

4249 CHEENEY ROAD, SANTA CLARA, CALIFORNIA
HISTORIC RESOURCE EVALUATION – POTENTIAL IMPACTS

JANUARY 17, 2023



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1. INTRODUCTION & METHODOLOGY

David J. Powers has requested an evaluation of a proposed project located at 4249 Cheeney Street for potential effects to historic resources adjacent to and within 200 feet of the project site. Located approximately 90 feet north of the project site, the building at 2086 Agnew Road (APN 104-12-028) is identified as a locally designated property on the City of Santa Clara's Historic Preservation and Resource Inventory. This report provides a project description, impacts analysis, and mitigation measures pertaining to the proposed project's potential effects on 2086 Agnew Road.

The proposed project was reviewed in October 2019, and since then the design has changed. This updated report takes the latest designs, dated December 15, 2022, from MFA Engineers and Associates, into consideration.

TreanorHL conducted a site visit on January 9, 2023; and reviewed the Santa Clara Historic Preservation and Resource Inventory, Santa Clara City Code Chapter 18.106 Historic Preservation, the DPR form for 2086 Agnew Road, and drawings from MFA Engineers and Associates.

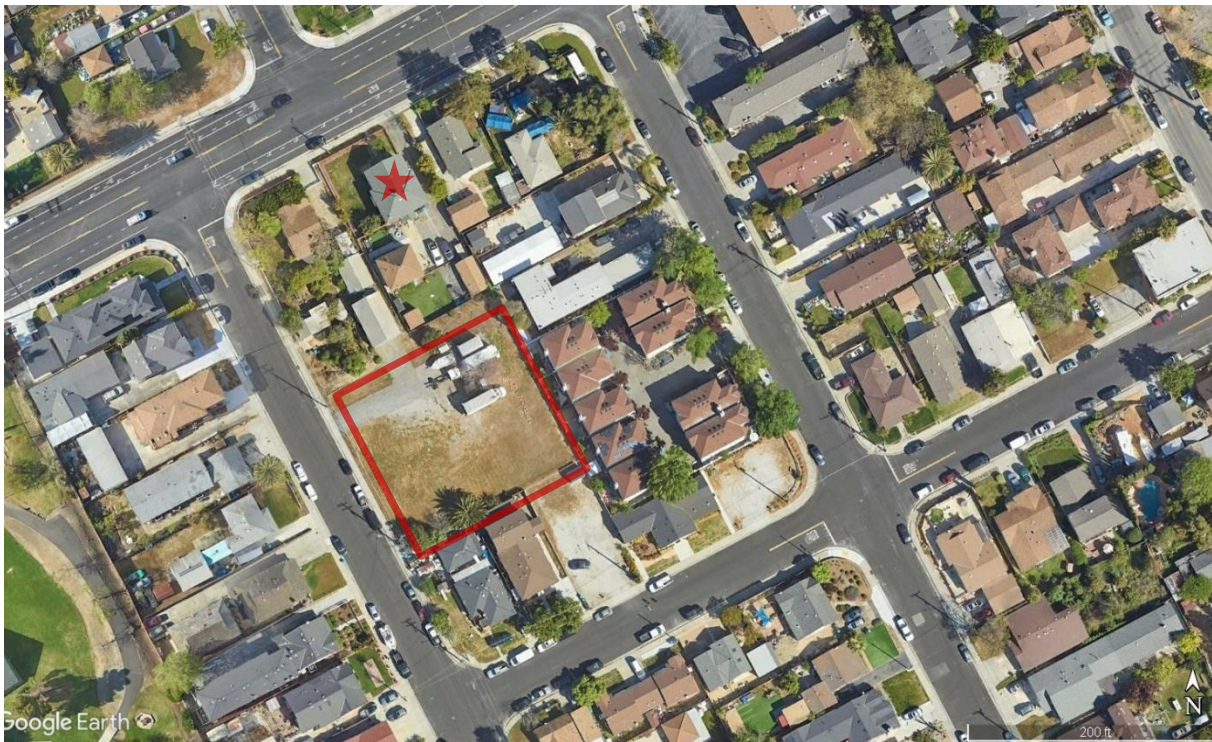


Figure 1. Aerial view of the area; the project site at 4249 Cheeney Street outlined in red and 2086 Agnew Road marked with a star (Google Earth, imagery date March 2022).



Figure 2. The project site at 4249 Cheeney Street, looking north (Imagery date January 2023).

2. 2086 AGNEW ROAD

The building at 2086 Agnew Road is locally designated as a historic resource. Listed on the City of Santa Clara's Historic Preservation and Resource Inventory, the Agnew School was constructed ca. 1890 and "served the surrounding community until 1927 when it was permanently closed." The building has been used as a residence ever since.¹

Set back approximately 25 feet from the sidewalk, this tall one-story building is T-shaped in plan. The wood-frame structure has horizontal wood siding and a shingle-clad front-facing gabled and hipped roof with an enclosed cornice and a profiled frieze. A brick chimney pierces the roof at the center. The primary window type is wood-sash double-hung with simple wide trim. On the front (north) façade, a partial-width, central gabled porch with square pillars shelters the main entrance, which consists of a single wood door. The porch is raised on a concrete platform with three steps on all sides. A pair of double-hung windows flank each side of the porch. The detached garage at the southeast corner of the parcel is reached by an asphalt driveway. A two-story accessory unit is located to the southwest of the main house.

¹ *City of Santa Clara 2010-2035 General Plan, "8.9 Historic Preservation and Resource Inventory;"* City of Santa Clara/Planning, *2086 Agnew Road DPR Form*, 1992.



Figure 3. The building at 2086 Agnew Road, view of the north and east facades (Imagery date January 2023).



Figure 4. The building at 2086 Agnew Road, view of the north and west facades (Imagery date January 2023).

Character-defining features of the property include the following:

- Tall one-story, T-shaped massing

- Wood-frame construction
- Front-facing gabled (front) and hipped (rear) roof
- Horizontal wood siding
- Symmetrical front (north) façade
- Central partial-width gabled porch with square pillars
- Raised entry platform
- Double-hung wood-sash windows with simple trim

3. PROJECT DESCRIPTION

The project site consists of two adjacent parcels at 4249 Cheeney Street (APN 104-12-025 and 104-12-026) in the Agnew Village neighborhood of the City of Santa Clara. The 150' by 150' site is currently vacant with no existing buildings or infrastructure. Vegetation is grassy with bushes and a handful of small trees. The surrounding lots contain one- or two-story single-family houses, scattered outbuildings, and driveways. A group of two-story townhomes are located immediately east of the project site.

The project proposes nine units of two-story single-family residential townhouses, each with a two-car garage. The garages are accessed by an L-shaped paved surface drive dividing the two rows of buildings. To the north is a set of five townhomes with asphalt-clad front gabled roofs, and to the south, along Cheeney Street, is a set of four units with hipped roofs. Each unit is roughly rectangular in plan and clad in cement plaster and board-and-batten siding. A mix of operable and fixed windows are on all the units.

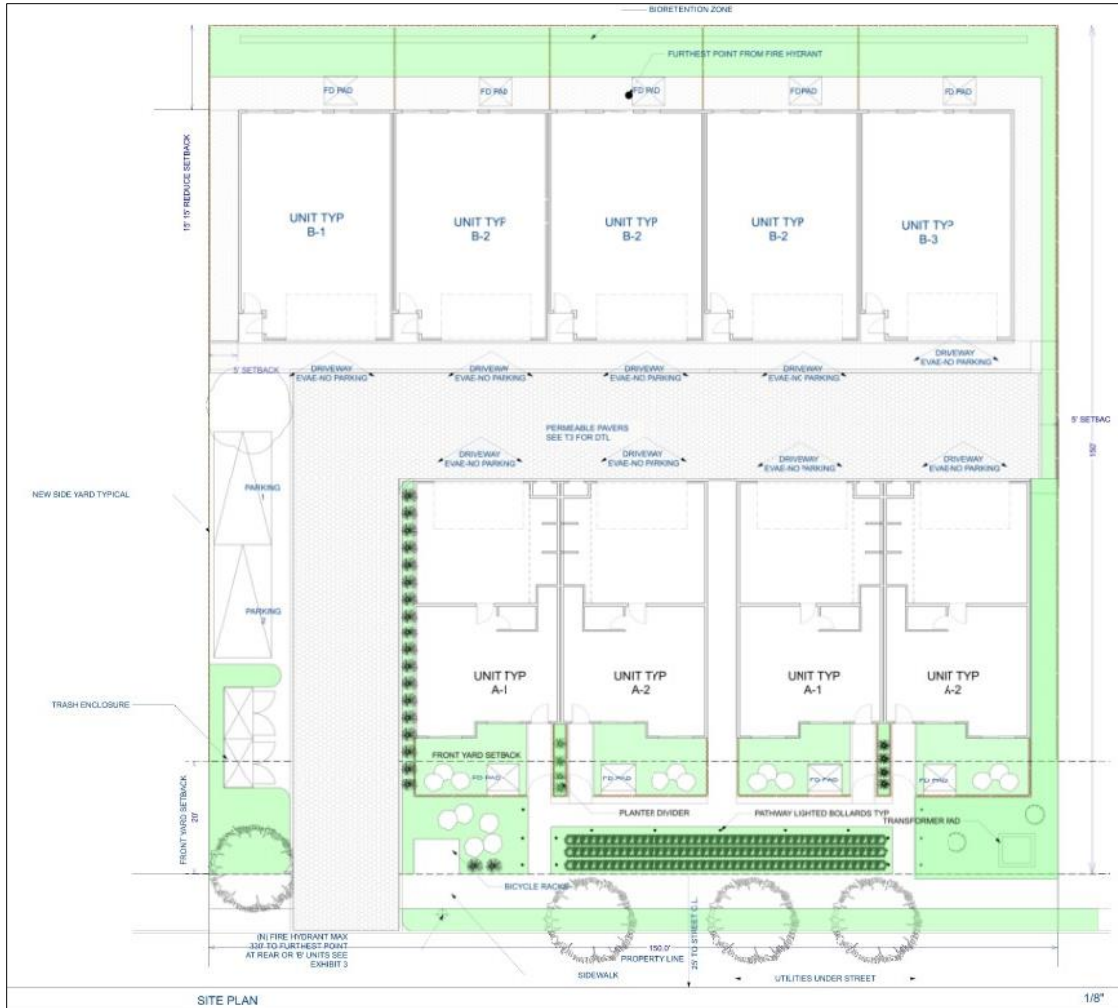


Figure 5. The proposed project, site plan (MFA Construction and Engineering, December 2022).



Figure 6. The proposed project, elevations (MFA Construction and Engineering, December 2022).



Figure 7. The proposed project, elevations (MFA Construction and Engineering, December 2022).

4. IMPACTS AND MITIGATION MEASURES

Historical resources include properties eligible for listing on the National Register of Historic Places, the California Register of Historical Resources, or a local register of historical resources (as defined in Public Resources Code §5020.1(k)). As discussed above, 2086 Agnew Road is listed on the *Historic Preservation and Resource Inventory* of Santa Clara. According to Public Resources Code §15064.5(b), a project

would have a significant effect on a historic resource if it would “cause a substantial adverse change in the significance” of that resource. Specifically, “[s]ubstantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.”

In case of new construction, the Secretary of the Interior’s Standards are applied to determine the compatibility of the proposed project with the existing historic resource. Of the ten Standards for Rehabilitation, only #9 and #10 apply to new construction.

- 9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.*

The proposed development does not significantly alter the immediate surroundings of the property. The density and the scale of the proposed buildings are appropriate with the height of the historic resource at 2086 Agnew Road. The proposed design is modern with simple, cubic forms; therefore, it is easily distinguished from the historic. The proposed materials; i.e. wood and cement plaster, are compatible with the adjacent historic resource and its vicinity. Overall, the project at 4249 Cheeney Street will be compatible with the massing, size, scale, and architectural features of the historic resource at 2086 Agnew Road. Therefore, the proposed project complies with Standard 9.

- 10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

The proposed development will be constructed approximately 90 feet south of the historic resource at 2086 Agnew Road. The project will not diminish the integrity of the subject building or its surroundings. If new construction were to be removed in the future, the essential form and integrity of the historic property will be unimpaired. Therefore, the proposed project complies with Standard 10.

5. CONCLUSION

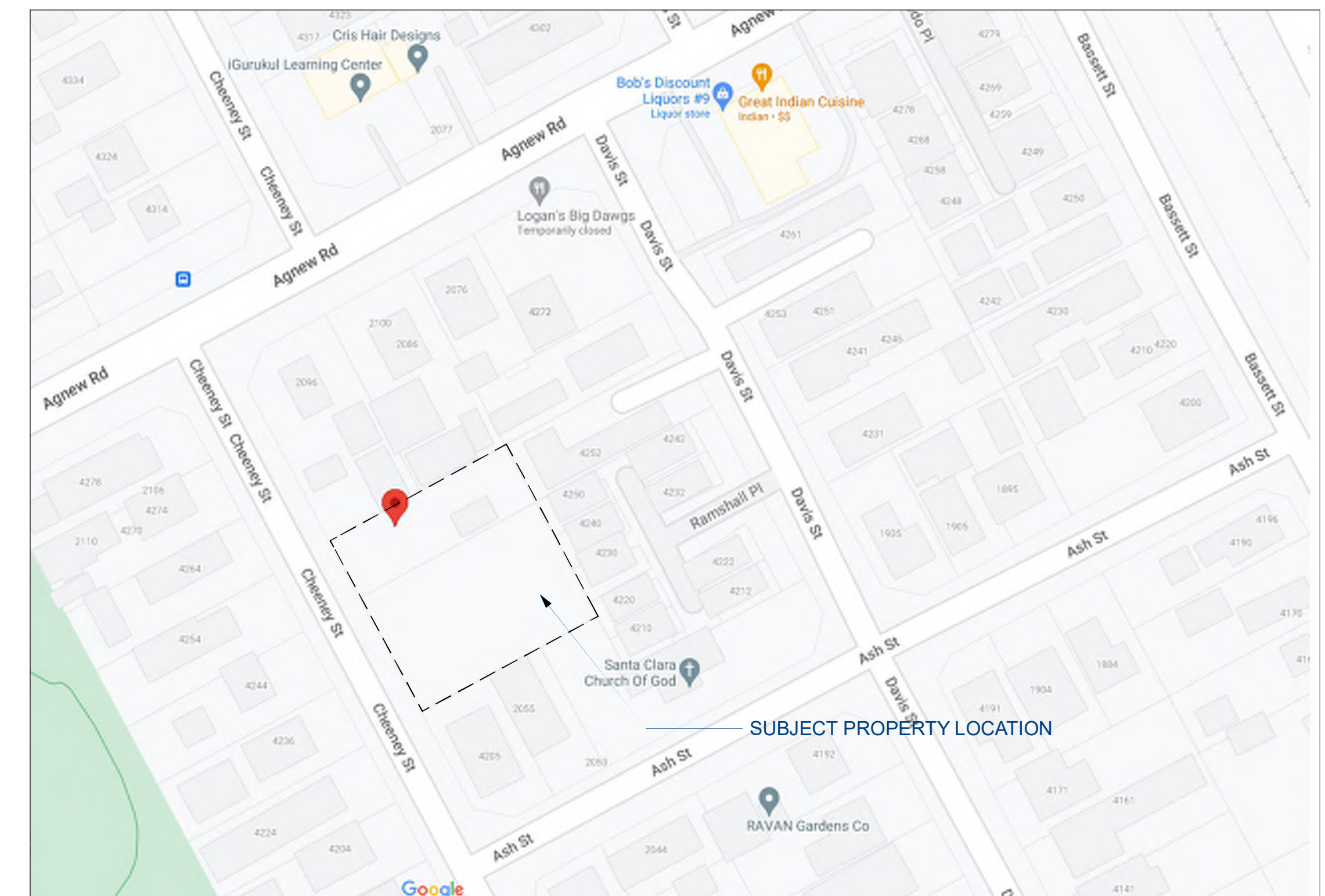
The revised December 2022 project proposed at 4249 Cheeney Street is consistent with the Secretary of the Interior’s Standards for Rehabilitation and will not have any impacts on the historic resource at 2086 Agnew Road. The proposed project would not cause 2086 Agnew Road to lose its current historic status as a locally designated resource. The proposed development would be contemporary but compatible with the historic resource and its surroundings. The integrity of the historic resource would not be impaired. The construction of the project would not have a direct impact on 2086 Agnew Road. The proposed project would not have an indirect impact on 2086 Agnew Road from construction activities (i.e. vibration) since the historic resource is not immediately adjacent to the development.

APPENDIX

MFA Engineers & Associates, Cheeney St. Townhouses Plans, 4249 Cheeney St, Santa Clara, CA 95054,
12/19/2022

SYMBOLS:	ABBREVIATIONS:	APPLICABLE CODES:																								
BUILDING LAYOUT POINT	A A.C. Asphalt Concrete AC.T. Acoustical Tile AC.P. Acoustical Panel A.D. Area Drain ADJ. Adjustable AGGR. Aggregate A.F.F. Above Finished Floor AL./ALUM. Aluminum AND. And ANG.<. Angle APPROX. Approximate ARCH. Architectural ASPH. Asphalt @. At	BUILDING 2019 CALIFORNIA BUILDING CODE (CBC) MECHANICAL 2019 CALIFORNIA MECHANICAL CODE (CMC) PLUMBING 2019 CALIFORNIA PLUMBING CODE (CPC) ELECTRICAL 2019 CALIFORNIA ELECTRICAL CODE (CEC) FIRE PREVENTION 2019 CALIFORNIA FIRE CODE (CFC) AND LOCAL ORDINANCE ENERGY 2019 CALIFORNIA T-24- CALIFORNIA ENERGY CODE ACCESSIBILITY: MORE STRINGENT OF CALIFORNIA BUILDING CODE OR APPLICABLE FEDERAL LAWS CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) CITY OF SANTA CLARA, CA MUNICIPAL CODE																								
DATUM POINT ELEVATION	B BKG. Backing BD. Board BITUM. Bituminous BLDG. Building BLKG. Blocking BM. Beam B.O. Bottom of BOT. Bottom B.U. Built-up	SHEET INDEX: GENERAL G0.0 COVER SHEET G1.0 3D VIEWS AND MATERIALS ARCHITECTURAL A1.0 SITE PLAN A1.1 LEVEL 1 FLOOR PLAN A1.2 LEVEL 2 FLOOR PLAN A1.3 ROOF PLAN A2.0 ELEVATIONS - A UNITS A2.1 ELEVATIONS - B UNITS A3.0 SITE SECTIONS CIVIL C1 TITLE SHEET C2 DEMOLITION PLAN C3 PRE AND POST DEVELOPMENT PLAN C4 STORM WATER CONTROL PLAN AND SECTIONS C5 GRADING AND DRAINAGE PLAN C6 BUILDING CROSS SECTIONS C7 UTILITY PLAN C8 EROSION CONTROL PLAN C8 EROSION CONTROL DETAILS T1 TENTATIVE MAP T2 TENTATIVE MAP - EXISTING SITE CONDITIONS																								
MATCH LINE	M MAT. Material M.B. Machine Bolt M.C. Medicinal Cabinet MD. Medium MECH. Mechanical MEMB. Membrane MET. Metal MFR. Manufacturer MH. Manhole MIN. Minimum MIR. Mirror MISC. Miscellaneous M.O. Masonry Opening MTD. Mounted MUL. Mullion	LANDSCAPE L1.1 PRELIMINARY PLANTING PLAN L1.2 TREE INVENTORY PLAN ELECTRICAL E0.00 COVER SHEET, GENERAL NOTES, & INDEX E1.00 ONE-LINE DIAGRAM, PANEL & FAULT SCHEDULES E1.01 LUMINAIRE SCHEDULE E2.00 SITE PLAN E3.00 TYPICAL UNIT POWER PLAN E3.01 TYPICAL UNIT POWER PLAN MECHANICAL M0.0 LEGEND, GENERAL NOTES, DRAWINGS INDEX M0.1 PROJECT NOTES M0.3 MECHANICAL SCHEDULES M2.0 HVAC PLAN - FIRST FLOOR M2.1 HVAC PLAN - SECOND FLOOR M2.2 HVAC PLAN - ROOF M7.0 TITLE 24 COMPLIANCE FORMS M7.1 TITLE 24 COMPLIANCE FORMS M7.2 TITLE 24 COMPLIANCE FORMS PLUMBING P000 LEGEND, NOTES, AND DRAWING INDEX P001 NOTES AND CALCULATIONS P002 SCHEDULES AND CALCULATIONS P200 UNDERSLAB WASTE AND VENT PLAN P201 LEVEL 1 WASTE & VENT PLAN P202 LEVEL 2 WASTE & VENT PLAN P203 ROOF PLUMBING PLAN P301 LEVEL 1 SUPPLY PLAN P302 LEVEL 2 SUPPLY PLAN P401 WASTE & VENT RISER DIAGRAM P501 SUPPLY RISER DIAGRAM P700 DETAILS P701 DETAILS																								
PROPERTY LINE	N N (N) New N.I.C. Not In Contract NO.# Number NOM. Nominal N.T.S. Not to Scale	PROJECT TEAM: OWNER: MARUTI BUILDERS, INC. 859 ALISAL CT. MILPITAS, CA 95051 T. (408) 431-7003 F. 000-000-000 maruti@builders.com DESIGNER/ENGINEER: MFA CONSTRUCTION AND ENGINEERING 1190 PARK AVE SAN JOSE, CA 95126 ALI ABIANI SAUL FLORES/JUAN C. NAVARRO T. (408) 710-6725/(408)205-9812 saoul@groundzerosj.com LANDSCAPE ARCHITECT: GROUND ZERO CONSTRUCTION, INC. 7076 KINDRA HILL DRIVE SAN JOSE, CA 95120 SAUL FLORES T. (408) 680-2929 F. 000-000-000 saoul@groundzerosj.com MEP ENGINEERING: ROBISON ENGINEERING, INC 19401 40TH AVENUE COURT LYNWOOD, WA 98036 JON ROBISON T. 206.364.3343 jrobison@robisonengineering.com																								
DIM. @ F.O.S./STRUC.	O O.I. Overall O.A. On Center O.C. Outside Diameter (Dim.) O.H. Opposite Hand O.F.D. Overflow Drain OBS. Obscure OFF. Opening OPNG. Opposite OPP. Opposite	PROJECT SUMMARY AND SCOPE OF WORK: THE PROJECT SITE IS A 22,500 SQUARE FEET COMBINED LOTS IN THE AGNEW'S VILLAGE NEIGHBORHOOD OF THE CITY OF SANTA CLARA. ADJACENT PARCELS 104-12-025 AND 104-12-026 FROM THE SITE WHICH HAS A 150' LONG WESTERN FRONTAGE ALONG CHEENEY STREET THE 150' X 150' PROJECT SITE IS CURRENTLY VACANT WITH NO EXISTING BUILDINGS OR INFRASTRUCTURE. UTILITIES RUN BELOW CHEENEY STREET, WITH ABOVE GROUND POWER LINES COLINEAR WITH THE SIDEWALK. THE PROPOSED PROJECT RECEIVED EARLY CONSIDERATION APPROVAL FOR REASSIGNMENT OF USE DESIGNATION FROM VERY LOW DENSITY RESIDENTIAL TO LOW DENSITY RESIDENTIAL, ALLOWING FOR UP TO 9 UNITS ON THIS HALF ACRE SITE. THE SCHEME INTRODUCES 9 TOTAL DWELLING UNITS; EACH UNIT CONTAINS A 2-CAR GARAGE AND DRIVEWAY ACCESS VIA A PERMEABLE PAVED SURFACE LOT. THE PROPOSED TOWNHOMES WOULD CONTAIN APPROXIMATELY 15,520 TOTAL SQUARE FEET OF INTERIOR HABITABLE SPACES, EACH OWNERSHIP UNIT AT ROUGHLY 1,724 SQUARE FEET IN AREA. EACH DWELLING IS TWO STORY AND HAS 3 BEDROOMS AND 2-1/2 BATHS.																								
DIM. @ CENTER LINE	P P.C. Painted Concrete P.G.B. Painted Gypsum Board PKG. Parking PRCST. Pre-Cast PL. Plate PLAM. Plastic Laminate PLAS. Plaster PLYWD. Plywood PR. Pair PT. Point PT.D. Paper Towel Dispenser P.T.D/R. Combination Paper Towel Dispenser & Receptacle PTN. Partition P.T.R. Paper Towel Receptacle	PROJECT DATA MATRIX:																								
DIM. @ F.O.F./CLEAR	Q QTY. Quantity Q.T. Quarry Tile	<table border="1"> <thead> <tr> <th>LOT</th> <th>AREA</th> <th>LOT COVERAGE</th> </tr> </thead> <tbody> <tr> <td>LOT</td> <td>22,500 SF</td> <td></td> </tr> <tr> <td>LEVEL 1 (SITE TOTAL)</td> <td>10,121 SF</td> <td>44.9%</td> </tr> <tr> <td>LEVEL 2 (SITE TOTAL)</td> <td>10,134 SF</td> <td>-</td> </tr> <tr> <td>BUILDING TOTAL</td> <td>20,255 SF</td> <td></td> </tr> <tr> <td>PAVING (PERMEABLE)</td> <td>6,300 SF</td> <td>28%</td> </tr> <tr> <td>IMPERMEABLE SURFACE (PAVING & BUILDING SLAB)</td> <td>12,187 SF</td> <td>54%</td> </tr> <tr> <td>LANDSCAPE</td> <td>4,016 SF</td> <td>17%</td> </tr> </tbody> </table>	LOT	AREA	LOT COVERAGE	LOT	22,500 SF		LEVEL 1 (SITE TOTAL)	10,121 SF	44.9%	LEVEL 2 (SITE TOTAL)	10,134 SF	-	BUILDING TOTAL	20,255 SF		PAVING (PERMEABLE)	6,300 SF	28%	IMPERMEABLE SURFACE (PAVING & BUILDING SLAB)	12,187 SF	54%	LANDSCAPE	4,016 SF	17%
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(N) OR REQUIRED ELEVATION POINT	R R. Riser RAD. Radius R.B.-4 4" Rubber Top Set Base R.B.-6 6" Rubber Top Set Base R.D. Roof Drain REF. Reference REFR. Refrigerator REINF. Reinforced REQ. Required RESIL. Resilient R.F. Resilient Flooring RFG. Roofing RGR. Register RHWS. Round Head Wood Screw RM. Room RND. Round R.O. Rough Opening RWD. Redwood R.W.L. Rain Water Leader	GUEST PARKING SPACES REQUIRED: 2 GUEST PARKING SPACES PROVIDED: 2																								
(E) ELEVATION POINT	S S.C. Solid Core S.C.D. Seat Cover Dispenser S.CONC. Sealed Concrete SCHED. Schedule S.D. Soap Dispenser SECT. Section SH. Shelf SHR. Shower SHT. Sheet SIM. Similar SHT.MET. Sheet Metal SM. Small S.N.D. Sanitary Napkin Dispenser SD.INSUL. Sound Insulation SPEC. Specification SQ. Square See Structural Plans See Structural Drawings S.S.P. Service Sink S.S.D. Stainless Steel S.S.T.L. Station STD. Standard STL. Steel STOR. Storage STRUC. Structure/Structural SUSP. Suspended S.V. Sheet Vinyl SYM. Symmetrical SYS. System																									
COLUMN GRID	T TRD. Tread T.B. Towel Bar T.C. Top of Curb TEL. Telephone TEMP. Temporary TER. Terrazzo T.&G. Tongue & Groove T.G.B. Textured Gypsum Board THK. Thick T.O. Top of T.O.C. Top of Concrete T.P.D. Toilet Paper Dispenser TV. Television T.O.W. Top of Wall TYP. Typical																									
DETAIL NO. SHEET NO.	U UNF. Unfinished Unless Otherwise Noted UR. Urinal																									
WALL SECTION NO. SHEET NO.	V VCR. Vinyl Carpet Reducer VCT. Vinyl Composition Tile VERT. Vertical VEST. Vestibule VT. Vinyl Tile V.W.C. Vinyl Wall Covering																									
BUILDING SECTION	W W. West WI. With W.C. Water Closet WD. Wood WDW. Window																									
INTERIOR ELEVATION	X X. X-ray																									
DOOR NO. DOOR TYPE	Y Y. Y-axis																									
WINDOW NO.	Z Z. Z-axis																									
REVISION NO.																										
ROOM NAME ROOM NO.																										
EARTH																										
POROUS FILL/ GRAVEL/ROCK																										
SAND/MORTAR/ CEMENT PLASTER																										
CONCRETE																										
MASONRY WALL																										
BRICK/BRICK VENEER/ PAVER																										
QUARRY/ CERAMIC TILE																										
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ROUGH WOOD																										
FINISH WOOD																										
METAL																										
GYPSUM BOARD																										
PROTECTION BOARD																										
ACOUSTICAL TILE																										
GLASS																										
WATERPROOFING/ FLASHING																										
BLANKET OR BATT INSULATION																										

CHEENEY STREET TOWNHOUSES



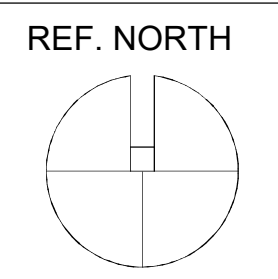
MFA
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SAN JOSE, CA 95136
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CHEENEY ST TOWNHOUSES
4249 CHEENEY ST
SANTA CLARA, CA 95054

DATE:	12/19/2022
PROJECT No.	39-071322

COVER SHEET



GO.O



PINK CRAPE MYRTLE



TUPELO



YEW PINE



LITTLE GEM MAGNOLIA



AMBER MONROVIA



ELIJAH BLUE FESCUE



SISKIYOU BLUE FESCUE



CEMENT PLASTER - PAINTED LIGHT TAN



BOARD AND BATTEN SIDING - PAINTED LIGHT GREY



VIEW 2 FACING TYPE 'B' UNITS

N.T.S.

2



VIEW 1 FACING TYPE 'A' UNITS

N.T.S.

1

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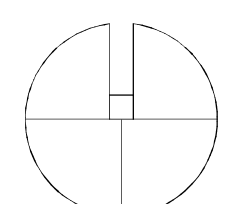
CHEENEY ST TOWNHOUSES

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DATE: 12/17/2022
PROJECT No. 39-071322

3D VIEWS AND MATERIALS

REF. NORTH



G1.0

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MFA CONSTRUCTION AND ENGINEERING

LANDSCAPE SPECIES

4

MATERIALS

3

VIEW 1 FACING TYPE 'A' UNITS

N.T.S.

1

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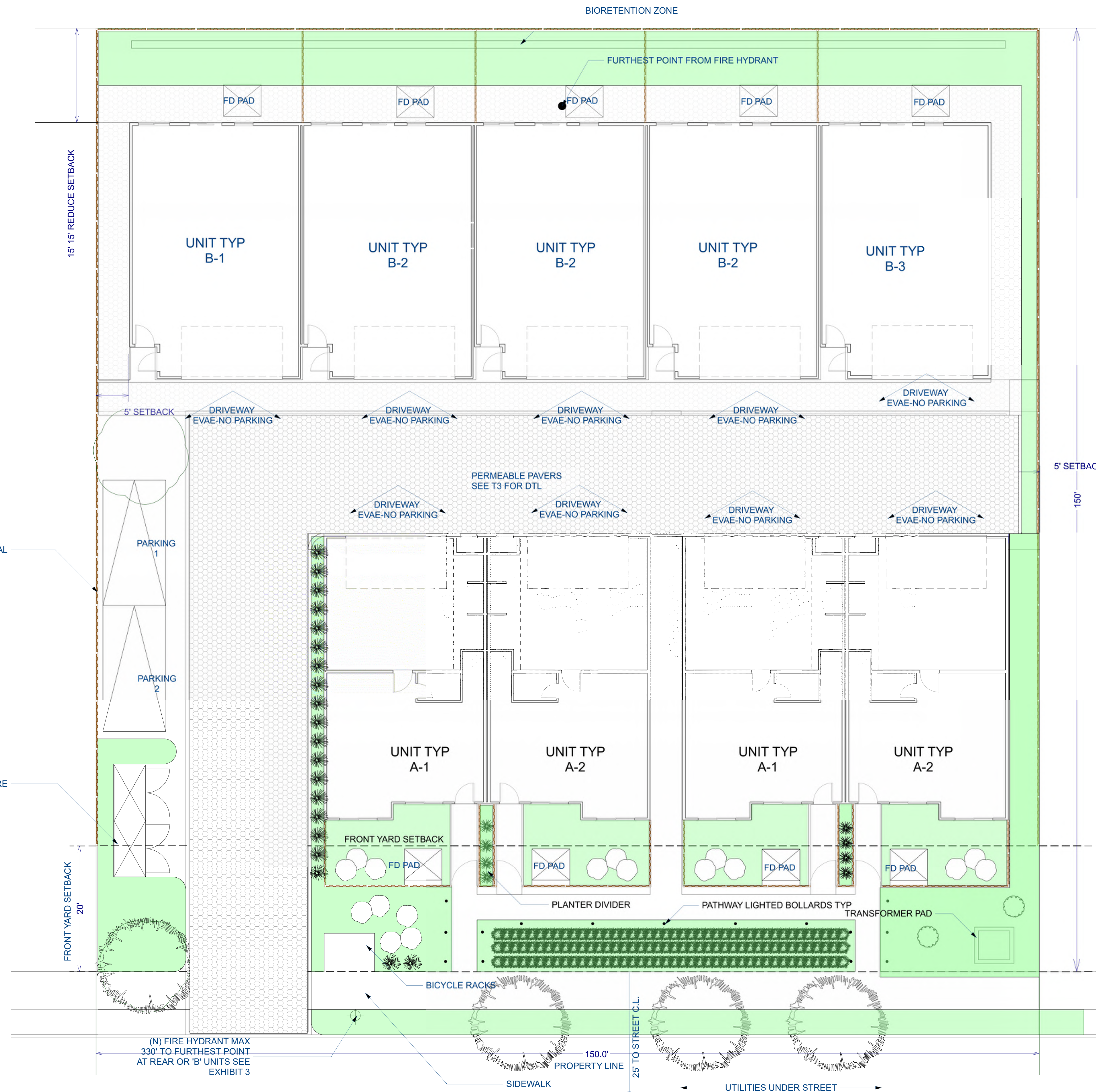
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CHEENEY ST TOWNHOUSES

4249 CHEENEY ST
SANTA CLARA, CA 95054



NEW SIDE YARD TYPICAL

TRASH ENCLOSURE

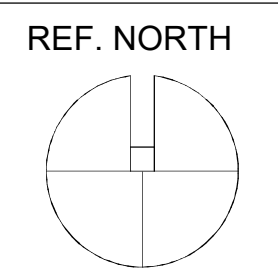
FRONT YARD SETBACK
20'

(N) FIRE HYDRANT MAX
330' TO FURTHEST POINT
AT REAR OR 'B' UNITS SEE
EXHIBIT 3

SITE PLAN

DATE: 12/15/2022
PROJECT No. 39-071322

SITE PLAN



A1.0

MFA

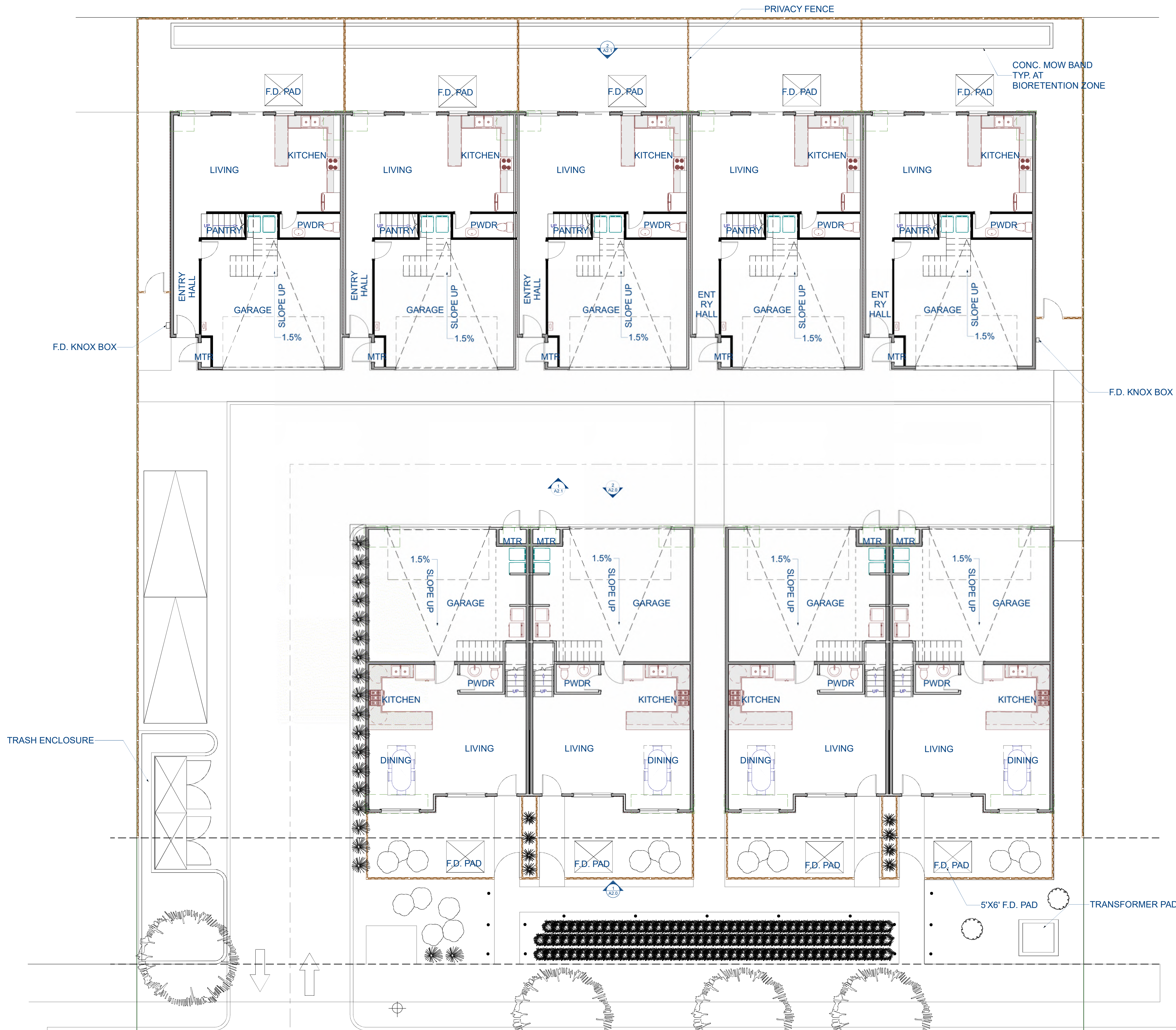
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CHEENEY ST TOWNHOUSES

4249 CHEENEY ST
SANTA CLARA, CA 95054



LEVEL 1

1/8"

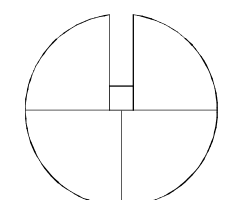
1

DATE: 12/16/2022

PROJECT No. 39-071322

LEVEL ONE

REF. NORTH



A1.1

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AND ENGINEERING

MFA

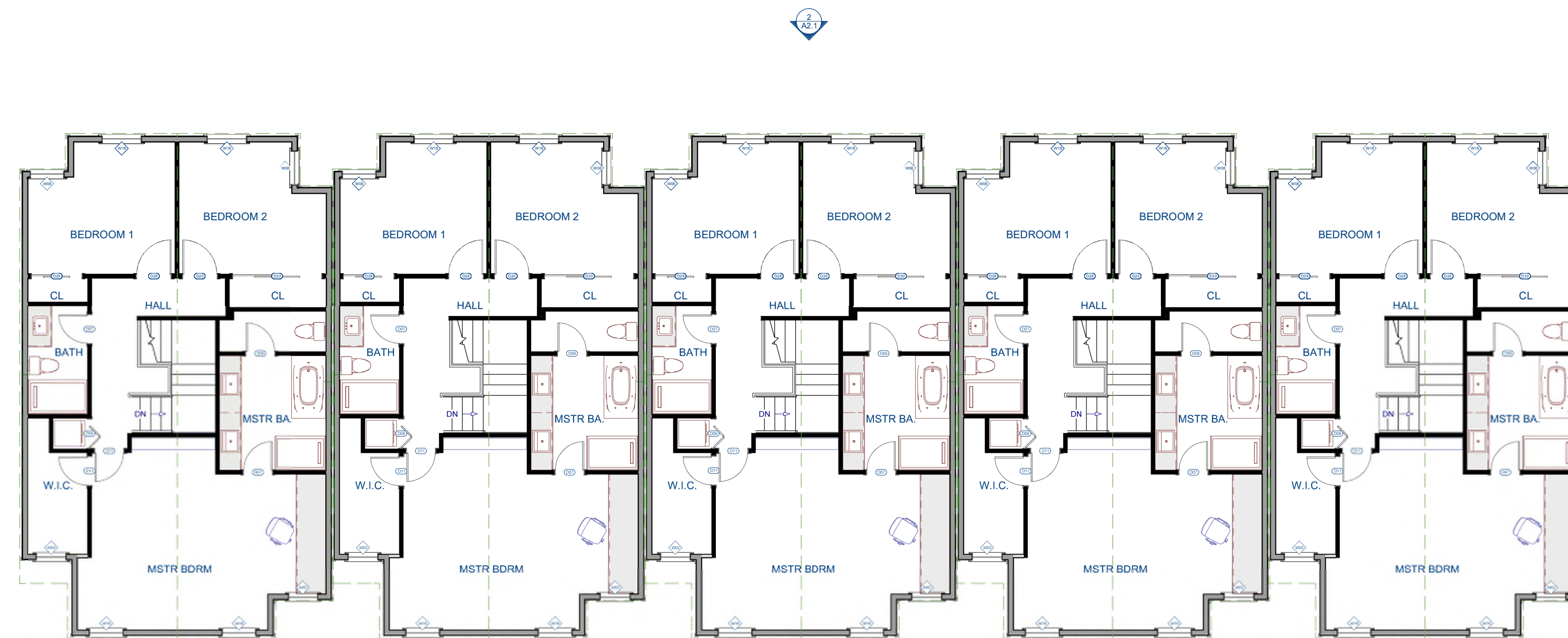
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CHEENEY ST TOWNHOUSES

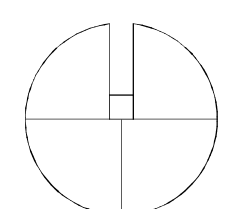
4249 CHEENEY ST
SANTA CLARA, CA 95054



DATE: 12/15/2022
PROJECT No. 39-071322

LEVEL TWO

REF. NORTH



A1.2

MFA

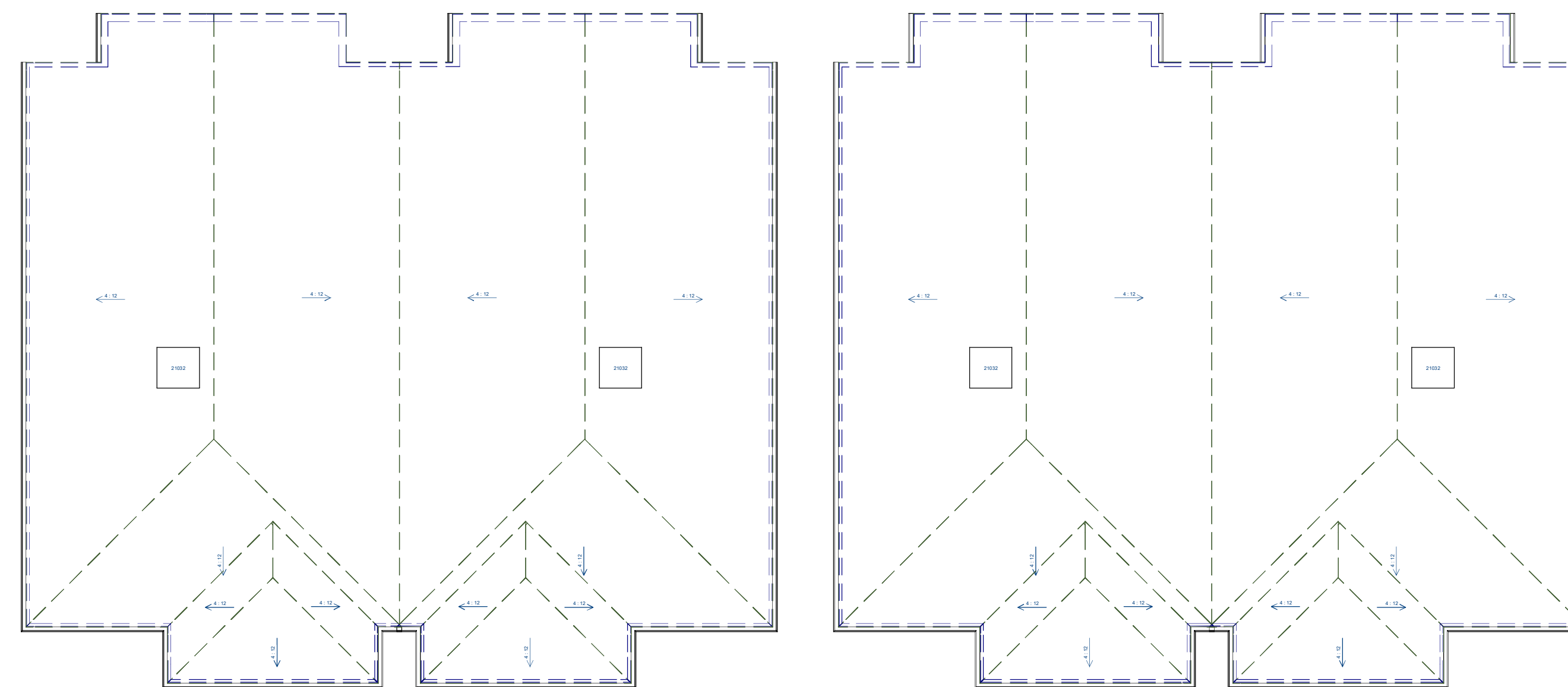
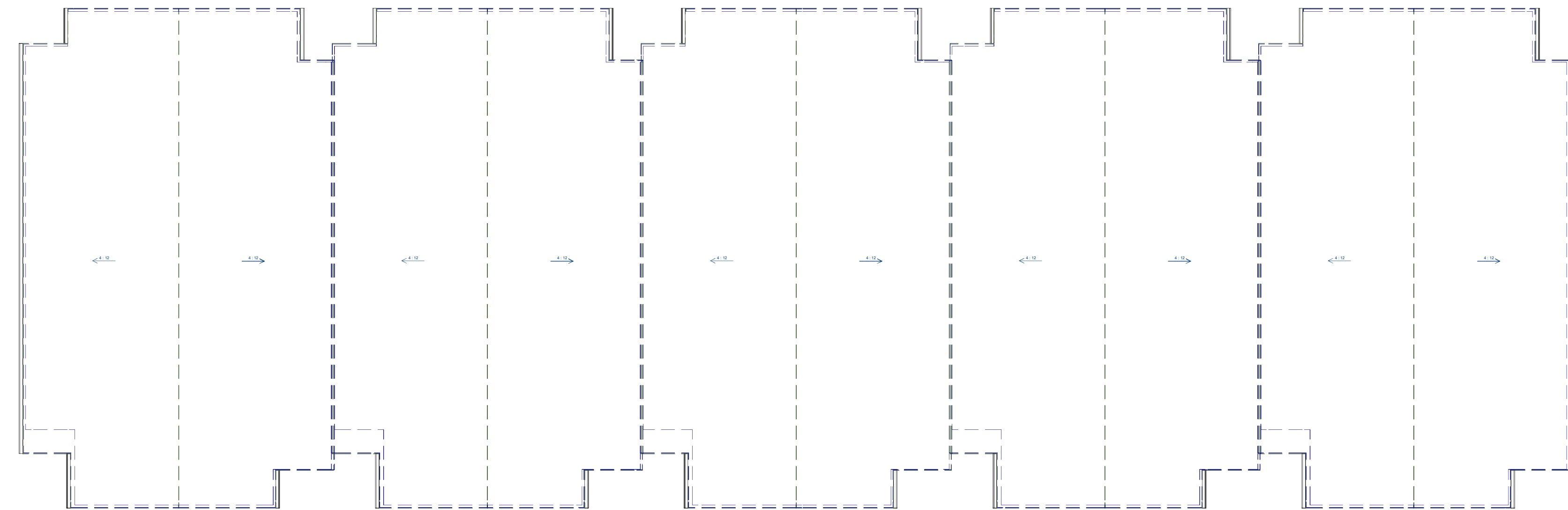
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CHEENEY ST TOWNHOUSES

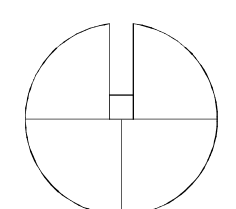
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SANTA CLARA, CA 95054



DATE: 12/15/2022
PROJECT No. 39-071322

ROOF PLAN

REF. NORTH



A1.3

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CHEENEY ST TOWNHOUSES
4249 CHEENEY ST
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REAR ELEVATION UNITS 'A'

3/16 2



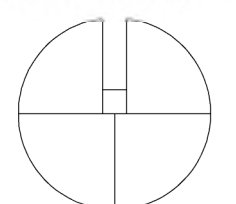
FRONT ELEVATION UNITS 'A'

3/16 1

DATE: 12/15/2022
PROJECT No. 39-071322

ELEVATIONS
UNITS 'A'

REF. NORTH



A2.0

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CHEENEY ST TOWNHOUSES

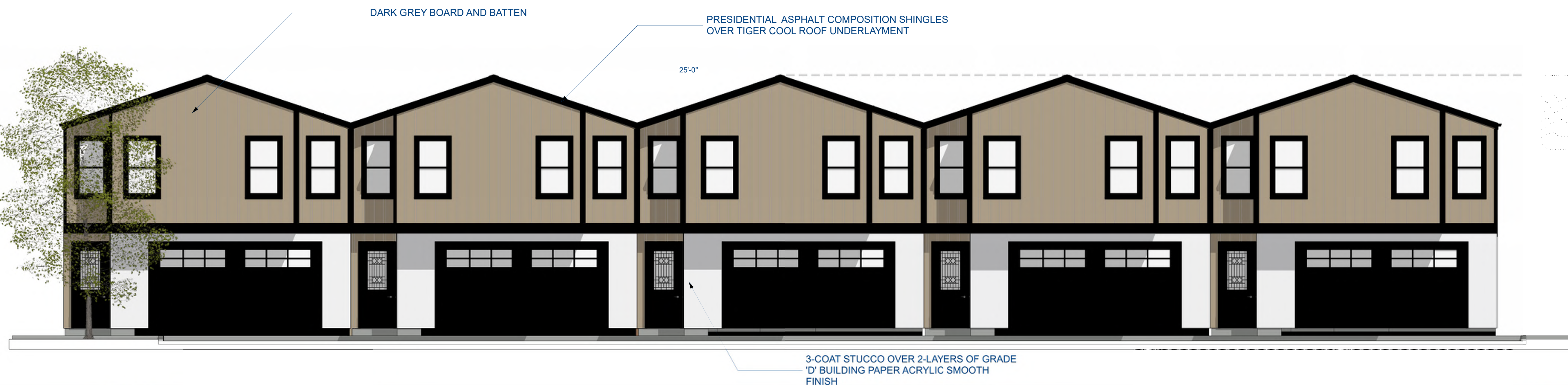
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SANTA CLARA, CA 95054



