MATCHLINE: SHEET XX-01

MATCHLINE: SHEET XX-02A

LAWRENCEVILLE ROAD (ROUTE 206)

ALL GRADING WITHIN DRIPLINE OF EXISTING TREE SHALL BE PERFORMED BY HAND AND IN ACCORDANCE TO TOWNSHIP ORDINANCE §541.G. AIR SPADE AROUND EXISTING ROOT SYSTEM AND INSTALL 4" OF CRUSHED STONE PRIOR TO BACKFILLING TO PROPOSED FINISH GRADE.

PROPOSED HAYBALE BARRIER (TYP)

RIPRAP APRON (TYP)

BIO-RETENTION BASIN #1
LP: +110.50

1:5 SLOPE

SOIL COMPACTION (TYP)

PROPOSED LIMIT OF DISTURBANCE/SILT FENCE

REVEGETATION. NO GRADING DISTURBANCE (TYP)

END OF SUPER SILT FENCE

HOUSE

EARLY PHASE 1 TEMP ROADWAY

RESIDENTS WILL CONTINUE TO USE EXISTING GRAVEL ROAD FOR ACCESS UNTIL NEW DRIVEWAY CONNECTION TO LOOP ROAD IS COMPLETED

PROPOSED TREE PROTECTION (TYP)

PROPOSED 100' STABILIZED CONSTRUCTION ENTRANCE

MEET EXISTING GRADE SMOOTH AND FLUSH

PROPOSED LIMIT OF DISTURBANCE

PROPERTY LINE

LIMIT OF WORK

REFER TO MESUS PLANS BY VANZILM ENGINEERS

PROPOSED INLET FILTER (TYP)

ALT. LIMIT OF DISTURBANCE

MATCHLINE: SHEET XX-01

MATCHLINE: SHEET XX-02

ALL GRADING WITHIN DRIPLINE OF EXISTING TREE SHALL BE PERFORMED BY HAND AND IN ACCORDANCE TO TOWNSHIP ORDINANCE §541.G. AIR SPADE AROUND EXISTING ROOT SYSTEM AND INSTALL 4" OF CRUSHED STONE PRIOR TO BACKFILLING TO PROPOSED FINISH GRADE.

APPROVED
SEP 18 2020
LAWRENCE TOWNSHIP ENGINEERING DEPARTMENT

0' 10' 20' 40'
SCALE: 1" = 20'

7/22/20 2:32:45 PM J:\Engineering Projects\2019\19-024.2 - Entry Road_CAD\DESIGN\TOWNSHIP\19-024-2 SCD BASEMAP (82) TWP.dwg

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State of New Jersey
Certificate of Authorization
Number 24GA27969200
21NH00004300

F. Mitchel Ardman, P.E., P.P.
Jeffrey D. Reynolds, P.L.A.

F. MITCHEL ARDMAN
N.J. PROFESSIONAL ENGINEER LIC. NO. 34317
TRG 19-004 CD

LEGEND

SYMBOL	DESCRIPTION
MISCELLANEOUS	
— — —	LIMIT OF WORK
———	PROPERTY LINE
DRCC	DRCC BOUNDARY
100-YR	100 YEAR FLOOD LINE
FHADF	FHADF (FEMA 100-YR + 1 FT)
WL	WETLAND LINE
WB	WETLAND BUFFER
RZL	RIPARIAN ZONE LINE
TP	TEST PIT LOCATION
	GAS VALVE
	GAS METER
	WATER VALVE
	HYDRANT
	WATER METER
	CURB STOP
	FIRE DEPT. CONNECTION
	DRAINAGE MH
	CURB INLET
	LAWN INLET
	SANITARY MH
	CLEANOUT
	BOLLARD
	SIGN
	LIGHT
	MAIL BOX
	GUY WIRE
	UTILITY POLE
	ELECTRIC MH
	CONIFEROUS TREE
	DECIDUOUS TREE
— X —	FENCE
	RAILING
	WALL
	GATE POST
— W —	WATER LINE
— G —	GAS LINE
— E —	ELECTRIC LINE
— S —	SANITARY LINE
— OH —	OVERHEAD WIRES

DRAWING INDEX:

C0-01 to C0-08	SOIL EROSION AND SEDIMENT CONTROL PLAN
C7-05	SOIL EROSION AND SEDIMENT CONTROL DETAILS

NOTES:
1. SOIL EROSION MEASURES SHALL BE INSTALLED AND INSPECTED BY THE ENGINEERING DEPARTMENT PRIOR TO LAND DISTURBANCE.
2. REFER TO SHEET C7-05 FOR DETAILS AND RESTORATION NOTES OF TEMPORARY ROAD LAYDOWN AREAS, GRAVEL PARKING AREAS, ETC.

ALTERNATE SOIL COMPACTION TEST LOCATION

No.	Description	Date
2	PER TOWNSHIP COMMENTS	07/21/20
1	SCD SUBMISSION	07/09/20

DWG ISSUE & REVISION HISTORY

Stamp

FOR CONSTRUCTION

Key Plan

Project Title:

TSAI DINING AND ATHLETIC COMPLEX

THE LAWRENCEVILLE SCHOOL
2500 MAIN STREET
LAWRENCEVILLE, NJ 08648

Drawing Title:

SOIL EROSION AND SEDIMENT CONTROL PLAN

Project No:
Drawn By:
Checked By:
Approved By:
Date:
Scale:

Drawing No.

C0-01

WASHDOWN AREA; GRAVEL TRACKING PAD; CONCRETE WASHOUT

REVEGETATION. NO GRADING DISTURBANCE (TYP)

SOIL COMPACTION (TYP)

PROPOSED LIMIT OF DISTURBANCE/SILT FENCE

PROPOSED LIMIT OF DISTURBANCE

PROPOSED INLET FILTER (TYP)

PROPOSED HAYBALE BARRIER (TYP)

PROPOSED TREE PROTECTION (TYP)

PRIMARY LOCATION FOR FILL/TOPSOIL

CONTRACTOR PARKING ON GOLF COURSE

PROPOSED 100' STABILIZED CONSTRUCTION ENTRANCE (EXISTING CURB TO BE REMOVED PRIOR TO INSTALLATION)

CONSTRUCTION ENTRANCE SIGN

CONSTRUCTION ENTRANCE SIGN

CONSTRUCTION ENTRANCE SIGN

BEGINNING OF SUPER SILT FENCE

RIPRAP APRON (TYP)

FI... B...RIER AT STREAM

END OF SUPER SILT FENCE

NOTE: REFER TO SHEETS C-1 THROUGH C-7 FOR ALL WORK WITHIN THE NJDOT RIGHT OF WAY.

