

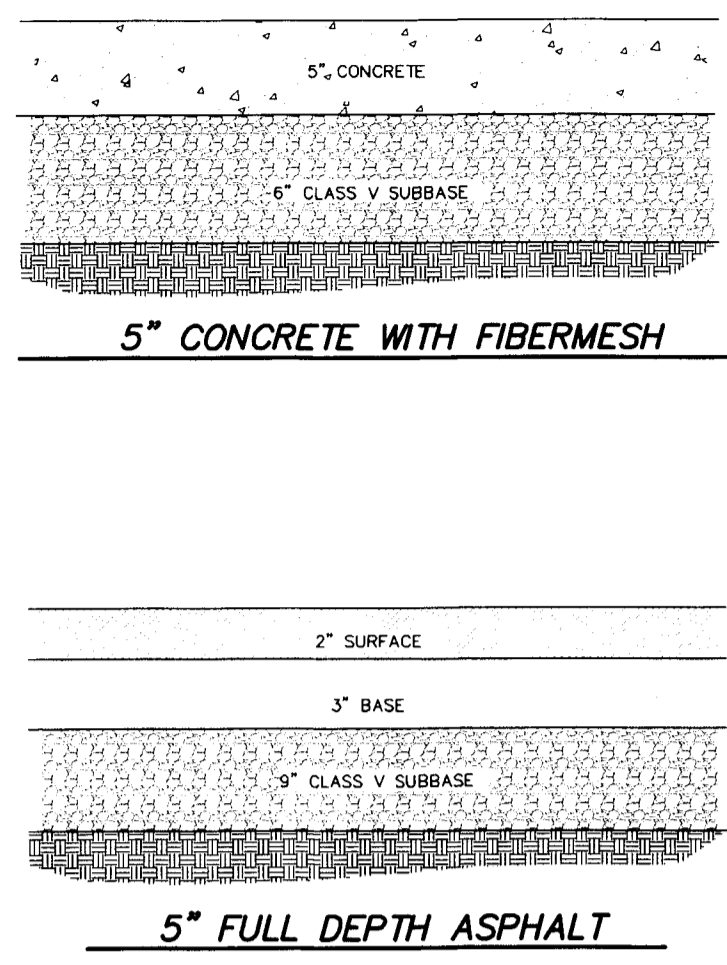
TYPICAL SECTION-REINFORCED RETAINING WALL NTS

RETAINING WALL NOTES

- W1 RETAINING WALL SHALL BE CONSTRUCTED OF VERSA-LOK RETAINING WALL SYSTEM OR AN ENGINEER APPROVED EQUAL.
- W2 RETAINING WALL SHALL HAVE COMPACTED SAND OR GRAVEL BACKFILL WITH IMPERVIOUS FILL MATERIAL AT TOP PORTION OF WALL.
- W3 WALL BASE MATERIAL SHALL BE COMPRISED OF LEVELING PAD THAT CONSISTS OF COMPACTED FREE DRAINING GRANULAR MATERIAL A MINIMUM OF 6" THICK.
- W4 4" DRAIN PIPE BEHIND WALL AT BASE SHALL BE INSTALLED TO ALLOW DRAINAGE AWAY FROM THE WALL BASE.
- W5 RETAINING WALL SYSTEM SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.

APPROVED BY PLANNING
[Signature]
 BISMARCK PLANNING
 TITLE DATE 02-01-13

APPROVED BY FORESTRY
[Signature]
 DATE 3-7-13



PAVEMENT

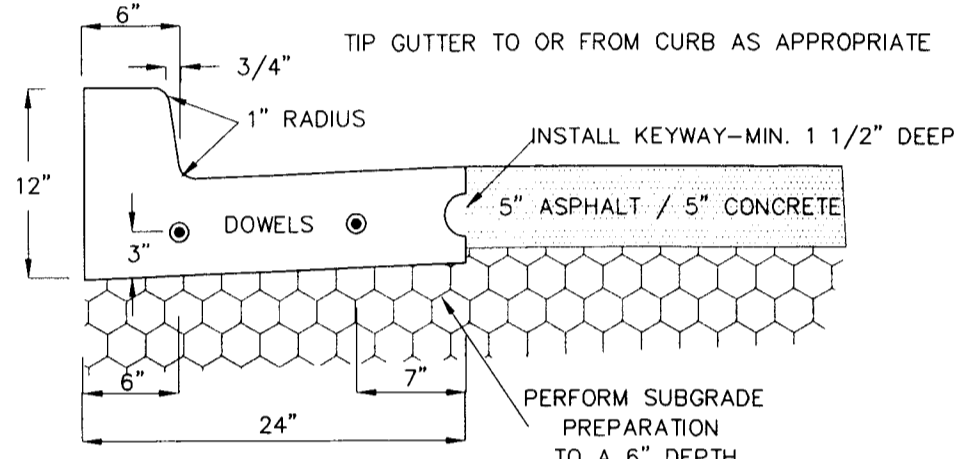
- P1 ON SITE EXTERIOR CONCRETE MATERIALS AND CONSTRUCTION MATERIALS SHALL CONFORM TO CITY OF BISMARCK SPECIFICATIONS EXCEPT AS MODIFIED HEREIN. AIR CONTENT SHALL BE 5% TO 7% STRENGTH AT 28 DAYS SHALL BE 4000 PSI.
- P2 ALL CURB SHALL BE STANDARD VERTICAL FACE CURB AND GUTTER. SEE DETAIL.
- P3 4 1/2" UNREINFORCED CONCRETE SIDEWALK PER CITY OF BISMARCK SPECIFICATIONS. THICKEN SIDEWALK AT DRIVEWAYS TO 8".
- P4 5" CONCRETE WITH FIBERMESH. SEE DETAIL.
- P5 5" FULL DEPTH ASPHALT OR 6" CONCRETE WITH FIBERMESH ALTERNATE. SEE DETAILS.
- P6 ISOLATION JOINTS WILL BE REQUIRED ALONG THE BUILDING, STAIRS AND ALL FIXED ITEMS. LEAVE JOINT 3/4" LOW AND SEAL. ISOLATION JOINTS SHALL BE SEALED USING A ONE PART POLYURETHANE TYPE SEALANT.
- P7 CONSTRUCTION JOINTS WILL BE PLACED TO COINCIDE WITH CONSTRUCTION JOINT SPACING. CONSTRUCTION JOINT FOR UNREINFORCED CONCRETE SHALL HAVE A MINIMUM 1 1/2" DIAMETER HALF ROUND KEYWAY OR APPROVED EQUAL. CONSTRUCTION JOINTS FOR REINFORCED CONCRETE SHALL BE 1/2" x 12" DOWELS AT 12 O/C.
- P8 JOINT SPACING SHALL TYPICALLY BE SPACED AT 1-1/2 TIMES THE THICKNESS OF THE PAVEMENT (MEASURED IN INCHES) IN FEET (4" SWK EQUALS 6 FOOT SPACING). IN NO CASE SHALL THE JOINT SPACING EXCEED TWO TIMES THE THICKNESS.
- P9 SUBGRADE PREPARATION UNDER AREAS TO BE PAVED SHALL BE 6" THICK AND SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS EXCEPT DENSITY SHALL BE 95% OF ASTM D 698.
- P10 ASPHALT MATERIAL SHALL CONFORM TO CLASS B PAVING AS SPECIFIED BY CITY OF BISMARCK CONSTRUCTION SPECIFICATIONS.

