Sheet C3.0

SHEET NO. DESCRIPTION Sheet C0.0 TITLE SHEET Sheet C0.1 GENERAL NOTES Sheet C0.2 SUMMARY OF QUANTITIES Sheet C0.3 EXISTING CONDITIONS & DEMOLITION PLAN Sheet C1.0 GRADING & DRAINAGE PLAN Sheet C1.1 GRADING & DRAINAGE PLAN Sheet C2.0

CONSTRUCTION DETAILS

EROSION AND SEDIMENT CONTROL PLAN



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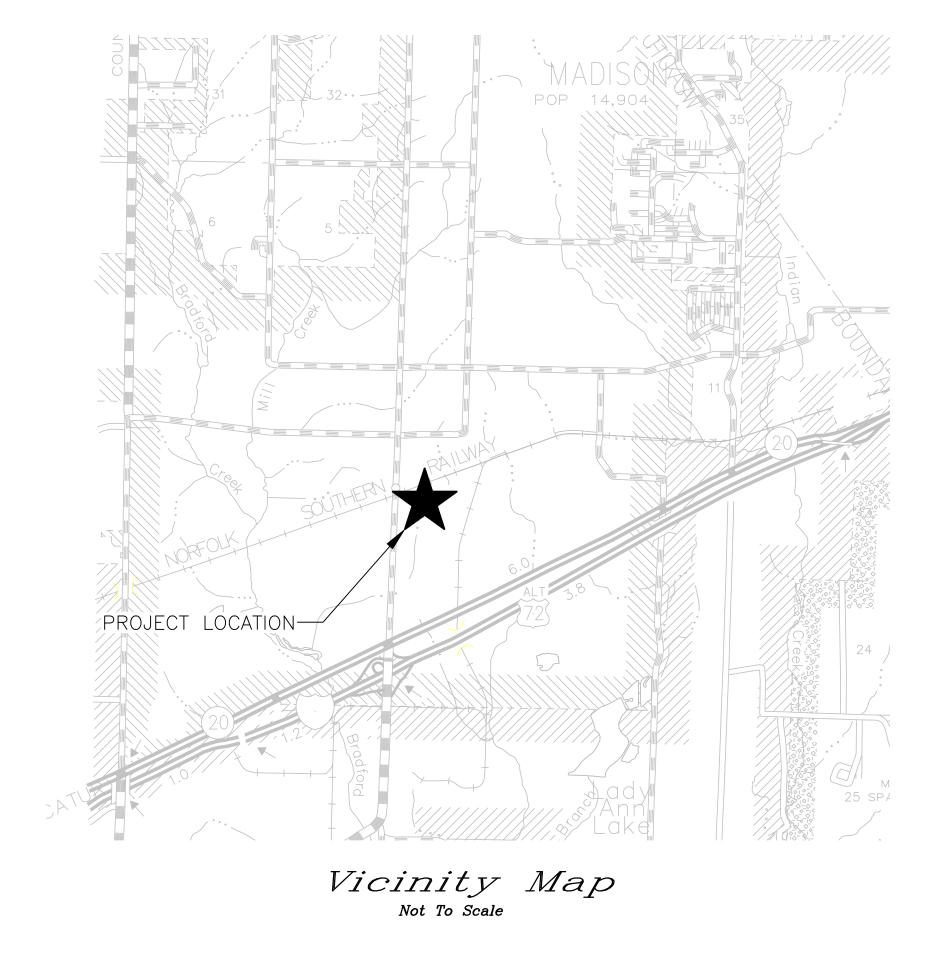
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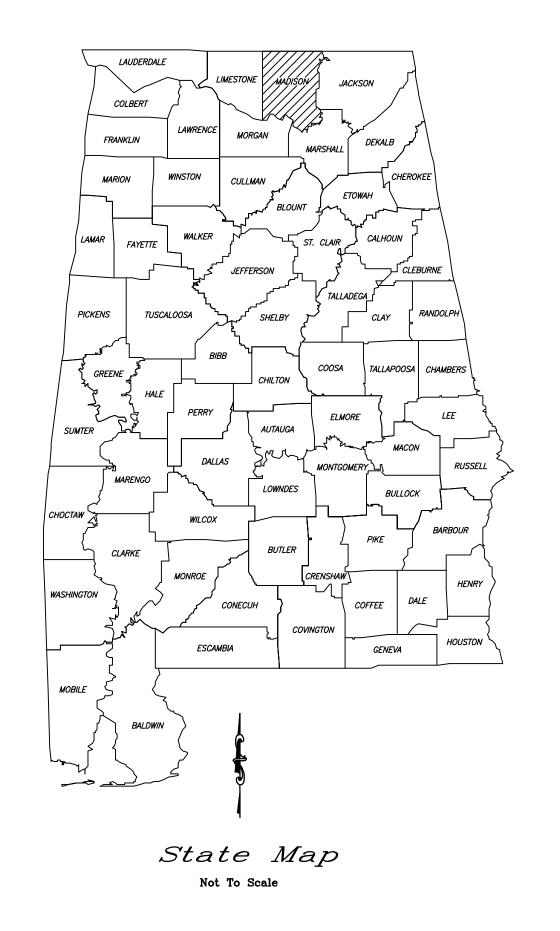
CITY OF MADISON 100 HUGHES ROAD MADISON, AL 35758 256.772.5600

