DATE: November 3, 2023

ADDENDUM NO.: 1

PROJECT NAME: Ottumwa Community Schools – Tennis Courts

OLSSON PROJECT NO. 023-05957

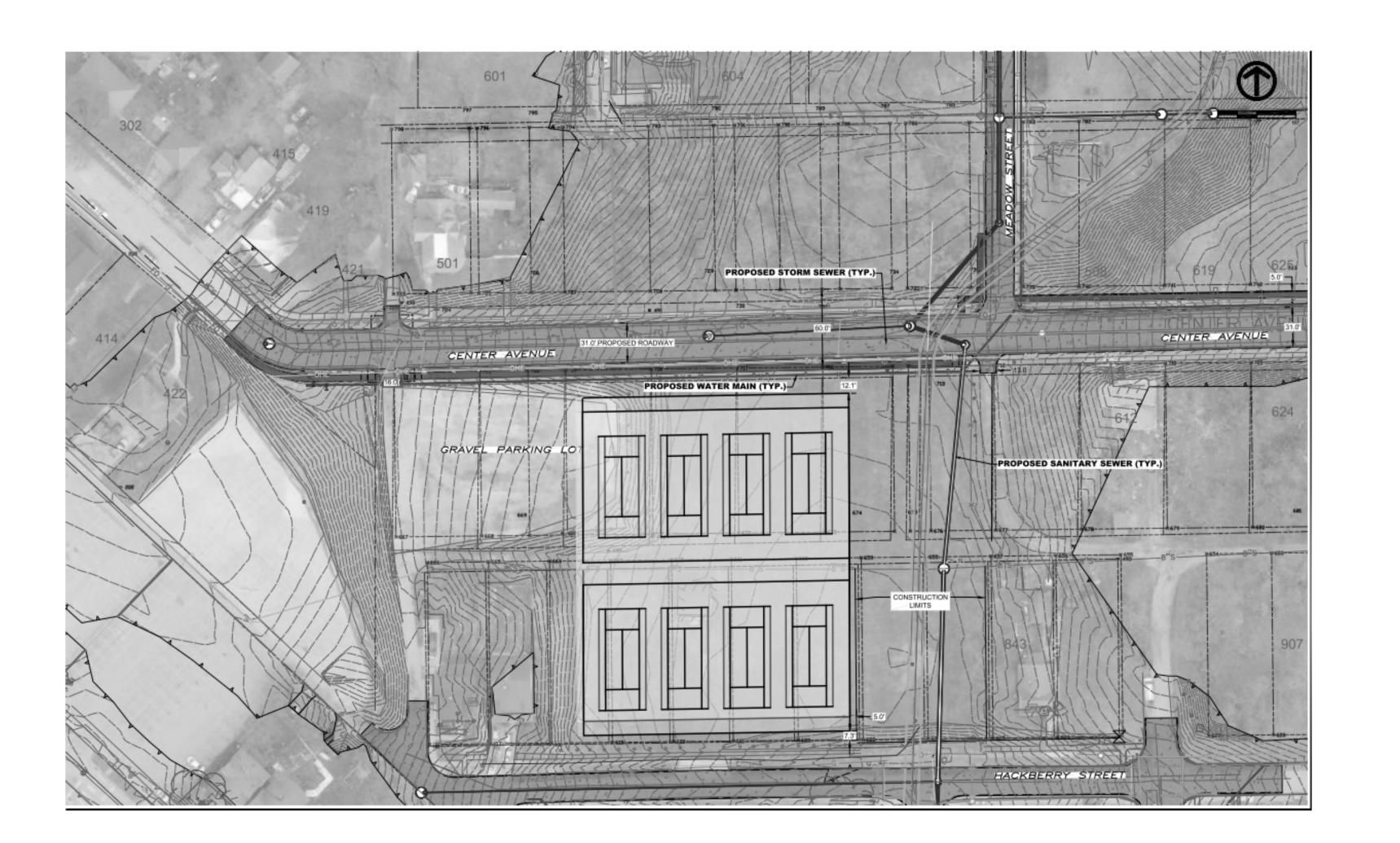
# TO ALL WHO HAVE RECEIVED PLANS AND SPECIFICATIONS FOR THE REFERENCED PROJECT.

- 1. Revisions:
  - a. Revised G000 to include updated sheet list
- 2. Questions from Pre-Bid Meeting:
- 3. Remove, Insert, and/or Replace the plans as follows:
  - a. C000 GENERAL NOTES New sheet
  - b. C001 GENERAL NOTES New sheet
  - c. C100 EXISTING CONDITIONS New sheet
  - d. <u>C200 EROSION CONTROL PLAN New sheet</u>
  - e. <u>C201 EROSION CONTROL NOTES New sheet</u>
  - f. C202 EROSION CONTROL NOTES New sheet
  - g. <u>C203 EROSION CONTROL DETAILS New sheet</u>
  - h. <u>C204 EROSION CONTROL DETAILS New sheet</u>
  - i. C205 EROSION CONTROL DETAILS New sheet
  - j. C300 SITE PLAN New sheet
  - k. C400 GRADING PLAN New sheet
  - 1. C401 SPOT ELEVATION PLAN NORTH New sheet
  - m. C402 SPOT ELEVATION PLAN SOUTH New sheet
  - n. C403 CUT FILL PLAN New sheet
  - o. C500 DETAIL SHEET New sheet
  - p. L100 LANDSCAPE PLAN New sheet
  - q. <u>L101 LANDSCAPE NOTES New sheet</u>

**END OF LIST** 

# OTTUMWA COMMUNITY SCHOOLS TENNIS COURTS

Ottumwa, IA 52501



DAVID HARPER CHIEF OPERATIONS OFFICER PHONE: (641) 684-6597 EXT. #66112

OLSSON CONTACT INFORMATION: CARY SCHROEDER, SE (NE) TECHNICAL LEADER PHONE: (402) 970-2316

SHEET			
	SHEET NAME	REVISION DATE	RI
C000	GENERAL NOTES		
C001	GENERAL NOTES		
C100	EXISTING CONDITIONS		
	EROSION CONTROL PLAN		
C201	EROSION CONTROL NOTES		
C202	EROSION CONTROL NOTES		
C203	EROSION CONTROL DETAILS		
	EROSION CONTROL DETAILS		
C205	EROSION CONTROL DETAILS		
	SITE PLAN		
C400	GRADING PLAN		
	SPOT ELEVATION PLAN - NORTH		
	SPOT ELEVATION PLAN - SOUTH		
	CUT FILL PLAN		
	RETAINING WALL PLAN & PROFILE		
	DETAIL SHEET		
	COVER SHEET	11/3/2023	·
	LANDSCAPE PLAN		
	LANDSCAPE NOTES		
	POST-TENSION SLAB NOTES AND SPECIAL INSPECTION SCHEDULE		
	POST-TENSION SLAB PLAN - OVERALL		
	POST-TENSION SLAB PLAN DETAILS - POST-TENSION		

#### **INSTRUCTIONS TO BIDDERS:**

- 1. SEALED BIDS WILL BE RECIEVED ON TUESDAY, NOVEMBER 7, 2023 AT 2:00 PM PREVIALING TIME FOR THE TENNIS COURT PROJECT BY;
- THE BOARD OF EDUCATION: OTTUMWA COMMUNITY SCHOOL DISTRICT 1112 N. VAN BUREN OTTUMWA, IA 52501
- 2. LUMP SUM BID PROPOSALS WILL BE RECIEVED FOR THIS PROJECT AT THE SCHEDULED TIME OF RECIEPT OF BIDS ABOVE AND WILL BE PUBLICLY OPENED AT THAT TIME.
- OTTUMWA DISTRICT OFFICE; 1112 N. VAN BUREN, OTTUMWA, IA 52501. ALL BIDDERS ARE STRONGLY ENCOURAGED TO ATTEND AND SIGN IN AT THE MEETING WHICH WILL ALSO BE ATTENDED BY THE
- 4. ALL BIDDERS ARE STRONGLY ENCOURAGED TO PERFORM A SITE VISIT PRIOR TO SUBMITTING BIDS.
- 5. BID SECURITY IN THE FOR OF A BID BOND, CERTIFIED CHECK OR CASH IN AN AMOUNT EQUAL TO FIVE PERCENT OF THE BASE BID AMOUNT SHALL BE SUBMITTED WITH THE BID. SHOULD A BID BOND BE SUBMITTED, THE BID BOND SHALL BE PAYABLE TO THE BOARD OF EDUCATION - OTTUMWA COMMUNITY
- 6. BIDS SHALL BE SUBMITTED ON OR BEFORE THE SPECIFIED CLOSING TIME IN AN OPAQUE SEALED ENVELOPE ADDRESSED TO:

OTTUMWA COMMUNITY SCHOOL DISTRICT ATTN: MR. MIKE McGREGORY, SUPERINTENDENT 1112 N. VAN BUREN OTTUMWA, IA 52501

- 7. THE BOARD OF EDUCATION RESERVES THE RIGHT TO REJECT ANY BID OR ALL BIDS OR PART THEREOF, OR WAIVE ANY IRREGULARITIES OR INFORMALITIES, AND TO MAKE THE AWARD IN THE BEST INTEREST
- 8. CONTRACTOR MAY OBTAIN ELECTRONIC BID DOCUMENTS AT NO COST IN PDF FORM THROUGH DAVID HARPER AT DAVID.HARPER@OTTUMWASCHOOLS.COM OR THROUGH CARY SCHROEDER AT CSCHROEDER@OLSSON.COM OR VIA THE STATE OF IOWA AT https://bidopportunities.iowa.gov/
- 9. CONTRACTORS SHALL BE RESPONSIBLE FOR ANY HARD COPY SETS OF PLANS OR SPECIFICATIONS AT

	SHEET INDEX		
SHEET	SHEET NAME	REVISION DATE	REV
C000	GENERAL NOTES	27.1.2	
C001	GENERAL NOTES		
C100	EXISTING CONDITIONS		
C200	EROSION CONTROL PLAN		
C201	EROSION CONTROL NOTES		
C202	EROSION CONTROL NOTES		
C203	EROSION CONTROL DETAILS		
C204	EROSION CONTROL DETAILS		
C205	EROSION CONTROL DETAILS		
C300	SITE PLAN		
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G000	COVER SHEET	11/3/2023	1
L100	LANDSCAPE PLAN		
L101	LANDSCAPE NOTES		
S001	POST-TENSION SLAB NOTES AND SPECIAL INSPECTION SCHEDULE		
S100	POST-TENSION SLAB PLAN - OVERALL		
S101	POST-TENSION SLAB PLAN		
S200	DETAILS - POST-TENSION		

ADDENDUM #1					REVISIONS	
11/3/2023						
~					2019	
		OTTUMWA COMMUNITY SCHOOLS	STALICE SINNEL		AWA, IA	

drawn by: checked by: approved by: QA/QC by: project no.: drawing no.:

date \_\_\_

SHEET G000

- 3. PRIOR TO MOVING OFF THE JOB, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND REQUEST A FINAL WALK—THROUGH OF THE CONSTRUCTION SITE.
- 4. THE CONTRACTOR SHALL NOTIFY THE SURVEYOR AND PROJECT ENGINEER A MINIMUM OF 48 HOURS PRIOR TO STAKING OF THE CONSTRUCTION PLANS.
- 5. THE CONTRACTOR SHALL VERIFY THAT ALL IMPACTED GOVERNMENT AGENCIES HAVE GRANTED ALL APPLICABLE PERMISSION TO PROCEED WITH CONSTRUCTION PRIOR TO MOBILIZATION. FURTHERMORE, 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY APPROPRIATE PARTIES THAT WORK WILL BE PROCEEDING WITHIN EACH IMPACTED GOVERNMENT AGENCY JURISDICTIONAL BOUNDARY.
- 6. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITY PIPES AND STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS AND TO THE BEST OF OUR KNOWLEDGE CONSTITUTES ALL KNOWN FACILITIES. HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING UTILITIES OR STRUCTURES LOCATED AT THE WORK SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT IOWA ONE CALL @ 1-800-292-8989 IN ADVANCE OF ANY EXCAVATION FOR THE MARK-OUT OF THE LOCATION OF UTILITIES AND NOTIFICATION OF COMMENCEMENT OF WORK. THE CONTRACTOR SHALL ALSO HAVE ALL "PRIVATE UTILITIES" (INCLUDING IRRIGATION SYSTEMS) LOCATED BEFORE STARTING ANY CONSTRUCTION.
- 7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE OR COORDINATE WITH THE APPROPRIATE UTILITY COMPANY FOR RELOCATION OF ALL EXISTING UTILITIES CONFLICTING WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- BEFORE EXCAVATING FOR THIS CONTRACT, THE CONTRACTOR SHALL FIELD VERIFY LOCATION OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES. THE CONTRACTOR SHALL REPORT TO THE ENGINEER OR CITY INSPECTOR ANY DISCREPANCIES BETWEEN HIS MEASUREMENTS AND THESE PLANS.
- PROTECTED AND KEPT FREE OF DAMAGE BY THE CONTRACTOR'S OPERATIONS. IF SUCH UTILITY OR STRUCTURE IS DAMAGED, IT SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER AT THE CONTRACTOR'S EXPENSE. IF ANY UTILITY LINES OR STRUCTURES ARE DAMAGED DURING OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR FURTHER INSTRUCTIONS.
- 10. ALL SPOIL MATERIAL FROM THE PROJECT SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF IN A LAWFUL MANNER, UNLESS IT CAN BE REUSED ON SITE (IF SUITABLE) FOR FILL OR BERMING.
- 11. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS PRIOR TO COMMENCING CONSTRUCTION.
- 12. A PORTABLE RESTROOM FACILITY SHALL BE REQUIRED ON SITE DURING CONSTRUCTION ACTIVITIES. LOCATION SHALL COMPLY WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- 13. ANY ON-SITE FUELING SHALL COMPLY WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
- 14. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT, FACE OF BUILDING, OR BACK OF CURB (UNLESS OTHERWISE NOTED). DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
- 15. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS. ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE ENGINEER.
- 16. CONSTRUCTION FOUND NOT TO BE IN CONFORMANCE WITH THE APPROVED CONTRACT DOCUMENTS AS DETERMINED BY THE ARCHITECT, OWNER, ENGINEER, TESTING AGENCY, OR INSPECTOR SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- 17. THE CONTRACTOR SHALL ADHERE TO GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES AT ALL TIMES. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES FOCUS ON KEEPING THE WORK SITE CLEAN AND ORDERLY WHILE HANDLING MATERIALS AND WASTE IN A MANNER ELIMINATING THE POTENTIAL FOR POLLUTANT RUNOFF.
- 18. THE CONTRACTOR IS RESPONSIBLE FOR PROJECT SAFETY. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA REGULATIONS AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- 19. THE CONTRACTOR IS RESPONSIBLE FOR RELOCATION AND/OR DEMOLITION AND DISPOSAL IN A MANNER APPROVED BY ALL GOVERNING AUTHORITIES FOR ALL STRUCTURES, PADS, WALLS, PANS, FOUNDATIONS, PAVEMENT, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED AND/OR RELOCATED SHALL BE UNDERCUT TO SUITABLE GRADE AND BROUGHT UP TO PROPOSED GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE PLANS/SPECIFICATIONS.
- 20. ALL DEBRIS/CONSTRUCTION WASTE/UNSUITABLE MATERIALS RESULTING FROM CONSTRUCTION OPERATIONS SHALL BE HAULED OFF SITE AND DISPOSED OF PROPERLY AND IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS ITEM, BUT IT SHALL BE CONSIDERED SUBSIDIARY TO THE BID.
- 21. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL TRAFFIC CONTROL NECESSARY DURING CONSTRUCTION ACTIVITIES. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS ITEM, BUT IT SHALL BE CONSIDERED SUBSIDIARY TO THE BID.
- 22. THE CONTRACTOR SHALL NOT DISTURB BEYOND THE PROJECT LIMITS OF DISTURBANCE (LOD) WITHOUT APPROVAL FROM THE PROJECT ENGINEER/OWNER.
- 23. ALL CONSTRUCTION INSPECTION AND MATERIAL TESTING SHALL BE PROVIDED TO THE ACCEPTANCE OF THE SUDAS STANDARD SPECIFICATIONS..
- 24. THE CONTRACTOR SHALL REFERENCE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, BUILDING SIDEWALKS, EXIT PORCHES, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
- 25. BARRICADES SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND ANY ADDITIONS THERETO.
- 26. ALL CONSTRUCTION, PROJECT PROCEDURES, AND MATERIALS SHALL CONFORM TO THE SUDAS SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 2021 EDITION AND ANY ADDITIONS HERETO, EXCEPT AS MODIFIED BY THE CONTRACT DOCUMENTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE AFOREMENTIONED SPECIFICATIONS.
- 27. SUBJECT PROPERTY IS LOCATED WITHIN FIRM MAP ZONE X.
- 28. THE CONSTRUCTION DOCUMENTS (E.G., CONTRACT, BOND, INSURANCE, SPECIFICATIONS, AND PLANS) ARE ESSENTIAL, AND ANY REQUIREMENT IN ONE CONSTRUCTION DOCUMENT IS AS BINDING AS THOUGH OCCURRING IN ALL. THUS, THE CONSTRUCTION DOCUMENTS ARE COMPLIMENTARY IN NATURE. THE DOCUMENTS DESCRIBE AND PROVIDE THE COMPLETE CONSTRUCTION PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PROMPTLY OF ANY OMISSIONS OR ERRORS. IN THE CASE OF A DISCREPANCY BETWEEN PARTS OF THE CONSTRUCTION DOCUMENTS, THE MORE STRINGENT SHALL APPLY.

#### **DEMOLITION PLAN NOTES**

- 1. PRIOR TO DEMOLITION, EROSION CONTROL DEVICES SHALL BE INSTALLED PER THE APPROVED SWPPP PLAN OR AS SHOWN ON THE PLANS. EROSION CONTROL DEVICES SHALL BE ADJUSTED AS DEMOLITION AND CONSTRUCTION PROCEEDS AS NECESSARY.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR RELOCATION AND/OR DEMOLITION AND DISPOSAL IN A MANNER APPROVED BY ALL GOVERNING AUTHORITIES FOR ALL STRUCTURES, PADS, WALLS, PANS, FOUNDATIONS, PAVEMENT, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED AND/OR RELOCATED SHALL BE UNDERCUT TO SUITABLE GRADE AND BROUGHT UP TO PROPOSED GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE PLANS/SPECIFICATIONS.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
- 4. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
- 5. ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE, AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION, AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. THE CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN ANY ROAD RIGHT OF WAY DURING CONSTRUCTION.
- 6. SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE ANY EXISTING FEATURES TO REMAIN, SUCH FEATURES SHALL BE RESTORED TO ORIGINAL CONDITION AT THE EXPENSE OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY FOR FURTHER INSTRUCTIONS.
- 7. ALL EXISTING SEWERS, PIPING, AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATIONS OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON SITE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. THE CONTRACTOR SHALL GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DEMOLITION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH WORK.
- 8. THE CONTRACTOR SHALL PRESERVE ALL LANDSCAPING NOT TO BE REMOVED BY CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESEEDING, SODDING, OR REPLACING MULCH IN AREAS DISTURBED BY CONSTRUCTION.
- 9. THE CONTRACTOR SHALL LIMIT SAWCUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THE CONSTRUCTION PLANS. IF DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, IT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 10. CONCRETE PAVING AND SIDEWALK SHALL BE REMOVED IN FULL PANELS.
- 11. SAWCUT AND PAVEMENT REMOVAL SHALL BE THE FULL DEPTH OF THE PAVEMENT SECTION.

#### PROJECT GRADING NOTES

- 1. CONTRACTOR SHALL REFERENCE AND FOLLOW THE REPORT OF GEOTECHNICAL EXPLORATION PREPARED BY TERRACON CONSULTANTS INC., DATED OCTOBER 21, 2022. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY, REVIEW, AND FOLLOW THE RECOMMENDATIONS OF THE FULL REPORT AND ALL ISSUED ADDENDA. THE GEOTECHNICAL REPORT MUST BE FOLLOWED. SITE PREPARATION, GRADING, AND EXCAVATION PROCEDURES SHALL CONFORM TO THE RECOMMENDATIONS AS OUTLINED IN THE REPORT AND ALL ISSUED ADDENDA.
- 2. IN CASES WHERE THE SPECIFICATIONS AND GEOTECHNICAL REPORT DIFFER, THE MORE STRINGENT SHALL APPLY. ANY ALTERNATE PROCEDURES OR RECOMMENDATIONS MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER.

#### GENERAL GRADING NOTES

- 1. ALL APPLICABLE CHAPTERS AND SECTIONS FROM THE SUDAS STANDARDS AND SPECIFICATIONS FOR MUNICIPAL CONSTRUCTION SHALL APPLY; EXCEPT THOSE AMENDED BY THE CONTRACT DOCUMENTS FOR THIS PROJECT.
- 2. THE EXISTING AND PROPOSED FINISHED GROUND SURFACES ARE AVAILABLE ELECTRONICALLY FOR CONTRACTOR VERIFICATION VIA EMAIL (IN AUTOCAD). THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE EXISTING GROUND SURFACE ELEVATIONS.
- 3. CONTOURS REPRESENT FINISHED SURFACES. THE CONTRACTOR SHALL VERIFY THE PROPOSED DEPTH OF PAVING, DRIVES, SIDEWALKS, AND TOPSOIL PLACEMENT AND GRADE ALL AREAS TO ACHIEVE THE REQUIRED FINISH SUBGRADE ELEVATIONS.
- THE CONTRACTOR SHALL FINISH GRADE SLOPES NO STEEPER THAN ONE (1) FOOT VERTICAL IN THREE (3) FEET HORIZONTAL UNLESS OTHERWISE NOTED ON THE PLANS.
- 5. THE CONTRACTOR SHALL GRADE ALL LOW SPOTS TO DRAIN.
- 6. THE CONTRACTOR SHALL VERIFY POSITIVE DRAINAGE OFF ALL BUILDING PADS
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL EARTHWORK QUANTITIES. THE CONTRACTOR SHALL PROVIDE ALL WORK AND MATERIALS AS NECESSARY TO COMPLETE THE IMPROVEMENTS SHOWN ON THE
- 8. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY GRADING WILL TAKE PLACE BEYOND THE PERMITTED LIMITS OF DISTURBANCE (LOD).
- 9. THE CONTRACTOR SHALL <u>NOT</u> DISTURB EXISTING VEGETATION OUTSIDE THE LIMITS OF DISTURBANCE (LOD) WITHOUT APPROVAL FROM THE PROJECT ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY GRADING/DISTURBANCE NEEDS TO TAKE PLACE BEYOND THE LOD AS SHOWN ON THE PLANS.
- 10. EXISTING VEGETATION AND TOPSOIL SHALL BE STRIPPED TO A MINIMUM DEPTH OF 9 TO 12 INCHES AND REMOVED FROM THE SITE OR STOCKPILED FOR LATER USE. STRIPPING OPERATIONS SHOULD ONLY OCCUR DURING PERIODS OF DRY WEATHER AND SHALL BE COMPLETED BY DISTURBING NO MORE AT ONE TIME THAN IS NECESSARY FOR GRADING ACTIVITIES TO BE COMPLETED IN THAT AREA. OVEREXCAVATION, RANGING FROM 1 TO 3 FEET BELOW EXISTING GRADES, SHALL OCCUR WITHIN THE BUILDING FOOTPRINT. REFER TO THE GEOTECHNICAL REPORT FOR MORE INFORMATION ON SITE PREPARATION.
- 11. IN AREAS DESIGNATED TO BE CLEARED AND GRUBBED, ALL TREES, STUMPS, ROOTS, BURIED LOGS, BRUSH GRASS, AND OTHER UNSATISFACTORY MATERIALS SHALL BE REMOVED. TAP ROOTS AND OTHER PROJECTIONS OVER 1.5 INCHES IN DIAMETER SHALL BE GRUBBED OUT TO A DEPTH OF AT LEAST 18 INCHES BELOW THE FINISHED SUBGRADE OR SLOPE ELEVATION.
- 12. IF THERE ARE TREES ON THE SITE THAT ARE NOT SHOWN ON THE PLANS, THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE OR ENGINEER FOR REMOVAL OR RELOCATION, IF REQUIRED. REMOVAL/RELOCATION IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 13. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY ACCESS ROADS AND SHALL MAINTAIN POSITIVE DRAINAGE OF THE ENTIRE SITE THROUGHOUT CONSTRUCTION WHILE AVOIDING PONDING OR RUTTING. TEMPORARY DEWATERING, INCLUDING PUMPING, MAY BE REQUIRED AND SHALL BE INCLUDED IN THE CONTRACTOR'S SCOPE OF WORK
- 14. THE CONTRACTOR SHALL CONTROL GRADING OPERATIONS SUCH THAT THE SITE SHALL BE WELL DRAINED AT ALL TIMES. WHEN NECESSARY, TEMPORARY DRAINS, DITCHES, AND/OR DIVERSIONS SHALL BE CONSTRUCTED TO INTERCEPT OR DIVERT SURFACE DRAINAGE TO PROTECT SENSITIVE WETLAND AREAS AND WATERWAYS, PROVIDE ADEQUATE STORM WATER POLLUTION PREVENTION, AND ALLOW CONSTRUCTION TO BE COMPLETED PER THE PLANS.
- 15. EXISTING DRAINAGE STRUCTURES SHALL BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES SHALL BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS PRIOR TO PROJECT COMPLETION.
- 16. SUFFICIENT TOPSOIL SHALL BE SALVAGED AND STOCKPILED BY THE CONTRACTOR FOR RE-SPREADING IN PERMANENT PLANTING AREAS. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS ITEM, BUT IT SHALL BE CONSIDERED SUBSIDIARY TO THE BID.
- 17. TOPSOIL SALVAGED AS PART OF THE EXCAVATION SHALL BE PLACED TO A MINIMUM DEPTH OF 6 INCHES OVER ALL AREAS DISTURBED BY THE WORK. LARGE STONES, STICKS, AND LUMPS SHALL BE REMOVED OR BROKEN UP, AND THE TOPSOIL SHALL BE LEVELED AND RAKED TO MATCH ADJACENT GRADES, READY FOR SEEDING. ANY ROCK OR SAND FROM PAVING ACTIVITIES SHALL BE REMOVED PRIOR TO PLACEMENT OF TOPSOIL. ALL EXCESS SOILS, NOT RE-SPREAD WITHIN THE PROJECT LIMITS. SHALL BE REMOVED BY THE CONTRACTOR.
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH A CERTIFIED TESTING AGENCY FOR OBSERVATION AND TESTING THROUGHOUT CONSTRUCTION.
- 19. AT THE COMPLETION OF GRADING, IF THERE IS EXCESS EXCAVATION OR TOPSOILS, THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR DIRECTION TO EITHER STOCKPILE/DISTRIBUTE ON SITE OR REMOVE FROM THE
- 20. AT THE COMPLETION OF GRADING, THE CONTRACTOR SHALL COMPLETE AN AS-BUILT SURVEY OF THE FINAL SITE GRADES AND PROVIDE AN ELECTRONIC FILE (CAD) TO THE OWNER AND ENGINEER FOR REVIEW.
- 21. PROPOSED FILL SOILS MUST BE TESTED AND APPROVED PRIOR TO PLACEMENT USING AT A MINIMUM A STANDARD PROCTOR TEST (ASTM D698) AND AN ATTERBERG LIMITS TEST FOR EACH SOIL TYPE OR SOURCE CONSIDERED. REFER TO THE GEOTECHNICAL REPORT FOR FILL SOIL REQUIREMENTS.
- 22. TEMPORARY CONSTRUCTION SLOPES SHOULD BE DESIGNED AND EXCAVATED IN STRICT COMPLIANCE WITH THE RULES AND REGULATIONS OF THE FEDERAL REGISTER, VOLUME 54, NO. 209 (OCTOBER 1989), THE UNITED STATES DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), 29 CFR, PART 1926.
- 23. GRADING TOLERANCES: CONTRACTOR SHALL FOLLOW CURRENT SUDAS STANDARD CONSTRUCTION SPECIFICATIONS. FINISH GRADING SHALL BE SMOOTH AND UNIFORM. THE FINAL ELEVATION (INCLUDING TOPSOIL) SHALL BE WITHIN 0.1 FOOT OF DESIGN ELEVATION.
- 24. THE COSTS ASSOCIATED WITH STABILIZING SOFT SUBGRADES RESULTING FROM INADEQUATE DEWATERING TECHNIQUES OR EXCESSIVE EQUIPMENT TRAFFIC AT THE BASE OF THE UTILITY TRENCHES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 25. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR SETTLEMENT DUE TO IMPROPER COMPACTION.

SS COMMUNITY SENNIS COURTS

drawn by:

checked by:
approved by:
QA/QC by:

RN
BE
BE

023-05957

SHEET C000

project no.:

drawing no :

- ALL CONCRETE PAVEMENT SHALL MEET OR EXCEED THE REQUIREMENTS FOR THE SUDAS MIX. REFERENCE THE GEOTECHNICAL REPORT FOR COMPRESSIVE STRENGTH.
- THE PAVEMENT CONSTRUCTION, MARKINGS, AND MATERIALS FOR THIS PROJECT SHALL MEET OR EXCEED THE SUDAS SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (2021 EDITION). ALL STANDARDS AND SPECIFICATIONS AND ADDENDA SHALL APPLY.
- 4. FOR DETAILS OF SUBGRADE PREPARATION, REFERENCE THE GEOTECHNICAL REPORT.
- 5. THE CONTRACTOR SHALL FOLLOW GEOTECHNICAL REPORT RECOMMENDATIONS FOR SUBGRADE PREPARATION.
- PRIOR TO PLACING CONCRETE PAVEMENT (INCLUDING SIDEWALK), ALL SUBGRADE SHALL HAVE BEEN SCARIFIED, RECOMPACTED TO THE SPECIFIED DENSITY, AND PROOFROLLED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.
- WITHIN ONE HOUR, THE CONCRETE SHALL BE CURED USING A WHITE PIGMENTED LIQUID MEMBRANE FORMING CURING COMPOUND THAT HAS BEEN APPROVED BY SUDAS. APPLY LIQUID MEMBRANE FORMING CURING COMPOUND AT THE CONCENTRATION AND APPLICATION RATE RECOMMENDED BY THE MANUFACTURER.
- ALL INTERSECTION RADII SHALL BE 20 FEET UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL DROP THE CURB AT THE LOCATION OF FUTURE ADA RAMPS.
- 10. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF THE EXISTING PAVEMENT.
- 11. THE CONTRACTOR SHALL COORDINATE ALL PAVEMENT TESTING
- 12. THE CONTRACTOR SHALL ADJUST ALL MANHOLES, VALVES, INLETS, AND CLEAN—OUTS TO GRADE
- 13. THE CONTRACTOR SHALL INSTALL TRAFFIC RATED CAPS ON ALL CLEAN—OUTS WITHIN PAVED AREAS.
- 14. THE CONTRACTOR SHALL STRIPE ALL PARKING LOTS AS SHOWN. PARKING STALL STRIPING SHALL BE 4-INCH MARKINGS. COLOR SHALL BE WHITE ON ASPHALT AND YELLOW ON CONCRETE, UNLESS OTHERWISE NOTED.
- 15. ALL DIMENSIONS AND COORDINATE POINTS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
- 16. ALL ADA ACCESSIBLE STALLS SHALL BE PAINTED, AND A SIGN SHALL BE INSTALLED. MAXIMUM SLOPE IN ANY DIRECTION FOR HANDICAPPED STALLS SHALL BE 2.0 PERCENT.
- 17. ALL ISLANDS AND GREENSPACE AREAS SHALL BE BACKFILLED PROPERLY PER THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND COVERED WITH A 4-INCH LAYER OF TOPSOIL FOR FINAL STABILIZATION..
- 18. CROSS SLOPES ON SIDEWALKS SHALL NOT EXCEED 2% UNLESS OTHERWISE NOTED. ALL SIDEWALKS SHALL BE 5 FEET WIDE, 4-INCH P.C.C. PAVEMENT UNLESS OTHERWISE NOTED.
- 19. ALL EXPOSED CONCRETE SURFACES SHALL RECEIVE A BURLAP DRAG OR BROOMED FINISH. ALL EXPOSED EDGES AND CORNERS SHALL BE HAND TOOLED.
- 20. ALL CONCRETE SHALL BE PLACED IN ACCORDANCE WITH ACI 305 AND 306 R-88 "HOT WEATHER" AND "COLD WEATHER" CONCRETING. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLANKETS, EXTERNAL HEAT, OR OTHER METHODS AS REQUIRED TO ENSURE CONCRETE PLACEMENT AND TEMPERATURE ARE MAINTAINED WITHIN SPECIFIED REQUIREMENTS. CONCRETE SHALL BE MAINTAINED AT A MINIMUM TEMPERATURE OF 50° FOR THREE DAYS AFTER THE COMPLETION OF PLACEMENT. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS ITEM, BUT IT SHALL BE CONSIDERED SUBSIDIARY TO THE BID.
- 21. MAXIMUM JOINT SPACING ON ALL CONCRETE SIDEWALKS SHALL BE 5 FEET.
- 22. ALL PARKING LOT PAVEMENT JOINTS SHALL BE THOROUGHLY SEALED WITH HOT APPLIED JOINT SEALANT.SIDEWALK JOINTS SHALL BE SEALED WITH DOW 888 BY DOW CORNING SEALANT WITH COLOR MATCHING THE CONCRETE PAVEMENT, UNLESS OTHERWISE DIRECTED BY THE ARCHITECT.
- 23. A DIAMOND EDGE SAW BLADE SHALL BE USED FOR CUTTING ALL REQUIRED CONTRACTION AND LONGITUDINAL PAVEMENT JOINTS. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS ITEM, BUT IT SHALL BE CONSIDERED SUBSIDIARY TO THE BID.
- 24. WHEN TWO ADJACENT LANES ARE PLACED AT THE SAME TIME, THE LONGITUDINAL JOINT SHALL BE THE SAWED TYPE. THE KEYED TYPE LONGITUDINAL JOINT SHALL BE USED WHEN AN ADJACENT LANE IS NOT PLACED AT THE
- 25. MAXIMUM SPACING FOR SAWED, TRANSVERSE AND LONGITUDINAL CONSTRUCTION JOINTS FOR P.C.C. PAVEMENT SHALL BE 10 FEET. SLABS SHALL BE KEPT AS SQUARE AS POSSIBLE. TRANSVERSE JOINT SPACING SHALL NOT EXCEED 125 PERCENT OF THE LONGITUDINAL JOINT SPACING.
- 26. TRANSVERSE JOINTS SHALL BE ALIGNED TO COINCIDE WITH THE CENTERLINE OF INTERSECTING SIDE STREETS AND/OR EXISTING JOINT LINES WHEREVER POSSIBLE.
- 27. ALL SAWED TRANSVERSE JOINTS SHALL BE CONTINUOUS ACROSS THE PAVEMENT AND EXTEND THROUGH CURBS.
- 28. A ONE-HALF-INCH EXPANSION JOINT WITH SEALANT SHALL BE PLACED BETWEEN P.C.C. PAVEMENT AND ADJACENT SIDEWALKS.
- 29. DETECTABLE WARNINGS ARE REQUIRED WHERE WALKS CROSS OR ADJOIN A VEHICULAR WAY AND ARE NOT SEPARATED BY A CURB OR OTHER ELEMENT PER THE REQUIREMENTS OF THE ADA GUIDELINES AND LOCAL
- 30. ALL INTERSECTIONS SHALL BE WARPED (AS SHOWN ON THE INTERSECTION DETAILS, AS SHOWN ON THE SPOT ELEVATION PLAN) TO ENSURE POSITIVE DRAINAGE.
- 31. THE CONTRACTOR SHALL GRADE SUBGRADE TO DRAIN.