MANNING LANE

ENTRY DRIVE

LIMIT OF WORK

PROPERTY LINE

MEET EXISTING GRADE SMOOTH AND FLUSH

MEET EXISTING

SET TO D.O.T. PLANS OR GRADES

AS DRILLED TEST WELL 4

AS DRILLED TEST WELL 5

PROP. GSHE WELL GROUT VAULT; REFER TO GEOTHERMAL PLANS

REFER TO MESSLS PLANS BY VANZELM ENGINEERS

BIO-RETENTION EASIN #2 LP: +104.50

Lot 1.02 BLOCK 5801

MATCHLINE: SHEET XX-01

MATCHLINE: SHEET XX-02

MATCHLINE: SHEET XX-03

MATCHLINE: SHEET XX-04

CONSTRUCTION ENTRANCE 500 FT.
36" DIAMOND

CONSTRUCTION ENTRANCE
36" DIAMOND

NOTE:
SIGNS TO BE FLUORESCENT ORANGE DIAMOND GRADE WORK ZONE REFLECTIVE ALUMINUM.

0' 10' 20' 40'
SCALE: 1" = 20'

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MUNICIPAL ENGINEER

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TRG 19-004.CD

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	GAS METER
	WATER VALVE
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	WATER METER
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	LAWN INLET
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	UTILITY POLE
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⊕ ALTERNATE SOIL COMPACTION TEST LOCATION

No.	Description	Date
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DWG ISSUE & REVISION HISTORY

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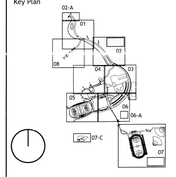
Key Plan



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Drawing Title:

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Drawing No.

C0-02

GILBANE TRAILERS AND PARKING

SOIL COMPACTION (TYP)

FINAL BASIN GRADING

EXISTING 24" PIPE TO REMAIN FOR SEDIMENT BASIN

PROPOSED TREE PROTECTION (TYP)

TRAILERS (TYP)

LAYDOWN AREA

PROPOSED LIMIT OF DISTURBANCE/SILT FENCE

OUTLET STRUCTURE MODIFICATIONS FOR SEDIMENT BASIN (SEE DETAIL THIS SHEET)

PLUG 4"ø ORIFICE AT EXISTING F.E.S.

CONSTRUCTION/SEDIMENT BASIN (EXISTING TO REMAIN)

PROPOSED INLET FILTER (TYP)

LAYDOWN AREA

SILT FENCE (TYP)

RIPRAP APRON (TYP)

PROPOSED HAYBALE BARRIER (TYP)

BEGINNING OF SUPER SILT FENCE

PROPOSED HAYBALE BARRIER (TYP)

BIO-RETENTION BASIN #3
LP: +84.50

MODIFIED DETENTION BASIN 'A'
LP: +95.50

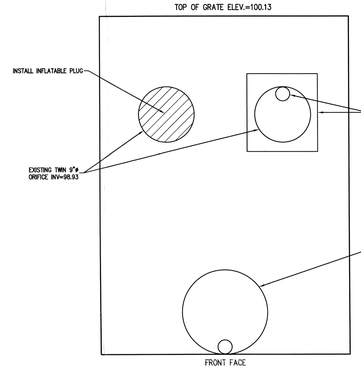
4:1 SLOPE (MAX.)

LIMIT OF WORK

REFER TO MESIJS PLANS BY VANZILM ENGINEERS

FACILITIES

PLANT



EXISTING OUTLET STRUCTURE
MODIFICATIONS FOR SEDIMENT BASIN

0' 10' 20' 40
SCALE: 1" = 20'

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BY: _____
MUNICIPAL ENGINEER

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TRG 19-004 CD

LEGEND

SYMBOL	DESCRIPTION
MISCELLANEOUS	
	LIMIT OF WORK
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DRCC	DRCC BOUNDARY
100 YR	100 YEAR FLOOD LINE
FHADF	FHADF (FEMA 100-YR + 1 FT)
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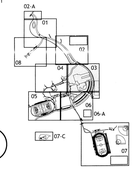

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Drawing Title:

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Project No:
Drawn By:
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Date:
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Drawing No.

C0-03

LAYDOWN AREA

SOIL COMPACTION (TYP)

PROPOSED LIMIT OF DISTURBANCE

PROPOSED TREE PROTECTION (TYP)

SILT FENCE (TYP)

PROPOSED INLET FILTER (TYP)

LIMIT OF WORK

REFER TO ARCHITECTURAL PLANS BY VARGAS ENGINEERS

PROPOSED DINING AND ATHLETIC BUILDING

DINING AND ATHLETIC BUILDING

"McClellan"

"Stanley"

STANLEY

STEPHEN

"Stephens"

CARTER

"Bath House"

Lot 1.02
BLOCK 5801

"Thom Library"

BUNN
LIBRARY

KIRBY

"Kirby"

"NEW MIDDLE CAMPUS" TSAI DINING CENTER BRICK BUILDING

SCALE: 1" = 20'

0 10' 20' 40

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TRC 19-004 CD

LEGEND

SYMBOL	DESCRIPTION
MISCELLANEOUS	
	LIMIT OF WORK
	PROPERTY LINE
DRCC	DRCC BOUNDARY
100 YR	100 YEAR FLOOD LINE
FHADF	FHADF (FEMA 100-YR + 1 FT)
WL	WETLAND LINE
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DRAWING INDEX:

C0-01 to C0-08 SOIL EROSION AND SEDIMENT CONTROL PLAN
C7-05 SOIL EROSION AND SEDIMENT CONTROL DETAILS

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ALTERNATE SOIL COMPACTION TEST LOCATION

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DWG ISSUE & REVISION HISTORY

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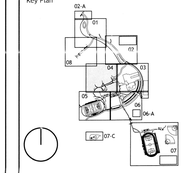

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Date:
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Drawing No.

C0-04

SOIL COMPACTION (TYP)

PROPOSED INLET FILTER (TYP)

PROPOSED TREE PROTECTION (TYP)

PROPOSED LIMIT OF DISTURBANCE/SILT FENCE

COORDINATE LOCATION OF STORM STRUCTURES WITH DRAWING L4-05

END OF SUPER SILT FENCE

SUPER SILT FENCE

OUTLET CONTROL STRUCTURE SF#1
K(M): 96.05
EX. 12" INV: 90.72
30" INV: 91.24
WEIR: 6 VERT ORIFICE INV: 90.71
6" ORIFICE: 94.04
6" SHARP: 94.98
12" INV OUT: 90.71

REPLACE EXISTING DRAIN LINE WITH NEW 12" HDPE PIPE

REVEGETATION. NO GRADING DISTURBANCE (TYP)

F.M. KIRBY MATH & SCIENCE CENTER

"F.M. Kirby Science Building"

SQUASH BUILDING

POND

"Kenfield Stadium"

Lot 1.02 BLOCK 5801

LIMIT OF WORK

SILT FENCE

30" HDPE HDPE PIPE - S=0.5%

12" HDPE PIPE - S=1.21%

(FFE 107.47)

(FFE 93.24)

FFE (99.07)

(FFE 99.00)

