

DUCKS UNLIMITED

SPECIFICATIONS

- 101 GENERAL CONDITIONS
- 102 SUPPLEMENTAL CONDITIONS
- 201 MOBILIZATION
- 202 SITE PREPARATION
- 203 EXCAVATION
- 204 EMBANKMENT CONSTRUCTION
- 205 WATER
- 305 RIPRAP, REVETMENT & AGGREGATE PLACEMENT
- 401 SOIL EROSION AND POLLUTION CONTROL
- 402 SEEDING AND MULCHING
- 405SP UNCOMPACTED FILL

ESTIMATED QUANTITIES

MOBILIZATION	1 L.S.
<u>SITE PREPARATION:</u>	
TOPSOIL STRIPPING - EMB 1	1,400 C.Y.-P*
TOPSOIL STRIPPING - EMB 3	125 C.Y.-P*
TOPSOIL STRIPPING - EMB 4	90 C.Y.-P*
TOPSOIL STRIPPING - EMB 5	420 C.Y.-P*
TOPSOIL STRIPPING - EMB 6	125 C.Y.-P*
TOPSOIL STRIPPING - EMB 7	35 C.Y.-P*
TOPSOIL STRIPPING - EMB 8	160 C.Y.-P*
<u>EXCAVATION:</u>	
WETLAND 2 EXCAVATION	3,670 C.Y.-P*
WETLAND 5 EXCAVATION	85 C.Y.-P*
WETLAND 6 EXCAVATION	3,025 C.Y.-P
<u>EMBANKMENT CONSTRUCTION:</u>	
EMBANKMENT 1	4,500 C.Y.-P*
EMBANKMENT 3	220 C.Y.-P*
EMBANKMENT 4	140 C.Y.-P*
EMBANKMENT 5	1,340 C.Y.-P*
EMBANKMENT 6	450 C.Y.-P*
EMBANKMENT 7	55 C.Y.-P*
EMBANKMENT 8	555 C.Y.-P*
TEMPORARY EMBANKMENT & DEWATERING	1 L.S.
DUGOUT FILL	2 EACH
DITCH FILL	1,400 L.F.
PYRAMAT 25	21,730 S.F.-P*
FLEX-A-MAT	8,372 S.F.-P*
EROSION CONTROL BLANKET (STRAW)	2,000 S.F.-A**
SILT FENCE	1,870 L.F.-A**
8" Ø STRAW WATTLE	200 L.F.-A**
SEEDING AND MULCH	15.0 ACRES

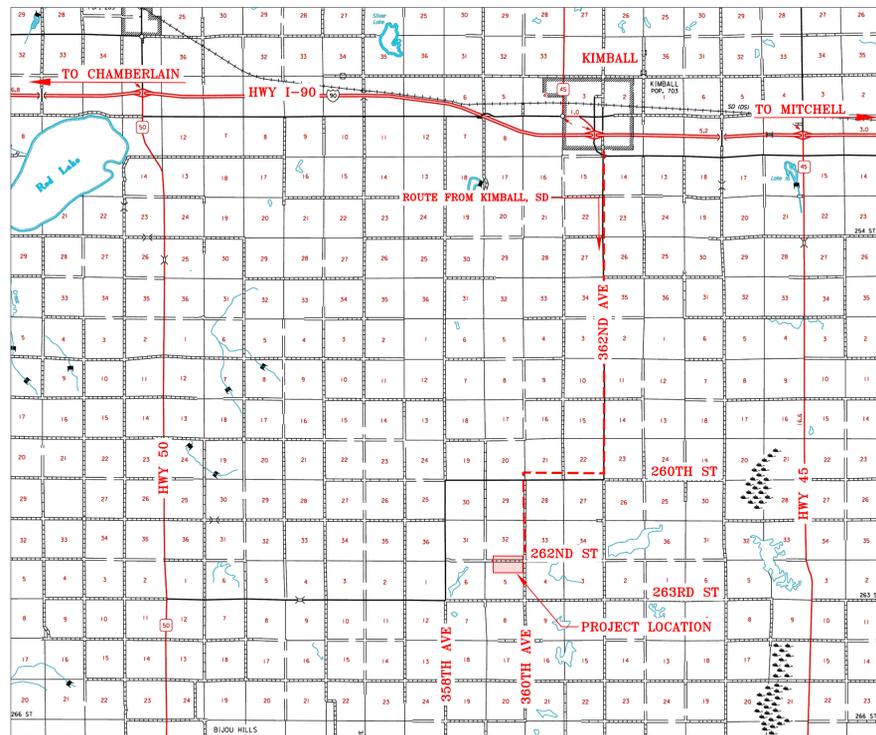
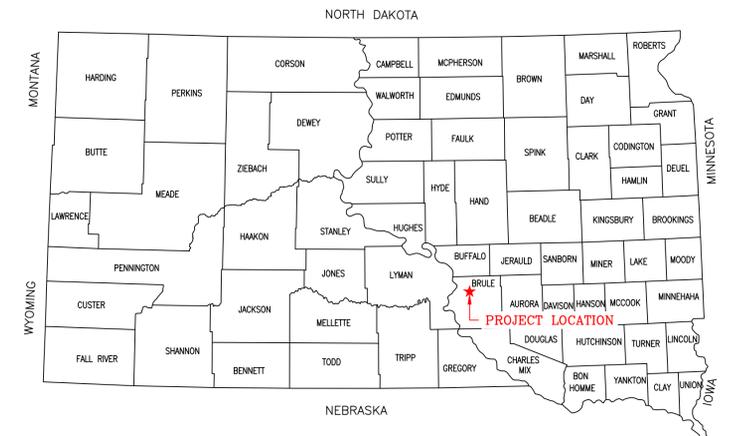
\*PAYMENT WILL BE BASED ON ACTUAL QUANTITY USED OR INSTALLED.  
 \*\*THE UNIT (CY-P) CUBIC YARDS-PLAN MEANS PAYMENT WILL BE BASED ON THE PLAN QUANTITY LISTED ABOVE. A SHRINKAGE FACTOR OF 20% IS INCLUDED TO ALL EMBANKMENT VOLUMES.

# DUCKS UNLIMITED

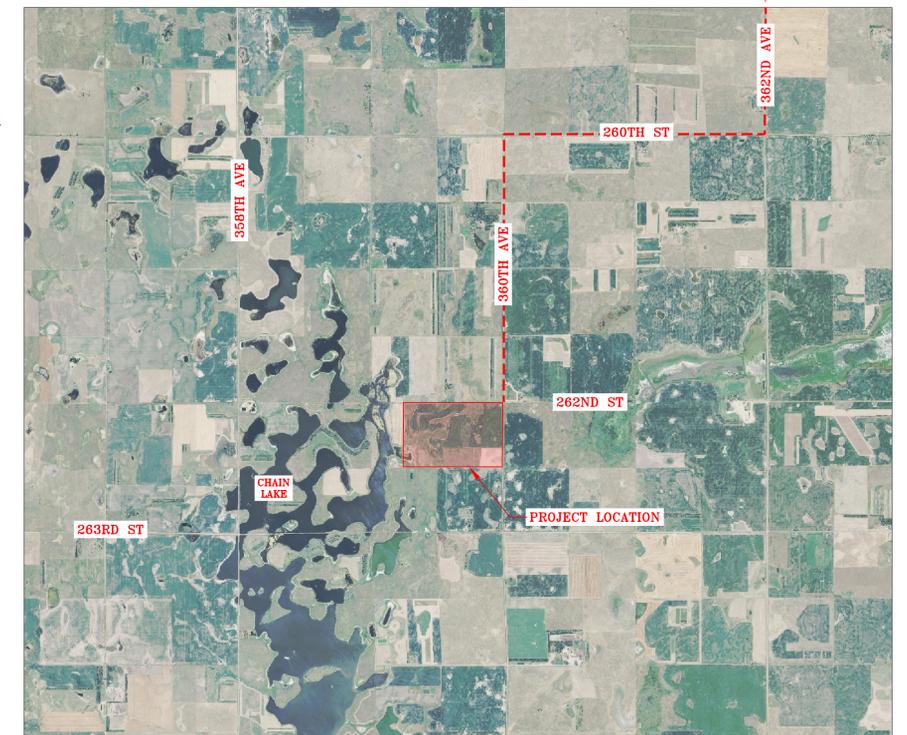
PROJECT

## BRULE COUNTY MITIGATION

LOCATED IN THE N<sub>2</sub> OF SECTION 5  
 TOWNSHIP 101N, RANGE 68W, 5TH P.M.  
 BRULE COUNTY, SOUTH DAKOTA



VICINITY MAP  
NOT TO SCALE



LOCATION MAP  
NOT TO SCALE

PLAN INDEX

- 1 LOCATION & VICINITY MAPS
- 2 OVERALL PLAN
- 3 EMBANKMENT 1 DETAILS
- 4 FLEX-A-MAT SPILLWAY DETAILS
- 5 DITCH FILL DETAILS
- 6 EMBANKMENT 3 DETAILS
- 7 EMBANKMENT 4 DETAILS
- 8 EMBANKMENT 8 DETAILS
- 9 EMBANKMENT 5 DETAILS
- 10 EMBANKMENT 6 DETAILS
- 11 EMBANKMENT 7 DETAILS
- 12 DUGOUT FILL DETAILS
- 13 STORM WATER POLLUTION PREVENTION PLAN

ALL WRITTEN SCALES ARE ACCURATE ON 24x36 INCH SHEETS

**"BEFORE YOU DIG"**

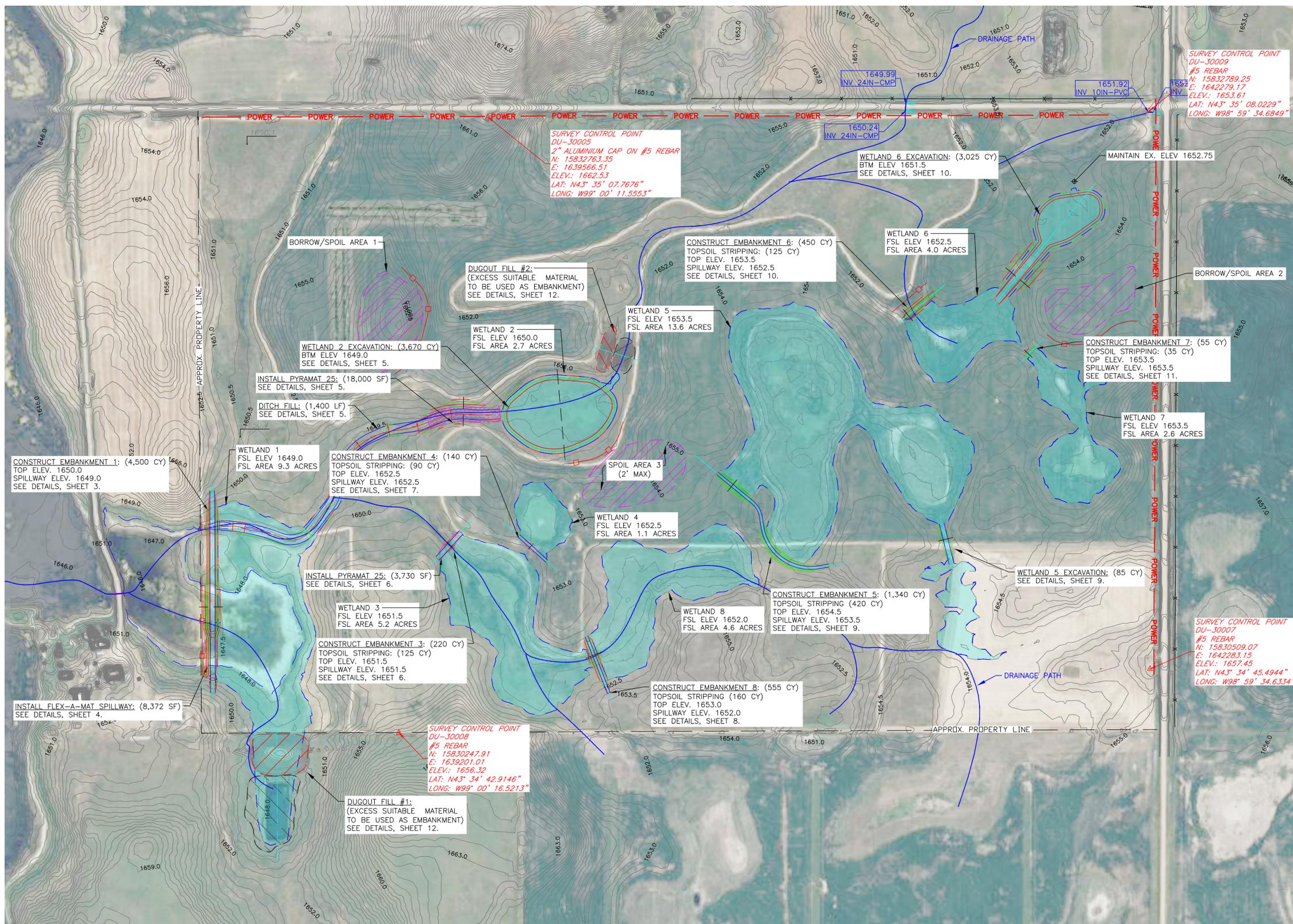
BEFORE THE START OF CONSTRUCTION, THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE EXCAVATOR/CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE BY CALLING "SOUTH DAKOTA ONE CALL" AT 811. A 72 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU REGIONAL ENGINEER:  
 CASEY CAMPBELL, P.E.  
 2121 N. WEBB RD., SUITE 309  
 GRAND ISLAND, NE 68803  
 (308) 385-8832

DU REGIONAL ENGINEER:  
 DYLAN PETERSON, P.E.  
 2525 RIVER ROAD  
 BISMARCK, ND 58503  
 (701) 390-4993

	<b>DUCKS UNLIMITED INC.</b> GREAT PLAINS REGIONAL OFFICE	PROJECT NO. SD-557-1 BRULE CO. MITIGATION	DESIGNED BY: DCP DRAWN BY: DCP
	DATE: 3/20/2026 SHEET NO. 1 OF 13	APPROVED BY:	SURVEYED BY: LM/DP CHECKED BY:

Construction site safety is the sole responsibility of the contractor. Ducks Unlimited, Inc. shall not assume any responsibility for the safety of the work performed, persons engaged in the work, nearby structures or of other persons on-site. This material, data and information is the property of Ducks Unlimited, Inc. It may not be used or reproduced for any purpose without the prior written consent of an authorized agent of Ducks Unlimited, Inc. Ducks Unlimited, Inc. makes no representation or warranty of any kind regarding this material, data and information, including, but not limited to, the accuracy of the material, data and information or its suitability for any purpose. All use of the material, data and information is at the users sole risk. By using any of this material, data and information, user agrees that Ducks Unlimited, Inc. is not responsible for their use of the material, data and information or the results thereof.



**BORROW AREA NOTE:** SUITABLE MATERIAL FOR ALL EMBANKMENT CONSTRUCTION SHALL BE OBTAINED FROM THE DESIGNATED BORROW AREA SHOWN ON THE PLANS AS APPROVED BY THE DU FIELD ENGINEER. CARE SHALL BE TAKEN NOT TO OPEN UP ANY SAND LENSES THAT WILL INCREASE SEEPAGE FROM ANY EXCAVATION AREAS. FINISHED SLOPES SHALL BE 10:1 OR FLATTER AND 4" OF TOPSOIL SHALL BE RESPREAD OVER THE SLOPES. THE COST OF TOPSOIL WORK ON THE BORROW AREAS SHALL BE CONSIDERED INCIDENTAL TO "EMBANKMENT CONSTRUCTION."

- SEEDING AND MULCHING NOTE:**
1. SEEDING AND MULCHING SHALL BE REQUIRED ON EMBANKMENT AND AREAS NOTED.
  2. SEED MIX WILL BE PROVIDED BY DUCKS UNLIMITED.
  3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN ADEQUATE SEED BED TO ALLOW SEEDING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HARROW OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH, TRACK-FREE FINISH. BACK DRAGGING WITH A DOZER IS NOT AN ACCEPTABLE FINISH.
  4. BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
  5. MULCHING SHALL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, CRIMPER PUNCHING, OR HYDRO-SEEDING TO PREVENT BLOWING OR WASHING AWAY.
  6. MULCHING APPLICATION RATE SHALL BE TWO TONS PER ACRES OR ONE 74 POUND BALE PER 800 SQUARE FEET.

- CONSTRUCTION NOTES:**
1. REMOVE ALL TOPSOIL FROM EMBANKMENT AND BORROW AREAS AND RESPREAD TOPSOIL OVER THE AREAS WHEN COMPLETE.
  2. ALL FILL MATERIALS SHALL BE PLACED IN LOOSE LIFTS OF NOT MORE THAN 8 INCHES THICKNESS AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD ASTM D698. MOISTURE CONTENT SHALL BE IN THE RANGE OF -1% TO +3% OF OPTIMUM MOISTURE CONTENT.
  3. WORK REQUIRED TO DEWATER THE SITE IS INCIDENTAL TO "SITE PREPARATION". PYRAMAT TO BE INSTALLED TO MANUFACTURER'S RECOMMENDATIONS. THIS INCLUDES STEEL PINS WITH 1.5" WASHER AT RECOMMENDED SPACING, TRENCH ANCHORING OUTSIDE EDGES OF PYRAMATS AND ALLOWING FOR PROPER OVERLAP DISTANCE.
  5. MEASUREMENT OF PYRAMAT 25 IS BASED ON FINISHED SQUARE FOOTAGE. THIS MEASUREMENT DOES NOT ACCOUNT FOR CORE TRENCH OR JOINT OVERLAPS.
  6. MEASUREMENT OF FLEX-A-MAT IS BASED ON FINISHED SQUARE FOOTAGE. THIS MEASUREMENT DOES NOT ACCOUNT FOR CORE TRENCH OR JOINT OVERLAPS.

