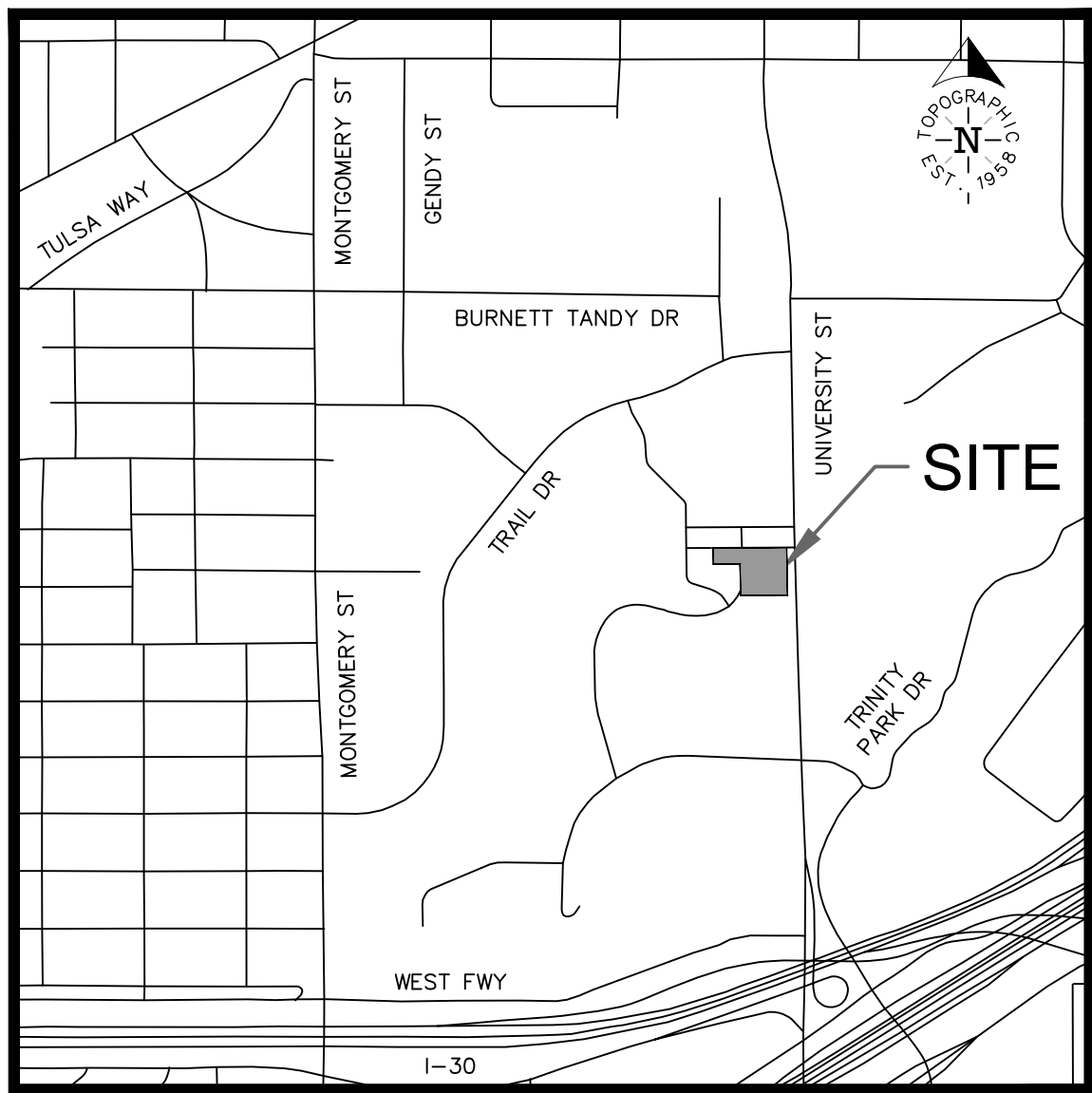


CIVIL CONSTRUCTION PLANS
FOR
BOTANIC GARDENS
TEMPORARY PARKING



VICINITY MAP
NOT TO SCALE

CIVIL SHEET LIST	
NO.	SHEET TITLE
C0.00	COVER SHEET
C0.01	GENERAL NOTES
C1.00	DEMOLITION PLAN
UF1.00	URBAN FORESTRY PLAN PHASE 1 & 2
C1.01	SITE PLAN
C2.01	DIMENSIONAL CONTROL & PAVING PLAN
C3.01	GRADING PLAN
C4.01	EXISTING DRAINAGE AREA MAP
C4.02	PROPOSED DRAINAGE AREA MAP
C4.03	DRAINAGE CALCULATIONS
C5.01	EROSION CONTROL PLAN
C6.01	CONSTRUCTION DETAILS

IN
FORT WORTH, TEXAS
TARRANT COUNTY

PERMIT SET
OCTOBER 2025

ENGINEER/SURVEYOR:

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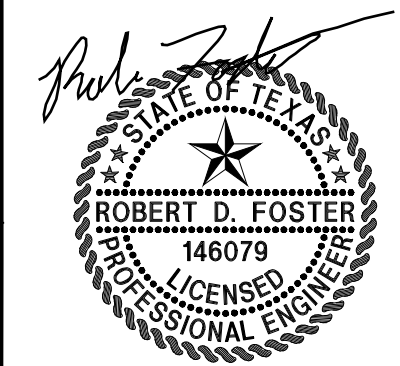
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BOTANIC GARDEN
TEMPORARY PARKING
FORT WORTH,
TARRANT COUNTY, TEXAS

NO.	DATE	REVISION DESCRIPTION



12/05/2025

SHEET TITLE:
COVER SHEET

DATE: 10/1/25
DRAWN BY: SB, JC

SHEET NO.:
C0.00

- UNLESS EXPLICITLY STATED OTHERWISE, ALL WORK SHALL ADHERE TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SET FORTH BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS AND THE CITY OF FORT WORTH STANDARD CONSTRUCTION SPECIFICATIONS.
- BEFORE ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE PLANS, ACCOMPANYING NOTES, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OUTLINED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, THE CITY'S CONSTRUCTION STANDARDS, AND ANY OTHER APPLICABLE CRITERIA ESSENTIAL FOR THE PROPER EXECUTION OF THE PROJECT. THE CONTRACTOR'S LACK OF FAMILIARITY WITH ALL PERTINENT STANDARDS AND SPECIFICATIONS SHALL NOT EXCUSE THEM FROM THE RESPONSIBILITY OF COMPLETING THE WORK IN ACCORDANCE WITH THESE APPLICABLE STANDARDS.
- THE HORIZONTAL AND VERTICAL POSITIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN ESTABLISHED BASED ON RECORDED DATA BY OTHERS. THE CONTRACTOR IS REQUIRED TO CONFIRM THE NECESSARY CROSSING CLEARANCES BETWEEN EXISTING AND PROPOSED UTILITIES PRIOR TO CONSTRUCTING ANY SUCH CROSSINGS. IT IS THE CONTRACTOR'S DUTY TO SAFEGUARD ALL UTILITIES DURING THE PROJECT'S CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE DIMENSIONS AND LOCATIONS OF ALL PERTINENT UTILITIES PRIOR TO RELATED CONSTRUCTION ACTIVITIES. THE CONTRACTOR ASSUMES RESPONSIBILITY FOR THE PROTECTION OF ALL MANHOLES, CLEANOUTS, VALVES, BOXES, FIRE HYDRANTS, ETC. THE CONTRACTOR MUST ADJUST THESE TO THE CORRECT LINE AND GRADE BEFORE AND AFTER PERMANENT PAVING AND GRADING. THE UTILITIES MUST BE MAINTAINED AT THE PROPER LINE AND GRADE DURING PAVEMENT CONSTRUCTION.
- 5.1. MAINTAIN THE FLOW OF ROADWAY TRAFFIC THROUGHOUT THE PROJECT, ENSURING AT LEAST ONE LANE REMAINS OPEN IN EACH DIRECTION;
 - 5.2. ESTABLISH AND MAINTAIN INTERIM ACCESS FROM CURRENTLY OPERATIONAL ROADWAYS TO ALL DRIVEWAYS, INTERSECTIONS, AND ALLEYS;
 - 5.3. PROVIDE ADEQUATE DRAINAGE OF THE PROJECT SITE UNTIL NEW DRAINAGE FACILITIES ARE OPERATIONAL, INCLUDING, WHERE NECESSARY, TEMPORARY REPLACEMENT OF EXISTING DRAINAGE STRUCTURES REMOVED AS PART OF THE CONSTRUCTION ACTIVITIES.
 - 5.4. KEEP ALL WORK AND MATERIAL STORAGE AREAS ORGANIZED, DEVOID OF DEBRIS AND WASTE. UPON PROJECT COMPLETION, THE PROJECT SITE AND SURROUNDING AFFECTED AREAS SHALL BE CLEARED OF CONSTRUCTION DEBRIS TO AN ACCEPTABLE STANDARD, AS SPECIFIED IN THE GENERAL CONDITIONS.
- BEFORE COMMENCING ANY CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL SUBMIT THE REQUIRED BONDS AND THREE-WAY CONTRACTS TO THE CITY.
- THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS CONCERNING TRENCH SAFETY.
- CONSULT THE ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.
- REFERENCE THE ARCHITECTURAL PLANS FOR SPECIFIC DETAILS OF BUILDING ENTRANCES, RAMPS, LANDSCAPING, AND SIDEWALKS.
- BARRICADES AND PROJECT SIGNS MUST ADHERE TO THE GUIDELINES OUTLINED IN THE TEXAS DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ANY RECENT UPDATES.
- THE PRECISE LIMITS FOR SAW-CUT PAVEMENT REMOVAL AND REPLACEMENT WITHIN THE PUBLIC RIGHT-OF-WAY MUST CONFORM TO THE APPLICABLE CITY PAVEMENT REPAIR MANUAL AND BE INCLUDED IN THE BASE BID.

1. PRIOR TO STARTING WORK, THE CONTRACTOR SHALL REVIEW ALL GENERAL NOTES.
2. UNLESS SPECIFIED OTHERWISE, ALL EXISTING PAVEMENT AND STRUCTURES WITHIN THE DEMOLITION AREA MUST BE REMOVED.
3. WITHIN THE DEMOLITION BOUNDARIES, SAW CUT AND REMOVE EXISTING DRIVE APPROACHES, TO A DISTANCE OF TWO FEET FROM THE BACK OF THE CURB. SIDEWALKS, PAVEMENT, AND UTILITIES WITHIN THE PUBLIC RIGHT-OF-WAY SHOULD REMAIN UNLESS NOTED OTHERWISE.
4. REFER TO THE DIMENSIONAL CONTROL PLAN FOR GUIDANCE. CONFIRM THE PARTS OF EXISTING CONCRETE CURBS AND PAVEMENT THAT ARE MEANT TO REMAIN.
5. PRIOR TO RELOCATING OR REMOVING EXISTING UTILITIES, COORDINATE WITH LOCAL POWER, TELEPHONE, CABLE, AND GAS COMPANIES.
6. BEFORE DEMOLISHING EXISTING BUILDINGS, ALL UTILITIES MUST BE CUT AND SEALED ACCORDING TO THEIR RESPECTIVE UTILITY COMPANY REQUIREMENTS.
7. SEAL ALL ABANDONED UTILITY ENDS THAT ARE EXPOSED DURING CONSTRUCTION ACTIVITIES.
8. CONTRACTOR SHALL IDENTIFY THE SOURCE OF EXPOSED UTILITIES AND, IF NEEDED, RECONNECT THEM TO PROPOSED UTILITIES.
9. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND PROPERLY DISPOSING OF UNSUITABLE MATERIALS FROM THE PROJECT SITE. LOCAL AUTHORITIES SHALL BE CONTACTED TO ASCERTAIN DISPOSAL REGULATIONS.
10. PROTECT ALL TREES ON THE PROPERTY DURING DEMOLITION UNLESS OTHERWISE NOTED PRIOR TO CONSTRUCTION ACTIVITIES. TREE PROTECTION SHALL BE PLACED AROUND TREES ACCORDING TO CITY STANDARDS PRIOR TO AND DURING ALL DEMOLITION AND GRADING ACTIVITIES. REFER TO LANDSCAPE PLANS AND CITY STANDARDS FOR TREE PROTECTION REQUIREMENTS.
11. IF EXISTING TREE CROWNS OR ROOT SYSTEMS ARE DAMAGED, AN APPROVED TREE SURGEON SHOULD IMMEDIATELY REPAIR THEM AT THE OWNERS DIRECTION. EXPOSED OR DAMAGED ROOTS SHOULD BE CLEANLY CUT, TREATED WITH APPROVED TREE PAINT, AND COVERED WITH TOPSOIL AND MULCH.
12. IN COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS, THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION CONTROL MEASURES ON THE SITE UNTIL GRADED AREAS ARE ADEQUATELY STABILIZED.
13. CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL DISTURBED AREAS ARE GRADED TO PROVIDE POSITIVE DRAINAGE. GRADING SLOPES SHOULD NOT EXCEED 3:1.
14. BACK-FILL AND COMPACT AREAS EXCAVATED FOR FOUNDATION OR UNDERGROUND STRUCTURE REMOVAL TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY.
15. DURING DEMOLITION ACTIVITIES AND UNTIL SUBSTANTIAL COMPLETION, THE CONTRACTOR IS IN CHARGE OF SITE SECURITY.
16. UNLESS OTHERWISE SPECIFIED, ALL WORK MUST ADHERE TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS AND CITY STANDARD CONSTRUCTION SPECIFICATIONS.
17. THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN DETERMINED FROM RECORDS BY OTHERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL UTILITY MAINS, MANHOLES, CLEANOUTS, VALVE BOXES, FIRE HYDRANTS, ETC., IN THE DEMOLITION AREA.
18. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS CONCERNING TRENCH SAFETY.
19. BARRICADES AND PROJECT SIGNS MUST ADHERE TO THE TEXAS DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ANY UPDATES.
20. UNTIL DEMOLITION AND REMOVAL OF ANY BUILDINGS AND STRUCTURES WITHIN THE DEMOLITION AREA IS COMPLETE, THE CONTRACTOR MUST MAINTAIN EXISTING PAVEMENT AND ACCESS TO FIRE HYDRANTS ON SITE.
21. THE CONTRACTOR WILL PROVIDE FOR ON-SITE PARKING FOR WORKERS. VEHICLE PARKING IS NOT PERMITTED WITHIN THE PUBLIC RIGHT-OF-WAY.
22. ADEQUATE DUST CONTROL MEASURES MUST BE ESTABLISHED AND MAINTAINED BY THE CONTRACTOR DURING DEMOLITION ACTIVITIES.
23. IF APPLICABLE, THE CONTRACTOR MUST COORDINATE DEMOLITION ACTIVITIES WITH HAZARDOUS MATERIAL ABATEMENT CONTRACTORS' WORK.
24. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND OBTAINING ALL TEMPORARY UTILITY SERVICES NEEDED TO CARRY OUT THE SCOPE OF WORK.

1. UNLESS OTHERWISE INDICATED, COMPACT ALL FILL MATERIAL TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY WITHIN 3% OF THE OPTIMAL MOISTURE CONTENT. PLACE FILL IN MAXIMUM INCREMENTS OF 6 INCHES.
2. SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A MAXIMUM RUNNING SLOPE OF 5% (UNLESS STATED OTHERWISE) AND A CROSS SLOPE NO GREATER THAN 2%.
3. GRADE ALL HANDICAPPED SPACES AND ROUTES TO ADHERE TO FEDERAL, STATE, AND LOCAL GUIDELINES.
4. ALL PROPOSED AND EXISTING GRADES IN NON-PAVED AREAS REPRESENT THE "FINISHED GRADE" (E.G., WITHIN LANDSCAPE BEDS, TOP OF MULCH/BEDDING MATERIAL).
5. UNLESS SPECIFIED, STORM DRAIN LINES SHALL BE CONSTRUCTED FROM THE FOLLOWING MATERIALS AND INSTALLED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS:
 - 5.A. RCP C-76, CLASS III
 - 5.B. ADS N-12
 - 5.C. HANCOR HI-Q
 - 5.D. CONTECH ALUMINIZED ULTRA FLOW
6. UNLESS NOTED, GRATE INLETS SHALL BE RINKER MATERIALS CATCH BASINS OF THE SHOWN SIZE OR AN APPROVED EQUIVALENT.
7. FINAL PAVING, CURB, AND SIDEWALK ELEVATIONS WILL BE SET AT PLUS OR MINUS 0.03 FOOT.
8. FOR SEEDING AND SODDING REQUIREMENTS, REFER TO LANDSCAPE SPECIFICATIONS.
9. ANY CONCRETE, ROCK, OR MATERIALS CONSIDERED UNSUITABLE FOR THE SUBGRADE, AS DETERMINED BY THE ENGINEER, SHALL BE DISPOSED OFFSITE AT THE CONTRACTOR'S EXPENSE.
10. TRENCH BACKFILL MATERIAL MUST ADHERE TO NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LAYERS UP TO THE TOP OF THE SUBGRADE, TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY, AS PER NCTCOG ITEM 504.5, UNLESS THE PLANS SPECIFY OTHERWISE OR THE STANDARD CITY SPECIFICATIONS STATE DIFFERENTLY.
11. EMBEDMENT SHOULD MEET NCTCOG ITEM 504.5 REQUIREMENTS, UNLESS INDICATED DIFFERENTLY IN THESE PLANS OR THE STANDARD CITY SPECIFICATIONS.
12. A CIRCULAR MANHOLE COVER MEETING CITY SPECIFICATIONS SHALL BE INSTALLED IN ALL INLET TOPS NEAR THE OUTLET PIPE.
13. ALL CONCRETE USED FOR INLETS AND DRAINAGE STRUCTURES MUST COMPLY WITH NCTCOG ITEM 702.2.4, CLASS "A" (3000 PSI), UNLESS STATED OTHERWISE IN THESE PLANS OR THE STANDARD CITY SPECIFICATIONS.
14. CRUSHED STONE BEDDING PROVIDED BY THE CONTRACTOR, OR AN APPROVED EQUIVALENT, SHALL BE PROVIDED WHEN ROCK IS ENCOUNTERED IN TRENCHES. CRUSHED STONE BEDDING SHALL NOT BE CONSIDERED AN ADDITIONAL PAY ITEM.
15. IF REQUIRED DUE TO CONSTRUCTION ACTIVITIES, POWER POLES ARE TO BE BRACED OR RELOCATED AT THE EXPENSE OF THE CONTRACTOR.

1. UNLESS SPECIFIED OTHERWISE, ALL DIMENSIONS ARE FROM THE BACK OF THE CURB.
2. ALL CONCRETE MUST ADHERE TO NCTCOG ITEM 303.3.4, CLASS "A" (3000 PSI), UNLESS INDICATED DIFFERENTLY IN THESE PLANS, THE STANDARD CITY SPECIFICATIONS, OR TxDOT STANDARD SPECIFICATIONS.
3. SUBGRADE PREPARATION WITHIN THE RIGHT-OF-WAY SHALL CONFORM TO GUIDELINES SET IN THE STANDARD CITY SPECIFICATIONS OR TxDOT STANDARD SPECIFICATIONS.
4. COMPACTION OF ALL FILL MATERIAL UNDER PAVING SHOULD ACHIEVE 95% STANDARD PROCTOR DENSITY IN 6-INCH INCREMENTS, UNLESS NOTED OTHERWISE OR STATED IN THE GEOTECHNICAL REPORT. FOR FILL PLACED BENEATH BUILDING AREAS, REFER TO STRUCTURAL SPECIFICATIONS. ALL OTHER FILLED AREAS SHOULD BE COMPACTED TO 90% STANDARD PROCTOR.
5. THE CONTRACTOR IS REQUIRED TO SUBMIT A JOINT SPACING PLAN FOR APPROVAL BY THE ENGINEER. EXPOSURE JOINT SPACING SHOULD NOT EXCEED 90 FEET IN EITHER DIRECTION, WITHOUT THE USE OF KEYWAYS, AND SAWED DUMMY JOINTS SHOULD BE SPACED AT 15 FEET EACH WAY, UNLESS OTHERWISE SPECIFIED.
6. TRANSVERSE CONSTRUCTION JOINTS ARE TO BE UTILIZED AT THE CONCLUSION OF EACH DAY'S PAVING AND WHEREVER WORK INTERRUPTIONS HALT OPERATIONS FOR 30 MINUTES OR MORE.
7. PAVING SLATED FOR REMOVAL MUST BE SAWCUT ALONG A CLEAN LINE, WITH A MINIMUM DEPTH OF 1-1/2 INCHES. REMOVAL OF PAVEMENT SHOULD BE EXECUTED TO CONSERVE EXISTING TRANSVERSE REINFORCING STEEL TO THE HIGHEST EXTENT POSSIBLE.
8. ALL CURB AND GUTTER SECTIONS ARE TO BE INTEGRAL WITH THE PAVEMENT AND OF THE SAME COMPRESSIVE STRENGTH.
9. PAVEMENT REINFORCEMENT IS TO CONSIST OF #3 BARS, SPACED AT 18 INCHES CENTER-TO-CENTER IN BOTH DIRECTIONS, EXCEPT WHERE OTHERWISE INDICATED IN THE PLANS OR GEOTECHNICAL REPORT.
10. BAR LAPS SHALL MEASURE 30 DIAMETERS IN LENGTH.
11. ALL STRIPING TO BE 4 INCHES IN WIDTH, UNLESS EXPLICITLY STATED OTHERWISE.
12. THE INSTALLATION AND POSITIONING OF IRRIGATION SLEEVES AND UTILITY CONDUITS SHALL ADHERE TO THE LANDSCAPE ARCHITECT'S AND MEP PLANS. THE CONTRACTOR SHALL ENSURE ALL SLEEVES ARE IN PLACE BEFORE PAVING COMMENCES.
13. SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A MAXIMUM RUNNING SLOPE OF 5% (UNLESS SPECIFIED OTHERWISE) AND A CROSS SLOPE NOT EXCEEDING 2%.

1. ALL BEARINGS, DISTANCES, ACREAGES AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, NORTH CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1983. ALL MEASURED ELEVATIONS SHOWN HEREON ARE CORRELATED TO NAVD 88 VERTICAL DATUM.

2. CONTROL POINTS:

CP 2 "X" CUT SET ON TOP OF HEADWALL
N: 6953737.20
E: 2318526.47
ELEV: 547.89'

CP 3 1/2" CIF "TOPO CP"
N: 6954181.74
E: 2318501.88
ELEV: 548.19'

CP 6 1/2" CIRF "TOPO CP"
N: 6954194.16
E: 2318089.41
ELEV: 551.68'

PER CHAPTER 33, PARK & RECREATION-FORESTRY SECTION (PARD-FORESTRY) HAS JURISDICTION OVER TREES ON CITY-OWNED PROPERTY INCLUDING RIGHT-OF-WAY. APPROVAL OF PLANS DOES NOT CONSTITUTE APPROVAL TO PROCEED WITH WORK UNTIL CORRESPONDING PERMIT HAS BEEN ISSUED. PERMITS FOR REMOVAL, PLANTING OR PRUNING OF CITY-OWNED TREES SHALL BE OBTAINED FROM PARD-FORESTRY. PRUNING REQUIRED FOR PRECONSTRUCTION PURPOSES REQUIRES THE UTILIZATION OF AN ISA-CERTIFIED ARBORIST, AS STATED IN THE PERMIT, AT NO EXPENSE TO PARD. CONTACT PARD-FORESTRY: WWW.FORTWORTHTEXAS.GOV/DEPARTMENTS/PARKS/SERVICES/FORESTRY OR CITYTREEPERMITS@FORTWORTHTEXAS.GOV OR 817-392-5729 OR 817-392-5739.

2. TREE PROTECTION SHALL BE PUT IN PLACE BEFORE GRADING/CONSTRUCTION BEGINS, BE INSPECTED BY CITY FORESTER AND REMAIN UNTIL COMPLETION OF THE PROJECT.

a. 4-FOOT TALL, CHAIN LINK FENCING INSTALLED AT THE TREE DRIFLINE WITH BILINGUAL SIGN ON PROTECTIVE FENCING IN ENGLISH AND SPANISH THAT READS, "KEEP OUT, TREE PROTECTION AREA" ("NO ENTRE, ÁREA DE PROTECCIÓN DE ÁRBOLES").

b. NO ENTRY, GRADING, EXCAVATION, PARKING OR STORING OF EQUIPMENT OR SUPPLIES INSIDE THE PROTECTIVE TREE FENCING WITHOUT CITY FORESTER APPROVAL.

c. ALL WORK INSIDE PROTECTIVE TREE FENCING TO BE DONE BY HAND, UNLESS PRIOR APPROVAL GIVEN BY CITY FORESTER.

d. ROOTS 2-INCH OR LARGER SHALL NOT BE CUT WITHOUT CITY FORESTER APPROVAL. ROOTS SHALL BE CLEAN CUT WITH A SAW.

e. ALL CUTS ON OAK TREES, INCLUDING ROOTS, SHALL BE PAINTED WITH GENERAL PURPOSE SPRAY PAINT WITHIN 30 MINUTES OF EXPOSURE TO PREVENT OAK WILT SPREAD.

3. ASSESSMENT OF DAMAGES TO TREES

a. THE CONTRACTOR WILL CHECK TREES IN THE CONTRACT AREA BEFORE CONTRACT WORK BEGINS, ANY DAMAGE WILL BE NOTED AND REPORTED TO THE CONTRACT ADMINISTRATOR.

b. THE CONTRACT ADMINISTRATOR WILL CONDUCT RANDOM CHECKS OF THE TREES DURING THE CONTRACT PERIOD.

c. A CHECK OF ALL TREES MAY BE MADE AT THE END OF THE CONTRACT PERIOD. CITY FORESTER, CONTRACT ADMINISTRATOR, AND CONTRACTOR WILL ATTEND THE INSPECTION.

d. DAMAGES SHALL BE DOCUMENTED BY MEMO TO THE CITY FORESTER WITH COPY TO CONTRACT FILE AND THE CONTRACTOR.

e. CONTRACTOR MAY HAVE THE OPTION OF REPLACEMENT OR PAYMENT FOR SEVERELY DAMAGED TREES AT A LOCATION TO BE DESIGNATED BY PARD. REPLACEMENT SHALL BE MADE ON A CALIPER INCH PER CALIPER INCH BASIS WITH A MINIMUM SIZE OF REPLACEMENT TREE OF 2-INCH IN CALIPER FOR TREES DAMAGED OR REMOVED WHICH ARE LESS THAN 30-INCH DBH AND 2-INCH PER INCH FOR TREES WHICH ARE 30-INCH DBH OR GREATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLANTING, WATERING, MULCHING AND MAINTENANCE OF REPLACEMENT TREES FOR A PERIOD OF NOT LESS THAN 2-YEARS. ANY TREE THAT DOES NOT SURVIVE THE 2-YEAR ESTABLISHMENT PERIOD SHALL BE COMPENSATED FOR BY THE CONTRACTOR TO TREE FUND AT A RATE OF \$200 PER CALIPER INCH.

f. SLIGHT DAMAGE SHALL BE DEFINED, IN THE OPINION OF THE CITY FORESTER, AS DAMAGE THAT MAY COMPARTMENTALIZE. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: SCARRING OF THE TRUNK INTO THE CAMBIAL LAYER Y ' TO 2-INCH IN WIDTH, BUT LESS THAN 1 /3 TRUNK CIRCUMFERENCE; OR BREAKING OF LIMBS LESS THAN 2-INCH IN DIAMETER OR LIMBS LESS THAN 1 /3 TRUNK CALIPER, WHICHEVER IS LESS. SLIGHT DAMAGE SHALL ALSO INCLUDE: REMOVAL OR LAYING DOWN OF PROTECTIVE TREE FENCING PRIOR TO END OF CONSTRUCTION; STORING EQUIPMENT OR SUPPLIES WITHIN THE CRITICAL ROOT ZONE (CRZ); OR DISPOSING OF PAINT OR CONCRETE WITHIN THE CRZ, BUT NOT CLOSER TO THE TRUNK THAN 50% RADIUS OF THE CRZ. SLIGHT DAMAGE TO TREES SHALL BE ASSESSED AT A RATE OF \$100.00 FOR EACH INSTANCE. EACH DAY TREE FENCING IS NOT PROPERLY PLACED, EQUIPMENT OR SUPPLIES ARE STORED WITHIN CRZ, OR FILL IS STORED WITHIN THE CRZ SHALL BE CONSIDERED ONE INSTANCE.

g. MODERATE DAMAGE SHALL BE DEFINED, IN THE OPINION OF THE CITY FORESTER, AS DAMAGE THAT CONTRIBUTES TO THE POOR HEALTH AND REDUCED LONGEVITY OF THE TREE. EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO: SCARRING OF THE TRUNK INTO THE CAMBIAL LAYER GREATER THAN 2-INCH, BUT LESS THAN 1 /3 THE TRUNK CIRCUMFERENCE; OR BREAKING OF LIMBS MORE THAN 2-INCH IN DIAMETER, BUT LESS THAN 1/3 TRUNK CALIPER. MODERATE DAMAGE SHALL ALSO INCLUDE: COMPACTION OF SOIL; GRADING OR FILLING IN 20% OF THE CRZ ON 1 OF 4 SIDES, BUT OUTSIDE THE 50% RADIUS OF THE CRZ; OR DISPOSING OF PAINT OR CONCRETE WITHIN 50% RADIUS OF THE CRZ. MODERATE DAMAGES SHALL BE CALCULATED AT A RATE OF % THE ASSESSED VALUE OF THE TREE PER EACH INSTANCE OF DAMAGE.

h. SEVERE DAMAGE OR REMOVAL OF TREES IS SUBJECT TO PENALTY OF \$200 PER DIAMETER INCH OF TREES REMOVED OR DAMAGED FOR TREES LESS THAN 30-INCH DBH OR \$400 PER DIAMETER INCH FOR TREES 30-INCH DBH OR GREATER. SEVERE DAMAGE OR REMOVAL SHALL INCLUDE, BUT IS NOT LIMITED TO: SCARRING OF THE TRUNK TO THE CAMBIAL LAYER GREATER THAN 1/3 THE TRUNK CIRCUMFERENCE; UPROOTING OR CAUSING A TREE TO LEAN; OR DAMAGE TO A SCAFFOLDING BRANCH OR ANY BRANCH GREATER THAN 1/3 OF TRUNK CALIPER. SEVERE DAMAGE SHALL ALSO INCLUDE: COMPACTION OF SOIL, GRADING OR FILLING MORE THAN 20% OF THE CRZ, OR WITHIN 50% RADIUS OF THE CRZ, OR ON MORE THAN ONE OF 4 SIDES. CUTTING 1 /3 OF THE BUTTRESS ROOTS WITHIN 3 TIMES THE DISTANCE OF THE DBH OF THE TRUNK, OR CUTTING 4 ROOTS 4-INCH OR GREATER IN DIAMETER WITHIN 4-FEET OF THE TRUNK SHALL ALSO BE CONSIDERED SEVERE DAMAGE.

i. BRANCHES SHALL BE MEASURED AT THE POINT OF ATTACHMENT OR AT THE LATERAL TO WHICH THE BRANCH WOULD BE PRUNED BACK TO ACCORDING TO ANSI STANDARDS. TREES CALIPER SHALL BE MEASURED ACCORDING TO ACCEPTED INDUSTRY STANDARDS. TREES GREATER THAN 6-INCH IN CALIPER SHALL BE MEASURED USING DIAMETER AT BREAST HEIGHT (DBH). TREES THAT MUST BE REMOVED DUE TO DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REMOVED BY THE FORESTRY SECTION'S TREE REMOVAL CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

j. ALL DAMAGES SHALL BE PAID TO THE CITY TREE FUND. FAILURE TO REPLACE OR PAY FOR DAMAGED TREES SHALL RESULT IN A BREACH OF CONTRACT AND THE CONTRACTOR WILL BE AUTOMATICALLY ASSESSED DAMAGES AS DESCRIBED HEREIN SHALL BE DEDUCED FROM PAYMENTS OTHERWISE DUE THE CONTRACTOR.

Paul Foster



STATE OF TEXAS
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ROBERT D. FOSTER
146079
LICENSED
PROFESSIONAL ENGINEER

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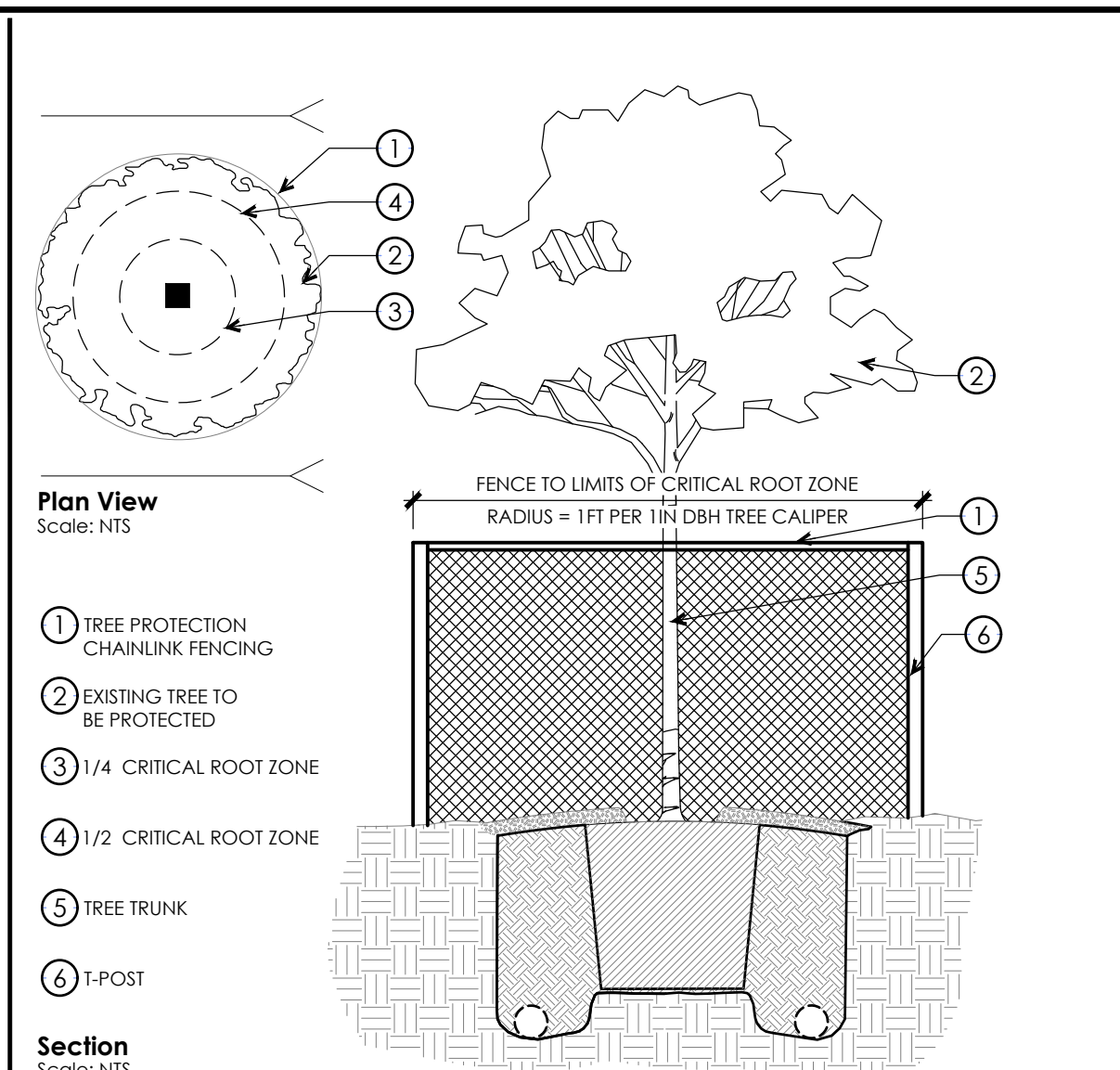
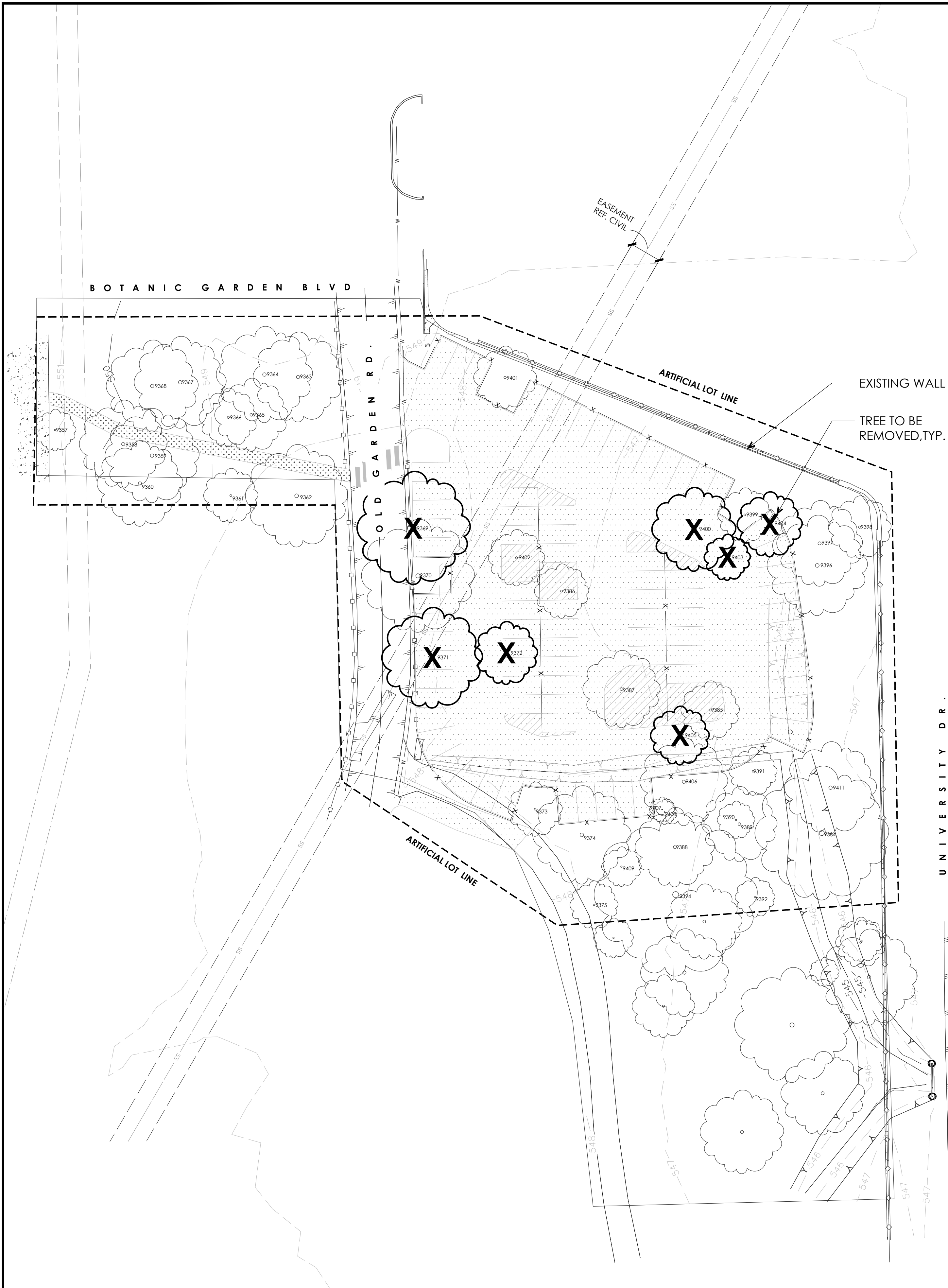
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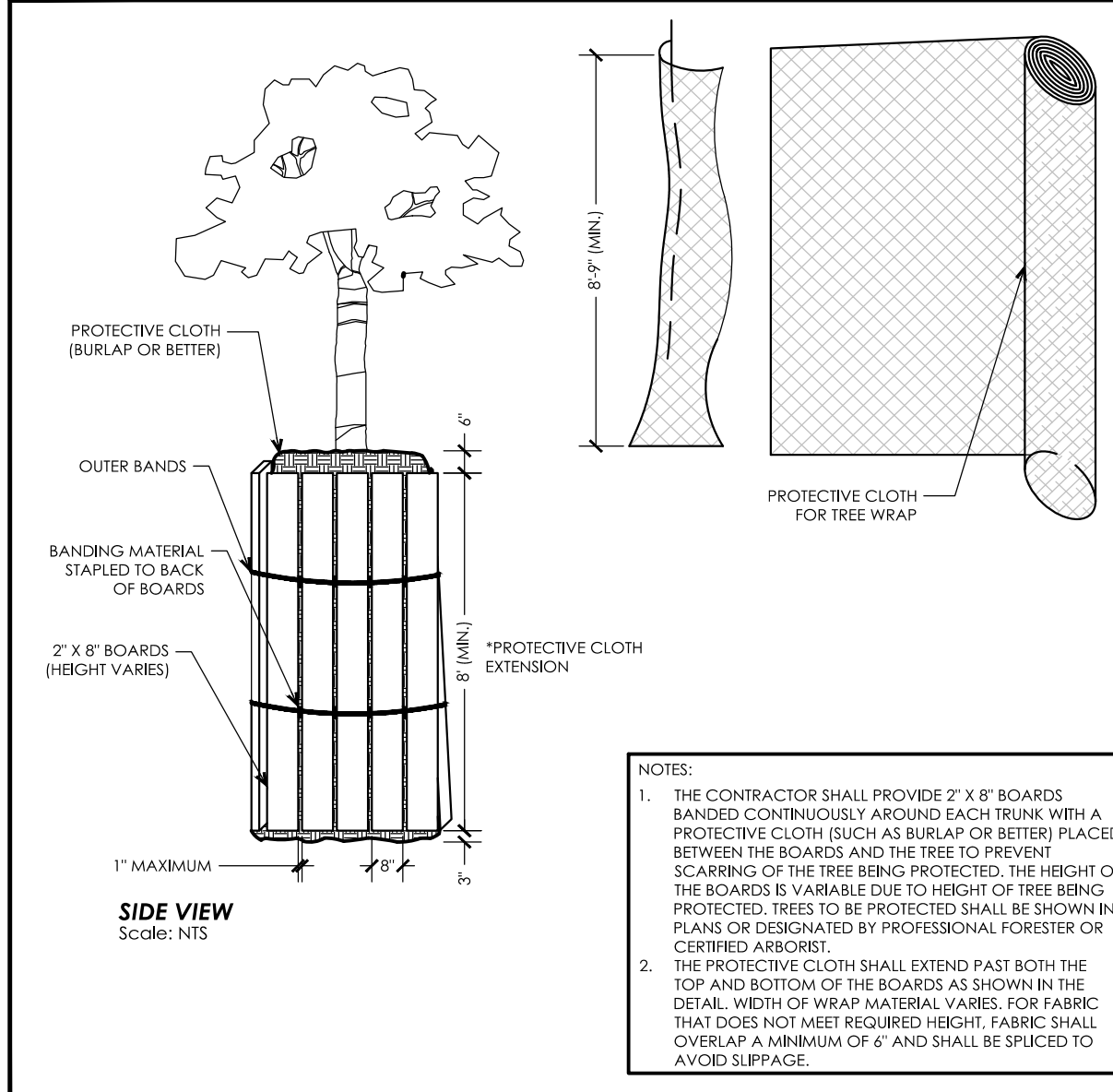
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SB, JC

SHEET NO.:

C0.01



01 TREE PROTECTION FENCING



02 TREE TRUNK PROTECTION

TREE REMOVAL CHART

CHAPTER 33: TREE REMOVAL		
NO:	DESCRIPTION	AMOUNT
9400	CEDAR ELM - 20" DBH	\$200 X 20" = \$4,000.00
9403	HACKBERRY- 11" DBH	\$200 X 11" = \$2,200.00

FEES MENTIONED ABOVE ONLY APPLICABLE IF REQUIRED BY PARD

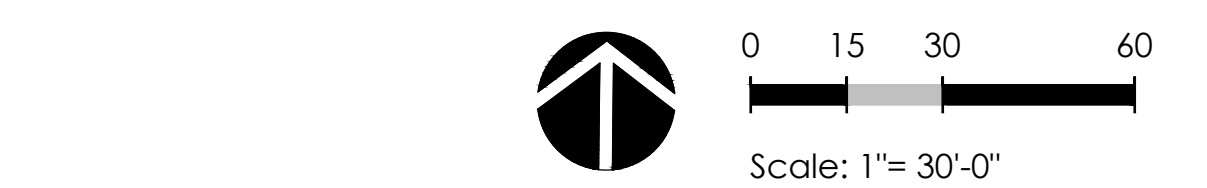


Table 1: Urban Forestry Requirement Calculator			
		Permit #:	0
		Calculation	Square Feet
A	Existing Site Information		
1	Gross area of artificial lot	\rightarrow^3	78,471
2	Area of public utility easements	\rightarrow^2	3,449
3	Net Urban Forestry Area (applicable to tree requirements)	$A_1 - A_2$	75,022
4	Area of parking ² (single/two-family are exempt)	\rightarrow	0
5	Existing tree canopy area ³	Method A Preservation	49,932
			1.15

B Significant Trees ² (Must Use Tables 2 & 3)			
		Calculation	Square Feet
1	All Post Oaks/Blackjack Oaks $\geq 18"$ dbh	(complete Table 3)	0
2	All other trees $\geq 27"$ dbh (regardless of species or location)	(complete Table 3)	10,285
3	Total of significant trees to be preserved		10,285
4	Significant tree preservation credit	$D_1 \cdot ft^2 \times 0.5$	5,143
5	Total of significant trees to be removed	(complete Table 3)	0

C Significant Tree Removal Mitigation Options ² (Must Use Tables 2 & 3)			
		Square Feet	\$
1	Additional Tree Preservation	(complete Table 3)	0
2	Additional Tree Planting	(complete Table 3)	0
3	Pay Into Tree Fund	(complete Table 3)	\$0

D Mitigation For Loss Of Preserved Trees ² (Reserved for City Staff Use)			
		Calculation	Square Feet
1	Increase min. planting & required site canopy 5X tree area	(from Table 28.3)	0
2	Penalty for non-approved tree removal or lack of required protection	(from Table 28.3)	\$0.00

E Site Canopy Requirements			
		Calculation	Square Feet
1	Land Use - base requirement ²	Commercial/Institutional	22,507
2	Additional 50% for preservation method B (not protected trees)	$A_3 \times 1.5$	0
3	Mitigation for significant tree removal ² (plant/preservation)	$C_1 + C_2$	0
4	Mitigation for dead/declining/damaged "preserved trees" (plant)	D_1	0
5	Total required canopy coverage for site	$E_1 + E_2 + E_3 + E_4$	22,507
6	Required canopy within or adjacent to parking areas ²	$A_3 - (A_4 + A_5)$	0

F Preservation of Existing Canopy			
		Calculation	Square Feet
1	Preservation requirement ² (25%)	$A_3 \times 0.25$	12,483
2	Additional preservation option to mitigate significant trees	C_1	0
3	Total preservation requirement	$F_1 + F_2$	12,483
4	Area of existing canopy preserved	\rightarrow	44,407
5	Preservation balance	$F_2 - F_3$	31,924
6	Preserved non-protected tree canopy (Method B Only)	(from Table 28.3)	0
7	Total preservation credit toward planting	$B_4 + F_4 + F_6$	49,550

J Fulfillment Of Overall Site Tree Canopy			
		Calculation	Square Feet
1	Total required canopy coverage for site	30.0%	22,507
2	Provided canopy coverage	66.0%	49,550
3	Excess/deficient overall canopy	$J_2 - J_1$	27,043

Table 2: Existing Tree Calculations (from data in Table 3)			
Is the development located east of IH-35W?	No	**Post Oak and "Blackjack Oak" species trees must be spelled correctly to determine significance	

*All values are in square feet unless otherwise noted			
CODES FOR TABLE 3			
All existing trees (Method A)	Totals	Columns	Applicable Action or Status
Total Canopy	47,642	Preservation Status	Preserved trees: PRES
Preserved Canopy	42,117	Removed trees:	REM
% of total preserved	88%	Illegally removed/damaged:	ILR
Revised Non-Protected Tree Canopy Credit	0	Dead/declining/hazard due to development	TRASH
Total Significant Tree Canopy	10,285	Significant trees (using one trunk dbh)	SIG
Significant Tree Canopy Preserved	10,285	Exclusions	UE
Significant Tree Canopy Removed	0	Trees in utility easement:	UE
Significant Tree Preservation Credit	5,143	Trees in street ROW:	ROW
Total Significant Tree DBH (inches)	98	Dead/Declining/Hazard trees	DDH
Preserved Significant Tree DBH (inches)	98	Trees less than 6 inches dbh	UNDER6
Removed Significant Tree DBH (inches)	0	Non-protected trees USING method B:	METHB
Mitigate Significant Trees By Planting	0	Off-site (not in same permit)	OFFSITE
Mitigate Significant Trees By Preservation	0	Significant & Tree Loss	planX
Mitigate Significant Trees By Paying (DBH)	50	Mitigate by planting (use for tree loss)	planX
Mitigate Significant Trees By Paying (SF)	50	Mitigate by preservation (no tree loss)	preserveX
Mitigate Tree-Loss By Planting	0	Mitigate by payment (\$200/ft ² no tree loss)	payX (DBH)
Penalty Fees	50	Penalty (For City Use Only)	ADBN
		Penalty calculated by dbh	ADBN
		Penalty calculated by canopy	Kcanopy

Table 3: Tree Survey Data (refer to Table 2 codes)									
Tree #	Common name or species	DBH (in)	Canopy Area (ft ²)	Preservation Status	Significant	Exclusions	Significant & Tree Mitigation	Penalty	Comments (ex. list multi-trunk measurements)
9357	RED MAPLE	10	314	PRES			preserveX		
9358	CEDAR ELM	21	1,385	PRES			preserveX		
9359	CEDAR ELM	22.5	1,590	PRES			preserveX		
9360	CEDAR ELM	20.5	1,320	PRES			preserveX		
9361	BUR OAK	13	531	PRES			preserveX		
9362	CEDAR ELM	24.5	1,898	PRES			preserveX		
9363	CEDAR ELM	21.5	1,452	PRES			preserveX		
9364	CEDAR ELM	23	1,662	PRES			preserveX		
9365	CEDAR ELM	17.5	862	PRES			preserveX		
9366	CEDAR ELM	14	616	PRES			preserveX		
9367	CEDAR ELM	22	1,521	PRES			preserveX		
9368	CEDAR ELM	22	1,521	PRES			preserveX		
9369	CEDAR ELM	27	2,290	REM	SIG	DBH	planX		
9370	CEDAR ELM	27	2,290	PRES	SIG		preserveX		
9373	LIVE OAK	13	531	PRES			preserveX		
9374	RED OAK	23.5	1,735	PRES			preserveX		
9375	LIVE OAK	11.5	415	PRES			preserveX		
9384	LIVE OAK	32	3,217	PRES	SIG		preserveX		
9385	LIVE OAK	14	616	PRES			preserveX		
9386	BUR OAK	13	531	PRES			preserveX		
9387	CEDAR ELM	18.5	1,076	PRES			preserveX		
9388	LIVE OAK	19	1,134	PRES			preserveX		
9389	LIVE OAK	18	1,018	PRES			preserveX		
9390	LIVE OAK	8	254	PRES			preserveX		
9391	BALD CYPRESS	11.5	415	PRES			preserveX		
9392	RED OAK	9.5	284	PRES			preserveX		
9394	PECAN	39	4,778	PRES	SIG		preserveX		
9396	CEDAR ELM	24	1,810	PRES			preserveX		
9399	CEDAR ELM	15	707	PRES			preserveX		
9400	BUR OAK	13	531	PRES			preserveX		
9401	HACKBERRY	15	707	PRES			preserveX		
9402	HACKBERRY	13.5	573	PRES			preserveX		
9406	HACKBERRY	21	1,385	PRES			preserveX		
9407	LIVE OAK	6	113	PRES			preserveX		
9408	LIVE OAK	8	113	PRES			preserveX		
9409	OSAGE ORANGE	9.5	284	PRES			preserveX		
9411	HACKBERRY	22	1,521	PRES			preserveX		
9371	CEDAR ELM	24	1,810	REM			planX		
9372	CEDAR ELM	15	707	REM			planX		
9400	CEDAR ELM	20	1,257	REM			payX (SF)		
9403	HACKBERRY	11	380	REM			payX (SF)		
9404	HACKBERRY	15.5	755	REM			planX		
9397	CEDAR ELM	20.5	1,320	PRES			preserveX		
9405	HACKBERRY	14	616	REM			planX		

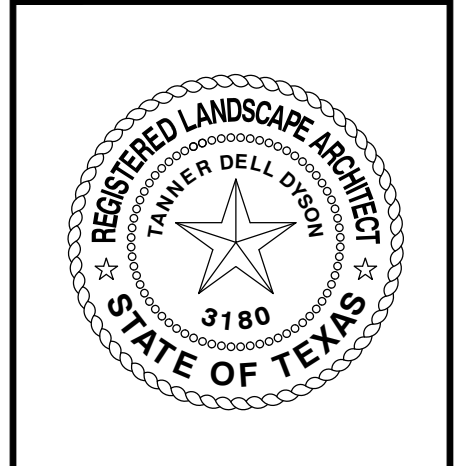
TALSON
DESIGN

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LOYALTY INNOVATION LEGACY

481 WINSCOTT RD. STE. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TX REG. ENGINEERING FIRM NO. F-18409
TX REG. SURVEYING FIRM NO. LS-10042504
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BOTANIC GARDEN TEMPORARY PARKING FORT WORTH, TARRANT COUNTY, TEXAS

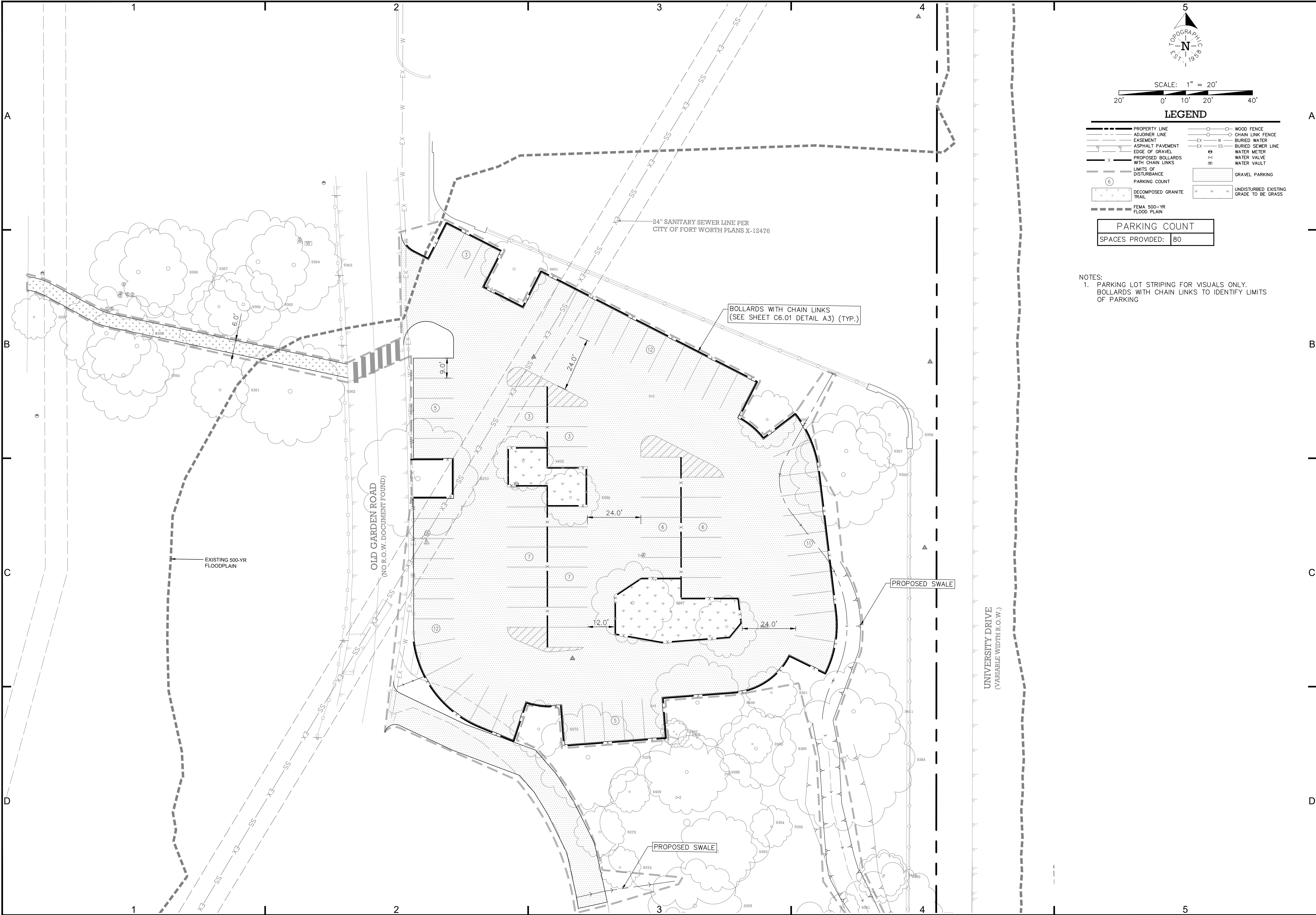
REVISION DESCRIPTION	
NO.	DATE



SHEET TITLE:
**URBAN
FORESTRY PLAN
PHASE 1 & 2**

DATE: 8/26/25
DRAWN BY: SB, JC
SHEET NO.: **UF1.00**

S:\CIVIL\BOTANICAL RESEARCH INSTITUTE OF TEXAS\BOTANIC GARDENS PARKING LOT\CVIL\PLAN SHEETS\PH1\BG-SITEDWG 10/1/2025 5:47 PM robert.foster



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BOTANIC GARDEN
TEMPORARY PARKING
FORT WORTH,
TARRANT COUNTY, TEXAS

NO.	DATE	REVISION DESCRIPTION

Robert D. Foster

STATE OF TEXAS

ROBERT D. FOSTER

146079

LICENSED PROFESSIONAL ENGINEER

12/05/2025

SHEET TITLE:

SITE PLAN

DATE:
10/1/25

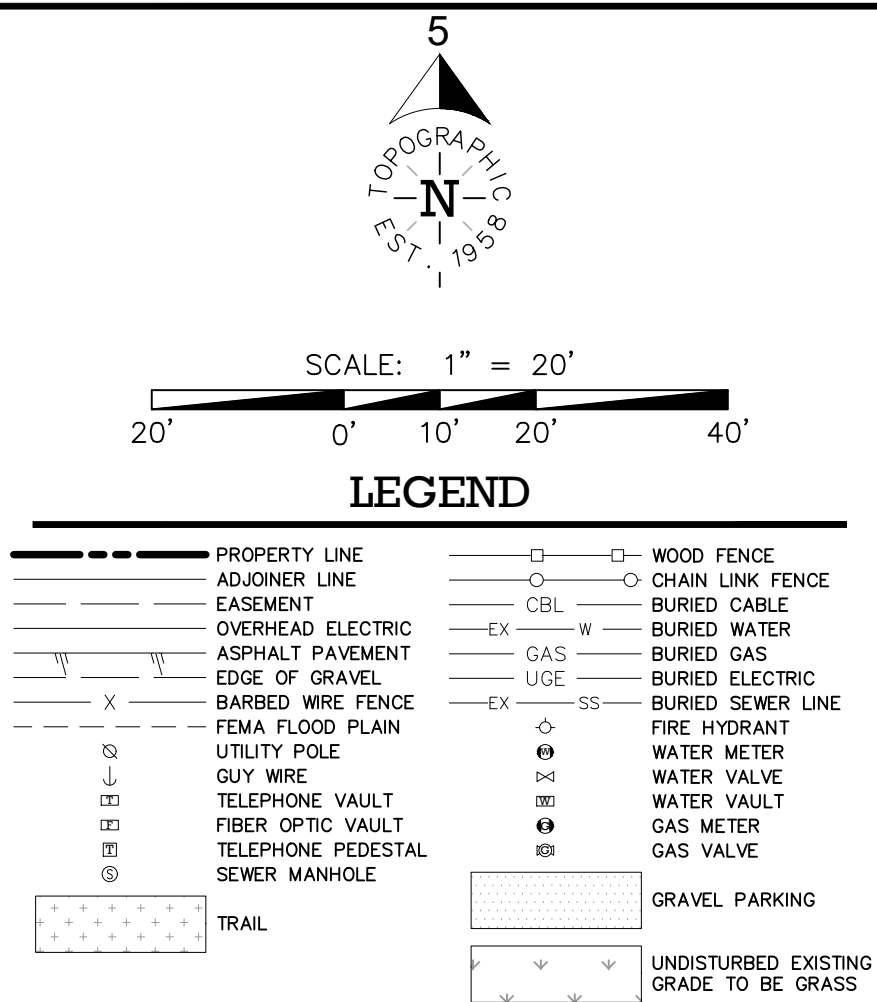
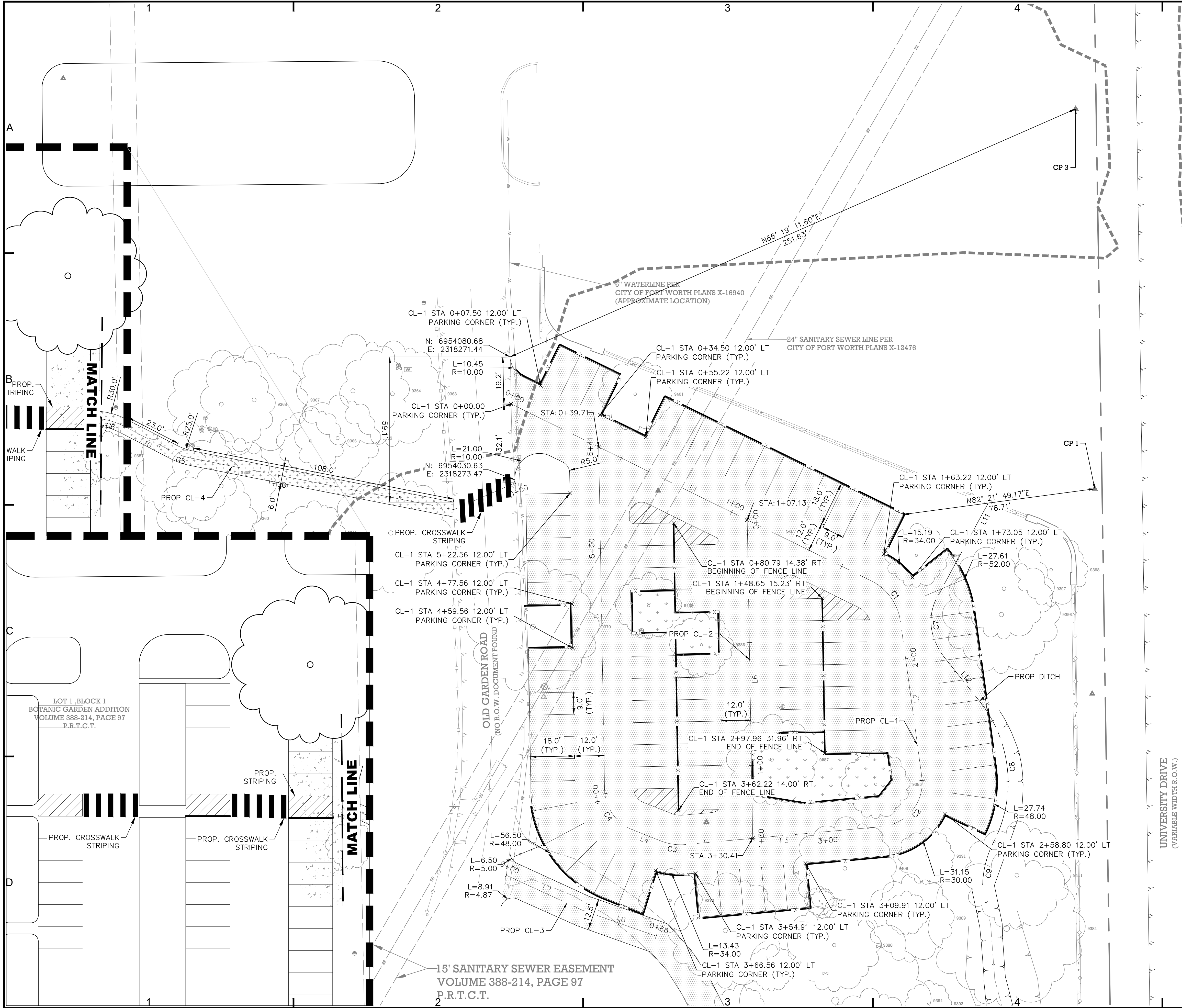
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SB, JC

SHEET NO.:

C1.01

BOTANIC GARDENS TEMPORARY PARKING

S:\CIVIL\BOTANICAL RESEARCH INSTITUTE OF TEXAS\BOTANICAL GARDENS PARKING LOT\LOT\PLAN SHEETS\PH18G-DMS.DWG 10/1/2025 5:47 PM robert.foster



Line Table: Alignments

NO.	DISTANCE	BEARING
L11	43.23	S28°27'10\"W
L12	21.74	S38°46'26\"E
L1	163.22	S63°50'53\"E
L2	63.66	S7°49'37\"E
L3	80.37	S84°46'43\"W
L4	12.40	N68°25'41\"W
L5	139.53	N0°59'06\"W
L6	129.76	S0°59'06\"E
L7	34.74	S65°21'18\"E
L8	31.32	S70°47'26\"E
L10	22.98	N62°36'01\"W

Curve Table: Alignments

CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD LENGTH
C7	20.00	16.14	S5° 20' 05.74\"W	15.70
C8	53.00	59.25	S6° 44' 46.65\"E	56.21
C9	41.01	19.79	S15° 40' 59.04\"W	19.60
C1	22.00	21.51	S35° 50' 15.05\"E	20.66
C2	18.00	29.09	S38° 28' 33.12\"W	26.03
C3	22.00	10.29	N81° 49' 28.86\"W	10.19
C4	18.00	21.19	N34° 42' 23.71\"W	19.99
C5	28.00	7.97	N70° 45' 30.73\"W	7.95
C6	27.00	9.86	N73° 03' 43.82\"W	9.81

NOTES:
1. PARKING STRIPES ARE SHOWN FOR REFERENCE.
PARKING AREAS WILL BE DELINEATED BY PROPOSED
BOLLARDS WITH CHAIN LINKS DUE TO TEMPORARY
NATURE OF PARKING LOT.

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BOTANIC GARDEN
TEMPORARY PARKING
FORT WORTH,
TARRANT COUNTY, TEXAS

NO.	DATE	REVISION DESCRIPTION

STATE OF TEXAS

ROBERT D. FOSTER

146079

PROFESSIONAL ENGINEER

12/05/2025

SHEET TITLE:

DIMENSIONAL
CONTROL &
PAVING PLAN

DATE:
10/1/25

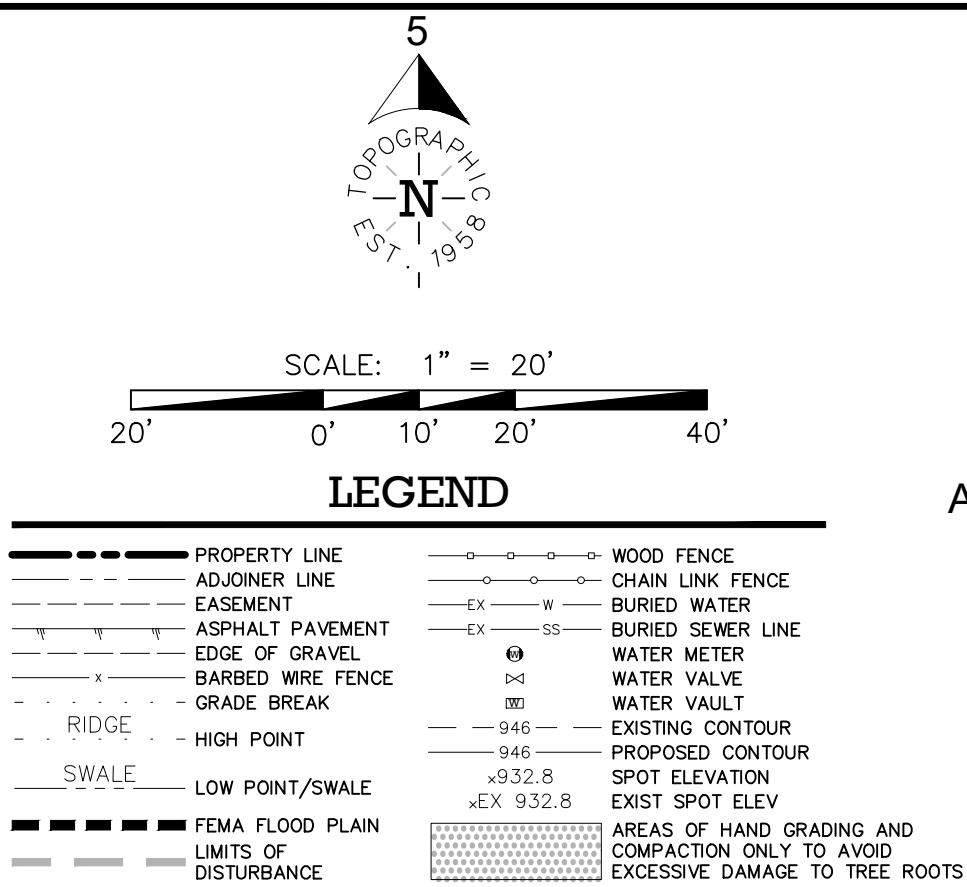
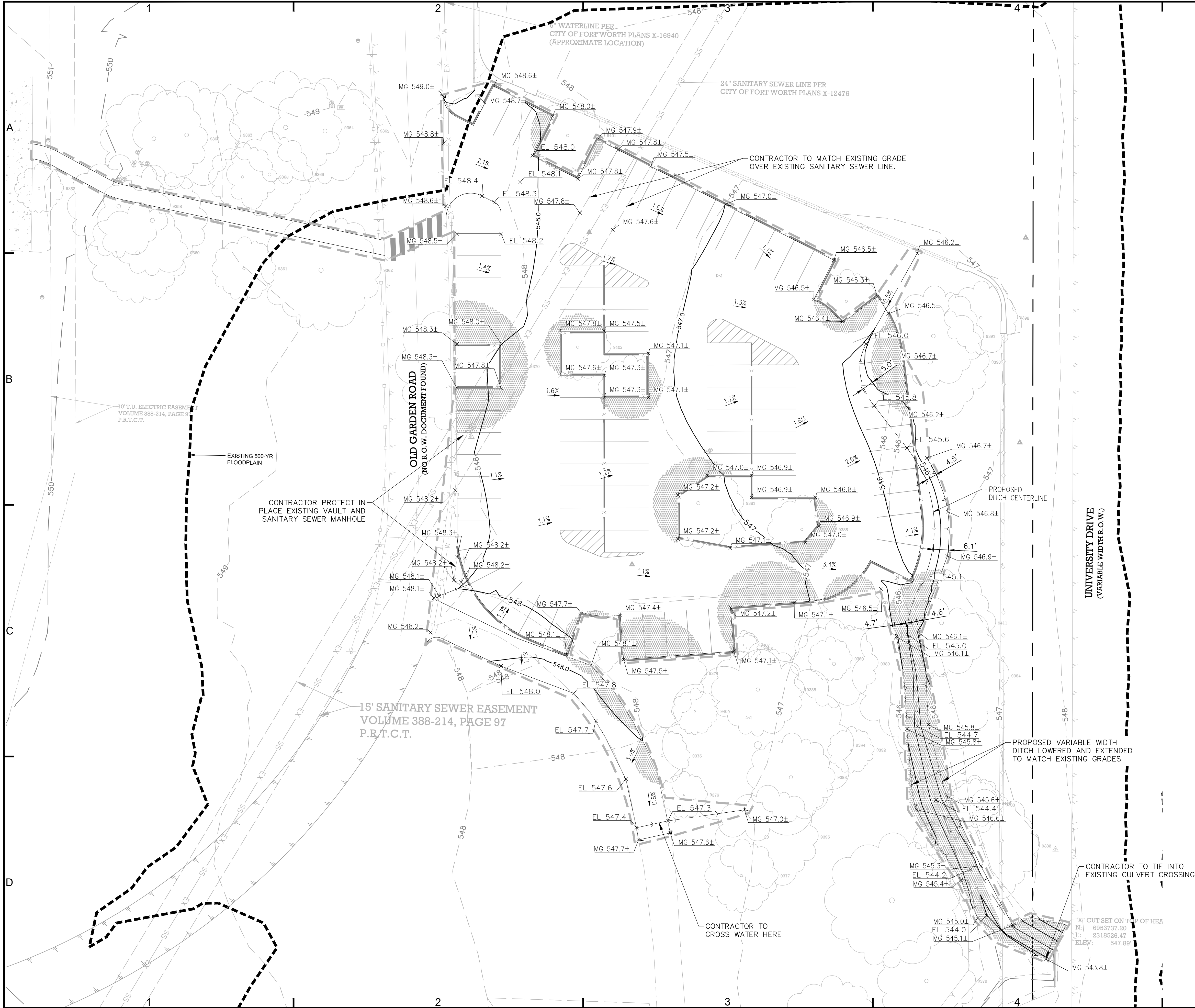
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SB, JC

SHEET NO.:

C2.01

BOTANIC GARDENS TEMPORARY PARKING

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NOTES:
1. REFER SHEET C0.01 FOR GENERAL NOTES AND BENCHMARKS.

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TEMPORARY PARKING
FORT WORTH,
TARRANT COUNTY, TEXAS

NO.	DATE	REVISION DESCRIPTION

Robert D. Foster

STATE OF TEXAS

ROBERT D. FOSTER

146079

LICENSED PROFESSIONAL ENGINEER

12/05/2025

SHEET TITLE:

GRADING PLAN

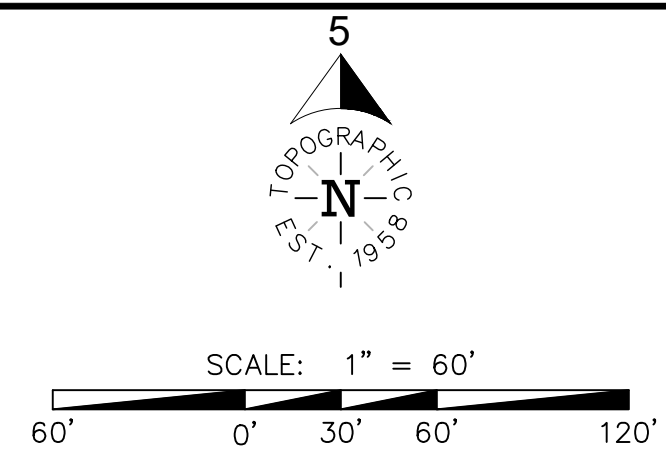
DATE:
10/1/25



















DRAWN BY:
SB, JC

SHEET NO.:

C3.01

BOTANIC GARDENS TEMPORARY PARKING



 PROPERTY LINE ADJACENT LINE  EASEMENT  ASPHALT PAVEMENT  EDGE OF GRAVEL  BARBED WIRE FENCE  DRAINAGE ARROW  TIME OF CONCENTRATION DRAINAGE DIVIDE  EXISTING CONTOUR  946  946  PROPOSED CONTOUR  FEMA 500-YR FLOOD	 WOOD FENCE CHAIN LINK FENCE  EX - W BURIED WATER  BURIED SEWER LINE  WATER METER  WATER VALVE  WATER VAULT <div style="border: 1px solid black; padding: 5px; display: inline-block;"> EX-1 </div> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> 1.16 </div> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> 7.5 </div>	PRE-DEVELOPMENT ID AREA IN ACRES Q
--	---	--

1. TIME OF CONCENTRATION BASED ON MAXIMUM AND MINIMUM REQUIREMENTS PER CITY OF FORT WORTH AND CALCULATED USING THE TR-55 METHOD.
2. RUNOFF COEFFICIENTS BASED ON CITY OF FORT WORTH SUBDIVISION ORDINANCE.
3. INTENSITIES BASED OFF OF NOAA ATLAS 14 PRECIPITATION DATA FOR CITY OF FORT WORTH.
4. OFF-SITE TOPOGRAPHIC ELEVATION INFORMATION DERIVED FROM USGS "THE NATIONAL MAP": NATIONAL BOUNDARIES DATASET, 3DEP ELEVATION PROGRAM, GEOGRAPHIC NAMES INFORMATION SYSTEM, NATIONAL HYDROGRAPHY DATASET, NATIONAL LAND COVER DATABASE, NATIONAL STRUCTURES DATASET, AND NATIONAL TRANSPORTATION DATASET; USGS GLOBAL ECOSYSTEMS; U.S. CENSUS BUREAU TIGER/LINE DATA; USFS ROAD DATA; NATURAL EARTH DATA; U.S. DEPARTMENT OF STATE HUI; NOAA NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION. DATA REFRESHED JULY 22, 2025. DOWNLOADED FROM THE NATIONAL MAP DOWNLOAD APPLICATION, AUGUST 6, 2025.
([HTTPS://APPS.NATIONALMAP.GOV/DOWNLOAD/](https://apps.nationalmap.gov/download/)) FIELD VERIFICATION WAS NOT PERFORMED.
5. ON SITE EXISTING CONTOUR ELEVATIONS DERIVED PER CONVENTIONAL SURVEY METHODS GATHERED ON JULY 11, 2025 BY TOPOGRAPHIC, CO. FIELD VERIFICATION WAS PERFORMED.
6. CITY APPROVAL OF THESE PLANS IS NOT APPROVAL TO PRUNE OR REMOVE CITY TREES. THE CONTRACTOR SHALL OBTAIN A ROW TREE PERMIT FROM PARD CITY FORESTER PRIOR TO PRUNING OR REMOVING ANY CITY TREE. PRUNING REQUIRES USE OF ISA CERTIFIED ARBORIST. CONTACT: 817-392-5729 OR 817-392-5739 OR CITYTREEPERMITS@FORTWORTHTEXAS.GOV. (CITY CODE CHAPTER 1,6,7)

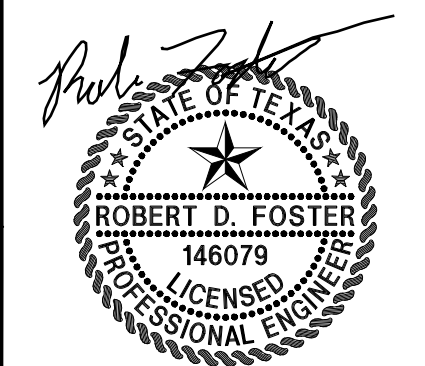
		Composite C Value						
	0.90	0.34	0.56			Total Area Provided	Total Area	Weighted C Value
Area No.	Roofs & Pavement	Park Area	Gravel Parking					
EXISTING DRAINAGE AREAS								
EX-1	3.84	10.42				14.26	14.26	0.49

Area No.	Area (acres)	Runoff 'C'	Time of Conc. (min)	1-year Intensity (in/hr)	1-year Runoff (cfs)	25-year K-Value	25-year Adjusted Runoff 'C'	25-year Intensity (in/hr)	25-year Runoff (cfs)	50-year K-Value	50-year Adjusted Runoff 'C'	50-year Intensity (in/hr)	50-year Runoff (cfs)	100-year K-Value	100-year Adjusted Runoff 'C'	100-year Intensity (in/hr)	100-year Runoff (cfs)	Comments
EXISTING DRAINAGE AREAS																		
EX-1	14.26	0.49	10.00	4.06	28.42	1.10	0.54	7.72	59.4	1.20	0.59	8.78	73.7	1.25	0.61	9.66	84.5	Drains to Double Barrel Culvert



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**BOTANIC GARDEN
TEMPORARY PARKING
FORT WORTH,
TARRANT COUNTY, TEXAS**

[illegible]

12/05/2025

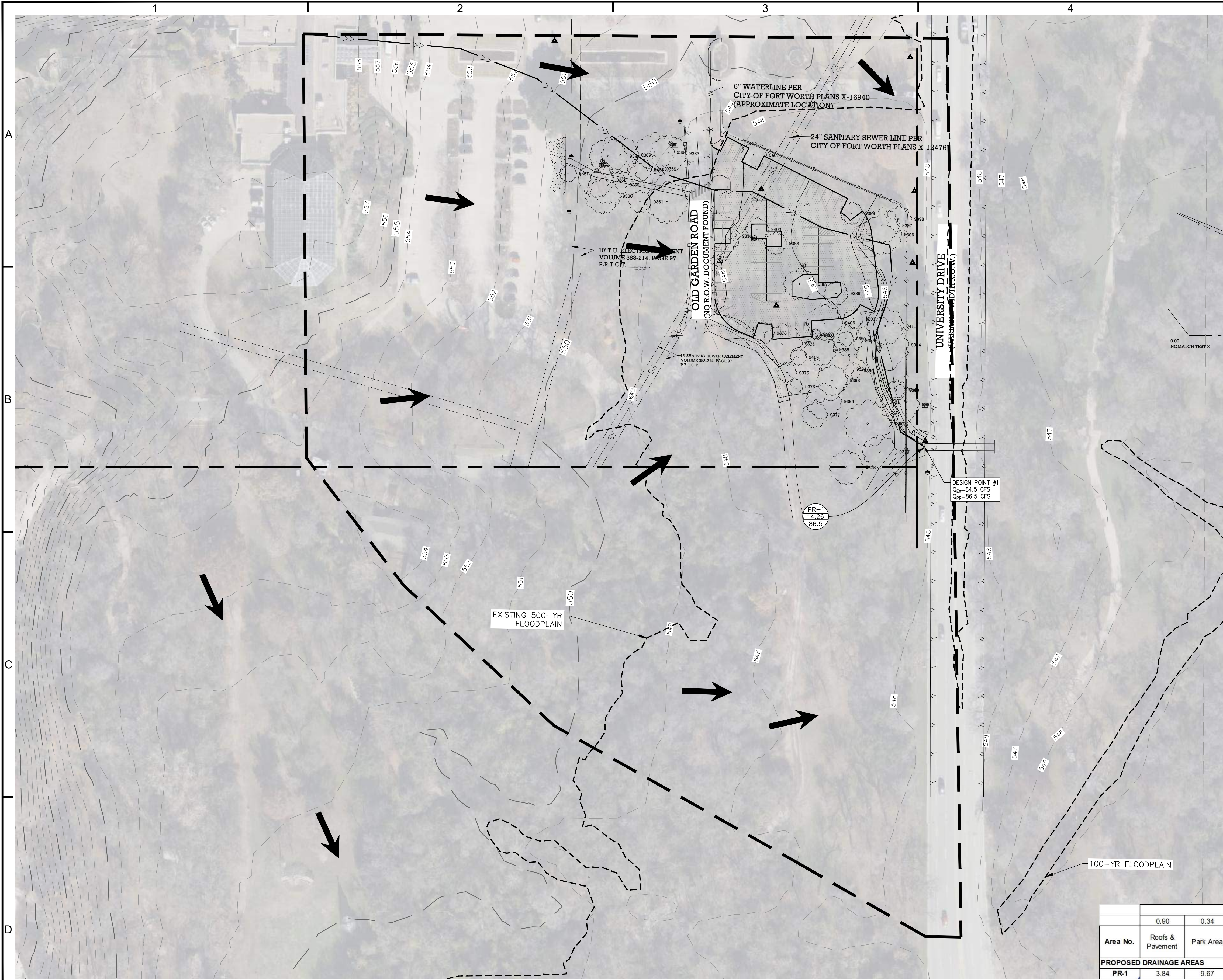
SHEET TITLE:

EXISTING DRAINAGE AREA MAP

DATE: 10/1/25	DRAWN BY: SB, JC
SHEET NO.:	

C4.01

S:\CIVIL\BOTANICAL RESEARCH INSTITUTE OF TEXAS\BOTANIC GARDENS PARKING LOT\CVIL\PLAN SHEETS-PH1\BG-DRAN.DWG 10/12/2025 5:47 PM robert.foster



Area No.	Composite C Value					Total Area Provided	Total Area	Weighted C Value
	0.90	0.34	0.56					
Area No.	Roofs & Pavement	Park Area	Gravel Parking					
PROPOSED DRAINAGE AREAS								
PR-1	3.84	9.67	0.76			14.26	14.26	0.50

Area No.	Area (acres)	Runoff 'C'	Time of Conc. (min)	1-year Intensity (in/hr)	1-year Runoff (cfs)	25-year K-Value	25-year Adjusted Runoff 'C'	25-year Intensity (in/hr)	25-year Runoff (cfs)	50-year K-Value	50-year Adjusted Runoff 'C'	50-year Intensity (in/hr)	50-year Runoff (cfs)	100-year K-Value	100-year Adjusted Runoff 'C'	100-year Intensity (in/hr)	100-year Runoff (cfs)	Comments
PROPOSED DRAINAGE AREAS																		
PR-1	14.26	0.50	10.00	4.06	29.09	1.10	0.55	7.72	60.8	1.20	0.60	8.78	75.5	1.25	0.63	9.66	86.5	Drains to Double Barrel Culvert

- NOTES:
1. TIME OF CONCENTRATION BASED ON MAXIMUM AND MINIMUM REQUIREMENTS PER CITY OF FORT WORTH AND CALCULATED USING THE TR-55 METHOD.
 2. RUNOFF COEFFICIENTS BASED ON CITY OF FORT WORTH SUBDIVISION ORDINANCE.
 3. INTENSITIES BASED OFF OF NOAA ATLAS 14 PRECIPITATION DATA FOR CITY OF FORTH WORTH.
 4. OFF-SITE TOPOGRAPHIC ELEVATION INFORMATION DERIVED FROM USGS "THE NATIONAL MAP": NATIONAL BOUNDARIES DATASET, 3DEP ELEVATION PROGRAM, GEOGRAPHIC NAMES INFORMATION SYSTEM, NATIONAL HYDROGRAPHY DATASET, NATIONAL LAND COVER DATABASE, NATIONAL STRUCTURES DATASET, AND NATIONAL TRANSPORTATION DATASET; USGS GLOBAL ECOSYSTEMS; U.S. CENSUS BUREAU TIGER/LINE DATA; USFS ROAD DATA; NATURAL EARTH DATA; U.S. DEPARTMENT OF STATE HIU; NOAA NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION. DATA REFRESHED JULY 22, 2025. DOWNLOADED FROM THE NATIONAL MAP DOWNLOAD APPLICATION, AUGUST 6, 2025. (HTTPS://APPS.NATIONALMAP.GOV/DOWNLOADER/) FIELD VERIFICATION WAS NOT PERFORMED.
 5. ON SITE EXISTING CONTOUR ELEVATIONS DERIVED PER CONVENTIONAL SURVEY METHODS GATHERED ON JULY 11, 2025 BY TOPOGRAPHIC, CO. FIELD VERIFICATION WAS PERFORMED.

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BOTANIC GARDEN
TEMPORARY PARKING
FORT WORTH,
TARRANT COUNTY, TEXAS

NO.	DATE	REVISION DESCRIPTION

STATE OF TEXAS

ROBERT D. FOSTER

146079

PROFESSIONAL ENGINEER

12/05/2025

SHEET TITLE:
PROPOSED
DRAINAGE
AREA MAP

DATE:
10/1/25

DRAWN BY:
SB, JC

SHEET NO.:
C4.02

BOTANIC GARDENS TEMPORARY PARKING

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Culvert Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.

Wednesday, Sep 3 2025

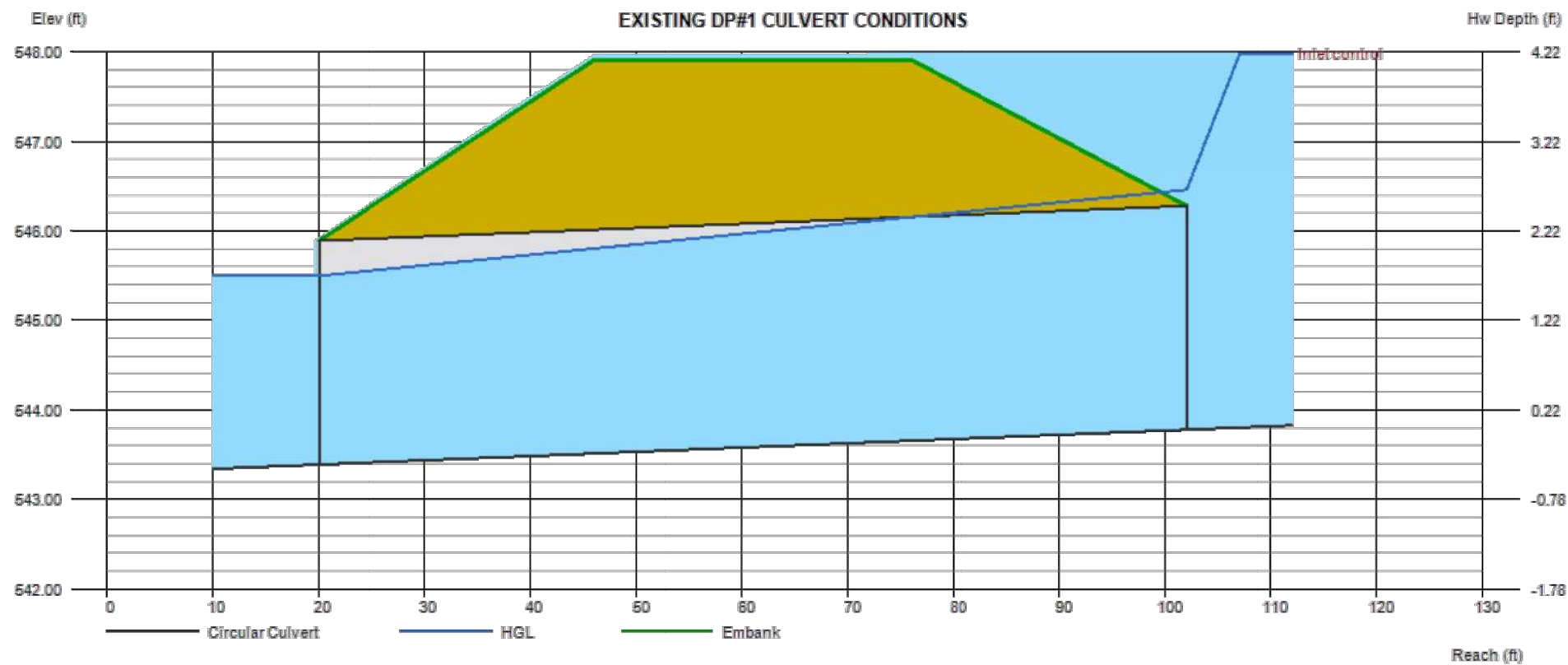
EXISTING DP#1 CULVERT CONDITIONS

Invert Elev Dn (ft) = 543.39
Pipe Length (ft) = 82.00
Slope (%) = 0.48
Invert Elev Up (ft) = 543.78
Rise (in) = 30.0
Shape = Circular
Span (in) = 30.0
No. Barrels = 2
n-Value = 0.013
Culvert Type = Circular Concrete
Culvert Entrance = Square edge w/headwall (C)
Coeff. K,M,c,Y,k = 0.0098, 2, 0.0398, 0.67, 0.5

Embankment
(1) Top Elevation (ft) = 547.91
Top Width (ft) = 30.00
Crest Width (ft) = 127.00

Calculations
Qmin (cfs) = 84.50
Qmax (cfs) = 84.50
Tailwater Elev (ft) = 544

Highlighted
Qtotal (cfs) = 84.50
Qpipe (cfs) = 78.29
Qovertop (cfs) = 6.21
Veloc Dn (ft/s) = 8.86
Veloc Up (ft/s) = 7.98
HGL Dn (ft) = 545.50
HGL Up (ft) = 546.46
Hw Elev (ft) = 547.98 (2)
Hw/D (ft) = 1.68
Flow Regime = Inlet Control



Culvert Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.

Wednesday, Sep 3 2025

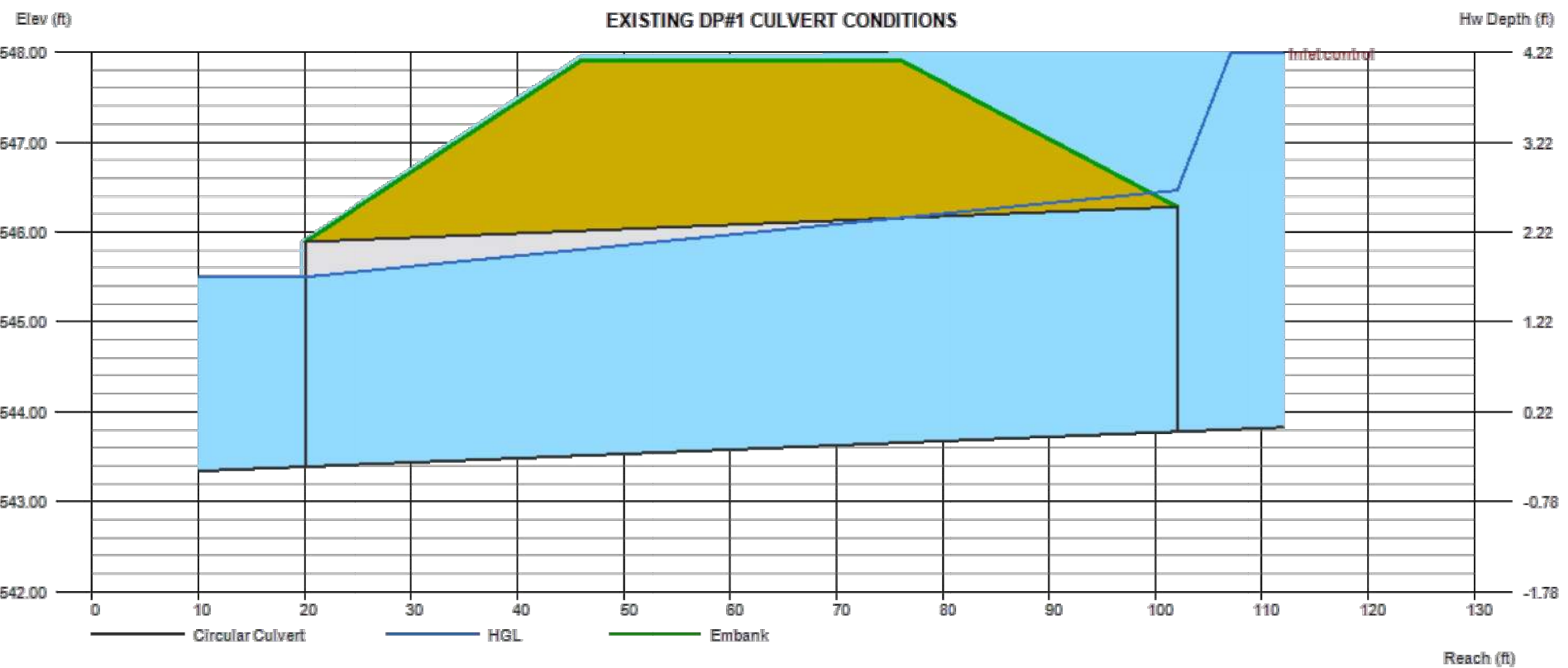
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Invert Elev Dn (ft) = 543.39
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Invert Elev Up (ft) = 543.78
Rise (in) = 30.0
Shape = Circular
Span (in) = 30.0
No. Barrels = 2
n-Value = 0.013
Culvert Type = Circular Concrete
Culvert Entrance = Square edge w/headwall (C)
Coeff. K,M,c,Y,k = 0.0098, 2, 0.0398, 0.67, 0.5

Embankment
(1) Top Elevation (ft) = 547.91
Top Width (ft) = 30.00
Crest Width (ft) = 127.00

Calculations
Qmin (cfs) = 86.50
Qmax (cfs) = 86.50
Tailwater Elev (ft) = 544

Highlighted
Qtotal (cfs) = 86.50
Qpipe (cfs) = 78.44
Qovertop (cfs) = 8.06
Veloc Dn (ft/s) = 8.87
Veloc Up (ft/s) = 7.99
HGL Dn (ft) = 545.50
HGL Up (ft) = 546.46
Hw Elev (ft) = 547.99 (2)
Hw/D (ft) = 1.68
Flow Regime = Inlet Control



NOTES:

- ROADWAY ELEVATIONS AT CULVERT
- WATER SURFACE AT UPSTREAM OF CULVERT

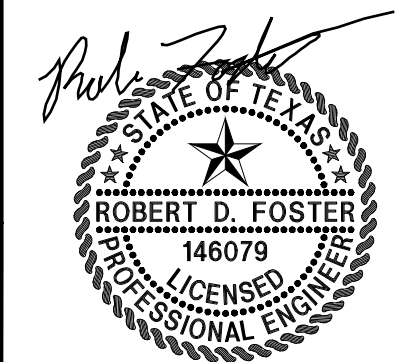


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TX REG. SURVEYING FIRM NO. LS-10042504
WWW.TOPOGRAPHIC.COM

BOTANIC GARDEN
TEMPORARY PARKING
FORT WORTH,
TARRANT COUNTY, TEXAS

REVISION DESCRIPTION

NO. DATE



12/05/2025

SHEET TITLE:

DRAINAGE
CALCULATIONS

DATE:

10/1/25

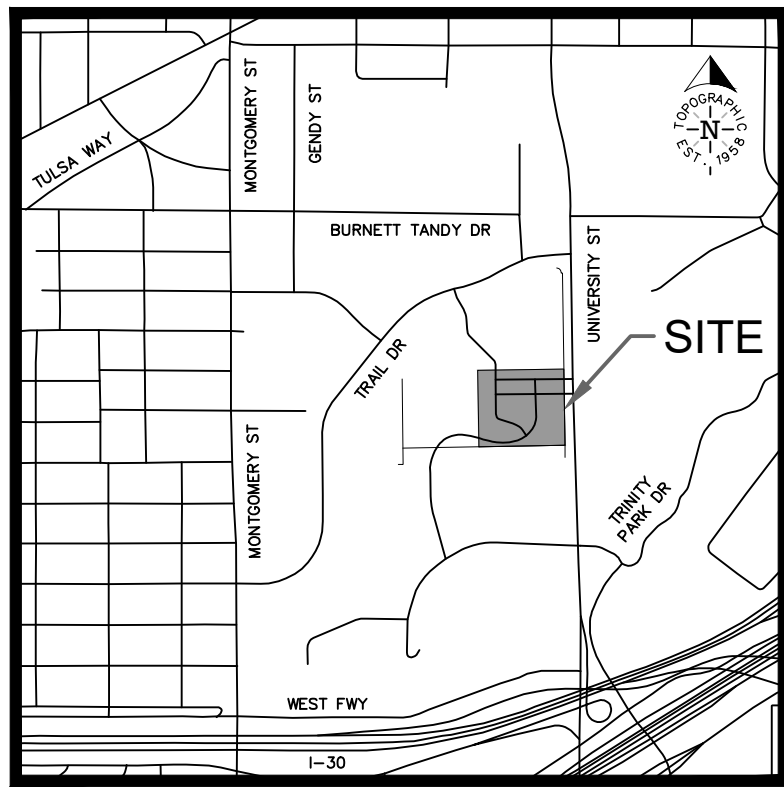
DRAWN BY:

SB, JC


SHEET NO.:

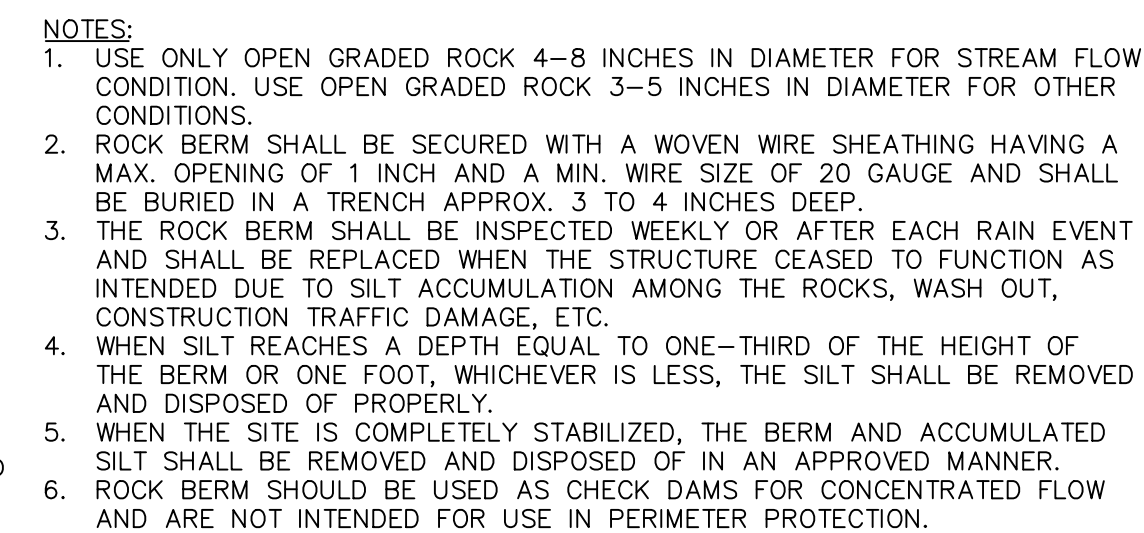
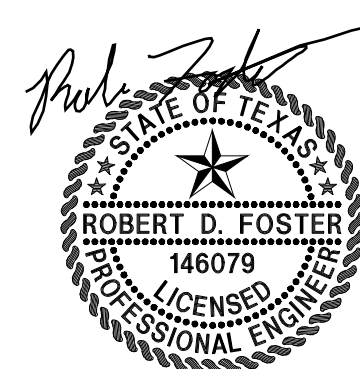
C4.03

BOTANIC GARDENS TEMPORARY PARKING



1. EVERY SOIL DISTURBING ACTIVITY SHALL HAVE AN ACCOMPANYING EROSION CONTROL PLAN (EXP) AND EITHER A CONSTRUCTION SITE NOTICE (CSN) FOR THOSE ACTIVITIES DISTURBING MORE THAN 1 BUT LESS THAN 5 ACRES, A COPY OF THE APPROPRIATE CSN OR A CONSTRUCTION SITE EROSION CONTROL PLAN (CSECP) (CSECP REQUIRED) PRIOR TO ISSUANCE OF AN EARLY GRADING PERMIT OR CONSTRUCTION ACTIVITIES.
2. THE CSN OR NOI SHALL BE POSTED IN A LOCATION VISIBLE TO THE PUBLIC UNTIL CONSTRUCTION IS COMPLETE AND A NOTICE OF TERMINATION (NOT) IS SUBMITTED. THE STORM WATER PREVENTION PLAN (SWPP) SHALL BE READILY AVAILABLE FOR REVIEW BY FEDERAL, STATE OR LOCAL AUTHORITIES.
3. NO SOIL DISTURBING ACTIVITIES WILL OCCUR PRIOR TO SW3P, ECP, AND ASSOCIATED BEST MANAGEMENT PRACTICES (BMP) BEING FULLY IMPLEMENTED, THEN INSPECTED BY THE CITY OF FORT WORTH CONSTRUCTION INSPECTOR.
4. THE CONTRACTOR SHALL COMPLY WITH THE CITY'S STORMWATER ORDINANCE, THE CURRENT NCTCOG BEST MANAGEMENT PRACTICES MANUAL, THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM (TPDES) GENERAL CONSTRUCTION PERMIT TRU150000, AND THE CITY OF FORT WORTH CONSTRUCTION REGULATIONS.
5. THE SITE SHALL BE REVIEWED BY THE CONTRACTOR OR HIS REPRESENTATIVE WEEKLY AND AFTER ANY MAJOR STORM ADJUSTMENTS/REPAIRS MAY BE INSPECTED AND APPROVED.
6. THE ACCEPTANCE OF A SITE SHALL BE CONTINGENT UPON VEGETATION BEING ESTABLISHED PER THE TPDES GENERAL CONSTRUCTION PERMIT TRU150000, AND PROPER NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO THE CITY.
7. CONTRACTOR (OR SUBCONTRACTOR) SHALL PROVIDE A COPY OF SELF-INSPECTION REPORT (RELATED TO SW3P) TO THE CITY CONSTRUCTION INSPECTOR ON A WEEKLY BASIS.
8. THE TOTAL ESTIMATED AREA OF LAND TO BE DISTURBED IS 0.87 ACRES.
9. THE SOILS ON SITE ARE GENERALLY EXPANSIVE CLAYS.
10. THE CONSTRUCTION PROJECT SHALL BE CONDUCTED AT A Kc OF 0.50.
11. THE STORM WATER EXITING THE SITE IS CAPTURED AND FLOWS INTO STORM SEWER SYSTEM.
12. THE CONSTRUCTION ACTIVITIES INCLUDED IN THIS PROJECT WILL INCLUDE:
 - a. CLEARING AND GRUBBING
 - b. ROUGH GRADING
 - c. FINAL GRADING
 - d. UTILITY INSTALLATION
 - e. PAVEMENT INSTALLATION
13. THE CONTRACTOR SHALL PROVIDE PROTECTION MEASURES NECESSARY AT ALL LOCATIONS DOWNSTREAM AND DOWNSTREAM OF THE PROPOSED DISTURBED AREA IF APPLICABLE.
14. EROSION CONTROL MEASURES INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - a. SILT FENCE ALONG THE PERIMETER OF THE DISTURBED AREA
 - b. INLET PROTECTION AT ALL DRAINAGE INLETS
 - c. SEDIMENTATION BASIN AT DRAINAGE EFFORTS IN CHANNELS AND STEEP SLOPED AREAS
 - d. CONCRETE WASHOUT PITS
 - e. CONSTRUCTION ENTRANCES
 - f. SEDIMENTATION BASIN FOR DISTURBED AREAS GREATER THAN 10 ACRES
15. CONSTRUCTION ACTIVITIES IN AREAS NOT TO BE DISTURBED, THE CONTRACTOR SHALL HAVE 14 DAYS TO HAVE ALL STABILIZATION AND EROSION CONTROL DEVICES IN PLACE THAT HAVE FINALIZED GRADING OR PROPOSED IMPROVEMENTS.
16. THE CONTRACTOR SHOULD CONTINUALLY BE ALERT FOR ANY CONTAINING DIRT, MUD, DUST, OR ANY OTHER SUBSTANCE FLOWING FROM THE TRACKED OR BLOWN FROM THE SITE THROUGH THE USE OF EROSION CONTROL DEVICES.
17. THE CONTRACTOR MUST COMPLY WITH FEDERAL, STATE, AND LOCAL GOVERNMENT REGULATIONS.
18. AS PART OF THE SWPPP, THE CONTRACTOR MUST MAINTAIN A COPY OF THIS PLAN ON SITE THROUGHOUT THE DURATION OF THE CONSTRUCTION OF THIS PROJECT.
19. IN AREAS TO BE GRASS, THE CONTRACTOR IS TO HYDROMULCH, SPOT SOO OR SEED AND MAINTAIN THE SEEDING UNTIL ESTABLISHED TO THE FINAL GRADES ON SITE.
20. THE CONTRACTOR SHOULD ENSURE PROTECTION MEASURES TO CONTAIN ANY LEAKAGE ON SITE DUE TO EQUIPMENT, EXISTING TANKS, OR OTHER ITEMS THAT HAVE THE POTENTIAL TO LEAK TO THE SITE OR TO THE ADJACENT AREAS.
21. THE CONTRACTOR SHALL NOT STAGE OR STORE EQUIPMENT IN SUCH A WAY TO AFFECT THE EXISTING DRAINAGE OR AT TIME OF COMPLETION, THE PROPOSED DRAINAGE PATTERNS.
22. DURING SUBGRADE PREPARATION, THE CONTRACTOR SHALL MANAGE ANY POTENTIAL RUNOFF OF SUBGRADE ADDITIVES FOR DESIGN BY EROSION CONTROL MEASURES ACCEPTABLE FOR MATERIAL SIZE.
23. THE CONTRACTOR SHALL BE NEAR TO THE TREE MITIGATION PLAN FOR AREAS TO AVOID HEAVY TRAFFIC, STAGING, OR STORAGE. IF NO TREE MITIGATION IS PRESENT THEN THE TREE CANOPY SHALL ACT AS A BUFFER ZONE FOR AREAS THAT ARE OFF LIMITS TO THE PREVIOUSLY MENTIONED ITEMS.
24. AT ALL TIMES, DAILY VEHICLE TRAFFIC AND EXCESS COMPACTION SHALL BE LIMITED TO AREAS THAT ARE TO BE PAVED PER THE PROJECT'S DESIGN.
25. INSPECTIONS FOR ALL EROSION CONTROL DEVICES AND NOTED AREAS OF INTEREST PREVIOUSLY MENTIONED IN THESE NOTES ARE TO BE CONDUCTED EVERY 2 WEEKS AND 1 HOUR PRIOR TO THE END OF THE DAY. INSPECTIONS OF 0.5 INCHES OR MORE OR ONCE PER WEEK ON A SPECIFIC PRE-DEFINED DAY.

C	REVISION DESCRIPTION								
D	DATE								
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p><i>Robert D. Foster</i></p> </div> <div style="text-align: center;"> <p>12/05/2025</p> </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <p style="margin: 0;">SHEET TITLE:</p> <p style="text-align: center; font-size: 1.2em; margin: 10px 0;">EROSION CONTROL PLAN</p> </div> <div style="width: 60%; border: 1px solid black; padding: 5px;"> <div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> <div style="width: 45%;"> <p style="margin: 0;">DATE:</p> <p style="margin: 0;">10/1/25</p> </div> <div style="width: 55%;"> <p style="margin: 0;">DRAWN BY:</p> <p style="margin: 0;">SB, JC</p> </div> </div> <p style="margin: 0;">SHEET NO.: C5.01</p> </div> </div>									

[illegible]

12/05/2025

D SHEET TITLE:
CONSTRUCTION
DETAILS

DATE: 10/1/25	DRAWN BY: SB, JG
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SHEET NO.:

C6.01