Engineer GOODWYN MILLS CAWOOD, LLC. COREY SHOOP, P.E. 2400 5TH AVE SOUTH, SUITE 200 BIRMINGHAM, AL 35233 205.879.4462

Surveyor

GOODWYN MILLS CAWOOD, LLC. 2400 5TH AVE SOUTH, SUITE 200 BIRMINGHAM. AL 35233





DOWNTOWN DITCH DRAINAGE IMPROVEMENT (MAIN TO MARTIN)

PROJ # 22-019

CONSTRUCTION DOCUMENTS

GOODWYN MILLS CAWOOD, LLC

CIVIL ENGINEERING

UTILITY CONTACTS:

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WINDSTREAM: DANIEL HONEYCUTT 704.579.7897

SURVEY CONTROLS:

1. NORTHING: 1527034.626' EASTING: 381150.532' ELEVATION: 670.550' 2. NORTHING: 1526788.115' EASTING: 381233.318' ELEVATION: 665.926'

- THE MAINTENANCE OF ALL BEST MANAGEMENT PRACTICES, SO AS TO BE AN EFFECTIVE BARRIER TO EROSION AND SEDIMENTATION, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR THROUGHOUT THE DURATION OF THE CONSTRUCTION PERIOD. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN COMPLIANCE WITH ALL EPA BEST MANAGEMENT PRACTICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR, REPLACEMENT, AND/OR SUPPLEMENTATION OF ANY CONTROL MEASURES THAT ARE NOT FUNCTIONING PROPERLY. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THE PLANS SHALL BE CONSIDERED A MINIMUM.
- OTHER THAN LAND-CLEARING ACTIVITIES REQUIRED TO INSTALL THE APPROPRIATE BMP IN ACCORDANCE WITH THE BMP PLANS, ANY DOWN SLOPE EROSION AND SEDIMENT CONTROL MEASURES, ON-SITE STREAM CHANNEL PROTECTION AND UPSLOPE DIVERSION OF DRAINAGE REQUIRED BY THE BMP PLAN SHALL BE IN PLACE AND FUNCTIONAL BEFORE ANY CLEARING OR EARTH MOVING OPERATIONS BEGIN AND SHALL BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT SHALL BE REPLACED AT THE END OF THE WORKDAY.
- 4. THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE WHICH CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. ANY SLOPE OR FILL WHICH HAS BEEN GRADED SHALL WITHIN THIRTEEN (13) DAYS OF THE COMPLETION OF SUCH GRADING OR THE COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE BE PROVIDED WITH GROUND COVER, MATERIALS, DEVICES, OR STRUCTURES SUFFICIENT TO RETAIN EROSION. THE BMP'S SHALL REMAIN IN PLACE IN ACCORDANCE WITH THE BMP PLAN UNTIL THE GRADED SLOPE OR FILL IS STABILIZED.
- 5. ALL HAZARDOUS SUBSTANCES USED FOR THIS PROJECT (PAINT, OIL, GREASE, AND OTHER PETROLEUM PRODUCTS) SHALL BE STORED IN ACCORDANCE WITH SPCC REGULATIONS. THESE SUBSTANCES SHALL BE STORED AWAY FROM STORM DRAINS, DITCHES, AND GUTTERS IN WATERTIGHT CONTAINERS. DISPOSAL OF THESE SUBSTANCES SHALL BE IN ACCORDANCE WITH ADEM REGULATIONS. THE CONTRACTOR SHALL PROVIDE ADEQUATE TRASH CONTAINERS ONSITE FOR THE DISPOSAL OF CONSTRUCTION MATERIALS WASTE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING TRASH FROM ENTERING THE STORM DRAINAGE SYSTEM.
- 6. DISTURBED AREA = 0.25 + /- Acres
- 7. EXISTING SITE CONDITIONS: EXISTING DRAINAGE DITCH, WITH ASSOCIATED INLETS AND UTILITIES.
- 8. ALL MATERIALS SHALL BE PROPERLY STORED, NOT EXPOSED TO RAIN, AND STOCKPILED. ALL CONTAINERS SHALL BE STORED CLOSED OR IN COVER. ALL EXCESS OR WASTE MATERIAL SHALL BE DISPOSED OF PROPERLY DAILY.
- 9. THERE SHALL BE NO DISTINCTLY VISIBLE FLOATING SCUM, OIL, OR OTHER MATTER CONTAINED IN THE STORM WATER DISCHARGE TO A RECEIVING WATER, MUST NOT CAUSE AN UNNATURAL COLOR (EXCEPT DYES OR OTHER SUBSTANCES DISCHARGED FOR THE PURPOSE OF ENVIRONMENTAL STUDIES AND WHICH DO NOT HAVE A HARMFUL EFFECT ON THE RECEIVING WATER), OR ODOR IN THE RECEIVING WATERS. THE STORM WATER DISCHARGE TO RECEIVING WATER MUST RESULT IN NO MATERIAL IN CONCENTRATION SUFFICIENT TO BE HAZARDOUS OR OTHERWISE DETRIMENTAL TO HUMANS, LIVESTOCK, WILDLIFE, PLANT LIFE OR FISH AND AQUATIC LIFE IN THE RECEIVING WATER.
