MYSTIC RIVER WATERSHED RESTORATION
CHELSEA AND MILL CREEK, MALDEN AND LOWER MYSTIC RIVER WATERSHEDS
NRD ASSESSMENT AND RESTORATION PROGRAM

WETLANDS AND BANK RESOURCE AREA REPLICATION/RESTORATION

GRANT ANNOUNCEMENT NO: BWSC-NRD-2014-01

SUMMARY CLOSURE REPORT

Date Submitted: July 2016

Prepared for:
Mystic Valley Development Commission
in partnership with Preotle Lane and Associates Ltd.
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1.0 INTRODUCTION

This summary report has been prepared on behalf of the Mystic Valley Development Commission (MVDC) and Preotle Lane and Associates Ltd. (PLA) project team for submission to Massachusetts Department of Environmental Protection (MDEP) to document the completion of wetland replication and degraded river bank restoration activities associated with the Massachusetts Department of Environmental Protection NRD Assessment and Restoration Program Grant Number BWSC-NRD-2014-01 (NRD Grant). In the way of review, the MVDC in partnership with PLA was awarded funding assistance under the above referenced grant program to further the goals of the comprehensive ecosystem restoration program underway within the Malden River Corridor. As outlined in the original NRD Grant application, the recently completed project generally involved the creation of new wetlands and bank restoration as an expansion of a previously planned Massachusetts Department of Public Transportation (MassDOT) wetland replication project situated near the confluence of the Malden River and Little Creek upon property referred to as the Malden River Park. To assist in the review of the information provided within this submittal, a U.S.G.S Topographic Locus map and a Sketch Plan of Site depicting the approximate location of the resource restoration activities may be referenced as Figures 1 and 2 respectively.

The project area, which is the subject of this submittal, is a part of a listed disposal site (Release Tracking Number (RTN): 3-16380) and Showcase Communities Brownfields referred to as River's Edge. Through an agreement between MassDOT and PLA, resource restoration activities were proposed for completion at the confluence of Little Creek and the Malden River. As described below, the MVDC/PLA project team requested funding assistance through the above referenced grant opportunity to expand the extent of ecosystem improvements;

> The Mystic Valley Development Commission (MVDC) in partnership with Preotle Lane and Associates Ltd. (PLA) is submitting this request for funding assistance to further the goals of the comprehensive ecosystem restoration program underway within the Malden River Corridor. The project that is the subject of this proposal is located within a comprehensive Brownfields redevelopment project known as River's Edge, whose goals include the restoration of long neglected public benefits through the reclamation of blighted banks and resource areas together with the creation of extensive open space/park land. The proposed project generally involves the completion of additional design work and corresponding permitting to increase the benefits associated with a currently proposed MassDOT 9,710 sq. ft. wetland replication program by adding an additional 1,220 sq. ft. of wetland replication/creation and 1,192 sq. ft. of degraded bank stabilization. As depicted on Figure 1, the proposed project near the confluence of the Malden River and Little Creek upon property referred to as the Malden River Park.

As discussed in Section 4.0 of this document, the initially proposed areas for wetland replication and bank stabilization were altered during the construction phase of the project to 890 square feet of additional wetland and 5,020 square feet of bank stabilization. This change was due in large part to the modification of originally proposed project boundaries to preserve mature tree growth along Little Creek, and to avoid hydraulic short circuiting, or intrusion of surface waters into the new resource area during periods of high river flow.

Through the completion of this submittal and corresponding regulatory compliance documentation, the MVDC/PLA project team has successfully completed and met each of the objectives associated with the NRD Grant BWSC-NRD-2014-01 opportunity. An as-built survey plan showing the actual boundaries of the final wetland area is presented as Figure 3.

2.0 DESIGN AND PERMITTING

As the Project Site is a listed disposal site with MDEP (RTN: 3-16380) a RAM Plan was prepared by Nangle Consulting Associates, Inc. (NCA) on behalf of MVDC/PLA project team. The specific focus of the RAM included the segregation of regulated material to accommodate construction of the new wetlands and bank resource areas. The RAM Plan was developed based upon design specifications prepared by Wetlands & Wildlife Inc., and subsequently revised by the project team to reflect the additional work area being funded by NRD Grant BWSC-2014-NRD-01. Prior to the initiation of RAM activities, approval for the expanded scope of wetland area construction was obtained from the Medford Conservation Commission and the U.S. Army Corps of Engineers. In addition to the filing of a RAM Plan, per the requirements of the Massachusetts Contingency Plan (MCP), a RAM Completion report was also prepared.

3.0 Construction and Implementation

The majority of the funds associated with the NRD Grant, over 90% were allocated to the construction phase of the ecosystem restoration project. More specifically, these funds were applied to contractor services, with required costs for site characterization activities, sol disposal, wetland soils and planting provided by the MVDC/PLA project team. Project Management services during the project were provided by the MVDC/PLA project team and Grant funds were not to be utilized for this requirement, as they were funded directly by the private sponsor PL River's Edge Properties Limited Partnership (PLREPLP).

A summary of the key tasks associated with the construction phase of the project is provided within the following sections.

3.1 Characterization Of Upland Soil Within Area Of Proposed Wetland Construction To Facilitate Off-Site Disposal/Re-Cycling

On 19 November 2015, site characterization activities were initiated by NCA through the placement of multiple test pits (Areas 1 – 8) in the approximate locations depicted on Figure 4. Test pits completed on 19 November were placed through the use of an excavator provided by Bowditch Construction. Subsurface conditions encountered during field activities within the proposed wetland area included an urban fill unit that contained silty sands with varying levels of ash, coal, wood, concrete, asphalt, red brick fragments and plastic.

Based upon design specifications prepared by Wetlands & Wildlife Inc., and subsequent revisions by the project team to reflect the additional wetland area being funded by the NRD Grant, it was estimated that approximately 1,600 tons of excess excavated soil would be generated during construction that would require off-site disposal/re-use. In an effort to facilitate direct loading and removal during site grading activities and to avoid excessive stockpiling within the resource areas and buffer zones, a soil pre-characterization program was implemented. One (1) composite sample representing 200 tons was collected from each of the above referenced eight (8) areas shown on Figure 4, and submitted for appropriate analysis to accommodate the evaluation of off-site disposal/re-use alternatives.

As summarized on Table 1.0, the results of the pre-characterization sampling and analytical testing program revealed elevated levels of metals principally arsenic, together with lower levels of Polynuclear Aromatic Hydrocarbons (PAHs) and total petroleum hydrocarbons (TPH). Based upon this data, it was determined that the anticipated excess excavated materials from Areas 1 - 8 were suitable for offsite disposal at the Turnkey Landfill, located in Rochester, New Hampshire. It is to be noted that during soil removal and loading activities, ambient work space conditions were monitored for background levels of Volatile Organic Compounds (VOCs) by representatives of NCA utilizing a Photo Ionization Detector (PID) with no exceedences of applicable threshold levels detected.

3.2 Site Preparation And Excavation/Loading Of Soils To Achieve Proposed Sub-Grades

Following the placement of a construction fence around the perimeter of the project area, construction activities were initiated by Bowditch on 25 January 2016, with the first phase generally involving the clearing of vegetative cover. As noted in Section 1.0, the originally proposed design for the project was shifted slightly to the south, primarily to avoid surface waters from short circuiting or flooding of the newly constructed wetlands and to preserve mature tree grown along the river banks. On 26 January, Bowditch initiated the excavation and shaping of the wetland area to meet design grades. Excavations were started in the eastern portion of the wetland area, along the Malden River, with soil/fill material placed in a working pile to the west of the excavation area. In addition, a loading area for the trailers was created in the upland area directly abutting the wetland area to the west. In accordance with the provisions of the RAM Plan, all soil excavation activities were overseen by a representative of NCA and soil was managed under an MDEP Bill of Lading. A key task during soil/fill management activities also involved the monitoring of potential dust emissions. Real time dust monitoring was performed during site work using a MIE Personal Data RAM (PDR-1000) with no exceedances above the action threshold established within the RAM Plan were identified.

3.3 Off-Site Transport And Disposal Of Soil Excavated To Achieve Wetland Subgrades

Soils were removed from the wetland area in an east to west direction by Bowditch over the period of 27 January to 10 February 2016. During that timeframe, 1,307 tons of material was direct loaded into trailers and transported to Turnkey Landfill, located in Rochester, New Hampshire under a BOL.

3.4 Placement Of Wetland Soil Mix To Achieve Final Proposed Design Grades

Following the completion of soil removal activities, a survey of the wetland area was conducted to confirm that design subgrades had been met. Subsequently, approximately 580 cubic yards of wetland soil mix from Agresource Inc. in Amesbury Massachusetts was placed in the wetland area to an average depth of one (1) foot. In addition, loam capping material was placed along disturbed banks to achieve final grades. A final survey was completed to confirm design grades, presented on the as-built plan prepared by Precision Land Surveying Inc., and reproduced as Figure 5. As shown on Figures 5. the wetland area increased in size from the original design area of 9,710 square feet required by MassDOT to the as-built area of 10,600 square feet for an increase of 890 square feet of additional wetland area, while approximately 5,020 square feet of blighted bank were graded and restored to provide improved stormwater runoff and habitat quality.

Photographic documentation of the activities described above may be referenced as Photos P1 through P20, which are included at the end of this section. Photographs P1 and P2 depict westerly facing views of the wetland compensation area following tree/vegetation removal, while Photos P3 and P4 show several of the test pits placed in November 2015, as a part of pre-characterization activities. Photographs P5 through P9 show January 2016 RAM excavation activities. Within Photo P5 providing an easterly facing view of the excavation boundaries of the portion of the wetland that directly abuts the Malden River. As shown on Photo P6, excavators were utilized to remove the soil from east to the western portion of the site, where it was

temporarily stockpiled in the western end of the wetland area (Photo P7). Photos P8 and P9 depict the completed wetland excavation following the removal of the stockpiled soils. Views of the placement of the wetland soil mix are shown on Photos P10 through P13, while P14 through P16 show the wetland area following final grading of the wetland soil mix. East - northeast views of the wetland area following the placement of the wetland seed mix and trees/shrubs are shown on Photos P17 through P20.

4.0 CONCLUSIONS

Through funding assistance provided under the NRD Grant BWSC-NRD-2014-01, and the PLRESLP private share, the MVDC/PLA project team was able to expand the originally proposed ecosystem restoration project the construction of 890 additional square feet of wetland resource area and the improvement of approximately 5,020 square feet of blighted river bank. Through the preparation of this submittal, each of the objectives and requirements of which funding assistance was requested have been met, and the project is considered completed.

NANGLE CONSULTING ASSOCIATES, INC

TABLES

Environmental Engineering and Land Use Planning

45 Dan Road - Suite 115 Canton, MA 02021 Telephone (781) 821-0521 email: nangle@ncaenv.com Facsimile (781) 821-4182

Table 1.0 Laboratory Analyses in Soil (mg/kg)[1]

Site Location: Wetland Compensation Area - River's Edge: Medford, MA

Sample Description: Composite Samples Collected from Soil Designated for Off-Site Disposal

LOCATION SAMPLING DATE	AREA-1	AREA-2	AREA-3	AREA-4	AREA-5	AREA-6	AREA-7	AREA-8
	11/19/2015							
General Chemistry								
Specific Conductance (umhos/cm)	130	190	130	200	130	72	79	38
Solids, Total (%)	67	61.1	68.8	72.6	69.2	74	78.7	82
pH (H)	5.2	5.4	6	5.7	5.8	6.4	6.1	6.1
Cyanide, Reactive (mg/kg)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
Sulfide, Reactive (mg/kg)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)
Ignitability	NI	NI	NI	NI	NI	NI	NI	NI
MCP Chlorinated Herbicides (mg/kg)								
MCPP	ND(4.9)	ND(5.4)	ND(4.8)	ND(4.6)	ND(4.8)	ND(4.4)	ND(4.2)	ND(4)
MCPA	ND(4.9)	ND(5.4)	ND(4.8)	ND(4.6)	ND(4.8)	ND(4.4)	ND(4.2)	ND(4)
Dalapon	ND(0.049)	ND(0.054)	ND(0.048)	ND(0.046)	ND(0.048)	ND(0.044)	ND(0.042)	ND(0.04)
Dicamba	ND(0.049)	ND(0.054)	ND(0.048)	ND(0.046)	ND(0.048)	ND(0.044)	ND(0.042)	ND(0.04)
Dichloroprop	ND(0.049)	ND(0.054)	ND(0.048)	ND(0.046)	ND(0.048)	ND(0.044)	ND(0.042)	ND(0.04)
2,4-D	ND(0.049)	ND(0.054)	ND(0.048)	ND(0.046)	ND(0.048)	ND(0.044)	ND(0.042)	ND(0.04)
2,4-DB	ND(0.049)	ND(0.054)	ND(0.048)	ND(0.046)	ND(0.048)	ND(0.044)	ND(0.042)	ND(0.04)
2,4,5-T	ND(0.049)	ND(0.054)	ND(0.048)	ND(0.046)	ND(0.048)	ND(0.044)	ND(0.042)	ND(0.04)
2,4,5-TP (Silvex)	ND(0.049)	ND(0.054)	ND(0.048)	ND(0.046)	ND(0.048)	ND(0.044)	ND(0.042)	ND(0.04)
Dinoseb	ND(0.049)	ND(0.054)	ND(0.048)	ND(0.046)	ND(0.048)	ND(0.044)	ND(0.042)	ND(0.04)
MCP Organochlorine Pesticides (mg/kg)								
Delta-BHC	ND(0.00234)	ND(0.00257)	0.0052	ND(0.0109)	ND(0.00226)	ND(0.00212)	ND(0.00198)	ND(0.00942)
Lindane	ND(0.000782)	ND(0.000858)	0.00525	ND(0.00364)	ND(0.000755)	ND(0.000708)	ND(0.00066)	ND(0.00314)
Alpha-BHC	ND(0.000977)	ND(0.00107)	0.00332	ND(0.00455)	ND(0.000944)	ND(0.000886)	ND(0.000826)	ND(0.00393)
Beta-BHC	ND(0.00234)	ND(0.00257)	ND(0.00227)	ND(0.0109)	ND(0.00226)	ND(0.00212)	ND(0.00198)	ND(0.00942)
Heptachlor	ND(0.00117)	ND(0.00129)	0.00389	ND(0.00546)	ND(0.00113)	ND(0.00106)	ND(0.000991)	ND(0.00471)
Aldrin	ND(0.00234)	ND(0.00257)	ND(0.00227)	ND(0.0109)	ND(0.00226)	ND(0.00212)	ND(0.00198)	ND(0.00942)
Heptachlor epoxide	ND(0.0044)	ND(0.00483)	ND(0.00425)	ND(0.0205)	ND(0.00425)	ND(0.00398)	ND(0.00372)	ND(0.0177)
Endrin	ND(0.000977)	ND(0.00107)	ND(0.000944)	ND(0.00455)	ND(0.000944)	ND(0.000886)	ND(0.000826)	ND(0.00393)
Endrin ketone	ND(0.00234)	ND(0.00257)	ND(0.00227)	ND(0.0109)	ND(0.00226)	ND(0.00212)	ND(0.00198)	ND(0.00942)
Dieldrin	ND(0.00147)	ND(0.00161)	ND(0.00142)	ND(0.00683)	ND(0.00142)	ND(0.00133)	ND(0.00124)	ND(0.00589)
4,4'-DDE	0.00409	ND(0.00257)	0.00598	ND(0.0109)	0.00311	ND(0.00212)	ND(0.00198)	ND(0.00942)
4,4'-DDD	0.00378	0.00463	ND(0.00227)	ND(0.0109)	ND(0.00226)	ND(0.00212)	ND(0.00198)	ND(0.00942)
4,4'-DDT	0.0419	0.0136	0.0168	ND(0.0205)	0.00774	0.0082	0.013	0.0201
Endosulfan I	ND(0.00234)	ND(0.00257)	0.00356	ND(0.0109)	ND(0.00226)	ND(0.00212)	ND(0.00198)	ND(0.00942)
Endosulfan II	0.00906	0.012	0.0125	ND(0.0109)	ND(0.00226)	0.00345	0.00289	ND(0.00942)
Endosulfan sulfate	ND(0.000977)	ND(0.00107)	ND(0.000944)	ND(0.00455)	ND(0.000944)	ND(0.000886)	ND(0.000826)	ND(0.00393)
Methoxychlor	ND(0.0044)	ND(0.00483)	ND(0.00425)	ND(0.0205)	ND(0.00425)	ND(0.00398)	ND(0.00372)	ND(0.0177)
Chlordane	ND(0.019)	ND(0.0209)	0.187	0.715	ND(0.0184)	ND(0.0173)	0.0181	ND(0.0766)
Hexachlorobenzene	ND(0.00234)	ND(0.00257)	0.00925	0.0178	ND(0.00226)	ND(0.00212)	ND(0.00198)	ND(0.00942)
MCP Polychlorinated Biphenyls (mg/kg)								
Aroclor 1016	ND(0.0486)	ND(0.0533)	ND(0.0478)	ND(0.0446)	ND(0.0476)	ND(0.0434)	ND(0.0416)	ND(0.0394)
Aroclor 1221	ND(0.0486)	ND(0.0533)	ND(0.0478)	ND(0.0446)	ND(0.0476)	ND(0.0434)	ND(0.0416)	ND(0.0394)
Aroclor 1232	ND(0.0486)	ND(0.0533)	ND(0.0478)	ND(0.0446)	ND(0.0476)	ND(0.0434)	ND(0.0416)	ND(0.0394)
Aroclor 1242	ND(0.0486)	ND(0.0533)	ND(0.0478)	ND(0.0446)	ND(0.0476)	ND(0.0434)	ND(0.0416)	ND(0.0394)
Aroclor 1248	ND(0.0486)	ND(0.0533)	ND(0.0478)	ND(0.0446)	ND(0.0476)	ND(0.0434)	ND(0.0416)	ND(0.0394)
Aroclor 1254	ND(0.0486)	ND(0.0533)	0.199	ND(0.0446)	ND(0.0476)	ND(0.0434)	ND(0.0416)	ND(0.0394)
Aroclor 1260	0.111	0.155	ND(0.0478)	ND(0.0446)	ND(0.0476)	0.0438	ND(0.0416)	0.0554
Aroclor 1262	ND(0.0486)	ND(0.0533)	ND(0.0478)	ND(0.0446)	ND(0.0476)	ND(0.0434)	ND(0.0416)	ND(0.0394)
Aroclor 1268	0.0606	0.131	ND(0.0478)	ND(0.0446)	ND(0.0476)	ND(0.0434)	ND(0.0416)	ND(0.0394)
PCBs, Total	*0.1716*	*0.2860*	*0.1990*	-	-	*0.0438*	-	*0.0554*
MCP Semivolatile Organics (mg/kg)[2]								
Acenaphthene	0.27	0.21	ND(0.19)	0.3	0.24	ND(0.18)	ND(0.17)	0.52
Fluoranthene	7.1	4.8	1.7	7.4	1.9	2.2	2.3	4.1
Naphthalene	0.64	0.64	ND(0.24)	0.29	ND(0.24)	ND(0.22)	ND(0.21)	0.2
Nitrobenzene	ND(0.22)	ND(0.24)	ND(0.21)	ND(0.2)	ND(0.21)	ND(0.2)	ND(0.19)	ND(0.18)
Bis(2-Ethylhexyl)phthalate	2.3	1.8	0.3	ND(0.22)	ND(0.24)	ND(0.22)	ND(0.21)	ND(0.2)
Benzo(a)anthracene	5.7	4	1.1	4	1.1	1.3	1.3	2.3
Benzo(a)pyrene	5.9	4.4	1.2	3.5	1	1.2	1.5	2.2
Benzo(b)fluoranthene	7.3	6.1	1.5	4.4	1.3	1.6	1.9	2.7
Benzo(k)fluoranthene	2.9	1.7	0.47	1.4	0.48	0.54	0.65	1.2
Chrysene	6.1	5	1.4	3.8	1.3	1.4	1.8	2.9
Acenaphthylene	2.8	2.5	0.35	0.89	0.26	0.31	0.58	0.58
Anthracene	1.8	1.4	0.38	1.6	0.4	0.48	0.53	1
Benzo(ghi)perylene	4.4	3.4	0.83	2	0.64	0.75	1	1.4
Fluorene	0.5	0.41	ND(0.24)	0.39	ND(0.24)	ND(0.22)	ND(0.21)	0.43
Phenanthrene	3.1	2.1	0.78	5.2	1.9	1.8	1.4	3.9
Dibenzo(a,h)anthracene	1	0.77	0.18	0.49	0.15	0.17	0.24	0.33
Indeno(1,2,3-cd)Pyrene	4.6	3.6	0.86	2.2	0.66	0.82	1.1	1.5
Pyrene	7.3	5.2	1.8	6.5	2.1	2.1	2.3	4.3
Dibenzofuran	ND(0.25)	ND(0.27)	ND(0.24)	0.25	ND(0.24)	ND(0.22)	ND(0.21)	ND(0.2)
2-Methylnaphthalene	0.4	0.45	ND(0.28)	ND(0.27)	ND(0.28)	ND(0.27)	ND(0.25)	ND(0.24)
SUM	*64.11*	*48.48*	*12.85*	*44.61*	*13.43*	*14.67*	*16.6*	*29.56*
MCP Total Metals (mg/kg)								
Arsenic, Total	93	180	60	72	28	29	25	33
Barium, Total	57	68	53	47	51	51	53	55
Cadmium, Total	ND(0.58)	ND(0.64)	1.6	0.73	ND(0.58)	ND(0.52)	ND(0.5)	ND(0.49)
Chromium, Total	71	110	47	38	28	25	26	25
Lead, Total	190	310	220	160	89	120	110	150
Mercury, Total	0.765	1.4	0.685	0.763	0.401	0.412	0.284	0.328
Selenium, Total	ND(2.9)	ND(3.2)	ND(2.8)	ND(2.7)	ND(2.9)	ND(2.6)	ND(2.5)	ND(2.4)
Silver, Total	ND(0.58)	ND(0.64)	ND(0.57)	ND(0.55)	ND(0.58)	ND(0.52)	ND(0.5)	ND(0.49)
TCLP Metals (mg/l)								
Arsenic, TCLP	-	ND(1)	-	-	-	-	-	-
Chromium, TCLP	-	ND(0.2)	-	-	-	-	-	-
Lead, TCLP	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	-	ND(0.5)	ND(0.5)	ND(0.5)
MCP Volatile Organics by 5035 High (mg/kg)[2,3]								
SUM	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
Petroleum Hydrocarbon Quantitation (mg/kg)								
TPH	1,220	1,570	585	358	248	571	556	700

File No. 449.19

[1]Laboratory Certificates contained within appendices.

[2]Full set of parameters contained within laboratory certificates

[3] Discrete sample analyzed for VOCs from sample location within composite Sample Group exhibiting highest field TVOCs.

ND - None Detected above Reported Detection Limit

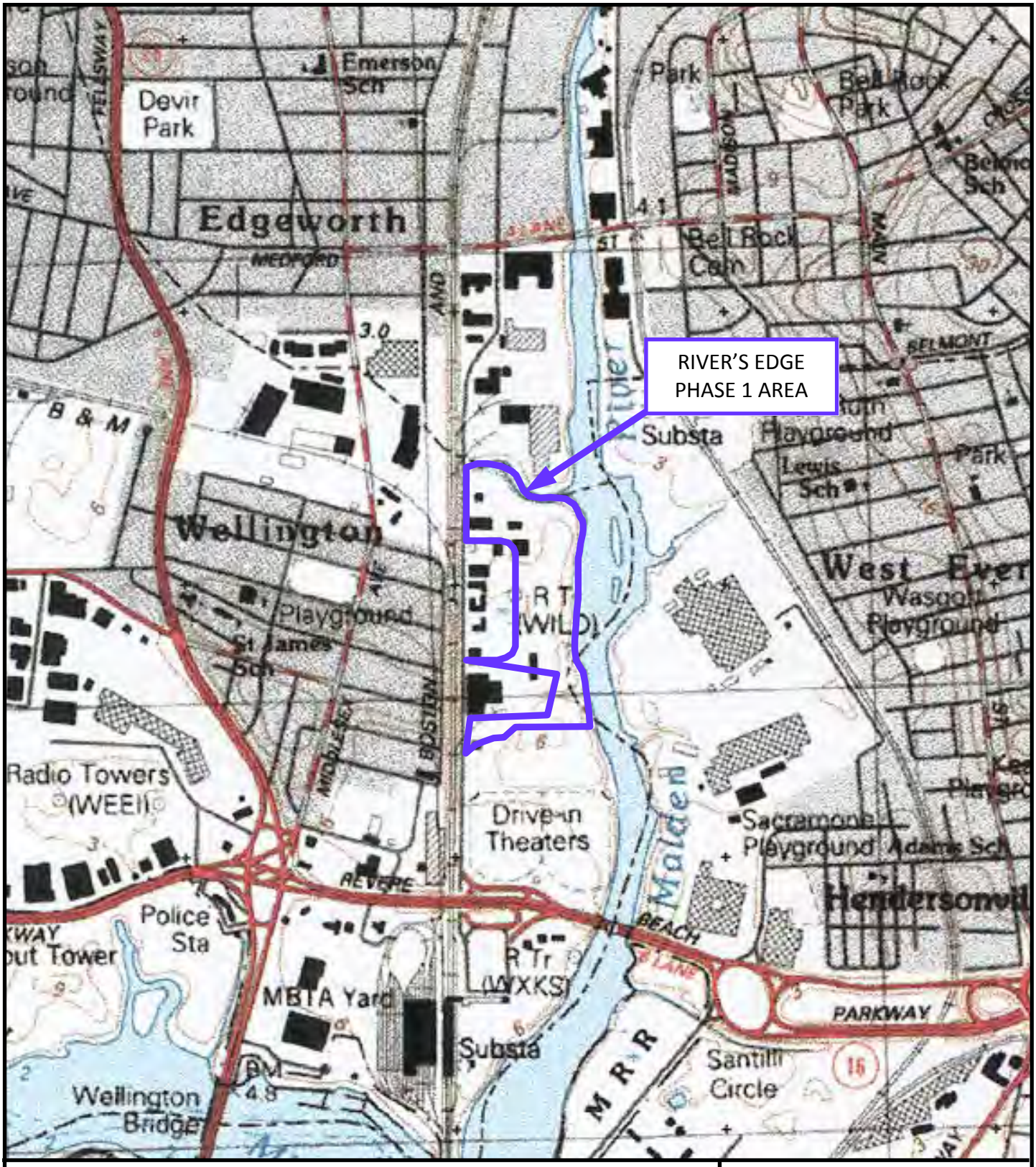
NA-Not applicable

NANGLE CONSULTING ASSOCIATES, INC

FIGURES

Environmental Engineering and Land Use Planning

45 Dan Road - Suite 115 Canton, MA 02021 Telephone (781) 821-0521 email: nangle@ncaenv.com Facsimile (781) 821-4182



U.S.G.S TOPOGRAPHIC LOCUS - PHASE 1 AREA RIVER'S EDGE
MEDFORD, MASSACHUSETTS

U.S.G.S QUADRANGLE
BOSTON-NORTH

LATITUDE/LONGITUDE
N 42°-24'-37" W 71°-04'-30"

UTM
N 4697.202 KM 329.254 KM

CONTOUR INTERVAL-3 METERS

0 0.5 KILOMETERS

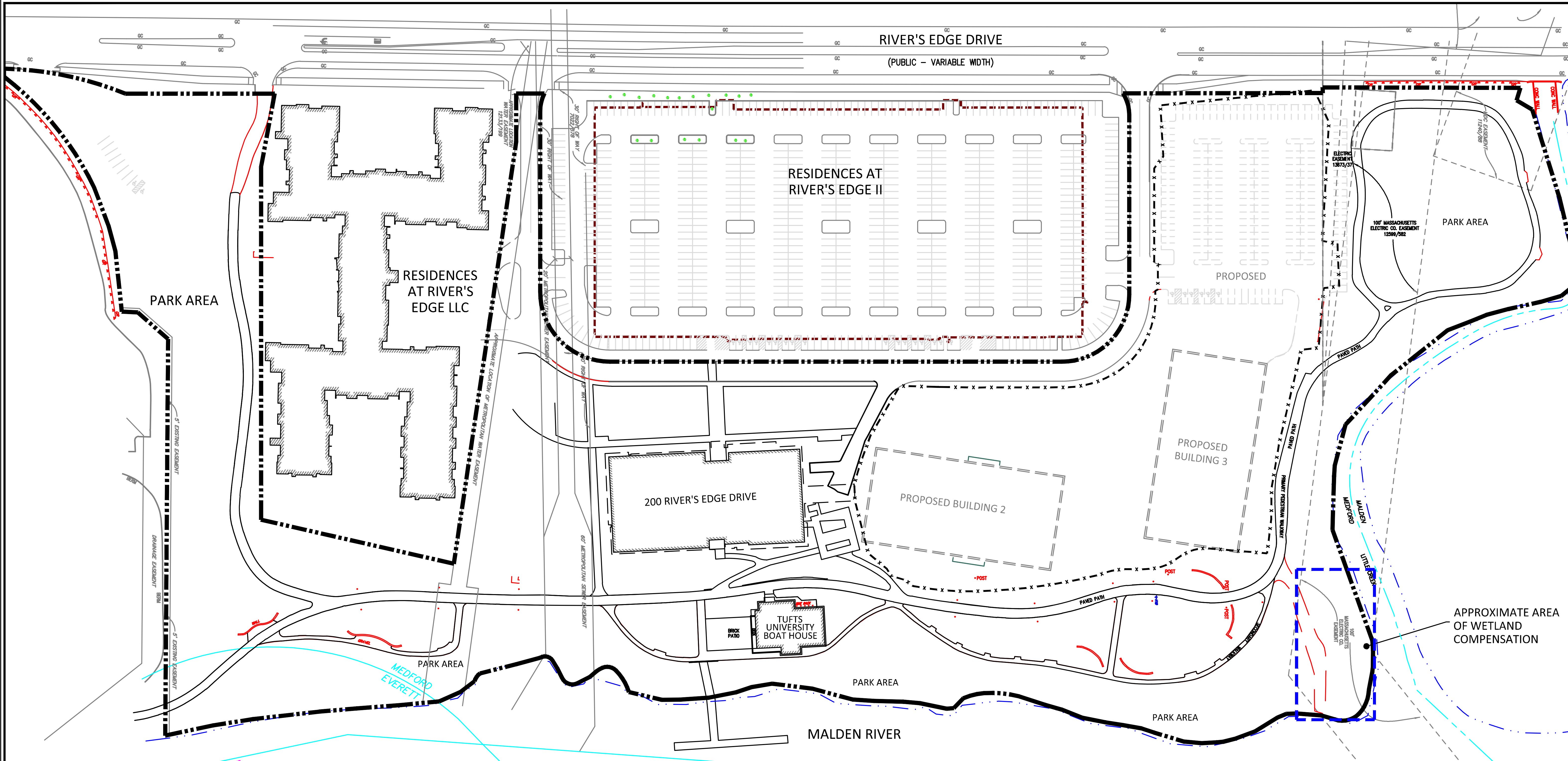
0 0.5 MILES

Date: JULY 2016

Job No: 449.19

Figure 1

NCA Nangle Consul. ng Associates, Inc. 45 Dan Road - Suite 115 Canton, Massachuse. s



LEGEND

RIVER'S EDGE PHASE 1 AREA/ DISPOSAL SITE BOUNDARIES

CONSTRUCTION FENCING

NOTES

REFERENCE: Electronic file obtained from Tetra Tech Rizzo on 5-14-08 and Goggle Earth aerial photograph-2011.

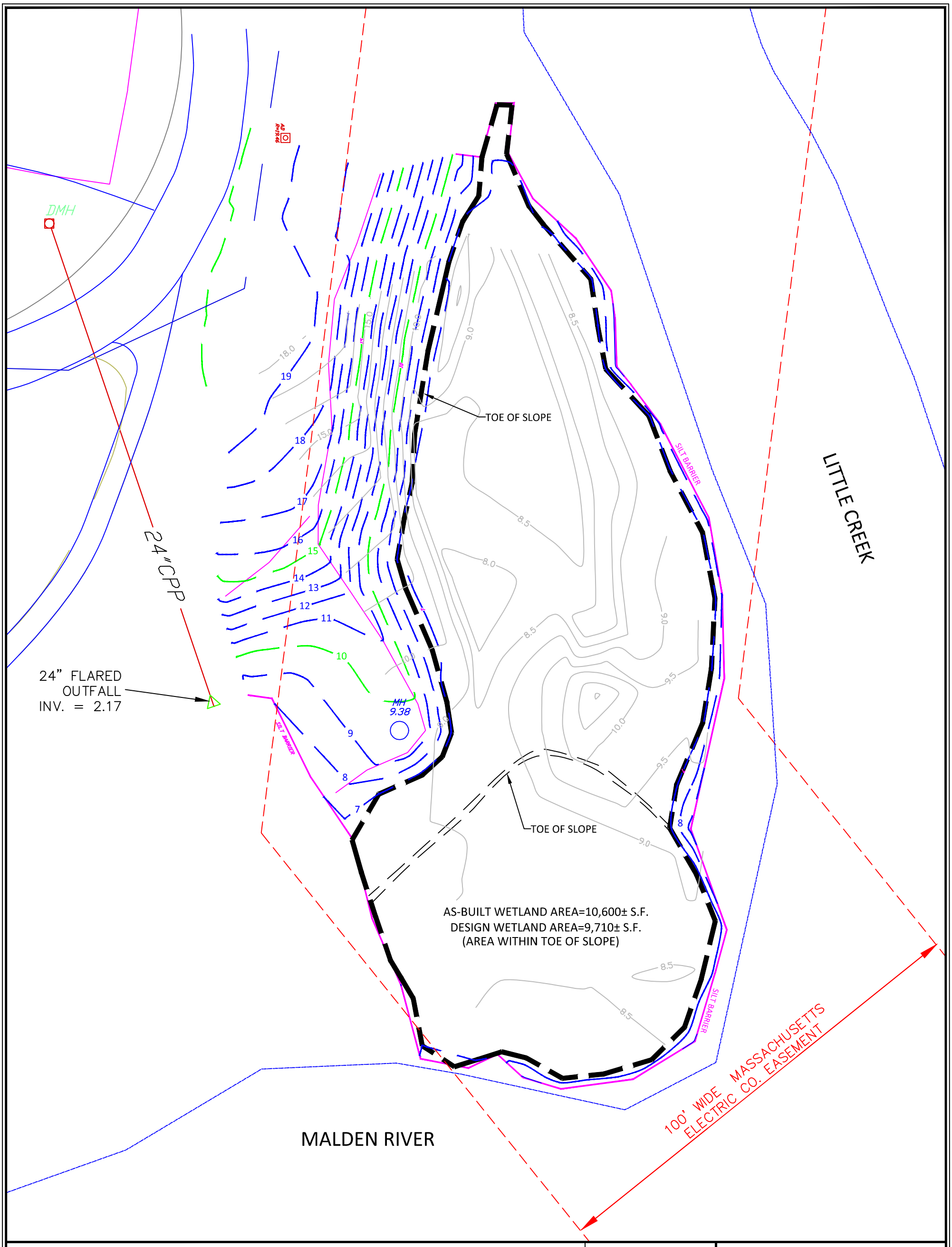
0 60 120
Approximate Scale In Feet

SKETCH PLAN OF SITE
PHASE 1 - RIVER'S EDGE
MEDFORD, MASSACHUSETTS

Date: JULY 2016
Job No: 449.19

Figure 2

NCA Nangle Consulting Associates, Inc. 45 Dan Road - Suite 115 Canton, Massachusetts



LEGEND

AS-BUILT CONTOUR

FORMER CONTOUR

SILT BARRIER

NOTES

REFERENCE:
Electronic file from PLA, sent on 1/4/16.

SKETCH PLAN OF SITE
WETLAND RESTORATION AREA

RIVER'S EDGE
MEDFORD, MASSACHUSETTS

AS-BUILT WETLAND AREA

0 10 20

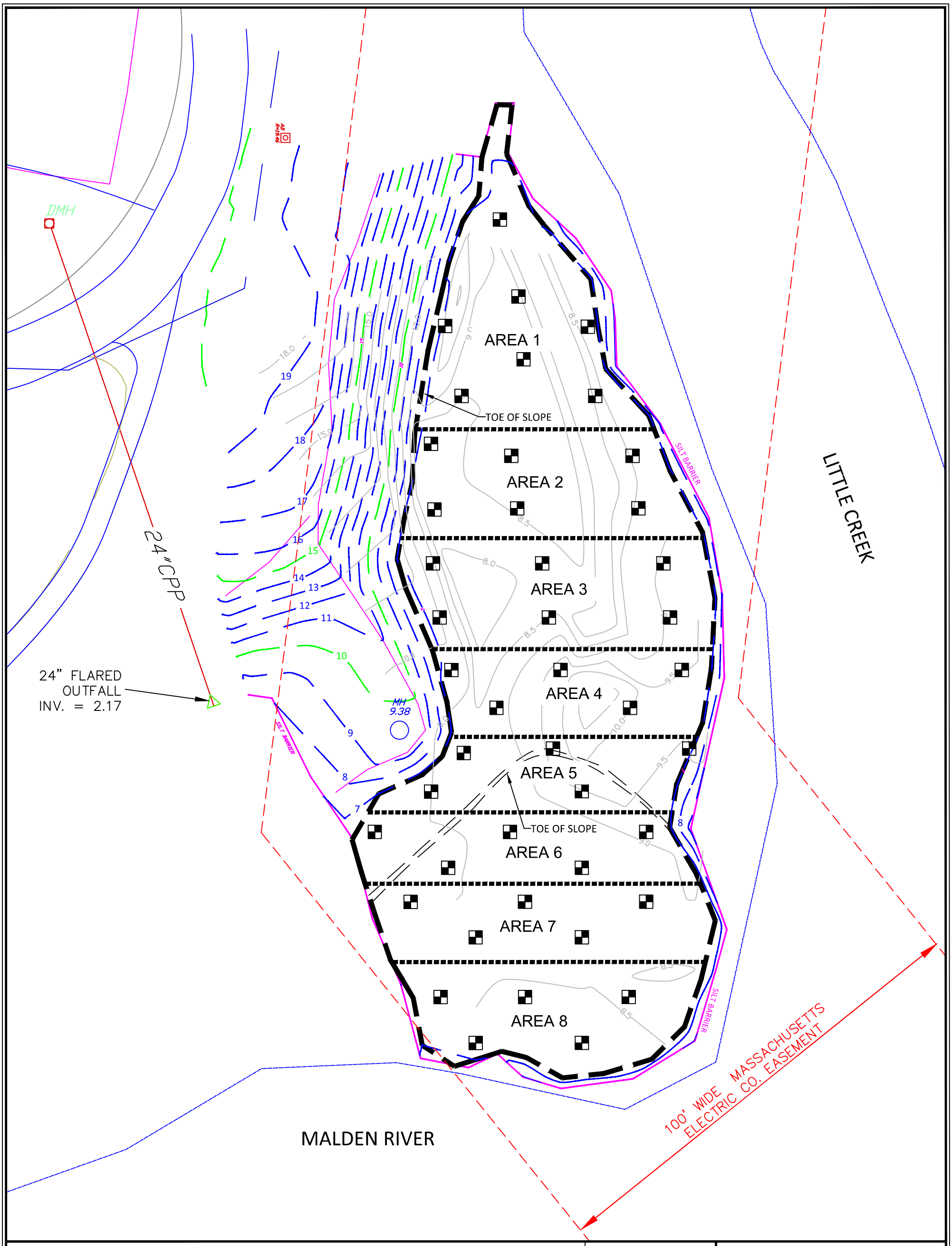
Approximate Scale In Feet

Date: JULY 2016

Job No: 449.19

Figure 3

NCA Nangle Consulting Associates, Inc. 45 Dan Road - Suite 115 Canton, Massachusetts



LEGEND

COMPOSITE
TEST PIT LOCATION

AS-BUILT CONTOUR

FORMER CONTOUR

SILT BARRIER

NOTES

REFERENCE:
Electronic file from PLA, sent on 1/4/16.

SKETCH PLAN OF SITE
WETLAND RESTORATION AREA

RIVER'S EDGE
MEDFORD, MASSACHUSETTS

SAMPLE AREAS FOR
OFF-SITE SOIL DISPOSAL

0 10 20

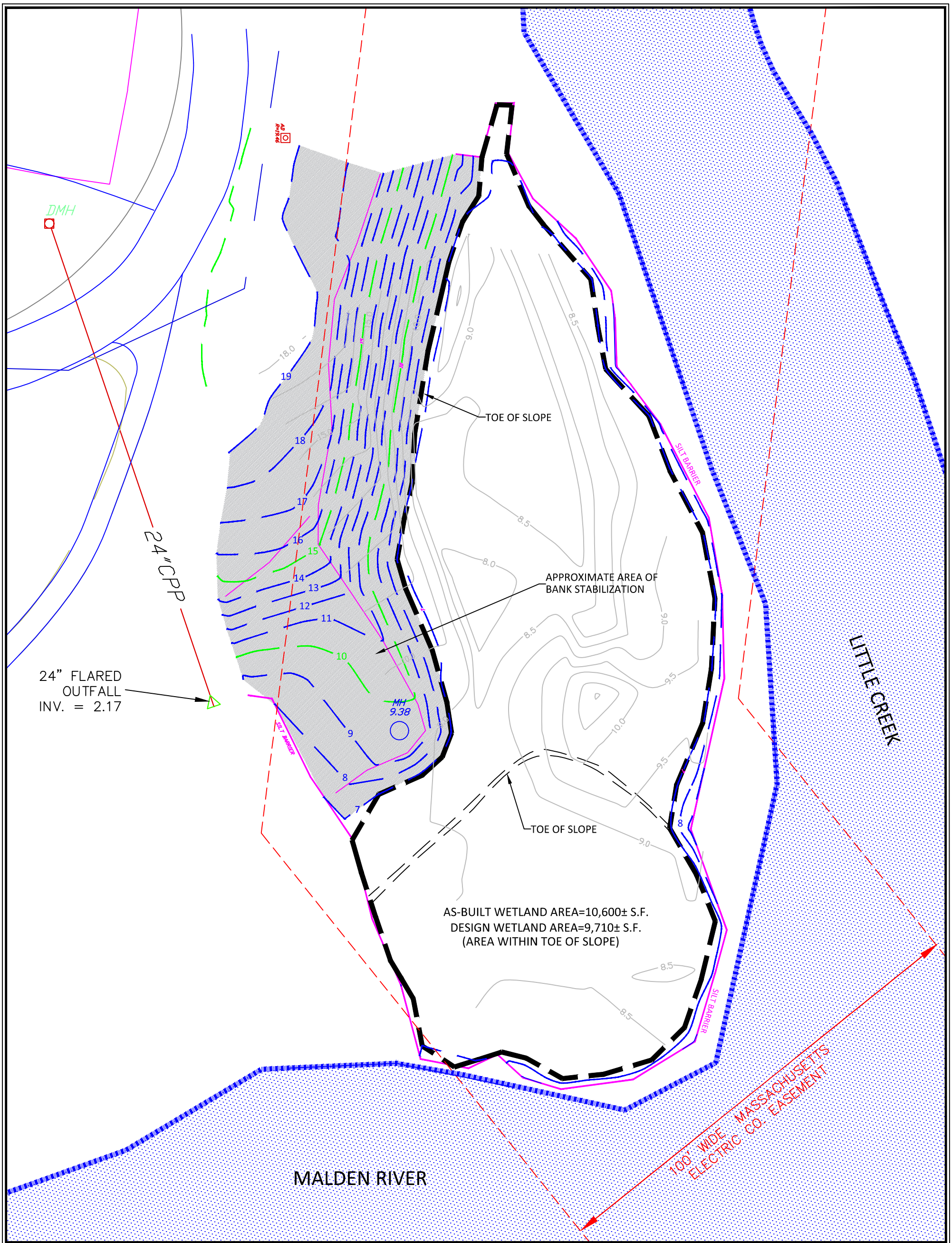
Approximate Scale In Feet

Date: JULY 2016

Job No: 449.19

Figure
4

NCA Nangle Consulting Associates, Inc. 45 Dan Road - Suite 115 Canton, Massachusetts



LEGEND

AS-BUILT CONTOUR

FORMER CONTOUR

SILT BARRIER

NOTES

REFERENCE:
Electronic file from PLA, sent on 1/4/16.

SKETCH PLAN OF SITE
WETLAND RESTORATION AREA

RIVER'S EDGE
MEDFORD, MASSACHUSETTS

AS-BUILT WETLAND
BANK STABILIZATION AREA

0 10 20

Approximate Scale In Feet

Date: JULY 2016

Job No: 449.19

Figure 5

NCA Nangle Consulting Associates, Inc. 45 Dan Road - Suite 115 Canton, Massachusetts

NANGLE CONSULTING ASSOCIATES, INC

APPENDIX A

Environmental Engineering and Land Use Planning

45 Dan Road - Suite 115 Canton, MA 02021 Telephone (781) 821-0521 email: nangle@ncaenv.com Facsimile (781) 821-4182

P1

P2

P3

P4

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Date: JULY 2016

P5

P6

P7

P8

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P9

P10

P11

P12

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P13

P14

P15

P16

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P17

P18

P19

P20

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Job No: 449.19

Date: JULY 2016