VAN EE (IA-112) AML RECLAMATION PROJECT

SECTIONS 9,10, TOWNSHIP 74N, RANGE 18W, MARION COUNTY

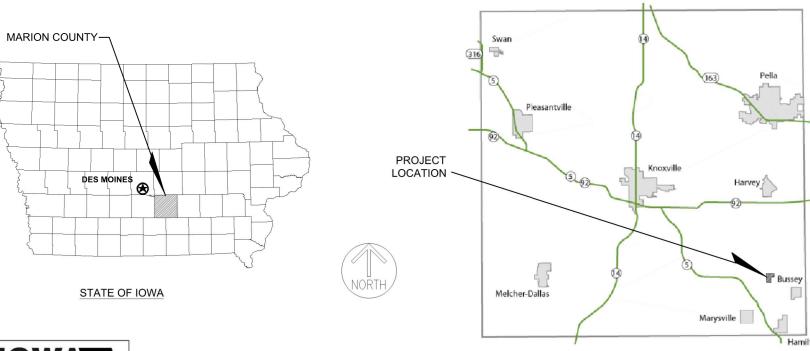
IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP DIVISION OF SOIL CONSERVATION AND WATER QUALITY

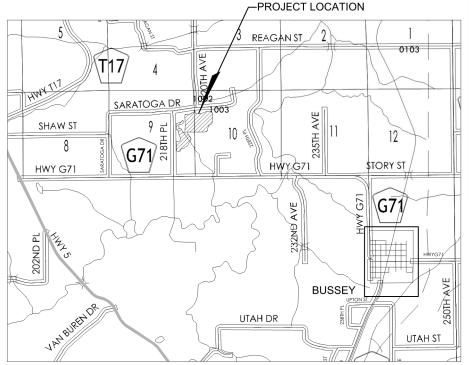
GRANT NUMBER: S23AF00088

FUNDED BY:
U.S. DEPARTMENT OF THE INTERIOR

MARION COUNTY

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT





LOCAL VICINITY



PREPARED FOR:

502 E. 9TH STREET

(515) 281-4246

ENGINEER:

INDEX OF SHEETS:

28

29

COVER SHEET

PROJECT NOTES, QUANTITIES, AND LEGEND SURVEY CONTROL 4 SITUATION PLAN - EXISTING CONDITIONS **GRADING PLANS** 5-10 **CUT/FILL PLANS** 11-16 17 **DRAINAGE PLAN** 18-19 PROJECT DETAILS 20-22 PIPE PROFILES 23-27 **CROSS SECTIONS**

SWPPP & SEEDING PLAN

SWPPP NOTES

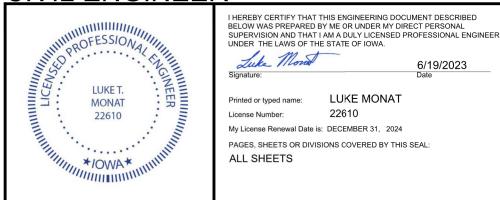
SHIVE-HATTERY, INC. 4125 WESTOWN PARKWAY, SUITE 100 WEST DES MOINES, IOWA 50266 PHONE - (515) 223-8104

HENRY A. WALLACE BUILDING

DES MOINES, IOWA 50319

DIVISION OF SOIL CONSERVATION AND WATER QUALITY IOWA DEPARTMENT OF AGRICULTURE & LAND STEWARDSHIP

<u>CIVIL ENGINEER</u>



AML RECLAMATION PROJECT

COVER SHEET

COVER SHEET

CHKD. BY: LTM

ISSUED: 6/19/2023

IOWA DEPARTMENAND LAND 8

AND LAND 8

AND WAT

HENRY A. WA

(615)

SHIVEHATTERY
ARCHITECTURE SENDOINEERING

SHEET

of 29

GENERAL NOTES:

- 1. WORK WHICH DOES NOT CONFORM TO THE REQUIREMENTS OF THE CONTRACT WILL BE CONSIDERED UNACCEPTABLE. UNACCEPTABLE WORK, WHETHER THE RESULT OF POOR WORKMANSHIP, USE OF DEFECTIVE MATERIALS, DAMAGE THROUGH CARELESSNESS OR ANY OTHER CAUSE, FOUND TO EXIST PRIOR TO THE FINAL ACCEPTANCE OF THE WORK, SHALL BE REMOVED AND REPLACED IN AN ACCEPTABLE MANNER, AS REQUIRED BY THE OWNER AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR IS RESPONSIBLE FOR ALL SURVEY LAYOUT AND CONTROL REQUIRED TO COMPLETE ALL WORK
- WORK DONE CONTRARY TO THE INSTRUCTIONS OF THE OWNERS REPRESENTATIVE, WORK DONE BEYOND THE LINES SHOWN ON THE PLANS OR ANY EXTRA WORK DONE WITHOUT AUTHORITY WILL NOT BE PAID FOR.
- CONTOURS AND SPOT ELEVATIONS SHOWN ARE TO FINISHED GRADE.
 THE CONTRACTOR SHALL KEEP ALL ROADS OPEN TO THROUGH TRAFFIC AT ALL TIMES.
- NO WORK SHALL BE PERFORMED BEYOND THE PROJECT LIMITS WITHOUT PRIOR AUTHORIZATION FROM THE DIVISION
- SOME CONTOUR LINES MAY NOT BE SHOWN FOR CLARITY
- BURNING OF LANDSCAPE WASTE PRODUCED IN CLEARING, GRUBBING AND CONSTRUCTION OPERATIONS SHALL BE LIMITED TO LOCATIONS LOCATED AT LEAST 1/4 MILE FROM ANY BUILDING INHABITED BY ANYONE OTHER THAN THE LANDOWNER OR TENANT CONDUCTING THE OPEN BURNING. PERMISSION IS REQUIRED TO BURN WITHIN 1/4 MILE OF INHABITED RESIDENCES. CONTRACTOR TO INSTALL TEMPORARY SIGNAGE WHEN BURNING OPERATIONS COULD AFFECT VISIBILITY ON ADJACENT ROADS - COORDINATE WITH LOCAL GOVERNING OFFICIALS
- 9. SUBMIT MANUFACTURER'S CERTIFICATION AND MATERIAL DATA FOR ALL MATERIALS DELIVERED TO THE PROJECT SITE AS REQUESTED BY THE OWNERS REPRESENTATIVE.
- 10. THE FOLLOWING STANDARD ROAD PLANS OF THE IOWA DEPARTMENT OF TRANSPORTATION ARE INCLUDED BY REFERENCE:
 - DETAILS FOR FIELD FENCE CONSTRUCTION EROSION CONTROL DETAILS FOR SILT FENCE EC-201
- 11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEPARTMENT OF NATURAL RESOURCES (DNR) NPDES PERMIT AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS AND REQUIRED CONTAINMENT STRUCTURES. THE DIVISION HAS OBTAINED THE DNR GENERAL PERMIT #2 FOR THE PROJECT AND A TEMPLATE SWPPP HAS BEEN PREPARED BY THE ENGINEER. THE DIVISION WILL PERFORM SWPPP INSPECTIONS, MAINTAIN, AND UPDATE THE SWPPP AS REQUIRED TO MEET ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS. REFER TO THE SWPPP AND SWPPP DRAWINGS FOR ADDITIONAL INFORMATION.
- 12. THE DIVISION HAS RECEIVED A DETERMINATION FROM THE U.S. ARMY CORPS THAT A SECTION 404 NATIONWIDE PERMIT IS REQUIRED AND HAS BEEN OBTAINED BY THE DIVISION. DO NOT DISTURB ANY DELINEATED WETLANDS THAT ARE NOT SHOWN TO BE DISTURBED AND
- 13. REFERENCE TO PARTICULAR PRODUCTS, TRADENAMES, OR MANUFACTURERS IS INTENDED FOR CLARITY ONLY AND DOES NOT REPRESENT ENDORSEMENT BY THE STATE OF IOWA. EQUIVALENT PRODUCTS OR MATERIALS MAY BE SUITABLE, SUBJECT TO APPROVAL OF THE ENGINEER OR DIVISION.
- 14. NEITHER SHIVE-HATTERY NOR THE DIVISION GUARANTEE THE WETLANDS TO FILL OR MAINTAIN A CONSISTENT POOL OF WATER.
- 15. REFERENCES TO "DIVISION" SHALL MEAN "DIVISION OF SOIL CONSERVATION & WATER QUALITY"

 16. ALL IMPROVEMENTS SHOWN ON THESE PLANS SHALL COMPLY WITH THE GENERAL CONDITIONS, STANDARDS, AND SPECIFICATIONS SET
- FORTH IN PROJECT DOCUMENTS. SPECIFICATIONS OR STANDARDS INCORPORATED BY REFERENCE SHALL ALSO BE FOLLOWED.

 17. REFERENCES TO PARTICULAR PRODUCTS, TRADENAMES, OR MANUFACTURERS ARE INTENDED FOR CLARITY ONLY AND DO NOT REPRESENT EXCLUSION OR ENDORSEMENT BY THE DIVISION OR THE STATE OF IOWA. EQUIVALENT PRODUCTS OR MATERIALS MAY BE SUITABLE, SUBJECT TO THE APPROVAL OF THE ENGINEER.
- 18. CONTRACTOR SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE ENGINEER AND/OR DIVISION PRIOR TO COMMENCING CONSTRUCTION.

UTILITY NOTES:

- 1. THE LOCATIONS OF UTILITY MAINS, STRUCTURES AND SERVICE CONNECTIONS SHOWN IN THESE PLANS ARE APPROXIMATE ONLY AND WERE OBTAINED FROM RECORDS MADE AVAILABLE TO SHIVE-HATTERY, INC. THERE MAY BE OTHER EXISTING UTILITY MAINS, STRUCTURES AND SERVICE CONNECTIONS NOT KNOWN TO SHIVE-HATTERY, INC. AND NOT SHOWN ON THIS DRAWING. THE VERIFICATION OF EXISTENCE OF, AND THE DETERMINATION OF THE EXACT LOCATION OF, UTILITY MAINS, STRUCTURES AND SERVICE CONNECTIONS SHALL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR(S).
- 2. IOWA CODE 480, UNDERGROUND FACILITIES INFORMATION, REQUIRES VERBAL NOTICE TO IOWA ONE-CALL 1-800-292-8989, NOT LESS THAN 48 HOURS BEFORE EXCAVATING, EXCLUDING WEEKENDS AND HOLIDAYS. THE CONTRACTOR IS RESPONSIBLE OF CONTACTING IOWA
- 3. THE MEANS OF THE WORK AND THE SAFETY OF THE CONTRACTOR'S EMPLOYEES ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL OPEN UTILITY TRENCH EXCAVATIONS SHALL BE PROTECTED.
- 5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING PUBLIC AND/OR PRIVATE UTILITIES AND PUBLIC ROADWAYS, INCLUDING ANY NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER IF ANY CONFLICTS WITH THE DRAWINGS OCCUR. ANY DAMAGE TO EXISTING UTILITIES AND/OR PUBLIC ROADWAYS CAUSED BY CONTRACTOR TRENCHING SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

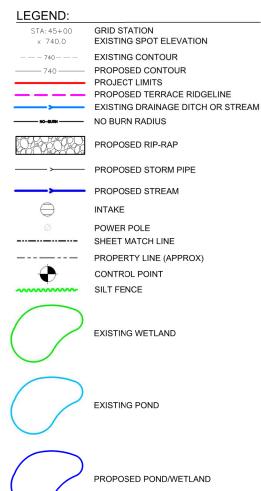
PROJECT CONSTRUCTION NOTES:

- 1. REPLACE ANY PROPERTY MONUMENTS REMOVED OR DESTROYED BY CONSTRUCTION. MONUMENTS SHALL REPLACED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE IOWA CODE AND SHALL BE SET BY A LAND SURVEYOR REGISTERED TO PRACTICE IN THE STATE OF IOWA. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND COMPLETED AT NO ADDITIONAL COST TO THE
- 2. ANY WORK REQUIRED TO COMPLETE THE SCOPE OF THIS PROJECT BUT NOT SPECIFICALLY CALLED OUT. SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THE COMPLETION OF THIS WORK.
- 3. ALL DEBRIS AND TRASH ENCOUNTERED DURING CONSTRUCTION WITHIN THE PROJECT LIMITS, OR DIRECTED BY THE ENGINEER, SHALL BE PROPERLY DISPOSED OF ACCORDING TO THE PROJECT REQUIREMENTS.
- 4. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION DE-WATERING THAT IS REQUIRED, EXCLUDING IMPOUNDMENT DISCHARGE, AT NO ADDITIONAL COST TO THE DIVISION.
- REPAIR OR REPLACE DAMAGE TO EXISTING FACILITIES (TILE, UTILITIES, FENCES, ETC.) DESIGNATED TO REMAIN, AT NO ADDITIONAL EXPENSE TO THE DIVISION. ALL AREAS DISTURBED BY CONSTRUCTION, INCLUDING STAGING AREAS AND HAUL ROUTES, ARE TO BE REWORKED TO THEIR EXISTING CONDITIONS AND SEEDED AT NO ADDITIONAL COST TO THE DIVISION IF OUTSIDE OF PROJECT LIMITS AND NOT APPROVED BY ENGINEER.
- 6. CONTRACTOR SHALL PROTECT ALL TREES THAT ARE NOT DESIGNATED TO BE REMOVED OR ARE OUTSIDE OF PROJECT LIMITS CONTRACTOR SHALL NOT PARK OR TRAVEL WITH ANY VEHICLE UNDER THE DRIP LINE OF A TREE TO REMAIN.
- 7. A SHRINKAGE FACTOR OF 12.5% WAS ESTIMATED FOR THIS PROJECT. THE CONTRACTOR SHALL MAKE CHANGES IN EARTHWORK AS NEEDED TO ADJUST FOR INACCURACIES INHERENT WITH ESTIMATING THE SHRINKAGE FACTOR. THESE CHANGES SHALL ONLY BE MADE AFTER CONSULTATION AND APPROVAL BY THE ENGINEER AND DIVISION. NO ADDITIONAL COMPENSATION SHALL BE GIVEN FOR ANY GRADE
- ADJUSTMENTS DUE TO DEVIATIONS OF SHRINKAGE FACTOR.

 8. NO PONDING OF WATER WILL BE ACCEPTED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY ANY AREAS OF EXISTING OR PROPOSED GROUND THAT HAVE POTENTIAL TO POND WATER AND MAKE ANY ADJUSTMENTS NECESSARY TO ENSURE THAT WATER WILL POSITIVELY DRAIN. ADJUST GRADES AT PROJECT LIMITS TO ALLOW SMOOTH TRANSITION FROM PROPOSED GRADES TO EXISTING GRADES.
- 9. ALL WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL BE COORDINATED WITH THE GOVERNING AUTHORITY AND SHALL BE DONE IN ACCORDANCE WITH THEIR STANDARDS.
- 10. NO TREES SHALL BE CLEARED BETWEEN THE DATES OF APRIL 1 TO SEPTEMBER 30.
- 11. CONTRACTORS WILL BE REQUIRED TO COMPLETE THE DETAILED GRADING SHOWN ON THE PLANS WITHIN THE SPECIFIED GRADING TOLERANCES. CONTRACTORS WILL BE REQUIRED TO COMPLETE SURVEY LAYOUT OF FINAL GRADES OR USE STAKE-LESS GRADING TECHNIQUES TO MEET PROPOSED GRADES AND PROJECT TOLERANCES.

BID QUANTITIES:

#	ITEM DESCRIPTION	SPEC. SECTION	QUANTITY	UNITS
1	Mobilization	02100	1	LS
2	Site Clearing and Preparation	02100	79.8	ACRE
3	Off Site Waste Disposal	02100	20	TON
4	Impoundment Discharge	02110	1	LS
5	Hydrated Lime	02110	10	TON
6	Approved Sediment Control Measures - Silt Fence	02120	2,900	LF
7	Filter Sock	02120	300	LF
8	Stabilized Construction Entrance - Granular Surfacing	02120	40	TON
9	Excavation	02200	810,571	CY
10	Class 'E' Riprap	02300	1,031	TON
11	Stone Filter (3" Macadam Stone)	02300	319	TON
12	Terraces	02300	8,143	LF
13	Riser-Terrace (10")	02300	13	EA
14	Riser-Terrace (12")	02300	5	EA
15	DWPE Pipe (8")	02300	2,194	LF
16	DWPE Pipe (10")	02300	1,197	LF
17	Pipe Outlet (8")	02300	6	EA
18	Pipe Outlet (10")	02300	2	EA
19	Structure - Concrete Riser (48")	02310	2	EA
20	PPHP Pipe (12")	02310	1,048	LF
21	Mulch, Subgrade (5 Tons/Acre)	02400	83.5	ACRE
22	Wetland Undercut and Replacement	02400	3.7	ACRE
23	Agricultual Lime, Subgrade (40 Tons ECCE/Acre)	02400	3,340	TON
24	Agricultural Lime, Seeding (10 Tons ECCE/Acre)	02400	779	TON
25	Corner Post - Survey & Reinstall	02500	1	LS
26	Nitrogen, N (50 lbs/Acre, 30 lbs/Acre for Wetland Fertilizer)	02700	4,027	LBS
27	Phosphorus, P (100 lbs/Acre)	02700	7,980	LBS
28	Potassium, K (160 lbs/Acre)	02700	12,768	LBS
29	Permanent Seeding, Pasture Mix	02700	64.9	ACRE
30	Permanent Seeding, Upland Mix	02700	3.0	ACRE
31	Permanent Seeding, Wetland Mix	02700	4.9	ACRE
32	Permanent Seeding, Pollinator Mix	02701	5.1	ACRE
33	Mulch, Seeding (2 Tons/Acre)	02700	77.9	ACRE



GLOSSARY OF COMMON ABBREVIATIONS:

- PG = PROPOSED GRADE
- EG = EXISTING GRADE
- 3. FG = FORM GRADE ELEVATION; THE LOWEST INLET OPENING ELEVATION FOR A RISER OR STRUCTURE TO RECEIVE WATER FROM A POND OR CHANNEL
- 4 IF = INVERT FLEVATION
- 5. INV = INVERT; THE LOWEST FLOWLINE ELEVATION OF A CONDUIT,
- RISER TEE, OR STRUCTURE
 6. HDPE = DUAL-WALL CORRUGATED HIGH DENSITY POLYETHYLENE
- CONDUIT (I.E. ADS N12 OR APPROVED EQUIVALENT)
 7. PPHP = POLYPROPYLENE HIGH PERFORMANCE CORRUGATED DUAL-WALL PIPE (I.E. ADS HP STORM OR APPROVED EQUIVALENT)
- 8. RIM = ELEVATION OF A STRUCTURE LID
- 10 FL = FLOWLINE
- 11. HP = HIGH POINT ELEVATION, TYPICALLY IN A TERRACE FLOWLINE
- 12. CL = CENTERLINE
- 13. PC = POINT OF CURVATURE, TRANSITION FROM A STRAIGHT LINE TO A CURVE
- 14. PT = POINT OF TANGENCY, TRANSITION FROM A CURVE TO A
- STRAIGHTLINE
- 15. PI = POINT OF INTERSECTION OR BEND POINT ON A LINE 16. EX. = "EXISTING" I.E. "EXISTING CMP CULVERT"

NOTE: THE LEGEND OF SYMBOLS, LINETYPES, AND LIST OF ABBREVIATIONS SHOWN ABOVE ARE GENERIC, NOT ALL SYMBOLS. LINETYPES, OR ABBREVIATIONS LISTED APPEAR ON THE ACCOMPANYING DRAWINGS FOR THIS PROJECT. SYMBOLS, LINETYPES, OR ABBREVIATIONS NOT LISTED HERE ARE SPECIFICALLY CALLED OUT WHERE NECESSARY

TERN S HIVEHAT 100 | NUMBER ហ៊ S-H A DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP IVISION OF SOIL CONSERVATION AND WATER QUALITY HENRY A WALLACE BUILDING 2 E. 9th STREET, DES MONES, IOWA 50319 6/19/2023 IOWA ISSUED: RECLAMATION PROJECT DRAWN 出 PROJECT I VAN

SHEET