REFER TO MEP/FP PLANS BY HANSEN ENGINEERS

SEE DETAIL 1/L8-52

SEE DETAIL 2/L8-52

SEE DETAIL 3/L8-52

SEE DETAIL 4/L8-52

SEE DETAIL 5/L8-52

SEE DETAIL 10/L8-52

SEE DETAIL 1/L8-22

SEE DETAIL 4/L8-22

SEE DETAIL 5/L8-22

SEE DETAIL 6/L8-22

SEE DETAIL 7/L8-22

SEE DETAIL 8/L8-22

SEE DETAIL 9/L8-22

SEE DETAIL 10/L8-22

SEE DETAIL 11/L8-22

SEE DETAIL 12/L8-22

SEE DETAIL 13/L8-22

SEE DETAIL 14/L8-22

SEE DETAIL 15/L8-22

SEE DETAIL 16/L8-22

SEE DETAIL

PROPOSED INLET FILTER (TYP)

SOIL COMPACTION (TYP)

ALTERNATE TRACKING PAD

PROPOSED HAYBALE BARRIER (TYP)

PROPOSED LIMIT OF DISTURBANCE/SUPER SILT FENCE

FLOATING TURBIDITY BARRIER AT STREAM (TYP)

PROPOSED TREE PROTECTION (TYP)

FLOATING TURBIDITY BARRIER AT STREAM

LAVINO FIELD HOUSE

BIO-RETENTION BASIN #7 LP: =85.50

BIO-RETENTION BASIN #8 LP: =82.33

BIO-RETENTION BASIN #6 LP: =86.83

BIO-RETENTION BASIN #5 LP: =84.00

REFER TO MESSLS PLANS BY VANOTTI & ENGINEERS

SCALE: 1" = 20'

0' 10' 20' 40'

APPROVED
SEP 18 2020
LAWRENCE TOWNSHIP ENGINEERING DEPT.
BY: MUNICIPAL ENGINEER

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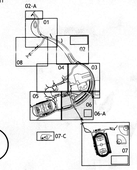


Project Title:

TSAI DINING AND ATHLETIC COMPLEX

THE LAWRENCEVILLE SCHOOL
2500 MAIN STREET
LAWRENCEVILLE, NJ 08648

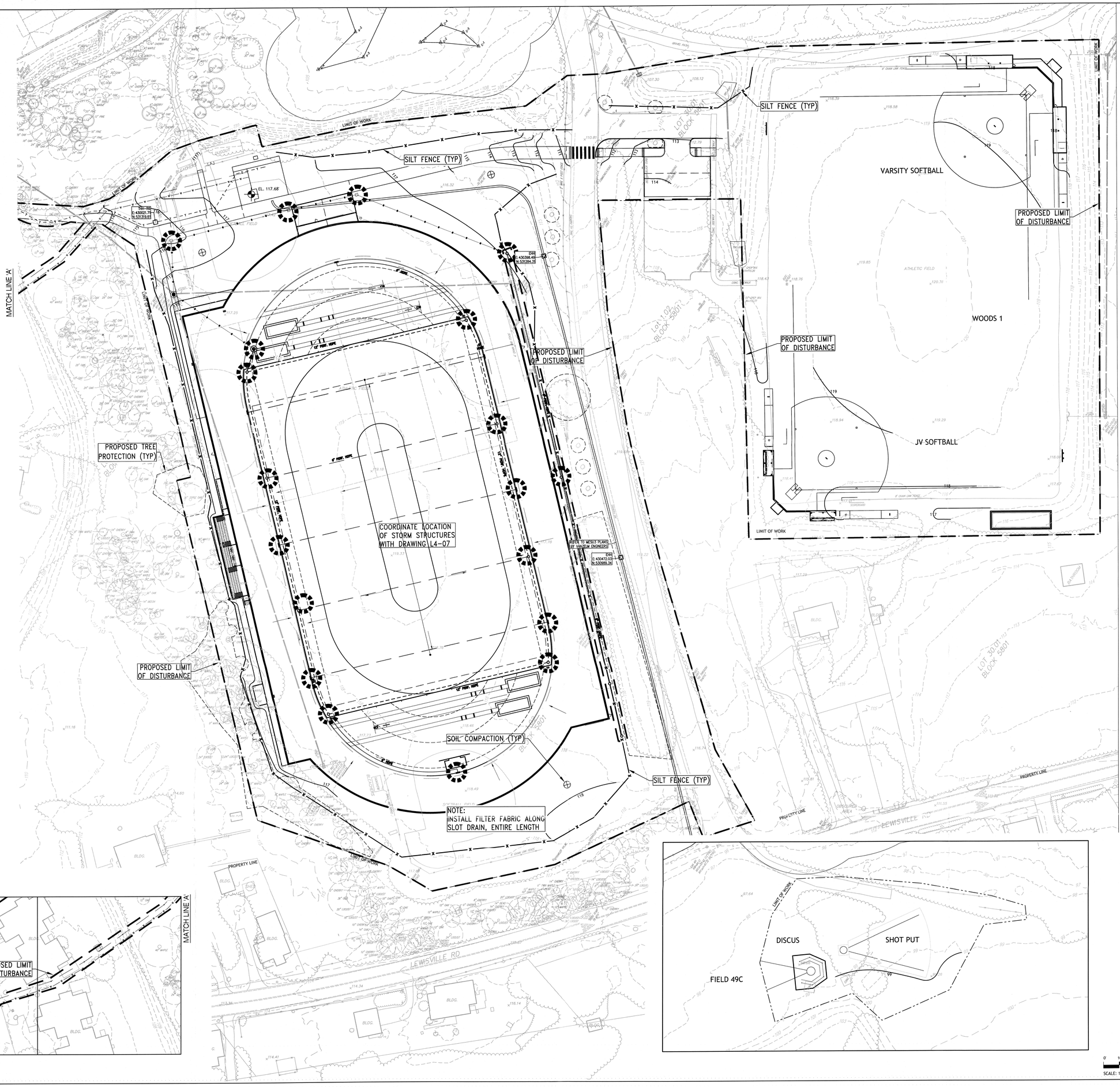
Drawing Title:

SOIL EROSION AND SEDIMENT CONTROL PLAN

Project No:
Drawn By:
Checked By:
Approved By:
Date:
Scale:

Drawing No.

C0-06



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The Reynolds Group Inc.

