain outside the **TREE PROTECTION ZONE** at all times.
- All underground utilities, drain lines or irrigation lines shall be routed outside the **TREE PROTECTION ZONE**. If lines must traverse through the **TPZ**, the excavation shall be performed by hand or with compressed air or water. Where possible, roots shall be tunneled or bored under as directed by the Consulting Arborist.
- No materials, equipment, spoil, waste or wash-out water may be deposited, stored, or parked within the **TREE PROTECTION ZONE** (fenced area).
- Any additional tree pruning needed for clearance during construction must be performed by a qualified arborist and not by construction personnel.

End requirements

ARBORIST REPORT



- General Limitations**
- My assessment of the trees is based on a visual evaluation of external conditions and defects observable from the ground. While defect-free trees do fail, especially under extreme wind loading or wind and rain, identifying trees with observable defects is a critical step in enhancing safety.
 - Trees are dynamic, living entities that change over time. My assessment of the tree(s) is based on their condition at the time of my inspection. Trees should be inspected annually to monitor for changes in health and structure and following storms. Initiating these inspections is the tree owner/manager's responsibility.
 - Trees require management to perform well in a giving setting. Periodic pruning, mulching, pest management and irrigation are typically required.
 - Any legal description provided to the consultant is assumed to be correct.
 - Care has been taken to obtain all information from reliable sources; however, the consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
 - Sketches, drawings, and photographs in this report are intended for visual aids. They are not necessarily to scale and should not be construed as engineering or architectural reports or surveys unless expressed otherwise.
 - Information contained in this report covers only those items that were examined and reflects the conditions of those items at the time of inspection.
 - The inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring.

Woodreeve Consulting

 John Leffingwell
 Board Certified Master Arborist #WE-3966B
 Registered Consulting Arborist #442

- Exhibits:** **Tree Data Form**
Tree Location Map

Tree Data

739 Sutter Ave.
 Palo Alto, California
 August 2022



TREE No.	SPECIES	TRUNK DIAMETER (in inches)	PROTECTED	CONDITION	SUITABILITY FOR CONSERVATION	COMMENTS	Driplines (ft.)		
							N.	S.	E. W.
1	Evergreen maple	24	Yes	3	Moderate	Multiple attachments at 5'; good form; topped for overhead utilities; twig dieback.	18	15	18 15
2	Evergreen maple	18	Yes	3	Moderate	Codominant trunks at 5'; good form; topped for overhead utilities; dieback in upper crown.	12	15	15 12
3	Evergreen maple	20	No	3	Moderate	Multiple attachments at 7'; good form; topped for overhead utilities; sparse upper crown.	20	15	18 15
4	English walnut	6,5,5,5	No	0	Low	Off-site, no tag; dead.	0	10	10 0
5	Privet	8,8,6	No	3	Low	Off-site, no tag; multiple attachments at 3'; topped.	0	10	8 0
6	Callery pear	8	No	2	Low	Off-site, no tag; topped; poor form & structure.	0	8	8 0
7	Callery pear	10	No	3	Moderate	Off-site, no tag; crowded; narrow form; topped.	0	10	10 0
8	Callery pear	12	No	3	Moderate	Off-site, no tag; crowded; one sided S.; topped.	0	12	8 0

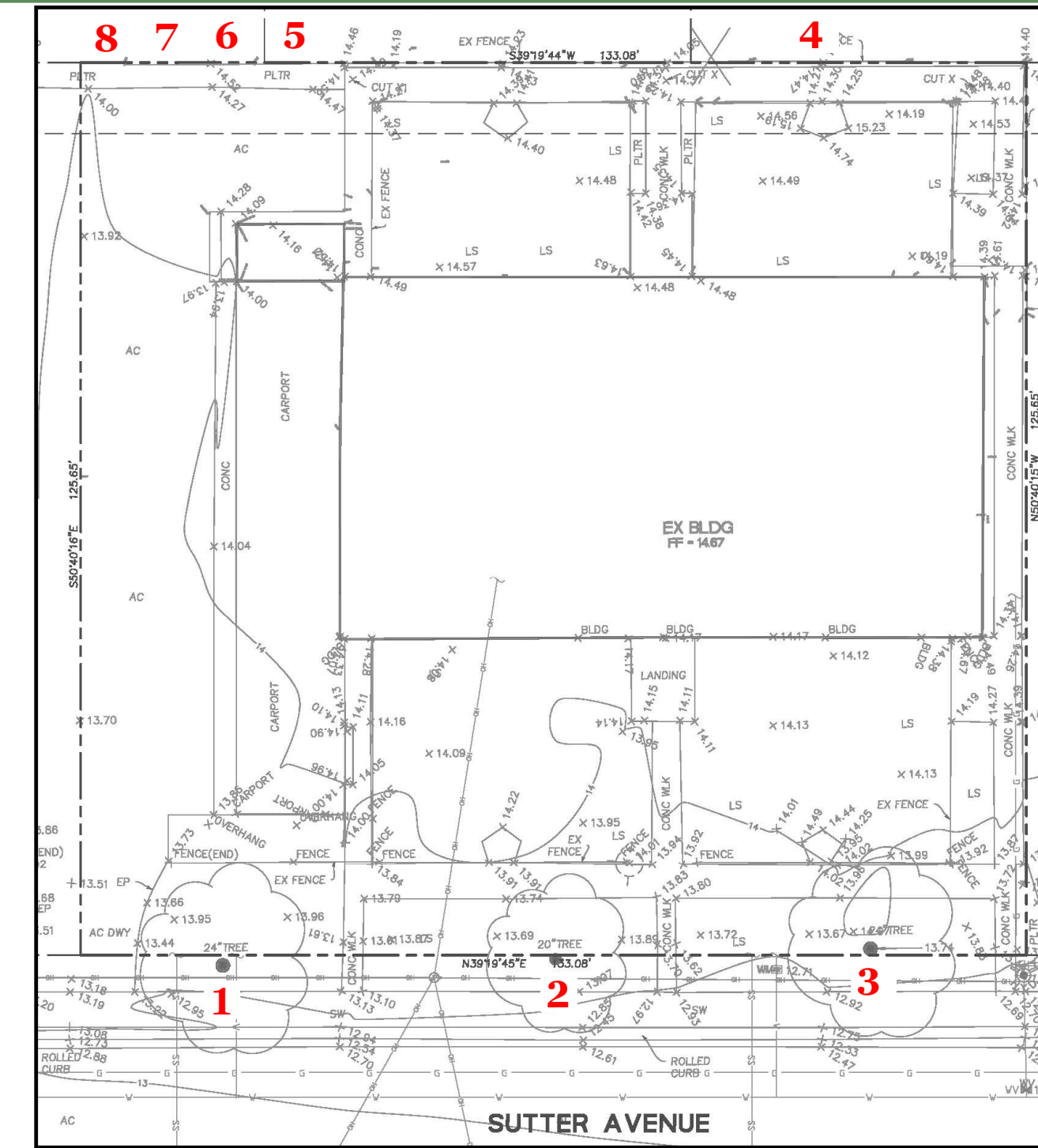
Tree Location Map

739 Sutter Avenue
 Palo Alto, CA



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 Oakland, CA 94609—(510) 387-5241

August 2022



Page 1

Prepared for:

Grace Li
 San Mateo, CA

- Notes:**
- Map is not to scale
 - Base map provided by BKF Engineers
 - Numbered tree locations are approximate.

ARBORIST REPORT



City of Palo Alto Tree Protection - It's Part of the Plan!

Make sure your crews and subs do the job right!

Fenced enclosures around trees are essential to protect them by keeping the foliage and canopy and branching structure clear from contact by equipment, materials and activities, preserving roots and soil conditions in an intact and non-compacted state, and identifying the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved. **An approved tree protection report must be added to this sheet when project activity occurs within the TPZ of a regulated tree.**
For detailed information on Palo Alto's regulated trees and protection during development, review the **City Tree Technical Manual (TTM)** found at www.cityofpaloalto.org/trees/.

TREE DISCLOSURE STATEMENT

CITY OF PALO ALTO
Planning Division, 250 Hamilton Avenue
Palo Alto, CA 94301
(650) 329-2441
<http://www.cityofpaloalto.org>

Palo Alto Municipal Code, Chapter 8.10.040, requires disclosure and protection of certain trees located on private and public property, and that they be shown on approved site plans. A completed disclosure statement must accompany all building permit applications that include exterior work, all demolition or grading permit applications, or other development activity.

PROPERTY ADDRESS: 739 Sutter Avenue, Palo Alto

Are there Regulated trees on or adjacent to the property? YES NO (If no, proceed to Section 4)

[Sections 1-4 MUST be completed by the applicant. Please circle and/or check where applicable.]

1. Where are the trees? Check those that apply. (Plans must be submitted showing over 4" diameter trees)

On the property
 On adjacent property overhanging the project site
 In the City planter strip or right-of-way easement within 30' of property line (Street Trees)*

*Street trees require special protection by a fenced enclosure, per the attached instructions. Prior to receiving any permit, you must provide an authorized Street Tree Protection Verification form by calling Public Works Operations at 495-5953 for inspection of required type I, II or III fencing (see attached Detail #605).

2. Are there any Protected or Designated Trees? YES (Check where applicable) NO

Protected Tree (s)
 Designated Tree (s)
 On or overhanging the property

3. Is there activity or grading within the dieline? (radius 10 times the trunk diameter) of these trees? YES NO
If Yes, a Tree Preservation Report must be prepared by an ISA certified arborist and submitted for staff review (see TTM - Section 6.25). Attach this report to Sheet T-1, Tree Protection, as Part of the Plan; per Site Plan Requirements.

4. Are the Site Plan Requirements* completed? YES NO

**Protection of Regulated trees during development require the following: (1) Plans must show the measured trunk diameter and canopy diameter; (2) Plans must denote, as a bold dashed line, a fenced enclosure area out to the dieline, per Sheet T-1 and Detail #605 - <http://www.cityofpaloalto.org/trees-forms.htm> (See also TTM, Section 2.15 for areas to be fenced)

I, the undersigned, agree to the conditions of this disclosure. I understand that knowingly or negligently providing false or misleading information in response to this disclosure requirement constitutes a violation of the Palo Alto Municipal Code Section 8.10.040, which can lead to criminal and/or civil legal action.

Signature: Print: Ge Sun Date: 6/29/23
(Prop. Owner or Agent)

FOR STAFF USE.

Protective Fencing
Sections 5-6 must be completed by staff for the issuance of any development permit (demolition, grading or building permit).

5. Protected Trees. The specified tree fencing is in place. A written statement is attached verifying that protective fencing is correctly in place around protected and/or designated trees. YES NO
(N/A if there are no protected trees, check here)

6. Street Trees. A signed Public Works Street Tree Protection Verification form is attached. YES NO
(N/A if there are no street trees, check here)

Regulated Trees - a) Street trees - trees on public property; b) Protected trees - Coast Live Oaks or Valley Oaks which are 11.25" in diameter or larger; Coast Redwoods which are 18" in diameter or larger, when measured 4'-6" above natural grade; and Heritage trees are trees designated by City Council and/or Designated Trees - commercial or non-residential property trees, which are part of an approved landscape plan.

* Palo Alto Tree Technical Manual (TTM) contains instructions for all requirements on this form, available at <http://www.cityofpaloalto.org/trees-forms.htm>

S:\Plan\Adv\Arborist\Tree Protection Info\Tree Disclosure Statement Revised 08/06

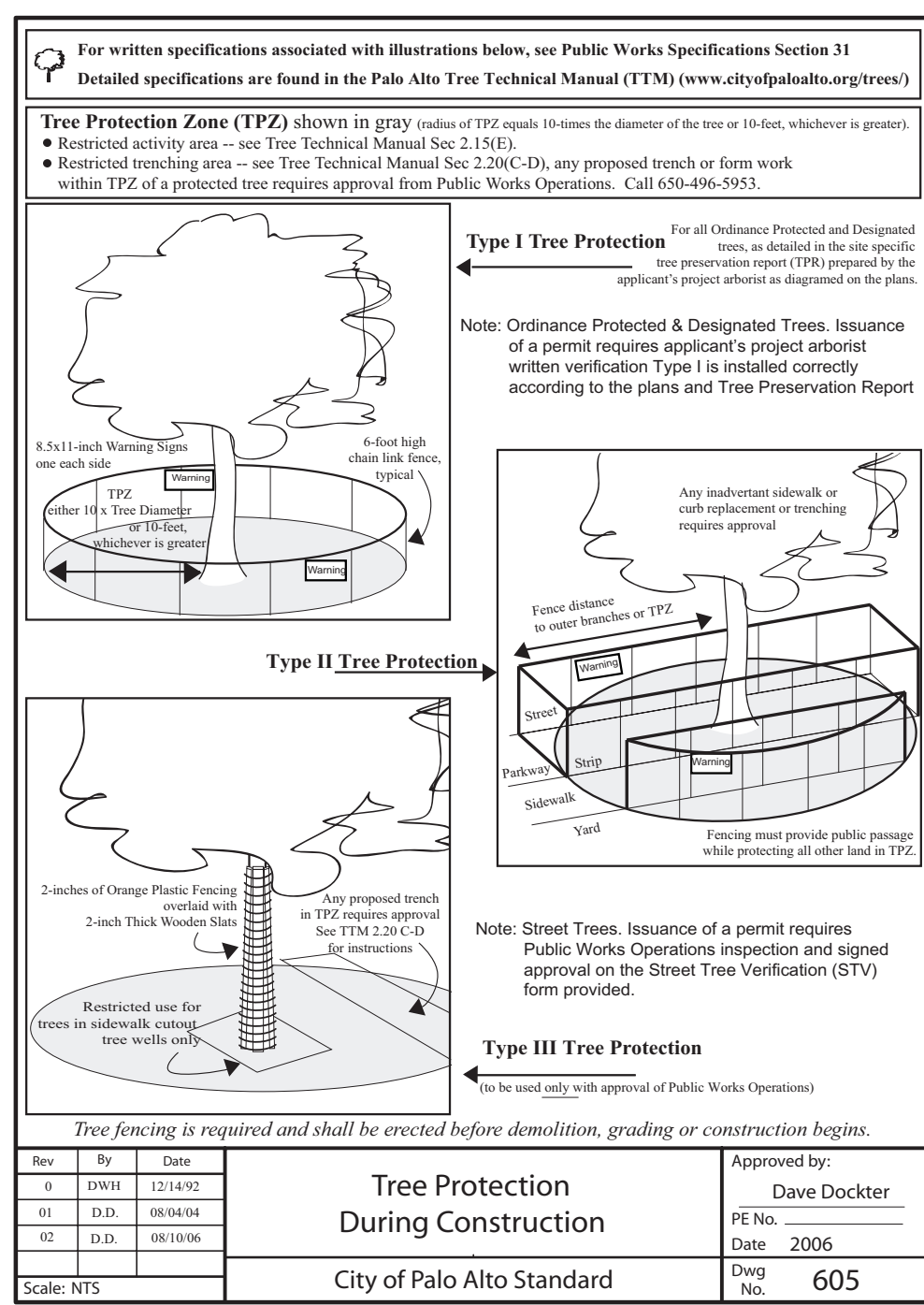


Table 2-2 Palo Alto Tree Technical Manual

CONTRACTOR & ARBORIST INSPECTION SCHEDULE

Reference: the Palo Alto Tree Technical Manual is available at www.cityofpaloalto.org/environment/

ALL CHECKED ITEMS APPLY TO THIS PROJECT:

- Inspection of Protective Tree Fencing** For Public Trees, the Street Tree Verification Form shall be signed by the City Arborist. For Protected Trees, the project site arborist shall provide an initial Monthly Tree Activity Report from with a photograph verifying that he has conducted a field inspection of the trees and that the correct type of protective fencing is in place around the designated tree protection zone (TPZ) prior to issuance of a demolition, grading, or building permit. (See TTM, Verification of Tree Protection, Section 1.39).
- Pre-Construction Meeting** Prior to commencement of construction, the applicant or contractor shall conduct a pre-construction meeting to discuss tree protection with the job site superintendent, grading operators, project site arborist, City Arborist, and, if a city maintained irrigation system is involved, the Parks Manager. (Contact 650-496-6962).
- Inspection of Rough Grading or Trenching** Contractor shall ensure the project site arborist performs an inspection during the course of rough grading or trenching adjacent to or within the TPZ to ensure trees will not be injured by compaction, cut or fill, drainage and trenching, and if required, inspect erosion systems, tree wells, drains and special paving. The contractor shall provide the project arborist at least 24 hours advance notice of such activity.
- Monthly Tree Activity Report Inspections** The project site arborist shall perform a minimum monthly activity inspection to monitor and advise on conditions, tree health and retention or, immediately if there are any violations to the approved plans or protection measures. The Tree Technical Manual Monthly Tree Activity Report format shall be used and sent to the Planning Dept. landscape review staff no later than 14 days after issuance of building permit date. Fax to (650) 329-2154. (See TTM, Monthly Tree Activity Inspection Report, Addendum 11 & Section 1.17).
- Special activity within the Tree Protection Zone** Work in the TPZ area (see #7 below) requires the direct onsite supervision of the project arborist or (see TTM, Trenching, Excavation & Equipment, Section 2.20 C).
- Landscape Architect Inspection** For discretionary development projects, prior to temporary or final occupancy the applicant or contractor shall arrange for the Landscape Architect to perform an on site inspection of all plant stock, quality of the materials and planting (see TTM, Planting Quality, Sections 5.20.1 A) and that the irrigation is functioning consistent with the approved construction plans. The Planning Dept. landscape review staff shall be in receipt of written verification of Landscape Architect approval prior to scheduling the final inspection, unless otherwise approved.
- List Other** (please describe as called out in the site Tree Preservation Report, Sheet T-1, T-2, etc.)

**PALO ALTO
STREET TREE PROTECTION INSTRUCTIONS
-SECTION 31-**

31-1 General

a. **Tree protection has three primary functions:** 1) to keep the foliage canopy and branching structure clear from contact by equipment, materials and activities; 2) to preserve roots and soil conditions in an intact and non-compacted state and 3) to identify the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved.

b. **The Tree Protection Zone (TPZ)** is a restricted area around the base of the tree with a radius of ten-times the diameter of the tree's trunk or ten feet, whichever is greater, enclosed by fencing.

31-2 Reference Documents

a. **Detail #65** - Illustration of situations described below.

b. **Tree Technical Manual (TTM) Form** (<http://www.cityofpaloalto.org/trees/>)

- Trenching Reference Zones (TTM, Section 2.20C)
- Arborist Reporting Protocol (TTM, Section 6.19)
- Site Plan Requirements (TTM, Section 6.19)
- Tree Disclosure Statement (TTM, Appendix D)

c. **Street Tree Verification (STV) Form** (<http://www.cityofpaloalto.org/trees-forms/>)

31-3 Execution

a. **Type I Tree Protection:** The fence shall enclose the entire TPZ of the tree(s) to be protected throughout the life of the construction project. In some parking areas, if fencing is located on paving or concrete that will not be demolished, then the posts may be supported by an appropriate grade-level concrete base, if approved by Public Works Operations.

b. **Type II Tree Protection:** For trees situated within a planting strip, only the planting strip and yard side of the TPZ shall be enclosed with the required chain link protective fencing in order to keep the sidewalk and street open for public use.

c. **Type III Tree Protection:** To be used only with approval of Public Works Operations. Trees situated in a tree well or sidewalk planter pit, shall be wrapped with 2-inches of orange plastic fencing from the ground to the first branch and overlaid with 2-inch thick wooden slat board security chain shall not be allowed to dig into the bark). During installation of the plastic fencing, caution shall be used to avoid damaging any branches. Major limbs may also require plastic fencing as directed by the City Arborist.

d. **Site, type and area to be fenced.** All trees to be preserved shall be protected with six (6) foot high chain link fences. Fences are to be mounted on two-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing. Fencing shall extend to the outer branching, unless specifically approved on the STV Form.

e. **"Warning" Signs.** A warning sign shall be weather proof and prominently displayed on each fence at 20-foot intervals. The sign shall be minimum 8.5-inches x 11-inches and clearly state in half inch tall letters "WARNING - Tree Protection Zone - This fence shall not be removed and is subject to a fine according to PAMC Section 8.10.110."

f. **Duration.** Tree fencing shall be erected before demolition, grading or construction begins and remain in place until final inspection of the project, except for work specifically allowed in the TPZ. Work or soil disturbance in the TPZ requires approval by the project arborist or City Arborist in the case of work around Street Trees. Excavations within the public right of way require a Street Work Permit from Public Works.

31-4 During construction

- All neighbor trees that overhang the project site shall be protected from impact of any kind.
- The applicant shall be responsible for the repair or replacement plus penalty of any publicly-owned trees that are damaged during the course of construction, pursuant to Section 8.04.070 of the Palo Alto Municipal Code.
- The following tree preservation measures apply to all trees to be retained:
 - No storage of material, spoil, vehicles or equipment shall be permitted within the TPZ.
 - The ground under and around the tree canopy area shall not be altered.
 - Trees to be retained shall be irrigated, aerated and maintained as necessary to ensure survival.

END OF SECTION
City of Palo Alto 2004 Sanborn Drawings and Specifications
Street Tree Verification of Protection, PWE, Section 31
Revised 08/06

**City of Palo Alto
Tree Department**

Public Works Operations
900 Box 10250 Palo Alto, CA 94303
650-496-5953 FAX: 650-495-6289
treeprotection@cityofpaloalto.org

**Verification of
Street Tree Protection**

Applicant Instructions: Complete upper portion of this form. Mail or FAX this form along with signed Tree Disclosure Statement to Public Works Dept. Public Works Staff will inspect and notify applicant.

APPLICATION DATE: _____

ADDRESS/LOCATION OF STREET TREES TO BE PROTECTED: _____

APPLICANT'S NAME: _____

APPLICANT'S ADDRESS: _____

APPLICANT'S TELEPHONE AND FAX NUMBERS: _____

This section to be filled out by City Tree Staff

1. The Street Trees at the above address(es) are adequately protected. The type of protection used is: _____
* If NO, go to #2 below

Inspected by: _____
Date of inspection: _____

2. The Street Trees at the above address(es) are NOT adequately protected. The following modifications are required: _____
Indicate how the required modifications were communicated to the applicant: _____

Subsequent inspection
Street trees at above address were found to be adequately protected: YES NO
* If NO, indicate in "Notes" below the disposition of case.

Inspected by: _____
Date of inspection: _____

Notes: List City street trees by species, site, condition and type of tree protection installed. Also note if pictures were taken. Use back of sheet if necessary.

Return approved sheet to Applicant for demolition or building permit issuance.
S:\Plan\Adv\Arborist\Tree Protection Info\Tree Protection Verification Form Revised 08/06

Arborist Firm Data Here City of Palo Alto Tree Technical Manual ADDENDUM 11
RCATSA Certified Arborist #975-000
CMBM Cell #

Monthly Tree Activity Report- Construction Site

Inspection Date: _____ Site address: _____ Contractor Main Site Contact Information: _____ #1: Job site superintendent Company: _____ Email: _____ Job site Office: _____ Cell: _____ Mail: _____

Inspection # _____ Palo Alto, CA

Also present: _____

Distribution: 1. City of Palo Alto Attn: Dave Dockter dave.dockter@cityofpaloalto.org
2. Others _____ 650-329-2440

Provide the requested minimum information with each report, customize as necessary. To be completed by project site arborist. Send monthly to city arborist at above address until project completion. Use additional sheets as needed.

- Assignment Activity (Demolition/grading/sewer/trenching/foundation list relevant visits)
 - Pre-construction meeting requirement with sub-contractors
 - Inspect to verify that tree protection measures are in place
 - Determine if field adjustments, watering or plan revisions may be needed
- Field Observations (general site-wide and list by individual tree number)
 - Tree Protection Fences (TPF) are ...
 - Trenching has/will occur ...
- Action Items (list site-wide, by tree number and date to be satisfied) and Date Due
 - Tree Protection Fence (TPF) needs adjusting (tree #, x, x, x)
 - Root zone buffer material (wood chips) can be installed next
 - Schedule sewer trench, foundation dig with ...
- Photographs (use often)
- Tree Location Map (mandatory 8.5 x 11 sheet)
- Recommendations, notes or monitor items for project staff/stakeholder
 - _____
- Past visits (list carry-over items satisfied/will outstanding)
 - _____

Respectfully submitted,
Project site arborist
Consultant contact information (include email, cell#, and mailing)
CC: _____
Enter Date: _____ CPA Monthly Tree Activity Report: Type site address here Page #1 of 1

---WARNING---

Tree Protection Zone

This fencing shall not be removed without City Arborist approval (650-496-5953)

Removal without permission is subject to a \$500 fine per day*

*Palo Alto Municipal Code Section 8.10.110

City of Palo Alto Tree Protection Instructions are located at <http://www.cityofpaloalto.ca.us/trees/technical-manual.html>

SPECIAL INSPECTIONS

PLANNING DEPARTMENT

TREE PROTECTION INSPECTIONS MANDATORY

PAMC 8.10 PROTECTED TREES. CONTRACTOR SHALL ENSURE PROJECT SITE ARBORIST IS PERFORMING REQUIRED TREE INSPECTION AND SITE MONITORING. PROVIDE WRITTEN MONTHLY TREE ACTIVITY REPORTS TO THE PLANNING DEPARTMENT LANDSCAPE REVIEW STAFF BEGINNING 14 DAYS AFTER BUILDING PERMIT ISSUANCE.

BUILDING PERMIT DATE: _____

DATE OF 1ST TREE ACTIVITY REPORT: _____

CITY STAFF: _____

REPORTING DETAILS OF THE MONTHLY TREE ACTIVITY REPORT SHALL CONFORM TO SHEET T-1 FORMAT. VERIFY THAT ALL TREE PROTECTION MEASURES ARE IMPLEMENTED AND WILL INCLUDE ALL CONTRACTOR ACTIVITY, SCHEDULED OR UNSCHEDULED, WITHIN A TREE PROTECTION ROOT ZONE. NON-COMPLIANCE IS SUBJECT TO VIOLATION OF PAMC 8.10.100. REFERENCE: PALO ALTO TREE TECHNICAL MANUAL, SECTION 2.00 AND ADDENDUM 11.

Apply Tree Protection Report on sheet(s) T-2
Use additional "T" sheets as needed

T-1



All other tree-related reports shall be added to the space provided on this sheet (adding as needed). Include this sheet(s) on Project Sheet Index or Legend Page. A copy of T-1 can be downloaded at <http://www.cityofpaloalto.org/civica/filebank/blobload.asp?BlobID=6460>

Special Tree Protection Instruction Sheet
City of Palo Alto



Project
Data

T-1

ARBORIST REPORT





STREETSCAPE VIEW

NOTE: Landscape shown for graphical representation only. See landscape drawings for more information on sizing, spacing, and landscape details.

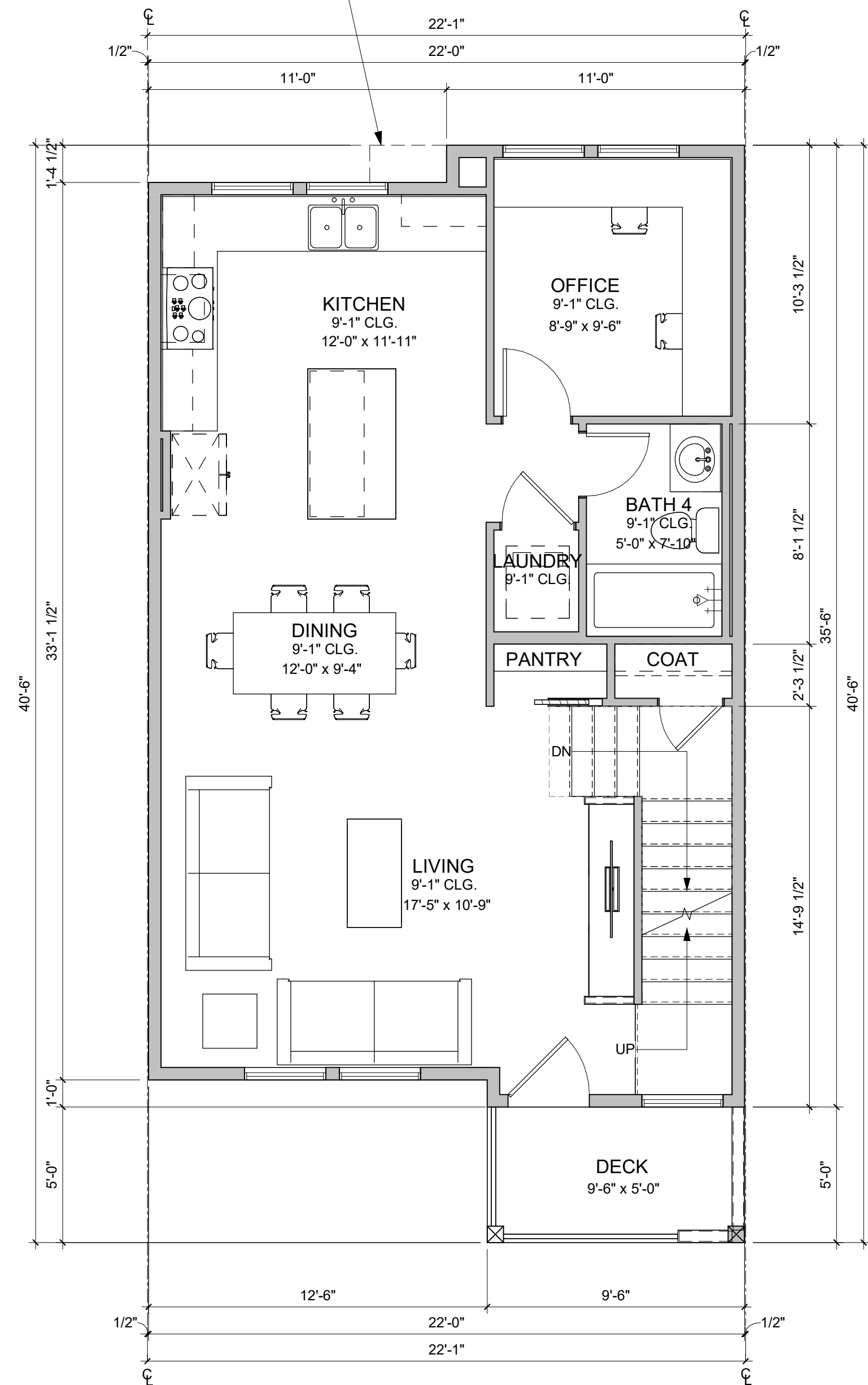




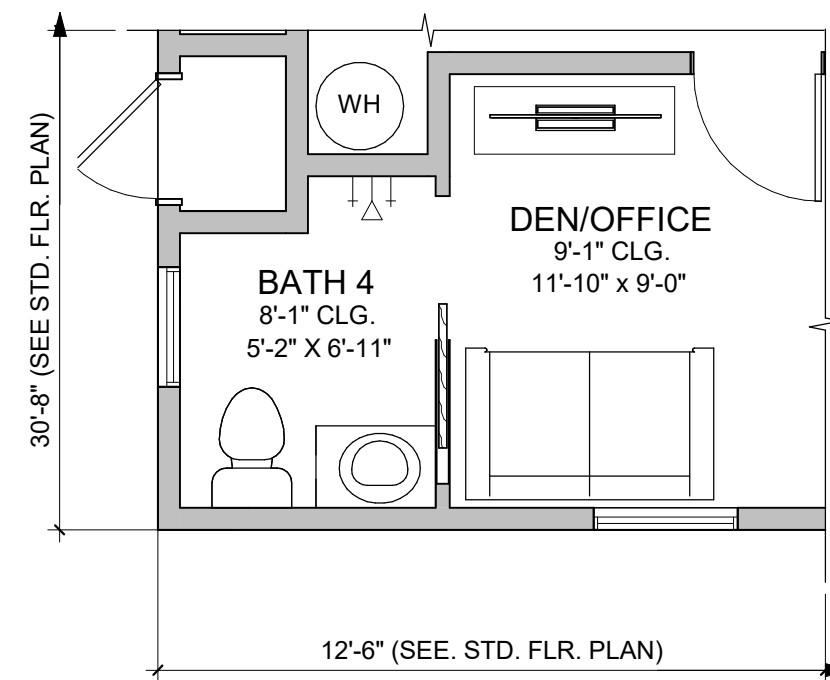
STREETSCAPE SHEET



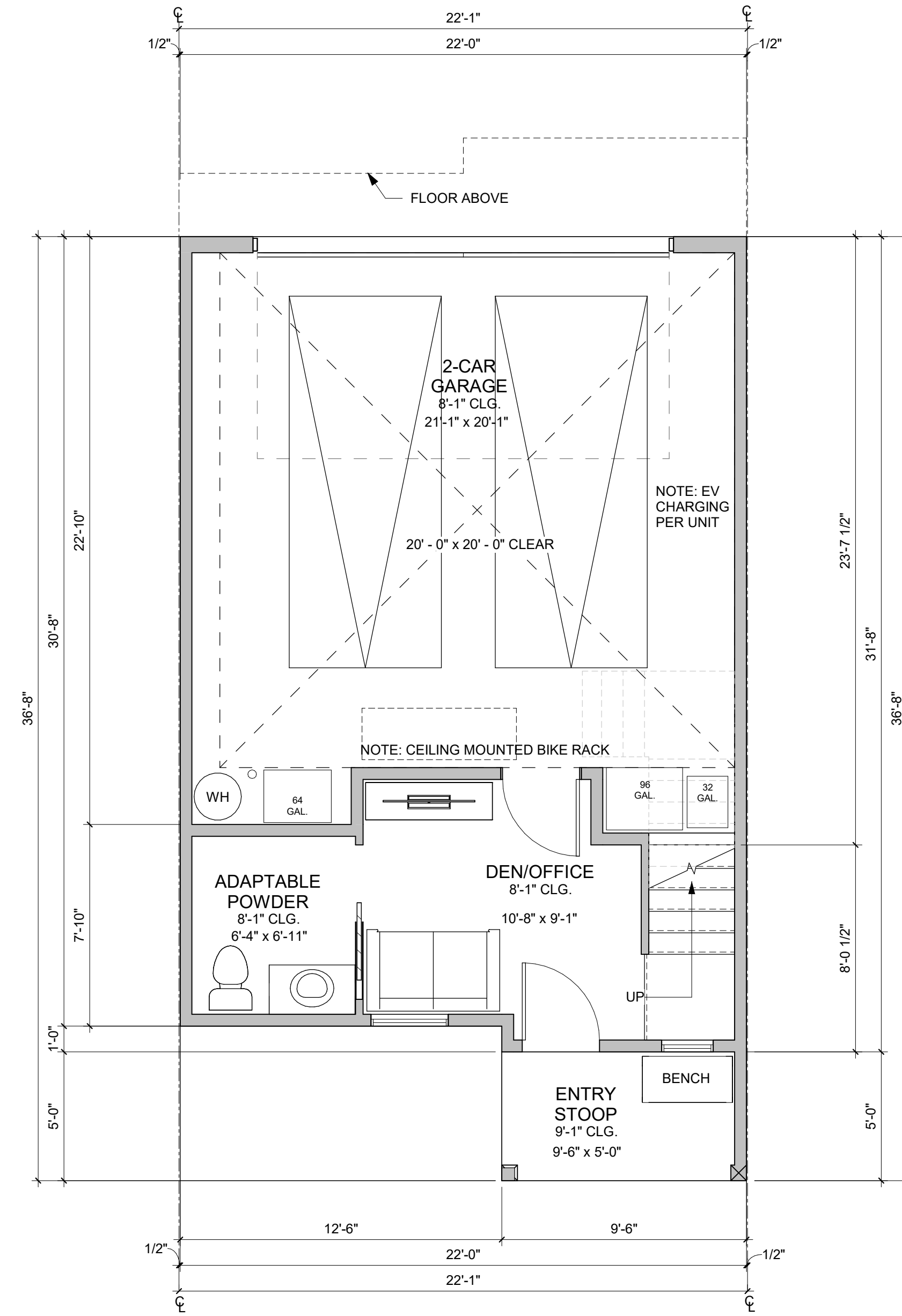
FRAMING CHANGE AT FIRE ACCESS LOCATION, SEE PLAN 1X-R ON SHEET A2.1 & A2.2. WINDOWS WILL MOVE AT THAT LOCATION, SEE ELEVATIONS ON SHEET A2.3



2 PLAN 1 SECOND FLOOR PLAN, ELEVATION A
1/4" = 1'-0"



1A PLAN 1 FIRST FLOOR PLAN, BATH 3, ELEVATION A
1/4" = 1'-0"



1 PLAN 1Y FIRST FLOOR PLAN, ELEVATION A
1/4" = 1'-0"

NET AREA
MEASURED FROM INSIDE FACE OF STUD WALL.

PLAN 1Y - 3 BR / 3.5 BA	
Name	AREA (SF)
FIRST FLOOR	184
SECOND FLOOR	702
THIRD FLOOR	634
TOTAL LIVING AREA	1520
2-CAR GARAGE	448
DECK	48
DECK	48
ENTRY STOOP	45
ROOF DECK	341

PLAN 1 - 3 BR / 4 BA	
Name	AREA (SF)
FIRST FLOOR	183
SECOND FLOOR	702
THIRD FLOOR	634
TOTAL LIVING AREA	1519
2-CAR GARAGE	449
DECK	47
DECK	48
ENTRY STOOP	48
ROOF DECK	341

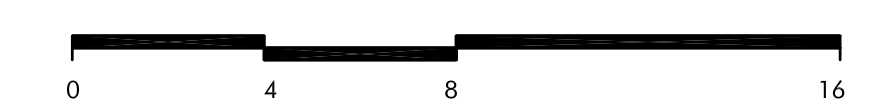
GROSS AREA
MEASURED FROM OUTSIDE FACE OF STUD WALL.

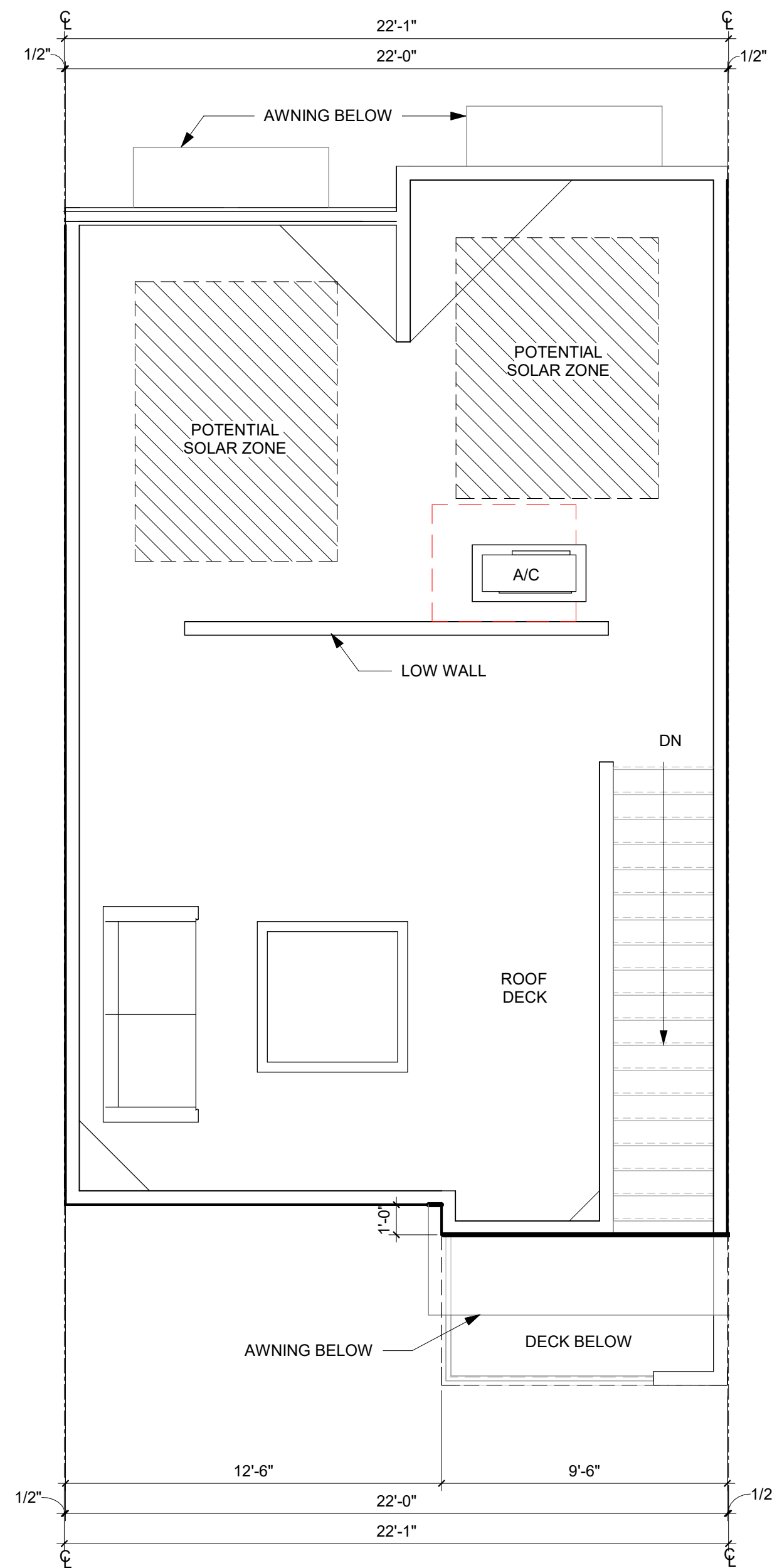
PLAN 1Y - 3 BR / 3.5 BA	
NAME	AREA (SF)
FIRST FLOOR	206
SECOND FLOOR	753
THIRD FLOOR	686
TOTAL LIVING AREA	1645
2-CAR GARAGE	479
2ND FLR DECK	48
3RD FLR DECK	48
ENTRY STOOP	48
ROOF DECK	367

PLAN 1 - 3 BR / 4 BA	
NAME	AREA (SF)
FIRST FLOOR	207
SECOND FLOOR	752
THIRD FLOOR	684
TOTAL LIVING AREA	1643
2-CAR GARAGE	477
2ND FLR DECK	48
3RD FLR DECK	48
ENTRY STOOP	48
ROOF DECK	367

NOTE:
PLAN 1 IS THE STANDARD MID UNIT. PLAN 1Y IS THE ADPATABLE MID UNIT.

