

SD1.0

	PROPERTY LINE		EX TREE		BUILDING TO BE DEMOLISHED
	ADJACENT PROPERTY LINE		EX SANITARY SEWER MANHOLE		PAVEMENT TO BE DEMOLISHED
	EX FENCE		EX COMMUNICATIONS MANHOLE		TRT PROTECTION ZONE
	EX SANITARY SEWER LINE		EX WATER VALVE		SEE NOTE 4
	EX STORM DRAIN LINE		EX STREET LIGHT		
	EX DOMESTIC WATER LINE		EX SIGN		
	EX COMMUNICATIONS LINE				
	EX ELECTRIC LINE				
	EX OVERHEAD LINE				
	EX GAS LINE				

1. DEACTIVATION AND REMOVAL OF GAS AND ELECTRIC LINES TO BE COORDINATED WITH CPAU PRIOR TO DEMOLITION.
2. SERVICE DISCONNECTION REQUIREMENT: WATER, GAS, AND ELECTRIC SERVICES AND METERS MUST BE DISCONNECTED WHENEVER A CONTRACTOR IS PLANNING FOR COMPLETE/PARTIAL BUILDING DEMOLITION OR ANY EXCAVATION. WHERE TO APPLY FOR SERVICE DISCONNECTION: THE APPLICANT SHALL FIRST SUBMIT AN "APPLICATION FOR UTILITIES DISCONNECTION PRIOR TO BUILDING DEMOLITION/REMODELING" INCLUDING A SIGNED "DECLARATION CONCERNING TENANCY OF BUILDING" TO CITY OF PALO ALTO UTILITIES CUSTOMER SERVICE CENTER 250 HAMILTON AVE. (CITY HALL) GROUND FLOOR, PALO ALTO, CA 94301. TELEPHONE (650) 329-2161. FORMS ARE AVAILABLE ONLINE.
3. BENCHMARK STATEMENT: THE ELEVATIONS SHOWN ON THIS SURVEY ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), U.S. SURVEY FEET, PER A LEVEL LOOP PERFORMED BY BKF ON JANUARY 23, 2021 FROM CITY OF PALO ALTO BENCHMARK NO. 2189, A CHISELED SQUARE AT THE NORTHWESTERLY CORNER OF THE NORTHEAST CURB RETURN AT THE INTERSECTION OF BYRON STREET AND HAMILTON AVENUE, HAVING A PUBLISHED ELEVATION OF 40.73' (NGVD 29), AND APPLYING A CONVERSION FACTOR (FROM NGVD 29 TO NAVD 88) OF +2.75 FEET AS DIRECTED BY THE CITY OF PALO ALTO. ELEVATION = 43.48'
4. CONTRACTOR TO COMPLY WITH RECOMMENDATIONS PRESENTED IN ARBORIST REPORT BY ARBOR RESOURCES DATED DECEMBER 20, 2023, AND ON SHEET T-1. CONTRACTOR TO CONTACT PROJECT MANAGER PRIOR TO WORK BEING PERFORMED WITHIN A TREE PROTECTION ZONE.
5. ABANDON ANY UNDERGROUND PORTIONS OF UTILITY PIPES AND STRUCTURES WITHIN A TREE PROTECTION ZONE. CUT OFF AT EXISTING SOIL GRADE TO AVOID CAUSING ROOT DAMAGE. SEE ARBORIST REPORT FOR MORE INFORMATION.





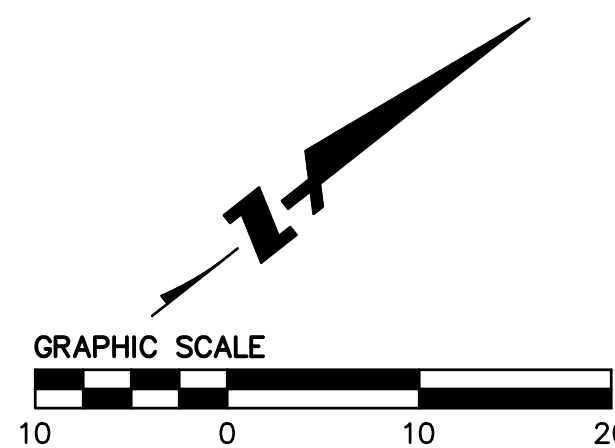
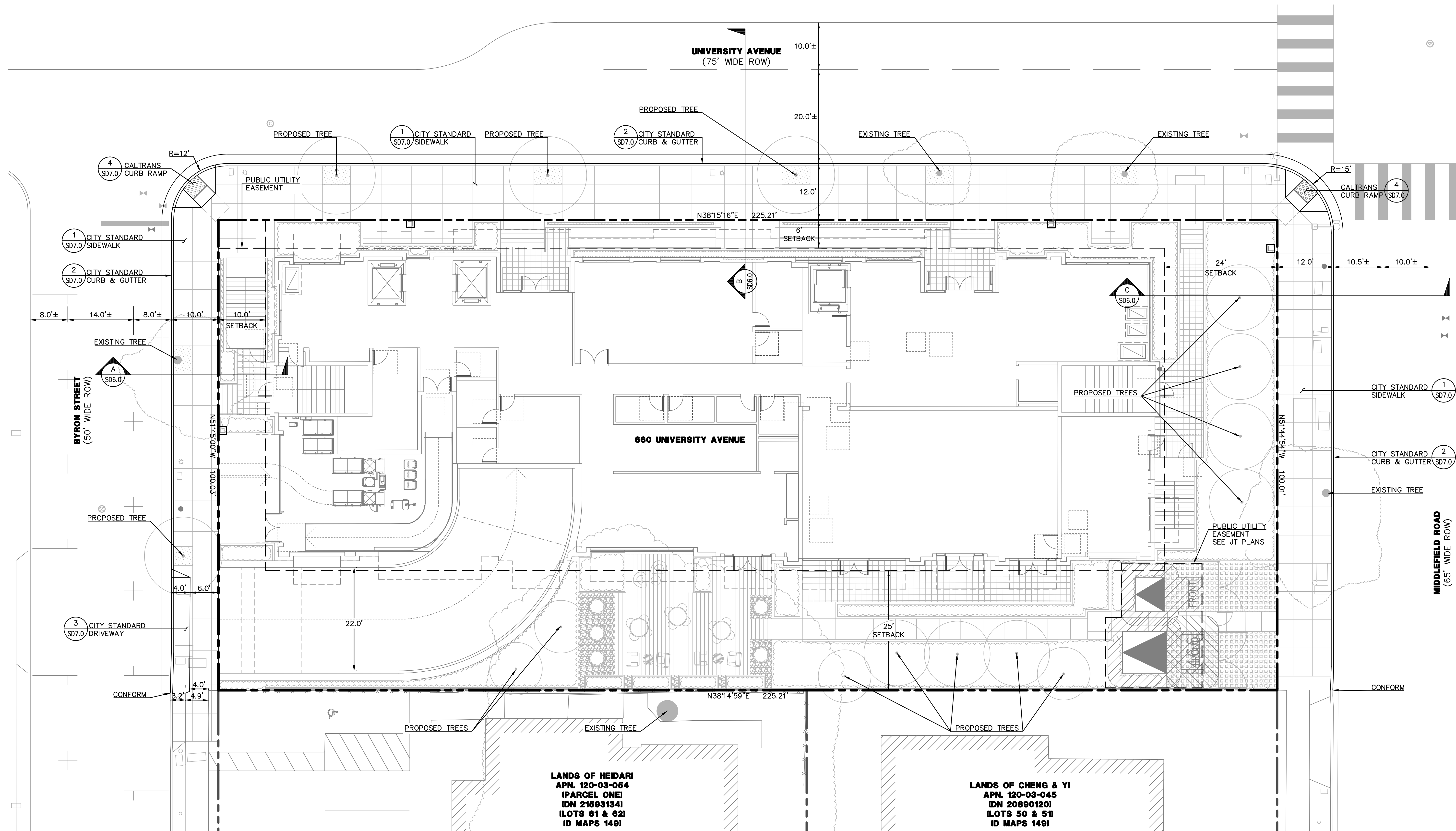
660 UNIVERSITY AVENUE SITE PLAN

Revisions		No.	Date
PLANNING RESUBMITTAL #6	12.22.2023	5	10/31/2023
PLANNING RESUBMITTAL #7	05.02.2024	6	1" = 10'
PLANNING RESUBMITTAL #8	09.30.2024	7	MS
PLANNING RESUBMITTAL #9	01.17.2025	8	TKI
PLANNING RESUBMITTAL #10	06.20.2025	9	TRM

Drawing Number:

SD2.0

DRAWING NAME: \\bkf-rs\vol4\2021\212113_660_University_Ave\ENG\SD\SD2.0-Site_Plan.dwg
PLOT DATE: 06-17-25 PLOTTED BY: swallistru



- LEGEND:**

TC X.X X EXISTING GRADE

FL X.X X PROPOSED GRADE

----- GRADE BREAK
- ABBREVIATIONS:**

BFE BASE FLOOD ELEVATION

BOW BOTTOM OF WALL

BS BOTTOM OF STEP

BW BACK OF WALK

EG EXISTING GRADE

FF FINISHED FLOOR

FG FINISHED GRADE

FL FLOW LINE

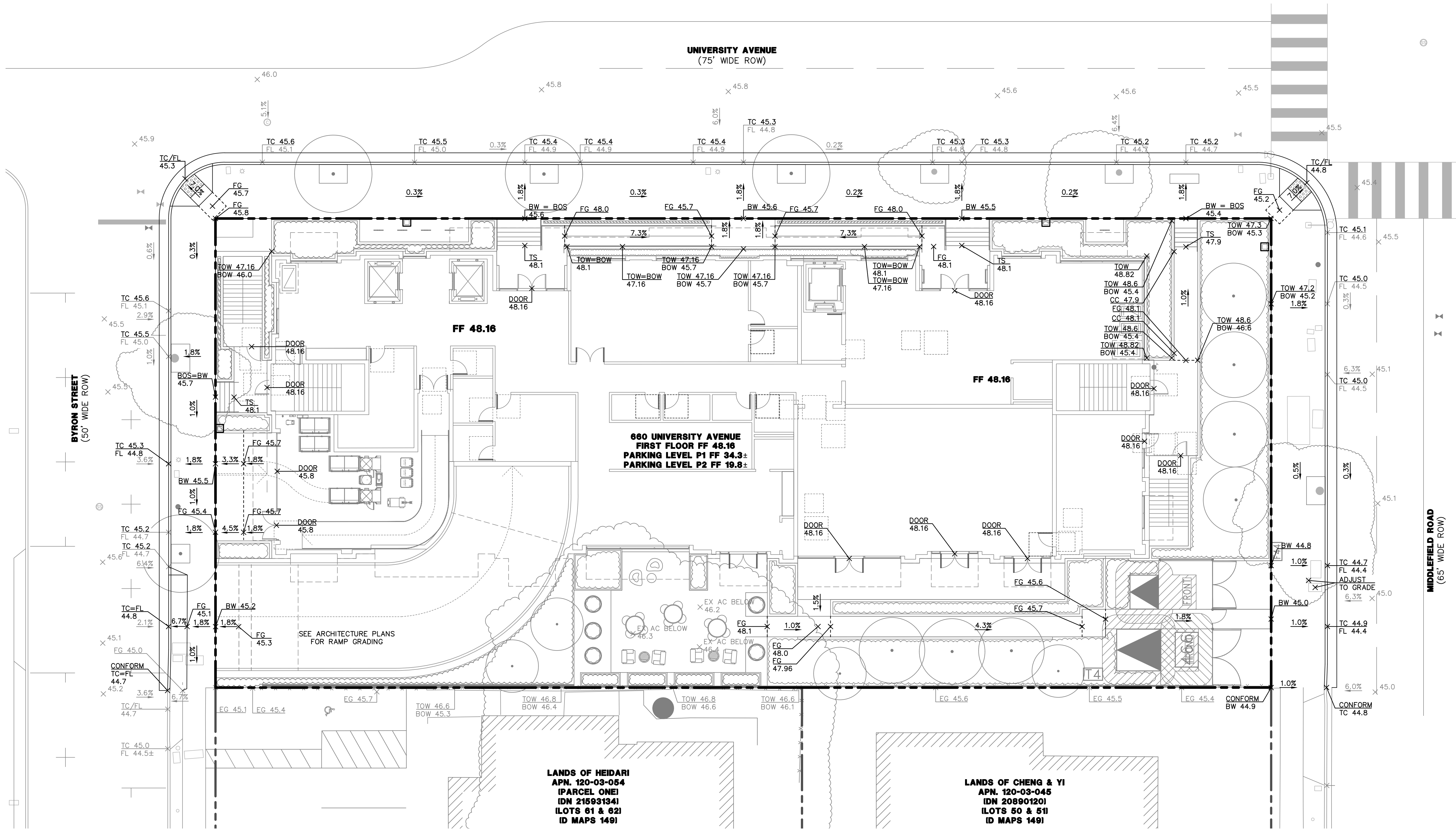
GD GROUND

TC TOP OF CURB

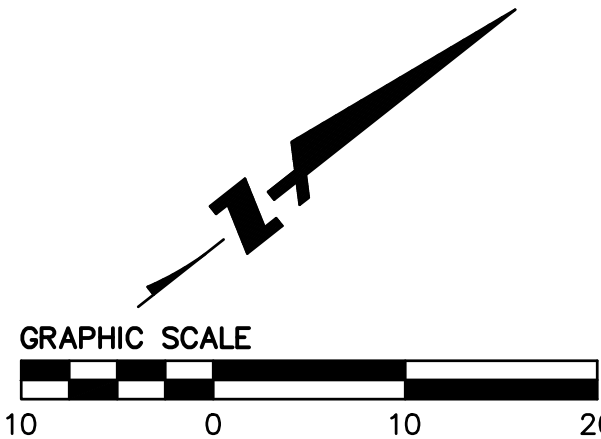
TOW TOP OF WALL

TS TOP OF STEP
- NOTE:**

1. BASE FLOOD ELEVATION (BFE) FOR PROJECT SITE IS 47. PROPOSED FINISHED FLOOR IS 1 FOOT ABOVE BFE, PLUS APPROXIMATELY 2 INCHES TO ACCOUNT FOR CONSTRUCTION TOLERANCE.



DRAWING NAME: \\bkf-rs\vol4\2021\212113_660 University Ave\ENG\SD\SD3.0-Grading_Plan.dwg
PLOT DATE: 06-17-25
PLOT BY: swallstrum



660 UNIVERSITY AVENUE
GRADING PLAN

CALIFORNIA

SANTA CLARA COUNTY

CITY OF PALO ALTO

Revisions		No.	Date
PLANNING RESUBMITTAL #6	12.22.2023	5	10/31/2023
PLANNING RESUBMITTAL #7	05.02.2024	6	11/15/2023
PLANNING RESUBMITTAL #8	09.30.2024	7	01/17/2025
PLANNING RESUBMITTAL #9	01.17.2025	8	06.20.2025
PLANNING RESUBMITTAL #10	06.20.2025	9	

Drawing Number:
SD3.0

255 SHORELINE DRIVE
SUITE 200
SAN JOSE, CA 94065
(408) 433-6300
www.bkf.com



LEGEND:

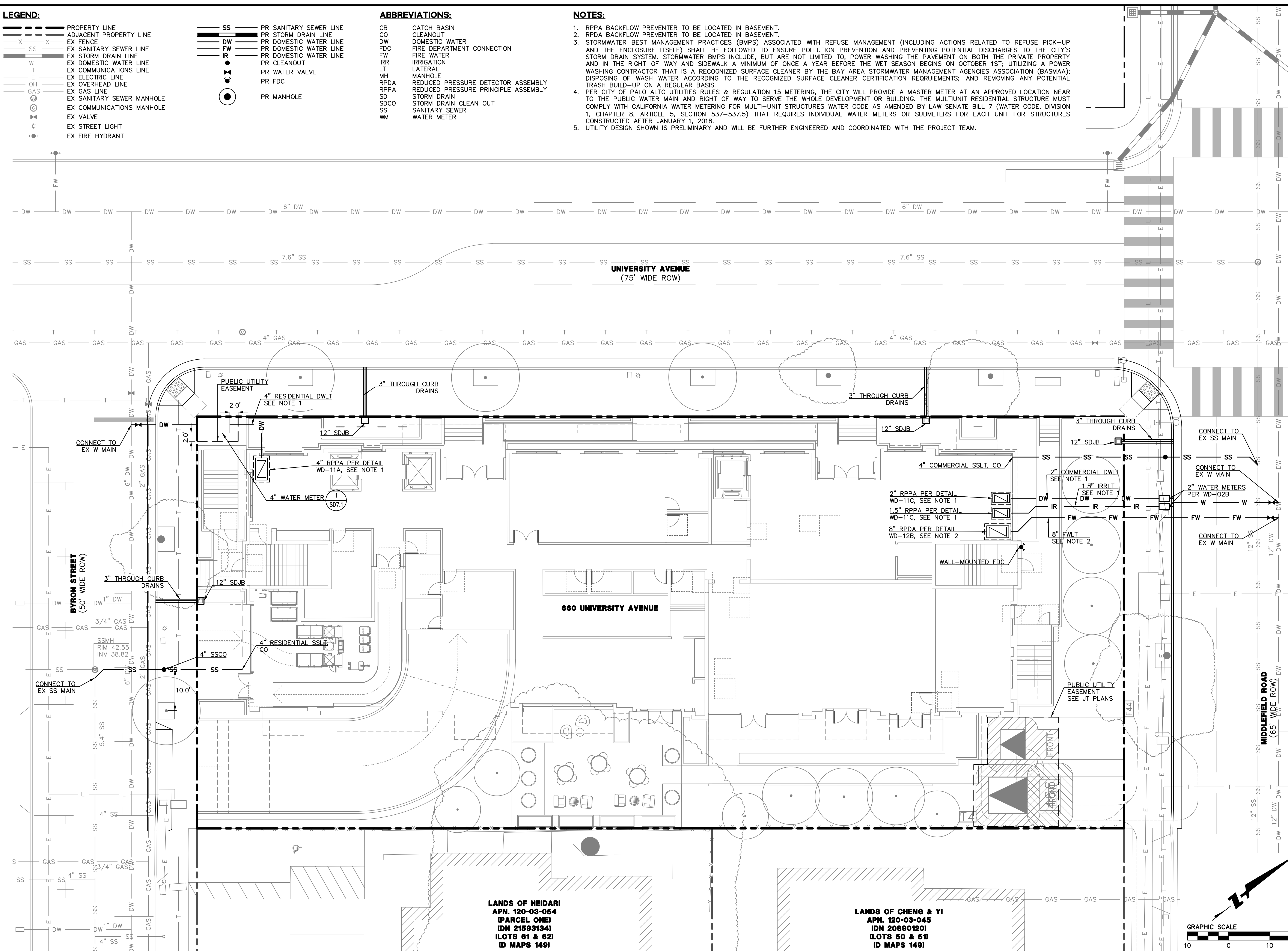
—	PROPERTY LINE
- - -	ADJACENT PROPERTY LINE
X - X	EX FENCE
SS	EX SANITARY SEWER LINE
—	EX STORM DRAIN LINE
W	EX DOMESTIC WATER LINE
T	EX COMMUNICATIONS LINE
E	EX ELECTRIC LINE
OH	EX OVERHEAD LINE
GAS	EX GAS LINE
⊙	EX SANITARY SEWER MANHOLE
⊙	EX COMMUNICATIONS MANHOLE
⊙	EX VALVE
⊙	EX STREET LIGHT
⊙	EX FIRE HYDRANT

SS	PR SANITARY SEWER LINE
DW	PR STORM DRAIN LINE
FW	PR DOMESTIC WATER LINE
IR	PR DOMESTIC WATER LINE
●	PR CLEANOUT
●	PR WATER VALVE
●	PR FDC
●	PR MANHOLE

ABBREVIATIONS:

CB	CATCH BASIN
CO	CLEANOUT
DW	DOMESTIC WATER
FDC	FIRE DEPARTMENT CONNECTION
FW	FIRE WATER
IRR	IRRIGATION
LT	LATERAL
MH	MANHOLE
RPDA	REDUCED PRESSURE DETECTOR ASSEMBLY
RPPA	REDUCED PRESSURE PRINCIPLE ASSEMBLY
SD	STORM DRAIN
SDCO	STORM DRAIN CLEAN OUT
SS	SANITARY SEWER
WM	WATER METER

- NOTES:**
1. RPPA BACKFLOW PREVENTER TO BE LOCATED IN BASEMENT.
 2. RPDA BACKFLOW PREVENTER TO BE LOCATED IN BASEMENT.
 3. STORMWATER BEST MANAGEMENT PRACTICES (BMPs) ASSOCIATED WITH REFUSE MANAGEMENT (INCLUDING ACTIONS RELATED TO REFUSE PICK-UP AND THE ENCLOSURE ITSELF) SHALL BE FOLLOWED TO ENSURE POLLUTION PREVENTION AND PREVENTING POTENTIAL DISCHARGES TO THE CITY'S STORM DRAIN SYSTEM. STORMWATER BMPs INCLUDE, BUT ARE NOT LIMITED TO, POWER WASHING THE PAVEMENT ON BOTH THE PRIVATE PROPERTY AND IN THE RIGHT-OF-WAY AND SIDEWALK A MINIMUM OF ONCE A YEAR BEFORE THE WET SEASON BEGINS ON OCTOBER 1ST; UTILIZING A POWER WASHING CONTRACTOR THAT IS A RECOGNIZED SURFACE CLEANER BY THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION (BASMAA); DISPOSING OF WASH WATER ACCORDING TO THE RECOGNIZED SURFACE CLEANER CERTIFICATION REQUIREMENTS; AND REMOVING ANY POTENTIAL TRASH BUILD-UP ON A REGULAR BASIS.
 4. PER CITY OF PALO ALTO UTILITIES RULES & REGULATION 15 METERING, THE CITY WILL PROVIDE A MASTER METER AT AN APPROVED LOCATION NEAR TO THE PUBLIC WATER MAIN AND RIGHT OF WAY TO SERVE THE WHOLE DEVELOPMENT OR BUILDING. THE MULTIUNIT RESIDENTIAL STRUCTURE MUST COMPLY WITH CALIFORNIA WATER METERING FOR MULTI-UNIT STRUCTURES WATER CODE AS AMENDED BY LAW SENATE BILL 7 (WATER CODE, DIVISION 1, CHAPTER 8, ARTICLE 5, SECTION 537-537.5) THAT REQUIRES INDIVIDUAL WATER METERS OR SUBMETERS FOR EACH UNIT FOR STRUCTURES CONSTRUCTED AFTER JANUARY 1, 2018.
 5. UTILITY DESIGN SHOWN IS PRELIMINARY AND WILL BE FURTHER ENGINEERED AND COORDINATED WITH THE PROJECT TEAM.



DRAWING NAME: \\bkf-rs\VOL4\2021\212113_660_University_Ave\ENG\SD\SD4_0-Utility_Plan.dwg
PLOT DATE: 06-17-25 PLOTTED BY: swalistrum

255 SHORELINE DRIVE
SUITE 200
REDWOOD CITY, CA 94065
(650) 493-6300
www.bkf.com



CALIFORNIA

660 UNIVERSITY AVENUE
UTILITY PLAN

SANTA CLARA COUNTY

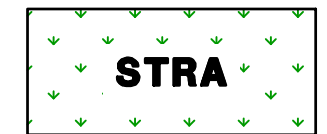
CITY OF PALO ALTO

Date	No.	Revisions
10/31/2023	5	PLANNING RESUBMITTAL #6
12/22/2023	6	PLANNING RESUBMITTAL #7
05/02/2024	7	PLANNING RESUBMITTAL #8
09/30/2024	8	PLANNING RESUBMITTAL #9
01/17/2025	9	PLANNING RESUBMITTAL #10
06/20/2025	10	PLANNING RESUBMITTAL #11

Drawing Number: **SD4.0**

DRAWING NAME: \\bkf-rs\vol4\2021\212113_660_University_Ave\ENG\SD\SD5.0-Stormwater_Management_Plan.dwg
PLOT DATE: 06-17-25 PLOTTED BY: swallistrum

LEGEND



SELF TREATING/RETAINING AREA

--- DMA BOUNDARY

NOTE:

- DO NOT USE CHEMICAL FERTILIZERS, PESTICIDES, HERBICIDES OR COMMERICAL SOIL AMENDMENT. USE ORGANIC MATERIALS REVIEW INSTITUTE (OMRI) MATERIALS AND COMPOST. REFER TO THE BAY-FRIENDLY LANDSCAPE GUIDELINES FOR GUIDANCE.
- AVOID COMPACTING SOIL IN AREAS THAT WILL BE UNPAVED.
- FOR ALL C.3 FEATURES, VENDOR SPECIFICATIONS REGARDING INSTALLATION AND MAINTENANCE SHOULD BE FOLLOWED AND PROVIDED TO CITY STAFF. COPIED MUST BE SUBMITTED TO PAM BOYLE RODRIGUEZ AT PAMELA.BOYLERODRIGUEZ@CITYOFPALOALTO.ORG.
- STAFF FROM STORMWATER PROGRAM (WATERSHED PROTECTION DIVISION) MAY BE PRESENT DURING INSTALLATION OF STORMWATER TREATMENT MEASURES. CONTACT PAM BOYLE RODRIGUEZ, STORMWATER PROGRAM MANAGER, AT (650) 239-2421 BEFORE INSTALLATION.

STORMWATER QUALITY SIZING SUMMARY

DMA ID	DMA (SF)	TREATMENT ID	TREATMENT AREA (SF)	TREATMENT AREA REQUIRED (SF)	MEETS REQUIREMENT?
DMA 1	3,825	FTP 1	160	155	YES
DMA 2	7,310	FTP 2	350	295	YES
DMA 3	4,710	FTP 3	210	190	YES
DMA 4	180	FTP 4	35	10	YES
DMA 5	105	FTP 5	55	5	YES
DMA 6 *	7,580	—	SEE NOTE	305	SEE NOTE

* THE APPLICANT AND THE CITY SHALL ENTER INTO AN AGREEMENT ACCEPTABLE TO THE PUBLIC WORKS DIRECTOR OR DESIGNATED REPRESENTATIVE TO PROVIDE ALTERNATIVE COMPLIANCE WITH PAYMENT OF IN-LIEU FEES TO COMPLY WITH THE REGULATED PROJECTS STORMWATER TREATMENT OBLIGATIONS.

BYRON STREET
(50' WIDE ROW)

UNIVERSITY AVENUE
(75' WIDE ROW)

FTP 2

INLET PROTECTION TO BE
PLACED AT DOWNSTREAM INLET

MIDDLEFIELD ROAD
(65' WIDE ROW)

LANDS OF HEIDARI
APN. 120-03-054
(PARCEL ONE)
IDN 215931341
(LOTS 61 & 62)
ID MAPS 1491

LANDS OF CHENG & YI
APN. 120-03-045
IDN 208901201
(LOTS 50 & 51)
ID MAPS 1491

255 SHORELINE DRIVE
SUITE 200
REDWOOD CITY, CA 94065
(650) 360-6300
www.bkf.com



CALIFORNIA

660 UNIVERSITY AVENUE
STORMWATER MANAGEMENT PLAN

SANTA CLARA COUNTY

CITY OF PALO ALTO

Revisions		No.	Date
PLANNING RESUBMITTAL #6	5	10/31/2023	12.22.2023
PLANNING RESUBMITTAL #7	6	MS	05.02.2024
PLANNING RESUBMITTAL #8	7	TK1	09.30.2024
PLANNING RESUBMITTAL #9	8	TRM	01.17.2025
PLANNING RESUBMITTAL #10	9	2021213	06.20.2025

Drawing Number:

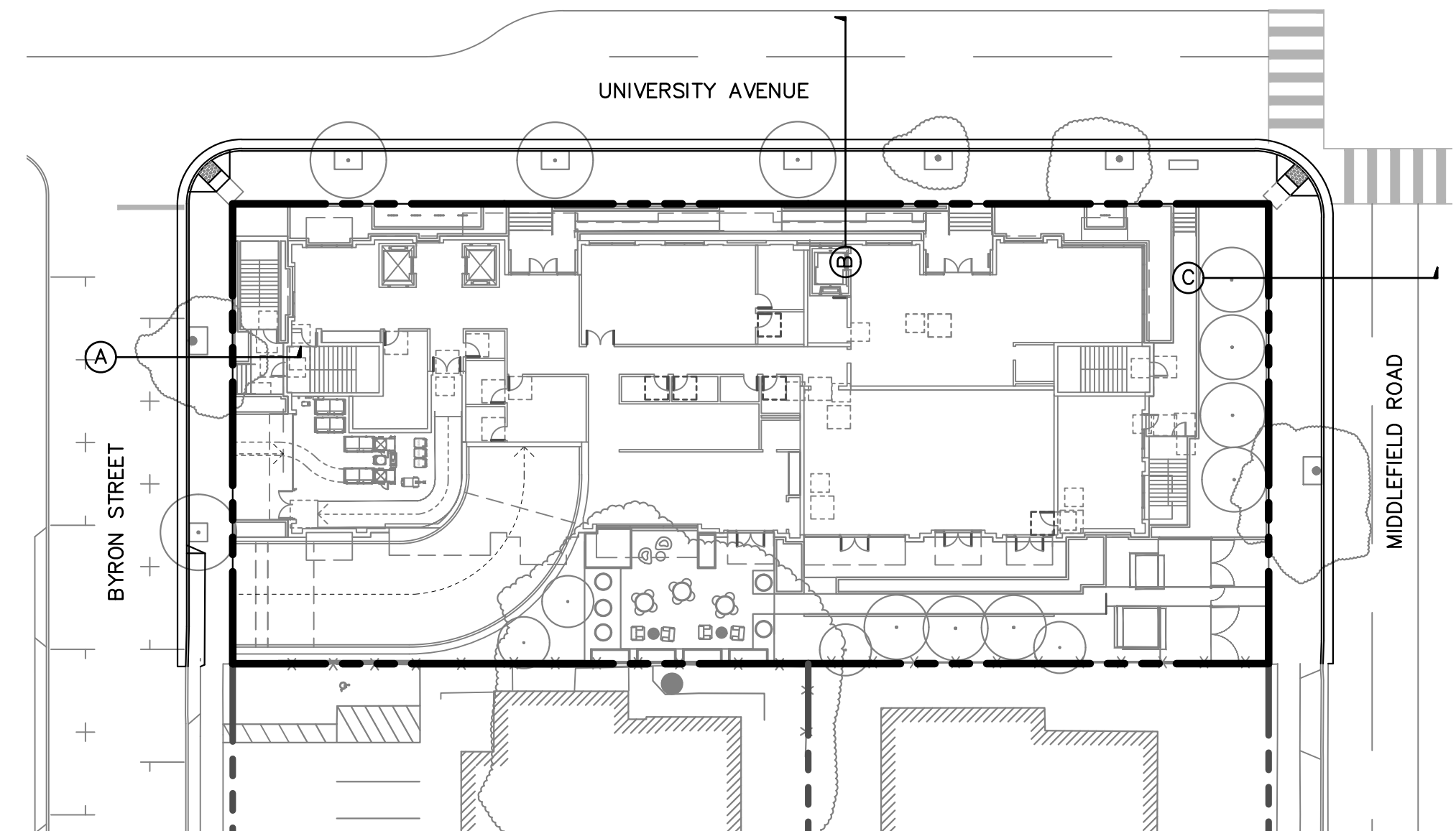
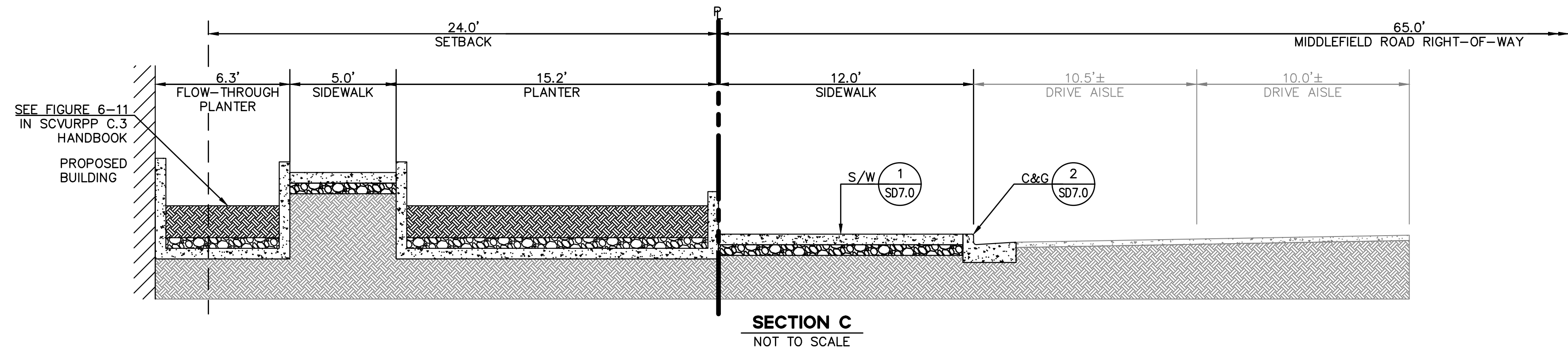
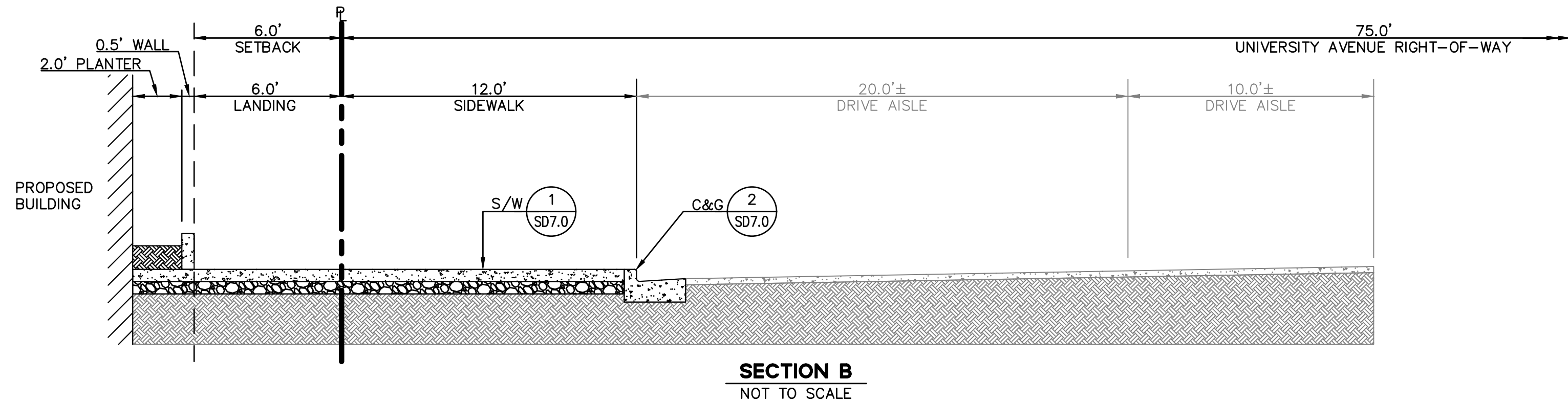
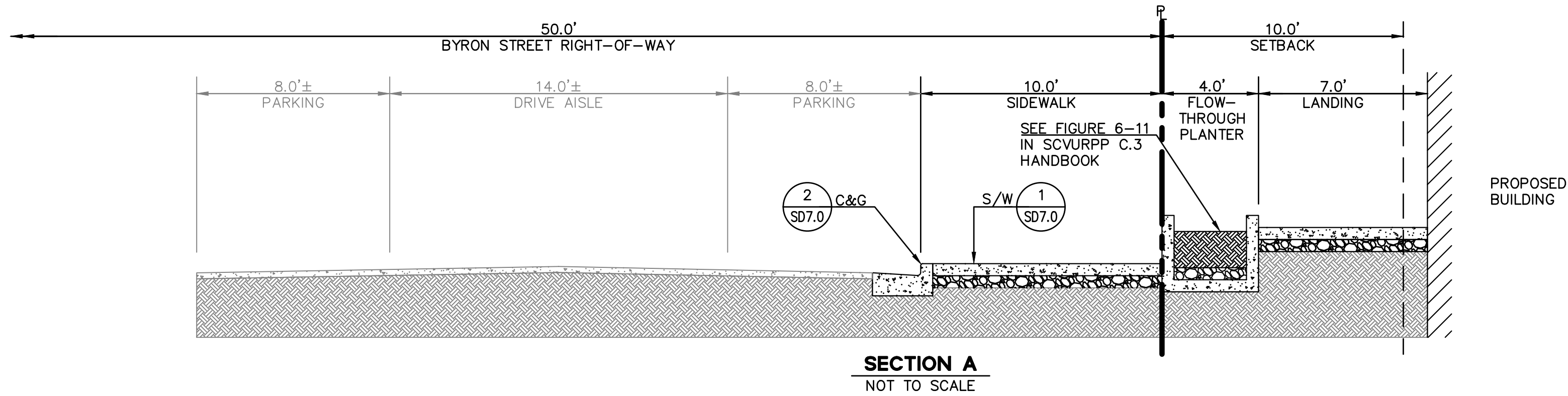
SD5.0



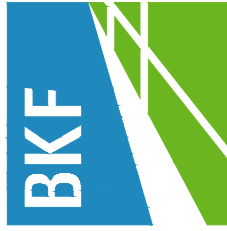
DRAWING NAME: \\bkf-rs\vol4\2021\212113_660_University_Ave\ENG\SD\SD6_0-Sections.dwg
PLOT DATE: 06-17-25 PLOTTED BY: swal1strum

ABBREVIATIONS:

C&G CURB AND GUTTER
L/S LANDSCAPE
S/W SIDEWALK



255 SHORELINE DRIVE
SUITE 200
REDWOOD CITY, CA 94065
(650) 354-6300
www.bkf.com



660 UNIVERSITY AVENUE
SECTIONS

CALIFORNIA

SANTA CLARA COUNTY

CITY OF PALO ALTO

Date	10/31/2023	No.	Revisions	
			No.	
Scale	1" = 10'	5	PLANNING RESUBMITTAL #6	12.22.2023
Design	MS	6	PLANNING RESUBMITTAL #7	05.02.2024
Drawn	TKI	7	PLANNING RESUBMITTAL #8	09.30.2024
Approved	TRM	8	PLANNING RESUBMITTAL #9	01.17.2025
Job No	2021213	9	PLANNING RESUBMITTAL #10	06.20.2025

Drawing Number:

SD6.0



NOT TO SCALE

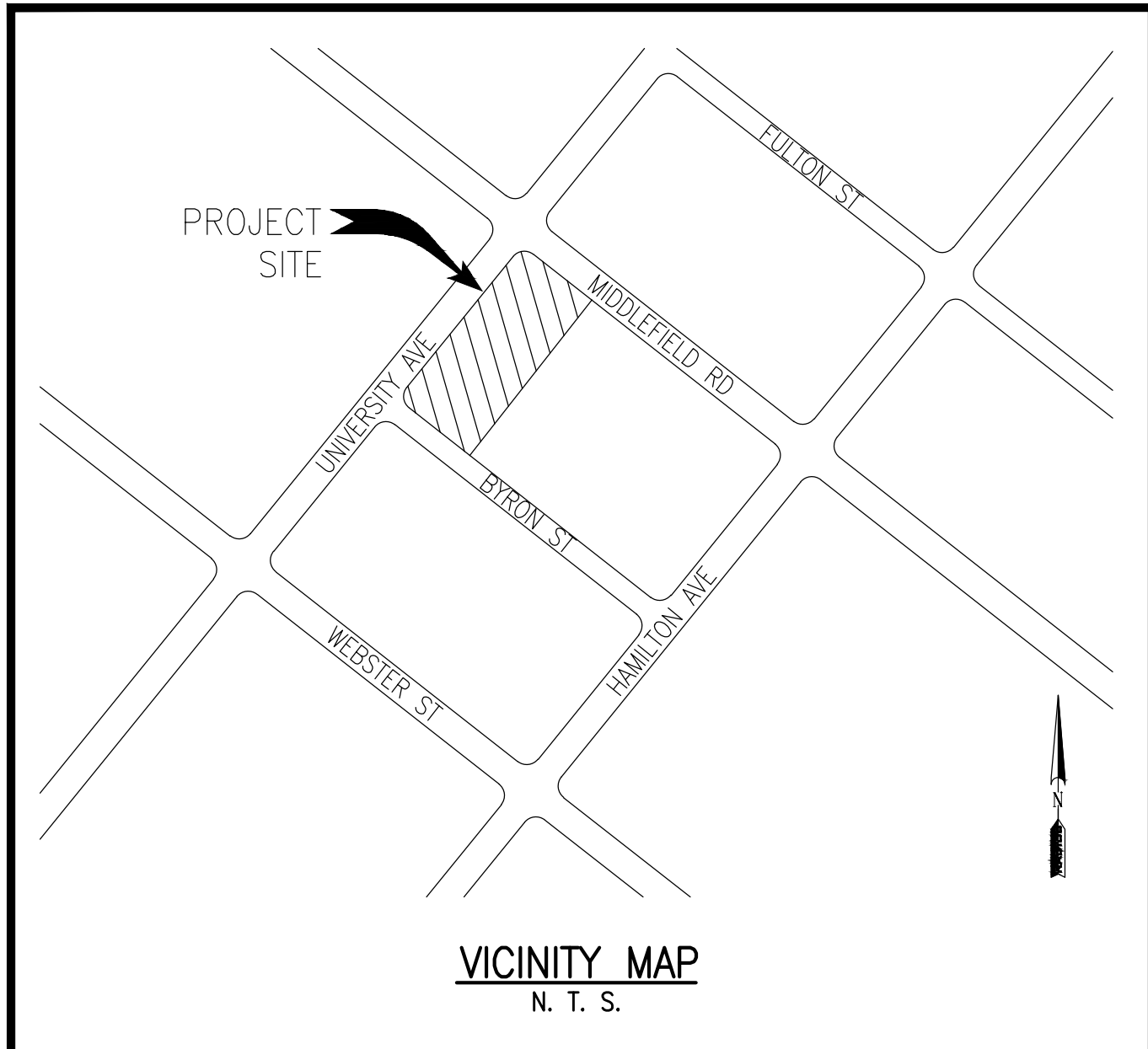


- ## COMBINED WATER METER

NOT TO SCALE

Drawing Number:

SD 7.1



WORK RESPONSIBILITY JOINT TRENCH

TRENCHING

EXCAVATE & BACKFILL.....

