GENERAL NOTES:

1. DESCRIPTION OF WORK:

- 1.1. DEVELOP PARKING LOTS AT 1207 E 43RD ST, 1209 E 43RD ST, AND 1204 SPRINGFIELD AVE FOR USE BY THE LEAGUE FOR PEOPLE WITH DISABILITIES
- 2. RELATED WORK:
- REMOVAL OF EXISTING PAVEMENT, SIDEWALK, CURB, OR COMBINATION CURB AND 2.1. GUTTER PER SECTION 02.41.13.16
- 2.2. SUBGRADE PREPARATION PER SECTION 31.23.13
- 2.3. HOT MIX ASPHALT PATCHES PER SECTION 32.01.17.59
- 2.4. CAST-IN-PLACE CONCRETE CURBS AND GUTTERS PER SECTION 32.16.13.13
- PERMANENT PAVEMENT MARKINGS PER SECTION 32.17.23 2.5.
- 2.6. TRAFFIC CONTROL PLAN UNDER SECTION 34.01.13.10
- STORMWATER MANAGEMENT FACILITIES 2.7.
- 2.8. LANDSCAPING
- 2.9. ELECTRICAL (LIGHTING AND SECURITY)
- 3. UNLESS OTHERWISE NOTED, ALL SITE WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE PLANS, THE ACCOMPANYING SPECIFICATIONS, THE 2006 CITY OF BALTIMORE "DPW SPECIFICATIONS FOR MATERIALS, HIGHWAYS, BRIDGES, UTILITIES AND INCIDENTAL STRUCTURES."
- 4. SOIL EROSION AND SEDIMENT CONTROL PROCEDURES, AS DEFINED IN THE BALTIMORE CITY STORMWATER MANAGEMENT MANUAL (MAY 2010) AND THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" SHALL BE STRICTLY ADHERED TO. CONTRACTOR SHALL EXERCISE CAUTION TO AVOID DAMAGE TO ALL INLETS.
- 5. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE PRIOR TO BIDDING AND START OF CONSTRUCTION. IF DISCREPANCIES ARE FOUND, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
- 6. FOR WORK WITHIN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR MUST OBTAIN PERMITS FROM THE DEPARTMENT OF GENERAL SERVICES PERMITS DIVISION, ABEL WOLMAN MUNICIPAL BUILDING, 1ST FLOOR, 200 NORTH HOLLIDAY STREET, BALTIMORE, MARYLAND, 21202, PHONE (410)396-6865 OR (410)396-4508.
- 7. SAFE PEDESTRIAN AND VEHICLE ACCESS TO HOMES AND BUSINESSES SHALL BE MAINTAINED AT ALL TIMES.
- 8. STREET SIGNS ARE TO REMAIN OR BE RESTORED TO ORIGINAL CONDITION OR BETTER. STREET SIGNS SHALL BE REPLACED IMMEDIATELY AFTER AREA IS BACKFILLED AND NO LATER THAN CLOSE OF EACH WORKDAY, EVEN IF REPLACEMENT IS ONLY TEMPORARY.
- 9. CONTRACTOR SHALL PERMANENTLY STABILIZE ANY AREAS DISTURBED BY CONSTRUCTION. STORAGE, OR VEHICULAR MOVEMENT. THIS INCLUDES ANY INCIDENTAL ACTIVITIES NOT SHOWN ON THE DRAWINGS BUT ASSOCIATED WITH WORK. SOIL SHALL BE PREPARED AND SEEDED IN ACCORDANCE WITH THE PLAN SPECIFICATIONS.

LEAGUE FOR PEOPLE SATELLITE PARKING LOT

SITE PLAN REVIEW COMMITTEE

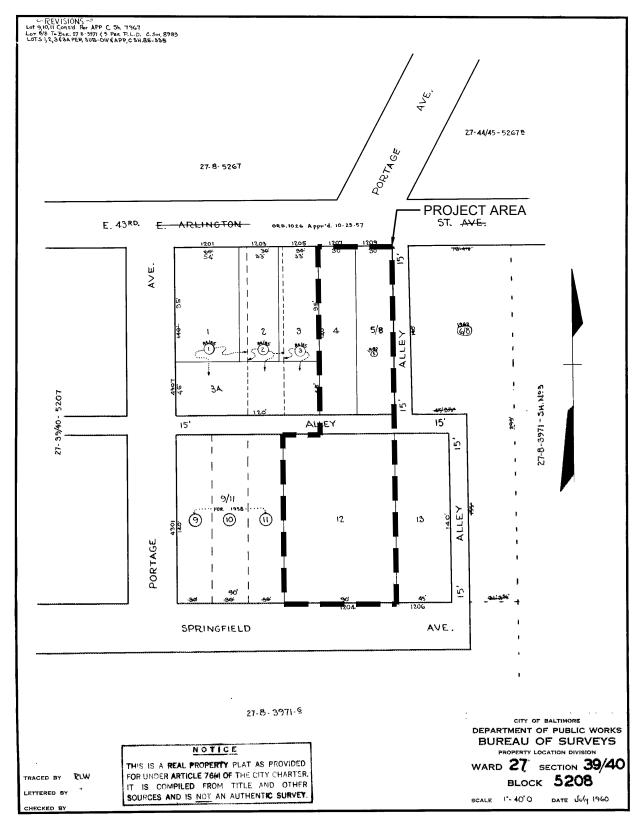
ESD # 8173

BCNR-10035



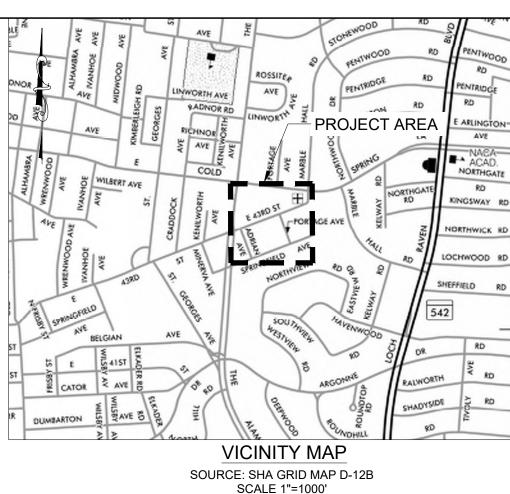
03/15/2022

PROJECT INFORMATION: OWNER: LEAGUE FOR PEOPLE WITH DISABILITIES ADDRESS: 1207 & 1209 E 43RD ST AND 1204 SPRINGFIELD AVE WATERSHED: JONES FALLS WARD: 27 **SECTION: 39** BLOCK: 5208 LOTS: 4, 5, 12 ZONING: R-5



Sheet N
C-0
C-1
C-1
C-2
FSD-
FSD-
L-1
L-2
L-3
L-3
L-3
SLF

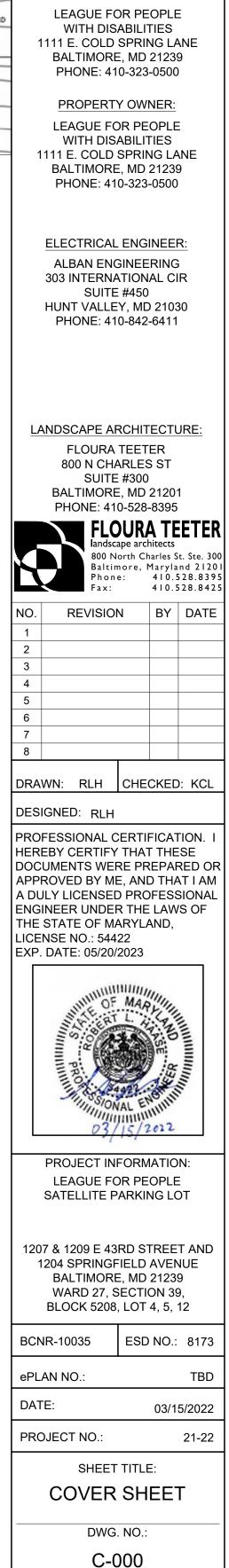
TOTAL PR TOTAL DIS TOTAL CU TOTAL FIL NET CUT N CUT/FILL F



SHEET LIST TABLE						
lumber	SHEET TITLE					
00	COVER SHEET					
00	OVERALL EXISTING CONDITIONS PLAN					
01	EXISTING CONDITIONS PLAN					
00	SITE PLAN					
-001	SIMPLE FOREST STAND DELINEATION					
002	FOREST CONSERVATION PLAN					
00	LANDSCAPE PLAN					
00	PLANTING DETAILS					
00	SPECIFICATIONS					
01	SPECIFICATIONS					
02	SPECIFICATIONS					
P-1	SITE PLAN PHOTOMETRICS					

GRADING SUM	MARY
ROPERTY AREA	0.48 AC
STURBED AREA	0.51 AC. (22,200 SF)
JT	165 CY
LL	102 CY
MATERIAL	63 CY
RATIO	1.62

DATA IS APPROXIMATE AND IS PROVIDED FOR BALTIMORE CITY REVIEW ONLY. CONTRACTOR TO VERIFY DATA AND NOTIFY ENGINEER OF ANY DISCREPANCIES.



ENGINEER:

CITYSCAPE ENGINEERING, LLC

3000 CHESTNUT AVE

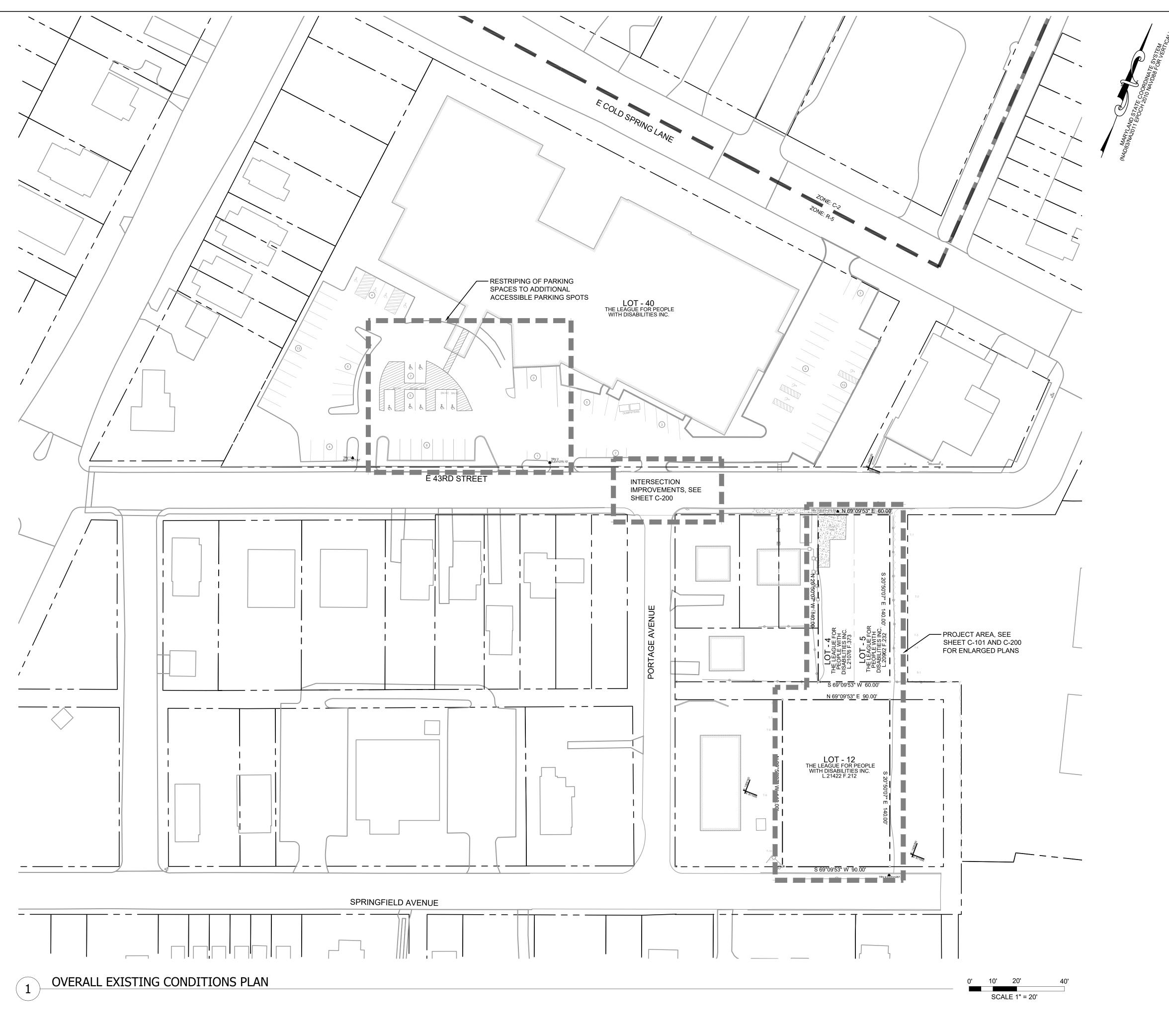
SUITE #112

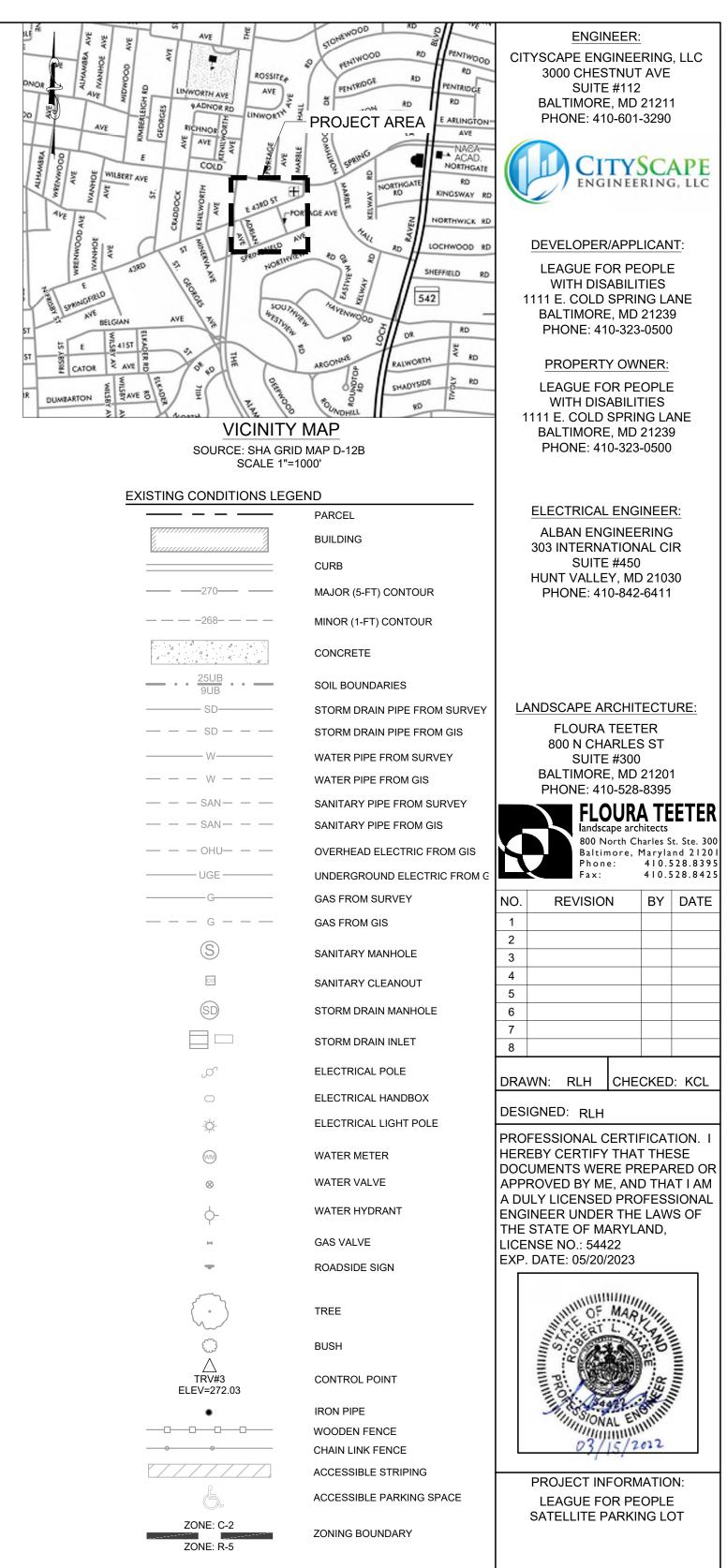
BALTIMORE, MD 21211 PHONE: 410-601-3290

DEVELOPER/APPLICANT

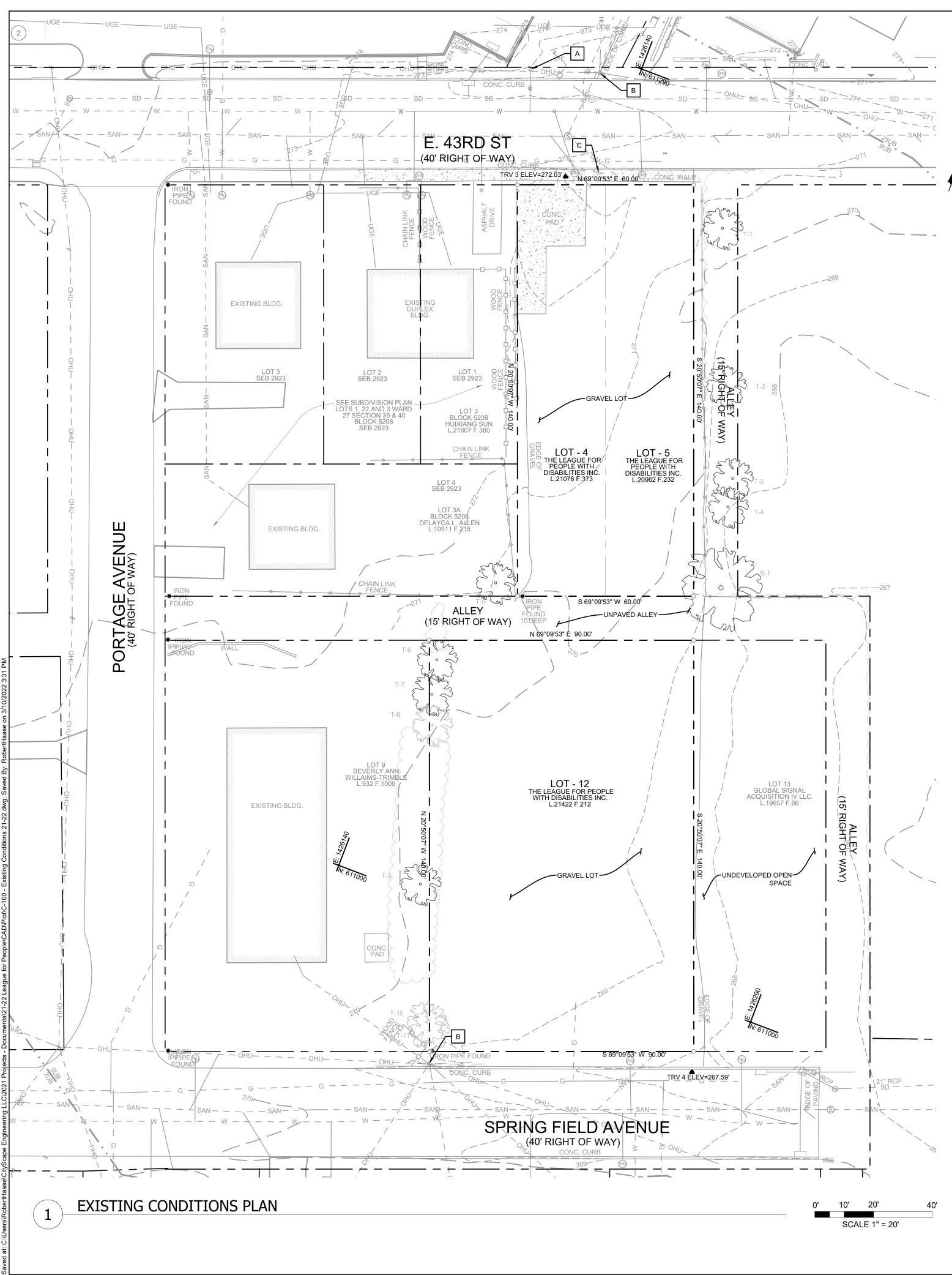
CITYSCAP

ENGINEERING, LL





UNINIUM 03					
PROJECT IN LEAGUE FO SATELLITE P	FORMATION: DR PEOPLE				
1207 & 1209 E 43RD STREET AND 1204 SPRINGFIELD AVENUE BALTIMORE, MD 21239 WARD 27, SECTION 39, BLOCK 5208, LOT 4, 5, 12					
BCNR-10035	ESD NO.: 8173				
ePLAN NO.:	TBD				
DATE:	03/15/2022				
PROJECT NO.:	21-22				
SHEET TITLE: OVERALL EXISTING CONDITIONS PLAN					
DWG. NO.:					
C-1	100				



Paper Size: ANSI full bleed D (34.00 x 22.00 Inches)

SURVEY NOTES:

3.

1. A TOPOGRAPHIC AND BOUNDARY SURVEY WAS PERFORMED ON OR AROUND

DECEMBER 2021 BY PRECISION SURVEY AND MAPPING LLC. 2. THE LOCATION OF IMPROVEMENTS SHOWN HEREON ARE DERIVED FROM MARYLAND COORDINATE SYSTEM (NAV83/NA2011 EPOCH 2010) & NAVD88 FOR VERTICAL:

Point	No. Northing	(Y) Easting(X)	Elev	(Z) Description
1	611143.89	1425732.73	277.82	REBAR AND CAP
2	611198.99	1425888.65	275.13	MAG NAIL SET
3	611246.64	1426128.81	272.03	MAG NAIL SET
4	610976.99	1426277.43	267.59	MAG NAIL SET
SITE	DATA:			

WARD 27 - SECTION 39 - BLOCK 5208 - LOT 4, 5, 12

OWNERSHIP:	THE LEAGUE FOR PEOPLE WITH DISABILITIES LLC.

L.21076 F.373, L.20962 F.232, L.21422 F.212 DEEDS

ADDRESSES: 1207 & 1209 E 43RD STREET, BALTIMORE, MARYLAND 21239

1204 SPRINGFIELD AVENUE, BALTIMORE, MARYLAND 21239

- 5. THE SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT.
- 6. UTILITY INFORMATION SHOWN HEREON IS BASED ON ABOVE-GROUND LOCATIONS, PAINT MARKINGS AND PLANS FROM BALTIMORE CITY MARYLAND.
- 7. THIS PLAN HAS BEEN SUPPLEMENTED WITH GIS DATA AVAILABLE FROM BALTIMORE CITY, MARYLAND.

8. ADDITIONAL INFORMATION SHOWN HEREON IS BASED ON INFORMATION PREPARED BY CITYSCAPE ENGINEERING, LLC.

UTILITY NOTES:

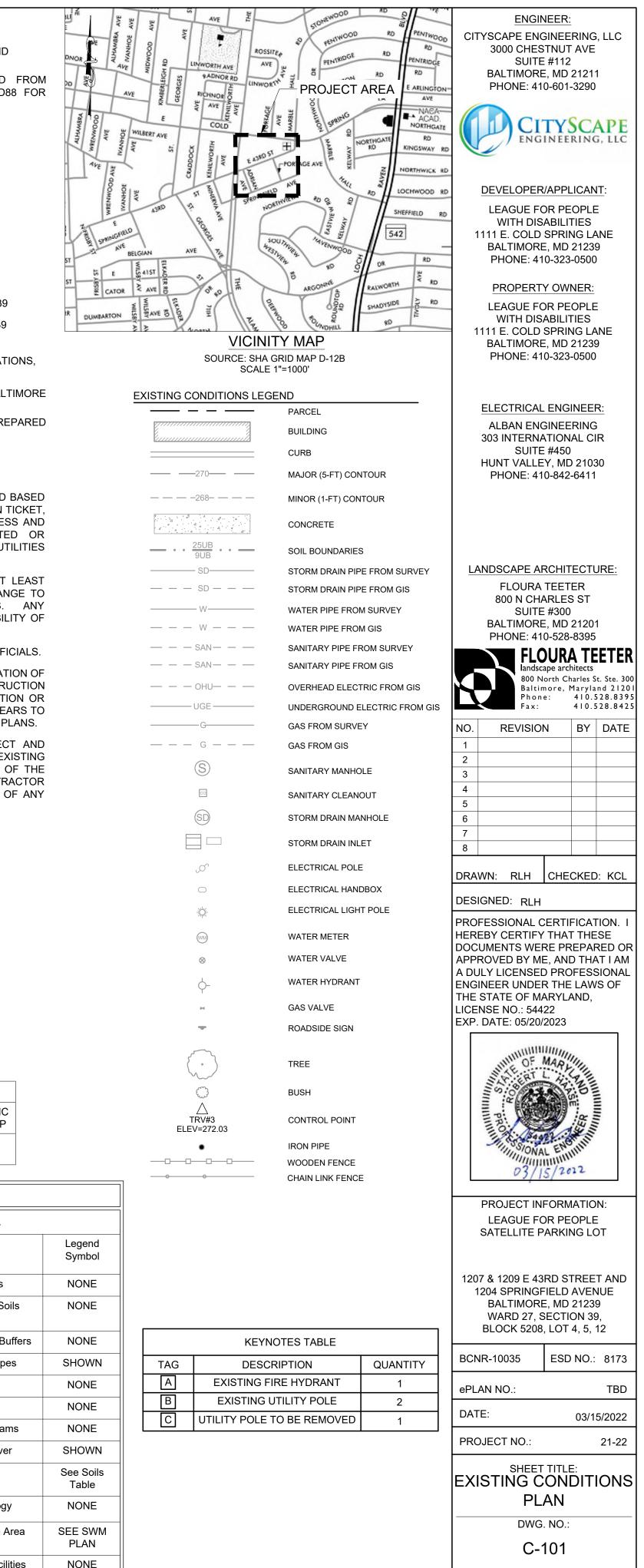
- 1. SUBSURFACE UTILITY LOCATIONS SHOWN ON THIS PLAN WERE ESTIMATED BASED ON OBSERVED SURFACE MARKERS, RESULTS OF THE MISS UTILITY DESIGN TICKET. AND UTILITY PLANS PROVIDED BY UTILITY COMPANIES. THE CORRECTNESS AND COMPLETENESS OF THE UTILITY INFORMATION IS NOT WARRANTED OR GUARANTEED. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- 2. THE CONTRACTOR SHALL CONTACT MISS UTILITY AT 1-800-257-7777 AT LEAST THREE WORKING DAYS PRIOR TO STARTING WORK SO THEY CAN ARRANGE TO MARK THE HORIZONTAL LOCATION OF THEIR UNDERGROUND UTILITIES. ANY PERMITS OR COST ASSOCIATED WITH MISS UTILITY ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- 3. ALL WORK SHALL BE SUBJECT TO INSPECTION BY UTILITY DEPARTMENT OFFICIALS.
- 4. CONTRACTOR SHALL CONDUCT TEST PITS TO VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY, IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLAN, IF THERE APPEARS TO BE A CONFLICT, OR UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLANS.
- 5. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT AND MAINTAIN UNINTERRUPTED UTILITY SERVICE. ANY DAMAGE TO EXISTING STRUCTURES SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE CITY UTILITY INSPECTOR, AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DEVELOPER AND THE UTILITY OWNER OF ANY DAMAGE TO THE UTILITY.

ENVIRONMENTAL NOTES AND FEATURES

- 1. WATERSHED: JONES FALLS
- 2. ERODIBLE SOILS: N/A
- 3. BEDROCK OUTCROPS: N/A
- 4. STEEP SLOPES: N/A
- 5. 100-YEAR FLOODPLAIN: NONE PER FEMA MAP 240087004F & 2400870011F
- 6. CRITICAL AREA BOUNDARY: N/A
- 7. STREAMS/WETLANDS: N/A
- 8. FOREST CONSERVATION: YES
- 9. STORMWATER MANAGEMENT REVIEW: YES

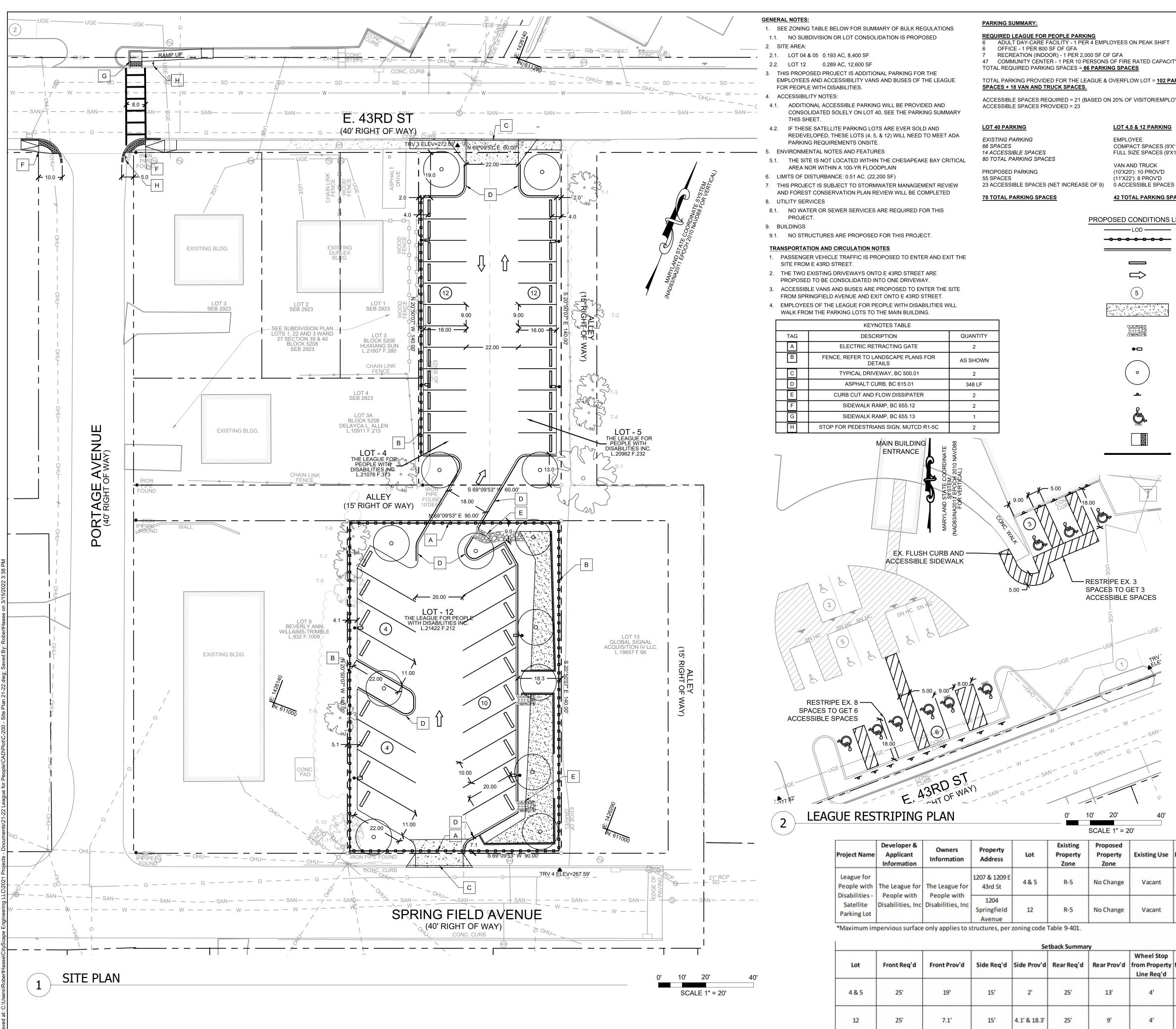
		SOIL DATA T	ABLE		
SOIL SYMBOL	SERIES DESCRIPTION	SLOPE	HYDRIC	HIGHLY ERODIBLE?	HYDROLOO SOIL GRO
9UB	ELKTON-URBAN LAND COMPLEX	0 TO 5%	Y	N	C/D

	1	INVENTORY	NATURAL RESOURCES				
LOCA			STATE	FEDERAL			
Feature	Present (Y/N)	Legend Symbol	Feature	Present (Y/N)	Legend Symbol	Feature	Present (Y/N)
Steep Slope	N	NONE	Tidal and Nontidal Wetlands	N	NONE	Wetlands	Ν
Highly Erodible	N	NONE	Wetlands of Special State Concern	N	NONE	Major Waterways	N
Enhanced Stream	Ν	NONE	Wetland Buffers	Ν	NONE	Floodplains	Ν
Topography/sl	Y	NONE	Stream Buffers	Ν			
Springs	N	NONE	Perennial Streams	Ν			
Seeps	N	NONE	Floodplains	Ν			
Intermittent Stre	N	NONE	Forests	Ν			
Vegetative Co	Y	NONE	Forest Buffers	Ν			
Soils	Y	NONE	Critical Areas	N			
Bedrock/Geol	N						
Existing Drainag	Y						
Existing SWM Fa	N						



OGIC OUP

CAL pes ole Soils am Buffers slopes treams Cover ology age Area NONE acilities



Paper Size: ANSI full bleed D (34.00 x 22.00 Inches)

