

FLOOR AREA CALCULATIONS:
(SHARED SPACES TO BE PRO-RATED PER SMC 23.86.032)

OVERALL BUILDING AREA	AREA	PRO-RATED
NON-RESIDENTIAL	10,726 SF	12%
RESIDENTIAL	75,780 SF	88%
TOTAL ASSIGNABLE AREA	86,506 SF	100%
TOTAL SHARED-USE AREA	22,989 SF	
NON-RESIDENTIAL PRO-RATED	2,850 SF	12%
RESIDENTIAL PRO-RATED	20,139 SF	88%
TOTAL BUILDING AREA	109,495 SF (TOTAL ASSIGNABLE PLUS TOTAL SHARED-USE)	
ASSIGNABLE NON-RESIDENTIAL	10,726 SF	
+ NON-RESIDENTIAL PRO-RATED	2,850 SF	
TOTAL NON-RESIDENTIAL	13,576 SF	
ASSIGNABLE RESIDENTIAL	75,780 SF	
+ RESIDENTIAL PRO-RATED	20,139 SF	
TOTAL RESIDENTIAL	95,919 SF	
FAR CHARGEABLE AREA	AREA	PRO-RATED
NON-RESIDENTIAL	1,784 SF	
RESIDENTIAL	58,819 SF	
TOTAL ASSIGNABLE CHARGEABLE AREA	60,603 SF	
TOTAL SHARED-USE CHARGEABLE	1,374 SF	
NON-RESIDENTIAL PRO-RATED	170 SF	12%
RESIDENTIAL PRO-RATED	1,204 SF	88%
TOTAL CHARGEABLE AREA	61,977 SF (TOTAL ASSIGNABLE PLUS TOTAL SHARED-USE)	
NON-RESIDENTIAL ASSIGNABLE	1,784 SF	
+ NON-RESIDENTIAL PRO-RATED	170 SF	
TOTAL NON-RESIDENTIAL CHARGEABLE	1,954 SF	
RESIDENTIAL ASSIGNABLE	58,819 SF	
+ RESIDENTIAL PRO-RATED	1,204 SF	
TOTAL RESIDENTIAL CHARGEABLE	60,023 SF	
FAR EXEMPT AREA	AREA	PRO-RATED
NON-RESIDENTIAL	8,842 SF	
RESIDENTIAL	16,961 SF	
TOTAL ASSIGNABLE EXEMPT AREA	25,803 SF	
TOTAL SHARED-USE EXEMPT	21,615 SF	
NON-RESIDENTIAL PRO-RATED	2,680 SF	12%
RESIDENTIAL PRO-RATED	18,935 SF	88%
TOTAL EXEMPT AREA	47,518 SF (TOTAL ASSIGNABLE PLUS TOTAL SHARED-USE)	
NON-RESIDENTIAL ASSIGNABLE	8,842 SF	
+ NON-RESIDENTIAL PRO-RATED	2,680 SF	
TOTAL NON-RESIDENTIAL EXEMPT	11,622 SF	
RESIDENTIAL ASSIGNABLE	16,961 SF	
+ RESIDENTIAL PRO-RATED	18,935 SF	
TOTAL RESIDENTIAL EXEMPT	35,896 SF	
TOTAL AREAS	AREA	
NON-RESIDENTIAL CHARGEABLE	1,954 SF	
+ NON-RESIDENTIAL EXEMPT	11,622 SF	
TOTAL NON-RESIDENTIAL	13,576 SF	
RESIDENTIAL CHARGEABLE	60,023 SF	
+ RESIDENTIAL EXEMPT	35,896 SF	
TOTAL RESIDENTIAL	95,919 SF	
OVERALL BUILDING TOTAL	109,495 SF (TOTAL NON-RESIDENTIAL + TOTAL RESIDENTIAL)	

RESIDENTIAL AMENITY:

PER SMC 23.47A.024.A

RESIDENTIAL AREA	AREA	% REQ'D	AREA REQ'D
RESIDENTIAL ASSIGNABLE	75,780 SF		
RESIDENTIAL PRO-RATED	20,139 SF		
TOTAL RESIDENTIAL	95,919 SF		
LESS PARKING & MECHANICAL	35,696 SF		
RESIDENTIAL AREA	60,223 SF	5%	3,011 SF

RESIDENTIAL AMENITY PROVIDED: AREA

LEVEL	RESIDENTIAL AMENITY	AREA
LEVEL 2	RESIDENTIAL AMENITY	2,781 SF
ROOF DECK	RESIDENTIAL AMENITY	2,365 SF
TOTAL AMENITY PROVIDED:		5,146 SF COMPLIES

NON-RESIDENTIAL USE DEPTH:

PER SMC 23.47A.008.B3(A) - SEE A101 LEVEL 1 PLAN FOR DIMENSIONS

REQUIREMENT	AVERAGE DEPTH	MINIMUM DEPTH
AREA SF > 600 SF	30'-0"	15'-0"
RESTAURANT	1,473 SF	
MEASURED DEPTHS:		
	21'-11 1/2"	(NEAR GRIDLINE D)
	27'- 5 1/8"	(NEAR GRIDLINE D)
	36'- 8 3/8"	(NEAR GRIDLINE E)
	21'- 3 7/8"	(NEAR GRIDLINE F)
TOTAL	107'- 4 7/8" = 4 = 26'-10"	COMPLIES - MIN. DEPTH DOES NOT COMPLY - AVG DEPTH

SOLID WASTE STORAGE CALCULATIONS:

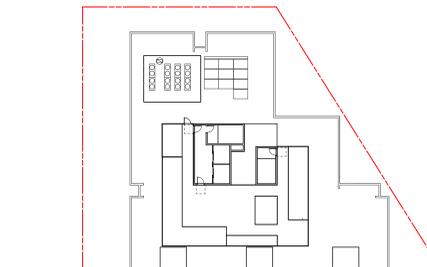
PER SMC 23.54.040 - SEE A101 LEVEL 1 PLAN FOR DIMENSIONS

RESIDENTIAL TRASH:	88 UNITS:	375 SF (FIRST 50 UNITS) + 152 SF (4 SF x 38 UNITS) 527 SF REQUIRED
NON-RESIDENTIAL TRASH:	0-5,000 SF:	62 SF (TABLE A - 23.54.040) + 50% (MIXED USE DEVELOPMENT) 41 SF REQUIRED
TOTAL TRASH:		527 SF (RES) + 41 SF (NON-RES) 568 SF REQUIRED
TRASH ROOM DIMENSIONS:		65'-12" (23'-11 5/8" x 27'- 2 3/8") + 153'-7" (14'- 9 1/4" x 10'-4 7/8") 805'-7"
	806 SF PROVIDED	COMPLIES

ROOFTOP FEATURE ROOF COVERAGE

PER SMC 23.47A.012.C4

STAIRS/ELEVATOR PENTHOUSE	737.1 SF (563.2 + 173.9)
MECHANICAL EQUIPMENT	892.4 SF (558.2 + 334.2)
SOLAR COLLECTORS	486.8 SF
TOTAL	2,116.3 SF
TOTAL ROOF AREA	9,994.1 SF
ROOFTOP FEATURE COVERAGE:	21%
MAX ALLOWABLE COVERAGE:	25% COMPLIES



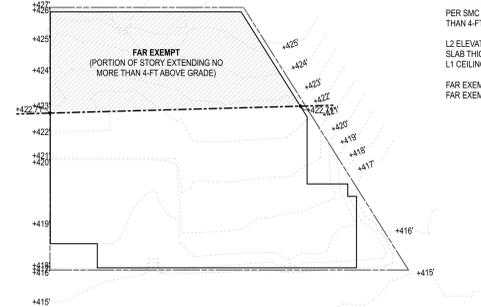
2
G102 ROOFTOP COVERAGE CALCULATIONS
SCALE: 1/32" = 1'-0"

STREET LEVEL FAR EXEMPTION

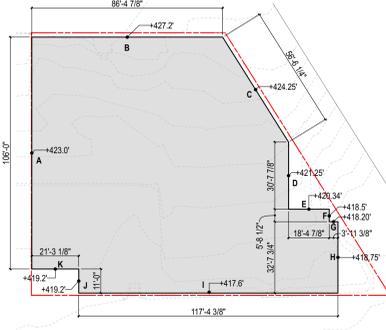
PER SMC 23.86.007.D, PORTIONS OF A STORY THAT EXTEND NO MORE THAN 4-FT ABOVE EXISTING OR FINISH GRADE

L2 ELEVATION (T.O. SLAB) +427'-8 1/2"
SLAB THICKNESS 12"
L1 CEILING (B.O. SLAB) +426'-8 1/2"

FAR EXEMPTION -4"
FAR EXEMPTION ELEVATION +422'-8 1/2" = +422.71'



3
G102 FAR EXEMPT LINE
SCALE: 1/32" = 1'-0"



1
G102 AVERAGE GRADE PLANE CALCULATIONS
SCALE: 1/32" = 1'-0"

AVERAGE GRADE LEVEL (LAND USE)

PER SMC 23.86.006.A

MID ELEV.	LENGTH	MID ELEV X LENGTH
A: +423.0	105.0'	44,838
B: +427.2	86.42'	36,918.62
C: +424.25	56.50'	23,970.13
D: +421.25	30.66'	12,918.53
E: +420.34	18.42'	7,742.66
F: +418.5	5.67'	2,372.9
G: +418.2	3.17'	1,325.7
H: +418.75	32.66'	13,676.38
I: +417.6	117.42'	49,034.6
J: +419.2	11.0'	4,611.2
K: +419.2	21.25'	8,908.0
TOTAL	489.17'	206,316.72
AVG GRADE LEVEL = 206,316.72 / 489.17' = 421.77'		421'-0"

MAX ALLOWABLE STRUCTURE HEIGHT

= AVG GRADE LEVEL + BDG HEIGHT
= +421.77' + 65'
= 486.77' = 486'-9"

Rev	Date	Issue

CONSULTANT'S LOGO

1620 16TH AVENUE
MIXED-USE BUILDING

1620 16TH AVENUE
SEATTLE, WA 98122

Project #16037

WEINSTEIN A+U
2200 WESTERN AVENUE, SUITE 301
SEATTLE, WA 98121
206.443.8606
www.weinsteinau.com

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JURISDICTIONAL APPROVAL STAMP

3300 REGISTERED ARCHITECT
Edward Weinstein
EDWARD WEINSTEIN
State of Washington

MUP CORRECTIONS
Issue
3 SEP 2020
Issue Date

LAND USE DIAGRAMS
Sheet Title

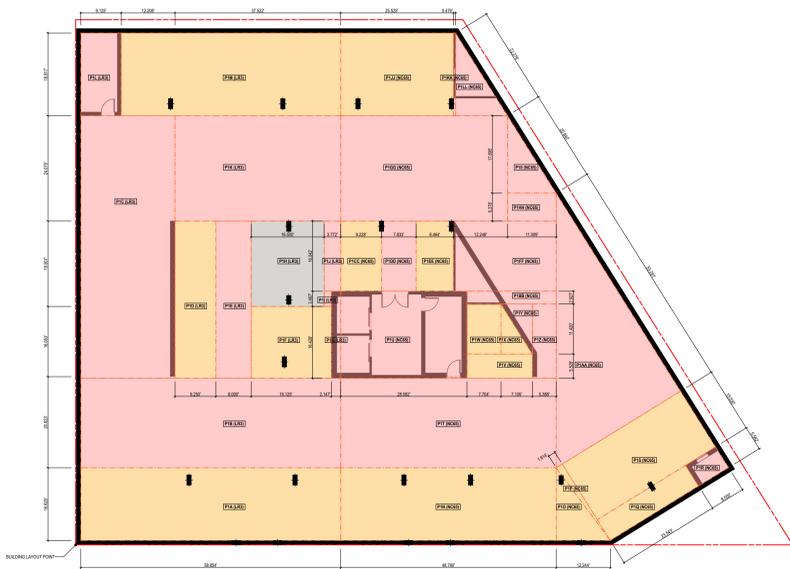
G102

WEINSTEIN A+U

GENERAL NOTES: LAND USE CODE

LAND USE CODE:

- PARKING - RESIDENTIAL
- COMMERCIAL
- RESIDENTIAL
- SHARED USE
- OUTDOOR AMENITY
- INDOOR AMENITY



5 PARKING LEVEL 1
SCALE: 1/16" = 1'-0"



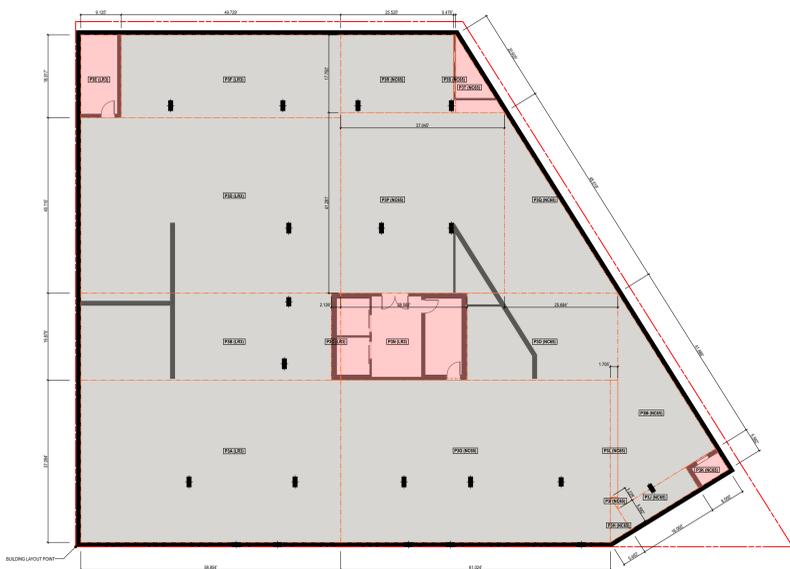
2 LEVEL 3 (TYP OF LEVELS 4-7)
SCALE: 1/16" = 1'-0"



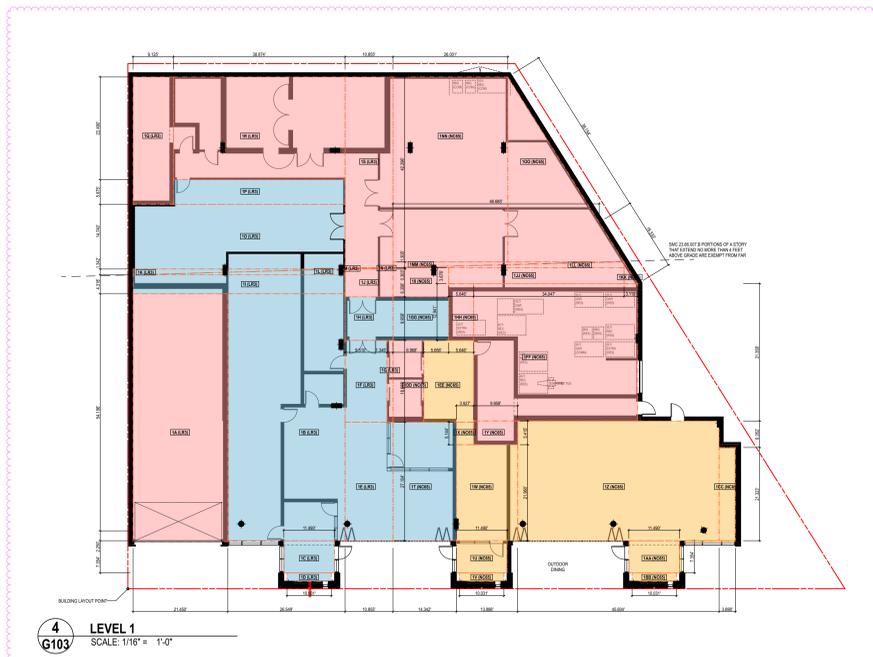
6 PARKING LEVEL 2
SCALE: 1/16" = 1'-0"



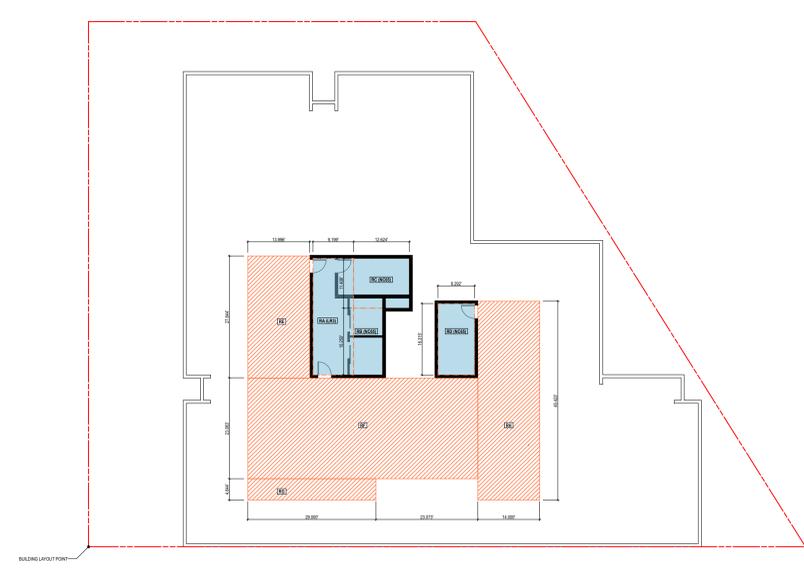
3 LEVEL 2
SCALE: 1/16" = 1'-0"



7 PARKING LEVEL 3
SCALE: 1/16" = 1'-0"



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



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

Rev	Date	Issue

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MIXED-USE BUILDING

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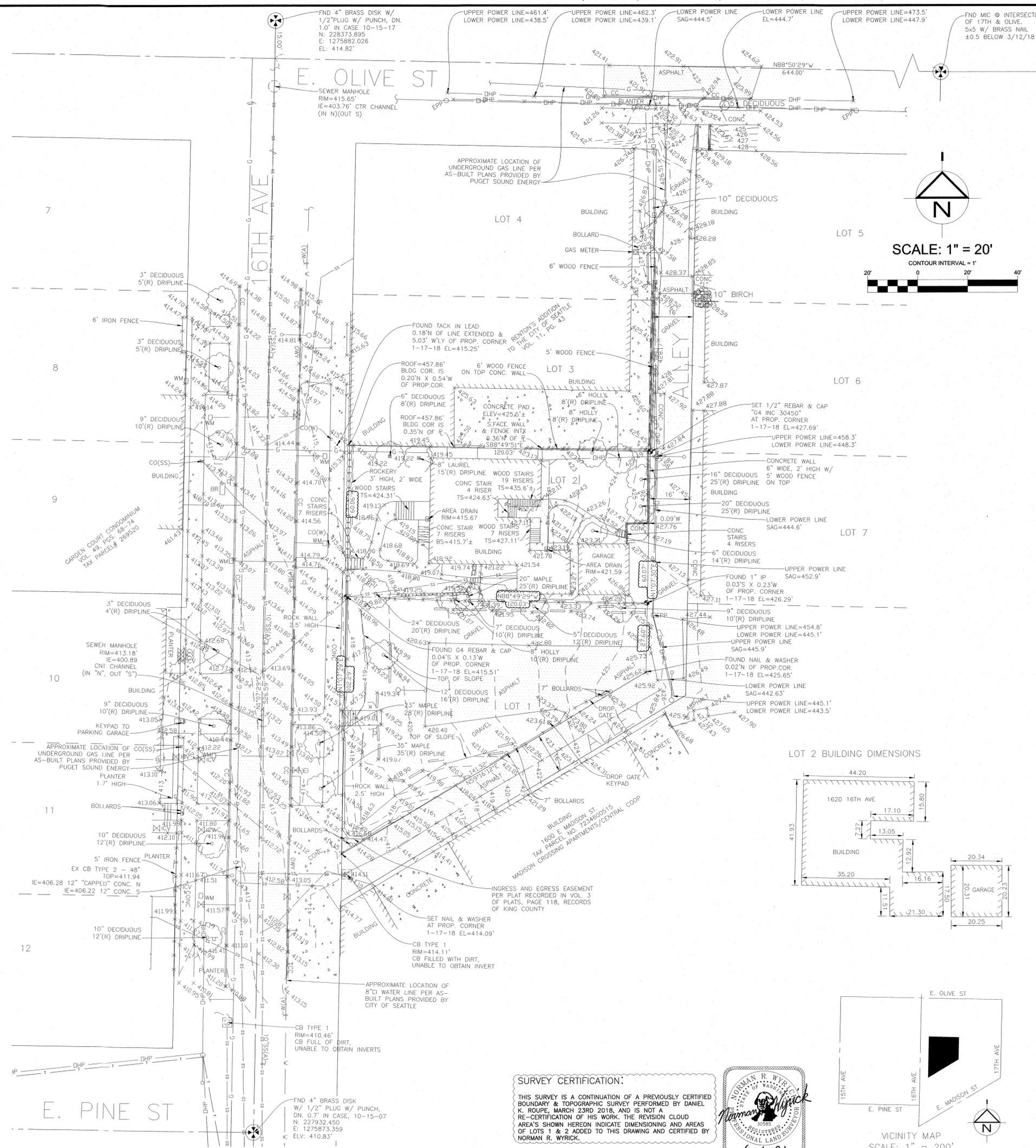
FAR DIAGRAMS
Sheet Title

G103

WeinsteinA+U

206.443.8606

WEINSTEIN A+U



SURVEY NOTES:
EQUIPMENT USED: GEOMAX CR2 SERIES TOTAL STATION (2" DIRECT READING THEODOLITE WITH E.D.M.)
PRECISION OF CONTROL TRAVERSE IS AT A HIGHER LEVEL THAN MINIMUM STANDARDS REQUIRED BY WAC. 332-130-090.