GAS MATERIAL

SUPPLY & INSTALL.....

*CPAU ELECTRIC CABLE

SUPPLY & INSTALL.....

ELECTRIC CONDUIT

SUPPLY & INSTALL.....

ELECTRIC BOXES

SUPPLY & INSTALL.....

ELECTRIC PADS

SUPPLY & INSTALL.....

ELECTRIC TRANSFORMERS

SUPPLY & INSTALL.....

ELECTRIC INTERRUPTERS

SUPPLY & INSTALL.....

CPAU ELECTRIC SWITCHES

SUPPLY & INSTALL.....

TELEPHONE CONDUIT

SUPPLY & INSTALL.....

TELEPHONE CABLE

SUPPLY & INSTALL.....

TELEPHONE SPLICER BOXES

SUPPLY & INSTALL.....

TELEPHONE S.A.I. PADS

SUPPLY & INSTALL.....

C.A.T.V. CONDUIT

SUPPLY & INSTALL.....

C.A.T.V. SPLICER BOXES

SUPPLY & INSTALL.....

C.I.E.C. FIBER CONDUIT

SUPPLY & INSTALL.....

C.I.E.C. FIBER SPLICER BOXES

SUPPLY & INSTALL.....

NOTE: FOR A MORE DETAILED WORK RESPONSIBILITY BREAKDOWN, SEE CORRESPONDING MATERIAL LIST.

● WORK TO BE PERFORMED BY THE RESPECTIVE CONTRACTOR & UTILITY COMPANIES

● ASSUME CONTRACTOR RESPONSIBILITY UNLESS OTHERWISE SPECIFIED

○ NOT APPLICABLE UNLESS OTHERWISE SPECIFIED

* CPAU TO PULL CABLE INTO ENERGIZED ENCLOSURES

NOTE: FOR A MORE DETAILED WORK RESPONSIBILITY BREAKDOWN, SEE CORRESPONDING MATERIAL LIST.

THESE PLANS WERE PREPARED IN CONJUNCTION WITH THE FOLLOWING PLANS:

	RECEIVED	APPROVED
CIVIL IMPROVEMENT PLANS/GRADING PLANS	10-01-2024	PRELIMINARY
ARCHITECTURAL ELECTRONIC FILE	06-19-2025	PRELIMINARY
APPLICANT DESIGN (GAS)		
APPLICANT DESIGN (ELECTRIC)		
TELEPHONE		
C.A.T.V.		
LANDSCAPE	09-26-2024	PRELIMINARY
LIGHT LOCATIONS		
TRAFFIC SIGNAL LOCATIONS		

RADIUS DESIGN is not responsible for any subsequent changes or revisions.

OTHER UTILITIES SHOWN ARE APPROXIMATE AND BASED ON FIELD SURVEY AND AVAILABLE UTILITY INFORMATION. IT IS THE CONTRACTORS' RESPONSIBILITY TO VERIFY THE ACTUAL LOCATION AND EXTENT OF UTILITIES PRIOR TO THE COMMENCEMENT OF WORK. PHYSICAL VERIFICATION OF UTILITY LOCATIONS SHALL BE PERFORMED BY CAREFUL PROBING OR HAND DIGGING IN ACCORDANCE WITH ARTICLE 6 OF THE CAL/OSHA CONSTRUCTION SAFETY ORDERS.

CONSTRUCTION NOTES

- ALL TRENCHING, BACKFILLING AND INSTALLATION BY CONTRACTOR MUST COMPLY WITH CITY OF PALO ALTO STANDARDS.
- ALL WORK MUST COMPLY WITH CITY OF PALO ALTO (CPA), TELEPHONE, C.A.T.V. STANDARDS AND PRACTICES. ALL WORK MUST BE INSPECTED AND APPROVED BY RESPECTIVE INSPECTORS. RANDOM SOIL SAMPLES SHALL BE TAKEN FROM A MINIMUM OF THREE LOCATIONS PER 1,000' OF TRENCH. 100% OF THE SAMPLE MUST PASS THROUGH A 1/2" SIEVE AND 75% MUST PASS THROUGH A #4 SCREEN. ADDITIONAL SAMPLES MUST BE TAKEN IF EXISTING SOIL CONDITIONS CHANGE AND IS TO BE AT THE DISCRETION OF THE CPA REPRESENTATIVE ON SITE. THE SOILS MUST NOT CONTAIN ANY ROCKS THAT HAVE SHARP EDGES OR THAT MAY OTHERWISE BE ABRASIVE. THE SOILS MUST NOT CONTAIN CLODS LARGER THAN 1/2" IF TO BE USED AS SHADING, BEDDING OR LEVELING MATERIALS. COMPACTION REQUIREMENTS MUST MEET ANY APPLICABLE CPA FEDERAL, STATE, COUNTY OR LOCAL REQUIREMENTS. ANY NATIVE SOILS OR IMPORT MATERIALS USED MUST NOT HINDER THOSE EFFORTS.
- BACKFILL SHALL BE APPROVED BY THE UTILITY COMPANIES AND THE CITY. COMPACTION WILL BE TESTED AND PASSED BY THE SOILS ENGINEER.
- IF SOIL IS NOT ROCK FREE, ADD 4" DEPTH OF TRENCH FOR SAND BEDDING.
- VERIFY SPLICE BOX EXCAVATION SIZES WITH SUPPLIER(S).
- THE TRENCHING CONTRACTOR SHALL COORDINATE THE UTILITY COMPANIES' INSTALLATION.
- CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH THE PROJECT IMPROVEMENT PLANS AND CONDUCT HIS WORK ACCORDINGLY.
- IT IS THE TRENCHING CONTRACTOR'S RESPONSIBILITY TO PROTECT IN PLACE ALL EXISTING FACILITIES. NO EXTRA PAYMENT WILL BE CONSIDERED FOR CROSSING OTHER SYSTEMS.
- RADIUS DESIGN ASSUMES NO RESPONSIBILITY FOR THE PROJECT CONDITIONS. THESE DRAWINGS WERE PREPARED USING DATA SUPPLIED BY CPA, TELEPHONE, C.A.T.V., IMPROVEMENT PLANS AND THE CITY'S VARIOUS "AS BUILT" INFORMATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PHYSICALLY REVIEW THE PROJECT PRIOR TO SUBMITTING HIS BID.
- CONTRACTOR WILL COMPLY WITH ALL LAWS, ORDINANCES AND REGULATIONS. CONTRACTOR SHALL BE FAMILIAR WITH O.S.H.A., INDUSTRIAL SAFETY ORDERS AND SHALL CONDUCT HIS WORK ACCORDINGLY. WHEN WORKING NEAR ENERGIZED OR "HOT" EQUIPMENT, THE UTILITY OWNER SHALL BE NOTIFIED TO SUPPLY THE APPROPRIATE MAX POWER. PUBLIC SAFETY AND TRAFFIC CONTROL MEASURES ARE THE CONTRACTOR'S RESPONSIBILITY.
- THE CONTRACTOR SHALL PROTECT CONSTRUCTION STAKING. HE SHALL COORDINATE STAKING WITH THE PROJECT'S CIVIL ENGINEER.
- CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) TWO WORKING DAYS PRIOR TO START OF WORK. (800) 227-2600.
- CONTRACTOR SHALL NOTIFY INSPECTORS OF ANY POTENTIAL CONFLICTS PRIOR TO START OF WORK.
- THIS PLAN IS TO BE USED FOR SOLE PURPOSE OF DIGGING THE JOINT TRENCH. SEE CPA, AT&T, AND COMCAST PLANS FOR EXACT SIZE AND NUMBER OF CONDUITS INSTALLED IN THE JOINT TRENCH. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE CORRECT NUMBER, SIZE AND TYPES OF CONDUITS ARE INSTALLED PER THE ENGINEERED PLANS BY EACH UTILITY COMPANY.
- NOTE PLANS ISSUED AT THE PRE-CONSTRUCTION MEETING MAY BE SUBJECT TO REVISIONS, IF FINAL PLANS FROM EACH UTILITY COMPANY WERE NOT AVAILABLE AT THE START OF CONSTRUCTION.
- WATER, SEWER, DRAINS, SANITARY WASTE, FUELS (INCLUDING DIESEL AND GASOLINE), OIL, PROPANE AND OTHER VOLATILE HEAVIER THAN AIR GASES, SPRINKLER, IRRIGATION, STEAM AND OTHER "WET" FACILITIES SHALL MAINTAIN A MINIMUM OF FOUR FEET FROM THE NEAREST OUTER SURFACE OF CPA DRY FACILITIES WITH NO LESS THAN ONE FOOT OF EARTH (SOIL BARRIER) BETWEEN THE ADJACENT SIDES OF THE INDIVIDUAL TRENCHES.
- IN THE EXTRAORDINARY CASE THAT THE MINIMUM FOUR FOOT HORIZONTAL SEPARATION CANNOT BE ATTAINED BETWEEN "WET" UTILITIES AND COMPANY DRY FACILITIES, A VARIANCE MAY APPROVED BY THE LOCAL INSPECTION SUPERVISOR AND SUBMITTED TO SERVICE PLANNING SUPPORT PROGRAM MANAGER FOR APPROVAL.
- THIS JOINT TRENCH PLAN WAS PREPARED BASED ON TOPOGRAPHICAL SURVEY AS PROVIDED BY A CIVIL ENGINEER. THE CONTRACTOR IS CAUTIONED THAT EXPLORATORY WORK IS NECESSARY TO DETERMINE THE ACTUAL LOCATION OF ANY EXISTING UTILITY. RADIUS STRONGLY RECOMMENDS THAT ALL UTILITIES BE PHYSICALLY LOCATED ON THE SITE BEFORE THE ONSET OF SITE WORK. SUBSTRUCTURE LOCATIONS MAY REQUIRE FIELD ADJUSTMENT TO COMPENSATE FOR ACTUAL EXISTING UTILITY LOCATIONS.

CONDUIT NOTES

- DIRECT BURIED PRIMARY CONDUIT IS NOT AN APPROVED CONSTRUCTION METHOD. PRIMARY CONDUITS SHALL BE CONCRETE ENCASED, UNLESS OTHERWISE APPROVED BY CPA UTILITIES ENGINEER. APPROVED CONDUIT MATERIALS:
 - A. SCHEDULE 40 PVC
 - B. TYPE "DB 60" (SECONDARY) OR "DB 120" (PRIMARY) PLASTIC CONDUIT
 - C. GALVANIZED RIGID STEEL CONDUIT
- EVERY EFFORT MUST BE MADE TO OBTAIN STRAIGHT WATER-TIGHT CONDUIT LINE.
- SHARP TURNS MUST BE AVOIDED, PER THE TABLE BELOW. NORMALLY, THE PRIMARY DUCT RADIUS IS SPECIFIED. UNLESS APPROVED BY THE PROJECT ENGINEER, FACTORY OFFSETS WILL NOT BE USED.
- ALL BENDS AND SWEEPS (90 DEGREES) MUST BE ENCASED IN CONCRETE (MINIMUM 3") ALONG THE INSIDE RADIUS.
- IF THE ELECTRIC UNDERGROUND INSPECTOR DETERMINES THAT THE BOTTOM OF THE TRENCH IS ROCKY, THEN A 2" SAND BEDDING MUST BE INSTALLED BEFORE CONDUIT.
- BACKFILL IN UNIMPROVED AREAS SHALL BE 12" OF CLEAN NATURAL SAND PER CALTRANS STD SPECS SEC 19-3.025B ON TOP OF THE UPPERMOST CONDUIT, 90% COMPACTION; TOPPED WITH EXCAVATED NATIVE SOIL, 85% COMPACTION.
- BACKFILL IN IMPROVED AREAS MUST BE IN ACCORDANCE WITH CITY OF PALO ALTO STANDARD SPECIFICATIONS FOR BACKFILLING IN IMPROVED AREAS. (SECTION 21)
- ALL CONDUITS MUST BE MANDEILLED (STD. DWG DT-SS-U-1025). THIS TEST MUST BE WITNESSED BY THE ELECTRIC UNDERGROUND INSPECTOR.
- A 3/8" POLYPROPYLENE PULL LINE (MIN. 150 LBS. TEST) MUST BE INSTALLED IN EACH CONDUIT.
- CONDUIT SPACING SHALL BE MAINTAINED BY SPACERS, APPROVED BY CPA, INSTALLED NO MORE THAN 7" APART. CONDUIT MUST BE SECURELY BOUND TO THE SPACERS.
- MINIMUM COVER FOR DIRECT BURIED CONDUIT:
 - SECONDARY (NOT TRAFFIC) 24"
 - COMMUNICATION (NOT TRAFFIC) 24"
 - SECONDARY (TRAFFIC) 30"
 - COMMUNICATION (TRAFFIC) 30"
 - PRIMARY 42"

COVER MAY BE REDUCED TO 18" FOR SECONDARY UNDER SIDEWALKS, WITH THE PROJECT ENGINEER'S APPROVAL.

12. HORIZONTAL SPACING BETWEEN SECONDARY, COMMUNICATION, TELEPHONE, AND STREET LIGHTING CABLES OR DUCTS MAY BE RANDOM UNLESS OTHERWISE SPECIFIED.

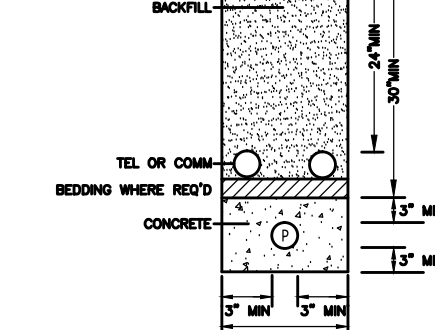
13. IN EVERY CASE, VERTICAL CLEARANCE BETWEEN ELECTRIC LINES AND UTILITY LINE CROSSINGS MUST BE AT LEAST 12".

* DIRECT PRIMARY CONDUIT IS NO LONGER AN APPROVED CONSTRUCTION METHOD.

ELECTRIC UTILITIES DEPARTMENT COMMENTS & CONDITIONS

- ALL ELECTRICAL VAULT INSTALLATIONS, REMOVALS AND RELOCATION'S SHALL BE AT CUSTOMER/DEVELOPER'S EXPENSE.
- PRIMARY CONDUIT SHALL BE CONCRETE ENCASED PER CPA REQUIREMENTS.
- THE FINAL JOINT TRENCH AND VAULT DETAILS MUST BE APPROVED BY THE CITY'S ELECTRICAL ENGINEERING DEPARTMENT.
- APPLICANT SHALL NOTIFY THE ELECTRIC UTILITY INSPECTOR PRIOR TO CONSTRUCTION OF ANY ELECTRICAL UTILITY SUBSTRUCTURE.
- NO STRUCTURES PERMITTED TO BE BUILT WITHIN EXISTING PUBLIC UTILITY EASEMENTS.
- THE CONTRACTOR SHALL MAINTAIN 12" CLEAR, ABOVE AND BELOW FROM THE EXISTING UTILITIES TO NEW UNDERGROUND FACILITIES.
- APPLICANTS SHALL PROVIDE PROTECTION FOR UTILITY LINES SUBJECT TO DAMAGE. EXPOSED ELECTRIC CONDUIT OR DUCT SHALL BE INSPECTED BY THE ELECTRICAL UTILITY INSPECTOR PRIOR TO BACKFILLING.
- ANY EXTENSION OR RELOCATION OF EXISTING DISTRIBUTION LINES OR EQUIPMENT SHALL BE DONE AT CUSTOMER/DEVELOPER'S EXPENSE.

Direct Buried Conduit

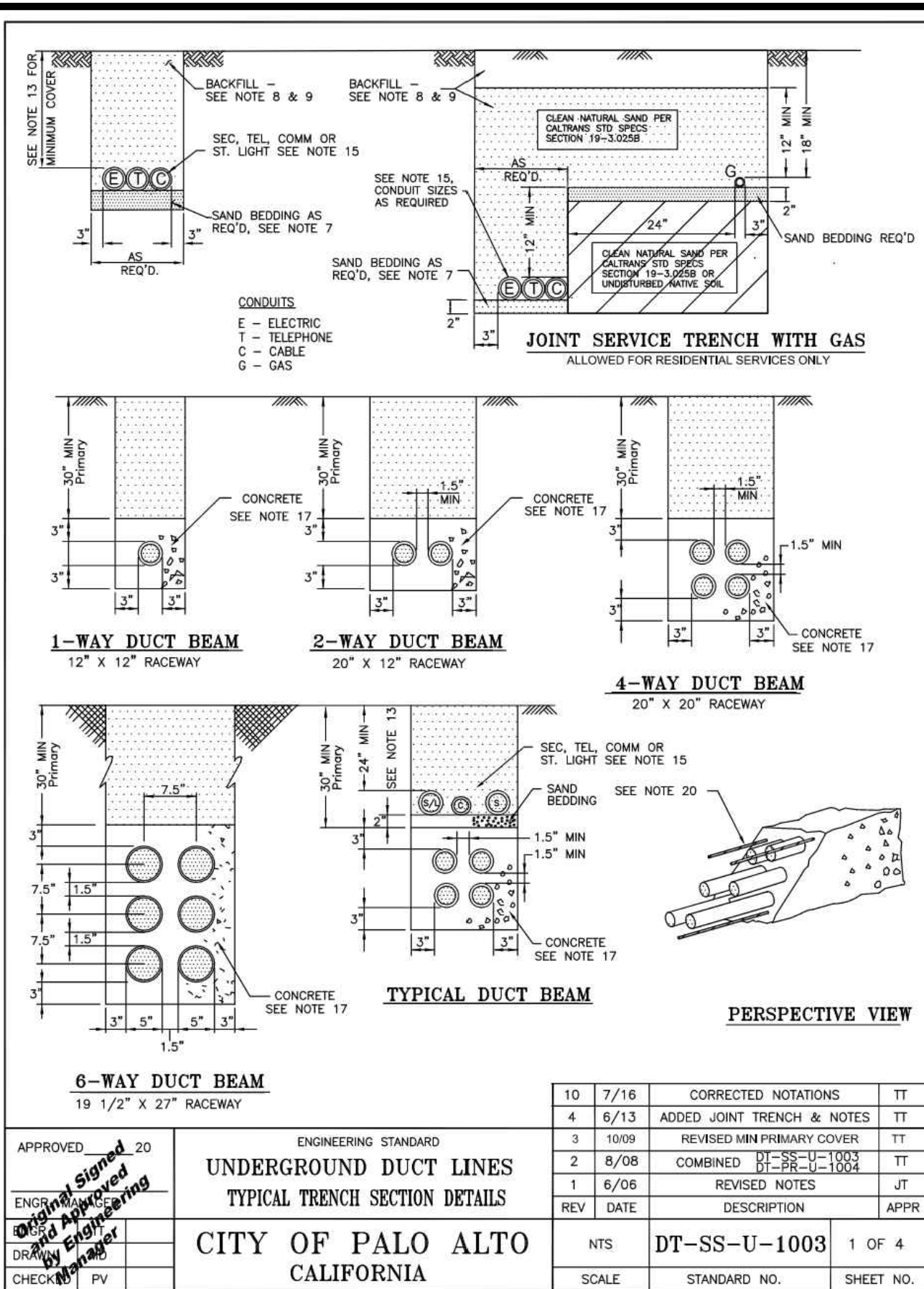


CONDUIT DIAMETER	VERTICAL RADIUS	HORIZONTAL RADIUS
3"	24"	36"
4"	36"	36"
5"	36"	60"

NOTE:

NO MORE THAN 270 DEGREES OF BENDS ARE ALLOWED BETWEEN PULL BOXES IN A SECONDARY CONDUIT RUN.

NO MORE THAN 180 DEGREES OF BENDS ARE ALLOWED BETWEEN PULL BOXES IN A PRIMARY CONDUIT RUN.



CONCRETE TRANSFORMER PAD NOTES:

- DISTURBED EARTH UNDER THE PAD SHALL BE REPLACED BY SAND OR OTHER SUITABLE MATERIAL COMPACTED TO 95% OF MAXIMUM DRY DENSITY (ASTM D-1557).
- PLACE 6" DEPTH ONE SACK PER CUBIC YARD, SLURRY IMMEDIATELY BELOW THE PAD.
- CONCRETE IS REQUIRED BETWEEN ALL CONDUITS, LEVEL TO TOP OF THE PAD.
- CONCRETE SHALL BE DESIGNED TO ATTAIN STRENGTH OF 3000 PSI IN 28 DAYS.
- AFTER PLACING, MOIST CURE CONCRETE FOR 7 DAYS.
- WOOD FLOAT FINISH TOP OF SLAB. ALL SHARP EDGES AND CORNERS TO BE FINISHED SMOOTH.
- EXPOSED HORIZONTAL SURFACES TO BE SLOPED SLIGHTLY FOR DRAINAGE.
- A MINIMUM OF 6 FEET SHALL BE MAINTAINED BETWEEN GROUND RODS.
- CAP ALL CONDUITS.
- A MINIMUM OF 3 FEET OF RADIAL CLEARANCE BETWEEN THE TRANSFORMER PAD AND ANY OTHER STRUCTURE SHALL BE PROVIDED.
- IF THE TRANSFORMER IS TO BE LOCATED IN AN AREA SUBJECTED TO VEHICULAR TRAFFIC, BARRIERS SHALL BE REQUIRED PER DT-SS-C-1005. CITY OF PALO ALTO WILL DETERMINE THE TYPE, NUMBER REQUIRED, AND LOCATION.
- PLASTIC CONDUITS SHALL BE TERMINATED WITH END BELLS. GALVANIZED STEEL CONDUITS SHALL BE TERMINATED WITH GROUND BUSHINGS. ALL CONDUITS AND ENDS WILL BE TO THE FINAL GRADE OF THE PAD.
- PRIMARY CONDUIT BENDS SHALL HAVE A MINIMUM RADIUS OF 36".
- PRIMARY CONDUITS SHALL BE LOCATED IN THE LEFT HALF OF THE CONDUIT OPENING. SECONDARY CONDUITS SHALL OCCUPY THE RIGHT HALF.
- THE TRANSFORMER PAD SHALL BE LOCATED A MINIMUM OF 3 FEET FROM ANY BUILDING OR OVERHANG.
- ALL REBAR SHALL BE A-615 GRADE 40. REBAR JOINTS SHALL BE FIRMLY AND SECURELY HELD IN POSITION BY WIRING AT INTERSECTIONS WITH NO. 16 GAGE WIRE.
- MAXIMUM NUMBER OF CONDUITS ENTERING SECONDARY SLOT SHALL BE FOUR. CONTACT THE ELECTRIC UTILITY PROJECT ENGINEER FOR DESIGN WITH MORE THAN FOUR SECONDARY.
- GROUND ROD AND CLAMP, 5/8"x8". SEE CPA STANDARD DRAWING #DT-SS-U-1001.
- TRANSFORMER ANCHORS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS. EXPANSION BOLT SHALL BE "PARABOLT" BY MOLY OR APPROVED EQUAL. MINIMUM EMBEDMENT LENGTH AND EDGE DISTANCE SHALL MEET THE MANUFACTURER'S REQUIREMENTS.
- A MINIMUM OF 8 FEET CLEARANCE SHALL BE MAINTAINED FROM THE FRONT SIDE OF THE PAD. A MINIMUM OF 3 FEET CLEARANCE SHALL BE MAINTAINED ON UNOPERABLE SIDES AND BACK. ALL MEASUREMENTS ARE TAKEN FROM THE PAD.

OTHER NOTES

- EASEMENTS MUST BE GRANTED TO THE CITY OF PALO ALTO FOR SWITCH, TRANSFORMERS, AND CONDUIT ON-SITE.
- ELECTRIC METERS MUST BE IN AN AREA READILY ACCESSIBLE TO CPAU DURING ALL HOURS.
- UTILITY VAULTS, TRANSFORMERS, UTILITY CABINETS, CONCRETE BASES, OR OTHER STRUCTURES CAN NOT BE PLACED OVER EXISTING WATER, GAS OR WASTEWATER MAIN/SERVICES. MAINTAIN 1' HORIZONTAL CLEAR SEPARATION FROM THE VAULT/CABINET/CONCRETE BASE TO EXISTING UTILITIES AS FOUND IN THE FIELD. IF THERE IS A CONFLICT WITH EXISTING UTILITIES, CABINETS/VAULTS/BASES SHALL BE RELOCATED FROM THE PLAN LOCATION AS NEEDED TO MEET FIELD CONDITIONS.

GENERAL NOTES:

- JOINT TRENCH MUST BE INSTALLED ENTIRELY WITHIN AN EASEMENT. EASEMENTS FOR JOINT TRENCH SERVICE LATERALS WITHIN PROJECT ON PRIVATE PROPERTY ARE AT THE DISCRETION OF THE UTILITY COMPANIES.
- ALL DEPTHS AND RESULTING COVER REQUIREMENTS ARE MEASURED FROM FINAL GRADE.
- COVER, CLEARANCES, AND SEPARATION SHALL BE AS GREAT AS PRACTICABLE UNDER THE CIRCUMSTANCES, BUT UNDER NO CIRCUMSTANCES SHALL BE LESS THAN THE MINIMUM COVER, CLEARANCE, AND SEPARATION REQUIREMENTS SET FORTH IN GENERAL ORDER 128 AND 490TR 192.327. ALL FACILITIES SHALL BE ANCHORED IN PLACE PRIOR TO COMPACTION, OR OTHER MEANS SHALL BE TAKEN TO ENSURE NO MOTION OF THE FACILITIES. DIMENSIONAL REQUIREMENTS FOR SHADING, LEVELING, AND BACKFILLING SHALL BE DETERMINED SUBSEQUENT TO COMPACTION.
- TRENCH DIMENSIONS SHOWN ARE TYPICAL. TRENCH SIZES AND CONFIGURATIONS MAY VARY DEPENDING UPON OCCUPANCY AND/OR FIELD CONDITIONS. TRENCH SIZE AND CONFIGURATION MUST AT ALL TIMES BE CONSTRUCTED IN A MANNER THAT ENSURES PROPER CLEARANCES AND COVER REQUIREMENTS ARE MET. ANY "CHANGE" TO THE TRENCH WIDTH AND CONFIGURATIONS AS SHOWN IN THIS EXHIBIT MUST BE DESIGNED TO ENSURE THIS REQUIREMENT.
- IT IS PREFERRED TO HAVE NON-CPA OWNED STREETLIGHTS AT A LEVEL OTHER THAN THE GAS OR ELECTRIC LEVEL. NON-CPA OWNED STREETLIGHTS MAY BE AT THE ELECTRIC LEVEL OF THE TRENCH AS LONG AS MINIMUM CLEARANCES ARE PROVIDED AND COMPLY WITH ALL SPECIAL NOTES FOR A JOINT TRENCH WITH A SECOND ELECTRIC UTILITY.
- NON-UTILITY FACILITIES ARE NOT ALLOWED IN ANY JOINT UTILITY TRENCH. E.G., IRRIGATION CONTROL LINES, BUILDING FIRE ALARM SYSTEMS, PRIVATE TELEPHONE SYSTEMS, OUTDOOR ELECTRICAL CABLE, ETC.
- PROVIDE SEPARATION FROM TRENCH WALL AND OTHER FACILITIES SUFFICIENT TO ENSURE PROPER COMPACTION.
- MAINTAIN PROPER SEPARATION BETWEEN CPA FACILITIES AND "WET" UTILITY LINES AS DESCRIBED IN CITY OF PALO ALTO STANDARDS.
- SEPARATIONS SHALL BE MAINTAINED AT ABOVEGROUND TERMINATION POINTS.
- PROCEDURES FOR APPROVING NATIVE BACKFILL FOR SHADING OF CPA GAS FACILITIES:
 - RANDOM SOIL SAMPLES SHALL BE TAKEN FROM A MINIMUM OF 3 LOCATIONS PER 1,000' OF TRENCH. 100% OF THE SAMPLE MUST PASS THROUGH A 1/2" SIEVE AND 75% MUST PASS THROUGH A #4 SCREEN.
 - THE SOILS MUST NOT CONTAIN ANY ROCKS THAT HAVE SHARP EDGES OR THAT MAY OTHERWISE BE ABRASIVE.
 - THE SOILS MUST NOT CONTAIN CLODS LARGER THAN 1/2" IF TO BE USED AS SHADING, BEDDING, OR LEVELING MATERIALS.
 - COMPACTION REQUIREMENTS MUST MEET ANY APPLICABLE CPA, FEDERAL, STATE, COUNTY, OR LOCAL REQUIREMENTS.
 - AT NO TIME SHALL THE OVER SATURATION OF NATIVE SOILS BE USED TO ACHIEVE THESE REQUIREMENTS.
- PROCEDURES FOR APPROVING NATIVE BACKFILL FOR SHADING AT CPA ELECTRIC FACILITIES:
 - RANDOM SOIL SAMPLES SHALL BE TAKEN FROM A MINIMUM OF 3 LOCATIONS PER 1,000' OF TRENCH. ADDITIONAL SAMPLES MUST BE TAKEN IF EXISTING SOIL CONDITIONS CHANGE AND ARE TO BE TAKEN AT THE DISCRETION OF THE CPA REPRESENTATIVE ON SITE.
 - SHADING MATERIAL CONTAINING LARGE ROCK, PAVING MATERIAL, CINDERS, SHARPLY ANGULAR SUBSTANCES, OR CORROSIVE MATERIAL SHALL NOT BE PLACED IN THE TRENCH WHERE SUCH MATERIAL MAY DAMAGE THE AND/OR PREVENT PROPER COMPACTION OVER OR AROUND THE CONDUITS.
 - NATIVE SOILS CONTAINING CLODS NOT TO EXCEED 6" IN DIAMETER MAY BE INCLUDED IN THE SHADING MATERIAL PROVIDED THE CLODS ARE READILY BREAKABLE BY HAND.
- NOTE: SOILS CONSISTING PRIMARILY OF ADobe, HARD COMPACT (DENSE) CLAY, AND BAY MUDS SHALL NOT BE USED AS SHADING MATERIAL.
 - AT NO TIME SHALL THE OVER SATURATION OF NATIVE SOILS BE USED TO ACHIEVE THESE REQUIREMENTS.
 - REFER TO ENGINEERING DOCUMENT 062288, ITEM 13 ON PAGE 2.
- COMPETENT NATIVE SOILS ARE PREFERRED TO BE USED FOR SHADING, BEDDING, AND BACKFILLING THROUGHOUT THE TRENCH.
 - WHERE NATIVE SOILS EXCEED 1/2" MINUS AND/OR WHERE GAS IS TO BE PLACED AT THE BOTTOM OF A TRENCH IN AREAS THAT EXCEED 1/2" MINUS SOIL CONDITIONS, OR WHERE THE BOTTOM OF A TRENCH IS CONSIDERED TO CONSIST OF HARD PAN, CPA APPROVED 1/2" MINUS IMPORT MATERIAL SHALL BE USED FOR SHADING BEDDING OF GAS FACILITIES.
 - CPA APPROVED IMPORT MATERIAL IS PER CGT ENGINEERING GUIDELINE 4123.
 - IF A LEVELING COURSE IS REQUIRED FOR GAS FACILITIES, THE USE OF NATIVE SOILS IS PREFERRED, BUT IF 1/2" MINUS CONDITIONS ARE NOT ATTAINABLE WITH THE NATIVE SOILS, THEN THE USE OF CPA APPROVED IMPORT MATERIAL IS REQUIRED. BEDDING UNDER GAS FACILITIES WILL BE A MINIMUM OF 2" OF COMPACTED 1/2" MINUS NATIVE SOILS OR CPA APPROVED IMPORT MATERIAL.
 - FOR ELECTRIC FACILITIES, REFER TO NOTE 12. THIS APPLIES TO LEVELING COURSES AS WELL AS SHADING.
 - THE MINIMUM CPA APPROVED BEDDING MATERIAL MAY BE INCREASED AT THE DISCRETION OF CPA WHEN WARRANTED BY EXISTING FIELD CONDITIONS (E.G., ROCKY SOILS, HARD PAN, ETC.).
 - THE USE OF ANY IMPORTED MATERIAL FOR BACKFILLING PURPOSES SHALL BE LIMITED TO THOSE SITUATIONS WHEN NATIVE SOILS DO NOT ALLOW FOR REQUIRED COMPACTION.
- THE APPLICANT IS RESPONSIBLE FOR THE REMOVAL OF EXCESS SPOIL AND ASSOCIATED COSTS.
- SERVICE SADDLES ARE THE PREFERRED SERVICE FITTINGS FOR USE THROUGHOUT THE JOINT TRENCH PROJECT. ALL PROJECTS WILL BE DESIGNED AND ESTIMATED USING SERVICE SADDLES. HOWEVER, SERVICE TEES MAY BE USED IF ALL CLEARANCES, SEPARATION, AND COVERAGE REQUIREMENTS ARE MAINTAINED.
- ELECTRIC GENERATION EQUIPMENT IS NOT PART OF RADIUS SCOPE. ALL RELATED DESIGNS, APPLICATIONS, AND COORDINATION WITH INTERCONNECTION/NET METERING DEPARTMENT SHALL BE HANDLED BY THE EQUIPMENT VENDOR OR OTHERS.

