

- ALL SITE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) PROGRAM SPECIFICATIONS, LATEST EDITION, AS SUPPLEMENTED BY CITY OF CEDAR RAPIDS REQUIREMENTS, UNLESS OTHERWISE NOTED ON THE DRAWINGS. A COPY OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) PROGRAM SPECIFICATIONS REFERENCED IN THESE PLANS CAN BE FOUND AT: http://www.iowasudas.org/
- 2. THE LOCATIONS OF UTILITY MAINS, STRUCTURES AND SERVICE CONNECTIONS PLOTTED ON THIS DRAWING ARE APPROXIMATE ONLY AND WERE OBTAINED FROM RECORDS MADE AVAILABLE TO SCHNOOR—BONIFAZI ENGINEERING AND SURVEYING, LC. THERE MAY BE OTHER EXISTING UTILITY MAINS, STRUCTURES AND SERVICE CONNECTIONS NOT KNOWN TO SCHNOOR—BONIFAZI ENGINEERING AND SURVEYING, LC AND NOT SHOWN ON THIS DRAWING.
- 3. NOTIFY UTILITY COMPANIES WHOSE FACILITIES ARE SHOWN ON THE PLANS OR KNOWN TO BE WITHIN CONSTRUCTION LIMITS OF THE SCHEDULE PRIOR TO EACH STAGE OF CONSTRUCTION.
- 4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES AT CRITICAL LOCATIONS TO VERIFY EXACT HORIZONTAL AND VERTICAL LOCATION.
- 5. IOWA CODE 480, UNDERGROUND FACILITIES INFORMATION, REQUIRES VERBAL NOTICE TO IOWA ONE—CALL 1-800-292-8989, NOT LESS THAN 48 HOURS BEFORE EXCAVATING, EXCLUDING WEEKENDS AND HOLIDAYS.
- 6. NOTIFY THE APPROPRIATE GOVERNING AUTHORITY 48 72 HOURS PRIOR TO BEGINNING CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAYS. THE CITY OF CEDAR RAPIDS SHALL BE THE PUBLIC AGENCY RESPONSIBLE FOR INSPECTION WITHIN THE PUBLIC RIGHT-OF-WAYS, SANITARY SEWER SERVICE INSTALLATION AND WATER SERVICE INSTALL ATION.
- . NO WORK SHALL BE PERFORMED BEYOND THE PROJECT LIMITS WITHOUT PRIOR AUTHORIZATION FROM THE OWNER'S REPRESENTATIVE.
- 8. PROVIDE TRAFFIC AND PEDESTRIAN CONTROL MEASURES (SIGNS, BARRICADES, FLAGGERS, ETC.) IN COMPLIANCE WITH PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) LATEST EDITION AND THE CITY OF CEDAR RAPIDS STANDARDS.
- 9. ADJUST ALL VALVES, MANHOLES, CASTINGS, GAS VENTS, ETC., TO MATCH THE NEW SURFACE. ADJUSTMENT SHALL BE COORDINATED WITH THE UTILITY COMPANIES AND THE COST FOR ALL ADJUSTMENTS SHALL BE INCIDENTAL TO THE CONSTRUCTION. AT NO ADDITIONAL COST TO THE OWNER, REPAIR ANY DAMAGE TO SAID STRUCTURES AND APPURTENANCES THAT OCCUR DURING CONSTRUCTION.
- 10. CONTRACTOR SHALL REFER TO BUILDING PLANS FOR BUILDING DIMENSIONS, STOOP SIZES AND LOCATIONS, AND BUILDING UTILITY ENTRANCE LOCATIONS, SIZES, AND ELEVATIONS.
- 11. REPLACE ANY PROPERTY MONUMENTS REMOVED OR DESTROYED BY CONSTRUCTION. MONUMENTS SHALL BE SET BY A LAND SURVEYOR REGISTERED TO PRACTICE IN THE STATE OF IOWA.

 SITE PREPARATION NOTES
- PROTECT ADJACENT PROPERTY DURING ALL PHASES OF CONSTRUCTION.
- 2. CONSTRUCTION, STAGING & MATERIALS STORAGE LIMIT LINE IS THE PROPERTY LINE UNLESS NOTED OTHERWISE.
- 3. MAINTAIN POSITIVE DRAINAGE ON THE SITE THROUGHOUT THE PROJECT DURATION.
- PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIAL (EXCAVATED MATERIAL OR BROKEN CONCRETE) WHICH IS NOT DESIRABLE TO BE INCORPORATED INTO THE WORK INVOLVED ON THIS PROJECT. NO PAYMENT FOR OVERHAUL WILL BE ALLOWED FOR MATERIAL HAULED TO THESE SITES. DISPOSAL SITES MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL APPLY NECESSARY MOISTURE TO THE CONSTRUCTION AREA AND TEMPORARY HAUL ROADS TO PREVENT THE SPREAD OF DUST. OFF—SITE DISPOSAL SHALL BE IN ACCORDANCE WITH THE APPLICABLE GOVERNMENTAL REGULATIONS.
- 5. KEEP ADJACENT PUBLIC STREETS FREE FROM SOIL AND DEBRIS GENERATED BY THE PROJECT. CLEAN SOIL AND DEBRIS FROM THE ADJACENT PUBLIC STREETS ON THE SAME DAY AS IT IS DEPOSITED.
- 6. DURING CONSTRUCTION, CONTROL DUST SPREADING FROM ALL WORK AND STAGING AREAS.
- 7. REMOVAL OR ABANDONMENT OF PUBLIC UTILITIES SHALL BE FULLY COORDINATED WITH APPROPRIATE UTILITY SUPPLIER AND REGULATORY AGENCIES.
- 8. ANY EXISTING FACILITIES (CURBS, PAVEMENT, UTILITIES, ETC.) THAT THE CONTRACTOR'S OPERATIONS DAMAGE SHALL BE REPAIRED BY THAT CONTRACTOR AT HIS/HER COST.
- 9. REMOVE ALL DESIGNATED STREETS, SIDEWALKS, DRIVEWAYS, ETC. IN THEIR ENTIRETY. BACKFILL ALL EXCAVATIONS
- WITH COHESIVE MATERIAL COMPACTED TO 98% STANDARD PROCTOR DRY DENSITY (ASTM D698).

