

PERIMETER TREES HAVE BEEN RELOCATED THROUGHOUT SITE PER RETAINING WALL

ALL PROPOSED LANDSCAPE IMPROVEMENTS SHALL BE PROVIDED A PERMANENT IRRIGATION SYSTEM PER CITY OF COPPELL CODE OF ORDINANCES.

PLANTING NOTES:

- . CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATIONS OF ALL UNDERGROUND UTILITIES, PIPES, STRUCTURES, AND LINE RUNS IN THE FIELD PRIOR TO THE INSTALLATION OF ANY
- 2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADVISE THE LANDSCAPE ARCHITECT OF ANY
- 3. ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY, GROWING CONDITION AND MUST BE REPLACED WITHIN 30 DAYS WITH PLANT MATERIAL OF THE SAME VARIETY AND SIZE IF DAMAGED,
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR FINE GRADING AND REMOVAL OF DEBRIS PRIOR TO
- . FINAL FINISH GRADING SHALL BE REVIEWED AND APPROVED BY THE LANDSCAPE ARCHITECT. TH
- SMOOTH CONDITION PRIOR TO PLANTING. 6. CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES. ALL PLANT QUANTITIES ARE LISTED FOR INFORMATION PURPOSES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FULL
- OTHERWISE INDICATED ON THE DRAWINGS.
- 9. ALL PLANT MATERIAL SHALL MEET INDUSTRY STANDARDS AS INDICATED IN THE CURRENT EDITION
- 10. ALL PLANT MATERIAL SUBSTITUTIONS SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO
- 1. CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH OTHER CONTRACTORS ON SITE AS
- REQUIRED TO ACCOMPLISH ALL PLANTING OPERATIONS.

- 14. PLANTING AREAS SHALL BE KEPT FREE OF TRASH, WEEDS, DEBRIS, AND DEAD PLANT MATERIAL
- TREES OVERHANGING PEDESTRIAN WALKS AND WITHIN VISIBILITY TRIANGLES AS NOTED ON THE PLANS SHALL BE LIMBED TO A HEIGHT OF SEVEN FEET (7'). TREE OVERHANGING PUBLIC STREETS
- . TREES PLANTED NEXT TO ACCESSIBLE ROUTES AND ACCESSIBLE AREAS SHALL BE LIMBED TO 7'6"

PERIMETER TREES HAVE BEEN RELOCATED TO SOUTH BUFFER PER WALL CONFLICT

DEVELOPER LOVETT INDUSTRIAL, LLC 127 HOWELL ST DALLAS, TX 75207 (602) 999-3716 COLBY.EVERETT@LOVETTINDUSTRIAL.COM

APPLICANT

KIMLEY-HORN AND ASSOCIATES, INC. 10101 REUNION PLACE, SUITE 400, SAN ANTONIO, TX 78216 (726) 610-3728 BLAINE.MIKULIK@KIMLEY-HORN.COM

LOVETT COPPELL BUSINESS PARK ZONED HC / REZONED PD-LI ,17.6949 AC LOTS 1, 2 & 3

ALTA/NSPS LAND TITLE SURVEY P. HARMONSON SURVEY ABSTRACT NO. 604 CITY OF COPPELL DENTON COUNTY, TEXAS AUGUST 2023

CONLFICTS. LANDSCAPE MAINTENANCE INFORMATION IN LANDSCAPE SPECIFICATIONS.

- PLANT MATERIAL.
- CONDITION FOUND ON SITE WHICH PERMITS INSTALLATION AS SHOWN ON THESE DRAWINGS.
- DESTROYED, OR REMOVED.
- PLANTING IN ALL AREAS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL TOPSOIL REQUIRED TO CREATE A
- COVERAGE IN ALL PLANTING AREAS AS SHOWN ON THE PLANS AND SPECIFIED IN THE PLANT
- 7. CONTRACTOR TO PROVIDE STEEL EDGING BETWEEN ALL PLANTING BEDS AND TURF AREAS UNLESS
- 8. ALL PLANT MATERIAL SHALL CONFORM TO THE SPECIFICATIONS GIVEN IN THE PLANT SCHEDULE, PLANTING DETAILS, AND PLANTING SPECIFICATIONS.

- 12. ALL PLANTING AREAS SHALL RECEIVE SOIL AMENDMENTS.
- 13. PLANT MATERIAL SHALL BE PRUNED PER PLANTING DETAILS UNLESS OTHERWISE NOTED ON
- SHALL BE REMOVED FROM ALL PLANTING BEDS TO A MINIMUM DEPTH OF 24" UNLESS OTHERWISE NOTED. REPLACE MATERIAL REMOVED WITH IMPORTED TOPSOIL.
- AND FIRELANES SHALL BE LIMBED TO A HEIGHT OF FOURTEEN FEET (14').
- (80" MIN.) AFF.
- 18. ALL PROPOSED TREES SHALL BE STAKED WITH AN AT-GRADE ROOT BALL SECURING SYSTEM AS SHOWN IN THE PLANTING DETAILS AND SPECIFICATIONS. NO ABOVE-GROUND STAKING SYSTEMS, GUY WIRES/WIRES, HOSES, STRAPS, POSTS (METAL OR WOOD) SHALL BE ALLOWED UNLESS AUTHORIZED IN WRITING BY THE LANDSCAPE ARCHITECT.

INDUSTRIAL

Not for construction or permit purpose

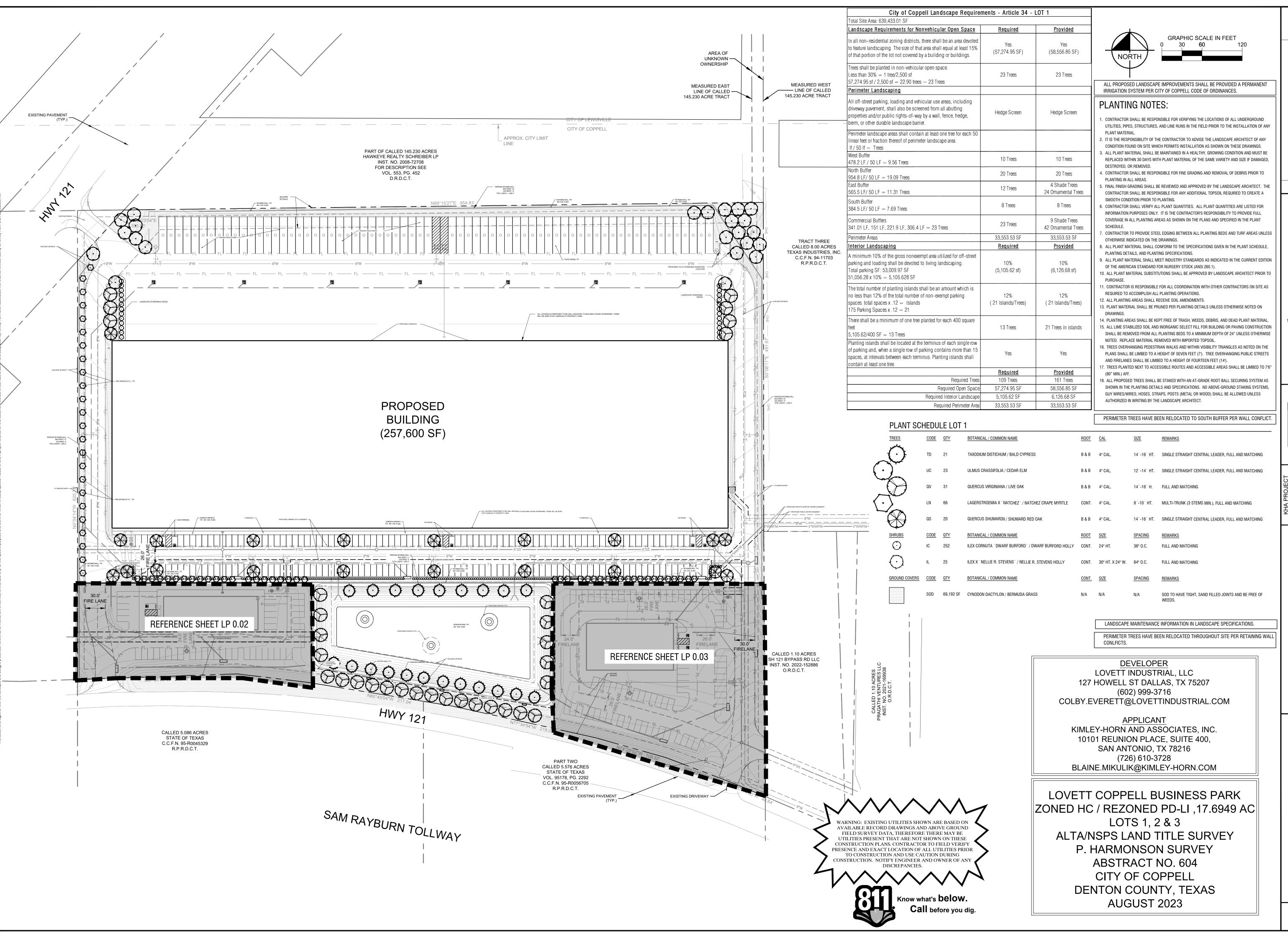
Kimley » Horn

R.L.A. BLAINE D. MIKULIK

L.A. No. 3486 DATE 10/30/2023

LANDSCAPE TAIL PLAN

SHEET NUMBER LP 0.00

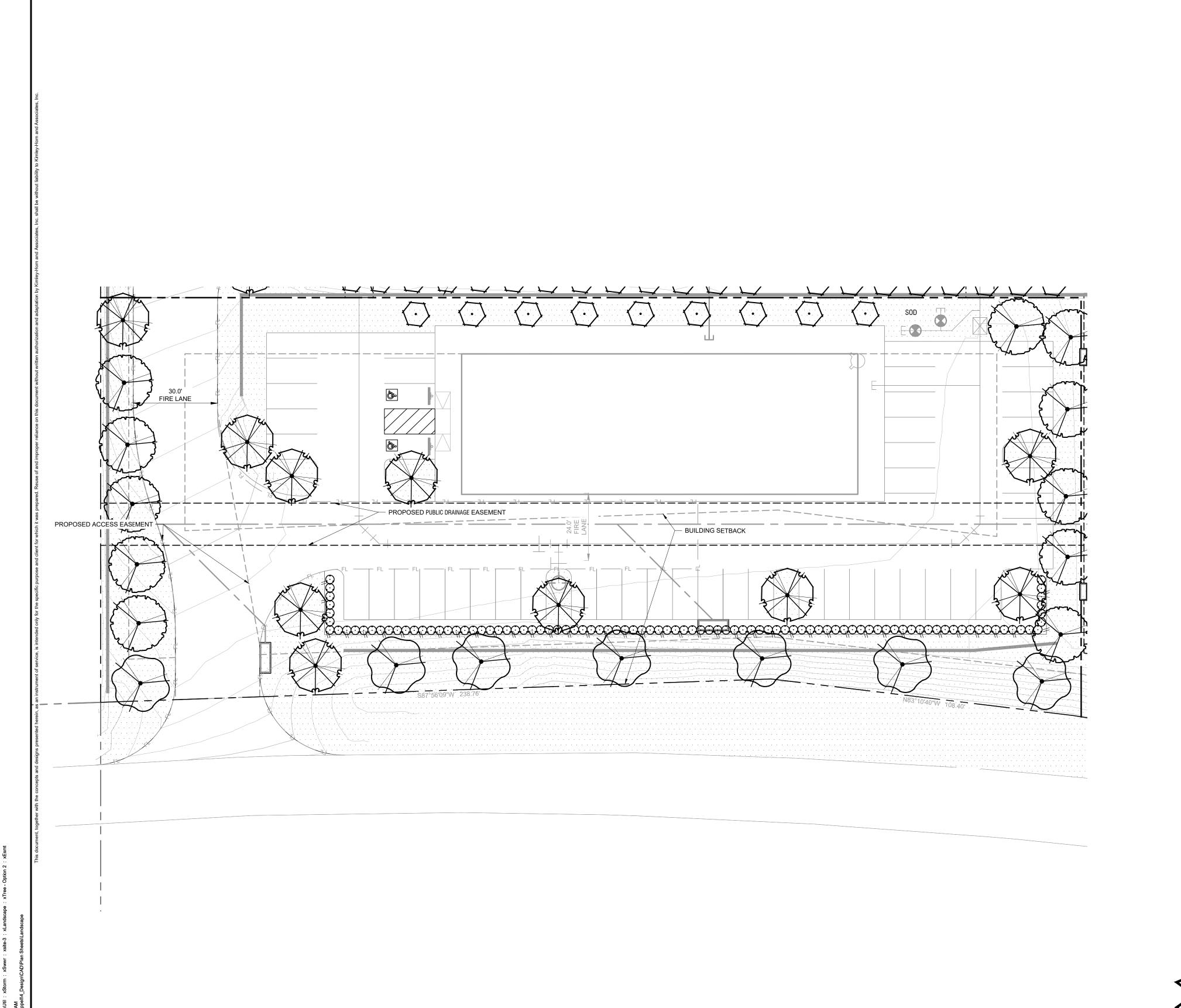


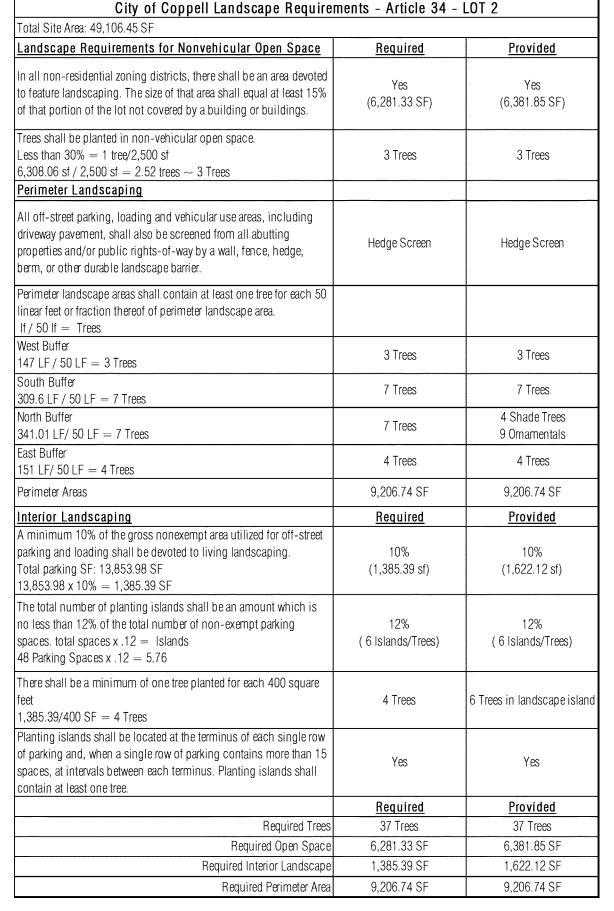
PRELIMINAR FOR REVIEW ONLY Not for construction or permit purpose Kimley»Horn R.L.A. BLAINE D. MIKULIK L.A. No. 3486 DATE 10/30/2023

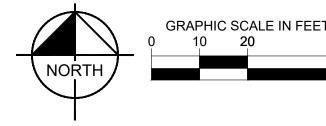
INDUSTRIAI OPP 0

APE PLAI ANDSC/ DETAIL RAL LOT

SHEET NUMBER LP 0.01







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- 2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADVISE THE LANDSCAPE ARCHITECT OF ANY CONDITION FOUND ON SITE WHICH PERMITS INSTALLATION AS SHOWN ON THESE DRAWINGS.
- ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY, GROWING CONDITION AND MUST BE REPLACED WITHIN 30 DAYS WITH PLANT MATERIAL OF THE SAME VARIETY AND SIZE IF DAMAGED, DESTROYED, OR REMOVED.
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR FINE GRADING AND REMOVAL OF DEBRIS PRIOR TO PLANTING IN ALL AREAS.
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- OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).

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 16. TREES OVERHANGING PEDESTRIAN WALKS AND WITHIN VISIBILITY TRIANGLES AS NOTED ON THE PLANS SHALL BE LIMBED TO A HEIGHT OF SEVEN FEET (7'). TREE OVERHANGING PUBLIC STREETS
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PLANT SCHEDULE LOT 2

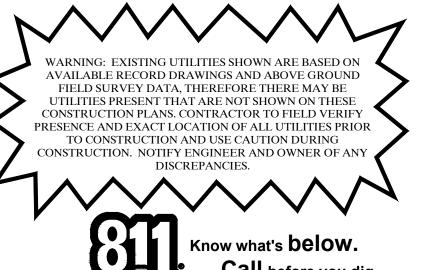
	TREES	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME	<u>R00T</u>	CAL	SIZE	REMARKS
بنجسر		UP	7	ULMUS PARVIFOLIA / LACEBARK ELM	B & B	3" CAL.	14`-16` HT.	FULL AND MATCHING
)	QV	11	QUERCUS VIRGINIANA / LIVE OAK	B & B	4" CAL.	14`-16` H.	FULL AND MATCHING
4	$\langle \cdot \rangle$	LN	9	LAGERSTROEMIA X `NATCHEZ` / NATCHEZ CRAPE MYRTLE	CONT.	4" CAL.	8`-10` HT.	MULTI-TRUNK (3 STEMS MIN.), FULL AND MATCHING
		QS	10	QUERCUS SHUMARDII / SHUMARD RED OAK	B & B	4" CAL.	14`-16` HT.	SINGLE STRAIGHT CENTRAL LEADER, FULL AND MATCHING
717	SHRUBS	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME	<u>R00T</u>	SIZE	SPACING	REMARKS
	\odot	IC	97	ILEX CORNUTA `DWARF BURFORD` / DWARF BURFORD HOLLY	CONT.	24" HT.	36" O.C.	FULL AND MATCHING
	GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	CONT.	SIZE	SPACING	REMARKS
		SOD	15,571 SF	CYNODON DACTYLON / BERMUDA GRASS	N/A	N/A	N/A	SOD TO HAVE TIGHT, SAND FILLED JOINTS AND BE FREE OF

LANDSCAPE MAINTENANCE INFORMATION IN LANDSCAPE SPECIFICATIONS.

PERIMETER TREES HAVE BEEN RELOCATED THROUGHOUT SITE PER RETAINING WA CONLFICTS.

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LOVETT COPPELL BUSINESS PARK
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LOTS 1, 2 & 3
ALTA/NSPS LAND TITLE SURVEY

ALTA/NSPS LAND TITLE SURVEY
P. HARMONSON SURVEY
ABSTRACT NO. 604
CITY OF COPPELL
DENTON COUNTY, TEXAS
AUGUST 2023

ENTRAL EXPRESSWAY, SUITE 400, RICHARDSON, TX 75080
:: 972-770-1300 FAX: 972-239-3820
V.KIMLEY-HORN.COM TX F-928

FOR REVIEW ONLY
Not for construction or permit purposes.

Kimley» Horn

RLA. ____BLAINE D. MIKULIK
LA. No. ___ 3486 ___ DATE ___ 10/30/2023 ___

DATE
OCTOBER 2023
ALE AS SHOWN
SIGNED BY LC
AWN BY LC

FLL SC/

PREPARED FOR OVETT INDUSTF

OPPELL **L(**

OVERALL LANDSCAPE PLA LOT 2 DETAIL PLAN

SHEET NUMBER LP 0.02

Landscape Requirements for Nonvehicular Open Space	Required	Provided
	itoquirou	11041000
In all non-residential zoning districts, there shall be an area devoted to feature landscaping. The size of that area shall equal at least 15% of that portion of the lot not covered by a building or buildings.	Yes (10,987.43 SF)	Yes (14,567.03 SF)
Trees shall be planted in non-vehicular open space. Less than $30\%=1$ tree/4,000 sf $10,987.43$ sf / 4,000 sf $=4.39$ trees ~5 Trees	5 Trees	5 Trees
Perimeter Landscaping		
All off-street parking, loading and vehicular use areas, including driveway pavement, shall also be screened from all abutting properties and/or public rights-of-way by a wall, fence, hedge, berm, or other durable landscape barrier.	Hedge Screen	Hedge Screen
Perimeter landscape areas shall contain at least one tree for each 50 linear feet or fraction thereof of perimeter landscape area. If / 50 If = Trees		
West Buffer 221.9 LF / 50 LF = 5 Trees	5 Trees	5 Trees
South Buffer 294.6 LF / 50 LF = 6 Trees	6 Trees	6 Trees
North Buffer 306.4 LF/ 50 LF = 7 Trees	7 Trees	4 Shade Trees 9 Ornamentals
East Buffer 322 LF/ 50 LF = 7 Trees	7 Trees	7 Trees
Perimeter Areas	10,725.43 SF	10,725.43 SF
Interior Landscaping	Required	Provided
A minimum 10% of the gross nonexempt area utilized for off-street parking and loading shall be devoted to living landscaping. Total parking SF: 17,057.65 SF 17,057.65 x 10% = 1,705.76 SF	10% (1,705.76 sf)	10% (sf)
The total number of planting islands shall be an amount which is no less than 12% of the total number of non-exempt parking spaces. total spaces x .12 = Islands 75 Parking Spaces x .12 = 9	12% (9 Islands/Trees)	12% (9 Islands/Trees
There shall be a minimum of one tree planted for each 400 square feet 1,700.39/400 SF = 5 Trees	5 Trees	8 Trees provided landscape island
Planting islands shall be located at the terminus of each single row of parking and, when a single row of parking contains more than 15 spaces, at intervals between each terminus. Planting islands shall contain at least one tree.	Yes	Yes
	<u>Required</u>	<u>Provided</u>
Required Trees	45 Trees Total	45 Trees Total
Required Open Space	10,987.43 SF	14,567.03 SF
Required Interior Landscape	1,705.76 SF	2,273.27 SF
Required Perimeter Area	10,725.43 SF	10,725.43 SF

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PLANT SCHEDULE LOT 3

AVAILABLE RECORD DRAWINGS AND ABOVE GROUND

FIELD SURVEY DATA, THEREFORE THERE MAY BE

CONSTRUCTION PLANS. CONTRACTOR TO FIELD VERIFY
PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR
TO CONSTRUCTION AND USE CAUTION DURING

Call before you dig.

TREES	CODE	QTY	BOTANICAL / COMMON NAME	<u>R00T</u>	CAL	SIZE	REMARKS
	UP	18	ULMUS PARVIFOLIA / LACEBARK ELM	B & B	3" CAL.	14`-16` HT.	FULL AND MATCHING
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$\overline{}$	LN	9	LAGERSTROEMIA X `NATCHEZ` / NATCHEZ CRAPE MYRTLE	CONT.	4" CAL.	8`-10` HT.	MULTI-TRUNK (3 STEMS MIN.), FULL AND MATCHING
	QS	8	QUERCUS SHUMARDII / SHUMARD RED OAK	B & B	4" CAL.	14`-16` HT.	SINGLE STRAIGHT CENTRAL LEADER, FULL AND MATCHING
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	<u>R00T</u>	SIZE	SPACING	<u>REMARKS</u>
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GROUND COVERS	<u>CODE</u>	QTY	BOTANICAL / COMMON NAME	CONT.	SIZE	SPACING	REMARKS
	SOD	25,990 SF	CYNODON DACTYLON / BERMUDA GRASS	N/A	N/A	N/A	SOD TO HAVE TIGHT, SAND FILLED JOINTS AND BE FREE OF WEEDS.

