

LEGEND	

- XX+XX TREE LOCATION NO.(ID)



EXISTING TREE TO BE REMOVED AND DISPOSED OF (INCL. COMPLETE STUMP REMOVAL WHEN MINIMUM DEPTH TO PIPE IS MET, SEE NOTES), REFER TO MASTER TREE REMOVAL AND PROTECTION SCHEDULE,

Black Oak

Tree Protection Fence

Tree Protection Fence



EXISTING TREE TO BE PROTECTED, REFER TO DETAILS C/L-501 AND D/L-501



EXISTING TREE OUTSIDE OF WORK LIMITS/ NO WORK PROPOSED



EXISTING TREE TO BE REMOVED AND RELOCATED BY THE CITY OF WALTHAM PRIOR TO THE START OF CONSTRUCTION

## TREE REMOVAL NOTES:

- 1. WHERE PIPE DEPTH PERMITS, STUMPS AT REMOVED TREES SHALL BE GROUND TO 6" BELOW THE EXISTING SURFACE GRADE.
- 2. WHEN PIPE COVERAGE FROM SURFACE GRADE TO TOP OF PIPE IS LESS THAN 2', CUT STUMP TO 6" MAX. ABOVE SURFACE GRADE. STUMPS THAT REMAIN SHALL BE TREATED WITH A 25-35% SOLUTION OF GLYPHOSATE HERBICIDE. APPLY HERBICIDE DIRECTLY TO THE CUT SURFACE WITH A SPONGE, PAINTBRUSH, OR SPRAY BOTTLE AS SOON AS POSSIBLE AFTER
- 3. FOR TREE SPECIES WITHIN PROJECT LIMITS, MATURE ROOT SYSTEM DEPTHS AVERAGE 5-7' AND ARE NOT EXPECTED TO EXTEND BEYOND 7-9'. WHEN PIPE DEPTH IS GREATER THAN 10' THE POTENTIAL CONFLICT OF ROOTS WITH A PIPE ARE MINIMAL AND TREE REMOVAL IS NOT REQUIRED.
- 4. ALL 2" TREES ALONG WAVERLEY OAKS ROAD SHALL BE REMOVED AND RELOCATED OUTSIDE OF THE EASEMENT PRIOR TO THE BEGINNING OF CONSTRUCTION, BY THE CITY OF WALTHAM

	0	40	1"= 40'-0" HORIZONTAL 100		200	_		
7 - 70000	0	4	8 10 1"= 4'-0" VERTICAL		FEE 20	:T	T	
			I - 4 -0 VERTICAL					
-				NO.	DATE	BY	CHK'D	REVISION

CONTRACT	NO.: 6543	FILE NO. : 6543_L-101-L-102			
ACCESSION	N NO. :	SECTION NO. :	W10		
DATE:	AUGUST 2025	DESIGNED BY:	GS		
		DRAWN BY:	CF		
SCALE: _	AS NOTED	APPROVED BY:	CF		