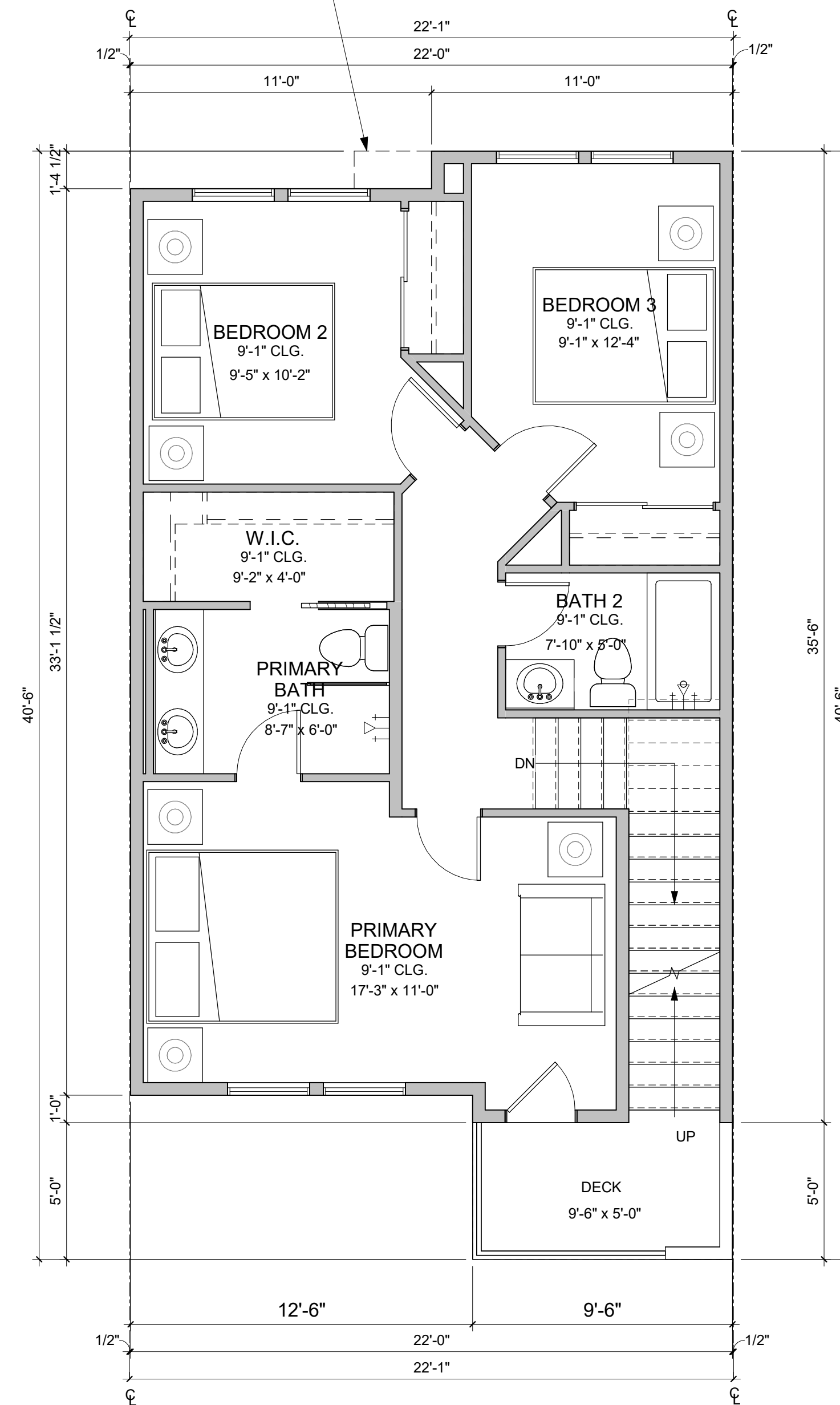
PLAN 1 FLOOR PLANS





2 PLAN 1 ROOF PLAN, ELEVATION A
1/4" = 1'-0"

FRAMING CHANGE AT FIRE ACCESS LOCATION, SEE PLAN 1X-R ON SHEET A2.1 & A2.2. WINDOWS WILL MOVE AT THAT LOCATION, SEE ELEVATIONS ON SHEET A2.3



1 PLAN 1 THIRD FLOOR PLAN, ELEVATION A
1/4" = 1'-0"

NET AREA

MEASURED FROM INSIDE FACE OF STUD WALL.

PLAN 1Y - 3 BR / 3.5 BA	
Name	AREA (SF)
FIRST FLOOR	184
SECOND FLOOR	702
THIRD FLOOR	634
TOTAL LIVING AREA	1520
2-CAR GARAGE	448
DECK	48
ENTRY STOOP	45
ROOF DECK	341

PLAN 1 - 3 BR / 4 BA

Name	AREA (SF)
FIRST FLOOR	183
SECOND FLOOR	702
THIRD FLOOR	634
TOTAL LIVING AREA	1519
2-CAR GARAGE	449
DECK	47
ENTRY STOOP	48
ROOF DECK	341

GROSS AREA

MEASURED FROM OUTSIDE FACE OF STUD WALL.

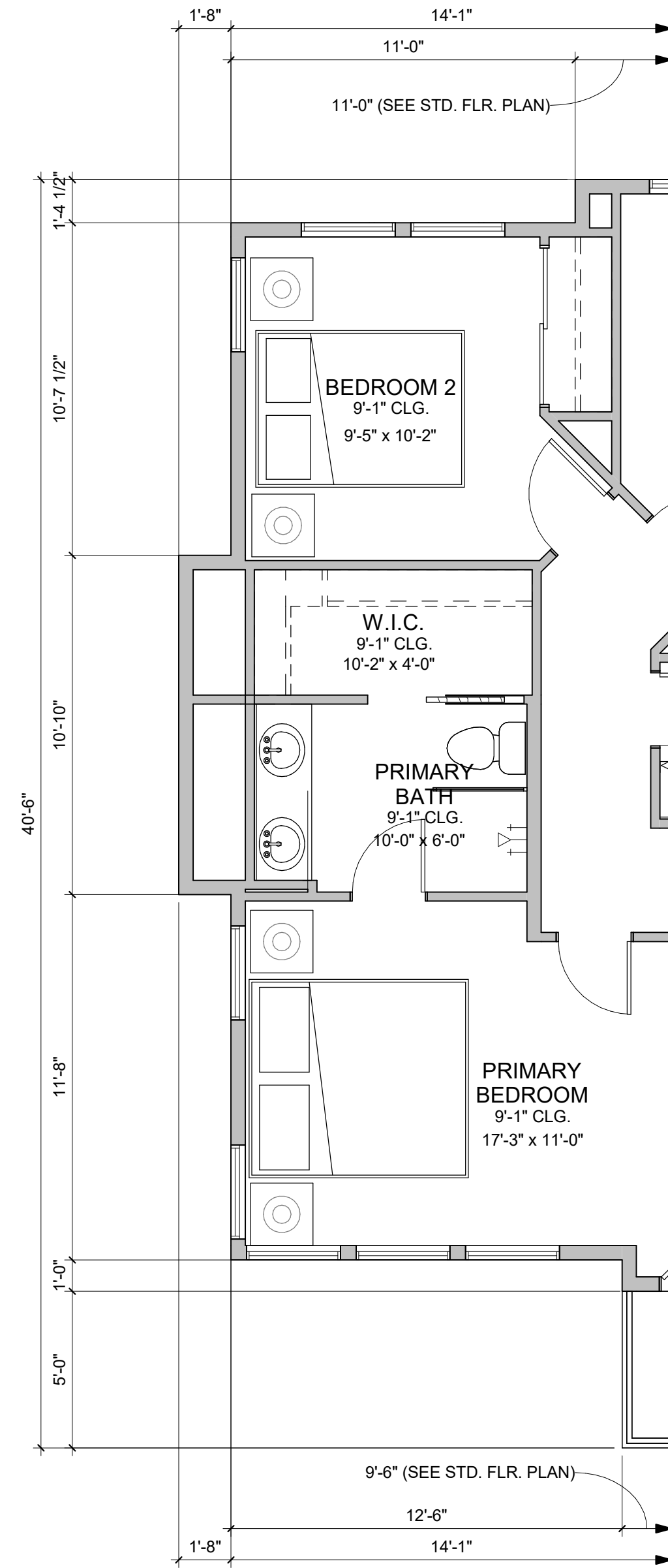
PLAN 1Y - 3 BR / 3.5 BA	
NAME	AREA (SF)
FIRST FLOOR	206
SECOND FLOOR	753
THIRD FLOOR	686
TOTAL LIVING AREA	1645
2-CAR GARAGE	479
2ND FLR DECK	48
3RD FLR DECK	48
ENTRY STOOP	48
ROOF DECK	367

PLAN 1 - 3 BR / 4 BA

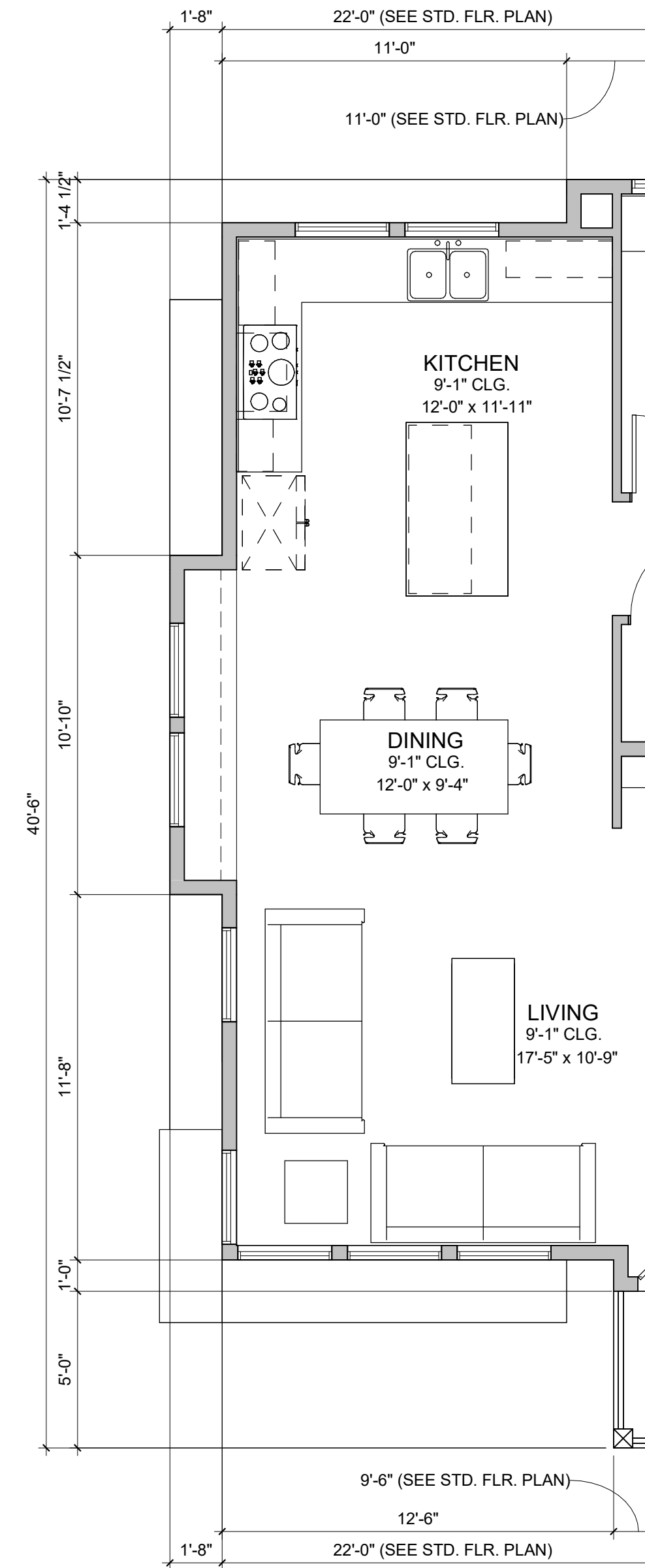
NAME	AREA (SF)
FIRST FLOOR	207
SECOND FLOOR	752
THIRD FLOOR	684
TOTAL LIVING AREA	1643
2-CAR GARAGE	477
2ND FLR DECK	48
3RD FLR DECK	48
ENTRY STOOP	48
ROOF DECK	367

PLAN 1 FLOOR PLANS





2 PLAN 1X (END UNIT VARIATION)
PARTIAL THIRD FLOOR PLAN
1/4" = 1'-0"



1 PLAN 1X (END UNIT VARIATION)
PARTIAL SECOND FLOOR PLAN
1/4" = 1'-0"

NET AREA
MEASURED FROM INSIDE FACE OF STUD WALL.

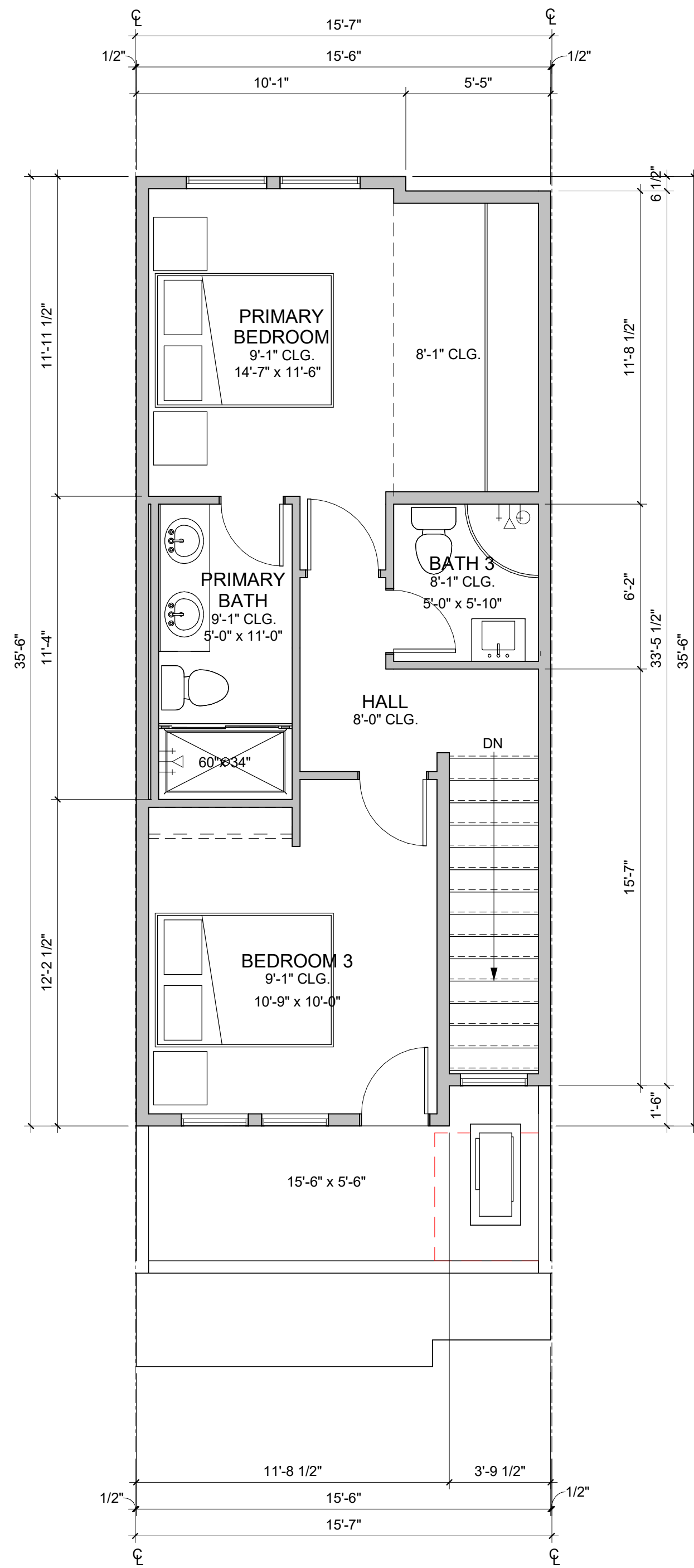
PLAN 1X - 3 BR / 4 BA	
Name	AREA (SF)
FIRST FLOOR	188
SECOND FLOOR	718
THIRD FLOOR	631
TOTAL LIVING AREA	1537
2-CAR GARAGE	430
DECK	48
DECK	48
ENTRY STOOP	48
ROOF DECK	281

GROSS AREA
MEASURED FROM OUTSIDE FACE OF STUD WALL.

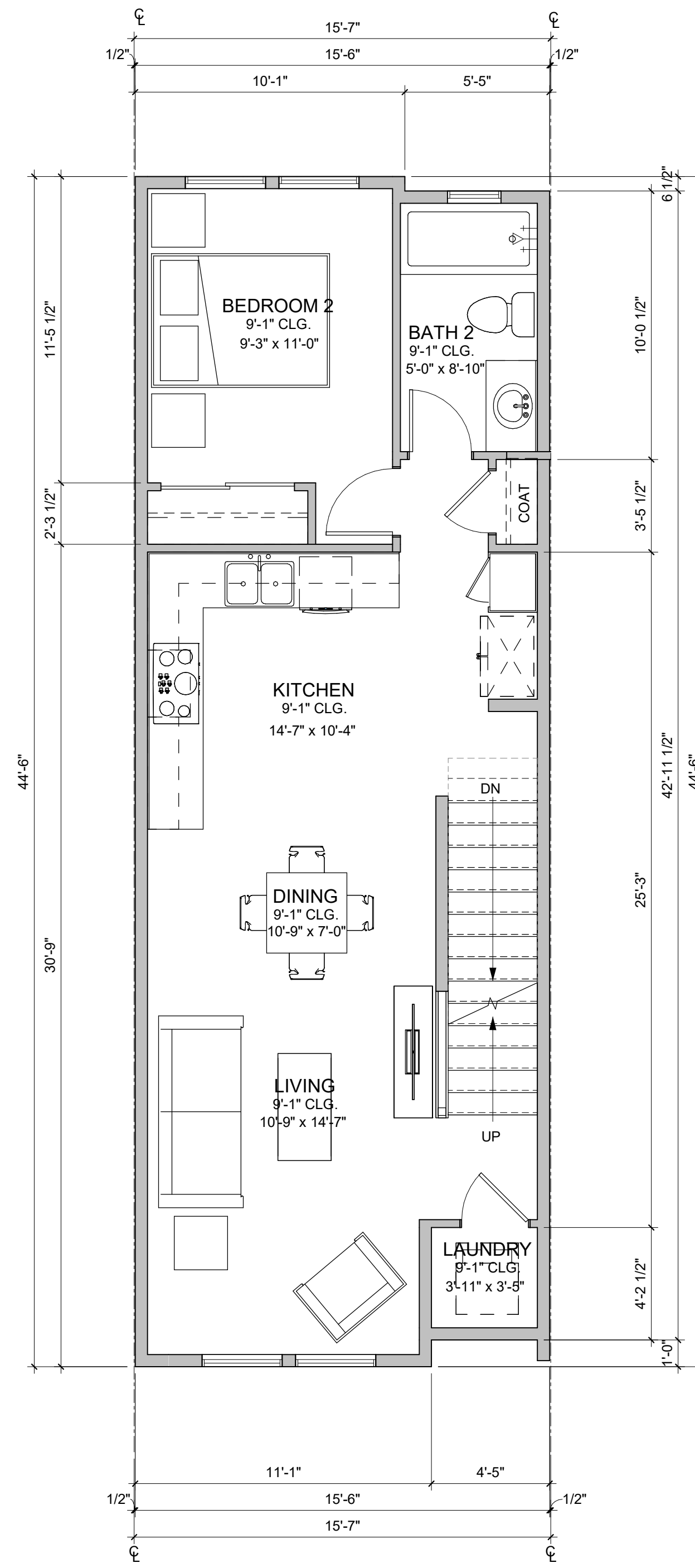
PLAN 1X - 3 BR / 4 BA	
NAME	AREA (SF)
FIRST FLOOR	213
SECOND FLOOR	771
THIRD FLOOR	704
TOTAL LIVING AREA	1688
2-CAR GARAGE	458
DECK	48
DECK	48
ENTRY STOOP	48
ROOF DECK	304

PLAN 1X PARTIAL FLOOR PLANS

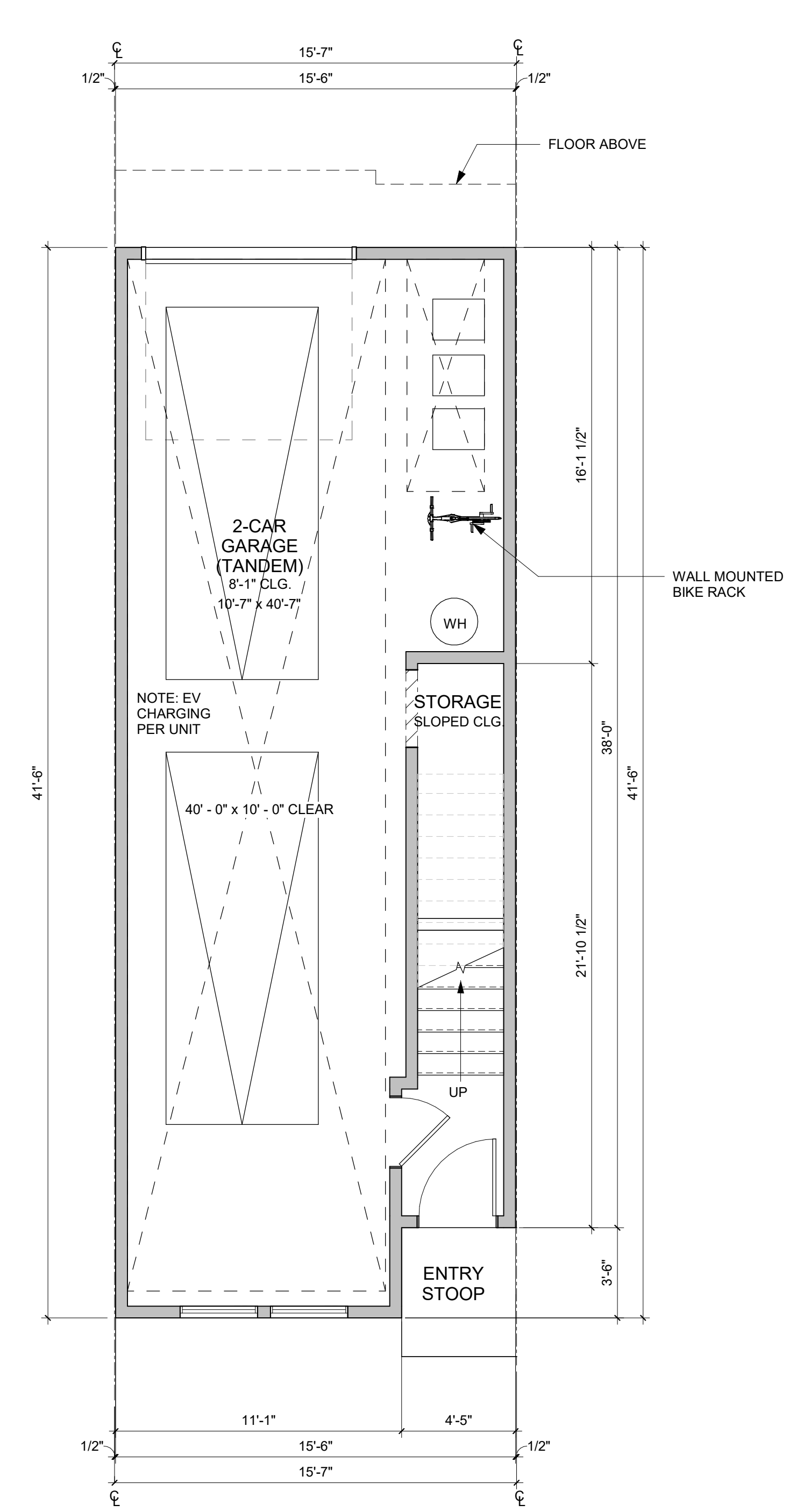




3 PLAN 2 THIRD FLOOR PLAN, ELEVATION A
1/4" = 1'-0"



2 PLAN 2 SECOND FLOOR PLAN, ELEVATION A
1/4" = 1'-0"



1 PLAN 2 FIRST FLOOR PLAN, ELEVATION A
1/4" = 1'-0"

NET AREA
MEASURED FROM INSIDE FACE OF STUD WALL.

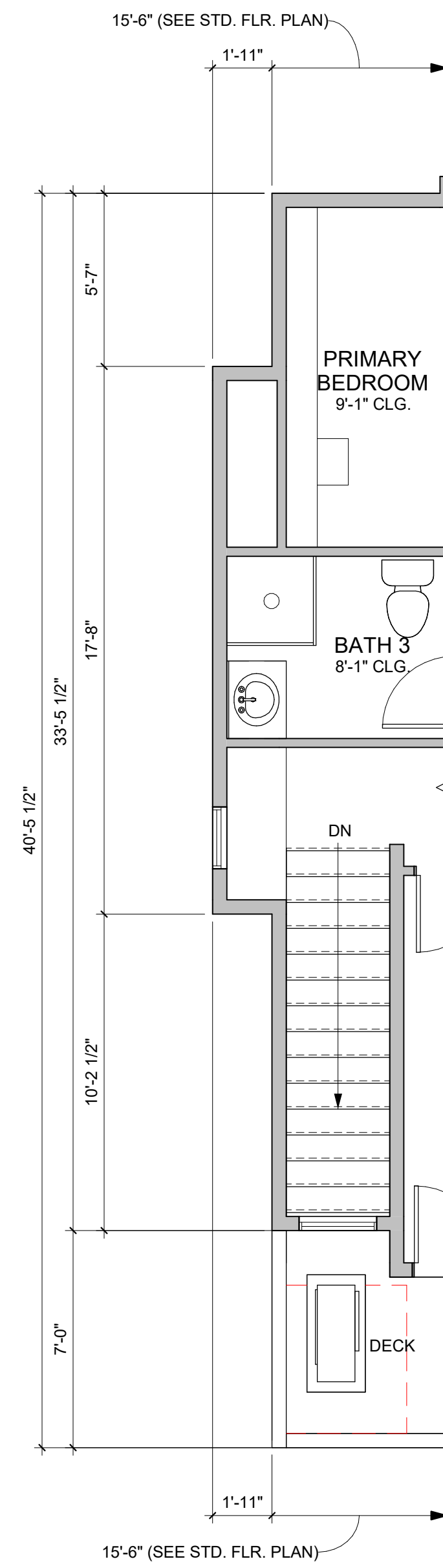
PLAN 2 - 3 BR / 3 BA	
Name	AREA (SF)
FIRST FLOOR	40
SECOND FLOOR	628
THIRD FLOOR	451
TOTAL LIVING AREA	1119
2-CAR TANDEM GARAGE	529
DECK	91
ENTRY STOOP	22

GROSS AREA
MEASURED FROM OUTSIDE FACE OF STUD WALL.

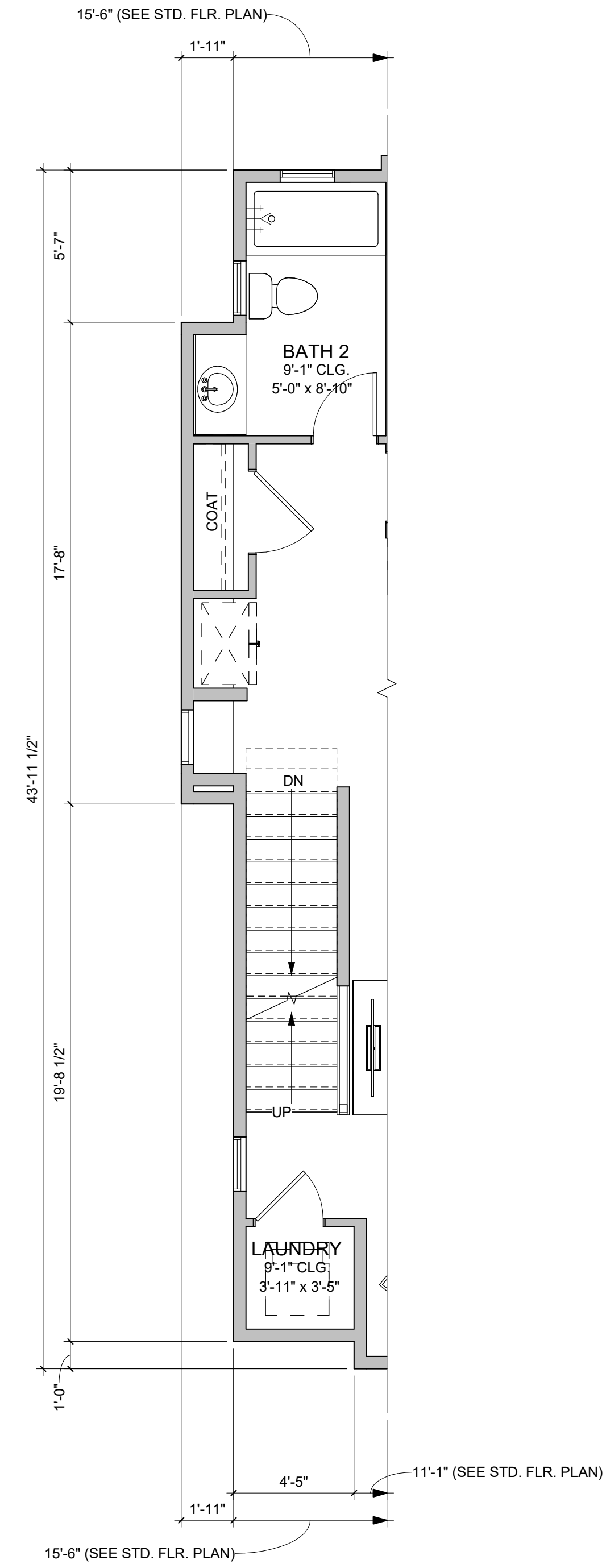
PLAN 2 - 3 BR / 3 BA	
NAME	AREA (SF)
FIRST FLOOR	55
SECOND FLOOR	682
THIRD FLOOR	495
TOTAL LIVING AREA	1232
2-CAR TANDEM GARAGE	572
DECK	91
ENTRY STOOP	22

PLAN 2 FLOOR PLANS





2 PLAN 2X (END UNIT VARIATION)
PARTIAL THIRD FLOOR PLAN
1/4" = 1'-0"



1 PLAN 2X (END UNIT VARIATION)
PARTIAL SECOND FLOOR PLAN
1/4" = 1'-0"

NET AREA

MEASURED FROM INSIDE FACE OF STUD WALL.

PLAN 2X - 3 BR / 3 BA	
Name	AREA (SF)
FIRST FLOOR	40
SECOND FLOOR	659
THIRD FLOOR	472
TOTAL LIVING AREA	1171
2-CAR TANDEM GARAGE	514
DECK	91
ENTRY STOOP	22

GROSS AREA

MEASURED FROM OUTSIDE FACE OF STUD WALL.

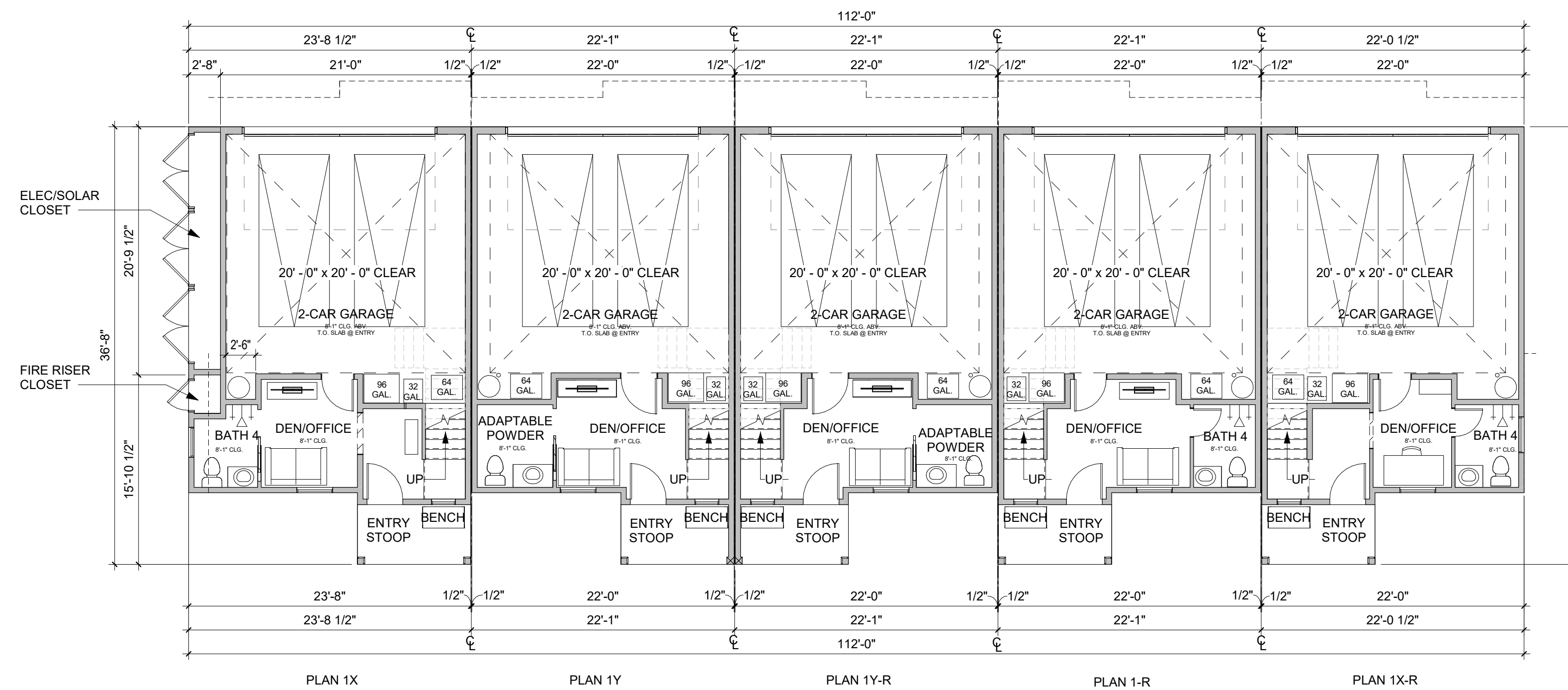
PLAN 2X - 3 BR / 3 BA	
NAME	AREA (SF)
FIRST FLOOR	55
SECOND FLOOR	714
THIRD FLOOR	530
TOTAL LIVING AREA	1299
2-CAR TANDEM GARAGE	556
DECK	91
ENTRY STOOP	22

PLAN 2X PARTIAL FLOOR PLANS





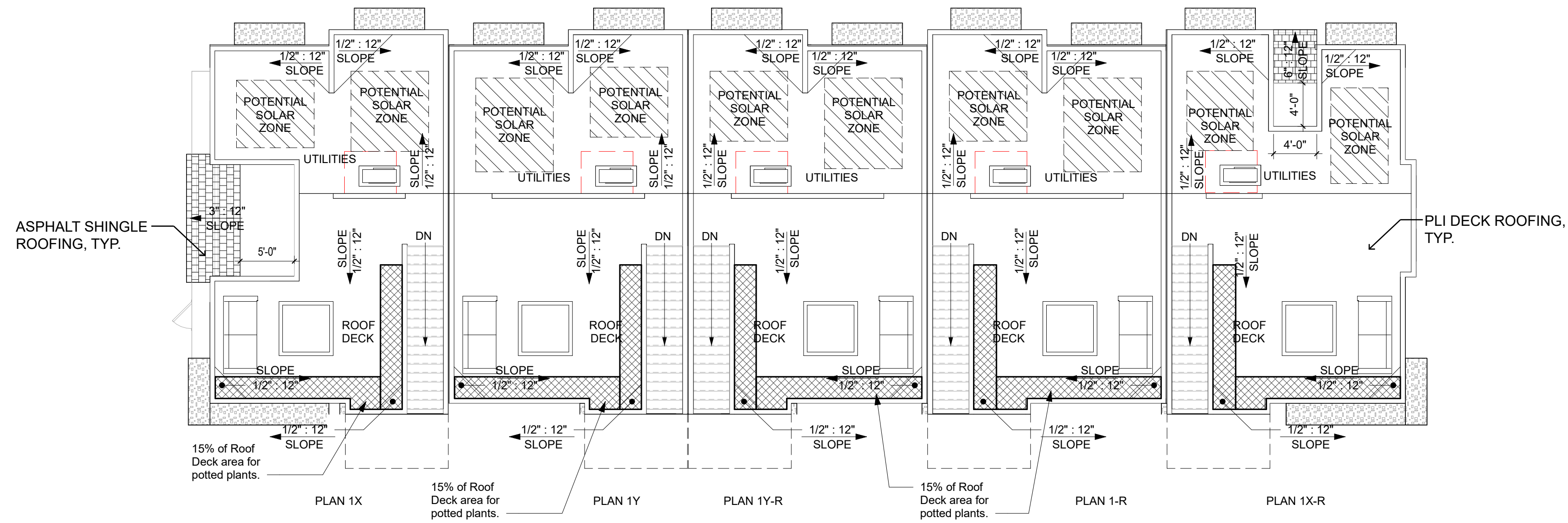
2 BUILDING 1 SECOND FLOOR PLAN, ELEVATION A
1/8" = 1'-0"



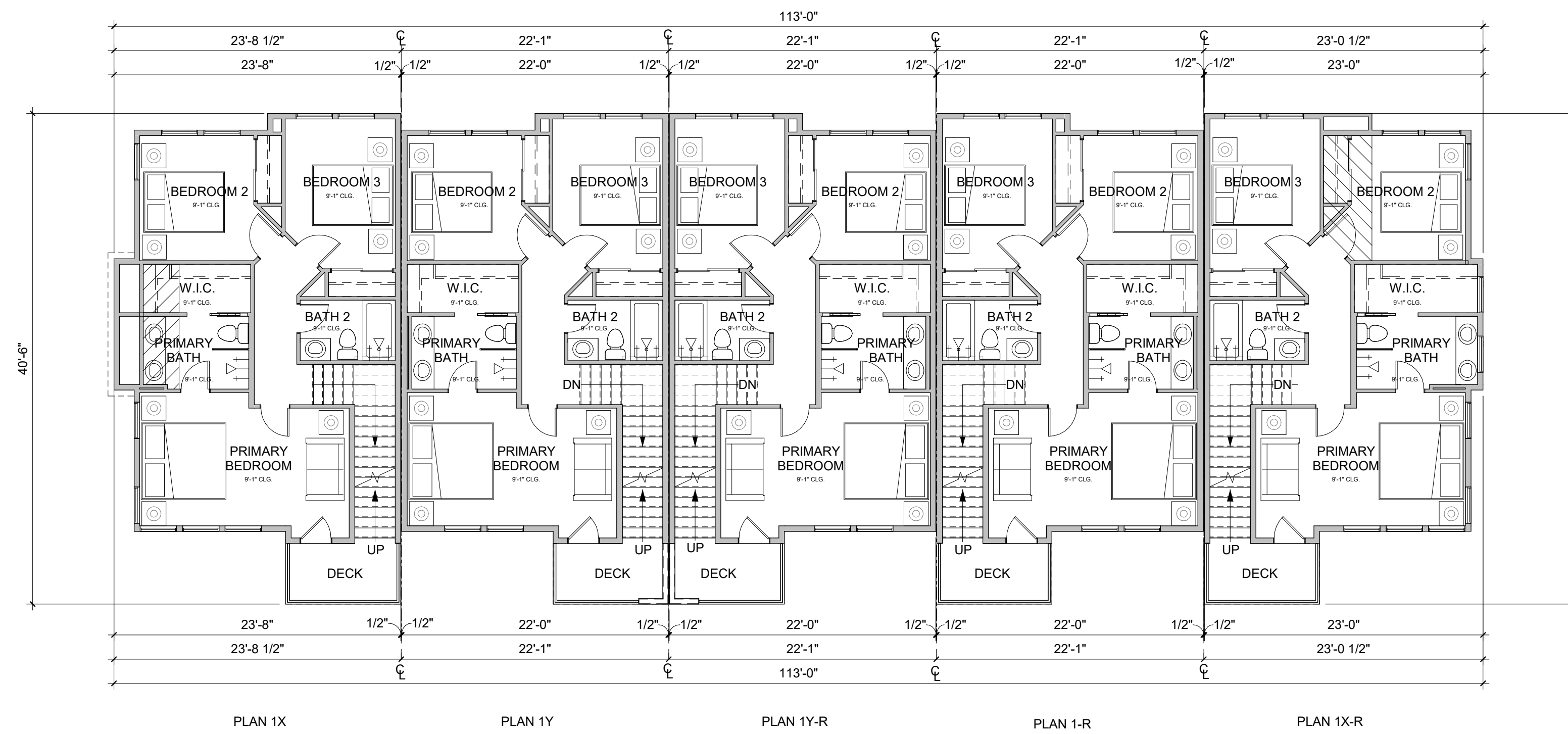
1 BUILDING 1 FIRST FLOOR PLAN, ELEVATION A
1/8" = 1'-0"

NOTE:
PLAN 1 IS THE STANDARD MID UNIT. PLAN 1Y IS THE ADPATABLE MID UNIT.