- 10. WHEN THE LAND-DISTURBING ACTIVITY IS FINISHED AND STABLE VEGETATION OR OTHER PERMANENT CONTROLS HAVE BEEN ESTABLISHED ON ALL REMAINING EXPOSED SOIL, THE OWNER OF THE LAND WHERE THE LAND-DISTURBING ACTIVITY WAS CONDUCTED, OR HIS AUTHORIZED AGENT, SHALL NOTIFY THE OFFICIAL OF THESE FACTS AND REQUEST A FINAL INSPECTION. THE OFFICIAL SHALL THEN INSPECT THE SITE WITHIN 5 WORKING DAYS AFTER RECEIPT OF NOTICE, AND MAY REQUIRE ADDITIONAL MEASURES TO STABILIZE THE SOIL AND CONTROL EROSION AND SEDIMENTATION AS REQUIRED.
- 11. THE CONTRACTOR SHALL MINIMIZE THE TRACKING OF MUD AND DEBRIS ONTO PAVED ROADWAYS FROM CONSTRUCTION AREAS. THE CONTRACTOR SHALL PROVIDE A CONSTRUCTION EXIT PAD AS NOTED ON THE PLANS AND MAINTAIN IT ON A REGULAR BASIS AS AN EFFECTIVE MEASURE FOR REMOVING MUD AND DEBRIS FROM EQUIPMENT TIRES FROM BEING TRACKED FROM THE SITE ONTO ADJACENT ROADWAYS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SPRAY HOSE FOR WASHING OF TIRES AND EQUIPMENT, THE PERIODIC REWORKING OF THE CONSTRUCTION EXIT PAD STONE, OR SUPPLEMENTING THE EXIT PAD WITH ADDITIONAL STONE AS REQUIRED TO ENSURE ITS CONTINUED EFFECTIVENESS THROUGHOUT THE DURATION OF THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AT HIS EXPENSE ANY MUD AND DEBRIS TRACKED OFFSITE AND ONTO ADJACENT ROADWAYS AS REQUIRED.
- 12. ALL EXISTING AND NEW STORM DRAINAGE INLETS, STRUCTURES, AND PIPES SHALL BE CLEANED OF TRASH AND SEDIMENTS ON A REGULAR BASIS, WEEKLY AT A MINIMUM, SO AS NOT TO ALLOW DOWNSTREAM POLLUTION OF RECEIVING WATERS OR THE ESCAPING OF SEDIMENTS OFF SITE.
- 13. TEMPORARY DIVERSION BERMS AND/OR DITCHES SHALL BE PROVIDED AS REQUIRED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING DUST TO A MINIMUM THROUGH THE USE OF WATER TRUCKS OR OTHER DUST CONTROLLING METHODS THROUGHOUT THE CONSTRUCTION PERIOD.
- 15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING EROSION AND SILTATION OFF OF ADJACENT AND DOWNSTREAM PROPERTIES AND/OR ADJOINING SITES. AT HIS EXPENSE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF SEDIMENTS AND DEBRIS ESCAPING THIS PROJECT SITE, THE REMEDIATION AND/OR REPAIR OF ANY DAMAGE THAT MAY OCCUR AS A RESULT TO ADJOINING AND/OR DOWNSTREAM AFFECTED PROPERTIES OR OFFSITE STRUCTURES, AND ANY FINES OR PENALTIES LEVIED AGAINST THE PROJECT BY REGULATORY AGENCIES DUE TO DEFICIENCIES OF CONTROL MEASURES.
- 16. ALL DISTURBED AND REGRADED AREAS NOT TO BE PAVED SHALL RECEIVE TOPSOIL AND BE SEEDED ACCORDING TO A.L.D.O.T. PERMANENT SEEDING SCHEDULES. LOCALIZED EROSION AND RILLS SHALL BE REPAIRED AS NECESSARY AT THE CONTRACTORS EXPENSE. AREAS TO BE SEEDED SHALL RECEIVE 6" OF TOPSOIL. ACCOUNT FOR THICKNESS OF TOPSOIL WITH RESPECT TO FINISHED GRADES.

TEMPORARY SEEDING SPECIFICATION

REFERENCE: ALDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2012 EDITION OR MOST CURRENT, SECTION 665, SECTION 860, AND OTHERS AS APPLICABLE.

SEPTEMBER - DECEMBER ANNUAL RYE GRASS

25 LBS. PER ACRE 30 LBS. PER ACRE KENTUCKY 31 FESCUE RESEEDING CRIMSON CLOVER 10 LBS PER ACRE

30 LBS. PER ACRE KENTUCKY 31 FESCUE RESEEDING CRIMSON CLOVER 30 LBS. PER ACRE ANNUAL RYEGRASS 15 LBS. PER ACRE

BROWN TOP MILLET 30 LBS. PER ACRE KENTUCKY 31 FESCUE 30 LBS. PER ACRE HULLED BERMUDA GRASS 10 LBS. PER ACRE

AFTER SEEDING, THE AREA IS TO BE ROLLED OR CULTIPACKED TO INSURE THAT THE SEED IS PRESSED INTO CONTACT WITH SOIL SURFACE. ALL SEEDED AREAS ARE TO BE MULCHED WITH STRAW MULCH AT THE RATE OF 4000 LBS. PER ACRE. (APPROX. 100 BALES PER ACRE.) APPLY ASPHALT EMULSION TO THE STRAW MULCH AT THE RATE OF 150 GALLONS PER ACRE

