DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

FEB 04 2015

Operations Division

WRI West Land Development, Inc.
12480 Mattawoman Drive
PO BOX 548
Waldorf, Maryland 20601

APPLICANT'S EXHIBIT 4/14/15
9 DOCKET # 1325

Charles County Government
P.O. Box 2150
La Plata, Maryland 20646

Dear Sirs:

This is in reference to your application for a Department of the Army (DA) permit, CENAB-OP-RMS (WALDORF CROSSING-PROPERTY/WESTERN PARKWAY PHASE 2&3) 2007-66063 dated May 8, 2013, for work proposed in jurisdictional wetlands and unnamed tributaries that drain to Mattawoman Creek, at the property known as Waldorf Town Center, located at the intersection of U.S. 301 at Maryland Route 5, Charles County, Maryland.

You are requested to indicate your acceptance of the terms and conditions set forth in the enclosed permit by placing your signature and the date on the permit where indicated. Please note that on March 28, 2000, the final rule was established for an administrative appeal process for the Regulatory Program of the Corps of Engineers for approved jurisdictional determinations (JD), permit denials, and declined individual permits. Enclosed you will find a Notification of Administrative Appeal Options and Process (NAO/NAP) fact sheet and Request for Appeal (RFA) form. You may accept or object to this initial proffered permit.

To accept this initial proffered permit and the approved jurisdictional determination associated with this permit, you may sign the permit document and return the signed and dated permit to this office for final authorization. A self-addressed, franked envelope is enclosed for this purpose. Please write your application number, as shown in the first paragraph of this letter, and name on the mailing envelope. Your signature on this permit or undertaking any activity in reliance on a Corps permit authorization means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and the approved JD associated with this permit.

Upon receipt of the signed permit, the permit will be validated with the appropriate District signature and returned to you. Failure to submit a copy of the signed permit and initiating the work before receiving the validated permit from the District, could result in Federal enforcement proceedings. You are also advised that you are responsible for

obtaining all other required state and/or local authorizations before starting construction on any of the work approved by this DA permit.

To object to the permit because of certain terms and conditions therein, a letter outlining your objections to this initial proffered permit, including any additional information to clarify your objections, must be received by our District Engineer at the address below by APR 0 4 2015, or you will forfeit your right to appeal the permit in the future. The letter must be mailed to the following address:

Commander, Baltimore District
U.S. Army Corps of Engineers
Attn: CENAB-OP-R
P.O. Box 1715
Baltimore, Maryland 21203-1715

Please note that if you decline this initial proffered individual permit, you do not have a valid permit to conduct regulated activities in waters of the United States, and must not begin construction of the work requiring a Corps permit unless and until you receive and accept a valid Corps permit.

If we do not receive the signed permit or a letter indicating your objections to the DA permit by APR 0 4 2015, we will assume you are no longer interested in the project and we will withdraw your application. The original application and plans will be returned to you and, if at a later date, you want to pursue the project again, you may resubmit your application.

This letter also contains an approved jurisdictional determination. Those areas indicated as waters of the United States, including jurisdictional wetlands shown within the review area on the enclosed drawings dated July 26, 2012, are regulated by this office pursuant to Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act. Enclosed is an Approved Jurisdictional Determination form that outlines the basis of our determination of jurisdiction over the review area noted above. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR 331. If you request to appeal this determination, you must submit a completed RFA form to the North Atlantic Division Office at the following address:

Regulatory Appeals Review Officer
North Atlantic Division
U.S. Army Corps of Engineers
Fort Hamilton Military Community
General Lee Avenue, Building 301
Brooklyn, NY 11252-6700

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by APR 04 2015. It is not necessary to submit an RFA form to the Division office if you do not object to the determination in this letter.

This approved jurisdictional determination associated with this permit is valid for five years from the date of this letter or until the Corps permit expiration date, whichever is less, unless new information warrants a revision before the expiration date, or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.

Enclosed is a compliance self-certification form. Upon completion of the authorized work and required mitigation, you are required to complete the enclosed compliance certification form and return it to the address indicated thereon.

A copy of this letter is being furnished to Maryland Department of the Environment – Nontidal Wetlands Division, for informational purposes. If you have any questions concerning this matter, please contact Mr. Steven Harman of this office at 410-962-6082.

Sincerely,

Kathy Anderson

Kathy B. Anderson
Chief, Maryland Section Southern

Enclosures

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

DEPARTMENT OF THE ARMY PERMIT

Application Name and Permit Number: CENAB-OP-RMS **(WALDORF CROSSING PROPERTY/WESTERN PARKWAY PHASE 2 & 3) 2007-66063**

Issuing Office:

U.S. Army Engineer District, Baltimore
Corps of Engineers
P.O. Box 1715
Baltimore, MD 21203

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

To construct a deceleration lane along southbound Crain Highway/U.S. Route 301 that would permanently impact approximately 12,319 square feet of forested non-tidal wetlands and 1,105 square feet of a jurisdictional pond (Impact sheet 1); to construct a Western Parkway road crossing by installing a 48-inch reinforced concrete pipe (RCP) under Western Parkway at the Mattawoman Drive interchange that will permanently impacting 1,074 square feet along approximately 268 linear feet of stream channel (Impact sheet 2); to construct a Western Parkway road crossing by constructing three 14-inch high by 23-inch wide horizontal elliptical reinforced concrete pipes (HERCP) with riprap scour pads upstream and downstream permanently impacting approximately 14,040 square feet of non-tidal wetlands and 330 square feet along 63 linear feet of stream channel (Impact sheet 4); to construct a Western Parkway road crossing by constructing two 3-foot high by 6-foot wide box culverts with riprap scour pads upstream and downstream permanently impacting approximately 11,235 square feet of forested non-tidal wetlands and 2,133 square feet along 214 linear feet of stream channel (Impact sheet 5); to construct an extension of Mattawoman Drive by installing a 48-inch RCP permanently impacting 983 square feet along 246 linear feet of stream channel (Impact sheet 6); to construct and unnamed interior road by installing a 48-inch RCP that will permanently impact 937 square feet of forested non-tidal wetlands and 781 square feet

along 195 linear feet of stream channel (Impact sheet 7); to install approximately 48 linear feet of 12-inch sanitary sewer pipe temporarily impacting approximately 871 square feet of forested non-tidal wetlands (Impact sheet 8); to replace an existing 8-inch high density polyethylene (HDPE) culvert with a 48-inch RCP permanently impacting 290 square feet along 94 LF of stream channel (Impact sheet 13); to complete the final portion of Phase 2 of the Western Parkway (adjacent to Holly Lane) by replacing and extending the existing 12-inch corrugated metal pipe (CMP) culvert approximately 14 linear feet and permanently impacting approximately 75 square feet along 25 linear feet of stream channel and 4,995 square feet of emergent non-tidal wetlands (Impact sheet 16).

To mitigate for the above impacts, two degraded/erosive stream channels will be restored/enhanced and approximately 0.66 acres of forested non-tidal wetlands will be created. Stream 1 will impact 6,271 square feet along approximately 1,030 linear feet of stream channel. Stream 2 will impact approximately 755 SF of non-tidal wetlands and 3,070 square feet along 155 linear feet of stream channel. In addition, approximately 1.45 acres of riparian buffer will be restored along stream 1 and approximately 0.3 acres of riparian buffer will be restored along stream 2. The combined total permanent impacts associated with the stream mitigation are approximately 755 square feet of forested non-tidal wetlands and 9,341 square feet along 1,185 linear feet of stream channel.

Project Location: The work is in jurisdictional wetlands and unnamed tributaries that drain to Mattawoman Creek, at the property known as Waldorf Town Center, located at the intersection of U.S. 301 at Maryland Route 5, Charles County, Maryland.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2020. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this

office of what you have found. We will initiate the Federal and state coordination required to determi. if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with conditions specified in the certification as special conditions to this permit.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

7. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

Special Conditions:

1. In addition to the general conditions, you must comply with the enclosed special conditions attached hereto and made a part hereof. (See Attachment #1).

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

( ) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law or to comply with the appropriate local critical area regulations.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of

legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

3/2/15

(PERMITTEE) (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Issued for and in behalf of Colonel J. Richard Jordan, III

Kathy B. Anderson Date
Chief, Maryland Section Southern
Regulatory Branch

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE) (DATE)

ATTACHMENT 1
SPECIAL CONDITIONS
CENAB-OP-RMS (WALDORF CROSSING PROPERTY/WESTERN PARKWAY PHASE 2 & 3) 2007-66063

General Project Conditions:

1. Instream work must not be conducted from 1 March through 15 June, inclusive of any year.

2. The permittees must restore all temporarily impacted wetlands and stream banks, to preconstruction condition or better and any debris entering the waterway must be removed. Instream work must be conducted in the dry, (i.e., stream flow must be diverted or piped around the work area). Strict sedimentation and erosion control measures as indicated in the local sediment and erosion control plans must be implemented.

3. Utility lines installed by trenching method below the plane of the ordinary high water mark of any stream or waterway must be constructed under dry conditions, using stream diversion other than earthen cofferdams. In wetlands, the top 6 to 12 inches of the trench must be backfilled with the top 6 to 12 inches of topsoil removed from the trench.

4. Permanent culvert pipes that are greater than 24-inches in diameter must be countersunk a minimum of 12 inches below the natural stream invert.

5. The permittees must not store or use chemicals, stockpile materials and equipment, or park vehicles within waters of the U.S., including jurisdictional wetlands.

6. Within 60 days after project completion, the permittees must conduct an as-built survey, to scale, depicting the actual dimensions and locations of the completion of work within waters of the U.S., including jurisdictional wetlands, and must submit the survey to the Corps and notify the Corps to coordinate a compliance site visit.

    a. The as built project plans survey must depict actual grading elevations and vegetation zones as well as include permanent cross-sectional transect locations and include all dimensions, as a baseline to determine if stream or wetland transformation occurs as a result of the project. This baseline should include photographic documentation; channel cross section; pattern and profile; ordinary high water mark; and channel and structure stability in relationship to permanent survey markers that must be installed. These documents must include as-built latitude/longitude coordinates and surveyed plans. The plans must also identify any project component that deviates from the attached approved plans and describe in detail the rationale for the deviation from the authorized plan.

Compensatory Mitigation Conditions:

7. All the compensatory mitigation work must be done in accordance with the proposed Waldorf Crossing/Western Parkway Phase 2 & 3 mitigation plans dated 18 September 2013.

   a. The permittees must mitigate for authorized stream impacts by restoring a total of approximately 9,270 square feet along 1,185 linear feet of stream channel. Stream restoration/enhancement must be completed by elevating the incised stream bed to reconnect the stream with the floodplain; creating step pool structures; armoring the streambed; and removing debris, a concrete pad and invasive plant species.

   b. Approximately 1.54 acres of riparian buffer must be restored by removing debris and trash; removing invasive plant species; and replanting with native riparian plant species.

   c. The permittees must create 0.66 acres of forested wetlands with native woody wetland plant species in the area of the existing athletic field that is adjacent to and within the Mattawoman Creek floodplain.

   d. The permittees must remove a building and waste lagoon associated with an abandoned dairy plant and restore 0.01 acres of non-tidal wetlands at that site.

   e. The permittee must provide to the Baltimore District a copy of the purchase agreement for the 2.62 acres at the permittees responsible mitigation site known as Port Tobacco II Mitigation Site located on Maryland Route 225, in the Port Tobacco watershed, near La Plata, Charles County, Maryland.

      i. The permittees must submit to the Baltimore District a copy of the two most recent monitoring reports that were submitted to the Maryland Department of the Environment for the parcel within the Port Tobacco II Consolidated Mitigation Site that was purchased as compensatory mitigation for this project.

      ii. Within 30 days of the date of this permit, the permittees must provide copies of the wetland monitoring reports for the Port Tobacco II Mitigation Site parcel containing the non-tidal wetland mitigation area designated as compensation for the authorized impacts.

      iii. Future monitoring reports, that completes a total five year period, including past reports, must be submitted to the Corps for our review.

iv. Within 30 days of the date of this permit, the permittees must provide to the Baltimore District a copy of the signed purchase agreement for the 2.62 acre of mitigation credit at the "Port Tobacco II" Consolidated Mitigation Site.

8. The mitigation work must commence concurrently with or prior to construction of the authorized impacts and must be completed no later than 180 days from the mitigation project construction commencement date.

9. Within 60 days after the stream, riparian planting and wetland mitigation project completions, or before, the permittees must identify the party responsible for monitoring and inspecting the project site to comply with the conditions set forth herein.

10. The permittees must notify and provide to the Corps, a detailed description of any necessary corrective measures, including maintenance and repair, or alteration in any way, of the permitted mitigation work no later than 15 days prior to performance of such corrective measures for review and approval.

11. Within 60 days after stream, riparian planting and wetland and mitigation project completions, or before, the permittees must identify the party responsible for monitoring and inspecting the project sites to comply with the conditions set forth herein. The monitor must not be the party responsible for project design and construction. The monitor must contact the Corps for approval of any project changes prior to construction of any deviation from the authorized work.

12. Within 60 days after stream, riparian planting and wetland mitigation project completions, the permittees must conduct as-built surveys, to scale, and must submit the surveys to the Baltimore District to coordinate a compliance site visit.

    a. The as built project plans must depict actual grading elevations and vegetation zones of the stream, riparian planting and wetland mitigation projects. For the stream restoration/enhancement project the as built surveys must also include permanent cross-sectional transect locations and include all dimensions, as a baseline to determine if stream transformation occurs as a result of the project. This baseline should include photographic documentation; channel cross section; pattern and profile; ordinary high water mark; and channel and structure stability in relationship to permanent survey markers that must be installed. The plans must also identify any project component that deviates from the attached approved plans and describe in detail the rationale for the deviation from the authorized plan.

Compensatory Mitigation Performance Standards

13. The permittees must remove debris and sediments within the stream, riparian planting and wetland mitigation project areas that may affect the integrity of the structures and determine if any remedial work is necessary. The permittees must maintain the as-built integrity of the authorized stream mitigation by retrieving any materials that may be dispersed outside of the boundaries of the structures and restoring the structures to the designed placement and must ensure that the mitigation is functionally mature and self-sustaining.

14. The permittees must notify and provide to the Baltimore District, a detailed description of any necessary corrective measures, including maintenance and repair, or alteration in any way, of the permitted stream, riparian planting and wetland mitigation projects no later than 15 days prior to performance of such corrective measures for review and approval. The permittees is not relieved of this requirement if the permittees abandons the permitted activity. Should the permittees wish to cease to maintain the authorized activity or should the permittees desire to abandon it without a good faith transfer, the permittees must obtain a modification of this permit from this office, which may require restoration of the areas.

    a. Stream mitigation:

        i. A dedicated stream specialist with specific experience in the design and construction of stream stabilization measures must provide onsite supervision during all aspects of the stream restoration project construction. The stream specialist must contact the Corps for approval of any project changes prior to construction of any deviation from the authorized work.

    b. Riparian mitigation

        i. At the end of the second growing season, the permittees must achieve a minimum of 55% survival rate of nursery stock planted or 435 trees per acre including any natural regeneration.

        ii. As the riparian planting area performance standards are achieved and the District determines that the riparian areas are functionally mature and self-sustaining, the inspection and documentation requirement during the monitoring period may be reduced or eliminated, upon written approval by this office.

    c. Wetland mitigation

        i. The permittees must ensure that both the onsite wetland enhancement and creation work and wetlands previously created at the Port Tobacco II Mitigation site will result in 85% hydrophytic vegetation (facultative or wetter) by the end of the 5-year establishment period and must have

saturation to the surface (within 10-inches) for a minimum of 12.5% of the growing season (approximately 27 days). If these parameters are not met, the permittees must determine reasons for failure and take remedial measures. The permittees must ensure that the created or enhanced wetlands meet the Federal wetland criteria outlined in the report entitled "Corps of Engineers Wetlands Delineation Manual", dated January 1987, with current Corps of Engineers guidance within five years of completion of the wetland creation and enhancement mitigation sites.

15. If the stream, riparian planting and wetland mitigation projects cannot be constructed in accordance with the approved plans, or if monitoring or other information indicates that the project is not progressing towards meeting its performance standards as anticipated, the permittees must notify the Baltimore District immediately and provide recommended remedial actions for Baltimore District review and approval. Any modifications to the authorized project, requires prior approval from the Baltimore District.

16. The permittees must assume all liability for accomplishing the corrective work should the Baltimore District determine that the stream, riparian planting and wetland mitigation projects have not been fully satisfactory in meeting their stated goals or has an adverse effect on aquatic resources. If the Baltimore District does not find the stream, riparian planting and wetland mitigation projects satisfactory, the permittees will be required to develop a remediation plan and an extension of monitoring time may be required to cover any necessary remedial work.

Mitigation Monitoring

17. For a period of 5 years after stream, riparian planting and wetland mitigation project construction, the permittees must quarterly, and after any major storm event, such as hurricanes and nor'easters, inspect and document the stream, riparian planting and wetland mitigation areas to determine if there has been deterioration of planted stock or structures as a result of the storm events. For the stream and riparian planting mitigation sites, the annual inspections should include a visual inspection within eyesight of at least 200 feet downstream to determine if excess sedimentation occurs in the stream and/or wetlands downstream of the project area as a result of these projects.