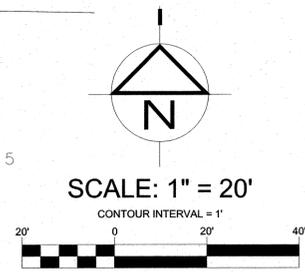
SITE NOTES:
ANY MANHOLES OR CATCH BASINS THAT DO NOT HAVE AN INVERT ELEVATION LISTED, WE WERE UNABLE TO ACCESS DUE TO ROADWAY TRAFFIC OR OTHER MEANS PREVENTING ACCESSIBILITY. UNDERGROUND UTILITIES DEPICTED ARE PER CITY OF SEATTLE AS-BUILT INFORMATION ALONG WITH INFORMATION PROVIDED BY OTHER UTILITY JURISDICTIONS.

HOUSE ELEVATION DATA (1620 16TH AVE):
MAIN LEVEL FINISH FLOOR=424.4±
2ND STORY FINISH FLOOR=435.6±
BASEMENT FINISH FLOOR=415.7±
HIGH POINT ROOF=458.96'
TOP OF CHIMNEY=460.36'

UTILITY DISCLAIMER:
RECORDS OF UNDERGROUND TELECOMMUNICATIONS, FIBER OPTIC AND/OR POWER ARE NOT ALWAYS AVAILABLE TO THE PUBLIC. GROUP FOUR HAS NOT CONTACTED ALL OF THE SERVICE PROVIDERS IN THE COURSE OF THIS SURVEY. WE DO NOT ACCEPT RESPONSIBILITY FOR THE EXISTENCE OF UTILITIES NOT MADE AVAILABLE TO PUBLIC RECORD WITH THE LOCAL JURISDICTION.

BOUNDARY ENCROACHMENT NOTE:
-EAST FACE OF 6" CONCRETE WALL (WITH 5' WOOD FENCE ON TOP) CROSSES NORTH PROPERTY LINE OF LOT 2, 0.69' W OF THE NORTHEAST PROPERTY CORNER

LEGAL DESCRIPTION:
LOTS 1 AND 2 OF BLOCK 11 OF RENTON'S ADDITION TO THE CITY OF SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 3 OF PLATS, PAGE 118, RECORDS OF KING COUNTY, WASHINGTON.



ADDRESSES:
LOT 1 - 1610 16TH AVE
PARCEL NO. 7234600465
OWNER: JEWISH FAMILY SERVICE
**AREA=7,795.4 SF
ZONING PRE-MHA: NC3-65**

LOT 2 - 1620 16TH AVE
PARCEL NO. 7234600470
OWNER: JEWISH FAMILY SERVICE
**AREA=7210.4 SF
ZONING PRE-MHA: LR3
ZONING MHA: LR3(M)**

**TOTAL PROPERTY AREA (LOTS 1 & 2) = 15,005.8 SF
(AS SHOWN ON THIS SURVEY)**

VERTICAL DATUM: NAVD 88
BENCH: CITY OF SEATTLE POINT NUMBER SNV-2543, BRASS CAP AT SW CORNER INTERSECTION 16TH AVE AND E MADISON ST. ELEVATION=411.29'

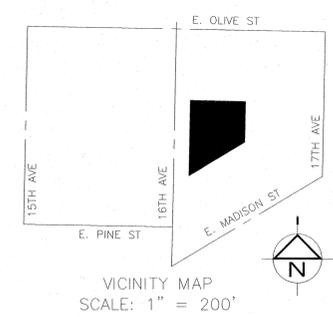
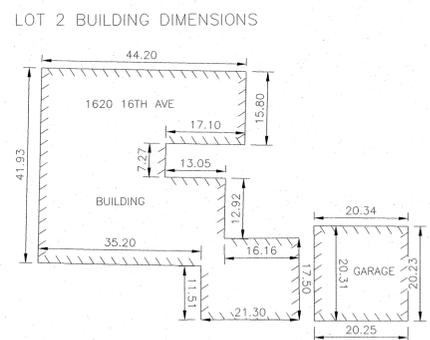
SITE BENCHMARKS:
TOP OF MON. IN CASE AT THE INTERSECTION OF 16TH AVE AND E PINE ST. ELEVATION=410.83'

TOP OF MON. IN CASE 15' N OF THE INTERSECTION OF 16TH AVE AND E OLIVE ST. ELEVATION=414.82'

HORIZONTAL DATUM: NAD 83 (2011)
OWNER: CITY OF SEATTLE
DESCRIPTION: FND 4" BRASS DISK W/ 1/2" PLUG W/ PUNCH, DN. 1.0' IN CASE
LOCATION: 15' NORTH OF THE INTERSECTION OF 16TH AVE AND E. OLIVE ST.
NORTHING: 228373.895
EASTING: 1275882.026

OWNER: CITY OF SEATTLE
DESCRIPTION: FND 4" BRASS DISK W/ 1/2" PLUG W/ PUNCH, DN. 0.7' IN CASE
LOCATION: INTERSECTION OF 16TH AVE AND E. PINE ST.
NORTHING: 227932.450
EASTING: 1275873.359

- LEGEND**
- ANCHOR
 - (A) AREA DRAIN
 - (B) AS-BUILT RECORD DATA
 - ASPH ASPHALT
 - BOLLARD/COLUMN
 - BR BIKE RACK
 - BUILDING LINE
 - BLDG BUILDING
 - CB CATCH BASIN TYPE 1
 - CHIM CHIMNEY
 - CONC CONCRETE
 - CC CONCRETE CURB
 - DECIDUOUS TREE
 - DWY DRIVEWAY
 - EL ELEVATION
 - ★ EVERGREEN TREE
 - FIRE HYDRANT
 - ⊗ FOUND MONUMENT IN CASE
 - × FOUND OR SET NAIL & SHINER
 - FOUND OR SET REBAR & CAP
 - G GAS MAIN
 - INTX INTERSECTION
 - IRON FENCE
 - ICV IRRIGATION CONTROL VALVE
 - IE INVERT ELEVATION
 - MANHOLE
 - OHP OVERHEAD POWER LINE
 - PROP PROPERTY
 - PROPERTY LINE
 - PWP POWER POLE W/ STREET LIGHT
 - (R) RADIUS
 - SS SANITARY SEWER MAIN
 - SD STORM DRAIN PIPE
 - SEWER/STORM/WATER CLEANOUT
 - SIGN
 - STREET LIGHT POLE
 - ⊗ VALVE (GAS OR WATER)
 - WM WATER MAIN
 - W WATER METER
 - WOOD FENCE LINE



SURVEY CERTIFICATION:
THIS SURVEY IS A CONTINUATION OF A PREVIOUSLY CERTIFIED BOUNDARY & TOPOGRAPHIC SURVEY PERFORMED BY DANIEL K. ROUPE, MARCH 23RD 2018, AND IS NOT A RE-CERTIFICATION OF HIS WORK. THE REVISION CLOUD AREA'S SHOWN HEREON INDICATE DIMENSIONING AND AREAS OF LOTS 1 & 2 ADDED TO THIS DRAWING AND CERTIFIED BY NORMAN R. WYRICK.



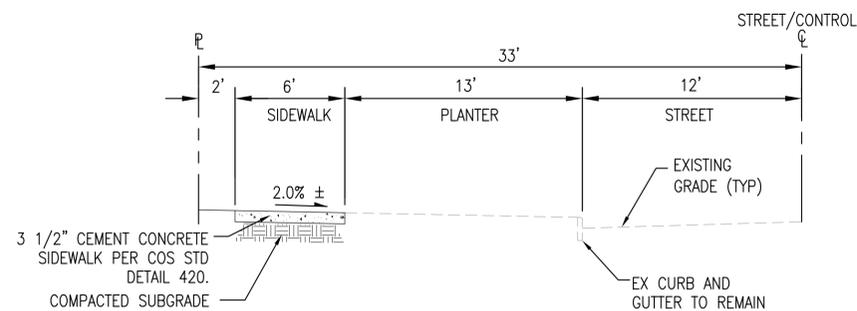
NO. RE-DIMENSION LOTS & UPDATE ZONING/AREA'S 5-4-2021 DATE: DKR

CITY OF SEATTLE, KING COUNTY, WASHINGTON

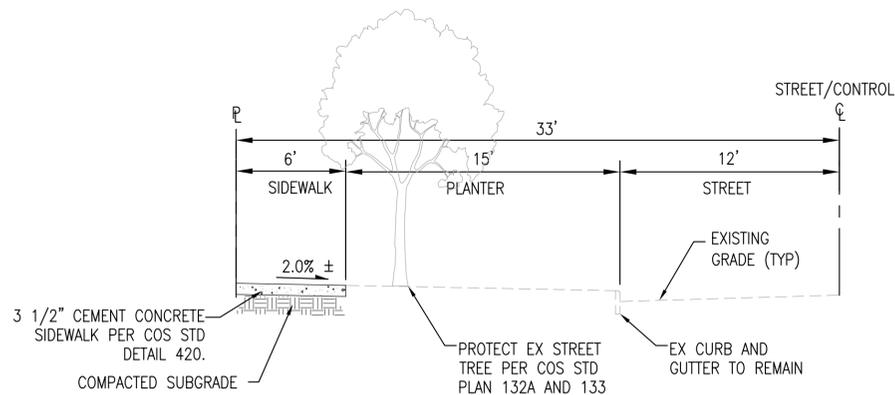
BOUNDARY AND TOPOGRAPHIC SURVEY
2610 & 2620 16TH AVE
JEWISH FAMILY SERVICE

GROUP FOUR
Land Surveying | Civil Engineering
Land Use Planning | Project Management
P.O. BOX 1059 | 1801 VERNON ROAD SUITE 41 | LAKE STEVENS, WA 98258
(425)408-1152 • FAX(425)877-1341 • WWW.GRF4.COM

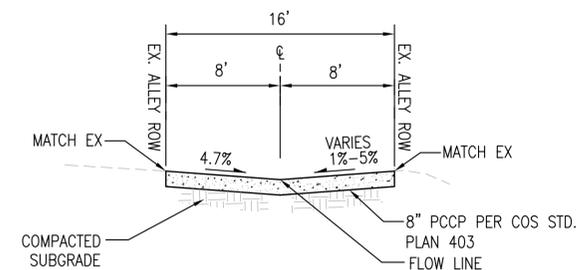
SHEET	OF
1	1
07-4056	



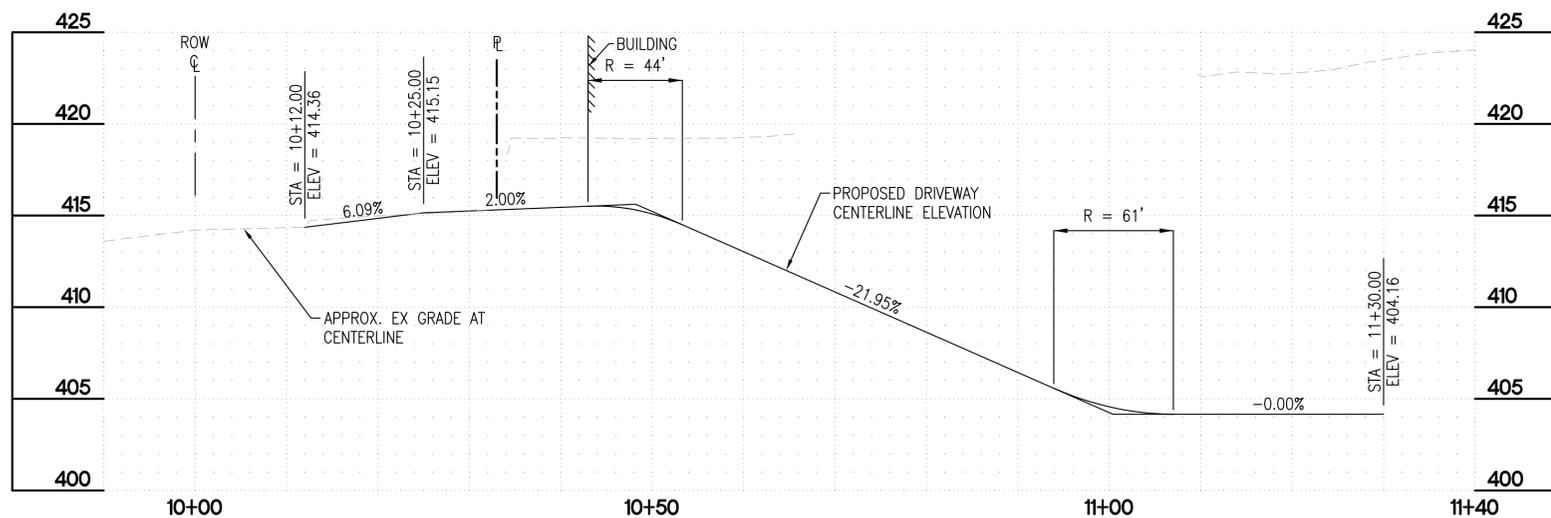
1 TYPICAL SECTION - STA 11+68 TO STA 12+73.3
 2 NTS



2 TYPICAL SECTION - STA 12+73.3 TO STA 13+11.5
 2 NTS

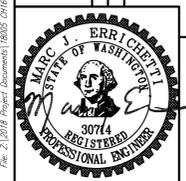


TYPICAL SECTION - ALLEY (LOOKING SOUTH)
 NTS



DRIVEWAY PROFILE
 SCALE: HORZ. 1" = 10' VERT. 1" = 5'

DATE	MARK	NATURE	REVISIONS
			MADE CHK'D REV'D



REVIEWED BY SPU/WATER ENGINEERING	20.....	NAME OR INITIALS AND DATE	INITIALS AND DATE
REVIEWED BY SPU/DRAINAGE	20.....	DESIGNED TG 12/17/19	REVIEWED:
APPROVED BY SDOT STREET IMPROVEMENT PERMITTING	20.....	CHECKED MJE 12/17/19	PROJECT MANAGER
		DRAWN TG 12/17/19	DESIGN REVIEW
		CHECKED MJE 12/17/19	REVISED AS-BUILT.....

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

City of Seattle
Seattle Department
of Transportation

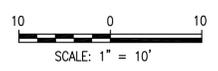
WORK ORDER NO: - SPU NO. -
 PERMIT NO: - APPROVED
 SCALE: H. 1=10' V. 1=5' INSPECTOR'S BOOK

16TH AVE MU
 1620 16TH AVE
 TYPICAL SECTIONS

DPD PROJECT - 6631682

SDOT PROJECT NO.	-
VAULT PLAN NO.	-
VAULT SERIAL NO.	-
SHEET	2 OF 4

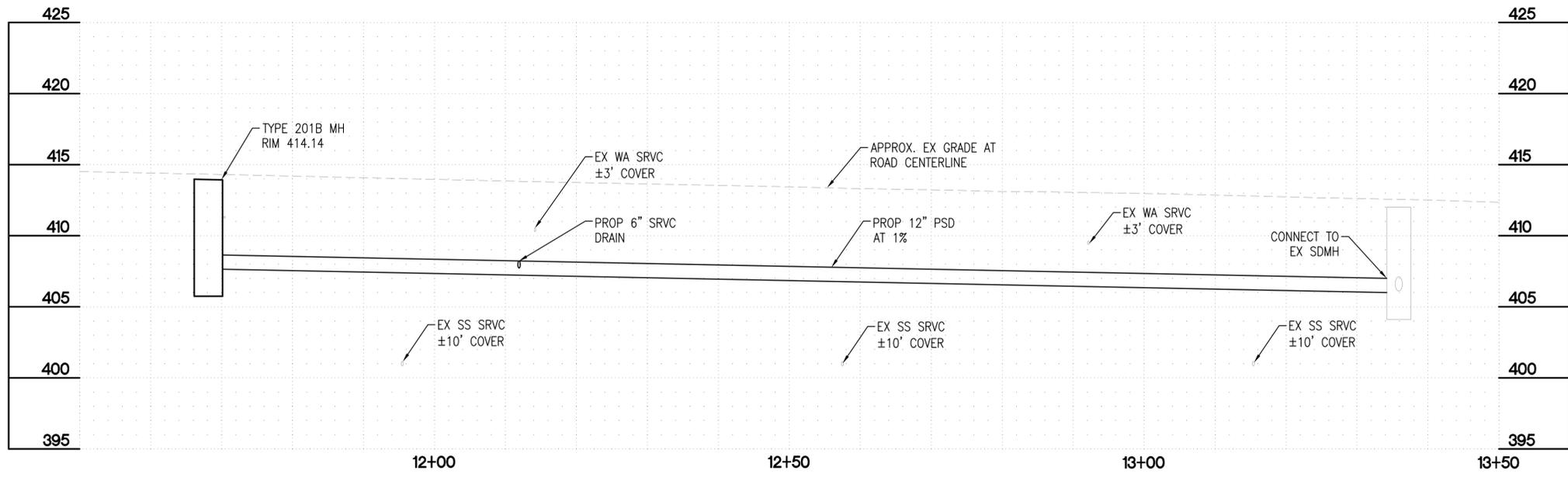
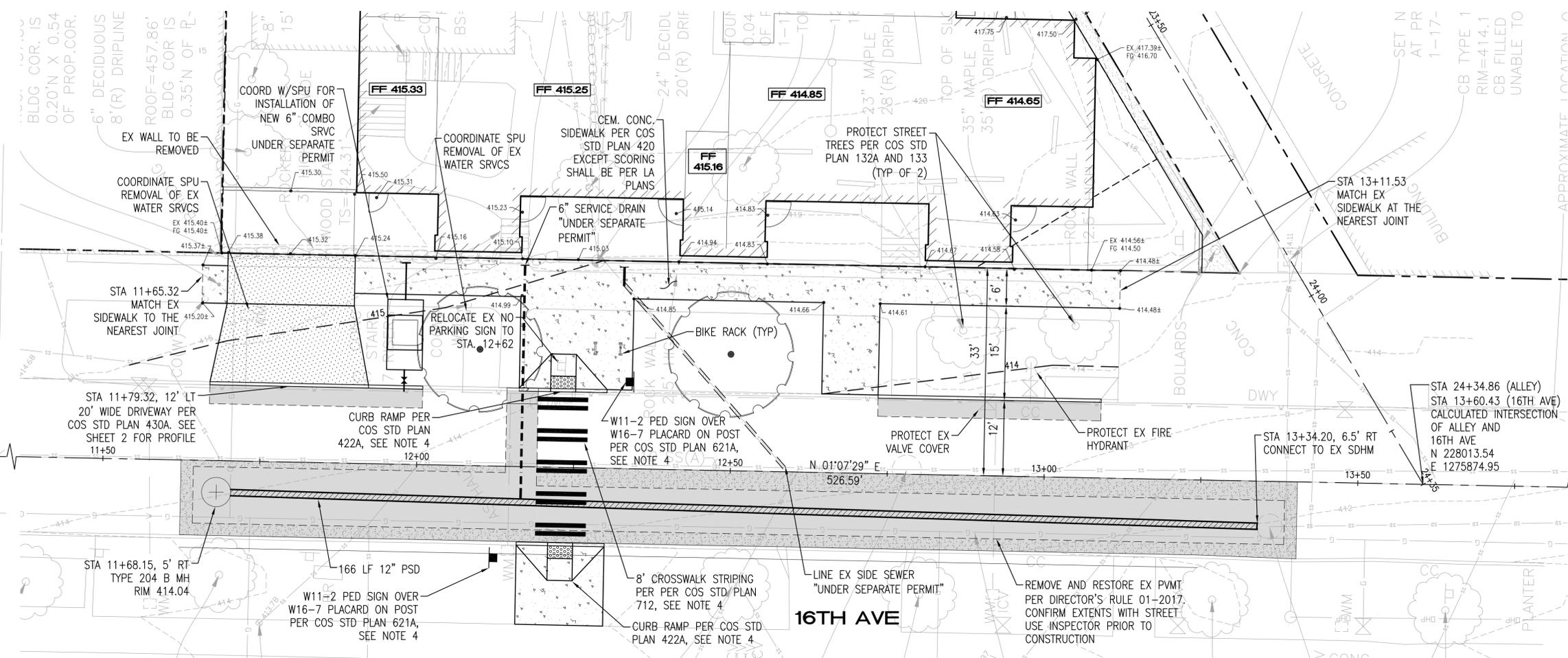
APPROVED 30% SIP FOR REFERENCE ONLY



DATUM
NAVD 88 - SEE SITE SURVEY FOR BENCHMARK AND ADDITIONAL INFORMATION.

- NOTES**
- SEE SHEET 1 FOR GENERAL NOTES. SEE SHEET 2 FOR TYPICAL SECTIONS.
 - REMOVE EX IMPROVEMENTS AS REQUIRED FOR NEW CONSTRUCTION.
 - RESTORATION FOR ALL UTILITY CUTS IN EXISTING PVMT SHALL BE PER SDOT DIRECTORS RULE 01-2017 IN THE ROW. CONFIRM EXTENTS WITH STREET USE INSPECTOR PRIOR TO CONSTRUCTION.
 - PROPOSED MID-BLOCK CROSSING REFLECTS DRB RECOMMENDATION. WARRANTS FOR CROSSING TO BE SATISFIED VIA TRAFFIC STUDY PRIOR TO DEVELOPMENT OF 60% SIP PLANS.