SEEDING AND GRASSING NOTES

SCOPE OF WORK

GENERAL REQUIREMENTS : PROVIDE SEEDBED PREPARATION, TOPSOILING, LIMING, FERTILIZING, SEEDING AND MULCHING OF ALL NEWLY GRADED FINISH EARTH SURFACES, UNLESS INDICATED OTHERWISE, AND AT ALL AREAS INSIDE OR OUTSIDE THE LIMITS OF CONSTRUCTION THAT ARE DISTURBED BY THE CONTRACTOR'S OPERATIONS. REFERENCE ALDOT STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION, 2012 EDITION OR MOST CURRENT, SECTION 650, SECTION 652, SECTION 860, AND OTHERS AS APPLICABLE.

2. MATERIALS

FERTILIZER AND LIME: DELIVER MATERIALS TO THE SITE IN ORIGINAL, UNOPENED CONTAINERS BEARING THE MANUFACTURER'S CHEMICAL ANALYSIS, NAME, TRADE NAME, TRADEMARK, AND INDICATION OF CONFORMANCE TO STATE AND FEDERAL LAWS.

FERTILIZER : COMMERCIAL GRADE, FREE FLOWING, SLOW-RELEASE, UNIFORM IN COMPOSITION GRANULAR FERTILIZER SHALL CONTAIN A MINIMUM PERCENTAGE BY WEIGHT OF 17 PERCENT NITROGEN, 17 PERCENT AVAILABLE PHOSPHORIC ACID, AND 17 PERCENT POTASH. APPLY FERTILIZER AT THE RATE OF 500 POUNDS PER ACRE.

LIME : LIME SHALL BE COMMERCIAL AGRICULTURAL LIMESTONE CONTAINING A MINIMUM OF 94 PERCENT OF TOTAL CARBONATES, 80 PERCENT CALCIUM, AND 14 PERCENT MAGNESIUM. AGRICULTURAL LIMESTONE SHALL BE INCORPORATED INTO THE SOIL AT THE RATE OF 2000 POUNDS PER ACRE.

SEED : DELIVER SEED TO THE SITE IN ORIGINAL SEALED PACKAGES BEARING THE PRODUCER'S GUARANTEED ANALYSIS FOR PERCENTAGES OF MIXTURE, PURITY, GERMINATION, WEEDSEED CONTENT, AND INERT MATERIAL. LABEL IN CONFORMANCE WITH USDA FEDERAL SEED ACT AND APPLICABLE STATE SEED LAWS. WET MOLDY, OR OTHERWISE DAMAGED SEED WILL BE REJECTED. SEED SHALL BE STATE-CERTIFIED SEED AND OF THE LATEST SEASON'S CROP.

MULCH: FREE FROM NOXIOUS WEEDS, MOLD, OR OTHER DELETERIOUS MATERIAL. PROVIDE WOOD CELLULOSE FIBER MULCH

STRAW: STALKS FROM OATS, WHEAT, RYE, BARLEY, OR RICE. FURNISH IN AIR-DRY CONDITION AND OF PROPER CONSISTENCY FOR PLACING WITH COMMERCIAL MULCH BLOWING EQUIPMENT OR BY HAND.

WOOD CELLULOSE FIBER: PROCESSED TO CONTAIN NO GROWTH OR GERMINATION - INHIBITING FACTORS AND DYED AN APPROPRIATE COLOR TO FACILITATE VISUAL METERING OF MATERIAL'S APPLICATION. COMPOSITION ON AIR-DRY WEIGHT BASIS: 9-15 PERCENT MOISTURE, pH RANGE FROM 3.5 TO 5.0.

EMULSIFIED ASPHALT ADHESIVE: SUITABLE QUALITY FOR IRRIGATION.

WATER: SUITABLE QUALITY FOR IRRIGATION.

3. SEEDING

STORAGE AND HANDLING: STORE LIME, FERTILIZER, AND SEED IN DRY LOCATIONS AWAY FROM CONTAMINANTS. PROTECT SEED FROM DRYING OUT. DO NOT DROP OR DUMP MATERIALS FROM VEHICLES.