State of New Jersey
Certificate of Authorization
Number 24GA27969200
21MH00004300

F. Mitchel Ardman, P.E., P.P.
Jeffrey D. Reynolds, P.L.A.

F. MITCHEL ARDMAN
N.J. PROFESSIONAL ENGINEER LIC. NO. 34317
TRG 19-004 C0

LEGEND

SYMBOL	DESCRIPTION
MISCELLANEOUS	
	LIMIT OF WORK
	PROPERTY LINE
DRCC	DRCC BOUNDARY
100 YR	100 YEAR FLOOD LINE
FHADF	FHADF (FEMA 100-YR + 1 FT)
WL	WETLAND LINE
WB	WETLAND BUFFER
RZL	RIPARIAN ZONE LINE
TP	TEST PIT LOCATION
	GAS VALVE
	GAS METER
	WATER VALVE
	HYDRANT
	WATER METER
	CURB STOP
	FIRE DEPT. CONNECTION
	DRAINAGE MH
	CURB INLET
	LAWN INLET
	SANITARY MH
	CLEANOUT
	BOLLARD
	SIGN
	LIGHT
	MAIL BOX
	GUY WIRE
	UTILITY POLE
	ELECTRIC MH
	CONIFEROUS TREE
	DECIDUOUS TREE
— X —	FENCE
	RAILING
	WALL
	GATE POST
— W —	WATER LINE
— G —	GAS LINE
— E —	ELECTRIC LINE
— S —	SANITARY LINE
— OH —	OVERHEAD WIRES

DRAWING INDEX:

C0-01 to C0-08	SOIL EROSION AND SEDIMENT CONTROL PLAN
C7-05	SOIL EROSION AND SEDIMENT CONTROL DETAILS

NOTES:
1. SOIL EROSION MEASURES SHALL BE INSTALLED AND INSPECTED BY THE ENGINEERING DEPARTMENT PRIOR TO LAND DISTURBANCE.
2. REFER TO SHEET C7-05 FOR DETAILS AND RESTORATION NOTES OF TEMPORARY ROAD LAYDOWN AREAS, GRAVEL PARKING AREAS, ETC.

⊕ ALTERNATE SOIL COMPACTION TEST LOCATION

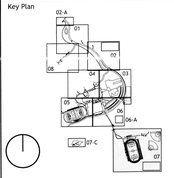
No.	Description	Date
2	PER TOWNSHIP COMMENTS	07/21/20
1	SCD SUBMISSION	07/09/20

DWG ISSUE & REVISION HISTORY

Stamp

FOR CONSTRUCTION

Key Plan



Project Title:

TSAI DINING AND ATHLETIC COMPLEX

THE LAWRENCEVILLE SCHOOL
2500 MAIN STREET
LAWRENCEVILLE, NJ 08648

Drawing Title:

SOIL EROSION AND SEDIMENT CONTROL PLAN

APPROVED
SEP 18 2020
LAWRENCE TOWNSHIP ENGINEERING DEPT.

Project No:
Drawn By:
Checked By:
Approved By:
Date:
Scale:

Drawing No.

C0-07

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MATCHLINE: SHEET XX-01

PROPERTY LINE

PROPOSED INLET FILTER (TYP)

ALT. LIMIT OF DISTURBANCE

PROPOSED LIMIT OF DISTURBANCE

SOIL COMPACTION (TYP)

PROPOSED TREE PROTECTION (TYP)

LIMIT OF WORK

MATCHLINE: SHEET XX-01

SCALE: 1" = 20'

7/21/20 2:36:35 PM J:\Engineering Projects\2019\19-004-2 - Entry Road_CAD\DESIGN\TOWNSHIP\19-004-2 SCD BASEMAP (R3) TWP.dwg

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LEGEND

SYMBOL	DESCRIPTION
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	WATER METER
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	FIRE DEPT. CONNECTION
	DRAINAGE MH
	CURB INLET
	LAWN INLET
	SANITARY MH
	CLEANOUT
	BOLLARD
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ALTERNATE SOIL COMPACTION TEST LOCATION

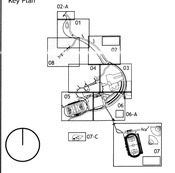
No.	Description	Date
2	PER TOWNSHIP COMMENTS	07/21/20
1	SCD SUBMISSION	07/09/20

DWG ISSUE & REVISION HISTORY

Stamp

FOR CONSTRUCTION

Key Plan



Project Title:

TSAI DINING AND ATHLETIC COMPLEX

THE LAWRENCEVILLE SCHOOL
2500 MAIN STREET
LAWRENCEVILLE, NJ 08648

Drawing Title:

DRAINAGE AND UTILITIES PLAN

APPROVED
SEP 18 2020
LAWRENCE TOWNSHIP ENGINEERING DEPT.
BY: WOODEL ENGINEERS

Project No: Scale:
Drawn By:
Checked By:
Approved By:
Date:

Drawing No.

C0-08 ALT

BASIN COMPACTION NOTES

1. SOIL COMPACTION RESULTING FROM LAND GRADING ACTIVITIES CAN IMPACT THE INFILTRATION RATE OF THE SOIL. RESTORATION OF COMPACTED SOILS THROUGH DEEP TILLAGE (6' TO 12') AND THE ADDITION OF ORGANIC MATTER MAY BE REQUIRED IN PLANNED PERVIOUS AREAS TO ENHANCE THE INFILTRATION RATE OF THE DISTURBED SOIL. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLE, IRRIGATION SYSTEMS, ETC.).
2. INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED IN ACCORDANCE WITH ABOVE.
3. TO PREVENT COMPACTION OF THE SUBSOIL WHICH WILL REDUCE ITS INFILTRATION CAPACITY, BASINS SHOULD BE EXCAVATED WITH LIGHT EARTH MOVING EQUIPMENT, PREFERABLY WITH TRACKS OR OVER-SIZED TIRES RATHER THAN THE NORMAL RUBBER TIRES., ONCE THE FINAL CONSTRUCTION PHASE IS REACHED, THE FLOOR OF THE BASIN SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW AND SMOOTHED OVER WITH A LEVELING DRAG OR EQUIVALENT GRADING EQUIPMENT.
4. FOR BASINS, ANNUAL TILLING OPERATIONS MAINTAIN INFILTRATION CAPACITY. THESE TILLED AREAS SHOULD BE RE-VEGETATED IMMEDIATELY TO PREVENT EROSION. DEEP TILLING CAN BE USED TO BREAKUP CLOGGED SURFACE LAYERS FOLLOWED BY REGARDING AND LEVELING. SAND OR ORGANIC MATTER CAN BE TILLED INTO THE BASIN FLOOR TO PROMOTE A RESTORED INFILTRATION CAPACITY. SEDIMENT REMOVAL PROCEDURES SHOULD NOT BE UNDERTAKEN UNTIL THE BASIN IS THOROUGHLY DRY. THE TOP LAYER SHOULD BE REMOVED BY LIGHT EQUIPMENT TO PREVENT COMPACTION. THE REMAINING SOIL CAN BE RETILED AND DISTURBED VEGETATION REPLANTED.