LANDSCAPE MAINTENANCE INFORMATION IN LANDSCAPE SPECIFICATIONS.

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P. HARMONSON SURVEY ABSTRACT NO. 604 CITY OF COPPELL DENTON COUNTY, TEXAS AUGUST 2023

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LOVETT COPPELL BUSINESS PARK ZONED HC / REZONED PD-LI ,17.6949 AC LOTS 1, 2 & 3 ALTA/NSPS LAND TITLE SURVEY

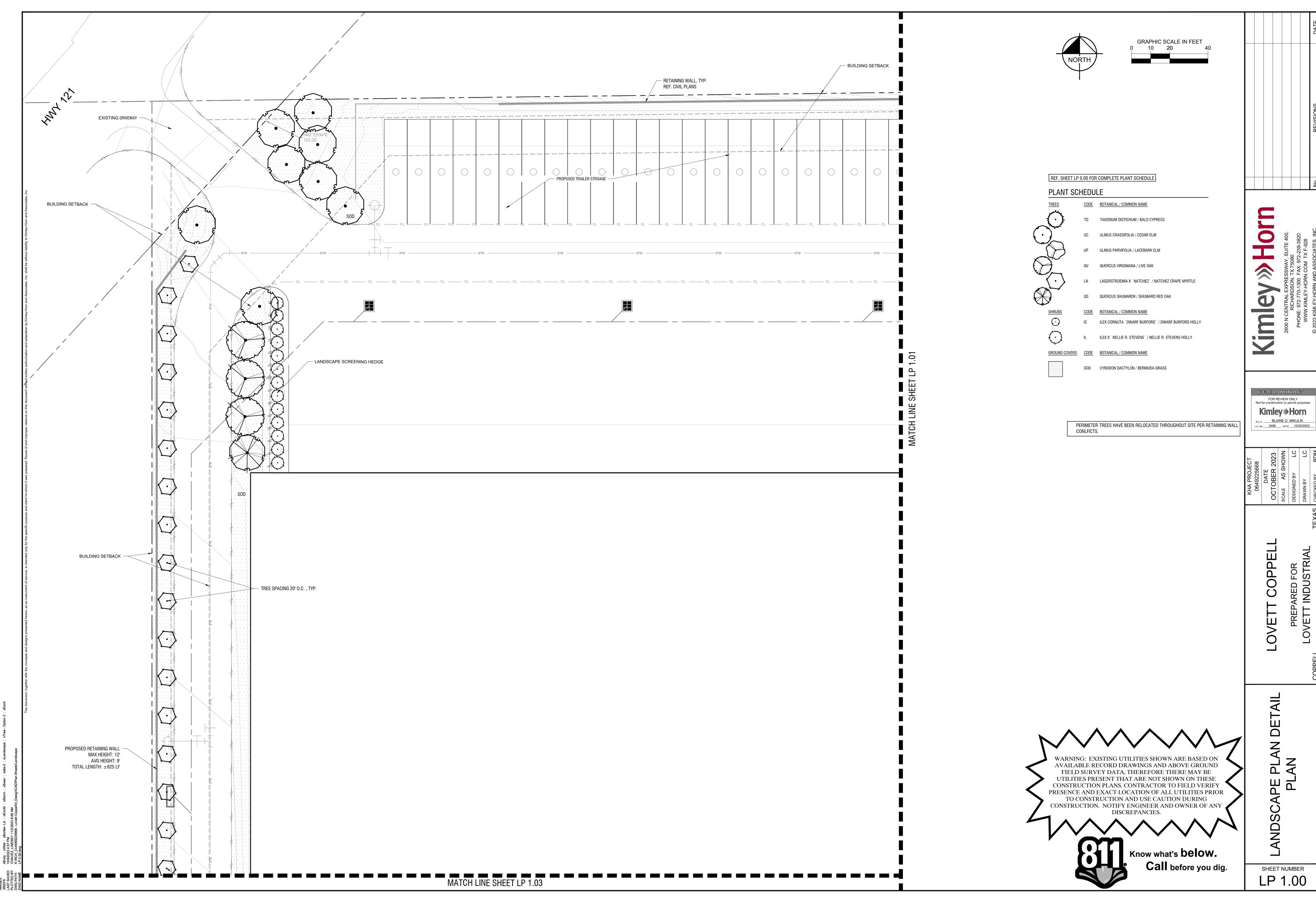
Not for construction or permit purposes **Kimley** » Horn R.L.A. BLAINE D. MIKULIK L.A. No. 3486 DATE 10/30/2023

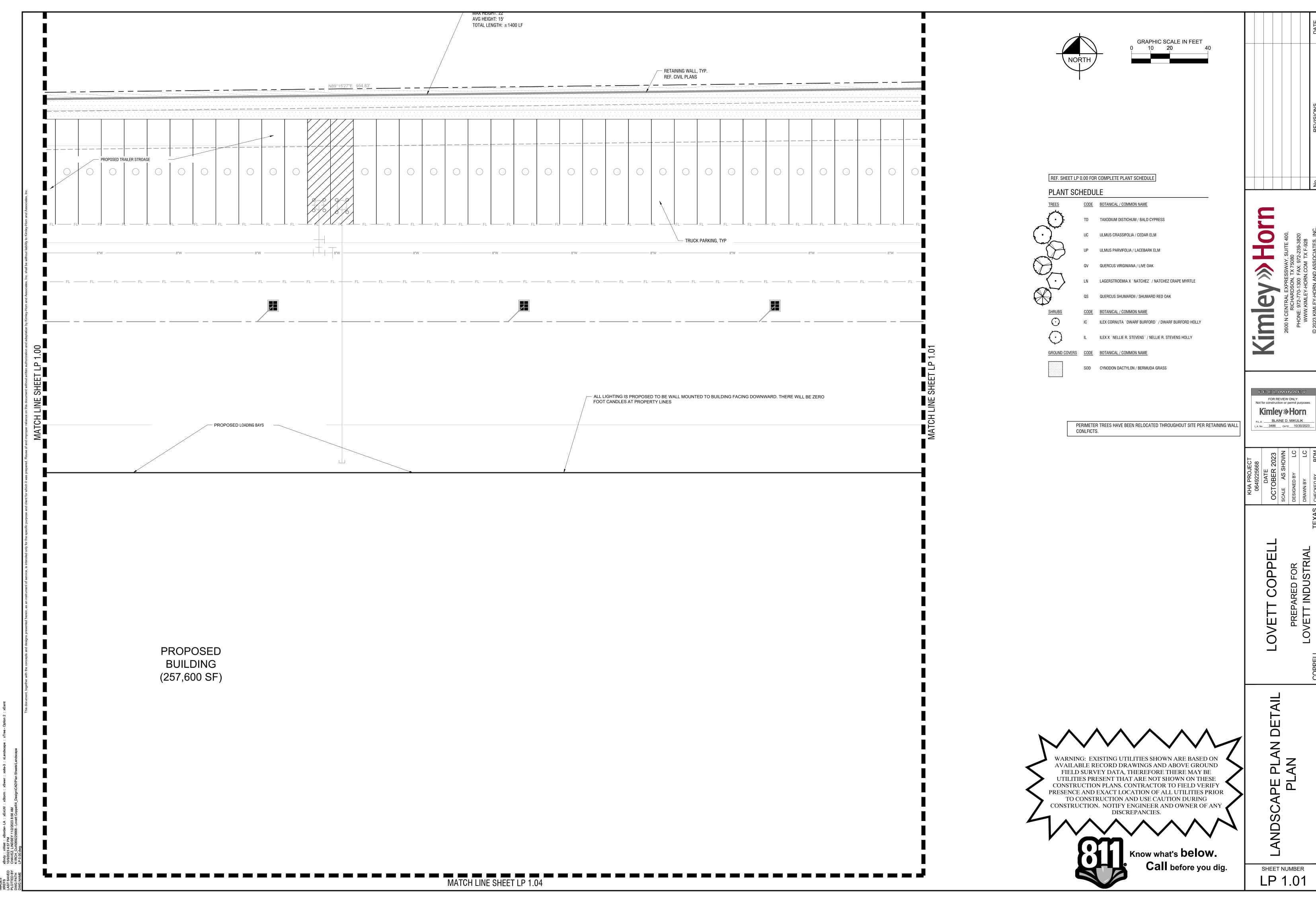
PREPARED FOR LOVETT INDUSTRIAL

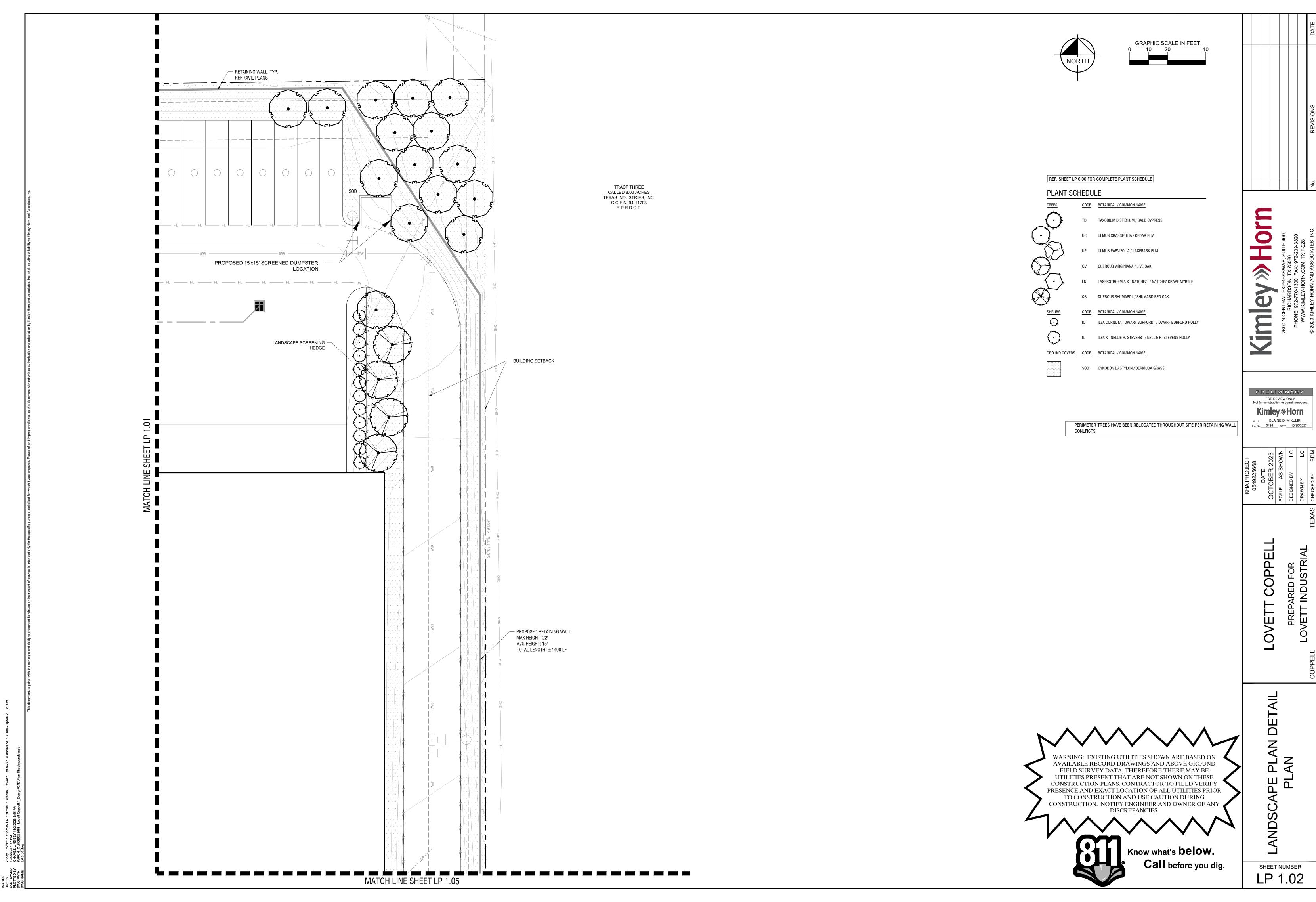
LOVE

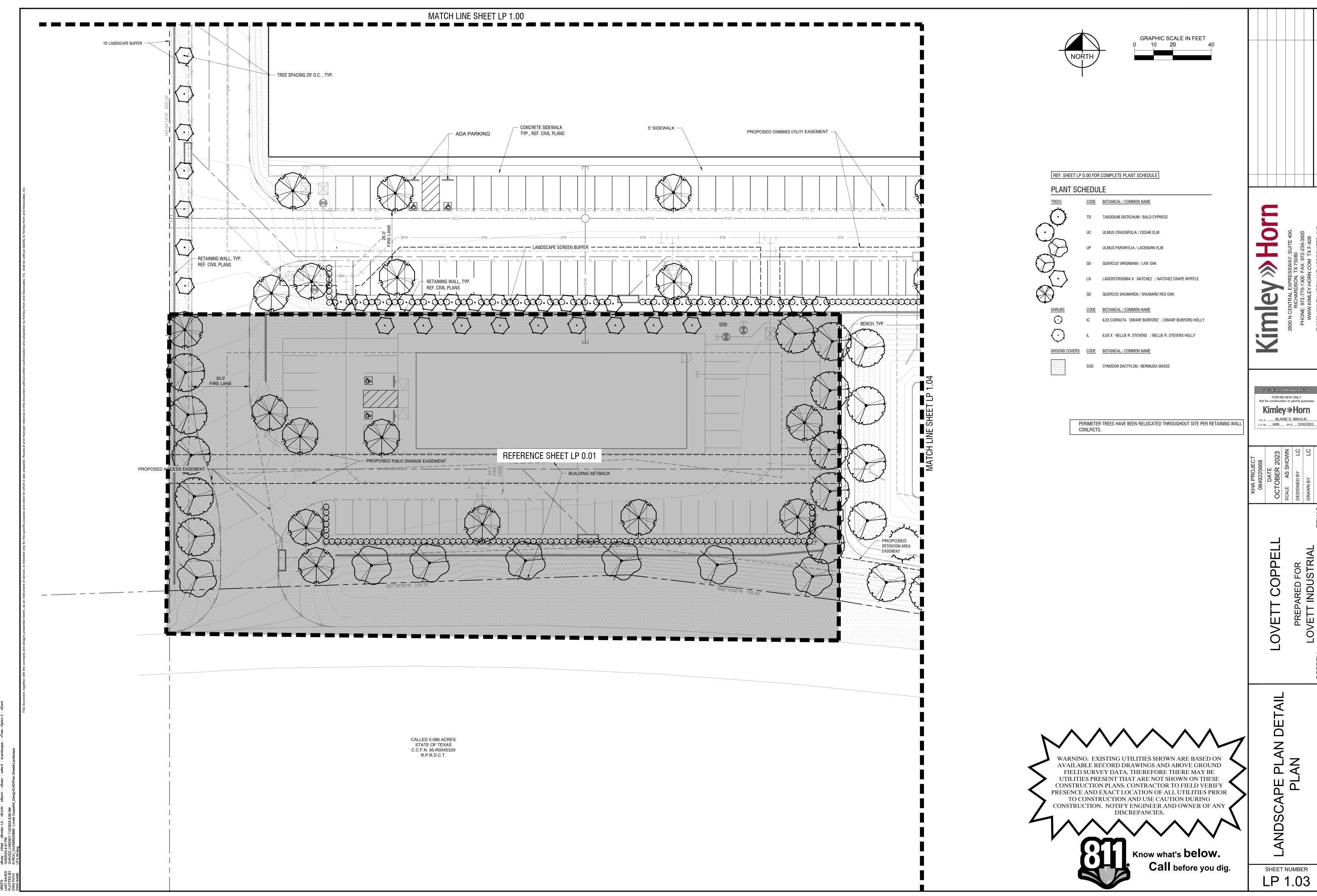
L LANDSCAPE PI 3 DETAIL PLAN RALL LOT 3

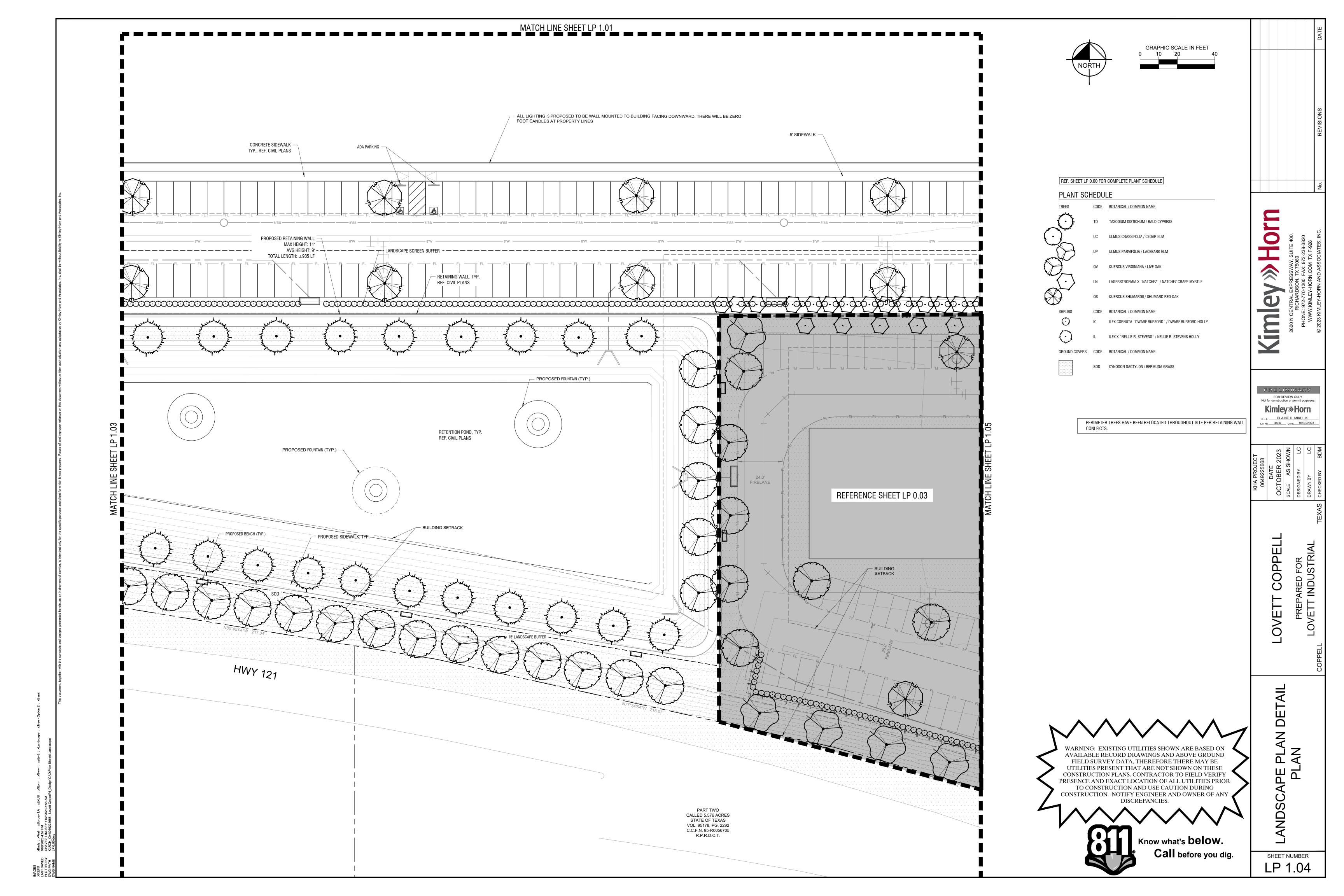
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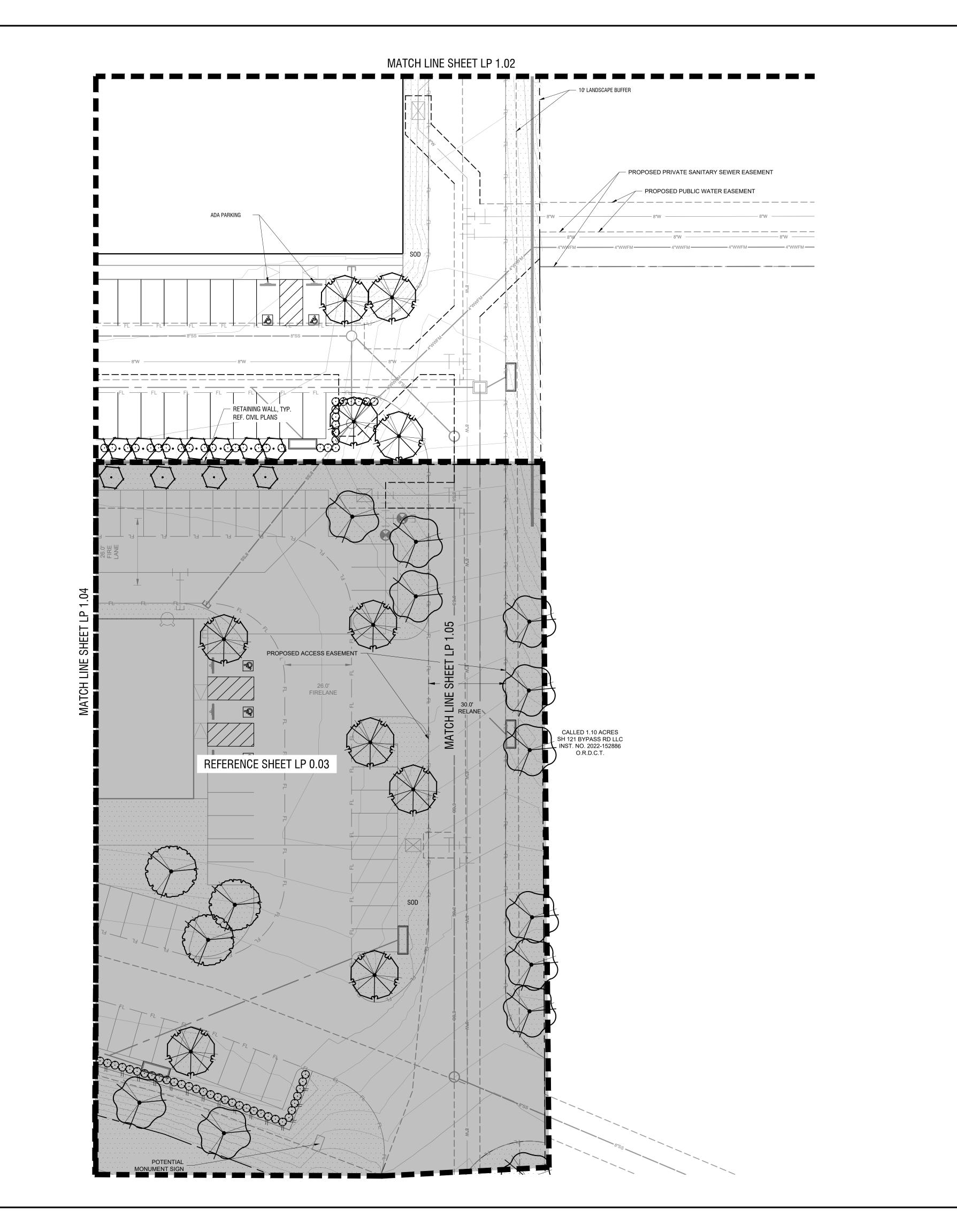