MASSACHUSETTS WATER RESOURCES	AUTHORITY
-------------------------------	-----------

Stantec 45 BLUE SKY DRIVE, 3RD FLOOR BURLINGTON, MA 01803 www.stantec com

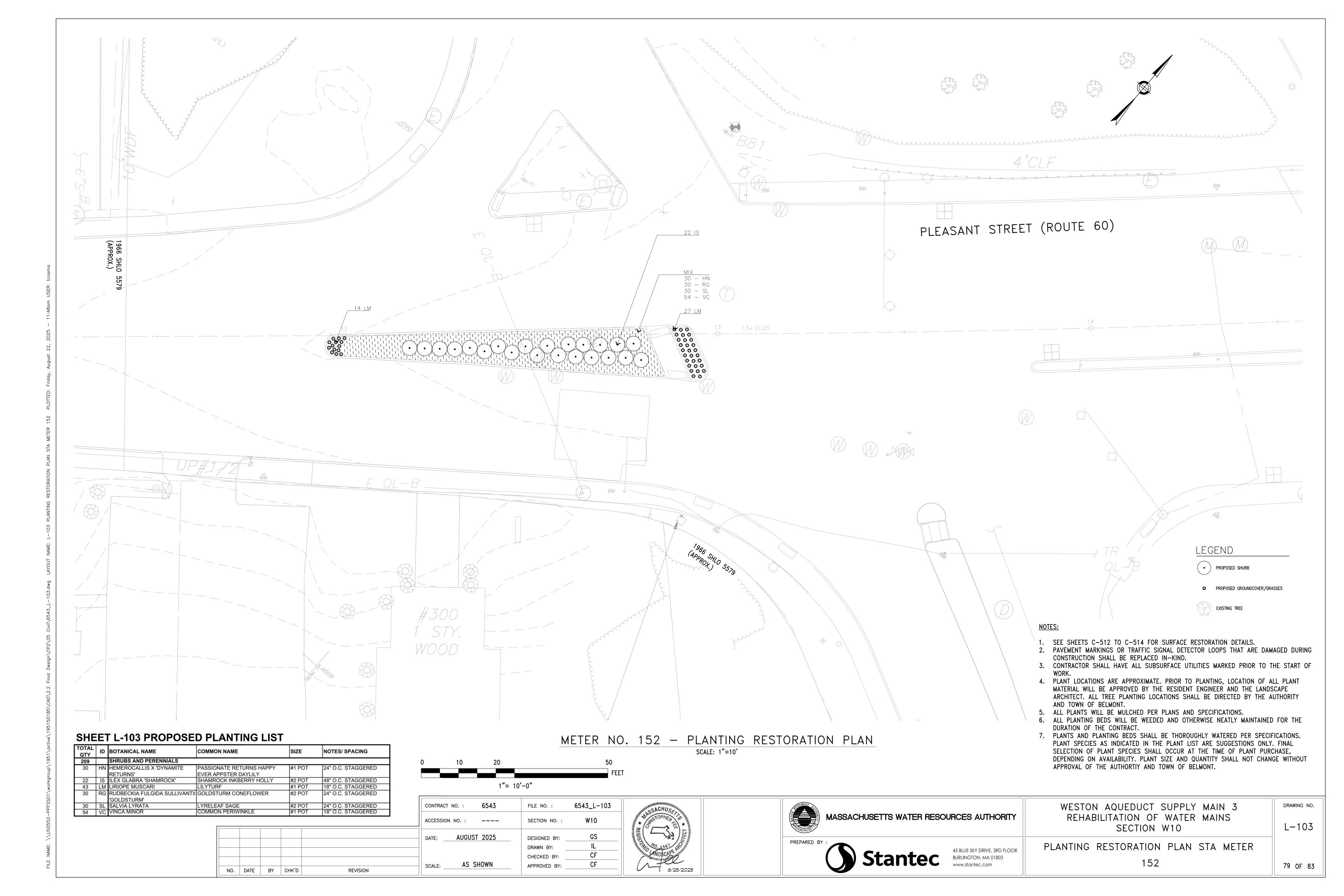
WESTON AQUEDUCT SUPPLY MAIN 3 REHABILITATION OF WATER MAINS SECTION W10