BUILDING 1 FLOOR PLANS



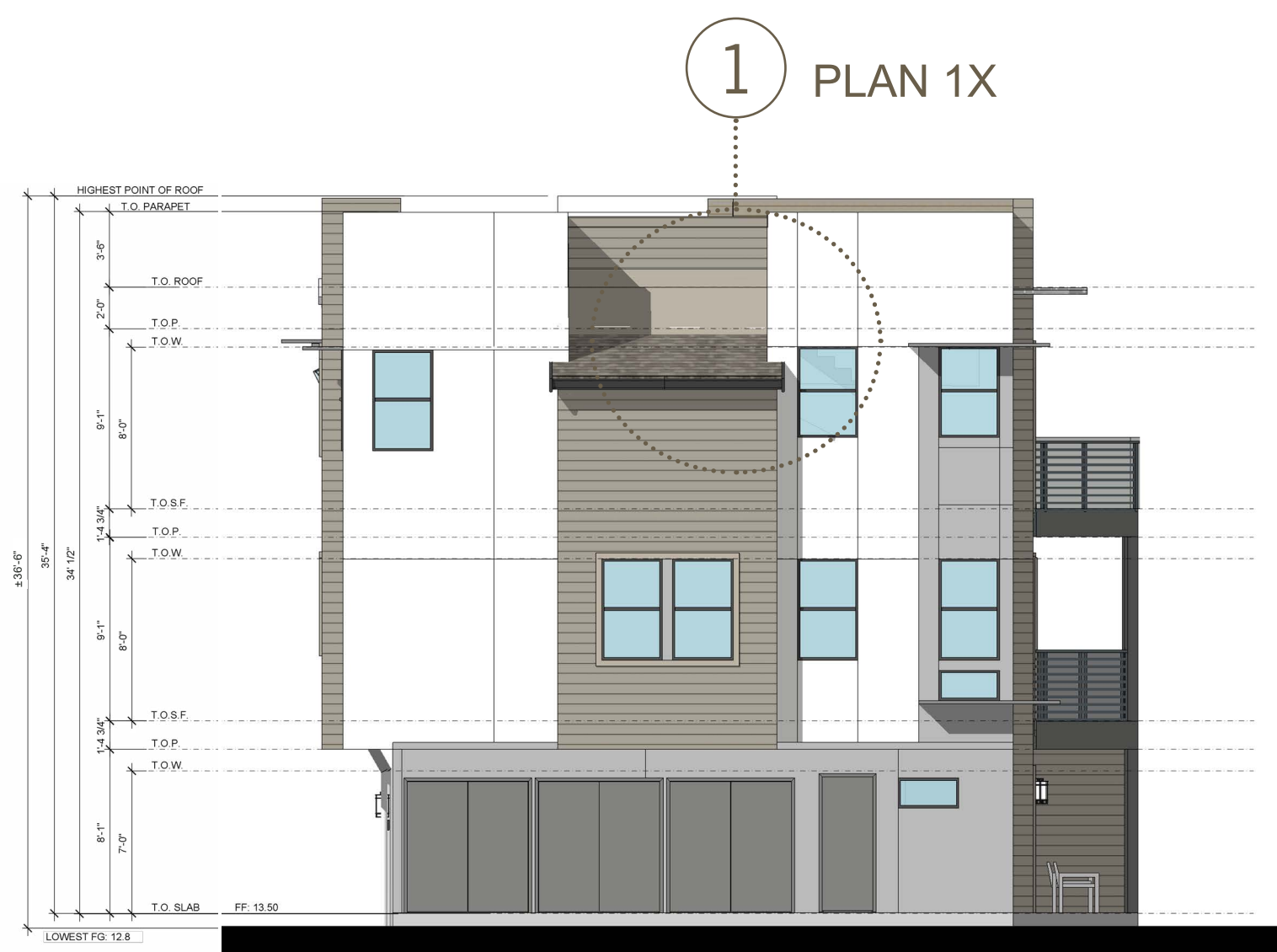
2 BUILDING 1 ROOF PLAN, ELEVATION A
1/8" = 1'-0"



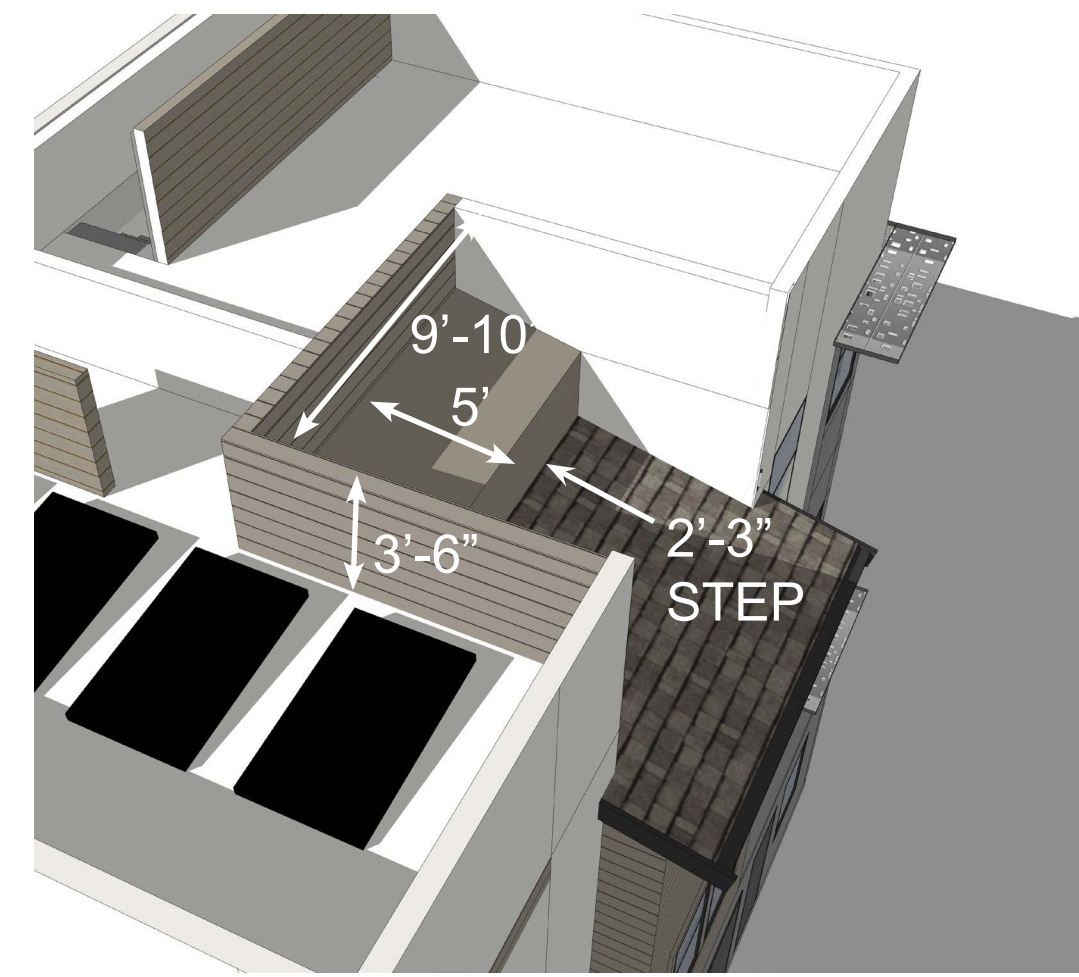
1 BUILDING 1 THIRD FLOOR PLAN, ELEVATION A
1/8" = 1'-0"

NOTE:
PLAN 1 IS THE STANDARD MID UNIT. PLAN 1Y IS THE ADPATABLE MID UNIT.

BUILDING 1 FLOOR PLAN & ROOF PLAN



BUILDING 1 - 5 PLEX - LEFT ELEVATION
SCALE: 1/8"=1'



BUILDING 1 - FIRE ACCESS
SCALE: NTS



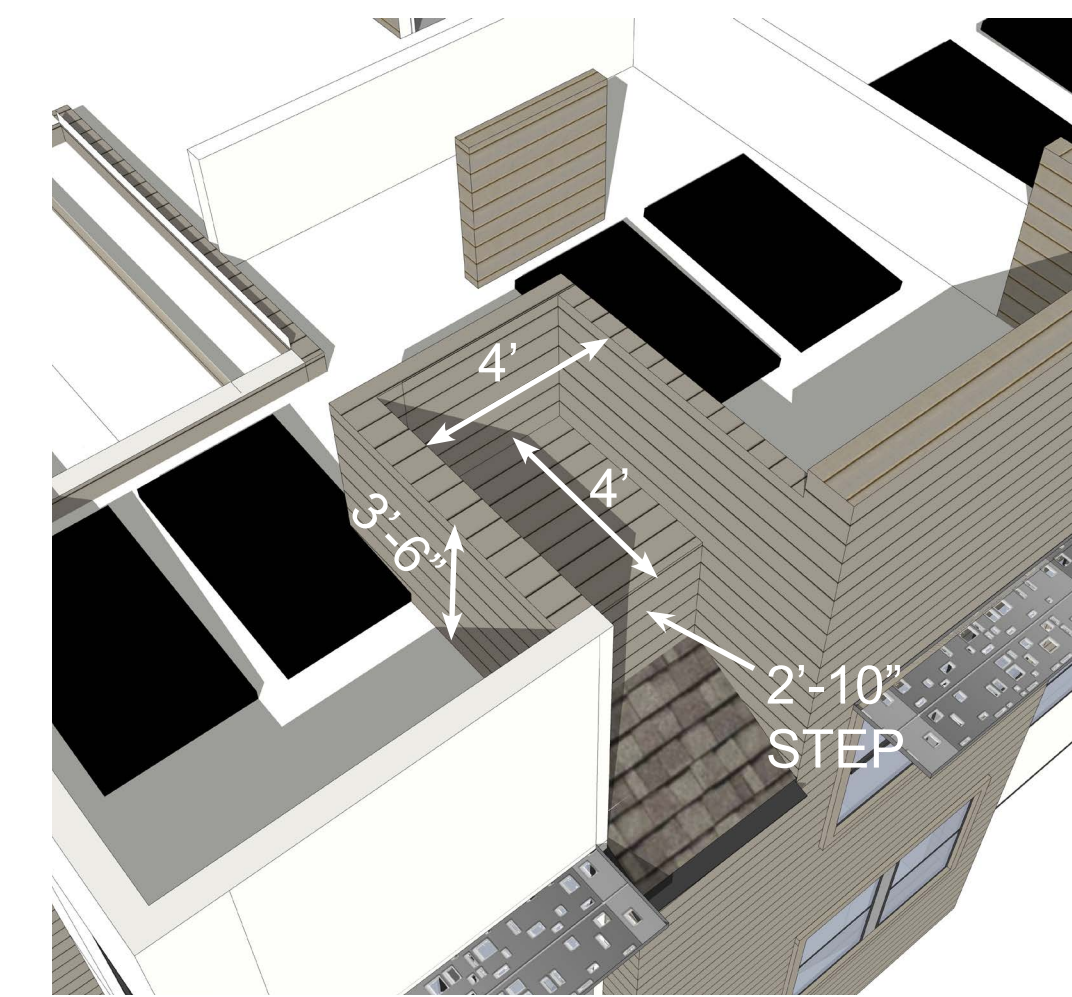
BUILDING 1 - 5 PLEX - FRONT ELEVATION
SCALE: 1/8"=1'

NOTE: FOR SIDE DAYLIGHT PLANE REQUIREMENTS, PLEASE REFER TO WAIVER EXHIBIT DIAGRAM #5 IN THE ATTACHED PDF, C2_739 SUTTER AVE_DOCS.

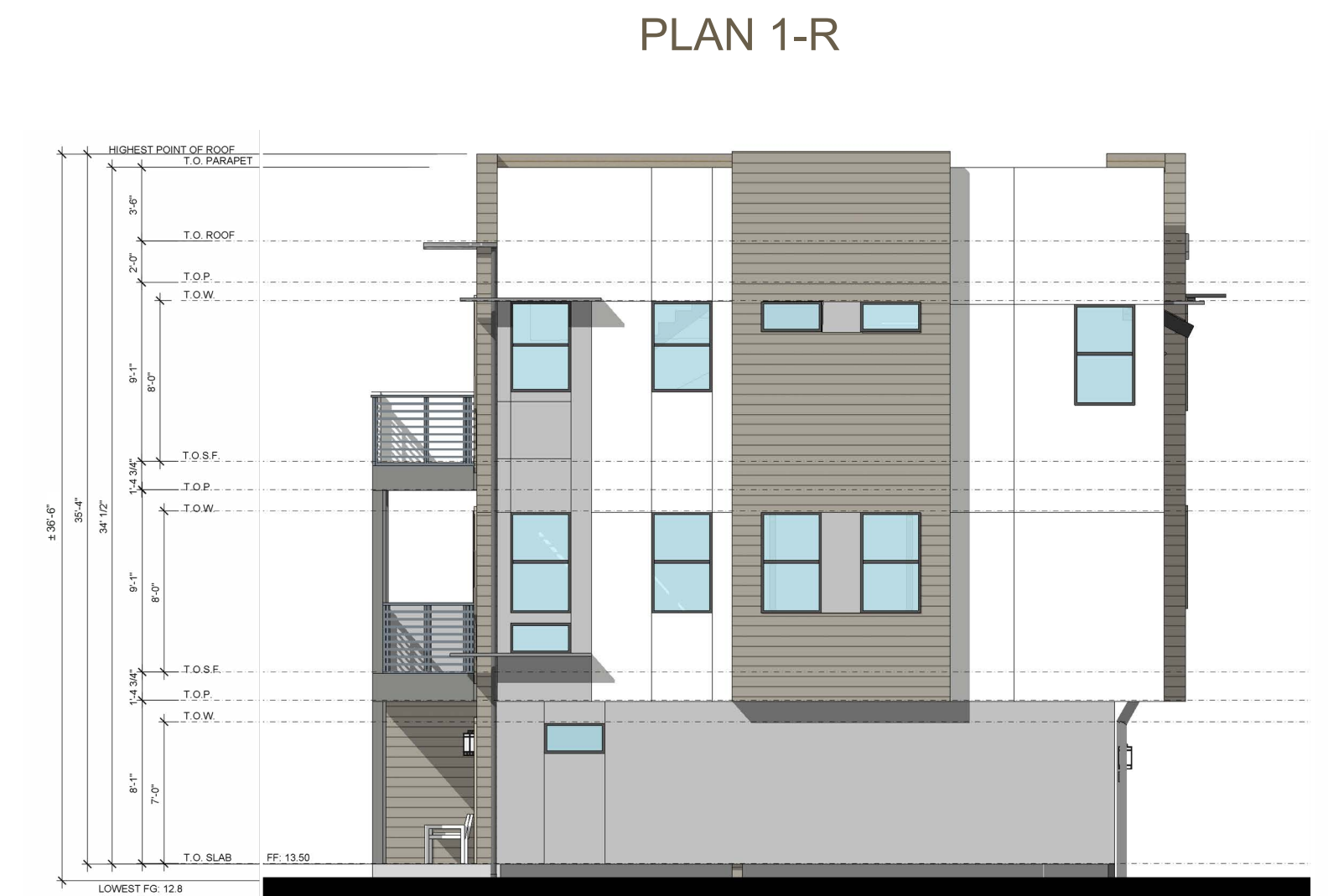


BUILDING 1 - 5 PLEX - REAR ELEVATION
SCALE: 1/8"=1'

NOTE: FOR SIDE DAYLIGHT PLANE REQUIREMENTS, PLEASE REFER TO WAIVER EXHIBIT DIAGRAM #5 IN THE ATTACHED PDF, C2_739 SUTTER AVE_DOCS.



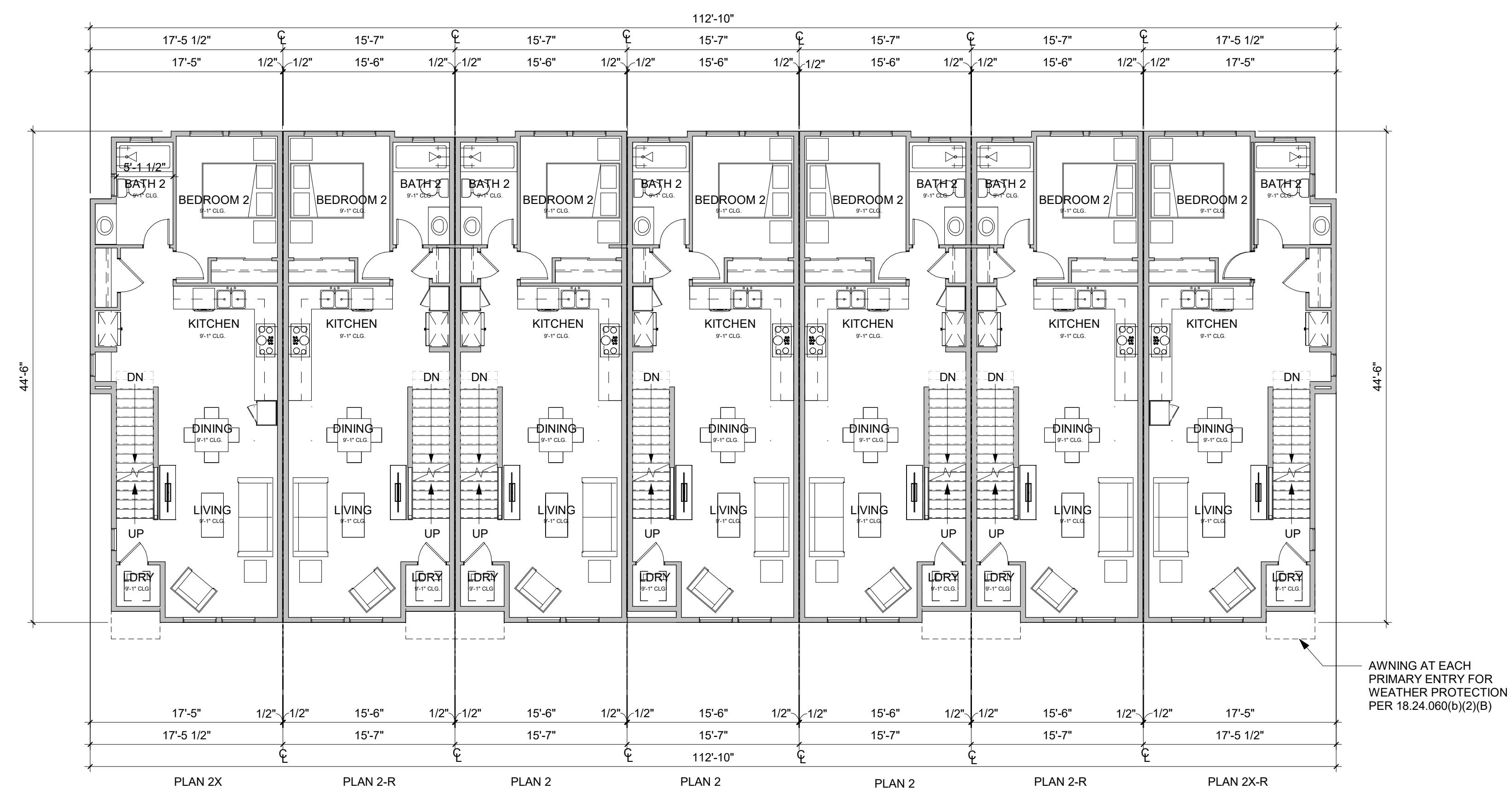
BUILDING 1 - FIRE ACCESS
SCALE: NTS



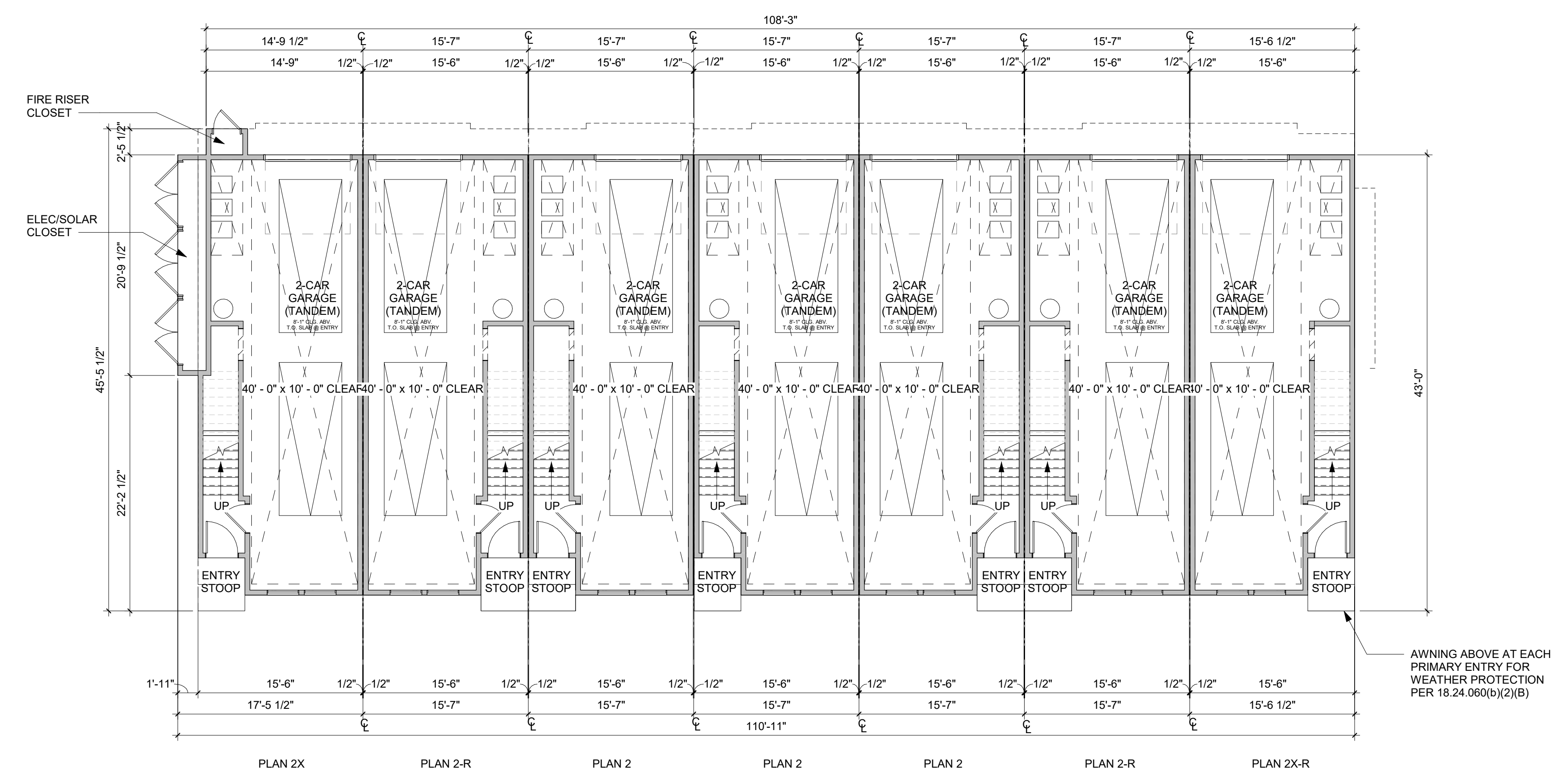
BUILDING 1 - 5 PLEX - RIGHT ELEVATION
SCALE: 1/8"=1'

NOTE:
SEE SHEETS A.3.1 FOR MORE INFORMATION ON COLORS AND MATERIALS.

BUILDING 1 ELEVATIONS

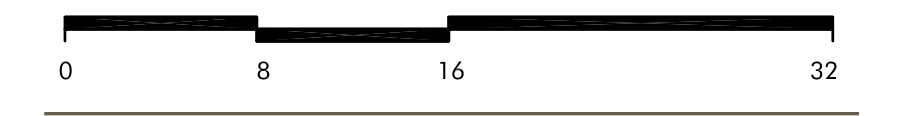


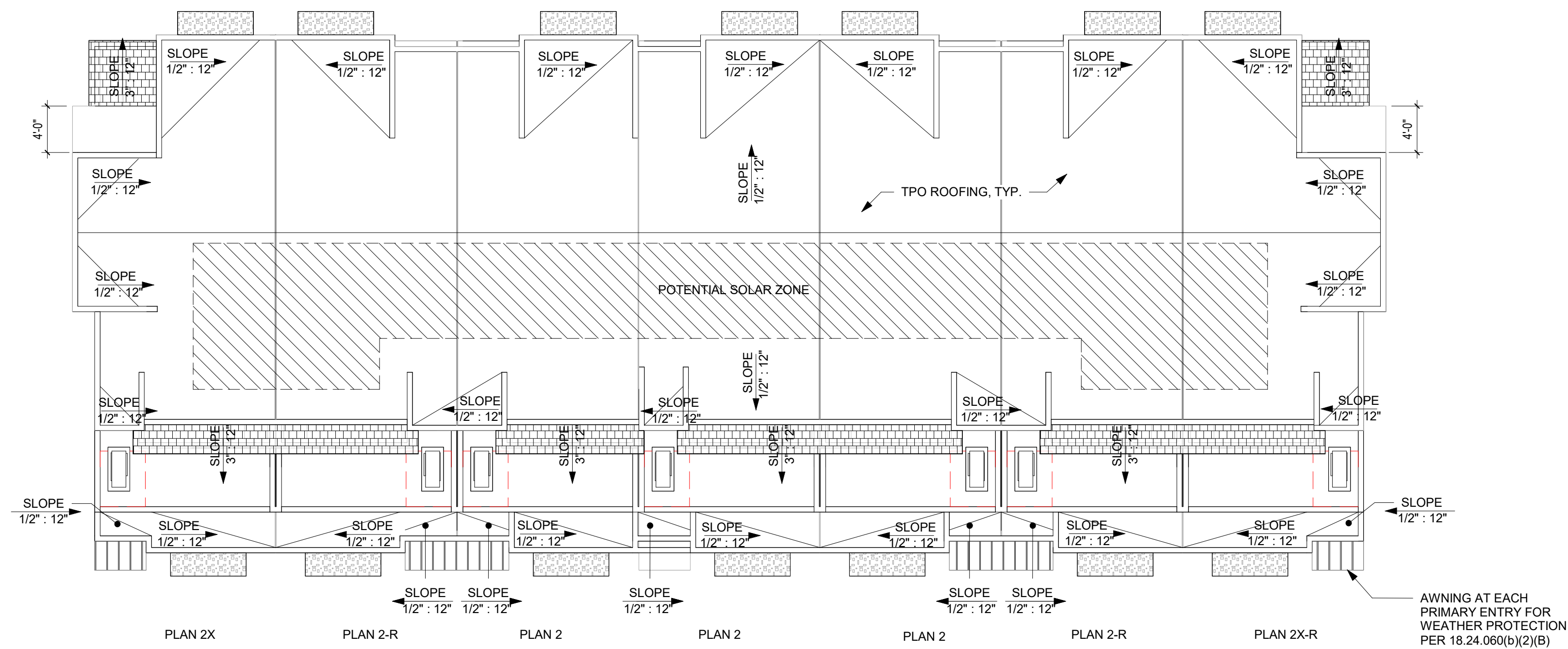
2 BUILDING 2 SECOND FLOOR PLAN, ELEVATION A
1/8" = 1'-0"



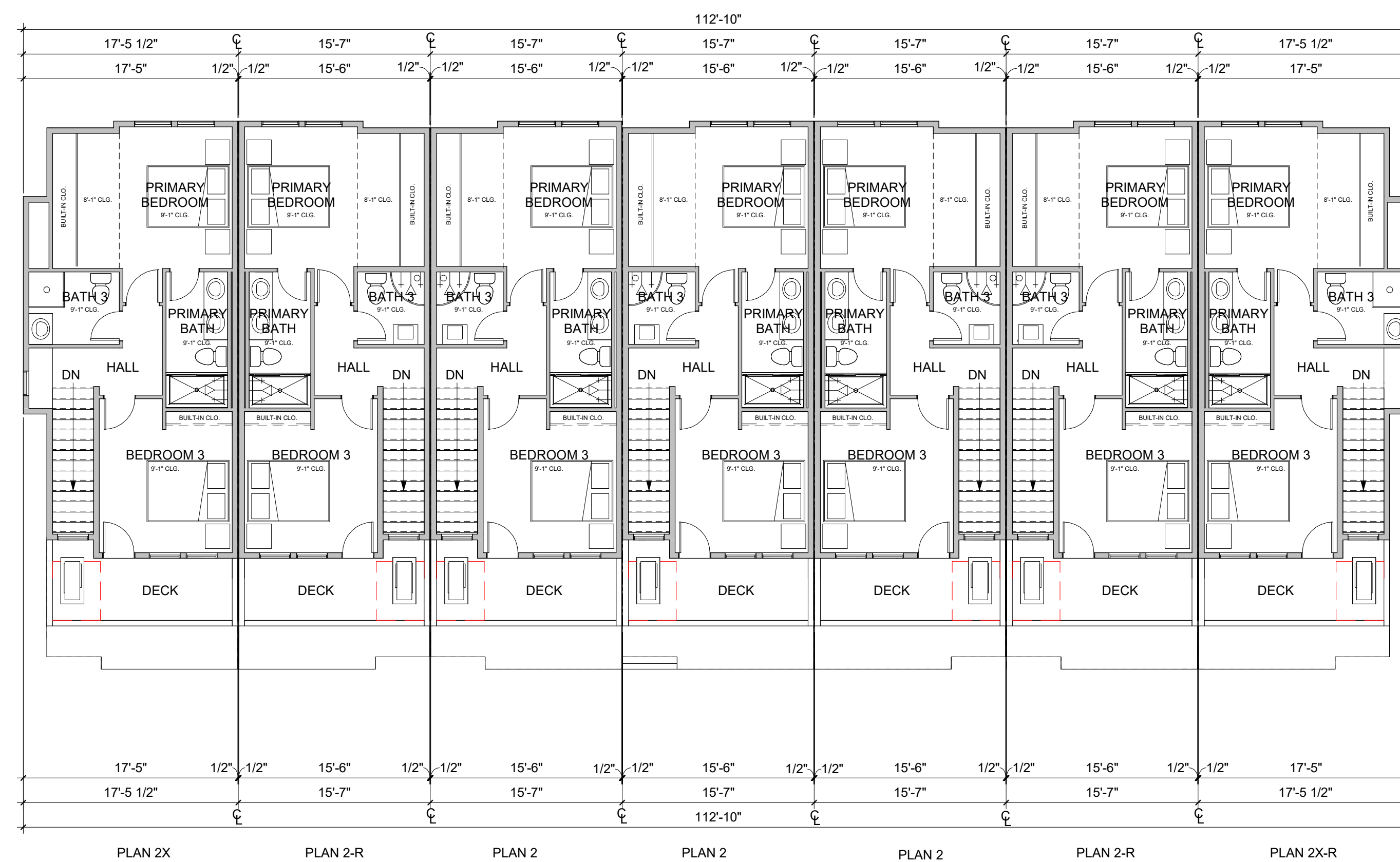
1 BUILDING 2 FIRST FLOOR PLAN, ELEVATION A
1/8" = 1'-0"

BUILDING 2 FLOOR PLANS





2 BUILDING 2 ROOF PLAN, ELEVATION A
1/8" = 1'-0"



1 BUILDING 2 THIRD FLOOR PLAN, ELEVATION A
1/8" = 1'-0"

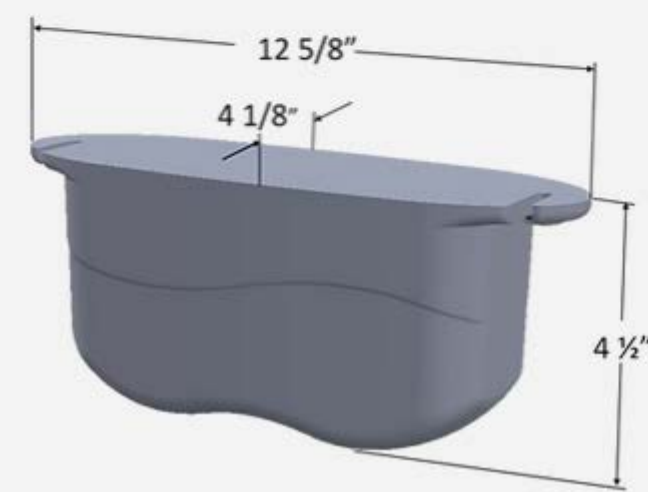
BUILDING 2 FLOOR PLAN & ROOF PLAN



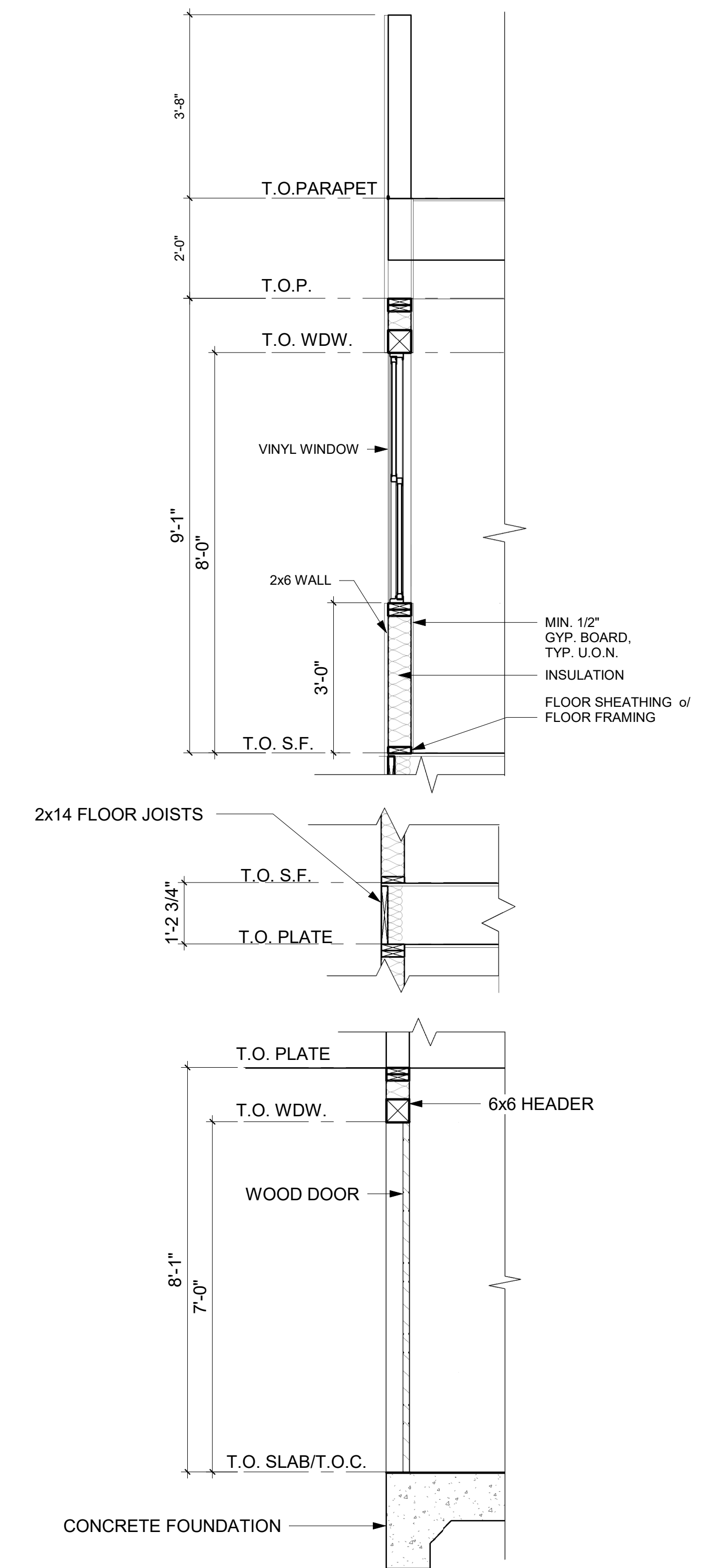
Specs*:

- No electricity
- Lifts up to 25lbs. or 40lbs. (select at checkout), but weighs less than 5lbs.
- Accommodates ceiling heights up to 13ft. (40lbs. Unit) or 15ft. (25lbs. Unit)
- Attaches to bike frame to lift bike horizontally or to bike wheel to lift bike vertically
- Only two screws required for installation

Dimensions*:

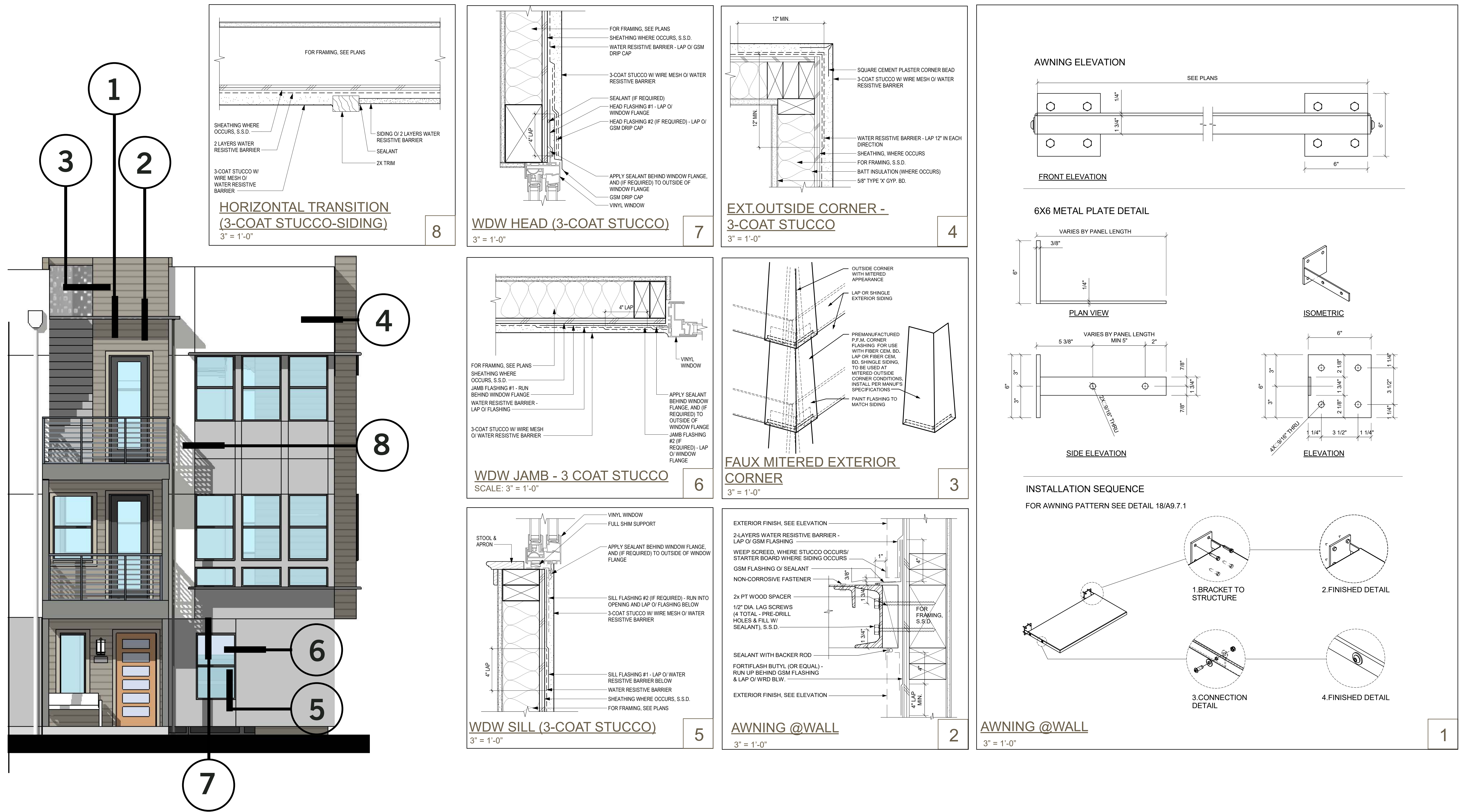


BIKE RACK



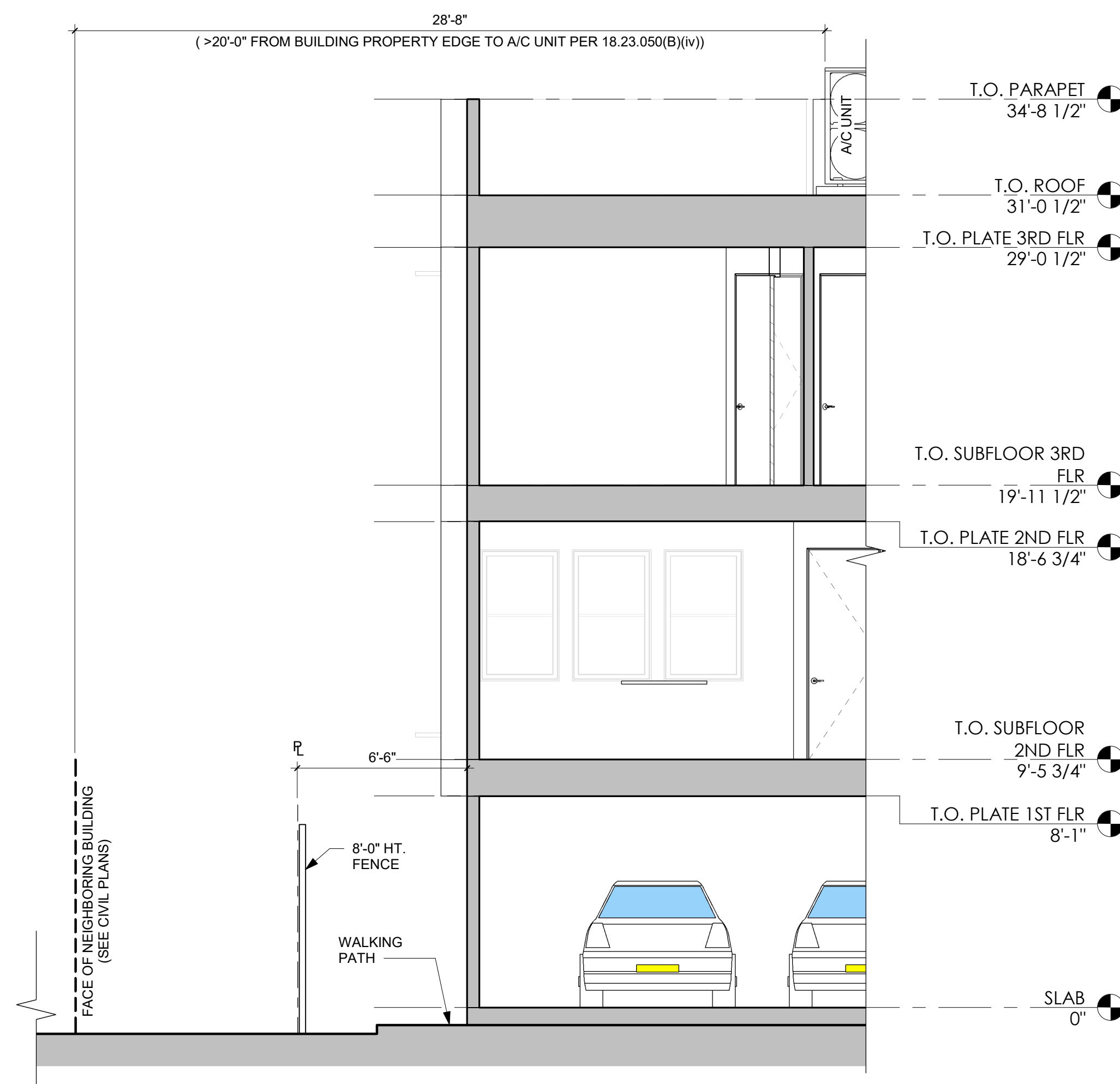
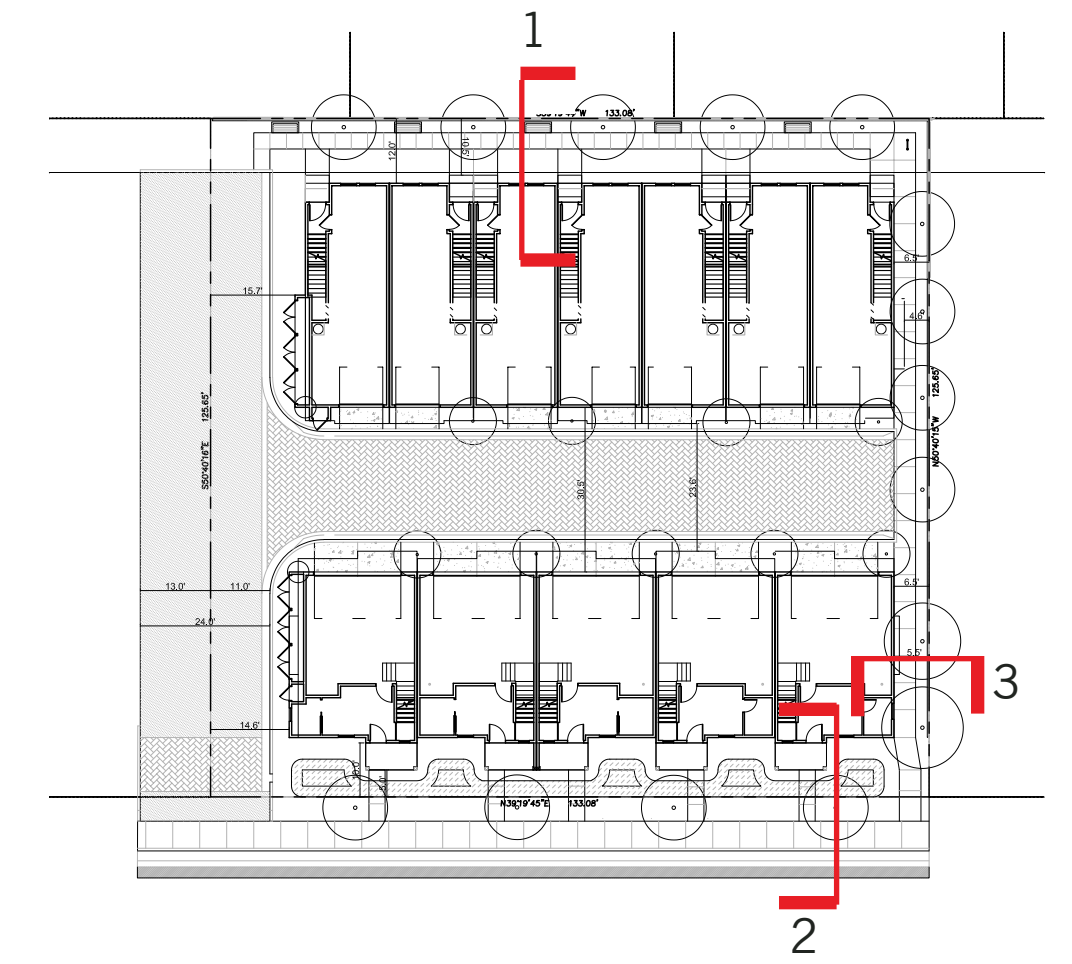
1 **TYPICAL EXTERIOR WALL SECTION**
1/2" = 1'-0"