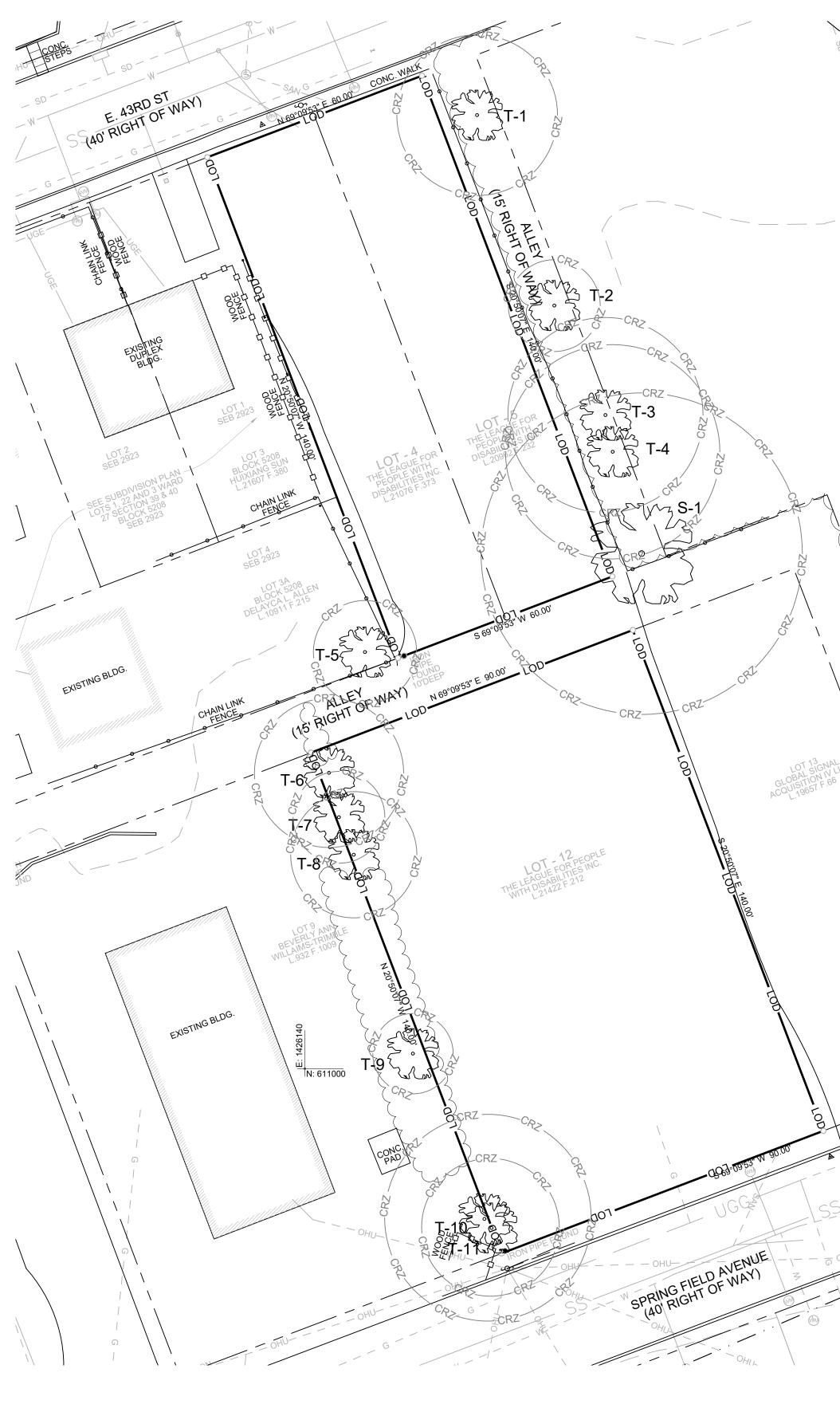
Setback Summary											
Lot	Front Req'd	Front Prov'd	Side Req'd	Side Prov'd	Rear Req'd	Rear Prov'd	Wheel Stop from Property Line Req'd	Wheel Stop from Property Line Prov'd			
4&5	25'	19'	15'	2'	25'	13'	4'	4'			
12	25'	7.1'	15'	4.1' & 18.3'	25'	9'	4'	Minimum of 5'			

N/A

N/A

							•			
	TAN	A NANHOE AVE UDWOOD AVE 4 KD AVE	AVE		PENTROGE	RD PENTWOOD RD PENTWOOD RD PENTRIDGE D RD	3	ENGINEER CAPE ENGINEE 000 CHESTNUT SUITE #112 ALTIMORE, MD	ERING, FAVE	
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	F DISTURBANCE NK FENCE	212 213	SOURCE: S	INITY MA SHA GRID MAP CALE 1"=1000'	P		BA	E. COLD SPRII ALTIMORE, MD HONE: 410-323	21239	
WHEEL S	STOP	EXISTIN	G CONDITIO	NS LEGEND						
TRAFFIC	FLOW ARROW				RCEL			ECTRICAL ENG		<u>e</u>
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PARKING		(,,,,,,						SUITE #450)	
MICRO-B FILTER A	IORETENTION REA		4 ⁴ 4	CUF	ΛD			NT VALLEY, ME HONE: 410-842		
	CURB CUT ANI			со 	NCRETE					
	OW DISSIPATER	ION	<u>25UB</u> 9UB	so	IL BOUNDARIES					
POLE MC FIXTURE	UNTED LIGHT		эов —— SD——		ORM DRAIN PIPE					
_			– – SD – –		ORM DRAIN PIPE					
	ED TREE (SEE \PE PLAN)			WA	TER PIPE FROM	I SURVEY	LAND	SCAPE ARCHIT	TECTU	RE:
	KING SIGNAGE		W		TER PIPE FROM	1 GIS	.	FLOURA TEET		
			- — SAN— —	SAI	NITARY PIPE FR	OM SURVEY		SUITE #300)	
ADA PARI STRIPING	KING SPACE		- — SAN— —	SAI	NITARY PIPE FR	OM GIS		ALTIMORE, MD HONE: 410-528		
			– — OHU— —		ERHEAD ELECT			FLOUR Iandscape arc		ETER
	BLE RAMP		UGE		DERGROUND EL S FROM SURVE			800 North Cl Baltimore,	harles St	
CROSSW	ALK STRIPING		G		S FROM GIS			Phone: Fax:		28.8395 28.8425
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			м		S VALVE ADSIDE SIGN		ENGINE	LICENSED PRO ER UNDER THE	ELAW	
			~~~~	Ko	ADGIDE GIGIN		LICENSE	TE OF MARYL NO.: 54422	AND,	
			$\langle \cdot \rangle$	TRI	EE		EXP. DA	TE: 05/20/2023		
			$\odot$	BU	SH			OF MAD	11.	
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			ELEV=272.03	IRC	ON PIPE		HIIIIIII	a a a a a a a a a a a a a a a a a a a		
					ODEN FENCE		PRO	191	EER.	
			0	CH/	AIN LINK FENCE		3h	SONAL EN	In	
								03/15/202	2	
							PR	OJECT INFORM		<u>.</u>
							LE	EAGUE FOR PE	OPLE	
							5AI	ELLITE PARKI	NG LU	
							1207 &	1209 E 43RD S	TREET	
		Maximum	Proposed				1204	SPRINGFIELD	AVEN	UE
Proposed Use	Use Permitted?	Impervious	Impervious		Proposed Lot Coverage (%)	Lot Coverage Met (%)	w	ARD 27, SECTI	ON 39	,
Principle Use	No,	Surface (%)*	Surface (%)					OCK 5208, LOT		
Parking Lot	conditional	None	80.5%	40%	80.5%	No, relief to	BCNR-1	0035 ESD	) NO.:	8173
Principle Use	is being	None	62.3%	40%	62.3%	will be sought	ePLAN I	NO.:		TBD
Parking Lot	sought						DATE:		03/15	5/2022
							PROJEC	CT NO.:		21-22
Wheel Stop		piles Parti						SHEET TITL	E:	
from Property	Bike Parking Required	Bike Parking Provided						SITE PLA	٨N	
Line Prov'd										
4'	N/A	N/A						DWG. NO.:		
								C-200		

		(

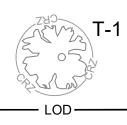


1 FOREST STAND DELINEATION PLAN

SCALE: 1" = 20'-0"

# SUMMARY TABLE (FOR PROJECT LIMITS)

# LEGEND:



EXISTING TREE WITH CRITICAL ROOT ZONE

- LOD ------ LIMIT OF DISTURBANCE

NOTE: NO SOILS LINES SHOWN, THE ENTIRE SITE AND SURROUNDING AREA CONTAINS SOIL TYPE: 9UB -ELKTON URBAN LAND, 0 TO 5 PERCENT SLOPES, NOT HYDRIC, DRAINAGE CLASS: D

NO STEEP SLOPES OR ROCK OUTCROPPINGS ARE PRESENT ON SITE.

### EXISTING TREE TABLE:

(15)

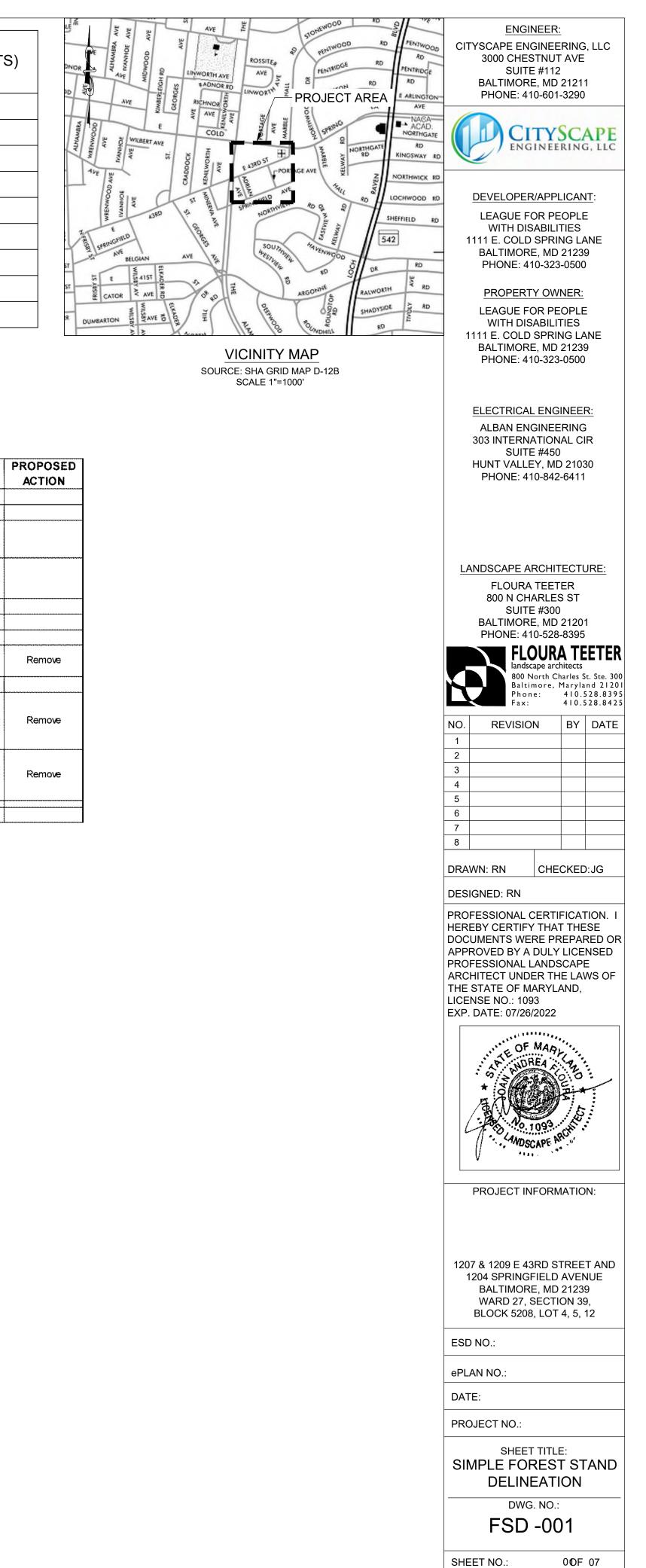
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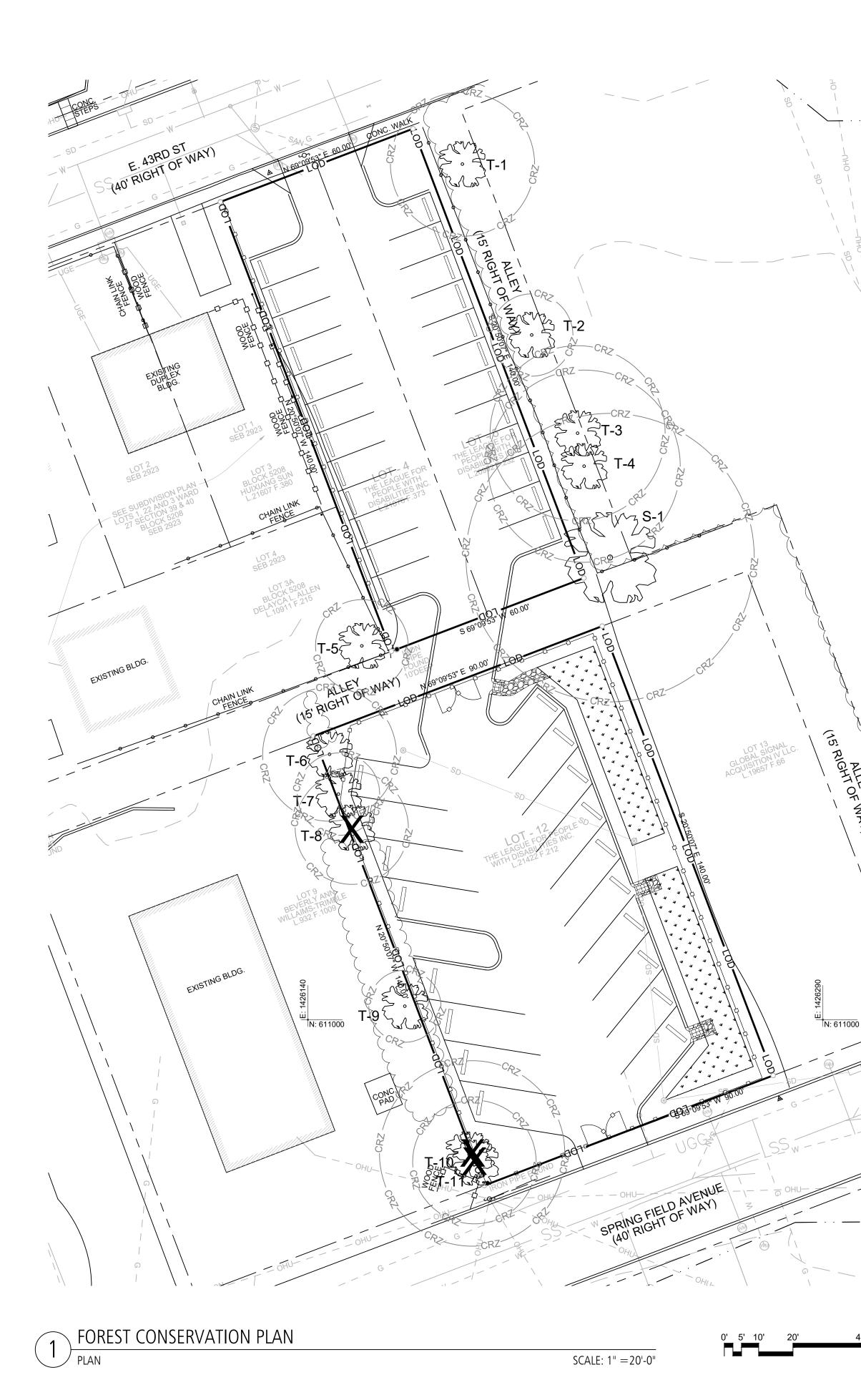
Z

N: 611000

EXISTING FOREST	0 ACRES
WETLANDS	0 ACRES
FORESTED WETLAND	0 ACRES
STREAM BUFFER	0 ACRES
FORESTED STREAM BUFFER	0 ACRES
100 YEAR FLOODPLAIN	0 ACRES
FORESTED 100 YEAR FLOODPLAIN	0 ACRES
LINEAR EXTENTS OF STREAMS	0 L.F.
AVERAGE WIDTH OF STREAM BUFFER	0 FEET

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE (DBH)	CRZ (RADIUS)	SPECIMEN TREE	CONDITION	COMMENTS
T-1	Platanus Occidentalus	Sycamore	14"	21'		Fair	Some vine coverage
T-2	Morus alba	White Mulberry	8"	12'		Good	
Т-З	Quercus ssp.	Oak Subspecies	17"	25.5'		Poor	Significant vine coverage and some dieback
T-4	Quercus ssp.	Oak Subspecies	18.5"	28'		Poor	Double stem (13" + 13") Significant vine coverage trunk leaning
T-5	Gymnocladus dioicus	Kentucky Coffee Tree	9"	13.5'		Fair	Some vine coverage
T-6	Acer platanoides	Norway Maple	13"	19.5'		Good	Double stem (9" + 9")
T-7	Acer platanoides	Norway Maple	8"	12'		Good	
T-8	Acer platanoides	Norway Maple	11"	16.5'		Poor	Significant vine coverage and dieback
T-9	Morus alba	White Mulberry	7"	10.5'		Fair	Some vine coverage
T-10	Prunus serotina	Black Cherry	18"	27'		Poor	Multi-stem Signficant vine coverage, growing with White Mulberry
Ť-11	Morus alba	White Mulberry	12"	18'		Poor	Multi-stem Signficant vine coverage, growing with Black Cherry
S-1	Acer platanoides	Norway Maple	28"	42'	X	Poor	Significant vine coverage





# SUMMARY TABLE (FOR PROJECT LIMITS)

LEGEND:
T-1
740 T-1

EXISTING TREE WITH CRITICAL ROOT ZONE

EXISTING TREE TO BE REMOVED



GE

0'Z

Z

STORMWATER PLANTING

NOTE: MITIGATION PLANTINGS WILL BE INSTALLED ON SITE IN A COMBINATION OF MAJOR TREES, MINOR TREES AND SHRUBS. SEE OVERALL PLANTING PLANS FOR PLANT SCHEDULE AND PLANTING UNIT CALCULATIONS. A TWO-YEAR GUARANTEE FOR EITHER SURVIVAL OR REPLACEMENT OF ALL PLANTINGS THAT ARE BEING USED TO MEET FOREST CONSERVATION REQUIREMENTS WILL BE ENFORCED.

EXISTING FOREST	0 ACRES
WETLANDS	0 ACRES
FORESTED WETLAND	0 ACRES
STREAM BUFFER	0 ACRES
FORESTED STREAM BUFFER	0 ACRES
100 YEAR FLOODPLAIN	0 ACRES
FORESTED 100 YEAR FLOODPLAIN	0 ACRES
LINEAR EXTENTS OF STREAMS	0 L.F.
AVERAGE WIDTH OF STREAM BUFFER	0 FEET

NOTE: NO SOILS LINES SHOWN, THE ENTIRE SITE AND SURROUNDING AREA CONTAINS SOIL TYPE: 9UB -ELKTON URBAN LAND, 0 TO 5 PERCENT SLOPES, NOT HYDRIC, DRAINAGE CLASS: D

NO STEEP SLOPES OR ROCK OUTCROPPINGS ARE PRESENT ON SITE.

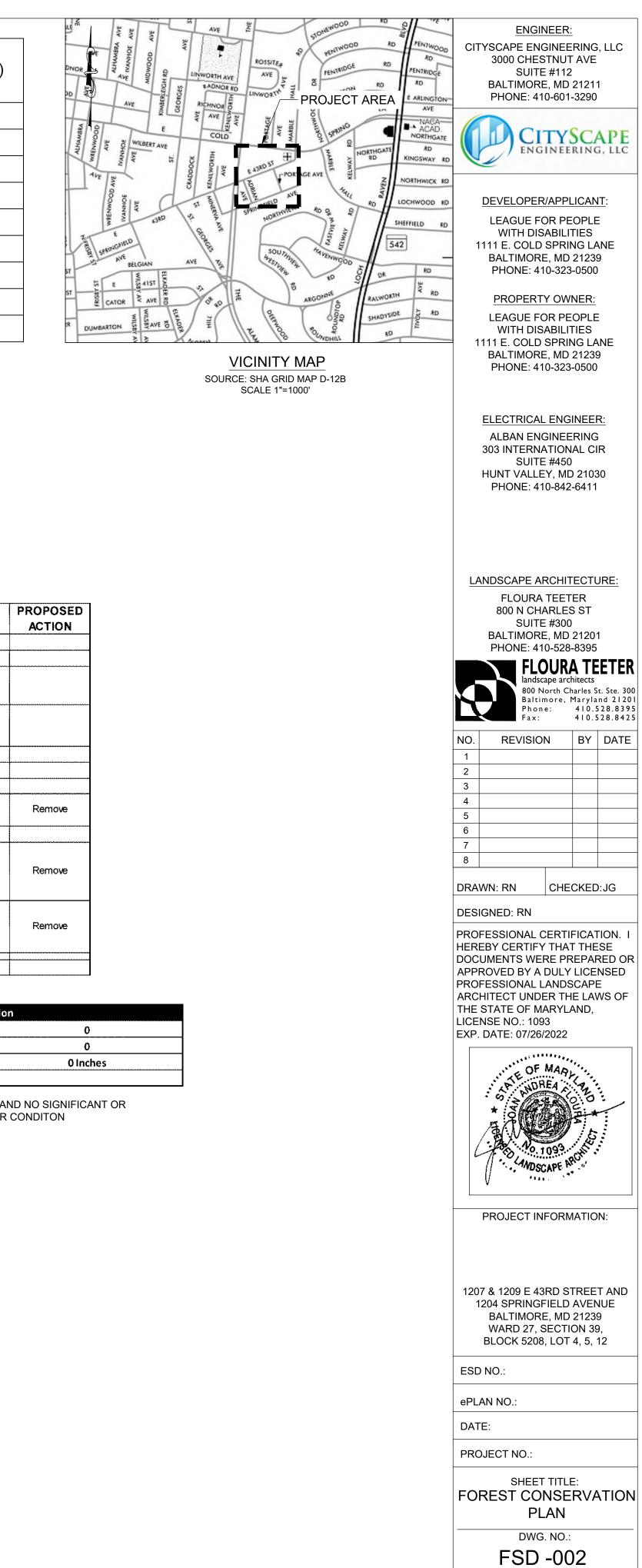
# EXISTING TREE TABLE:

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE (DBH)	CRZ (RADIUS)	SPECIMEN TREE	CONDITION	COMMENTS
T-1	Platanus Occidentalus	Sycamore	14"	21'		Fair	Some vine coverage
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Т-3	Quercus ssp.	Oak Subspecies	17"	25.5'		Poor	Significant vine coverage and some dieback
⊺-4	Quercus ssp.	Oak Subspecies	18.5"	28'		Poor	Double stem (13" + 13") Significant vine coverage trunk leaning
T-5	Gymnocladus dioicus	Kentucky Coffee Tree	9"	13.5'		Fair	Some vine coverage
T-6	Acer platanoides	Norway Maple	13"	19.5'		Good	Double stem (9" + 9")
<b>T-</b> 7	Acer platanoides	Norway Maple	8"	12'		Good	
T-8	Acer platanoides	Norway Maple	11"	16.5'		Poor	Significant vine coverage and dieback
Ť-9	Morus alba	White Mulberry	7"	10.5'		Fair	Some vine coverage
T-10	Prunus serotina	Black Cherry	18"	27'		Poor	Multi-stem Signficant vine coverage, growing with White Mulberry
T-11	Morus alba	White Mulberry	12"	18'		Poor	Multi-stem Signficant vine coverage, growing with Black Cherry
S-1	Acer platanoides	Norway Maple	28"	42'	X	Poor	Significant vine coverage

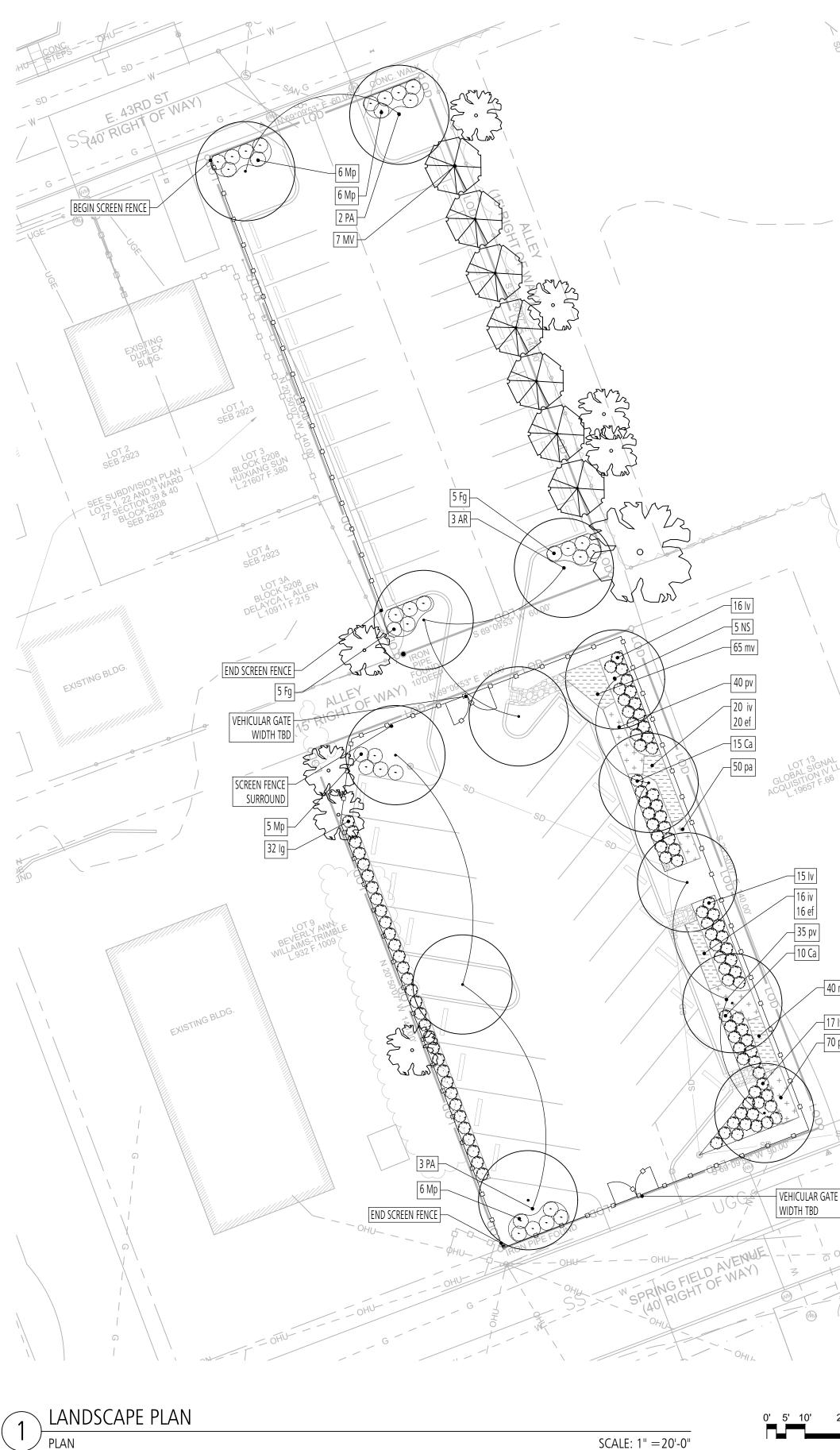
		FOREST	CONSERVA	TION WO	RKSHEET		
Net Tract			-				Acres
	A. Total T		-				0.50
	B. Deduct						0.00
	C. Net Tra	act Area					0.50
Land Use							
		tation Thre				15%	0.08
	E. Consei	vation Thre	shold			20%	0.10
Existing F	orest Cove	er					
	F. Existin	g Forest C	over w/in Ne	t Tract Are	a		0.00
	G. Area o	f Forest At	ove Consen	ation Three	shold		0.00
Breakeve	n Point						
	H. Breake	wen Point					0.00
	I. Forest (	Clearing Pe	rmitted With	nout Mitigat	tion		0.00
Proposed							
	J. Total A	rea of Fore	st to be Clea	ared			0.00
	K. Total A	rea of Fore	st to be Reta	ained			0.00
Planting F	Requireme	ents					
	the second se	and the second se	Clearing Ab	we the Cor	servation T	hreshold	0.00
			Clearing Bel				0.00
			on Above the				0.00
			n Required	- oone on a	ion neocia		0.00
-			n Required				0.08
	a, rotarr		ulasfor M	0	-for P	0.00	0.00
R. Total F	Planting R		and for m	0	INT I	0.00	0.08

Baltimo	re City Tree Mitigatio
<b>ROW Tree Mitigation Required</b>	
Specimen Tree Mitigation Required	
Total Mitigation Needed	

NOTE: NO TREES WITHIN PUBLIC ROW WILL BE REMOVED, AND NO SIGNIFICANT OR SPECIMEN TREES BEING REMOVED ARE IN FAIR OR BETTER CONDITON



HEET NO.:	02 OF 07
-	



### LEGEND:

EXISTING TREE STREET TREE ٠ SHRUB STORMWATER PLANTING

TREES Symbol Quantity Botanical Name Common Name Size 3 Acer rubrum Red Maple 2.5" cal. AR PA 5 *Platanus x acerifolia* London Plane Tree 2.5" cal. NS 5 *Nyssa sylvatica* Black Gum 2.5" cal. 1.5" cal. MV 7 *Magnolia virginana* Sweetbay Magnolia

PLANT SCHEDULE:

			SHRUBS & ACCENT PLANTS						
	•	STREET TREE	Symbol	Quantity	Botanical Name	Common Name	Size	Notes	
			Ca	25	Clethra alnifolia	Sweet Pepperbush	24" Ht.	#3 CG	
			Fg	19	Fothergilla gardenii	Dwarf Fothergilla	24" Ht.	#3 CG	
			lg	32	llex glabra	Inkberry	36" Ht.	#5 CG	
	(-)	SHRUB						#3 CG 1 Male	
			Ív	48	<i>llex verticillata '</i> Red Sprite'	Winterberry	24" Ht.	'Jim Dandy' per each 10 shrubs	
			Мр	23	Myrica pensylvanica 'Morton'	Dwarf Bayberry	36" Ht.	#5 CG	
		STORMWATER PLANTING	G PERENNIALS, GRASSES & GROUNDCOVERS						
			Symbol	Quantity	Botanical Name	Common Name	Size	Notes	
			ef	36	Eupatorium fistulosum	Joe Pye Weed	#1	18" OC	
NOTE: ALL DISTURBED AREAS NOT DESIGNATED AS EITHER PLANTING BED OR HARDSCAPE SHALL BE SEEDED WITH TURF SEED - SEE DETAIL 1/L-200			iv	36	Iris versicolor	Blue Flag	#1	18" OC	
			mv	105	Mertensia virginica	Virginia bluebells	#1	15" O.C.	
			ра	120	Packera aurea	Golden ragwort	#1	12º O.C.	
			pv	75	Panicum virgatum 'Heavy Metal'	Switchgrass	#1	18" OC	

Condition	Areas on site	PU REQ	Rate	
G Parking (Perimeter Trees)	430' of perimeter*	13 PU Maj. Trees	1 PU per 35 LF	
G Parking (Perimeter Shrubs)	430' of perimeter*	22 PU Shrubs	1 PU per 20 LF	
G Parking (Interior)	1,375 SF Reserved Planting**	7 PU Varies	1 PU per 200 SF	
Overall Total PU requireme	nts	42		
Total PU Major Trees Provid	ded	13		
Total PU Minor Trees Provi	ded	3		
Total PU Shrubs Provided		24		
Total PU Perennials Provide	18			
Total PU Provided	58			

*150 LF adjacent developed ROW + 280 LF adjacent Residential **Total Parking Area 13,750 sf

Afforestation Requirement				
Afforestation Required	0.08 Acres or 8 Trees			
Total PU Major Trees Provided at 2.5" Cal.	8			
Total PU Minor Trees Provided	0			
Total PU Shrubs Provided	0			
Total PU Provided	8			

## PLANTING NOTES:

1. ALL PLANT MATERIAL SHALL CONFORM TO THE SIZES GIVEN IN THE PLANT SCHEDULE AND SHALL BE NURSERY GROWN IN ACCORDANCE WITH THE "AMERICAN STANDARDS FOR NURSERY STOCK. ANSI260.1-2004" LATEST EDITION PREPARED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, 230 SOUTHERN BUILDING, WASHINGTON, D.C. 20005.

2. CONTRACTOR MUST VERIFY THE CORRECT LOCATION OF ANY EXISTING UTILITIES WHICH ARE UNDERGROUND, PRIOR TO PLANT INSTALLATION. THE CONTRACTOR SHALL CALL MISS UTILITY (1-800-257-7777) A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND REQUIREMENTS FOR CONSTRUCTION.

3. ALL PLANT BEDS SHALL BE MULCHED WITH A 2" LAYER OF MULCH WITHIN TWO DAYS AFTER PLANTING. THIS SHALL BE SHREDDED HARDWOOD BARK, AND SHALL COVER ENTIRELY THE PLANTING BED.

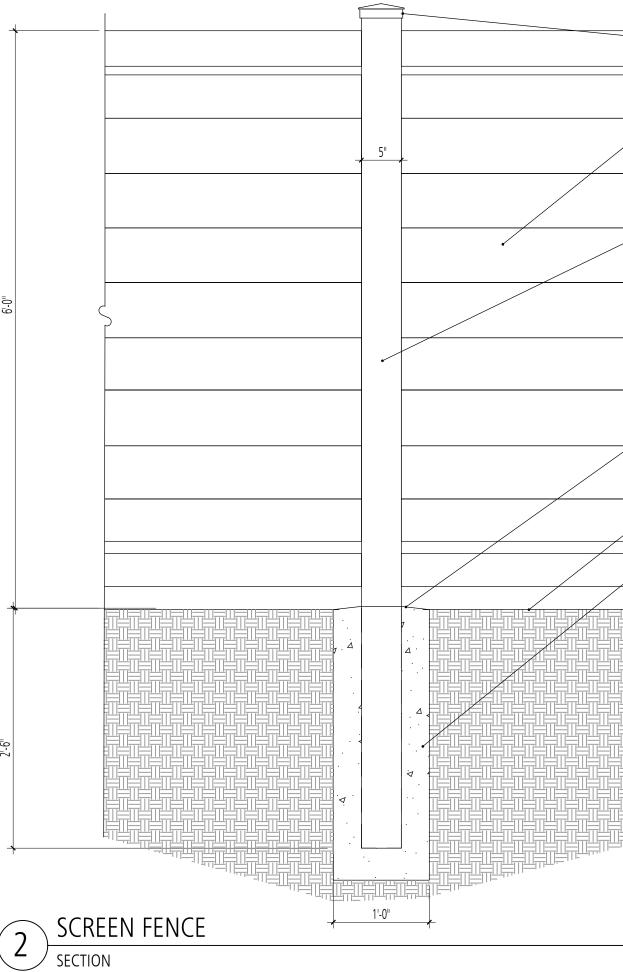
4. ALL PLANTS SHALL BE GUARANTEED TO REMAIN ALIVE AND HEALTHY FOR A PERIOD OF TWO FULL YEARS AFTER INITIAL ACCEPTANCE. ANY REPLACEMENT PLANTS, REQUIREMENTS, ETC. AND METHOD OF PLACING SHALL COMPLY WITH THE REQUIREMENTS SPECIFIED HEREIN, WITHIN THE SPECIFICATIONS, AND ON THE DRAWINGS. TREES FOUND TO BE DEAD OR IN POOR HEALTH MUST BE REPLACED DURING THE CURRENT OR NEXT PLANTING SEASON.

5. EXISTING SOIL IN PLANTING BED AREAS SHALL BE AMENDED TO A MINIMUM DEPTH OF 12" PER THE SOIL PLACEMENT SPECIFICATIONS.

ARCHITECT BEFORE INSTALLATION.

7. WHERE THE CONDITION EXISTS THAT THE BALLED AND BURLAPPED TREES ARE DELIVERED IN WIRE BASKETS, THE WIRE BASKETS SHALL BE REMOVED ENTIRELY. NO PORTION OF THE WIRE BASKET SHALL REMAIN INTACT AROUND THE SIDES OF THE ROOTBALL OR EXTEND ABOVE FINISHED GRADE.

OTHERWISE NOTED.





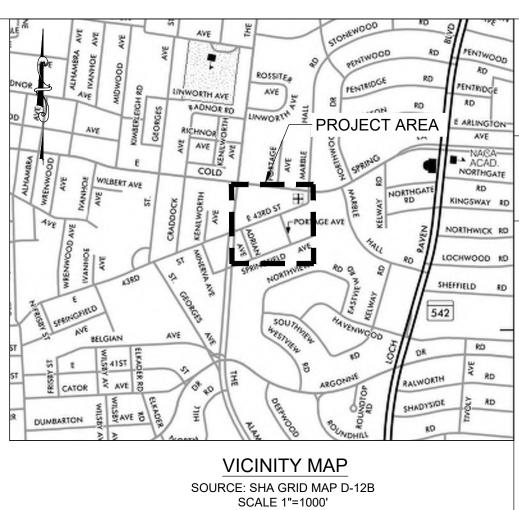
Notes

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6. PLANT MATERIAL AVAILABILITY MAY VARY AT THE TIME OF CONSTRUCTION. ANY SUBSTITUTIONS ARE TO BE OF EQUIVALENT TYPE AND SIZE (OR LARGER), AND MUST BE APPROVED BY LANDSCAPE

8. ANY DAMAGE TO THE EXISTING UTILITIES, BUILDINGS, PAVING, CURBS, WALLS, VEGETATION AND ANY OTHER EXISTING FEATURES NOT DESIGNATED FOR REMOVAL ON THESE PLANS, SHALL BE REPAIRED TO PREVIOUS CONDITION OR REPLACED BY THE CONTRACTOR AT THE HIS OR HER EXPENSE. ALL AREAS DISTURBED DURING CONSTRUCTION ARE TO BE SODDED PER THE PLANS AND SPECIFICATION UNLESS

1		
	STANDARD POST CAP PER MANUFACTURER	
	BUFFTECH BROOKLINE VINYL PRIVACY FENCE 6' HEIGHT COLOR: WHITE	
	O.C. POST SPACING AS PER MANUFACTURER'S RECOMMENDATIONS	
	SLOPE TOP OF FOOTING TO PROVIDE POSITIVE DRAINAGE. FILL WITH WATERPROOF, NONSHRINK GROUT.	
	ADJACENT TURF	
	POURED CONCRETE FOUNDATION FOLLOW MANUFACTURER'S RECOMMENDATIONS	
	NOTE: PRIOR TO BEGINNING WORK OR ORDERING SUPPLIES, CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY A STRUCTURAL ENGINEER FOR APPROVAL BY LANDSCAPE ARCHITECT. SHOP DRAWINGS SHALL INCLUDE DETAILED INFORMATION FOR ALL COMPONENTS, INCLUDING BUT NOT LIMITED TO, FOUNDATIONS, REINFORCING, FASTENERS, AND SEALANTS.	
	SCALE: 1"=1'-0"	

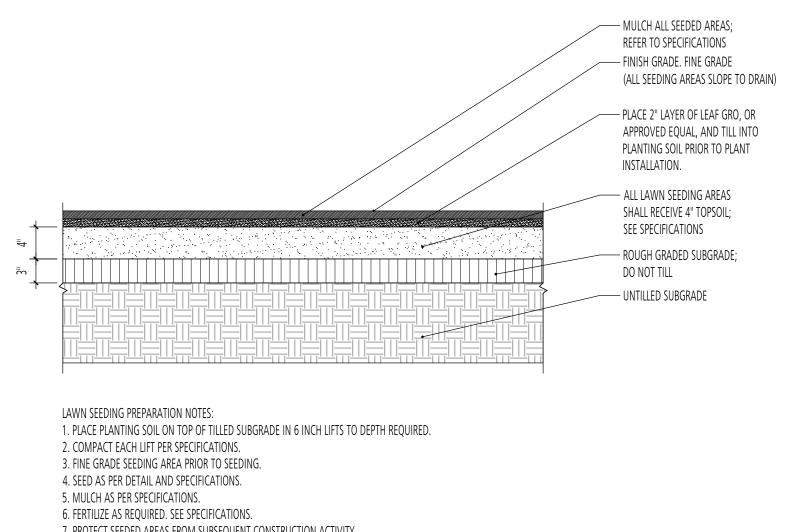
ENGINEER: CITYSCAPE ENGINEERING, LLC 3000 CHESTNUT AVE SUITE #112 BALTIMORE, MD 21211 PHONE: 410-601-3290 CITYSCAPE ENGINEERING, LLC DEVELOPER/APPLICANT: LEAGUE FOR PEOPLE WITH DISABILITIES 1111 E. COLD SPRING LANE BALTIMORE, MD 21239 PHONE: 410-323-0500 PROPERTY OWNER: LEAGUE FOR PEOPLE WITH DISABILITIES 1111 E. COLD SPRING LANE BALTIMORE, MD 21239 PHONE: 410-323-0500 ELECTRICAL ENGINEER: ALBAN ENGINEERING 303 INTERNATIONAL CIR SUITE #450 HUNT VALLEY, MD 21030 PHONE: 410-842-6411 LANDSCAPE ARCHITECTURE: FLOURA TEETER 800 N CHARLES ST SUITE #300 BALTIMORE, MD 21201 PHONE: 410-528-8395 FLOURA TEETER ndscape architects 800 North Charles St. Ste. 300 Baltimore, Maryland 21201 Phone: 410.528.8395 410.528.8425 ax: NO. REVISION BY DATE 2 3 4 5 6 7 8 DRAWN: RN CHECKED: JG DESIGNED: RN PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO.: 1093 EXP. DATE: 07/26/2022 AF MA **PROJECT INFORMATION:** 1207 & 1209 E 43RD STREET AND 1204 SPRINGFIELD AVENUE BALTIMORE, MD 21239 WARD 27, SECTION 39, BLOCK 5208, LOT 4, 5, 12 ESD NO.: ePLAN NO.: DATE: PROJECT NO .:

SHEET TITLE:

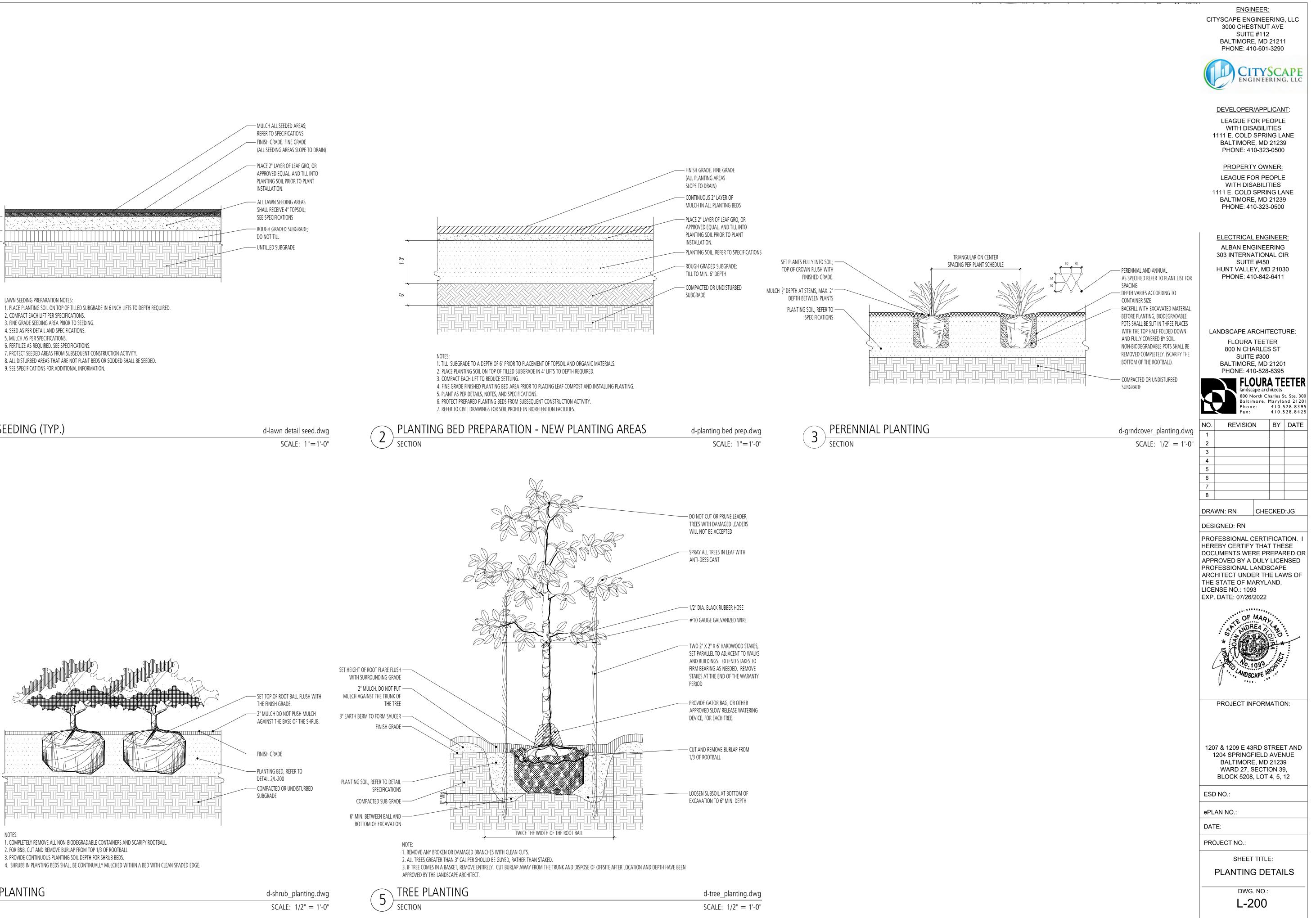
LANDSCAPE PLAN

DWG. NO.: L-100

SHEET NO .: 03 OF 07



LAWN SEEDING (TYP.) SECTION







TREE PLANTING	
SECTION	

04 OF 07 SHEET NO .:

#### **SECTION 329113**

#### SOIL PREPARATION

#### PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- 1.2 SUMMARY
- A. Section includes planting soils specified by composition of the mixes.
- B. Related Requirements:
- 1. Section 32 9300 "Plants" for placing planting soil for plantings.
- 1.3 ALLOWANCES
- A. Preconstruction and field quality-control testing are part of testing and inspecting allowance.
- 1.4 UNIT PRICES
- B. Work of this Section is affected by unit prices specified in Section 012200 "Unit Prices."
- 1.5 DEFINITIONS
- C. Backfill: The earth used to replace or the act of replacing earth in an excavation. This can be amended or unamended soil as indicated.
- D. CEC: Cation exchange capacity.
- E. Compost: The product resulting from the controlled biological decomposition of organic material that has been sanitized through the generation of heat and stabilized to the point that it is beneficial to plant growth.
- F. Imported Soil: Soil that is transported to Project site for use.
- G. Layered Soil Assembly: A designed series of planting soils, layered on each other that together produce an environment for plant growth.
- H. Manufactured Soil: Soil produced by blending soils, sand, stabilized organic soil amendments, and other materials to produce planting soil.