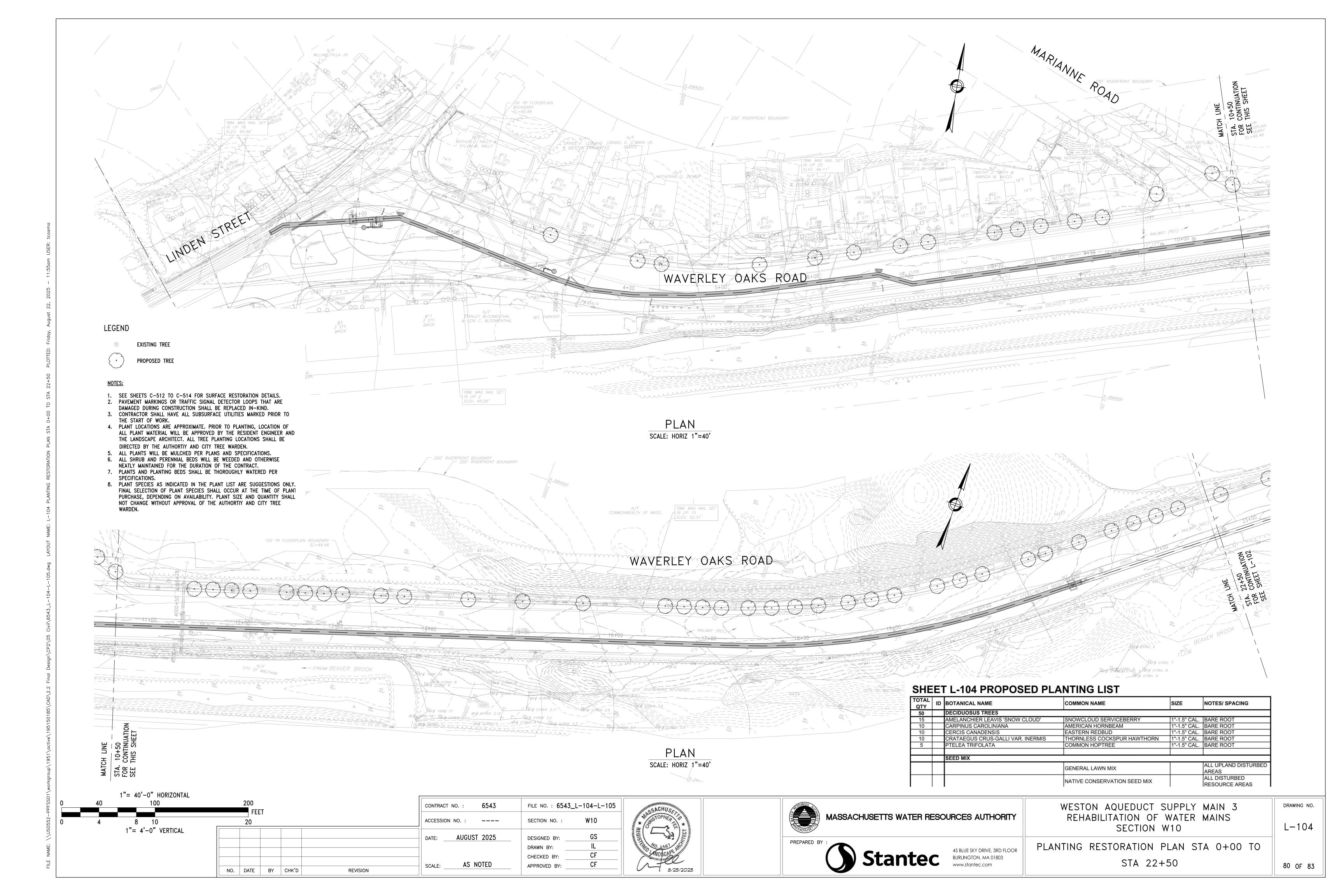
TREE REMOVAL AND PROTECTION PLAN STA 22+50 TO STA 31+00

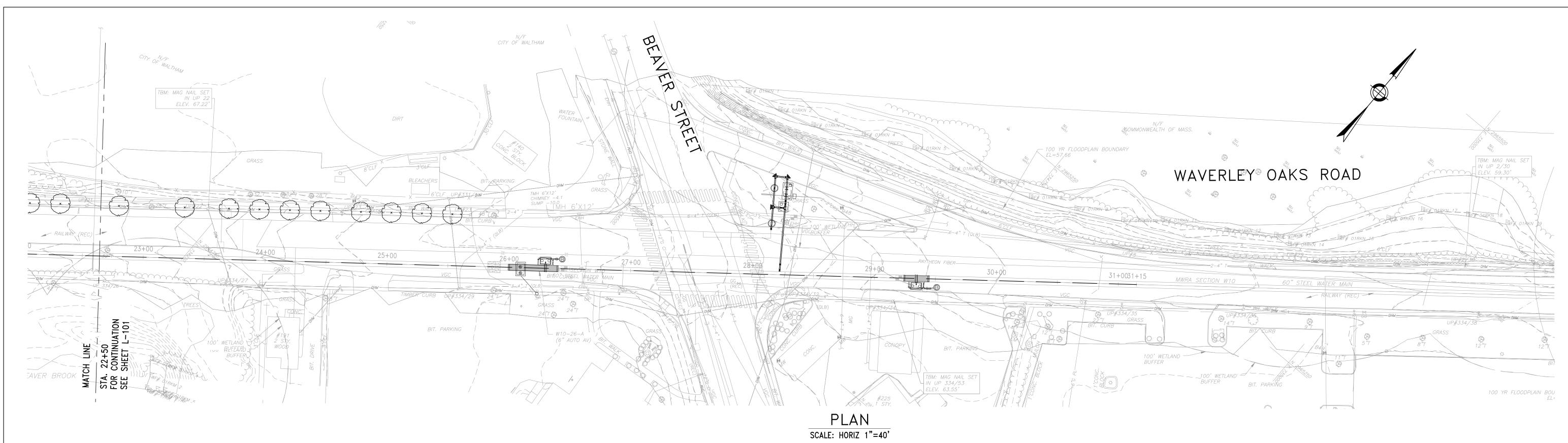
78 OF 83

DRAWING NO.