 10. WHERE A SECTION OF PAVEMENT, CURB AND GUTTER OR SIDEWALK IS CUT OR OTHERWISE DAMAGED BY THE CONTRACTOR, THE ENTIRE SECTION SHALL BE REMOVED AND REPLACED. PAVEMENT, CURBS, GUTTERS AND
- NEAREST JOINT.

 11. SAWCUT EDGES OF PAVEMENT FULL DEPTH PRIOR TO REMOVAL TO PREVENT DAMAGE TO ADJACENT SLABS AND

SIDEWALKS SHALL BE REMOVED A MINIMUM OF TWO FEET BEYOND THE EDGE OF THE TRENCH CUT AND TO THE

- 12. EXISTING FIELD TILE LINES ENCOUNTERED IN THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR IN ONE OF
- THE FOLLOWING WAYS:

 A. CONNECT TILE TO THE NEAREST STORM SEWER.
- B. DAYLIGHT TO FINISHED GROUND.
 C. REPAIR TILE AND MAINTAIN SERVICE.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF A TILE IS ENCOUNTERED AND SHALL INDICATE THE METHOD OF RESOLVING THE CONFLICT. THE ENGINEER SHALL APPROVE THE PROPOSED METHOD. THE LOCATION OF THE FIELD TILE SHALL BE RECORDED ON THE CONSTRUCTION RECORD DOCUMENTS.

GRADING NOTES

- STRIP EXISTING VEGETATION AND TOPSOIL WITHIN THE GRADING LIMITS. STOCKPILE ON—SITE FOR REUSE IF SUITABLE.
- COMPACTION SHALL BE COMPLETED WITH MOISTURE AND DENSITY CONTROL AS FOLLOWS:
- A. UNLESS OTHERWISE SPECIFIED, AREAS OUTSIDE OF HARD SURFACED (PAVEMENT, SIDEWALKS, PATIOS, ETC.) OR BUILDING AREAS (INCLUDING FUTURE BUILDING & PAVING AREAS) SHALL BE COMPACTED TO 90% OF THE MATERIALS MAXIMUM STANDARD PROCTOR DENSITY (ASTM D698).
- B. AREAS UNDER HARD SURFACED (PAVEMENT, SIDEWALKS, PATIOS, ETC.) OR BUILDING AREAS (INCLUDING FUTURE BUILDING & PAVING AREAS) SHALL BE COMPACTED TO 98% OF THE MATERIALS MAXIMUM STANDARD PROCTOR DENSITY (ASTM D698). THIS HIGHER DEGREE OF COMPACTION SHALL EXTEND BEYOND THE EXTERIOR EDGES OF PERIMETER BUILDING FOOTINGS AT LEAST ONE—FOOT FOR EVERY FOOT OF FILL BELOW FOOTING BASE ELEVATION.
- PROOFROLL THE SUBGRADE TO IDENTIFY SOFT OR DISTURBED AREAS IN THE SUBGRADE. OTHERWISE SUITABLE MATERIALS FROM UNSTABLE AREAS IDENTIFIED DURING PROOFROLLING SHALL BE REMOVED AND RECOMPACTED TO THE LIMITS SPECIFIED IN GRADING NOTE #2 ABOVE. PROOFROLL CLAY SOILS WITH A MINIMUM 25 TON GROSS VEHICLE WEIGHT. PROOFROLL SANDY SOILS WITH A VIBRATORY DRUM ROLLER WITH MINIMUM 10 TON GROSS WEIGHT.
- FOR ALL CUT AREAS UNDER HARD SURFACED AND BUILDING AREAS, AND ALL THOSE FILL AREAS OVER NATIVE SOILS, SCARIFY THE SUBGRADE TO AT LEAST 1—FOOT BELOW ROUGH GRADE AND RECOMPACT TO THE LIMITS SPECIFIED IN GRADING NOTE #2 ABOVE.
- 5. IN AREAS TO RECEIVE ADDITIONAL FILL OVER EXISTING FILL MATERIALS, REMOVE TOP 1-FOOT OF MATERIAL BELOW ROUGH GRADE, AND THEN SCARIFY AND RECOMPACT THE NEXT 12" OF RESULTING SUBGRADE TO THE LIMITS SPECIFIED IN GRADING NOTE #2 ABOVE.
- 6. PLACE FILL MATERIAL IN 8" MAXIMUM LIFTS.
- 7. DO NOT PLACE, SPREAD, OR COMPACT ANY FILL MATERIAL DURING UNFAVORABLE WEATHER CONDITIONS AND DO NOT RESUME COMPACTION OPERATIONS UNTIL MOISTURE CONTENT AND DENSITY OF IN-PLACE FILL MATERIAL ARE WITHIN SPECIFIED LIMITS.
- 3. FILL MATERIAL OBTAINED FROM OFF—SITE SOURCES SHALL CONSIST OF APPROVED MATERIALS WHICH ARE FREE OF ORGANIC MATTER, DEBRIS AND OTHER DELETERIOUS SUBSTANCES. IT SHALL CONTAIN NO ROCKS OR LUMPS OF 6 INCHES IN GREATEST DIMENSION AND NOT MORE THAN 15% OF THE ROCKS OR LUMPS SHALL BE LARGER THAN 2—1/2 INCHES IN GREATEST DIMENSION.
- 9. SCARIFY SUBGRADE TO DEPTH OF 3 INCHES WHERE TOPSOIL IS SCHEDULED. SCARIFY AREAS WHERE EQUIPMENT USED FOR HAULING AND SPREADING TOPSOIL HAS CAUSED COMPACTED SUBSOIL.
- 10. FINISH GRADE CONTOURS AND SPOT ELEVATIONS SHOWN ARE TO TOP OF PAVEMENT, TOP OF TOPSOIL (IN SEEDED AREAS), TOP OF SOD (IN SODDED AREAS), TOP OF RIP—RAP (IN RIP—RAPPED AREAS) OR TOP OF MULCH (IN MULCHED AREAS).