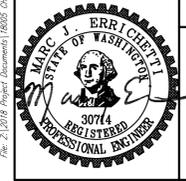
STREET TREE TABLE	
STA LOCATION	TYPE
STA 12+09.75, 18.5' LT	FAGUS SYLVATICA/EUROPEAN BEECH
STA 12+49.75, 18.5' LT	FAGUS SYLVATICA/EUROPEAN BEECH



PROFILE

SCALE: HORZ. 1" = 10' VERT. 1" = 5'

DATE	MARK	NATURE	REVISIONS



REVIEWED BY SPU/WATER ENGINEERING	NAME OR INITIALS AND DATE	INITIALS AND DATE
20.....	DESIGNED TG 12/17/19	REVIEWED:
20.....	CHECKED MJE 12/17/19	PROJECT MANAGER
20.....	DRAWN TG 12/17/19	DESIGN REVIEW
20.....	CHECKED MJE 12/17/19	REVISED AS-BUILT

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City of Seattle
Seattle Department of Transportation

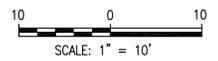
WORK ORDER NO: - SPU NO. -
 PERMIT NO: - APPROVED
 SCALE: H. 1=10' V. 1=5' INSPECTOR'S BOOK

1620 16TH AVE
 PSD EXTENSION, SIDEWALK PLAN
 16TH AVE

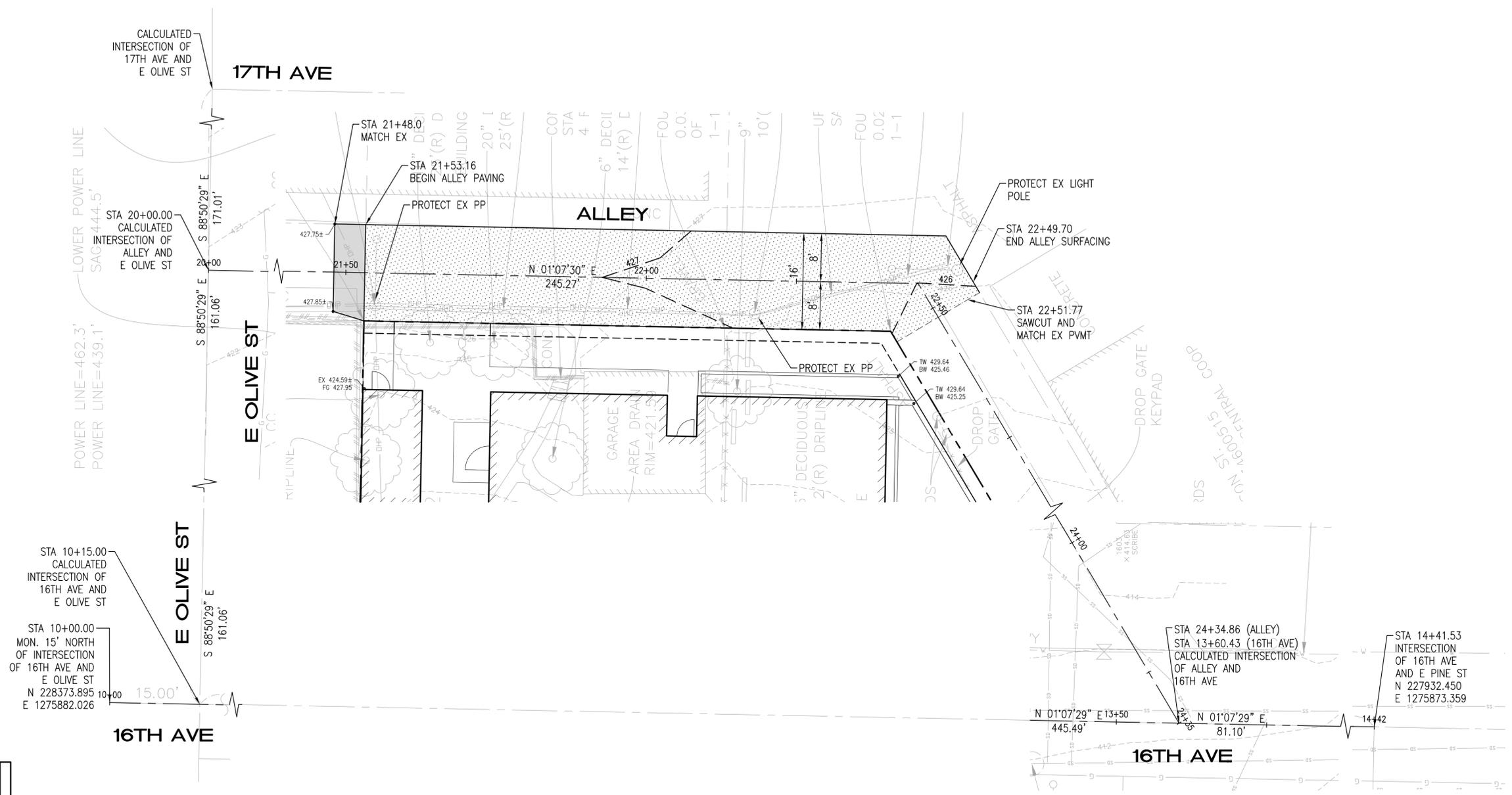
DPD PROJECT - 6631682

SDOT PROJECT NO.	-
VAULT PLAN NO.	-
VAULT SERIAL NO.	-
SHEET	3 OF 4

0-30% SIP PLAN (NOT FOR CONSTRUCTION) - 12/17/19



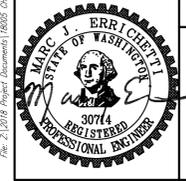
DATUM
NAVD 88 - SEE SITE SURVEY FOR BENCHMARK AND ADDITIONAL INFORMATION.



- NOTES**
1. SEE SHEET 1 FOR GENERAL NOTES. SEE SHEET 2 FOR TYPICAL ALLEY SECTION.
 2. REMOVE EX IMPROVEMENTS AS REQUIRED FOR NEW CONSTRUCTION.
 3. RESTORATION FOR ALL UTILITY CUTS IN EXISTING PVMT SHALL BE PER SDOT DIRECTORS RULE 01-2017 IN THE ROW. CONFIRM EXTENTS WITH STREET USE INSPECTOR PRIOR TO CONSTRUCTION.

APPROVED 30% SIP FOR REFERENCE ONLY

DATE	MARK	NATURE	REVISIONS	MADE	CHK'D	REV'D



REVIEWED BY SPU/WATER ENGINEERING	NAME OR INITIALS AND DATE	INITIALS AND DATE
20.....	DESIGNED TG 12/17/19	REVIEWED:
20.....	CHECKED MJE 12/17/19	PROJECT MANAGER
20.....	DRAWN TG 12/17/19	DESIGN REVIEW
20.....	CHECKED MJE 12/17/19	REVISED AS-BUILT.....

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WORK ORDER NO: - SPU NO. -
PERMIT NO: - APPROVED
SCALE: H. 1=10' V. 1=5' INSPECTOR'S BOOK

16TH AVE MU
DPD PROJECT - 6631682

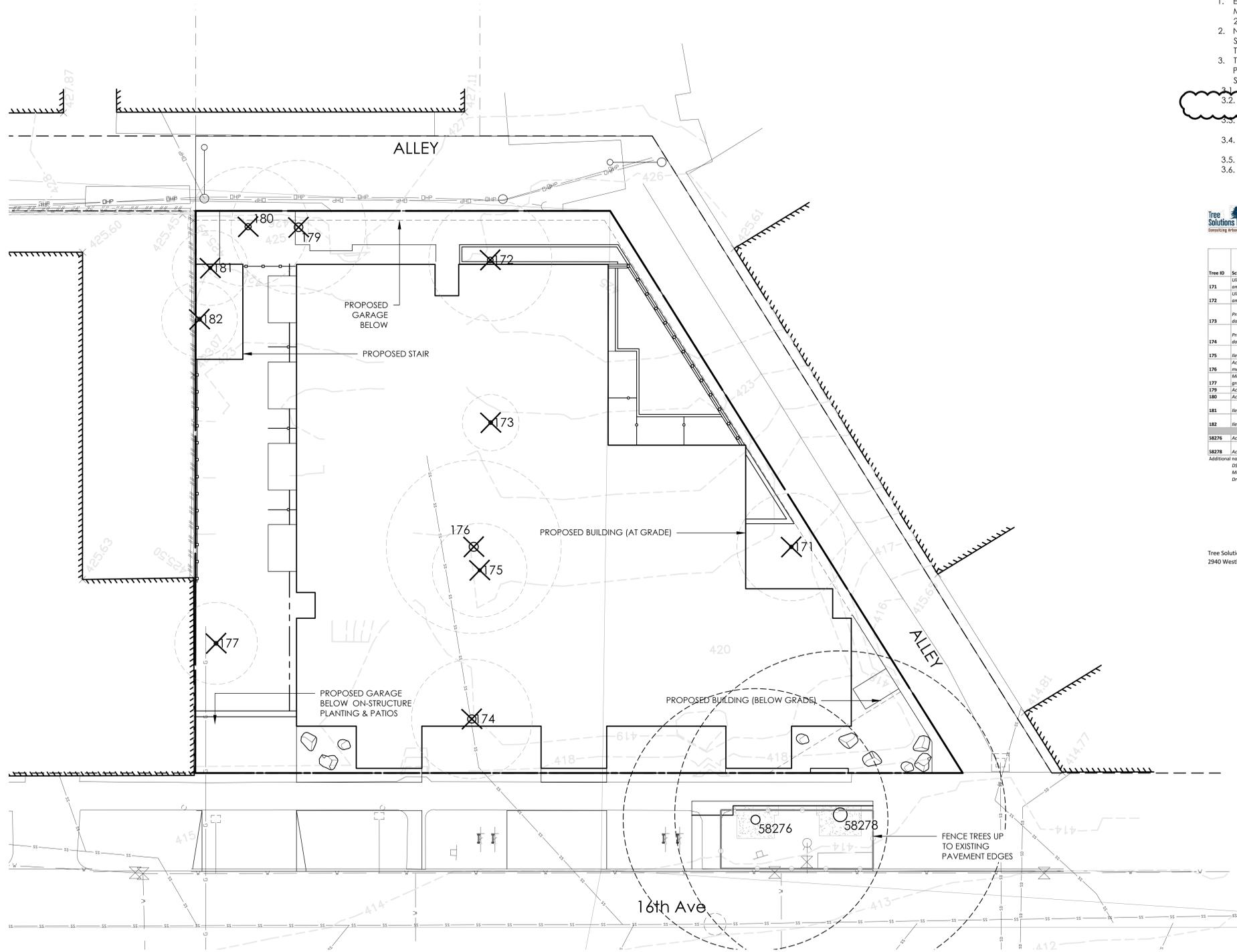
1620 16TH AVE
ALLEY PLAN
ALLEY N/O 16TH AVE

SDOT PROJECT NO.	-
VAULT PLAN NO.	-
VAULT SERIAL NO.	-
SHEET	4 OF 4

O-30% SIP PLAN (NOT FOR CONSTRUCTION) - 12/17/19

File: 212119 - Project Documents\1835 - 0216 - 40174\03\2019-SP-4022.dwg @: mrc Date: 16-Dec-19 2:11pm

Monday, December 09, 2019 12:28:17 PM File: Z:\KLA PROJECTS\AV16\CAD\SHSHEETS\AV16 L001 TREES.DWG



EXISTING TREE PROTECTION NOTES

1. EXISTING TREES HAVE BEEN IDENTIFIED BY ISA CERTIFIED MASTER ARBORIST MICHAEL TOMCO, TREE SOLUTIONS, INC., IN A REPORT ISSUED APRIL 9, 2018. SEE REPORT FOR ADDITIONAL INFORMATION.
2. NO ON-SITE TREES MEET SEATTLE EXCEPTIONAL TREE CRITERIA. ALL EXISTING SIGNIFICANT TREES WILL BE REMOVED. SEE ACCOMPANYING SIGNIFICANT TREE TABLE.
3. TREES TO REMAIN ARE TO BE PROTECTED & PRESERVED PER STANDARD PLAN 132, CSG/SOIL STANDARD PLAN DETAIL, COS STANDARD SPECIFICATION 8-01.3(2)B & THE TVSPP:
- 3.1. ROOT TREE PROTECTION FENCING REQUIRED AS SHOWN PER PLAN.
- 3.2. PER SDOT URBAN FORESTRY EMAIL DATED 2/14/2019, FENCING TO BE CYCLONE FENCE PANELS.
- 3.3. FENCING MUST BE INSTALLED PRIOR TO DEMOLITION AND GROUND DISTURBANCE.
- 3.4. FENCING MUST BE KEPT IN PLACE FOR THE DURATION OF CONSTRUCTION.
- 3.5. MODIFICATION BY APPROVAL OF PROJECT PLANNER ONLY.
- 3.6. NO SOIL DISTURBANCE OR ACTIVITY ALLOWED WITHIN FENCED AREA, SUCH AS BUT NOT LIMITED TO: MATERIAL STORAGE/STOCKPILING, TRENCHING/TUNNELING, PARKING, DUMPING OR WASHING.



Table of Trees
1610 16th Ave
Seattle, WA 98122

Date of Inventory: 03.13.2018
Table Prepared: 04.09.2018

Tree ID	Scientific Name	Common Name	DBH (inches)	Health Condition	Structural Condition	Drip Line Radius (feet)			Exceptional Threshold	Exceptional (Y/N)	Notes	
						North	East	South				
171	Ulmus americana	American Elm	8.7	Good	Good	12.5	10.5	11.5	30.0	No	Located on the edge of embankment.	
172	Ulmus americana	American Elm	14.3	Good	Fair	13.0	13.0	13.0	30.0	No	Adjacent to north property line, codominant at base.	
173	Prunus domestica	Common plum	9.5	Poor	Poor	0.0	0.0	0.0	22.9	No	Topped at 6 feet, on all 4 trunks, regrowth with sprouts, one dead trunk, located on property line between 1610 & 1620.	
174	Prunus domestica	Common plum	15.6	Good	Fair	11	16	10	14	22.9	No	Codominant trunks at 3 feet, old pruning wounds, located in the southeast corner of lot.
175	Ilex aquifolium	English holly	7.8	Good	Good	10	10	10	18.8	No	On edge of property line between 1610 & 1620.	
176	Acer macrophyllum	Bigleaf maple	23.0	Good	Fair	16	17	16	25	30.0	No	Enveloping chain link fence, trunk to south.
177	Magnolia grandiflora	Southern magnolia	9.5	Good	Good	5	6	13	11	16.0	No	Adjacent to house.
179	Acer rubrum	Red maple	21.8	Good	Fair	6	12	20	19	25.0	No	3 trunks at 6 feet, adjacent to east property line.
180	Acer rubrum	Red maple	15.6	Good	Fair	14	8	8	21	25.0	No	2 trunks at 10 feet, adjacent to east property line.
181	Ilex aquifolium	English holly	7.7	Good	Good	8	8	8	8	18.8	No	Adjacent to north property line.
182	Ilex aquifolium	English holly	10.0	Good	Good	8	8	8	8	18.8	No	Adjacent to north property line.
18276	Acer rubrum	Red maple	25.3	Good	Fair	27.0	25.0	16.0	27.0	25.0	N/A	SDOT tree, lifting sidewalk to east.
18278	Acer saccharum	Sugar maple	36.7	Good	Good	17.0	31.0	26.0	43.0	30.0	N/A	SDOT tree, root disturbance with wounds, overhangs site by about 30 feet.

Additional notes:
DBH (Diameter at Standard Height) is measured 4.5 feet above ground.
Multi-stem trees are noted, and a single stem equivalent is calculated using the method defined in the Director's Rule 16-2008.
Drip line is measured from the center of the tree to the outermost extent of the canopy.

Tree Solutions, Inc.
2940 Westlake Ave. N (Suite #200) Seattle, WA 98109

Page 1 of 1

www.treesolutions.net
206-528-4670

SDOT URBAN FORESTRY
Landscape Architect Office
Street trees conceptual design review

CONCEPTUAL APPROVAL
 REVISE AND RESUBMIT
 REJECTED

UF Record # _____ SIP # _____
Subject to permit issuance for pruning, removal, and substantial approval for planting

BY Ben Roberts DATE 2/11/2020

01 12/09/19 MUP CORR #1
Rev Date Issued

1620 16
Mixed Use Bldg

1620 16th Ave
Seattle, WA

AV16

Karen Kiest
Landscape Architects
1111 West John Street Suite 306
Seattle Washington 98119
206 323 6032
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Issue MASTER USE PERMIT

Date 07/09/2018

Sheet Title TREE REMOVAL AND PROTECTION PLAN

Sheet L001

WEINSTEIN A+U ARCHITECTS + URBAN DESIGNERS

1 Existing tree plan
scale 1" = 10' - 0"



LANDSCAPE NOTES:

- PER CITY OF SEATTLE DEPARTMENT OF CONSTRUCTION & INSPECTIONS DIRECTOR'S RULE 30-2015, THE FOLLOWING LANDSCAPE INFORMATION:
 - IN REQUIRED LANDSCAPE AREAS, AT LEAST 25% OF ALL PLANTINGS MUST BE DROUGHT TOLERANT. SEE LANDSCAPE PLANS AND PLANTING LIST FOR DROUGHT TOLERANT PLANT IDENTIFICATION AND LOCATION.
 - PROJECT MEETS 0.30 SEATTLE GREEN FACTOR SCORE, SHEET L101 FOR CALCULATIONS.
- ON-GRADE TOPSOIL:
 - TOPSOIL: TWO-WAY MIX, AVAILABLE AT CEDAR GROVE COMPOSTING, MAPLE VALLEY, WA, (877) 764-5748, OR APPROVED EQUAL.
 - PREPARATION: LOOSEN SUBGRADE SOIL TO MINIMUM DEPTH OF 8 INCHES W/CULTIMULCHER OR SIMILAR EQUIPMENT. REMOVE STONES, GRAVEL, STICKS, ETC.
 - PLACEMENT: TOPSOIL MINIMUM DEPTH 8". SPREAD APPROX. 1/2 THE THICKNESS OF PLANTING SOIL MIX OVER LOOSENED SUBGRADE. MIX THOROUGHLY INTO TOP 4-INCHES OF SUBGRADE. SPREAD REMAINDER TO MEET REQUIRED GRADES. HOLD 3" BELOW ADJACENT PAVED WALKS, CURBS, AND PLANTER WALLS.

- ON-STRUCTURE SOIL:
 - TOPSOIL: "GREEN ROOF SOIL MIX TYPE 2", AVAILABLE AT CEDAR GROVE COMPOSTING, MAPLE VALLEY, WA (877) 764-5748, OR APPROVED EQUAL.
 - PLACEMENT: MINIMUM DEPTH 12". SEE PLANS FOR ADDITIONAL SOIL DEPTH.
- MULCH:
 - BARK MULCH: PACIFIC GARDEN MULCH, CEDAR GROVE COMPOST, OR APPROVED EQUAL, AND SHALL BE NO LESS THAN 2 OR MORE THAN 4 YEARS OLD. MINIMUM DEPTH 2", EXCEPT AT GREEN ROOF.

STREET TREES:

- STREET TREE SELECTION APPROVED BY SDOT URBAN FORESTRY IN AN EMAIL DATED 2/14/2019.

RIGHT-OF-WAY PLANTING AREAS:

(PER COS STD PLAN 142)

- AMEND SOILS IN RIGHT-OF-WAY PER STANDARD PLAN NO 142.
- SEE COS STD. PLANS 100 SERIES FOR ADDITIONAL PLANTING REQUIREMENTS & DETAILS.
- ALL SOIL AREAS DISTURBED OR COMPACTED DURING CONSTRUCTION, AND NOT COVERED BY BUILDINGS OR PAVEMENT, SHALL BE AMENDED WITH COMPOST AS DESCRIBED BELOW.
- SUBSOIL SHOULD BE SCARIFIED (LOOSENED) 4 INCHES BELOW AMENDED LAYER, TO PRODUCE 12-INCH DEPTH OF UN-COMPACTED SOIL, EXCEPT WHERE SCARIFICATION WOULD DAMAGE TREE ROOTS OR AS DETERMINED BY THE ENGINEER.
- COMPOST SHALL BE FILLED IN TO 8 INCH DEPTH INTO EXISTING SOIL OR PLACE 8 INCHES OF COMPOST-AMENDED SOIL PER SOIL SPECIFICATION. PLANTING BEDS SHALL RECEIVE 3" OF COMPOST FILLED INTO 8" DEPTH, OR MAY SUBSTITUTE 8" OF IMPORTED SOIL CONTAINING 35-40% COMPOST BY VOLUME. MULCH AFTER PLANTING WITH 2-4 INCHES OF ARBORIST WOOD CHIP MULCH OR APPROVED EQUAL.
- SETBACKS: TO PREVENT UNEVEN SETTLING, DO NOT COMPOST-AMEND SOILS WITHIN 3 FEET OF UTILITY INFRASTRUCTURES (POLES, VAULTS, METERS ETC.), WITHIN ONE FOOT OF PAVEMENT EDGE, CURBS AND SIDEWALKS SOIL SHOULD BE COMPACTED TO APPROXIMATELY 90% PROCTOR TO ENSURE A FIRM SURFACE.
- REFER TO CITY OF SEATTLE STANDARD SPECIFICATIONS: 9-14.1 TOPSOIL TYPE A - IMPORTED, TOPSOIL TYPE B - REUSED AMENDED SITE SOIL. PLANTING SOIL, ARBORIST WOOD CHIP MULCH, AND COMPOSTED MATERIAL (MULCH).

