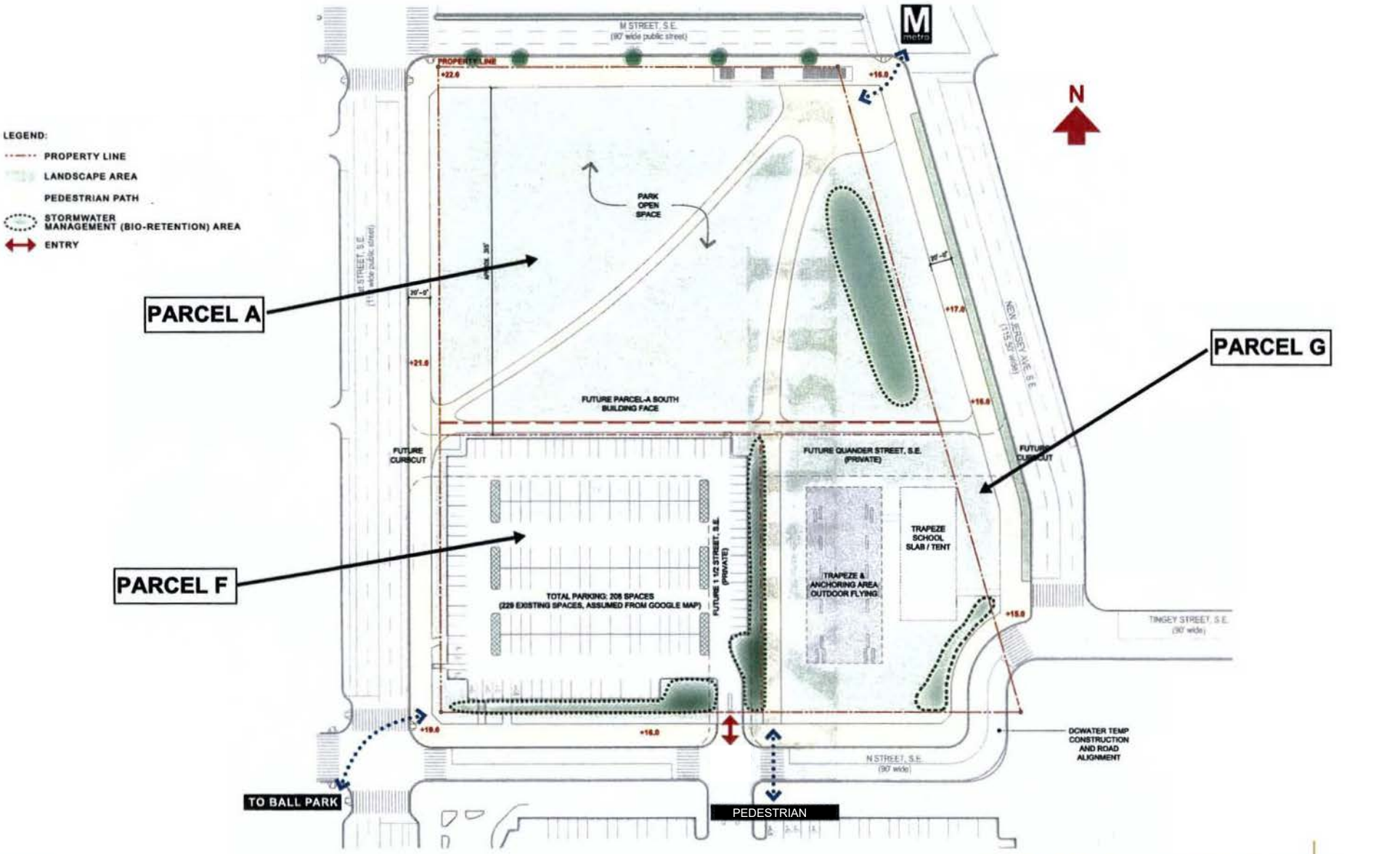
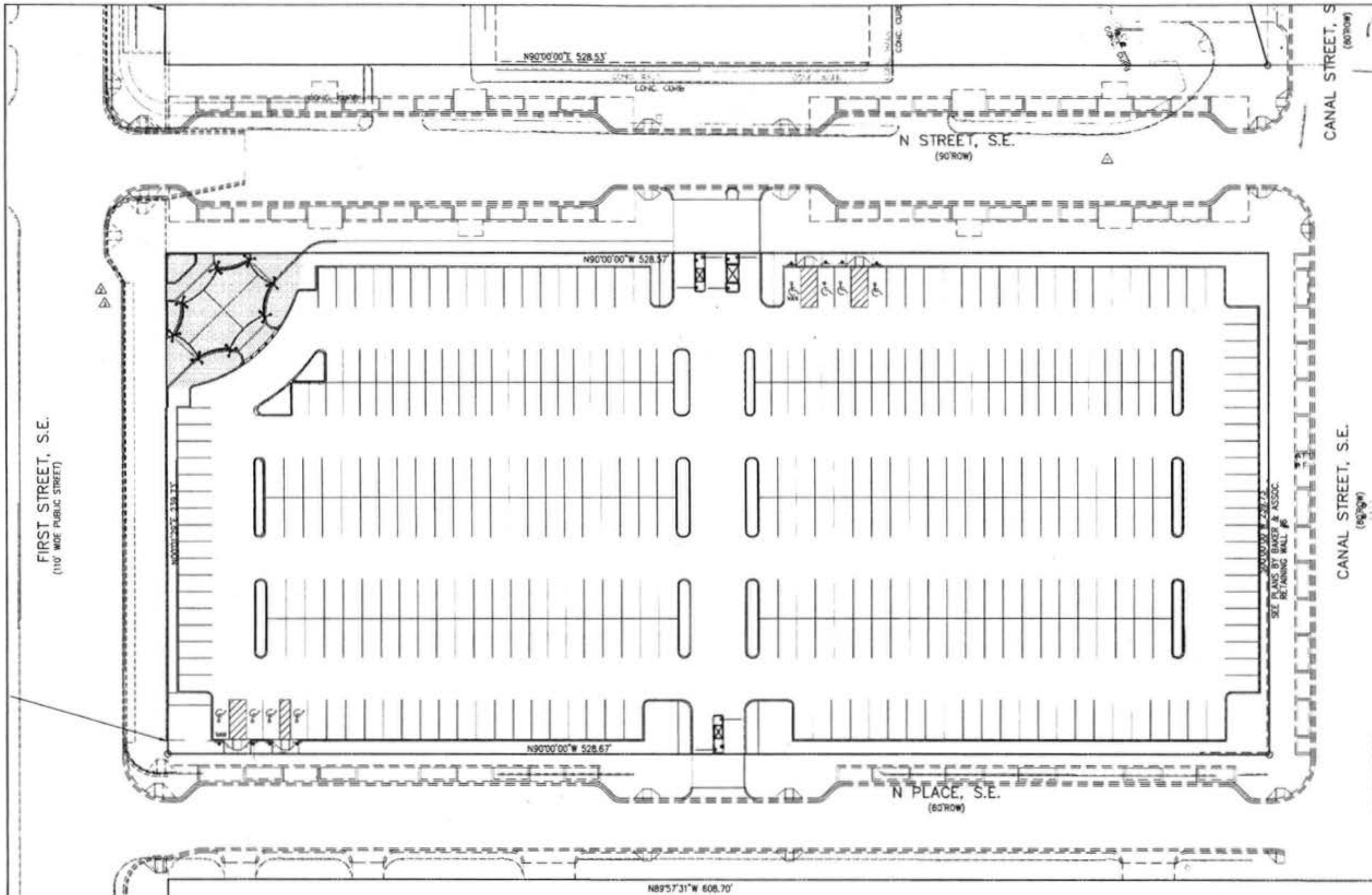


SCALE: 1"=80' shalom baranes associates | architects

SITE PLAN FOR PARCEL A,F,G-THE YARDS, WASHINGTON DC

District of Columbia
CASE NO.13-16A
EXHIBIT NO.2H



VICINITY MAP
NOT TO SCALE

PARKING COUNT
FULL SIZE (9'x18') = 260 (66.0%)
COMPACT SIZE (8'x16') = 134 (34.0%)
TOTAL = 394 SPACES
(INCLUDING 8 ACCESSIBLE SPACES)

GENERAL NOTES:

1. THE BUILDING INFORMATION (DIMENSIONS, UTILITY CONNECTIONS, ETC.) SHOWN ON THIS PLAN WAS TAKEN FROM PLANS PREPARED BY

N/A ARCHITECT	N/A DATE
N/A MEP	N/A DATE

IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE MOST CURRENT APPROVED ARCHITECT / MEP PLANS AND COORDINATE SAME WITH SITE PLAN, PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.

2. THE CONTRACTOR IS TO VERIFY THAT THE RELOCATION OF ANY UTILITY IN CONFLICT WITH PROPOSED WORK HAS BEEN COMPLETED, INCLUDING UTILITY POLES AND GUY WIRES.

3. IF THE CONTRACTOR HAS ANY QUESTIONS AS TO THE NATURE, METHOD, OR DETAIL OF THE PERFORMANCE OF HIS WORK OR THE CONTRACT DOCUMENTS, HE SHOULD CONTACT VIKA INC. AT 703-442-7800 PRIOR TO COMMENCING WORK. VIKA INC. ACCEPTS NO LIABILITY OR ASSUMPTIONS OR INTERPRETATIONS MADE BY THE CONTRACTOR OR HIS SUBCONSULTANTS.

4. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" FOR MARKING LOCATIONS OF EXISTING UTILITIES AT 1-800-257-7777, 48 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.

5. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATIONS AND ELEVATIONS OF THE UTILITIES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF TRENCHING. IF CLEARANCES ARE LESS THAN SPECIFIED ON THIS PLAN OR LESS THAN 12 INCHES WHEN NOT SPECIFIED, CONTACT THE ENGINEER, AND THE OWNER OF THE OTHER INVOLVED UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.

6. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY VIKA INC., IMMEDIATELY OF ANY OMISSIONS AND/OR ADDITIONS OF UTILITIES FOUND BY ANY CONTRACTOR ENGAGED IN EXCAVATION AT THIS SITE.

7. GRADING SHALL BE DONE IN SUCH A MANNER AS TO PROVIDE POSITIVE DRAINAGE.

8. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO STRUCTURES, WHEN NECESSARY, TO MEET EXISTING CONDITIONS OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

9. ALL EXISTING UTILITIES AND STRUCTURES NOT SHOWN TO BE REMOVED ARE TO REMAIN AND PRESERVED AS FUNCTIONAL.

10. REPAIRS TO UTILITIES OR PROPERTY DAMAGED AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION MUST BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.

GENERAL ROADWAY PAVING CONSTRUCTION NOTES

1. ALL ROADWAY WORK WILL BE PERFORMED IN ACCORDANCE WITH DCDOT STANDARDS AND SPECIFICATIONS.

2. ALL EXISTING UTILITIES WILL BE ADJUSTED TO GRADE AS NECESSARY BY THE CONTRACTOR.

3. STABLE SUBGRADE IS DEFINED AS THAT SOLID, UNDISTURBED EARTH CAPABLE OF SUPPORTING STREET LOADING WITHOUT DAMAGING SETTLEMENT AS DETERMINED BY THE GEOTECHNICAL ENGINEER.

4. WHERE UNSTABLE SUBGRADE IS ENCOUNTERED, IT SHALL BE MADE STABLE BY COMPACTION OR REPLACEMENT, AS REQUIRED.

5. CONTRACTOR TO PROVIDE ROADWAY UNDERDRAINS PER GEOTECHNICAL DIRECTION IF REQUIRED.

6. ALL EXISTING BLUE STONE CURB TO BE SALVAGED AND TURNED OVER TO DDOT.

TEST PIT NOTE:

INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION, ELEVATIONS, AND SIZES OF EX. UTILITIES BY DIGGING TESTS PITS BY HAND AT ALL POINTS OF CONNECTION AND AT CROSSINGS. RESULTS FROM THESE TEST PITS SHALL BE SUBMITTED TO THE ARCHITECT FIVE (5) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION AND/OR ORDERING MATERIALS.

COORDINATION NOTES:

1. IF VIKA IS NOT PROVIDING STAKEOUT SERVICE, THE CONTRACTOR IS TO ESTABLISH AND CHECK ALL HORIZONTAL AND VERTICAL CONTROLS TO BE USED WITH THIS PROJECT. IN ADDITION, THE CONTRACTOR IS TO COMPUTE THE LAYOUT OF THE ENTIRE PLAN IN ADVANCE OF BEGINNING ANY WORK ASSOCIATED WITH THE SUBJECT PLANS.

2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE MOST CURRENT APPROVED ARCHITECTURAL/M.E.P. PLANS AND COORDINATE SAME WITH THE SITE PLAN, PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.

3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF CONSTRUCTION WITH THE FOLLOWING UTILITY COMPANIES SERVING THE SITE: PEPCO, VERIZON, WASHINGTON GAS, DISTRICT CABLE VISION.

4. CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH THE DISTRICT OF COLUMBIA WATER AND SEWER ADMIN. (DCWASA) FOR TAPPING FEES AND DETERMINING THE EXTENT OF WORK (FOR WATER CONNECTION) TO BE ACCOMPLISHED BY DCWASA.

5. CONTRACTOR TO COORDINATE WITH THE OFFICE OF THE DC SURVEYOR TO ENGAGE A SURVEYOR LICENSED BY THAT OFFICE TO PREPARE A WALLCHECK SURVEY AS REQUIRED BY THE DC CODE IN ADVANCE OF PLACING CONCRETE ASSOCIATED WITH THE FOUNDATION.

6. CONTRACTOR TO COORDINATE WITH LANDSCAPE PLANS FOR ALL LANDSCAPE PLANTINGS AND LANDSCAPE DETAILS ADJACENT TO THE MARKETING CENTER.

LEGEND

STORM DRAIN
TEST PIT
PROPOSED CONTOUR LINE
PROPOSED SPOT GRADE
BUILDING ENTRANCE
PROPOSED CONTOUR LINE FROM INFRASTRUCTURE PLANS
PROPOSED SPOT GRADE FROM INFRASTRUCTURE PLANS
CURB & GUTTER TO BE INSTALLED WITH INFRASTRUCTURE PLAN
WATER LINE TO BE INSTALLED WITH INFRASTRUCTURE PLAN
SANITARY SEWER TO BE INSTALLED WITH INFRASTRUCTURE PLAN
STORM DRAIN TO BE INSTALLED WITH INFRASTRUCTURE PLAN
FULL SIZE PARKING SPACE (9'X18')
COMPACT PARKING SPACE (8'X16')

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

VIKA INCORPORATED
ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ GIS SERVICES
8180 GREENSBORO DRIVE, SUITE 200 ■ McLEAN, VIRGINIA 22102
(703)442-7800 ■ FAX (703)761-2787
McLEAN, VA   GERMANTOWN, MD   LEESBURG, VA

SOUTHEAST FEDERAL CENTER
INTERIM PARKING LOTS
"PARCELS H/I, L, N"
1314 FIRST STREET
S.E. WASHINGTON, D.C.

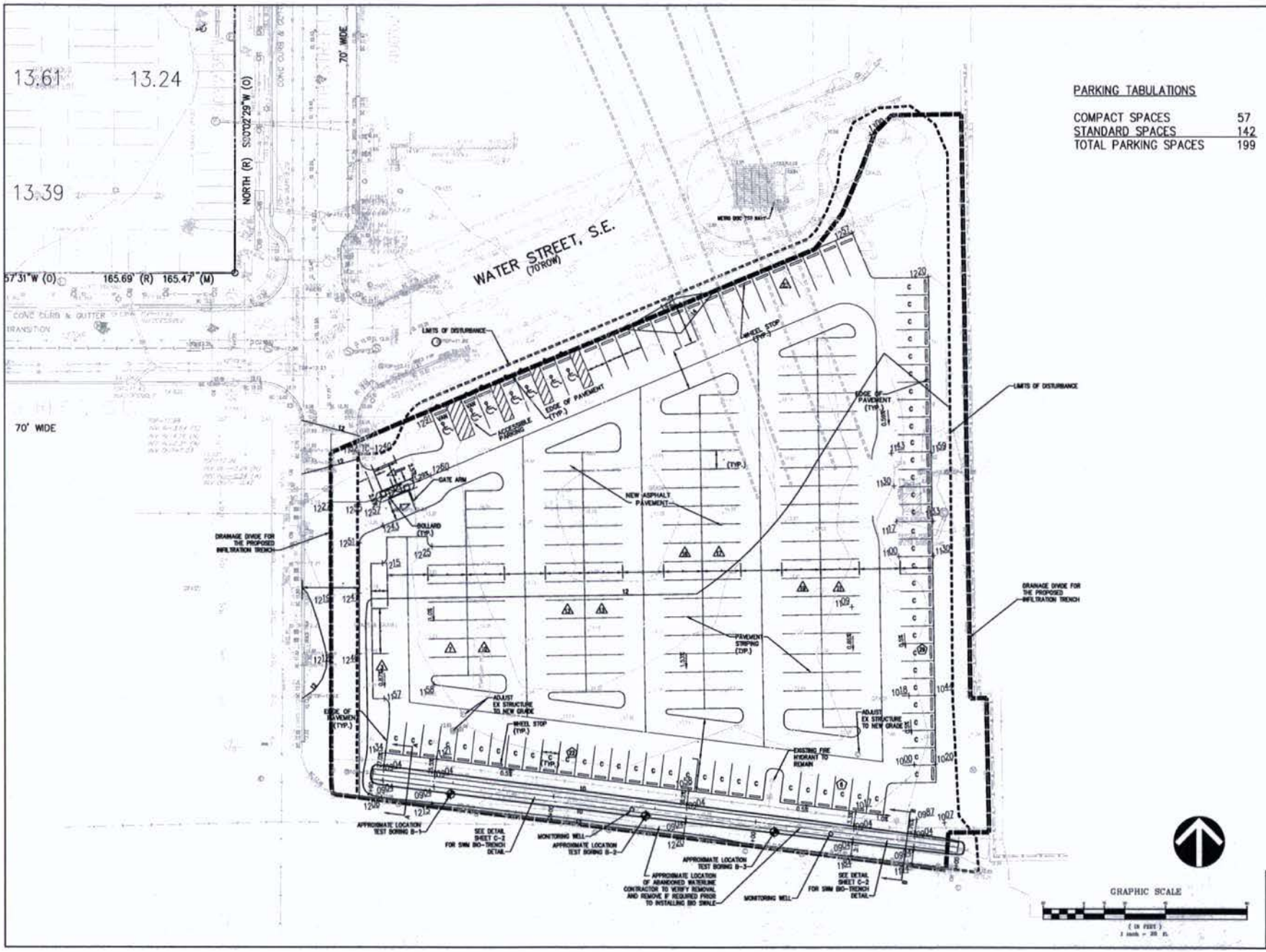
PARCEL "H/I"
SITE GRADING AND
UTILITY PLAN

VIKA REVISIONS

ENTRANCE REV. 12/4/07
MKT.CTR. REV. 12/21/07
STORM DRAIN OUTFALL
SD REV. 01-23-08
PROP.TEXT REV. 01-29-08
PROP.TEXT REV. 04-08-08

DATE DECEMBER 21, 2007
DES. WB   DWN. LE
SCALE: 1"=20'
PROJECT/FILE NO. 5192H
SHEET NO. C-07

P:\LD03\Projects\6192\dwg\6192244.dwg 11/7/2012 9:48:31 AM EST



PARKING TABULATIONS

COMPACT SPACES	57
STANDARD SPACES	142
TOTAL PARKING SPACES	199

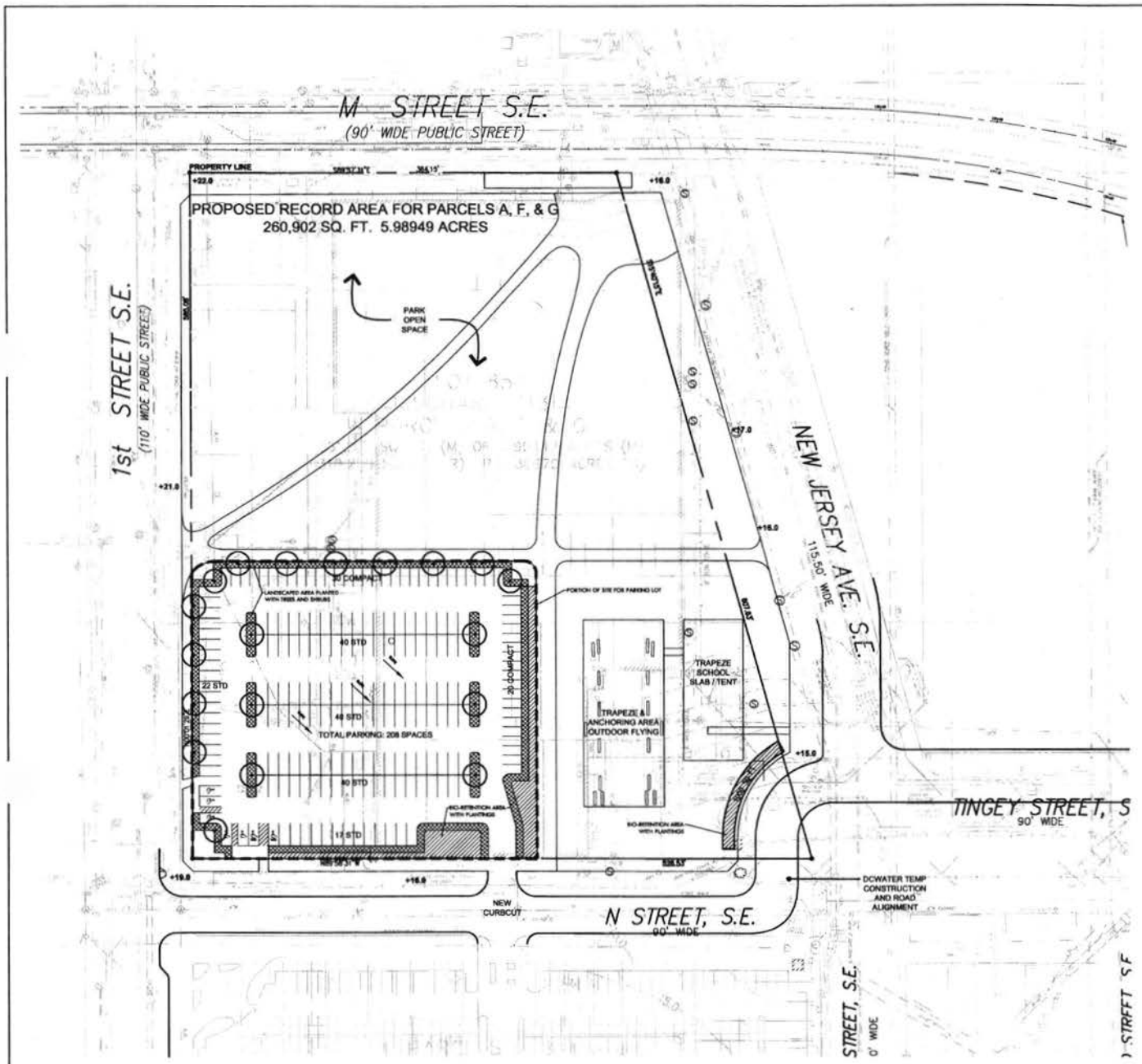
PROJECT COORDINATOR:
E-MAIL: @vikacapitol.com
CAPITOL
VIKA CAPITOL, LLC

SOUTHEAST FEDERAL CENTER
INTERIM PARKING LOT
PARCEL Q
WASHINGTON, D.C.

PARCEL Q
PARKING LOT
CONCEPT PLAN

VIKA CAPITOL REVISIONS

DATE: MAR. 12, 2013
DES. STF
DWN. STF
SCALE: HORZ: 1"=20'
VERT: 1"=
PROJECT/FILE NO. VC00.37J
SHEET NO. C-1



VICINITY MAP
SCALE: 1" = 2000'

COMPUTATIONS

PORTION OF SITE FOR PARKING LOT=74,535 SQ. FT.
PAVED AREA= 61,573 SQ. FT.
LANDSCAPE AREA REQUIRED UNDER 2111= 6,157 SQ. FT.
LANDSCAPE AREA PROVIDED=7,852 SQ. FT.

NOTES

1. TREES SHALL BE 4' FROM PROTECTIVE BARRIERS.
2. TREES SHALL BE A MINIMUM 2.5 INCHES IN CALIPER AND HAVE 500 CU. FT. OF SOIL.

LEGEND

COMPACT PARKING- 8' X 16'
STANDARD PARKING (STD)- 9' X 19'

BIORETINITION AREA WITH PLANTS

LANDSCAPED AREA WITH TREES AND SHRUBS

GREEN AREA RATIO NARRATIVE

SITE AREA= 260,902 SQ. FT.
WASHINGTON DC ZONE= CR
GAR REQUIRED SCORE= 0.20
CURRENTLY THE SITE MEETS AND EXCEEDS THE REQUIRED SCORE WITH THE PROPOSED GRASS AREAS.

GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.

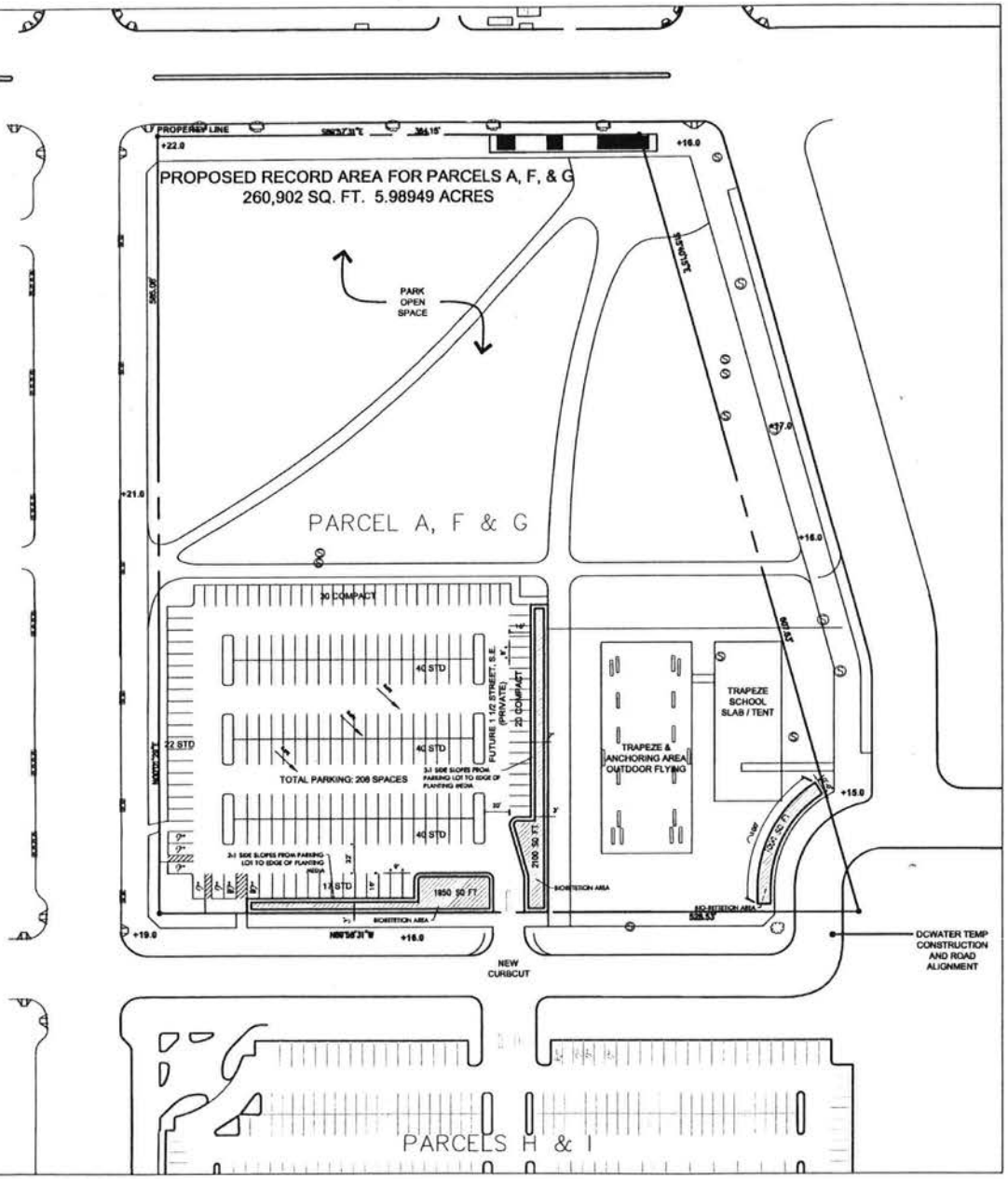
CAPITOL
PROJECT COORDINATOR:
E-MAIL: @vikacapitol.com
VIKA CAPITOL, LLC
4910 MASSACHUSETTS AVENUE, NW • WASHINGTON, DC 20016 •
Phone: 202.244.4100 • Fax: 202.244.4199
www.vikacapitol.com

PARCEL A,F&G
LOT 854 SQUARE 743
WASHINGTON, D.C.

LANDSCAPE PLAN

VIKA CAPITOL REVISIONS

DATE: 11/8/2013
DES. KUO/CR | DWN. CR
SCALE: 1"= 40'
PROJECT/FILE NO. 0037
SHEET NO. C-1



LEGEND

COMPACT PARKING- 8' X 16'
STANDARD PARKING (STD)- 9' X 19'

BIORETINITION AREA WITH PLANTS

SWM NARRATIVE

Infiltration test were performed on the site and the rates were found to be unacceptable.
Both Bio Retention areas will be Standard Bio Retention facilities.
Parking lot - we will need approximately 4000 Square feet of Bioretention area. The soil media will need to be 5.5' deep with an additional 1 foot of stone with a perforated under drain.
Trapeze school - we will need approximately 1000 Square feet of Bioretention area. The soil media will need to be 4' deep with an additional 1 foot of stone with a perforated under drain.

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

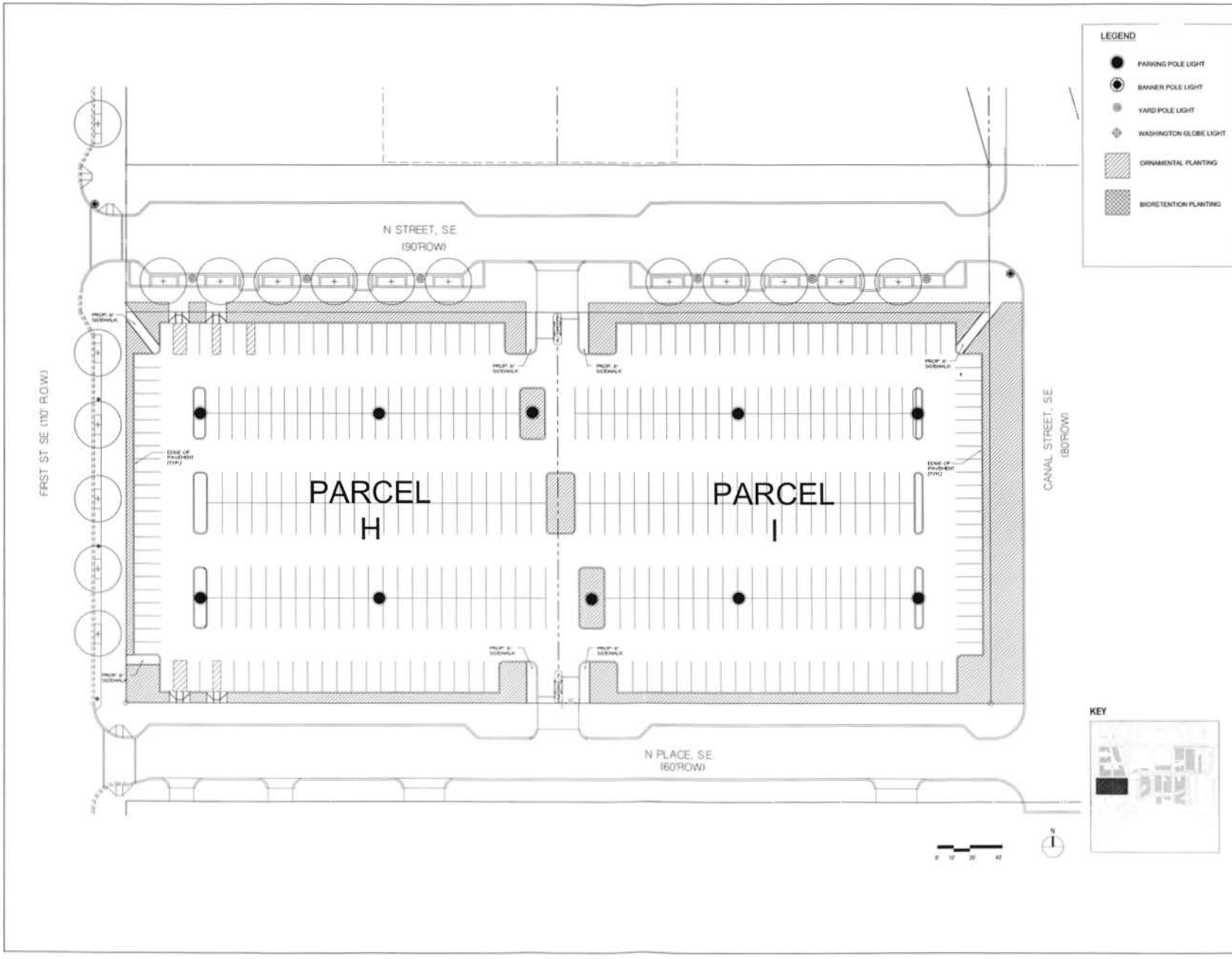
CAPITOL
PROJECT COORDINATOR:
E-MAIL: @vikacapitol.com
VIKA CAPITOL, LLC
4910 MASSACHUSETTS AVENUE, NW SUITE 214 • WASHINGTON, DC 20016 •

PARCEL A,F&G
LOT 854 SQUARE 743
WASHINGTON, D.C.

STORMWATER MANAGEMENT PLAN

VIKA CAPITOL REVISIONS

DATE: 11/8/2013
DES. KUO/CR | DWN. CR
SCALE: 1"= 40'
PROJECT/FILE NO. 0037
SHEET NO. C-2

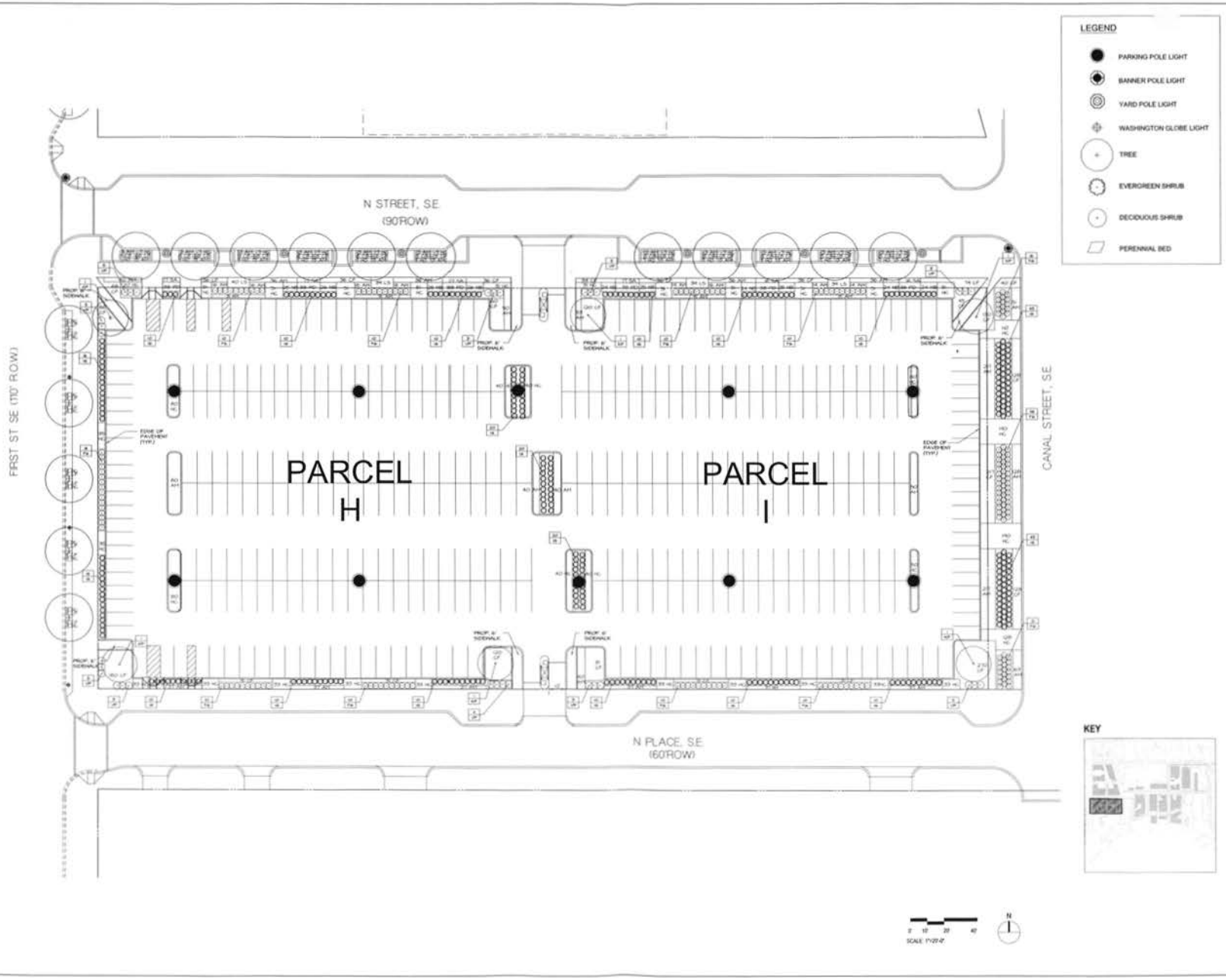


SOUTHEAST FEDERAL CENTER
WASHINGTON, DC

PARCEL H + I

Revisions
12/20/06 Permit Package
05/04/07 100% CD
06/01/07 100% Revisions

DATE: July 2, 2007
DES: CHKD:
SCALE:
PROJECT/FILE NO: 05018
SHEET NO: L-100



SOUTHEAST FEDERAL CENTER
WASHINGTON, D.C.

PLANTING PLAN
INTERIM PARKING PARCELS H AND I

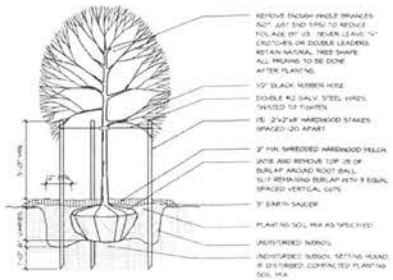
Revisions
6/29/06 Permit Package
02/04/07 100% DD
06/20/07 100% Revisions

DATE: JAN. 2, 2007
DES. DWN.
SCALE
PROJECT/FILE NO. 0508
SHEET NO. L-200

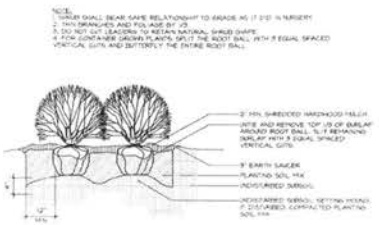
PLANT SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	PROP. QUANTITY	CALIPER/ HEIGHT/ SIZE	NOTES
ORNAMENTAL TREES					
KP	Koelreuteria paniculata	Panicled Golden Rain Tree	6	9-9.5"	B&B
AA	Amelanchier x grandiflora 'Autumn Brilliance'	'Autumn Brilliance' Serviceberry	65	6-7'	B&B
SHRUBS					
CS	Cornus sericea 'Arctic Fire'	'Arctic Fire' Redtwig Dogwood	346	#3 Cont.	
FG	Fothergilla gardenii 'Blue Mist'	'Blue Mist' Dwarf Fothergilla	464	#3 Cont.	
HC	Hypericum calycinum	Aaron's Beard	2200	4" pot	18" O.C.
IH	Itea virginica 'Henry's Garnet'	'Henry's Garnet' Virginia Sweetspire	350	#3 Cont.	
ID	Ilex glabra 'Nigra'	'Nigra' Inkberry	1468	#3 Cont.	
IV	Ilex verticillata 'Red Sprite'	'Red Sprite' Winterberry (female)	166	#3 Cont.	
IJ	Ilex verticillata 'Jim Dandy'	'Jim Dandy' Winterberry (male)	28	#3 Cont.	
VP	Viburnum x pragense	Prague Viburnum	30	#3 Cont.	
ORNAMENTAL GRASSES AND SEDGES					
CA	Calamagrostis x acutiflora 'Karl Foerster'	'Karl Foerster' Feather Reed Grass	161	#1 Cont.	24" O.C.
CF	Carex flaccosperma	Blue Flood Sedge	2202	#1 Cont.	18" O.C.
DC	Deschampsia cespitosa 'Goldtau'	'Goldtau' Tufted Hair Grass	1637	#1 Cont.	24" O.C.
PM	Muhlenbergia capillaris	Pink muhly hair grass	125	#1 Cont.	24" O.C.
PV	Panicum virgatum 'Heavy Metal'	'Heavy Metal' Switchgrass	1083	#1 Cont.	24" O.C.
PVS	Panicum virgatum 'Shenandoah'	'Shenandoah' Switchgrass	166	#1 Cont.	24" O.C.
PERENNIALS AND ROSES					
AM	Amsonia tabernaemontana	Amsonia Montana	342	#1 Cont.	18" O.C.
AH	Aster dumosus 'Hood's Blue'	'Hood's Blue' Aster	209	#1 Cont.	15" O.C.
AN	Aster novae-angliae 'Purple Dome'	'Purple Dome' New England Aster	428	#1 Cont.	15" O.C.
EP	Echinacea purpurea 'Magnus'	'Magnus' Purple Coneflower	106	#1 Cont.	18" O.C.
EG	Eupatorium purpureum 'Gateway'	'Gateway' Joe Pye Weed	60	#1 Cont.	18" O.C.
GM	Geranium macrorrhizum 'Ingwersen's Variety'	Ingwersen's Variety Bigroot Geranium	18	#1 Cont.	18" O.C.
HS	Hemerocallis 'Bertie Shepherd'	'Bertie Shepherd' Daylily	1808	#1 Cont.	18" O.C.
HP	Heuchera 'Plum Pudding'	'Plum Pudding' Alumroot	72	#1 Cont.	18" O.C.
IS	Iberis sempervirens	'Candyfull'	240	#1 Cont.	18" O.C.
LS	Leucanthemum 'Snowlady'	'Snowlady' Shasta Daisy	318	#1 Cont.	18" O.C.
NB	Nepeta racemosa 'Blue Wonder'	'Blue Wonder' Catmint	384	#1 Cont.	18" O.C.
PA	Persicaria amplexicaulis 'Firetail'	'Firetail' Mountain Fleece Flower	322	#1 Cont.	15" O.C.
PW	Persicaria polymorpha	White Fleece Flower	418	#1 Cont.	15" O.C.
PD	Phlox paniculata 'David'	'David' Garden Phlox	317	#1 Cont.	18" O.C.
RW	Rosa rugosa	Pink Knockout Rose	1240	#1 Cont.	24" O.C.
RF	Rudbeckia fulgida var. sullivantii 'Goldsturm'	Goldsturm Black-eyed Susan	101	#1 Cont.	15" O.C.
SA	Symphyotrichum 'Mary Gregory'	'Mary Gregory' Skinner's Aster	219	#1 Cont.	15" O.C.
SM	Salvia nemorosa 'Marcott'	Salvia 'May Night'	165	#1 Cont.	18" O.C.

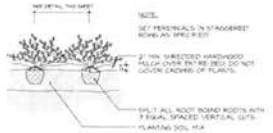
1 PLANT SCHEDULE
SCALE : NO SCALE



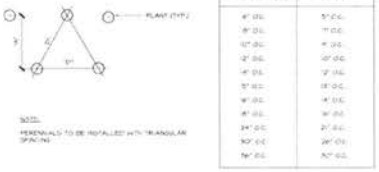
2 TREE AT GRADE
SCALE : NTS



3 SHRUBS AT GRADE
SCALE : NTS

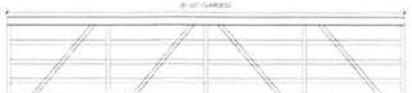


4 PERENNIALS AT GRADE
SCALE : NTS

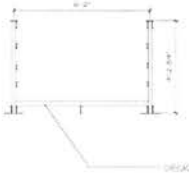


PLANT SPACING "D"	ROW "A"
6" O.C.	5.2" O.C.
8" O.C.	7" O.C.
10" O.C.	8.7" O.C.
12" O.C.	10.4" O.C.
14" O.C.	12" O.C.
15" O.C.	13" O.C.
16" O.C.	14" O.C.
18" O.C.	15.6" O.C.
24" O.C.	21" O.C.
30" O.C.	26" O.C.
36" O.C.	31" O.C.

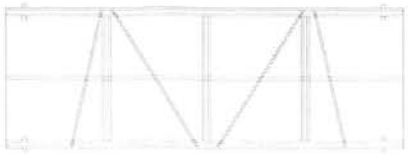
5 PLANT SPACING DIAGRAM
SCALE : NTS



6 FIBERGLASS BRIDGE ELEVATION
SCALE : 1/2" = 1'-0"



7 FIBERGLASS BRIDGE SECTION
SCALE : 1/2" = 1'-0"



8 FIBERGLASS BRIDGE PLAN
SCALE : 1/2" = 1'-0"

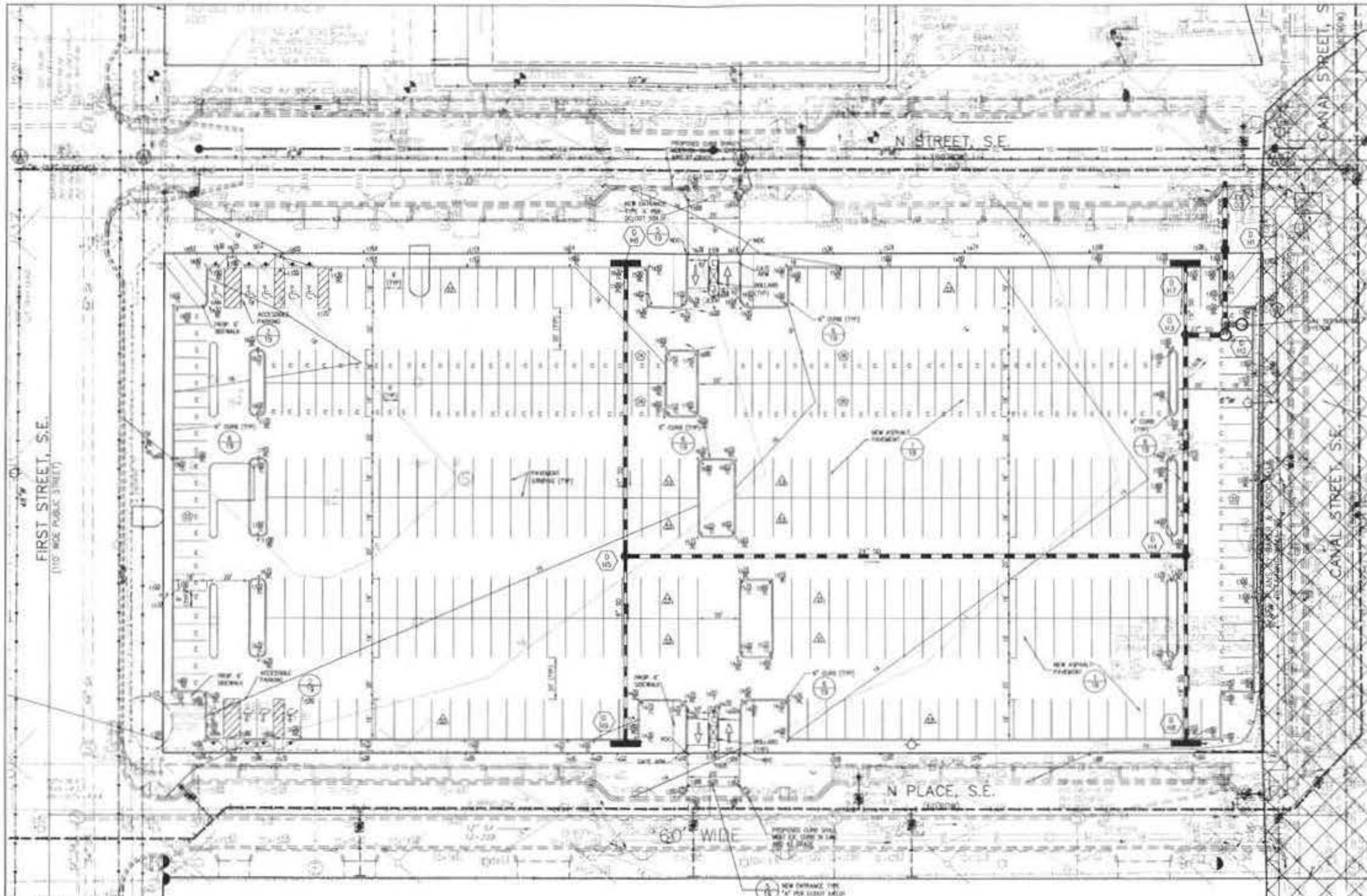
"lee+papsandassociates
FOREST CITY WASHINGTON
10151 Street, NW
Suite 400
Washington, DC 20036
T. 202-466-5908
SHALOM BARANES ASSOC.
1250 K St. Suite 600
Washington D.C., 2007
T. 202-342-2200
HWA, Inc.
9190 Greensboro Drive
Suite 350
McLean, VA 22102
T. (703) 842-7800
COMMUNICATION ARTS, INC.
1110 Pearl Street
Boulder, CO 80302 USA
Tel: (303) 447-9202
MPFP llc
10 Paul Friedberg & Partners
41 East 11th Street Floor 3
New York, NY 10003
T. 212. 477. 8380
CONDON/SLADE ASSOC., INC.
1140 Connecticut Ave.
Suite 700
Washington, D.C. 20036
T. 202-296-5625
Bohler Engineering and Energy
2001 Eisenhower Ave. Suite 500
Alexandria, VA 22314
Tel: 703-960-5800

SOUTHEAST FEDERAL CENTER
WASHINGTON, DC

INTERIM PLANTING DETAILS

Revisions:
9/29/06 Permit Package
05/04/07 100% CD
06/07/07 100% Revisions

DATE: JULY 2, 2007
DES. DWN.
SCALE
PROJECT/FILE NO.
2008
SHEET NO.
L-300



VICINITY MAP
NOT TO SCALE

GENERAL NOTES:

1. THE BUILDING INFORMATION (DIMENSIONS, UTILITY CONNECTIONS, ETC.) SHOWN ON THIS PLAN WAS TAKEN FROM PLANS PREPARED BY:

N/A	N/A
ARCHITECT	DATE
N/A	N/A
MEP	DATE

IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE MOST CURRENT APPROVED ARCHITECT / MEP PLANS AND COORDINATE SAME WITH SITE PLAN, PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.

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4. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" FOR MARKING LOCATIONS OF EXISTING UTILITIES AT 1-800-257-7777, 48 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
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8. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO STRUCTURES, WHEN NECESSARY, TO MEET EXISTING CONDITIONS OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
9. ALL EXISTING UTILITIES AND STRUCTURES NOT SHOWN TO BE REMOVED ARE TO REMAIN AND PRESERVED AS FUNCTIONAL.
10. REPAIRS TO UTILITIES OR PROPERTY DAMAGED AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION MUST BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.

GENERAL ROADWAY PAVING CONSTRUCTION NOTES

1. ALL ROADWAY WORK WILL BE PERFORMED IN ACCORDANCE WITH DCDOT STANDARDS AND SPECIFICATIONS.
2. ALL EXISTING UTILITIES WILL BE ADJUSTED TO GRADE AS NECESSARY BY THE CONTRACTOR.
3. STABLE SUBGRADE IS DEFINED AS THAT SOLID, UNDISTURBED EARTH CAPABLE OF SUPPORTING STREET LOADING WITHOUT DAMAGING SETTLEMENT AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
4. WHERE UNSTABLE SUBGRADE IS ENCOUNTERED, IT SHALL BE MADE STABLE BY COMPACTION OR REPLACEMENT, AS REQUIRED.
5. CONTRACTOR TO PROVIDE ROADWAY UNDERDRAINS PER GEOTECHNICAL DIRECTION IF REQUIRED.
6. ALL EXISTING BLUE STONE CURB TO BE SALVAGED AND TURNED OVER TO DDOT.

TEST PIT NOTE:

INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION, ELEVATIONS, AND SIZES OF EX. UTILITIES BY DIGGING TESTS PITS BY HAND AT ALL POINTS OF CONNECTION AND AT CROSSINGS. RESULTS FROM THESE TEST PITS SHALL BE SUBMITTED TO THE ARCHITECT FIVE (5) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION AND/OR ORDERING MATERIALS.

COORDINATION NOTES:

1. IF VIKA IS NOT PROVIDING STAKEOUT SERVICE, THE CONTRACTOR IS TO ESTABLISH AND CHECK ALL HORIZONTAL AND VERTICAL CONTROLS TO BE USED WITH THIS PROJECT. IN ADDITION, THE CONTRACTOR IS TO COMPUTE THE LAYOUT OF THE ENTIRE PLAN IN ADVANCE OF BEGINNING ANY WORK ASSOCIATED WITH THE SUBJECT PLANS.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE MOST CURRENT APPROVED ARCHITECTURAL/M.E.P. PLANS AND COORDINATE SAME WITH THE SITE PLAN, PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF CONSTRUCTION WITH THE FOLLOWING UTILITY COMPANIES SERVING THE SITE: PEPCO, VERIZON, WASHINGTON GAS, DISTRICT CABLE VISION.
4. CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH THE DISTRICT OF COLUMBIA WATER AND SEWER ADMIN. (DCWASA) FOR TAPPING FEES AND DETERMINING THE EXTENT OF WORK (FOR WATER CONNECTION) TO BE ACCOMPLISHED BY DCWASA.
5. CONTRACTOR TO COORDINATE WITH THE OFFICE OF THE DC SURVEYOR TO ENGAGE A SURVEYOR LICENSED BY THAT OFFICE TO PREPARE A WALLCHECK SURVEY AS REQUIRED BY THE DC CODE IN ADVANCE OF PLACING CONCRETE ASSOCIATED WITH THE FOUNDATION.

PARKING COUNT

FULL SIZE = 270 (84.9%)
COMPACT SIZE = 48 (15.1%)
TOTAL = 318 SPACES

LEGEND

STORM DRAIN	CURB & GUTTER TO BE INSTALLED WITH INFRASTRUCTURE PLAN
TEST PIT	WATER LINE TO BE INSTALLED WITH INFRASTRUCTURE PLAN
PROPOSED CONTOUR LINE	SANITARY SEWER TO BE INSTALLED WITH INFRASTRUCTURE PLAN
PROPOSED SPOT GRADE	STORM DRAIN TO BE INSTALLED WITH INFRASTRUCTURE PLAN
BUILDING ENTRANCE	FULL SIZE PARKING SPACE (9'X18')
PROPOSED CONTOUR LINE FROM INFRASTRUCTURE PLANS	COMPACT PARKING SPACE (8'X16')
PROPOSED SPOT GRADE FROM INFRASTRUCTURE PLANS	

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

VIKA

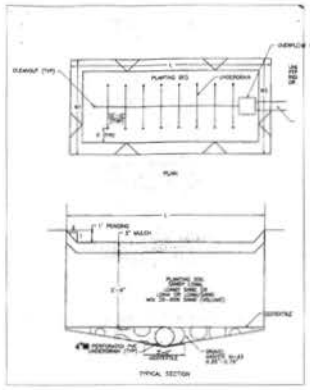
SOUTHEAST FEDERAL CENTER
INTERIM PARKING LOTS
"PARCELS H/I, L, O, Q"
1314 FIRST STREET
S.E. WASHINGTON, D.C.

PARCEL "H/I"
SITE GRADING AND
UTILITY PLAN

VIKA REVISIONS

DATE: JUNE 15, 2007	
DES. MR	DWN. LE
SCALE: 1"=20'	
PROJECT/FILE NO.	
SHEET NO. C-08	

MAINTENANCE SCHEDULE FOR BIORETENTION AREAS & AREA PLANT SPECIFICATIONS



1 C-22 TYPICAL BIORETENTION TRENCH
NO SCALE

BMP CONSTRUCTION SEQUENCE

BIORETENTION CELL
1. NO WORKS DRAINAGE TO BIORETENTION CELLS MUST BE STABILIZED. INSTALL BIORETENTION SOILS IN 6 INCH LIFTS. SATURATE EACH LIFT AND LET DRAIN. SPRING SOIL TO GRADE. PLANT AREA. MULCH WITH 3" MULCH MINIMUM

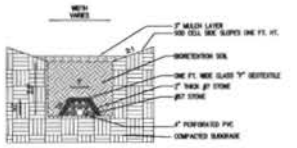
BIORETENTION SOIL SPECIFICATIONS
50% sand (ASTM C-33)
30% topsoil (ASTM D-5268) modified clay content less than 10% organic content less than 30%
20% shredded to hardwood mulch

NOTE: SOIL SOURCE MUST BE APPROVED BY ENGINEER BEFORE INSTALLATION.

MAINTENANCE SCHEDULE

STORM DRAIN INLETS
INSPECT STRUCTURES ANNUALLY TO DEBRIS, SEDIMENT, AND DEBRISAGES ANNUALLY.
CLEAN IF REQUIRED.

BIORETENTION CELL:
1. INSPECT VEGETATION ANNUALLY IN FALL, PRUNE AND FERTILIZE AND REPLACE DEAD OR DISEASED PLANTS.
2. MULCH AND SCARIFY SURFACE, USE 3" WOOD CHIPS OR SHREDDED MULCH.
3. INSPECT RIPRAP WEIR FOR EROSION, INSTALL TOP OF STONE AS REQUIRED.
4. INSPECT UNDERDRAIN ANNUALLY FLUSH OUT DEBRIS AND COLLECT AT END IF REQUIRED.



BIORETENTION CELL
NOT TO SCALE

NOTE:
1. CONTRACTOR TO INSTALL 4" PERFORATED PVC PIPE WITH POSITIVE DRAINAGE
2. SEE LANDSCAPE PLANS FOR BIORETENTION AREAS PLANTING PLANS (SEE SHEETS L100-104)

STATEMENT BY PERSON RESPONSIBLE FOR MAINTENANCE

The undersigned agrees to maintain and operate the stormwater facilities in such a manner as to comply with the provisions of Section 526 through 535 of DCMR-21, Chapter 5. Responsibility for maintenance and operation may be transferred to another entity upon written notice to the Watershed Protection Division of the Department of Health from the undersigned and the entity assuming responsibility certifying that the transfer of responsibility for maintenance and operation in compliance with Section 526 through 535 of DCMR-21, Chapter 5 has been accepted.

Signature of the person responsible for maintenance (it may be the applicant)

Name and Title (please type)

Address

Date Telephone No.

STATEMENT BY PROFESSIONAL ENGINEER REGISTERED IN THE DISTRICT OF COLUMBIA

This is to certify that the engineering features of this stormwater discharge facility have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of stormwater pollutants. I further certify that the facility has been designed in accordance with the specification required under Section 526 through 535 of DCMR-21, Chapter 5. It is also stated that the undersigned has furnished the applicant with a set of instructions for the maintenance and operation of the stormwater discharge facility.

Affix Seal

KYLE D. GLAVEN, P.E.
Name and Title (please type)

8180 GREENSBORO DRIVE
Address

SUITE 200

MCLEAN, VA 22102

Date Telephone No. (703)442-7800

AS-BUILT CERTIFICATION BY PROFESSIONAL ENGINEER

Within 21 days after completion of construction of the stormwater discharge facility, please send this page to the Watershed Protection Division - Department of Health:

1. **Stormwater Discharge Facility Information:**

Source Name:

Source Location: Street:

City:

DCRA Permit No.:

Date Issued:

2. **As-Built Certification**

I hereby certify that this stormwater discharge facility has been built substantially in accordance with the approved plans and specifications, and that any substantial deviations (noted below) will not prevent this system from functioning in compliance with the requirements of Section 526 through 535 of DCMR-21, Chapter 5 when properly maintained and operated. These determinations have been based upon on-site observation of construction, scheduled and conducted by me or by a project representative under my direct supervision. I have received one set of as-built engineering drawings.

Signature of Engineer Name (please type) D.C. Reg. No.

Affix Seal

Company Name

Company Address

Date Telephone No.

Substantial deviations from the approved plans and specifications (attach additional sheets if required):

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"PARCELS H/I, L, O, Q"
1314 FIRST STREET
SE, WASHINGTON, DC

STORMWATER MANAGEMENT NOTES & DETAILS

VIKA REVISIONS

DATE: JUNE 15, 2007
DES. KMR
DWN. KMR
SCALE: n/a
PROJECT/FILE NO. 81929
SHEET NO. C-24

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PARCEL L

DESIGN OF BIORETENTION		DATE 1/22/2007
WATER QUALITY SYSTEM		PRINTED 6/15/2007
PROJECT	SEFC PARKING L	
STORM FREQUENCY = 15 years		
STORM DURATION = 24 hours		
TIME OF CONCENTRATION, Tc = 5 min		
RAINFALL INTENSITY, i = 7.56 in/hr		
1. DRAINAGE AREA		
SITE AREA	1.58	acres
IMPERVIOUS AREA	1.15	
RUNOFF COEFFICIENT "C"	0.75	
FIRST FLUSH RUNOFF	0.5	inches
2. REQUIRED WATER QUALITY VOLUME WQv= P*Rv*A/12		
WHERE		
P=RAINFALL INTENSITY, EASTERN REGION=1	1	
Rv=(0.05+0.009I)	0.702	
I= IMPERVIOUS AREA/SITE AREA	0.72	
WQv=	4045.64	cu.ft
3. BIORETENTION MUST HOLD 75% OF THE WQv PRIOR TO FILTRATION SURFACE PONDING VOLUME 1' DEEP		
TEMP STORAGE= 0.75*WQv=	3034	cu.ft
4. BIORETENTION SIZE		
PRETREATMENT REQUIREMENTS		
GRASS FILTER STRIP	8	ft
MULCH LAYER 2"-3"	3"	
5. FILTER BED AREA Af=WQv*Df/(k*(Hf+Df)*Tf)		
Af = SURFACE OF FILTER, SF		
WQv = WATER QUALITY VOLUME, CF =	4045.64	CF
Df = FILTER BED DEPTH, FT =	2.50	ft
k= COEFF. OF PERMEABILITY =	1	F/D
Hf =AVG HT OF WATER ABOVE FILTER BED =	1.00	ft
Tf = DESIGN FILTER BED DRAIN TIME =	2	DAYS
Hf + Df =	3.50	ft
Af Required=	2890	SF
6. FACILITY SIZE		
TOP OF 1' DEEP STORAGE =	12.50	ft
TOP OF 3" MULCH LAYER =	11.50	ft
TOP OF 2.5' THICK BIOMASS =	11.25	ft
BOTTOM OF BIOMASS =	8.75	ft
INVERT OF 4" UNDERDRAIN	7.75	ft
TOP OF BYPASS INLET =	12.50	ft
INVERT OUT OF BYPASS INLET =	7.75	ft
AREA PROVIDED @ TOP OF MULCH =	5590.17	SQ FT
AREA PROVIDED @ TOP OF STORAGE =	7659.50	SQ FT
VOLUME PROVIDED	6624.84	cu. Ft

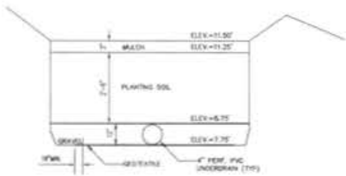
PARCEL O

DESIGN OF BIORETENTION		DATE 1/22/2007
WATER QUALITY SYSTEM		PRINTED 2/13/2007
PROJECT	SEFC PARKING O	
STORM FREQUENCY = 15 years		
STORM DURATION = 24 hours		
TIME OF CONCENTRATION, Tc = 5 min		
RAINFALL INTENSITY, i = 7.56 in/hr		
1. DRAINAGE AREA		
SITE AREA	1.6	acres
IMPERVIOUS AREA	0.98	
RUNOFF COEFFICIENT "C"	0.70	
FIRST FLUSH RUNOFF	0.5	inches
2. REQUIRED WATER QUALITY VOLUME WQv= P*Rv*A/12		
WHERE		
P=RAINFALL INTENSITY, EASTERN REGION=1	1	
Rv=(0.05+0.009I)	0.448	
I= IMPERVIOUS AREA/SITE AREA	0.44	
WQv=	3232.41	cu.ft
3. BIORETENTION MUST HOLD 75% OF THE WQv PRIOR TO FILTRATION SURFACE PONDING VOLUME 1' DEEP		
TEMP STORAGE= 0.75*WQv=	2865	cu.ft
4. BIORETENTION SIZE		
PRETREATMENT REQUIREMENTS		
GRASS FILTER STRIP	5	ft
MULCH LAYER 2"-3"	3"	
5. FILTER BED AREA Af=WQv*Df/(k*(Hf+Df)*Tf)		
Af = SURFACE OF FILTER, SF		
WQv = WATER QUALITY VOLUME, CF =	3232.41	CF
Df = FILTER BED DEPTH, FT =	2.50	ft
k= COEFF. OF PERMEABILITY =	1	F/D
Hf =AVG HT OF WATER ABOVE FILTER BED =	1.00	ft
Tf = DESIGN FILTER BED DRAIN TIME =	2	DAYS
Hf + Df =	3.50	ft
Af Required=	2357	SF
6. FACILITY SIZE		
TOP OF 1' DEEP STORAGE =	12.50	ft
TOP OF 3" MULCH LAYER =	11.50	ft
TOP OF 2.5' THICK BIOMASS =	11.25	ft
BOTTOM OF BIOMASS =	8.75	ft
INVERT OF 4" UNDERDRAIN	7.75	ft
TOP OF BYPASS INLET =	12.50	ft
INVERT OUT OF BYPASS INLET =	7.75	ft
AREA PROVIDED @ TOP OF MULCH =	9872.58	SQ FT
AREA PROVIDED @ TOP OF STORAGE =	12227.65	SQ FT
VOLUME PROVIDED	10449.29	cu. Ft

PARCEL Q

DESIGN OF BIORETENTION		DATE 1/22/2007
WATER QUALITY SYSTEM		PRINTED 6/15/2007
PROJECT	SEFC PARKING Q	
STORM FREQUENCY = 15 years		
STORM DURATION = 24 hours		
TIME OF CONCENTRATION, Tc = 5 min		
RAINFALL INTENSITY, i = 7.56 in/hr		
1. DRAINAGE AREA		
SITE AREA	2.54	acres
IMPERVIOUS AREA	1.82	
RUNOFF COEFFICIENT "C"	0.74	
FIRST FLUSH RUNOFF	0.5	inches
2. REQUIRED WATER QUALITY VOLUME WQv= P*Rv*A/12		
WHERE		
P=RAINFALL INTENSITY, EASTERN REGION=1	1	
Rv=(0.05+0.009I)	0.695	
I= IMPERVIOUS AREA/SITE AREA	0.72	
WQv=	6466.95	cu.ft
3. BIORETENTION MUST HOLD 75% OF THE WQv PRIOR TO FILTRATION SURFACE PONDING VOLUME 1' DEEP		
TEMP STORAGE= 0.75*WQv=	4850	cu.ft
4. BIORETENTION SIZE		
PRETREATMENT REQUIREMENTS		
GRASS FILTER STRIP	8	ft
MULCH LAYER 2"-3"	3"	
5. FILTER BED AREA Af=WQv*Df/(k*(Hf+Df)*Tf)		
Af = SURFACE OF FILTER, SF		
WQv = WATER QUALITY VOLUME, CF =	6466.95	CF
Df = FILTER BED DEPTH, FT =	2.50	ft
k= COEFF. OF PERMEABILITY =	1	F/D
Hf =AVG HT OF WATER ABOVE FILTER BED =	1.00	ft
Tf = DESIGN FILTER BED DRAIN TIME =	2	DAYS
Hf + Df =	3.50	ft
Af Required=	4576	SF
6. FACILITY SIZE		
TOP OF 1' DEEP STORAGE =	12.50	ft
TOP OF 3" MULCH LAYER =	11.50	ft
TOP OF 2.5' THICK BIOMASS =	11.25	ft
BOTTOM OF BIOMASS =	8.75	ft
INVERT OF 4" UNDERDRAIN	7.75	ft
TOP OF BYPASS INLET =	12.50	ft
INVERT OUT OF BYPASS INLET =	7.75	ft
AREA PROVIDED @ TOP OF MULCH =	11353.08	SQ FT
AREA PROVIDED @ TOP OF STORAGE =	14846.24	SQ FT
VOLUME PROVIDED	12950.52	cu. Ft

PARCEL L



SECT. A–A

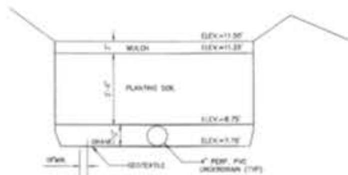
1 / C-25 DETAIL BIORETENTION BMP FACILITY

1"=10'

NOTE:

THIS BIORETENTION FILTER BMP SYSTEM IS TO BE PRIVATELY OWNED AND MAINTAINED.

PARCEL O



SECT. A–A

2 / C-25 DETAIL BIORETENTION BMP FACILITY

1"=10'

NOTE:

THIS BIORETENTION FILTER BMP SYSTEM IS TO BE PRIVATELY OWNED AND MAINTAINED.

PARCEL Q

SECT. A–A

3 / C-25 DETAIL BIORETENTION BMP FACILITY

1"=10'

NOTE:

THIS BIORETENTION FILTER BMP SYSTEM IS TO BE PRIVATELY OWNED AND MAINTAINED.

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ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ GPS SERVICES

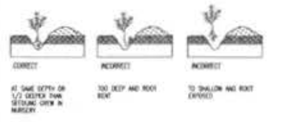
VIKA INCORPORATED

SOUTHEAST FEDERAL CENTER
INTERIM PARKING LOTS
"PARCELS H/L, L, O, Q"
1314 FIRST STREET
S.E. WASHINGTON, D.C.

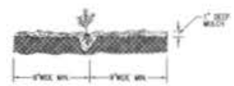
STORMWATER MANAGEMENT COMPUTATIONS

VIKA REVISIONS	
DATE: JUNE 15, 2007	
DES. LSE	DWN. LSE
SCALE: N/A	
PROJECT/FILE NO. 6192H	
SHEET NO. C-25	

CORRECT AND INCORRECT PLANTING DEPTH



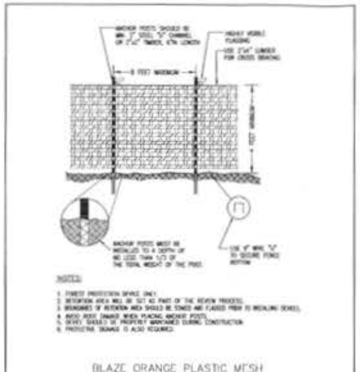
SEEDLING AND WHIP PLANTING SPECIFICATION



NOTE:
MULCHING NEWLY PLANTED SEEDLINGS HELPS THE SOIL RETAIN MOISTURE AND IT PROTECTS THE SEEDLING FROM COMPACTION AND STEM INJURIES.

SOURCE: ADAPTED FROM MARYLAND STATE FOREST CONSERVATION MANUAL

HANDLING AND PLANTING OF SEEDLINGS



TREE PROTECTION FENCING
FOR WOODLAND PRESERVATION AREAS

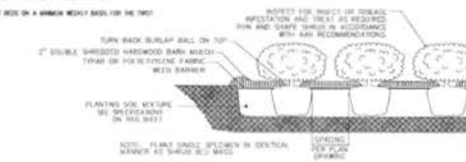
*TEMPORARY TREE PROTECTION FENCING

*USE AROUND DRIP LINES OF ALL TREES AND DISTURBED AREAS

GENERAL NOTES:

1. WARRANTY: CONTRACTOR IS REQUIRED TO WARRANTY ALL PLANT MATERIAL FOR A ONE-YEAR PERIOD WHICH BEGINS UPON SUBSTANTIAL COMPLETION.
2. UTILITIES: CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES IN THE FIELD BEFORE BEGINNING INSTALLATION OF PLANT MATERIAL & FOR REPAIRING DAMAGE TO ANY OF THE UTILITIES AT NO COST TO THE OWNER.
3. PLANT MATERIAL: THE SIZES NOTED ARE MINIMUMS. NO MATERIAL SMALLER THAN WHAT IS SPECIFIED WILL BE ACCEPTED. IN ADDITION, NO MATERIAL WHICH IS DAMAGED, POORLY BRANCHED OR MISSHAPEN WILL BE ACCEPTED. ALL SUBSTITUTES MUST BE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. ALL PLANTS SHALL REMAIN LABELED UNTIL FINAL INSPECTIONS/APPROVALS HAVE OCCURRED. PLANTS SHOULD CONFORM TO THE ANLA AMERICAN STANDARDS FOR NURSERY STOCK, 2004 ed.
4. SOIL PREPARATION FOR LANDSCAPE AREAS:
   AFTER THE TOPSOIL IS MIXED WITH SAND, PEATMOSS & AMENDMENTS, PLACE SEVERAL INCHES IN THE BEDS AND ROTOTILL IT IN WITH ANY EXISTING TOPSOIL. THEN PLACE REMAINDER OF TOPSOIL FOR A TOTAL OF 8" DEPTH.
5. SOIL PREPARATION FOR LAWN AREAS:
   ALL DISTURBED AREAS ARE TO RECEIVE PERMANENT GRASS SEED.
   APPLICATION STEPS-
   a. PLACE 6" DEPTH OF TOPSOIL.
   b. ADD LIME- 50 LBS./1,000 S.F. & FERTILIZER (0-20-20 @ 50 LBS./1,000 S.F.)
   c. ROTOTILL TOGETHER.
   d. SEED MIX-
      SEED- 6-8 LBS./ACRE OF 70% BY VOLUME PREMIUM TURF-TYPE TALL FESCUES (BLEND OF 3), 20% PERENNIAL RYE GRASS, 10% PREMIUM KENTUCKY BLUE GRASS (80% GERMINATION RATE; 85% PURE SEED)
      NITROGEN FERTILIZER
      TACKIFIER
   e. STRAW MULCH- 4,000 LBS./ACRE OR CELLULOSE HYDROMULCH @ 50 LBS./1,000 S.F.

   CONTRACTOR IS RESPONSIBLE FOR THE FIRST THREE MOWINGS AND TO PROVIDE AN ESTABLISHED LAWN. ALL BARE SPOTS WILL BE RESEEDED AND MAINTAINED UNTIL FINAL ACCEPTANCE.
6. TREES, SHRUB & GROUNDCOVER FERTILIZER:
   FOR TREES & SHRUBS PROVIDE AGRIFORM 21-GRAM TABLETS, SLOW RELEASE, 20-10-5 PLUS IRON
   TREES: 1 TABLET PER 1/4" TRUNK DIAMETER (TRANSPLANTED TREES 1 TABLET PER 1/2" DIAMETER)
   SHRUBS: 1 TABLET PER FOOT OF HEIGHT
   GCOVER: 10-6-4 GRANULAR MIX (50% ORGANIC) @ 4 LBS./1,000 S.F.
7. CONTRACTOR IS RESPONSIBLE FOR WATERING PLANT BEDS ON A MINIMUM WEEKLY BASIS FOR THE FIRST GROWING SEASON.



MASSED SHRUB PLANTING DETAIL
N.T.S.

BIORETENTION BASIN NOTES:

BIORETENTION BASIN PLANTING MIXTURE:

NOTE: MIXTURE SHALL BE UNIFORM, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS SHALL BE MIXED OR DUMPED WITHIN THE AREA THAT MAY BE HARMFUL TO PLANT GROWTH AND/OR MAINTENANCE. THE MIXTURE SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, MUGWORT, NUTSEDGE, POISON IVY, CANADIAN THISTLE, TEARTHUMB, OR OTHER NOXIOUS WEEDS. AVOID OVER-COMPACTION OF BIORETENTION SOILS DURING CONSTRUCTION.

MIXTURE:
15% BY VOLUME DOUBLE SHREDDED HARDWOOD MULCH
50% BY VOLUME WASHED SHARP SAND - ASTM C-33
30% BY VOLUME TOPSOIL
5% BY VOLUME PEATMOSS

FERTILIZER:

TREES: ONE 21 GM TIGHTLY COMPRESSED, SLOW RELEASE FERTILIZER PER 1/4" TRUNK DIAMETER.

SHRUBS: 21 GM TIGHTLY COMPRESSED, SLOW RELEASE FERTILIZER WITH MINIMUM GUARANTEED ANALYSIS 20-10-5
3 GAL. CONT. = 2 TABLETS IN BOTTOM OF PIT
5 GAL. CONT. = 3 TABLETS IN BOTTOM OF PIT

GRASSES: 10-6-4 ANALYSIS FERTILIZER WET APPLICATION AT RATE OF 3 LBS./1000 S.F.

PLANT INSTALLATION:

SHRUB PLANTING PITS SHALL BE 6" WIDER THAN THE DIAMETER OF THE ROOT BALL.
ADD FERTILIZER TO SHRUB PITS, INSTALL SHRUBS & BACKFILL W/ TOPSOIL.
1/8TH OF ALL ROOTBALLS MUST REMAIN ABOVE GRADE.
PLACE 2" LAYER DOUBLE-SHREDDED, WELL-AGED HARDWOOD MULCH.
INSTALL DEGRADABLE EROSION CONTROL NETTING PER MANUF. DIRECTIONS.
CUT HOLES & INSTALL GRASS PLUGS THROUGH NETTING & MULCH.
FERTILIZE GRASSES.
THOROUGHLY WATER ONCE INSTALLATION IS COMPLETE.

REFORESTATION PLANTING AND MANAGEMENT PLAN

SITE PREPARATION- DISTURBED SOILS

1. WHEN SOILS HAVE BEEN COMPACTED, OR ORGANIC, OR TOPSOIL LAYERS HAVE BEEN REMOVED BY GRADING, TREATMENT WILL BE NECESSARY AS FOLLOWS:
   a. Reserve topsoil should be replaced in the planting area. If supplemental fill is required, it may be mixed with the reserved topsoil.
   b. Analyze nutrients, organic matter, soil texture and moisture to evaluate soil amendments or treatments.
   c. Disturbed soils should be treated by incorporating composted organic material material within the top 12 inches and other amendments as determined by a soils analysis.
   c. Disturbed soils should be treated by incorporating composted organic material material within the top 12 inches and other amendments as determined by a soils analysis. If fill material is used at the planting site, it should be clean fill topped with a minimum of 12 inches of organic topsoil. Stockpiling or native top soils should not compact or damage the remaining seed bank.

PLANTING

a. The planting and care of trees is most successful when coordinated with the local conditions. Refer to the Maintenance Calendar for recommended time frames for basic reforestation and stress reduction activities.
b. Plants which are not planted within a day after delivery should be protected from desiccation through shading, watering, shielding from wind or other methods. Bare root stock may be heeled in. Transplanted or delivered materials may be stored in tree banks if necessary in undisturbed areas.
c. Prior to planting, inspect planting stock. Plants not conforming to the American Standard for Nursery Stock specifications for size, form, vigor or roots or due to trunk wounds, insects, and disease should be replaced.

SEEDLINGS/WHIPS

d. Planting small stock such as seedlings and whips, can be done manually. Extreme care should be taken to ensure plant roots retain moisture. Use a moist carrying container to furthur prevent desiccation.
e. Areas planted with seedlings or whips should be mulched after planting.

CONTAINER GROWN STOCK

f. Successful planting of container grown stock requires careful site preparation and inspection of the root system. The plant should be removed from the container and roots gently loosened. If the roots encircle the root ball or if "J" shaped or kinked roots are present, replace the plant.
g. Rake soils evenly over the planting field and cover with 2 to 4 inches of mulch.

BALLED AND BURLAPPED TREES

h. Balled and burlapped trees are usually planted using tree spades. They must be handled with care while planting. Do not pick up trees by the trunk or drop them as this will tend to separate the tree from the root ball. Prior to planting, root balls should be kept moist. Water the planting field to settle soil backfilled around trees.
i. Rake soils evenly over the planting field and cover with 2 to 4 inches of mulch.

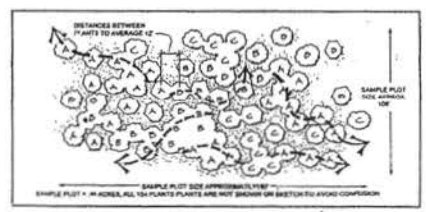
SOIL STABILIZATION

j. For large-scale disturbance, stabilize soils with a non-turf building ground cover or engineering fabric.

PROTECTION DEVICES

k. To prevent damage to planted areas, reforestation and afforestation signs should be posted with appropriate fences prior to planting. Construction equipment must not enter planting areas.

PLANTING LAYOUT
(AGGREGATE DISTRIBUTION DRIFT THEORY)



Concept: Aggregate Drift or Sweep. A cluster type grouping which tapers or feathers out along the edges.

Example: Aggregate massing or drifts are one of the most common vegetation distribution patterns occurring in nature. Principle seed bearers are at the central core of the cluster with seed dispersal outwards, often windblown with densities thinning out along the fringes or extremities. Groupings blend through and into other groupings. Imagine the fallout of windblown milkweed seeds. They often appear as aggregate drifts, elongated and tear drop in shape.

Application: This does not mean that plants must be in a grid pattern, that drifts of shrubs cannot blend into groupings of trees or that groupings of same species cannot occur together. It simply means that the installer should meet the aforementioned forest conservation act criteria at the same time replicating natures aggregate drift patterns (see detail).

When using this theory to lay out a planting plan the size of the drifts will depend on the quantity of plants allocated, the scale of the site, and the careful consideration of the installer.

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SOUTHEAST FEDERAL CENTER
INTERIM PARKING LOTS
"PARCELS H/I, L, O, Q"
1314 FIRST STREET
S.E. WASHINGTON, D.C.

STORMWATER MANAGEMENT NOTES & DETAILS

VIKA REVISIONS

DATE: JUNE 15, 2007
DES: LSE
DWN: LSE
SCALE: N/A
PROJECT/FILE NO. 6192H
SHEET NO. C-26

BAYSAVER SEPARATOR SYSTEM
PARCEL H/I

THIS SEPARATOR SYSTEM IS BASED ON THE PEAK FLOW RATE OF THE SITE AS SHOWN BELOW.

Depth of First Flush:			
	Roofs and Sidewalks	0.32	in/Hr
	Parking Lots and Roadways	0.53	in/Hr
Rain Intensity			
	2 Year	5.28	in/Hr
	15 Year	7.56	in/Hr
C Factor			
	Impervious	0.9	
	Pervious	0.35	
Enter Site Details (Post Developed Values)			
Impervious Area	0	*Roofs and Sidewalks	
	2.58	*Parking Lots and Roadways	
Pervious Area	0.33		
Total Site Area	2.91		
Determine Site Impervious Factor			
C=	0.84		
Determine Flow Rates for Q2(pre) and Q15(post)			
Q2(pre)=	5.37768	CFS	
Q15(post)=	19.79964	CFS	

Sizing BaySaver® Separation Systems

The best way to size the BaySaver Separator Unit is to calculate the flow rate that will be conveyed through the system. In this way, it can be determined which separator unit best meets site specific design capacities and local regulations. The five different sizes of separator unit have the hydraulic capacities in cubic feet per second (cfs) shown in Table 1.

TABLE 1: BAYSAVER SEPARATOR UNIT FLOW RATES

BaySaver® Separator Unit	Maximum Treatment Flow Rate (cfs / gpm)	Peak Design Flow Rate (cfs / gpm)	Head Loss (Full Bypass) (inches)
½K	1.1 / 494.00	8.5 / 3,817	6.1
1K	2.4 / 1076.40	10.0 / 4,481	3.6
3K	7.8 / 3498.30	35.5 / 15,457	6.0
5K	11.1 / 4978.35	50.0 / 22,427	12.0
10K	21.8 / 9777.30	100.0 / 44,850	12.0
XK	Any Flow Rate	Call BaySaver® at 1-800-229-7283 for design	

The BaySaver Separator Unit can also be sized for impervious acreage if the flow rate generated over an acre takes into account regional differences and local regulations for your area. For example, Table 2 shows recommended sizing guidelines based on impervious drainage area in Mount Airy, Maryland. The site specific conditions in your area may be different, and BaySaver Technologies is available to help adjust calculations to your local conditions.

TABLE 2: SAMPLE BAYSAVER SEPARATOR SYSTEM SIZING GUIDELINES IN MT. AIRY, MARYLAND

Impervious Drainage Area (acres)	Separator Unit Size	Primary Manhole Minimum Diameter (inches)	Storage Manhole Minimum Diameter (inches)
<0.5	½K	48	48
<1.25	1K	48	48
<4.00	3K	60	60
<5.75	5K	72	72
<11.25	10K	120	120

Storage Capacities

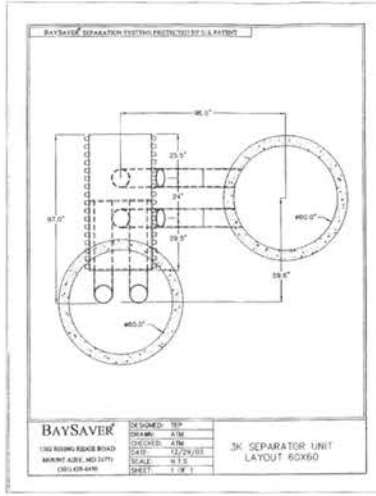
BaySaver® Separation Systems retain the trapped pollutants in the two precast manholes. Maintenance is required when the accumulated sediments in either manhole reach a height of two feet from the floor. The maintenance interval for a typical installation is determined by the sediment buildup; on most sites, oils and floatables will not accumulate at the same rate as the solids.

TABLE 4: BAYSAVER SEPARATION SYSTEM STORAGE CAPACITIES

BaySaver® Separation System Size	Total System Volume (gallons (ft³))	Sediment * Capacity (yards³ (ft³))	Floatable * Capacity (gallons (ft³))
½K 48x48	1122 (150)	1.41 (38)	187 (25)
½K 48x60	1445 (193)	1.78 (48)	239 (32)
½K 48x72	1830 (245)	2.26 (61)	307 (41)
1K 48x48	1503 (201)	1.86 (50)	277 (37)
1K 48x60	1922 (257)	2.37 (64)	359 (48)
1K 48x72	2438 (326)	3.00 (81)	456 (61)
3K 60x60	2348 (314)	2.90 (78)	441 (59)
3K 60x72	2865 (383)	3.56 (96)	539 (72)
3K 60x84	3478 (465)	4.30 (116)	651 (87)
5K 72x72	3381 (452)	4.19 (113)	636 (85)
5K 72x84	3994 (534)	4.93 (133)	748 (100)
5K 72x96	4697 (628)	5.81 (157)	883 (118)
5K 84x96	5311 (710)	6.56 (177)	995 (133)
10K 120x120	9395 (1256)	11.63 (314)	1758 (235)

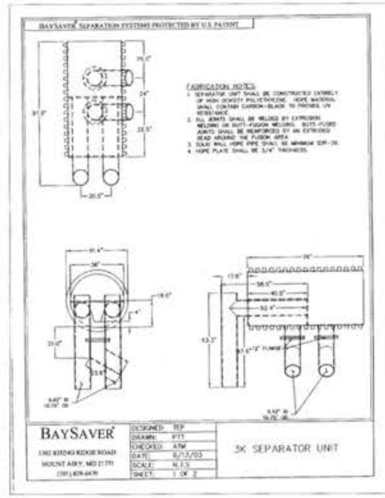
* Sediment and floatable storage capacities given in this table reflect the recommended maintenance level.

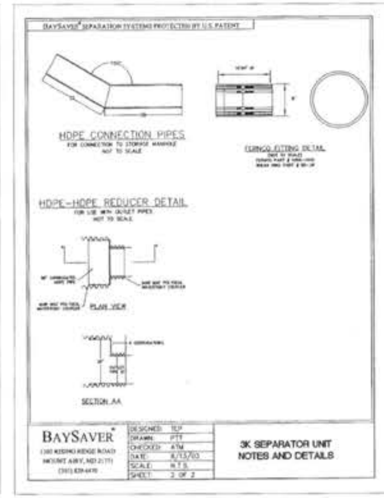
BASED ON THE STORAGE CAPACITIES AND SIZING REQUIREMENTS AS SHOWN ABOVE, PARCEL H/I REQUIRES 3K 30X60 SEPARATOR UNIT.



(1) C-27 3K SEPARATOR UNIT
NTS

NOTE:
THIS SEPARATOR SYSTEM IS TO BE PRIVATELY OWNED AND MAINTAINED.





(2) C-27 3K SEPARATOR UNIT NOTES AND DETAILS
NTS

NOTE:
THIS SEPARATOR SYSTEM IS TO BE PRIVATELY OWNED AND MAINTAINED.

BAYSAVER SEPARATOR SYSTEM MAINTENANCE REQUIREMENTS:

Maintenance Instructions

Note: For each BaySaver System, there are 2 manholes to clean: the **primary manhole** and **storage manhole**. You may view the maintenance animation on our website.

1. Remove the manhole covers to provide access to the pollutant storage.
2. **Storage manhole**: Use a vacuum truck or other similar equipment to remove all water, debris, oils and sediment.
3. **Storage manhole**: Use a high pressure hose to clean the manhole of all the remaining sediment and debris. Then, use the vacuum truck to remove the water.
4. **Primary manhole**: Use a submersible pump to pump the bulk of the water from the primary manhole into the clean storage manhole.
   a. Keep the pump intake below the water surface.
   b. Stop pumping when the water surface is one (1) foot above the accumulated sediments.
5. **Primary manhole**: Use a vacuum truck or other similar equipment to remove all water, debris, oils and sediment.
6. **Primary manhole**: Use a high pressure hose to clean the manhole of all the remaining sediment and debris. Then, use the vacuum truck to remove the water.
7. **Primary manhole**: Fill the cleaned primary manhole with water until you have a depth of 8 feet (or 2.44 meters).
8. **Storage manhole**: Top off the storage manhole with water until you have a depth of 8 feet (or 2.44 meters).
9. Replace the two manhole covers.
10. Dispose of the polluted water, oils, sediment and trash at an approved facility.
    - Local regulations prohibit the discharge of solid material into the sanitary system. Check with the local sewer authority for authority to discharge the liquid.
    - Many places treat the pollutants as leachate. Check with local regulators about disposal requirements.

Important: Additional local regulations may apply to the maintenance procedure.

This procedure is intended to remove all the collected pollutants from the system while minimizing the volume of water that must be disposed. Additional local regulations may apply to the maintenance procedure. Safe and legal disposal of pollutants is the responsibility of the maintenance contractor; therefore maintenance should be performed only by a qualified contractor.

BaySaver Technologies™ can assist in coordinating a maintenance contractor in the installation area, or work directly with owners who wish to perform their own maintenance. Contact BaySaver Technologies at 1-800-229-7283 (1-800-BaySaver) for more information.

EASY INSPECTION

ONE OF THE ADVANTAGES OF BAYSEPARATOR IS THAT ITS DESIGN OFFERS UNOBSTRUCTED ACCESS FOR POLLUTANT INSPECTION AND REMOVAL. BY OPENING EITHER MANHOLE COVER, TRAPPED POLLUTANTS CAN EASILY BE SEEN FROM THE SURFACE, MAKING CONFINED SPACE ENTRY UNNECESSARY. INSPECTION CAN BE PERFORMED THOUGH VISUAL OBSERVATION AND BY MEASURING SEDIMENT LEVELS.
NORMALLY WHEN THE ACCUMULATED SEDIMENTS IN EITHER STRUCTURE REACH A HEIGHT OF TWO FEET FROM THE MANHOLE FLOOR, MAINTENANCE SHOULD BE PERFORMED ON THE SYSTEM.
THE MAINTENANCE CYCLE TYPICALLY FALLS INTO AN ANNUAL PATTERN GIVEN NORMAL LOADINGS AND SIZING. INSPECTION OF THE SYSTEM IS RECOMMENDED QUARTERLY FOR THE FIRST YEAR OR MORE TO DETERMINE THE APPROPRIATE CYCLE BASED ON SITE CHARACTERISTICS.

EASY MAINTENANCE

FOUR EASY STEPS TO MAINTAINING BAYSEPARATOR

1. THE FIRST STEP INVOLVES QUARTERLY INSPECTIONS AND POSSIBLE MAINTENANCE OF EACH BAYSEPARATOR YOU HAVE INSTALLED. ALL PERMITS ISSUED BY THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIRE AN MS4 TO ENSURE ADEQUATE LONG-TERM OPERATION AND MAINTENANCE OF ALL BMPS PER EPA RULE §122.34(B)(5) OF THE CLEAN WATER ACT. THIS RULING SIMPLY MEANS THAT EVERY BAYSEPARATOR MUST BE INSPECTED AND/OR MAINTAINED ON A SCHEDULED BASIS. BAYSEPARATOR, LIKE ANY OTHER BMP, MUST BE INSPECTED QUARTERLY AND MAINTAINED YEARLY, OR MORE FREQUENTLY IF THERE IS EVIDENCE OF A CHEMICAL SPILL, MORE THAN TWO FEET OF SEDIMENT HAS ACCUMULATED, OR THERE IS A SIGNIFICANT AMOUNT OF OIL NOTICEABLE IN THE UNIT.
SCHEDULED MAINTENANCE ENSURES THAT YOUR BAYSEPARATOR SYSTEM WILL CONTINUE TO FUNCTION CORRECTLY AND EFFICIENTLY, YIELDING OPTIMUM PERFORMANCE AND RETAINING MAXIMUM VALUE.
2. IT'S EASY TO SAVE MONEY AFTER INSTALLING BAYSEPARATOR. WE HAVE PRE-NEGOTIATED A REDUCED RATE WITH SEVERAL STORM SEWER MAINTENANCE SERVICE PROVIDERS. WE WILL ASSIST YOU IN GETTING THE BEST POSSIBLE PRICE FROM THEM AND THEN FORWARD THE CONTRACT TO YOU. ALL THAT IS LEFT FOR YOU TO DO IS FAX THE CONTRACT BACK OR MAIL IT TO BAYSAVER TECHNOLOGIES, INC.
3. BY CHOOSING BAYSEPARATOR FROM BAYSAVER TECHNOLOGIES YOU'VE ASSURED YOURSELF OF INSTALLING A STORMWATER TREATMENT SYSTEM THAT COMPLIES WITH EVERY MEASURE OF PHASE II (§122.34(B)(5)) OF THE CLEAN WATER ACT. THANK YOU FOR YOUR BUSINESS AND ENSURING YOUR COMPLIANCE.
THE CLEAN WATER ACT IS THE PRIMARY FEDERAL STATUTE GOVERNING THE RESTORATION OF OUR NATION'S WATERWAYS. PHASE II (§122.34(B)(5)) OF THE CLEAN WATER ACT STATES THAT ALL MS4 REGULATED ENTITIES BUILDING AFTER MARCH 2003 MUST IMPLEMENT A PLAN TO TREAT STORMWATER RUNOFF. THIS INCLUDES MAINTAINING THE BMP TREATMENT SOLUTION. TO DO OTHERWISE, EVEN IN IGNORANCE, MAY INVITE THE POSSIBILITY OF LARGE FINES AND PENALTIES.
4. AS A VALUE ADDED SERVICE TO OUR CUSTOMERS, BAYSAVER TECHNOLOGIES WILL KEEP A COPY OF THE INSPECTION AND MAINTENANCE RECORDS AT OUR HEADQUARTERS. THIS KEEPS ALL OF YOUR MAINTENANCE DOCUMENTATION IN ONE PLACE, MAKING EVERYTHING READILY AVAILABLE WHEN REGULATORY AGENCIES REQUIRE PROOF OF COMPLIANCE.

VIKA
ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ GPS SERVICES
VIKA INCORPORATED
8180 GREENSBORO DRIVE, SUITE 200 ■ McLEAN, VIRGINIA 22102
(703) 442-7800 ■ FAX (703) 761-2787
McLEAN, VA GERMANTOWN, MD

SOUTHEAST FEDERAL CENTER
INTERIM PARKING LOTS
"PARCELS H/I, L, O, Q"
1314 FIRST STREET
S.E. WASHINGTON, D.C.

STORMWATER MANAGEMENT COMPUTATIONS

VIKA REVISIONS

DATE: JUNE 15, 2007
DES.: LSE
DWN.: LSE
SCALE: N/A
PROJECT/FILE NO.: 6192H
SHEET NO.: C-27

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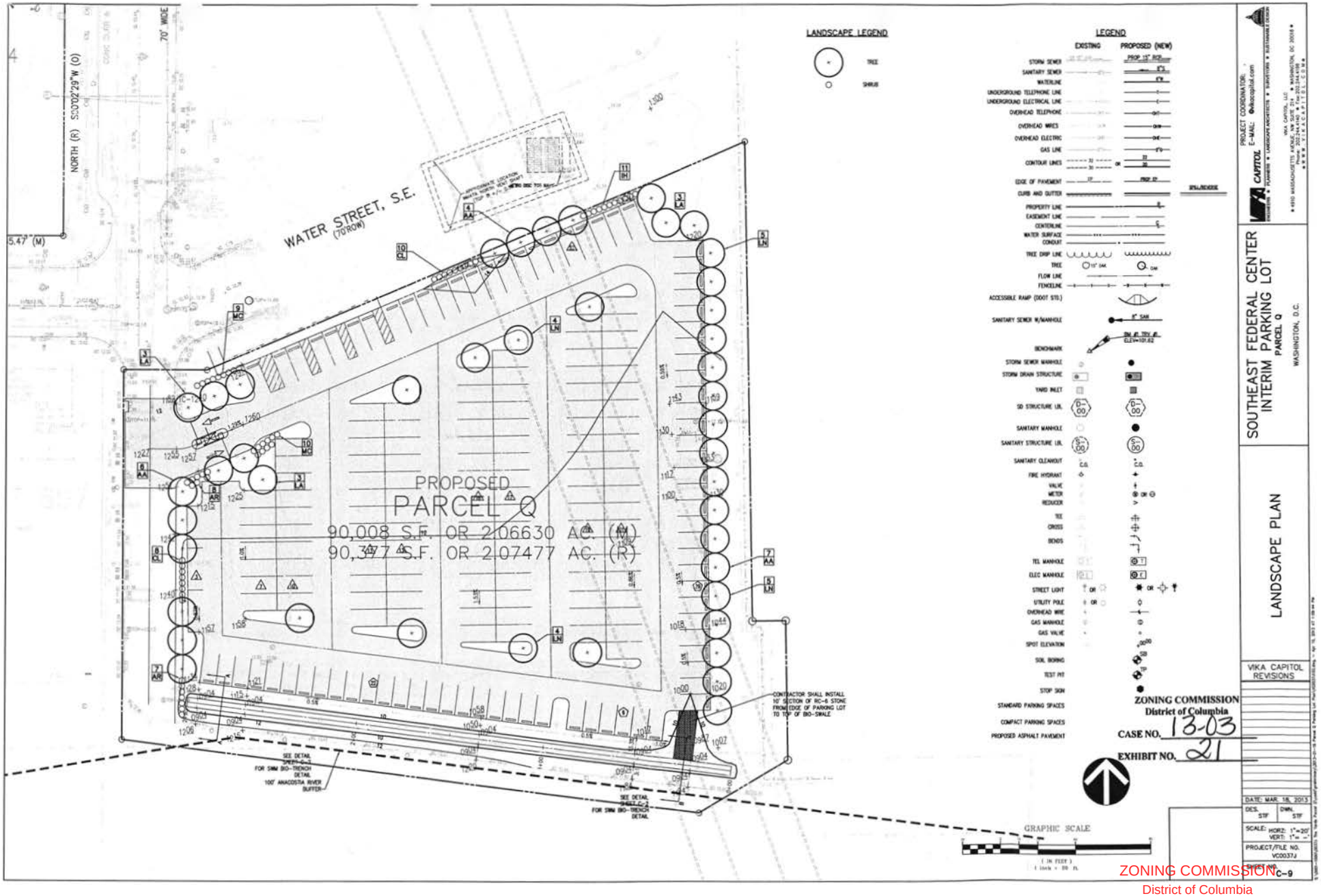

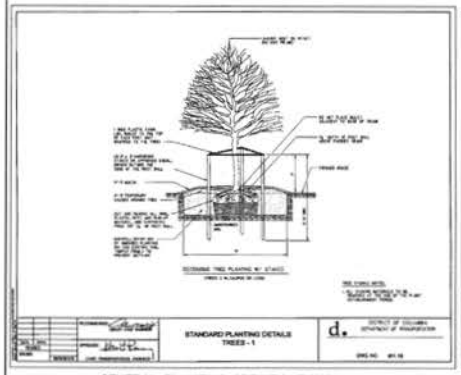

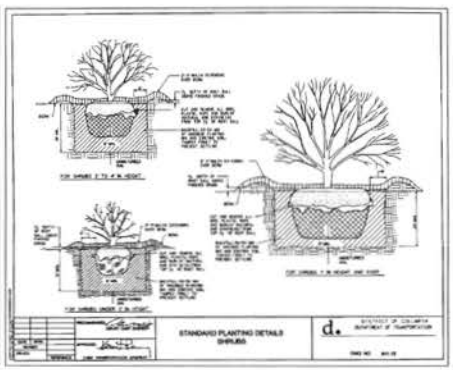

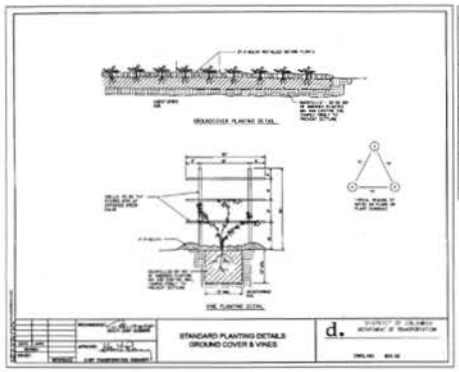

PLANT SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	PROPOSED QUANTITY	CALIPER/ HEIGHT/ SIZE	NOTES
ORNAMENTAL TREES					
AA	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance' Serviceberry	17	6-7' HT.	
LA	Lagerstroemia 'Arapaho'	Arapaho Crape Myrtle	9	3-3.5"	
LN	Lagerstroemia 'Natchez'	Natchez Crape Myrtle	16	3-3.5"	
SHRUBS					
AR	Aronia arbutifolia	Red Chokeberry	15	#3 Cont.	
CL	Clethra alnifolia	Summersweet Clethra	18	#3 Cont.	
IH	Itea virginica 'Henry's Garnet'	Henry's Garnet' Virginia Sweetspire	11	#3 Cont.	
MC	Myrica cerifera	Southern Bayberry	19	#3 Cont.	

1 / C-10 PLANT SCHEDULE

PLANT SCHEDULE NOTE:

1. THE CONTRACTOR SHALL SUPPLY ALL NEW PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON THE DRAWINGS.
2. SUBSTITUTIONS IN PLANTS AND MATERIALS ARE NOT PERMITTED WITHOUT PRIOR WRITTEN APPROVAL BY LANDSCAPE ARCHITECT.
3. TREES TO BE SELECTED IN THE NURSERY BY LANDSCAPE ARCHITECT.

GENERAL PLANTING SPECIFICATIONS

PLANT / MATERIAL SPECIFICATIONS

PLANT IDENTIFICATION:

1. ALL PLANTS SHALL BE PROPERLY MARKED FOR IDENTIFICATION AND CHECKING AND ARE SUBJECT TO APPROVAL BY THE OWNER'S REPRESENTATIVE.
2. STATE OR FEDERAL NURSERY INSPECTION CERTIFICATES SHALL BE FURNISHED TO THE OWNER UPON REQUEST.
3. THE CONTRACTOR SHALL VERIFY PLANT QUANTITIES AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER. PLANT QUANTITIES SHOWN ON THE PLAN SHALL GOVERN OVER THOSE SHOWN ON THE PLANT LIST.
4. CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS REQUIRED TO COMPLETE THE WORK AS SHOWN ON THE DRAWINGS.
5. PLANTS WILL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE "AMERICAN STANDARD FOR NURSERY STOCK" PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND CONFORM IN GENERAL TO THE REPRESENTATIVE SPECIES.
6. SUBSTITUTIONS SHALL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER. ANY SUBSTITUTIONS MADE WITHOUT THIS APPROVAL MADE BE SUBJECT TO REJECTION AND REMOVAL AT THE CONTRACTOR'S EXPENSE.
7. PLANT MATERIAL SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY OWNER OR OWNER'S REPRESENTATIVE FOR CONFORMITY TO SPECIFICATION REQUIREMENTS AS TO QUALITY, SIZE AND VARIETY. PLANTS DAMAGED IN HANDLING OR TRANSPORTATION MAY BE REJECTED BY THE OWNER.

PLANT QUALITY:

1. ALL PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE AND BE FREE OF PLANT DISEASE, INSECTS, EGGS AND LARVAE AND SHALL HAVE HEALTHY ROOT SYSTEMS. PLANTS SHALL BE OBTAINED FROM SITES WHICH ARE SIMILAR IN SOIL AND CLIMATIC CONDITIONS AS THOSE OF THE PROJECT SITE.
2. ALL PLANT SIZES SHALL AVERAGE AT LEAST THE MIDDLE OF THE PLANT RANGE GIVEN IN THE PLANT LIST, BUT IN NO CASE SHALL ANY PLANT BE LESS THAN THAT SIZE STATED FOR THAT SPECIES.
3. BALLED AND BURLAPPED PLANTS SHALL BE DUG WITH FIRM, NATURAL BALL OF EARTH. BALL SIZES SHALL BE IN ACCORDANCE WITH A.A.N. SPECIFICATIONS.
4. CONTAINER GROWN STOCK SHALL HAVE BEEN GROWN IN THE CONTAINER LONG ENOUGH FOR THE ROOT SYSTEM TO HAVE DEVELOPED SUFFICIENTLY TO HOLD ITS SOIL TOGETHER.
5. EVERGREEN TREES SHALL BE UNIFORMALLY WELL SHAPED WHEN LISTED AS "HEAVY" OR "FULL".
6. PRUNING SHALL BE DONE DURING PLANTING OPERATION.
7. ALL PLANT MATERIAL IN TRANSIT SHALL BE COVERED WITH BURLAP OR SIMILAR COVER TO KEEP IT FROM WIND DAMAGE AND DRYING OUT.

PLANT SIZE:

1. CALIPER MEASUREMENTS SHALL BE TAKEN AT A POINT ON THE TRUNK 6 INCHES ABOVE NATURAL GRADE FOR TREES UP TO 4 INCHES IN DIAMETER, AND AT A POINT 12 INCHES ABOVE NATURAL GRADE FOR TREES OVER 4 INCHES IN DIAMETER.
2. SINGLE TRUNK TREES SHALL NOT INCLUDE THE "V" CROTCHES THAT COULD BE POINTS OF WEAK LIMB STRUCTURE OR DISEASE.
3. SHRUBS HEIGHT SHALL BE MEASURED FROM THE GROUND TO THE AVERAGE HEIGHT OF THE TOP OF THE PLANT. SPREAD SHALL BE MEASURED FROM THE END OF THE BRANCHING, EQUALLY AROUND THE PLANT. MEASUREMENTS SHALL NOT INCLUDE TERMINAL GROWTH.
4. HEIGHT AND SPREAD DIMENSIONS SPECIFIED SHALL REFER TO THE MAIN BODY OF THE PLANT AND NOT FROM BRANCH TIP TO TIP.

MULCH:

1. MULCH SHALL BE EITHER COMPOSTED HARDWOOD BARK, DOUBLE SHREDDED HARDWOOD BARK, PINE BARK OR APPROVED EQUAL, AND FREE OF FOREIGN MATTER.

FERTILIZER:

1. FERTILIZER SHALL BE GRANULAR, PACKET OR PELLET, WITH 25% TO 50% OF TOTAL NITROGEN IN ORGANIC FORM. IT SHALL BE A COMPLETE FERTILIZER WITH A MINIMUM ANALYSIS OF 10% NITROGEN,6% PHOSPHOROUS AND 4% POTASSIUM. GRANULAR FERTILIZER SHALL BE APPLIED TO THE SOIL MIX WITH A 10-6-4 ANALYSIS AT THE FOLLOWING RATES: TREE PITS, 2-3 LBS. PER INCH OF TRUNK DIAMETER; SHRUB BEDS, 2 LBS. PER 100 SQUARE FEET OF BED AREA (OR 1/4 LB. PER FOOT OF HEIGHT OR SPREAD). GROUND COVER, VINE AND HERBACEOUS PLANTS, 2-3 LBS. PER 100 SQUARE FEET. THE OWNER RESERVES THE RIGHT TO DETERMINE THE TIME FERTILIZATION SHOULD OCCUR WITHIN THE ONE YEAR GUARANTEE PERIOD.

TOPSOIL:

1. TOPSOIL, IF REQUIRED, SHALL BE FERTILE, FRIABLE NATURAL LOAM, UNIFORM IN COMPOSITION, FREE OF STONES,CLUMPS, PLANTS, AND THEIR ROOT DEBRIS AND OTHER EXTRANEOUS MATTER OF 1 INCH IN DIAMETER, AND CAPABLE OF PROMOTING VIGOROUS PLANT GROWTH. TOPSOIL SHALL HAVE A pH RANGE OF 6.0 TO 6.5, WITH A pH RANGE OF 5.0 TO 5.5 FOR PLANTS REQUIRING ACID SOILS. CONTRACTOR SHALL PROVIDE SOIL ANALYSIS TO OWNER PRIOR TO IMPORTING TOPSOIL ONTO THE PROJECT SITE.

PERMANENT SEED / SOD AREAS

1. AREAS TO RECEIVE SEED AND/OR SOD SHALL BE FREE OF STONES, ROOTS, DEBRIS ETC. IN EXCESS OF 2 INCHES IN SIZE AND UNIFORMALLY GRADED FOR PROPER DRAINAGE AND ACCEPTANCE OF THE SEED/SOD.
2. LAWN SEED OR SOD VARITIES SHALL BE AN IMPROVED VARIETY, TURF TYPE TALL FESCUE BLEND. THE CONTRACTOR SHALL SELECT FROM VARITIES THAT ARE APPROVED BY THE VIRGINIA AND /OR MARYLAND DEPARTMENT OF AGRICULTURE OR AS OTHERWISE NOTED.
3. REFER TO THE CURRENT EDITION OF THE LANDSCAPE SPECIFICATION GUIDELINES, PUBLISHED BY THE L.C.A. FOR METHODS OF SEED/SOD INSTALLATION .

SITE WORK / PREPARATION SPECIFICATIONS

1. CONTRACTOR SHALL CONTACT MISS UTILITY AT 1-800-257-7777 FOR LOCATION OF EXISTING UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY UTILITIES CAUSED BY HIS METHODS OF CONSTRUCTION OR OPERATIONS.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE "LANDSCAPE SPECIFICATION GUIDELINES FOR MARYLAND, VIRGINIA, & THE DISTRICT OF COLUMBIA" AS PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION, UNLESS OTHERWISE STATED ON THE PLAN.
3. EXISTING TREES SHALL NOT BE REMOVED, EXCEPT AS SHOWN ON THESE PLANS, UNLESS AUTHORIZATION IS GIVEN BY THE OWNER OR HIS REPRESENTATIVE.
4. PACKAGED MATERIALS SHALL BE DELIVERED IN UNOPENED CONTAINERS OR BUNDLES, IDENTIFIED WITH NAME, BRAND, TYPE, WEIGHT & ANALYSIS. MATERIALS SHALL BE STORED SO AS TO PREVENT DAMAGE OR INTRUSION BY FOREIGN OBJECTS.
5. CONTRACTOR SHALL ENSURE THAT PROPER GRADING OPERATIONS HAVE OCCURRED SO AS NOT TO HAVE PONDING OF WATER WITHIN PLANT PITS OR BEDS.
6. TREES AND SHRUBS SHALL BE DELIVERED AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED. CARE SHALL BE TAKEN SO AS NOT TO DAMAGE BARK, BRANCHES, ROOT BALL OR PLANT MATERIALS IN GENERAL. IF PLANTING OF TREES OR SHRUBS IS DELAYED MORE THAN EIGHT HOURS THEY SHALL BE PLACED IN SHADE, COVERED WITH SOIL OR OTHER ACCEPTABLE MATERIAL, AND KEPT MOIST. MATERIALS SHALL NOT REMAIN UNPLANTED FOR MORE THAN TEN (10) DAYS.

PLANTING SPECIFICATIONS

LOCATION:

1. PLANT LOCATIONS WILL BE STAKED BY THE LANDSCAPE CONTRACTOR AND WILL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO PLANTING.
2. TREES SHALL BE LOCATED A MINIMUM OF FIVE (5) FEET FROM WATER AND/OR SEWER LINES, AND FOUR (4) FEET FROM WALLS AND WALKS. CONTRACTOR MAY MAKE MINOR ADJUSTMENTS TO PLANT LOCATIONS IN THE FIELD SO AS TO AVOID UTILITIES, SWALES AND OTHER UNFORSEEN CONFLICTS. IF UNUSUALLY LARGE DISCREPANCIES ARISE BETWEEN ACTUAL FIELD LIMITS AND THOSE PLANTING AREAS SHOWN ON THE PLAN , THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING. FAILURE TO MAKE THIS NOTIFICATION MAY RESULT IN THE CONTRACTOR'S NEED TO RELOCATE THE PLANT MATERIAL AT HIS OWN EXPENSE.
3. TREES AND SHRUBS THAT ARE TO BE PLANTED IN UNIFORM MASSES AND/OR ROWS SHALL BE OF UNIFORM SIZE, SHAPE, AND VIGOR.

EXCAVATION AND INSTALLATION:

1. HOLES FOR TREES, SHRUBS, & PLANT BEDS SHALL BE EXCAVATED TO THE WIDTH AND DEPTH AS SHOWN ON THE DETAILS.ALL HOLES SHALL HAVE VERTICAL SIDES AND PIT DEPTH SHALL BE ADEQUATE SO AS TO ALLOW FOR 1/8 MAXIMUM OF ROOT BALL TO BE ABOVE FINISH GRADE.
2. HOLES FOR TREES SHALL BE TWELVE INCHES WIDER THAN THE BALL ON ALL SIDES.
3. HEDGES SHALL BE PLANTED IN A TRENCH 9" WIDER THAN THE SIZE OF THE BALL OR CONTAINER. BEDS FOR MASS PLANTING AND FOR GROUND COVER, HERBACEOUS PLANTS AND VINES SHALL BE ENTIRELY ROTOTILLED TO A DEPTH OF 8".
4. DO NOT REMOVE CONTAINER GROWN STOCK FROM CONTAINERS UNTIL PLANTING TIME.
5. PLANTS SHALL BE CENTERED IN THE PLANT PIT AND ORIENTED FOR THE OPTIMUM VISUAL EFFECT. PLANT SHALL BE SET PLUMB AND STABILIZED UNTIL BACKFILL MATERIAL HAS BEEN PLACED. CONTRACTOR SHALL MAINTAIN TREES SO THEY REMAIN UPRIGHT AND VERTICAL THROUGHOUT THE WARRANTY PERIOD.
6. REMOVE TAGS, TWINE, ROOT BASKETS FROM ENTIRE ROOT BALL. REMOVE BURLAP FROM TOP 1/2 OF ROOT BALL.
7. BACKFILL PIT WITH PLANTING SOIL MIX AND FERTILIZER TO APPROXIMATELY TWO-THIRDS FULL. TAMP AND WATER PLANT PIT. FILL PIT WITH REMAINING SOIL MIX AND CREATE SOIL BERM. BACKFILL SHALL BE REASONABLY FREE OF STONES, SUBSOIL, CLAY LUMPS, STUMPS, ROOTS BERMUDA GRASS, LITTER, TOXIC SUBSTANCES, OR ANY OTHER MATERIAL WHICH MAY BE HARMFUL TO PLANT GROWTH OR HINDER PLANTING OR MAINTENANCE OPERATIONS. SHOULD ANY UNFORSEEN OR UNSUITABLE PLANTING CONDITIONS ARISE, SUCH AS FAULTY SOIL DRAINAGE OR CHEMICAL RESIDUES, THEY SHOULD BE CALLED TO THE ATTENTION OF THE OWNER AT THE TIME OF PLANTING. BACKFILL SHALL BE WELL WORKED ABOUT THE ROOTS AND SETTLED BY WATERING.
8. MULCH ALL TREE PITS, SHRUB, GROUND COVER AND FLOWERING BEDS WITH A 3" LAYER OF MULCH IMMEDIATELY AFTER PLANTING. ALL BED LINES SHALL BE CUT WITH A SMOOTH EDGE TO A MINIMUM DEPTH OF 3 INCHES. TREES LOCATED WITHIN THREE FEET OF SHRUB BEDS SHALL BE MULCHED AS PART OF THE SHRUB BED.

MAINTENANCE / WARRANTY SPECIFICATIONS

MAINTENANCE:

1. THE CONTRACTOR SHALL BE RESPONSIBLE DURING THE CONTRACT AND UP TO THE TIME OF FINAL ACCEPTANCE FOR KEEPING THE PLANTING AND WORK INCIDENTAL THERETO IN GOOD CONDITION BY REPLANTING, PLANT REPLACEMENT, WATERING, WEEDING, CULTIVATING, PRUNING AND SPRAYING, RESTAKING AND CLEANING UP AND BY PERFORMING ALL OTHER NECESSARY OPERATIONS OF CARE FOR PROMOTION OF GOOD PLANT GROWTH SO THAT ALL WORK IS IN SATISFACTORY CONDITION AT TIME OF FINAL ACCEPTANCE, AT NO ADDITIONAL COST TO THE OWNER.
2. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ALL DEBRIS, TRASH, AND UNNECESSARY MATERIALS FROM THE AREA OF WORK AND/OR THE PROPERTY ON A DAILY BASIS.
3. THE CONTRACTOR SHALL REMOVE ALL DEAD PLANT MATERIAL FROM THE JOB SITE ON A WEEKLY BASIS. CONTRACTOR SHALL ALSO BE REQUIRED TO RETAIN A LOG OF ALL PLANT MATERIALS REMOVED DUE TO DEATH OR INJURY SO AS TO PROPERLY INDENTIFY THOSE PLANTS FOR REPLACEMENT.
4. THE CONTRACTOR SHALL BE REQUIRED TO REGRADE, RESEED / SOD, MULCH ETC. ALL LAWN AREAS DISTURBED AS A RESULT OF HIS PLANTING OPERATIONS.

WARRANTY AND REPLACEMENT:

1. ALL MATERIAL INCLUDING PLANTS ,SEEDING & SOD SHALL BE UNCONDITIONALLY GUARANTEED FOR ONE YEAR FROM THE DATE OF INITIAL ACCEPTANCE. THE CONTRACTOR IS NOT RESPONSIBLE FOR LOSSES OR DAMAGE CAUSED BY OTHER TRADES MECHANICAL INJURY OR VANDALISM.
2. ANY MATERIAL THAT IS 25% DEAD OR MORE SHALL BE CONSIDERED DEAD AND SHALL BE REPLACED AT NO COST TO THE OWNER

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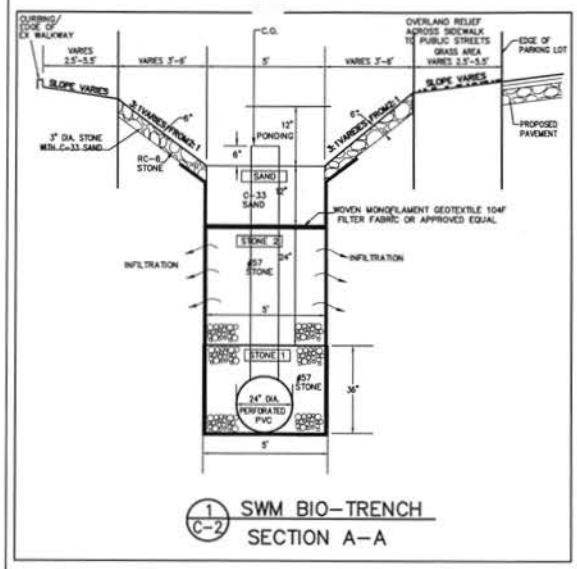
SOUTHEAST FEDERAL CENTER
INTERIM PARKING LOT
PARCEL 9
WASHINGTON, D.C.

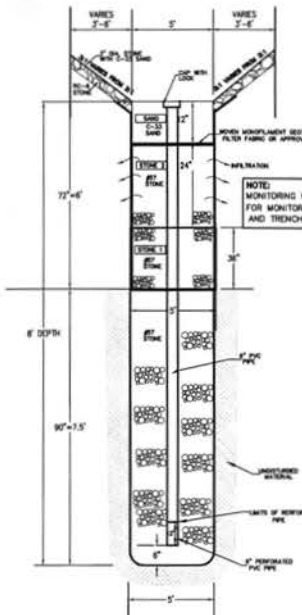
LANDSCAPE DETAILS AND NOTES

VIKA CAPITOL REVISIONS

DATE: MAR. 18, 2013
DES. KUD DWN. STF
SCALE: HORZ: 1"=20' VERT: 1"=__'
PROJECT/FILE NO. VC00037J
SHEET NO. C-10



1 C-2 SWM BIO-TRENCH SECTION A-A



2 C-2 MONITORING WELL
NOT TO SCALE

Appendix F: Additional Design and Construction Requirements for Sand Filter Systems

Table F.1 Specifications for the Woven Monofilament Geotextile 104F

Property	Test Method	Units	Value	104F
Mechanical				
Grab Tensile MD/XD	ASTM D-4632	lbs	Typical	400/275
			MARV	370/250
Grab Elongation MD/XD	ASTM D-4632	%	Typical	24/26
			MARV	24/24
Puncture Strength	ASTM D-4833	lbs	Typical	150
			MARV	120
Mullen Burst	ASTM D-3786	psi	Typical	320
			MARV	480
Trapezoidal Tear MD/XD	ASTM D-4533	lbs	Typical	129/95
			MARV	100/70
Hydraulic				
Percent Open Area (POA)	Chemical Addn + (96) Total Area	%	Typical	5
			MARV	4
Apparent Opening Size (AOS)	ASTM D-4751	US Sieve	Typical	70-100
			MARV	70
Permeability	ASTM D-4491	sec	Typical	0.40
			MARV	0.28
Permeability	ASTM D-4491	cm/sec	Typical	0.055
			MARV	0.039
Water Flow Rate	ASTM D-4491	gpm/ft²	Typical	26
			MARV	18
Physical				
Weight	ASTM D-5261	oz/yd²	Typical	6.1
			MARV	5.9
Thickness	ASTM D-5199	mils	Typical	15
			MARV	12
Endurance				
UV Resistance	ASTM D-4355	% Retained @ 500 hours	MARV	90
Packaging				
Roll Width	Measured	m	Typical	72/144
Roll Length	Measured	m	Typical	300
Roll Weight	Calculated	lbs	Typical	106/192
Area	Calculated	m²	Typical	370/740

Notes:
- "MARV" indicated minimum average roll value calculated as the typical mean two standard deviations. Statistically, it yields a 97.7% degree of confidence that any sample taken during quality assurance testing will exceed the values reported.
- "MD" indicates the machine/warp(x) direction.
- "XD" indicates the cross machine/fill/across the roll direction.

The fabric roll should be cut with sufficient dimensions to cover the entire wetted perimeter of the

3 C-2 WOVEN MONOFILAMENT SPECIFICATION FROM DC SWM BOOK

BIOTRENCH CONSTRUCTION

5.0. EXECUTION OF THE WORK
THE GROUNDWATER COLLECTION TRENCH SHALL BE CONSTRUCTED TO THE ELEVATIONS LINES AND GRADES, AND CROSS SECTIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THESE SPECIFICATIONS, UNLESS OTHERWISE DIRECTED BY THE OWNER'S REPRESENTATIVE. THE TRENCH SHALL HAVE ESSENTIALLY VERTICAL WALLS, A MINIMUM WIDTH OF TYPICALLY 24 TO 36 INCHES, AND SHALL EXTEND THROUGH THE OVERBURDEN AND TO THE DESIGNATED STRATUM [AND/OR DEPTH]. A GENERALIZED DESCRIPTION OF THE SOIL PROFILE THROUGH WHICH THE TRENCH IS TO BE CONSTRUCTED IS PROVIDED ON THE BORING LOGS ATTACHED TO THIS SPECIFICATION.

5.1 EXCAVATION
TRENCH EXCAVATION SHALL BE MAINTAINED IN AN OPEN CONDITION BY THE BP METHOD. EXCAVATION SHALL BE CONDUCTED IN A MANNER, WHICH PROVIDES FOR A CONTINUOUS MINIMUM WIDTH TRENCH TO THE REQUIRED DEPTH ALONG THE CENTERLINE OF THE EXCAVATION. THE OWNER'S REPRESENTATIVE MAY DIRECT THE CONTRACTOR TO DEEPEN THE TRENCH BASED ON EXAMINATION OF SPOILS AND SHALL APPROVE THE DEPTH OF THE TRENCH IMMEDIATELY AFTER EXCAVATION. THE TRENCH SHALL BE CONSTRUCTED WITHOUT UNDUE INTERRUPTION UNTIL COMPLETE.

5.2 TRENCH STABILITY
THE CONTRACTOR SHOULD BE RESPONSIBLE IN ENSURING THE TRENCH STABILITY.

5.3 BACKFILLING
BACKFILLING OF THE TRENCH SHALL BEGIN AS SOON AS PRACTICAL. THE BACKFILL SHALL BE PLACED INTO THE TRENCH IN A MANNER THAT AVOIDS SEGREGATION OF THE BACKFILL AND CONTAMINATION BY FINE SOIL PARTICLES. BACKFILL SHALL BE PLACED USING CONTROLLED METHODS AROUND WELLS/SUMPS AND PIPES AND GEO-TEXTILES SO THAT THE FORCE OF THE BACKFILL DOES NOT DISTURB THEIR POSITION. SPECIAL MEANS SUCH AS TREMIE, BUCKET PLACEMENT OR A BACKFILL RAMP SHALL BE USED AS REQUIRED BY THE GRADATION OF THE BACKFILL.

IN GENERAL, THE BACKFILL SHALL BE PLACED CONTINUOUSLY FROM THE BEGINNING OF THE TRENCH IN THE DIRECTION OF THE EXCAVATION TO THE END OF THE TRENCH. SUBSEQUENT BACKFILL SHALL BE PLACED BY ALLOWING IT TO SLIDE DOWN THE SLOPE OF PREVIOUSLY PLACED BACKFILL.

5.4 DRAIN ACTIVATION
AFTER BACKFILLING, WATER MAY BE FLUSHED THROUGH THE BACKFILL, IF NECESSARY. THE PORE VOLUME OF THE TRENCH SHALL BE PUMPED AND CIRCULATED AT LEAST TYPICALLY 1 OR 2 TIMES TO ENSURE ACTIVATION OF THE DRAINAGE PROPERTIES OF THE TRENCH.

5.5 TOLERANCES
THE FOLLOWING TOLERANCES SHALL APPLY TO THE GROUNDWATER COLLECTION TRENCH DIMENSIONS AND CONSTRUCTION. THE TOLERANCES MAY VARY FROM THE DESIGNED VALUES IF APPROVED BY THE OWNER'S REPRESENTATIVE.
A. THE GROUNDWATER COLLECTION TRENCH SHALL BE ESSENTIALLY VERTICAL. THE WORKING PLATFORM AND/OR EXCAVATING EQUIPMENT MAY BE LEVELED TO BE PLUMB WITHIN [1%] OF VERTICAL.
B. THE DEPTH OF THE GROUNDWATER COLLECTION TRENCH SHALL BE MEASURED OR SURVEYED TO WITHIN 6 INCHES OF THE DESIRED ELEVATION.
C. THE EXCAVATING TOOL SHALL BE AT LEAST AS WIDE AS THE DESIGN WIDTH OF THE GROUNDWATER COLLECTION TRENCH.
D. THE GROUNDWATER COLLECTION TRENCH SHALL FOLLOW THE DESIGNED ALIGNMENT WITHIN 2 FT OF THE DESIGNATED CENTERLINE.
E. CONSTRUCTION WILL NOT BE PERMITTED WHEN THE AIR TEMPERATURE IS BELOW 20OF OR WHEN SEVERE WEATHER CONDITIONS MAY COMPROMISE THE QUALITY OF THE WORK.
F. OVERLAPS OF THE GEOTEXTILE FABRIC SHEETS SHALL BE AT LEAST [4] FT AS MEASURED AT THE TOP OF THE TRENCH.
G. WELL/SUMPS SHALL BE INSTALLED TO WITHIN [3] FEET OF THE DESIGNATED STATION.
H. THE PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE ELEVATION OF UNDER-DRAIN PIPE INSTALLED SHALL BE WITHIN [6 INCHES] OF THE PLAN ELEVATION WITHOUT KINKS OR BENDS AND THE ELEVATION OF THE PIPE AND RECORDED AT [20] FT INTERVALS. THE GRADE OF THE PIPE SHALL BE CONTINUOUSLY MAINTAINED WITHOUT MOUNDS OR SAGS IN THE LINE OF THE PIPE.

6.0 TREATMENT FOR TOP OF BACKFILL
AFTER THE TRENCH IS ACTIVATED, THE TOP OF THE TRENCH SHALL BE BACKFILLED TO THE DESIGNATED ELEVATION. THE GEOTEXTILE SHALL BE TRIMMED AND OVERLAPPED TO COVER THE BACKFILL. A LAYER OF GEOTEXTILE OR GEOMEMBRANE SHALL BE PLACED OVER THE BACKFILL TO SEPARATE THE BACKFILL FROM SUBSEQUENT SOIL LAYERS.] A MINIMUM OF TYPICALLY 3 TO 5 FT OF SOIL FROM THE TRENCH EXCAVATION SHALL BE RECOMPACTED OVER THE BACKFILL TO BRING THE TRENCH TO THE DESIGNATED ELEVATION. PRIOR TO COMPLETION THE WORKING PLATFORM SHALL BE REGRADED AND/OR RESURFACED TO PROMOTE DRAINAGE.

7.0. QUALITY CONTROL
THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL WORK IS PERFORMED TO THE STANDARDS OF THIS SPECIFICATION.

7.1. TRENCH DIMENSIONS
THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMONSTRATING TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE THAT THE TRENCH IS THE PROPER WIDTH, CONTINUOUS AND EXCAVATED TO THE SPECIFIED DEPTH. THE DEPTH OF THE TRENCH SHALL BE SOUNDED AT LEAST EVERY 20 LINEAL FEET.

7.1 BACKFILL MATERIALS
THE CONTRACTOR SHALL SUBMIT EVIDENCE THAT THE BACKFILL IS THE SPECIFIED GRADATION AND QUALITY. SAMPLES SHALL BE OBTAINED AND TESTED AT LEAST EVERY TYPICALLY 500 TONS AND SUBMITTED TO THE OWNER'S REPRESENTATIVE.

7.2 WELLS/SUMPS
[THE CONTRACTOR SHALL RECORD THE STATION AND CONTROL THE LOCATION AND VERTICALITY OF THE WELLS UNTIL COMPLETELY BACKFILLED. THE VERTICALITY OF THE WELLS SHALL BE MEASURED WITH A CARPENTER'S LEVEL AND/OR TESTED WITH A SURROGATE PUMP TO ENSURE THAT THE WELLS WILL PERMIT UNIMPEDED INSTALLATION OF PUMPS. IF THE ALIGNMENT OF THE WELL IS INADEQUATE, THE CONTRACTOR SHALL INSTALL A REPLACEMENT WELL USING WELL DRILLING METHODS, AT NO ADDITIONAL COST TO THE OWNER.

7.3 GEO-TEXTILE
[THE CONTRACTOR SHALL MARK THE PANEL NUMBER AND REQUIRED OVERLAP OF EACH GEOTEXTILE PANEL ON THE PANEL AS THE GEOTEXTILE IS INSTALLED. THE CONTRACTOR SHALL INSPECT THE PANELS EACH DAY, UNTIL COMPLETELY BACKFILLED, CORRECT ANY FOLDS AND REPAIR ANY TEARS.

7.4 UNDER-DRAIN PIPE
THE CONTRACTOR SHALL VERIFY AND RECORD THE ELEVATION OF THE PIPE AS IT IS INSTALLED. THE LINE AND GRADE OF THE PIPE SHALL BE MAINTAINED UNTIL COMPLETELY BACKFILLED.

7.5 RECORDS
ALL QUALITY CONTROL RECORDS, TESTS, AND INSPECTIONS SHALL BE DOCUMENTED BY THE CONTRACTOR AND AVAILABLE FOR REVIEW BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL RECORD ALL MEASUREMENTS AND TEST RESULTS FOR SUBMITTAL TO THE OWNER'S REPRESENTATIVE EACH DAY.

INSPECTION AND MAINTENANCE

THE OWNER SHALL, AT ITS SOLE EXPENSE, MAKE SUCH CHANGES OR MODIFICATIONS TO THE FACILITY AS MAY, IN THE DISTRICT'S DISCRETION, BE DETERMINED NECESSARY TO INSURE THAT THE FACILITY IS MAINTAINED IN GOOD CONDITION AND CONTINUES TO OPERATE AS DESIGNED AND APPROVED. TO ENSURE PROPER OPERATIONS, THE FOLLOWING ACTIVITIES SHALL BE UNDERTAKEN:

1. THE FACILITY SHALL BE INSPECTED MONTHLY TO ENSURE SLOPE STABILITY AND UNCLOGGING OF THE SUBSURFACE DRAIN. LITTER SHALL BE REMOVED FROM FACILITY. NOTICE OF EACH INSPECTION SHALL BE PROVIDED TO THE DISTRICT DEPARTMENT OF THE ENVIRONMENT (DDOE) WITHIN SEVEN (7) CALENDAR DAYS OF COMPLETION.
2. DURING THE FIRST SIX MONTHS OF OPERATION, THE FACILITY SHALL BE INSPECTED AFTER EACH RAIN EVENT OF ONE INCH OR GREATER DURING ANY TWENTY-FOUR HOUR PERIOD TO ENSURE PROPER FUNCTIONING. DRAIN TIMES SHALL BE OBSERVED, RECORDED, AND REPORTED TO DDOE WITHIN SEVEN (7) CALENDAR DAYS OF INSPECTION TO ENSURE THAT THE DESIGN TARGETS HAVE BEEN ACHIEVED.
3. EVERY SIX MONTHS AND AFTER EACH RAIN EVENT OF 8.37 INCHES OR GREATER DURING ANY TWENTY-FOUR HOUR PERIOD, THE FACILITY SHALL BE INSPECTED FOR SIGNS OF WETNESS OR DAMAGE TO STRUCTURES, SIGNS OF PETROLEUM HYDROCARBON CONTAMINATION, STANDING WATER, TRASH AND DEBRIS, SEDIMENT ACCUMULATION, SLOPE STABILITY, STANDING WATER, AND MATERIAL BUILDUP. IN ADDITION, THE OBSERVATION WELL SHALL BE CHECKED AFTER THREE DAYS OF DRY WEATHER TO VERIFY PROPER DRAIN TIME. DDOE SHALL BE NOTIFIED IN ADVANCE OF THE DATE AND TIME OF EACH SEMI-ANNUAL INSPECTION, AND A DDOE REPRESENTATIVE MAY BE PRESENT AT EACH SUCH INSPECTION. THE RESULTS OF THIS INSPECTION SHALL BE REPORTED TO DDOE WITHIN SEVEN CALENDAR DAYS OF THEIR COMPLETION.
4. AT NO TIME SHALL LITTER, LEAVES, GRASS CLIPPINGS, ACCUMULATED SEDIMENT, OR OTHER SUBSTANCES BE ALLOWED TO PREVENT THE PROPER FUNCTIONING OF THE FACILITY.
5. IF EVIDENCE OF SURFACE CLOGGING APPEARS, THE OWNER SHALL IMPROVE OR REPLACE AGGREGATE AND/OR FILTER FABRIC AS NECESSARY TO RESTORE PROPER FUNCTIONING.
6. WHEN DRAWDOWN TIME IS OBSERVED TO HAVE INCREASED SIGNIFICANTLY OVER DESIGN DRAWDOWN TIME, THE OWNER SHALL REMOVE SEDIMENT FROM THE BIO-TRENCH.
7. UPON COMPLETION OF APPROVED USE AS A TEMPORARY PARKING STRUCTURE, ALL TRENCH WALLS SHALL BE EXCAVATED TO EXPOSE CLEAN SOIL.
8. UPON COMPLETION OF USE AS A TEMPORARY PARKING STRUCTURE, ALL STONE AGGREGATE AND FILTER FABRIC OR MEDIA MUST BE REMOVED FROM THE SITE. ACCUMULATED SEDIMENT SHOULD BE STRIPPED FROM THE TRENCH BOTTOM.

STATEMENT OF PERSON RESPONSIBLE FOR MAINTENANCE
PARCEL Q

The undersigned agrees to maintain and operate the discharge facilities in such a manner as to comply with the provisions of Section 526 through 535 of DCMR-21, Chapter 5. Responsibility for maintenance and operation may be transferred to another entity upon written notice to the Watershed Protection Division of the Department of Environment from the undersigned and the entity assuming responsibility, certifying that the transfer of responsibility for maintenance and operation in compliance with Section 526 through 535 of DCMR-21, Chapter 5 has been accepted.

Signature of the person responsible for maintenance (it may be the applicant)

Name and Title (please type)

Address

Date Telephone No.

STATEMENT BY PROFESSIONAL ENGINEER REGISTERED IN THE DISTRICT OF COLUMBIA

This is to certify that the engineering features of this stormwater discharge facility have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of stormwater pollutants. I further certify that the facility has been designed in accordance with the specification required under Section 526 through 535 of DCMR-21, Chapter 5. It is also stated that the undersigned has furnished the applicant with a set of instructions for the maintenance and operation of the stormwater discharge facility.

Affix Seal

KYLE U. OLIVER, P.E.
Name and Title (please type)

4910 MASSACHUSETTS AVE, NW
Address
SUITE 214
WASHINGTON, DC 20016
Date Telephone No. (202)244-4140

AS-BUILT CERTIFICATION BY PROFESSIONAL ENGINEER

Within 21 days after completion of construction of the stormwater discharge facility, please send this page to the Watershed Protection Division - Department of Environment.

1. **Stormwater Discharge Facility Information:**
   Source Name:
   Source Location: Street:
   City:
   DCRA Permit No.:
   Date Issued:

2. **As-Built Certification**
   I hereby certify that this stormwater discharge facility has been built substantially in accordance with the approved plans and specifications, and that any substantial deviations (noted below) will not prevent the system from functioning in compliance with the requirements of Section 526 through 535 of DCMR-21, Chapter 5 when properly maintained and operated. These determinations have been based upon on-site observation of construction, scheduled and conducted by me or by a project representative under my direct supervision. I have enclosed one set of as-built engineering drawings.

Signature of Engineer Name (please type) D.C. Reg. No.

Affix Seal

Company Name
Company Address
Date Telephone No.

Substantial deviations from the approved plans and specifications (attach additional sheets if required).

PROJECT COORDINATOR:
E-MAIL: @vikacapitol.com
CAPITOL ENGINEERING • PLANNING • LANDSCAPE ARCHITECTS • SURVEYORS • SUSTAINABLE DESIGN
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SOUTHEAST FEDERAL CENTER
INTERIM PARKING LOT
PARCEL Q
WASHINGTON, D.C.

STORMWATER MANAGEMENT
NOTES AND DETAILS

VIKA CAPITOL REVISIONS

DATE: MAR. 18, 2013
DES. STF DWN. STF
SCALE: HORZ: 1"=20'
VERT: 1"=__'
PROJECT/FILE NO. VC00372
SHEET NO. C-2