TYPICAL DETAILS

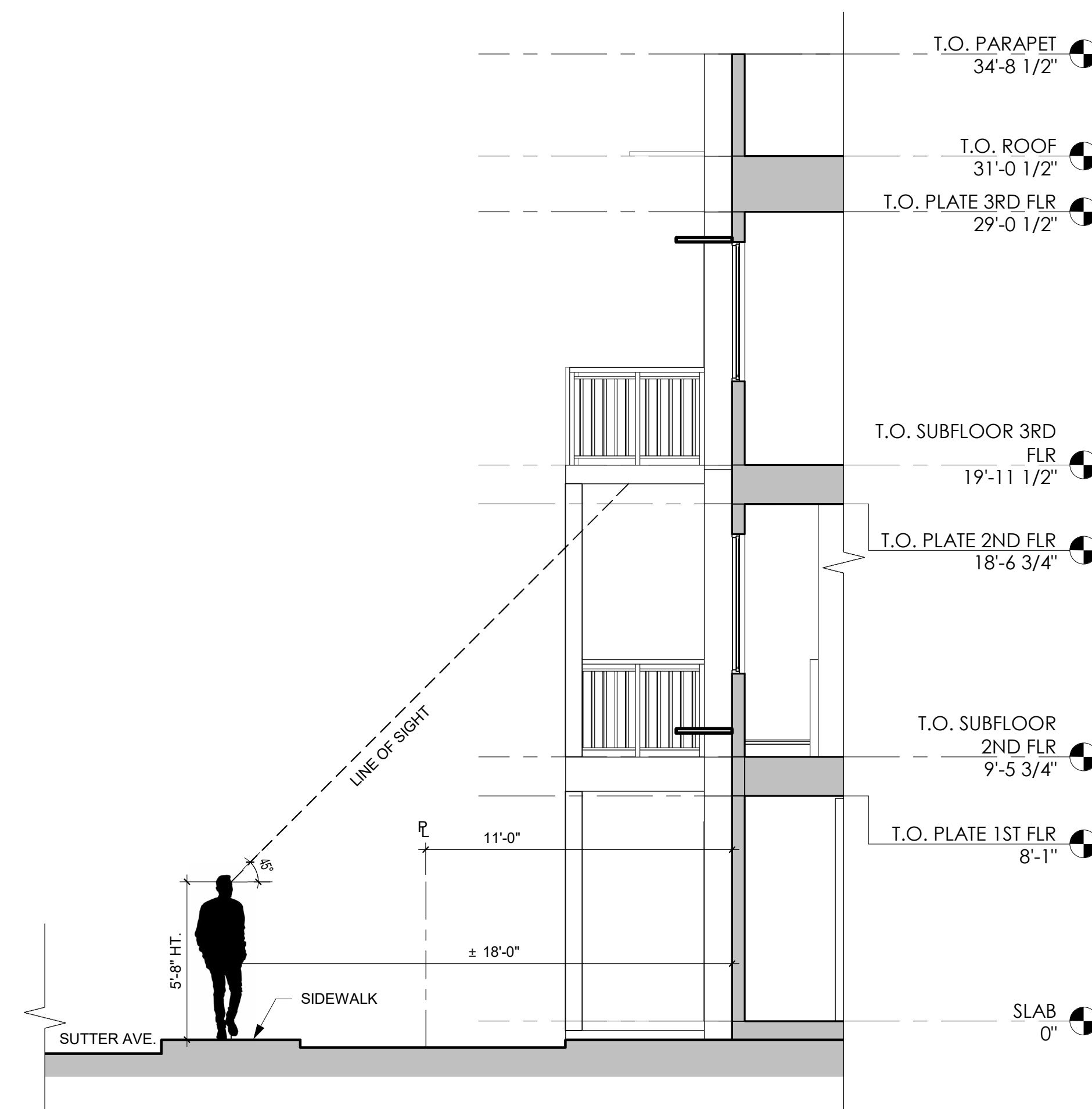


TYPICAL DETAILS

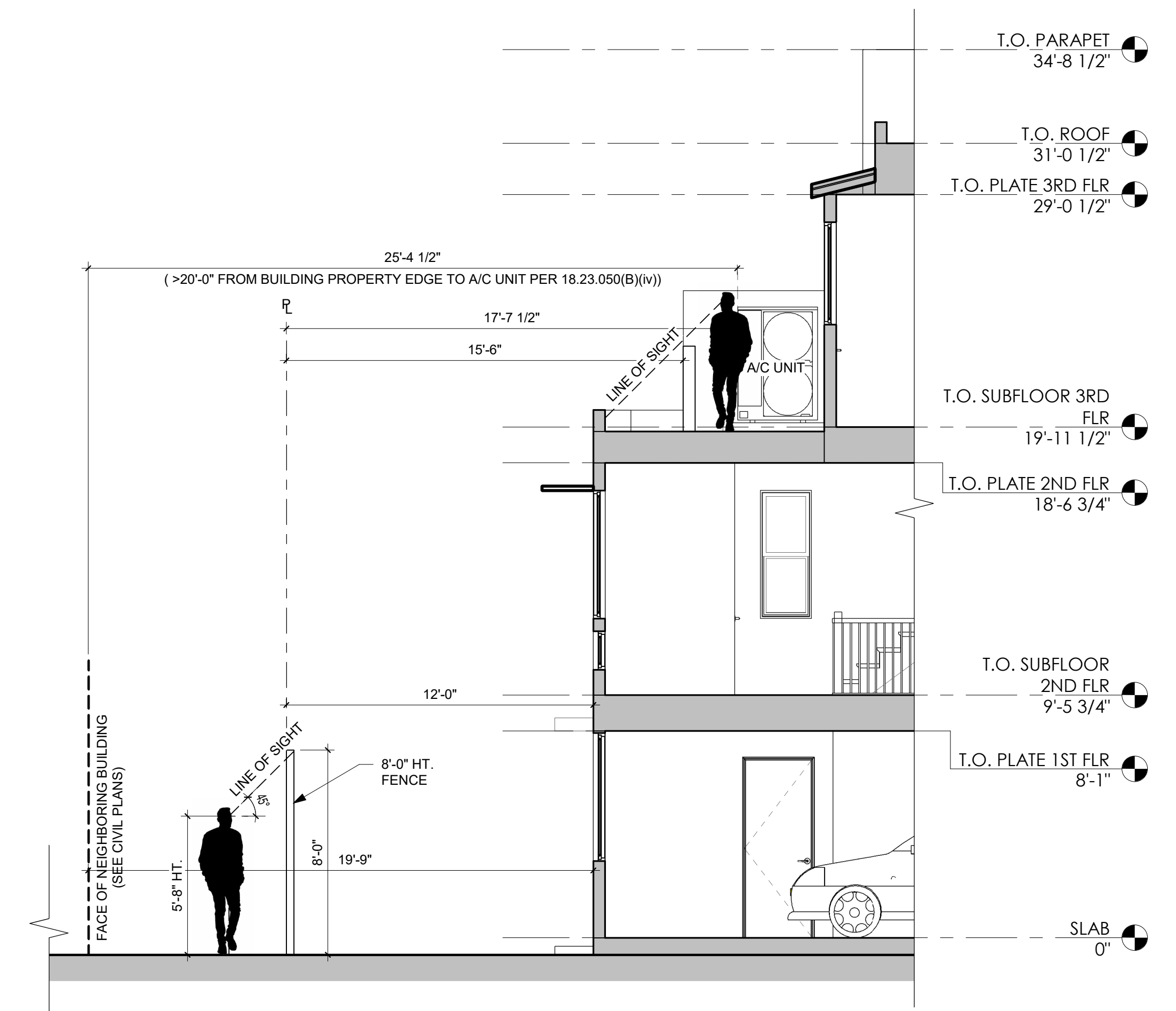
KEY MAP



3 LINE OF SIGHT DIAGRAM - BLDG 1 - RIGHT
1/4" = 1'-0"

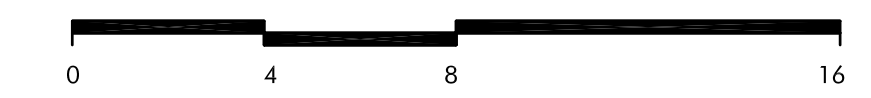


2 LINE OF SIGHT DIAGRAM - BLDG. 1 - FRONT
1/4" = 1'-0"



1 LINE OF SIGHT DIAGRAM - BLDG. 2 - REAR
1/4" = 1'-0"

LINE OF SIGHT DIAGRAMS



COLORS

1 BODY COLOR 1
STUCCO
PURE WHITE
SW7005
by Sherwin Williams or equal



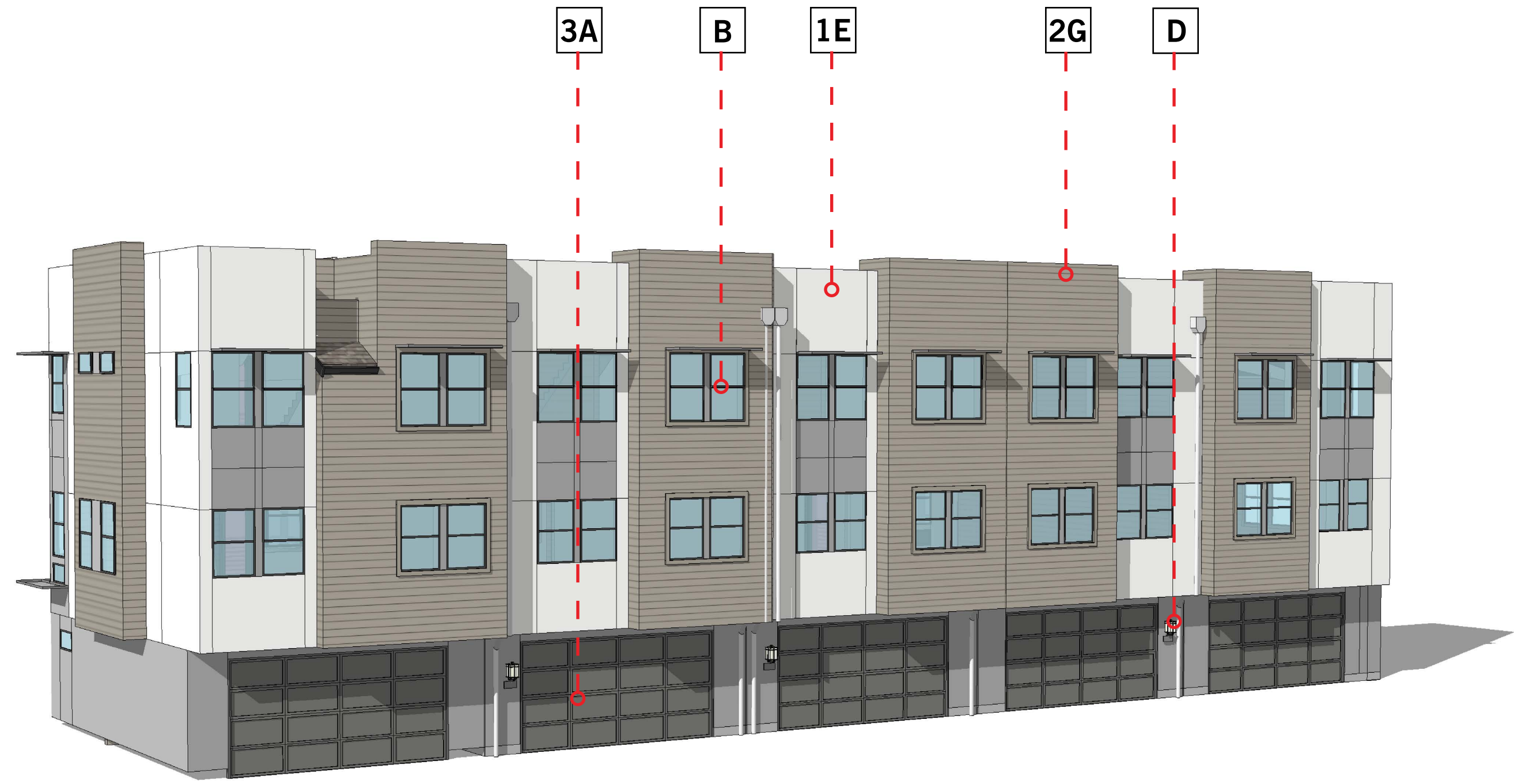
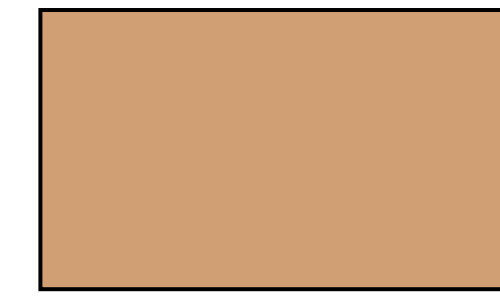
2 BODY COLOR 2
SIDING
LIBRARY PEWTER
SW0038
by Sherwin Williams or equal



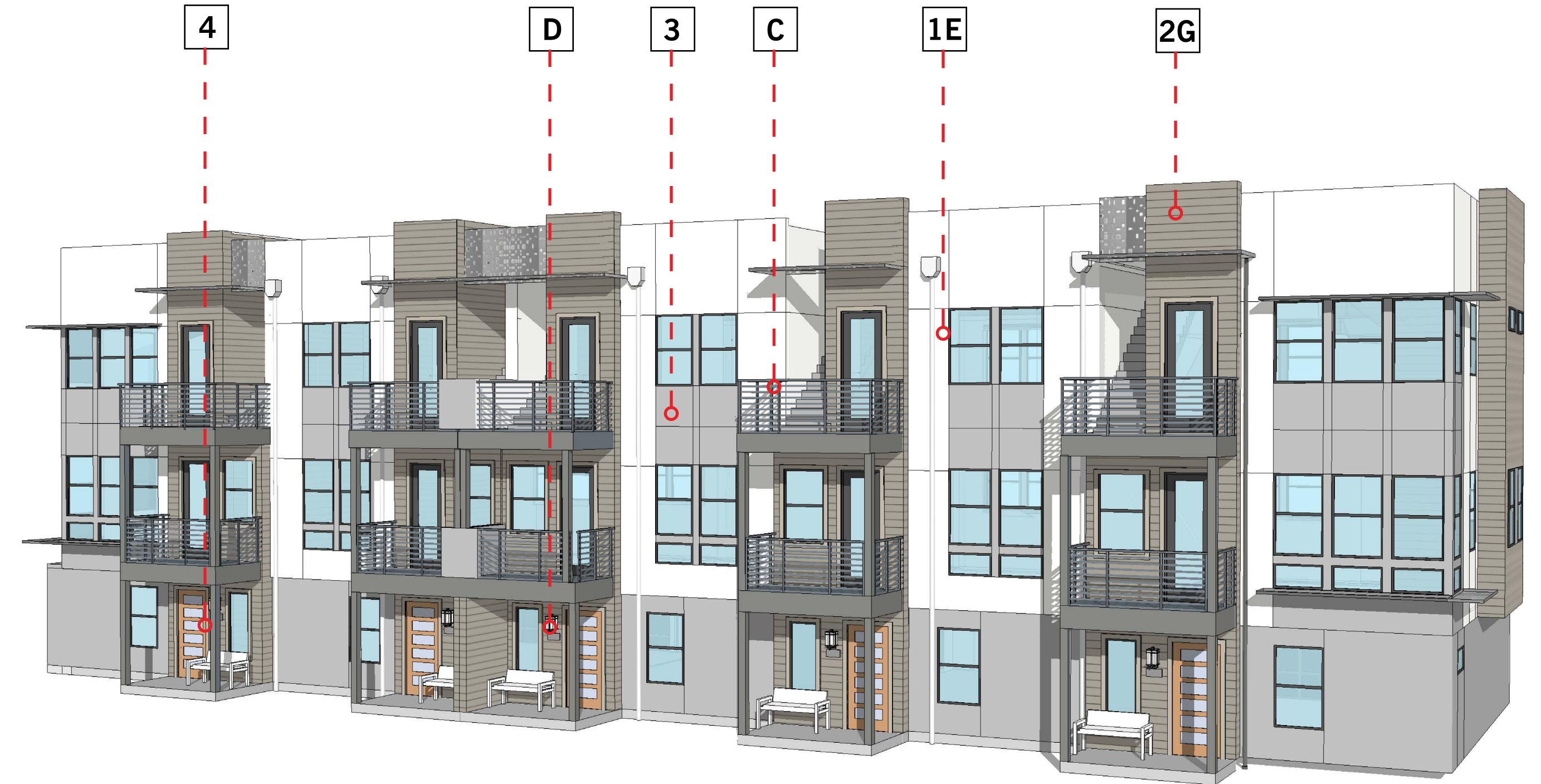
3 ACCENT COLOR 1
STUCCO & CEMENTITIOUS
PANELS
GRIZZLE GRAY
SW7068
by Sherwin Williams or equal



4 ACCENT COLOR 2
ENTRY DOORS
SMOKEY TOPAZ
SW6117
by Sherwin Williams or equal



B BUILDING 1, REAR PERSPECTIVE



A BUILDING 1, FRONT PERSPECTIVE

NOTE:
PAINT COLORS AND PHOTO IMAGES
OF MATERIALS SEEN ON SCREEN MAY
NOT ACCURATELY REPRESENT COLORS
AND TEXTURES. REFER TO ACTUAL
MATERIALS FOR COLOR.

MATERIALS

A GARAGE DOOR
Contemporary



B VINYL WINDOW
Dark Bronze Frame



C METAL RAILING



D LIGHT FIXTURE
Black Finish



E STUCCO
Light sand finish



F ROOFING
Composition Shingle Roof



G CEMENTITIOUS LAP
SIDING
7.25" Siding w/ 6" Exposure



COLORS AND MATERIALS BOARD - COLOR SCHEME 1



JOB NO. 1447.003
DATE 10-02-2023
5865 Owens Drive
Pleasanton, CA 94588
925-251-7200

COLORS

1 BODY COLOR 1
STUCCO
PURE WHITE
SW7005
by Sherwin Williams or equal



2 BODY COLOR 2
SIDING
THUNDER GRAY
SW7645
by Sherwin Williams or equal



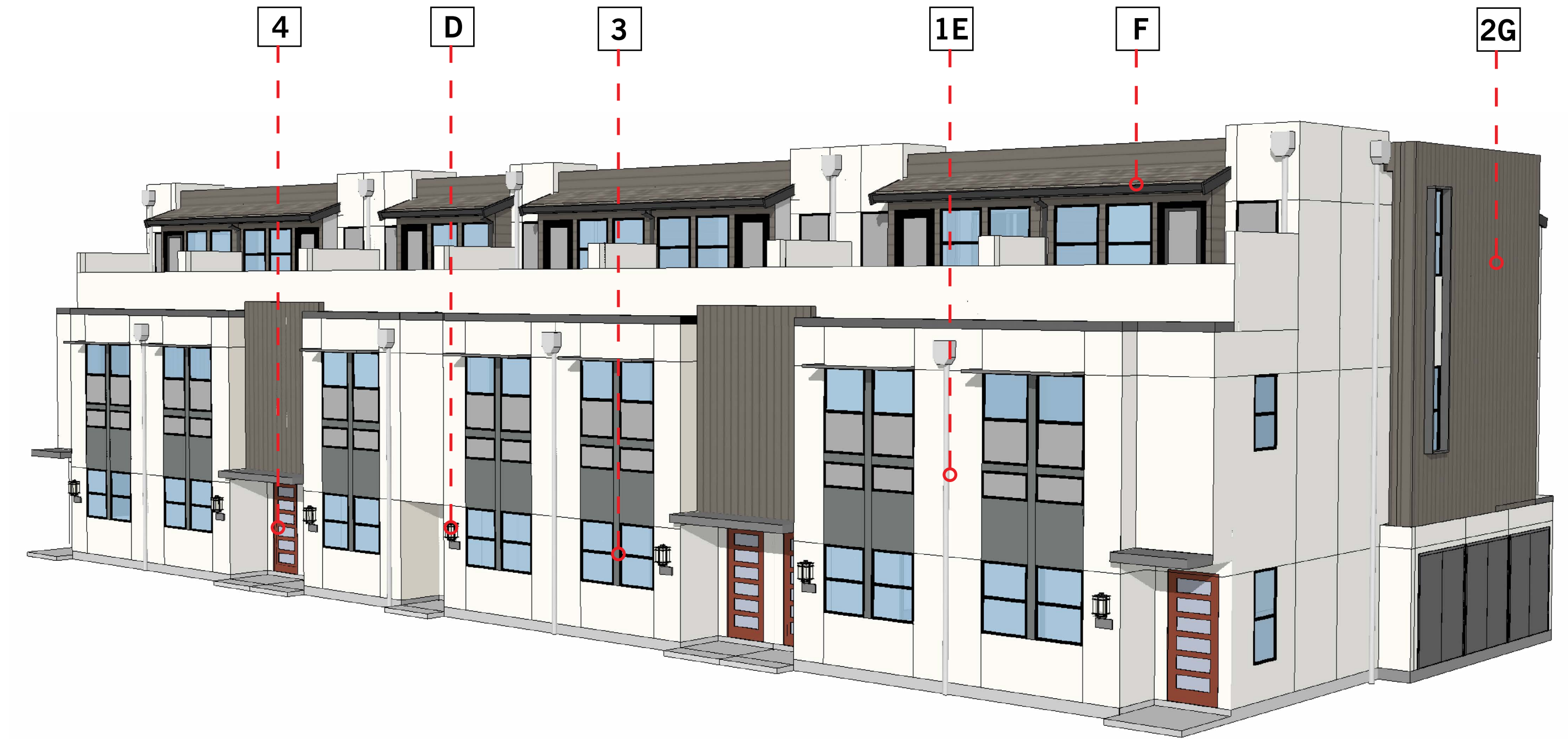
3 ACCENT COLOR 1
STUCCO & CEMENTITIOUS
PANELS
ROYCROFT PEWTER
SW2848
by Sherwin Williams or equal



4 ACCENT COLOR 2
ENTRY DOORS
ROYCROFT COPPER RED
SW2839
by Sherwin Williams or equal



B BUILDING 2, REAR PERSPECTIVE



NOTE: GREY WINDOWS INDICATES OBSCURED GLASS

A BUILDING 2, FRONT PERSPECTIVE

NOTE:
PAINT COLORS AND PHOTO IMAGES
OF MATERIALS SEEN ON SCREEN MAY
NOT ACCURATELY REPRESENT COLORS
AND TEXTURES. REFER TO ACTUAL
MATERIALS FOR COLOR.

MATERIALS

A GARAGE DOOR
Contemporary



B VINYL WINDOW
Dark Bronze Frame



C METAL RAILING



D LIGHT FIXTURE
Black Finish



E STUCCO
Light sand finish



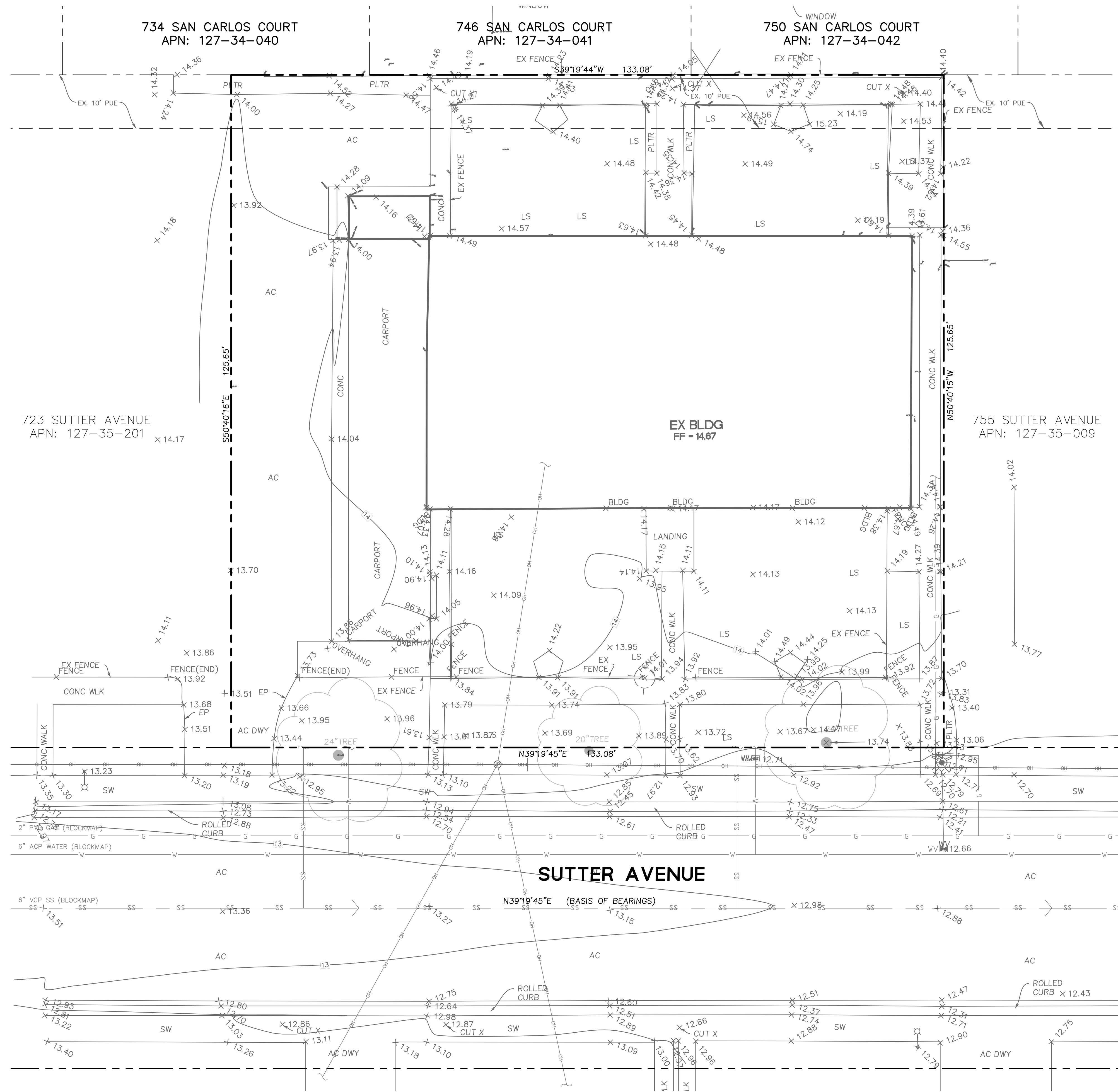
F ROOFING
Composition Shingle Roof



G CEMENTITIOUS LAP
SIDING
7.25" Siding w/ 6" Exposure



COLORS AND MATERIALS BOARD - COLOR SCHEME 2



LEGEND

- BOUNDARY LINE
- LOT LINE
- EASEMENT LINE
- ROADWAY CENTER LINE
- BUILDING WALL LINE
- FENCE LINE
- DRIVEWAY
- SIDEWALK
- OVERHEAD LINE
- COMMUNICATION LINE
- ELECTRICAL LINE
- GAS LINE
- STORM DRAIN LINE
- SANITARY SEWER LINE
- WATER LINE
- ELEVATION
- BOLLARD
- COMMUNICATION BOX
- ELECTRIC BOX
- FIRE HYDRANT
- GAS METER
- GUY WIRE
- JOINT POLE
- SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- STORM DRAIN CATCH BASIN
- STORM DRAIN DROP INLET
- STORM DRAIN MANHOLE
- STREET LIGHT BOX
- SURVEY IRON PIPE
- SURVEY STREET MONUMENT
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL BOX
- UNKNOWN MANHOLE
- WATER METER
- WATER VALVE
- EXISTING SCHOOL ZONE AHEAD SIGN

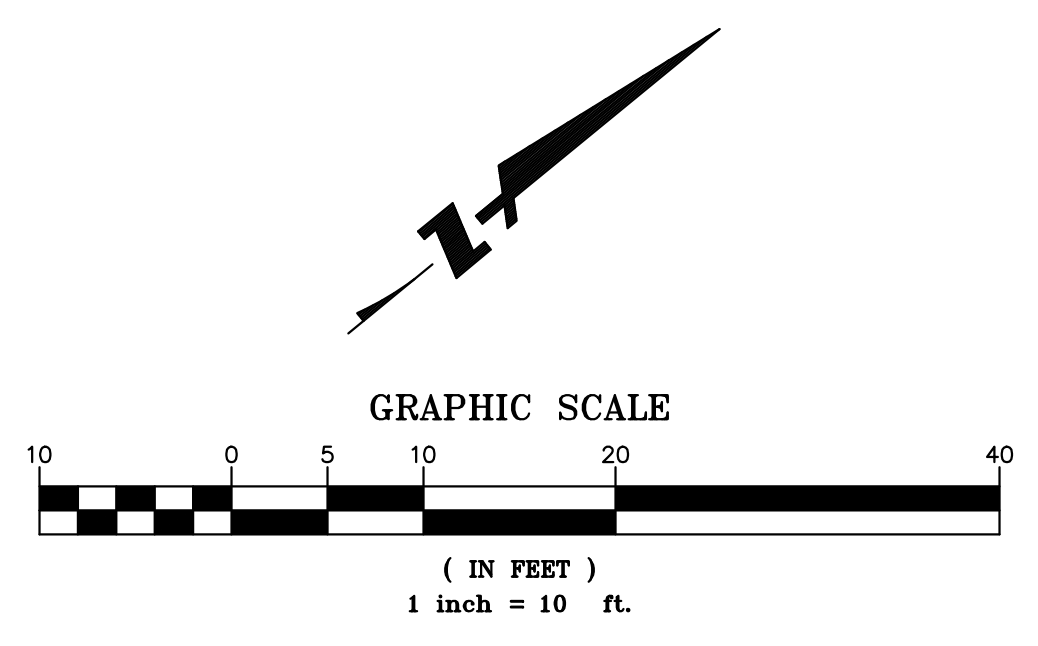
SURVEY NOTES

BASIS OF BEARINGS:
 THE BEARINGS SHOWN ON THIS MAP ARE BASED ON THE GPS OBSERVATION.

BENCHMARK:
 THIS WORK WAS REFERENCED TO THE FOLLOWING BENCHMARK:
 SCVWD BM 053
 ELEVATION = 15.76 FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88 DATUM)

GENERAL NOTES:

- TOPOGRAPHIC SURVEY WAS CONDUCTED BY LC ENGINEERING.
- DATE OF FIELD SURVEY: 05/17/21
- ALL DISTANCES AND DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
- THE TYPES, LOCATIONS, AND DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS TOPOGRAPHIC SURVEY ARE BASED ON AS-BUILT MAPS, GIS MAPS, AND OTHER UTILITY INFORMATION FROM DIFFERENT SOURCES. ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO DELINEATE ALL KNOWN UNDERGROUND UTILITIES. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES NOT SHOWN ON THESE DRAWINGS.



DRAWING NAME: \\BKF-SU\vol14\2022\220187-739_Sutter_Palo_Alto\ENG-L\Planning\Sheets\1.0_739SA-EX.dwg
 PLOT DATE: 09-22-23
 PLOTTED BY: hoan

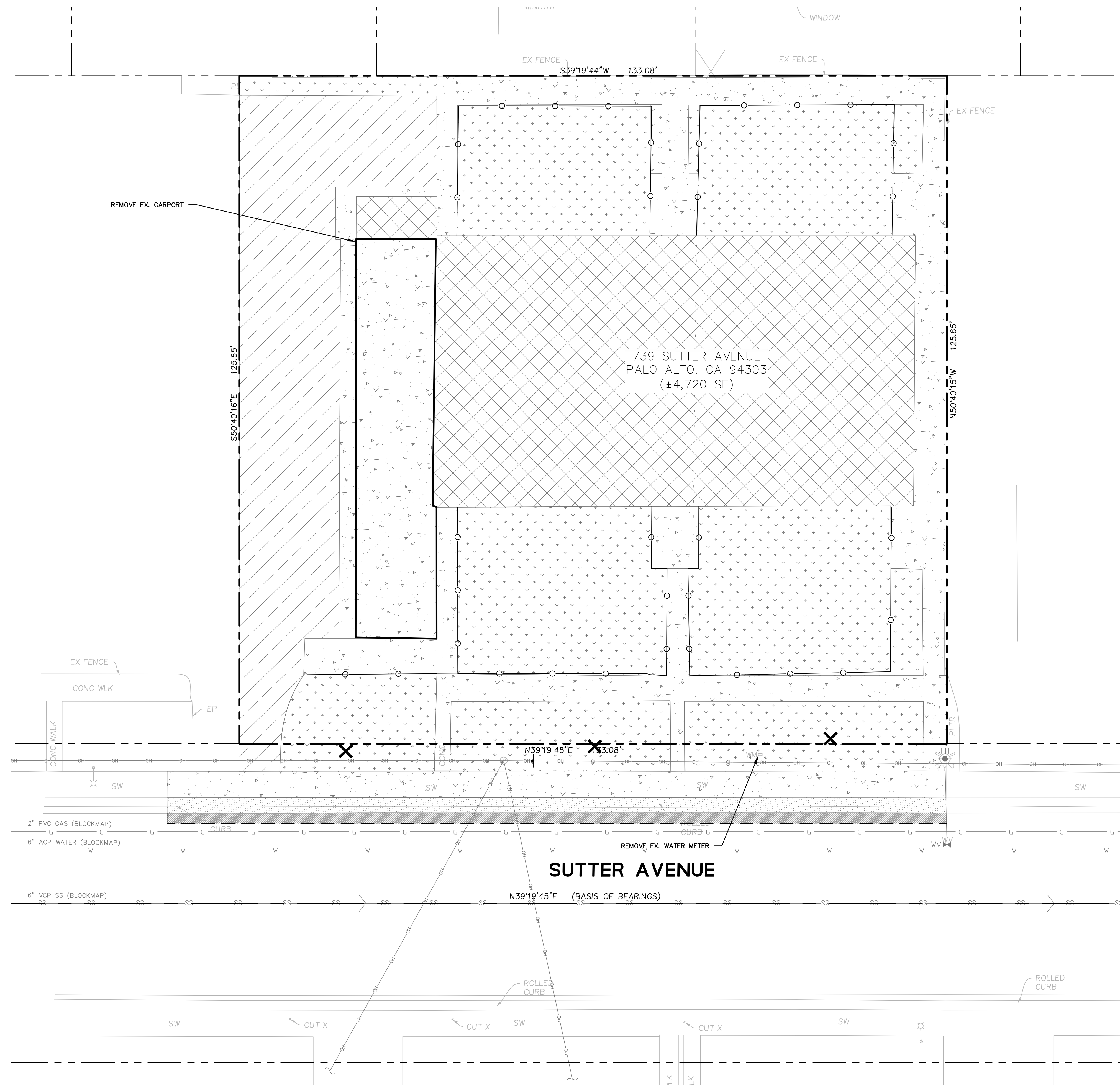
BKF ENGINEERS
 1730 N. FIRST STREET
 SUITE 600
 SAN JOSE, CA 95112
 (408) 467-9100
 www.bkf.com

RESIDENTIAL DEVELOPMENT
739 SUTTER AVENUE
EXISTING CONDITIONS
 SANTA CLARA COUNTY
 CALIFORNIA
 PALO ALTO

No.	Date	Revisions
	09/29/23	
	Scale AS SHOWN	
	Design JH	
	Drawn JH	
	Approved PK	
	Job No: 20220187	

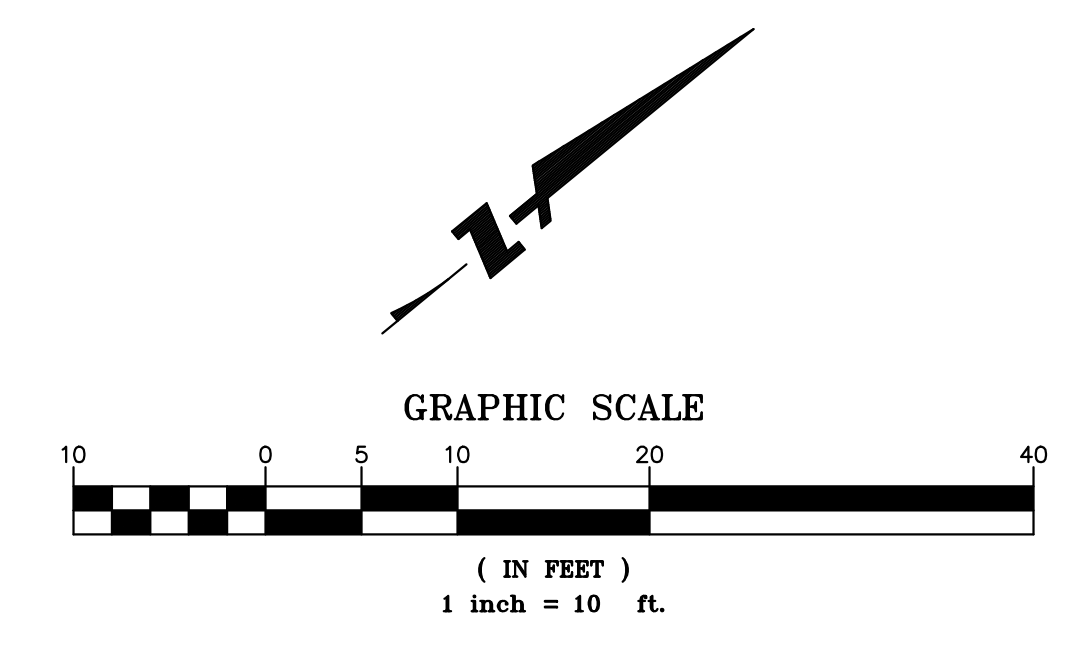
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1 OF **6**

DRAWING NAME: \\BKF-SJ\vol4\2022\220187_739_Sutter_Palo_Alto\ENG-L\Planning\Sheets\1_1_739SA-DM.dwg
 PLOT DATE: 09-22-23 PLOTTED BY: hoan



LEGEND

- BOUNDARY LINE
- LOT LINE
- EASEMENT LINE
- ROADWAY CENTER LINE
- REMOVE EX. ASPHALT AND BASEROCK
- REMOVE EX. CONCRETE PAVEMENT AND BASEROCK
- REMOVE EX. STRUCTURE, FOUNDATION, AND BASEROCK
- REMOVE EX. COMPACTED GRAVEL AND VEGETATION (INCLUDES BOLLARDS)
- REMOVE EX. ROLLED CURB AND GUTTER
- 2' AC OVERLAY
- REMOVE EX. FENCE
- REMOVE EX. TREE