REAR ELEVATION UNITS 'B'

3/16

2



FRONT ELEVATION UNITS 'B'

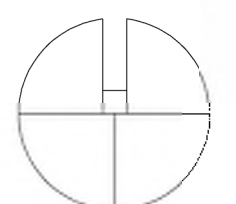
3/16

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DATE: 12/15/2022
PROJECT No. 39-071322

ELEVATIONS
UNITS 'B'

REF. NORTH



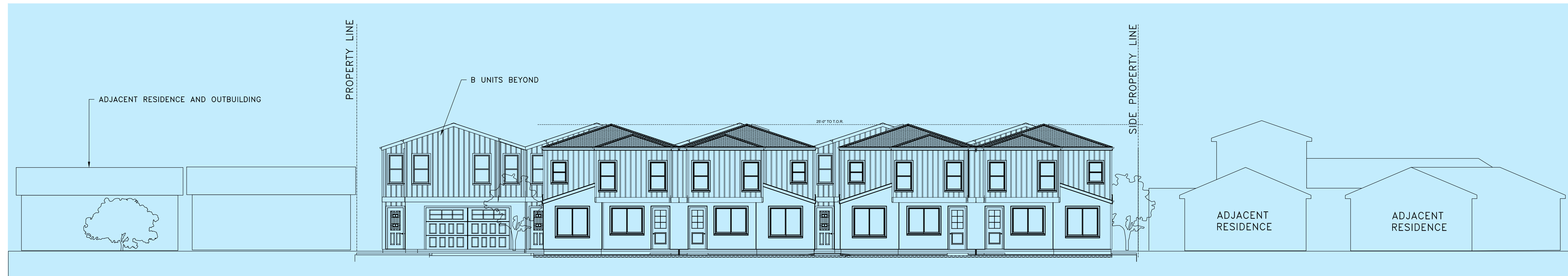
A2.1

© 2022

MFA CONSTRUCTION
AND ENGINEERING



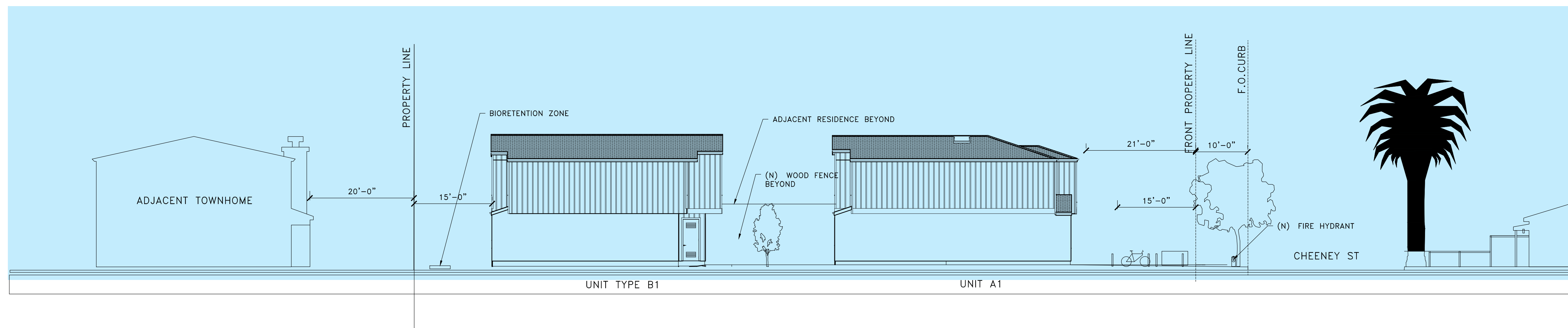
CHEENEY ST TOWNHOUSES
 4249 CHEENEY ST.
 SANTA CLARA, CA 95054



SITE SECTION N-S

3/32"

2



SITE SECTION E-W

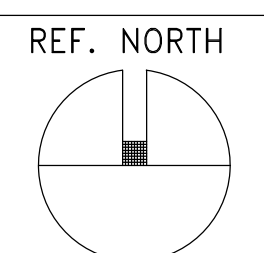
3/32"

1

REVISION	DATE
1	
2	
3	

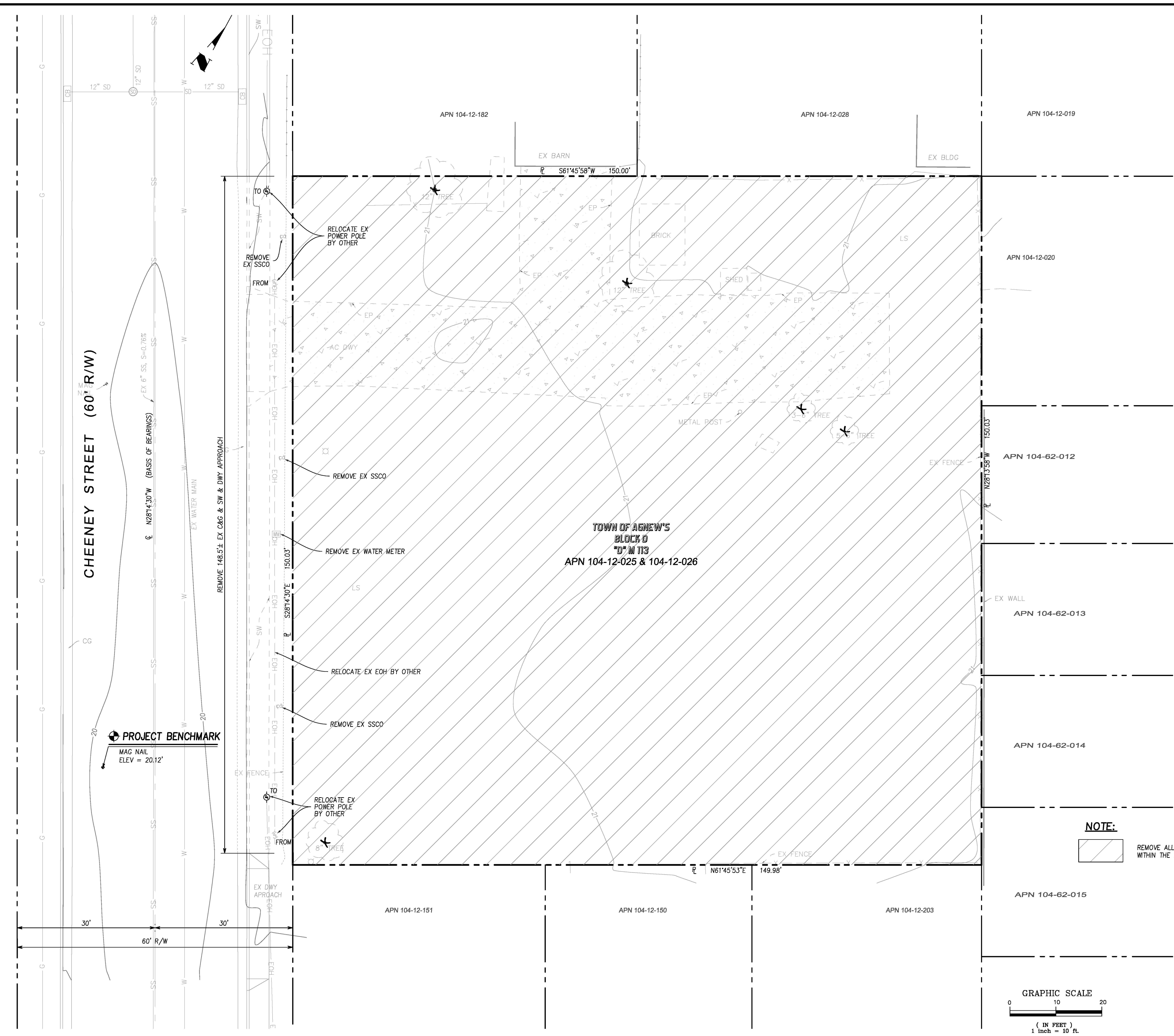
DATE:	August 23, 2022
PROJECT No.	10-042122

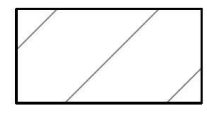
SITE SECTIONS

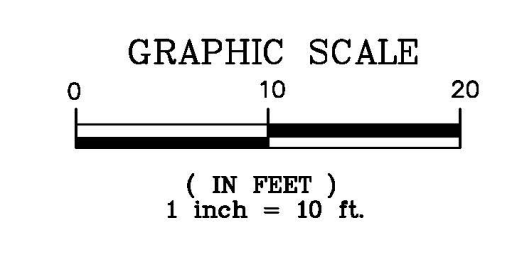


A3.0

CHEENEY STREET (60' R/W)



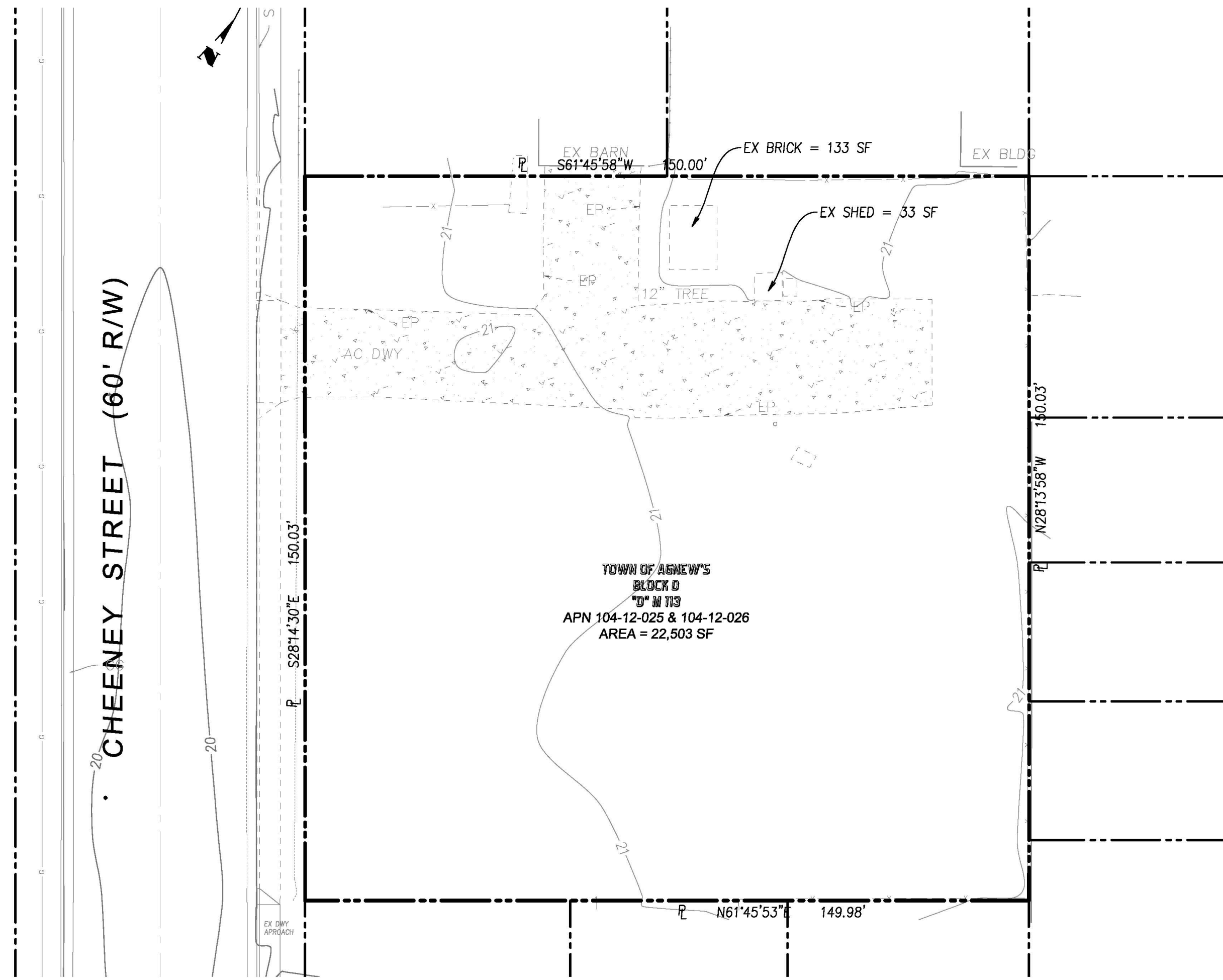
NOTE:
 REMOVE ALL EXISTING IMPROVEMENTS WITHIN THE PROPERTY LIMITS



DRAWING NO. C2	DEMOLITION PLAN CHEENEY STREET TOWNHOUSES CHEENEY STREET APN 104-12-025 APN 104-12-026			
	SANTA CLARA CALIFORNIA CONTRACT NO. PROJECT NO.			
SHT NO. 2 of 9	DESIGNED PT DATE 12/02/22	DRAWN PT DATE 12/02/22	CHECKED NL DATE 12/02/22	NO.
	BY	DATE	APPD	REVISIONS

ENGINEERING
 598 E Santa Clara St #270
 San Jose, CA 95102
 Phone: (408) 906-7187
 Fax: (408) 583-4006





PRE-DEVELOPMENT PLAN
SCALE 1" = 20'

LEGEND:

- PERMEABLE PAVER AREA
- PAVER W/ CONCRETE BELOW
- CONCRETE AREA
- ROOF
- LANDSCAPE AREA
- BIO-RETENTION

PRE - DEVELOPMENT

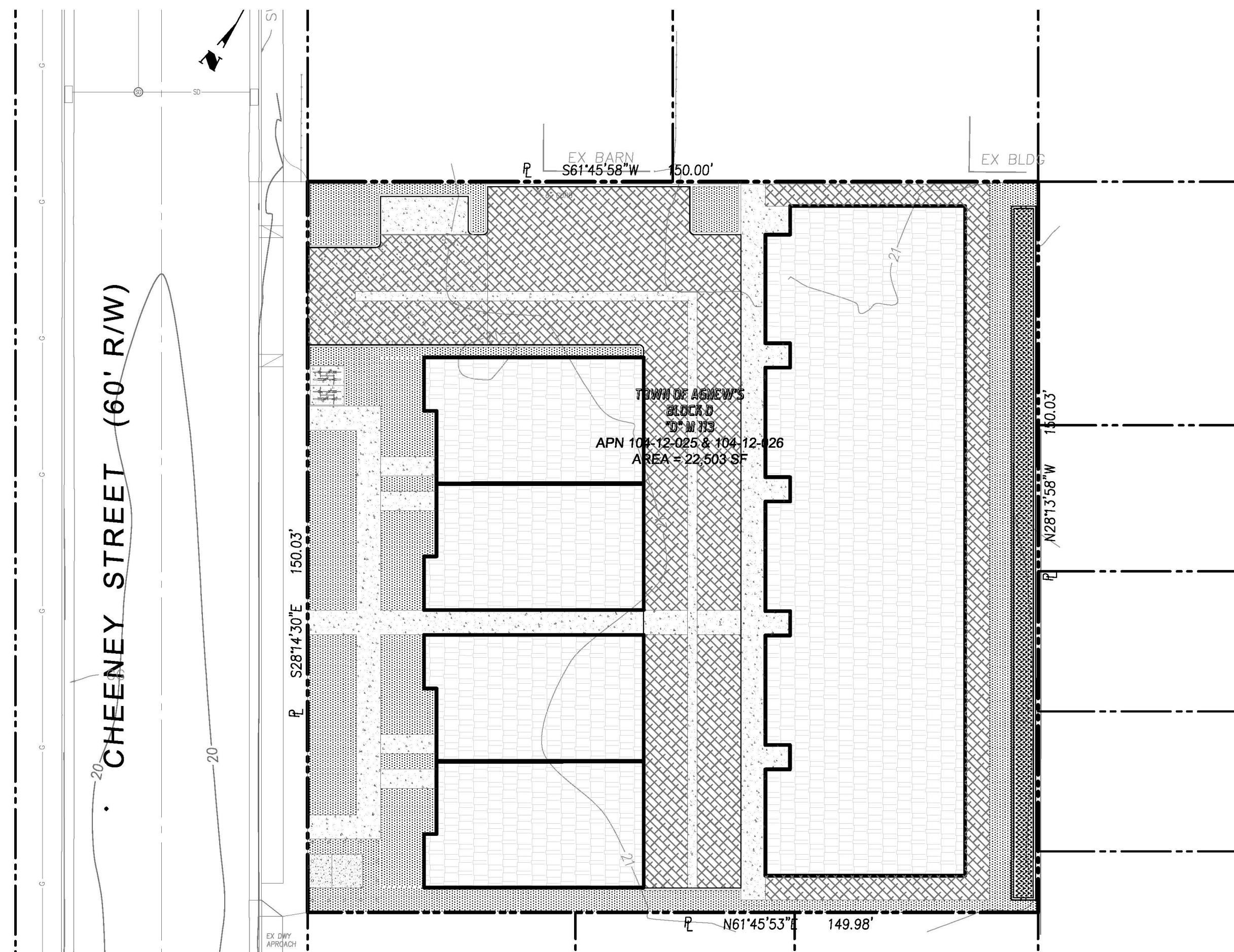
NO.	SURFACE AREA	IMPERVIOUS	PERVIOUS
1	CONCRETE DRIVEWAY	3,410 SF	
2	SHED & BRICK	166 SF	
3	LANDSCAPING		18,928 SF
TOTAL		3,576 SF	18,928 SF

POST - DEVELOPMENT

NO.	SURFACE AREA	IMPERVIOUS	PERVIOUS
1	BUILDING	10,017 SF	
2	CONCRETE AREA	2,061 SF	
3	PAVER W/ CONCRETE BELOW	885 SF	
4	PERMEABLE PAVER DRIVEWAY		3,772 SF
5	PERMEABLE PAVER WALKWAY		1,148 SF
6	LANDSCAPING		4,621 SF
TOTAL		12,963 SF	9,541 SF

SUMMARY

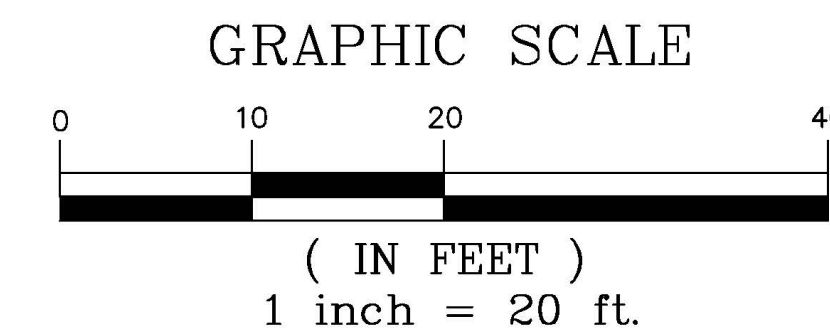
DESCRIPTION	IMPERVIOUS	PERVIOUS
PRE-DEVELOPMENT	3,576 SF	18,928 SF
POST-DEVELOPMENT	12,963 SF	9,541 SF
DIFFERENCE	9,387 SF	-9,387 SF



POST-DEVELOPMENT PLAN
SCALE 1" = 20'

PERVIOUS AND IMPERVIOUS SURFACES COMPARISON TABLE

Project Phase Number: (N/A, 1, 2, 3, etc.)		1	
Total Site (acres):	0.52	Total Area of Site Disturbed (acres):	0.468
Existing Condition of Site Area Disturbed (square feet)		Proposed Condition of Site Area Disturbed (square feet)	
Impervious Surfaces	Replaced	New	
Roof Area(s)	0	0	10,017
Parking	3,410	0	0
Sidewalks, Patios, Paths, etc.	166	166	2,780
Streets (public)	0	0	0
Streets (private)	0	0	0
Total Impervious Surfaces:	3,576	166	12,797
Pervious Surfaces			
Landscaped Areas	18,927	4,621	0
Pervious Paving	0	0	4,920
Other Pervious Surfaces (green roof, etc.)	0	0	0
Total Pervious Surfaces:	18,927	4,621	4,920
Total Proposed Replaced + New Impervious Surfaces:		12,963	
Total Proposed Replaced + New Pervious Surfaces:		9,541	



DESIGNED PT	DATE 12/02/22	DRAWN SCALE AS NOTED	DATE 12/02/22	CHECKED NL	DATE 12/02/22	BY DATE	APPD DATE
<p>ENGINEERING 598 E Santa Clara St #270 San Jose, CA 95112 Phone: (408) 806-7187 Fax: (408) 883-4006</p>							
<p>PRE AND POST DEVELOPMENT PLAN CHEENEY STREET TOWNHOUSES CHEENEY STREET APN 104-12-025 APN 104-12-026 SANTA CLARA CALIFORNIA</p>							
DRAWING NO. C3		SHEET NO. 3 of 9		PROJECT NO.		CONTRACT NO.	

EX SVP POLE #85D13 (55' CLASS 2)

20.7 TG 18.1 INV
20.7 TG 18.2 INV

EX BARN

21.05 TG 17.0 INV

EX BLDG

20.5 TG 17.3 INV

DMA3 = 5,312 SF

TOWN OF AGNEW'S SUBDIVISION
APN 104-12-025 & 104-12-026
AREA = 22,503 SF

BIORETENTION 4'x141.5' = 566 SF (SEE DETAIL ON SHEET C4)

DMA6 = 1,148 SF

DMA5 = 5,507 SF

DMA7 = 1,629 SF

DMA4 = 867 SF

DMA1 = 2,936 SF

DMA2 = 5,103 SF

CHEENEY STREET

S281°4'30"E 150.03'

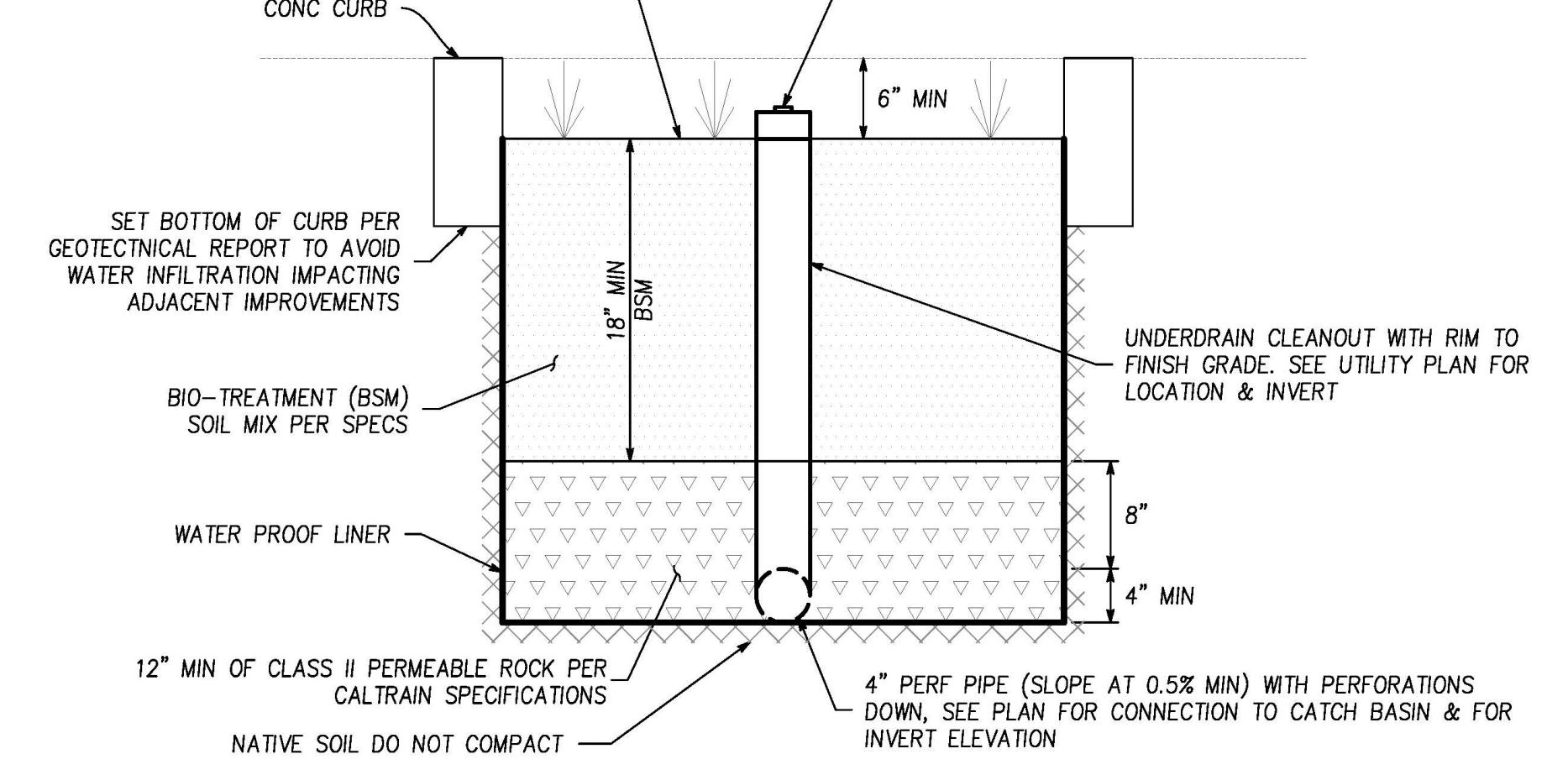
12KV RISER

SVP POLE #85D13 (55' CLASS 2)

EX DWY

N61°45'53"E 149.98'

OPTIONAL MOUNDING PARAMETERS:
TOP OF MOUNDS AT LEAST 2" BELOW CREST OF OVERFLOW RISER, LOW POINTS NO MORE THAN 12" BELOW CREST OF OVERFLOW RISER.



BIORETENTION DETAIL
NTS

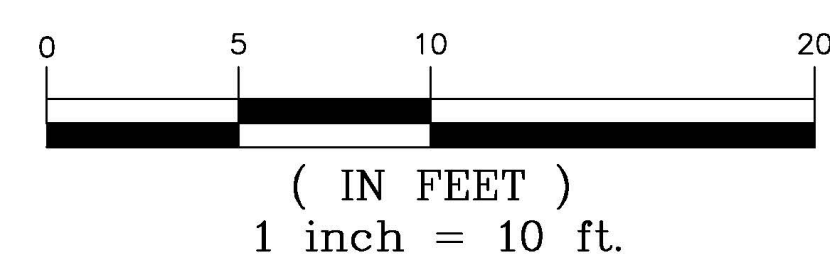
BIOTREATMENT SOIL REQUIREMENTS

- BIORETENTION SOIL MIX SHALL MEET THE REQUIREMENTS AS OUTLINED IN APPENDIX C OF THE C.3 STORM WATER HANDBOOK AND SHALL BE A MIXTURE OF FINE SAND AND COMPOST MEASURED ON A VOLUME BASIS OF 60-70% SAND AND 30-40% COMPOST. CONTRACTOR TO REFER TO APPENDIX C FOR SAND AND COMPOST MATERIAL SPECIFICATIONS. CONTRACTOR MAY OBTAIN A COPY OF THE C3 HANDBOOK AT: [HTTP://WWW.SANJOSECA.GOV/INDEX.ASPX?NID=1761](http://www.sanjooseca.gov/index.aspx?nid=1761)
- PRIOR TO ORDERING THE BIOTREATMENT SOILMIX OR DELIVERY TO THE PROJECT SITE, CONTRACTOR SHALL PROVIDE A BIOTREATMENT SOIL MIX SPECIFICATION CHECKLIST, COMPLETED BY THE SOIL MIX SUPPLIER AND CERTIFIED TESTING LAB.

LEGEND:

- PERMEABLE PAVER AREA
- PAVER W/ CONCRETE BELOW
- CONCRETE AREA
- ROOF
- LANDSCAPE AREA
- BIO-RETENTION
- TRIBUTARY AREA

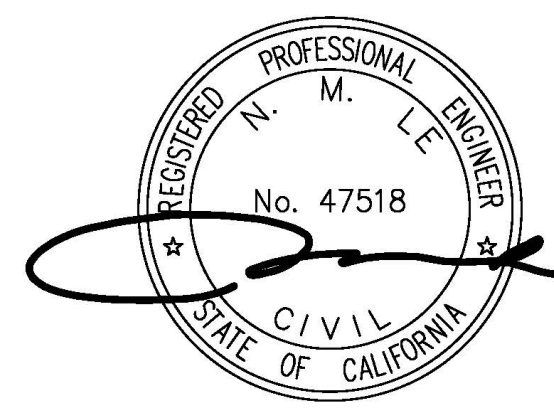
GRAPHIC SCALE

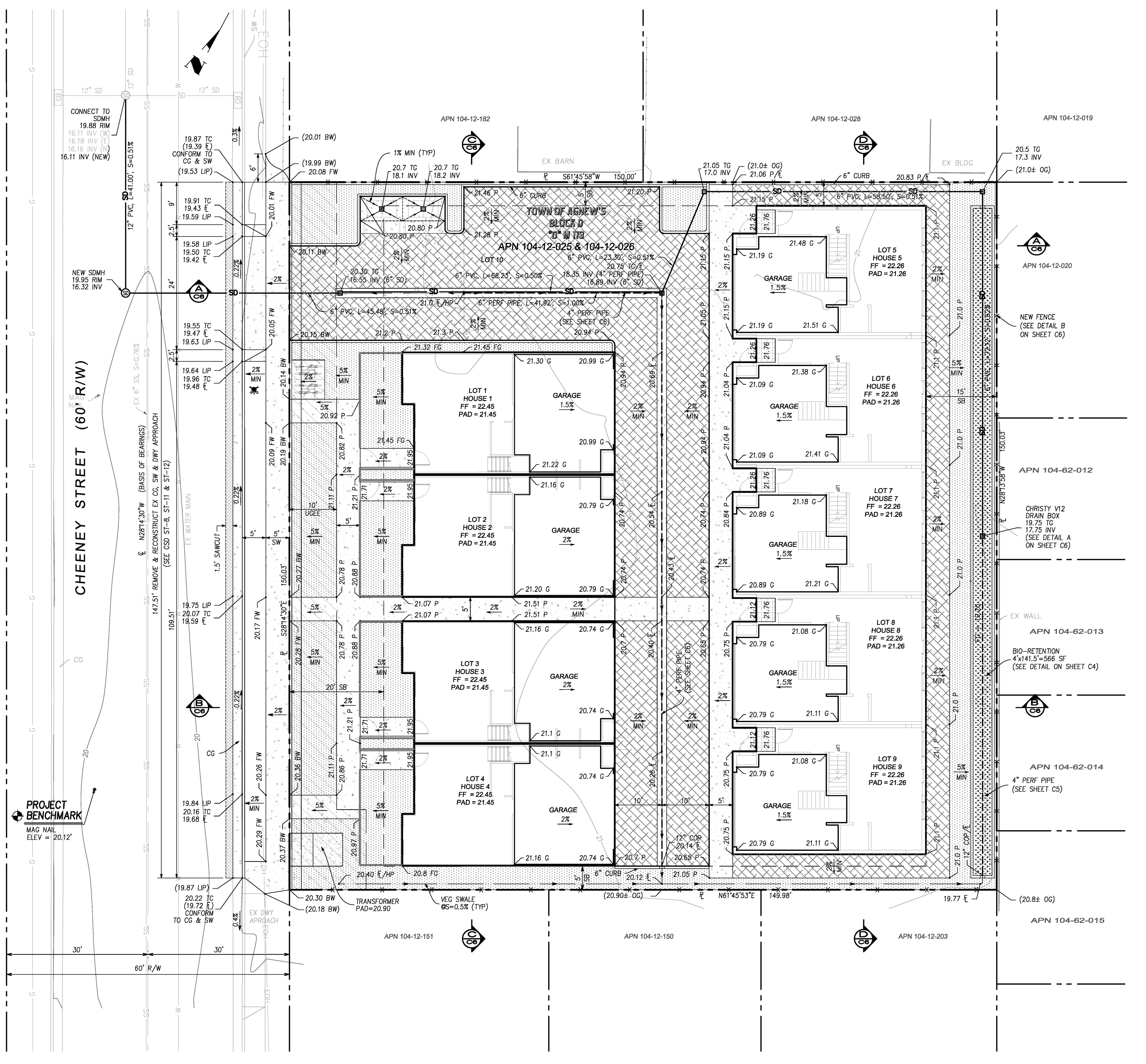


TREATMENT CONTROL MEASURES (TCM) SUMMARY TABLE

ID AREA	TCM No	LANDSCAPE (SF)	PERVIOUS PAVER (SF)	PARKING & SIDEWALK AREA (SF)	ROOF AREA (SF)	TOTAL AREA (SF)	TOTAL AREA (ACRES)	TOTAL IMPERVIOUS (SF)	TREATMENT TYPE	TREATMENT AREA REQUIRED (SF)	TREATMENT AREA PROPOSED	DEPTH OF PONDING (IN)	
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	
DMA-1	1	2,076		861		2,937	0.067	861	Bio-Retention	34	566	6	
DMA-2		361		232	4,510	5,103	0.117	4,742	Bio-Retention	190			
DMA-3		555	3,772	985		5,312	0.122	985	Bio-Retention	39			
DMA-4					867		867	0.020	867	Bio-Retention			35
DMA-5						5,507	5,507	0.126	5,507	Bio-Retention			220
DMA-6				1,148			1,148	0.026	0	Bio-Retention			0
DMA-7						1,629	1,629	0.037	0	Bio-Retention			0
TOTAL AREA		4,621	4,920	2,945	10,017	22,503	0.515	12,962		518	566		

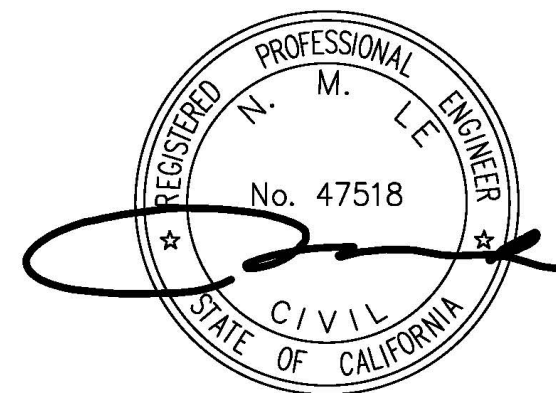
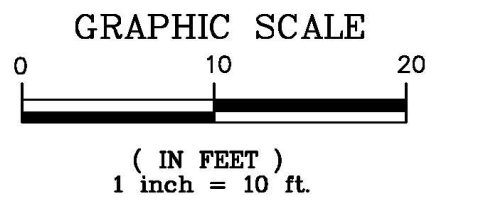
DESIGNED	12/02/22	DATE	12/02/22	DATE	12/02/22
DRAWN	PT	SCALE	1" = 10'	CHECKED	NL
BY	DATE	APPD	DATE	REVISIONS	NO.
<p>ENGINEERING 598 E Santa Clara St #270 San Jose, CA 95112 Phone: (408) 806-7187 Fax: (408) 863-4006</p>					
<p>STORMWATER CONTROL PLAN CHEENEY STREET TOWNHOUSES CHEENEY STREET APN 104-12-025 APN 104-12-026 SANTA CLARA CALIFORNIA</p>					
<p>PROJECT NO. CONTRACT NO. C4</p>					
<p>SHEET NO. 4 OF 9</p>					





PROJECT BENCHMARK
MAG NAIL
ELEV = 20.12'

- LEGEND:**
- PAVER W/ CONCRETE BELOW
 - PERMEABLE PAVER AREA
 - CONCRETE AREA
 - CONC PORCH
 - LANDSCAPE AREA
 - UGEE



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San Jose, CA 95128
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Fax: (408) 883-4006

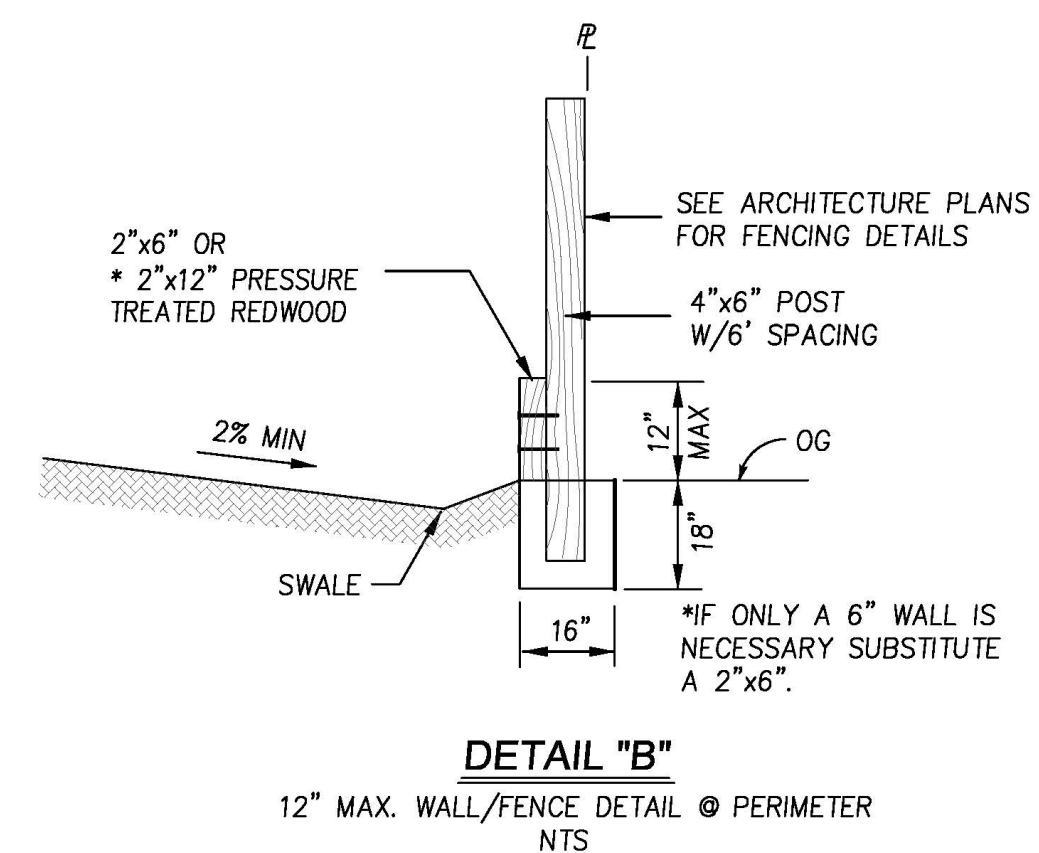
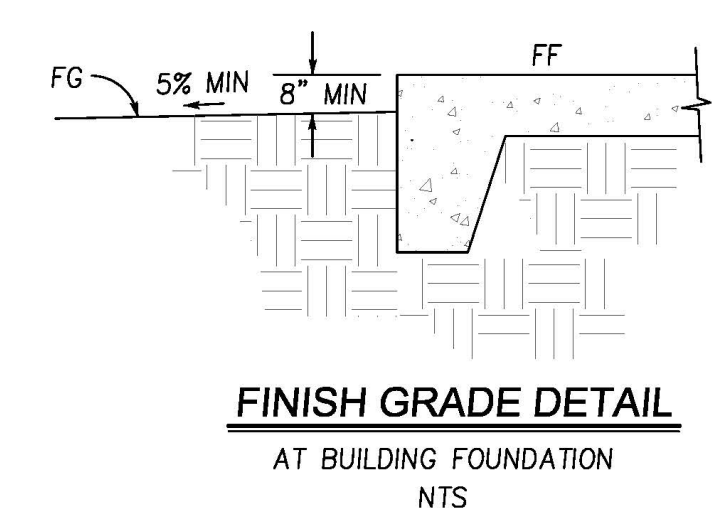
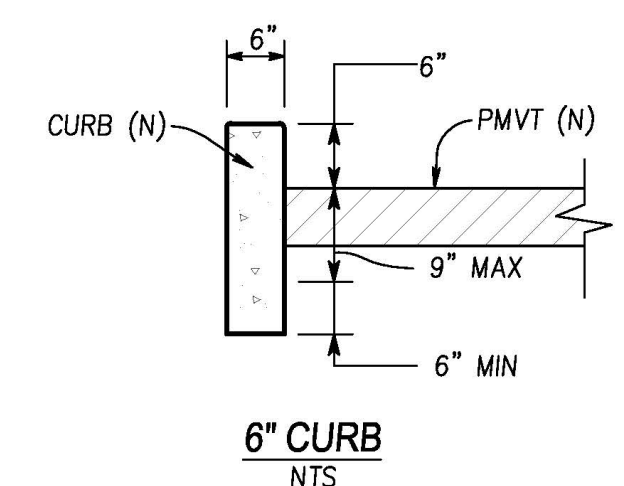
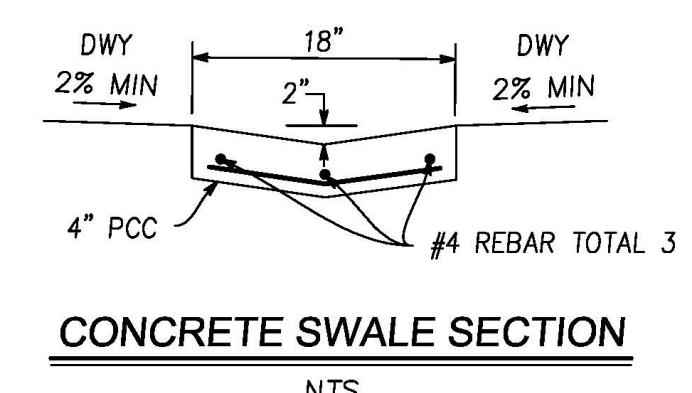
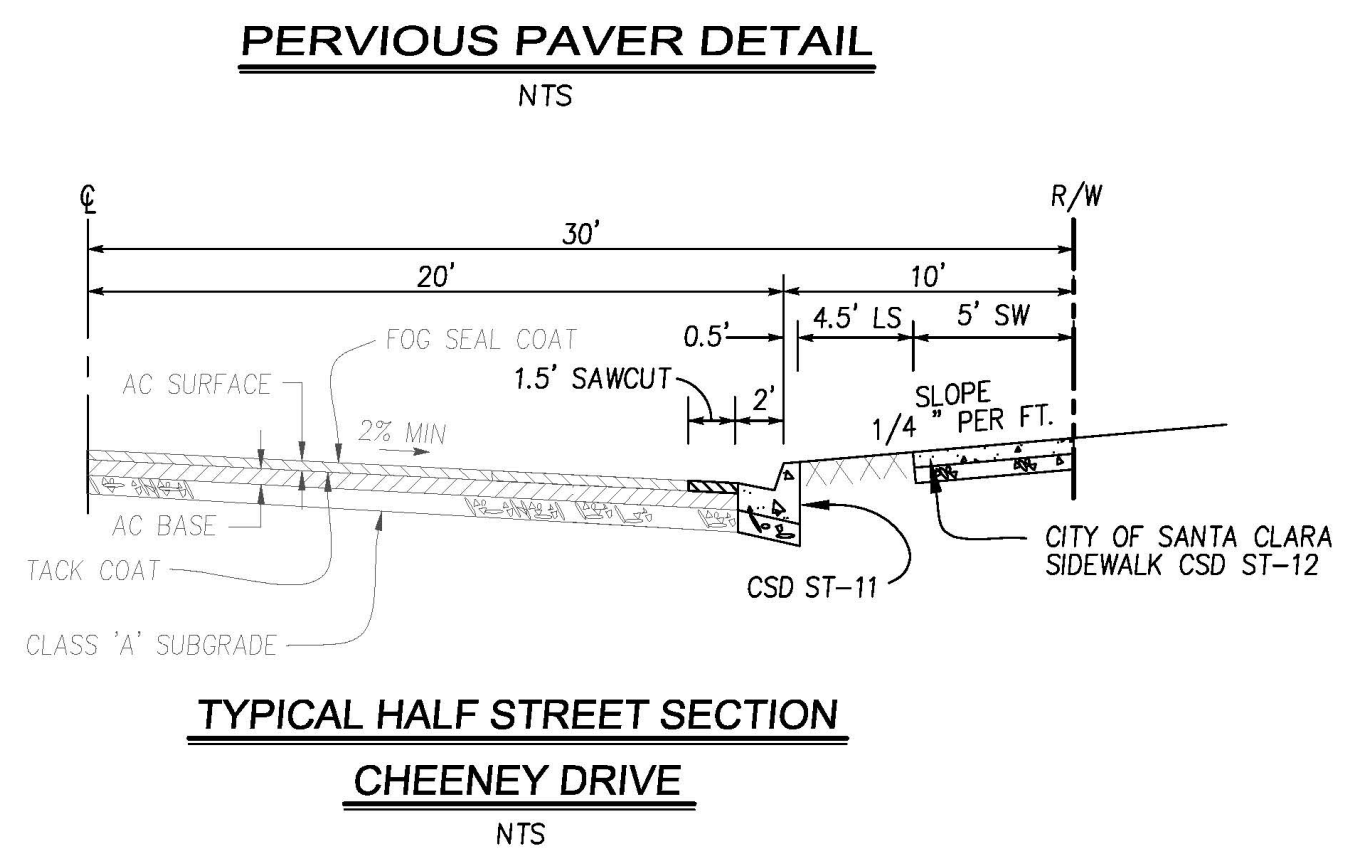
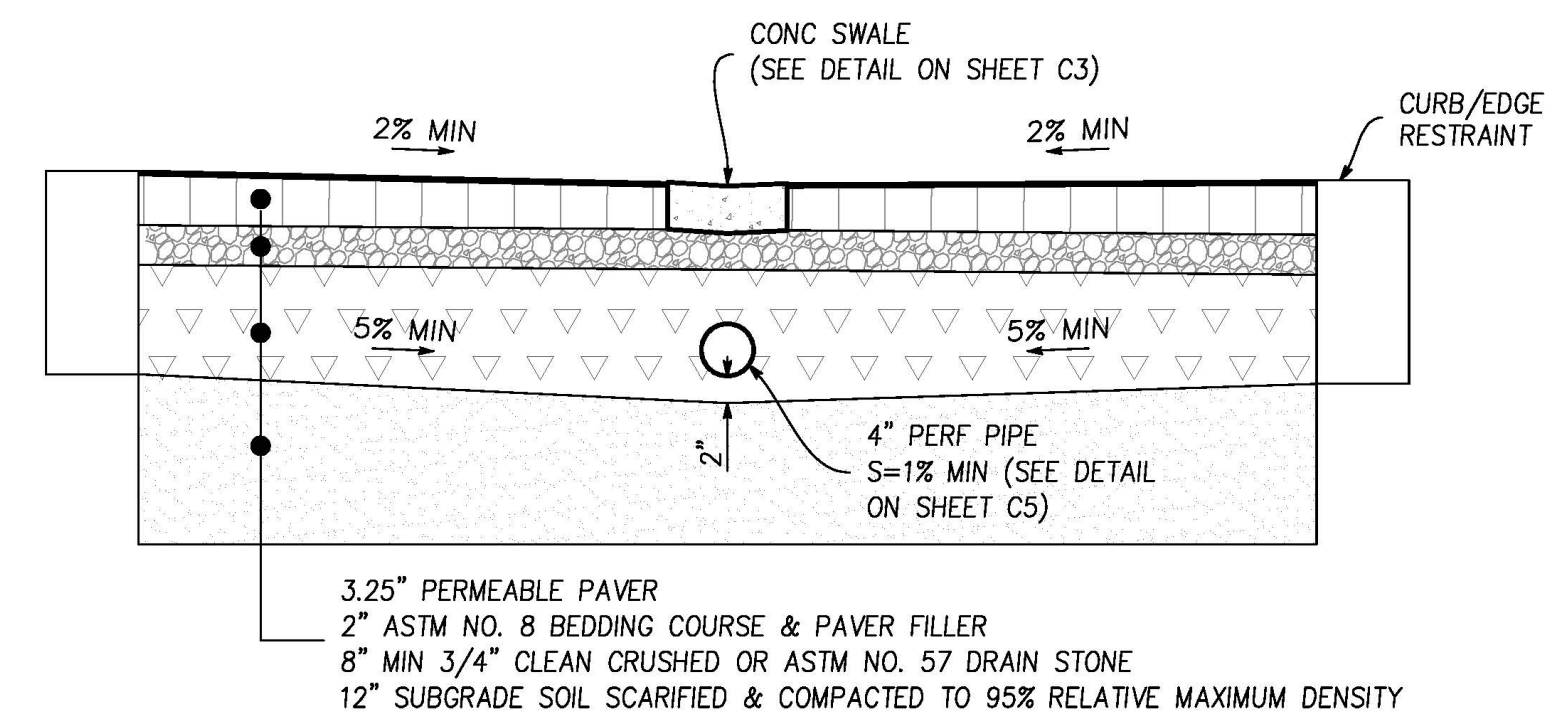
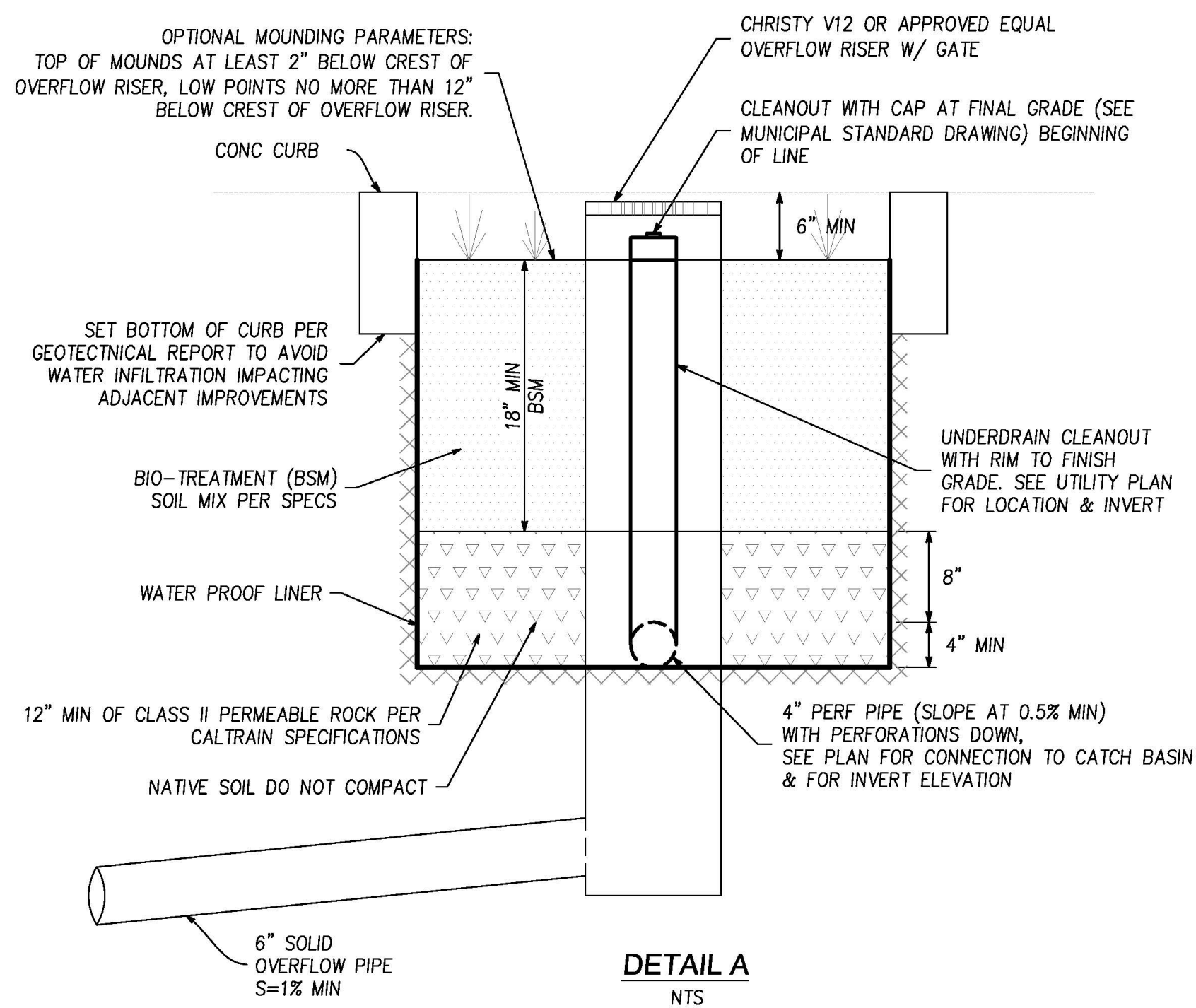
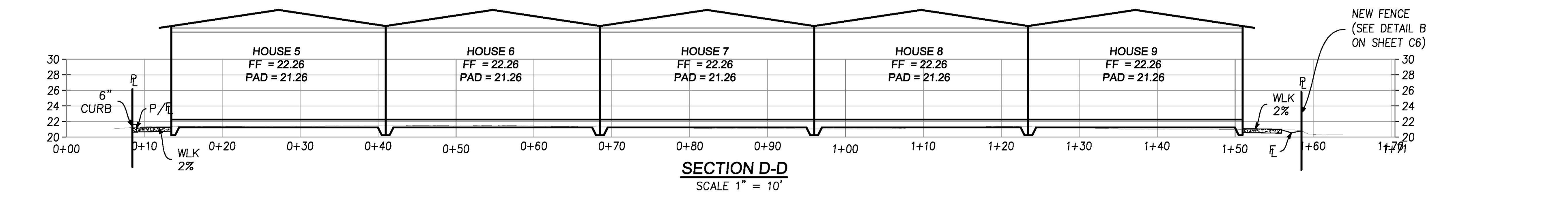
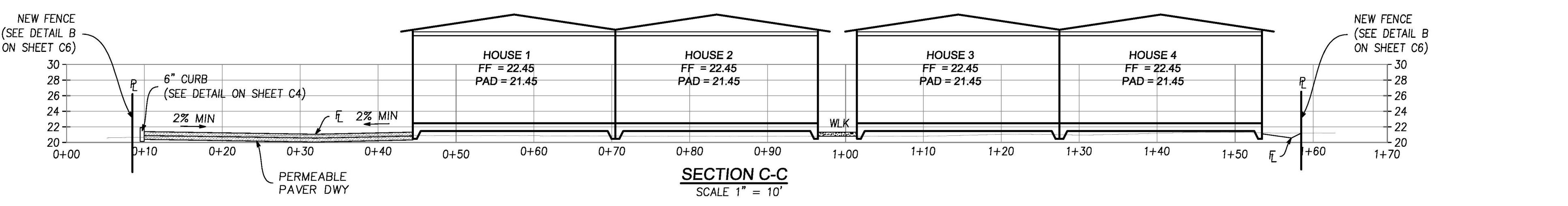
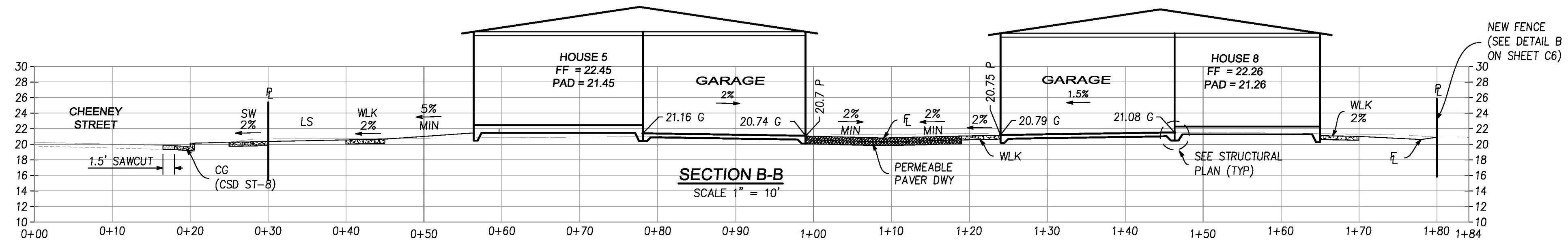
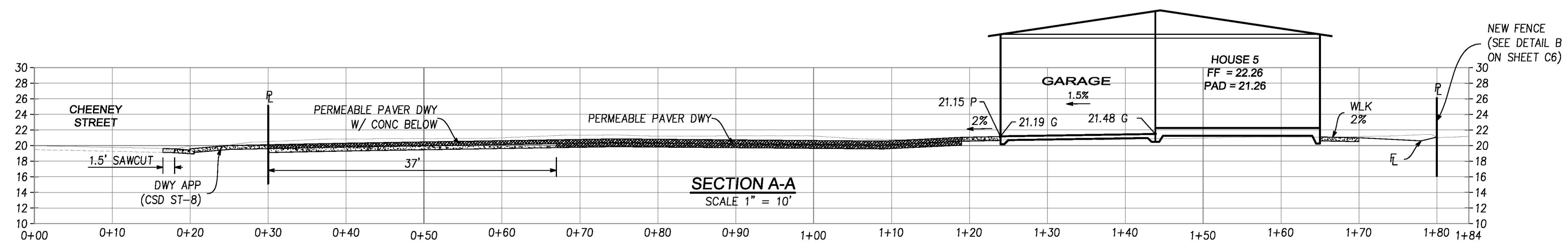
CALIFORNIA