**ABBREVIATIONS LIST**

- BLDC = BUILDING CORNER
- BRK = BREAK
- BTM = BOTTOM
- C.L. = CENTER LINE
- CMP = CORRUGATED METAL PIPE ROUND
- CMPA = CORRUGATED METAL PIPE ARCH
- CONC. = CONCRETE
- DIA. = DIAMETER
- E = EASTING COORDINATE OR EAST
- ELEV. = ELEVATION
- EMB. = EMBANKMENT
- EPAV = EDGE OF PAVEMENT
- EX. = EXISTING
- EXIST. = EXISTING
- FES = FLARED END SECTION
- FX = FENCE
- GA. = GAUGE
- G.W. = GUY WIRE
- INV = INVERT
- LAT = LATITUDE (WGS84)
- LONG = LONGITUDE (WGS84)
- L.F. = LINEAR FEET
- MISC = MISCELLANEOUS
- N = NORTHING COORDINATE OR NORTH
- NFES = NON-FLARED END SECTION
- O.C. = ON CENTER
- O.C.E.W. = ON CENTER EACH WAY
- OHE = OVERHEAD ELECTRIC
- P.C. = POINT OF INTERSECTION
- P.I. = POINT OF INTERSECTION
- P.T. = POINT OF TANGENCY
- RCP = REINFORCED CONCRETE PIPE
- RD = ROAD
- REM. = REMOVE
- REQ'D = REQUIRED
- R.O.W. = RIGHT OF WAY
- S = SOUTH
- SED. = SEDIMENT
- SHLD = SHOULDER
- SLP = SLOPE
- STPLG = STOPLOG
- TBM = TEMPORARY BENCHMARK
- TEL = TELEPHONE/COMMUNICATIONS
- UG = UNDERGROUND
- VEG = VEGETATION
- W = WEST OR WITH
- WCS = WATER CONTROL STRUCTURE
- WL = WATER LEVEL
- WS = WATER SHOT

\*NOTE: NOT ALL ABBREVIATIONS IN THIS LIST APPEAR ON THIS SHEET

**OVERALL PLAN VIEW**  
SCALE 1" = 200'

- GENERAL NOTES**
1. ONE HALF FOOT CONTOUR INTERVAL SHOWN.
  2. 2018 1 METER RESOLUTION AERIAL IMAGERY IS SHOWN.
  3. ITALICIZED TEXT DENOTES EXISTING FEATURE OR EXISTING ELEVATION.
  4. SPOT ELEVATIONS INDICATED BY  $\oplus$  XXXX.X ARE RANDOMLY LOCATED AND ARE BASED ON SURFACE MODEL ELEVATIONS.

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THIS MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

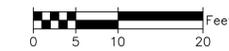
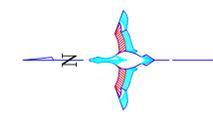
HORIZONTAL AND VERTICAL CONTROL OPUS SOLUTION- COORDINATES ARE UTM ZONE 14 GRID COORDINATES IN US FEET [NAD83]. THEY WERE ESTABLISHED FROM THE WGS84 ELLIPSOID WITH INFORMATION FROM A TRIMBLE R10-2 SURVEY GRADE GPS RECEIVER ON APRIL 26, 2022 AT DUCKS UNLIMITED CONTROL POINT DU-30005 AND CALIBRATED TO AN OPUS POSITION OCCUPIED FOR 6 HOURS AND 35 MINUTE(S) AND SENT TO NGS FOR SOLUTION. THE VERTICAL CONTROL CAME FROM THE SAME SOLUTION USING GEOID 18 CONUS IN THE NAVD88. THE FULL OPUS SOLUTION REPORT IS ON FILE AT THE DUCKS UNLIMITED ENGINEERING DEPARTMENT IN BISMARCK, NORTH DAKOTA.



EXAMPLE OF DUCKS UNLIMITED CONTROL POINT SURVEY CAP

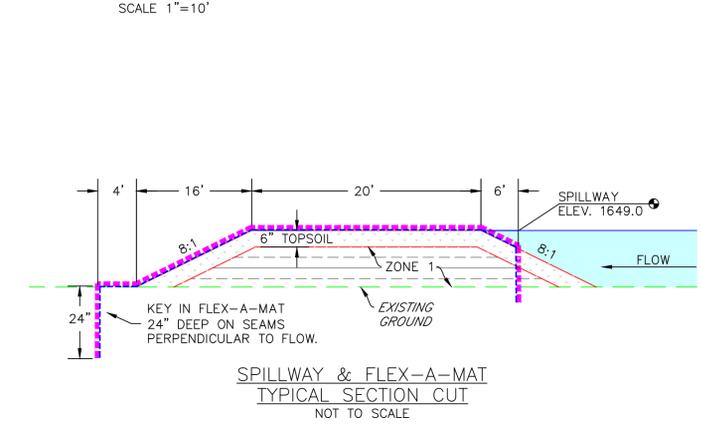
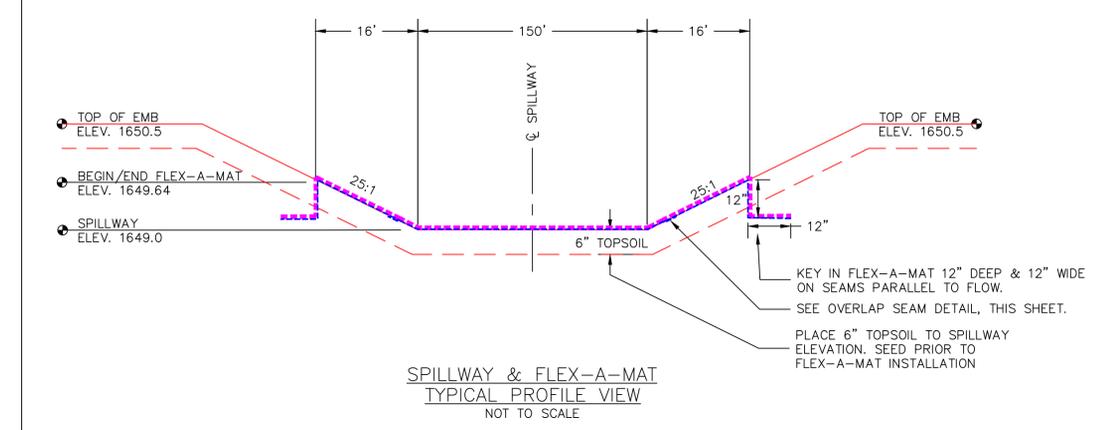
	PROJECT NO. SD-557-1	DESIGNED BY: DCP
	BRULE CO. MITIGATION	DRAWN BY: DCP
GREAT PLAINS REGIONAL OFFICE	OVERALL PLAN	SURVEYED BY: LM/DP
DATE: 3/20/2026	SHEET NO. 2 OF 13	CHECKED BY: .
	APPROVED BY:	APPROVED BY:





**FLEXAMAT INFORMATION**

Manufacturer: Motz Enterprises, Inc.  
 Product Name: Flexamat®  
 Address: 3153 Madison Road  
 Cincinnati, Ohio 45209  
 Telephone: 513-772-MOTZ (6689)  
 Fax: 513-772-6690  
 Contact: Matt Motz  
 Email: Matt@Flexamat.com  
 Website: www.Flexamat.com

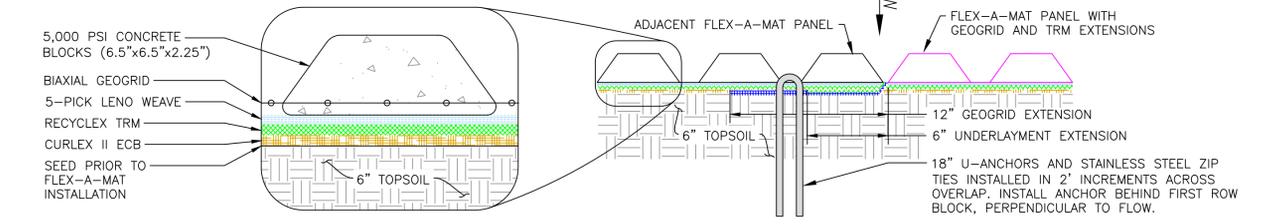


**FLEX-A-MAT CONSTRUCTION NOTES:**

1. THE EMBANKMENT SUBGRADE MUST BE STABLE, UNIFORMLY GRADED, FREE OF ROCKS, ROOTS, AND OTHER DEBRIS, WITH NO ABRUPT GRADE CHANGES.
2. EMBANKMENT CONSTRUCTION ON SIDE SLOPES FROM STA. 5+87 TO STA. 8+12 TO BE ZONE 1 MATERIAL ONLY.
3. PRIOR TO FLEX-A-MAT INSTALLATION, SEED TOPSOIL WITH MIX PROVIDED BY DUCKS UNLIMITED.
4. OUTER EDGES OF FLEX-A-MAT, PERPENDICULAR TO FLOW, SHALL BE EMBEDDED 24" VERTICALLY. THE ANCHOR TRENCH SHALL BE FILLED AND COMPACTED WITH SUITABLE FILL.
5. OUTER EDGES OF FLEX-A-MAT, PARALLEL TO FLOW, SHALL BE EMBEDDED 12" VERTICALLY AND 12" HORIZONTALLY. THE ANCHOR TRENCH SHALL BE FILLED AND COMPACTED WITH SUITABLE FILL.
6. TO "JOIN" SECTIONS OF MATS AT SEAM LOCATIONS, FOLLOW DETAILS SEAM DETAILS, PER MANUFACTURERS RECOMMENDATIONS.
7. MEASUREMENT OF FLEX-A-MAT IS BASED ON FINISHED SQUARE FOOTAGE. THIS MEASUREMENT DOES NOT INCLUDE OVERLAPS OR EMBEDDED LENGTHS.

**GENERAL NOTES**

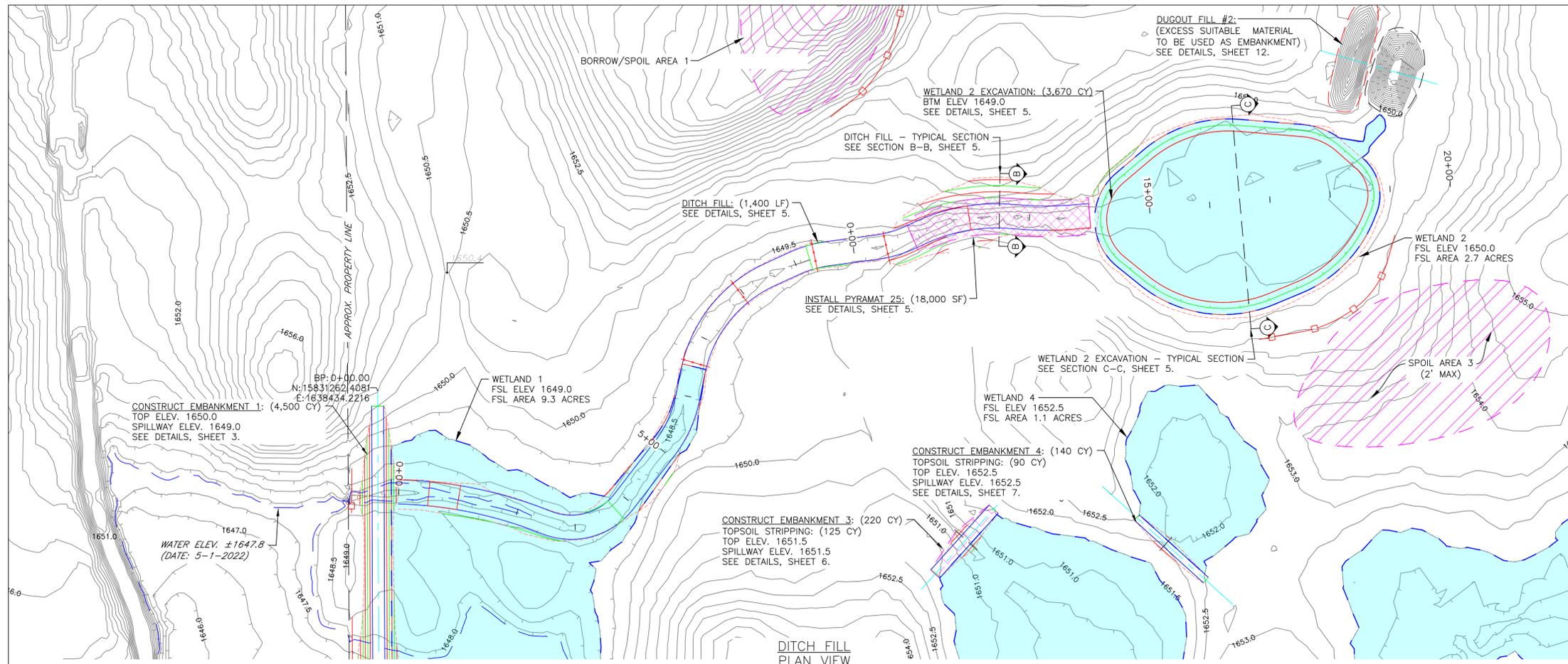
1. ONE HALF FOOT CONTOUR INTERVAL SHOWN.
2. 2018 1 METER RESOLUTION AERIAL IMAGERY IS SHOWN.
3. ITALICIZED TEXT DENOTES EXISTING FEATURE OR EXISTING ELEVATION.
4. SPOT ELEVATIONS INDICATED BY  $\phi$ -XXXX.X ARE RANDOMLY LOCATED AND ARE BASED ON SURFACE MODEL ELEVATIONS.



**OVERLAP SEAM DETAIL PARALLEL TO FLOW**

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

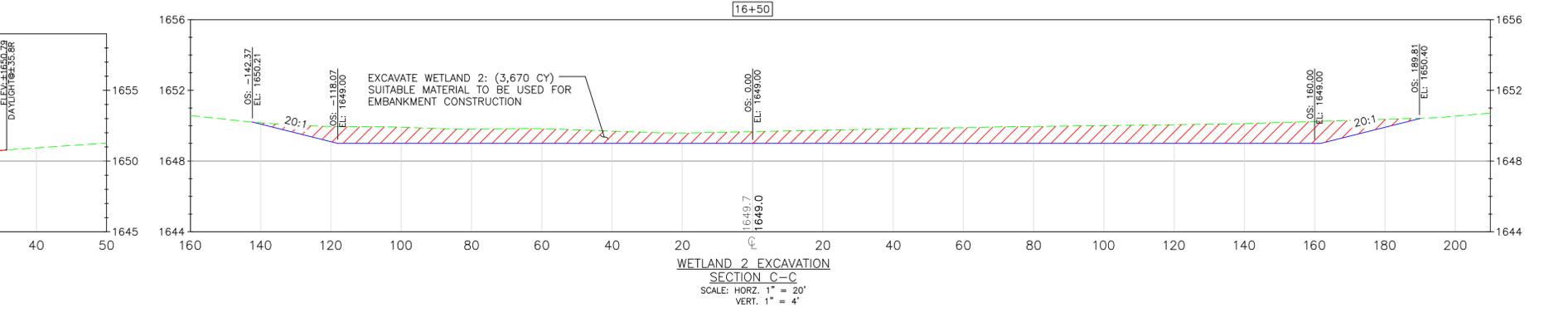
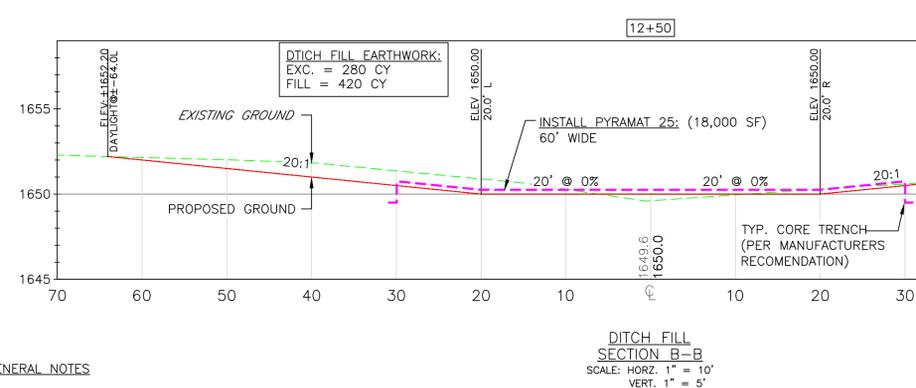
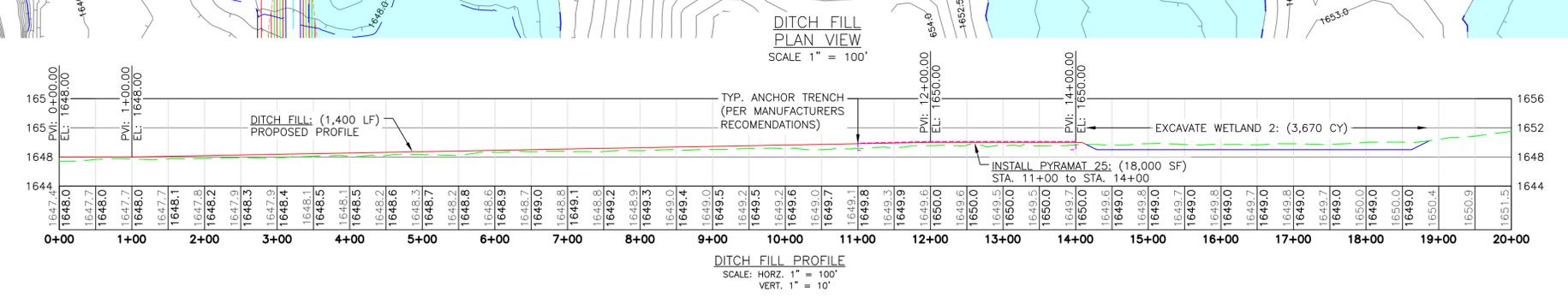
<p><b>DUCKS UNLIMITED INC.</b>          GREAT PLAINS REGIONAL OFFICE          DATE: 3/20/2026</p>	PROJECT NO. SD-557-1 BRULE CO. MITIGATION FLEX-A-MAT SPILLWAY DETAILS	DESIGNED BY: DCP DRAWN BY: DCP SURVEYED BY: LM/DP CHECKED BY:
	SHEET NO. 4 OF 13 APPROVED BY:	APPROVED BY:



**BORROW AREA NOTE:** SUITABLE MATERIAL FOR ALL EMBANKMENT CONSTRUCTION SHALL BE OBTAINED FROM THE DESIGNATED BORROW AREA SHOWN ON THE PLANS AS APPROVED BY THE DU FIELD ENGINEER. CARE SHALL BE TAKEN NOT TO OPEN UP ANY SAND LENSES THAT WILL INCREASE SEEPAGE FROM ANY EXCAVATION AREAS. FINISHED SLOPES SHALL BE 10:1 OR FLATTER AND 4" OF TOPSOIL SHALL BE RESPREAD OVER THE SLOPES. THE COST OF TOPSOIL WORK ON THE BORROW AREAS SHALL BE CONSIDERED INCIDENTAL TO "EMBANKMENT CONSTRUCTION."

