DC'S 2013 GREEN CONSTRUCTION CODE (GCC) REQUIREMENTS

SOIL AND WATER QUALITY SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 405.1.4.

SOIL REUSE AND RESTORATION:

SOILS THAT ARE BEING PLACED OR REPLACED ON SITE SHALL BE PREPARED, AMENDED AND PLACED IN A MANNER THAT ESTABLISHES OR RESTORES THE ABILITY OF THE SOIL TO SUPPORT THE VEGETATION THAT HAS BEEN PROTECTED AND THAT WILL BE PLANTED.

405.1.4.1 PREPARATION.

BEFORE PLACING STOCKPILED OR IMPORTED TOPSOILS, COMPLIANCE WITH ALL OF THE FOLLOWING SHALL OCCUR:

1. AREAS SHALL BE CLEARED OF DEBRIS INCLUDING, BUT NOT LIMITED TO, BUILDING MATERIALS, PLASTER, PAINTS, ROAD BASE TYPE MATERIALS, PETROLEUM BASED CHEMICALS, AND OTHER HARMFUL MATERIALS;
2. AREAS OF CONSTRUCTION-COMPACTED SUBSOIL SHALL BE SCARIFIED; AND
3. THE FIRST LIFT OF REPLACED SOIL SHALL BE MIXED INTO SCARIFICATION ZONE TO IMPROVE THE TRANSITION BETWEEN THE SUBSOIL AND OVERLYING SOIL HORIZONS.

   EXCEPTIONS: SCARIFICATION IS PROHIBITED IN ALL OF THE FOLLOWING LOCATIONS:
   - WHERE SCARIFICATION WOULD DAMAGE EXISTING TREE ROOTS.
   - ON INACCESSIBLE SLOPES.
   - ON OR ADJACENT TO TRENCHING AND DRAINAGE INSTALLATIONS.
   - ON AREAS INTENDED BY THE DESIGN TO BE COMPACTED SUCH AS ABUTMENTS, FOOTINGS, INSLOPES.
   - BROWNFIELDS.
   - OTHER LOCATIONS WHERE SCARIFICATION WOULD DAMAGE EXISTING STRUCTURES, UTILITIES & VEGETATION BEING PRESERVED

405.1.4.2 RESTORATION.

SOILS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED IN AREAS THAT WILL NOT BE COVERED BY BUILDINGS, STRUCTURES OR HARDSCAPES. SOIL RESTORATION SHALL COMPLY WITH THE FOLLOWING:

1. ORGANIC MATTER. TO PROVIDE APPROPRIATE ORGANIC MATTER FOR PLANT GROWTH AND FOR WATER STORAGE AND INFILTRATION, SOILS SHALL BE AMENDED WITH A MATURE, STABLE COMPOST MATERIAL SO THAT NOT LESS THAN THE TOP 6 INCHES OF SOIL CONTAINS NOT LESS THAN 3% ORGANIC MATTER. SPHAGNUM PEAT OR ORGANIC AMENDMENTS THAT CONTAIN SPHAGNUM PEAT SHALL NOT BE USED. SOIL ORGANIC MATTER SHALL BE DETERMINED IN ACCORDANCE WITH ASTM D 2974. ORGANIC MATERIALS SELECTED FOR ONSITE AMENDMENT OR FOR BLENDING OF IMPORTED SOILS SHALL BE RENEWABLE WITHIN A 50-YEAR CYCLE.

