DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVE
NEW ORLEANS, LA 70118-3651

June 22, 2020

Operations Division
Special Project and Policy Team
Project Manager: Brian W. Breaux
brian.w.breaux@usace.army.mil
(504) 862-1938

SUBJECT: MVN-2014-00980-MB

PUBLIC NOTICE

Public Notice Purpose: Pursuant to Section 10 of the Rivers and Harbors Act of March 3, 1899 (30 Stat. 1151; 33 USC 403) and Section 404 of the Clean Water Act (86 Stat. 816; 33 USC 1344), the U.S. Army Corps of Engineers, New Orleans District, Regulatory Branch is soliciting comments from all interested parties on the development, utilization and long-term management of a proposed mitigation bank. The purpose of this mitigation bank is to provide compensatory mitigation for unavoidable impacts to wetland resources, including other waters of the United States, that result from projects authorized through the Department of the Army permit program.

PROPOSED ASSUMPTION LAND COMPANY LLC MITIGATION BANK IN ASSUMPTION PARISH

NAME OF APPLICANT: Assumption Land Company, LLC, c/o Aux, LLC, 214 Pamela Place, Thibodaux, Labadieville, Louisiana 70301 ATTN: Horace Thibodaux.

LOCATION OF WORK: The proposed project area is located in Sections 61, 62, 63, 105, 106, 107, 109 and 129, Township 14 South, Range 15 East, northeasterly of Labadieville, in Assumption Parish, Louisiana. Barataria Basin USGS Hydrologic Unit Code 08090301

Area A Lat. 29.881932 Long. -90.936061
Area B Lat. 29.882525 Long. -90.928499
Area C Lat. 29.879092 Long. -90.924922
Area D Lat. 29.875972 Long. -90.92675
Area E Lat. 29.873428 Long. -90.927542
Area F Lat. 29.86845 Long. -90.930394
Area G Lat. 29.859339 Long. -90.930133
Area H Lat. 29.85405 Long. -90.943803
Area I Lat. 29.851383 Long. -90.941306

CHARACTER OF WORK: The Sponsor proposes restoration to bottomland hardwood wetlands nine (9) distinct existing and/or abandoned agricultural fields (Areas A – I) totaling 459.4 acres (359.4 ac re-establishment, 100.0 ac rehabilitation). Area A, B and D are fallow/abandoned fields; Area C is pasture, and Areas E through I are sugarcane fields. Ditching and swales internal to the individual fields will be backfilled with native material to facilitate restoration of surface hydrology within the field. Existing woody vegetation will be removed by mechanical means and piled for burning. The lands will be planted with appropriate species to resemble other nearby bottomland hardwood systems. The restoration activities would be used as compensation for unavoidable impacts to wetlands associated with Department of the Army (DA) permits authorized under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act. The mitigation banking prospectus is attached.

The Corps of Engineers is soliciting written comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties. The comment period will close **30 days** from the date of this public notice advertisement. Written comments, including suggestions for modifications or objections to the proposed work, stating reasons thereof, are being solicited from anyone having interest in this prospectus. Letters must reference the applicant's name and the subject number, be addressed and mailed to the above address,

Corps of Engineers Permit Criteria

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The U.S. Army Corps of Engineers is soliciting comments from the public, federal, state, and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the U.S. Army Corps of Engineers to determine whether to make, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

The New Orleans District is unaware of properties listed on the National Register of Historic Places near the proposed work. The possibility exists that the proposed work may damage or destroy presently unknown archeological, scientific, prehistorical, historical sites, or data. Issuance of this public notice solicits input from the State Archeologist and State Historic Preservation Officer regarding potential impacts to cultural resources.

Our initial finding is that the proposed work would neither affect any species listed as endangered by the U.S. Departments of Interior or Commerce, nor affect any habitat designated as critical to the survival and recovery of any endangered species.

Utilizing the Information & Planning Consultation for Endangered Species in Louisiana (IPaC), dated January 27, 2020, between the U.S. Army Corps of Engineers, New Orleans and U.S. Fish and Wildlife Service, Ecological Services Office, the Corps has determined that the proposed activity would have no effect on any species listed as endangered by the U.S. Department of the Interior.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The applicant's proposal would result in the destruction or alteration of N/A acre(s) of EFH utilized by various life stages of red drum and penaeid shrimp. Our initial determination is that the proposed action would not have a substantial adverse impact on EFH or federally managed fisheries in the Gulf of Mexico. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

If the proposed work involves deposits of dredged or fill material into navigable waters, the evaluation of the probable impacts will include the application of guidelines established by the Administrator of the Environmental Protection Agency. Also, a certification that the proposed activity will not violate applicable water quality standards will be required from the Department of Environmental Quality, before a permit is issued.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

You are requested to communicate the information contained in this notice to any other parties whom you deem likely to have interest in the matter.

The applicant has certified that the proposed activity described in the application complies with and will be conducted in a manner that is consistent with the Louisiana Coastal Resources Program. The Department of the Army permit will not be issued unless the applicant received approval or a waiver of the Coastal Use Permit by the Department of Natural Resources.

You are requested to communicate the information contained in this notice to any other parties whom you deem likely to have interested in the matter.

For

Martin S. Mayer
Chief, Regulatory Branch

Attachment

Prospectus for the

Assumption Land Company, L.L.C.
Mitigation Bank

Assumption Parish, Louisiana

Feburary 27, 2019

REV 2019 07-29-to-30
REV 2019 08-15-19
REV 2020 05-01-20

SPONSOR

Assumption Land Company, L.L.C,
Mitigation Bank
184 Cedar Grove Road
Labadieville, Louisiana 70372

AGENT

Horace J.Thibodaux
AUX, LLC
214 Pamela Place
Thibodaux, LA 70301
Phone: 985-387-0161

Revised 02-27-19
Revised 08-15-19
Revised 04-08-20
Revised 05-01-20

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ATTACHMENT A

Attachment A Soils Map (NRCS)

Attachment B Hydrological Modifacation Impact Analysis is Attached and made a part of this document

I. RESTORATION SITE OBJECTIVES

Assumption Land Company, L.L.C. Mitigation Bank. is pleased to present the following prospectus and site restoration plan for the **Assumption Land Company, L. L.C. Mitigation Bank (Bank)** to the **IRT (Interagency Review Team)** and **USACE New Orleans District**. We are requesting that this **Bank** be evaluated and approved as **Assumption Land Company, L.L.C. Mitigation Bank.** The purpose of site restoration activities will be the re-establishment and rehabilitation of bottomland hardwood wetland communities to provide compensation for unavoidable wetland impacts authorized by the issuance of the Department of the Army **(DOTA)** permits under Section 404 of the Clean Water Act and Sections 9 and 10 of the Rivers and Harbors Act of 1899. The specific objectives of the bank are the following:

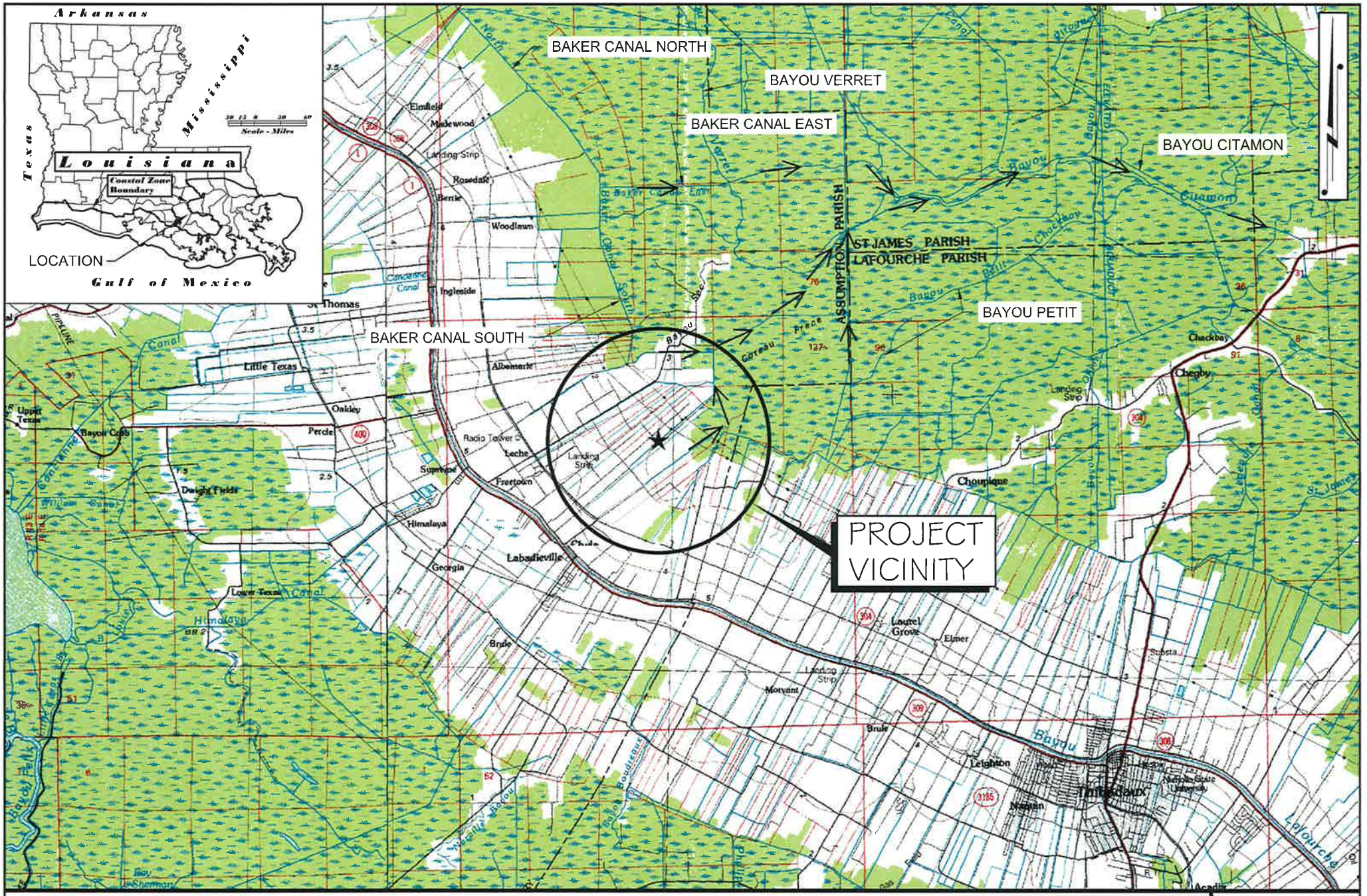
- Restoration of self-sustaining, bottomland hardwood, floodplain and wetland hydrology to the **Bank**
- Restoration of self-sustaining, bottomland hardwood and wet hardwood communities appropriate to the area and to the hydrologic regimes located on-site
- Improved fish and wildlife habitat functions and values to adjacent, forested private lands and to the greater Barataria watershed through the re-establishment and rehabilitation of the bottomland hardwood ecological system on-site.
- Improvement in local water quality discharges from the **Bank** into local waterways and into the Baker Canal which drains into tributaries of the Barataria Basin.
- Increased flood storage

II. SITE LOCATION AND REGIONAL SIGNIFICANCE

The proposed **Assumption Land Company, L.L.C. Mitigation Bank** is located in Assumption Parish, Louisiana in Sections 61,62,63,105,106,107,109 and 129, T14S-R15E (see **Figure 1 and Figure 2).** The Bank totals approximately **459.45 acres**. The **Bank** is located approximately 3.26 miles northeast of Labadieville, Louisiana as depicted in **Figures 1, 2, 2A** and 3 depicts the location of the proposed **Bank** in Assumption Parish Louisiana.

The contributing drainage area of the **Bank** includes HUC Cataloging Unit 08090301, the Barataria Watershed **(Figure 4).** The Barataria Watershed area is from Donaldsonville in the north, west of the Mississippi River, east of Bayou Lafourche and south to the Gulf of Mexico.

Presently the proposed **Bank** contains a total of **459.45 acres** of proposed bottomland hardwood forest. **Figure 3** depicts the outline of the proposed Bank on an aerial photograph. The proposed **Bank** will have a total of **459.45 acres** of bottom land hardwoods. The original bank was established in 1998



AREAS A-I

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
LOCATED IN SECTIONS 61, 62, 63, 105, 106, 107, 109 AND 129
T14S - R15E
ASSUMPTION PARISH
LOUISIANA

Figure
1
Vicinity Map

SCALE IN FEET

2,000' 1,000' 0 2,000'

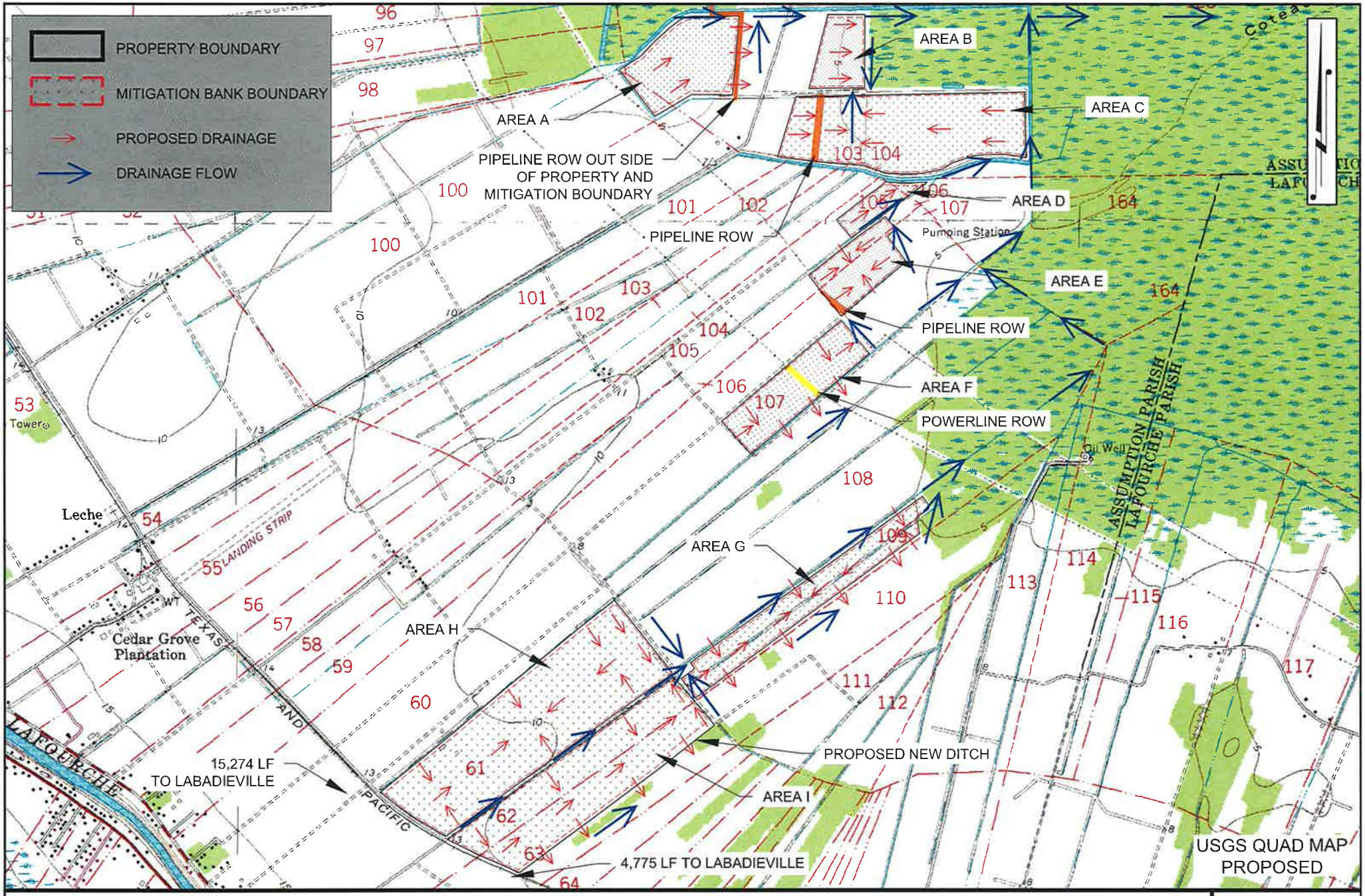
AREAS A-I

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
LOCATED IN SECTIONS 61, 62, 63, 105, 106, 107, 109 AND 129
T14S - R15E
ASSUMPTION PARISH
LOUISIANA

Figure

2-1

Aerial Photograph



SCALE IN FEET

2,000' 1,000' 0 2,000'

SEE DETAIL MAPS 8A - 8I (PROPOSED)

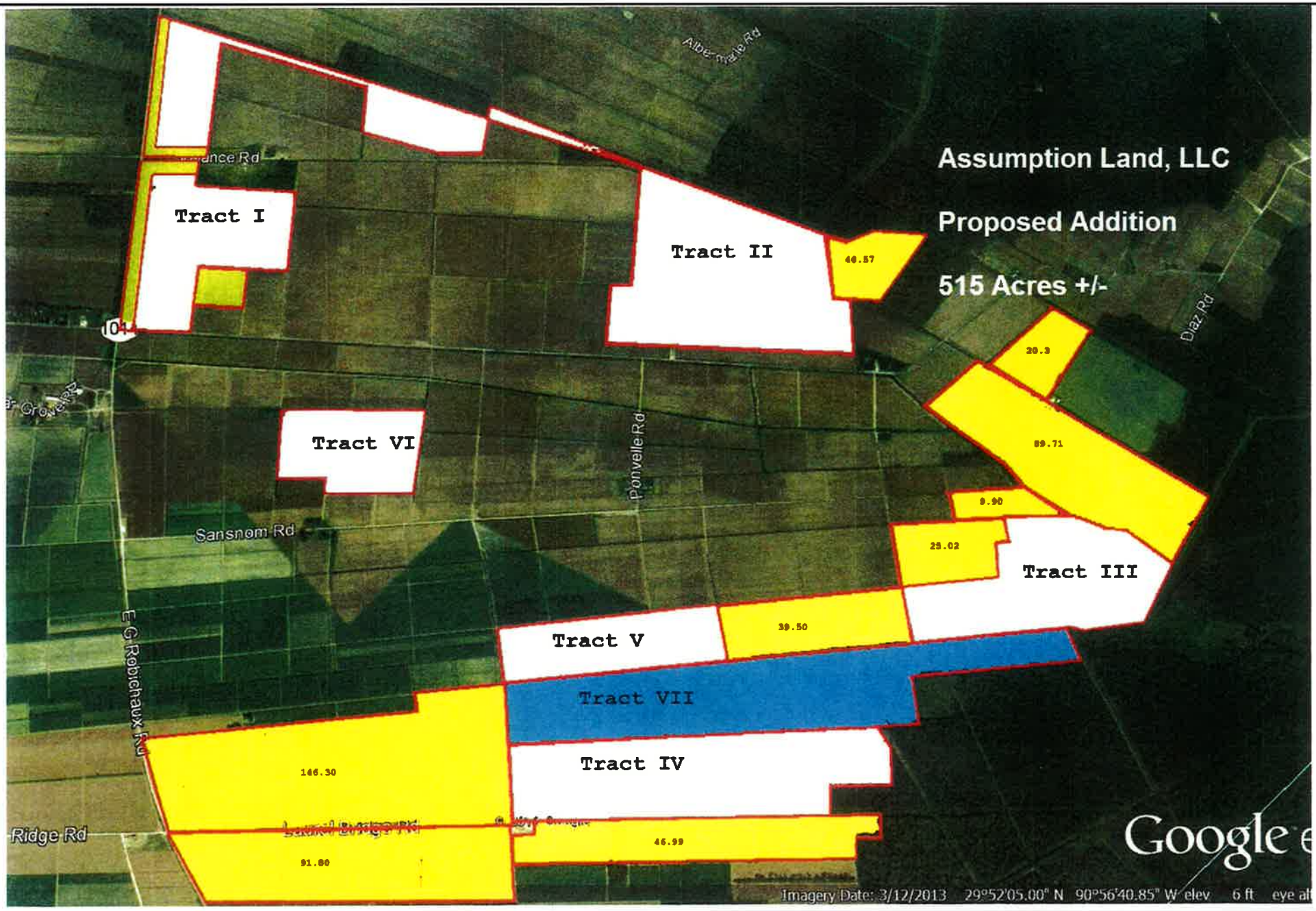
AREAS A-I

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
LOCATED IN SECTIONS 61, 62, 63, 105, 106, 107, 109 AND 129
T14S - R15E
ASSUMPTION PARISH
LOUISIANA

Figure

2A

Quad Photograph



CLOSED MITIGATION BANK

PROPOSED MITIGATION BANK

AREAS A-I

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
3

Based on the historical aerial photography research and surrounding forested habitat, the **Bank** most likely supported wet bottomland hardwood community types, as defined in the **Natural Communities of Louisiana** and electronically published by the LDWF and Louisiana Natural Heritage Program (LNHP). These imperiled bottomland hardwood community types are associations that occur within bottomland hardwood ecosystems on hydric soils on poorly drained areas, depressions and small drainages (slashes), and are generally not affected by overbank flooding. Wet hardwood is typically found on clays and silt loam soil series, which are soil characteristics similar to that of the soils found on the **Bank** area.

The increased activity for development in the Barataria Watershed (HUC 08090301) is resulting in the need for high quality mitigation within the watershed to offset unavoidable impacts to several bottomland hardwood wetland community types. This site will be submitted under mitigation bank agreement and, will provide for the restoration and enhancement of bottomland hardwood species being replanted within the proposed bank area.

Restoration of this site specifically will provide for **1)** the restoration of impacted habitat types within the HUC 08090301 Barataria Watershed, **2)** high-quality habitat for wetland dependent wildlife and wildlife requiring mature forested ecosystems, **3)** improved water quality through closure and backfilling of existing agricultural ditches, **4)** increased flood storage and treatment via overland flow of non-point source runoff through the bank area, and finally, **5)** improved wildlife dispersion and genetic diversity through corridors and connectivity functions resulting from the interconnection of several existing large tracts (2,431.58±acres) of bottomland forested wetland habitat owned by the Assumption Land Company ,L.L.C. located near and adjacent to the proposed **Bank** and within the HUC 08090381 Barataria Watershed area.

III. PROPOSED SERVICE AREA

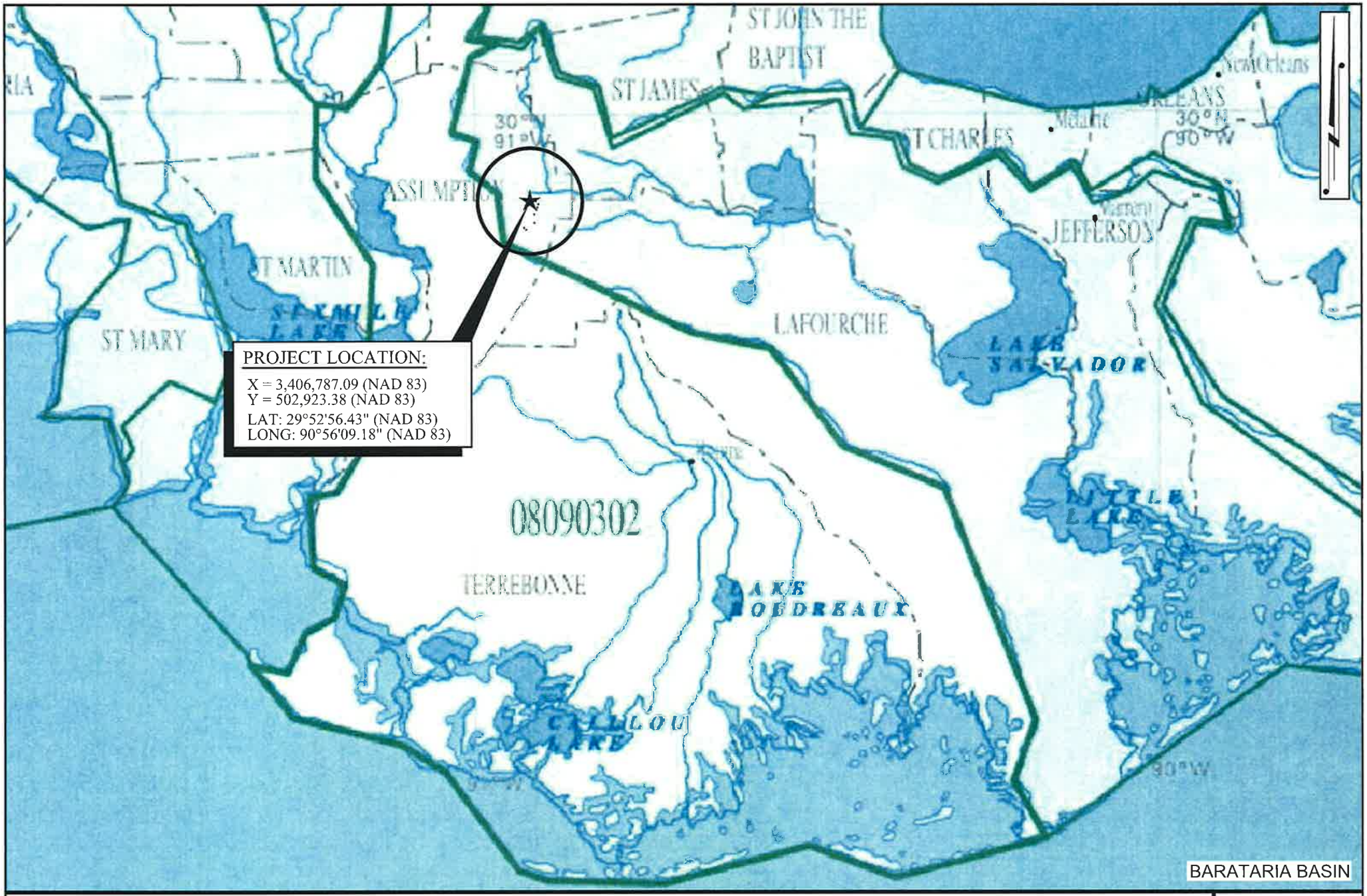
The proposed service area will cover all areas located within Watershed Unit 08090301 the Barataria Basin Watershed area as depicted in **Figure 4**.

Beyond the area as herein described the purchase of mitigation from the proposed bank will be determined by the CEMVN on a case by case basis.

IV. BACKGROUND AND CURRENT SITE CONDITIONS

A. Baseline Ecological Conditi\on

The area was cleared of forested wetlands and developed with drainage ditches to facilitate the growth of sugar cane, soybeans and other crops in the area. **Small lateral ditches exist and drain to larger ditches located around the areas. Figure 3** also depicts areas of the proposed **Bank** in the vicinity of the original Assumption Land Company mitigation bank(ALC1). According to Ribits all tracts of the original ALC bank are sold out of credits.**Figure 12** depicts the areas of the proposed **Bank** with LIDAR data indicating acres above and below 5 foot in elvation.



AREAS A-I

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

4

Barataria Basin

B. Soils

The soils located within the proposed site are Cancienne Silt Loam, Cancienne Silty Clay Loam, Cancienne Silty Clay, Schriever Clay Loam, Fausse Association and Thibaut Clay. **Attachment A** depicts a detailed plat of the soil types within the proposed bank area.

C. Surrounding Land Use

The surrounding land use consists of 6,542.21± acres of cultivated crop land and roads, residential areas consisting of 87.77± acres and existing forested woodlands consisting of 2,431.58± acres. **Figure 6** depicts an aerial layout of the land use within one-half mile of the proposed site. **Figure 6** depicts the **FEMA** flood zone map of the **Bank** area.