## PAVEMENT MARKING AND SIGNAGE NOTES

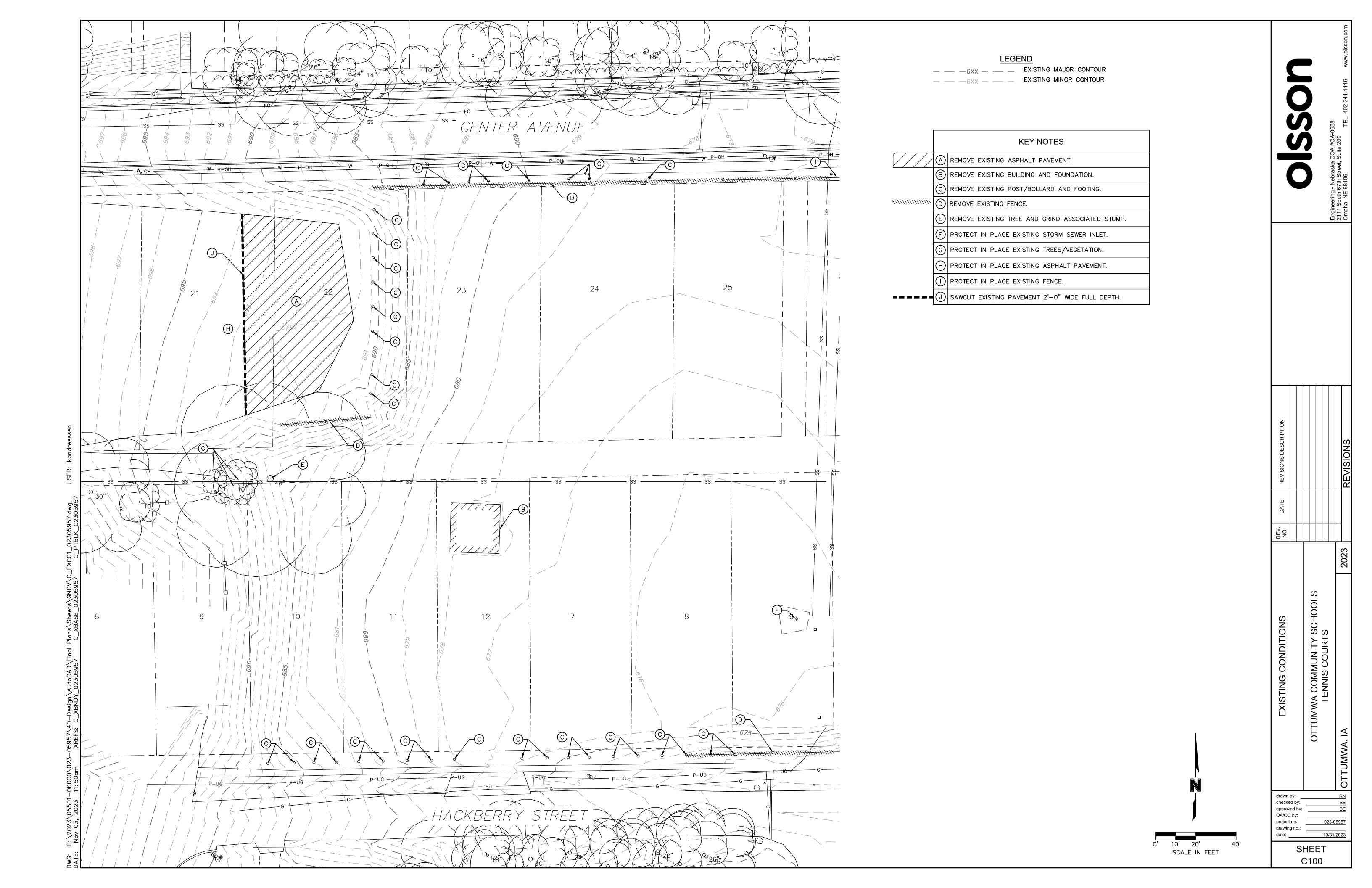
- 1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH AND FOLLOW THE SUDAS STANDARD PLATES USED IN THIS PROJECT. A LIST OF STANDARD PLATES HAS BEEN PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR; HOWEVER, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW ALL SUDAS STANDARD PLATES WHICH ARE APPLICABLE TO THIS PROJECT UNLESS OTHERWISE MODIFIED BY THE CONTRACT DOCUMENTS.
- TRAFFIC PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- IF THERE ARE ANY QUESTIONS OR DISCREPANCIES IN THE PLANS CONCERNING PLACEMENT OF PAVEMENT MARKING AND/OR SIGNS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL BEFORE PROCEEDING WITH WORK.
- ALL ACCESSIBLE PAVEMENT MARKINGS AND SIGNAGE SHALL CONFORM TO ADA GUIDELINES.
- ALL PAVEMENT MARKING AND SIGNAGE SHALL CONFORM TO ALL LOCAL CODES AND ORDINANCES.
- LANE WIDTHS ARE MEASURED FROM BACK OF CURB TO CENTER OF MARKING LINE AND BETWEEN CENTERS OF MARKING LINES.
- AT LOCATIONS WHERE NEW LANE MARKINGS INTERCEPT EXISTING LANE MARKINGS, THE CONTRACTOR SHALL TRANSITION MARKING TO ALIGN IF AN OFFSET EXISTS.

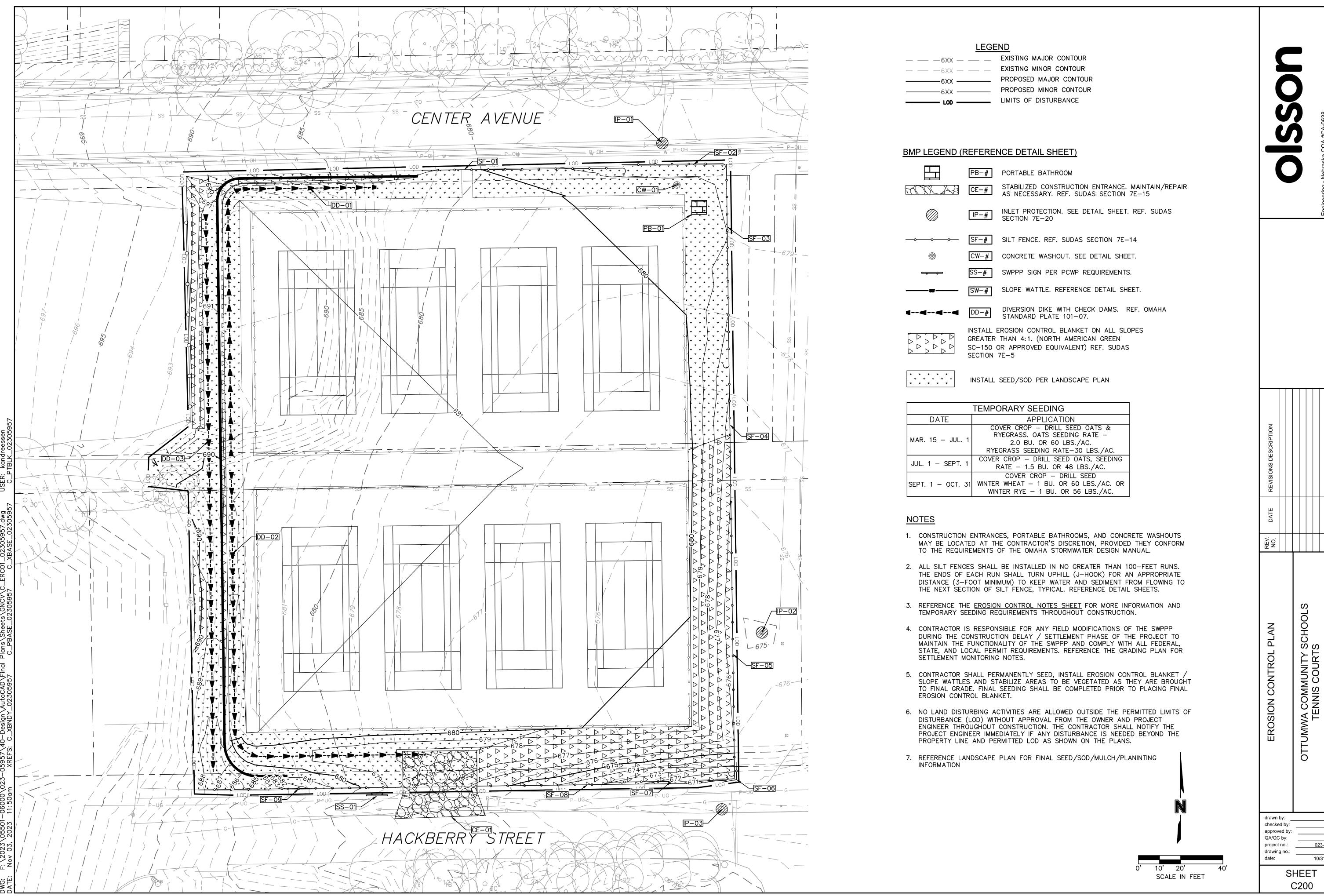
#### **UTILITY NOTES**

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH AND FOLLOW THE SUDAS STANDARD PLATES USED IN THIS PROJECT. A LIST OF STANDARD PLATES HAS BEEN PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR; HOWEVER, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW ALL SUDAS STANDARD PLATES WHICH ARE APPLICABLE TO THIS PROJECT UNLESS OTHERWISE MODIFIED BY THE CONTRACT DOCUMENTS.
- 2. THE CONTRACTOR SHALL MAINTAIN STRICT LATERAL CLEARANCE AS SHOWN ON THE PLANS FOR ALL UTILITY LINES OR AS REQUIRED BY LOCAL UTILITY COMPANY, WHICHEVER IS MORE STRINGENT.
- THE CONTRACTOR SHALL OBTAIN PROJECT ENGINEER APPROVAL PRIOR TO MAKING ANY FIELD ADJUSTMENTS FOR SERVICE ROUTES. IF ANY OF THE MAIN OR SERVICE ROUTES ARE ADJUSTED IN THE FIELD, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE ENGINEER A RECORD OF THE EXACT LOCATIONS AT THE CONTRACTOR'S EXPENSE. A LICENSED SURVEYOR SHALL BE RETAINED TO LOCATE THE CONDUIT ROUTES. THE CONTRACTOR SHALL PROVIDE THE SURVEYED LOCATIONS TO THE ENGINEER IN ELECTRONIC FORMAT.
- 4. ALL TRENCHES SHALL BE BACKFILLED AND COMPACTED PER THE DETAIL, SPECIFICATIONS, AND THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT, WHICHEVER IS MORE STRINGENT.
- THE CONTRACTOR SHALL RESTORE ANY DISTURBED AREA TO ITS PREVIOUS CONDITION.
- 6. ALL CONDUIT SHALL BE TERMINATED 5 FEET FROM THE BUILDING UNLESS SHOWN OTHERWISE IN THE PLANS. REFERENCE ARCHITECTURAL/MEP PLANS FOR EXACT SIZE, LOCATION, AND DEPTH OF UTILITY CONNECTIONS AT THE BUILDING.
- THE CONTRACTOR SHALL VERIFY ALL VERTICAL AND HORIZONTAL CROSSINGS OF ALL PROPOSED AND EXISTING UTILITIES PRIOR TO INSTALLATION OF CONDUIT. THE CONTRACTOR SHALL CONTACT THE ENGINEER WITH ANY
- ALL CONDUIT STUBS SHALL BE CAPPED AND MARKED ABOVE GROUND WITH REBAR AND A FLAG OR AS SHOWN ON THE DETAIL SHEET.
- 9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE IOWA DIGGER'S HOTLINE AT 1-800-331-5666.
- 10. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
- 11. ALL EXISTING SEWERS, PIPING, AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATIONS OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. THE CONTRACTOR SHALL GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DEMOLITION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH WORK.
- 12. THE CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITY'S INSPECTORS BEFORE CONNECTING TO ANY EXISTING LINE IN ACCORDANCE WITH LOCAL REQUIREMENTS.
- 13. TRENCH DEPTH REQUIREMENTS MEASURED FROM FINISHED GRADE OR PAVED SURFACE SHALL MEET THE FOLLOWING REQUIREMENTS OR APPLICABLE CODES AND ORDINANCES, WHICHEVER IS MORE STRINGENT:
  - A. ELECTRICAL CONDUITS: 36 INCHES MINIMUM TO TOP OF CONDUIT OR AS REQUIRED BY NEC 300\_5, NEC 710\_36 CODES, OR LOCAL UTILITY COMPANY REQUIREMENTS, WHICHEVER IS DEEPER.
  - B. COMMUNICATIONS CONDUITS: 36 INCHES MINIMUM TO TOP OF CONDUIT OR AS REQUIRED BY LOCAL UTILITY COMPANY, WHICHEVER IS DEEPER.
  - C. GAS MAINS AND SERVICE: 30 INCHES MINIMUM TO TOP OF PIPE, OR AS REQUIRED BY LOCAL UTILITY COMPANY, WHICHEVER IS DEEPER.
- 14. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND CONFIGURATION OF ALL UTILITY CONCRETE PADS (I.E. MECHANICAL UNITS, SATELLITE, TRANSFORMER, ETC.) WITH THE GENERAL CONTRACTOR AND UTILITY COMPANIES.
- 15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL UTILITIES (I.E., PHONE, CABLE, POWER, GAS, ETC.) ARE INSTALLED AND SERVICE THE NEW BUILDING.

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- AN NPDES GENERAL PERMIT NO. 2 IS REQUIRED FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR) PRIOR TO ANY GRADING ACTIVITIES.
- 3. THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING ("SITE MAP"), THE STANDARD DETAILS, SPECIFICATIONS, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
- 4. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF IOWA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
- CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
- CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
- GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
- 8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
- SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
- 10. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
- 11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE
- 12. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE SITE PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
- 13. ALL DENUDED AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE, MUST BE STABILIZED TEMPORARILY WITH THE USE OF FAST-GERMINATING ANNUAL GRASS/GRAIN VARIETIES, STRAW/HAY MULCH, WOOD CELLULOSE FIBERS, TACKIFIERS, NETTING OR BLANKETS
- 14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED AS SHOWN ON THE PLANS. THESE AREAS SHALL BE SEEDED, SODDED, AND/OR VEGETATED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.
- 15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. ONLY USE INGRESS/EGRESS LOCATIONS AS PROVIDED.
- 16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- 17. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
- 18. ON-SITE & OFF-SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
- 19. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
- 20. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, CHECK DAMS, ETC.) TO PREVENT EROSION.
- 21. GENERAL CONTRACTOR IS TO DESIGNATE/IDENTIFY AREAS ON THE SITE MAPS, INSIDE OF THE LIMITS OF DISTURBANCE, FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.
- 22. ALL SLOPES 4:1 OR STEEPER SHALL BE COVERED WITH EROSION CONTROL BLANKET, EVEN IF NOT SHOWN GRAPHICALLY ON THE PLANS.

#### **EROSION CONTROL NOTES**

- 1. THIS PROJECT REQUIRES AN NPDES GENERAL PERMIT NO. 2 FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITY FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR). CONTRACTOR TO COMMENCE WORK ON THIS SITE ONLY AFTER AN ACTIVE PERMIT NUMBER HAS BEEN OBTAINED.
- 2. THE CONTRACTOR SHALL CONTINUOUSLY PROVIDE ADEQUATE STORMWATER MANAGEMENT IN ACCORDANCE WITH THE APPROVED STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE PUBLIC STREETS, ACCESS ROUTES, AND WATERWAYS IN THE VICINITY OF THE JOB SITE CLEAN AND FREE OF ROCKS, SOIL AND DEBRIS.
- 4. THE CONTRACTOR SHALL INSTALL EROSION AND SEDIMENTATION CONTROL 'BEST MANAGEMENT PRACTICES" (BMPS) PRIOR TO ANY SITE PREPARATION WORK (E.G., CLEARING, GRUBBING, DEMOLITION, OR EXCAVATION).
- 5. THE PLACEMENT OF EROSION AND SEDIMENT BMPS SHALL BE IN ACCORDANCE WITH THE EROSION CONTROL PLAN PREPARED FOR THE PROJECT. CONTRACTOR TO ADJUST QUANTITY, LOCATION, AND TYPE OF EROSION AND SEDIMENT CONTROL BMPS AS NECESSARY FOR THE VARIOUS PHASES OF THE WORK AND AS ACTUAL CONDITIONS WARRANT. CONTRACTOR SHALL CONTINUOUSLY MODIFY THE EROSION AND SEDIMENT CONTROL PLAN WITH CURRENT BMPS IN ACCORDANCE WITH THE CONSTRUCTION STORMWATER PERMIT REQUIREMENTS. ADDITIONAL EROSION AND SEDIMENT CONTROL BMPS EMPLOYED BY THE CONTRACTOR AT HIS DISCRETION WILL NOT BE MEASURED OR PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.
- 6. A GROUNDWATER DISCHARGE PERMIT MAY BE REQUIRED FROM THE STATE GOVERNING AUTHORITY PRIOR TO DISCHARGE.
- 7. APPROVED EROSION AND SEDIMENT CONTROL BMPS SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE DURATION OF THIS PROJECT. UNLESS OTHERWISE REQUIRED BY THE STATE'S CONSTRUCTION STORMWATER PERMIT. AT A MINIMUM THE CONTRACTOR SHALL INSPECT ALL BMPS EVERY 14 DAYS. AND AFTER ALL SIGNIFICANT PRECIPITATION EVENTS I.E. RAINFALL, SNOWMELT. ALL NECESSARY MAINTENANCE AND REPAIR ACTIVITIES SHALL BE COMPLETED WITHIN TWENTY-FOUR (24) HOURS AFTER DIRECTION BY THE INSPECTOR. ACCUMULATED SEDIMENT AND CONSTRUCTION DEBRIS SHALL BE REMOVED WEEKLY FROM ALL BMPS, OR AT ANY TIME THAT SEDIMENT OR CONSTRUCTION DEBRIS ADVERSELY IMPACTS THE FUNCTIONING OF THE BMPS.
- 8. TOPSOIL AND SUITABLE EARTHEN MATERIALS SHALL BE SEGREGATED AND STOCKPILED WITHIN THE LIMITS OF CONSTRUCTION FOR USE ON AREAS TO BE FILLED AND RE-VEGETATED. ANY AND ALL STOCKPILES SHALL BE PLACED IN AN APPROVED LOCATION AND PROTECTED FROM EROSIVE ELEMENTS USING MEASURES SPECIFIED IN THE EROSION/SEDIMENT CONTROL PLAN AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
- 9. SOILS THAT WILL BE STOCKPILED FOR MORE THAN THIRTY (30) DAYS SHALL BE MULCHED AND SEEDED WITH A TEMPORARY OR PERMANENT GRASS COVER WITHIN FOURTEEN (14) DAYS OF STOCKPILE CONSTRUCTION.
- 10. ANY SETTLEMENT OR SOIL ACCUMULATIONS BEYOND THE LIMITS OF CONSTRUCTION DUE TO GRADING OR EROSION SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR REMEDIATION OF ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS. WETLANDS, PROPERTIES, ETC. RESULTING FROM WORK DONE AS PART OF THIS PROJECT.
- 11. A WATER SOURCE MUST BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND AND FOR MEETING COMPACTION
- 12. THE CONTRACTOR MUST KEEP ALL POLLUTANTS, INCLUDING SEDIMENT, CONSTRUCTION DEBRIS, AND TRENCH BACKFILL MATERIALS FROM ENTERING THE STORM SEWER SYSTEM.
- 13. ALL SPILLS INCLUDING, BUT NOT LIMITED TO, PETROLEUM PRODUCTS, SOLVENTS, AND CEMENT SHALL BE CLEANED UP IMMEDIATELY. THE LOCAL CITY/COUNTY AND STATE'S GOVERNING AUTHORITY SHALL BE NOTIFIED IMMEDIATELY.
- 14. THE CONTRACTOR SHALL ENSURE THAT ALL LOADS OF CUT AND FILL MATERIAL IMPORTED TO OR EXPORTED FROM THE SITE SHALL BE PROPERLY COVERED TO PREVENT LOSS OF THE MATERIAL DURING TRANSPORT ON PUBLIC RIGHT-OF-WAY. ALL MATERIAL EXPORTED FROM THE SITE SHALL BE DISPOSED OF AT A SITE PERMITTED TO ACCEPT SUCH MATERIAL.
- 15. THE USE OF REBAR, STEEL STAKES OR STEEL FENCE POSTS FOR STAKING DOWN STRAW OR HAY BALES, OR TO SUPPORT SILT FENCING USED AS AN EROSION CONTROL MEASURE, IS PROHIBITED.
- 16. THE CLEANING OF CONCRETE DELIVERY TRUCK CHUTES IS RESTRICTED TO APPROVED LOCATIONS ON THE JOB SITE. THE DISCHARGE OF WATER CONTAINING WASTE CEMENT TO THE STORM SEWER SYSTEM IS PROHIBITED. ALL CONCRETE WASTE SHALL BE PROPERLY CLEANED UP AND DISPOSED OF AT AN APPROPRIATE LOCATION.
- 17. CONTRACTOR TO FILE "NOTICE OF TERMINATION" WITH THE IOWA DEPARTMENT OF NATURAL RESOURCES (IDNR) AUTHORITY ONCE THE PROJECT IS COMPLETE, ALL DISTURBED AREAS HAVE BEEN STABILIZED AND TEMPORARY BMPS HAVE BEEN REMOVED.
- 18. THE CONTRACTOR SHALL CLEAN OUT ALL EXISTING AND PROPOSED INLETS, PIPES AND MANHOLES OF DEBRIS AND SEDIMENTATION AT COMPLETION OF SITEWORK. THIS WORK SHALL BE DONE TO THE SATISFACTION OF THE OWNER AND LOCAL AUTHORITIES. ANY CONSTRUCTION DEBRIS OR MUD DROPPED INTO MANHOLES, INLETS, PIPES OR TRACKED ONTO EXISTING ROADWAYS SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR. THE CONTRACTOR SHALL REPAIR ANY EXCAVATIONS OR PAVEMENT FAILURES CAUSED BY HIS CONSTRUCTION.
- 19. CONTRACTOR SHALL ENSURE GRAVEL FILTER BAGS DO NOT EXTEND INTO TRAVELED WAY.
- 20. STABILIZATION OF DISTURBED AREAS SHALL BE INITIALIZED IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATION OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
- 21. TIME CONSTRUCTION ACTIVITIES TO LIMIT IMPACT ON SEASONAL WEATHER CHANGES.
- 22. DO NOT DISTURB AN AREA UNTIL NECESSARY FOR CONSTRUCTION TO PROCEED.
- 23. PER NPDES GENERAL PERMIT NO. 2 PART 1.2E, DISCHARGES FROM CONCRETE WASHOUT ACTIVITIES AND FROM WET SAWING OF CONCRETE, WASTE FROM CONCRETE WASHOUT AND WET SAWING OF CONCRETE IS NOT ALLOWED TO BE DISCHARGED TO SURFACE WATERS AND IS NOT ALLOWED TO ADVERSELY AFFECT A WATER OF THE STATE.

#### BEST MANAGEMENT PRACTICES (BMP) MAINTENANCE SCHEDULE

THE FOLLOWING MAINTENANCE SCHEDULE HAS BEEN PROVIDED. THE INSPECTOR MUST PERFORM THE INSPECTIONS. THE OPERATOR/CONTRACTOR MUST PERFORM ALL NEEDED MAINTENANCE. FURTHERMORE, ALL EROSION CONTROL FEATURE REQUIRING MAINTENANCE MAY NOT BE LISTED BELOW. THE OPERATOR/CONTRACTOR AND INSPECTOR MUST PERFORM THEIR RESPECTIVE DUTIES ON ALL BMP'S THAT ARE NOT LISTED BELOW AS WELL.

- CONSTRUCTION ENTRANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.
- 2. <u>SILT FENCE</u> THE MAINTENANCE MEASURES ARE AS FOLLOWS: (A) SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL, ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY; (B) CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING; (C) SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY. THE FABRIC SHALL BE REPLACED PROMPTLY: (D) SEDIMENT DEPOSITS MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER; AND (E) ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
- 3. <u>STORM DRAIN INLET PROTECTION</u> THE MAINTENANCE MEASURES ARE AS FOLLOWS: (A) STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NECESSARY AND (B) STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED
- 4. <u>TEMPORARY SEEDING</u> AREAS WHICH FAIL TO ESTABLISH VEGETATIVE COVER ADEQUATE TO PREVENT EROSION WILL BE RE-SEEDED AS SOON AS SUCH AREAS ARE IDENTIFIED. CONTROL WEEDS BY MOWING. REFERENCE SECTION 7E-22 OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS MANUAL.
- 5. PERMANENT SEEDING THE MAINTENANCE MEASURES ARE AS FOLLOWS: (A) IN GENERAL, A STAND OF VEGETATION CANNOT BE DETERMINED TO BE FULLY ESTABLISHED UNTIL IT HAS BEEN MAINTAINED FOR ONE FULL YEAR AFTER PLANNING; (B) NEW SEEDLINGS SHALL BE SUPPLIED WITH ADEQUATE MOISTURE, SUPPLY WATER AS NEEDED, ESPECIALLY LATE IN THE SEASON, IN ABNORMALLY HOT OR DRY CONDITIONS, OR ON ADVERSE SITES, WATER APPLICATIONS SHALL BE CONTROLLED TO PREVENT EXCESSIVE RUNOFF; (C) INSPECT ALL SEEDED AREAS FOR FAILURES AND MAKE NECESSARY REPAIRS, REPLACEMENTS, AND RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE; (D) IF STAND IS INADEQUATE FOR EROSION CONTROL, OVER SEED AND FERTILIZE USING HALF OF THE RATES ORIGINALLY SPECIFIED; (E) IF STAND IS 60% DAMAGED, RE-ESTABLISH FOLLOWING SEEDBED AND SEEDING RECOMMENDATIONS; (F) IF STAND HAS LESS THAN 40% COVER, RE-EVALUATE CHOICE OF PLANT MATERIALS AND QUANTITIES OF LIME AND FERTILIZER, THE SOIL MUST BE TESTED TO DETERMINE IF ACIDITY OR NUTRIENT IMBALANCES ARE RESPONSIBLE, RE-ESTABLISH THE STAND FOLLOWING SEEDBED AND SEEDING RECOMMENDATIONS. REFERENCE SECTION 7E-24 OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATIONS MANUAL.
- 6. <u>MULCHING</u> ALL MULCHES AND SOIL COVERINGS SHOULD BE INSPECTED PERIODICALLY (PARTICULARLY AFTER RAINSTORMS) TO CHECK FOR EROSION, WHERE EROSION IS OBSERVED IN MULCHED AREAS, ADDITIONAL MULCH SHOULD BE APPLIED. NETS AND MATS SHOULD BE INSPECTED AFTER RAINSTORMS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, REINSTALL NETTING OR MATTING AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE OR DITCH. INSPECTIONS SHOULD TAKE PLACE UNTIL GRASSES ARE FIRMLY ESTABLISHED. WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE; REPAIR AS NEEDED.
- 7. <u>SOIL STABILIZATION BLANKETS & MATTING</u> ALL SOIL STABILIZATION BLANKETS AND MATTING SHOULD BE INSPECTED PERIODICALLY FOLLOWING INSTALLATION, PARTICULARLY AFTER RAINSTORMS TO CHECK FOR EROSION AND UNDERMINING. ANY DISLOCATION OR FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUTS OR BREAKAGE OCCURS, REINSTALL THE MATERIAL AFTER REPAIRING DAMAGE TO THE SLOPE OR DITCH. CONTINUE TO MONITOR THESE AREAS UNTIL WHICH TIME THEY BECOME PERMANENTLY STABILIZED; AT THAT TIME AN ANNUAL INSPECTIONS SHOULD BE ADEQUATE.
- 8. <u>STREET CLEANING / SWEEPING</u> THE MAINTENANCE MEASURES ARE AS FOLLOWS: (A) EVALUATE ACCESS POINTS DAILY FOR SEDIMENT TRACKING; (B) WHEN TRACKED OR SPILLED SEDIMENT IS FOUND ON PAVED SURFACES, IT WILL BE REMOVED DAILY, DURING TIMES OF HEAVY TRACK-OUT, SUCH AS DURING RAINS, CLEANING MAY BE DONE SEVERAL TIMES THROUGHOUT THE DAY; (C) UNKNOWN SPILLS OR OBJECTS WILL NOT BE MIXED WITH THE SEDIMENT; AND (D) IF SEDIMENT IS MIXED WITH OTHER POLLUTANTS, IT WILL BE DISPOSED OF PROPERLY AT AN AUTHORIZED LANDFILL.

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# BEST MANAGEMENT NOTES

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

- 1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
- 2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
- 3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE—THIRD THE HEIGHT OF THE SILT FENCE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW.
- 4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS—OF—WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND. CONSTRUCTION EXITS MUST BE INSPECTED FOR EVIDENCE OF OFF—SITE TRACKING ONTO PAVED SURFACES. ACCUMULATIONS OF TRACKED SEDIMENT MUST BE REMOVED FROM ALL OFF—SITE PAVED SURFACES, WITHIN 48 HOURS, OR IF APPLICABLE, WITHIN A SHORTER TIME SPECIFIED BY LOCAL AUTHORITIES.
- 5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
- 6. FOLLOWING SOIL DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN FOURTEEN (14) CALENDAR DAYS TO THE SURFACE OF ALL PERIMETER CONTROLS, TOPSOIL STOCKPILES, AND ANY OTHER DISTURBED OR GRADED AREAS ON PROJECT SITE WHICH ARE NOT BEING USED FOR MATERIAL STORAGE, OR ON WHICH ACTUAL EARTH MOVING ACTIVITIES ARE NOT BEING PERFORMED. IF SLOPES ARE 3:1 OR STEEPER THEY MUST BE SEEDED NO LATER THAN SEVEN (7) DAYS FROM THE LAST CONSTRUCTION ACTIVITY.
- 7. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS AND/OR SEDIMENT REACHING THE PUBLIC STREET SHALL BE CLEANED IMMEDIATELY BY A METHOD OTHER THAN FLUSHING.

### CONSTRUCTION SCHEDULE ACTIVITY

SCHEDULE

CONSTRUCTION SCHEDULE ACTIVITY	SCHEDULE
INSTALL ALL EROSION CONTROL FEATURES NEEDED AND SHOWN ON THE PLANS SUCH AS STABILIZED CONSTRUCTION ENTRANCES, SILT FENCE, INLET PROTECTION, ETC	PRIOR TO ANY STRIPPING OF EXISTING VEGETATION OR GRADING.
PROCEED WITH GRADING IN ACCORDANCE WITH THE GRADING PLAN BUT DISTURBING NO MORE AT ONE TIME THAN IS NECESSARY.	AFTER INSTALLING ALL EROSION CONTROL FEATURES NEEDED AND SHOWN ON THE PLANS. FURTHERMORE, INSPECTOR APPROVAL MUST BE ATTAINED BEFORE THE START OF ANY STRIPPING OF EXISTING VEGETATION OR GRADING.
TEMPORARY SEEDING OR MULCHING	AFTER PLACEMENT OF TOPSOIL OR WHEN WORK IS SCHEDULED TO CEASE FOR MORE THAN 14 DAYS.
PERMANENT SEEDING/EROSION CONTROL BLANKET	AFTER COMPLETION OF FINAL GRADE AND WHERE DISTURBANCE IS NOT ANTICIPATED FOR MORE THAN 14 DAYS.
REMOVAL OF EROSION CONTROL FEATURES	BMP'S MAY NOT BE REMOVED UNTIL EACH IMPACTED DRAINAGE BASIN HAS BEEN FULLY DEVELOPED. FULL DEVELOPMENT SHALL MEAN INSTALLATION OF PAVEMENTS, BUILDINGS, UTILITIES, LANDSCAPING, AND FULLY ESTABLISHED PERMANENT SEEDING. FURTHERMORE, INSPECTOR APPROVAL MUST BE ATTAINED BEFORE REMOVAL OF ANY BMP'S.

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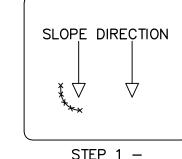
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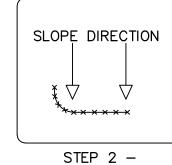
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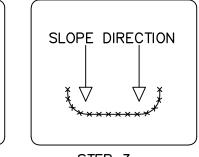
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INCREASE SILT FENCE EFFICIENCY.



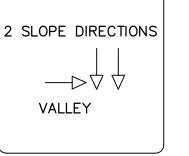




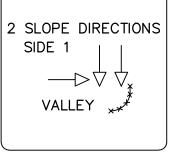
STEP 1 -CONSTRUCT LEG

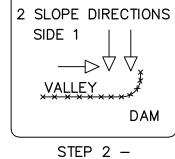
STEP 3 -CONSTRUCT DAM CONSTRUCT LEG 2

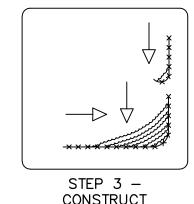
#### SILT FENCE PLACEMENT/TWO SLOPES INSTALLATION WITH J-HOOKS WILL INCREASE SILT FENCE EFFICIENCY AND REDUCE EROSION-CAUSING FAILURES.



VALLEY





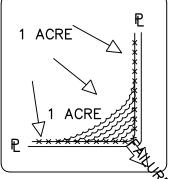


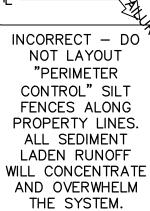
STEP 1 -CONSTRUCT A DAM

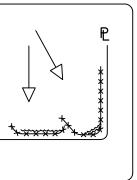
CONSTRUCT SIDE 2

CONSTRUCT J-HOOKS AS NEEDED

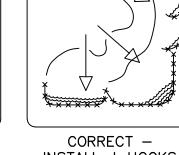
### SILT FENCE PLACEMENT/PERIMETER CONTROL

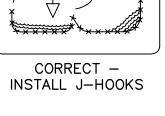


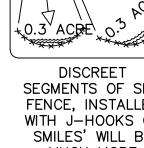




INSTALL J-HOOKS







SEGMENTS OF SILT FENCE, INSTALLED WITH J-HOOKS OR SMILES' WILL BE MUCH MORE EFFECTIVE.

#### **INSTALLATION NOTES:**

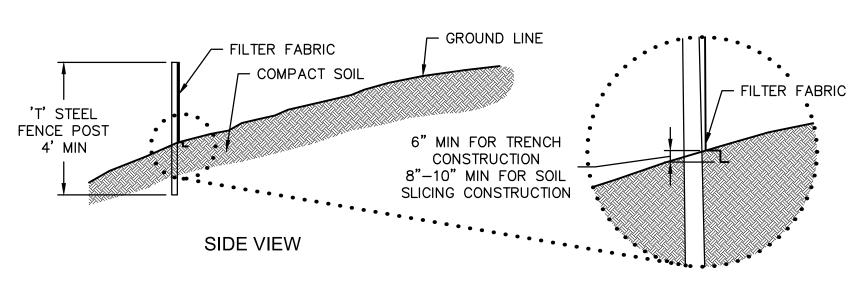
- 1. THE HEIGHT OF A SILT FENCE SHALL BE A MINIMUM OF 24 INCHES ABOVE THE ORIGINAL GROUND SURFACE AND SHALL NOT EXCEED 30 INCHES ABOVE GROUND ELEVATION.
- 2. INSTALL THE ENDS OF SILT FENCE RUNS WITH A GRADUAL UPSLOPE TO PREVENT END RUNS AND LOSS OF SEDIMENT,
- 3. MAXIMUM POST SPACING SHALL BE BASED ON THE FABRIC SUPPORT. SUPPORTED SILT FENCE SHALL HAVE A MAXIMUM POST SPACING OF 4 FT. UNSUPPORTED SILT FENCE SHALL HAVE A MAXIMUM POST SPACING OF 6.5 FT.
- 4. TRENCHED OR SOIL SLICING CONSTRUCTION: 4.1. TRENCH CONSTRUCTION: A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 IN. WIDE AND 6 IN. DEEP ON THE UPSLOPE SIDE OF THE SILT FENCE. THE BOTTOM OF THE SILT FENCE FABRIC SHALL BE BURIED IN A "J" CONFIGURATION TO THE MINIMUM DEPTH OF THE 6IN. BACKFILL THE TRENCH AND COMPACT THE SOIL SO THAT THE COMPACTED SOIL COMPLETELY FILLS THE TRENCH.
- 4.2. SOIL SLICING CONSTRUCTION: SOIL SLICING CONSTRUCTION INVOLVES USING A SPECIALIZED MACHINE TO CREATE A SILT INTO THE GROUND, INSERTING THE FABRIC INTO THE SILT AND COMPACTING THE SLICE CLOSED. THE FILTER FABRIC SHALL BE INSERTED INTO THE GROUND 8 TO 12 INCHES DEEP SO THAT NO FLOW CAN PASS UNDER THE FABRIC.
- 5. WHEN JOINTS ARE UNAVOIDABLE, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM OVERLAP OF AT LEAST TWO POSTS.
- 6. STEEL "T" POSTS SHALL BE INSTALLED SO THAT THE FLAT PORTION (TOP OF THE "T") IS AGAINST THE FABRIC TO EXTEND THE LIFE OF THE FABRIC.
- 7. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- 8. FOR MORE INSTALLATION INFORMATION REFER TO THE OMAHA REGIONAL STORMWATER MANUAL CHAPTER 9.

NOTE:
REFER TO CHAPTER 7 OF THE IOWA STATEWIDE

MANUAL FOR MORE INFORMATION ON SEDIMENT

URBAN DESIGN AND SPECIFICATIONS DESIGN

AND EROSION CONTROL MEASURES



PERSPECTIVE VIEW

└ FILTER FABRIC

4' MAX IF SUPPORTED

6.5' MAX IF UNSUPPORTED

GROUND LINE -

TRENCH BOTTOM

6" MIN FOR TRENCH

CONSTRUCTION

8"-10" MIN FOR SOIL

SLICING CONSTRUCTION

#### NOTES:

- FILTER FABRIC

30" MAX

24"MIN

POST DEPTH:

1.65' MIN OR

2' MIN FOR SLOPES

3H:1V OR GREATER

- 1. THE PURPOSE OF A SILT FENCE IS TO DECREASE THE VELOCITY OF SHEET FLOWS AND INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS IN ORDER TO PREVENT SEDIMENT FROM LEAVING A CONSTRUCTION SITE.
- 2. CONDITIONS WHERE PRACTICE
- APPLIES: 2.1. BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION.
- 2.2. WHERE THE SIZE OF THE DRAINAGE AREA IS NOT GREATER THAN ONE-FORTH OF SILT FENCE LENGTH.
- 3. SILT FENCES SHALL NOT BE USED AS DITCH CHECKS.
- 4. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- 5. INSPECTION AND MAINTENANCE: 5.1. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT DEPOSITS MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

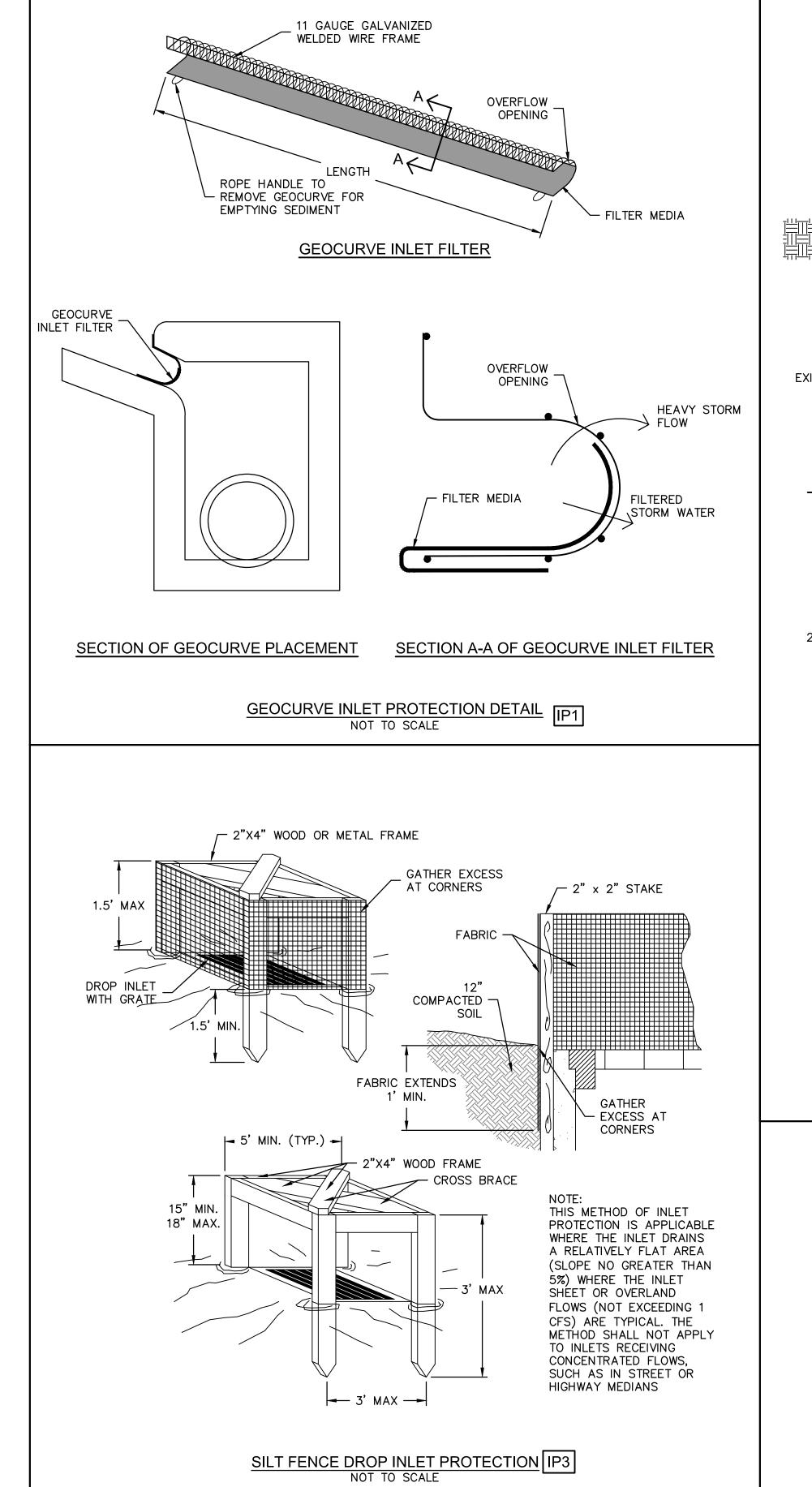
DETAIL A

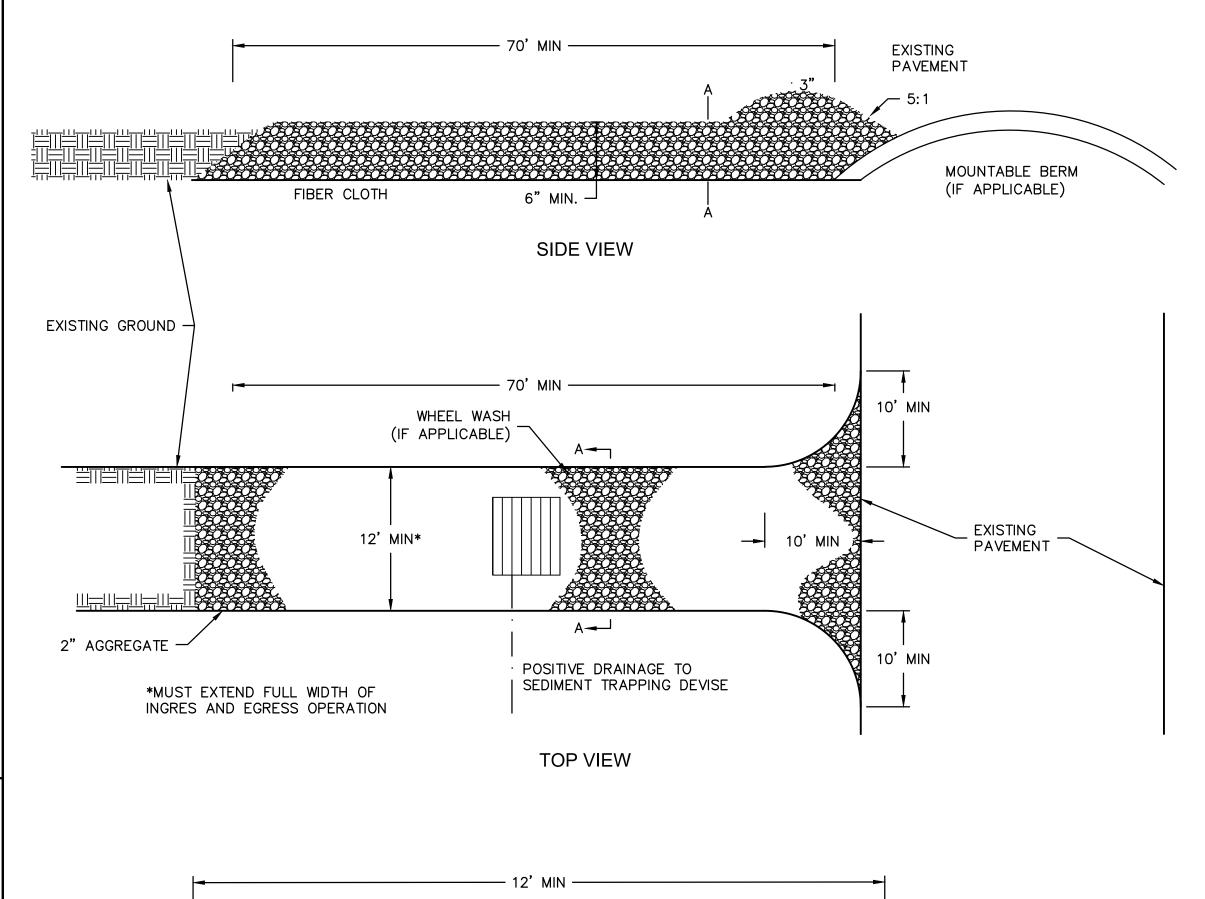
SILT FENCE INSTALLATION SF

EROSION CONTROL DETAILS		REV.	DATE
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A-A VIEW

FIBER CLOTH -

NOTE

- 1. THE AREA OF THE ENTRANCE MUST BE EXCAVATED A MINIMUM OF 3 INCHES AND MUST BE CLEAR OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. THE GEOTEXTILE FABRIC UNDERLINER SHALL THEN BE PLACED THE FULL WIDTH AND LENGTH OF THE ENTRANCE.
- 2. STONE SIZE USE 3 INCH CRUSHED STONE. RECLAIMED OR RECYCLED CONCRETE SHALL NOT BE ALLOWED.
- 3. LENGTH AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH SHALL APPLY).
- 4. THICKNESS NOT LESS THAN 6 INCHES.
- 5. WIDTH 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR.
- GEOTEXTILE FABRIC SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FABRIC SHALL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
- 7. SURFACE WATER ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRACE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5H:1V SLOPES WILL BE PERMITTED.
- 8. MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS—OF—WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS—OF—WAY MUST BE REMOVED IMMEDIATELY. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.
- 9. WASHING WHEEL WASHING SHALL BE REQUIRED WHEN THE CONSTRUCTION ENTRANCE IS UNABLE TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC RIGHT—OF—WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

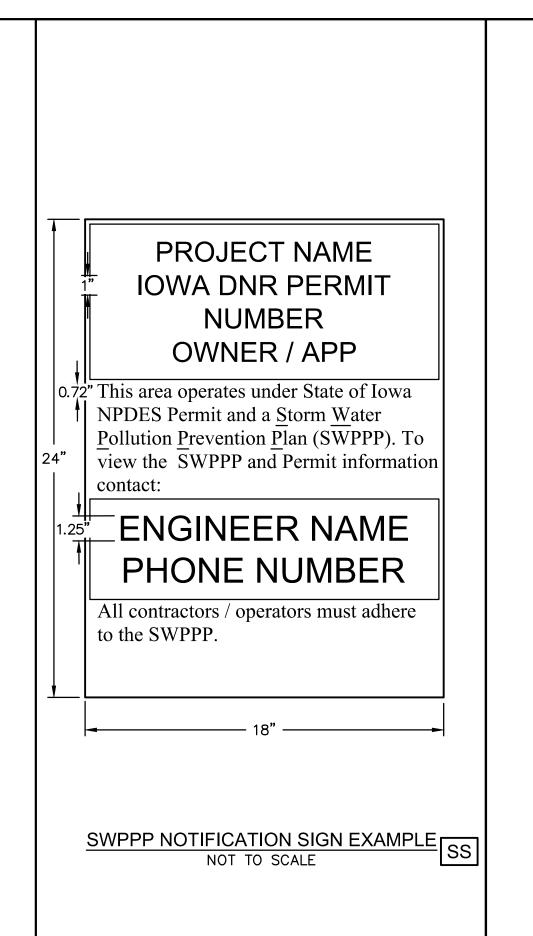
AGGREGATE CONSTRUCTION ENTRANCE
NOT TO SCALE

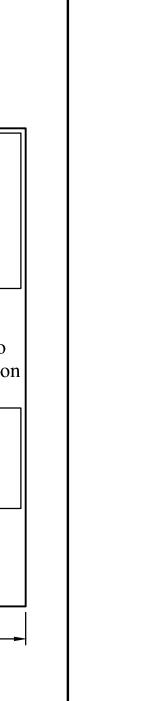
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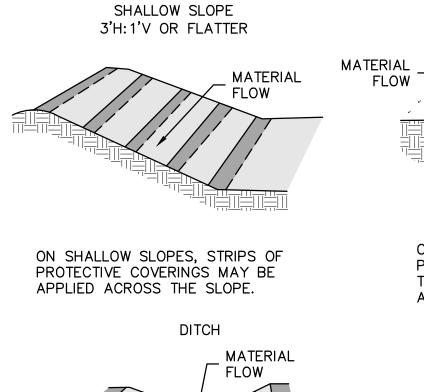
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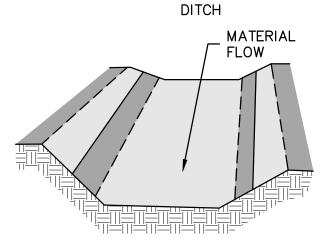
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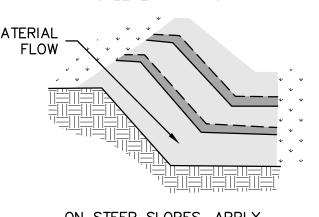








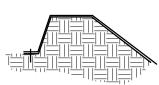
ON DITCHES, APPLY PROTECTIVE COVERING PARALLEL TO THE DIRECTION OF THE FLOW. USE CHECK SLOTS AS REQUIRED. AVOID JOINING MATERIAL IN THE CENTER OF THE DITCH IF AT ALL POSSIBLE



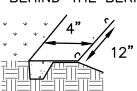
STEEP SLOPE

STEEPER THAN 3'H:1'V

ON STEEP SLOPES, APPLY PROTECTIVE COVERING PARALLEL TO THE DIRECTION OF THE FLOW AND ANCHOR SECURELY.

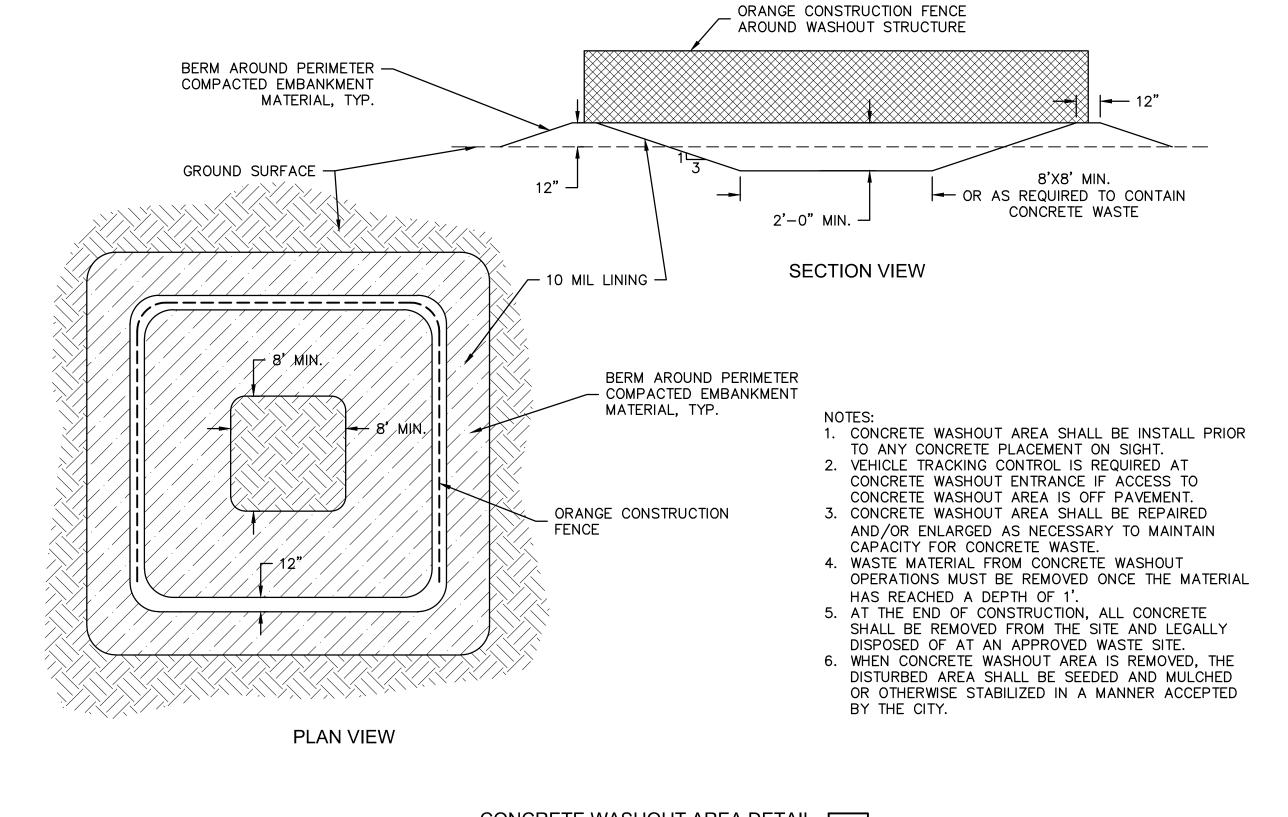


WHERE THERE IS A BERM AT THE TOP OF THE SLOPE, BRING MATERIAL, OVER THE BERM AND ANCHOR BEHIND THE BERM



BRING THE MATERIAL DOWN TO A LEVEL AREA BEFORE TERMINATING THE INSTALLATION. TURN THE END UNDER 4" AND STAPLE AT 12" INTERVALS

