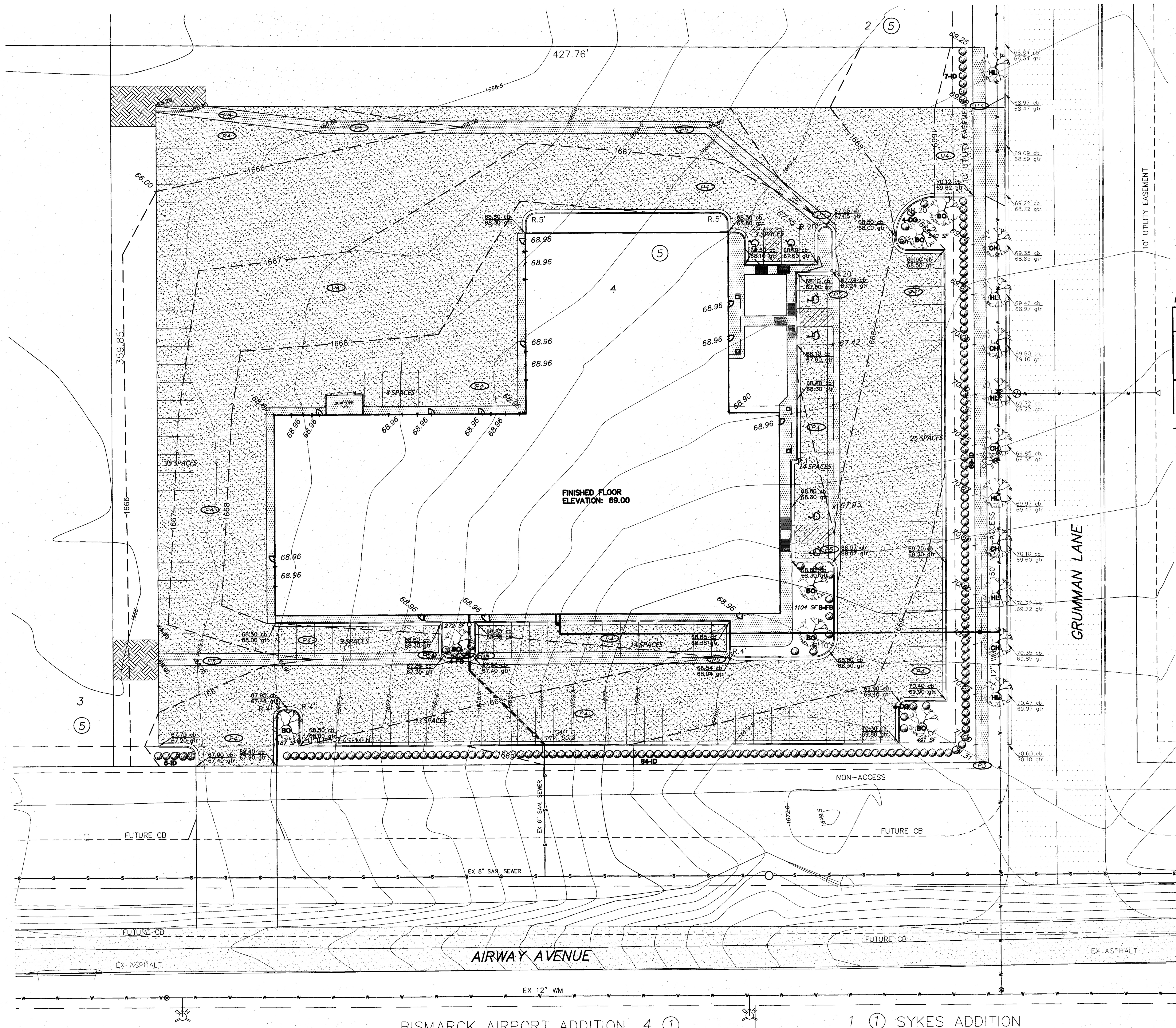

APPROVED BY PLANNING
PLANNER 05.21.15
TITLE DATE

APPROVED BY FORESTRY
City Forester 5/21/15
TITLE DATE

WARRANTY / DISCLAIMER

The designs represented in these plans are in accordance with established practices of civil engineering. However, neither Swenson, Hagen & Co. nor its personnel can or do warranty these plans as constructed except in the specific cases where Swenson, Hagen & Co personnel inspect and control the physical construction on a full time basis.

SAFETY NOTICE TO CONTRACTOR

In accordance with generally accepted construction practices the Contractor will be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal business hours.

UTILITY NOTICE TO CONTRACTOR

The location of existing underground utilities are shown in an approximate way only and have not been independently verified by the Owner or its representatives. The Contractor shall determine the exact location of all existing utilities before commencing work, and agrees to be fully responsible for any and all damages which might be occasioned by the Contractor's failure to exactly locate and preserve any and all underground utilities. Underground locates can be made by using the "One Call" number 1-800-795-0555.

CALL BEFORE YOU DIG
NORTH DAKOTA
UTILITIES UNDERGROUND LOCATION SERVICE
1-800-795-0555

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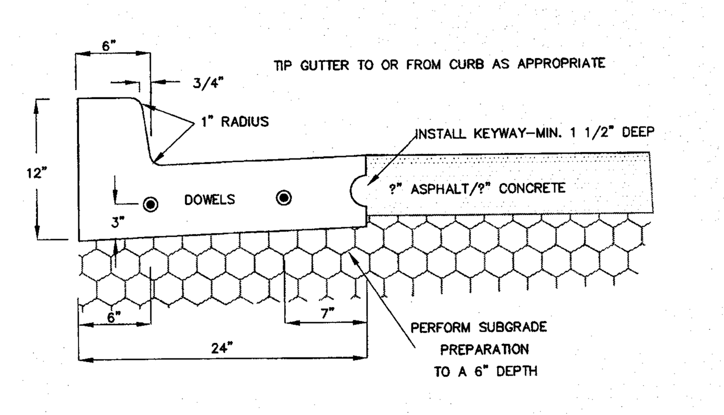
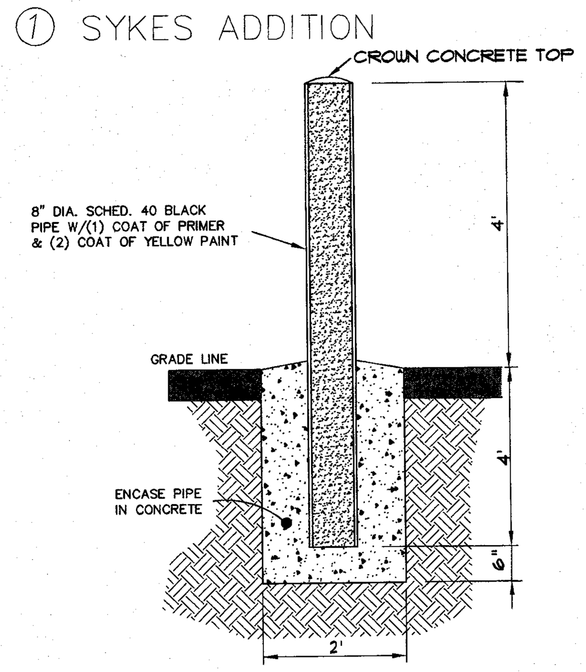
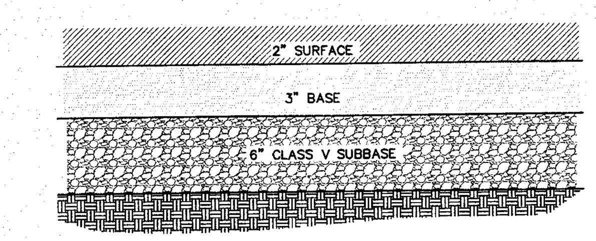


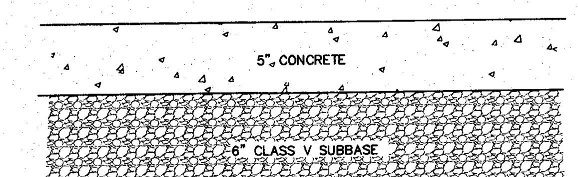
TYPICAL CURB & GUTTER
DOWEL CURB AT EXPANSION AND CONSTRUCTION JOINTS ONLY



PIPE GUARD POST
NOT TO SCALE



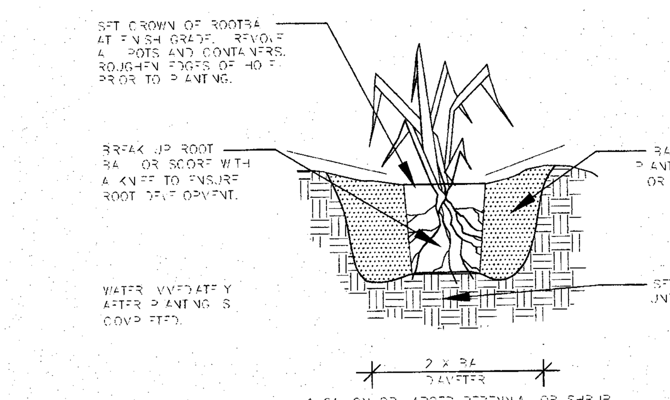
5" FULL DEPTH ASPHALT



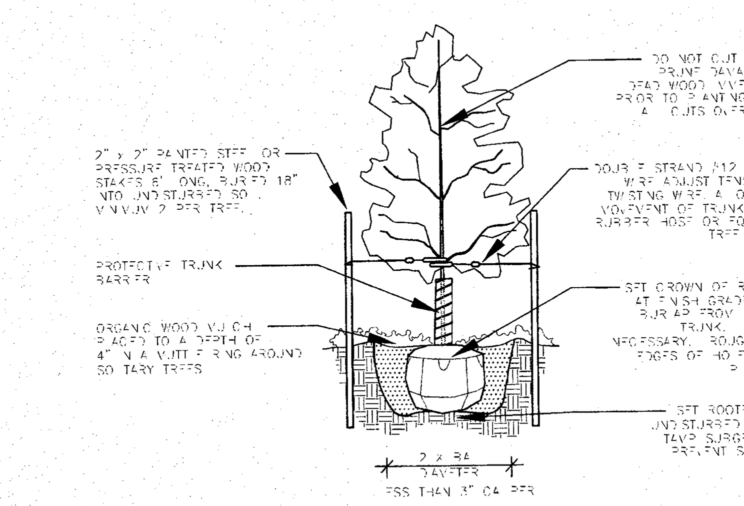
5" CONCRETE WITH FIBERMESH

PLANT PALETTE

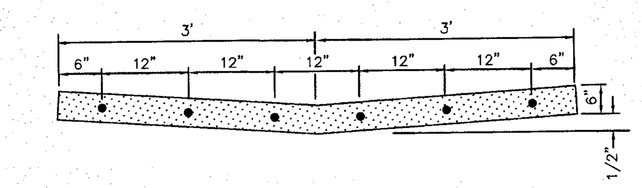
	SYM.	COMMON NAME	SCIENTIFIC NAME	SIZE	QNTY.
TREES	CH	COMMON HACKBERRY	Tilia americana	1 1/2" Cal.	5
	HL	HONEY LOCUST	Gleditsia triacanthos	2" Cal.	6
	BO	BUR OAK	Quercus marcocarpa	1 1/2" Cal.	7
SHRUBS	ID	ISANTI DOGWOOD	Cornus Sericea 'Isanti'	2 Gallon	165
	FS	FRITSCH SPIREA	Spiraea fritschiana	2 Gallon	12
	DG	DWARF GLOBE BLUE SPRUCE	Picea pungens 'Glauca Globosa'	2 Gallon	8



SHRUB/PERENNIAL PLANTING DETAIL
NTS
TYPICAL FOR ALL SHRUBS AND PERENNIALS



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



CONCRETE SWALE CROSS SECTION

ALL REINFORCEMENT SHALL BE #4 REBAR
LATERAL REINFORCEMENT SHALL BE # 4 REBAR @ 2' O/C

LEGEND

- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING GATE VALVE
- EXISTING HYDRANT
- EXISTING SANITARY MANHOLE
- EXISTING ASPHALT
- EXISTING CONCRETE
- EXISTING CONTOUR (1800)
- PROPOSED SANITARY SEWER
- PROPOSED WATERMAIN
- PROPOSED STORM SEWER
- PROPOSED CLEANOUT
- PROPOSED GATE VALVE
- PROPOSED HYDRANT

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 THIS SHEET.

(P3) 4" UNREINFORCED CONCRETE SIDEWALK PER CITY OF BISMARCK SPECIFICATIONS.

(P4) 5" FULL DEPTH ASPHALT OR 5" CONCRETE WITH FIBERMESH ALTERNATE. SEE DETAIL THIS SHEET.

(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 ½" LOW AND SEAL. ISOLATION JOINTS SHALL BE SEALED USING A ONE PART POLYURETHANE TYPE SEALANT.

(P7) CONSTRUCTION JOINTS WILL BE PLACED TO COINCIDE WITH CONTRACTION JOINT SPACING. CONSTRUCTION JOINT FOR UNREINFORCED CONCRETE SHALL HAVE A MINIMUM 1½" 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.

GENERAL LANDSCAPING

(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 MUTTLE 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.

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 SEEDED. SEED SHALL CONFORM TO THE CITY OF BISMARCK SPECIFICATIONS FOR TYPE II SEED AND TYPE IV SEED. SEED SHALL BE INSTALLED AS FOLLOWS:

(S3) 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.

(S4) SEED SHALL BE DRILL SEEDED TO A DEPTH OF 1/4" TO 1/2" AND SHALL BE EVENLY SPREAD. AFTER SEED HAS BEEN SOWN, THE SOIL SHALL BE REPACKED 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.

(S5) 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.

(S6) 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.

(S7) 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.

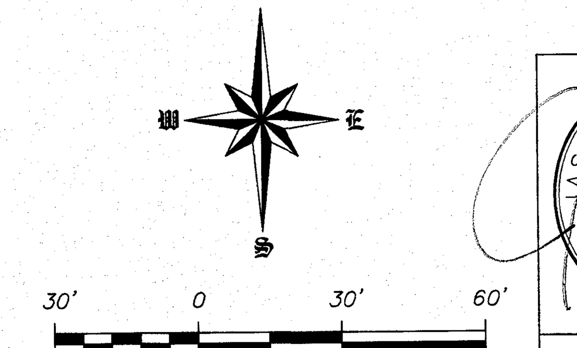
TOPSOIL NOTES

(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.

FENCING NOTES

(F1) INSTALL 6' HIGH WOOD FENCE AROUND THE PERIMETER OF DUMPSTER PAD. INSTALL SWINGING GATE FOR ACCESS BY GARBAGE TRUCKS.



SCALE - 1"=30'
APRIL 15, 2015
NGVD 29
REVISED: MAY 13, 2015

JASON R. PETRYSZYN
REGISTERED PROFESSIONAL ENGINEER 5345
NORTH DAKOTA
SWENSON HAGEN & CO.

THIS DOCUMENT WAS ORIGINALLY SEALED BY JASON R. PETRYSZYN, PE, ON 5-15-15 AND THE ORIGINAL DOCUMENT IS STORED AT THE OFFICE OF SWENSON, HAGEN & CO. P.C.

REVISION	DATE
REVISIONS PER CITY COMMENTS	5/13/15

GRADING, PAVING & LANDSCAPING PLAN
LOT 4 BLOCK 5
TRILLIUM 4TH ADDITION
BISMARCK, NORTH DAKOTA

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Construction Management

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