SURFACE RESTORATION NOTES

- . EXCEPT FOR THE BOTTOM OF THE BIORETENTION CELL, A MINIMUM OF EIGHT INCHES (8") OF TOPSOIL SHALL BE RESPREAD ON AREAS NOT HARD SURFACED. SCARIFY AREAS TO RECEIVE TOPSOIL TO A DEPTH OF 4". REMOVE ALL STONES, WOOD AND OTHER DEBRIS LARGER THAN 2" FROM AREAS TO RECEIVE TOPSOIL. DO NOT COMPACT TOPSOIL. THE CONTRACTOR SHALL BE CAREFUL TO PREPARE THE SUBGRADE SUCH THAT THE COMBINED DEPTH OF THE TOPSOIL AND SOD, OR THE TOPSOIL AND MULCH, DOES NOT CAUSE THE FINISH GRADE TO EXCEED THAT SHOWN ON THESE PLANS.
- 2. REFER TO DETAIL NO. 3 ON THIS PLAN SHEET FOR BIORETENTION CELL CROSS-SECTION.
- EXCEPT FOR THE BOTTOM OF THE BIORETENTION CELL, ALL AREAS NOT HARD SURFACED OR RIP-RAPPED SHALL BE SEEDED WITH A TYPE 1 (PERMANENT LAWN MIXTURE) SEED MIX PER SUDAS STANDARD SPECIFICATIONS SECTION
- 4. THE BOTTOM OF THE BIORETENTION CELL SHALL BE SEEDED WITH A TYPE 3 (PERMANENT WARM—SEASON SLOPE AND DITCH MIXTURE) PER SUDAS STANDARD SPECIFICATIONS SECTION 9010.
- 5. EXISTING FACILITIES (CURBS, PAVEMENT, UTILITIES, ETC.) THAT ARE TO REMAIN AND ARE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.

EROSION CONTROL NOTES

- THE CONTRACTOR SHALL PROVIDE TEMPORARY EROSION CONTROL, SEDIMENT, AND DUST CONTROL IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND THE IOWA STATEWIDE URBAN DESIGN & SPECIFICATIONS (SUDAS) PROGRAM, LATEST EDITION.
- 2. UNLESS OTHERWISE INDICATED, THE CONTRACTOR SHALL INCORPORATE ALL EROSION CONTROL FEATURES INTO THE PROJECT PRIOR TO DISTURBING THE SOIL. SITE CONDITIONS MAY NECESSITATE ADDITIONAL OR REPLACEMENT OF EROSION CONTROL AND/OR SEDIMENT CONTROL MEASURES, TO WHICH THE CONTRACTOR IS RESPONSIBLE.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSPECT THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES A MINIMUM OF ONCE PER WEEK. IF A CONTROL MEASURE HAS BEEN REDUCED IN CAPACITY BY 50% OR MORE, THE CONTRACTOR SHALL RESTORE SUCH FEATURES TO THEIR ORIGINAL CONDITION IMMEDIATELY, WEATHER PERMITTING.
- 4. ERECT SILT FENCE AS SHOWN ON THE PLANS TO LIMIT LOSS OF MATERIAL FROM THE SITE. DEVICES TO REMAIN IN PLACE AND TO BE MAINTAINED UNTIL A PERMANENT GROUND COVER IS ESTABLISHED.
- 5. MINIMIZE SOIL EROSION BY MAINTAINING ALL EXISTING VEGETATIVE GROWTH WITHIN THE GRADING LIMITS FOR AS
- 6. INSTALL A SILT FENCE AROUND ALL STOCKPILED TOPSOIL, IF ANY.
- 7. THE CONTRACTOR SHALL PROVIDE TEMPORARY SEEDING FOR ALL AREAS THAT ARE DISTURBED AND OPERATIONS WILL NOT COMMENCE OR PERMANENT SEEDING WILL NOT BE COMPLETED IN LESS THAN 14 DAYS.
- 8. SEQUENCE OF EROSION AND SEDIMENT CONTROL EVENTS:
- A. THE CONTRACTOR SHALL UTILIZE THE EXISTING HARD SURFACED DRIVEWAY FOR CONSTRUCTION ACCESS AND SHALL PROHIBIT ALL UNNECESSARY VEHICLES FROM ENTERING ONTO DISTURBED AREAS UNTIL THE NEW GRANULAR BASE IS PLACED WITHIN THE RECONSTRUCTED PARKING AREAS. THE CONTRACTOR SHALL INSTALL FENCING OR FLAGGING TO PROHIBIT VEHICLES FROM ENTERING DISTURBED AREAS THAT ARE NOT COVERED WITH GRANULAR BASE. CLEAN ANY SEDIMENT DEPOSITED ON THE ADJACENT DRIVEWAYS, PARKING AREAS AND PUBLIC STREET WITHIN 24—HOURS OF IT BEING DEPOSITED.
- B. PRIOR TO BEGINNING CLEARING, GRUBBING, TOPSOIL STRIPPING OR GRADING, THE CONTRACTOR SHALL INSTALL THE PERIMETER SILT FENCE ON THE DOWN-GRADE SIDE OF THE DISTURBED AREA AS INDICATED ON PLAN SHEET C1.0. SILT FENCE MAY BE USED AS LONG AS IT EFFECTIVELY PROHIBITS SEDIMENT FROM
- C. IF ANY TEMPORARY STOCKPILING OF TOPSOIL, EXCESS SOIL OR UNSUITABLE SOIL IS REQUIRED, THE CONTRACTOR SHALL FURNISH & INSTALL A SILT FENCE AROUND THE STOCKPILE LOCATION(S) PRIOR TO SOIL PLACEMENT. SILT FENCE MAY BE USED AS LONG AS IT EFFECTIVELY KEEPS EROSION WITHIN THE STOCKPILE
- D. STABILIZE EXCESS, UNSUITABLE AND TOPSOIL STOCKPILES WHICH WILL NOT BE RESPREAD WITHIN 14 DAYS WITH TEMPORARY SEPTING
- E. THE CONTRACTOR SHALL TEMPORARY SEED AND MULCH THE STEEP SLOPES (6:1 AND STEEPER) ON THE PROJECT SITE IMMEDIATELY AFTER ROUGH GRADING AND UTILITY INSTALLATIONS IN THESE AREAS ARE COMPLETE.
- F. PRIOR TO BEGINNING ANY CONSTRUCTION WITH PORTLAND CEMENT CONCRETE, THE CONTRACTOR SHALL INSTALL THE CONCRETE WASHOUT WHERE INDICATED ON PLAN SHEET C1.0. THE CONCRETE WASHOUT SHALL REMAIN IN PLACE AND ACTIVELY UTILIZED UNTIL ALL CONSTRUCTION WITH PORTLAND CEMENT CONCRETE IS COMPLETED. ONLY THEN MAY THE CONCRETE BE REMOVED AND PROPERLY DISPOSED OF. THE CONTRACTOR SHALL ENSURE THAT ALL PORTLAND CEMENT CONCRETE SUPPLIERS AND SUBCONTRACTORS UTILIZE THE WASHOUT(S) FOR EQUIPMENT WASHING AND WET CONCRETE DISPOSAL. THE CONCRETE WASHOUT SHALL BE CLEARLY MARKED WITH A SIGN AND THE GENERAL CONTRACTOR IS TO INFORM ALL WORKERS OF THE LOCATION OF THE CONCRETE WASHOUT TO ENSURE THAT IT IS USED. CONCRETE WASHOUTS SHALL BE INSTALLED AND OPERATED IN ACCORDANCE WITH SECTION 11,050 OF THE SUDAS SPECIFICATIONS
- G. INSTALL THE RIP-RAP BLANKET AT THE EAST SIDE OF THE BIORETENTION BASIN IMMEDIATELY AFTER THE BASIN IS GRADED.
- H. INSTALL THE RIP-RAP BLANKET AT THE BIORETENTION CELL'S EMERGENCY OVERFLOW IMMEDIATELY AFTER THE BIORETENTION CELL'S EMBANKMENT & OVERFLOW ARE CONSTRUCTED & GRADED.
- I. DURING CONSTRUCTION AND VEGETATION OF THE BIORETENTION BASIN, THE CONTRACTOR SHALL DIRECT ROOF RUNOFF FROM THE WESTERLY DOWNSPOUTS OF BOTH THE ACE HARDWARE BUILDING & THE DUCHESS CLEANERS BUILDING AWAY FROM THE BASIN BY USING ENOUGH SINGLE WALL 6"Ø HDPE STORM SEWER PIPE TO OUTLET ROOF RUNOFF TO THE WEST ONTO THE EXISTING RIP—RAP ALONG THE CREEK. WHEN THE BIORETENTION BASIN IS VEGETATED, REMOVE THESE TEMPORARY MEASURES AND INSTALL PERMANENT MEASURES SHOWN ON SHEET C1.0 TO DIRECT ROOF RUNOFF INTO THE BIORETENTION BASIN.
- J. FURNISH & INSTALL SILT FENCE AT EAST SIDE OF BIORETENTION BASIN PRIOR TO PLACING THE BASIN'S LINER, RECHARGE BED AGGREGATE, OR ENGINEERED SOIL. SILT FENCE TO REMAIN IN PLACE UNTIL THE SITE IS FULLY VEGETATED. SILT FENCE MAY BE USED AS LONG AS IT EFFECTIVELY PROHIBITS SEDIMENT FROM ENTERING THE BIORETENTION BASIN.
- K. APPLY TEMPORARY SEEDING TO ALL DENUDED AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR 14 DAYS OR MORE. FERTILIZE AND LIME IF NEEDED. APPLY MULCH ON SLOPES GREATER THAN 6:1 (HORIZONTAL: VERTICAL).
- AS SOON AS IS PRACTICABLE AFTER COMPLETION OF ROUGH GRADING AND UTILITY INSTALLATIONS IN THESE AREAS, THE CONTRACTOR SHALL PLACE TOPSOIL, FINISH GRADE AND SEED.
- M. INSTALL STONE BASE ON BUILDING FOOTPRINT AND PAVEMENT AREAS IMMEDIATELY FOLLOWING COMPLETION OF GRADING.
- N. AS SOON AS IS PRACTICABLE AFTER COMPLETION OF UTILITY INSTALLATION, PAVING AND FINISH GRADING; THE CONTRACTOR SHALL DESTROY THE TEMPORARY SEEDING, SPREAD TOPSOIL, CONSTRUCT THE BIORETENTION CELL AND THEN INSTALL THE PERMANENT SEEDING (INCLUDES FERTILIZING AND MULCHING) OVER ALL DISTURBED AREAS NOT TO BE HARD SURFACED OR COVERED IN RIP—RAP.
- O. WHEN CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED WITH PERMANENT SEEDING AND HARD SURFACING, THE CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT FROM ANY SEDIMENT BASINS, REMOVE SILT FENCE, REMOVE INLET PROTECTION AT STORM INTAKES, AND RESEED OR RESOD ANY AREAS DISTURBED BY THE REMOVALS.