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 (408) 467-9100
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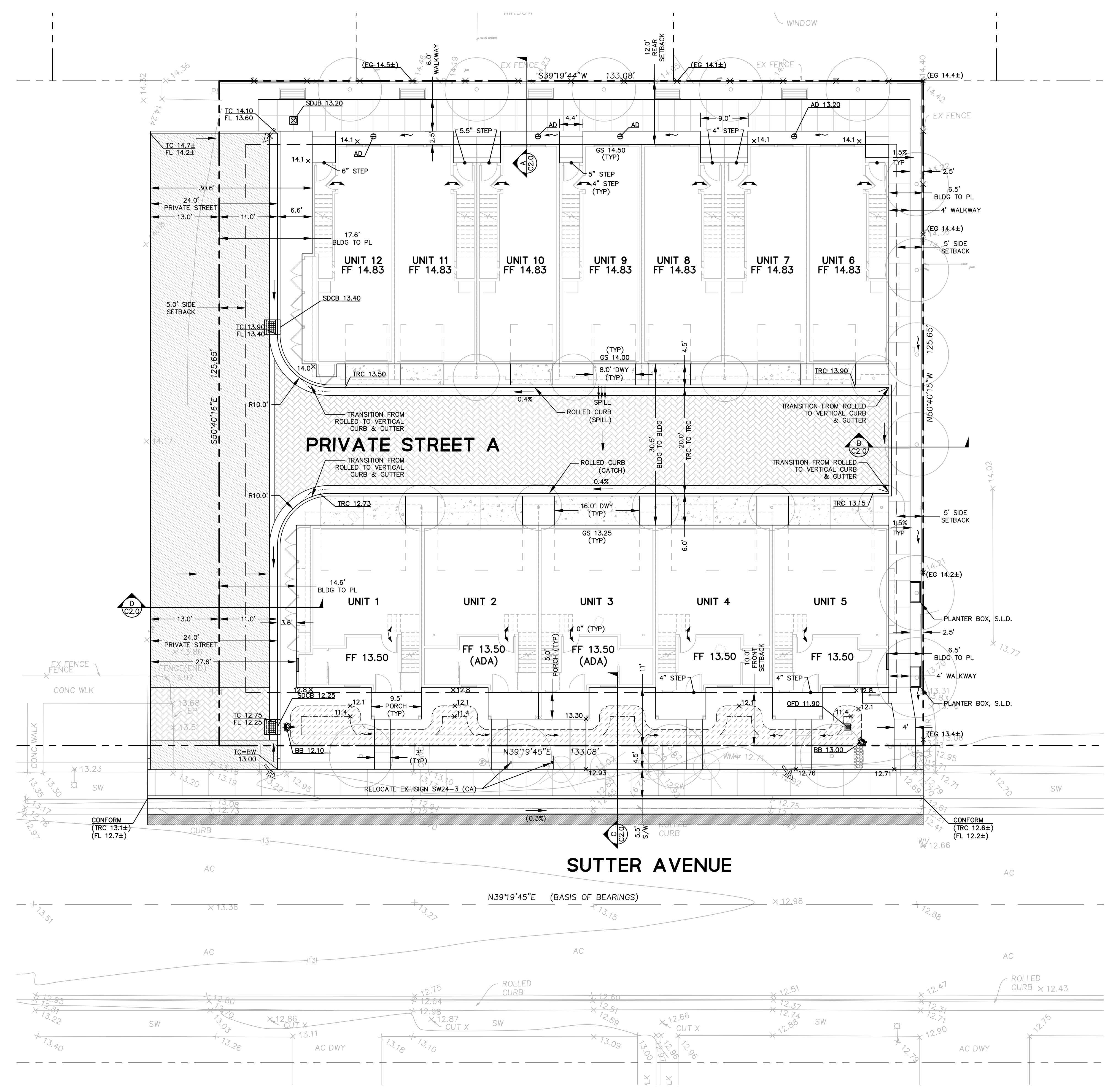
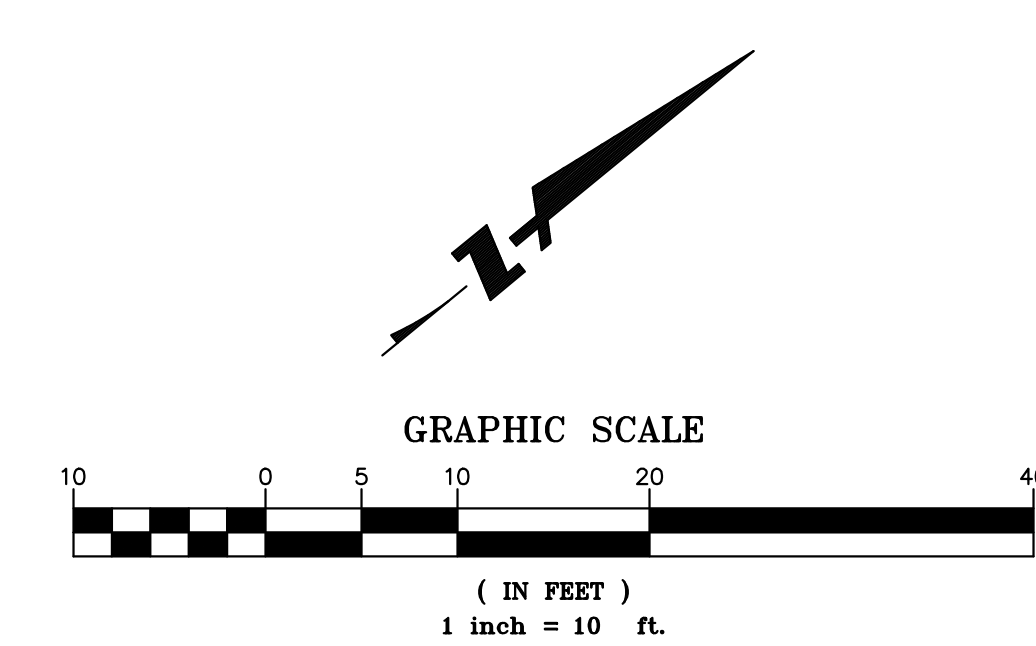
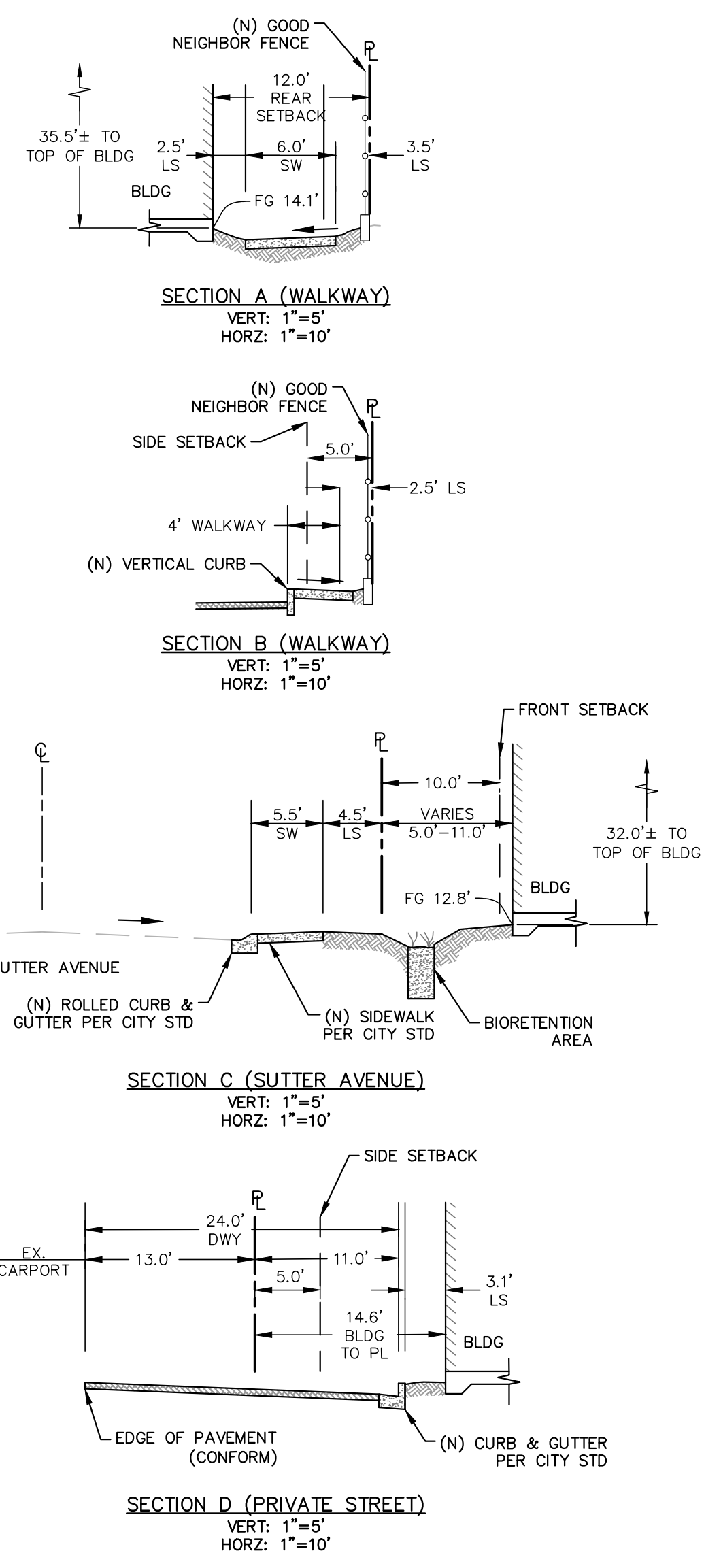
RESIDENTIAL DEVELOPMENT
739 SUTTER AVENUE
PRELIMINARY DEMOLITION PLAN
 SANTA CLARA COUNTY
 PALO ALTO

Date	No.	Revisions
09/29/23	AS SHOWN	
	Design	JH
	Drawn	JH
	Approved PK	
	Job No	20220187

Drawing Number: **C1.1**
2 OF **6**

LEGEND

- BOUNDARY LINE
- SETBACK LINE
- EASEMENT LINE
- BIORETENTION BASIN
- AC PAVEMENT
- AC OVERLAY
- CONCRETE DRIVEWAY
- PERVIOUS PAVER
- ROLLED CURB & GUTTER
- VERTICAL CURB
- PRIVATE FENCE
- SAWCUT



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RESIDENTIAL DEVELOPMENT
739 SUTTER AVENUE
PRELIMINARY SITE AND GRADING PLAN WITH CROSS SECTIONS
SANTA CLARA COUNTY
PALO ALTO

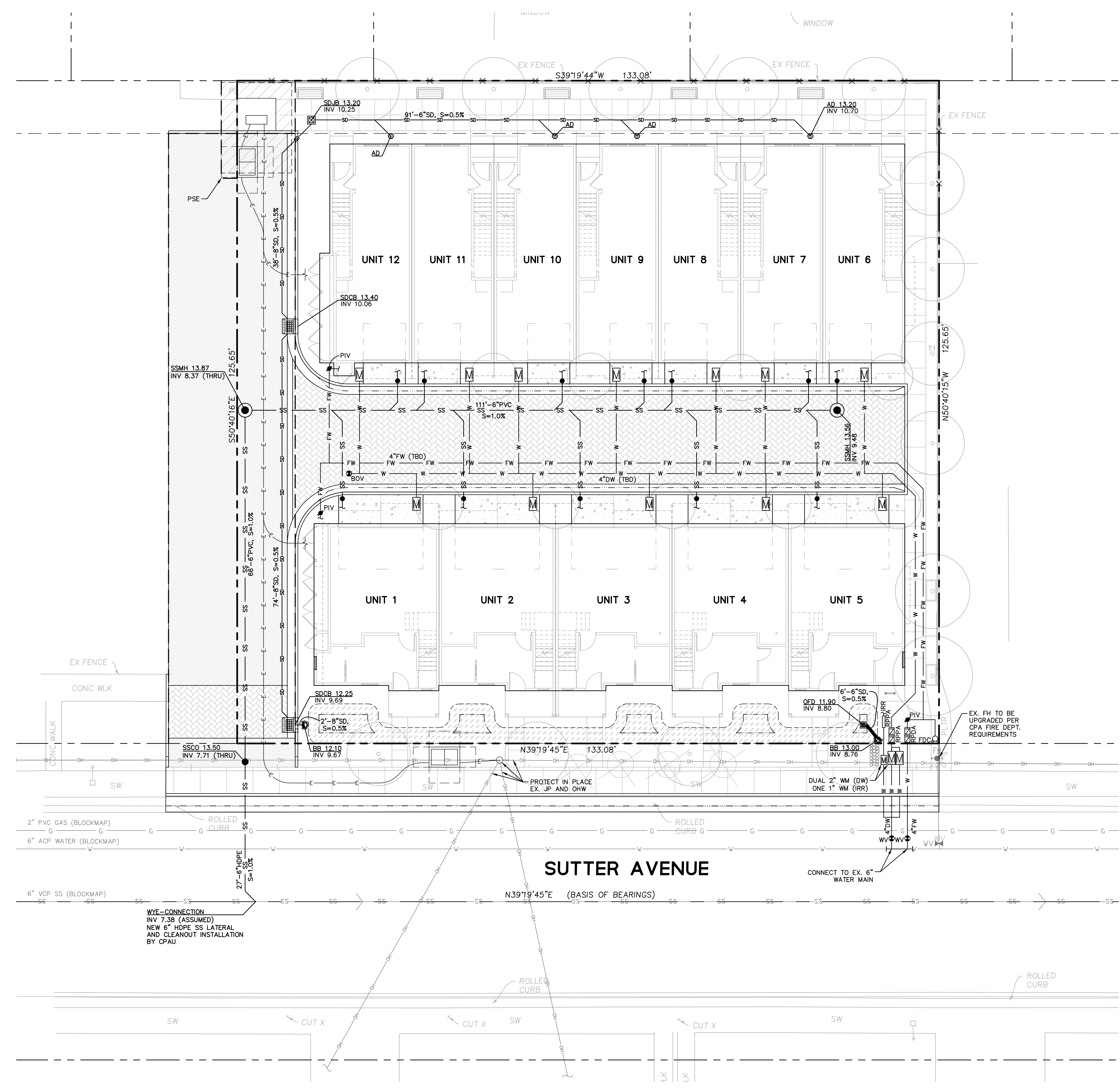
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No.	Date
	09/29/23
	Scale AS SHOWN
	Design JH
	Drawn JH
	Approved PK
	Job No: 20220167

Drawing Number: **C2.0**

3 OF **6**

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PLOT DATE: 09-22-23
PLOTTED BY: hoan

DRAWING NAME: \\BKF-SU\vol4\2022\220187-739_Sutter_Palo_Alto\ENG-L\Planning\Sheets\3.0_739SA-UT.dwg
PLOT DATE: 09-22-23
PLOTTED BY: hoan



LEGEND

- BOUNDARY LINE
- LOT LINE
- EX. EASEMENT LINE
- PR. EASEMENT LINE
- ROADWAY CENTER LINE
- ELEVATION
- DOMESTIC WATER LINE
- FIRE WATER LINE
- ELECTRIC LINE
- SANITARY SEWER LINE
- STORM DRAIN (DIRECTION)
- STORM DRAIN (PERFORATED)
- STORM DRAIN (TREATED)
- STORM DRAIN (UNTREATED)
- STORM DRAIN AREA DRAIN
- STORM DRAIN BUBBLER BOX
- STORM DRAIN CLEANOUT
- STORM DRAIN CATCH BASIN
- STORM DRAIN DROP INLET
- STORM DRAIN JUNCTION BOX
- STORM DRAIN MANHOLE
- STORM DRAIN OVERFLOW DRAIN
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- BACKFLOW PREVENTER
- WATER METER
- BLOW OFF VALVE
- WATER VALVE
- FIRE DEPARTMENT CONNECTION
- POST INDICATOR VALVE
- ABOVE-GRADE TRANSFORMER (FOR REFERENCE ONLY)

- NOTES:**
1. THE APPLICANT SHALL PROVIDE TO THE ENGINEERING DEPARTMENT A COPY OF THE PLANS FOR THE FIRE SYSTEM, INCLUDING ALL FIRE DEPARTMENT REQUIREMENTS, PRIOR TO THE ACTUAL FIRE SERVICE INSTALLATION.
 2. INSTALL AN APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY - RPPA BACKFLOW PREVENTER. THE RPPA SHALL BE INSTALLED ON THE OWNERS' PROPERTY AND DIRECTLY BEHIND THE WATER METER PER CITY'S STANDARD DETAIL WD-11A COMMERCIAL OR M47C COA DRAWING.
 3. AN APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY AND REDUCED PRESSURE DETECTOR ASSEMBLY ARE REQUIRED RPPA & RPDA BACKFLOW PREVENTERS. THE RPPA AND RPDA SHALL BE INSTALLED ON THE OWNER'S PROPERTY AND DIRECTLY BEHIND THE CITY'S FIRE SERVICE PER CITY'S STANDARD DETAIL WD-12A OR M47C DRAWING.
 4. THIS IS AN "ALL-ELECTRIC" BUILDING PROJECT. NO NEW GAS SERVICE OR GAS HOOKUPS WILL BE INSTALLED.
 5. WATER PRESSURE/LOSS CALCULATIONS WILL BE PROVIDED DURING THE CD PHASE BY THE DESIGN TEAM TO DETERMINE WHETHER A BOOSTER PUMP IS REQUIRED.

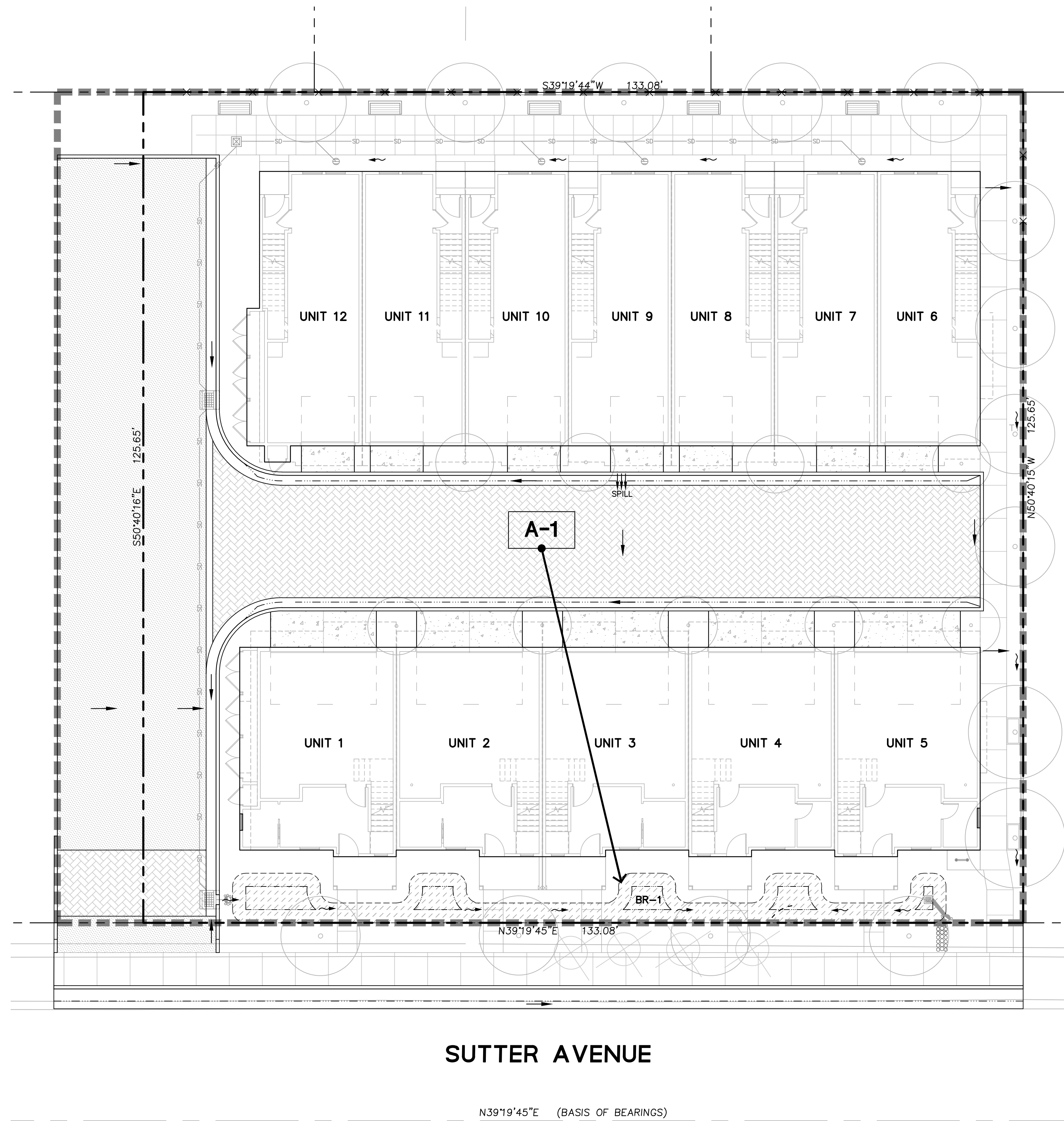
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RESIDENTIAL DEVELOPMENT
739 SUTTER AVENUE
PRELIMINARY UTILITY PLAN
SANTA CLARA COUNTY
PALO ALTO

Date	No.	Revisions
09/29/23	1	AS SHOWN
	2	DESIGN
	3	DRAWN
	4	APPROVED
	5	JOB NO. 20220187

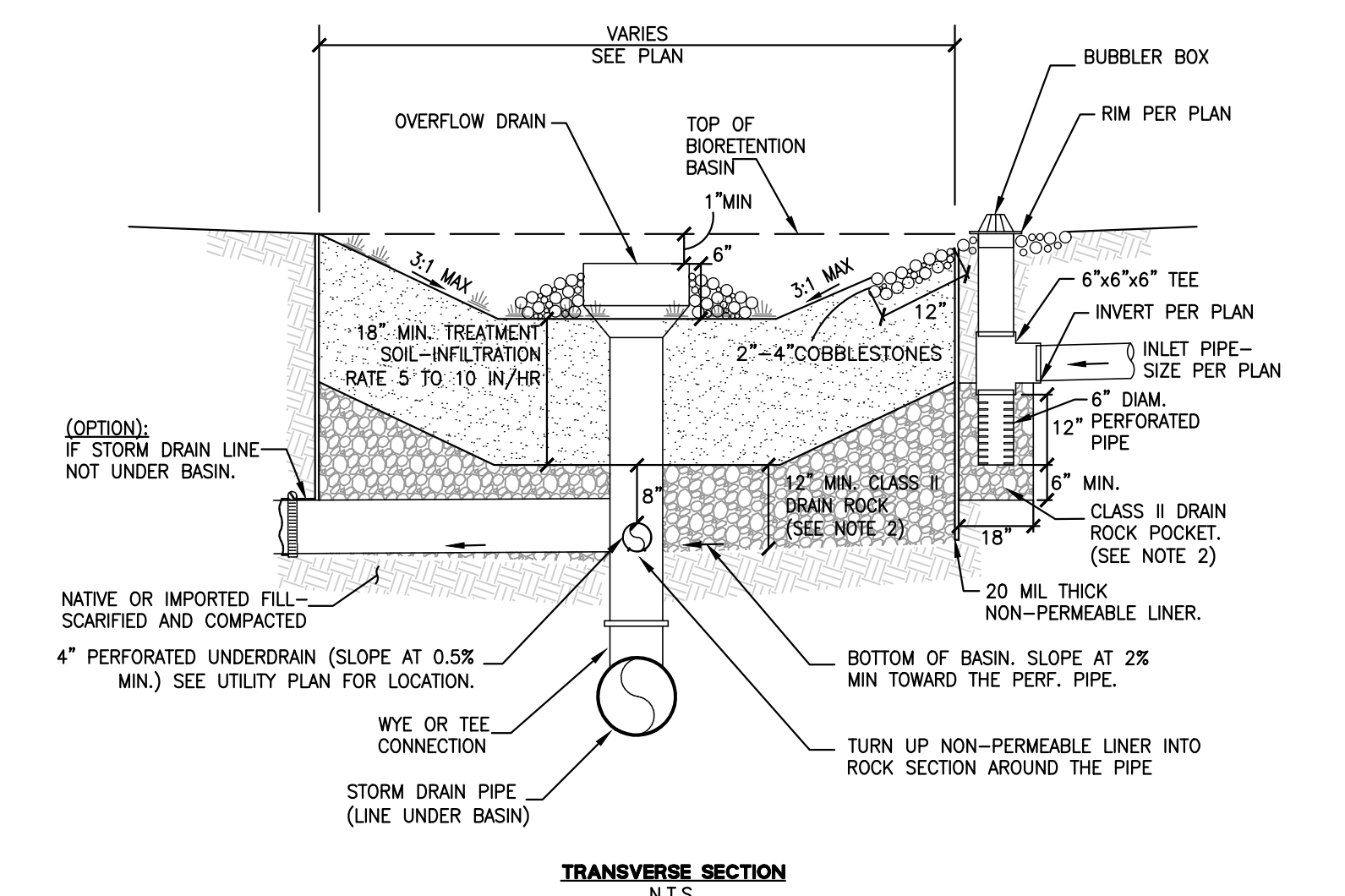
Drawing Number: **C3.0**
4 OF **6**

DRAWING NAME: \\BKF-SJ\vol4\2022\220187_739_Sutter_Palo_Alto\ENG-L\Planning\Sheets\4_0_739SA-SW.dwg
PLOT DATE: 09-22-23 PLOTTED BY: hoan

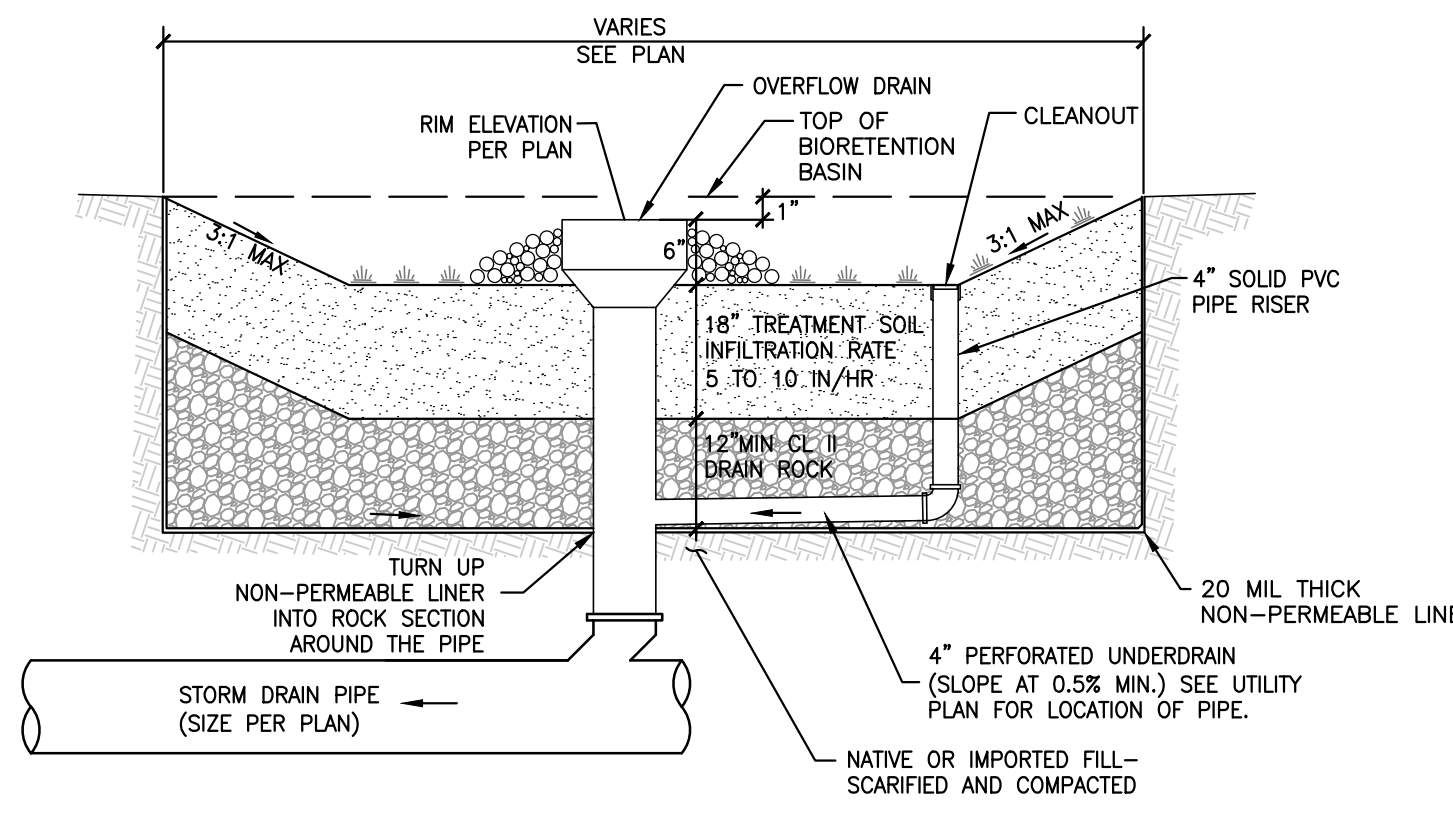


SUTTER AVENUE

N39°19'45"E (BASIS OF BEARINGS)



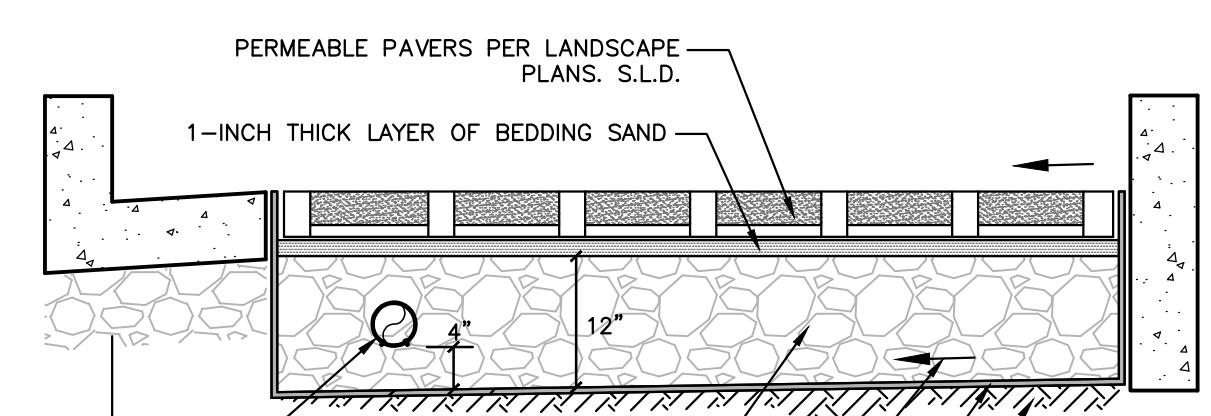
TRANSVERSE SECTION
N.T.S.



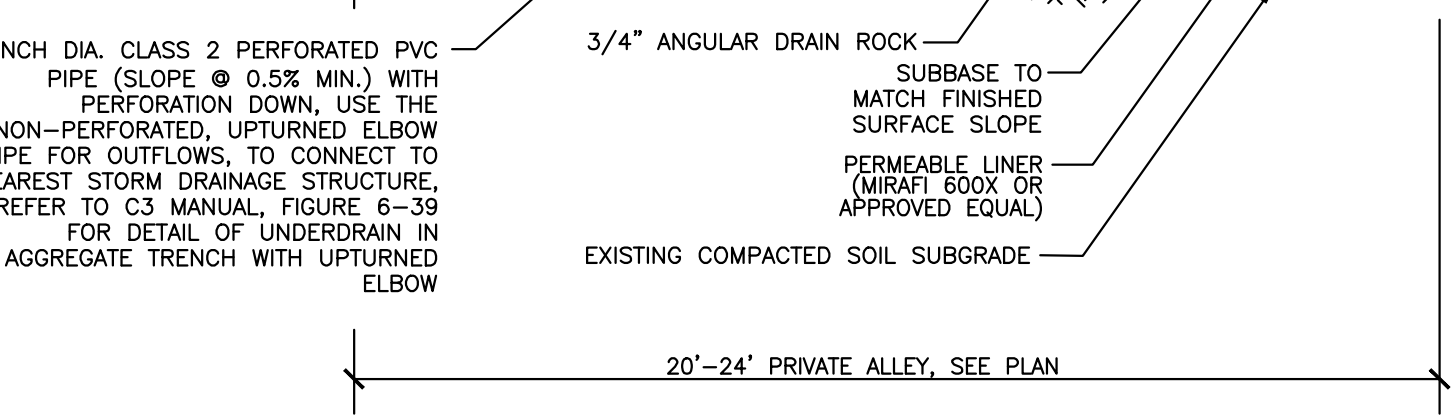
LONGITUDINAL SECTION
N.T.S.

- NOTE:**
- BACKFILL BIORETENTION ONLY WITH PERMEABLE PLANTING MATERIAL AND DRAIN ROCK AS SPECIFIED IN THIS DETAIL. ABSOLUTELY NO NATIVE MATERIAL SHALL BE USED FOR BACKFILL. CONTRACTOR MUST COORDINATE WITH CIVIL ENGINEER PRIOR TO CONSTRUCTION.
 - DRAIN ROCK TO BE CLASS 2 PERMEABLE MATERIAL PER CALTRANS STANDARD SPECIFICATIONS, SECTION 68-2.02F.
 - PERFORATED PIPE SHALL BE SOLVENT WELD PVC SDR 35 (OR APPROVED EQUAL) WITH PERFORATIONS FACED DOWN. LOCATION OF THE PIPE VARIES, SEE PLAN.
 - FOR ANY HORIZONTAL LINER PENETRATIONS, RADIAL-CUT THE LINER FOR PIPE. MASTIC AND SEAL WITH PIPE CLAMP TO INSURE WATER-TIGHT SEAL.

BIORETENTION BASIN SECTION



PERMEABLE PAVER SECTION

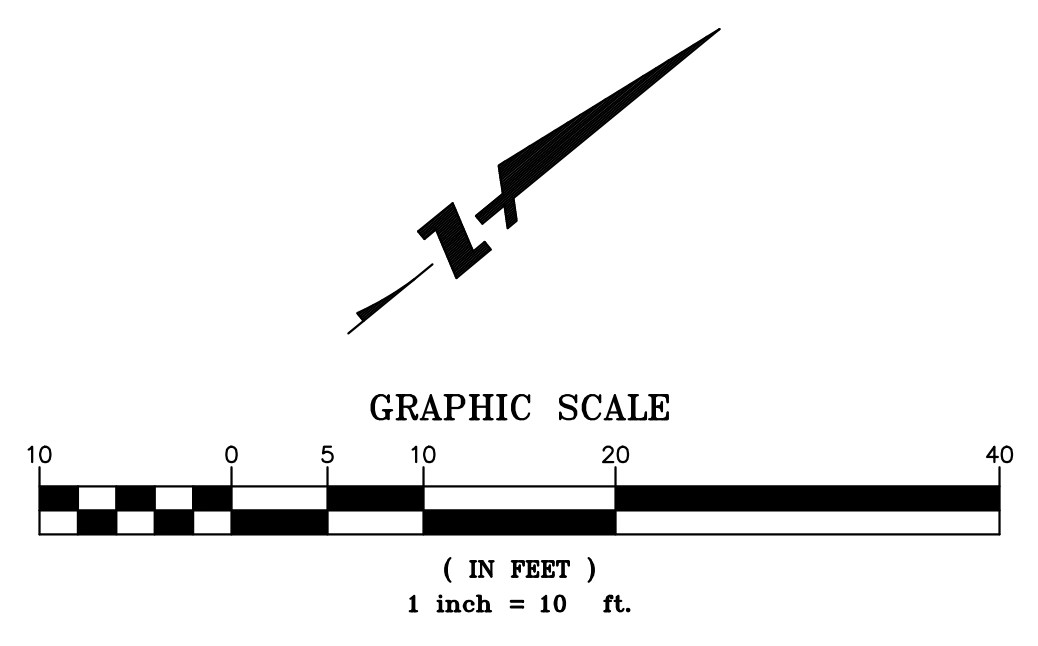


LEGEND

- BOUNDARY LINE
- LOT LINE
- EASEMENT LINE
- ROADWAY CENTER LINE
- ASPHALT CONCRETE
- PCC CONCRETE
- GRASS PAVER
- BIORETENTION BASIN
- DRAINAGE MANAGEMENT AREA
- STORM DRAIN (TREATED)
- STORM DRAIN (UNTREATED)
- STORM DRAIN FORCE MAIN
- STORM DRAIN DROP INLET
- STORM DRAIN JUNCTION BOX
- FLOW DIRECTION (PLANTING AREA)

- NOTES:**
- STORMWATER BEST MANAGEMENT PRACTICES (BMPs) ASSOCIATED WITH REFUSE MANAGEMENT (INCLUDING ACTIONS RELATED TO REFUSE PICK-UP AND THE ENCLOSURE ITSELF) SHALL BE FOLLOWED TO ENSURE POLLUTION PREVENTION AND PREVENTING POTENTIAL DISCHARGES TO THE CITY'S STORM DRAIN SYSTEM. STORMWATER BMPs INCLUDE, BUT ARE NOT LIMITED TO, POWER WASHING THE PAVEMENT ON BOTH THE PRIVATE PROPERTY AND IN THE RIGHT-OF-WAY AND SIDEWALK A MINIMUM OF ONCE PER YEAR BEFORE THE WET SEASON BEGINS ON OCTOBER 1ST; UTILIZING A POWER WASHING CONTRACTOR THAT IS A RECOGNIZED SURFACE CLEANER BY THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION (BASMAA); DISPOSING OF WASH WATER ACCORDING TO THE RECOGNIZED SURFACE CLEANER CERTIFICATION REQUIREMENTS; AND REMOVING ANY POTENTIAL TRASH BUILD-UP ON A REGULAR BASIS.
 - DURING THE BEGINNING OF THE CONSTRUCTION, THE PROJECT APPLICANT SHALL ARRANGE FOR A SITE VISIT (INSPECTION) BY A THIRD-PARTY REVIEWER ACCEPTABLE TO THE CITY OF PALO ALTO THAT THE INSTALLED STORMWATER TREATMENT MEASURES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE APPROVED BUILDING PLANS. THE THIRD-PARTY REVIEWER WILL RECOMMEND THE REQUIRED NUMBER OF SITE INSPECTIONS AT DIFFERENT INTERVALS OF CONSTRUCTION. THE THIRD-PARTY REVIEWER MUST BE A CIVIL ENGINEER, ARCHITECT OR LANDSCAPE ARCHITECT REGISTERED IN THE STATE OF CALIFORNIA AND MUST HAVE A CURRENT TRAINING ON STORMWATER TREATMENT DESIGN. A LIST OF QUALIFIED THIRD-PARTY REVIEWERS CAN BE FOUND ON THE SANTA CLARA VALLEY URBAN RUNOFF POLLUTION PREVENTION PROGRAM (SCVURPPP) WEBSITE AT WWW.SCVURPPP-W2K.COM/CONSULTANTS_LIST.SHTML.
 - PERMEABLE PLANTING MATERIAL SHOULD MEET THE BIOTREATMENT SOIL MIX (BSM) SPECIFICATIONS PER SCVURPPP C.3 STORMWATER HANDBOOK, APPENDIX C.
 - CITY TO APPROVE SURFACE RELEASE FROM BUBBLER ASSEMBLY TO STREET OVER SIDEWALK.
 - PAMC 16.09.165(H) STORM DRAIN LABELING: STORM DRAIN INLETS SHALL BE CLEARLY MARKED WITH THE WORDS "NO DUMPING - FLOWS TO [CREEK]" OR EQUIVALENT.

TREATMENT CONTROL MEASURE SUMMARY														
DRAINAGE AREAS	DRAINAGE AREA SIZE (SF)	PERVIOUS SURFACE PERVIOUS PAVEMENT (SF)	PERVIOUS SURFACE OTHER (SF)	TYPE OF PERVIOUS SURFACE	IMPERVIOUS SURFACE (SF)	IMPERVIOUS SURFACE TYPE (SF)			SIZING CALCULATION	PONDING DEPTH (IN)	TREATMENT REQUIRED (SF)	TREATMENT PROVIDED (SF)	PROPOSED TREATMENT CONTROLS	NOTES
						ROOF (C=0.90)	CONCRETE (C=0.90)	PAVING (C=0.90)						
A-1	18,354	2,240	3,364	LANDSCAPE (C=0.30)	12,750	7,955	2,088	2,707	4% RULE	6	510	515	BR-1 BIORETENTION BASIN 1	



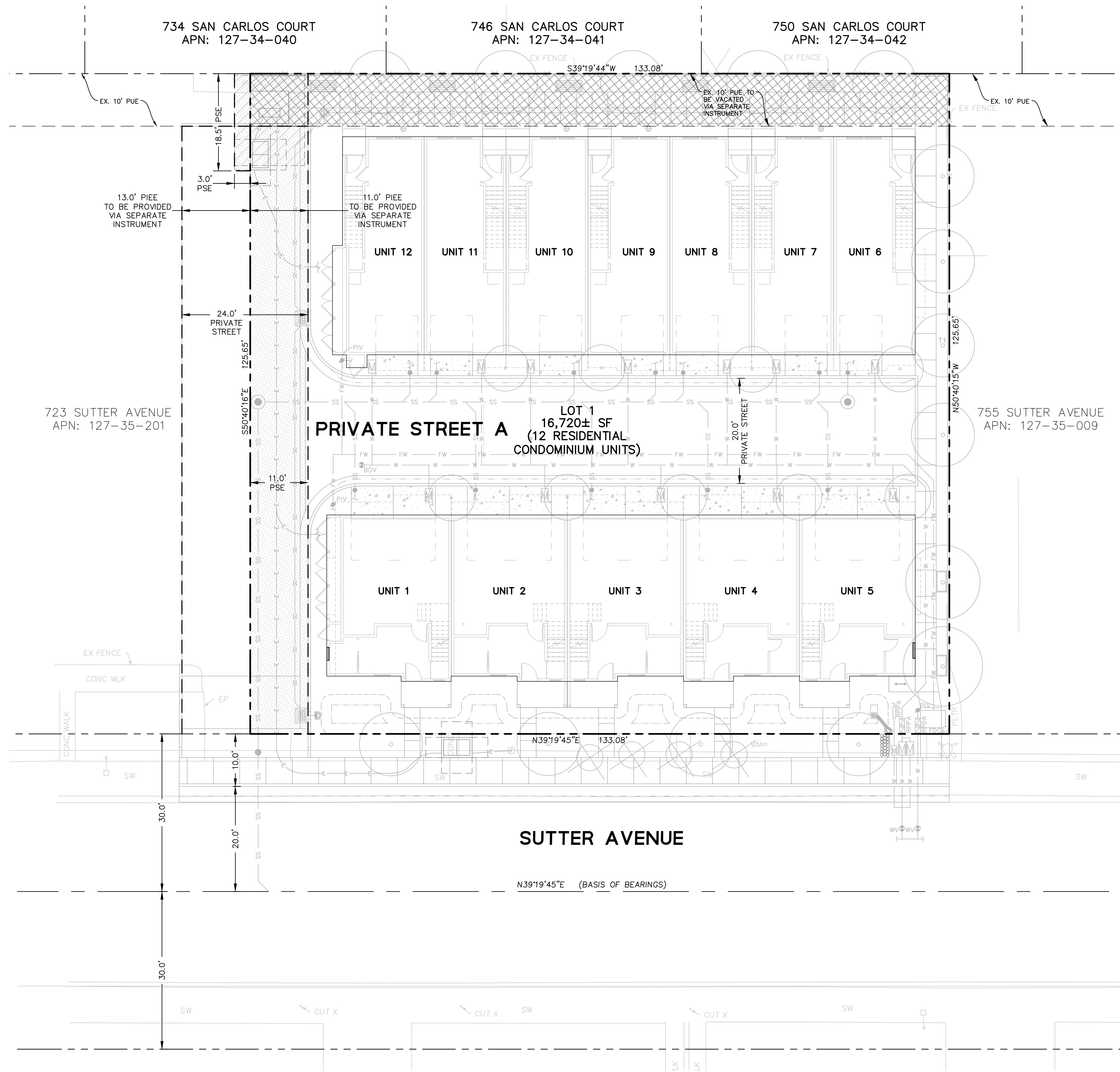
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SAN JOSE, CA 95112
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RESIDENTIAL DEVELOPMENT
739 SUTTER AVENUE
PRELIMINARY STORMWATER CONTROL PLAN
SANTA CLARA COUNTY
PALO ALTO

Revisions	
No.	Date
	09/29/23
	Scale AS SHOWN
	Design JH
	Drawn JH
	Approved PK
	Job No: 20220187

Drawing Number: **C4.0**
5 OF 6

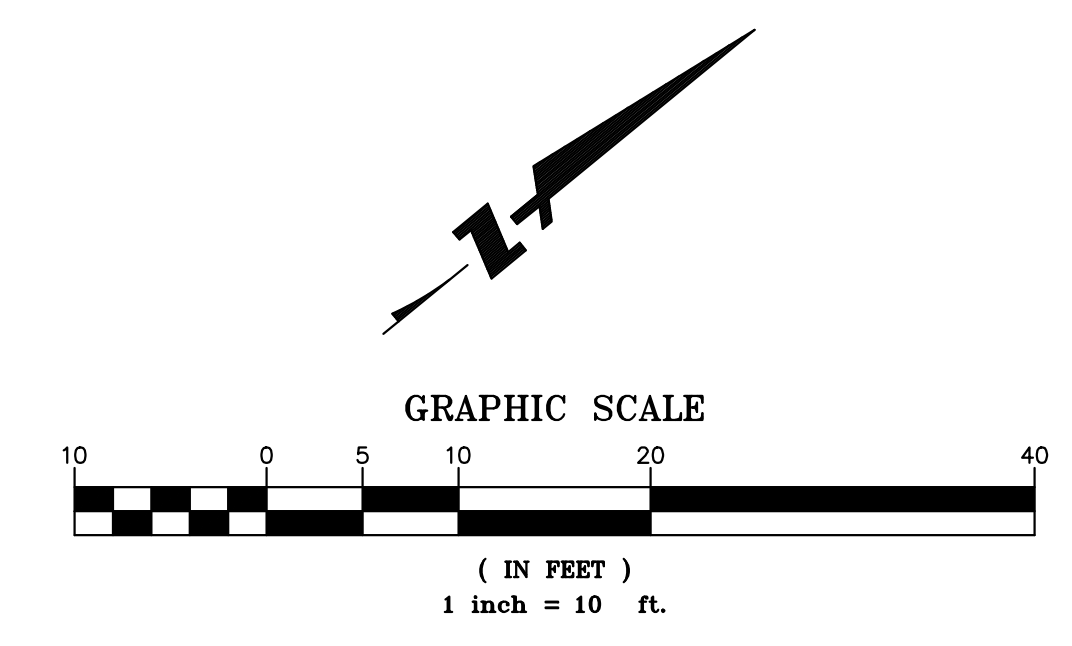
DRAWING NAME: \\BKF-SJ\vol4\2022\220187_739_Sutter_Palo_Alto\ENG-L\Planning\Sheets\5.0_739SA-TM.dwg
 PLOT DATE: 09-22-23
 PLOTTED BY: hoan



LEGEND

BOUNDARY LINE	---
LOT LINE	- - - -
EX. EASEMENT LINE	- · - · -
PR. EASEMENT LINE	- · - · -
ROADWAY CENTER LINE	—+—+—
PUBLIC SERVICE EASEMENT (PSE)	▨
EX. PUE TO BE VACATED VIA SEPARATE INSTRUMENT	▩

- GENERAL NOTES**
- ASSESSOR'S PARCEL NO.: 127-35-200
 - GENERAL PLAN: MULTIFAMILY RESIDENTIAL
 - EXISTING ZONING: RM-20 (MULTIFAMILY-LOW DENSITY)
 - EXISTING USE: RESIDENTIAL
 - PROPOSED USE: RESIDENTIAL
 - GROSS AREA: 0.38± ACRES
 - NET AREA: 0.38± ACRES
 - NUMBER OF UNITS: 12
 - NUMBER OF LOTS: 1
 - LOT SIZES: LOT 1 = 16,720± SF
 - FLOOD ZONE: ZONE X



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RESIDENTIAL DEVELOPMENT
739 SUTTER AVENUE
VESTING TENTATIVE MAP

SANTA CLARA COUNTY
 PALO ALTO

Revisions	
No.	Date
	09/29/23
	Scale AS SHOWN
	Design JH
	Drawn JH
	Approved PK
	Job No 20220187

Drawing Number:
C5.0
6 OF **6**

- GENERAL NOTES:**
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, THE LOCATION OF ALL TREES WITHIN THE LIMIT OF WORK, UTILITIES, AND ALL SITE ELEMENTS PRIOR TO BEGINNING THE WORK.
 - PERFORM ALL WORK IN CONFORMANCE WITH REQUIREMENTS AND OTHER APPLICABLE CODES, ORDINANCES AND REGULATIONS. OBSERVE ALL SETBACKS SHOWN ON THE PLANS AND AS OTHERWISE MAY BE REQUIRED.
 - THE LANDSCAPE ARCHITECT AND THE OWNER SHALL BE ADVISED 48 HOURS IN ADVANCE FOR PERFORMANCE OF SITE OBSERVATIONS.

PROJECT INFORMATION

PROJECT ADDRESS: 739 SUTTER AVE.
PALO ALTO, CA 94303

TOTAL LANDSCAPE AREA: 2431 SF
PROJECT TYPE: RESIDENTIAL NEW LANDSCAPE,
WATER SUPPLY TYPE: POTABLE WATER

**UNDERGROUND SERVICE ALERT (USA) - 800-227-2600
CALL BEFORE YOU DIG.**

CONTRACTOR TO CALL USA 2 DAYS BEFORE EXCAVATION TO LOCATE UNDERGROUND UTILITIES.

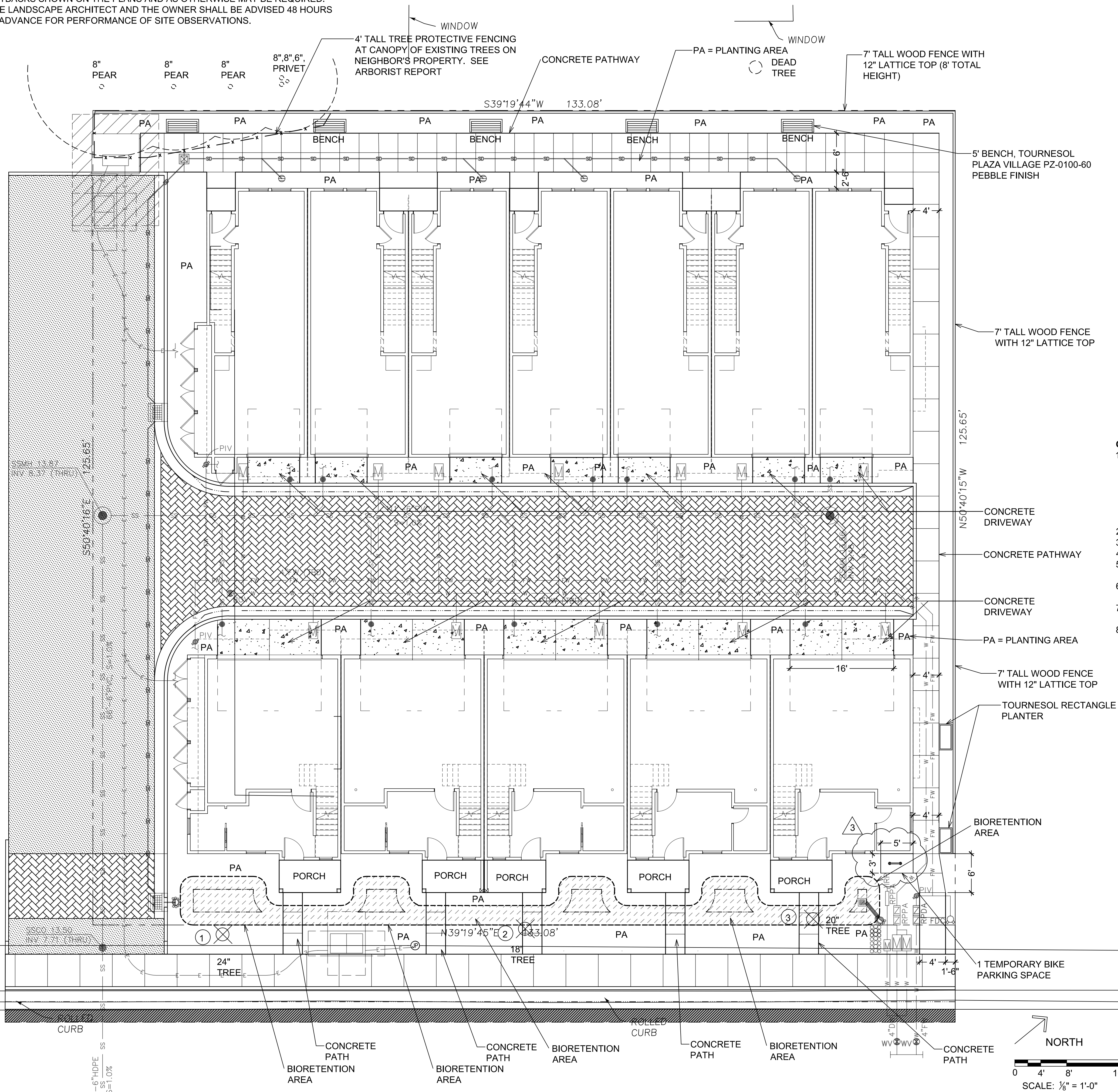
SHEET INDEX

- L-1.0 LANDSCAPE CONSTRUCTION PLAN
- L-2.0 LANDSCAPE IRRIGATION PLAN
- L-3.0 LANDSCAPE PLANTING PLAN
- L-3.1 IRRIGATION AND PLANTING DETAILS
- L-4.0 HYDROZONE MAP AND WELO WORKSHEET



2647 ROYAL ANN DRIVE
UNION CITY, CA 94587
anyihuang@gmail.com
650-533-0107

REVISION DATE	NO.
10/5/2022	1
2/20/2023	2
6/28/2023	3
9/29/2023	4



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

DATE: _____

EXISTING TREE SURVEY

#	Name	SIZE (DBH)	Note	protected	Canopy size	Replacement tree need
①	Acer sp. - Maple	24"	Remove	Yes	33'	Four - 24" box size
②	Acer sp. - Maple	18"	Remove	Yes	27'	Three - 24" box size
③	Acer sp. - Maple	20"	Remove	No	34'	none

TOTAL EXISTING TREE TO BE REMOVED: 3
REPLACEMENT TREES: SEVEN - 24" BOX SIZE TREES
SEE PLANTING PLAN FOR REPLACEMENT TREE LOCATION AND SPECIFICATION

LANDSCAPE DESIGN PLAN (TITLE 23, CHAPTER 2.7):

RECIRCULATING WATER SYSTEMS SHALL BE USED FOR WATER FEATURES

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.

FOR SOIL 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 IN TO THE SOIL.

CONSTRUCTION LAYOUT NOTES:

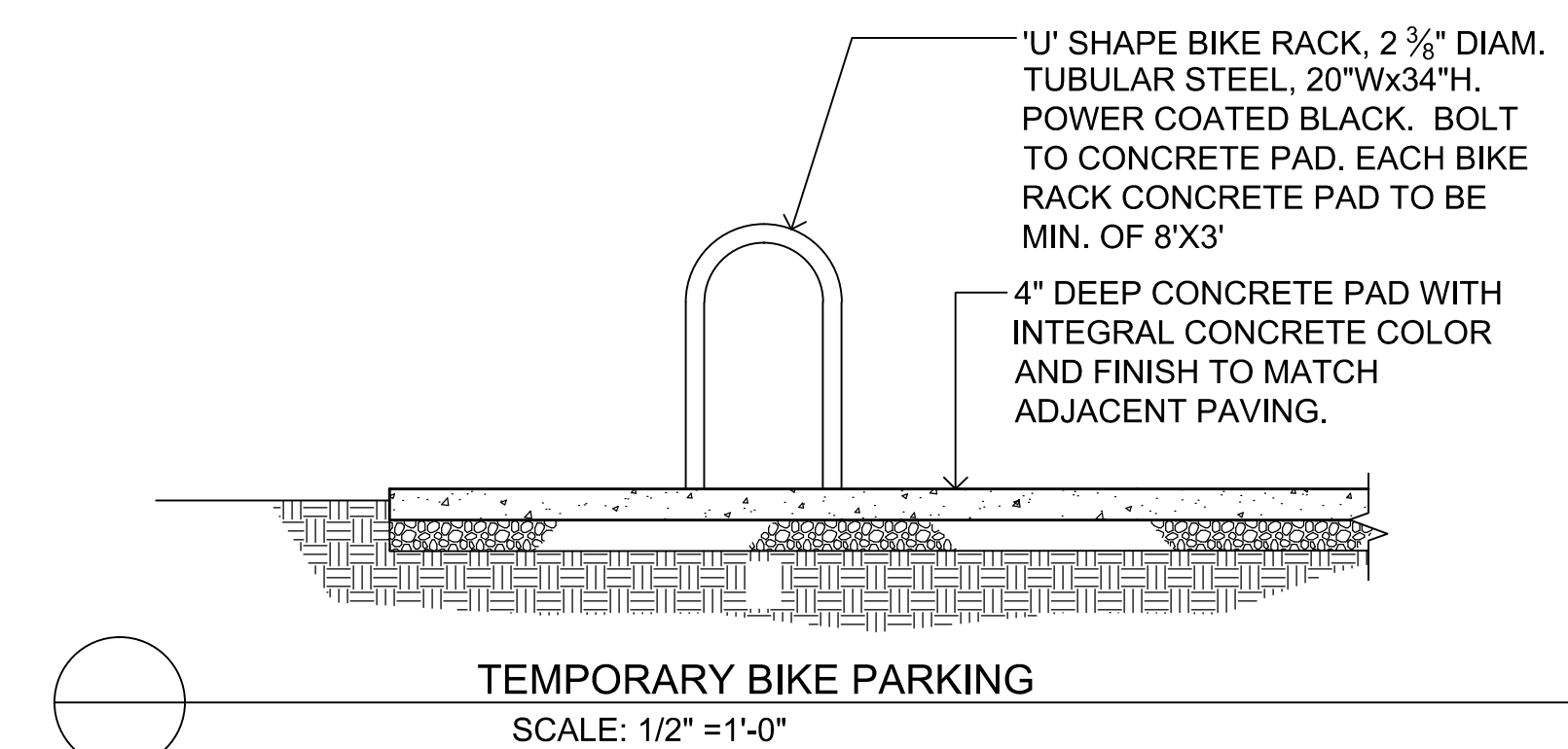
- THE LAYOUT PLAN IS DIAGRAMMATIC ONLY, SHOULD A DISCREPANCY EXIST BETWEEN THE PLAN AND ACTUAL SITE CONDITIONS, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY, IN WRITING, PRIOR TO COMMENCEMENT OF ANY WORK. THE CONTRACTOR IS RESPONSIBLE FOR:
 - VERIFYING AND CONFORMING TO SETBACKS AND OTHER INDICATED DIMENSIONS.
 - LAYOUT OF ALL MAJOR COMPONENTS PRIOR TO STARTING CONSTRUCTION.
 - COOPERATING WITH LANDSCAPE ARCHITECT AND OWNER IN RESOLVING ANY DISCREPANCIES AND MAKING ADJUSTMENTS TO AVOID ADDITIONAL COSTS TO THE OWNER.
- THE LANDSCAPE ARCHITECT SHALL APPROVE ALL STAKE UP AND FORM WORK PRIOR TO INSTALLATION.
- ALL CURVES SHALL BE SMOOTH AND CONTINUOUS AND ALL ANGLES SHALL BE 90°, UNLESS OTHERWISE NOTED.
- WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE DRAWINGS, UNLESS OTHERWISE NOTED.
- ALL RADIUS POINT DISCREPANCIES ARE +/- . ADJUSTMENTS IN THE FIELD MAYBE NECESSARY FOR SMOOTH, EVEN LINES AND LAYOUT POINTS.
- ALL DIMENSIONS START AT REFERENCE LINES, FACE OF BUILDING, DESIGNATED RADIUS POINTS, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL INSTALL EXPANSION JOINTS WITH MASTIC BETWEEN ANY BUILDING AND PAVING CONNECTIONS, AND BETWEEN EXISTING PAVING AND NEW PAVING.
- CONTRACTOR TO COORDINATE SLEEVING (IRRIGATION, LIGHTING, DRAINAGE, ETC.) WITH OTHER CONTRACTORS



BENCH: TOURNESOL PLAZA VILLAGE PZ-0100-60-PEBBLE FINISH



PLANTER BOX: TOURNESOL WILSHIRE PLANTER - RECTANGLE WR-483030



TEMPORARY BIKE PARKING
SCALE: 1/2" = 1'-0"

LANDSCAPE CONSTRUCTION PLAN

SHEET TITLE:



PROJECT ADDRESS:
739 SUTTER AVE.
PALO ALTO, CA 94303

DATE:
4/28/2022

SCALE:
1/8" = 1'-0"

DRAWN BY:
AH

PROJECT #
22008

SHEET
L - 1.0
TOTAL SHEETS: 5

REVISION DATE	NO.
10/5/2022	1
2/20/2023	2
6/28/2023	3

SHEET TITLE:

IRRIGATION AND PLANTING DETAILS



PROJECT ADDRESS:
739 SUTTER AVE.
PALO ALTO, CA 94303

DATE:
4/28/2022

SCALE:

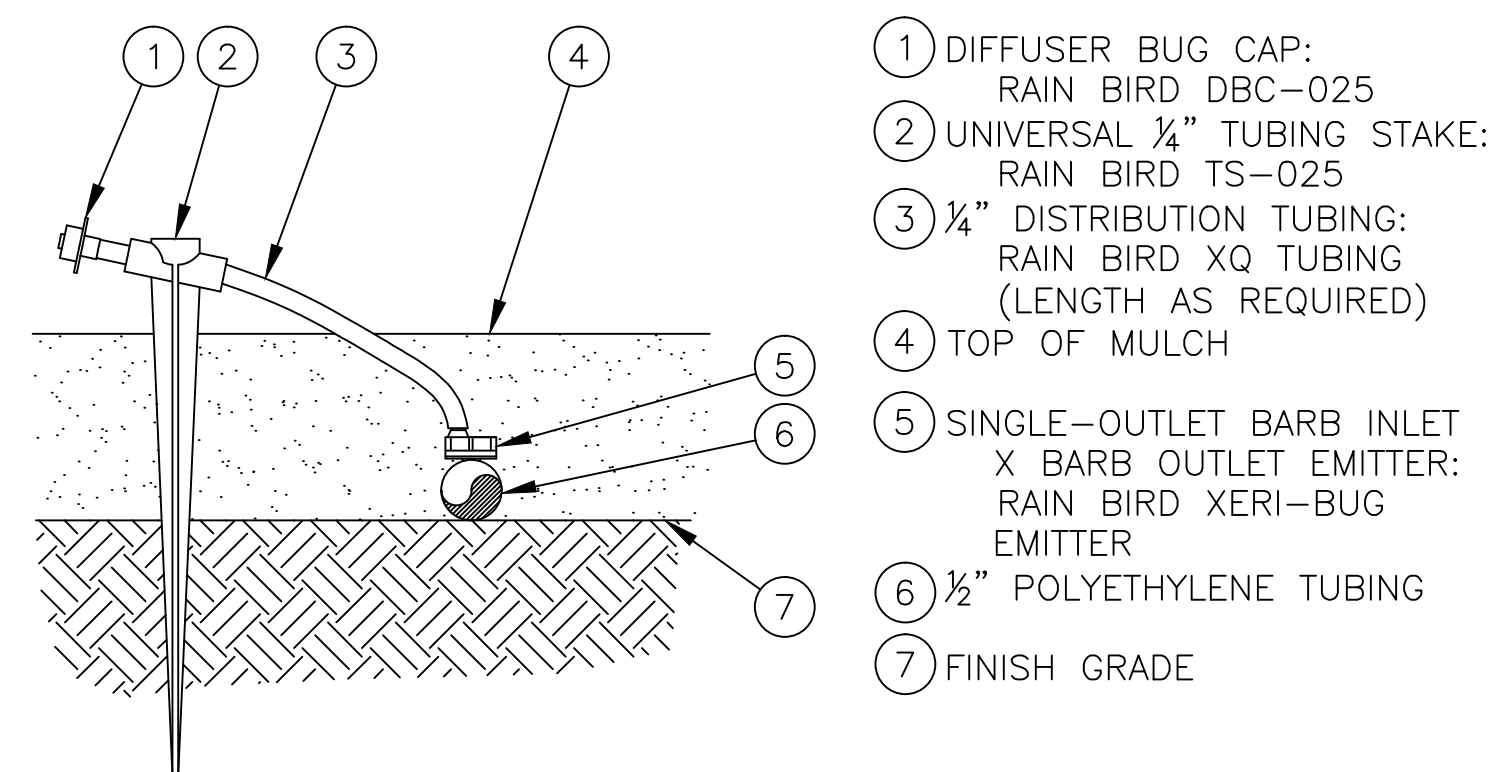
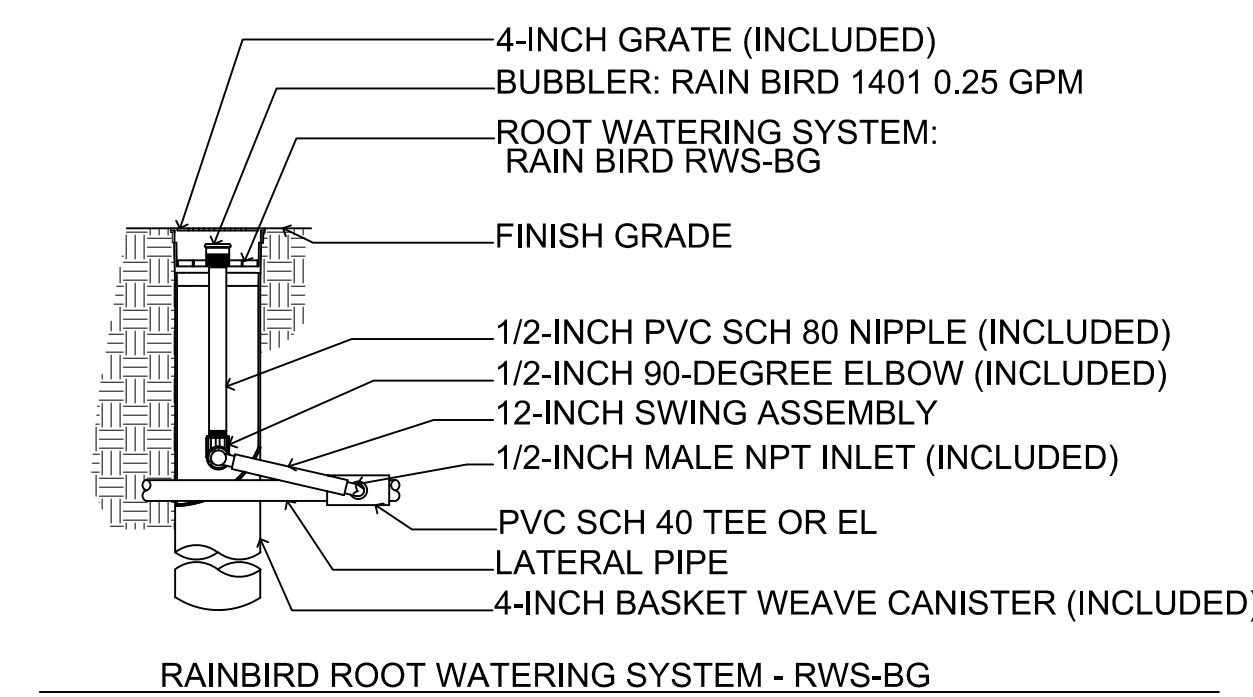
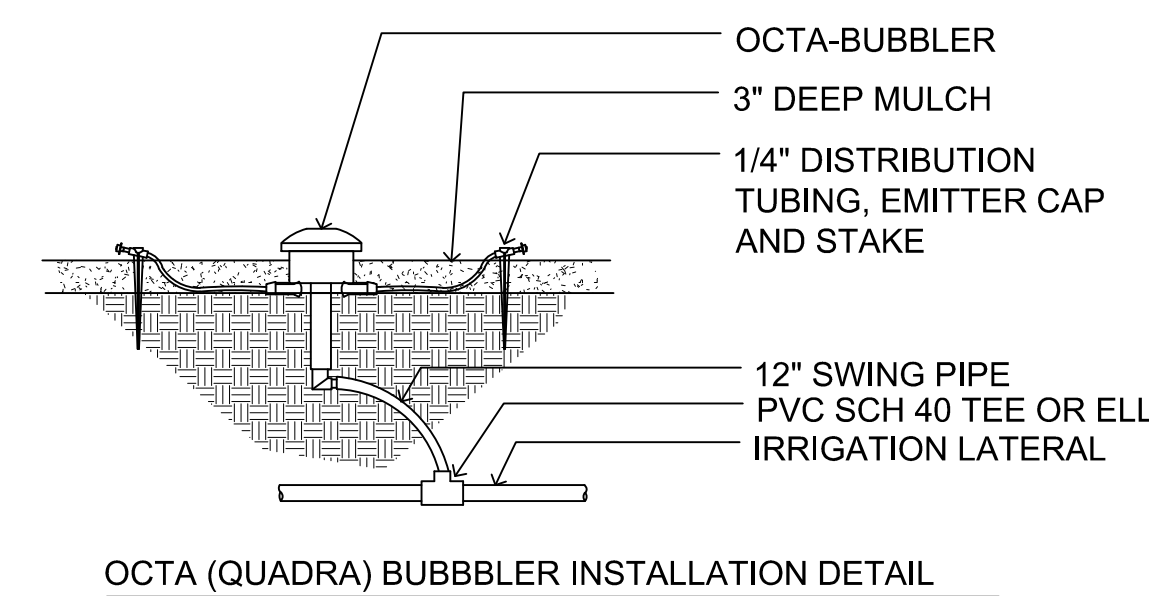
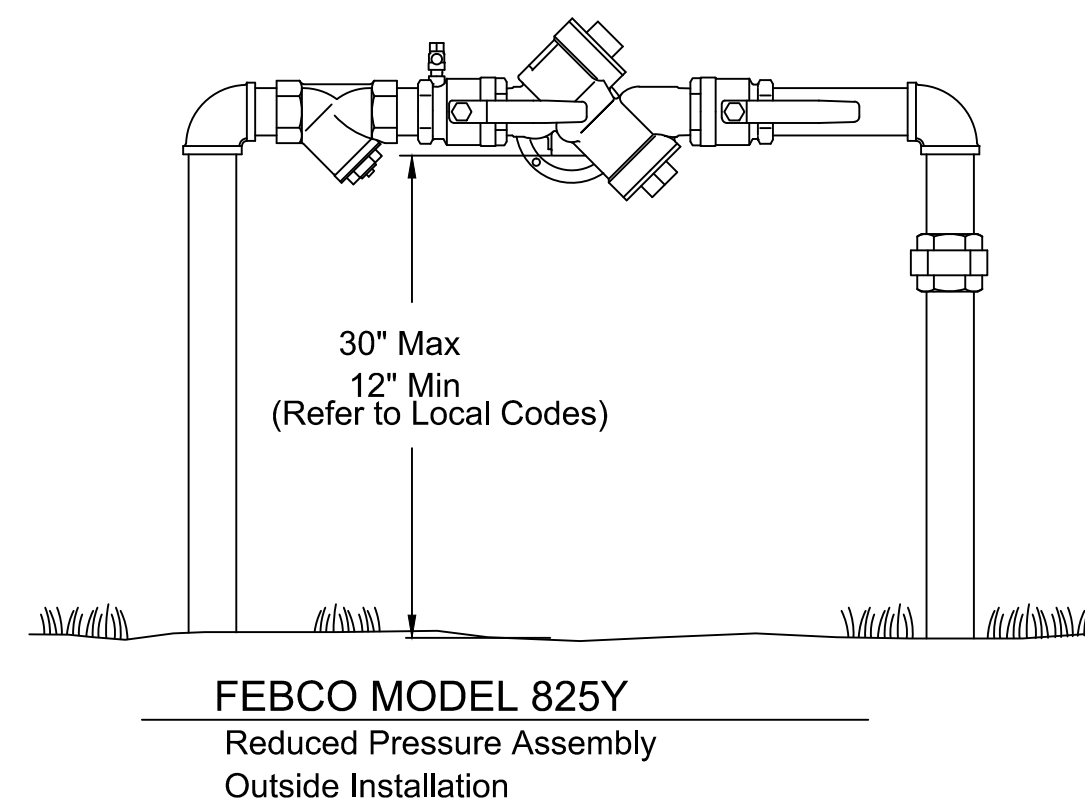
DRAWN BY:
AH

PROJECT #
22008

SHEET

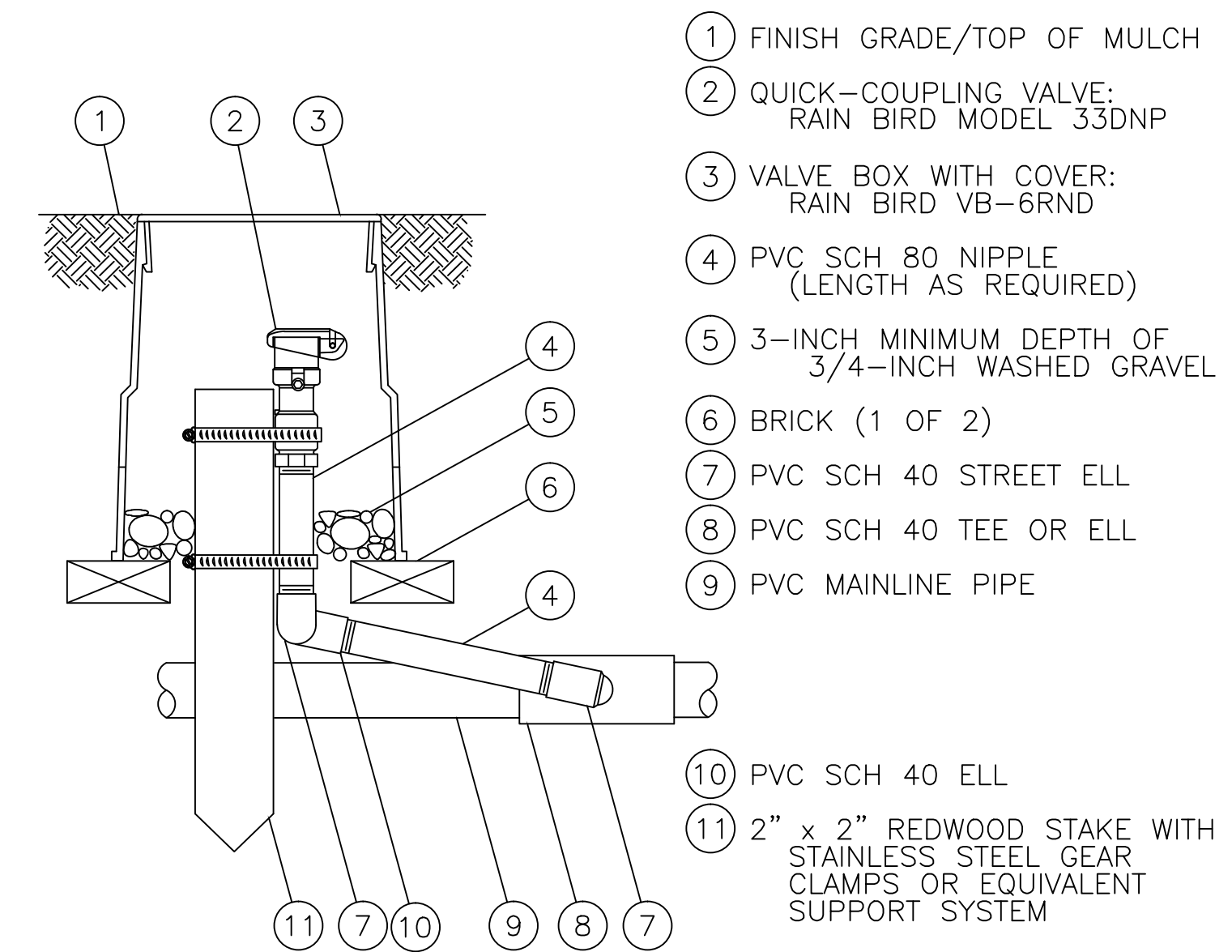
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TOTAL SHEETS: 5

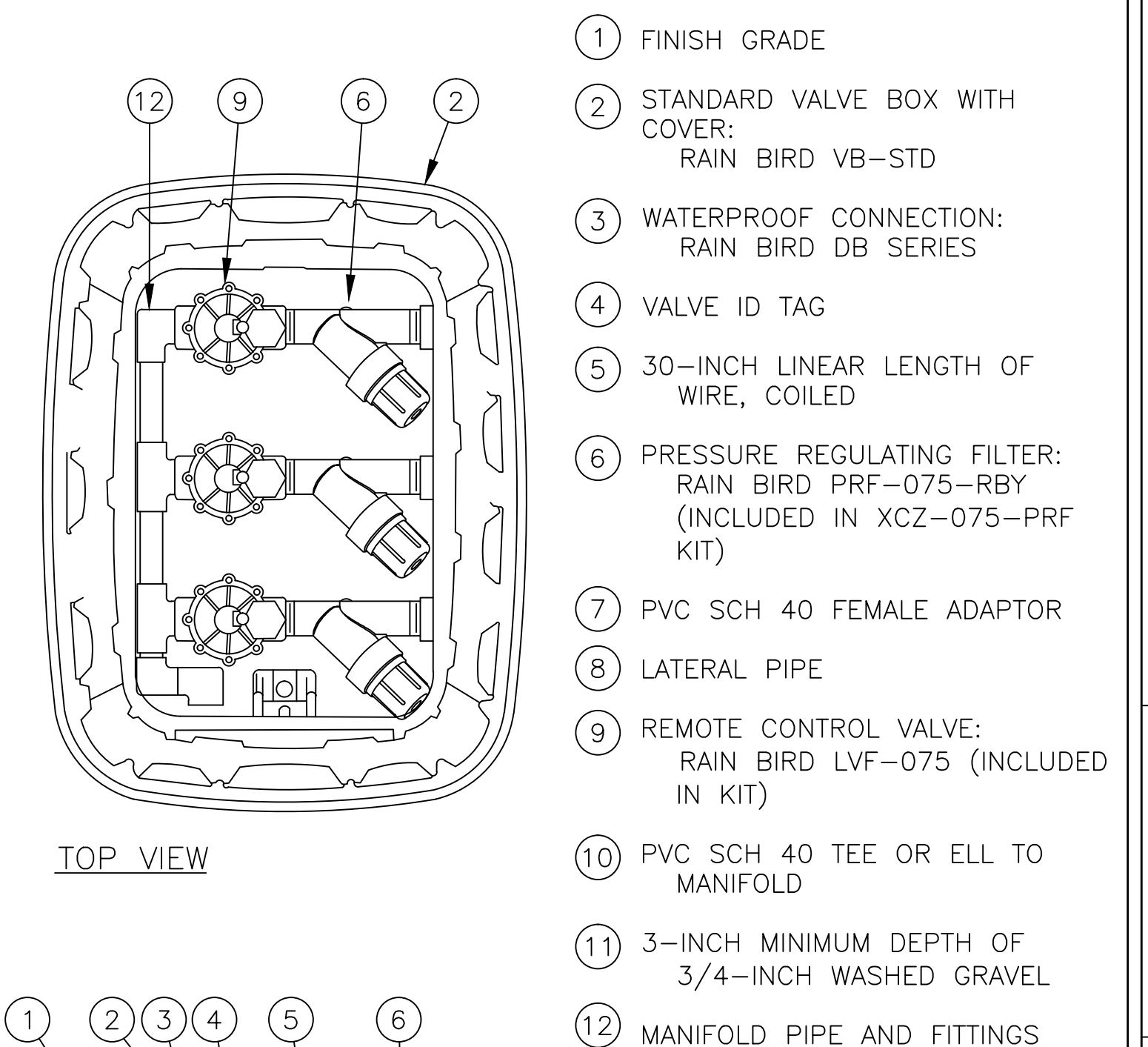


- NOTES:
- USE RAIN BIRD XERIMAN TOOL XM-TOOL TO INSERT BARB CONNECTOR DIRECTLY INTO 1/2" POLYETHYLENE TUBING.
 - SHOULD THE EMITTER BECOME DISLODGED UNREGULATED FLOW WILL OCCUR.
 - RAIN BIRD XERI-BUG BARB X BARB EMITTERS ARE AVAILABLE IN THE FOLLOWING MODELS:
XB-10PC 1.0 GPH

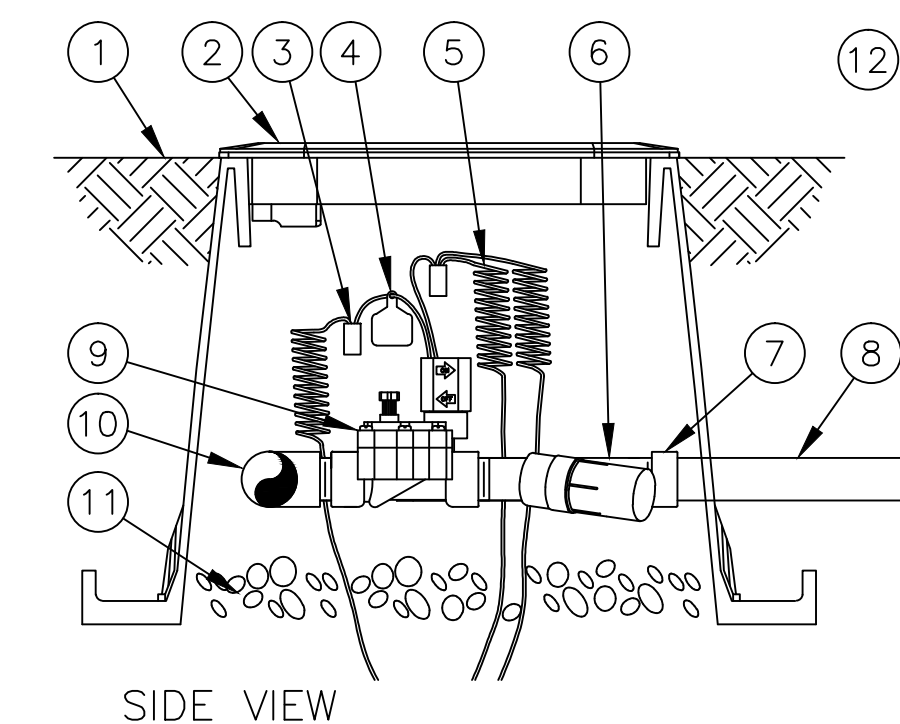
PRESSURE COMPENSATING MODULE INTO 1/2" TUBING WITH 1/4" TUBING, STAKE AND BUG CAP



NOTE:
FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

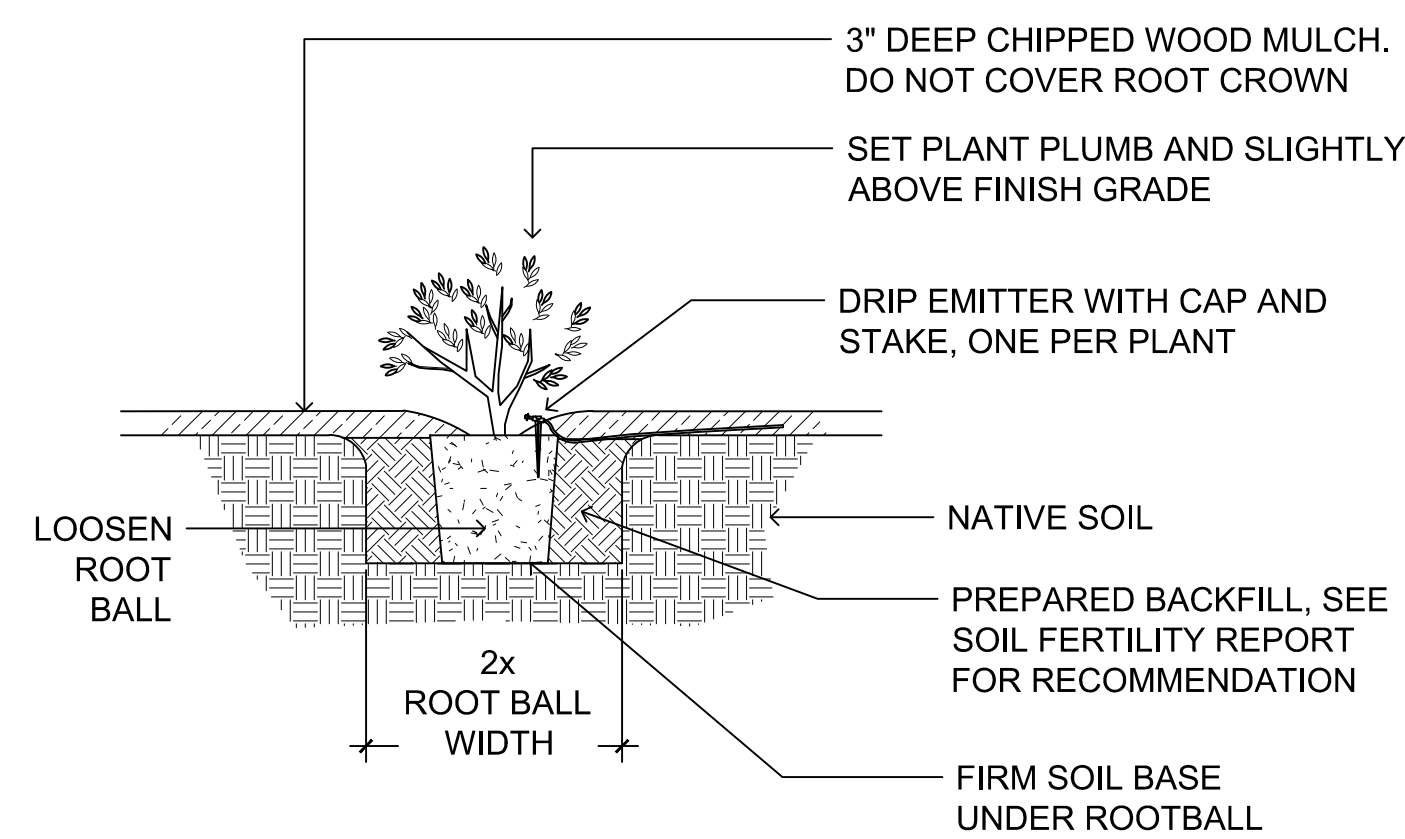


TOP VIEW

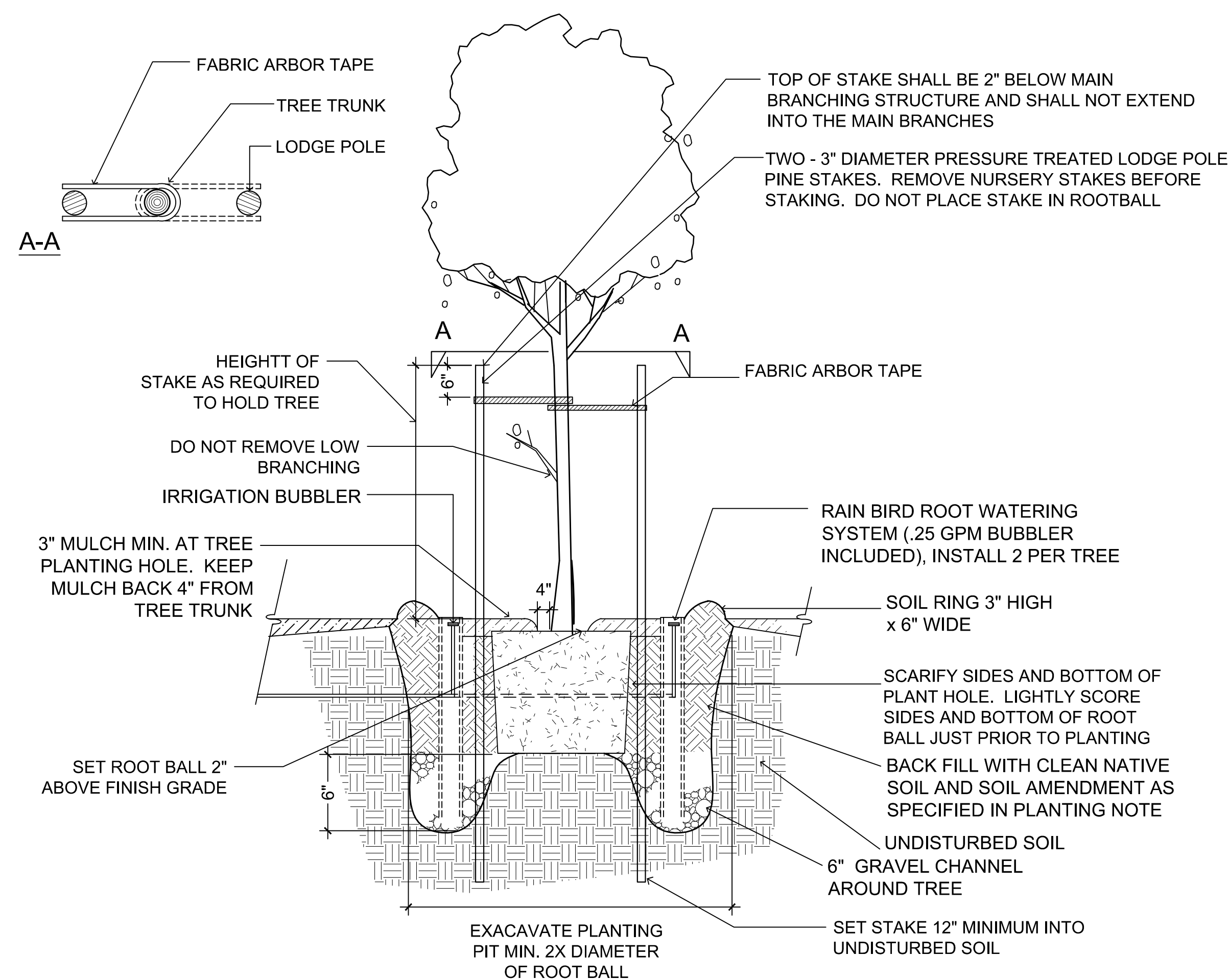


SIDE VIEW

IRRIGATION CONTROL VALVE WITH FILTER IN VALVE BOX DETAIL

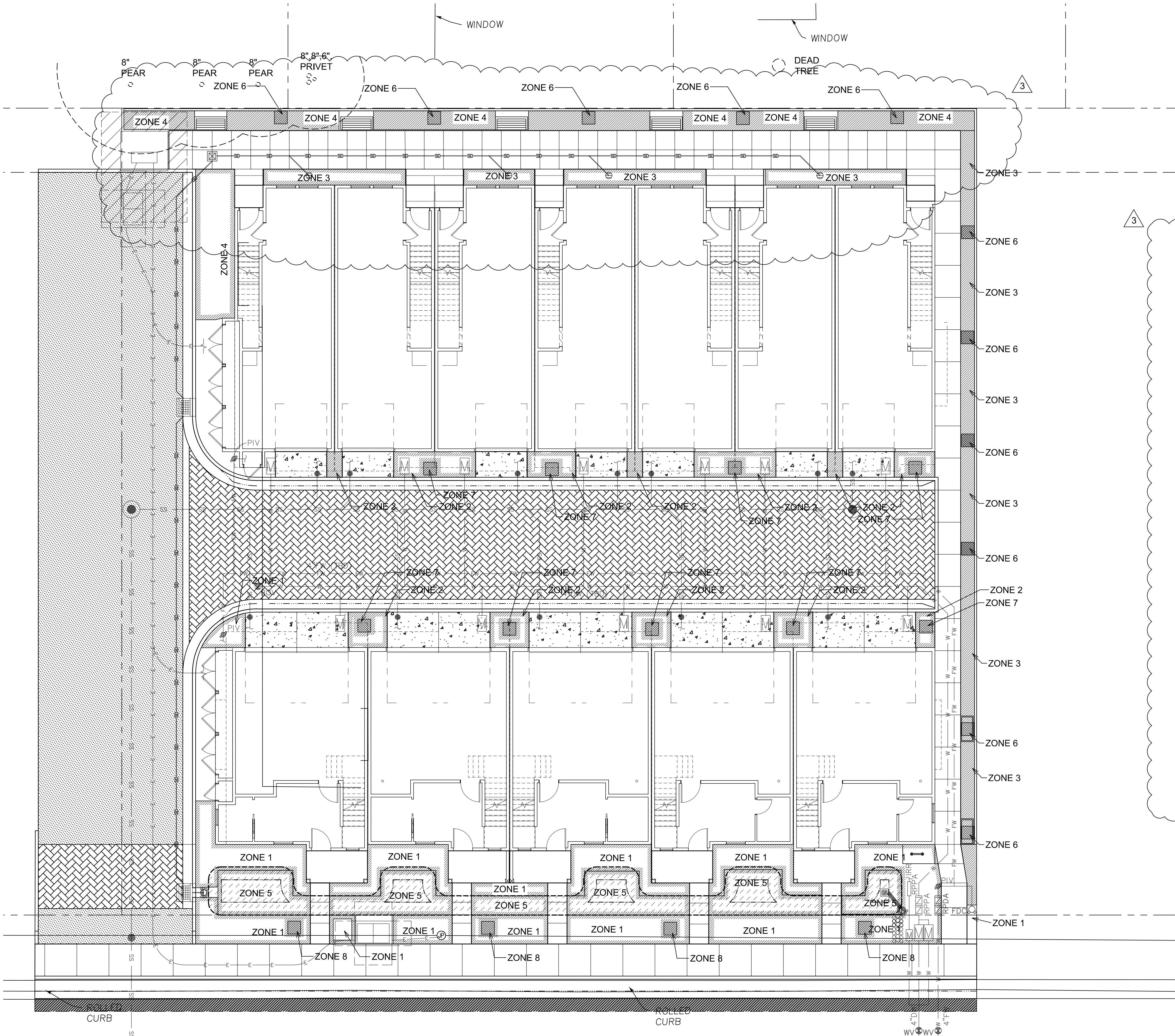


SHRUB PLANTING DETAIL



TREE PLANTING DETAIL

REVISION DATE	NO.
10/5/2022	1
2/20/2023	2
6/28/2023	3



WATER EFFICIENT LANDSCAPE WORKSHEET
Reference Evapotranspiration (Eto) 47

Hydrozone # /Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Area	Estimated Total Water Use (ETWU)
Regular Landscape Areas							
1 / low water use	0.3	drip	0.81	0.37	921	341.11	9939.98
2 / moderate water use	0.5	drip	0.81	0.62	336	207.41	6043.85
3 / moderate water use	0.5	drip	0.81	0.62	189	116.67	3399.67
4 / low water use	0.3	drip	0.81	0.37	443	164.07	4781.12
5 / low water use	0.3	drip	0.81	0.37	470	174.07	5072.52
6 / moderate water use tree	0.5	drip	0.81	0.62	20	12.35	359.75
7 / moderate water use tree	0.5	drip	0.81	0.62	36	22.22	647.56
8 / tree water use tree	0.3	drip	0.81	0.37	16	5.93	172.68
Totals					2431	1043.83	
Special Landscape Areas							
					1	0	0.00
					Totals	0	0.00
						ETWU Total	30417.12
						Maximum Allowed Water Allowance (MAWA)	38961.64

Hydrozone #/Planting Description
Eg
1.) front Lawn
2.) low Water use plantings
3.) medium water use planting

Irrigation Method
overhead spray
or drip

Irrigation Efficiency
0.75 for spray head
0.81 for drip

ETWU (Annual Gallons Required) = Eto X 0.62 x ETAF x Area
where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year

MAWA (Annual Gallons Allowed) = (Eto)(0.62)[(ETAF x LA) + ((1-ETAF) x SLA)]
where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square feet, SLA is the total special landscape area in square feet, and ETAF is .55 for residential areas and 0.45 for non-residential areas.

ETAF Calculations

Regular Landscape Areas	
Total ETAF X Area	1043.83
Total Area	2431.00
Average ETAF	0.43

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for non-residential areas

All Landscape Areas	
Total ETAF x Area	1043.83
Total Area	2431.00
Sitewide ETAF	0.43

SHEET TITLE:
HYDROZONE MAP AND WELO WORKSHEET



PROJECT ADDRESS:
739 SUTTER AVE.
PALO ALTO, CA 94303

DATE:
4/28/2022

SCALE:
1/8" = 1'-0"

DRAWN BY:
AH

PROJECT #
22008

SHEET
L - 4.0

TOTAL SHEETS: 5

REVISIONS	
10/14/22	PLANNING RESUBMITTAL

URBANDISEIGN
CONSULTING ENGINEERS
STORMWATER AND JOINT TRENCH
428 Alice Street, Suite 132
Oakland, California 94607
510.868.1085 tel.
www.UrbanDesignCE.com



Client/Developer:
GE SUN
P.O. BOX 6883
SAN FRANCISCO, CA
94140

739 SUTTER AVENUE
SAN FRANCISCO, CA 94109

DATE: 10/14/2022
SCALE: AS SHOWN
DRAWN BY: CM
PROJECT NO: 1447.003

SHEET
DRY UTILITY STANDARDS

JT1.01

PURPOSE AND SCOPE:

THIS DOCUMENT CONTAINS INFORMATION RELATING TO THE PLACEMENT OF PAD MOUNTED ELECTRICAL EQUIPMENT. THIS IS A GUIDE FOR DETERMINING THE MINIMUM REQUIREMENTS FOR EACH SPECIFIC INSTALLATION.

CLEARANCES:

- CLEARANCES FROM BUILDING WALLS (SEE SHT. 6): OIL FILLED PAD MOUNTED EQUIPMENT SHALL HAVE THE FOLLOWING CLEARANCES:
 - 3 FEET MINIMUM FROM ANY BUILDING WALL TO THE EDGE OF THE PAD. THIS CLEARANCE MAY BE REDUCED TO 2 FEET IF THE BUILDING SURFACE IS NON-COMBUSTIBLE, WITH APPROVAL OF ELECTRIC UTILITY ENGINEERING.
- DOORWAY AND WINDOW CLEARANCE (SEE SHT. 6): PAD MOUNTED EQUIPMENT SHALL NOT BE PLACED WHERE IT IMPEDES THE FLOW OF AIR OR TRAFFIC THROUGH A DOORWAY OR WINDOW. CLEARANCE SHALL BE 10 FEET RADIALLY FROM THE DOORWAY OR WINDOW TO THE CLOSEST EDGE OF THE PAD.
- VERTICAL CLEARANCE FROM OVERHANGS (SEE SHT. 7): TO PROVIDE SPACE FOR HOISTING EQUIPMENT SO THAT IT CAN BE REPLACED, THE FOLLOWING VERTICAL CLEARANCES FROM THE TOP OF THE PAD ARE REQUIRED:
 - 20 FEET MINIMUM FOR 10 PAD MOUNTED EQUIPMENT.
 - 30 FEET MINIMUM FOR 30 PAD MOUNTED EQUIPMENT.
- WHEN REQUIRED FOR INSTALLATIONS SUCH AS IN DRY VAULTS, THE CLEARANCES FOR PAD MOUNTED EQUIPMENT MAY BE REDUCED TO 10 FEET FROM THE TOP OF THE PAD. THIS REDUCED CLEARANCE WILL GREATLY INCREASE THE REPLACEMENT TIME, SINCE THE EQUIPMENT MUST BE JACKED AND ROLLED OUT TO A POSITION WHERE THE CLEARANCE IS ADEQUATE TO HOIST IT.

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-CL-U-1031 1 of 9
 SCALE: STANDARD DWG. NO. SHEET NO.

HORIZONTAL WORK SPACE REQUIREMENTS:

- CLEAR AND LEVEL WORK AREAS ARE REQUIRED AROUND PAD MOUNTED EQUIPMENT TO PROVIDE A SAFE WORKING SPACE TO OPERATE AND MAINTAIN THE EQUIPMENT.
- PAD MOUNTED EQUIPMENT (SEE SHT. 9):
 - 8 FEET MINIMUM IN FRONT OF ALL EQUIPMENT DOORS TO PROVIDE ROOM TO OPERATE WITH HOT STICKS.
 - 3 FEET MINIMUM FROM NON-OPERABLE SIDES. THIS CLEARANCE MAY BE REDUCED WITH APPROVAL BY THE ELECTRICAL ENGINEERING DEPARTMENT FOR LANDSCAPE OBSTRUCTIONS (DECORATIVE WALLS, PLANTERS, ROCKS, ETC.) THAT MAY BE PLACED NEXT TO THE PAD ON NON-OPERABLE SIDES.

PROTECTION FROM VEHICULAR TRAFFIC:

- PHYSICAL PROTECTION FROM VEHICULAR TRAFFIC SHALL BE PROVIDED IN ACCORDANCE WITH THE LEVEL OF EXPOSURE. BARRIER POSTS, ETC. ARE INTENDED TO PROVIDE REASONABLE WARNING FROM ACCIDENTAL VEHICULAR CONTACT, RATHER THAN PREVENTING ALL POSSIBLE CONTACT. WHEN THE ELECTRICAL ENGINEERING OR OPERATIONS DEPARTMENT DETERMINES IT NECESSARY, THE APPLICANT WILL PROVIDE PHYSICAL PROTECTION AS SPECIFIED BY THE CITY (SEE DT-SS-U-1003).
- PAD MOUNTED EQUIPMENT HAVING THE FOLLOWING SET BACKS MAY NOT REQUIRE THE CUSTOMER TO PROVIDE ADDITIONAL PHYSICAL PROTECTION:
 - SINGLE-FAMILY, DUPLEX AND OTHER LOW DENSITY RESIDENTIAL AREAS: 3 FEET MINIMUM FROM THE EDGE OF THE CURB.
 - COMMERCIAL, APARTMENT, CONDOMINIUM AND OTHER HIGH DENSITY AREAS: 9 FEET FROM THE EDGE OF THE ROAD OR CURB OUT TO HIGH VEHICULAR TRAFFIC AND FREQUENT TRUCK BACKING. THE DESIGN OF THE PARTICULAR LAYOUT MAY, OF COURSE, CALL FOR AN INCREASE OR DECREASE IN THESE DIMENSIONS. FOR EXAMPLE, A 3 FOOT SET BACK IS OFTEN ADEQUATE FOR PARTS OF THE COMMERCIAL PARKING LOTS WHERE TRAFFIC FLOW IS CONSTRAINED AND BACKING PERPENDICULAR TO CURB IS UNLIKELY.

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-CL-U-1031 2 of 9
 SCALE: STANDARD DWG. NO. SHEET NO.

OIL CONTAINMENT:

- OIL ENCLOSURES ARE REQUIRED BY THE STATE OF CALIFORNIA IF PAD MOUNTED TRANSFORMERS ARE LOCATED IN AREAS WHERE OIL FROM A RUPTURED TANK COULD FLOW TOWARDS A COMBUSTIBLE SURFACE. OIL ENCLOSURES MAY CONSIST OF THE RESISTANT DRIES, CURBED AREAS OR DINGS, OR TRENCHES FILLED WITH COARSE CRUSHED STONE. THEY MUST BE CAPABLE OF HOLDING THE TOTAL VOLUME OF OIL CONTAINED IN THE EQUIPMENT TANK. THE CONSTRUCTION OF REQUIRED OIL CONTAINMENT FACILITIES MAY IN NO WAY IMPERE THE REQUIRED WORK SPACE AREA. THE CUSTOMER WILL BE RESPONSIBLE FOR PROVIDING ADEQUATE OIL CONTAINMENT ENCLOSURES TO SATISFY THE REQUIREMENTS OF THE STATE OF CALIFORNIA AND ENVIRONMENTAL PROTECTION REGULATIONS.

RETAINING WALLS:

- RETAINING WALLS SHALL BE PROVIDED WHEN THE CITY DETERMINES IT NECESSARY TO PROTECT EQUIPMENT AGAINST LANDSLIDES, DRAINAGE WASH, DRIFTING SANDS, ETC. THE APPLICANT IS RESPONSIBLE FOR THE INSTALLATION AND CONSTRUCTION OF THE RETAINING WALL. THE RETAINING WALL SHALL BE DESIGNED TO PROVIDE A BARRIER OF SUFFICIENT STRENGTH AND STABLE CONSTRUCTION TO PROVIDE ADEQUATE PROTECTION AND WORKING SPACE AROUND THE EQUIPMENT. TYPICAL EXAMPLES OF RETAINING WALL PLACEMENT ARE SHOWN IN SHT. 9 OF THIS DOCUMENT.
- RETAINING WALLS GREATER THAN 3 FEET IN HEIGHT WILL REQUIRE A DRAIN PIPE AS SHOWN IN SHT. 8 OF THIS DOCUMENT. DRAIN PIPE SHALL BE A 1" PERFORATED PLASTIC PIPE, COVERED FIRST BY MARIAN DRAIN CLOTH, THEN BY DRAIN ROCK AND FINALLY BACKFILLED.
- TREATED REDWOOD OR PRESSURE-TREATED DOUGLAS FIR POSTS (NOMINAL 4"x4" MINIMUM) AND PLANKS (NOMINAL 2" OR THICKER) MAY BE USED FOR RETAINING WALLS. POSTS SHOULD BE 24" OR LESS IN LENGTH AND EXTENDED AT LEAST 12" BELOW GROUND AND NOT MORE THAN 12" ABOVE GROUND.
- THE WORKING AREA WITHIN THE RETAINING WALL WILL BE AT THE SAME LEVEL OR BELOW THE PAD BEING PROTECTED. THE AREA WILL BE KEPT WEEP FREE AND COVERED WITH A DECORATIVE COVERING.

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-CL-U-1031 3 of 9
 SCALE: STANDARD DWG. NO. SHEET NO.

HAZARDOUS LOCATIONS:

- THE FOLLOWING GUIDE IS TO BE USED WHEN INSTALLING PAD MOUNTED EQUIPMENT WITHIN 20 FEET OF A GAS DISPENSER WITHOUT CONFORMING TO THE REGULATIONS CONCERNING INSTALLATION OF ELECTRICAL EQUIPMENT IN HAZARDOUS AREAS (REFER TO ARTICLES E901, E902, E903, E904, E905 AND E942 OF TITLE 24, PART 3, STATE BUILDING STANDARDS).
 - LIQUIDIFIED FLAMMABLE GASES: DO NOT INSTALL PAD MOUNTED EQUIPMENT WITHIN 20 FEET OF A GAS DISPENSER WITHOUT CONFORMING TO THE REGULATIONS CONCERNING INSTALLATION OF ELECTRICAL EQUIPMENT IN HAZARDOUS AREAS (REFER TO ARTICLES E901, E902, E903, E904, E905 AND E942 OF TITLE 24, PART 3, STATE BUILDING STANDARDS).
 - ANY CONTAINER WHICH STORES FLAMMABLE LIQUID OR GAS WILL BE CONSIDERED EQUIVALENT TO A "COMBUSTIBLE WALL". THE MINIMUM REQUIRED CLEARANCE IS 3 FEET.

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-CL-U-1031 4 of 9
 SCALE: STANDARD DWG. NO. SHEET NO.

TRUCK ACCESSIBILITY:

- PAD MOUNTED EQUIPMENT MUST BE ACCESSIBLE TO CITY TRUCKS. TRUCKS MUST BE ABLE TO BE BACKED UP TO WITHIN 5 FEET OF THE PAD ON:
 - A SURFACE CAPABLE OF WITHSTANDING TRUCK WEIGHT OF 24 TONS AND
 - A PATH THAT IS A MINIMUM OF 12 FEET WIDE AND
 - A MINIMUM VERTICAL CLEARANCE OF 14 FEET SHALL BE MAINTAINED FROM THE STREET TO THE EQUIPMENT PAD.
- IF THE PATH TO THE EQUIPMENT PAD REQUIRES ANY TURNS BY CITY TRUCKS, THE MINIMUM REQUIREMENTS OF 12'4" PREVIOUSLY DISCUSSED, MAY NEED TO BE INCREASED. CONSULT CITY ENGINEER WHEN SUCH SITUATIONS OCCUR. FOR LOCATIONS WHERE THE STANDARD ACCESSIBILITY REQUIREMENT ARE NOT MET, CONSULT WITH THE CITY FOR OTHER OPTIONS.

FUTURE CONSTRUCTION:

- CONSIDERATION SHOULD BE GIVEN NOT ONLY TO CONDITIONS EXISTING AT THE TIME OF INSTALLATION BUT ALSO TO FUTURE UTILITIES STRUCTURES AND EQUIPMENT WHICH COULD INTERFERE WITH REQUIRED CLEARANCES OR ACCESSIBILITY. ON THOSE INSTALLATIONS WHERE THERE IS A HIGH PROBABILITY OF A FUTURE OBSTRUCTION, INSTALL A CLEARANCE REQUIREMENT SIGN ON THE EQUIPMENT.

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-CL-U-1031 5 of 9
 SCALE: STANDARD DWG. NO. SHEET NO.

CONDUIT AND CABLE REQUIREMENTS FOR RESIDENTIAL SERVICE

Maximum Service Equipment (Panel Rating (Amps) (80% Rated Services)	Conduit Size and Quantity	Aluminum Cables Required (per phase) - Full Size Neutral Required (AWG or kcmil)	Copper Cables Required (per phase) - Full Size Neutral Required (AWG or kcmil)
125	1" - 2"	1 - 10	1 - 8
200	1" - 3"	1 - 10	1 - 8
400	1" - 4"	1 - 10	1 - 8
600	2" - 4"	2 - 10	2 - 8

CONDUIT AND CABLE REQUIREMENTS FOR COMMERCIAL/INDUSTRIAL SERVICES - SINGLE PHASE

Maximum Service Equipment (Panel Rating (Amps) (100% Rated Services)	Minimum Conduit Size and Quantity	Aluminum Cables Required (per phase) - Full Size Neutral Required (AWG or kcmil)	Copper Cables Required (per phase) - Full Size Neutral Required (AWG or kcmil)
125	1" - 2"	1 - 10	1 - 8
200	1" - 3"	1 - 10	1 - 8
400	1" - 4"	1 - 10	1 - 8
600	2" - 4"	2 - 10	2 - 8

CONDUIT AND CABLE REQUIREMENTS FOR COMMERCIAL/INDUSTRIAL SERVICES - THREE PHASE

Maximum Service Equipment (Panel Rating (Amps) (100% Rated Services)	Minimum Conduit Size and Quantity	Aluminum Cables Required (per phase) - Full Size Neutral Required (AWG or kcmil)	Copper Cables Required (per phase) - Full Size Neutral Required (AWG or kcmil)
125	1" - 2"	1 - 10	1 - 8
200	1" - 3"	1 - 10	1 - 8
400	1" - 4"	1 - 10	1 - 8
600	2" - 4"	2 - 10	2 - 8

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-SS-C-1005 1 of 4
 SCALE: STANDARD DWG. NO. SHEET NO.

CONCRETE TRANSFORMER PAD

DETAILS FOR PADS POURED IN PLACE

DETAILS FOR PRECAST PADS

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-SS-C-1005 2 of 4
 SCALE: STANDARD DWG. NO. SHEET NO.

CONCRETE TRANSFORMER PAD

DETAILS FOR PADS POURED IN PLACE

DETAILS FOR PRECAST PADS

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-SS-C-1005 3 of 4
 SCALE: STANDARD DWG. NO. SHEET NO.

CONCRETE TRANSFORMER PAD

DETAILS FOR PADS POURED IN PLACE

DETAILS FOR PRECAST PADS

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-SS-C-1005 4 of 4
 SCALE: STANDARD DWG. NO. SHEET NO.

CONCRETE TRANSFORMER PAD

DETAILS FOR PADS POURED IN PLACE

DETAILS FOR PRECAST PADS

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-SS-C-1005 1 of 4
 SCALE: STANDARD DWG. NO. SHEET NO.

UNDERGROUND SERVICE CONDUIT AND CABLE REQUIREMENTS

TYPICAL TRENCH SECTION DETAILS

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-SS-U-1003 1 of 2
 SCALE: STANDARD DWG. NO. SHEET NO.

UNDERGROUND SERVICE CONDUIT AND CABLE REQUIREMENTS

TYPICAL TRENCH SECTION DETAILS

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-SS-U-1003 2 of 2
 SCALE: STANDARD DWG. NO. SHEET NO.

UNDERGROUND SERVICE CONDUIT AND CABLE REQUIREMENTS

TYPICAL TRENCH SECTION DETAILS

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-SS-U-1003 3 of 4
 SCALE: STANDARD DWG. NO. SHEET NO.

UNDERGROUND SERVICE CONDUIT AND CABLE REQUIREMENTS

TYPICAL TRENCH SECTION DETAILS

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-SS-U-1003 4 of 4
 SCALE: STANDARD DWG. NO. SHEET NO.

UNDERGROUND SERVICE CONDUIT AND CABLE REQUIREMENTS

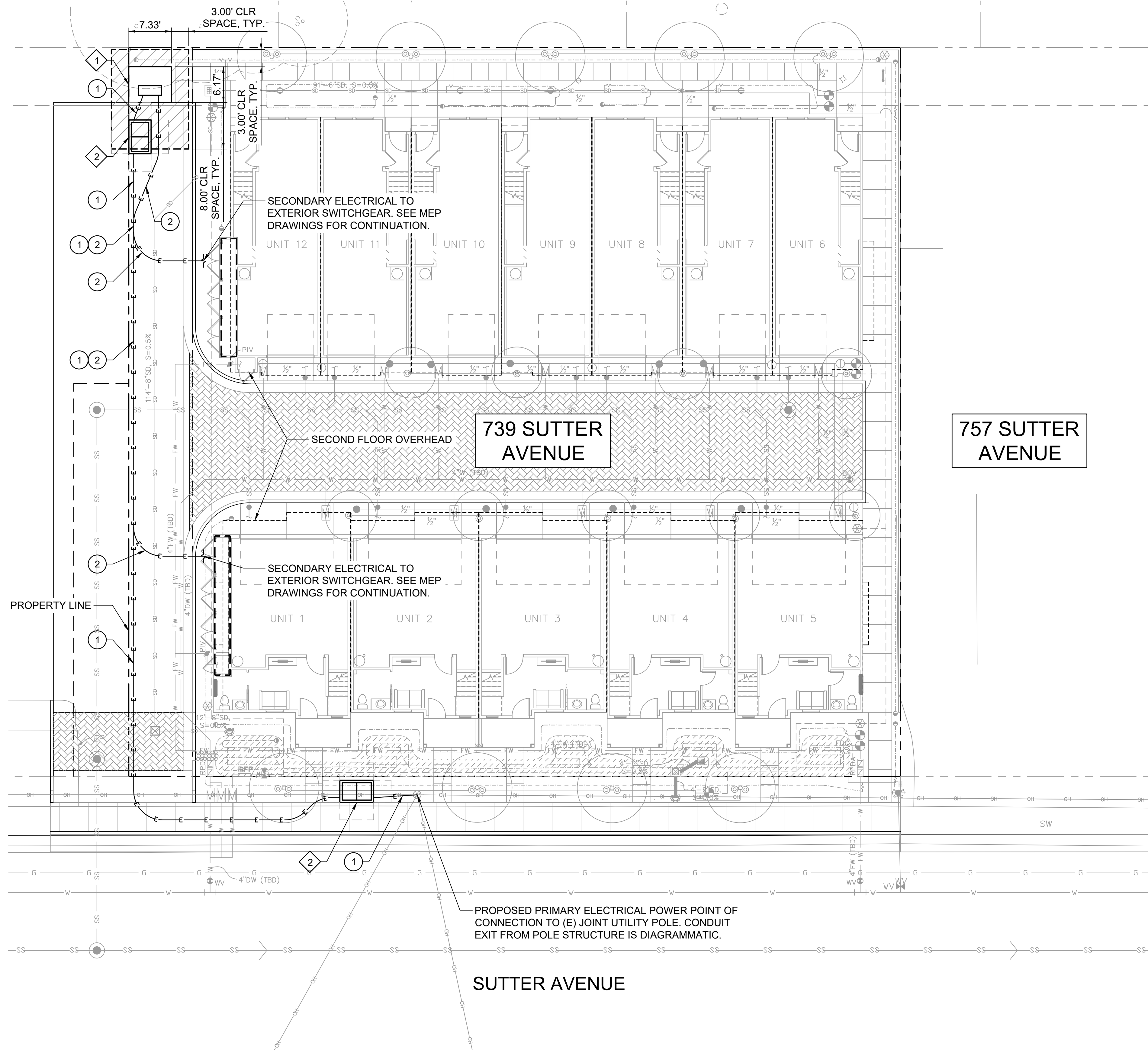
TYPICAL TRENCH SECTION DETAILS

APPROVED: [Signature] ENGINEERING STANDARD: [Signature] CITY OF PALO ALTO CALIFORNIA
 NTS DT-SS-U-1003 1 of 2
 SCALE: STANDARD DWG. NO. SHEET NO.

A DRY UTILITY STANDARDS
SCALE: N.T.S.

GENERAL NOTES

- THE LAYOUT OF JOINT TRENCH IS DIAGRAMMATIC. CONTRACTOR SHALL MAKE ALL NECESSARY FIELD CHANGES TO ACCOMMODATE WITH EXISTING FIELD CONDITION. PROVIDE ALL NECESSARY WORK FOR OFF-SETS, CHANGES OF DIRECTION AND ELEVATION TO AVOID CONFLICTS WITH EXISTING AND NEW FACILITIES AND WORK TO BE PROVIDED BY OTHER DIVISIONS.
- PROVIDE ALL REQUIRED TRENCHING INCLUDING DEEPER TRENCHES TO ALLOW CONDUIT OFF-SETS, AND CHANGE OF ELEVATIONS, CONDUIT CROSSING, CONNECTIONS TO MANHOLES AND PULL BOXES FOR A COMPLETE INSTALLATION.
- ALL CONNECTIONS TO MANHOLES AND PULL BOXES SHALL COMPLY WITH UTILITY COMPANIES REQUIREMENTS. COORDINATE ALL WORK WITH UTILITY COMPANIES.
- UTILITY STANDARD PRACTICES FOR TRENCHING SHALL APPLY TO ALL TRENCHING, BACK FILLING AND INSTALLATION WORK.
- THE CONTRACTOR IS RESPONSIBLE TO HAVE ALL INSTALLATIONS INSPECTED AND APPROVED BY THE RESPECTIVE UTILITY COMPANY, MUNICIPALITY, OR SOILS ENGINEER PRIOR TO ANY BACK FILLING. (48 HOURS MINIMUM NOTICE)
- SHOULD A DISPUTE OR DISAGREEMENT OVER ANY INSTALLATION, DESIGN, PLAN, OR DRAWING OCCUR THE SPECIFICATIONS AND REQUIREMENTS OF THE INDIVIDUAL UTILITY COMPANY AND THEIR INSPECTOR SHALL TAKE PRECEDENCE.
- CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES. LACK OF TIMELINESS ON THE PART OF ANY UTILITY COMPANY SHALL NOT BE THE BASIS FOR ANY REQUEST FOR ADDITIONAL COMPENSATION.
- THE DRAWINGS AND SPECIFICATIONS SHALL BE CONSIDERED TO BE COMPLEMENTARY TO ONE ANOTHER. ANYTHING MENTIONED IN THE SPECIFICATIONS AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS SHALL BE CONSIDERED OF LIKE EFFECT AS IF APPEARING IN BOTH. CONTACT THE OWNER PRIOR TO START OF WORK IF A DISCREPANCY IS FOUND.
- CONSULT PARTICIPATING UTILITIES, SOILS ENGINEER, AND THE CITY OF PALO ALTO FOR APPROVED BACK FILL MATERIAL. COMPACTION TO MEET LOCAL AGENCIES REQUIREMENTS.
- CONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES AND REGULATIONS. CONTRACTOR SHALL BE FAMILIAR WITH O.S.H.A. INDUSTRIAL ORDERS AND SHALL CONDUCT HIS WORK ACCORDINGLY. WHEN WORKING ENERGIZED EQUIPMENT, THE UTILITY OWNER SHALL BE NOTIFIED TO SUPPLY THE APPROPRIATE MANPOWER AND SAFETY PRECAUTIONS AS NEEDED THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY AND TRAFFIC CONTROL MEASURES.
- THE CONTRACTOR SHALL MAINTAIN POINTS OF ACCESS THAT ARE AGREEABLE TO ADJACENT LAND USERS AND TENANTS AT ALL TIMES.
- CONTRACT DOCUMENTS ASSUMES NO RESPONSIBILITY FOR THE PROJECT CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW THE PROJECT AND SITE PRIOR TO SUBMITTING HIS BID.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF CONSTRUCTION WITH THE RESPECTIVE UTILITY AGENCIES, ALLOWING 48 HOURS PRIOR TO THE NEED FOR INSTALLATION.
- ALL LENGTHS SHOWN ON THESE PLANS ARE ESTIMATES. FINAL QUANTITIES SHALL BE BASED ON WHAT WILL BE NEEDED TO COMPLETE THIS PROJECT. DUE TO CHANGES, ADDITIONS, DELETIONS OR OMISSIONS FINAL QUANTITIES MAY VARY.
- THE CONTRACTOR IS RESPONSIBLE TO PROTECT IN PLACE ALL EXISTING FACILITIES. EXCAVATION MAY BE REQUIRED OVER, UNDER OR ADJACENT TO EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING, EXPOSING AND PROTECTING ALL EXISTING FACILITIES.
- THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS AFTER INSTALLATION.
- ALL CONDUIT ENTRANCE TO MANHOLE, PULL BOX, & VAULTS SHALL BE WATER PROOFED. ALL INSTALLATION SHALL CONFORM TO REQUIREMENTS OF UTILITY COMPANIES AND COMMUNICATION SERVICE PROVIDER.
- IN THE STREET, ALL CONDUITS SHALL BE INSTALLED WITH MINIMUM OF 36" COVERAGE. EXCEPTIONS SHALL BE APPROVED BY THE CITY AND UTILITY COMPANY AUTHORIZED AGENTS. PROVIDE 4" THICK RED DYE CONCRETE CAP ABOVE CONDUITS WHICH DO NOT HAVE 36" COVERAGE.
- THE CONTRACTOR, PRIOR TO BIDDING, SHALL VISIT THE JOB SITE TO BE FAMILIARIZED WITH THE EXISTING UTILITIES INSTALLATIONS, CONDITIONS, AND SYSTEMS RELATED TO THE SCOPE OF WORK.
- THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, FEES AND EQUIPMENT SPECIFIED, INDICATED OR IMPLIED IN THESE DOCUMENTS TO ACCOMPLISH THE CONSTRUCTION IN A PROFESSIONAL, WORKMANLIKE MANNER. ANY DISCREPANCIES BETWEEN THE CONSTRUCTION TASKS INDICATED AND LOCAL CODES AND/OR ORDINANCES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE GENERAL CONTRACTOR FOR RESOLUTION BEFORE PRECEDING WITH THE WORK AT ISSUE.
- THE CONTRACTOR SHALL REVIEW AND COORDINATE WITH OTHER DISCIPLINES DRAWINGS RELATED TO THE PROJECT FOR OTHER WORK TO BE PROVIDED.
- ANY WORK INSTALLED INCORRECTLY, OR BEFORE APPROVAL HAS BEEN OFFICIALLY GRANTED FOR THOSE ITEMS AT ISSUE, SHALL BE CORRECTED BY THE CONTRACTOR AT NO CHARGE TO CLIENT.
- ALL MATERIALS AND EQUIPMENT FURNISHED BY THE CONTRACTOR SHALL BE NEW AND COMPLETELY SERVICEABLE UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL BE COMPLETELY FAMILIAR WITH EXISTING CONDITIONS BEFORE STARTING NEW WORK. VERIFY FINAL PLACEMENT AND CONNECTION REQUIREMENTS PRIOR TO ROUGHING-IN EQUIPMENT.
- FINAL ACCEPTANCE OF WORK IN PLACE SHALL BE SUBJECT TO APPROVAL BY OWNER'S REPRESENTATIVE AND ENGINEER. INSTALLATION APPROVAL SHALL BE BASED ON APPROVED SUBMITTAL. SHOP DRAWINGS AND LOCAL INSPECTION.
- ALL JOINT TRENCH CONDUIT SHALL COMPLY WITH CPAU ELECTRIC SERVICE REQUIREMENTS, CURRENT EDITION.
- CONTRACTOR SHALL INSTALL 3/4" x 10' GROUND RODS IN ALL PRIMARY SUBSURFACE ENCLOSURES AND 5/8" x 10' GROUND RODS IN ALL SECONDARY SUBSURFACE ENCLOSURES. THE RESISTANCE AT THE GROUND ROD SHALL MEET ARTICLE 250.56 NEC.
- ALL CONDUIT SYSTEMS SHALL BE PROVEN BY USING MANDRELS.
- ALL CONDUITS SHALL ENTER AND LEAVE ON THE SIDES OF THE PRIMARY ENCLOSURES.
- PRIMARY AND SECONDARY CONCRETE ENCLOSURES SHOULD NOT BE INSTALLED IN ANY DRIVEWAY AREAS.
- SWEDGE REDUCERS ARE REQUIRED IF THE CONDUIT KNOCKOUTS ARE 6" AND THE CONDUITS ARE 4".
- ALL WORK INCLUDING SIDEWALK AND PAVEMENT CUTTING AND REMOVAL, LAGGING, EXCAVATION, BACKFILL, AND SIDEWALK AND PAVEMENT RESTORATION SHALL BE DONE BY A LICENSED PAVING CONTRACTOR AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS OF THE BUREAU OF ENGINEERING, DEPARTMENT OF PUBLIC WORKS, JULY 1986 EDITION AND DEPARTMENT OF PUBLIC WORKS ORDER NOS. 135.595 OR 135.596.
- CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICES ALERT (U.S.A.) AT 1-800-227-2600 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION. CONTACTING U.S.A. DOES NOT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY TO DETERMINE LOCATION AND DEPTH OF BURIED UTILITIES.



A JT1.02 DRY UTILITY INTENT
SCALE: 1" = 10'

EQUIPMENT TAG:

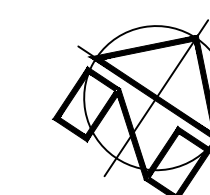
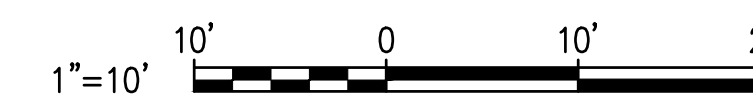
- 1 PRECAST PAD FOR TRANSFORMER, 88" X 74", SEE CPAU DRAWINGS. REFER TO CPAU ELECTRIC SERVICE REQUIREMENTS, CURRENT EDITION.
- 2 CPAU PRECAST 3546 PULLBOX VAULT, 3'-0" X 5'-0" X 4'-6", (OLDCASTLE DRAWING NUMBER: 030-PG&E-3546)

CONDUIT NOTE TAG:

- 1 CPAU PRIMARY ELECTRICAL (2) 4"
- 2 CPAU SECONDARY ELECTRICAL SIZE AND QUANTITY TBD

NOTES:

- CONTRACTOR TO MAINTAIN 3' MIN HORIZONTAL AND 1' MIN VERTICAL SEPARATIONS BETWEEN WET AND DRY UTILITIES, TYP.
- CONTRACTOR TO MAINTAIN 5' MIN HORIZONTAL SEPARATION BETWEEN DRY UTILITY AND CENTER OF STREET TREE, TYP.



NOT FOR CONSTRUCTION

REVISIONS

NO.	DATE	DESCRIPTION
10/14/22	PLANNING RESUBMITTAL	

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CONSULTING ENGINEERS
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DATE: 10/14/2022
SCALE: AS SHOWN
DRAWN BY: CM
PROJECT NO: 1447.003

SHEET
DRY UTILITY INTENT AND NOTES

JT1.02

GENERAL ELECTRICAL NOTES

1. THE ENTIRE INSTALLATION SHALL COMPLY WITH 2017 NEC, 2019 CALIFORNIA ENERGY CODE, 2019 CALIFORNIA ELECTRICAL CODE, AND ALL APPLICABLE LOCAL CODES AND REGULATION.

2. ALL ELECTRICAL PREFABRICATED EQUIPMENT SHALL BE DESIGNED AND CONSTRUCTED IN SUCH A MANNER THAT ALL PORTIONS, ELEMENTS, SUB-ASSEMBLIES AND/OR PARTS OF SAID EQUIPMENT, AND THE EQUIPMENT AS A WHOLE INCLUDING ITS ATTACHMENTS, WILL RESIST A LOAD WHICH EXCEEDS THE FORCE LEVEL USED TO RESTRAINT AND ANCHOR THE EQUIPMENT TO THE SUPPORTING STRUCTURE.

3. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL OR LISTED OR CERTIFIED BY A NATIONALLY RECOGNIZED TESTING AUTHORITY WHERE UL DOES NOT HAVE A LISTING. CUSTOM MADE EQUIPMENT SHALL HAVE COMPLETE TEST DATA SUBMITTED BY THE MANUFACTURER ATTESTING TO ITS SAFETY. IN ADDITION, THE MATERIALS, EQUIPMENT, AND INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING:

AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)
 INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA)
 AMERICAN STANDARD ASSOCIATION (ASA)
 NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
 AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)
 NEC NATIONAL ELECTRICAL CODE (NEC)
 INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)
 ALL LOCAL CODES HAVING JURISDICTION

WHERE THE CODES HAVE DIFFERENT LEVELS OF REQUIREMENTS, THE MOST STRINGENT RULE SHALL APPLY.

4. THE CONTRACTOR SHALL VISIT THE SITE INCLUDING ALL AREAS INDICATED ON THE DRAWINGS. THEY SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND BY SUBMITTING A BID, ACCEPTS THE CONDITIONS UNDER WHICH HE SHALL BE REQUIRED TO PERFORM HIS WORK.

5. IT SHALL BE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COMPLETE SET OF CONTRACT DOCUMENTS, ADDENDA, DRAWINGS AND SPECIFICATIONS. THEY SHALL CHECK THE DRAWINGS OF THE OTHER TRADES AND SHALL CAREFULLY READ THE ENTIRE SPECIFICATIONS AND DETERMINE HIS RESPONSIBILITIES. FAILURE TO DO SO SHALL NOT RELEASE THE CONTRACTOR FROM DOING THE WORK IN COMPLETE ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.