**GRADING AND DRAINAGE PLAN
CHEENEY STREET TOWNHOUSES
CHEENEY STREET**
APN 104-12-025 APN 104-12-026

DRAWING NO. C5
SHT NO. 5 of 9

PT	DESIGNED	DATE	DRAWN	DATE	CHECKED	DATE
		12/02/22		12/02/22		12/02/22

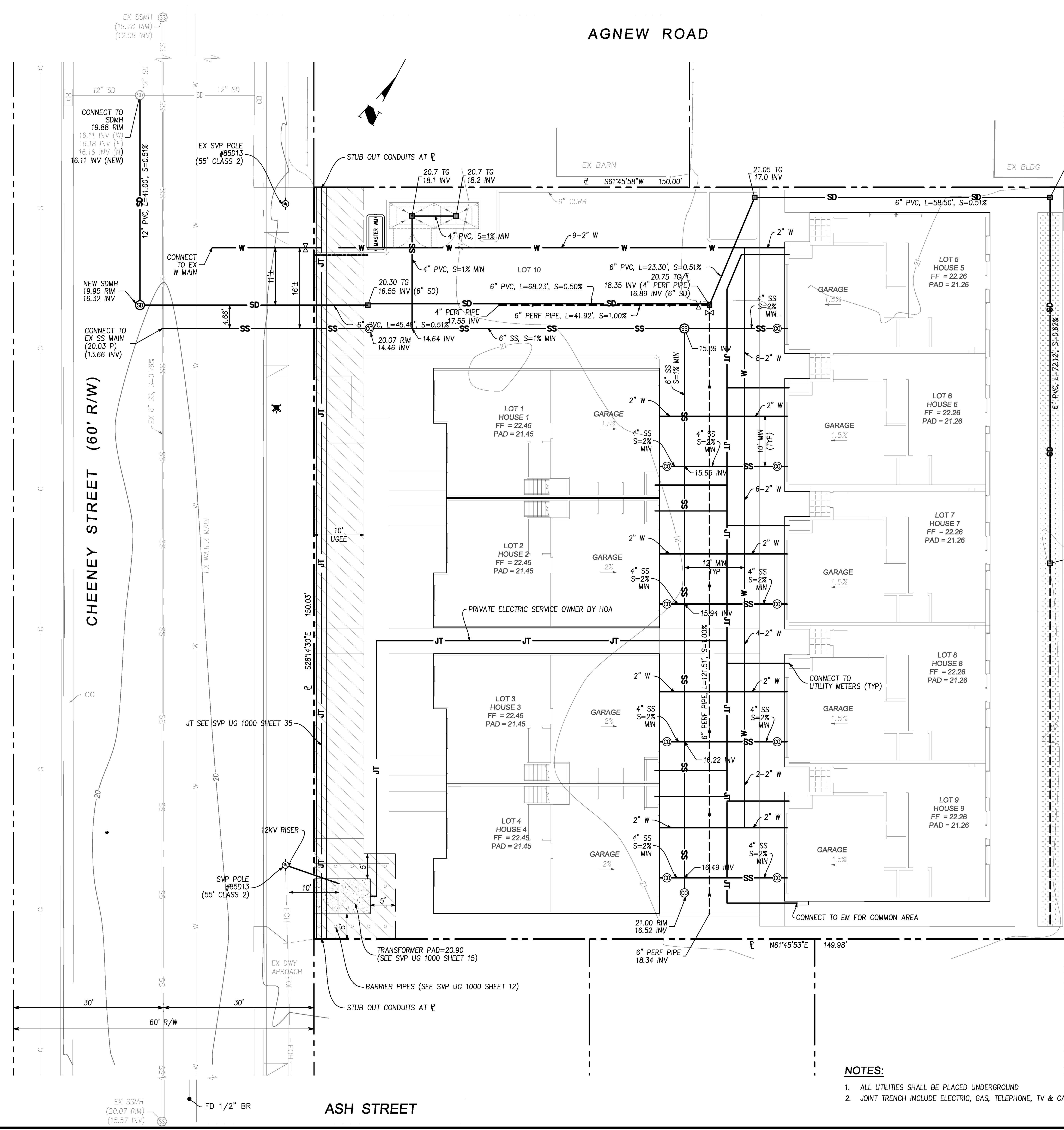
BY	DATE	REVISIONS
APPD		



NO.	REVISIONS	DATE	BY	DATE	DATE
	APPD	12/02/22		12/02/22	12/02/22
	DATE	DESIGNED	DATE	DRAWN	DATE
	SCALE AS NOTED	PT	SCALE	PT	SCALE
	CHECKED	NL	CHECKED	NL	CHECKED

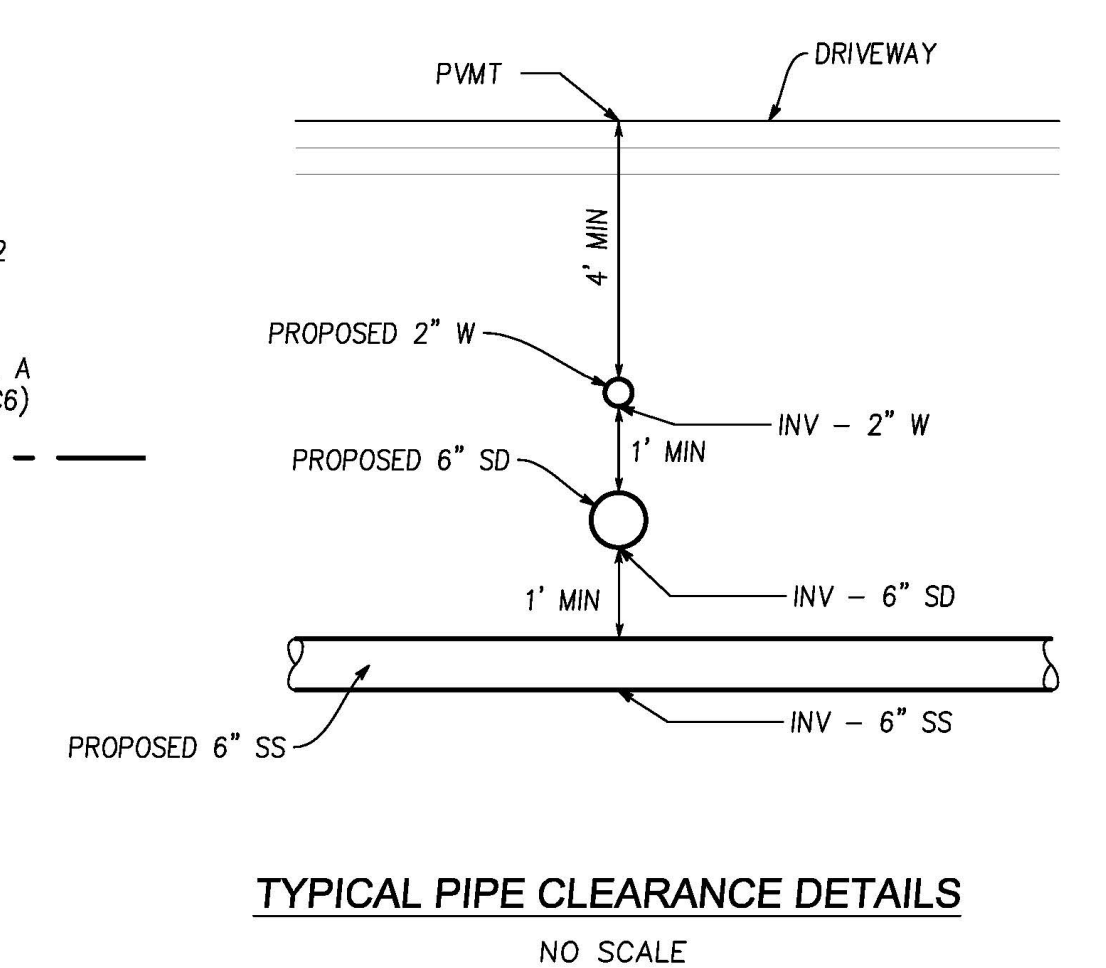
ENGINEERING 598 E Santa Clara St #270 San Jose, CA 95112 Phone: (408) 806-7187 Fax: (408) 883-4006		BUILDING CROSS SECTIONS CHEENEY STREET TOWNHOUSES CHEENEY STREET APN 104-12-025 APN 104-12-026 CONTRACT NO.	PROJECT NO. SANTA CLARA CALIFORNIA
		DRAWING NO. 6 of 9 SHEET NO. 6 of 9	CIVIL ENGINEER No. 47518 STATE OF CALIFORNIA

AGNEW ROAD



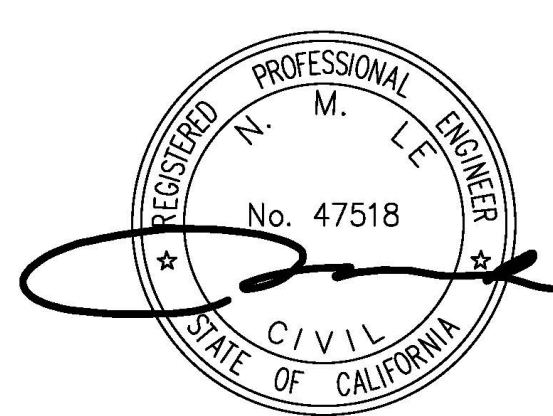
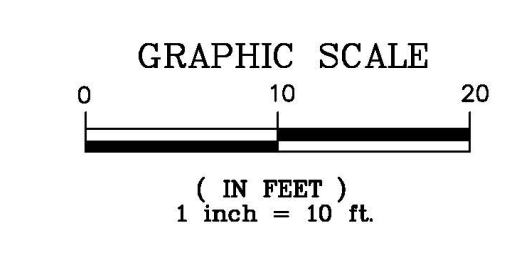
LEGEND:

EXISTING		PROPOSED
— JT —	JOINT TRENCH	— JT —
— SS —	SANITARY SEWER LINE	— SS —
— SD —	STORM DRAIN LINE	— SD —
⊙	STORM DRAIN MANHOLE	⊙
⊙	SANITARY SEWER MANHOLE	⊙
⊙	SANITARY SEWER CLEANOUT	⊙
— W —	WATER LINE	— W —
⊠	WATER METER	⊠
⊠	BACKWATER VALVE	⊠
---	4" PERF PIPE	---
---	10' UCEE	---
— EOH —	ELECTRIC OVERHEAD	— EOH —



- NOTES:**
- ALL UTILITIES SHALL BE PLACED UNDERGROUND
 - JOINT TRENCH INCLUDE ELECTRIC, GAS, TELEPHONE, TV & CABLE
 - UTILITIES LOCATION AS SHOWN ARE APPROXIMATE ONLY. CONTRACTOR TO VERIFY LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING CONSTRUCTION.
 - THE APPLICANT SHALL MAINTAIN A MINIMUM 12" OF VERTICAL CLEARANCE AT WATER SERVICE CROSSING WITH OTHER UTILITIES, AND ALL REQUIRED MINIMUM HORIZONTAL CLEARANCES FROM WATER SERVICES: 10' FROM SANITARY SEWER UTILITIES, 10' FROM RECYCLED WATER UTILITIES, 8' FROM STORM DRAIN UTILITIES, 5' FROM FIRE AND OTHER WATER UTILITIES, 3' FROM ABANDONED WATER SERVICES, 5' FROM GAS UTILITIES, AND 5' FROM THE EDGE OF THE PROPOSE OR EXISTING DRIVEWAY. FOR SANITARY SEWER, WATER, AND RECYCLED WATER UTILITIES, THE APPLICANT SHALL MAINTAIN A MINIMUM HORIZONTAL CLEARANCE OF 10' FROM EXISTING AND PROPOSED TREES. IF APPLICANT INSTALLS TREE ROOT BARRIERS, CLEARANCE FROM TREE REDUCES TO 5' (CLEARANCE MUST BE FROM THE EDGE OF TREE ROOT BARRIER TO EDGE OF WATER FACILITIES).

- NOTES:**
- ALL UTILITIES SHALL BE PLACED UNDERGROUND
 - JOINT TRENCH INCLUDE ELECTRIC, GAS, TELEPHONE, TV & CABLE

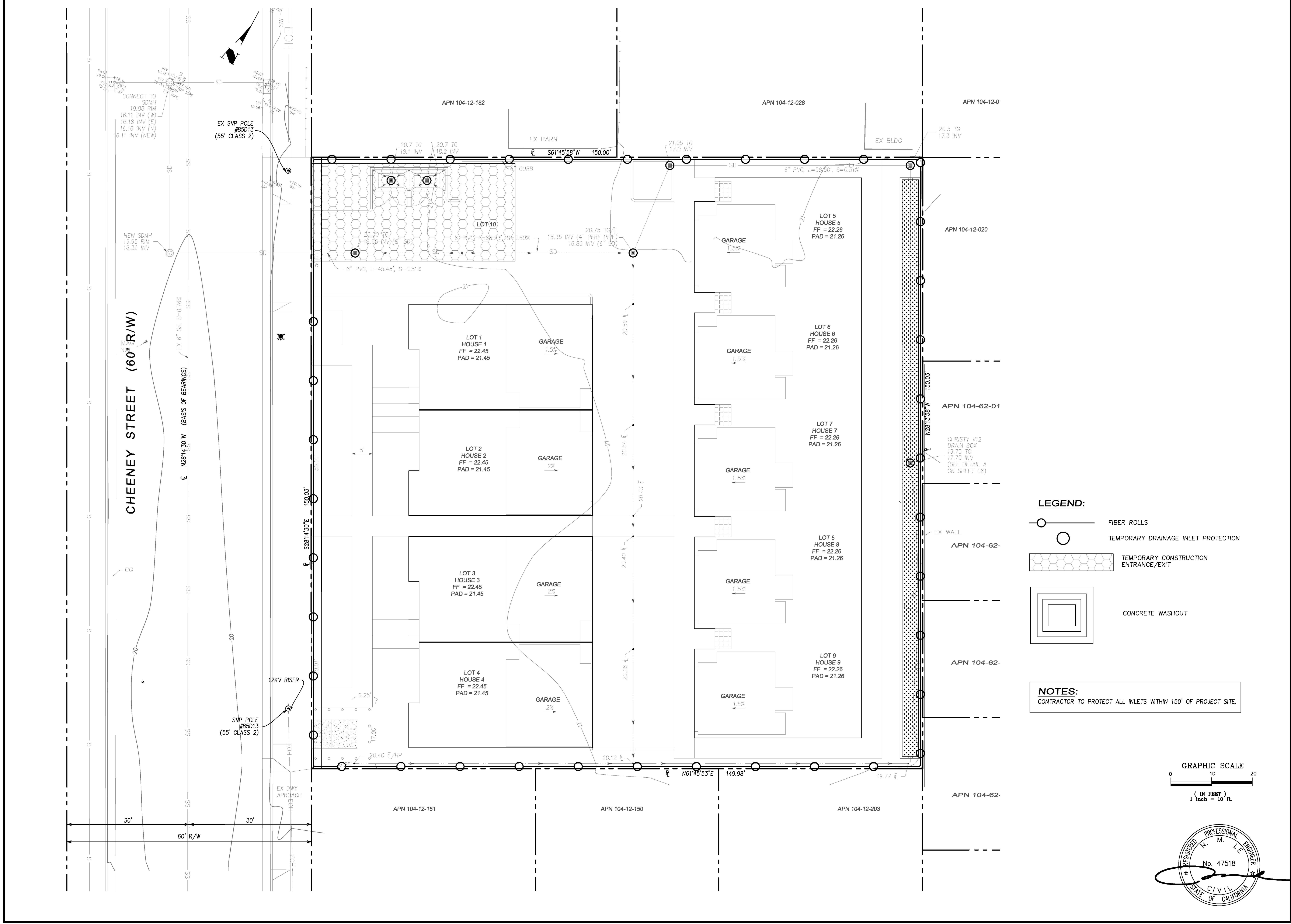


PT	DESIGNED	DATE	12/02/22
PT	DRAWN	DATE	12/02/22
SCALE	1" = 10'		
CHECKED	NL	DATE	12/02/22

ENGINEERING
598 E Santa Clara St #270
San Jose, CA 95112
Phone: (408) 806-7187
Fax: (408) 863-4006

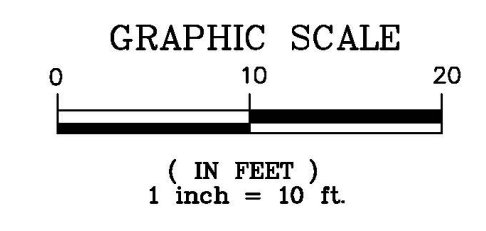
UTILITY PLAN
CHEANEY STREET TOWNHOUSES
CHEANEY STREET
APN 104-12-025 APN 104-12-026
SANTA CLARA CALIFORNIA

DRAWING NO. **C7**
SHT NO. **7** OF **9**



- LEGEND:**
- FIBER ROLLS
 - TEMPORARY DRAINAGE INLET PROTECTION
 - TEMPORARY CONSTRUCTION ENTRANCE/EXIT
 - CONCRETE WASHOUT

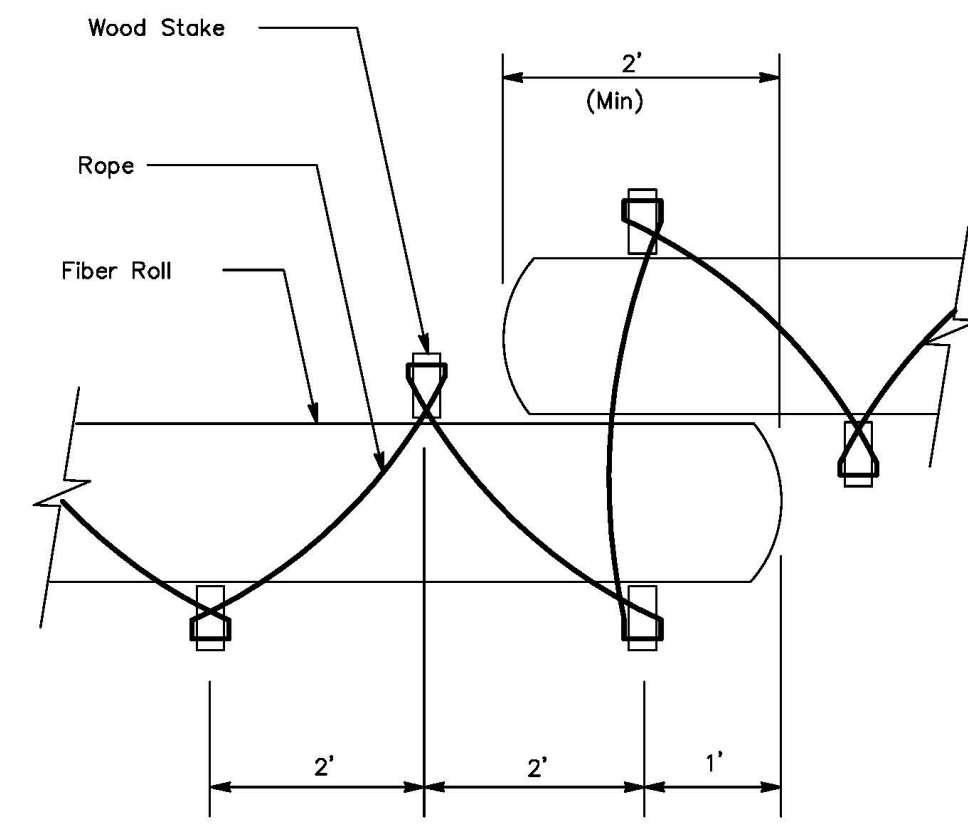
NOTES:
CONTRACTOR TO PROTECT ALL INLETS WITHIN 150' OF PROJECT SITE.



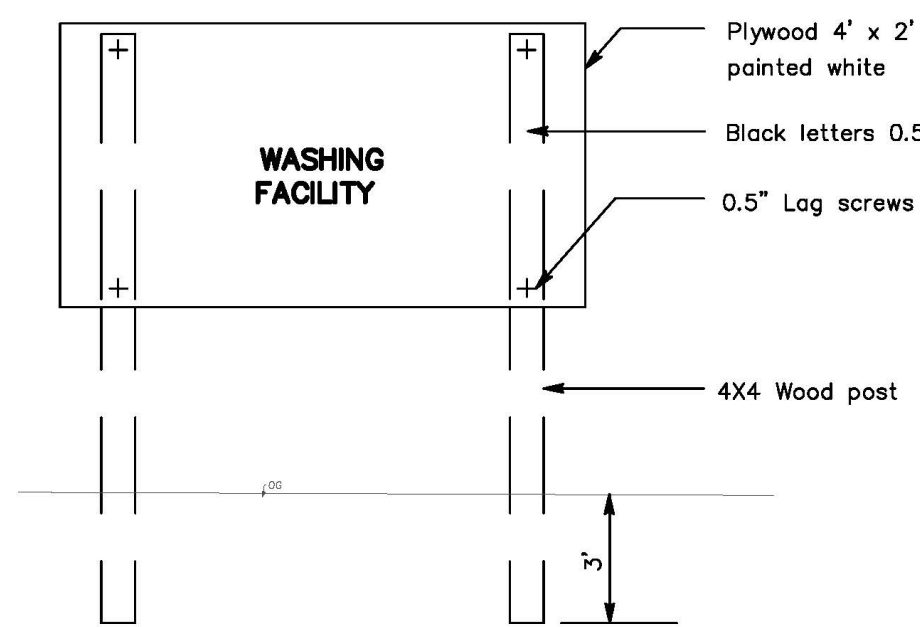
ENGINEERING	598 E Santa Clara St #270 San Jose, CA 95112 Phone: (408) 806-7187 Fax: (408) 863-4006	
		CALIFORNIA
	EROSION CONTROL PLAN CHEANEY STREET TOWNHOUSES CHEANEY STREET APN 104-12-025 APN 104-12-026	
SANTA CLARA	PROJECT NO.	CONTRACT NO.
DRAWING NO. C8	SHEET NO. 8 of 9	PROJECT NO.
DATE	DATE	DATE
12/02/22	12/02/22	12/02/22
DESIGNED	DRAWN	CHECKED
PT	PT	NL
DATE	SCALE	DATE
12/02/22	1" = 10'	12/02/22
BY	DATE	REVISIONS
APPD	DATE	NO.

EROSION CONTROL NOTES

1. THIS PLAN IS INTENDED TO BE USED FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY AND IS NOT TO BE USED FOR FINAL PLAN ELEVATIONS OR PERMANENT IMPROVEMENTS. THE CITY INSPECTOR MAY REQUIRE INSTALLING ADDITIONAL EROSION CONTROL MEASURES DURING EARTHWORK OPERATION.
2. OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR, DURING, AND AFTER STORM EVENTS.
3. REASONABLE CARE SHALL BE TAKEN WHEN HAULING ANY EARTH, SAND, GRAVEL, STONE, DEBRIS, PAPER OR ANY OTHER SUBSTANCE OVER ANY PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE. SHOULD ANY BLOW, SPILL, OR TRACK OVER AND UPON SAID PUBLIC OR ADJACENT PRIVATE PROPERTY, IMMEDIATE REMEDY SHALL OCCUR.
4. DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATER COURSES.
5. CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY.
6. THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 15 TO APRIL 15. GRADING OPERATIONS DURING THE RAINY SEASON WHICH LEAVE DENUDE SLOPES SHALL BE PROTECTED WITH EROSION CONTROL MEASURES IMMEDIATELY FOLLOWING GRADING ON THE SLOPES.
7. FINISHED SLOPES ON THE SITE SHALL BE STABILIZED USING SEED AND STRAW OR HYDROSEED TREATMENTS.
8. UNFINISHED ROADWAY AREAS SHALL BE PROTECTED FROM EROSION AS SHOWN ON THE EROSION CONTROL PLAN. HAY BALE CHECK DAMS WILL BE REQUIRED ON ROADWAY SLOPES STEEPER THAN FIVE PERCENT.

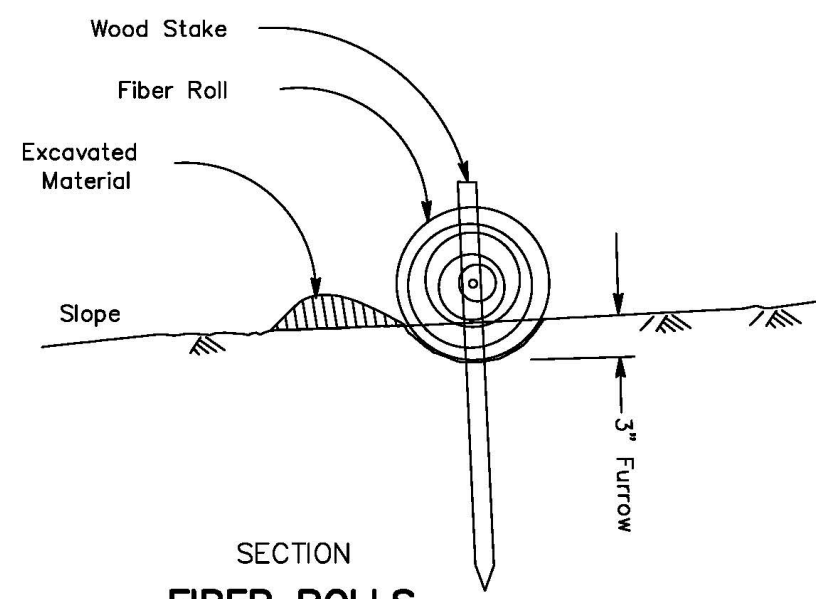


PLAN
**FIBER ROLLS
ROPE RESTRAINT METHOD**

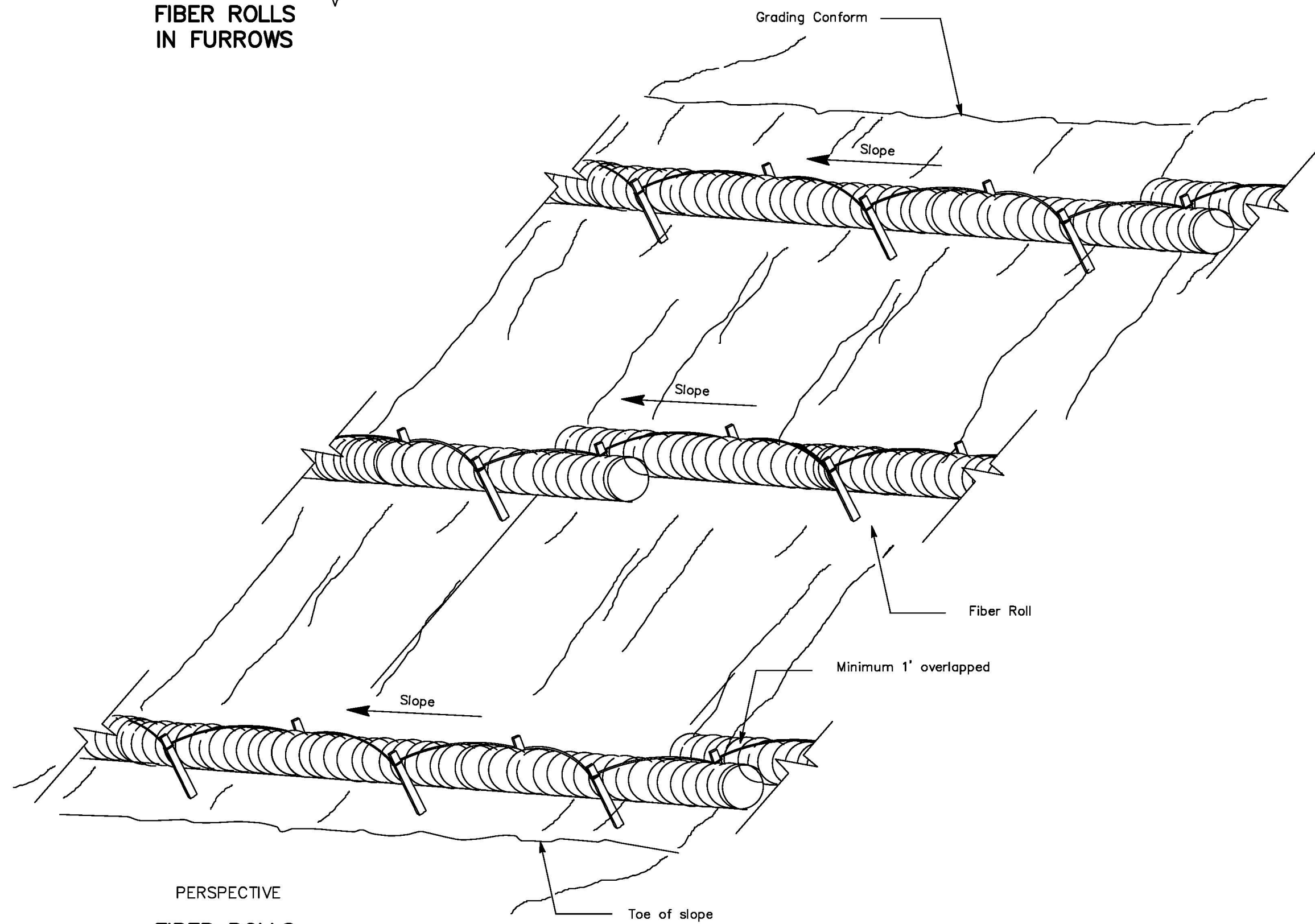


SIGN ELEVATION

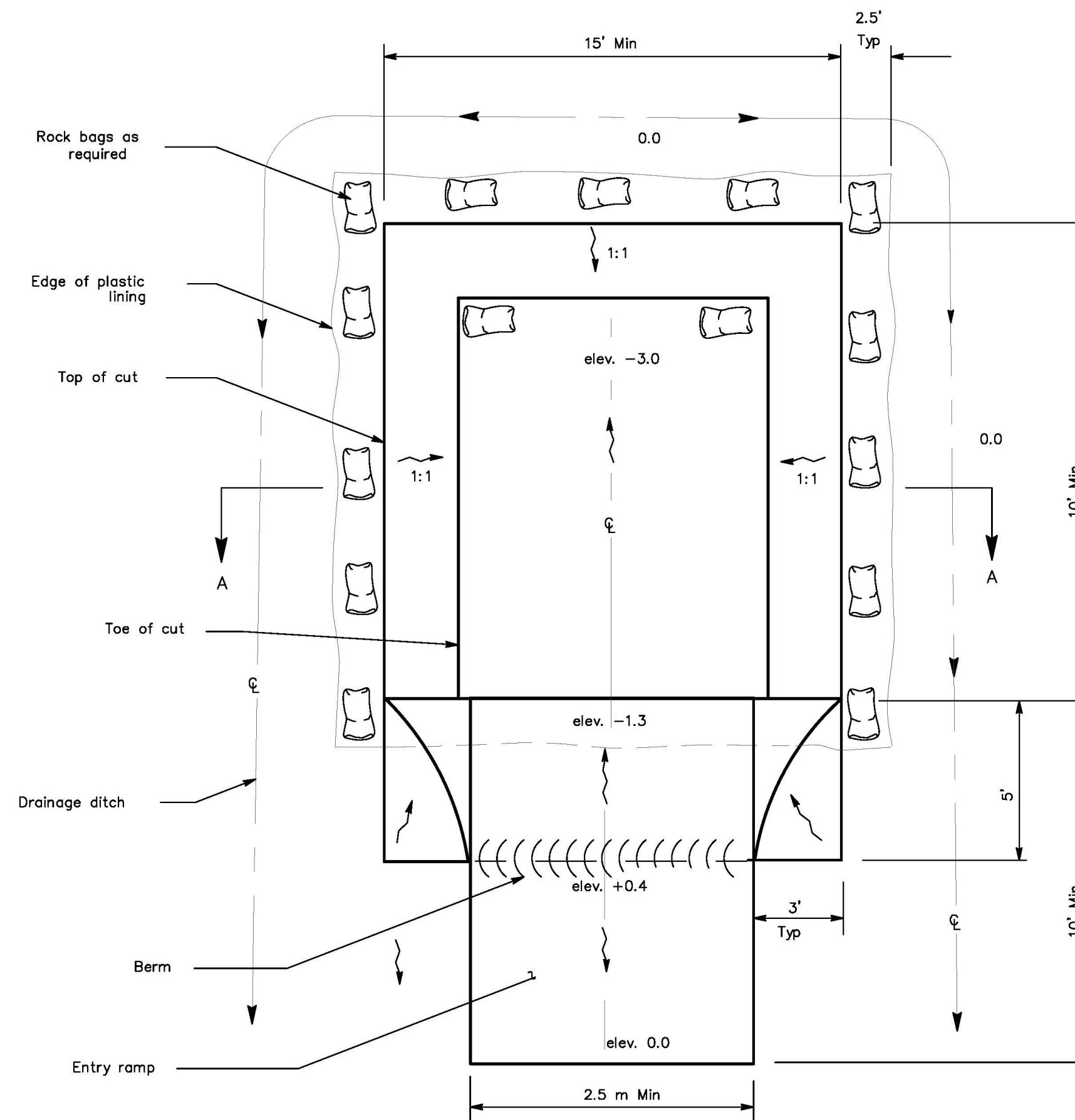
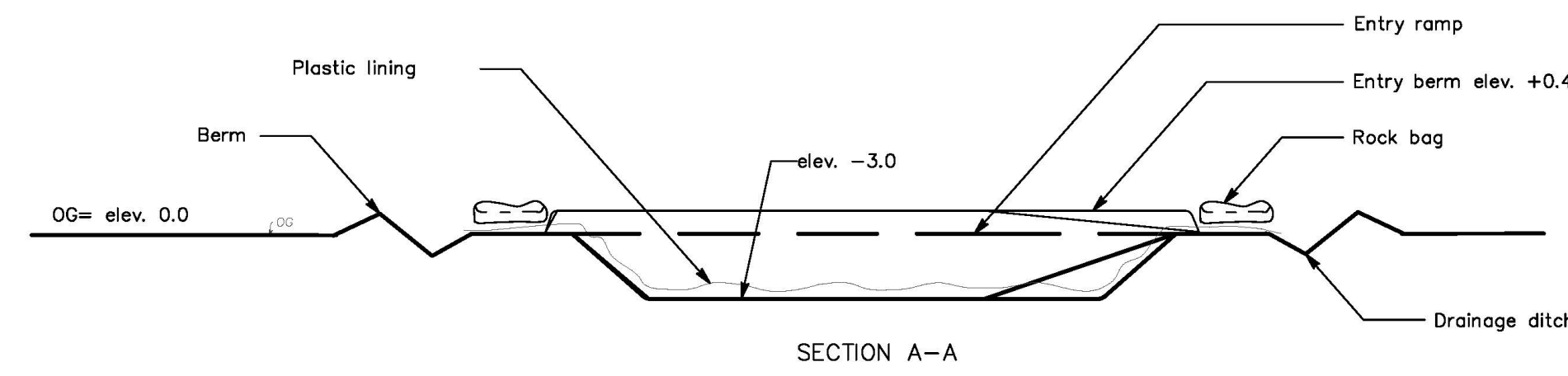
NOTE:
The temporary equipment washing facility sign shall be installed within 20 feet of the temporary concrete washout facility.



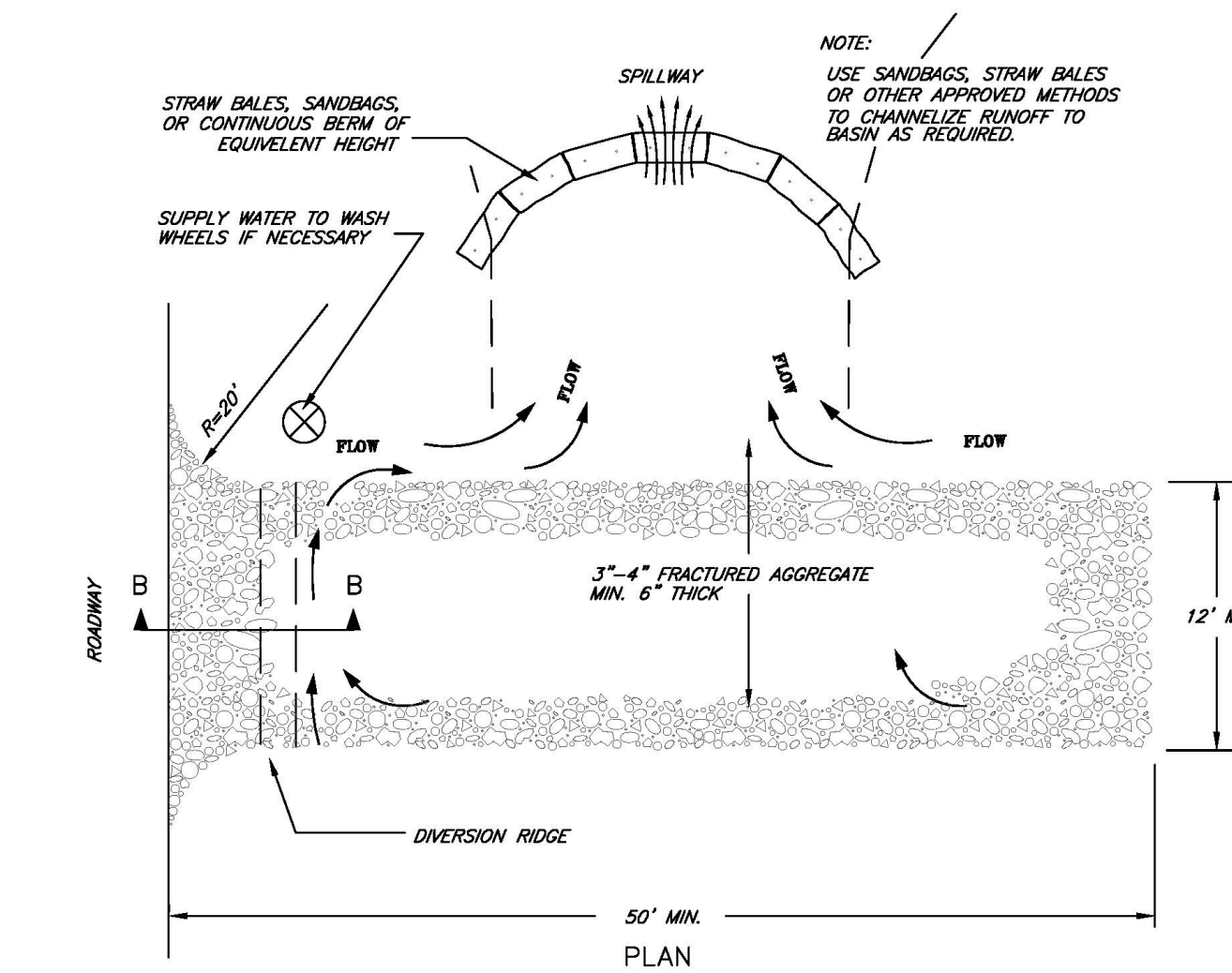
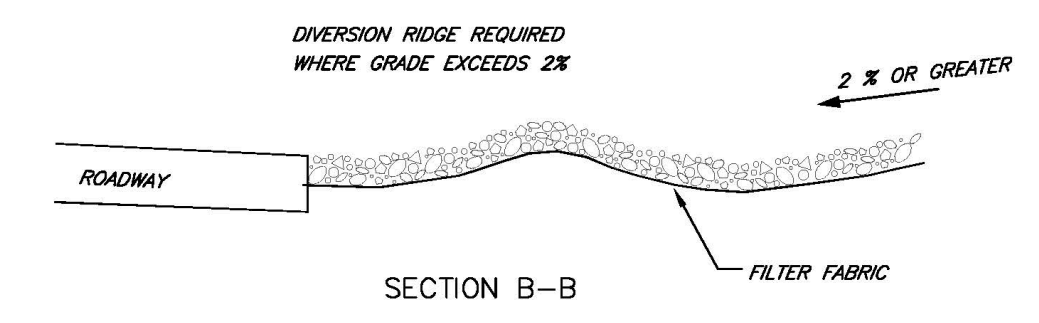
SECTION
**FIBER ROLLS
IN FURROWS**



PERSPECTIVE
**FIBER ROLLS
ROPE RESTRAINT METHOD**

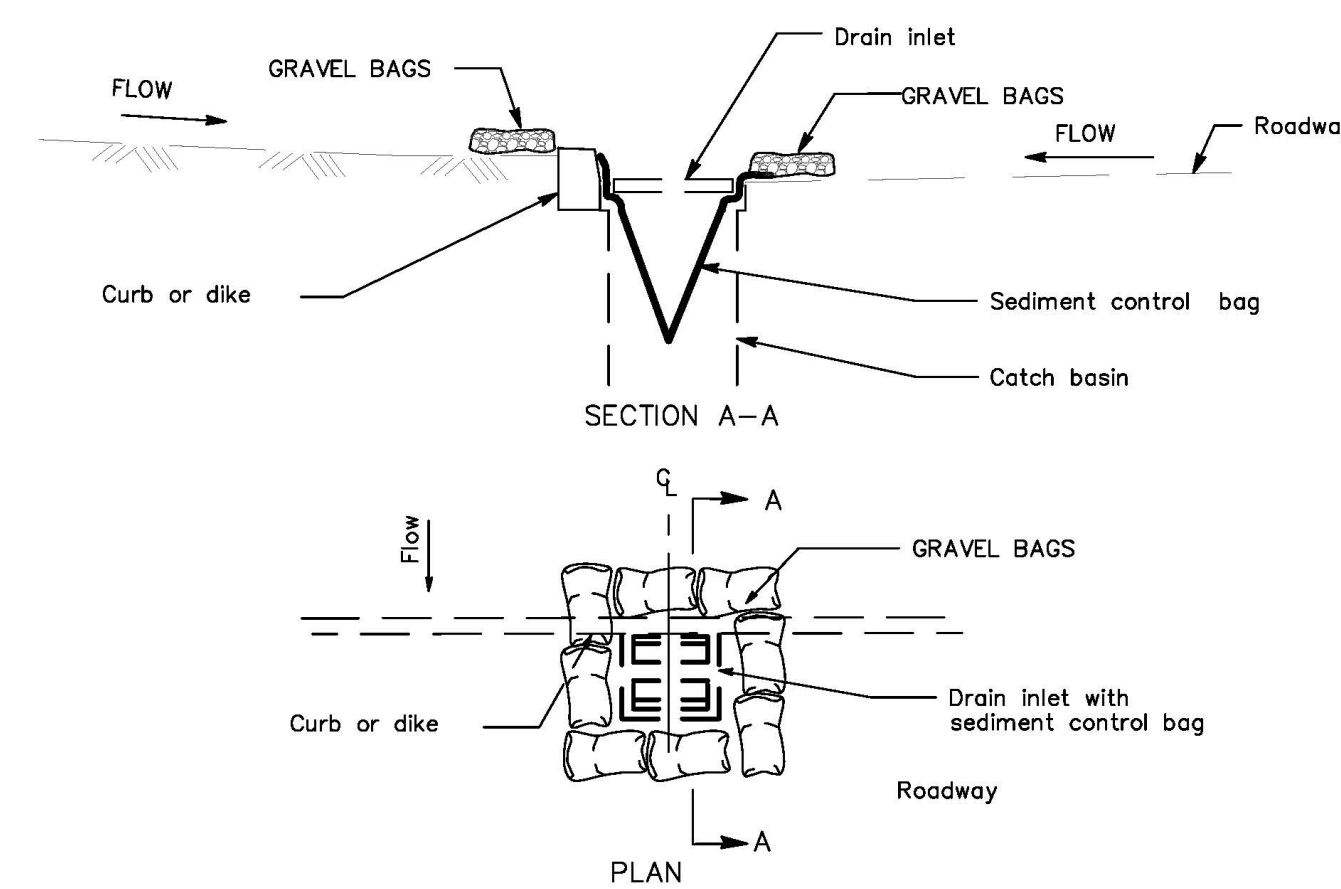


PLAN
**TEMPORARY EQUIPMENT WASHING FACILITY
(Below Grade)**

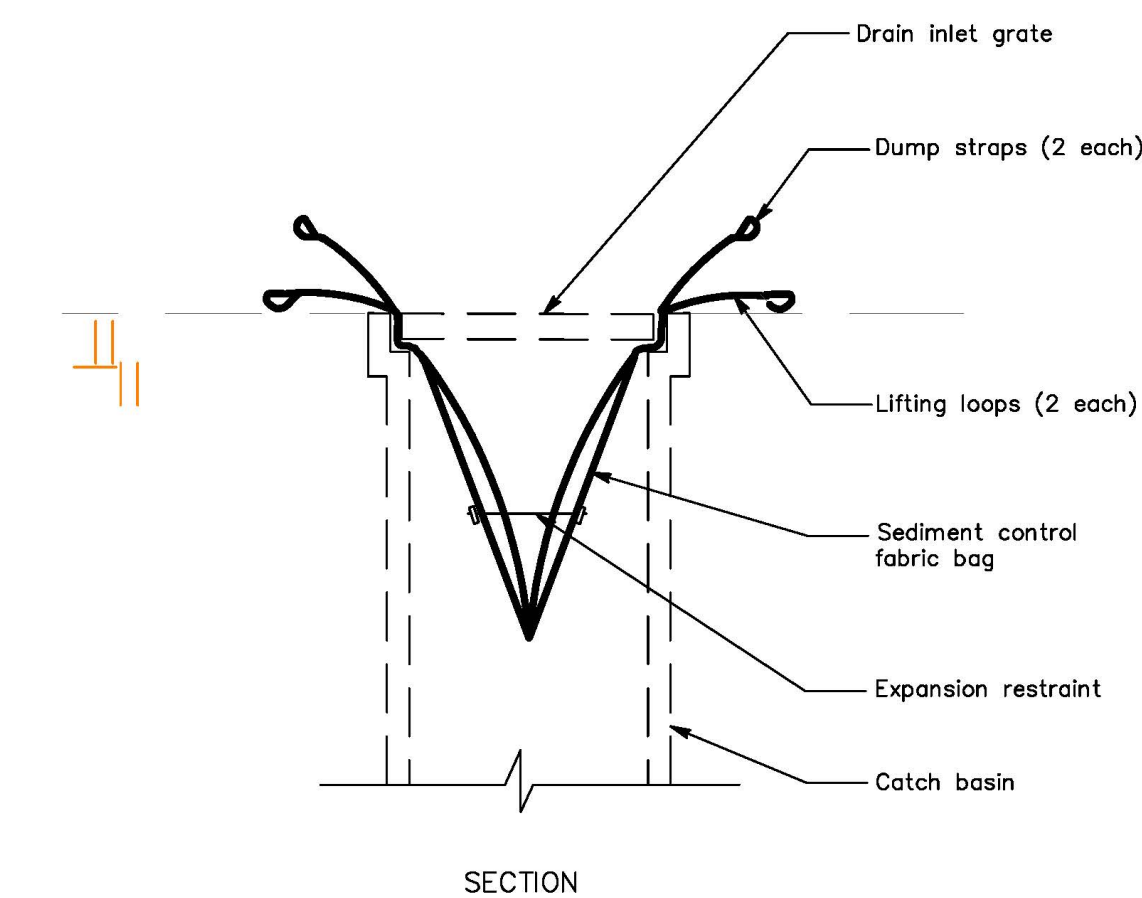


**TEMPORARY
GRAVEL CONSTRUCTION
ENTRANCE/EXIT**

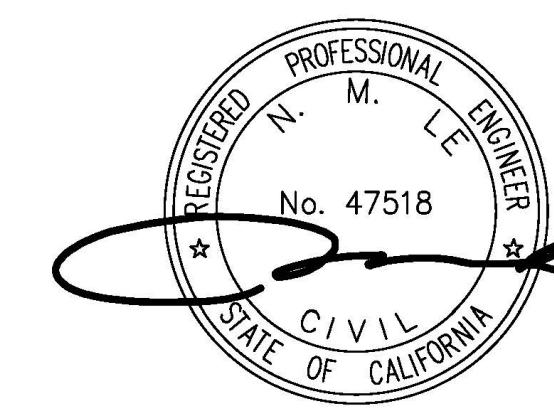
- NOTES:**
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.