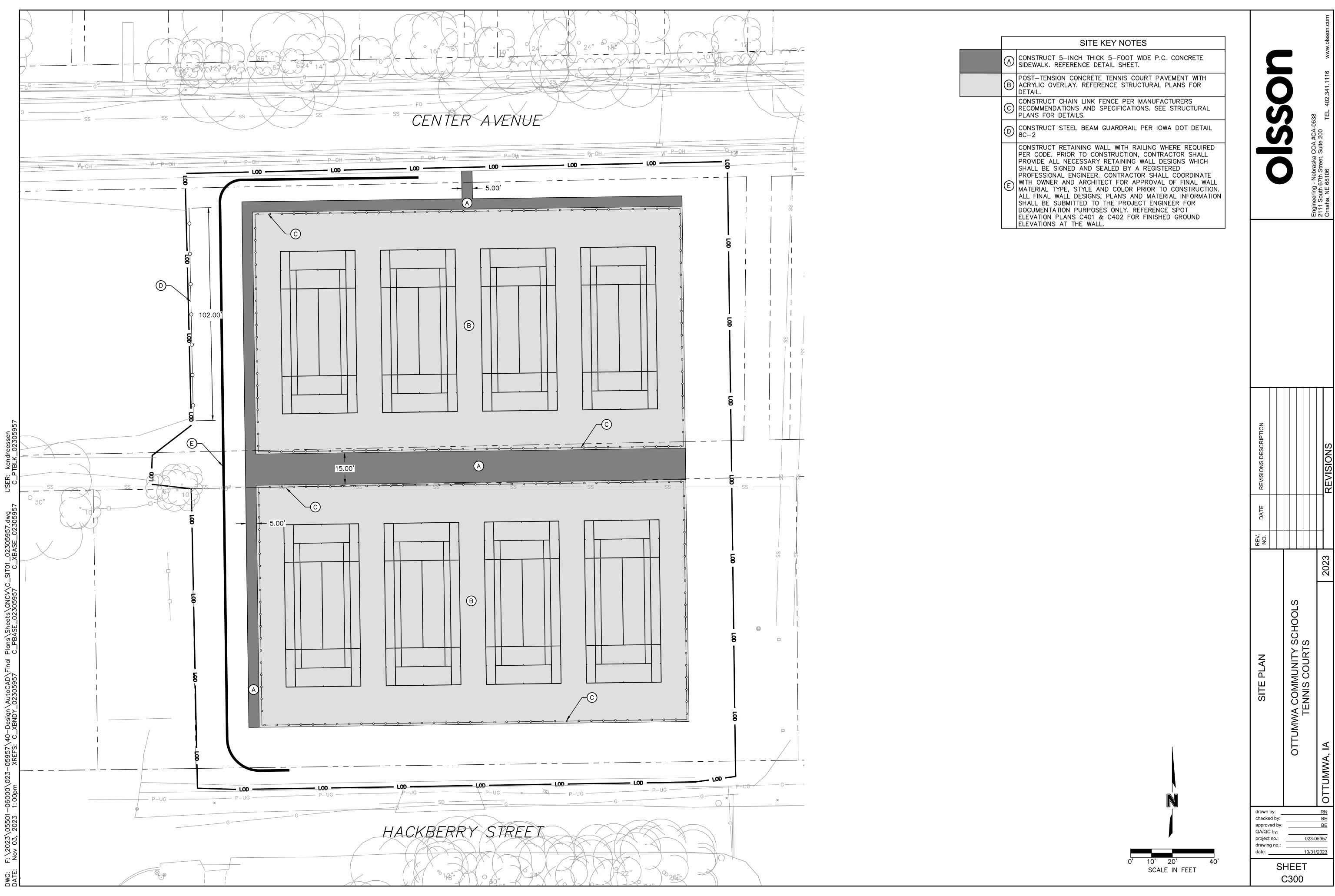


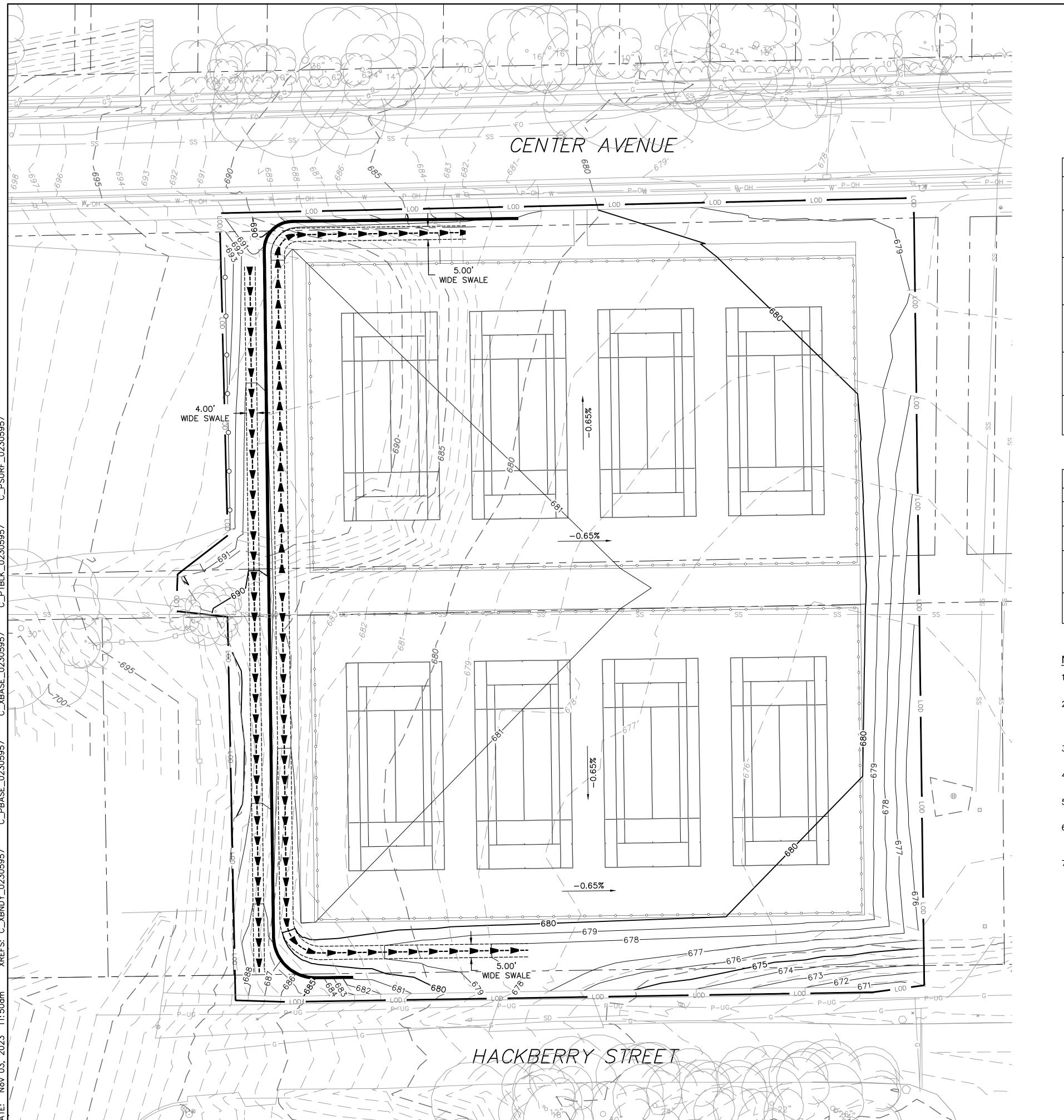


CONCRETE WASHOUT AREA DETAIL CW NOT TO SCALE

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# <u>LEGEND</u>

— — 6XX — — EXISTING MAJOR CONTOUR
 — 6XX — EXISTING MINOR CONTOUR
 — 6XX — PROPOSED MAJOR CONTOUR
 — 6XX — PROPOSED MINOR CONTOUR
 — LOD — LIMITS OF DISTURBANCE
 — INTENDED DRAINAGE PATH

FILL PLACEME	FILL PLACEMENT / COMPACTION REQUIREMENTS TABLE				
AREAS OF FILL PLACEMENT	COMPACTION RECOMMENDATION (ASTM D698 — STANDARD PROCTOR)	MOISTURE CONTENT (PERCENT OF OPTIMUM)			
COHESIVE STRUCTURAL FILL — PLACED BELOW AND WITHIN 10 FEET OF NEW BUILDINGS, PAVEMENTS AND GRADE RETAINING WALLS	98%	-2 TO +3 PERCENT			
COHESIVE STRUCTURAL FILL — PLACED MORE THAN 10 FEET AWAY FROM NEW BUILDINGS, PAVEMENTS AND GRADE RETAINING WALLS	95%	-2 TO +3 PERCENT			
UTILITY TRENCHES — COHESIVE BACKFILL PLACED BENEATH OR WITHIN 20 FEET OF BUILDINGS, PAVEMENTS AND GRADE RETAINING WALLS	98%**	-2 TO +3 PERCENT			
NON-STRUCTURAL FILL - BENEATH NON-LOADED LANDSCAPE/GRASS AREAS (IN THE UPPER 2 FEET FROM FINAL GRADE)	92%	AS NECESSARY TO OBTAIN DENSITY			

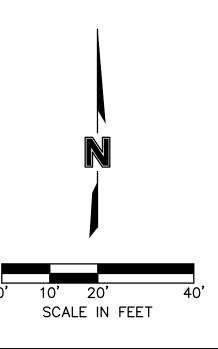
\*MAY BE SUBSTITUTED WITH 65% "RELATIVE DENSITY" IN ACCORDANCE WITH ASTM D 4253 AND D 4254.

\*\*MAY BE REDUCED TO 95% WHEN MORE THAN 20-FEET AWAY FROM BUILDING PADS AND PAVEMENTS.

GRADING INFORMATION TABLE				
AREA	CONTOURS REPRESENT	CONTRACTOR TO GRADE TO		
STREETS/INTERNAL DRIVES	FINISHED GROUND (TOP OF SLAB)	SUBGRADE (REF. SITE PLANS FOR PAVEMENT THICKNESS)		
PARKING LOT PAVED AREAS	FINISHED GROUND (TOP OF SLAB)	SUBGRADE (REF. SITE PLANS FOR PAVEMENT THICKNESS)		
BUILDING AREAS	FINISHED GROUND (FINISHED FLOOR ELEV.)	SUBGRADE (REF. ARCHITECTURAL PLANS FOR FLOOR SLAB AND SUBBASE THICKNESS)		
ALL OTHER NON-PAVED/ NON-BUILDING AREAS	FINISHED GROUND	6" BELOW CONTOURS (FOR TOPSOIL)*		

# <u>NOTES</u>

- 1. CONTOURS REPRESENT TOP OF SLAB IN PAVED AREAS AND FINISHED GRADE IN NON-PAVED AREAS.
- 2. SPOT ELEVATIONS REPRESENT TOP OF SLAB ELEVATION IN PAVED AREAS AND FINISHED GROUND ELEVATION IN NON-PAVED AREAS UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AND GARAGES.
- 4. REFERENCE PAVING PLAN AND PROFILE SHEETS FOR ALL SHADED AREAS.
- 5. FINISHED GRADE ELEVATION AT BUILDING SHALL BE 0.5' BELOW FINISHED FLOOR ELEVATION.
- 6. ALL SPOT ELEVATIONS ARE BASED ON A 6XX DATUM. THE FIRST TWO DIGITS HAVE BEEN TRUNCATED.
- 7. ACCESSIBLE PARKING STALLS SHALL NOT EXCEED 2.00% IN ANY DIRECTION. ACCESSIBLE SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.00% AND A MAXIMUM LONGITUDINAL SLOPE OF 5.00%.



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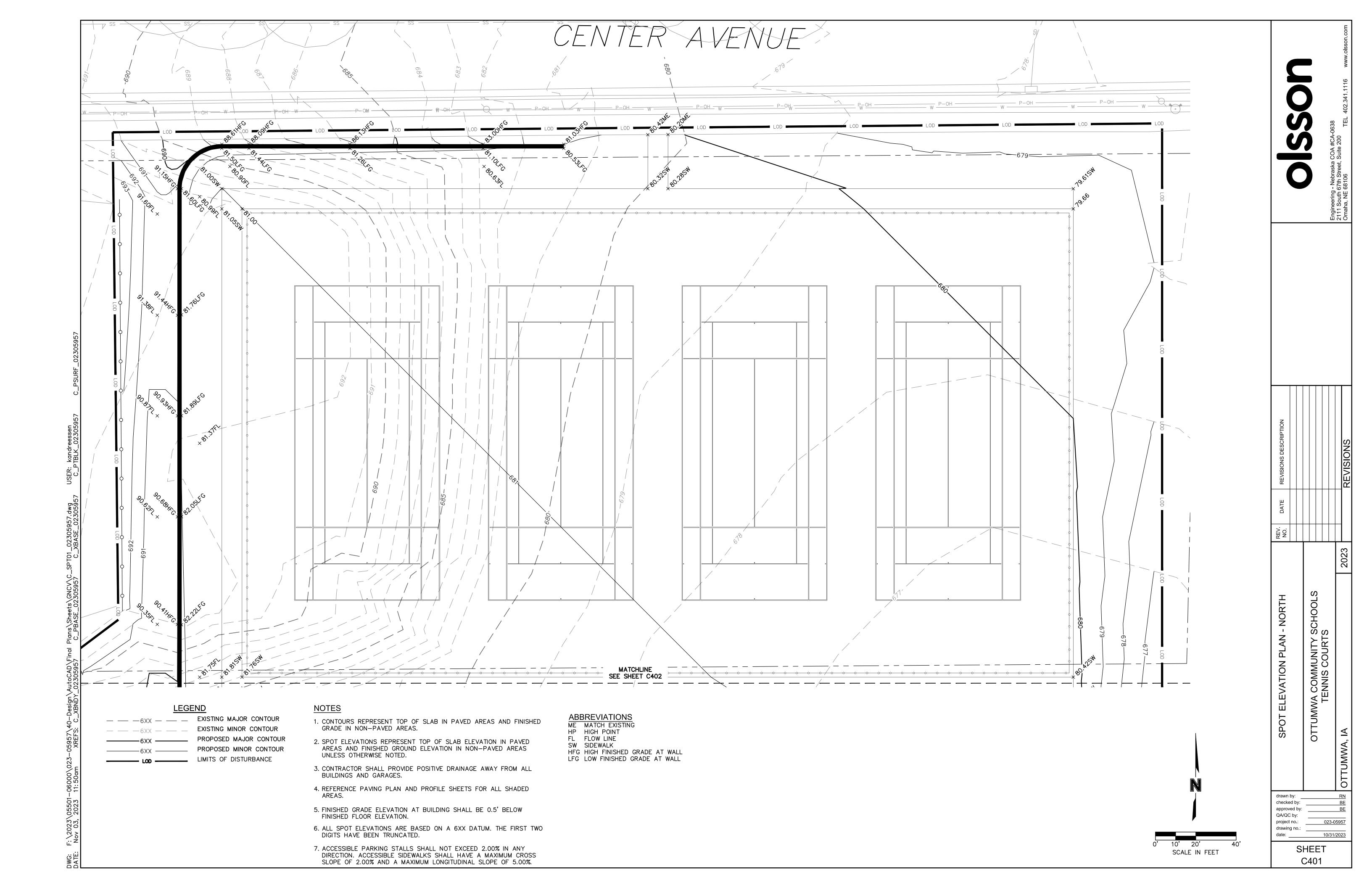
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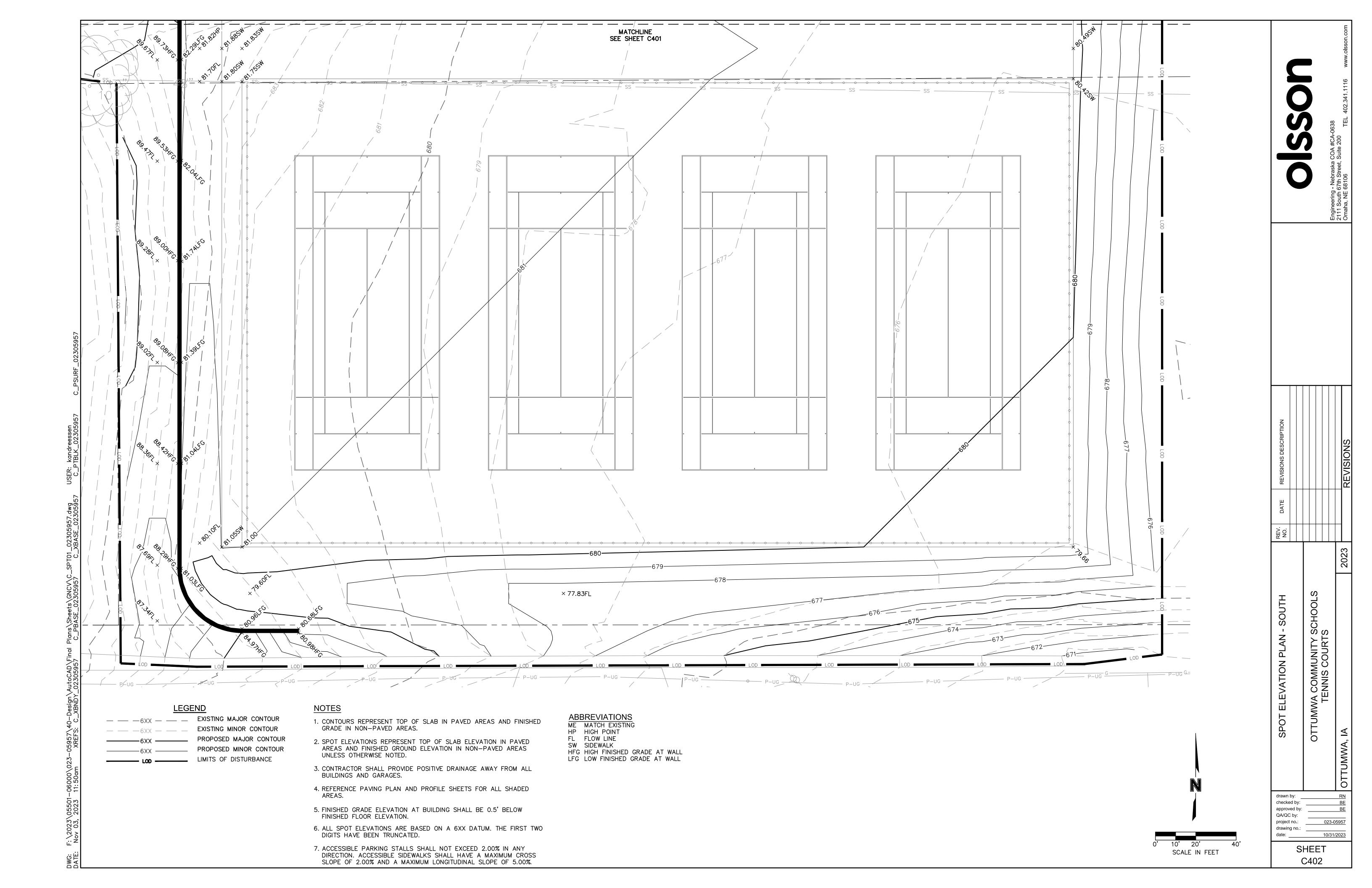
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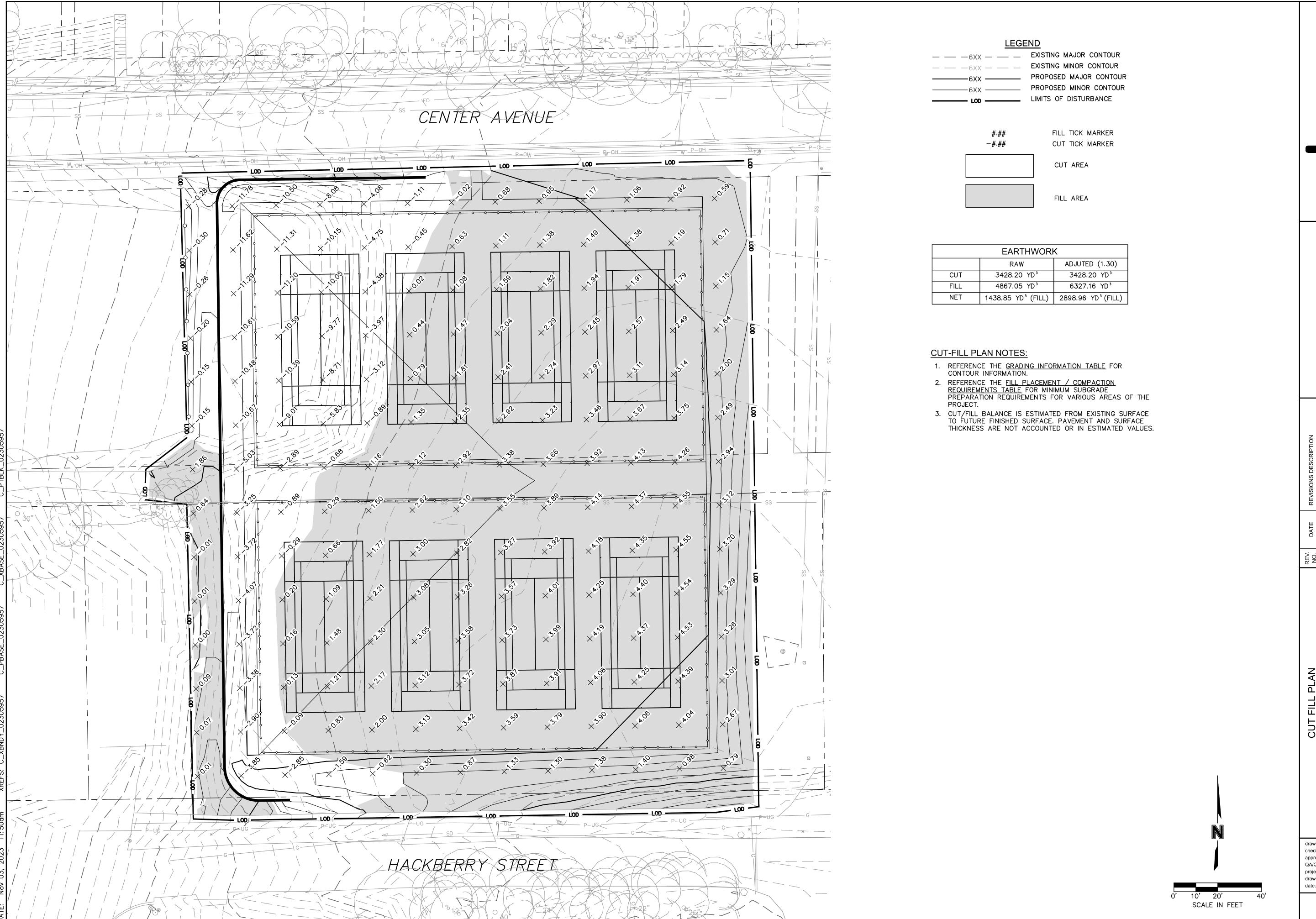
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UMWA COMMUNITY SCHOOLS
TENNIS COURTS
2023 REVISIONS







Engineering - Nebraska CO. 2111 South 67th Street, Sui Omaha, NE 68106

REVISIONS

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TENNIS COURTS

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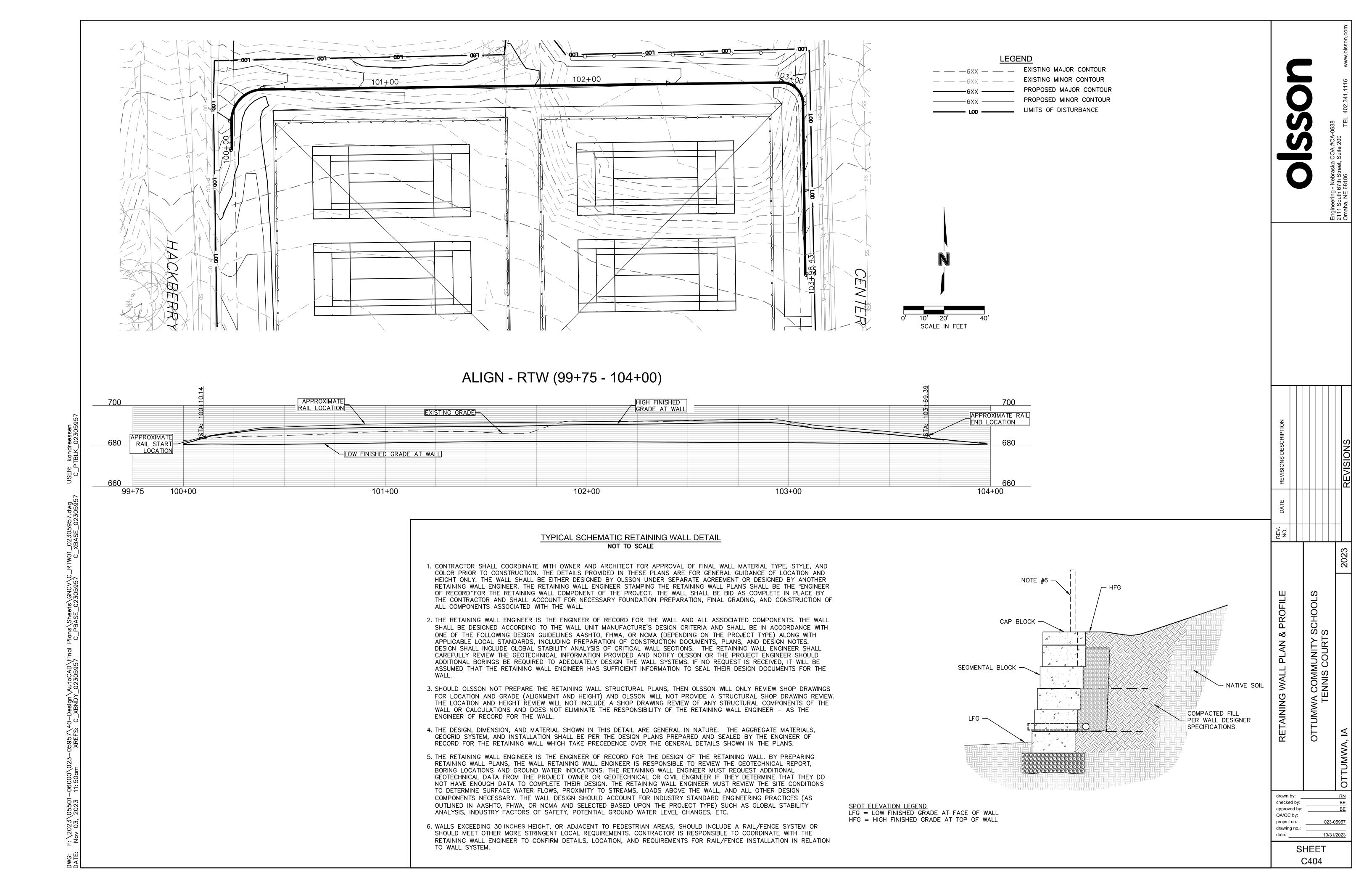
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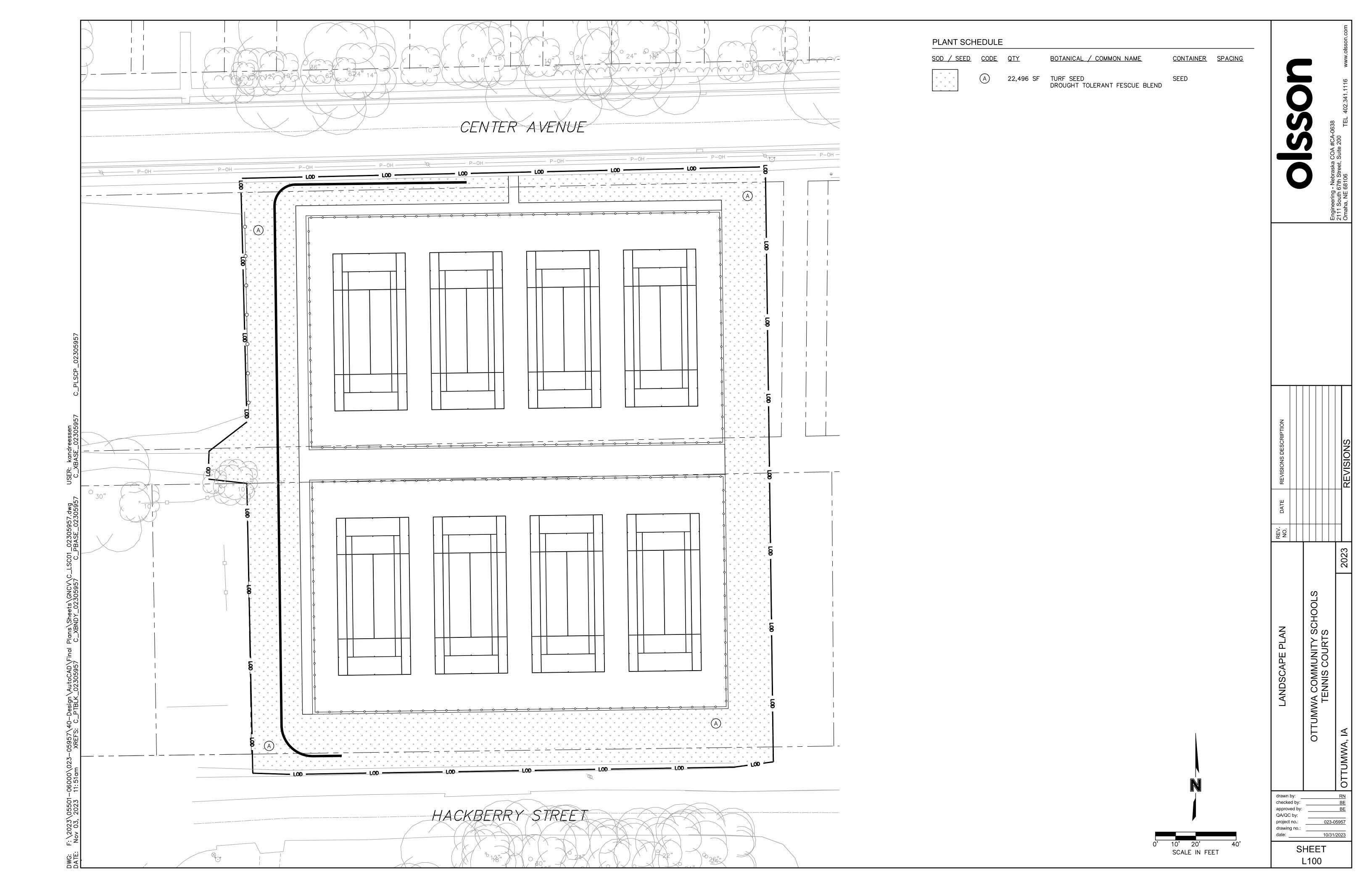
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SHALL BE MAINTAINED AND ANY EXCESS SOIL SHALL EITHER BE WASTED ON SITE AT THE DISCRETION OF THE GENERAL CONTRACTOR OR DISPOSED OF OFF—SITE.

ALL CONSTRUCTION DEBRIS FROM IRRIGATION OPERATIONS SHALL BE DISPOSED OF OFF—SITE.

4. ALL DAMAGE TO EXISTING SITE IMPROVEMENTS RESULTING FROM EXCAVATION, PLANTING, BACKFILLING, ETC. SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS INCLUDING CONSTRUCTION ACCESS OUTSIDE PROJECT LIMITS. SURFACES OTHER THAN THE PLANTING AREA SHALL BE RESTORED BY THE CONTRACTOR TO THE CONDITION EXISTING PRIOR TO THE PLANTING OPERATION.

5. PLANT LIST IS PROVIDED FOR CONVENIENCE ONLY. IN THE CASE OF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST QUANTITIES, THE PLAN WILL TAKE PRECEDENCE. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL FINAL QUANTITIES PER DRAWINGS AND SPECIFICATIONS.

6. ALL PLANT MATERIAL INSTALLED SHALL BE "NURSERY GROWN" MEETING THE FOLLOWING CRITERIA:

A. PLANT MATERIAL GROWN BY ESTABLISHED COMMERCIAL NURSERIES AND SOLD TO LICENSED AND CERTIFIED NURSERIES AND/OR LANDSCAPE ARCHITECTS.

B. GROWN AND SOLD ACCORDING TO AMERICAN STANDARD FOR NURSERY STOCK SPECIFICATION.C. PLANT MATERIALS ARE SIZED ACCORDING CONTAINER/BALLSIZE AND

PLANT MATERIALS ARE SIZED ACCORDING CONTAINER/BALLSIZE AND PHYSICAL SIZE OF TRUNK OR CANOPY. CROWN/CALIPER SIZES MUST BE MET OR EXCEEDED.

7. THE LANDSCAPE ARCHITECT AND/OR OWNER RESERVES THE RIGHT TO INSPECT AND APPROVE ALL PLANT MATERIAL AT THE NURSERY/PLACE OF GROWTH, PRIOR TO INSTALLATION. PLANT MATERIAL WHICH HAS BECOME DAMAGED OR DISEASED OR WHICH IS UNACCEPTABLE TO THE LANDSCAPE ARCHITECT MAY BE REJECTED UPON DELIVERY TO THE SITE. WHEN TYPICAL, TREES WITHOUT A CENTRAL LEADER WILL NOT BE ACCEPTED.

8. ALL PLANT SUBSTITUTIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT.

9. IT IS RECOMMENDED THAT PLANTING OF TREES AND SHRUBS AREAS SHALL BE COMMENCED DURING THE SPRING (MARCH 15—JUNE 15) OR FALL (SEPTEMBER 1—OCTOBER 15) PLANTING SEASON. ANY PLANTING OPERATION NOT PERFORMED DURING THESE PERIODS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT AND ARE PERFORMED AT THE CONTRACTOR'S RISK. REFER TO WARRANTY CHART BELOW.

10. ALL PLANTING OPERATIONS AND LAYOUT SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT. THE ACTUAL LOCATION OF PLANT MATERIALS MAY VARY DUE TO FIELD CONDITIONS. IF INITIAL PLACEMENT IS NOT SATISFACTORY, PLANTS SHALL BE RELOCATED AT THE DIRECTION OF THE LANDSCAPE ARCHITECT OR THEIR REPRESENTATIVE, AT NO ADDITIONAL COST TO THE OWNER.

11. ALL TREE/SHRUB PLANTING AREAS SHALL BE AMENDED WITH BIOSOL NATURAL ORGANIC FERTILIZER AND SOIL AMENDMENT AT A RATE OF 24# PER 1,000 S.F. (1,500# PER ACRE) AND LIGHTLY TILLED INTO THE SOIL BED. RAKE AREA SMOOTH.

BÏOSOL AVAILABLE THROUGH: ASP ENTERPRISES

(402)861-8579 BRIAN WILLIAMS (877)678-8027

12. ALL TREES IN SAME PLANTING AREA SHALL BE PLACED AND PLANTED AT THE SAME TIME. IF ANY PLANTS REMAIN ON THE SITE FOR MORE THAN 8 HOURS, THAT PLANT MATERIAL SHALL BE HEELED—IN ON SITE TO MAINTAIN THE MATERIAL'S HEALTH AND VITALITY. PLANTS SHALL BE PROTECTED AND MAINTAINED, INCLUDING BUT NOT LIMITED TO WATER AND SHADE. WHILE ON—SITE, ANY PLANTS DEEMED NOT IN SATISFACTORY HEALTH OR CONDITION AT THE TIME OF PLANTING BY THE LANDSCAPE ARCHITECT OR THEIR REPRESENTATIVE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

13. CONTRACTOR SHALL NOT STOCKPILE ANY MATERIALS UNDER THE DRIP LINE OF EXISTING TREES.

14. ALL TREES, SHRUB MASS PLANTINGS, AND ANNUAL AND ORNAMENTAL PLANTING BEDS SHALL RECEIVE SHREDDED HARDWOOD MULCH AND INSTALLED OVER LANDSCAPE FABRIC, UNLESS OTHERWISE NOTED.

15. LANDSCAPE FABRIC TO BE A UV STABILIZED, 3 OZ./YD, POLYPROPOLENE, WOVEN, NEEDLE—PUNCHED FABRIC WITH A 20 YEAR WARRANTY.

16. LIMIT OF SEEDING/SODDING SHOWN IS BASED ON THE ESTIMATED GRADING LIMIT. REFER TO EROSION CONTROL PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR SODDING/SEEDING ALL AREAS THAT ARE DISTURBED BEYOND GRADING LIMITS DURING THE CONSTRUCTION PROCESS.

17. ALL TURF AREAS ARE TO BE IRRIGATED. REFER TO TURF AND GRASSLANDS SEEDING NOTES FOR IRRIGATION OF SEEDED AREAS. REFER TO IRRIGATION PERFORMANCE SPECIFICATIONS.

18. CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING ALL PLANT MATERIALS UNTIL THE TIME THE PERMANENT IRRIGATION SYSTEM IS FULLY FUNCTIONAL AND SUBSTANTIAL COMPLETION OF THE PROJECT HAS BEEN GRANTED. ANY MATERIAL WHICH DIES, OR DEFOLIATES PRIOR TO SUBSTANTIAL COMPLETION OF THE WORK WILL BE PROMPTLY REMOVED AND REPLACED.

19. PRIOR TO GRANTING SUBSTANTIAL COMPLETION, THE OWNER AND/OR LANDSCAPE ARCHITECT SHALL COMPILE A FINAL PUNCHLIST OF UNSATISFACTORY OR INCOMPLETE ITEMS. CONTRACTOR SHALL BE NOTIFIED IN WRITING OF SUBSTANTIAL COMPLETION WHEN THE FINAL PUNCHLIST HAS BEEN COMPLETED.

20. THE CONTRACTOR WILL COMPLETELY GUARANTEE ALL WORK FOR THE PERIOD SPECIFIED BY THE WARRANTY CHART BELOW.

WARRANTY CHART					
SUBSTANTIAL COMPLETION DATE	DURATION	WARRANTY EXPIRATION			
DECEMBER	19 MONTHS	JULY			
JANUARY	18 MONTHS	JULY			
FEBRUARY	17 MONTHS	JULY			
MARCH	16 MONTHS	JULY			
APRIL	15 MONTHS	JULY			
MAY	14 MONTHS	JULY			
JUNE	13 MONTHS	JULY			
JULY	12 MONTHS	JULY			
AUGUST	12 MONTHS	AUGUST			
SEPTEMBER	12 MONTHS	SEPTEMBER			
OCTOBER	12 MONTHS	OCTOBER			
NOVEMBER	12 MONTHS	NOVEMBER			

# SOIL NOTES

1. PLANTING SOIL: A UNIFORM SOIL MIX, FREE OF PLANT RESIDUE, STONES, STUMPS ROOTS OR SIMILAR OBJECTS LARGER THAN 1 INCH. PLANTING SOIL MIXTURE SHALL BE OF TOPSOIL, ORGANIC COMPOST AND SAND CONSISTING OF THE FOLLOWING: A. 15% BY VOLUME ORGANIC COMPOST

B. 15% BY VOLUME SANDC. 70% BY VOLUME TOPSOIL

 CONTRACTOR SHALL BE REQUIRED TO PERFORM pH TESTS ON EXISTING PLANTING BEDS TO DETERMINE THE NECESSARY AMOUNT OF COMPOST TO BE ADDED TO ADJUST pH TO BETWEEN SIX (6) AND SEVEN (7).

3. ORGANIC COMPOST: WELL DECOMPOSED, STABLE, WEED FREE ORGANIC MATTER SOURCE. IT SHALL BE DERIVED FROM; AGRICULTURE, FOOD, OR INDUSTRIAL RESIDUALS; BIOSOLIDS (TREATED SEWAGE SLUDGE); YARD TRIMMINGS AND LEAF RAKINGS; SOURCE—SEPARATED OR MIXED SOLID WASTE MEETING THE FOLLOWING CRITERIA:

A. 100 PERCENT SHALL PASS THROUGH A 3/8 INCH SCREEN.

B. PH OF 6.0 TO 8.5.
C. MOISTURE CONTENT OF 30% TO 60% BY WEIGHT.

D. NO SUBSTANCES TOXIC TO PLANTS.
E. 1% OR LESS BY WEIGHT MANUFACTURED FOREIGN MATTER.

F. NO OBJECTIONABLE ODOR.G. SHALL NOT RESEMBLE THE RAW MATERIAL FROM WHICH IT IS DERIVED.

4. TOPSOIL: SOIL CLASSIFICATION OF SANDY LOAM OR LOAMY SAND MEETING THE FOLLOWING CRITERIA:
A. 50 TO 85 PERCENT BY WEIGHT SAND (2.0 TO 0.050MM) ACCORDING TO

AASHTO T88.