D. Existing Drainage

The existing drainage flows to small field ditches and culverts then into larger ditches which transports storm water into the Baker Canal located to the northeast of the proposed sites. **Figures 2, 2A and 7** depict the existing and proposed drainage flow.

Hydrology of the site consists of rainfall, overland flow from adjacent properties. The NRCS characterizes this area as receiving a mean annual precipitation ranging from 45-62 inches. The NRCS has classified the site as prior converted (p.c.), see attached **Figure 11.** Wetland hydrology persists in areas claimed as jurisdictional wetlands. The confirmed presence of hydric indicators indicates that the site was historically saturated. Historic crop management with major and minor ditching effectively drained and removed wetland hydrology from the majority of the site.

There are no known, existing hydrologic disturbances either on or adjacent to the site over which the Sponsor will not have control. All other on-site hydrologic conveyances are fully owned and controlled by the landowner. The Baker Canal is controlled by the Assumption Parish Police Jury.

Based on the information available, the flat topography of the area, and the soil types the site historically supported bottomland hardwood and wetlands. **Figure 11** depicts a plat from NRCS which depicts the p.c. classification of the agency. Depressional areas within the Site likely maintained wetter bottomland hardwood community types, with longer hydroperiod durations prior to ditching. Additionally, standing water on the site historically persisted longer after rainfall events, and slowly dispersed from the south and north across the site as overland flow to the north. The site ditching now quickly conveys surface water from the site, which decreases the amount of time standing water persists on the site before being discharged as channelized flow. Additionally, ditching effectively intercepts water that would normally find its way into the existing natural Depressional areas. The proposed hydrologic restoration plan will effectively restore historic hydrologic conditions by backfilling excavated ditches and drainage swales that currently exist in the improved pasture areas located in the central and southern areas of the site. Backfilling these agricultural drainage swales and ditches will impede the direct conveyance of surface water

and increase the duration of standing water on-site. The hydrologic restoration will also increase water storage and hydroperiod durations within on-site depressions and restore localized watershed to the depressions currently drained by the ditching. The net effect will be increased hydroperiod durations able to support the bottomland hardwood community types and associations proposed for restoration.

A Hydrological Modifacation Impact Analysis as requested by LANDR-CMD is presented in **Attachment B**.

E. Existing Vegetative Communities

Non-jurisdictional wet pasture areas of the Site are primarily dominated by soybeans and sugar cane. Several large jurisdictional wetland areas adjacent to the sites is dominated by green ash (*Fraxinus pennsylvanica*), black willow (*Salix nigra*), red maple (*Acer rubrum*), American elm (*Ulmus americana*), blackgum (*Nyssa sylvatica*), water oak (*Quercus nigra*), and hackberry (*Celtis laevigata*) observed as common sub-dominants and associates.

Existing Wetlands

Approximately 2,431.58 acres of existing forested wetlands occur adjacent to the **Bank** sites. **Figure 3** depicts areas of the proposed **Bank** in the vicinity qf the former Assumption Land Company mitigation bank areas. **Figure 3** also depicts areas of the proposed **Bank** in the vicinity of the original Assumption Land Company mitigation bank(ALC1) ..In accordance with the current issue of Ribits all tracts are sold out of credits. F**igure 6** depicts the **FEMA** flood zone map of the **Bank** area.

Figure 12 depicts the areas of the proposed **Bank** with LIDAR data indicating acres above and below 5 foot in elvation. **273 acres** exist above the 5 foot contor and **186 acres** exist below ths 5 foot contor. The initial on-site wetland delineation was performed by PECI, on behalf of the Sponsor, submitted the ASES wetland delineation report and supporting maps to the USACE New Orleans District (NOD) on April 2, 2014. A final wetland delineation map was submitted to the NOD for final approval on January 06, 2015. The approved USACE jurisdictional for the Bank is provided in **Figure 10.**

V. MITGATION ACTIVITIES AND CONCEPTUAL RESTORATION PLAN

A. Wetland Mitigation Types

The mitigation type proposed will be reestablishment and rehabilitation of bottomland hardwood species. Specified as restoration mitigation, the sponsor proposed to do the following:The sponsor proposes to restore hardwood species by replanting these species and developing hydrological activities to support the wetland areas **(See Figure 8).** Restoration of forested woodlands **478..8 acres** will be accomplished through both vegetative plantings and hydrologic restoration activities as presented below. Total acreages to be used to determine mitigation credit is estimated at **459.45 acres** of which 359.5 acres are rehabilitation and 99.95 acres are reestablishment.

B. Hydrologic Restoration

The current man-made ditch system is designed to facilitate drainage of surface water off the site. The large drainage ditch that currently exist on the center of the site will be back filled. The proposed relocation of existing drainage ditch is depicted in **Figures 2, 3, and 9**. The existing ditches will be filled with on-site soil material so as to allow for replanting of bottomland hardwoods in the areas **(See Figure 9)**. The proposed new ditch relocation will allow for adjacent agriculture fields and residential property to drain into the existing Baker Canal **(See Figures 2, 3, and 9).**

Assumption Land Company, L.L.C Mitigation Bank is proposing the restoration, via restoration of **459.45** acres of bottomland hardwood (BLH) forest in Assumption Parish. This document is to address the hydrological impacts as required by Louisiana Department of Natural Resources Office of Coastal Management guidelines and regulations for obtaining a Coastal Use Permit. This information will also be used to acquire Section 10 of the Rivers and Harbor Act and Section 404 of the Clean Water Act.

The **459.45** acres are located in nine areas which are labeled A through I. The pre and post analysis of these areas will be addressed by grouping the areas in either of two groups of similar hydrological settings. All areas are subject to localized rainfall and to a limited amount to the water regime of the adjacent forested wetlands. Small interior ditches were established in these areas to aid in drainage for agriculture crops. The portion of these interior ditches within the bank will be filled resulting in having sheet flow only. All crop rows will be leveled in each area to facilitate sheet flow and reduce runoff rates. A 100 year storm for this geographic area is 11.5 inches to 15 inches of rainfall within 24 hours. Such storms have occurred in this area and resulting in flooding. The magnitude of the flooding is depended on several variables such as but not limited to current water levels in receiving flood storage areas, amount of available flood storage areas, and current levels of soil moisture. All areas will be planted with BLH species while ground cover will be allowed to occur naturally.

Decrease in pesticides and nutrient loading will occur in all areas from:

- The filling in of interior ditches. Without these ditches material leaving these areas will be reduced.
- Additional reduction will occur with the planting of BLH vegetation and will increase in rate as the vegetation increase in size and canopy.
- In Areas E through I additional reduction will occur by:
    - The removal of these areas from agriculture production of row crops.
        - Thus removing the need to apply pesticides and nutrients.
        - The removal of the need to plow and cultivate the soils on a regular basis which cause the increase sediment removal from the area during rain events.

        - Since it is known that pesticides and nutrient bonds with sediments particles, the decrease sediments in the runoff also means a decrease in pesticides and nutrients leaving the area and entering the adjacent ecosystem.
    - Historical pesticides, which are no longer used and have long existence, are still found in the agriculture areas since they are also bonded to the sediments. Therefore they will remain longer in a bonded state that does not allow them to enter the ecosystem.
    - The pesticides and nutrients loads have been known on more than one occasion to cause significantly aquatic organisms kills in adjacent waters. Therefore with the decrease in available pesticides and nutrients, a decrease in such kills will occur.

During the removal of interior levees and leveling crop rows plus the filling of ditches some minor increase in sediment load may occur on the short term and be controlled through the use of fiber logs and/or hay bales or comparable technologies/systems if needed. Sediment loading will significantly decrease once the work is completed and will farther decrease as the areas vegetation matures. Adjacent landowners and waterways will not be negatively impacted by these hydrological modifications, since they will be receiving waters at a lesser rate, improved water quality and retention of adverse chemicals.

Areas A through D will have significant less opportunity to impact offsite areas since they are already have ground cover in the form of natural vegetation. However Areas E through I will have a higher opportunity to impact offsite areas since will be changed from crops to natural vegetation.

In Areas A through I as the BLH canopy increases the retention of runoff will increase. This retention increase will benefit not only the Bank but adjacent land, forested areas, and waterways with the improvements of numerous factors that affect the quality and quantity of water, forest, habitats and natural resources. Therefore no adverse impacts will occur to the surrounding properties and not anticipated to adversely affect adjacent properties or waterways. The restoration and enhancement of wetland functions and values will occur to the immediate area and to the adjacent wetlands.

The first group contains tracts A-D which has existing similar hydrological characteristics of areas with levees on one or more sides and has natural occurring vegetation cover throughout the area. These areas are not currently in agriculture production but have been in the past. Each of these tracts has limited drainage via interior ditches and/or with sheet flow on the non-levee side(s). All the material removed from the interior levees will be used in filling interior ditches. Pre and post topography is generally level with some slight contour changes and have less than 1 % slope. The second group contains Areas E through I. These areas are similar in having on going agriculture production of crops, no levees on any side, adjoins lands currently under agriculture on at least one side, and having interior ditches. The hydrological modifications will be the filling of the interior ditches and leveling of crop rows. Pre and post topography is generally level with some slight contour changes and have less than 1 % slope.

- Area A is surrounded on three sides by levees created over time from the maintenance dredging of the adjacent drainage canal/ditches. These levees are outside of the area. A small interior levee runs north-south in the middle of the area. Currently drainage occurs to the east via sheet flow to drainage outside of the area which flows northward to an east-west canal which drains eastward. The proposed removal of the interior levee with its material placed back the borrow ditch will allow an increase sheet flow to occur. During removal process, the temporary increase in sediments may be controlled by the vegetation buffers plus fiber logs and/or hay bales or comparable technologies/systems if needed. Area A is surrounded on three sides by levees created over time from the maintenance dredging of the adjacent drainage canal/ditches. These levees are outside of the area. A small interior levee runs north-south in the middle of the area. Currently drainage Backfilling man-made ditches and agricultural swales which exist on site will eliminate draining of runoff through these conveyances off site, these also will allow sheet flow more evenly across the site and resulting in recreation of historic overland flow conditions. By backfilling, the amount and force of the water currently discharging from these ditches will be dispersed over a broad area of the sites. This will result in increased water storage and retain in Depressional areas with slower movement of water across the site by over land flow, thereby increasing retention of water on-site for longer periods and providing greater biological treatment of runoff from site Increase in flood storage will occur from Increase area for flood storage in Area A with the removal of an interior levee and ditch plus duration of flood storage will increase as the BLH vegetation increases in size and canopy.

- Area B is surrounded by levees on all sides outside of the area with a single outlet in the northeast part of the area. Several interior ditches existing from the former agriculture activities. Each of these interior will be filled in. Water movement will then be sheet flow only to the outlet. From the outlet the flow goes into a ditch with flow going both north and south to other east-west drainage ditches then eastward. Sediments during filling operations may be filtered out by the vegetation buffers plus fiber logs and/or hay bales or comparable technologies/systems if needed. The removal of interiors ditches will increase flood storage duration in Areas B plus duration of flood storage will increase as the BLH vegetation increases in size and canopy.

- Area C is surrounded by levees on all sides outside of the area with drainage occurring via a series of interior ditches through a single outlet on the Northside and portable pump on the northeast corner. Drainage from the outlet goes into an east-west ditch then flows eastward. The several interior ditches will be filled in and the pump will be permanently

removed from the area. Sediments during filling operations may be controlled by existing vegetation buffers plus fiber logs and/or hay bales or comparable technologies/systems if needed. This area is adjacent to an existing BLH mitigation bank on its southeast side. Although the 60 foot pipeline easement does not allow for encroachment of BLH species in the right-of-way, herbaceous species will be used to control sediments and provide wildlife habitat in the long term. The removal of a pump an interior ditches in Area C will increase the duration of flood storage plus duration of flood storage will increase as the BLH vegetation increases in size and canopy.

- Area D is surrounded by levees on all sides outside of the area with drainage occurring via a series of interior ditches through a single outlet on the northeast side. Drainage goes into an northeastward ditch then flows north eastward into an east-west ditch (Cedar Grove Ditch) which flows eastward. The interior ditches will be filled in. Sediments during filling operations may be filtered out by the existing vegetation cover, fiber logs and/or hay bales or comparable technologies/systems if needed. This area is adjacent to an existing BLH mitigation bank on its northeast side and Area E on its southeast side. The removal of interiors ditches will increase flood storage duration in Area. The removal of interiors ditches will increase flood storage duration in Areas D plus duration of flood storage will increase as the BLH vegetation increases in size and canopy.

- Area E is currently in sugarcane production with drainage via several interior ditches having flow to the northeast to multiple outlets. These outlets are outside the Bank boundary and discharge water into a ditch which flows northward to a main ditch which flows north to the Cedar Grove Ditch. With the abandonment of raising crops, removal crop rows and filling of interior ditches, runoff will be depend on sheet flow only to reach the outlets. The sediments occurring during site preparation will be increased but will be controlled using fiber logs and/or hay bales. This area is adjacent to an existing BLH mitigation area on its entire east side and adjacent to Area D on its northwest side. Although the 60 foot pipeline easement does not allow for encroachment of BLH species in the right-of-way, herbaceous species will be used to control sediments and provide wildlife habitat in the long term. The removal of interior ditches, farming row crops, and crop rows in Area E will increase flood storage duration since the water flow is depended only on sheet flow plus as the BLH vegetation increase in size and canopy in addition duration of flood storage will occur.

- Area F is currently in sugarcane production with drainage via an interior ditch having flow to the northeast and east to outlets. The removal of interior ditches, farming row crops, and crop rows in Area F will increase flood storage duration since the water flow is depended only on sheet flow plus as the BLH vegetation increase in size and canopy in addition duration of flood storage will occur These outlets are outside the Bank boundary

and discharge water into a ditch which flows southeastward to the Pellet Ditch or directly into Pellet Ditch which flows north to the Cedar Grove Ditch. With the ceasing of raising crops, removal crop rows and filling of the interior ditch, water flow will be depend on sheet flow only to reach the outlets. The sediments occurring during site preparation will be increased but may be controlled using vegetation buffers, fiber logs and/or hay bales or comparable technologies/systems if needed. This area is adjacent to an existing BLH mitigation area on its entire east, south, and north sides and adjacent to a road on its west side. Although the 100 foot powerline easement does not allow for encroachment of BLH species in the right-of-way, herbaceous species will be used to control sediments and provide wildlife habitat in the long term. Although the 60 foot pipeline easement does not allow for encroachment of BLH species in the right-of-way, herbaceous species will be used to control sediments and provide wildlife habitat in the long term.

- Area G is currently in sugarcane production with drainage via small interior ditches having flow to the northeast, west, and east to outlets. These outlets are outside the Bank boundary and discharge water into ditches on the west and east which flows northeastward. With the abandonment of raising crops, removal crop rows and filling of the interior ditches, runoff will be depend on sheet flow only to reach the outlets. The sediments occurring during site preparation will be increased but may be controlled using vegetation buffers, fiber logs and/or hay bales or comparable technologies/systems if needed. This area is adjacent to an existing BLH mitigation area on its entire west side and adjacent to BLH forest on the northeast side. The removal of interior ditches, farming row crops, and crop rows in Area G will increase flood storage duration since the water flow is depended only on sheet flow plus as the BLH vegetation increase in size and canopy in addition duration of flood storage will occur.

- Area H is currently in sugarcane production with drainage via small interior ditches having flow to the northeast and east to outlets. These outlets are outside the Bank boundary and discharge water into ditches on the west and which flows northeastward. With the abandonment of raising crops, removal crop rows and filling of the interior ditches, runoff will be depend on sheet flow only to reach the outlets. The sediments occurring during site preparation will be increased but may be controlled using vegetation buffers, fiber logs and/or hay bales or comparable technologies/systems if needed. This area is adjacent to an existing BLH mitigation area on its entire north side. It is adjacent to Area I on its entire east side. The removal of interior ditches, farming row crops, and crop rows in Area H will increase flood storage duration since the water flow is depended only on sheet flow plus as the BLH vegetation increase in size and canopy in addition duration of flood storage will occur.

- Area I is currently in sugarcane production with drainage via small interior ditches having flow to the northeast to an outlet in the northwest corner. This outlet is outside the Bank boundary and discharge water into a ditch on the west and which flows northeastward. The ditch running down the middle of the area will be filled and relocated outside of the Bank. With the abandonment of raising crops, removal crop rows and filling of the interior ditches, runoff will be depend on sheet flow only to reach the outlets. The sediments occurring during site preparation will be increased but may be controlled using vegetation buffers fiber logs and/or hay bales or comparable technologies/systems if needed. This area is adjacent to an existing road and Area H on its west side plus adjacent to Area G on its north side. The removal of interior ditches, farming row crops, and crop rows in Area I will increase flood storage duration since the water flow is depended only on sheet flow plus as the BLH vegetation increase in size and canopy in addition duration of flood storage will occur.

With the removal of the above referenced crops, pump, interior levees and crop rows, filling of the interior ditches and planting of BLH species in each area, there will be no changes in the hydrological flow patterns except for the interior ditches will not be available for flow. Water flow patterns will be strictly depended on sheet flow. These changes will result in increasing retention time for sheet flow, flood storage, storm water retention, infiltration rates, availability of plant debris, soil carbon storage, nutrient cycling, water table, soil organic matter, while significantly decreasing the quantity, frequency and duration of storm water runoff plus decreasing pesticides, pollutant loading, and contaminates entering the ecosystem. All of these changes will have a beneficial impact to water quality, soil hydrology, storm water retention, flood storage, fish & and wildlife resources and improvements to adjacent waters not within the bank. A 100 year storm event would have less runoff from the Bank area.

Ditch backfill will be accomplished using excavation material from the relocation of the existing drainage ditch, using stock piled on site material and any existing material present along existing ditches located on site. Should these materials not be sufficient to accomplish the proposed ditch backfilling, additional material for backfilling will be scraped from upland areas as needed. Backfilled ditch areas will be planted with native hardwood species. Backfilling excavated ditches and drainage swales in the improved upland and wetland areas in combination with the relocation and filling of the drainage canals will effectively restore the historic hydrologic conditions of overland flow with Depressional water storage.

These measures will facilitate hydrologic restoration of wetlands on the proposed Bank area. Excavated ditches from the major and minor drains occur within the property boundary, no adverse off-site flooding effects are anticipated.

C. Vegetative Restoration

The site will be planted at a minimum density of **538 trees** per acre with a mixture of bottomland hardwood. Table 1 lists hard mast and soft mast canopy and sub-canopy species chosen for the reforestation efforts. The species that are proposed for planting are typical of bottomland hardwood forest community types. Table 2 lists the dominant species expected from both planting and natural recruitment from nearby hardwood sources. Planting stock will be 2-3-foot bare root seedlings planted on 9-foot centers for planting **263,359** seedlings.

Major species' associations typical of bottomland hardwood floodplain forest community types and the topographic positions they occupy in the landscape are the basis for the planting zones depicted in **Figure 8** and outlined in **Tables 1 and 2.** The topographic positions of the various proposed planted species is intended to mimic the natural landscape, composition and spatial distribution associated with each species' physiology as well as their saturation/inundation preference for this region. Sound guidelines for restoring bottomland hardwood forests authored by Allen et al. (2001) were published through the United States Geological Survey technical report series and were recently revised in 2004. This guidance provides a wealth of direction for determining species placement per topographic zone relative to their flood/saturation tolerance and provides descriptions for major species' associations typical of bottomland hardwood wetlands. Inundation tolerance and topographic position are the basis for the planting zones depicted.

Determination of species placement within the planting zones was also based on community descriptions for bottomland hardwood floodplain forest from the Natural Communities of Louisiana electronically published by the LDWF and LNHP. Species associations, as depicted in the planting zones outlined in **Figure 10** are taken from Table 14.1 of Allen et al. (2001) A Guide to Bottomland Hardwood Restoration and from the community descriptions published by LDWF and LNHP referenced above. However, certain species that can occur over a wider range of hydrologic conditions, or which have a greater range of inundation and/or saturation tolerance may be planted within several topographic or hydrologic zones to establish greater diversity throughout the extent of the restoration area.

Table 1: Species of Bottomland Hardwoods to be Planted

Hard Mast Species	**Soft Mast Species**
Water Oak *(Quercus nigra)* (30%)	Nuttal Oak (Quercus texana) (30%)
Bitter Pecan (Carya aquatica) (20%)	Drummond Red Maple *(Acer rubrum* var. *drummondii)* or Red Maple *(Acer rubrum)* (10%)
American Elm (Ulmus Americana) (10%)	

Note: This is a list of suggested species based on availability and a survey of adjacent forested

areas.

Table 2: Selected Species by Planting Zone for the Assumption Land Company, L.L.C. Mitigation Bank.

Species Association/Planting Zone'	Dominant Species	# of Trees	Acres
Nuttall Oak (30%)	Nuttall Oak	74,155.2	137.8
Water Oak (30%)	Water Oak	74,155.2	137.8
Bitter Pecan (20%)	Bitter Pecan	49,436.8	91.89
Red Maple (10%)	Red Maple	24,718.4	45.9
American Elm (10%)	American Elm	24.718.4	45.9
	Total Plants Planted Initially	**247,184**	
Species association as defined in **Figure 11**	**Total Acres Planted**		**459.45**

Site preparation will consist of mowing/burning, disking or sub soiling should the site exhibit heavily compacted soils. Site preparation will take place no more than 6 months prior to planting during the December 15th to March 15th planting season. Trees will be placed in the appropriate planting zone, and hand planted in the planting zones identified in **Figure 11**. Removal of Chinese tallow and privet or other noxious nuisance and exotic species that could compromise the restoration effort will be done prior to planting, and the sites will be maintained to a nuisance and exotic species level of less than 5 % coverage. Ditch relocation and backfilling will be completed prior to the planting effort.

Area A contains the following vegetation species: *Diospyros virginiana, Acer rubrum, Celtis laevigata, Ulmus americana, Cornus obliqua, Quercus nigra, Morella cerifera, Rubus argutus, Eleocharris sp., Carex sp., Eupotorium coelestinium, Lygodium iaponica, Comus obiqua, Soidago altissima, Sorghum halapense, Ampelopsis arborea, Amborsia trifida, & Iva annua.* Area B contains the following vegetation species: *Baccharis halimifolia, Comus obliqua, Ambrosia tridida, Solidago altissima, Cynondon dactylon, Andropogon virginicus, Paspalum sp., Iva annua, Verbena bonariensis, Ampelopsis arborea, Toxicoderndron radicans, Cornus*

obliqua, Salix nigra, Diospyros virginiana, Rubus louisianinsis, Sesbania drummondii, Juncus effuses, Saccharum giganteum, & Carex sp. Area C contains the following vegetation species: *Trifolium repens, Rubus louisianinsis, Cephalanthus occidentalis,& Isolepis molesta.* Area D contains the following vegetation species: *Triadica sebifera, Quercus acutissima, Quercus nigra, Morella cerifera, Carpinus caroliniana, Ambrosia artemisiifolia, Solidago aitissima, & Rubus arvensis.* Area C is a pasture but was a rice field in the early 1900's. Areas E through I are currently row crop.

All woody vegetation will be removed by mechanical means and piled for burning. However where it is possible desirable trees species will remain in place. Supplemental plantings will be required in each tract. Ditches and their related spoil/levees will be removed by mechanical means. Tracts with crop rows will be also leveled with mechanical means.

Table 3 Mitigation Type by Areas.

AREA	Abandoned from row crops	RE-ESTABLISHMENT (acres)	REHABILITATION (acres)
A	Early 1980's	2.86	34.66
B	Early 1980's	2.73	13.86
C	Early 1900's	33.96	85.39
D	Late 1980's	8.02	0.0
E		22.22	
F		33.13	
G		40.97	
H		127.61	
I		88.00	
Total		359.45	99.95

D Monitoring Plan

MONITORING REPORTS:

1) The monitoring report shall:

a. Identify seedling survivorship and colonization by volunteer mid-story and over story species. Results of vegetation survey including visual estimates of percentage (%) overall cover and % cover by each vegetation layer, species diversity, % exotic vegetation in each vegetation layer, total % "facultative" and total % "upland" species in each vegetation layer, survival rate of planted

vegetation, an estimate of natural revegetation, and a qualitative estimate of plant vigor as measured by evidence of reproduction.

b. Discuss the general health of the planted trees.

c. Describe the vegetative communities developing within and the overall condition of the site.

d. Describe wildlife usage and herbivory/browse problems, if present.

e. Summarize the condition of the Restoration Area.

f. Identify maintenance activities performed.

g. Document measures to control exotic/invasive vegetation colonization/establishment.

2) Schedule of monitoring reports:

a. Vegetative monitoring and reports shall be completed in the spring (when new growth makes identification practicable) of years 1, 3, 5, 10, 15, and prior to and following the first thinning operation.

b. If Year 1 success criteria is obtained, but all performance criteria have not been met in the 5th year, a monitoring report shall be required for each consecutive year until two annual sequential reports indicate that all criteria have been successfully satisfied (i.e., that corrective actions were successful).

c. Reports discussing measures to control exotic/invasive vegetation shall be provided annually until such time as all Initial Success Criteria and Interim Success Criteria identified in Sections VII.A and VII.B have been met and verified by the IRT. The annual reports should document items such as degree of exotic/invasive vegetation, method of treatment/control, machinery and/or chemical treatments utilized, timing of treatments/work, effectiveness of previous treatments/work, etc.

d. Reports will be submitted by December 31st of each monitoring year.

e. Monitoring reports shall be provided to CEMVN.

E Maintenance Plan

Semi-annual surveying and treatment of nuisance/exotic species and undesirable, competing undergrowth will be performed by means of mechanical and/or chemical control. Additionally, low-intensity prescribed fires prior to planting may be conducted to control competing

nuisance/exotic herbaceous and woody vegetation and provide an immediate nutrient source for planted seedlings. Inspection of back filled ditiches for erosion or instability will also be performed during each annual monitoring event, and repair/stabilization will be conducted as necessary.

Should evidence of destructive deer, feral pig, beaver and/or nutria foraging activity be observed, wire fencing or protection devices may be installed around tree seedlings in an effort to control damage to seedlings from foraging, rubbing or rooting.

Should drought conditions result within the first year of planting, temporary irrigation measures will be taken to assist in the establishment and proper rooting of planted seedlings.

Assumption Land Company, L.L.C. Mitigation Bank, will not be responsible for replacement of seedlings or trees when mortality is due to an Act of God or other force majeure event that occurs after the initial, permitted success criteria are met. In the event of such mortality,

VI. FUNCTIONAL EVALUATION OF ECOLOGICAL BENEFIT

We propose to perform a Wetland Value Assessment (WVA) and/or LRAM assessment to quantify the expected ecological functional gain that will be provided by the mitigation activities proposed. The WVA assessment will be performed according to guidance published January 10, 1994 by the Louisiana Department of Natural Resources. LRAM analysis will be performed according to guidance published by the CEMVN entitled LRAM Guidebook for the Use of the Excel Workbook. The assessment will score the entire mitigation acreage for all parameters except for the kind/location scenarios, thereby giving a baseline credits/acre for each type of mitigation provided.

VII. OWNERSHIP AND CONTROL

A. Sponsor Qualifications and Contact Information

The subject property is owned fee simple by **Assumption Land Mitigation Bank, L.L.C.** The principal members of **Assumption Land Company, L.L.C. Mitigation Bank** are Mr. Howard Robichaux Manager. All project construction, monitoring and short-term management will be conducted by Mr. Joey Robichaux with Assumption Land Company, L.L.C..Mitigation Bank (ALCMB). Mr. Robichaux has managed and operated the **ALCMB** since 1999, having 12 years of experience to **ALCMB**. The contact information for the sponsor, landowner and agent is provided below.

Sponsor: **Assumption Land Company, L.L.C**
184 Cedar Grove Road
Labadieville, LA. 70372

Agent: Horace Thibodaux

AUX, LLC
214 Pamela Place
Thibodaux, LA 70301
Phone: 985-387-0161

Landowner: **Assumption Land Company, L.L.C**
184 Cedar Grove Road
Labadieville, LA. 70372

A.Long-Term Protection

Long-term protection will be preferred under the conservation easement agreement.

B. Financial Assurances

Assumption Land Company, L.L.C. Mitigation Bank. is proposing to use a Letter to Credit and a form of financial assurance and maintenance for the short-term construction (1 to 15 years) and proposes to use a long term escrow account for the long term financial requirements.

C. Contingency Measures

Problems which could occur at the site include but not limited to:

Problems which could occur	Correction of problems
Seedlings & trees die off	Replant seedling & trees that do not grow
Evasive species growth	Control evasive species manually & by herbicides if necessary
Hydrologic barrier erosion	Inspect periodically for hydrologic failures and repair said findings as soon as possible

If there is insufficient hydrological to restore wetlands , the bank will develop a revised hydrological plan with coordination with the IRT.

In the event that **Assumption Land Company, L.L.C. Mitigation Bank** or the **Long-Term Steward** are found to be in non-compliance by the **CEMVN** or **IRT**, the responsible party will institute a **CEMVN** and **IRT** approved adaptive management plan and submit a written corrective action plan to the **CEMVN** and **IRT** for review and approval. The corrective action plan will, at a minimum, identify the cause of the non-compliance, the remedial measures necessary, and a time line for implementing remedial measures to bring the **Assumption Land Company, L.L.C.**

Mitigation Bank into compliance. To the extent practicable, the **CEMVN** and **IRT** will approve or disapprove the corrective action plan within forty-five (45) days of receipt, provided that sufficient information and acceptable measures are contained within the plan.

In the event that **Assumption Land Company, L.L.C.** or the **Long-Term Steward** is placed in non-compliance and either does not provide the adaptive management plan or does not implement the features of the corrective action plan within the time frame specified by the **CEMVN** and **IRT**, all or a portion of the funds in the escrow account will be released to a third party designated by the **CEMVN** or **IRT** at the time of default to effect necessary corrections or acquire equivalent ecological value elsewhere.

VIII. LONG TERM MANAGEMENT

The landowner **Assumption Land Company, L.L.C.** will be the initial designated **Long-Term Steward** charged with long-term management and maintenance responsibility once the permitted long-term success criteria are attained. The **Long-Term Steward** may be the recipient of the **Long-Term Management Fund** for use in addressing catastrophic events or land management requirements once all monitoring is completed.

IX. REFERENCES

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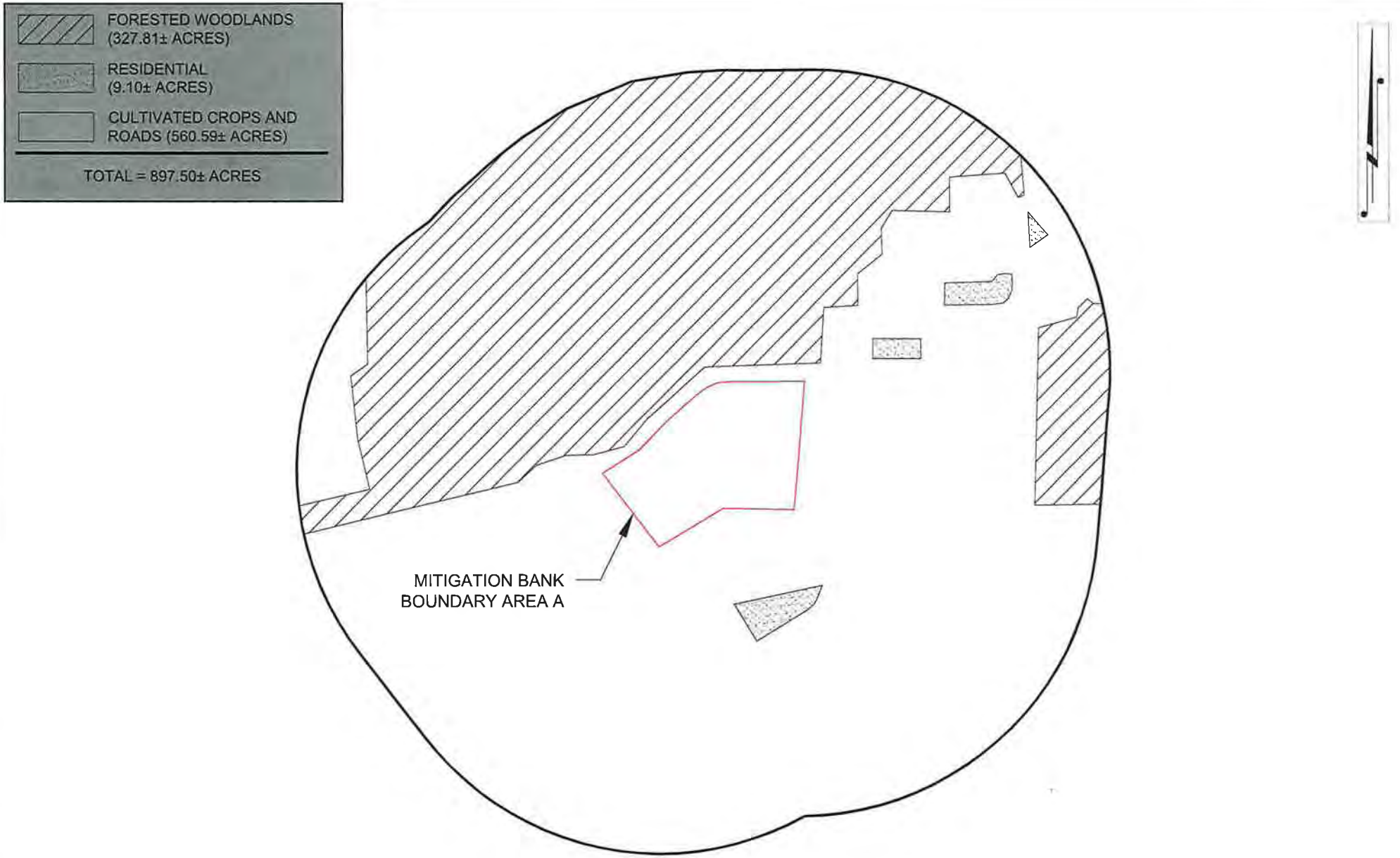
ATTACHMENT A

A Hydrological Modifacation Impact Analysis is Attached and made a part of this Prospectus document.



LAND USE MAP
1/2 MILE RADIUS

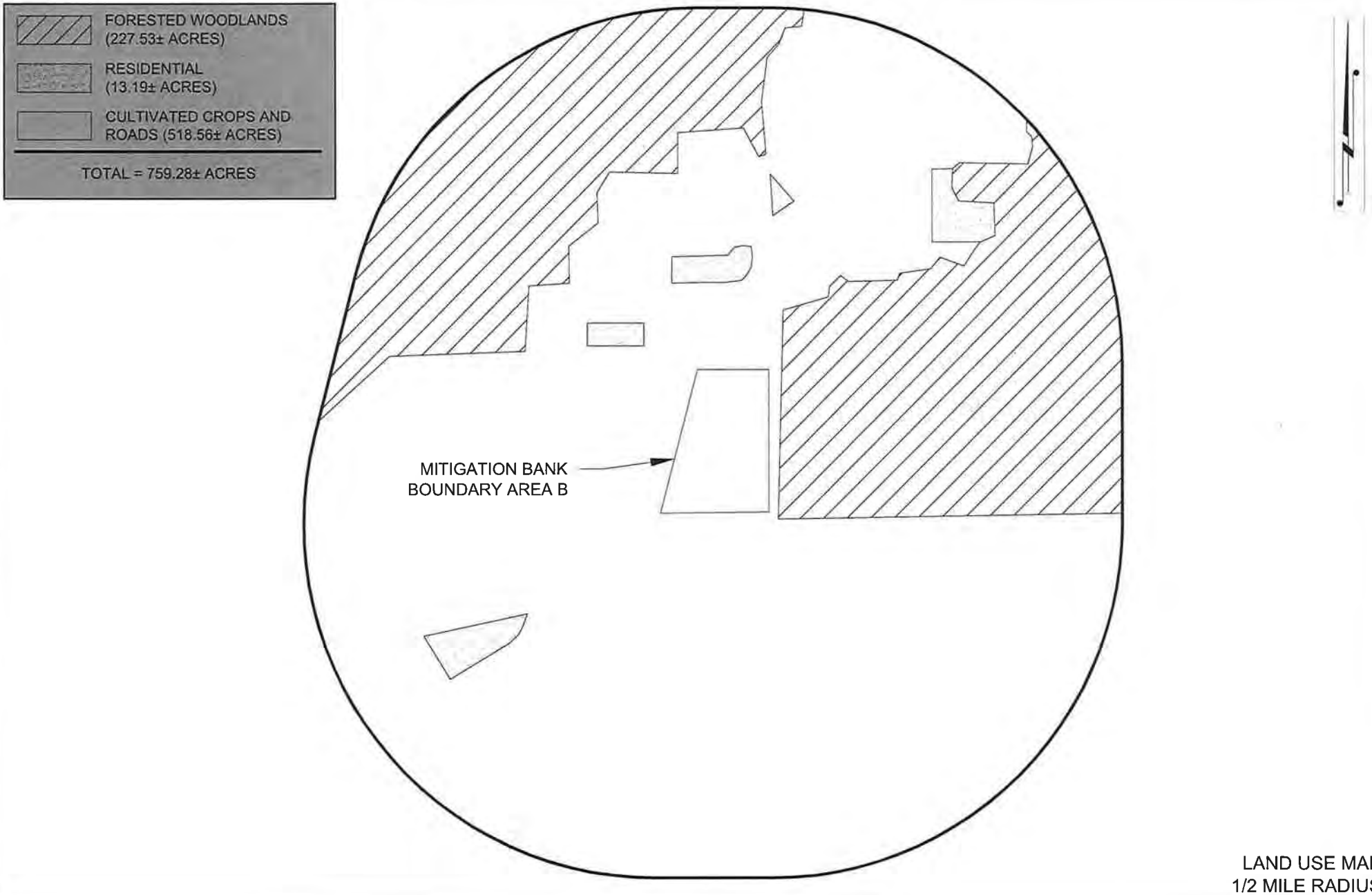
SCALE IN FEET

1,200' 600' 0 1,200'

AREA A

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
A5
Surrounding
Land Use



LAND USE MAP
1/2 MILE RADIUS

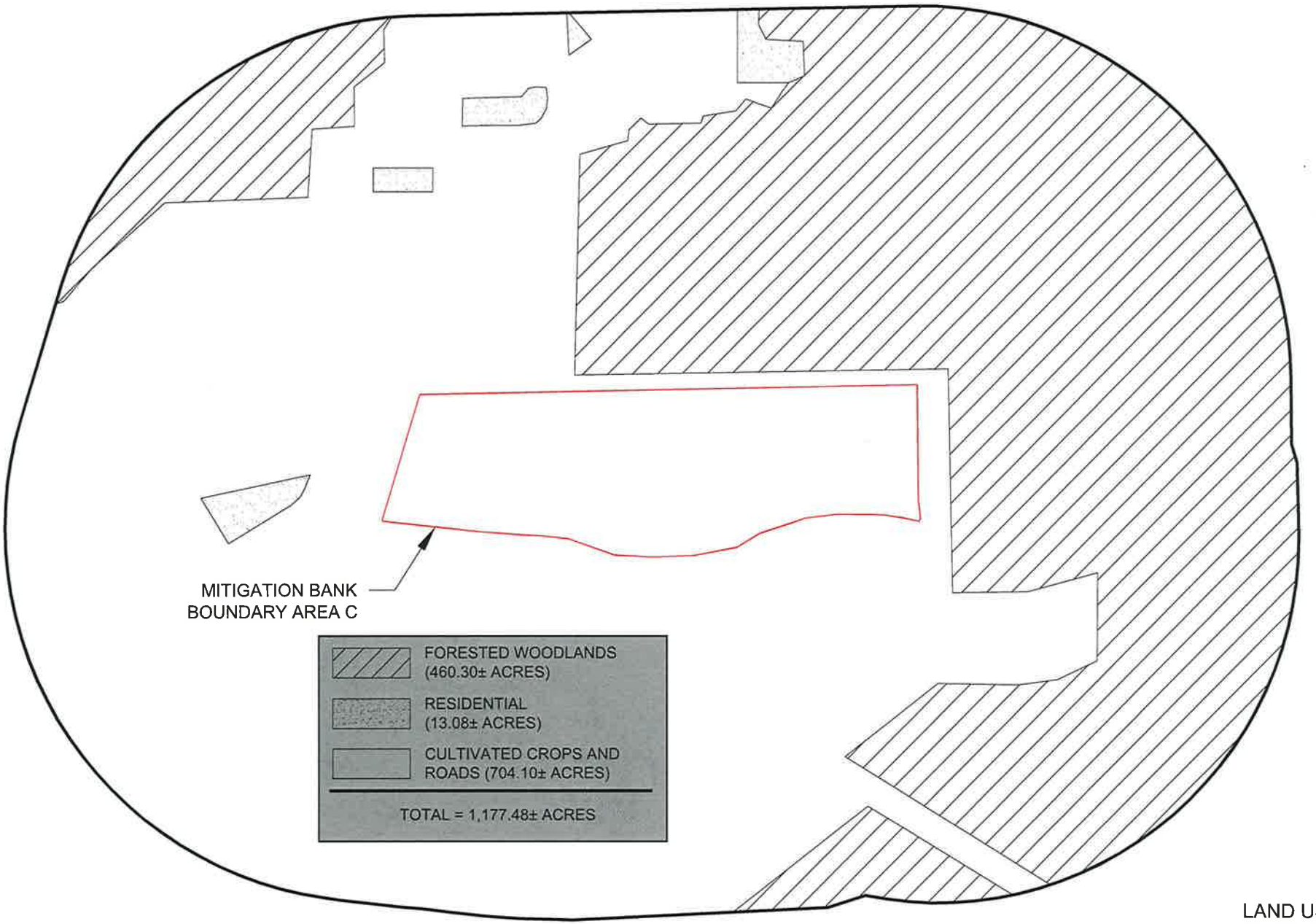
SCALE IN FEET

1,000' 500' 0 1,000'

AREA B

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
B5
Surrounding
Land Use



LAND USE MAP
1/2 MILE RADIUS

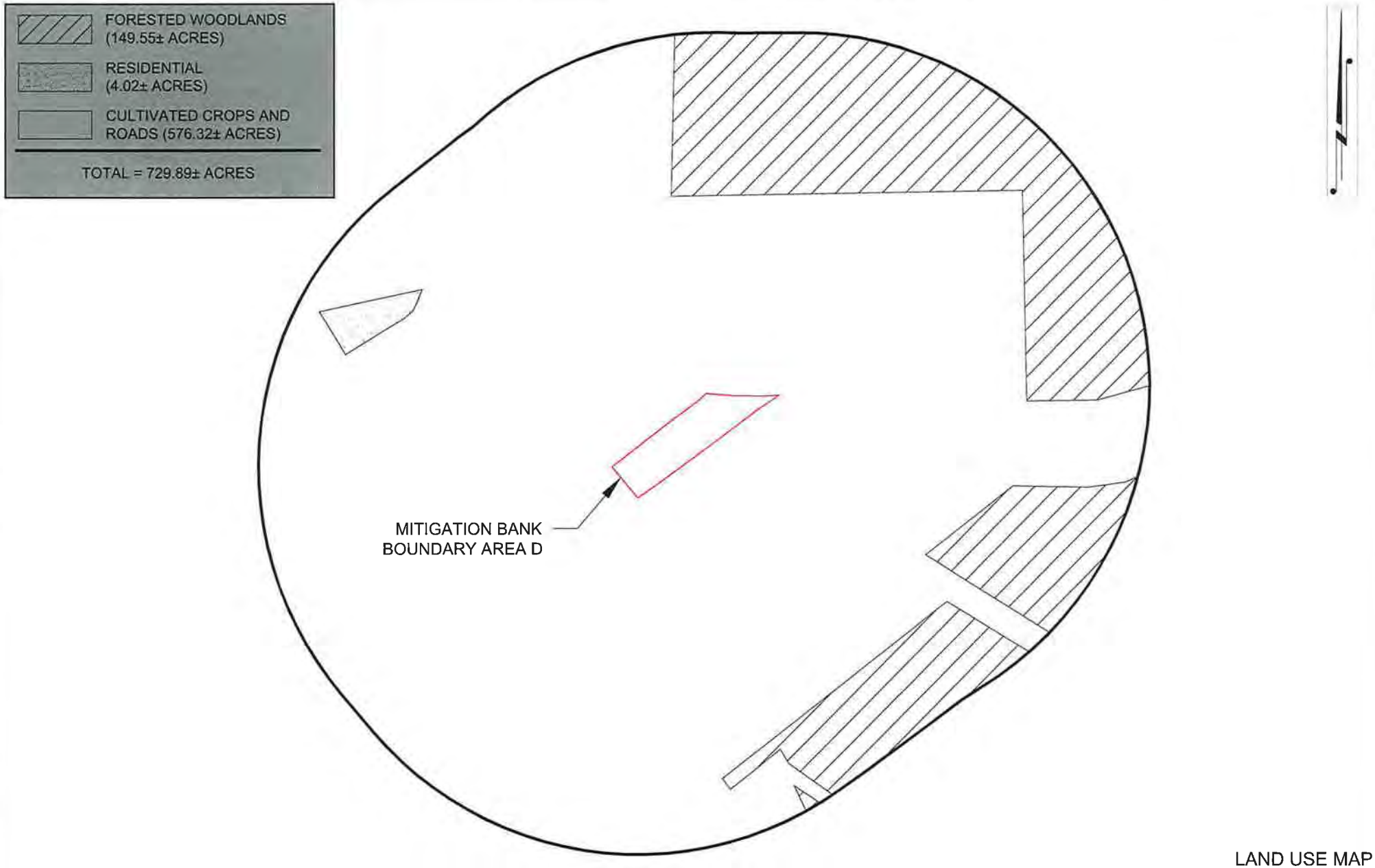
SCALE IN FEET

1,000' 500' 0 1,000'

AREA C

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
C5
Surrounding
Land Use



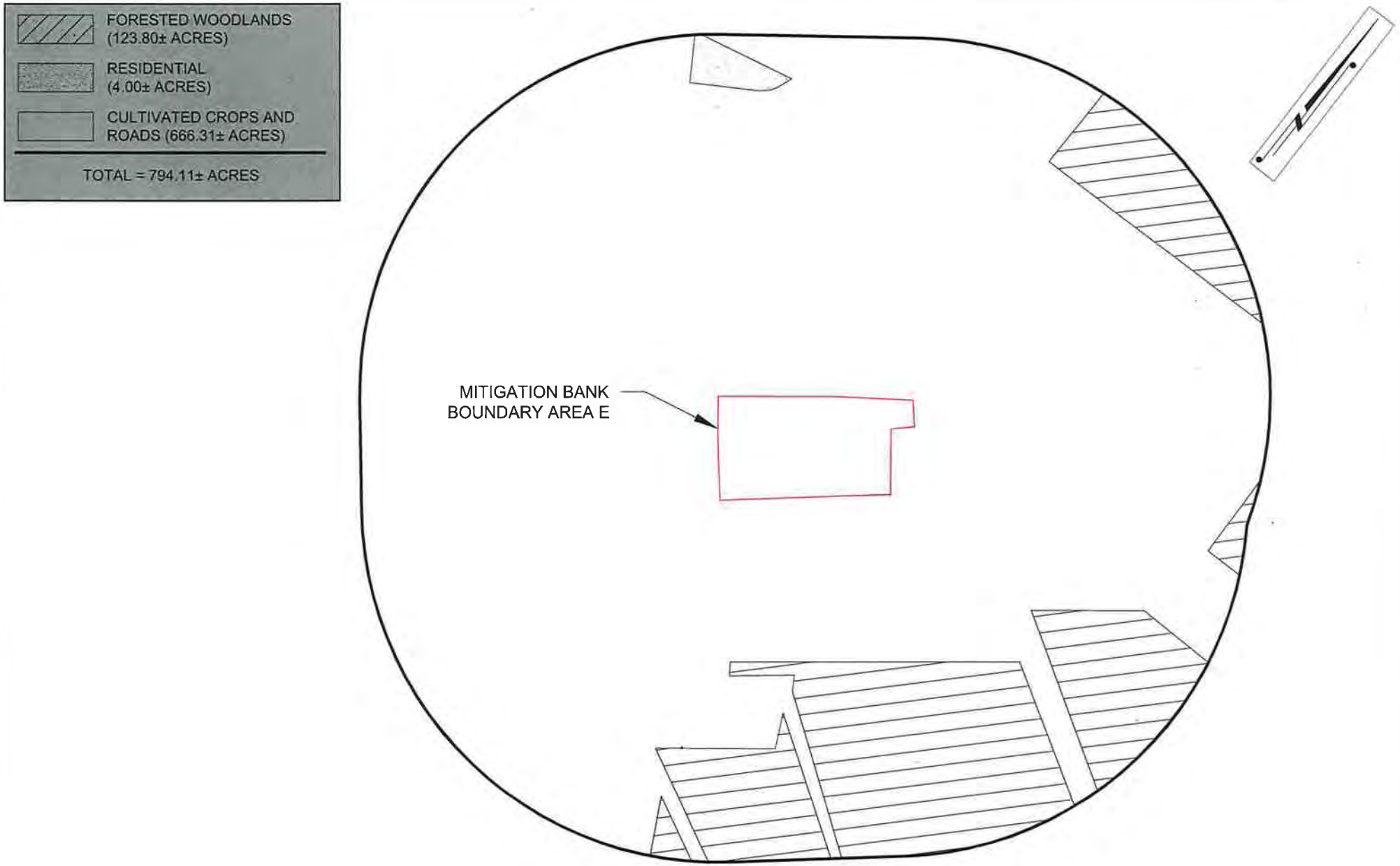
LAND USE MAP
1/2 MILE RADIUS

SCALE IN FEET
1,000' 500' 0 1,000'

AREA D

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
D5
Surrounding
Land Use



LAND USE MAP
1/2 MILE RADIUS

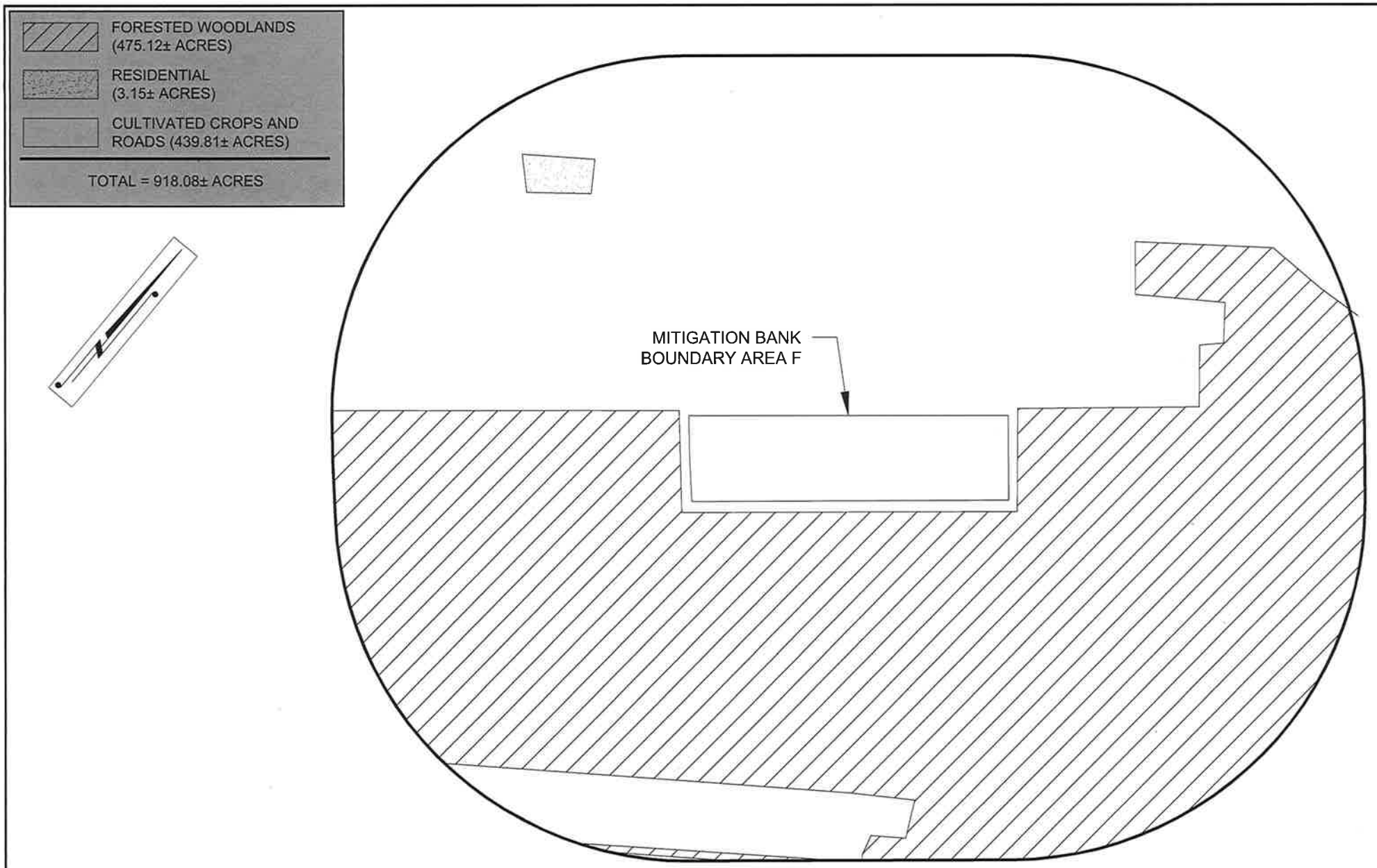
SCALE IN FEET

1,000' 500' 0 1,000'

AREA E

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
E5
Surrounding
Land Use



LAND USE MAP
1/2 MILE RADIUS

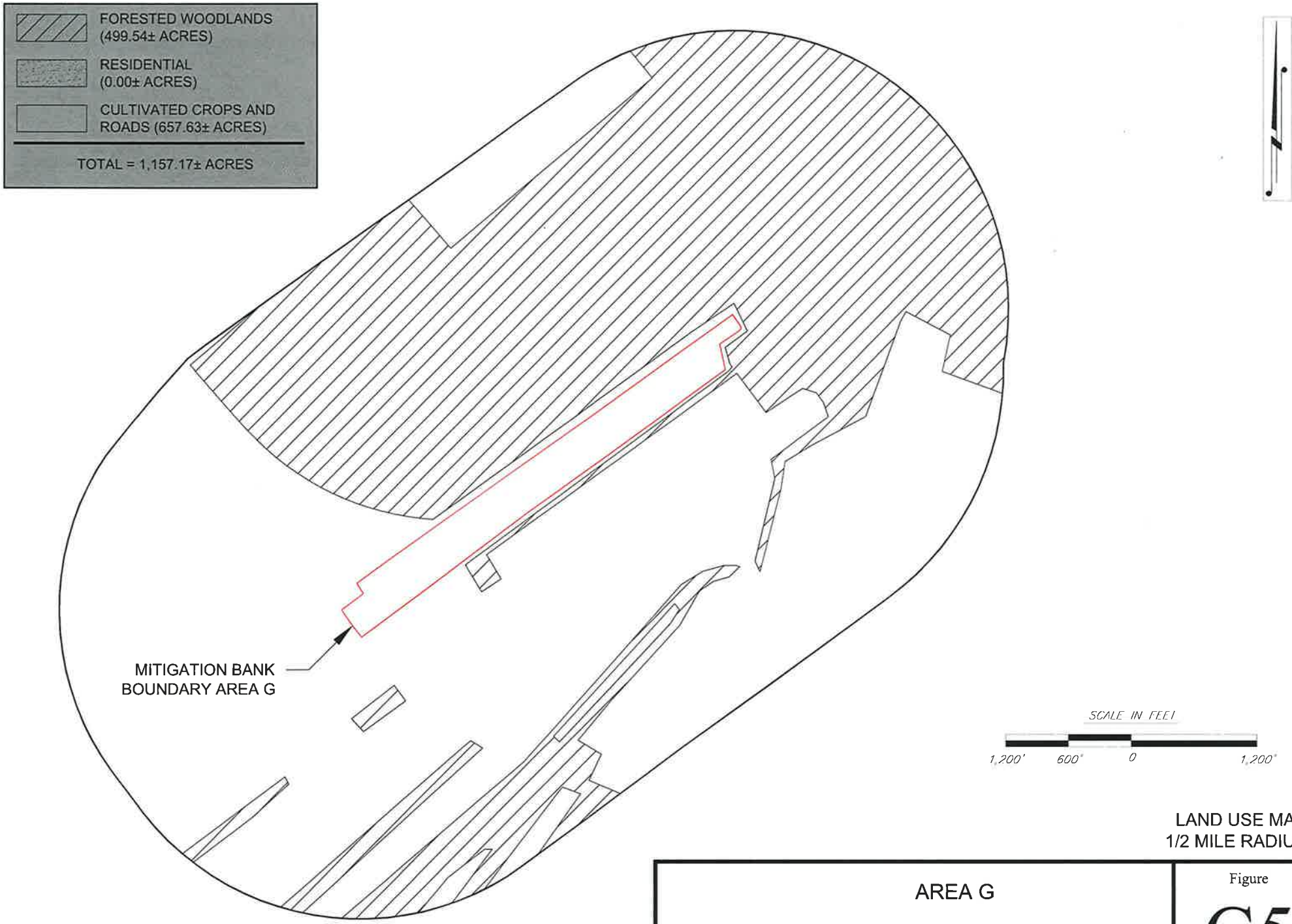
SCALE IN FEET

1,000' 500' 0 1,000'

AREA F

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
F5
Surrounding
Land Use

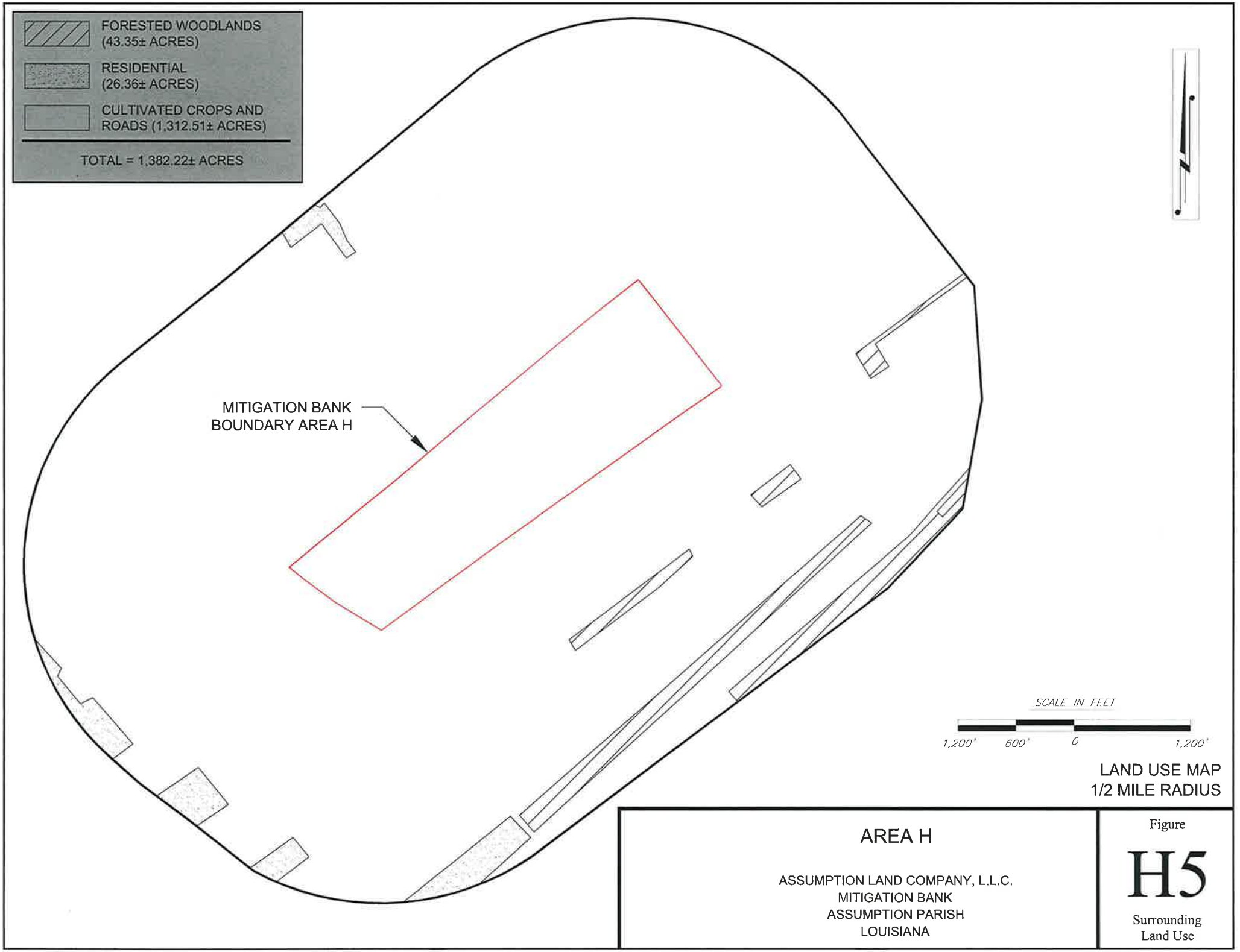


LAND USE MAP
1/2 MILE RADIUS

AREA G

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
G5
Surrounding
Land Use

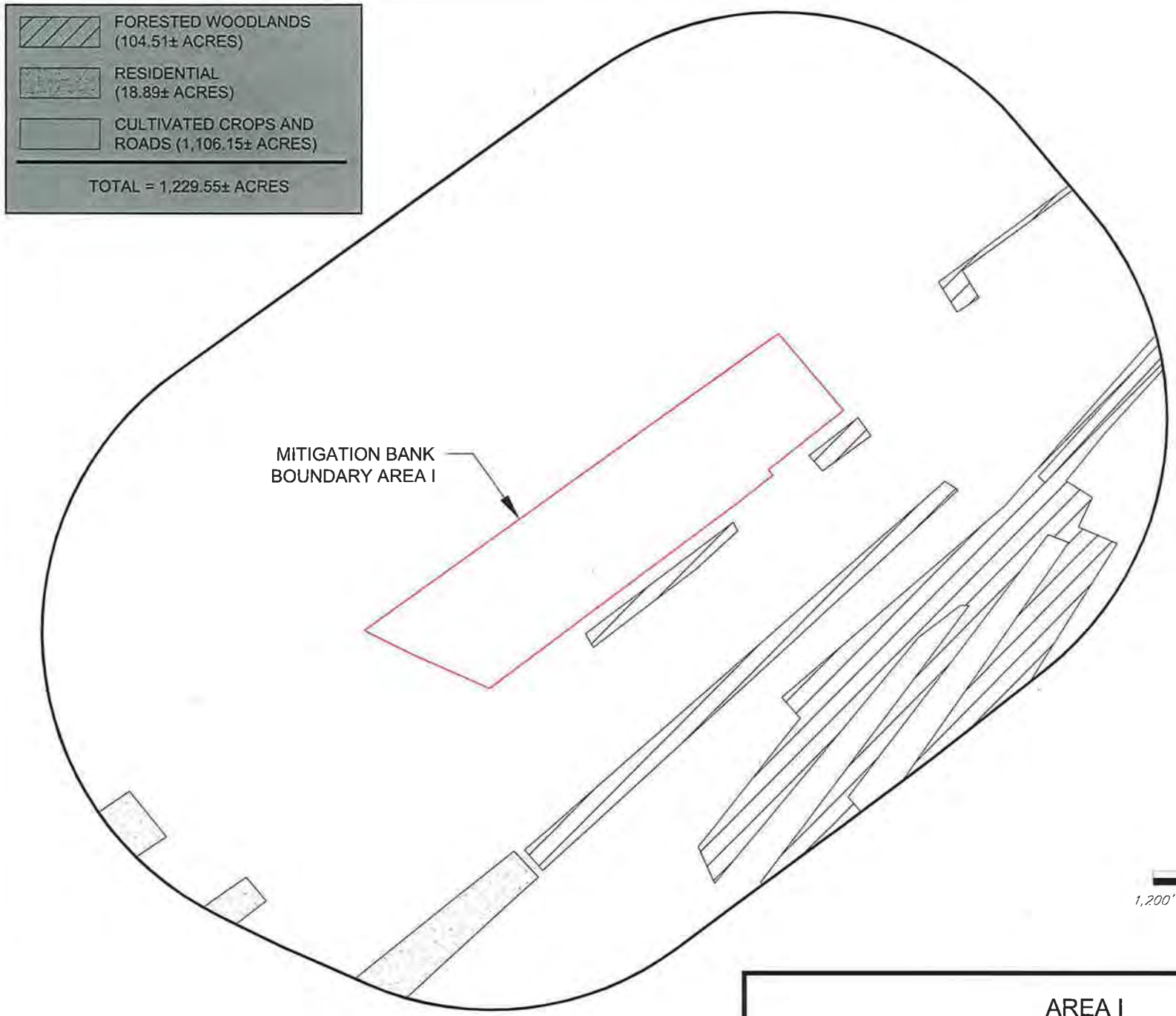


LAND USE MAP
1/2 MILE RADIUS

AREA H

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
H5
Surrounding
Land Use



SCALE IN FEET

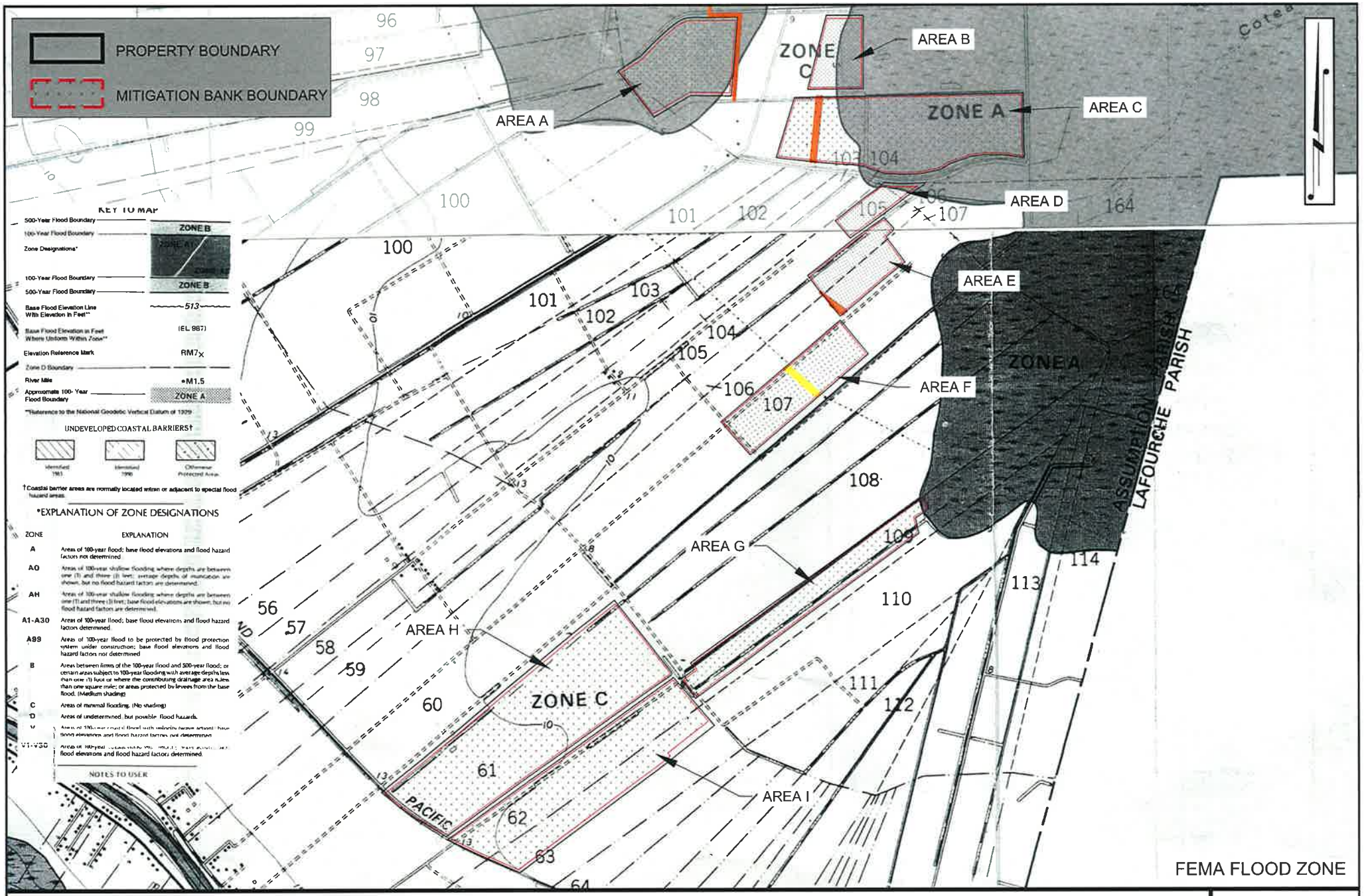
1,200' 600' 0 1,200'

LAND USE MAP
1/2 MILE RADIUS

AREA I

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
I5
Surrounding
Land Use

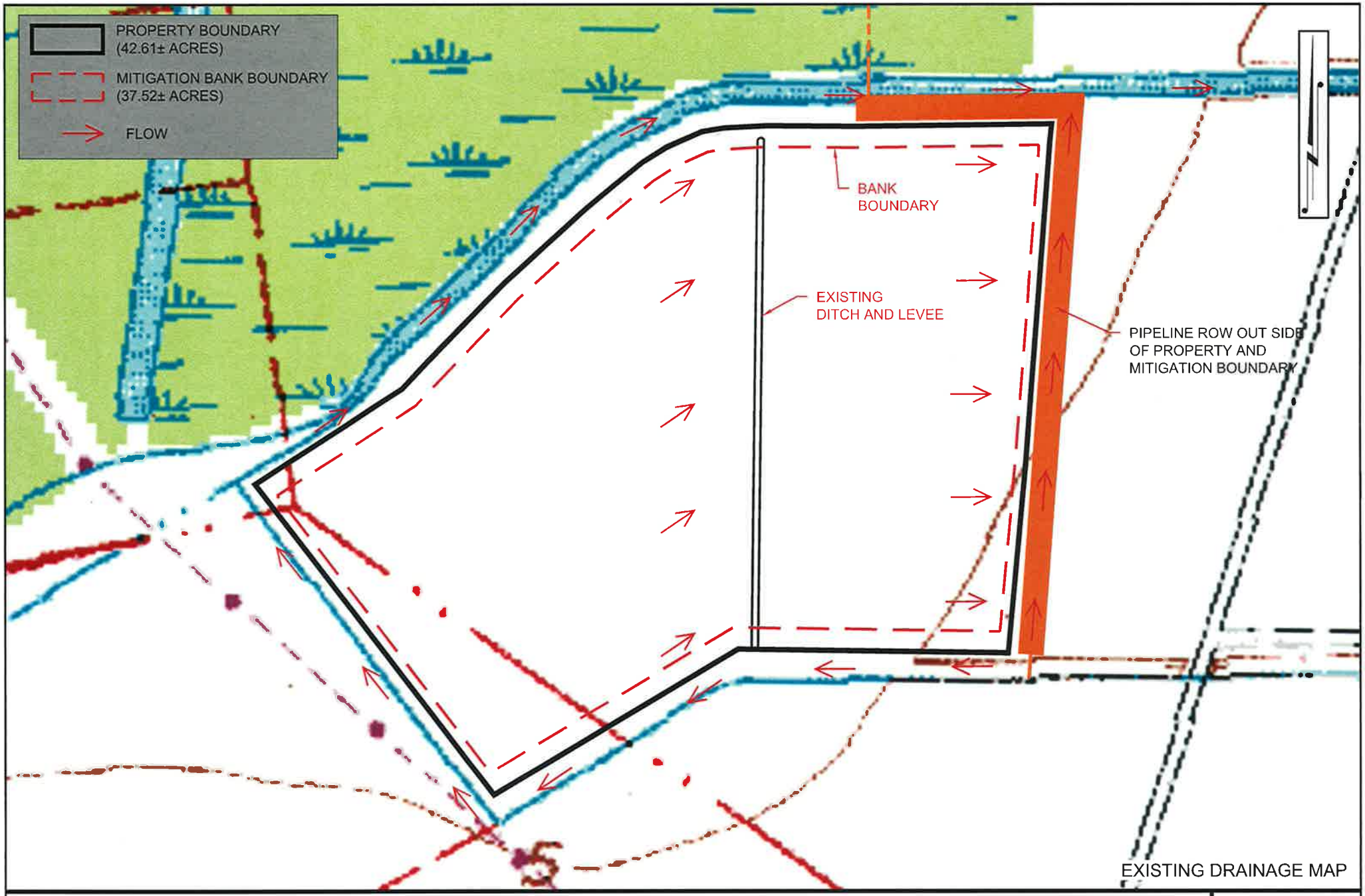


FEMA FLOOD ZONE

AREAS A-I

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
6
FEMA Flood Zone



SCALE IN FEET

300' 150' 0 300'

SEE FIGURE A10 FOR
CROSS SECTION

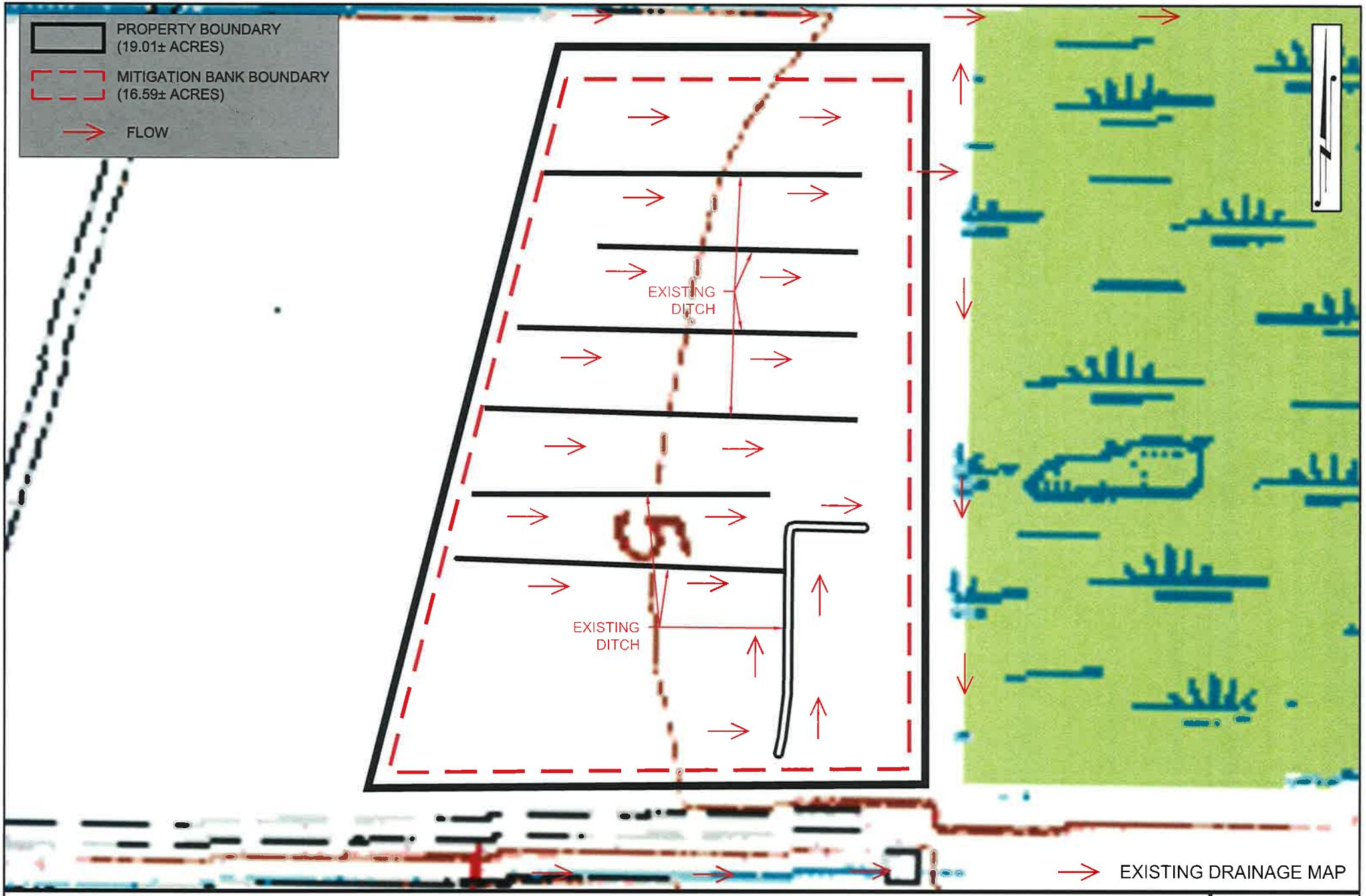
AREA A

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

A7

Quad Photograph



SCALE IN FEET

200' 100' 0 200'

SEE FIGURE B10 FOR
CROSS SECTION

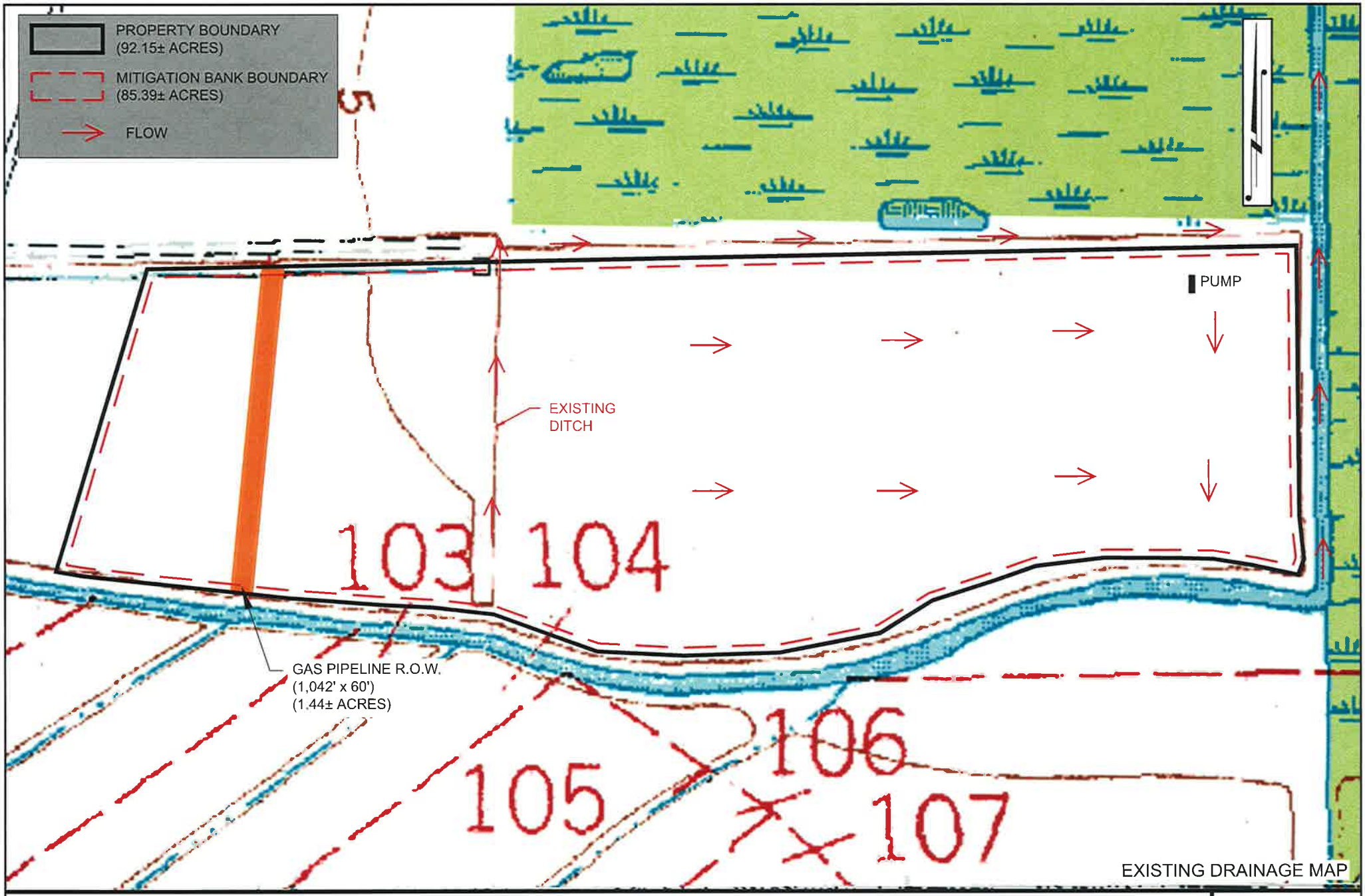
AREA B

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

B7

Quad Photograph



SCALE IN FEET

300' 150' 0 300'

SEE FIGURE C10 FOR
CROSS SECTION

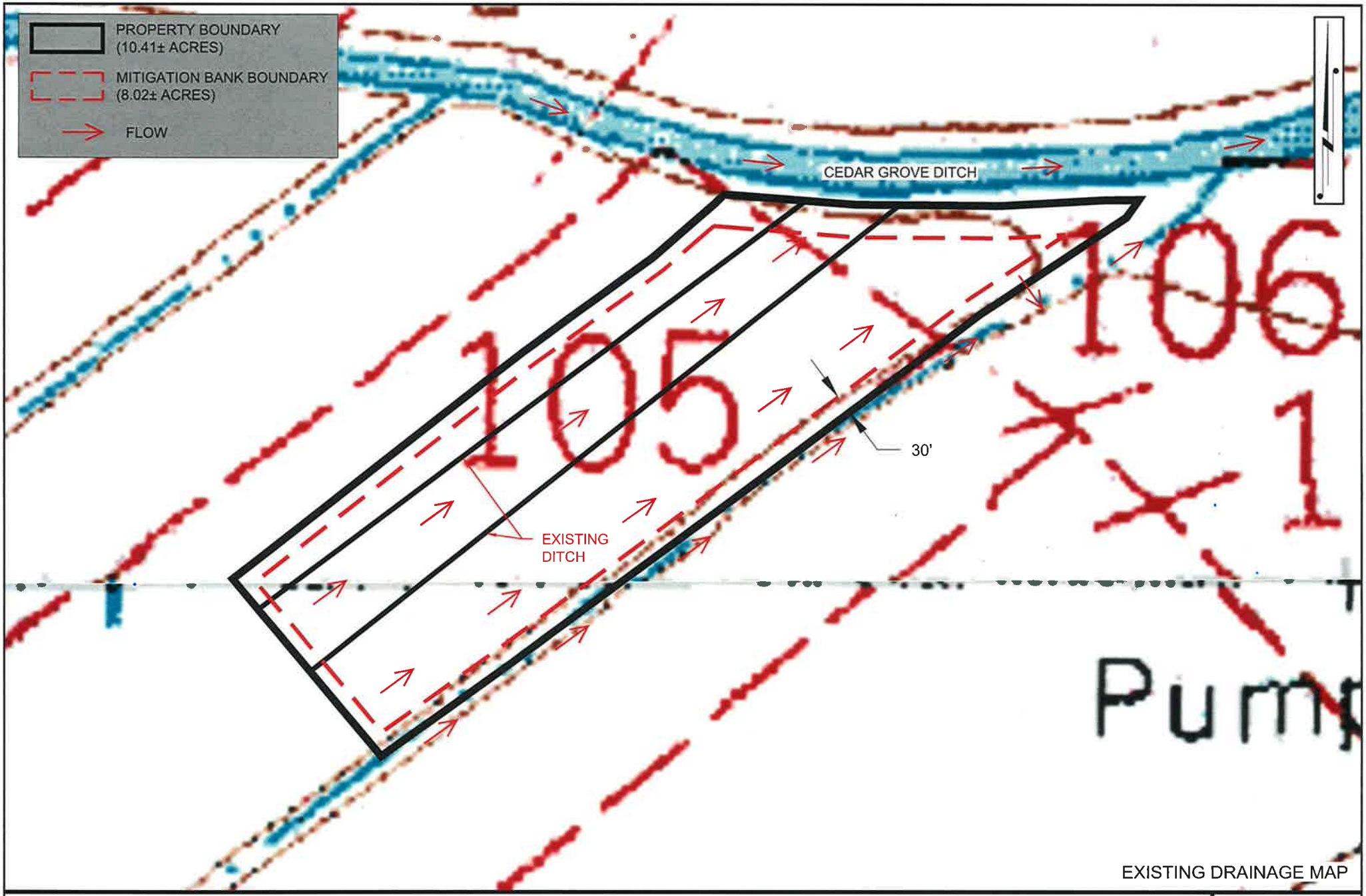
AREA C

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

C7

Quad Photograph



EXISTING DRAINAGE MAP

SCALE IN FEET

200' 100' 0 200'

SEE FIGURE D10 FOR
CROSS SECTION

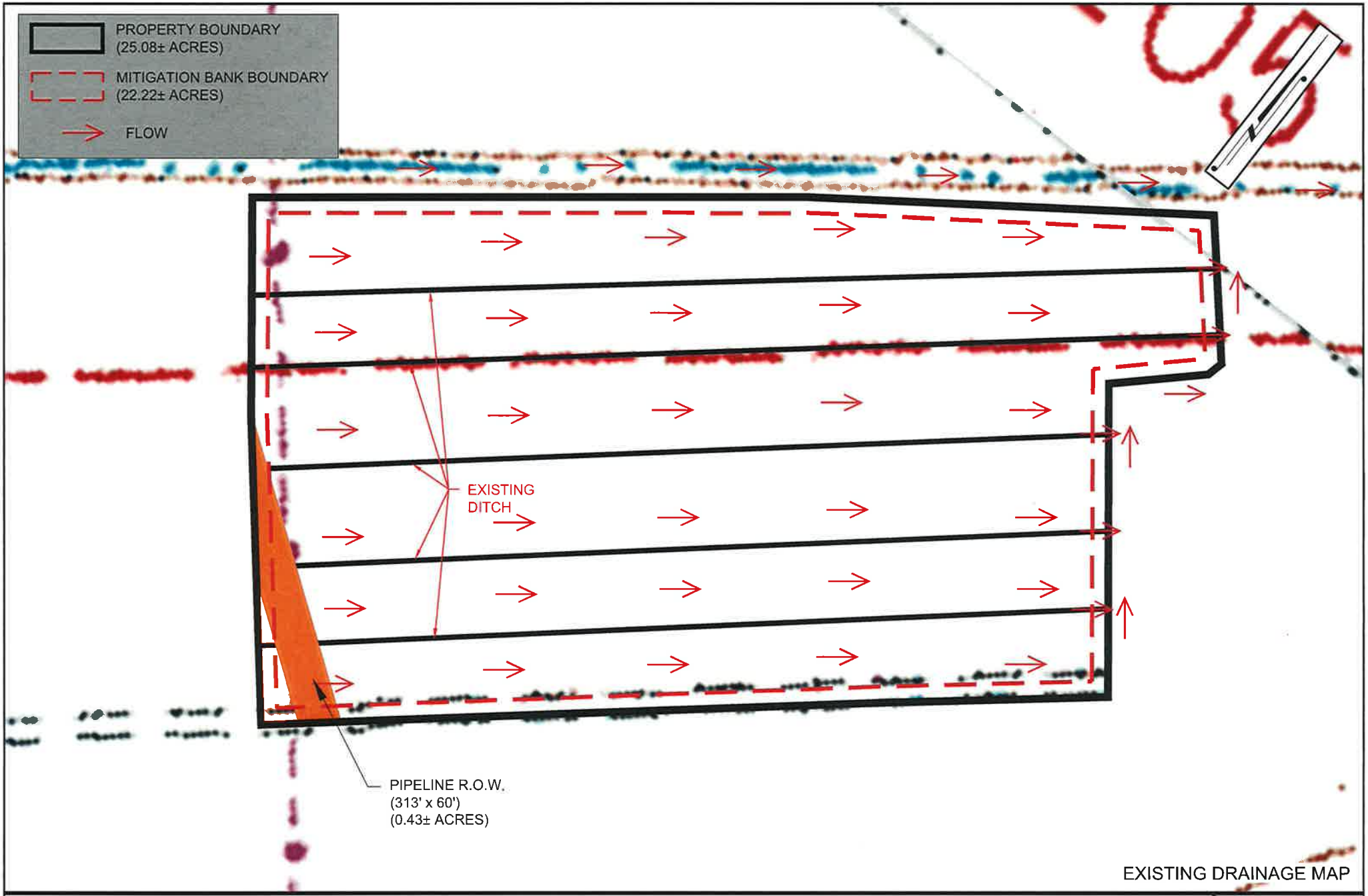
AREA D

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

D7

Quad Photograph



EXISTING DRAINAGE MAP

SCALE IN FEET

200' 100' 0 200'

SEE FIGURE E10 FOR
CROSS SECTION

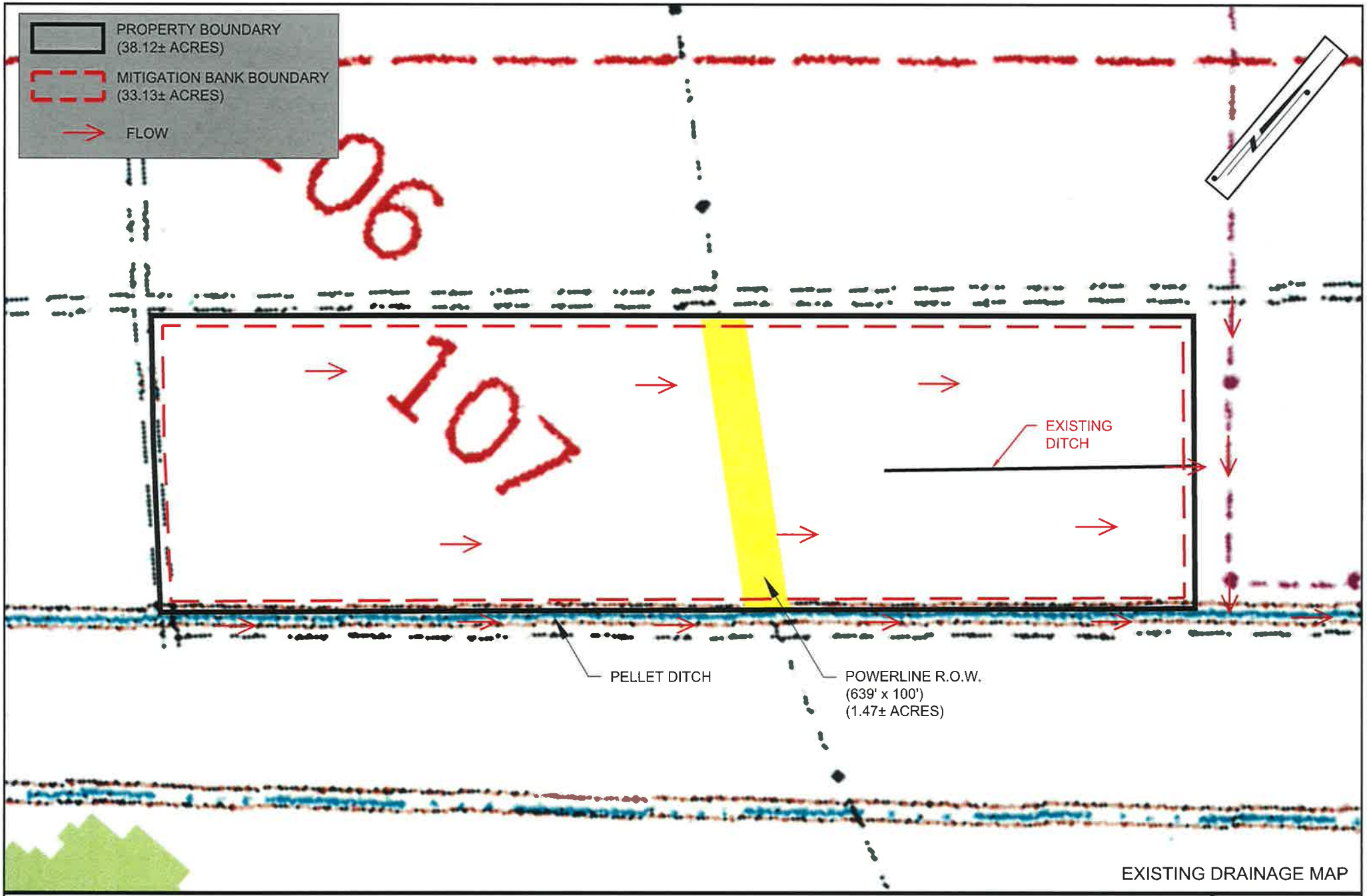
AREA E

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

E7

Quad Photograph



SCALE IN FEET

300' 150' 0 300'

SEE FIGURE F10 FOR
CROSS SECTION

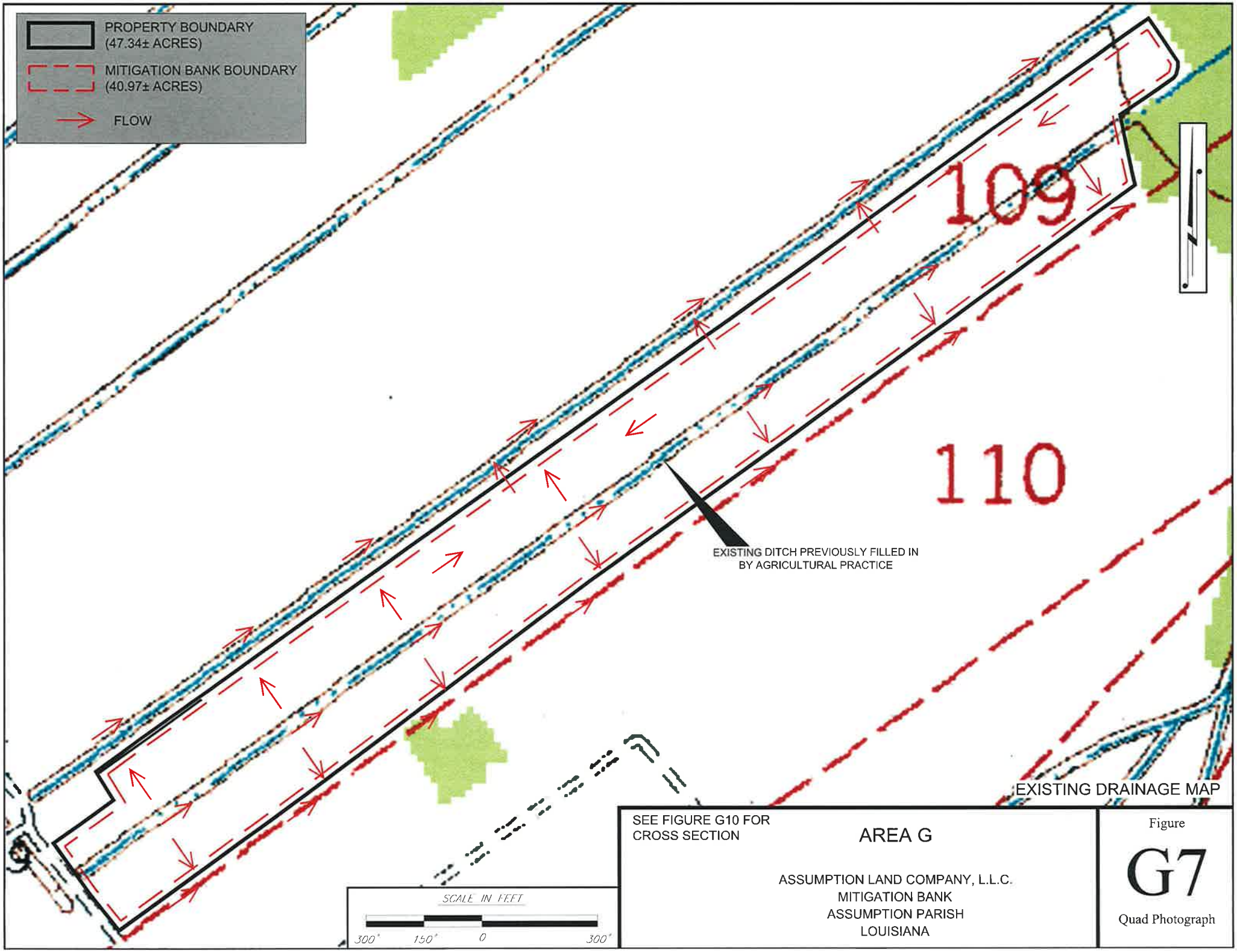
AREA F

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

F7

Quad Photograph



EXISTING DRAINAGE MAP

SEE FIGURE G10 FOR
CROSS SECTION

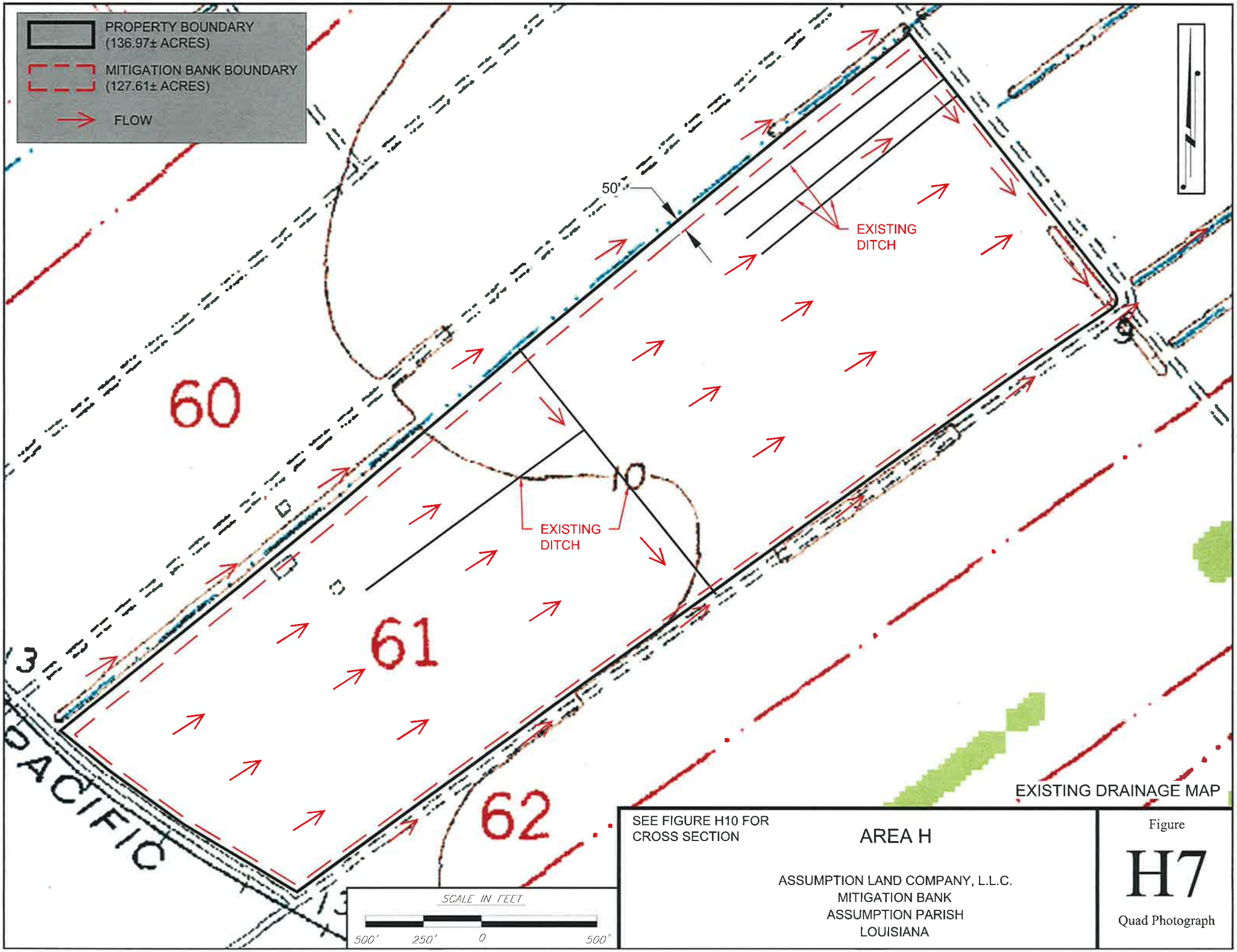
AREA G

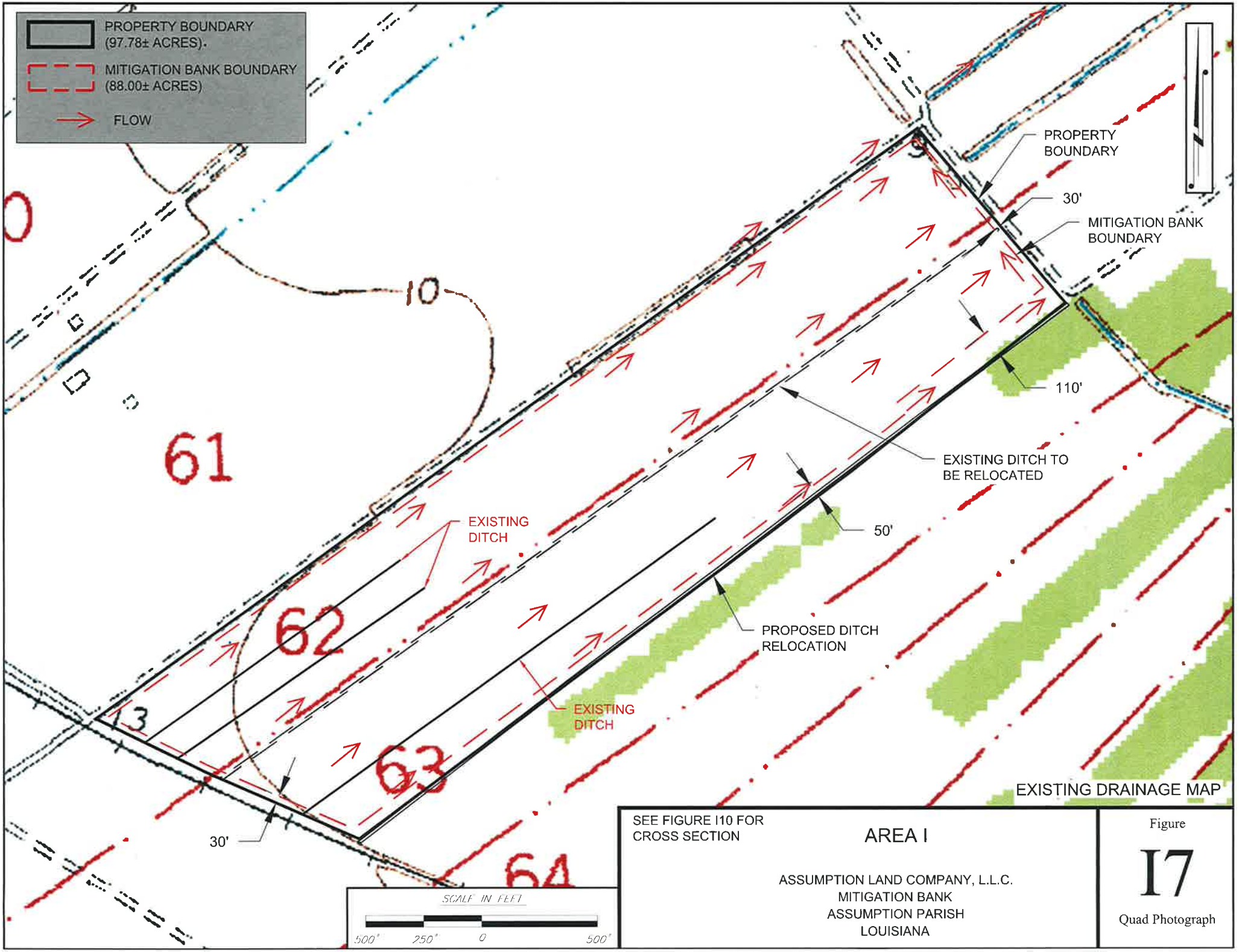
ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

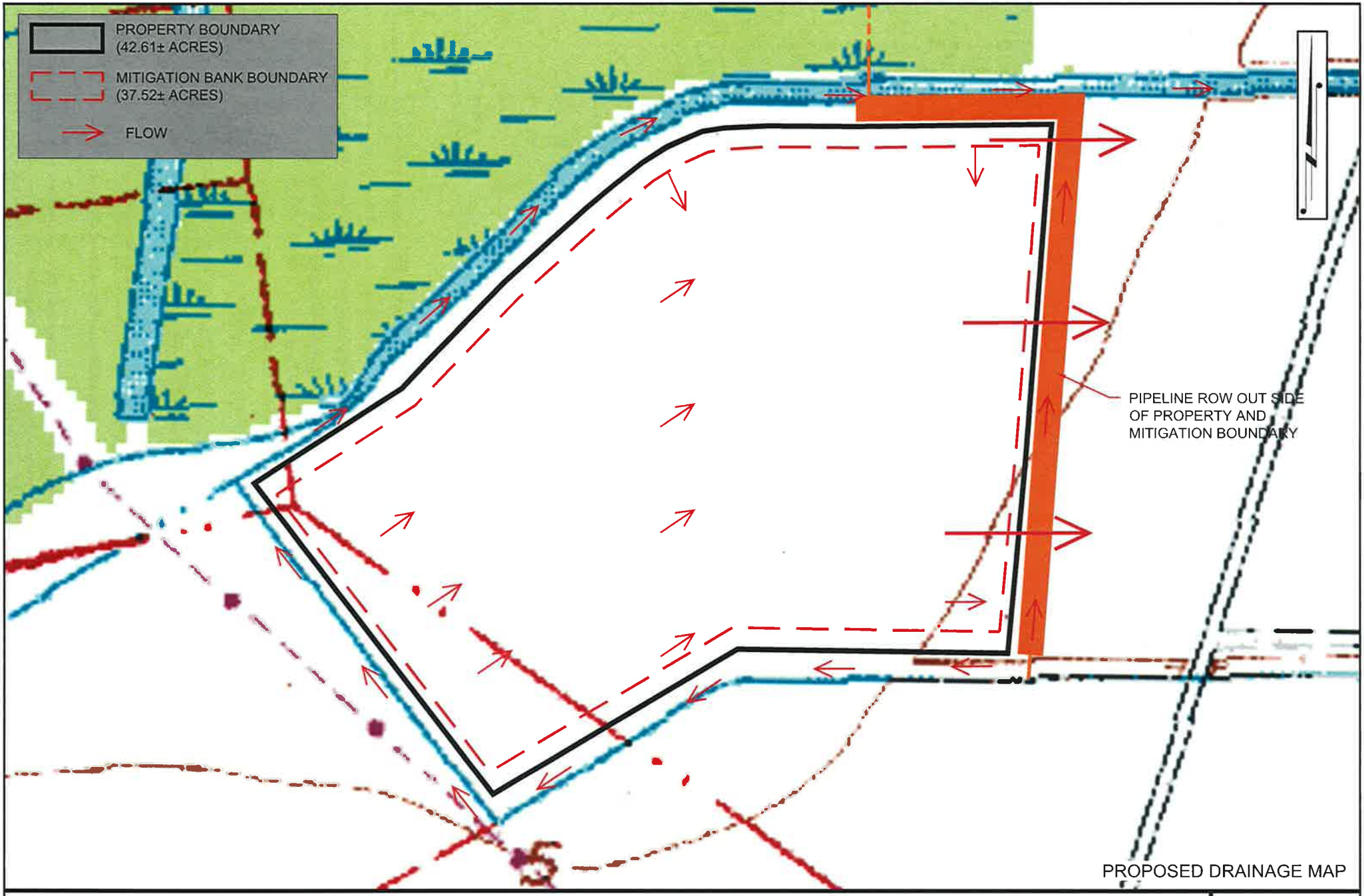
Figure

G7

Quad Photograph


PROPERTY BOUNDARY
(136.97± ACRES)
MITIGATION BANK BOUNDARY
(127.61± ACRES)
FLOW
50'
EXISTING
DITCH
EXISTING
DITCH
60
61
62
PACIFIC
SCALE IN FEET
500'
250'
0
500'
EXISTING DRAINAGE MAP
SEE FIGURE H10 FOR
CROSS SECTION
AREA H
ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA
Figure
H7
Quad Photograph


PROPERTY BOUNDARY (97.78± ACRES).
MITIGATION BANK BOUNDARY (88.00± ACRES)
FLOW
PROPERTY BOUNDARY
30'
MITIGATION BANK BOUNDARY
110'
EXISTING DITCH TO BE RELOCATED
50'
EXISTING DITCH
PROPOSED DITCH RELOCATION
EXISTING DITCH
30'
61
62
63
64
10
13
SCALE IN FEET
500' 250' 0 500'
EXISTING DRAINAGE MAP
SEE FIGURE I10 FOR CROSS SECTION
AREA I
ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA
Figure
I7
Quad Photograph



SCALE IN FEET

300' 150' 0 300'

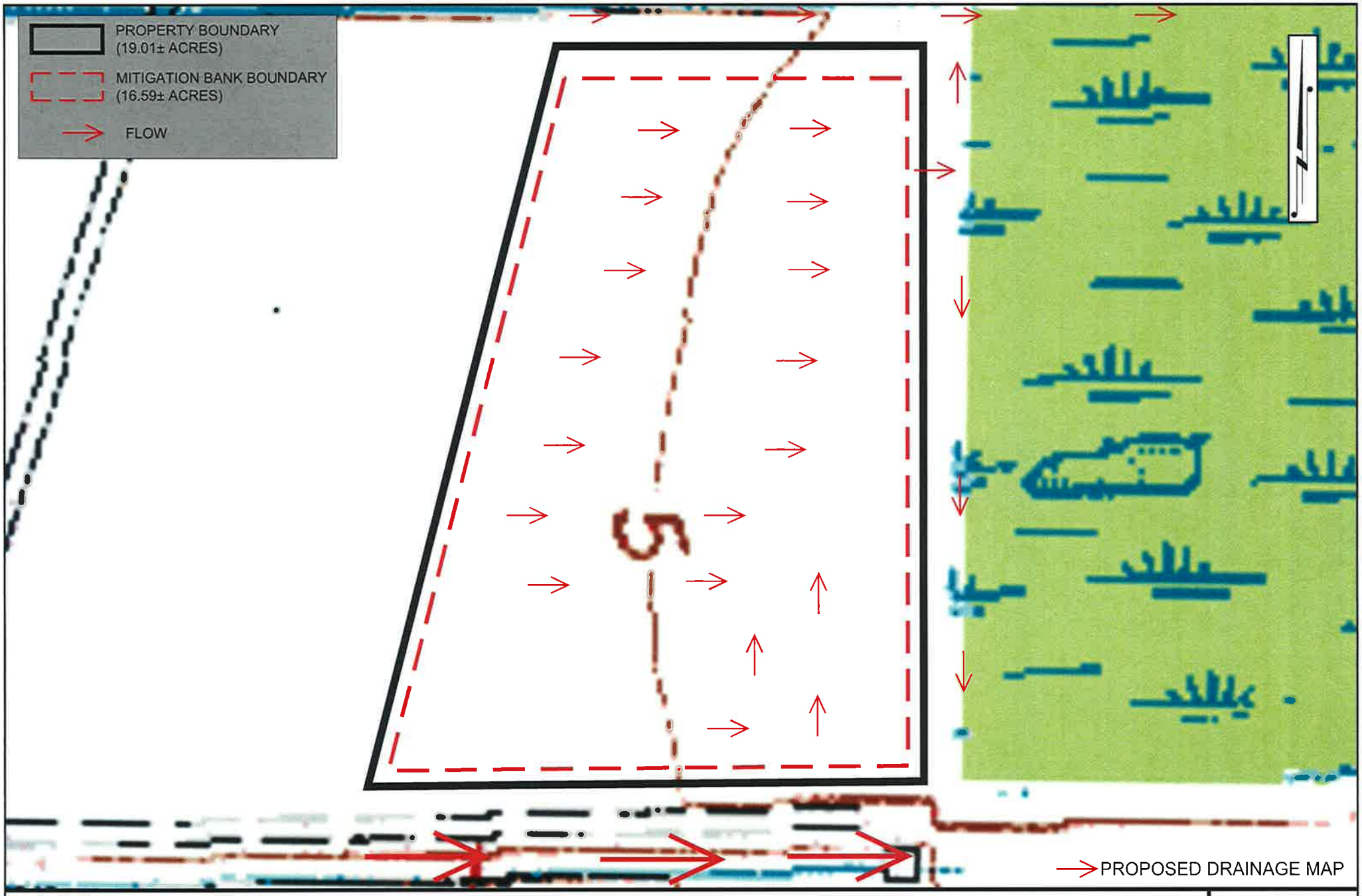
AREA A

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

A7

Quad Photograph



SCALE IN FEET

200' 100' 0 200'

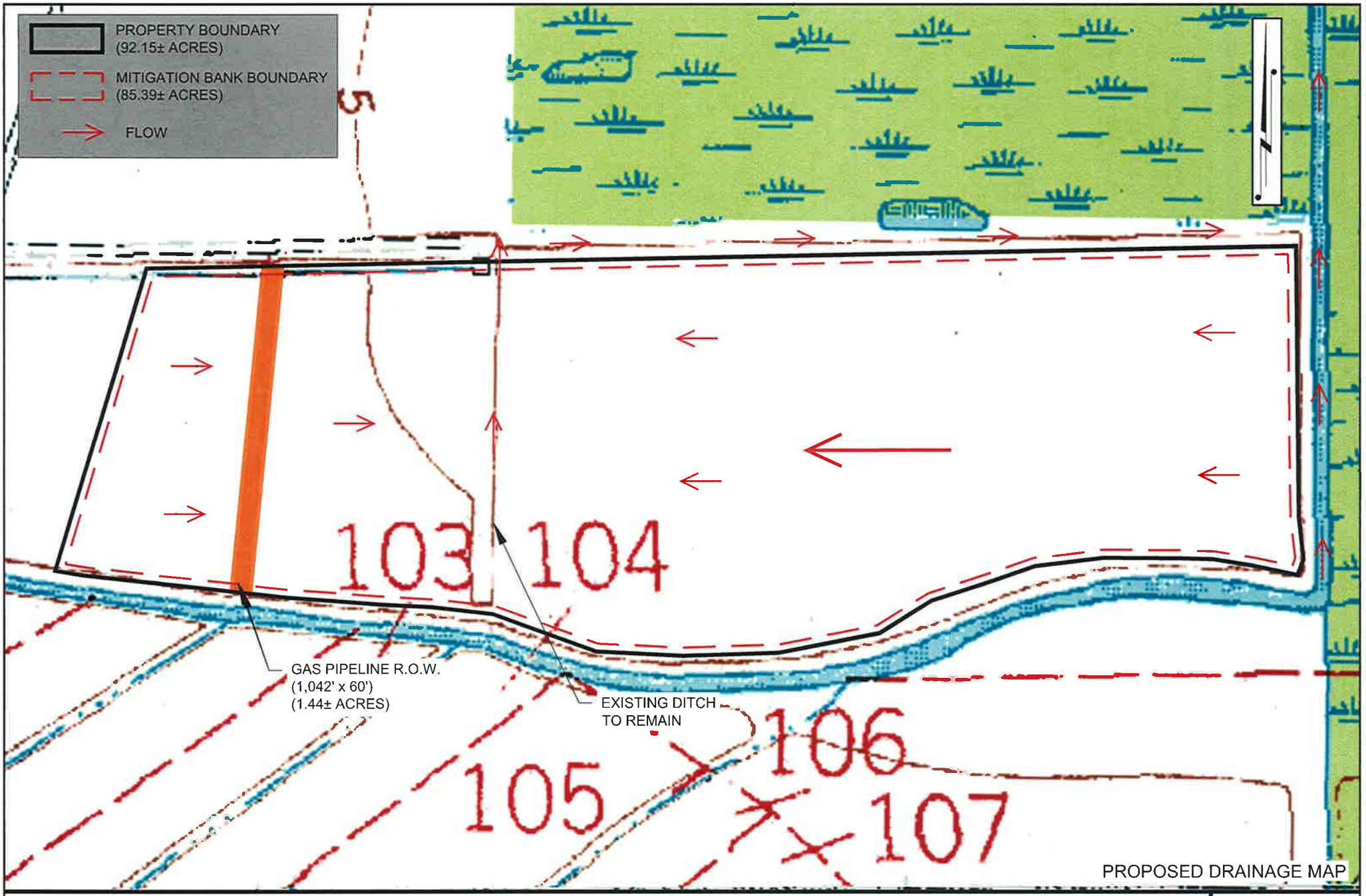
AREA B

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

B7

Quad Photograph



SCALE IN FEET

300' 150' 0 300'

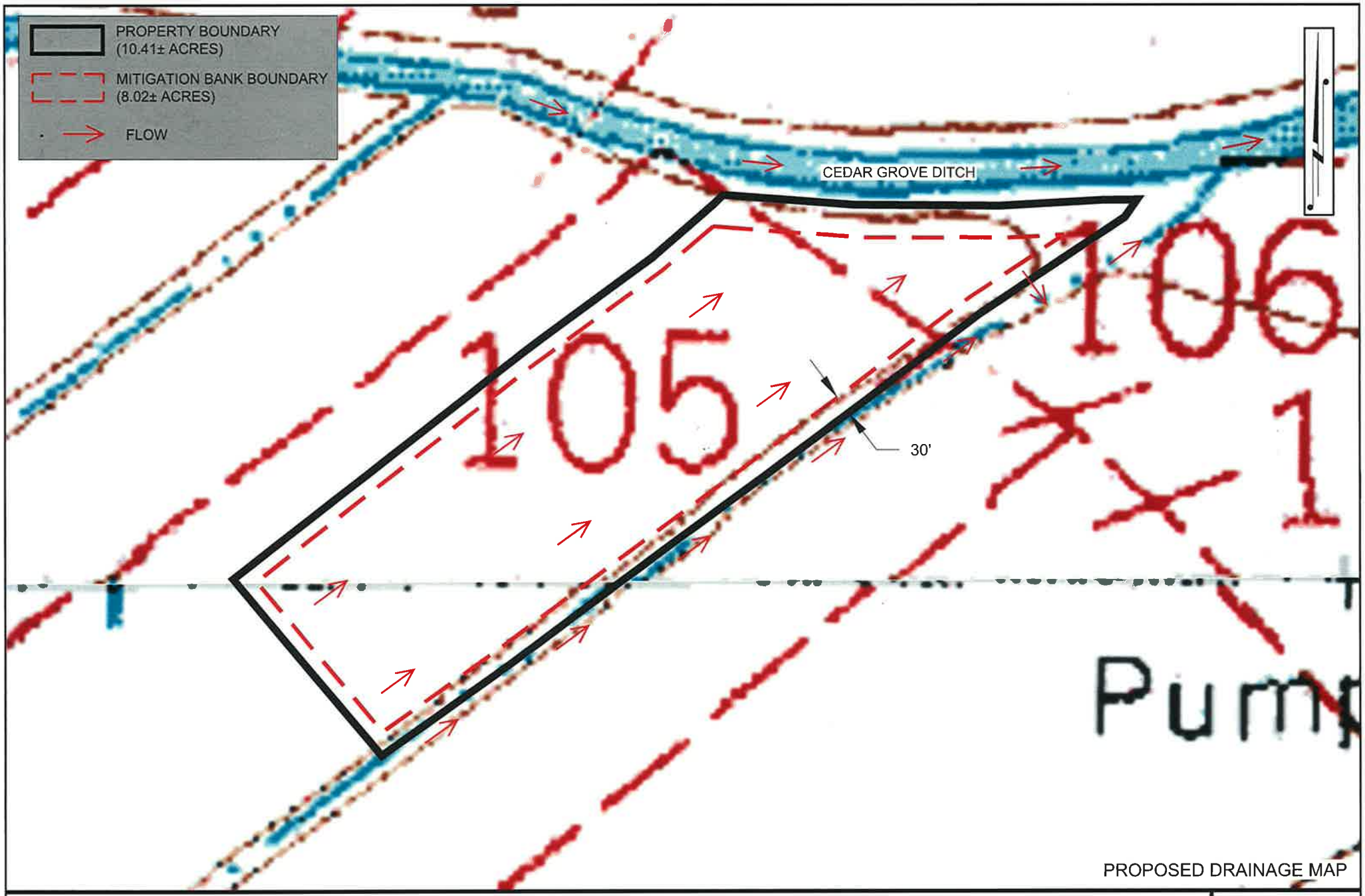
AREA C

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

C7

Quad Photograph



SCALE IN FEET

200' 100' 0 200'

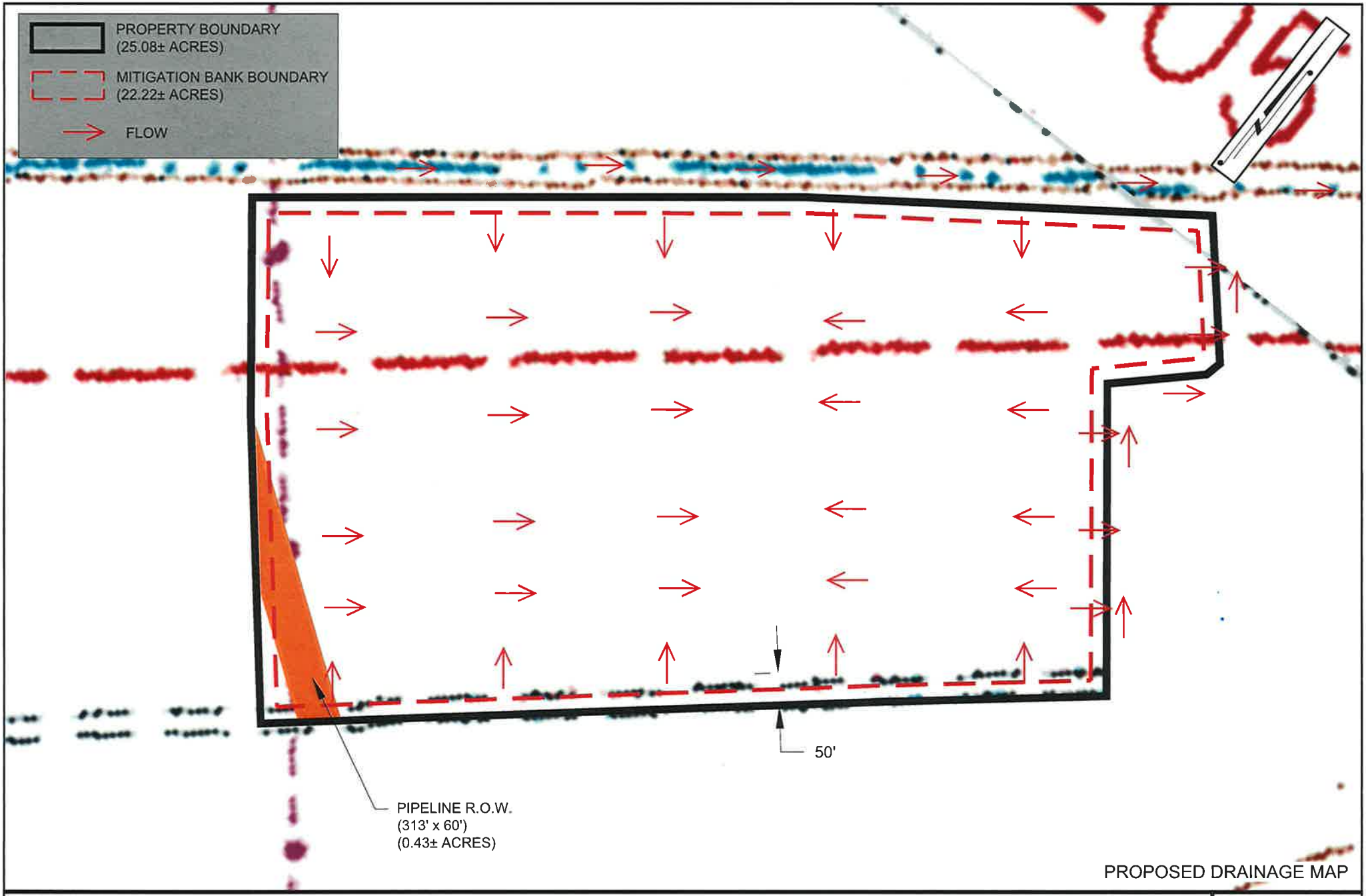
AREA D

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

D7

Quad Photograph



PROPOSED DRAINAGE MAP

SCALE IN FEET

200' 100' 0 200'

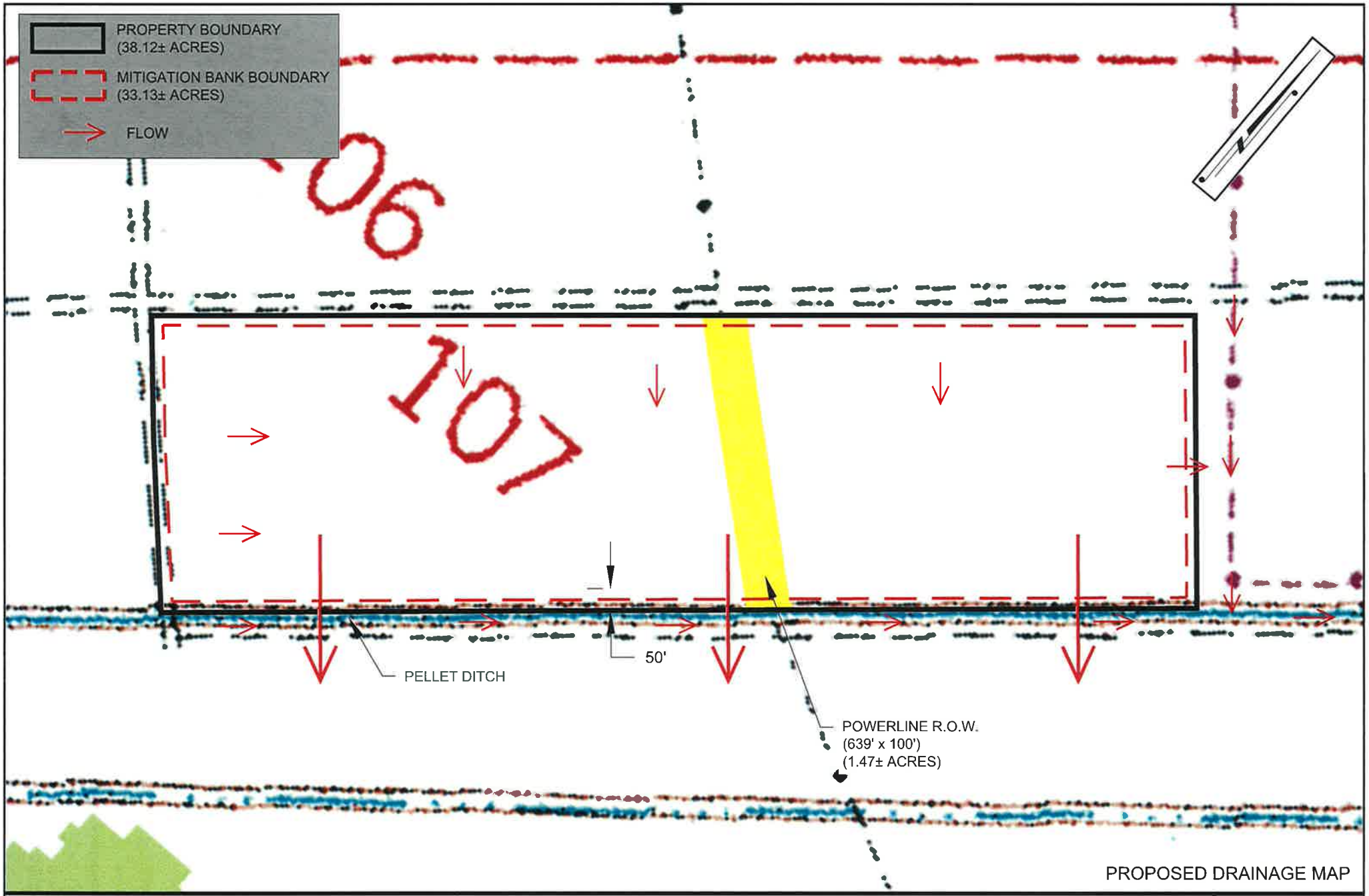
AREA E

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

E7

Quad Photograph



SCALE IN FEET

300' 150' 0 300'

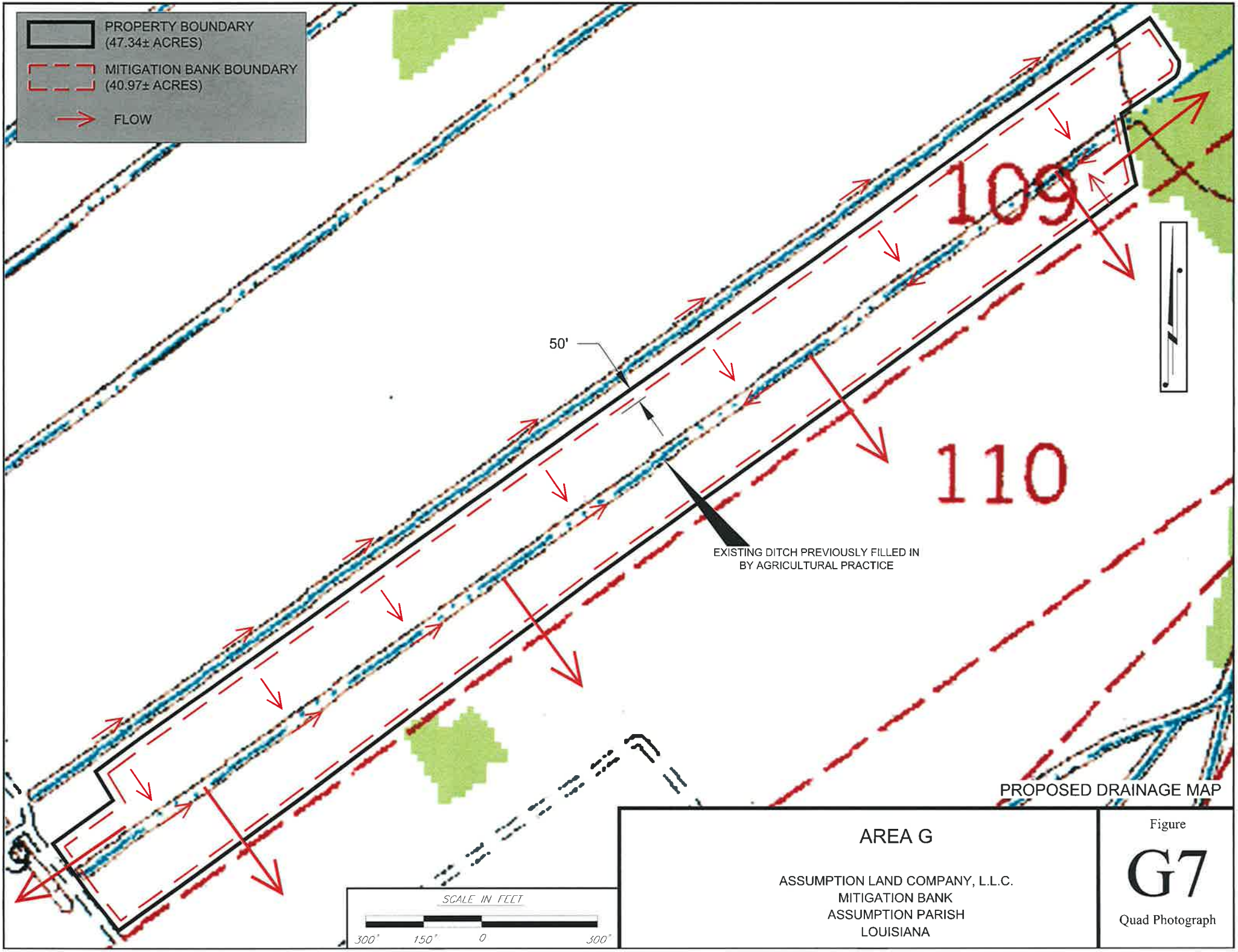
AREA F

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

F7

Quad Photograph



PROPOSED DRAINAGE MAP

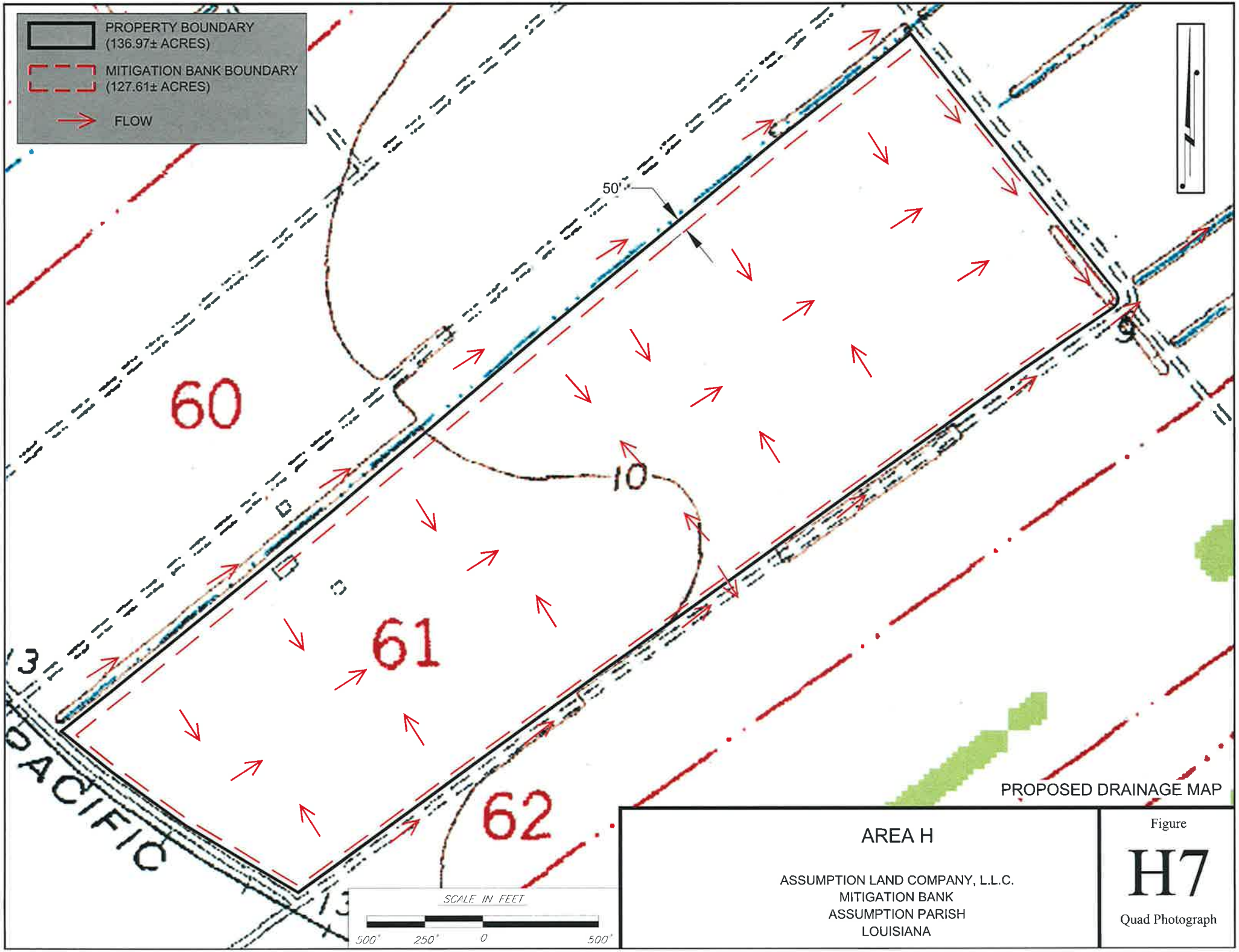
AREA G

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

G7

Quad Photograph



PROPOSED DRAINAGE MAP

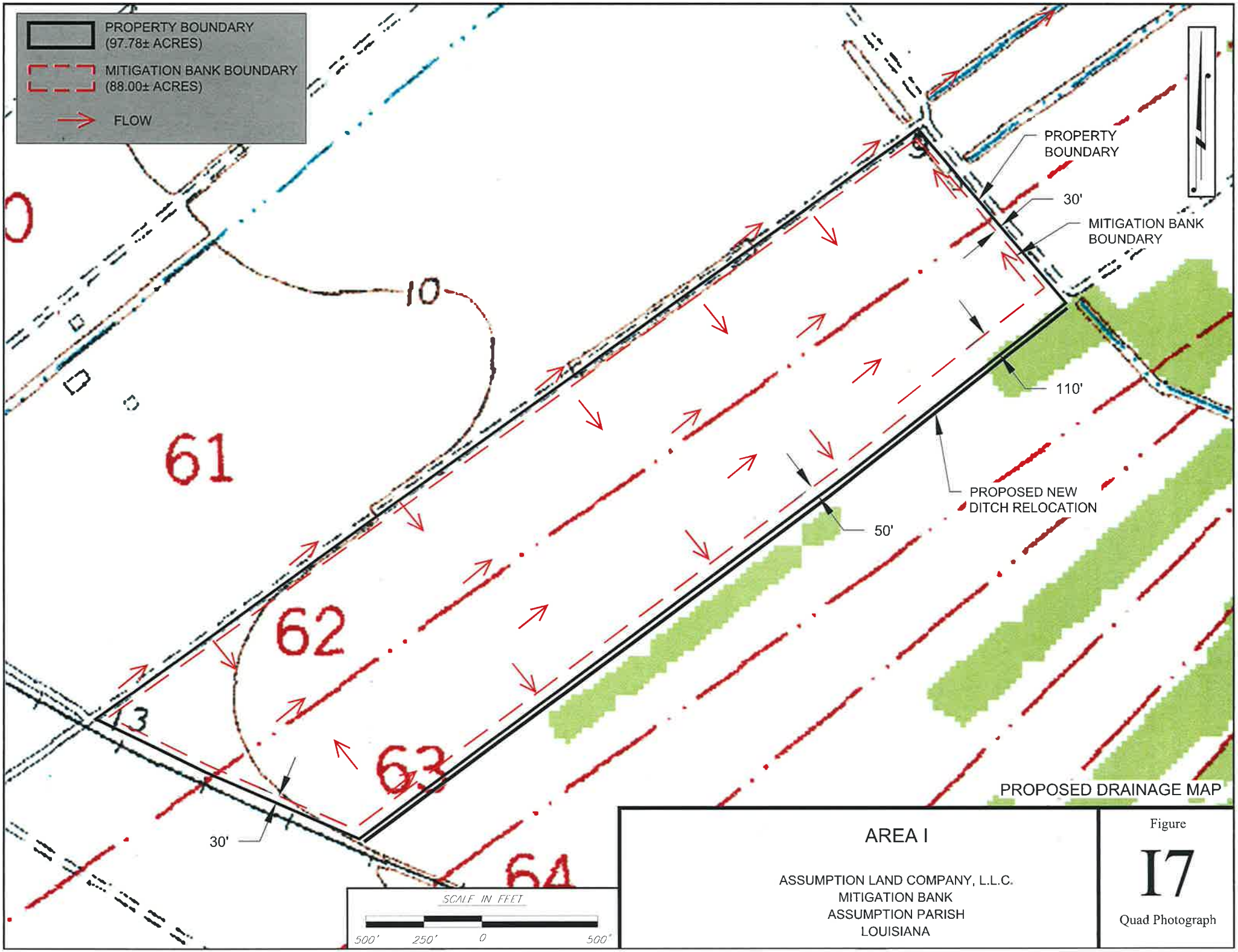
AREA H

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

H7

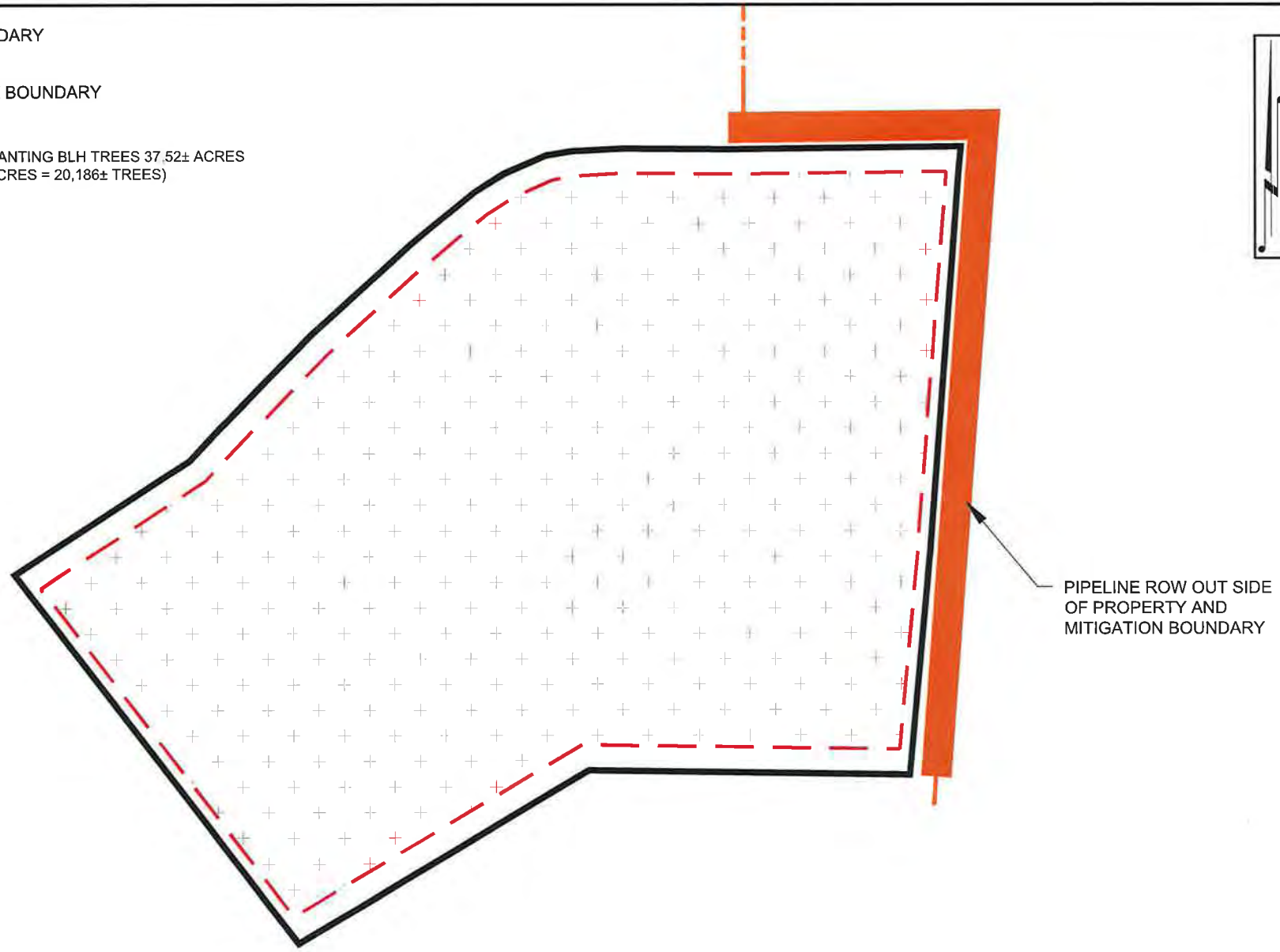
Quad Photograph


PROPERTY BOUNDARY
(97.78± ACRES)
MITIGATION BANK BOUNDARY
(88.00± ACRES)
FLOW
PROPERTY BOUNDARY
30'
MITIGATION BANK BOUNDARY
110'
PROPOSED NEW DITCH RELOCATION
50'
30'
10
61
62
63
64
13
SCALE IN FEET
500'
250'
0
500'
PROPOSED DRAINAGE MAP
AREA I
ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA
Figure
I7
Quad Photograph

PROPERTY BOUNDARY
(42.61± ACRES)

MITIGATION BANK BOUNDARY
(37.52± ACRES)

PROPOSED PLANTING BLH TREES 37.52± ACRES
(538 x 37.52± ACRES = 20,186± TREES)



MITIGATION TYPE ACRES

SCALE IN FEET

300' 150' 0 300'

AREA A

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

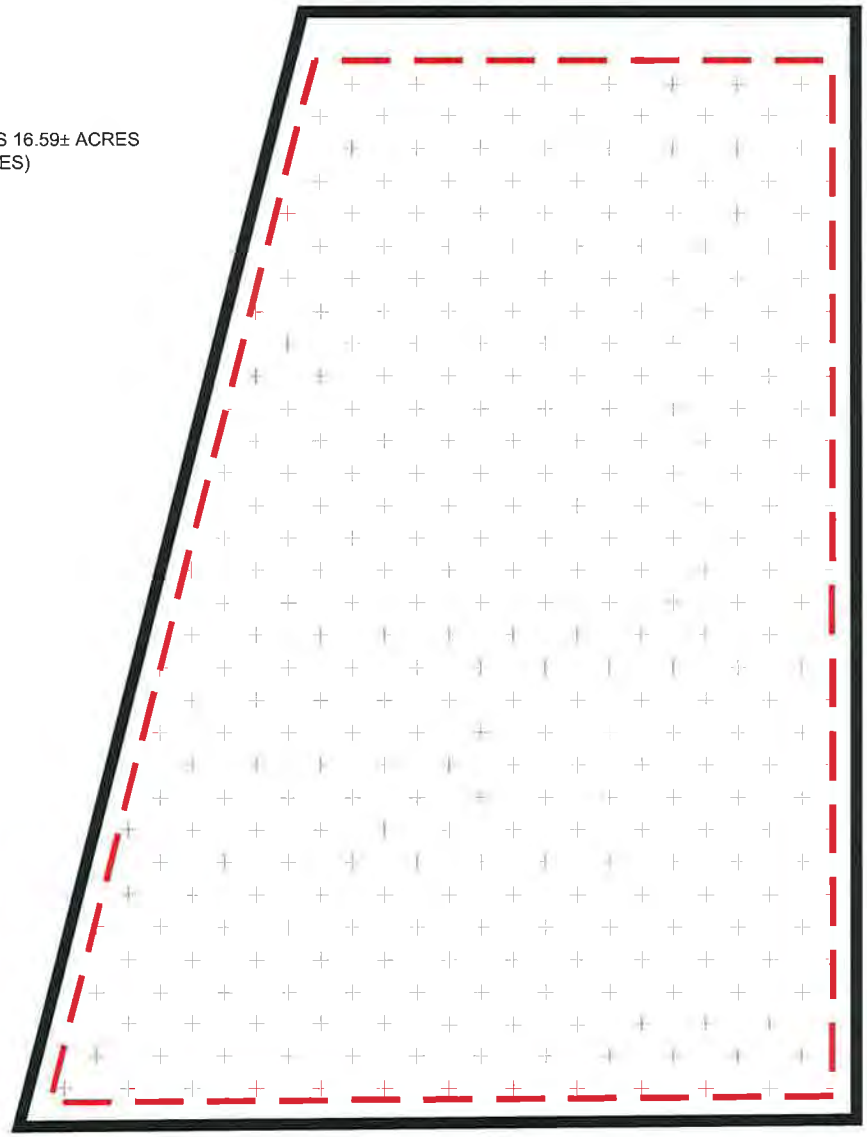
A8

Mitigation Type Acres

PROPERTY BOUNDARY
(19.01± ACRES)

MITIGATION BANK BOUNDARY
(16.59± ACRES)

PROPOSED PLANTING BLH TREES 16.59± ACRES
(538 x 16.59± ACRES = 8,925± TREES)



MITIGATION TYPE ACRES

SCALE IN FEET

200' 100' 0 200'

AREA B

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

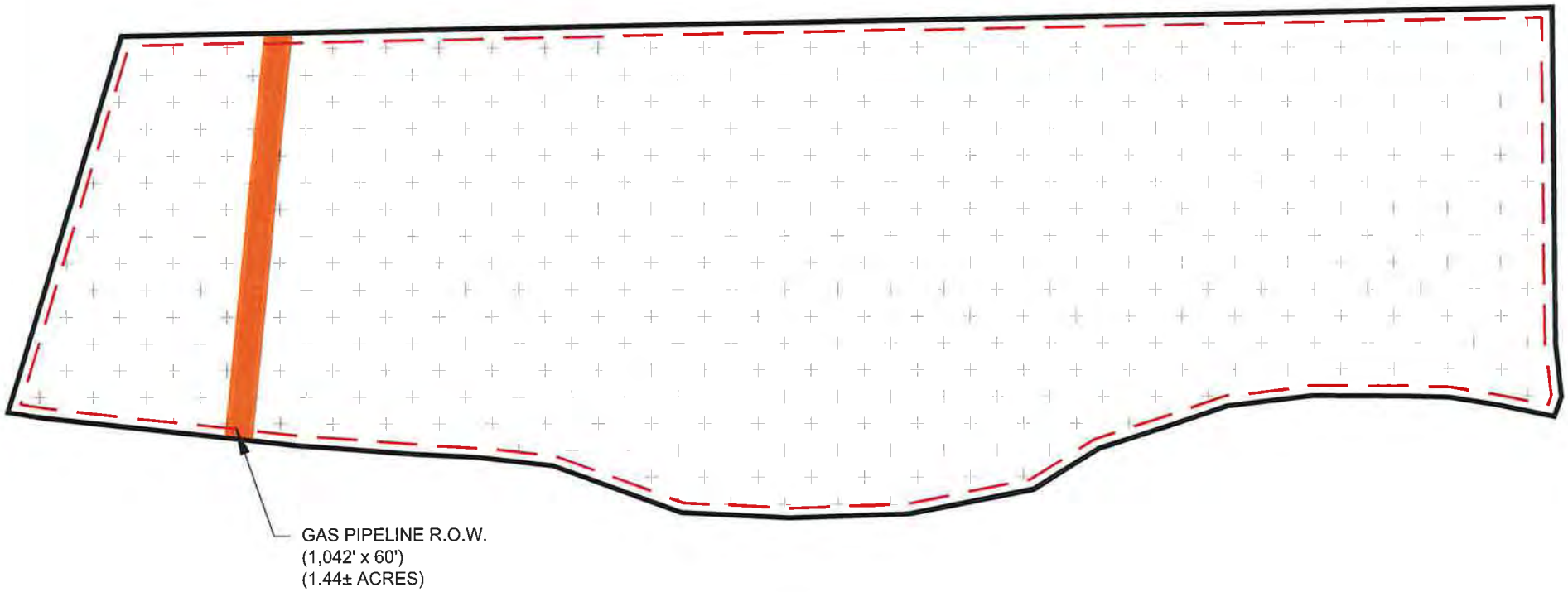
B8

Mitigation Type Acres

PROPERTY BOUNDARY
(92.15± ACRES)

MITIGATION BANK BOUNDARY
(85.39± ACRES)

PROPOSED PLANTING BLH TREES 85.39± ACRES
(538 x 85.39± ACRES = 45,940± TREES)



MITIGATION TYPE ACRES

SCALE IN FEET
300' 150' 0 300'

AREA C

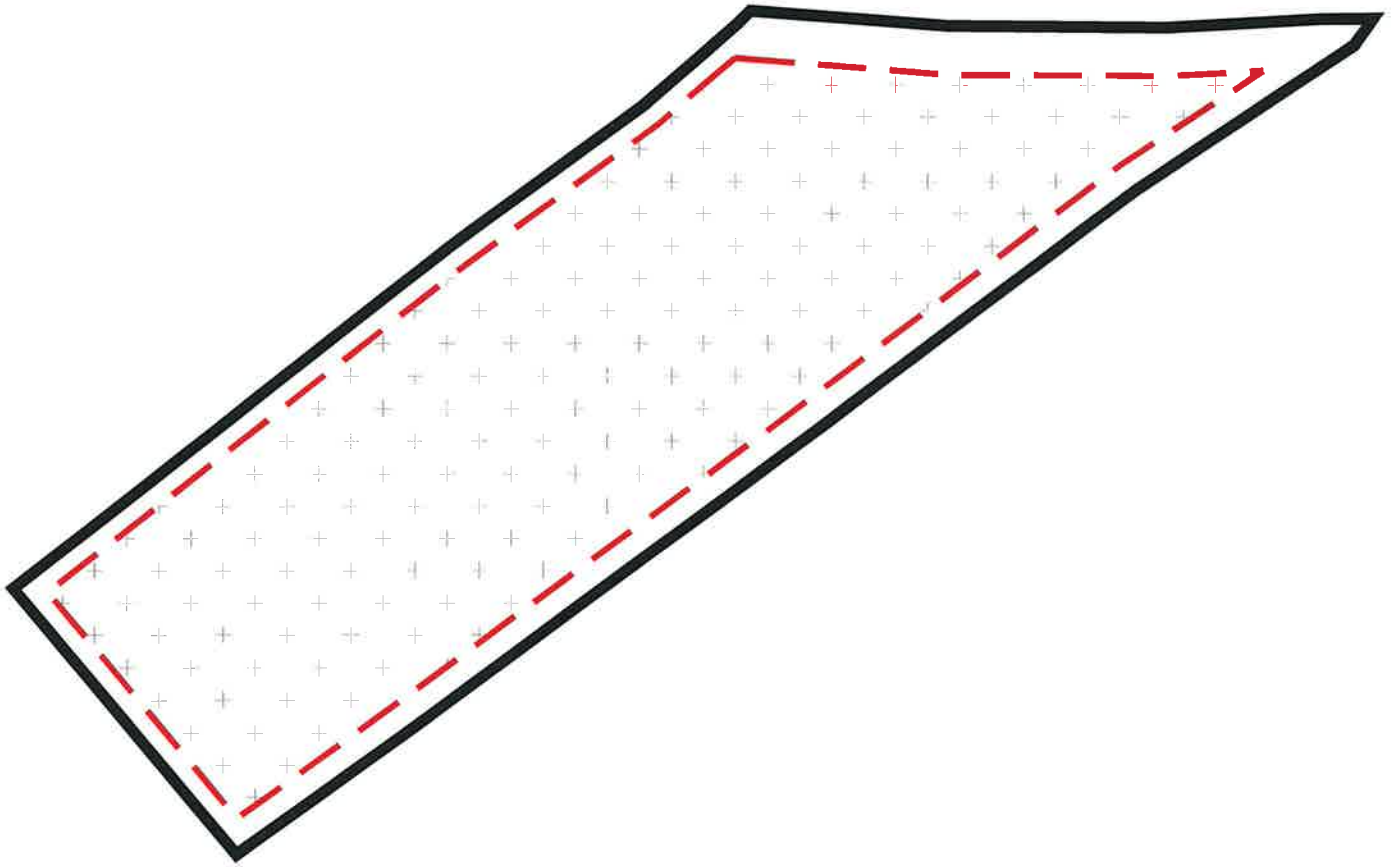
ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
C8
Mitigation Type Acres

PROPERTY BOUNDARY
(10.41± ACRES)

MITIGATION BANK BOUNDARY
(8.02± ACRES)

PROPOSED PLANTING BLH TREES 8.02± ACRES
(538 x 8.02± ACRES = 4,315± TREES)



MITIGATION TYPE ACRES

SCALE IN FEET

200' 100' 0 200'

AREA D

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

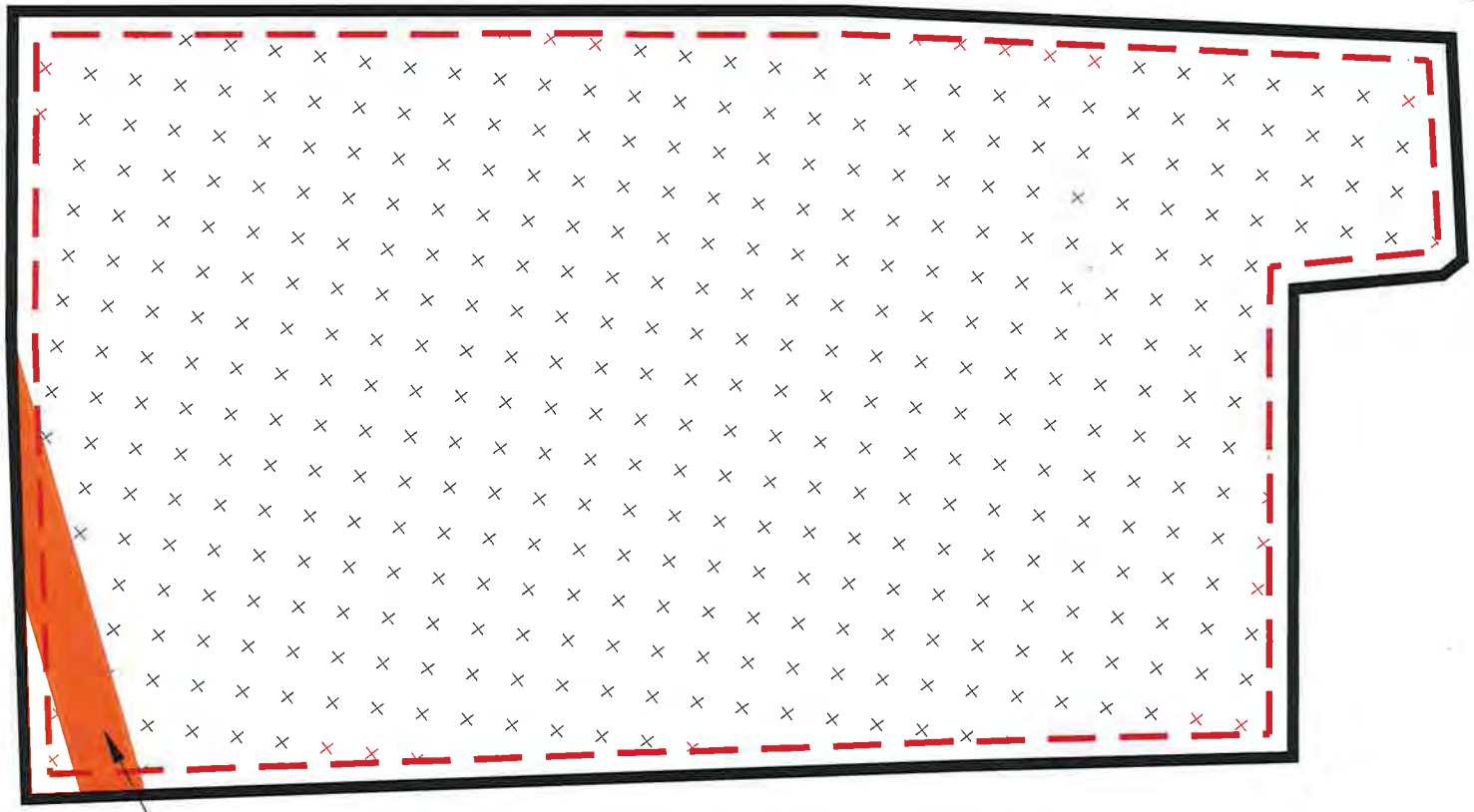
D8

Mitigation Type Acres

PROPERTY BOUNDARY
(25.08± ACRES)

MITIGATION BANK BOUNDARY
(22.22± ACRES)

PROPOSED PLANTING BLH TREES 22.22± ACRES
(538 x 22.22± ACRES = 11,954± TREES)



PIPELINE R.O.W.
(313' x 60')
(0.43± ACRES)

MITIGATION TYPE ACRES

SCALE IN FEET

200' 100' 0 200'

AREA E

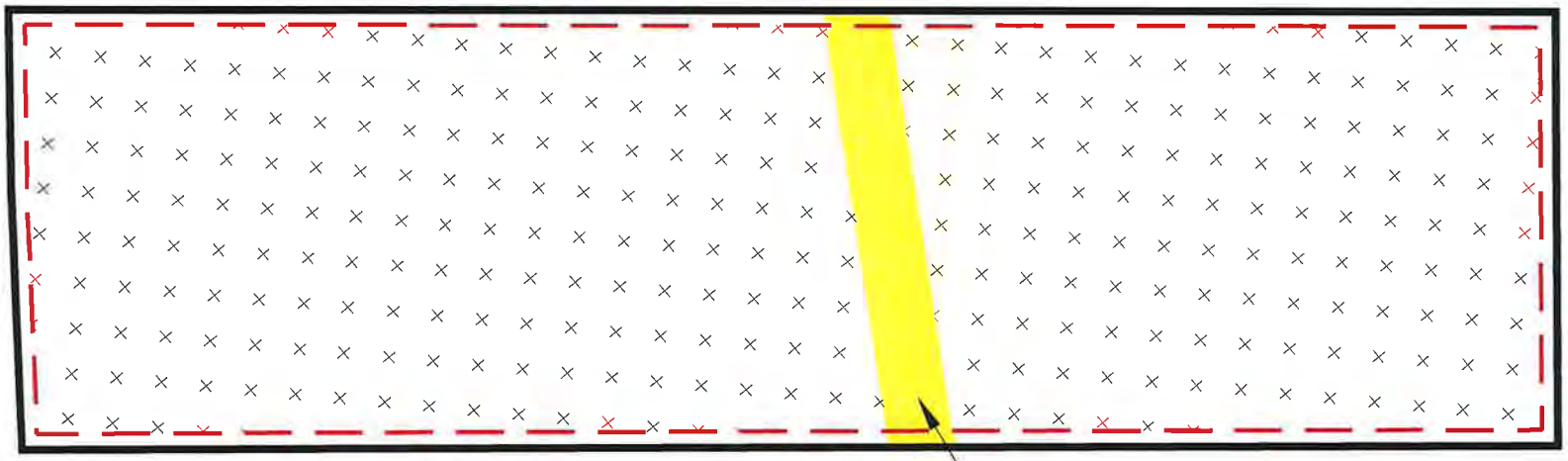
ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
E8
Mitigation Type Acres

PROPERTY BOUNDARY
(38.12± ACRES)

MITIGATION BANK BOUNDARY
(33.13± ACRES)

PROPOSED PLANTING BLH TREES 33.13± ACRES
(538 x 33.13± ACRES = 17,824± TREES)



POWERLINE R.O.W.
(639' x 100')
(1.47± ACRES)

MITIGATION TYPE ACRES

SCALE IN FEET

300' 150' 0 300'