SECTION A-A
PLAN
TEMPORARY DRAINAGE INLET PROTECTION
For paved areas exposed to traffic



SECTION
SEDIMENT CONTROL BAG



NO.	REVISIONS	APPD	DATE
BY	DATE	DATE	DATE
DESIGNED	12/02/22	DATE	12/02/22
DRAWN	12/02/22	DATE	12/02/22
NTS	SCALE	CHECKED	DATE
NL	12/02/22		

ENGINEERING

598 E Santa Clara St #270
San Jose, CA 95112
Phone: (408) 806-7187
Fax: (408) 883-4006

CALIFORNIA

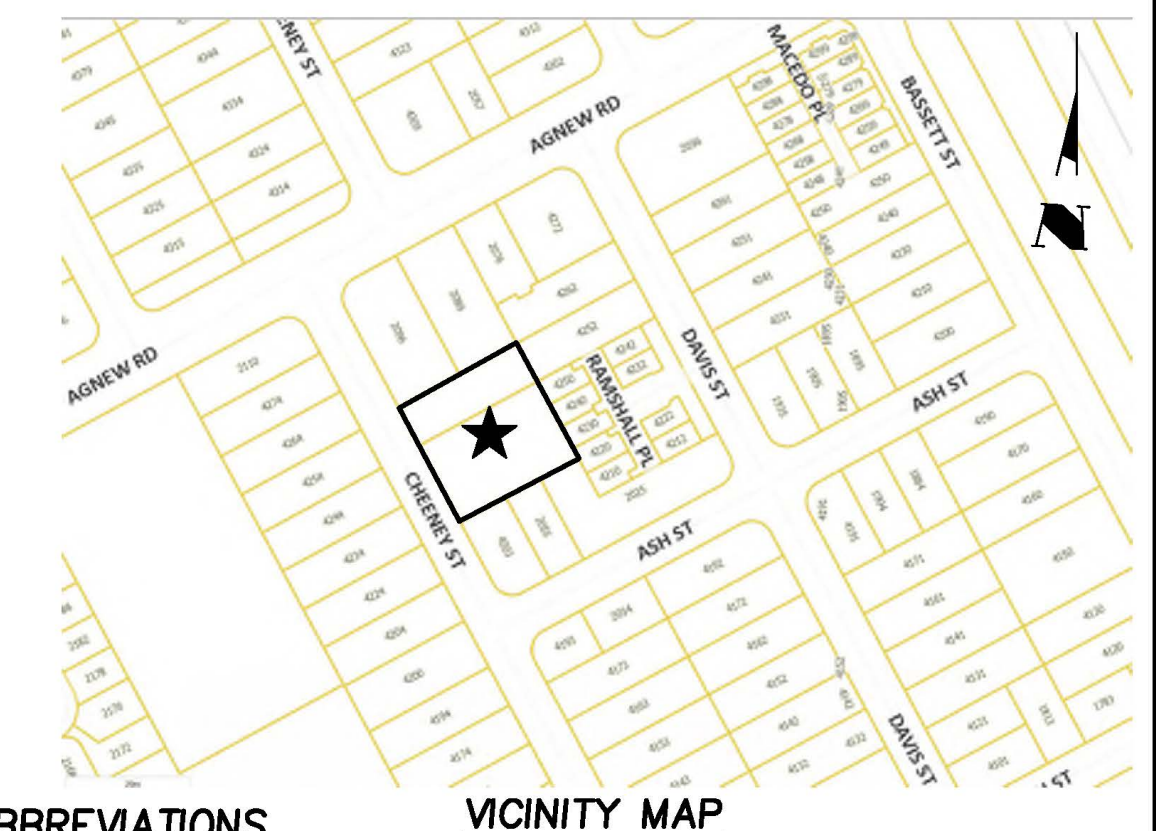
EROSION CONTROL DETAILS
CHEENEY STREET TOWNHOUSES
CHEENEY STREET
APN 104-12-025 APN 104-12-026

SANTA CLARA

DRAWING NO.	C8
SHEET NO.	9 of 9
PROJECT NO.	CONTRACT NO.

VESTING TENTATIVE MAP CHEENEY STREET TOWNHOUSES

TEN (10) LOT SUBDIVISION OF BEING ALL OF LOT 8, 10, 12 IN BLOCK D OF MAP OF TOWN OF AGNEW'S BOOK D OF MAPS, PAGE 113 SANTA CLARA COUNTY RECORDS CITY OF SANTA CLARA SANTA CLARA COUNTY, CALIFORNIA



LEGEND & ABBREVIATIONS

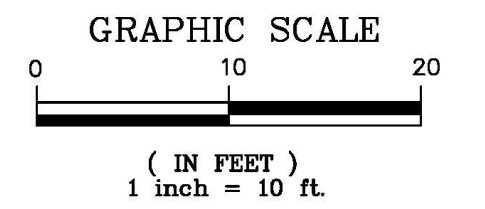
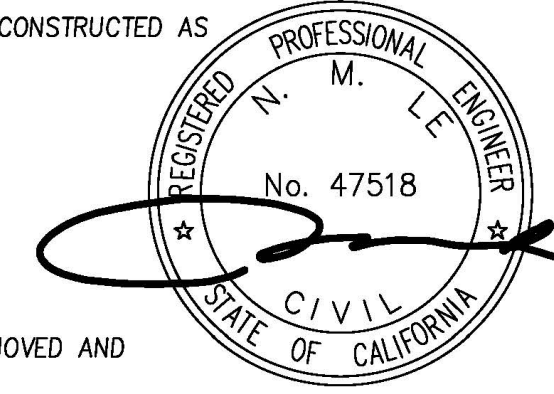
AB	AGGREGATE BASE	NTS	NOT TO SCALE
AC	ASPHALT CONCRETE	+	BENCHMARK
BLDG	BUILDING	---	PROPERTY LINE
BSL	BUILDING SETBACK LINE	---	PARCEL LINE
BW	BOTTOM OF WALL/BACK OF WALK	---	NEW LOT LINE
CED	COBBLE ROCK ENERGY DISSIPATOR	---	EX LOT LINE TO BE REMOVED
CG	CURB & GUTTER		
CL	CENTERLINE		
CO	SANITARY SEWER CLEANOUT		
COP	CURB OPENING		
COMC	CONCRETE		
CSD	CITY STANDARD DETAIL		
DI	DRAINAGE INLET		
DS	DOWNSPOUT		
DWY	DRIVEWAY		
EA	EASEMENT		
ELEV	ELEVATION		
EM	ELECTRIC METER		
EO(H)	ELECTRIC OVERHEAD		
EU(U)	ELECTRIC UNDERGROUND		
EP	EDGE OF PAVEMENT		
EX	EXISTING		
EVAE	EMERGENCY VEHICLE ACCESS EASEMENT		
FC	FACE OF CURB		
FD	FOUND		
FF	FINISH ELEVATION OF SUBFLOOR		
FG	GROUND FINISH GRADE		
FH	FIRE HYDRANT		
FL	FLOW LINE		
G	GARAGE SLAB ELEVATION/GAS LINE		
GM	GAS METER		
HP	HIGH POINT		
INV	INVERT		
IP	IRON PIPE		
JT	JOINT TRENCH		
LIP	LIP OF GUTTER		
LS	LANDSCAPED AREA		
MAX	MAXIMUM		
MH	MANHOLE		
MIN	MINIMUM		
MW	MONUMENT WELL		
NTS	NOT TO SCALE		
OG	ORIGINAL GROUND		
P	PAVEMENT FINISH GRADE		
PAD	PAD ELEVATION		
P	PROPERTY LINE		
PP	POWER POLE		
PSE	PUBLIC SERVICE EASEMENT		
PSDR	PRIVATE STORM DRAIN RELEASE EASEMENT		
PSSE	PRIVATE SANITARY SEWER EASEMENT		
PWLE	PRIVATE WATER LINE EASEMENT		
PVMT	PAVEMENT		
PVC	POLYVINYL CHLORIDE		
R	RADIUS		
RW	RETAINING WALL		
R/W	RIGHT OF WAY		
SD	STORM DRAIN		
SS	SANITARY SEWER/LATERAL		
STA	STATION		
SW	SIDEWALK		
TB	TOP OF BANK		
TC	TOP OF CURB		
TG	TOP OF GRATE		
TW	TOP OF WALL		
TV	TYPICAL		
VEG	VEGETATED		
W	WATER		
WLK	WALKWAY		
WM	WATER METER		
WV	WATER VALVE		

VICINITY MAP

+	EXISTING ELEVATION	+	EXISTING ELEVATION
+	EXISTING FENCE	+	EXISTING FENCE
+	EXISTING TREE TO BE REMOVED	+	EXISTING TREE TO BE REMOVED
+	EXISTING TREE TO REMAIN	+	EXISTING TREE TO REMAIN
+	ELECTRICAL METER	+	ELECTRICAL METER
+	FOUND IRON PIPE AT PROPERTY CORNER	+	FOUND IRON PIPE AT PROPERTY CORNER
+	FILTER FABRIC ROLLS	+	FILTER FABRIC ROLLS
+	GAS METER	+	GAS METER
+	GAS VALVE	+	GAS VALVE
+	GRADE TO DRAIN	+	GRADE TO DRAIN
+	GUY POLE	+	GUY POLE
+	GUY WIRE ANCHOR	+	GUY WIRE ANCHOR
+	EXISTING FIRE HYDRANT	+	EXISTING FIRE HYDRANT
+	HYDRANT: PROPOSED OR NEW	+	HYDRANT: PROPOSED OR NEW
+	INLET 6"x6" GRATE OTHERWISE NOTED	+	INLET 6"x6" GRATE OTHERWISE NOTED
+	JOINT POLE	+	JOINT POLE
+	LIGHTING	+	LIGHTING
+	LIGHTING POLE	+	LIGHTING POLE
+	OVERLAND FLOW DIRECTION	+	OVERLAND FLOW DIRECTION
+	PGE BOX	+	PGE BOX
+	POST CONSTRUCTION STORM WATER POLLUTION CONTROL MEASURE	+	POST CONSTRUCTION STORM WATER POLLUTION CONTROL MEASURE
+	PROJECT SITE	+	PROJECT SITE
+	RETAINING WALL	+	RETAINING WALL
+	RIGHT OF WAY	+	RIGHT OF WAY
+	SANITARY SEWER CLEAN OUT MANHOLE	+	SANITARY SEWER CLEAN OUT MANHOLE
+	SANITARY SEWER MANHOLE	+	SANITARY SEWER MANHOLE
+	STORM DRAIN MANHOLE	+	STORM DRAIN MANHOLE
+	TELEPHONE BOX	+	TELEPHONE BOX
+	UTILITY: EXISTING	+	UTILITY: EXISTING
+	UTILITY: PROPOSED OR NEW	+	UTILITY: PROPOSED OR NEW
+	WATER METER	+	WATER METER
+	WATER VALVE	+	WATER VALVE
+	WELL	+	WELL

NOTES:

- PROJECT NAME: CHEENEY STREET TOWNHOUSES
- ASSESSOR PARCEL NO: 104-12-025 & 104-12-026
- SITE ADDRESS: CHEENEY STREET, SANTA CLARA, CA 95054
- LOT AREA: 0.2± ACRES (GROSS AREA)
- OWNER: GROUND ZERO CONSTRUCTION
ADDRESS: 101 SOUTH SANTA CRUZ AVE, UNIT 33192, LOS GATOS, CA 95031
TELEPHONE: (408)-710-6725
- ENGINEER: NINH M LE, PE
ADDRESS: 598 E SANTA CLARA ST #270, SAN JOSE, CA 95112
TELEPHONE: (408)-806-7187
- SURVEYOR: TOM H. MILO
ADDRESS: 2250 BOHANNON DRIVE, SAN CLARA, CA 95050
TELEPHONE: (408)-761-5867
- EXISTING ZONING: RM-3 MULTIPLE RESIDENTIAL-HIGH DENSITY
- PROPOSED ZONING: NO CHANGE
- EXISTING USE: VACANT
- PROPOSED USE: RESIDENTIAL
- PROPOSED NUMBER OF LOTS: 9 LOT
- ALL DIMENSIONS AND PROPOSED GRADING ARE PRELIMINARY AND SUBJECT TO FINAL DESIGN
- PROPOSED WATER, SANITARY SEWER, AND STORM DRAIN WILL BE CONSTRUCTED AS PER LOCAL AGENCY STANDARDS.
- WATER: SANTA CLARA WATER AND UTILITIES
- SEWER: SANTA CLARA WATER AND UTILITIES
- STORM: SANTA CLARA WATER AND UTILITIES
- GAS & ELECTRIC: PG&E
- TELEPHONE: AT&T
- CABLE TV: COMCAST
- IF EXISTING WATER METER IS NOT BEING USED, IT SHALL BE REMOVED AND CAPPED AT MAIN
- IF EXISTING INLETS ARE NOT BEING USED, THEY SHALL BE REMOVED AND CAPPED
- REMOVE ALL EXISTING IMPROVEMENT WITHIN THE PROPERTY LIMITS

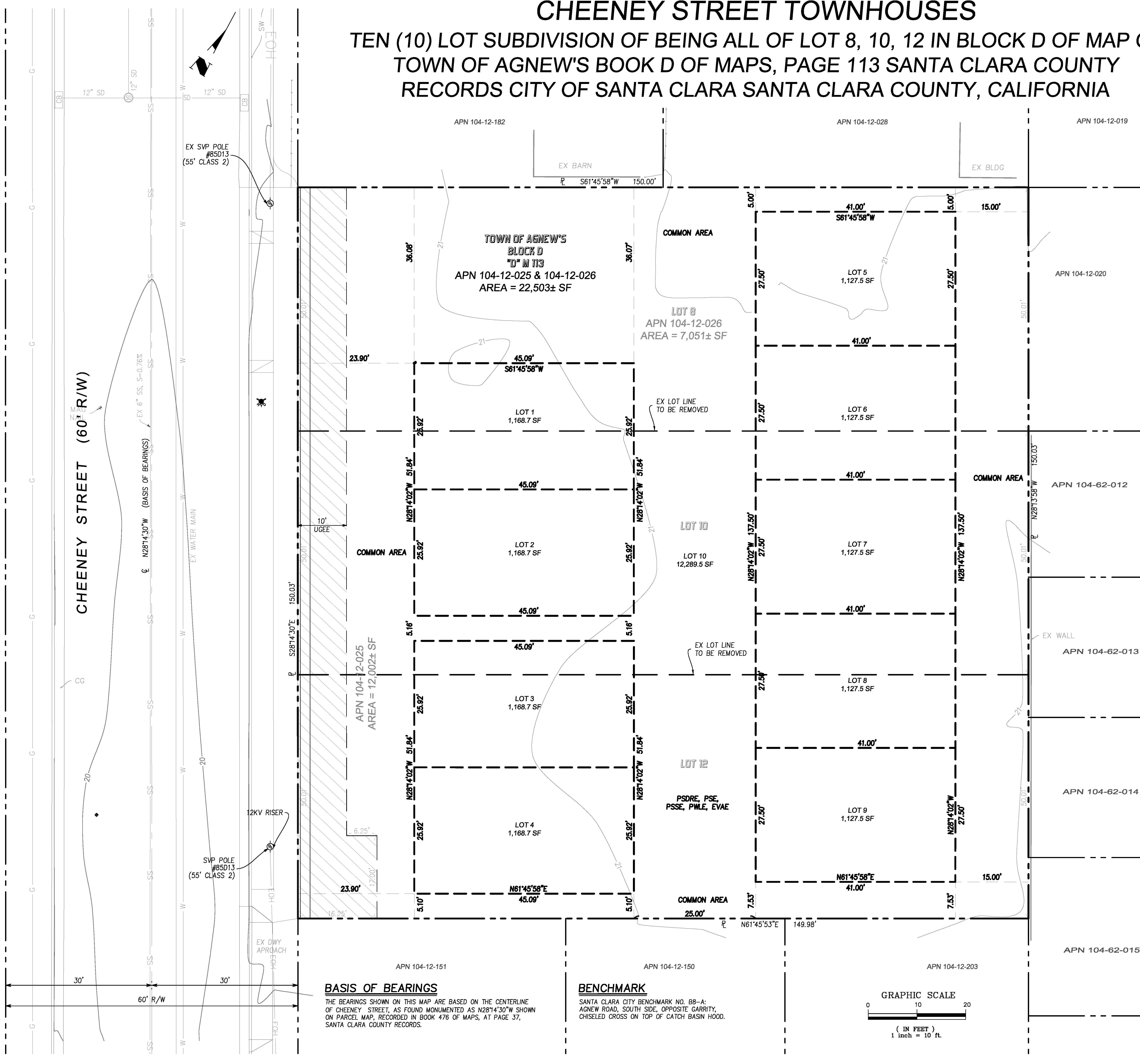


BASIS OF BEARINGS

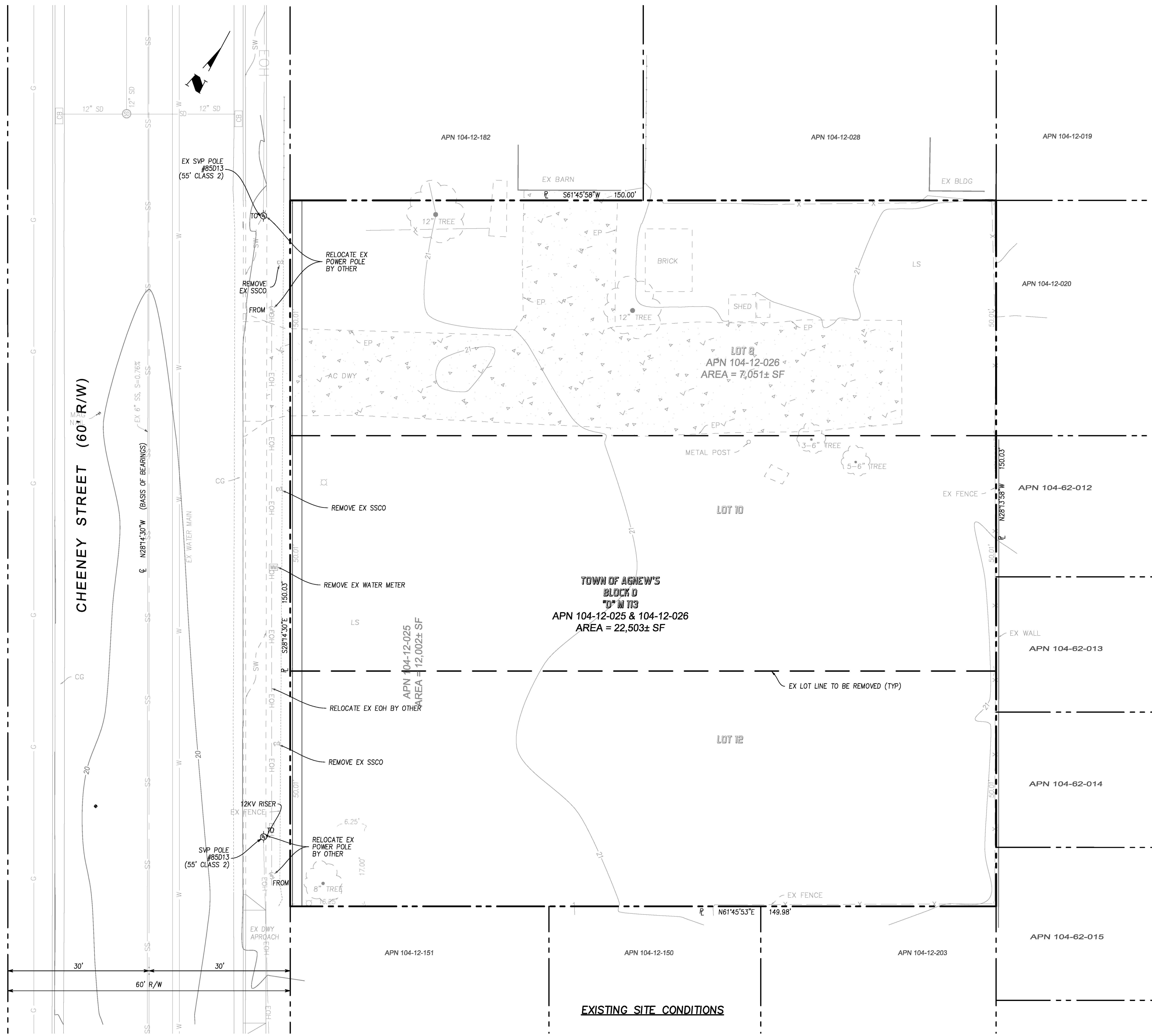
THE BEARINGS SHOWN ON THIS MAP ARE BASED ON THE CENTERLINE OF CHEENEY STREET, AS FOUND MONUMENTED AS N281°30'0" W SHOWN ON PARCEL MAP, RECORDED IN BOOK 476 OF MAPS, AT PAGE 37, SANTA CLARA COUNTY RECORDS.

BENCHMARK

SANTA CLARA CITY BENCHMARK NO. 08-A: AGNEW ROAD, SOUTH SIDE, OPPOSITE GARRITY, CHISELED CROSS ON TOP OF CATCH BASIN HOOD.

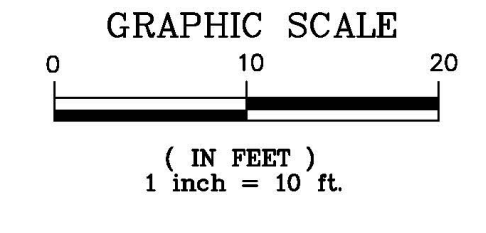


<p>DESIGNED: 12/02/22</p> <p>DRAWN: 12/02/22</p> <p>CHECKED: 12/02/22</p> <p>DATE: 12/02/22</p>	<p>DATE: 12/02/22</p> <p>DATE: 12/02/22</p> <p>DATE: 12/02/22</p> <p>DATE: 12/02/22</p>	<p>BY: [Signature]</p> <p>DATE: []</p> <p>APPD: []</p> <p>REVISIONS: []</p> <p>NO: []</p>	<p>ENGINEERING</p> <p>598 E Santa Clara St #270 San Jose, CA 95112 Phone: (408) 806-7187 Fax: (408) 583-4006</p> <p>CALIFORNIA</p>
<p>TENTATIVE MAP CHEENEY STREET TOWNHOUSES CHEENEY STREET APN 104-12-025 APN 104-12-026</p>	<p>PROJECT NO. []</p> <p>CONTRACT NO. []</p>	<p>FILE NO. []</p> <p>SHEET NO. 1 OF 2</p>	<p style="font-size: 2em; font-weight: bold; text-align: center;">T1</p>



CHEENEY STREET (60' R/W)

EXISTING SITE CONDITIONS



<p>ENGINEERING 598 E Santa Clara St #270 San Jose, CA 95112 Phone: (408) 806-7187 Fax: (408) 883-4006</p>		<p>DESIGNED DATE 11/26/2018 DRAWN DATE 11/26/2018 SCALE 1" = 10' CHECKED DATE 11/26/2018</p>
<p>TENTATIVE MAP CHEENEY STREET TOWNHOUSES CHEENEY STREET APN 104-12-025 APN 104-12-026</p>		<p>BY DATE APPD DATE REVISIONS NO.</p>
<p>SANTA CLARA CALIFORNIA</p>		<p>PROJECT NO. CONTRACT NO. SHEET NO. 2 of 2 FILE NO.</p>

PRELIMINARY PLANT LEGEND

SUNSET_ZONE_15

SYMBOL	SIZE	BOTANICAL NAME	COMMON NAME	COMMENTS
--------	------	----------------	-------------	----------

STREET TREES:

PHIS CHI	15 GAL	PISICACIA CHINENSIS 'KEITH DAVEY'	CHINESE PISTACHE	
----------	--------	-----------------------------------	------------------	--

TRESS:

LAG TUS	15 GAL	LAGERSTROEMIA INDICA 'TUSCARORA'	GRAPE MYRTLE - PINK	
NYS SYL	24" BOX	NYSSA SYVATICA	TUPELO	
PIS CHI	24" BOX	PISTACIA CHINENSIS	CHINESE PISTACHE	
POD MAC	15 GAL	PODOCARPUS MACROPHYLLUS	YEW PINE	

SHRUBS:

ABE EDW	5 GAL	ABELIA G. 'EDWARD GOUCHER'	GLOSSY ABELIA DWARF	
DIE BIC	5 GAL	DIETES BICOLOR	CREAM FORTNIGHT LILY	
DIE VEG	5 GAL	DIETES VEGATA	WHITE FORTNIGHT LILY	
HEM ELI	5 GAL	HEMEROCALLIS 'ELIZABETH PURPLE'	DAYLILY - PURPLE	
HEM SDO	5 GAL	HEMEROCALLIS 'STELLA DE ORO'	DAYLILY - ORANGE	
HEU MAX	5 GAL	HEUCHERA MAXIMA	ISLAND ALUM ROOT	
LAV INT	5 GAL	LAVANDULA X 'PROVENCE'	PROVENCE LAVANDER	
NAN SIE	5 GAL	NANDINA D. MONFAR 'SIENNA SUNRISE'	HEAVENLY BAMBO	
PHO MAI	5 GAL	PHORMIUM C. 'MAORI MAIDEN'	DWARF NEW ZEALAND FLAX	
PHO QUE	5 GAL	PHORMIUM C. 'MAORI QUEEN'	DWARF NEW ZEALAND FLAX	
PHO RUB	5 GAL	PHORMIUM T. RUBRUM	NEW ZEALAND FLAX - RED	
PHO TOM	5 GAL	PHORMIUM T. 'TOM THUMB'	FLAX - TOM THUMB	
ROS ICE	5 GAL	ROSA FLORIBUNDA 'ICEBERG'	ICEBERG ROSE	
ROS AMB	5 GAL	ROSA FLOWER CARPET - 'AMBER'	AMBER GROUNDCOVER ROSE (MONROVIA)	
ROS RED	5 GAL	ROSA X. NOARE - RED	RED GROUNDCOVER ROSE (MONROVIA)	
TUL VIO	5 GAL	TULBAGHIA VIOLACEA	SOCIETY GARLIC	

GRASSES:

FES ELI	5 GAL	FESTUCA CLAUCA 'ELIJAH BLUE'	ELIJAH BLUE FESCUE	
FES SIS	5 GAL	FESTUCA GLAUCA 'SISKIYOU BLUE'	SISKIYOU BLUE FESCUE	

VINES:

CLE ARM	5 GAL	CLEMATIS ARMANDII	EVERGREEN CLEMATIS	
---------	-------	-------------------	--------------------	--

GROUND COVERS:

SOD	MEDALLION VARIETY AVAILABLE FROM PACIFIC SOD 800-692-8690
FLATS	CAMPANULA PORCHARSKYANA SERBIA BELLFLOWER
FLATS	HYPERICUM CALYGINUM ST. JOHNSWORT

BARK MULCH - 3" COVER, CLACK IN COLOR IN ALL PLANTERS NOT PLANTED AND FILLED IN AROUND ALL PLANTS, TYPICAL.

PLANT NOTES:

- THESE NOTES ARE FOR GENERAL REFERENCE IN CONJUNCTION WITH, AND AS A SUPPLEMENT TO, THE WRITTEN SPECIFICATIONS, DETAILS, ADDENDA AND CHANGE ORDERS ASSOCIATED WITH THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION.
- CONTRACTOR SHALL BECOME FAMILIAR WITH THE LOCATION OF ALL EXISTING AND FUTURE UNDERGROUND SERVICES AND IMPROVEMENTS WHICH MAY CONFLICT WITH WORK TO BE DONE. CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800) 227-2600 PRIOR TO DIGGING. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY SHOULD CONFLICTS ARISE.
- FINE GRADING, HEADERS AND IRRIGATION COVERAGE SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLANTING OPERATIONS.
- CONTRACTOR SHALL LAY OUT PLANT MATERIAL PER PLAN AND FACE TO GIVE BEST APPEARANCE OR RELATION TO ADJACENT PLANTS, STRUCTURES OR VIEWS. CONTRACTOR TO OBTAIN APPROVAL FROM OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- PLANT MATERIALS SHALL NOT BE INSTALL IN AN AREA WHICH WILL COST HARM TO ADJACENT STRUCTURES OF OBSTRUCT IRRIGATION SPRAY PATTERN. NOTIFY THE OWNER'S REPRESENTATIVE SHOULD CONFLICTS ARISE.
- PRIOR TO PLANTING INSTALLATION, CONTRACTOR SHALL OBTAIN APPROVAL OF PLANT LAYOUT FROM OWNER'S REPRESENTATIVE. PLANT LOCATIONS ARE DIAGRAMMATIC AND MAY BE ADJUSTED ON THE FIELD AT THE OWNER'S REPRESENTATIVE'S REQUEST.
- CONTRACTOR SHALL COORDINATE PLAT LOCATION TO DRIP TUBING LOCATION AND ADJUST PLANTING AS NECESSARY TO ACHIEVE BEST RESULTS.
- ALL NON-TURF AREAS SHALL BE MULCHED WITH A MINIMUM 3" LAYER OF BARK MULCH. UNLESS OTHERWISE NOTED, FINISH GRADE OF PLANTING AREAS SHALL BE 3" BELOW ADJACENT PAVING. TAPER 3" DEPTH BARK MULCH TOP DRESSING TO 1/2" BELOW ADJACENT PAVING (1-1/2" DEPTH) WITHIN 2- FEET OF PAVING. CONTRACTOR SHALL SUBMIT A SAMPLE TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO MULCH DELIVERY TO THE SITE. FOR FURTHER INFORMATION, SEE SPECIFICATIONS.
- GROUND COVERS SHALL BE PLANTED EVENLY AND CONTINUOUSLY UNDER TREE AND SHRUB MASSES.
- CONTRACTOR SHALL USE A NATURAL PRE-EMERGENT, SUCH AS CORN WEED BLOCKER OR COMPARABLE, AND SHALL APPLY ACCORDING TO THE MANUFACTURES DIRECTIONS PRIOR TO APPLYING MULCH.
- ALL NEWLY PLANTED MATERIAL SHALL BE THOROUGHLY SOAKED WITH WATER WITHIN 3 HOURS OF PLANTING.
- 30 DAYS AFTER PLANTING, CONTRACTOR SHALL RE-STAKE AND STRAIGHTEN TREES AS NEEDED.
- BENEATH PROPOSED SOD, EXCAVATE EXISTING SOIL TO A DEPTH OF 12" BELOW PROPOSED FINISHED GRADE. REPLACE WITH IMPORTED LOAN SOIL AND BRING TO FINISHED GRADE.
- THE CONTRACTOR SHALL PROVIDE FOR IN THEIR BID FOR A BASE AMENDMENT FOR SOIL AMENDMENT. AFTER ROUGH GRADING OF THE SITE A SOIL NUTRIENT TEST WILL BE CONDUCTED OF VARIOUS PLANTED AREAS AND THE PLANTED AREAS SHALL BE AMENDED BASED ON THIS SOILS REPORT.

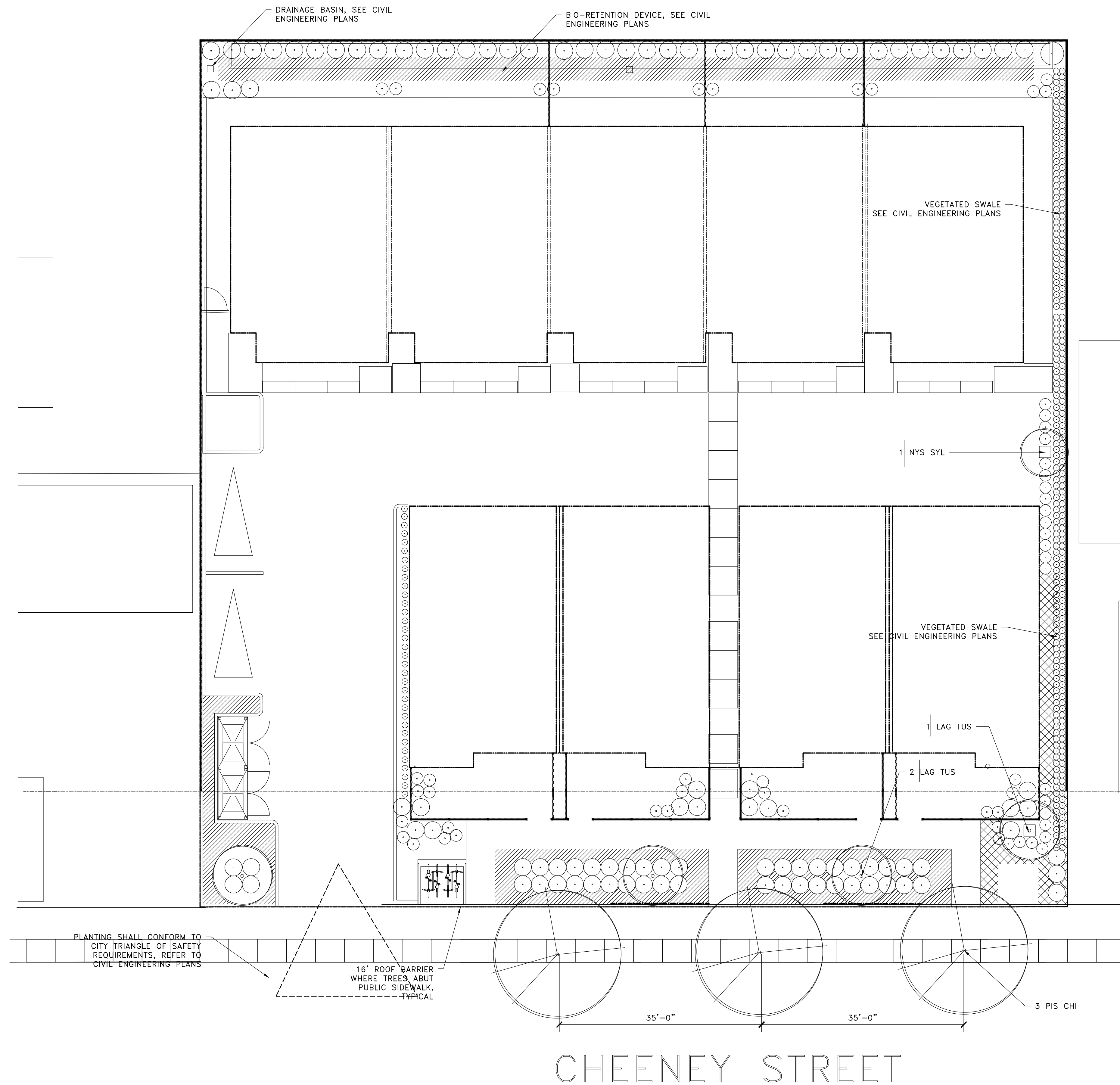
MODEL WATER EFFICIENCY LANDSCAPE ORDINANCE COMPLIANCE

I AGREE TO COMPLY WITH THE REQUIREMENTS OF THE WATER EFFICIENCY LANDSCAPE ORDINANCE AND SUBMIT A COMPLETE LANDSCAPE DOCUMENTATION PACKAGE TITLE 23 CH. 2.7 SECTION 492.3

I HAVE AND COMPLY WITH THE CRITERIA OF THE MODEL WATER EFFICIENCY LANDSCAPE ORDINANCE AND HAVE APPLIED THEM FOR THE EFFICIENCY USE OF THE WATER IN THE LANDSCAPE DESIGN PLAN

MODEL WATER EFFICIENCY TURF ALLOWANCE CALCULATION

3,504 S.F. TOTAL LANDSCAPE AREA
 976 S.F. TOTAL TURF AREA ALLOWED (28%)
 286 S.F. TOTAL PROPOSED TURF AREA FOR PROJECT



MFA
 ENGINEERS & ASSOCIATES
 370 GRAND PARK CIRCLE
 SAN JOSE CA, 95136
 TEL: (408) 509-3464
 alialbiani@sbcglobal.net



CHEENEY ST TOWNHOUSES
 4249 CHEENEY ST.
 SANTA CLARA, CA 95054

REVISION	DATE
1	
2	
3	

DATE: August 23, 2022
 PROJECT No. 10-042122

LANDSCAPE PLAN

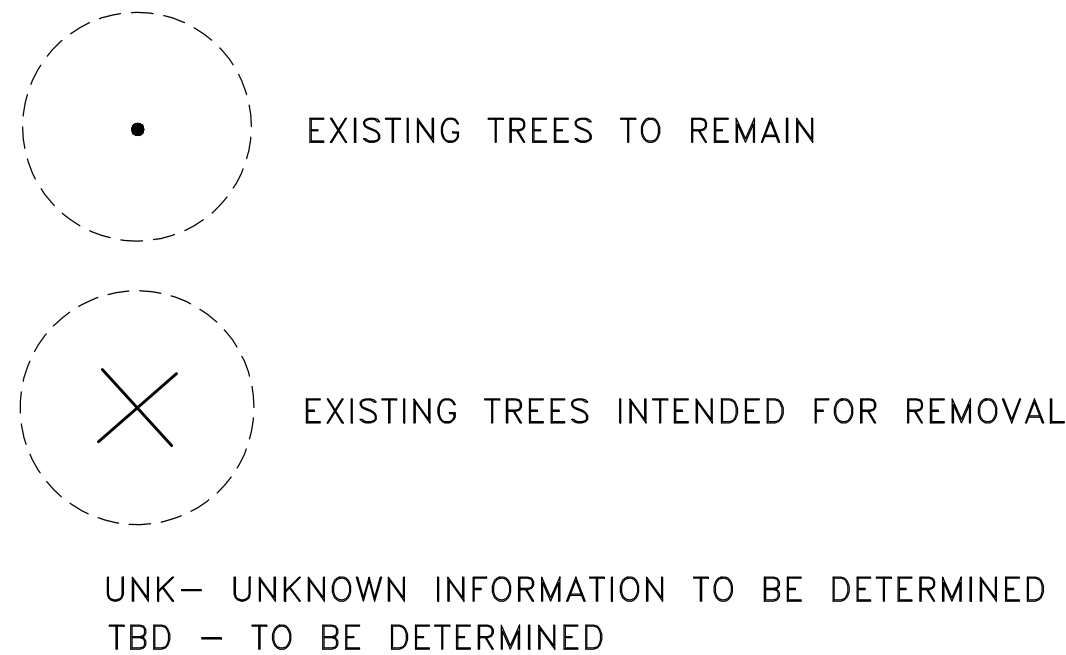
REF. NORTH

L1.1

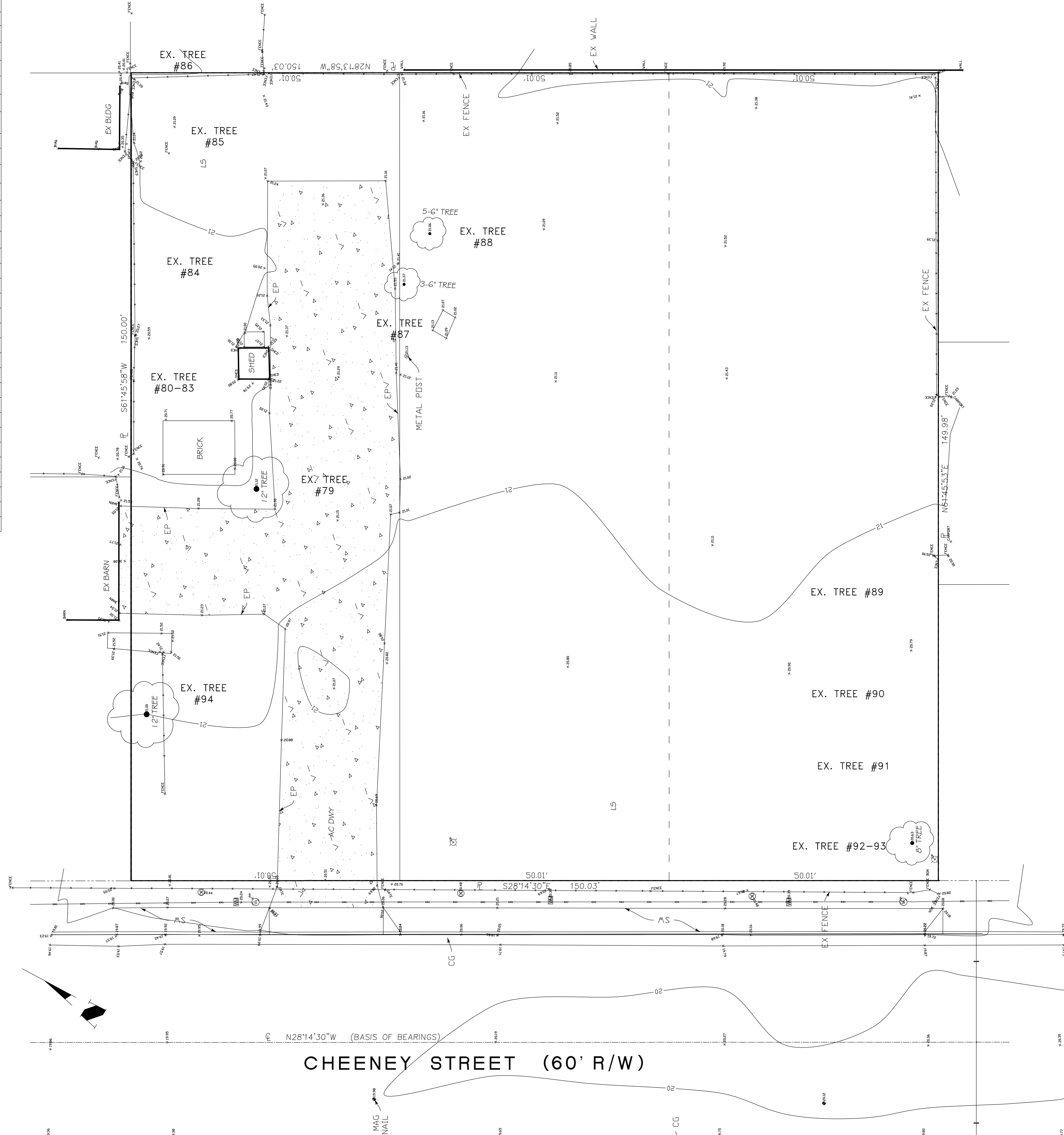
CHEENEY ST TOWNHOUSES
 4249 CHEENEY ST.
 SANTA CLARA, CA 95054

TREE INVENTORY LEGEND

TREE #	TREE SPECIES BOTANICAL NAME	TREE SPECIES COMMON NAME	SIZE DBH @ 54"	STD OR MULTI TRUNK	TREE TO BE REMOVED
79	MALUS SPECIES	APPLE	4", 3", 3"	MULTI	YES
80	LIGUSTRUM SPECIES	PRIVET	2", 1"	MULTI	YES
81	LIGUSTRUM SPECIES	PRIVET	2"	STD	YES
82	LIGUSTRUM SPECIES	PRIVET	3", 2"	MULTI	YES
83	JUGLANS REGIA	ENGLISH WALNUT	2"	STD	YES
84	PERSIA AMERICANA	AVOCADO	4"	STD	YES
85	PERSIA AMERICANA	AVOCADO	4", 3"	MULTI	YES
86	PERSIA AMERICANA	AVOCADO	3"	STD	YES
87	PERSIA AMERICANA	AVOCADO	0'-4", 0'-5", 0'-4"	MULTI	YES
88	PERSIA AMERICANA	AVOCADO	5", 5", 4", 4"	MULTI	YES
89	PHOENIX CCANARIENSIS	DATA PALM	NA	STD	YES
90	JUGLANS REGIA	ENGLISH WALNUT	3", 3", 2"	MULTI	YES
91	CELTIS SPECIES	HACKBERRY	3"	STD	YES
92	SCHINUS TEREBINTHIFOLIUS	BRAZILIAN PEPPER	3", 3", 3"	MULTI	YES
93	JUGLANS HINDSII	BLACK WALNUT	5"	STD	YES
94	CITRUS SPECIES	ORANGE	12"	STD	YES



NOTE:
 1. ALL TREES HERE SHOWN HAVE BEEN SURVEYED BY A LICENSED SURVEYOR. ALL TREE SPECIES HAVE BEEN IDENTIFIED BY A LICENSED ARBORIST.
 2. ALL TREES DIAMETERS HAVE BEEN MEASURES 54" ABOVE GRADE BY A LICENSED ARBORIST

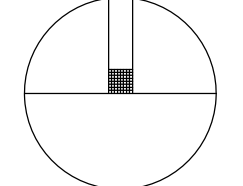


REVISION	DATE
1	
2	
3	

DATE: August 23, 2022
 PROJECT No. 10-042122

TREE INVENTORY PLAN

REF. NORTH



L1.2

LEGEND

	NEW CONDUIT AND WIRE CONCEALED IN WALL OR ABOVE CEILING
	NEW CONDUIT AND WIRE CONCEALED UNDERFLOOR OR UNDERGROUND
	EXISTING CONDUIT AND WIRE CONCEALED IN WALL OR ABOVE CEILING
	EXISTING CONDUIT AND WIRE CONCEALED UNDERFLOOR OR UNDERGROUND
	HOMERUN SHOWING GROUND, HOT, AND NEUTRAL
	LIGHT FIXTURES – SEE LIGHT FIXTURE SCHEDULE
	SINGLE POLE, SINGLE THROW SWITCH
	THREE-WAY LIGHT SWITCH
	OCCUPANCY SENSOR SWITCH, PROXIMITY INFRA-RED
	SWITCH WITH MOTION SENSOR
	EQUIPMENT CONNECTION
	JUNCTION BOX
	DUPLEX RECEPTACLE
	QUAD RECEPTACLE
	SIMPLEX RECEPTACLE, GROUNDED
	DUPLEX RECEPTACLE, ISOLATED GROUND
	DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTION (GFCI)
	DUPLEX RECEPTACLE, GFCI WITH WEATHERPROOF-IN-USE COVER
	FLOOR BOX WITH DUPLEX RECEPTACLE
	SPECIAL PURPOSE RECEPTACLE AS NOTED
	DUPLEX RECEPTACLE WITH USB PLUGS
	FIRE ALARM SYSTEM SMOKE DETECTOR
	FIRE ALARM SYSTEM DUCT MOUNT SMOKE DETECTOR
	120V CONNECTION TO FIRE/SMOKE DAMPER
	DISCONNECT SWITCH, FUSED
	DISCONNECT SWITCH, UN-FUSED
	TELEPHONE OUTLET, AT 18" UNLESS OTHERWISE NOTED
	TELEPHONE/DATA OUTLET
	FLOOR BOX WITH TELEPHONE/DATA OUTLET
	COMBINATION FLOORBOX: DUPLEX RECEPTACLE AND TELEPHONE/DATA OUTLET
	PANELBOARD
	THERMOSTAT
	TRANSFORMER
	PHOTO SENSOR
	OCCUPANCY SENSOR
	FLAG NOTE
	REVISION NUMBER
	REVISION CLOUD

SOME SYMBOLS NOT USED IN THIS PROJECT.

GENERAL NOTES

- PROVIDE ELECTRICAL INSTALLATION IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, LOCAL CODES, ORDINANCES AND REQUIREMENTS OF UTILITY COMPANIES FURNISHING SERVICES TO INSTALLATION.
- PROVIDE ITEMS NECESSARY TO COMPLETE ELECTRICAL SYSTEMS. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY SHOW EVERY CONDUIT, BOX, CONDUCTOR OR SIMILAR ITEMS FOR A COMPLETE INSTALLATION.
- THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID AND DETERMINE CONDITIONS WHICH MAY AFFECT BID. ANY ITEMS NOT FULLY UNDERSTOOD SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO BIDDING.
- WHEREVER THE WORD "PROVIDE" IS USED, IT MEANS, "FURNISH AND INSTALL COMPLETE AND READY FOR USE."
- COORDINATE LOCATION OF ELECTRICAL WITH OTHER TRADES.
- REFER TO MECHANICAL DRAWINGS FOR CHARACTERISTICS (SIZE, LOCATION, ETC.) OF MECHANICAL EQUIPMENT, UNLESS OTHERWISE INDICATED.
- PROVIDE CONDUCTORS AND RACEWAYS PER NATIONAL ELECTRICAL CODE.
- REFER TO ARCHITECTURAL AND INTERIOR DESIGN DRAWINGS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES, RECEPTACLES, SWITCHES, AND ALL OTHER ELECTRICAL DEVICES.
- PROVIDE LIGHT FIXTURES WITH PROPER FITTING, FLANGES, MOUNTING SUPPORTS AND ACCESSORY ITEMS. ALL FIXTURES SHALL BE UL LISTED FOR CONDITIONS OF USE.

MATERIALS AND METHODS

- PROVIDE RACEWAY AND WIRING ROUTED CONCEALED WITHIN BUILDING STRUCTURE WHERE POSSIBLE. WHERE RACEWAY CANNOT BE CONCEALED, IT SHALL BE INSTALLED PER PROJECT MANAGER'S DIRECTION. PROVIDE EMT CONDUIT INSIDE BUILDING.
- EXPOSED CONDUIT ROUTING: CONDUITS MAY BE ROUTED EXPOSED IN MECHANICAL AND ELECTRICAL ROOMS ONLY. EXPOSED CONDUITS SHALL BE SECURED A MINIMUM OF 6" ABOVE FLOOR.
- OUTDOOR EXPOSED CONDUIT ROUTING: CONDUITS ROUTED ON ROOF OR EXPOSED TO WEATHER SHALL BE EMT OR LIQUID-TIGHT FLEX. PROVIDE WATER-TIGHT CONNECTIONS AND FITTINGS. PROVIDE PVC ELECTRICAL CONDUIT UNDERGROUND AND ON ROOF.
- CLEARANCES: VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT ACCESS CLEARANCES CAN BE MET.
- CONNECTIONS: PROVIDE GRS, METALLIC FLEX, OR LIQUIDTITE FLEX CONDUITS FOR CONNECTIONS TO MOTORS OR MOTORIZED EQUIPMENT.
- WIRING: PROVIDE MINIMUM #12 AWG WIRE SIZE AND MINIMUM 3/4" CONDUIT FOR ALL BRANCH CIRCUITRY.
- WIRING: PROVIDE MINIMUM #10 AWG CONDUCTOR SIZE IN 120V BRANCH CIRCUIT RUNS OVER 75' IN LENGTH.
- WIRING: POWER WIRING SHALL BE COPPER, THWN/THHN, INSULATED FOR 600V. ALUMINUM CONDUCTORS PERMITTED FOR FEEDERS 100 AMPS OR LARGER. INCREASE WIRE AND CONDUIT SIZE TO EQUAL OR EXCEED DESIGNED COPPER RATING.
- DISCONNECTS: PROVIDE DISCONNECTS, FUSED AND UNFUSED, SHOWN AND REQUIRED BY CODE FOR EQUIPMENT FURNISHED UNDER ELECTRICAL AND MECHANICAL SCOPES OF WORK.

- FUSES: PROVIDE FUSES PER EQUIPMENT NAMEPLATE UNLESS OTHERWISE INDICATED. FUSES SHALL BE PROVIDED WITH REJECTION TYPE FUSE HOLDERS.
- SUPPORT: SUPPORT LIGHT FIXTURES FROM BUILDING STRUCTURE. DO NOT SUPPORT FIXTURES FROM SUSPENDED CEILING.
- LABELS: ELECTRICAL PANEL, TIME SWITCH, DISCONNECT, STARTER, CONTRACTOR, PULL BOX, ETC. ENCLOSURES SHALL BE PERMANENT LABELED TO IDENTIFY ITS DESIGNED OR UNIT SERVED.
- PAINTING: ELECTRICAL ENCLOSURES IN PUBLIC AREA SHALL BE PAINTED TO MATCH ADJUSTMENT WALL.
- COVERPLATES: PROVIDE AS FOLLOWS. SUBMIT SAMPLE OF EACH FOR APPROVAL.
 - MECHANICAL AND ELECTRICAL ROOMS: GALVANIZED STEEL
 - ALL OTHER AREAS: TO MATCH SURROUNDING SURFACE
- HOME RUN NEUTRALS MAY BE COMBINED AT CONTRACTORS OPTION UNLESS CIRCUIT IS DEDICATED.
- NEUTRAL CONDUCTORS: NEUTRAL MAY BE OMITTED ON EQUIPMENT CONNECTIONS IF CONTRACTOR VERIFIES THAT A NEUTRAL IS NOT REQUIRED FOR OPERATION OR CONTROL OF EQUIPMENT.
- MULTIWIRE BRANCH CIRCUITS: PROVIDING POWER TO MORE THAN ONE DEVICE OR EQUIPMENT ON THE SAME YOLK SHALL HAVE MEANS TO DISCONNECT SIMULTANEOUSLY ALL UNGROUNDED CONDUCTORS SUPPLYING THESE DEVICES AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES PER NEC 210.4(B). AS-BUILT PANEL SCHEDULES SHALL SHOW ALL MULTIPOLE BREAKERS INSTALLED TO MEET THIS REQUIREMENT.

SPECIAL SYSTEMS

- FIRE ALARM SYSTEM: PROVIDED AND INSTALLED BY FIRE ALARM CONTRACTOR. FIRE ALARM CONTRACTOR SHALL DESIGN AND PROVIDE COMPLETE, OPERATING, AND CODE COMPLIANT FIRE ALARM CONTRACTOR SHALL SUBMIT FULL SET OF PLANS INDICATING DEVICE LOCATIONS, WIRING, CONNECTIONS AND SPECIAL MOUNTING DETAILS TO THE FIRE MARSHALL.
- SOLAR PHOTOVOLTAIC SYSTEM: SOLAR CONTRACTOR SHALL DESIGN AND PROVIDE COMPLETE, OPERATING AND CODE COMPLIANT SOLAR SUBMIT FULL SET OF PLANS INDICATING DEVICE LOCATIONS, WIRING, CONNECTIONS, AND SPECIAL MOUNTING DETAILS TO THE CITY BUILDING DEPARTMENT. SOLAR CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK REQUIRED FOR INTERCONNECTION OF SOLAR PV SYSTEM WITH UTILITY GRID.

ADA REQUIREMENTS

- RECEPTACLE OUTLETS SHALL BE LOCATED 18" AFF UNLESS NOTED OTHERWISE
- LIGHT SWITCHES SHALL BE INSTALLED WITHIN 34-48 INCHES OF THE FLOOR.
- PUBLIC TELEPHONES MUST COMPLY WITH CBC 117B.2 FOR CLEARANCES AND FEATURES.

INDEX OF DRAWINGS

DWG	DESCRIPTION	PERMIT SET 12/08/2022	INCLUDED IN SET			
E000	COVER SHEET, GENERAL NOTES, & INDEX	X				
E100	ONE-LINE DIAGRAM, FAULT, & PANEL SCHEDULES	X				
E1.01	LUMINAIRE SCHEDULE	X				
E2.00	SITE PLAN	X				
E3.00	TYPICAL UNIT POWER PLAN	X				
E3.01	TYPICAL UNIT POWER PLAN	X				

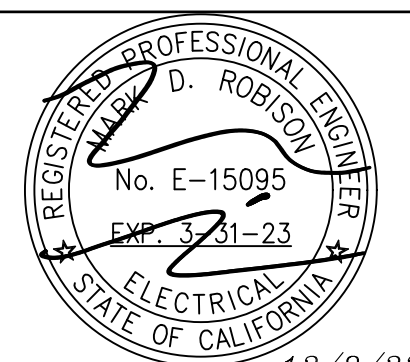
ABBREVIATIONS

A	AMPERE	GND	GROUND	QTY	QUANTITY
AC	ALTERNATING CURRENT, ABOVE COUNTER	GRS	GALVANIZED RIGID STEEL	RECEPT	RECEPTACLE
AFF	ABOVE FINISHED FLOOR	HID	HIGH INTENSITY DISCHARGE	RI	ROUGH-IN
AIC	AMPS INTERRUPTING CAPACITY	HP	HEAT TRACE	RM	ROOM
AL	ALUMINUM	KCMIL	THOUSAND CIRCULAR MILLS	RTU	ROOFTOP UNIT
AMP	AMPERE	KEC	KITCHEN EQUIPMENT CONTRACTOR	SPEC	SPECIFICATIONS
AWG	AMERICAN WIRE GAUGE	KVA	KILOVOLT AMPERES	SW	SWITCH
BKR	BREAKER	KW	KILOWATT	SWBD	SWITCHBOARD
BLDG	BUILDING	LTG	LIGHTING	SWGR	SWITCHGEAR
BOH	BACK OF HOUSE	MFR	MANUFACTURER	TYP	TYPICAL
C	COIL or CONDUIT	MIN	MINIMUM	UG	UNDERGROUND
CKT	CIRCUIT	MLO	MAIN LUGS ONLY	UL	UNDERWRITERS LABORATORIES
CO	CONDUIT/RACEWAY ONLY	MS	MOTION SENSOR	UON	UNLESS OTHERWISE NOTED
CT	CURRENT TRANSFORMER	N	NEUTRAL	V	VOLTS
Cu	COPPER	(N)	NEW	W	WATTS
Cw	COOL WHITE	NEC	NATIONAL ELECTRICAL CODE (NFPA-70)	WW	WARM WHITE
DSD	DUCT SMOKE DETECTOR	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	WP	WATERPROOF
EF	EXHAUST FAN	NT	NEON TRANSFORMER	W/O	WITHOUT
ELEC	ELECTRICAL	NTS	NOT TO SCALE	XFMR	TRANSFORMER
EMT	ELECTRICAL METALLIC TUBGING	OC	OCCUPANCY SENSOR	XFR	TRANSFER
EQUIP	EQUIPMENT	PB	PUSHBUTTON	Z	IMPEDANCE OR ZONE
(E)	EXISTING	PIR	PROXIMITY INFRARED		
FLOOR	FLOOR	PNL	PANEL		
FLUOR	FLUORESCENT	POC	POINT OF CONNECTION		
FOH	FRONT OF HOUSE	POS	POINT OF SCALE		
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	PWR	POWER		



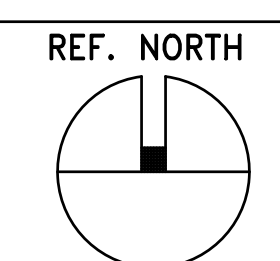
NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
4249 CHEENEY ST.
SANTA CLARA, CA 95054

REVISION	DATE
1	
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DATE:	DECEMBER 8, 2022
PROJECT No.	590-054

COVER SHEET, GENERAL NOTES, & INDEX



E0.00



NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
4249 CHEENEY ST.
SANTA CLARA, CA 95054

PA 2		ROOM MOUNTING FLUSH		VOLTS 240/120V 2P 3W		AIC AS NOTED IN FAULT SHCHEDULE		
FED FROM		BUS AMPS 125		MAIN BKR MLO		LUGS STANDARD		
NOTE		NEUTRAL 100%						
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA	
			A				B	
1	20/1	CO/SD, LIGHTING, RECEPTACLE, SMOKE	0.753	2	20/1	FAN/LIGHT COMBO, RECEPTACLE	1.36	
3	20/1	EXHAUST FAN, GARAGE DOOR, LIGHTING, RECEPTACLE	1.7	4	20/1	LIGHTING, RECEPTACLE	0.925	
5	30/2	EV CHARGER	2.88	6	20/1	EXHAUST FAN, LIGHTING, RECEPTACLE	0.414	
7	20/1	WASHER	2.88	8	20/1	EXHAUST FAN, LIGHTING, RECEPTACLE	0.638	
9	30/2	DRYER	1.5	10	20/1	GAS STOVE	0.1	
11	20/1	SPARE	2.5	12	20/1	LIGHTING, RECEPTACLE	0.81	
13	20/1	EXHAUST FAN, LIGHTING, RECEPTACLE	0	14	-/2	ELECTRIC COOKING LOAD 1	4	
15	20/1	DISHWASHER, DISPOSAL	0.394	16	20/1	RECEPTACLE	4	
17	20/1	KITCHEN	1.8	18	20/1	RECEPTACLE	0.18	
19	20/1	KITCHEN, REFRIG	1.5	20	20/2	GAS WATER HEATER	0.1	
21	20/1	HOOD	1.5	22	25/2	SOLAR BREAKER	0	
23	20/1	LIGHTING, RECEPTACLE	0.4	24	20/2	FC, OAC	0	
25	20/1	LIGHTING, RECEPTACLE	0.78	26			0	
27	20/1	LIGHTING, RECEPTACLE	0.925	28			2.1	
29	20/1	LIGHTING, RECEPTACLE		30			2.1	
			TOTAL CONNECTED KVA BY PHASE					19 19.7

OPTIONAL DWELLING UNIT CALCULATION (NEC 220.82)		CONN KVA		CALC KVA	
LIGHTING AND RECEPTACLES	6.78	2,261 SF (3 VA/SF)	GENERAL LOAD UP TO 10 KVA	10	10 (100%)
SMALL-APPLIANCE	3		OVER 10 KVA	22.3	8.94 (40%)
LAUNDRY APPLIANCES	1.5		MAX HEATING OR COOLING	4.27	(220.82(C)(3))
ELECTRIC COOKING	12.7		TOTAL LOAD	23.2	
MOTORS	8		BALANCED LOAD	96.4 A	
TOTAL GENERAL LOAD	0.4				
TOTAL GENERAL LOAD	32.3				

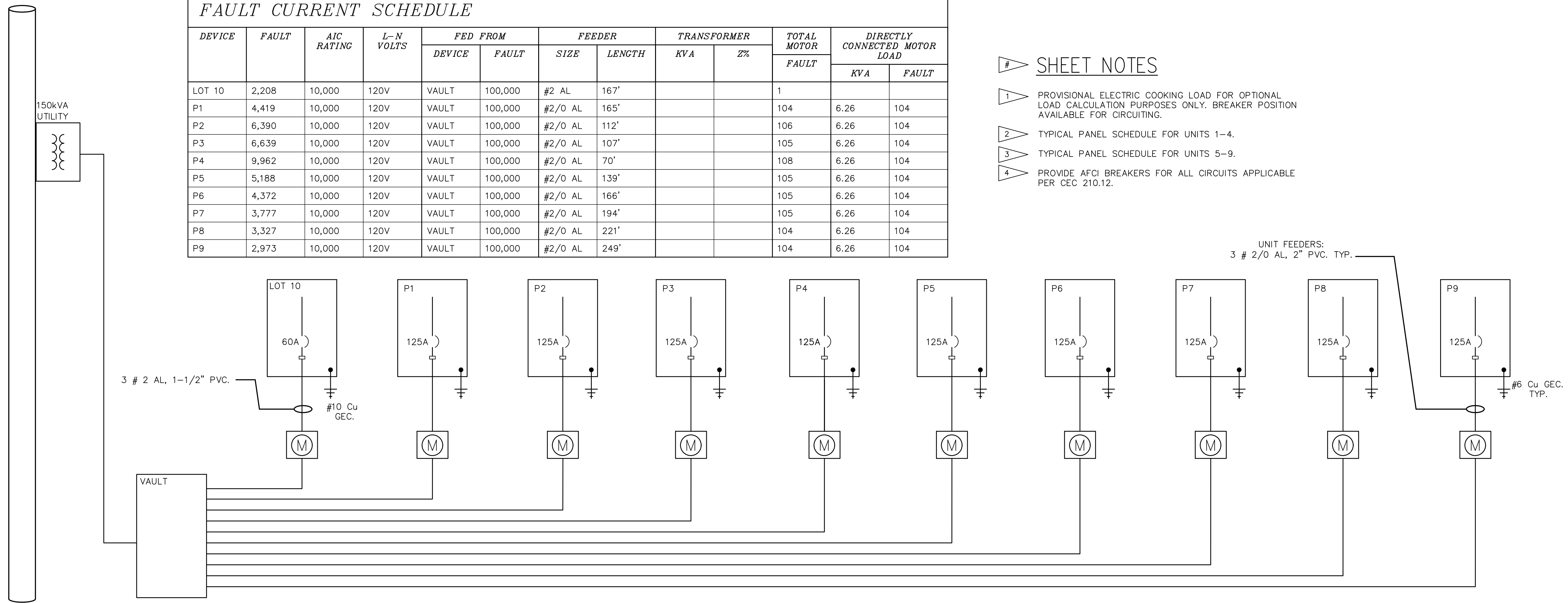
PB 3		ROOM MOUNTING FLUSH		VOLTS 240/120V 2P 3W		AIC AS NOTED IN FAULT SHCHEDULE		
FED FROM		BUS AMPS 125		MAIN BKR 125		LUGS STANDARD		
NOTE		NEUTRAL 100%						
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA	
			A				B	
1	20/1	CO/SD, LIGHTING, RECEPTACLE, SMOKE	1.41	2	30/2	DRYER	2.5	
3	20/1	GARAGE DOOR, LIGHTING, RECEPTACLE	1.32	4	20/1	GAS STOVE	0.1	
5	20/1	KITCHEN	1.5	6	20/1	SPARE	0	
7	20/1	KITCHEN, KITCHEN, REFRIG	1.8	8	30/2	EV CHARGER	2.88	
9	20/1	DISHWASHER, DISPOSAL	0.4	10	-/2	ELECTRIC COOKING LOAD 1	4	
11	20/1	HOOD	0	12	20/1	RECEPTACLE	4	
13	20/1	SPARE	0.394	14	20/1	RECEPTACLE	0.18	
15	20/1	EXHAUST FAN, LIGHTING, RECEPTACLE	0.925	16	20/2	SPARE	0	
17	20/1	LIGHTING, RECEPTACLE	0.925	18	20/2	SPARE	0	
19	20/1	LIGHTING, RECEPTACLE	0.409	20	25/2	SOLAR BREAKER	0	
21	20/1	EXHAUST FAN, LIGHTING, RECEPTACLE	1.72	22	20/2	FC, OAC	0	
23	20/1	FAN/LIGHT COMBO, RECEPTACLE	1.01	24	20/2	FC, OAC	2.1	
25	20/1	EXHAUST FAN, LIGHTING, RECEPTACLE	0.618	26			0	
27	20/1	EXHAUST FAN, LIGHTING, RECEPTACLE	1.5	28			2.1	
29	20/1	WASHER		30			2.1	
			TOTAL CONNECTED KVA BY PHASE					20.3 18.4

OPTIONAL DWELLING UNIT CALCULATION (NEC 220.82)		CONN KVA		CALC KVA	
LIGHTING AND RECEPTACLES	6.78	2,261 SF (3 VA/SF)	GENERAL LOAD UP TO 10 KVA	10	10 (100%)
SMALL-APPLIANCE	3		OVER 10 KVA	22.3	8.94 (40%)
LAUNDRY APPLIANCES	1.5		MAX HEATING OR COOLING	4.2	(220.82(C)(1))
ELECTRIC COOKING	12.7		TOTAL LOAD	23.1	
MOTORS	8		BALANCED LOAD	96.4 A	
TOTAL GENERAL LOAD	0.4				
TOTAL GENERAL LOAD	32.3				

FAULT CURRENT SCHEDULE												
DEVICE	FAULT	AIC RATING	L-N VOLTS	FED FROM		FEEDER		TRANSFORMER		TOTAL MOTOR FAULT	DIRECTLY CONNECTED MOTOR LOAD	
				DEVICE	FAULT	SIZE	LENGTH	KVA	%		KVA	FAULT
LOT 10	2,208	10,000	120V	VAULT	100,000	#2 AL	167'			1		
P1	4,419	10,000	120V	VAULT	100,000	#2/O AL	165'			104	6.26	104
P2	6,390	10,000	120V	VAULT	100,000	#2/O AL	112'			106	6.26	104
P3	6,639	10,000	120V	VAULT	100,000	#2/O AL	107'			105	6.26	104
P4	9,962	10,000	120V	VAULT	100,000	#2/O AL	70'			108	6.26	104
P5	5,188	10,000	120V	VAULT	100,000	#2/O AL	139'			105	6.26	104
P6	4,372	10,000	120V	VAULT	100,000	#2/O AL	166'			105	6.26	104
P7	3,777	10,000	120V	VAULT	100,000	#2/O AL	194'			105	6.26	104
P8	3,327	10,000	120V	VAULT	100,000	#2/O AL	221'			104	6.26	104
P9	2,973	10,000	120V	VAULT	100,000	#2/O AL	249'			104	6.26	104

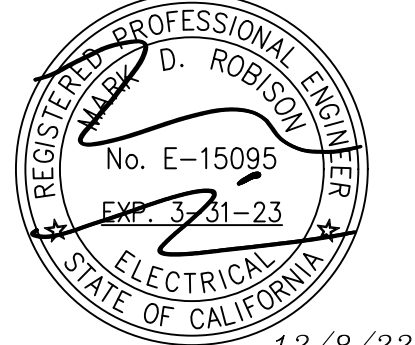
SHEET NOTES

- 1 PROVISIONAL ELECTRIC COOKING LOAD FOR OPTIONAL LOAD CALCULATION PURPOSES ONLY. BREAKER POSITION AVAILABLE FOR CIRCUITING.
- 2 TYPICAL PANEL SCHEDULE FOR UNITS 1-4.
- 3 TYPICAL PANEL SCHEDULE FOR UNITS 5-9.
- 4 PROVIDE AFCI BREAKERS FOR ALL CIRCUITS APPLICABLE PER CEC 210.12.



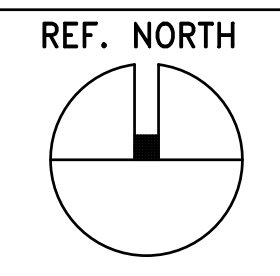
ONE-LINE DIAGRAM

REVISION	DATE
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DATE: DECEMBER 8, 2022
PROJECT No. 590-054

ONE-LINE DIAGRAM, PANEL & FAULT SCHEDULES



E1.00

Panel LOT 10			ROOM MOUNTING SURFACE FED FROM VAULT NOTE: NEMA 3R ENCLOSURE	VOLTS 240/120V 2P 3W BUS AMPS 60 NEUTRAL 100%	AIC 10,000 MAIN BKR 60 LUGS STANDARD		
CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION	CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1	20/1	0	SPARE	a 2	20/1	0	SPARE
3	20/1	0	SPARE	b 4	20/1	0	SPARE
5	20/1	0	SPARE	a 6	20/1	0	SPARE
7	20/1	0	SPARE	b 8	20/1	0	SPARE
9	20/1	0	SPARE	a 10	20/1	0	SPARE
11	20/1	0	SPARE	b 12	20/1	0	SPARE
13	20/1	0	SPARE	a 14	20/1	0	SPARE
15	20/1	0	SPARE	b 16	20/1	0	SPARE
17	20/1	0	SPARE	a 18	20/1	0	SPARE
19	20/1	0	SPARE	b 20	20/1	0	SPARE
21	20/1	0	SPARE	a 22	20/1	0	SPARE
23	20/1	0	SPARE	b 24	20/1	0	SPARE
CONN KVA			CALC KVA	TOTAL LOAD			CALC KVA
				0			
				0 A			
				PHASE A 0.00%			
				PHASE B 0.00%			

LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	MOUNTING	DESCRIPTION	MODEL	VOLTAGE	LAMPING	WATTAGE	NOTES
L1	○	CEILING	GEN. LED LIGHT	TBD	120	(1) LED	14	
L2	⊞	WALL	GEN. LED LIGHT	TBD	120	(1) LED	14	
L3	□	CEILING	LED DOWNLIGHT	TBD	120	(1) LED	25	
L5	⎯⎯⎯	CEILING	8' LED STRIP	TBD	120	(1) LED	40	
L6	○	CEILING	4" LED DOWNLIGHT	TBD	120	(1) LED	15	
L7	⊖	WALL	EXT. LED LIGHT	TBD	120	(1) LED	15	W/ INTEGRAL PHOTOCELL AND MOTION SENSOR
L8	⊞	WALL	LED VANITY LIGHT	TBD	120	(1) LED	25	
L10	⊕	CEILING	WET RATED LED SHOWER LIGHT	TBD	120	(1) LED	20	
L11	⊗	CEILING	FAN/LIGHT COMBO	TBD	120	(1) LED	100	

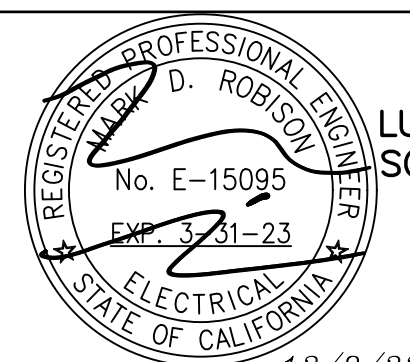
VOLTAGE DROP SCHEDULE

DEVICE	FEEDER			BRANCH CIRCUIT		TOTAL VOLTAGE DROP	FEEDER VOLTAGE DROP
	VOLTAGE DROP	WIRE SIZE	LENGTH	MAX VOLTAGE DROP	WIRE SIZE		
UTILITY	0%		-	-	-	0%	0%
VAULT	0%	(3)#400kcmil AL	-	-	-	0%	0%
LOT 10	0%	#2 AL	167'	-	-	0%	0%
P1	2.1%	#2/0 AL	165'	1.42% (CKT 2)	#12	3.52%	2.1%
P2	1.43%	#2/0 AL	112'	1.42% (CKT 2)	#12	2.85%	1.43%
P3	1.37%	#2/0 AL	107'	1.42% (CKT 2)	#12	2.8%	1.37%
P4	0.78%	#2/0 AL	61'	1.42% (CKT 2)	#12	2.2%	0.78%
P5	1.77%	#2/0 AL	139'	1.79% (CKT 9)	#12	3.56%	1.77%
P6	2.12%	#2/0 AL	166'	1.79% (CKT 9)	#12	3.91%	2.12%
P7	2.47%	#2/0 AL	194'	1.79% (CKT 9)	#12	4.26%	2.47%
P8	2.82%	#2/0 AL	221'	1.79% (CKT 9)	#12	4.61%	2.82%
P9	3.18%	#2/0 AL	249'	1.79% (CKT 9)	#12	4.96%	3.18%



NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
4249 CHEENEY ST.
SANTA CLARA, CA 95054

REVISION	DATE
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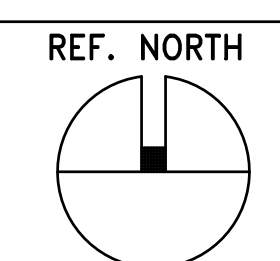


LUMINAIRE SCHEDULE

12/8/22

DATE: DECEMBER 8, 2022
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LUMINAIRE SCHEDULE

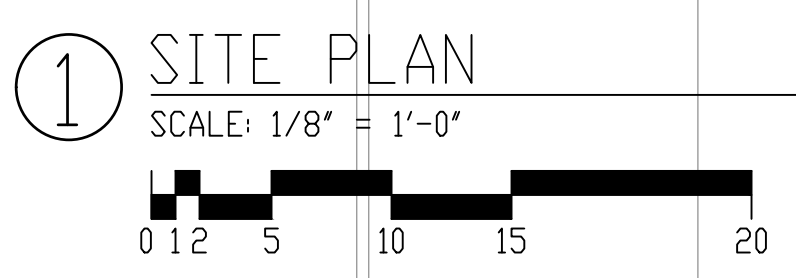
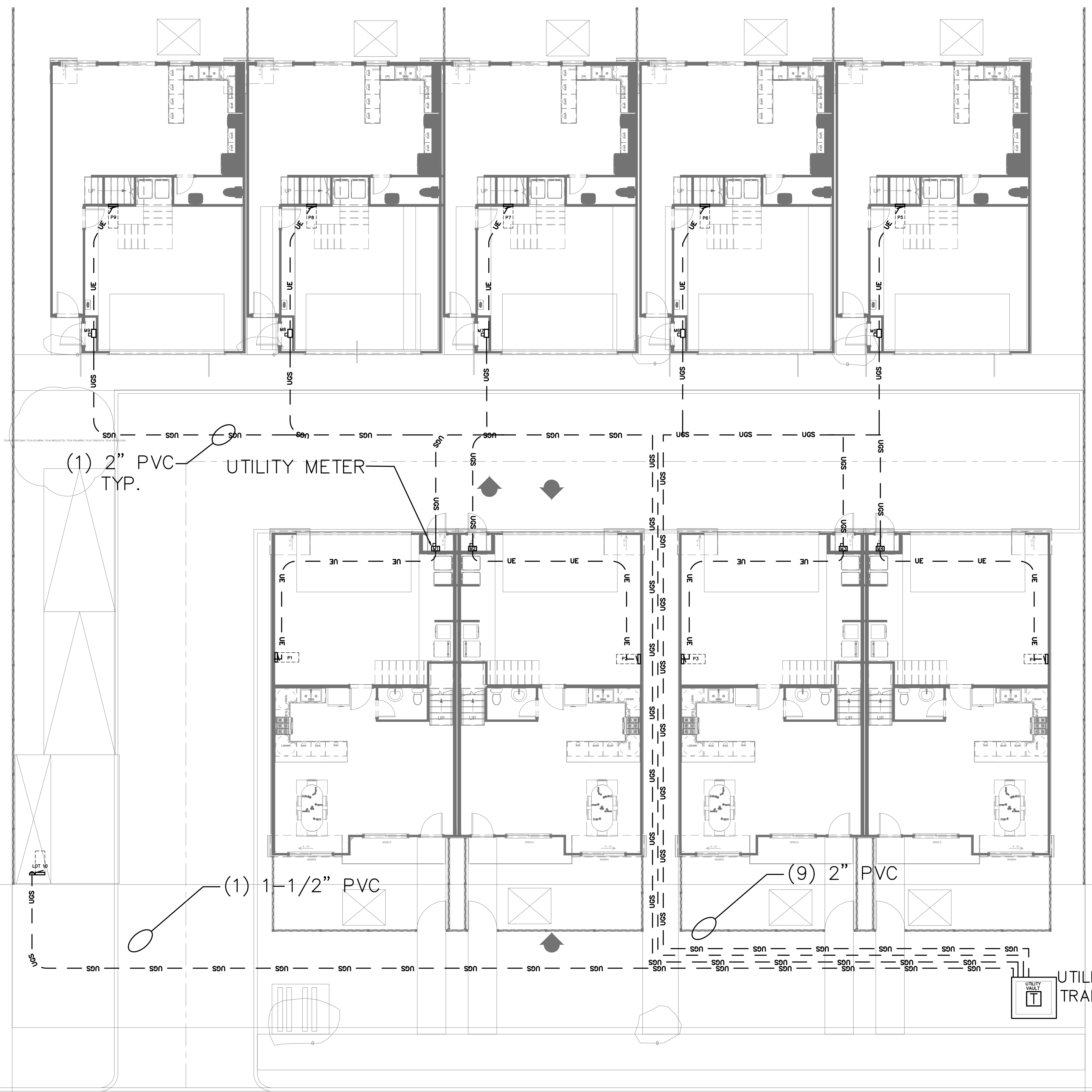


E1.01

ROBISON ENGINEERING, INC
 19401 40TH AVE. W., SUITE 302
 LYNNWOOD, WA 98036
 206-364-3343 TEL.
 RE: PROJECT NO.: 590-054
 CONTACT: ARIK ESPINELLI

MFA CONSTRUCTION INC.
 GENERAL CONTRACTOR & ENGINEER
 101 South Santa Cruz Ave., #33192
 Los Gatos, CA 95030

NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
 4249 CHEENEY ST.
 SANTA CLARA, CA 95054

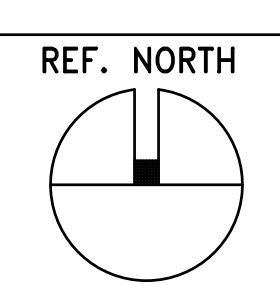


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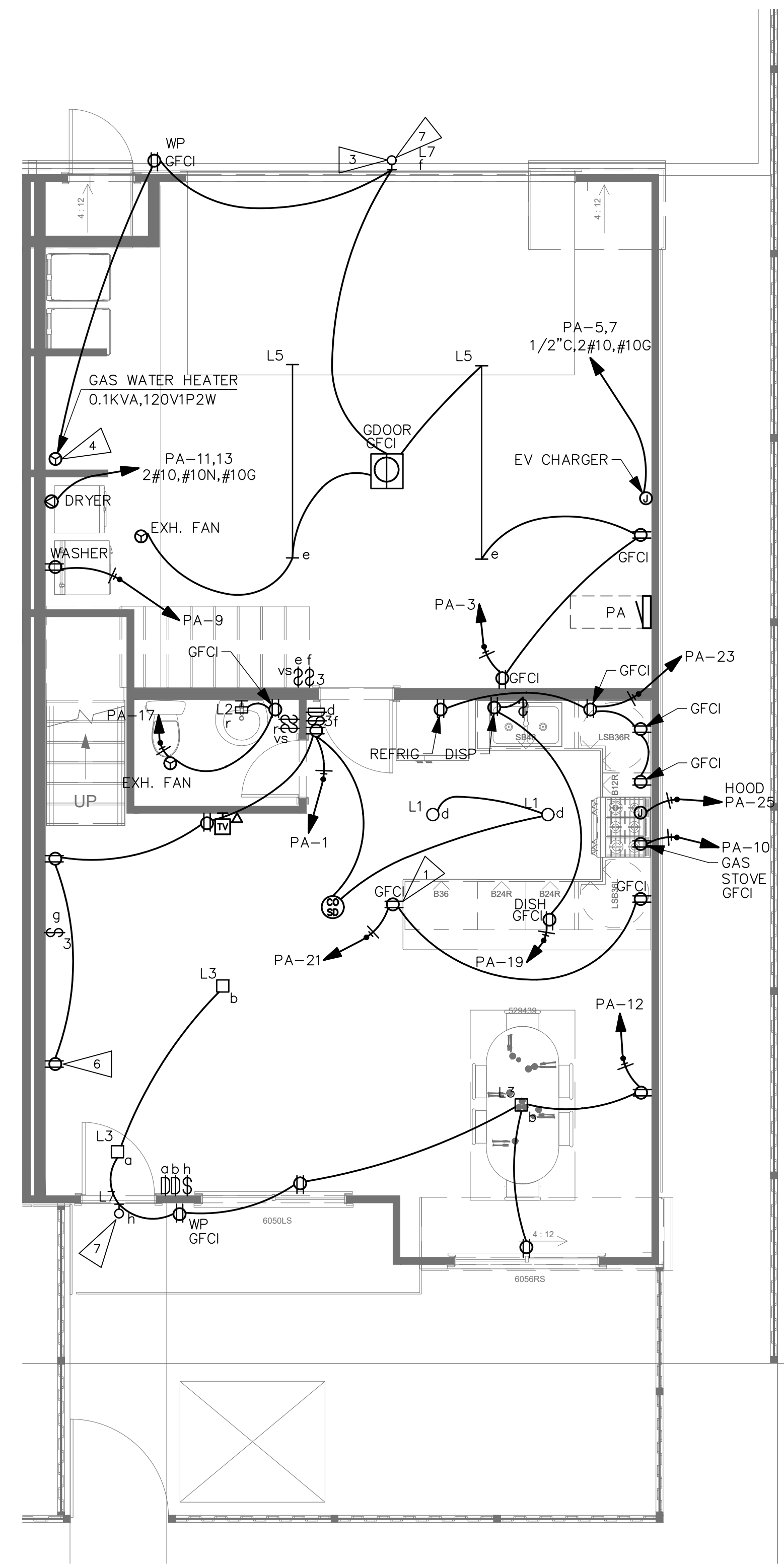
DATE: 12/8/22
 PROJECT No. 590-054

SITE PLAN

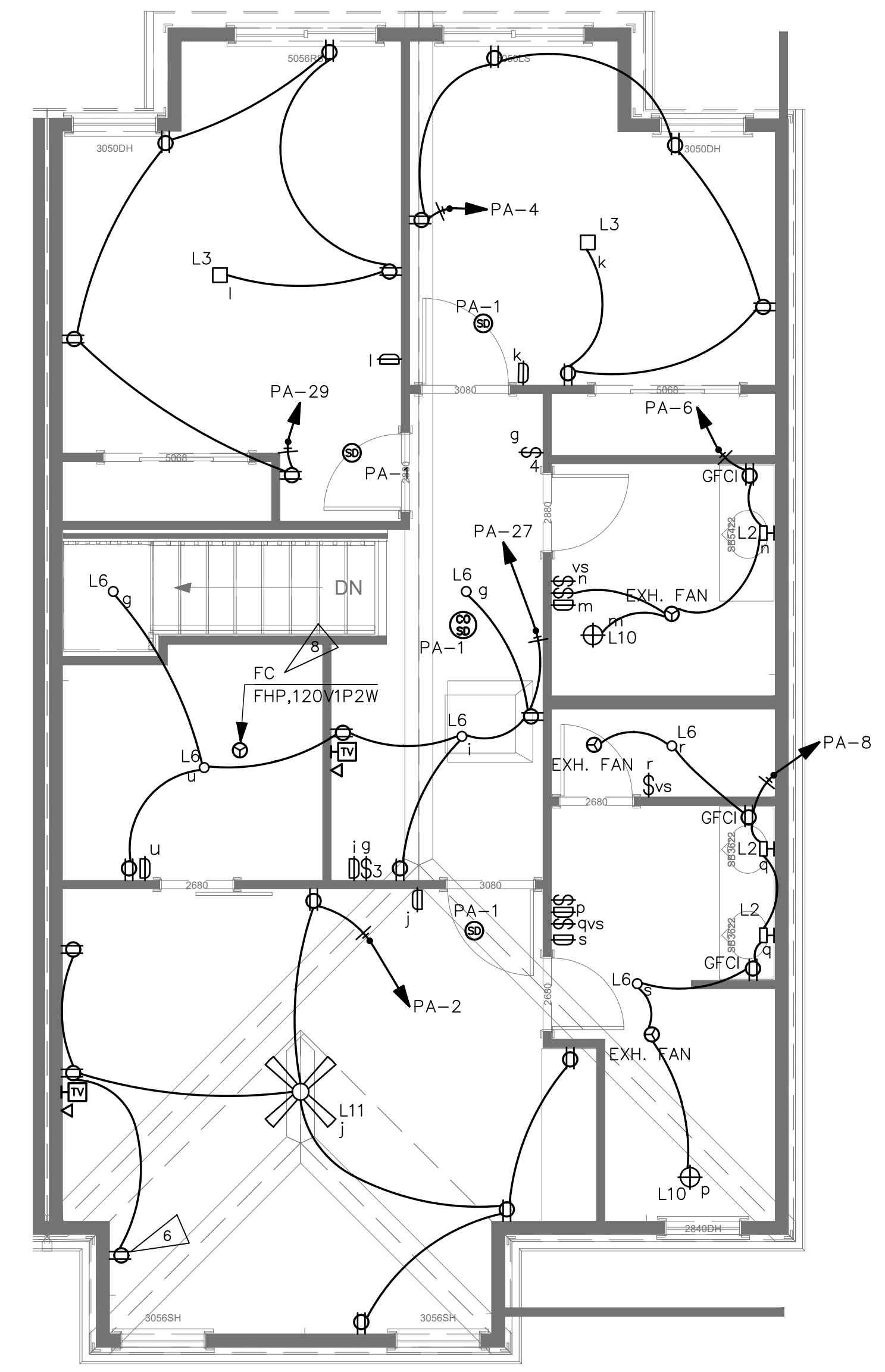


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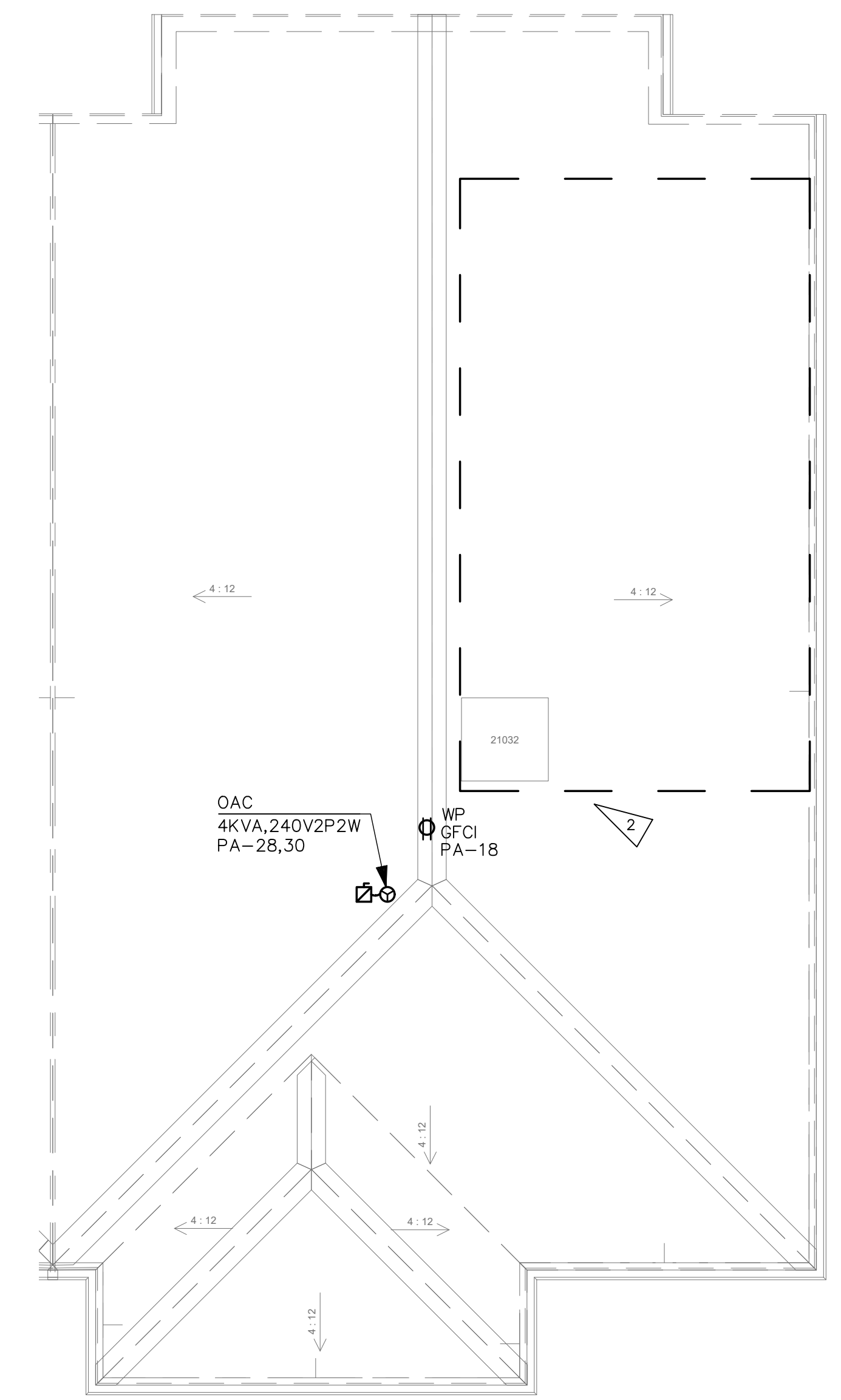
NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
 4249 CHEENEY ST.
 SANTA CLARA, CA 95054



1 UNIT A FIRST FLOOR
 SCALE: 1/4" = 1'-0"
 0 1 2 5 10



2 UNIT A SECOND FLOOR
 SCALE: 1/4" = 1'-0"
 0 1 2 5 10

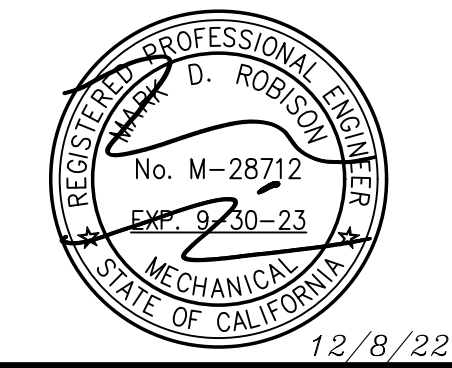


3 UNIT A ROOF
 SCALE: 1/4" = 1'-0"
 0 1 2 5 10

SHEET NOTES

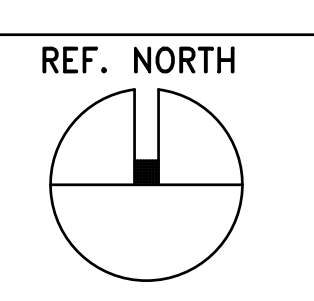
- 1 6" MAX COUNTERTOP OVERHANG FROM BASE CABINET. MOUNT RECEPTACLE WITHIN 12" OF COUNTERTOP SURFACE.
- 2 REQUIRED SOLAR READY ZONE PER TITLE 24 110.10.
- 3 ALL OPENINGS AROUND PENETRATIONS THROUGH EXTERIOR WALLS AND SILL PLATES SHALL BE SEALED FOR RODENT PROOFING. TYP.
- 4 TIE TO GARAGE CIRCUIT IF GAS WATER HEATER REQUIRES ELECTRICAL CONNECTION.
- 5 PROVIDE DOUBLE HASP LOCKING ARRANGEMENT OR UTILITY LOCK BOX FOR UNIT UTILITY ROOM DOORS.
- 6 PROVIDE TAMPER PROOF RECEPTACLES PER CBC 406.12. TYP.
- 7 OUTDOOR LIGHTING SHALL BE INTEGRALLY CONTROLLED BY BOTH PHOTOCELL CONTROL AND MOTION SENSOR
- 8 FC POWER FED FROM OUTDOOR UNIT

REVISION	DATE
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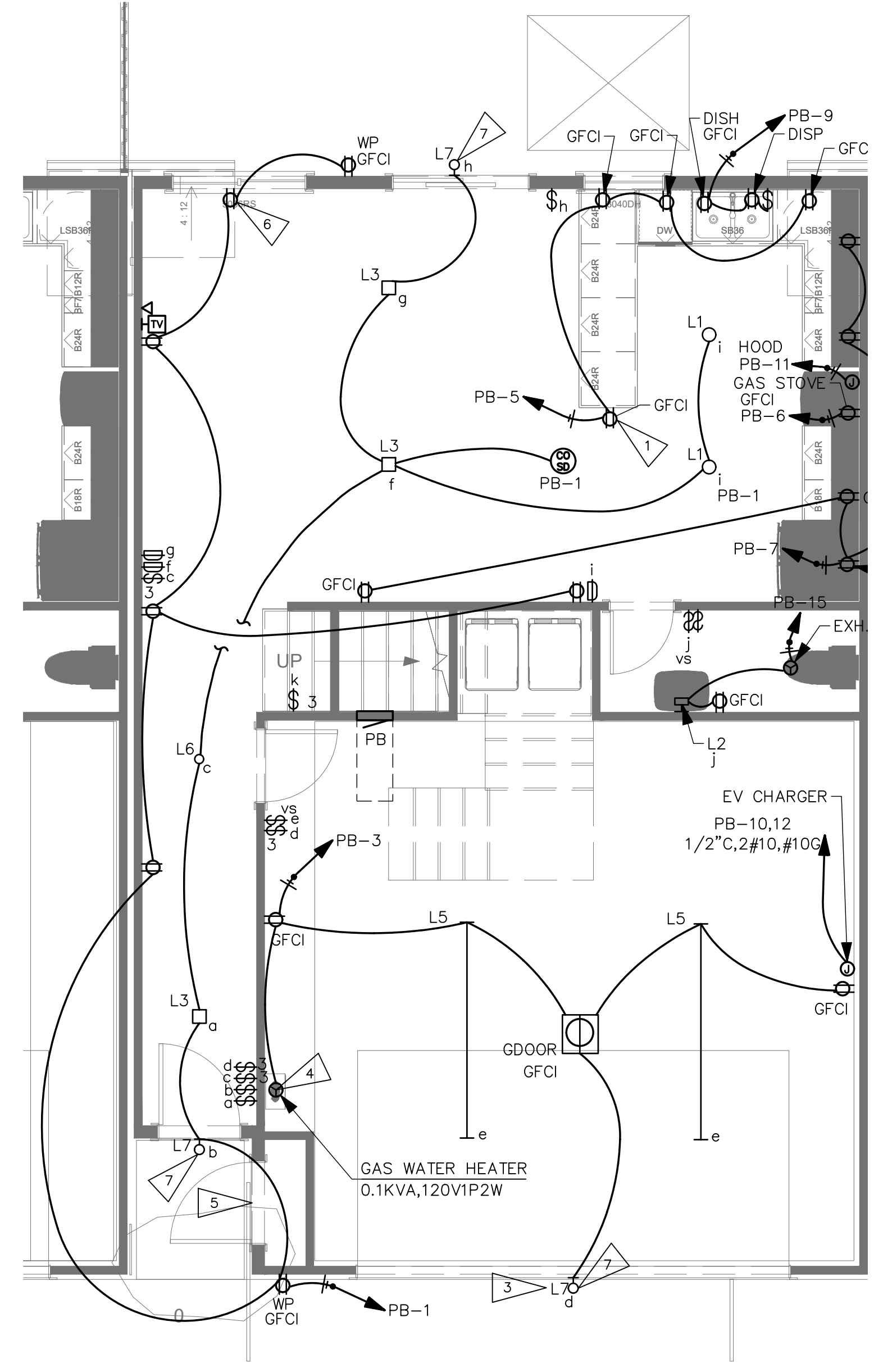


DATE: 12/8/22
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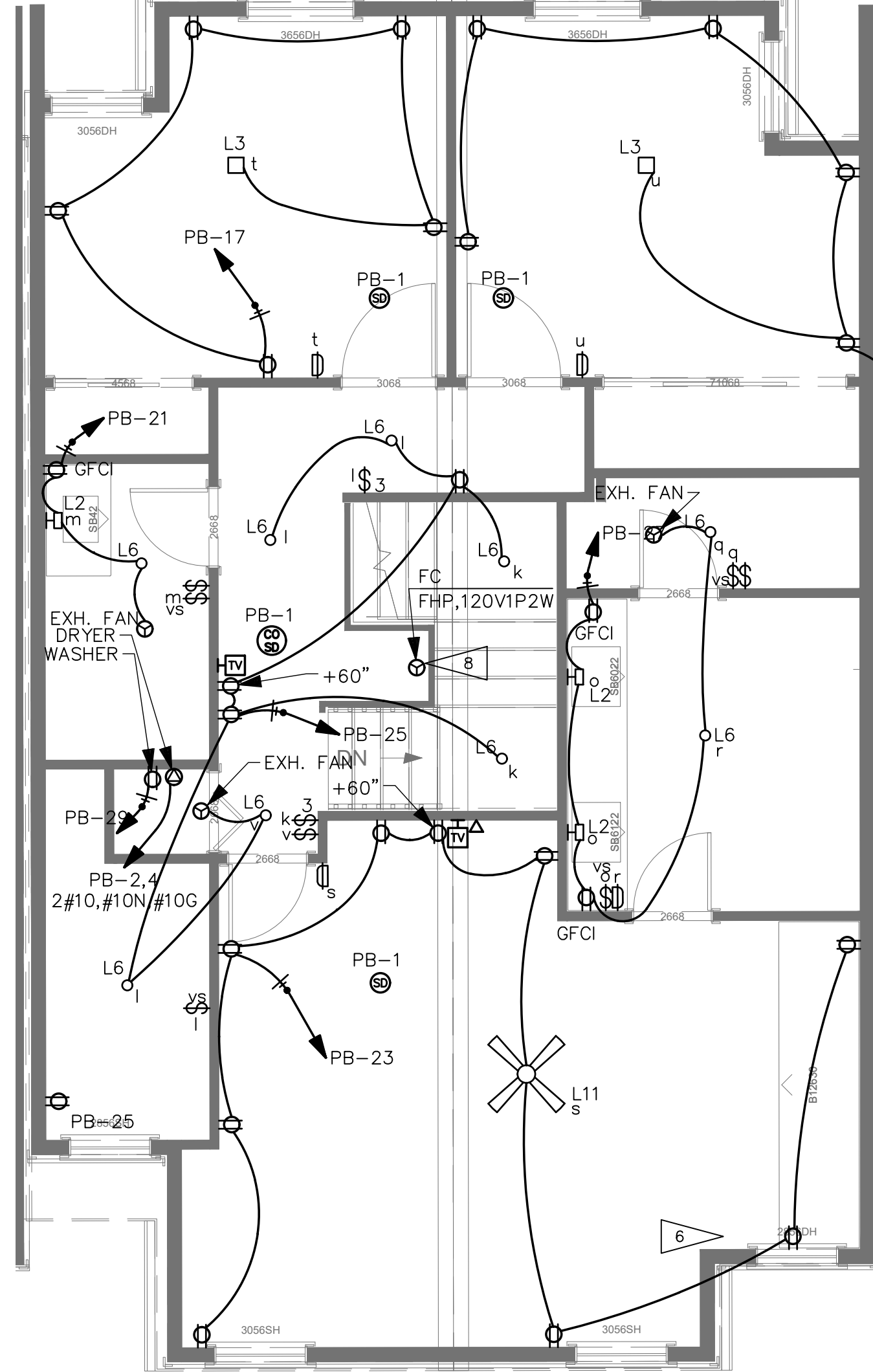
TYPICAL UNIT POWER PLAN



