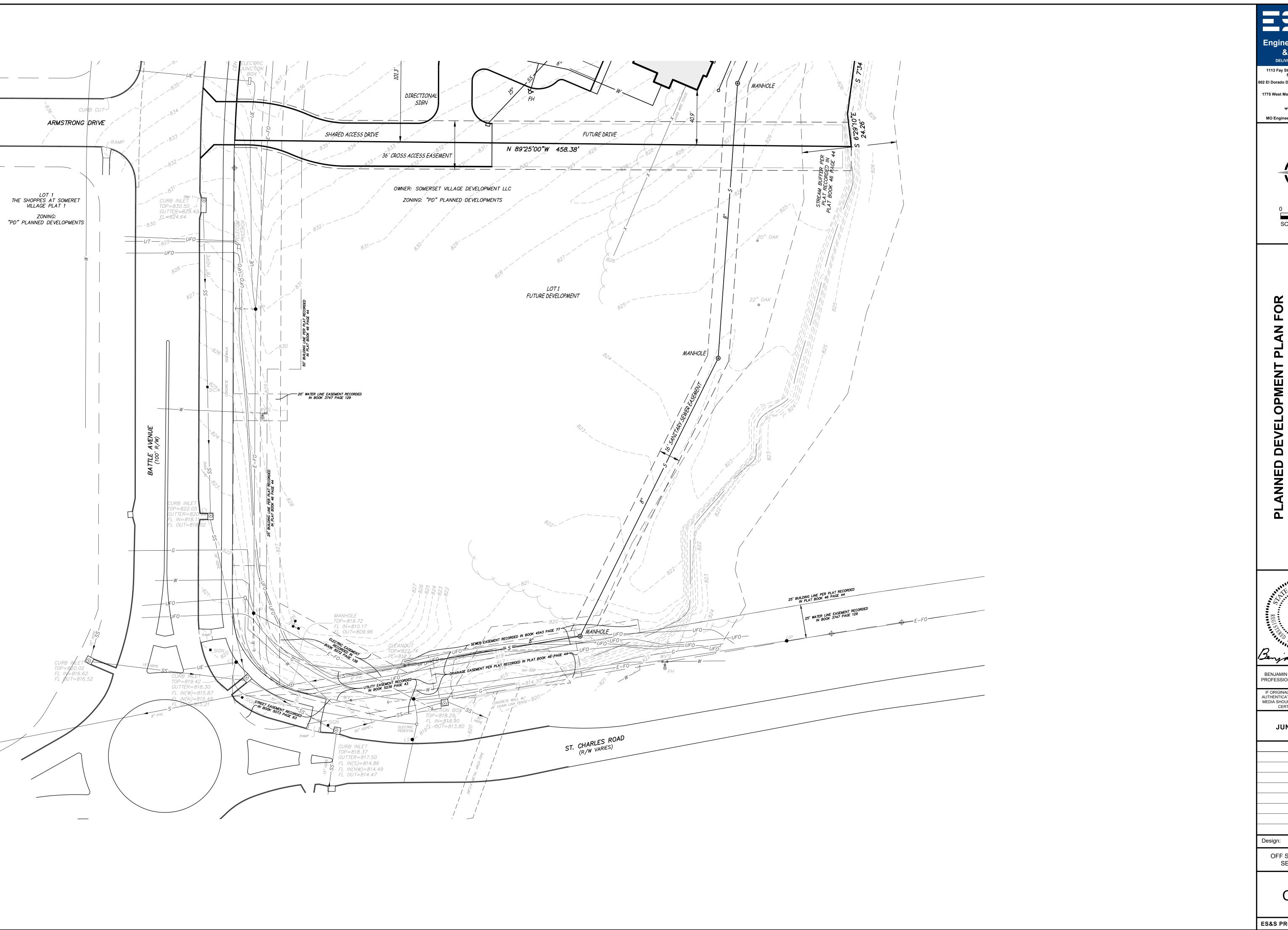


Engineering Surveys

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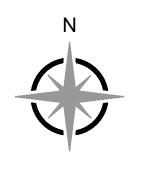


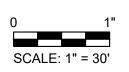
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MO Engineering Corp. # 2004005018