L-102







LEGEND

EXISTING TREE

 SEE SHEETS C-512 TO C-514 FOR SURFACE RESTORATION DETAILS.
 PAVEMENT MARKINGS OR TRAFFIC SIGNAL DETECTOR LOOPS THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED IN-KIND.
 CONTRACTOR SHALL HAVE ALL SUBSURFACE UTILITIES MARKED PRIOR TO THE START OF WORK THE START OF WORK.

4. PLANT LOCATIONS ARE APPROXIMATE. PRIOR TO PLANTING, LOCATION OF ALL PLANT MATERIAL WILL BE APPROVED BY THE RESIDENT ENGINEER AND THE LANDSCAPE ARCHITECT. ALL TREE PLANTING LOCATIONS SHALL BE DIRECTED BY THE AUTHORTIY AND CITY TREE WARDEN.

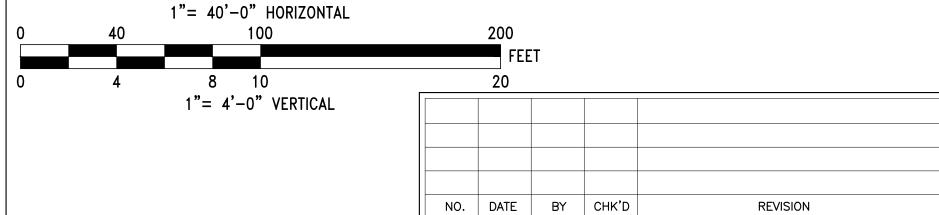
5. ALL PLANTS WILL BE MULCHED PER PLANS AND SPECIFICATIONS. 6. ALL SHRUB AND PERENNIAL BEDS WILL BE WEEDED AND OTHERWISE NEATLY MAINTAINED FOR THE DURATION OF THE CONTRACT.

7. PLANTS AND PLANTING BEDS SHALL BE THOROUGHLY WATERED PER SPECIFICATIONS.

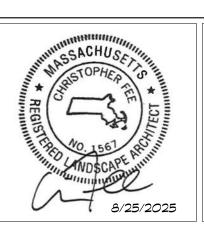
8. PLANT SPECIES AS INDICATED IN THE PLANT LIST ARE SUGGESTIONS ONLY. FINAL SELECTION OF PLANT SPECIES SHALL OCCUR AT THE TIME OF PLANT PURCHASE, DEPENDING ON AVAILABILITY. PLANT SIZE AND QUANTITY SHALL NOT CHANGE WITHOUT APPROVAL OF THE AUTHORTIY AND CITY TREE

## SHEET L-105 PROPOSED PLANTING LIST

TOTAL QTY	ID	BOTANICAL NAME	COMMON NAME	SIZE	NOTES/ SPACING			
10	4	DECIDUOSUS TREES						
5		CERCIS CANADENSIS	EASTERN REDBUD	1"-1.5" CAL.	BARE ROOT			
5		PTELEA TRIFOLATA	COMMON HOPTREE	1"-1.5" CAL.	ARE ROOT			
				Š.				
	SEED MIX							
			GENERAL LAWN MIX	c	ALL UPLAND DISTURBED AREAS			
			NATIVE CONSERVATION SEED MIX		ALL DISTURBED RESOURCE AREAS			



CONTRACT NO.: 6543	FILE NO. : 6543_L-104-L-105			
ACCESSION NO. :	SECTION NO. : W10			
DATE: AUGUST 2025	DESIGNED BY: GS			
	DRAWN BY: IL			
	CHECKED BY: CF			
SCALE: AS NOTED	APPROVED BY: CF			







45 BLUE SKY DRIVE, 3RD FLOOR BURLINGTON, MA 01803

WESTON AQUEDUCT SUPPLY MAIN 3 REHABILITATION OF WATER MAINS SECTION W10

PLANTING RESTORATION PLAN STA 22+50 TO STA 31+00

81 OF 83

DRAWING NO.

L-105

Location No. (ID)	Tree Diameter (in)	Tree Latin Name	Tree Common Name	Activity	Tree Health	Approx. Depth to Pipe	Property Owner	Resource Area	Replication Required	Caliper Inches to be Replicated (1 cal. inch per 1 cal. Inch removed)
00+43	4	Zelkova serrata	Japanese Zelkova	Trunk & Tree Protection Fence	Good	4'	City of Waltham	200' Riverfront, 100-yr Flood Plain	No	0
1+53	12	Acer platanoides	Norway Maple	Trunk & Tree Protection Fence	Good	4'	City of Waltham	200' Riverfront	No	0
02+80	5	Malus halliana	Hall Crabapple	Remove for construction	Good	4'	City of Waltham - Tree hearing required	200' Riverfront, 100-yr Flood Plain	Yes	5
04+56	18	Quercus rubra	Northern Red Oak	Trunk & Tree Protection Fence	Good	4'	City of Waltham	100' Buffer, 200' Riverfront, 100-yr Flood Plain	No	0
06+61	36	Quercus palustris	Pin Oak	Remove for construction	Good	3'	City of Waltham -	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	36
07+98	22, 26	Quercus rubra	Northern Red Oak	Remove for construction	Good	3'	Tree hearing required City of Waltham -	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	48
08+05	13	N/A	N/A	Remove stump for construction	Stump	3'	Tree hearing required  City of Waltham	100' Buffer, 200' Riverfront, 100-yr Flood Plain	No	0
09+01	18	Quercus rubra	Northern Red Oak	Remove for construction	Good	3'	City of Waltham -	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	18
33.01		Quereus rubru	Northern Red Odk	nemove for construction			Tree hearing required	100 Bullet, 200 Miletholit, 100 yi 11000 Hulli	163	
09+24	14, 15	Quercus rubra	Northern Red Oak	Remove for construction	Good	3'	City of Waltham - Tree hearing required	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	29
09+55	13	Quercus rubra	Northern Red Oak	Remove for construction	Good	3'	City of Waltham -	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	13
					On Processing		Tree hearing required	20 20 20 20 20 20 20 20 20 20 20 20 20 2		
09+66	13, 13	Quercus rubra	Northern Red Oak	Remove for construction	Good	3'	City of Waltham - Tree hearing required	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	26
09+78	8	Quercus rubra	Northern Red Oak	Remove for construction	Poor	3'	City of Waltham - Tree hearing required	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	8
10+12	36	Quercus alba	White Oak	Remove for construction	Good	3'	City of Waltham -	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	36
11+27	24	Quercus rubra	Northern Red Oak	Remove for construction	Good	3'	Tree hearing required  City of Waltham -	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	24
							Tree hearing required			
11+44	12	Quercus rubra	Northern Red Oak	Remove for construction	Good	3'	City of Waltham - Tree hearing required	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	12
11+57	36	Quercus rubra	Northern Red Oak	Remove for construction	Poor	3'	City of Waltham -	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	36
11+78	20	Quercus rubra	Northern Red Oak	Remove for construction	Good	3'	Tree hearing required City of Waltham -	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	20
12+08	12	Quercus rubra	Northern Red Oak	Remove for construction	Good	3'	Tree hearing required City of Waltham -	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	12
12+15	12	N/A	N/A	Remove stump for construction	Stump	3'	Tree hearing required City of Waltham	100' Buffer, 200' Riverfront, 100-yr Flood Plain	No	0
12+25	18, 18	Quercus rubra	Northern Red Oak	Remove for construction	Good	3'	City of Waltham -	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	36
	120, 10		10.00 775 (C.0.0.00 (A. 10 F. 10 F. 10 C.0.00 775 (A. 10 F.	Bodge-Christ No. 1 to 5 CO.C. 1 CO.C. 1 the Co.C. 1 th			Tree hearing required	1000 110 1100 1100 1100 1100 1100 1100	1,00	
12+34	10	Quercus rubra	Northern Red Oak	Remove for construction	Poor	3'	City of Waltham - Tree hearing required	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	10
13+13	10	N/A	N/A	Remove stump for construction	Stump	3'	City of Waltham	100' Buffer, 200' Riverfront, 100-yr Flood Plain	No	0
13+59	22	Quercus rubra	Northern Red Oak	Remove for construction	Good	3'	City of Waltham -	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	22
13+64	19	Quercus rubra	Northern Red Oak	Remove for construction	Good	3'	Tree hearing required City of Waltham -	100' Buffer, 200' Riverfront, 100-yr Flood Plain	Yes	19
13+04	15	Quercus rubra	Northern Red Oak	Remove for construction	Good		Tree hearing required	100 Bullet, 200 Riveriforit, 100-yi Flood Flain	les	15
14+69	2	Quercus rubra	Northern Red Oak	Remove & Relocate by Others	Good	3'	City of Waltham	100' Buffer, 200' Riverfront	No	0
15+43	2	Quercus alba	White Oak	Remove & Relocate by Others	Poor	3'	City of Waltham	100' Buffer, 200' Riverfront	No	0
16+07	2	N/A	N/A	Remove stump for construction	Stump	3'	City of Waltham	100' Buffer	No	0
16+86	2	Quercus rubra	Northern Red Oak	Remove & Relocate by Others	Good	4'	City of Waltham	100' Buffer	No	0
17+80	36	Quercus rubra	Northern Red Oak	Remove for construction	Poor	4'	City of Waltham - Tree hearing required	none	Yes	36
19+04	2	Quercus alba	White Oak	Remove & Relocate by Others	Good	4'	City of Waltham	none	No	0
19+78	2	Quercus rubra	Northern Red Oak	Remove & Relocate by Others	Good	4'	City of Waltham	none	No	0
20+54	2	Quercus alba	White Oak	Remove & Relocate by Others	Good	3'	City of Waltham	none	No	0
21+31	30	Quercus palustris	Pin Oak	Trunk & Tree Protection Fence	Good	4'	City of Waltham	100' Buffer	No	0
25+88	24	Quercus velutina	Black Oak	Tree Protection Fence	Good	3'	City of Waltham	none	No	0
26+46	24	Quercus velutina	Black Oak	Tree Protection Fence	Good	3'	City of Waltham	none	No	0
28+49	11	Pyrus calleryana	Callery Pear	Remove for construction	Good	5'	City of Waltham - Tree hearing required	100' Buffer	Yes	11