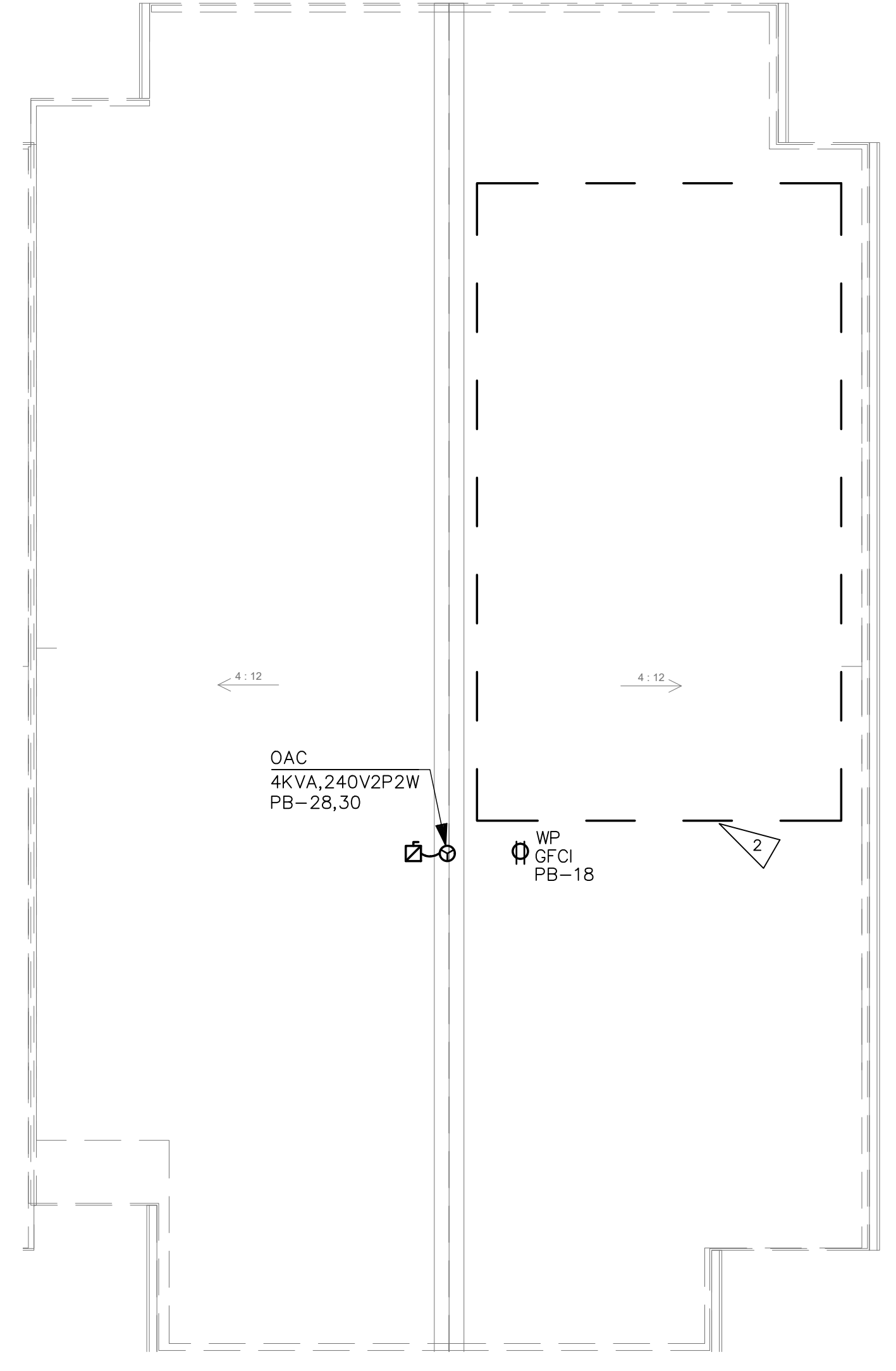
E3.00



7 UNIT B FIRST FLOOR
 SCALE: 1/4" = 1'-0"
 0 1 2 5 10



8 UNIT B SECOND FLOOR
 SCALE: 1/4" = 1'-0"
 0 1 2 5 10

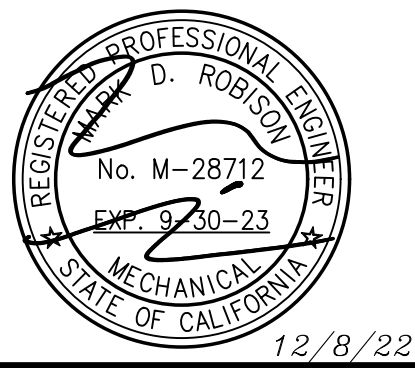


9 UNIT B ROOF
 SCALE: 1/4" = 1'-0"
 0 1 2 5 10

- SHEET NOTES**
- 1 6" MAX COUNTERTOP OVERHANG FROM BASE CABINET. MOUNT RECEPTACLE WITHIN 12" OF COUNTERTOP SURFACE.
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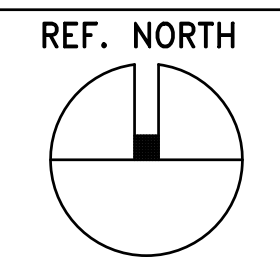
NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
 4249 CHEENEY ST.
 SANTA CLARA, CA 95054

REVISION	DATE
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DATE: 12/8/22
 DECEMBER 8, 2022
 PROJECT No. 590-054

TYPICAL UNIT POWER PLAN



E3.01

PROJECT NOTES

PROJECT NOTES

1. THE PERSON WITH OVERALL RESPONSIBILITY FOR CONSTRUCTION OR THE PERSON RESPONSIBLE FOR THE INSTALLATION OF REGULATED FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES SHALL POST, OR MAKE AVAILABLE WITH THE BUILDING PERMIT(S) ISSUED FOR THE BUILDING, THE REQUIRED INSTALLATION CERTIFICATE(S) FOR FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES REGULATED BY THE APPLIANCE EFFICIENCY REGULATIONS OR PART 6. SUCH INSTALLATION CERTIFICATE(S) SHALL BE MADE AVAILABLE TO THE ENFORCEMENT AGENCY FOR ALL APPROPRIATE INSPECTIONS. THESE CERTIFICATES SHALL:
 - 1.1. IDENTIFY FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES REQUIRED TO VERIFY COMPLIANCE WITH THE APPLIANCE EFFICIENCY REGULATIONS AND PART 6.
 - 1.2. INCLUDE A STATEMENT INDICATING THAT THE FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES CONFORM TO THE APPLIANCE EFFICIENCY REGULATIONS AND PART 6 AND THE REQUIREMENTS FOR SUCH FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES GIVEN IN THE PLANS AND SPECIFICATIONS APPROVED BY THE LOCAL ENFORCEMENT AGENCY.
 - 1.3. STATE THE NUMBER OF THE BUILDING PERMIT UNDER WHICH THE CONSTRUCTION OR INSTALLATION WAS PERFORMED.
2. AFTER INSTALLING WALL, CEILING, OR FLOOR INSULATION, THE INSTALLER SHALL MAKE AVAILABLE TO THE ENFORCEMENT AGENCY OR POST IN A CONSPICUOUS LOCATION IN THE BUILDING A CERTIFICATE SIGNED BY THE INSTALLER STATING THAT THE INSTALLATION IS CONSISTENT WITH THE PLANS AND SPECIFICATIONS DESCRIBED IN SEC. 10-103 (A) 2. THE CERTIFICATE SHALL ALSO STATE THE MANUFACTURER'S NAME, MATERIAL IDENTIFICATION, AND THE INSTALLED R-VALUE.
3. WITHIN 90 DAYS AFTER ISSUANCE OF CERTIFICATE OF OCCUPANCY RECORD DRAWINGS SHALL BE PROVIDED TO THE OWNER. IF ANY CHARACTERISTIC IS MATERIALLY CHANGED BEFORE FINAL CONSTRUCTION AND INSTALLATION, SUCH THAT THE BUILDING MAY NO LONGER COMPLY WITH PART 6, THE BUILDING MUST BE BROUGHT INTO COMPLIANCE, AND SO INDICATED ON AMENDED PLANS AND CERTIFICATE OF COMPLIANCE THAT SHALL BE SUBMITTED FOR PLAN APPROVAL.
4. THE BUILDER SHALL PROVIDE THE BUILDING OWNER OR THE PERSON(S) RESPONSIBLE FOR BUILDING MAINTENANCE (IN CASE OF MULTI-TENANT OR CENTRALLY OPERATED BUILDINGS) AT OCCUPANCY THE FOLLOWING:
 - 4.1. OPERATING INFORMATION: THE APPROPRIATE CERTIFICATE(S) OF COMPLIANCE AND A LIST OF THE FEATURES, MATERIALS, COMPONENTS, AND MECHANICAL DEVICES INSTALLED IN THE BUILDING AND INSTRUCTIONS ON HOW TO OPERATE THEM EFFICIENTLY.
 - 4.2. MAINTENANCE INFORMATION: REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY STATED AND INCORPORATED ON A READILY ACCESSIBLE LABEL. THE LABEL MAY BE LIMITED TO IDENTIFYING THE OPERATION AND MAINTENANCE MANUAL.
 - 4.3. VENTILATION INFORMATION: A DESCRIPTION OF THE QUANTITIES OF OUTDOOR AND RECIRCULATED AIR THAT THE VENTILATION SYSTEMS ARE DESIGNED TO PROVIDE TO EACH AREA.
5. ANY ROOFING PRODUCT USED AS A COOL ROOF SHALL BE CERTIFIED AND LABELED IN ACCORDANCE WITH THE REQUIREMENTS OF SEC. 10-113 BY THE COOL ROOF RATING COUNCIL (CRRCC) AND MEET CONDITIONS SET IN SEC. 118 (I).
6. DUCT SYSTEMS USED WITH BLOWER TYPE EQUIPMENT WHICH ARE PORTIONS OF A HEATING, COOLING, ABSORPTION, EVAPORATIVE COOLING OR OUTDOOR AIR VENTILATION SYSTEM SHALL BE SIZED IN ACCORDANCE WITH CHAPTER 17 OF THE CALIFORNIA MECHANICAL CODE.
7. SUPPLY AIR, RETURN AIR, AND OUTSIDE AIR FOR HEATING, COOLING, OR EVAPORATIVE COOLING SYSTEMS SHALL BE CONDUCTED THROUGH DUCT SYSTEMS CONSTRUCTED OF METAL AS SET FORTH IN THE ANSI/SMACNA 006-2006 HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE, OR ANOTHER APPROVED DUCT CONSTRUCTION STANDARD.
8. MATERIALS EXPOSED WITHIN DUCTS OR PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME-SPREAD INDEX NOT GREATER THAN TWENTY-FIVE (25) AND A SMOKE DEVELOPED INDEX NOT GREATER THAN FIFTY (50) WHEN TESTED AS A COMPOSITE PER APPLICABLE TESTING STANDARD.
9. WHEN FIRE DETECTION OR ALARM SYSTEMS ARE PROVIDED FOR THE BUILDING, ANY REQUIRED SMOKE DETECTORS SHALL BE SUPERVISED BY SUCH SYSTEMS AND SHALL BE CAPABLE OF ACTIVATING THE FIRE ALARM SYSTEM.
10. REFRIGERANT SERVICE PORTS LOCATED OUTDOORS SHALL BE FITTED WITH LOCKING TYPE TAMPER RESISTANT CAPS OR SHALL BE PROTECTED FROM UNAUTHORIZED ACCESS BY AN ACCEPTABLE MEANS.
11. ALL APPLIANCES DESIGNED TO BE FIXED IN POSITION SHALL BE SECURELY FASTENED IN PLACE PER BUILDING CODE REQUIREMENTS OR APPLICABLE MANUFACTURER INSTALLATION REQUIREMENTS.
12. ROOF MOUNTED EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES.
13. AT THE TIME OF ROUGH INSTALLATION, OR DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING, AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL, OR OTHER ACCEPTABLE METHODS TO REDUCE THE AMOUNT OF DUST, WATER, AND DEBRIS WHICH MAY ENTER THE SYSTEM.
14. PRIOR TO PERMIT BEING FINALEED, A COMPLETE REPORT OF THE COMMISSIONING PROCESS SHALL BE PROVIDED TO THE OWNER OR OWNER'S REPRESENTATIVE AND FORM 5.410 - VERIFICATION SHALL BE COMPLETED AND PROVIDED TO THE INSPECTOR.

THROUGH PENETRATIONS FOR 4" DUCT

PER EXCEPTION TO CBC SECTION 717.6.1, A DUCT IS PERMITTED TO PENETRATE THREE FLOORS OR LESS WITHOUT A FIRE DAMPER AT EACH FLOOR, PROVIDED IT MEETS ALL OF THE FOLLOWING REQUIREMENTS:

1. THE DUCT SHALL BE CONTAINED AND LOCATED WITHIN THE CAVITY OF A WALL AND SHALL BE CONSTRUCTED OF STEEL NOT LESS THAN 0.019 INCH (26 GAGE) IN THICKNESS.
2. THE DUCT SHALL OPEN INTO ONLY ONE DWELLING OR SLEEPING UNIT AND THE DUCT SYSTEM SHALL BE CONTINUOUS FROM THE UNIT TO THE EXTERIOR OF THE BUILDING.
3. THE DUCT SHALL NOT EXCEED 4-INCH NOMINAL DIAMETER AND THE TOTAL AREA OF SUCH DUCTS SHALL NOT EXCEED 100 SQUARE INCHES IN ANY 100 SQUARE FEET OF FLOOR AREA.
4. THE ANNULAR SPACE AROUND THE DUCT IS PROTECTED WITH MATERIALS THAT PREVENT THE PASSAGE OF FLAME AND HOT GASES SUFFICIENT TO IGNITE COTTON WASTE WHERE SUBJECTED TO ASTM E 119 TIME-TEMPERATURE CONDITIONS UNDER A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCH (2.49 Pa) OF WATER AT THE LOCATION OF THE PENETRATION FOR THE TIME PERIOD EQUIVALENT TO THE FIRE-RESISTANCE RATING OF THE CONSTRUCTION PENETRATED.
5. GRILLE OPENINGS LOCATED IN A CEILING OF A FIRE-RESISTANCE-RATED FLOOR/CEILING OR ROOF/CEILING ASSEMBLY SHALL BE PROTECTED WITH A LISTED CEILING RADIATION DAMPER INSTALLED IN ACCORDANCE WITH SECTION 716.6.2.1.

MAXIMUM VENT AREA CALCULATIONS

AT MAX: (8) 4" PIPES
SINGLE PIPE = 12.5 SQ. IN.
8 * 12.5 = 100 SQ. IN. MAX

CODE

VENTS SHALL NOT EXCEED 100 SQ. IN. PER 100 SF OF FLOOR AREA.

NATURAL VENTILATION

UNIT A:
MINIMUM OPENABLE AREA PER IMC 402.2:
1600 SF MAX. X 4% = 64 SF

ENTRANCE DOOR: 30 SF
OPERABLE WINDOW: 243 SF
TOTAL OF 273 SF OF OPEN AREA

UNIT B:
MINIMUM OPENABLE AREA PER IMC 402.2:
1619 SF MAX. X 4% = 64.76 SF

ENTRANCE DOOR: 30 SF
PATIO DOOR: 46.76 SF
OPERABLE WINDOW: 202.98 SF
TOTAL OF 279.74 SF OF OPEN AREA

2019 CALIFORNIA DUCT INSULATION SCHEDULE (1)(2)(3)(5)(6)(7)(8)

SERVICE	MATERIAL	R-VALUE (MIN.INSTALLED)	VAPOR RETARDER REQUIRED
SUPPLY & RETURN AIR DUCTS IN EXTERIOR SPACE	MINERAL-WOOL BLANKET	8.0	YES
SUPPLY & RETURN AIR DUCTS IN UNVENTED ATTIC ABOVE INSULATED CEILING SPACE	MINERAL-WOOL BLANKET	8.0	YES
SUPPLY & RETURN AIR DUCTS IN VENTED ATTIC SPACE	MINERAL-WOOL BLANKET	8.0	YES
SUPPLY & RETURN AIR DUCTS IN UNCONDITIONED AND CRAWL SPACE	MINERAL-WOOL BLANKET	8.0	YES
SUPPLY AIR DUCTS ENCLOSED IN CONDITIONED SPACE	N/A	0.0	N/A
SUPPLY AIR DUCTS BURIED AND OTHER SPACES NOT LISTED ABOVE	MINERAL-WOOL BLANKET	4.2	N/A
ROUND & RECTANGULAR EXHAUST AIR DUCTS IN UNCONDITIONED SPACE	MINERAL-WOOL BLANKET	N/A	N/A
ROUND & RECTANGULAR SUPPLY AIR DUCTS, EXPOSED WITHIN CONDITIONED SPACE	MINERAL-WOOL BLANKET	N/A	N/A
ROUND & RECTANGULAR RETURN AIR DUCTS, EXPOSED WITHIN CONDITIONED SPACE	MINERAL-WOOL BLANKET	N/A	N/A
OUTSIDE AIR DUCTS WITHIN CONDITIONED SPACE, ATTIC SPACE OR CONCEALED IN CEILING	MINERAL-WOOL BLANKET	4.0	YES (9)
OUTSIDE AIR DUCTS WITHIN PARKING, CRAWL SPACE	MINERAL-WOOL BLANKET	N/A	N/A

NOTES:

- (1) DUCT INSULATION SHALL COMPLY WITH CMC AND CEC.
- (2) VAPOR RETARDER SHALL BE INSTALLED ONLY ON SUPPLY AND OUTSIDE AIR DUCTS.
- (3) INSULATION SHALL BE PROTECTED PER 2019 CEC SECTION 120.4
- (4) PER 2019 CMC SECTION 604.1.2 INSULATION SHALL HAVE A MAXIMUM FLAME SPREAD INDEX OF 25 MAXIMUM SMOKE DEVELOPED INDEX OF 50 HAVE LISTING OF ASTM E84 OR UL 723.
- (5) DETERIORATION: FIELD APPLIED JACKET SHALL BE PROVIDED ON INSULATION EXPOSED TO OUTDOOR ELEMENTS (UV & MOISTURE).
- (6) ACOUSTIC: INSULATION SHALL BE DUCT LINER ON MIXING BOX AND FIRST 5 FEET OF DUCTWORKS FROM MECHANICAL UNITS. INSULATION ON ALL OTHER DUCTS SHALL BE DUCT WRAPPING.
- (7) DUCT LINER: PER 2019 CMC SECTION 604.1.1, DUCT LINER SHALL HAVE MOLD, HUMIDITY AND EROSION-RESISTANT SURFACE LISTED PER UL 181. PROVIDE LINER FASTENER AS RECOMMENDED BY MANUFACTURER/NAIMA IN COMPLIANCE WITH CODE. FOR HILTON™ PROJECTS, DUCT LINER SHALL BE CLOSED CELL ELASTOMERIC TYPE. (K-FLEX OR EQUIVALENT.)
- (8) ADDITIONAL PROVISIONS: INSULATION MATERIAL & THICKNESS ARE BASED ON CODE MINIMUM REQUIREMENT ONLY. ADDITIONAL PROVISIONS SHALL BE PROVIDED BY CONTRACTOR AS REQUIRED BY LOCAL AUTHORITIES, MANUFACTURER'S INSTRUCTION, OWNER, BRAND STANDARD AND PROJECT SPECIFICATIONS.
- (9) CONDENSATION: INSULATION & VAPOR RETARDER IS REQUIRED BY ENGINEERING BASED ON BEST PRACTICE.

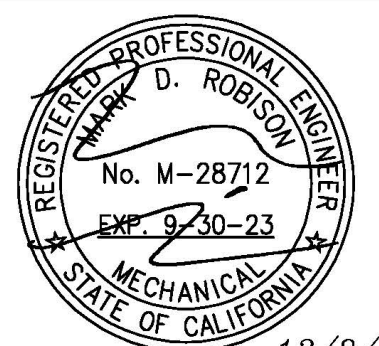
APPLICABLE CODES

2019 CALIFORNIA BUILDING CODE (CBC)
2019 CALIFORNIA MECHANICAL CODE (CMC)
2019 CALIFORNIA PLUMBING CODE (CPC)
2019 CALIFORNIA ELECTRICAL CODE (CEC)
2019 CALIFORNIA ENERGY CODE (CENC)
2019 CALGREEN BUILDING CODE



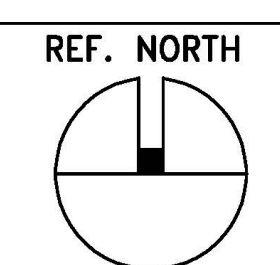
NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
4249 CHEENEY ST.
SANTA CLARA, CA 95054

REVISION	DATE
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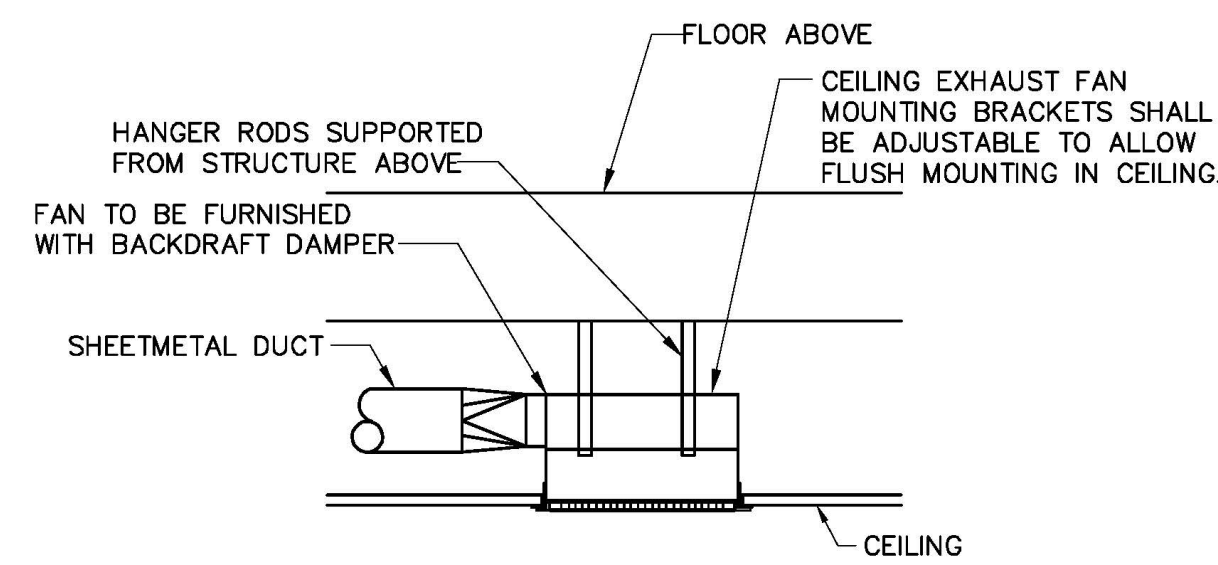
DATE: 12/8/22
DECEMBER 8, 2022
PROJECT No. 590-054

PROJECT NOTES



MO.1

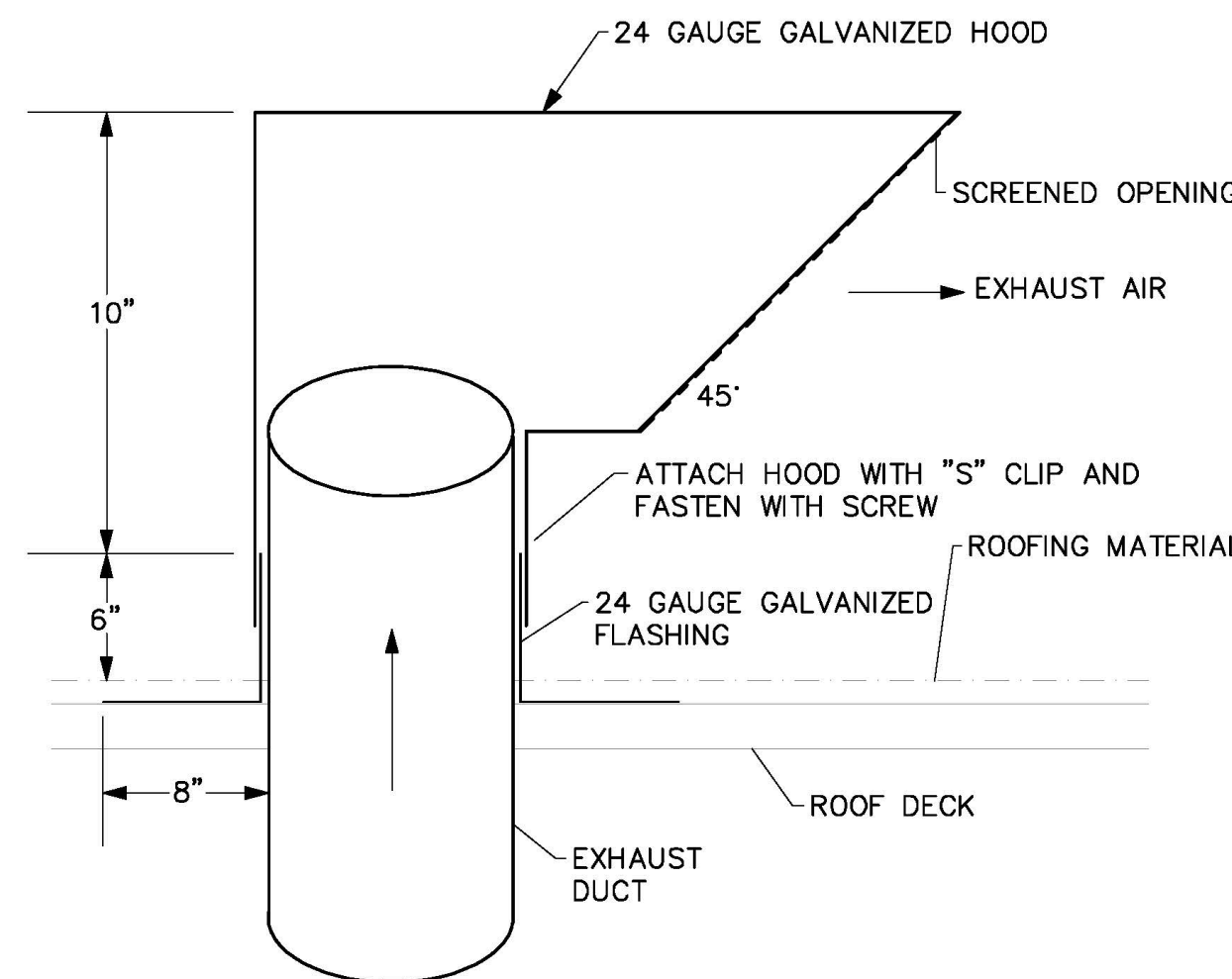
DETAILS



CEILING EXHAUST FAN
DETAIL

SCALE: NONE

1
MO.3



NOTE:
SIZE WIDTH OF HOOD TO THE NUMBER OF DUCTS,
ALLOW 1/4" AROUND DUCTS.

DETAIL
EXHAUST DUCT ROOF CAP

SCALE: NONE

2
MO.3

MECHANICAL SCHEDULES

SPLIT HEAT PUMP SCHEDULE – INDOOR UNIT

EQUIP NO.	SERVICE	MOUNTING/ DISCHARGE	FAN		ELECTRICAL			WEIGHT, LBS	BASIS OF DESIGN (1)	CONNECTED OUTDOOR UNIT
			AIRFLOW, CFM	W	VOLTAGE	MCA	MOCP			
FC-1	2-TON SYSTEM	HORIZONTAL	798	230	(2)	(2)	(2)	82	DAIKIN FDMQ24RVJU	HP-1

NOTES:
(1) REFRIGERANT SHALL BE R-410A.
(2) POWERED BY OUTDOOR UNIT

SPLIT HEAT PUMP SCHEDULE – OUTDOOR UNIT

EQUIP NO.	SERVICE	TOTAL COOLING CAPACITY, BTUH	SEER	TOTAL HEATING CAPACITY, BTUH	HSPF	ELECTRICAL			WEIGHT, LBS	BASIS OF DESIGN (1)(2)(3)	CONNECTED INDOOR UNIT
						VOLTAGE	MCA	MOCP			
HP-1	BLDG 1 UNITS	21,800	18.6	24,000	10	230V/1P	16.9	20	108	DAIKIN RX24RMVJUA	FC-1

NOTES:
(1) ARI LISTED WITH ALL STANDARD FEATURES, INSTALLATION ACCESSORIES AND COMPRESSOR SHORT CYCLING PROTECTION. FILTER DRIER, REFRIGERANT LINE FILTER, LIQUID SOLENOID VALVE, AND SAFETY PRESSURE SWITCHES. INSTALL REFRIGERANT TUBING IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
(2) REFRIGERANT SHALL BE R-410A.

FAN SCHEDULE

EQUIP NO.	SERVICE	MOUNTING	AIRFLOW, CFM	ESP. IN WG	ELECTRICAL		OPERATION	WEIGHT, LBS	BASIS OF DESIGN (1)(2)
					VOLTAGE	HP			
BEF-1	UNIT BATHROOM	CEILING MOUNTED	100	0.3	115V/1P	FHP	(4)	10	GREENHECK SP-AP0511W (3)

NOTES:
(1) PROVIDE BACKDRAFT DAMPERS ON EXHAUST FANS.
(2) VIBRATION ISOLATION: FANS < 125 LBS RUBBER ISOLATORS, FANS > 125 LBS SPRING ISOLATORS
(3) ENERGY STAR CERTIFIED
(4) FAN CAN BE ACTIVATED BY BOTH HUMIDITY SENSOR AND WALL SWITCH.



NEW DEVELOPMENT:
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SANTA CLARA, CA 95054

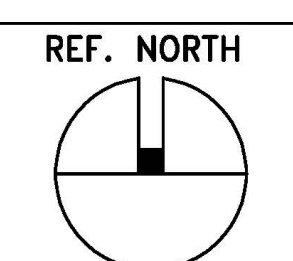
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12/8/22

DATE: DECEMBER 8, 2022
PROJECT No. 590-054

MECHANICAL SCHEDULES

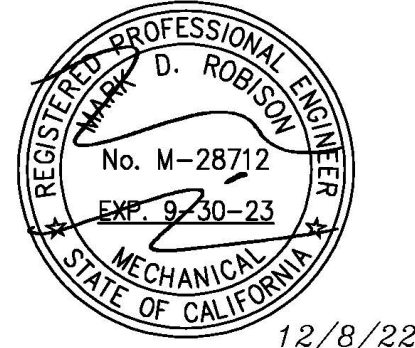


MO.3

NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
 4249 CHEENEY ST.
 SANTA CLARA, CA 95054

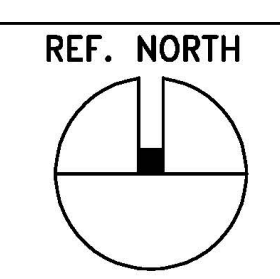


REVISION	DATE
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DATE: 12/8/22
 PROJECT No. 590-054

HVAC PLAN - FIRST FLOOR



M2.0

GENERAL NOTES

1. MOUNT REMOTE THERMOSTAT AT 48" AFF.
2. CONDENSATE DRAIN TO TERMINATE AT APPROVED RECEPTOR WITH INDIRECT CONNECTION. REFER TO PLUMBING PLANS FOR CONDENSATE PIPE ROUTING AND ADDITIONAL INFORMATION.

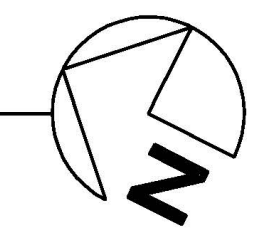
FLAG NOTES

1. POC TO RANGE HOOD (TYP).
2. POC TO DRYER (TYP).

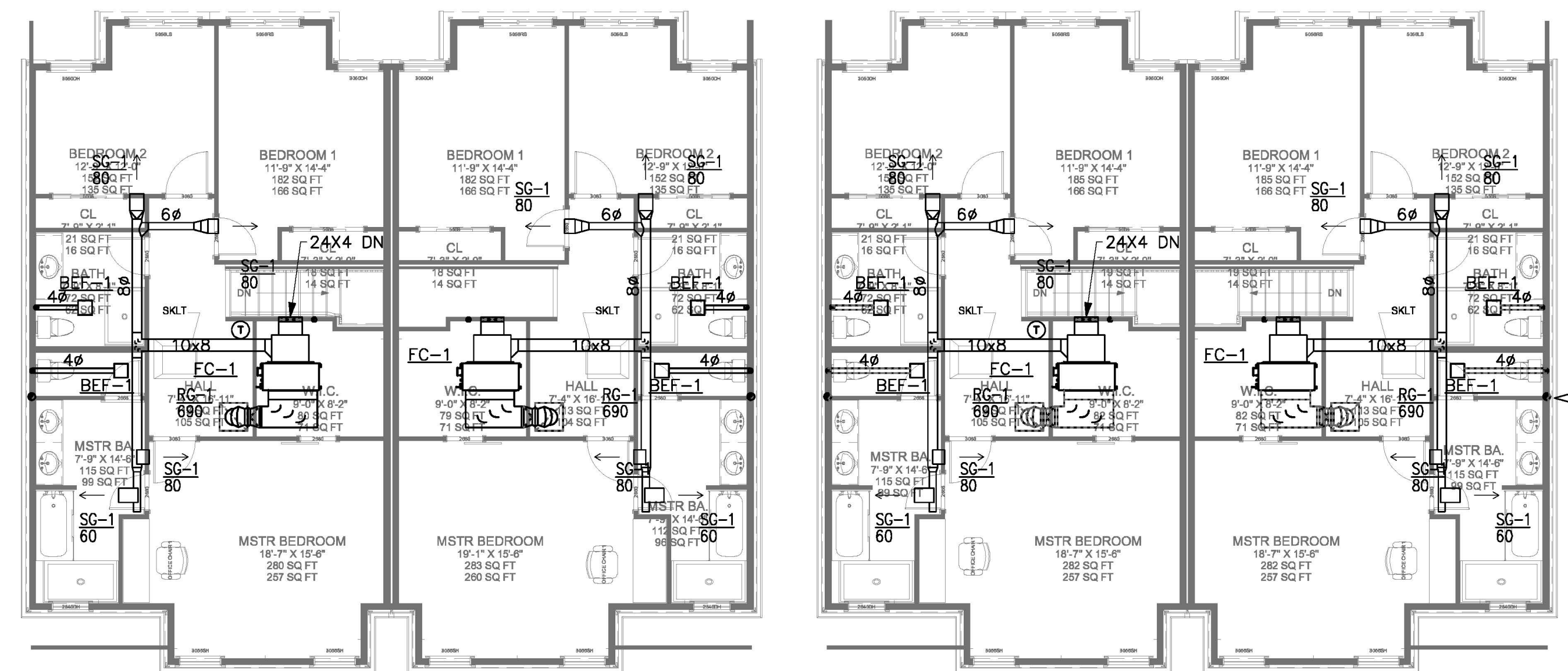
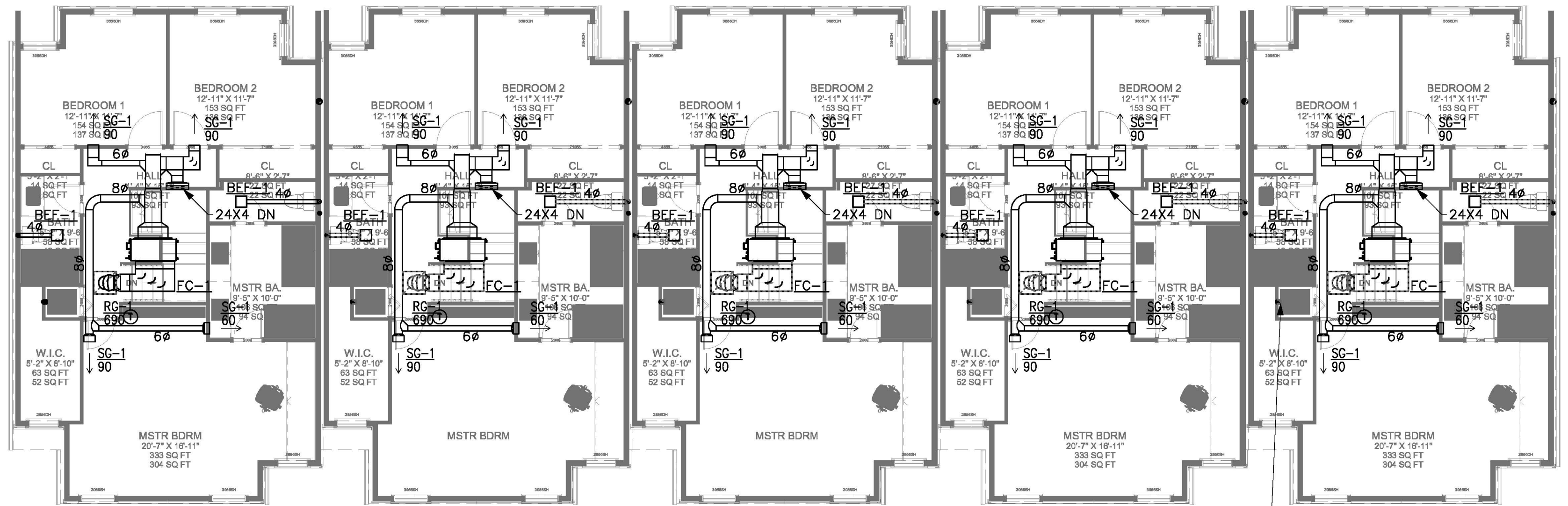
HVAC PLAN

FIRST FLOOR

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



NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
4249 CHEENEY ST.
SANTA CLARA, CA 95054



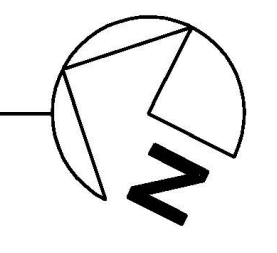
GENERAL NOTES

1. MOUNT REMOTE THERMOSTAT AT 48" AFF.
2. CONDENSATE DRAIN TO TERMINATE AT APPROVED RECEPTOR WITH INDIRECT CONNECTION. REFER TO PLUMBING PLANS FOR CONDENSATE PIPE ROUTING AND ADDITIONAL INFORMATION.

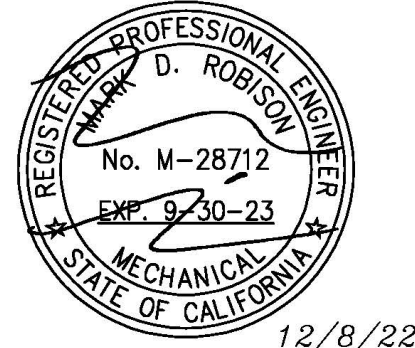
FLAG NOTES

1. 4" EXHAUST DUCT UP THROUGH ROOF
2. POC TO DRYER (TYP).

HVAC PLAN
SECOND FLOOR
SCALE: 1/8" = 1'-0"

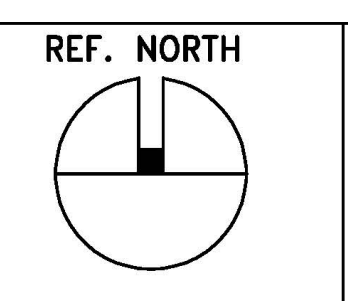


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DATE:	12/8/22
PROJECT No.	590-054

HVAC PLAN - SECOND FLOOR

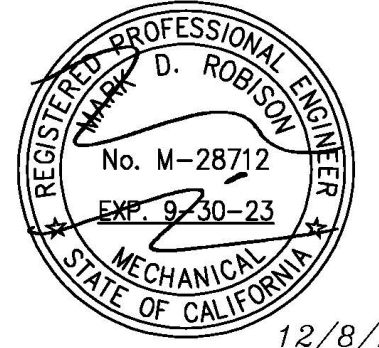


M2.1



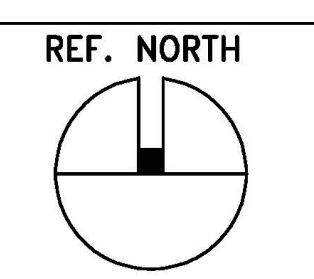
NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
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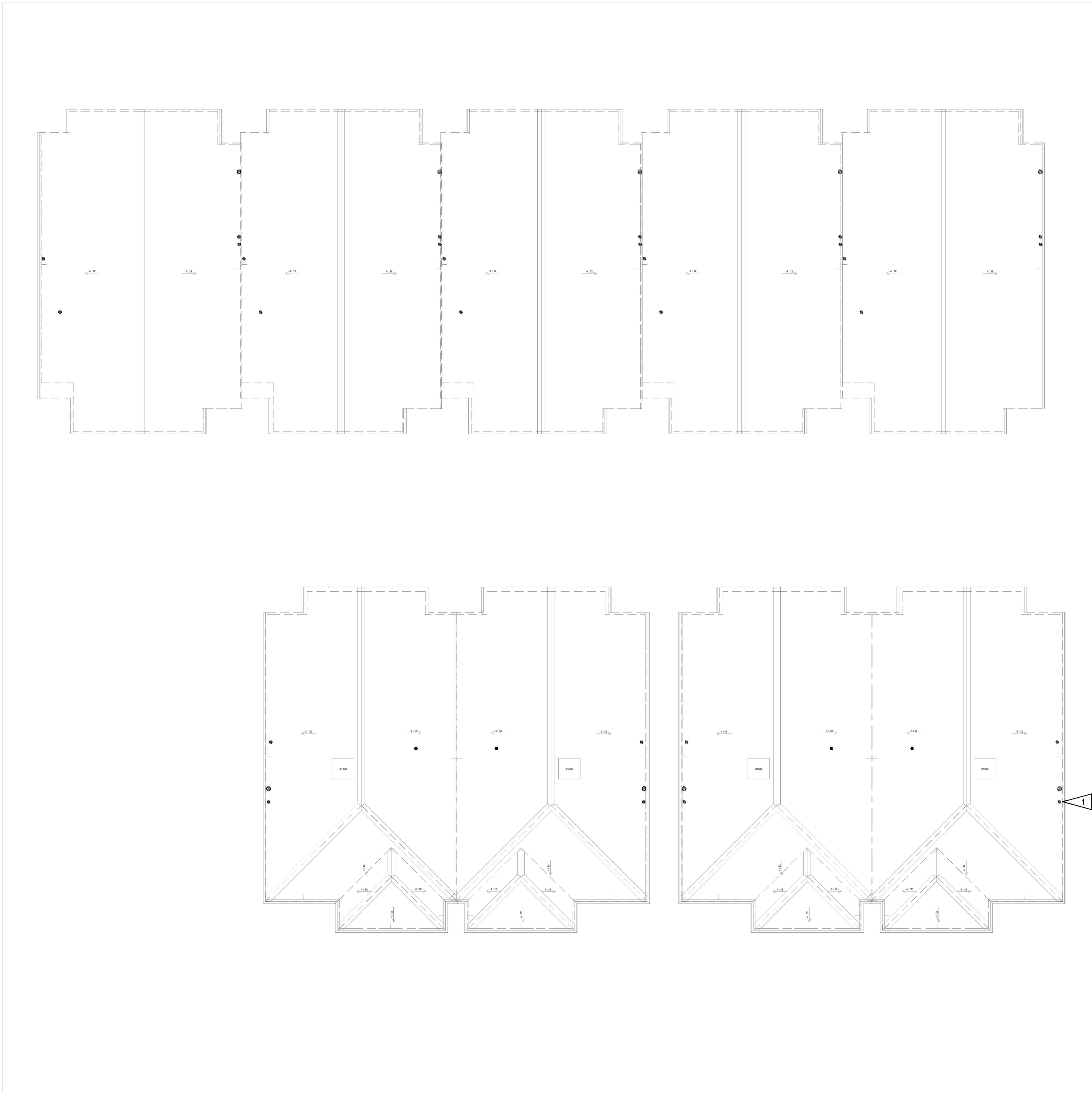


DATE: 12/8/22
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HVAC PLAN - ROOF



M2.2



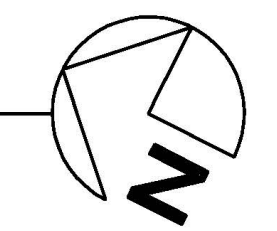
FLAG NOTES

- 4# BATHROOM EXHAUST VENT TERMINATION. PROVIDE VENT CAP SEE DETAIL M0.3/2 (TYP).

HVAC PLAN

ROOF

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



OAC-1

CERTIFICATE OF COMPLIANCE

Project Name: CHEENY ST TOWNHOMES

Calculation Date/Time: 2022-12-08T15:08:23-08:00

CF1R-PRF-01E (Page 6 of 16)

Calculation Description: Title 24 Analysis

Input File Name: Cheeny Townhomes.rbd19x

Table with 8 columns: O1, O2, O3, O4, O5, O6, O7, O8. Rows include Name, Zone, Construction, Azimuth, Orientation, Gross Area (ft²), Window and Door Area (ft²), and Tilt (deg).

Table with 8 columns: O1, O2, O3, O4, O5, O6, O7, O8. Rows include Name, Construction, Type, Roof Rise (x in 12), Roof Reflectance, Roof Emittance, Radiant Barrier, and Cool Roof.

Registration Number: 422-P010193451A-000-00000000-0000... HERS Provider: CHEERS

CERTIFICATE OF COMPLIANCE

Project Name: CHEENY ST TOWNHOMES

Calculation Date/Time: 2022-12-08T15:08:23-08:00

CF1R-PRF-01E (Page 3 of 16)

Calculation Description: Title 24 Analysis

Input File Name: Cheeny Townhomes.rbd19x

REQUIRED SPECIAL FEATURES table with 1 row and 1 column.

HERS FEATURE SUMMARY text block.

- Building-level Verifications: Indoor air quality ventilation, Enclosure air leakage for each dwelling unit, Cooling System Verifications, Heating System Verifications, HVAC Distribution System Verifications, Domestic Hot Water System Verifications.

BUILDING - FEATURES INFORMATION table with 7 columns: O1, O2, O3, O4, O5, O6, O7. Rows include Project Name, Conditioned Floor Area (ft²), Number of Dwelling Units, Number of Bedrooms, Number of Zones, Number of Ventilation Cooling Systems, and Number of Water Heating Systems.

Registration Number: 422-P010193451A-000-00000000-0000... HERS Provider: CHEERS

CERTIFICATE OF COMPLIANCE

Project Name: CHEENY ST TOWNHOMES

Calculation Date/Time: 2022-12-08T15:08:23-08:00

CF1R-PRF-01E (Page 5 of 16)

Calculation Description: Title 24 Analysis

Input File Name: Cheeny Townhomes.rbd19x

DWELLING UNIT TYPES table with 7 columns: O1, O2, O3, O4, O5, O6, O7. Rows include Name, CFA (ft²), Number of Bedrooms, Number in Building, Space Conditioning Systems Assigned, DHW System Name, and IAQ Vent Fan Name.

Table with 8 columns: O1, O2, O3, O4, O5, O6, O7, O8. Rows include Name, Zone, Construction, Azimuth, Orientation, Gross Area (ft²), Window and Door Area (ft²), and Tilt (deg).

Registration Number: 422-P010193451A-000-00000000-0000... HERS Provider: CHEERS

CERTIFICATE OF COMPLIANCE

Project Name: CHEENY ST TOWNHOMES

Calculation Date/Time: 2022-12-08T15:08:23-08:00

CF1R-PRF-01E (Page 2 of 16)

Calculation Description: Title 24 Analysis

Input File Name: Cheeny Townhomes.rbd19x

ENERGY DESIGN RATING table with 4 columns: Energy Design Ratings, Compliance Margins, Efficiency (EDR), Total (EDR).

RESULT: 1 COMPLIES text block.

ENERGY USE SUMMARY table with 5 columns: Energy Use (kBTU/ft²-yr), Standard Design, Proposed Design, Compliance Margin, Percent Improvement.

REQUIRED PV SYSTEMS - SIMPLIFIED table with 12 columns: O1, O2, O3, O4, O5, O6, O7, O8, O9, O10, O11, O12.

Registration Number: 422-P010193451A-000-00000000-0000... HERS Provider: CHEERS

CERTIFICATE OF COMPLIANCE

Project Name: CHEENY ST TOWNHOMES

Calculation Date/Time: 2022-12-08T15:08:23-08:00

CF1R-PRF-01E (Page 4 of 16)

Calculation Description: Title 24 Analysis

Input File Name: Cheeny Townhomes.rbd19x

ZONE INFORMATION table with 5 columns: O1, O2, O3, O4, O5. Rows include Zone Name, Zone Type, Zone Floor Area (ft²), Avg. Ceiling Height, and Number of Dwelling Units.

DWELLING UNIT INFORMATION table with 3 columns: O1, O2, O3. Rows include Dwelling Unit Name, Dwelling Unit Type, and Zone.

DWELLING UNIT TYPES table with 7 columns: O1, O2, O3, O4, O5, O6, O7. Rows include Name, CFA (ft²), Number of Bedrooms, Number in Building, Space Conditioning Systems Assigned, DHW System Name, and IAQ Vent Fan Name.

Registration Number: 422-P010193451A-000-00000000-0000... HERS Provider: CHEERS

CERTIFICATE OF COMPLIANCE

Project Name: CHEENY ST TOWNHOMES

Calculation Date/Time: 2022-12-08T15:08:23-08:00

CF1R-PRF-01E (Page 1 of 16)

Calculation Description: Title 24 Analysis

Input File Name: Cheeny Townhomes.rbd19x

GENERAL INFORMATION table with 22 columns: O1, O2, O3, O4, O5, O6, O7, O8, O9, O10, O11, O12, O13, O14, O15, O16, O17, O18, O19, O20, O21, O22.

COMPLIANCE RESULTS table with 3 columns: O1, O2, O3. Rows include Building Complies with Computer Performance, Building incorporates features that require field testing, and Building incorporates one or more Special Features.

Registration Number: 422-P010193451A-000-00000000-0000... HERS Provider: CHEERS

Project information and branding section including REF. NORTH, TITLE 24 COMPLIANCE FORMS, M7.0, REVISION, DATE, NEW DEVELOPMENT: CHEENEY ST TOWNHOUSES 4249 CHEENEY ST. SANTA CLARA, CA 95054, MPCA CONSTRUCTION INC., and ROBISON ENGINEERING, INC.

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CERTIFICATE OF COMPLIANCE

Project Name: CHEENEY ST TOWNHOMES

Calculation Date/Time: 2022-12-08T15:08:23-08:00

CF1R-PRF-01E (Page 12 of 16)

Calculation Description: Title 24 Analysis

Input File Name: Cheeny Townhomes.rbd19x

SPACE CONDITIONING SYSTEMS

Table with 11 columns: 01-11. Headers: Name, System Type, Heating Unit Name, Cooling Unit Name, Fan Name, Distribution Name, Required Thermostat Type, Status, Verified Existing Condition, Heating Equipment Count, Cooling Equipment Count.

Table with 11 columns: 01-11. Headers: Name, System Type, Number of Units, Heating (HSPF/COP, Cap 47, Cap 17), Cooling (SEER, EER/CEER), Zonally Controlled, Compressor Type, HERS Verification.

Table with 9 columns: 01-09. Headers: Name, Verified Airflow, Airflow Target, Verified EER, Verified SEER, Verified Refrigerant Charge, Verified HSPF, Verified Heating Cap 47, Verified Heating Cap 17.