AND/OR

- CPA APPROVED IMPORT MATERIAL IS PER CGT ENGINEERING GUIDELINE 4123.
- IF A LEVELING COURSE IS REQUIRED FOR GAS FACILITIES, THE USE OF NATIVE SOILS IS PREFERRED, BUT IF 1/2" MINUS CONDITIONS ARE NOT ATTAINABLE WITH THE NATIVE SOILS, THEN THE USE OF CPA APPROVED IMPORT MATERIAL IS REQUIRED. BEDDING UNDER GAS FACILITIES WILL BE A MINIMUM OF 2" OF COMPACTED 1/2" MINUS NATIVE SOILS OR CPA APPROVED IMPORT MATERIAL.
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UTILITY APPROVALS		
UTILITY	APPROVED BY	DATE
AT&T (PHONE)		
COMCAST (CATV)		

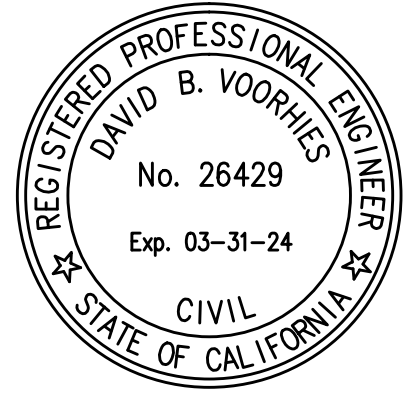
FOR RADIUS USE ONLY QA REVIEW		
INITIALS	REVIEW DATE	
INTENT		
COMPOSITE		
PRE-CON		
PRE-CON		

DEVELOPER:

KSH ARCHITECTS
349 SUTTER STREET
SAN FRANCISCO, CA 94108
AMANDA BORDEN
(415) 954-1960
ABORDEN@KSHA.COM

SHEET INDEX

JT-1 JOINT TRENCH TITLE SHEET
JT-2 JOINT TRENCH INTENT



SMITH DEVELOPMENT

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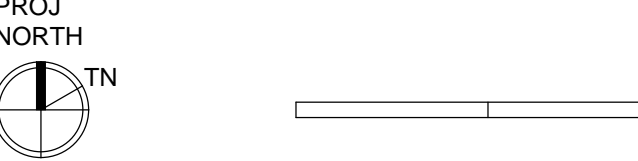
ISSUES AND REVISIONS

NO.	DATE	DESCRIPTION
12.01.21		PLANNING SUBMITTAL
05.13.22		PLANNING RESUBMITTAL #1
08.15.22		PLANNING RESUBMITTAL #2
11.02.22		PLANNING RESUBMITTAL #3
08.28.23		PLANNING RESUBMITTAL #4
10.31.23		PLANNING RESUBMITTAL #5
09.18.24		PLANNING RESUBMITTAL #8
12.17.24		PLANNING RESUBMITTAL #9
06.20.25		PLANNING RESUBMITTAL #10

PROJECT NUMBER
21003

SHEET TITLE
JOINT TRENCH TITLE SHEET

SCALE
N.T.S.



SHEET NUMBER

JT-1

UTILITIES
PLEASE CONFIRM
TIE IN LOCATIONS

—PRELIMINARY—
NOT FOR CONSTRUCTION

THIS IS NOT A BID DOCUMENT
THIS DRAWING HAS NOT YET BEEN REVIEWED BY
UTILITY COMPANIES AND IS SUBJECT TO CHANGE.

NOTE TO CONTRACTOR:
FOR CONTRACTOR'S WORK RESPONSIBILITY,
REFER TO JOINT TRENCH TITLE SHEET (JT-1)

LEGEND:

NEW

JT	JOINT TRENCH
STUB	STUB LOCATION
8.3x8.3	100" x 100" TRANSFORMER PAD (CPAU). WORKING SPACE SHOWN. MAINTAIN 30' UNOBSTRUCTED OVERHEAD CLEARANCE OVER PAD.
88x74	88" x 74" TRANSFORMER PAD (CPAU). WORKING SPACE SHOWN. MAINTAIN 30' UNOBSTRUCTED OVERHEAD CLEARANCE OVER PAD.
466	78" x 48" x 60" JUNCTION BOX (CPAU). WORKING SPACE SHOWN. MAINTAIN 20' UNOBSTRUCTED CLEARANCE OVER ENCLOSURE.
T4	30" x 48" x 36" SPLICE BOX (AT&T)
F44	20" x 42" x 12" SPLICE BOX (C.L.E.C.)

EXISTING - TO REMAIN

EB	ELECTRIC BOX
EC	ELECTRIC CABINET
EL	ELECTRIC LINE
UB	UTILITY BOX
CP	CATV PEDESTAL
CB	CATV BOX
TB	PHONE BOX
TL	PHONE LINE
COM	COMMUNICATIONS LINE
GV	GAS VALVE
GL	GAS LINE
TSL	TRAFFIC SIGNAL LIGHT
SLB	STREET LIGHT BOX
SL	STREET LIGHT

EXISTING - TO BE REMOVED OR RELOCATED

GL	GAS LINE TO BE REMOVED
GM	GAS METER TO BE REMOVED
EL	ELECTRIC LINE TO BE REMOVED

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DESIGN LLC
UTILITY DESIGN CONSULTANTS & ENGINEERS
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06.20.25		PLANNING RESUBMITTAL #10

PROJECT NUMBER
21003

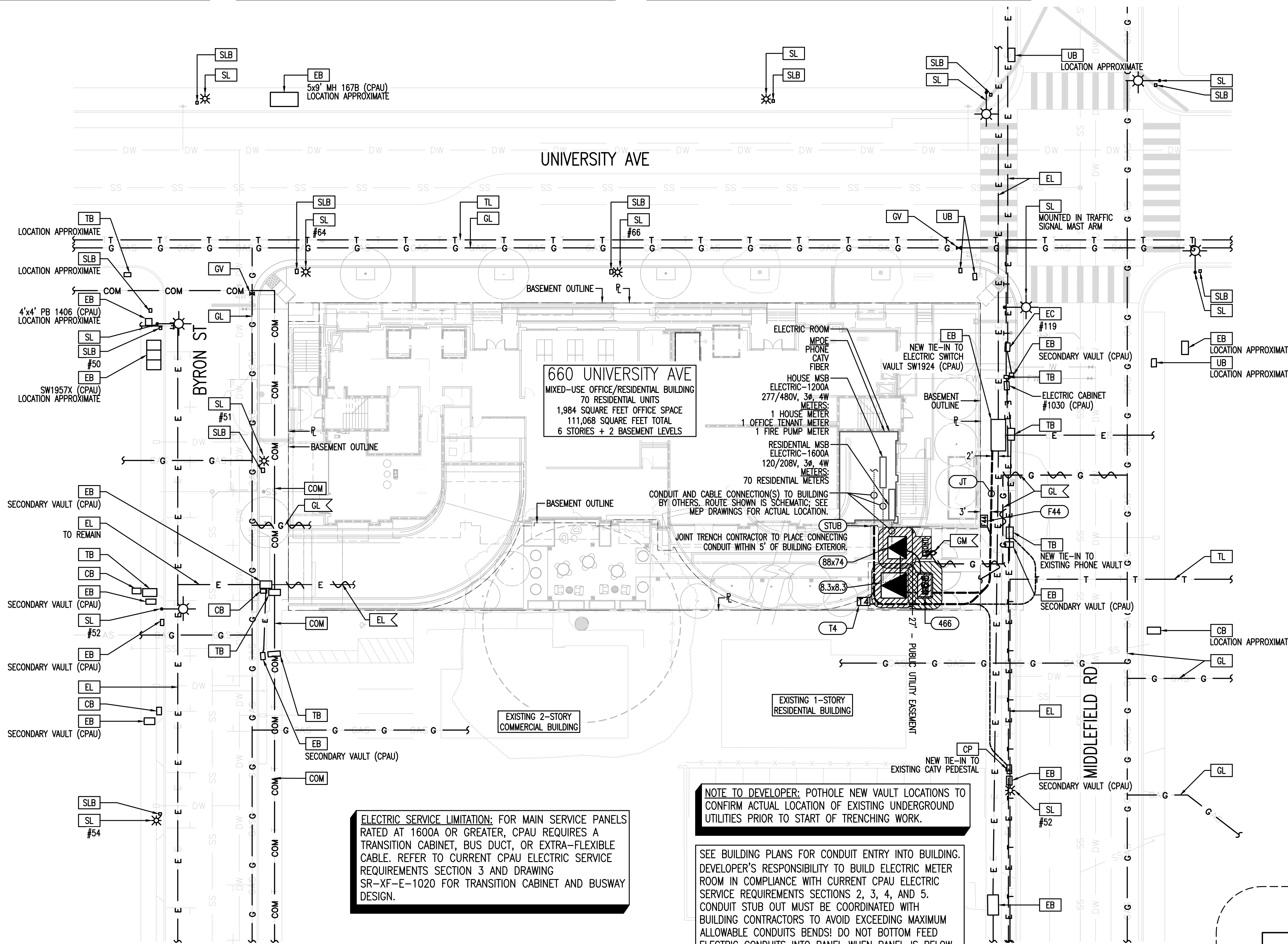
SHEET TITLE
JOINT TRENCH INTENT

SCALE
1" = 20"



SHEET NUMBER

JT-2



ELECTRIC SERVICE LIMITATION: FOR MAIN SERVICE PANELS
RATED AT 1600A OR GREATER, CPAU REQUIRES A
TRANSITION CABINET, BUS DUCT, OR EXTRA-FLEXIBLE
CABLE. REFER TO CURRENT CPAU ELECTRIC SERVICE
REQUIREMENTS SECTION 3 AND DRAWING
SR-XF-E-1020 FOR TRANSITION CABINET AND BUSWAY
DESIGN.

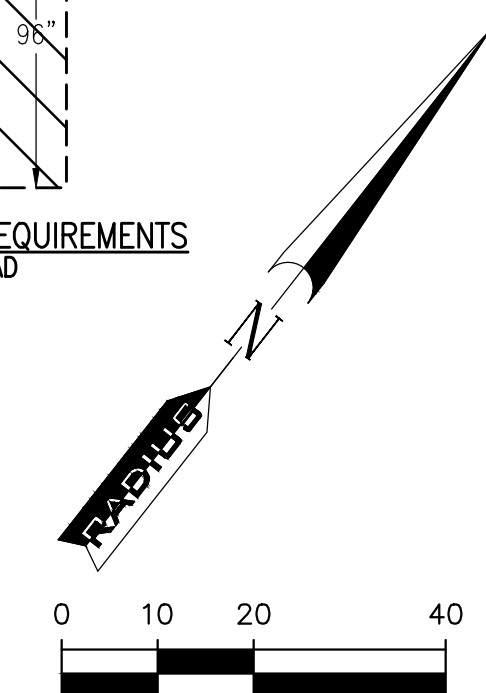
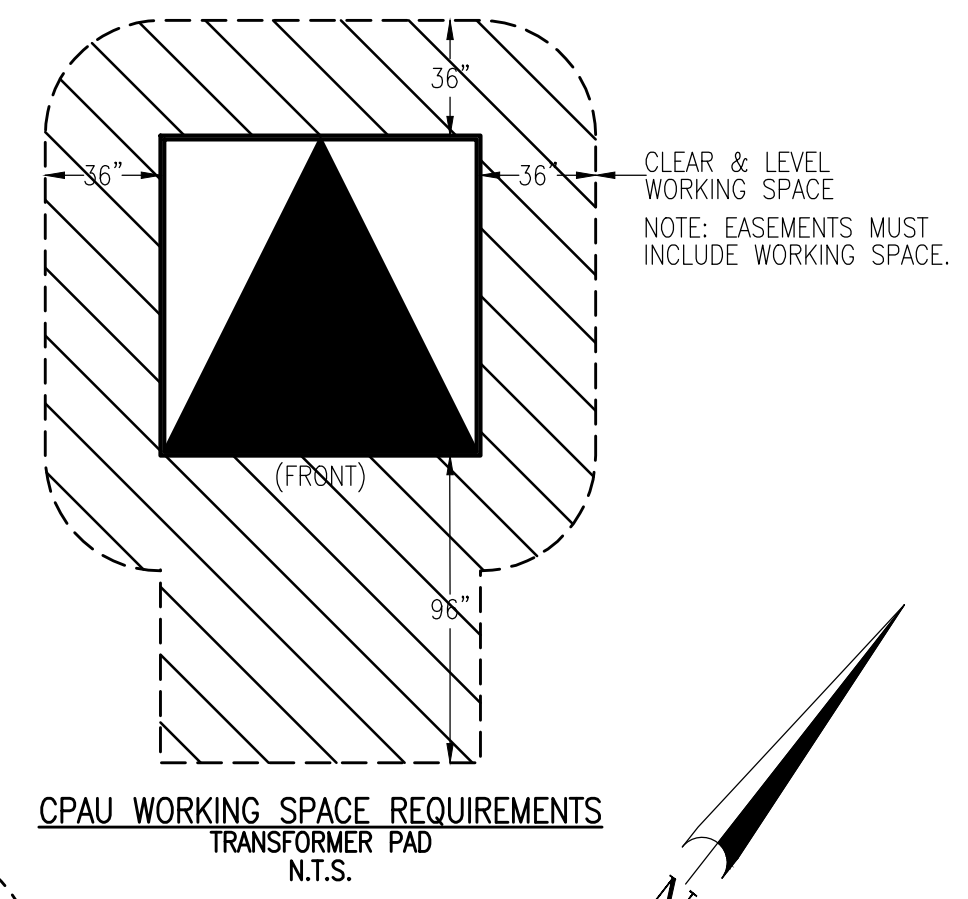
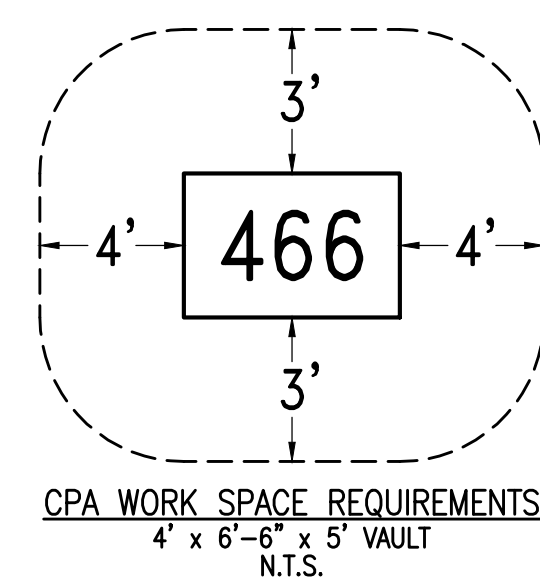
NOTE TO DEVELOPER: POTHOLE NEW VAULT LOCATIONS TO
CONFIRM ACTUAL LOCATION OF EXISTING UNDERGROUND
UTILITIES PRIOR TO START OF TRENCHING WORK.

SEE BUILDING PLANS FOR CONDUIT ENTRY INTO BUILDING.
DEVELOPER'S RESPONSIBILITY TO BUILD ELECTRIC METER
ROOM IN COMPLIANCE WITH CURRENT CPAU ELECTRIC
SERVICE REQUIREMENTS SECTIONS 2, 3, 4, AND 5.
CONDUIT STUB OUT MUST BE COORDINATED WITH
BUILDING CONTRACTORS TO AVOID EXCEEDING MAXIMUM
ALLOWABLE CONDUITS BENDS! DO NOT BOTTOM FEED
ELECTRIC CONDUITS INTO PANEL WHEN PANEL IS BELOW
GRADE.

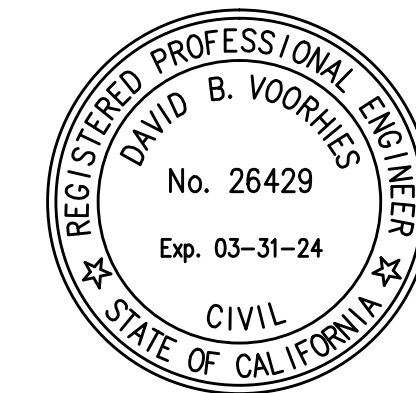
SEE CURRENT PHONE/CATV SPECIFICATIONS FOR ROOM
AND BACKBOARD REQUIREMENTS.

NOTE TO DEVELOPER: POTHOLE TO DETERMINE
THE ACTUAL LOCATION OF ALL EXISTING
UNDERGROUND UTILITIES DURING DESIGN PHASE.
POTHOLE SUBSTRUCTURE LOCATIONS TO
CONFIRM THE ACTUAL LOCATION OF EXISTING
UNDERGROUND UTILITIES PRIOR TO THE START
OF TRENCHING WORK.

SUBSTRUCTURE LOCATIONS MUST BE STAKED BY A
LICENSED SURVEYOR PRIOR TO CONSTRUCTION.
SEE CONSTRUCTION NOTES ON JOINT TRENCH TITLE
SHEET (JT-1) REGARDING EXISTING CONDITIONS.



SHEET INDEX	
JT-1	JOINT TRENCH TITLE SHEET
JT-2	JOINT TRENCH INTENT



PROJECTED RESIDENTIAL TRASH COLLECTION SCHEDULE / WK							
SERVICE	M	T	W	T	F	S	SU
COMPACT WASTE (2CY)	1				1		
COMPACT RECYCLE (2CY)	1				1		
COMPOST (64G)	2				2		
TOTAL	4				4		

PROJECTED RETAIL OFFICE TRASH SCHEDULE / WK							
SERVICE	M	T	W	T	F	S	SU
LOOSE WASTE (64G)	1						
LOOSE RECYCLE (64G)	1						
COMPOST (64G)	1						
TOTAL	3						

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ISSUES AND REVISIONS

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12.21.23		PLANNING RESUBMITTAL #6
02.07.24		PLANNING RESUBMITTAL #7
09.18.24		PLANNING RESUBMITTAL #8
06.20.25		PLANNING RESUBMITTAL #10

PROJECT NUMBER
21003

SHEET TITLE
OVERALL SITE PLAN
LEVEL 1

SCALE

3/32" = 1'-0"



0 10'-8" 21'-4"

SHEET NUMBER

TR0.1

SIDE LOAD
PICK UP VEHICLE

MUST HAVE SIGN
INDICATING NO
PARKING DURING
SERVICE HOURS

BYRON STREET

(E) PARALLEL
STALL

(N) PARALLEL
LOADING STALL

FRONT LOAD
PICK UP VEHICLE

FF 45.7'

36'-0"

FF 45.2'

Bins shall be staged by
maintenance staff and will be
responsible for bringing back
the containers to the trash
room immediately after service.

SPEED RAMP DOWN TO P1

LOUNGE

COFFEE

RES. BIKE
ROOM

18 REQ /
18 PROV

FIRE
ACC.

SECURE
STOR.

OFFICE
AGR

FF 48.

RESIDEN
LOBB
5,401

LEAS
OFFI

SMITH DEVELOPMENT

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PROJECT NUMBER
21003

SHEET TITLE
STAGING & BIN PATH

SCALE

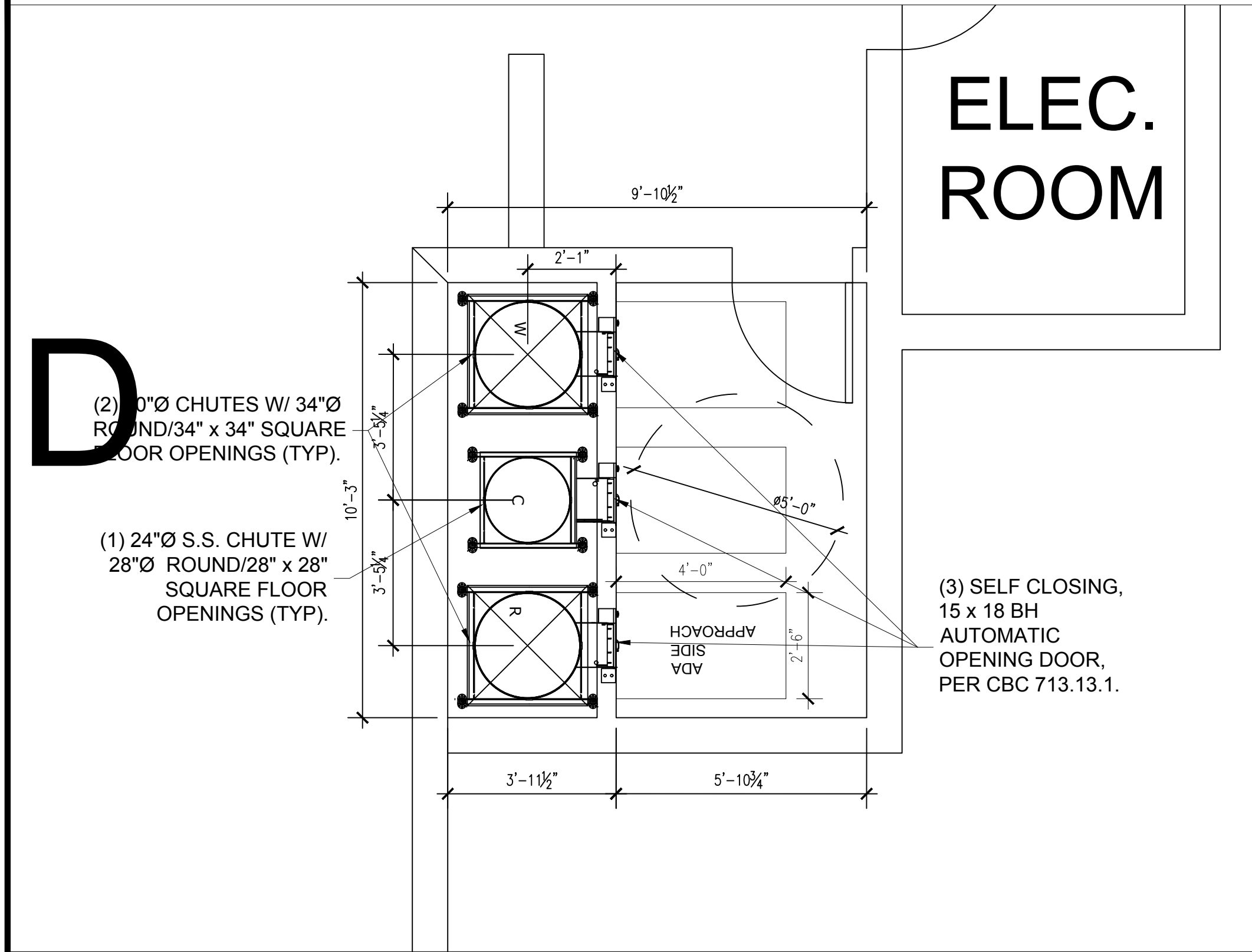
1/4" = 1'-0"



0 4'-0" 8'-0"

SHEET NUMBER

TR0.2



Trash Room Mechanical Ventilation Requirement

997SF = 1000 CFM per CBC.
Size for min. Duct = 1000 CFM

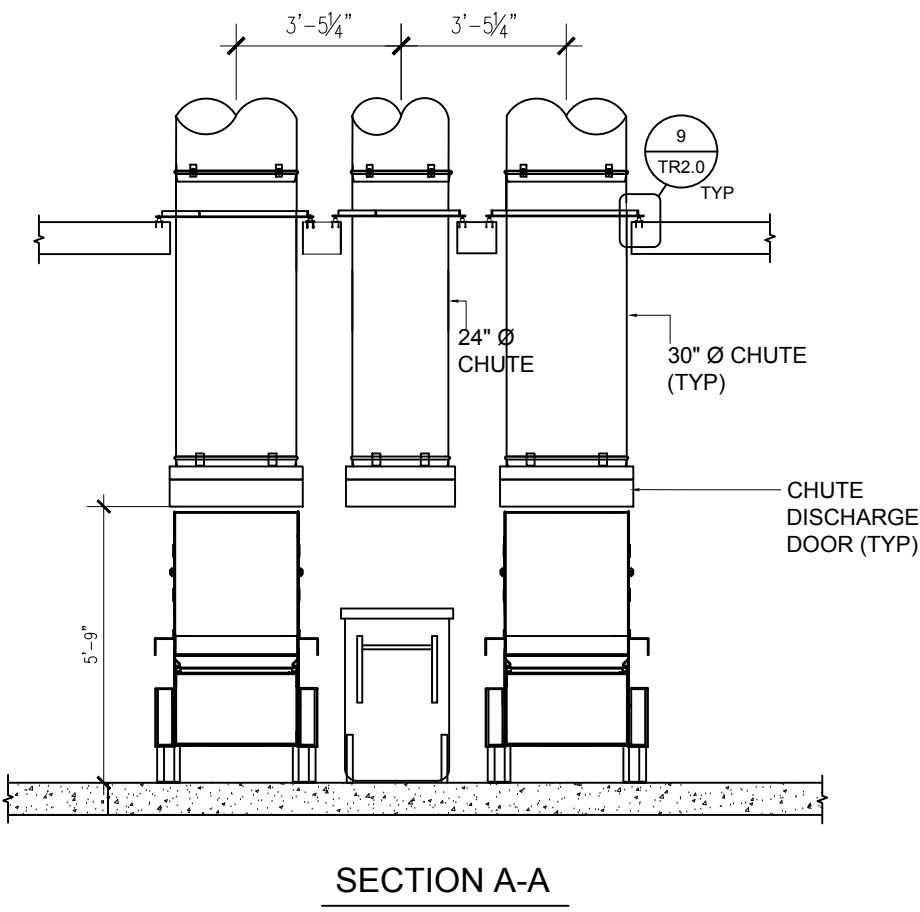
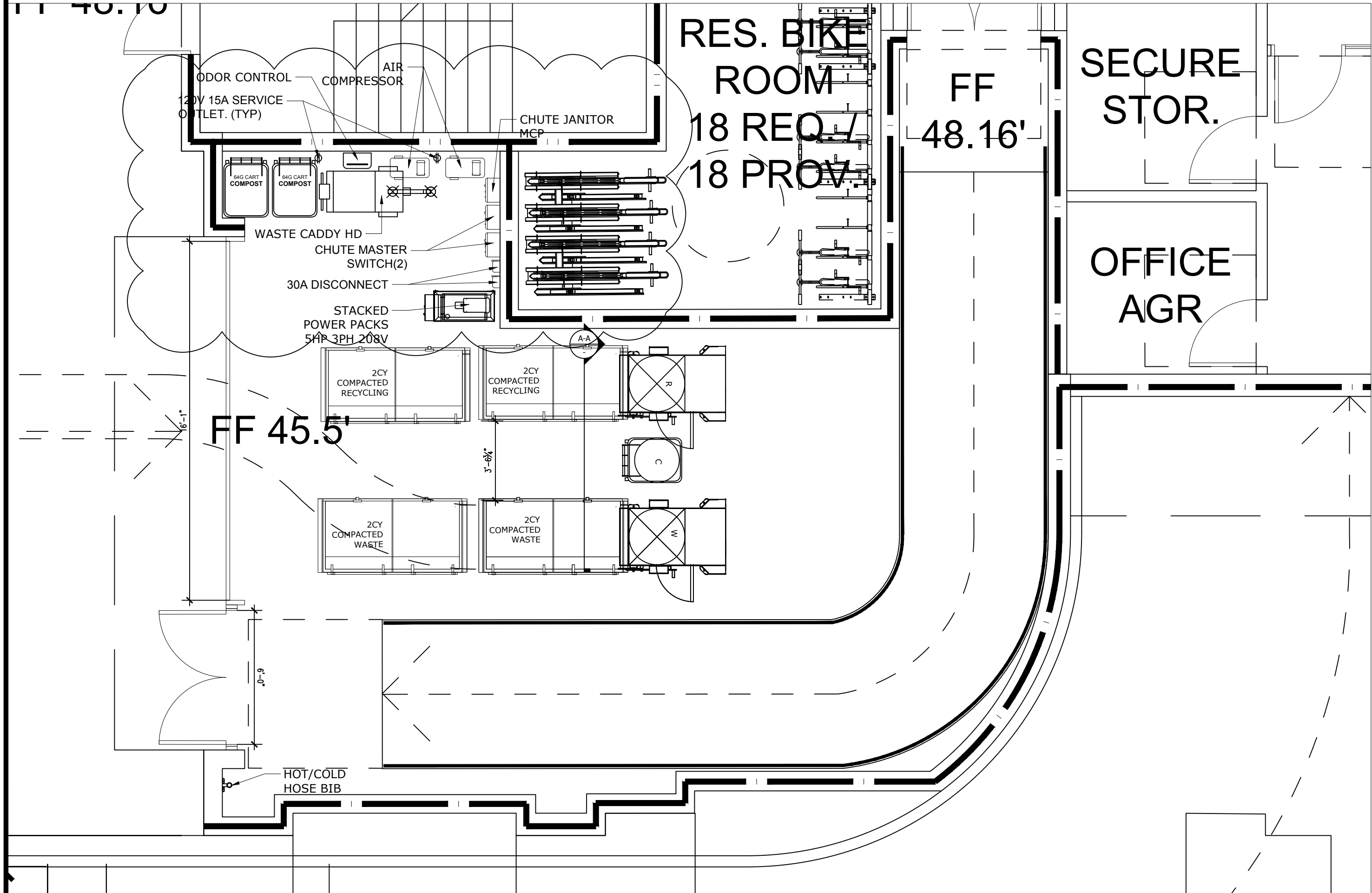
1000CFM = 22x8, 16x10, 14x12 rectangle or 14"Ø round

To be confirmed by MEP

Note: Must be its own 2HR-rated(minimum) shaft via walls or 3M duct wrap.

- SHEET NOTES:**
- RESIDENTIAL TRASH TERMINATION ROOM**
- TRASH COLLECTION ROOM IS PART OF 2HR FIRE-RATED TRASH CHUTE SHAFT - RESTRICTED ACCESS.
 - FLOOR SHALL BE FINISHED WITH WATERPROOF COATING. FLOOR TO HAVE MINIMAL SLOPE (1" MAX) AND FLOOR DRAIN. FLOOR LEVEL UNDER COMPACTOR.
 - WALLS SHALL BE FINISHED WITH WASHABLE WATERPROOF SURFACE SUCH AS FRP OR HIGH-GLOSS ENAMEL PAINT, 8'-0" AFF.
 - INSTALL WALL PROTECTION: 12"Hx8"W CONCRETE CURB AT BASE OF ALL NON-CONCRETE WALLS. DO NOT INSTALL THE CURB AROUND THE COMPACTORS OR POWER PACKS.
 - 13'-1" ROLL UP DOOR AND 3'-0" FIRE EXIT DOOR.
 - ROOM SHALL BE MECHANICALLY VENTILATED WITH (1) CFM/FT PER 2021 IBC.
 - (2) 30"Ø GRAVITY CHUTES WITH COMPACTOR FOR WASTE & RECYCLING. PROVIDE 2CY FL COMPACTOR CONTAINERS FOR WASTE & RECYCLING. (1) 24"Ø 304 STAINLESS STEEL GRAVITY CHUTE FOR COMPOST. PROVIDE 96G CARTS FOR FOR COMPOST. CHUTES SHALL TERMINATE AT 5'-9" AFF.
 - (2) PP: COMPACTOR POWER PACK SHALL BE FLOOR-MOUNTED. (1) SHP 3-PHASE, 208V/230V/460V, 30A/30A/15A DISCONNECT 60" AFF. WIRE SIZE TO BE DETERMINED BASED ON DISTANCE AND PROVIDED BUILDING POWER. TO BE CONFIRMED WITH ELECTRICIAN.
 - (2) CHUTE MASTER SWITCH SHALL BE WALL-MOUNTED 60" AFF. MUST ALLOW LOCK DOWN OF CHUTE INTAKES FOR EXCHANGING CONTAINERS AND WASHING CHUTES. REQUIRES 120V 15A DEDICATED SERVICE.
 - (1) MCP: CHUTE MASTER CONTROL PANEL SHALL BE WALL-MOUNTED 60" AFF. MUST ALLOW LOCK DOWN OF CHUTE INTAKES/DIVERTER/CHUTE JANITOR FOR EXCHANGING CONTAINERS AND WASHING CHUTES. REQUIRES 120V 15A DEDICATED SERVICE.
 - (2) AIR COMPRESSOR (OIL LESS) 4610AC WITH AUTOMATIC TANK DRAIN VALVE, 1HP, 2HP PEAK, TWIN TANK CAPACITY 4.6 GALLONS, VOLTAGE @ 60 HZ 110 VOLTS, CURRENT 8.5 AMPS TO POWER THE CHUTE INTAKE DOORS.
 - OC: ODOR CONTROL UNIT SHALL BE WALL-MOUNTED 60" AFF. REQUIRES 120V 15A SERVICE OUTLET 60" AFF.
 - HB: HOT AND COLD HOSE BIB SHALL BE WALL-MOUNTED 60" AFF.
 - CHUTE DISCHARGE DOOR: TYPE-A, HORIZONTAL ROLLING STEEL DOOR, HELD OPEN BY 165° F FUSIBLE LINK.
 - (1) UNDEDICATED 120V 15A SERVICE OUTLET REQUIRED FOR STAFF MAINTENANCE PURPOSE.
- CHUTE INTAKE VESTIBULES:**
- CHUTE INTAKE VESTIBULES SHALL BE 2HR FIRE-RATED (NFPA-82 6.2.5.1.1) WITH 1.5HR FIRE-RATED DOOR(S) (NFPA-82 6.2.3.1.3); 5'-0" MIN REQUIRED PER ADA STANDARDS - RESIDENTIAL ACCESS. PROVIDE (2) SELF CLOSING, 15x18 BOTTOM HINGED, ELECTRICALLY INTERLOCKED, AUTOMATIC OPENING INTAKE DOORS TO DISPOSE TRASH AND RECYCLING INTO COMPACTORS PER IBC 713.13.1. POWER TO INTAKE DOORS SUPPLIED BY MCP. SEE DETAIL 1TR2.0.
 - CHUTE SHAFT SHALL NOT BE ERECTED UNTIL CHUTE HAS BEEN INSTALLED. FOR SOUND PROOFING PURPOSES, DOUBLE STUD-WALLS ARE REQUIRED ADJACENT TO OCCUPIED SPACES. INTERIOR OF SHAFT SHALL BE TAPED TO PREVENT ODOROUS AIR LEAKING INTO OCCUPIED SPACES (BY OTHERS).
 - PROVIDE ROUND FLOOR OPENINGS AT CONCRETE FLOORS AND SQUARED FLOOR OPENINGS AT WOOD-FRAME CONSTRUCTION. INSTALL FLOOR SUPPORT FRAME AT EACH FLOOR PENETRATION TO SECURE CHUTE. SEE DETAIL 9/TR2.0 FOR ANCHORING AND MASON ND-A-RED SOUND ISOLATION PAD ASSEMBLY. POUR RINGS WILL VARY BASED ON THICKNESS OF FLOOR SLAB AND SHALL BE PROVIDED BY MANUFACTURER.

- GENERAL NOTES:**
- ANY DESIGNS OR DESIGN SOLUTIONS PRESENTED IN THIS DRAWING OR SPECIFICATION, WHICH ARE DIRECT OR IMPLIED, INCLUDING NARRATIVES, DRAWINGS, OR DIAGRAMS, ARE HEREBY CLARIFIED AS EXAMPLES AND SHALL NOT BE CONSIDERED COMPLETE DESIGNS OR DESIGNS SUITABLE FOR CONSTRUCTION.
 - OMISSIONS FROM DRAWINGS OR SPECIFICATIONS, OR THE INACCURATE DESCRIPTION OF DETAILS OF WORK, WHICH ARE MANIFESTLY NECESSARY TO CARRY OUT THE INTENT OF THE DRAWINGS AND SPECIFICATIONS, OR WHICH ARE CUSTOMARILY PERFORMED, SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING SUCH OMITTED OR INACCURATELY DESCRIBED DETAILS OF THE WORK. WORK SHALL BE PERFORMED AS IF FULLY AND CORRECTLY SET FORTH AND DESCRIBED IN THE DRAWINGS AND SPECIFICATIONS.
 - CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO START OF CONSTRUCTION. THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ALL EXISTING FIELD CONDITIONS AND ANY DISCREPANCIES OR INCONSISTENCIES.