PLANT SCHEDULE

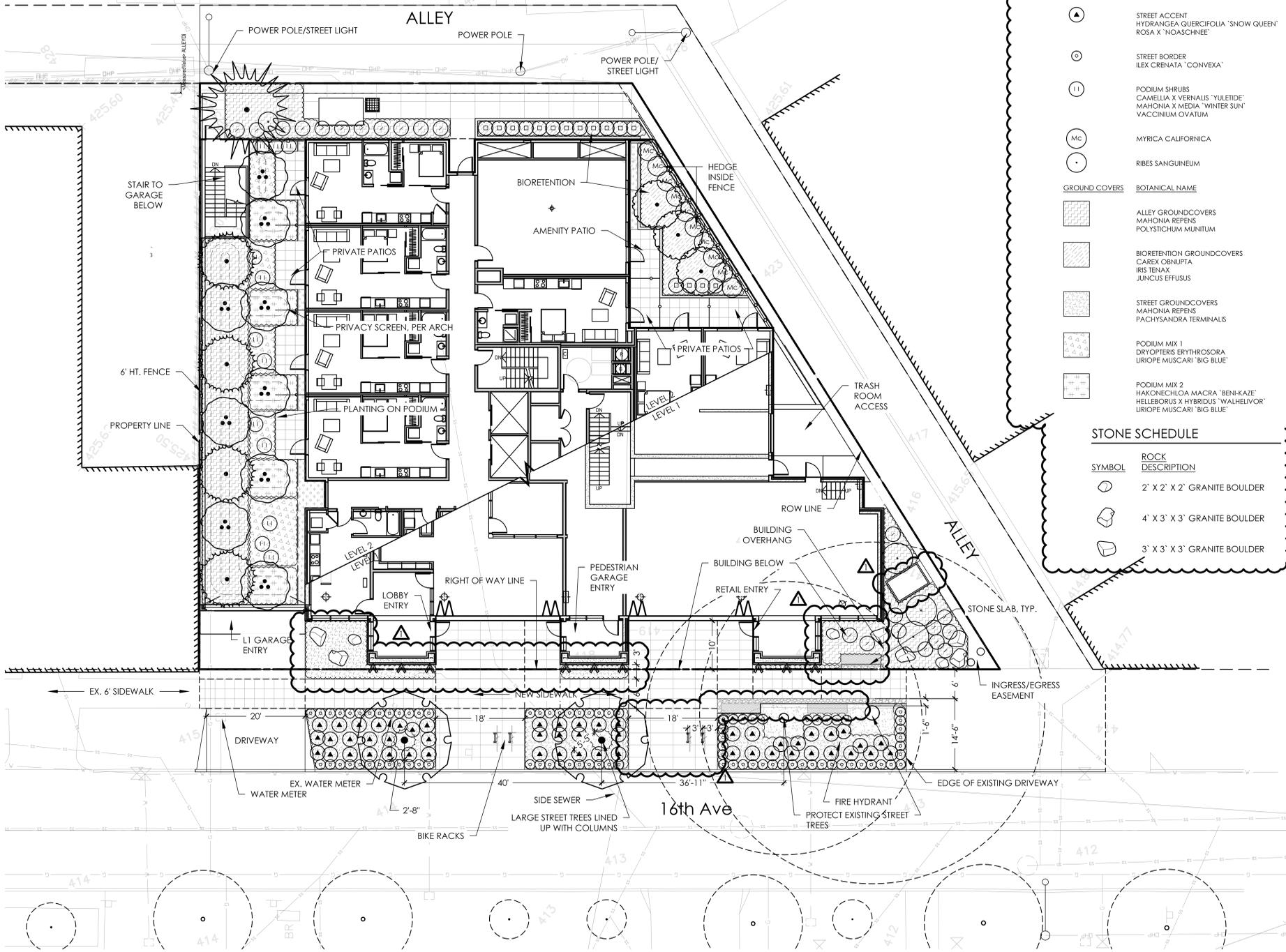
TREES	BOTANICAL NAME	COMMON NAME	SIZE	COND	DROUGHT	
BIORETENTION TREES	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	8-10' HT, MULTI-STEM, MIN. 3 STEMS	B&B	NATIVE	
	ACER CIRCINATUM	VINE MAPLE	8-10' HT, MULTI-STEM, MIN. 3 STEMS	B&B	NATIVE	
	ACER PALMATUM	JAPANESE MAPLE	8-10' HT, MULTI-STEM, MIN. 3 STEMS	B&B	NATIVE	
PODIUM TREES	CHAMAECYPARIS OBTUSA 'GRACILIS'	SLENDER HINOKI CYPRESS	8' HT.	B&B	B&B	
	TSUGA DIVERSIFOLIA	NORTHERN JAPANESE HEMLOCK	8' HT.	B&B	B&B	
ALLEY CONIFERS	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	8' HT.	B&B	NATIVE	
	BOTANICAL NAME	COMMON NAME	SIZE	COND	DROUGHT	
SHRUBS	FAGUS SYLVATICA	EUROPEAN BEECH	2.5" CAL.	B&B		
	BIORETENTION SHRUBS	COMMON NAME	SIZE	COND	DROUGHT	SPACING
VINES	CORNUS SERICEA	RED TWIG DOGWOOD	2 GAL.	CONT.		36" o.c.
	ILEX GLABRA 'COMPACTA'	COMPACT HICKBERRY	5 GAL.	CONT.		24" o.c.
ALLEY SHRUBS	CORNUS SERICEA 'KELSEY'	KELSEY DOGWOOD	5 GAL.	CONT.		36" o.c.
	MAHONIA AQUIFOLIUM	OREGON GRAPE	2 GAL.	POT.	NATIVE	36" o.c.
	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	5 GAL.	CONT.	NATIVE	36" o.c.
STREET ACCENT	HYDRANGEA QUERCIFOLIA 'SNOW QUEEN'	SNOW QUEEN OAKLEAF HYDRANGEA	5 GAL.	CONT.		36" o.c.
	ROSA X 'NOASCHEE'	FLOWER CARPET WHITE GROUNDCOVER ROSE	5 GAL.	CONT.		36" o.c.
STREET BORDER	ILEX CRENATA 'CONVEXA'	CONVEX-LEAVED JAPANESE HOLLY	5 GAL.	CONT.		24" o.c.
	PODIUM SHRUBS	COMMON NAME	SIZE	COND	DROUGHT	SPACING
GROUND COVERS	CAMELLIA X VERNALIS 'YULETIDE'	YULETIDE CAMELLIA	5 GAL.	CONT.		36" o.c.
	MAHONIA X MEDIA 'WINTER SUN'	MAHONIA HYBRID	5 GAL.	CONT.		48" o.c.
	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	5 GAL.	CONT.	NATIVE	36" o.c.
MYRICA CALIFORNICA	PACIFIC WAX MYRTLE	5 GAL.	CONT.	NATIVE		48" o.c.
	RIBES SANGUINEUM	RED FLOWERING CURRANT	5 GAL.	CONT.	NATIVE	
ALLEY GROUNDCOVERS	MAHONIA REPENS	CREeping MAHONIA	1 GAL.	POT.		18" o.c.
	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	2 GAL.	CONT.		24" o.c.
	BIORETENTION GROUNDCOVERS	COMMON NAME	SIZE	COND	DROUGHT	SPACING
STREET GROUNDCOVERS	CAREX OBNUPTA	SLOUGH SEDGE	1 GAL.	CONT.	NATIVE	18" o.c.
	IRIS TENAX	OREGON IRIS	1 GAL.	CONT.	NATIVE	18" o.c.
	JUNCUS EFFUSUS	SOFT RUSH	1 GAL.	CONT.	NATIVE	18" o.c.
MAHONIA REPENS	CREeping MAHONIA	1 GAL.	POT.			18" o.c.
	FACHYANDRA TERMINALIS	JAPANESE SPURGE	1 GAL.	CONT.		12" o.c.
PODIUM MIX 1	DRYOPTERIS ERYTHROSORA	AUTUMN FERN	1 GAL.	CONT.		18" o.c.
	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	1 GAL.	CONT.		12" o.c.
PODIUM MIX 2	HAKONECHLOA MACRA 'BENI-KAZE'	GREEN FOREST GRASS	1 GAL.	CONT.		18" o.c.
	HELEBORUS X HYBRIDUS 'WALHELVOR'	IVORY PRINCE HELEBORE	1 GAL.	CONT.		18" o.c.
LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	1 GAL.	CONT.			18" o.c.

STONE SCHEDULE

SYMBOL	ROCK DESCRIPTION
	2' X 2' X 2' GRANITE BOULDER
	4' X 3' X 3' GRANITE BOULDER
	3' X 3' X 3' GRANITE BOULDER

MATERIALS AND FINISHES

SYMBOL	DESCRIPTION
	PAVING PER COS STD PLAN 420 WITH THE FOLLOWING EXCEPTIONS: - SAND-COATED EXP. JOINTS, DEEP TOOLED SCORE JOINTS, NO SHINERS - LIGHT SANDBLAST FINISH - 2x2' SCORING UNLESS OTHERWISE INDICATED ON PLAN
	PAVERS ON PEDESTAL: 2 1/2"x2 1/2" THICK PRECAST CONCRETE PAVERS, TEXADA HYDRAPRESSED SLABS, COLOR: NATURAL, AVAILABLE FROM ABBOTSFORD CONCRETE PRODUCTS, 1-800-663-4091. PEDESTALS PER ARCH.
	BIKE RACK SEE ARCHITECTURE
	THROUGH JOINT
	ARBORIST WOOD CHIP MULCH
	PEBBLE MULCH 7/8" WASHED DRAIN ROCK AVAIL FROM MARENAKOS ROCK CENTER, 425.392.3313 2" MIN. DEPTH, 2" MAX. DEPTH, SEE LANDSCAPE DETAILS
	CRUSHED ROCK MULCH SOURCE: PACIFIC TOPSOILS 5/8" MINUS CRUSHED ROCK, COMPACTED TO 95%
	STONE SLAB SALT AND PEPPER GRANITE, 2'WX2'HT, 8" LONG (UNLESS OTHERWISE NOTED), SPLIT SIDES AND ENDS, SAW-CUT TOP AND BOTTOM, FLAME FINISH TOP. SOURCE: BEDROCK NATURAL STONE. HTTPS://BEDROCKNATURALSTONE.COM
	METAL EDGING GEOEDGE ALUMINUM RESTRAINT, AVAIL. FROM COLUMBIA GREEN TECHNOLOGIES, INC. 503.684.9123. INSTALL PER MFG. INSTRUCTION.
	FENCE / GATE SEE ARCH. DWGS.
	SECURITY FENCE AT PROPERTY LINE SEE ARCH
	SECURITY FENCING ON WALL SEE ARCH
	PRIVACY SCREENING SEE ARCH



1 Street Level Landscape Plan
scale 1" = 10' - 0"



SDOT URBAN FORESTRY
Landscape Architect Office
Street trees conceptual design review

CONCEPTUAL APPROVAL
 REVISE AND RESUBMIT
 REJECTED

UF Record # _____ SIP # _____
 Subject to permit issuance for planting, removal, and submittal approval for planting

BY Ben Roberts DATE 2/11/2020

Rev Date	Issued
01 12/09/19	MUP CORR #1

1620 16
Mixed Use Bldg
1620 16th Ave
Seattle, WA
AV16

Karen Kiest
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111 west john street suite 306
seattle washington 98119
206 323 6032
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Issue MASTER USE PERMIT

Date 07/09/2018

Sheet Title LANDSCAPE PLAN

Sheet **L100**

WEINSTEIN A+U ARCHITECTS + URBAN DESIGNERS

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Monday, December 09, 2019 12:29:05 PM File: Z:\MKLA PROJECTS\AV16\CAD\SHETS\AV16 L100.DWG

Green Factor Worksheet*					
	Planting Area			TOTAL**	
	STREET	ALLEY	PODIUM		
A1	square feet	570	1826		2396
A2	square feet	1509			1509
A3	square feet		107	311	418
B1	# of plants	1509	677	2137	4323
B2	# of trees	139	33	26	198
B3	# of trees			16	16
B4	# of trees		3		3
B5	# of trees				0
B6	# of trees	2	1		3
B7	DBH (in)	62			62
C1	square feet				0
C2	square feet				0
D	square feet				0
E	square feet				0
F1	square feet				0
F2	square feet				0
G	square feet				0
H1	square feet				0
H2	square feet				0
H3	square feet	5117	1873		6990
H4	square feet				0

* See Green Factor score sheet for category definitions
** Enter totals on the Green Factor score sheet

Green Factor Score Sheet					
Project title:		enter sq ft of parcel	SCORE	0.334	
Parcel size (enter this value first):		15,000			
A Landscaped areas (select one of the following for each area)					
Totals from GF worksheet		enter sq ft	Factor	Total	
1	Landscaped areas with a soil depth of less than 24"	2396	0.1	240	
2	Landscaped areas with a soil depth of 24" or greater	1509	0.6	905.4	
3	Bioretention facilities	418	1.0	418.0	
B Plantings (credit for plants in landscaped areas from Section A)					
Totals from GF worksheet		enter number of plants	Factor	Total	
1	Mulch, ground covers, or other plants less than 2' tall at maturity	198	0.3	713	
2	Shrubs or perennials 2+ at maturity - calculated at 12 sq ft per plant typically planted no closer than 18" on center	18	1200	380	
3	Tree canopy for "small trees" or equivalent (canopy spread 8' to 15') - calculated at 75 sq ft per tree	3	450	135.0	
4	Tree canopy for "medium/large trees" or equivalent (canopy spread 16' to 20') - calculated at 150 sq ft per tree	0	0	0	
5	Tree canopy for "large trees" or equivalent (canopy spread 20' to 30') - calculated at 350 sq ft per tree	3	1050	420.0	
6	Tree canopy for preservation of large existing trees with trunks 6+ in diameter - calculated at 20 sq ft per inch diameter	62	1240	992.0	
C Green roofs					
Totals from GF worksheet		enter sq ft	Factor	Total	
1	Over at least 2" and less than 4" of growth medium	0	0.4	0	
2	Over at least 4" of growth medium	0	0.7	0	
D Vegetated walls					
Totals from GF worksheet		enter sq ft	Factor	Total	
1	Approved water features	0	0.7	0	
F Permeable paving					
Totals from GF worksheet		enter sq ft	Factor	Total	
1	Permeable paving over at least 6" and less than 24" of soil or gravel	0	0.2	0	
2	Permeable paving over at least 24" of soil or gravel	0	0.5	0	
G Structural soil systems					
Totals from GF worksheet		enter sq ft	Factor	Total	
1	Structural soil systems	0	0.2	0	
H Bonuses					
Totals from GF worksheet		enter sq ft	Factor	Total	
1	Drought-tolerant or native plant species	0	0.1	0	
2	Landscaped areas where at least 50% of annual irrigation needs are met through the use of harvested rainwater	0	0.2	0	
3	Landscaping visible to passerby from adjacent public right-of-way or public open spaces	6990	0.1	699	
4	Landscaping in food cultivation	0	0.1	0	
Green Factor number =		5.314			

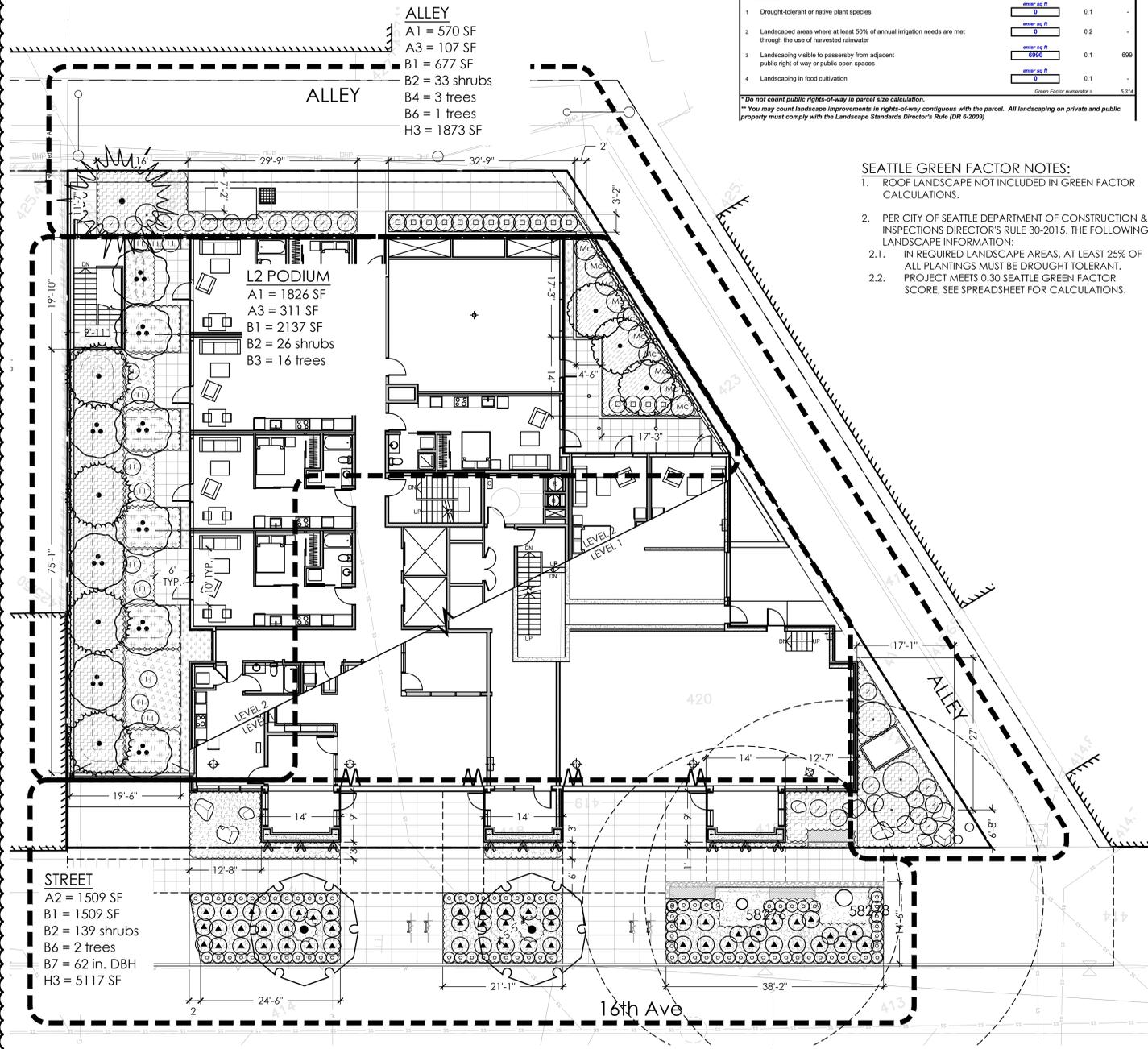
* Do not count public rights-of-way in parcel size calculation.
** You may count landscape improvements in rights-of-way contiguous with the parcel. All landscaping on private and public property must comply with the Landscape Standards Director's Rule (DR 6-2009)

PLANT SCHEDULE

	BOTANICAL NAME	COMMON NAME	SIZE	COND	DROUGHT	SPACING
TREES	BIORETENTION TREES AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	8-10' HT. MULTI-STEM, MIN. 3 STEMS	B&B	NATIVE	
	PODIUM TREES ACER CIRCINATUM ACER PALMATUM	VINE MAPLE JAPANESE MAPLE	8-10' HT. MULTI-STEM, MIN. 3 STEMS 8-10' HT. MULTI-STEM, MIN. 3 STEMS	B&B B&B	NATIVE	
	PODIUM CONIFER CHAMAECYPARIS OBTUSA 'GRACILIS' TSUGA DIVERSIFOLIA	SLENDER HINOKI CYPRESS NORTHERN JAPANESE HEMLOCK	8' HT. 8' HT.	B&B B&B		
SHRUBS	ALLEY CONIFERS PSEUDOTSUGA MENZIESII	DOUGLAS FIR	8' HT.	B&B	NATIVE	
	BIORETENTION SHRUBS CORNUS SERICEA ILEX GLABRA 'COMPACTA'	RED TWIG DOGWOOD COMPACT INKBERRY	2 GAL. 5 GAL.	CONT. CONT.		36" o.c. 40" o.c. 24" o.c.
VINES						24" o.c. 0" o.c.
	ALLEY SHRUBS CORNUS SERICEA 'KELSEY' MAHONIA AQUIFOLIUM VACCINIUM OVATUM	KELSEYI DOGWOOD OREGON GRAPE EVERGREEN HUCKLEBERRY	5 GAL. 2 GAL. 5 GAL.	CONT. POT CONT.	NATIVE NATIVE	36" o.c. 36" o.c. 36" o.c.
STREET ACCENT	HYDRANGEA QUERCIFOLIA 'SNOW QUEEN' ROSA X 'NOASCHEE'	SNOW QUEEN OAKLEAF HYDRANGEA FLOWER CARPET WHITE GROUNDCOVER ROSE	5 GAL. 5 GAL.	CONT. CONT.		36" o.c. 36" o.c. 30" o.c.
	STREET BORDER ILEX CRENATA 'CONVEXA'	CONVEX-LEAVED JAPANESE HOLLY	5 GAL.	CONT.		24" o.c. 24" o.c.
PODIUM SHRUBS	CAMELLIA X VERNALIS 'YULETIDE' MAHONIA X MEDIA 'WINTER SUN' VACCINIUM OVATUM	YULETIDE CAMELLIA MAHONIA HYBRID EVERGREEN HUCKLEBERRY	5 GAL. 5 GAL. 5 GAL.	CONT. CONT. CONT.	NATIVE NATIVE	36" o.c. 48" o.c. 48" o.c. 36" o.c.
	MYRICA CALIFORNICA	PACIFIC WAX MYRTLE	5 GAL.	CONT.	NATIVE	48" o.c.
RIBES SANGUINEUM		RED FLOWERING CURRANT	5 GAL.	CONT.	NATIVE	48" o.c.
	GROUND COVERS					
ALLEY GROUNDCOVERS	MAHONIA REPENS POLYSTICHUM MUNITUM	CREeping MAHONIA WESTERN SWORD FERN	1 GAL. 2 GAL.	POT CONT.		18" o.c. 24" o.c.
	BIORETENTION GROUNDCOVERS CAREX OBNUPATA IRIS TENAX JUNCUS EFFUSUS	SLOUGH SEDGE OREGON IRIS SOFT RUSH	1 GAL. 1 GAL. 1 GAL.	CONT. CONT. CONT.	NATIVE NATIVE	18" o.c. 18" o.c. 18" o.c.
STREET GROUNDCOVERS	MAHONIA REPENS PACHYANDRA TERMINALIS	CREeping MAHONIA JAPANESE SPURGE	1 GAL. 1 GAL.	POT CONT.		18" o.c. 12" o.c.
	PODIUM MIX 1 DRYOPTERIS ERYTHROSORA LIRIOPE MUSCARI 'BIG BLUE'	AUTUMN FERN BIG BLUE LILYTURF	1 GAL. 1 GAL.	CONT. CONT.		12" o.c.
PODIUM MIX 2	HAKONECHLOA MACRA 'BENI-KAZE' HELLEBORIS X HYBRIDUS 'WALHELVOR' LIRIOPE MUSCARI 'BIG BLUE'	GREEN FOREST GRASS IVORY PRINCE HELLEBORE BIG BLUE LILYTURF	1 GAL. 1 GAL. 1 GAL.	CONT. CONT. CONT.		18" o.c. 18" o.c. 18" o.c.