Registration Number: 422-P010193451A-000-000-0000000-0000. Registration Date/Time: 12/08/2022 15:48. HERS Provider: CHEERS. CA Building Energy Efficiency Standards - 2019 Residential Compliance. Report Version: 2019.2.000. Report Generated: 2022-12-08 15:09:41. Schema Version: rev 20200901.

CERTIFICATE OF COMPLIANCE

Project Name: CHEENEY ST TOWNHOMES

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Calculation Description: Title 24 Analysis

Input File Name: Cheeny Townhomes.rbd19x

OPAQUE SURFACE CONSTRUCTIONS

Table with 8 columns: 01-08. Headers: Construction Name, Surface Type, Construction Type, Framing, Total Cavity R-value, Interior/Exterior Continuous R-value, U-factor, Assembly Layers.

Table with 4 columns: 01-04. Headers: Quality Insulation Installation (QII), High R-value Spray Foam Insulation, Building Envelope Air Leakage, CFM50.

Table with 9 columns: 01-09. Headers: Name, System Type, Number of Systems in Building, Multi-Family Distribution Type, Dwelling Unit Distribution Type, Water Heater Name (#), Solar Heating System, Compact Distribution, HERS Verification.

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Calculation Description: Title 24 Analysis

Input File Name: Cheeny Townhomes.rbd19x

SPACE CONDITIONING SYSTEMS

Table with 11 columns: 01-11. Headers: Name, System Type, Heating Unit Name, Cooling Unit Name, Fan Name, Distribution Name, Required Thermostat Type, Status, Verified Existing Condition, Heating Equipment Count, Cooling Equipment Count.

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Calculation Date/Time: 2022-12-08T15:08:23-08:00

CF1R-PRF-01E (Page 8 of 16)

Calculation Description: Title 24 Analysis

Input File Name: Cheeny Townhomes.rbd19x

SLAB FLOORS

Table with 8 columns: 01-08. Headers: Name, Zone, Area (ft²), Perimeter (ft), Edge Insul. R-value and Depth, Edge Insul. R-value and Depth, Carpeted Fraction, Heated.

Table with 8 columns: 01-08. Headers: Construction Name, Surface Type, Construction Type, Framing, Total Cavity R-value, Interior/Exterior Continuous R-value, U-factor, Assembly Layers.

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CERTIFICATE OF COMPLIANCE

Project Name: CHEENEY ST TOWNHOMES

Calculation Date/Time: 2022-12-08T15:08:23-08:00

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Calculation Description: Title 24 Analysis

Input File Name: Cheeny Townhomes.rbd19x

WATER HEATERS

Table with 12 columns: 01-12. Headers: Name, Heating Element Type, Tank Type, # of Units, Tank Vol. (gal), Energy Factor or Efficiency, Input Rating or Pilot, Tank Insulation R-value (Int/Ext), Standby Loss or Recovery Eff, 1st Hr. Rating or Flow Rate, NEEA Heat Pump Brand or Model, Tank Location or Ambient Condition.

Table with 8 columns: 01-08. Headers: Name, Pipe Insulation, Parallel Piping, Compact Distribution, Recirculation Control, Central DHW Distribution, Shower Drain Water Heat Recovery.

Registration Number: 422-P010193451A-000-000-0000000-0000. Registration Date/Time: 12/08/2022 15:48. HERS Provider: CHEERS. CA Building Energy Efficiency Standards - 2019 Residential Compliance. Report Version: 2019.2.000. Report Generated: 2022-12-08 15:09:41. Schema Version: rev 20200901.

CERTIFICATE OF COMPLIANCE

Project Name: CHEENEY ST TOWNHOMES

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Calculation Description: Title 24 Analysis

Input File Name: Cheeny Townhomes.rbd19x

ATTIC

Table with 8 columns: 01-08. Headers: Name, Construction, Type, Roof Rise (x in 12), Roof Reflectance, Roof Emittance, Radiant Barrier, Cool Roof.

Table with 14 columns: 01-14. Headers: Name, Type, Surface, Orientation, Azimuth, Width (ft), Height (ft), Mult., Area (ft²), U-factor, U-factor Source, SHGC, SHGC Source, Exterior Shading.

Table with 4 columns: 01-04. Headers: Name, Side of Building, Area (ft²), U-factor.

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Project title block containing: REF. NORTH, TITLE 24 COMPLIANCE FORMS, M7.1, PROJECT No., DATE: DECEMBER 8, 2022, REVISION, DATE, NEW DEVELOPMENT: CHEENEY ST TOWNHOUSES, 4249 CHEENEY ST. SANTA CLARA, CA 95054, MPCA CONSTRUCTION INC., GENERAL CONTRACTOR & ENGINEER, 101 South Santa Cruz Ave., #313192, Los Gatos, CA 95030, ROBISON ENGINEERING, INC., 19401 40TH AVE W, SUITE 302, LUNNWOOD, WA 98006, RE/PROJECT NO.: 880054, CONTRACT: ANK ESRN16L.

CERTIFICATE OF COMPLIANCE CF1R-PRF-01E
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Project Name: CHEENY ST TOWNHOMES Calculation Date/Time: 2022-12-08T15:08:23-08:00

Calculation Description: Title 24 Analysis Input File Name: Cheeny Townhomes.rbd19x

01	02	03	04	05	06	07
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness - SRE	IAQ Recovery Effectiveness - ASRE	HERS Verification
DDU-1 2/2	78	0.35	Exhaust	n/a	n/a	Yes
DDU-2 1/2	78	0.35	Exhaust	n/a	n/a	Yes
DDU-2 2/2	78	0.35	Exhaust	n/a	n/a	Yes
DDU-3 1/5	78	0.35	Exhaust	n/a	n/a	Yes
DDU-3 2/5	78	0.35	Exhaust	n/a	n/a	Yes
DDU-3 3/5	78	0.35	Exhaust	n/a	n/a	Yes
DDU-3 4/5	78	0.35	Exhaust	n/a	n/a	Yes
DDU-3 5/5	78	0.35	Exhaust	n/a	n/a	Yes

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Project Name: CHEENY ST TOWNHOMES Calculation Date/Time: 2022-12-08T15:08:23-08:00

Calculation Description: Title 24 Analysis Input File Name: Cheeny Townhomes.rbd19x

01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 3-hers-dist	Yes	total leakage <= 12.0 or leakage to outdoors <= 6.0	Required	Not Required	Not Required	Credit not taken	Not Required	No

01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan 1	HVAC Fan	0.58	HVAC Fan 1-hers-fan
HVAC Fan 2	HVAC Fan	0.58	HVAC Fan 2-hers-fan
HVAC Fan 3	HVAC Fan	0.58	HVAC Fan 3-hers-fan

01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficacy (Watts/CFM)
HVAC Fan 1-hers-fan	Required	0.58
HVAC Fan 2-hers-fan	Required	0.58
HVAC Fan 3-hers-fan	Required	0.58

01	02	03	04	05	06	07
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness - SRE	IAQ Recovery Effectiveness - ASRE	HERS Verification
DDU-1 1/2	78	0.35	Exhaust	n/a	n/a	Yes

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Registration Number: 422-PO10193451A-000-000-0000000-0000 Registration Date/Time: 12/08/2022 15:48 HERS Provider: CHEERS
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Project Name: CHEENY ST TOWNHOMES Calculation Date/Time: 2022-12-08T15:08:23-08:00

Calculation Description: Title 24 Analysis Input File Name: Cheeny Townhomes.rbd19x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Arik Espineli	Documentation Author Signature: <i>Arik Espineli</i>
Company: Robison Engineering	Signature Date: 12/08/2022
Address: 19401 40th Avenue W, Suite 302	CEA/HERS Certification Identification (if applicable):
City/State/Zip: Lynnwood, WA 98036	Phone: 206-364-3343

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
- I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name: Asim Drebi	Responsible Designer Signature: <i>Asim Drebi</i>
Company: Robison Engineering	Date Signed: 12/08/2022
Address: 19401 40th Avenue W, Suite 302	License:
City/State/Zip: Lynnwood, WA 98036	Phone: 206-364-3343

Digitally signed by Const Home Energy Efficiency Rating System Services, Inc. (CHEERS). This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

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CERTIFICATE OF COMPLIANCE CF1R-PRF-01E
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Project Name: CHEENY ST TOWNHOMES Calculation Date/Time: 2022-12-08T15:08:23-08:00

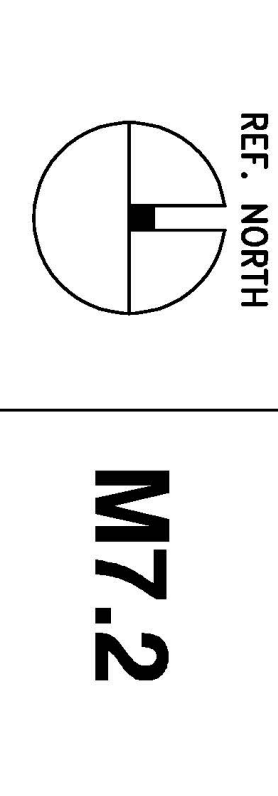
Calculation Description: Title 24 Analysis Input File Name: Cheeny Townhomes.rbd19x

01	02	03	04	05	06	07	08	09	10	11	12
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification
Air Distribution System 1	Conditioned space-entirely	Non-Verified	R-8	R-8	Conditioned Zone	Conditioned Zone	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 1-hers-dist
Air Distribution System 2	Conditioned space-entirely	Non-Verified	R-8	R-8	Conditioned Zone	Conditioned Zone	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 2-hers-dist
Air Distribution System 3	Conditioned space-entirely	Non-Verified	R-8	R-8	Conditioned Zone	Conditioned Zone	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 3-hers-dist

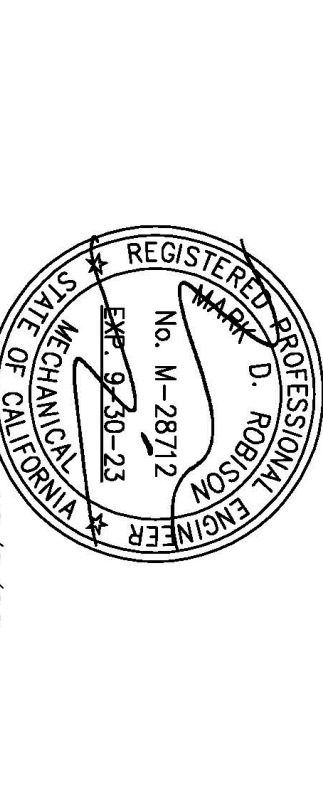
01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 1-hers-dist	Yes	total leakage <= 12.0 or leakage to outdoors <= 6.0	Required	Not Required	Not Required	Credit not taken	Not Required	No
Air Distribution System 2-hers-dist	Yes	total leakage <= 12.0 or leakage to outdoors <= 6.0	Required	Not Required	Not Required	Credit not taken	Not Required	No

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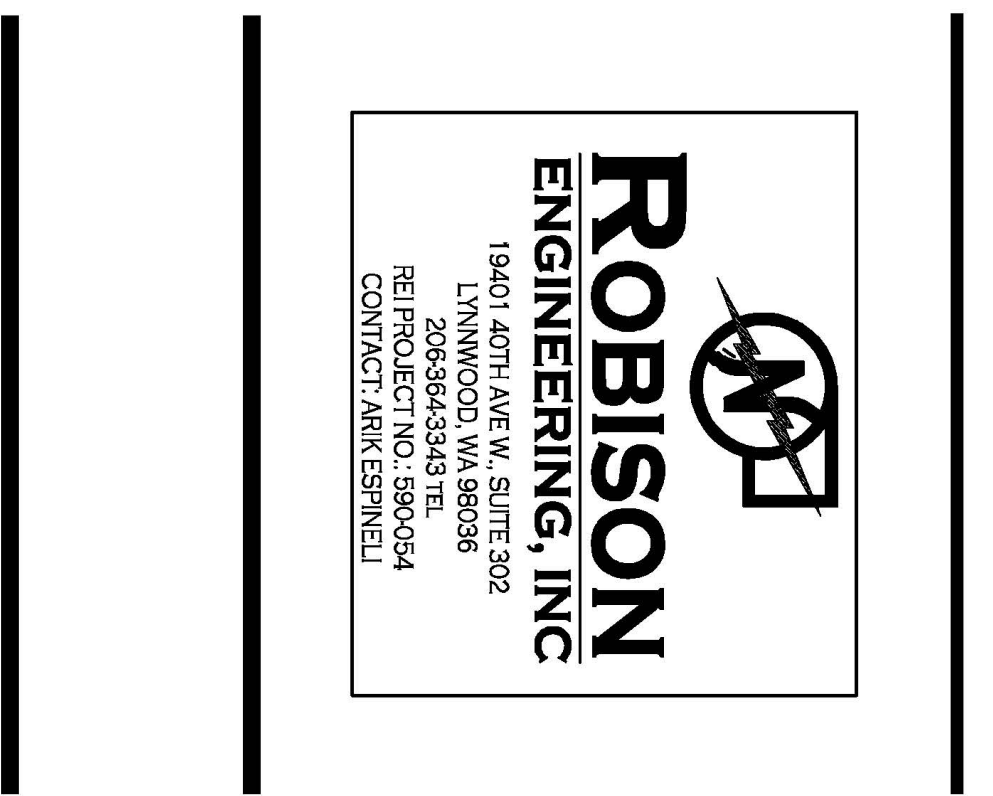


TITLE 24 COMPLIANCE FORMS



DATE: DECEMBER 8, 2022
PROJECT No. 580-054

NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
4249 CHEENEY ST.
SANTA CLARA, CA 95054



CONTRACTOR SUBSTITUTIONS & REVISIONS

CONTRACTOR SUBSTITUTIONS & REVISIONS: PLEASE SUBMIT PROPOSALS FOR SUBSTITUTIONS OR REVISIONS FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIAL OR DOING WORK. FOR EQUIPMENT THAT IS SCHEDULED BY MANUFACTURER'S NAME AND CATALOG DESIGNATIONS, THE MANUFACTURER'S PUBLISHED DATA AND/OR SPECIFICATION FOR THAT ITEM ARE CONSIDERED PART OF SPECIFICATION. ENGINEERING COSTS FOR REVISING MEP PLANS SHALL BE ADDRESSED IN THE COST ANALYSIS OF THE SUBSTITUTION PROPOSAL. CONTRACTOR TO COORDINATE WITH ENGINEER AND DETERMINE ASSOCIATED DESIGN AND PERMITTING COSTS. CONTRACTOR SHALL BE RESPONSIBLE FOR OTHER COSTS ASSOCIATED WITH UNFORESEEN ISSUES RESULTING FROM SUBSTITUTIONS OR REVISIONS.

APPLICABLE CODES

THESE DRAWINGS ARE BASED ON THE FOLLOWING CODES:

2019 CALIFORNIA BUILDING CODE (CBC)
2019 CALIFORNIA MECHANICAL CODE (CMC)
2019 CALIFORNIA PLUMBING CODE (CPC)
2019 CALIFORNIA ENERGY CODE (CEC)

PRE-CON MEETING NOTES

CONTRACTORS SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH THE ENGINEER FOR THE PURPOSE OF REVIEWING THE WORK PRIOR TO ORDERING ANY EQUIPMENT OR PERFORMING ANY WORK. THE MEETING SHALL BE LOCATED AT THE PROJECT SITE ON A DATE AND TIME TO BE MUTUALLY AGREED. THE MEETING WILL BE A WORKING SESSION. THE MEETING WILL BE FACILITATED BY THE ENGINEER AND THE AGENDA WILL INCLUDE A DETAILED REVIEW OF THE PLANS AND SPECIFICATIONS, CROSS CHECK WITH OTHER TRADES FOR COORDINATION ISSUES, REVIEW OF PROPOSED PRODUCTS, REVIEW OF PLANNED MEANS AND METHODS, AND ON-SITE INVESTIGATION OF FIELD CONDITIONS RELATIVE TO EXISTING CONDITIONS THAT COULD AFFECT THE WORK. PERSONS ATTENDING THE MEETING SHALL BE KNOWLEDGEABLE OF THE PROJECT AND SHALL BE THE SPECIFIC PERSONS INTENDED TO CONTINUE WITH THE PROJECT THROUGH TO COMPLETION. IF REQUIRED, REVISED PLANS WILL BE ISSUED THROUGH OFFICIAL CHANNELS. CHANGES IN THE BID PRICE WILL BE DISCUSSED, BUT NO CHANGE ORDERS WILL BE ISSUED UNLESS PROCESSED THROUGH OFFICIAL CHANNELS. IT SHALL BE UNDERSTOOD THAT THE ENGINEER HAS NO AUTHORITY TO ISSUE CHANGE ORDERS.

THE FOLLOWING TRADES SHALL BE REPRESENTED FOR THE MINIMUM TIME INDICATED:

MECHANICAL SHEET METAL	4 HOURS
PLUMBING/PIPING	4 HOURS
ELECTRICAL	4 HOURS
SPRINKLER	2 HOURS
GENERAL CONTRACTOR	ALL SESSIONS

ADDITIONAL PLUMBING NOTES

- LAVATORY FAUCETS IN PUBLIC RESTROOMS SHALL BE THE SELF-CLOSING OR SELF-CLOSING METERING TYPES.
- NON-REMOVABLE VACUUM BREAKERS SHALL BE PROVIDED AT ALL HOSE BIBBS.
- FLOOR DRAINS OR SIMILAR TRAPS DIRECTLY CONNECTED TO THE DRAINAGE SYSTEM AND SUBJECT TO INFREQUENT USE SHALL BE PROVIDED WITH AN APPROVED AUTOMATIC MEANS OF MAINTAINING THEIR WATER SEALS.
- INSULATION MATERIAL SHALL MEET THE CALIFORNIA QUALITY STANDARDS PER ENERGY EFFICIENCY STANDARDS SEC. 120.3.
- ALL PIPING SHALL BE INSULATED CONSISTENT WITH THE REQUIREMENTS OF ENERGY EFFICIENCY STANDARDS SEC. 120.3.
- SERVICE WATER HEATING SYSTEMS AND EQUIPMENT SHALL COMPLY WITH ENERGY EFFICIENCY STANDARDS SEC. 110.3.
- SWIMMING POOL AND SPA HEATING SYSTEMS AND EQUIPMENT SHALL COMPLY WITH ENERGY EFFICIENCY STANDARDS SEC. 110.4.
- BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH CPC 2019 SEC. 701.0 AND 903.0.
- ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
- CHEMICAL WASTE PIPING SHALL COMPLY WITH CPC 2019 SEC. 811.0.
- ALL STORAGE WATER HEATING EQUIPMENT SHALL BE PROVIDED WITH AN APPROVED, LISTED EXPANSION TANK OR OTHER DEVICE DESIGNED FOR INTERMITTENT OPERATION FOR THERMAL EXPANSION CONTROL PER CPC 2019 SEC. 608.3.
- WATER HEATERS SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENTS DUE TO SEISMIC MOTION PER CPC 2019 SEC. 507.2.
- MATERIALS EXPOSED WITHIN A DUCT OR PLENUM SHALL COMPLY WITH CMC 2019 SEC. 601.1.3.
- HVAC EQUIPMENT AND WATER HEATERS SHALL COMPLY WITH CMC 2019 CHAPTER 3.
- MEDIUM PRESSURE GAS PIPING SHALL BE LABELED EVERY FIVE FEET.
- BOILERS SHALL COMPLY WITH ALL THE REQUIREMENTS OF CHAPTER 10 OF CMC 2019.
- PROVIDE EXPANSION TANK FOR BOILERS PER SECTION 1005.0 CMC 2019.
- ROUTING AND TERMINATION OF FLUE FOR BOILERS SHALL COMPLY WITH CH.8, CMC 2019 AND WITH MANUFACTURERS SPECIFICATIONS.
- COMBUSTION AIR INTAKE FOR BOILERS SHALL-COMPLY WITH CH. 7, CMC 2019 AND WITH MANUFACTURERS SPECIFICATIONS.
- SHOWERS AND TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH PRESSURE BALANCE OR THERMOSTATIC MIXING VALVES PER 2019 CPC SEC. 408.3.
- PLUMBING FIXTURES AND FITTINGS SHALL COMPLY WITH ALL THE REQUIREMENTS LISTED IN TABLES 5.303.2.2 OR 5.303.2.3 AND IN TABLE 5.303.6 IN THE CALIFORNIA GREEN BUILDING STANDARDS CODE.
- CONTRACTOR SHALL PROVIDE FIRESTOPPING AT PENETRATIONS AS NECESSARY TO RETAIN THE FIRE RATING OF ALL ASSEMBLIES. ALL WORK SHALL BE IN COMPLIANCE WITH CODE REQUIREMENTS FOR THE BUILDING CONSTRUCTION TYPE.
- FLUSHING PROCEDURES AS OUTLINED IN CPC 604.1.2 SHALL BE OBSERVED ALL ALL PEX PIPING.
- NEW POTABLE WATER SYSTEM SHALL BE DISINFECTED PRIOR TO USE PER 2019 CPC SEC. 609.9.

BACKFLOW PREVENTION REQUIREMENTS:

PLUMBING CONTRACTOR SHALL PROVIDE REDUCED PRESSURE BACKFLOW PREVENTERS OR OTHER APPROVED BACKFLOW PREVENTION DEVICE WHERE REQUIRED BY HEALTH AUTHORITIES, FOOD SERVICE DRAWINGS, APPLIANCE MANUFACTURER INSTRUCTIONS AND BY CODE.

WATER PRESSURE CALCULATIONS

WATER SUPPLY PRESSURE LOSS CALCULATION AND PIPE SIZING

CHARLOTTE SDR-11 CPVC & SCH. 80 CPVC.
CALCULATIONS ARE PER 2016 CPC APPENDIX A.

UTILITY SUPPLY WATER PRESSURE: **60** PSI STATIC PRESSURE

WATER METER LOSS: **5** PSI
TYPICALLY 5 PSI

BACKFLOW PREVENTER LOSS: **10** PSI
TYPICALLY 10 PSI

TENANT SUB-METER LOSS: **5** PSI
TYPICALLY 5 PSI

STATIC LIFT: **25** FEET = **10.8** PSI

REQUIRED MINIMUM PRESSURE AT FURTHEST PLUMBING FIXTURE: **20.0** PSI

PRESSURE AVAILABLE TO OFFSET FRICTION LOSSES: **9.2** PSI

PIPING SYSTEM LENGTH FROM SERVICE TO FURTHEST FIXTURE: **300** FEET
FITTING ALLOWANCE: **100** FEET

MAXIMUM ALLOWABLE FRICTION LOSS FACTOR FOR ENTIRE SYSTEM: **2.3** PSI/100 FT

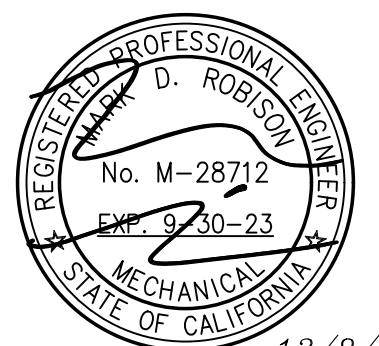
SELECTED FRICTION LOSS FACTOR: **2.0** PSI/100 FT
PER MANUFACTURER'S RECOMMENDATION MAXIMUM VELOCITY FOR CW AND HW IS 8 FPS FOR SIZES UP TO 2" AND 5 FPS FOR SIZES LARGER THAN 2"

CPVC SUPPLY PIPE SIZING SCHEDULE									
PIPE SIZE	FLUSH TANK CW			HOT WATER			FLUSH VALVE CW		
	FLOW, GPM	VEL, FPS	FIXTURE UNITS	FLOW, GPM	VEL, FPS	FIXTURE UNITS	FLOW, GPM	VEL, FPS	FIXTURE UNITS
1/2"	1.2	2.1	0.2	1.2	2.1	0.2	1.2	2.1	----
3/4"	3.3	2.6	3.3	3.3	2.6	3.3	3.3	2.6	----
1"	6.4	3.1	7.4	6.4	3.1	7.4	6.4	3.1	----
1-1/4"	10.9	3.5	14.8	10.9	3.5	14.8	10.9	3.5	----
1-1/2"	16.9	3.9	23.9	16.9	3.9	23.9	16.9	3.9	----
2"	34.2	4.6	63.6	34.2	4.6	63.6	34.2	4.6	18.4
2-1/2"	64.1	5.0	195.7	64.1	5.0	195.7	64.1	5.0	88.5
3"	100.4	5.0	382.1	100.4	5.0	382.1	100.4	5.0	247.0
4"	175.4	5.0	780.8	175.4	5.0	780.8	175.4	5.0	742.2
6"	399.1	5.0	2661.2	399.1	5.0	2661.2	399.1	5.0	2661.2



NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
4249 CHEENEY ST.
SANTA CLARA, CA 95054

REVISION	DATE
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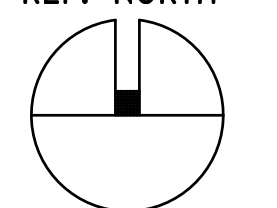


12/8/22

DATE: December 8, 2022
PROJECT No. 590-054

NOTES AND CALCULATIONS

REF. NORTH



P001

FIXTURE UNIT COUNTS

FIXTURE UNIT CALCULATIONS														
CALCULATIONS BASED ON 2019 CPC TABLES A103.1 AND 702.1.														
A UNITS														
FIXTURE	FIXTURE UNITS								TOTAL QTY OF FIXTURES	TOTAL FIXTURE UNITS				
	TOTAL	CW	HW	WV	1	2	R			SERVICE	CW ONLY	HW ONLY	WV ONLY	
LAVATORY	1	0.75	0.75	1	1	3		4	4	3	3	4		
WATER CLOSET (TANK)	2.5	2.5	0	3	1	2		3	7.5	7.5	0	9		
SHOWER	2	1.5	1.5	2		2		2	4	3	3	4		
BATHTUB	4	3	3	2		1		1	4	3	3	2		
CLOTHES WASHER	4	3	3	3	1			1	4	3	3	3		
KITCHEN SINK W/ DISHWASHER	3	1.125	2.625	2	1			1	3	1.125	2.625	2		
HOSE BIBB	2.5/1	2.5/1	0	0	1			1	2.5	2.5	0	0		
									29	23.125	14.625	24		
	TOTAL	CW	HW	WV										
UNIT A FIXTURE UNITS:	29	23.125	14.625	24										
PEAK FLOW:	19.5 GPM													
REQUIRED SERVICE SIZE IN BUILDING:	1-1/2" COPPER			3" @ 2%										
B UNITS														
FIXTURE	FIXTURE UNITS								TOTAL QTY OF FIXTURES	TOTAL FIXTURE UNITS				
	TOTAL	CW	HW	WV	1	2	R			SERVICE	CW ONLY	HW ONLY	WV ONLY	
LAVATORY	1	0.75	0.75	1	1	3		4	4	3	3	4		
WATER CLOSET (TANK)	2.5	2.5	0	3	1	2		3	7.5	7.5	0	9		
SHOWER	2	1.5	1.5	2		2		2	4	3	3	4		
BATHTUB	4	3	3	2		1		1	4	3	3	2		
CLOTHES WASHER	4	3	3	3	1			1	4	3	3	3		
KITCHEN SINK W/ DISHWASHER	3	1.125	2.625	2	1			1	3	1.125	2.625	2		
HOSE BIBB	2.5/1	2.5/1	0	0	1			1	2.5	2.5	0	0		
									29	23.125	14.625	24		
	TOTAL	CW	HW	WV										
UNIT B FIXTURE UNITS:	29	23.125	14.625	24										
PEAK FLOW:	19.5 GPM													
REQUIRED SERVICE SIZE IN BUILDING:	1-1/2" COPPER			3" @ 2%										

PLUMBING EQUIPMENT SCHEDULES

DOMESTIC WATER HEATER SCHEDULE - GAS (1)

EQUIP NO.	SERVICE	DHW FLOW RATE GPM	WEIGHT, LBS	ENERGY FACTOR	MAX GAS CONSUMPTION (BTU)	DIMENSIONS LxHxW (IN)	ELECTRICAL	BASIS OF DESIGN
WH-1	TOWNHOMES	11	64	0.96	199K	18.5x26.4x11.5	84W 120V 60HZ	RINNAI RU199IN

- NOTES:
 (1) SEE DETAIL 1, P7.00 FOR WATER HEATER PIPING DIAGRAM.
 (2) WATER HEATER RECOVERY AND POWER REQUIREMENT ARE BASED ON NON-SIMULTANEOUS OPERATION.

SUB-METER

EQUIP NO.	SERVICE	CONNECTION SIZE	DESIGN FLOW/MAX FLOW (GPM)	PRESSURE LOSS (PSI)	BASIS OF DESIGN	NOTES
CWM-1	DCW SUPPLY	3/4"	15/30	6	NEXT CENTURY M201C	1

- NOTES:
 1. ALL DOMESTIC WATER EQUIPMENT SHALL BE NSF-61 LISTED.

PIPE MATERIALS SCHEDULE (1)

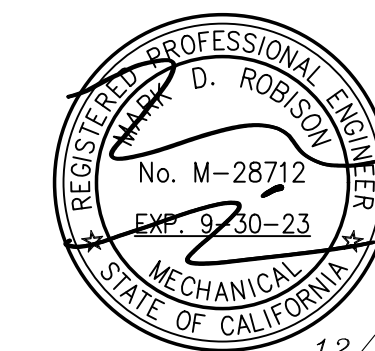
PIPE TYPE	MATERIAL	JOINT	NOTES
UNDERGROUND WATER SERVICE ENTRANCE PIPING	COPPER, TYPE K.	SOLDERED	(2)
ABOVE GROUND WATER DISTRIBUTION PIPING	PEX, CPVC	SOLVENT CEMENT	(4)
UNDERGROUND WASTE AND VENT PIPING	SCHEDULE 40 SOLID CORE PVC	SOLVENT CEMENT	
ABOVE GROUND WASTE AND VENT PIPING	CAST IRON	HUBLESS COUPLINGS	
UNDERGROUND STORM PIPING	SCHEDULE 40 SOLID CORE PVC	SOLVENT CEMENT	
ABOVE GROUND STORM PIPING	CAST IRON	HUBLESS COUPLINGS	
CONDENSATE DRAIN PIPING	COPPER, TYPE M.	SOLDERED	(3)
NATURAL GAS PIPING	STEEL PIPE, ASTM A 53; TYPE E OR S; GRADE B; SCHEDULE 40	THREADED, WELDED, OR MEGAPRESS	

- NOTES:(1) ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
 (2) PLASTIC WRAP UNDERGROUND WATER SUPPLY PIPING TO PREVENT CORROSION.
 (3) CPVC IS ACCEPTABLE FOR CONDENSATE PIPING IN LIEU OF COPPER IF APPROVED BY AHJ.
 (4) PROVIDE THERMAL EXPANSION LOOPS FOR ALL CPVC PIPING PER MANUFACTURER REQUIREMENTS.



NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
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 SANTA CLARA, CA 95054

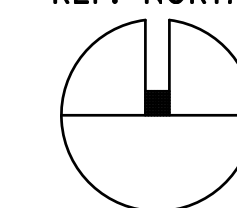
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DATE: December 8, 2022
 PROJECT No. 590-054

SCHEDULES AND CALCULATIONS

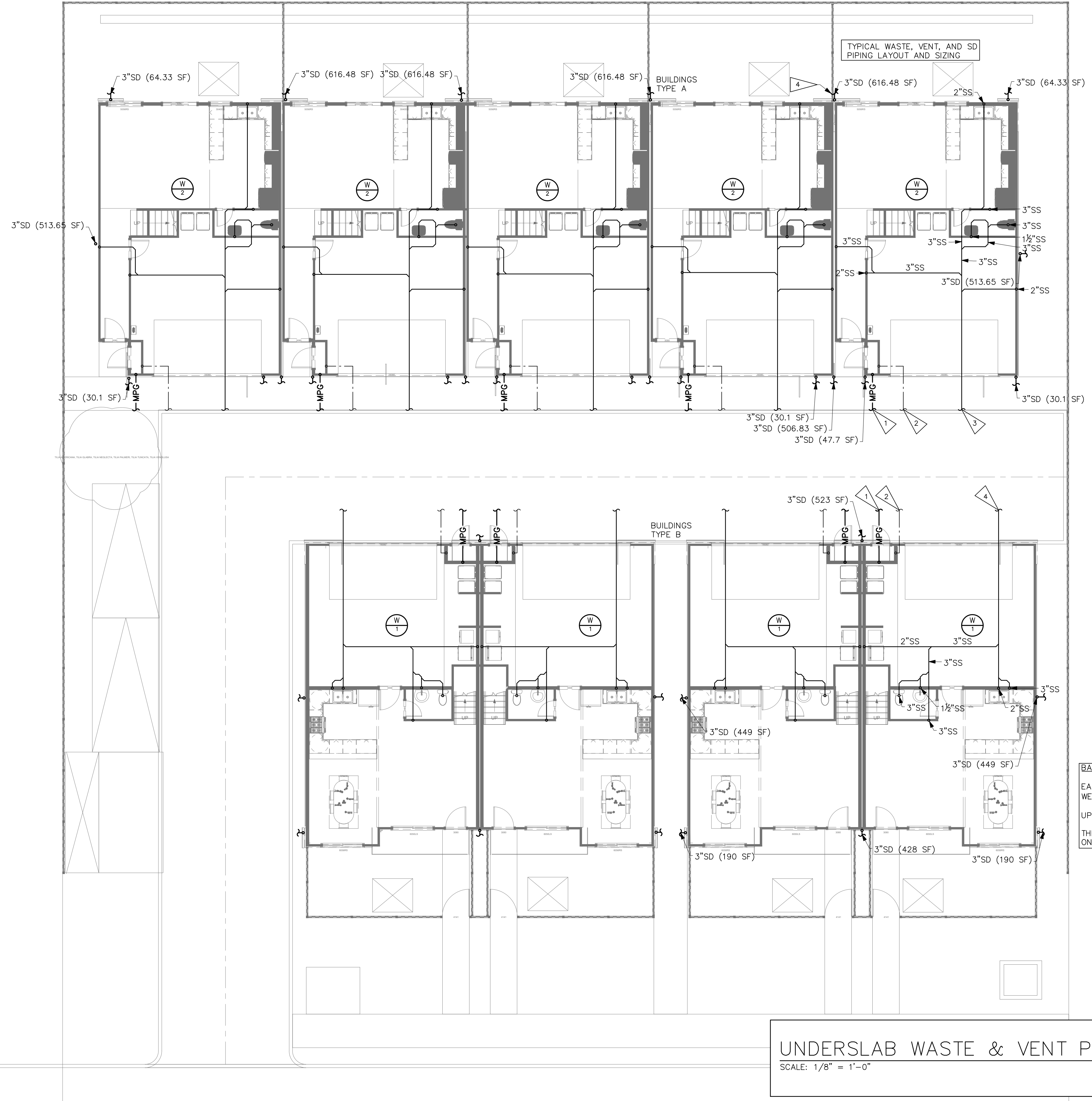
REF. NORTH



P002



NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
 4249 CHEENEY ST.
 SANTA CLARA, CA 95054



GENERAL NOTES:

(W #) = WASTE/VENT RISER IDENTIFICATION (I.E. RISER "#"). REFER TO P400 SERIES FOR RISER DETAILS AND SIZING.

1. STORM DRAIN: STORM DRAINAGE PIPING SIZED PER 2019 CPC CHAPTER 11, FOR 1.5" /HR RAINFALL RATE, AT 1/8" /FT SLOPE UNLESS NOTED OTHERWISE:

PIPE SIZE	1% HORIZONTAL	VERTICAL
3"	2,192 SF	5,866 SF
4"	5,013 SF	12,266 SF
6"	14,266 SF	36,000 SF
8"	30,666 SF	77,333 SF
10"	55,200 SF	---

2. WASTE & VENT: WASTE & VENT PIPING IS SIZED PER 2019 CPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" OR 2% UON. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO A STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL OF AHJ.

PIPE SIZE	VERT.	2% HORIZ.	VENT
1 1/2"	2 DFU	1 DFU	8 DFU
2"	16 DFU	8 DFU	24 DFU
3"	48 DFU	35 DFU	84 DFU
4"	256 DFU	172 DFU	256 DFU
6"	1,380 DFU	576 DFU	1,380 DFU
8"	3,600 DFU	2,112 DFU	3,600 DFU

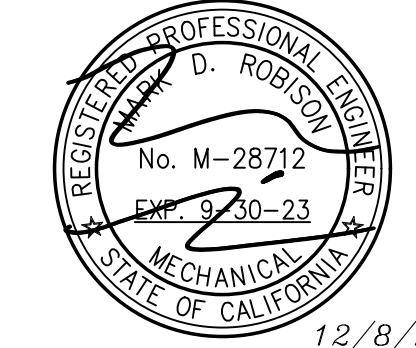
SHEET NOTES:

- 1/2"MPG POC. SEE CIVIL PLANS FOR CONT. IN JOINT TRENCH (TYP. FOR ALL TOWNHOUSES)
- 1/2"CW POC. SEE CIVIL DRAWINGS FOR CONTINUATION. (TYP. FOR ALL TOWNHOUSES.)
- 3"SS POC AT 2% SLOPE. IE = 19.739' (BASED ON 6" SOG)
- 3"SS POC AT 2% SLOPE. IE = 20.08' (BASED ON 6" SOG)
- DOWNSPOUT POC TO SITE PLAN SD PIPING. SEE CIVIL PLANS FOR CONT. (TYP. FOR ALL DOWNSPOUTS.)

BACKWATER VALVE ANALYSIS

EAST TOWNHOUSES LEVEL 1 FF = 22.26'
 WEST TOWNHOUSES LEVEL 1 FF = 22.45'
 UPSTREAM MANHOLE RIM = 20.07'
 THEREFORE, A BACKWATER VALVE IS NOT REQUIRED FOR FIXTURES ON LEVEL 1

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UNDERSLAB WASTE & VENT PLAN

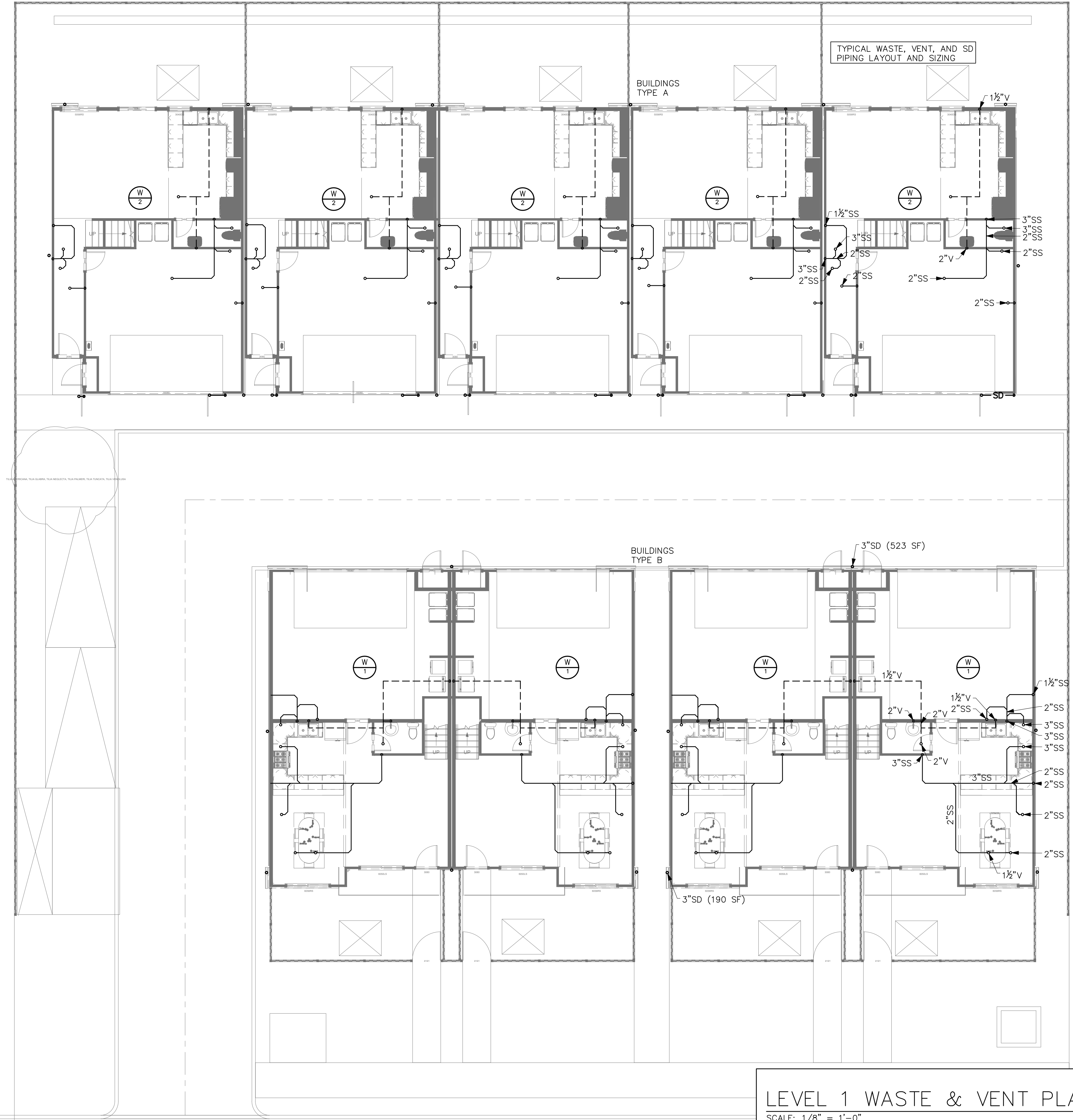
UNDERSLAB WASTE & VENT PLAN
 SCALE: 1/8" = 1'-0"

REF. NORTH

P200



NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
 4249 CHEENEY ST.
 SANTA CLARA, CA 95054



GENERAL NOTES:

(W #) = WASTE/VENT RISER IDENTIFICATION (I.E. RISER "#"). REFER TO P400 SERIES FOR RISER DETAILS AND SIZING.

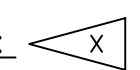
1. STORM DRAIN: STORM DRAINAGE PIPING SIZED PER 2019 CPC CHAPTER 11, FOR 1.5" /HR RAINFALL RATE, AT 1/8" /FT SLOPE UNLESS NOTED OTHERWISE:

PIPE SIZE	1% HORIZONTAL	VERTICAL
3"	2,192 SF	5,866 SF
4"	5,013 SF	12,266 SF
6"	14,266 SF	36,000 SF
8"	30,666 SF	77,333 SF
10"	55,200 SF	---

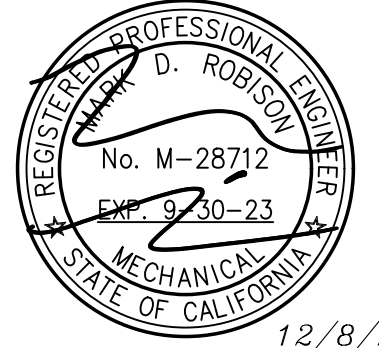
2. WASTE & VENT: WASTE & VENT PIPING IS SIZED PER 2019 CPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" OR 2% UON. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO A STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL OF AHJ.

PIPE SIZE	VERT.	2% HORIZ.	VENT
1 1/2"	2 DFU	1 DFU	8 DFU
2"	16 DFU	8 DFU	24 DFU
3"	48 DFU	35 DFU	84 DFU
4"	256 DFU	172 DFU	256 DFU
6"	1,380 DFU	576 DFU	1,380 DFU
8"	3,600 DFU	2,112 DFU	3,600 DFU

SHEET NOTES:



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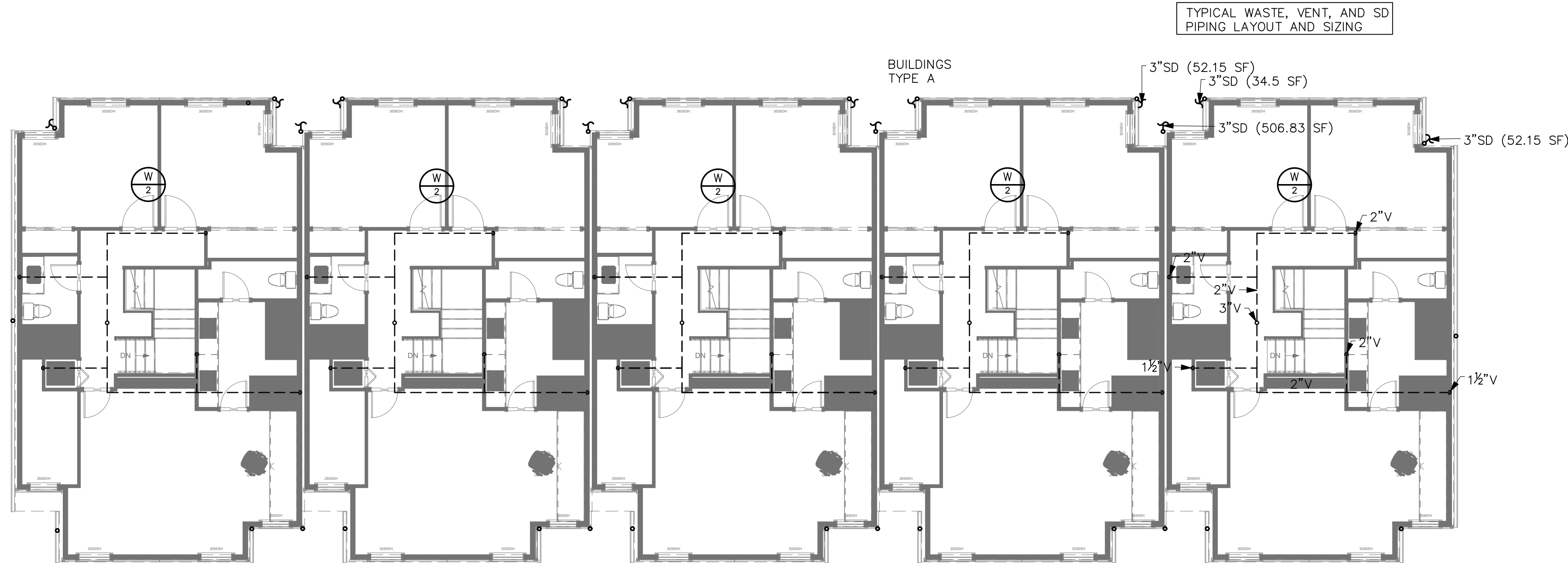
LEVEL 1 WASTE & VENT PLAN

LEVEL 1 WASTE & VENT PLAN
 SCALE: 1/8" = 1'-0"

REF. NORTH

P201

NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
 4249 CHEENEY ST.
 SANTA CLARA, CA 95054



GENERAL NOTES:

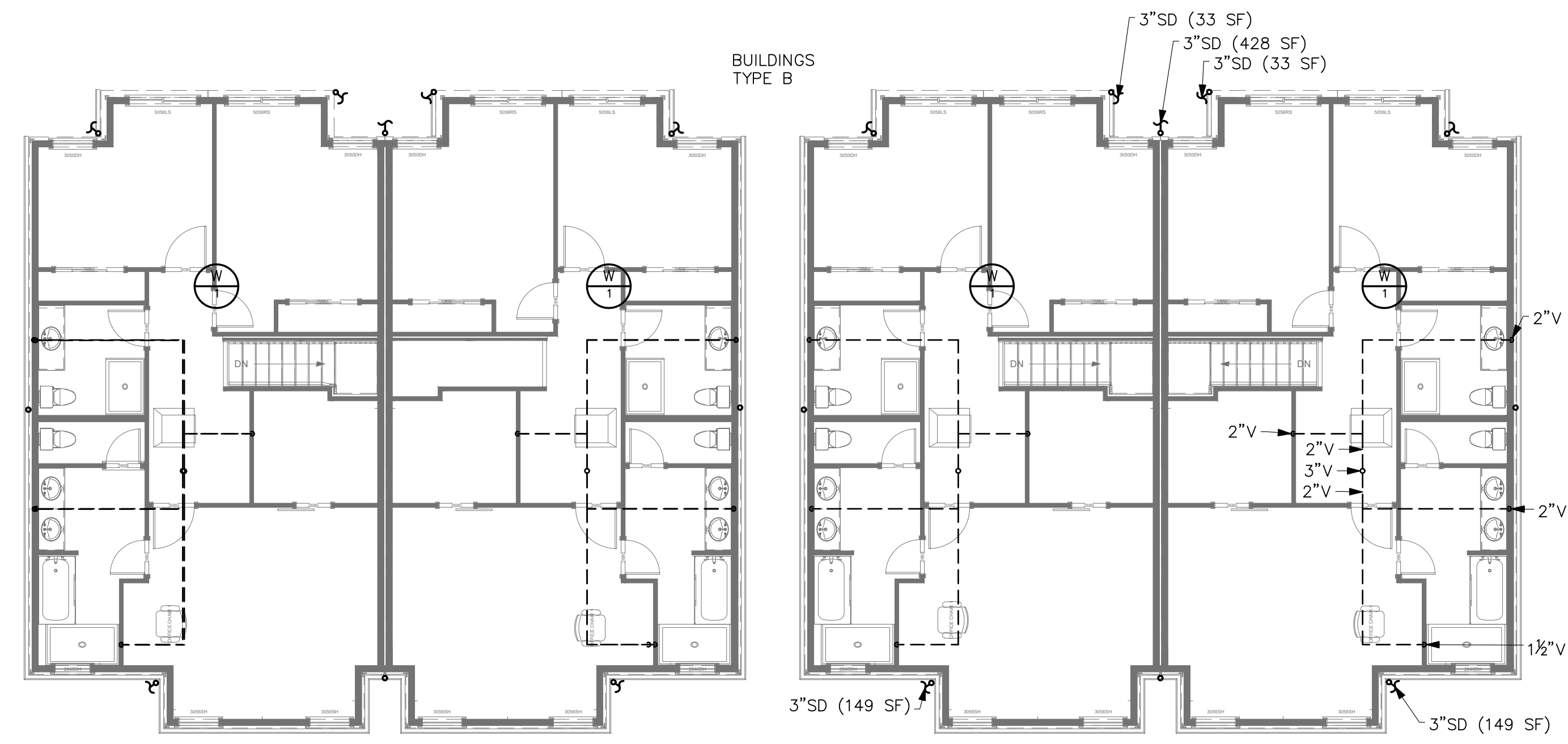
W # = WASTE/VENT RISER IDENTIFICATION (I.E. RISER "#"). REFER TO P400 SERIES FOR RISER DETAILS AND SIZING.

1. STORM DRAIN: STORM DRAINAGE PIPING SIZED PER 2019 CPC CHAPTER 11, FOR 1.5" /HR RAINFALL RATE, AT 1/8" /FT SLOPE UNLESS NOTED OTHERWISE:

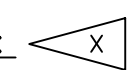
PIPE SIZE	1% HORIZONTAL	VERTICAL
3"	2,192 SF	5,866 SF
4"	5,013 SF	12,266 SF
6"	14,266 SF	36,000 SF
8"	30,666 SF	77,333 SF
10"	55,200 SF	---

2. WASTE & VENT: WASTE & VENT PIPING IS SIZED PER 2019 CPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" OR 2% UON. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO A STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL OF AHJ.

