KEY PLAN:

SEC
NOVEMBER 15, 2010
DATE:
TITLE:
NUMBER:

Square 55 : Washington DC 20052
SECOND-STAGE PUD APPLICATION
SEDIMENTATION AND EROSION CONTROL PLAN - SOUTH
SCIENCE AND ENGINEERING COMPLEX (SEC)

CONSTRUCTION AND STABILIZATION SEQUENCE:

INITIAL REMOVAL AND DREDGING OF SEDIMENT INCLUDING COMBINED CHANNELS
FOR PROJECT NO. 25010014007.

PRODUCTIVE DREDGING TO BE PERFORMED PRIOR TO CONSTRUCTION AND DEDICATION:
- INITIAL DREDGING TO BE PERFORMED PRIOR TO CONSTRUCTION AND DEDICATION.

CONSTRUCTION DATES:

- THE PURPOSE DATE WHERE TO CONCEAL IN SUMMER 2010 AND IS
- DEDUCED TO BE APPROVED BY THE
- TOTAL AREA OF DISRUPTION:
- NO.

SEDIMENT CONTROL APPROVAL:

- SITE:
- APPROVED BY THE

NOTE:

- THE CONTRACTORS SHALL BE REQUIRED TO ENSURE THAT ALL SEDIMENT AND DREDGED MATERIALS
- EROSION CONTROL:
- APPROVED BY THE

LEGEN

THIS SHEET IS TO BE USED FOR SEDIMENTATION AND EROSION CONTROL PURPOSES ONLY!!
SECOND-STAGE PUD APPLICATION

KEY PLAN: SEC SCIENCE AND ENGINEERING COMPLEX (SEC)
C-04 SEDIMENTATION AND EROSION CONTROL - NORTH

CONSTRUCTION AND STABILIZATION SEQUENCE:
The proposed stabilization control measures outlined in the following text are intended to:
1. Provide erosion control to the construction area.
2. Prevent soil movement and sediments.
3. Control excessive flow rates.
4. Ensure compliance with applicable regulations.

SEEDING:
The seeding type, rate, and application method shall be in accordance with the approved plan.

SEDIMENTATION EROSION CONTROL NOTE:

1. The construction area shall be kept free of excessive soil and sediments.
2. All exposed soil shall be covered with approved materials.
3. All equipment and materials shall be properly secured.
4. All temporary access roads shall be maintained.
5. All exposed soil shall be protected with approved materials.

CONSTRUCTION DATES:
The construction dates are subject to change due to unforeseen conditions and changes in design.

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KEY PLAN:

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Square 55 : Washington DC 20052

SECOND-STAGE PUD APPLICATION C-05

GRADING PLAN - SOUTH SCIENCE AND ENGINEERING COMPLEX (SEC)

H STREET NW

(ASPHALT - 90' WIDE PUBLIC)
STORMWATER MANAGEMENT CALCULATIONS

TOTAL IMPERVIOUS AREA (ha) = 0.100, ac or 1.0, ac

DRIPPER DATA:
Type of sewer: Combined Sewer
Rise of sewer: Existing 10'

QUANTITY CONTROL REQUIREMENTS:

Q = C * T * A

where: Q = peak flow
C = runoff coefficient
T = duration (hrs)
A = drainage area (ft²)

2-YEAR CONTROL (Q2yr)
Q2yr = (0.63 * 0.54, in/hr * 1 ft²) * 2.45, in/hr
Q2yr = 2.88, ft²

15-YEAR CONTROL (Q15yr)
Q15yr = (0.26 * 0.54, in/hr * 1 ft²) * 2.45, in/hr
Q15yr = 0.25, ft²

SHORT-CUT ROUTING:

where: Tc = time of concentration (5 min)
Vc = 1.031 (Qc - Qc / Tc)
Vc = 1.031 (2.88 - 2.88 / 5) min * 60 sec
Vc = 2.445, ft³ or 38,694.20 gallons

DETERMINE WATER QUALITY VOLUME:

where: Vwq = water quality volume to be treated

1. For impervious area:
Vwq = B * L
= 0.3 in. * 40,000 ft²
Vwq = 12,000, ft³
Vwq = 1,200,000, gallons

NOTE: For DDOE standards, whichever of the two volume computations is larger, use the larger one for both quantity and quality requirements.

VOLUME OF CISTERN PROVIDED:

Vc = Length x Width x Height
= 23.37 x 20.33 x 8.0 ft
Vc = 4,790.11, ft³ or 6,961.22 gallons

VOLUME PROVIDED = VOLUME REQUIRED

VOLUME PROVIDED: 4,790.11, ft³ VOLUME REQUIRED: 2,415, ft³

VOLUME OF CISTERN IS GREATER THAN VOLUME REQUIRED THEREFOR THE STRUCTURE SATISFIES THE DDOE REQUIREMENTS.

AWAITING DRAWING

CISTERN STRUCTURE
PLAN VIEW

SECTION VIEW

STORM WATER MANAGEMENT PLAN

C-09