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. THE MERCER COUNTY SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED 48 HOURS PRIOR TO STARTING LAND DISTURBANCE ACTIVITY. NOTICE MAY BE MAILED, FAXED OR EMAILED TO:
   MCSCD, 590 HUGHES DRIVE, HAMILTON SQUARE, NJ 08690
   PHONE: 609-586-9803 FAX: 609-586-1117 EMAIL:PaulsImercer@aol.com
2. IF APPLICABLE TO THIS PROJECT, THE OWNER SHOULD BE AWARE OF HIS OR HER OBLIGATION TO FILE FOR A NJPDES CONSTRUCTION ACTIVITY STORMWATER SCD PERMIT (NJG0088322) VIA THE NJDEP ONLINE PERMITTING SYSTEM (WWW.NJ.GOV/DEP/ONLINE) AND TO MAINTAIN THE ASSOCIATED BEST MANAGEMENT PRACTICES AND STORMWATER POLLUTION PREVENTION PLAN SELF-INSPECTION LOGBOOK ONSITE AT ALL TIMES. THIS PERMIT MUST BE FILED PRIOR TO THE START OF SOIL DISTURBANCE. THE ONLINE APPLICATION PROCESS WILL REQUIRE ENTRY OF AN SCD CERTIFICATION CODE, WHICH IS PROVIDED BY THE SOIL CONSERVATION DISTRICT UPON CERTIFICATION OF THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
3. THE MERCER COUNTY SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES IN OWNERSHIP.
4. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN, INCLUDING AN INCREASE IN THE LIMIT OF DISTURBANCE, WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RECERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION & SEDIMENT CONTROL STANDARDS.
5. A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON SITE AT ALL TIMES.
6. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES, OR IN THEIR PROPER SEQUENCE OUTLINED WITHIN THE SEQUENCE OF CONSTRUCTION ON THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
7. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NJ. IF LANGUAGE CONTAINED WITHIN ANY OTHER PERMIT FOR THIS PROJECT IS MORE RESTRICTIVE THAN (BUT NOT CONTRADICTORY TO) WHAT IS CONTAINED WITHIN THESE NOTES OR ON THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN, THEN THE MORE RESTRICTIVE PERMIT REQUIREMENTS SHALL BE FOLLOWED.
8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A 1½' TO 2½' CLEAN STONE TRACKING PAD AT ALL CONSTRUCTION DRIVEWAYS IMMEDIATELY AFTER INITIAL SITE DISTURBANCE, WHETHER IDENTIFIED ON THE CERTIFIED PLAN OR NOT. THE WIDTH SHALL SPAN THE FULL WIDTH OF EGRESS, AND LENGTH SHALL BE 50 FT. OR MORE, DEPENDING ON SITE CONDITIONS AND AS REQUIRED BY THE STANDARD. THIS SHALL INCLUDE INDIVIDUAL LOT ACCESS POINTS WITHIN RESIDENTIAL SUBDIVISIONS. IF THE EGRESS IS TO A COUNTY ROAD, THEN A 20 FT. LONG PAVED TRANSITION SHALL BE PROVIDED BETWEEN THE EDGE OF PAVEMENT AND THE STONE ACCESS PAD.
9. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN 15 DAYS OF PRELIMINARY GRADING, PROVIDED THAT ALL OTHER REQUIREMENTS RELATED TO DETENTION BASINS, SWALES AND THE SEQUENCE OF CONSTRUCTION HAVE BEEN MET.
10. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 14 DAYS AND NOT SUBJECT TO CONSTRUCTION ACTIVITY WILL IMMEDIATELY RECEIVE TEMPORARY STABILIZATION. IF THE SEASON PREVENTS ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER, OR IF THE AREA IS NOT TOPSOILED, THEN THE DISTURBED AREAS WILL BE MULCHED WITH STRAW OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS. SLOPED AREAS IN EXCESS OF 3H:1V SHALL BE PROVIDED WITH EROSION CONTROL BLANKETS. CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES, ROADWAY EMBANKMENTS, ENVIRONMENTALLY SENSITIVE AREAS) WILL RECEIVE TEMPORARY STABILIZATION IMMEDIATELY AFTER INITIAL DISTURBANCE OR ROUGH GRADING.
11. ANY STEEP SLOPES (I.E. SLOPES GREATER THAN 3:1) RECEIVING PIPELINE OR UTILITY INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS.
12. PERMANENT VEGETATION SHALL BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING AND TOPSOILING. ALL AGRONOMIC REQUIREMENTS CONTAINED WITHIN THE STANDARDS AND ON THE CERTIFIED PLAN SHALL BE EMPLOYED. MULCH WITH BINDER, IN ACCORDANCE WITH THE STANDARDS, SHALL BE USED ON ALL SEEDED AREAS. SAVE ALL TAGS AND/OR BAGS USED FOR SEED, LIME AND FERTILIZER, AND PROVIDE THEM TO THE DISTRICT INSPECTOR TO VERIFY THAT MIXTURES AND RATES MEET THE STANDARDS.
13. AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, THEN NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
14. DURING THE COURSE OF CONSTRUCTION, SOIL COMPACTION MAY OCCUR WITHIN HAUL ROUTES, STAGING AREAS AND OTHER PROJECT AREAS. IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING, COMPACTED SURFACES SHOULD BE SCARIFIED 8" TO 12" IMMEDIATELY PRIOR TO TOPSOIL APPLICATION. THIS WILL HELP ENSURE A GOOD BOND BETWEEN THE TOPSOIL AND SUBSOIL. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).
