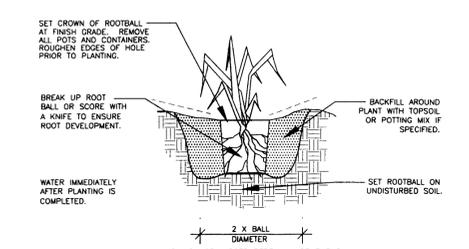
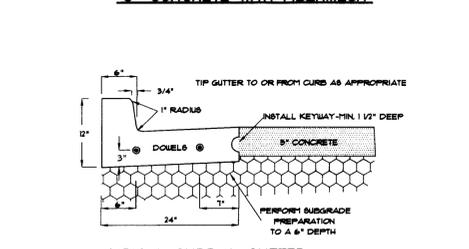
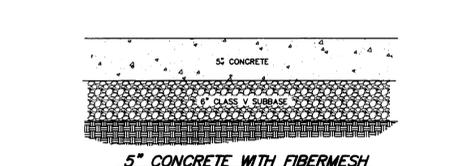


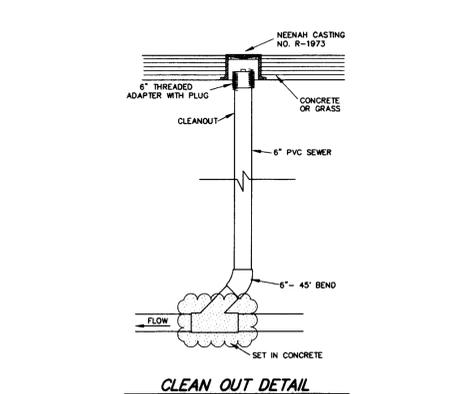
TREE PLANTING DETAIL
TYPICAL FOR ALL DECIDUOUS, SINGLE-TRUNK, TREES



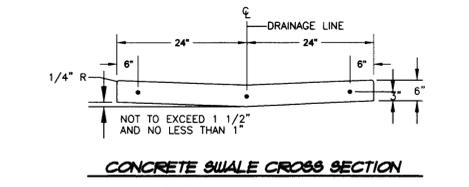
SHRUB/PERENNIAL PLANTING DETAIL
TYPICAL FOR ALL SHRUBS AND PERENNIALS



TYPICAL CURB & GUTTER
DOWEL CURB AT EXPANSION AND CONSTRUCTION JOINTS ONLY



CLEAN OUT DETAIL



CONCRETE SWALE CROSS SECTION
ALL REINFORCEMENT SHALL BE #4 REBAR LATERAL REINFORCEMENT SHALL BE #4 REBAR @ 2' O/C

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) STANDARD VERTICAL FACE CURB AND GUTTER. SEE NOTE THIS SHEET. TIP GUTTER AS APPROPRIATE.
- (P3) CITY SIDEWALK PER CITY OF BISMARCK SPECIFICATIONS - THICKEN SIDEWALK AT DRIVEWAYS TO 8" AND PROVIDE KEYWAY PER CITY SPECIFICATIONS.
- (P4) 5" CONCRETE WITH FIBERMESH AND 6" CLASS V BASE. SEE DETAIL THIS PAGE.
- (P5) 6" REINFORCED CONCRETE SWALE. SEE DETAIL THIS SHEET.
- (P6) ISOLATION JOINTS WILL BE REQUIRED ALONG THE BUILDING, STOOPS AND ALL FIXED ITEMS. LEAVE JOINT 1/2" 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) THE FINISH FLOOR ELEVATION OF THE GARAGE IS AT THE FRONT OF THE GARAGE.

SANITARY SEWER

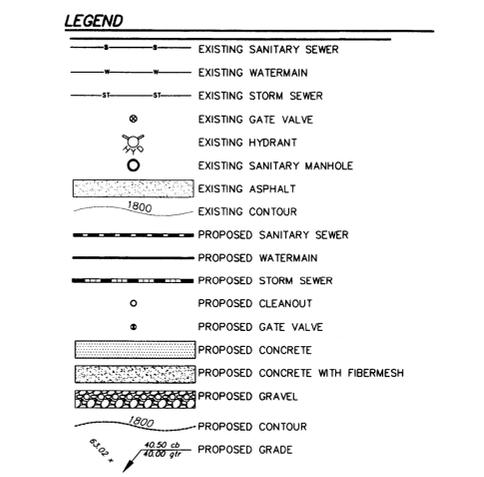
- (S1) MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS UNLESS NOTED OTHERWISE. ALL SEWER PIPE AND FITTINGS SHALL BE GASKETED JOINT PVC SDR PIPE CONFORMING TO ASTM D3034. BACKFILL SHALL BE 95% OF STANDARD PROCTOR AT RECOMMENDED MOISTURE CONTENT. TESTING IS CONSIDERED INCIDENTAL. COORDINATE WITH MECHANICAL CONTRACTOR TO MAKE CONNECTION TO BUILDING.
- (S2) CONNECT TO EXISTING 6" SANITARY SERVICE INV. 56.31, AND INSTALL 40.00 LF OF 6" SANITARY SERVICE @ 2.8000% AND 6" CLEANOUT; INV. 57.42.
- (S3) INSTALL 90.00 LF 6" SANITARY SEWER AT 2.8222% AND 6" CLEANOUT; INV. 59.96.
- (S4) INSTALL 85.51 LF 6" SANITARY SEWER AT 2.8067% AND 6" CLEANOUT; INV. 62.36.
- (S5) INSTALL 5.00 LF 6" SANITARY SEWER AT 2.8000% AND TEMPORARY CAP; INV. 62.50.

WATER SERVICE 4-UNIT

- (W1) MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS. ALL BACKFILL SHALL BE 95% OF STANDARD PROCTOR AT RECOMMENDED MOISTURE CONTENT. WATERLINES SHALL BE CHLORINATED, PRESSURE TESTED AND FLUSHED. TESTING IS CONSIDERED INCIDENTAL.
- (W2) CONNECT TO EXISTING WATER MAIN. VERIFY INVERT IN FIELD.
- (W3) INSTALL 10.00 LF 3" FIRE LINE AND GATE VALVE.
- (W4) INSTALL 68.00 LF 3" FIRE SERVICE AND TEMPORARY CAP; INV. 62.00. OFFSET 3' FROM FIRE LINE AND INSTALL 1-1/2" TAPPING SADDLE AND VALVE AND INSTALL 9.00 LF 1-1/2" WATER SERVICE AND TEMPORARY CAP; INV. 62.50.
- (W5) COORDINATE WITH MECHANICAL CONTRACTOR FOR PRESSURE TESTING, CHLORINATION AND FLUSHING PER CITY REQUIREMENTS.
- (W6) FINAL FIRE LINE SIZING SHALL BE VERIFIED WITH FIRE SUPPRESSION SYSTEM CONTRACTOR.

APPROVED BY FORESTRY
A. J. ...
DATE: 4-24-14

APPROVED BY PLANNING
...
DATE: 04-21-14



GENERAL LANDSCAPING NOTES FOR 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 BARRICADES, 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.
- (L6) CONTRACTOR SHALL PROVIDE WRITTEN WARRANTIES CONFIRMING THE FOLLOWING:
 - (L7) FURNISHED TREES AND SHRUBS GUARANTEED TO LIVE AND REMAIN STRONG, VIGOROUS, AND HEALTHY CONDITION FOR 365 DAYS MINIMUM FROM DATE LANDSCAPE INSTALLATION IS ACCEPTED AS COMPLETED.
 - (L8) 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.

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) ALL IMPORTED TOPSOIL SHALL BE NATURAL, FRIABLE, FERTILE, FINE, SANDY-LOAM SUBSOIL. IT SHALL BE FREE FROM SUBSOIL, NOXIOUS WEEDS, STONES, LIME, CEMENT, ASHES, SLAG, OR OTHER DELETERIOUS MATERIAL.
- (T3) 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.

SEEDING NOTES

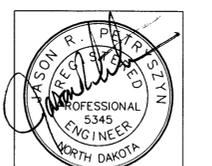
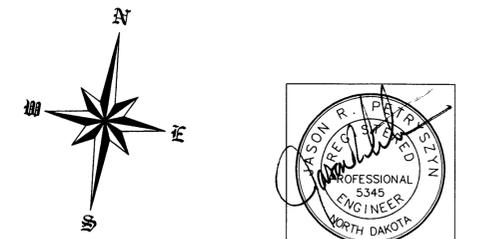
- (S1) CLEAR AND GRUB SITE BEFORE SEEDING ENSURING THAT THE SITE IS IN A SMOOTH CONDITION WITH NO DEBRIS OR ROCKS LARGER THAN 2" IN DIAMETER.
- (S2) ALL PORTIONS OF THE SITE NOT RECEIVING OTHER IMPROVEMENTS SHALL BE SEED. SEED SHALL CONFORM TO THE CITY OF BISMARCK SPECIFICATIONS FOR TYPE II SEED AND TYPE IV SEED. SEED SHALL BE INSTALLED AS FOLLOWS:
 - (S3) LAWN AREAS SHALL BE SEED WITH TYPE II SEED.
 - (S4) FERTILIZE SOIL DURING THE SEEDING PROCESS USING AN APPROPRIATE APPLICATION PROCESS. FERTILIZER SHALL BE 10-10-10 AND APPLIED AT A RATE OF 4 LBS. PER 1000 SQUARE FEET.
 - (S5) SEED SHALL BE DRILL SEED TO A DEPTH OF 1/4" TO 1/2" AND SHALL BE EVENLY SPREAD. AFTER SEED HAS BEEN SOWN, THE SOIL SHALL BE REPAKED IMMEDIATELY AFTER THE SEED IS APPLIED TO FIRM THE SOIL AROUND THE SEED. NO SEED SHALL BE PLACED ON DAYS WHERE THE WIND IS STRONG ENOUGH TO PREVENT IT FROM BEING PROPERLY IMBEDDED INTO THE SOIL.
 - (S6) THE SEEDING CONTRACTOR SHALL WATER THE NEWLY SEEDED AREAS ON THE SAME DAY THAT SEEDING OCCURS. IF AN IRRIGATION SYSTEM IS PRESENT AND FUNCTIONING, THE SEEDING CONTRACTOR SHALL ENERGIZE THIS SYSTEM AND ENSURE THAT A WATERING SCHEDULE HAS BEEN ESTABLISHED BEFORE LEAVING THE SITE.
 - (S7) SEED MUST SHOW A DENSITY OF 20 TO 30 SEEDLINGS PER SQUARE FOOT BEFORE ACCEPTANCE WILL OCCUR. THE CONTRACTOR SHALL FURNISH AND REPLACE WITHOUT ADDITIONAL COMPENSATION THEREFOR, ANY SEED FOR AREAS THAT HAVE NOT GERMINATED, HAVE DIED, OR ARE DAMAGED TO THE EXTENT THAT REPLACEMENT IS REQUIRED TO CONFORM TO THE REQUIREMENTS OUTLINED ABOVE. THE CONTRACT WARRANTY PERIOD SHALL ALSO APPLY TO THIS ITEM.
 - (S8) CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ANY EROSION SCARS OR WASHOUTS UNTIL THE DATE THAT FINAL SEED STAND IS ACCEPTED. SEE EROSION CONTROL PLAN FOR EROSION CONTROL METHODS.

PLANT PALETTE

SYM.	COMMON NAME	SCIENTIFIC NAME	SIZE	QNTY.
AL	AMERICAN LINDEN	Tilia americana	2" Cal.	12
SM	SILVER MAPLE	Acer saccharinum	1 1/2" Cal.	13
AK	ALPINE CURRANT	Ribes alpinum	2 Gallon	39

SIGNAGE AND STRIPING

- (SS1) ALL NON-ADA STRIPING SHALL BE 4" WIDE NON REFLECTORIZED PAINT MEETING THE REQUIREMENTS OF AASHTO M28 APPLIED AT A RATE OF 110 SQUARE FEET PER GALLON. COLOR SHALL BE YELLOW. TYPICAL FOR ALL STRIPING UNLESS OTHERWISE NOTED.



DATE	REVISION

SITE PLAN
LOT 5 BLOCK 1 TRILLIUM FOURTH ADDITION
BISMARCK, NORTH DAKOTA

SWENSON, HAGEN & COMPANY P.C.
 900 Basin Avenue
 Bismarck, North Dakota 58504
 Phone: 701.223.2600
 Fax: 701.223.2606

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

SH & CO.

DRAWN BY: TR
 CHECK BY: JP
 DATE: 3/26/2014
 FILE DESC:
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