

**LAP + CREATIVE**  
Landscape Architects and Planners

OAKLAND CENTER  
809 CENTER STREET  
SUITE ONE  
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REVISIONS	DATE	COMMENTS
INITIALS		
REV1	1/19/2022	BUILDING MOD & SPA COMMENTS

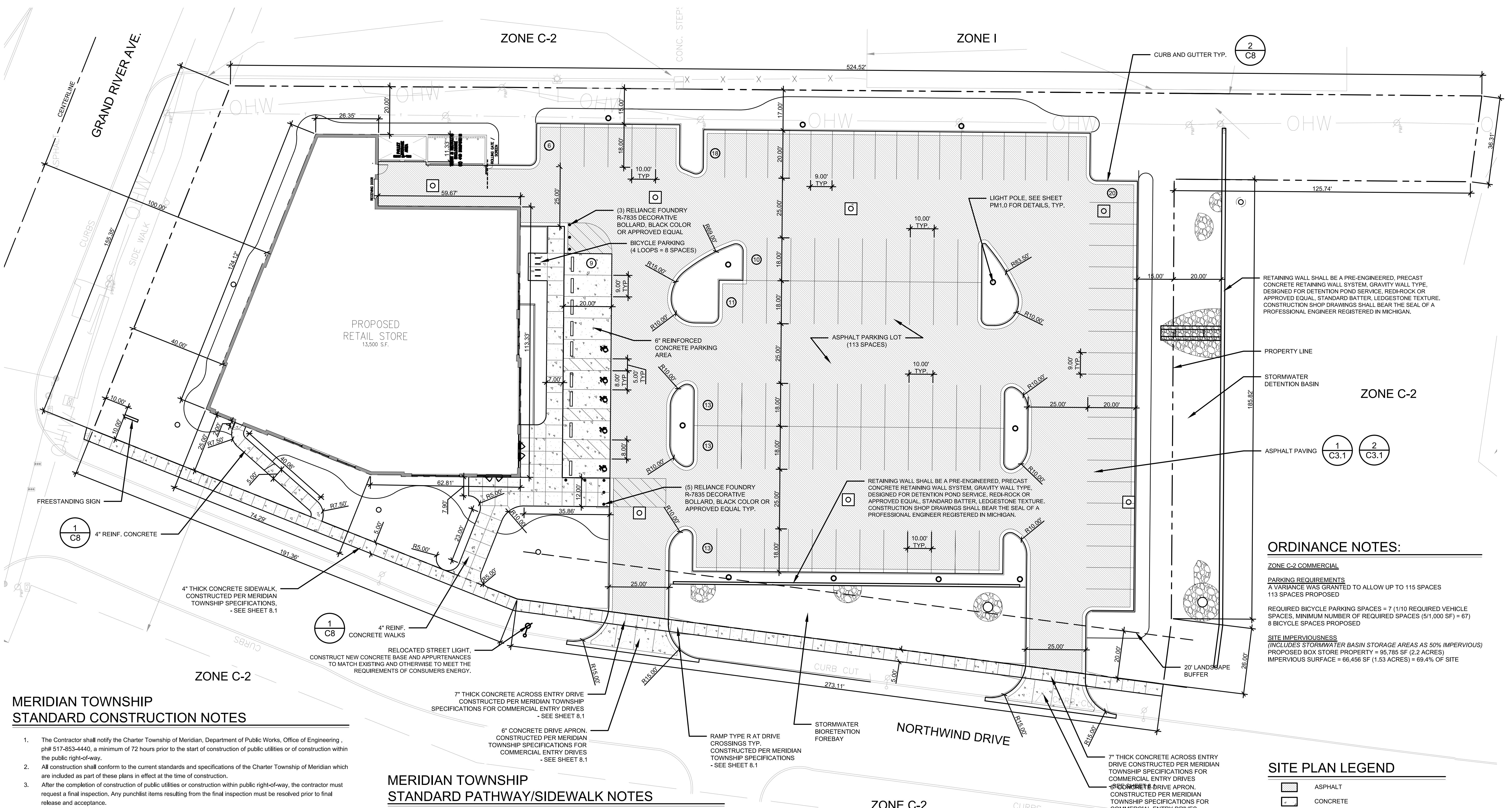
**SH G2755, LLC**

# 120  
5030 NORTHWIND DR.  
EAST LANSING, MI 48823  
P: (917) 863-3300

NORTHWIND BOX STORE  
**SITE LAYOUT PLAN**

DATE: 1/17/2022 REVIEW  
DESIGNED BY: NRW  
CHECKED BY: REF  
DRAWN BY: NRW  
PROJECT NO. 21023  
SCALE:  
HORIZ.: 1"=20'  
VERT.: 1"=20'