- I. NAPT: North American Proficiency Testing Program. An SSSA program to assist soil-, plant-, and water-testing laboratories through interlaboratory sample exchanges and statistical evaluation of analytical
- J. Organic Matter: The total of organic materials in soil exclusive of undecayed plant and animal tissues, their partial decomposition products, and the soil biomass; also called "humus" or "soil organic matter."
- K. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified as specified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- L. RCRA Metals: Hazardous metals identified by the EPA under the Resource Conservation and Recovery Act.
- M. SSSA: Soil Science Society of America.
- N. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.
- O. Subsoil: Soil beneath the level of subgrade; soil beneath the topsoil layers of a naturally occurring soil profile, typified by less than 1 percent organic matter and few soil organisms.
- P. Surface Soil: Soil that is present at the top layer of the existing soil profile. In undisturbed areas, surface soil is typically called "topsoil"; but in disturbed areas such as urban environments, the surface soil can be subsoil.
- Q. USCC: U.S. Composting Council.

If needed, insert list of conference participants not mentioned in Section 013100 "Project Management and Coordination."

#### 1.6 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- 1. Include recommendations for application and use.
- 2. Include test data substantiating that products comply with requirements.
- 3. Include sieve analyses for aggregate materials.
- 4. Material Certificates: For each type of imported soil and soil amendment and fertilizer before delivery to the site, according to the following:
- a. Manufacturer's qualified testing agency's certified analysis of standard products.
- b. Analysis of fertilizers, by a qualified testing agency, made according to AAPFCO methods for testing and labeling and according to AAPFCO's SUIP #25.
- c. Analysis of nonstandard materials, by a qualified testing agency, made according to SSSA methods, where applicable.
- B. Samples: For each bulk-supplied material, 1-gal. (4-L) volume of each in sealed containers labeled with content, source, and date obtained. Each Sample shall be typical of the lot of material to be furnished; provide an accurate representation of composition, color, and texture.

1.7 INFORMATIONAL SUBMITTALS

C. Field quality-control reports.

Coordinate "Qualification Data" Paragraph below with qualification requirements in Section 014000 "Quality Requirements" and as may be supplemented in "Quality Assurance" Article.

- A. Qualification Data: For each testing agency.
- B. Preconstruction Test Reports: For preconstruction soil analyses specified
- in "Preconstruction Testing" Article.
- 1.8 QUALITY ASSURANCE
- D. Testing Agency Qualifications: An independent, state-operated, or university-operated laboratory; experienced in soil science, soil testing, and plant nutrition; with the experience and capability to conduct the testing indicated; and that specializes in types of tests to be performed.
- 5. Laboratories: Subject to compliance with requirements, provide testing by one of the following:
- a. Penn State University Soil Lab
- b. University of Massachusetts Soil Testing Lab
- c. Virginia Tech Soil Testing Lab
- 6. Multiple Laboratories: At Contractor's option, work may be divided among qualified testing laboratories specializing in physical testing, chemical testing, and fertility testing.

#### 1.9 PRECONSTRUCTION TESTING

- E. Preconstruction Testing Service: Engage a qualified testing agency to perform preconstruction soil analyses on imported soil and manufactured soils
- 1. Notify Landscape Architect seven days in advance of the dates and times when laboratory samples will be taken.
- F. Preconstruction Soil Analyses: For manufactured soils, perform testing on soil samples and furnish soil analysis and a written report containing soil-amendment and fertilizer recommendations by a qualified testing agency performing the testing according to "Soil-Sampling Requirements" and "Testing Requirements" articles.
- 1. Have testing agency identify and label samples and test reports according to sample collection and labeling requirements.
- 1.10 SOIL-SAMPLING REQUIREMENTS
- G. General: Extract soil samples according to requirements in this article in order to establish a reference soil.
- H. Sample Collection and Labeling: Existing on-site, imported and manufactured soil.
- I. Have samples taken and labeled by state-certified, -licensed, or -registered soil scientist as directed by the testing agency.
  - 2. Number and Location of Samples: Provide one sample for every 100 CY of soils after they have been mixed and are ready to be placed on site. Procedures and Depth of Samples: According to USDA-NRCS's "Field Book for Describing and Sampling Soils."
- 3. Labeling: Label each sample with the date, location keyed to a site plan or other location system, visible soil condition, and sampling
- 1.11 TESTING REQUIREMENTS
- A. General: Perform tests on soil samples according to requirements in this article.
- B. Physical Testing:
- 1. Soil Texture: Soil-particle, size-distribution analysis by one of the following methods according to SSSA's "Methods of Soil Analysis -Part 1-Physical and Mineralogical Methods":
- a. Sieving Method: Report sand-gradation percentages for very coarse, coarse, medium, fine, and very fine sand; and fragment-gradation (gravel) percentages for fine, medium, and coarse fragments; according to USDA sand and fragment sizes.
- b. Hydrometer Method: Report percentages of sand, silt, and clay. 2. Total Porosity: Calculate using particle density and bulk density according to SSSA's "Methods of Soil Analysis - Part 1-Physical and Mineralogical Methods."
- 3. Water Retention: According to SSSA's "Methods of Soil Analysis -Part 1-Physical and Mineralogical Methods."
- 4. Saturated Hydraulic Conductivity: According to SSSA's "Methods of Soil Analysis - Part 1-Physical and Mineralogical Methods"; at 85% compaction according to ASTM D 698 (Standard Proctor).
- C. Chemical Testing:
  - 1. CEC: Analysis by sodium saturation at pH 7 according to SSSA's "Methods of Soil Analysis - Part 3- Chemical Methods."
  - 2. Clay Mineralogy: Analysis and estimated percentage of expandable clay minerals using CEC by ammonium saturation at pH 7 according to SSSA's "Methods of Soil Analysis - Part 1- Physical and Mineralogical Methods."
- 3. Phytotoxicity: Test for plant-available concentrations of phytotoxic minerals including aluminum, arsenic, barium, cadmium, chlorides, chromium, cobalt, copper, lead, lithium, mercury, nickel, selenium, silver, sodium, strontium, tin, titanium, vanadium, and zinc.

- D. Fertility Testing: Soil-fertility analysis according to standard laboratory protocol of SSSA NAPT NCR-13 SSSA NAPT NEC-67 SSSA NAPT SERA-6 SSSA NAPT WERA-103, including the following:
- 4. Percentage of organic matter.
- 5. CEC, calcium percent of CEC, and magnesium percent of CEC.
- Soil reaction (acidity/alkalinity pH value).
- 7. Buffered acidity or alkalinity.
- 8. Nitrogen ppm.
- 9. Phosphorous ppm.
- 10. Potassium ppm.
- 11. Manganese ppm.
- 12. Manganese-availability ppm.
- 13. Zinc ppm.
- 14. Zinc availability ppm.
- 15. Copper ppm.
- 16. Sodium ppm.
- 17. Soluble-salts ppm.
- 18. Presence and quantities of problem materials including salts and metals cited in the Standard protocol. If such problem materials are present, provide additional recommendations for corrective action.
- 19. Other deleterious materials, including their characteristics and content of each.
- E. Organic-Matter Content: Analysis using loss-by-ignition method according to SSSA's "Methods of Soil Analysis - Part 3- Chemical Methods."
- F. Recommendations: Based on the test results, state recommendations for soil treatments and soil amendments to be incorporated to produce satisfactory planting soil suitable for healthy, viable plants indicated Include, at a minimum, recommendations for nitrogen, phosphorous, and potassium fertilization, and for micronutrients.

In "Fertilizers and Soil Amendment Rates" and "Soil Reaction" subparagraphs below, the SI (metric) equivalent of 1000 sq. ft. (93 sq. m) is stated as 100 sq. m for convenience of application. Insert other units of area or volume to suit Project.

1. Fertilizers and Soil Amendment Rates: State recommendations in weight per 1000 sq. ft. (100 sq. m) for 36-inch (150-mm) depth of

Generally, adjust soil reaction (pH) only in soils where the pH is near the extreme ends of the acceptable range for the plants indicated.

- 2. Soil Reaction: State the recommended liming rates for raising pH or sulfur for lowering pH according to the buffered acidity or buffered alkalinity in weight per 1000 sq. ft. (100 sq. m) for 36-inch (150-mm) depth of soil.
- 1.12 DELIVERY, STORAGE, AND HANDLING
- G. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and compliance with state and Federal laws if applicable.
- H. Bulk Materials:
- 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
- 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways. Storage of materials on site must comply with the latest approved Remediation Action Plan.
- 3. Do not move or handle materials when they are wet or frozen.
- 4. Accompany each delivery of bulk fertilizers and soil amendments with appropriate certificates.

#### PART 2 -PRODUCTS

- 2.1 PLANTING SOILS SPECIFIED BY COMPOSITION.
- I. General: Soil amendments, fertilizers, and rates of application specified in this article are guidelines that may need revision based on testing laboratory's recommendations after preconstruction soil analyses are performed.
- J. Planting-Soil Type: Manufactured soil consisting of manufacturer's basic sandy loam according to USDA textures, blended in a manufacturing facility with sand, stabilized organic soil amendments, and other materials to produce viable planting soil.
- 5. Manufacturers: Subject to compliance with requirements, provide products by the following:
- 6. Basis-of-Design Product: Subject to compliance with requirements, provide manufacturer planting soil or comparable product by one of the following:
- a. Stancills
- b. Egypt Farms
- 7. Additional Properties of Manufacturer's Basic Soil before Amending: Soil reaction of Ph 5.5-7 and minimum of 4 percent organic-matter content, friable, and with sufficient structure to give good tilth and aeration.
- 8. Unacceptable Properties: Manufactured soil shall not contain the following:
- a. Unacceptable Materials: Concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials that are harmful to plant growth.
- b. Unsuitable Materials: Stones, roots, plants, sod, clay lumps, and pockets of coarse sand that exceed a combined maximum of [5] percent by dry weight of the manufactured soil.
- c. Large Materials: Stones, clods, roots, clay lumps, and pockets of coarse sand exceeding 1 inch in any dimension.

- 9. Blend manufacturer's basic soil with the following soil amendments and fertilizers in the following quantities to produce a sandy loam planting soil:
- a. 60% medium coarse sand, minimum size 0.21 mm
- b. 15% clay
- c. 20% Topsoil
- d. 5% organic matter provided by Leaf Gro composted leaves.
- 2.2 INORGANIC SOIL AMENDMENTS
- A. Lime: ASTM C 602, agricultural liming material containing a minimum of 80 percent calcium carbonate equivalent and as follows:
- 6. Class: T, with a minimum of 99 percent passing through a No. 8 (2.36-mm) sieve and a minimum of 75 percent passing through a No. 60 (0.25-mm) sieve.
- 7. Class: O, with a minimum of 95 percent passing through a No. 8 (2.36-mm) sieve and a minimum of 55 percent passing through a No. 60 (0.25-mm) sieve.
- 8. Form: Provide lime in form of ground dolomitic limestone.
- B. Sulfur: Granular, biodegradable, and containing a minimum of 90 percent elemental sulfur, with a minimum of 99 percent passing through a No. 6 (3.35-mm) sieve and a maximum of 10 percent passing through a No. 40 (0.425-mm) sieve.
- C. Iron Sulfate: Granulated ferrous sulfate containing a minimum of 20 percent iron and 10 percent sulfur.
- D. Perlite: Horticultural perlite, soil amendment grade.
- E. Agricultural Gypsum: Minimum 90 percent calcium sulfate, finely ground with 90 percent passing through a No. 50 (0.30-mm) sieve.
- F. Sand: Clean, washed, natural or manufactured, free of toxic materials, and according to ASTM C 33/C 33M.
- 2.3 ORGANIC SOIL AMENDMENTS

Compost is a widely used bulk organic soil amendment and a recycled product. Because it is applied at much greater rates than fertilizer, compost has a significant cumulative effect on nutrient availability and may reduce or eliminate initial fertilization. Consider each plant's pH and soluble-salt requirements and how they relate to the compost being used and the resulting soil-compost mix.

- A. Compost: Well-composted, stable, and weed-free organic matter produced by composting feedstock, and bearing USCC's "Seal of Testing Assurance," and as follows:
- 9. Leaf Gro Composted Leaves
- B. Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 20 percent available phosphoric acid.
- C. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
- 10. Composition: 1 lb/1000 sq. ft. (0.5 kg/100 sq. m) of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
- 11. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified testing agency.
- D. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
- 1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.
- 2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a gualified testing agency.
- E. Chelated Iron: Commercial-grade FeEDDHA for dicots and woody plants, and commercial-grade FeDTPA for ornamental grasses and monocots.

PART 3 -EXECUTION

- 3.1 GENERAL
- A. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in planting soil.
- B. Amendments to soil shall only be added as dictated by the results of soil testing to achieve desired characteristics of the reference soil.
- C. Proceed with placement only after unsatisfactory conditions have been corrected.
- 3.2 PLACING MANUFACTURED PLANTING SOIL OVER EXPOSED SUBGRADE
- D. General: Deliver soil to the site in its final, blended condition. Do not apply materials or till if existing soil or subgrade is frozen, muddy, or excessively wet.
- E. Subgrade Preparation:
- 3. Apply approximately half the thickness of planting soil over prepared, and approved subgrade.
- 4. Application: Spread planting soil to total depth indicated on the drawings, but not less than required to meet finish grades after natural settlement. Do not spread if soil or subgrade is frozen, muddy, or excessively wet.
- 5. Lifts: Apply planting soil in lifts not exceeding 8 inches (200 mm) in loose depth for material compacted by compaction equipment, and not more than 4 inches (100 mm) in loose depth for material compacted by hand-operated tampers.

- F. Compaction: Compact each lift of planting soil to maximum 75 to 82 percent of maximum Standard Proctor density according to ASTM D 698. Soil under root balls should be adequately compacted to prevent settlement of trees.
- G. Finish Grading: Grade planting soil to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.
- 1. Finished grades shall provide positive drainage away from all buildings.

#### 3.3 APPLYING COMPOST TO SURFACE OF PLANTING SOIL

- H. Application: Apply 2" compost component of planting-soil mix to surface of planting beds that are exposed to the elements. Do not apply materials or till if existing soil or subgrade is frozen, muddy, or excessively wet.
- I. Finish Grading: Grade surface to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.

#### 3.4 FIELD QUALITY CONTROL

- J. Testing Agency: Contractor will engage a qualified testing agency to perform tests and inspections.
- K. Perform the following tests and inspections:
- 1. Compaction: Test planting-soil compaction after placing each lift and at completion using a densitometer or soil-compaction meter calibrated to a reference test value based on laboratory testing according to ASTM D 698. Space tests at no less than one for each 1000 sq. ft. (100 sq. m) of in-place soil or part thereof.
- 2. Soil should be placed and compacted to no more than 82% Proctor.
- L. Soil will be considered defective if it does not pass tests and inspections.

#### M. Prepare test and inspection reports.

N. Label each sample and test report with the date, location keyed to a site plan or other location system, visible conditions when and where sample was taken, and sampling depth.

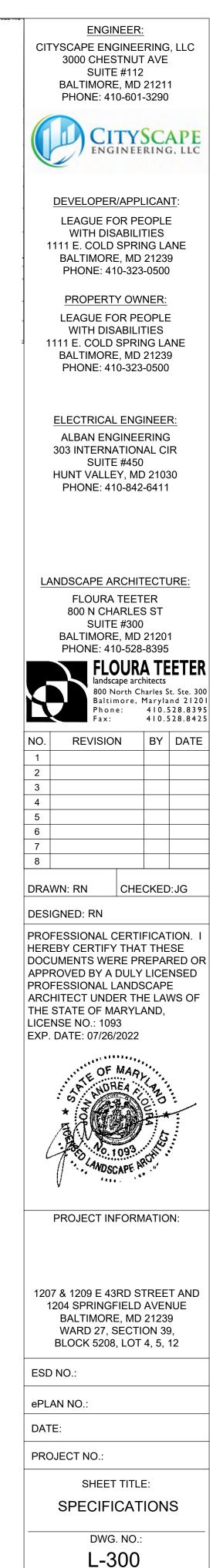
#### 3.5 PROTECTION

- A. Protection Zone: Once soil is placed, there should be no equipment, materials storage or other disturbance prior to planting.
- B. If planting soil or subgrade is over-compacted, disturbed, or contaminated by foreign or deleterious materials or liquids, remove the planting soil and contamination; restore the subgrade as directed by Architect and replace contaminated planting soil with new planting soil.

#### 3.6 CLEANING

- A. Protect areas adjacent to planting-soil preparation and placement areas from contamination. Keep adjacent paving and construction clean and work area in an orderly condition.
- B. Remove surplus soil and waste material including excess subsoil, unsuitable materials, trash, and debris and legally dispose of them off Owner's property unless otherwise indicated.
- 3. Dispose of excess subsoil and unsuitable materials on-site where directed by Owner.

END OF SECTION 329113



SHEET NO .: 05 OF 06

#### **SECTION 329200**

#### TURF AND GRASSES

#### PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- 1.2 SUMMARY
- A. Section Includes:
- 1. Seeding.
- 2. Hydroseeding.
- 3. Turf renovation.
- 4. Grass paving
- B. Related Requirements:
- 6. Section 329300 "Plants" for trees, shrubs, ground covers, and other plants as well as border edgings and mow strips.
- 1.3 DEFINITIONS
- C. Finish Grade: Elevation of finished surface of planting soil.
- D. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also include substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- E. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- F. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth. See Section 329113 "Soil Preparation" and drawing designations for planting soils.
- G. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.

#### 1.4 PREINSTALLATION MEETINGS

H. Preinstallation Conference: Conduct conference at Project site.

#### 1.5 INFORMATIONAL SUBMITTALS

- I. Qualification Data: For landscape Installer.
- J. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture, stating the botanical and common name, percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
- 7. Certification of each seed mixture for turfgrass sod. Include identification of source and name and telephone number of supplier.
- C. Product Certificates: For fertilizers, from manufacturer.
- D. Pesticides and Herbicides: Product label and manufacturer's application instructions specific to Project.
- 1.6 CLOSEOUT SUBMITTALS
- E. Maintenance Data: Recommended procedures to be established by Owner for maintenance of turf during a calendar year. Submit before expiration of required maintenance periods.

#### 1.7 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful turf establishment.
- 1. Professional Membership: Installer shall be a member in good standing of either the Professional Landcare Network of the American Nursey and Landscape Association.
- 2. Experience: Five years' experience in turf installation in addition to requirements in Section 014000 "Quality Requirements."
- 3. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
- 4. Personnel Certifications: Installer's field supervisor shall have certification in all of the following categories from the National Association of Landscape Professionals:
- a. Landscape Industry Certified Technician Exterior.
- b. Landscape Industry Certified Lawn Care Manager.
- c. Landscape Industry Certified Lawn Care Technician.
- 5. Pesticide Applicator: State licensed, commercial.

#### 1.8 DELIVERY, STORAGE, AND HANDLING

- B. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of compliance with state and Federal laws, as applicable.
- C. Sod: Harvest, deliver, store, and handle sod according to requirements in "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" sections in TPI's "Guideline Specifications to Turfgrass Sodding." Deliver sod within 24 hours of harvesting and in time for planting promptly. Protect sod from breakage and drying.
- D. Bulk Materials:
- 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
- 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials; discharge of soil-bearing water runoff; and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
- 3. Accompany each delivery of bulk materials with appropriate certificates.

#### 1.9 FIELD CONDITIONS

- E. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of planting completion.
- 4. Spring Planting: March 30 June 1.
- 5. Fall Planting: September 1 October 15.
- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

#### PART 2 - PRODUCTS

- 2.1 SEED
- C. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Rules for Testing Seeds" for purity and germination tolerances.
- D. Seed Species:
  - 1. Quality: Seed of grass species as listed below for solar exposure, with not less than 85 percent germination, not less than 95 percent pure seed, and not more than 0.5 percent weed seed:
  - d. 50 percent Kentucky bluegrass (Poa pratensis).
  - e. 30 percent chewings red fescue (Festuca rubra variety).
  - f. 10 percent perennial ryegrass (Lolium perenne).
  - g. 10 percent redtop (Agrostis alba).
- 2. Shade: Proportioned by weight as follows:
- a. 50 percent chewings red fescue (Festuca rubra variety).
- b. 35 percent rough bluegrass (Poa trivialis).
- c. 15 percent redtop (Agrostis alba).

#### 2.3 FERTILIZERS

- G. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
- 6. Based on the results of the soil tests and recommendations of the soil testing laboratory.
- 7. All fertilizers must comply with current Maryland Fertilizer Laws.
- B. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
- 8. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.
- 2.4 MULCHES
- A. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic and free of plant-growth or germination inhibitors; with a maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.
- B. Hydroseeding Mulch: Mulch shall be composed of cellulose or wood fiber products with no growth or germination inhibiting substances, and shall be manufactured in such a manner that when thoroughly mixed with seed, fertilizer, organic stabilizer, and water, in the manufacturer

specified proportions, will form homogeneous slurry which is capable of being sprayed to form a porous mat. The fibrous mulch in its air-dry state shall contain no more than 15% by weight of water. The fiber shall have a temporary green dye and shall be accompanied by a certificate of compliance stating that the fiber conforms to these specifications.

#### 2.5 PESTICIDES

- A. General: Pesticide, registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
- B. Pre-Emergent Herbicide (Selective and Nonselective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.
- C. Post-Emergent Herbicide (Selective and Nonselective): Effective for controlling weed growth that has already germinated.
- 2.6 GRASS-PAVING MATERIALS
- A. Soil for Paving Fill: Refer to Section 32 9113 "Soil Preparation" for Fiber Soil.

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine areas to be planted for compliance with requirements and other conditions affecting installation and performance of the Work.
- 1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
- 2. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
- 3. Uniformly moisten excessively dry soil that is not workable or which is dusty.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.

#### 3.2 PREPARATION

- A. Protect structures; utilities; sidewalks; pavements; and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
  - 4. Protect adjacent and adjoining areas from hydroseeding and hydromulching overspray.
- 5. Protect grade stakes set by others until directed to remove them.
- B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

#### 3.3 TURF AREA PREPARATION

- A. General: Prepare planting area for soil placement and mix planting soil according to Section 329113 "Soil Preparation."
- B. Placing Planting Soil: Place pre-blended planting soil over exposed subgrade.
- 6. Reduce elevation of planting soil to allow for soil thickness of sod.
- C. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- D. Before planting, obtain Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

#### 3.4 SEEDING

- A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph (8 km/h).
- 1. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
- 2. Do not use wet seed or seed that is moldy or otherwise damaged.
- 3. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.
- B. Sow seed at a total rate of 8 to 10 lbs/1000 sq. ft. (1.4 to 1.8 kg/92.9 sq. m) or as specified by supplier, whichever is greater.

- C. Rake seed lightly into top 1/8 inch (3 mm) of soil, roll lightly, and water with fine spray.
- D. Protect seeded areas with slopes exceeding 1:4 with erosion-control blankets and 1:6 with erosion-control fiber mesh installed and stapled according to manufacturer's written instructions.
- E. Protect seeded areas from hot, dry weather or drying winds by applying specified mulch within 24 hours after completing seeding operations.

#### 3.5 HYDROSEEDING

F. Hydroseeding: Mix and apply specified seed, fertilizer, and fiber mulch per manufactur.

#### 3.7 TURF RENOVATION

- G. Renovate existing turf where indicated.
- H. Renovate turf damaged by Contractor's operations, such as storage of materials or equipment and movement of vehicles.
- 1. Reestablish turf where settlement or washouts occur or where minor regrading is required.
- 2. Install new planting soil as required.
- L. Remove sod and vegetation from diseased or unsatisfactory turf areas; do not bury in soil.
- M. Remove topsoil containing foreign materials, such as oil drippings, fuel spills, stones, gravel, and other construction materials resulting from Contractor's operations, and replace with new planting soil.
- N. Mow, dethatch, core aerate, and rake existing turf.
- O. Remove weeds before seeding. Where weeds are extensive, apply selective herbicides as required. Do not use pre-emergence herbicides.
- P. Remove waste and foreign materials, including weeds, soil cores, grass, vegetation, and turf, and legally dispose of them off Owner's property.
- Q. Till stripped, bare, and compacted areas thoroughly to a soil depth of 6 inches (150 mm).
- R. Apply soil amendments and initial fertilizer required for establishing new turf and mix thoroughly into top 4 inches (100 mm) of existing soil. Install new planting soil to fill low spots and meet finish grades.
- 3. Soil Amendment(s): according to requirements of Section 329113 "Soil Preparation."
- 4. Initial Fertilizer: Slow-release fertilizer applied according to manufacturer's recommendations.
- J. Apply seed and protect with straw mulch as required for new turf.
- K. Water newly planted areas and keep moist until new turf is established.

#### 3.8 TURF MAINTENANCE

- A. General: Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.
- 1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in areas of subsidence.
- 2. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
- 3. Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.
- B. Watering: Install and maintain temporary piping, hoses, and turf-watering equipment to convey water from sources and to keep turf uniformly moist to a depth of 4 inches (100 mm).
- 1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
- 2. Water turf with fine spray at a minimum rate of 1 inch (25 mm) per week unless rainfall precipitation is adequate.
- C. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than one-third of grass height. Remove no more than one-third of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:

1. 3-4 inches for all turf, seeded or sodded.

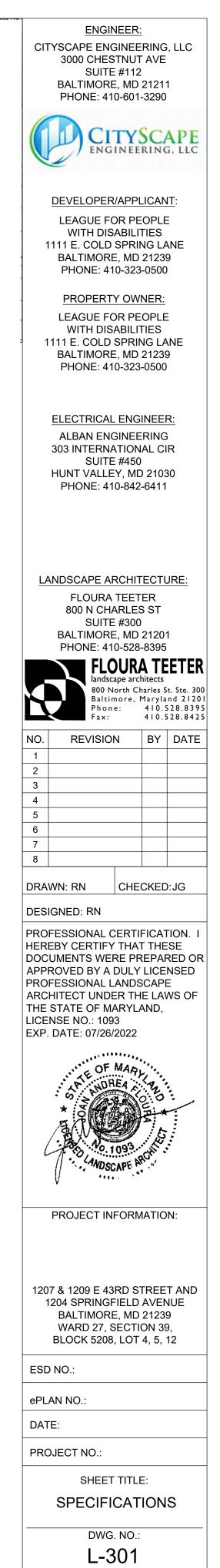
# 3.9 SATISFACTORY TURF

- A. Turf installations shall meet the following criteria as determined by Architect:
- 2. Satisfactory Seeded Turf: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. (0.92 sq. m) and bare spots not exceeding 5 by 5 inches (125 by 125 mm).
- 3. Satisfactory Sodded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities.
- B. Use specified materials to reestablish turf that does not comply with requirements and continue maintenance until turf is satisfactory.

# 3.10 CLEANUP AND PROTECTION

- A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.
- C. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.
- D. Remove nondegradable erosion-control measures after grass establishment period.
- 3.11 MAINTENANCE SERVICE
- E. Turf Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in "Turf Maintenance" Article. Begin maintenance immediately after each area is planted and continue until acceptable turf is established, but for not less than the following periods:
- 4. Seeded Turf: 60 days from date of planting completion plus a minimum of 3 mowings.
- a. When initial maintenance period has not elapsed before end of planting season, or if turf is not fully established, continue maintenance during next planting season.
- 5. Sodded Turf: 30 days from date of planting completion plus a minimum of 3 mowings.

END OF SECTION 329200



SHEET NO .:

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#### **SECTION 329300** PLANTS

#### GENERAL PART 1 -

- 1.1 RELATED DOCUMENTS
- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Work Included: The Work of this Section includes, but is not limited to the following:
- 1. Trees.
- Shrubs.
- Ground cover
- 4. Perennial plants.
- 1.3 REFERENCES
- A. Standards: Comply with applicable recommendations of the following:
- "Standardized Plant Names", American Joint Committee on Horticultural Nomenclature.
- 2. American Standard for Nursery Stock", American Association of Nurserymen (ANSI 260.1)
- 3. "Landscape Specifications Guidelines for Baltimore-Washington Metropolitan Areas", latest edition.

#### B. Related Requirements:

- 1. Section 32 9113 "Soil Preparation" for providing and placing soil.
- 1.4 DEFINITIONS
- A. Balled and Burlapped Stock: Exterior plants dug with firm, natural balls of earth in which they are grown, with ball size not less than diameter and depth recommended by ANSI Z60.1 for type and size of tree or shrub required; wrapped, tied, rigidly supported, and drum-laced as recommended by ANSI Z60.1.
- B. Balled and Potted Stock: Exterior plants dug with firm, natural balls of earth in which they are grown and placed, unbroken, in a container. Ball size is not less than diameter and depth recommended by ANSI Z60.1 for type and size of exterior plant required.
- C. Bare-Root Stock: Exterior plants with a well-branched, fibrous-root system developed by transplanting or root pruning, with soil or growing medium removed, and with not less than minimum root spread according to ANSI Z60.1 for kind and size of exterior plant required.
- D. Container-Grown Stock: Healthy, vigorous, well-rooted exterior plants grown in a container with well-established root system reaching sides of container and maintaining a firm ball when removed from container. Container shall be rigid enough to hold ball shape and protect root mass during shipping and be sized according to ANSI Z60.1 for kind, type, and size of exterior plant required.
- E. Fabric Bag-Grown Stock: Healthy, vigorous, well-rooted exterior plants established and grown in-ground in a porous fabric bag with well-established root system reaching sides of fabric bag. Fabric bag size is not less than diameter, depth, and volume required by ANSI Z60.1 for type and size of exterior plant.
- F. Finish Grade: Elevation of finished surface of planting soil.
- G. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- H. Planting Soil: Native or imported topsoil, manufactured topsoil, or surface soil modified to become topsoil; mixed with soil amendments.
- I. Subgrade: Surface or elevation of subsoil remaining after completing excavation, or top surface of a fill or backfill, before placing planting soil.
- 1.5 SUBMITTALS
- A. Comply with the requirements of Division 1 Section Submittals. Incomplete or improper submittals will be returned to the Contractor without change in contract time.
- B. Samples for Verification: For each of the following:
  - Submit one pound samples, packaged in plastic bags, to the Landscape Architect for examination and approval prior to any landscape operations:
  - a. Mulches.
  - b. On-site soils.
  - c. Imported soils
  - d. Organics.
  - e. Soil mixes.
- C. Material Certificates: Submit the following manufacturer's information and source data:
  - a. Commercial fertilizers
  - b. Chemical additives.
  - c. Organics.
  - d. Lime.
  - e. Iron Sulfate.
  - f. Filter Cloth/Soil Separator.
  - g. Erosion Control Fabric.
- D. Qualification Data: For landscape installer.
- E. Material Test Reports: For existing surface soil and imported topsoil.
- F. Planting Schedule: Indicating anticipated planting dates for exterior plants
- G. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of exterior plants during a calendar year. Submit before expiration of required maintenance periods.
- 1.6 QUALITY ASSURANCE
- A. Installer Qualifications: Not less than 5 years documented successful experience in installation of work similar to Work in this Project.

- B. Soil-Testing Laboratory Qualifications: An independent laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.
- C. Planting Soil Analysis: Furnish soil analysis per the requirements of Section 32 9113 Soil Preparation.
- D. Provide quality, size, genus, species, and variety of exterior plants indicated, complying with applicable requirements in ANSI Z60.1, "American Standard for Nursery Stock."
- Tree and Shrub Measurements: Measure according to ANSI Z60.1 with branches and trunks or canes in their normal position. Do not prune to obtain required sizes. Take caliper measurements 6 inches above ground for trees up to 4-inch caliper size, and 12 inches aboveground for larger sizes. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip-to-tip.
- F. Observation: Architect may observe trees and shrubs either at place of growth or at site before planting for compliance with requirements for genus, species, variety, size, and quality. Architect retains right to observe trees and shrubs further for size and condition of balls and root systems, insects, injuries, and latent defects and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from Project site.
- 1. Notify Architect of sources of planting materials seven days in advance of delivery to site.
- G. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination."
- H. Plant Substitutions Pre-Bid:
- 1. Make every reasonable effort to find the plant material specified by the Architect.
- 2. Qualify bid to document any plant suitability or availability problems.
- 3. Offer substitutions to the Architect for consideration if there are legitimate availability problems.
- 4. Offer substitutions if there are known diseases or insect resistant species that can be substituted for a pest prone plant, if specified.
- 5. Submit a Base Bid as per plans and specifications, plus any price changes or clarifications for all recommended plant substitutions.
- I. Plant Substitutions Post-Bid, Pre Installation:
- 2. Substitutions of plant materials will not be permitted unless authorized in writing by Architect.

1. It is the intent to reduce or eliminate post-bid substitutions.

- 3. If proof is submitted that any plant accepted during the bidding process is not attainable, a proposal will be considered for use of nearest equivalent size or variety, with corresponding adjustment of Contract price if necessary
- 4. These provisions do not relieve Contractor of responsibility for obtaining required materials in advance if special growing conditions or other arrangements can be made in order to provide the required materials.
- Preliminary Plant Acceptance:
- 1. Architect or his representative may view plants at their place of growth or upon delivery. Architect reserves the right to tag plants at their place of growth.
- 2. For distant material, photographs may be submitted in lieu of on-site inspections or for preliminary reviews prior to on-site inspection.
- 3. Send Architect written request for plant inspection at their place of growth at least ten calendar days prior to digging.
- 4. Identify place of growth and quantity of plants to be inspected.
- 1.7 DELIVERY, STORAGE, AND HANDLING
- A. Deliver exterior plants freshly dug.
- 1. Immediately after digging up bare-root stock, pack root system in wet straw, or other suitable material to keep root system moist until planting.
- B. Do not prune trees and shrubs before delivery, except as approved by Architect. Protect bark, branches, and root systems from sun scald, drying, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of exterior plants during delivery. Do not drop exterior plants during delivery.
- C. Handle planting stock by root ball.
- D. Plants damaged in transit, storage or handling may be rejected at the sole discretion of the Architect. Consideration for plant material damage may not be life threatening, but rather cosmetic such as broken branches or scratched trunks, to qualify plant for rejection.
- Root balls which are not tight and properly prepared or show signs of damage will be rejected.
- F. Deliver exterior plants after preparations for planting have been completed and install immediately. If planting is delayed more than six hours after delivery, set exterior plants trees in shade, protect from weather and mechanical damage, and keep roots moist.
- 1. Heel-in bare-root stock. Soak roots in water for two hours if dried
- 2. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
- 3. Do not remove container grown stock from containers before time of planting.
- 4. Water root systems of exterior plants stored on-site with a fine-mist spray. Water as often as necessary to maintain root systems in a moist condition
- 5. If plant material is stored more than three days on site, return it to the nursery for proper care until it can be planted.
- 1.8 PLANT SEASONS
- A. B&B, deciduous trees and shrub materials:

- - fall except those listed below.
  - harden off.
- 2. Highest Risk

#### production. B. Evergreen B&B material:

1. Freshly dug evergreen material should not be moved without proper conditioning during active growth.

- methods in order to harden off:
- shipping.

#### D. Perennials:

- March 1 until November 15.

#### E. Annuals:

G. Excluded Material:

request.

correspondingly.

D. Warranty Provisions:

same species.

1.10 MAINTENANCE

maintenance crews.

6. Keep beds free of weeds.

1.9 WARRANTY

 Lowest Risk: March 1 to May 30 and September 15 to December 1. a. Deciduous plants dug and planted while dormant in spring or

b. Deciduous plants dug during dormancy and planted after producing leaves providing they have been properly stored. c. Deciduous plants dug after leaves have fully expanded and

a. Deciduous plants dug in the spring during newly expanding leaf

C. Summer dug B&B material shall be handled in one of the following

1. Properly hardened-off in field 7-10 days prior to digging by a gradual process of trenching and soaking, leaving the bottom surface of the ball attached to soil until shipping.

2. Condition under irrigation in partial shade for at least 4 days prior to

1. May be installed as soon as the ground is workable in Spring after

2. Any plants required to be installed after November 15, will require protective, supplemental mulching applied after December 15 and removed when weather permits around March 1.

1. Cold sensitive annuals may be installed after danger of frost has passed and as soon as the ground is workable in the Spring after March 1 and November 15.

6. The following trees may not be installed between November 15 and March 1: White oak (Quercus alba), Scarlet Oak (Quercus coccinea), Red Oak (Quercus rubra), Willow Oak (Quercus phellos), Flowering Dogwood Varieties (Cornus florida), Sweet Gum (Liquidambar styraciflua) and all conifers with the exception of White Pines (Pinus strobus).

H. Out of season plant installation:

1. A professional horticulturist, nurseryman or arborist shall be consulted to determine the proper time, based on plant species and weather conditions, to move and install particular plant material to minimize plant stress if it is required to move material outside of the preceding guidelines.

2. Should plant material be required to be installed for the contractor's convenience, it shall be at the Contractor's full risk and responsibility. However, if plants are required to be installed as per the owner's direction, plant warranty may be waived.

3. Architect will only allow variance in planting season upon written

A. Warrant that all trees, shrubs, vines, groundcovers, perennials, and bulbs planted under this Contract will be healthy and in flourishing condition of active growth for a period of 24 Months from date of completion and initial acceptance of the work.

B. Any delay in completion of planting operations which extends the planting into more than one planting season shall extend the Warranty period

C. Provide written warranty certificates to the Architect

1. Remove plants that are in the opinion of the Architect, at least 25% dead, unsightly, or not in healthy condition.

2. Replace removed plants and plants missing due to Contractor's negligence. Replace when weather conditions permit and within specified planting period, or as directed by Landscape Architect.

3. Provide replacement plants closely matching adjacent specimens of

4. Warrant replacement plants for additional period of one year from date of their acceptance after replacement. Note that failure to replace plants in a timely and responsive manner may result in reduction and/or forfeiture of final payments.

Begin maintenance immediately after plants are installed and continue to maintain for a period of two years. The two-year period begins after approved substantial completion by the Landscape Architect. At the end of the two-year maintenance period a final site walk will be scheduled with the Landscape Architect and representatives of the LFPWD and upon acceptance the site will be turned over to the University to their

B. Maintenance Requirements:

1. Protects plants and planting areas from damage.

2. Keep plants healthy, vigorous, trim and neat.

3. Prune to maintain plants in normal growth pattern.

4. Spray to control disease and insects.

5. Maintain mulch bed to 2 inch depth. Re-mulching of the plant materials is not required as part of the work.

7. Provide manpower in order to water all plant materials as required to maintain adequate moisture, and when directed by Architect.

8. Maintain stakes and guys in taut and rigid state with wires in place and safety flags clearly visible. Remove stakes and guys when no longer necessary for plant establishment after one year.

9. Reset plants to proper grade and upright condition if required and add topsoil and mulch to areas of settlement.

10. Provide additional stakes as required to support trees particularly

evergreens in areas prone to high winds or settlement.

11. Provide maintenance schedule/ program for UMBC approval at the initial acceptance of the work.

PART 2 -PRODUCTS

2.1 TREE AND SHRUB MATERIAL

- A. General: Furnish nursery-grown trees and shrubs complying with ANSI Z60.1, with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully branched, healthy, vigorous stock free of disease, insects, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.
- B. Grade: Provide trees and shrubs of sizes and grades complying with ANSI Z60.1 for type of trees and shrubs required. Trees and shrubs of a larger size may be used if acceptable to Architect, with a proportionate increase in size of roots or balls.

2.2 PLANTS

- A. Annuals: Provide healthy, disease-free plants of species and variety shown or listed. Provide only plants that are acclimated to outdoor conditions before delivery and that are in bud but not yet in bloom.
- B. Perennials: Provide healthy, field-grown plants from a commercial nursery, of species and variety shown or listed.
- C. Fast-Growing Vines: Provide vines of species indicated complying with requirements in ANSI Z60.1 as follows:
- 1. Two-year plants with heavy, well-branched tops, with not less than 3 runners 18 inches or more in length, and with a vigorous well-developed root system.
- 2. Provide field-grown vines. Vines grown in pots or other containers of adequate size and acclimated to outside conditions will also be acceptable

2.3 TOP SOIL

- A. Topsoil: ASTM D 5268, pH range of 5.5 to 7, a minimum of 4 percent organic material content; free of stones 1/2 inch or larger in any dimension and other extraneous materials harmful to plant growth.
- 1. Coordinate requirements for manufactured and imported soil with Section 32 9113 Soil Preparation.
- 2.4 INORGANIC SOIL AMENDMENTS
- A. Lime: ASTM C 602, agricultural limestone containing a minimum 80 percent calcium carbonate equivalent and as follows:
- 1. Class: Class O, with a minimum 95 percent passing through No. 8 sieve and a minimum 55 percent passing through No. 60 sieve.
- 2. Provide lime in form of dolomitic limestone.
- B. Sulfur: Granular, biodegradable, containing a minimum of 90 percent sulfur, with a minimum 99 percent passing through No. 6 sieve and a maximum 10 percent passing through No. 40 sieve.
- C. Aluminum Sulfate: Commercial grade, unadulterated.
- D. Perlite: Horticultural perlite, soil amendment grade.
- E. Agricultural Gypsum: ground, containing a minimum of 90 percent calcium sulfate.
- F. Sand: Clean, washed natural or manufactured, free of toxic materials.
- G. Zeolites: Mineral clinoptilolite with at least 60 percent water absorption by weight.
- 2.5 ORGANIC SOIL AMENDMENTS
- A. Composted Leaves such as Leaf Gro
- 2.6 FERTILIZER
- A. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of 4 percent nitrogen and 10 percent phosphoric acid.
- B. Superphosphate: Commercial, phosphate mixture, soluble; a minimum of 20 percent available phosphoric acid.
- C. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium.

2.7 MULCHES

- A. A. Organic Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:
- 1. Type: Shredded hardwood, mulching grade, uniform in size, and free from foreign matter, or approved unscreened biosolid compost.
- 2.8 STAKE AND GUYS
- A. Upright and Guy Stakes: Rough-sawn, sound, new hardwood, free of knots, holes, cross grain, and other defects, 2 by 2 inches by length indicated, pointed at one end.
- B. Guy and Tie Wire: ASTM A 641/A 641M, Class 1, galvanized-steel wire, 2-strand, twisted, 0.106 inch in diameter.
- C. Guy Cable: 5-strand, 3/16-inch- diameter, galvanized-steel cable, with zinc-coated turnbuckles, a minimum of 3 inches long, with two 3/8-inch galvanized eyebolts.
- D. Hose Chafing Guard: Reinforced rubber or plastic hose at least 1/2 inch in diameter, black, cut to lengths required to protect tree trunks from damage.
- E. Flags: Standard surveyor's plastic flagging tape, white, 6 inches long.
- 2.9 MISCELLANEOUS PRODUCTS
- A. Antidesiccant: Water-insoluble emulsion, permeable moisture retarder, film forming, for trees and shrubs. Deliver in original, sealed, and fully labeled containers and mix according to manufacturer's written instructions.
- 2.10 PLANTING SOIL MIX
- A. Planting Soil Mix: Provide manufactured soil per the Soil Preparation Section 32 9113.

PART 3 -EXECUTION

#### 3.1 EXAMINATION

- A. Examine areas to receive exterior plants for compliant requirements and conditions affecting installation and perfor Proceed with installation only after unsatisfactory conditions have corrected.
- B. Contact 'MISS UTILITY' at 800-257-7777 (72) hours prior to Contractor shall take sole responsibility for any cost incurred damage due to these utilities.
- C. Do not willfully proceed with planting as designed when it is obvi conditions and/or obstructions exist due to changes in site cor Such conditions shall be brought to the immediate attention Landscape Architect. The Contractor will be held responsible necessary revisions due to failure to give such notification material can be relocated or conditions corrected prior installations.
- D. Remove any existing plant material necessary for the installation completion of the planting designed and contracted as part of this

#### 3.2 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other and lawns and existing exterior plants from damage caused by operations.
- B. Provide erosion-control measures to prevent erosion or displace soils and discharge of soil-bearing water runoff or airborne adjacent properties and walkways.
- Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, adjust locations requested, and obtain Architect's acceptance of lavout before Make minor adjustments as required.
- D. Lay out exterior plants at locations directed by Architect. Stake lo of individual trees and shrubs and outline areas for multiple planting
- E. Apply antidesiccant to trees and shrubs using power sprav to pro adequate film over trunks, branches, stems, twigs, and foliage to during digging, handling, and transportation.
- 1. If deciduous trees or shrubs are moved in full leaf, spr antidesiccant at nursery before moving and again two weel planting
- 3.3 PLANTING BED ESTABLISHMENT
- A. Loosen subgrade of planting beds to a minimum depth of 12 Remove stones larger than 1 inch in any dimension and sticks rubbish, and other extraneous matter.
- 1. Apply superphosphate fertilizer directly to subgrade before lo only if indicated by soil testing.
- 2. Spread planting soil, apply leaf gro and fertilizer on surface thoroughly blend planting soil mix. a. Delay mixing fertilizer with planting soil if planting
- proceed within a few days.
- b. Mix lime with dry soil before mixing fertilizer.
- 3. Spread planting soil as indicated in Section 32 911 Preparation.
- Finish Grading: Grade planting beds to a smooth, uniform surfac with loose, uniformly fine texture. Roll and rake, remove ridges, depressions to meet finish grades.
- C. Restore planting beds if eroded or otherwise disturbed afte grading and before planting.

portion slopes towards the low side of the pit or bed area.

3.1	EXAMINATION		<ol> <li>Install drainage sack comprised of 3" diameter slotted corrugated polyethylene nonperforated drainage tubing per ASTM F-405, inside</li> </ol>	ENGINEER: CITYSCAPE ENGINEERING, LLC
A.	Examine areas to receive exterior plants for compliance with requirements and conditions affecting installation and performance. Proceed with installation only after unsatisfactory conditions have been		8" ¾" washed gravel, wrapped in geotextile filter fabric such as Mirafi 140 S or N by Mirafi Inc., or approved equal.	3000 CHESTNUT AVE SUITE #112 BALTIMORE, MD 21211 PHONE: 410-601-3290
в	corrected. Contact 'MISS UTILITY' at 800-257-7777 (72) hours prior to digging.		<ol> <li>Minimum slope on drainage tubing shall not be less than 2%.</li> <li>Provide a vertical standpipe at each tree pit.</li> </ol>	FIGNE: 410-001-3230
D.	Contractor shall take sole responsibility for any cost incurred due to damage due to these utilities.		<ol> <li>Connect slotted corrugated polyethylene non-perforated drainage tubing to nearby drain inlet where inverts permit.</li> </ol>	ENGINEERING, LLC
C.	Do not willfully proceed with planting as designed when it is obvious that conditions and/or obstructions exist due to changes in site conditions.	3.7	TREE AND SHRUB PLANTING	
	Such conditions shall be brought to the immediate attention of the Landscape Architect. The Contractor will be held responsible for all necessary revisions due to failure to give such notification so that	Α.	Set balled and burlapped stock plumb and in center of pit or trench with top of root ball one inch above adjacent finish grades.	DEVELOPER/APPLICANT: LEAGUE FOR PEOPLE
	material can be relocated or conditions corrected prior to plant installations.		<ol> <li>Remove burlap and wire baskets from tops of root balls and partially from sides, but do not remove from under root balls. Remove pallets,</li> </ol>	WITH DISABILITIES 1111 E. COLD SPRING LANE
D.	Remove any existing plant material necessary for the installation and the completion of the planting designed and contracted as part of this project.		if any, before setting. Do not use planting stock if root ball is cracked or broken before or during planting operation.	BALTIMORE, MD 21239 PHONE: 410-323-0500
3.2	PREPARATION		<ol> <li>Place planting soil mix around root ball in layers, tamping to settle mix and eliminate voids and air pockets. When pit is approximately</li> </ol>	PROPERTY OWNER:
A.	Protect structures, utilities, sidewalks, pavements, and other facilities, and lawns and existing exterior plants from damage caused by planting		one-half backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed. Water	LEAGUE FOR PEOPLE WITH DISABILITIES
_	operations.	В.	again after placing and tamping final layer of planting soil mix. Set balled and potted container-grown stock plumb and in center of pit or	1111 E. COLD SPRING LANE BALTIMORE, MD 21239 PHONE: 410-323-0500
B.	Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.		<ul><li>trench with top of root ball 1 inch above adjacent finish grades.</li><li>1. Carefully remove root ball from container without damaging root ball or plant.</li></ul>	
C.	Lay out individual tree and shrub locations and areas for multiple exterior plantings. Stake locations, outline areas, adjust locations when requested, and obtain Architect's acceptance of layout before planting. Make minor adjustments as required.		<ol> <li>Place planting soil mix around root ball in layers, tamping to settle mix and eliminate voids and air pockets. When pit is approximately one-half backfilled, water thoroughly before placing remainder of</li> </ol>	ELECTRICAL ENGINEER: ALBAN ENGINEERING 303 INTERNATIONAL CIR
D.	Lay out exterior plants at locations directed by Architect. Stake locations of individual trees and shrubs and outline areas for multiple plantings.	0	backfill. Repeat watering until no more water is absorbed. Water again after placing and tamping final layer of planting soil mix.	SUITE #450 HUNT VALLEY, MD 21030 PHONE: 410-842-6411
E.	Apply antidesiccant to trees and shrubs using power spray to provide an adequate film over trunks, branches, stems, twigs, and foliage to protect during digging, handling, and transportation.	C.	Organic Mulching: Apply 3-inch average thickness of organic mulch extending 12 inches beyond edge of planting pit or trench. Do not place mulch within 3 inches of trunks or stems.	
	<ol> <li>If deciduous trees or shrubs are moved in full leaf, spray with antidesiccant at nursery before moving and again two weeks after</li> </ol>	3.8 A	TREE AND SHRUB PRUNING Prune, thin, and shape trees and shrubs according to standard	
	planting	7.	horticultural practice. Prune trees to retain required height and spread. Unless otherwise indicated by Architect, do not cut tree leaders; remove	LANDSCAPE ARCHITECTURE: FLOURA TEETER
3.3 A.	PLANTING BED ESTABLISHMENT Loosen subgrade of planting beds to a minimum depth of 12 inches.		only injured or dead branches from flowering trees. Prune shrubs to retain natural character. Shrub sizes indicated are sizes after pruning.	800 N CHARLES ST SUITE #300
	Remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter.	3.9	GUYING AND STAKING	BALTIMORE, MD 21201 PHONE: 410-528-8395
	<ol> <li>Apply superphosphate fertilizer directly to subgrade before loosening only if indicated by soil testing.</li> </ol>	А.	A. Upright Staking and Tying: Stake trees of 2-inch through 5-inch caliper. Stake trees of less than 2-inch caliper only as required to prevent wind tip-out. Use a minimum of 2 stakes of length required to penetrate at least 18 inches below bottom of backfilled excavation and to extend at	FLOURA TEETER landscape architects 800 North Charles St. Ste. 300 Baltimore, Maryland 2120
	2. Spread planting soil, apply leaf gro and fertilizer on surface, and thoroughly blend planting soil mix.		least 72 inches above grade. Set vertical stakes and space to avoid penetrating root balls or root masses. Support trees with two strands of	Phone: 410.528.8395 Fax: 410.528.8425
	<ul> <li>a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.</li> <li>b. Mix lime with dry soil before mixing fertilizer.</li> </ul>		tie wire encased in hose sections at contact points with tree trunk. Allow enough slack to avoid rigid restraint of tree. Use the number of stakes as follows:	NO.     REVISION     BY     DATE       1
	3. Spread planting soil as indicated in Section 32 9113 Soil Preparation.		<ol> <li>Use two stakes for trees up to 12 feet high and 2-1/2 inches or less in caliper; three stakes for trees less than 14 feet high and up to 4</li> </ol>	3
В.	Finish Grading: Grade planting beds to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill		<ul><li>inches in caliper. Space stakes equally around trees.</li><li>Attach flags to each guy wire, 30 inches above finish grade.</li></ul>	5
C.	depressions to meet finish grades. Restore planting beds if eroded or otherwise disturbed after finish	0.40	3. Paint turnbuckles with luminescent white paint.	8
	grading and before planting.	3.10 A.	GROUND COVER AND PLANTING Set out and space ground cover and plants as indicated.	DRAWN: RN CHECKED: JG
3.4 A.	TREE AND SHRUB EXCAVATION Pits and Trenches: Excavate circular pits with sides sloped inward. Trim	В.	Dig holes large enough to allow spreading of roots, and backfill with planting soil.	DESIGNED: RN PROFESSIONAL CERTIFICATION. 1
	base leaving center area raised slightly to support root ball and assist in drainage. Do not further disturb base. Scarify sides of plant pit smeared or smoothed during excavation.	C.	Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water.	HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY A DULY LICENSED
	1. Excavate approximately three times as wide as ball diameter for	D.	Water thoroughly after planting, taking care not to cover plant crowns with wet soil.	PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND,
в	balled and burlapped stock. Subsoil removed from excavations may not be used as backfill.	E.	Protect plants from hot sun and wind; remove protection if plants show evidence of recovery from transplanting shock.	LICENSE NO.: 1093 EXP. DATE: 07/26/2022
	Obstructions: Notify Architect if unexpected rock or obstructions	3.11	PLANTING BED MULCHING	OF MAN
3.5	detrimental to trees or shrubs are encountered in excavations. SOIL DRAINAGE TEST	A.	Mulch backfilled surfaces of planting beds and other areas indicated.	AFENDREA TA
	Before planting, determine that areas to receive plant material have adequate sub-drainage. Contractor is responsible for correcting all		1. Organic Mulch: Apply 3-inch average thickness of organic mulch,	* OF
	drainage conditions which may adversely impact the establishment of specified plantings.		and finish level with adjacent finish grades. Do not place mulch against plant stems.	1093
	<ol> <li>Perform water percolation tests for the following areas or as required in low areas where soils may not adequately drain.</li> </ol>		CLEANUP AND PROTECTION	U SCAPE S "
	<ol> <li>Test by digging tree and shrub pits to the full depth and dimensions indicated on drawings.</li> </ol>		During exterior planting, keep adjacent paving and construction clean and work area in an orderly condition.	PROJECT INFORMATION:
	3. Fill excavations to 1/3 depth with water and allow to percolate out	В.	Protect exterior plants from damage due to landscape operations, operations by other contractors and trades, and others. Maintain protection during installation and maintenance periods. Treat, repair, or	
	<ul><li>4. If after 24 hours, water remains in excavation, perform a more</li></ul>	0.40	replace damaged exterior planting.	
	detailed percolation test as described below and notify Architect in writing.		DISPOSAL Disposal: Remove surplus soil and waste material, including excess	1207 & 1209 E 43RD STREET AND 1204 SPRINGFIELD AVENUE BALTIMORE, MD 21239
	5. At bottom of planting pit, excavate rectangular pit 12 inches x 12 inches x 18 inches deep. Pour water into this small pit to a depth of		subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property	WARD 27, SECTION 39, BLOCK 5208, LOT 4, 5, 12
	6 inches (approximately 3 - 3 ¾ gallon). Note time required for water to be completely absorbed. Divide time noted by 6, to achieve average rate of absorption for 1 inch of water.		MAINTENANCE AND ACCEPTANCE	ESD NO.:
3.6	SOIL DRAINAGE IMPROVEMENTS	A.	<ol> <li>The following shall be grounds for final acceptance of planting:</li> <li>Trees, shrubs and woody material shall be in healthy, living</li> </ol>	ePLAN NO.:
A.	Where slope conditions permit, areas that do not drain properly may be drained to daylight with Architect's approval.		<ul><li>condition with no more than 25% dead. Any dead limbs shall be pruned according to accepted arboricultural practices.</li><li>2. Perennials, grasses and groundcovers shall be no less than 25%</li></ul>	DATE:
	1. Use 3" diameter slotted corrugated polyethylene non-perforated	-	dead.	PROJECT NO.: SHEET TITLE:
	<ul><li>drainage tubing per ASTM F-405 within tree pit or bed areas. Provide non-slotted type beyond plant pits or plant bed areas.</li><li>2. Minimum slope on drainage tubing shall not be less than 2%.</li></ul>		Turn over maintenance of the planting to the Owner after completion of the punch list and Final Acceptance by the Landscape Architect. Provide a maintenance manual to the Owner so that the Owner may	SPECIFICATIONS
В.	In areas that are low along streets and do not drain due to hydrostatic pressure, drainage improvements may require the following:	0.	document maintenance activities during the warranty period.	DWG. NO.:
	<ol> <li>Excavate the bottom of the plant pit or bed so that the unexcavated</li> </ol>	END	DF SECTION 329300	L-302

SHEET NO .: 06 OF 06