TRENCH EXCAVATION & BACKFILL NOTES

- 1. ALL TRENCH EXCAVACATION AND BACKFILL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) PROGRAM SPECIFICATIONS, LATEST EDITION, AS SUPPLEMENTED BY CITY OF SPENCER REQUIREMENTS, UNLESS OTHERWISE NOTED ON THE DRAWINGS. A COPY OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) PROGRAM SPECIFICATIONS REFERENCED IN THESE PLANS CAN BE FOUND AT: http://www.iowasudas.org/
- 2. POLYVINYL CHLORIDE (PVC) STORM SEWER SHALL BE INSTALLED WITH BEDDING CLASS F-3. REFER TO SUDAS STANDARD DETAIL NO. 3010.103.
- 3. REFER TO DETAIL NO. 3 ON THIS PLAN SHEET FOR INSTALLATION OF HIGH DENSITY POLYETHYLENE (HDPE) SUBDRAIN WITHIN THE BIORETENTION CELL.
- 4. UNLESS OTHERWISE SPECIFIED ABOVE, PIPE TRENCHES MAY BE BACKFILLED WITH SUITABLE NATIVE EXCAVATED

STORM SEWER AND SUBDRAIN NOTES

- ALL STORM SEWER (SEWER MAINS, MANHOLES, INTAKES) AND SUBDRAIN (SUBDRAIN, CLEANOUTS) CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) PROGRAM SPECIFICATIONS, LATEST EDITION, AS SUPPLEMENTED BY CITY OF SPENCER REQUIREMENTS, UNLESS OTHERWISE NOTED ON THE DRAWINGS. A COPY OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) PROGRAM SPECIFICATIONS REFERENCED IN THESE PLANS CAN BE FOUND AT:
- http://www.iowasudas.org/
- 2. POLYVINYL CHLORIDE (PVC) STORM SEWER PIPE SHALL COMPLY WITH ASTM D3034, MINIMUM THICKNESS SDR 35, 46
 PSI MINIMUM PIPE STIFFNESS. US PVC PLASTIC CONFORMING TO ASTM D1784, CELL CLASSIFICATION 12454.
 INTEGRAL BELL AND SPIGOT TYPE RUBBER GASKET JOINTS COMPLYING WITH ASTM D3212 AND ASTM F477. REFER
 TO THE "TRENCH EXCAVATION & BACKFILL NOTES" ON THIS PLAN SHEET FOR BEDDING AND BACKFILL
- 3. HIGH DENSITY POLYETHYLENE (HDPE) SUBDRAIN SHALL BE <u>DUAL WALL</u> (CORRUGATED EXTERIOR AND SMOOTH INTERIOR) REQUIREMENTS OF AASHTO M252 OR M294, TYPE S. HDPE SUBDRAIN PIPE SHALL BE SLOTTED OR PERFORATED ACCORDING TO AASHTO M252, TYPE SP. USE ONLY FITTINGS SUPPLIED OR RECOMMENDED BY PIPE MANUFACTURER FOR SOIL TIGHT SERVICE.
- 4. SIX-INCH (6") HIGH DENSITY POLYETHYLENE (HDPE) ROOF DRAIN PIPES AND FITTINGS SHALL COMPLY WITH AASHTO M252, TYPE C, CORRUGATED INTERIOR AND EXTERIOR. ROOF DRAIN PIPES SHALL BE NON-PERFORATED. USE ONLY FITTINGS SUPPLIED OR RECOMMENDED BY PIPE MANUFACTURER FOR SOIL TIGHT SERVICE. THE CONTRACTOR SHALL FURNISH & INSTALL ALL FITTINGS (TEES, BENDS, RISERS, ELBOWS, ETC.) NECESSARY TO COMPLETE THE INSTALLATION OF THE PROPOSED ROOF DRAIN PIPES.

PAVEMENT GENERAL NOTES

- ALL SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
- 2. ALL DIMENSIONS TO BACK-OF-CURB OR EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.
- 3. REMOVE AND REPLACE OR RESTORE ALL STREET SIGNS, PAVEMENT MARKINGS, SIDEWALK LAMPS, SIDEWALKS, STEPS, LANDSCAPE STRUCTURES, CURB AND GUTTER, STREETS, DRIVES AND ALL OTHER SURFACE STRUCTURES REMOVED OR OTHERWISE DAMAGED DURING THE COURSE OF THE WORK. SIDEWALKS SHALL BE REMOVED AND REPLACED TO NEAREST JOINT BEYOND CONSTRUCTION AREA.
- 4. COMPACT SUBGRADE BENEATH PAVEMENTS IN ACCORDANCE WITH GRADING NOTES.
- 5. PROOF-ROLL SUBGRADE WITH A MINIMUM 25 TON G.V.W. TRUCK TO IDENTIFY AREAS OF SOFT OR UNSTABLE SUBGRADE. REMOVE AND REPLACE UNSTABLE AREAS WITH SUITABLE COMPACTED MATERIAL.
- 5. GRANULAR BASE FOR PAVEMENTS SHALL MEET THE REQUIREMENTS SECTION 4123 (MODIFIED GRANULAR SUBBASE, GRADATION NO. 14) OF THE IOWA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR HIGHWAY

PCC PAVEMENT NOTES

PLAN SHEET.

- PCC PAVING THICKNESS SHALL BE AS NOTED ON THESE PLANS. REFER TO DETAIL NO. 1 ON THIS PLAN SHEET.
 PCC CURBS SHALL BE SIX-INCHES (6") HIGH AS NOTED ON THESE PLANS. REFER TO DETAIL NO. 2 ON THIS
- 3. MATERIALS AND CONSTRUCTION FOR PORTLAND CEMENT CONCRETE PAVEMENTS SHALL MEET THE REQUIREMENTS OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) PROGRAM STANDARD SPECIFICATIONS, LATEST EDITION, UNLESS OTHERWISE NOTED ON THESE DRAWINGS. A COPY OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS) PROGRAM STANDARD SPECIFICATIONS REFERENCED IN THESE PLANS CAN BE FOUND AT: http://www.iowasudas.org/
- 4. MINIMUM 28-DAY COMPRESSIVE STRENGTH FOR CONCRETE USED FOR PAVEMENTS SHALL BE 4000 PSI. CONCRETE SHALL BE C-3 OR C-4 WITH TYPE 1 CEMENT. AIR CONTENT SHALL BE 8% WITH A TOLERANCE OF ±2% WHEN MEASURED ON THE GRADE JUST PRIOR TO CONSOLIDATION FOR MACHINE-PLACED PAVEMENT. AIR CONTENT SHALL BE 7% WITH A TOLERANCE OF ±1.5% WHEN MEASURED ON THE GRADE JUST PRIOR TO CONSOLIDATION FOR HAND-PLACED PAVEMENT. AIR ENTRAINMENT ADMIXTURES AND WATER REDUCING ADMIXTURES SHALL CONFORM TO IOWA DOT SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION SECTION 4103. DURABILITY FOR PORTLAND CEMENT CONCRETE SHALL BE CLASS 2. JOINT SEALER SHALL CONFORM TO IOWA DOT SPECIFICATIONS

FOR HIGHWAY AND BRIDGE CONSTRUCTION SECTION 4136 FOR HOT POURED JOINT SEALER.

- CURING COMPOUND (WHITE, DARK OR CLEAR) SHALL CONFORM TO IOWA DOT SPECIFICATIONS FOR SECTION 4105.
 APPLICATION METHOD AND CURING SHALL CONFORM TO IOWA DOT SPECIFICATIONS FOR HIGHWAY AND BRIDGE
 CONSTRUCTION SECTION 2301.19.
- FLYASH PER IOWA DOT SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION SECTION 4108 MAY BE SUBSTITUTED FOR CEMENT AT THE RATES SPECIFIED IN SECTION 2301.04E AFTER NOTIFICATION AND AUTHORIZATION BY THE OWNER'S REPRESENTATIVE.
- PAVEMENT TIE BARS AND DOWEL BARS SHALL CONFORM TO IOWA DOT SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION SECTION 4151. EPOXY COATING, WHEN SPECIFIED, SHALL CONFORM TO IOWA DOT SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION SECTION 4151.03B.

CURBS SHALL BE CAST INTEGRAL WITH CONCRETE PAVEMENT UNLESS NOTED OTHERWISE. EDGES SHALL BE

ROUNDED BUT NOT ROLLED.

6. THE CONTRACTOR SHALL PROVIDE A 1/2" EXPANSION JOINT BETWEEN THE NEW PAVEMENT AND THE FACES OF

BUILDINGS, STOOPS, FOUNDATIONS, EQUIPMENT PADS AND OTHER FIXTURES.

- 7. PCC SIDEWALKS SHALL BE 4 INCHES THICK, EXCEPT AT DRIVEWAYS. THICKNESS OF PCC WALKS AT DRIVEWAYS SHALL MATCH THAT OF THE ADJACENT DRIVEWAY. TRANSVERSE CONSTRUCTION JOINTS SPACING SHALL BE AT 3 FEET MAXIMUM CENTERS FOR 3 FEET WIDE WALKS, 4 FEET MAXIMUM CENTERS FOR 4 FEET WIDE WALKS, AND 5 FEET MAXIMUM CENTERS FOR 5 FEET WIDE WALKS, 6 FEET MAXIMUM CENTERS FOR WALKS GREATER THAN 5 FEET IN WIDTH. LONGITUDINAL CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN SLABS GREATER THAN 8 FEET IN WIDTH. PLACE 1/2" EXPANSION JOINTS WHERE WALK MEETS OTHER WALKS, BACK OF CURBS, FIXTURES, OR OTHER STRUCTURES, AND AT INTERVALS NOT EXCEEDING 50 FEET. SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 1.5% DRAINING TOWARDS BACK OF CURB, UNLESS OTHERWISE NOTED.
- 8. SIX INCH (6") PCC SHALL BE JOINTED AT 10 FEET O.C. MAXIMUM DISTANCE. ALL COLD JOINTS SHALL BE DOWELED. JOINTING SHALL BE IN ACCORDANCE WITH SUDAS STANDARD DETAIL NO. 7010.101.
- 9. JOINTS IN THE PORTLAND CEMENT CONCRETE (PCC) PAVING MAY BE NON-REINFORCED, EXCEPT FOR COLD JOINTS.

PAVEMENT MARKING NOTES

- UNLESS OTHERWISE INDICATED, PAINT PARKING STRIPING, TRAFFIC DIRECTION ARROWS AND HANDICAP SYMBOLS "TRAFFIC WHITE" WHERE SHOWN ON THE PLANS. PAINT BOLLARDS, LIGHT POLE BASES AND SIDEWALK CURBS "SAFETY YELLOW". VERIFY COLOR OF PAVEMENT MARKINGS WITH OWNER PRIOR TO CONSTRUCTION.
- 2. PAVEMENT MARKINGS SHALL BE FAST DRY TRAFFIC LANE MARKING PAINT CONFORMING TO IOWA DOT STANDARD SPECIFICATION FOR HIGHWAY AND BRIDGE CONSTRUCTION, LATEST EDITION, SECTION 4183.03. REFLECTORIZED SPHERES FOR TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF IOWA DOT STANDARD SPECIFICATION FOR HIGHWAY AND BRIDGE CONSTRUCTION, LATEST EDITION, SECTION 4184.
- 3. PAINTING SHALL NOT BEGIN UNTIL PAVEMENT SURFACE HAS BEEN POWER BROOMED AND HAND SWEPT AS NECESSARY TO REMOVE LOOSE MATERIALS AND DIRT; AND NOT BEFORE ADEQUATE CURING TIME HAS BEEN OBTAINED ON THE PAVEMENT. MINIMUM CURING TIME FOR ASPHALT PAVING SHALL BE 7 DAYS.
- APPLY PAINT AT MANUFACTURER'S RECOMMENDED RATES IN TWO SEPARATE COATS FOR ALL PAVEMENT MARKINGS. ALL STRIPES ARE 4 INCHES WIDE UNLESS OTHERWISE INDICATED. HANDICAP SYMBOLS SHALL CONFORM TO APPLICABLE ADA REGULATIONS.
- 5. ALL TRAFFIC CONTROL SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.