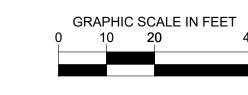












REF. SHEET LP 0.00 FOR COMPLETE PLANT SCHEDULE

PLANT SCHEDULE

CODE BOTANICAL / COMMON NAME TD TAXODIUM DISTICHUM / BALD CYPRESS

UC ULMUS CRASSIFOLIA / CEDAR ELM UP ULMUS PARVIFOLIA / LACEBARK ELM

QV QUERCUS VIRGINIANA / LIVE OAK

QS QUERCUS SHUMARDII / SHUMARD RED OAK

CODE BOTANICAL / COMMON NAME

IC ILEX CORNUTA `DWARF BURFORD` / DWARF BURFORD HOLLY IL ILEX X `NELLIE R. STEVENS` / NELLIE R. STEVENS HOLLY

GROUND COVERS CODE BOTANICAL / COMMON NAME

SOD CYNODON DACTYLON / BERMUDA GRASS

PERIMETER TREES HAVE BEEN RELOCATED THROUGHOUT SITE PER RETAINING WALL

LN LAGERSTROEMIA X `NATCHEZ` / NATCHEZ CRAPE MYRTLE

PRELIMINARY FOR REVIEW ONLY
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L.A. No. 3486 DATE 10/30/2023

COPPELL

PREPARED FOR LOVETT INDUSTRIAL

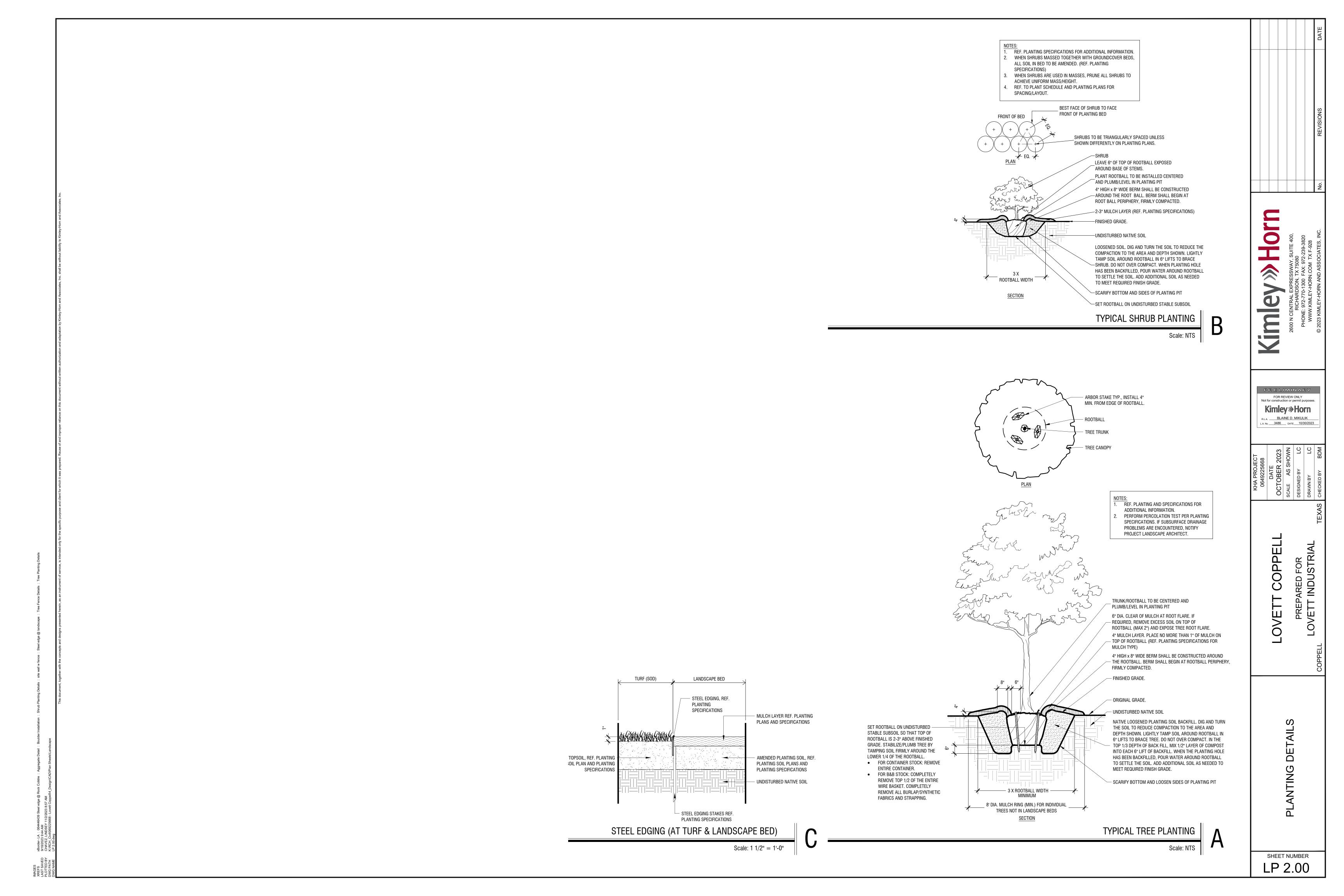
LOVETT

ANDSCAPE F

SHEET NUMBER LP 1.05

AVAILABLE RECORD DRAWINGS AND ABOVE GROUND FIELD SURVEY DATA, THEREFORE THERE MAY BE UTILITIES PRESENT THAT ARE NOT SHOWN ON THESE CONSTRUCTION PLANS. CONTRACTOR TO FIELD VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND USE CAUTION DURING CONSTRUCTION. NOTIFY ENGINEER AND OWNER OF ANY Know what's **below.**

Call before you dig.



1.1 SUMMARY

- A. THE SCOPE OF WORK INCLUDES ALL LABOR, MATERIALS, APPLIANCES, TOOLS, EQUIPMENT, FACILITIES, TRANSPORTATION AND SERVICES NECESSARY FOR, AND INCIDENTAL TO PERFORMING ALL OPERATIONS IN CONNECTION WITH FURNISHING, DELIVERY, AND INSTALLATION OF PLANT (ALSO KNOWN AS "LANDSCAPING") COMPLETE AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.
- B. THE SCOPE OF WORK IN THIS SECTION INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:
- 1. LOCATE, PURCHASE, DELIVER AND INSTALL ALL SPECIFIED PLANTS.
- WATER ALL SPECIFIED PLANTS.
- 3. MULCH, FERTILIZE, STAKE, AND PRUNE ALL SPECIFIED PLANTS.
- 4. MAINTENANCE OF ALL SPECIFIED PLANTS UNTIL THE BEGINNING OF THE WARRANTY PERIOD.
- PLANT WARRANTY.
- 6. CLEAN UP AND DISPOSAL OF ALL EXCESS AND SURPLUS MATERIAL.
- 7. MAINTENANCE OF ALL SPECIFIED PLANTS DURING THE WARRANTY PERIOD.

1.2 CONTRACT DOCUMENTS

A. SHALL CONSIST OF SPECIFICATIONS AND GENERAL CONDITIONS AND THE CONSTRUCTION DRAWINGS. THE INTENT OF THESE DOCUMENTS IS TO INCLUDE ALL LABOR, MATERIALS, AND SERVICES NECESSARY FOR THE PROPER EXECUTION OF THE WORK. THE DOCUMENTS ARE TO BE CONSIDERED AS ONE. WHATEVER IS CALLED FOR BY ANY PARTS SHALL BE AS BINDING AS IF CALLED FOR IN ALL PARTS.

1.3 RELATED DOCUMENTS AND REFERENCES

A. RELATED DOCUMENTS:

- 1. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT INCLUDING GENERAL AND SUPPLEMENTARY
- CONDITIONS AND DIVISION I SPECIFICATIONS APPLY TO WORK OF THIS SECTION
- 2. RELATED SPECIFICATION SECTIONS a. IRRIGATION
- b. LAWN AND GRASSES
- B. REFERENCES: THE FOLLOWING SPECIFICATIONS AND STANDARDS OF THE ORGANIZATIONS AND DOCUMENTS LISTED IN THIS PARAGRAPH FORM A PART OF THE SPECIFICATION TO THE EXTENT REQUIRED BY THE REFERENCES THERETO. IN THE EVENT THAT THE REQUIREMENTS OF THE FOLLOWING REFERENCED STANDARDS AND SPECIFICATION CONFLICT WITH THIS SPECIFICATION SECTION THE REQUIREMENTS OF THIS SPECIFICATION SHALL PREVAIL. IN THE EVENT THAT THE REQUIREMENTS OF ANY OF THE FOLLOWING REFERENCED STANDARDS AND SPECIFICATIONS CONFLICT WITH EACH OTHER THE MORE STRINGENT REQUIREMENT SHALL PREVAIL OR AS DETERMINED BY THE OWNERS REPRESENTATIVE.
- 1. ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK, MOST CURRENT EDITION.
- 2. ANSI A 300 STANDARD PRACTICES FOR TREE, SHRUB AND OTHER WOODY PLANT MAINTENANCE, MOST CURRENT EDITION AND ALL PARTS.
- 3. INTERPRETATION OF PLANT NAMES AND DESCRIPTIONS SHALL REFERENCE THE FOLLOWING DOCUMENTS. WHERE THE NAMES OR PLANT DESCRIPTIONS DISAGREE BETWEEN THE SEVERAL DOCUMENTS, THE MOST CURRENT DOCUMENT SHALL PREVAIL.
- a. USDA THE GERMPLASM RESOURCES INFORMATION NETWORK (WWW.ARS-GRIN.GOV/NPGS.HTML) b. MANUAL OF WOODY LANDSCAPE PLANTS; MICHAEL DIRR; STIPES PUBLISHING, CHAMPAIGN, ILLINOIS; MOST CURRENT EDITION.
- c. The New Sunset Western Garden Book, Oxmoor House, most current edition.
- 4. PRUNING PRACTICES SHALL CONFORM TO RECOMMENDATIONS "STRUCTURAL PRUNING: A GUIDE FOR THE GREEN INDUSTRY" MOST CURRENT EDITION; PUBLISHED BY URBAN TREE FOUNDATION, VISALIA,
- GLOSSARY OF ARBORICULTURAL TERMS, INTERNATIONAL SOCIETY OF ARBORICULTURE, CHAMPAIGN IL, MOST CURRENT EDITION.

1.4 VERIFICATION

- A. ALL SCALED DIMENSIONS ON THE DRAWINGS ARE APPROXIMATE. BEFORE PROCEEDING WITH ANY WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL DIMENSIONS AND QUANTITIES, AND SHALL IMMEDIATELY INFORM THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN THE INFORMATION ON THE DRAWINGS AND THE ACTUAL CONDITIONS, REFRAINING FROM DOING ANY WORK IN SAID AREAS UNTIL GIVEN APPROVAL TO DO SO BY THE OWNER'S REPRESENTATIVE.
- B. IN THE CASE OF A DISCREPANCY IN THE PLANT QUANTITIES BETWEEN THE PLAN DRAWINGS AND THE PLANT CALL OUTS, LIST OR PLANT SCHEDULE, THE NUMBER OF PLANTS OR SQUARE FOOTAGE OF THE PLANTING BED ACTUALLY DRAWN ON THE PLAN DRAWINGS SHALL BE DEEMED CORRECT AND PREVAIL.

1.5 PERMITS AND REGULATIONS

- A. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS RELATED TO THIS SECTION OF THE WORK UNLESS PREVIOUSLY EXCLUDED UNDER PROVISION OF THE CONTRACT OR GENERAL CONDITIONS. THE CONTRACTOR SHALL COMPLY WITH ALL LAWS AND ORDINANCES BEARING ON THE OPERATION OR CONDUCT OF THE WORK AS DRAWN AND SPECIFIED. IF THE CONTRACTOR OBSERVES THAT A CONFLICT EXISTS BETWEEN PERMIT REQUIREMENTS AND THE WORK OUTLINED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING INCLUDING A DESCRIPTION OF ANY NECESSARY CHANGES AND CHANGES TO THE CONTRACT PRICE RESULTING FROM CHANGES IN THE WORK.
- B. WHEREVER REFERENCES ARE MADE TO STANDARDS OR CODES IN ACCORDANCE WITH WHICH WORK IS TO BE PERFORMED OR TESTED, THE EDITION OR REVISION OF THE STANDARDS AND CODES CURRENT ON THE EFFECTIVE DATE OF THIS CONTRACT SHALL APPLY, UNLESS OTHERWISE EXPRESSLY SET FORTH.
- C. IN CASE OF CONFLICT AMONG ANY REFERENCED STANDARDS OR CODES OR BETWEEN ANY REFERENCED STANDARDS AND CODES AND THE SPECIFICATIONS, THE MORE RESTRICTIVE STANDARD SHALL APPLY OR OWNER'S REPRESENTATIVE SHALL DETERMINE WHICH SHALL GOVERN.

1.6 PROTECTION OF WORK, PROPERTY AND PERSON

A. THE CONTRACTOR SHALL ADEQUATELY PROTECT THE WORK, ADJACENT PROPERTY, AND THE PUBLIC, AND SHALL BE RESPONSIBLE FOR ANY DAMAGES OR INJURY DUE TO HIS/HER ACTIONS.

1.7 CHANGES IN THE WORK

- A. THE OWNER'S REPRESENTATIVE MAY ORDER CHANGES IN THE WORK, AND THE CONTRACT SUM SHOULD BE ADJUSTED ACCORDINGLY. ALL SUCH ORDERS AND ADJUSTMENTS PLUS CLAIMS BY THE CONTRACTOR FOR EXTRA COMPENSATION MUST BE MADE AND APPROVED IN WRITING BEFORE EXECUTING THE WORK INVOLVED.
- B. ALL CHANGES IN THE WORK, NOTIFICATIONS AND CONTRACTOR'S REQUEST FOR INFORMATION (RFI) SHALL CONFORM TO THE CONTRACT GENERAL CONDITION REQUIREMENTS.

1.8 CORRECTION OF WORK

A. THE CONTRACTOR, AT THEIR OWN COST, SHALL RE-EXECUTE ANY WORK THAT FAILS TO CONFORM TO THE REQUIREMENTS OF THE CONTRACT AND SHALL REMEDY DEFECTS DUE TO FAULTY MATERIALS OR WORKMANSHIP UPON WRITTEN NOTICE FROM THE OWNER'S REPRESENTATIVE, AT THE SOONEST AS POSSIBLE TIME THAT CAN BE COORDINATED WITH OTHER WORK AND SEASONAL WEATHER DEMANDS.

1.9 **DEFINITIONS**

- ALL TERMS IN THIS SPECIFICATION SHALL BE AS DEFINED IN THE "GLOSSARY OF ARBORICULTURAL TERMS" OR
- A. BOXED TREES: A CONTAINER ROOT BALL PACKAGE MADE OF WOOD IN THE SHAPE OF A FOUR-SIDED BOX. B. CONTAINER PLANT: PLANTS THAT ARE GROWN IN AND/OR ARE CURRENTLY IN A CONTAINER INCLUDING BOXED
- TREES. C. DEFECTIVE PLANT: ANY PLANT THAT FAILS TO MEET THE PLANT QUALITY REQUIREMENT OF THIS SPECIFICATION. D. END OF WARRANTY FINAL ACCEPTANCE: THE DATE WHEN THE OWNER'S REPRESENTATIVE ACCEPTS THAT THE

PLANTS AND WORK IN THIS SECTION MEET ALL THE REQUIREMENTS OF THE WARRANTY. IT IS INTENDED THAT

THE MATERIALS AND WORKMANSHIP WARRANTY FOR PLANTING, PLANTING SOIL, AND IRRIGATION WORK RUN

- CONCURRENT WITH EACH OTHER. E. FIELD GROWN TREES (B&B): TREES GROWING IN FIELD SOIL FOR AT LEAST 12 MONTHS PRIOR TO HARVEST.
- F. HEALTHY: PLANTS THAT ARE GROWING IN A CONDITION THAT EXPRESSES LEAF SIZE, CROWN DENSITY, COLOR AND WITH ANNUAL GROWTH RATES TYPICAL OF THE SPECIES AND CULTIVAR'S HORTICULTURAL DESCRIPTION,
- ADJUSTED FOR THE PLANTING SITE SOIL, DRAINAGE AND WEATHER CONDITIONS. G. KINKED ROOT: A ROOT WITHIN THE ROOT PACKAGE THAT BENDS MORE THAN 90 DEGREES. H. MAINTENANCE: ACTIONS THAT PRESERVE THE HEALTH OF PLANTS AFTER INSTALLATION AND AS DEFINED IN
- THIS SPECIFICATION. I. MAINTENANCE PERIOD: THE TIME PERIOD, AS DEFINED IN THIS SPECIFICATION, WHICH THE CONTRACTOR IS TO
- PROVIDE MAINTENANCE. J. NORMAL: THE PREVAILING PROTOCOL OF INDUSTRY STANDARD(S).
- K. OWNER'S REPRESENTATIVE: THE PERSON APPOINTED BY THE OWNER TO REPRESENT THEIR INTEREST IN THE REVIEW AND APPROVAL OF THE WORK AND TO SERVE AS THE CONTRACTING AUTHORITY WITH THE CONTRACTOR. THE OWNER'S REPRESENTATIVE MAY APPOINT OTHER PERSONS TO REVIEW AND APPROVE ANY ASPECTS OF THE WORK.
- L. REASONABLE AND REASONABLY: WHEN USED IN THIS SPECIFICATION RELATIVE TO PLANT QUALITY, IT IS INTENDED TO MEAN THAT THE CONDITIONS CITED WILL NOT AFFECT THE ESTABLISHMENT OR LONG TERM STABILITY, HEALTH OR GROWTH OF THE PLANT. THIS SPECIFICATION RECOGNIZES THAT IT IS NOT POSSIBLE TO PRODUCE PLANTS FREE OF ALL DEFECTS, BUT THAT SOME ACCEPTED INDUSTRY PROTOCOLS AND STANDARDS RESULT IN PLANTS UNACCEPTABLE TO THIS PROJECT.
- WHEN REASONABLE OR REASONABLY IS USED IN RELATION TO OTHER ISSUES SUCH AS WEEDS, DISEASED,

- INSECTS, IT SHALL MEAN AT LEVELS LOW ENOUGH THAT NO TREATMENT WOULD BE REQUIRED WHEN APPLYING RECOGNIZED INTEGRATED PLANT MANAGEMENT PRACTICES.
- THIS SPECIFICATION RECOGNIZES THAT SOME DECISIONS CANNOT BE TOTALLY BASED ON MEASURED FINDINGS AND THAT PROFESSIONAL JUDGMENT IS REQUIRED. IN CASES OF DIFFERING OPINION, THE OWNER'S REPRESENTATIVE'S EXPERT SHALL DETERMINE WHEN CONDITIONS ARE JUDGED AS REASONABLE.
- M. ROOT BALL: THE MASS OF ROOTS INCLUDING ANY SOIL OR SUBSTRATE THAT IS SHIPPED WITH THE TREE WITHIN THE ROOT BALL PACKAGE.
- N. ROOT BALL PACKAGE. THE MATERIAL THAT SURROUNDS THE ROOT BALL DURING SHIPPING. THE ROOT PACKAGE MAY INCLUDE THE MATERIAL IN WHICH THE PLANT WAS GROWN, OR NEW PACKAGING PLACED AROUND THE ROOT BALL FOR SHIPPING.
- O. ROOT COLLAR (ROOT CROWN, ROOT FLARE, TRUNK FLARE, FLARE): THE REGION AT THE BASE OF THE TRUNK WHERE THE MAJORITY OF THE STRUCTURAL ROOTS JOIN THE PLANT STEM, USUALLY AT OR NEAR GROUND
- P. SHRUB: WOODY PLANTS WITH MATURE HEIGHT APPROXIMATELY LESS THAN 15 FEET.
- Q. SPADE HARVESTED AND TRANSPLANTED: FIELD GROWN TREES THAT ARE MECHANICALLY HARVESTED AND IMMEDIATELY TRANSPLANTED TO THE FINAL GROWING SITE WITHOUT BEING REMOVED FROM THE DIGGING

R. STEM: THE TRUNK OF THE TREE.

- S. SUBSTANTIAL COMPLETION ACCEPTANCE: THE DATE AT THE END OF THE PLANTING, PLANTING SOIL, AND IRRIGATION INSTALLATION WHERE THE OWNER'S REPRESENTATIVE ACCEPTS THAT ALL WORK IN THESE SECTIONS IS COMPLETE AND THE WARRANTY PERIOD HAS BEGUN. THIS DATE MAY BE DIFFERENT THAN THE DATE OF SUBSTANTIAL COMPLETION FOR THE OTHER SECTIONS OF THE PROJECT.
- T. STEM GIRDLING ROOT: ANY ROOT MORE THAN 1/4 INCH DIAMETER CURRENTLY TOUCHING THE TRUNK, OR WITH THE POTENTIAL TO TOUCH THE TRUNK, ABOVE THE ROOT COLLAR APPROXIMATELY TANGENT TO THE TRUNK CIRCUMFERENCE OR CIRCLING THE TRUNK. ROOTS SHALL BE CONSIDERED AS STEM GIRDLING THAT HAVE, OR ARE LIKELY TO HAVE IN THE FUTURE, ROOT TO TRUNK BARK CONTACT.
- U. STRUCTURAL ROOT: ONE OF THE LARGEST ROOTS EMERGING FROM THE ROOT COLLAR.