DEVELOPMENT PLAN FOR - SPARTAN POINTE

MISSOURI

6/10/2022 NUMBER

BENJAMIN A. ROSS REGISTERED PROFESSIONAL ENGINEER E-30054

IF ORIGINAL SIGNATURE OR DIGITAL AUTHENTICATION IS NOT PRESENT THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

JUNE 10, 2022

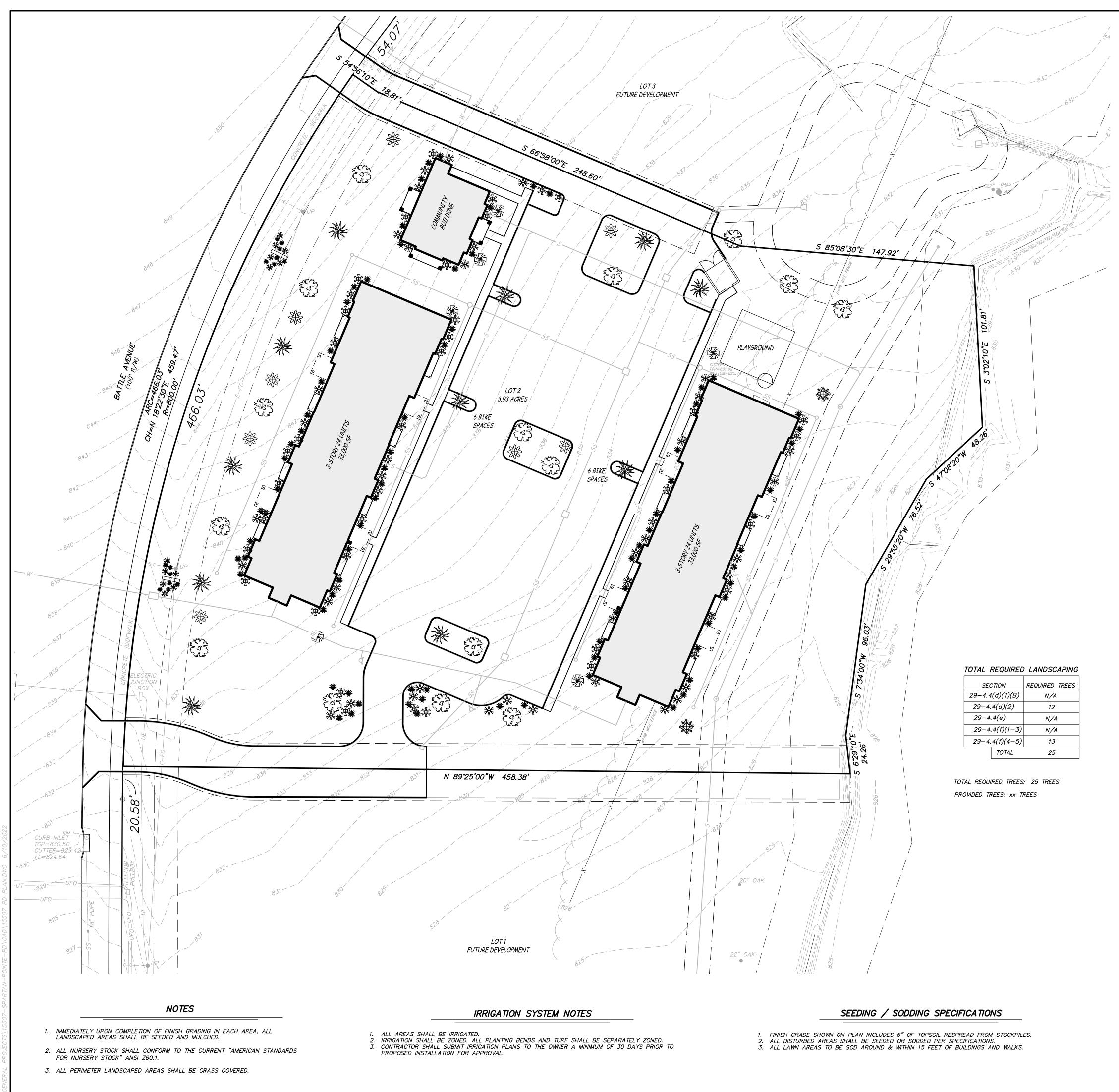
Revised

Design: BAR Drawn: CGH

OFF SITE SANITARY SEWER PLAN

C1.02

ES&S PROJECT NO. 15507



LANDSCAPE LEGEND

SYMBOL	DESCRIPTION	NO. PROVIDED
	LARGE DECIDUOUS TREE (2" CALIPER)	12
*	MEDIUM DECIDUOUS TREE (2" CALIPER)	12
	SMALL DECIDUOUS TREE (2" CALIPER)	7
紧	ORNAMENTAL DECIDUOUS TREE (2" CALIPI	ER) 6
	EVERGREEN TREE (6' TALL)	2
*	DECIDUOUS SHRUBS	90
*	PERENNIAL FLOWER	94
	707	TAL = 223

LANDSCAPING NOTES

CLIMAX FOREST PRESERVATION NOTE (PER 29 - 4.4(c)(1)) EXISTING CLIMAX FOREST = 0 SF

LANDSCAPED AREA NOTE (PER 29-4.4(c)(2))
LANDSCAPED AREA REQUIRED = 25,679 (15% OF TOTAL AREA)

LANDSCAPED AREA PROVIDED = 76,644 (44.8% OF TOTAL AREA)

LANDSCAPING NOTES

1. ALL PLANT MATERIAL SHALL BE (PER 29-4.4(c)(3 & 4)):

a. HARDY TO CENTRAL MISSOURI (USDA HARDINESS ZONE 5B) b. FREE OF DISEASE AND INSECTS

c. CONFORMING TO AMERICAN STANDARD FOR NURSERY STOCK OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

2. ALL NON—PAVED AREAS SHALL RECEIVE THE FOLLOWING:

a. PERIMETER LANDSCAPED AREAS: MIN 8" OF TOPSOIL.

b. INTERIOR LANDSCAPED ISLANDS: MIN. 15" OF TOPSOIL.

c. THE SITE CONTRACTORS SHALL BE RESPONSIBLE TO PROVIDE FINISHED GRADE TO THIS SUBGRADE.

3. NO LESS THAN 50% OF LANDSCAPED AREA MUST BE COVERED WITH LIVE PLANTS, NOT MULCH, BARK, GRAVEL, ETC

4. PLANTING MATERIALS SHALL BE OF THE FOLLOWING MINIMUM SIZE (PER 29-4.4(C)(4)):

a. LARGE DECIDUOUS SHADE TREES (MATURE HEIGHT >45') = 2" CALIPER

b. MEDIUM DECIDUOUS SHADE TREES (MATURE HEIGHT 30'-45') = 2" CALIPER

b. MEDIUM DECIDUOUS SHADE TREES (MATURE HEIGHT 30'-45') = 2" CALIPER c. SMALL DECIDUOUS SHADE TREES (MATURE HEIGHT 20'-30') = 4' IN HEIGHT

c. SMALL DECIDUOUS SHADE TREES (MATURE HEIGHT 20'-30') = 4' IN H. d. ORNAMENTAL TREE (MATURE HEIGHT <20') = 4' IN HEIGHT

e. CONIFER = 6' IN HEIGHT f. SHRUBS = 5-GAL CONTAINER

g. GROUND COVER = APPROPRIATE FOR 50% COVERAGE WITHIN 2 GROWING SEASONS
h. GRASS, SEED, SOD = >80% PURE LIVE SEED, 99% WEED FREE
5. PLANTINGS SHALL NOT BE PLACED CLOSER THAN 4' FROM THE FENCE OR PROPERTY LINE, UNLESS NOTED

 PLANTINGS SHALL NOT BE PLACED CLOSER THAN 4' OTHERWISE ON THE PLANS (PER 29-4.4(C)(7))

6. SNOW STORAGE SHALL NOT OCCUR IN BUFFER AREAS (PER 29-4.4(C)(8))

7. OUTDOOR SCREENING PER 29—4.4(C)(9)): NOT APPLICABLE
8. ROOFTOP MECHANICAL UNIT SCREENING (PER 29—4.4(C)(10)): NOT APPLICABLE
9. SIGHT TRIANGLE (PER 29—4.4(C)(11)): NO PLANTINGS WITH MATURE HEIGHTS TALLER THAN 18 INCHES SHALL BE
PLACED WITHIN THE DEFINED SIGHT TRIANGLE AS SHOWN ON THE PLAN.

10. ALL TREES PLANTED IN THE RIGHT OF WAY SHALL COMPLY WITH CHAPTER 24 ARTICLE V OF THE CITY OF COLUMBIA CODE OF ORDINANCES (PER 29-4.4(C)(12)).

11. PLANTING SHALL BE COMPLETED WITHIN ONE PLANTING SEASON (SPRING TO FALL) OF THE COMPLETION OF EXTERIOR IMPROVEMENTS, OR WITHIN ONE YEAR OF THE ISSUANCE OF THE LAND DISTURBANCE PERMIT, WHICHEVER OCCURS

IMPROVEMENTS, OR WITHIN ONE YEAR OF THE ISSUANCE OF THE LAND DISTURBANCE PERMIT, WHICHEVER OCCURS LATER (PER 29-4.4(C)(13)). THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A PERFORMANCE BOND, ESCROW, LETTER OF CREDIT, OR OTHER INSTRUMENT ACCEPTABLE TO THE CITY OF COLUMBIA, TO THE CITY OF COLUMBIA AND OWNER, FOR ANY WORK NOT COMPLETED OR ACCEPTED WITHIN THIS TIME FRAME.

12. TREE PROTECTION SHALL BE REQUIRED PRIOR TO AND DURING CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES.

13. NO ACTIVITY WITH THE POTENTIAL OF CAUSING DAMAGE TO THE ROOT SYSTEM OF TREES SHALL BE ALLOWED WITHIN 20 FEET OF THE OUTSIDE OF PRESERVED, PROTECTED, OR PLANTED TREE DRIP LINE (PER 29-4.4(G)(4)).

a. ORANGE CONSTRUCTION FENCE, WITH A SIGN STATING "TREE PROTECTION — KEEP OUT" EVERY 100 FEET,

SHALL BE INSTALLED ALONG THE PERIMETER OF THE TREE PROTECTION AREA BEFORE AND THROUGHOUT CONSTRUCTION.

b. IF SITE GRADING OCCURS WITHIN 20' OF THE TREE PRESERVATION, THE PERIMETER OF THE AREA MUST BE TRENCHED TO A MINIMUM WIDTH AND DEPTH OF 2', AND ROOT PRUNED.

c. NO CONSTRUCTION, GRADING, EQUIPMENT, MATERIAL STORAGE, OR OTHER ASSOCIATED ACTIVITY SHALL BE ALLOWED WITHIN THE FENCED AREA. d. ALL TREE AND VEGETATION PROTECTION MEASURES SHALL BE INSPECTED AND APPROVED BY CITY STAFF PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITIES

14. ANY FAILURE OF THE CONTRACTOR TO FOLLOWING THESE REQUIREMENTS SHALL BE REMEDIED, AT THE
CONTRACTOR'S SOLE EXPENSE, BY ONE OF THE FOLLOWING, AS FOUND ACCEPTABLE TO THE CITY OF COLUMBIA AND
OWNER:
a. PAYMENT OF \$750 TO THE CITY OF COLUMBIA RIGHT OF WAY LANDSCAPING BUDGET PER NEW TREE REQUIRED
TO REPLACE IMPACTED TREE.

b. REPLACEMENT OF DAMAGED TREES PER 29-4.4(G)(3)(ii).

LANDSCAPING STRIP NOTE (PER 29-4.4(d))

	<u>REQUIRED</u>	<u>PROVIDED</u>
<u>STREET TREES:</u>	1/40 LF*466 LF = 12	<i>15</i>
MEDIUM:	30% OF TOTAL = 4	5
LARGE:	30% OF TOTAL = 4	<i>5</i>
SPECIES	2	<u>3</u>
TOTAL TREES	12	15

PROPERTY EDGE BUFFERING NOTE (PER 29-4.4(E)):

	<u>ZONING</u>	<u>USE</u>	<u>SCREENING LEVEL</u>	<u>BUFFER AREA</u>	<u>TREES</u>	
SUBJECT PROPERTY:	PD	MULTI-FAMILY	_	_	_	
ADJACENT PROPERTIES:						
NORTH	PD	SHARED DRIVEWAY	′ 0	0	0	
SOUTH	PD	SHARED DRIVEWAY	0	0	0	
EAST	PD	STREAM BUFFER	0	0	0	
WEST	R/W	N/A		_	_	
TOTAL	•	•			0	
		REQUIRED	PROVIDED			

PLANTING CATEGORIES: 4 N/A
COVERAGE OF STRIP: >50% N/A
OPACITY (1' TO 5' ABOVE GRADE) >80% N/A

PARKING LOT LANDSCAPING NOTE (PER 29-4.4(F)):

PARKING LOT AREA = 41,936 SQ. FT.

10% LANDSCAPE = N/A

PROVIDED = N/A

INTERIOR LANDSCAPED ISLANDS: >100 STALLS 3

INTERIOR ISLAND WIDTH: 8' 8'

SEPARATION ISLANDS: >150 STALLS 3

INTERIOR TREES (1/4,000 SF PAVEMENT) N/A 14

MEDIUM (30% OF TOTAL) N/A 8

LARGE (40% OF TOTAL) N/A 6

SEPARATION ISLAND TREES (40' SPACE) N/A 6

TOTAL TREES: 13 14

SIGNIFICANT TREES NOTE (PER 29-4.4(G)):

1. CREDIT FOR PRESERVING EXISTING MATURE/SIGNIFICANT TREES: N/A

THERE ARE NO EXISTING TREES AT THE SITE OUTSIDE THE STREAM BUFFER.

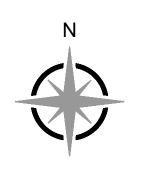
2. SIGNIFICANT TREES: N/A, THERE ARE NO SIGNIFICANT TREES AT THE SITE OUTSIDE THE STREAM BUFFER.

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0 1" SCALE: 1" = 30'

BOR E

- SPARTAN POINTE STREET ADDRESS

BENJAMIN A.
ROSS
NUMBER
E-30054

PROFESSIONAL

Benjamin a. Ros

BENJAMIN A. ROSS REGISTERED PROFESSIONAL ENGINEER E-30054

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Date

JUNE 10, 2022

Revised

Design: BAR Drawn: CGH

CONCEPTUAL LANDSCAPE PLAN

C2.01

ES&S PROJECT NO. 15507