REFERENCED STATEWIDE URBAN DESIGN AND SPECIFICATIONS (SUDAS - LATEST EDITION) STANDARD DETAILS

NOTE:
THE STANDARD DETAILS LISTED IN THIS TABLE ARE APPLICABLE TO THIS PROJECT.

- DIVISION 3: TRENCH AND TRENCHLESS CONSTRUCTION

 3010.101 TRENCH BEDDING AND BACKFILL ZONES

 3010.103 FLEXIBLE GRAVITY PIPE TRENCH BEDDING
- DIVISION 4: SEWERS AND DRAINS
 4040.232 SUBDRAIN CLEANOUTS
 4040.233 SUBDRAIN OUTLETS
- DIVISION 6: STRUCTURES FOR SANITARY AND STORM SEWERS
- ISION 6: STRUCTURES FOR SANITARY AND STOR 6010.401 CIRCULAR STORM SEWER MANHOLE
- 6010.512 CIRCULAR AREA INTAKE
 6010.604 CASTINGS FOR AREA INTAKES
- DIVISION 7: STREETS AND RELATED WORK
- 7010.101 JOINTS
 7030.204 GENERAL FEATURES OF AN ACCESSIBLE SIDEWALK
- 7030.205 GENERAL SIDEWALK AND CURB RAMP DETAILS
- 7030.206 CURB RAMPS OUTSIDE OF INTERSECTION RADIUS 7030.207 CURB RAMP FOR CLASS B OR C SIDEWALK
- DIVISION 9: SITE WORK AND LANDSCAPING

9040.119 SILT FENCE

PORTLAND CEMENT CONCRETE (PCC) PAVEMENT GRANULAR BASE MATERIAL (SEE NOTES) COMPACTED LOW PLASTICITY OR GRANULAR STRUCTURAL FILL. SCARIFIED & RECOMPACTED SUITABLE

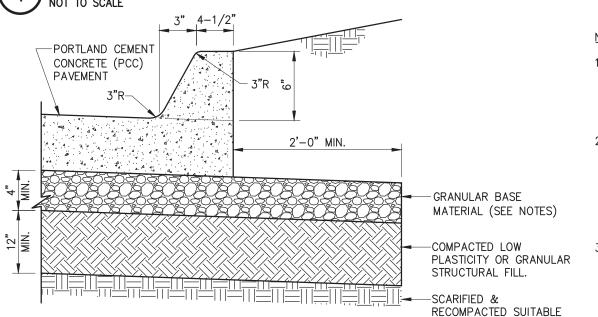
1. SCARIFY THE EXISTING SUITABLE SUBGRADE SOIL TO A DEPTH OF 12 INCHES
AND RECOMPACT TO 95% OF STANDARD PROCTOR DENSITY (ASTM D698) PRIOR
TO PLACEMENT OF FILL.

2. GRANULAR BASE MATERIAL SHALL MEET THE REQUIREMENTS OF SECTION 4123

(MODIFIED GRANULAR SUBBASE, GRADATION NO. 14) OF THE IOWA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, LATEST EDITION.

3. ALL EARTHWORK AND COMPACTION SHALL BE COMPLETED IN CONFORMANCE WITH THE GRADING NOTES OF THESE PLANS.

TYPICAL PCC PAVEMENT SECTION



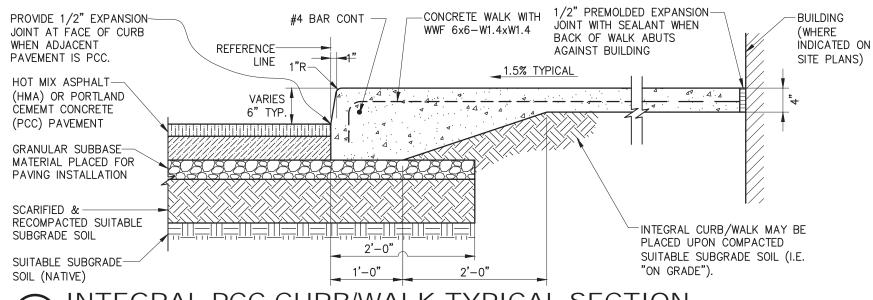
NOTES:

1. SCARIFY THE EXISTING SUITABLE SUBGRADE SOIL TO A DEPTH OF 12 INCHES AND RECOMPACT TO 95% OF STANDARD PROCTOR DENSITY (ASTM D698) PRIOR TO PLACEMENT OF FILL.

2. GRANULAR BASE MATERIAL SHALL MEET THE REQUIREMENTS OF SECTION 4123 (MODIFIED GRANULAR SUBBASE, GRADATION NO. 14) OF THE IOWA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, LATEST EDITION.

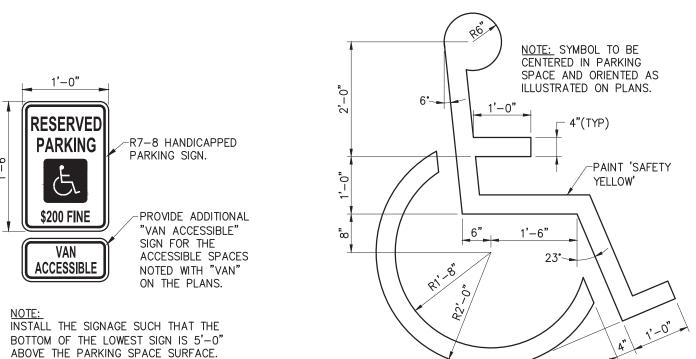
 ALL EARTHWORK AND COMPACTION SHALL BE COMPLETED IN CONFORMANCE WITH THE GRADING NOTES OF THESE PLANS.

6" HIGH INTEGRAL PCC CURB & GUTTER



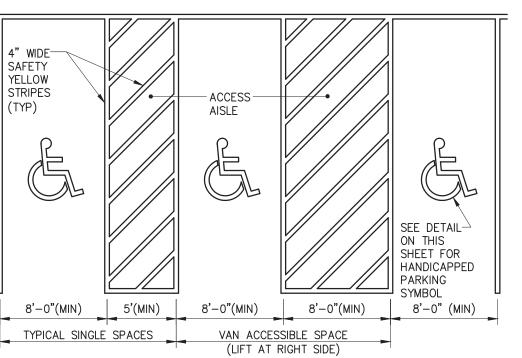
SUBGRADE SOIL (NATIVE)

3 INTEGRAL PCC CURB/WALK TYPICAL SECTION NOT TO SCALE



4 HANIDCAPPED ACCESSIBLE
PARKING SPACE SIGNAGE
NOT TO SCALE

5 HANDICAPPED
PARKING SYMBOL
NOT TO SCALE



HANDICAPPED PARKING
SPACE STRIPING
NOT TO SCALE

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APPROVED: TRED SCHNOOF

DATE: 02/11/2019

PROJECT NO.: 18113

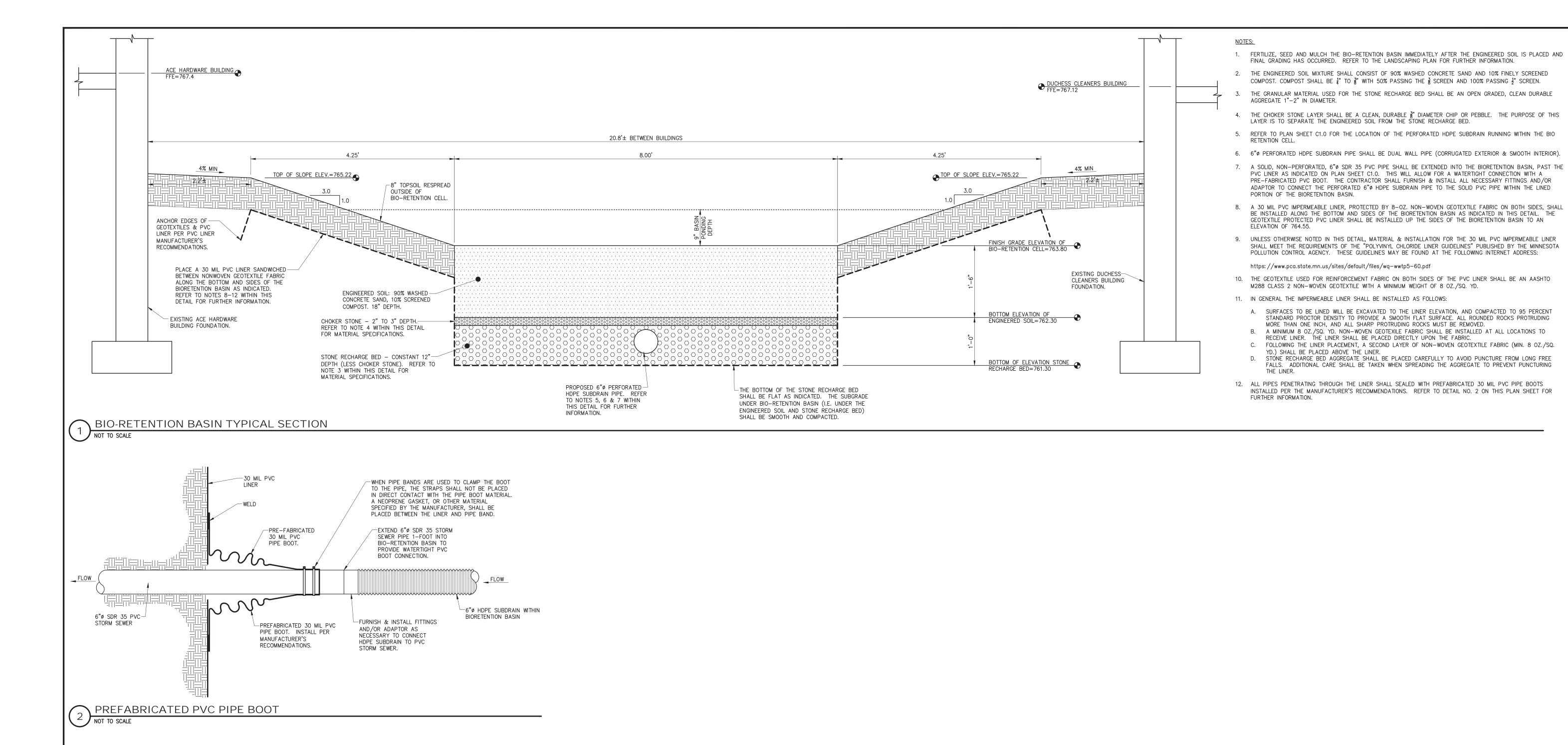
DUCHESS CLEANERS

JING & SITE RECONSTRUCTI

3905 CENTER POINT ROAD NE
CEDAR RAPIDS, IOWA 52402

SITE CONSTRUCTION NOTES & DETAILS

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TE: 02/11/2019

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DUCHESS CLEANERS

BUILDING & SITE RECONSTRUCTION

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CEDAR RAPIDS, IOWA 52402

SITE CONSTRUCTION DETAILS

C3.0