2. When pipe coverage from surface grade to top of pipe is less than 2', cut stump to 6" max. above surface grade. Stumps that remain shall be treated with a 25-35% solution of Glyphosate

TOTAL NUMBER OF CALIPER INCHES TO BE REMOVED 457

(1 cal. inch per 1 cal. inch removed)

3. For tree species within project limits, mature root system depths average 5-7' and are not expected to extend beyond 7-9'. When pipe depth is greater than 10' the potential conflict of roots with a pipe are minimal and tree removal is not required.

4. All 2" trees along waverley oaks road shall be removed and relocated outside of the easement prior to the beginning of construction, by others.

## MASTER TREE REMOVAL AND PROTECTION SCHEDULE

SCALE: N/A

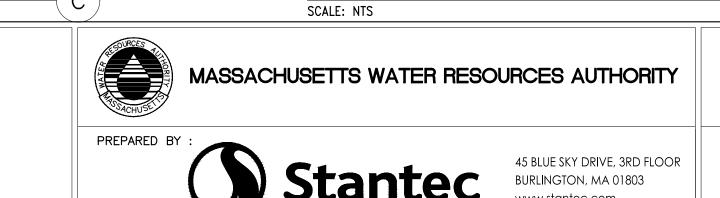
PRUNE PER ANSI AND NAA STANDARDS REMOVE DEAD WOOD & DAMAGED - EXISTING TREE BRANCHES AND TIE UP BRANCHES. 2x4 DIMENSIONAL LUMBER ATTACHED PLACE BURLAP W/METAL STRAPPING. BETWEEN LÚMBER AND TREE. DO NOT DAMAGE BARK. ZONE OF CONSTRUCTION IMPACT - EXISTING (CUT/FILL) -GRADE PRUNE ROOTS EXPOSED &/OR DAMAGED BY EXCAVATION WITH A SHARP SAW -LIMIT OF WORK PROTECTED ROOT ZONE (DISTANCE VARIES) (VARIES-REFER TO PLANS) NO STORAGE OF EQUIPMENT OR STOCKPILING OF MATERIALS

TREE TRUNK PROTECTION DETAIL

SCALE: NTS

6543\_L-501 6543 CONTRACT NO. : FILE NO. : ACCESSION NO. : SECTION NO. : GS DATE: AUGUST 2025 DESIGNED BY: DRAWN BY: CF CHECKED BY: AS NOTED CF SCALE: APPROVED BY: NO. DATE BY CHK'D REVISION





SECURE TREE WITH

SISAL YARN TO THE THREE

STRANDS OF

SCALE: NTS

FENCE AND POST

PLACE FENCE AS SHOWN

ON PLANS AND AS CLOSE

TO CONSTRUCTION LIMITS

(AS FAR FROM TRUNK) AS

CONSTRUCTION

TREE PROTECTION FENCE DETAIL

MATERIAL PER

SPECIFICATIONS.

POSSIBLE

TWISTED WIRE

WESTON AQUEDUCT SUPPLY MAIN 3 REHABILITATION OF WATER MAINS SECTION W10

LANDSCAPE DETAILS - 1

AT 120 DEG. TO ONE ANOTHER. WIRE SHALL BE THREADED THROUGH BLACK RUBBER HOSE COLLARS ROOT ZONE; BARE ROOTS TO BE SPREAD OVER SOIL CONE 6" BELOW ROOT ZONE COMPACTED OR UNDISTURBED SUB GRADE DO NOT EXCAVATE BELOW ROOT ZONE (IN AREAS OF WETLANDS USE 6" MIN. CRUSHED STONE UNDER TREES FOR SETTLEMENT) COORDINATE LOCATIONS AND SPECIES FOR REPLACEMENT TREE WITH THE AUTHORITY AND CITY TREE WARDEN. 2. TREES SHALL BE PLANTED WITHIN THE LIMITS OF R.O.W. TREE PLANTING

CANOPY DRIP LINE - - - - -

NO TRESPASSING, STORAGE OF EQUIPMENT, OR

STOCKPILING OF MATERIALS

TREE ROOT ZONE/

PLANT PROTECTION ZONE

SECTION— FENCE PROTECTION OF ROOT ZONE

TREE SHALL HAVE A STRAIGHT TRUNK & SINGLE LEADER

NO DOUBLE LEADER TRUNKS SHALL BE ACCEPTED

WATERING SAUCER SHALL BE FLOODED TWICE

ABOVE FINISHED GRADE AFTER SETTLEMENT

DURING THE FIRST 24 HOURS AFTER PLANTING

TREE SHALL BE PLANTED SO THAT CROWN IS 3"

- 2"-3" AGED PINE BARK MULCH (PULL MULCH

3" HIGH EARTH WATERING SAUCER AROUND TREE PIT

THREE 2"X4"X8' WOODEN STAKES, STAINED BROWN WITH DOUBLE STRANDS OF WIRE TWISTED TOGETHER. STAKES SHALL BE PLACED

DO NOT CUT LEADER

TREE WRAP SHALL NOT BE USED

AWAY FROM TRUNK OF TREE)

BACK FILL MIX

TREE SHALL BE SET PLUMB

PLACE FENCE AS SHOWN ON PLANS AND AS CLOSE TO CONSTRUCTION LIMITS (AS FAR FROM TRUNK) AS POSSIBLE **EXISTING** TREES NO TRESPASSING, STORAGE CANOPY/ROOT OF EQUIPMENT, OR STOCKPILING OF MATERIALS TREE ROOT ZONE/

PLAN VIEW- FENCE PROTECTION OF ROOT ZONE

PLANT PROTECTION ZONE

DRAWING NO. L-501

82 OF 83

SET CROWN OF ROOT BALL 1" ABOVE FINISH GRADE - COVER WITH EROSION CONTROL FABRIC TURN DOWN TOP 1/3 OF BURLAP ON BALL (WHERE APPLICABLE) MODIFIED LOAM TAMPED MODIFIED LOAM EXISTING SUB GRADE NOTE: FOR CONTAINER GROWN SHRUBS, SCARIFY ROOT BALL

PRIOR TO BACK FILLING COORDINATE LOCATIONS AND SPECIES FOR REPLACEMENT SHRUB WITH THE AUTHORITY.

SHRUB PLANTING SCALE: NTS

SPACING VARIES 1 EXCAVATE TO REQUIRED DEPTH AND SEE PLANS BACKFILL WITH PLANTING MIX OR NOTES RAISE AND REPLANT ANY PLANTS THAT SETTLE MORE THAN 3 INCHES AFTER PLANTING AND WATERING IN WATER BY FLOODING TWICE IN FIRST TWO HOURS AFTER PLANTING. WATER & MAINTAIN AS PER STANDARD SPECIFICATIONS UNDISTURBED SUBGRADE

NO. DATE BY CHK'D

AWAY FROM BASE OF SHRUB)

- 3 INCH HIGH EARTH WATERING SAUCER

BACKFILL MIX PER SPECIAL PROVISIONS

REMOVE PLANT FROM CONTAINER EVEN IF 'PLANTABLE CONTAINER'. SCORE SIDES AND BOTTOM OF ROOT BALL TO LOOSEN ROOTS

GROUNDCOVER/GRASSES PLANTING

SCALE: NTS

6543\_L-501 6543 CONTRACT NO. : FILE NO.: ACCESSION NO. : SECTION NO.: DATE: AUGUST 2025 DESIGNED BY: DRAWN BY: CF

AS NOTED

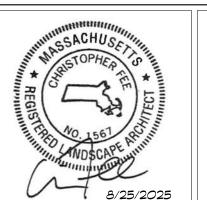
SCALE:

REVISION

CHECKED BY:

APPROVED BY:

CF







WESTON AQUEDUCT SUPPLY MAIN 3 REHABILITATION OF WATER MAINS SECTION W10

LANDSCAPE DETAILS - 2

L-502

CROWN OF PLANT TO BE 2 INCHES MIN. ABOVE FINISHED GRADE AFTER SETTLING -2-3 INCH DEPTH WOOD CHIP MULCH (PULL

AROUND PLANTING BED

PROPOSED PLANTING LIST TOTAL ID BOTANICAL NAME NOTES/ SPACING COMMON NAME QTY 305 DECIDUOSUS TREES 14 AESCULUS X CARNEA RED HORSECHESTNUT I"-1.5" CAL. BARE ROOT 1"-1.5" CAL. BARE ROOT 1"-1.5" CAL. BARE ROOT 30 AMELANCHIER LEAVIS 'SNOW CLOUD' 10 CARPINUS CAROLINIANA SNOWCLOUD SERVICEBERRY AMERICAN HORNBEAM 15 CERCIS CANADENSIS EASTERN REDBUD 1"-1.5" CAL. BARE ROOT 25 CRATAEGUS CRUS-GALLI VAR. INERMIS
 14 GYMNOCLADUS DIOECIOUS 'ESPRESSO' THORNLESS COCKSPUR HAWTHORN 1"-1.5" CAL. BARE ROOT ESPRESSO KENTUCKY COFFEE TREE 1"-1.5" CAL. BARE ROOT LIRODENDRON TULIPFERA TULIP TREE -1.5" CAL. BARE ROOT 1"-1.5" CAL. BARE ROOT 1"-1.5" CAL. BARE ROOT 1"-1.5" CAL. BARE ROOT 14 MAAKIA AMURENSIS 14 NYSSA SYLVATICA MAAKIA AMURENSIS AMUR MAAKIA BLACK TUPELO PARROTIA PERSICA PERSIAN IRONWOOD 14 PLATANUS X ACERIFOLIA
10 PTELEA TRIFOLATA 1"-1.5" CAL. BARE ROOT 1"-1.5" CAL. BARE ROOT 1"-1.5" CAL. BARE ROOT LONDON PLANETREE COMMON HOPTREE 14 QUERCUS COCCINEA SCARLET OAK 15 QUERCUS PALUSTRIS 1"-1.5" CAL. BARE ROOT 1"-1.5" CAL. BARE ROOT PIN OAK 14 QUERCUS RUBRA RED OAK JAPANESE LILAC TREE 15 SYRINGA RETICULATA 1"-1.5" CAL. BARE ROOT 14 TILLIA CORDATA 'HALKA' 1"-1.5" CAL. BARE ROOT 1"-1.5" CAL. BARE ROOT SUMMER SPRITE LINDEN 14 ULMUS AMERICANA 'NEW HARMONY' NEW HARMONY ELM 30 ZELKOVA SERRATA 1"-1.5" CAL. BARE ROOT ZELKOVA 209 SHRUBS AND PERENNIALS PASSIONATE RETURNS HAPPY EVER APP #1 POT 30 HN HEMEROCALLIS X 'DYNAMITE RETURNS' 48" O.C. STAGGERED 18" O.C. STAGGERED ILEX GLABRA 'SHAMROCK' HAMROCK INKBERRY HOLLY M LIRIOPE MUSCARI RUDBECKIA FULGIDA SULLIVANTII 'GOLDSTURI GOLDSTURM CONEFLOWER 24" O.C. STAGGERED 24" O.C. STAGGERED 18" O.C. STAGGERED SALVIA LYRATA YRELEAF SAGE 54 VC VINCA MINOR COMMON PERIWINKLE SEED MIX ALL UPLAND DISTURBED GENERAL LAWN MIX AREAS

NATIVE CONSERVATION SEED MIX

\* TREES TO BE LOCATED WITHIN WARD 3-1 UNDER THE DIRECTION OF THE WALTHAM TREE WARDEN

MASTER PLANTING SCHEDULE SCALE: N/A

ALL DISTURBED

RESOURCE AREAS



PROPOSED TREE LOCATIONS KEY PLAN SCALE: 1"=1,600'

L-502 H

DRAWING NO.