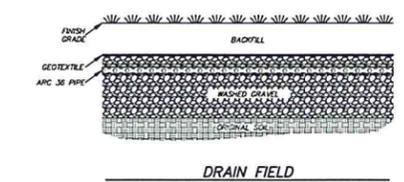
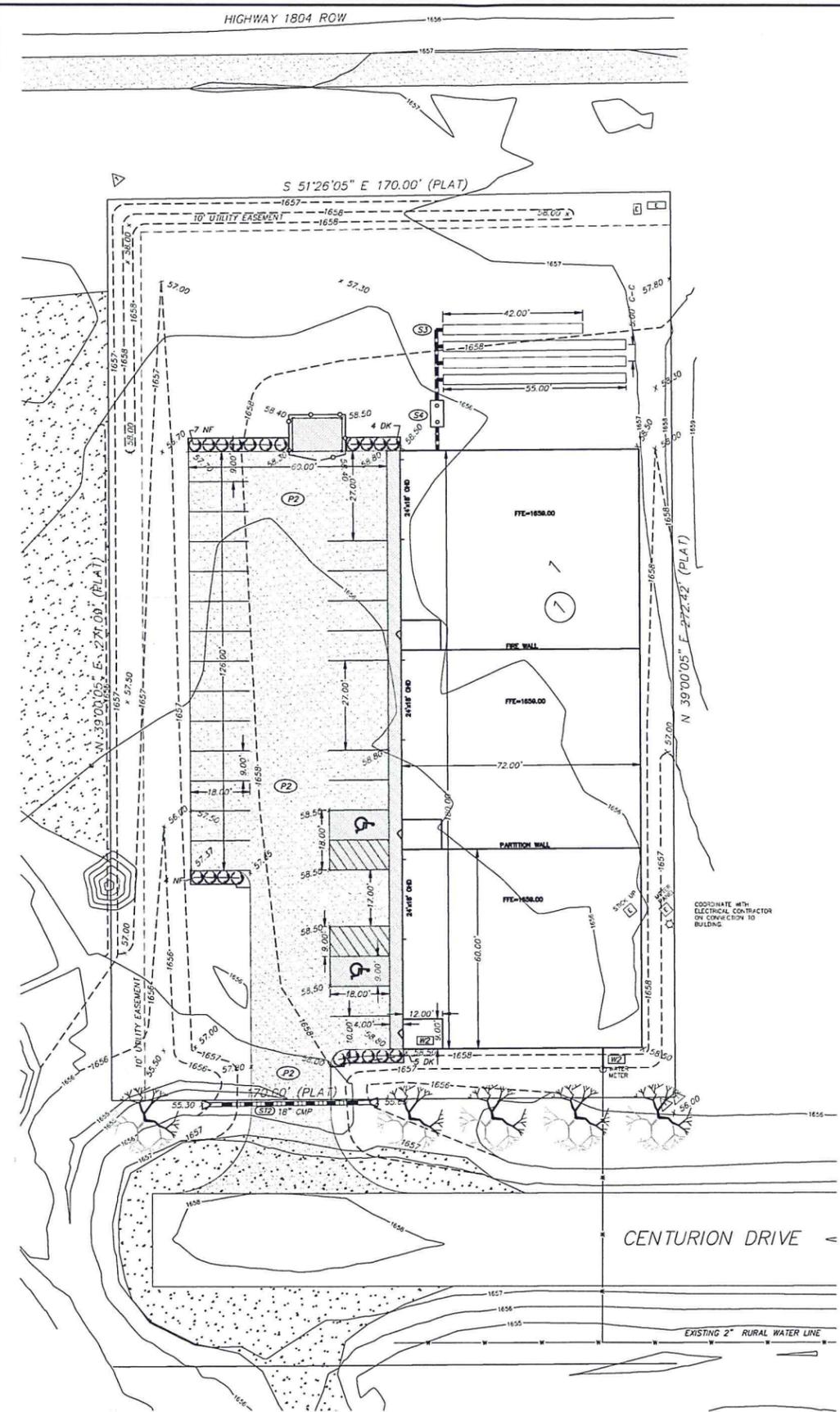


SP2018-083



APPROVED BY PLANNING
W. J. Hickey
PLANNER 11-29-18
TITLE DATE

APPROVED BY FORESTRY
Mike Miller
LANDSCAPE ARTIST 11-29-18
TITLE DATE

GENERAL LANDSCAPING NOTES FOR ALL SHEETS

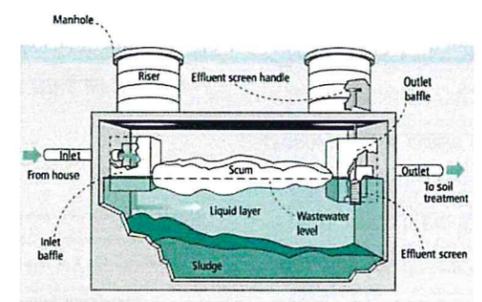
- 1. ALL CONTRACTORS WISHING TO SUBMIT BIDS FOR THIS LANDSCAPING PROJECT SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL CONDITIONS.
 - 2. PROTECT THE IMPROVEMENTS ON SITE AND ON THE ADJOINING PROPERTIES. PROVIDE BARRICADES, COVERINGS OR OTHER TYPE OF PROTECTION AS NECESSARY TO PREVENT DAMAGE AND TO SAFEGUARD AGAINST INJURY TO EXISTING UTILITIES.
 - 3. DAMAGE THAT OCCURS TO PLANTS DURING TRANSPORTATION AND INSTALLATION WILL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
 - 4. ALL PLANTING BEDS SHALL BE INSTALLED WITH 3" OF 2" CRUSHED ROCK MULCH, LANDSCAPE FABRIC WITH A MINIMUM WEIGHT OF 4 OZ./SQ. YD. AND WHEREVER NECESSARY, 6" COMMERCIAL GRADE BLACK PLASTIC EDGING TO CONTAIN THE PLANTING BED.
 - 5. 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.
 - 6. 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.
 - 7. CONTRACTOR SHALL PROVIDE WRITTEN WARRANTIES CONFIRMING THE FOLLOWING:
 FURNISHED TREES GUARANTEED TO LIVE AND REMAIN STRONG, VIGOROUS, AND HEALTHY CONDITION FOR 365 DAYS MINIMUM FROM DATE LANDSCAPE INSTALLATION IS ACCEPTED AS COMPLETE.
 - 8. 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**
- 1. 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.
 - 2. TOPSOIL SHALL BE PLACED AND SEED 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**
- 1. 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.
 - 2. 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.
 - 3. 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.
 - 4. 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 THEREFORE, 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.
 - 5. 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

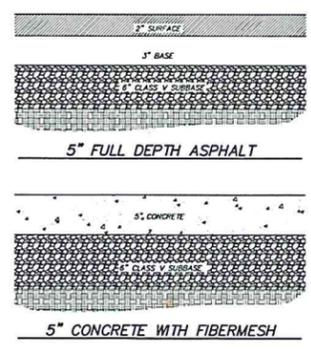
SYM.	COMMON NAME	SCIENTIFIC NAME	SIZE	QTY.
HL	FUTURE HONEYLOCUST	Gleditsia triacanthos	2" Cal.	3
BO	FUTURE BUR OAK	Quercus maroccarpa	1-1/2" Cal.	2
DK	DWARF KOREAN LILAC	Syringa meyeri 'Palibin' Picea	2 Gallon	9
NF	NEON FLASH SPIREA	Spiraea japonica 'Neon Flash'	2 Gallon	11

LANDSCAPING REQUIREMENTS

- REQUIRED STREET TREES:
3 PER 100 FEET = 5 TREES
- REQUIRED PERIMETER PARKING:
CONTINUOUS HEDGE
- FUTURE STREET TREES:
5 TREES
- PROVIDED PERIMETER PARKING:
CONTINUOUS HEDGE



SEPTIC TANK



5" CONCRETE WITH FIBERMESH

- LEGEND**
- PROPOSED SANITARY SEWER
 - PROPOSED WATERMAIN
 - PROPOSED STORM SEWER
 - PROPOSED FENCE
 - PROPOSED ASPHALT/CONCRETE
 - PROPOSED CONTOUR
 - PROPOSED GRADE
 - PROPOSED EROSION CONTROL
 - PROPOSED SHRUB
 - FUTURE STREET TREES

SANITARY SEWER

- 1. MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS. ALL BACKFILL SHALL BE 95% OF STANDARD PROCTOR AT RECOMMENDED MOISTURE CONTENT. TESTING IS CONSIDERED INCIDENTAL.
- 2. CONTRACTOR SHALL VERIFY SOIL CONDITION & ELEVATIONS BEFORE CONSTRUCTION OF DRAIN FIELD.
- 3. BASED ON SEPTIC DESIGN REPORT DATED 9-10-14 BY PAUL BRANDT, INSTALL SPECIFIED LENGTH (207 LF) OF ADS-ARC 36 SEPTIC LEACHING CHAMBER OR EQUAL. INSTALL APPROXIMATELY 36" DEEP AND MINIMUM OF 10' FROM PROPERTY LINE. VERIFY DEPTH DURING CONSTRUCTION. KEEP TRENCH BOTTOMS LEVEL. LOCATION OF DRAINFIELD MAY BE ADJUSTED OR ROTATED TO PROVIDE MINIMUM GRADE OF TRENCH BOTTOM. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. CONTACT CITY OF BISMARCK, DEPARTMENT OF INSPECTIONS FOR AN INSPECTION PRIOR TO CLOSURE OF SEPTIC TANK PIT AND DRAIN FIELD.
- 4. INSTALL 1250 GALLON WORKING CAPACITY SEPTIC TANK. INSTALL 6" SANITARY SEWER PIPE TO SEPTIC TANK AT 0.75% MINIMUM GRADE. INSTALL 6" CLEANSOUTS WHERE SHOWN. VERIFY LOCATION AND ELEVATION OF CONNECTION INTO THE BUILDING WITH THE OWNER PRIOR TO CONSTRUCTION.

WATERMAIN

- 1. 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 FOR 2 HOURS AND FLUSHED. TESTING IS CONSIDERED INCIDENTAL.
- 2. INSTALL WATER SERVICE FROM METER MANHOLE TO BUILDING. COORDINATE WITH MECHANICAL PLANS AND OWNER FOR LOCATION AND SIZE.

STORM SEWER

- 1. MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH CITY OF BISMARCK SPECIFICATIONS. ALL BACKFILL SHALL BE 95% OF STANDARD PROCTOR AT RECOMMENDED MOISTURE CONTENT.
- 2. INSTALL 53.00 LF OF 18" STORM SEWER AND FLARED END SECTIONS @ 0.561% (LENGTH INCLUDING FLARED END SECTIONS); INV. 53.60 SE, INV. 53.30 NW.

PAVEMENT

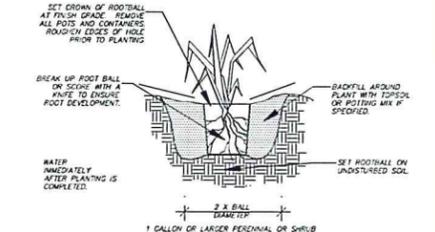
- 1. ON SITE EXTERIOR CONCRETE MATERIALS AND CONSTRUCTION MATERIALS SHALL CONFORM TO CITY OF BISMARCK SPECIFICATIONS EXCEPT AS MODIFIED HEREIN. AIR CONTENT SHALL BE 5% TO 7% STRENGTH AT 28 DAYS SHALL BE 4500 PSI.
- 2. 5" CONCRETE WITH FIBERMESH, OR 5" FULL DEPTH ASPHALT, AND 6" CLASS V BASE, SEE DETAIL THIS PAGE.
- 3. ISOLATION JOINTS WILL BE REQUIRED ALONG THE BUILDING, STOODS AND ALL FIXED ITEMS. LEAVE JOINT 1/8" LOW AND SEAL. ISOLATION JOINTS SHALL BE SEALED USING A ONE PART POLYURETHANE TYPE SEALANT.
- 4. CONSTRUCTION JOINTS WILL BE PLACED TO COINCIDE WITH CONSTRUCTION JOINT SPACING. CONSTRUCTION JOINT FOR UNREINFORCED CONCRETE SHALL HAVE A MINIMUM 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.
- 5. JOINT SPACING SHALL TYPICALLY BE SPACED AT 1-1/2 TIMES THE THICKNESS OF THE PAVEMENT (MEASURED IN INCHES) IN JOINT (4" SWK EQUALS 6 FOOT SPACING). IN NO CASE SHALL THE JOINT SPACING EXCEED TWO TIMES THE THICKNESS.
- 6. 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.

SIGNAGE & PAVEMENT STRIPING

- 1. 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.
- 2. ADA STRIPING FOR LANES AND SYMBOLS SHALL BE BLUE PAINT MEETING THE REQUIREMENT OF AASHTO M28 APPLIED AT A RATE OF 110 SQUARE FEET PER GALLON. PAINT FACE AND TOP OF CURB (6" WIDE) IN FRONT OF ALL HANDICAP STALLS.
- 3. PROVIDE AND INSTALL ADA SIGNS SECURED TO BUILDING.
- 4. PROVIDE AND INSTALL SIGN SECURED TO BUILDING THAT INDICATES "VAN ACCESSIBLE". SIGNS MUST INDICATE "100 FINE".

FENCING NOTES

- 1. A 6" HIGH OPAQUE VINYL FENCE WITH SWING GATE SHALL BE INSTALLED WHERE DEPICTED ON THE PLANS.



SHRUB/PERENNIAL PLANTING DETAIL

FOR REGULATORY REVIEW ONLY
NOT APPROVED FOR CONSTRUCTION

SCALE - 1" = 20'
 NAVD 88 DATUM
 NOVEMBER 16, 2018

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NOTICE TO CONTRACTOR
 The location of existing underground utilities are shown in an approximate manner. The Contractor shall determine the exact location of all existing utilities before commencing work and agreed 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.

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

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DATE

REVISIONS

SITE PLAN

LOT 1, BLOCK 1, REPLAT OF METRO INDUSTRIAL PARK
BURLEIGH COUNTY, NORTH DAKOTA

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 Civil Engineering
 Landscaping & Site Design
 Construction Management

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CHECK BY: JP
DATE: 11-16-18
FILE DESC:

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