**SHEET**  
C3



**MERIDIAN TOWNSHIP  
STANDARD CONSTRUCTION NOTES**

- The Contractor shall notify the Charter Township of Meridian, Department of Public Works, Office of Engineering, p# 517-853-4440, a minimum of 72 hours prior to the start of construction of public utilities or of construction within the public right-of-way.
- All construction shall conform to the current standards and specifications of the Charter Township of Meridian which are included as part of these plans in effect at the time of construction.
- After the completion of construction of public utilities or construction within public right-of-way, the contractor must request a final inspection. Any punchlist items resulting from the final inspection must be resolved prior to final release and acceptance.
- The existing utilities indicated on the plans are in accordance with available information. It shall be the contractor's obligation to verify the exact location of all existing utilities, which might affect this job.
- The contractor shall notify "MISS DIG" 1-800-482-7171 at least 72 hours prior to the start of construction.
- The contractor shall at all times be aware of inconvenience caused to the abutting property owners and the general public. Where the contractor does not remedy undue inconveniences, the Meridian Charter Township, upon four hours notice, reserves the right to perform the work and deduct the cost therefrom from the money due the contractor.
- A Registered Land Surveyor provided by the contractor at the contractor's expense shall replace all property irons and monuments disturbed or destroyed by the contractor's operations.
- Contractor shall provide Owner and Township Engineer a copy of written permission to use private property for storage of equipment and materials or for his construction operations.
- Trench backfill under existing or proposed roadways, driveways, and parking areas, shall be sand or gravel, placed in 12" layers (maximum) and consolidated to 95% of maximum density as measured by modified proctor unless otherwise noted.
- Trees and shrubs are to be protected during construction and bared where necessary.
- Existing fences shall be removed and restored to their original condition or better where in conflict with construction.
- Driveways, culverts, ditches, drain tile, tile fields, drainage structures, etc., that are disturbed by the contractor's operations shall be immediately restored.
- All established lawn areas disturbed by the contractor's operations shall be resodded with matching sod. All other areas shall be seeded and mulched. Seeding and mulching shall be done in accordance with the General Specifications.
- All ditch slopes shall have established vegetation and be protected from erosion.
- All utility poles in close proximity to construction shall be supported in a manner satisfactory to the utility owner.
- Prior to acceptance of the public utility, one complete set of acceptable sealed as-built mylars, minimum 3 mills thick, and one diskette (AutoCAD format) of the site plans shall be submitted to the Office of Engineering.
- Onsite parking and sanitary facilities shall be provided for construction workers. The facilities shall be constructed and operated (with minimal impact to the surrounding area) to the satisfaction of the Township.

**MERIDIAN TOWNSHIP  
STANDARD PATHWAY/SIDEWALK NOTES**

- Sidewalk - 5' (minimum) wide concrete 4" thick, 6" thick through single family residential driveways, 7" thick through multi-family residential and commercial driveways on 3" compacted sand backfill. To maintain continuity, all 4" wide concrete sidewalks shall be replaced with new 4" wide concrete sidewalk when appropriate.
- Pathways - (adjacent to roadways) - 7' (minimum) (8' when next to a wall or other object) wide concrete, 4" thick, 6" thick through residential driveways, 7" thick through commercial driveways on 3" compacted sand backfill.
- Pathways - (off-road) - 8' (minimum) wide concrete, 6" thick concrete on 3" compacted sand backfill or 8' (minimum) wide asphalt 3" thick (Bituminous Mixture 1500T/L) on 6" of 21AA crushed limestone (minimum 9' wide).
- Sidewalks and pathways shall generally be placed 1' (one) foot from the ultimate right-of-way as identified on the "Street and Highway Plan". Contact the Department of Planning and Community Development for a current copy of the plan.
- A boardwalk may be required to be installed instead of a standard concrete sidewalk/pathway if regulations do not allow their installation.
- Pathways and sidewalks shall be constructed so as to promote proper positive surface drainage. Where ever possible the sidewalk/pathway shall be constructed 0.5" higher than the curb.
- Retaining walls shall only be installed where all other efforts (offset grading easements, tree relocation, etc.) to mitigate the need for such wall have been evaluated for cost effectiveness and dismissed.
- Guardrails and handrails shall be installed where the slopes adjacent to the pathway/sidewalk cannot be constructed to 1" vertical for every 3" horizontal. The depth to the toe of the slope area will be considered when implementing this requirement.
- Pathways or sidewalks that do not connect to an existing pathway/sidewalk shall provide a gradual transition to existing ground. A "path ends" sign shall be posted at all pathway/sidewalk termini.
- Maximum slope of sidewalk is 5%. Cross slope is 2%.
- All existing bituminous and concrete to be removed shall be sawcut.
- Expansion joint to be placed at 100' intervals.
- All lumber to be pressure treated (Osmose 33 or equal) to 0.4 retention.

