

APPENDIX A

Retrofit Field Forms for Priority Projects

Centennial

CL-101	CL-4
CL-102	CL-6
CL-103	CL-7
CL-104	CL-9

Wilde Lake

WL-101	WL-1
WL-102b	WL-10b
WL-103	WL-12a/b
WL-113a	WL-16
	WL-17

Retrofit Reconnaissance Inventory Data Sheet

1. Subwatershed: CEN Site Number: CEN- MAINT YARD

CL-101

2. Location (Coordinates):

Latitude: _____

Longitude: _____

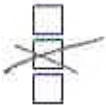
Notes:

3. Location (Coordinates)

From County ADC/Locator Map

Indicated by coordinates and quadrants on the map pages (e.g., H3 NW)

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):



Existing Facility

Unmanaged Existing Development

Site Identified during stream assessment (e.g., USA, RSAT, RBP)

POLLUTION PREVENTION

+

QUALITY TREATMENT

Retrofit Reconnaissance Inventory Data Sheet

5. Date of Preliminary Survey: 10/14/04
6. Surveyors: SCH, KL
7. Drainage Area: _____
8. Approximate Imperviousness (%): _____
9. Property Ownership (public or private): PUBLIC - CENTENNIAL PARK

10. Retrofit Volume Computations (i.e., target and available storage):

- WQ_v Cp_v Q_p

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

- On-line retrofit Off-line retrofit

- (A) COVER STORAGE BINS
- (B) PAVERS
- (C) SAND FILTER
- (D) BIO RETENTION

Retrofit Reconnaissance Inventory Data Sheet

12. Adjacent Land Use (possible conflicts):

PARK

13. Conflicts with Existing Utilities:

NONE SEEN

14. Construction and Maintenance Access:

EASY ACCESS

15. Wetlands Present?

Yes

No

Maybe

If yes, describe:

BIO RETENTION AREA HAS POTENTIAL

16. Forested Area or Other Sensitive Areas Present?

Yes

No

If yes, describe:

Trees screening maintenance yard - MAINTAIN SCREENING

17. Photo Roll and Picture #: Roll #:

Pentax

Photo #:

257-263

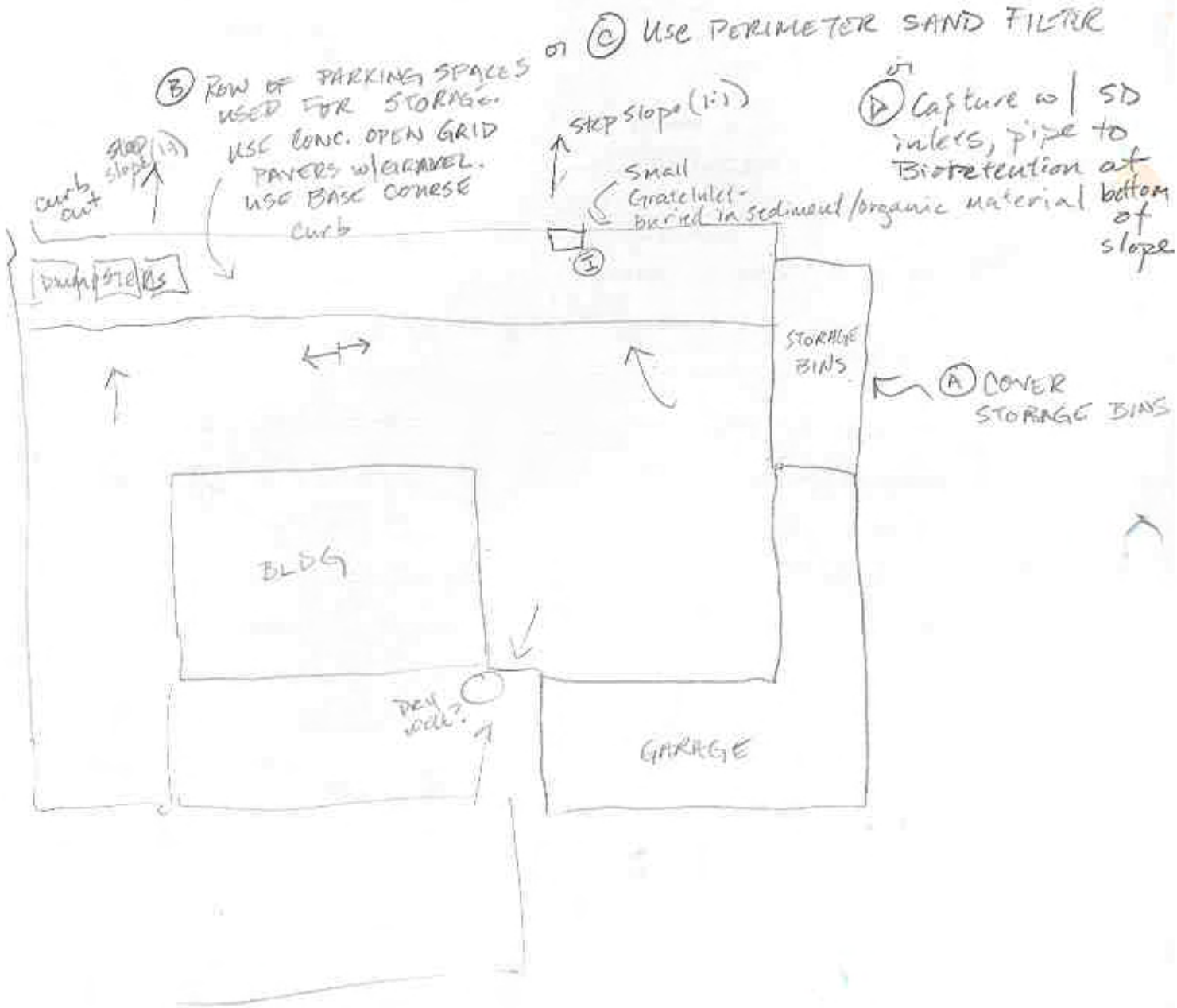
262-263 - possible bio-retention site

260-261 - downslope of curb cut

259 - uncovered bins

257-258 - curb, accumulated sediment

18. Additional Notes and/or Sketch Information:



19. Site Candidate for Further Investigation:

Yes

No

Mostly main channel
pond on north side been repaired or changed times

Retrofit Reconnaissance Inventory Data Sheet

1. Subwatershed: CEN Site Number: CEN-West
CL-102

2. Location (Coordinates):

Latitude: _____ Longitude: _____

Notes:

CENTENNIAL WEST (PARKING, TENNIS COURTS,
BB COURTS, PLAY GROUND, SOCCER FIELDS, PAVILION,
LAKE ACCESS)

3. Location (Coordinates) _____

From County ADC/Locator Map

Indicated by coordinates and quadrants on the map pages (e.g., H3 NW)

PARKING LOT IS BIGGEST INTERVIOUS AREA
POLLUTANT SOURCE. HOWEVER, THE GRADE
MAKES IT DIFFICULT TO PROVIDE IN-LOT
TREATMENT. S.D. OUTFALL NOT FOUND -
MAY BE DIRECT TO LAKE.

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):

- Existing Facility
 Unmanaged Existing Development
 Site Identified during stream assessment (e.g., USA, RSAT, RBP)

Retrofit Reconnaissance Inventory Data Sheet

5. Date of Preliminary Survey:

301-39

10/14/04

6. Surveyors:

SCH, KL

7. Drainage Area:

3W SA 10/13/04

8. Approximate Imperviousness (%):

9. Property Ownership (public or private):

PUBLIC - CENTENNIAL PARK

10. Retrofit Volume Computations (i.e., target and available storage):

WQ_v

Cp_v

Q_p

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

On-line retrofit

Off-line retrofit

- (A) BIO RETENTION CELLS FOR TENNIS COURT RUNOFF
- (B) PERMEABLE PAVERS FOR PORTION OF PARKING SPACES

Retrofit Reconnaissance Inventory Data Sheet

12. Adjacent Land Use (possible conflicts):

PARK LAKE

13. Conflicts with Existing Utilities:

14. Construction and Maintenance Access:

EASY

15. Wetlands Present? Yes No Maybe

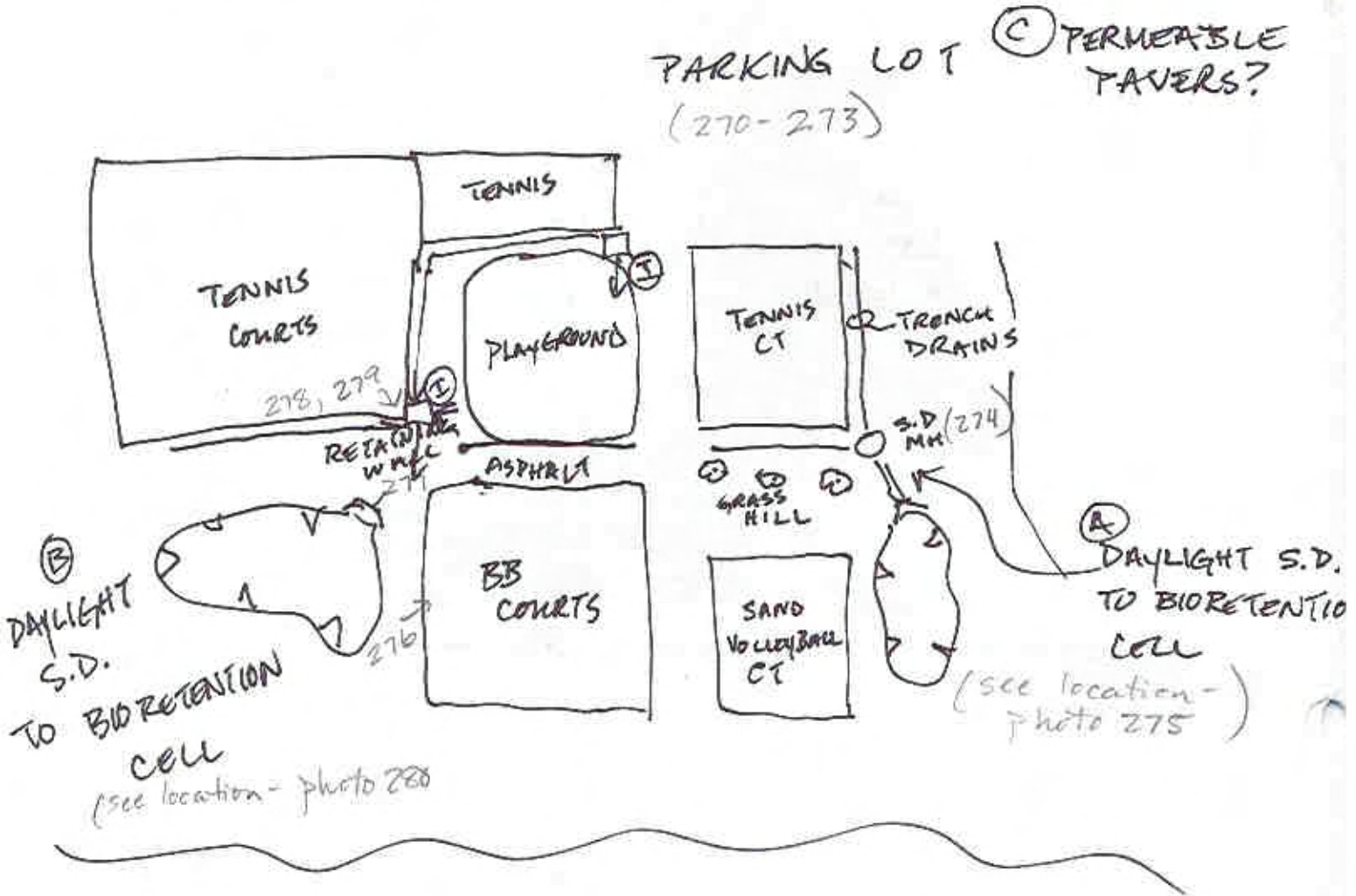
If yes, describe:

16. Forested Area or Other Sensitive Areas Present? Yes No

If yes, describe:

17. Photo Roll and Picture #: Roll #: Pentax Photo #: 270-280

18. Additional Notes and/or Sketch Information:



19. Site Candidate for Further Investigation:

Yes

No

Retrofit Reconnaissance Inventory Data Sheet

1. Subwatershed: CL

Site Number: CL-103

2. Location (Coordinates):

Latitude: _____

Longitude: _____

Notes:

CENTENNIAL PARK - PAVILIONS ON HILL
NEAR BOATRAMP

3. Location (Coordinates): _____

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):

- Existing Facility
- Unmanaged Existing Development
- Site Identified During Stream Assessment

A) SWALE

B) PERMEABLE PAVERS

Retrofit Reconnaissance Inventory Data Sheet

5. Date of Preliminary Survey:

10/14/04

6. Surveyors:

SCH, KL

7. Drainage Area:

9.77 acres

8. Approximate Imperviousness (%):

89%

9. Property Ownership (public or private):

PUBLIC (CEN. PARK)

10. Retrofit Volume Computations (i.e., target and available storage):

WQ_v

Cp_v

Q_p

0.8 acres of IA * 59% of IA for bioretention
 $0.8 \times 43560 \frac{\text{ft}^2}{\text{ac}} * .05 = 1742 \text{ ft}^2 \text{ surface area}$
for bioretention

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

On-line retrofit

Off-line retrofit

(A) DIVERT WATER FROM PARK ROAD TO SWALE ADJACENT TO PARKING LOT

(B) USE PERMEABLE PAVERS UNDER BOAT TRAILER PARKING

Retrofit Reconnaissance Inventory Data Sheet

12. Adjacent Land Use (possible conflicts):

ALL WITHIN PARK -
SLOPE CONSTRAINTS ON HILL
BTWN PARKING / PAVILLIONS

13. Conflicts with Existing Utilities:

UNKNOWN

14. Construction and Maintenance Access:

EASY

15. Wetlands Present?

Yes

No

Maybe

If yes, describe:

16. Forested Area or Other Sensitive Areas Present?

Yes

No

If yes, describe:

17. Photo Roll and Picture #:

Roll #:

PENTAX

Photo #:

267-269

18. Site Candidate for Further Investigation:

Yes

No

19. Site Candidate for Further Investigation of Other Restoration Opportunities:

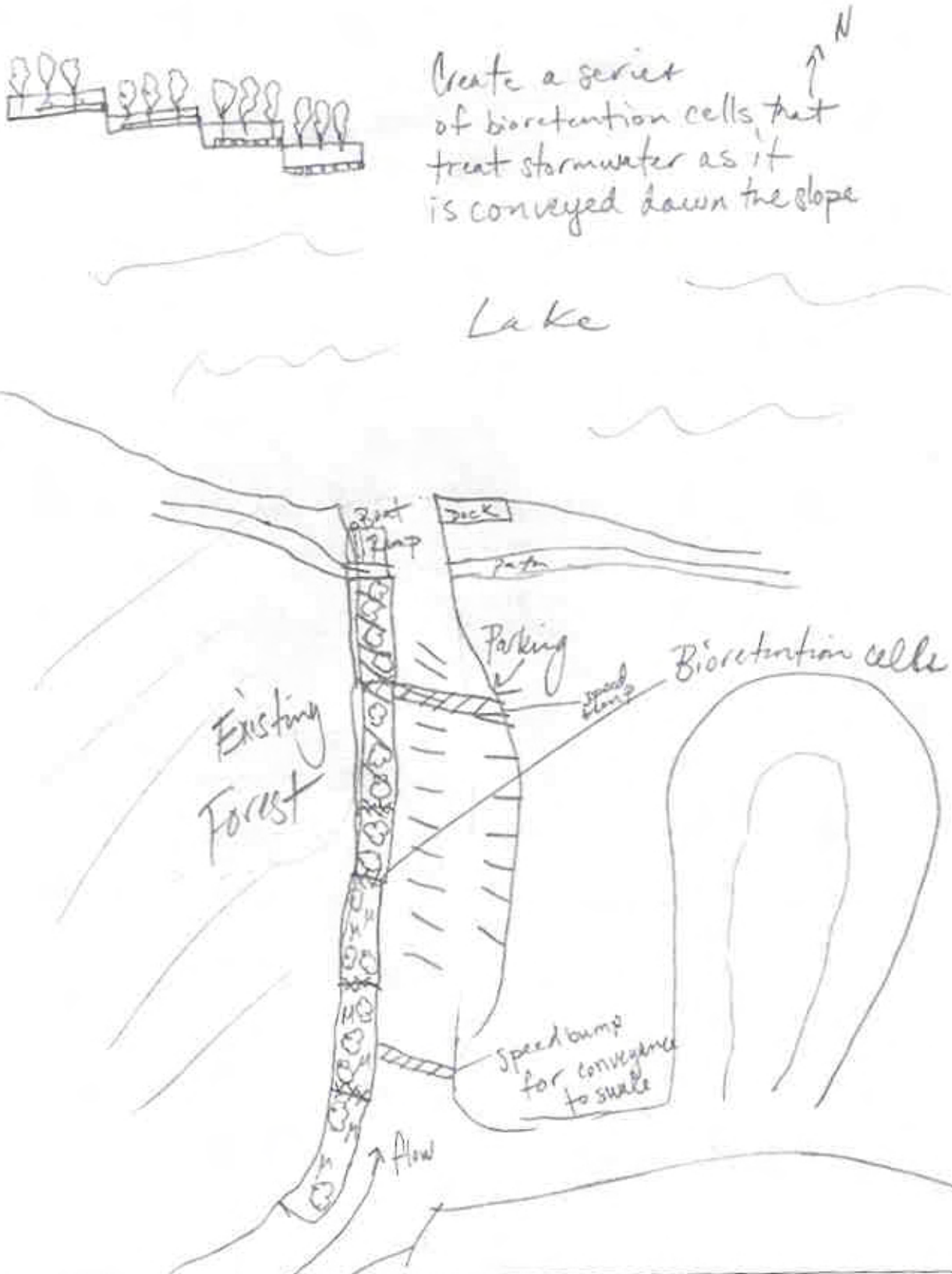
Yes

No

If yes, describe:

ADDITIONAL NATIVE VEGETATION?

20. Additional Notes and/or Sketch Information:



Create a series of bioretention cells that treat stormwater as it is conveyed down the slope

Retrofit Reconnaissance Inventory Data Sheet

1. Subwatershed: CL

Site Number: CL-104

2. Location (Coordinates):

Latitude: _____

Longitude: _____

Notes:

'LAKE' ON NORTH SHORE - SITE OF SEEPAGE PER PARK SUPER NEDZEL

3. Location (Coordinates): _____

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):

- Existing Facility
- Unmanaged Existing Development
- Site Identified During Stream Assessment

UNDER UTILIZED NATURAL DEPRESSION

Retrofit Reconnaissance Inventory Data Sheet

5. Date of Preliminary Survey:

10/14/04

6. Surveyors:

SCH, KL

7. Drainage Area:

8. Approximate Imperviousness (%):

VERY LOW

9. Property Ownership (public or private):

PUBLIC

10. Retrofit Volume Computations (i.e., target and available storage):

WQ_v

Cp_v

Q_p

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

On-line retrofit

Off-line retrofit

Appears to be a natural depression that collects water which slowly infiltrates and seeps across berm to paved path

Possible actions

(A) Create outlet

(B) Use soil amendments to increase filtration + add vegetation

Retrofit Reconnaissance Inventory Data Sheet

12. Adjacent Land Use (possible conflicts):

Private residential - large lot / forested

→ Constraint - evidence of many deer

13. Conflicts with Existing Utilities:

∅

14. Construction and Maintenance Access:

from walking path - would require some grading/tree removal
not currently a managed landscape area

15. Wetlands Present? Yes No Maybe

If yes, describe:

16. Forested Area or Other Sensitive Areas Present? Yes No

If yes, describe:

17. Photo Roll and Picture #:

Roll #:

Pentax

Photo #:

18. Site Candidate for Further Investigation:

Yes

No

19. Site Candidate for Further Investigation of Other Restoration Opportunities: Yes No

If yes, describe:

Poss - Additional vegetation / re-forestation
with minimal management

20. Additional Notes and/or Sketch Information:

Retrofit Reconnaissance Inventory Data Sheet

1. Subwatershed: Centennial Site Number: CL-3 + CL-4

2. Location (Coordinates):

Latitude: _____ Longitude: _____

Notes:

3. Location (Coordinates)

From County ADC/Locator Map
Indicated by coordinates and quadrants on the map pages (e.g., H3 NW)

CL3 2 existing ponds. Maintenance
bays one - sediment trap improperly converted - not
mucked out + stand pipe left - need to
convert pond - could add smaller storm
control w/ new weir

CL4 Centennial Park off Old Annapolis Rd.
Small demo retrofit for a ball field where
sediment is running off the field into
a storm drain + directly into a stream

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):

- Existing Facility
- Unmanaged Existing Development
- Site Identified during stream assessment (e.g., USA, RSAT, RBP)

Retrofit Reconnaissance Inventory Data Sheet

5. Date of Preliminary Survey:

10/14/2004

6. Surveyors:

PRR/PES

7. Drainage Area:

0.5 - 1.0 acre

8. Approximate Imperviousness (%):

Compacted turf field

9. Property Ownership (public or private):

Public

10. Retrofit Volume Computations (i.e., target and available storage):

WQ_v

Cp_v

Q_p

Bioretention 10x10 or 20x20 for Options 1 + 2 respectively
Estimate (professional judgement due to
very little TC

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

On-line retrofit

Off-line retrofit

12. Adjacent Land Use (possible conflicts):

Ball field - should not affect

13. Conflicts with Existing Utilities:

None noticed

14. Construction and Maintenance Access:

Good

15. Wetlands Present?

Yes

No

Maybe

If yes, describe:

16. Forested Area or Other Sensitive Areas Present?

Yes

No

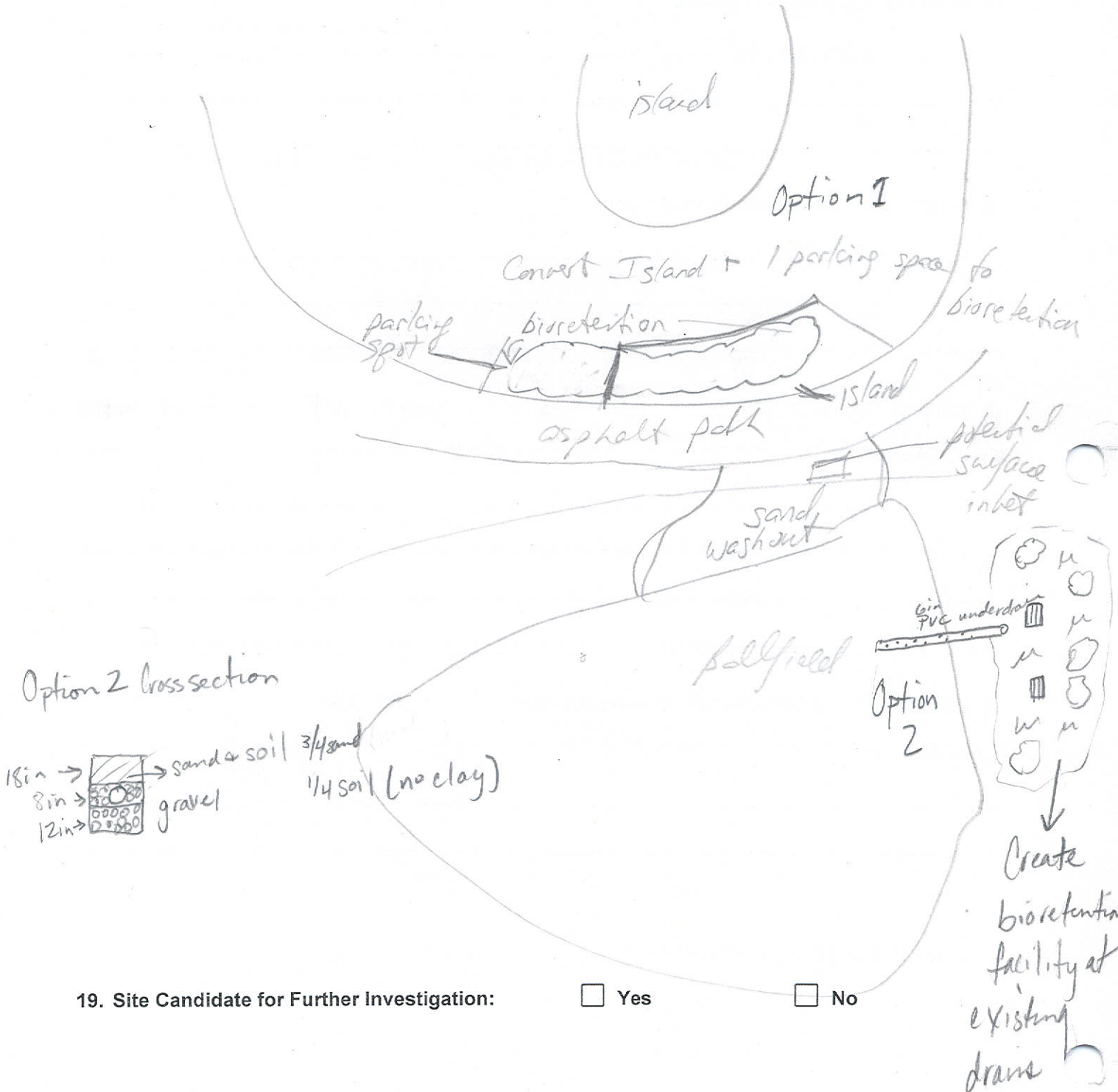
If yes, describe:

17. Photo Roll and Picture #: Roll #: _____

Photo #: _____

18. Additional Notes and/or Sketch Information:

CL-4 - Centennial Ln ^{Park} off Old Annapolis Rd
Bellfield Bioretention 39.25006 76.85308 LMK-7



19. Site Candidate for Further Investigation:

Yes

No

1. Subwatershed: Centennial

Site Number: CL-7 & CL-6

2. Location (Coordinates):

Latitude: _____

Longitude: _____

Notes:

Two outfalls located near Knob's End Court
CL-7 is to create a grassed island or shared driveway in
place of an existing cul-du-sac serving two homes

3. Location (Coordinates): _____

CL-6 is a concept to create a bioretention facility
that would drain both existing outfalls
- one of which is in need of maintenance

Note: area drains below the lake but was
part of original study area

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):

- Existing Facility
- Unmanaged Existing Development
- Site Identified During Stream Assessment

5. Date of Preliminary Survey: 10/14/04

6. Surveyors: PES / FRR / MR

7. Drainage Area: CL-6 8.2 acres
CL-7 0.6 acres

8. Approximate Imperviousness (%): CL-6 20%
CL-7 50%

9. Property Ownership (public or private): CL-6 Private
CL-7 Public

10. Retrofit Volume Computations (i.e., target and available storage):

WQ_v Cp_v Q_p

Bioretention CL-6 1.2 acres IA * 50% (area for bioretention) = 2600 ft³
CL-7 Na → Convert IC to pervious

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

On-line retrofit Off-line retrofit

12. Adjacent Land Use (possible conflicts):

Private Property + Public Road

13. Conflicts with Existing Utilities:

Unknown

14. Construction and Maintenance Access:

Good

15. Wetlands Present?

Yes

No

Maybe

If yes, describe:

16. Forested Area or Other Sensitive Areas Present?

Yes

No

If yes, describe:

17. Photo Roll and Picture #:

Roll #:

Photo #:

18. Site Candidate for Further Investigation:

Yes

No

19. Site Candidate for Further Investigation of Other Restoration Opportunities:

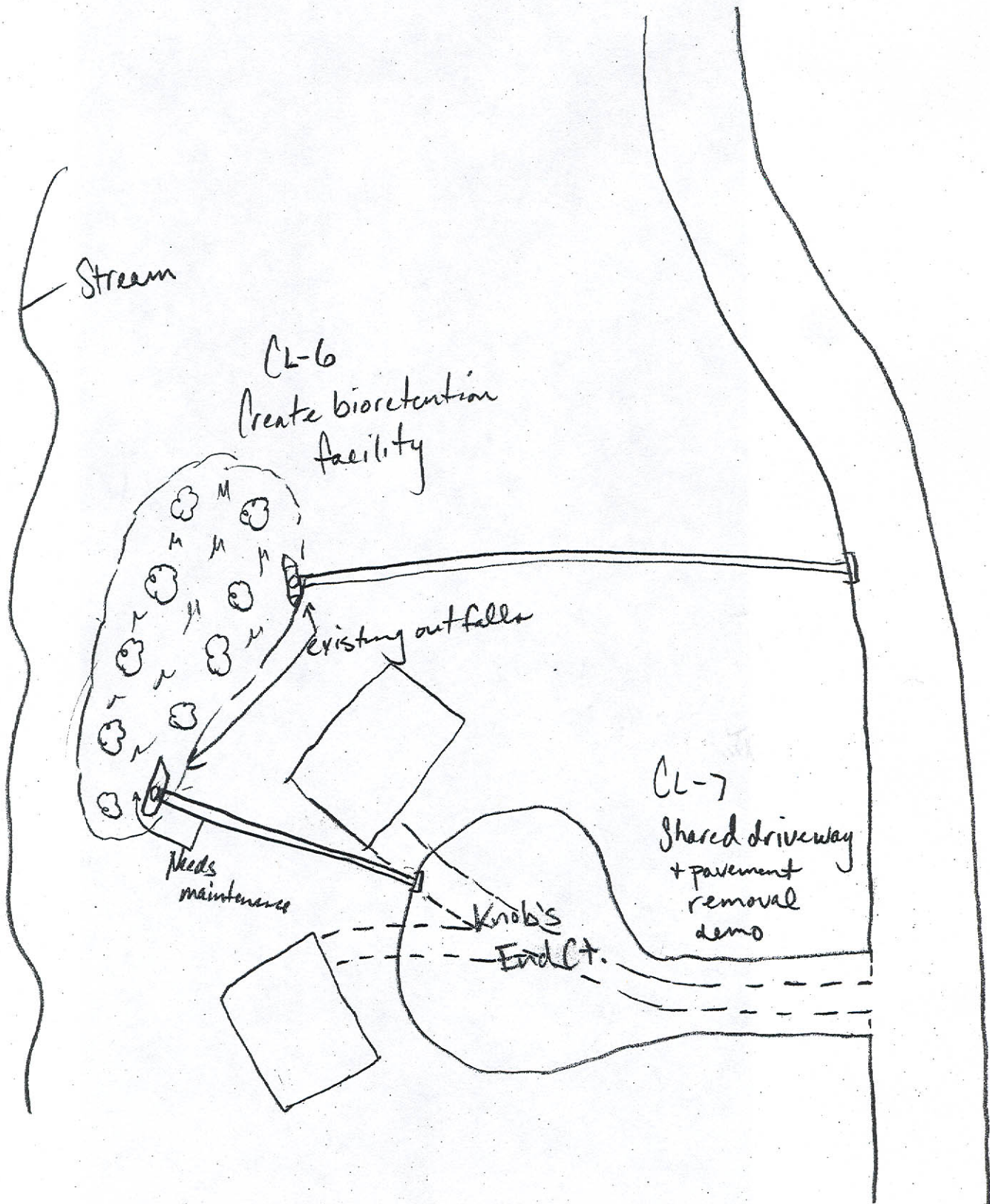
Yes

No

If yes, describe:

Inadequate buffer nearby

20. Additional Notes and/or Sketch Information:



1. Subwatershed: Centennial Site Number: CL-9

2. Location (Coordinates):

Latitude: _____ Longitude: _____

Notes: At Burlington Manor Middle

3. Location (Coordinates): _____

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):

- Existing Facility
- Unmanaged Existing Development
- Site Identified During Stream Assessment

Demonstration Quality Control

- 5. Date of Preliminary Survey: 10/14/2004
- 6. Surveyors: PES/MR
- 7. Drainage Area: 0.7 acres
- 8. Approximate Imperviousness (%): 90%
- 9. Property Ownership (public or private): Public

10. Retrofit Volume Computations (i.e., target and available storage):

- WQ_v C_p_v Q_p

5% of Impervious Area (IA)
Surface area = $0.05 \times 43560 \times 0.9 = 1940 \text{ sq ft}$
Bioretention sizing 10 x 130 ft

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

- On-line retrofit Off-line retrofit

Demonstration retrofit at Middle School

12. Adjacent Land Use (possible conflicts):

None obvious / adjacent to a hill

13. Conflicts with Existing Utilities:

None

14. Construction and Maintenance Access:

Good

15. Wetlands Present?

Yes

No

Maybe

If yes, describe:

16. Forested Area or Other Sensitive Areas Present?

Yes

No

If yes, describe:

17. Photo Roll and Picture #:

Roll #:

Photo #:

18. Site Candidate for Further Investigation:

Yes

No

19. Site Candidate for Further Investigation of Other Restoration Opportunities:

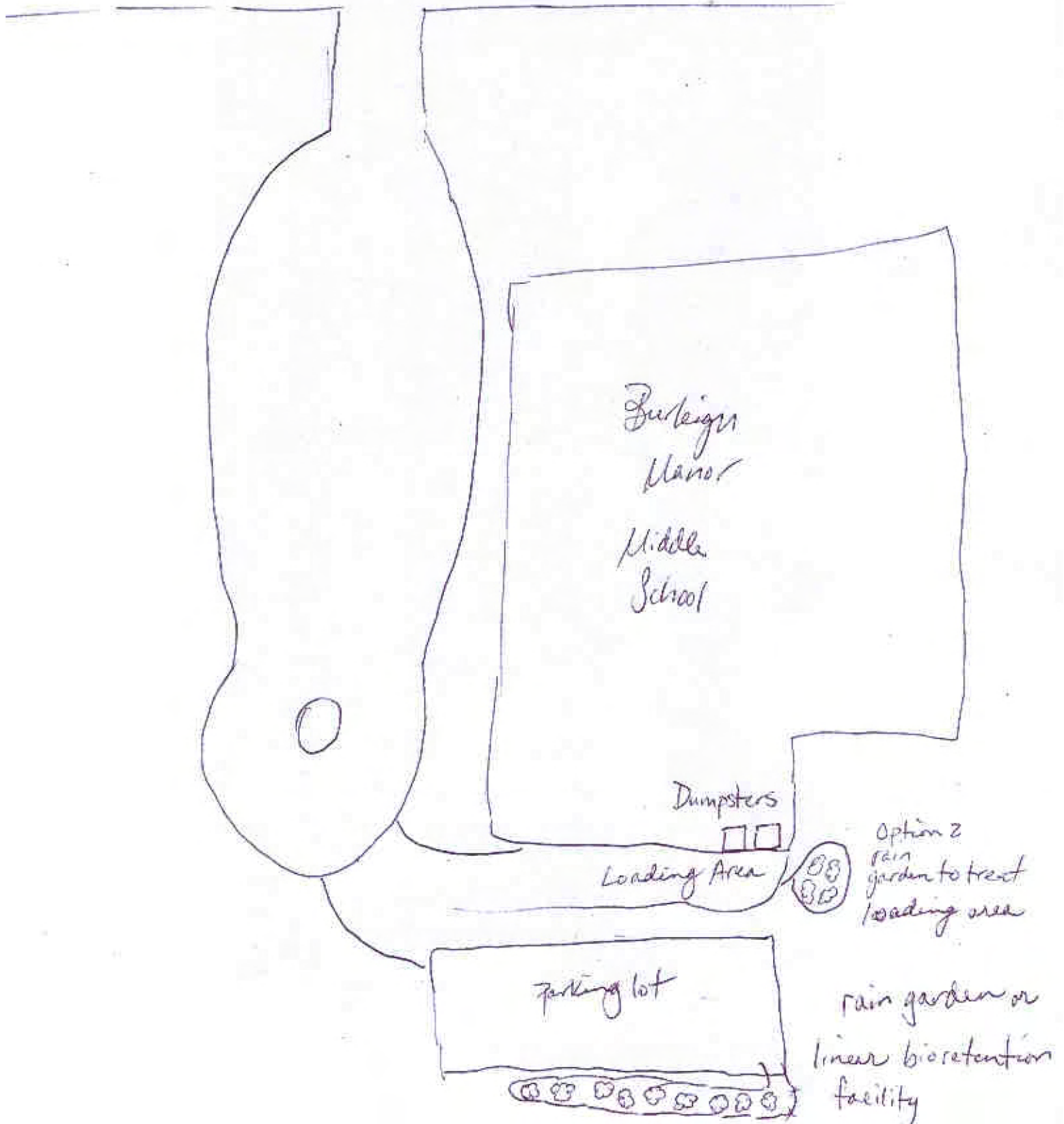
Yes No

If yes, describe:

Bioretention / Rain garden to treat runoff from loading area

20. Additional Notes and/or Sketch Information:

Centennial Lane



Retrofit Reconnaissance Inventory Data Sheet

1. Subwatershed: 12/12 Site Number: WT 101

2. Location (Coordinates): Lmk 001
Latitude: 39°22'768 Longitude: 76°86'737

Notes:

existing shallow marsh; looks like originally dry pond w/10-yr control
short-circuiting large portion of drainage

3. Location (Coordinates) _____
From County ADC/Locator Map
Indicated by coordinates and quadrants on the map pages (e.g., H3 NW)

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):

- Existing Facility
- Unmanaged Existing Development
- Site Identified during stream assessment (e.g., USA, RSAT, RBP)

Smaller stream control ; reduce short-circuiting w/ berm (stone or
concrete) ; quality control retrofit for smaller storms

Retrofit Reconnaissance Inventory Data Sheet

5. Date of Preliminary Survey:

10/13/09

6. Surveyors:

PRR/PES

7. Drainage Area:

17.4 acres

8. Approximate Imperviousness (%):

25%

9. Property Ownership (public or private):

Private

10. Retrofit Volume Computations (i.e., target and available storage):

WQ_v

Cp_v

Q_p

NA
Create longer flowpath as pond is
short-circuiting

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

On-line retrofit

Off-line retrofit

constrained by small pond size; would need to develop berm /
flow path while not losing existing storage volume

Retrofit Reconnaissance Inventory Data Sheet

12. Adjacent Land Use (possible conflicts):

single family residential; conflicts w/ construction disturbance, loss of mature vegetation

13. Conflicts with Existing Utilities:

no

14. Construction and Maintenance Access:

good

15. Wetlands Present?



Yes



No



Maybe

If yes, describe:

Heavily vegetated wetland pond bottom; mostly cattail

16. Forested Area or Other Sensitive Areas Present?



Yes



No

If yes, describe:

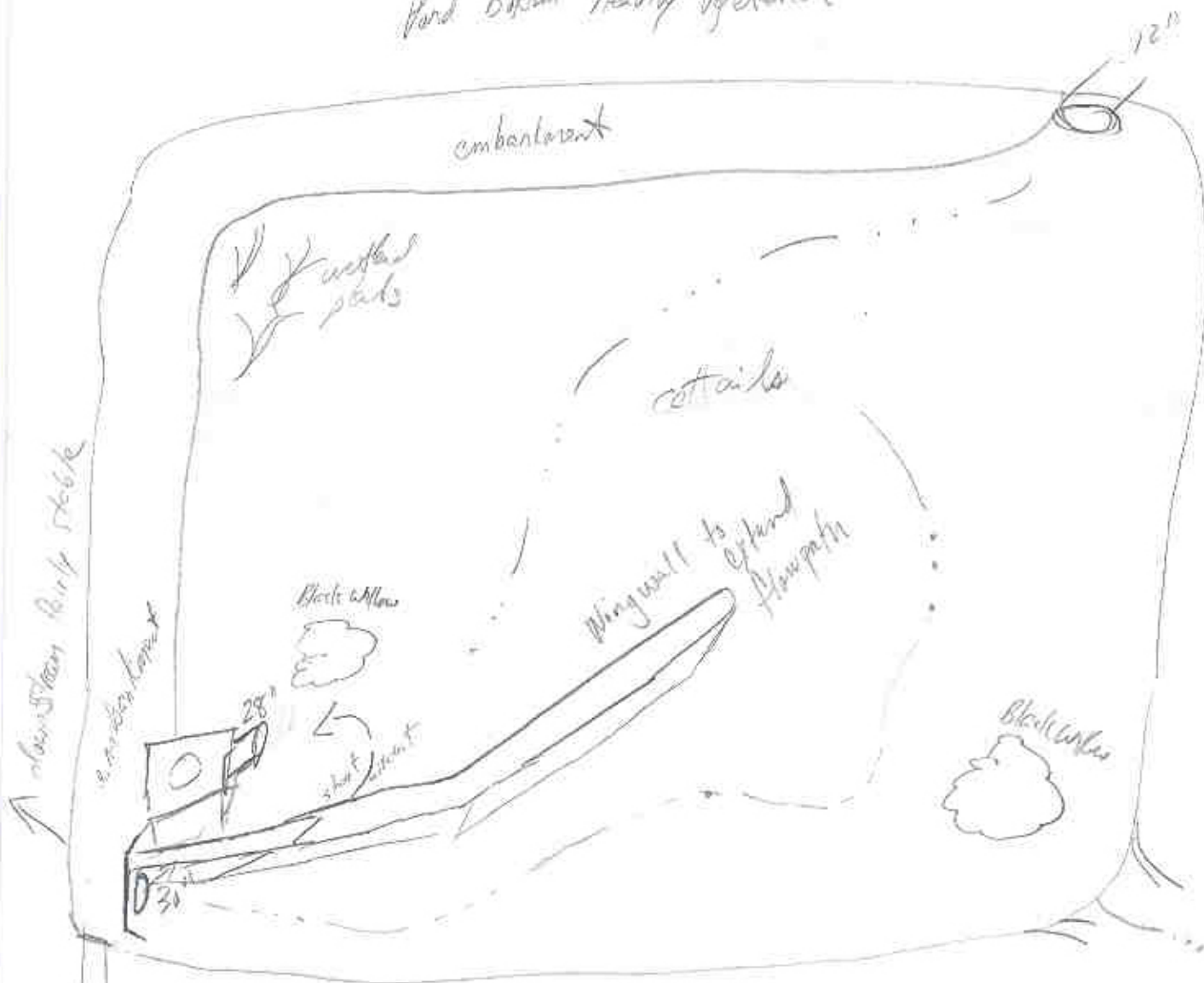
several dam embankment

17. Photo Roll and Picture #: Roll #: _____

Photo #: _____

18. Additional Notes and/or Sketch Information:

Pond bottom heavily vegetated



19. Site Candidate for Further Investigation:

Yes

No

Retrofit Reconnaissance Inventory Data Sheet

1. Subwatershed: Wilde Lake Site Number: WL-1026

2. Location (Coordinates):

Latitude: _____ Longitude: _____

Notes:

Lake Circle Dr. - street retrofit 30' existing street width
Durham Rd. West " " " "

3. Location (Coordinates) _____

From County ADC/Locator Map

Indicated by coordinates and quadrants on the map pages (e.g., H3 NW)

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):

- Existing Facility
- Unmanaged Existing Development
- Site Identified during stream assessment (e.g., USA, RSAT, RBP)

stream channel erosion
two alternatives → apply to curb cuts or imp. reduction w/
front edge alternatives

Retrofit Reconnaissance Inventory Data Sheet

5. Date of Preliminary Survey: 10/13/04
6. Surveyors: FES/FRR
7. Drainage Area: 3.2
8. Approximate Imperviousness (%): 35%
9. Property Ownership (public or private): Public + Private
Roadway Public Homeowner

10. Retrofit Volume Computations (i.e., target and available storage):

- WQ_v Cp_v Q_p

1.1 acres Impervious
Retention 5% of IA 2400ft²
Design for infiltration

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

- On-line retrofit Off-line retrofit

Retrofit Reconnaissance Inventory Data Sheet

12. Adjacent Land Use (possible conflicts):

Individual landowners

13. Conflicts with Existing Utilities:

Potential cable, electrical etc

14. Construction and Maintenance Access:

Good

15. Wetlands Present?

Yes

No

Maybe

If yes, describe:

16. Forested Area or Other Sensitive Areas Present?

Yes

No

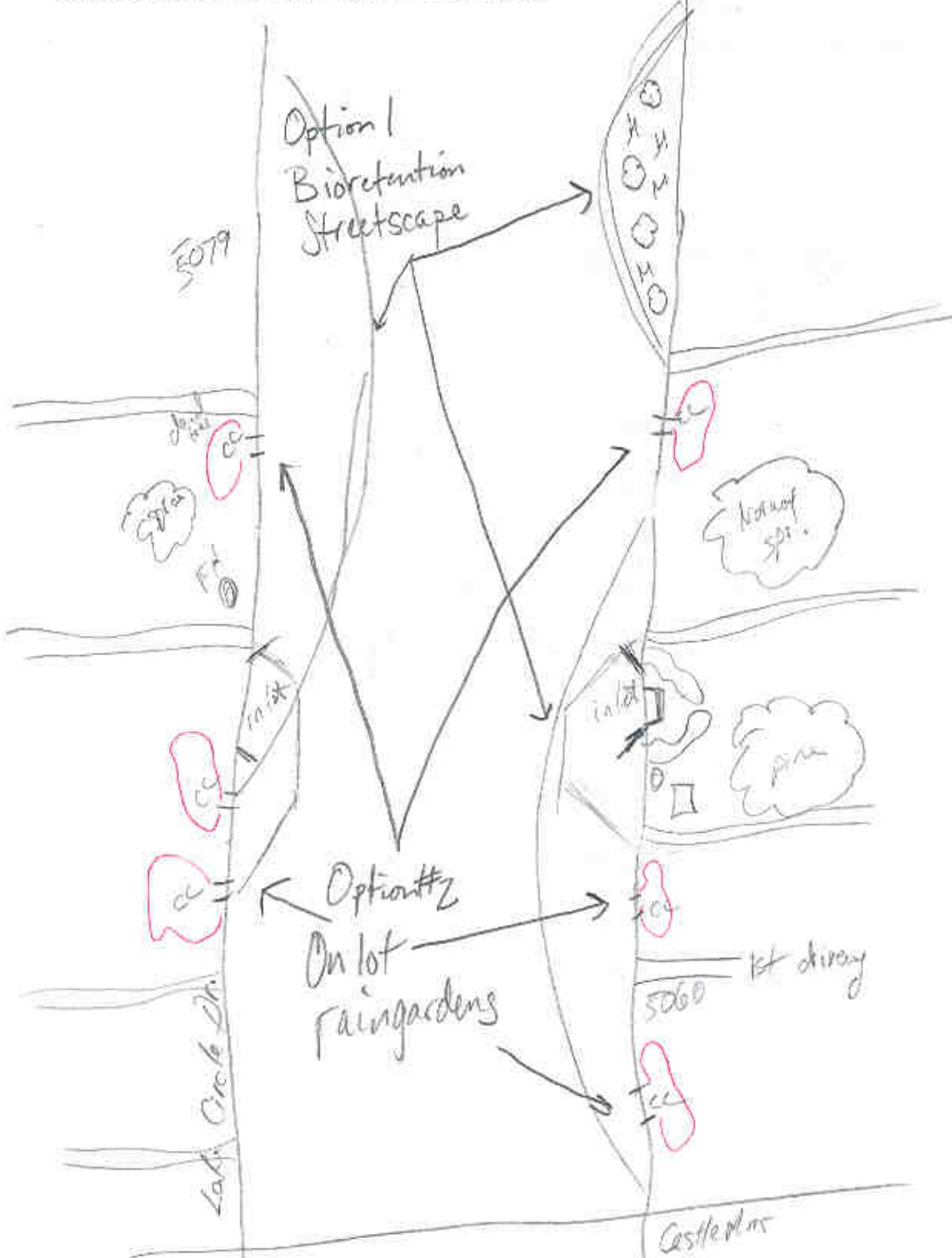
If yes, describe:

17. Photo Roll and Picture #: Roll #: _____

Photo #: _____

same concept for both streets

18. Additional Notes and/or Sketch Information:



19. Site Candidate for Further Investigation:

Yes

No

Retrofit Reconnaissance Inventory Data Sheet

1. Subwatershed: Wild Lake Site Number: WL-103

2. Location (Coordinates):

Latitude: _____

Longitude: _____

Notes:

old Farm Pond was retrofit

3. Location (Coordinates)

From County ADC/Locator Map

Indicated by coordinates and quadrants on the map pages (e.g., H3 NW)

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):

Existing Facility

Unmanaged Existing Development

Site Identified during stream assessment (e.g., USA, RSAT, RBP)

Agrodrin Rinse for WQA improvement + wild land management

Retrofit Reconnaissance Inventory Data Sheet

5. Date of Preliminary Survey: 10/4/04

6. Surveyors: PRR

7. Drainage Area: 24.5 acres

8. Approximate Imperviousness (%): 15%

9. Property Ownership (public or private): Private

10. Retrofit Volume Computations (i.e., target and available storage):

WQ_v Cp_v Q_p

NA

TA = 3.7 acres

Aquatic Benefit + Goose exclusion

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

On-line retrofit Off-line retrofit

Retrofit Reconnaissance Inventory Data Sheet

12. Adjacent Land Use (possible conflicts):

residential → residents may object to no-mow area

13. Conflicts with Existing Utilities:

14. Construction and Maintenance Access:

goad

15. Wetlands Present?

Yes

No

Maybe

If yes, describe:

16. Forested Area or Other Sensitive Areas Present?

Yes

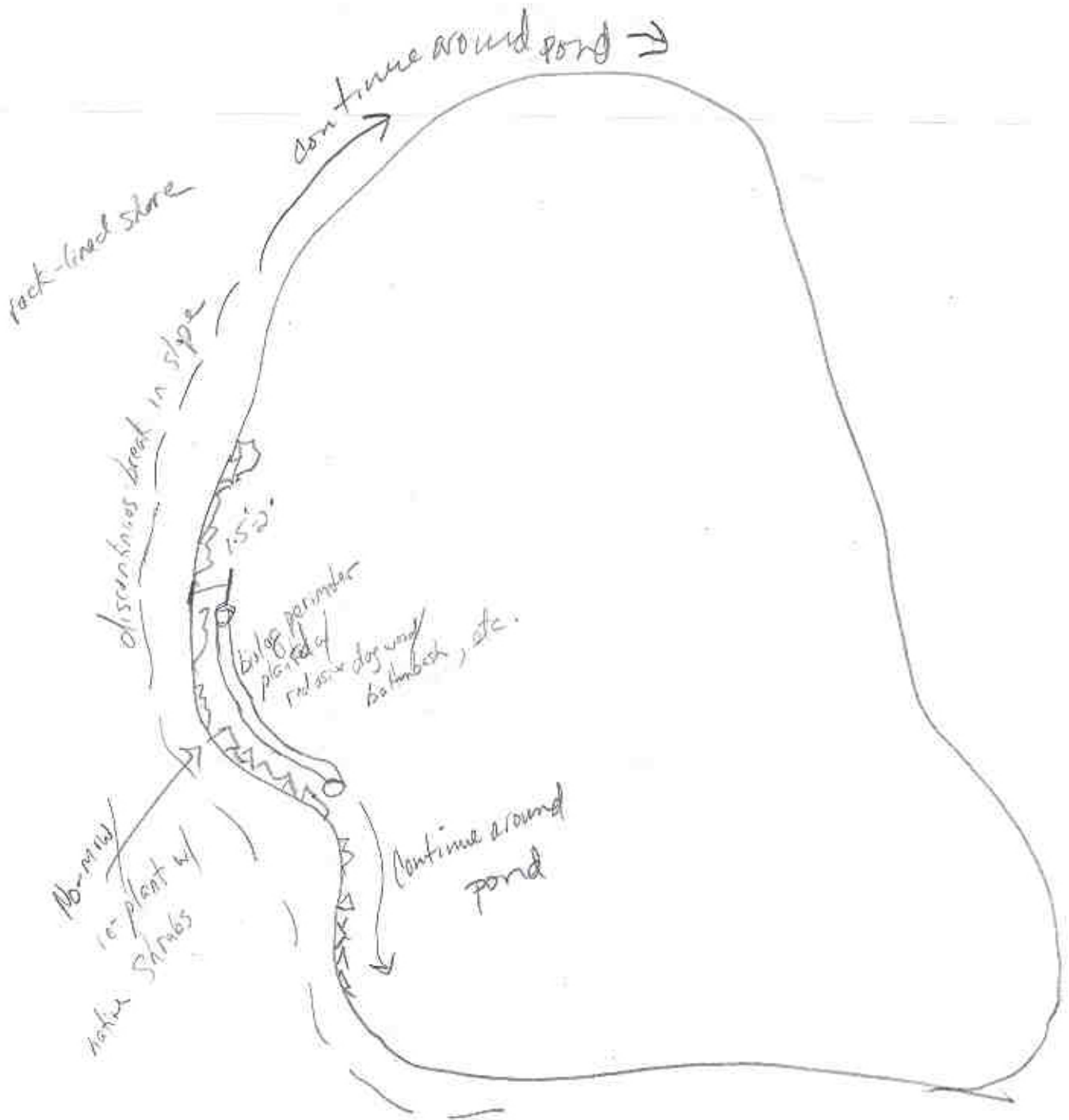
No

If yes, describe:

17. Photo Roll and Picture #: Roll #: _____

Photo #: _____

18. Additional Notes and/or Sketch Information:



19. Site Candidate for Further Investigation:

Yes

No

Maybe
Need significant amount of education / days in aesthetic considerations

Retrofit Reconnaissance Inventory Data Sheet

1. Subwatershed: WL Site Number: WL-113

2. Location (Coordinates):

Latitude: 39.23530° Longitude: 76.88862°

LMK-4

Notes:

Based on ED Dry Pond Retrofit

3. Location (Coordinates)

From County ADC/Locator Map

Indicated by coordinates and quadrants on the map pages (e.g., H3 NW)

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):

- Existing Facility
- Unmanaged Existing Development
- Site Identified during stream assessment (e.g., USA, RSAT, RBP)

retrofit QW + QL

Retrofit Reconnaissance Inventory Data Sheet

5. Date of Preliminary Survey:

10/4/04

6. Surveyors:

FRR

7. Drainage Area:

9.2 acres

8. Approximate Imperviousness (%):

60%

9. Property Ownership (public or private):

Public

10. Retrofit Volume Computations (i.e., target and available storage):

WQ_v

Cp_v

Q_p

Existing facility

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

On-line retrofit

Off-line retrofit

Retrofit Reconnaissance Inventory Data Sheet

12. Adjacent Land Use (possible conflicts):

Board of Ed Bldg; no serious conflicts;
sewer crosses top half of expanded pond area

13. Conflicts with Existing Utilities:

minimal

14. Construction and Maintenance Access:

excellent

15. Wetlands Present? Yes No Maybe

If yes, describe:

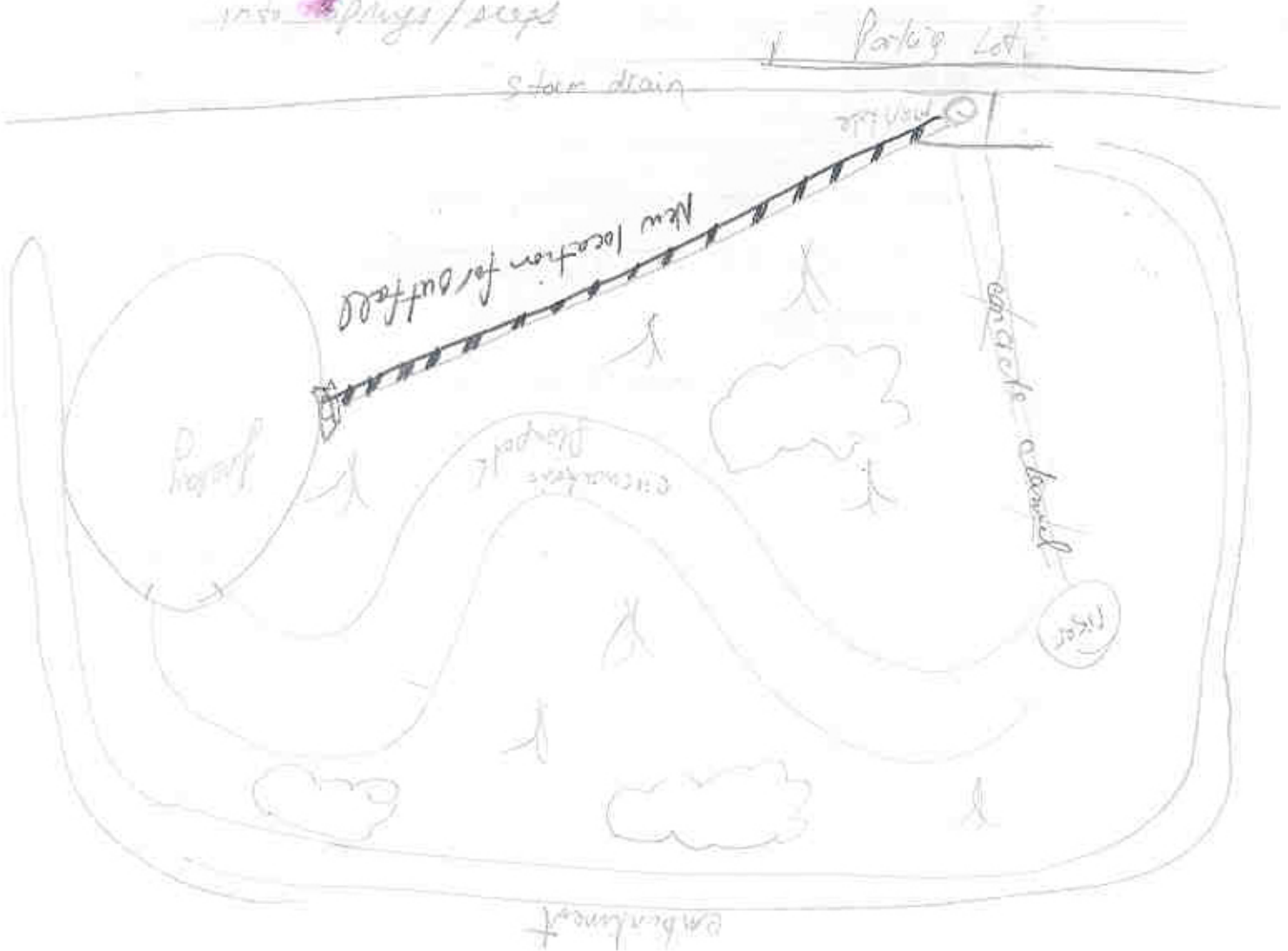
16. Forested Area or Other Sensitive Areas Present? Yes No

If yes, describe:

17. Photo Roll and Picture #: Roll #: _____ Photo #: _____

18. Additional Notes and/or Sketch Information:

Retrofit for WWS + CPR
convert dry pond to stormwater wetland or other wet pond
design - explore storage available + potential for infilling
into springs/seeps



19. Site Candidate for Further Investigation:

Yes

No

Retrofit Reconnaissance Inventory Data Sheet

1. Subwatershed: WL Site Number: WL-10A + 10B

2. Location (Coordinates):

Latitude: 39 13 21 Longitude: 76 52 23

Notes:

LMK 57

3. Location (Coordinates)

From County ADC/Locator Map

Indicated by coordinates and quadrants on the map pages (e.g., H3 NW)

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):

- Existing Facility
- Unmanaged Existing Development
- Site Identified during stream assessment (e.g., USA, RSAT, RBP)

2 options, both ambitious

OPTION 1 STABILIZE OUTFALL W/ LARGE STILLING BASIN (NEEDS HYDRAULIC DESIGN)

OPTION 2 CREATE NEW WET ED POND

ALSO - COULD LOOK TO DO DOWNSPOUT DISCONNECT & RAIN BARREL PROGRAM TO REDUCE VOLUMES

Retrofit Reconnaissance Inventory Data Sheet

5. Date of Preliminary Survey: 10/13/04

6. Surveyors: ELJB, KAL

7. Drainage Area: 25 Ac ±

8. Approximate Imperviousness (%): 50%

9. Property Ownership (public or private): Public

10. Retrofit Volume Computations (i.e., target and available storage):

WQ_v Cp_v Q_p

Target WQ = $25 \times .5 \times \frac{1}{12} = 1.04 \text{ AF}$

Cp_v = $25 \times \frac{2.5}{12} \times .5 \times .6 = 1.56 \text{ AF}$

AVAILABLE $200 \times 100 \times 6 \times .67 = 1.8 \text{ AF}$

OR 70% of target

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

On-line retrofit Off-line retrofit

12. Adjacent Land Use (possible conflicts):

Condos — major open space area would be lost or compromised w/ option 2. Option 1 results in tree loss that may be objected to, but trees will be lost anyway due to erosion

13. Conflicts with Existing Utilities:

none apparent

14. Construction and Maintenance Access:

fair

15. Wetlands Present?

Yes

No

Maybe

OPTION 2

OPTION 1

If yes, describe:

16. Forested Area or Other Sensitive Areas Present?

Yes

No

If yes, describe:

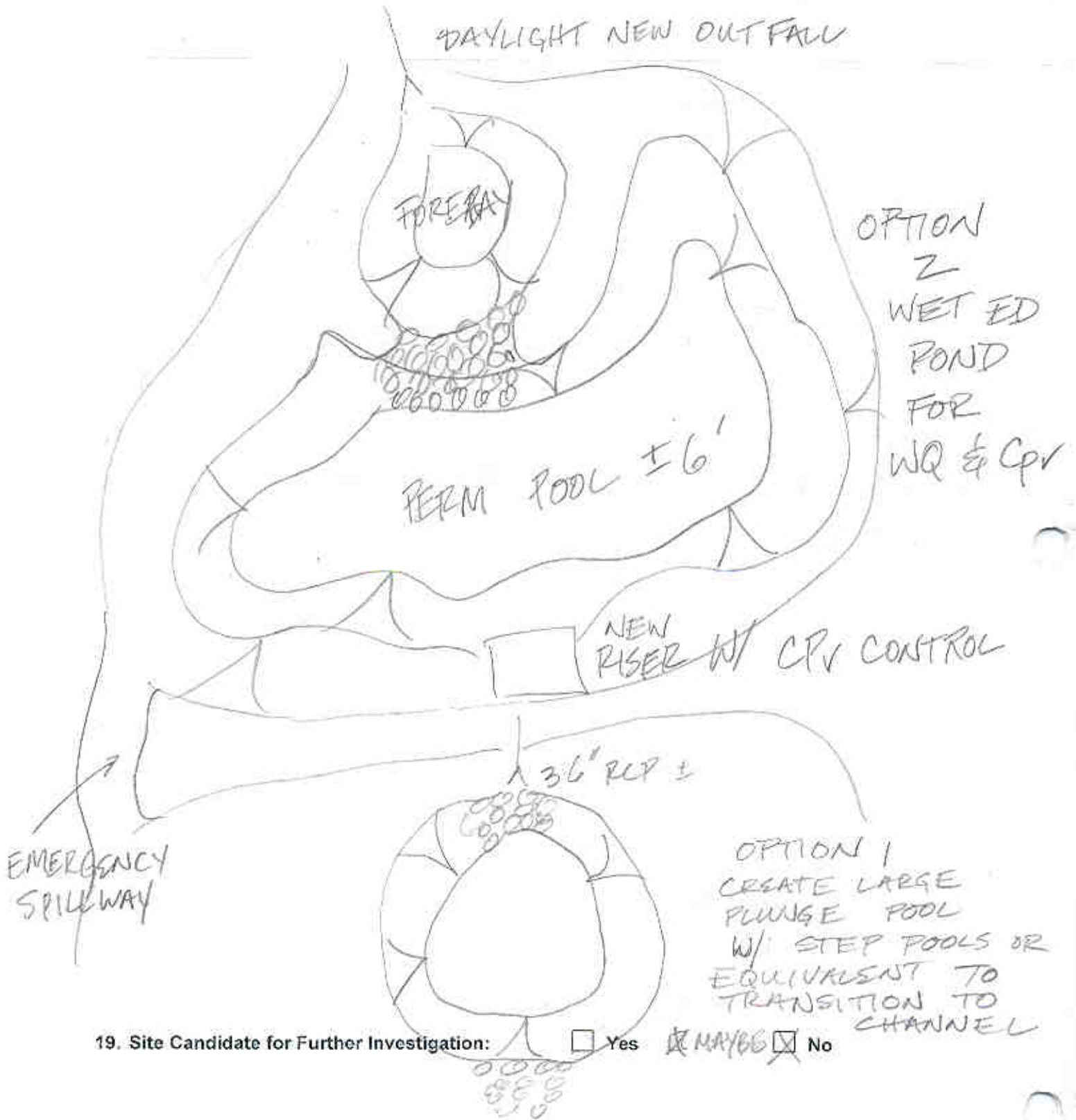
4-10 trees will be lost due to either option
MAJOR LOSS OF ACCESS w/ OPTION 2

17. Photo Roll and Picture #:

Roll #: REN

Photo #: 211-223

18. Additional Notes and/or Sketch Information:



Retrofit Reconnaissance Inventory Data Sheet

1. Subwatershed: WL Site Number: WL-12A & 12B

2. Location (Coordinates):

Latitude: _____

Longitude: _____

Notes:

3. Location (Coordinates)

From County ADC/Locator Map

Indicated by coordinates and quadrants on the map pages (e.g., H3 NW)

THICKET LANE, MAY WIND CT

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):



Existing Facility



Unmanaged Existing Development



Site Identified during stream assessment (e.g., USA, RSAT, RBP)

DOWNSTREAM CHANNEL FROST IDENTIFIED

PROVIDE INFILTRATION AND DETENTION

Retrofit Reconnaissance Inventory Data Sheet

5. Date of Preliminary Survey:

10/14/06

6. Surveyors:

SCM, KL

7. Drainage Area:

A 5.9 acres

B 12.2 acres

8. Approximate Imperviousness (%):

A 30%

B 25%

9. Property Ownership (public or private):

PRIVATE/CA

10. Retrofit Volume Computations (i.e., target and available storage):

WQ_v

Cp_v

Q_p

A: 1.8 IA 5% of IA = .09 acres

B: 3.1 IA NA stab. size channel + fix broken outfall

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

On-line retrofit

Off-line retrofit

PROVIDE DETENTION + INFILTRATION -

Retrofit Reconnaissance Inventory Data Sheet

12. Adjacent Land Use (possible conflicts):

TOWNHOMES

13. Conflicts with Existing Utilities:

SANITARY SEWER THROUGH STREAM VALLEY -
DETERMINE EXACT LOCATION - PROTECT FROM
IMPACTS

14. Construction and Maintenance Access:

FROM TOWNHOME PARKING LOTS -
MAY REQUIRE SMALL AMOUNT OF REGRADING
AND BRUSH / SM (1"-2") TREE REMOVAL

15. Wetlands Present?

Yes

No

Maybe

If yes, describe:

NONE OBSERVED - WELL DRAINED SOILS

16. Forested Area or Other Sensitive Areas Present?

Yes

No

If yes, describe:

~8 TREES > 10" DBH

17. Photo Roll and Picture #:

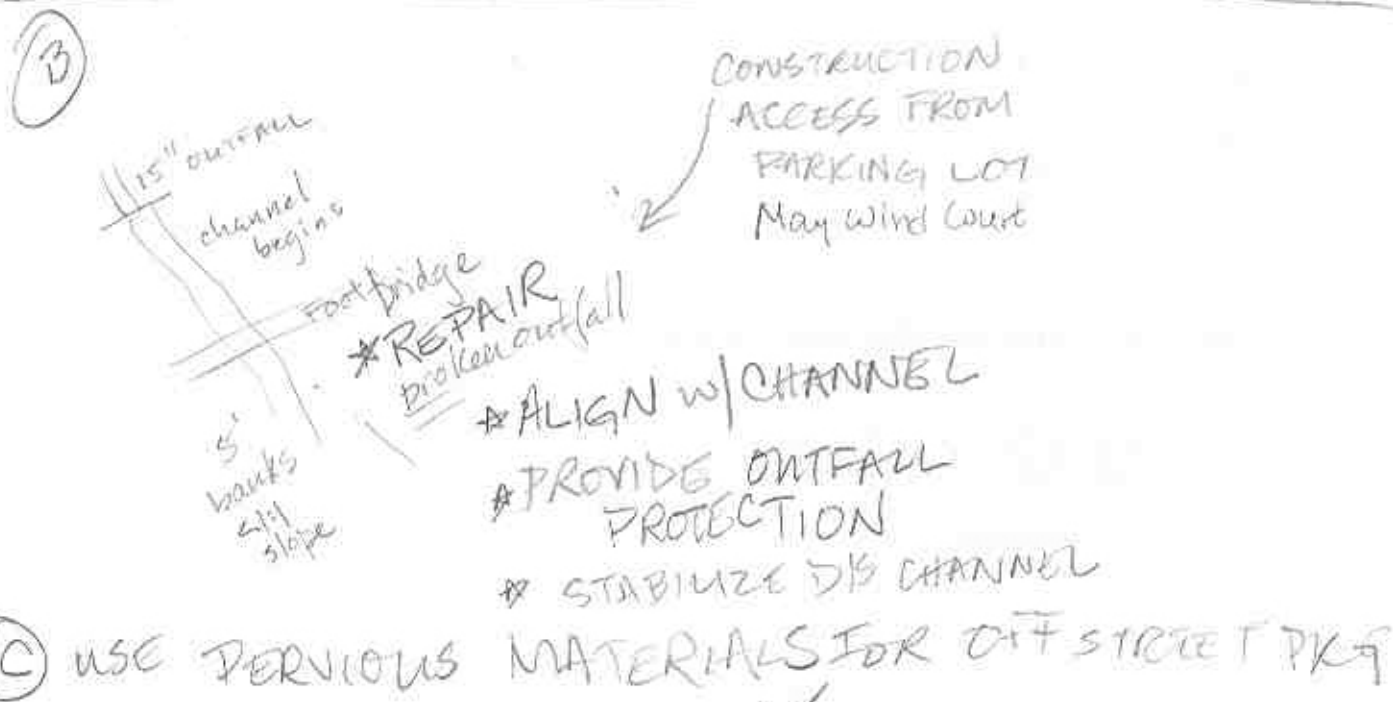
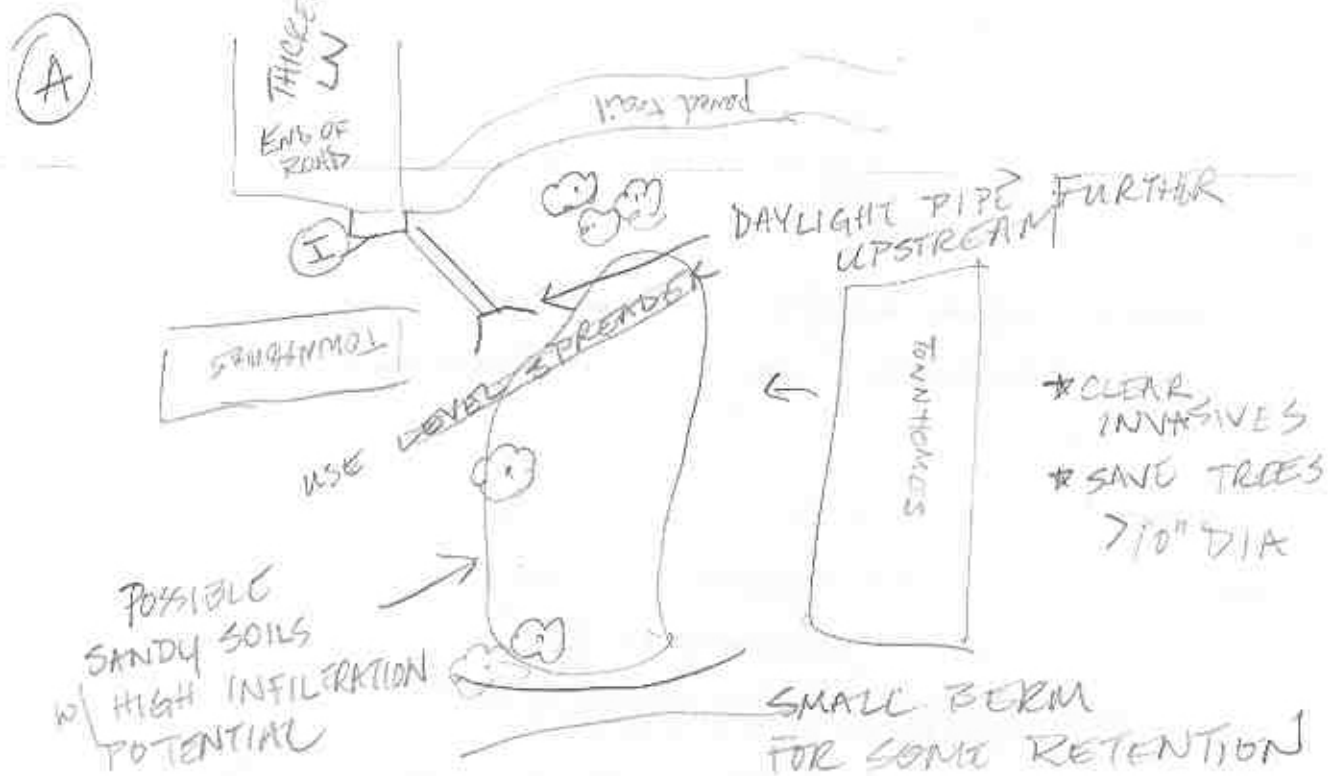
Roll #:

Pentax

Photo #:

224-227

18. Additional Notes and/or Sketch Information:



(C) USE PERVIOUS MATERIALS FOR OFF STREET PKG

19. Site Candidate for Further Investigation:

Yes

No

(D) ROOF LEADER DISCONNECTION

Retrofit Reconnaissance Inventory Data Sheet

1. Subwatershed: WL Site Number: WL-16

2. Location (Coordinates):

Latitude: _____ Longitude: _____

Notes:

Harpers Choice Middle School #2

3. Location (Coordinates) _____

From County ADC/Locator Map

Indicated by coordinates and quadrants on the map pages (e.g., H3 NW)

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):



Existing Facility



Unmanaged Existing Development



Site Identified during stream assessment (e.g., USA, RSAT, RBP)

existing dry pond convert to sand filter?

Retrofit Reconnaissance Inventory Data Sheet

5. Date of Preliminary Survey:

10/14/04

6. Surveyors:

SCH, KL

7. Drainage Area:

13.8 acres

8. Approximate Imperviousness (%):

30%

9. Property Ownership (public or private):

Public

10. Retrofit Volume Computations (i.e., target and available storage):

WQ_v

Cp_v

Q_p

Imperv Acres 4.1

NA existing facility retrofit

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

On-line retrofit

Off-line retrofit

- ADD FOREBAY

Retrofit Reconnaissance Inventory Data Sheet

12. Adjacent Land Use (possible conflicts):

School
D/S Homes

13. Conflicts with Existing Utilities:

None apparent

14. Construction and Maintenance Access:

good

15. Wetlands Present? Yes No Maybe

If yes, describe:

16. Forested Area or Other Sensitive Areas Present? Yes No

If yes, describe:

17. Photo Roll and Picture #: Roll #: Pictax Photo #: 240-242

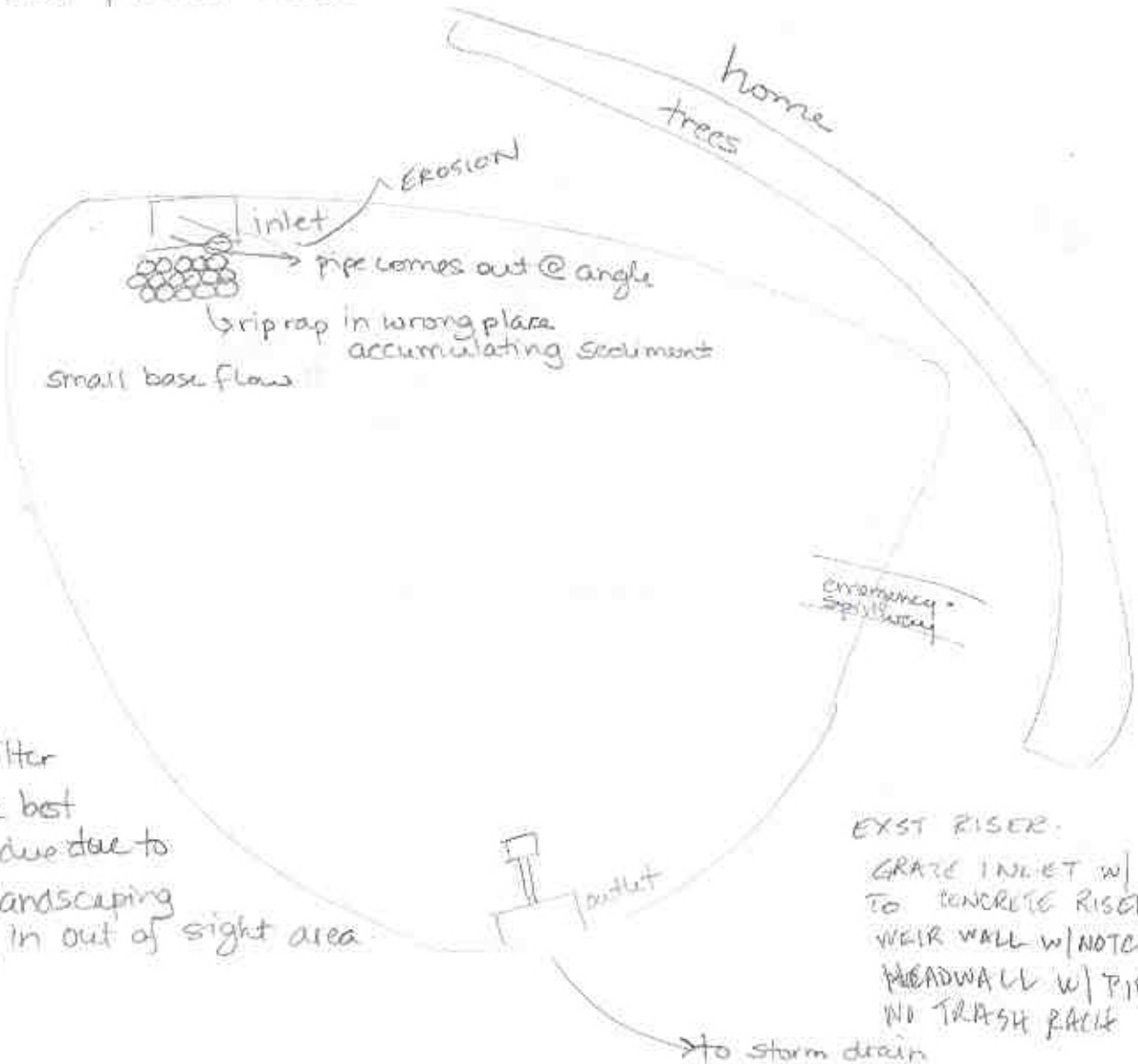
18. Additional Notes and/or Sketch Information:

has smaller drainage area little potential to divert add. flows
 could convert to bioretention, sand filter, rain garden etc.

provide forebay
 add trash rack

use existing outlet structure, reduce erosion around inlet & outlet structures visibility area

x sand filter or peat filter suggested as this is low



sand filter may be best option due to lower landscaping costs, in out of sight area

EXIST RISER.
 GRAZE INLET w/ 8" PIPE TO CONCRETE RISER - WEIR WALL w/ NOTCH. TO HEADWALL w/ PIPE (30" RUI) NO TRASH RACK

19. Site Candidate for Further Investigation:

Yes

No

Retrofit Reconnaissance Inventory Data Sheet

1. Subwatershed: WL Site Number: WL-17

2. Location (Coordinates):

Latitude: _____

Longitude: _____

Notes:

Across from Columbia Association Sports Complex
Adult day care

3. Location (Coordinates) _____

From County ADC/Locator Map

Indicated by coordinates and quadrants on the map pages (e.g., H3 NW)

4. Description (preliminary assessment of most likely retrofit - quality, quantity, or both):

- Existing Facility
- Unmanaged Existing Development
- Site Identified during stream assessment (e.g., USA, RSAT, RBP)

non-maintained dry pond
low flow orifice in riser (clogged partially)
can't tell size

Retrofit Reconnaissance Inventory Data Sheet

5. Date of Preliminary Survey:

10/14/04

6. Surveyors:

SCH, KL

7. Drainage Area:

3.6 acres

8. Approximate Imperviousness (%):

65%

9. Property Ownership (public or private):

Private

10. Retrofit Volume Computations (i.e., target and available storage):

WQ_v

Cp_v

Q_p

2.4 IA

NA → Retrofit/Maintenance

11. Unique Elements of Retrofit (e.g. method of conveyance or stormwater diversion):

On-line retrofit

Off-line retrofit

Retrofit Reconnaissance Inventory Data Sheet

12. Adjacent Land Use (possible conflicts):

rodd, school, homes

IF WOODY VEGETATION REMOVED FOR DAM SAFETY;
VEGETATED SCREENING WILL BE LOST. STEEP SLOPES
AROUND POND MAY CAUSE SAFETY CONCERNS.

13. Conflicts with Existing Utilities:

none apparent

14. Construction and Maintenance Access:

good

15. Wetlands Present?

Yes

No

Maybe

If yes, describe:

THERE MAY BE WETLAND PLANTS IN WET POCKETS;
HOWEVER THIS IS ALREADY A DISTURBED AREA/
POND

16. Forested Area or Other Sensitive Areas Present?

Yes

No

If yes, describe:

WOODY VEGETATION PRESENT AROUND EDGE OF
POND. MOST SHOULD BE REMOVED

17. Photo Roll and Picture #:

Roll #: Pentax

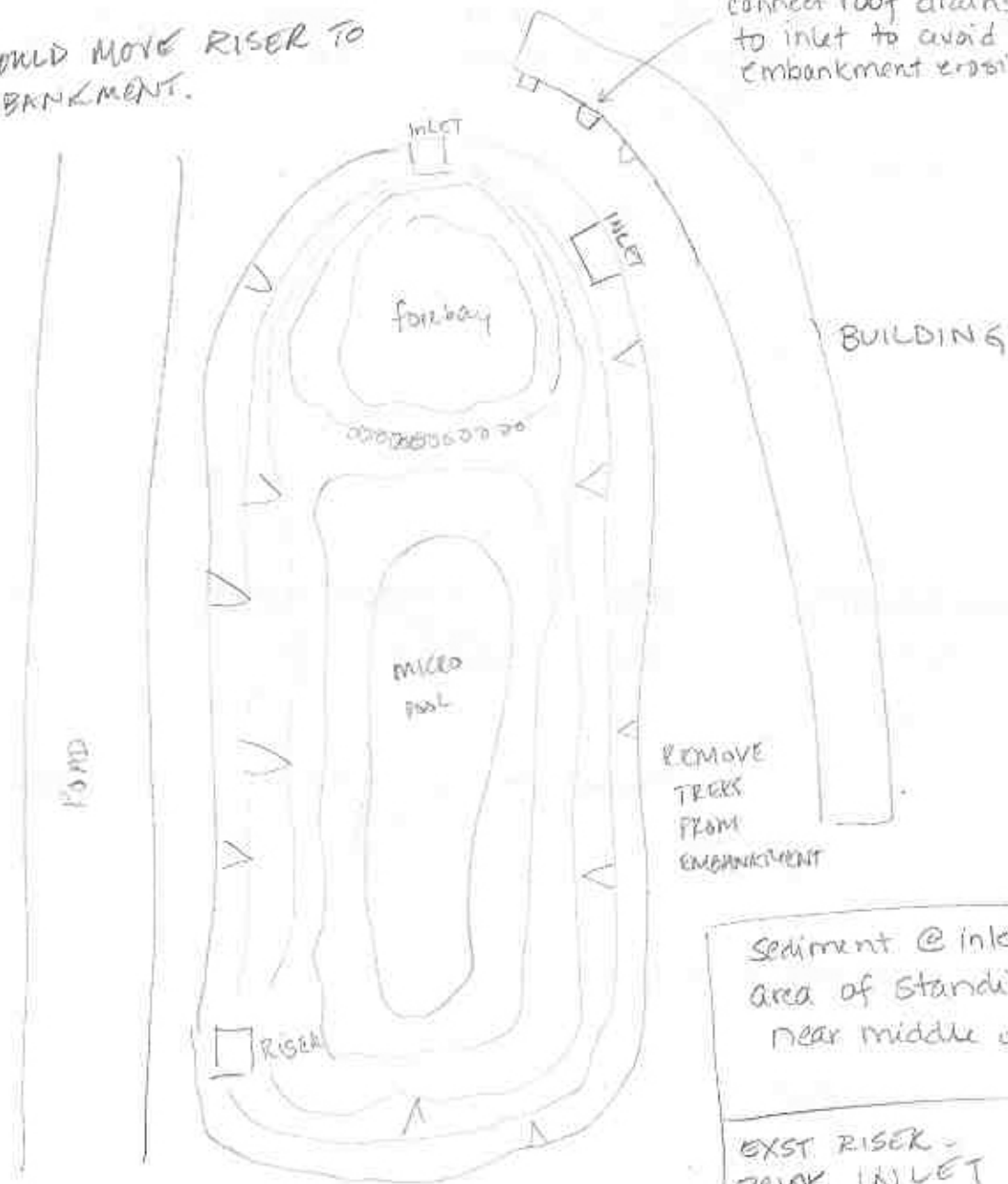
Photo #: 243-251

18. Additional Notes and/or Sketch Information:

trash rack at inlet
 reconfigure riser
 remove trees from embankment

could move riser to embankment.

connect roof drains to inlet to avoid embankment erosion



Sediment @ inlet
 Area of standing water near middle of pond

EXIST RISER -
 BRICK INLET STRUCTURE
 W/ OPENINGS ON 3 SIDES
 (w 6" x 4") LOW FLOW ORIFICE
 MAY BE 3" OR 4" - BRICK
 PLATE.

19. Site Candidate for Further Investigation:

Yes

No

ALTERNATE DESIGN: CONVERT TO BIO RETENTION FOR WATER QUALITY. DIVERT RUNOFF TO SCHOOL DRY POND FOR CHANNEL PROTECTION CONTROL