SOIL PREPARATION: AT THE COMPLETION OF ROUGH GRADING, SPREAD TOPSOIL OVER AREAS TO BE SEEDED OR AS SOIL PREPARATION INDICATED, TO A MINIMUM THICKNESS OF 2 INCHES. TOPSOIL SHALL BE IN THE MATERIAL STRIPPED FROM THE SITE DURING THE GRADING OPERATIONS. DO NOT SPREAD TOPSOIL WHEN FROZEN OR EXCESSIVELY WET OR DRY. AREAS NOT RECEIVING TOPSOIL SHALL BE LOOSENED TO A MINIMUM DEPTH OF 4 INCHES BEFORE AGRICULTURAL LIME, FERTILIZER OR SEED IS APPLIED. LAWN AREAS SHALL BE FINE GRADED TO A SMOOTH, POSITIVELY DRAINING SLOPE, REMOVING ALL STONES OVER ONE

SEEDING : SEED SHALL BE SOWN WITHIN 24 HOURS FOLLOWING THE APPLICATION OF FERTILIZER AND LIME, AND PREPARATION OF THE SEEDBED. DO NOT SEED WHEN THE GROUND IS MUDDY, FROZEN, SNOW COVERED, OR IN ANY UNSATISFACTORY CONDITION FOR SEEDING. IF SPECIAL CONDITIONS EXIST THAT MAY WARRANT A VARIANCE IN THE ABOVE SEEDING DATES OR CONDITIONS, SUBMIT A WRITTEN REQUEST TO THE ENGINEER STATING THE SPECIAL CONDITIONS AND PROPOSED VARIANCE.

SOW SEED WITH APPROVED SOWING EQUIPMENT USING ONE OR A COMBINATION OF THE FOLLOWING METHODS. SOW 1/2 THE SEED IN ONE DIRECTION AND SOW THE REMAINDER AT RIGHT ANGLES TO THE FIRST SOWING, FOR DRILL, BROADCAST, AND DROP SEEDING, INCORPORATE FERTILIZER AND LIME INTO THE SOIL TO A MINIMUM DEPTH OF 6 INCHES PRIOR TO SEEDING. FOR HYDROSEEDING, APPLY LIQUID FERTILIZER IN AMOUNTS SUFFICIENT TO PROMOTE THE SPECIFIED STAND OF TURF AND APPLY LIME MANUALLY DURING SUBGRADE PREPARATION.

DRILL SEEDING: USE CULTIPACKER SEEDERS OR GRASS SEED DRILLS. DRILL SEED UNIFORMLY TO A MAXIMUM DEPTH OF 1/4 INCH IN CLAYED SOILS AND 1/2 INCH IN SANDY SOILS. COVER SEED BY SPIKETOOTH HARROW. CULTIPACKER. OR OTHER APPROVED DEVICES.

BROADCAST SEEDING AND DROP SEEDING : USE BROADCAST OR DROP SEEDERS. COVER SEED UNIFORMLY TO A MAXIMUM DEPTH OF 1/4 INCH IN CLAYEY SOILS AND 1/2 INCH IN SANDY SOILS. COVER SEED BY SPIKE TOOTH HARROW, RAKING, OR OTHER APPROVED DEVICES. IMMEDIATELY AFTER SEEDING, FIRM ENTIRE AREA, EXCEPT FOR SLOPES IN EXCESS OF 3 TO 1, WITH A ROLLER NOT EXCEEDING 90 POUNDS FOR EACH FOOT OF ROLLER WIDTH.

HYDROSEEDING : MIX SEED, FERTILIZER, AND WOOD CELLULOSE FIBER IN REQUIRED AMOUNT OF WATER TO PRODUCE A HOMOGENEOUS SLURRY. AFTER SEED, WATER, AND FERTILIZER HAVE BEEN THOROUGHLY MIXED, ADD 200 POUNDS OF WOOD CELLULOSE FIBER PER ACRE (DRY WEIGHT) AND APPLY THE SLURRY. SEED SHALL NOT REMAIN IN WATER CONTAINING FERTILIZER FOR MORE THAN ONE HOUR PRIOR TO APPLICATION, UNLESS OTHERWISE APPROVED. KEEP LIQUID FERTILIZER AGITATED DURING APPLICATION. IMMEDIATELY FOLLOWING APPLICATION OF SLURRY MIX, MAKE SEPARATE APPLICATION OF WOOD CELLULOSE MULCH AT THE RATE OF 800 POUNDS (DRY WEIGHT) PER ACRE. WHEN HYDRAULICALLY SPRAYED ON THE GROUND, MATERIAL SHALL FORM A BLOTTERLIKE COVER IMPREGNATED UNIFORMLY WITH GRASS SEED. COVER SHALL ALLOW RAINFALL OF APPLIED WATER TO PERCOLATE TO UNDERLYING SOIL. TOTAL APPLICATION SHOULD EQUAL 2 TONS/ACRE MULCH.

MULCH: EXCEPT WHEN HYDROSEEDING, SPREAD STRAW MULCH EVENLY AT THE RATE OF 2 TONS PER ACRE. ANCHOR BY CRIMPING MULCH WITH A SERRATED DISC OR BY SPRAYING ASPHALT EMULSION ON THE MULCHED SURFACE AT THE RATE OF 5 GALLONS PER 1000 SQUARE FEET. TAKE PRECAUTIONARY MEASURES TO PREVENT ASPHALT MATERIALS FROM MARKING OR DEFACING STRUCTURES, PAVEMENTS, UTILITIES, OR PLANTINGS AND DO NOT USE ASPHALT NEAR PEDESTRIAN TRAFFIC

PROTECTION OF SEEDED AREAS : IMMEDIATELY AFTER SEEDING, PROTECT THE AREA AGAINST TRAFFIC OR OTHER USE BY ERECTING BARRICADES, AS REQUIRED, AND PLACING APPROVED SIGNS AT APPROPRIATE INTERVALS UNTIL FINAL ACCEPTANCE.