15. PRIOR TO SEEDING, TOPSOIL SHALL BE WORKED TO PREPARE A PROPER SEEDBED. THIS SHALL INCLUDE RAKING OF THE TOPSOIL AND REMOVAL OF DEBRIS AND STONES, ALONG WITH OTHER REQUIREMENTS OF THE STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION.
16. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACIDS PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE BURIED WITH LIMESTONE IN ACCORDANCE WITH THE STANDARD AND BE COVERED WITH A MINIMUM OF 12' OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO TOPSOIL APPLICATION AND SEEDBED PREPARATION. IF THE AREA IS TO RECEIVE TREE OR SHRUB PLANTINGS, OR IS LOCATED ON A SLOPE, THEN THE AREA SHALL BE COVERED WITH A MINIMUM OF 24" OF SOIL HAVING A PH OF 5 OR MORE.
17. MULCHING TO THE STANDARDS IS REQUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMPLIANCE. CONDITIONAL ROC'S ARE ONLY ISSUED WHEN THE SEASON PROHIBITS SEEDING. PERMANENT STABILIZATION MUST THEN BE COMPLETED DURING THE OPTIMUM SEEDING SEASON IMMEDIATELY FOLLOWING THE CONDITIONAL ROC, OR THE COMPLETION OF WORK IN A GIVEN AREA.
18. HYDROSEEDING IS A TWO-STEP PROCESS. THE FIRST STEP INCLUDES SEED, FERTILIZER, LIME, ETC., ALONG WITH MINIMAL AMOUNTS OF MULCH TO PROMOTE CONSISTENCY, GOOD SEED-TO-SOIL CONTACT, AND GIVE A VISUAL INDICATION OF COVERAGE. UPON COMPLETION OF THE SEEDING OPERATION, HYDROMULCH SHALL BE APPLIED AT A MINIMUM RATE OF 1500 LBS. PER ACRE IN SECOND STEP. THE USE OF HYDRO-MULCH, AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE STANDARDS. THE NET USE OF HYDROMULCH ON SLOPED AREAS IS DISCOURAGED.
19. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ADJACENT ROADS CLEAN DURING LIFE OF THE CONSTRUCTION PROJECT. ALL SEDIMENT WASHED, DROPPED, TRACKED OR SPILLED ONTO PAVED SURFACES SHALL BE IMMEDIATELY REMOVED.
20. THE DEVELOPER SHALL BE RESPONSIBLE FOR REMEDIATING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF ONGOING CONSTRUCTION, AND FOR EMPLOYING ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AT THE REQUEST OF THE MERCER COUNTY SOIL CONSERVATION DISTRICT.
21. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
22. ALL DETENTION / RETENTION BASINS MUST BE FULLY CONSTRUCTED (INCLUSIVE OF ALL STRUCTURAL COMPONENTS AND LINERS) AND PERMANENTLY STABILIZED PRIOR TO PAVING OR PRIOR TO THE ADDITION OF ANY IMPERVIOUS SURFACES. PERMANENT STABILIZATION INCLUDES, BUT MAY NOT BE LIMITED TO: TOPSOIL, SEED, STRAW MULCH AND BINDERS OR EROSION CONTROL BLANKETS ON ALL SEEDING. ALL AGRONOMIC REQUIREMENTS AS SPECIFIED ON THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN, INSTALLATION OF THE OUTLET CONTROL STRUCTURES AND DISSIPATION, STORM DRAINAGE PIPING, LOW FLOW CHANNELS, CONDUIT OUTLET PROTECTION, EMERGENCY SPILLWAYS, AND LAP RING PROTECTION.
23. THE RIDING SURFACE OF ALL UTILITY TRENCHES WITHIN PAVED AREAS SHALL BE 3/4" CLEAN STONE OR BASE PAVEMENT UNTIL SUCH TIME AS FINAL PAVEMENT HAS BEEN INSTALLED. TEMPORARY SOIL RIDING SURFACES ARE PROHIBITED.
24. ALL CONSTRUCTION DEWATERING (TRENCHES, EXCAVATIONS, ETC.) MUST BE DONE THROUGH AN INLET OR OUTLET FILTER IN ACCORDANCE WITH THE STANDARD FOR DEWATERING OR AS DEPICTED ON THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN. DISCHARGE LOCATIONS FOR THE DEWATERING OPERATION MUST CONTAIN PERENNIAL VEGETATION OR SIMILAR STABLE SURFACE.
25. ALL SWALES OR CHANNELS THAT WILL RECEIVE RUNOFF FROM PAVED SURFACES MUST BE PERMANENTLY STABILIZED PRIOR TO THE INSTALLATION OF PAVEMENT. IF THE SEASON PROHIBITS THE ESTABLISHMENT OF PERMANENT STABILIZATION, THE SWALES OR CHANNELS MAY BE TEMPORARILY STABILIZED IN ACCORDANCE WITH THE STANDARDS.
26. NJSA 4:24-39 ET SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY OR TEMPORARY CERTIFICATE OF OCCUPANCY BE ISSUED BY THE MUNICIPALITY BEFORE THE PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN SATISFIED. THEREFORE, ALL SITE WORK FOR SITE PLANS AND ALL WORK AROUND INDIVIDUAL LOTS IN SUBDIVISIONS MUST BE COMPLETED BEFORE THE DISTRICT ISSUES A REPORT OF COMPLIANCE OR CONDITIONAL REPORT OF COMPLIANCE, WHICH MUST BE FORWARDED TO THE MUNICIPALITY PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY OR TEMPORARY CERTIFICATE OF OCCUPANCY, RESPECTIVELY.

CONSTRUCTION SEQUENCE

SEQUENCE #	DESCRIPTION OF CONSTRUCTION ACTIVITY – EARLY TEMPORARY ROADWAY	TIME (WEEKS)
1	INSTALL PERIMETER CONSTRUCTION FENCE, SILT FENCE AND OTHER SOIL EROSION MEASURES INCLUDING TREE PROTECTION FENCING WHERE SHOWN ON PLANS AND MAINTAIN THROUGHOUT THE COURSE OF CONSTRUCTION.	2
2	CLEAR AND GRUB VEGETATED AREAS. STRIP TOPSOIL IN CONSTRUCTION AREAS AND STOCKPILE WHERE INDICATED ON THE PLANS. INSTALL SILT FENCE AT DOWN SLOPE OF STOCKPILE. COMMENCE PRELIMINARY GRADING OPERATIONS.	2
3	REMOVE SECTION OF STEEL FENCING, BRICK COLUMNS AND CONSTRUCT A CURB CUT AT ROUTE 206.	1
4	CONSTRUCT TEMPORARY ROADWAY, GRAVEL PARKING & TRAILER AND PRIMARY LOCATION FOR TOPSOIL.	3
5	CONSTRUCT STORM SEWER SYSTEMS ALONG THE NEW LOOP ROAD. INSTALL INLET FILTERS AND HAY BALES AT BASIN INLETS AND OUTLET STRUCTURES.	4
6	CONSTRUCT BIORETENTION BASIN #2. CONVERT EXISTING BASIN 'A' TO A SEDIMENT BASIN.	6
7	CONSTRUCT CURB AND PAVEMENT BASE COURSE.	1
8	SELECTIVELY PERFORM DEEP SCARIFICATION/TILLAGE (6" MIN. DEPTH) AS DESCRIBED IN SOIL COMPACTION NOTES AND WHERE DEPICTED ON PLAN.	1
9	SELECTIVELY INSTALL LANDSCAPING AND PERMANENTLY STABILIZE AREAS WITH VEGETATION.	1
	DESCRIPTION OF CONSTRUCTION – PHASE 1 BLDG EXCAVATION/FOUNDATIONS	
10	INSTALL SILT FENCE ALONG DOWNSLOPE OF WORK AREA AND INSTALL INLET FILTERS ON EXISTING INLETS TO REMAIN.	1
11	DEMOLISH/REMOVE EXISTING UNDERGROUND UTILITIES AS NOTED ON PLANS.	4
12	CONSTRUCT LAYDOWN AREAS.	1
13	COMMENCE EXCAVATION AND FOUNDATION WORK.	32
14	RESTORE LAYDOWN AREAS THAT WILL NOT BE USED FOR THE REMAINING PHASES OF WORK.	1
	DESCRIPTION OF CONSTRUCTION – PHASE 2A LOGISTICS, DEMOLITION OF IRWIN	
15	INSTALL SILT FENCE ALONG DOWNSLOPE OF DEMOLITION WORK AREA AND INSTALL INLET FILTERS ON EXISTING INLETS TO REMAIN.	1
17	CONSTRUCT LAYDOWN AREA AND INSTALL TRAILERS WEST OF THE BOILER PLANT.	1
18	COMMENCE BUILDING DEMOLITION AND REMOVAL OF UNDERGROUND UTILITIES.	2
19	TEMPORARILY STABILIZE DISTURBED AREAS.	
	DESCRIPTION OF CONSTRUCTION – PHASE 2B LOGISTICS, TDAC CONSTRUCTION	
20	CONSTRUCT LAYDOWN AREA AT THE EXISTING TRACK AND FIELD.	1
21	COMMENCE BUILDING CONSTRUCTION.	84
22	CONSTRUCT STORM SEWER SYSTEMS, INSTALL INLET FILTERS AND CONSTRUCT UNDERGROUND UTILITIES. CONNECT ALL ROOF LEADERS TO THE STORM SYSTEM AND TIE-IN UTILITY SERVICES FROM THE BUILDING.	20
23	CONSTRUCT CURB, LOADING AREA AND PAVEMENT BASE COURSE.	2
24	SELECTIVELY PERFORM DEEP SCARIFICATION/TILLAGE (6" MIN. DEPTH) AS DESCRIBED IN SOIL COMPACTION NOTES AND WHERE DEPICTED ON PLAN.	1
25	SELECTIVELY INSTALL LANDSCAPING AND PERMANENTLY STABILIZE AREAS WITH VEGETATION.	1
	DESCRIPTION OF CONSTRUCTION – PHASE 2C LOGISTICS, DEMOLITION OF LAVINO	
26	INSTALL SILT FENCE ALONG DOWNSLOPE OF DEMOLITION WORK AREA AND INSTALL INLET FILTERS ON EXISTING INLETS TO REMAIN.	1
27	COMMENCE BUILDING DEMOLITION AND REMOVAL OF UNDERGROUND UTILITIES.	8
28	TEMPORARILY STABILIZE DISTURBED AREAS.	1
	DESCRIPTION OF CONSTRUCTION – PHASE 2D LOGISTICS, SITE WORK	
29	ADD/MODIFY PERIMETER CONSTRUCTION FENCE, SILT FENCE AND OTHER SOIL EROSION MEASURES WHERE REQUIRED INCLUDING TREE PROTECTION FENCING WHERE SHOWN ON PLANS AND MAINTAIN THROUGHOUT THE COURSE OF CONSTRUCTION.	2
30	CLEAR AND GRUB VEGETATED AREAS. STRIP TOPSOIL IN CONSTRUCTION AREAS AND STOCKPILE WHERE INDICATED ON THE PLANS. ADD/MODIFY SILT FENCE AT DOWN SLOPE OF STOCKPILE. COMMENCE PRELIMINARY GRADING OPERATIONS. INSTALL TRACKING PADS AT ROUTE 206 ENTRANCE AND ALTERNATE TRACKING PAD LOCATED AT THE 'T' INTERSECTION OF NEW LOOP ROAD AND EXISTING DRIVEWAY TO LEWISVILLE ROAD.	6
31	SELECTIVELY DEMOLISH PAVEMENT, CURBS NOTED ON PLANS AND REMOVE TEMPORARY GRAVEL ROAD.	6
32	CONSTRUCT STORM SEWER SYSTEMS. INSTALL INLET FILTERS AND HAY BALES AT BASIN INLETS AND OUTLET STRUCTURES. CONSTRUCT UNDERGROUND UTILITIES.	24
33	CONSTRUCT BIORETENTION BASINS #1, #3, #4, #5, #6 &#7, POROUS ASPHALT BMP, TWO (2) UNDERGROUND DETENTION SYSTEMS. MODIFY BASIN 'A' TO A BIORETENTION SYSTEM AND MODIFY EXISTING BASIN 'B' OUTLET STRUCTURE.	36
34	CONSTRUCT CURB AND PAVEMENT BASE COURSE.	4
35	CONSTRUCT SIDEWALKS, INSTALL SIGNS AND COMMENCE FINAL GRADING.	4
36	PERFORM DEEP SCARIFICATION/TILLAGE (6" MIN. DEPTH) AS DESCRIBED IN SOIL COMPACTION NOTES AND WHERE DEPICTED ON PLAN.	4
37	INSTALL LANDSCAPING AND PERMANENTLY STABILIZE AREAS WITH VEGETATION.	4
38	INSTALL PAVEMENT SURFACE COURSE AND STRIPING.	2
39	WHEN SITE IS COMPLETELY AND PERMANENTLY STABILIZED, REMOVE SOIL EROSION CONTROL MEASURES.	2

NOTES:
1. THE ABOVE SEQUENCES WILL OVERLAP. EACH SEQUENCE MAY COMMENCE PRIOR TO THE COMPLETION OF THE PREVIOUS SEQUENCE. ACTUAL CONSTRUCTION TIME MAY VARY.
2. CONTRACTOR TO PROVIDE MONTHLY INSPECTION AND REPAIR OF ALL SOIL EROSION MEASURES AND SHALL PROVIDE ROAD SWEEPING AS REQUIRED OR DIRECTED BY OWNER.

MERCER COUNTY SOIL CONSERVATION DISTRICT PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

1. TOPSOIL STRIPPING AND STOCKPILING
A. FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND/OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.
B. A 6-INCH STRIPPING DEPTH IS TYPICAL, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL STRUCTURE OR PRE-EXISTING USE.
C. STOCKPILES SHOULD BE LOCATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE, AND SHALL BE DELINEATED ON THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN AND BE CONSTRUCTED IN ACCORDANCE WITH THE TOPSOIL STOCKPILE DETAIL.
D. STOCKPILES SHOULD BE TEMPORARILY STABILIZED ACCORDING TO THE STANDARDS.
2. SITE PREPARATION
A. INSTALL EROSION CONTROL MEASURES AND FACILITIES SUCH AS SILT FENCE, DIVERSIONS, SEDIMENT BASINS, AND CHANNEL STABILIZATION.
B. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, TACKING, AND MAINTENANCE. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING, 19-1.
3. SEEDBED PREPARATION
A. TOPSOIL REQUIRED
MIN. DEPTH: 5' (UNSETTLED)
PH: 6.0 TO 8.0
ORGANIC MATTER CONTENT: 2.75% MIN.
NITRATE N: 50 LBS./ACRE (50% WATER INSOLUBLE)
PHOSPHOROUS: 100 LBS/ACRE
POTASSIUM: 50 LBS/ACRE
B. THE CONTRACTOR SHOULD BE AWARE OF THE POSSIBILITY, DEPENDING UPON THE SITE CONDITIONS, THAT ALL TOPSOIL MAY HAVE TO BE PROVIDED FROM AN OFF-SITE SOURCE.
C. TOPSOIL SHOULD BE HANDLED ONLY WHEN DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE.
D. APPLY A UNIFORM 5 INCHES (UNSETTLED) OF TOPSOIL ON ALL DISTURBED AREAS. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 24 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE AND THE TOP 6 INCHES SHALL CONFORM TO THE TOPSOIL STANDARD AND SHALL BE LIMED ACCORDING TO THE SPECIFICATIONS.
E. IF THE TOPSOIL BECOMES COMPACTED, THE SURFACE MUST BE SCARIFIED 6' TO 12' TO PROVIDE GOOD SEED-TO-SOIL BOND.
F. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS THOSE OFFERED BY RUTGERS UNIVERSITY COOPERATIVE EXTENSION. IF SOIL TESTING IS NOT FEASIBLE, APPLY FERTILIZER (10-20-10) WITH 50% WATER INSOLUBLE NITROGEN SHOULD BE APPLIED AT THE TYPICAL RATE OF 500 LBS/ACRE OR 11 LBS/1,000 SQUARE FEET.
G. APPLY LIMESTONE EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDES (PULVERIZED DOLOMITIC LIMESTONE IS PREFERRED FOR MOST SOILS SOUTH OF THE NEW BRUNSWICK – TRENTON FALL LINE.) AS FOLLOWS:

SOIL TEXTURE	TONS/ACRE	LBS/1,000 SQ. FT.
CLAY, CLAY LOAM, HIGH ORGANIC	3	135
SANDY CLAY LOAM, SILT LOAM	2	90
LOAMY SAND, SAND	1	45

H. WORK LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES. THE FINAL HARROWING OR DISC OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A UNIFORM, FINE SEEDBED IS PREPARED.
I. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION, AND OTHER OBJECTIONABLE MATERIAL – STONES OR DEBRIS SUCH AS WIRE, TREE ROOTS, PIECES OF CONCRETE, COLDS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
4. SEEDING
A. SELECT A SEED MIXTURE APPROVED BY THE MERCER COUNTY SCD.
B. APPLY SEED UNIFORMLY BY HAND, CYCLONES, DROP SEEDER, DRILL CULTIPACKER, OR HYDROSEEDER*. THE LATTER MAY BE JUSTIFIABLE FOR LARGE, STEEP AREAS WHERE CONVENTIONAL APPLICATIONS ARE NOT FEASIBLE. HYDROSEEDING SHALL BE A TWO-STEP PROCESS: MULCH SHALL NOT BE MIXED WITH THE SEED; THE SEED MUST BE APPLIED FIRST TO ASSURE PROPER SEED TO SOIL CONTACT. THE HYDROMULCH IS THEN SPRAYED OVER THE SEEDING. FOR OPTIMUM RESULTS, THE SEED SHOULD BE INCORPORATED INTO THE SOIL TO A DEPTH OF ¼ TO ½ INCH DEPENDING UPON SPECIES.
*THE USE OF HYDRO-MULCH, AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE STANDARDS.
C. AFTER SEEDING, THE SOIL SHOULD BE PACKED WITH A CORRUGATED ROLLER, WHEN PERFORMED ON THE CONTOUR, ROLLING WILL MINIMIZE SHEET EROSION AND MAXIMIZE WATER CONSERVATION.
5. MULCHING
A. UNROTTED STRAW, HAY FREE OF SEEDS, OR SALT HAY IS REQUIRED ON ALL SEEDING AT A RATE OF 1.5 TO 2 TONS/ACRE, (70 TO 90 LBS./1,000 SQUARE FEET), EXCEPT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER, THEN THE RATE OF APPLICATION IS 3 TONS PER ACRE.
B. MULCH ANCHORING SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS DUE TO WIND OR WATER. THIS MAY BE DONE ACCORDING TO THE FOLLOWING METHODS:
1. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 LBS/ACRE APPLIED BY THE HYDROSEEDER. USE IS LIMITED TO ONLY THE OPTIMUM SEEDING SEASON.
2. SYNTHETIC OR ORGANIC BINDERS
3. PEG AND TWINE, MULCH NETTING, AND MECHANICAL CRIMPING.
4. CRIMPING REQUIRES A HEAVIER MULCH RATE (3 TONS/ACRE).

NOTE:
1) ONE BALE OF HAY WEIGHS 40–60 LBS DEPENDING ON HOW IT WAS BALED.
2) 1,500 GALLON TANK OF HYDROMULCH COVERS .5 ACRES.
PLEASE NOTE: THE QUALITY OF PERMANENT VEGETATION RESTS WITH THE CONTRACTOR. THE TIMING OF SEEDING, PREPARING THE SEEDBED, APPLYING NUTRIENTS, MULCH AND OTHER MANAGEMENT ARE ESSENTIAL. THE SEED APPLICATION RATES IN TABLE 4–3 OF THE STANDARDS ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. (UP TO 50% REDUCTION IS APPLICATION RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO REQUESTING A REPORT OF COMPLIANCE FROM THE DISTRICT. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% EVENLY DISTRIBUTED VEGETATIVE COVER (OF THE SEEDED SPECIES) AND MOWED ONCE.)
6. TEMPORARY SEEDING MIXES

MIX: LATE FALL SUMMER TO EARLY FALL	MIX: MID-SUMMER	MIX: EARLY SPRING/LATE
100% CEREAL RYE	40% PEAR MILLET	100% PERENNIAL RYEGRASS
RATE: 112 LBS/ACRE	40% MILLET (GERMAN OR HUNGARIAN) 20% WEEPING LOVEGRASS RATE: 100 LBS/ACRE	RATE: 100 LBS/ACRE

7. RECOMMENDED PERMANENT SEEDING MIXES
OPTIMUM SEEDING DATES: MARCH 1 TO MAY 15 AND AUGUST 15 TO OCTOBER 15
LAWNS – RATE 200 LBS/ACRE
MERCER CO. PREFERRED MIX FOR LAWNS AND DETENTION BASINS
70% TURF TYPE TALL FESCUE*#
20% PERENNIAL RYEGRASS
10% KENTUCKY BLUEGRASS

MIX: LAWNS – LOW MAINTENANCE DROUGHTY & HEAVY TRAFFIC	MIX: SHADE
80% TALL FESCUE TURF TYPE (LOW GROWING VARIETIES)*# CHEWINGS, OR CREEPING RED FESCUE*	65% HARD,
10% PERENNIAL RYEGRASS (LOW GROWING VARIETIES)	20% KENTUCKY
BLUEGRASS	15% PERENNIAL
RYEGRASS	

MIX: LAWNS – QUALITY SUN AND SHADE	MIX: MOIST DETENTION BASIN BOTTOMS
20% PERENNIAL RYEGRASS	40% FLAT PEA (WITH PROPER INOCULANT)
30% CHEWINGS FESCUE	25% PERENNIAL RYEGRASS
35% CREEPING RED FESCUE	25% TALL FESCUE OR STRONG CREEPING RED
FESCUE	
15% KENTUCKY BLUEGRASS	10% REDTOP

*INCLUDE AT LEAST THREE VARIETIES IN MIX) + USE THE ABOVE MIX FOR INFREQUENT MOWING (I.E. REGULAR MOWING W– 3X) MOWING REGIME, SUBSTITUTE ROUGH BLUEGRASS AND/OR TALL FESCUE FOR THE FLAT PEA.

MIX: WILDLIFE HABITAT ENHANCEMENT BASINS*	MIX: WATERWAYS & WET
RATE: 100 LBS/ACRE	RATE: 100 LBS/ACRE
40% SWITCHGRASS OR COASTAL PANICGRASS	40% SWITCHGRASS
30% CANADA BLUEGRASS OR SMOOTH BROMEGRASS	30% CANADA BLUEGRASS OR
SMOOTH BROMEGRASS	
10% ORCHARDGRASS	15% ROU