6. THE CONTRACTOR SHALL COORDINATE THEIR WORK WITH OTHER TRADES AT THE SITE. ANY COSTS TO INSTALL WORK TO ACCOMPLISH SAID COORDINATION WHICH DIFFERS FROM THE WORK AS SHOWN ON THE DRAWINGS SHALL BE INCURRED BY THE CONTRACTOR. ANY DISCREPANCIES, AMBIGUITIES OR CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER DURING BID TIME FOR CLARIFICATION. ANY SUCH CONFLICTS NOT CLARIFIED PRIOR TO BID SHALL BE SUBJECT TO THE INTERPRETATION OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.

7. THE CONTRACTOR SHALL PROVIDE AND KEEP UP-TO-DATE A COMPLETE RECORD SET OF DRAWINGS. THESE PRINTS SHALL BE CORRECTED ACCORDINGLY AND SHOWN EVERY CHANGE FROM THE ORIGINAL DRAWINGS. THIS SET OF DRAWINGS SHALL BE KEPT ON THE JOB SITE AND SHALL BE USED ONLY AS A RECORD SET. THIS SHALL NOT BE CONSTRUED AS AUTHORIZATION FOR THE CONTRACTOR TO MAKE CHANGES IN THE LAYOUT WITHOUT DEFINITE INSTRUCTION IN EACH CASE. UPON COMPLETION OF THE WORK, A SET OF REPRODUCIBLE CONTRACT DRAWINGS SHALL BE OBTAINED FROM THE ENGINEER, AND ALL CHANGES AS NOTED ON THE RECORD SET OF DRAWINGS SHALL BE INCORPORATED ON REPRODUCIBLE BOND WITH BLACK INK IN A NEAT, LEGIBLE, UNDERSTANDABLE AND PROFESSIONAL MANNER PER CLIENT'S REQUEST.

8. IN SOME INSTANCE, IT MAY BE NECESSARY TO DEFER WORK IN CERTAIN AREAS AND LOCATIONS UNTIL SUCH TIME AS EXISTING FACILITIES CAN BE TEMPORARILY OR PERMANENTLY REARRANGED BY THE OWNER. THEREFORE, WHENEVER IT BECOMES NECESSARY FOR THE CONTRACTOR TO PERFORM WORK UNDER THIS CONTRACT IN EXISTING AREAS IN WHICH THE OWNER'S WORK IS BEING PERFORMED, THE CONTRACTOR SHALL ADVISE THE OWNER RELATIVE TO THIS REQUIREMENT AND SHALL FOLLOW CLOSELY THE DIRECTIVE ISSUED BY THE ENGINEER INsofar AS TIME AND PROCEDURE ARE CONCERNED.

9. ALL INTERRUPTION OF ELECTRICAL POWER SHALL BE KEPT TO A MINIMUM. HOWEVER, WHEN AN INTERRUPTION IS NECESSARY, THE SHUTDOWN MUST BE COORDINATED WITH THE OWNER 7 DAYS PRIOR TO THE OUTAGE. ANY OVERTIME PAY AND WORK REQUIRED TO BE ACCOMPLISHED ON WEEKENDS SHALL BE INCLUDED IN THE CONTRACTOR'S BID. WORK IN EXISTING SWITCHBOARDS OR PANELBOARDS SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVING ACCESS PANELS OR DOORS.

10. IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW AND TO COORDINATE WITH THE MECHANICAL, FIRE PROTECTION AND PLUMBING DRAWINGS FOR DUCT LINES AND EQUIPMENT.

11. ALL EQUIPMENT MOUNTED ON ROOF FOR CONNECTION OF HVAC EQUIPMENT SHALL BE MOUNTED ON UNISTRUT STANDS UTILIZING APPROVED PITCH POCKETS, FLASHING, ETC..

12. AFTER ALL REQUIREMENTS OF THE SPECIFICATIONS AND/OR THE DRAWINGS HAVE BEEN FULLY COMPLETED, REPRESENTATIVES OF THE OWNER WILL INSPECT THE WORK. THE CONTRACTOR SHALL PROVIDE COMPETENT PERSONNEL TO DEMONSTRATE THE OPERATION OF ANY ITEM OR SYSTEM TO THE FULL SATISFACTION OF EACH REPRESENTATIVE. FINAL ACCEPTANCE OF THE WORK WILL BE MADE BY THE OWNER AFTER RECEIPT OF APPROVAL AND RECOMMENDATION OF ACCEPTANCE FROM EACH REPRESENTATIVE.

13. THE CONTRACTOR SHALL FURNISH A ONE YEAR WRITTEN GUARANTEE OF MATERIALS AND WORKMANSHIP FROM THE DATE OF SUBSTANTIAL COMPLETION.

14. COORDINATE WITH OTHER TRADES AS TO THE EXACT LOCATION AND CONFIGURATION OF THEIR RESPECTIVE EQUIPMENT, SUPPLY POWER AND MAKE CONNECTION TO MOTORS AND EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AS INDICATED ON THE SINGLE LINE DIAGRAM, ELECTRICAL DRAWINGS AND DRAWINGS OF OTHER TRADE. REVIEW THE DRAWINGS OF OTHER TRADES FOR CONTROL DIAGRAM, SIZE AND LOCATIONS OF EQUIPMENT. DISCONNECT SWITCHES, STARTERS, WIRING, CONTROLS AND CONDUIT FOR MECHANICAL AND PLUMBING OPERATIONS SHALL BE PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING MANUFACTURER'S SHOP DRAWINGS PRIOR TO ROUGHING IN ALL CONDUIT TO THIS EQUIPMENT.

15. EXACT METHOD AND LOCATION OF CONDUIT PENETRATION AND OPENINGS IN CONCRETE OR MASONRY WALLS, GRADE BEAMS, FLOORS OR STRUCTURAL STEEL MEMBERS SHALL BE AS DIRECTED BY THE STRUCTURAL ENGINEER. PERFORM CORING, SAW CUTTING, PATCHING, AND REFINISHED OF WALLS AND SURFACES WHEREVER IT IS NECESSARY TO PENETRATE OPENINGS SHALL BE SEALED IN AN APPROVED METHOD TO MEET THE FIRE RATING OF THE PARTICULAR WALL, FLOOR OR CEILING. EXACT METHOD AND LOCATIONS OF CONDUIT PENETRATIONS AND OPENINGS IN CONCRETE WALLS OR FLOORS SHALL BE FOR UL APPROVED SYSTEMS.

16. CONNECTIONS TO VIBRATING EQUIPMENT, MECHANICAL AND PLUMBING EQUIPMENT AND SEISMIC SEPARATIONS:

LIQUID-TIGHT CONDUIT IN ALL LOCATIONS
 MAXIMUM LENGTH OF FLEXIBLE CONDUIT RUNS SHALL BE 6'-0" U.O.M.

17. EQUIPMENT OUTLETS, LIGHTING FIXTURES, CONDUIT, WIRE AND CONNECTION METHODS IN HVAC AIR-FLEANS SHALL BE APPROVED FOR USE IN FLEANS AND SHALL CONFORM TO 2019 CEC.

18. CONDUIT SHALL NOT BE INSTALLED IN ANY FLOOR SLAB. CONDUIT SHALL BE INSTALLED CONCEALED IN THE CEILING SPACE, CONCEALED IN WALLS, OR BELOW SLAB ON GRADE. UNLESS OTHERWISE NOTED.

19. WHENEVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, CIRCUIT BREAKERS, GROUND FAULT PROTECTION SYSTEM, ETC., (ALL MATERIALS), ARISES ON THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIALS AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE OWNER AND ENGINEER.

20. IT SHALL BE CONTRACTOR'S RESPONSIBILITY TO VERIFY TYPE OF CEILING SYSTEMS AND TO FURNISH APPROVED LIGHTING FIXTURES OF THE TYPE REQUIRED FOR MOUNTING IN SUBJECT CEILING. WHERE FIXTURES ARE RECESSED IN PLASTER OR DRYWALL CEILINGS, THEY SHALL BE COMPLETE WITH NECESSARY MOUNTING HARDWARE AND PLASTER FRAMES.

21. ALL RECESSED LIGHTING FIXTURES, SPEAKERS, RECEPTACLES, SWITCHES, ETC., MOUNTED IN THE FIRE RATED CEILINGS OR WALLS SHALL BE ENCLOSED WITH AN APPROVED ENCLOSURE CARRYING THE SAME FIRE RATINGS AS THE CEILING OR WALL BY THIS CONTRACTOR.

22. UTILITY PENETRATIONS OF ANY KIND IN FIRE AND SMOKE PARTITIONS AND CEILING ASSEMBLIES, SHALL BE FIRE-GLACK AND SEALED WITH AN APPROVED MATERIAL SECURELY INSTALLED.

23. UTILITY AND ELECTRICAL OUTLETS OR BOXES SHALL BE SECURELY FASTENED TO THE STUD OR FRAMING OF THE WALL, PARTITION OR CEILING ASSEMBLY. THE OPENING IN THE GYPSUM BOARD FACING SHALL BE CUT SO THAT THE CLEARANCE BETWEEN THE BOX AND THE GYPSUM BOARD DOES NOT EXCEED 1/8" INCH. IN SMOKE WALLS OR PARTITIONS, THE 1/8" INCH CLEARANCE SHALL BE FILLED WITH AN APPROVED FIRE-RATED SEALANT.

24. ARCHITECTURAL REFLECTED CEILING PLANS INDICATING THE LOCATION OF LIGHTING FIXTURES SHALL TAKE PRECEDENCE OVER THE LOCATIONS OF SAME SHOWN ON THE ELECTRICAL DRAWINGS. INSTALL THE LIGHTING FIXTURES IN ANY GIVEN AREA TO AGREE WITH THE REFLECTED CEILING PLANS. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.

25. THE EXACT LOCATIONS AND MOUNTING HEIGHTS OF LIGHTING FIXTURES LOCATED IN MECHANICAL EQUIPMENT SPACES AND STORAGE SHALL BE COORDINATED IN THE FIELD BEFORE INSTALLATION TO AVOID INTERFERENCES WITH DUCTS, PIPING AND OTHER MECHANICAL EQUIPMENT AND ALL MOUNTING HARDWARE SHALL BE INCLUDED IN BASE BID. WHEN LOCATIONS AND MOUNTING HEIGHTS ARE DETERMINED, OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO INSTALLATION.

26. MAXIMUM NUMBER OF CONDUCTORS IN OUTLET OR JUNCTION BOXES SHALL CONFORM TO 2019 CEC.

27. THE EXACT LOCATIONS OF ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE COORDINATED WITH THE ARCHITECTURAL ELEVATIONS, DETAILS OR SECTIONS PRIOR TO INSTALLATION. ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE RECESSED IN WALLS, UNLESS OTHERWISE NOTED. OUTLETS NOT INDICATED ON ARCHITECTURAL ELEVATIONS SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO ROUGH-IN, UNLESS OTHERWISE NOTED.

28. REVIEW ARCHITECTURAL ELEVATIONS OF CASEWORK. OUTLETS MOUNTED ABOVE OR BELOW OR ADJACENT TO CASEWORK SHALL BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS PRIOR TO FINAL ROUGH-IN. ELECTRICAL DEVICES AND EQUIPMENT SHALL BE RECESSED IN WALLS, UNLESS OTHERWISE NOTED. LOCATIONS SHALL BE AS INDICATED ON ARCHITECTURAL ELEVATIONS. PROVIDE CONDUIT, WIRES AND OUTLETS FOR WORK REQUIRED IN CASEWORK INSTALLATIONS. REFERENCE ARCHITECTURAL DETAILS FOR METHOD OF ROUTING CONDUIT WITHIN CASEWORK CONSTRUCTION. PROVIDE BOX EXTENSIONS THROUGH ALL CASEWORK. FINISH FLUSH WITH FACE OF SPLASH CABINETS, ETC. MOUNTING HEIGHTS OF ALL DEVICES AND EQUIPMENT ARE FROM FINISHED FLOOR TO CENTER OF DEVICES AND EQUIPMENT, UNLESS OTHERWISE NOTED. BOXES INSTALLED IN LOCATIONS NOT APPROVED BY THE ARCHITECT SHALL BE RELOCATED AS DIRECTED BY THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.

29. DRAWINGS ARE DIAGRAMMATIC ONLY AND DO NOT SHOW SPECIAL CONDUIT ROUTING OR LENGTHS REQUIRED FOR A COMPLETE INSTALLATION. ROUTING OF RACEWAYS SHALL BE AT THE OPTION OF THE CONTRACTOR BUT SHALL BE IN STRICT COMPLIANCE WITH STRUCTURAL REQUIREMENTS AND SPECIFICATIONS, UNLESS OTHERWISE NOTED AND SHALL BE COORDINATED WITH OTHER TRADES. DO NOT SCALE THE ELECTRICAL DRAWINGS FOR LOCATIONS OF ANY ELECTRICAL ARCHITECTURAL, STRUCTURAL, CIVIL, OR MECHANICAL ITEMS OR FEATURES. REFER TO ARCHITECTURAL AND STRUCTURAL DIMENSIONAL DRAWINGS.

30. THE EQUIPMENT GROUNDING CONDUCTOR RUNS SHALL BE INSTALLED AND RUN CONTINUOUS FROM PANEL TO LAST OUTLETS. THIS WIRE SHALL BE PISTAILED IN EACH OUTLET FOR CONNECTION TO BOX AND DEVICE SO THAT IF DEVICE IS REMOVED, GROUND WILL NOT BE INTERRUPTED. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSULATED GREEN OR BARE CONDUCTORS. ALTERNATE METHODS OF IDENTIFICATION SHALL BE USED.

31. FOR SMALL AC MOTORS NOT HAVING BUILT-IN THERMAL OVERLOAD PROTECTION, PROVIDE MANUAL MOTOR STARTERS WITH OVERLOAD HEATER ELEMENTS SIZED TO THE NAMEPLATE CURRENT RATING OF THE MOTOR. SMALL AC MOTORS WITH BUILT-IN THERMAL OVERLOAD PROTECTION, PROVIDE A HORSE POWER RATED TOGGLE TYPE DISCONNECT SWITCH.

32. BOXES SHALL BE SIZED FOR THE NUMBER AND SIZES OF CONDUCTORS AND CONDUIT ENTERING THE BOX AND EQUIPPED WITH PLASTER EXTENSION RINGS WHERE REQUIRED.

33. PROVIDE SOUND INSULATION AT ALL CONDUIT PENETRATIONS AT SOUND BARRIER RATED WALLS. TYPICAL UNLESS OTHERWISE NOTED.

34. WHERE OUTLETS OCCUR AT TACKABLE WALL PANELS OR OTHER WALL FINISHES, PROVIDE EXTENSION RINGS AS REQUIRED SO THAT NO SPACE WILL EXIST BETWEEN DEVICE PLATE AND BACKBOX, PER CEC 370.20, TYPICAL. SEE ARCHITECTURAL ELEVATIONS FOR WALL FINISHES AND LOCATIONS.

35. ALL CONDUCTORS FOR THIS PROJECT SHALL BE THINWALL COPPER AWG OR KCMIL PER CEC TABLE 310.16. GROUNDING SHALL BE "GREEN WIRE" OR BARE COPPER WIRE SIZES PER CEC TABLE 250.122.

36. GROUNDING SYSTEM:
 THE GROUNDING SYSTEM SHALL BE DERIVED PER CEC 250.50:
 A) 10' OF METER UNDERGROUND WATER PIPE
 B) METER FRAME OF BUILDING OR STRUCTURE WHERE EFFECTIVELY GROUNDED
 C) AN ELECTRODE ENCASED BY AT LEAST 2" (50MM) OF CONCRETE LOCATED HORIZONTALLY NEAR THE BOTTOM OR VERTICALLY, AND WITHIN THAT PORTION OF A CONCRETE FOUNDATION OR FOOTING THAT IS IN DIRECT CONTACT WITH EARTH. THE ELECTRODE SHALL CONSIST OF AT LEAST 20 FEET (6.0M) OF ONE OR MORE STEEL REINFORCING BARS OR RODS, OF NOT LESS THAN 1/2" DIAMETER, OR CONSIST OF AT LEAST 20 FEET OF BARE COPPER CONDUCTOR NOT SMALLER THAN #4 AWG.

38. LISTED OR LABELED EQUIPMENT SHALL BE INSTALLED AND USED IN ACCORDANCE WITH ANY INSTRUCTIONS INCLUDED IN THE LISTING OR LABELING. SECTION 110.3(B)

39. CONTRACTOR MUST VERIFY LOCATIONS OF ALL EQUIPMENT AND POINTS OF CONNECTION AND COORDINATE WITH CONSTRUCTION MANAGER, ARCHITECT, CIVIL ENGINEER, LANDSCAPE ARCHITECT, AND UTILITY CONSULTANTS PRIOR TO START OF CONSTRUCTION. NO COMPENSATION WILL BE MADE FOR RELOCATION OF EQUIPMENT AND ASSOCIATED COST.

40. THIS DOCUMENT IS NOT FOR BID OR CONSTRUCTION UNTIL THE PLAN HAS BEEN REVIEWED AND APPROVED BY ALL AUTHORITIES HAVING JURISDICTION AND THE PERMIT IS OBTAINED. NO COMPENSATION WILL BE MADE FOR ADDITIONAL WORK DUE TO THE VIOLATION OF THIS REQUIREMENT.

41. A 120V ELECTRICAL RECEPTACLE THAT IS CONNECTED TO THE ELECTRICAL PANEL WITH A 120/240VOLT 3 CONDUCTOR, 10 AWG COPPER BRANCH CIRCUIT, WITHIN 3 FEET FROM THE WATER HEATER AND ACCESSIBLE TO THE WATER HEATER WITH NO OBSTRUCTIONS. BOTH ENDS OF THE UNUSED CONDUCTOR SHALL BE LABELED WITH THE WORD "SPARE" AND BE ELECTRICALLY ISOLATED.

42. ALL LIGHTINGS TO BE HIGH EFFICACY. PROVIDE TYPE OF LIGHT FIXTURES WATTS OR PROVIDE TABLE 150.0-A ON THE DRAWINGS.

43. GENERAL USE ELECTRICAL RECEPTACLE, SWITCH, AND CONTROL OUTLETS SHALL BE LOCATED NO MORE THAN 48 INCHES TO THE TOP OF THE OUTLET BOX NOR LESS THAN 15 INCHES TO THE BOTTOM OF THE OUTLET BOX ABOVE THE FINISHED FLOOR UNLESS OTHERWISE NOTED. CEC 1136A.1, 1136A.2

45. PROVIDE GROUND-FAULT CIRCUIT-INTERRUPTER (GFCI) PROTECTION IN READILY-ACCESSIBLE LOCATIONS COMPLIANT WITH CEC 210.8(A).

46. PROVIDE ARC-FAULT CIRCUIT-INTERRUPTER (AFCI) PROTECTION IN READILY-ACCESSIBLE LOCATIONS IN KITCHENS, FAMILY, DINING, LIVING ROOMS, CLOSETS, HALLWAYS, AND LAUNDRY AREAS COMPLIANT WITH CEC 210.12(A).

ELECTRICAL SHEET INDEX

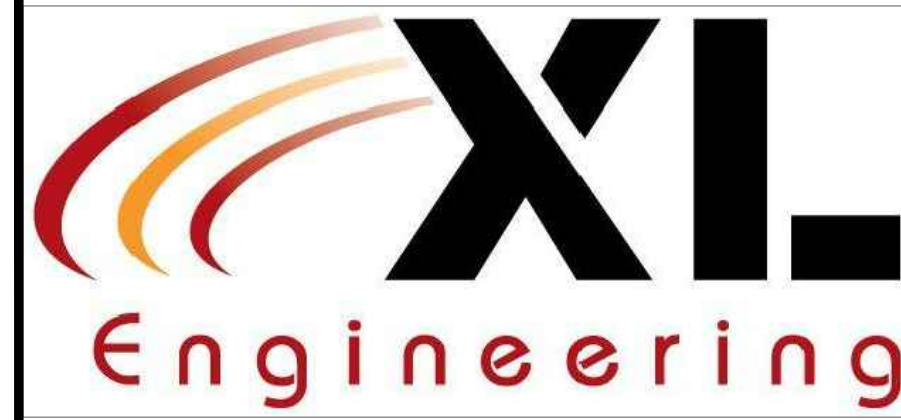
1	EN	ELECTRICAL GENERAL NOTES & SHEET INDEX
2	ENI	ELECTRICAL SINGLE LINE DIAGRAM & LOAD CALCULATIONS

ELECTRICAL LEGEND/SYMBOLS

	SWITCH
	3-WAY SWITCH
	VACANCY SENSOR
	DIMMER SWITCH
	LED LIGHT (SURFACE MOUNT)
	LED LIGHT (WALL MOUNT)
	LED LIGHT (RECESSED)
	PENDANT LIGHT FIXTURE (CEILING)
	1'x4' LED STRIP LIGHT NOTE: 'NL' DENOTES 90 MINUTE BATTERY BACKUP
	2'x4' LED STRIP LIGHT NOTE: 'NL' DENOTES 90 MINUTE BATTERY BACKUP
	EXHAUST FAN/ LED LIGHT COMBO
	EXHAUST FAN
	UL 2084/2075 CARBON MONOXIDE ALARM
	UL 2084/2075 SMOKE DETECTOR
	ELECTRICAL PANEL
	DUPLEX RECEPTACLE
	GFCI DUPLEX RECEPTACLE
	240V RECEPTACLE
	FLOOR MOUNTED RECEPTACLE
	JUNCTION BOX
	HOME RUN: HPC= PANEL DESTINATION, 2,4,6=CIRCUITS
	CIRCUIT BREAKER
	FUSE
	DOOR BELL
	MANUAL MOTOR RATED SWITCH
	3 POLE DISCONNECT SWITCH
	CEILING MOUNTED MOTION SENSOR

MECHANICAL ABBREVIATIONS

ADA	AMERICAN DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFH	AIR HANDLING UNIT
AFI	ACCESS PANEL
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AS/AF	AMP SWITCH, AMP FUSE
AMP, A	AMPERE
ARCH	ARCHITECTURAL
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
BKR	BREAKER
CLS	CEILING
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
Δ	DELTA CONNECTED
DIST	DISTRIBUTION
DEG	DEGREE
DRAWING	DRAWING
D/W	DISH WASHER
EP	EXHAUST FAN
ES	EQUIPMENT GROUND
ELEG	ELECTRICAL
ELEV	ELEVATOR
EQ	EQUIPMENT
EP	EXPLOSION PROOF
FACP	FIRE ALARM CONTROL PANEL
FDR	FEEDEE
FLA	FULL LOAD AMPS
G	GROUND
G/GFI	GROUND FAULT CIRCUIT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HP	HORSE POWER
HPS	HIGH PRESSURE SODIUM
HVAC	HEATING, VENTILATION, & AIR CONDITIONING
JB/JBOX	JUNCTION BOX
KVA	KILOVOLT AMPERES
KW	KILOWATTS
KWH	KILOWATTS PER HOUR
KCMIL	THOUSAND CIRCULAR MILS
LOP	LIGHTING CONTROL PANEL
LPS	LOW PRESSURE SODIUM
LT6/LTS	LIGHTING
M	METER
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MECH	MECHANICAL
MH	METAL HALIDE
MLO	MAIN LUGS ONLY
MIN	MINIMUM
MW	MICROWAVE
(N)	NEW
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
UPS	UNINTERRUPTIBLE POWER SUPPLY
NO	NORMALLY OPEN
P	POLE
PB	FULLBOX
PC	PHOTOCELL
PH OR φ	PHASE
PWR	POWER
REC	RECEPTACLE
REF	REFRIGERATOR
REQD	REQUIRED
RPM	REVOLUTIONS PER MINUTE
ST	SHUNT TRIP
SF	SUMP PUMP
SPEC	SPECIFICATION
SYS	SYSTEMS
SYM	SYMMETRICAL
TELCOM	TELECOMMUNICATIONS
TV	TELEVISION
TYP	TYPICAL
UG	UNDERGROUND
UTIL	UTILITY
V	VOLTS
VA	VOLT AMPERE
VD	VOLTAGE DROP
V/ø/Hz	VOLTS/PHASE/HERTZ
W	WIRE
WP	WEATHERPROOF
XFMR	TRANSFORMER
XFR	TRANSFER
Y	WYE CONNECTED



13620 LINCOLN WAY, SUITE #200
 AUBURN, CA 95603
 PHONE: (925)803-9756

739 SUTER AVE.,

PALO ALTO, CA

PROJECT NUMBER: 2022-794

DATE: 10-24-2022

REVISIONS

1st BLDG. DEPT. SUBMITTAL 10-23-2022

SHEET NAME:

ELECTRICAL GENERAL NOTES AND SHEET INDEX

SCALE: 1/8" = 1' - 0"

SHEET
 EN

SINGLE LINE DIAGRAM KEYED NOTES

1 VERIFY WITH SERVICE PLANNER FOR AIC RATING AND ELECTRICAL INFO BEFORE ISSUING ANY BID. NOTIFY ENGINEER IMMEDIATELY IF MAJOR DISCREPANCIES OCCURS.

2 DENOTES UTILITY SERVICE FEEDER. REFER TO UTILITY DRAWINGS FOR SERVICE TRANSFORMER LOCATION, SERVICE FEEDER ROUTING, AND EXACT SIZING OF FEEDER PLAN. VERIFY EXACT LENGTH IN FIELD.

SINGLE LINE DIAGRAM NOTES

a) NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN THE DEDICATED SPACE ABOVE THE ELECTRICAL EQUIPMENT.

b) ALL NEW CIRCUIT BREAKERS, FUSIBLE SWITCHES IN MAIN SWITCHBOARD OR PANEL BOARDS SHALL BE SERIES RATED TO MATCH AIC RATING OR APPROVED EQUAL OR 65KAIC, UNLESS NOTED OTHERWISE.

c) MOTOR CIRCUIT PROTECTORS SHALL NOT BE A PART OF A SERIES COMBINATION INTERRUPTING RATING.

d) SERIES COMBINATION AIC RATING SHALL NOT BE USED WHEN THE SECONDARY EQUIPMENT IN THE SERIES IS SUBJECTED TO A TOTAL CONNECTED FULL LOAD MOTOR CURRENT OF MORE THAN 1% OF ITS AIC RATING.

e) EQUIPMENT ENCLOSURES SHALL BE CLEARLY MARKED "CAUTION-SERIES RATED SYSTEM - 65KAMPS AVAILABLE, IDENTIFIED REPLACEMENT COMPONENTS REQUIRED", IN COMPLIANCE WITH 2019 CEC (2017 NEC) SECTION 110-22. END USE EQUIPMENT SHALL ALSO BE MARKED WITH THE HIGHER SERIES COMBINATION INTERRUPTING RATING AS PER 2019 CEC SECTION 240-83(C). NO EXCEPTION.

f) FUSES SHALL BE PROVIDED WITH REJECTION TYPE FUSE HOLDERS.

g) ELECTRICAL EQUIPMENT SHALL BE LISTED BY THE CITY, WHERE THE PROJECT IS LOCATED, RECOGNIZED ELECTRICAL TESTING LABORATORY OR APPROVED BY THE DEPARTMENT.

h) UNIT PANELS SHALL BE 22KAIC SERIES RATED UNLESS NOTED OTHERWISE.

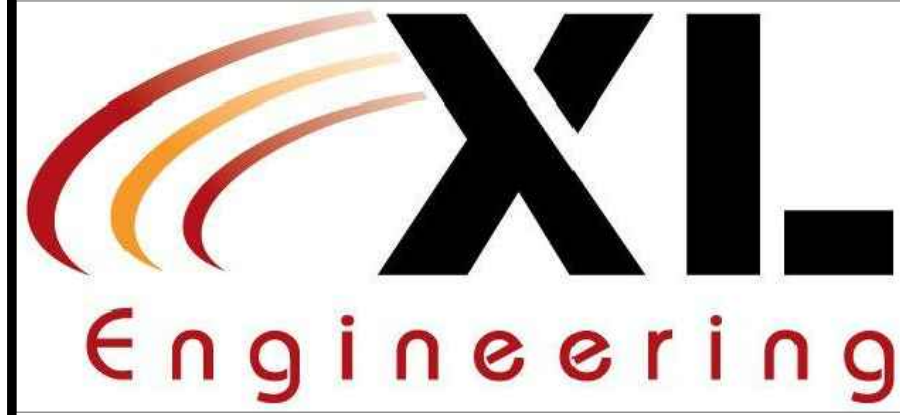
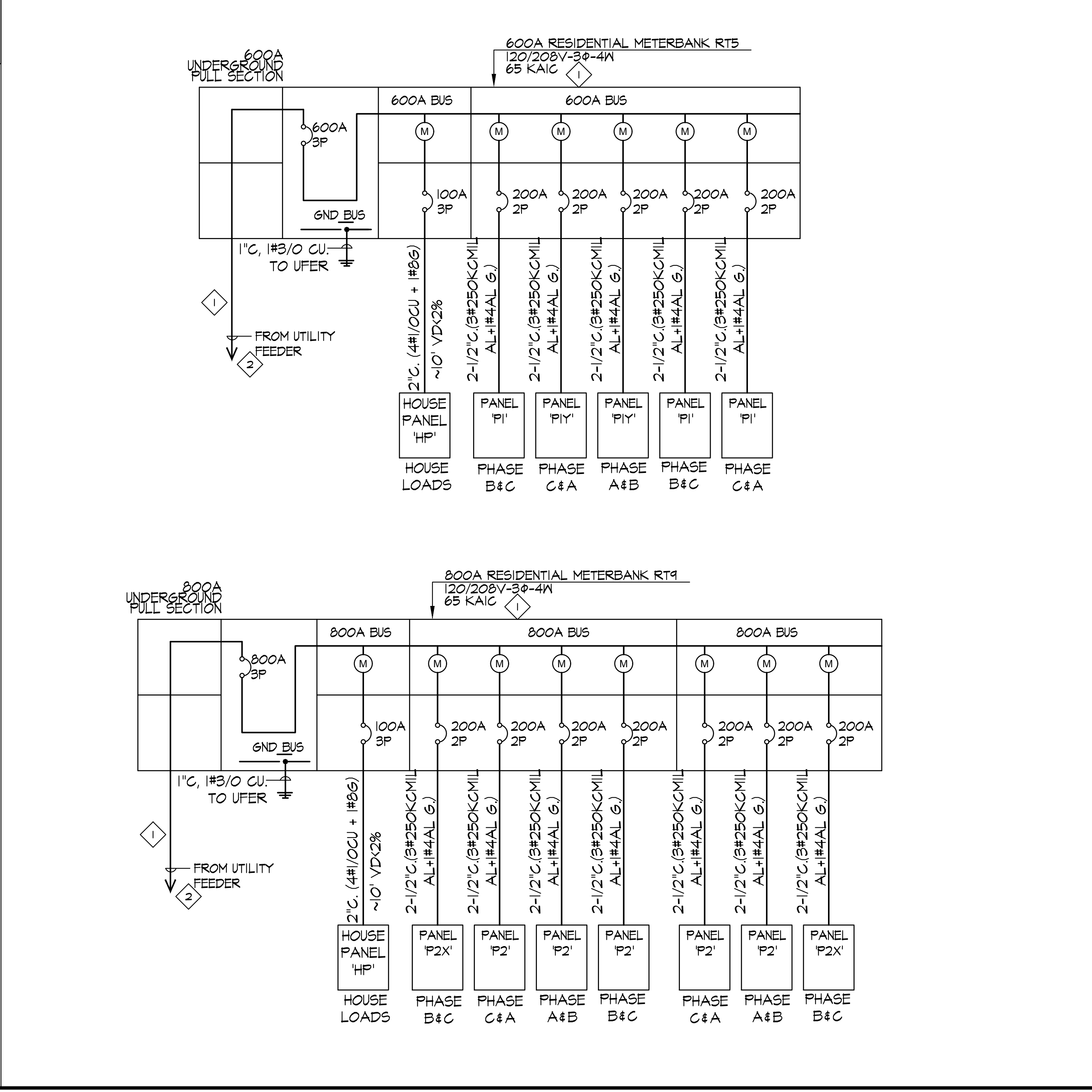
UNIT LOAD CALCULATIONS

Unit Service Load Calculations	Plan 1	Plan 1Y	Plan 1X	Plan 2	Plan 2X
Square Foot:	1643	1642	1642	1206	1241
Dwelling Loads:	VA	VA	VA	VA	VA
General Lighting	4929	4926	4926	3618	3723
Small Appliance (3-20A -CEC 210.11)	3000	3000	3000	3000	3000
Laundry	1500	1500	1500	1500	1500
Bathroom	0	0	0	0	0
Dishwasher	1200	1200	1200	1200	1200
Microwave	1200	1200	1200	1200	1200
Garbage Disposal	1050	1050	1050	1050	1050
Garage Opener	1200	1200	1200	1200	1200
Refrigerator	1000	1000	1000	1000	1000
Water Heater	6250	6250	6250	6250	6250
Dryer	5000	5000	5000	5000	5000
Oven	8000	8000	8000	8000	8000
Separate Cooktop	12000	12000	12000	12000	12000
EV Charger	9600	9600	9600	9600	9600
Subtotal general loads:	55929	55926	55926	54618	54723
First 10kVA	10000	10000	10000	10000	10000
Remaining	45929	45926	45926	44618	44723
Remaining at 40%	18371.6	18370.4	18370.4	17847.2	17889.2
Subtotal general loads:	28371.6	28370.4	28370.4	27847.2	27889.2
HVAC Loads					
Indoor Unit	1200	1200	1200	1200	1200
Outdoor Unit	4945	4945	4945	4945	4945
ERV	300	300	300	300	300
Total Connected Load	34816.6	34815.4	34815.4	34292.2	34334.2
Current at 120/208V- 1Phase-3 wire	167.4	167.4	167.4	164.9	165.1
Recommended Unit Service Rating	200 Amps	200 Amps	200 Amps	200 Amps	200 Amps

BUILDING LOAD CALCULATION

Building Load Calculations	Building 1			Building 2	
	Plan 1	Plan 1Y	Plan 1X	Plan 2	Plan 2X
Square Foot:	1643	1642	1642	1206	1241
Dwelling Loads:	VA	VA	VA	VA	VA
General Lighting	4929	4926	4926	3618	3723
Small Appliance (3-20A -CEC 210.11)	3000	3000	3000	3000	3000
Laundry	1500	1500	1500	1500	1500
Bathroom	0	0	0	0	0
Dishwasher	1200	1200	1200	1200	1200
Microwave	1200	1200	1200	1200	1200
Garbage Disposal	1050	1050	1050	1050	1050
Refrigerator	1000	1000	1000	1000	1000
Water Heater	6250	6250	6250	6250	6250
Dryer	5000	5000	5000	5000	5000
Oven	8000	8000	8000	8000	8000
Separate Cooktop	12000	12000	12000	12000	12000
EV Charger	9600	9600	9600	9600	9600
Garage Opener	1200	1200	1200	1200	1200
Total General Loads:	55929	55926	55926	54618	54723
HVAC Loads	VA	VA	VA	VA	VA
Indoor Unit(s)	1200	1200	1200	1200	1200
Outdoor Unit(s)	4945	4945	4945	4945	4945
Total Connected Load per unit	62074	62071	62071	60763	60868
Number of units	1	2	2	5	2
Total Connected Load	62074	124142	124142	303815	121736
Total		310358		425551	
Total Number of units		5		7	
Multifamily Demand Factor		0.45		0.44	
Total load with demand factor		139661		187242	
Current at 120/208V- 3Phase-4 wire		388		520	
House Load(Amps)		100		100	
Total Building Amps		488		620	
Recommended Unit Service Rating		600Amps		800Amps	

SINGLE LINE DIAGRAM



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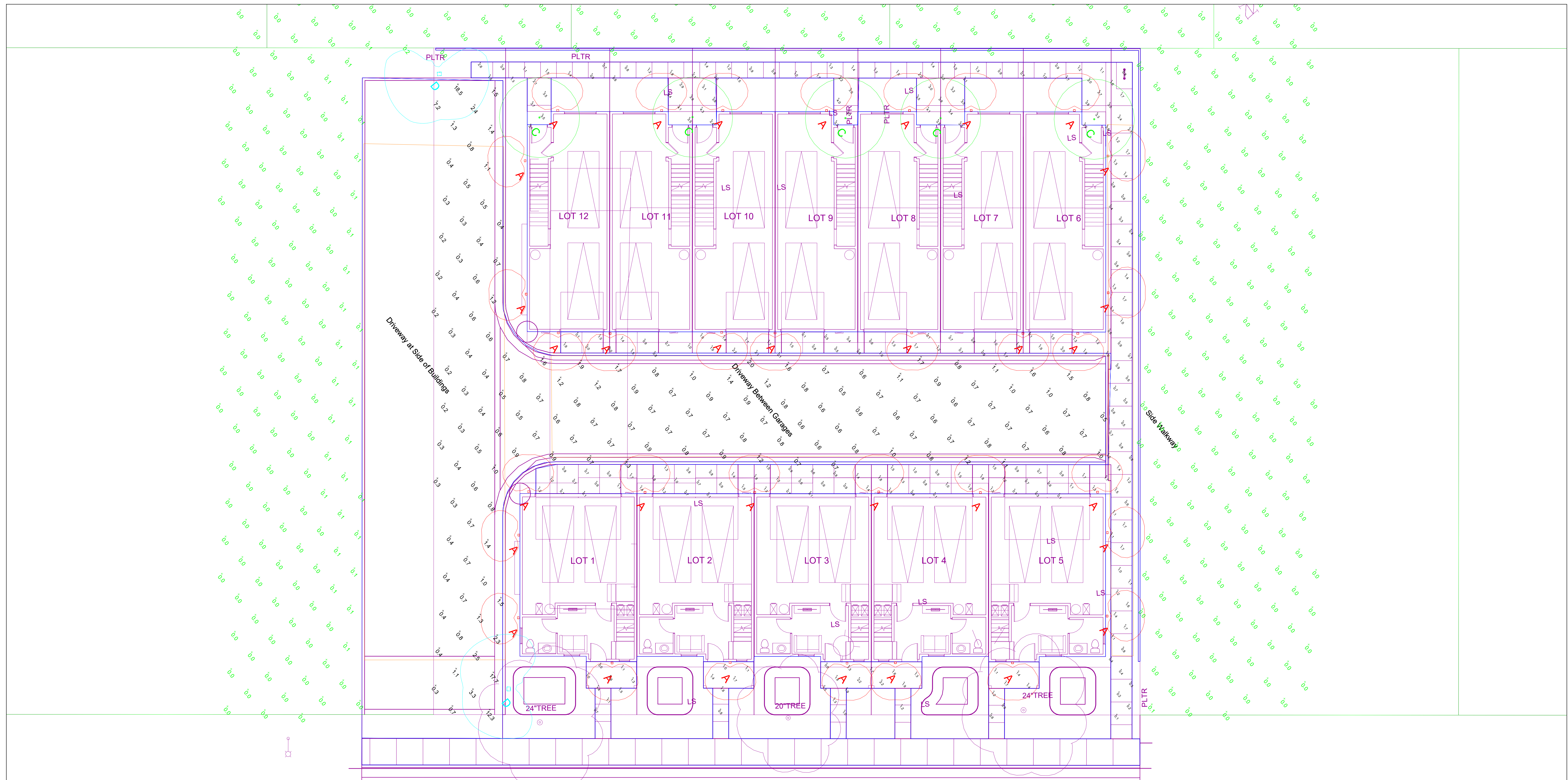
1st BLDG. DEPT. SUBMITTAL 10-23-2022

SHEET NAME:

ELECTRICAL SINGLE LINE DIAGRAM & LOAD CALCULATIONS

SCALE: N.T.S.

SHEET
EN1



Luminaire Schedule										
Symbol	Qty	Tag	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts	Filename	Mounting Height	BUG Rating
	33	A	AFX Lighting State SEW512 sconce	0.850	767	19.0882	629.911	SEW5121500Lxx_IES_Repaired.IES	6	N.A.
	5	C	DMF Lighting DRD2M07930GAT-DRD2TRJDSWH	0.850	642	9.5	47.5	DRD2M07930GAT-DRD2TRJDSWH.ies	8	B0-U1-G0
	2	D	FC Lighting FCBT690-UNV-36-35K-19L	0.850	1915	25.616	51.232	F002680FCBT6904K.IES	3.5	B1-U1-G1

Calculation Summary								
Label	CalcType	Units	Grid Z	Avg	Max	Min	Avg/Min	Max/Min
Driveway_surface	Illuminance	Fc	0	1.16	18.5	0.2	5.80	92.50
Front Doors @ 5-Plex	Illuminance	Fc	0	1.29	2.2	0.0	N.A.	N.A.
Past Property Line	Illuminance	Fc	0	0.01	0.2	0.0	N.A.	N.A.
Pedestrian_sidewalks	Illuminance	Fc	0	1.42	4.3	0.1	14.20	43.00
Driveway at Side of Buildings	Illuminance	Fc		0.62	2.5	0.2	3.10	12.50
Driveway Between Garages	Illuminance	Fc		0.87	2.0	0.5	1.74	4.00
Side Walkway	Illuminance	Fc		1.07	2.8	0.3	3.57	9.33

Note: Unless otherwise specified - the lamp lumen depreciation (LLD) for legacy sources used in these calculations is based on published mean lumen ratings by major lamp manufacturers; 0.80 LLD for pulse start metal halide; 0.90 LLD for high pressure sodium; 0.95 LLD for linear T8 and T5 fluorescent; 0.86 LLD for compact fluorescent and induction; 0.88 LLD for Cosmo and Elite lamps. 0.94 LLD for all LED sources. Unless otherwise noted - 0.90 luminaire dirt depreciation (LDD) is commonly applied. In cases where appropriate - ballast factor (BF) is applied. Additional user defined factors (UDF) may be applied if necessary to represent luminaire performance to a higher degree of accuracy. Total light loss factor (LLF) is the product of all multiplied loss factors.

LIGHTING PLAN - PHOTOMETRIC ANALYSIS - LAYOUT VERIFICATION
 (ALL VALUES SHOWN ARE MAINTAINED HORIZONTAL FOOTCANDLES AT FINISHED GRADE, U.O.N.)

PRELIMINARY - NOT FOR CONSTRUCTION
NOT FOR QUOTING PURPOSES

Associated Lighting Representatives, Inc.
 AIR
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Lighting Analysis
 Illumination Engineering Solutions
 AG32 VERSION 20.0
 US: 10110 CENTENNIAL BLVD, SUITE 200, LITTLETON, CO USA 80127

BKF ENGINEERS
 SALES REPRESENTATIVE:
 JOSH GOULD, LC
 ASSOCIATED LIGHTING REPRESENTATIVES, INC.
 APPLICATION ENGINEERING:
 ERIN COLCORD, LC, MIES, LEED GA (she/her/hers)
 ASSOCIATED LIGHTING REPRESENTATIVES, INC.

DATE: 06/28/2023
 SCALE: 1:8
 SHEET: 1 OF 1
 REV: 1