4. RESTORATION, ESTABLISHMENT, AND FINAL INSPECTION

RESTORATION : RESTORE TO ORIGINAL CONDITION EXISTING LAWN AREAS WHICH WERE DAMAGED DURING GRASSING OPERATIONS. KEEP AT LEAST ONE PAVED PEDESTRIAN ACCESS ROUTE AND ONE PAVED VEHICULAR ACCESS ROUTE TO EACH BUILDING CLEAN AT ALL TIMES. CLEAN OTHER PAVING WHEN WORK IN ADJACENT AREAS IS COMPLETE.

ESTABLISHMENT PERIOD: THE ESTABLISHMENT PERIOD WILL BE IN EFFECT UNTIL THE SEEDED AND SODDED AREAS ARE MOWED IHREE TIMES. DURING THE ESTABLISHMENT PERIOD, THE CONTRACTOR SHALL MOW THE SEEDED AND SODDED AREAS TO AN AVERAGE HEIGHT OF 2 INCHES WHENEVER THE AVERAGE HEIGHT OF GRASS REACHES 4 INCHES. THE CONTRACTOR SHALL REMOVE EXCESS CLIPPINGS, ERADICATE WEEDS, WATER, FERTILIZE, OVERSEED, AND PERFORM OTHER OPERATIONS NECESSARY TO PROMOTE GROWTH.

FINAL INSPECTION AND ACCEPTANCE : AT THE END OF THE ESTABLISHMENT PERIOD, FINAL INSPECTION WILL BE MADE UPON WRITTEN REQUEST AT LEAST 10 DAYS PRIOR TO THE ANTICIPATED DATE. FINAL ACCEPTANCE WILL BE BASED UPON A SATISFACTORY STAND OF GRASS, DEFINED AS 95 PERCENT GROUND COVER OF THE SPECIFIED SPECIES. THE CONTRACTOR WILL REPAIR ANY BARE SPOTS OVER 2 INCHES SQUARE DUE TO UNEVEN SEED DISTRIBUTION.

RESEEDING AND REPAIR : ANY AREAS THAT REQUIRE RESEEDING AND/OR REFERTILIZATION WILL BE DESIGNATED BY THE OWNER/ENGINEER. ANY DAMAGE FOLLOWING SEEDING OR IF SEEDINGS ARE DESTROYED, THE PORTION AFFECTED SHALL BE REPAIRED TO RE-ESTABLISHMENT CONDITION AND GRADE OF THE SOIL PRIOR TO ORIGINAL SEEDING, AND THEN RESEEDED FOLLOWING THE ABOVE SPECIFICATIONS.

GENERAL NOTES

- 1. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND CONDITIONS OF ALL UTILITIES TO BE UTILIZED FOR CONSTRUCTION STORM SEWERS AND SANITARY SEWERS PRIOR TO PROCEEDING WITH THE LAYING OF PIPE. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY OF ANY CONFLICTS OR DISCREPANCIES. ALL SERVICE CONNECTIONS TO UTILITIES SHALL BE APPROVED BY THE RESPECTIVE UTILITY AND SHALL CONFORM TO THE LATEST SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY AND RAILROAD COMPANIES CONCERNING CONFLICTS, RELOCATION, REMOVAL, AND INTERRUPTIONS OF SERVICE, SHOULD TREE REMOVAL IMPACTING RAILROAD TRACK BE NEEDED, RAILROAD PERSONNEL NEED TO BE PRESENT WHEN TREES ARE CUT.
- 3. SHOULD TREE REMOVAL IMPACTING RAILROAD TRACK BE NEEDED, RAILROAD PERSONNEL MUST BE PRESENT WHEN TREES ARE CUT. CONTACT SHOULD BE MADE WITHIN 2-3 DAYS BEFORE REMOVAL.
- 4. THE WORK REQUIRED TO RELOCATE, REMOVE, INSTALL, REPLACE, ETC. UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, WITHIN THE LIMITS OF WORK.
- 5. THE CONTRACTOR SHALL BE IN POSSESSION OF ALL REQUIRED PERMITS PRIOR TO ANY CONSTRUCTION EFFORTS.
- 6. ANY CHANGES OR REVISIONS MADE TO THE PLAN SET SHALL BE SUBMITTED FOR APPROVAL TO THE CITY OF MADISON AND ALL OTHER PERTINENT AGENCIES.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXTENT, LOCATION AND ELEVATION OF THE EXISTING IMPROVEMENTS. IF ANY SIGNIFICANT DIFFERENCE IN SITE CONDITION OR ELEVATION IS FOUND, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY.
- 8. UNSTABLE AND PUMPING SUB GRADE CONDITIONS MAY OCCUR DURING SITE PREPARATION AND UNDERCUTTING OPERATIONS. PROPER PROTECTION OF SUB GRADE, DRAINAGE AND DEWATERING WILL BE CRITICAL TO SITE CONSTRUCTION EFFORTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MINIMIZE EQUIPMENT TRAFFIC ACROSS THE SITE. EVERY EFFORT SHALL BE MADE TO LOCALIZE EQUIPMENT STAGING AND TRAFFIC TO SPECIFIC AREAS AND LIMIT THE AMOUNT OF UNDERCUTTING AND SOIL STABILIZATION THAT MAY BE NEEDED.
- 9. ALL EXCESS EXCAVATION CREATED BY GRADING OPERATIONS SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF
- 10. ALL SPOT ELEVATIONS SHOWN REFLECT ELEVATIONS AT GUTTER LINE, ASPHALT, OR FINISHED GROUND ELEVATION, UNLESS OTHERWISE NOTED. TOP AND BOTTOM ELEVATIONS FOR RETAINING WALLS (IF ANY) REPRESENT THE FINISHED GROUND ELEVATION AT THE WALL, NOT FOOTINGS, RAILINGS ETC.
- 11. ALL STORM DRAINAGE PIPE SHALL BE CLASS 3 MINIMUM REINFORCED CONCRETE PIPE WITH CITY OF MADISON
- 12. ALL DRAINAGE STRUCTURES, INLETS BOXES, MANHOLES, ETC. SHALL BE POURED IN PLACE OR PRE CAST CONCRETE AS REQUIRED. CONTRACTOR RESPONSIBLE FOR FIELD VERIFICATION OF ANY ELEVATION DISCREPANCIES BETWEEN THE PLAN SET AND THE FIELD CONDITION. NO ADDITIONAL PAYMENT SHALL BE
- 13. ALL DRAINAGE STRUCTURES, INLET BOXES, AND CATCH BASINS SHALL HAVE 2" WEEP HOLES FORMED, OR DRILLED, ON ALL SIDES WHERE DRAINAGE PIPES DO NOT INTERFERE WITH THEM. ALL WEEP HOLES SHALL HAVE GRAVEL WRAPPED WITH FILTER FABRIC AT THEIR INTERFACE WITH BACK FILL TO AID GROUNDWATER FLOW TO THE WEEP

PERMANENT SEEDING SPECIFICATION

SEED MIXES

REFERENCE: ALDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2012 EDITION OR MOST CURRENT SECTION 650, SECTION 652, SECTION 860, AND OTHERS AS APPLICABLE.

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ZONE 1 - AREAS NOT SUBJECT TO	ZONE 1 - AREAS NOT SUBJECT TO FREQUENT MOWING (REQUIRED LBS. PER ACRE)				
DATE OF PLANTING	JAN. 1-FEB. 29	MAR. 1-AUG. 15	AUG. 16-NOV. 15	NOV. 16-DEC. 31	
ANNUAL RYEGRASS	15			15	
HULLED BERMUDAGRASS		18			
UNHULLED BERMUDAGRASS	35	12	18	35	
TALL FESCUE	35	35	35	35	
WEEPING LOVEGRASS		2			
HULLED SERICEA LESPEDEZA		38	38		
UNHULLED SERICEA LESPEDEZA	38			38	
RESEEDING CRIMSON CLOVER			29		
REQD. PERMANENT PLANT		MIXED			

2. FERTILIZER

APPLY 4000 LBS. AGRICULTURAL LIMESTONE PER ACRE. APPLY 1000 LBS. OF FERTILIZER PER ACRE FOR GRASS SEEDING OR AS RECOMMENDED BY MANUFACTURER. LIME AND FERTILIZER ARE TO BE DISKED INTO THE SOIL SURFACE TO A MINIMUM DEPTH OF 4 INCHES.

MANUFACTURED FERTILIZER

TYPE	NITROGEN (N)	PHOSPHORUS (P2O5)	POTASH (K20)
15-0-15	15	0	15
13-13-13	13	13	13
10-10-10	10	10	10
8-8-8	8	8	8
0-14-14	0	14	14
4-12-12	4	12	12
4-16-8	4	16	8
SUPER PHOSPHATE	0	18	0
AMMONIUM NITRATE	33.5	0	0
AMMONIUM SULPHAT	E 20.5	0	0
SODIUM NITRATE	16	0	0
POTASSIUM CHLORID	E 0	0	60

GENERAL NOTES AND MAINTENANCE

AFTER SEEDING, THE AREA IS TO BE ROLLED OR CULTIPACKED TO INSURE THAT THE SEED IS PRESSED INTO CONTACT WITH SOIL SURFACE. ALL SEEDED AREAS ARE TO BE MULCHED WITH STRAW MULCH AT THE RATE OF 4000 LBS. PER ACRE. (APPROX. 100 BALES PER ACRE.) APPLY ASPHALT EMULSION TO THE STRAW MULCH AT THE RATE OF 150 GALLONS PER

THE ABOVE DESCRIBED SEEDING RECOMMENDATIONS AND RATES HAVE BEEN PREPARED FOR SELECTION OF A VEGETABLE COVER SUITABLE FOR SOIL EROSION CONTROL IN <u>PLANTING ZONE 1</u> AS DEFINED BY THE ALDOT STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION, 2012 EDITION. THE CONTRACTOR SHALL VERIFY THE PLANTING ZONE THE PROJECT IS LOCATED WITHIN AND ALERT THE PROJECT ENGINEER OF ANY DISCREPANCIES.

