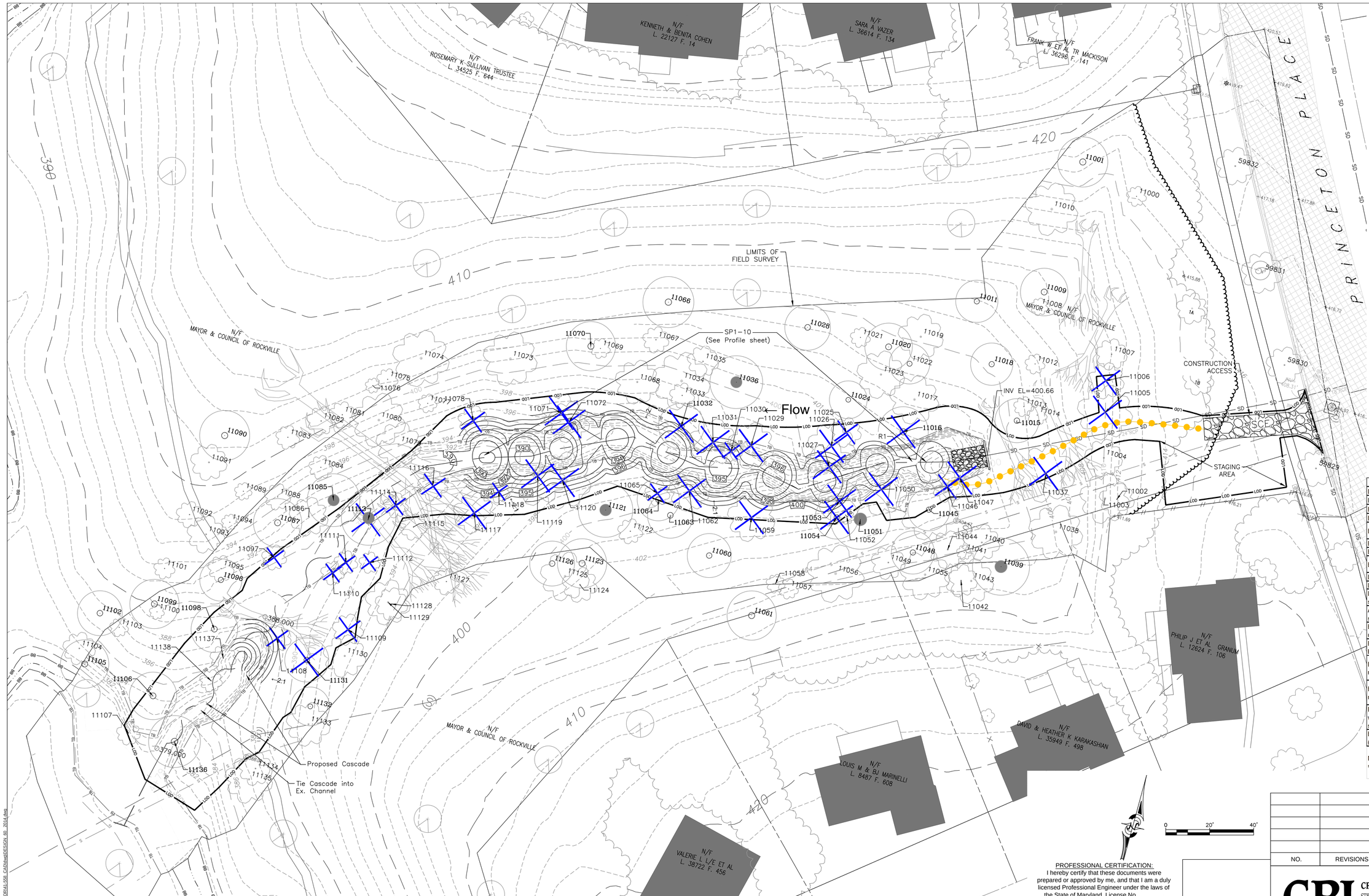

LEGEND

- Sign
- Light
- Telephone Box
- Air Conditioner Unit
- Fire Hydrant
- Water Meter
- Water Valve
- Ex. Chainlink Fence
- Ex. Wood Fence
- Wire Fence
- Ex. Sewer line
- Ex. Stormdrain
- Ex. Manhole
- Existing Contour
- Ex. Stream
- Ex. Wetland
- Ex. Wetland Buffer
- Ex. 100 year Floodplain
- Bottom of Bank
- Top of Bank
- Floodplain BRL
- Stream Buffer
- Existing road
- Stormdrain/Sewer Easement
- Ex. Aerial Treeline
- Ex. Survey Treeline
- Property Line
- Ex. Trees < 24" (for informational purposes)
- Ex. Significant Tree (24" +)
- Ex. Specimen Tree (30" +)
- Ex. Trees To Be Removed
- Limits of Disturbance (LOD)
- Proposed Contours
- Proposed Riprap
- Stabilized Construction Entrance (SCE)
- Proposed Access

PRINCETON PL.	
Drainage Area (ac)	13.9
Imperviousness (%)	47%
Estimated limits of disturbance (sf)	23,747
Estimated wetlands impact (sf)	0
Estimated wetland buffer impact (sf)	0
Estimated tree impact ≥ 30 inches	(1) Uprooted
Estimated tree impact ≥ 24 inches	5
Estimated tree impact <24 inches	30 (7 currently at risk)
Length of existing channel (ft)	451
Length of proposed channel (ft)	479
Length of proposed regenerative stormwater channel (ft)	190
Amount of proposed regenerative stormwater storage (RS) (Cu-ft)	6783
Estimated annual TSS load from upstream watershed (tons/year)	7
Estimated impaired annual impaired bank erosion (tons/year)	232
Estimated post restoration erosion nitrogen reduction (percent and #/year)	21%/38
Estimated post restoration phosphorous reduction (percent and #/year)	22%/3
Estimated TSS load reduction from watershed due to regenerative stormwater (percent and #/year)	23%/1.6ton
Estimated bank erosion reduction (assumed 90%) in ton/year	209

Note: (≥ 30" =11113), (<24" , trees currently at risk =11030,11046,11062, 11029, 11027, 11050, 11119)

NO.	REVISIONS AFTER PLAN APPROVAL	P.E.INITIAL	DATE

PROFESSIONAL CERTIFICATION:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No. _____, Expiration Date: _____

NAME

CPJ Associates
CPJ Environmental Services Division
STREAM RESTORATION • STORMWATER MANAGEMENT • INSPECTION
910 CLOPPER ROAD SUITE 215N GAITHERSBURG MARYLAND 20878
Phone:(301)208-9573 E-mail: env@cpja.com Fax:(301) 926-4551
SILVER SPRING, MD FREDERICK, MD FAIRFAX, VA

PRINCETON PLACE - OUTFALL #1

DESIGNED _____
DRAFTED _____
CHECKED _____

DATE _____ CIP NUMBER _____
APPROVED BY DIRECTOR OF PUBLIC WORKS

DEPARTMENT OF PUBLIC WORKS
CITY OF
ROCKVILLE
111 MARYLAND AVENUE, ROCKVILLE, MARYLAND

DATE CONSTRUCTION STARTED _____
DATE CONSTRUCTION COMPLETED _____
DATE ACCEPTED BY CITY _____
CITY INSPECTOR _____

AS BUILT COMPLETED _____ DATE
CHIEF, CONSTRUCTION MANAGEMENT

HAZEN AND SAWYER
Environmental Engineers & Scientists
4011 WestChase Blvd, Raleigh, North Carolina 27607

UPPER WATTS BRANCH FOREST PRESERVE
Rockville, Maryland
PRINCETON PLACE - OUTFALL #1
60% Plan

DATE 08/2014
JOB NO. 41-558
SCALE AS SHOWN
DRAWING NO. 2 OF _____
FILE #

Plotted: Aug 05, 2014 - 8:44am User: jmccarthy
F:\Upper Watts Branch Forest Preserve\C4D041\SS\GN_60_2014.dwg

Xrefs: Rockville Design, titleblock.dwg
Road-Hatch-From-CG.dwg
09-02-Survey-04.22.13.dwg
Topo.Slope.dwg
ACAD-EX.CONDITIONS.dwg
1999-CPJ-tree-survey.dwg