PROJECTED RESIDENTIAL TRASH COLLECTION SCHEDULE / WK							
SERVICE	M	T	W	T	F	S	SU
COMPACT WASTE (2CY)	1				1		
COMPACT RECYCLE (2CY)	1				1		
COMPOST (64G)	2				2		
TOTAL	4				4		

PROJECTED RETAIL OFFICE TRASH SCHEDULE / WK							
SERVICE	M	T	W	T	F	S	SU
LOOSE WASTE (64G)	1						
LOOSE RECYCLE (64G)	1						
COMPOST (64G)	1						
TOTAL	3						

SMITH DEVELOPMENT

660 UNIVERSITY
PALO ALTO, CA 94301



ISSUES AND REVISIONS		
NO.	DATE	DESCRIPTION
	12.01.21	PLANNING SUBMITTAL
	05.13.22	PLANNING RESUBMITTAL #1
	08.15.22	PLANNING RESUBMITTAL #2
	11.02.22	PLANNING RESUBMITTAL #3
	08.28.23	PLANNING RESUBMITTAL #4
	10.31.23	PLANNING RESUBMITTAL #5
	12.21.23	PLANNING RESUBMITTAL #6
	02.07.24	PLANNING RESUBMITTAL #7
	09.18.24	PLANNING RESUBMITTAL #8
	06.20.25	PLANNING RESUBMITTAL #10

PROJECT NUMBER
21003

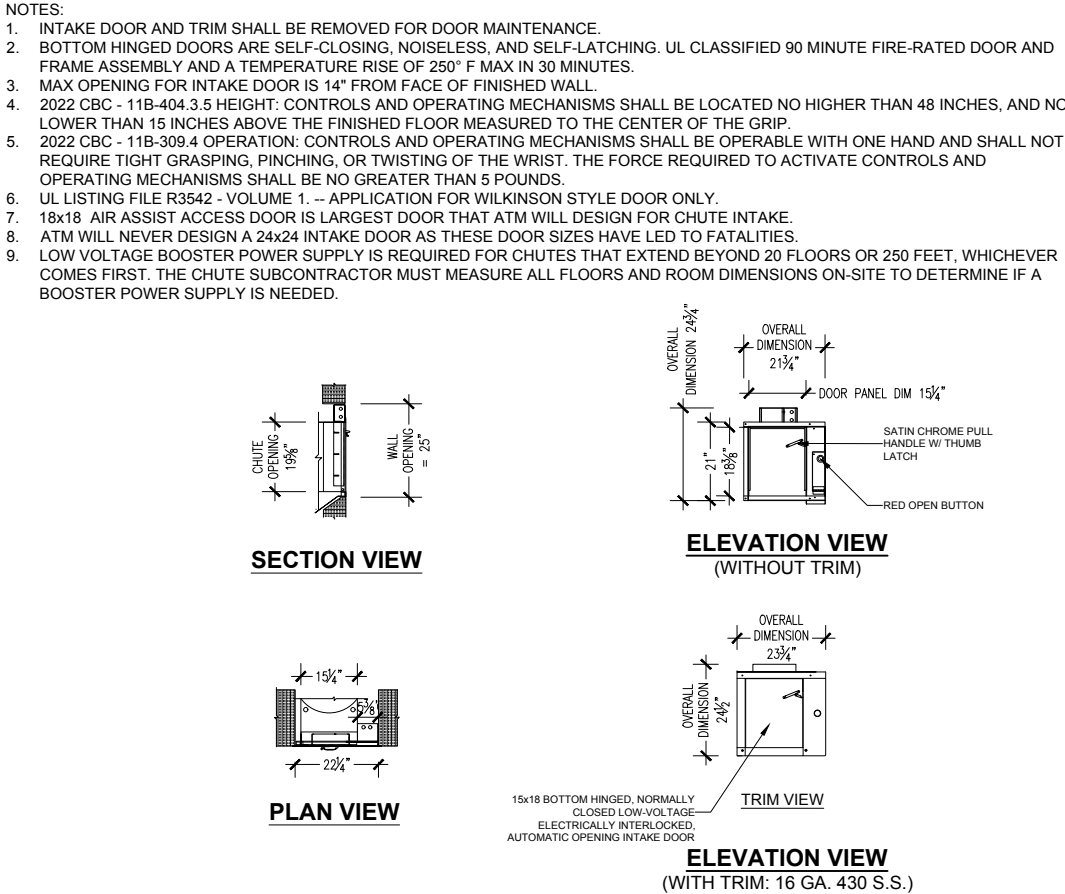
SHEET TITLE
TRASH COLLECTION ROOM DETAILS

SCALE
3/8" = 1'-0"

PROJ NORTH
0 2'-8" 5'-4"

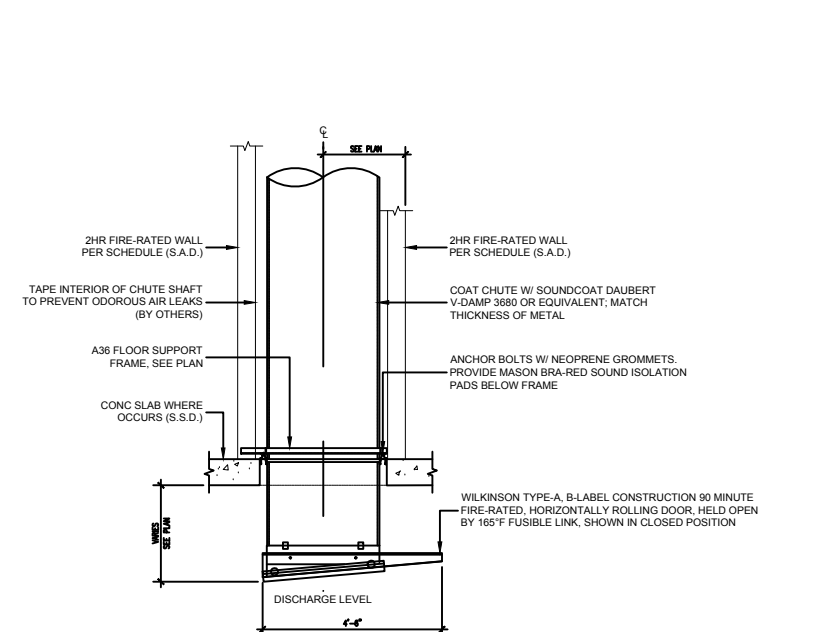
SHEET NUMBER

TR1.0



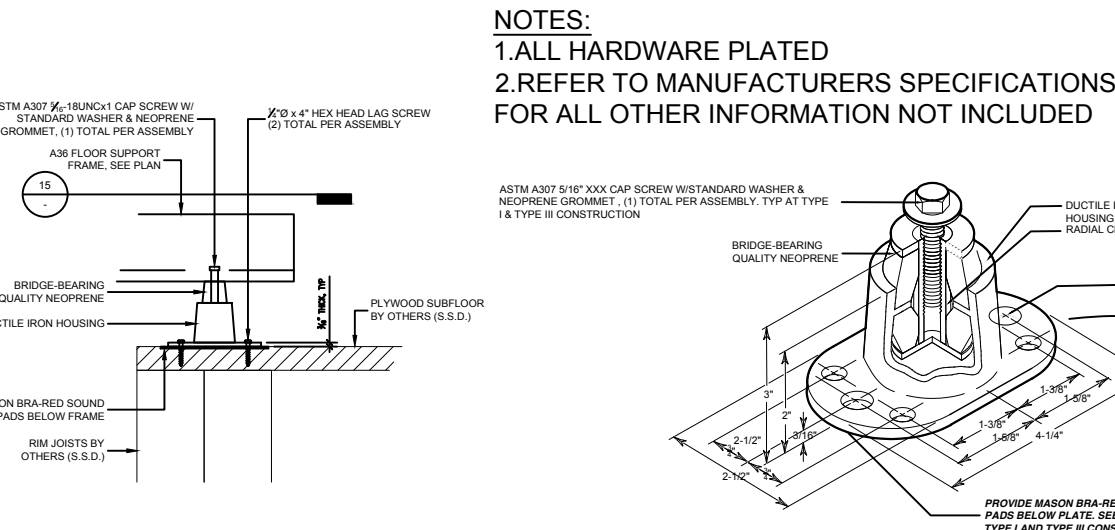
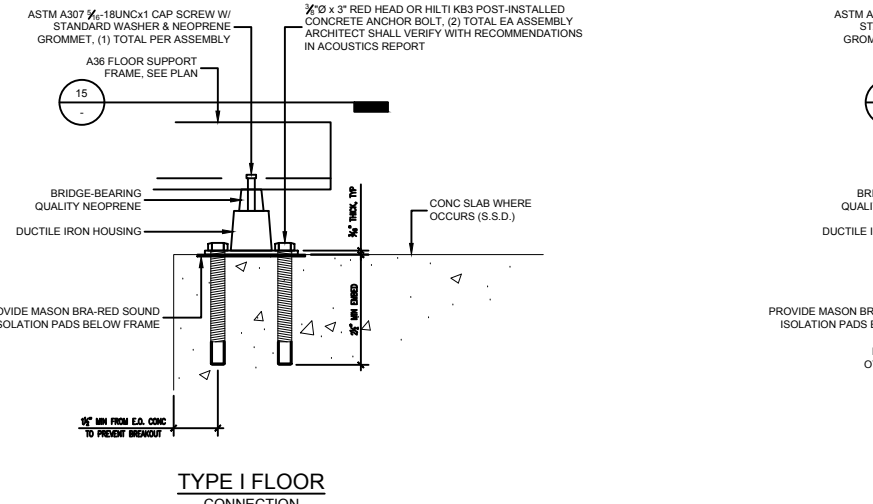
1 CHUTE INTAKE DOOR
UPPER LEVELS
SCALE: 3/8" = 1'-0"

- NOTES:
- 2HR FIRE-RATED FACE WALL SHALL NOT BE ERECTED UNTIL CHUTES HAVE BEEN INSTALLED. FOR SOUND PROOFING PURPOSES, DOUBLE STUD WALLS ARE REQUIRED ADJACENT TO OCCUPIED SPACES. INTERIOR OF SHAFT SHALL BE TAPED TO PREVENT ODOROUS AIR LEAKING INTO OCCUPIED SPACES.
 - INTAKE DOOR NOT SHOWN FOR CLARITY.



5 CHUTE AIR AND SOUND ISOLATION
SCALE: 3/8" = 1'-0"

- NOTES:
- REFER TO MANUFACTURER SPECIFICATIONS FOR ALL OTHER INFORMATION NOT LISTED.
 - (H) MASON BRA-RED SOUND ISOLATION PADS ASSEMBLES PER FLOOR SUPPORT FRAME.

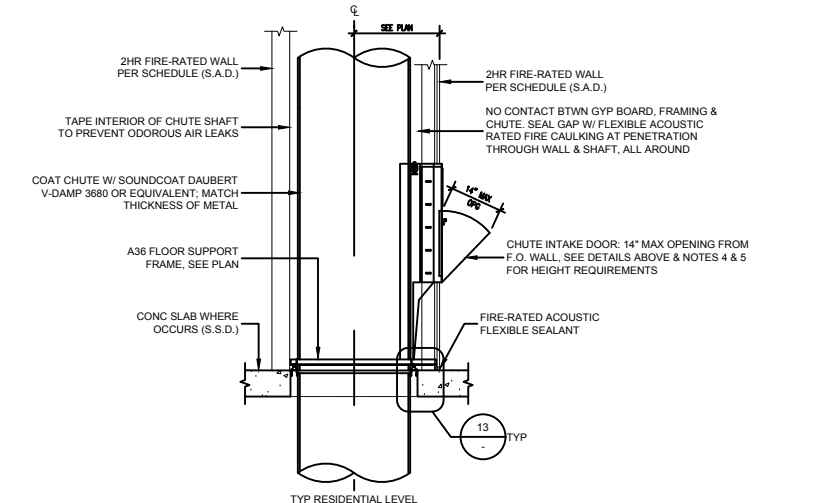


MASON BRA-RED MOUNT
ISOMETRIC VIEW

MASON BRA-RED MOUNT

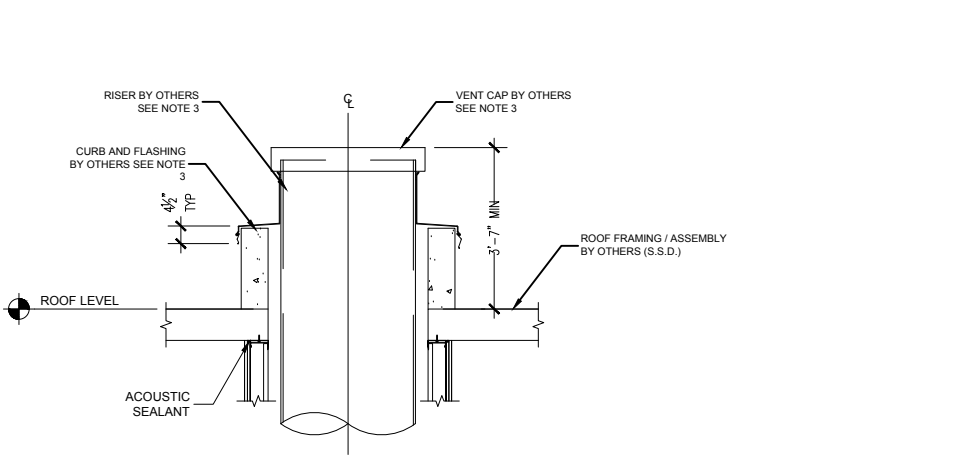
SCALE: 1/8" = 1'-0"

- NOTES:
- 2022 CBC - 118-404.3.5 HEIGHT: CONTROLS AND OPERATING MECHANISMS SHALL BE LOCATED NO HIGHER THAN 48 INCHES, AND NO LOWER THAN 15 INCHES ABOVE THE FINISHED FLOOR MEASURED TO THE CENTER OF THE GRIP.
 - 2022 CBC - 118-309.4 OPERATION: CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS AND OPERATING MECHANISMS SHALL BE NO GREATER THAN 5 POUNDS.

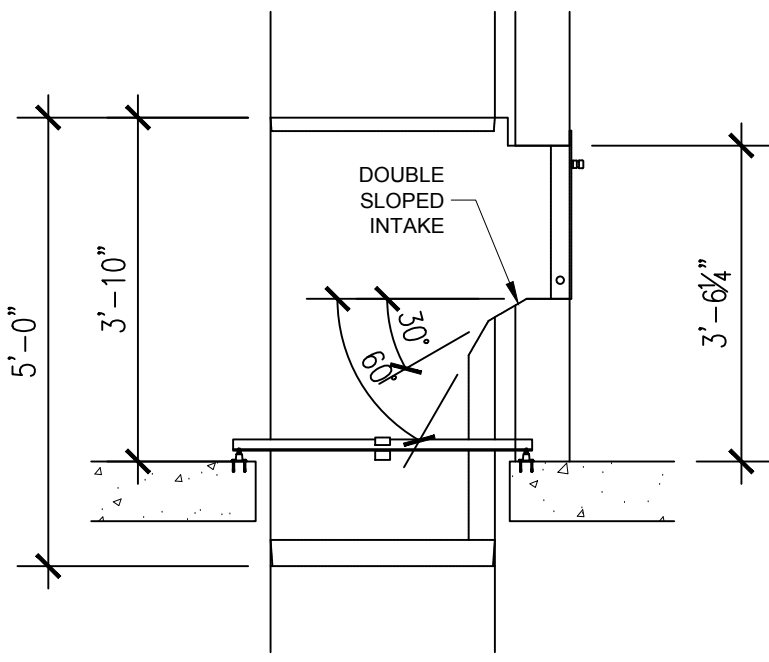


10 CHUTE SHAFT AT INTAKE
SCALE: 3/8" = 1'-0"

- NOTES:
- ATTACHMENT OF ALL BLOCKING, CURBS, AND OTHER ROOF COMPONENTS SHALL BE DESIGNED AND INSTALLED TO MEET THE MINIMUM REQUIREMENTS OF MANUFACTURER.
 - SEE ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS FOR ALL WORK BY OTHERS.
 - SUPPLIED BY VENDOR - INSTALLED BY ROOFER.



11 CHUTE VENT
AT ROOF LEVEL
SCALE: 3/8" = 1'-0"

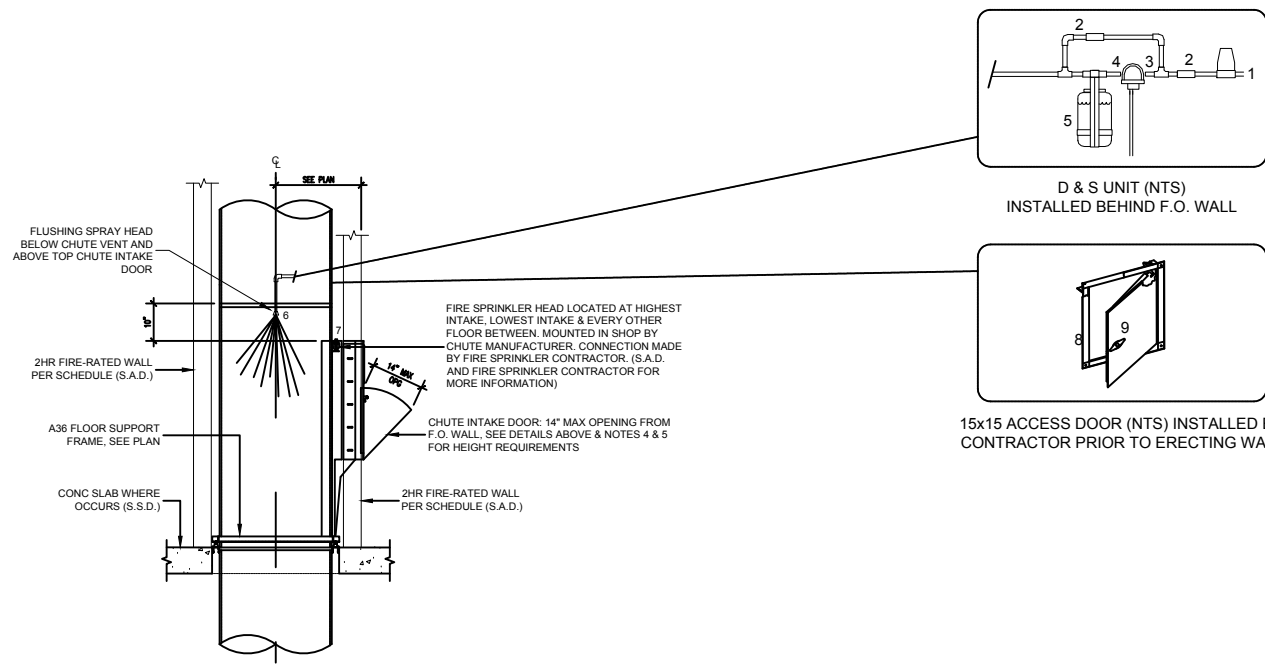


3 DOUBLE SLOPED INTAKE
TYP ALL INTAKE DOORS U.O.N.
SCALE: NTS

- NOTES:
- PROVIDE HIGH PRESSURE CHUTE WASHDOWN NOZZLE.
 - PL SANITATION TANK WITH CONCENTRATED DISINFECTING SOLUTION. THE SYNTHON HOSE SHOULD REACH THE BOTTOM OF THE SOLUTION CONTAINER. TO FLUSH WITH CLEAR WATER, TURN HANDLE TO THE ON POSITION. FACTORY SETTING OF THE PROPORTIONING VALVE IS FOR 50-GALLONS PER GALLON OF DISINFECTING SOLUTION.
 - NOTE THAT THE ACCESS DOOR AND D & S UNIT ARE SHOWN OUTSIDE OF CHUTE SHAFT FOR CLARITY. ALL WASHDOWN EQUIPMENT WILL BE INSTALLED WITHIN CHUTE SHAFT, ABOVE THE HIGHEST INTAKE, 110' & S UNIT PER CHUTE.
 - 2022 CBC - 118-404.3.5 HEIGHT: CONTROLS AND OPERATING MECHANISMS SHALL BE LOCATED NO HIGHER THAN 48 INCHES, AND NO LOWER THAN 15 INCHES ABOVE THE FINISHED FLOOR MEASURED TO THE CENTER OF THE GRIP.
 - 2022 CBC - 118-309.4 OPERATION: CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS AND OPERATING MECHANISMS SHALL BE NO GREATER THAN 5 POUNDS.
 - SUPPLIED BY VENDOR - INSTALLED BY PLUMBER.

PLUMBING SCHEMATIC LEGEND:

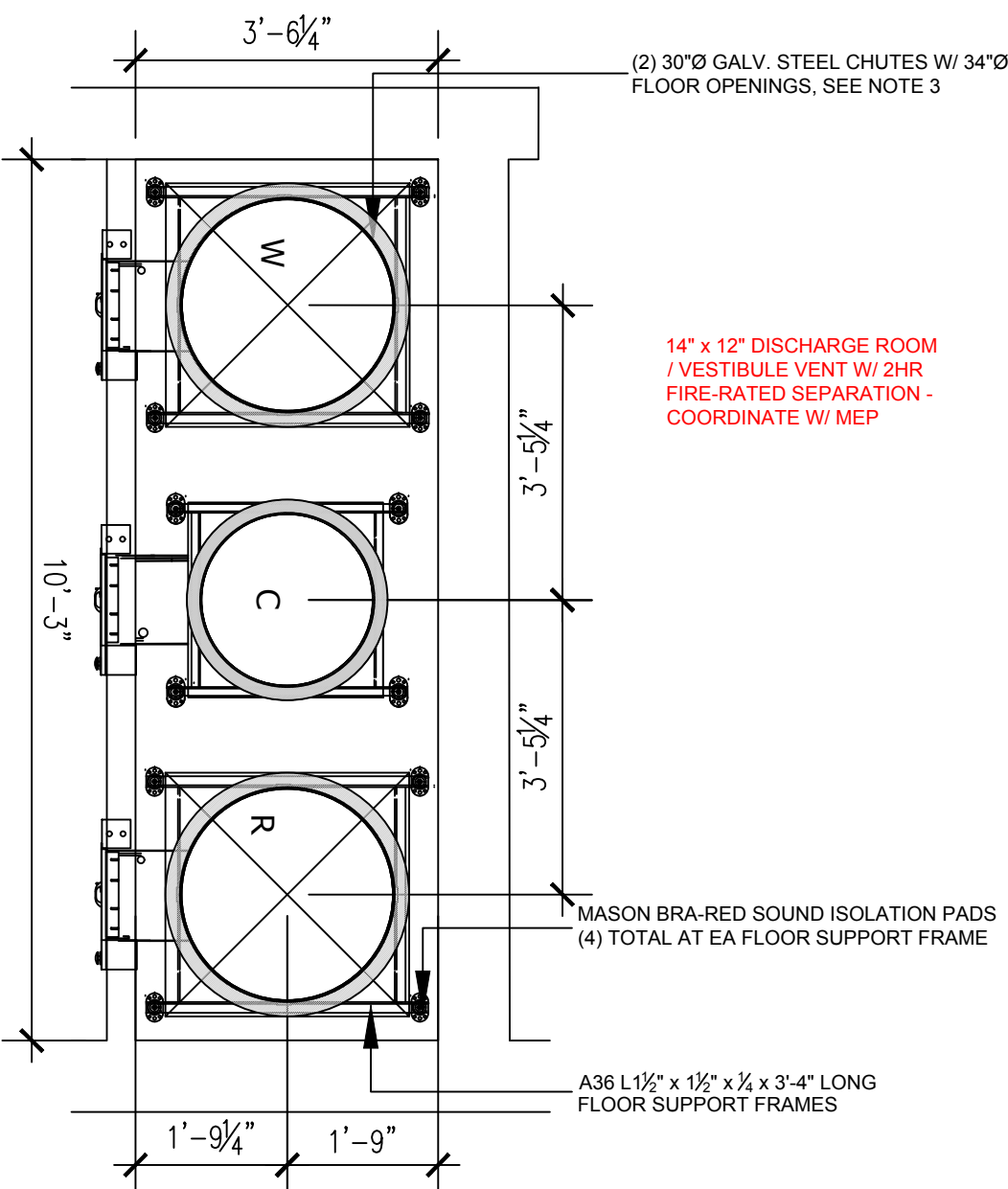
- 3/4" DOMESTIC HOT WATER INLET WITH VACUUM BREAKER. (SUPPLIED/INSTALLED BY PLUMBING SUBCONTRACTOR).
- QUARTER-TURN GATE VALVE (SHUT-OFF AND BYPASS). (2) TOTAL. (SUPPLIED/INSTALLED BY PLUMBING SUBCONTRACTOR).
- PLUMBING DESIGN, MATERIALS, AND INSTALLATION BY OTHERS. (SUPPLIED/INSTALLED BY PLUMBING SUBCONTRACTOR).
- 24 VDC SOLENOID VALVE (OPTIONAL). NOT NEEDED FOR MANUAL OPERATION. (NOT USED HERE).
- D & S UNIT - 1-GALLON CONTAINER, MOUNTING BRACKET, AND PROPORTIONAL VALVE AT REMOTE LOCATION. (SUPPLIED/MOUNTED BY CHUTE SUBCONTRACTOR, PLUMBED BY PLUMBING SUBCONTRACTOR).
- FLUSHING SPRAY HEAD BELOW CHUTE VENT. (SUPPLIED/MOUNTED BY CHUTE SUBCONTRACTOR, PLUMBED BY PLUMBING SUBCONTRACTOR).
- FIRE SPRINKLER IS LOCATED AT HIGHEST INTAKE, LOWEST INTAKE, AND EVERY OTHER FLOOR BETWEEN. TO BE STARTED FROM HIGHEST INTAKE. (MOUNTED IN SHOP BY CHUTE MANUFACTURER. CONNECTION MADE BY FIRE SPRINKLER SUBCONTRACTOR).
- SIDE-HINGED, UL RATED 90 MINUTE B-LABEL ACCESS DOOR. (SUPPLIED BY CHUTE SUBCONTRACTOR, INSTALLED BY FRAMING SUBCONTRACTOR OR GC).
- SATIN CHROME PULL-HANDLE. (SUPPLIED/INSTALLED BY CHUTE MANUFACTURER).



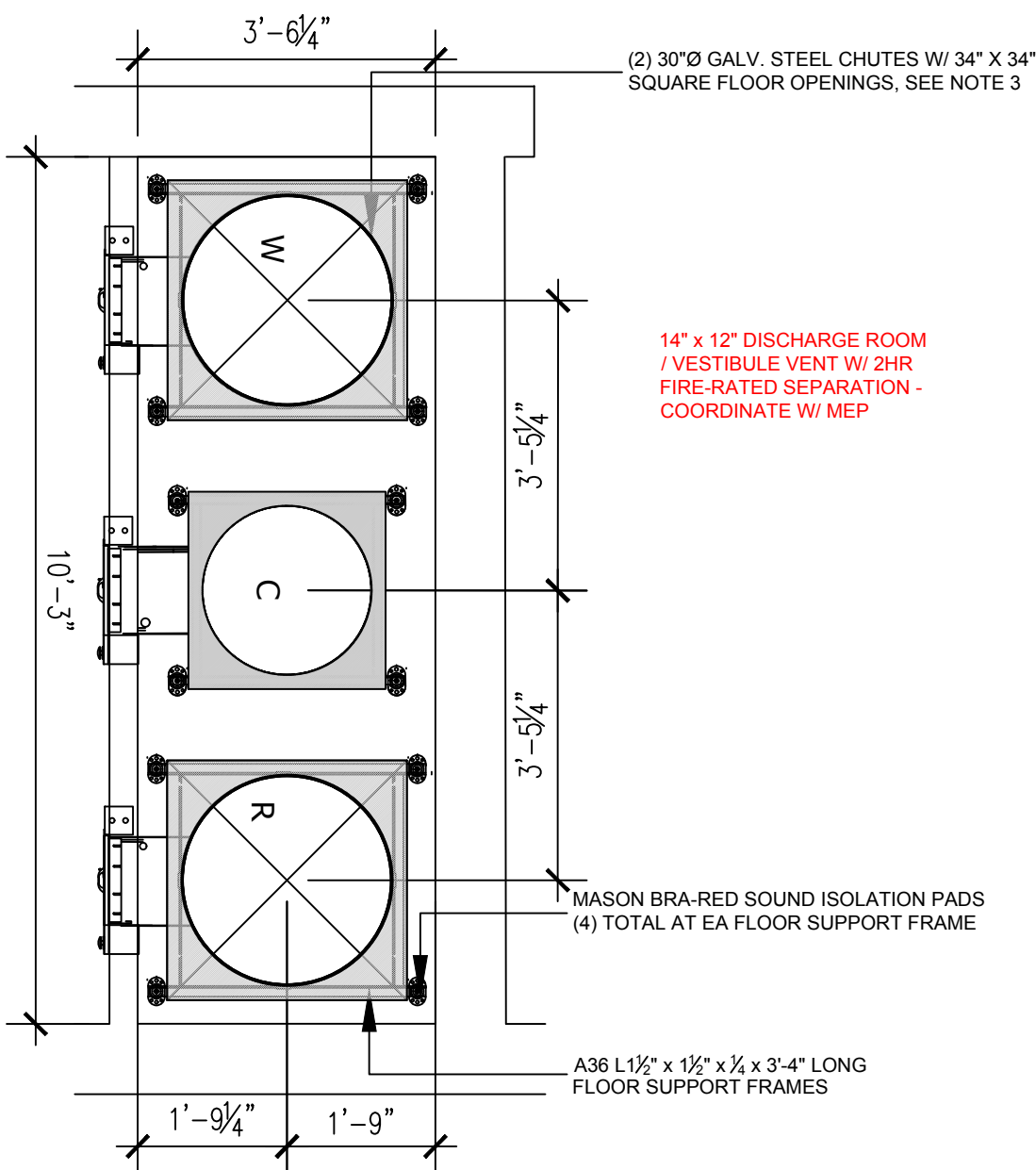
7 DISINFECTING AND SANITATION UNIT
AT HIGHEST INTAKE - ALL CHUTES
SCALE: 3/8" = 1'-0"

- NOTES:
- REDUCED CHUTE INTAKE VESTIBULES SHALL BE 2HR FIRE-RATED WITH 2HR FIRE-RATED ACCESS DOORS FOR RESIDENTIAL ACCESS. 14" MIN CLEAR REQUIRED PER FIRE DEPARTMENT. POWER TO INTAKE DOORS SUPPLIED BY MEP. PROVIDE (2) 18"18 BOTTOM HINGED, NORMALLY CLOSED LOW VOLTAGE, ELECTRICALLY INTERLOCKED, AUTOMATIC OPENING DOORS FOR WASTE AND RECYCLING AT EACH FLOOR. SEE DETAIL 20 - 30" x 48" FRONT APPROACH REQUIRED PER ADA STANDARDS. MANAGEMENT TO PROVIDE 22 GALLON RUBBERMAID SLIM JIM OR EQUIVALENT CONTAINER FOR COMPOST DISPOSAL. STAFF TO EMPTY IN TOTES DAILY AT TRASH ROOM.
 - 2HR FIRE-RATED FACE WALL SHALL NOT BE ERECTED UNTIL CHUTES HAVE BEEN INSTALLED. FOR SOUND PROOFING PURPOSES, DOUBLE STUD WALLS ARE REQUIRED ADJACENT TO OCCUPIED SPACES. INTERIOR OF SHAFT SHALL BE TAPED TO PREVENT ODOROUS AIR LEAKING INTO OCCUPIED SPACES.
 - DOUBLE STUD WALLS ARE REQUIRED ADJACENT TO OCCUPIED SPACES. INTERIOR OF SHAFT SHALL BE TAPED TO PREVENT ODOROUS AIR LEAKING INTO OCCUPIED SPACES. INTERIOR OF SHAFT SHALL BE TAPED TO PREVENT ODOROUS AIR LEAKING INTO OCCUPIED SPACES.
 - SEE PLAN FOR DIAMETER OF OPENINGS. INSTALL FLOOR SUPPORT FRAME AT EACH FLOOR PENETRATION TO SECURE CHUTE. SEE DETAIL 21 FOR ANCHORING. POUR RINGS WILL VARY BASED ON THICKNESS OF FLOOR SLAB - PROVIDED BY MANUFACTURER.
 - TYPE I FLOOR: TO PREVENT CONCRETE BREAK-OFF, VERIFY MINIMUM DISTANCE WITH STRUCTURAL ENGINEER.
 - ARCHITECT SHALL VERIFY ALL FLOOR SUPPORT FRAME ANCHORING CONNECTIONS WITH RECOMMENDATIONS IN ACOUSTICS REPORT.

*SOUND CONSULTANT TO VERIFY DETAILS
AND UPDATE AS NECESSARY*
REFER TO CHUTE VESTIBULE LAYOUTS ON
SHEETS TR1.0 FOR ANY MISSING
INFORMATION.



TYPE I SHAFT



TYPE III SHAFT

12 CHUTE SHAFT DETAILS
PLAN VIEWS
SCALE: NTS

SMITH DEVELOPMENT

660 UNIVERSITY
PALO ALTO, CA 94301



ARCHITECTS
KORTH SUNSERI HAGEY



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EMERYVILLE, CALIFORNIA 94608
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ISSUES AND REVISIONS		
NO.	DATE	DESCRIPTION
12.01.21	PLANNING SUBMITTAL	
05.13.22	PLANNING RESUBMITTAL #1	
08.15.22	PLANNING RESUBMITTAL #2	
11.02.22	PLANNING RESUBMITTAL #3	
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02.07.24	PLANNING RESUBMITTAL #7	
09.18.24	PLANNING RESUBMITTAL #8	
06.20.25	PLANNING RESUBMITTAL #10	

PROJECT NUMBER
21003

SHEET TITLE
CHUTE DETAILS

SCALE
NTS



SHEET NUMBER

TR2.0



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Smith Development
660 University
Palo Alto, CA
Trash Management Plan

Task: Design a waste and recycling system for a mixed-use project consisting of 70 residential units and 1,976 square feet of usable office space that minimizes costs, staffing requirements, and environmental impacts, while providing convenient trash disposal for the building's residents. Please note the word "trash" when used in this plan covers both waste and recycling.

Waste and Recycling Removal: The City of Palo Alto has granted GreenWaste of Palo Alto a license to provide residential and commercial Waste and Recycling services to residents and businesses located within the city and county. This license is a de facto exclusive franchise for trash removal for any property located within city limits. GreenWaste provides three types of service: waste, commingled recycling, and compost collection.

The City Council has approved the Recycling and Composting Ordinance. Starting January 1, 2017 businesses generating 2 or more cubic yards of garbage per week will be required to subscribe to recycling and compost services, as well as sort all waste into the appropriate containers. Currently, commercial customers generating 8 or more cubic yards of garbage per week, multifamily buildings, and food service establishments are already composting and recycling under the Ordinance.

Palo Alto Municipal Code 5.20.030 (b) states that "all persons shall separate their refuse according to its characterization as solid waste, compostable materials or recyclable materials."

Additionally, Palo Alto has a noise ordinance, 9.10.030 Residential Property Noise Limits that states (a) No person shall produce, suffer or allow to be produced by any machine, animal device, or any combination of same, on residential property, a noise level more than six dB above the local ambient at any point outside of the property plane.

(b) No person shall produce, suffer, or allow to be produced by any machine, animal, or device, or any combination of same, on multi-family residential property, a noise level more than six dB above the local ambient three feet from any wall, floor, or ceiling inside any dwelling unit on the same property, when the windows and doors of the dwelling unit are closed, except within the dwelling unit in which the noise source or sources may be located.
(Ord. 4634 § 2 (part), 2000)

NOTE: While Palo Alto has this noise ordinance given the data we have on trash truck noise, every location in the city with trash collection violates this rule.

State and Local Recycling Mandates: Statewide the passage of AB341 (July 1st, 2012) and subsequent AB1826 & SB 1383 required all businesses that have more than 5 residential units or generate more than 4 cubic yards of municipal solid waste to separate recyclable and compostable materials from the waste stream. This law directs local jurisdictions to implement recycling and composting regulations and programs.



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Projected Residential Waste and Recycling Levels: The following metrics were used to project residential waste and recycling levels:

Residential Waste: 0.16 Cubic Yard (32 gallon) per week/unit. NOTE: This is the equivalent of 2.5 large kitchen garbage cans per unit week (3 - 13 gallon bags).

Residential Recycling: 0.16 Cubic Yard (32 gallon) per week/unit. NOTE: This is the equivalent of almost 2 large kitchen garbage cans per unit week (2 - 13 gallon bags).

Residential Compost: 0.012 Cubic Yard (2.4 gallon) per week/unit. NOTE: This is the equivalent of small compost pail per unit week.

Residential LOOSE Trash Volume Projections. See detailed analysis on page 20.

Units	Projected Waste Volume CY/ WK	Projected Recycle Volume CY/WK	Projected Compost Volume CY/WK	Total # of Loose 3CY Waste Bins/ WK	Total # of Loose 3CY Recycle Bins/ WK	Total # of Loose 96G Compost Carts/WK
70	11.2	11.2	0.8	4	4	3

Residential COMPACTED Trash Volume Projections. See detailed analysis on page 20.

Units	Projected Waste Volume CY/ WK	Projected Recycle Volume CY/WK	Projected Compost Volume CY/WK	Total # of Compacted 2CY Waste Bins/WK	Total # of Compacted 2CY Recycle Bins/WK	Total # of Loose 96G Compost Carts/WK
70	2.8	2.8	0.8	2	2	3

Commercial Office Trash Volume Projections:

Studies cited by CalRecycle estimate office building trash generation at 5.44 lb. of trash per 1000 SF, nearly 70% of which can be diverted. Although past studies had low diversion rates for office buildings, more recent evidence points to large increases in diversion, as firms and their employees become more active recyclers. (This is supported both by outside studies and ATM's data). It is assumed, therefore, that comparable diversion rates for this office space will hold.

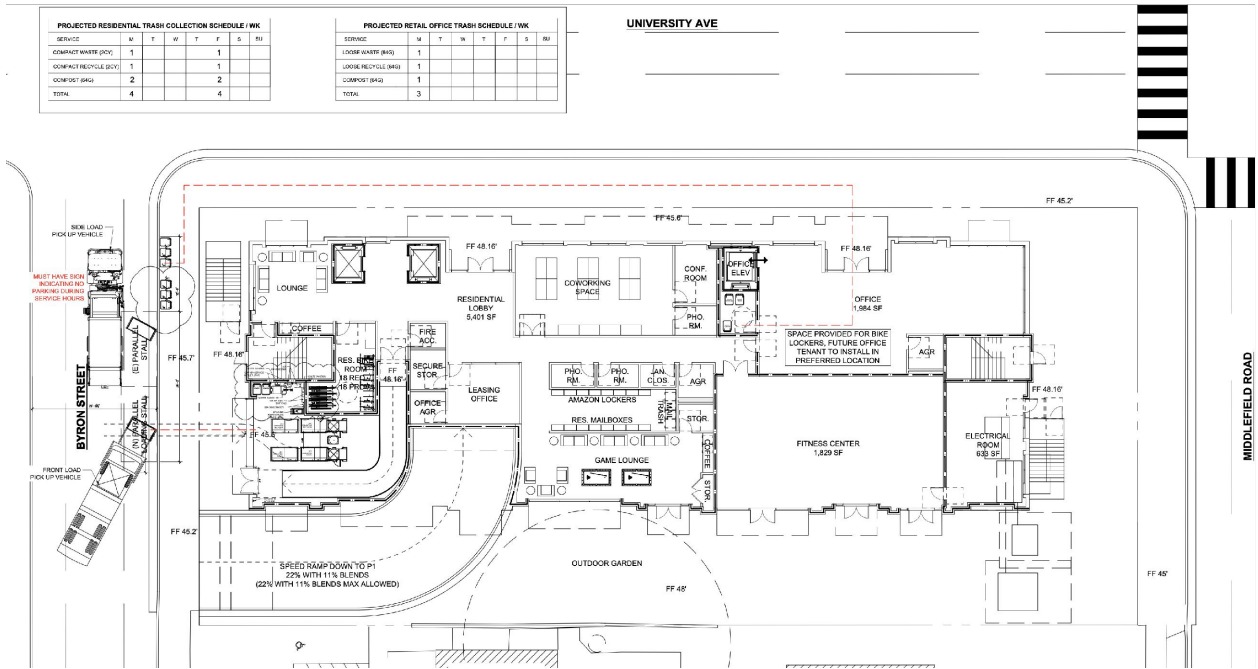
Using these metrics, the following levels of waste, recyclables, and compost are projected for the office space in this project.

	SF	Loose Waste Volume CY/WK	Loose Recycle Volume CY/WK	Loose Compost Volume CY/WK	Total # of Loose 64G Compost Carts/WK	Total # of Loose 64G Recycle Carts/WK	Total # of Loose 64G Compost Carts/WK
Office	1,976	0.2	0.3	0.1	1	1	1



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Site Plan:



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Residential Trash Handling System

To comply with City ordinances, residential trash will be collected in 3 different streams: waste, mixed recyclables (paper, cardboard & containers), and compost.