MAINTENANCE

REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

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: 22-019 :HUN2200 # **(**) PROJ GMC

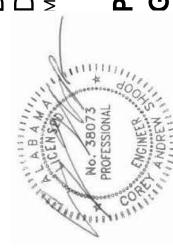
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ITEM	SPEC	DESCRIPTION	PROJECT NOTES	UNIT	TOTAL
1	201A-002	CLEARING AND GRUBBING (MAXIMUM ALLOWABLE BID \$8000 PER ACRE) (APPROXIMATELY 1 ACRE)		LUMP SUM	1
2	206D-000	REMOVING PIPE		LINEAR FOOT	45
3	206D-030	REMOVING UTILITY LINES	SEE NOTE 1	LINEAR FOOT	9
4	206E-000	REMOVING HEADWALLS		EACH	1
5	210A-000	UNCLASSIFIED EXCAVATION	SEE NOTE 2	CUBIC YARD	43
6	210D-000	BORROW EXCAVATION		CUBIC YARD	42
7	214B-001	FOUNDATION BACKFILL, COMMERCIAL	SEE NOTE 3	CUBIC YARD	37
8	533A-099	24" STORM SEWER PIPE (CLASS 3 R.C.)		LINEAR FOOT	210
10	600A-000	MOBILIZATION		LUMP SUM	1
11	610D-003	FILTER BLANKET, GEOTEXTILE	SEE NOTE 4	SQUARE YARD	388
12	619A-032	24" ROADWAY PIPE END TREATMENT, CLASS 1 (TYPE HW-620)		EACH	1
13	620A-000	MINOR STRUCTURE CONCRETE	SEE NOTE 5	CUBIC YARD	1
14	621C-140	INLETS, OPEN THROAT	SEE NOTE 6	EACH	2
15	645A-508	6 INCH DUCTILE IRON SANITARY SEWER GRAVITY PIPE LAID	SEE NOTE 7	LINEAR FOOT	18
16	645G-515	6 INCH SANITARY SEWER LATERAL CLEANOUT		EACH	2
17	645M-500	CONNECTION TO EXISTING MANHOLE		EACH	1
18	650A-000	TOPSOIL		CUBIC YARD	80
19	652A-100	SEEDING	SEE NOTE 8	ACRE	0.2
20	656A-010	MULCHING		ACRE	0.2
21	665A-000	TEMPORARY SEEDING		ACRE	0.2
22	665G-000	SAND BAGS		EACH	6
23	665J-002	SILT FENCE		LINEAR FOOT	40
24	6650-001	SILT FENCE REMOVAL		LINEAR FOOT	40
25	665P-005	INLET PROTECTION, STAGE 3 OR 4	SEE NOTE 9	EACH	2
26	665Q-002	WATTLE		LINEAR FOOT	48
27	680A-001	GEOMETRIC CONTROLS		LUMP SUM	1

NOTES:

- 1. SEE SHEET CO.3 FOR SANITARY SEWER CLEANOUT REMOVAL. INCLUDES REMOVAL OF ATTACHED SANITARY SEWER CLEANOUT. REMOVAL WILL BE PAID FOR AS A SUBSIDIARY OF PAY ITEM 206D-030.
- 2. SEE SHEET CO.3 FOR 34 CU YD BRIDGE BEAMS AND WOODEN DECK REMOVAL. REMOVAL WILL BE PAID FOR AS A SUBSIDIARY OF PAY ITEM 210A-000. INCLUDES REMOVAL OF EXCESS SOIL.
- 3. SEE SHEET C4.0 FOR PIPE BEDDING DETAIL. 1 CU YD ALLOCATED FOR SEWER PIPE. 37 CU YD ALLOCATED FOR STORM PIPE.
- 4. SEE SHEET C4.0 FOR 368 SQ YD ALLOCATED FOR STORM PIPE BEDDING, 12 SQ YD ALLOCATED FOR SEWER PIPE BEDDING, AND 90 SQ YD ALLOCATED FOR TEMPORARY CONSTRUCTION ENTRANCE.
- 5. SEE SHEET C1.0 FOR CONCRETE ENCASEMENTS FOR SANITARY SEWER PIPE. CONCRETE WILL BE PAID FOR AS A SUBSIDARY OF PAY ITEM 620A-000.
- 6. SEE SHEET C4.0 FOR OPEN THROAT INLET DETAIL. MODIFIED OPEN THROAT INLET @ STA: 2+10.09 WILL BE PAID FOR AS A SUBSIDIARY OF PAY ITEM 621C-140.
- 7. SEE SHEET CO.3 FOR STORM SEWER PIPE RELOCATION. CONTRACTOR TO FIELD VERIFY PIPE SIZE AND TYPE. MAKE CHANGES AS NECESSARY. CONTRACTOR TO COORDINATE INSPECTION WITH MADISON UTILITIES TO INSPECT THE LATERAL PLACEMENT AND ENCASEMENT OF THE SEWER LINES.
- 8. SEE SHEET CO.1 FOR SEEDING NOTES AND C2.0 FOR LOCATION. HYDROSEED TO BE USED AND PAID FOR AS A SUBSIDARY OF PAY ITEM 652A-100.
- 9. SEE SHEET C3.0 FOR INLET PROTECTION. FABRIC DROP INLET PROTECTION AND HDPE INLET FILTER TO BE PAID FOR AS A SUBSIDARY OF PAY ITEM 665P-005.



SUMMARY OF QUANTITIES