**SITE PLAN NOTES:**

- ALL MEASUREMENTS ARE SHOWN IN ENGLISH DIMENSIONS.
- CONTRACTOR TO PROVIDE ALL TRAFFIC CONTROL REQUIRED TO COMPLETE THIS PROJECT. TRAFFIC CONTROL SHALL MEET CURRENT MMUTCD AND ROAD COMMISSION STANDARDS.
- CONTRACTOR IS RESPONSIBLE FOR ALL STAKING AND LAYOUT FOR THIS PROJECT. THIS INCLUDES ESTABLISHMENT OF A BENCHMARK AS REQUIRED FOR CONSTRUCTION.
- ALL QUANTITIES ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD PRIOR TO BIDDING.
- ALL EXISTING UTILITIES TO REMAIN AND BE PROTECTED DURING CONSTRUCTION UNLESS CALLED OUT TO BE REMOVED.
- CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES, AS WELL AS THE LOCATION OF EXISTING TREES AND VEGETATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COST INCURRED DUE TO DAMAGE/REMOVAL OF SAID ELEMENTS.
- ANY DISCREPANCIES BETWEEN PLANS, NOTES, WRITTEN SPECIFICATIONS, DETAILS AND EXISTING CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE OWNER'S AUTHORIZED REPRESENTATIVE FOR REVIEW AND DECISION. CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING STRUCTURES, MATERIALS/IMPROVEMENTS, UTILITIES DAMAGED DURING CONSTRUCTION.

**SITE PLAN LEGEND**

- ASPHALT
- CONCRETE
- STONE RIPRAP
- CURB AND GUTTER

**ORDINANCE NOTES:**

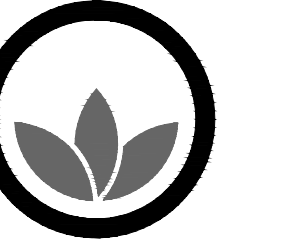
**ZONE C-2 COMMERCIAL**  
A VARIANCE WAS GRANTED TO ALLOW UP TO 115 SPACES  
113 SPACES PROPOSED  
REQUIRED BICYCLE PARKING SPACES = 7 (1/10 REQUIRED VEHICLE SPACES, MINIMUM NUMBER OF REQUIRED SPACES (5/1,000 SF) = 67)  
8 BICYCLE SPACES PROPOSED  
**SITE IMPERVIOUSNESS**  
(INCLUDES STORMWATER BASIN STORAGE AREAS AS 50% IMPERVIOUS)  
PROPOSED BOX STORE PROPERTY = 95,785 SF (2.2 ACRES)  
IMPERVIOUS SURFACE = 66,456 SF (1.53 ACRES) = 69.4% OF SITE

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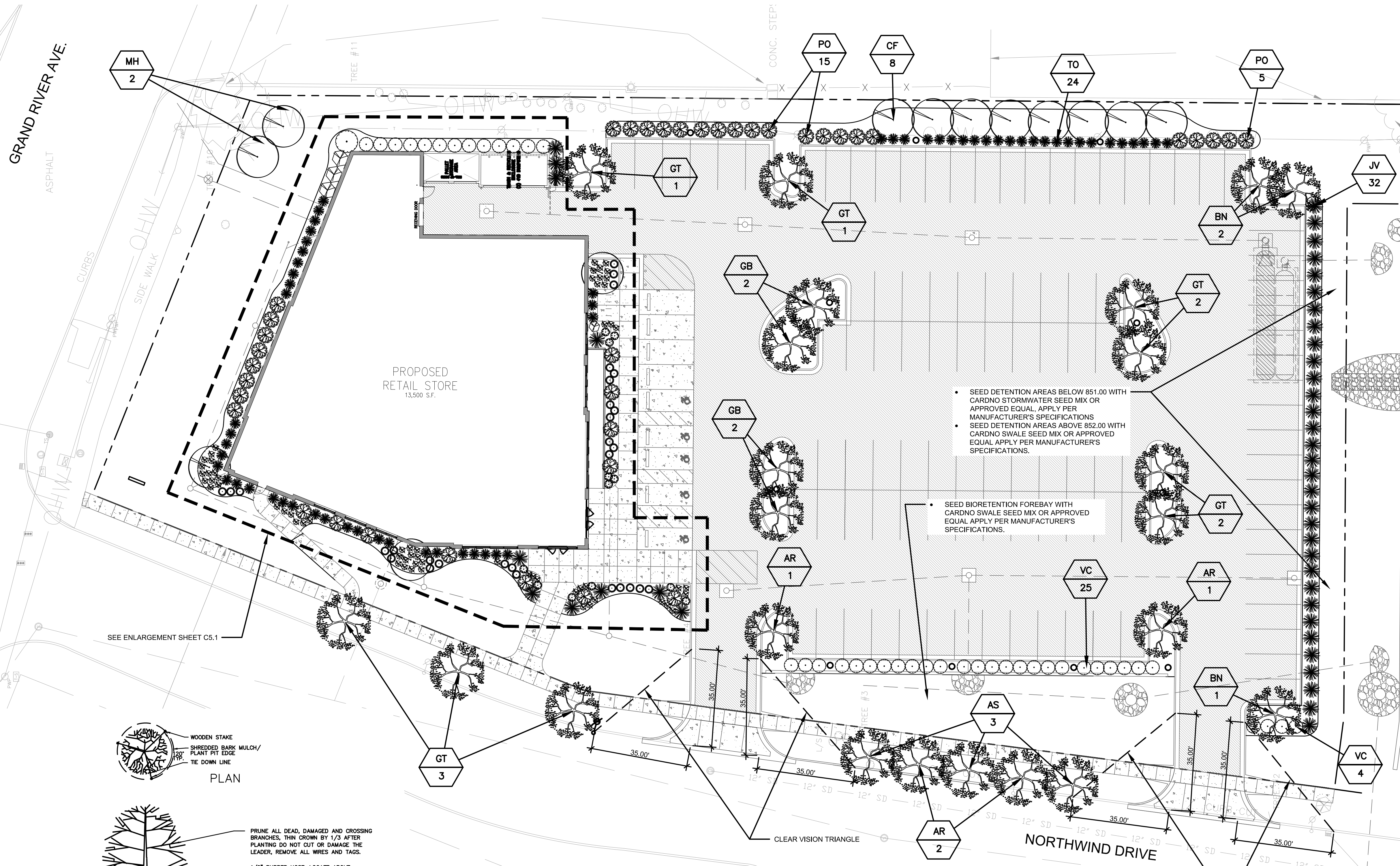
Know what's below.  
Call before you dig.

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**LANDSCAPE NOTES:**

- INSTALL 3" X 12 GA. EDGING TO SEPARATE LAWN FROM PLANTING BED. (AROUND SHRUBS ONLY)
- INSTALL 3" DEEP SHREDDED BARK MULCH TO ALL PLANTING AREAS / BEDS / WETLAND AREAS.
- CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES, AS WELL AS THE LOCATION OF EXISTING TREES AND VEGETATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COST INCURRED DUE TO DAMAGE/REMOVAL OF SAID ELEMENTS.
- ANY DISCREPANCIES BETWEEN PLANS, NOTES, DETAILS AND EXISTING CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE OWNER'S AUTHORIZED REPRESENTATIVE FOR REVIEW AND DECISION. CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING MATERIALS/IMPROVEMENTS, DAMAGED DURING CONSTRUCTION.
- SITE BOUNDARY, TOPOGRAPHY, UTILITIES AND OTHER BASE INFORMATION PROVIDED BY OTHERS.
- CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON PLANT SCHEDULES AND THOSE INDICATED ON PLANS. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF QUANTITIES DRAWN.
- CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO PLANT MATERIAL LOCATIONS IN FIELD, AS NECESSARY. THE LOCATION OF ALL PLANT MATERIAL SHALL BE SUBJECT TO APPROVAL BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
- ALL PLANT MATERIAL SHALL BE OF THE SIZES CALLED FOR IN THE PLANT SCHEDULES. ANY PLANT MATERIAL NOT MEETING THE SIZED AND/OR QUALITY AS CALLED FOR SHALL BE REMOVED FROM SITE. ALL TREES SHALL BE INSPECTED AND APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE. NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE MADE WITHOUT APPROVAL FROM THE OWNER'S AUTHORIZED REPRESENTATIVE.
- CONTRACTOR SHALL DETERMINE APPROPRIATE PLANTING BACKFILL MIXES (BASED ON SOILS/SUBSURFACE CONDITIONS) AND REVIEW ALTERNATIVES WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION.
- CONTRACTOR TO INCLUDE COST OF ALL MULCH IN THE COST OF THE PLANT MATERIAL.

SEED DETENTION AREAS BELOW 851.00 WITH CARDNO STORMWATER SEED MIX OR APPROVED EQUAL. APPLY PER MANUFACTURER'S SPECIFICATIONS.  
SEED DETENTION AREAS ABOVE 852.00 WITH CARDNO SWALE SEED MIX OR APPROVED EQUAL APPLY PER MANUFACTURER'S SPECIFICATIONS.

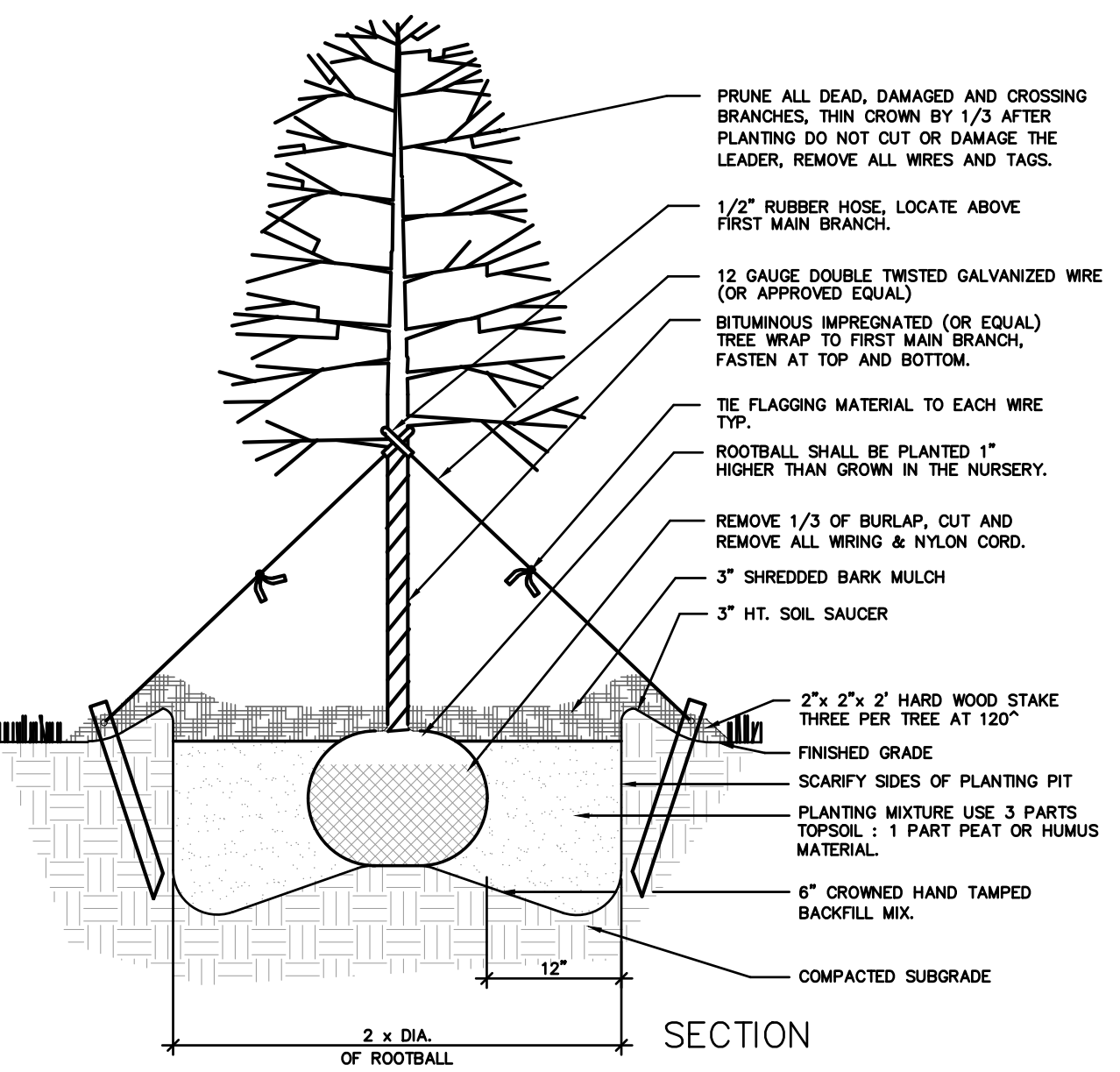
SEED BIORETENTION FOREBAY WITH CARDNO SWALE SEED MIX OR APPROVED EQUAL APPLY PER MANUFACTURER'S SPECIFICATIONS.

**ORDINANCE REQUIREMENTS**

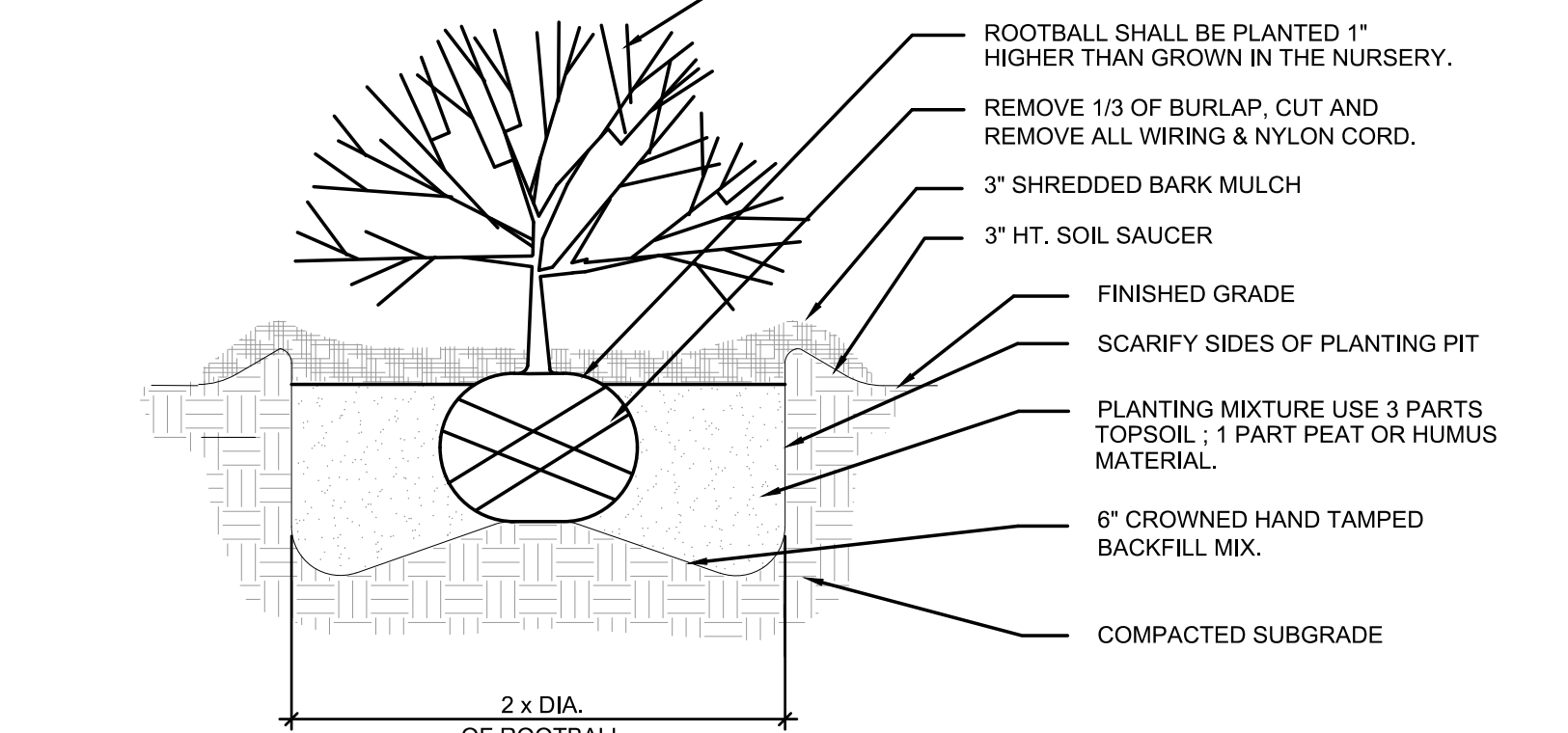
INTERIOR LANDSCAPING: A MINIMUM OF TWO CANOPY TREES SHALL BE PROVIDED FOR EVERY 10 PARKING SPACES.	115 SPACES / 5 = 23 CANOPY TREES REQUIRED 23 CANOPY TREES PROPOSED
LANDSCAPED AREAS SHALL BE PROVIDED THROUGHOUT THE PARKING AREA IN THE AMOUNT OF 200 SQUARE FEET FOR EACH 10 PARKING SPACE	(115 SPACES / 10) x 200 = 2,300 SF REQUIRED 2,700 SF PROVIDED
REQUIRED STREET TREES: FRONTAGE 150-200 = 3 REQUIRED FRONTAGE 200-250 LF = 4 +1 FOR EVERY 50 FEET OVER 250 FEET	NORTHWIND FRONTAGE: 465 LF = 8 REQUIRED STREET TREES 8 STREET TREES PROPOSED GRAND RIVER FRONTAGE: 155 LF = 3 REQUIRED STREET TREES 3 TOTAL PROVIDED (2 PROPOSED, 1 EXISTING)

**SEEDING NOTES:**

- SEED ALL NON NATIVE DISTURBED AREAS UNLESS OTHERWISE NOTED WITH:  
EARTH CARPET QUICK TO GROW LAWN SEED MIXTURE  
25% PERENNIAL RYEGRASS  
25% KENTUCKY BLUEGRASS  
25% ANNUAL RYEGRASS  
25% CREEPING RED FESCUE
- APPLY AT THE RATE OF 5-6 POUNDS PER 1,000SF
- MULCH BLANKETS SHALL BE USED ON ALL SLOPES 20% OR GREATER AND WITHIN STORMWATER DETENTION AREAS.



**1 TREE PLANTING DETAIL**  
SCALE: NTS



**2 SHRUB PLANTING DETAIL**  
SCALE: NTS

**PLANT SCHEDULE (THIS SHEET)**

Qty.	ID	Botanical Name	Common Name	Size	Desc
4	AR	ACER RUBRUM	RED MAPLE	2" MIN. CAL.	
3	AS	ACER SACHARUM	SUGAR MAPLE	2" MIN. CAL.	
3	BN	BETULA NIGRA	RIVER BIRCH	2" MIN. CAL.	
8	CF	CORNUS FLORIDA	FLOWERING DOGWOOD	2" MIN. CAL.	WHITE FLOWER VARIETY
4	GT	GINKGO BILOBA	GINKGO	2" MIN. CAL.	MALE SPECIMEN
9	GB	GLEDITSIA TRIACANTHOS 'INERMIS'	THORNLESS HONEYLOCUST	2" MIN. CAL.	
32	JV	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	6" MIN. HT.	
2	MH	MALUS HUPHENSIS	TEA CRABAPPLE	2" MIN. CAL.	
20	PO	PHYSOCARPUS OPULIFOLIUS	NINEBARK	30" MIN. HT.	PURPLE LEAF VARIETY
24	TO	THUJA OCCIDENTALIS 'GLOBOSA'	GLOBE ARBORVITAE	30" MIN. HT.	GLOBE FORM
29	VC	VIBURNUM CARLESII	KOREAN SPICE VIBURNUM	30" MIN. HT.	

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LANDSCAPE PLAN

DATE: 11/29/2021 SPA  
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PROJECT NO. 21023  
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