PIPE SIZE	VERT.	2% HORIZ.	VENT
1 1/2"	2 DFU	1 DFU	8 DFU
2"	16 DFU	8 DFU	24 DFU
3"	48 DFU	35 DFU	84 DFU
4"	256 DFU	172 DFU	256 DFU
6"	1,380 DFU	576 DFU	1,380 DFU
8"	3,600 DFU	2,112 DFU	3,600 DFU

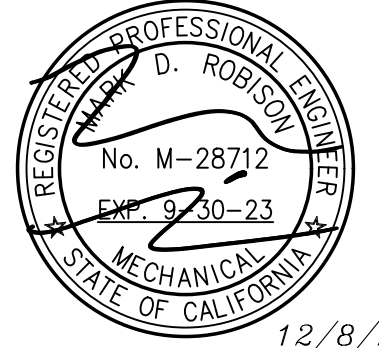


SHEET NOTES:



LEVEL 2 WASTE & VENT PLAN
 SCALE: 1/8" = 1'-0"
 0' 4' 8' 16'

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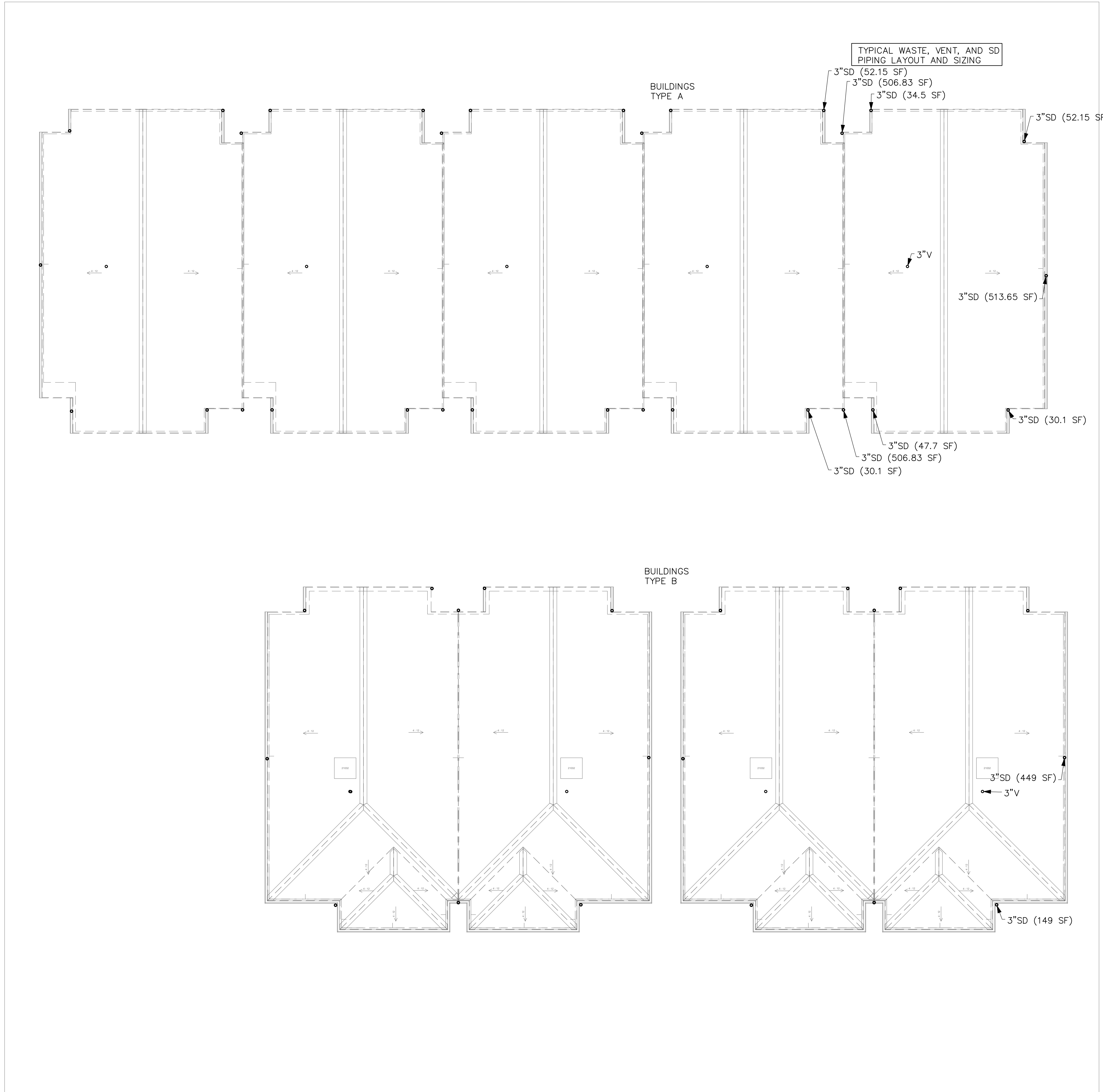
LEVEL 2 WASTE & VENT PLAN

REF. NORTH

P202



NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
 4249 CHEENEY ST.
 SANTA CLARA, CA 95054



GENERAL NOTES:

W# = WASTE/VENT RISER IDENTIFICATION (I.E. RISER "#"). REFER TO P400 SERIES FOR RISER DETAILS AND SIZING.

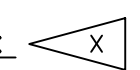
1. STORM DRAIN: STORM DRAINAGE PIPING SIZED PER 2019 CPC CHAPTER 11, FOR 1.5" /HR RAINFALL RATE, AT 1/8" /FT SLOPE UNLESS NOTED OTHERWISE:

PIPE SIZE	1% HORIZONTAL	VERTICAL
3"	2,192 SF	5,866 SF
4"	5,013 SF	12,266 SF
6"	14,266 SF	36,000 SF
8"	30,666 SF	77,333 SF
10"	55,200 SF	---

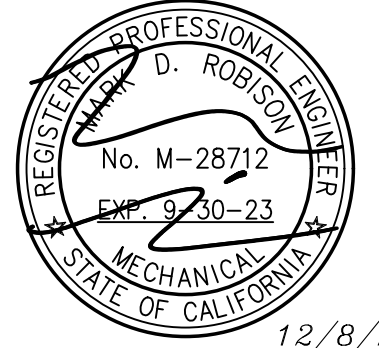
2. WASTE & VENT: WASTE & VENT PIPING IS SIZED PER 2019 CPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" OR 2% UON. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO A STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL OF AHJ.

PIPE SIZE	VERT.	2% HORIZ.	VENT
1 1/2"	2 DFU	1 DFU	8 DFU
2"	16 DFU	8 DFU	24 DFU
3"	48 DFU	35 DFU	84 DFU
4"	256 DFU	172 DFU	256 DFU
6"	1,380 DFU	576 DFU	1,380 DFU
8"	3,600 DFU	2,112 DFU	3,600 DFU

SHEET NOTES:



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ROOF PLUMBING PLAN

ROOF PLUMBING PLAN
 SCALE: 1/8" = 1'-0"

REF. NORTH

P203



NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
 4249 CHEENEY ST.
 SANTA CLARA, CA 95054



GENERAL NOTES:

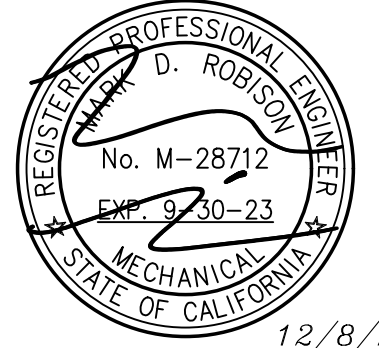
(S #) = WASTE/VENT RISER IDENTIFICATION (I.E. RISER "#"). REFER TO P400 SERIES FOR RISER DETAILS AND SIZING.

SHEET NOTES:

1. PEX MANIFOLD FOR SUPPLY PIPING. SEE DETAIL 1,P701.
2. 2" CW DOWN. PROVIDE WATER SHUTOFF VALVE (TYP.)
3. 1/2" MPG DOWN

LEVEL 1 SUPPLY PLAN
 SCALE: 1/8" = 1'-0"

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LEVEL 1 SUPPLY PLAN

REF. NORTH
P301

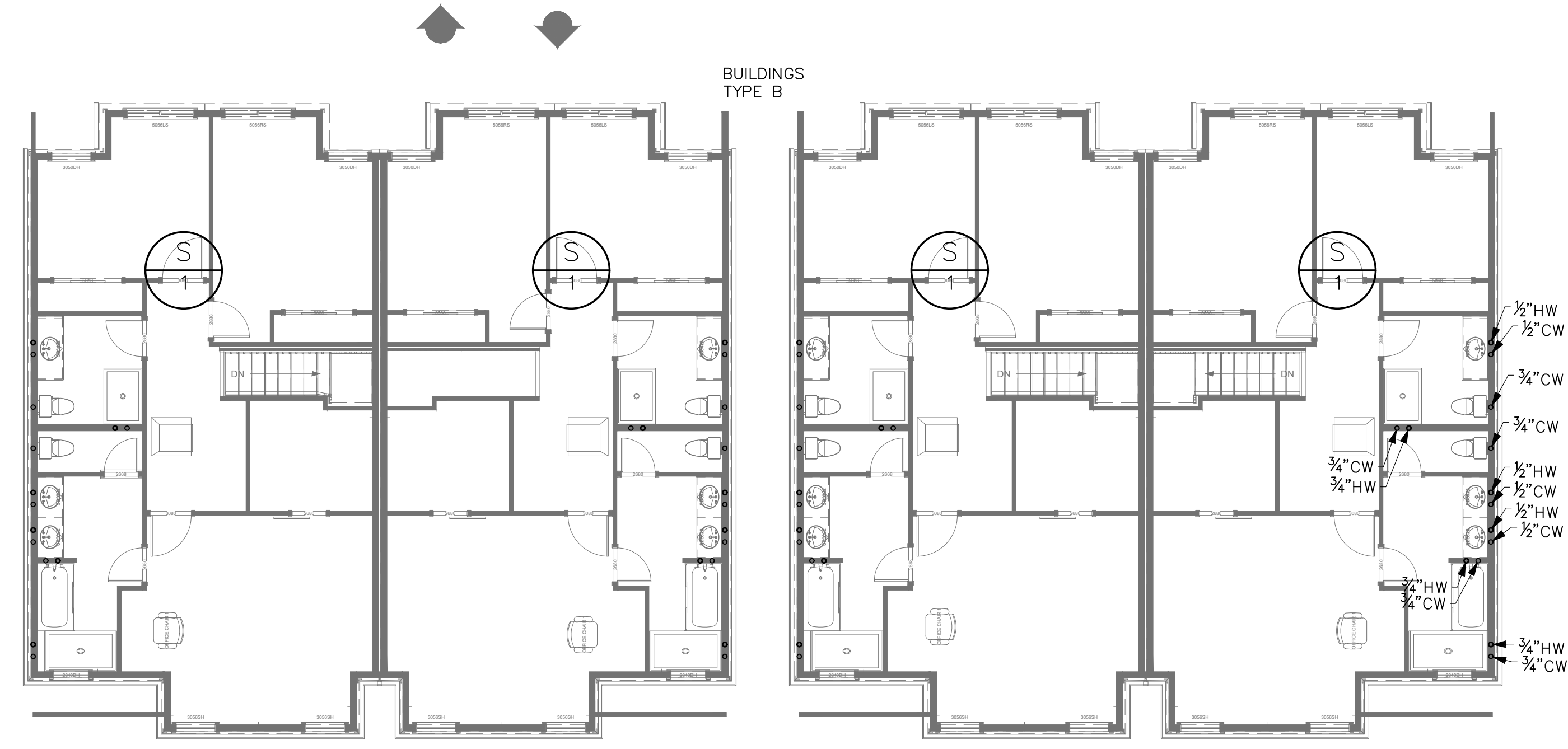
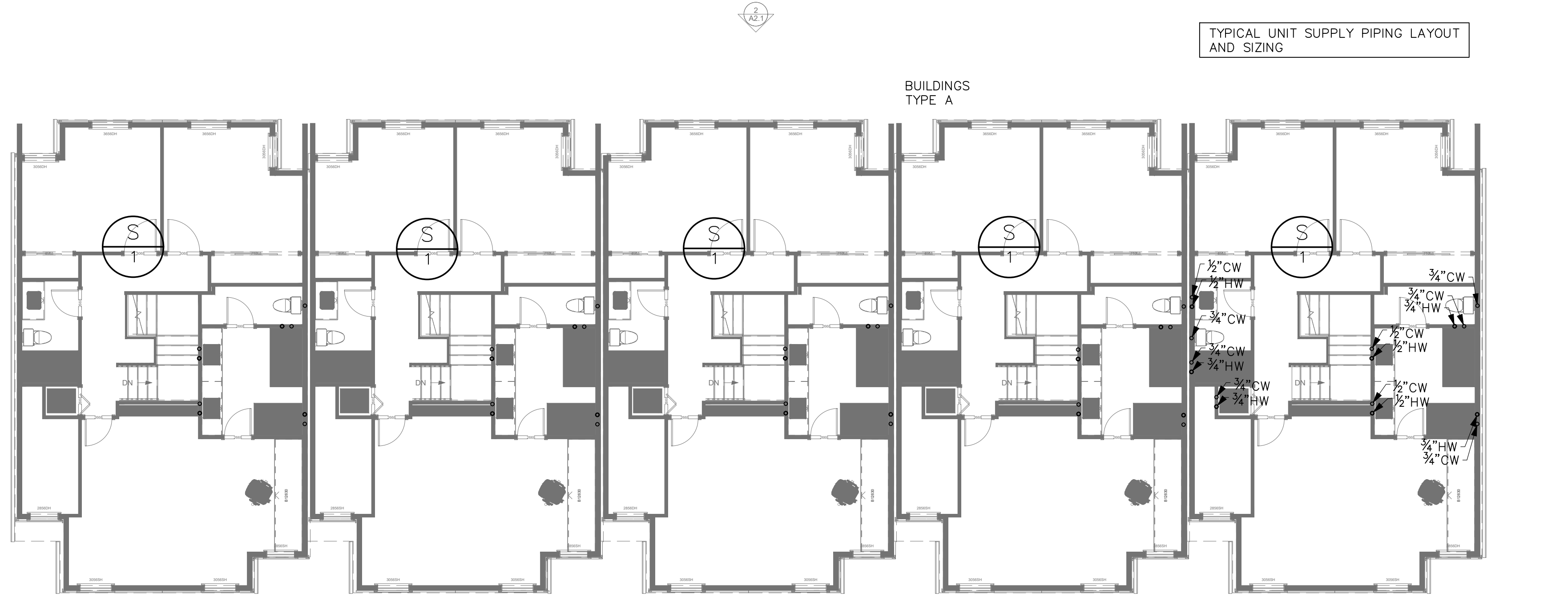
ROBISON
ENGINEERING, INC

19401 40TH AVE W., SUITE 302
LYNNWOOD, WA 98036
206-364-3343 TEL
206-364-3343 FAX
REI PROJECT NO.: 590-054
CONTACT: ARIK ESPINELLI

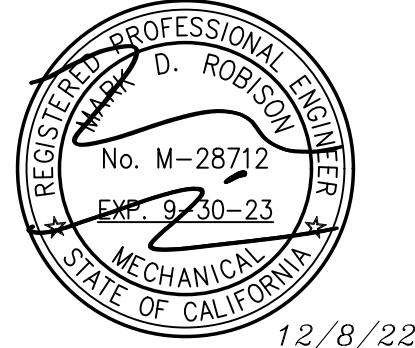
MFA
CONSTRUCTION INC.
GENERAL CONTRACTOR & ENGINEER

101 South Santa Cruz Ave., #33192
Los Gatos, CA 95030

NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
4249 CHEENEY ST.
SANTA CLARA, CA 95054



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DATE: December 8, 2022
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LEVEL 2 SUPPLY PLAN
SCALE: 1/8" = 1'-0"

LEVEL 2 SUPPLY PLAN

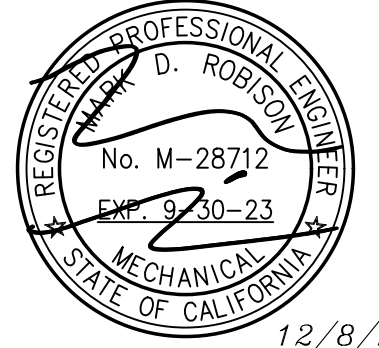
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P302



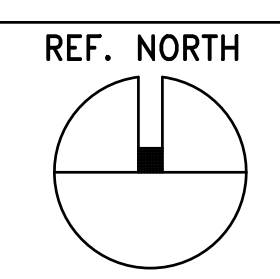
NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
 4249 CHEENEY ST.
 SANTA CLARA, CA 95054

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WASTE & VENT RISER DIAGRAM



P401

GENERAL NOTES

= WASTE RISER IDENTIFICATION (I.E. RISER "#")

1. WASTE & VENT SIZING: WASTE & VENT PIPING SIZED PER 2019 CPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" PER FOOT OR 2% WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO STRUCTURAL FEATURES OF THE BUILDING, DRAINAGE PIPING MAY BE SLOPED AT 1/8" PER FOOT OR 1%.

PIPE SIZE	VERTICAL	2% HORIZONTAL	VENT
1 1/2"	2 DFU	1 DFU	8 DFU
2"	16 DFU	8 DFU	24 DFU
3"	48 DFU	35 DFU	84 DFU
4"	256 DFU	216 DFU	256 DFU
6"	1,380 DFU	720 DFU	1,380 DFU
8"	3,600 DFU	2,640 DFU	3,600 DFU

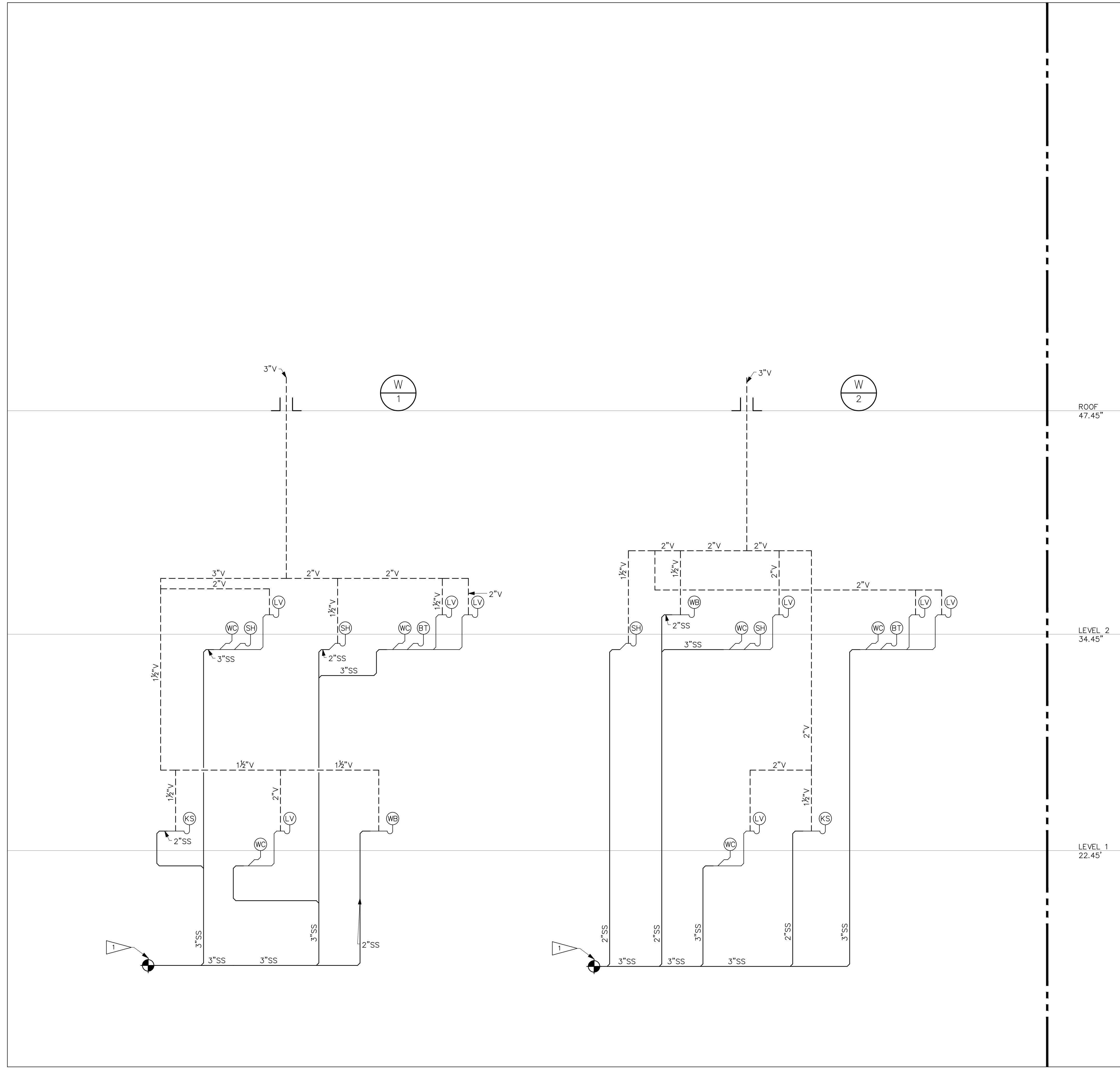
DRAINAGE FIXTURE UNIT (DFU) VALUES		
BASED ON 2019 CPC TABLE 702.1		
FIXTURES	MIN TRAP ARM SIZE(IN)	DFU
BATHTUB (TUB)	2	2
SHOWER (SH)	2	2
WATER CLOSET (WC)	3	3
LAVATORY (LAV)	2	1
CLOTHES WASHER (WB)	2	3
KITCHEN SINK (KS)	2	2

NOTES:
 (1) ONLY 4 WATER CLOSETS ALLOWED ON A 3" VERTICAL STACK, AND NOT TO EXCEED 3 WATER CLOSETS ON A 3" HORIZONTAL BRANCH/DRAIN.

SHEET NOTES

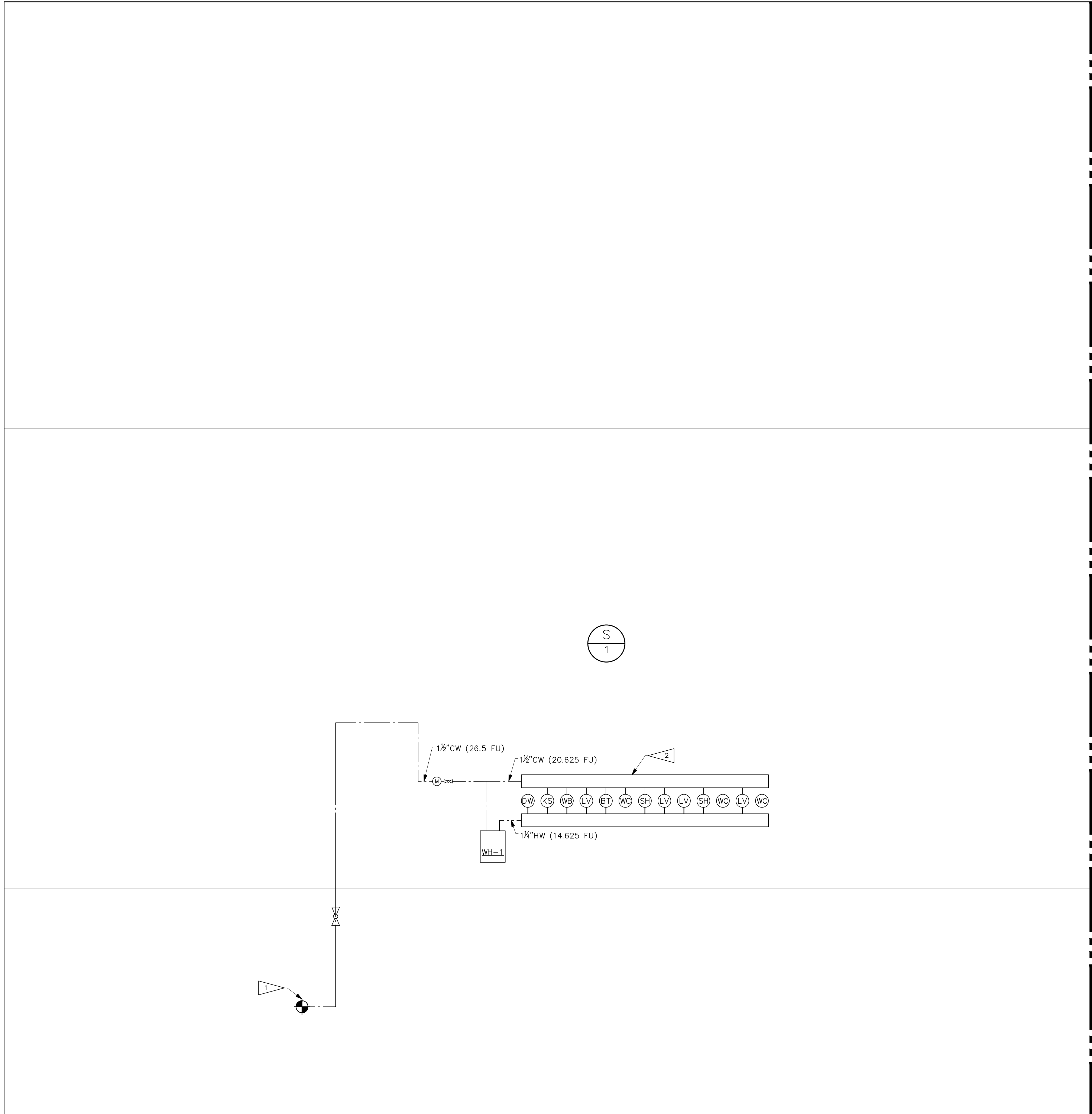
1. 3"SS POC AT 2% SLOPE. SEE CIVIL DRAWINGS FOR CONTINUATION.

BACKWATER VALVE ANALYSIS:
 EAST TOWNHOUSES LEVEL 1 FF = 22.26'
 WEST TOWNHOUSES LEVEL 1 FF = 22.45'
 UPSTREAM MANHOLE RIM = 20.07'
 THEREFORE, A BACKWATER VALVE IS NOT REQUIRED FOR FIXTURES ON LEVEL 1



WASTE & VENT
 RISER DIAGRAM

SCALE: NONE



GENERAL NOTES

= DOMESTIC WATER SUPPLY RISER IDENTIFICATION (I.E. RISER "#")

LEGEND:
 LAV = LAVATORY - 1 WSFU (0.75 CW/HW)
 WC = WATER CLOSET - 2.5 WSFU (CW)
 BT = BATHTUB 4 WSFU (3 CW/HW)
 SH = SHOWER 2 WSFU (1.5 CW/HW)
 WB = WASHER BOX 4 WSFU (3 CW/HW)
 KS = KITCHEN SINK W/ DISHWASHER 3 WSFU (1.125 CW 2.625 HW)
 HB = HOSEBIB - 2.5 WSFU (CW ONLY, OR CW/HW)
 WM = WATER METER

SHEET NOTES

1. 1 1/2" CW POC. SEE CIVIL DRAWINGS FOR CONTINUATION.
2. PEX MANIFOLD TO FEED FIXTURES ON SECOND FLOOR PER FLOOR PLANS P3XX. SEE DWG 1,P701 FOR MANIFOLD DETAIL

SUPPLY RISER DIAGRAM

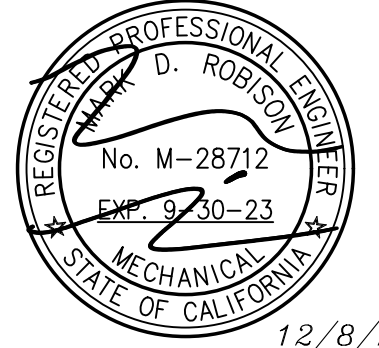
SCALE: NONE

ROBISON ENGINEERING, INC
 19401 40TH AVE W., SUITE 302
 LYNNWOOD, WA 98036
 206-364-3343 TEL
 REI PROJECT NO.: 590-054
 CONTACT: ARIK ESPINELLI

MFA CONSTRUCTION INC.
 GENERAL CONTRACTOR & ENGINEER
 101 South Santa Cruz Ave., #33192
 Los Gatos, CA 95030

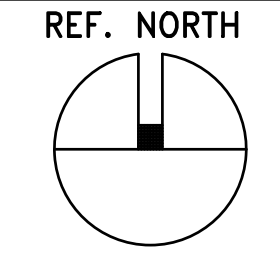
NEW DEVELOPMENT:
CHEENEY ST TOWNHOUSES
 4249 CHEENEY ST.
 SANTA CLARA, CA 95054

REVISION	DATE
1	
2	
3	

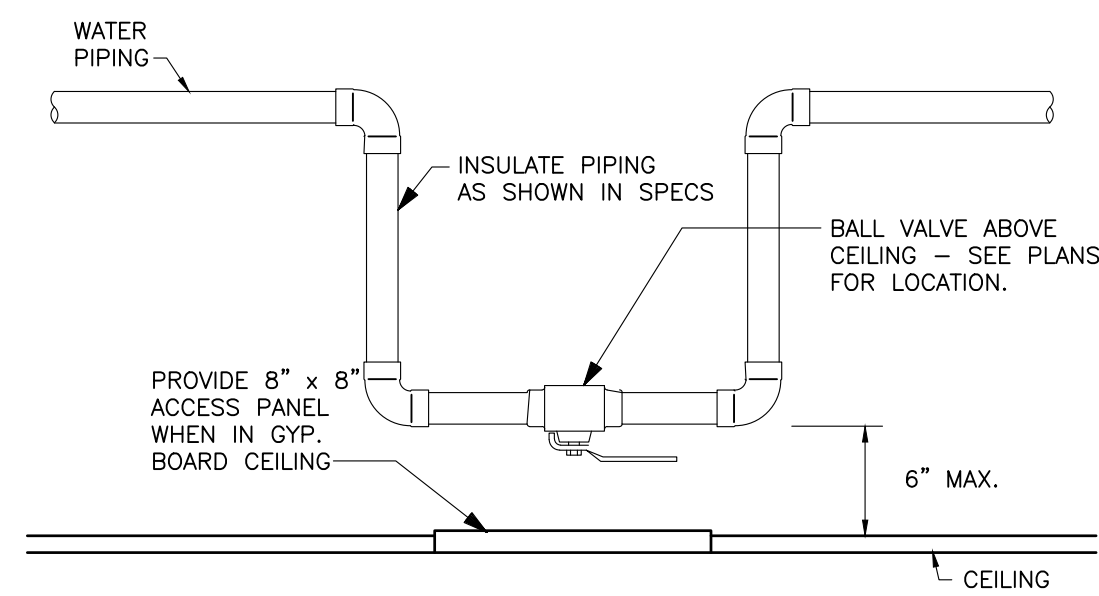


DATE: December 8, 2022
 PROJECT No. 590-054

SUPPLY RISER DIAGRAM



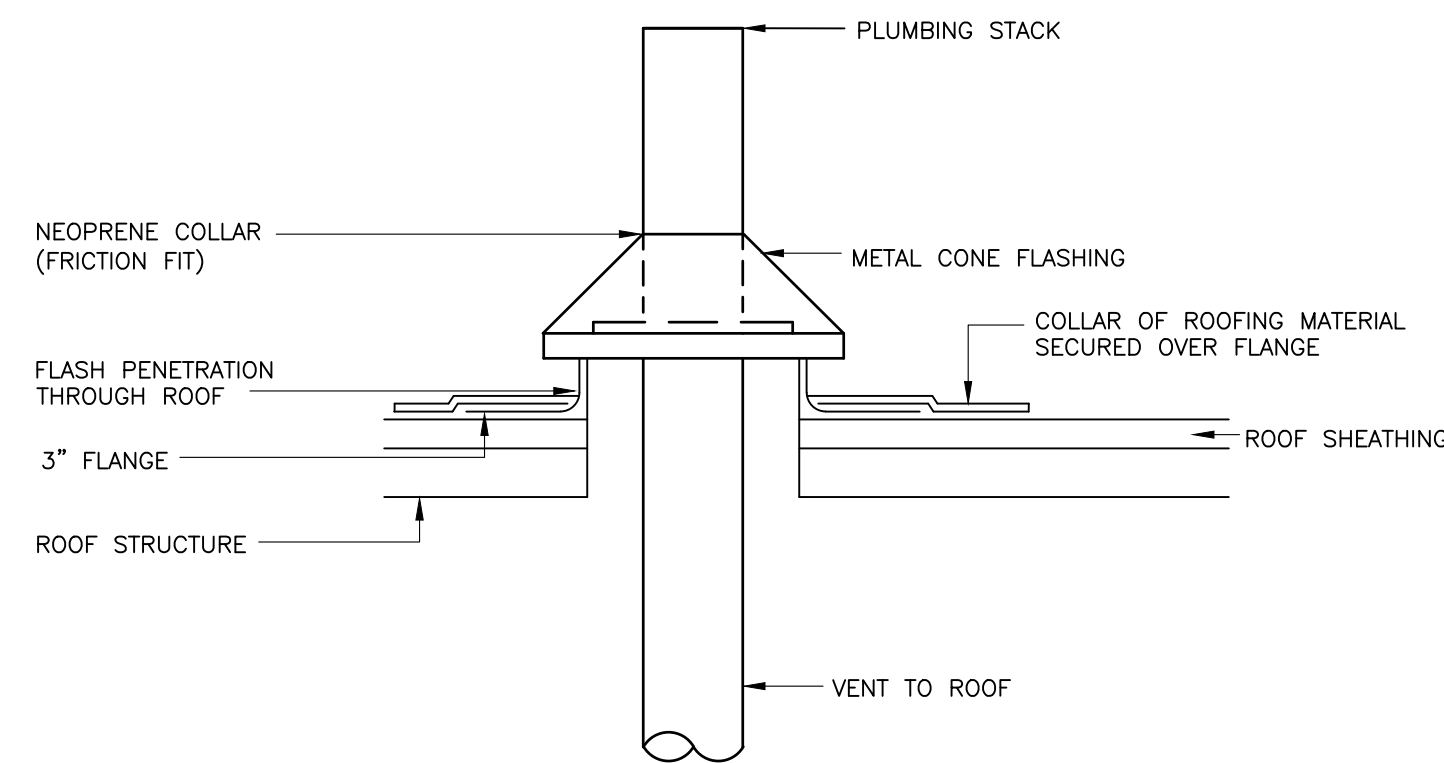
P501



TYPICAL VALVE PLACEMENT

SCALE: NONE

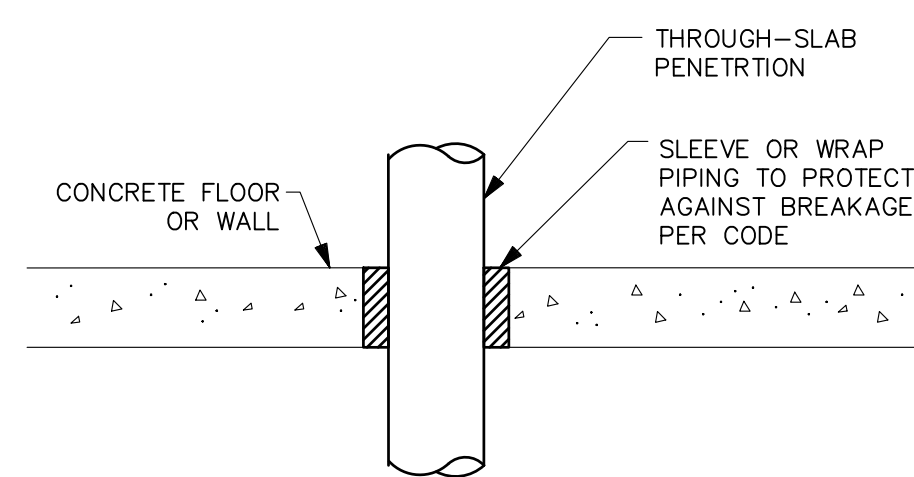
7



VENT THROUGH ROOF

SCALE: NONE

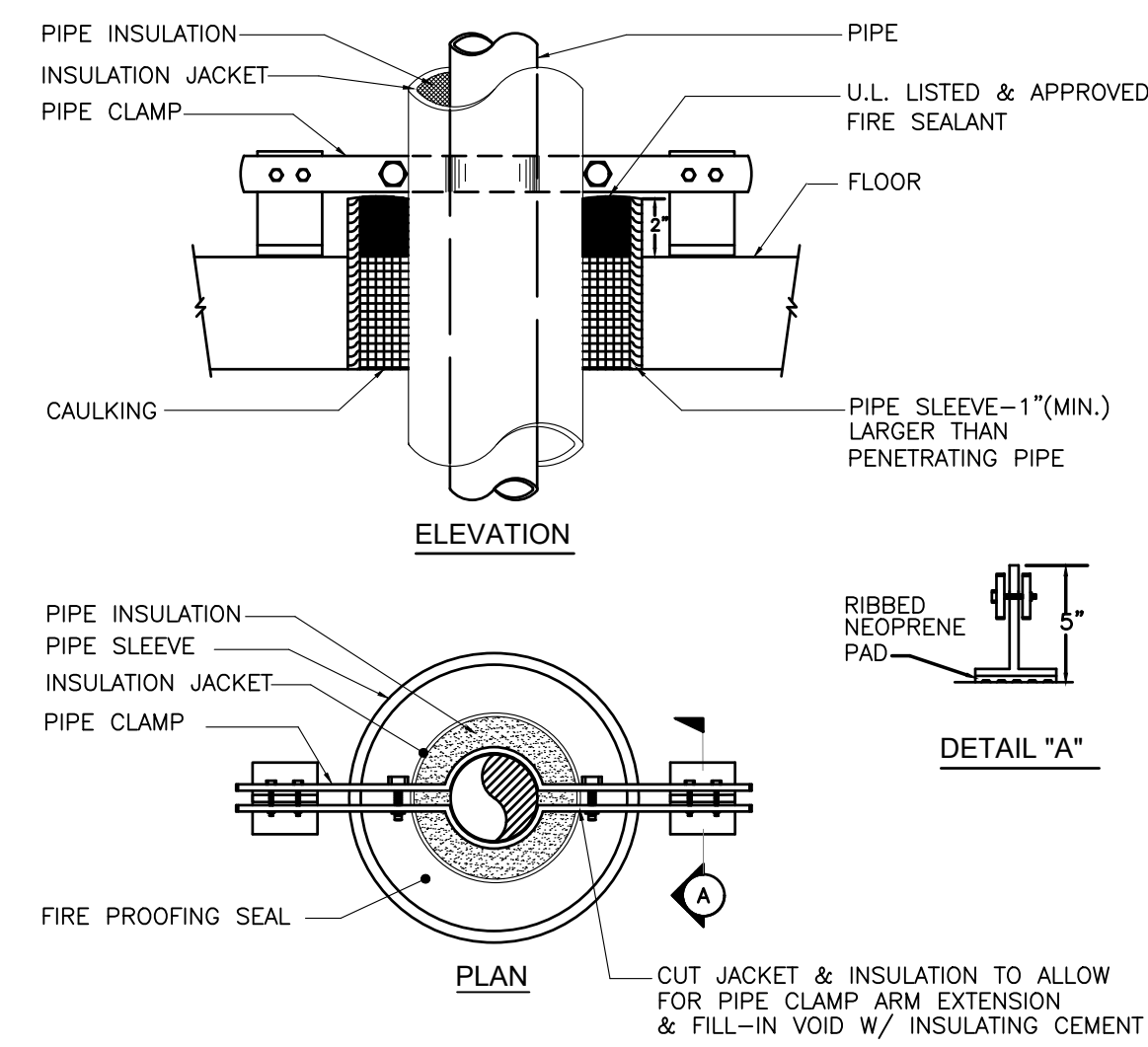
6



PIPE SLAB PENETRATION

SCALE: NONE

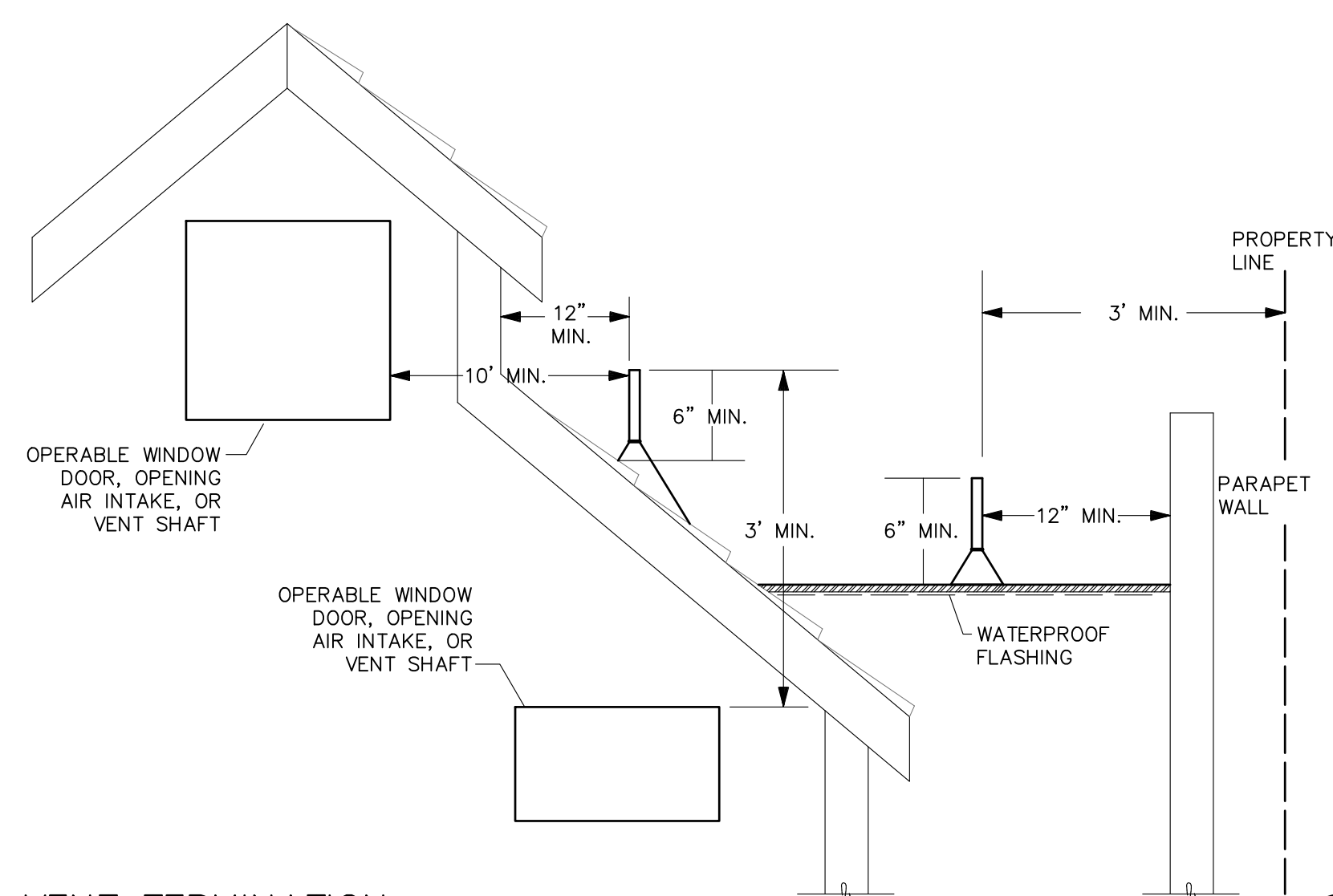
5



RISER PIPE SUPPORT

SCALE: NONE

4



VENT TERMINATION

SCALE: NONE

2

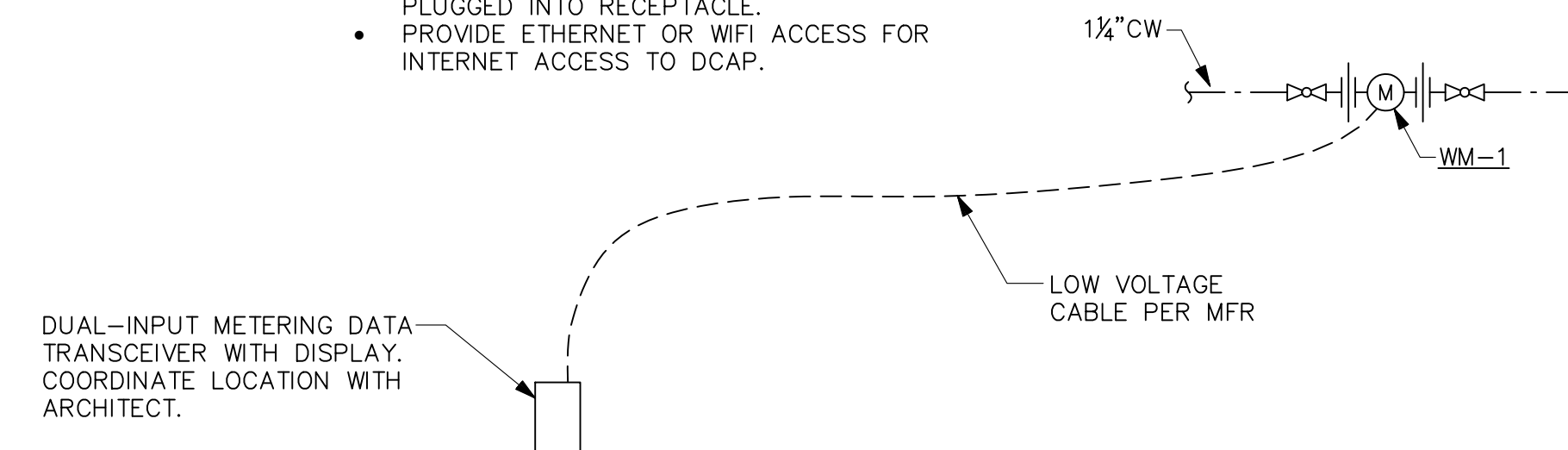
EQUIPMENT SCHEDULE

WATER METER (NEXT CENTURY MULTI-JET WATER METER MODEL M201C, 3/4").

TRANSCEIVER: WIRELESS METERING DATA TRANSCEIVER DUAL INPUT WITH DISPLAY, WITH BATTERIES. TEHAMA WIRELESS MODEL TW-165A-PP.

WIRELESS REPEATERS: TEHAMA COMPATIBLE REPEATERS; QUANTITY TWO. TEHAMA WIRELESS TW-191X.

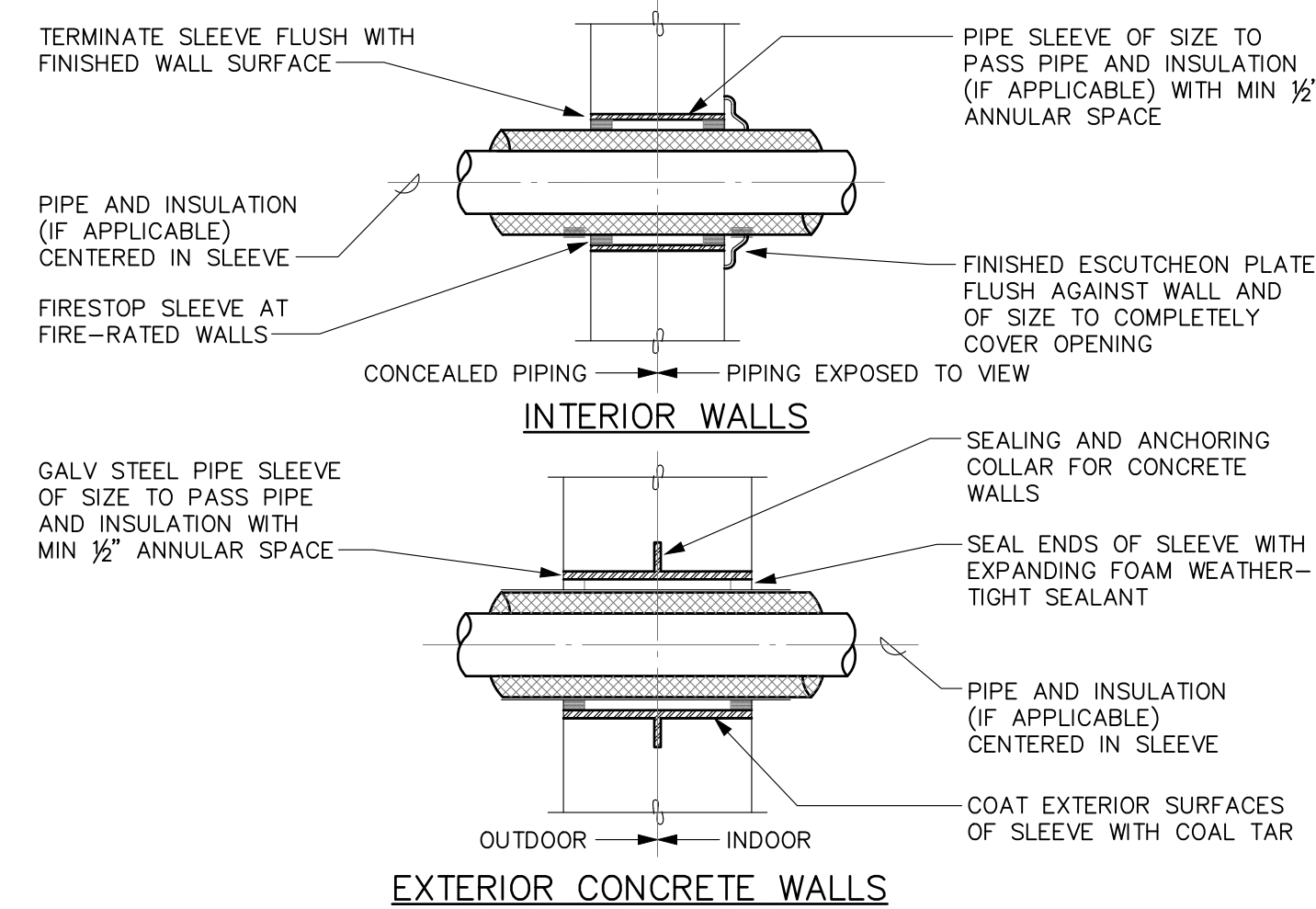
UDATA CONCENTRATING ACCESS POINT (DCAP): TEHAMA WIRELESS TW-203X-T-150.
 • DCAP TO BE INSTALLED ON MAIN COMM/DATA BOARD AND POWER SUPPLY PLUGGED INTO RECEPTACLE.
 • PROVIDE ETHERNET OR WIFI ACCESS FOR INTERNET ACCESS TO DCAP.



WATER SUB-METER

SCALE: NONE

3



PIPE SLEEVES THROUGH WALLS

SCALE: NONE

1



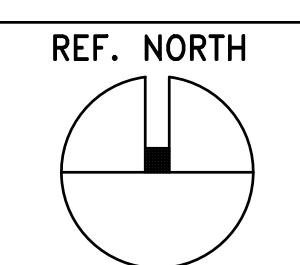
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3	



DATE: December 8, 2022
 PROJECT No. 590-054

DETAILS

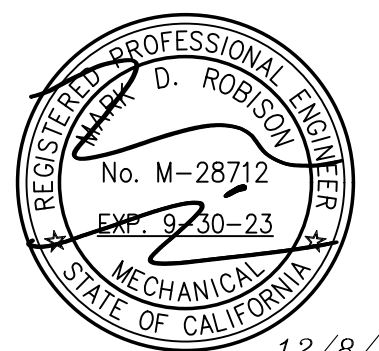


P700



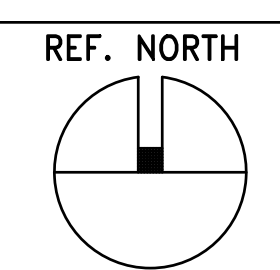
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DETAILS



P701