Chutes. The project will have 2 - 30" diameter trash chutes with 15x18 intake doors in each trash chute core: one for waste, and the other for mixed recycling. The chutes shall be made of 16 gauge galvanized steel. The project will have a 1-24" diameter trash chute with 15x18 intake doors in each trash chute core for compost. The chute shall be made of 304 stainless steel. All materials will be collected at the ground level of the building.

Increasing the chute size for waste and recycling to 30" above the 24" minimum required by CBC will slightly increase the chute system cost but it will reduce the possibility of chute jams due to large objects (e.g., super size pizza, Amazon, and Costco boxes) being thrown down the chute. This will reduce ongoing maintenance costs while increasing tenant convenience.

The waste and recycling chutes should be 16 gauge galvanized or aluminized steel and be isolated from the building structure using Mason BRA-Read mounts or equivalent. The chute should be coated with a sound-dampening compound (Soundcoat GP-1 or equivalent) equal to the thickness of the metal.

The compost chute must be 304 stainless steel with an automated wash-down system to minimize the problem of chute collection of compost.

NOTE: We recommend limiting the chute intake doors to 15"x18" to minimize residents putting large, bulky items down the trash chute. Based on input from property managers, tenants have been known to dispose of ironing boards, ficus trees, chairs, and crutches down chutes. The recommended 15"x18" intake door will easily handle large kitchen trash bags while discouraging potentially problematic bulky items.

Compactors. Waste and recycling will be collected in 2CY chute-fed compactors. Compactors will reduce space requirements, staffing needs, and disposal fees, while minimizing truck traffic, thereby lowering the project's operational costs and overall environmental impact. All compactor bins will have locks on the lids and other openings to reduce access by vagrants. We recommend compactor bins be moved using a Waste Caddy.

Example of savings from compactors:

Service	Compaction Ratio	Monthly Fee
(1) 3-CY loose bin 4 times per week	N/A	\$1,864.39
(1) 2-CY compacted bin 2 times per week	4:1	\$1,269.56

Note: Analysis for waste stream.

Lower Waste Disposal costs. Front-load compaction is less expensive than front-load loose waste services. (See cost-benefit analysis on page 20).

Compaction and Recyclables. The City of Palo Alto does not charge for loose or compacted recycling. Even though there will be no trash bill savings with compacted recycling we still
© American Trash Management, Inc. 2025 Page 24 Thursday, June 19, 2025



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Project Summary:

- Local ordinance requires the collection of trash in three separate streams: waste, mixed recycling, and compost.
- A three-chute design as designed will be used for the residential trash collection room. The compost chute should be 24" in diameter and must be 304 stainless steel with an automated wash-down system to minimize the problem of chute collection of compost. The waste and recycling chutes can be galvaneal steel, but we recommend increasing the diameter of the waste and recycling chute to 30". CBC minimum required 24" chutes have a higher probability of chute jams due to large objects (super-size pizza boxes, Costco boxes, ironing boards, crutches, etc.) being thrown down the chute.
- Due to the projected residential trash volumes, waste and recycling will be collected in chute-fed compactors with 2CY bins. Compactors will reduce the number of trash bins the project will need to store, reduce the development's trash bill, and reduce the number of trash truck trips to the property. Compost will be collected in 64G Toter carts under the chute.
- Most commercial tenants operate with NNN leases and cover all of their own utilities including trash disposal. We recommend that commercial tenants subscribe to waste, recycling and compost service individually. Tenants should not be allowed to access the residential chute discharge trash rooms for safety reasons as well as to prevent passing along commercial trash costs onto the residential portion of the building. Commercial retail tenants will be responsible for handling their own trash. A dedicated trash room has been designed for commercial trash collection.
- Staging will occur on Byron St. Front-load bins require 25' vertical clearance which is typically used in a project of this size. Bins and carts must be moved by staff to this location so the trash bins to be emptied by Green Waste with minimal impact on the residents and the project's neighbors.
- Add 1 CFM/SF mechanical ventilation per CBC, floor drain, hose bib, and odor control to the trash collection rooms.
- ATM recommends taking measures to protect the walls where trash bins are stored and transported. In the trash room, we recommend a 12"H x 6"W concrete curb at the base of all non-concrete walls or 1/8" thick diamond tread backing 6'-0" AFF. Additionally, the trash room walls shall be finished with washable waterproof surface such as FRP or high-gloss enamel paint 8'-0" AFF. For corridors in the bin moving path of travel we recommend diamond tread 6'-0" AFF. Note that all wall protection is to be provided by others, even for projects where ATM provides the trash handling equipment.



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recommend compaction for this project due to the automated handling of materials, its lower space requirements, and lower environmental impact (noise and litter) even though there is less savings.

Lower labor costs: A 3-cubic yard loose waste bin serviced Monday through Sunday must be moved from the trash chute to the trash service location 4x per week. Comparable compacted service a single 2-cubic yard bin picked up 2x per week. That represents 50% fewer times to move the bin from the trash area to the street for pickup. (See cost-benefit analysis on page 20).

Compost. Compost will be collected in loose 64-gallon carts under the chute.

NOTE: The compostable waste chute system creates unique sanitation issues, so a 304 stainless steel chute is recommended (to prevent corrosion), as is a special wash-down system to minimize the sanitation and odor problems that will arise from loose food waste being disposed down the chute.

ATM does not normally recommend collecting apartment compostable materials using gravity chutes due to sanitation issues, collection issues, the corrosive properties of the material, and the odorous nature of putrefying household food waste, which is the primary component of organic waste from apartments. The compostable materials will adhere to the sides of the chutes and require frequent chute washdowns. This will increase the project's water usage and sewage loads. The acidic nature of fermenting compost will cause the chute to rust prematurely unless they are made of 304 stainless steel. It is important that proper sanitation protocols are followed since the compostable material that will adhere to the chute wall is an excellent medium to grow fruit flies, maggots, molds, fungus, yeast, and bacteria which can cause insect infestations, allergic reactions, and malodors.

Cardboard. Due to the number of units, this project is projected to generate ~245 cardboard boxes per day. While diverting cardboard will not result in any direct disposal savings at this time, it can help reduce the number of large boxes creating chute jams. We recommend providing a space adjacent to the trash rooms for residents to place their large, flattened cardboard boxes. These boxes will need to be moved by building staff daily into a spare recycling bin.

Odor Control. To mitigate malodors in the trash room(s), a four-pronged approach is recommended including ventilation, sanitation, isolation of odorous items such as rancid cooking oil, and installing a deodorizer system. ATM rarely recommends a chilled/refrigerated trash room. Conditioned trash rooms have high upfront construction costs and ongoing operational costs while not stopping bad odors. We have all experienced something rotting in our refrigerators and the resulting horrible odors if not properly contained. A cooled space will retard but not stop decomposition and will have minimal impacts on odorous trash. Odors will still happen and can only be controlled by following the implementation of the four steps below. We only consider the installation of conditioned trash rooms in areas with high temperatures and humidity such as the tropics where organic items will rapidly decompose causing bad odors.

1. VENTILATION: Mechanical Exhaust of Trash Collection Room. The minimal mechanical ventilation required under US building codes rate is 1 CFM/SF, however, ATM recommends being able to increase this rate if needed, especially in areas with warmer humid climates. Exhaust should vent through the roof. High air flow removes odorous compounds and dilutes them so they are less noticeable.

2. SANITATION: Cleaning the Trash Chute. Almost all trash chutes are equipped with a Chute Wash Down and Detergent Dispenser Unit located on the top floor behind an access door. This unit

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ARCHITECTS
KORTH SUNSERI HAGEY

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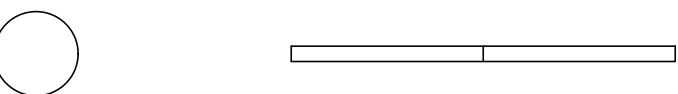
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06.20.25		PLANNING RESUBMITTAL #10

PROJECT NUMBER
21003

SHEET TITLE
TRASH MANAGEMENT PLAN

SCALE

N.T.S.



SHEET NUMBER

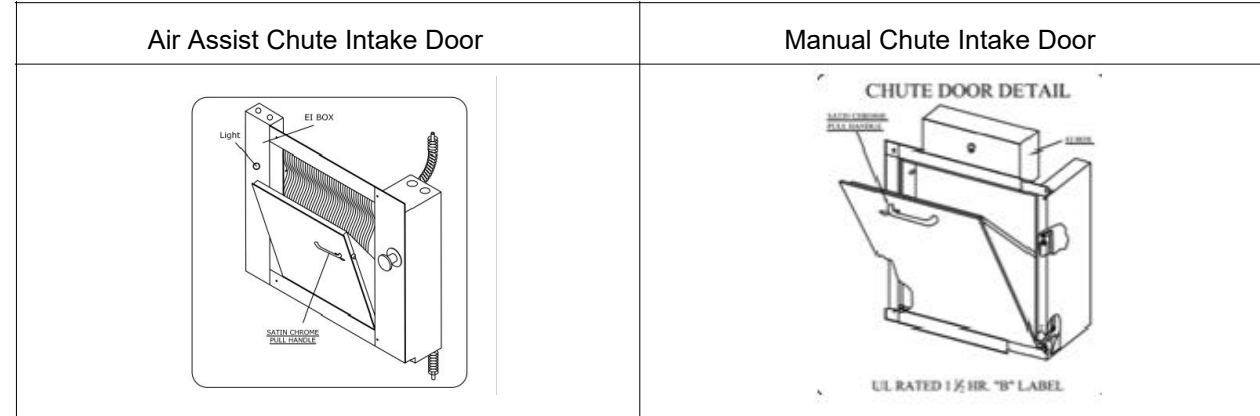
TR3.1

should be operated on a set interval basis depending on the site conditions for the amount of time it takes for the wash down water to flow into the trash room for several minutes. We recommend using a biodegradable detergent such as Dawn diluted to 50% in the detergent dispenser to remove grease and oils in the chute. This will also have the benefit of cleaning grease build up in the trash room floor drain. Trash chutes that are designed for disposal of a high level of food waste often also have a "Chute Janitor" built-in wash down system. These should be operated on a regular basis based on the site specific specific conditions and should be run through their complete preprogrammed normal Rinse-Wash-Rinse cycle. Even with the presence of the Chute Wash Down and Chute Janitor systems, all trash chutes should be pressure washed at least once a year or more frequently in warmer climates. Cleaning the Trash Room, Trash rooms should be swept clean of debris and pressure wash down on a regular basis based on the site specific conditions. Trash room wash down service should include the floors, walls and ceilings as required. Cleaning the Trash Equipment. The trash compactor and containers should be pressure washed on the same schedule as the trash room and chute. Cleaning should include all trash equipment such as containers, compactors or compactor receiver containers when the containers are empty. If hauler-provided containers become especially dirty or rusted out, they should be replaced or cleaned by the hauler.

3. ISOLATION: Trash should be collected in enclosed containers or containers with lids. If roll-off compactors are used, self-contained units are recommended for any wet waste to avoid leaks. Used cooking oil should not be moved or stored in open containers. We recommend used cooking oil be collected in oil tanks stored in secure back-of-house areas. Lastly, a properly sealed trash room with roll-up doors will help contain odors and deter pests such as rodents and insects.
4. DEODORIZER: Industrial Odor Control Systems. Odor control systems can be helpful in controlling odors, but most have limited effectiveness or create other problems. Popular low-cost systems that spray a masking agent into the air, only serve to hide odors in the trash room and not eliminate them. Ozone generators are more effective, but the odor-destroying product they create — ozone — can have a deleterious effect on human health and can also destroy compactor hoses and seals. One odor control system that avoids these problems is the Plan Mini Vaporizer. It creates a very fine 50-micron mist that bonds with — and ultimately destroys — odor causing molecules. And unlike ozone, the entirely natural blend of plant extracts, essential oils, and emulsifiers is safe and does not damage equipment.

Trash Chute Intake Doors

ATM standard is to specify pneumatic (automatic) opening in order to meet all accessibility requirements per 2019 CBC Section 1138A.4.4, which states that: "Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls and operating mechanisms shall be no greater than 5 pounds."



Chute Intake Doors and the Americans with Disabilities Act of 1990 (ADA)
This is a summary of the current state as we understand it. This is not intended to be legal advice and should not be relied upon without seeking the advice of an ADA expert and your legal counsel.

Per most building codes and FHA requirements, "common use" building areas and building elements, such as trash rooms and trash chutes are required to be accessible. Specifically, the trash chute door is required to comply with accessibility requirements:

- Clear floor space for a wheelchair at the chute door
- Chute door hardware within reach range
- Chute door hardware complying with operability requirements.

The operability requirements mandate that the chute door hardware must not involve any of the following:

- Two-handed operation (such as depressing a button while turning a door handle)
- Tight grasping or pinching
- Twisting of the wrist
- Force to activate the hardware that exceeds 5.0 pounds.

The majority of manual chute intake chute door installations do not comply with the accessibility requirements. Lower-quality chute doors require grasping, twisting of the wrist, and more than 5 pounds of force to open the chute door. Regardless of what has been installed for the chute door, the chute door is still required by both Code and FHA requirements to comply with accessibility requirements. In the cases where non-compliant chutes have been installed, the building Owner has made a management decision to handle the accessibility requirement using other means.

Residential and other buildings are subject to the progressively revised provisions of Federal and Local ADA laws and regulations. To meet the current ADA Standards as they apply to Gravity Trash Chute Intake Doors, the person using the door must not have to grasp, twist, or pinch the control mechanism in

Pilan Mini Vaporizer System is a small scale Vaporizer type odor control system for control of odors emitting from garbage compactors, and garbage dumpsters.

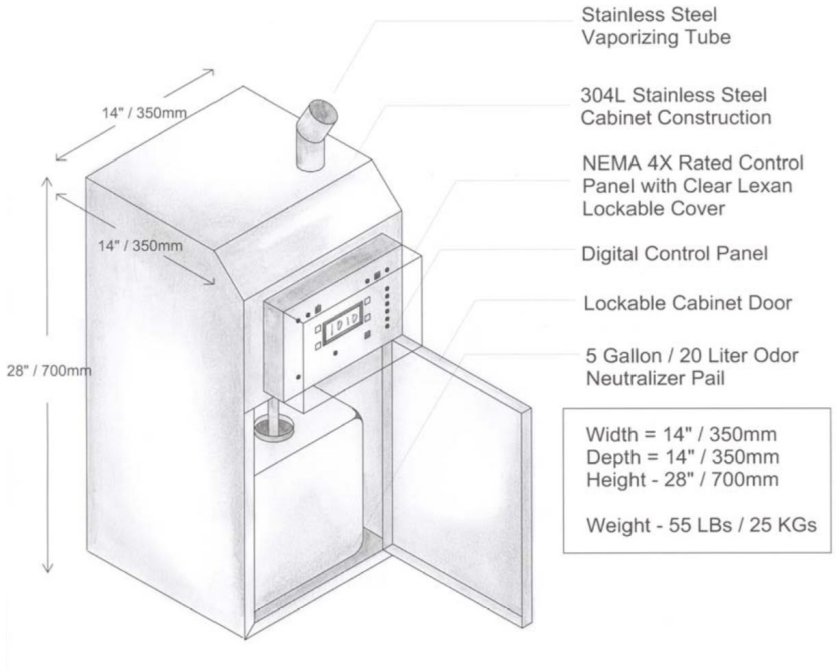
PIAN MINI VAPORIZER – ALL NATURAL ODOR NEUTRALIZING SYSTEM

BASIC INFORMATION

- This system vaporizes an all natural odor neutralizer solution into odorous environments.
- Odor neutralizer solution is drawn out of a 5 Gallon pail located inside the lower cabinet.
- The odor neutralizer solution is vaporized via a tube on the top of the vaporizer cabinet.
- Once started, the vaporizer system cycles ON and OFF automatically.

SYSTEM INSTALLATION AND START-UP

- The vaporizer should be mounted on a wall, bracket or other surface. An optional free standing pedestal (Part # MMFP0001) is available if required.
- Mounting tabs are supplied for wall mounting the unit. The mounting tabs are installed backwards on the rear of the unit for shipment, reverse each tab and use anchors to secure the unit to a wall surface.
- Place a full pail of odor neutralizer solution into the lower cabinet, insert the siphon tube and return tube into the pail of odor neutralizer. The odor neutralizer solution is "Ready to Use" strength; no further dilution with water is required.
- Plug the system into any 115 VAC outlet (or 240 VAC if equipped). The control panel will beep to indicate power is on.
- The Pian Mini Vaporizer may be installed to discharge into the open environment around the odor source.
- To convey the vaporized odor neutralizer into a specific location (outside compactors, duct, container, chute etc), run a 1/2" diameter flexible hose from the outlet on top of the vaporizer to treatment location. Attach the hose to the vaporizer by pushing one end over the vaporizer's outlet. A duct adapter is available to connect the hose to the side of air ducts / chutes etc.
- IMPORTANT: To avoid the "pooling" of liquid inside the tube, support the tube throughout its run.
- For trash chutes, open compactors or trash storage areas, the vaporizer may be mounted in close proximity to the odor source.



order to operate the intake door. ADA Standards also limit the maximum operating force required to open an interior door (without specificity to size) to 5 pounds of force. Under CBC 2016 the maximum allowable mounting height of the operating mechanisms (ie door handle, etc.) of an ADA-compliant device is 44". The minimum allowable height is 34". The maximum allowable projection of an ADA-compliant device is 4" off the projection surface of the wall.

The Wilkinson Signature Series and IDC-2000 Recycling Manually operated doors require the person operating the door to push a membrane selector switch (waste, recycling, or compost) grasp the u-shaped handle, push down on the thumb latch with a finger, and pull open the door. This type of intake door meets the mounting height, the projection, the twist, and the pinch requirements but it does not meet the pulling force or the grasp requirement.

Lower-quality manual chute intake doors from other manufacturers all use a T-handle or L-handle operating mechanism. These doors fail on 3 counts. They do not meet the pulling force, grasp, and twist requirements. These doors are especially hard to operate for persons with arthritis due to the required simultaneous grasping, twisting, and pulling motion.

The Wilkinson Signature Series and IDC 2000 Pneumatic Assist door meet all the above requirements since it is operated by pushing a palm button which opens the door automatically. The door closes after a set time and latches so it meets all the current fire code requirements. The air assist mechanism is designed to preclude the need to grasp, twist, or pinch the control mechanism in order to operate the intake door. The push button meets the height, projection, and force requirements too. It is conceivable, however, that certain disabled persons will still not be able to operate this type of door. ADA law requires one to accommodate all persons with disabilities.

The supra-majority of all new construction within the US still uses manually operated chute intake doors due to the extra upfront (~\$900 per floor) and higher maintenance costs of the Pneumatic Assist Chute Intake type of doors. Many building owners have chosen to only install the pneumatic assist doors in facilities with a high senior or disabled population and in order to meet the above ADA requirements make it their policy to provide a staff person to assist any individual with disabilities who need assistance in operating the manually operated door.

Trash chute systems have been designed to meet the fire and life safety found within Building Codes. All trash chute intake doors are required to be behind a rated fire-barrier and any door in these walls is required to be a fire-rated door.

This fire-rated door is required to be self-closing (or automatic-closing upon the detection of smoke), so it has a closer mechanism and positive latch. Because this door is designated as a "fire door", per most codes and accessibility standards (including ANSI A117.1 used for FHA compliance), the door opening force for this door is exempt from typical accessibility requirements (maximum 5 pounds) and allowed to have a minimum opening force allowed by the authority having jurisdiction (typically a maximum of 15 pounds). The opening force for the required fire-rated doors in front of trash chute intake doors routinely exceeds 5 pounds and is more typically in the 14-18 pound range.

Requiring the chute intake door to meet accessibility requirements while allowing the fire-rated door in front of the trash chute intake door to not meet the pull force and grasp requirements is illogical. If an individual with accessibility needs cannot open the fire door in front of the trash chute intake then they will not be able to access the non-compliant chute. Owners should always have a policy in place to provide assistance to any person who can not access the trash chute (with or without automatic opening doors).

Residential Trash System Equipment

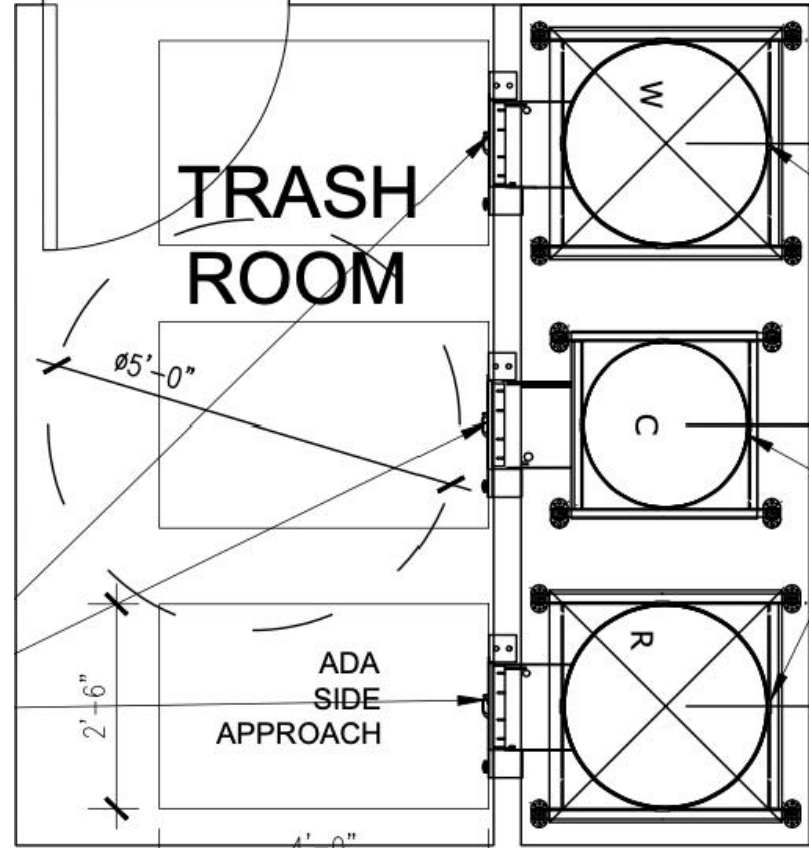
Below is a summary of the recommended trash system equipment.

Compacted Service

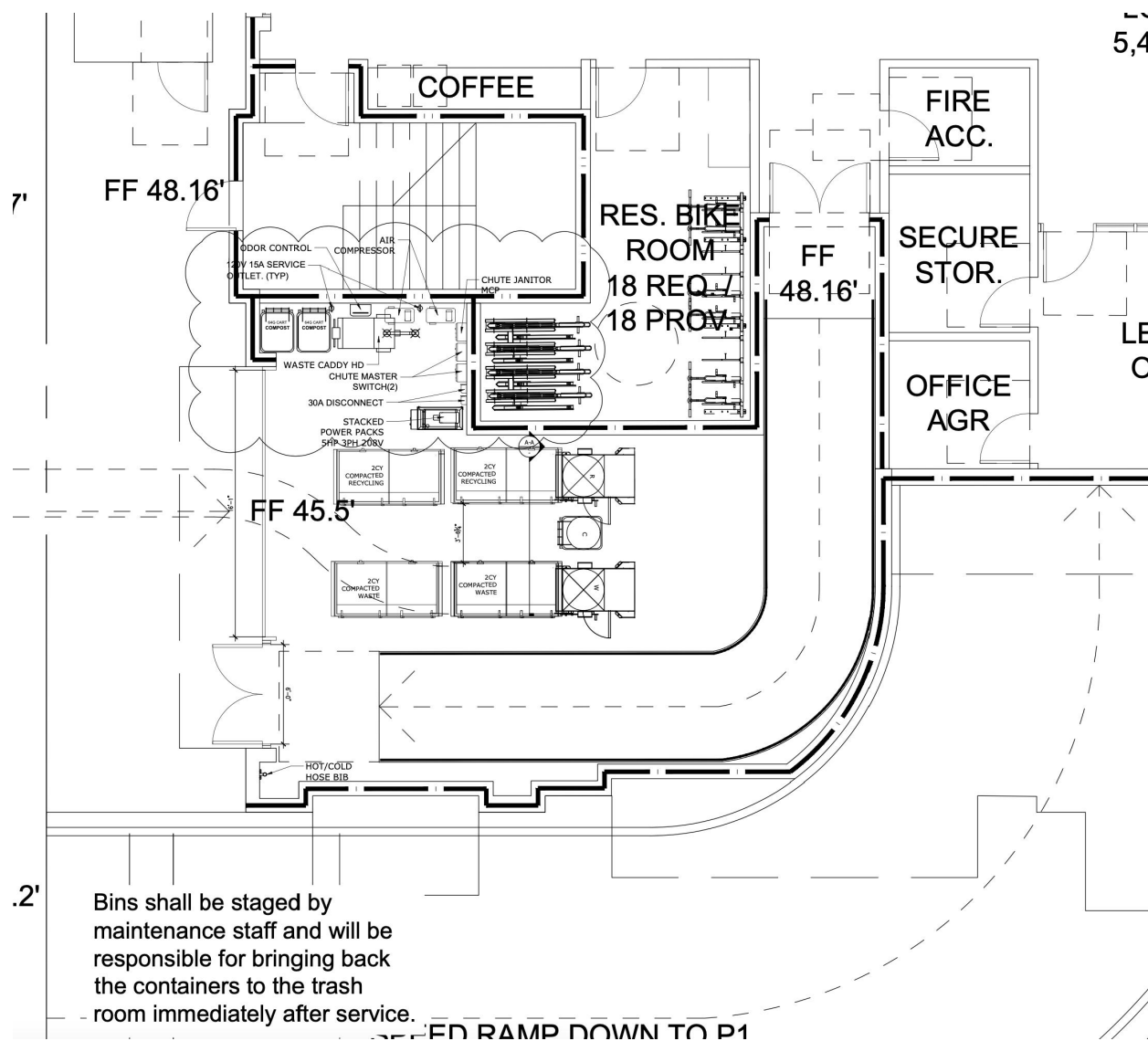
Gravity Chutes	Diameter	Chute Material	Compactor Count	Bin Type	# of Bins	Bin Size Cubic Yards
3	2-30" 1-24"	2-16 gauge galvaneal steel 1-304 SS	2	Front Load	2 waste 2 recycle 2 compost	2CY waste & recycling 64G compost

-odor control, Waste Caddy for bin moving

Residential Trash Chute Vestibule Layout



Residential Chute Termination Room Layout



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ISSUES AND REVISIONS

NO.	DATE	DESCRIPTION
12.01.21		PLANNING SUBMITTAL
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02.07.24		PLANNING RESUBMITTAL #7
09.18.24		PLANNING RESUBMITTAL #8
06.20.25		PLANNING RESUBMITTAL #10

PROJECT NUMBER
21003

SHEET TITLE
TRASH MANAGEMENT PLAN

SCALE
N.T.S.

SHEET NUMBER

TR3.2

AMERICAN TRASH MANAGEMENT

1900 Powell Street, Suite 220
Emeryville, CA 94608
(800) 488-7274 Toll Free USA
(415) 292-5400
(415) 292-5410 Fax
www.trashmanage.com

Equipment: Chute and hand-fed 2CY Bin

STS-500 Chute Fed Compactor

FEATURES

- Heavy Duty Plate Steel Construction for long life
- Extra Large Compaction Chamber opening to reduce jams - bridging
- Designed for easy installation and ongoing service
- Built to last
- Integrated SmartTrash Compactor Management System to provide real time alerts by SMS or email message to building staff to reduce problems.
- Custom Hopper Modifications Available.

MADE IN USA

FEATURES

- 30" x 30" charge chamber opening to reduce jams
- Uniquely heavy duty 1/4" plate steel construction for strength, durability and longer life
- Heavy roller teeth for less spillage
- Ramp plate to increase compaction density
- Heavy duty roller plate and compactor floor to withstand impact of heavy trash items
- State of the art industrial photo-eye sensor for longer life and higher reliability
- Heavy duty steel deck with 1/4" angle for ease of use
- Rear wheels for one person maneuvering
- Rust Inhibitive Primer & Industrial Acrylic Top Coat

PERFORMANCE

- Compaction Ratio: 5:1 Minimum
- Ramp Penetration: 8" into container with plow
- Charge Chamber: 0.40 CY per stroke

HYDRAULIC

- Pump: 6 GPM
- Cylinders: 2 - 3" diameter with 2" rod

ELECTRICAL

- Motor: SHP
- Motor Power: 208/230/460V
- Control Voltage: 120V
- Circuits Controller: PLC processor
- UL Listed Power Pack - ANSI Z245 compliant.
- Monitor Lights: 80% and 100% full
- SmartTrash Monitor

WARRANTY*

SmartTrash Systems Compactor warranty demonstrates our belief in the quality of our equipment:

- 1 Year: Parts and Labor
- 5 Year: Parts

On-line remote diagnostics with SmartTrash

*Request complete warranty for all terms and exclusions

We are continuously making improvement in our products. Specifications are subject change without notice. © 7/20/2024 SmartTrash Systems LLC ver 04

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SmartTrash Systems

AMERICAN TRASH MANAGEMENT

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Commercial Trash Handling System:

To comply with City ordinances, the project residential trash will be collected in 3 different streams: Waste, Mixed Recyclables (paper, cardboard & containers), and Compost (food & organic materials).

A dedicated office trash room has been designed. Waste and recycling will be deposited by staff into 64-gallon Toter carts. Compost will be also deposited into 64 gallon Toter carts.

Commercial Trash Equipment

Cart Type	# of Carts	Cart Size Gallons
Side Load	1 waste 1 recycle 1 compost	64G waste & recycling 64G compost

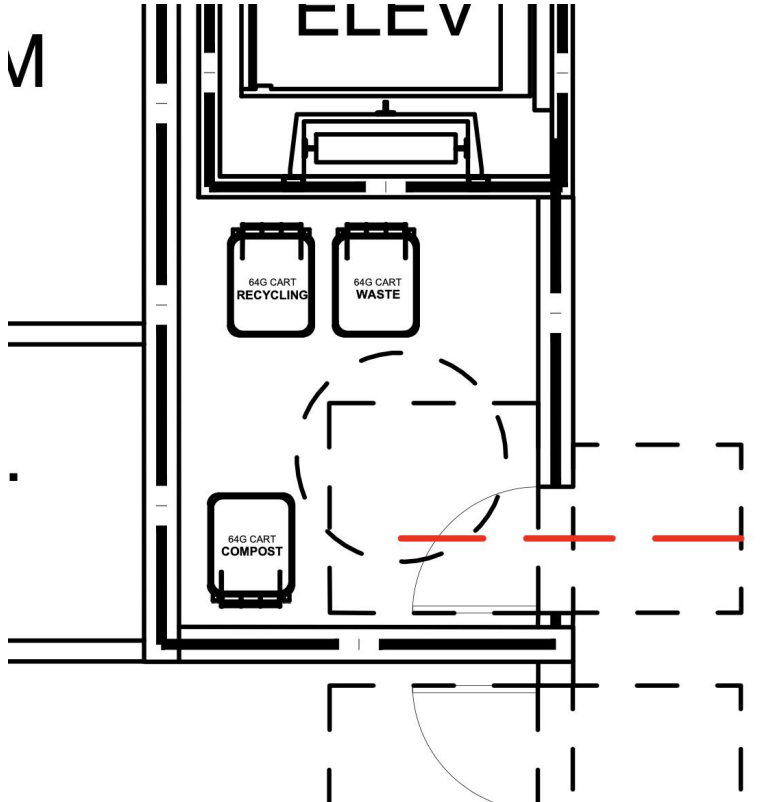
The commercial tenants should be required to follow the Commercial Trash Rules as defined below:

RECOMMENDED COMMERCIAL TENANT TRASH RULES

- Moving Trash:** Require commercial tenants who have any wet trash to move all solid waste and recycling in bags 20 gallons or less. The plastic bags which will make it easy for commercial tenants to put their waste and recycling into the communal trash compactors or bins. The use of bags is required to avoid leaks. Virtually all tenants fall into this category since they regularly throw away old partially full drink cups.
- Cleanup:** Tenants will be responsible for keeping the common areas clean. Any sewer blockage will be the responsibility of the tenant. All spills if they do happen must be immediately cleaned up or the property management will fine the tenant and arrange for the clean up at the tenant's expense. No vent hood filters or floor mats will be cleaned on site including the communal trash room.
- Cooking Oil & Fat Disposal:** Tenants producing used cooking oil arrange and pay for a service to collect this used oil. Oil must be stored within the tenant space. No oil can be moved in open containers on the property. All spills if they do happen must be immediately cleaned up or the property management will fine the tenant and arrange for the clean up at the tenant's expense. Used cooking oil cannot be stored in the communal trash room (it stinks and when it is communal you get a mess).
- Bulky Items:** Disposal of any large bulky items that do not easily fit within the communal trash bins must be removed from the property by the tenant at the tenant's expense. (Exclude all non-standard solid waste disposal). Anything that is not typically disposed of on a regular basis (at least every quarter) must be handled directly by the tenant.
- Hazardous Materials:** Tenants are responsible for arranging and paying for the disposal of all Hazardous Materials as defined by law.

AMERICAN TRASH MANAGEMENT

Commercial Trash Collection Room Layout



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AMERICAN TRASH MANAGEMENT

Toter Carts for Office Trash and Compost

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(800) 488-7274 Toll Free USA
(415) 292-5400
(415) 292-5410 Fax
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96 GALLON EVR® II UNIVERSAL / NESTABLE

Part Number: 792296

Description: 96 GALLON EVR® II CART

Size (l x w x h): 35.25" X 29.75" X 43.25"

Load Rating: 339 LBS/153.9 KG

Wheel Diameter: 10"

32 GALLON EVR® II UNIVERSAL

Part Number: 793321

Description: 32 GALLON EVR® II CART

Size (l x w x h): 24.25" X 19.25" X 38.50"

Load Rating: 212 LBS/95.8 KG

Wheel Diameter: 10"

* 32 gallon is original EVR design and does not meet fully assembled.

64 GALLON EVR® II UNIVERSAL / NESTABLE

Part Number: 792294

Description: 64 GALLON EVR® II CART

Size (l x w x h): 31.75" X 24.25" X 41.75"

Load Rating: 224 LBS/101.6 KG

Wheel Diameter: 10"

24 GALLON EVR® II UNIVERSAL

Part Number: 792284

Description: 24 GALLON EVR® II CART

Size (l x w x h): 24.00" X 19.75" X 34.50"

Load Rating: 84.0 LBS/38.1 KG

Wheel Diameter: 10"

* 24 gallon does not meet fully assembled.

48 GALLON EVR® II UNIVERSAL / NESTABLE

Part Number: 792465

Description: 48 GALLON EVR® II CART

Size (l x w x h): 28.75" X 23.50" X 37.50"

Load Rating: 168 LBS/76.3 KG

Wheel Diameter: 10"

24 GALLON EVR® II UNIVERSAL

Part Number: 792284

Description: 24 GALLON EVR® II CART

Size (l x w x h): 24.00" X 19.75" X 34.50"

Load Rating: 84.0 LBS/38.1 KG

Wheel Diameter: 10"

* 24 gallon does not meet fully assembled.

STANDARD COLORS

GRAY	GREEN	BROWN	BLACK	BLUE
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UPSCALE GRANITE COLORS AVAILABLE

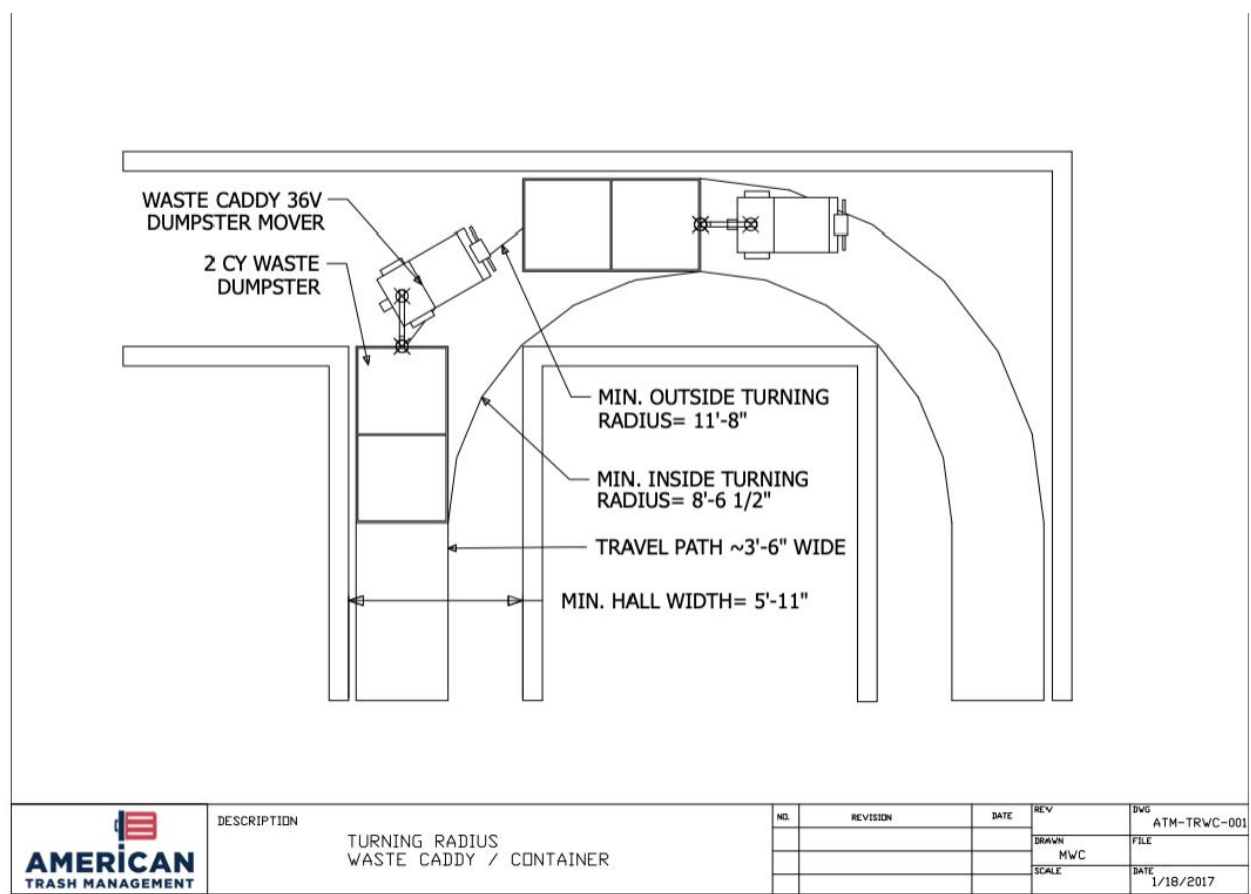
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GRAY GRANITE

AMERICAN TRASH MANAGEMENT

Compactor Bin Moving Turning Radius

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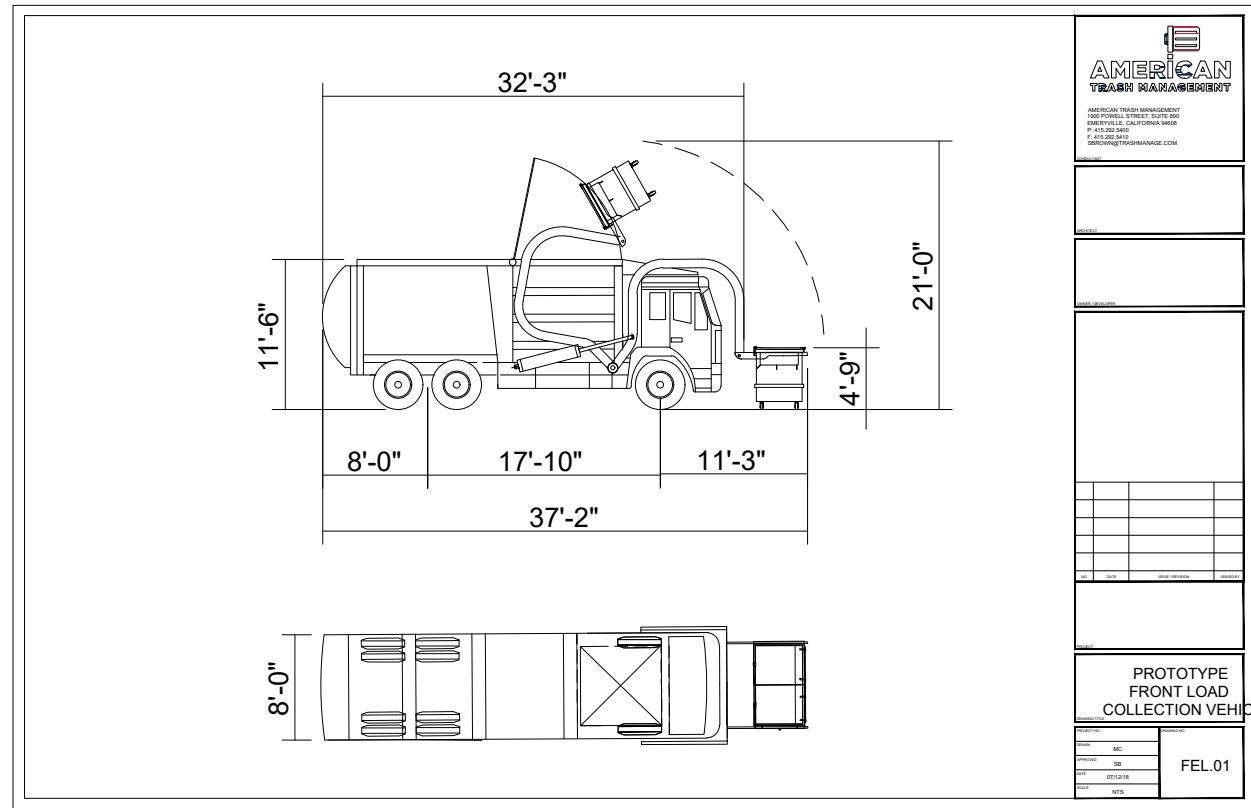
AMERICAN TRASH MANAGEMENT

Trash Service Location:

Staging will occur on Byron Street. This will have minimal impact on the operations of the building and the project's neighbors. We recommend all residential compacted bins be moved by building staff using a Waste Caddy to the trash staging area. Commercial carts will also be moved to this location as well by the tenants themselves.

Front-load service front-load bins require 25' Clear height (no lights, sprinklers, or other items within the service area.

Noise Levels	Location	Decibel Levels
Banging on Bins when Emptying		100
Behind Garbage Truck (while compacting)		89



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PALO ALTO, CA 94301

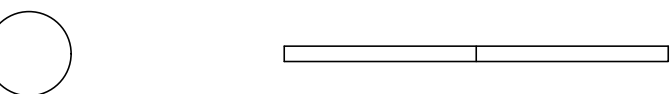


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PROJECT NUMBER
21003

SHEET TITLE
TRASH MANAGEMENT PLAN

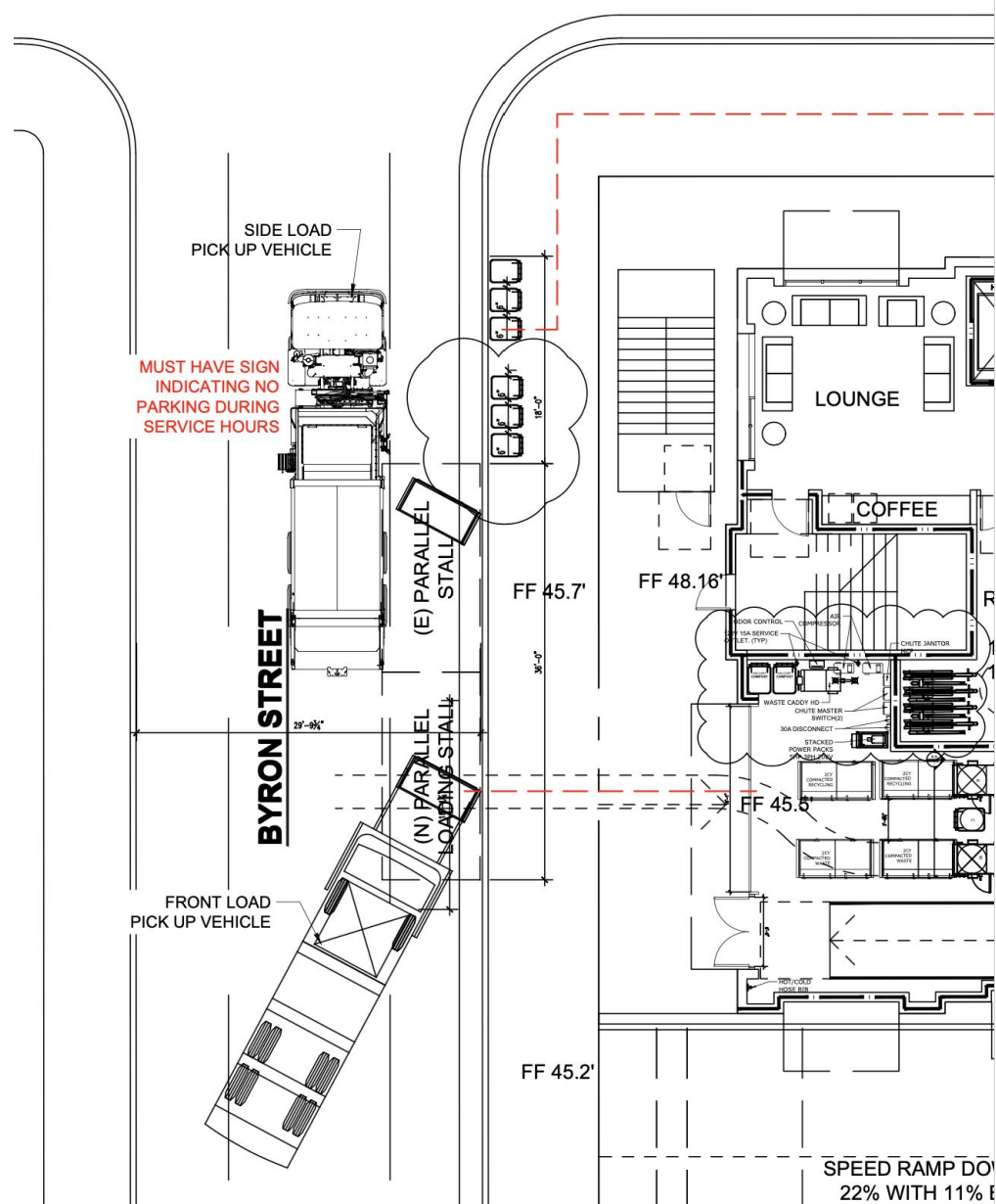
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SHEET NUMBER

TR3.3

Please note that maintenance staff will stage the residential bins, and commercial staff will bring their carts to the staging area. Both segments will bring back the containers to the trash room immediately after service.



Volume Projections and Analysis Below is a comparative analysis of the disposal costs and labor costs of handling waste and recycling in loose bins or compacted bins. Please note that the projections below are estimates derived from actual audits of comparable multifamily complexes in the San Francisco Bay area. They are not guaranteed. They are to be used for planning purposes only and may be higher or lower than projected.

TOTAL RESIDENTIAL WASTE AND RECYCLING ANALYSIS			
ASSUMPTIONS:	UNITS		GALLONS
Volume Waste:	0.16	cubic yard/week/unit	70
Volume Recycling:	0.16	cubic yard/week/unit	32
Volume Compost:	0.012	cubic yard/week/unit	2
Compaction Ratio	4	to 1	
Staff Labor Rate	\$21.00	per hour - 1 person	
Time move bins	0.25	hr to move to unloading area & back	
Rake-Rotate bins	0.15	hr to go to each bin rake or rotate	
# of Trash Rooms	1		
Compacted Waste Service	2	cubic yard front load bins	
Compacted Recycle Service	2	cubic yard front load bins	
Loose Waste Service	3	cubic yard front load bins	
Loose Recycling Service	3	cubic yard front load bins	
Loose Compost Service	0.32	cubic yard carts (64 G Toter Carts)	

COST BENEFIT CALCULATIONS:PROJECTED PROJECTED PROJECTED			
SERVICE-Waste	Loose	Compacted	Projected
SERVICE-Recycling	Loose	Compacted	Projected
Loose Waste Volume - CY	11.2	2.8	2.8
Compacted Waste Volume - CY			
Loose Recycling Volume - CY	11.2	11.2	
Compacted Recycling Volume - CY			2.8
Loose Compost Volume - CY	0.8	0.8	
Compacted Compost Volume - CY			0.2
Waste Bins/week	4	2	2
Recycling Bins/week	4	4	2
Compost Bins/week	3	3	1
Containers/week/trash room	11	9	5
SYSTEM CAPITAL COST	\$0.00	\$37,545.00	\$75,090.00
WASTE COST/MONTH	\$1,864.39	\$1,269.56	\$1,269.56
RECYCLING COST/MONTH	\$0.00	\$0.00	\$0.00
COMPOST COST/MONTH	\$203.26	\$203.26	\$203.26
TRASH COST/MONTH	\$2,067.65	\$1,472.82	\$1,472.82
COMPACTION SAVINGS/MONTH	\$0.00	\$594.83	\$594.83
STAFF LABOR COST/MONTH	\$13.69	\$11.20	\$6.22
STAFF SAVINGS/MONTH	\$0.00	\$2.49	\$7.47
NET MONTHLY TRASH COSTS	\$2,081.34	\$1,484.02	\$1,479.04
Monthly Trash Cost per Unit	\$13,008.40	\$9,275.15	\$9,244.03
PAYBACK-MONTHS	N/A	63	125

1-4 Cubic Yard Containers			
Size	Length	Width	Height
1 cu. yd.	8'1"	29.5"	6'0"
1.5 cu. yd.	8'1"	32.5"	4.5"
2 cu. yd.	8'1"	34.5"	3.5"
3 cu. yd.	8'1"	46.5"	61.5"
4 cu. yd.	8'1"	55.5"	23.5"
5-8 Cubic Yard Containers			
Size	Length	Width	Height
5 cu. yd.	8'1"	67.5"	5.5"
6 cu. yd.	8'1"	68.25"	71.5"
8 cu. yd.	8'1"	75"	19.7"
Debris Box/Roll-Off Box			
Size	Length	Width	Height
2 cu. yd.	14'	8'	4'
15 cu. yd.	18'	8'	4'
20 cu. yd.	21'	8'	4.5'
30 cu. yd.	21'	8'	4.5'
40 cu. yd.	21'	8'	4.5'
Wheeled Cart			
Size	Depth	Width	Height
23.6 gallons	24.25"	19.25"	38.5"
32 gallons	24.25"	19.25"	38.5"
44 gallons	29.25"	19.25"	46.75"
96 gallons	34.5"	29.25"	46.75"

OFFICE WASTE AND RECYCLING SYSTEM ANALYSIS			
ASSUMPTIONS:	Square Feet	1,976	
Lbs/day per 1000 SF	5.44		
% waste	30%		
% recycling	50%		
% compost	20%		
waste lb/CY	80		
recycling lb/CY	80		
compost lb/CY	125		
Compaction Ratio	4	to 1	
Loose Waste Service	0.32	cubic yard carts (64 G Toter Carts)	
Loose Recycling Service	0.32	cubic yard carts (64 G Toter Carts)	
Loose Compost Service	0.32	cubic yard carts (64 G Toter Carts)	

COST BENEFIT CALCULATIONS:PROJECTED			
SERVICE-Waste	Loose	Compacted	Projected
SERVICE-Recycling			
Loose Waste Volume - CY	0.2		
Compacted Waste Volume - CY		0.1	
Loose Recycling Volume - CY	0.3		
Compacted Recycling Volume - CY		0.1	
Loose Compost Volume - CY	0.1		
Compacted Compost Volume - CY		0.0	
Waste Bins/week	1		
Recycling Bins/week	1		
Compost Bins/week	1		
Containers/week/trash room	3		

Residential - Compacted Service							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Compacted 2CY Waste	1				1		
Compacted 2CY Recycle	1				1		
Compost 64G	2				2		
Total	4	0	0	0	4	0	0

Commercial Office - Loose Service							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
64G Loose Waste	1						
64G Loose Recycle	1						
64G Loose Compost	1						
Total	3	0	0	0	0	0	0

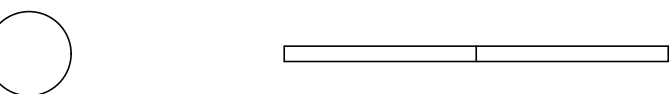
- TRASH SYSTEM SPECIFICATIONS: Provided separately.
- Section 14 91 00 - Trash Chutes & Intake Doors
 - Section 44 31 00 - Odor Control
 - Section 44 53 62 - Waste & Recycling Compactors
 - Section 41 63 23 - Waste Caddy for Bin Moving

WASTE AND RECYCLING RATES (PARTIAL) CURRENT RATES - REFLECT CHANGES EFFECTIVE 7/1/22			
City:	Palo Alto	Key Charge	\$15.00
Franchise:	GreenWaste		Rates subject to change
Multi-Family/Commercial Loose Front Load Waste Rates:			
Frequency/Size: x/wk-CY Size	2	3	4
1 x Week	\$309.02	\$437.20	\$581.41
2 x Week	\$638.63	\$913.31	\$1,174.26
3 x Week	\$970.54	\$1,388.28	\$1,825.48
4 x Week	\$1,301.30	\$1,864.39	\$2,448.09
5 x Week	\$1,630.91	\$2,341.65	\$3,068.40
6 x Week	\$1,961.67	\$2,817.76	\$3,689.87
Multi-Family/Commercial Compacted Front Load Waste Rates:			
Frequency/Size: x/wk-CY Size	2	4	
1	\$634.78	\$1,269.56	
Compost Carts			
64-gal cart 96-gal cart			2CY
1 x Week	\$58.60	\$87.90	\$247.21
2 x Week	\$130.96	\$189.53	\$510.90
3 x Week	\$203.26	\$291.16	\$776.43
4 x Week	\$275.60	\$392.79	\$1,041.04
5 x Week	\$347.93	\$494.42	\$1,304.73
6 x Week	\$420.26	\$596.06	\$1,569.34
Stationary Compactor Cost	\$39,950.54 A1000, 1-4CY Towable bins, tax, ship Install		
Stationary Compactor Cost	\$48,513.08 A1000, 2-4CY Towable bins, tax, ship Install		
Vertical Compactor Cost	\$36,807.00 P200, 1-2CY front load bin-8" penolic casters, tax, ship Install		
Chute Fed Compactor Cost	\$37,545.00 STS500, 2-2CY Towable bins, tax, ship Install		
Chute Fed Compactor Cost	\$43,357.50 STS500, 3-2CY Towable bins, tax, ship Install		

The system capital costs above are estimates utilized for planning purposes only. Pricing includes tax, shipping, and install costs. Due to frequently changing values, do not use these estimates for any other purpose.



ISSUES AND REVISIONS		
NO.	DATE	DESCRIPTION
12.01.21		PLANNING SUBMITTAL
05.13.22		PLANNING RESUBMITTAL #1
08.15.22		PLANNING RESUBMITTAL #2
11.02.22		PLANNING RESUBMITTAL #3
08.28.23		PLANNING RESUBMITTAL #4
10.31.23		PLANNING RESUBMITTAL #5
12.21.23		PLANNING RESUBMITTAL #6
02.07.24		PLANNING RESUBMITTAL #7
09.18.24		PLANNING RESUBMITTAL #8
06.20.25		PLANNING RESUBMITTAL #10



UNIVERSITY AVE

SMITH DEVELOPMENT

660 UNIVERSITY
PALO ALTO, CA 94301



ARCHITECTS
KORTH SUNSERI HAGEY



PROJECT 2021-1343
CONTACT KRISTINA SANTI

135 Main Street, Suite 400
San Francisco, CA 94105
TEL 415.489.7240
www.interfaceengineering.com

ISSUES AND REVISIONS

NO.	DATE	DESCRIPTION
05.13.22		PLANNING RESUBMITTAL #1
08.15.22		PLANNING RESUBMITTAL #2
01.17.25		PLANNING RESUBMITTAL #9
06.20.25		PLANNING RESUBMITTAL #10

PROJECT NUMBER
21003

SHEET TITLE
SITE PHOTOMETRIC PLAN

SCALE
1" = 10'-0"



0 10' 20'

SHEET NUMBER

E0.1

BYRON STREET



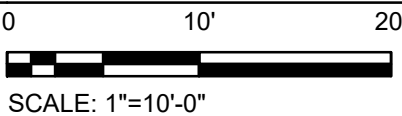
LANDS OF HEIDARI
APN. 120-03-054
(PARCEL ONE)

LANDS OF CHENG & YI
APN. 120-03-045

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
site	Illuminance	Fc	1.83	39.5	0.0	N.A.	N.A.

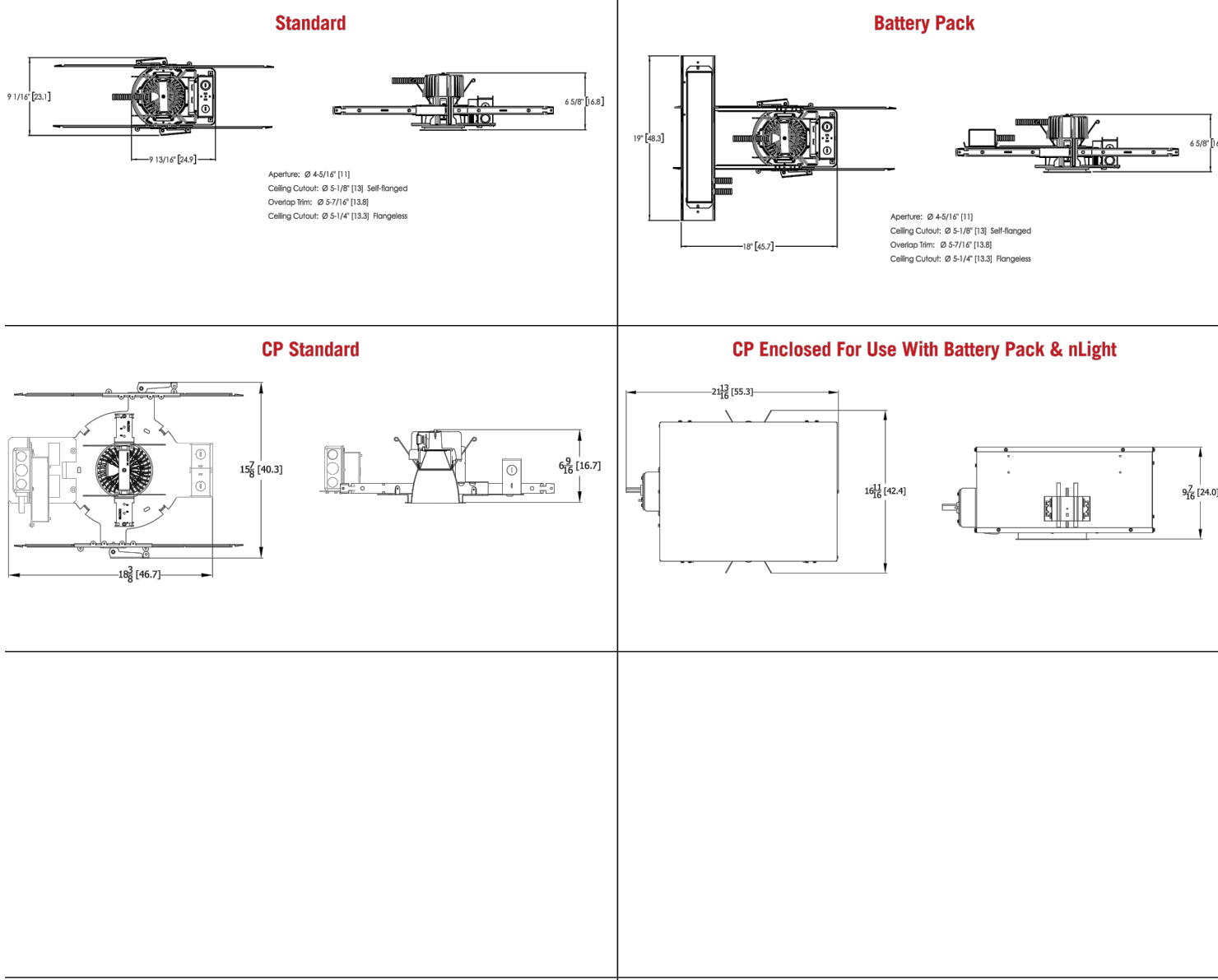
Luminaire Schedule							
Symbol	Qty	Label	Arrangement	Tag	LLF	Luminaire Lumens	Luminaire Watts
→	16	Bega 84707K27	Single	'C'	0.800	1248	14
↑	22	Ligman UEC-40571-W27	Single	'B'	0.850	664	23.1
⊕	14	Gotham EVO4_27_10_AR_MD_LSS	Single	'A'	0.850	923	8.8

1 SITE PHOTOMETRIC PLAN



SCALE: 1"=10'-0"

Aperture: 4-5/16" (11)
Ceiling Opening: 5-1/8" (13) self-flanged
Overlap trim: 5-7/16" (13.8)
5-1/4" (13.3) flangeless



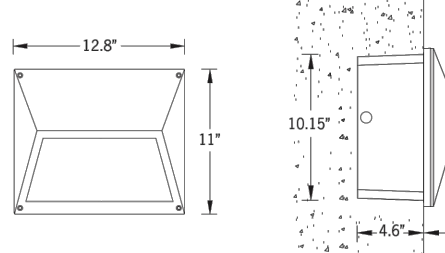
EV04 page 6 of 8
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UEC-40571 ECO 1 Recessed

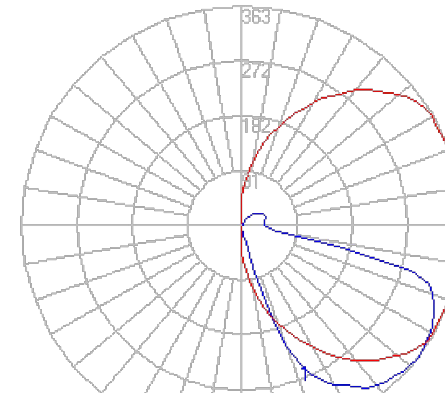
Type B
LIGMAN
LIGHTING USA



23w LED 769 Lumens
IP65 • Suitable For Wet Locations
IK07 • Impact Resistant (Vandal Resistant)
Weight 10.6 lbs



Beam Angle



Construction

Aluminum Casting
Less than 5% copper content - Marine Grade 6060 extruded & LM6 Aluminum high pressure die casting provides excellent mechanical strength - clean detailed product lines and excellent heat dissipation.
Pre-paint
Step degrease and phosphate process that includes descaling and etching as well as a zinc and nickel phosphate process before product painting.
Marine Reductive Silicon Coating
Provided with special injection molded "fit for purpose" long life high temperature memory retention silicon coating. Maintains the gaskets exact profile and seal over years of use and compression.
Thermal management
LM6 Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligan used in conjunction with the active controls, thermally below critical temperature range to ensure maximum luminaire flux output, as well as providing long LED service life and ensuring less than 1% lumen depreciation at 50,000 hours.

BAC Rating
B0 - I2 - G1
Surge Suppression
Standard 150v surge suppressor provided with all fixtures.
Finishing
All Ligan products go through an extensive finishing process that includes testing to improve paint adherence.
Paint
UV Stabilized 4-Mat thick powder coat paint and baked at 200 Deg C. This process ensures that Ligan products can withstand harsh environments. Rated for use in natoriums.

Inspired by Nature Finishes
The Inspired by Nature Finishing is a unique system of decorative powder coating. Our metal decoration process can easily transform the appearance of metal or aluminum product into wood grain finish.
This patented technology enables the simulation of wood grain, and even marble or granite finish through the use of decorative powder coating.
The wood grain finish is so realistic that it's almost indistinguishable from real wood, even from a close visual inspection. The system of coating permeates the entire thickness of the coat and as a result, the coating cannot be removed by normal rubbing, chipping, or scratching.
The Coating Process
After pre-treatment the prepared parts are powder coated with a specially formulated polyurethane powder. This powder provides protection against wear, abrasion, impact, and corrosion and acts as the relief base color for the finished metal decoration.
The component is then wrapped with a sheet of non-porous film with the selected decoration pattern printed on it using special high temperature inks.
This printed film transfer is vacuum-sealed to the surface for a complete thermo print and then transferred into a customized oven. The oven transforms the ink into different forms within the paint layer before it becomes solid. Finally, the film is removed, and a vivid timber look on aluminum remains.
Wood grain coating can create beautiful wood-looking products of any size. There are over 300 combinations of designs currently in use. Wood grains can be made with different colors, designs, etc.

Added Benefits
• Resistance to salt acid rain, accelerated aging
• Boiling water, fire and condensed water resistant
• Anti-Graffiti, Anti-Slip, Anti-Microbial, Anti-Scratch
• Super Durable UV resistant
• 100% Free (non-toxic)
Hardware
Provided Hardware is Marine grade 316 Stainless steel.
Anti-Static Screw Holes
Screw holes are infused with a special anti-static compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosion, amperages and moisture.
Opti Borosilicate Glass Lens
Provided with opti borosilicate impact resistant glass.

Optics & LED
Precision light design provides exceptional light control and precise distribution of light. LED CRI > 90
Lumen Maintenance Life
L80-B10 at 50,000 hours (This means that at least 90% of the LED will achieve 80% of their original flux)

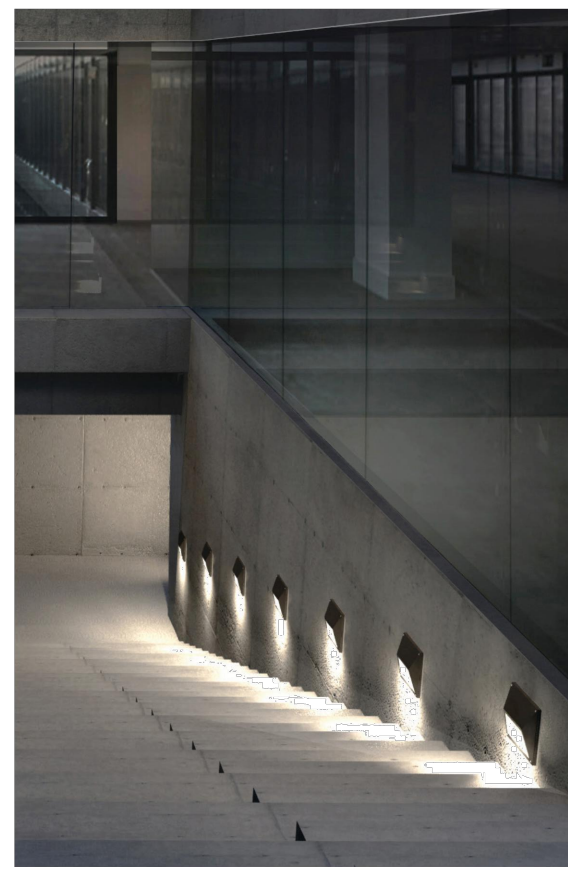
Robust urban wall semi-recessed pathway and stair luminaire. Designed to deliver edge to edge task levels from a classic form-factor.

A range of square wall recessed luminaires, with a glare free cut-off reflector system. Suitable for indoor and outdoor applications for pathways and ramps. The linear spread lens provides a wide beam spread that evenly illuminates up to 26ft of pathway.

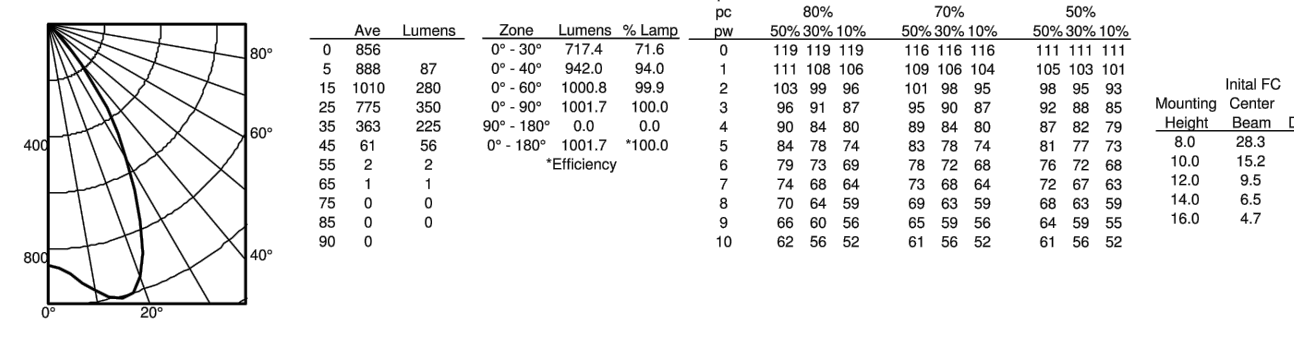
This luminaire is provided with a powdercoated high pressure die-cast aluminum back box and can be pre shipped to the jobsite for concrete pour or masonry applications.

The ECO range has a matching bollard offering to complement the recessed product. See bollard section on the Ligan website.
Complies with ADA requirements.

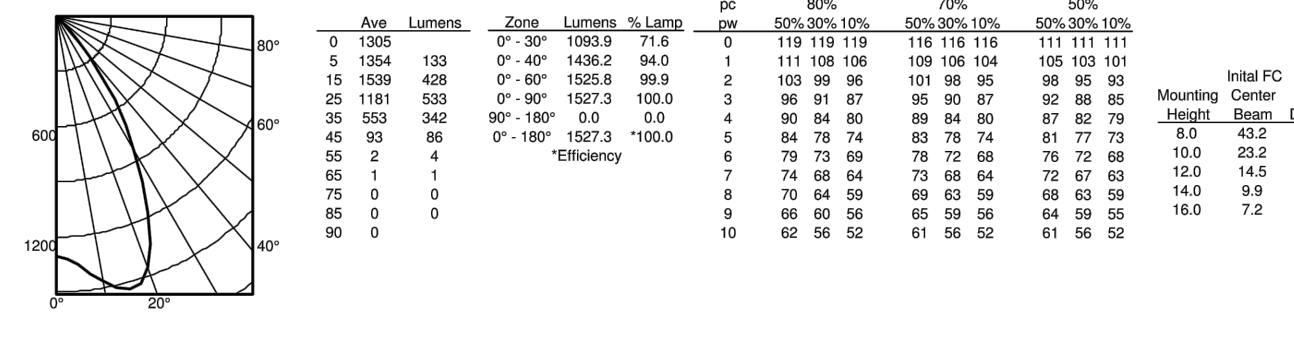
All Ligan fixtures can be manufactured using a special pre-treatment and coating process that ensures the fixture can be installed in natoriums as well as environments with high concentrations of chlorine or salt and still maintain the 5 year warranty. For this natorium rated process please specify NAT in options.



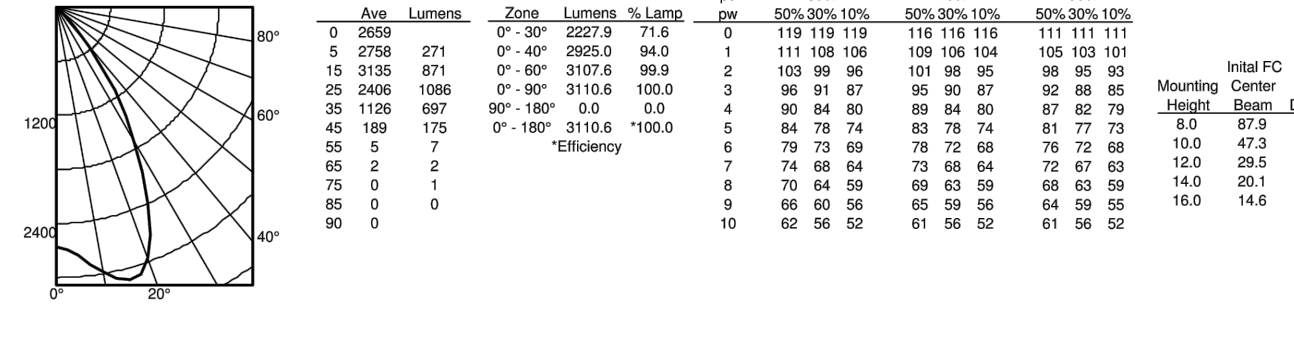
EV04 35/10 MWD LSS INPUT WATTS: 8.8W, DELIVERED LUMENS: 1001.7LM, LPW = 113.8, 1.08 S/MH, TEST NO. LTL27786P131



EV04 35/15 MWD LSS INPUT WATTS: 13.7W, DELIVERED LUMENS: 1527.3LM, LPW = 111.4, 1.08 S/MH, TEST NO. LTL27786P137



EV04 35/30 MWD LSS INPUT WATTS: 31.2W, DELIVERED LUMENS: 3110.6LM, LPW = 99.6, 1.08 S/MH, TEST NO. LTL27786P155



EV04 page 7 of 8
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UEC-40571 ECO 1 Recessed

LIGMAN
LIGHTING USA

PROJECT	DATE
QUANTITY	TYPE
NOTE	

ORDERING EXAMPLE || UEC-40571 - 23w - W30 - 02 - 120/277V

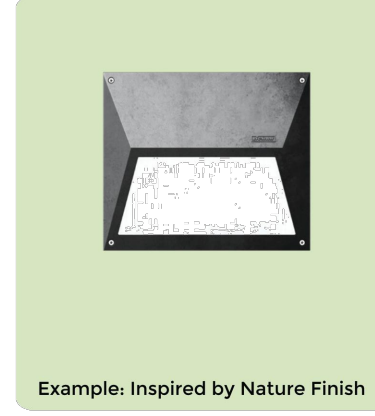
UEC-40571	LAMP	LED COLOR	FINISH COLOR	VOLTAGE
	23w LED 769 Lumens	W27 - 2700K W30 - 3000K W35 - 3500K W40 - 4000K	01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATT SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL	120/277V Other - Specify

INSPIRED BY NATURE FINISHES
SW01 - OAK FINISH
SW02 - WALNUT FINISH
SW03 - PINE FINISH
SW01 - CONCRETE FINISH
SW02 - SOFTSCAPE FINISH
SW03 - STONE FINISH
SW04 - CORTEN FINISH

ADDITIONAL OPTIONS
DIM - 0-10v Dimming
NAT - Natorium Rated

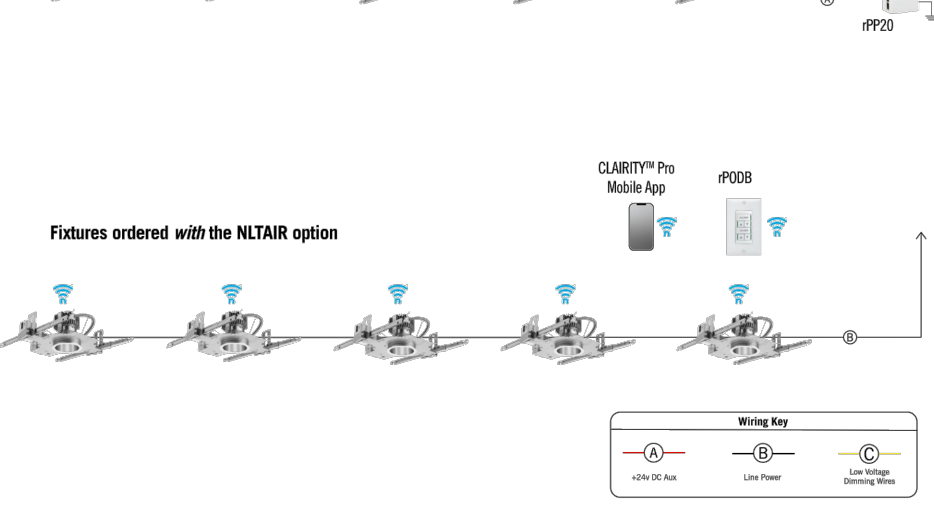
More Custom Finishes Available Upon Request
Consult factory for pricing and lead times

Oak	Cherry	Beech	Carbon
Walnut	Chestnut	Bamboo	Galvanized
Pine	Mahogany	Birch	Steel

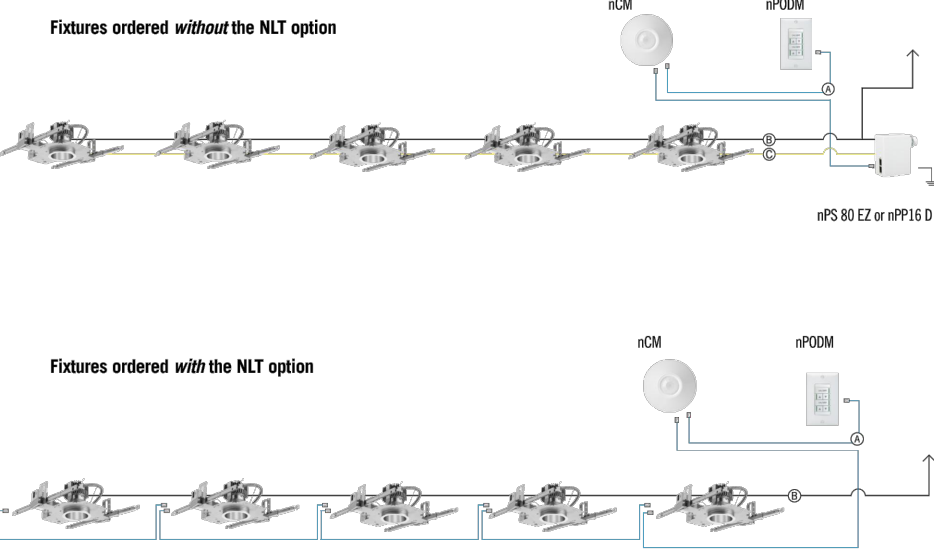


Possibilities for nLight® AIR

nLight® AIR is the ideal solution for retrofit or new construction spaces where adding communication wiring is cost prohibitive. The integrated nLight AIR rPPOD Power Pack is part of each EV0 Luminaire ordered with the NLTAIR option. These individually addressable controls offer the ultimate in flexibility during initial setup and for space reconfiguring.

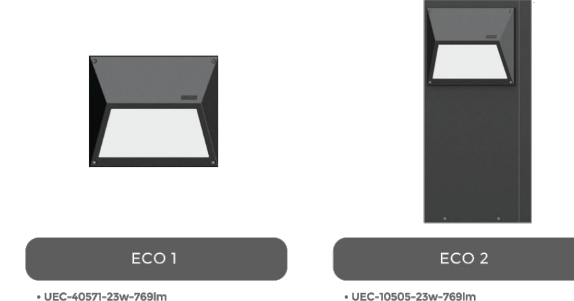


Possibilities for nLight® wired



EV04 page 8 of 8
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ECO Product Family



ISSUES AND REVISIONS

NO.	DATE	DESCRIPTION
	05.13.22	PLANNING RESUBMITTAL #1
	08.15.22	PLANNING RESUBMITTAL #2
	01.17.25	PLANNING RESUBMITTAL #9

PROJECT NUMBER
21003

SHEET TITLE

**LIGHT FIXTURE CUT SHEETS
TRASH MANAGEMENT PLAN**

SCALE

N.T.S.

SHEET NUMBER

E0.2B

System bollard head · 180° light output

Application
BEGA System Bollard head with shielded 180° light distribution. Simply order the bollard head and also the required bollard tube in various heights and options. Both modules can be joined together easily and quickly during the installation.

Materials
Borosilicate glass
Marine grade, copper free (±0.3% copper content) A360.0 aluminum alloy
High temperature silicone gasket
Interlocking stainless steel mounting mechanism for attachment of head and tube
Pre-wired with 5-pole plug-in connectors for ease of installation
Pure anodized aluminum reflector surface

NRTL listed to North American Standards, suitable for wet locations
Protection class IP 65

Weight: 14,1 lbs.

Electrical
Operating voltage 120-277VAC
Minimum start temperature -20°C
LED module wattage 11.6W
System wattage 14.0W
Controllability 0-10V dimmable
Color rendering index Ra > 80
Luminaire lumens 1376lm
LED service life (L70) 60000 hrs

LED color temperature

- ☐ 4000K (K4)
☐ 3500K (K35)
☐ 3000K (K3)
☐ 2700K (K27)

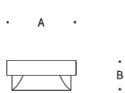
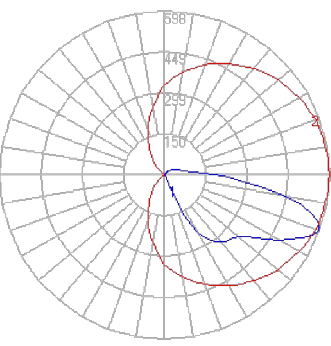
BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

All BEGA standard finishes are matte, textured powder coat with minimum 3 mil thickness. BEGA Undure® finish provides superior fade protection in Black, Bronze, and Silver. BEGA standard White is a super durable polyester powder. Optionally available RAL and custom color finishes provided in either polyester powder or liquid paint.

Available colors

- ☐ Black (BLK)
☐ Silver (SLV)
☐ RAL:
☐ Bronze (BRZ)
☐ White (WH1)
☐ CUS:



System bollard head · 180° light output			
	LED	A	B
B84707	11.6W	10 1/4	3 1/2

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-6533 info@bega-us.com
Due to the dynamic nature of lighting products and the associated technologies, luminaire data on this sheet is subject to change at the discretion of BEGA North America. For the most current technical data, please refer to bega-us.com
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BEGA

Type: c
BEGA Product:
Project: 660 University Ave
Modified:



System bollard summary · Round

The overview provides a compact summary of the possibilities for combining the various bollard heads with the bollard tubes and their additional functions.

For each bollard head you can find matching bollard tubes with and without components.

System bollard heads with compatible tubes	B84707		B84707		B84707		B84707		B84707		B84707		B84707		B84707		B84707	
BEGA bollard tubes Ø in inches	ø5 1/2	ø7 1/2	ø5 1/2	ø7 1/2	ø5 1/2	ø7 1/2	ø5 1/2	ø7 1/2	ø5 1/2	ø7 1/2	ø5 1/2	ø7 1/2	ø5 1/2	ø7 1/2	ø5 1/2	ø7 1/2	ø5 1/2	ø7 1/2
Wood components in two heights	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
With integral floodlight	•		•		•		•		•		•		•		•		•	
With integral PIR motion sensor	•		•		•		•		•		•		•		•		•	
With emergency lighting battery	•		•		•		•		•		•		•		•		•	
With drive-through protection																		
With integral GFCI outlet	•		•		•		•		•		•		•		•		•	
With integral 240V receptacle for electric vehicles																		
Wood bollard tubes	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Compatible tubes · Ø10 1/4

System bollard tube · No access door			System bollard tube · Drive-through protection		
	A	B		A	B
B99619	10 1/4	14 1/4	B84623	10 1/4	34 1/4
System bollard tube · With access door			System bollard tube · Integral GFCI outlet		
	A	B		A	B
B99624	10 1/4	34 1/4	B99627	10 1/4	34 1/4
System bollard tube · Integral PIR motion sensor			System bollard tube · Integral 240V receptacle		
	A	B		A	B
B99659	10 1/4	34 1/4	B88010	10 1/4	39
System bollard tube · Integral emergency lighting battery			Wood system bollard tube · Round		
	A	B		A	B
B99636	10 1/4	34 1/4	B84465	10 1/4	34 1/4

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-6533 info@bega-us.com
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SMITH DEVELOPMENT

660 UNIVERSITY
PALO ALTO, CA 94301



ISSUES AND REVISIONS

NO.	DATE	DESCRIPTION
	05.13.22	PLANNING RESUBMITTAL #1
	08.15.22	PLANNING RESUBMITTAL #2
	01.17.25	PLANNING RESUBMITTAL #9

PROJECT NUMBER
21003

SHEET TITLE
LIGHT FIXTURE CUT SHEETS
TRASH MANAGEMENT PLAN

SCALE
N.T.S.

SHEET NUMBER

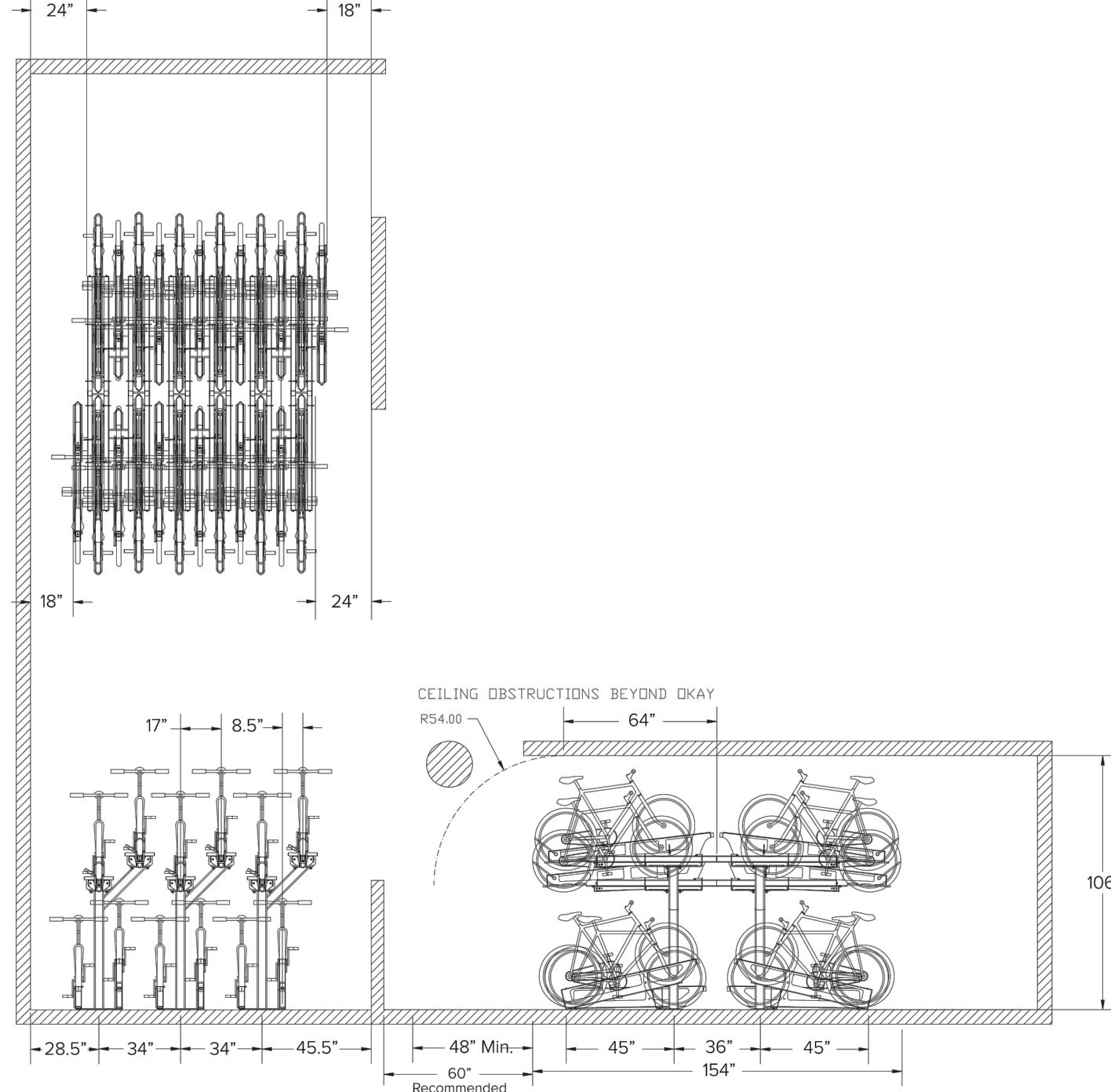
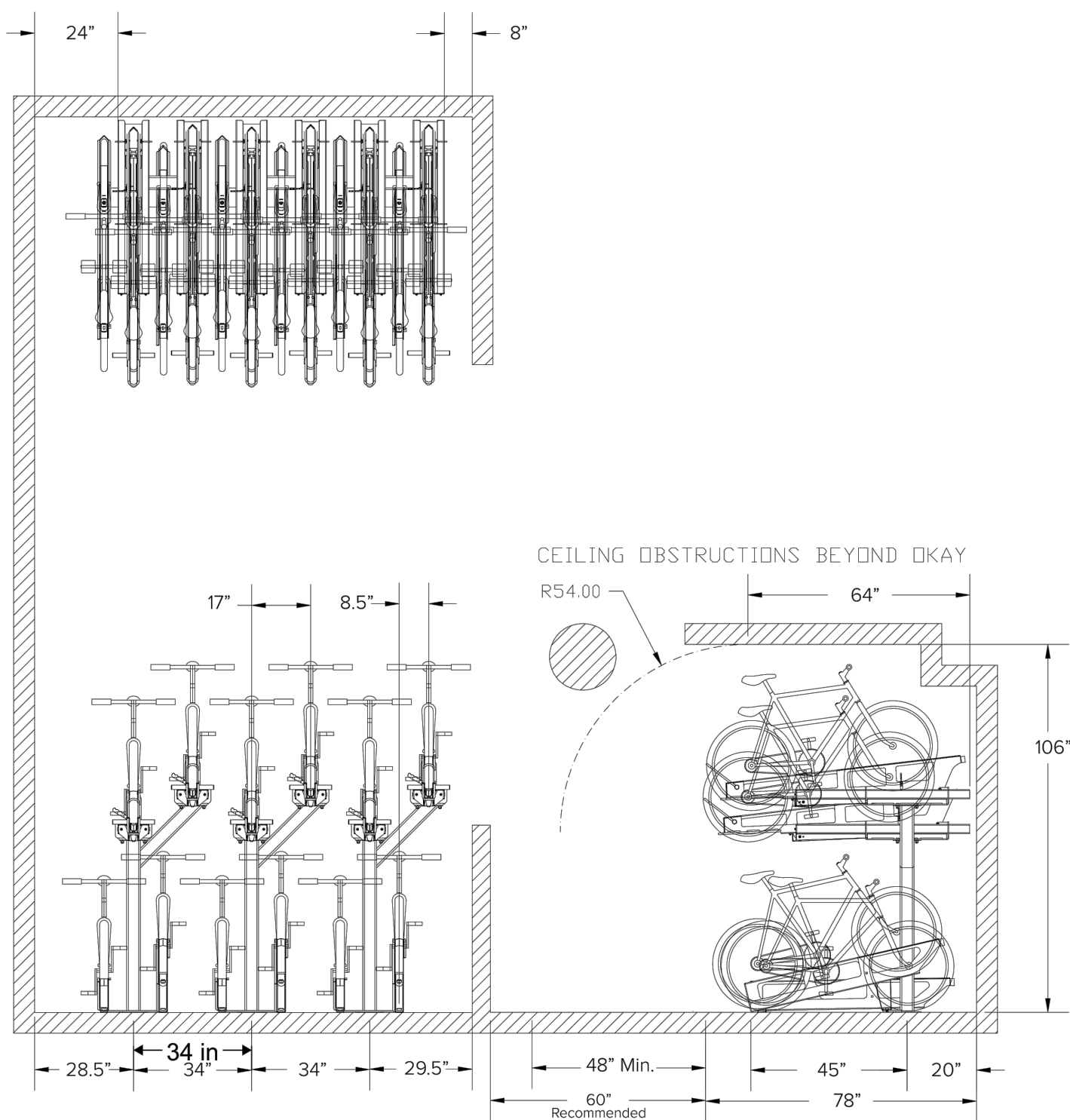
E0.2C



Setbacks Single Sided

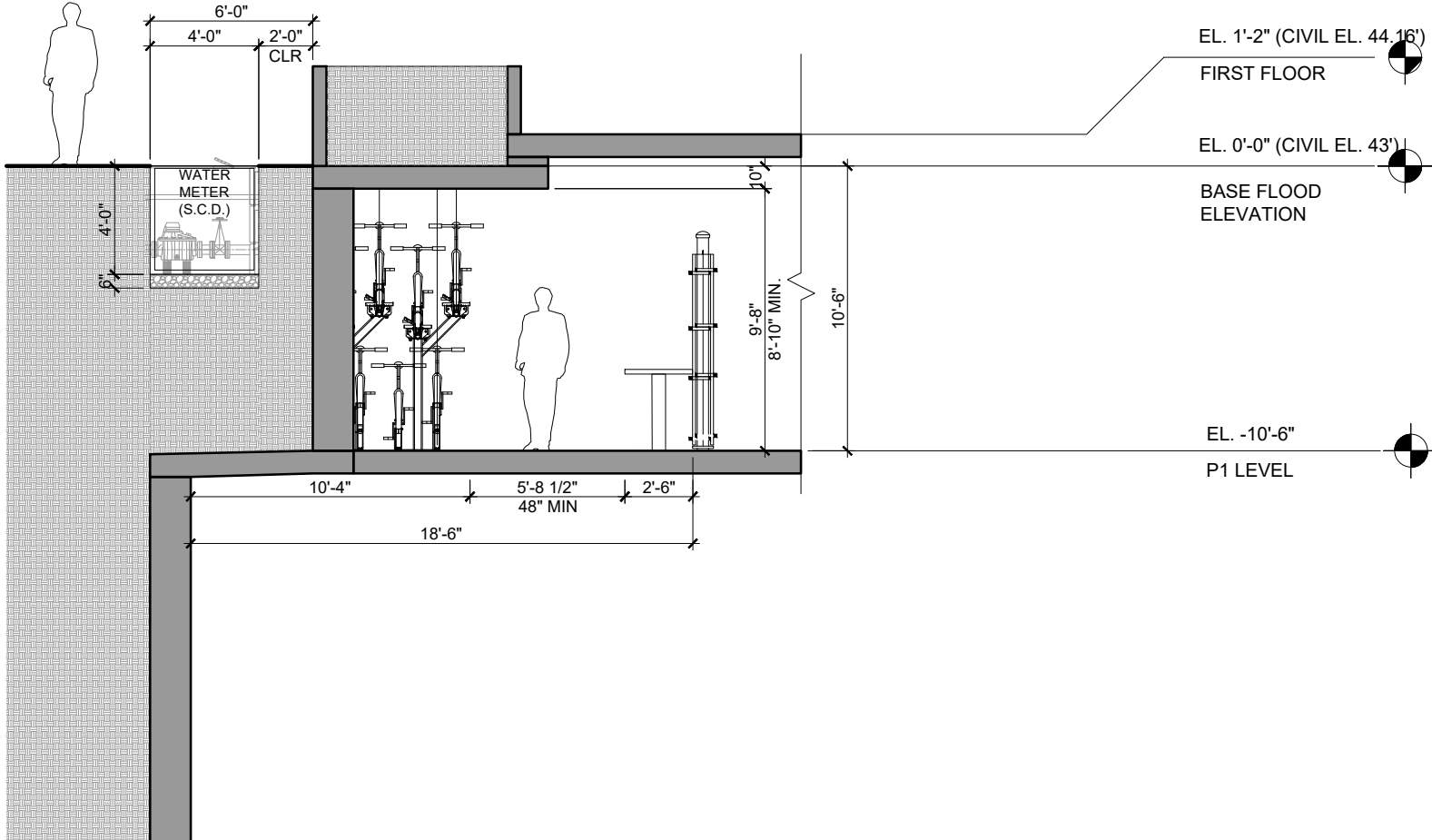
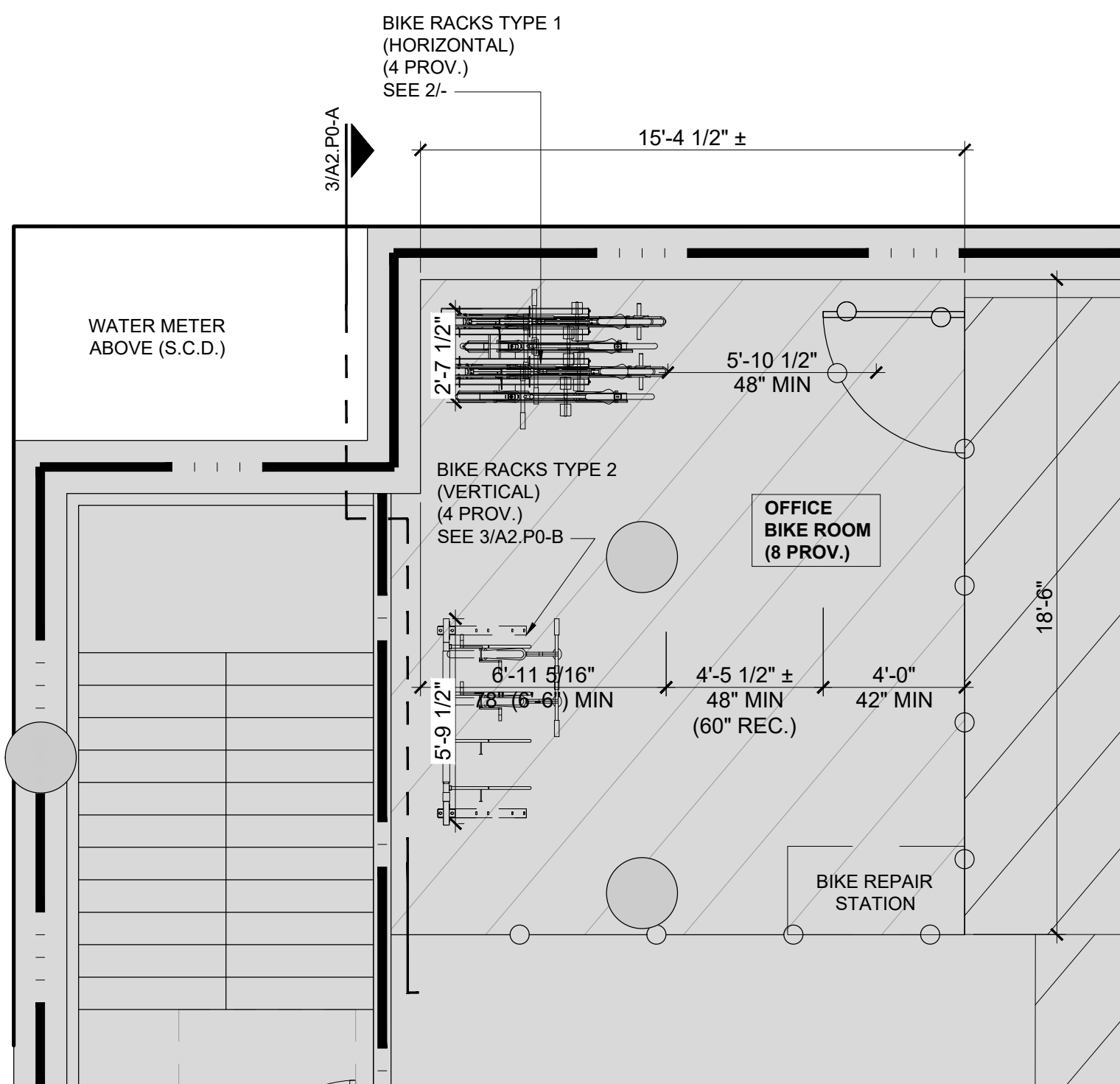


Setbacks Double Sided



2 HORIZONTAL BIKE RACK CUT SHEETS

N.T.S.



SMITH DEVELOPMENT

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PALO ALTO, CA 94301



ARCHITECTS
KORTH SUNSERI HAGEY

ISSUES AND REVISIONS		
NO.	DATE	DESCRIPTION
05.13.22		PLANNING RESUBMITTAL #1
08.15.22		PLANNING RESUBMITTAL #2
11.02.22		PLANNING RESUBMITTAL #3
08.28.23		PLANNING RESUBMITTAL #4
10.31.23		PLANNING RESUBMITTAL #5
01.17.25		PLANNING RESUBMITTAL #9
06.20.25		PLANNING RESUBMITTAL #10

PROJECT NUMBER
21003

SHEET TITLE
LONG TERM BIKE STORAGE
PARKING LEVEL P1

SCALE
1/4" = 1'-0"
0 4'-0" 8'-0"

SHEET NUMBER

A2.P0-A



Ultra Space Saver™ Squared

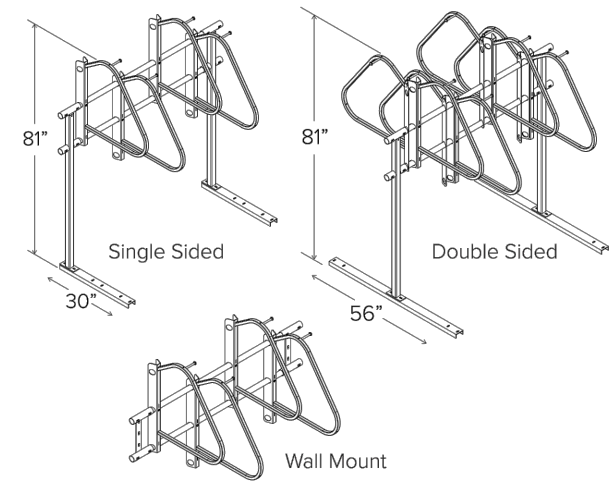
Dero's Ultra Space Saver Squared offers high-security, vertical bike parking. Adjustable sliding arms make it easy for customers to best utilize their space. It also creates flexibility to make sure bike spacing follows city requirements as they evolve. Pipe-cutter resistant squared steel tubing makes the Ultra Space Saver Squared more secure than the original Ultra Space Saver.

Patent D774,441

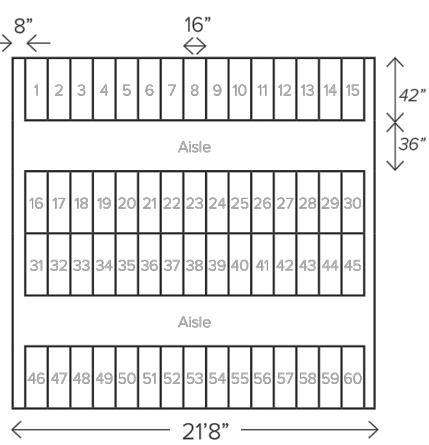
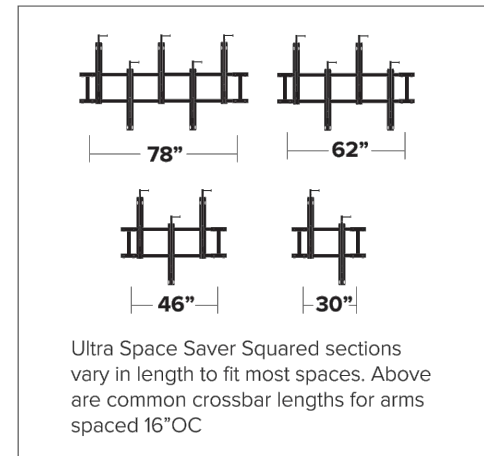
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Ultra Space Saver™ Squared



(Examples above show 62" long crossbar sections)



As a general guideline, the above space can fit approximately 60 bicycles.

The Ultra Space Saver Squared parks one bike every 16" with a typical bike extending out 42" from the wall.

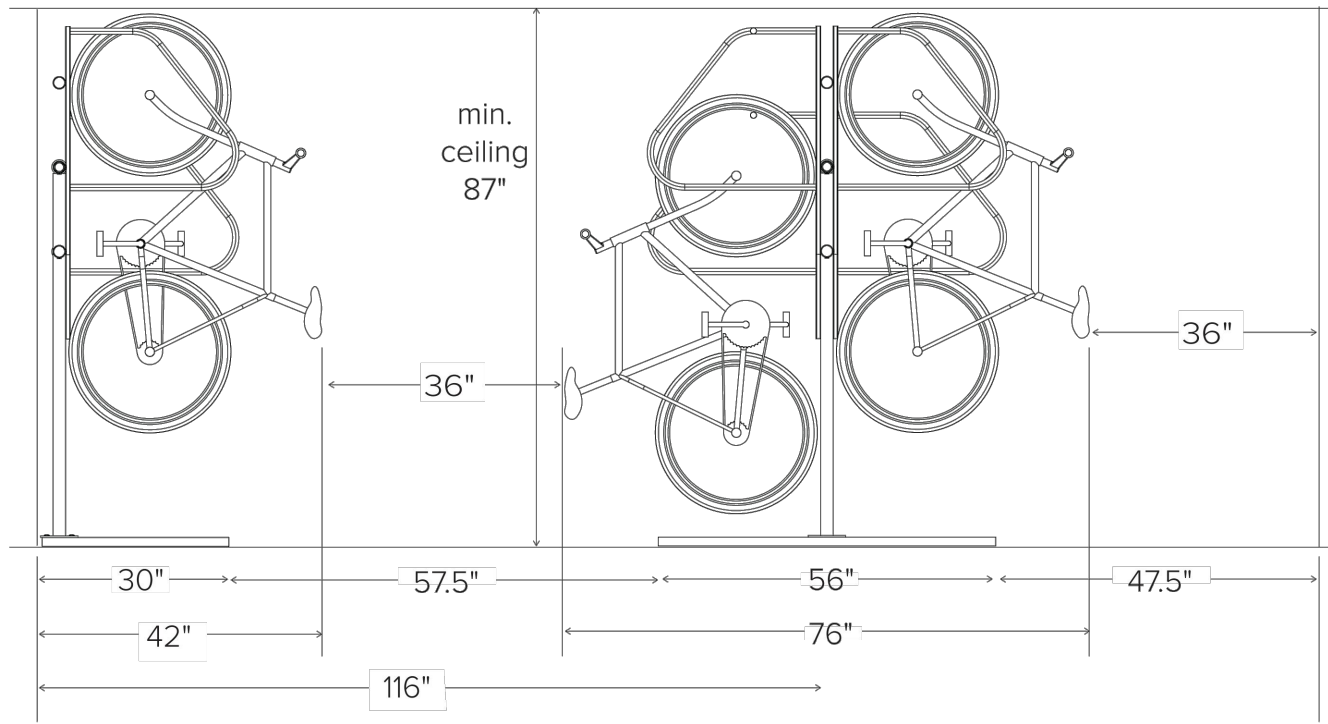
CAPACITY	Modular construction 1 bike per arm
MATERIALS	Hanger: 1" square tube with steel slider head with tamperproof locking bolts. Upright: 2" square tube. Feet: ANSI C3 x 4.1 galvanized steel channel. Crossbeams: 1.25" sched. 40 galvanized pipe.
FINISHES	<input checked="" type="checkbox"/> Black Powder Coat (Interior Use) Our interior powder coat finish assures a high level of adhesion and durability for indoor use by following these steps: 1. Sandblast 2. Final thick TGIC polyester powder coat <input type="checkbox"/> Black Powder Coat (Exterior Use) Additional Cost Our exterior powder coat finish assures a high level of adhesion and durability for outdoor or exposed air use by following these steps: 1. Sandblast 2. Epoxy primer electrostatically applied 3. Final thick TGIC polyester powder coat
MOUNT OPTIONS	<input checked="" type="checkbox"/> Floor mount Ultra Space Saver Squared have steel channel feet (30" for single sided and 56" for double sided units) which must be anchored to the floor. <input type="checkbox"/> Wall mount A wall mounted unit which contains special brackets is also available for CMU or solid concrete walls. Cannot be used on sheetrock without additional support.
WHEEL STOPS	<input type="checkbox"/> Include wheel stops Optional wheel stops are available for both floor and wall mounted racks for an additional cost
CANE STOPS	<input type="checkbox"/> Include cane stops Optional cane-detectable stops are available for both floor and wall mounted racks for an additional cost

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Ultra Space Saver™ Squared

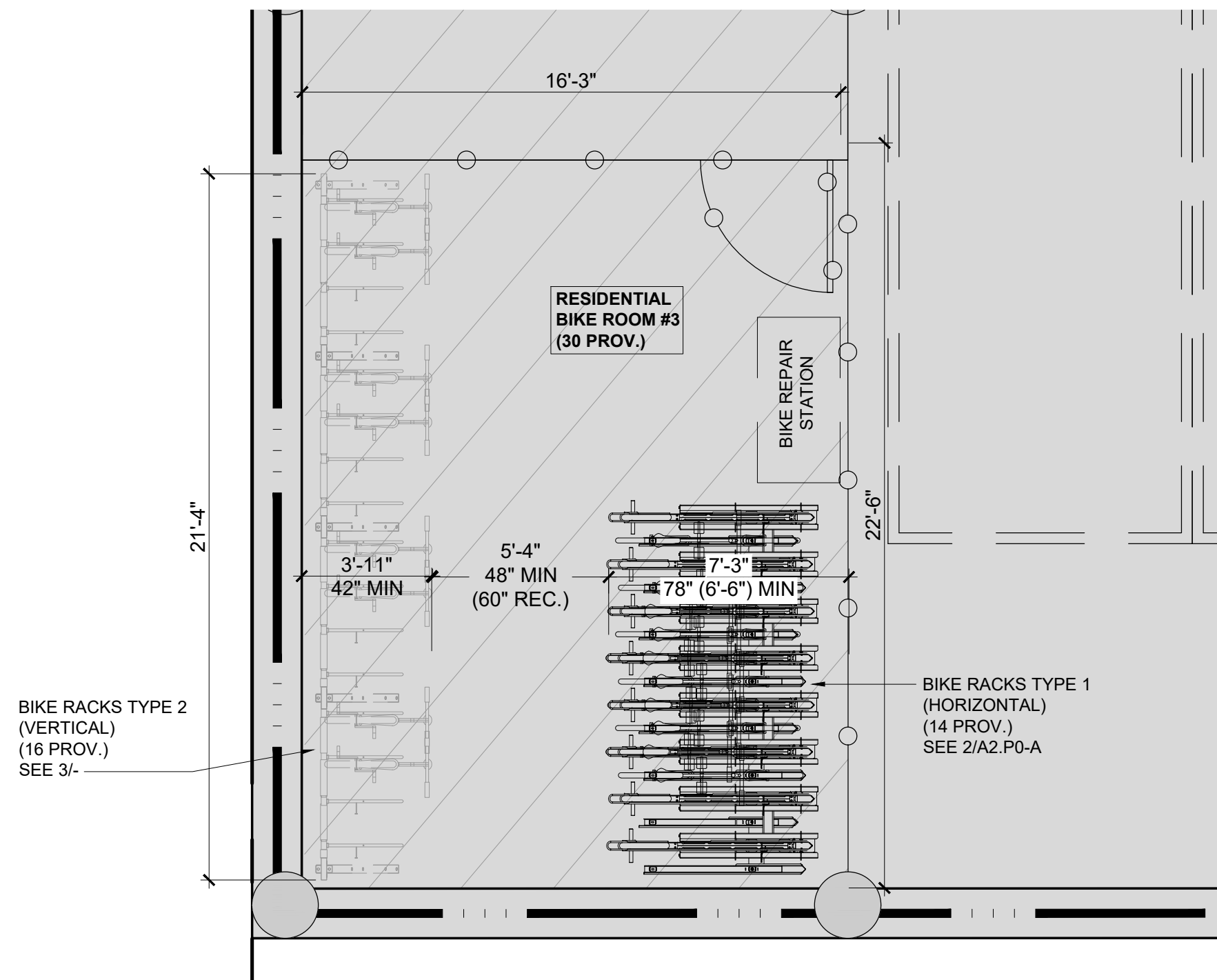
Setbacks



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3 | VERTICAL BIKE RACK CUT SHEETS

N.T.S.

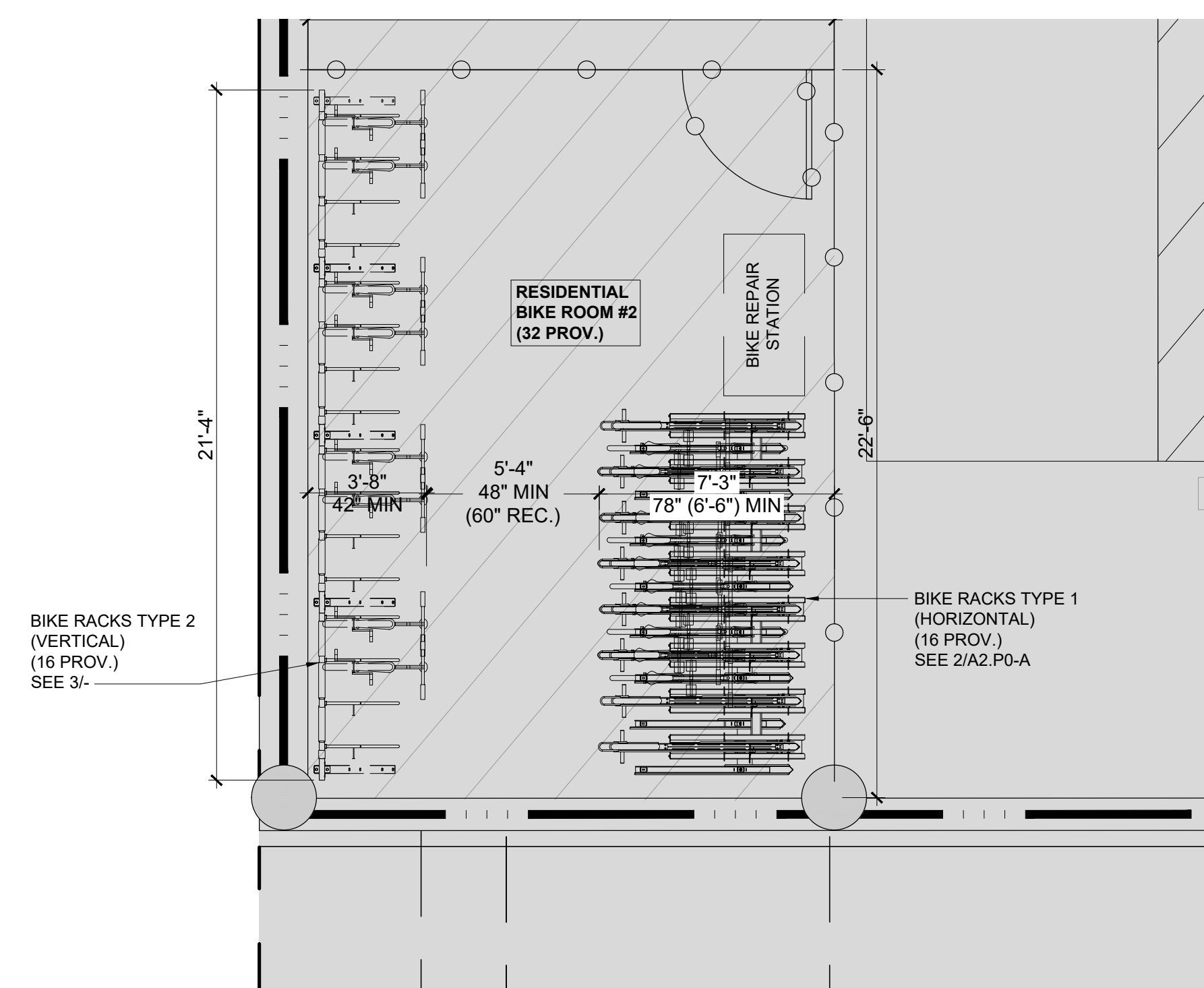


1 | ENLARGED RESIDENTIAL BIKE ROOM #1 PLAN (P2 LEVEL)

1/4"=1'-0"

2 | ENLARGED RESIDENTIAL BIKE ROOM #2 (P1 LEVEL)

1/4"=1'-0"



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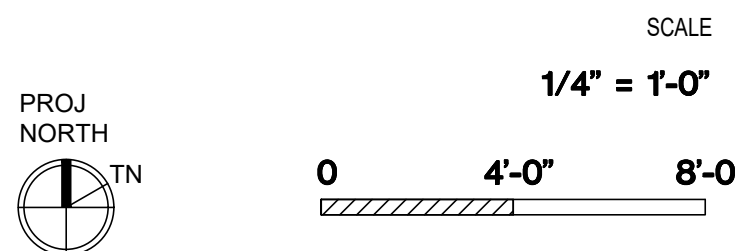
ARCHITECTS
KORTH SUNSERI HAGEY

ISSUES AND REVISIONS

NO.	DATE	DESCRIPTION
	05.13.22	PLANNING RESUBMITTAL #1
	08.15.22	PLANNING RESUBMITTAL #2
	11.02.22	PLANNING RESUBMITTAL #3
	08.28.23	PLANNING RESUBMITTAL #4
	10.31.23	PLANNING RESUBMITTAL #5
	01.17.25	PLANNING RESUBMITTAL #9

PROJECT NUMBER
21003

SHEET TITLE
LONG TERM BIKE STORAGE
PARKING LEVEL P1 & P2



SHEET NUMBER

A2.P0-B

data sheet **DE-48**



DE-48 is our aesthetically designed, interactively controlled, parking-system with easy access of the parking surface for both car and driver.

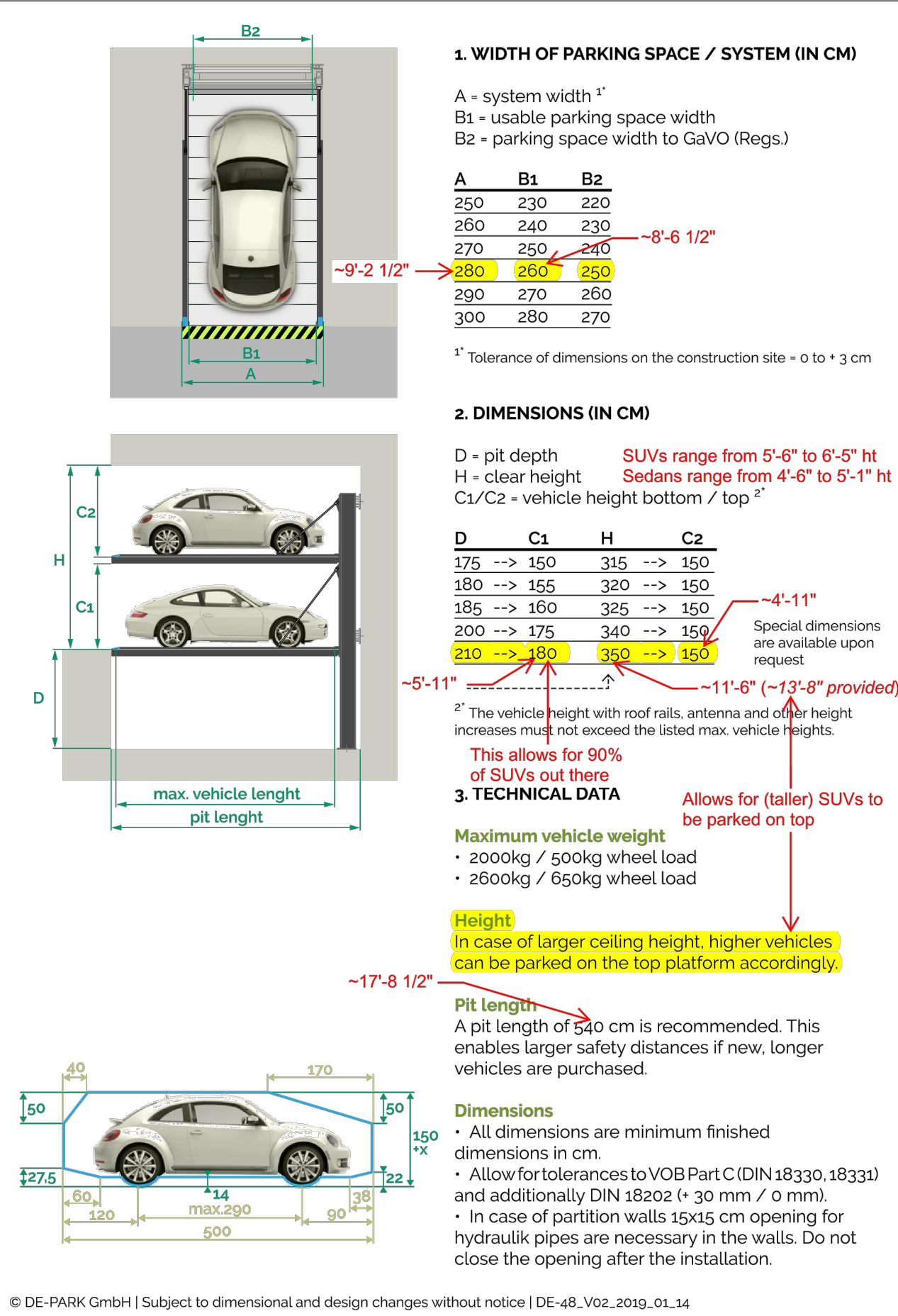
A2

EASY TO PLAN with space saving construction.

EASY TO INSTALL with minimized parts construction.

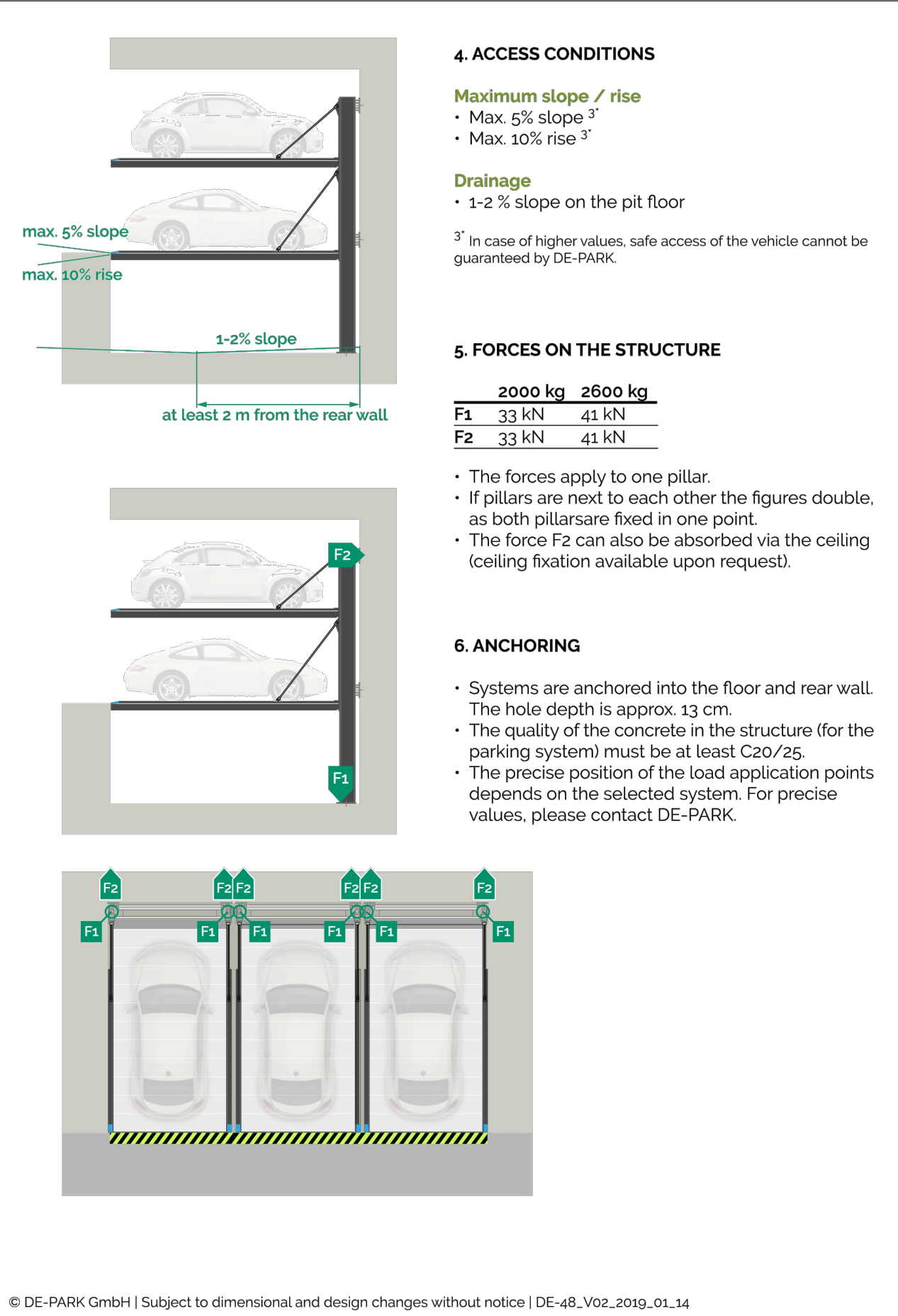
EASY TO USE due to barrier free construction.

DE-48 data sheet



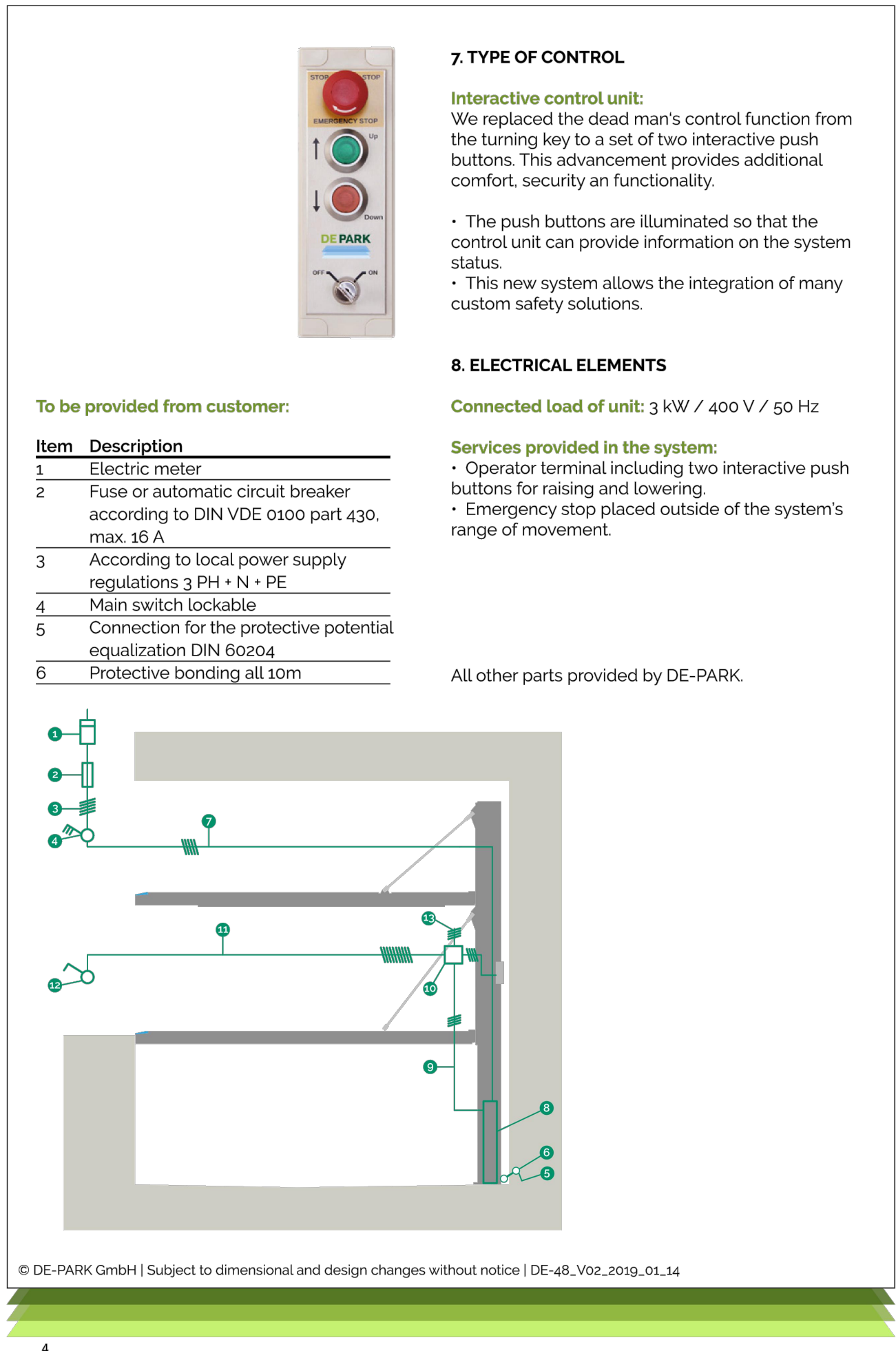
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DE-48 data sheet



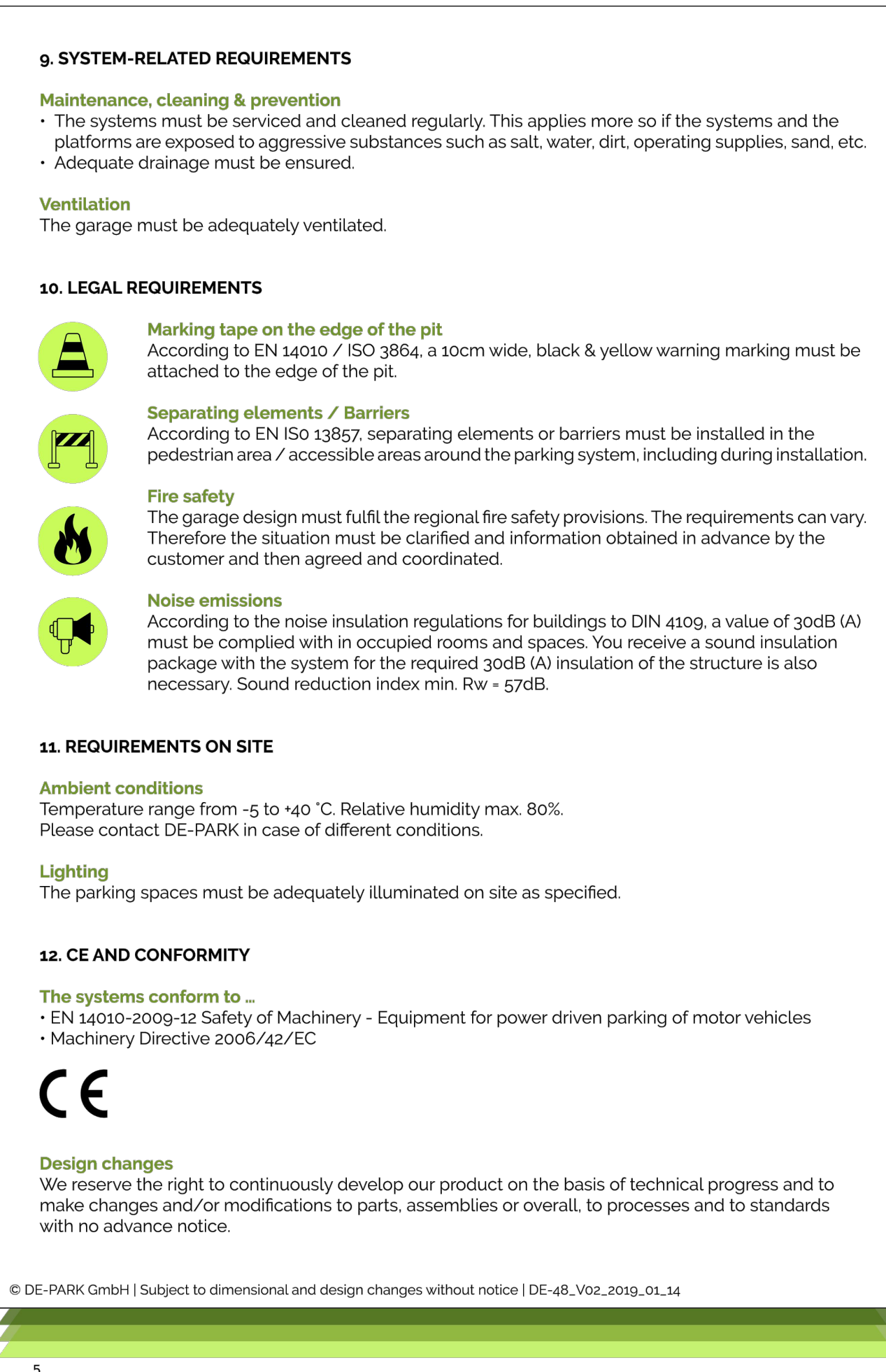
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DE-48 data sheet



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DE-48 data sheet



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DE-PARK IS MAKING YOUR LIFE EASY:

GERMAN MADE WITH A SLIM & MODULAR DESIGN
EASY PLANNING AND SETUP

LOW MAINTENANCE CONSTRUCTION
EASY TO USE WITH LOW NOISE EMISSIONS

NO PILLARS IN THE ENTRY AND PEDESTRIAN AREA
EASY MANOEUVERING AND SENSORLESS POSITIONING

FLAT & CONTINUOUS PLATFORM
EASY TO CLEAN AND COMFORTABLE TO WALK ON



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Email: info@de-park.com
Web: www.de-park.com

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ISSUES AND REVISIONS

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	08.15.22	PLANNING RESUBMITTAL #2
	11.02.22	PLANNING RESUBMITTAL #3
	08.28.23	PLANNING RESUBMITTAL #4
	10.31.23	PLANNING RESUBMITTAL #5

PROJECT NUMBER
21003

SHEET TITLE
**PARKING LIFT CUT SHEETS
PARKING LEVEL P2**

SCALE
N.T.S.

SHEET NUMBER

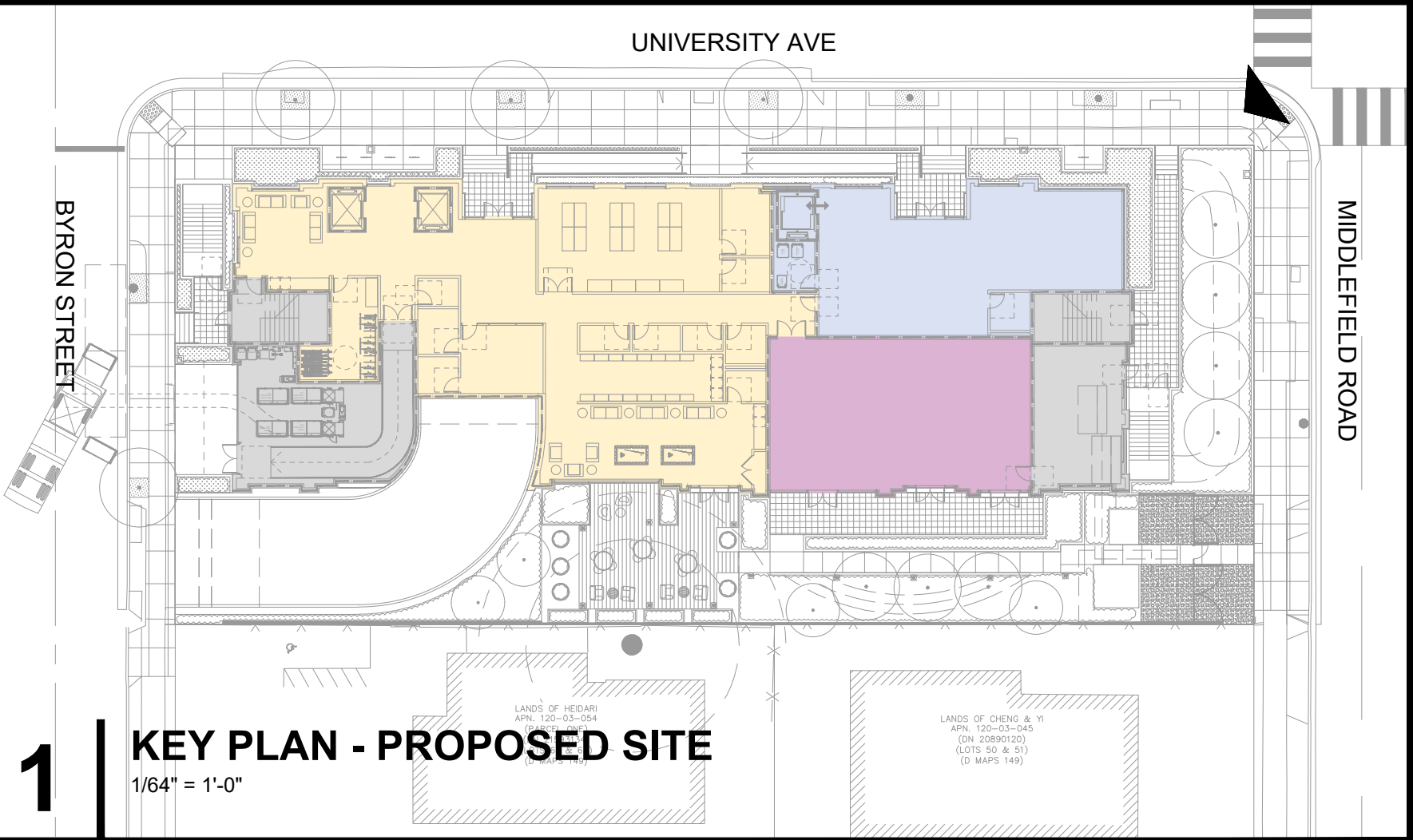
A2.P0-C



NOTE:
ALL PROPOSED STACKER STALLS (2 EA. STACKER) TO INCORPORATE EV CHARGER OR BE PROVIDED WITH AN EV CHARGER READY OUTLET, TYP. AT ALL P2 LEVEL STALLS AS REQUIRED. IMAGE ABOVE IS AN EXAMPLE OF A SIMILAR INSTALLATION. DETAILS & CONFIGURATION WILL BE PROVIDED IN THE FUTURE BUILDING PERMIT SUBMITTAL.



PEDESTRIAN VIEW FROM MIDDLEFIELD ROAD AND UNIVERSITY AVE



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PALO ALTO, CA 94301



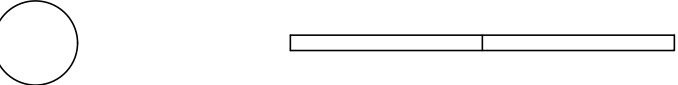
ARCHITECTS
KORTH SUNSERI HAGEY

ISSUES AND REVISIONS		
NO.	DATE	DESCRIPTION
12.01.21		PLANNING SUBMITTAL
05.13.22		PLANNING RESUBMITTAL #1
08.15.22		PLANNING RESUBMITTAL #2
11.02.22		PLANNING RESUBMITTAL #3
08.28.23		PLANNING RESUBMITTAL #4
10.31.23		PLANNING RESUBMITTAL #5
12.21.23		PLANNING RESUBMITTAL #6
02.07.24		PLANNING RESUBMITTAL #7
05.02.24		AD HOC REVISIONS
09.30.24		PLANNING RESUBMITTAL #8
01.17.25		PLANNING RESUBMITTAL #9
06.20.25		PLANNING RESUBMITTAL #10

PROJECT NUMBER
21003

SHEET TITLE
RENDERING

SCALE
AS NOTED

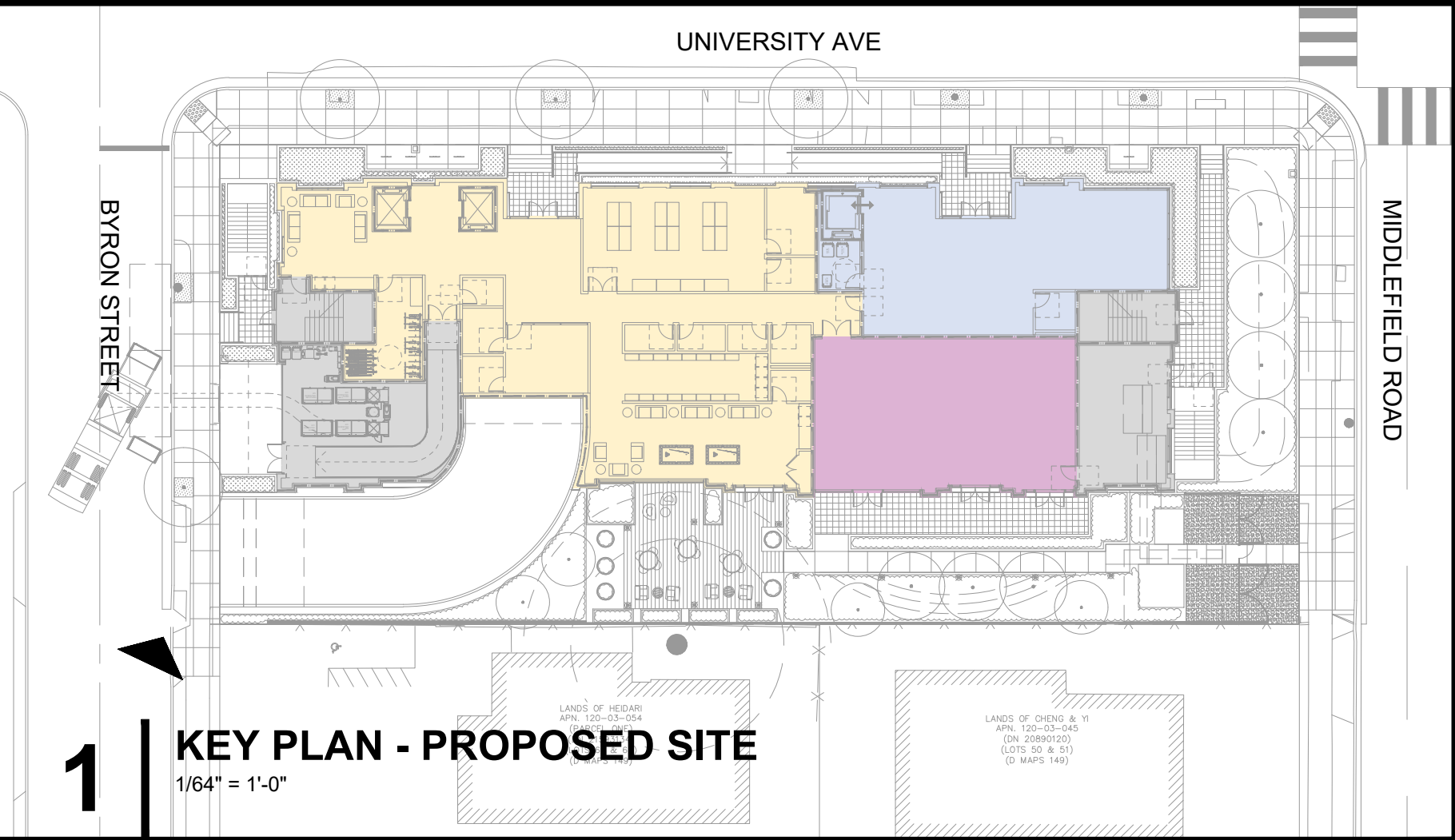


SHEET NUMBER

R1



PEDESTRIAN VIEW FROM BYRON STREET



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ISSUES AND REVISIONS		
NO.	DATE	DESCRIPTION
12.01.21		PLANNING SUBMITTAL
05.13.22		PLANNING RESUBMITTAL #1
08.15.22		PLANNING RESUBMITTAL #2
11.02.22		PLANNING RESUBMITTAL #3
08.28.23		PLANNING RESUBMITTAL #4
10.31.23		PLANNING RESUBMITTAL #5
12.21.23		PLANNING RESUBMITTAL #6
02.07.24		PLANNING RESUBMITTAL #7
05.02.24		AD HOC REVISIONS
09.30.24		PLANNING RESUBMITTAL #8
01.17.25		PLANNING RESUBMITTAL #9
06.20.25		PLANNING RESUBMITTAL #10

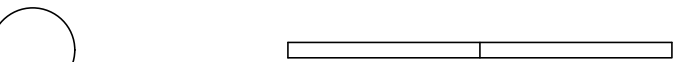
PROJECT NUMBER
21003

SHEET TITLE

RENDERING

SCALE

AS NOTED

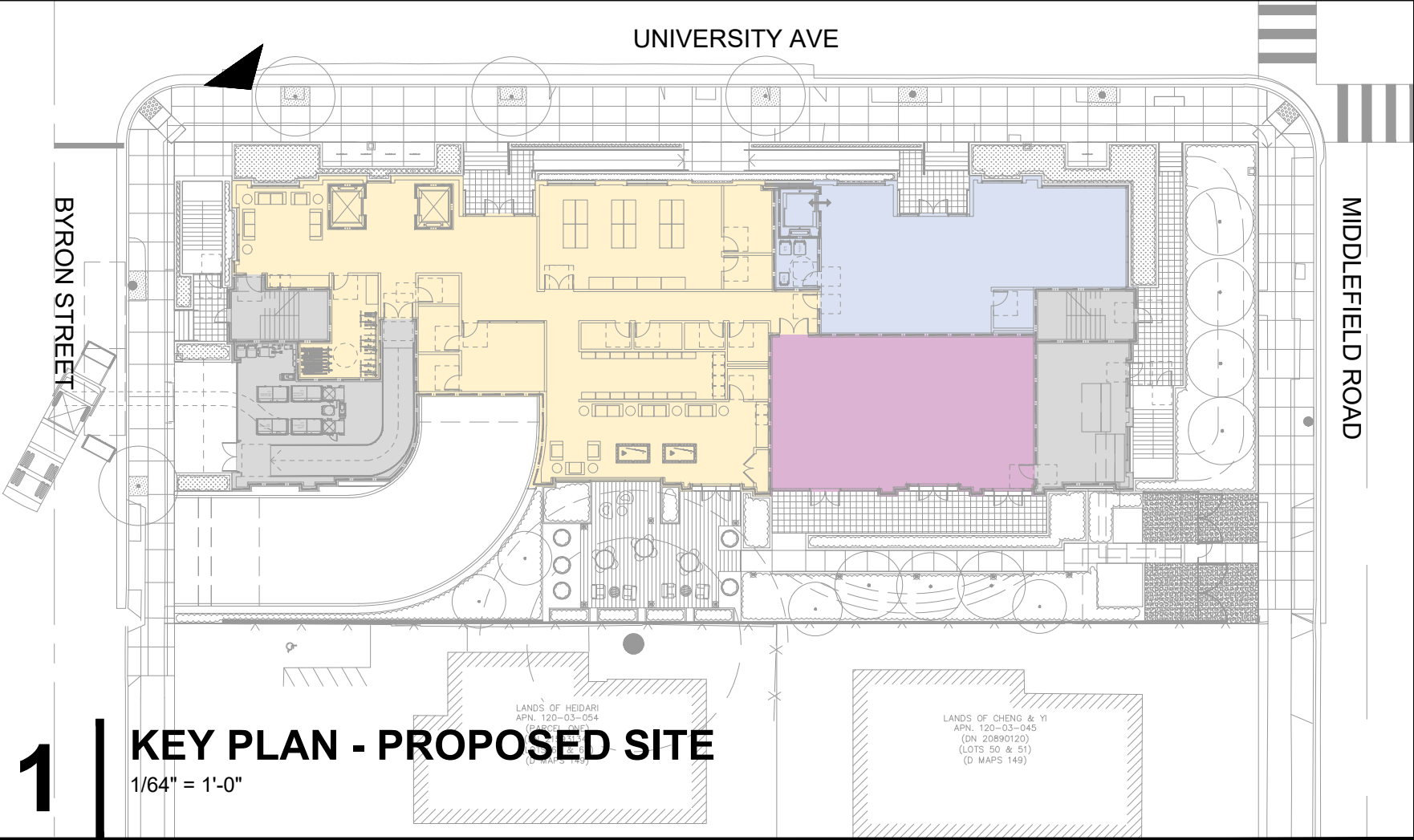


SHEET NUMBER

R2



PEDESTRIAN VIEW FROM UNIVERSITY AVE AND BYRON STREET



1 | KEY PLAN - PROPOSED SITE
1/64" = 1'-0"

SMITH DEVELOPMENT

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PALO ALTO, CA 94301



ARCHITECTS
KORTH SUNSERI HAGEY

ISSUES AND REVISIONS		
NO.	DATE	DESCRIPTION
	08.28.23	PLANNING RESUBMITTAL #4
	10.31.23	PLANNING RESUBMITTAL #5
	12.21.23	PLANNING RESUBMITTAL #6
	02.07.24	PLANNING RESUBMITTAL #7
	05.02.24	AD HOC REVISIONS
	09.30.24	PLANNING RESUBMITTAL #8
	01.17.25	PLANNING RESUBMITTAL #9
	06.20.25	PLANNING RESUBMITTAL #10

PROJECT NUMBER
21003

SHEET TITLE
RENDERING

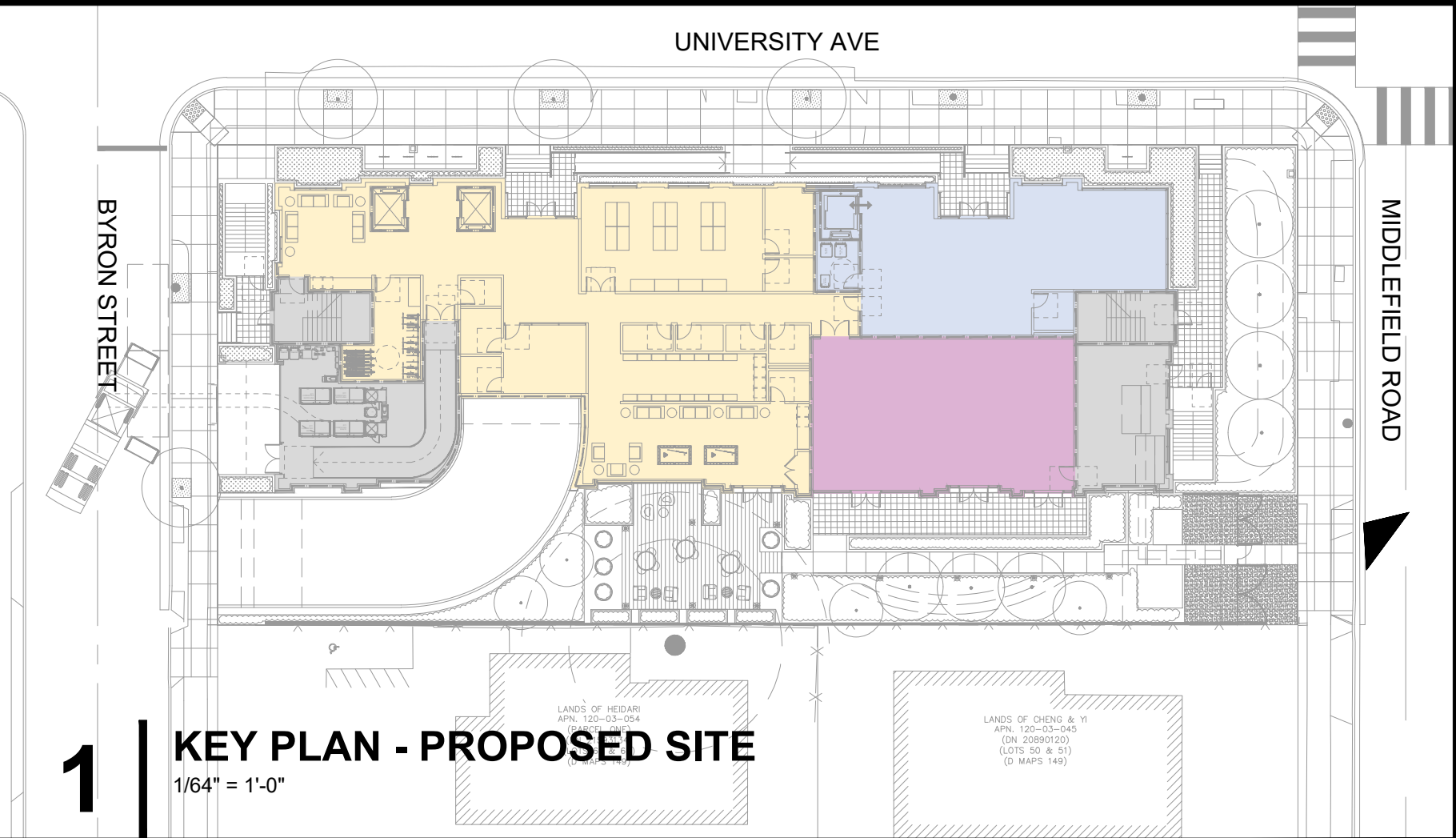
SCALE
AS NOTED

SHEET NUMBER

R3



PEDESTRIAN VIEW FROM MIDDLEFIELD ROAD



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ISSUES AND REVISIONS		
NO.	DATE	DESCRIPTION
08.28.23		PLANNING RESUBMITTAL #4
10.31.23		PLANNING RESUBMITTAL #5
12.21.23		PLANNING RESUBMITTAL #6
02.07.24		PLANNING RESUBMITTAL #7
05.02.24		AD HOC REVISIONS
09.30.24		PLANNING RESUBMITTAL #8
01.17.25		PLANNING RESUBMITTAL #9
06.20.25		PLANNING RESUBMITTAL #10

PROJECT NUMBER
21003

SHEET TITLE

RENDERING

SCALE

AS NOTED

SHEET NUMBER

R4