18. The permittees must monitor the stream, riparian planting and wetland mitigation project areas for 5 consecutive years after mitigation work is completed. A monitoring report summarizing the findings of the monitoring must be submitted to the Baltimore District no later than December 31 of each year. The report must include information describing the success or failure of the stream, riparian planting

and wetland creation areas; a description of any necessary remedial actions; and prescribed remedial actions with a time frame for implementing such actions. The monitoring report must include, but not be limited to, the following additional information:

a. A narrative description of each of the mitigation areas (stream, riparian planting and wetland creation) and work efforts.
b. A narrative description of observed failures/problems such as structure failure, erosion, siltation or plant die-off.
c. Dates of site inspections.
d. Description of species and measurements of any planted vegetative coverage.
e. Photographic documentation, in digital form, taken within the same time frame during each monitoring year at established photographic plot points.
f. Copies of field data sheets and/or forms.
g. Description of the presence of invasive species and remedial actions to eradicate these plants.
h. Documentation, including completion dates of remedial actions completed.

The monitoring reports must identify and evaluate changes in cross-section; pattern and profile; bed material; channel stability; structural stability and condition; a description of soil profiles 18 inches below the bottom of the pool bottom; and vegetation viability. The monitoring effort must include topographic surveys of monumental cross-sections within the project area, visual field observations, photographic documentation, vegetation viability measurements, and identify any necessary corrective measures.

19. If the mitigation areas do not thrive, the reasons for failure must be determined; corrective measures must be taken and the areas replanted. Remedial measures that may be taken include, but are not limited to; regrading; replanting; excavation; placement of fill or substrate amendments; removing sediment; altering hydrology; and controlling exotic species, weeds, and wildlife. An extension of the monitoring time may be required to cover any necessary remedial work.

Mitigation Monitoring Reports:

20. The permittees must provide annual reports (one hard copy and one digital copy) for five years. The annual reports are due to this office within 60 days of the conclusion of each year. The annual reports must include a compilation and analysis of the reports outlined in condition #18 above and the following: identification and evaluation of any changes in channel cross-section; pattern and profile; channel stability (channel migration/aggradation/degradation); structure stability and condition; stream bed materials composition; a comparison of pre-construction and

post construction project conditions; a description of any maintenance performed or needed; and photographic documentation.

Conservation Area Protective Instruments:

21. Within 90 days of the date of this letter, the permittees must permanently preserve the on-site stream, riparian planting and wetland mitigation areas by through recording of a Declaration of Restrictive Covenants attached which must be recorded in the land records of Charles County within (90) days of this authorization. The Declaration must attach a description of the mitigation area to be preserved including the acreage preserved, the site plan and a metes and bounds description of the mitigation site.

22. Within 90 days of the date of this letter, the permittees must permanently preserve the off-site wetland creation at the Port Tobacco II Consolidated Mitigation Site through recording of a Declaration of Restrictive Covenants attached which must be recorded in the land records of Charles County within (90) days of this authorization. The Declaration must attach a description of the mitigation area to be preserved including the acreage preserved, the site plan and a metes and bounds description of the mitigation site.

Financial Assurances

23. The permittees must comply with the ***Mitigation Construction Performance Bond*** to be executed in the amount of $371,000, to provide financial assurance for the performance of all of the obligations, covenants, terms, conditions and agreements required of the Permittee under this authorization. The executed Mitigation Construction Performance Bond must be posted within 60 days of permit issuance or prior to commencement of impacts to aquatic resources, whichever occurs first. Once the Baltimore District determines that the wetland and stream mitigation projects are functionally mature and self-sustaining in accordance with the performance criteria, the performance bond may be phased-out or reduced, upon written approval by this office.

24. The permittee must comply with the ***Mitigation, Maintenance and Monitoring Performance Bond*** to be executed in the amount of $284,050, to provide financial assurance for the performance of all of the obligations, covenants, terms, conditions and agreements required of the Permittee under this authorization. The executed Mitigation, Maintenance and Monitoring Performance Bond must be provided to our office within 30 days prior to completion of the required mitigation. Once the Baltimore District determines that the wetland and stream mitigation projects are functionally mature and self-sustaining in accordance with the performance criteria, the performance bond may be phased-out or reduced, upon written approval by this office.

25. The permittees must renew the bonds at each 2-year interval so that the surety remains active for the entire construction period and for the 5-year monitoring period until monitoring concludes.

Other:

26. The permittees must maintain the work authorized herein, in good condition and in conformance with the terms and conditions of this permit.

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): FEB 04 2015

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CENAB-OP-RMS (WALDORF CROSSING –PROPERTY/WESTERN PARKWAY PHASE 2 & 3)2007-66063

PROJECT LOCATION AND BACKGROUND INFORMATION: Reaches: Four stream reaches, three abutting non-tidal wetlands on a 140-acre property referred to as Waldorf Crossing.

State: **Maryland** County/parish/borough: **Charles** City: **Waldof**
Center coordinates of site (lat/long in degree decimal format): Lat. **38.39. 50**. Long. **-76.53.00**

Name of nearest waterbody: **in unnamed tributaries to Mattawoman Creek**
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: **Potomac River**
The site is located north of the intersection of U.S. Route 301 and Maryland Route 5, Waldorf, Charles County, Maryland. The site west of U.S. 301 drains west into tributaries that drain into Mattawoman Creek, which drains into the Potomac River, an interstate tributary of the Chesapeake Bay, a traditional navigable waterway.
Name of watershed or Hydrologic Unit Code (HUC): **Mattawoman Creek 02130502**

- ☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
- ☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- ☐ Office (Desk) Determination. Date: N/A
- ☒ Field Determination. Date(s): **19 April 2013 and 4 September 2013**

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There are not "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

- ☐ Waters subject to the ebb and flow of the tide.
- ☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
  Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There are and are not "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      - ☐ TNWs, including territorial seas
      - ☐ Wetlands adjacent to TNWs
      - ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      - ☐ Non-RPWs that flow directly or indirectly into TNWs
      - ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      - ☐ Impoundments of jurisdictional waters
      - ☒ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area: The project site consists of nontidal wetlands and nontidal streams. Total area of waters is approximately 12,000 square feet along 3,000 linear feet of jurisdictional waters, 30,000 square feet of wetlands.**

      The project impact area is indicated below.

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

c. **Limits (boundaries) of jurisdiction based on: 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual**
Elevation of established OHWM (if known): The OHWM is highly variable, and thus is unknown.

2. **Non-regulated waters/wetlands (check if applicable):**[3]

☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined not to be jurisdictional. Explain: **During the 19 April and 4 September 2013 Corps site visit, the Corps walked the limits of the streams and wetlands on the property on the west side of U.S. 301. On the property that is located on the east side of U.S. Route 301 is a waterbody (pond) located in low lying area that is approximately 2.5 acres in size and has no surface water connection to any stream and appears to be groundwater fed; therefore, based on US vs James Wilson 4th circuit case/CFR 328.3 (a)(3), the Baltimore District does not regulate the this isolated wetland.**

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**
Identify TNW:

Summarize rationale supporting determination:

2. **Wetland adjacent to TNW**
Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

(i) **General Area Conditions:**
Watershed size: [redacted]
Drainage area: [redacted]
Average annual rainfall: inches
Average annual snowfall: inches

(ii) **Physical Characteristics:**
(a) Relationship with TNW:

[3] Supporting documentation is presented in Section III.F.
[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

☐ fine shell or debris deposits (foreshore)
☐ physical markings/characteristics
☐ tidal gauges
☐ other (list):

☐ physical markings;
☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain:

Identify specific pollutants, if known:

(iv) Biological Characteristics. Channel supports (check all that apply):

☐ Riparian corridor. Characteristics (type, average width):
☐ Wetland fringe. Characteristics:
☐ Habitat for:
☐ Federally Listed species. Explain findings:
☐ Fish/spawn areas. Explain findings:
☐ Other environmentally-sensitive species. Explain findings:
☐ Aquatic/wildlife diversity. Explain findings:

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:
Properties:
Wetland size: acres
Wetland type. Explain:
Wetland quality. Explain:
Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:
Flow is: Pick List. Explain:

Surface flow is: Pick List
Characteristics:

Subsurface flow: Pick List. Explain findings:
☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:
☐ Directly abutting
☐ Not directly abutting
☐ Discrete wetland hydrologic connection. Explain:
☐ Ecological connection. Explain:
☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW
Project wetlands are Pick List river miles from TNW.
Project waters are Pick List aerial (straight) miles from TNW.
Flow is from: Pick List.
Estimate approximate location of wetland as within the Pick List floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:
Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

☐ Riparian buffer. Characteristics (type, average width):
☐ Vegetation type/percent cover. Explain:
☐ Habitat for:
☐ Federally Listed species. Explain findings:
☐ Fish/spawn areas. Explain findings:
☐ Other environmentally-sensitive species. Explain findings:
☐ Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**
   All wetland(s) being considered in the cumulative analysis: [redacted]
   Approximately ( ) acres in total are being considered in the cumulative analysis.
   For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

   Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☒ TNWs:
   - ☒ Wetlands adjacent to TNWs:

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
   - ☒ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: **The stream channels were flowing at the time of the two site visits, despite the area of review having no rain**

for approximately the last seven to ten days prior to the site visit. All the channels exhibit: development of bed and bank; development of an ordinary high water mark as indicated by a line below which no vegetation was rooted; sediment sorting; slight sinuosity with small point bars and meanders; the clearing of debris from within the channel; and the presence of flow. Chemical and biological assessments of the stream were not conducted and no additional flow data is available for this stream reach.

Provide estimates for jurisdictional waters in the review area (check all that apply):

☒ Tributary waters: Stream Reach A-1– 5000 square feet along 1250 linear feet
Stream Reach A-2– 2000 square feet along 900 linear feet
Stream Reach A-3– 1300 square feet along 750 linear feet
Stream Reach A-4– 1500 square feet along 250 linear feet

☐ Other non-wetland waters: acres.
Identify type(s) of waters:

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**

☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

☒ Tributary waters
☐ Other non-wetland waters:
Identify type(s) of waters:

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above.

Provide rationale indicating that wetland is directly abutting an RPW:
Wetlands A & B are immediately abutting the stream channel within the active floodplain and same topography setting as the streams.

☒ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area:
Wetland A – 0.24 ac; Wetland B – 0.02 ac

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area:

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area:

7. **Impoundments of jurisdictional waters.[9]**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

---

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain:
- ☐ Other factors. Explain:

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters:
- ☐ Other non-wetland waters:
  - Identify type(s) of waters:
- ☐ Wetlands:

F. **NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):**
- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☒ **Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR). The approximately 2.5-acre open water pond east of U.S. 301 is groundwater fed and has no direct or indirect connection to any streams.**

  - ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:
  - ☐ Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
- ☐ Non-wetland waters (i.e., rivers, streams):
- ☐ Lakes/ponds:
- ☐ Other non-wetland waters: List type of aquatic resource:
- ☐ Wetlands:

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
- ☐ Non-wetland waters (i.e., rivers, streams):
- ☐ Lakes/ponds:
- ☐ Other non-wetland waters: List type of aquatic resource:
- ☒ Wetlands:

SECTION IV: DATA SOURCES.

A. **SUPPORTING DATA. Data reviewed for JD (check all that apply** - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: **Vicinity map included in application and project plans.**
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: **Piscataway 1:24,000**
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: **Soil Survey of Charles County, 1974.**
- ☒ State/Local wetland inventory map(s): **National Wetland Inventory U.S. Department of the Interior, Piscataway quadrangle, Maryland 1988**
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): **Google Earth aerial photography using USGS imagery from 2007**
  or ☐ Other (Name & Date):

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[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

☒ Previous determination(s). File no. and date of response letter: **Previous determination for the site includes 2003-02307-4 (SOUTHSTAR LIMITED PARTNERSHIP/WALDORF CROSSING) issued October 8, 2003 and 2005-63863-19(SOUTHSTAR LIMITED PARTNERSHIP/WALDORF CROSSING)**

☐ Applicable/supporting case law:

☐ Applicable/supporting scientific literature:

☐ Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:

References:

Applicant: WRI LAND DEVELOPMENT/CHARLES CO	File Number: 2007-66063	Date: FEB 04 2015
Attached is:		See Section below
X	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the Baltimore District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations (JD) associated with the permit.

- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the Baltimore District Engineer. Your objections must be received by the Baltimore District Engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the Baltimore District Engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the Baltimore District Engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the Baltimore District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-PD-PSD-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the Baltimore District Engineer.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-PD-PSD-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the Baltimore District Engineer.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.

- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-PD-PSD-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the Baltimore District Engineer.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Ms. Sandy Zelen
U.S. Army Corps of Engineers, Baltimore District
ATTN: CENAB-OP-R
Regulatory Branch, Baltimore District
Baltimore, MD 21203-1715
(410) 962-6028 or 3670

If you only have questions regarding the appeal process you may also contact:
Mr. Michael G. Vissichelli
Administrative Appeals Review Officer
North Atlantic Division, Corps of Engineers Fort Hamilton
General Lee Avenue , Military Community Bldg. 301
Brooklyn, NY 11252-6700
Telephone: (718) 765-7163
Email: Michael.G.Vissichelli2@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

	Date:	Telephone number:
_____ Signature of appellant or agent.		

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

SUBJECT: CENAB-OP-RMS (WALDORF CROSSING-PROPERTY/WESTERN PARKWAY PHASE 2&3) 2007-66063

Name of Permittee: WRI West Land Development, Inc. and Charles County Government

Date of Issuance: FEB 04 2015

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

US Army Corps of Engineers
Baltimore District
CENAB-OP-R
P.O. Box 1715
Baltimore, Maryland 21203-1715

Please note that your permitted activity is subject to compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

Please complete the following information:

1. Date authorized work commenced: _____ 2. Date authorized work completed: _____

3. Was all work and any required mitigation, completed in accordance with your permit authorization, includi all general and/or specific conditions? YES___ NO ___

4. Explain in detail any deviations to the authorized work and/or mitigation (use additional sheets if necessa

_____

_____

5. Wetland Mitigation: Required? YES_____ NO_____ Required Completion Date _____

Completed? YES_____ NO_____ Mitigation Monitoring Reports Required? YES_____ NO____

6. Attach labeled photographs showing completed work including mitigation area(s).

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

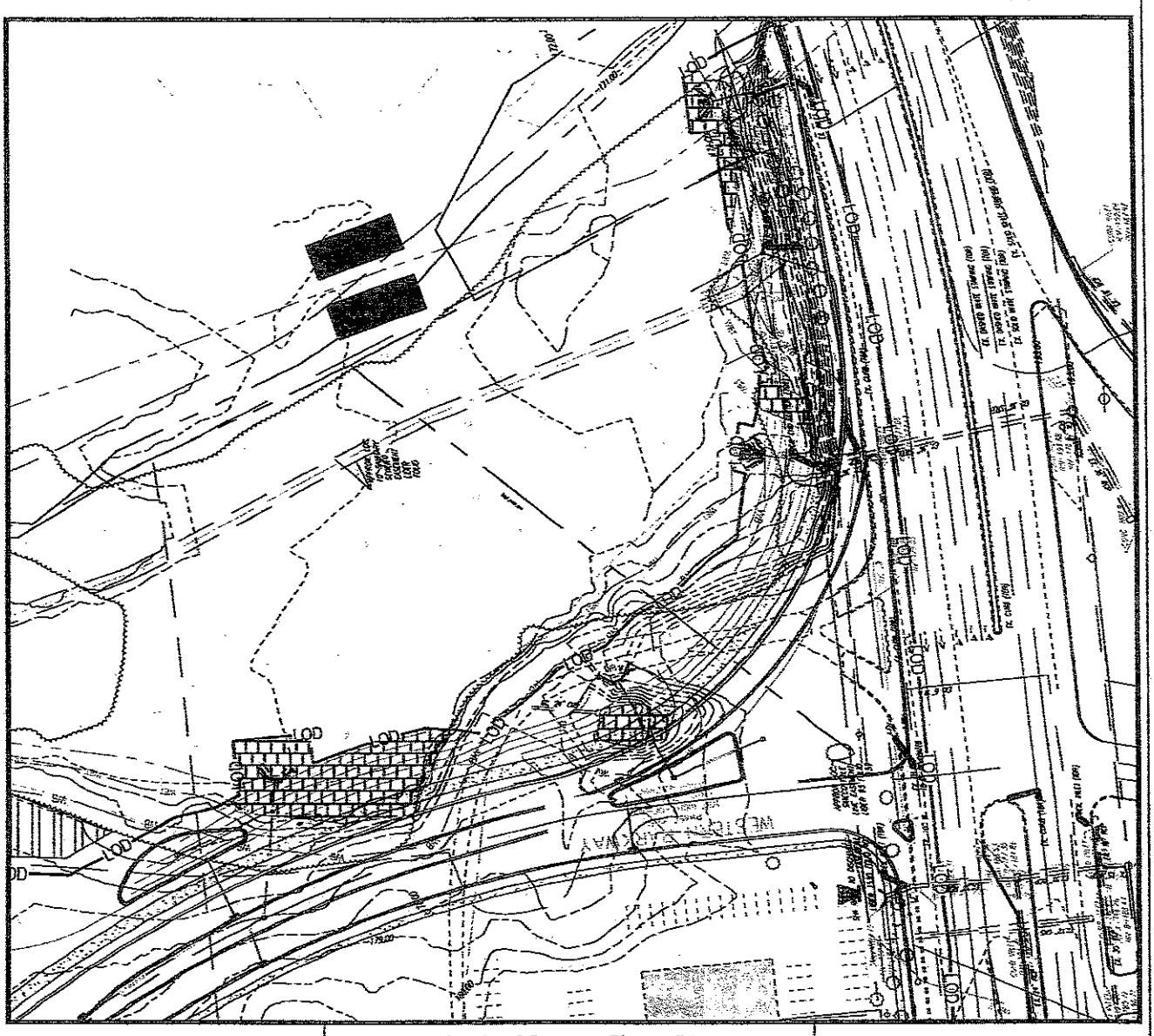
_____ _____

Signature of Permittee Date

AMERICAN LAND CONCEPTS
238 B MAIN STREET
REISTERSTOWN, MARYLAND 21136
PHONE: (410)-526-2688

north

Scale 1"=120'



IMPACTS:

Impacts shown above associated with the proposed Western Parkway will result in 12,319 SF of non-tidal wetland impacts, 21,356 SF of impacts to non-tidal wetland buffer, 50,252 SF of impacts to the floodplain and 1,105 SF of impacts to a man made pond.

Revised Impact Sheet #1

WALDORF CROSSING PROPERTY and WESTERN PARKWAY, PHASE III

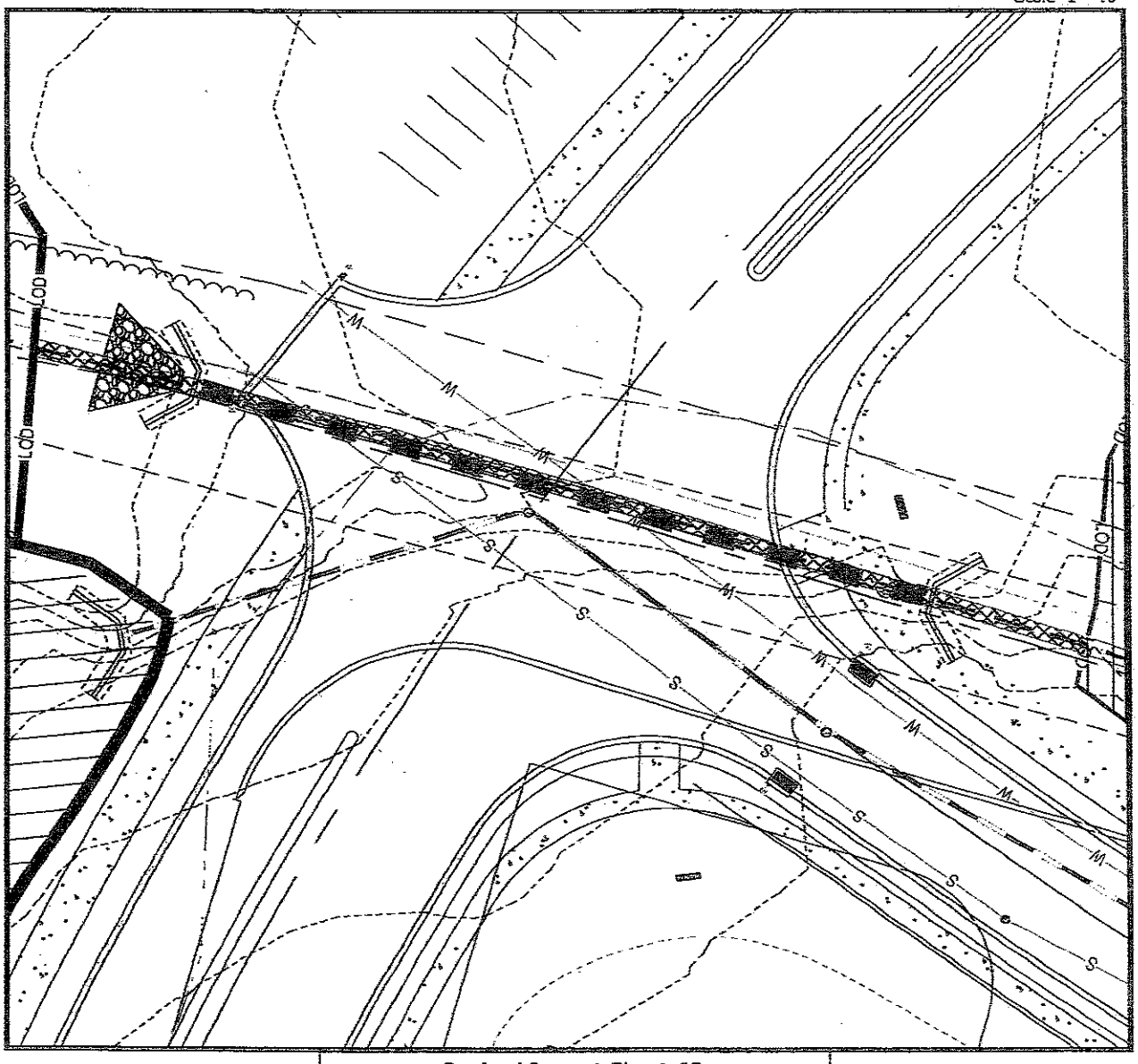
Charles County, Maryland
June 2008, Revised July 2010, August 2012, September 2013

= WETLAND IMPACT/ OPEN WATER IMPACT

AMERICAN LAND CONCEPTS
238 B MAIN STREET
REISTERSTOWN, MARYLAND 21136
PHONE: (410)-526-2688

north

Scale 1"=40'



IMPACTS:

Impacts shown above associated with the proposed Western Parkway will result in 268 LF (1,074 SF) of impact to intermittent stream.

Revised Impact Sheet #2

WALDORF CROSSING PROPERTY
and WESTERN PARKWAY, PHASE III

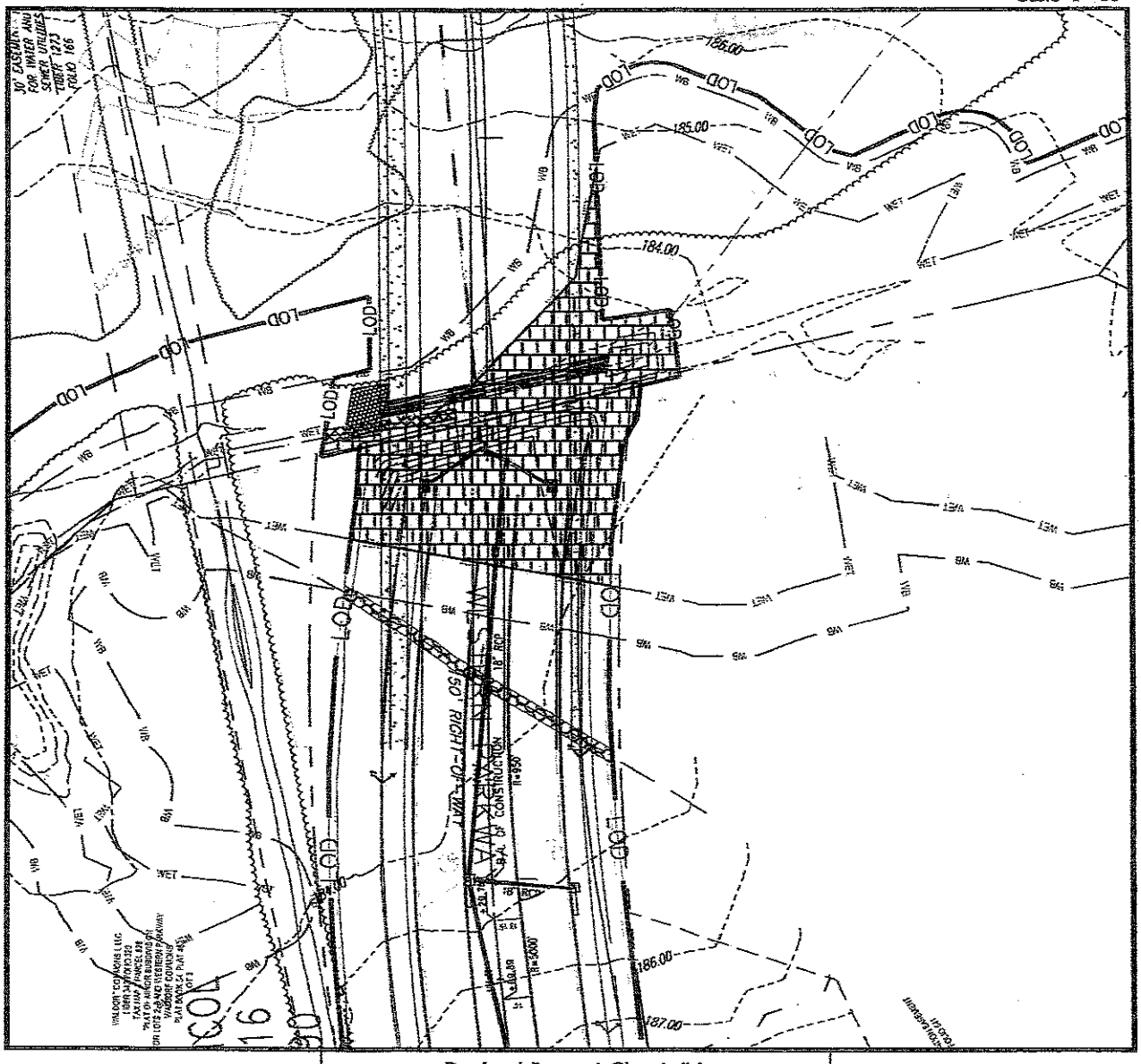
Charles County, Maryland
June 2008, Revised July 2010, August 2012, September 2013

= STREAM IMPACT

AMERICAN LAND CONCEPTS
238 B MAIN STREET
REISTERSTOWN, MARYLAND 21136
PHONE: (410)-526-2688

north

Scale 1"=80'



IMPACTS:

Impacts shown above associated with the proposed Western Parkway will result in approximately 14,040 SF of impact to wetlands, 8,450 SF of impact to wetland buffer, and 63 LF (330 SF) of intermittent stream. There will also be approximately 153 LF (918 SF) of ephemeral channel impacted by the construction of Western Parkway.

Revised Impact Sheet #4

WALDORF CROSSING PROPERTY
and WESTERN PARKWAY, PHASE III

Charles County, Maryland
June 2008, revised July 2010, August 2012,
September 2013

= WETLAND IMPACT/ OPEN WATER IMPACT

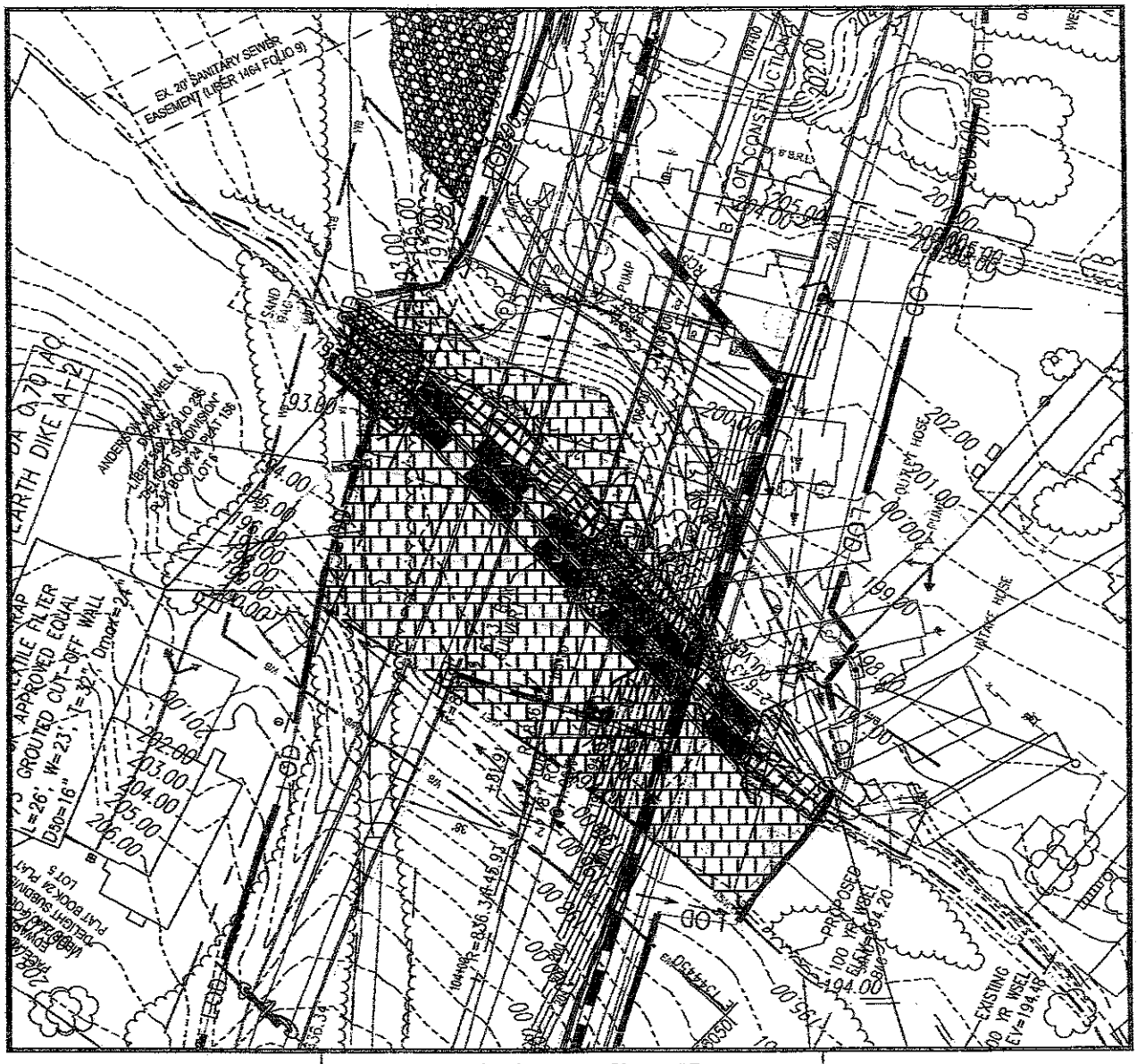
= STREAM IMPACT

= EPHEMERAL CHANNEL

AMERICAN LAND CONCEPTS
238 B MAIN STREET
REISTERSTOWN, MARYLAND 21136
PHONE: (410)-526-2688

north

Scale 1"=50'



IMPACTS:

Impacts shown above associated with the proposed Western Parkway will result in 11,235 SF of impact to wetlands, 22,521 SF of impact to wetland buffer, 214 LF (2,133 SF) of impact to perennial stream.

Revised Impact Sheet #5

WALDORF CROSSING PROPERTY
and WESTERN PARKWAY, PHASE III

Charles County, Maryland
June 2008, revised July 2010, August 2012, September 2013

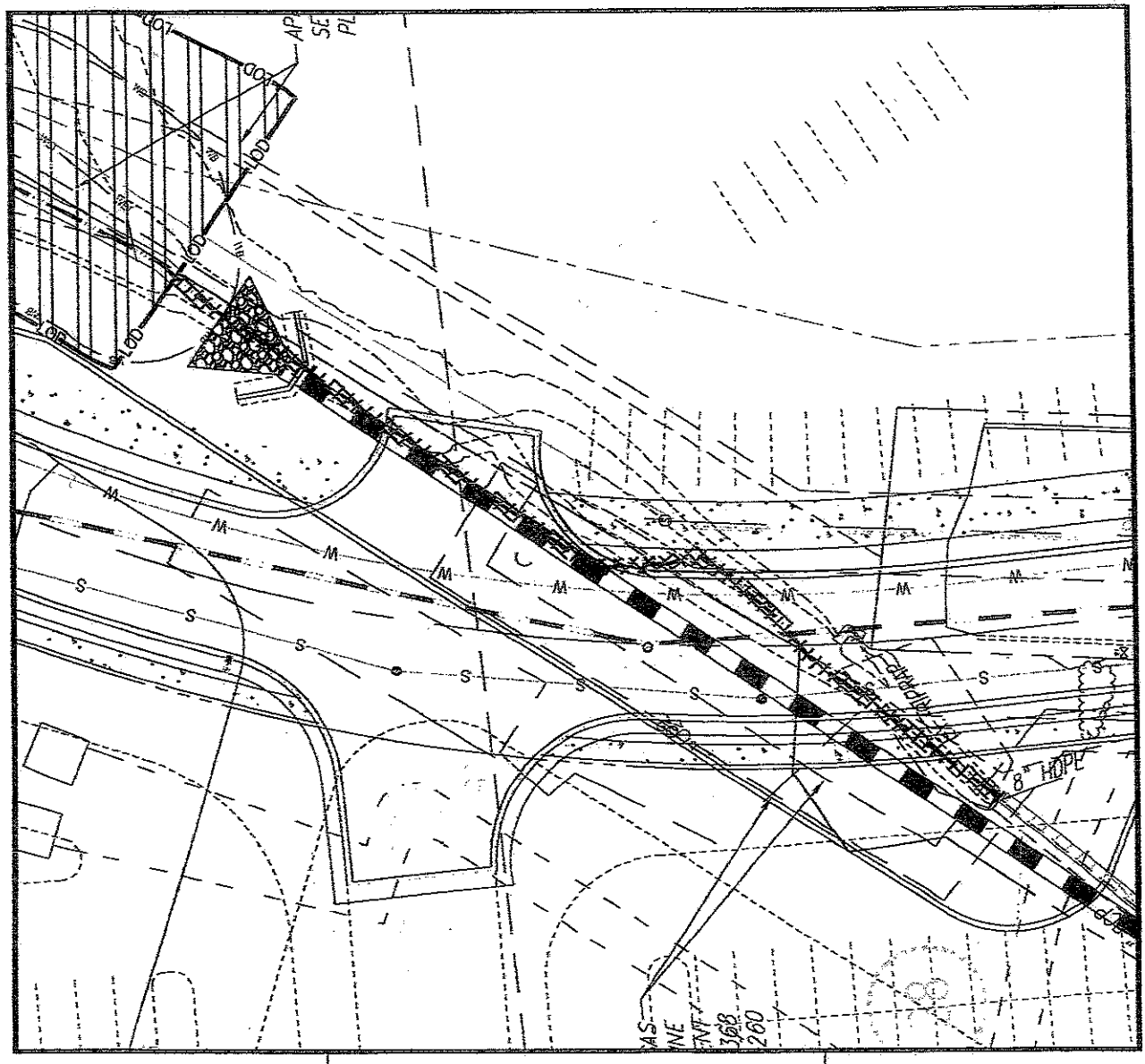
= WETLAND IMPACT/ OPEN WATER IMPACT

= STREAM IMPACT

AMERICAN LAND CONCEPTS
238 B MAIN STREET
REISTERSTOWN, MARYLAND 21136
PHONE: (410)-526-2688

north

Scale 1"=30'



IMPACTS:

Impacts shown above are associated with the proposed Matawoman Drive extension will result in impacts to 447 SF of nontidal wetland buffer and 246 LF (983 SF) of interemittent stream.

Revised Impact Sheet #6

WALDORF CROSSING PROPERTY and WESTERN PARKWAY, PHASE III

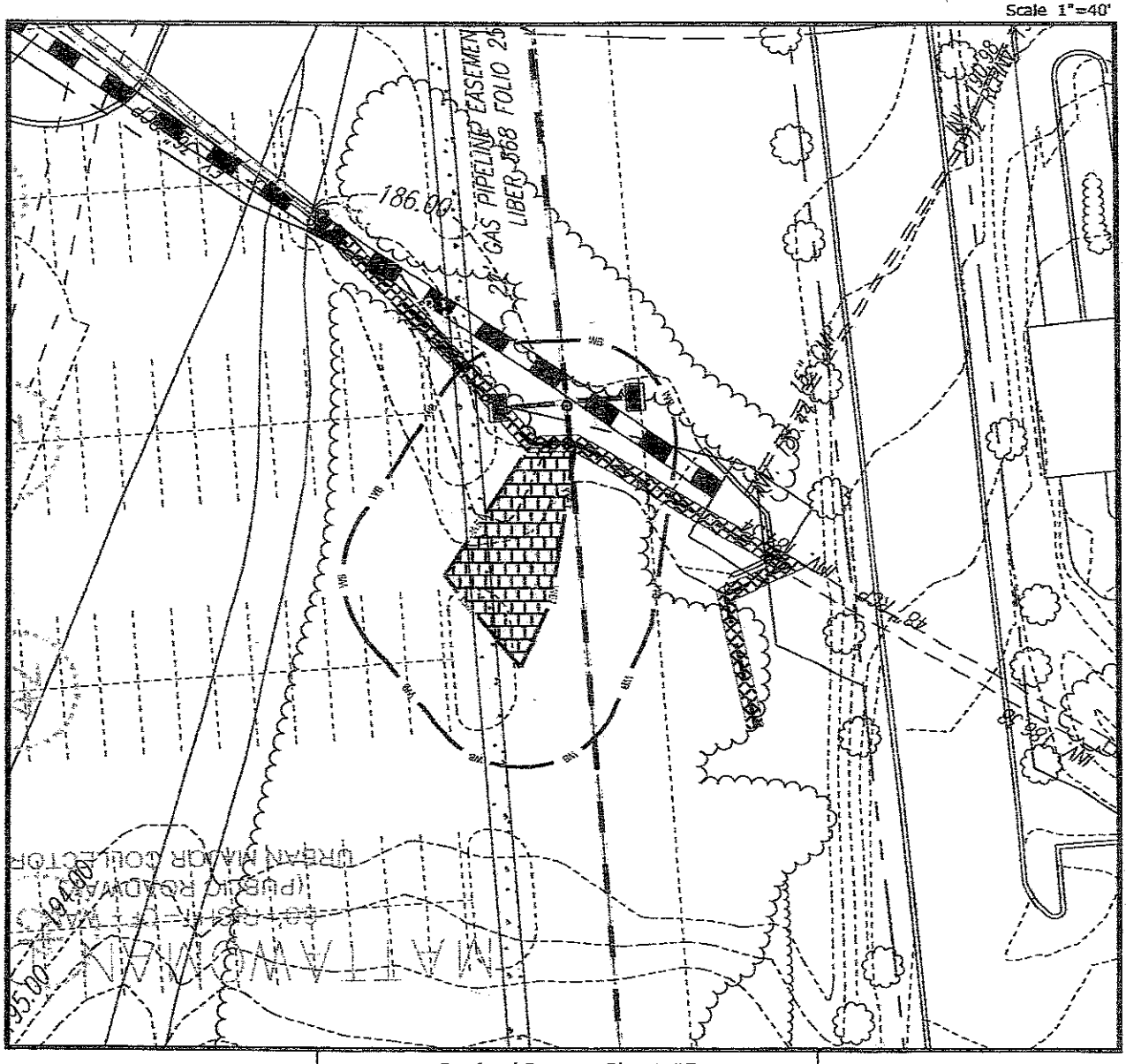
Charles County, Maryland
June 2008, revised July 2010, August 2012, September 2013

= STREAM IMPACT

AMERICAN LAND CONCEPTS
238 B MAIN STREET
REISTERSTOWN, MARYLAND 21136
PHONE: (410)-526-2688

north

Scale 1"=40'



IMPACTS:

Impacts shown above are associated with the proposed unnamed road will result in impacts to 937 SF of nontidal wetlands, 5,151 SF of nontidal wetland buffer, and 195 LF (781 SF) of interemittent stream.

Revised Impact Sheet #7

WALDORF CROSSING PROPERTY
and WESTERN PARKWAY, PHASE III

Charles County, Maryland
June 2008, revised July 2010, August 2012,
September 2013

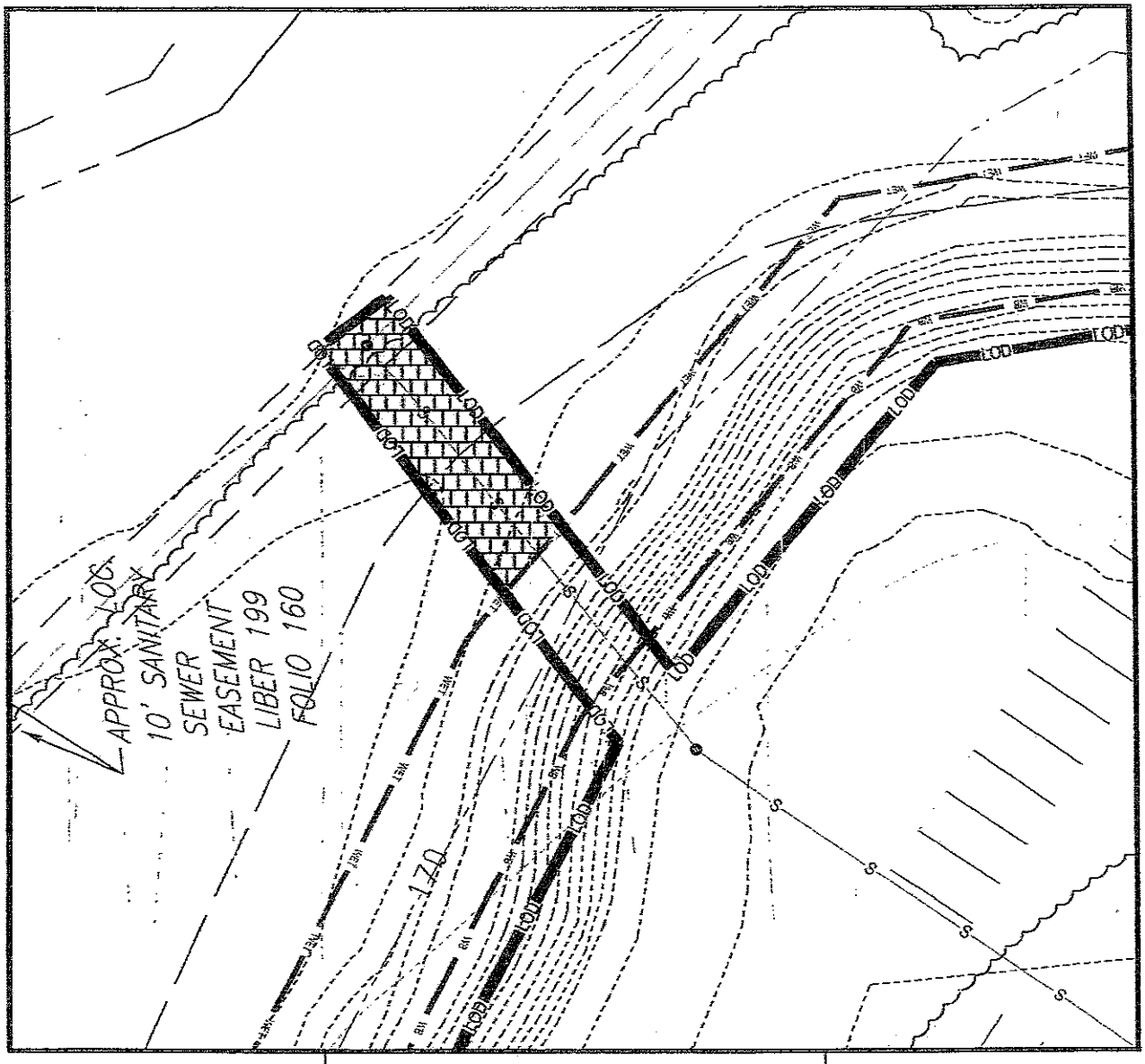
= WETLAND IMPACT/ OPEN WATER IMPACT

= STREAM IMPACT

AMERICAN LAND CONCEPTS
238 B MAIN STREET
REISTERSTOWN, MARYLAND 21136
PHONE: (410)-526-2688

north

Scale 1"=30'



IMPACTS:

Impacts shown above associated with connecting into an existing sewer line will result in temporary impacts to 871 SF of nontidal wetlands, 410 SF of nontidal wetland buffer, and 507 SF of floodplain.

Revised Impact Sheet #8

WALDORF CROSSING PROPERTY and WESTERN PARKWAY, PHASE III

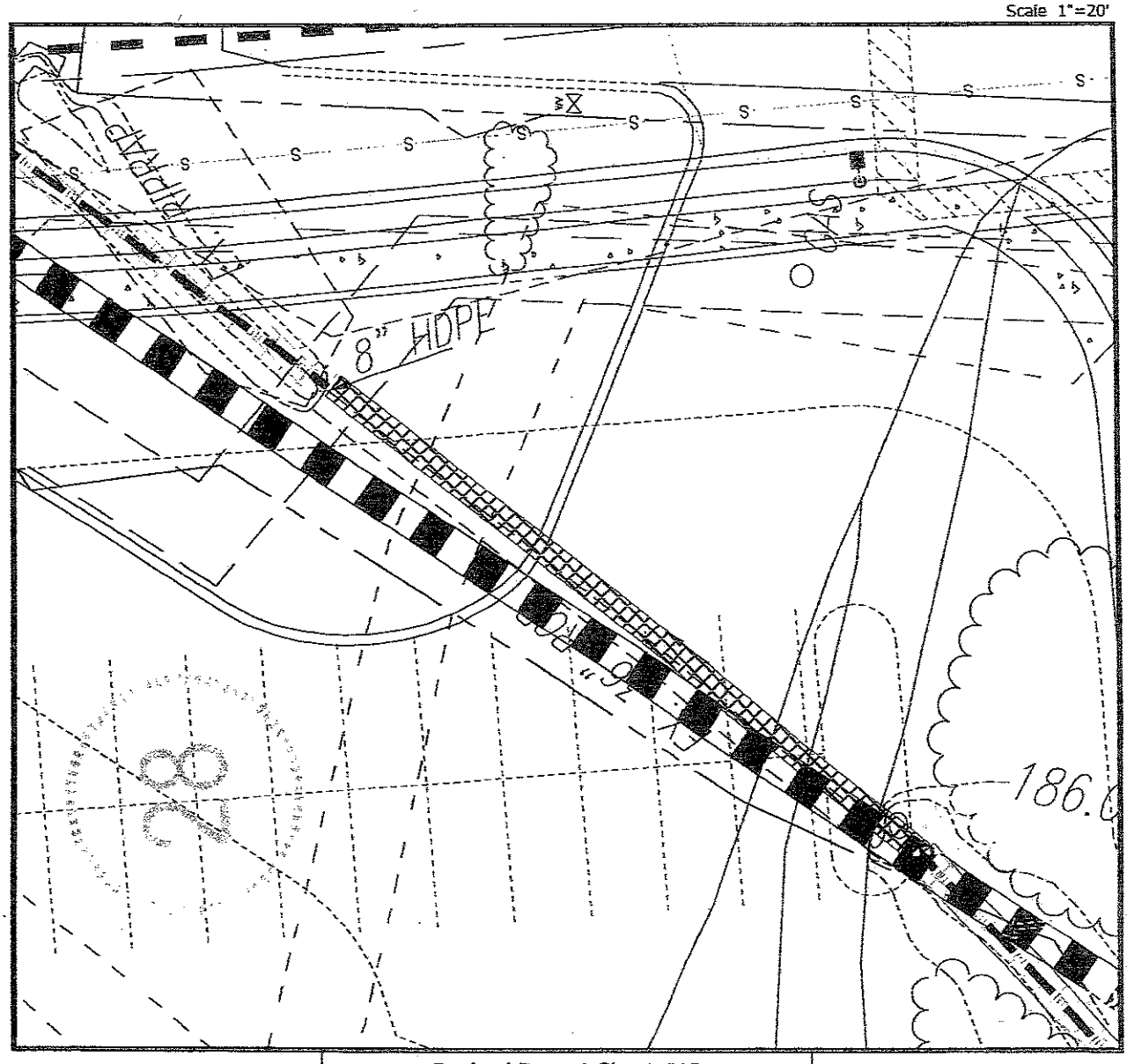
Charles County, Maryland
June 2008, revised July 2010, August 2012, September 2013

= WETLAND IMPACT/ OPEN WATER IMPACT

AMERICAN LAND CONCEPTS
238 B MAIN STREET
REISTERSTOWN, MARYLAND 21136
PHONE: (410)-526-2688

north

Scale 1"=20'



IMPACTS:

Impacts shown above associated with proposed Waldorf Crossings Development will result in impacts to 94 LF (290 SF) of previously impacted intermittent stream. **This impact currectly exists as a 36" culvert.**

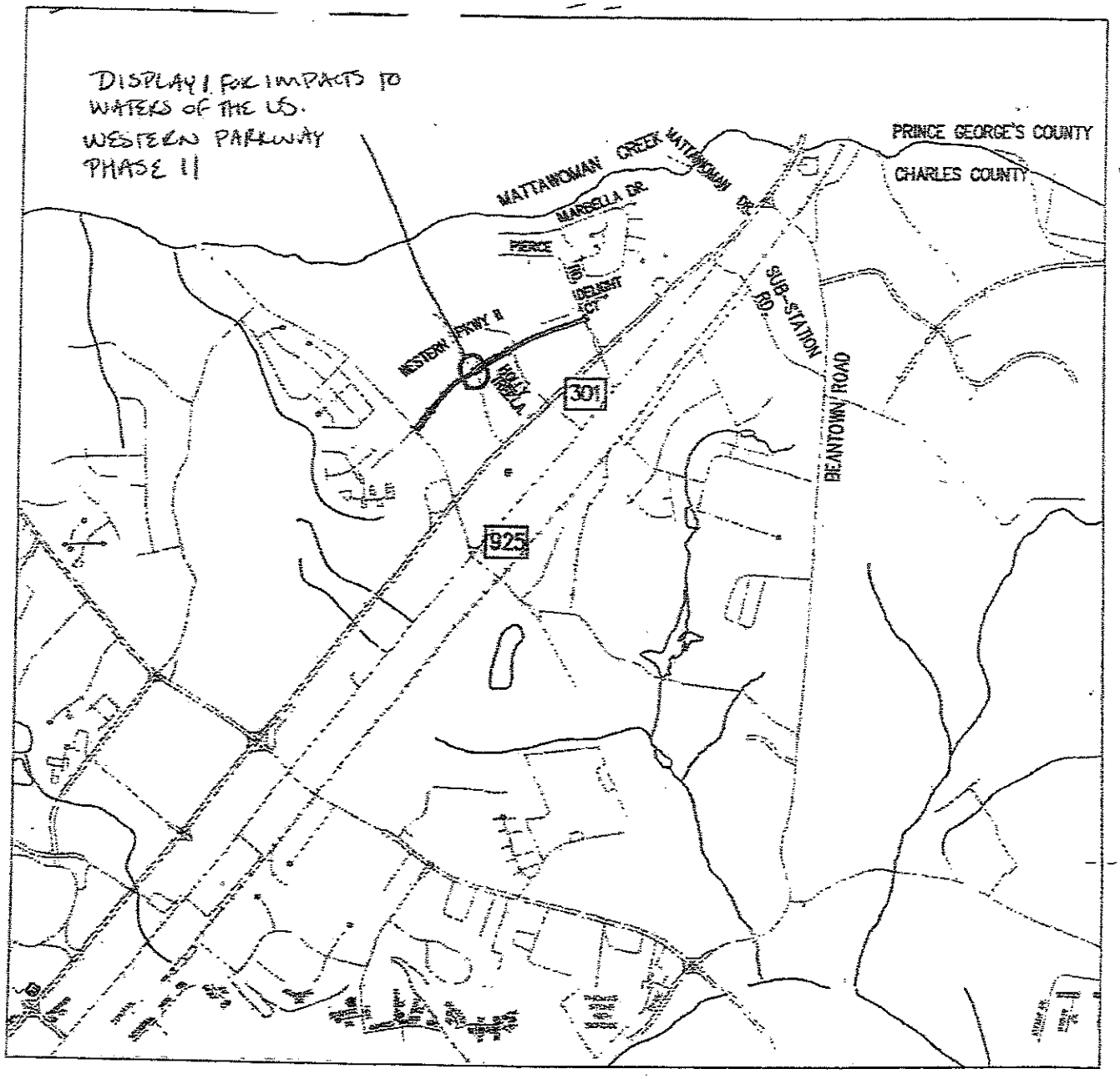
Revised Impact Sheet #13

WALDORF CROSSING PROPERTY
and WESTERN PARKWAY, PHASE III

Charles County, Maryland
June 2008, revised July 2010, August 2012, September 2013

= STREAM IMPACT

DISPLAY 1 FOR IMPACTS TO WATERS OF THE US.
WESTERN PARKWAY
PHASE II



07-NT-0177 / 200762422

AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092

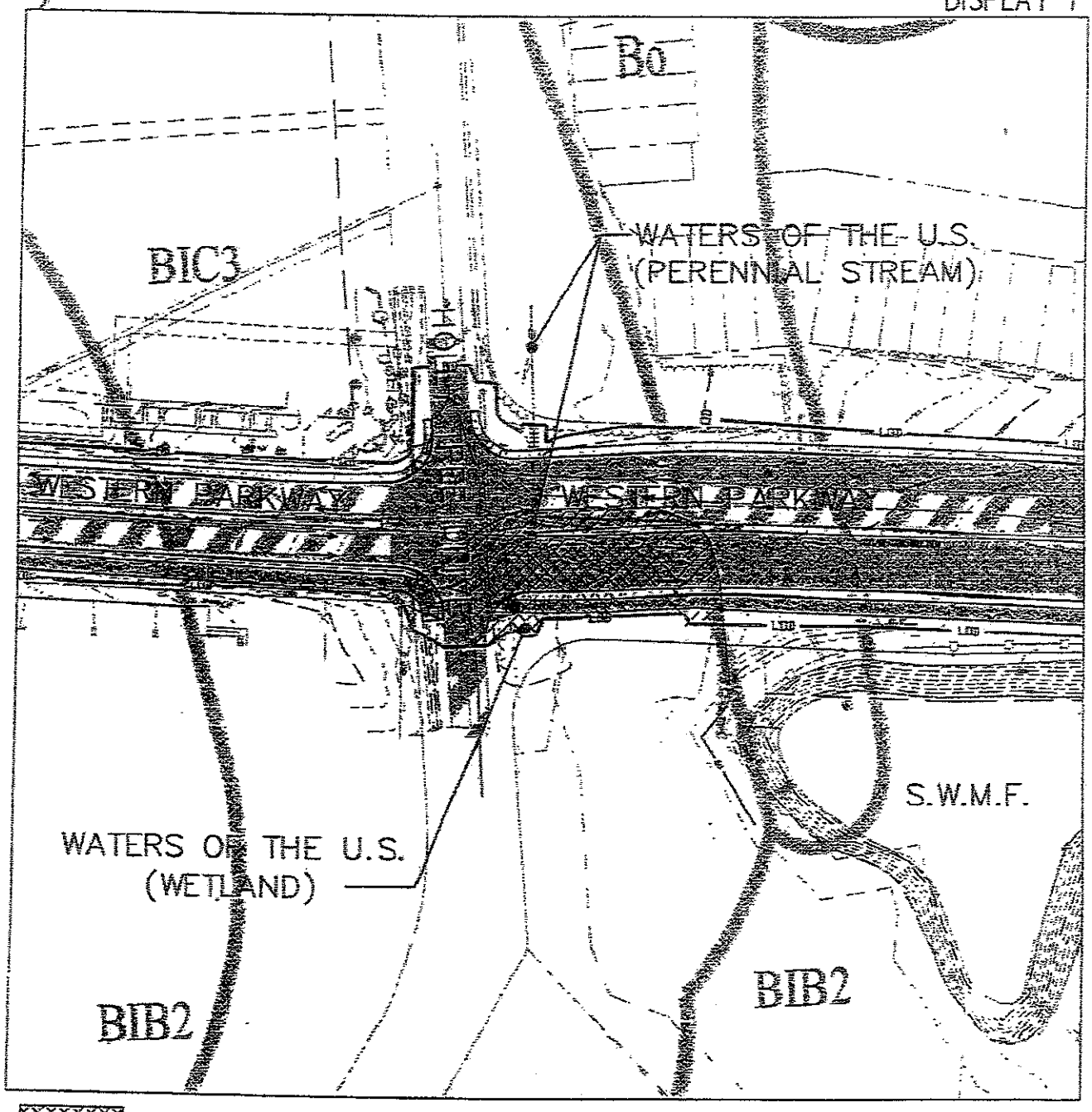
VICINITY MAP FOR

WESTERN PKWY PH.II

SCALE: 1" = 1,000'

IMPACT SHEET 11e

DISPLAY 1



IMPACTS TO WETLANDS: 4,995 SF (0.11 AC)

IMPACTS TO WETLAND BUFFERS: 6,222 SF (0.14 AC)

IMPACTS TO STREAMS: 25 LF

AB CONSULTANTS, INC.
9450 ANNAPOLIS ROAD
LANHAM, MARYLAND 20706
PHONE: (301) 306-3091
FAX: (301) 306-3092

DISPLAY FOR IMPACTS TO
WATERS OF THE U.S.
WESTERN PARKWAY
PHASE II
SCALE: 1"=100'

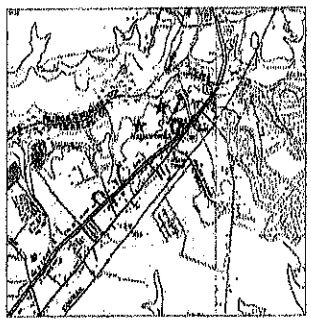
COE# XX-XXXXX-XX

MDE# 07-NT-177/200762422

FINAL STREAM MITIGATION/RESTORATION PLAN FOR THE WALDORF CROSSING/WESTERN PARKWAY PHASE 2 AND 3 PROJECT

Charles County, Maryland
September 2013

TOPOGRAPHIC MAP



Scale: 1" = 2,000'

NORTH

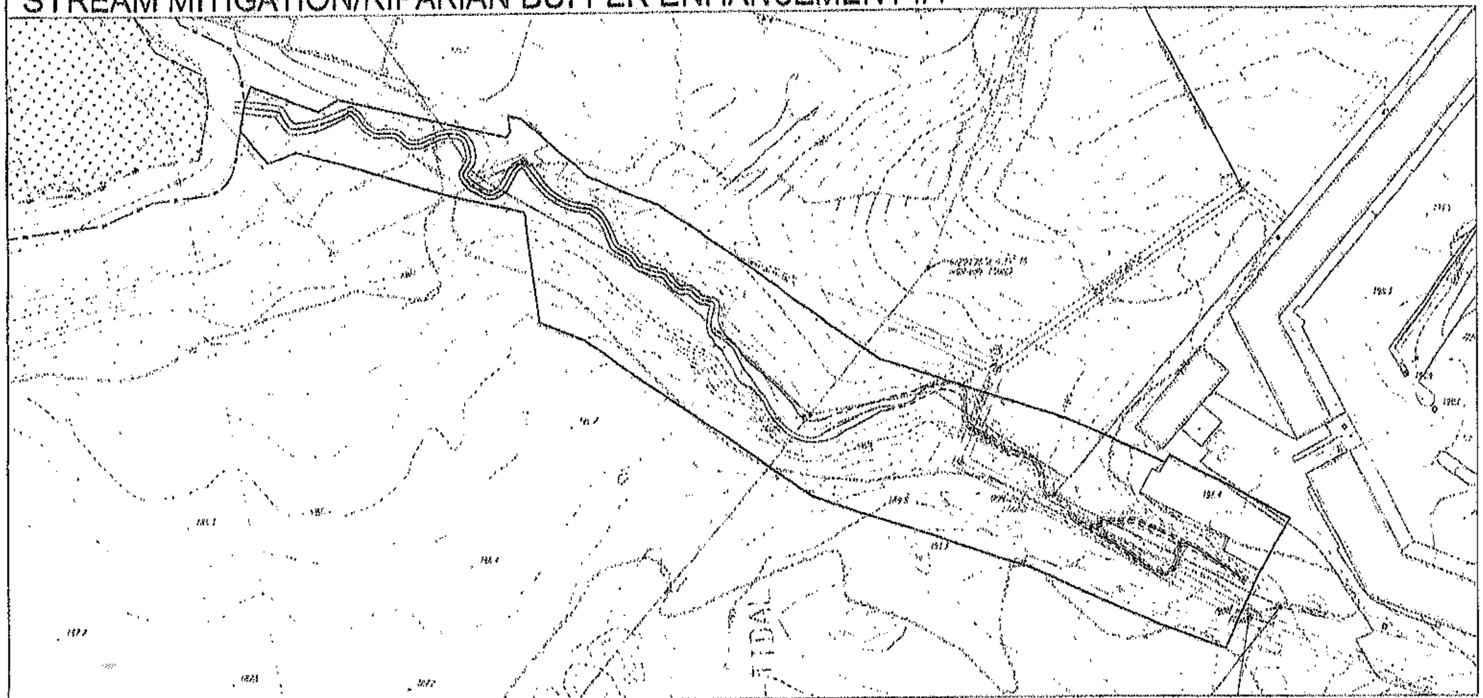
INDEX

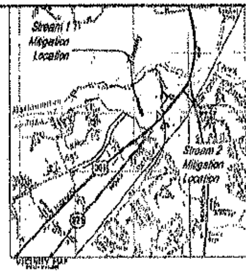
Survey provided by:
BOHLER
16701 Melford Boulevard, Suite 310
Bowie, Maryland 20715
301.809.4500

Owner/Applicant
WRI WEST LAND DEVELOPMENT, INC.
12440 MATTAWOMAN DRIVE
WALDORF, MARYLAND 20601
AND
CHARLES COUNTY GOVERNMENT
P.O. BOX 2150
LA PLATA, MARYLAND 20646

PREPARED BY:
ALC
AMERICAN LAND CONCEPTS

STREAM MITIGATION/RIPARIAN BUFFER ENHANCEMENT #1

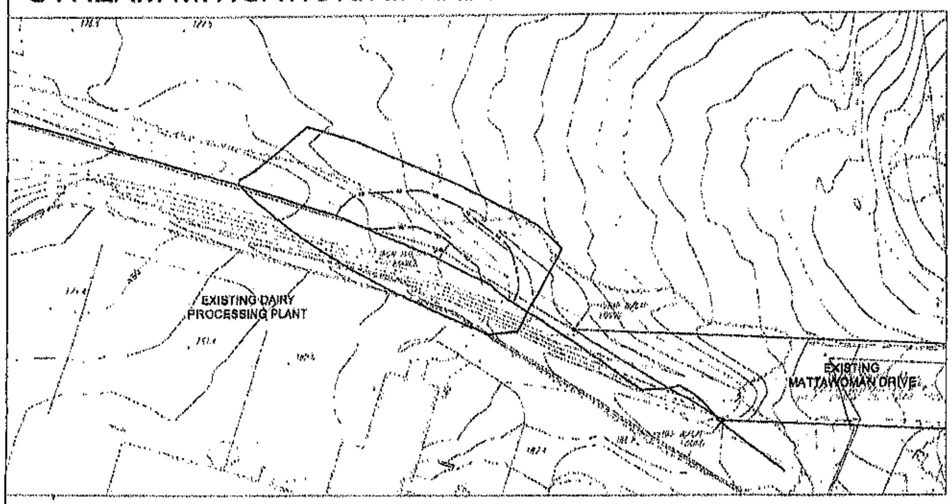




LEGEND

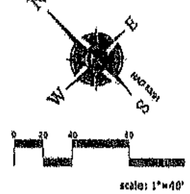
- Property Boundary
- Existing Wetlands w/25FT Buffer
- Treeline
- Existing Stream/Stream Bank
- Existing Contours
- Area For Invasive Species Removal and Supplemental Plantings

STREAM MITIGATION/RIPARIAN BUFFER ENHANCEMENT #2



Stream #1 is a highly degraded channel that receives uncontrolled, untreated stormwater from the culvert located at the stream head and from sheet flow from the adjacent impervious surfaces. The stormwater flows directly into the channel creating downcutting and stream migration. There is also a sewer easement that is located adjacent to and crosses under the channel. In some cases the stream bank is the existing sewer manholes. There are invasive species and debris located throughout the riparian area. The reach of stream to be restored is 1,030 LF and 63,000 SF (1.4 acres) of riparian buffer will be restored/enhanced by removing the debris and invasive species and planting the area with native species to create a highly functioning riparian system.

Stream #2 is a highly degraded channel functioning as a relocated stormwater ditch that conveys uncontrolled, untreated stormwater from developed areas along U.S. RT 301 to the Mattawoman creek. The existing parking lot for the dairy processing plant is located immediately adjacent to the stream and encroaches on the stream banks. The reach of stream to be restored is 155 LF and 12,685 SF (0.3 acres) of riparian buffer will be restored/enhanced by removing all asphalt, trash debris, and invasive species and planting the area with native species to create a highly functioning riparian system.



OWNER/APPLICANT: WRI WEST LAND DEVELOPMENT, INC. 12480 MATTAWOMAN DRIVE WALDORF, MARYLAND 20601 AND CHARLES COUNTY GOVERNMENT P.O. BOX 2150 LA PLATA, MARYLAND 20646

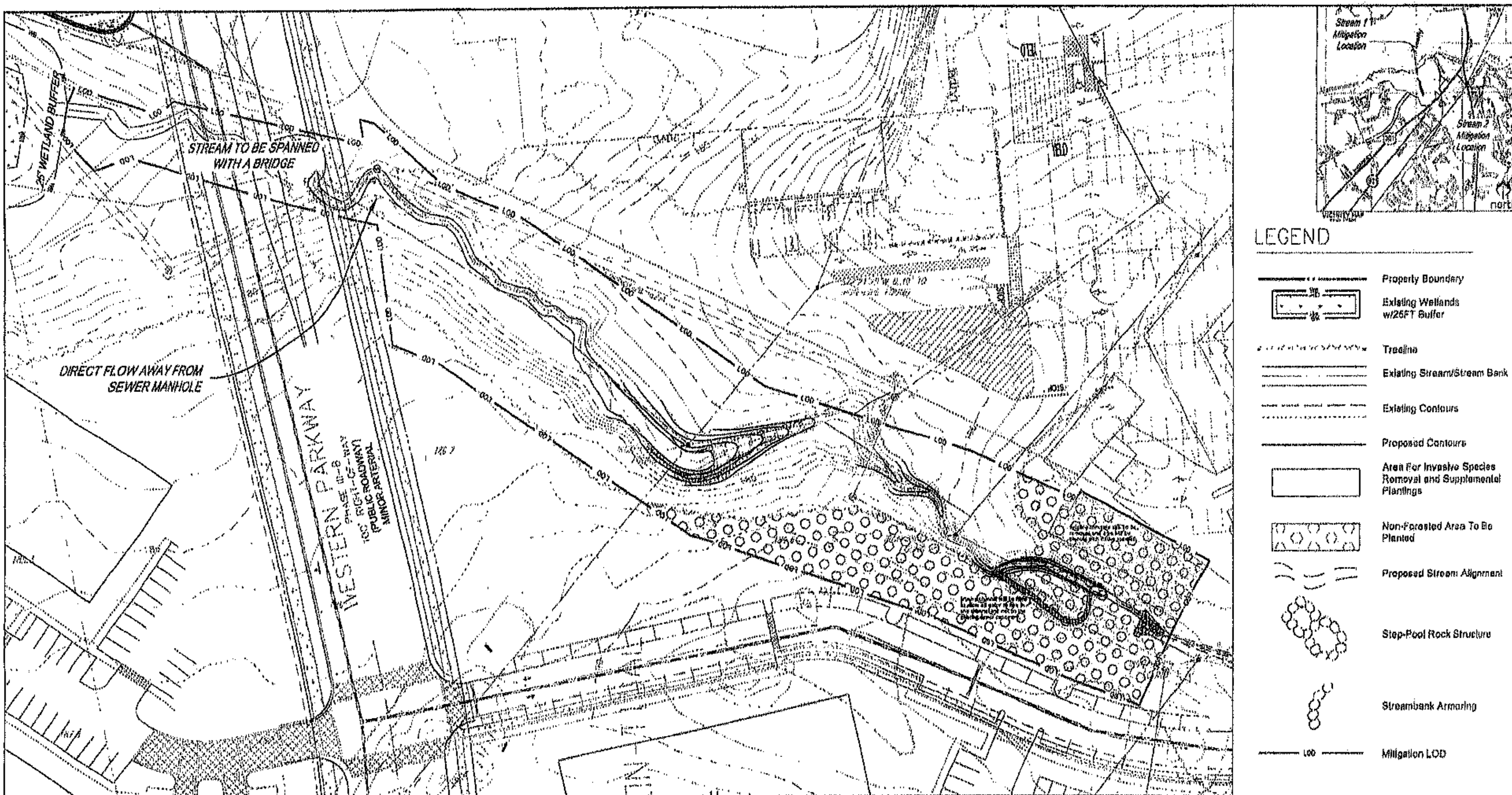
CONSULTANT: ALC AMERICAN LAND CONCEPTS 228 S MAIN STREET REISTERSTOWN, MARYLAND 21136 PHONE: (410)-526-2688

Engineer: BOHLER 16701 Melford Boulevard, Suite 310 Bowie, Maryland 20715 301.809.4500

DATE	REVISIONS

FINAL STREAM MITIGATION/RESTORATION PLAN
WALDORF CROSSING/WESTERN PARKWAY, PHASE 3
EXISTING CONDITIONS
CRAIN HIGHWAY - U.S. RTE. 301 &
MATTAWOMAN BEANTOWN ROAD - MD RTE. 5
6TH ELECTION DISTRICT
ZONED COMMERCIAL, INDUSTRIAL, AND AGRICULTURAL
CHARLES COUNTY, MD

JOB NO.:	
SCALE:	
DATE:	
DRAWN BY:	
DESIGNED BY:	
REVIEW BY:	
SHEET:	2 OF 7



PROPOSED:

The proposed restoration will begin down gradient of the culvert at the streamhead where the channel splits into two paths. The restoration will continue the length of the stream with either drop structures, streambank armoring, removing debris, concrete pad, invasive species, and revegetate the RPZ associated with the stream with native species. The sewer easement will not be planted and has not been included in the total riparian buffer enhancement acreage.

The restoration will utilize three (3) separate step-pool structure within the stream channel. As shown above, the structures will vary in length depending on the location and the stream morphology. The drops will be approximately 6" and pools will range from 6' to 8' in length. The step-pool structures will act as a grade controlling device while creating a natural riffle-pool scenario that dissipates water velocity to minimize sediment movement.

The stream banks will be armored as necessary to prevent future stream migration. A small section of the stream will be realigned in one location to move the stream away for an existing sewer manhole. The stream will be cut and filled as necessary to obtain the proposed elevation to create a natural streambed. The step-pool structures and streambank armoring will be built with armor stone approximately 500 to 1,000 lbs in size.

The total stream/riparian buffer restored will be approximately 1.45 AC. All trash and debris will be removed from the streambanks and riparian area as well as a concrete pad immediately adjacent to the stream head. Invasive species will be removed and all vegetative areas removed to allow access to the stream for construction will be replanted and restored to natural conditions with native species. In addition, approximately 0.46 +/- acres of cleared land will be planted with native species. Again, the sewer easement will not be planted and has not been included in the total riparian buffer enhancement acreage.

These plans are for design and permitting purposed only, not for construction purposes.

OWNER/APPLICANT
WRI WEST LAND DEVELOPMENT, INC.
12480 MATTAWOMAN DRIVE
WALDORF, MARYLAND 20601
AND
CHARLES COUNTY GOVERNMENT
P.O. BOX 2150
LA PLATA, MARYLAND 20646

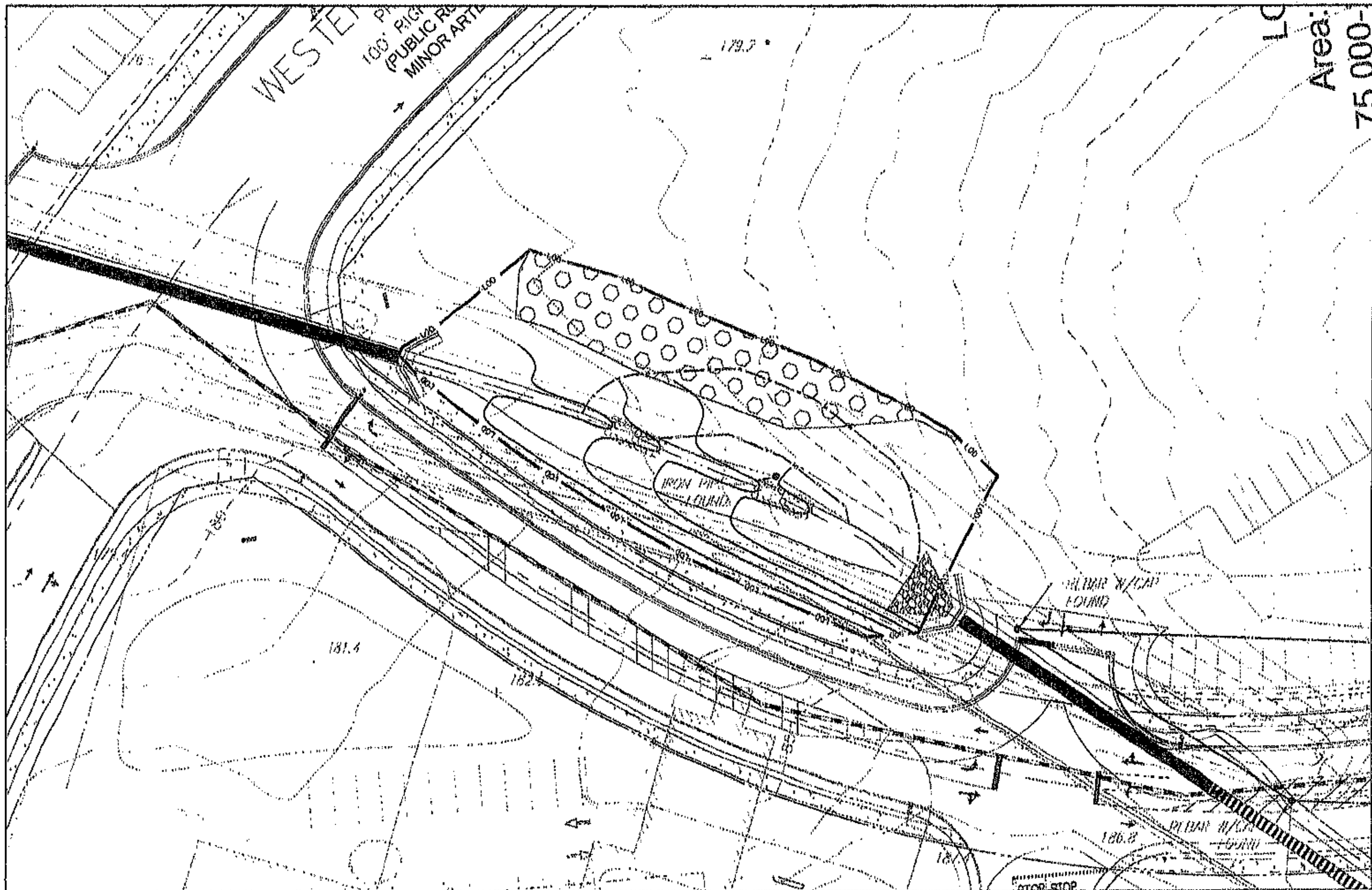
CONSULTANT
AMERICAN LAND CONCEPTS
239 B MAIN STREET
REISTERSTOWN, MARYLAND 21136
PHONE: (410)-526-2686

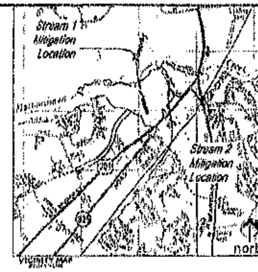
Engineer
BOHLER
16701 Melford Boulevard, Suite 310
Bowie, Maryland 20715
301.809.4500

DATE	REVISIONS

FINAL STREAM MITIGATION/RESTORATION PLAN
WALDORF CROSSINGS/WESTERN PARKWAY, PHASE 3
STREAM 1 PLAN VIEW
CRAIN HIGHWAY - U.S. RTE. 301 &
MATTAWOMAN BEANTOWN ROAD - MD RTE. 5
6TH ELECTION DISTRICT
ZONED COMMERCIAL, INDUSTRIAL, AND AGRICULTURAL
CHARLES COUNTY, MD

JOB NO.:
SCALE:
DATE:
DRAWN BY:
DESIGN BY:
REVIEW BY:
SHEET:





LEGEND

- Property Boundary
- Existing Wetlands w/25FT Buffer
- Treeline
- Existing Stream/Stream Bank
- Existing Contours
- Proposed Contours
- Area For Invasive Species Removal and Supplemental Plantings
- Non-Forested Area To Be Planted
- Proposed Stream Alignment
- Step-Pool Rock Structure
- Streambank Armoring
- Mitigation LOD

scale: 1"=20'

PROPOSED:

The proposed restoration will begin down gradient of the culvert at the streamhead. The restoration will continue approximately 155 LF with either drop structures; removal of debris, existing asphalt parking facility in the RPZ, and invasive species; and revegetate the RPZ associated with the stream with native species. The sewer easement will not be planted and has not been included in the total riparian buffer enhancement acreage.

The restoration will utilize two (2) separate step-pool structure within the stream channel. As shown above, the structures will be approximately 24 FT in length. The drops will be approximately 6" and pools will be approximately 8 FT in length. The step-pool structures will act as a grade controlling device while creating a natural riffle-pool scenario that dissipates water velocity to minimize sediment movement. The step-pool structures will be built with armor stone approximately 500 to 1,000 lbs in size.

Extensive grading will be completed on the southern side of the streambank to create a natural stream channel. The total stream/riparian buffer restored will be approximately 0.3 AC. All trash and debris will be removed from the streambanks and riparian area as well as a concrete pad immediately adjacent to the stream head. Invasive species will be removed and all vegetative areas removed to allow access to the stream for construction will be replanted and restored to natural conditions with native species. In addition, approximately 0.09 +/- acres of cleared land will be planted with native species. Again, the sewer easement will not be planted and has not been included in the total riparian buffer enhancement acreage.

These plans are for design and permitting purposed only, not for construction purposes.

OWNER/APPLICANT:
WRI WEST LAND DEVELOPMENT, INC.
12400 MATTAWOMAN DRIVE
WALDORF, MARYLAND 20601

AND

CHARLES COUNTY GOVERNMENT
P.O. BOX 2150
LA PLATA, MARYLAND 20646

CONSULTANT:
AMERICAN LAND CONCEPTS
236 B MAIN STREET
REISTERSTOWN, MARYLAND 21136
PHONE: (410)-526-2668

Engineer:
BOHLER
16701 Melford Boulevard, Suite 310
Bowie, Maryland 20715
301.809.4500

DATE	REVISIONS

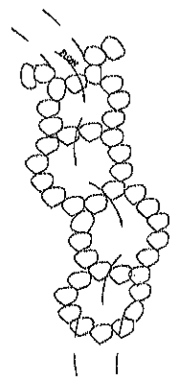
FINAL STREAM MITIGATION/RESTORATION PLAN
WALDORF CROSSINGS/WESTERN PARKWAY, PHASE 3
STREAM 2 PLAN VIEW
CRAIN HIGHWAY - U.S. RTE. 301 &
MATTAWOMAN BEANTOWN ROAD - MD RTE. 5
6TH ELECTION DISTRICT
ZONED COMMERCIAL, INDUSTRIAL, AND AGRICULTURAL
CHARLES COUNTY, MD

JOB NO.:	
SCALE:	1"=20'
DATE:	
DRAWN BY:	NS
DESIGN BY:	CMJ
REVIEW BY:	CMJ
SHEET:	4 OF 7

TYP. ROCK DROP STRUCTURE PLAN VIEW

NOT TO SCALE

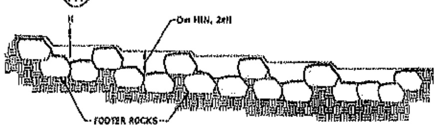
RDS TYP

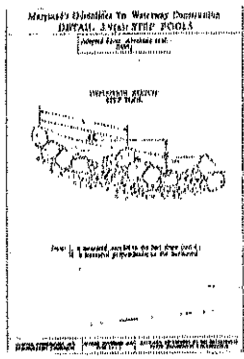


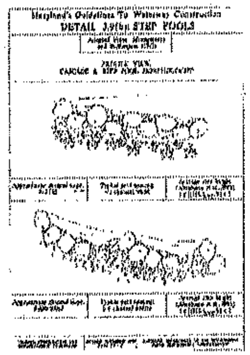
TYP. ROCK DROP STRUCTURE PROFILE VIEW

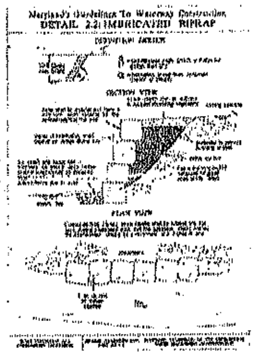
NOT TO SCALE

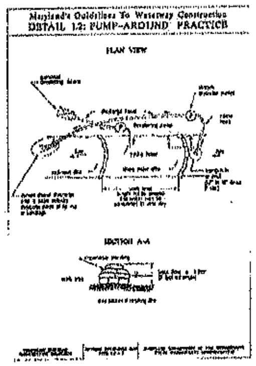
RDS TYP

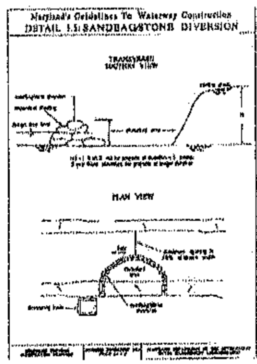












OWNER/APPLICANT		CONSULTANT	Engineer	DATE	REVISIONS			
WRI WEST LAND DEVELOPMENT, INC. 12480 MATTAWOMAN DRIVE WALDORF, MARYLAND 20601 AND	CHARLES COUNTY GOVERNMENT P.O. BOX 2150 LA PLATA, MARYLAND 20646	AMERICAN LAND CONCEPTS 238-9 MAIN STREET REISTERSTOWN, MARYLAND 21136 PHONE: (410) 526-2865	BOHLER 16701 Melford Boulevard, Suite 310 Bowie, Maryland 20715 301.809.4500			FINAL STREAM MITIGATION/RESTORATION PLAN WALDORF CROSSINGS/WESTERN PARKWAY, PHASE 3 **CROSS-SECTIONAL VIEWS AND STANDARD DETAILS** CRAIN HIGHWAY - U.S. RTE. 301 & MATTAWOMAN BEANTOWN ROAD - MD RTE. 5 6TH ELECTION DISTRICT ZONED COMMERCIAL, INDUSTRIAL, AND AGRICULTURAL CHARLES COUNTY, MD	JOB NO.: 0549 SCALE: DATE: DRAWN BY: NCS DESIGN BY: CMJ REVIEW BY: CMJ SHEET: 5 OF 7	

WALDORF CROSSING/WESTERN PARKWAY STREAM MITIGATION

I. INTRODUCTION

The onsite unnamed tributaries for the proposed mitigation are located on the Waldorf Crossing Property on the western side of U.S. Route 301. The streams are both tributaries to the Mattawoman Creek and are currently in poor condition. There is currently no stormwater management associated with the property causing uncontrolled runoff from surface flow and culverts at the streamheads to not only cause severe erosive stream conditions, but flow directly into the Mattawoman Creek.

STREAM 1 OBJECTIVE AND GOALS: This stream channel has erosive downcutting and channel migration due to the existing sewer line that runs parallel and perpendicular to the stream. The unnamed tributary has become highly degraded due to unmanaged stormwater from a culvert at the stream head and unmanaged overland flow. The existing sewer line has also affected the stream condition. A manhole associated with the sewer line is currently acting as a "bank armor" preventing the stream from migrating further. The erosion has caused downcutting and sidecutting leaving the stream bed severely entrenched, approximately 4 to 6 feet below the stream banks and at the stream head.

The stream is surrounded by a forested and scrub-shrub area; however, this area has invasive species such as Autumn Olive, Japanese Honeysuckle, Microstegium, Multiflora Rosa, and Bradford Pear. There is also trash and debris located within the banks of the stream. There is a concrete pad located immediately adjacent to the stream head. There are some areas adjacent to the stream that appear to have wetlands in the past, however to the erosive stream conditions causing a drop in the water table, these areas are no longer wet.

The stream is located within an area developed prior to stormwater management regulations. The propos[illegible]d redevelopment of the property which incorporates County road Western Parkway i[illegible] design will properly manage the stormwater minimizing future degra[illegible] to the stream. Stabilization will be achieved by filling and constructing step pool structures at different elevations to raise the invert of the stream. One section of the stream will be realigned approximately 10 feet to the southwest away from existing manhole currently in the stream bank. The banks will be armored to prevent future stream migration. Once restoration is complete, the stream will be a stable system allowing it to function to its optimal potential, i.e. maintaining the dimension, pattern, and profile over time allowing it to properly disperse water flow without negative effects of detritus to the watershed.

The restoration will begin down gradient of the culvert at the streamhead where the channel splits into two paths. The restoration will continue the length of the stream with either drop structures, streambank armoring, removing debris, concrete pad, invasive species, and revegetate the RPZ associated with the stream with native species. The project area is entirely within the Waldorf Crossings property. The proposed restoration will utilize three (3) separate step-pool structure within the stream channel. The structures will be of varying lengths and drops depending on the location and the stream morphology. The drops will be approximately 6" and pools will range from 6' to 8' in length. The step-pool structures will act as a grade controlling device while creating a natural riffle-pool scenario that dissipates water velocity to minimize sediment movement. The stream banks will be armored as necessary to prevent future stream migration. A small section of the stream will be realigned in one location to move the stream away for an existing sewer manhole. The stream will be cut and filled as necessary to obtain the proposed elevation to create a natural streambed. The step-pool structures and streambank armoring will be built with armor stone approximately 500 to 1,000 lbs in size.

The total stream/riparian buffer restored will be approximately 1.45 AC. All trash and debris will be removed from the streambanks and riparian area as well as a concrete pad immediately adjacent to the stream head. Invasive species will be removed and all vegetative areas removed to allow access to the stream for construction will be replanted and restored to natural conditions with native species. In addition, approximately 0.46 +/- acres of cleared land will be planted with native species. By utilizing multiple commonly practiced stream restoration techniques, this restoration design will repair the bank and channel erosion, prevent future erosion and will stabilize the urban riparian community.

STREAM 2 OBJECTIVE AND GOALS: This stream channel is an old farm/stormwater ditch that has become vegetated with scrub-shrub. It is a man-made channel that was relocated to the north in the 1950s-1960s to allow adequate parking for the milk processing plant. The asphalt associated with the parking facility currently encroaches on the stream bank. The stream is in poor condition due to the unmanaged stormwater from the the culvert at the stream head and surface flow. A portion of the channel upstream of the proposed mitigation area is a 36" culvert. The unmanaged stormwater has left the stream entrenched, approximately 3-4 feet.

There is a small wetland located adjacent on the northern side of the stream channel and the is surrounded by a scrub-shrub area; however, this area has invasive species such as Autumn Olive, Japanese Honeysuckle, Microstegium, and Multiflora Rosa. There is also trash and debris located within the banks of the stream.

Again, the stream is located within an area developed prior to stormwater management regulations. The proposed redevelopment of the property which incorporates County road Western Parkway and the extension of Mattawoman Drive into the design will properly manage the stormwater minimizing future degradation to the stream. The existing culvert will be replaced and extended to allow the extension of Mattawoman Drive. At this point the restoration will begin. The restoration will continue the length of the stream approximately 155 LF to a culvert that will allow for the construction of Western Parkway. One step pool structure will be constructed to raise the invert and stabilized the channel. Raising the invert will prevent the adjacent wetland from losing the hydrology needed to remain a functioning wetland.

The total 2-pool drop structure will be approximately 24 FT in length and the drops will be approximately 6" and pools approximately 8' in length. The step-pool structures will act as a grade controlling device while creating a natural riffle-pool scenario that dissipates water velocity to minimize sediment movement. The step-pool structures will be built with armor stone approximately 500 to 1,000 lbs in size. All concrete/asphalt, debris, and invasive species will be removed from the length of stream channel and approximately 0.3 AC of the riparian buffer. The existing forested riparian buffer will be supplemented with native species planting as well as 0.09 AC of nonforested, cleared land.

Again, once restoration is complete, the stream will be a stable system allowing it to function to its optimal potential, i.e. maintaining the dimension, pattern, and profile over time allowing it to properly disperse water flow without negative effects of detritus to the watershed. By utilizing multiple commonly practiced stream restoration techniques, this restoration design will repair the bank and channel erosion, prevent future erosion and will stabilize the urban riparian community.

CONCLUSION: The streams located on the Waldorf Crossings Property are ideal for stream mitigation work. The streams are severely eroded and flow directly into the Mattawoman Creek. Access to the stream can be achieved with minimal impacts to the riparian vegetation and all temporary access will be replanted and restored. Restoration will involve construction of step-pool structures that will be utilized as grade controlling devices and will create a riffle-pool natural conditions. Step-pools will vary in length and drops depending on the existing stream morphology.

Once restoration is complete, annual monitoring reports of the stream condition will be completed to ensure the restoration construction is functioning properly.

Restoration activities will stabilize the urban riparian community and allow the stream to function to its optimal potential, i.e. maintaining the dimension, pattern, and profile over time allowing it to properly disperse water flow without negative effects of detritus to the watershed.

II. MONITORING PLAN

Monitoring of the stream restoration work will be the responsibility of WRI West Land Development, Inc. and will be conducted annually for 5 years during the month of October. Monitoring will be conducted by American Land Concepts stream specialist or other approved environmental/stream restoration professional. Monitoring reports will fully evaluate the stream conditions and look for and erosion and/or stream migration. Photodocumentation at permanent photostations will be included in the monitoring report. Reports will be submitted to USACE by October 31st of each year after construction is completed.

If during the monitoring any erosion along the restored stream is detected, it shall be properly addressed to prevent sediment transport into the stream. If any changes to the design are necessary, USACE will be contacted before proceeding forward with repairs.

III. SEQUENCE OF CONSTRUCTION

1. Conduct a Pre-construction meeting. Notify Maryland Department of the Environment Water Management Administration Compliance Program (410-537-3510) at least 5 calendar days prior to beginning work. Work may not commence until the permitte or the responsible personnel have met on site with the sediment and erosion control inspector to review the approved plans.
2. Call Miss Utility 1-800-257-7777at least 48 hours prior to beginning work.
3. If applicable, orange high visibility fencing shall be manually installed along the limit of disturbance. This shall be completed by and inspected at, the pre-construction meeting.
4. Clear and grub for installation of perimeter sediment control measures and devices only.
5. Install perimeter sediment and erosion control measures and devices.
6. No more area shall be disturbed than can be completed and stabilized by the end of each work day. Maintain erosion and sediment control measures during the course of construction.
7. Notify sediment control inspector upon completion of said installation.
8. With the approval of sediment control inspector, clear and grub remainder of site.
9. Install pump around practice. The contractor should only dewater each isolated portion of the stream channel which can be completed by the end of the day including grading adjacent to the channel. At the end of each work day, the work area must be stabilized, any sediment accumulated within the work areas should be removed prior to removal of the pump around and restoring stream flow. Work should not be conducted in the channel during rain events.
10. Perform earthwork (rough and final grading) and install step pool structures, as shown on these plans following guidelines set forth in item 8 above.
11. Install vegetative material along restored stream bank.
12. Thoroughly clean the site removing all debris and miscellaneous construction materials.
13. Seed and mulch for permanent upland vegetative stabilization.
14. Upon completion of construction and successful establishment of vegetative cover,with approval of the sediment control inspector, remove erosion and sediment control measures and devices, except as otherwise noted.
15. Stabilize all areas disturbed by cleanup and removal of erosion and sediment control measures and devices.

IV. GENERAL NOTES

1. Miss Utility must be contacted and all utility lines must be located and marked prior to the start of any construction activities.
2. Stream diversion will be achieved by means of a temporary "pump-around" during culvert installation.
3. Refer to "*1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control*" for standard details and detailed specifications of each practice specified herein not shown on this plan.
4. With the approval of the sediment control inspector, minor field adjustments can and will be made to insure the control of any sediment. Changes in sediment control practices require prior approval of the sediment control inspector and the Charles County Soil Conservation District.
5. At the end of each working day, all sediment control practices will be inspected and left in operational condition.
7. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a.) seven calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than three horizontal to one vertical (3:1), and b.) fourteen days as to all other disturbed or graded areas on the project site which will remain idle over fourteen days.
10. Any variations from the sequence of operations stated on this plan requires the approval of the sediment control inspector and the Charles County Soil Conservation District prior to the initiation of the change.
11. Excess cut or borrow material shall go to, or come from, respectively, a site with an open grading permit.
12. The following item may be used as applicable: Refer to *"Maryland's Guidelines to Waterway Construction"* by the Water Management Administration of the Maryland Department of the Environment, revised November, 2000, for standard details and detailed specifications of each practice specified herein for waterway construction.
14. The disturbed area is to be revegetated with the native species.
15. This project is located along Class I Waters. No construction shall take place during the stream closure dates for Class I waters: March 1 through June 15, inclusive.

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Engineer
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Bowie, Maryland 20715
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DATE	REVISIONS

FINAL STREAM MITIGATION/RESTORATION PLAN
WALDORF CROSSING/WESTERN PARKWAY, PHASE 3
NOTES AND DETAILS
CRAIN HIGHWAY - U.S. RTE. 301 &
MATTAWOMAN BEANTOWN ROAD - MD RTE. 5
6TH ELECTION DISTRICT
ZONED COMMERCIAL, INDUSTRIAL, AND AGRICULTURAL
CHARLES COUNTY, MD

JOB NO.:	[illegible]
SCALE:	
DATE:	[illegible]
DRAWN BY:	[illegible]
DESIGN BY:	[illegible]
REVIEW BY:	[illegible]
SHEET:	5 OF 7

WALDORF CROSSING/WESTERN PARKWAY STREAM MITIGATION

V. SOIL AND EROSION CONTROL NOTES
1. All erosion and sediment control practices are to be constructed and maintained according to the minimum standards of the Maryland Erosion and Sediment Control Handbook. The Contractor is responsible for being thoroughly familiar with the measures contained within this document that are pertinent to this project.
2. It is the contractors responsibility to inspect all erosion control devices periodically and after every erodible rainfall. Necessary repairs to maintain the effectiveness of the erosion control devices shall be made immediately. This maintenance will include the repair of measures damaged by any subcontractor.
3. All erosion and siltation measures are to be "in place" prior to construction
4. If, during construction, additional erosions control devices are found necessary by either the contractor or the County, they shall be installed.
5. Permanent soil stabilization shall be applied to bare areas within seven days of reaching final grade. No disturbed area will be denuded of more than 28 calendar days.
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8. Temporary erosion control measures are not to be removed until all disturbed areas are stabilized. After completion of stabilization, all measures are removed within 30 days. Trapped sediment shall be spread and seeded.
9. Minimize the area disturbed to that area only required for construction.
10. Native vegetation will be preserved to the maximum extent possible consistent with the use and development permitted and according to the Maryland Erosion and Sediment Control Handbook.

VI. PLANTING SPECIFICATIONS
Planting shall commence after final grading. All plant material shall be installed between March 1 to May 30 or September 1 to October 30. Planting materials will consist of container grown shrubs and trees. All stock will be planted as received, no pruning will be done at the site. Stock not meeting specifications will be returned. All planting stock shall be protected from sun scald, desiccation, and structural damage during shipment to the site. Delivery of materials will be no sooner than one week prior to planting. Materials held for planting will be moistened and placed in cool, shaded areas until ready for placement.

A. Planting Materials
1. The plant species required are usually not available from standard landscape nursery sources. The Contractor shall make arrangements with competent wetland restoration sources to ensure a supply of the required materials.
2. All plant material shall conform to the current issue of the American Standard for Nursery Stock published by the American Association of Nurserymen, except where otherwise noted.
3. Plant materials must be selected from certified nurseries that have been inspected by appropriate state or federal agencies.
4. Botanical nomenclature is according to Hortus III.
5. Individual plants shall be shipped and planted in containers. Care must be taken to avoid drying out the plants, rhizomes, tubers, or foliage during shipping and staging.
6. Plant material will be inspected by the wetland specialist prior to planting. All plant material deemed unacceptable due to damage or poor health will be required to be replaced with acceptable plant material by the Contractor.

B. Planting
1. The wetland is to be planted with woody plants (tree and shrubs) at a minimum of 435 stems per acre (Approximately 10' on center).
2. Plants shall be planted on 10' center across the gradient. Plants will be categorized by preferred hydroperiod and planted in proper hydrologic zones.
3. Plant material shall be planted in a planting pit excavated to 1 ½ times the width of the entire root mass and tamped to fill all voids and air pockets.
4. The root mass shall be placed in the planting pit and excavated soil shall be placed around the root mass and tamped to fill all voids and air pockets.

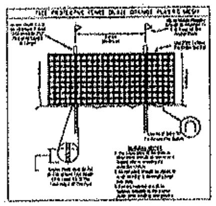
C. Cleanup
1. Final cleanup shall be the responsibility of the Contractor and consist of removing all trash and materials incidental to the project and the proper disposal of the material off-site.
2. Cleanup procedure activities shall not damage existing plants.

VII. CONTROL OF INVASIVE PLANTS AND ANIMALS
A maintenance program will be implemented to employ proven management techniques and monitor the wetland functions to achieve the goal of 80% cover 5 years from the completion of the planting.

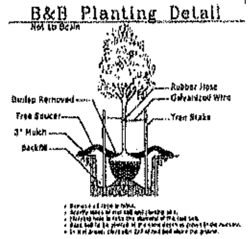
PLANT LIST

REFORESTATION AREA B AND C PLANTING LIST:
0.55 ACRES @ 435 TREES/ACRE = A MINIMUM OF 240 TREES/SHRUBS

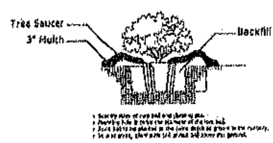
Common Name	Scientific Name	Quantity	Size
White Oak	*Quercus alba*	40	1 gallon containers
Tulp Poplar	*Liriodendron tlipifera*	40	1 gallon containers
Black Locust	*Robinia pseudoacacia*	20	1 gallon containers
Redbud	*Cercis canadensis*	35	1 gallon containers
Staghorn Sumac	*Rhus typhina*	35	1 gallon containers
Red Maple	*Acer rubra*	40	1 gallon containers
Spicebush	*Lindera benzoin*	35	1 gallon containers
	TOTAL	245	



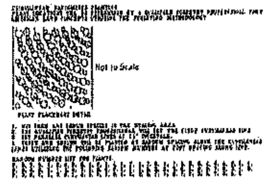
B&B Planting Detail
Not to Scale



Container Planting Detail



Plant Community Layout



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FINAL STREAM MITIGATION/RESTORATION PLAN
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NOTES AND DETAILS
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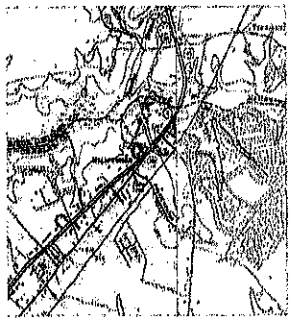
MATTAWOMAN BEANTOWN ROAD - MD RTE. 5
8TH ELECTION DISTRICT
ZONED COMMERCIAL, INDUSTRIAL, AND AGRICULTURAL
CHARLES COUNTY, MD

JOB NO.:	
SCALE:	
DATE:	
DRAWN BY:	
DESIGN BY:	CMJ
REVIEW BY:	CMJ
SHEET:	7 OF 7

FINAL WETLAND MITIGATION PLAN FOR THE WALDORF CROSSING/WESTERN PARKWAY PHASE 2 AND 3 PROJECT

Charles County, Maryland
September 2013

TOPOGRAPHIC MAP



Scale: 1" = 2,000' NORTH

INDEX

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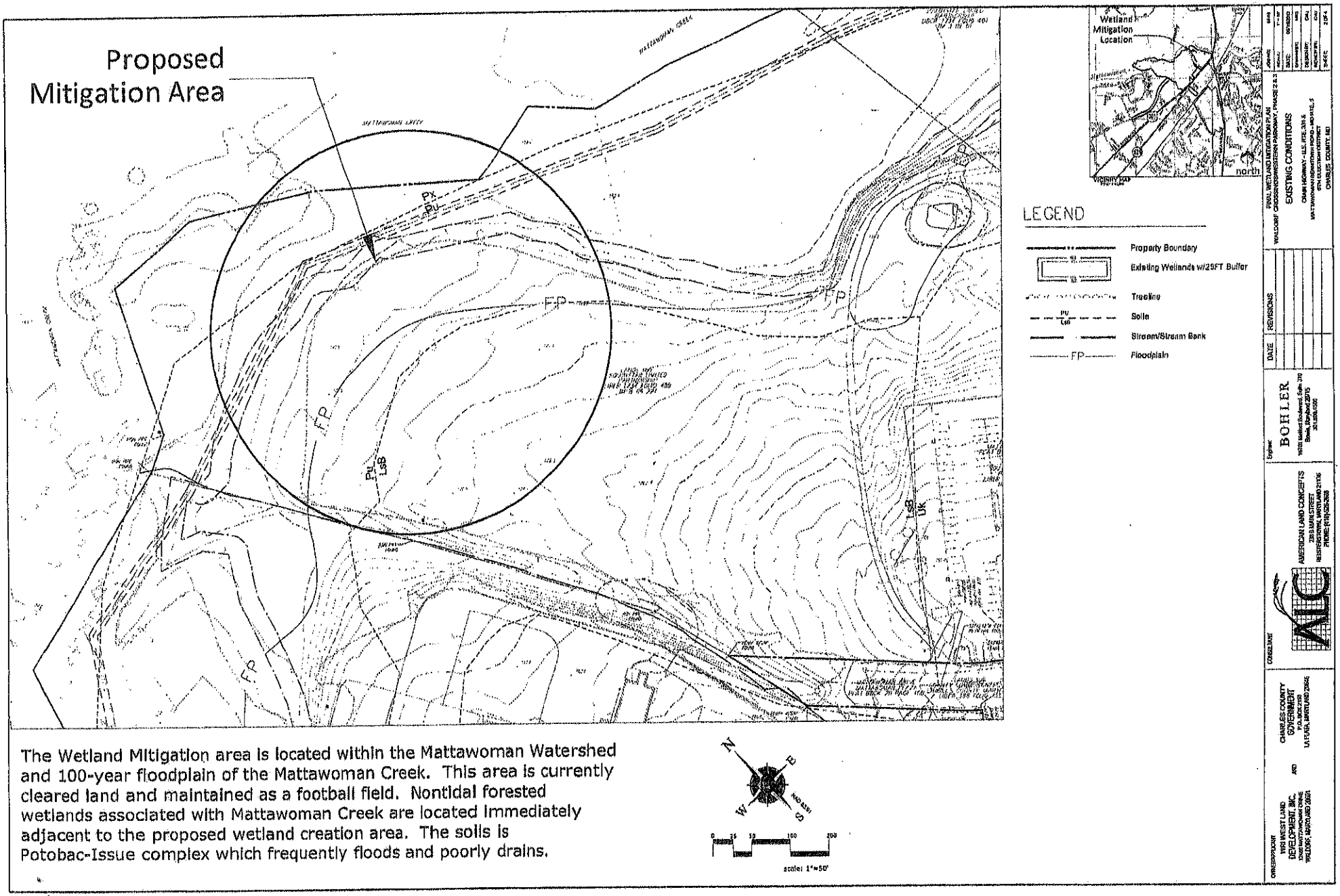
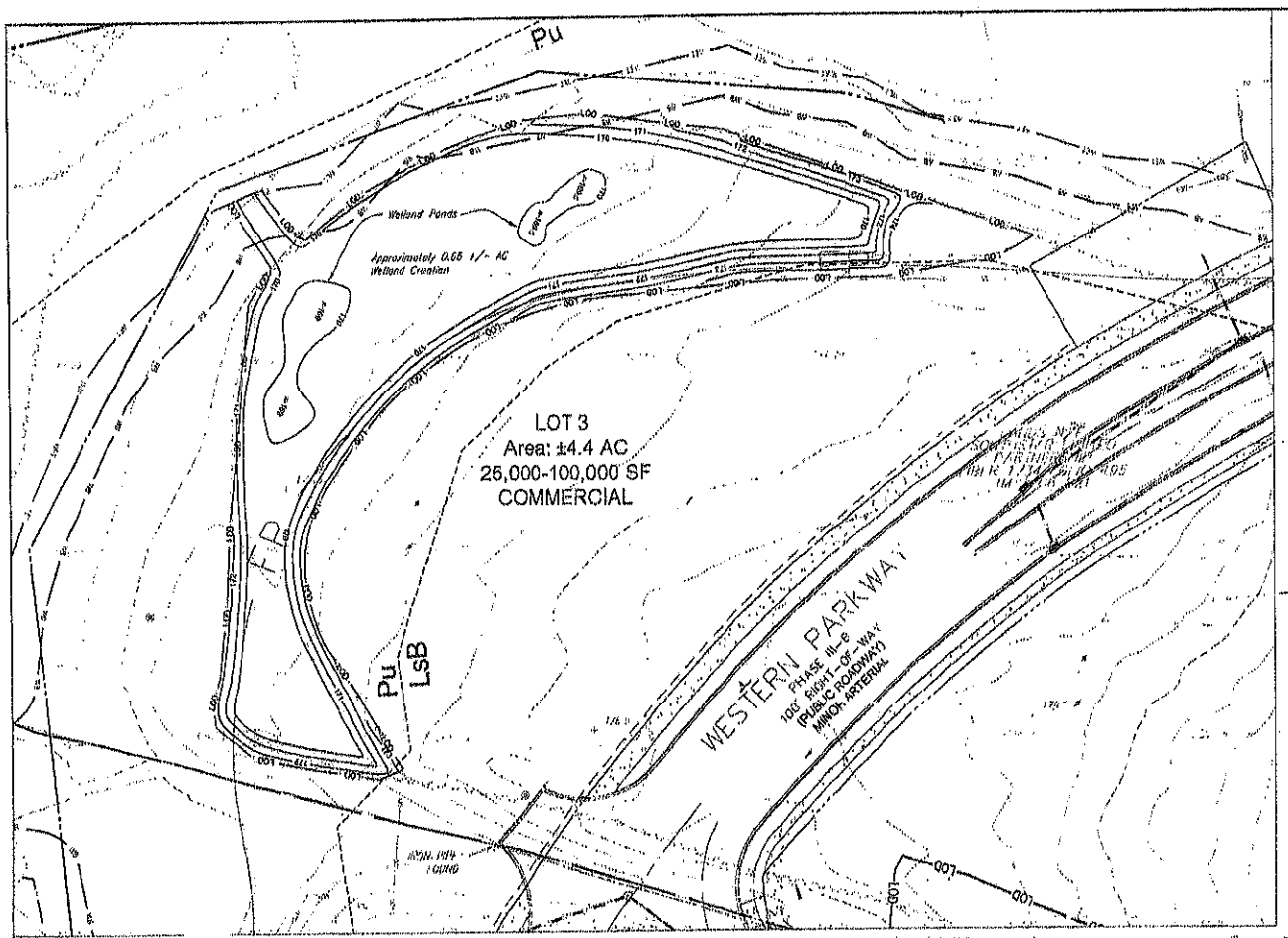
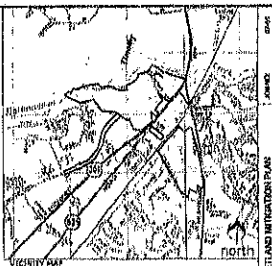
PREPARED BY:
ALC
AMERICAN LAND CONCEPTS



The Wetland Mitigation area is located within the Mattawoman Watershed and 100-year floodplain of the Mattawoman Creek. This area is currently cleared land and maintained as a football field. Nontidal forested wetlands associated with Mattawoman Creek are located immediately adjacent to the proposed wetland creation area. The soils is Potobac-Issue complex which frequently floods and poorly drains.





LEGEND

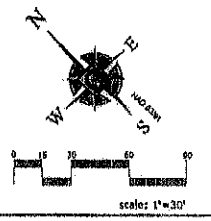
- Property Boundary
- Existing Wetlands w/25FT Buffer
- Treeline
- Soils
- Stream/Stream Bank
- Floodplain
- Existing Contours
- Proposed Contours
- Spot Elevation
- Area To Be Planted
- Development LOD
- Mitigation LOD
- Proposed Mitigation Area Approximately 0.66+/- AC

This wetland mitigation plan has been designed to compensate non-tidal wetland impacts associated with the construction of Waldorf Crossing and Western Parkway, Phase 2 and 3 in Charles County, Maryland. After necessary grading to ensure the created wetland will be successful and function as a highly aquatic resource, the total area converted to palustrine non-tidal forested wetland is approximately 0.66+/- AC.

The goal of the creation of this palustrine forested wetland is to meet the design criteria in the 1987 USACE Wetland Delineation Manual. The proposed site is located adjacent to existing jurisdictional non-tidal palustrine wetlands and the created wetland will be graded to the same elevation of the existing wetland to allow for the hydrology to naturally flow between the created and existing wetlands.

In addition to the wetland being planted with native wetland species, the side slopes of the created wetland will be planted up to the existing forested area to further protect the Mattawoman Creek and the watershed.

Plans are for design and permitting purposes only, not for construction.



FINAL WETLAND MITIGATION PLANS
WALDORF CROSSING/WESTERN PARKWAY, PHASE 2 & 3

PROPOSED MITIGATION PLAN
CRAIN HIGHWAY - 1125, RTE. 301 &
MATTAWOMAN-BEANTOWN ROAD - MD RTE. 5
6TH ELECTION DISTRICT
CHARLES COUNTY, MD

DATE | REVISIONS

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Consultant: AMERICAN LAND CONCEPTS
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REGISTERED LANDSCAPE ARCHITECTS
PHONE: (410) 452-5666

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NON-TIDAL PALUSTRINE FORESTED WETLAND ESTABLISHMENT

I. INTRODUCTION

This wetland mitigation plan has been designed to compensate for unavoidable adverse non-tidal wetland impacts associated with the construction of Waldorf Crossing and Western Parkway, Phase 2 and 3 in Charles County, Maryland. After an extensive site redesign and redelineation, total permit impacts associated with the project are approximately 1.0 +/- AC of emergent and non-tidal palustrine forested wetlands. The proposed mitigation will convert approximately 0.66+/- AC of cleared, floodplain to palustrine forested wetlands.

The proposed mitigation has been designed to effectively mitigate lost wetland functions by utilizing on-site, in-kind mitigation. The goal of the creation of this palustrine forested wetland is to meet the design criteria in the 1987 USACE Wetland Delineation Manual. The proposed site is located adjacent to existing jurisdictional non-tidal palustrine wetlands. The mitigation site will be graded and linked directly to the hydrology of the existing wetlands. The mitigation site will be planted to accelerate natural succession. These plans are for design and permit purposes only, not for construction. As part of the mitigation, the established wetlands will be recorded as a conservation easement to protect the wetlands in accordance with USACE.

A. Site Selection

The on-site mitigation location was selection due to the land being within the boundaries of the floodplain and the close proximity to existing jurisdictional wetlands. The site is cleared land that is maintained as a football field. Existing wetlands, floodplain, and waters of the United States are shown on the plan sheets. The selected mitigation site is within the Mattawoman watershed and the hydrologic unit code (HUC) is 02070011.

B. Adjacent Wetlands

Non-tidal palustrine wetlands are adjacent to proposed mitigation site. Dominant vegetation in the forested wetlands include River Birch, Red Maple, Sweet Gun, Green Ash, Willow Oak and Pin Oak. Soils within the wetlands are nearly flat with slight topographic variations between 1-10% slopes. The source of the wetland hydrology includes surface runoff and the Mattawoman Creek.

II. SEQUENCE OF CONSTRUCTION

1. Call Miss Utility 1-800-257-7777at least 48 hours prior to beginning work.
2. Limit-of-Disturbance delineated and marked.
3. Clear and grub those areas necessary for installation of perimeter controls.
4. Installation of silt fence.
5. Excavation the area in accordance with this Wetland Mitigation Plan. A minimum of 6 inches of existing loam will be removed and replaced with 6 inches of organic topsoil simultaneously.
6. Once topsoil is in place and any microtopographic has been established, a post grading survey will be conducted. The survey shall document spot elevations that are within +/- 0.2 FT of the elevations indicated on page 3 of this Plan.
7. Vegetative planting of wetlands per plant list and planting specifications as shown on this sheet.
8. Removal of sediment and erosion control devices upon the inspector's approval.
9. Clean work site and stabilize any remaining areas.
10. Once stabilized, the silt fence will be removed.

III. SOIL AND EROSION CONTROL NOTES

1. All erosion and sediment control practices are to be constructed and maintained according to the minimum standards of the Maryland Erosion and Sediment Control Handbook. The Contractor is responsible for being thoroughly familiar with the measures contained within this document that are pertinent to this project.
2. It is the contractors responsibility to inspect all erosion control devices periodically and after every erodible rainfall. Necessary repairs to maintain the effectiveness of the erosion control devices shall be made immediately. This maintenance will include the repair of measures damaged by any subcontractor.
3. All erosion and siltation measures are to be "in place" prior to construction
4. If, during construction, additional erosions control devices are found necessary by either the contractor or the County, they shall be installed.
5. Permanent soil stabilization shall be applied to bare areas within seven days of reaching final grade. No disturbed area will be denuded of more than 28 calendar days.
6. Temporary seeding shall be accomplished within seven days to denuded areas that may not be at final grade but will remain dormant for longer than 30 days.
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9. Minimize the area disturbed to that area only required for construction.
10. Native vegetation will be preserved to the maximum extent possible consistent with the use and development permitted and according to the Maryland Erosion and Sediment Control Handbook.

IV. GRADING CRITERIA

To effectively establish wetland hydrology, the site requires regrading to allow water to drain to the wetland. The wetland establishment will be graded to elevations indicated on Sheet 3 of this plan. The proposed mitigation area will be rough graded to an elevation of 170'. Final grading including the establishment of required microtopographic variation will range in elevation from 169' to 170.5' to establish wetland hydrology. During excavation, the wetland specialist can alter the grading as needed to allow for proper wetland establishment. Irregularities in the floor of the wetland caused by equipment moving around the site during construction will be left in place to mimic Hummocky microtopography. Hummokcy microtopogry mimics naturally occurring microtopography created by decaying wetland vegetation. A wetlands specialist will be present during the construction to oversee the microtopography variation of the wetland. The mitigation site design includes the creation of ponds and islands to mimic a natural system and provide for bio-diversity.

V. TOPSOIL APPLICATION

The topsoil from the existing wetland should be stockpiled separately from the subsoil and protected for use in the created wetland. That will reduce the need for additional organic amendments. If that is not possible, the site may need to be over excavated 6-12 inches (depending on site hydrology/groundwater inputs) and a comparable amount of high quality topsoil, organic soil, muck, or composted organic material added. Where the site has been graded down to the original subsoil (B or C horizon), sufficient organic matter (topsoil, compost, leaf mold, etc.) should be added to bring soil organic matter content to at least 5% (this could be as much as several inches of material). This will provide a rooting medium and a source of organic material to support the microbial activity necessary to establish a reducing environment. Mulch can be difficult to mix into clayey soils, where disking may be possible to a depth of only 6-8 inches. If mulch is added, it should be mixed into the soil very well and should not be added in such quantities that herbaceous growth will be inhibited.

VI. PLANTING SPECIFICATIONS

Planting shall commence after final grading. All plant material shall be installed between March 1 to May 30 or September 1 to October 30. Planting materials will consist of container grown shrubs and trees. All stock will be planted as received, no pruning will be done at the site. Stock not meeting specifications will be returned. All planting stock shall be protected from sun scald, desiccation, and structural damage during shipment to the site. Delivery of materials will be no sooner than one week prior to planting. Materials held for planting will be moistened and placed in cool, shaded areas until ready for placement.

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4. The root mass shall be placed in the planting pit and excavated soil shall be placed around the root mass and tamped to fill all voids and air pockets.

C. Cleanup

1. Final cleanup shall be the responsibility of the Contractor and consist of removing all trash and materials incidental to the project and the proper disposal of the material off-site.
2. Cleanup procedure activities shall not damage existing plants.

VII. CONTROL OF INVASIVE PLANTS AND ANIMALS

A maintenance program will be implemented to employ proven management techniques and monitor the wetland functions to achieve the goal of 80% cover 5 years from the completion of the planting.

VIII. MONITORING AND SUCCESS

Monitoring and success will be measured in accordance with the United States Army Corps of Engineers Branch Guidance for Wetlands Compensation Permit Conditions and Performance Criteria (16 November 1995) and Maryland Department of the Environment's Guide to Nontidal Wetland Mitigation Monitoring: Methods Manual. Monitoring Reports are required for the first five years following the end of the first growing season after planting. Hydrologic, vegetative, and soils data will be collected throughout the year. Reports will be provided to the United States Army Corps of Engineers no later than October 31 of the monitoring year. At a minimum each report will include:

1. A site map illustrating the wetland boundary based on hydrology and vegetation data and the calculated acreage based on that data.
2. Photographs showing views of the wetland area taken from permanent stations and corresponding view directions. View direction will show the same area throughout the monitoring period.
3. Surface water depths observed during monitoring.
4. Vegetation data will include density counts for woody plants by species and herbaceous plants by percent cover.
5. Soil will be monitored to ensure hydrological indicators in accordance with the USACE manual such as mottling, oxidized rhizospheres, etc. are present.
6. Identification and location of any invasion of undesirable species of vegetation and/or wildlife will be reported in the Monitoring Report. The report will suggest methods for removal and monitoring of undesirable species of vegetation and wildlife.

PLANT LIST

REFORESTATION AREA A PLANTING LIST:

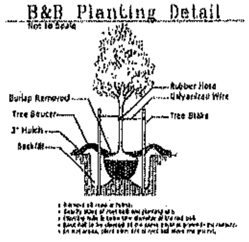
0.82 ACRES @ 435 TREES/ACRE = A MINIMUM OF 357 TREES/SHRUBS

Common Name	Scientific Name	Quantity	Size
Red Maple	*Acer rubra*	50	1 gallon containers
River Birch	*Betula nigra*	40	1 gallon containers
Pin Oak	*Quercus palustris*	40	1 gallon containers
Willow Oak	*Quercus phellos*	40	1 gallon containers
Sweetgum	*Liquidambar straciflora*	50	1 gallon containers
Arrowwood	*Viurnum dentatum*	50	1 gallon containers
Silky Dogwood	*Cornus amomum*	25	1 gallon containers
Buttonbush	*Cephalanthus accidentalis*	20	1 gallon containers
Sweetbay Magnolia	*Magnolia virginiana*	20	1 gallon containers
Highbush Blueberry	*Vaccinium corymbosum*	25	1 gallon containers
	TOTAL	360	

NOTE: Substitutions in plant species, size, quantities, or other materials, shall be made only when plant stock is not available. Comparable substitutions can be made that do not result in a significant change in plant diversity or type.

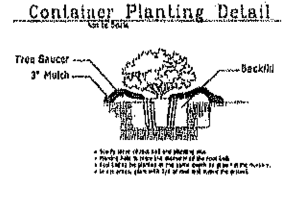
B&B Planting Detail

Not to Scale



Container Planting Detail

Not to Scale



Plant Community Layout

OWNER/APPLICANT: WRI WEST LAND DEVELOPMENT, INC. 12480 MATTAWOMAN DRIVE WALDORF, MARYLAND 20601 AND CHARLES COUNTY GOVERNMENT P.O. BOX 2150 LA PLATA, MARYLAND 20646

CONSULTANT: AMERICAN LAND CONCEPTS 238 S MAIN STREET REISTERSTOWN, MARYLAND 21136 PHONE: (410)-526-2088

Engineer: BOHLER 16701 Melford Boulevard, Suite 310 Bowie, Maryland 20715 301.809.4500

DATE	REVISIONS

FINAL WETLAND MITIGATION PLAN
WALDORF CROSSING/WESTERN PARKWAY, PHASE 2 & 3

NOTES AND DETAILS

CRAIN HIGHWAY - U.S. RTE. 301 & MATTAWOMAN BEANTOWN ROAD - MD RTE. 5
6TH ELECTION DISTRICT
CHARLES COUNTY, MD

JOB NO.: · SCALE: · DATE: · DRAWN BY: · DESIGN BY: · REVIEW BY: · SHEET: