

APPLICABLE CODES

1. The Work shall comply with the California Building Standards Code (Title 24), 2019

- Part 1 - California Building Standards Administrative Code
- Part 2 - California Building Code
- Part 3 - California Electrical Code
- Part 4 - California Mechanical Code
- Part 5 - California Plumbing Code
- Part 6 - California Energy Code
- Part 9 - California Fire Code
- Part 11 - California Green Building Standards Code (CALGreen Code)
- Part 12 - California Referenced Standards Code

2. The Work shall comply with the applicable Codes, Ordinances and Regulations of the City of Santa Rosa

3. The designs depicted in these construction documents comply substantially with the requirements set forth in Part 6 of Title 24, the California Energy Code. Mandatory energy savings features for this project, whether or not they are shown or stated in these documents, must be incorporated into the project as outlined in the Title 24 Energy Compliance documentation prepared for this project.

1650 West Steele Lane Apartments

RECEIVED
December 21, 2022
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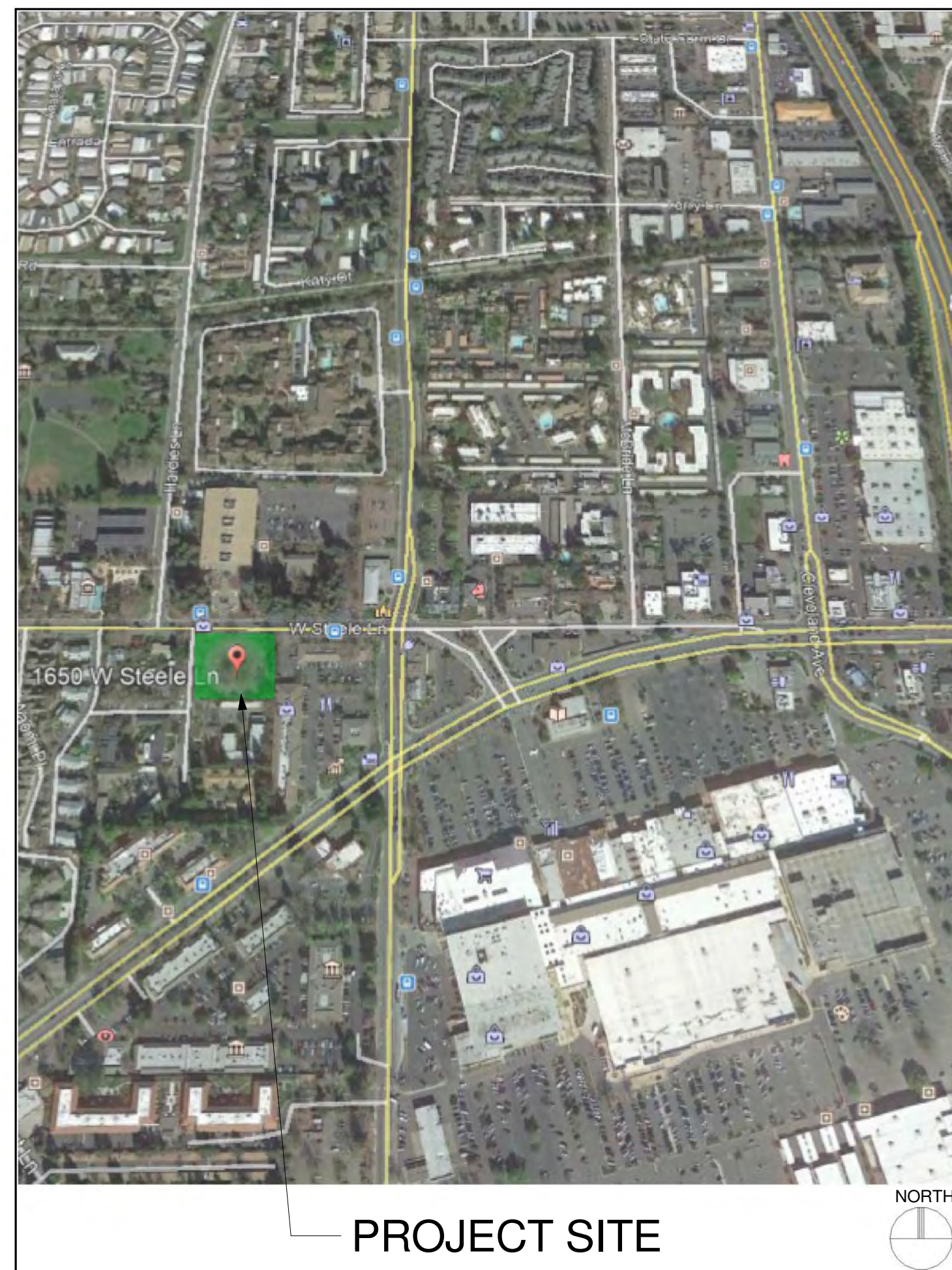
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PROJECT TEAM

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VICINITY MAP



PROJECT DATA

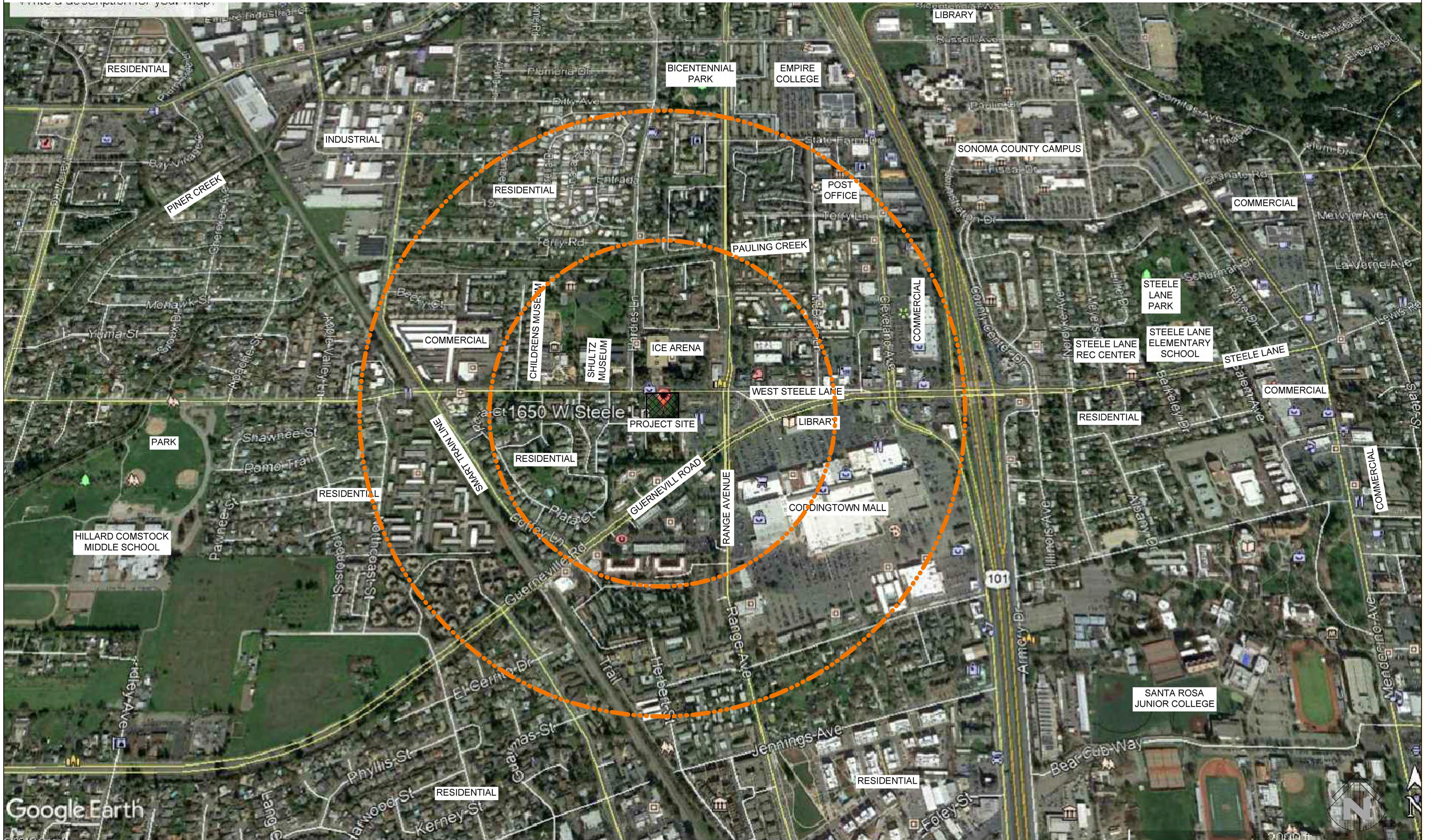
<p>LEVEL 1- (9) UNITS- HEATED SPACE 12,224 SF LOBBY/ LAUNDRY- HEATED SPACE 942 SF OFFICE- HEATED SPACE 420 SF COVERED BREEZEWAY 1,992 SF GARAGE Building II - tuck under 1,470 SF GARAGE Building III - tuck under 890 SF GARAGE Building IV - automated parking 2,282 SF TOTAL SF 16,866 SF</p> <p>LEVEL 2- (14) UNITS- HEATED SPACE 12, 418 SF</p> <p>LEVEL 3- (13) UNITS- HEATED SPACE 11, 586 SF</p> <p>TOTAL BUILDING CONSTRUCTION AREA: 43,742 SF</p> <p>State Density Bonus: Gov. Code 65915</p> <p>Base density: .98 acre x 18 units/ acre = 17.6 units; round up to 18 (9) bonus density market rate units are desired 150% state density bonus is requested: 1.5 x 18 = 27 units 9 + 18 = 27 units (3) very low income units are proposed for density bonus of 9 units 15% x 18 = 2.70, round up to 3 units 2 development incentives are requested: • For reduction of rear yard setback to from 15' to 5' at parking structure • For increase in height from 35' to 45'</p> <p>15 market rate units + 3 below market rate units = 18 base density units 18 base density units + 9 density bonus market rate units = 27 units 3 affordable units + 15 base density market rate units + 9 state bonus density units = 27 total units</p> <p>Supplemental Density Bonus: Santa Rosa City Code 20-31.070</p> <p>36 units desired - 27 units available with state density bonus = 9 units 50% x 18 (base density) = 9 units 27 units + 9 units = 36 units 50% supplemental density bonus requested (100% - 50% = 50%) Table 3.2 - Eligible for 100% density bonus over base density of 18 units = 36 units</p> <p>20-31.070, E Eligibility Points 50% x 100 = 100 points 50%</p> <p>Propose 100 points from (1) very low income unit to add 8 supplemental density bonus units Table 3.3 3.7% x 18 = .67, round up to 1 unit</p> <p>Unit Mix (1) 3 bedroom - very low income unit (per Gov. Code 65915) (1) 1 bedroom - very low income unit (per Gov. Code 65915) (1) 1 bedroom - very low income unit (per Gov. Code 65915) (1) 1 bedroom - very low income unit (per Gov. Code 65915) (15) market rate base density units (17) Density Bonus Units TOTAL (36) units</p>	<p>PARKING REQUIRED - TABLE 3-6 DENSITY BONUS HOUSING DEVELOPMENT MAXIMUM PARKING RATIOS:</p> <p>MARKET RATE UNITS (5) 1 BEDROOM UNITS 1.5/UNIT = 7.5 STALLS (25) 2 BEDROOM UNITS 1.5/UNIT = 37.5 STALLS (2) 3 BEDROOM UNITS 1.5/UNIT = 3 STALLS 32 UNITS TOTAL = 48 STALLS</p> <p>AFFORDABLE UNITS (2) 1 BEDROOM UNITS 1/UNIT = 2 STALLS (1) 2 BEDROOM UNIT 1/UNIT = 1 STALLS (1) 3 BEDROOM UNIT 1/UNIT = 1 STALLS 4 UNITS TOTAL REQUIRED = 4 STALLS</p> <p>PARKING PROVIDED: MARKET RATE UNITS (4) 1 BEDROOM UNITS 1.0 COVERED = 4 STALLS (26) 2 BEDROOM UNITS 1.0 COVERED = 26 STALLS (2) 3 BEDROOM UNITS 1.0 COVERED = 2 STALLS 32 UNITS TOTAL = 32.0 STALLS</p> <p>AFFORDABLE UNITS: (3) 1 BEDROOM UNITS 1.0 = 3 STALLS (1) 3 BEDROOM UNIT 1.0 = 1 STALL 4 UNITS PROVIDED = 4 STALLS</p> <p>TOTAL PROVIDED = 36 STALLS</p> <p>PARKING RATIO REQUIRED = 1.3 STALLS PER UNIT PARKING RATIO PROVIDED = 1 STALL/UNIT</p> <p>BICYCLE STORAGE: 9 SECURE + 9 IN RACKS = 18 BICYCLE STALLS</p>	<p>ASSESSOR'S PARCEL #: 041-042-012</p> <p>GENERAL PLAN: MEDIUM RESIDENTIAL</p> <p>ZONING: R-3-15-SA NORTH STATION AREA SPECIFIC PLAN</p> <p>LOT AREA: 0.98 ACRES (42,688.80 SF)</p> <p>BUILDING COVERAGE: 16,866 SF (40% BUILDING COVERAGE)</p> <p>PAVING & TRASH ENCLOSURE: 8,100 SF (19% DRIVEWAY AND SURFACE PARKING COVERAGE)</p> <p>OPEN - LANDSCAPED AREA: 17,722 SF (41% LANDSCAPING AND PAVED WALKWAY COVERAGE)</p> <p>MAX. ALLOWABLE BLDG.HT. PROPOSED BLDG. HT. 35' 45'</p> <p>UNIT MIX</p> <table border="0"> <tr> <td>LEVEL 1</td> <td>BUILDING "I"</td> </tr> <tr> <td>1 BEDROOM - 1</td> <td>1 BEDROOM - 2</td> </tr> <tr> <td>2 BEDROOM - 7</td> <td>2 BEDROOM - 14</td> </tr> <tr> <td>3 BEDROOM - 1</td> <td>3 BEDROOM - 3</td> </tr> <tr> <td>9 UNITS - 9</td> <td>19 UNITS</td> </tr> <tr> <td>LEVEL 2</td> <td>BUILDING "II"</td> </tr> <tr> <td>1 BEDROOM - 4</td> <td>1 BEDROOM - 5</td> </tr> <tr> <td>2 BEDROOM - 9</td> <td>2 BEDROOM - 5</td> </tr> <tr> <td>3 BEDROOM - 1</td> <td>3 BEDROOM - 0</td> </tr> <tr> <td>14 UNITS - 14</td> <td>10 UNITS</td> </tr> <tr> <td>LEVEL 3</td> <td>BUILDING "III"</td> </tr> <tr> <td>1 BEDROOM - 3</td> <td>1 BEDROOM - 1</td> </tr> <tr> <td>2 BEDROOM - 9</td> <td>2 BEDROOM - 6</td> </tr> <tr> <td>3 BEDROOM - 1</td> <td>3 BEDROOM - 0</td> </tr> <tr> <td>13 UNITS - 13</td> <td>7 UNITS</td> </tr> <tr> <td>TOTAL 36 UNITS</td> <td>TOTAL 36 UNITS</td> </tr> </table>	LEVEL 1	BUILDING "I"	1 BEDROOM - 1	1 BEDROOM - 2	2 BEDROOM - 7	2 BEDROOM - 14	3 BEDROOM - 1	3 BEDROOM - 3	9 UNITS - 9	19 UNITS	LEVEL 2	BUILDING "II"	1 BEDROOM - 4	1 BEDROOM - 5	2 BEDROOM - 9	2 BEDROOM - 5	3 BEDROOM - 1	3 BEDROOM - 0	14 UNITS - 14	10 UNITS	LEVEL 3	BUILDING "III"	1 BEDROOM - 3	1 BEDROOM - 1	2 BEDROOM - 9	2 BEDROOM - 6	3 BEDROOM - 1	3 BEDROOM - 0	13 UNITS - 13	7 UNITS	TOTAL 36 UNITS	TOTAL 36 UNITS
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<p>PROJECT DESCRIPTION</p> <p>The proposed multi-family residential project is located on a parcel in a Transit Oriented Priority Development Area, the North Station Area Specific Plan district. A public library, museums, ice skating arena, the City's largest shopping center, two major grocery stores, local small businesses and services, public transit, including the SMART line, bike and pedestrian paths, neighborhood parks parks, and schools are all located within one half mile of the project.</p> <p>The multi-family apartment building comprises 36 dwellings and proposes a 100% increase in allowable density from 18 units to 36 units, as permitted by Supplemental Bonus Density Ordinance 20-31.070, of 50% over the State Density Bonus of 50%.</p> <p>4 of the 36 units are proposed as below market rate, very low income units.</p> <p>The dwellings are in (3) separate three story buildings, with massing organized around a central community open space - interior courtyard. Semi-private open space is provided in walled garden patios at the ground floor units, and balconies at upper level units. A common use open area is in the courtyard on the ground floor, at the entry garden plaza and in the covered passage located at the intersection of West Steele Lane and Meadowbrook Court. There is a common Laundry facility at the ground floor as well as a Lobby and Leasing Office.</p> <p>Covered parking for 25 cars is provided in a 2 level automated parking structure at the east side yard. 11 surface parking stalls are provided at the south (rear) yard. A parking ratio of 1 stall per unit is proposed in this transit-oriented development. On-site short-term and long-term bicycle secure storage is provided for 18 bicycles.</p> <p>As permitted by the Density Bonus Law, Gov. Code 65915, A waiver of development standard to allow an increase of maximum building height from 35' to 45' is requested. A concession to allow a parking reduction from 52 stalls required to 36 stalls provided is requested. A concession for a reduction of side yard setback at the east property boundary from 10' to 5' is requested.</p>																																		

FIRE DEPT. NOTES

- Notes:**
1. Provide KNOX box as required by Fire Department at secured points of access to the project.
 2. Provide address identification visible from West Steele Lane and at driveway entry on Meadowbrook Court. Location and design to be approved by Fire Dept.
 3. Buildings I, II, III, IV are 30'-0" or less from Grade Plane to top of structural plate. Per, CFC D105, aerial access is not required.
 4. See Sheet A1.2 for diagram of hose pull and emergency vehicle access, perCFC Appendix D 103. Hose pull and fire apparatus access is provided within 150' of all portions of exterior walls at the ground floor and an emergency vehicle turn-around is not required.

Fire Department Plan Submittals

1. Gates and Barricades across fire apparatus access roads
2. Wayfinding and accessible signage
3. NFPA 13 sprinklers
4. NFPA 14 standpipe system
5. NFPA 24 private fire underground system
6. NFPA 72 fire alarm system



Site Context Map



Looking South at North Boundary of Parcel



Looking North to Ice Arena from Parcel boundary



Looking North to Ice Arena from interior of Parcel



Looking East from interior of Parcel



East Boundary of Parcel; looking at rear of retail center



West Steele Lane Elevation of adjacent Retail



Looking at northwest corner of site



Carports at adjacent parcel at south boundary of project



Apartment Buildings at southeast end of Meadowbrook Court



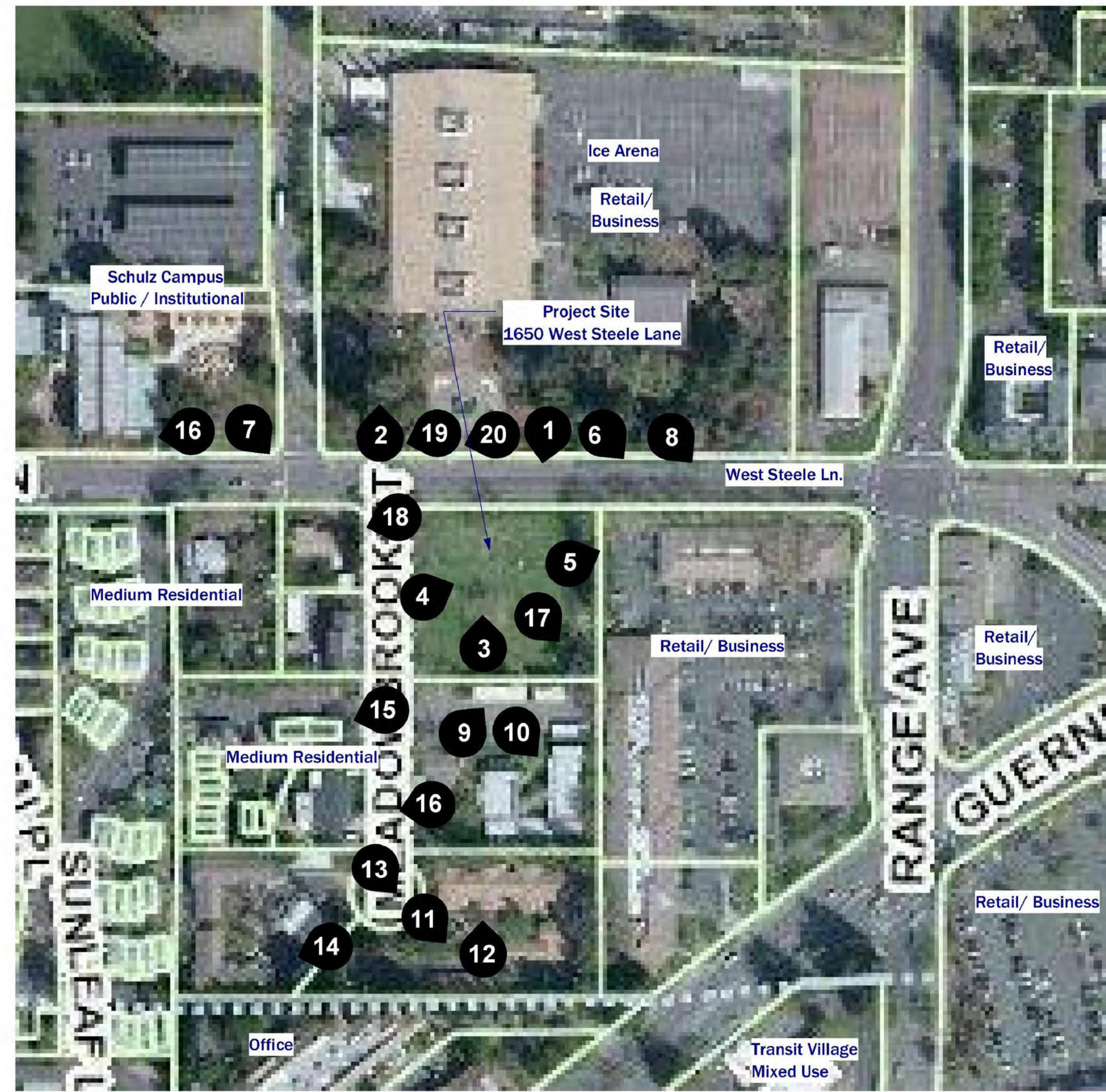
Pair of Red Tail Hawks nesting in one of the sycamore trees on the site



Looking east to corner of Range Ave. and West Steele Ln.



Apartment building at parcel south of project site



North Boundary of parcel from West Steele Lane



North Boundary of parcel from West Steele Lane



Single Family Residence at west side of Meadowbrook Court



West Boundary of parcel from Meadowbrook Court



Single Family Residence at west side of Meadowbrook Court



Apartment Buildings at west side of Meadowbrook Court



Apartment Buildings at southwest end of Meadowbrook Court

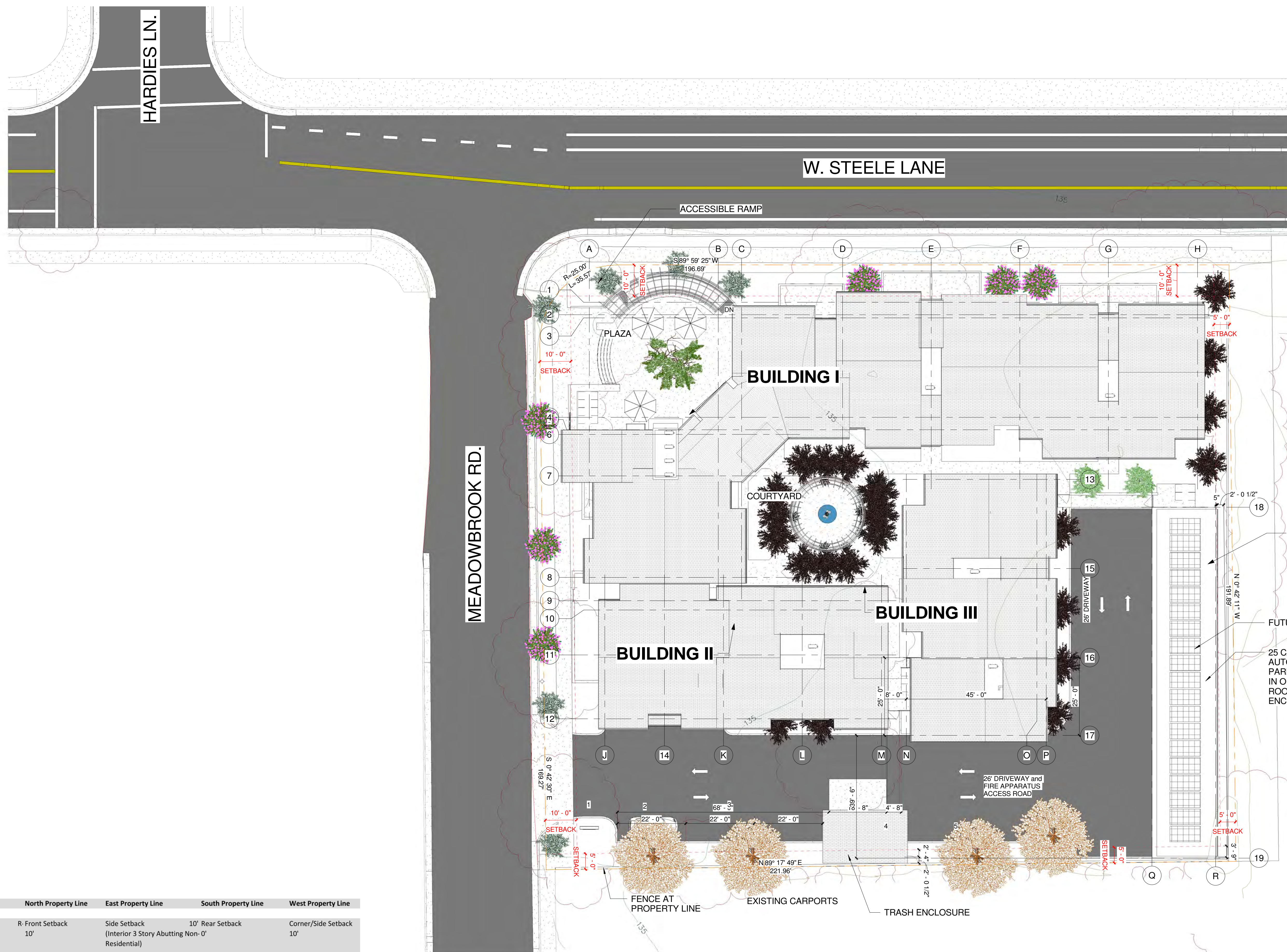


Apartment Buildings at southwest end of Meadowbrook Court



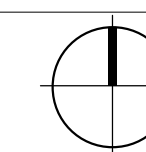
Apartment Buildings at southeast end of Meadowbrook Court

Existing and Surrounding Land Uses



APN/Address	Land Use/Zoning	North Property Line	East Property Line	South Property Line	West Property Line
041-042-012 1650 West Steele Ln. (project site)	Medium Residential 3-15-SA	R: Front Setback 10'	Side Setback (Interior 3 Story Abutting Non-0' Residential)	10' Rear Setback	Corner/Side Setback 10'
041-042-031 2158 Meadowbrooke Ct.	Medium Residential 0170-SA	PD Side Setback 0' (1 Story Abutting R3)	Rear Setback N/A	Side Setback N/A	Front Setback N/A
041-042-027 1311 Guerneville Rd.	Retail and Business Services SA	CG-Rear/ Corner Setback N/A	Side/Corner Setback N/A	Front Setback N/A	Side Setback 5' (Interior Adjacent to Residential Use)

1 Architectural Site Plan
1/16" = 1'-0"



SCALE: 1/16" = 1'-0"
0' 8' 16' 32'

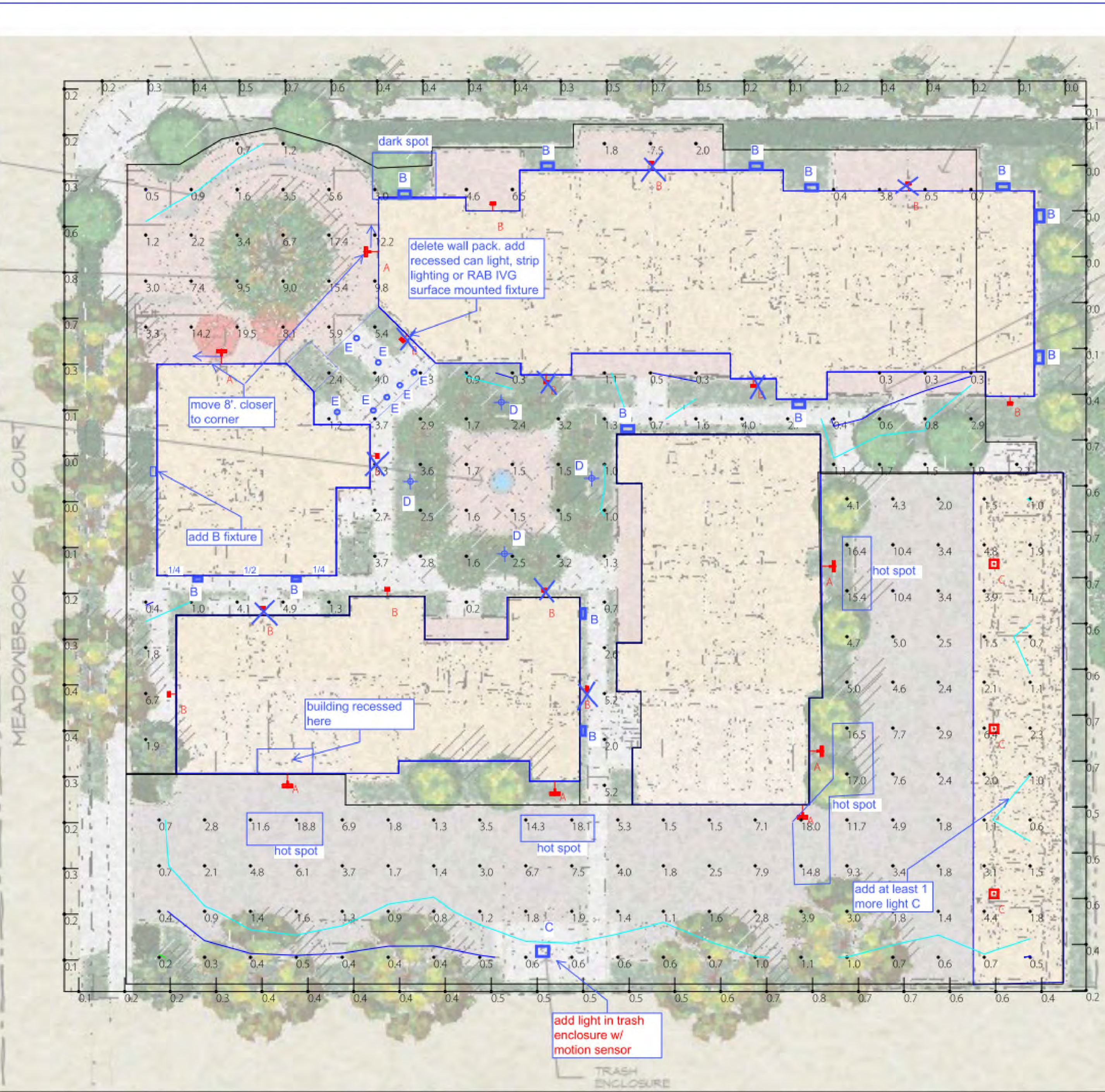


Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	PtSpcLr	PtSpcTb	Meter Type
Light Trespass	Illuminance	Fc	0.38	0.8	0.0	N.A.	N.A.	Vertical Readings at 5FT at Perimeter	10	N.A.	Vert-PerpCCW
Parking Area	Illuminance	Fc	3.90	18.8	0.2	19.50	94.00	Readings at 0 FT AFG	10	10	Horizontal
Pedestrian Paths	Illuminance	Fc	3.42	19.5	0.2	17.10	97.50	Readings at 0 FT AFG	10	10	Horizontal

Luminaire Schedule

Symbol	Qty	Tag	Label	Lum. Lumens	LLF	Description	Lum. Watts	Total Watts	Filename	BUG Rating
	7	A	WPLEDFC80Y	9207	1.000	Wallpack 80W Full Cutoff 3000K	83	581	WPLEDFC80Y - RAB02588.IES	B2-U0-G1
	13	B	SLIM12Y	1915	1.000	Wallpack 12W Full cutoff 3000K	15.9	206.7	SLIM12Y-RAB04264.IES	B1-U0-G0
	3	C	VANLED10YFFR	1450	1.000	Canopy 10W Full Cutoff 3000K	13.1	39.3	VANLED10YFFR - Warm - RAB02997.IES	B1-U0-G0



Scale: 1 inch= 16 Ft.

Expanded Luminaire Location Summary

LumNo	Tag	X	Y	MTG HT	Orient
1	B	143.65	310.45	10	90
2	B	199.75	305.95	10	90
3	B	109.1	301.5	10	90
4	A	82.65	291.775	14	180
5	B	89.834	273.134	14	225
6	A	49.95	268.875	14	90
7	B	120.675	264.2	14	270
8	B	165.85	263.35	14	270
9	B	221.85	259.5	10	270
10	B	83.1	247.225	14	0
11	C	218.35	223.75	10	0
12	A	182.15	223.225	14	0
13	B	86.05	217.45	14	90
14	B	120.25	217.25	14	90
15	B	58.925	213.35	14	90
16	B	128.8	196.4	14	0
17	B	39.25	195.3	10	180
18	C	218.35	187.75	10	0
19	A	179.5	182.85	14	0
20	A	64.3	176.55	14	270
21	A	122.55	174.85	14	270
22	A	176.55	169.7	14	270
23	C	218.35	151.75	10	0

Total Quantity: 23

NOTES:

- * The light loss factor (LLF) is a product of many variables, only lamp lumen depreciation (LLD) has been applied to the calculated results unless otherwise noted. The LLD is the result (quotient) of mean lumens / initial lumens per lamp manufacturers' specifications.
- * Illumination values shown (in footcandles) are the predicted results for planes of calculation either horizontal, vertical or inclined as designated in the calculation summary. Meter orientation is normal to the plane of calculation.
- * The calculated results of this lighting simulation represent an anticipated prediction of system performance. Actual measured results may vary from the anticipated performance and are subject to means and methods which are beyond the control of RAB Lighting Inc.
- * Mounting height determination is job site specific, our lighting simulations assume a mounting height (insertion point of the luminaire symbol) to be taken at the top of the symbol for ceiling mounted luminaires and at the bottom of the symbol for all other luminaire mounting configurations.
- * It is the Owner's responsibility to confirm the suitability of the existing or proposed poles and bases to support the proposed fixtures, based on the weight and EPA of the proposed fixtures and the owner's site soil conditions and wind zone. It is recommended that a professional engineer licensed to practice in the state the site is located be engaged to assist in this determination.
- * The landscape material shown hereon is conceptual, and is not intended to be an accurate representation of any particular plant, shrub, bush, or tree, as these materials are living objects, and subject to constant change. The conceptual objects shown are for illustrative purposes only. The actual illumination values measured in the field will vary.
- * Photometric model elements such as buildings, rooms, plants, furnishings or any architectural details which impact the dispersion of light must be detailed by the customer documents for inclusion in the RAB lighting design model. RAB is not responsible for any inaccuracies caused by incomplete information on the part of the customer, and reserves the right to use best judgement when translating customer requests into photometric studies.
- * RAB Lighting Inc. luminaire and product designs are protected under U.S. and International intellectual property laws. Patents issued or pending apply.



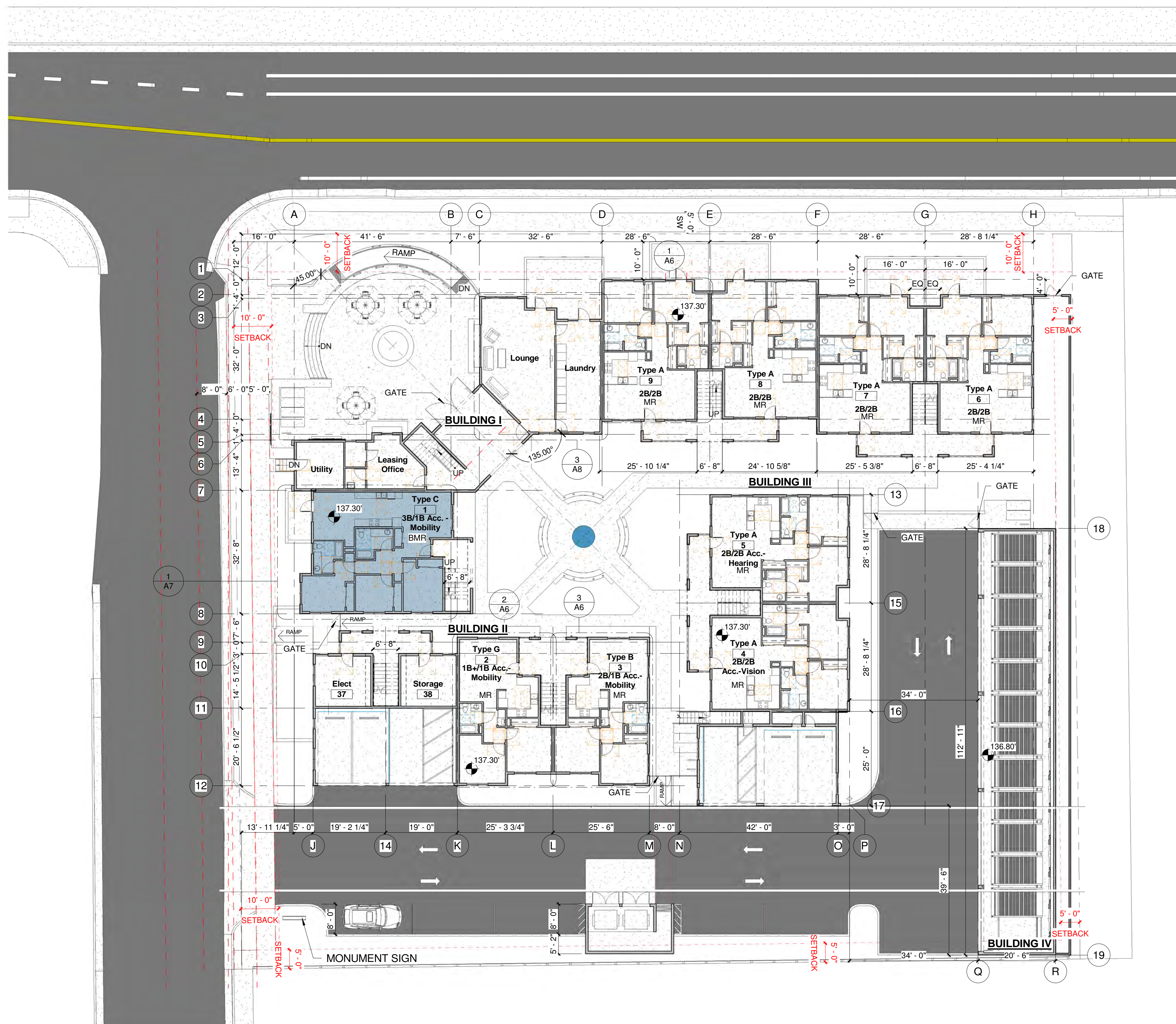
The Lighting Analysis, Layout, Energy Analysis, and/or Visual Simulation ("Lighting Design") provided by RAB Lighting Inc. ("RAB") represents an anticipated prediction of lighting system performance based upon design information provided by the client. RAB does not warrant, either implied or stated, that the Lighting Design has been field verified by RAB and therefore actual measured results may vary from the actual field conditions. RAB neither warrants, either implied or stated with regard to actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design. RAB neither warrants, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design in compliance with any applicable regulatory requirements. The Lighting Design is issued, in whole or in part, as advisory documents for informational purposes and is not intended for construction nor as being part of a project's construction documentation package.

PROJECT # 162961
Scale: as noted
Date: 11/19/2020
Case # 529889
Filename: 1650 West Steele Lane 529889A.AGI
Drawn By: Shaun Fillion, LC

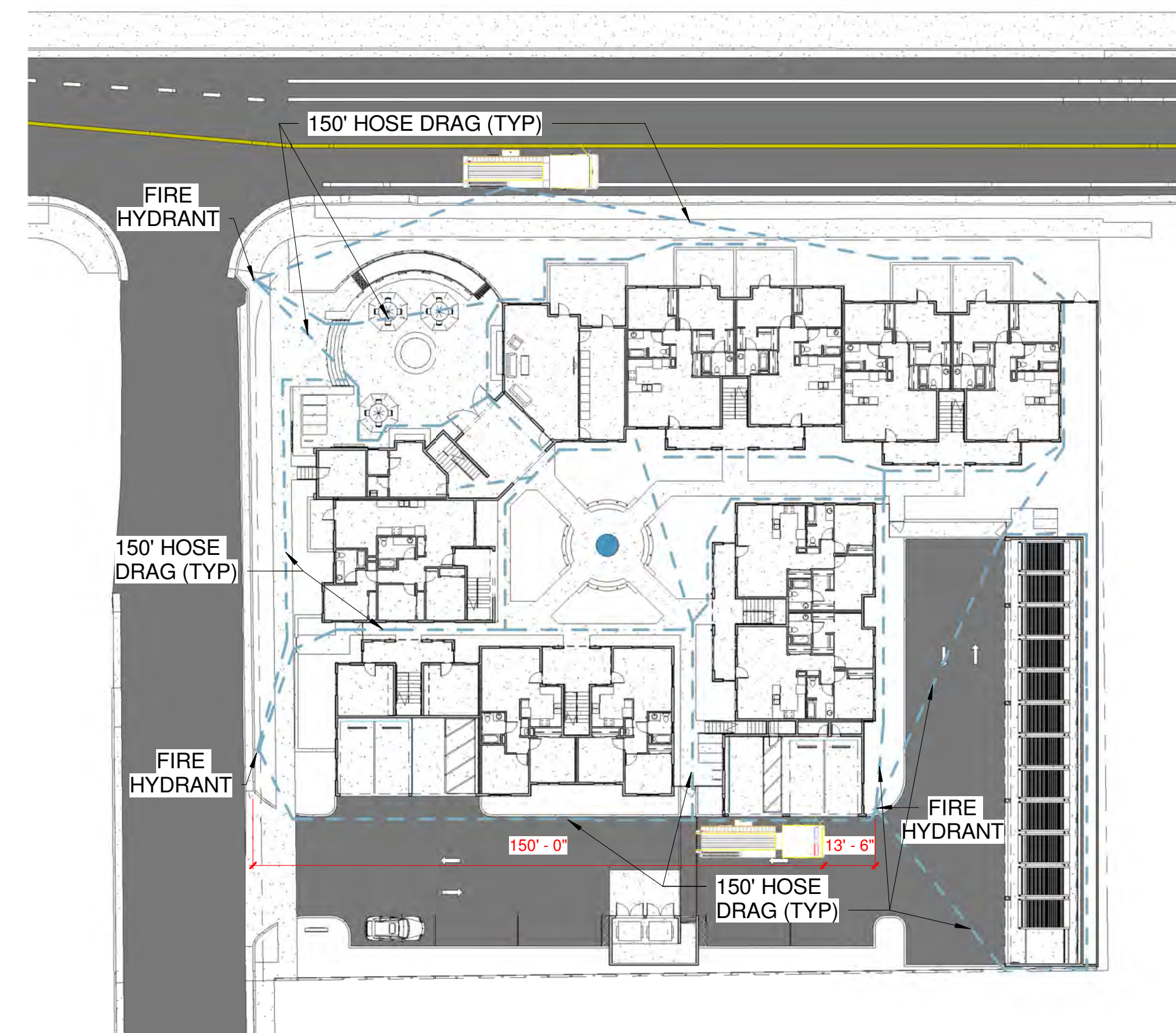
Job Name:
1650 West Steele Lane
Santa Rosa, CA
Lighting Layout
Version A

Prepared For:
ElectroRep
2015 Bridgeway # 201
Sausalito, CA 94965

RAB
LIGHTING
170 Ludlow Avenue, Northridge, CA 91321
818 722-1000 - RAB@RAB.COM



1 First Floor Plan
1/16" = 1'-0"

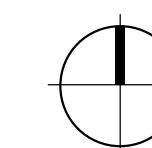


2 Fire Access Plan
1/32" = 1'-0"

Density Bonus Key

- MR- Market Rate
- BMR- Below Market Rate

Density Bonus Unit Map- Table of Units			
Number	Name	Unit Type	Notes
Level 1			
1	Type C	3B/1B Acc. - Mobility	Affordable, Mobility Impaired
2	Type G	1B+/1B Acc. - Mobility	Mobility Impaired
3	Type B	2B/1B Acc.-Mobility	Mobility Impaired
4	Type A	2B/2B Acc.-Vision	Vision Impaired
5	Type A	2B/2B Acc.-Hearing	Hearing Impaired
6	Type A	2B/2B	Adaptable
7	Type A	2B/2B	Adaptable
8	Type A	2B/2B	Adaptable
9	Type A	2B/2B	Adaptable
37	Elect		
38	Storage		
39	Utility		
40	Leasing Office		
41	Lounge		
42	Laundry		
Level 2			
10	Type E	1B/1B	Affordable
11	Type C	3B/2B	
12	Type F	1B/1B	Affordable
13	Type F	1B/1B	
14	Type B	2B/1B	
15	Type B	2B/1B	
16	Type B	2B/1B	
17	Type A	2B/2B	
18	Type A	2B/2B	
19	Type A	2B/2B	
20	Type A	2B/2B	
21	Type A	2B/2B	
22	Type A	2B/2B	
23	Type D	2B/2B	
Level 3			
24	Type E	1B/1B	Affordable
25	Type C	3B/2B	
26	Type F	1B/1B	
27	Type F	1B/1B	
28	Type B	2B/1B	
29	Type B	2B/1B	
30	Type A	2B/2B	
31	Type A	2B/2B	
32	Type A	2B/2B	
33	Type A	2B/2B	
34	Type A	2B/2B	
35	Type A	2B/2B	
36	Type D	2B/2B	



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





1 Second Floor Plan
1/16" = 1'-0"

Density Bonus Key

- MR- Market Rate
- BMR- Below Market Rate

Density Bonus Unit Map- Table of Units

Number	Name	Unit Type	Notes
Level 1			
1	Type C	3B/1B Acc. - Mobility	Affordable, Mobility Impaired
2	Type G	1B+/1B Acc. - Mobility	Mobility Impaired
3	Type B	2B/1B Acc. - Mobility	Mobility Impaired
4	Type A	2B/2B Acc.-Vision	Vision Impaired
5	Type A	2B/2B Acc.-Hearing	Hearing Impaired
6	Type A	2B/2B	Adaptable
7	Type A	2B/2B	Adaptable
8	Type A	2B/2B	Adaptable
9	Type A	2B/2B	Adaptable
37	Elect		
38	Storage		
39	Utility		
40	Leasing Office		
41	Lounge		
42	Laundry		
Level 2			
10	Type E	1B/1B	Affordable
11	Type C	3B/2B	
12	Type F	1B/1B	Affordable
13	Type F	1B/1B	
14	Type B	2B/1B	
15	Type B	2B/1B	
16	Type B	2B/1B	
17	Type A	2B/2B	
18	Type A	2B/2B	
19	Type A	2B/2B	
20	Type A	2B/2B	
21	Type A	2B/2B	
22	Type A	2B/2B	
23	Type D	2B/2B	
Level 3			
24	Type E	1B/1B	Affordable
25	Type C	3B/2B	
26	Type F	1B/1B	
27	Type F	1B/1B	
28	Type B	2B/1B	
29	Type B	2B/1B	
30	Type A	2B/2B	
31	Type A	2B/2B	
32	Type A	2B/2B	
33	Type A	2B/2B	
34	Type A	2B/2B	
35	Type A	2B/2B	
36	Type D	2B/2B	

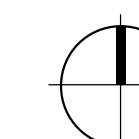
Revisions

Job Number
Project Number
Project Architect
Checker
Drawn By
Author

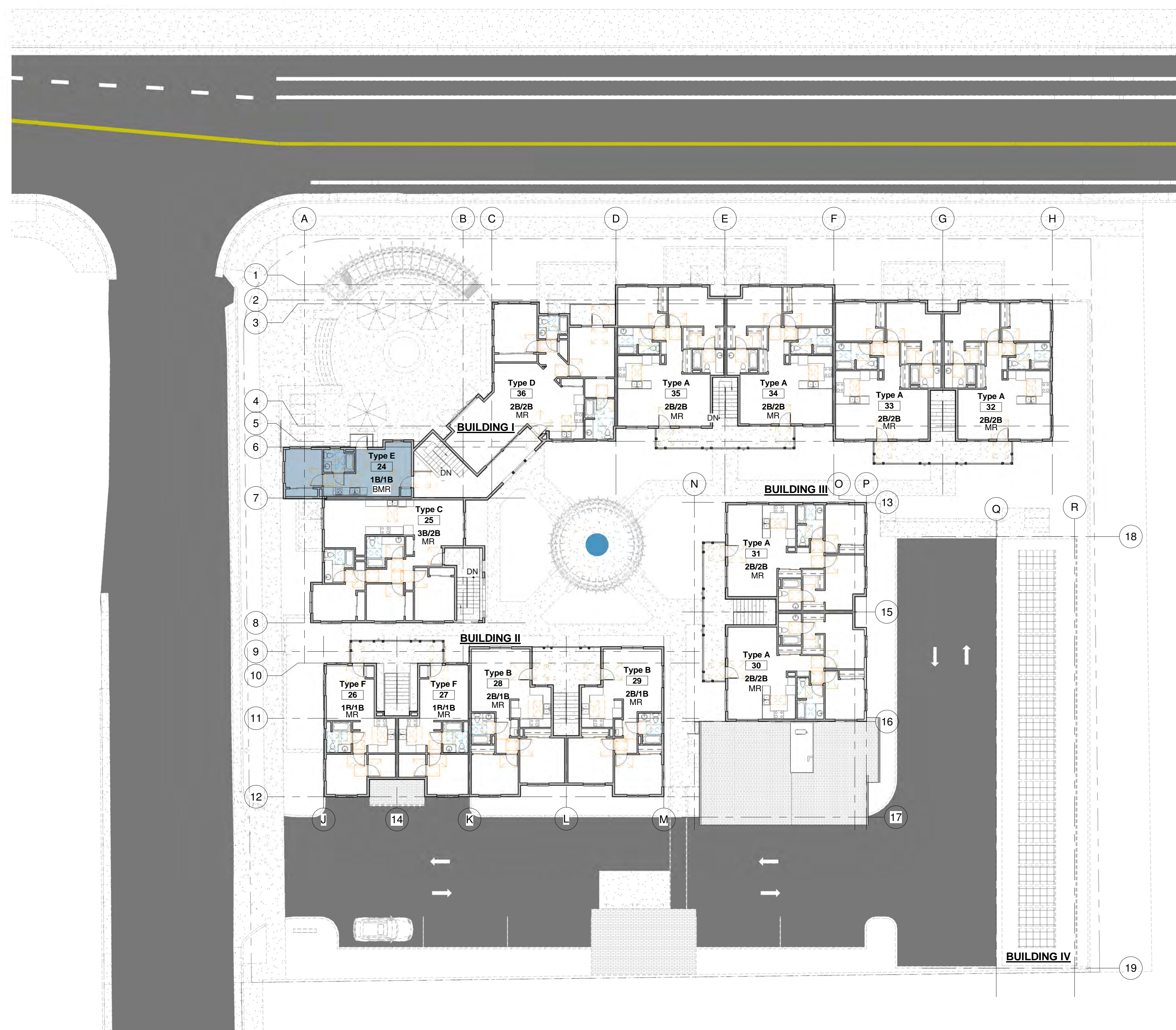
Date
1/20/20

Sheet

A3



SCALE: 1/16" = 1'-0"
0' 6' 16' 32'



Density Bonus Key

- MR- Market Rate
- BMR- Below Market Rate

Density Bonus Unit Map- Table of Units

Number	Name	Unit Type	Notes
Level 1			
1	Type C	3B/1B Acc. - Mobility	Affordable, Mobility Impaired
2	Type G	1B+1B Acc. - Mobility	Mobility Impaired
3	Type B	2B/1B Acc. - Mobility	Mobility Impaired
4	Type A	2B/2B Acc. - Vision	Vision Impaired
5	Type A	2B/2B Acc. - Hearing	Hearing Impaired
6	Type A	2B/2B	Adaptable
7	Type A	2B/2B	Adaptable
8	Type A	2B/2B	Adaptable
9	Type A	2B/2B	Adaptable
37	Elect		
38	Storage		
39	Utility		
40	Leasing Office		
41	Lounge		
42	Laundry		
Level 2			
10	Type E	1B/1B	Affordable
11	Type C	3B/2B	
12	Type F	1B/1B	Affordable
13	Type F	1B/1B	
14	Type B	2B/1B	
15	Type B	2B/1B	
16	Type B	2B/1B	
17	Type A	2B/2B	
18	Type A	2B/2B	
19	Type A	2B/2B	
20	Type A	2B/2B	
21	Type A	2B/2B	
22	Type A	2B/2B	
23	Type D	2B/2B	
Level 3			
24	Type E	1B/1B	Affordable
25	Type C	3B/2B	
26	Type F	1B/1B	
27	Type F	1B/1B	
28	Type B	2B/1B	
29	Type B	2B/1B	
30	Type A	2B/2B	
31	Type A	2B/2B	
32	Type A	2B/2B	
33	Type A	2B/2B	
34	Type A	2B/2B	
35	Type A	2B/2B	
36	Type D	2B/2B	

1 Level 3
1/16" = 1'-0"

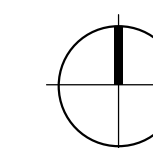
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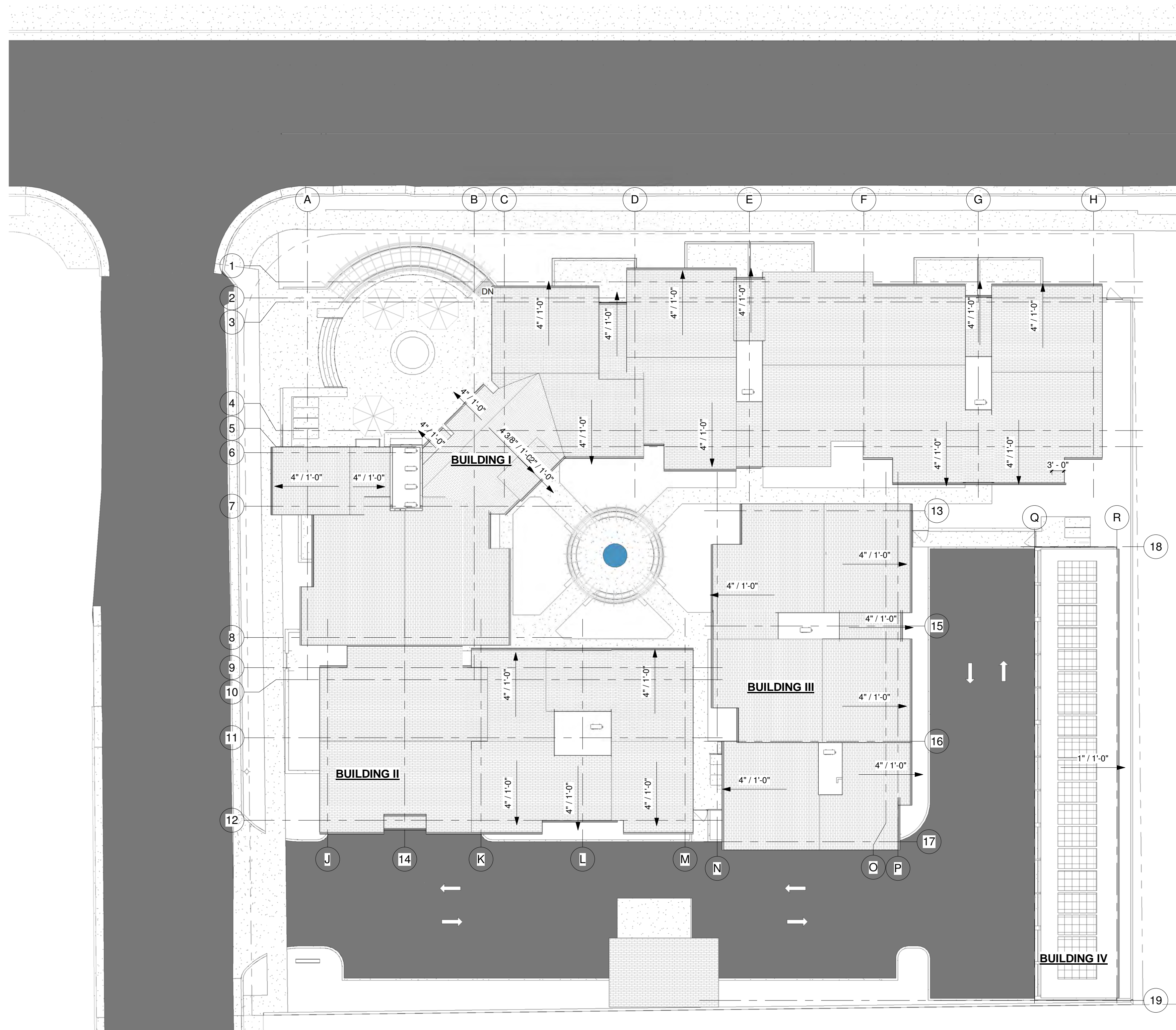
Date
1/20/20

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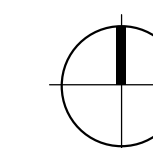
A4



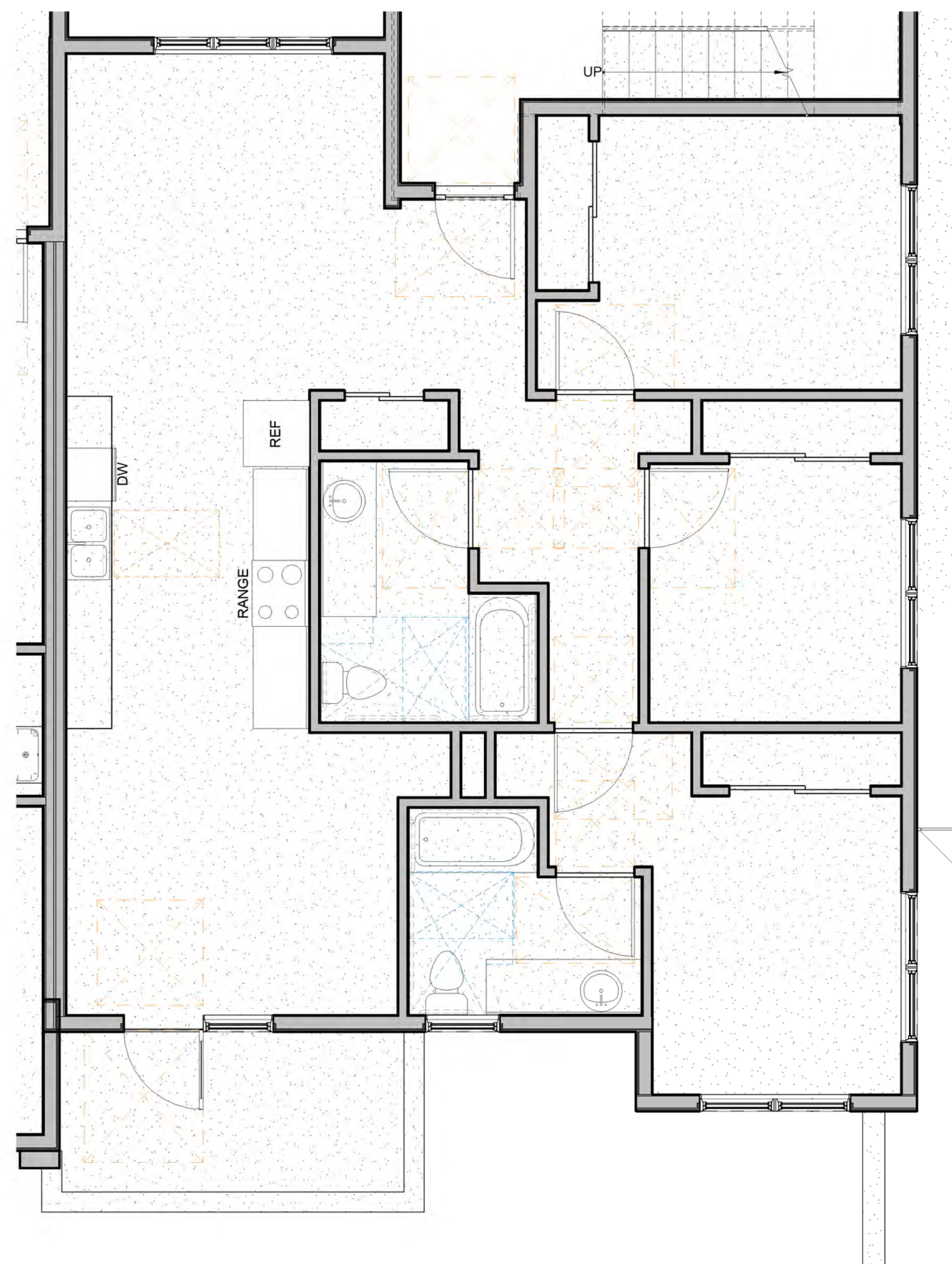
SCALE: 1/16" = 1'-0"
0' 6' 16' 32'



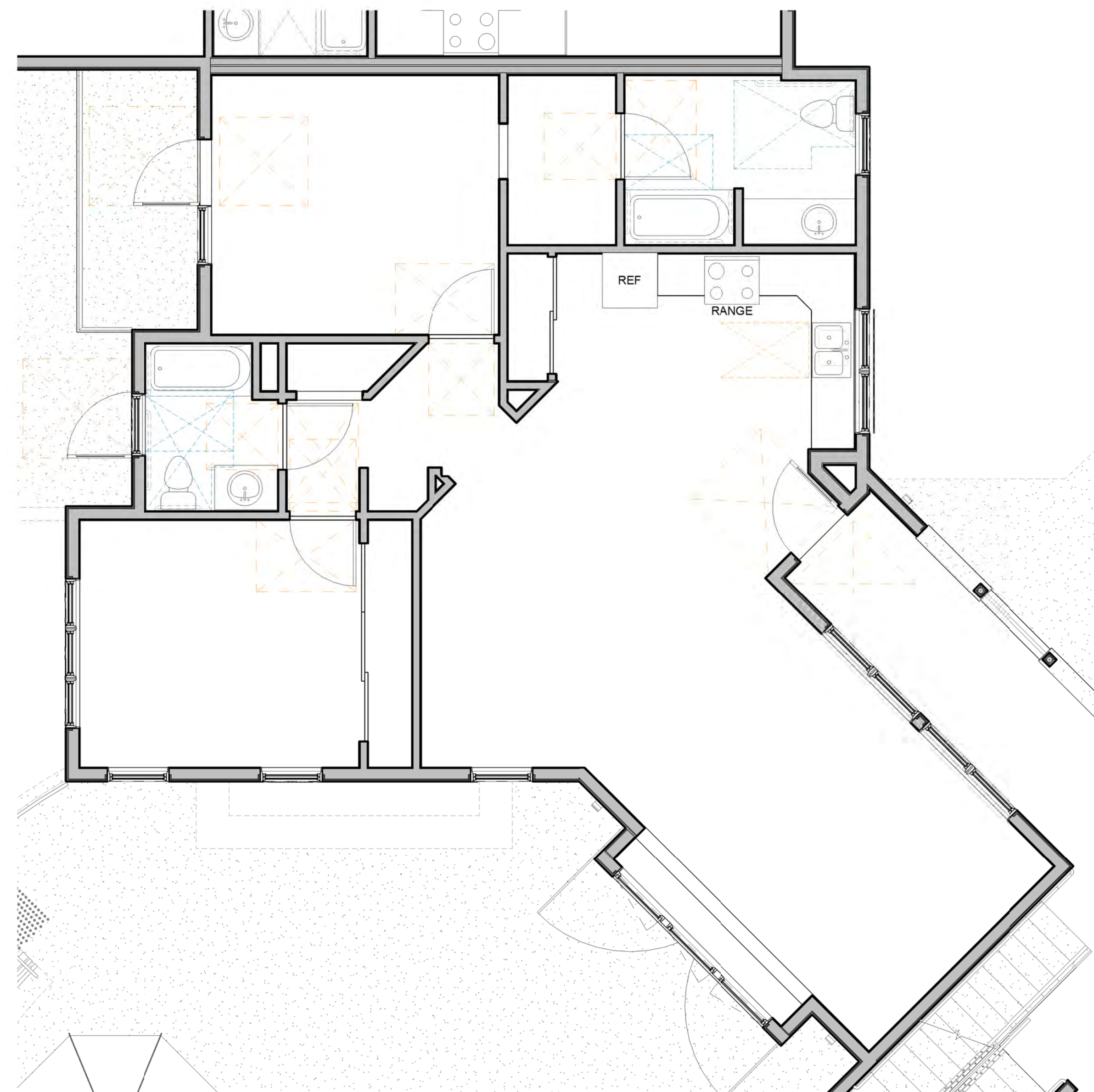
1 Roof Plan
1/16" = 1'-0"



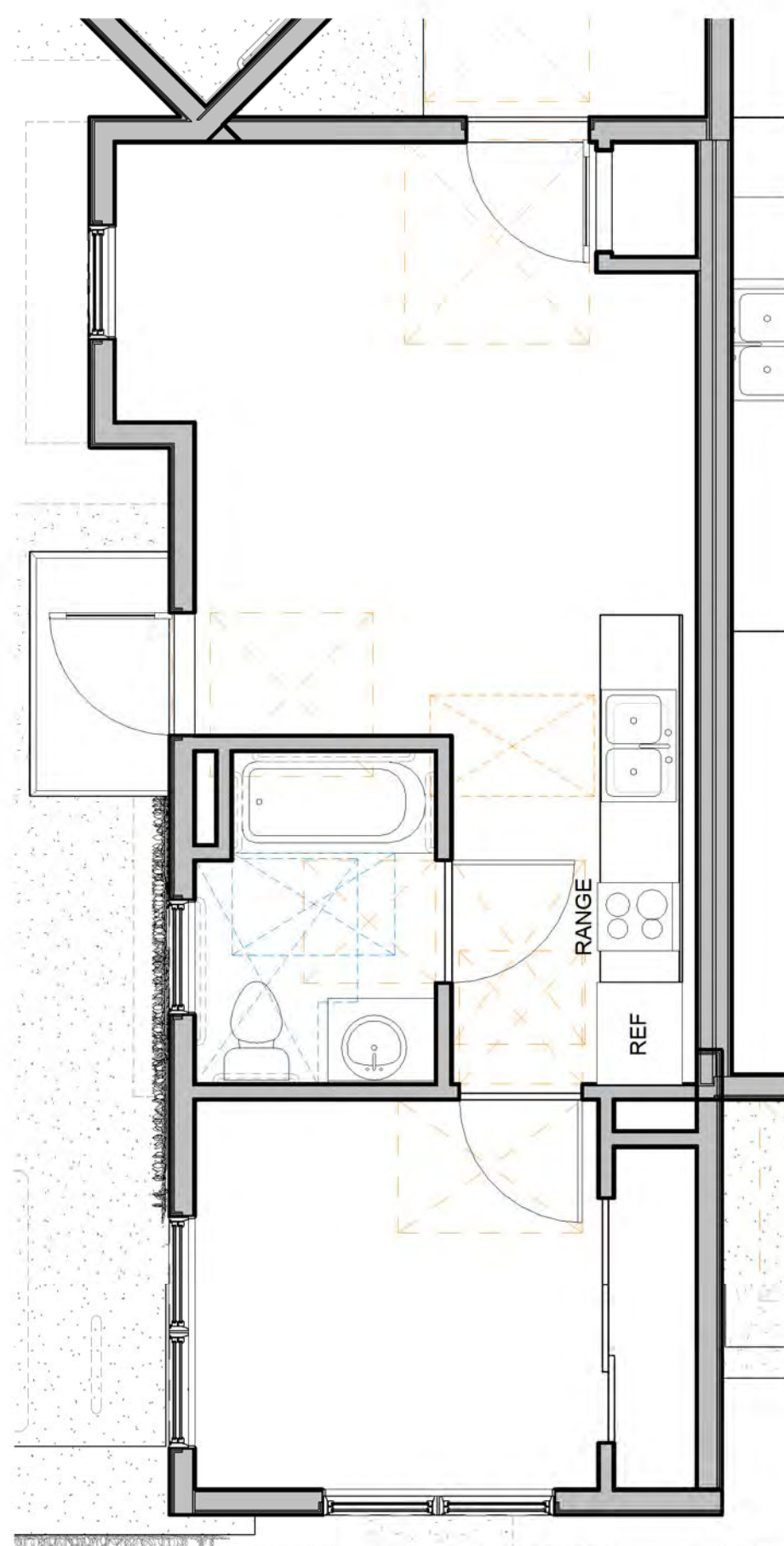
SCALE: 1/16" = 1'-0"
0' 6' 12' 32'



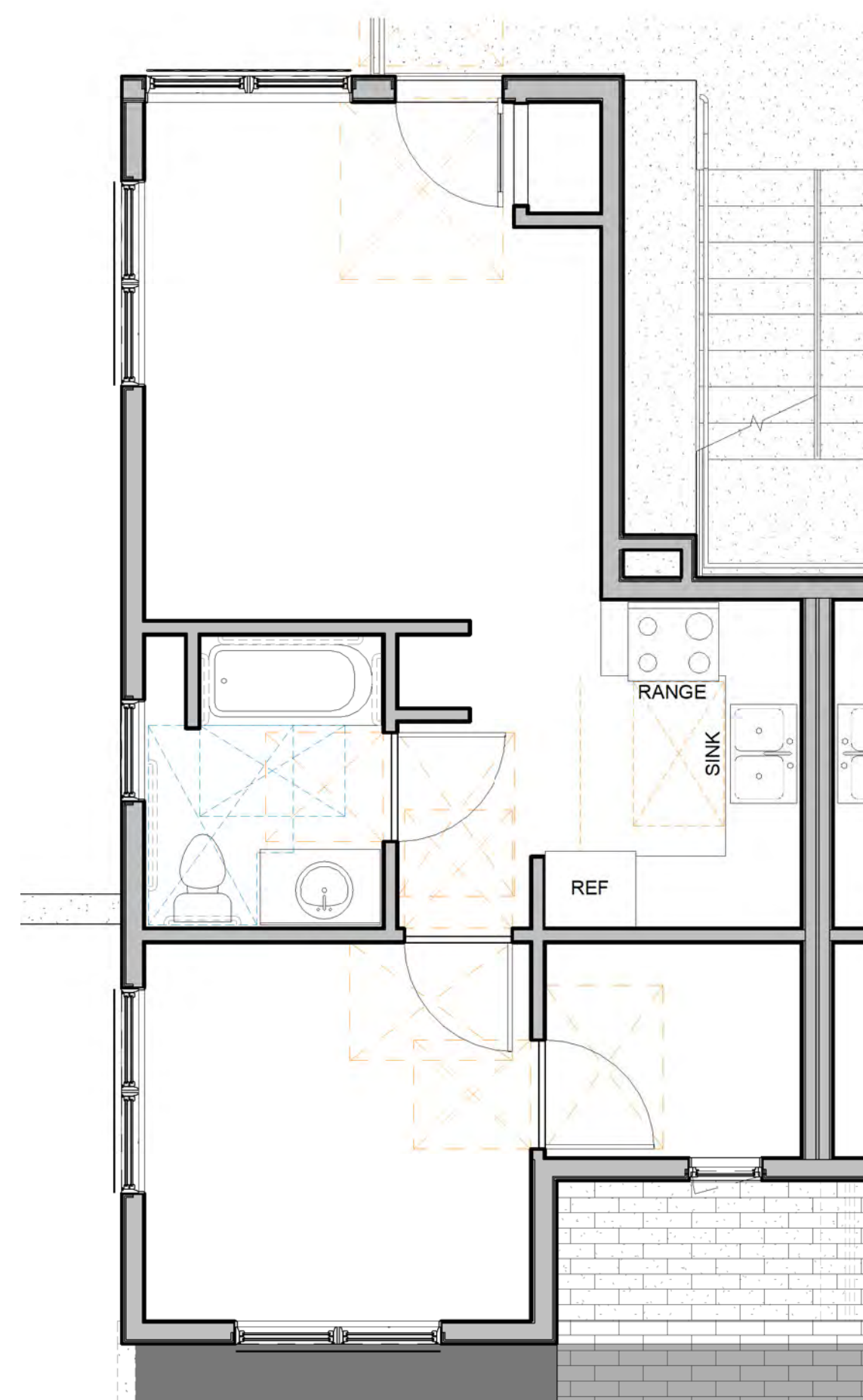
1 Level 1 - Unit Type C1 - 1110 SF
1/4" = 1'-0"



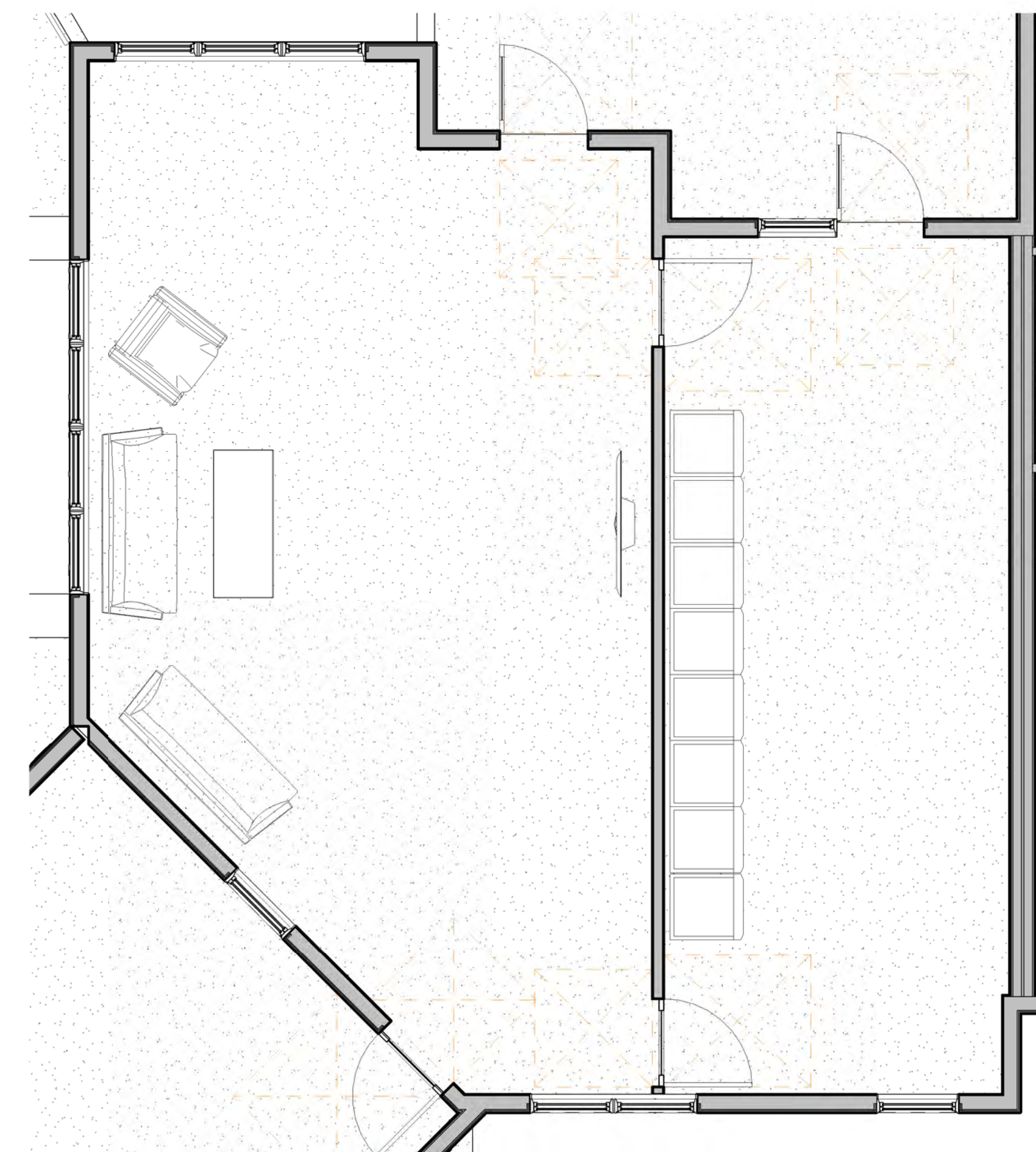
2 Level 2 - Unit D1 - 1185
1/4" = 1'-0"



1 Level 2- Unit E1 - 433 SF
1/4" = 1'-0"



2 Level 2- Unit F1 - 507 SF
1/4" = 1'-0"



3 Level 1 - Community Room and Laundry - 942 SF
1/4" = 1'-0"



1 BLDG 'I' - North
1/8" = 1'-0"



3 BLDG 'I' - West
1/8" = 1'-0"



4 BLDG 'I' - East
1/8" = 1'-0"



6 BLDG 'I' - South
1/8" = 1'-0"



1 BLDG 'III' - North
1/8" = 1'-0"



2 BLDG 'III' - East
1/8" = 1'-0"



9 BLDG 'II' - North
1/8" = 1'-0"



3 BLDG 'III' - South
1/8" = 1'-0"



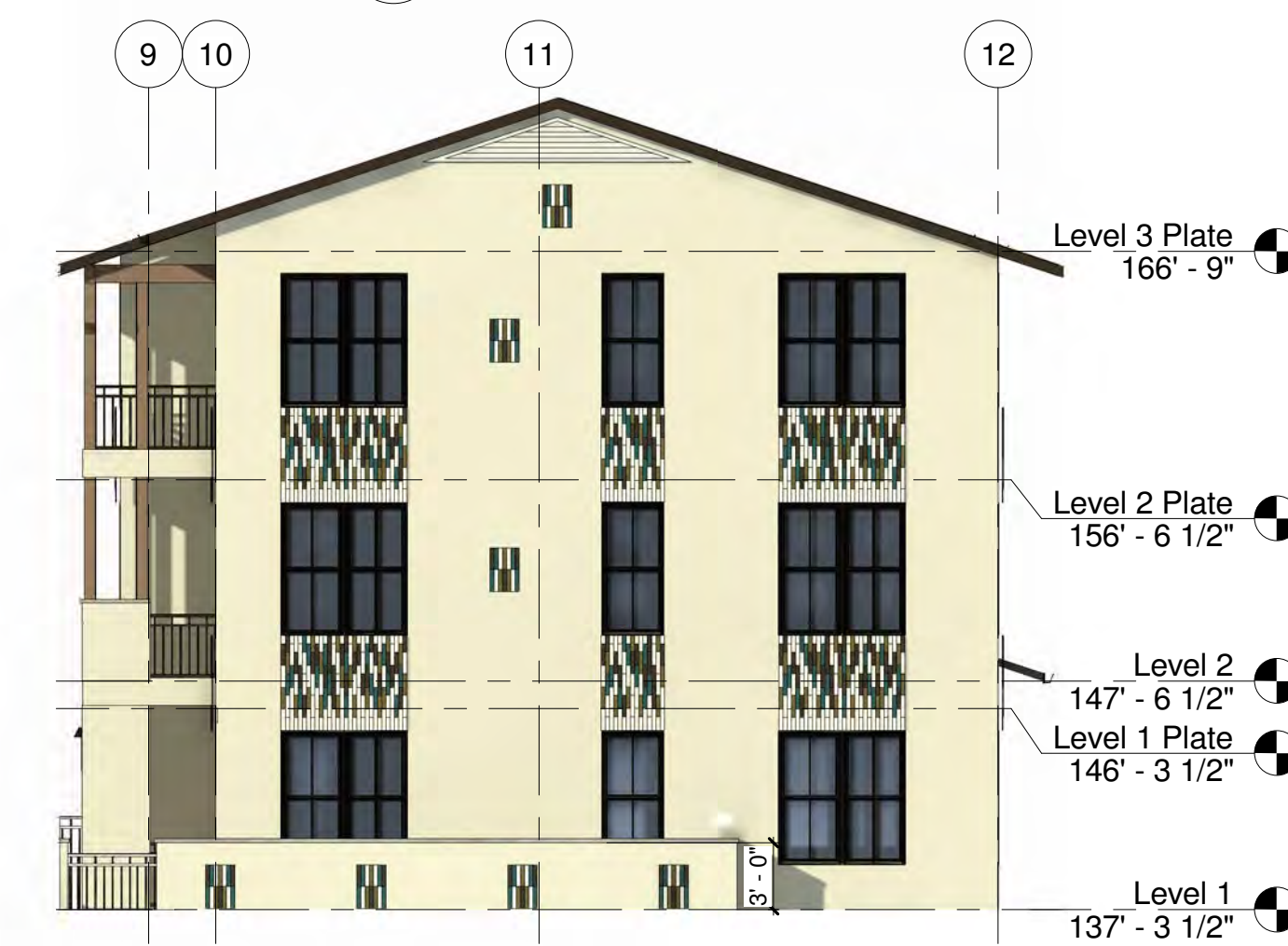
4 BLDG 'III' - West
1/8" = 1'-0"



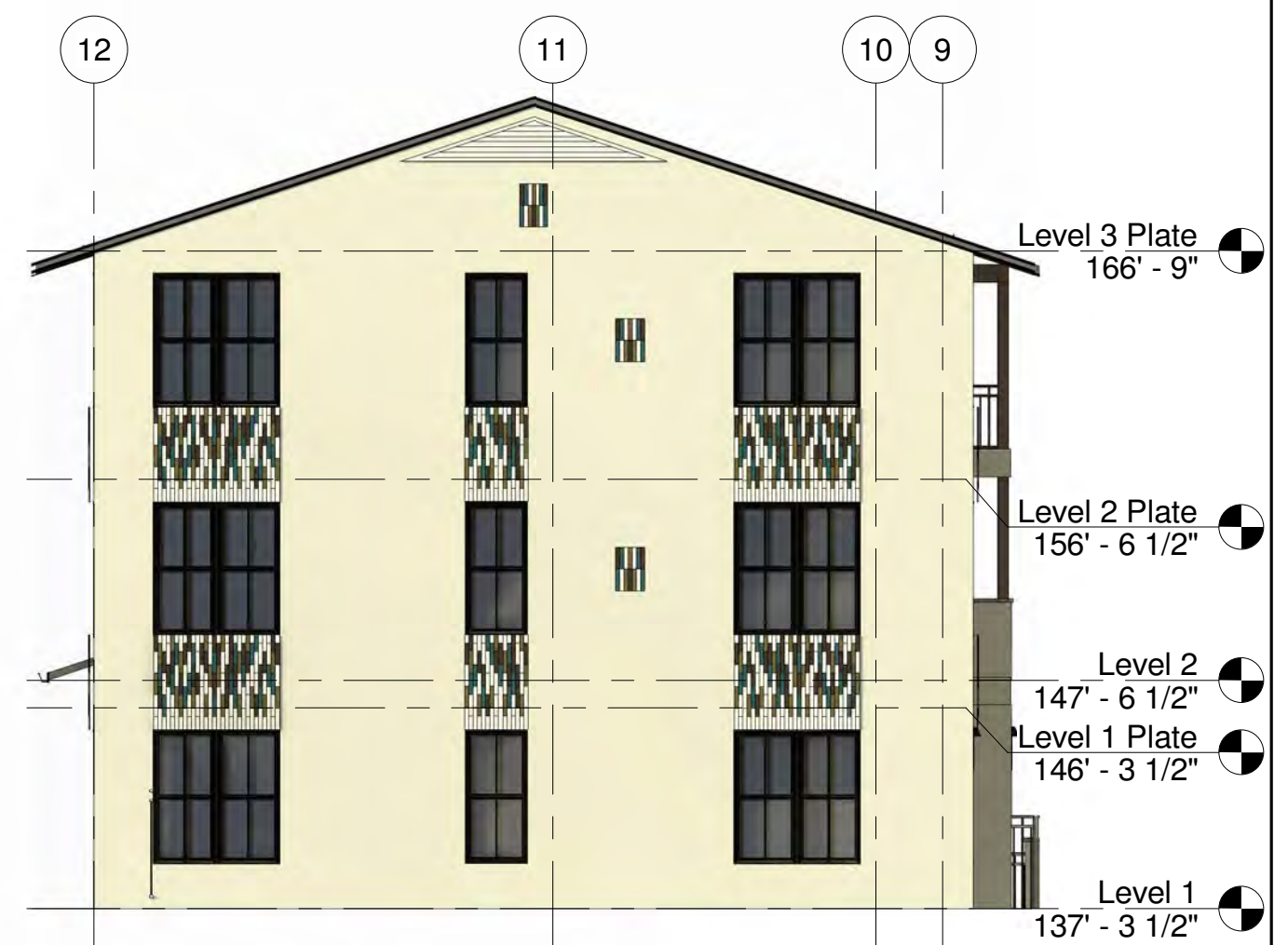
11 BLDG 'II' - South
1/8" = 1'-0"



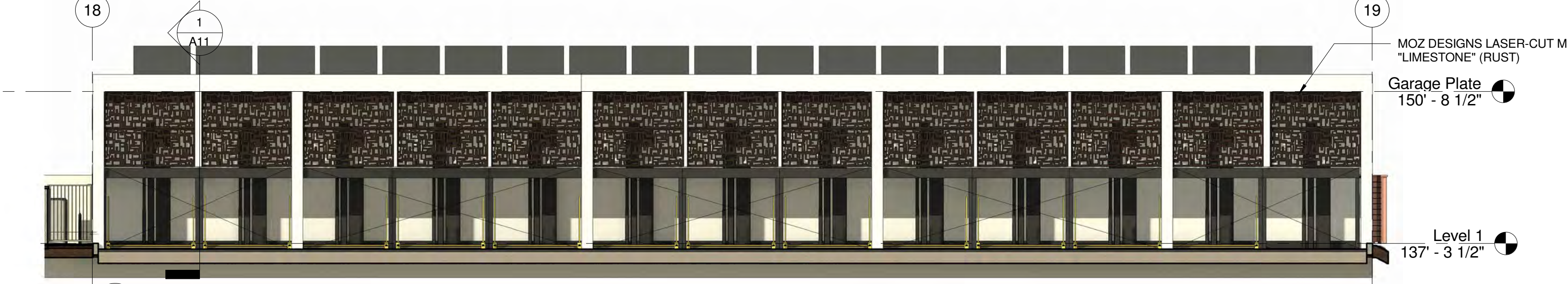
5 BLDG 'IV' - East
1/8" = 1'-0"



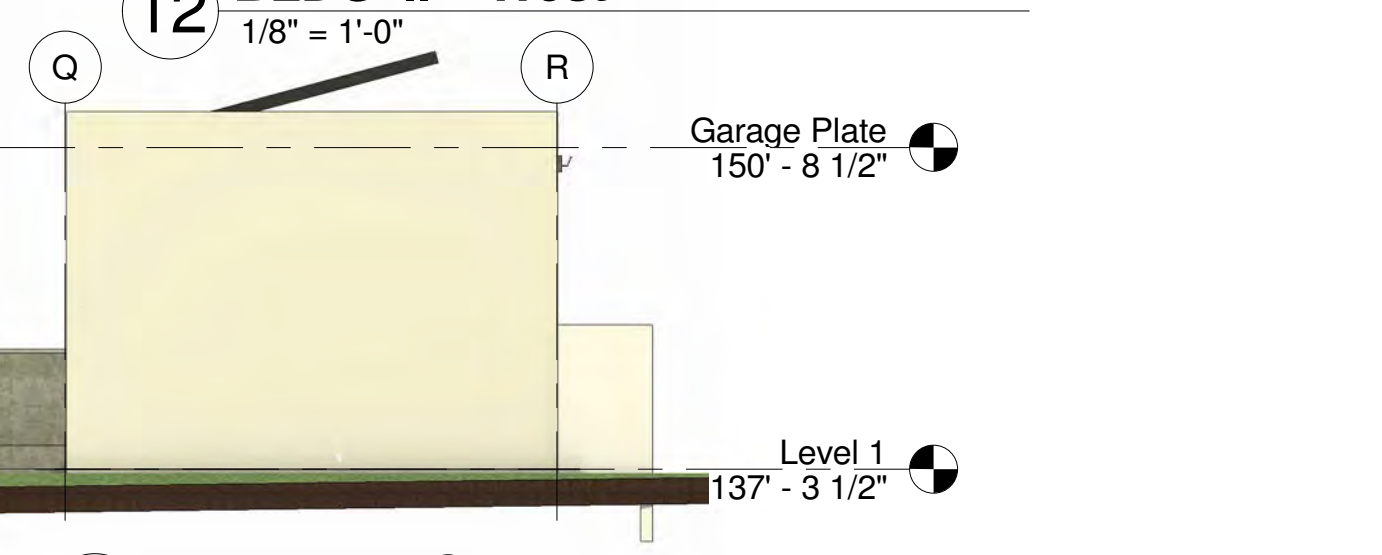
12 BLDG 'II' - West
1/8" = 1'-0"



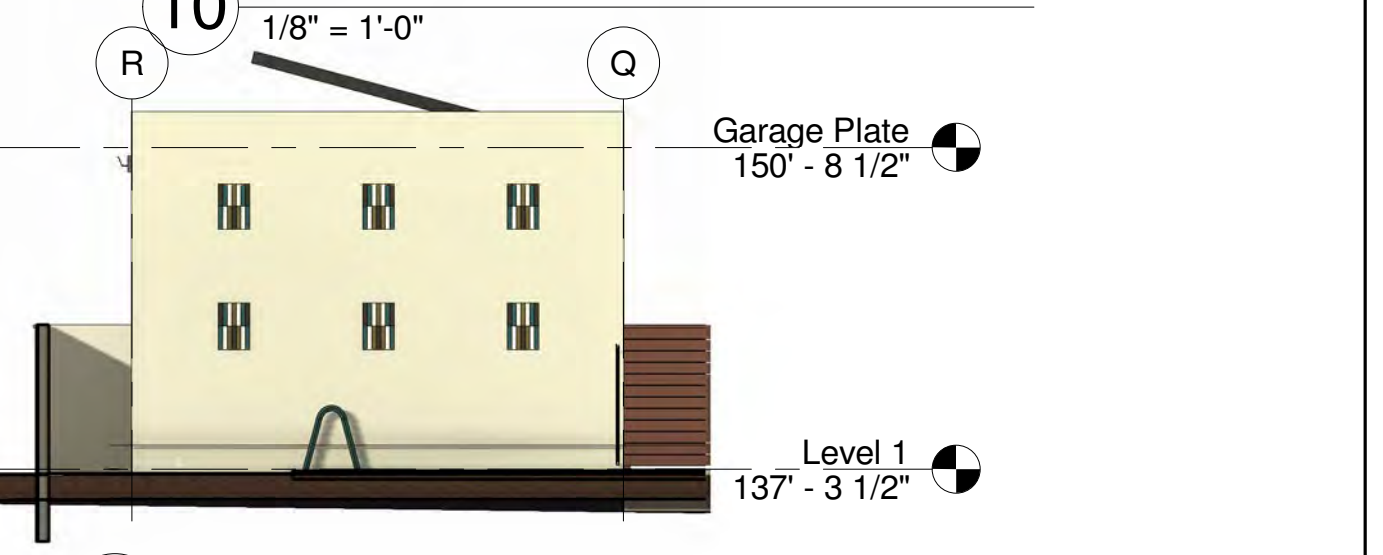
10 BLDG 'II' - East
1/8" = 1'-0"



8 BLDG 'IV' - West
1/8" = 1'-0"



7 BLDG 'IV' - South
1/8" = 1'-0"



6 BLDG 'IV' - North
1/8" = 1'-0"



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Colors and Materials

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A10.1



Lithonia LED ADA
D Series Area Light



Lithonia LED ADA
D Series Bollard



Luminis SQ500.Syrios Square LED Wall Down Light



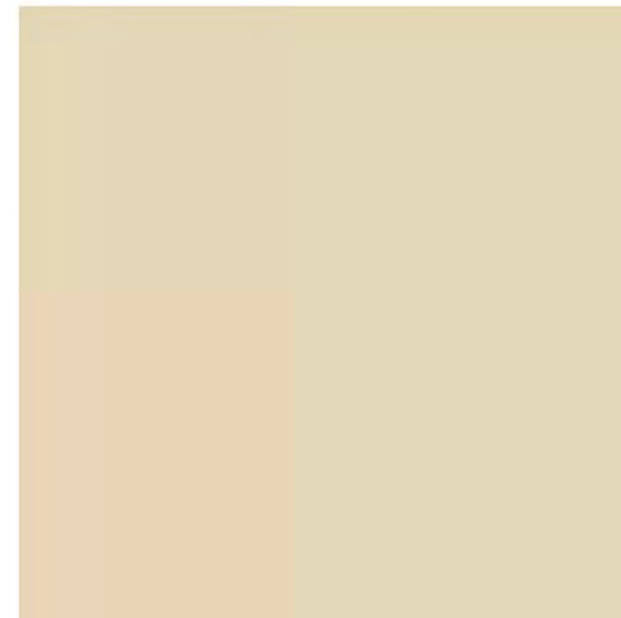
Lithonia LED ADA
D Series Wall Pack Light



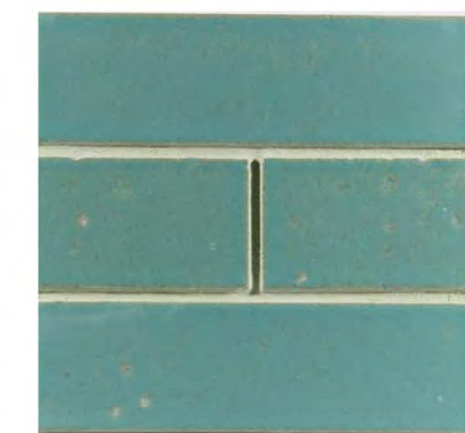
Luminis Scirocco Wall Sconce SR115T



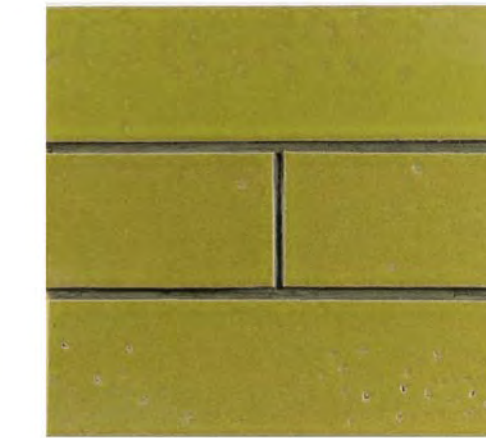
SANTA BARBARA FINISH AT EXTERIOR
CEMENT PLASTER STUCCO



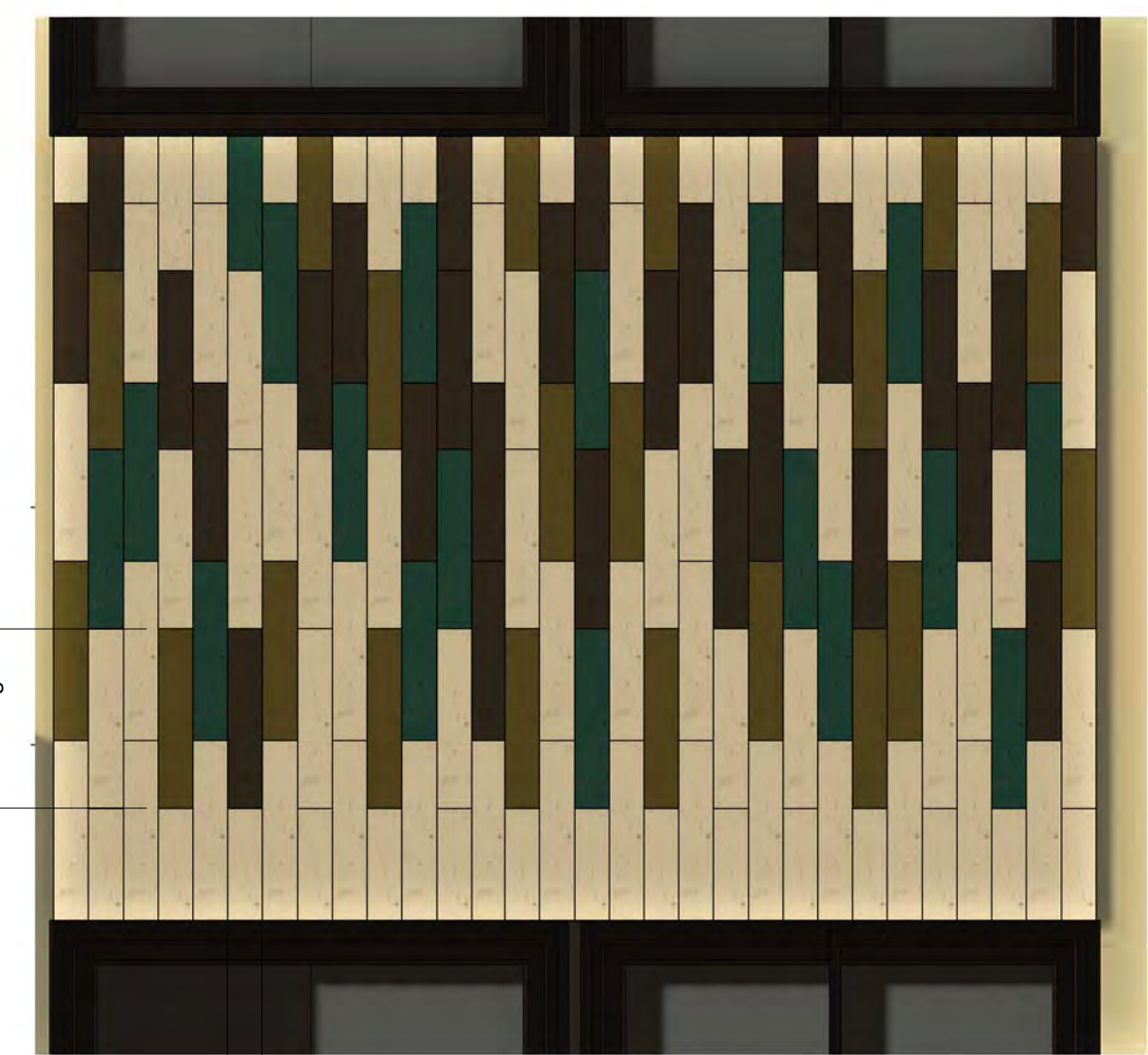
CEMENT PLASTER STUCCO
LA HABRA - FALLBROOK



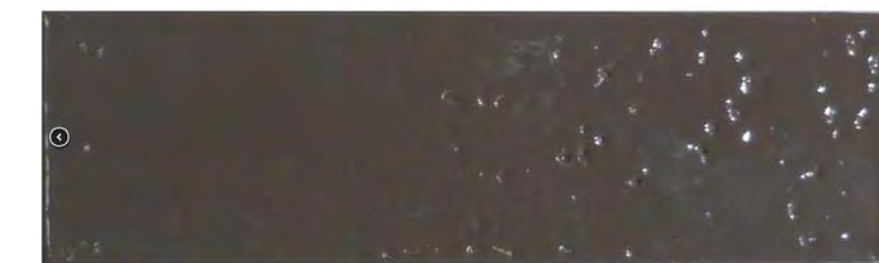
TRIKEENAN- BONEYARD BRICK
GLAZED CERAMIC BRICK TILE
COLOR - DIAMOND SPRINGS
SIZE - NORMAN 2.25" X 11 5/8"



TRIKEENAN- BONEYARD BRICK
GLAZED CERAMIC BRICK TILE
COLOR - PARAKEET
SIZE - NORMAN 2.25" X 11 5/8"



THIN BRICK CERAMIC TILE



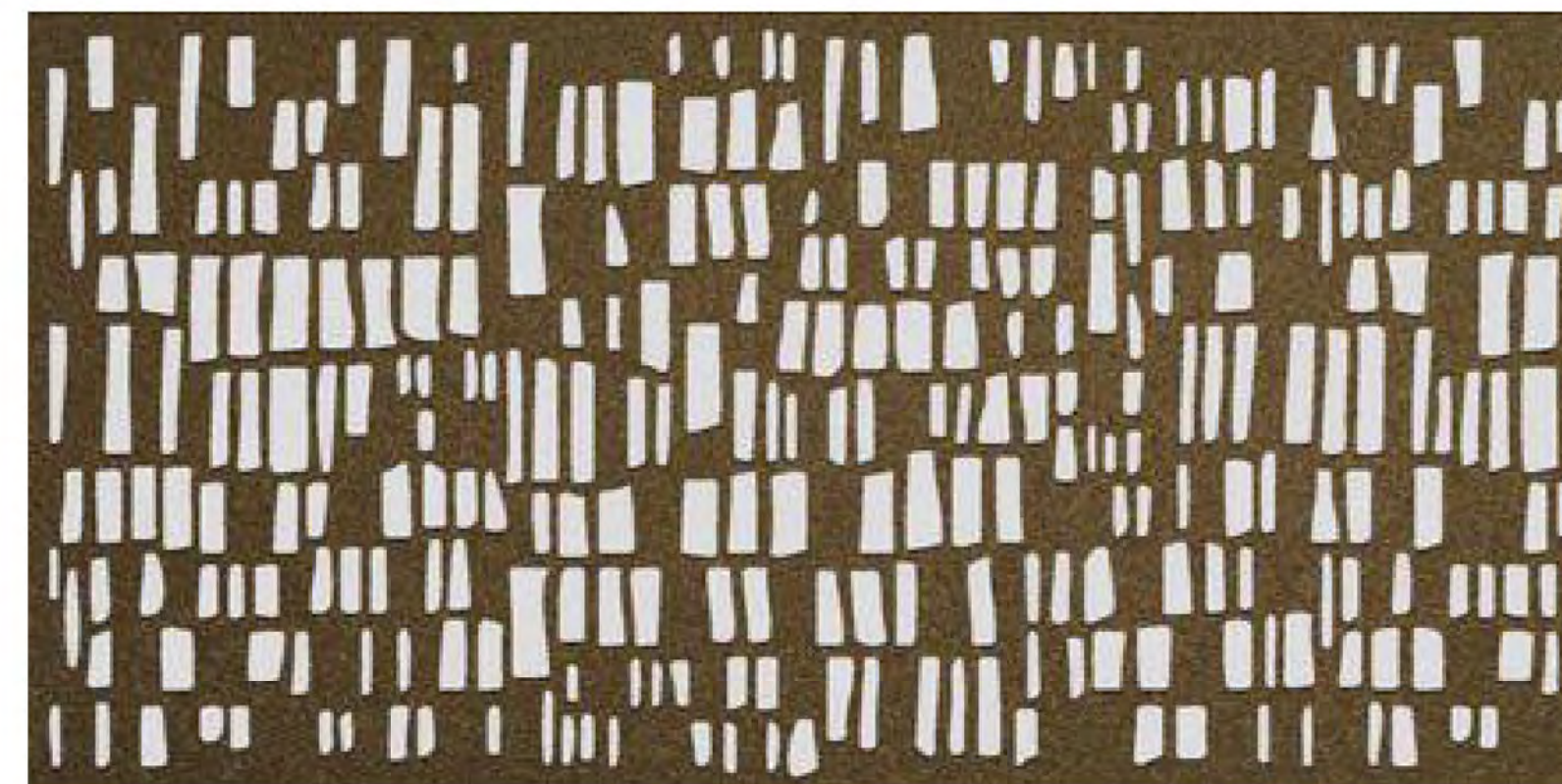
TRIKEENAN- BONEYARD BRICK
GLAZED CERAMIC BRICK TILE
COLOR - MOREL
SIZE - NORMAN 2.25" X 11 5/8"



TRIKEENAN- BONEYARD BRICK
GLAZED CERAMIC BRICK TILE
COLOR - JUS WHITE
SIZE - NORMAN 2.25" X 11 5/8"



COMPOSITE CLADDING WOOD TONED SIDING,
FIBERON - COLOR "MERGANTI" OR EQUAL



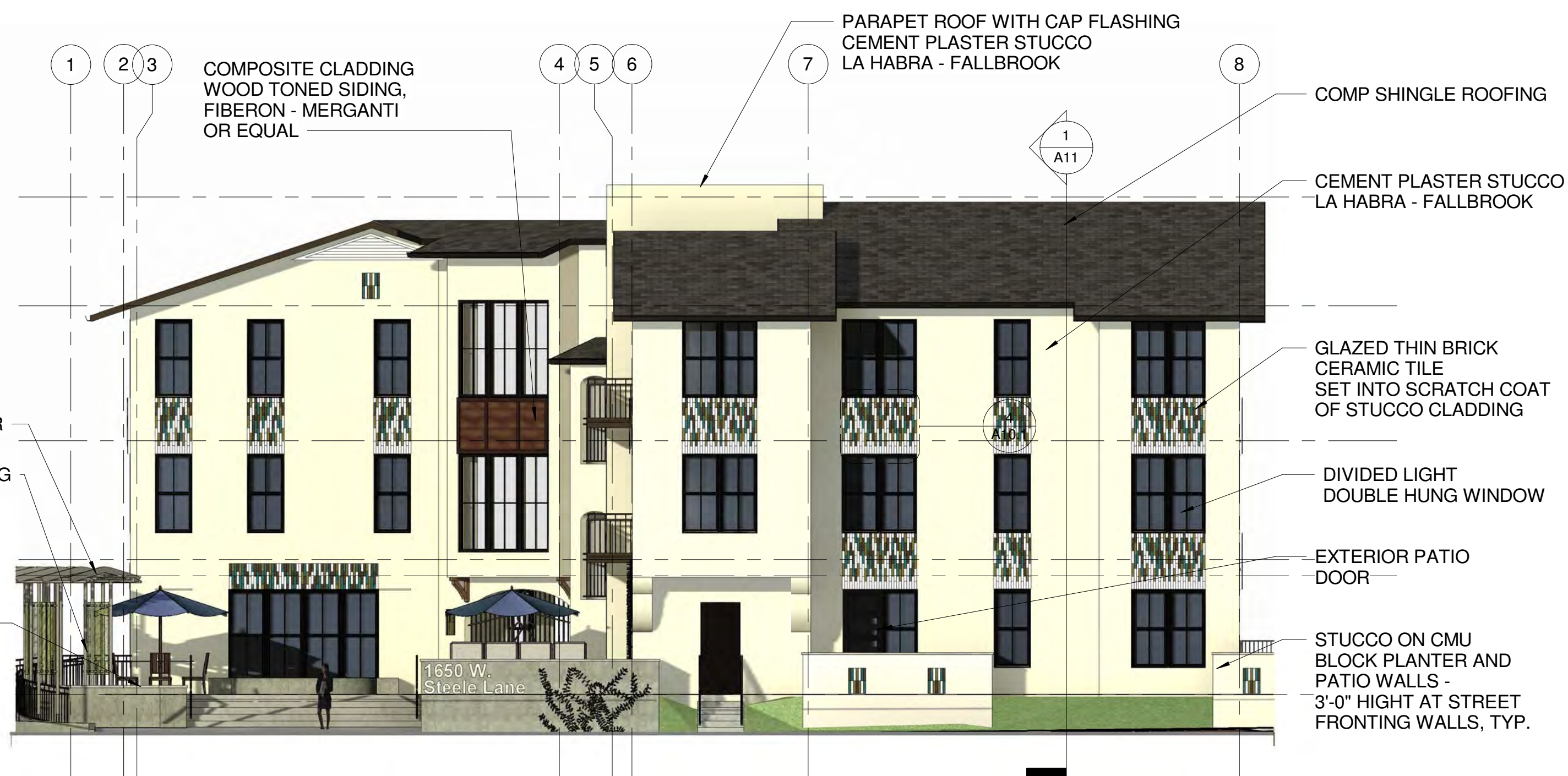
GARAGE ACCESSORY BUILDING - LASER CUT ALUMINUM SCREEN PANEL AT LEVEL 2
MOZ DESIGNS ARCHITECTURAL METALS
PATTERN - LIMESTONE, COLOR - BRONZE SAND



**BUILDING "1" INTERIOR OF COURTYARD AT
ARCHED ENTRYWAY**



**BUILDING "1" ENTRY PLAZA
ARCHED ENTRY INTO RESIDENTIAL COURTYARD**



BUILDING "A" WEST ELEVATION ON MEADOWBROOK COURT



ALUMINUM RAILING
ANODIZED BRONZE



THERMA TRU FULL LITE
FLUSH-GLAZED
STYLE NO. S5700XJ-SDLF2
ONYX



MARVIN 4-LITE
DOUBLE HUNG WINDOW
BLACK VINYL



CERTAINEED COMPOSITION SHINGLE
COLOR - WEATHERED WOOD



1 Site Section 'A'
1/8" = 1'-0"



2 Site Section 'B'
1/8" = 1'-0"



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Santa Rosa, CA 95403
A.P.N. 041-042-012



1 View from Steele Ln & Hardies Ln



5 View from Meadowbrooke



4 Perspective from Courtyard Ground

Perspective Views

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A12.1



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Perspective at Entry

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Perspective at Entry



Perspective from Courtyard





Perspective Rendering from Steele Lane





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Perspective Rendering from
Meadowbrook Court

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1/20/20

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Perspective Rendering from Meadowbrook Court

BENCHMARK

CITY OF SANTA ROSA BENCHMARK D-146, BEING A BRASS DISK IN WELL MONUMENT NEAR THE CENTERLINE INTERSECTION OF WEST STEELE LANE AND HARMONIES LANE. ELEVATION = 132.40.

OWNER

PATRICK O'NEIL
STAGECOACH DEVELOPMENT
COMPANY, INC.
19 LEONA DRIVE
SANTA ROSA, CA 94903
(415) 491-4091

ARCHITECT

HEDGPETH ARCHITECTS
INGRID ANDERSON
2321 BETHARDS DRIVE, SUITE B
SANTA ROSA, CA 95404
(707) 523-7010

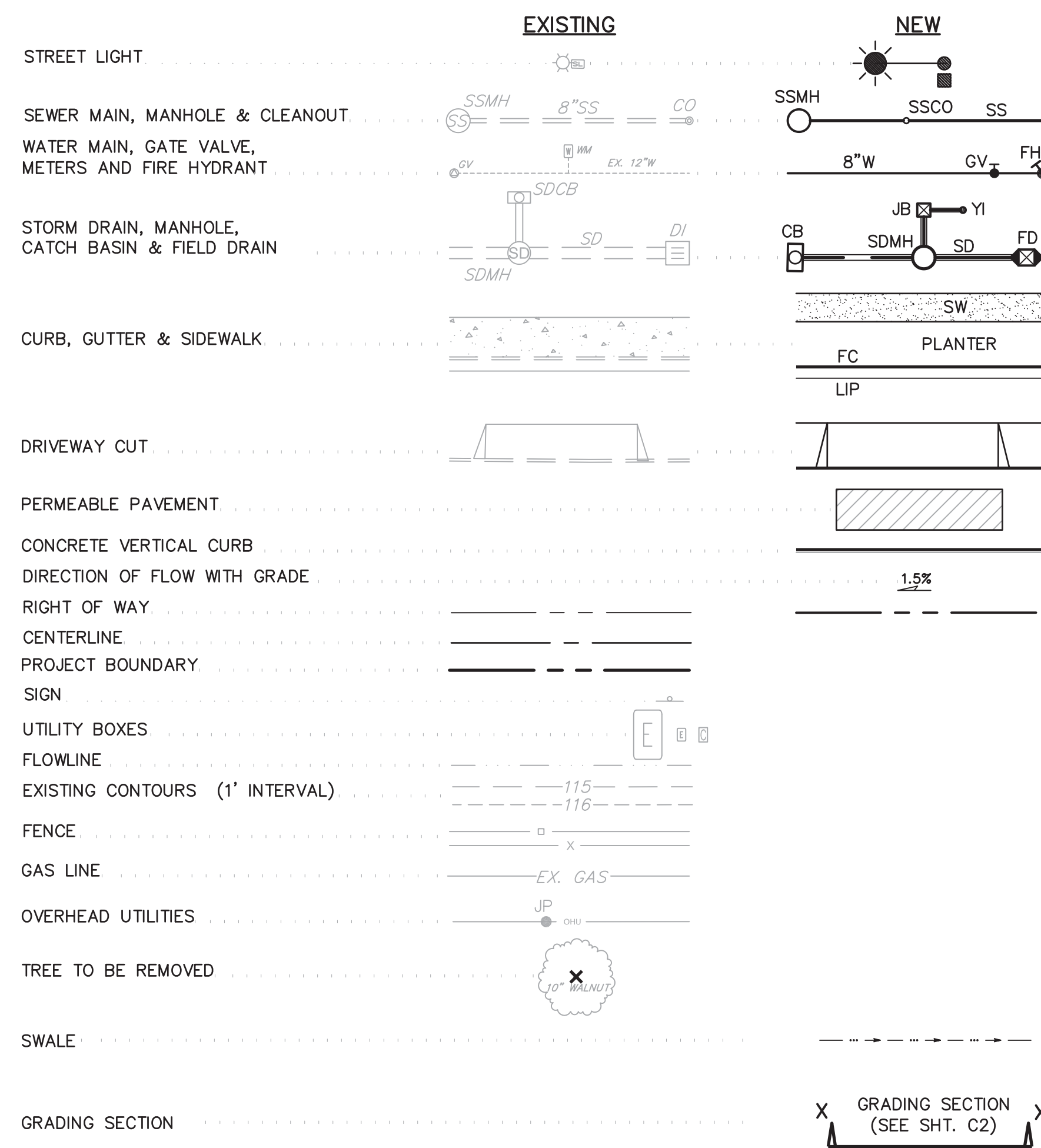
ENGINEER

CIVIL DESIGN CONSULTANTS, INC.
2200 RANGE AVENUE, SUITE 204
SANTA ROSA, CA 95403
(707) 542-4820

SURVEYOR

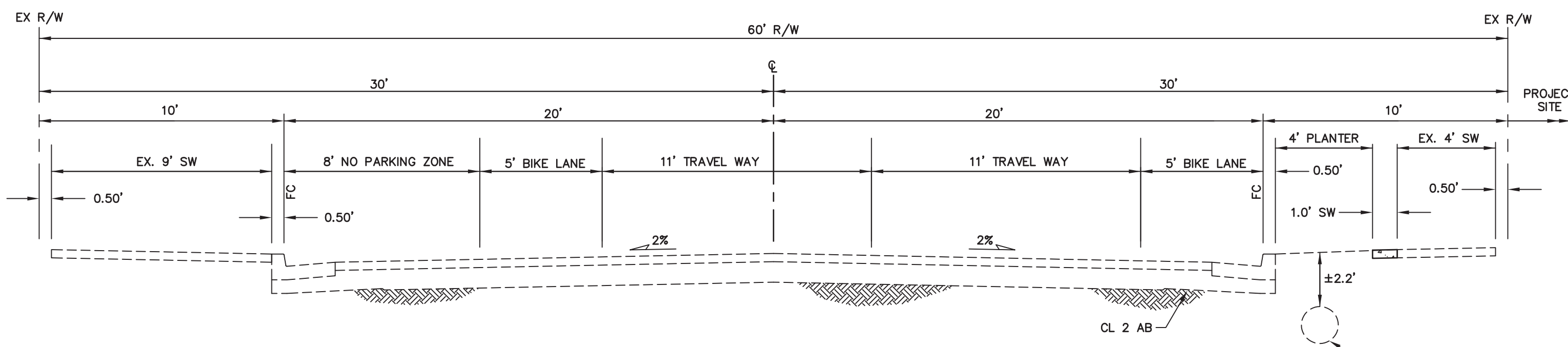
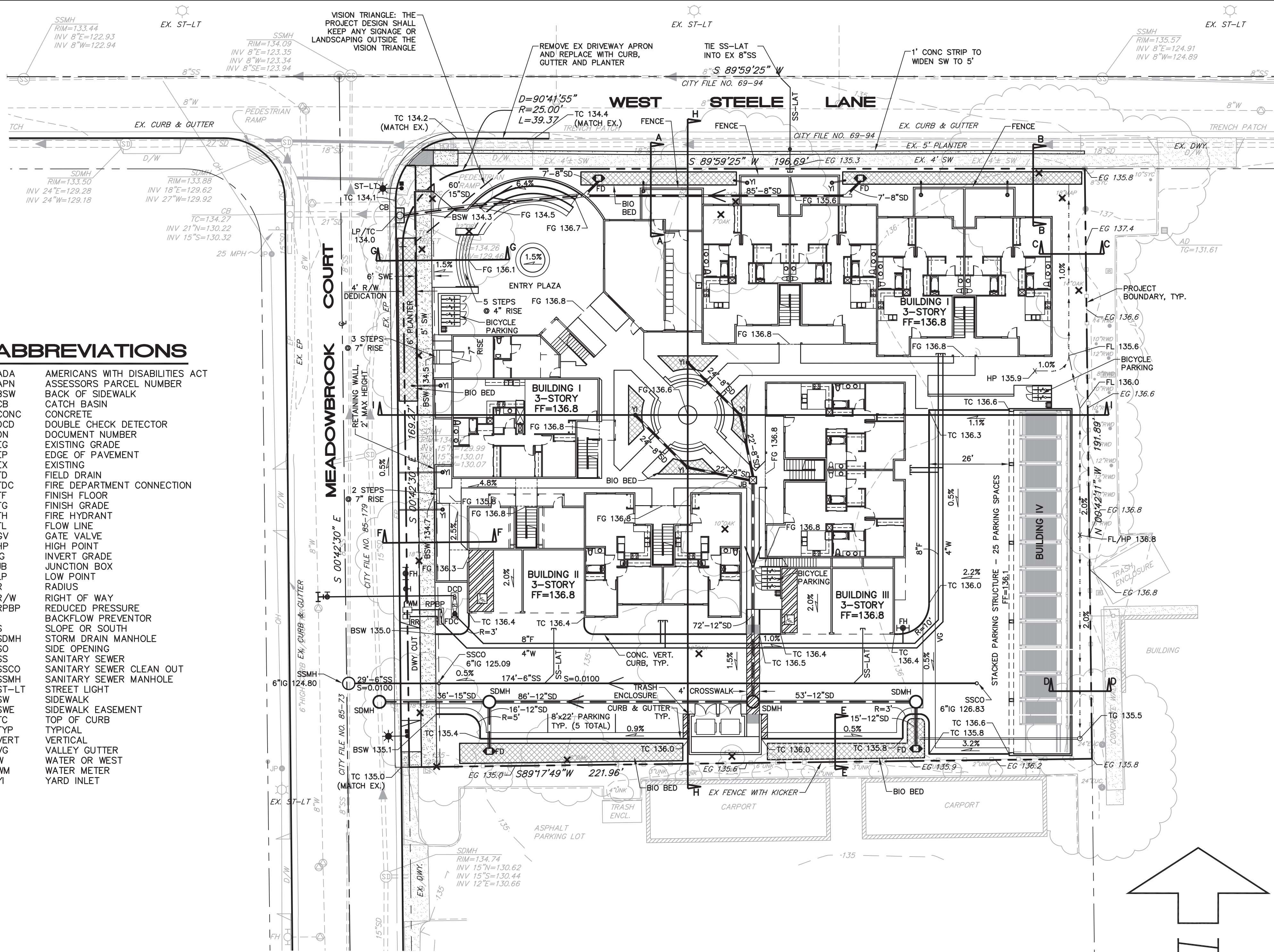
MIKE FORD LAND SURVEYING
8910 SONOMA HWY, SUITE 12B
KENWOOD, CA 95452
(707) 833-6468

LEGEND

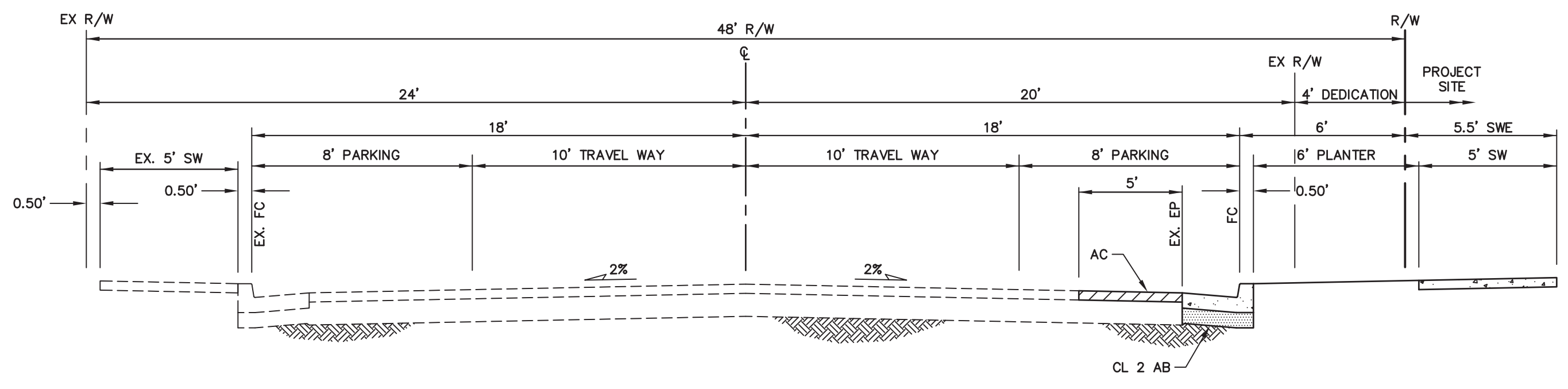


ABBREVIATIONS

ADA	AMERICANS WITH DISABILITIES ACT
APN	ASSESSORS PARCEL NUMBER
BSW	BACK OF SIDEWALK
CB	CATCH BASIN
CONC	CONCRETE
DCD	DOUBLE CHECK DETECTOR
DN	DOCUMENT NUMBER
EG	EXISTING GRADE
EP	EDGE OF PAVEMENT
EX	EXISTING
FD	FIELD DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
GV	GATE VALVE
HP	HIGH POINT
IG	INVERT GRADE
JB	JUNCTION BOX
LP	LOW POINT
R	RADIUS
R/W	RIGHT OF WAY
RPBP	REDUCED PRESSURE BACKFLOW PREVENTOR
S	SLOPE OR SOUTH
SDMH	STORM DRAIN MANHOLE
SO	SIDE OPENING
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEAN OUT
SSMH	SANITARY SEWER MANHOLE
ST-LT	STREET LIGHT
SW	SIDEWALK
SWE	SIDEWALK EASEMENT
TC	TOP OF CURB
TYP	TYPICAL
VERT	VERTICAL
VG	VALLEY GUTTER
W	WATER OR WEST
WM	WATER METER
YI	YARD INLET



MAIN STREET - PUBLIC
WEST STEELE LANE



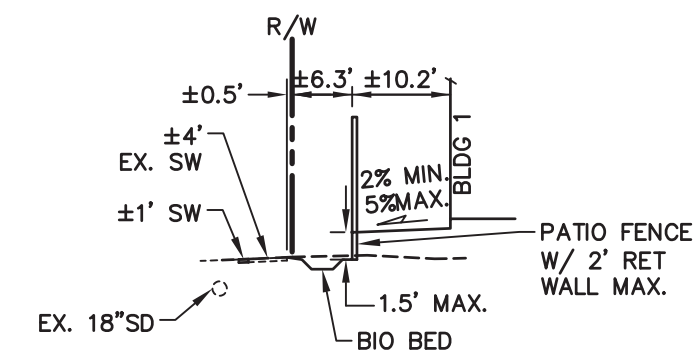
MINOR STREET - PUBLIC
MEADOWBROOK COURT



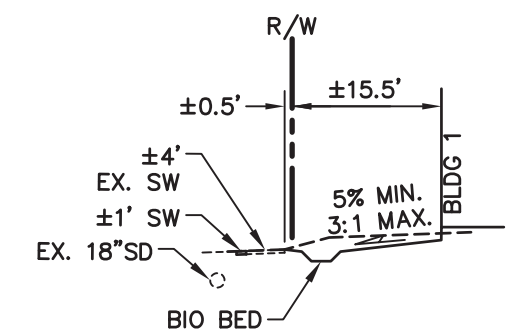
CIVIL DESIGN CONSULTANTS, INC.
2200 Range Avenue, Suite 204
Santa Rosa, CA 95403
(707) 542-4820

SITE GRADING AND UTILITY PLAN
STEELE LANE APARTMENTS
1650 WEST STEELE LANE
SANTA ROSA, CA
APN: 041-042-012
DOC. NO. 2017-078633
JUNE 2022

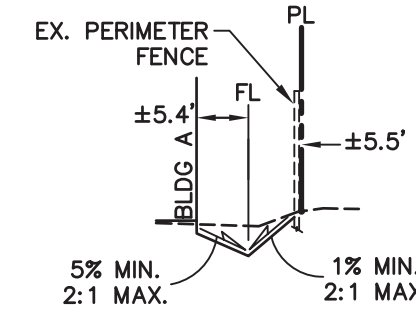
JOB NO. 19-107
SHEET NO.



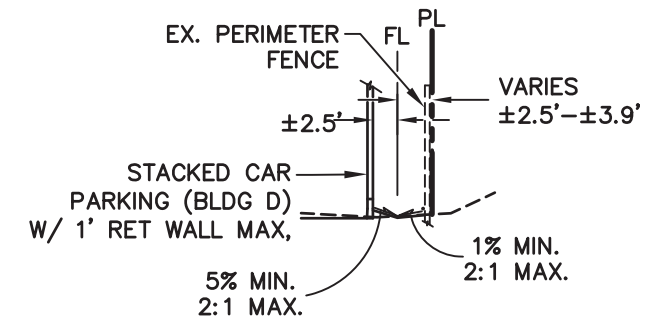
SECTION A-A
 1" = 20' HORZ.
 1" = 10' VERT.



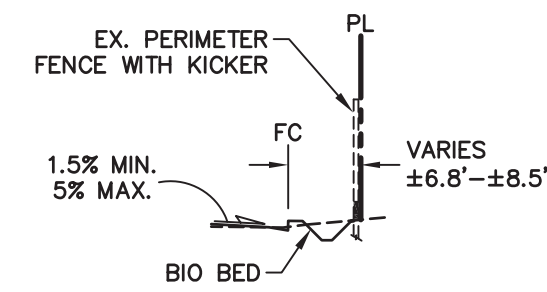
SECTION B-B
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 1" = 10' VERT.



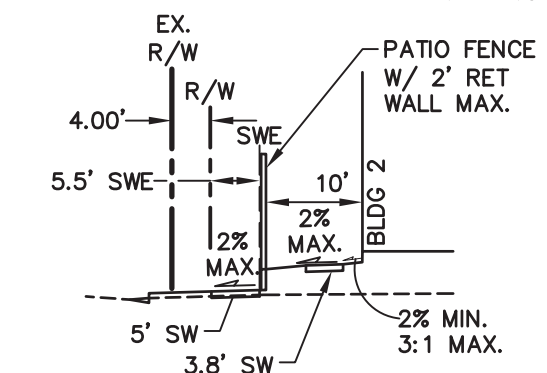
SECTION C-C
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 1" = 10' VERT.



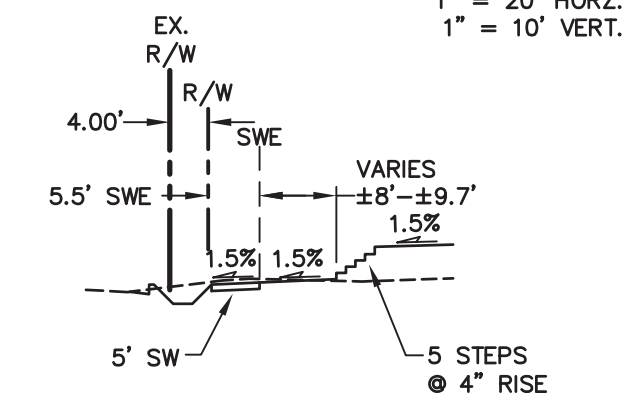
SECTION D-D
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 1" = 10' VERT.



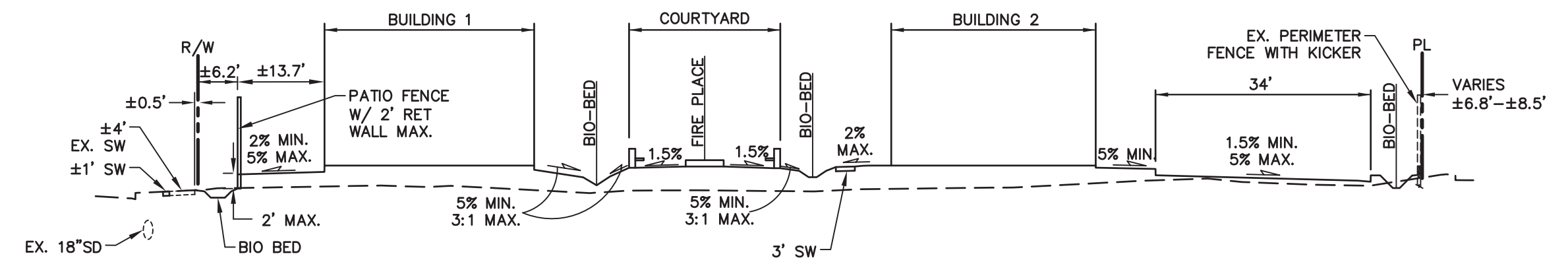
SECTION E-E
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 1" = 10' VERT.



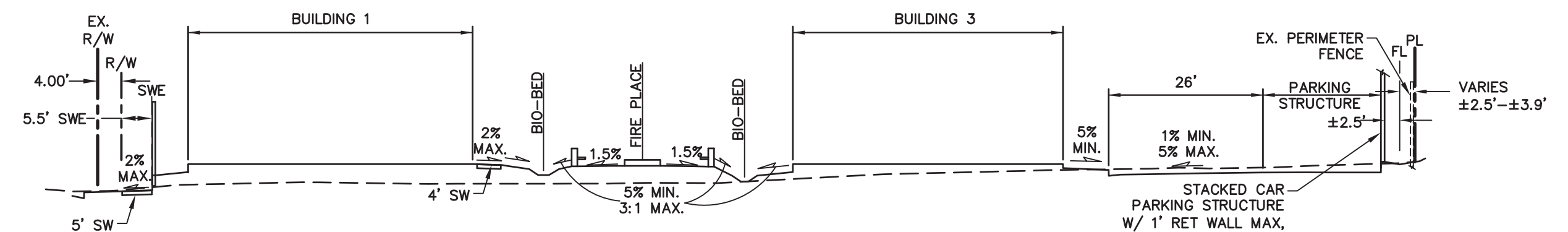
SECTION F-F
 1" = 20' HORZ.
 1" = 10' VERT.



SECTION G-G
 1" = 20' HORZ.
 1" = 10' VERT.



SECTION H-H
 1" = 20' HORZ.
 1" = 10' VERT.



SECTION I-I
 1" = 20' HORZ.
 1" = 10' VERT.

GRADING SECTIONS

SITE/BUILDING SECTIONS

6/2/22
 DATE
 No. 44811
 CIVIL
 STATE OF CA
 REGISTERED PROFESSIONAL ENGINEER * VINDUJ
 DENNIS D. DALBY
 PCE #481



CIVIL DESIGN CONSULTANTS, INC.

2200 Range Avenue, Suite 204
 Santa Rosa, CA 95403
 (707) 542-4820

GRADING SECTIONS AND SITE BUILDING SECTIONS
STEELE LANE APARTMENTS

1650 WEST STEELE LANE
 SANTA ROSA, CA
 APN: 041-042-012
 DOC. NO. 2017-078633

JUNE 2022

JOB NO.
 19-107
 SHEET NO.

C2

OF 2 SHEETS

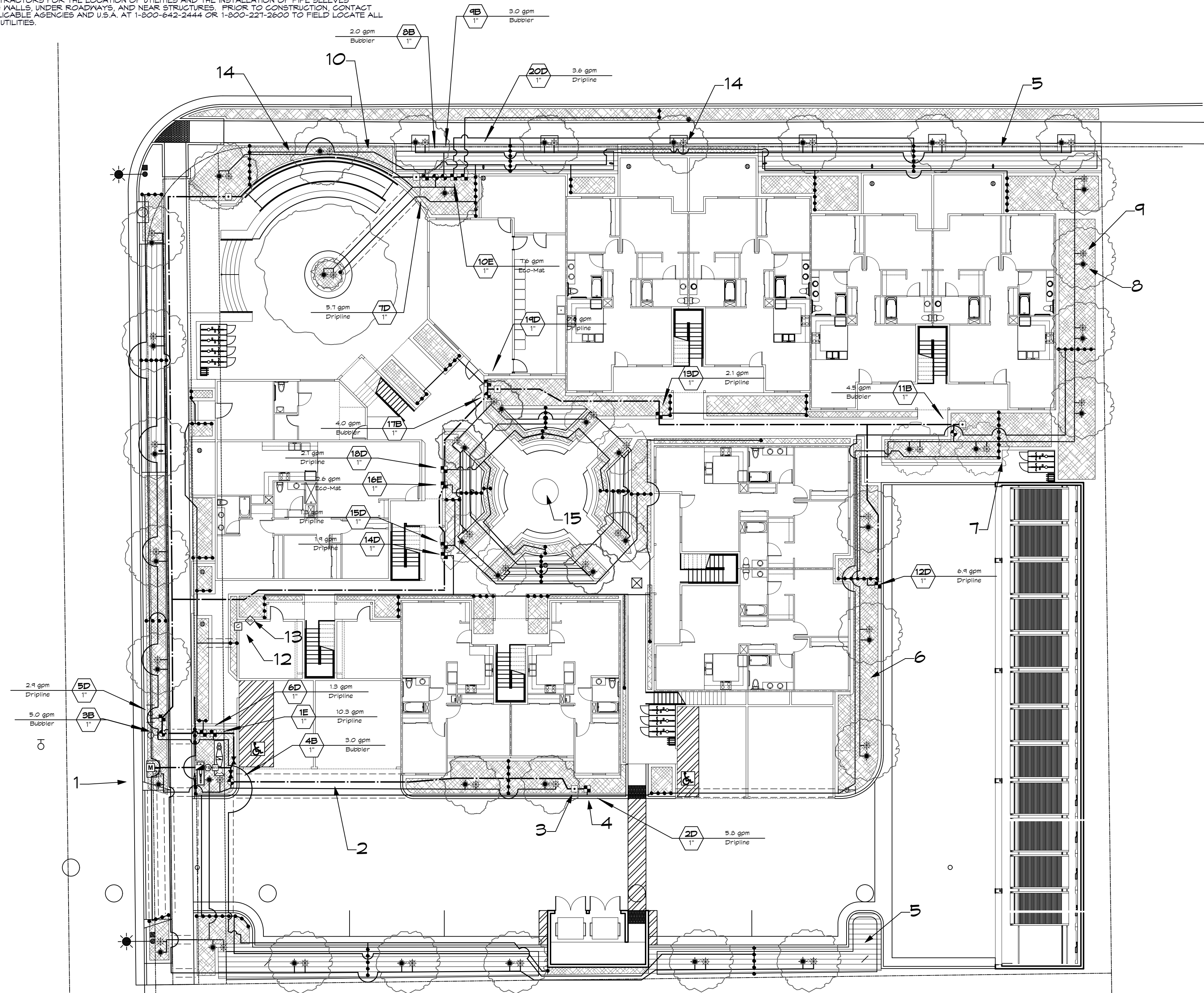
U.S.A. NOTE
 IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO BE FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, STRUCTURES, AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL EXERCISE EXTREME CARE, AND BE RESPONSIBLE FOR ANY DAMAGE IN EXCAVATING AND WORKING NEAR UTILITIES. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OTHER SUB-CONTRACTORS FOR THE LOCATION OF UTILITIES AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, AND NEAR STRUCTURES. PRIOR TO CONSTRUCTION, CONTACT ALL APPLICABLE AGENCIES AND U.S.A. AT 1-800-642-2444 OR 1-800-227-2600 TO FIELD LOCATE ALL EXISTING UTILITIES.

THESE DRAWINGS COMPLY WITH THE CRITERIA OF THE ORDINANCE. ORDINANCE REQUIREMENTS HAVE BEEN APPLIED FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN AND THE LANDSCAPE DESIGN PLAN.

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WEST STEEL LANE APARTMENTS
 1650 WEST STEEL LANE
 SANTA ROSA, CA



IRRIGATION LEGEND				
SYMBOL	EQUIPMENT	MANUFACTURER	MODEL	REMARKS
[Symbol]	Root Zone Watering System	Hunter	RZWS-18-25-CV	One per tree, typical
[Symbol]	Hunter Stream Bubbler	Hunter	MSBN-25Q	One per tree, typical
[Symbol]	Landscape Dripline	Rain Bird	XFS-06-12	
[Symbol]	Eco-Mat	Hunter	EGO-MAT 11MM	
SEE DETAIL	Automatic Line Flush Valve	Hunter	AFV-T	INSTALL IN 6" VALVE BOX @ END OF CIRCUIT
SEE DETAIL	Air Relief Valve	Hunter	AVR-07B	INSTALL IN 6" VALVE BOX @ HIGH POINT OF CIRCUIT
SEE DETAIL	Continuous Acting Air Vent	Netalim	6SARIS1	INSTALL UPSTREAM FROM SUBMETER
[Symbol]	Bubbler	Hunter Industries(R)	ICV-1016-AS-ADJ	
[Symbol]	Dripline	Hunter Industries(R)	ICZ-101-LF-25	
[Symbol]	Eco-Mat	Hunter Industries(R)	ICZ-101-LF-25	
[Symbol]	Isolation Valve - Ball Valve	KBI	CPVC CTS	
[Symbol]	Master Valve	Hunter Industries(R)	ICV-101G	
[Symbol]	Backflow Preventer Enclosure	Le Muer	BF 18" X 30" X 30"	Install Per Manufacturer's Specs
[Symbol]	1" Reduced Pressure Backflow Preventer	Watts	LFO0M2-PC-GT 1	Required
[Symbol]	3/4" Quick Coupling Valve	Rainbird	33-DNP	Use with non-potable water
[Symbol]	Flow Sensor	GST	ELF-T10-NC1	
[Symbol]	Solar Sync Sensor - Wireless	Hunter	WS5-SEN	Mount at roof eave with clear view of sky.
[Symbol]	Irrigation Controller - 6 Station	Hunter	IC-600-M	
[Symbol]	6 Station Plug-in Expansion Module	Hunter	ICM-600	(4 TOTAL)
[Symbol]	Main Line		PVC Schedule 40	
[Symbol]	Lateral		PVC Schedule 40	
[Symbol]	Poly to PVC Header			
[Symbol]	Backflow Preventer Enclosure			
[Symbol]	Pipe and Wire Sleeve		PVC Schedule 40	Size by pipe load; 2" PVC minimum
[Symbol]	VALVE STATION AND SEQUENCE			
[Symbol]	ELECTRIC CONTROL VALVE			
[Symbol]	GALLONS PER MINUTE			

REFER TO SHEET L3 FOR LANDSCAPE WATER USE CALCULATIONS

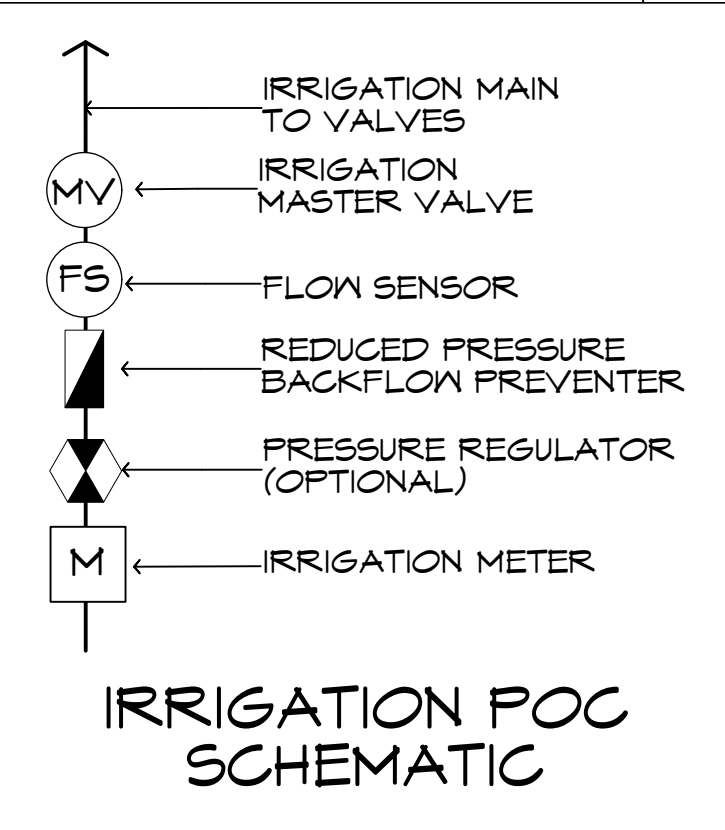
IRRIGATION NOTES

- ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE OF THE AREA TO BE IRRIGATED UNLESS OTHERWISE NOTED ON THE PLANS.
- THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM STATIC PRESSURE OF 35 PSI AT THE VALVES AND THE MAXIMUM FLOW DEMAND SHOWN ON THE IRRIGATION DRAWINGS AT THE POINT OF CONNECTION. THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION OF THE IRRIGATION SYSTEM. IF THE WATER PRESSURE SHOWN ON THE DRAWINGS DIFFERS FROM THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY. IN THE EVENT PRESSURE DIFFERENCES ARE NOT REPORTED PRIOR TO THE START OF CONSTRUCTION, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
- THE LOCATION OF THE CONTROLLER TO BE VERIFIED BY OWNER. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR CONNECTING ALL PROPOSED STATIONS TO THE CONTROLLER. CONTROLLER TO BE CONFIGURED TO OPERATE 20 STATIONS. CONTROLLER SHALL BE HUNTER IC-600-M WITH THREE ICM-600 EXPANSION MODULES.
- ALL CONSTRUCTION IS TO BE PER THE LATEST EDITION OF THE UNIFORM BUILDING CODE.
- THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ROOT BARRIERS, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY. INSTALL PIPING AND VALVES IN PLANTING AREAS WHERE POSSIBLE, AND LOCATE ELECTRIC CONTROL AND QUICK COUPLING VALVES IN GROUND COVER/SHRUB AREAS, 6" TO 12" AWAY FROM HARDSCAPE OR TURF AREA FOR EASY ACCESS.
- THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVER SPRAY ONTO WALKS, ROADWAYS, AND/OR BUILDINGS. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT THE EXISTING SITE CONDITIONS AND THROTTLING THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM.
- IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE THEMSELVES WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, STRUCTURES, AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL EXERCISE EXTREME CARE, AND BE RESPONSIBLE FOR ANY DAMAGE IN EXCAVATING AND WORKING NEAR UTILITIES. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE GENERAL CONTRACTOR AND OTHER SUB-CONTRACTORS FOR THE LOCATION OF UTILITIES AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, AND NEAR STRUCTURES. PRIOR TO CONSTRUCTION, CONTACT ALL APPLICABLE AGENCIES AND U.S.A. AT 1-800-642-2444 TO FIELD LOCATE ALL EXISTING UTILITIES.
- FIELD ADJUSTMENTS MAY BE REQUIRED TO PROVIDE OPTIMUM OPERATING EFFICIENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE LANDSCAPE ARCHITECT TO REVIEW FIELD ADJUSTMENTS PRIOR TO INSTALLATION. IN THE EVENT THAT NO CONTACT IS MADE WITH THE LANDSCAPE ARCHITECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REVISIONS.
- SLEEVE ALL IRRIGATION PIPE AND CONTROL WIRES UNDER STREETS AND CONCRETE WALKWAYS WITH THE PROPER SIZE CLASS 200 PVC PIPE TO DEPTH AS SPECIFIED.
- FOR ADDITIONAL INFORMATION, SEE PROJECT DETAILS AND SPECIFICATIONS.
- ALL WORK SHALL CONFORM TO ALL APPLICABLE CITY OF SANTA ROSA CONSTRUCTION STANDARDS.
- NO GALVANIZED IRON PIPE OR FITTINGS SHALL BE ALLOWED.
- A BALL VALVE IN A SEPARATE ROUND VALVE BOX IS TO BE INSTALLED IMMEDIATELY UPSTREAM FROM EACH REMOTE CONTROL VALVE OR GROUP OF VALVES. VALVE SHALL BE SIZED TO MAINLINE SUPPLY AT THE RC VALVE. SEE DETAIL.
- INSTALL 3" WIDE DETECTABLE TAPE (#3" DTP, AS MANUFACTURED BY T. CHRISTY). TAPE SHALL BE INSTALLED 6" ABOVE THE IRRIGATION MAIN.
- INSTALL ALL LANDSCAPE DRIPLINE BENEATH MULCH. INSTALL ALL TUBING 3" BELOW GRADE, PARALLEL AT SPACING INDICATED. USE LANDSCAPE STAPLES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO SECURE TUBING TO GROUND.
- A SIGNED CERTIFICATE OF COMPLETION IS REQUIRED PRIOR TO FINAL ACCEPTANCE BY THE CITY OF SANTA ROSA. IF THE INSTALLATION OF THE LANDSCAPE DOES MEET OR SUBSTANTIALLY COMPLY WITH THE APPROVED LANDSCAPE CONSTRUCTION DOCUMENTS, THE CERTIFICATE OF COMPLETION WILL NOT BE SIGNED OR APPROVED BY THE LANDSCAPE ARCHITECT OF RECORD.

IRRIGATION PLAN
 Scale: 1/16" = 1'-0"

IRRIGATION KEYNOTES

- POC AT DEDICATED IRRIGATION WATER METER; REFER TO SCHEMATIC DRAWING THIS SHEET AND CIVIL DRAWINGS
- TYPICAL IRRIGATION SLEEVE BENEATH PAVEMENT; SIZE SLEEVE TO CONTAIN PIPE AND WIRE PER DETAIL; MINIMUM SIZE NO LESS THAN 2" DIAMETER
- QUICK COUPLER, TYPICAL
- DRIPLINE VALVE, TYP.
- PARALLEL LINE HATCH INDICATES ECO-MAT
- CROSS LINE HATCH INDICATE LANDSCAPE DRIPLINE ZONES
- POLY TUBING TO PVC CONNECTION, TYPICAL
- TREE BUBBLERS, TWO PER TREE, TYPICAL, ONE ABOVE GRADE STREAM BUBBLER AND ONE SUB-SURFACE BUBBLER
- TREE AREA IS CALCULATED AT A NETTED DIAMETER OF 6 FT. OR EQUIVALENT AREA. THE SAME AREA IS REMOVED FROM THE HYDROZONE BELOW THE TREE AND THE HIGHER WATER USE IS APPLIED IN THE ETWA CALCULATION.
- INSTALL DRIPLINE 3" BELOW GRADE IN ALL PLANTING AREAS AT 18" OC TYPICAL; ALL DRIPLINE SHALL BE INSTALLED PARALLEL TO GENERAL LAYING CONTOURS; HOLD DRIPLINE BACK FROM EDGE 1/2 THE ROW SPACING; MINIMUM OF ONE DRIP IN NARROW SPACES.
- TREE BUBBLER VALVE, TYP.
- CONTROLLER LOCATION: MOUNT AT EYE LEVEL; SUBJECT TO OWNER APPROVAL
- SOLAR SYNC SENSOR, ROOF MOUNT WITH CLEAR ACCESS TO SKY
- IRRIGATION LAYOUT IS DIAGRAMMATIC. INSTALL ALL MAIN LINE, LATERALS AND CONTROL WIRE IN LANDSCAPE AREAS. DO NOT INSTALL IN PUBLIC RIGHT OF WAY. WHEN LAYOUT REQUIRES INSTALLATION UNDER PAVING, USE IRRIGATION SLEEVES PER DETAIL SHEET L-3.
- WATER FEATURE



**BIORETENTION AREAS
 SUPPLEMENTAL TEMPORARY IRRIGATION**

CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SUPPLEMENTAL IRRIGATION OF ALL BIO-RETENTION AREAS THROUGH THE SOD OR PLANT ESTABLISHMENT PERIOD. METHOD OF IRRIGATION APPLICATION IS DISCRETIONARY AND MAY INCLUDE HAND WATERING OR INSTALLATION OF A TEMPORARY, ABOVE GRADE OVERHEAD SPRAY CIRCUIT. ANY REPLACEMENT NECESSARY FOR LOSS OR DAMAGE TO SOD OR PLANTS DUE TO LACK OF WATER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT CONTRACTOR'S EXPENSE.

REVISIONS

DATE	DESCRIPTION	BY
5/18/22	SITE PLAN COORDINATION BASED ON CITY COMMENTS	DM

DATE: 12/18/21
 MLA JOB #: 2019-14
 SCALE: 1" = 16'
 DRAWN: DM

L1

U.S.A. NOTE
 IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO BE FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, STRUCTURES, AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL EXERCISE EXTREME CARE, AND BE RESPONSIBLE FOR ANY DAMAGE IN EXCAVATING AND WORKING NEAR UTILITIES. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OTHER SUB-CONTRACTORS FOR THE LOCATION OF UTILITIES AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, AND NEAR STRUCTURES. PRIOR TO CONSTRUCTION, CONTACT ALL APPLICABLE AGENCIES AND U.S.A. AT 1-800-642-2444 OR 1-800-227-2600 TO FIELD LOCATE ALL EXISTING UTILITIES.

THESE DRAWINGS COMPLY WITH THE CRITERIA OF THE ORDINANCE. ORDINANCE REQUIREMENTS HAVE BEEN APPLIED FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN AND THE LANDSCAPE DESIGN PLAN.

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 don@macnairlandscape.com

PLANTING PLAN

WEST STEEL LANE APARTMENTS
 1650 WEST STEEL LANE
 SANTA ROSA, CA

PLANT LEGEND

SYMBOL	SIZE	BOTANICAL NAME	COMMON NAME	WATER USE PER 1000S FT ²	QUANTITY	COMMENTS
Trees						
APB	#24	Acer palmatum var. atropurpureum 'Bloodgood'	Bloodgood Japanese Maple	.6	4	Multi-Trunk
ARA	#24	Acer rubrum 'Armstrong'	Armstrong Maple	.6	11	
AMA	#24	Arbutus x Marina	Marina Strawberry Tree	.3	1	
CME	#24	Citrus limon Meyer improved	Improved Meyer Lemon	.6	2	
CEY	#24	Cornus Florida x nuttallii 'Eddies White Wonder'	Eddies White Wonder Dogwood	.6	4	
LIA	#24	Lagerstroemia indica x faueri 'Arapaho'	Arapaho Grape Myrtle	.3	6	
CE5	#24	Olea europaea 'Swan Hill'	Fruitless Olive	.1	3	
Shrubs						
DOM	#5	Daphne odora 'Aureo-marginata'	Variegated Winter Daphne	.3	1	
LSS	#5	Ligustrum sinense 'Sunshine'	Sunshine Chinese Privet	.3	20	
LCK	#5	Loropetalum chinense 'Kurena'	Jazz Hands Dwarf Pink Chinese Fringe-flower	.3	60	
LCH	#5	Loropetalum chinense 'Razzieberry'	Razzieberry Fringe Flower	.3	14	
NDC	#5	Nandina domestica 'Compacta'	Dwarf Heavenly Bamboo	.3	53	
RIC	#5	Rhapidolepis indica 'Clara'	Clara Indian Hawthorn	.3	10	
RIF	#5	Rosa x 'Iceberg' Floribunda Rose	'Iceberg' Rose	.6	6	
SRU	#5	Barcoceca ruscifolia	Fragrant Sweet Box	.3	16	
Perennials						
AEL	#1	Aspidistra elatior	Cast Iron Plant	.3	14	
LIP	#5	Lavandula x intermedia 'Phenomenal'	Phenomenal French Lavender	.3	22	
NFY	#1	Nepeta x faassenii 'Walker's Low'	Walker's Low Catmint	.3	13	
SJH	#5	Salvia x jamensis 'Hot Lips'	Hot Lips Autumn Sage	.3	6	
Vines						
PTG	#5	Parthenocissus tricuspidata 'Green Showers'	Green Showers Boston Ivy	.3	1	
RBA	#5	Rosa banksiae 'Alba Plena'	White Lady Banks Rose	.3	4	Train on Arbor
CCA	#5	Clytostoma callistegioides	Lavender Trumpet Vine	.6	4	Train on Arbor
Groundcover						
CDC	#1	Cotoneaster dammeri 'Coral Beauty'	Coral Beauty Cotoneaster	.3	30	6' OC, Triangular Spacing
	#1	Ophiopogon formosanus	Taiwan Mondo Grass	.6	35	
Ornamental Grass						
CTE	#1	Chondropetalum tectorum	Cape Rush	.3	16	
DCA	#1	Deschampsia caespitosa	Tufted Hair Grass	.3	20	
LLB	#1	Lomandra longifolia 'Breeze'	'Breeze' Dwarf Mat Rush	.3	44	
Bioretention Areas						
		Sod Biofiltration Sod	'Biofiltration Sod'	.03		Delta Bluegrass (CA Natives)
Other						
		Mulch: Fir Bark 1-1/2" Minus	Medium Mulch-On Bark			3" Depth, All Landscape Areas
		See Detail	Linear Root Barrier			24" Depth, Continuous

PLANTING NOTES

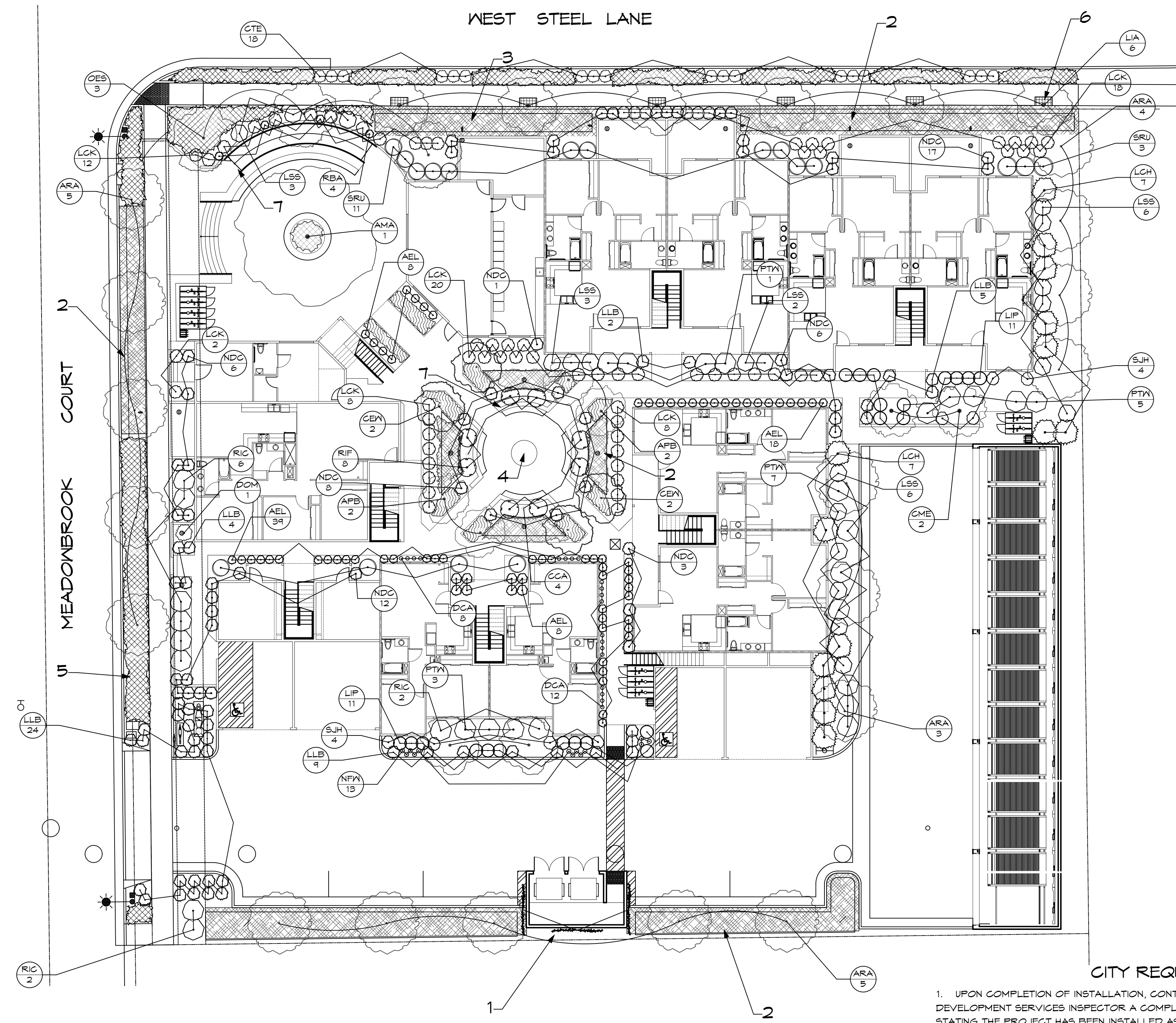
- ALL GROUND COVER TO BE SPACED IN A TRIANGULAR PATTERN, CONTRACTOR RESPONSIBLE FOR COMPLETE COVERAGE.
- SUPPLY AGRIFORM 21 GRAM TABLETS AS FOLLOWS: 5-15 GAL., 3-5 GAL., 1-1 GAL.
- DIG PLANTING PITS 2 TIMES THE DIAMETER AND EQUAL THE HEIGHT OF ROOTBALL.
- BACKFILL PITS WITH 2/3 EXISTING SOIL, 1/3 ORGANIC AMENDMENT
- ALL PLANTS TO BE SPOTTED IN THE FIELD BY LANDSCAPE ARCHITECT PRIOR TO PLANTING.
- WHEN LANDSCAPING IN EXISTING PLANTED AREAS, CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE OR DESTROY ANY EXISTING PLANT MATERIAL OR IRRIGATION, EXISTING PLANT MATERIAL AND IRRIGATION THAT IS DAMAGED SHALL BE REPLACED WITH LIKE, SIZE, QUALITY, ETC. BY THE CONTRACTOR AT HIS EXPENSE.
- SPECIAL ATTENTION IS TO BE PAID TO THE PLANTING AREAS SURROUNDING THE BUILDINGS. COMPACTED SOIL IS TO BE SUFFICIENTLY EXCAVATED TO ALLOW FOR PROPER ROOT GROWTH AND DRAINAGE OF ALL AREAS. CHECK SOIL FOR PROPER DRAINAGE PRIOR TO PLANTING. AUGER THROUGH COMPACTED SOIL WHERE NECESSARY. DO NOT PLANT IN THE DRAINAGE SWALES.
- ALL CONSTRUCTION IS TO BE PER ALL APPLICABLE AND PREVAILING CITY OF SANTA ROSA CONSTRUCTION STANDARDS.
- A SIGNED CERTIFICATE OF COMPLETION IS REQUIRED PRIOR TO FINAL ACCEPTANCE BY THE CITY OF SANTA ROSA. IF THE INSTALLATION OF THE LANDSCAPE DOES MEET OR SUBSTANTIALLY COMPLY WITH THE APPROVED LANDSCAPE CONSTRUCTION DOCUMENTS, THE CERTIFICATE OF COMPLETION WILL NOT BE SIGNED OR APPROVED BY THE LANDSCAPE ARCHITECT OF RECORD.

CITY REQUIREMENT OF DOCUMENT OF COMPLIANCE (ITEMS TO BE INCLUDED WITH CERTIFICATE OF COMPLETION)

- A. PROJECT APPLICANT MUST SUBMIT DOCUMENTATION VERIFYING IMPLEMENTATION OF SOIL ANALYSIS REPORT RECOMMENDATIONS TO THE CITY WITH CERTIFICATE OF COMPLETION
- B. THE CERTIFICATE OF COMPLETION MUST BE ACCOMPANIED BY AN IRRIGATION AUDIT THAT CONTAINS THE FOLLOWING:
- OPERATING PRESSURE OF THE IRRIGATION SYSTEM
 - DISTRIBUTION UNIFORMITY OF OVERHEAD IRRIGATION
 - PRECIPITATION RATE OF OVERHEAD IRRIGATION
 - REPORT OF ANY OVERSPRAY OR BROKEN IRRIGATION EQUIPMENT
 - IRRIGATION SCHEDULE INCLUDING:
 - PLANT ESTABLISHMENT IRRIGATION SCHEDULE
 - REGULAR IRRIGATION SCHEDULE BY MONTH (SEE ORDINANCE FOR DETAILS)
 - VERIFICATION THAT A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES IS KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.
 - ALL LANDSCAPE IRRIGATION AUDITS MUST BE CONDUCTED BY A CITY CERTIFIED LANDSCAPE IRRIGATION AUDITOR OR A THIRD PARTY CERTIFIED LANDSCAPE IRRIGATION AUDITOR.
 - AN IRRIGATION MAINTENANCE SCHEDULE TIMELINE MUST BE ATTACHED TO THE CERTIFICATE OF COMPLETION (SEE ORDINANCE FOR DETAILS)
- C. IRRIGATION AUDIT: AN IN-DEPTH EVALUATION OF THE PERFORMANCE OF AN IRRIGATION SYSTEM CONDUCTED BY A CERTIFIED LANDSCAPE IRRIGATION AUDITOR (SEE ORDINANCE FOR DETAILS). THE AUDIT MUST BE CONDUCTED IN A MANNER CONSISTENT WITH THE IRRIGATION ASSOCIATION'S LANDSCAPE IRRIGATION AUDITOR CERTIFICATION PROGRAM OR OTHER U.S. EPA 'WATERSENSE' LABELED AUDITING PROGRAM.

REVISIONS

5/18/22	SITE PLAN COORDINATION BASED ON CITY COMMENTS	DM
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PLANTING PLAN
 Scale: 1/16" = 1'-0"

PLANTING KEYNOTES

- TRAIN VINES UP WALL
- BIO-FILTRATION SOD, TYPICAL
- NO MULCH IN BIOSWALES
- WATER FEATURE
- 3" DEEP MULCH, ALL LANDSCAPE AREAS
- 2' X 4' RECTANGULAR TREE GRATES AT BACK OF SIDEWALK
- TRAIN VINES ON ARBOR

CITY REQUIRED NOTES

- UPON COMPLETION OF INSTALLATION, CONTRACTOR SHALL SUBMIT TO THE ENGINEERING DEVELOPMENT SERVICES INSPECTOR A COMPLETED AND SIGNED 'CERTIFICATE OF COMPLETION' STATING THE PROJECT HAS BEEN INSTALLED AS DESIGNED.
- THE CERTIFICATE OF COMPLETION SHALL BE ACCOMPANIED BY AN IRRIGATION AUDIT, IRRIGATION SCHEDULE AND A MAINTENANCE SCHEDULE, AS DESCRIBED IN THE CITY ORDINANCE.
- A FINAL CITY INSPECTION SHALL BE PERFORMED. THE INSTALLATION CONTRACTOR SHALL ATTEND THIS INSPECTION AND MAKE ALL REQUIRED REPAIRS AND ADJUSTMENTS TO ACHIEVE APPROVAL AND COMPLETION FROM THE CITY. TO SCHEDULE AN INSPECTION, CONTACT ENGINEERING DEVELOPMENT SERVICES AT (707) 543-4611.
- A MINIMUM OF 8" OF NON-MECHANICALLY COMPACTED SOIL SHALL BE AVAILABLE FOR WATER ABSORPTION AND ROOT GROWTH IN PLANTED AREAS.
- INCORPORATE COMPOST OR NATURAL FERTILIZER INTO THE SOIL TO A MINIMUM DEPTH OF 8" AT A MINIMUM RATE OF 8 CUBIC YARDS PER 1000 SQUARE FEET OR PER SPECIFIC AMENDMENT RECOMMENDATIONS FROM A SOILS LABORATORY REPORT.
- A MINIMUM 3" LAYER OF MULCH SHALL BE APPLIED ON ALL EXPOSED SOIL SURFACES OF PLANTING AREAS EXCEPT IN TURF AREAS, CREEPING OR ROOTING GROUNDCOVERS OR DIRECT SEEDING APPLICATIONS.

DATE: 12/18/21
 MLA JOB #: 2019-14
 SCALE: 1" = 20'
 DRAWN: DM

**SECTION 2 SITE WORK
DIVISION 02750**

UNDERGROUND IRRIGATION SYSTEM

PART 1 GENERAL

1.01 SCOPE

A. Work Included: perform all work necessary and required for the construction of the project as indicated. Such work includes but is not limited to the following:

1. Furnish and install complete irrigation system.
2. Trenching and backfilling of trenches.
3. Sleeves for irrigation piping and remote control valve wiring under pavements and walls as noted.

B. Related Work in Other Sections: The following items of associated work are included in other sections of these specifications:

1. Landscaping, Section 02800
- C. By Others: The following items of work will be performed by others and are not included in the contract.
 1. Electrical stub-out for irrigation controller.
 2. Irrigation water meter.
 3. Water stub-outs for irrigation system.

3.02 INSPECTION OF CONDITIONS: Examine related work and surfaces before starting work of this section. Report to the landscape architect in writing, conditions which will prevent the proper provision of this work. Beginning the work of this section without reporting unsuitable conditions to the landscape architect constitutes acceptance of conditions by the contractor. Any required removal, repair, or replacement of this work caused by unsuitable conditions to be done at no additional cost to the owner.

1.03 CODES, RULES AND SAFETY ORDERS

A. All work and materials to be in full accordance with the latest rules and regulations of safety orders of Division of Industrial Safety, the Uniform Plumbing Code published by the Western Plumbing Officials' Association, and other applicable laws or regulations, including the prevailing local plumbing code. Nothing in these drawings or specifications is to be construed to permit work not conforming to these codes. Should the construction documents, not in variance with the aforementioned rules and regulations, notify the landscape architect and get instructions before proceeding with the work affected.

B. Furnish and maintain all warning signs, shoring, barricades, red lanterns, etc., as required by the Safety Orders of the Division of Industrial Safety and local ordinances.

C. Contact U.S.A. for location of underground utilities.

1.04 STANDARDS: American Society of Testing and Materials (ASTM).

1.05 PERMITS AND FEES: Obtain all permits and pay required fees to any governmental agency having jurisdiction over the work. Arrange inspections required by local agencies and ordinances during the course of construction as required.

1.06 APPROVAL: Whenever the terms "approve", "approval", or "approved" are used in the specifications, they mean approval of landscape architect in writing.

1.07 WORK SCHEDULE: Submit a proposed work schedule to landscape architect at least 5 days prior to start of work under this Section. After approval, no modification shall be made to this schedule without written authorization by the landscape architect.

1.08 OBSERVATION SCHEDULE

Observe installation and hydrostatic test results to be made by the landscape architect prior to backfilling of trenches.

C. Pre-maintenance

When all work has been completed a pre-maintenance walk-through will be conducted. If approved, the 90 calendar day maintenance period will begin.

D. Final Observation

Final Observation will be after the 90 calendar day maintenance period and all required work is completed. Please give 1 week notice to the observation meeting.

1.09 SUBSTITUTIONS

A. Specific reference to manufacturer's names and products specified in this Section are used as standards, but this implies no right to substitute other material or methods without written approval of the landscape architect.

B. Installation of any approved substitution is contractor's responsibility. Any changes required for installation of any approved substitution must be made to the satisfaction of the landscape architect and without additional cost to the owner.

1.10 PROTECTION OF EXISTING CONDITIONS

A. Contractor shall acquaint themselves with all site conditions. Should utilities or other work not shown on the plans be found during excavations, contractor shall promptly notify landscape architect for instructions as to further action. Failure to do so will make contractor liable for any and all damage thereto arising from their operations subsequent to discovery of such utilities not shown on plans.

1.11 COORDINATION: Coordinate and cooperate with other contractors to enable the work to proceed as rapidly and efficiently as possible.

1.12 PRODUCT HANDLING: Protect work and materials under this Section from damage during construction and storage. Protect polyvinyl chloride (PVC) pipe and fittings from direct sunlight. Beds on which PVC is stored must be full length of pipe. Do not use any pipe or fitting that has been damaged or dented.

1.13 SAMPLES: Landscape architect reserves the right to take and analyze samples of materials for conformity to specifications at any time. Contractor shall furnish samples upon request by the landscape architect. Rejected material shall be removed from the site immediately and replaced at the contractor's expense. Cost of testing materials not meeting specifications shall be paid by contractor.

1.14 HYDROSTATIC TESTS: A. Make hydrostatic tests with scheduled PVC joints have cured at least 24 hours. Apply continuous static water pressure of 100 psi as follows:

1. All piping on the pressure side of control valves shall be tested for two hours.
2. All completion of hydrostatic test, mainline shall be opened at farthest most point from the location of the pump to verify continuity of the mainline.

B. Leaks resulting from tests shall be repaired and tests repeated until system passes tests.

1.15 "AS-BUILT" IRRIGATION DRAWINGS: Contractor shall furnish Record Drawings of the complete irrigation system. Procedure from the landscape architect full sized sepias of Contract Drawings. Construction drawings shall be on the construction site at all times while the irrigation system is being installed. Actual location of valves and all irrigation and drainage piping shall be shown on the prints by dimensions from easily identified permanent features, such as buildings, curbs, fences, walks or property lines. Drawings shall show approved substitutions, if any, of material including manufacturer's name and catalog number. The drawings shall be at scale and all indications shall be neat. All information noted on the print shall be transferred to the prints by contractor and all indications shall be recorded in a neat, orderly way. The record drawings shall be turned over to the landscape architect at or before the Final Acceptance of the project.

1.16 CONTROLLER CHARTS

1. As-built drawings shall be approved by the landscape architect before charts are prepared.

2. Provide one controller chart for each controller supplied.

3. The chart shall show the area controlled by automatic controller and shall be the maximum size controller door will allow.

4. The chart is to be reduced drawing of the actual as-built system. However, in the event the controller sequence is not legible when the drawing is reduced, it shall be enlarged to a size that will be readable when reduced.

5. Chart shall be black line print and a different color shall be used to show area of coverage for each station.

6. The chart shall be mounted using Velcro, or an approved equal.

7. When completed and approved, the chart shall be hermetically sealed between two pieces of plastic, each piece being a minimum 20 mils. thick.

8. These charts shall be completed and approved prior to final inspection of the irrigation system.

1.17 MATERIALS TO BE FURNISHED

A. Prior to final inspection the contractor shall furnish the following materials to the owner:

1. Two wrenches for disassembling and adjusting each type of sprinkler head supplied.
2. Two keys for each automatic controller.
3. Four keys for loose key hose bibs and/or hose bibs.
4. Twelve 12 inch pop-up sprinkler bodies.

1.18 CLEAN-UP: Keep all areas of work clean, neat and orderly at all times. Keep paved areas clean during installation. Clean up and remove all debris from the entire work area prior to Final Acceptance to satisfaction of landscape architect.

1.19 FINAL ACCEPTANCE: Work under this Section will be accepted by landscape architect upon satisfactory completion of all work. Upon Final Acceptance, owner will assume responsibility for maintenance of the work. Said assumption does not relieve contractor of obligations under Warranty.

1.20 WARRANTY: In addition to manufacturer's warranties or warranties, all work shall be warranted for one year from the date of Final Acceptance against defects in material, equipment and workmanship by contractor. Warranty shall also cover repair of damage to any part of the premises resulting from leaks or other defects in materials, equipment and workmanship to the satisfaction of the owner.

PART 2 MATERIALS

2.01 GENERAL: Materials throughout the system shall be new and in perfect condition. At least 14 days prior to beginning work, submit for approval 2 copies of manufacturer's catalog cuts, specifications, and operating instructions of the complete list of materials and assemblies to be installed. Quantities of materials and equipment need not be included. No deviations from the specifications shall be allowed. The decision of the landscape architect shall be final in the determination of the quality of materials and equipment.

2.02 WATER METERS: Shall be provided by others.

2.03 PIPE

A. Mainline piping on pressure side of irrigation control valves:

1. 2" size and greater to be Polyvinyl Chloride (P.V.C.) 1120-1220, Class 315 and shall conform to ASTM D 2241-73 and D 2872-73.
2. Up to and including 1-1/2" size to be Polyvinyl Chloride (P.V.C.) 1120-1220, Schedule 40 and shall conform to ASTM D 1785-73.
3. Galvanized Steel, Standard wall, Schedule 40, capable of working pressure up to 600 psi shall run from the point of connection to back flow prevention device.
4. Piping in the point of connection to the back flow prevention device shall be as approved by local code.

B. Lateral line piping on non-pressure side of irrigation control valves:

1. 2" size and greater to be Polyvinyl Chloride (P.V.C.) 1120-1220, Class 315 and shall conform to ASTM D 2241-73 and D 2872-73.
2. Up to and including 1-1/2" size to be Polyvinyl Chloride (P.V.C.) 1120-1220, Schedule 40 and shall conform to ASTM D 1785-73.

2.04 FITTINGS

A. PVC Fittings: Schedule 40, Polyvinyl Chloride, high impact weight, as manufactured by Sloane, Lasco, medium or approved equal.

B. Fittings for Galvanized Steel Pipe: Schedule 40, standard weight as manufactured by Grinnell, or approved equal.

C. Connections between main and valves shall be PVC Schedule 80 nipples and fittings.

2.05 SLEEVE MATERIALS

A. For Control Wires: PVC 1120-1220, Class 200 pipe or heavy wall galvanized steel conduit.

B. For Water Lines: PVC 1120-1220, Class 200 pipe or heavy wall galvanized steel conduit.

2.06 IRRIGATION CONTROLLERS

A. Controller to be as shown on plans and is to be installed as per detail and manufacturer's specifications.

2.07 IRRIGATION CONTROL VALVES

A. Remote Control Valves: Valves to be as shown on plans and installed per details and manufacturer's specifications.

2.08 CONTROL WIRE

A. Wire: Solid copper wire, U.L. approved for direct burial in ground. Minimum gauge: #14. Common ground wire shall be white.

B. Splicing Materials: Wire connectors shall be Pentite or split wire connectors.

C. All wires shall be labeled with the valve number at the controller and valve.

D. 120 wiring shall be as required by local code and installed by an electrician. It shall not be on a switched circuit.

E. Common wire shall be white. Control wires shall be other than white. Use a different color control wire for each controller.

2.09 VALVE BOXES

A. Remote Control Valves: To be Brooks, Green or approved equal, one per valve.

B. Gate Valves and Control Wire Stub-out Locations: To be Brooks, Green or approved equal, one per valve stub-out location.

2.10 QUICK-COUPLING VALVES

A. Quick coupling valves to be as per plans and details.

B. Furnish 2 valve keys fitted with hose valve assembly.

C. All valve boxes shall be purple in color or clearly labeled by the manufacturer to designate reclaimed water.

2.11 LANDSCAPE DRIP-LINE: Tubing as shown in legend and drawings.

A. Install in parallel and consistent runs at spacing indicated in all specified areas.

B. Install 3" below grade.

2.12 SPRINKLER HEADS

A. Heads as shown in legend and drawings.

2.13 BACK-FLOW PREVENTION ASSEMBLIES

A. Back-flow prevention device as shown in legend and drawings.

PART 3 EXECUTION

3.01 LAYOUT

A. Layout work as accurately as possible to drawings. Drawings are diagrammatic to the extent that swing joints, offsets and all fittings are not shown.

B. Full and complete coverage is required. Contractor shall make any necessary minor adjustments to layout required to achieve full coverage of irrigated areas at no additional cost to owner.

PART 1 GENERAL

1.01 SCOPE

A. Work Included: Perform all work necessary and required for the construction of the project as indicated. Such work includes but is not limited to the following:

1. Site preparation including weed and rubble removal.
2. Laboratory soil analysis.
3. Fumishing and spreading topsoil.
4. Finishing grading of planted areas.
5. Soil amendment.
6. Planting.

B. Related Work: The following items of associated work are included in other sections of these specifications:

1. Section 02750: Underground Irrigation System.

C. Dig trenches wide enough to allow a minimum of 6 in. between parallel pipe lines. Trenches shall be of sufficient depth to provide minimum cover from finish grade as follows:

1. Over PVC pipe on pressure side of irrigation control valve, control wires and quick coupling valves: 18 inches.

2. Over pipe on non-pressure side of irrigation control valve: 12 inches.

3.03 BACK FLOW PREVENTION DEVICE INSTALLATION

A. Install according to local code and manufacturer's instructions.

B. Install with union on discharge side for servicing, or with flanges, as required.

3.04 SLEEVING

A. Where pipes or wires must be installed under paving place them in sleeves with a 2" minimum depth and sufficient size to accommodate irrigation lines and/or wires.

B. Lack of pipe chase coordination does not relieve the contractor from installing the pipes and control wire shown on the drawing. In the event pipe chases were not installed prior to paving the contractor shall bore under the paving to accommodate pipes and wires.

C. All control wire shall be in Schedule 40 conduit from trench to controller. When valves are grouped together allow 12" between valve boxes, each valve in a separate box, (not to be placed in drainage swales, but kept in ground cover areas.)

3.05 PIPE LINE ASSEMBLY

A. Install pipe in accordance with manufacturer's instructions.

B. Solvent weld all PVC pipe and fittings using solvents (including primer) and methods as recommended by the manufacturer, except where screw connections are required. Clean pipe and fittings of dirt and moisture before assembly. PVC pipe may be assembled on ground surface beside trench. Snake pipe from side to side of trench bottom for expansion and contraction. Make all connections between PVC pipe and metal valves or pipe with threaded fittings using PVC male adapters.

C. Use Teflon tape on all threaded fittings.

D. Thrust blocks shall be installed where the irrigation main changes direction as at alleys and tees and where the irrigation main terminates. Pressure tests shall not be made for a period of 36-48 hours following the completion of pouring of the thrust blocks. Concrete thrust blocks for supply mains shall be sized and placed in strict accordance with the pipe manufacturer's specifications and shall be of an adequate size and so placed as to take all thrust created by the maximum internal B. Related Work: The following items of associated work are included in other sections of these specifications:

1. Section 02750: Underground Irrigation System.

1.02 REQUIREMENTS OF REGULATORY AGENCIES

A. Perform work in accordance with all applicable laws, codes, and regulations required by authorities having jurisdiction over such work and provide for all inspections and permits required by federal, state, and local authorities in furnishing, transporting and installing materials.

B. Certificates of inspection required by law for transportation shall accompany the invoice for each shipment of plants. File copies of certificates with landscape architect after acceptance of material.

C. Inspections of federal and state governments at place of growth does not preclude rejection of plants at project site.

1.03 SELECTION, TAGGING AND ORDERING OF PLANT MATERIAL

A. Submit documentation to landscape architect at least 7 days prior to start of work under this section that all plant material has been ordered. Arrange procedure for observation with landscape architect at time of submission.

B. Plants shall be subject to observation and approval by landscape architect at place of growth or upon delivery for conformity to specifications. Such approval shall not impair the right of observation and rejection during progress of the work. Submission of replacement of plant material at place of growth to landscape architect. Written request shall state the place of growth and the quantity and variety of plants to be observed. Landscape architect reserves the right to refuse observation at this time if, in his judgment, a sufficient number of plants are not available for observation or not in the landscape architect's control.

C. Substitution of plant material will not be permitted unless authorized in writing by landscape architect. If proof is submitted that any plant specified is not obtainable, a proposal will be considered for use of the nearest equivalent size or variety with corresponding adjustment of contract price.

1.04 COORDINATION: Contractor shall coordinate and cooperate with other contractors to enable the work to proceed as rapidly and efficiently as possible.

1.05 INSPECTION OF SITE: Contractor shall visit site and inspect conditions as they exist prior to submitting bid. Site dimensions, water pressure and general conditions shall be verified prior to beginning of any work.

1.08 INTENT OF DRAWINGS AND SPECIFICATIONS: It is the intent of the drawings and specifications to provide planting with plants in irrigation, ready for owner's use. Any items not specifically shown in the drawings or called for in the specifications, but normally required to conform with such intent, as to be considered as part of the work. Written dimensions take precedence over scale dimensions.

1.07 APPROVAL: Whenever the terms "approve", "approval" or "approved" are used herein, they mean approval of landscape architect in writing.

2.02 LANDSCAPE AREA PLANTING SOILS

1.08 PRODUCT HANDLING

A. Furnish standard products in manufacturer's standard containers bearing original labels showing quantity, analysis and name of manufacturer.

B. Store products with protection from weather or other conditions which would damage or impair the effectiveness of the product.

1.09 PROTECTION OF EXISTING PLANTS TO REMAIN

A. Do not store materials or equipment, permit burning, or operate or park equipment within designated plant protection zones as specified on the plans.

B. Notify landscape architect in any case where contractor feels grading or other construction called for by Contract Documents may damage existing plants to remain. Do not proceed with such work until directed by landscape architect.

C. If existing plants are damaged during construction, contractor shall replace such plants of the same species and size as those damaged at no cost to owner. Determination of extent of damage and value of damaged plant shall rest solely with landscape architect.

1.10 GRADING

A. Prior to planting grading will be brought to within 10" +/- foot of finish grade with soil suitable for planting by the landscape contractor. It is the responsibility of the landscape contractor to verify that no conflict exists with the grading plan. Fine finish grading will be done by the landscape contractor.

2.03 PREPARATION OF LANDSCAPE AREA PLANTING SOILS

A. Prior to any work in planting areas all construction debris shall be removed.

B. Structural fill and/or compacted engineered fill and/or any other soil deemed unsuitable for horticultural use as defined by Sections 2.2-A, 2.2-B and 2.2-C. Imported landscape area planting soils shall be equal in quality as determined laboratory analysis. It shall be free from stones larger than 1 in. in size, sub-soil, refuse, plants or roots, clods, weeds, sticks, or other extraneous material. It shall be capable of sustaining healthy plant life. Landscape area planting soils may be obtained through stockpiling of existing topsoil or imported soil of equal texture and quality as determined by approved soil laboratory analysis.

C. Soil Chemistry: All planting soils shall meet the following soil chemistry parameters:

1. Reaction - pH of saturated paste = 5.5 to 7.5
2. Salinity (Electrical conductivity in mmho/cm) = <4.0
3. Sodium Adsorption Ratio (SAR) = <6.0
4. Sodium = <5.0 milliequivalents per liter
5. Chloride = <5.0 milliequivalents per liter
6. Boron (Parts Per Million in extract) = <1.0

D. Soil Fertility: Adequate amounts of nitrogen, potassium, phosphorus, calcium, and magnesium shall be available to support healthy plant growth. Soil shall be analyzed for fertility and landscape area soils shall be treated with inorganic fertilizer amendments prior to planting.

E. Lime Treated Soil: If lime is used for soil compaction in landscape areas, all lime treated soil shall be removed to a depth equal or more to the depth of the treated soil. Soil shall be replaced with import soil as described in the landscape specifications.

2.04 COMMERCIAL FERTILIZER

A. Pre-plant fertilizer for soil incorporation shall consist of the following percent by weight:

6% Nitrogen
20% Phosphoric Acid
20% Potash

B. Post Planting/Surface Application Fertilizer:

16% Nitrogen
8% Phosphoric Acid
8% Potash

C. Fertilizer requirement is subject to change based on soil testing for horticultural suitability.

2.05 SOIL AMENDMENTS

A. Organic Amendment: Shall be nitrified and derived from fir wood residuals.

B. Physical Properties: 1/2" minus fir bark, nitrified fortified or enriched.

C. Chemical Amendments: As required by soil analysis with approval of landscape architect.

2.06 STAKING MATERIALS

A. Contractor shall use staking materials necessary to meet requirements of specifications, subject to approval of landscape architect.

B. Tree Stakes: 2" x 2" x 8' lodgepole pine pressure treated stakes. Considered heat treated. Use 2 stakes per tree. Do not drive stakes through the rootball). Use 2 stakes per tree.

C. Tree Ties: Corded rubber tree ties, 16" without wire.

2.07 ROOT BARRIERS

A. "Root Solutions" control planter, or equal. Install according to local code and manufacturer's instructions. Use in all areas where tree is

D. Thrust blocks shall be installed where the irrigation main changes direction as at alleys and tees and where the irrigation main terminates. Pressure tests shall not be made for a period of 36-48 hours following the completion of pouring of the thrust blocks. Concrete thrust blocks for supply mains shall be sized and placed in strict accordance with the pipe manufacturer's specifications and shall be of an adequate size and so placed as to take all thrust created by the maximum internal B. Related Work: The following items of associated work are included in other sections of these specifications:

1. Section 02750: Underground Irrigation System.

C. All root barriers shall be installed "4" from the back curb or other landscape edge with 4" of 3/4" gravel drain rock 24" deep on the root barrier side away from the tree.

2.08 WATER: Furnished by owner. Transport as required.

2.09 MULCH: Fir bark 1 1/2" to 2", free of sticks, dirt, dust and other debris, as approved, to a depth of 3" to be placed in all landscaped areas except where flats have been prepared or annual beds and drainage swales. Fir bark, 1/2" minimum, free of sticks, dirt, dust and other debris, as approved, to a depth of 1" to be placed in all landscaped areas where flats have been prepared or in annual beds. Shredded bark mulch shall be used in conjunction with jute netting on all slopes greater than 6:1.

2.10 PRE-EMERGENT WEED CONTROL: All herbicides used to control weeds shall comply with all governmental regulations and shall be appropriate to weed species. Contact the local county agricultural agent or pest control authority for proper herbicide recommendations. Follow manufacturer's instructions carefully.

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