   EXCEPTION: WHERE THE REFERENCE SOIL FOR A BUILDING SITE HAS AN ORGANIC LEVEL DEPTH OTHER THAN 6 INCHES, SOILS SHALL BE AMENDED TO ORGANIC MATTER LEVELS AND ORGANIC MATTER DEPTH THAT ARE COMPARABLE TO THE SITE'S REFERENCE SOIL.
2. ADDITIONALLY SOIL RESTORATION SHALL COMPLY WITH NOT LESS THAN THREE OF THE FOLLOWING CRITERIA:
   - COMPACTION. BULK DENSITIES WITHIN ROOT ZONE SHALL NOT EXCEED DENSITIES SPECIFIED IN TABLE 405.1.4 AND SHALL BE MEASURED USING A SOIL CONE PENETROMETER IN ACCORDANCE WITH ASAE S313.3. THE ROOT ZONE SHALL BE NOT LESS THAN 6 INCHES, NOR LESS THAN THE SITE'S REFERENCE SOIL, WHICHEVER IS THE GREATER DEPTH. DATA DERIVED FROM A SOIL CONE PENETROMETER SHALL BE REPORTED IN ACCORDANCE WITH ASAE EP542
   - INFILTRATION RATES. INFILTRATION RATE OR SATURATED HYDRAULIC CONDUCTIVITY OF THE RESTORED SOILS SHALL BE COMPARABLE TO THE SITE'S REFERENCE SOIL. INFILTRATION RATES SHALL BE DETERMINED IN ACCORDANCE WITH ASTM D 3385 OR ASTM D 5093. FOR SLOPED AREAS WHERE THE METHODS PROVIDED IN THE REFERENCED STANDARDS CANNOT BE USED SUCCESSFULLY, ALTERNATE METHODS APPROVED BY THE CODE OFFICIAL SHALL BE PERMITTED PROVIDED THAT THE SAME METHOD IS USED TO TEST BOTH REFERENCE SOIL AND ONSITE SOIL.
   - SOIL BIOLOGICAL FUNCTION. WHERE REMEDIATED SOILS ARE USED, THE BIOLOGICAL FUNCTION OF THE SOILS' MINERALIZABLE NITROGEN SHALL BE PERMITTED AS A PROXY ASSESSMENT OF BIOLOGICAL ACTIVITY.
   - SOIL CHEMICAL CHARACTERISTICS. SOIL CHEMICAL CHARACTERISTICS APPROPRIATE FOR PLANT GROWTH SHALL BE RESTORED. THE PH, CATION EXCHANGE CAPACITY AND NUTRIENT PROFILES OF THE ORIGINAL UNDISTURBED SOIL OR THE SITE'S REFERENCE SOIL SHALL BE MATCHED IN RESTORED SOILS. SALINITY SUITABLE FOR REGIONALLY APPROPRIATE VEGETATION SHALL BE ESTABLISHED. SOIL AMENDMENTS AND FERTILIZERS SHALL BE SELECTED FROM THOSE WHICH MINIMIZE NUTRIENT LOADING TO WATERWAYS OR GROUNDWATER.

TABLE 405.1.4
MAXIMUM CONE PENETROMETER READINGS

SURFACE RESISTANCE (PSI)		SUBSURFACE RESISTANCE (PSI)	
ALL TEXTURES SAND	SAND (INCL. LOAMY SAND, SANDY LOAM, SANDY CLAY LOAM, & SANDY CLAY)	SILT (INCLUDES LOAM, SILT LOAM, SILTY CLAY LOAM, & SILTY CLAY)	CLAY (INCLUDES CLAY LOAM)
110	260	260	225

CONSTRUCTION PHASE MOISTURE CONTROL

GCC 502.1.2 – CONSTRUCTION PHASE MOISTURE CONTROL. POROUS OR FIBROUS MATERIALS AND OTHER MATERIALS SUBJECT TO MOISTURE DAMAGE SHALL BE PROTECTED FROM MOISTURE DURING THE CONSTRUCTION PHASE. MATERIAL DAMAGED BY MOISTURE OR THAT ARE VISIBLY COLONIZED BY FUNGI EITHER PRIOR TO DELIVERY OR DURING THE CONSTRUCTION PHASE SHALL BE CLEANED AND DRIED OR, WHERE DAMAGE CANNOT BE CORRECTED BY SUCH MEANS, SHALL BE REMOVED AND REPLACED.

WASTE MANAGEMENT

SITE SHALL COMPLY WITH THE FOLLOWING GREEN CONSTRUCTION CODE REQUIREMENTS:

406.1 – BUILDING SITE WASTE MANAGEMENT REQUIREMENTS.

NOT LESS THAN 75% OF THE LAND-CLEARING DEBRIS FROM A BUILDING SITE SHALL BE DIVERTED FROM LANDFILLS. LAND-CLEARING DEBRIS INCLUDES ROCK, TREES, STUMPS & ASSOCIATED VEGETATION. ADDITIONALLY, BUILDING SITE DEVELOPMENT SHALL INCLUDE THE EFFECTIVE DESTRUCTION & DISPOSAL OF INVASIVE PLANT SPECIES

503.1 – CONSTRUCTION MATERIAL AND WASTE MANAGEMENT REQUIREMENTS.

NOT LESS THAN 50% OF NONHAZARDOUS CONSTRUCTION WASTE SHALL BE DIVERTED FROM DISPOSAL BY RECYCLING OR SALVAGE OF CONSTRUCTION MATERIALS AND WASTE. FOR THE PURPOSES OF THIS SECTION, CONSTRUCTION MATERIALS AND WASTE SHALL INCLUDE BUT ARE NOT LIMITED TO (1) ALL MATERIALS DELIVERED TO THE SITE AND INTENDED FOR INSTALLATION PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, INCLUDING RELATED PACKAGING; AND (2) CONSTRUCTION MATERIALS AND WASTE REMOVED DURING DEMOLITION OR RAZING

RECORDS & SUBMITTALS

THE OWNER, CONTRACTOR OR APPROVED AGENCY SHALL MAINTAIN RECEIPTS AND OTHER DOCUMENTATION RELATED TO WASTE DIVERSION THROUGHOUT THE COURSE OF CONSTRUCTION AS EVIDENCE OF DIVERSION (EG, HAULING RECEIPTS).

NOTE: PERCENTAGE OF MATERIALS TO BE DIVERTED SHALL BE SPECIFIED AND CALCULATED BY WEIGHT OR VOLUME, BUT NOT BOTH.

GREEN BUILDING SUBMITTAL TEMPLATES ARE AVAILABLE ONLINE:
HTTP://DCRA.DC.GOV/PAGE/GREEN-BUILDING-SUBMITTAL-FORM

VERIFICATION.

THE OWNER, CONTRACTOR OR AN APPROVED AGENCY MUST PROVIDE VERIFICATION OF THE PROJECT'S COMPLIANCE WITH THE ABOVE REQUIREMENTS (GCC 406.1 & 503.1)

1. WHEN REQUESTED BY THE CODE OFFICIAL
2. PRIOR TO ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY FOR OCCUPIABLE SPACE IN A STORY ABOVE GRADE PLANE, (OR PRIOR TO FINAL INSPECTION, IF A NEW CERT. OF OCCUPANCY IS NOT REQUIRED)

SEDIMENT & EROSION CONTROL SEQUENCE OF CONSTRUCTION

GENERAL CONSTRUCTION NOTES

- FOR THE INSTALLATION OF ALL PROPOSED BMP FACILITIES (GREEN ROOF, BIORETENTION, AND TREE PLANTING/ PRESERVATION) REFERENCE THE FOLLOWING CHECKLISTS FROM DOEE'S 2020 STORMWATER MANAGEMENT GUIDEBOOK (SWMG):
  - APPENDIX L: CONSTRUCTION INSPECTION CHECKLISTS
  - APPENDIX M: MAINTENANCE INSPECTION CHECKLISTS
- SEE SPECIFIC BMP INSTALLATION NOTES FOR ADDITIONAL CONSTRUCTION SEQUENCING & REQUIREMENTS
- SEE DOEE'S INSPECTION & SCHEDULING NOTES FOR ADDITIONAL INFO/REQUIREMENTS

PRE-DISTURBANCE

1. NOTIFY THE DC SEDIMENT AND EROSION CONTROL INSPECTOR 3 BUSINESS DAYS PRIOR TO ANY LAND DISTURBING ACTIVITIES. PLEASE CALL (202) 535-2977 FOR APPOINTMENT.
2. MEETING WITH THE OWNER'S REPRESENTATIVE SHALL BE HELD PRIOR TO START OF ANY CONSTRUCTION.

SITE ACCESS – BEFORE ANY SITE GRADING ACTIVITIES BEGIN

1. FLAG OFF AREAS TO BE PROTECTED, SUCH AS BUFFER ZONES, DRAINAGE FEATURES, VEGETATED FILTER STRIPS, MATURE TREES, ETC.
2. INSTALL SEDIMENT CONTROLS DOWN GRADIENT OF ACCESS POINT (ON PAVED STREETS THIS MAY CONSIST OF INLET PROTECTION).
3. ESTABLISH VEHICLE TRACKING CONTROL AT SITE ENTRANCES TO PAVED STREETS. FENCE AS NEEDED.
4. NO LATER THAN THE FIRST DAY OF CONSTRUCTION, INSTALL CONSTRUCTION ENTRANCES/SITE ACCESS MEASURES TO MINIMIZE OFF-SITE VEHICLE TRACKING OF SEDIMENTS. EACH CONSTRUCTION ENTRANCE MUST BE STABILIZED AND INCLUDE EACH ADDITIONAL MEASURES REQUIRED TO KEEP SEDIMENT FROM BEING CARRIED ONTO PUBLIC STREETS BY CONSTRUCTION VEHICLES AND WASHED INTO A STORM DRAIN OR WATERWAYS.
5. INSTALL BOUNDARY PERIMETER CONTROLS (CONSTRUCTION FENCING, TREE PROTECTION, FLAGGING, ETC) TO CLEARLY DEFINE THE BOUNDARIES OF THE PROJECT AND LIMIT ACCESS TO AREAS OF THE SITE THAT ARE NOT TO BE DISTURBED.
6. PERFORM STREET SWEEPING AS NEEDED.

SITE GRADING – SITE CLEARING & GRUBBING

1. INSTALL RUNOFF PERIMETER CONTROLS – AS NEEDED ON DOWN-GRADIENT PERIMETER OF SITE (SILT FENCE, INLET PROTECTION, PERIMETER DIKE/SWALE).
2. ALL PERIMETER CONTROLS SHALL BE INSTALLED PER THE SEC PHASE 1 PLAN PRIOR TO COMMENCING LAND DISTURBANCE
3. LIMIT CONSTRUCTION ACTIVITIES TO AREAS PLANNED FOR DISTURBANCE AND PROTECT UNDISTURBED AREAS WITHIN THE SITE.
4. IF APPLICABLE, PRESERVE VEGETATIVE BUFFER AT SITE PERIMETER.
5. ESTABLISH CONSTRUCTION ROUTES; DESIGNATE AREAS FOR PARKING
6. CREATE STABILIZED STAGING AREA.
7. LOCATE PORTABLE TOILETS ON FLAT SURFACES AWAY FROM DRAINAGE PATHS. STAKE IN AREAS SUSCEPTIBLE TO HIGH WINDS.
8. CONSTRUCT CONCRETE WASHOUT AREA AND PROVIDE SIGNAGE.
9. ESTABLISH WASTE DISPOSAL AREAS.
10. INSTALL SEDIMENT BASINS / TRAPS. SEDIMENT TRAPS OR BASINS AND OTHER EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED NO LATER THAN THE FIRST PHASE OF LAND GRADING.
11. SEDIMENT TRAPS OR BASINS AND OTHER EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED AS SOON AS NEW SITE-RELATED RUNOFF IS DETECTED AND EMPLOYED AT ALL TIMES TO PROTECT INLETS OR STORM SEWERS BELOW SILT-PRODUCING AREAS.
12. IMMEDIATELY AFTER DEBRIS BASINS, DIVERSIONS, WATERWAYS, AND RELATED STRUCTURES ARE BUILT, THEY MUST BE SEEDED AND MULCHED OR HAVE A SOD AND STABILIZATION BLANKET INSTALLED.
13. CONSTRUCT ONSITE DIKE/SWALE TO DIRECT ONSITE WATER TO CONTROLLED OUTFALLS DURING GRUBBING AND CLEARING.
14. BEGIN CLEARING AND DEMOLITION OF THE SITE AND EXISTING BUILDINGS.
15. BEGIN OVERALL SITE GRADING AND TOPSOIL STRIPPING
16. SEPARATE AND STOCKPILE TOPSOIL, LEAVE ROUGHENED AND/OR COVER.
17. PROTECT STOCKPILES WITH PERIMETER CONTROL BMPS (SILT FENCES). USE APPROPRIATE EROSION CONTROLS FOR STOCKPILES DURING INACTIVITY; SEE GENERAL SEC NOTES FOR TREATMENT OF STOCKPILES
18. LEAVE DISTURBED AREA OF SITE IN A ROUGHENED CONDITION TO LIMIT EROSION. STABILIZE DISTURBED AREAS WHERE CONSTRUCTION WILL CEASE FOR MORE THAN 14 DAYS.
19. WATER DISTURBED AREA TO MINIMIZE DUST BUT NOT TO A POINT THAT WATERING CREATES RUNOFF.
20. PERMANENTLY STABILIZE ALL AREAS THAT WILL NOT BE REGRADED FOR AT LEAST 1-YEAR.
21. REMOVE OFF-SITE ACCUMULATIONS OF SEDIMENT DAILY DURING CONSTRUCTION AND IMMEDIATELY AT THE REQUEST OF A DOEE INSPECTOR.
22. ONCE FINAL GRADE IS MET, PERMANENTLY STABILIZE ALL DISTURBED AREAS.
23. PERFORM ROUTINE MAINTENANCE TO PREVENT ANY NEW DESTABILIZED AREAS.
24. CONTRACTOR TO MOVE TOWARD SEC PHASE 2 PLAN.

UTILITY AND INFRASTRUCTURE INSTALLATION

1. INSTALL UTILITIES; CLOSE TRENCH AS SOON AS POSSIBLE (GENERALLY AT END OF DAY)
2. USE ROUGH-CUT STREET CONTROL OR INSTALL ROAD BASE FOR STREETS THAT WILL NOT BE PROMPTLY PAVED.
3. INSTALL GUTTERS, CURBS, STORM INLETS, SEWER MANHOLES AT FINAL GRADE
4. PROVIDE INLET PROTECTION TO ALL INSTALLED STORM DRAIN INLETS AS THEY ARE BROUGHT ON-LINE.
5. FLUSH ALL NEW AND EXISTING STORM DRAIN PIPE TO ENSURE THAT THE SYSTEM IS FREE OF SEDIMENT.
6. PROTECT AND REPAIR BMPS, AS NECESSARY.

BUILDING CONSTRUCTION & ROAD FINISHING

1. IMPLEMENT MATERIALS MANAGEMENT AND GOOD HOUSEKEEPING PRACTICES FOR BUILDING ACTIVITIES.
2. USE PERIMETER CONTROLS FOR TEMPORARY STOCKPILES FROM FOUNDATION EXCAVATIONS.
3. AS EXCAVATION OF THE BUILDING BEGINS, CONTRACTOR SHALL INSTALL A SUMP PIT TO REMOVE EXCESS WATER UNTIL THE FOUNDATION/BUILDING IS BROUGHT TO GRADE

FINAL GRADING & ROAD FINISHING

1. REMOVE TEMPORARY CONCRETE WASHOUT AREA
2. REMOVE EXCESS OR WASTE MATERIALS.
3. REMOVE STORED MATERIALS.
4. FINALIZE PAVEMENT ACTIVITIES

FINAL STABILIZATION & LANDSCAPING

1. SEED AND MULCH/TACKIFY; INSTALL BLANKETS ON STEEP SLOPES.
2. INSTALL PROPOSED LANDSCAPING
3. MONITOR STABILIZED AREAS UNTIL FINAL STABILIZATION IS REACHED
4. REMOVE ALL TEMPORARY CONTROL BMPS UPON APPROVAL OF DOEE INSPECTOR AND OWNER'S REPRESENTATIVE. STABILIZE ANY AREAS DISTURBED BY THIS REMOVAL WITH EROSION CONTROLS

FOLLOWING CONSTRUCTION

AT COMPLETION OF LAND DISTURBING ACTIVITY, GIVE NOTICE TO THE DOEE INSPECTOR ONE WEEK NOTICE TO REQUEST A FINAL CONSTRUCTION INSPECTION. SEE DOEE INSPECTION NOTES FOR MORE INFORMATION

CONSTRUCTION & MAINTENANCE INSPECTION CHECKLISTS FOR EACH APPLICABLE BMP CAN BE FOUND IN DOEE'S 2020 STORMWATER MANAGEMENT GUIDEBOOK – APPENDICES L & M.

VEGETATIVE STABILIZATION

I. DEFINITION

USING VEGETATION AS COVER FOR BARREN SOIL TO PROTECT IT FROM FORCES THAT CAUSE EROSION. THIS SPECIFICATION INCLUDES BOTH TEMPORARY AND PERMANENT STABILIZATION.

II. PURPOSE

USE VEGETATIVE STABILIZATION SPECIFICATIONS TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL. WHEN SOIL IS STABILIZED WITH VEGETATION, THE SOIL IS LESS LIKELY TO ERODE AND MORE LIKELY TO ALLOW INFILTRATION OF RAINFALL, THEREBY REDUCING SEDIMENTS LOADS AND RUNOFF TO DOWNSTREAM AREAS AND IMPROVING WILDLIFE HABITAT AND VISUAL RESOURCES.

III. CONDITIONS WHERE PRACTICE APPLIES

USE THIS PRACTICE ON DENUDED AREAS AS SPECIFIED ON THE ESC AND SWM PLANS. IT MAY BE USED ON HIGHLY ERODIBLE OR CRITICALLY ERODING AREAS. THIS SPECIFICATION IS DIVIDED INTO TEMPORARY SEEDING, TO QUICKLY ESTABLISH VEGETATIVE COVER FOR SHORT DURATION (UP TO ONE YEAR), AND PERMANENT SEEDING, FOR LONG-TERM VEGETATIVE COVER. EXAMPLES OF APPLICABLE AREAS FOR TEMPORARY SEEDING ARE TEMPORARY SOIL STOCKPILES, CLEARED AREAS BEING LEFT IDLE BETWEEN CONSTRUCTION PHASES, AND EARTH DIKES OR OTHER TEMPORARY EROSION CONTROL MEASURES. EXAMPLES OF PERMANENT SEEDING INCLUDE LAWNS, DAMS, CUT AND FILL SLOPES, AND OTHER AREAS AT FINAL GRADE.

VEGETATIVE STABILIZATION MUST BE IN PLACE TO STABILIZE THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1 WITHIN 7 DAYS. ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE MUST BE STABILIZED WITHIN 14 DAYS.

IV. DESIGN CRITERIA

DESIGN CRITERIA FOR BOTH TEMPORARY AND PERMANENT VEGETATIVE STABILIZATION INCLUDES SEED SPECIFICATIONS, SEED MIXTURES, AND SOIL AMENDMENTS.

SEED SPECIFICATION

FOR BOTH TEMPORARY AND PERMANENT SOIL STABILIZATION, SEED MUST MEET THE FOLLOWING SPECIFICATIONS:

1. ALL SEED MUST BE SUBJECT TO RETESTING BY A RECOGNIZED SEED LABORATORY WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON THE SITE.
NOTE: SEED TAGS MUST BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY TYPE AND RATE OF SEED USED.

2. SEED QUALITY MUST BE CONSISTENT WITH THE CRITERIA OUTLINED IN TABLE 2.2

3. THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN-FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. DO NOT USE INOCULANTS BEYOND THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANT AS DIRECTED ON THE PACKAGE. USE 4 TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING.
NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL IT IS USED. TEMPERATURES ABOVE 75-80°F CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.

Table 2.2 Quality of Seed

Species	Minimum Seed Purity (%)	Minimum Seed Germination (%)
Cool-Season Grasses		
Barley	98	85
Bentgrass, Creeping	95	85
Bluegrass, Canada	90	80
Bluegrass, Kentucky	97	80
Bluegrass, Rough	96	80
Fescue, Chewings	97	85
Fescue, Creeping Red	97	85
Fescue, Hard	97	85
Fescue, Sheep	97	85
Fescue, Tall	97	85
Oats	98	85
Orchardgrass	90	80
Redtop	92	80
Rye, Cereal	98	85
Ryegrass, Annual or Perennial	97	85
Saltgrass, Alkali	85	80
Wheat	98	85
Wild Rye, Canada	85	70
Warm-Season Grasses		
Bluestem, Big	60	60
Bluestem, Little	55	60
Deertongue	95	75
Indiangrass	60	60
Millet, Foxtail or Pearl	98	80
Panicgrass, Coastal	95	70
Switchgrass	95	75
Legumes/Forbs		
Clover, Alsike	99	85
Clover, Red	99	85
Clover, White	99	90
Flatpea	98	75
Lespedeza, Common	98	80
Pea, Partridge	98	70
Trefoil, Birdsfoot	98	85

TEMPORARY STABILIZATION

USE TEMPORARY SEEDING TO PROVIDE COVER ON DISTURBED AREAS FOR UP TO 12 MONTHS. LONGER DURATION OF VEGETATIVE COVER REQUIRES PERMANENT SEEDING.

INCLUDE IN THE PLAN THE FOLLOWING TEMPORARY SEEDING SUMMARY (TABLE 2.3) THAT IDENTIFIES TEMPORARY SEEDING MATERIALS RATES, SPECIES, AND FERTILIZER/LIME RATES. USE TABLE 2.4 TO COMPLETE THE SUMMARY TABLE.IF TABLE 2.3 IS NOT PUT ON THE PLANS AND COMPLETED, THEN TABLE 2.4 MUST BE PUT ON THE PLANS.

SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING, BUT THE PLAN SHOULD IDENTIFY RECOMMENDED FERTILIZER AND/OR LIME APPLICATION RATES. IF SOIL TESTING IS COMPLETED, REPORT THE TESTING AGENCY'S RESULTS ON THE PLANS. IF SOIL TEST HAS BEEN PERFORMED, DELETE THE RATES SHOWN IN TABLE 2.3 AND WRITE IN THE RATES RECOMMENDED BY THE TESTING AGENCY.

Table 2.3 Temporary Seeding Summary

Temporary Seeding Summary					
Seed Mixture				Fertilizer Rate (10-10-10)	Lime Rate
Species	Seeding Rate (indicate units)	Seeding Dates	Seeding Depths		
ANNUAL RYEGRASS	40 LBS/AC	FEB 15 –APR 30 AUG 15 –NOV 30	0.5 INCHES	436 lb/ac (10 lb/ 1,000 ft²)	2 tons/ac (90 lb/ 1,000 ft²)
OAT	72 LBS/AC	FEB 15 –APR 30 AUG 15 –NOV 30	1 INCH		
WHEAT	120 LBS/AC	FEB 15 –APR 30 AUG 15 –NOV 30	1 INCE		

Seed mixtures appropriate to the District of Columbia for temporary seeding are included in Table 2.4, along with appropriate seeding rates, depths, and planting dates.

VEGETATIVE STABILIZATION (cont'd)

SEED MIXTURES APPROPRIATE TO THE DISTRICT OF COLUMBIA FOR TEMPORARY SEEDING ARE INCLUDED IN TABLE 2.4, ALONG WITH APPROPRIATE SEEDING RATES, DEPTHS, AND PLANTING DATES.

Table 2.4 Temporary Seeding for Site Stabilization

Plant Species	Seeding Rate[1] lb/ac	Seeding Rate[1] lb/1,000 ft²	Seeding Depth (inches)[2]	Recommended Seeding Dates Plant Hardiness Zone 7a and 7b[3]
Cool-Season Grasses				
Annual Ryegrass	40	1.0	0.5	Feb. 15 to Apr. 30; Aug. 15 to Nov. 30
Barley	96	2.2	1.0	Feb. 15 to Apr. 30; Aug. 15 to Nov. 30
Oats	72	1.7	1.0	Feb. 15 to Apr. 30; Aug. 15 to Nov. 30
Wheat	120	2.8	1.0	Feb. 15 to Apr. 30; Aug. 15 to Nov. 30
Cereal Rye	112	2.8	1.0	Feb. 15 to Apr. 30; Aug. 15 to Dec. 15
Warm-Season Grasses				
Foxtail Millet	30	0.7	0.5	May 1 to Aug. 14
Pearl Millet	20	0.5	0.5	May 1 to Aug. 14

Notes:
[1]Seeding rates for the warm-season grasses are in pounds of pure live seed (PLS). Actual planting rates must be adjusted to reflect percent seed germination and purity, as tested. Adjustments are usually not needed for the cool-season grasses.

Seeding rates listed above are for temporary seedings, when planted alone. When planted as a nurse crop with permanent seed mixes, use 1/3 of the seeding rate listed above for barley, oats, and wheat. For smaller-seeded grasses (annual ryegrass, pearl millet, foxtail millet), do not exceed more than 5% (by weight) of the overall permanent seeding mix. Generally, do not use cereal rye as a nurse crop unless planting will occur in very late fall beyond the seeding dates for other temporary seedings. Cereal rye has allelopathic properties that inhibit the germination and growth of other plants. If it must be used as a nurse crop, seed at 1/3 of the rate listed above.

Oats are the recommended nurse crop for warm-season grasses.

[2]For sandy soils, plant seeds at twice the depth listed above.

[3]The planting dates listed are averages and may require adjustment to reflect local conditions.

PERMANENT STABILIZATION

FOR PERMANENT SEEDINGS, THE PLAN MUST INCLUDE THE PERMANENT SEEDING SUMMARY BELOW IN TABLE 2.5. THE SUMMARY TABLE WAS COMPLIED USING TABLES 2.6 AND 2.7 IN THE DOEE DESIGN MANUAL.

Table 2.5 Permanent Seeding Summary

Permanent Seeding Summary								
	Seed Mixture				Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P_2O_5	K_2O	
	KENTUCKY BLUEGRASS	87 LBS/AC	FEB 15–APR 30 AUG 15–NOV 30	0.5 INCHES	45 lb/ac (1.0 lb/ 1,000 ft²)	90 lb/ac (2 lb/ 1,000 ft²)	90lb/ac (2 lb/ 1,000 ft²)	2 tons/ac (90 lb/ 1,000 ft²)
	TALL FESCUE	130 LBS/AC	FEB 15–APR 30 AUG 15–NOV 30	0.5 INCHES				
	PERENNIAL RYE GRASS	87 LBS/AC	FEB 15–APR 30 AUG 15–NOV 30	0.5 INCHES				

TURFGRASS MIXTURES

SELECT A SEED MIXTURE FROM TABLE 2.6, USING TABLE 2.7(CONDITIONS BY MIX) AS A GUIDELINE. SOME GUIDANCE FOR COMMON MIXES IS AS FOLLOWS:

1. KENTUCKY BLUEGRASS (FULL SUN MIXTURES) – FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. THE RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE IS 1.5 TO 2 LBS PER 1000 SQUARE FT. CHOOSE A MINIMUM OF 3 BLUEGRASS CULTIVARS RANGING FROM A MINIMUM OF 10% TO A MAXIMUM OF 35% OF THE MIXTURE BY WEIGHT.
2. KENTUCKY BLUEGRASS/PERENNIAL RYE(FULL SUN MIXTURE) – FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. THE CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE IS 2 LBS MIXTURE PER 1000 SQUARE FEET. A MINIMUM OF 3 KENTUCKY BLUEGRASS CULTIVARS MUST BE CHOSEN, WITH EACH CULTIVAR RANGING FROM 10% TO 35% OF THE MIXTURE BY WEIGHT.
3. TALL FESCUE/KENTUCKY BLUEGRASS (FULL SUN MIXTURE) – FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. THE RECOMMENDED MIXTURE INCLUDE 95% TO 100% CERTIFIED TALL FESCUE CULTIVARS AND 0% TO 5% CERTIFIED KENTUCKY BLUEGRASS CULTIVARS. THE SEEDING RATE IS 5 TO 8 LBS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
4. KENTUCKY BLUEGRASS/FINE FESCUE(SHADE MIXTURE) – FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS OR FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. THE MIXTURE INCLUDES 30% TO 40% CERTIFIED KENTUCKY BLUEGRASS CULTIVARS AND 60% TO 70% OF CERTIFIED FINE FESCUE. THE SEEDING RATE IS 1½ TO 3LBS PER 1000 SQUARE FEET. A MINIMUM OF 3 KENTUCKY BLUEGRASS CULTIVARS MUST BE CHOSEN, WITH EACH CULTIVAR RANGING FROM A MINIMUM OF 10% TO A MAXIMUM OF 35% OF THE MIXTURE BY WEIGHT.

NOTE: SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT MARYLAND – VIRGINIA TURFGRASS VARIETY RECOMMENDATION WORK GROUP LIST (HTTP://WWW.PUBS.EXT.VT.EDU/).

Table 2.6 Recommended Permanent Seeding Mixtures by Site Condition or Purpose

Site Condition or Purpose of the Planting	1	2	3	4	5	6	7	8	9	10	11	12	13
Steep Slopes, Roadsides	R	R	R	A	R	A				A	A	R	R
Sand and Gravel Pits, Sanitary Landfills	R	R	R	A	R	A				A	A	R	
Salt-Damaged Areas	A												R
Mine Spoil, Dredged Material, and Spoil Banks	A		R	A	A								
Utility Rights-of-Way	R	R	R	R	R	R	A			R	R	R	
Dikes and Dams	A	A	R	A		R	R	A		R	R	R	
Berms and Low Embankments (not on Ponds)	R	R	R	R	R	R	A	A		R	R	R	A
Pond and Channel Banks, Streambanks	R	R	R	R	A	A	A			A	A		
Grassed Waterways, Diversions, Terraces, Spillways	A				A	R	R	A	R		R		A
Bottom of Drainage Channels, Swales, Detention Basins				A		R	A			A	R		R
Field Borders, Filter Strips, Contour Buffer Strips	R	R	R	A	A	R	A	R	R	R	R	R	A
Wastewater Treatment Strips and Areas								R	A	A			
Heavy Use Areas (Grass Loafing Paddocks for Livestock)								R					
Athletic Fields, Residential and Commercial Lawns							A	R	R		R		
Recreation Areas							R	R	R		R		

R = Recommended mix for this site condition or purpose.
A = Alternative mix, depending on site conditions.

Table 2.7 Selected List of Permanent Herbaceous Seeding Mixtures

Mix	Recommended Cultivar	Seeding Rate[1] lb/ac	Seeding Rate[1] lb/ 1,000 ft²	Soil Drainage Class[2]	Max. Height (in.)	Maint. Level[3]	Remarks
Warm-Season/Cool-Season Grass Mixes							
1. SELECT ONE WARM-SEASON GRASS:				E–P	4–7	C–D	All species are native to the area.
Switch Grass (*Panicum virgatum*)	Blackwell, Carthage, Cave-in-the-Rock, or Shelter	10	0.23				Plant this mix with a regular grass drill.
OR Coastal Panic Grass (*Panicum amarum var. amarulum*)	Atlantic	10	0.23				Coastal panicgrass is best adapted to Zones 7a and 7b.
AND ADD: Creeping Red Fescue (*Festuca rubra var. rubra*)	Navigator II	15	0.34				Creeping red fescue is a cool-season grass that will provide erosion protection while the warm-season grass (switchgrass or coastal panicgrass) is becoming established.
PLUS ONE OF THE FOLLOWING LEGUMES:							
Partridge Pea (*Chamaecrista fasciculate*)	Common	4	0.09				Switchgrass, coastal panicgrass, the 'Dawson' variety of creeping red fescue, and partridge pea are moderately salt tolerant. Do not use bush clover or wild indigo on wet sites.
Bush Clover (*Lespedeza capitate*)	Common	2	0.05				
Wild Indigo (*Baptisia tinctoria*)	Common	2	0.05				
2. Big Bluestem (*Andropogon gerardii*)	Niagara or Rountree	6	0.14	E–MW	6–8	C–D	All species are native to the area.
Indiangrass (*Sorghastrum nutans*)	Rumsey	6	0.14				The indiangrass and bluestems have fluffy seeds. Plant with a specialized native seed drill.
Little Bluestem (*Schizachyrium scoparium*)	Aldous or Blaze	4	0.09				
Creeping Red Fescue (*Festuca rubra var. rubra*)	Navigator II	15	0.34				Creeping red fescue is a cool-season grass that will provide erosion protection while the warm-season grasses are becoming established.
PLUS ONE OF THE FOLLOWING LEGUMES:							
Partridge Pea (*Chamaecrista fasciculata*)	Common	4	0.09				
Bush Clover (*Lespedeza capitata*)	Common	2	0.05				
Wild Indigo (*Baptisia tinctoria*)	Common	2	0.05				
Showy Tick-Trefoil (*Desmodium canadense*)	Common	1	0.05				

GOVERNMENT OF THE DISTRICT OF COLUMBIA
PERMIT OPERATIONS DIVISION
PLANS APPROVED
Permit No. BCIV2300110 Date 11/16/23

These plans are conditionally approved as submitted or noted during plan review and are subject to field inspection. Approved plans must be kept on site and are needed for all inspections. No changes or modifications to these plans. Changes require a revision permit with the revised plans. Trade Permits are required for trade work. e.g. Electrical or Plumbing

Structural Review - Glenn Kechejian - 11-16-2023
DDOT Review - Shawntanishia Zackery - 11-16-2023
DOEE SE-SW Review - Saba Gharavi - 11-16-2023
HPRB Review - Timothy Dennee - 11-16-2023
DC Water Review - Vahid Bilvardi - 11-16-2023

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WASHINGTON, D.C. 20015

SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

VIKA CAPITOL REVISIONS

#	DATE	DESCRIPTION

**NOTE
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DISTRICT OF COLUMBIA ★ KYLE U. OLIVER ★ PE900770 ★ CIVIL ★ PROFESSIONAL ENGINEER ★ 3/17/2023

DATE: 23-FEB-2023
DES. KUO DWN. BJR
SCALE: AS SHOWN
PROJECT/FILE NO. VC0626D
SHEET NO. CIV0810

Board of Zoning Adjustment
District of Columbia
CASE NO.21100
EXHIBIT NO.33J

S:\0001-1000\0626D – 5901 Utah Ave. NW –Final Eng\cadd\construction documents\VC0626D_900.dwg, ~ Mar 29, 2023 AT 12:24:32 PM

LAYOUT: CIV0810 SEC DETS, Plotted By: merkel