V. TREE: SINGLE AND MULTI-STEMMED PLANTS WITH MATURE HEIGHT APPROXIMATELY GREATER THAN 15 FEET.

- 1.10 SUBMITTALS
- A. SEE CONTRACT GENERAL CONDITIONS FOR POLICY AND PROCEDURE RELATED TO SUBMITTALS. B. SUBMIT ALL PRODUCT SUBMITTALS 4 WEEKS PRIOR TO INSTALLATION OF PLANTINGS.
- C. PRODUCT DATA: SUBMIT MANUFACTURER PRODUCT DATA AND LITERATURE DESCRIBING ALL PRODUCTS REQUIRED BY THIS SECTION TO THE OWNER'S REPRESENTATIVE FOR APPROVAL. PROVIDE SUBMITTAL FOUR WEEKS BEFORE THE INSTALLATION OF PLANTS.
- D. SAMPLES: SUBMIT SAMPLES OF EACH PRODUCT AND MATERIAL WHERE REQUIRED BY THE SPECIFICATION TO THE OWNER'S REPRESENTATIVE FOR APPROVAL. LABEL SAMPLES TO INDICATE PRODUCT, CHARACTERISTICS, AND LOCATIONS IN THE WORK. SAMPLES WILL BE REVIEWED FOR APPEARANCE ONLY. COMPLIANCE WITH ALL OTHER REQUIREMENTS IS THE EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR.
- E. CLOSE OUT SUBMITTALS: SUBMIT TO THE OWNER'S REPRESENTATIVE FOR APPROVAL

1. PLANT MAINTENANCE DATA AND REQUIREMENTS.

F. WARRANTY PERIOD SITE VISIT RECORD: IF THERE IS NO MAINTENANCE DURING THE WARRANTY PERIOD, AFTER EACH SITE VISIT DURING THE WARRANTY PERIOD, BY THE CONTRACTOR, AS REQUIRED BY THIS SPECIFICATION, SUBMIT A WRITTEN RECORD OF THE VISIT, INCLUDING ANY PROBLEMS, POTENTIAL PROBLEMS, AND ANY RECOMMENDED CORRECTIVE ACTION TO THE OWNER'S REPRESENTATIVE FOR APPROVAL.

1.11 OBSERVATION OF THE WORK

- A. THE OWNER'S REPRESENTATIVE MAY OBSERVE THE WORK AT ANY TIME. THEY MAY REMOVE SAMPLES OF MATERIALS FOR CONFORMITY TO SPECIFICATIONS. REJECTED MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED AT THE CONTRACTOR'S EXPENSE. THE COST OF TESTING MATERIALS NOT MEETING SPECIFICATIONS SHALL BE PAID BY THE CONTRACTOR.
- B. THE OWNER'S REPRESENTATIVE SHALL BE INFORMED OF THE PROGRESS OF THE WORK SO THE WORK MAY BE OBSERVED AT THE FOLLOWING KEY TIMES IN THE CONSTRUCTION PROCESS. THE OWNER'S REPRESENTATIVE SHALL BE AFFORDED SUFFICIENT TIME TO SCHEDULE VISIT TO THE SITE. FAILURE OF THE OWNER'S REPRESENTATIVE TO MAKE FIELD OBSERVATIONS SHALL NOT RELIEVE THE CONTRACTOR FROM MEETING ALL THE REQUIREMENTS OF THIS SPECIFICATION.
- 1. SITE CONDITIONS PRIOR TO THE START OF PLANTING: REVIEW THE SOIL AND DRAINAGE CONDITIONS.
- 2. COMPLETION OF THE PLANT LAYOUT STAKING: REVIEW OF THE PLANT LAYOUT.

4. COMPLETION OF THE PLANTING: REVIEW THE COMPLETED PLANTING.

3. PLANT QUALITY: REVIEW OF PLANT QUALITY AT THE TIME OF DELIVERY AND PRIOR TO INSTALLATION. REVIEW TREE QUALITY PRIOR TO UNLOADING WHERE POSSIBLE, BUT IN ALL CASES PRIOR TO PLANTING.

1.12 PRE-CONSTRUCTION CONFERENCE

A SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE OWNER'S REPRESENTATIVE AT LEAST SEVEN (7) DAYS BEFORE BEGINNING WORK TO REVIEW ANY QUESTIONS THE CONTRACTOR MAY HAVE REGARDING THE WORK, ADMINISTRATIVE PROCEDURES DURING CONSTRUCTION AND PROJECT WORK SCHEDULE.

- A. SUBSTANTIAL COMPLETION ACCEPTANCE ACCEPTANCE OF THE WORK PRIOR TO THE START OF THE
- WARRANTY PERIOD: 1. ONCE THE CONTRACTOR COMPLETES THE INSTALLATION OF ALL ITEMS IN THIS SECTION, THE OWNER'S REPRESENTATIVE WILL OBSERVE ALL WORK FOR SUBSTANTIAL COMPLETION ACCEPTANCE UPON WRITTEN REQUEST OF THE CONTRACTOR. THE REQUEST SHALL BE RECEIVED AT LEAST TEN CALENDAR DAYS BEFORE THE ANTICIPATED DATE OF THE OBSERVATION.
- 2. SUBSTANTIAL COMPLETION ACCEPTANCE BY THE OWNER'S REPRESENTATIVE SHALL BE FOR GENERAL CONFORMANCE TO SPECIFIED SIZE, CHARACTER AND QUALITY AND NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR FULL CONFORMANCE TO THE CONTRACT DOCUMENTS, INCLUDING CORRECT SPECIES.
- 3. ANY PLANTS THAT ARE DEEMED DEFECTIVE AS DEFINED UNDER THE PROVISIONS BELOW SHALL NOT BE
- B. THE OWNER'S REPRESENTATIVE WILL PROVIDE THE CONTRACTOR WITH WRITTEN ACKNOWLEDGMENT OF THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE AND THE BEGINNING OF THE WARRANTY PERIOD AND PLANT MAINTENANCE PERIOD (IF PLANT MAINTENANCE IS INCLUDED).
- C. CONTRACTOR'S QUALITY ASSURANCE RESPONSIBILITIES: THE CONTRACTOR IS SOLELY RESPONSIBLE FOR QUALITY CONTROL OF THE WORK.
- D. INSTALLER QUALIFICATIONS: THE INSTALLER SHALL BE A FIRM HAVING AT LEAST 5 YEARS OF SUCCESSFUL EXPERIENCE OF A SCOPE SIMILAR TO THAT REQUIRED FOR THE WORK, INCLUDING THE HANDLING AND PLANTING OF LARGE SPECIMEN TREES IN URBAN AREAS. THE SAME FIRM SHALL INSTALL PLANTING SOIL (WHERE APPLICABLE) AND PLANT MATERIAL.
- 1. INSTALLER FIELD SUPERVISION: WHEN ANY PLANTING WORK IS IN PROGRESS, INSTALLER SHALL MAINTAIN, ON SITE, A FULL-TIME SUPERVISOR WHO CAN COMMUNICATE IN ENGLISH WITH THE OWNER'S REPRESENTATIVE.
- 2. INSTALLER'S FIELD SUPERVISOR SHALL HAVE A MINIMUM OF FIVE YEARS EXPERIENCE AS A FIELD SUPERVISOR INSTALLING PLANTS AND TREES OF THE QUALITY AND SCALE OF THE PROPOSED PROJECT, AND WHO CAN COMMUNICATE IN ENGLISH WITH THE OWNER'S REPRESENTATIVE.
- 3. THE INSTALLER'S CREW SHALL HAVE A MINIMUM OF 3 YEARS EXPERIENCED IN THE INSTALLATION OF PLANTING SOIL, PLANTINGS, AND IRRIGATION (WHERE APPLICABLE) AND INTERPRETATION OF SOIL PLANS, PLANTING PLANS AND IRRIGATION PLANS.
- 4. SUBMIT REFERENCES OF PAST PROJECTS, EMPLOYEE TRAINING CERTIFICATIONS THAT SUPPORT THAT THE CONTRACTORS MEETS ALL OF THE ABOVE INSTALLER QUALIFICATIONS AND APPLICABLE LICENSURES.
- A. THE CONTRACTOR AGREES TO REPLACE DEFECTIVE WORK AND DEFECTIVE PLANTS. THE OWNER'S REPRESENTATIVE SHALL MAKE THE FINAL DETERMINATION IF PLANTS MEET THESE SPECIFICATIONS OR THAT PLANTS ARE DEFECTIVE
- B. PLANTS WARRANTY SHALL BEGIN ON THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE AND CONTINUE FOR THE FOLLOWING PERIODS, CLASSED BY PLANT TYPE:
- TREES 1 YEAR.
- 2. SHRUBS 1 YEAR.
- 3. GROUND COVER AND PERENNIAL FLOWER PLANTS 1 YEAR. 4. BULBS, ANNUAL FLOWER AND SEASONAL COLOR PLANTS - FOR THE PERIOD OF EXPECTED BLOOM OR
- PRIMARY DISPLAY. C. WHEN THE WORK IS ACCEPTED IN PARTS, THE WARRANTY PERIODS SHALL EXTEND FROM EACH OF THE PARTIAL SUBSTANTIAL COMPLETION ACCEPTANCES TO THE TERMINAL DATE OF THE LAST WARRANTY PERIOD.
- THUS, ALL WARRANTY PERIODS FOR EACH CLASS OF PLANT WARRANTY, SHALL TERMINATE AT ONE TIME. D. ALL PLANTS SHALL BE WARRANTIED TO MEET ALL THE REQUIREMENTS FOR PLANT QUALITY AT INSTALLATION IN THIS SPECIFICATION. DEFECTIVE PLANTS SHALL BE DEFINED AS PLANTS NOT MEETING THESE REQUIREMENTS. THE OWNER'S REPRESENTATIVE SHALL MAKE THE FINAL DETERMINATION THAT PLANTS ARE
- E. PLANTS DETERMINED TO BE DEFECTIVE SHALL BE REMOVED IMMEDIATELY UPON NOTIFICATION BY THE OWNER'S REPRESENTATIVE AND REPLACED WITHOUT COST TO THE OWNER, AS SOON AS WEATHER CONDITIONS PERMIT AND WITHIN THE SPECIFIED PLANTING PERIOD.
- F. ANY WORK REQUIRED BY THIS SPECIFICATION OR THE OWNER'S REPRESENTATIVE DURING THE PROGRESS OF THE WORK, TO CORRECT PLANT DEFECTS INCLUDING THE REMOVAL OF ROOTS OR BRANCHES, TO OBSERVE FOR OR CORRECT ROOT DEFECTS SHALL NOT BE CONSIDERED AS GROUNDS TO VOID ANY CONDITIONS OF THE

- WARRANTY. IN THE EVENT THAT THE CONTRACTOR DECIDES THAT SUCH REMEDIATION WORK MAY COMPROMISE THE FUTURE HEALTH OF THE PLANT, THE PLANT OR PLANTS IN QUESTION SHALL BE REJECTED AND REPLACED WITH PLANTS THAT DO NOT CONTAIN DEFECTS THAT REQUIRE REMEDIATION OR CORRECTION.
- G. THE CONTRACTOR IS EXEMPT FROM REPLACING PLANTS, AFTER SUBSTANTIAL COMPLETION ACCEPTANCE AND DURING THE WARRANTY PERIOD, THAT ARE REMOVED BY OTHERS, LOST OR DAMAGED DUE TO OCCUPANCY OF PROJECT. LOST OR DAMAGED BY A THIRD PARTY, VANDALISM, OR ANY NATURAL DISASTER.
- H. REPLACEMENTS SHALL CLOSELY MATCH ADJACENT SPECIMENS OF THE SAME SPECIES. REPLACEMENTS SHALL BE SUBJECT TO ALL REQUIREMENTS STATED IN THIS SPECIFICATION. MAKE ALL NECESSARY REPAIRS
- I. THE WARRANTY OF ALL REPLACEMENT PLANTS SHALL EXTEND FOR AN ADDITIONAL ONE-YEAR PERIOD FROM THE DATE OF THEIR ACCEPTANCE AFTER REPLACEMENT. IN THE EVENT THAT A REPLACEMENT PLANT IS NOT ACCEPTABLE DURING OR AT THE END OF THE SAID EXTENDED WARRANTY PERIOD, THE OWNER'S REPRESENTATIVE MAY ELECT ONE MORE REPLACEMENT ITEMS OR CREDIT FOR EACH ITEM. THESE TERTIARY REPLACEMENT ITEMS ARE NOT PROTECTED UNDER A WARRANTY PERIOD.

DUE TO PLANT REPLACEMENTS. SUCH REPAIRS SHALL BE DONE AT NO EXTRA COST TO THE OWNER.

- J. DURING AND BY THE END OF THE WARRANTY PERIOD, REMOVE ALL ABOVE GROUND TREE ASSESSMENTS PRESENT (IE.: TREE WRAP, TIES, AND GUYING) UNLESS AGREED TO BY THE OWNER'S REPRESENTATIVE TO REMAIN IN PLACE. ALL TREES THAT DO NOT HAVE SUFFICIENT CALIPER TO REMAIN UPRIGHT, OR THOSE REQUIRING ADDITIONAL ANCHORAGE IN WINDY LOCATIONS. SHALL BE STAKED OR REMAIN STAKED. IF REQUIRED BY THE OWNER'S REPRESENTATIVE.
- K. END OF WARRANTY FINAL ACCEPTANCE ACCEPTANCE OF PLANTS AT THE END OF THE WARRANTY PERIOD.
- 1. AT THE END OF THE WARRANTY PERIOD, THE OWNER'S REPRESENTATIVE SHALL OBSERVE ALL WARRANTED WORK, UPON WRITTEN REQUEST OF THE CONTRACTOR. THE REQUEST SHALL BE RECEIVED AT LEAST TEN CALENDAR DAYS BEFORE THE ANTICIPATED DATE FOR FINAL OBSERVATION.
- 2. END OF WARRANTY FINAL ACCEPTANCE WILL BE GIVEN ONLY WHEN ALL THE REQUIREMENTS OF THE WORK UNDER THIS SPECIFICATION AND IN SPECIFICATION SECTION IRRIGATION HAVE BEEN MET.

1.15 SELECTION AND OBSERVATION OF PLANTS

- A. THE OWNER'S REPRESENTATIVE MAY REVIEW ALL PLANTS SUBJECT TO APPROVAL OF SIZE, HEALTH, QUALITY, CHARACTER, ETC. REVIEW OR APPROVAL OF ANY PLANT DURING THE PROCESS OF SELECTION, DELIVERY, INSTALLATION AND ESTABLISHMENT PERIOD SHALL NOT PREVENT THAT PLANT FROM LATER REJECTION IN THE EVENT THAT THE PLANT QUALITY CHANGES OR PREVIOUSLY EXISTING DEFECTS BECOME APPARENT THAT WERE
- B. PLANT SELECTION: THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO SELECT AND OBSERVE ALL PLANTS AT THE NURSERY PRIOR TO DELIVERY AND TO REJECT PLANTS THAT DO NOT MEET SPECIFICATIONS AS SET FORTH IN THIS SPECIFICATION. IF A PARTICULAR DEFECT OR SUBSTANDARD ELEMENT CAN BE CORRECTED AT THE NURSERY, AS DETERMINED BY THE OWNER'S REPRESENTATIVE, THE AGREED UPON REMEDY MAY BE APPLIED BY THE NURSERY OR THE CONTRACTOR PROVIDED THAT THE CORRECTION ALLOWS THE PLANT TO MEET THE REQUIREMENTS SET FORTH IN THIS SPECIFICATION. ANY WORK TO CORRECT PLANT DEFECTS SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 1. THE OWNER'S REPRESENTATIVE MAY MAKE INVASIVE OBSERVATION OF THE TREE'S ROOT SYSTEM IN THE AREA OF THE ROOT COLLAR AND THE TOP OF THE ROOT BALL IN GENERAL IN ORDER TO DETERMINE THAT THE TREE MEETS THE QUALITY REQUIREMENTS FOR DEPTH OF THE ROOT COLLAR AND PRESENCE OF ROOTS ABOVE THE ROOT COLLAR. SUCH OBSERVATIONS WILL NOT HARM THE PLANT.
- 2. CORRECTIONS ARE TO BE UNDERTAKEN AT THE NURSERY PRIOR TO SHIPPING.
- C. THE CONTRACTOR SHALL BEAR ALL COST RELATED TO PLANT CORRECTIONS.
- D. ALL PLANTS THAT ARE REJECTED SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND ACCEPTABLE REPLACEMENT PLANTS PROVIDED AT NO COST TO THE OWNER.
- E. SUBMIT TO THE OWNER'S REPRESENTATIVE, FOR APPROVAL, PLANT SOURCES INCLUDING THE NAMES AND LOCATIONS OF NURSERIES PROPOSED AS SOURCES OF ACCEPTABLE PLANTS, AND A LIST OF THE PLANTS THEY WILL PROVIDE. THE PLANT LIST SHALL INCLUDE THE BOTANICAL AND COMMON NAME AND THE SIZE AT THE TIME OF SELECTION. OBSERVE ALL NURSERY MATERIALS TO DETERMINE THAT THE MATERIALS MEET THE REQUIREMENTS OF THIS SECTION.
- F. TREES SHALL BE PURCHASED FROM THE GROWING NURSERY. RE-WHOLESALE PLANT SUPPLIERS SHALL NOT BE USED AS SOURCES UNLESS THE CONTRACTOR CAN CERTIFY THAT THE REQUIRED TREES ARE NOT DIRECTLY AVAILABLE FROM A GROWING NURSERY. WHEN RE-WHOLESALE SUPPLIERS ARE UTILIZED, THE CONTRACTOR SHALL SUBMIT THE NAME AND LOCATION OF THE GROWING NURSERY FROM WHERE THE TREES WERE OBTAINED BY THE RE-WHOLESALE SELLER. THE RE-WHOLESALE NURSERY SHALL BE RESPONSIBLE FOR ANY REQUIRED PLANT QUALITY CERTIFICATIONS.
- G. THE CONTRACTOR SHALL REQUIRE THE GROWER OR RE-WHOLESALE SUPPLIER TO PERMIT THE OWNER'S REPRESENTATIVE TO OBSERVE THE ROOT SYSTEM OF ALL PLANTS AT THE NURSERY OR JOB SITE PRIOR TO PLANTING INCLUDING RANDOM REMOVAL OF SOIL OR SUBSTRATE AROUND THE BASE OF THE PLANT. OBSERVATION MAY BE AS FREQUENT AND AS EXTENSIVE AS NEEDED TO VERIFY THAT THE PLANTS MEET THE REQUIREMENTS OF THE SPECIFICATIONS AND CONFORM TO REQUIREMENTS.
- H. EACH TREE SHALL HAVE A NUMBERED SEAL APPLIED BY THE CONTRACTOR. THE SEAL SHALL BE PLACED ON A LATERAL BRANCH ON THE NORTH SIDE OF THE TREE. THE SEAL SHALL BE A TAMPER PROOF PLASTIC SEAL BEARING THE CONTRACTORS NAME AND A UNIQUE SEVEN-DIGIT NUMBER EMBOSSED ON THE SEAL.
- 1. DO NOT PLACE SEALS ON BRANCHES THAT ARE SO LARGE THAT THERE IS NOT SUFFICIENT ROOM FOR THE BRANCH GROWTH OVER THE PERIOD OF THE WARRANTY.
- I. THE OWNER'S REPRESENTATIVE MAY CHOOSE TO ATTACH THEIR SEAL TO EACH PLANT, OR A REPRESENTATIVE SAMPLE. VIEWING AND/OR SEALING OF PLANTS BY THE OWNER'S REPRESENTATIVE AT THE NURSERY DOES NOT PRECLUDE THE OWNER'S REPRESENTATIVE'S RIGHT TO REJECT MATERIAL WHILE ON SITE. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ANY UP CHARGE FOR THE OWNER'S REPRESENTATIVE TO ATTACH THEIR SEAL TO SPECIFIC PLANTS.
- J. WHERE REQUESTED BY THE OWNER'S REPRESENTATIVE, SUBMIT PHOTOGRAPHS OF PLANTS OR REPRESENTATIVE SAMPLES OF PLANTS. PHOTOGRAPHS SHALL BE LEGIBLE AND CLEARLY DEPICT THE PLANT SPECIMEN. EACH SUBMITTED IMAGE SHALL CONTAIN A HEIGHT REFERENCE, SUCH AS A MEASURING STICK. THE APPROVAL OF PLANTS BY THE OWNER'S REPRESENTATIVE VIA PHOTOGRAPH DOES NOT PRECLUDE THE OWNER'S REPRESENTATIVE'S RIGHT TO REJECT MATERIAL WHILE ON SITE.

1.16 PLANT SUBSTITUTIONS FOR PLANTS NOT AVAILABLE

UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

A. SUBMIT ALL REQUESTS FOR SUBSTITUTIONS OF PLANT SPECIES, OR SIZE TO THE OWNER'S REPRESENTATIVE, FOR APPROVAL, PRIOR TO PURCHASING THE PROPOSED SUBSTITUTION. REQUEST FOR SUBSTITUTION SHALL BE ACCOMPANIED WITH A LIST OF NURSERIES CONTACTED IN THE SEARCH FOR THE REQUIRED PLANT AND A RECORD OF OTHER ATTEMPTS TO LOCATE THE REQUIRED MATERIAL. REQUESTS SHALL ALSO INCLUDE SOURCES OF PLANTS FOUND THAT MAY BE OF A SMALLER OR LARGER SIZE, OR A DIFFERENT SHAPE OR HABIT THAN SPECIFIED, OR PLANTS OF THE SAME GENUS AND SPECIES BUT DIFFERENT CULTIVAR ORIGIN, OR WHICH MAY OTHERWISE NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS, BUT WHICH MAY BE AVAILABLE FOR

SUBSTITUTION. 1.17 SITE CONDITIONS

- A. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF ALL SURFACE AND SUB-SURFACE CONDITIONS, AND TO NOTIFY THE OWNER'S REPRESENTATIVE, IN WRITING, OF ANY CIRCUMSTANCES THAT WOULD NEGATIVELY IMPACT THE HEALTH OF PLANTINGS. DO NOT PROCEED WITH WORK UNTIL
- 1. SHOULD SUBSURFACE DRAINAGE OR SOIL CONDITIONS BE ENCOUNTERED WHICH WOULD BE DETRIMENTAL TO GROWTH OR SURVIVAL OF PLANT MATERIAL, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING, STATING THE CONDITIONS AND SUBMIT A PROPOSAL COVERING COST OF CORRECTIONS. IF THE CONTRACTOR FAILS TO NOTIFY THE OWNER'S REPRESENTATIVE OF SUCH CONDITIONS, HE/SHE SHALL REMAIN RESPONSIBLE FOR PLANT MATERIAL UNDER THE WARRANTY CLAUSE OF THE SPECIFICATIONS.
- B. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE LOCAL GROWING CONDITIONS, AND IF ANY SPECIFIED PLANTS WILL BE IN CONFLICT WITH THESE CONDITIONS. REPORT ANY POTENTIAL CONFLICTS, IN WRITING, TO THE OWNER'S REPRESENTATIVE.
- C. THIS SPECIFICATION REQUIRES THAT ALL PLANTING SOIL AND IRRIGATION (IF APPLICABLE) WORK BE

COMPLETED AND ACCEPTED PRIOR TO THE INSTALLATION OF ANY PLANTS.

- 1. PLANTING OPERATIONS SHALL NOT BEGIN UNTIL SUCH TIME THAT THE IRRIGATION SYSTEM IS COMPLETELY OPERATIONAL FOR THE AREA(S) TO BE PLANTED, AND THE IRRIGATION SYSTEM FOR THAT AREA HAS BEEN PRELIMINARILY OBSERVED AND APPROVED BY THE OWNER'S REPRESENTATIVE.
- D. ACTUAL PLANTING SHALL BE PERFORMED DURING THOSE PERIODS WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE IN ACCORDANCE WITH LOCALLY ACCEPTED HORTICULTURAL PRACTICES.
- 1. DO NOT INSTALL PLANTS INTO SATURATED OR FROZEN SOILS. DO NOT INSTALL PLANTS DURING INCLEMENT WEATHER, SUCH AS RAIN OR SNOW OR DURING EXTREMELY HOT, COLD OR WINDY CONDITIONS.

1.18 PLANTING AROUND UTILITIES

NOT COVERED BY THE LOCAL UTILITY LOCATOR SERVICE.

- A. CONTRACTOR SHALL CAREFULLY EXAMINE THE CIVIL, RECORD, AND SURVEY DRAWINGS TO BECOME FAMILIAR WITH THE EXISTING UNDERGROUND CONDITIONS BEFORE DIGGING. B. DETERMINE LOCATION OF UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER THAT WILL AVOID POSSIBLE DAMAGE. HAND EXCAVATE, AS REQUIRED. MAINTAIN GRADE STAKES SET BY OTHERS UNTIL PARTIES
- CONCERNED MUTUALLY AGREE UPON REMOVAL C. NOTIFICATION OF LOCAL UTILITY LOCATOR SERVICE (AS NOTED ON DRAWINGS) IS REQUIRED FOR ALL PLANTING AREAS THE CONTRACTOR IS RESPONSIBLE FOR KNOWING THE LOCATION AND AVOIDING UTILITIES THAT ARE

PART 2 PRODUCTS

A. STANDARDS AND MEASUREMENT: PROVIDE PLANTS OF QUANTITY, SIZE, GENUS, SPECIES, AND VARIETY OR CULTIVARS AS SHOWN AND SCHEDULED IN CONTRACT DOCUMENTS.

- 1. ALL PLANTS, INCLUDING THE ROOT BALL DIMENSIONS OR CONTAINER SIZE TO TRUNK CALIPER RATIO, SHALL CONFORM TO ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK" LATEST EDITION, UNLESS MODIFIED BY PROVISIONS IN THIS SPECIFICATION. WHEN THERE IS A CONFLICT BETWEEN THIS SPECIFICATION AND ANSI Z60.1. THIS SPECIFICATION SECTION SHALL BE CONSIDERED CORRECT.
- 2. PLANTS LARGER THAN SPECIFIED MAY BE USED IF ACCEPTABLE TO THE OWNER'S REPRESENTATIVE. USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. IF LARGER PLANTS ARE ACCEPTED THE ROOT BALL SIZE SHALL BE IN ACCORDANCE WITH ANSI Z-60.1. LARGER PLANTS MAY NOT BE ACCEPTABLE IF THE RESULTING ROOT BALL CANNOT BE FIT INTO THE REQUIRED PLANTING SPACE.
- 3. IF A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND NOT LESS THAN 50 PERCENT OF THE PLANTS SHALL BE AS LARGE AS THE MAXIMUM SIZE SPECIFIED. THE MEASUREMENTS SPECIFIED ARE THE MINIMUM AND MAXIMUM SIZE ACCEPTABLE AND ARE THE MEASUREMENTS AFTER PRUNING, WHERE PRUNING IS REQUIRED.
- B. PROPER IDENTIFICATION: ALL TREES SHALL BE TRUE TO NAME AS ORDERED OR SHOWN ON PLANTING PLANS AND SHALL BE LABELED INDIVIDUALLY OR IN GROUPS BY GENUS, SPECIES, VARIETY AND CULTIVAR.
- C. COMPLIANCE: ALL TREES SHALL COMPLY WITH FEDERAL AND STATE LAWS AND REGULATIONS REQUIRING OBSERVATION FOR PLANT DISEASE, PESTS, AND WEEDS. OBSERVATION CERTIFICATES REQUIRED BY LAW SHALL ACCOMPANY EACH SHIPMENT OF PLANTS.
- 1. CLEARANCE FROM THE LOCAL COUNTY AGRICULTURAL COMMISSIONER, IF REQUIRED, SHALL BE OBTAINED BEFORE PLANTING TREES ORIGINATING OUTSIDE THE COUNTY IN WHICH THEY ARE TO BE PLANTED.

D. PLANT QUALITY:

- 1. GENERAL: PROVIDE HEALTHY STOCK, GROWN IN A NURSERY AND REASONABLY FREE OF DIE-BACK, DISEASE, INSECTS, EGGS, BORES, AND LARVAE. AT THE TIME OF PLANTING ALL PLANTS SHALL HAVE A ROOT SYSTEM, STEM, AND BRANCH FORM THAT WILL NOT RESTRICT NORMAL GROWTH, STABILITY AND HEALTH FOR THE EXPECTED LIFE OF THE PLANT
- 2. PLANT QUALITY ABOVE THE SOIL LINE:
- a. Plants shall be healthy with the color, shape, size and distribution of trunk, stems, BRANCHES, BUDS AND LEAVES NORMAL TO THE PLANT TYPE SPECIFIED. TREE QUALITY ABOVE THE SOIL LINE SHALL COMPLY WITH THE PROJECT CROWN ACCEPTANCE DETAILS AND THE FOLLOWING:

1.) CROWN: THE FORM AND DENSITY OF THE CROWN SHALL BE TYPICAL FOR A YOUNG SPECIMEN OF THE

- SPECIES OR CULTIVAR PRUNED TO A CENTRAL AND DOMINANT LEADER. A.) CROWN SPECIFICATIONS DO NOT APPLY TO PLANTS THAT HAVE BEEN SPECIFICALLY TRAINED IN THE NURSERY AS TOPIARY, ESPALIER, MULTI-STEM, CLUMP, OR UNIQUE SELECTIONS SUCH AS
- CONTORTED OR WEEPING CULTIVARS. 2.) LEAVES: THE SIZE, COLOR, AND APPEARANCE OF LEAVES SHALL BE TYPICAL FOR THE TIME OF YEAR AND STAGE OF GROWTH OF THE SPECIES OR CULTIVAR. TREES SHALL NOT SHOW SIGNS OF PROLONGED MOISTURE STRESS OR OVER WATERING AS INDICATED BY WILTED, SHRIVELED, OR DEAD
- 3.) BRANCHES: SHOOT GROWTH (LENGTH AND DIAMETER) THROUGHOUT THE CROWN SHOULD BE
- DISEASED, BROKEN, DISTORTED, OR OTHERWISE INJURED BRANCHES. A.) MAIN BRANCHES SHALL BE DISTRIBUTED ALONG THE CENTRAL LEADER NOT CLUSTERED TOGETHER. THEY SHALL FORM A BALANCED CROWN APPROPRIATE FOR THE CULTIVAR/SPECIES.

APPROPRIATE FOR THE AGE AND SIZE OF THE SPECIES OR CULTIVAR. TREES SHALL NOT HAVE DEAD,

- B.) BRANCH DIAMETER SHALL BE NO LARGER THAN TWO-THIRDS (ONE-HALF IS PREFERRED) THE DIAMETER OF THE CENTRAL LEADER MEASURED 1 INCH ABOVE THE BRANCH UNION. C.) THE ATTACHMENT OF THE LARGEST BRANCHES (SCAFFOLD BRANCHES) SHALL BE FREE OF
- INCLUDED BARK. 4.) TRUNK: THE TREE TRUNK SHALL BE RELATIVELY STRAIGHT, VERTICAL, AND FREE OF WOUNDS THAT PENETRATE TO THE WOOD (PROPERLY MADE PRUNING CUTS, CLOSED OR NOT, ARE ACCEPTABLE AND ARE NOT CONSIDERED WOUNDS), SUNBURNED AREAS, CONKS (FUNGAL FRUITING BODIES), WOOD CRACKS, SAP LEAKAGE, SIGNS OF BORING INSECTS, GALLS, CANKERS, GIRDLING TIES, OR LESIONS (MECHANICAL INJURY)
- 5.) TEMPORARY BRANCHES, UNLESS OTHERWISE SPECIFIED, CAN BE PRESENT ALONG THE LOWER TRUNK BELOW THE LOWEST MAIN (SCAFFOLD) BRANCH, PARTICULARLY FOR TREES LESS THAN 1 INCH IN CALIPER. THESE BRANCHES SHOULD BE NO GREATER THAN 3/8-INCH DIAMETER. CLEAR TRUNK SHOULD BE NO MORE THAN 40% OF THE TOTAL HEIGHT OF THE TREE, UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS (WHICHEVER IS GREATER).
- b. Trees shall have one central leader as noted in plant list. If the leader was headed, a NEW LEADER (WITH A LIVE TERMINAL BUD) AT LEAST ONE-HALF THE DIAMETER OF THE PRUNING CUT SHALL BE PRESENT
- 1.) ALL TREES ARE ASSUMED TO HAVE ONE CENTRAL LEADER TREES UNLESS A DIFFERENT FORM IS SPECIFIED IN THE PLANT LIST OR DRAWINGS.
- c. ALL GRAFT UNIONS, WHERE APPLICABLE, SHALL BE COMPLETELY CLOSED WITHOUT VISIBLE SIGN OF GRAFT REJECTION. ALL GRAFTS SHALL BE VISIBLE ABOVE THE SOIL LINE. d. Trunk caliper and taper shall be sufficient so that the lower five feet of the trunk
- REMAINS VERTICAL WITHOUT A STAKE. AUXILIARY STAKE MAY BE USED TO MAINTAIN A STRAIGHT LEADER IN THE UPPER HALF OF THE TREE.
- 3. PLANT QUALITY AT OR BELOW THE SOIL LINE: a. Plant roots shall be normal to the plant type specified. Root observations shall take PLACE WITHOUT IMPACTING TREE HEALTH. ROOT QUALITY AT OR BELOW THE SOIL LINE SHALL COMPLY WITH THE PROJECT ROOT ACCEPTANCE DETAILS AND THE FOLLOWING:
- 1.) THE ROOTS SHALL BE REASONABLY FREE OF SCRAPES, BROKEN OR SPLIT WOOD. 2.) THE ROOT SYSTEM SHALL BE REASONABLY FREE OF INJURY FROM BIOTIC (E.G., INSECTS AND PATHOGENS) AND ABIOTIC (E.G., HERBICIDE TOXICITY AND SALT INJURY) AGENTS. WOUNDS RESULTING FROM ROOT PRUNING USED TO PRODUCE A HIGH QUALITY ROOT SYSTEM ARE NOT CONSIDERED
- 3.) A MINIMUM OF THREE STRUCTURAL ROOTS REASONABLY DISTRIBUTED AROUND THE TRUNK (NOT CLUSTERED ON ONE SIDE) SHALL BE FOUND IN EACH PLANT. ROOT DISTRIBUTION SHALL BE UNIFORM THROUGHOUT THE ROOT BALL, AND GROWTH SHALL BE APPROPRIATE FOR THE SPECIES.
- A.) PLANTS WITH STRUCTURAL ROOTS ON ONLY ONE SIDE OF THE TRUNK (J ROOTS) SHALL BE 4.) THE ROOT COLLAR SHALL BE WITHIN THE UPPER 2 INCHES OF THE SUBSTRATE/SOIL. TWO STRUCTURAL ROOTS SHALL REACH THE SIDE OF THE ROOT BALL NEAR THE TOP SURFACE OF THE ROOT BALL. THE GROWER MAY REQUEST A MODIFICATION TO THIS REQUIREMENT FOR SPECIES WITH ROOTS

THAT RAPIDLY DESCEND, PROVIDED THAT THE GROWER REMOVES ALL STEM GIRDLING ROOTS ABOVE

6.) AT TIME OF OBSERVATIONS AND DELIVERY, THE ROOT BALL SHALL BE MOIST THROUGHOUT. ROOTS SHALL NOT SHOW SIGNS OF EXCESS SOIL MOISTURE CONDITIONS AS INDICATED BY STUNTED, DISCOLORED, DISTORTED, OR DEAD ROOTS.

5.) THE ROOT SYSTEM SHALL BE REASONABLY FREE OF STEM GIRDLING ROOTS OVER THE ROOT

2. 2 ROOT BALL PACKAGE OPTIONS: THE FOLLOWING ROOT BALL PACKAGES ARE PERMITTED. SPECIFIC ROOT BALL PACKAGES SHALL BE REQUIRED WHERE INDICATED ON THE PLANT LIST OR IN THIS SPECIFICATION. ANY TYPE OF ROOT

THE STRUCTURAL ROOTS ACROSS THE TOP OF THE ROOT BALL.

COLLAR OR KINKED ROOTS FROM NURSERY PRODUCTION PRACTICES.

- BALL PACKAGES THAT IS NOT SPECIFICALLY DEFINED IN THIS SPECIFICATION SHALL NOT BE PERMITTED.
- A. BALLED AND BURLAPPED PLANTS 1. ALL BALLED AND BURLAPPED PLANTS SHALL BE FIELD GROWN, AND THE ROOT BALL PACKAGED IN A
- BURLAP AND TWINE AND/OR BURLAP AND WIRE BASKET PACKAGE. 2. PLANTS SHALL BE HARVESTED WITH THE FOLLOWING MODIFICATIONS TO STANDARD NURSERY PRACTICES a. Prior to digging any tree that fails to meet the requirement for maximum soil and roots ABOVE THE ROOT COLLAR, CAREFULLY REMOVED THE SOIL FROM THE TOP OF THE ROOT BALL OF EACH PLANT, USING HAND TOOLS, WATER OR AN AIR SPADE, TO LOCATE THE ROOT COLLAR AND ATTAIN THE SOIL DEPTH OVER THE STRUCTURAL ROOTS REQUIREMENTS. REMOVE ALL STEM GIRDLING ROOTS

ABOVE THE ROOT COLLAR. CARE MUST BE EXERCISED NOT TO DAMAGE THE SURFACE OF THE ROOT

- COLLAR AND THE TOP OF THE STRUCTURAL ROOTS. b. Trees shall be dug for a minimum of 4 weeks and a maximum of 52 weeks prior to shipping. TREES DUG 4 TO 52 WEEKS PRIOR TO SHIPPING ARE DEFINED AS HARDENED-OFF. DIGGING IS DEFINED AS CUTTING ALL ROOTS AND LIFTING THE TREE OUT OF THE GROUND AND EITHER MOVING IT TO A NEW LOCATION IN THE NURSERY OR PLACING IT BACK INTO THE SAME HOLE. TRESS THAT ARE STORED OUT OF THE GROUND SHALL BE PLACED IN A HOLDING AREA PROTECTED FROM EXTREMES OF WIND AND SUN WITH THE ROOT BALL PROTECTED BY COVERING WITH MULCH OR STRAW AND IRRIGATED SUFFICIENTLY TO KEEP MOISTURE IN THE ROOT BALL ABOVE WILT POINT AND BELOW SATURATION
- c. TWINE AND BURLAP USED FOR WRAPPING THE ROOT BALL PACKAGE SHALL BE NATURAL, BIODEGRADABLE MATERIAL. IF THE BURLAP DECOMPOSES AFTER DIGGING THE TREE THEN THE ROOT BALL SHALL BE RE-WRAPPED PRIOR TO SHIPPING IF ROOTS HAVE NOT YET GROWN TO KEEP ROOT BALL INTACT DURING SHIPPING.

B. CONTAINER (INCLUDING ABOVE-GROUND FABRIC CONTAINERS AND BOXES) PLANTS

1. CONTAINER PLANTS MAY BE PERMITTED ONLY WHEN INDICATED ON THE DRAWING, IN THIS SPECIFICATION, OR APPROVED BY THE OWNER'S REPRESENTATIVE.

3. CONTAINER CLASS SIZE SHALL CONFORM TO ANSI Z60.1 FOR CONTAINER PLANTS FOR EACH SIZE AND TYPE

2.3 ANNUAL FLOWERING AND SEASONAL COLOR PLANTS

2. PROVIDE PLANTS SHALL BE ESTABLISHED AND WELL ROOTED IN REMOVABLE CONTAINERS.

WELL-ROOTED AND HEALTHY.

A. CONTAINER OR FLAT-GROWN PLANTS SHOULD BE SIZED AS NOTED IN THE PLANTING PLAN. PLANTS SHALL BE

Kimley » Horn R.L.A. BLAINE D. MIKULIK L.A. No. 3486 DATE 10/30/2023

PRELIMINAR

FOR REVIEW ONLY

Not for construction or permit purpos

SHEET NUMBER

B. PLANTING SOIL SHALL BE 2" LAYER OF IMPORTED MIXED SOIL WITH COMPOST FROM LIVING EARTH OR APPROVED EQUAL.

1. CONTACT: PAUL TOMASO, 214.533.6296

2.5 MULCH

A. MULCH SHALL BE COARSE, GROUND, FROM HARDWOOD TREES AND WOODY BRUSH SOURCES. THE SIZE RANGE SHALL BE A MINIMUM (LESS THAN 25% OR LESS OF VOLUME) FINE PARTICLES 3/8 INCH OR LESS IN SIZE, AND A MAXIMUM SIZE OF INDIVIDUAL PIECES (LARGEST 20% OR LESS OF VOLUME) SHALL BE APPROXIMATELY 1 TO 1-1/2 INCH IN DIAMETER AND MAXIMUM LENGTH APPROXIMATELY 4 TO 8". PIECES LARGER THAN 8 INCH LONG THAT ARE VISIBLE ON THE SURFACE OF THE MULCH AFTER INSTALLATION SHALL BE REMOVED.

1. IT IS UNDERSTOOD THAT MULCH QUALITY WILL VARY SIGNIFICANTLY FROM SUPPLIER TO SUPPLIER AND REGION TO REGION. THE ABOVE REQUIREMENTS MAY BE MODIFIED TO CONFORM TO THE SOURCE MATERIAL FROM LOCALLY RELIABLE SUPPLIERS AS APPROVED BY THE OWNER'S REPRESENTATIVE.

B. SUBMIT SUPPLIER'S PRODUCT SPECIFICATION DATA SHEET AND A ONE GALLON SAMPLE FOR APPROVAL

2.6 TREE STAKING AND GUYING MATERIAL

- A. TREE STAKING SHALL BE PER PLANTING DETAILS.
- B. ARBOR STAKE OR APPROVED EQUAL.
- MANUFACTURER: WWW.ARBORSTAKES.COM C. SUBMIT MANUFACTURER'S PRODUCT DATA FOR APPROVAL

2.7 CHEMICAL OR BIOLOGICAL ADDITIVES

A. PER SOILS TEST RESULTS.

2.8 COMPOST

A. LIVING EARTH COMPOST OR APPROVED EQUAL

1. MANUFACTURER: LIVING EARTH: 972-869-4332

2.10 PLANTER POTTING SOIL

A. LIVING EARTH CONTAINER POTTING SOIL OR APPROVED EQUAL

1. MANUFACTURER: LIVING EARTH: 972-869-4332

PART 3 EXECUTION

3.1 SITE EXAMINATION

A. EXAMINE THE SURFACE GRADES AND SOIL CONDITIONS TO CONFIRM THAT THE REQUIREMENTS OF THE SPECIFICATION SECTION - PLANTING SOIL - AND THE SOIL AND DRAINAGE MODIFICATIONS INDICATED ON THE PLANTING SOIL PLAN AND DETAILS (IF APPLICABLE) HAVE BEEN COMPLETED. NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING OF ANY UNSATISFACTORY CONDITIONS.

3.2 DELIVERY, STORAGE AND HANDLING

A. PROTECT MATERIALS FROM DETERIORATION DURING DELIVERY AND STORAGE. ADEQUATELY PROTECT PLANTS FROM DRYING OUT, EXPOSURE OF ROOTS TO SUN, WIND OR EXTREMES OF HEAT AND COLD TEMPERATURES. IF PLANTING IS DELAYED MORE THAN 24 HOURS AFTER DELIVERY, SET PLANTS IN A LOCATION PROTECTED FROM SUN AND WIND. PROVIDE ADEQUATE WATER TO THE ROOT BALL PACKAGE DURING THE SHIPPING AND

1. ALL PLANT MATERIALS MUST BE AVAILABLE FOR OBSERVATION PRIOR TO PLANTING.

2. USING A SOIL MOISTURE METER, PERIODICALLY CHECK THE SOIL MOISTURE IN THE ROOT BALLS OF ALL PLANTS TO ASSURE THAT THE PLANTS ARE BEING ADEQUATELY WATERED. VOLUMETRIC SOIL MOISTURE SHALL BE MAINTAINED ABOVE WILTING POINT AND BELOW FIELD CAPACITY FOR THE ROOT BALL

B. DO NOT DELIVER MORE PLANTS TO THE SITE THAN THERE IS SPACE WITH ADEQUATE STORAGE CONDITIONS. PROVIDE A SUITABLE REMOTE STAGING AREA FOR PLANTS AND OTHER SUPPLIES.

1. THE OWNER'S REPRESENTATIVE OR CONTRACTOR SHALL APPROVE THE DURATION, METHOD AND LOCATION

OF STORAGE OF PLANTS. C. PROVIDE PROTECTIVE COVERING OVER ALL PLANTS DURING TRANSPORTING.

3.3 PLANTING SEASON

A. PLANTING SHALL ONLY BE PERFORMED WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE FOR PLANTING THE MATERIALS SPECIFIED IN ACCORDANCE WITH LOCALLY ACCEPTED PRACTICE BELOW UNLESS OTHERWISE APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE. IN THE EVENT THAT THE CONTRACTOR REQUEST PLANTING OUTSIDE THE DATES OF THE PLANTING SEASON, APPROVAL OF THE REQUEST DOES NOT CHANGE THE REQUIREMENTS OF THE WARRANTY.

3.4 ADVERSE WEATHER CONDITIONS

A. NO PLANTING SHALL TAKE PLACE DURING EXTREMELY HOT, DRY, WINDY OR FREEZING WEATHER.

3.5 COORDINATION WITH PROJECT WORK

A. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER WORK THAT MAY IMPACT THE COMPLETION OF THE

B. PRIOR TO THE START OF WORK, PREPARE A DETAILED SCHEDULE OF THE WORK FOR COORDINATION WITH

C. COORDINATE THE RELOCATION OF ANY IRRIGATION LINES, HEADS OR THE CONDUITS OF OTHER UTILITY LINES THAT ARE IN CONFLICT WITH TREE LOCATIONS. ROOT BALLS SHALL NOT BE ALTERED TO FIT AROUND LINES. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONFLICTS ENCOUNTERED.

3.6 LAYOUT AND PLANTING SEQUENCE

A. RELATIVE POSITIONS OF ALL PLANTS AND TREES ARE SUBJECT TO APPROVAL OF THE OWNER'S REPRESENTATIVE.

B. NOTIFY THE OWNER'S REPRESENTATIVE, ONE (1) WEEK PRIOR TO LAYOUT. LAYOUT ALL INDIVIDUAL TREE AND SHRUB LOCATIONS. PLACE PLANTS ABOVE SURFACE AT PLANTING LOCATION OR PLACE A LABELED STAKE AT PLANTING LOCATION. LAYOUT BED LINES WITH PAINT FOR THE OWNER'S REPRESENTATIVE'S APPROVAL. SECURE THE OWNER'S REPRESENTATIVE'S ACCEPTANCE BEFORE DIGGING AND START OF PLANTING WORK

C. WHEN APPLICABLE, PLANT TREES BEFORE OTHER PLANTS ARE INSTALLED.

REPRESENTATIVE INCLUDING RELOCATING PREVIOUSLY INSTALLED PLANTS.

D. IT IS UNDERSTOOD THAT PLANTS ARE NOT PRECISE OBJECTS AND THAT MINOR ADJUSTMENTS IN THE LAYOUT WILL BE REQUIRED AS THE PLANTING PLAN IS CONSTRUCTED. THESE ADJUSTMENTS MAY NOT BE APPARENT UNTIL SOME OR ALL OF THE PLANTS ARE INSTALLED. MAKE ADJUSTMENTS AS REQUIRED BY THE OWNER'S

3.7 SOIL PROTECTION DURING PLANT DELIVERY AND INSTALLATION

A. PROTECT SOIL FROM COMPACTION DURING THE DELIVERY OF PLANTS TO THE PLANTING LOCATIONS, DIGGING

OF PLANTING HOLES AND INSTALLING PLANTS.

1. WHERE POSSIBLE DELIVER AND PLANT TREES THAT REQUIRE THE USE OF HEAVY MECHANIZED EQUIPMENT PRIOR TO FINAL SOIL PREPARATION AND TILLING. WHERE POSSIBLE, RESTRICT THE DRIVING LANES TO ONE AREA INSTEAD OF DRIVING OVER AND COMPACTING A LARGE AREA OF SOIL.

PERMANENT WILTING POINT FIELD CAPACITY

2. TILL TO A DEPTH OF 6 INCHES, ALL SOIL THAT HAS BEEN DRIVEN OVER DURING THE INSTALLATION OF

3.8 SOIL MOISTURE

SOIL TYPE

A. VOLUMETRIC SOIL MOISTURE LEVEL, IN BOTH THE PLANTING SOIL AND THE ROOT BALLS OF ALL PLANTS, PRIOR TO, DURING AND AFTER PLANTING SHALL BE ABOVE PERMANENT WILTING POINT AND BELOW FIELD CAPACITY FOR EACH TYPE OF SOIL TEXTURE WITHIN THE FOLLOWING RANGES.

SAND, LOAMY SAND, SANDY LOAM	5 - 8%	12-18%
LOAM, SANDY CLAY, SANDY CLAY LOAM	14 - 25%	27-36%
CLAY LOAM, SILT LOAM	11 - 22%	31 - 36%
SILTY CLAY, SILTY CLAY LOAM	22 - 27%	38 - 41%
1 VOLUMETRIC CON MOICTURE CHAIL	DE MEACUDED WITH A DICITAL	MOISTURE METER THE METE

1. VOLUMETRIC SOIL MOISTURE SHALL BE MEASURED WITH A DIGITAL MOISTURE METER. THE METER SHALL BE THE DIGITAL SOIL MOISTURE METER, DSMM500 BY GENERAL SPECIALTY TOOLS AND INSTRUMENTS, OR

B. THE CONTRACTOR SHALL CONFIRM THE SOIL MOISTURE LEVELS WITH A MOISTURE METER. IF THE MOISTURE IS TOO HIGH, SUSPEND PLANTING OPERATIONS UNTIL THE SOIL MOISTURE DRAINS TO BELOW FIELD CAPACITY.

3.9 INSTALLATION OF PLANTS: GENERAL

A. OBSERVE EACH PLANT AFTER DELIVERY AND PRIOR TO INSTALLATION FOR DAMAGE OF OTHER CHARACTERISTICS THAT MAY CAUSE REJECTION OF THE PLANT. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONDITION OBSERVED.

B. NO MORE PLANTS SHALL BE DISTRIBUTED ABOUT THE PLANTING BED AREA THAN CAN BE PLANTED AND WATERED ON THE SAME DAY.

C. THE ROOT SYSTEM OF EACH PLANT, REGARDLESS OF ROOT BALL PACKAGE TYPE, SHALL BE OBSERVED BY THE CONTRACTOR, AT THE TIME OF PLANTING TO CONFIRM THAT THE ROOTS MEET THE REQUIREMENTS FOR PLANT ROOT QUALITY IN PART 2 PRODUCTS: PLANTS GENERAL: PLANT QUALITY. THE CONTRACTOR SHALL UNDERTAKE AT THE TIME OF PLANTING, ALL MODIFICATIONS TO THE ROOT SYSTEM REQUIRED BY THE OWNER'S REPRESENTATIVE TO MEET THESE QUALITY STANDARDS.

1. MODIFICATIONS, AT THE TIME OF PLANTING, TO MEET THE SPECIFICATIONS FOR THE DEPTH OF THE ROOT COLLAR AND REMOVAL OF STEM GIRDLING ROOTS AND CIRCLING ROOTS MAY MAKE THE PLANT UNSTABLE OR STRESS THE PLANT TO THE POINT THAT THE OWNER'S REPRESENTATIVE MAY CHOOSE TO REJECT THE PLANT RATHER THAN PERMITTING THE MODIFICATION.

2. ANY MODIFICATIONS REQUIRED BY THE OWNER'S REPRESENTATIVE TO MAKE THE ROOT SYSTEM CONFORM TO THE PLANT QUALITY STANDARDS OUTLINED IN PART 2 PRODUCTS: PLANTS GENERAL: QUALITY, OR OTHER REQUIREMENTS RELATED TO THE PERMITTED ROOT BALL PACKAGE, SHALL NOT BE CONSIDERED AS

GROUNDS TO MODIFY OR VOID THE PLANT WARRANTY. 3. THE RESULTING ROOT BALL MAY NEED ADDITIONAL STAKING AND WATER AFTER PLANTING. THE OWNER'S REPRESENTATIVE MAY REJECT THE PLANT IF THE ROOT MODIFICATION PROCESS MAKES THE TREE

UNSTABLE OR IF THE TREE IS NOT HEALTHY AT THE END OF THE WARRANTY PERIOD. SUCH PLANTS SHALL STILL BE COVERED UNDER THE WARRANTY 4. THE CONTRACTOR REMAINS RESPONSIBLE TO CONFIRM THAT THE GROWER HAS MADE ALL REQUIRED

D. CONTAINER AND BOXED ROOT BALL SHAVING (IF REQUIRED -SEE DRAWINGS FOR CONDITIONS): THE OUTER SURFACES OF ALL PLANTS IN CONTAINERS AND BOXES, INCLUDING THE TOP, SIDES AND BOTTOM OF THE ROOT BALL SHALL BE SHAVED TO REMOVE ALL CIRCLING, DESCENDING, AND MATTED ROOTS. SHAVING SHALL BE PERFORMED USING SAWS, KNIVES, SHARP SHOVELS OR OTHER SUITABLE EQUIPMENT THAT IS CAPABLE OF MAKING CLEAN CUTS ON THE ROOTS. SHAVING SHALL REMOVE A MINIMUM OF ONE INCH OF ROOT MAT OR UP TO 2 INCHES AS REQUIRED TO REMOVE ALL ROOT SEGMENTS THAT ARE NOT GROWING REASONABLY RADIAL TO THE TRUNK.

ROOT MODIFICATIONS NOTED DURING ANY NURSERY OBSERVATIONS.

E. EXPOSED STEM TISSUE AFTER MODIFICATION: THE REQUIRED ROOT BALL MODIFICATIONS MAY RESULT IN STEM TISSUE THAT HAS NOT FORMED TRUNK BARK BEING EXPOSED ABOVE THE SOIL LINE. IF SUCH CONDITION OCCURS, WRAP THE EXPOSED PORTION OF THE STEM IN A PROTECTIVE WRAPPING WITH A WHITE FILTER FABRIC. SECURE THE FABRIC WITH BIODEGRADABLE MASKING TAPE. DO NOT USE STRING, TWINE, GREEN

NURSERY TIES OR ANY OTHER MATERIAL THAT MAY GIRDLE THE TRUNK IF NOT REMOVED. EXCAVATION OF THE PLANTING SPACE: USING HAND TOOLS OR TRACKED MINI-EXCAVATOR, EXCAVATE THE PLANTING HOLE INTO THE PLANTING SOIL TO THE DEPTH OF THE ROOT BALL MEASURED AFTER ANY ROOT BALL MODIFICATION TO CORRECT ROOT PROBLEMS, AND WIDE ENOUGH FOR WORKING ROOM AROUND THE ROOT

BALL OR TO THE SIZE INDICATED ON THE DRAWING OR AS NOTED BELOW. 1. FOR TREES AND SHRUBS PLANTED IN SOIL AREAS THAT ARE NOT TILLED OR OTHERWISE MODIFIED TO A DEPTH OF AT LEAST 12 INCHES OVER A DISTANCE OF MORE THAN 10 FEET RADIUS FROM EACH TREE. OR 5

FEET RADIUS FROM EACH SHRUB, THE SOIL AROUND THE ROOT BALL SHALL BE LOOSENED AS DEFINED BELOW OR AS INDICATED ON THE DRAWINGS. a. The area of loosening shall be a minimum of 3 times the diameter of the root ball at the

SURFACE SLOPING TO 2 TIMES THE DIAMETER OF THE ROOT BALL AT THE DEPTH OF THE ROOT BALL b. Loosening is defined as digging into the soil and turning the soil to reduce the COMPACTION. THE SOIL DOES NOT HAVE TO BE REMOVED FROM THE HOLE, JUST DUG, LIFTED AND TURNED. LIFTING AND TURNING MAY BE ACCOMPLISHED WITH A TRACKED MINI EXCAVATOR, OR HAND

2. IF AN AUGER IS USED TO DIG THE INITIAL PLANTING HOLE, THE SOIL AROUND THE AUGER HOLE SHALL BE LOOSENED AS DEFINED ABOVE FOR TREES AND SHRUBS PLANTED IN SOIL AREAS THAT ARE NOT TILLED OR

3. THE MEASURING POINT FOR ROOT BALL DEPTH SHALL BE THE AVERAGE HEIGHT OF THE OUTER EDGE OF THE ROOT BALL AFTER ANY REQUIRED ROOT BALL MODIFICATION.

4. IF MOTORIZED EQUIPMENT IS USED TO DELIVER PLANTS TO THE PLANTING AREA OVER EXPOSED PLANTING BEDS, OR USED TO LOOSEN THE SOIL OR DIG THE PLANTING HOLES, ALL SOIL THAT HAS BEEN DRIVEN OVER SHALL BE TILLED TO A DEPTH OF 6 INCHES.

G. FOR TREES TO BE PLANTED IN PREPARED PLANTING SOIL THAT IS DEEPER THAN THE ROOT BALL DEPTH, COMPACT THE SOIL UNDER THE ROOT BALL USING A MECHANICAL TAMPER TO ASSURE A FIRM BEDDING FOR THE ROOT BALL. IF THERE IS MORE THAN 12 INCHES OF PLANTING SOIL UNDER THE ROOT BALL EXCAVATE AND

TAMP THE PLANTING SOIL IN LIFTS NOT TO EXCEED 12 INCHES. H. SET TOP OUTER EDGE OF THE ROOT BALL AT THE AVERAGE ELEVATION OF THE PROPOSED FINISH. SET THE PLANT PLUMB AND UPRIGHT IN THE CENTER OF THE PLANTING HOLE. THE TREE GRAFT, IF APPLICABLE, SHALL

I. THE OWNER'S REPRESENTATIVE MAY REQUEST THAT PLANTS ORIENTATION BE ROTATED WHEN PLANTED BASED ON THE FORM OF THE PLANT.

BE VISIBLE ABOVE THE GRADE. DO NOT PLACE SOIL ON TOP OF THE ROOT BALL.

J. BACKFILL THE SPACE AROUND THE ROOT BALL WITH THE SAME PLANTING SOIL OR EXISTING SOIL THAT WAS EXCAVATED FOR THE PLANTING SPACE. SEE SPECIFICATION SECTION PLANTING SOIL, FOR REQUIREMENTS TO MODIFY THE SOIL WITHIN THE PLANTING BED.

K. BRACE ROOT BALL BY TAMPING PLANTING SOIL AROUND THE LOWER PORTION OF THE ROOT BALL. PLACE ADDITIONAL PLANTING SOIL AROUND BASE AND SIDES OF BALL IN SIX-INCH (6") LIFTS. LIGHTLY TAMP EACH LIFT USING FOOT PRESSURE OR HAND TOOLS TO SETTLE BACKFILL, SUPPORT THE TREE AND ELIMINATE VOIDS DO NOT OVER COMPACT THE BACKFILL OR USE MECHANICAL OR PNEUMATIC TAMPING EQUIPMENT. OVER COMPACTION SHALL BE DEFINED AS GREATER THAN 85% OF MAXIMUM DRY DENSITY, STANDARD PROCTOR OR GREATER THAN 250 PSI AS MEASURED BY A CONE PENETROMETER WHEN THE VOLUMETRIC SOIL MOISTURE IS LOWER THAN FIELD CAPACITY.

1. WHEN THE PLANTING HOLE HAS BEEN BACKFILLED TO THREE QUARTERS OF ITS DEPTH, WATER SHALL BE POURED AROUND THE ROOT BALL AND ALLOWED TO SOAK INTO THE SOIL TO SETTLE THE SOIL. DO NOT FLOOD THE PLANTING SPACE. IF THE SOIL IS ABOVE FIELD CAPACITY, ALLOW THE SOIL TO DRAIN TO BELOW FIELD CAPACITY BEFORE FINISHING THE PLANTING. AIR POCKETS SHALL BE ELIMINATED AND BACKFILL CONTINUED UNTIL THE PLANTING SOIL IS BROUGHT TO GRADE LEVEL.

WHERE INDICATED ON THE DRAWINGS, BUILD A 4 INCH HIGH, LEVEL BERM OF PLANTING SOIL AROUND THE OUTSIDE OF THE ROOT BALL TO RETAIN WATER. TAMP THE BERM TO REDUCE LEAKING AND EROSION OF THE

M. THOROUGHLY WATER THE PLANTING SOIL AND ROOT BALL IMMEDIATELY AFTER PLANTING.

N. REMOVE ALL NURSERY PLANT IDENTIFICATION TAGS AND RIBBONS AS PER OWNER'S REPRESENTATIVE INSTRUCTIONS. THE OWNER'S REPRESENTATIVE'S SEALS ARE TO REMAIN ON PLANTS UNTIL THE END OF THE

O. REMOVE ANY CORRUGATED CARDBOARD TRUNK PROTECTION AFTER PLANTING.

P. FOLLOW ADDITIONAL REQUIREMENTS FOR THE PERMITTED ROOT BALL PACKAGES.

3.10 PERMITTED ROOT BALL PACKAGES AND SPECIAL PLANTING REQUIREMENTS

A. THE FOLLOWING ARE PERMITTED ROOT BALL PACKAGES AND SPECIAL PLANTING REQUIREMENTS THAT SHALL BE FOLLOWED DURING THE PLANTING PROCESS IN ADDITION TO THE ABOVE GENERAL PLANTING

B. BALLED AND BURLAPPED PLANTS

1. AFTER THE ROOT BALL HAS BEEN BACKFILLED, REMOVE ALL TWINE AND BURLAP FROM THE TOP OF THE ROOT BALL. CUT THE BURLAP AWAY AS INDICATED ON DRAWINGS; DO NOT FOLD DOWN ONTO THE PLANTING SOIL.

2. IF THE PLANT IS SHIPPED WITH A WIRE BASKET REMOVE THE BASKET WIRES JUST BEFORE THE FINAL BACKFILLING OF THE TREE AS INDICATED ON THE DRAWINGS.

3. EARTH ROOT BALLS SHALL BE KEPT INTACT EXCEPT FOR ANY MODIFICATIONS REQUIRED BY THE OWNER'S REPRESENTATIVE TO MAKE ROOT PACKAGE COMPLY WITH THE REQUIREMENT IN PART 2 PRODUCTS.

C. CONTAINER PLANTS 1. THIS SPECIFICATION ASSUMES THAT MOST CONTAINER PLANTS HAVE SIGNIFICANT STEM GIRDLING AND

CIRCLING ROOTS, AND THAT THE ROOT COLLAR IS TOO LOW IN THE ROOT BALL.

PERFORM ROOT BALL SHAVING AS DEFINED IN INSTALLATION OF PLANTS: GENERAL ABOVE. 4. REMOVE ALL ROOTS AND SUBSTRATE ABOVE THE ROOT COLLAR AND THE MAIN STRUCTURAL ROOTS ACCORDING TO ROOT CORRECTION DETAILS SO ROOT SYSTEM CONFORMS TO ROOT OBSERVATIONS

5. REMOVE ALL SUBSTRATE AT THE BOTTOM OF THE ROOT BALL THAT DOES NOT CONTAIN ROOTS.

6. USING A HOSE, POWER WASHER OR AIR EXCAVATION DEVICE, WASH OUT THE SUBSTRATE FROM AROUND THE TRUNK AND TOP OF THE REMAINING ROOT BALL AND FIND AND REMOVE ALL STEM GIRDLING ROOTS WITHIN THE ROOT BALL ABOVE THE TOP OF THE STRUCTURAL ROOTS.

3.11 GROUND COVER, PERENNIAL AND ANNUAL PLANTS

A. ASSURE THAT SOIL MOISTURE IS WITHIN THE REQUIRED LEVELS PRIOR TO PLANTING. IRRIGATION, IF REQUIRED, SHALL BE APPLIED AT LEAST 12 HOURS PRIOR TO PLANTING TO AVOID PLANTING IN MUDDY SOILS.

B. ASSURE THAT SOIL GRADES IN THE BEDS ARE SMOOTH AND AS SHOWN ON THE PLANS. C. PLANTS SHALL BE PLANTED IN EVEN, TRIANGULARLY SPACED ROWS, AT THE INTERVALS CALLED OUT FOR ON

SYSTEM IN THE MULCH. PULL MULCH BACK SO IT IS NOT ON THE ROOT BALL SURFACE.

THE DRAWINGS, UNLESS OTHERWISE NOTED. THE FIRST ROW OF ANNUAL FLOWER PLANTS SHALL BE 6 INCHES FROM THE BED EDGE UNLESS OTHERWISE DIRECTED. D. DIG PLANTING HOLES SUFFICIENTLY LARGE ENOUGH TO INSERT THE ROOT SYSTEM WITHOUT DEFORMING THE

ROOTS. SET THE TOP OF THE ROOT SYSTEM AT THE GRADE OF THE SOIL. E. SCHEDULE THE PLANTING TO OCCUR PRIOR TO APPLICATION OF THE MULCH. IF THE BED IS ALREADY MULCHED, PULL THE MULCH FROM AROUND THE HOLE AND PLANT INTO THE SOIL. DO NOT PLANT THE ROOT

F. PRESS SOIL TO BRING THE ROOT SYSTEM IN CONTACT WITH THE SOIL.

G. SPREAD ANY EXCESS SOIL AROUND IN THE SPACES BETWEEN PLANTS.

H. APPLY MULCH TO THE BED BEING SURE NOT TO COVER THE TOPS OF THE PLANTS WITH OR THE TOPS OF THE

ROOT BALL WITH MULCH. I. WATER EACH PLANTING AREA AS SOON AS THE PLANTING IS COMPLETED. APPLY ADDITIONAL WATER TO KEEP

THE SOIL MOISTURE AT THE REQUIRED LEVELS. DO NOT OVER WATER.

A. DO NOT STAKE TREES UNLESS SPECIFICALLY REQUIRED BY THE CONTRACT DOCUMENTS, OR IN THE EVENT THAT THE CONTRACTOR FEELS THAT STAKING IS THE ONLY ALTERNATIVE WAY TO KEEP PARTICULAR TREES

1. THE OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO REQUIRE THAT TREES ARE STAKED OR TO

REJECT STAKING AS AN ALTERNATIVE WAY TO STABILIZE THE TREE. 2. TREES THAT REQUIRED HEAVILY MODIFIED ROOT BALLS TO MEET THE ROOT QUALITY STANDARDS MAY BECOME UNSTABLE. THE OWNER'S REPRESENTATIVE MAY CHOOSE TO REJECT THESE TREES RATHER THAN

3. PLANTS SHALL STAND PLUMB AFTER STAKING.

4. STAKES SHALL BE DRIVEN TO SUFFICIENT DEPTH TO HOLD THE TREE RIGID.

3.13 STRAIGHTENING PLANTS

UTILIZE STAKING TO TEMPORARILY SUPPORT THE TREE.

B. MAINTAIN ALL PLANTS IN A PLUMB POSITION THROUGHOUT THE WARRANTY PERIOD. STRAIGHTEN ALL TREES THAT MOVE OUT OF PLUMB INCLUDING THOSE NOT STAKED. PLANTS TO BE STRAIGHTENED SHALL BE EXCAVATED AND THE ROOT BALL MOVED TO A PLUMB POSITION, AND THEN RE-BACKFILLED.

C. DO NOT STRAIGHTEN PLANTS BY PULLING THE TRUNK WITH GUYS.

3.14 INSTALLATION OF FERTILIZER AND OTHER CHEMICAL ADDITIVES

A. DO NOT APPLY ANY SOLUBLE FERTILIZER TO PLANTINGS DURING THE FIRST YEAR AFTER TRANSPLANTING UNLESS SOIL TEST DETERMINES THAT FERTILIZER OR OTHER CHEMICAL ADDITIVES IS REQUIRED. APPLY CHEMICAL ADDITIVES ONLY UPON THE APPROVAL OF THE OWNER'S REPRESENTATIVE.

B. CONTROLLED RELEASE FERTILIZERS SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS, STANDARD HORTICULTURAL PRACTICES, AND PER THE SOIL TEST RECOMMENDATIONS.

A. PRUNE PLANTS AS DIRECTED BY THE OWNER'S REPRESENTATIVE. PRUNING TREES SHALL BE LIMITED TO ADDRESSING STRUCTURAL DEFECTS AS SHOWN IN DETAILS; FOLLOW RECOMMENDATIONS IN "STRUCTURAL PRUNING: A GUIDE FOR THE GREEN INDUSTRY" PUBLISHED BY URBAN TREE FOUNDATION, VISALIA CA.

B. ALL PRUNING SHALL BE PERFORMED BY A PERSON EXPERIENCED IN STRUCTURAL TREE PRUNING.

C. EXCEPT FOR PLANTS SPECIFIED AS MULTI-STEMMED OR AS OTHERWISE INSTRUCTED BY THE OWNER'S REPRESENTATIVE, PRESERVE OR CREATE A CENTRAL LEADER. D. PRUNING OF LARGE TREES SHALL BE DONE USING POLE PRUNERS OR IF NEEDED, FROM A LADDER OR

TREES CAN BE STRUCTURALLY PRUNED BY LAYING THEM OVER BEFORE PLANTING. PRUNING MAY ALSO BE PERFORMED AT THE NURSERY PRIOR TO SHIPPING. E. REMOVE AND REPLACE EXCESSIVELY PRUNED OR MALFORMED STOCK RESULTING FROM IMPROPER PRUNING

HYDRAULIC LIFT TO GAIN ACCESS TO THE TOP OF THE TREE. DO NOT CLIMB IN NEWLY PLANTED TREES. SMALL

THAT OCCURRED IN THE NURSERY OR AFTER.

F. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.

G. NO TREE PAINT OR SEALANTS SHALL BE USED.

A. APPLY MULCH BEFORE SETTLEMENT TO DEPTH SHOWN ON PLANS, COVERING THE ENTIRE PLANTING BED AREA. INSTALL NO MORE THAN 1 INCH OF MULCH OVER THE TOP OF THE ROOT BALLS OF ALL PLANTS. TAPER TO 2 INCHES WHEN ABUTTING PAVEMENT

B. FOR TREES PLANTED IN LAWN AREAS THE MULCH SHALL EXTEND TO A 4 FOOT RADIUS AROUND THE TREE OR TO THE EXTENT INDICATED ON THE PLANS.

C. LIFT ALL LEAVES, LOW HANGING STEMS AND OTHER GREEN PORTIONS OF SMALL PLANTS OUT OF THE MULCH IF COVERED.

3.17 PLANTING BED FINISHING

B. SEPARATE THE EDGES OF PLANTING BEDS AND LAWN AREAS WITH A SMOOTH, FORMED EDGE CUT INTO THE TURF WITH THE BED MULCH LEVEL SLIGHTLY LOWER, 1 AND 2 INCHES, THAN THE ADJACENT TURF SOD OR AS

A. AFTER PLANTING, SMOOTH OUT ALL GRADES BETWEEN PLANTS BEFORE MULCHING.

DIRECTED BY THE OWNER'S REPRESENTATIVE. BED EDGE LINES SHALL BE A DEPICTED ON THE DRAWINGS. A. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO ENSURE THAT ADEQUATE WATER IS PROVIDED TO ALL

PLANTS FROM THE POINT OF INSTALLATION UNTIL THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE. THE

CONTRACTOR SHALL ADJUST THE AUTOMATIC IRRIGATION SYSTEM, IF AVAILABLE, AND APPLY ADDITIONAL OR

ADJUST FOR LESS WATER USING HOSES AS REQUIRED. B. HAND WATER ROOT BALLS OF ALL PLANTS TO ASSURE THAT THE ROOT BALLS HAVE MOISTURE ABOVE WILT POINT AND BELOW FIELD CAPACITY. TEST THE MOISTURE CONTENT IN EACH ROOT BALL AND THE SOIL OUTSIDE

3.19 CLEAN-UP

A. DURING INSTALLATION, KEEP THE SITE FREE OF TRASH, PAVEMENTS REASONABLY CLEAN AND WORK AREA IN AN ORDERLY CONDITION AT THE END OF EACH DAY. REMOVE TRASH AND DEBRIS IN CONTAINERS FROM THE SITE NO LESS THAN ONCE A WEEK.

1. IMMEDIATELY CLEAN UP ANY SPILLED OR TRACKED SOIL, FUEL, OIL, TRASH OR DEBRIS DEPOSITED BY THE CONTRACTOR FROM ALL SURFACES WITHIN THE PROJECT OR ON PUBLIC RIGHT OF WAYS AND NEIGHBORING PROPERTY.

B. ONCE INSTALLATION IS COMPLETE, WASH ALL SOIL FROM PAVEMENTS AND OTHER STRUCTURES. ENSURE THAT MULCH IS CONFINED TO PLANTING BEDS AND THAT ALL TAGS AND FLAGGING TAPE ARE REMOVED FROM THE SITE. THE OWNER'S REPRESENTATIVE'S SEALS ARE TO REMAIN ON THE TREES AND REMOVED AT THE END OF THE WARRANTY PERIOD.

C. MAKE ALL REPAIRS TO GRADES, RUTS, AND DAMAGE BY THE PLANT INSTALLER TO THE WORK OR OTHER

D. REMOVE AND DISPOSE OF ALL EXCESS PLANTING SOIL, SUBSOIL, MULCH, PLANTS, PACKAGING, AND OTHER MATERIAL BROUGHT TO THE SITE BY THE CONTRACTOR.

REPLACE DAMAGED WORK IMMEDIATELY.

THE ROOT BALL TO DETERMINE THE WATER CONTENT.

3.20 PROTECTION DURING CONSTRUCTION A. THE CONTRACTOR SHALL PROTECT PLANTING AND RELATED WORK AND OTHER SITE WORK FROM DAMAGE DUE TO PLANTING OPERATIONS, OPERATIONS BY OTHER CONTRACTORS OR TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION UNTIL SUBSTANTIAL COMPLETION ACCEPTANCE. TREAT, REPAIR OR

B. DAMAGE DONE BY THE CONTRACTOR, OR ANY OF THEIR SUB-CONTRACTORS TO EXISTING OR INSTALLED PLANTS, OR ANY OTHER PARTS OF THE WORK OR EXISTING FEATURES TO REMAIN, INCLUDING ROOTS, TRUNK OR BRANCHES OF LARGE EXISTING TREES, SOIL, PAVING, UTILITIES, LIGHTING, IRRIGATION, OTHER FINISHED WORK AND SURFACES INCLUDING THOSE ON ADJACENT PROPERTY, SHALL BE CLEANED, REPAIRED OR REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. THE OWNER'S REPRESENTATIVE SHALL DETERMINE WHEN SUCH CLEANING, REPLACEMENT OR REPAIR IS SATISFACTORY.

3.21 PLANT MAINTENANCE PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE

A. DURING THE PROJECT WORK PERIOD AND PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE, THE

CONTRACTOR SHALL MAINTAIN ALL PLANTS. B. MAINTENANCE DURING THE PERIOD PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE SHALL CONSIST OF PRUNING, WATERING, CULTIVATING, WEEDING, MULCHING, REMOVAL OF DEAD MATERIAL, REPAIRING AND REPLACING OF TREE STAKES, TIGHTENING AND REPAIRING OF GUYS, REPAIRING AND REPLACING OF DAMAGED TREE WRAP MATERIAL, RESETTING PLANTS TO PROPER GRADES AND UPRIGHT POSITION, AND FURNISHING AND APPLYING SUCH SPRAYS AS ARE NECESSARY TO KEEP PLANTINGS REASONABLY FREE OF DAMAGING INSECTS AND DISEASE, AND IN HEALTHY CONDITION. THE THRESHOLD FOR APPLYING INSECTICIDES AND HERBICIDE SHALL FOLLOW ESTABLISHED INTEGRATED PEST MANAGEMENT (IPM) PROCEDURES. MULCH AREAS

SHALL BE KEPT REASONABLY FREE OF WEEDS, GRASS. 3.22 SUBSTANTIAL COMPLETION ACCEPTANCE

A. UPON WRITTEN NOTICE FROM THE CONTRACTOR, THE OWNERS REPRESENTATIVE SHALL REVIEW THE WORK AND MAKE A DETERMINATION IF THE WORK IS SUBSTANTIALLY COMPLETE.

B. THE DATE OF SUBSTANTIAL COMPLETION OF THE PLANTING SHALL BE THE DATE WHEN THE OWNER'S

1. NOTIFICATION SHALL BE AT LEAST 7 DAYS PRIOR TO THE DATE THE CONTRACTOR IS REQUESTING THE

SECTIONS IS COMPLETE. C. THE PLANT WARRANTY PERIOD BEGINS AT DATE OF WRITTEN NOTIFICATION OF SUBSTANTIAL COMPLETION FROM THE OWNER'S REPRESENTATIVE. THE DATE OF SUBSTANTIAL COMPLETION MAY BE DIFFERENT THAN THE DATE OF SUBSTANTIAL COMPLETION FOR THE OTHER SECTIONS OF THE PROJECT.

REPRESENTATIVE ACCEPTS THAT ALL WORK IN PLANTING, PLANTING SOIL, AND IRRIGATION INSTALLATION

3.23 MAINTENANCE DURING THE WARRANTY PERIOD BY OTHERS

A. AFTER SUBSTANTIAL COMPLETION ACCEPTANCE, THE CONTRACTOR SHALL MAKE SUFFICIENT SITE VISITS TO OBSERVE THE OWNER'S MAINTENANCE AND BECOME AWARE OF PROBLEMS WITH THE MAINTENANCE IN TIME TO REQUEST CHANGES, UNTIL THE DATE OF END OF WARRANTY FINAL ACCEPTANCE.

1. NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING IF MAINTENANCE, INCLUDING WATERING, IS NOT

SUFFICIENT TO MAINTAIN PLANTS IN A HEALTHY CONDITION. SUCH NOTIFICATION MUST BE MADE IN A TIMELY PERIOD SO THAT THE OWNER'S REPRESENTATIVE MAY TAKE CORRECTIVE ACTION.

A. NOTIFICATION MUST DEFINE THE MAINTENANCE NEEDS AND DESCRIBE ANY CORRECTIVE ACTION REQUIRED.

2. IN THE EVENT THAT THE CONTRACTOR FAILS TO VISIT THE SITE AND OR NOTIFY, IN WRITING, THE OWNER'S REPRESENTATIVE OF MAINTENANCE NEEDS, LACK OF MAINTENANCE SHALL NOT BE USED AS GROUNDS FOR VOIDING OR MODIFYING THE PROVISIONS OF THE WARRANTY.

3.24 MAINTENANCE DURING THE WARRANTY PERIOD BY THE PLANT INSTALLER

A. DURING THE WARRANTY PERIOD, PROVIDE ALL MAINTENANCE FOR ALL PLANTINGS TO KEEP THE PLANTS IN A HEALTHY STATE AND THE PLANTING AREAS CLEAN AND NEAT.

B. GENERAL REQUIREMENTS:

1. ALL WORK SHALL BE UNDERTAKEN BY TRAINED PLANTING CREWS UNDER THE SUPERVISION OF A FOREMAN WITH A MINIMUM OF 5 YEARS EXPERIENCE SUPERVISING COMMERCIAL PLANT MAINTENANCE CREWS.

2. ALL CHEMICAL AND FERTILIZER APPLICATIONS SHALL BE MADE BY LICENSED APPLICATORS FOR THE TYPE OF CHEMICALS TO BE USED. ALL WORK AND CHEMICAL USE SHALL COMPLY WITH ALL APPLICABLE LOCAL, PROVINCIAL AND FEDERAL REQUIREMENTS

3. ASSURE THAT HOSES AND WATERING EQUIPMENT AND OTHER MAINTENANCE EQUIPMENT DOES NOT BLOCK PATHS OR BE PLACED IN A MANNER THAT MAY CREATE TRIPPING HAZARDS. USE STANDARD SAFETY WARNING BARRIERS AND OTHER PROCEDURES TO MAINTAIN THE SITE IN A SAFE MANNER FOR VISITORS AT

4. ALL WORKERS SHALL WEAR REQUIRED SAFETY EQUIPMENT AND APPAREL APPROPRIATE FOR THE TASKS BEING UNDERTAKEN.

5. THE CONTRACTOR SHALL NOT STORE MAINTENANCE EQUIPMENT AT THE SITE AT TIMES WHEN THEY ARE NOT IN USE UNLESS AUTHORIZED IN WRITING BY THE OWNER'S REPRESENTATIVE.

6. MAINTENANCE VEHICLES SHALL NOT PARK ON THE SITE INCLUDING WALKS AND LAWN AREAS AT ANY TIME WITHOUT THE OWNER'S REPRESENTATIVE'S WRITTEN PERMISSION.

7. MAINTAIN A DETAILED LOG OF ALL MAINTENANCE ACTIVITIES INCLUDING TYPES OF TASKS, DATE OF TASK, TYPES AND QUANTITIES OF MATERIALS AND PRODUCTS USED, WATERING TIMES AND AMOUNTS, AND NUMBER OF EACH CREW. PERIODICALLY REVIEW THE LOGS WITH THE OWNER'S REPRESENTATIVE, AND SUBMIT A COPY OF THE LOGS AT THE END OF EACH YEAR OF THE MAINTENANCE AGREEMENT.

8. MEET WITH THE OWNER'S REPRESENTATIVE A MINIMUM OF THREE TIMES A YEAR TO REVIEW THE PROGRESS AND DISCUSS ANY CHANGES THAT ARE NEEDED IN THE MAINTENANCE PROGRAM. AT THE END OF THE WARRANTY PERIOD ATTEND A HAND OVER MEETING TO FORMALLY TRANSFER THE RESPONSIBILITIES OF MAINTENANCE TO THE OWNER'S REPRESENTATIVE. PROVIDE ALL INFORMATION ON PAST MAINTENANCE ACTIVITIES AND PROVIDE A LIST OF CRITICAL TASKS THAT WILL BE NEEDED OVER THE NEXT 12 MONTHS. PROVIDE ALL MAINTENANCE LOGS AND SOIL TEST DATA. MAKE THE CONTRACTOR'S SUPERVISOR AVAILABLE FOR A MINIMUM OF ONE YEAR AFTER THE END OF THE WARRANTY PERIOD TO

ANSWER QUESTIONS ABOUT PAST MAINTENANCE.

C. PROVIDE THE FOLLOWING MAINTENANCE TASKS: 1. WATERING; PROVIDE ALL WATER REQUIRED TO KEEP SOIL WITHIN AND AROUND THE ROOT BALLS AT

OPTIMUM MOISTURE CONTENT FOR PLANT GROWTH. MAINTAIN ALL WATERING SYSTEMS AND EQUIPMENT AND KEEP THEM OPERATIONAL.

b. MONITOR SOIL MOISTURE TO PROVIDE SUFFICIENT WATER. CHECK SOIL MOISTURE AND ROOT BALL MOISTURE WITH A SOIL MOISTURE METER ON A REGULAR BASIS AND RECORD MOISTURE READINGS. DO NOT OVER WATER.

2. SOIL NUTRIENT LEVELS: TAKE A MINIMUM OF 4 SOIL SAMPLES FROM AROUND THE SITE IN THE SPRING AND FALL AND HAVE THEM TESTED BY AN ACCREDITED AGRICULTURAL SOIL TESTING LAB FOR CHEMICAL COMPOSITION OF PLANT REQUIRED NUTRIENTS, PH, SALT AND % ORGANIC MATTER. TEST RESULTS SHALL INCLUDE LABORATORY RECOMMENDATIONS FOR NUTRIENT APPLICATIONS. APPLY FERTILIZERS AT RATES RECOMMENDED BY THE SOIL TEST.

CONDITIONS THAT MAY NOT BE RELATED TO SOIL NUTRIENT LEVELS SUCH AS SOIL CONTAMINATED BY OTHER CHEMICALS OR LACK OF CHEMICAL UPTAKE BY THE PLANT 3. PLANT PRUNING: REMOVE CROSS OVER BRANCHING, SHORTEN OR REMOVE DEVELOPING CO DOMINANT

LEADERS, DEAD WOOD AND WINTER-DAMAGED BRANCHES. UNLESS DIRECTED BY THE OWNER'S

a. MAKE ANY OTHER SOIL TEST AND/OR PLANT TISSUE TEST THAT MAY BE INDICATED BY PLANT

REPRESENTATIVE, DO NOT SHEAR PLANTS OR MAKE HEADING CUTS. 4. RESTORE PLANTS: RESET ANY PLANTS THAT HAVE SETTLED OR ARE LEANING AS SOON AS THE CONDITION

5. GUYING AND STAKING: MAINTAIN PLANT GUYS IN A TAUGHT POSITION. REMOVE TREE GUYS AND STAKING

AFTER THE FIRST FULL GROWING SEASON UNLESS DIRECTED BY OWNER'S REPRESENTATIVE. 6. WEED CONTROL: KEEP ALL BEDS FREE OF WEEDS. HAND-REMOVE ALL WEEDS AND ANY PLANTS THAT DO NOT APPEAR ON THE PLANTING PLAN. CHEMICAL WEED CONTROL IS PERMITTED ONLY WITH THE APPROVAL OF THE OWNER'S REPRESENTATIVE. SCHEDULE WEEDING AS NEEDED BUT NOT LESS 12 TIMES

7. TRASH REMOVAL: REMOVE ALL TRASH AND DEBRIS FROM ALL PLANTING BEDS AND MAINTAIN THE BEDS IN

THAN 12 TIMES PER YEAR AND MAY COINCIDE WITH OTHER MAINTENANCE VISITS. 8. PLANT PEST CONTROL: MAINTAIN DISEASE, INSECTS AND OTHER PESTS AT MANAGEABLE LEVELS. MANAGEABLE LEVELS SHALL BE DEFINED AS DAMAGE TO PLANTS THAT MAY BE NOTICEABLE TO A PROFESSIONAL BUT NOT TO THE AVERAGE PERSON. USE LEAST INVASIVE METHODS TO CONTROL PLANT

DISFASE AND INSECT OUTBREAKS. D. THE OWNER'S REPRESENTATIVE MUST APPROVE IN ADVANCE THE USE OF ALL CHEMICAL PESTICIDE

APPLICATIONS. 1. PLANT REPLACEMENT: REPLACE ALL PLANTS THAT ARE DEFECTIVE AS DEFINED IN THE WARRANTY PROVISIONS, AS SOON AS THE PLANT DECLINE IS OBVIOUS AND IN SUITABLE WEATHER AND SEASON FOR PLANTING AS OUTLINED IN ABOVE SECTIONS. PLANTS THAT BECOME DEFECTIVE DURING THE MAINTENANCE PERIOD SHALL BE COVERED AND REPLACED UNDER THE WARRANTY PROVISIONS.

2. MULCH: REFRESH MULCH ONCE A YEAR TO MAINTAIN COMPLETE COVERAGE BUT DO NOT OVER MULCH. AT NO TIME SHALL THE OVERALL MULCH THICKNESS BE GREATER THAT 4 INCHES. DO NOT APPLY MULCH WITHIN 6 INCHES OF THE TRUNKS OR STEMS OF ANY PLANTS. REPLACEMENT MULCH SHALL MEET THE REQUIREMENTS OF THE ORIGINAL APPROVED MATERIAL. MULCH SHALL BE NO MORE THAN ONE INCH ON TOP OF THE ROOT BALL SURFACE.

3. BED EDGING: CHECK AND MAINTAIN EDGES BETWEEN MULCH AND LAWN AREAS IN SMOOTH NEAT LINES AS

ORIGINALLY SHOWN ON THE DRAWINGS. 4. LEAF, FRUIT AND OTHER PLANT DEBRIS REMOVAL: REMOVE FALL LEAF, SPENT FLOWERS, FRUIT AND PLANT PART ACCUMULATIONS FROM BEDS AND PAVED SURFACES. MAINTAIN ALL SURFACE WATER DRAINS FREE OF DEBRIS. DEBRIS REMOVAL SHALL BE UNDERTAKEN AT EACH VISIT TO WEED OR PICK UP TRASH IN BEDS.

5. DAMAGE FROM SITE USE: REPAIR OF DAMAGE BY SITE VISITORS AND EVENTS, BEYOND NORMAL WEAR, ARE NOT PART OF THIS MAINTENANCE. THE OWNER'S REPRESENTATIVE MAY REQUEST THAT THE CONTRACTOR REPAIR DAMAGE BEDS OR PLANTINGS FOR AN ADDITIONAL COST. ALL ADDITIONAL WORK SHALL BE

APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE.

3.25 END OF WARRANTY FINAL ACCEPTANCE / MAINTENANCE OBSERVATION A. AT THE END OF THE WARRANTY AND MAINTENANCE PERIOD THE OWNER'S REPRESENTATIVE SHALL OBSERVE THE WORK AND ESTABLISH THAT ALL PROVISIONS OF THE CONTRACT ARE COMPLETE AND THE WORK IS

1. IF THE WORK IS SATISFACTORY, THE MAINTENANCE PERIOD WILL END ON THE DATE OF THE FINAL 2. IF THE WORK IS DEEMED UNSATISFACTORY, THE MAINTENANCE PERIOD WILL CONTINUE AT NO ADDITIONAL EXPENSE TO THE OWNER UNTIL THE WORK HAS BEEN COMPLETED, OBSERVED, AND APPROVED BY THE

OBSERVATIONS WILL BE CHARGED TO THE CONTRACTOR AT THE PREVAILING HOURLY RATE OF THE OWNERS

B. FAILURE TO PASS OBSERVATION: IF THE WORK FAILS TO PASS FINAL OBSERVATION, ANY SUBSEQUENT

OBSERVATIONS MUST BE RESCHEDULED AS PER ABOVE. THE COST TO THE OWNER FOR ADDITIONAL

REPRESENTATIVE.

END OF SECTION 32 9300

OWNER'S REPRESENTATIVE.

R.L.A. BLAINE D. MIKULIK L.A. No. 3486 DATE 10/30/2023

PRELIMINAR

FOR REVIEW ONLY

Kimley » Horn

Not for construction or permit purpos

SHEET NUMBER

SECTION 32 9210: LAWNS AND GRASSES

PART 1 - GENERAL

- 1.1 SECTION INCLUDES A. FURNISH ALL LABOR, MATERIAL, EQUIPMENT RELATED SERVICES AND SUPERVISION NECESSARY FOR OR INCIDENTAL TO THE INSTALLATION OF THE LAWNS AND GRASSES AS SHOWN OR INDICATED ON THE DRAWINGS AND/OR AS
- B. WORK INCLUDED:
- SOIL PREPARATION AND FINE GRADING.
- FERTILIZATION. GRASS SODDING

SEEDING 1.2 SUBMITTALS

- A. DELIVERY RECEIPTS AND INVOICES: SUBMIT ORIGINAL DELIVERY RECEIPTS AND INVOICES FOR MATERIALS USED.
- B. PRODUCT DATA: SUBMIT SAMPLE LABEL OR SPECIFICATION OF FERTILIZER. C. CERTIFICATE: SUBMIT STATE CERTIFICATE STATING VARIETY AND PURITY OF GRASS SOD.
- D. SOIL FERTILITY TEST REPORTS:
- 1. SUBMIT ANALYSIS, TEST RESULTS AND CORRECTIVE RECOMMENDATIONS TO THE OWNER'S REPRESENTATIVE. 2. ONE TEST PER MEDIAN IS REQUIRED OF EXISTING SOIL TAKEN AT DIFFERENT LOCATIONS ON THE PROJECT SITE AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- A. PROTECT PAVING SURFACES, CURBS, UTILITIES, PLANT MATERIALS, AND OTHER EXISTING IMPROVEMENTS FROM
- B. LOCATE AND STAKE IRRIGATION HEADS, VALVE RISERS AND EQUIPMENT PRIOR TO BEGINNING SOIL PREPARATION
- C. DURING WORK AND MAINTENANCE PERIOD, MAINTAIN TOPSOIL IN PLACE AT ESTABLISHED GRADES. REPLACE
- TOPSOIL AND GRASS LOSSES DUE TO EROSION. D. PROTECT IN PLACE WORK FROM DAMAGE BY HEAVY EQUIPMENT. PREPARE, GRADE, LEVEL, AND REPLANT DAMAGED

1.4 SUBSTANTIAL COMPLETION & PROJECT CLOSEOUT

DAMAGE BY HEAVY EQUIPMENT.

- A. A CERTIFICATE OF SUBSTANTIAL COMPLETION WILL BE ISSUED WHEN THE WORK PERFORMED UNDER THE CONTRACT HAS BEEN REVIEWED AND FOUND, TO THE OWNER'S REPRESENTATIVE'S BEST KNOWLEDGE, INFORMATION, AND BELIEF, TO BE SUBSTANTIALLY COMPLETE. SUBSTANTIAL COMPLETION IS THE STAGE IN THE PROGRESS OF THE WORK WHEN THE WORK OR DESIGNATED PORTION THEREOF IS SUFFICIENTLY COMPLETE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS SO THE OWNER CAN OCCUPY OR UTILIZE THE WORK FOR ITS INTENDED USE. THE DATE OF SUBSTANTIAL COMPLETION OF THE PROJECT OR PORTION THEREOF IS ALSO THE DATE OF COMMENCEMENT OF
- APPLICABLE GUARANTEES AS SPECIFIED. B. A LIST OF ITEMS TO BE COMPLETED OR CORRECTED WILL BE ATTACHED TO THE CERTIFICATE OR SUBSTANTIAL COMPLETION. THE FAILURE TO INCLUDE ANY ITEMS ON SUCH LIST DOES NOT ALTER THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE ALL WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- C. THE CONTRACTOR WILL COMPLETE OR CORRECT THE WORK ON THE LIST OF ITEMS WITHIN A SPECIFIC NUMBER OF DAYS AS SHOWN ON THE CERTIFICATE OF SUBSTANTIAL COMPLETION.
- D. UPON COMPLETION AND RE-INSPECTION OF ALL CORRECTED ITEMS LISTED, THE OWNER'S REPRESENTATIVE WILL RECOMMEND TO THE OWNER THAT THE WORK OF THIS SECTION IS READY FOR FINAL ACCEPTANCE.
- A. GENERAL: COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL REGULATIONS GOVERNING LANDSCAPE
- B. PERSONNEL: EMPLOY ONLY EXPERIENCED PERSONNEL WHO ARE FAMILIAR WITH THE REQUIRED WORK. PROVIDE
- SUPERVISION BY A QUALIFIED FOREMAN.

- A. GUARANTEE LAWNS AND GRASSES FOR ONE YEAR AFTER DATE OF FINAL ACCEPTANCE AT THE END OF THIS GUARANTEE PERIOD, ALL LAWN AND GRASS AREAS WILL HAVE ACHIEVED COVERAGE OF THE SPECIFIED GRASS AT A DENSITY OF 100% COVERAGE, FREE OF WEEDS, UNDESIRABLE GRASS SPECIES, DISEASE, AND INSECTS. REPLACE DEAD MATERIALS AND MATERIALS NOT IN VIGOROUS, THRIVING CONDITION AS SOON AS WEATHER PERMITS AND ON NOTIFICATION BY THE OWNER'S REPRESENTATIVE.
- B. REPLACE LAWNS AND GRASSES WITH SAME KIND AS ORIGINALLY PLANTED, AT NO COST TO THE OWNER. PROTECT IRRIGATION SYSTEM AND OTHER PIPING, CONDUIT, OR OTHER WORK DURING REPLACEMENT. REPAIR DAMAGE

1.7 JOB CONDITIONS

- A. DO NOT INSTALL SOD OR SEED ON SATURATED OR FROZEN SOIL.
- B. SOD AND SEED INSTALLATION SHALL BE SUBJECT TO SUITABILITY OF THE WEATHER AND OTHER CONDITIONS AFFECTING SOD GROWTH.

1.8 PROGRESS MEETINGS

A. CONTRACTOR SHALL ATTEND ALL PROGRESS MEETINGS AS REQUESTED BY THE OWNER'S REPRESENTATIVE DURING INSTALLATION.

1.9 QUANTITY VERIFICATION

- A. THE BIDDING CONTRACTOR IS RESPONSIBLE FOR THE INCLUSION OF ALL MATERIALS, LABOR AND EQUIPMENT AS OUTLINED IN THE PLANS AND SPECIFICATION. THE PLANT LIST IS PROVIDED TO THE BIDDING CONTRACTOR AS A CONVENIENCE AND THE QUANTITIES ARE APPROXIMATE. VERIFICATION OF ALL QUANTITIES IS THE SOLE RESPONSIBILITY OF THE BIDDING CONTRACTOR. ANY DISCREPANCIES MUST BE REPORTED TO THE OWNER'S
- REPRESENTATIVE PRIOR TO SUBMITTAL OF BID.

PART 2 PRODUCTS

A. GENERAL

- 1. SOD SHALL BE NURSERY GROWN ON CULTIVATED AGRICULTURAL SOILS. SOD SHALL HAVE BEEN MOWED REGULARLY AND CAREFULLY AND OTHERWISE MAINTAINED FROM PLANTING TO HARVEST.
- SOD SHALL BE OF SPECIES INDICATED. 3. THICKNESS OF CUT: SOD SHALL BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND LENGTH. MAXIMUM ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL BE PLUS OR MINUS .25 INCHES ON
- WIDTH AND PLUS OR MINUS 5% ON LENGTH.
- 4. BROKEN STRIPS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTED. 5. STRENGTH OF SOD STRIPS: SOD STRIPS SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND
- RETAIN THEIR SIZE AND SHAPE IF SUSPENDED VERTICALLY WHEN GRASPED IN THE UPPER 10% OF THE SECTION. 6. MOISTURE CONTENT: SOD SHALL NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT
- (EXCESSIVELY WET OR DRY) MAY ADVERSELY AFFECT ITS SURVIVAL. SOD SHALL BE STORED IN A COMPACT GROUP TO PREVENT DRYING OUT OR FREEZING. 7. TIME LIMITATIONS: SOD SHALL BE HARVESTED, DELIVERED, AND TRANSPLANTED WITHIN A 30-HOUR PERIOD UNLESS A SUITABLE PRESERVATION METHOD IS APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO
- DELIVERY. SOD NOT TRANSPLANTED WITHIN THIS PERIOD SHALL BE INSPECTED FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO ITS INSTALLATION.
- 8. THATCH: SOD SHALL BE FREE OF THATCH. 9. DISEASES. NEMATODES AND INSECTS: SOD SHALL BE FREE OF DISEASES, NEMATODES, AND SOIL-BORNE
- 10. WEEDS: SOD SHALL BE FREE OF OBJECTIONABLE GRASSY AND BROADLEAF WEEDS.
- B. SOD: 1. CYNODON DACTYLON (COMMON BERMUDA GRASS)
- C. SEED:
- SEED: FRESH, CLEAN, AND NEW CROP SEED MIXTURE. A. COMPOSED OF THE FOLLOWING VARIETIES, MIXED TO THE SPECIFIED PROPORTIONS BY WEIGHT, AND TESTED TO
- MINIMUM PERCENTAGES OF PURITY AND GERMINATION. SHALL BE FREE OF: POA ANNUA, BENT GRASS, AND NOXIOUS WEED SEED.
- B. RATE: 2 3 POUNDS PER 1,000 SQUARE FEET. TYPES:
- TYPES PARTS PURITY GERMINATION DRAINFIELD

MIX <u>100%</u> <u>95%</u> <u>95%</u> 2.2 MULCH

A. HYDRO-MULCH: CELLULOSE FIBER MULCH SHALL CONSIST OF SPECIALLY PREPARED CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE. THE FIBER MULCH, INCLUDING DYE, SHALL CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS. THE MULCH MATERIAL SHALL BE MANUFACTURED AND PROCESSED IN SUCH A

MANNER THAT THE CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER, AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH SHALL COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITH OUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.

2.3 TOPSOIL A. GENERAL TOPSOIL

REFERENCE PLANTING SOIL PLANS.

2.4 SEEDING ACCESSORIES

- IF NECESSARY IN THE OPINION OF THE LANDSCAPE ARCHITECT, AN APPLICATION OF BROADLEAF WEED KILLER MAY BE APPLIED PRIOR TO FINAL ACCEPTANCE. ORTHO WEED-B-GONE OR EQUAL AT A RATE OF 3 TEASPOONS/GALLON OF WATER OR 3 CUPS (25 OZ.) PER 50 GALLONS OF WATER SHALL BE APPLIED AT LEAST 48 HOURS BEFORE WATERING OR ANTICIPATED RAINFALL. B. MULCH TACKIFIER
- APPLY LIQUID TACKIFIER UNIFORMLY AT THE RATE OF 60 GALLONS PER ACRE, IF NEEDED, TO KEEP STRAW MULCH IN PLACE.
- C. GROUND LIMESTONE GROUND LIMESTONE SHALL CONTAIN NOT LESS THAN 85% OF TOTAL CARBONATES AND GROUND TO SUCH FINENESS END OF SECTION 329210 THAT 50% WILL PASS THROUGH A NO. 100 MESH SIEVE, AND 90% WILL PASS THROUGH A NO. 20 MESH SIEVE.

2.5 FERTILIZER A. GENERAL:

- 1. FERTILIZER SHALL BE COMMERCIAL PRODUCT, UNIFORM IN COMPOSITION, FREE FLOWING, AND SUITABLE FOR APPLICATION WITH APPROVED EQUIPMENT
- DELIVER FERTILIZER TO SITE IN FULLY LABELED ORIGINAL CONTAINERS.
- 3. FERTILIZER WHICH HAS BEEN EXPOSED TO HIGH HUMIDITY AND MOISTURE HAS BECOME CAKED OR OTHERWISE
- DAMAGED, MAKING IT UNSUITABLE FOR USE, WILL NOT BE ACCEPTABLE. B. INITIAL APPLICATION: 17% NITROGEN
- 2. 17% PHOSPHORIC ACID
- 17% POTASH
- C. SECOND APPLICATION:

B. IRRIGATED GRASS AREAS ONLY:

 21% NITROGEN 2. 0% PHOSPHORIC ACID

0% POTASH

PART 3 EXECUTION

A. EXECUTE GRASS PLANTING OPERATIONS ACROSS SLOPE AND PARALLEL TO FINISHED GRADE CONTOURS.

3.2 PRE-PLANT WEED CONTROL

UTILIZING MECHANICAL AND CHEMICAL TREATMENT.

- A. IRRIGATED AND NON-IRRIGATED GRASS AREAS: 1. IF GRASSY OR BROADLEAF WEEDS EXIST ON SITE AT THE BEGINNING OF WORK, SPRAY WITH A NON-SELECTIVE SYSTEMIC CONTACT HERBICIDE, AS RECOMMENDED AND APPLIED BY AN APPROVED LICENSED LANDSCAPE PEST CONTROL ADVISOR AND APPLICATOR. LEAVE SPRAYED PLANTS INTACT FOR AT LEAST 15 DAYS TO ALLOW
- 2. CLEAR AND REMOVE THESE EXISTING WEEDS BY MOWING OR GRUBBING OFF ALL PLANT PARTS AT LEAST 0.25 INCHES BELOW THE SURFACE OF THE SOIL OVER THE ENTIRE AREA TO BE PLANTED.
- 1. AFTER IRRIGATION SYSTEM IS OPERATIONAL, APPLY WATER FOR 5 TO 10 DAYS AS NEEDED TO ACHIEVE WEED GERMINATION. APPLY CONTACT HERBICIDES AND WAIT AS NEEDED BEFORE PLANTING. REPEAT AS NEEDED. MAINTAIN LAWN AND GRASS AREAS WEED FREE UNTIL FINAL ACCEPTANCE BY OWNER'S REPRESENTATIVE

3.3 SOIL PREPARATION A. TILLAGE:

- 1. TILLAGE SHALL BE ACCOMPLISHED TO LOOSEN ALL AREAS OF COMPACTED SOIL. WHEN PLACEMENT OF TOPSOIL IS SPECIFIED, TILL COMPACTED AREAS PRIOR TO PLACEMENT.
- 2. TILL WITH HEAVY DUTY DISC, ROTOTILLER, OR CHISEL-TYPE BREAKING PLOW, CHISELS SET NOT MORE THAN 10 INCHES APART. TILL TO A DEPTH OF 1 TO 3 INCHES.
- 3. INITIAL TILLAGE SHALL BE DONE IN CROSSING PATTERN FOR DOUBLE COVERAGE THEN FOLLOWED BY A DISC
- B. CLEANING: 1. REMOVE DEBRIS, BUILDING MATERIALS, RUBBISH, WEEDS, AND STONES LARGER THAN 1 INCH IN DIAMETER.
- 2. USE ROCK PICK OR OTHER MACHINERY TO GATHER SURFACE STONES LARGER THAN 1 INCH IN DIAMETER.
- 1. AFTER TILLAGE AND PLACEMENT OF TOPSOIL, LEVEL, FINE GRADE, AND DRAG WITH A WEIGHTED SPIKE HARROW
- OR FLOAT DRAG. 2. ELIMINATE RUTS, DEPRESSIONS, HUMPS, AND OBJECTIONABLE SOIL CLODS.

3.4 FERTILIZING

- A. THE FERTILIZER TYPES AND RATES SPECIFIED HEREIN ARE APPLICABLE UNLESS COUNTERMANDED BY THE SOIL FERTILITY TEST CORRECTIVE RECOMMENDATIONS, IN WHICH CASE THEY WILL BE APPLICABLE.
- B. BERMUDA SODDING: 1. INITIAL APPLICATION: APPLY NO MORE THAN 5 DAYS PRIOR TO COMMENCEMENT OF SODDING OPERATIONS AT A
- RATE OF 20 POUNDS PER 1,000 SQUARE FEET. INCORPORATE INTO SOIL WITH A CHAIN HARROW. 2. SECOND AND THIRD APPLICATIONS: APPLY EVERY 25 DAYS AFTER SODDING AT A RATE OF 10 POUNDS PER 1.000 SQUARE FEET.
- 3. IRRIGATE THE AREA WITH A MINIMUM OF .25 INCHES OF WATER TO PROPERLY INCORPORATE THE FERTILIZER INTO THE TURF.

3.5 PLANTING SOD A. WEATHER CONDITIONS:

- - 1. SCHEDULE WORK FOR PERIODS OF FAVORABLE WEATHER.
 - SOD PLACEMENT ON DAYS WHICH, IN THE JUDGMENT OF THE OWNER'S REPRESENTATIVE, ARE TOO HOT, COLD, SUNNY, DRY, OR WINDY FOR OPTIMAL INSTALLATION MAY BE PROHIBITED.
- B. PLACEMENT PATTERN: 1. THE FIRST ROW SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PARALLEL TO THE FIRST ROW
- AND TIGHTLY ABUTTING EACH OTHER. 2. LATERAL JOINTS SHALL BE STAGGERED. CARE SHALL BE EXERCISED TO ENSURE THAT THE SOD IS NEITHER STRETCHED NOR OVERLAPPED. JOINTS MUST BE BUTTED TIGHTLY TO PREVENT VOIDS THAT COULD PERMIT AIR
- 3. IMMEDIATELY AFTER PLACING, SOD SHALL BE PRESSED FIRMLY INTO CONTACT WITH BED BY TAMPING OR ROLLING TO ELIMINATE AIR POCKETS. FOLLOWING TAMPING. SCREENED TOPSOIL SHALL BE USED TO FILL ALL. CRACKS AND EXCESS SOIL SHALL BE WORKED INTO THE SOD WITH RAKES OR OTHER SUITABLE EQUIPMENT.
- SOD SHALL NOT BE SMOTHERED WITH EXCESS FILL SOIL. 4. ON SLOPES STEEPER THAN 3 TO 1, SOD SHALL BE SECURED BY GALVANIZED PINS, WOOD PEGS OR OTHER
- METHODS APPROVED BY THE OWNER'S REPRESENTATIVE. 5. IMMEDIATELY AFTER SODDING OPERATIONS HAVE BEEN COMPLETED, THE ENTIRE SURFACE SHALL BE COMPACTED WITH A ROLLER OR OTHER APPROVED EQUIPMENT. THE COMPLETED AREA AFTER SODDING SHALL

BE UNIFORMLY EVEN, FIRM, AND TRUE TO FINISHED GRADE LINES. C. WATERING:

- 1. INITIAL INSTALLATION: WATER MUST BE APPLIED WITHIN 2 HOURS OF EXPOSURE OF THE SOD TO SUN OR WIND. WATER NEWLY LAID SOD UNTIL SATURATION OF THE ENTIRE AREA IS APPARENT. AS A RESULT OF INITIAL IRRIGATION, STANDING WATER MAY BE PRESENT AND MODERATE TO HEAVY RUN OFF MAY OCCUR. CONTINUE TO IRRIGATE DAILY IN SHORTER DURATIONS SO THE ENTIRE AREA STAYS THOROUGHLY WET BUT WITHOUT STANDING WATER. THE LENGTH OF IRRIGATION TIME AND FREQUENCY OF APPLICATIONS WILL VARY AT DIFFERENT LOCATIONS DUE TO WEATHER CONDITIONS AND INDIVIDUAL SITE CHARACTERISTICS.
- AFTER 7 TO 10 DAYS: CHECK FOR NEW ROOT GROWTH BY LIFTING CORNERS OF SOD BLOCKS. IF CONSISTENT ROOT GROWTH OVER THE ENTIRE SITE IS OBSERVED, WATER APPLICATIONS CAN BE REDUCED TO ONCE EVERY
- 3. AFTER 12 TO 14 DAYS: RECHECK FOR ADDITIONAL ROOTING. IF SOD BLOCKS ARE DIFFICULT TO PULL UP OR ADDITIONAL NEW ROOTS ARE PRESENT ALLOW THE AREA TO DRY TO THE EXTENT THAT MOWING CAN BE

PERFORMED. 3.6 SEEDING LAWNS

- A. SEEDING LIMITS: ALL GROUND AREA WITHIN THE INDICATED PROJECT LIMIT LINES. OR ANY ADDITIONAL AREA WHICH HAS BEEN DISTURBED IN ANY WAY BY THE CONSTRUCTION OPERATIONS, SHALL BE FINE GRADED AND PLANTED IN SEED OR SOD UNLESS OTHERWISE INDICATED ON THE DRAWINGS TO BE COVERED WITH TREES, SHRUBS, STRUCTURE(S), WALKS, ROADS, OR OTHER SURFACED AREAS.
- B. RESPONSIBILITY: THE CONTRACTOR SHALL UTILIZE ALL SUCH MEASURES AS MAY BE NECESSARY, INCLUDING, BUT NOT LIMITED TO, PROTECTIVE FENCING, SOD, OR EROSION CONTROL NETTING TO PRODUCE A FINISHED CONTINUOUS BLANKET OF TURF OVER ALL AREAS DESIGNATED TO RECEIVE TURF 1. ANY AREAS EXCEEDING 5:1 SLOPE SHOULD BE TREATED WITH EROSION CONTROL BLANKETS BY CURLEX®,
- APPROVED EQUAL, OR OTHER EROSION CONTROL METHODS DEEMED NECESSARY BY THE CONTRACTOR TO ESTABLISH A SOLID LAWN AREA. C. FERTILIZER
- 1. APPLY FERTILIZER TO INDICATED TURF AREAS AT A RATE EQUAL TO 1.0 POUND OF ACTUAL NITROGEN PER 1,000 SQUARE FEET (430 POUNDS OF FERTILIZER PER ACRE).
 - APPLY FERTILIZERS BY MECHANICAL ROTARY OR DROP TYPE DISTRIBUTOR, THOROUGHLY AND EVENLY INCORPORATED INTO SOIL TO A DEPTH OF 3", BY DISCING OR OTHER APPROVED METHOD. FERTILIZE AREAS
- INACCESSIBLE TO POWER EQUIPMENT WITH HAND TOOLS AND INCORPORATE INTO SOIL. 3. RESTORE PREPARED AREAS TO SPECIFIED CONDITION IF ERODED, SETTLED, OR OTHERWISE DISTURBED, AFTER FINE GRADING AND PRIOR TO SEEDING.
- D. HYDROSEEDING USE A HYDROMULCHER (SPRAYER) AND APPLY MIXTURE(S) AT THE FOLLOWING RATES. MIX IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- LAWNS a. GRASS SEED: PER SEED TYPE.
- 3.7 GRADING A. MAINTAIN EXISTING ESTABLISHED GRADES, PROTECT TRUE AND EVEN DURING OPERATIONS.

b. FERTILIZER: PER SOIL TEST REPORT RECOMMENDATIONS.

A. REMOVE EXCESS MATERIAL AND DEBRIS FROM SITE.

- 3.8 EROSION CONTROL
- A. DURING WORK AND MAINTENANCE PERIOD, MAINTAIN TOPSOIL IN PLACE AT ESTABLISHED GRADES. REPLACE TOPSOIL AND TURF GRASS LOSSES DUE TO EROSION. 3.9 CLEAN-UP

3.10 MAINTENANCE

- A. UNTIL FINAL ACCEPTANCE, MAINTAIN LAWN AND GRASS AREAS BY WATERING, MOWING, WEEDING, SPRAYING, CLEANING AND REPLACING AS NECESSARY TO KEEP THE TURF AND GRASS IN A VIGOROUS, HEALTHY CONDITION. WATERING: AS NECESSARY.
- a) MOW NEWLY PLANTED GRASS AREAS WEEKLY AFTER INITIAL GROWTH REACHES 1.5 TO 2 INCHES. 3. WEEDING: REMOVE WEEDS AND FOREIGN GRASS OVER LAWN AND GRASS AREAS AT LEAST ONCE A WEEK. HERBICIDES MAY BE USED ONLY WHEN APPROVED BY THE OWNER'S REPRESENTATIVE.

PRELIMINARY FOR REVIEW ONLY Not for construction or permit purposes

L.A. No. 3486 DATE 10/30/2023

Kimley»Horn

R.L.A. BLAINE D. MIKULIK

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SHEET NUMBER