- SEEDING AND MULCHING NOTE:**
1. SEEDING AND MULCHING SHALL BE REQUIRED ON EMBANKMENT AND AREAS NOTED.
  2. SEED MIX WILL BE PROVIDED BY DUCKS UNLIMITED.
  3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN ADEQUATE SEED BED TO ALLOW SEEDING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HARROW OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH, TRACK-FREE FINISH. BACK DRAGGING WITH A DOZER IS NOT AN ACCEPTABLE FINISH.
  4. BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
  5. MULCHING SHALL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, CRIMPER PUNCHING, OR HYDRO-SEEDING TO PREVENT BLOWING OR WASHING AWAY.
  6. MULCHING APPLICATION RATE SHALL BE TWO TONS PER ACRES OR ONE 74 POUND BALE PER 800 SQUARE FEET.

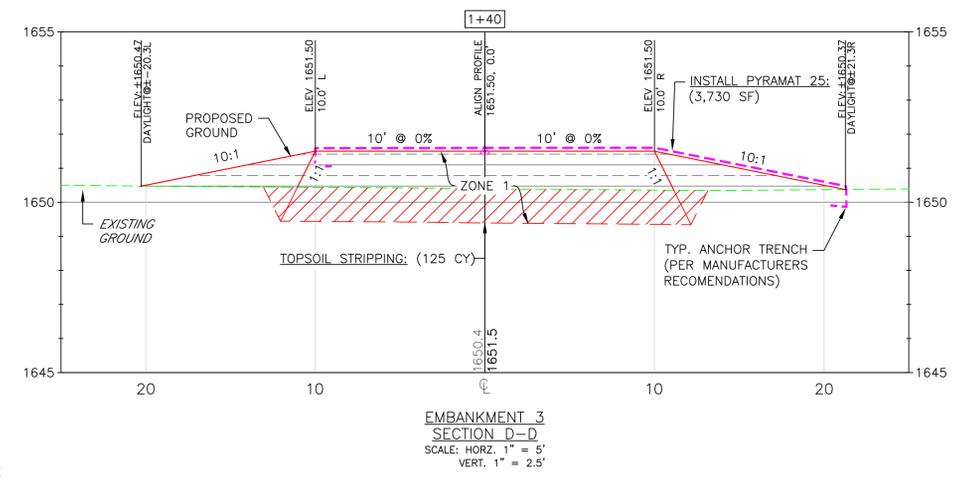
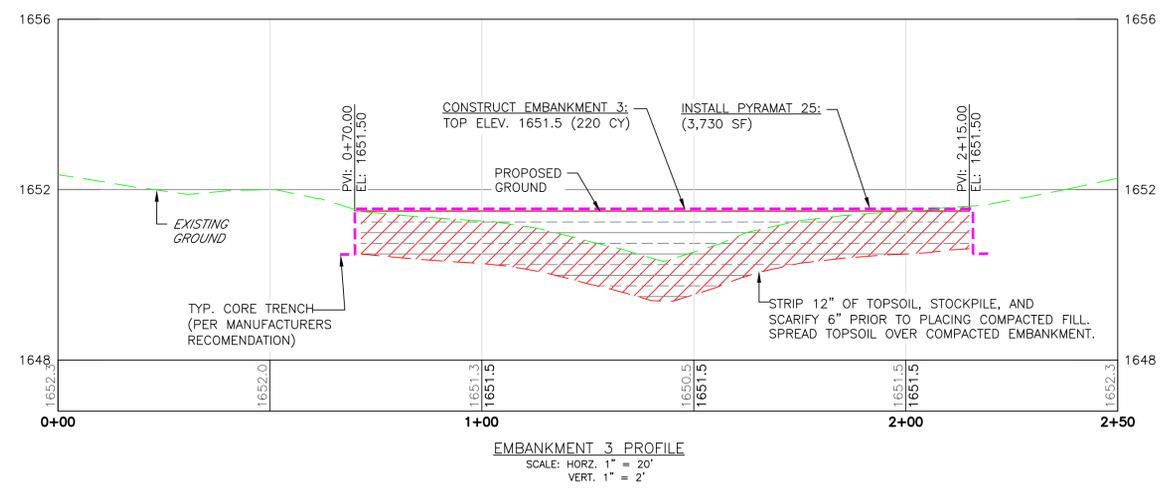
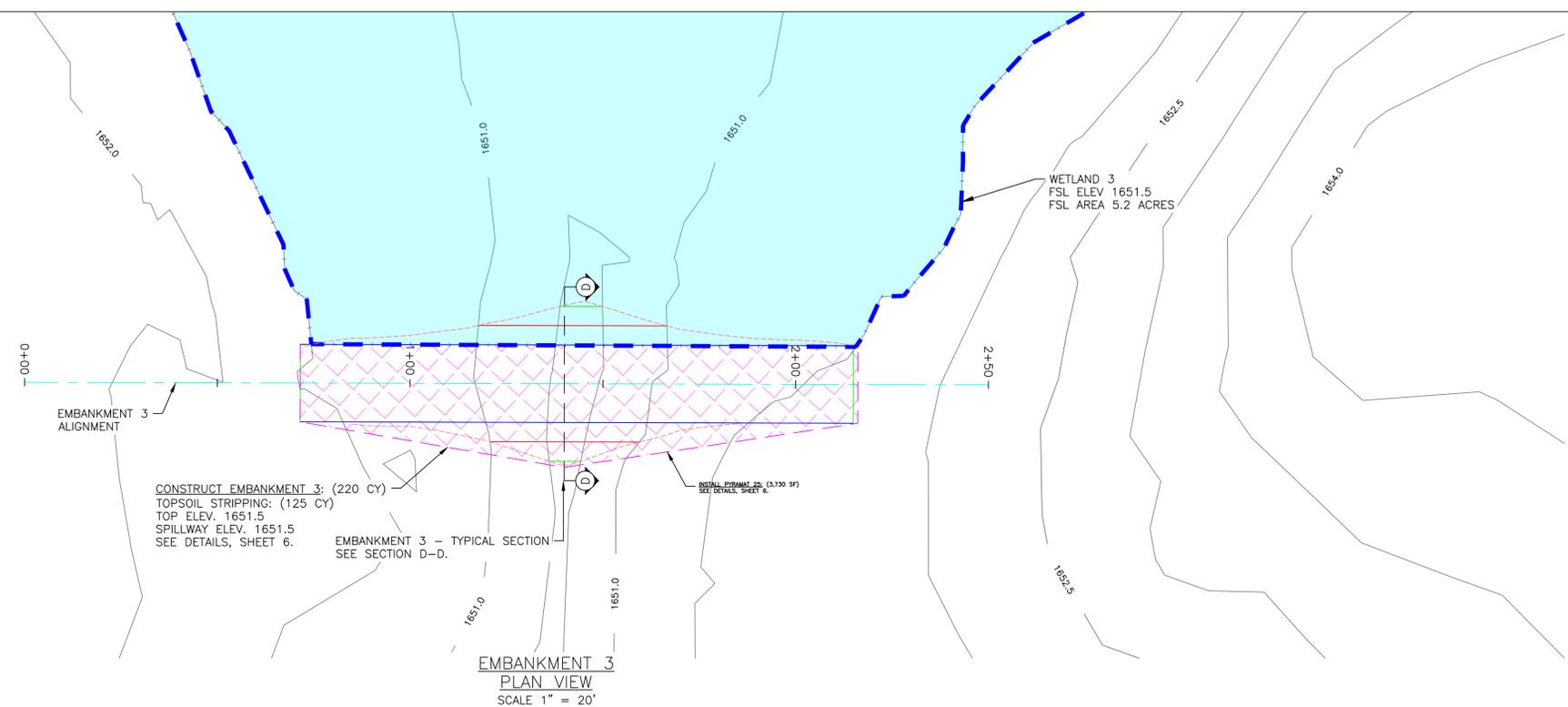
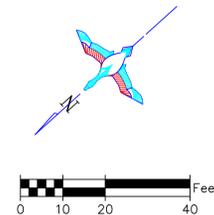
- CONSTRUCTION NOTES:**
1. REMOVE ALL TOPSOIL FROM EMBANKMENT AND BORROW AREAS AND RESPREAD TOPSOIL OVER THE AREAS WHEN COMPLETE.
  2. ALL FILL MATERIALS SHALL BE PLACED IN LOOSE LIFTS OF NOT MORE THAN 8 INCHES THICKNESS AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD ASTM D698. MOISTURE CONTENT SHALL BE IN THE RANGE OF -1% TO +3% OF OPTIMUM MOISTURE CONTENT.
  3. WORK REQUIRED TO DEWATER THE SITE IS INCIDENTAL TO "EMBANKMENT CONSTRUCTION" & "DUGOUT FILL".
  4. PYRAMAT TO BE INSTALLED TO MANUFACTURERS RECOMMENDATIONS. THIS INCLUDES STEEL PINS WITH 1.5" WASHER AT RECOMMENDED SPACING, TRENCH ANCHORING OUTSIDE EDGES OF PYRAMATS AND ALLOWING FOR PROPER OVERLAP DISTANCE.
  5. MEASUREMENT OF PYRAMAT 25 IS BASED ON FINISHED SQUARE FOOTAGE. THIS MEASUREMENT DOES NOT ACCOUNT FOR CORE TRENCH OR JOINT OVERLAPS.



- GENERAL NOTES**
1. ONE HALF FOOT CONTOUR INTERVAL SHOWN.
  2. 2018 1 METER RESOLUTION AERIAL IMAGERY IS SHOWN.
  3. ITALICIZED TEXT DENOTES EXISTING FEATURE OR EXISTING ELEVATION.
  4. SPOT ELEVATIONS INDICATED BY  $\phi$ -XXXX.X ARE RANDOMLY LOCATED AND ARE BASED ON SURFACE MODEL ELEVATIONS.

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THIS MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

	PROJECT NO. SD-557-1	DESIGNED BY: DCP
	BRULE CO. MITIGATION	DRAWN BY: DCP
GREAT PLAINS REGIONAL OFFICE	DITCH FILL DETAILS	SURVEYED BY: LM/DP
DATE: 3/20/2026	APPROVED BY:	CHECKED BY:
SHEET NO. 5 OF 13	APPROVED BY:	APPROVED BY:



**BORROW AREA NOTE:** SUITABLE MATERIAL FOR ALL EMBANKMENT CONSTRUCTION SHALL BE OBTAINED FROM THE DESIGNATED BORROW AREA SHOWN ON THE PLANS AS APPROVED BY THE DU FIELD ENGINEER. CARE SHALL BE TAKEN NOT TO OPEN UP ANY SAND LENSES THAT WILL INCREASE SEEPAGE FROM ANY EXCAVATION AREAS. FINISHED SLOPES SHALL BE 10:1 OR FLATTER AND 4" OF TOPSOIL SHALL BE RESPREAD OVER THE SLOPES. THE COST OF TOPSOIL WORK ON THE BORROW AREAS SHALL BE CONSIDERED INCIDENTAL TO "EMBANKMENT CONSTRUCTION."

- SEEDING AND MULCHING NOTE:**
1. SEEDING AND MULCHING SHALL BE REQUIRED ON EMBANKMENT AND AREAS NOTED.
  2. SEED MIX WILL BE PROVIDED BY DUCKS UNLIMITED.
  3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN ADEQUATE SEED BED TO ALLOW SEEDING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HARROW OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH, TRACK-FREE FINISH. BACK DRAGGING WITH A DOZER IS NOT AN ACCEPTABLE FINISH.
  4. BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
  5. MULCHING SHALL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, CRIMPER PUNCHING, OR HYDRO-SEEDING TO PREVENT BLOWING OR WASHING AWAY.
  6. MULCHING APPLICATION RATE SHALL BE TWO TONS PER ACRES OR ONE 74 POUND BALE PER 800 SQUARE FEET.

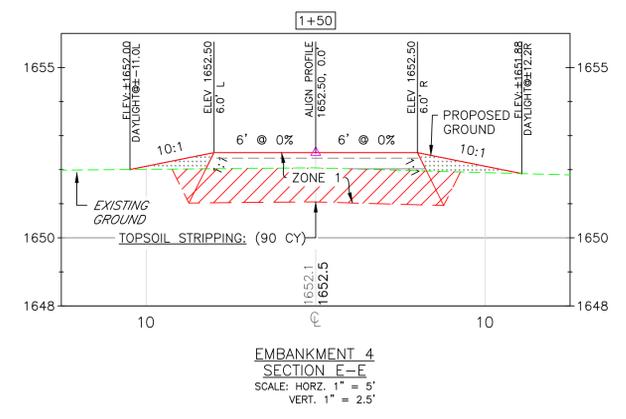
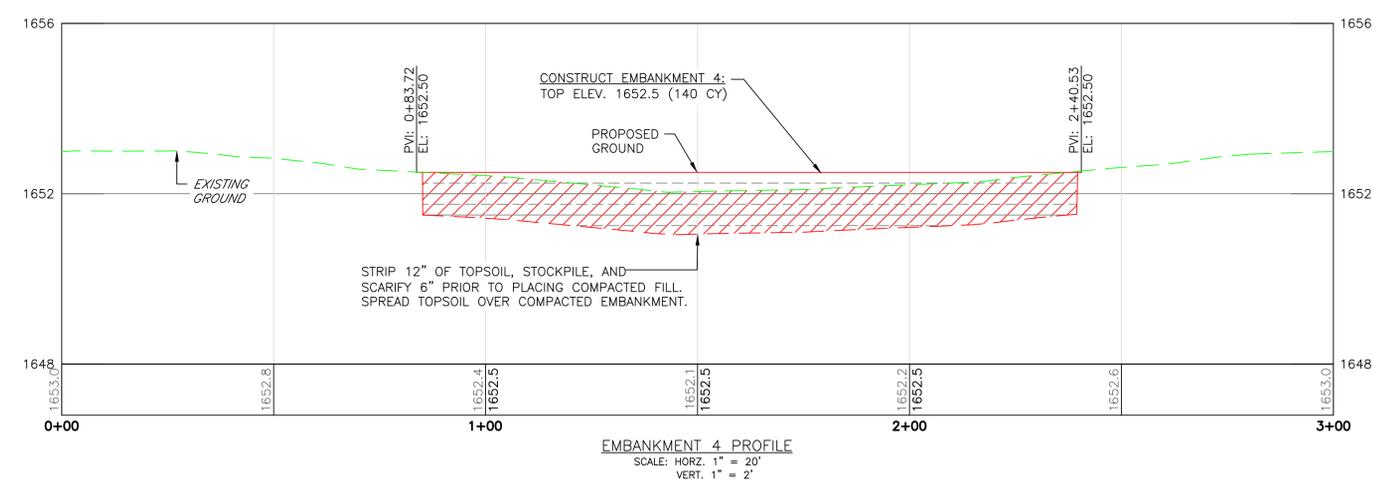
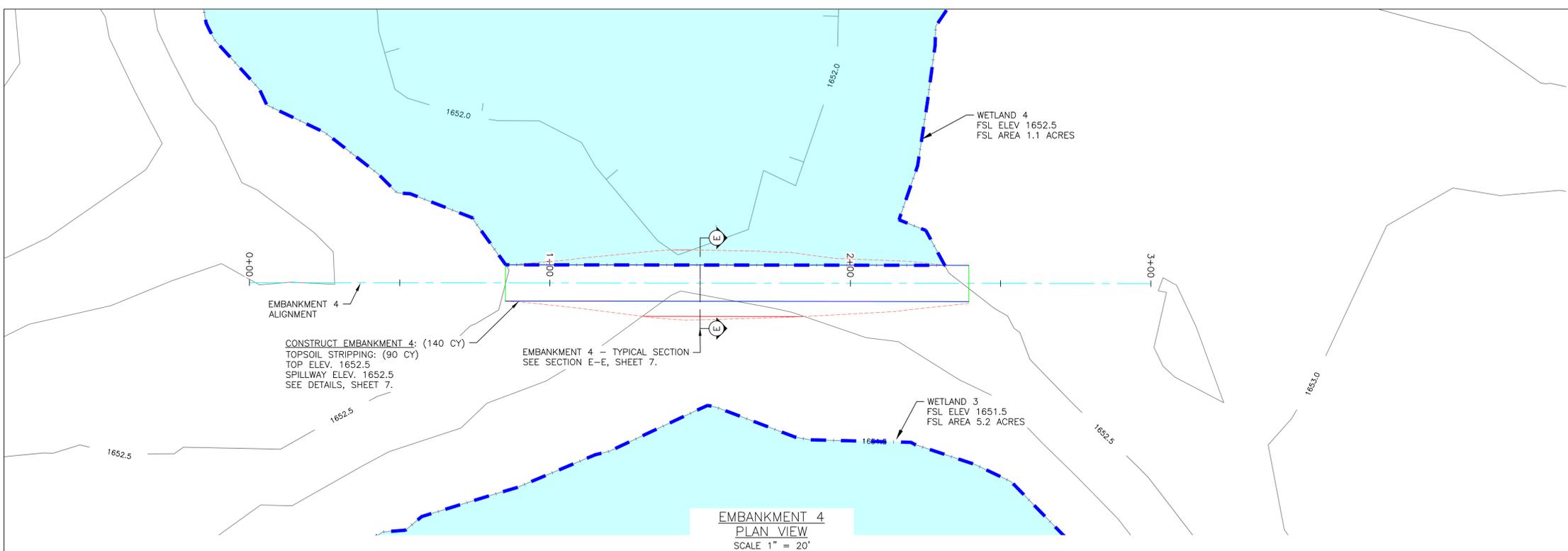
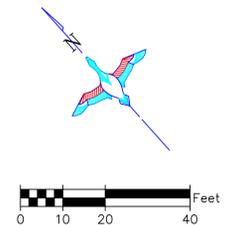
- CONSTRUCTION NOTES:**
1. REMOVE ALL TOPSOIL FROM EMBANKMENT AND BORROW AREAS AND RESPREAD TOPSOIL OVER THE AREAS WHEN COMPLETE.
  2. ALL FILL MATERIALS SHALL BE PLACED IN LOOSE LIFTS OF NOT MORE THAN 8 INCHES THICKNESS AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD ASTM D698. MOISTURE CONTENT SHALL BE IN THE RANGE OF -1% TO +3% OF OPTIMUM MOISTURE CONTENT.
  3. WORK REQUIRED TO DEWATER THE SITE IS INCIDENTAL TO "EMBANKMENT CONSTRUCTION" & "DUGOUT FILL".
  4. PYRAMAT TO BE INSTALLED TO MANUFACTURERS RECOMMENDATIONS. THIS INCLUDES STEEL PINS WITH 1.5" WASHER AT RECOMMENDED SPACING, TRENCH ANCHORING OUTSIDE EDGES OF PYRAMATS AND ALLOWING FOR PROPER OVERLAP DISTANCE.
  5. MEASUREMENT OF PYRAMAT 25 IS BASED ON FINISHED SQUARE FOOTAGE. THIS MEASUREMENT DOES NOT ACCOUNT FOR CORE TRENCH OR JOINT OVERLAPS.

- EMBANKMENT CONSTRUCTION NOTES:**
1. STRIP 12" OF TOPSOIL, STOCKPILE, AND SCARIFY 6" PRIOR TO PLACING COMPACTED FILL. SPREAD TOPSOIL OVER COMPACTED EMBANKMENT. COST OF TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION"
  2. THE EMBANKMENT SUBGRADE MUST BE STABLE, UNIFORMLY GRADED, FREE OF ROCKS, ROOTS, AND OTHER DEBRIS, WITH NO ABRUPT GRADE CHANGES.
  3. EMBANKMENT CONSTRUCTION SHALL BE FROM COMPACTED EARTHEN MATERIAL CONTAINING MINIMAL ORGANIC MATERIAL AND SHALL COMPLY WITH DU SPECIFICATION SECTION 204 "EMBANKMENT CONSTRUCTION."
  4. BORROW AREA SHALL BE DEVELOPED TO UTILIZE CLAYEY FILL FOR ZONE 1 OF THE EMBANKMENT. ANY GRAVELLY OR HEAVY SAND MATERIAL SHALL BE USED FOR ZONE 2. SEE BORROW NOTES, SHEET 2.
  5. EMBANKMENT FILL SHALL BE OBTAINED FROM THE SPECIFIED BORROW AREA. FILL SHALL BE PLACED IN LIFTS OF NO MORE THAN 8" AND COMPACTED PRIOR TO PLACING SUBSEQUENT LIFTS.
  6. CONTRACTOR TO SEED FINISHED EMBANKMENT. SEE SEEDING NOTES.

- GENERAL NOTES**
1. ONE HALF FOOT CONTOUR INTERVAL SHOWN.
  2. 2018 1 METER RESOLUTION AERIAL IMAGERY IS SHOWN.
  3. ITALICIZED TEXT DENOTES EXISTING FEATURE OR EXISTING ELEVATION.
  4. SPOT ELEVATIONS INDICATED BY  $\phi$ -XXXX.X ARE RANDOMLY LOCATED AND ARE BASED ON SURFACE MODEL ELEVATIONS.

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

<p><b>DUCKS UNLIMITED INC.</b> GREAT PLAINS REGIONAL OFFICE</p>	PROJECT NO. SD-557-1	DESIGNED BY: DCP
	BRULE CO. MITIGATION	DRAWN BY: DCP
	EMBANKMENT 3 DETAILS	SURVEYED BY: LM/DP
DATE: 3/20/2026	SHEET NO. 6 OF 13	CHECKED BY: .
	APPROVED BY: .	APPROVED BY: .



**BORROW AREA NOTE:** SUITABLE MATERIAL FOR ALL EMBANKMENT CONSTRUCTION SHALL BE OBTAINED FROM THE DESIGNATED BORROW AREA SHOWN ON THE PLANS AS APPROVED BY THE DU FIELD ENGINEER. CARE SHALL BE TAKEN NOT TO OPEN UP ANY SAND LENSES THAT WILL INCREASE SEEPAGE FROM ANY EXCAVATION AREAS. FINISHED SLOPES SHALL BE 10:1 OR FLATTER AND 4" OF TOPSOIL SHALL BE RESPREAD OVER THE SLOPES. THE COST OF TOPSOIL WORK ON THE BORROW AREAS SHALL BE CONSIDERED INCIDENTAL TO "EMBANKMENT CONSTRUCTION."

- SEEDING AND MULCHING NOTE:**
1. SEEDING AND MULCHING SHALL BE REQUIRED ON EMBANKMENT AND AREAS NOTED.
  2. SEED MIX WILL BE PROVIDED BY DUCKS UNLIMITED.
  3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN ADEQUATE SEED BED TO ALLOW SEEDING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HARROW OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH, TRACK-FREE FINISH. BACK DRAGGING WITH A DOZER IS NOT AN ACCEPTABLE FINISH.
  4. BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
  5. MULCHING SHALL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, CRIMPER PUNCHING, OR HYDRO-SEEDING TO PREVENT BLOWING OR WASHING AWAY.
  6. MULCHING APPLICATION RATE SHALL BE TWO TONS PER ACRES OR ONE 74 POUND BALE PER 800 SQUARE FEET.

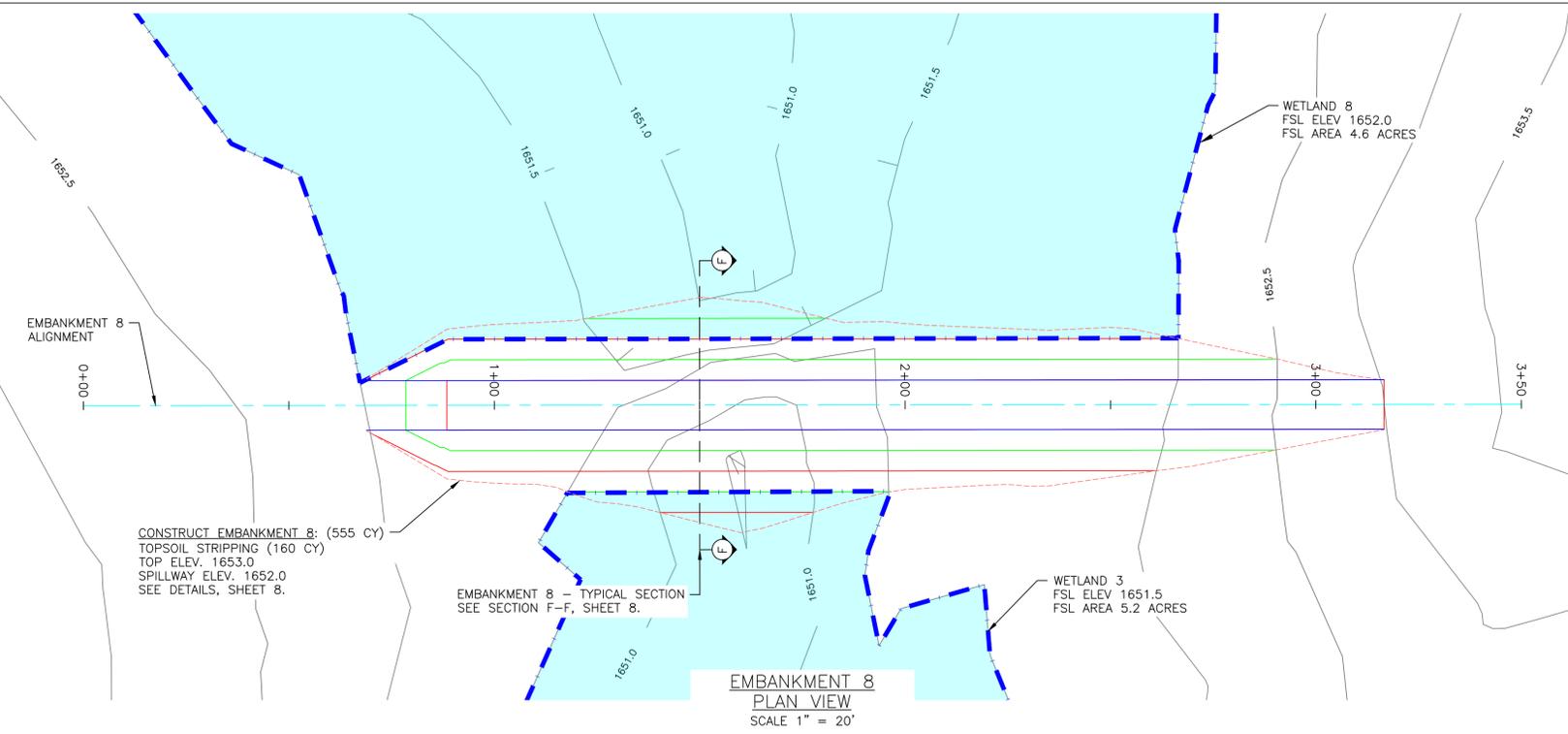
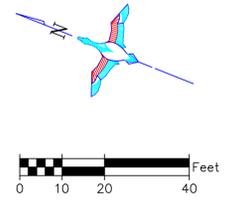
- CONSTRUCTION NOTES:**
1. REMOVE ALL TOPSOIL FROM EMBANKMENT AND BORROW AREAS AND RESPREAD TOPSOIL OVER THE AREAS WHEN COMPLETE.
  2. ALL FILL MATERIALS SHALL BE PLACED IN LOOSE LIFTS OF NOT MORE THAN 8 INCHES THICKNESS AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD ASTM D698. MOISTURE CONTENT SHALL BE IN THE RANGE OF -1% TO +3% OF OPTIMUM MOISTURE CONTENT.
  3. WORK REQUIRED TO DEWATER THE SITE IS INCIDENTAL TO "EMBANKMENT CONSTRUCTION" & "DUGOUT FILL".

- EMBANKMENT CONSTRUCTION NOTES:**
1. STRIP 12" OF TOPSOIL, STOCKPILE, AND SCARIFY 6" PRIOR TO PLACING COMPACTED FILL. SPREAD TOPSOIL OVER COMPACTED EMBANKMENT. COST OF TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION"
  2. THE EMBANKMENT SUBGRADE MUST BE STABLE, UNIFORMLY GRADED, FREE OF ROCKS, ROOTS, AND OTHER DEBRIS, WITH NO ABRUPT GRADE CHANGES. EMBANKMENT CONSTRUCTION SHALL BE FROM COMPACTED EARTHEN MATERIAL CONTAINING MINIMAL ORGANIC MATERIAL AND SHALL COMPLY WITH DU SPECIFICATION SECTION 204 "EMBANKMENT CONSTRUCTION."
  3. BORROW AREA SHALL BE DEVELOPED TO UTILIZE CLAYEY FILL FOR ZONE 1 OF THE EMBANKMENT. ANY GRAVELLY OR HEAVY SAND MATERIAL SHALL BE USED FOR ZONE 2. SEE BORROW NOTES, SHEET 2.
  4. EMBANKMENT FILL SHALL BE OBTAINED FROM THE SPECIFIED BORROW AREA. FILL SHALL BE PLACED IN LIFTS OF NO MORE THAN 8" AND COMPACTED PRIOR TO PLACING SUBSEQUENT LIFTS.
  5. CONTRACTOR TO SEED FINISHED EMBANKMENT. SEE SEEDING NOTES.

- GENERAL NOTES**
1. ONE HALF FOOT CONTOUR INTERVAL SHOWN.
  2. 2018 1 METER RESOLUTION AERIAL IMAGERY IS SHOWN.
  3. ITALICIZED TEXT DENOTES EXISTING FEATURE OR EXISTING ELEVATION.
  4. SPOT ELEVATIONS INDICATED BY  $\phi$ -XXXX.X ARE RANDOMLY LOCATED AND ARE BASED ON SURFACE MODEL ELEVATIONS.

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

<p>GREAT PLAINS REGIONAL OFFICE</p>	<p>PROJECT NO. SD-557-1</p>	<p>DESIGNED BY: DCP</p>
	<p>BRULE CO. MITIGATION</p>	<p>DRAWN BY: DCP</p>
<p>DATE: 3/20/2026</p>	<p>SHEET NO. 7 OF 13</p>	<p>SURVEYED BY: LM/DP</p>
<p>APPROVED BY:</p>	<p>APPROVED BY:</p>	<p>CHECKED BY:</p>



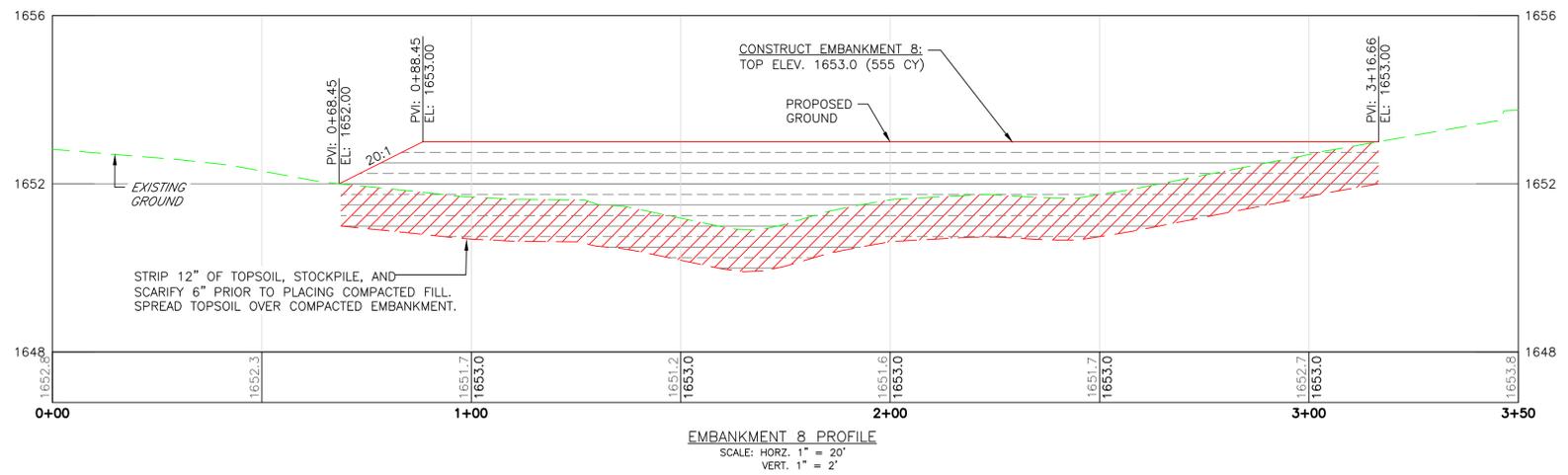
CONSTRUCT EMBANKMENT 8: (555 CY)  
TOPSOIL STRIPPING (160 CY)  
TOP ELEV. 1653.0  
SPILLWAY ELEV. 1652.0  
SEE DETAILS, SHEET 8.

EMBANKMENT 8 - TYPICAL SECTION  
SEE SECTION F-F, SHEET 8.

EMBANKMENT 8  
PLAN VIEW  
SCALE 1" = 20'

**BORROW AREA NOTE:** SUITABLE MATERIAL FOR ALL EMBANKMENT CONSTRUCTION SHALL BE OBTAINED FROM THE DESIGNATED BORROW AREA SHOWN ON THE PLANS AS APPROVED BY THE DU FIELD ENGINEER. CARE SHALL BE TAKEN NOT TO OPEN UP ANY SAND LENSES THAT WILL INCREASE SEEPAGE FROM ANY EXCAVATION AREAS. FINISHED SLOPES SHALL BE 10:1 OR FLATTER AND 4" OF TOPSOIL SHALL BE RESPREAD OVER THE SLOPES. THE COST OF TOPSOIL WORK ON THE BORROW AREAS SHALL BE CONSIDERED INCIDENTAL TO "EMBANKMENT CONSTRUCTION."

- SEEDING AND MULCHING NOTE:**
1. SEEDING AND MULCHING SHALL BE REQUIRED ON EMBANKMENT AND AREAS NOTED.
  2. SEED MIX WILL BE PROVIDED BY DUCKS UNLIMITED.
  3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN ADEQUATE SEED BED TO ALLOW SEEDING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HARROW OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH, TRACK-FREE FINISH. BACK DRAGGING WITH A DOZER IS NOT AN ACCEPTABLE FINISH.
  4. BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
  5. MULCHING SHALL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, CRIMPER PUNCHING, OR HYDRO-SEEDING TO PREVENT BLOWING OR WASHING AWAY.
  6. MULCHING APPLICATION RATE SHALL BE TWO TONS PER ACRES OR ONE 74 POUND BALE PER 800 SQUARE FEET.

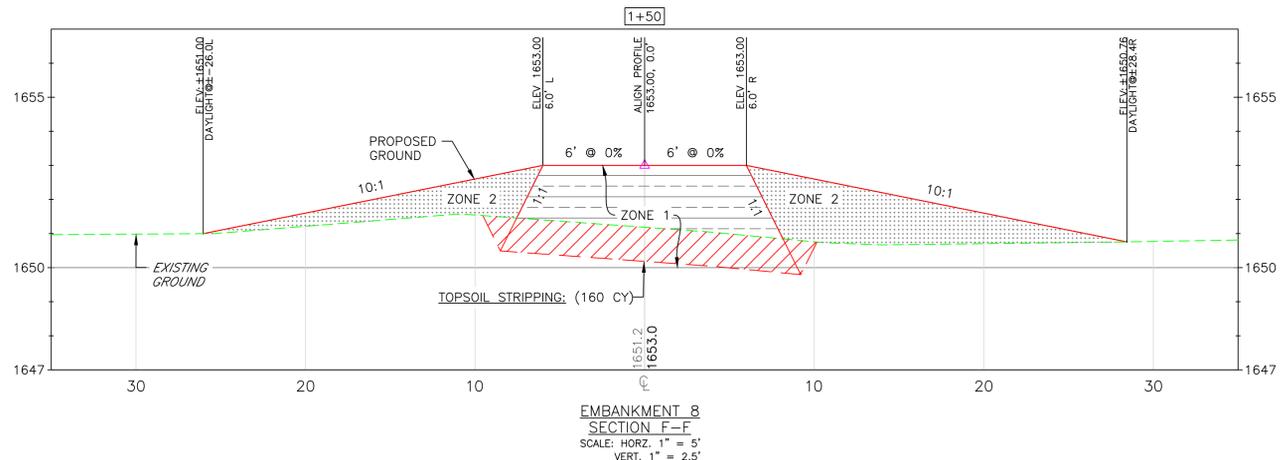


STRIP 12" OF TOPSOIL, STOCKPILE, AND SCARIFY 6" PRIOR TO PLACING COMPACTED FILL. SPREAD TOPSOIL OVER COMPACTED EMBANKMENT.

EMBANKMENT 8 PROFILE  
SCALE: HORIZ. 1" = 20'  
VERT. 1" = 2'

- CONSTRUCTION NOTES:**
1. REMOVE ALL TOPSOIL FROM EMBANKMENT AND BORROW AREAS AND RESPREAD TOPSOIL OVER THE AREAS WHEN COMPLETE.
  2. ALL FILL MATERIALS SHALL BE PLACED IN LOOSE LIFTS OF NOT MORE THAN 8 INCHES THICKNESS AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD ASTM D698. MOISTURE CONTENT SHALL BE IN THE RANGE OF -1% TO +3% OF OPTIMUM MOISTURE CONTENT.
  3. WORK REQUIRED TO DEWATER THE SITE IS INCIDENTAL TO "EMBANKMENT CONSTRUCTION" & "DUGOUT FILL".

- EMBANKMENT CONSTRUCTION NOTES:**
1. STRIP 12" OF TOPSOIL, STOCKPILE, AND SCARIFY 6" PRIOR TO PLACING COMPACTED FILL. SPREAD TOPSOIL OVER COMPACTED EMBANKMENT. COST OF TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION"
  2. THE EMBANKMENT SUBGRADE MUST BE STABLE, UNIFORMLY GRADED, FREE OF ROCKS, ROOTS, AND OTHER DEBRIS, WITH NO ABRUPT GRADE CHANGES.
  3. EMBANKMENT CONSTRUCTION SHALL BE FROM COMPACTED EARTHEN MATERIAL CONTAINING MINIMAL ORGANIC MATERIAL AND SHALL COMPLY WITH DU SPECIFICATION SECTION 204 "EMBANKMENT CONSTRUCTION."
  4. BORROW AREA SHALL BE DEVELOPED TO UTILIZE CLAYEY FILL FOR ZONE 1 OF THE EMBANKMENT. ANY GRAVELLY OR HEAVY SAND MATERIAL SHALL BE USED FOR ZONE 2. SEE BORROW NOTES, SHEET 2.
  5. EMBANKMENT FILL SHALL BE OBTAINED FROM THE SPECIFIED BORROW AREA. FILL SHALL BE PLACED IN LIFTS OF NO MORE THAN 8" AND COMPACTED PRIOR TO PLACING SUBSEQUENT LIFTS.
  6. CONTRACTOR TO SEED FINISHED EMBANKMENT. SEE SEEDING NOTES.



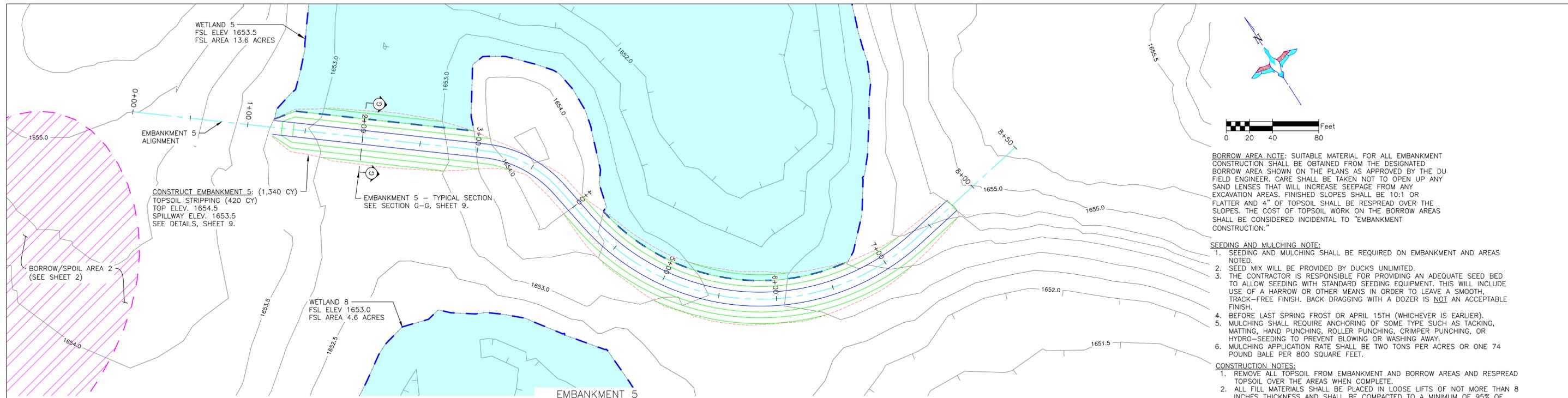
EMBANKMENT 8  
SECTION F-F  
SCALE: HORIZ. 1" = 5'  
VERT. 1" = 2.5'

**GENERAL NOTES**

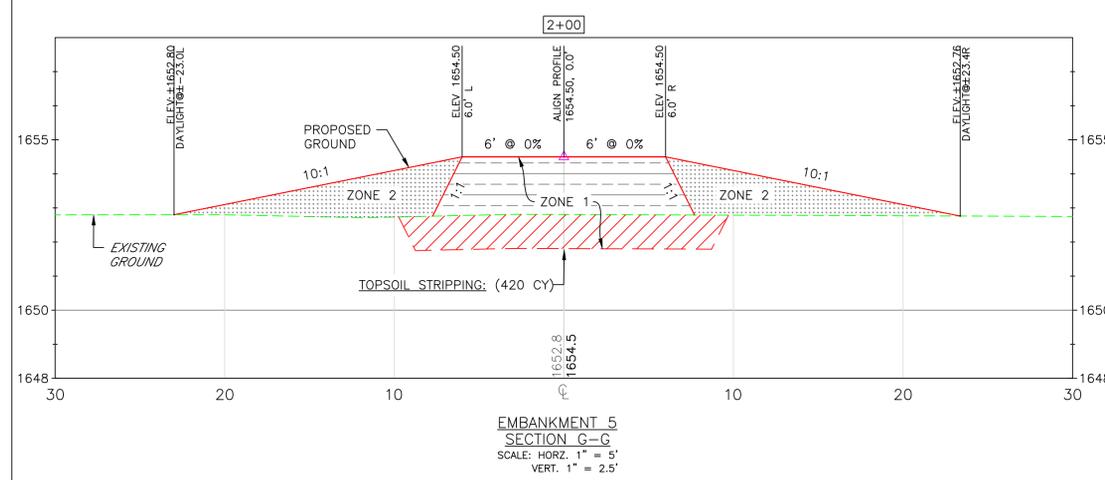
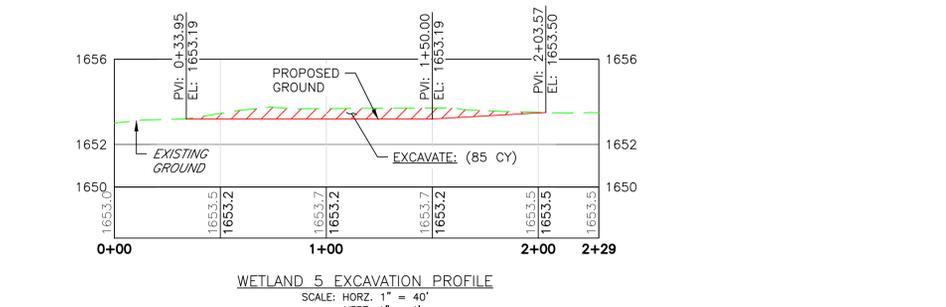
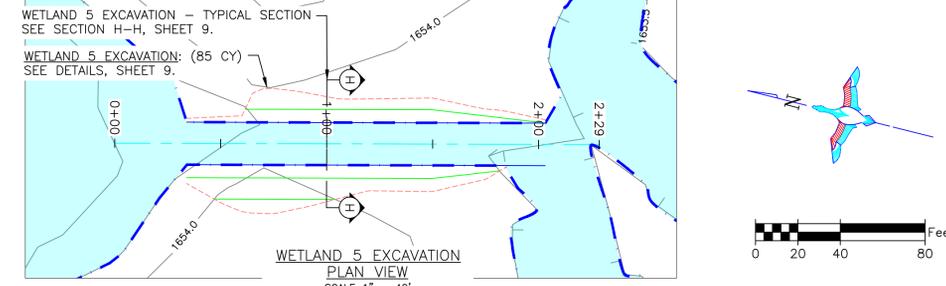
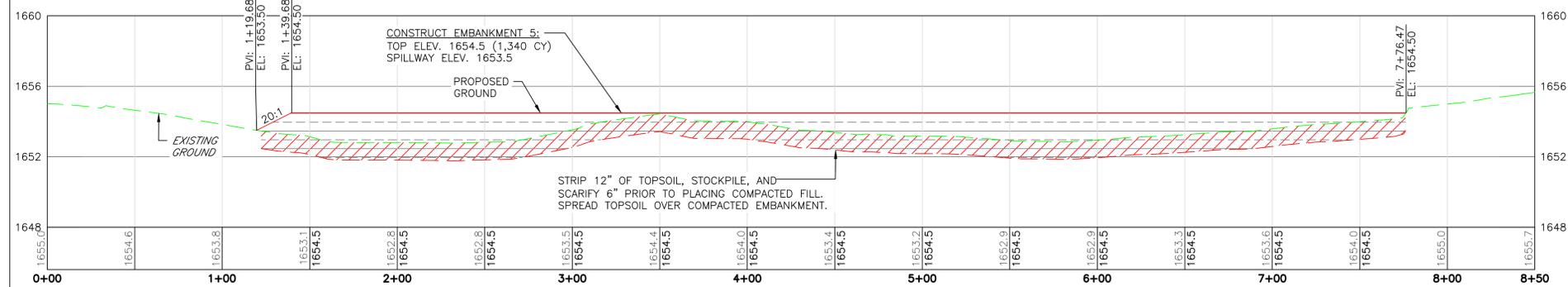
1. ONE HALF FOOT CONTOUR INTERVAL SHOWN.
2. 2018 1 METER RESOLUTION AERIAL IMAGERY IS SHOWN.
3. ITALICIZED TEXT DENOTES EXISTING FEATURE OR EXISTING ELEVATION.
4. SPOT ELEVATIONS INDICATED BY  $\phi$  XXXX.X ARE RANDOMLY LOCATED AND ARE BASED ON SURFACE MODEL ELEVATIONS.

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THIS MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

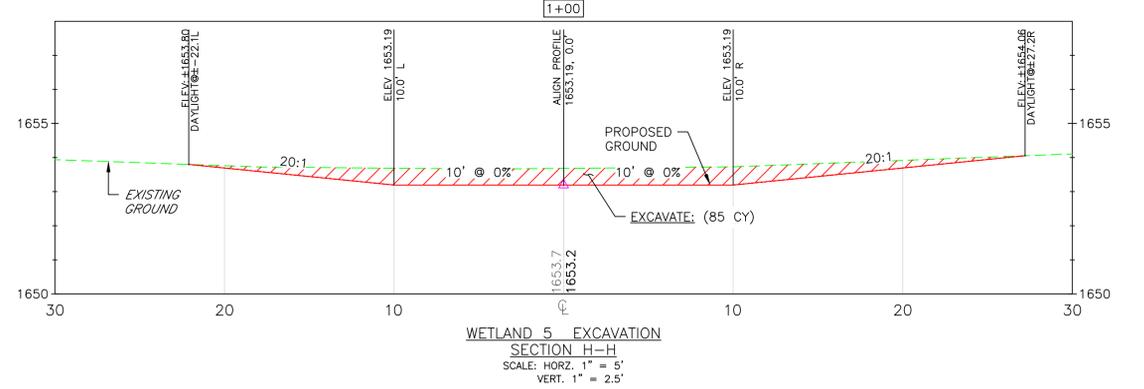
	PROJECT NO. SD-557-1	DESIGNED BY: DCP
	BRULE CO. MITIGATION	DRAWN BY: DCP
GREAT PLAINS REGIONAL OFFICE DATE: 3/20/2026	EMBANKMENT 8 DETAILS	SURVEYED BY: LM/DP
	APPROVED BY:	CHECKED BY:
SHEET NO. 8 OF 13	APPROVED BY:	APPROVED BY:



- BORROW AREA NOTE:** SUITABLE MATERIAL FOR ALL EMBANKMENT CONSTRUCTION SHALL BE OBTAINED FROM THE DESIGNATED BORROW AREA SHOWN ON THE PLANS AS APPROVED BY THE DU FIELD ENGINEER. CARE SHALL BE TAKEN NOT TO OPEN UP ANY SAND LENSES THAT WILL INCREASE SEEPAGE FROM ANY EXCAVATION AREAS. FINISHED SLOPES SHALL BE 10:1 OR FLATTER AND 4" OF TOPSOIL SHALL BE RESPREAD OVER THE SLOPES. THE COST OF TOPSOIL WORK ON THE BORROW AREAS SHALL BE CONSIDERED INCIDENTAL TO "EMBANKMENT CONSTRUCTION."
- SEEDING AND MULCHING NOTE:**
1. SEEDING AND MULCHING SHALL BE REQUIRED ON EMBANKMENT AND AREAS NOTED.
  2. SEED MIX WILL BE PROVIDED BY DUCKS UNLIMITED.
  3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN ADEQUATE SEED BED TO ALLOW SEEDING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HARROW OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH, TRACK-FREE FINISH. BACK DRAGGING WITH A DOZER IS NOT AN ACCEPTABLE FINISH.
  4. BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
  5. MULCHING SHALL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, CRIMPER PUNCHING, OR HYDRO-SEEDING TO PREVENT BLOWING OR WASHING AWAY.
  6. MULCHING APPLICATION RATE SHALL BE TWO TONS PER ACRES OR ONE 74 POUND BALE PER 800 SQUARE FEET.
- CONSTRUCTION NOTES:**
1. REMOVE ALL TOPSOIL FROM EMBANKMENT AND BORROW AREAS AND RESPREAD TOPSOIL OVER THE AREAS WHEN COMPLETE.
  2. ALL FILL MATERIALS SHALL BE PLACED IN LOOSE LIFTS OF NOT MORE THAN 8 INCHES THICKNESS AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD ASTM D698. MOISTURE CONTENT SHALL BE IN THE RANGE OF -1% TO +3% OF OPTIMUM MOISTURE CONTENT.
  3. WORK REQUIRED TO DEWATER THE SITE IS INCIDENTAL TO "EMBANKMENT CONSTRUCTION" & "DUGOUT FILL".

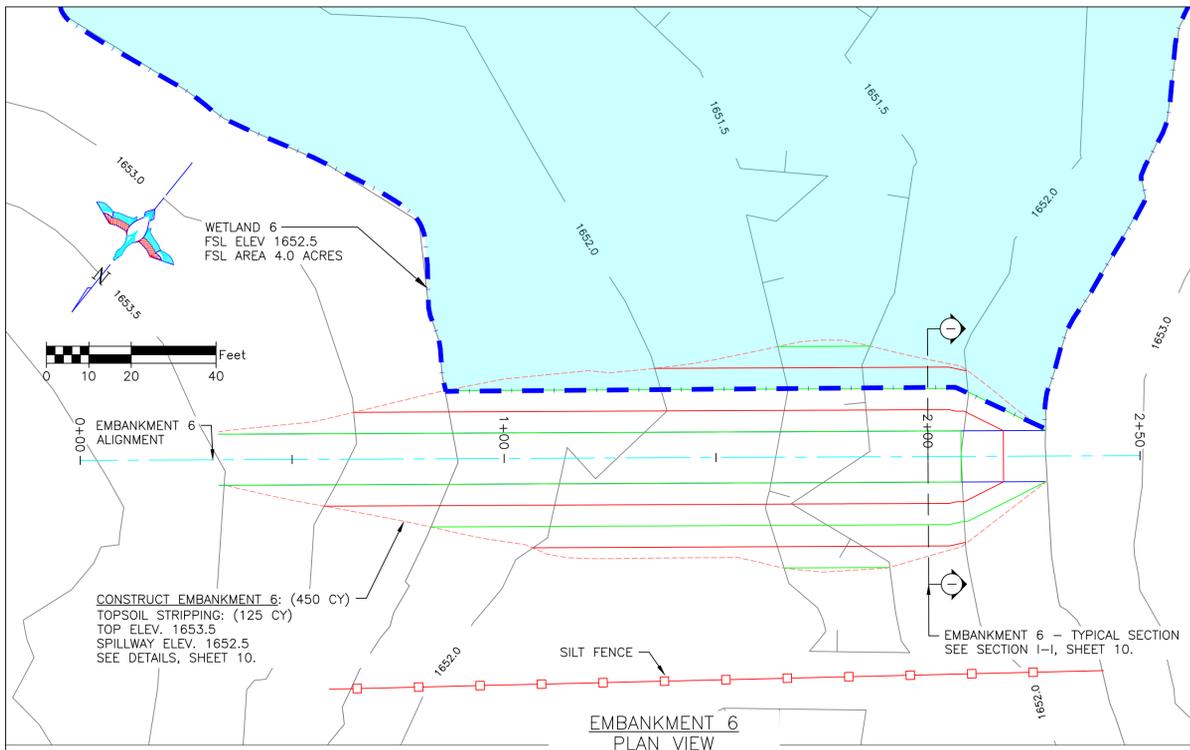


- EMBANKMENT CONSTRUCTION NOTES:**
1. STRIP 12" OF TOPSOIL, STOCKPILE, AND SCARIFY 6" PRIOR TO PLACING COMPACTED FILL. SPREAD TOPSOIL OVER COMPACTED EMBANKMENT. COST OF TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION"
  2. THE EMBANKMENT SUBGRADE MUST BE STABLE, UNIFORMLY GRADED, FREE OF ROCKS, ROOTS, AND OTHER DEBRIS, WITH NO ABRUPT GRADE CHANGES.
  3. EMBANKMENT CONSTRUCTION SHALL BE FROM COMPACTED EARTHEN MATERIAL CONTAINING MINIMAL ORGANIC MATERIAL AND SHALL COMPLY WITH DU SPECIFICATION SECTION 204 "EMBANKMENT CONSTRUCTION."
  4. BORROW AREA SHALL BE DEVELOPED TO UTILIZE CLAYEY FILL FOR ZONE 1 OF THE EMBANKMENT. ANY GRAVELLY OR HEAVY SAND MATERIAL SHALL BE USED FOR ZONE 2. SEE BORROW NOTES, SHEET 2.
  5. EMBANKMENT FILL SHALL BE OBTAINED FROM THE SPECIFIED BORROW AREA. FILL SHALL BE PLACED IN LIFTS OF NO MORE THAN 8" AND COMPACTED PRIOR TO PLACING SUBSEQUENT LIFTS.
  6. CONTRACTOR TO SEED FINISHED EMBANKMENT. SEE SEEDING NOTES.

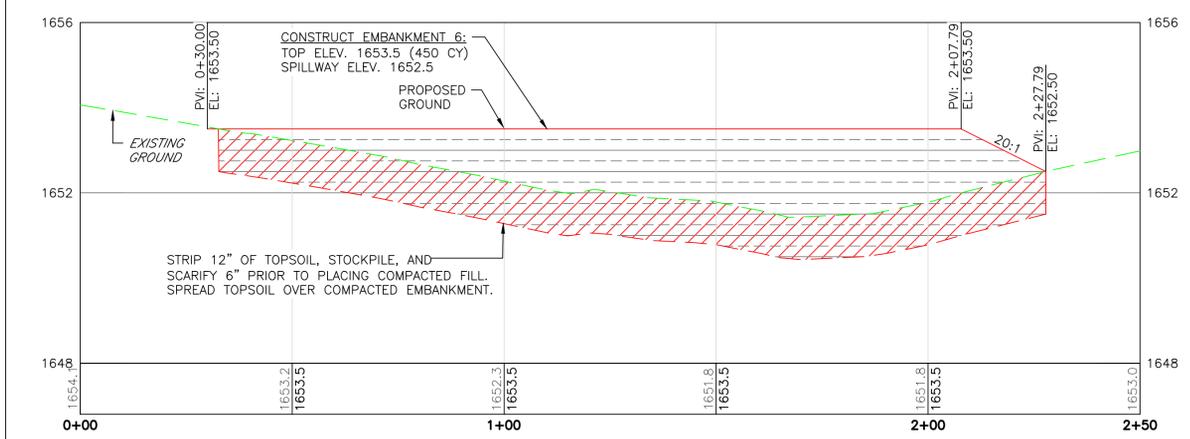


THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

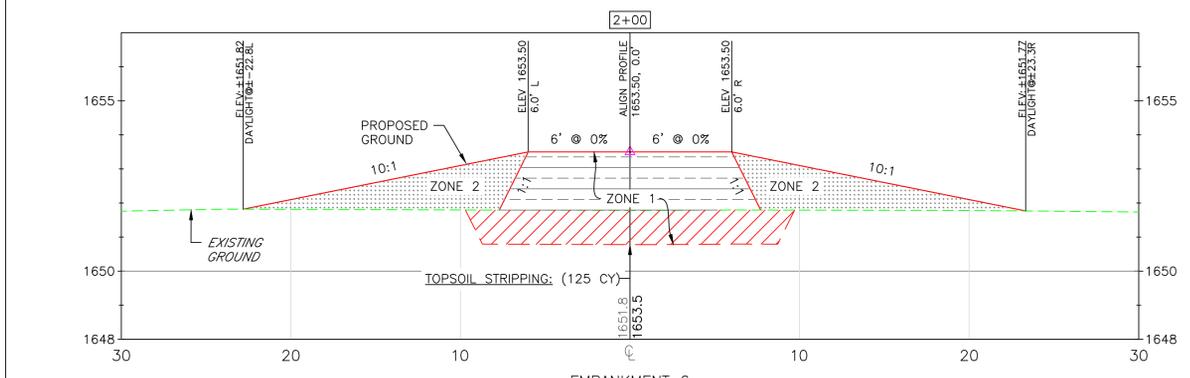
- GENERAL NOTES**
1. ONE HALF FOOT CONTOUR INTERVAL SHOWN.
  2. 2018 1 METER RESOLUTION AERIAL IMAGERY IS SHOWN.
  3. ITALICIZED TEXT DENOTES EXISTING FEATURE OR EXISTING ELEVATION.
  4. SPOT ELEVATIONS INDICATED BY  $\phi$  XXXX.X ARE RANDOMLY LOCATED AND ARE BASED ON SURFACE MODEL ELEVATIONS.



**EMBAKMENT 6  
PLAN VIEW**  
SCALE 1" = 20'



**EMBAKMENT 6 PROFILE**  
SCALE: HORIZ. 1" = 20'  
VERT. 1" = 2'



**EMBAKMENT 6  
SECTION I-I**  
SCALE: HORIZ. 1" = 5'  
VERT. 1" = 2.5'

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

**GENERAL NOTES**

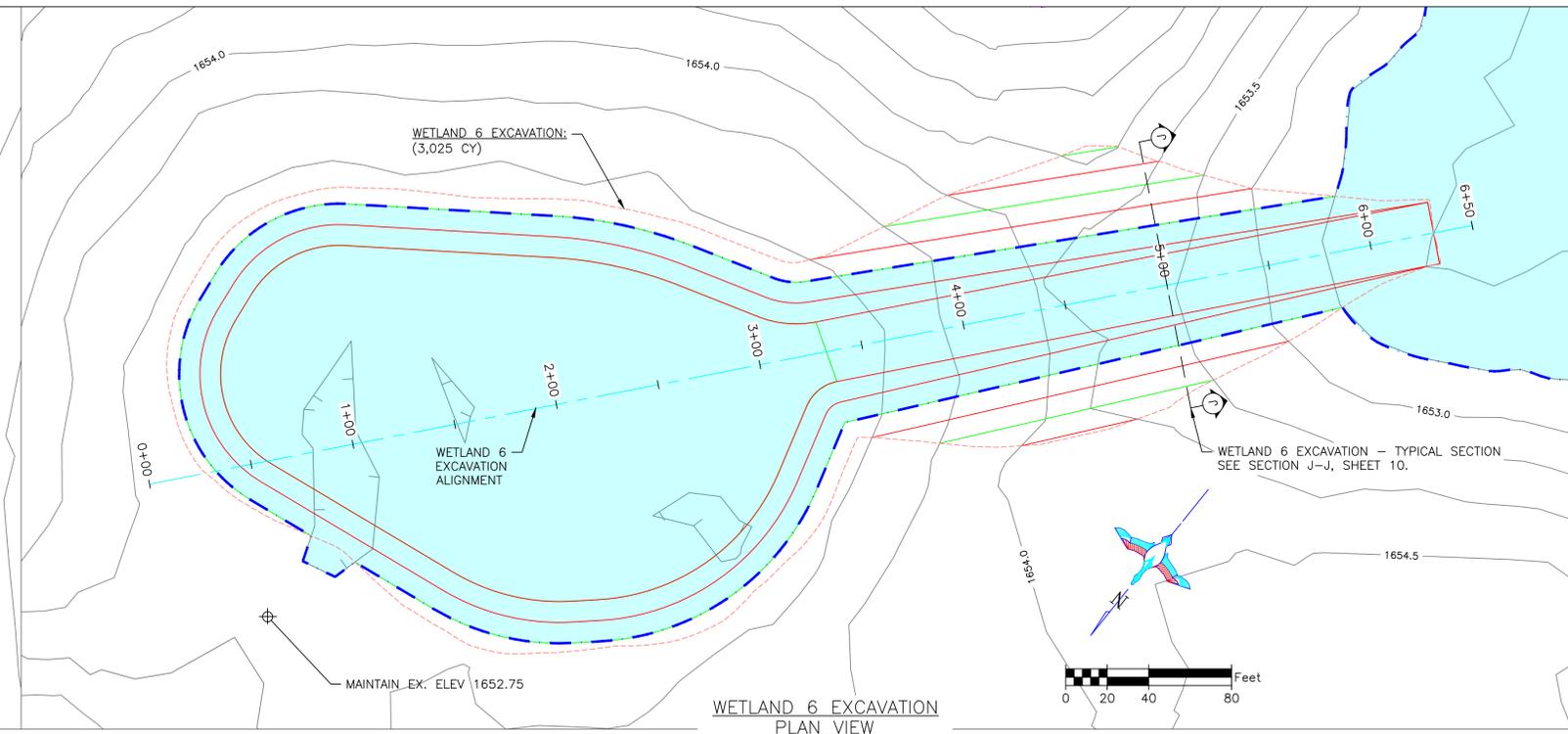
- ONE HALF FOOT CONTOUR INTERVAL SHOWN.
- 2018 1 METER RESOLUTION AERIAL IMAGERY IS SHOWN.
- ITALICIZED TEXT DENOTES EXISTING FEATURE OR EXISTING ELEVATION.
- SPOT ELEVATIONS INDICATED BY  $\oplus$  XXXX.X ARE RANDOMLY LOCATED AND ARE BASED ON SURFACE MODEL ELEVATIONS.

- CONSTRUCTION NOTES:**
- REMOVE ALL TOPSOIL FROM EMBANKMENT AND BORROW AREAS AND RESPREAD TOPSOIL OVER THE AREAS WHEN COMPLETE.
  - ALL FILL MATERIALS SHALL BE PLACED IN LOOSE LIFTS OF NOT MORE THAN 8 INCHES THICKNESS AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD ASTM D698. MOISTURE CONTENT SHALL BE IN THE RANGE OF -1% TO +3% OF OPTIMUM MOISTURE CONTENT.
  - WORK REQUIRED TO DEWATER THE SITE IS INCIDENTAL TO "EMBANKMENT CONSTRUCTION" & "DUGOUT FILL".

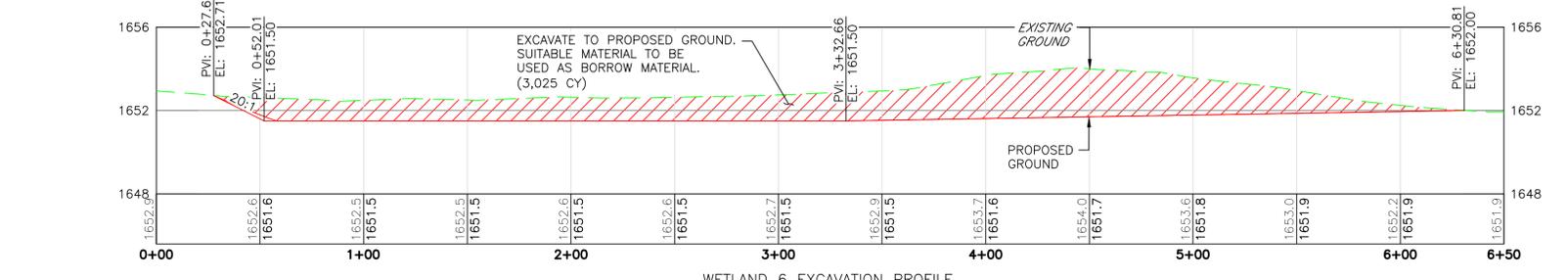
**BORROW AREA NOTE:** SUITABLE MATERIAL FOR ALL EMBANKMENT CONSTRUCTION SHALL BE OBTAINED FROM THE DESIGNATED BORROW AREA SHOWN ON THE PLANS AS APPROVED BY THE DU FIELD ENGINEER. CARE SHALL BE TAKEN NOT TO OPEN UP ANY SAND LENSES THAT WILL INCREASE SEEPAGE FROM ANY EXCAVATION AREAS. FINISHED SLOPES SHALL BE 10:1 OR FLATTER AND 4" OF TOPSOIL SHALL BE RESPREAD OVER THE SLOPES. THE COST OF TOPSOIL WORK ON THE BORROW AREAS SHALL BE CONSIDERED INCIDENTAL TO "EMBANKMENT CONSTRUCTION."

- SEEDING AND MULCHING NOTE:**
- SEEDING AND MULCHING SHALL BE REQUIRED ON EMBANKMENT AND AREAS NOTED.
  - SEED MIX WILL BE PROVIDED BY DUCKS UNLIMITED.
  - THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN ADEQUATE SEED BED TO ALLOW SEEDING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HARROW OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH, TRACK-FREE FINISH. BACK DRAGGING WITH A DOZER IS NOT AN ACCEPTABLE FINISH.
  - BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
  - MULCHING SHALL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, CRIMPER PUNCHING, OR HYDRO-SEEDING TO PREVENT BLOWING OR WASHING AWAY.
  - MULCHING APPLICATION RATE SHALL BE TWO TONS PER ACRES OR ONE 74 POUND BALE PER 800 SQUARE FEET.

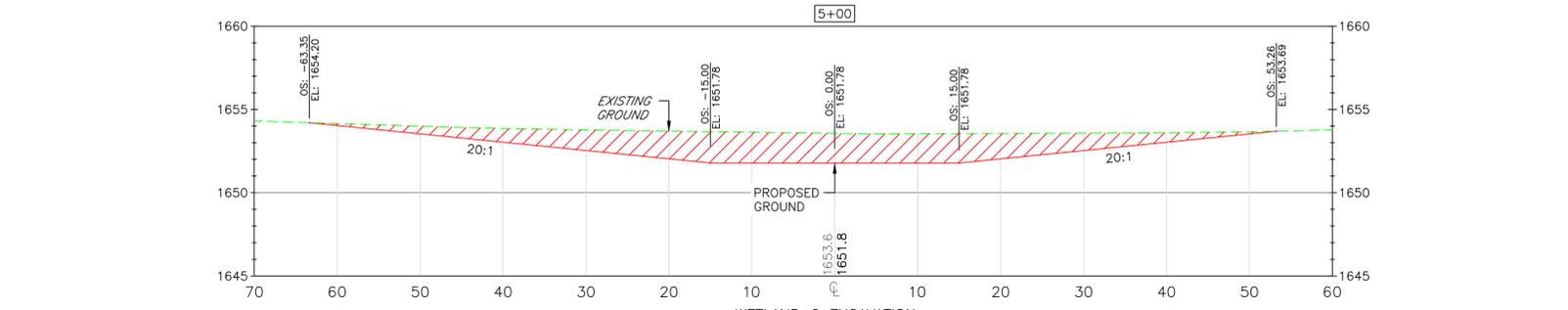
- EMBANKMENT CONSTRUCTION NOTES:**
- STRIP 12" OF TOPSOIL, STOCKPILE, AND SCARIFY 6" PRIOR TO PLACING COMPACTED FILL. SPREAD TOPSOIL OVER COMPACTED EMBANKMENT. COST OF TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION"
  - THE EMBANKMENT SUBGRADE MUST BE STABLE, UNIFORMLY GRADED, FREE OF ROCKS, ROOTS, AND OTHER DEBRIS, WITH NO ABRUPT GRADE CHANGES.
  - EMBANKMENT CONSTRUCTION SHALL BE FROM COMPACTED EARTHEN MATERIAL CONTAINING MINIMAL ORGANIC MATERIAL AND SHALL COMPLY WITH DU SPECIFICATION SECTION 204 "EMBANKMENT CONSTRUCTION."
  - BORROW AREA SHALL BE DEVELOPED TO UTILIZE CLAYEY FILL FOR ZONE 1 OF THE EMBANKMENT. ANY GRAVELLY OR HEAVY SAND MATERIAL SHALL BE USED FOR ZONE 2. SEE BORROW NOTES, SHEET 2.
  - EMBANKMENT FILL SHALL BE OBTAINED FROM THE SPECIFIED BORROW AREA. FILL SHALL BE PLACED IN LIFTS OF NO MORE THAN 8" AND COMPACTED PRIOR TO PLACING SUBSEQUENT LIFTS.
  - CONTRACTOR TO SEED FINISHED EMBANKMENT. SEE SEEDING NOTES.



**WETLAND 6 EXCAVATION  
PLAN VIEW**  
SCALE 1" = 40'

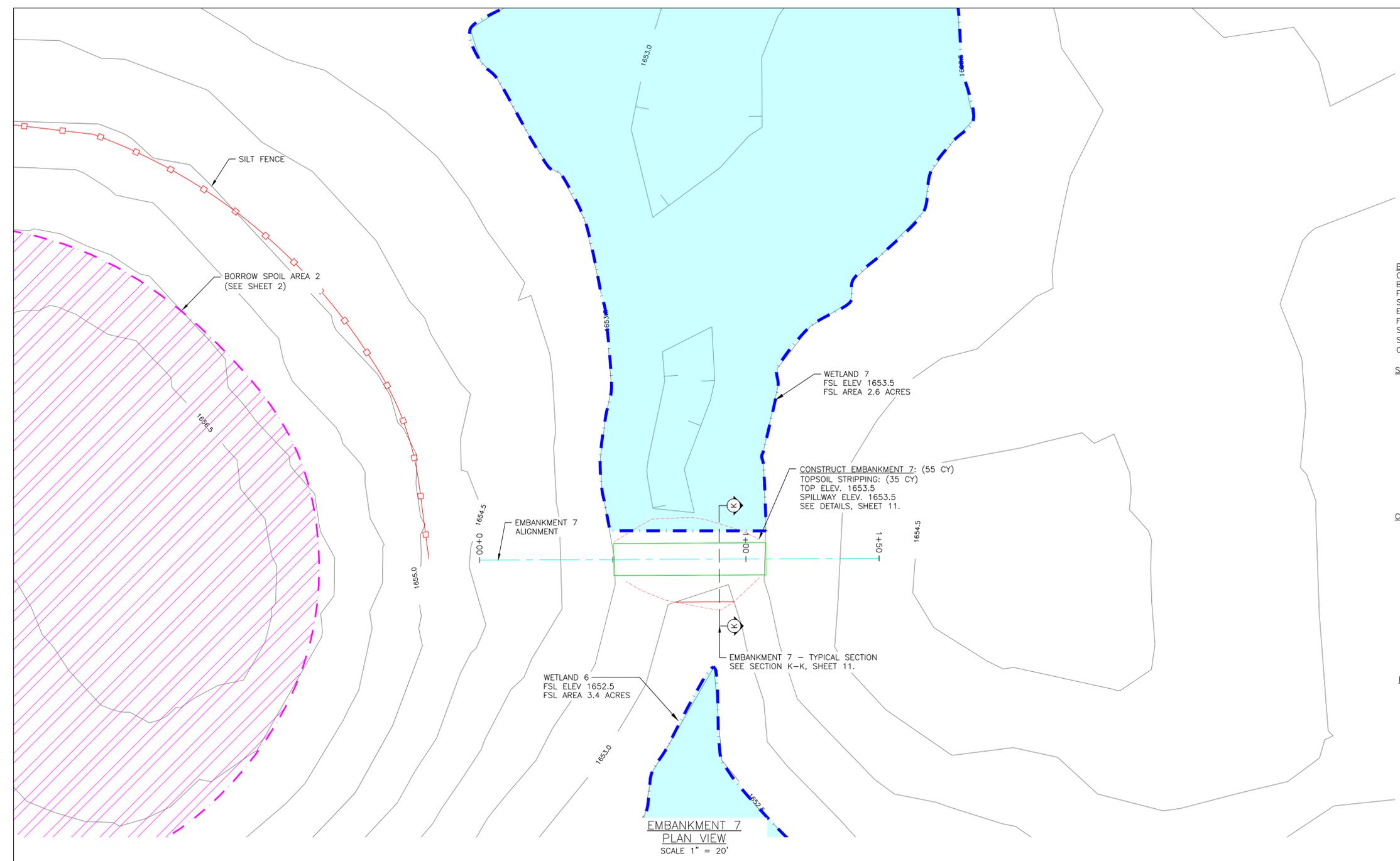
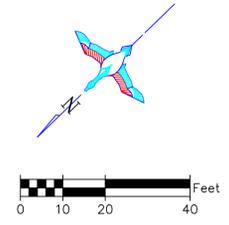


**WETLAND 6 EXCAVATION PROFILE**  
SCALE: HORIZ. 1" = 40'  
VERT. 1" = 4'



**WETLAND 6 EXCAVATION  
SECTION J-J**  
SCALE: HORIZ. 1" = 10'  
VERT. 1" = 5'

<p><b>DUCKS UNLIMITED INC.</b> GREAT PLAINS REGIONAL OFFICE</p>	<p>PROJECT NO. SD-557-1</p>	<p>DESIGNED BY: DCP</p>
	<p>BRULE CO. MITIGATION</p>	<p>DRAWN BY: DCP</p>
<p>DATE: 3/20/2026</p>	<p>SHEET NO. 10 OF 13</p>	<p>SURVEYED BY: LM/DP</p>
<p>APPROVED BY:</p>	<p>APPROVED BY:</p>	<p>CHECKED BY:</p>



**BORROW AREA NOTE:** SUITABLE MATERIAL FOR ALL EMBANKMENT CONSTRUCTION SHALL BE OBTAINED FROM THE DESIGNATED BORROW AREA SHOWN ON THE PLANS AS APPROVED BY THE DU FIELD ENGINEER. CARE SHALL BE TAKEN NOT TO OPEN UP ANY SAND LENSES THAT WILL INCREASE SEEPAGE FROM ANY EXCAVATION AREAS. FINISHED SLOPES SHALL BE 10:1 OR FLATTER AND 4" OF TOPSOIL SHALL BE RESPREAD OVER THE SLOPES. THE COST OF TOPSOIL WORK ON THE BORROW AREAS SHALL BE CONSIDERED INCIDENTAL TO "EMBANKMENT CONSTRUCTION."

**SEEDING AND MULCHING NOTE:**

1. SEEDING AND MULCHING SHALL BE REQUIRED ON EMBANKMENT AND AREAS NOTED.
2. SEED MIX WILL BE PROVIDED BY DUCKS UNLIMITED.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN ADEQUATE SEED BED TO ALLOW SEEDING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HARROW OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH, TRACK-FREE FINISH. BACK DRAGGING WITH A DOZER IS NOT AN ACCEPTABLE FINISH.
4. BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
5. MULCHING SHALL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, CRIMPER PUNCHING, OR HYDRO-SEEDING TO PREVENT BLOWING OR WASHING AWAY.
6. MULCHING APPLICATION RATE SHALL BE TWO TONS PER ACRES OR ONE 74 POUND BALE PER 800 SQUARE FEET.

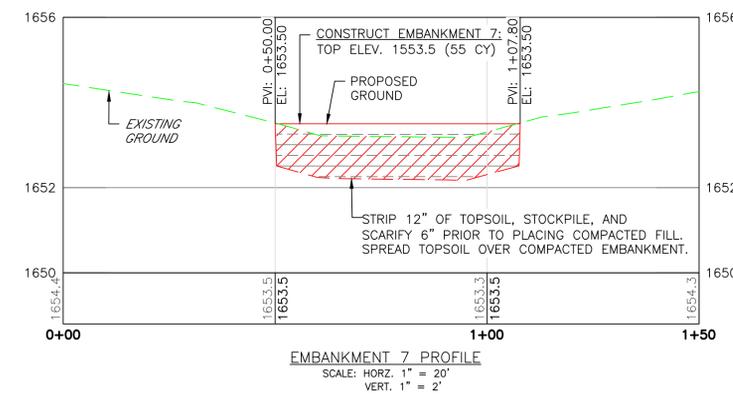
**CONSTRUCTION NOTES:**

1. REMOVE ALL TOPSOIL FROM EMBANKMENT AND BORROW AREAS AND RESPREAD TOPSOIL OVER THE AREAS WHEN COMPLETE.
2. ALL FILL MATERIALS SHALL BE PLACED IN LOOSE LIFTS OF NOT MORE THAN 8 INCHES THICKNESS AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD ASTM D698. MOISTURE CONTENT SHALL BE IN THE RANGE OF -1% TO +3% OF OPTIMUM MOISTURE CONTENT.
3. WORK REQUIRED TO DEWATER THE SITE IS INCIDENTAL TO "EMBANKMENT CONSTRUCTION" & "DUGOUT FILL".

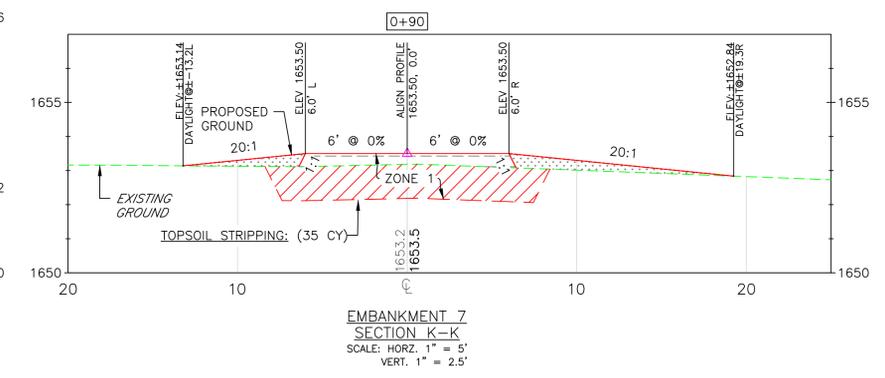
**EMBANKMENT CONSTRUCTION NOTES:**

1. STRIP 12" OF TOPSOIL, STOCKPILE, AND SCARIFY 6" PRIOR TO PLACING COMPACTED FILL. SPREAD TOPSOIL OVER COMPACTED EMBANKMENT. COST OF TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION"
2. THE EMBANKMENT SUBGRADE MUST BE STABLE, UNIFORMLY GRADED, FREE OF ROCKS, ROOTS, AND OTHER DEBRIS, WITH NO ABRUPT GRADE CHANGES.
3. EMBANKMENT CONSTRUCTION SHALL BE FROM COMPACTED EARTHEN MATERIAL CONTAINING MINIMAL ORGANIC MATERIAL AND SHALL COMPLY WITH DU SPECIFICATION SECTION 204 "EMBANKMENT CONSTRUCTION."
4. BORROW AREA SHALL BE DEVELOPED TO UTILIZE CLAYEY FILL FOR ZONE 1 OF THE EMBANKMENT. ANY GRAVELLY OR HEAVY SAND MATERIAL SHALL BE USED FOR ZONE 2. SEE BORROW NOTES, SHEET 2.
5. EMBANKMENT FILL SHALL BE OBTAINED FROM THE SPECIFIED BORROW AREA. FILL SHALL BE PLACED IN LIFTS OF NO MORE THAN 8" AND COMPACTED PRIOR TO PLACING SUBSEQUENT LIFTS.
6. CONTRACTOR TO SEED FINISHED EMBANKMENT. SEE SEEDING NOTES.

**EMBANKMENT 7  
PLAN VIEW  
SCALE 1" = 20'**



**EMBANKMENT 7 PROFILE  
SCALE: HORZ. 1" = 20'  
VERT. 1" = 2'**



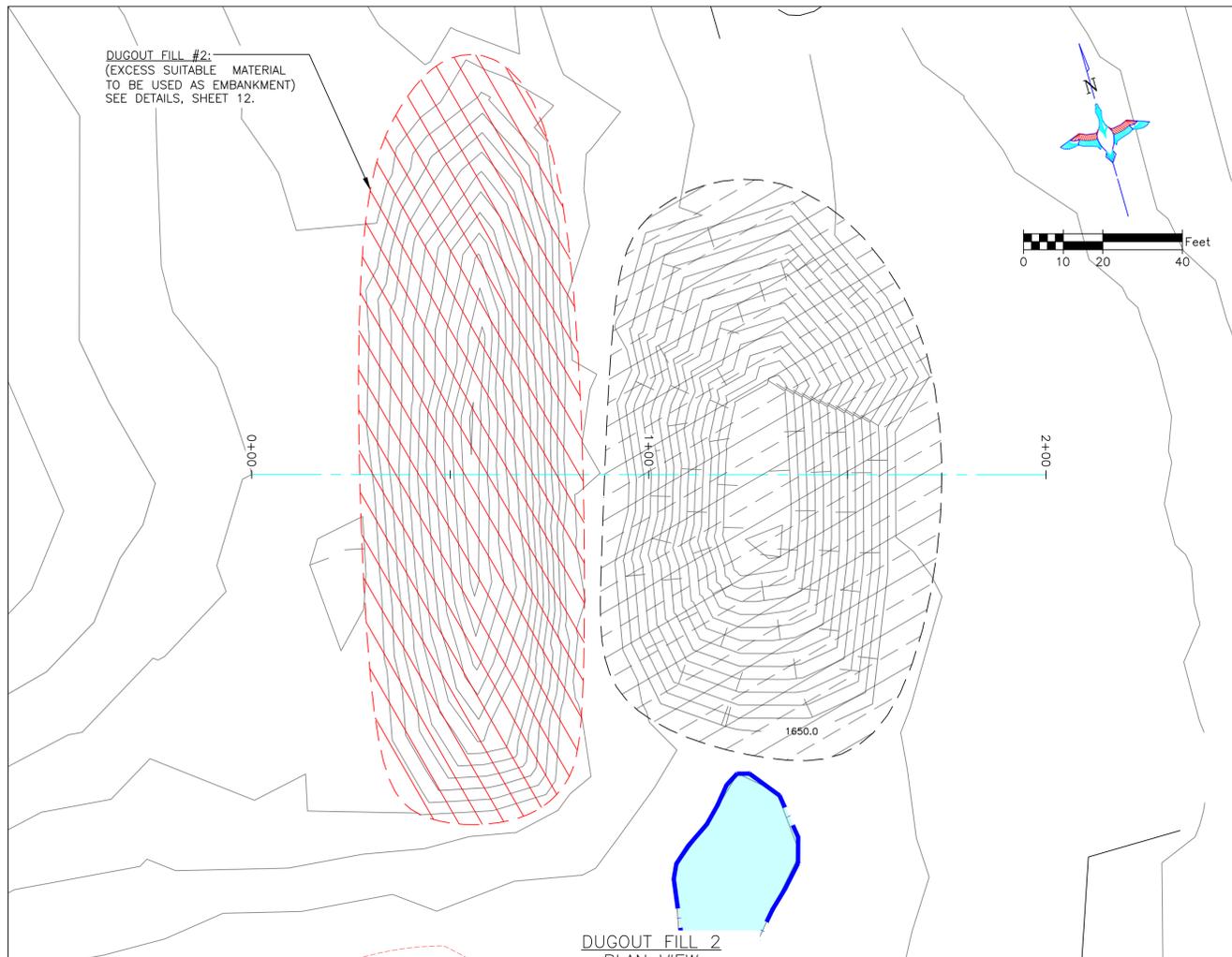
**EMBANKMENT 7  
SECTION K-K  
SCALE: HORZ. 1" = 5'  
VERT. 1" = 2.5'**

**GENERAL NOTES**

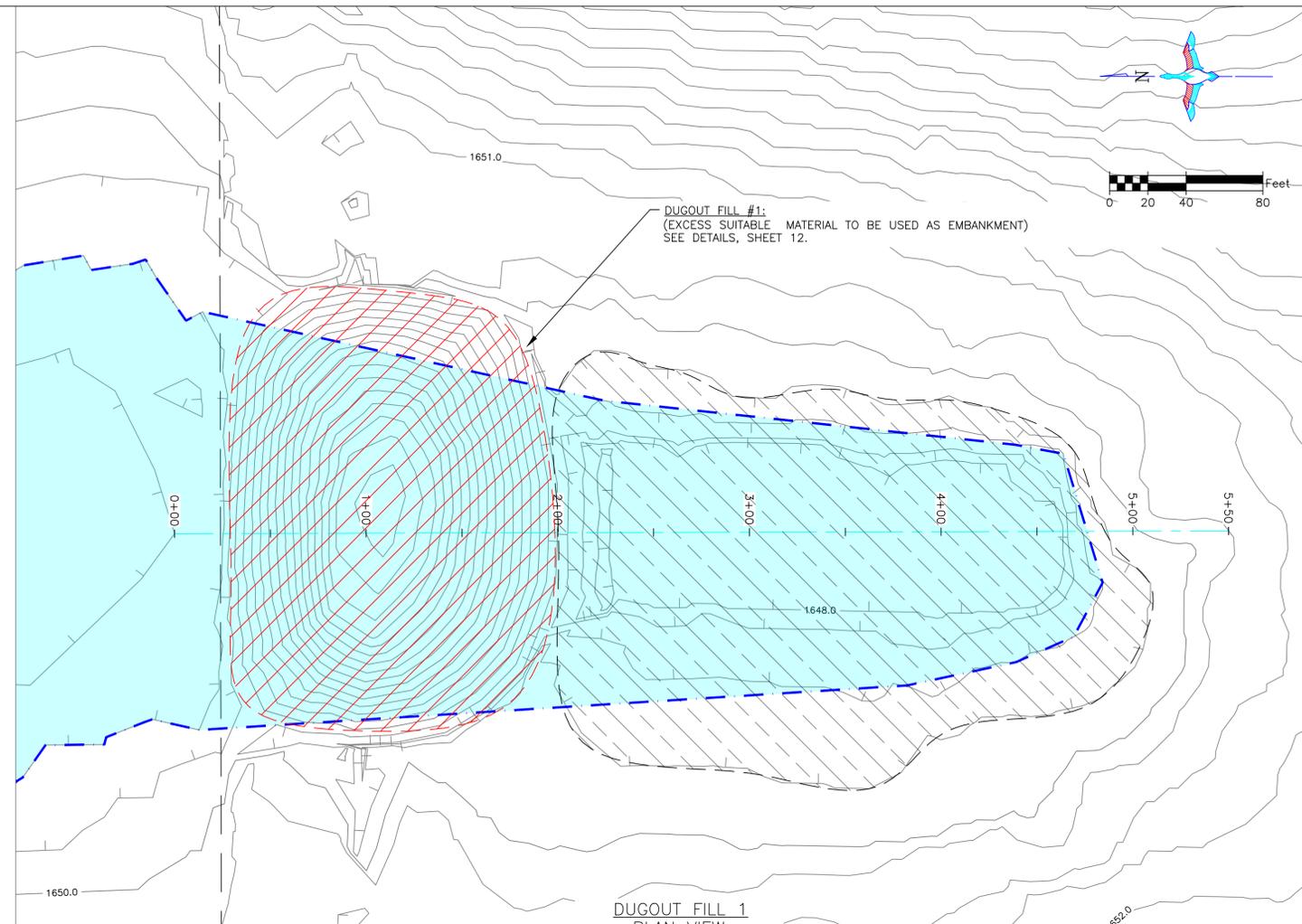
1. ONE HALF FOOT CONTOUR INTERVAL SHOWN.
2. 2018 1 METER RESOLUTION AERIAL IMAGERY IS SHOWN.
3. ITALICIZED TEXT DENOTES EXISTING FEATURE OR EXISTING ELEVATION.
4. SPOT ELEVATIONS INDICATED BY  $\oplus$  XXXX.X ARE RANDOMLY LOCATED AND ARE BASED ON SURFACE MODEL ELEVATIONS.

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

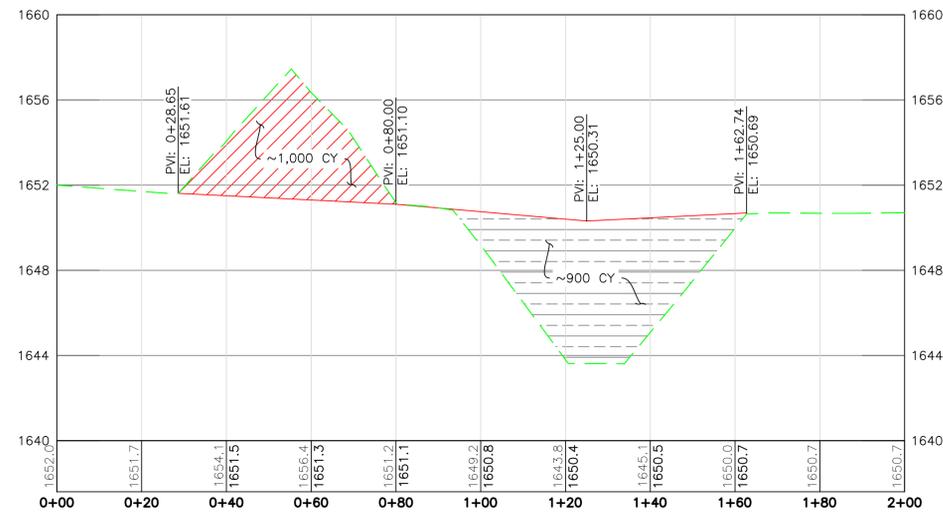
<p><b>DUCKS UNLIMITED INC.</b> GREAT PLAINS REGIONAL OFFICE</p>	PROJECT NO. SD-557-1	DESIGNED BY: DCP
	BRULE CO. MITIGATION	DRAWN BY: DCP
	EMBANKMENT 7 DETAILS	SURVEYED BY: LM/DP
DATE: 3/20/2026	SHEET NO. 11 OF 13	CHECKED BY: .
	APPROVED BY:	APPROVED BY:



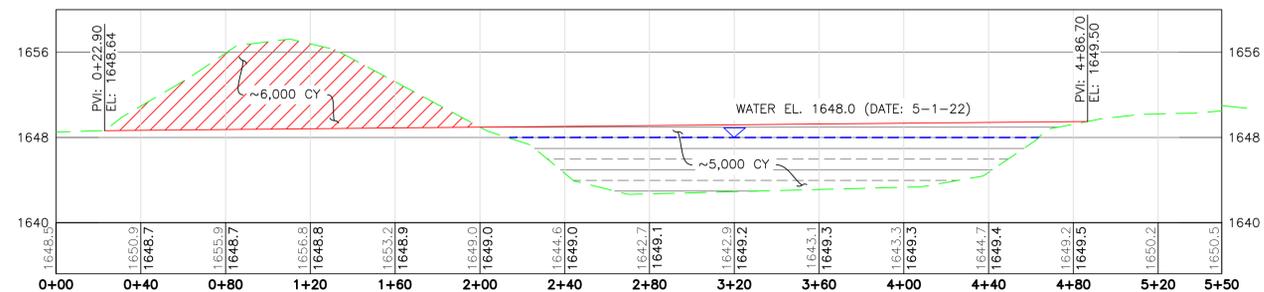
DUGOUT FILL 2  
PLAN VIEW  
SCALE 1" = 20'



DUGOUT FILL 1  
PLAN VIEW  
SCALE 1" = 40'



DUGOUT FILL 2 PROFILE  
SCALE: HORIZ. 1" = 20'  
VERT. 1" = 4'



DUGOUT FILL 1 PROFILE  
SCALE: HORIZ. 1" = 40'  
VERT. 1" = 8'

**BORROW AREA NOTE:** SUITABLE MATERIAL FOR ALL EMBANKMENT CONSTRUCTION SHALL BE OBTAINED FROM THE DESIGNATED BORROW AREA SHOWN ON THE PLANS AS APPROVED BY THE DU FIELD ENGINEER. CARE SHALL BE TAKEN NOT TO OPEN UP ANY SAND LENSES THAT WILL INCREASE SEEPAGE FROM ANY EXCAVATION AREAS. FINISHED SLOPES SHALL BE 10:1 OR FLATTER AND 4" OF TOPSOIL SHALL BE RESPREAD OVER THE SLOPES. THE COST OF TOPSOIL WORK ON THE BORROW AREAS SHALL BE CONSIDERED INCIDENTAL TO "EMBANKMENT CONSTRUCTION."

**SEEDING AND MULCHING NOTE:**

- SEEDING AND MULCHING SHALL BE REQUIRED ON EMBANKMENT AND AREAS NOTED.
- SEED MIX WILL BE PROVIDED BY DUCKS UNLIMITED.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN ADEQUATE SEED BED TO ALLOW SEEDING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HARROW OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH, TRACK-FREE FINISH. BACK DRAGGING WITH A DOZER IS NOT AN ACCEPTABLE FINISH.
- BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
- MULCHING SHALL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, CRIMPER PUNCHING, OR HYDRO-SEEDING TO PREVENT BLOWING OR WASHING AWAY.
- MULCHING APPLICATION RATE SHALL BE TWO TONS PER ACRES OR ONE 74 POUND BALE PER 800 SQUARE FEET.

**CONSTRUCTION NOTES:**

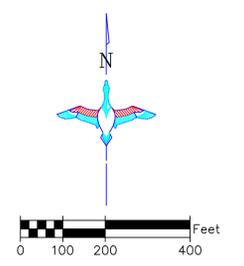
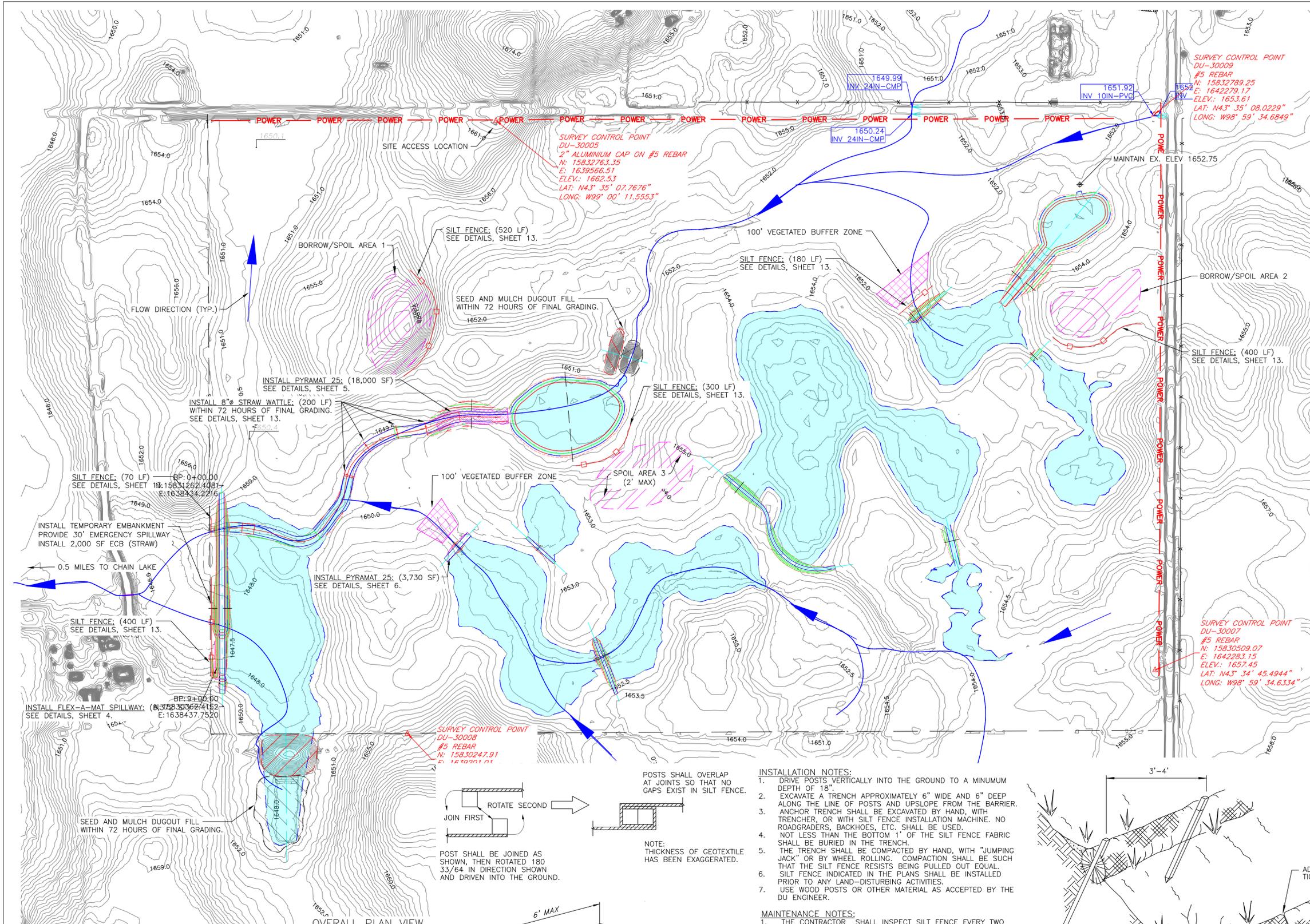
- REMOVE ALL TOPSOIL FROM EMBANKMENT AND BORROW AREAS AND RESPREAD TOPSOIL OVER THE AREAS WHEN COMPLETE.
- ALL FILL MATERIALS SHALL BE PLACED IN LOOSE LIFTS OF NOT MORE THAN 8 INCHES THICKNESS AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD ASTM D698. MOISTURE CONTENT SHALL BE IN THE RANGE OF -1% TO +3% OF OPTIMUM MOISTURE CONTENT.
- WORK REQUIRED TO DEWATER THE SITE IS INCIDENTAL TO "DUGOUT FILL".

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

**GENERAL NOTES**

- ONE HALF FOOT CONTOUR INTERVAL SHOWN.
- 2018 1 METER RESOLUTION AERIAL IMAGERY IS SHOWN.
- ITALICIZED TEXT DENOTES EXISTING FEATURE OR EXISTING ELEVATION.
- SPOT ELEVATIONS INDICATED BY  $\phi$  XXXX.X ARE RANDOMLY LOCATED AND ARE BASED ON SURFACE MODEL ELEVATIONS.

<p>DUCKS UNLIMITED INC. GREAT PLAINS REGIONAL OFFICE</p>	PROJECT NO. SD-557-1	DESIGNED BY: DCP
	BRULE CO. MITIGATION	DRAWN BY: DCP
	DUGOUT FILL DETAILS	SURVEYED BY: LM/DP
DATE: 3/20/2026	APPROVED BY:	CHECKED BY:
SHEET NO. 12 OF 13	APPROVED BY:	APPROVED BY:



- SEEDING AND MULCHING NOTE:**
- SEEDING AND MULCHING SHALL BE REQUIRED ON EMBANKMENT AND AREAS NOTED.
  - SEED MIX WILL BE PROVIDED BY DUCKS UNLIMITED.
  - THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN ADEQUATE SEED BED TO ALLOW SEEDING WITH STANDARD SEEDING EQUIPMENT. THIS WILL INCLUDE USE OF A HARROW OR OTHER MEANS IN ORDER TO LEAVE A SMOOTH, TRACK-FREE FINISH. BACK DRAGGING WITH A DOZER IS NOT AN ACCEPTABLE FINISH.
  - BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
  - MULCHING SHALL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, CRIMPER PUNCHING, OR HYDRO-SEEDING TO PREVENT BLOWING OR WASHING AWAY.
  - MULCHING APPLICATION RATE SHALL BE TWO TONS PER ACRES OR ONE 74 POUND BALE PER 800 SQUARE FEET.

**SWPPP CONTENTS:**

PROJECT ACTIVITY	WETLAND MITIGATION
DISTURBED AREA	15.0 ACRES
EXISTING VEGETATION	15.0 ACRES
SOIL TYPE	TYPE D
RECEIVING WATERS	CHAIN LAKE
CONSTRUCTION ACTIVITY:	EXCAVATION OF BORROW
MATERIAL, EMBANKMENT CONSTRUCTION, TEMPORARY/PERMANENT EROSION BMP INSTALLATION, SEEDING AND MULCHING	

**BMP QUANTITIES:**

SILT FENCE	1,870 L.F.
8" STRAW WATTLE	200 L.F.
EROSION CONTROL BLANKET	2,000 S.F.
PYRAMAT 25	21,730 S.F.
FLEX-A-MAT	5,250 S.F.
SEEDING AND MULCHING	15.0 ACRES

**CONTACT INFORMATION:**

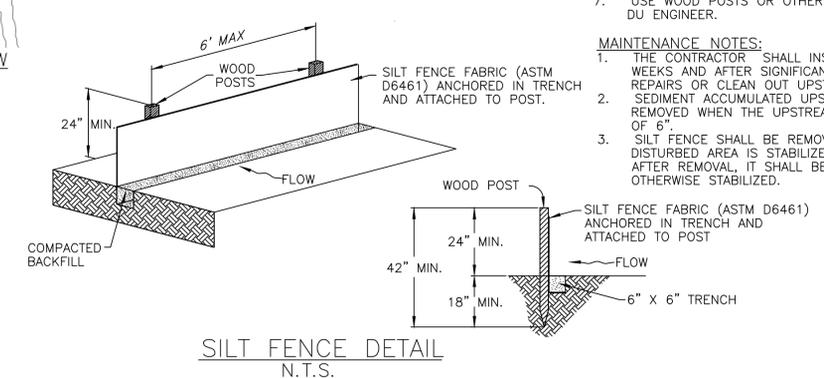
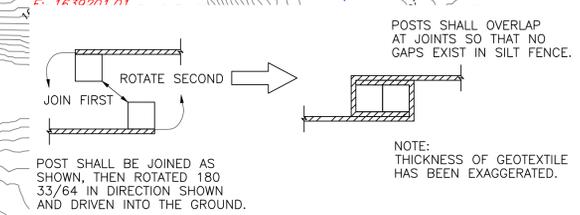
**ENGINEER:**  
NAME: DYLAN PETERSON  
PHONE: 701-390-4993  
EMAIL: dpeterson@ducks.org  
COMPANY: DUCKS UNLIMITED, INC.

**CONSTRUCTION MANAGER:**  
NAME: LES MORGENSTERN  
PHONE: 701-391-2250  
EMAIL: lmorgenstern@ducks.org  
COMPANY: DUCKS UNLIMITED, INC.

**CONTRACTOR:**  
NAME: TBD  
PHONE: TBD  
EMAIL: TBD  
COMPANY: TBD

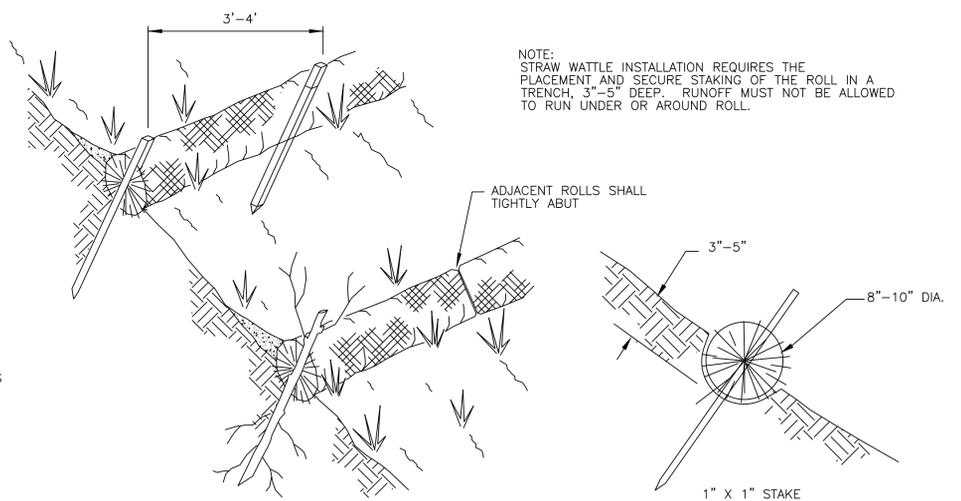
- GENERAL NOTES**
- ONE HALF FOOT CONTOUR INTERVAL SHOWN.
  - 2018 1 METER RESOLUTION AERIAL IMAGERY IS SHOWN.
  - ITALICIZED TEXT DENOTES EXISTING FEATURE OR EXISTING ELEVATION.
  - SPOT ELEVATIONS INDICATED BY  $\oplus$  XXXX.X ARE RANDOMLY LOCATED AND ARE BASED ON SURFACE MODEL ELEVATIONS.

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USERS SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.



- INSTALLATION NOTES:**
- DRIVE POSTS VERTICALLY INTO THE GROUND TO A MINIMUM DEPTH OF 18".
  - EXCAVATE A TRENCH APPROXIMATELY 6" WIDE AND 6" DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
  - ANCHOR TRENCH SHALL BE EXCAVATED BY HAND, WITH TRENCHER, OR WITH SILT FENCE INSTALLATION MACHINE. NO ROADGRADERS, BACKHOES, ETC., SHALL BE USED.
  - NOT LESS THAN THE BOTTOM 1" OF THE SILT FENCE FABRIC SHALL BE BURIED IN THE TRENCH.
  - THE TRENCH SHALL BE COMPACTED BY HAND, WITH "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT THE SILT FENCE RESISTS BEING PULLED OUT EQUAL.
  - SILT FENCE INDICATED IN THE PLANS SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
  - USE WOOD POSTS OR OTHER MATERIAL AS ACCEPTED BY THE DU ENGINEER.

- MAINTENANCE NOTES:**
- THE CONTRACTOR SHALL INSPECT SILT FENCE EVERY TWO WEEKS AND AFTER SIGNIFICANT STORM EVENTS AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
  - SEDIMENT ACCUMULATED UPSTREAM OF SILT FENCE SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT REACHES A DEPTH OF 6".
  - SILT FENCE SHALL BE REMOVED WHEN THE UPSTREAM DISTURBED AREA IS STABILIZED. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE SEEDING AND MULCHED OR OTHERWISE STABILIZED.



	PROJECT NO. SD-557-1	DESIGNED BY: DCP
	BRULE CO. MITIGATION STORM WATER POLLUTION PREVENTION PLAN	DRAWN BY: DCP
GREAT PLAINS REGIONAL OFFICE	APPROVED BY:	SURVEYED BY: LM/DP
DATE: 3/20/2026	SHEET NO. 13 OF 13	CHECKED BY: