ARBORIST REPORT & TREE PROTECTION PLAN

PERTAINING TO:	LAND AT THE SOUTHWEST CORNER OF DUGALD RD AT PLESSIS RD ROLL #: 09009871100 WINNIPEG, MB.
PREPARED FOR:	LANDMARK PLANNING & DESIGN INC. WINNIPEG, MB.
PREPARED BY:	FLEAWOOD TREE WORKS 83 LARCHDALE CR. WINNIPEG, MB.
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ISA CERTIFICATION ID #:	PR-5491A
ASSESSMENT DATE:	9-OCT-23
REPORT DATE:	30-OCT-23

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INTRODUCTION

FLEAWOOD TREE WORKS (ISA CERTIFIED ARBORIST®), WAS HIRED BY BRENNAN JOHNSON, OF LANDMARK PLANNING & DESIGN INC. TO COMPLETE AN ARBORIST TREE PRESERVATION REPORT AND PROTECTION PLAN FOR THE PROPOSED DEVELOPMENT AT THE SOUTHWEST CORNER OF DUGALD RD AND PLESSIS RD. A TREE INVENTORY REPORT WAS COMPLETED TO INFORM THE CLIENT OF THE EXISTING SPECIES, SIZE AND CONDITION OF THE TREES ON THE SITE. THE REPORT ALSO PROVIDES PRELIMINARY TREE PRESERVATION RECOMMENDATIONS.

METHOD

1. FLEAWOOD TREE WORKS CONDUCTED A SITE INSPECTION AND TREE ASSESSMENT ON OCTOBER 9, 2023.
2. TRUNK DIAMETER WAS MEASURED USING A CALIBRATED DIAMETER TAPE. THE MEASUREMENT WAS TAKEN AT 1.4 METERS ABOVE GROUND LEVEL, GENERALLY REFERRED TO AS THE DIAMETER AT BREAST HEIGHT (DBH).
3. TREES WERE ASSESSED BY VISUAL INSPECTION FROM THE GROUND. TREES WERE EVALUATED IN CONSIDERATION OF OVERALL HEALTH AND STRUCTURAL INTEGRITY AND ASSIGNED A CONDITION RATING RANGING FROM GOOD TO FAIR TO POOR.
4. A TREE PROTECTION PLAN WAS CREATED BY ADDING TREE LOCATIONS TO A SITE MAP BASED ON A SURVEY AND ARCHITECTURAL DRAWING (PROVIDED BY CLIENT) WITH TREE PROTECTION / REMOVAL COMMENTS. REFER TO DRAWINGS.

TREE PROTECTION - GENERAL

1. PROTECTIVE BARRIERS SHOULD BE INSTALLED AROUND ALL TREES TO BE RETAINED PRIOR TO ANY CONSTRUCTION COMMENCING ON SITE AS SHOWN ON THE TREE PROTECTION PLAN.
2. TREE PROTECTION BARRIERS ARE TO BE LOCATED AT THE OUTER LIMIT OF THE MINIMUM TREE PROTECTION ZONE (TPZ) AND IS CORRELATED TO TRUNK DIAMETER (SEE TABLE BELOW).

SIZE CLASS	TRUNK DIAMETER (DBH)	~ PROTECTION DISTANCES REQUIRED
1	<= 10 CM	4 FT
2	11 - 30 CM	6 FT
3	31 - 40 CM	8 FT
4	41 - 50 CM	10 FT
5	51 - 60 CM	12 FT
6	61 - 70 CM	14 FT
7	71 - 80 CM	16 FT
8	81 - 90 CM	18 FT
9	91 - 100 CM +	20 FT

3. THE TREE PROTECTION BARRIERS ENCLOSE THE TREE PROTECTION ZONE (TPZ), WITHIN WHICH NO CONSTRUCTION-RELATED ACTIVITY SHOULD BE PERMITTED. WITHIN THE TPZ THERE IS TO BE:
   - NO CONSTRUCTION
   - NO ALTERING OF GRADE DUE TO CUT AND FILL, SURFACE SCRAPING, EXCAVATING, OR SOIL DISTURBANCE
   - NO STORAGE OF CONSTRUCTION MATERIALS, SOIL, WASTE, OR DEBRIS
   - NO DISPOSAL OF ANY SOLID OR LIQUID
   - NO PARKING, OPERATION, OR PASSAGE OF VEHICLES OR EQUIPMENT

4. UNLESS OTHERWISE STIPULATED ON THE TREES PROTECTION PLAN, THE BARRIERS ARE TO BE 4 FEET HIGH, AND CONSTRUCTED OF HIGH ORANGE PLASTIC WEB SNOW FENCING ON A WOOD FRAME OR A COMPARABLY ADEQUATE FENCING SOLUTION. SUPPORTS AND BRACES FOR THE BARRIERS MUST BE INSTALLED OUTSIDE THE TPZ. THE BARRIER LOCATIONS CAN BE ADJUSTED TO ALIGN WITH CURBS AND EDGES AT CLEAR PATH OF TRAVEL ZONES. 6' CONSTRUCTION FENCING IS AN ACCEPTABLE FENCING ALTERNATIVE.

5. TREE STRAPPING MATERIAL WILL BE INSTALLED ON INDIVIDUAL TREES WHERE WORK WILL BE COMPLETED WITHIN THE TPZ.

IF CONSTRUCTION WITHIN THE IDEAL TPZ DOES OCCUR THERE ARE FURTHER MEASURES THAT SHOULD BE TAKEN TO PREVENT SOIL COMPACTION AND TRUNK DAMAGE,SUCH AS THE USE OF MULCH OR ACCESS MATS / GROUND PROTECTION MATTS TO REDUCE SOIL COMPACTION. CONSULT WITH YOUR ARBORIST.

AS DESCRIBED ABOVE, FENCING / PROTECTION LOCATIONS HAVE BEEN PRESCRIBED FOR SIX ZONES. PRIOR TO ANY WORK ON THE SITE, TREE PROTECTION FENCING SHOULD BE INSTALLED PER THE LOCATIONS SHOWN ON THE SITE MAP.

TREE INVENTORY

1. TREE-BY-TREE INVENTORY AND CONDITION RATINGS (ZONE A ONLY - REFER TO SITE MAP ON PAGE 9). ALL MEASUREMENTS NOTED ARE RADIUSES FROM CENTER OF TREE.
2. FOREST TREE INVENTORY CONDUCTED FOR NATURALIZED AREAS (ZONES B + C). TREE TOTALS (CONDITION FAIR OR BETTER) BY SIZE (DBH) AND SPECIES.
3. 'VOLUNTEER' TREES (INCLUDING MULTI-STEM TREES) < 6 CM DBH ARE NOT INCLUDED IN THIS INVENTORY.

GLOSSARY OF TERMS

DBH: TRUNK DIAMETER AT BREAST HEIGHT

DIAMETER AT BREAST HEIGHT, OR DBH, IS A STANDARD METHOD OF EXPRESSING THE DIAMETER (1.3M ABOVE GRADE) OF THE TRUNK OF A STANDING TREE.

SRZ: STRUCTURAL ROOT ZONE (ROOT PLATE)

THE WOODY ROOTS, VISIBLE FROM THE TRUNK, ALSO KNOWN AS THE ROOT PLATE. THESE ROOTS ANCHOR THE TREE AND CREATE STABILITY. DAMAGE TO THESE ROOTS LEAD TO CATASTROPHIC FAILURE OF THE TREE.

CRZ: CRITICAL ROOT ZONE

ZONE IN WHICH THE FIBROUS ROOTS, JUST BELOW THE SURFACE, SPREAD TO. OFTEN TIMES CAN EXTEND TWO TO THREE TIMES PAST THE EXTENT OF THE CANOPY.

RPZ: ROOT PROTECTION ZONE

THE ECOLOGICAL ROOT PRINT AREA IN AN UNCONSTRAINED LANDSCAPED SETTING. LIMITED DISTANCE TO ENCHROACHMENT UNDER IDEAL CIRCUMSTANCES.

TPZ: TREE PROTECTION ZONE

THE ZONE IN WHICH NO CONSTRUCTION RELATED ACTIVITY SHOULD TAKE PLACE - THESE ZONES CAN INCLUDE INDIVIDUAL TREES, OR MULTIPLE TREES.

MPA: MINIMUM PROTECTION AREA

THE OUTER LIMIT OF THE TREE PROTECTION ZONE WHERE TREE PROTECTION BARRIERS ARE TO BE PLACED.

ROOT ZONE ESTIMATES BASED ON CITY OF WINNIPEG GUIDELINES.

OVERALL HEALTH AND CONDITION RATINGS

EXCELLENT:	TREE IS OF GREAT QUALITY, AND / OR SIZE, WITH NO DISCERNIBLE DEFECTS.
GOOD:	TREES ARE AVERAGE OR ABOVE AVERAGE, CONSIDERING ITS GROWING ENVIRONMENT AND SPECIES.
FAIR:	TREES HAVE REDUCED VIGOUR AND MAY SHOW MINOR HEALTH DEFECTS OR STRUCTURAL ISSUES.
POOR:	THESE TREES ARE IN SERIOUS DECLINE FROM ITS TYPICAL GROWTH HABITS, WITH MULTIPLE HEALTH AND/OR STRUCTURAL DEFECTS.
DEAD:	THE ZONE IN WHICH NO CONSTRUCTION RELATED ACTIVITY SHOULD TAKE PLACE - THESE ZONES CAN INCLUDE INDIVIDUAL TREES, OR MULTIPLE TREES.

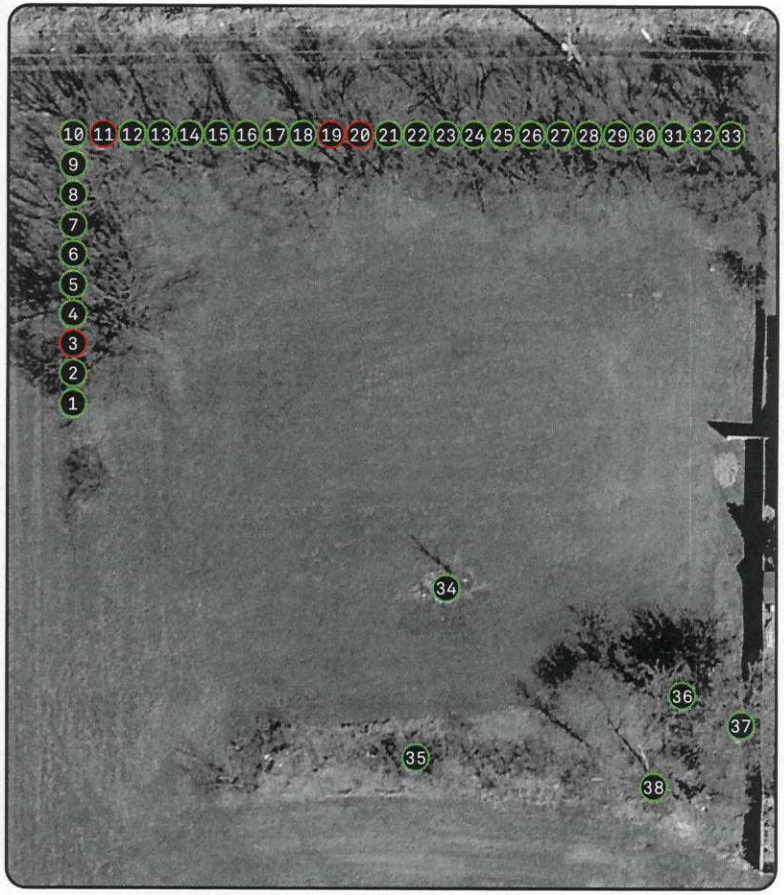
TREE RETENTION SUITABILITY RATINGS

SUITABLE:	THESE TREES HAVE NO OBVIOUS STRUCTURAL DEFECTS OR HEALTH ISSUES, AND SHOULD BE CONSIDERED FOR RETENTION IN THE PROPOSED DEVELOPMENT.
UNSUITABLE:	NOT SUITABLE FOR RETENTION DUE TO THE PROPOSED DESIGN AND/OR TREES HAVE PRE-EXISTING HEALTH AND STRUCTURAL DEFECTS AND MAY BECOME A HAZARD GIVEN THE PROPOSED LAND USE.

ZONE A: TREE-BY-TREE INVENTORY

PARCEL / ROLL#: 09009871100 (ZONE A)								
TREE NO.	COMMON NAME	CONDITION	DBH (CM)	SRZ (FT)	CRZ (FT)	TPZ	MPA (FT)	SUITABILITY
1	PEACHLEAF WILLOW	GOOD	54	10	27	-	-	TBD
2	PEACHLEAF WILLOW	GOOD	70	13	36	-	-	TBD
3	PEACHLEAF WILLOW	DEAD	0	0	0	-	-	TBD
4	PEACHLEAF WILLOW	GOOD	38	7	19	-	-	TBD
5	PEACHLEAF WILLOW	GOOD	25	4	12	-	-	TBD
6	PEACHLEAF WILLOW	GOOD	25	4	12	-	-	TBD
7	PEACHLEAF WILLOW	GOOD	39	7	19	-	-	TBD
8	PEACHLEAF WILLOW	GOOD	40	7	20	-	-	TBD
9	PEACHLEAF WILLOW	GOOD	57	10	28	-	-	TBD
10	PEACHLEAF WILLOW	GOOD	34	6	17	-	-	TBD
11	PEACHLEAF WILLOW	DEAD	32	6	16	-	-	TBD
12	PEACHLEAF WILLOW	GOOD	16	3	8	-	-	TBD
13	PEACHLEAF WILLOW	GOOD	50	9	25	-	-	TBD
14	PEACHLEAF WILLOW	GOOD	41	7	20	-	-	TBD
15	PEACHLEAF WILLOW	GOOD	40	7	20	-	-	TBD
16	PEACHLEAF WILLOW	GOOD	40	7	20	-	-	TBD
17	PEACHLEAF WILLOW	GOOD	46	8	23	-	-	TBD
18	PEACHLEAF WILLOW	GOOD	25	4	12	-	-	TBD
19	PEACHLEAF WILLOW	GOOD	0	0	0	-	-	TBD
20	PEACHLEAF WILLOW	DEAD	0	0	0	-	-	TBD
21	PEACHLEAF WILLOW	DEAD	31	5	15	-	-	TBD
22	PEACHLEAF WILLOW	GOOD	30	5	15	-	-	TBD
23	PEACHLEAF WILLOW	GOOD	27	5	13	-	-	TBD
24	PEACHLEAF WILLOW	GOOD	21	4	10	-	-	TBD
25	PEACHLEAF WILLOW	GOOD	24	4	12	-	-	TBD
26	PEACHLEAF WILLOW	GOOD	38	7	19	-	-	TBD
27	PEACHLEAF WILLOW	GOOD	28	5	14	-	-	TBD
28	PEACHLEAF WILLOW	GOOD	36	6	18	-	-	TBD
29	PEACHLEAF WILLOW	GOOD	30	5	15	-	-	TBD
30	PEACHLEAF WILLOW	GOOD	65	12	32	-	-	TBD
31	PEACHLEAF WILLOW	GOOD	30	5	15	-	-	TBD
32	PEACHLEAF WILLOW	GOOD	27	5	13	-	-	TBD
33	PEACHLEAF WILLOW	GOOD	21	4	10	-	-	TBD
34	AMERICAN ELM	GOOD	14	2	7	-	-	TBD
35	AMERICAN ELM	GOOD	21	4	10	-	-	TBD
36	AMERICAN ELM	GOOD	22	4	11	-	-	TBD
37	AMERICAN ELM	GOOD	44	8	22	-	-	TBD
38	MANITOBA MAPLE	GOOD	14	2	7	-	-	TBD

EXISTING SITE AND TREE CONDITION RATINGS



LEGEND

- GOOD
- FAIR
- POOR / DEAD

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SUMMARY

ZONE A
38 TREES WERE IDENTIFIED IN THIS ZONE. THE TREES ARE IN 'GOOD' CONDITION THREE TREES WERE FOUND TO BE DEAD OR SEVERELY DECLINING. THIS ZONE IS PRIMARILY COMPRISED OF PEACHLEAF WILLOW FORMING A WINDBREAK ON THE NORTH SIDE ALONG DUGALD RD AND THE WEST SIDE ALONG THE ADJACENT PROPERTY. ADDITIONALLY, THERE FOUR AMERICAN ELM AND A ONE MANITOBA MAPLE WERE IDENTIFIED IN THIS ZONE. THERE ARE SOME SIGNS OF DECLINE WITHIN THE LOWER CANOPY OF THE WILLOWS ATTRIBUTABLE TO THE PROXIMITY OF PLANTING AND REDUCED EXPOSURE TO SUNLIGHT.

ZONE B
77 TREES WERE IDENTIFIED IN THIS FORESTED ZONE, PRIMARILY CONSIDERED TO BE IN 'FAIR' CONDITION. 22 TREES WERE FOUND TO BE DEAD / DECLINING. THE DECLINE OF THE TREES IN THIS ZONE IS LIKELY ATTRIBUTED TO THE COMPOSITION OF THE FOREST FLOOR BEING COVERED IN DEBRIS, EXCESSIVE AMOUNTS OF BRUSH, FOLIAGE, AND GRASS CUTTINGS, AND VARIOUS FORMS OF GARBAGE INCLUDING STEEL, CONCRETE, AND A VARIETY OF OTHER MATERIALS. THIS ZONE IS PRIMARILY COMPOSED OF MANITOBA MAPLES AND SECONDARILY OF POPLAR AND AMERICAN ELM.

ZONE C
365 TREES WERE IDENTIFIED IN THIS FORESTED ZONE (ALL TREES IN THIS ZONE FALL WITHIN 2.4M OF THE DEVELOPMENT EXTENT), PRIMARILY CONSIDERED TO BE IN 'GOOD' CONDITION. 69 TREES WERE FOUND TO BE DEAD / DECLINING. THIS ZONE IS PRIMARILY COMPOSED OF POPLARS RANGING FROM 5 TO 17.5 CM IN DIAMETER SECONDARILY CONTAINS 'VOLUNTEER' MULTI-STEM WILLOWS THAT LINE THE EAST FOREST EDGE.

ZONE D
THIS ZONE WAS NOT INVENTORIED. THERE ARE ESTIMATED TO BE 1750 - 2250 TREES BASED ON LAND AREA AND DENSITY OF TREES (DENSITY COMPARABLE TO ZONE C). THIS PORTION OF FOREST SITS OUTSIDE OF THE DEVELOPMENT AREA AND PRIMARILY CONSISTS OF POPLAR TREES RANGING FROM 5 TO 17.5 CM IN DIAMETER. OTHER VEGETATION AND WILDLIFE IDENTIFIED IN THIS ZONE INCLUDE: RED OSIER DOGWOOD, HONEYSUCKLE, WILD ROSE, SPAGNA MOSS, LILIES, DAISIES, GOLDENROD, DEER, BLUE JAYS, WOODPECKERS, AND CHICKADEES WERE OBSERVED AT THE TIME OF INSPECTION.

TREE PROTECTION - SPECIFIC RECOMMENDATIONS

SPECIFIC TREE PROTECTION RECOMMENDATIONS TO BE FINALIZED ONCE THE PROPOSAL AS THE DESIGN PROPOSAL PROGRESSES. ZONE D SHOULD BE TREATED AS A SINGLE TREE PROTECTION ZONE (TPZ) ANDS ADHERE TO THE GENERAL PROTECTION RECOMMENDATIONS ON PAGES 2 AND 3 OF THIS REPORT. A MINIMUM PROTECTION AREA OF 3 METERS IS RECOMMENDED ON ALL SIDES OF THE TPZ THAT DELINEATE THE DEVELOPMENT EXTENT.

UNSURVEYED TREES

TREES THAT ARE NOT LOCATED ON THE BUILDING LOCATION CERTIFICATE ARE PLOTTED FOR APPROXIMATE LOCATION ONLY. THERE LOCATION AND OWNERSHIP CANNOT BE CONFIRMED WITHOUT BEING SURVEYED. THE PROPERTY OWNER OR PROPERTY DEVELOPER MUST ENSURE OWNERSHIP BASED ON LEGALLY SURVEYED BOUNDARIES.

REMOVAL OF LOGS FROM SITE

FIREWOOD OF ANY SPECIES IS PROHIBITED FROM LEAVING THE CITY OF WINNIPEG. ELM WOOD MAY NOT BE STORED UNLESS IT HAS BEEN DEBARKED, CHIPPED, OR HEAT TREATED. ELM WOOD SHOULD ONLY BE MOVED IF IT IS BEING TAKEN TO A DISPOSAL SITE (USUALLY, THE LOCAL LANDFILL). FOR MORE INFORMATION ON LAWS SURROUNDING FIREWOOD AND TRANSPORTING WOOD PLEASE REFER TO: THE FOREST HEALTH PROTECTION ACT AND REGULATIONS CANADIAN FOOD INSPECTION AGENCY - PLANT PROTECTION ACT: *HTTPS://WEB2.GOV.MB.CA/LAWS/STATUTES/CCSM/F151E.PHP*

TREE PRUNING

HEAVY MACHINERY (EXCAVATORS, CRANES, LOADERS, CONCRETE TRUCKS, DUMP TRUCKS, ETC.) WORKING WITHIN FIVE METERS OF A TREES CANOPY SHOULD BE MADE AWARE OF THEIR PROXIMITY TO THE TREE. PRUNING SHOULD BE PRESCRIBED WHERE THERE ARE CONCERNS RELATED TO CLEARANCE REQUIRED FOR ANY MACHINERY AND WORKERS WITHIN THE TREE PROTECTION ZONE. ANY WOUNDS SHOULD BE MADE KNOWN SO THAT CORRECTIVE ACTION CAN OCCUR AND MITIGATE FUTURE DAMAGE TO THE TREES.

PAVING NEAR TREES

IF THE PROPOSAL INCLUDES PAVED AREAS AND/OR RETAINING WALLS CLOSE TO THE PROPOSED TREE PROTECTION ZONES, MEASUREMENTS SHOULD BE TAKEN TO MINIMIZE THE IMPACT ON THE HEALTH OF THE TREES. THESE TYPES OF CONSTRUCTION CAN REDUCE QUALITY OF AERATION, DRAINAGE, IRRIGATION, AND SOIL VOLUME FOR SUFFICIENT ROOT GROWTH. STEPS THAT CAN BE TAKEN TO MINIMIZE THE IMPACT INCLUDE:

- ANY EXCAVATION NEAR THE TPZ SHOULD BE MONITORED BY AN ARBORIST
- EXCAVATION SHOULD DISTURB AS LITTLE OF THE ROOT ZONE AS POSSIBLE AND ANY ROOTS GREATER THAN 1" IN DIAMATER SHOULD BE HAND PRUNED

PUBLIC TREES

ANY CONSTRUCTION RELATED ACTIVITY OCCURING NEAR THE PUBLIC BOULEVARD TREE MUST ADHERE TO ALL TREE PROTECTION RECOMMENDATIONS AS OUTLINED IN THE TREE PLANTING DETAILS & SPECIFICATIONS DOCUMENT - SECTION 5.0 - TREE PROTECTION DURING CONSTRUCTION: *HTTPS://WINNIPEG.CA/PUBLICWORKS/PARKSOPENSPACE/URBANFORESTRY/PDF/PRINCIPLES_AND_GUIDELINES.PDF*

ANY WORK REQUIRED ON A CITY OWNED TREE REQUIRES THE FOLLOWING FORM TO BE COMPLETED AND SUBMITTED TO THE CITY OF WINNIPEG URBAN FORESTRY BRANCH:

AGREEMENT FOR CONTRACTORS TO PERFORM ARBORICULTURAL SERVICES ON TREES UNDER CONTROL OF THE URBAN FORESTRY BRANCH: *HTTPS://WINNIPEG.CA/PUBLICWORKS/PARKSOPENSPACE/URBANFORESTRY/PDF/AGREEMENT_FOR_CONTRACTORS_AUGUST_2016.PDF*

WATERING OF TREES

IT IS EXTREMELY IMPORTANT TO REGULARLY MONITOR THE SOIL MOISTURE LEVELS WITHIN THE ROOT ZONES OF THE TREES DURING THE MONTHS FROM APRIL TO NOVEMBER, AND TO ENSURE ADEQUATE SUPPLEMENTAL WATERING IS DONE PROMPTLY AS NECESSARY. THE OBJECTIVE OF THE WATERING IS TO PROVIDE THE TREES WITH DEEP, THOROUGH WATERING WHEN RAINFALL IS INSUFFICIENT TO KEEP THE SOIL MOIST 2" BELOW THE SURFACE. IT IS STRONGLY RECOMMENDED THAT AN INDIVIDUAL WHO WILL BE ON-SITE FOR THE DURATION OF THE PROJECT BE ASSIGNED THIS RESPONSIBILITY AND BE GIVEN CLEAR INSTRUCTION ON HOW TO CHECK MOISTURE LEVELS, HOW AND WHERE TO APPLY THE WATER AND HOW MUCH.

FERTILIZATION

DEEP ROOT FERTILIZATION CAN BE COMPLETED TO ENCOURAGE GROWTH AND INCREASE VIGOR. FERTILIZERS SHOULD BE APPLIED IN EARLY SPRING JUST BEFORE GROWTH OCCURS. LATE SUMMER FERTILIZING IS NOT RECOMMENDED, AS IT WILL ENCOURAGE SUCCULENT GROWTH, WHICH WILL BE MORE PRONE TO WINTER INJURY.

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CONTACT

FOR ANY QUESTIONS CONCERNING CITY-OWNED TREES, PLEASE CONTACT THETHE CITY OF WINNIPEG.

FOR ANY QUESTIONS REGARDING THIS REPORT, PLEASE CONTACT:

COREY DOUCETTE

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CERT ID# PR-5491A

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