B. 5 TO 50 PERCENT BY WEIGHT SILT (0.050 TO 0.002MM) ACCORDING TO

AASHTO T88.
C. 2 TO 5 PERCENT BY WEIGHT CLAY (LESS THAN 0.002MM) ACCORDING TO

AASHTO T88.

D. 3 TO 10 PERCENT BY WEIGHT ORGANIC MATTER ACCORDING TO AASHTO T194.

F. TEXTURAL ANALYSIS:

i. MINIMUM 100% BY WEIGHT PASSING THE 2" SIEVE PER ASTM E11.
ii. MINIMUM 90% BY WEIGHT PASSING THE NO, 4 PER ASTM E11.
iii. MINIMUM 80% BY WEIGHT PASSING THE NO. 10 SIEVE PER ASTM E11.

#### IRRIGATION PERFORMANCE SPECIFICATION

1. IRRIGATION DESIGN TO BE PREPARED BY IRRIGATION CONTRACTOR AND PROVIDED TO THE OWNER OR THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION. THE IRRIGATION DESIGN SHALL BE PREPARED BY AN IRRIGATION DESIGNER WITH A MINIMUM OF FIVE (5) YEARS OF DESIGN EXPERIENCE AND MAY BE SUBJECT TO A WATER AUDIT.

2. FINISH GRADES ESTABLISHED PRIOR TO INSTALLATION OF IRRIGATION SYSTEM SHALL BE MAINTAINED AND ANY EXCESS SOIL SHALL EITHER BE WASTED ON SITE AT THE DISCRETION OF THE GENERAL CONTRACTOR OR DISPOSED OF OFF—SITE. ALL CONSTRUCTION DEBRIS FROM IRRIGATION OPERATIONS SHALL BE DISPOSED OF OFF—SITE.

 TURF AREAS SHALL BE IRRIGATED USING TURF SPRAY HEADS. THE IRRIGATION DESIGN SHALL BE PREPARED TO PROVIDE A 50% SPACING OR HEAD TO HEAD LAYOUT.

IRRIGATION TAP(S) LOCATIONS SHALL BE COORDINATED BETWEEN THE CONTRACTOR, CITY, AND LANDSCAPE ARCHITECT. INSTALL IRRIGATION TAP(S), METER(S) AND BACKFLOW PREVENTION DEVICE(S) AS REQUIRED BY THE CITY, PERFORMED BY A LICENSED PLUMBER. IRRIGATION TAP(S), METER(S) AND BACKFLOW PREVENTER(S) SIZE TO BE DETERMINED BY IRRIGATION CONTRACTOR AND SHALL BE LISTED ON THE IRRIGATION SHOP DRAWING SUBMITTED FOR REVIEW AND THE AS-BUILT PLANS SUBMITTED UPON COMPLETION.

5. IRRIGATION CONTRACTOR TO DETERMINE AVAILABLE WATER PRESSURE AND FLOW AT TAP LOCATION(S). IRRIGATION CONTRACTOR TO DESIGN IRRIGATION SYSTEM BASED ON AVAILABLE WATER PRESSURE. IRRIGATION CONTRACTOR TO PROVIDE ALL DESIGN CALCULATIONS FOR REVIEW BY THE OWNER OR OWNER'S REPRESENTATIVE INCLUDING FLOW RATES AND PRESSURE LOSSES CALCULATIONS OF THE SYSTEM.

6. THE IRRIGATION EQUIPMENT SHALL BE MANUFACTURED BY HUNTER INDUSTRIES, RAIN BIRD CORPORATION, OR TORO OR APPROVED EQUAL AND SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. IRRIGATION EQUIPMENT SHALL HAVE A MANUFACTURER'S FIVE (5) YEAR WARRANTY.

IRRIGATION CONTROLLER SHALL BE A MODULAR SYSTEM EXPANDABLE IN EITHER 4 OR 8 STATION MODULES OR AN EXPANDABLE DECODER SYSTEM. THE IRRIGATION CONTROLLER SHALL HAVE THE CAPACITY TO OPERATE A MASTER VALVE DURING SYSTEM RUN TIME. THE IRRIGATION CONTROLLER SHALL HAVE 4 PROGRAMS WITH INDEPENDENT STARTS, 365 DAY CALENDAR, EVEN, ODD, ODD 31, CYCLICAL, CUSTOM AND MANUAL WATER DAY SCHEDULES. THE CONTROLLER SHALL HAVE A MINIMUM SEASONAL ADJUST CAPABILITY OF 10% — 150%. THE IRRIGATION CONTROLLER TO BE INSTALLED IN A LOCKABLE, METAL PEDESTAL IN A LOCATION APPROVED BY THE OWNER OR OWNER'S REPRESENTATIVE.

3. THE IRRIGATION SYSTEM DESIGN SHALL INCLUDE A WIRELESS RAIN SENSOR.
INSTALL RAIN SENSOR IN LOCATION APPROVED BY THE OWNER AND PER THE
MANUFACTURER'S SPECIFICATIONS.

9. IRRIGATION CONTROL VALVES ARE TO BE A PLASTIC GLOBE VALVE CONFIGURATION WITH PRESSURE RATING OF 15 — 150 PSI AND FLOW RANGE FROM 2 — 150 GPM. THE SOLENOID SHALL BE HEAVY DUTY ONE PIECE CONSTRUCTION. THE CONTROL VALVES SHALL HAVE THE ABILITY TO ADJUST AND REGULATE PRESSURE FROM 20 —100 PSI. THE CONTROL VALVE SIZE SHALL BE 1", 1.5"AND 2" CONFIGURATIONS. THE CONTROL VALVES SHALL HAVE A MANUFACTURER'S THREE (5) YEAR WARRANTY.

10. THE IRRIGATION SPRAY BODY SHALL BE UV—RESISTANT PLASTIC WITH A CO—MOLDED OR RUBBER SEALS AND HEAVY DUTY SPRING. THE SPRAY BODY SHALL HAVE BOTH A BOTTOM AND SIDE IN—LET FEATURE. SPRAY NOZZLES SHALL BE VARIABLE ARC SPRAY NOZZLES.

11. ALL IRRIGATION MAINLINE PIPES SHALL BE PVC CLASS 200 IPS PLASTIC PIPE.
ALL PIPE SHALL BE SIZED NOT TO EXCEED A VELOCITY OF FIVE (5) FEET PER
SECOND

11 ALL IRRIGATION LATERAL PIPES SHALL BE POLYETHYLENE PIPE. ALL PIPE SHALL BE SIZED NOT TO EXCEED A VELOCITY OF FIVE (5) FEET PER SECOND.

12. ALL IRRIGATION PIPE OR WIRE SHALL BE INSTALLED IN SLEEVES BELOW ANY PAVEMENT OR HARD SURFACE. ALL IRRIGATION SLEEVES SHALL BE PVC SCHEDULE 40. ALL SLEEVES ARE TO EXTEND 24" BEYOND AND SIZED A MINIMUM OF TWO (2) TIMES THE DIAMETER OF THE MAINLINE OR LATERAL. COORDINATE INSTALLATION OF ALL SLEEVES WITH THE GENERAL CONTRACTOR AND THE CONCRETE CONTRACTOR PRIOR TO GRADING AND PLACEMENT OF CONCRETE.

13. IRRIGATION CONTRACTOR SHALL SUPPLY MAINTENANCE AND OPERATION MANUALS AND A SCALED AS-BUILT DRAWING OF THE SYSTEM TO THE OWNER. IRRIGATION CONTRACTOR SHALL DEMONSTRATE THE PROGRAMMING OF THE CONTROLLER FOR THE OWNER.

14. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR THE FIRST WINTERIZATION AND SPRING STARTUP UNLESS THE OWNER AGREES TO USE THEIR OWN CONTRACTOR.

#### **SEEDING NOTES**

1. THE LANDSCAPE ARCHITECT AND/OR OWNER RESERVES THE RIGHT TO INSPECT SEED AT THE SITE BEFORE SEEDING OPERATIONS COMMENCE. THE LANDSCAPE ARCHITECT MAY REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. REJECTED MATERIALS MUST BE REMOVED FROM THE PROJECT SITE.

2. REFER TO SEEDING SPECIFICATION(S) FOR SEED MIXTURE(S).

ALL 'NON-TURF' SEED SHALL BE A COMMERCIALLY AVAILABLE MIX, EITHER PRE-CATEGORIZED OR CUSTOMIZED. ANY SEEDING SUBSTITUTIONS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.

 ALL MATERIALS USED SHALL MEET OR EXCEED APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL LAWS AND REGULATIONS.

ALL SEED SHALL BE FREE FROM INSECTS AND DISEASE. SPECIES SHALL BE TRUE TO THEIR SCIENTIFIC NAME AS SPECIFIED.

ALL GRASS SPECIES SHALL BE SUPPLIED AS PURE LIVE SEED.

SEED OF ALL SPECIES NATIVE TO IOWA SHALL BE FROM WITHIN A 150 MILE RADIUS OF THE PROJECT SITE. SEED NOT AVAILABLE WITHIN A 150 MILE RADIUS SHALL BE APPROVED BY THE OWNER PRIOR TO INSTALLATION.

8. SEEDS SHALL HAVE PROPER STRATIFICATION AND/OR SCARIFICATION TO BREAK SEED DORMANCY FOR SPRING PLANTING.

9. PLANTING OF SEED AREAS SHALL BE COMMENCED DURING THE SPRING (APRIL 15-MAY 30) OR FALL (SEPTEMBER 1-OCTOBER 15) PLANTING SEASONS UNLESS SPECIFICALLY SPECIFIED. AFTER OCTOBER, DORMANT SEEDING MAY BE DONE AT CONTRACTOR'S DISCRETION WITH GUARANTEE THAT RE-SEEDING WILL BE DONE AT NO ADDITIONAL COST TO ACHIEVE ACCEPTABLE COVERAGE. GRADE TO SMOOTH, EVEN SURFACE WITH LOOSE UNIFORM SOIL TEXTURE. REMOVE STONES AND DEBRIS OVER 1" IN ANY DIMENSION.

10. ALL SEEDED AREAS SHALL BE PROTECTED FROM EROSION BY MULCH, EROSION CONTROL BLANKET OR HYDROMULCH.

11. EROSION CONTROL BLANKET SHALL BE A SHORT TERM, SINGLE NET, MACHINE—PRODUCED MAT OF 100% AGRICULTURAL STRAW WITH A FUNCTION LONGEVITY OF 12 MONTHS. EROSION CONTROL BLANKET SHALL MEET TYPE 2.C SPECIFICATION ESTABLISHED BY EROSION CONTROL TECHNOLOGY COUNCIL, NORTH AMERICAN GREEN S75 OR EQUAL.

12. STRAW MULCH SHALL BE OAT, WHEAT, OR RICE STRAW MULCH. HAY MULCH SHALL BE PRAIRIE GRASS OR OTHER HAY AS APPROVED BY THE OWNER. THE MULCH SHALL BE FREE OF JOHNSON GRASS OR OTHER NOXIOUS WEEDS AND FOREIGN MATERIALS. IT SHALL BE KEPT IN A DRY CONDITION AND SHALL NOT BE MOLDED OR ROTTED. STRAW OR HAY FOR EROSION CONTROL SHALL BE CLEAN, SEED—FREE HAY OR THRESHED STRAW OF WHEAT, RYE, OATS, OR BARLEY.

13. STRAW MULCH SHALL COVER A MINIMUM OF 80% OF THE SOIL SURFACE AREA THAT IS SEEDED. MULCH SHALL BE PLACED LOOSE AND OPEN ENOUGH TO ALLOW SOME SUNLIGHT TO PENETRATE AND AIR TO CIRCULATE BUT STILL COVER A MINIMUM OF 70% OF THE SOIL SURFACE.

14. STRAW MULCH SHALL BE APPLIED AT THE RATE OF 1½ TO 2 TONS PER ACRE FOR SITES THAT ARE SEEDED. THIS APPLICATION SHOULD RESULT IN A LAYER OF ½ TO 1½ INCHES THICK FOR SEEDED SITES.

15. IMMEDIATELY AFTER SPREADING, THE MULCH SHALL BE ANCHORED BY A MULCH CRIMPER AND/OR TACKIFIER.

16. THE CRIMPER SHALL CONSIST OF A SERIES OF DULL FLAT DISCS WITH NOTCHED EDGES SPACED APPROXIMATELY 8 INCHES APART. THE MULCH SHALL BE IMPRESSED IN THE SOIL TO A DEPTH OF 1 TO 3 INCHES.

17. IF TACKIFIER IS USED, TACKIFIER SHALL BE SPRAYED IN CONJUNCTION WITH MULCH OR IMMEDIATELY AFTER THE MULCH HAS BEEN PLACED. TACKIFIERS SHALL BE MIXED AND APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS.

18. SEEDING SHALL BE COMPLETED WHEN A MINIMUM OF 1/4 INCH OF NATURAL RAINFALL IS EXPECTED OR WHEN A MINIMUM OF 1/4 INCH OF IRRIGATION WILL BE RECEIVED WITHIN 10 DAYS AFTER SEEDING. IF SUFFICIENT NATURAL RAINFALL IS NOT RECEIVED WITHIN 10 DAYS, THE NEW SEEDING SHALL BE IRRIGATED WITH A MINIMUM OF 1/4 INCH OF WATER, OR SO THAT WATER PENETRATES THE SOIL TO A UNIFORM MINIMUM DEPTH OF 4.0 INCHES.

19. A TEMPORARY ABOVE—GROUND IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED BY THE CONTRACTOR UPON COMPLETION OF FINISH GRADING FOR ALL NON—IRRIGATED SEED AREAS AND FOR ALL IRRIGATED AREAS OF SEED AND SOD, PRIOR TO INSTALLATION OF PLANTINGS, UNLESS OR UNTIL THE PERMANENT SYSTEM IS FUNCTIONAL. ALL GRADED AREAS SHALL RECEIVE HEAD—TO—HEAD IRRIGATION COVERAGE, EXCEPT FOR PERMANENTLY PONDED AREAS.

20. PROVIDE WRITTEN VERIFICATION TO THE OWNER THAT BACKFLOW PREVENTION PER CODE EXISTS ON THE LINE TO BE USED AS A POINT OF CONNECTION FOR THE IRRIGATION SYSTEM. IF VERIFICATION CANNOT BE MADE, PROVIDE BACKFLOW PREVENTION PER CODE AS A PART OF THE INSTALLATION.

21. CONTRACTOR SHALL PROVIDE WATER AND ELECTRICITY FOR THE SYSTEM IN THE EVENT THAT NEITHER IS AVAILABLE FOR IMMEDIATE USE. CONTRACTOR SHALL PROVIDE ISOLATION VALVE AND CONNECTION TO WATER AND CONTROLLER.

22. THE IRRIGATION SYSTEM SHALL BE SET BY CONTRACTOR TO PROVIDE PRECIPITATION 2 TIMES PER WEEK BETWEEN JUNE 15TH AND OCTOBER 31ST OF THE FIRST YEAR AFTER PLANTING. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING PROPER FUNCTION AND CONNECTION OF THE IRRIGATION SYSTEMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE IRRIGATION SYSTEM FOR THE DURATION OF FIRST FULL GROWING SEASON. AT THE END OF THE IRRIGATION PERIOD, AND IF PLANT ESTABLISHMENT IS SUCCESSFUL, AS DETERMINED BY THE SEEDING WARRANTY CRITERIA, THE CONTRACTOR SHALL PERMANENTLY CAP PIPE DOWNSTREAM OF ISOLATION VALVE, AND THEN DISASSEMBLE AND REMOVE THE IRRIGATION SYSTEM.

23. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL TEMPORARY SIGNS, FLAGGING, ETC. AT THE PERIMETER OF ALL SEEDING SITES IMMEDIATELY AFTER THEIR COMPLETION, WHICH SHALL SERVE TO NOTIFY FOOT AND VEHICULAR TRAFFIC THAT A SENSITIVE AREA MAY BE DAMAGED BY THEIR ENTRY.

24. THE WORK AREA SHALL BE KEPT FREE OF DEBRIS BY THE CONTRACTOR. AFTER SEED INSTALLATION IS COMPLETE, CLEAN UP ANY REMAINING MATERIALS, DEBRIS, TRASH, ETC. AVOID DRIVING OVER SEEDED AREAS TO MINIMIZE DISTURBANCE. GRADING STAKES, STONES, TRASH, AND OTHER DEBRIS WHICH MAY DETRACT FROM THE APPEARANCE OR HINDER MAINTENANCE OF THE SEEDING SITE SHALL BE REMOVED FROM THE SITE WHEN SEEDING OPERATIONS ARE COMPLETED. SOIL, STRAW, HAY, HYDRAULIC FIBER MULCH, FERTILIZER, COMPOST, LIMESTONE, ELEMENTAL SULFUR, GYPSUM, AND OTHER DEBRIS SHALL BE REMOVED FROM PAVED AREAS SOON AS POSSIBLE AFTER SPREADING AND SEEDING OPERATIONS ARE COMPLETED. CLEAN UP OPERATIONS SHALL BE COMPLETED BEFORE ACCEPTANCE IS GIVEN.

25. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY EFFECTIVE SEEDING AND EROSION CONTROL MULCH MATERIALS, AND TO ENSURE THAT SUCH MATERIALS ARE SECURED TO THE SOIL SO THAT THEY ARE NOT BLOWN, WASHED, OR OTHERWISE REMOVED FROM THE SEEDING SITE, AND SO THAT NEARBY STREAMS AND OTHER AREAS SHALL BE PROTECTED FROM SOIL, FERTILIZER, COMPOST, AND THE INCURSION OF UNWANTED GRASS SEED.

26. GUARANTEE SEEDED/SODDED LAWN/ROUGH OR NATIVE SEEDED AREAS FOR THE FOLLOWING:

. PROVIDE A RELATIVELY UNIFORM, ACCEPTABLE STAND OF GRASS . NO BARE SPOTS OVER 3-INCH SQUARE FOR

ANY REASON

SEEDED/SODDED LAWN, AND NO BARE SPOTS OVER 12-INCH SQUARE FOR ROUGH/NATIVE SEEDED AREAS
RE-INSTALL ANY AREA(S) WHICH FAIL TO ESTABLISH A UNIFORM STAND FOR

TURF-TYPE TALL FESCUE MIX

(PERCENT OF MIX BASED ON BULK POUNDS)

TALL FESCUE VARIETIES 86.00%
KENTUCKY BLUEGRASS 7.00%
KENTUCKY BLUEGRASS 3.50%
PERENNIAL RYEGRASS 3.50%

SEEDING RATE: 10# PER 1,000 SF SEEDING DATES: MARCH — MAY DORMANT SEED: DECEMBER — MARCH

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LANDSCAPE NOT
OTTUMWA COMMUNITY
TENNIS COURT

drawn by:

checked by:
approved by:
QA/QC by:
project no.:
drawing no.:
date:

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