TOPSOIL NOTES

- T1 TOPSOIL IS STOCKPILED ON SITE AND WILL BE PLACED FOR THE LANDSCAPE CONTRACTOR TO SPREAD AND FINISH GRADE. ALL PORTIONS OF THE SITE NOT RECEIVING CONCRETE, CURB & GUTTER OR OTHER IMPROVEMENTS SHALL BE COVERED WITH A MINIMUM OF 6" OF TOPSOIL AND SEEDED ACCORDING TO SPECIFICATIONS.
- T2 TOPSOIL SHALL BE PLACED AND SEEDED AS SOON AS PRACTICAL TO MINIMIZE WIND AND WATER EROSION. BACKFILL BEHIND CURB AND GUTTERS AND SIDEWALK AS SOON AS REASONABLE TO PREVENT STANDING WATER AND PROTECT THE IMPROVEMENTS.

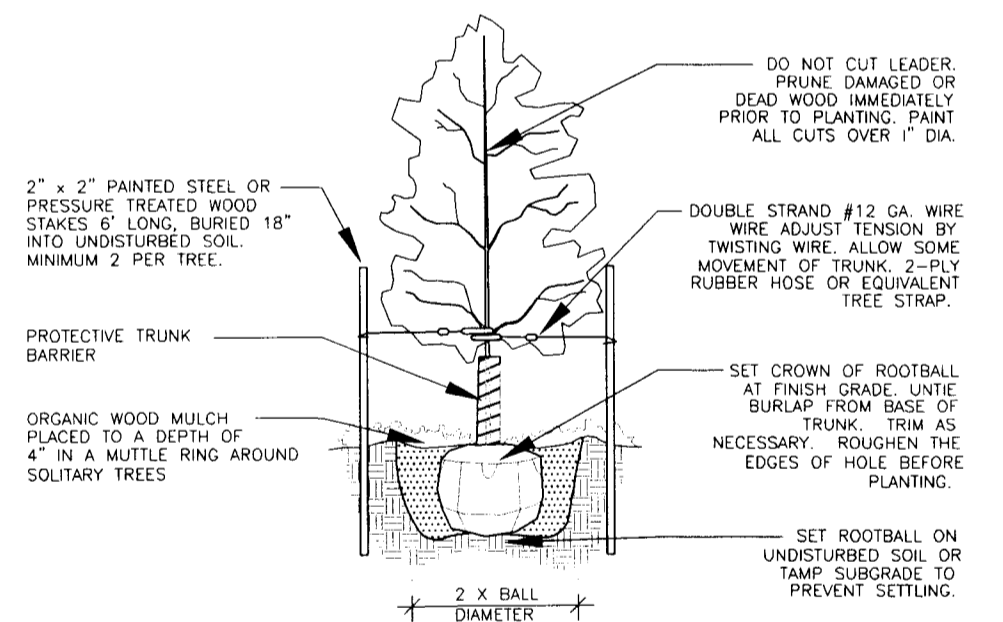
GENERAL LANDSCAPING (ALL SHEETS)

- L1 ALL CONTRACTORS WISHING TO SUBMIT BIDS FOR THIS LANDSCAPING PROJECT SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL CONDITIONS.
- L2 PROTECT THE IMPROVEMENTS ON SITE AND ON THE ADJOINING PROPERTIES. PROVIDE BARRIAGES, COVERINGS OR OTHER TYPE OF PROTECTION AS NECESSARY TO PREVENT DAMAGE AND TO SAFEGUARD AGAINST INJURY TO EXISTING UTILITIES.
- L3 DAMAGE THAT OCCURS TO PLANTS DURING TRANSPORTATION AND INSTALLATION WILL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- L4 ALL LANDSCAPE PLANTINGS ARE TO BE WATERED BY THE LANDSCAPE CONTRACTOR THE SAME DAY THAT THE PLANTING OCCURS. IF WATER IS NOT AVAILABLE AT THE BUILDING, THE LANDSCAPE CONTRACTOR SHALL PROVIDE ALTERNATIVE METHODS FOR WATERING.
- L5 SOLITARY TREES DO NOT NEED TO BE EDGED AROUND, HOWEVER ORGANIC WOOD MULCH SHALL BE PLACED AROUND THE TREE IN A MUTILLE RING THAT CONFORMS TO THE DETAIL PROVIDED FOR TREE PLANTINGS. CONTRACTOR SHALL PROVIDE WRITTEN WARRANTIES CONFIRMING THE FOLLOWING:
- L6 FURNISHED TREES GUARANTEED TO LIVE AND REMAIN STRONG, VIGOROUS, AND HEALTHY CONDITION FOR 365 DAYS MINIMUM FROM DATE LANDSCAPE INSTALLATION IS ACCEPTED AS COMPLETED.
- L7 LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING AND CARING FOR ALL PLANT MATERIAL, AND OTHER LANDSCAPING IMPROVEMENTS UNTIL THE DATE OF FINAL INSPECTION AND APPROVAL.



TYPICAL CURB & GUTTER

DOWEL CURB AT EXPANSION AND CONSTRUCTION JOINTS ONLY



TREE PLANTING DETAIL

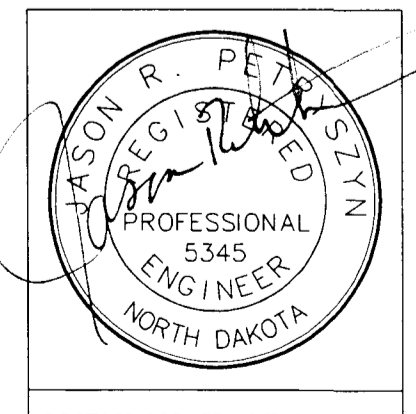
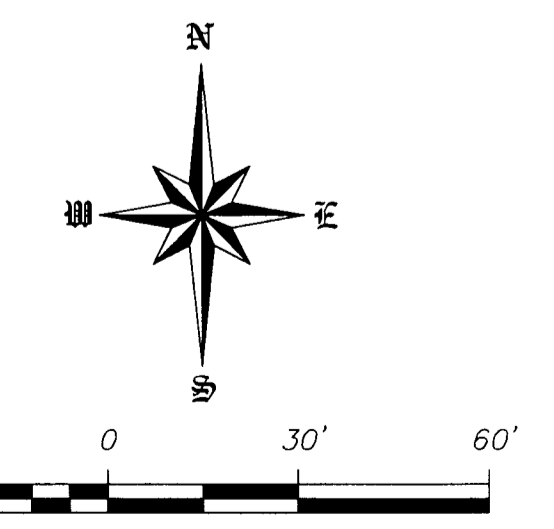
TYPICAL FOR ALL DEODOUUS, SINGLE-TRUNK, TREES NTS

LEGEND

- S EXISTING SANITARY SEWER
- W EXISTING WATERMAIN
- EXISTING ASPHALT
- EXISTING GATE VALVE
- EXISTING MANHOLE
- EXISTING GUARD POST
- EXISTING STREET LIGHT
- EXISTING UNDERGROUND GAS
- EXISTING CONTOUR
- PROPOSED WATER
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED CONTOUR
- PROPOSED HYDRANT
- PROPOSED VALVE
- PROPOSED MANHOLE
- PROPOSED CONCRETE/ASPHALT
- PROPOSED GRADE

PLANT PALETTE

SYM.	COMMON NAME	SCIENTIFIC NAME	SIZE	QNTY
SG	SIENNA GLEN MAPLE	Acer fremontii 'Sienna'	2" Cal.	14



SWENSON HAGEN & CO.

DATE

REVISION

GRADING, PAVING, AND LANDSCAPE PLAN
 CALGARY COURT ADDITION
 LOTS 1-27, BLOCK 1
 BISMARCK, ND

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Surveying
 Civil Engineering
 Land Planning
 Land Engineering
 Landscape & Site Design
 Construction Management

SWENSON HAGEN & CO. ENGINEERS

DRAWN BY: LN,CK
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 DATE: 2-25-13
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SHEET
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