SEATTLE GREEN FACTOR NOTES:

- ROOF LANDSCAPE NOT INCLUDED IN GREEN FACTOR CALCULATIONS.
- PER CITY OF SEATTLE DEPARTMENT OF CONSTRUCTION & INSPECTIONS DIRECTOR'S RULE 30-2015, THE FOLLOWING LANDSCAPE INFORMATION:
 - IN REQUIRED LANDSCAPE AREAS, AT LEAST 25% OF ALL PLANTINGS MUST BE DROUGHT TOLERANT.
 - PROJECT MEETS 0.30 SEATTLE GREEN FACTOR SCORE. SEE SPREADSHEET FOR CALCULATIONS.



SDOT URBAN FORESTRY
Landscape Architect Office

Street trees conceptual design review

CONCEPTUAL APPROVAL
 REVISE AND RESUBMIT
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UF Record # _____ SIP # _____

BY Ben Roberts DATE 2/11/2020

12/09/19 MUP CORR #1
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206 323 6032
www.kk-la.com

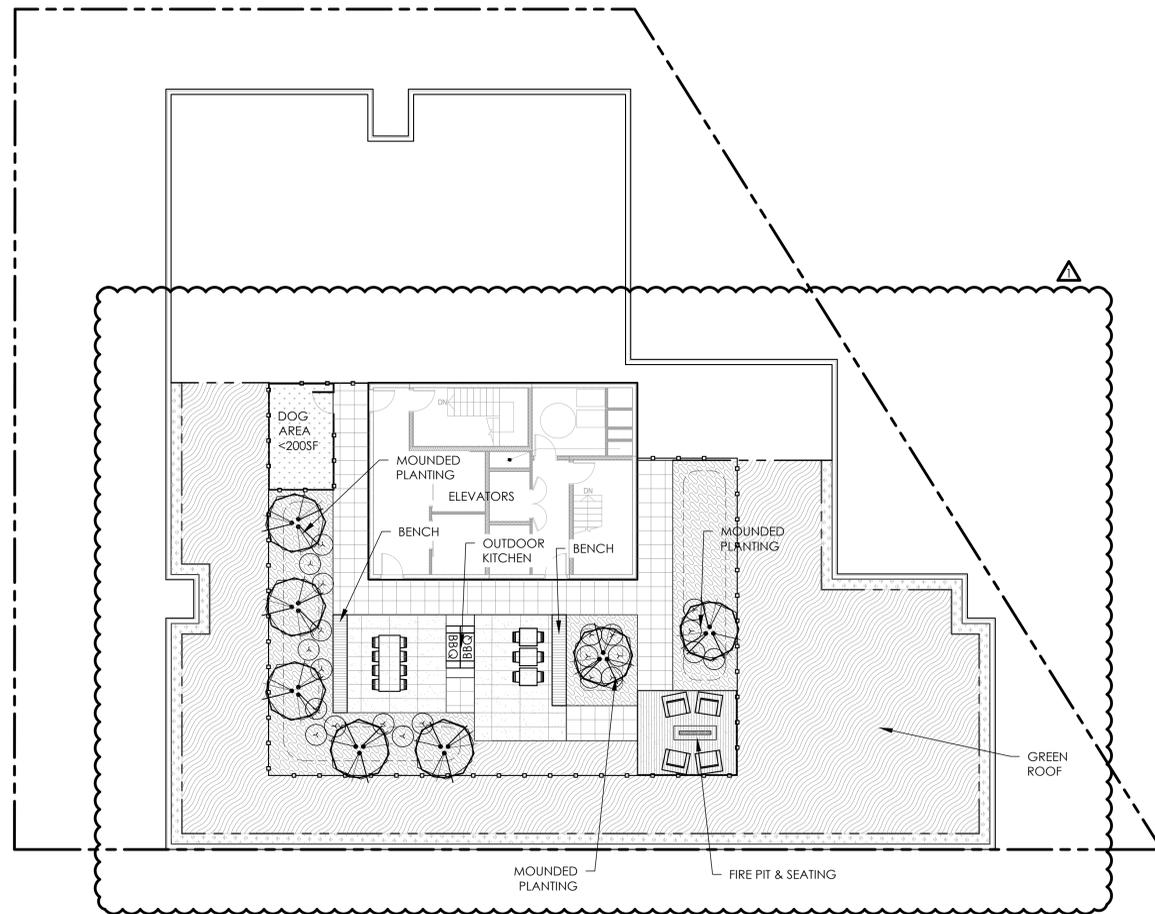


Issue MASTER USE PERMIT
Date 07/09/2018

Sheet Title SEATTLE GREEN FACTOR PLAN
Sheet L101

WEINSTEIN A+U ARCHITECTS + URBAN DESIGNERS

Monday, December 09, 2019 12:29:14 PM File: Z:\KIKLA PROJECTS\AV16\CAD\SHEETS\AV16 L101 ROOF.DWG



ROOF MATERIAL LIST

- PEBBLE MULCH**
7/8" WASHED DRAIN ROCK
AVAIL FROM MARENAKOS ROCK CENTER, 425.392.3313
2" MIN. DEPTH, 4" MAX. DEPTH, REF. LANDSCAPE DETAILS
- DOG RUN**
ARTIFICIAL TURF DOG RUN AREA
- FENCE**
SEE ARCH. DWGS.
- METAL EDGING**
GEOEDGE ALUMINUM RESTRAINT, AVAIL. FROM COLUMBIA GREEN TECHNOLOGIES, INC.
503.684.9123. INSTALL PER MFG. INSTRUCTION.
- LIGHTING**
TREE UPLIGHTS:
BK LIGHTING, MODEL: LS-8-BLP-7-9-11
- PAVERS ON PEDESTAL, 24"x24"x2" THICK PRECAST CONCRETE PAVERS, TEXADA HYDRAPRESSED SLABS, COLOR: NATURAL, AVAILABLE FROM ABBOTSFORD CONCRETE PRODUCTS, 1-800-663-4091. PEDESTALS PER ARCH.**
- PAVER TYPE 2**
24"x48x3/4" THICK PORCELAIN PAVERS, COLOR TBD. BUZON PEDESTALS
- LAYERED GREEN ROOF SYSTEM, MOUND PER PLAN. GRADING LINES INDICATED ELEVATION ABOVE FINISH FLOOR. 24" MIN. DEPTH AT TREES.**
- 6" MIN. DEPTH GREEN ROOF - LAYERED SYSTEM**

ROOF PLANT SCHEDULE

TREES	BOTANICAL NAME	COMMON NAME	SIZE	COND	DROUGHT	
	ROOF TREES					
	PARROTIA PERSICA 'VANESSA'	PERSIAN PARROTIA	2' CAL.	B&B		
SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	COND	DROUGHT	SPACING
	ROOF SHRUBS					
	STIPA GIGANTEA	GIANT FEATHER GRASS	2 GAL.	CONT.		36" o.c.
	YUCCA FLACUIDA 'GOLDEN SWORD'	GOLDEN SWORD YUCCA	2 GAL.	CONT.		48" o.c.
GROUND COVERS	BOTANICAL NAME	COMMON NAME	SIZE	COND	DROUGHT	SPACING
	GREEN ROOF MIX WITH PERENNIALS					
	IRIS TENAX	OREGON IRIS	1 GAL.	CONT.	NATIVE	18" o.c.
	NARCISSUS JONQUILLA 'SAILBOAT'	SAILBOAT MINIATURE DAFFODIL	—	BULB		12" o.c.
	PEROVSKIA ATRIPLICIFOLIA 'LITTLE SPIRE'™	LITTLE SPIRE RUSSIAN SAGE	2 GAL.	CONT.		18" o.c.
	SEDUM TILE	PREGROWN SEDUM MAT OR TILE	—	TILE		
	SEDUM X 'AUTUMN FIRE'	AUTUMN FIRE SEDUM	1 GAL.	CONT.		18" o.c.
	SEDUM TILE	PREGROWN SEDUM MAT OR TILE	—	TILE		

NOTES

- ROOF LANDSCAPE NOT INCLUDED IN GREEN FACTOR CALCULATIONS.

01 12/09/19 MUP CORR #1
Rev Date Issued

1620 16
Mixed Use Bldg

1620 16th Ave
Seattle, WA

AV16

Karen Kiest
Landscape Architects
111 west john street suite 306
seattle washington 98119
206 323 6032
www.kk-la.com



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Date 07/09/2018

Sheet Title ROOF LANDSCAPE PLAN

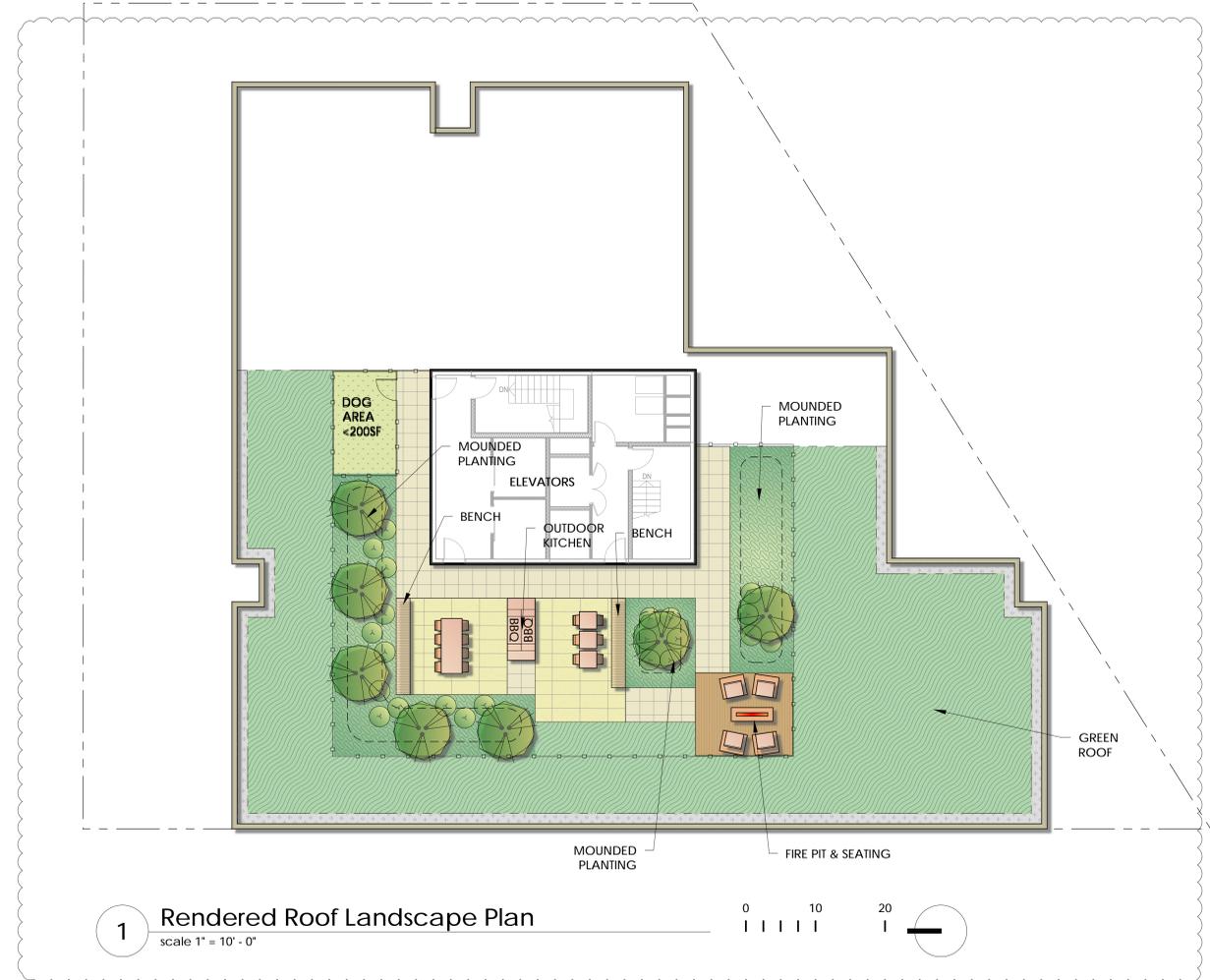
Sheet L102



File: \\KLASERVER\SHARED FOLDERS\COMPANY\KLA PROJECTS\16\1600A\MOLORAV16 L100A RENDERED PLAN.DWG



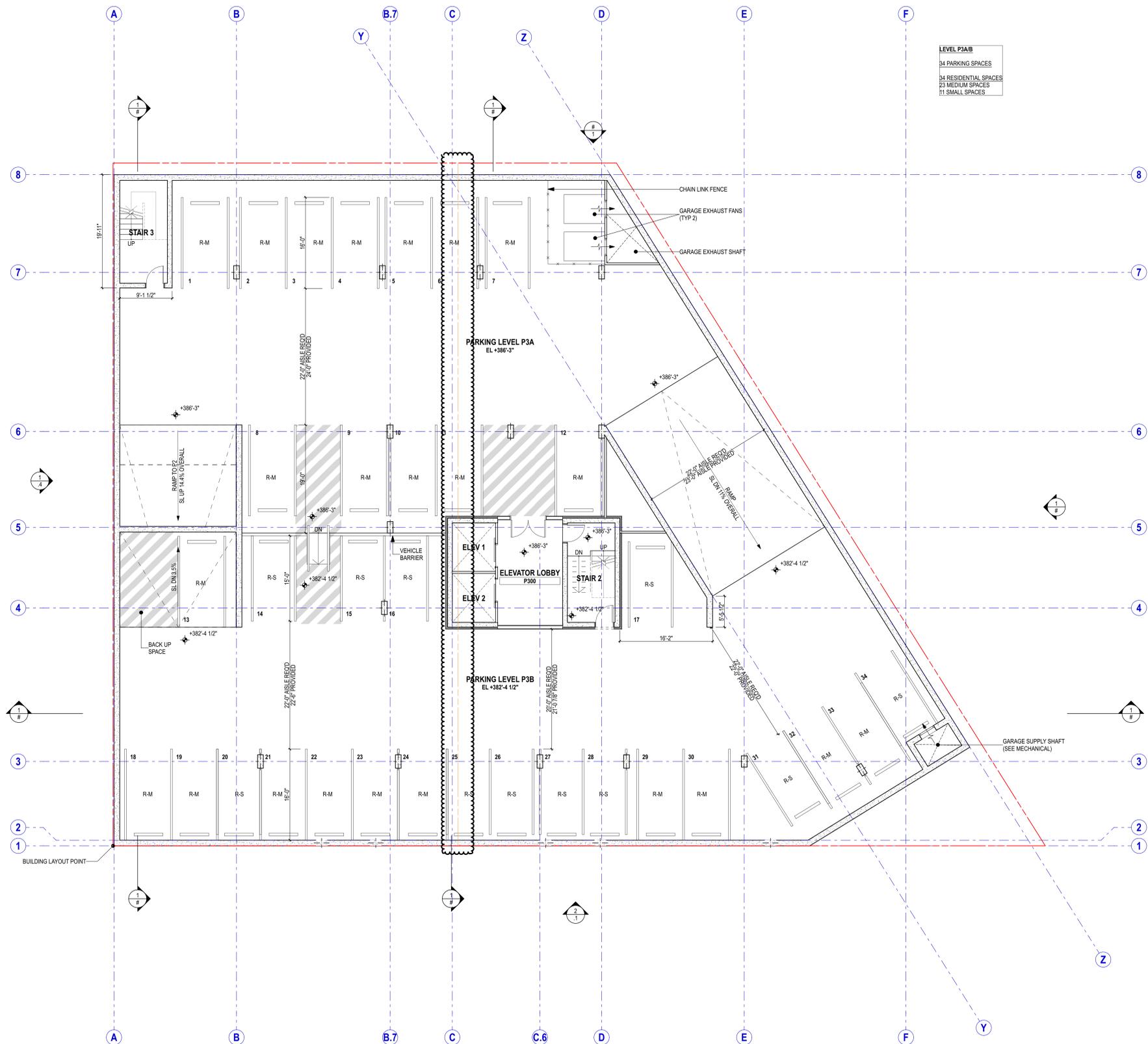
1 Street Level Landscape Plan
 scale 1" = 10' - 0"



1 Rendered Roof Landscape Plan
 scale 1" = 10' - 0"

01 12/09/19	MUP CORR #1
Rev Date	Issued
1620 16	
Mixed Use Bldg	
1620 16th Ave Seattle, WA	
AV16	
Karen Kiest Landscape Architects	
111 West John Street Suite 306 Seattle Washington 98119 206 323 6032 www.kk-la.com	
Issue	MASTER USE PERMIT
Date	07/09/2018
Sheet Title	RENDERED LANDSCAPE PLAN
Sheet	L100A

WEINSTEIN A+U ARCHITECTS + URBAN DESIGNERS



LEVEL 3A/B
 34 PARKING SPACES
 34 RESIDENTIAL SPACES
 23 MEDIUM SPACES
 11 SMALL SPACES

1 PARKING LEVEL 3
 SCALE: 1/8" = 1'-0"

Rev	Date	Issue

CONSULTANT'S LOGO

1620 16TH AVENUE
 MIXED-USE BUILDING

1620 16TH AVENUE
 SEATTLE, WA 98122

Project #16037

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 www.weinsteinau.com

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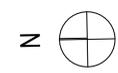
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 EDWARD WEINSTEIN
 State of Washington

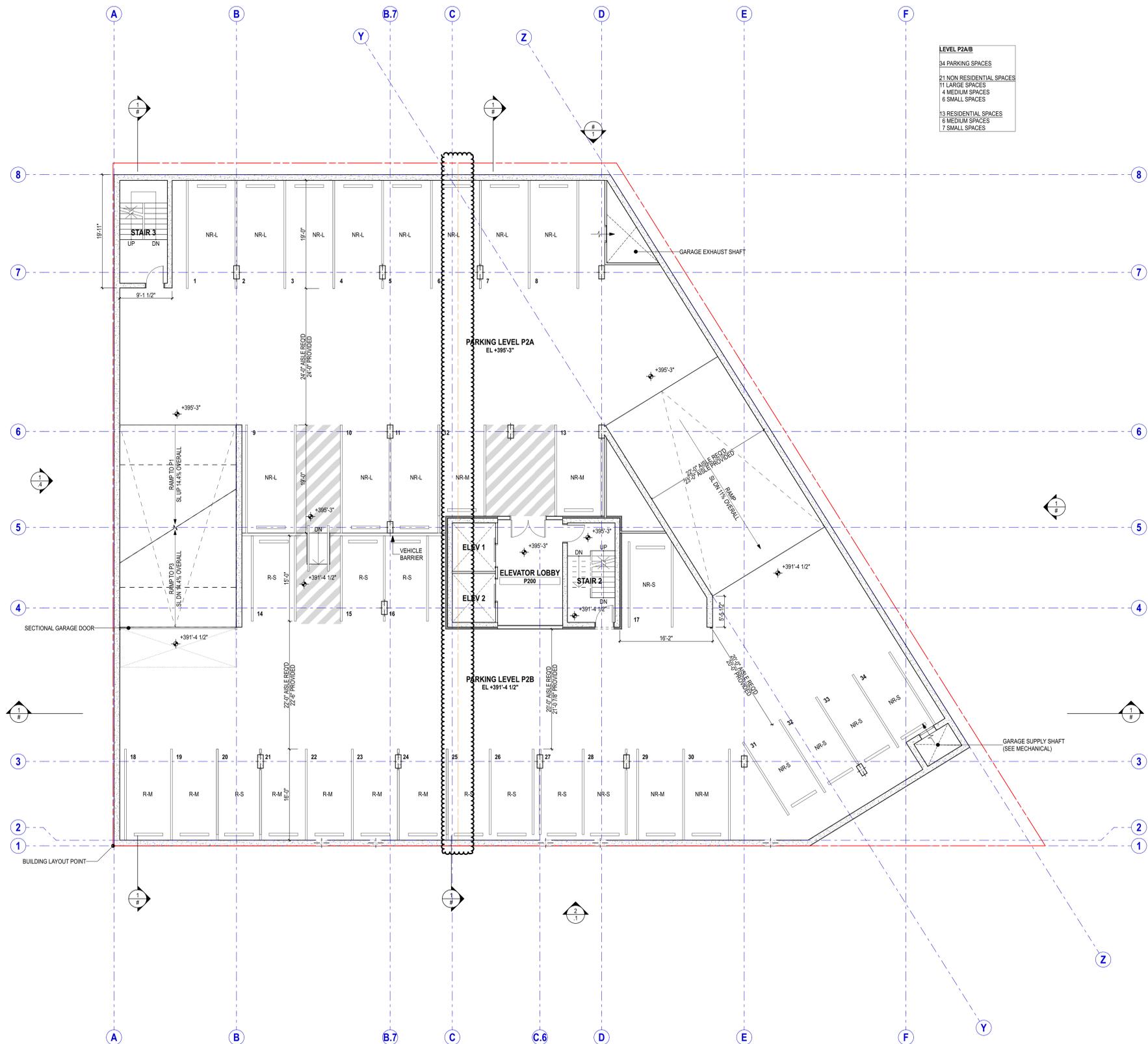
MUP CORRECTIONS
 Issue
 11 JUNE 2021
 Issue Date

PARKING LEVEL 3A/3B
 Sheet Title

A10P3

WEINSTEIN A+U





LEVEL P2AB	
34 PARKING SPACES	
21 NON RESIDENTIAL SPACES	
11	LARGE SPACES
4	MEDIUM SPACES
6	SMALL SPACES
13 RESIDENTIAL SPACES	
6	MEDIUM SPACES
7	SMALL SPACES

1 PARKING LEVEL 2
SCALE: 1/8" = 1'-0"

Rev	Date	Issue

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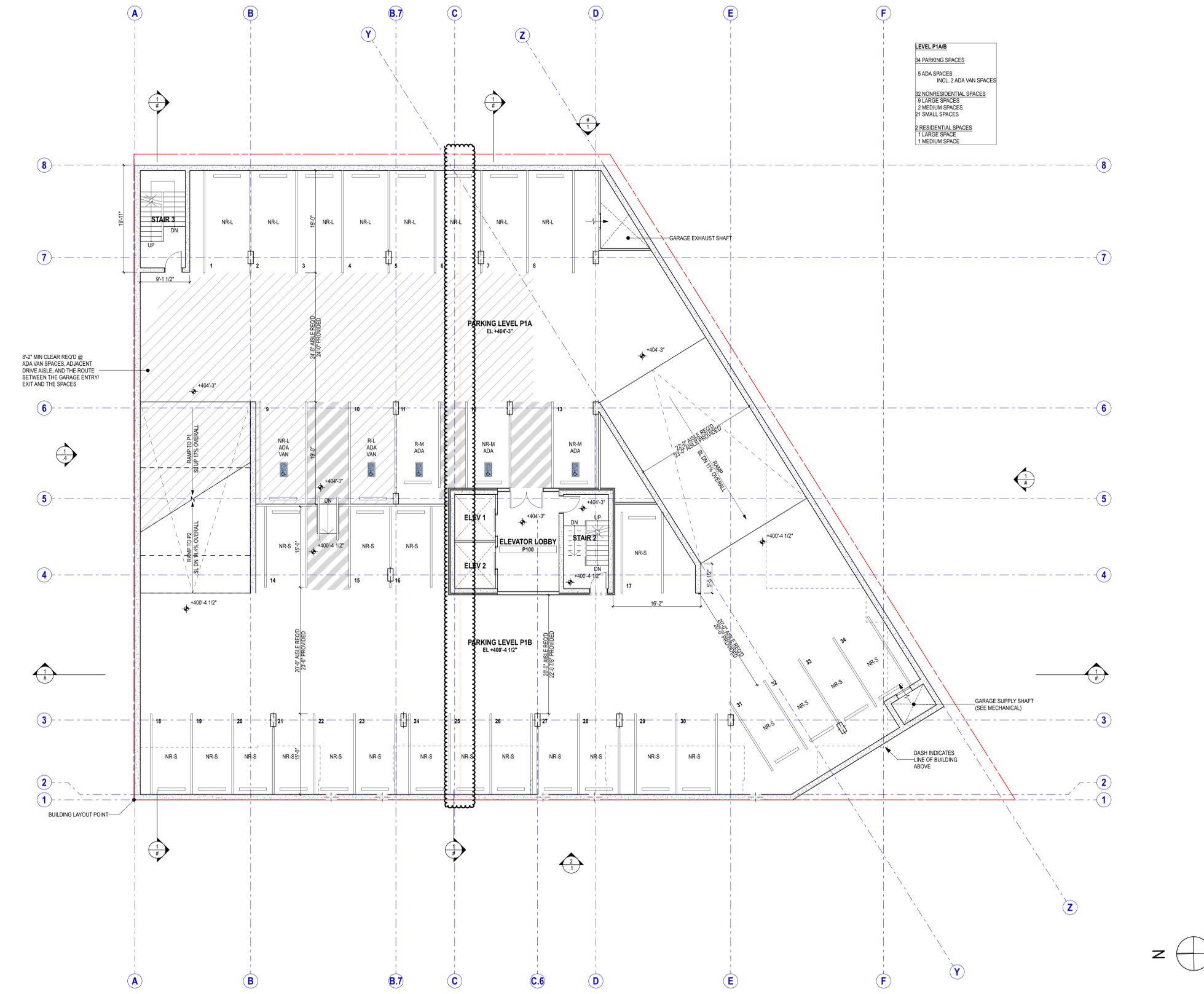
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State of Washington

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Issue
11 JUNE 2021
Issue Date

PARKING LEVEL 2A/2B
Sheet Title

A10P2

WEINSTEIN A+U



LEVEL P1A/B	
34	PARKING SPACES
5	ADA SPACES INCL. 2 ADA VAN SPACES
32	NONRESIDENTIAL SPACES
9	LARGE SPACES
2	MEDIUM SPACES
21	SMALL SPACES
2	RESIDENTIAL SPACES
1	LARGE SPACE
1	MEDIUM SPACE

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

Rev	Date	Issue

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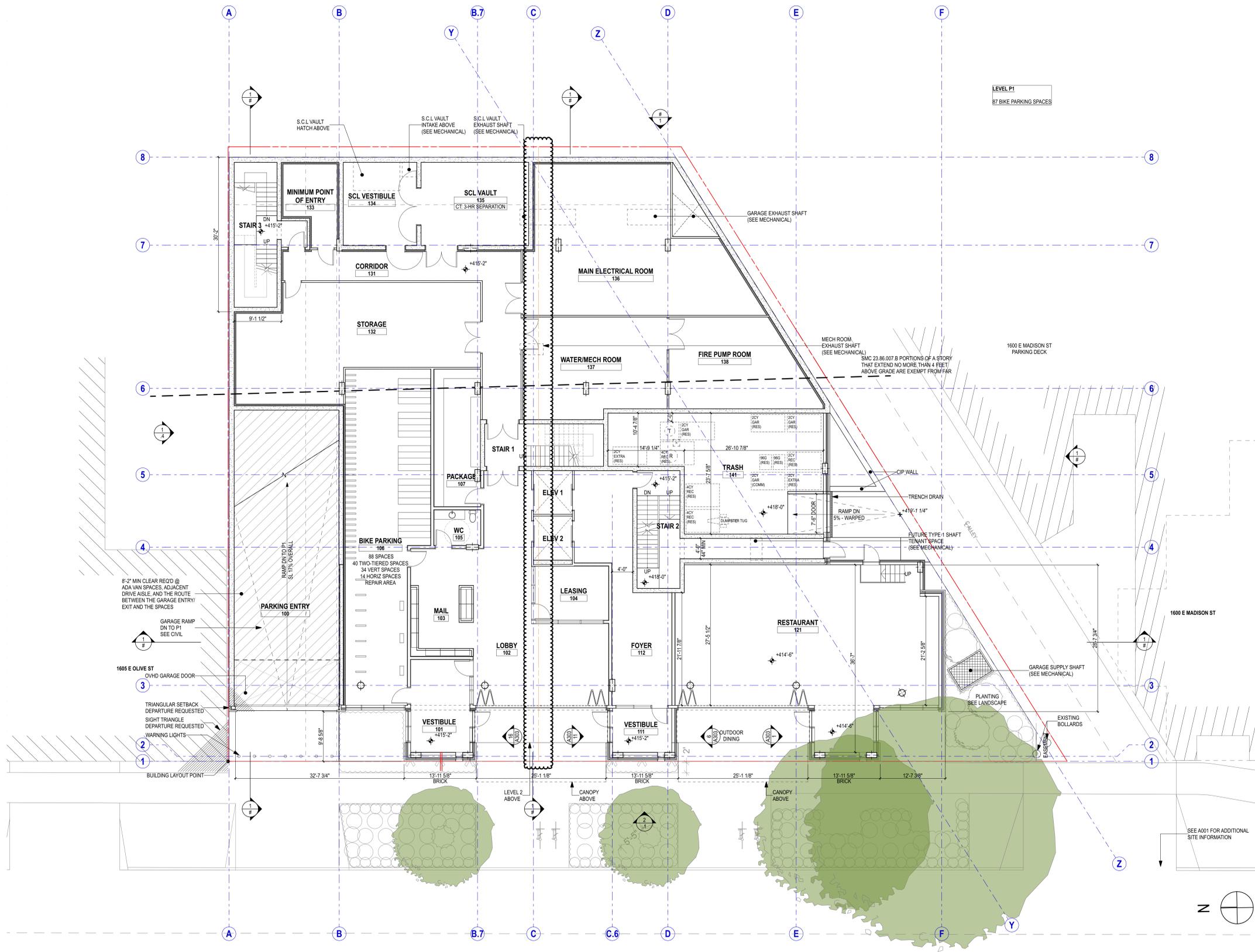
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Issue
11 JUNE 2021
Issue Date

PARKING LEVEL 1A/1B
Sheet Title

A10P1

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

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11 JUNE 2021
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LEVEL 1 PLAN
Sheet Title

A101

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1 LEVEL 2
 A102 SCALE: 1/8" = 1'-0"

Rev	Date	Issue

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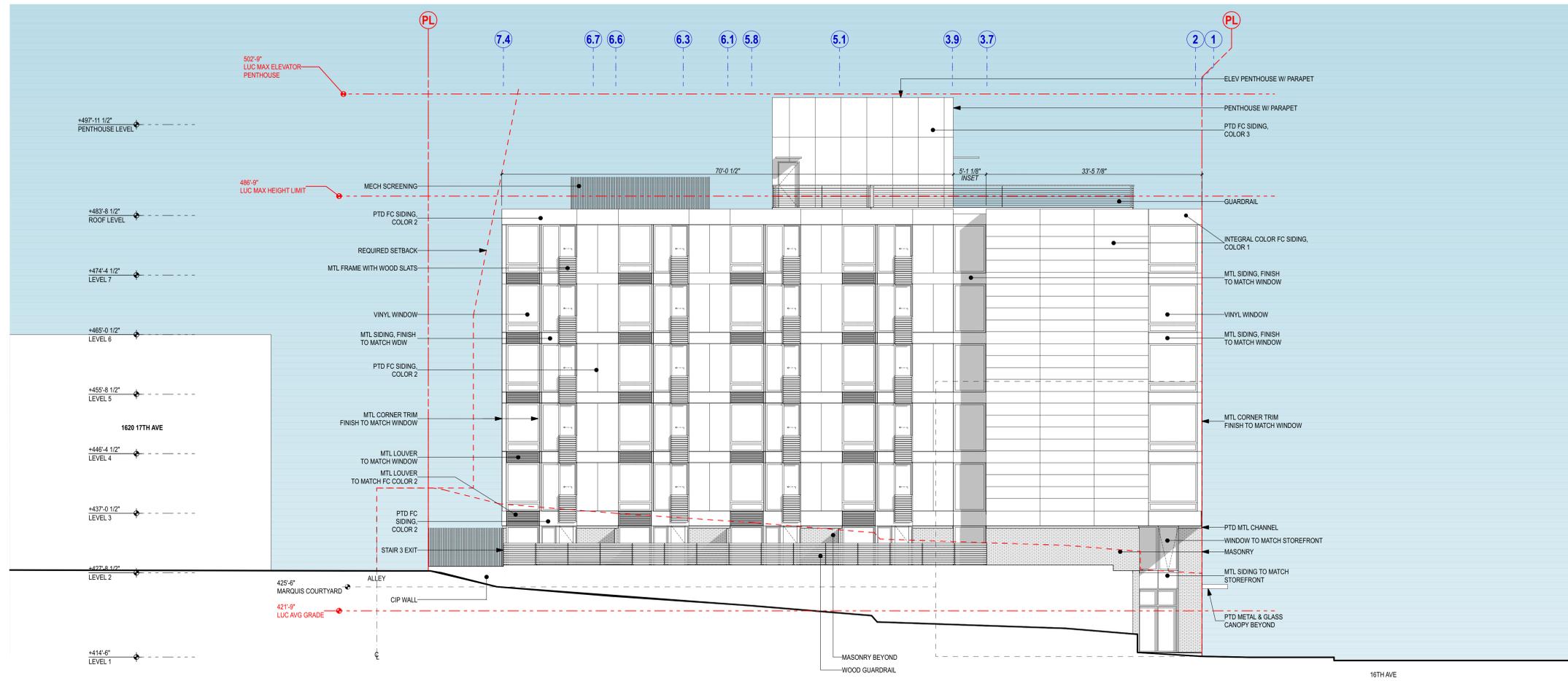
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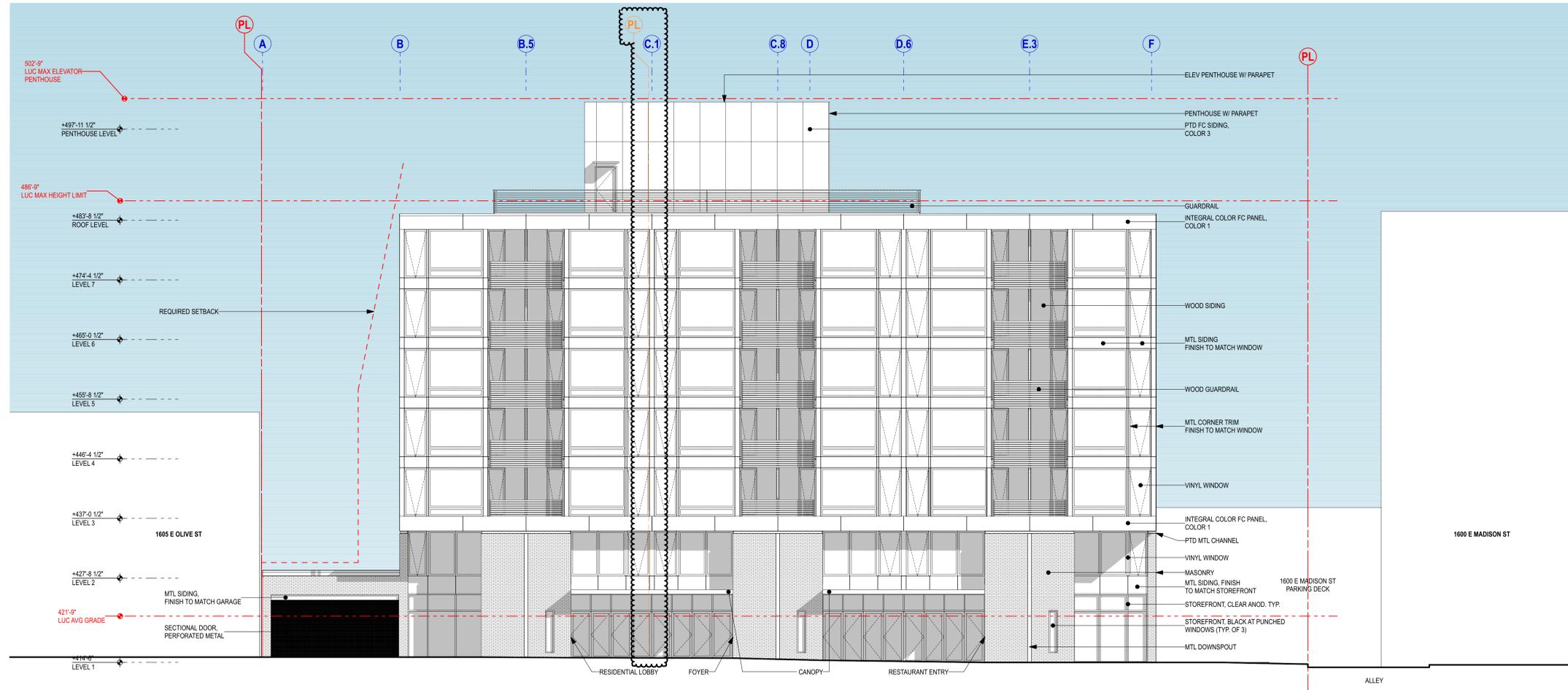
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 Issue
 11 JUNE 2021
 Issue Date

LEVEL 2 PLAN
 Sheet Title



2 EXTERIOR ELEVATION - NORTH
SCALE: 1/8" = 1'-0"



1 EXTERIOR ELEVATION - WEST
SCALE: 1/8" = 1'-0"

Rev	Date	Issue

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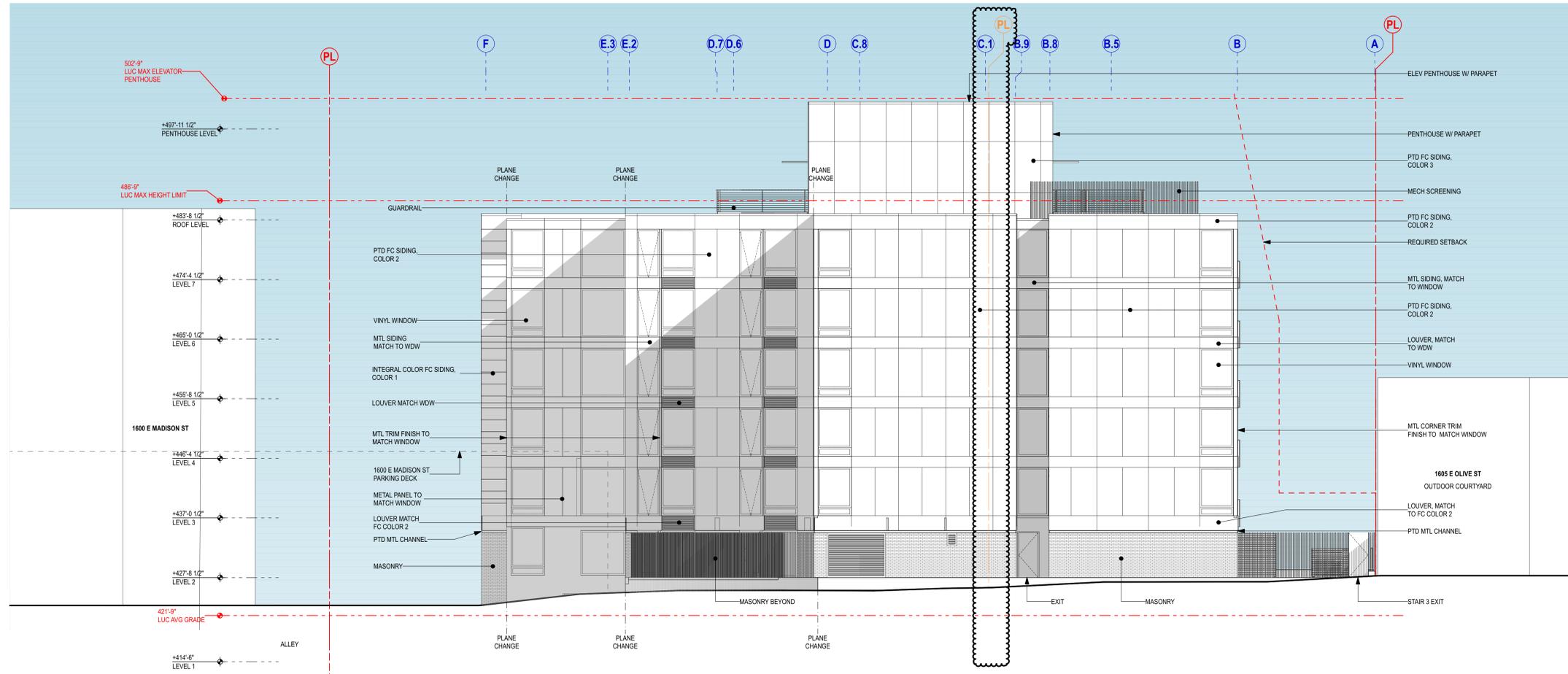
MUP CORRECTIONS
Issue
11 JUNE 2021
Issue Date

EXTERIOR ELEVATIONS
Sheet Title
A301

WEINSTEIN A+U



2 EXTERIOR ELEVATION - SOUTH
 SCALE: 1/8" = 1'-0"



1 EXTERIOR ELEVATION - EAST
 SCALE: 1/8" = 1'-0"

Rev	Date	Issue

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MUP CORRECTIONS
 Issue
 11 JUNE 2021
 Issue Date

EXTERIOR ELEVATIONS
 Sheet Title

A302

WEINSTEIN A+U



2 EXTERIOR ELEVATION - NORTH
SCALE: 1/8" = 1'-0"



1 EXTERIOR ELEVATION - WEST
SCALE: 1/8" = 1'-0"

- ELEVATION & SECTION NOTES**
- FOR LIST OF ABBREVIATIONS, SEE COVER SHEET 0001
 - FOR LAND USE CODE INFORMATION SEE SHEETS G101 & G102
- FINISHES & KEYNOTES**
- INTEGRAL COLOR FIBER CEMENT, COLOR 01 - MEDIUM GREY
 - PAINTED FIBER CEMENT, COLOR 02 - DARK GREY
 - PAINTED FIBER CEMENT, COLOR 03 - LIGHT GREY
 - METAL PANEL / METAL TRIM, COLOR - BLACK
 - BRICK MASONRY, RUNNING BOND, COLOR - CHARCOAL
 - WOOD SIDING / GUARDRAILS

Rev	Date	Issue

CONSULTANT'S LOGO

1620 16TH AVENUE
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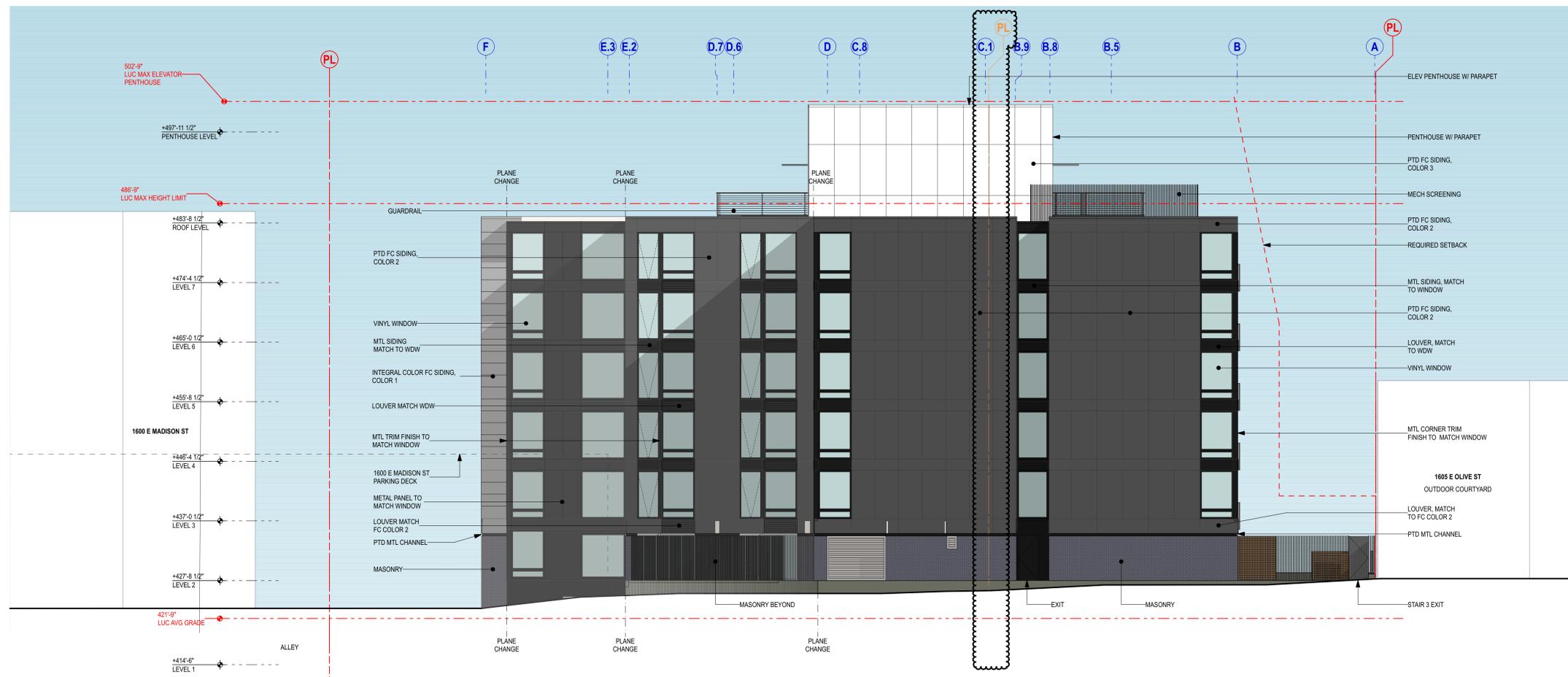
MUP CORRECTIONS
Issue
11 JUNE 2021
Issue Date

EXTERIOR ELEVATIONS COLOR
Sheet Title
A301-CLR

WEINSTEIN A+U



2 EXTERIOR ELEVATION - SOUTH
 A302-CLR SCALE: 1/8" = 1'-0"



1 EXTERIOR ELEVATION - EAST
 A302-CLR SCALE: 1/8" = 1'-0"

- ELEVATION & SECTION NOTES**
- FOR LIST OF ABBREVIATIONS, SEE COVER SHEET 0001
 - FOR LAND USE CODE INFORMATION SEE SHEETS G101 & G102
- FINISHES KEYNOTES**
- INTEGRAL COLOR FIBER CEMENT, COLOR 01 - MEDIUM GREY
 - PAINTED FIBER CEMENT, COLOR 02 - DARK GREY
 - PAINTED FIBER CEMENT, COLOR 03 - LIGHT GREY
 - METAL PANEL / METAL TRIM, COLOR - BLACK
 - BRICK MASONRY, RUNNING BOND, COLOR - CHARCOAL
 - WOOD SIDING / GUARDRAILS

Rev	Date	Issue

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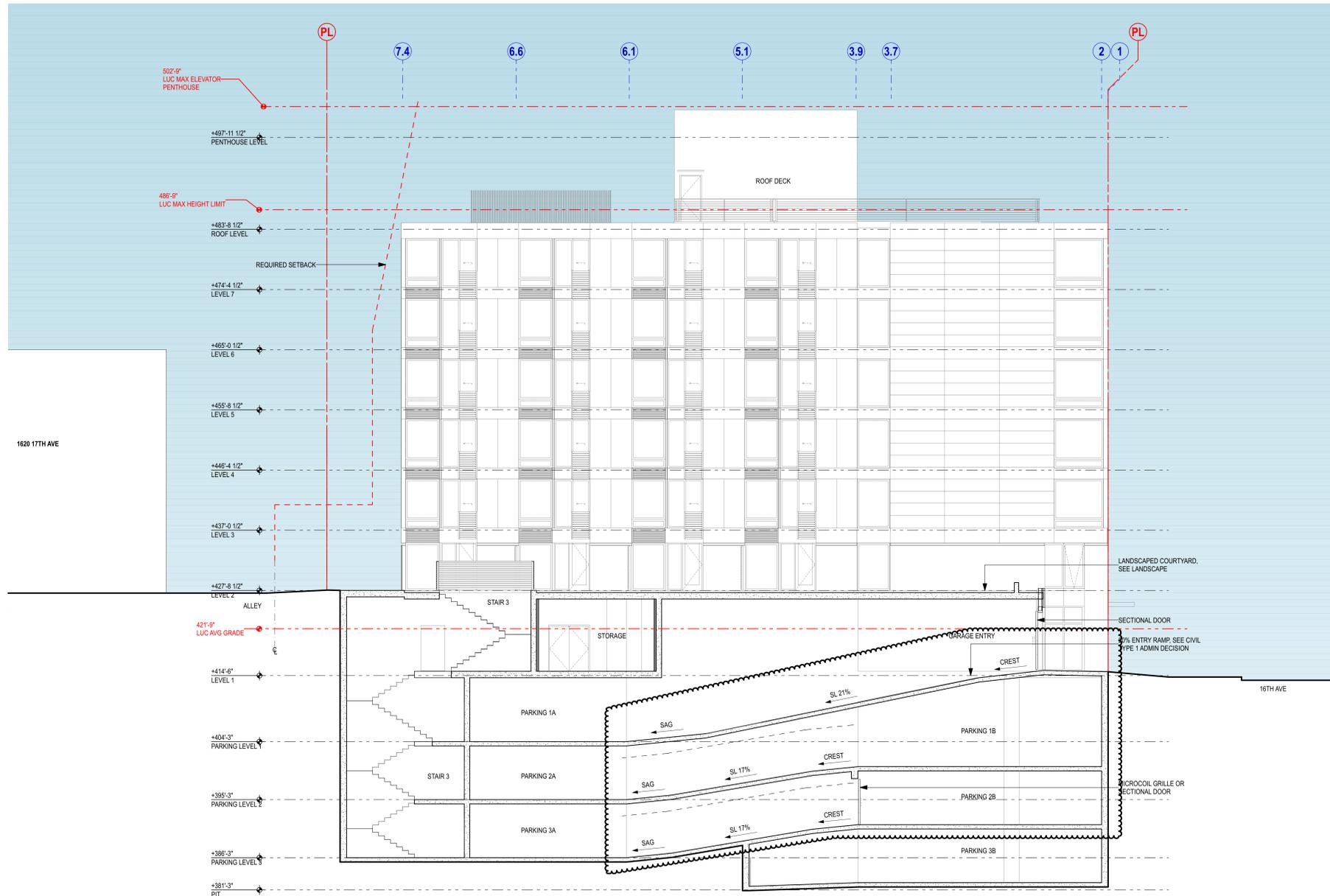
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 Issue
 11 JUNE 2021
 Issue Date

EXTERIOR ELEVATIONS COLOR
 Sheet Title

A302-CLR

WEINSTEIN A+U



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

Rev	Date	Issue

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MUP CORRECTIONS
Issue
11 DEC 2020
Issue Date

BUILDING SECTION
Sheet Title

A312

WEINSTEIN A+U

GENERAL SHORING NOTES

(The Following apply unless shown otherwise on the plans)

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC), AND THE SEATTLE DEPARTMENT OF CONSTRUCTION AND INSPECTION (DCI) BUILDING CODE MODIFICATIONS TO THE IBC.
2. **REFERENCE DOCUMENTS:**
 - A. GEOTECHNICAL ENGINEERING INVESTIGATION REPORT #180064E001 BY ASSOCIATED EARTH SCIENCES, INC., DATED APRIL 3, 2018.
3. **DESIGN LOADS:** THE SOIL PRESSURE DIAGRAMS SHOWN ON THIS SHEET WERE USED FOR DESIGN.
4. **SUBMITTALS:** SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO ANY FABRICATION OR CONSTRUCTION FOR ALL STRUCTURAL ITEMS INCLUDING THE FOLLOWING: STRUCTURAL STEEL, MISCELLANEOUS METAL, TENDONS, AND ANCHORS. PROPOSED DEMOLITION AND SHORING SEQUENCE SHALL ALSO BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW.
5. **INSPECTION:** INSPECTION BY THE GEOTECHNICAL ENGINEER SHALL BE PERFORMED FOR PILE PLACEMENT AND TIEBACK PLACING AND STRESSING. ALL PREPARED SOIL BEARING SURFACES SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF PILE. SOIL COMPACTION SHALL BE SUPERVISED BY AN APPROVED TESTING LAB. INSPECTION BY A QUALIFIED TESTING LAB SHALL BE PERFORMED FOR STEEL FABRICATION, ERECTION AND WELDING.
6. **UTILITY LOCATION:** THE SHORING CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO DRILLING PILE HOLES, OR CUTTING OR DIGGING IN STREETS OR ALLEYS. THE UTILITIES INFORMATION SHOWN ON THE SURVEY MAY BE NOT COMPLETE.
7. **VERIFICATION:** CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING STRUCTURES PRIOR TO FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBER. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL DISCREPANCIES IN DIMENSIONS AND ALL FIELD CHANGES PRIOR TO FABRICATION AND INSTALLATION.
8. **SOILS:** SEE GEOTECHNICAL REPORT FOR MORE COMPLETE INFORMATION (NOTE 2 ABOVE). FOLLOW THE RECOMMENDATIONS OF THE REPORT INCLUDING THE FOLLOWING ITEMS:
 - A. **SHORING -** SEE FIGURE 3 OF THE GEOTECHNICAL REPORT FOR THE SOIL PRESSURE DIAGRAM. ALL PILES SHALL BE EMBEDDED PER THESE DRAWINGS, A MINIMUM OF 10 FEET BELOW THE EXCAVATION BASE AND 5 FEET BELOW ANY EXCAVATIONS LOCATED WITHIN 10 FEET HORIZONTALLY OF THE PILE.
 - B. **TIEBACKS -** PER THE GEOTECHNICAL REPORT, TIEBACK ANCHORS SHALL BE TESTED. SEE THE SEPARATE SECTION AT THE END OF THESE NOTES.
 - C. **SHORING MONITORING -** PER THE GEOTECHNICAL REPORT, THE GEOTECHNICAL ENGINEER SHALL CONTINUOUSLY MONITOR THE INSTALLATION OF THE PILES. PER SECTION 14.3 OF THE REPORT, THE GEOTECHNICAL ENGINEER SHALL ALSO REVIEW THE SHORING WALL DEFLECTION DATA COLLECTED BY THE PROJECT SURVEYOR. AT A MINIMUM THE SHORING SHALL BE SURVEYED BEFORE EXCAVATION BEGINS, DURING EXCAVATION, ONCE THE EXCAVATION IS COMPLETE, AND AFTER THE EXCAVATION IS COMPLETE. SURVEYING MUST CONTINUE UNTIL THE PERMANENT STRUCTURE (INCLUDING FLOOR SLABS AS BRACES) IS COMPLETE UP TO STREET GRADES. THE FREQUENCY AND DURATION OF MONITORING SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER (WITH REVIEW AND APPROVAL BY THE SEATTLE DCI AND SDOT) BASED ON SHORING PERFORMANCE. SDOT REQUIRES THAT THE MOVEMENT MONITORING OCCUR A MINIMUM OF TWICE A WEEK DURING SHORING INSTALLATION AND EXCAVATION WITH ONCE A WEEK BEING DONE BY A LICENSED LAND SURVEYOR. OPTICAL MONITORING SURVEY POINTS FOR VERTICAL AND HORIZONTAL DEFLECTIONS WITH AN ACCURACY OF 0.01 FEET SHALL BE INSTALLED ON WALL TOPS AND ADJACENT STRUCTURES SENSITIVE TO GROUND MOVEMENTS. SURVEY POINTS SHALL BE ESTABLISHED AT A LATERAL DISTANCE EQUAL TO 1/3 THE FULL EXCAVATION DEPTH (EVERY OTHER PILE MINIMUM) AND AT A PERPENDICULAR DISTANCE 6H' TO THE SHORING WALL. SUBMIT MONITORING RESULTS, INCLUDING BASELINE READINGS, ONCE EVERY WEEK TO THE SEATTLE DCI, SDOT AND THE STRUCTURAL ENGINEER ALONG WITH AN EVALUATION FROM THE GEOTECHNICAL ENGINEER OF THE WALL PERFORMANCE. THE GEOTECHNICAL ENGINEER SHALL REVIEW THE SURVEY DATA AND PROVIDE AN EVALUATION OF THE WALL PERFORMANCE ALONG WITH SURVEY DATA AS WELL AS PROVIDE GRAPHICAL REPRESENTATION OF WALL MOVEMENT VERSUS TIME TO THE SEATTLE DCI AND SDOT ON AT LEAST A WEEKLY BASIS. SEATTLE DCI AND SDOT SHALL BE NOTIFIED IMMEDIATELY AND DIRECTLY IF ANY UNUSUAL OR SIGNIFICANTLY INCREASED MOVEMENT OCCURS. IMMEDIATELY AND DIRECTLY NOTIFY THE GEOTECHNICAL AND STRUCTURAL ENGINEERS, SEATTLE DCI AND SDOT IF 0.5" OF GROUND MOVEMENT OCCURS BETWEEN TWO CONSECUTIVE READINGS OR WHEN TOTAL MOVEMENTS REACH 0.5". AT THAT AMOUNT OF MOVEMENT, THE ENGINEERS SHALL DETERMINE THE CAUSE OF DISPLACEMENT AND DEVELOP AND IMPLEMENT REMEDIAL MEASURES SUFFICIENT TO LIMIT TOTAL WALL MOVEMENT TO 1". ALL EARTHWORK AND CONSTRUCTION ACTIVITIES MUST BE DIRECTED TOWARD IMMEDIATE IMPLEMENTATION OF REMEDIAL MEASURES NECESSARY TO LIMIT TOTAL WALL MOVEMENT TO 1".
 - D. **EXCAVATION -** PER THE GEOTECHNICAL REPORT, EXPECT BOTH STRUCTURAL FILL AND GLACIAL TILL SOIL TYPES TO BE ENCOUNTERED. SEE REPORT FOR RECOMMENDATIONS.
 - E. **LASSING -** PER THE GEOTECHNICAL REPORT, LASSING SHALL BE INSTALLED BETWEEN ALL SHORING PILES.
 - F. **BACKFILL -** PER THE GEOTECHNICAL REPORT, PEA GRAVEL, SAND AND SUITABLE EXCAVATION SPOILS MAY BE USED AS SHORING WALL BACKFILL, WHEREAS CONCRETE, CDF OR OTHER IMPERMEABLE MATERIALS MAY NOT BE USED.
 - G. **DRAINAGE -** PER THE GEOTECHNICAL REPORT, BACKFILL BEHIND THE WALL SHOULD CONNECT TO A CONTINUOUS HORIZONTAL DRAIN LOCATED IN FRONT OF THE WALL THROUGH THE USE OF PREFABRICATED VERTICAL DRAINAGE STRIPS.
9. **PRE-CONSTRUCTION MEETINGS:** A PRE-CONSTRUCTION MEETING WITH SDOT, SEPARATE FROM ANY SEATTLE DCI MEETING, IS REQUIRED BEFORE THE START OF SHORING INSTALLATION. ATTENDEES SHALL INCLUDE REPRESENTATIVES OF THE OWNER, GENERAL CONTRACTOR, EXCAVATION AND SHORING SUBCONTRACTORS, THE GEOTECHNICAL ENGINEER, SURVEYOR, STRUCTURAL ENGINEER AND SDOT PERSONNEL.

CONCRETE GROUT

10. CONCRETE SHALL CONFORM TO ALL REQUIREMENTS OF CHAPTER 19 OF THE IBC. CONCRETE GROUT STRENGTHS OVER 1000 PSI SHALL BE VERIFIED BY STANDARD CYLINDER TESTS, UNLESS APPROVED OTHERWISE. REQUIRED ULTIMATE COMPRESSIVE STRENGTHS OF CONCRETE GROUT SHALL BE REACHED BY 7 DAYS FOR TIEBACKS AND 28 DAYS FOR PILES.

f _c (PSI)	MINIMUM CEMENT		MAXIMUM WATER	
	PER CUBIC YARD	PER 94 SACKS	PER 94 LB OF CEMENT	USE
500	1-1/2 SACKS	--	--	PILE & TIEBACK (ZONE #B') LEAN CONCRETE GROUT
2500	5 SACKS	--	--	PILE STRUCTURAL CONCRETE GROUT
5000	6 SACKS	6 GALLONS	--	UNDERPINNING STRUCTURAL GROUT
9000	6 SACKS	6 GALLONS	--	TIEBACK STRUCTURAL GROUT (ZONE #A')

THE CONTRACTOR SHALL SUBMIT A CONCRETE GROUT MIX DESIGN FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE MIX DESIGNS WILL BE REVIEWED FOR CONFORMANCE TO IBC CH. 19.

STEEL

11. STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION SHALL BE BASED ON THE A.I.S.C. SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, LATEST EDITION, PLUS ALL REFERENCED CODES.
12. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

TYPE OF MEMBER	ASTM SPECIFICATION	F _y
A. SOLDIER PILES	A492 OR A572, GRADE 50	50 KSI
B. PLATES, SHAPES, ANGLES, AND RODS	A36	36 KSI
C. HEADED SHEAR STUDS	A108	44 KSI
E. STRUCTURAL TUBING	A500 (GRADE B)	46 KSI
13. ALL WELDING SHALL BE IN CONFORMANCE WITH A.I.S.C. AND A.M.S. STANDARDS AND SHALL BE PERFORMED BY M.A.B.O. CERTIFIED WELDERS USING E70XX ELECTRODES OR 70 KSI WELD METAL. ONLY PREQUALIFIED WELDS (AS DEFINED BY A.M.S.) SHALL BE USED.
14. **PRE-STRESSING STEEL:**
 - A. **HIGH STRENGTH RODS (STRESSED AND NON-STRESSED)** SHALL BE DYNIDAG THREAD BARS WITH APPROPRIATE ANCHORAGE PLATES, NUTS AND COUPLERS, IN CONFORMANCE WITH ASTM A122 (F_{pu} = 150,000 PSI).
 - B. **STRAND** SHALL BE 1/2" DIAMETER, 7-WIRE STRESS-RELIEVED (OR LOW RELAXATION), CLEAN AND FREE FROM CORROSION, HAVING A GUARANTEED MINIMUM ULTIMATE STRENGTH OF 41,300 POUNDS AND MANUFACTURED IN ACCORDANCE WITH ASTM A416, GRADE 270. ONE MILL TEST SHALL BE SUBMITTED FOR REVIEW FOR EACH REEL USED.

WOOD LASSING

15. **SAVN LUMBER:** SAVN LUMBER SHALL CONFORM TO 'GRADING AND DRESSING RULES' WEST COAST LUMBER INSPECTION BUREAU (INCLIB), LATEST EDITION. LUMBER SHALL BE THE SPECIES AND GRADE NOTED BELOW:

USE	GRADE	MAX. SPAN	SIZE	DEPTH BELOW GRADE
TIMBER LASSING	HEM-FIR OR DF-L NO. 2	6 FEET	3X12	0'-0" TO 16'-0"
TIMBER LASSING	HEM-FIR OR DF-L NO. 2	8 FEET	3X12	0'-0" TO 10'-0"
TIMBER LASSING	HEM-FIR OR DF-L NO. 2	8 FEET	4X12	10'-0" TO 16'-0"

TIMBER LASSING SHALL BE PRESURE TREATED WITH WATERBORNE PRESERVATIVES IN ACCORDANCE WITH ANPA STANDARD U1 TO A MINIMUM RETENTION OF 0.4 LBS/CU.FT.

SHORING INSTALLATION

16. **DEMOLITION:** SHORING AND SOIL EXCAVATION SHALL BE DONE SIMULTANEOUSLY.
17. **HOLE DIGGING:** PILE AND ANCHOR HOLES SHALL BE DRILLED WITHOUT LOSS OF GROUND AND WITHOUT ENDANGERING PREVIOUSLY INSTALLED PILES AND ANCHORS. THIS MAY INVOLVE CASING THE HOLES OR OTHER METHODS OF PROTECTION FROM CAVING. SEE GEOTECHNICAL REPORT FOR RECOMMENDED HOLE DIGGING PROCEDURE. THE BOTTOM OF THE BORED HOLES SHALL BE CLEANED OUT USING A BUCKET AUGER.
18. **PILE PLACEMENT:** FOR ALL PILES SPACED CLOSER THAN 7' O.C., ALTERNATE PILES SHALL BE PLACED SO THAT A MINIMUM OF 24 HOURS IS ALLOWED FOR THE CONCRETE GROUT TO CURE BEFORE DRILLING THE DIRECTLY ADJACENT PILES.
19. **STEEL PILE TOLERANCES:**
 - 1" INSIDE PERPENDICULAR TO SHORING WALL.
 - 1" OUTSIDE PERPENDICULAR TO SHORING WALL.
 - 3" LATERALLY.
20. **EXCAVATION BELOW TIEBACKS:** TIEBACK INSTALLATION AND PRE-STRESSING SHALL BE COMPLETED BEFORE EXCAVATING MORE THAN 2 FEET BELOW THE TIEBACK LEVEL.
21. **LASSING:** TIMBER LASSING SHALL BE INSTALLED IN ALL AREAS. VOIDS BETWEEN LASSING AND SOIL SHALL BE BACKFILLED. DRAINAGE BEHIND THE WALL MUST BE MAINTAINED (SEE ITEM 6F ABOVE). IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE AMOUNT OF EXPOSED SOIL WITHOUT LASSING TO AVOID LOSS OF SOIL. IN NO CASE SHALL THE EXPOSED SOIL HEIGHT EXCEED 4'-0". SPECIAL CARE SHOULD BE TAKEN TO AVOID GROUND LOSS DURING EXCAVATION. NO EXCAVATION FOR THE IMMEDIATE LOWER LIFT IS ALLOWED UNTIL VOIDS BEHIND THE LASSING OF THE PRECEDING LIFT ARE FILLED WITH APPROVED MATERIALS.
22. **SHORING MONITORING:** SYSTEMATIC PROGRAM OF OBSERVATION SHALL BE CONDUCTED DURING THE PROJECT EXECUTION TO DETERMINE THE EFFECT OF CONSTRUCTION ON ADJACENT FACILITIES AND STRUCTURES IN ORDER TO PROTECT THEM FROM SERIOUS DAMAGE. SEE GEOTECHNICAL REPORT FOR RECOMMENDATIONS. A LICENSED SURVEYOR (NOT THE CONTRACTOR) MUST DO THE SURVEYING AT LEAST ONCE A WEEK. FIELD DATA AND MEASUREMENTS ARE TO BE SUBMITTED TO STRUCTURAL AND GEOTECHNICAL ENGINEER FOR REVIEW (SEE ITEM 8B ABOVE).
23. **SLOPES:** ALL SLOPES SHALL BE PROTECTED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
24. **REMOVAL:** ALL PILES, ANCHORS, GROUT AND LASSING LOCATED WITHIN THE CITY R.O.W. SHALL BE REMOVED TO A DEPTH OF 4'-0" BELOW FINAL GRADE ONCE THEY ARE NO LONGER NEEDED FOR CONSTRUCTION.

TIEBACK TESTING AND STRESSING

25. **VERIFICATION TESTS (200% TESTS):**
 - PRIOR TO INSTALLING PRODUCTION ANCHORS, PERFORM A MINIMUM OF TWO TESTS EACH ON EACH ANCHOR TYPE, INSTALLATION METHOD AND SOIL TYPE WITH THE TESTED ANCHORS CONSTRUCTED TO THE SAME DIMENSIONS AS PRODUCTION ANCHORS.
 - TEST LOCATIONS TO BE DETERMINED IN CONJUNCTION WITH AND APPROVED BY THE GEOTECHNICAL ENGINEER.
 - TEST ANCHORS, WHICH WILL BE LOADED TO 200% OF THE DESIGN LOAD, MAY REQUIRE ADDITIONAL PRESTRESSING STEEL (STEEL LOAD NOT TO EXCEED 80% OF THE ULTIMATE TENSILE STRENGTH) OR REINFORCING OF THE SOLDIER PILE.
 - LOAD TEST ANCHORS TO 200% LOAD IN 25% LOAD INCREMENTS, HOLDING EACH INCREMENTAL LOAD FOR AT LEAST 5 MINUTES AND RECORDING DEFLECTION OF THE ANCHOR HEAD AT VARIOUS TIMES WITHIN EACH HOLD TO THE NEAREST 0.01 INCH.
 - AT THE 200% LOAD, THE HOLDING PERIOD SHALL BE AT LEAST 60 MINUTES.
 - A SUCCESSFUL TEST SHALL PROVIDE A MEASURED CREEP RATE OF 0.04 INCHES OR LESS AT THE 200% LOAD BETWEEN 1 AND 10 MINUTES, AND 0.08 INCHES OR LESS BETWEEN 6 AND 60 MINUTES AND 24 AND 240 MINUTES, AND ALL TIME INCREMENTS SHALL HAVE A CREEP RATE THAT IS LINEAR OR DECREASING WITH TIME. THE APPLIED LOAD MUST REMAIN CONSTANT DURING ALL HOLDING PERIODS (I.E. NO MORE THAN 5% VARIATION FROM THE SPECIFIED LOAD).
26. **PROOF TESTS (130% TESTS ON ALL LOAD ANCHORS):**
 - LOAD TEST ALL PRODUCTION ANCHORS TO 130% OF THE DESIGN LOAD IN 25% LOAD INCREMENTS, HOLDING EACH INCREMENTAL LOAD UNTIL A STABLE DEFLECTION IS ACHIEVED (RECORD DEFLECTION OF THE ANCHOR HEAD AT VARIOUS TIMES WITHIN EACH HOLD TO THE NEAREST 0.01 INCH).
 - AT THE 130% LOAD, THE HOLDING PERIOD SHALL BE AT LEAST 10 MINUTES.
 - A SUCCESSFUL TEST SHALL PROVIDE A MEASURED CREEP RATE OF 0.04 INCHES OR LESS AT THE 130% LOAD BETWEEN 1 AND 10 MINUTES WITH A CREEP RATE THAT IS LINEAR OR DECREASING WITH TIME. THE APPLIED LOAD MUST REMAIN CONSTANT DURING THE HOLDING PERIOD (I.E. NO MORE THAN 5% VARIATION FROM THE 130% LOAD). ANCHORS FAILING THIS PROOF TESTING CREEP ACCEPTANCE CRITERIA MAY BE HELD AN ADDITIONAL 50 MINUTES FOR CREEP MEASUREMENT. ACCEPTABLE PERFORMANCE WOULD EQUATE TO A CREEP OF 0.08 INCHES OR LESS BETWEEN 5 AND 50 MINUTES WITH A LINEAR OR DECREASING CREEP RATE.

FOLLOWING PROOF LOADING, EACH ANCHOR SHALL BE LOCKED OFF AT 100% OF DESIGN LOADING.

VERIFICATION TESTED ANCHORS OR EXTENDED CREEP PROOF TESTED ANCHORS NOT MEETING THE ACCEPTANCE CRITERIA WILL REQUIRE A REDESIGN BY THE CONTRACTOR TO ACHIEVE THE ACCEPTANCE CRITERIA.

27. **TIEBACK NOTES:** ALL TIEBACKS ARE TO BE DE-STRESSED IN THE FUTURE UPON COMPLETION OF THE BUILDING PROJECT. TIEBACKS MORE THAN 3'-0" ABOVE FLOOR LEVEL SHALL REMAIN STRESSED UNTIL THE FUTURE FLOOR SLABS ABOVE AND BELOW ARE COMPLETE AND THE FUTURE WALL AT THIS LOCATION IS COMPLETE TO THE SLAB LEVEL ABOVE AND ALL CONCRETE IS CURED TO 75% OF FINAL STRENGTH. A BOND BREAKER (SUCH AS A SLIP SHEATH) SHALL BE CONSTRUCTED IN THE NO LOAD ZONE WHEN THE INSTALLATION PROCEDURES USE SINGLE STAGE GROUTING.

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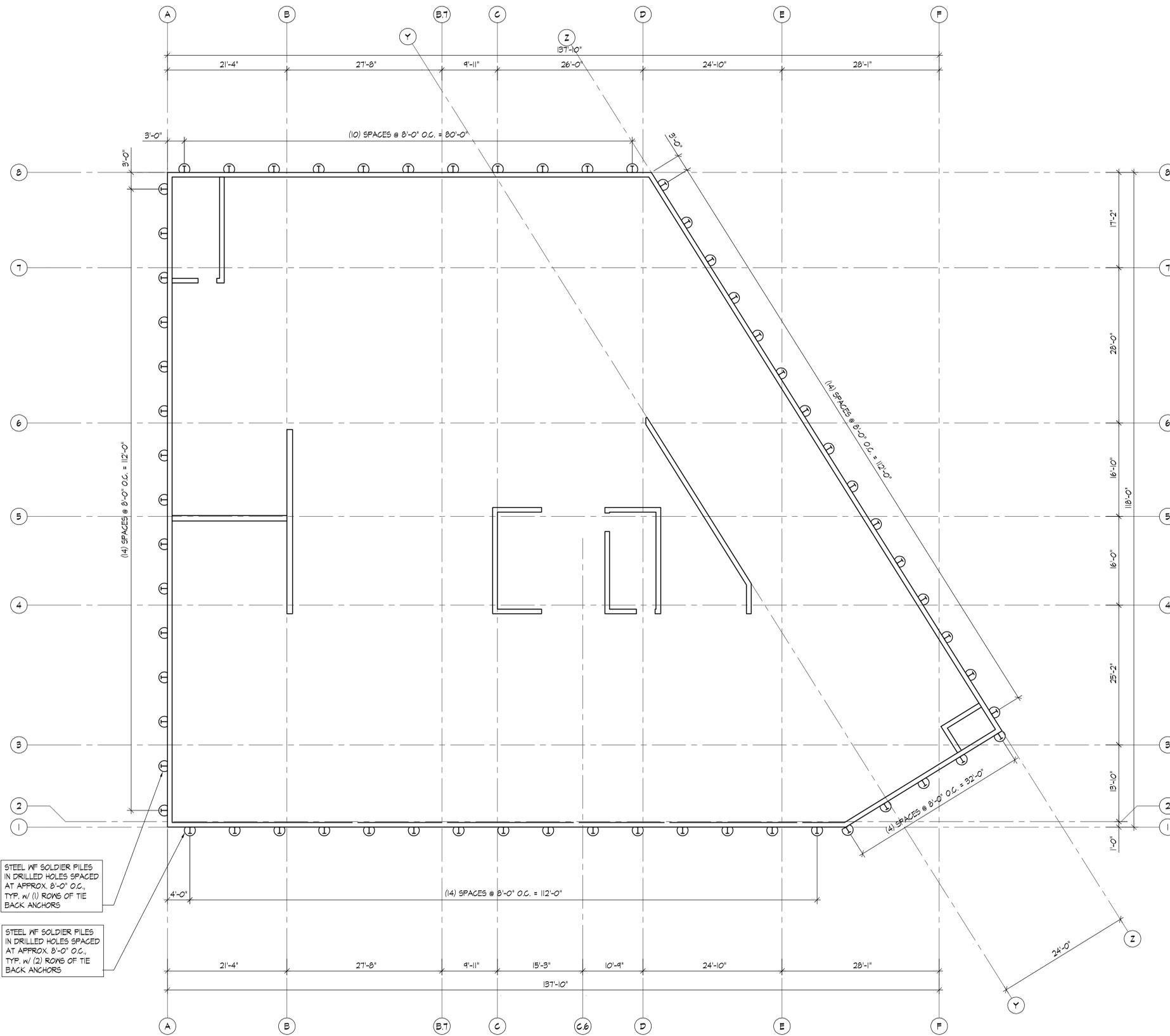
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Date 11/20/2019
Sheet Title GENERAL SHORING NOTES

Sheet SH001



STEEL WF SOLDIER PILES IN DRILLED HOLES SPACED AT APPROX. 8'-0" O.C., TYP. W/ (1) ROWS OF TIE BACK ANCHORS

STEEL WF SOLDIER PILES IN DRILLED HOLES SPACED AT APPROX. 8'-0" O.C., TYP. W/ (2) ROWS OF TIE BACK ANCHORS

LEVEL P3 SHORING PLAN
SCALE: 1/8" = 1'-0"

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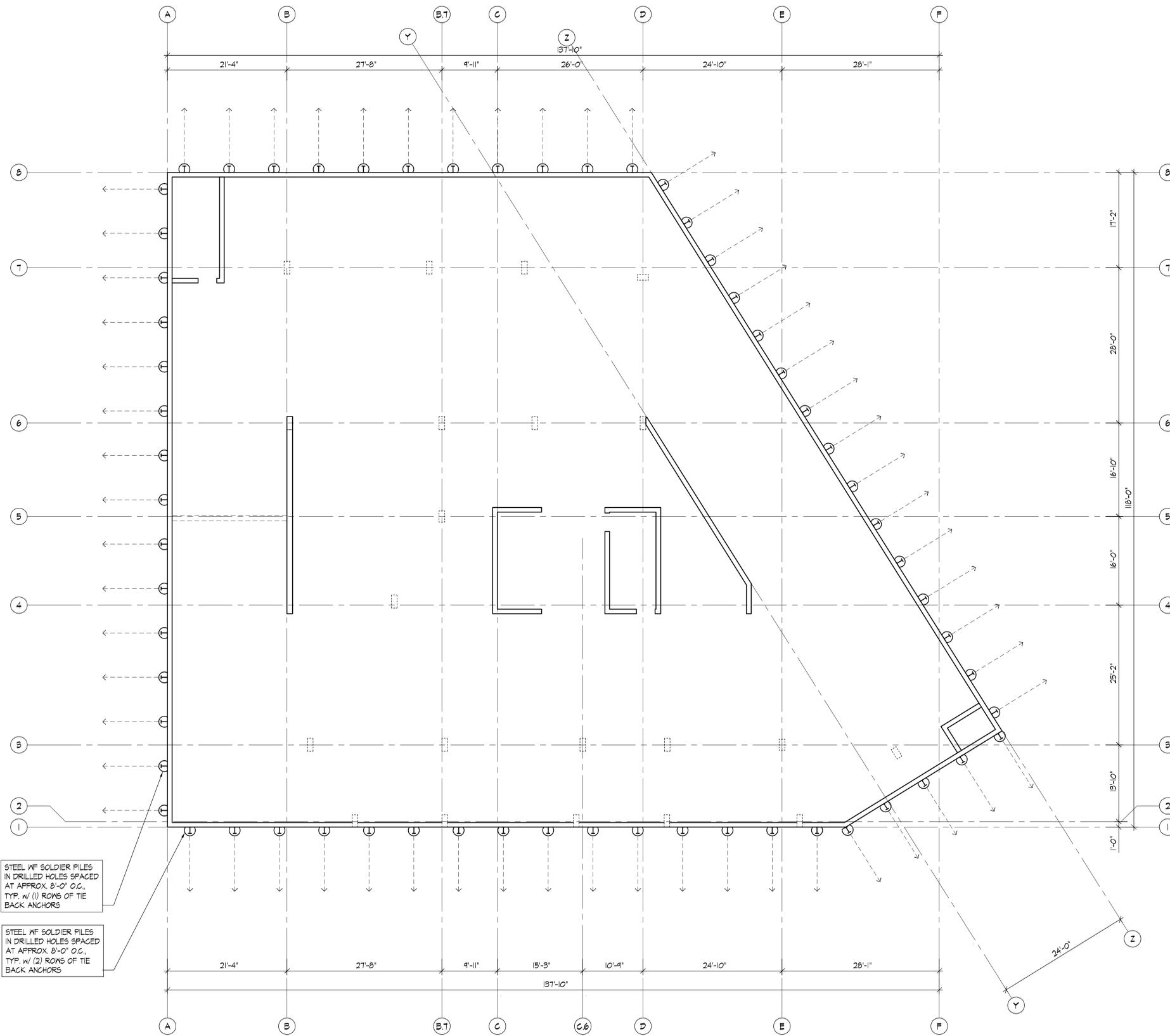


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Sheet Title LEVEL P3 SHORING PLAN

Sheet SH101

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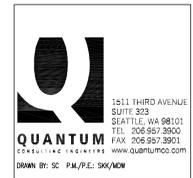
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LEVEL P2 SHORING PLAN
SCALE: 1/8" = 1'-0"

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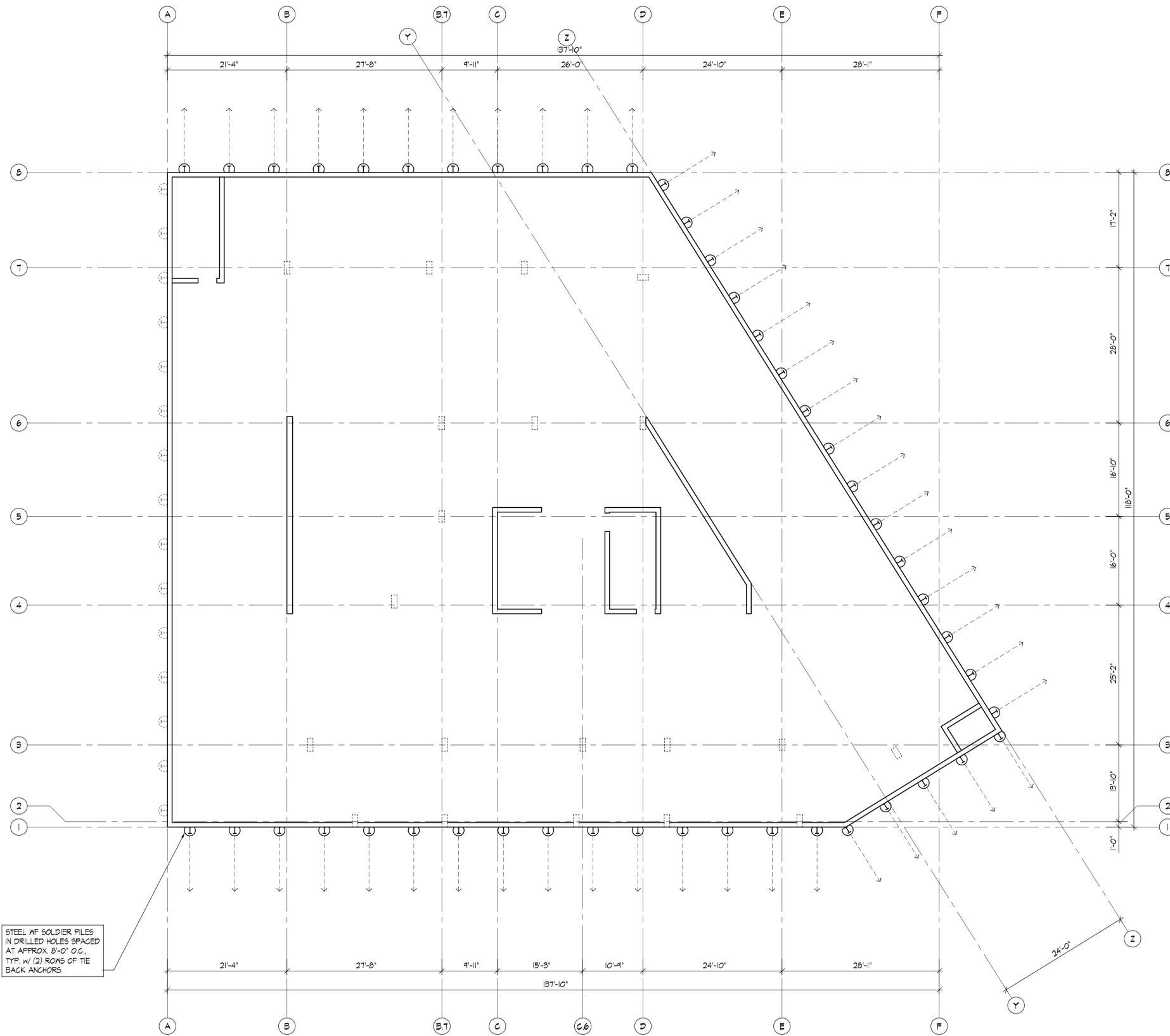
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Sheet SH102

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LEVEL P1 SHORING PLAN
 SCALE: 1/8" = 1'-0"

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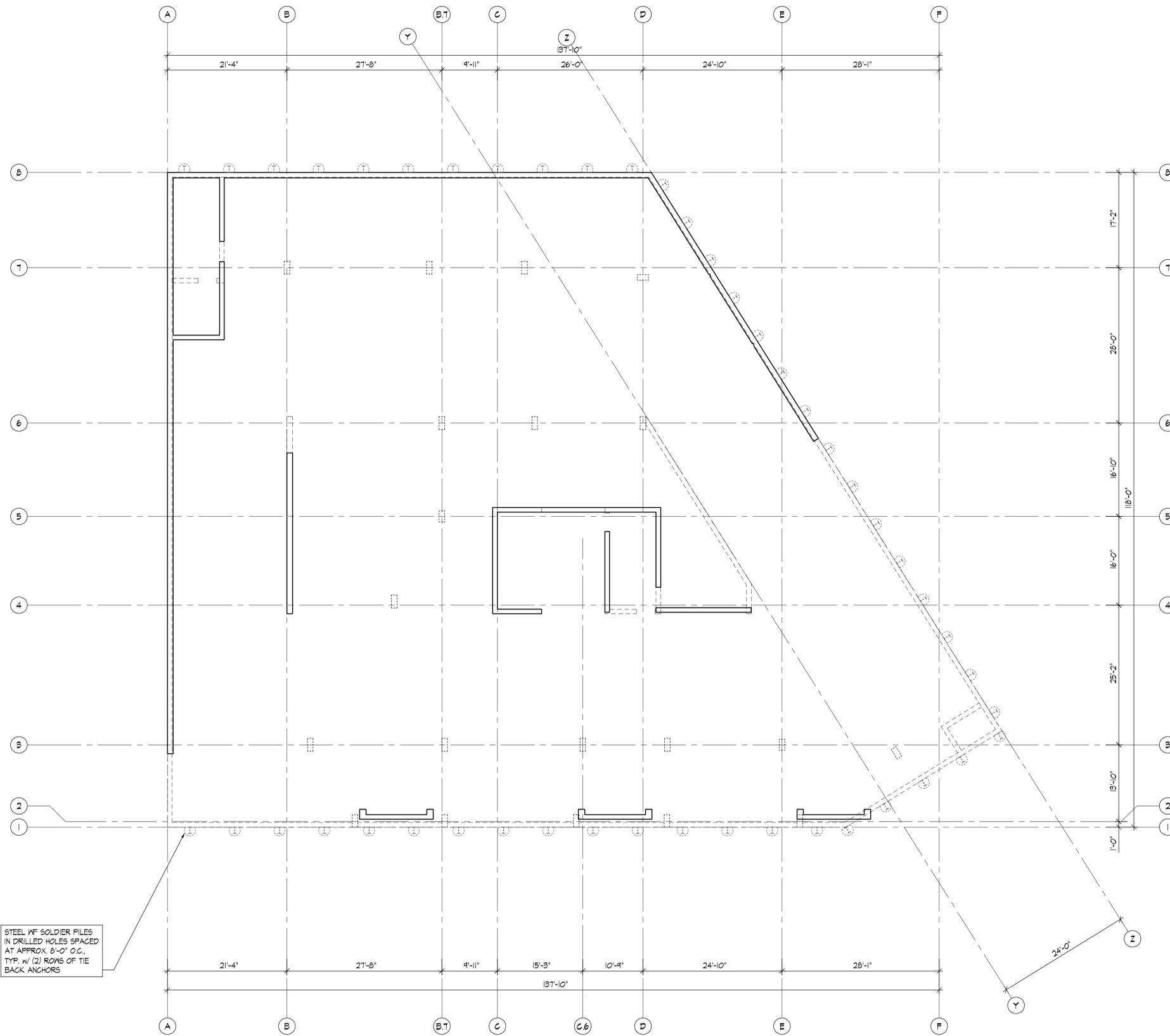
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 Sheet Title LEVEL P1 SHORING PLAN

Sheet SH103

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

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Sheet Title	LEVEL 1 SHORING PLAN

Sheet **SH104**

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