AREA F

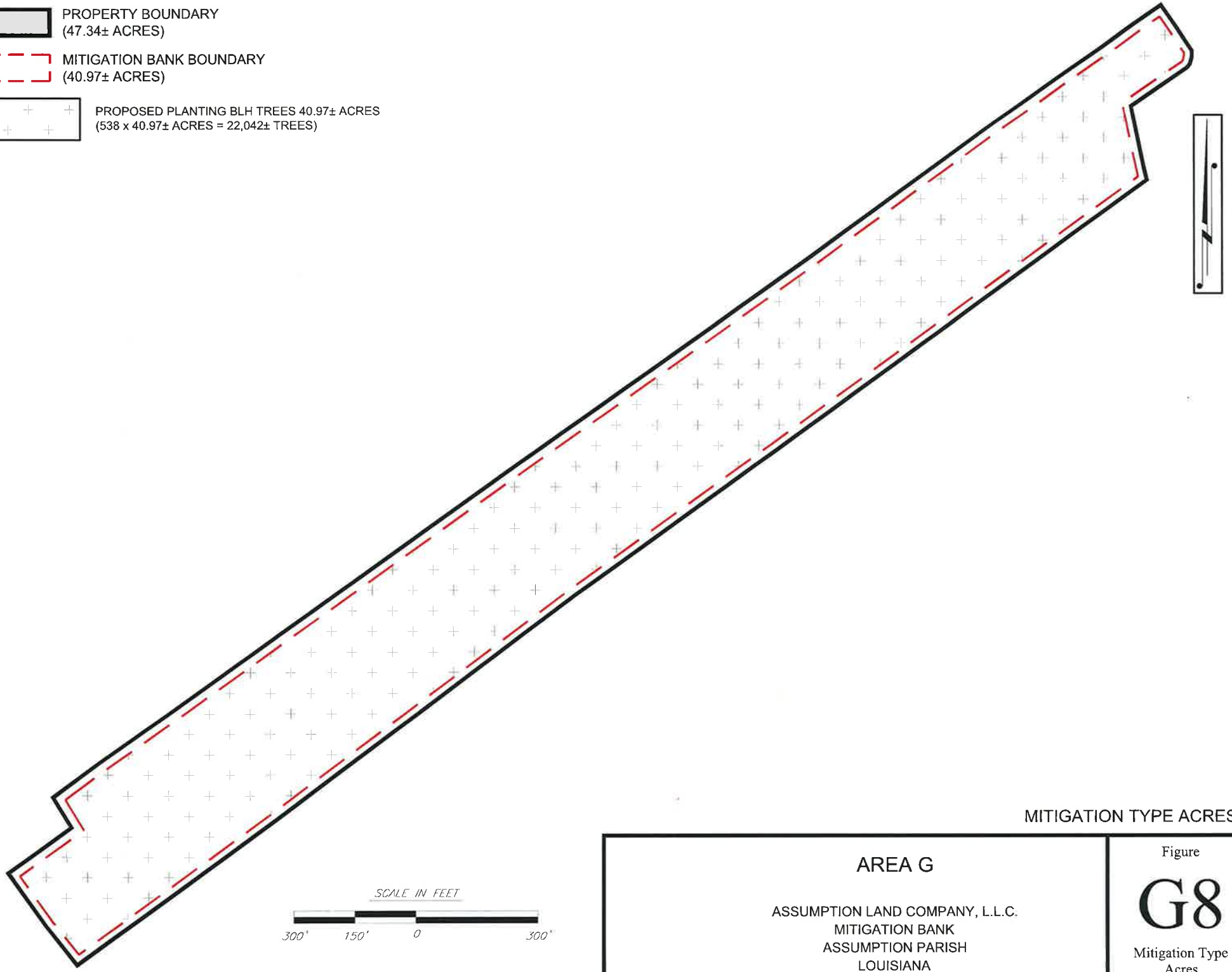
ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
F8
Mitigation Type Acres

PROPERTY BOUNDARY
(47.34± ACRES)

MITIGATION BANK BOUNDARY
(40.97± ACRES)

PROPOSED PLANTING BLH TREES 40.97± ACRES
(538 x 40.97± ACRES = 22,042± TREES)



SCALE IN FEET

300' 150' 0 300'

MITIGATION TYPE ACRES

AREA G

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

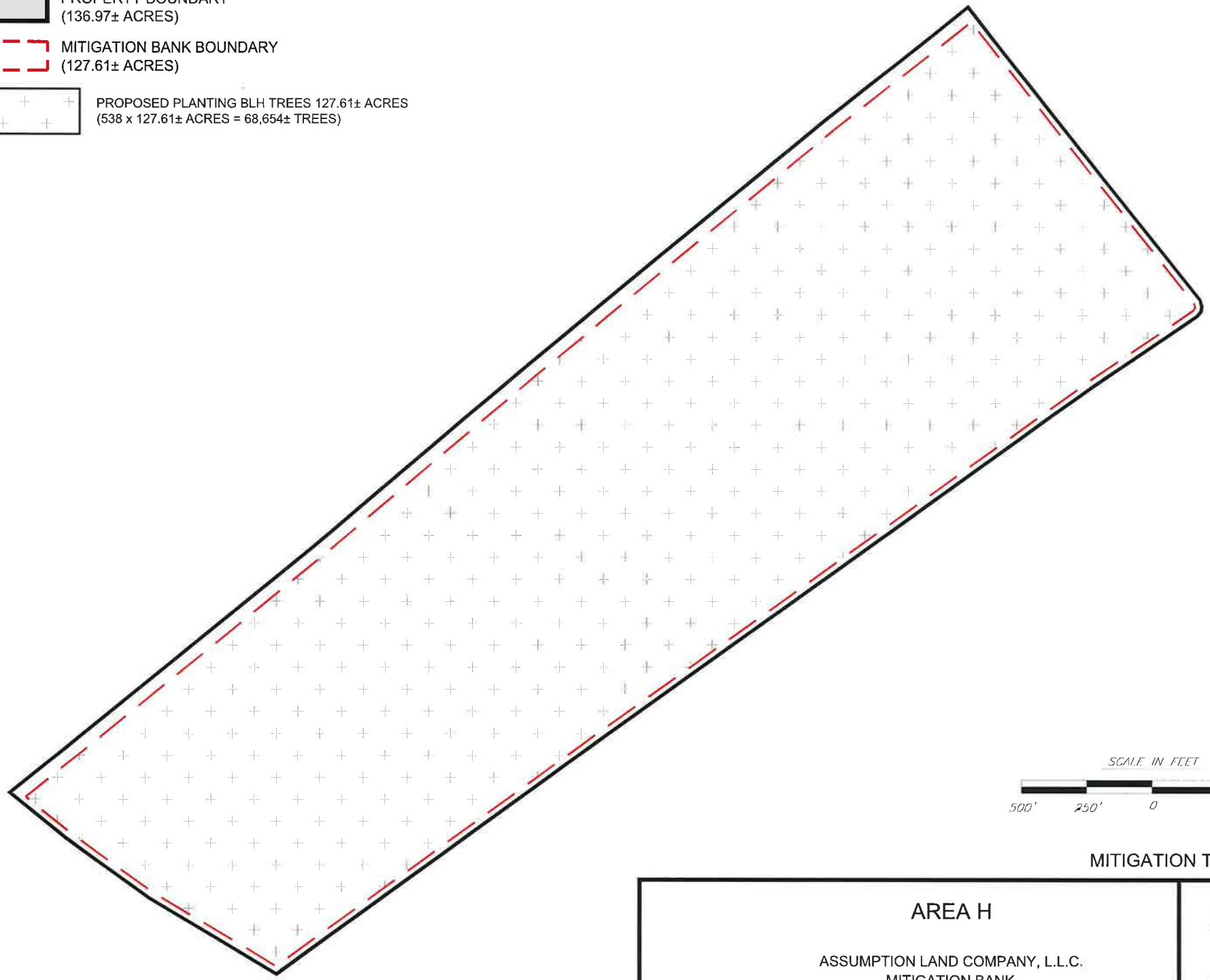
G8

Mitigation Type Acres

PROPERTY BOUNDARY
(136.97± ACRES)

MITIGATION BANK BOUNDARY
(127.61± ACRES)

PROPOSED PLANTING BLH TREES 127.61± ACRES
(538 x 127.61± ACRES = 68,654± TREES)



SCALE IN FEET

500' 250' 0 500'

MITIGATION TYPE ACRES

AREA H

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

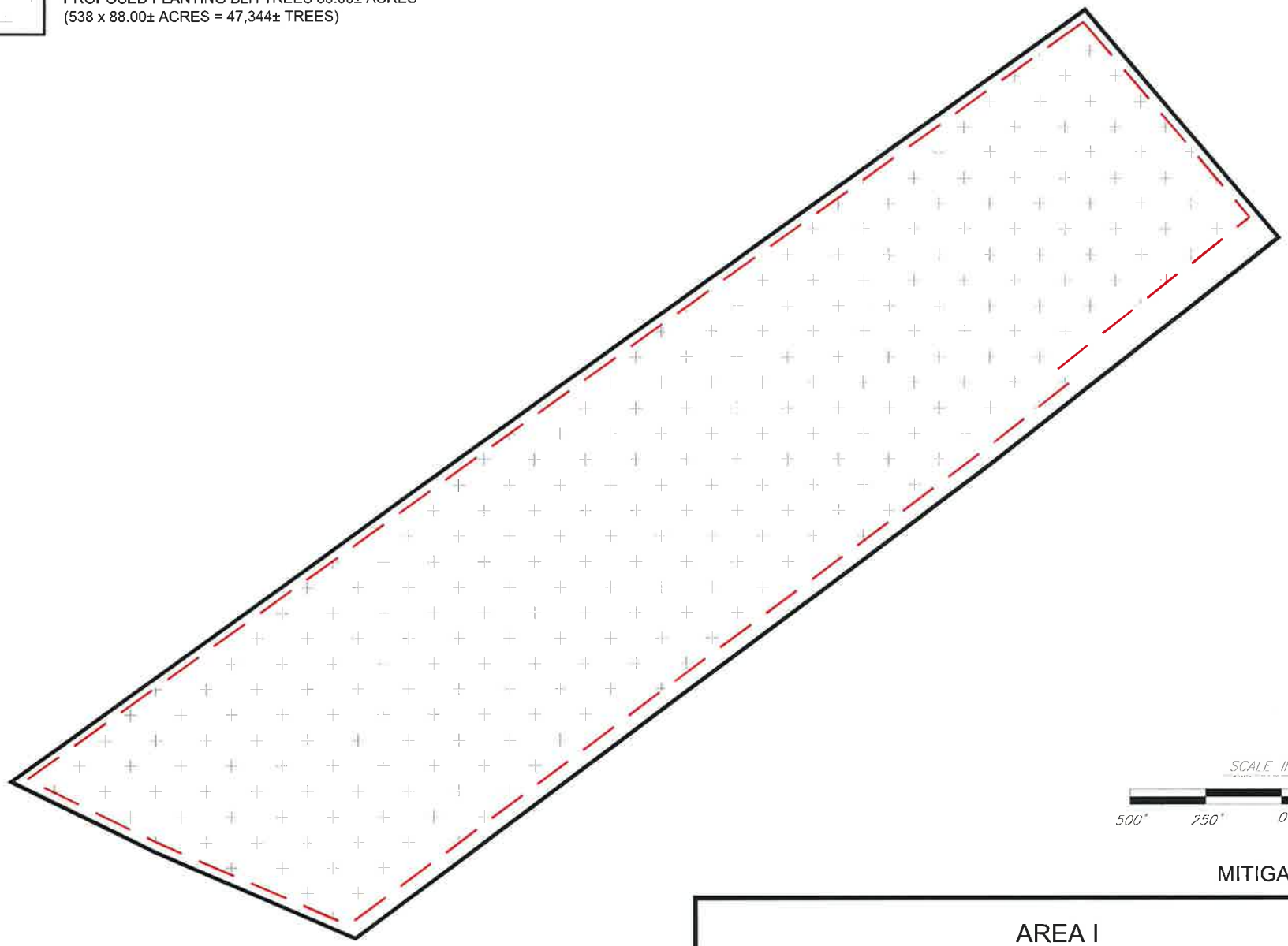
H8

Mitigation Type Acres

PROPERTY BOUNDARY
(97.78± ACRES)

MITIGATION BANK BOUNDARY
(88.00± ACRES)

PROPOSED PLANTING BLH TREES 88.00± ACRES
(538 x 88.00± ACRES = 47,344± TREES)



SCALE IN FEET

500' 250' 0 500'

MITIGATION TYPE ACRES

AREA I

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

I8

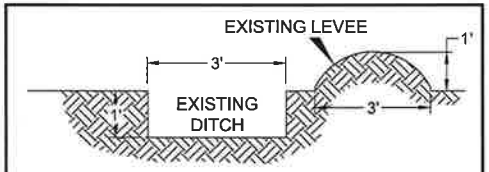
Mitigation Type Acres

PROPERTY BOUNDARY

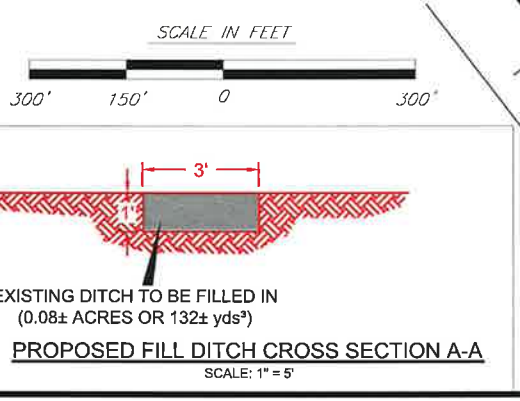
MITIGATION BANK BOUNDARY
(37.52± ACRES)

PROPOSED PLANTING BLH TREES 37.52± ACRES
(538 x 37.52± ACRES = 20,186± TREES)

EXISTING DITCH TO BE FILLED IN
(0.08± ACRES OR 132± yds³)



EXISTING DITCH CROSS SECTION A-A
SCALE: 1" = 5'

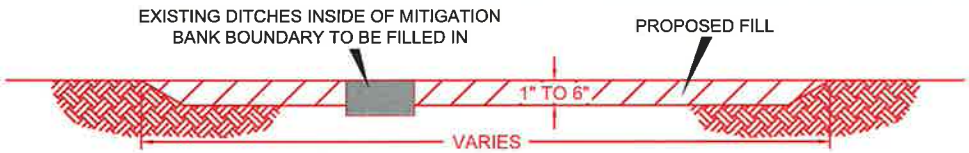


EXISTING DITCH TO BE FILLED IN
(0.08± ACRES OR 132± yds³)

PROPOSED FILL DITCH CROSS SECTION A-A
SCALE: 1" = 5'

NOTE: NATIVE MATERIAL WILL BE USED TO FILL SMALL DITCHES ON EACH AREA A TO I. SEE TYPICAL ON THIS SHEET.

HYDROLOGIC RESTORATION

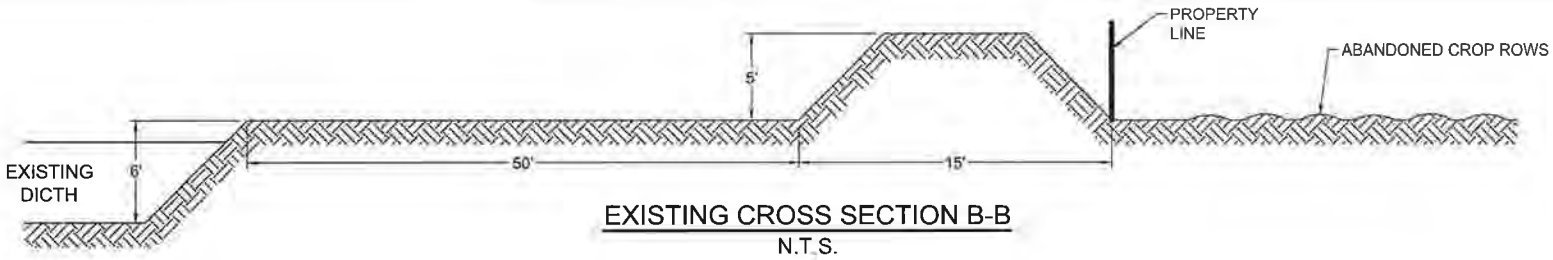


PROPOSED TYPICAL SECTION

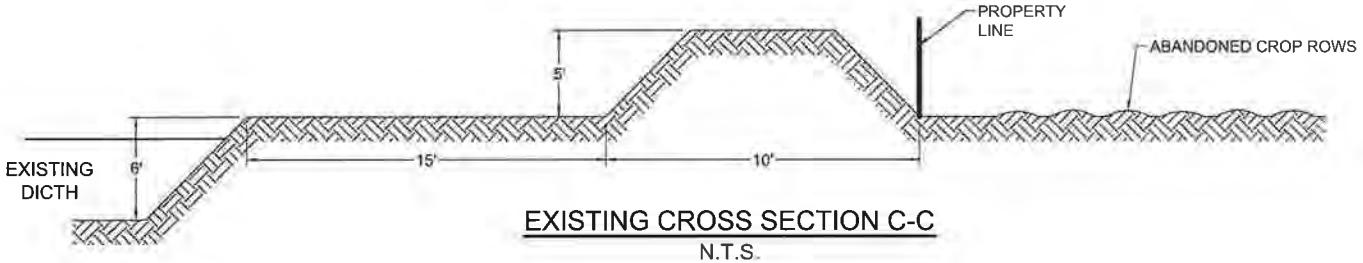
AREA A

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

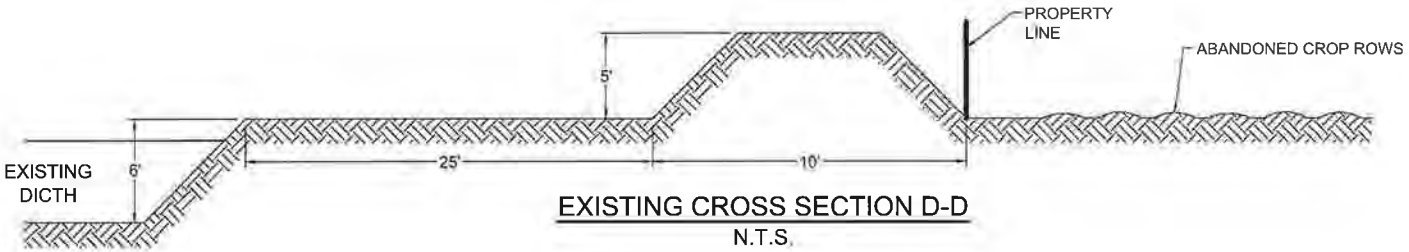
Figure
A9
Hydrologic Restoration
Planting Zone



EXISTING CROSS SECTION B-B
N.T.S.



EXISTING CROSS SECTION C-C
N.T.S.



EXISTING CROSS SECTION D-D
N.T.S.

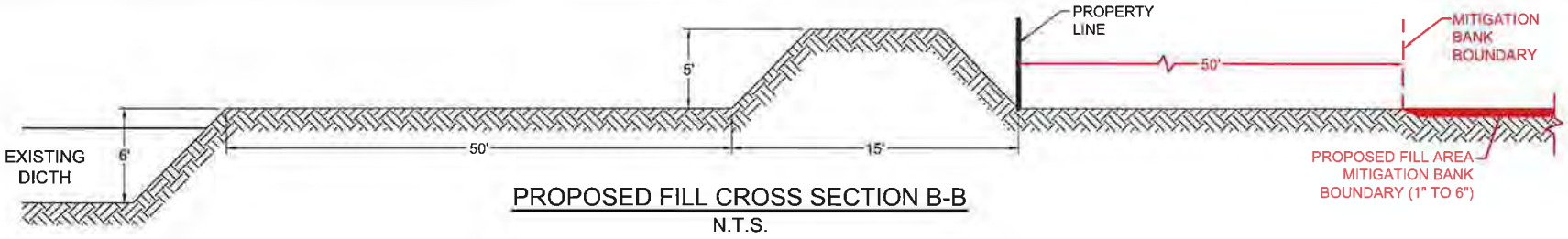
EXISTING CROSS SECTION E-E
N.T.S.

HYDROLOGIC RESTORATION

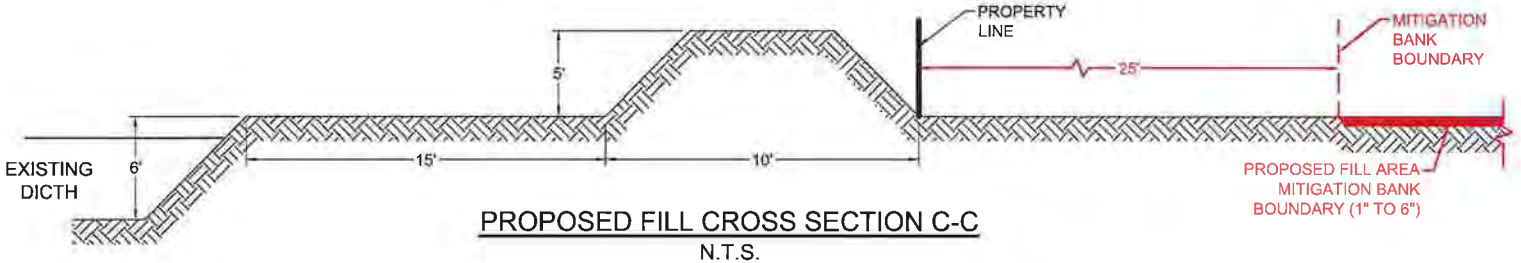
CROSS SECTIONS

ASSUMPTION LAND COMPANY, L.L.C
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

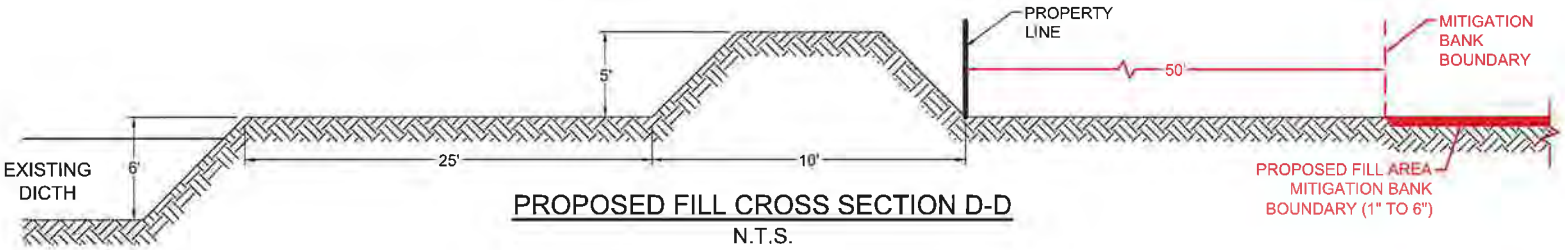
Figure
A9-1
Hydrologic Restoration
Planting Zone



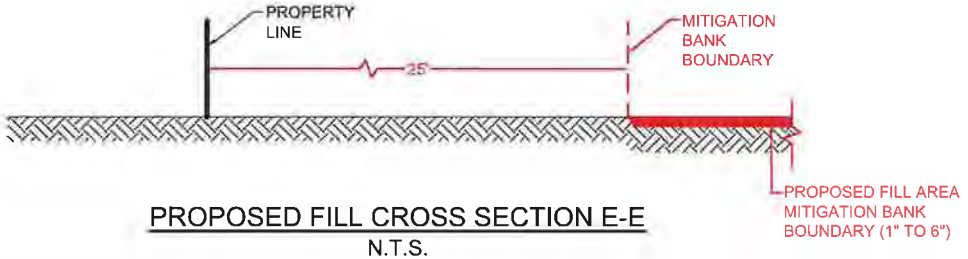
PROPOSED FILL CROSS SECTION B-B
N.T.S.



PROPOSED FILL CROSS SECTION C-C
N.T.S.



PROPOSED FILL CROSS SECTION D-D
N.T.S.



PROPOSED FILL CROSS SECTION E-E
N.T.S.

HYDROLOGIC RESTORATION

CROSS SECTIONS

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

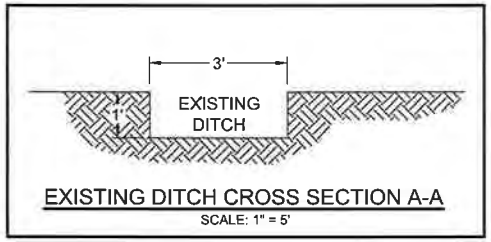
Figure
A9-2
Hydrologic Restoration Planting Zone

PROPERTY BOUNDARY

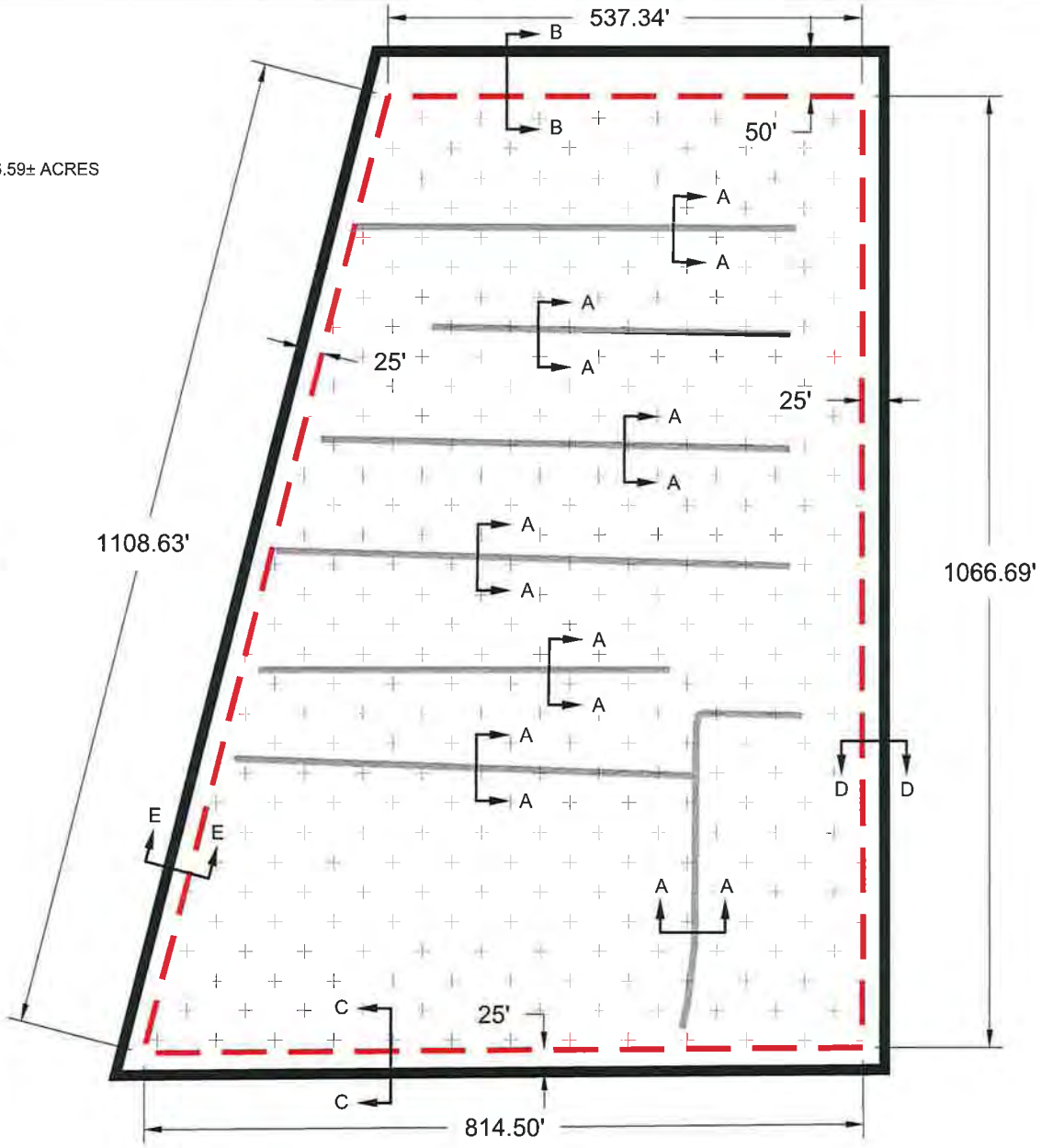
MITIGATION BANK BOUNDARY
(16.59± ACRES)

PROPOSED PLANTING BLH TREES 16.59± ACRES
(538 x 16.59± ACRES = 8,925± TREES)

EXISTING DITCH TO BE FILLED IN
(0.24± ACRES OR 384± yds³)



EXISTING DITCH CROSS SECTION A-A
SCALE: 1" = 5'



NOTE: NATIVE MATERIAL WILL BE USED TO FILL SMALL DITCHES ON EACH AREA A TO I. SEE TYPICAL SECTION ON SHEET A10.

EXISTING DITCH TO BE FILLED IN
(0.24± ACRES OR 384± yds³)

PROPOSED FILL DITCH CROSS SECTION A-A
SCALE: 1" = 5'

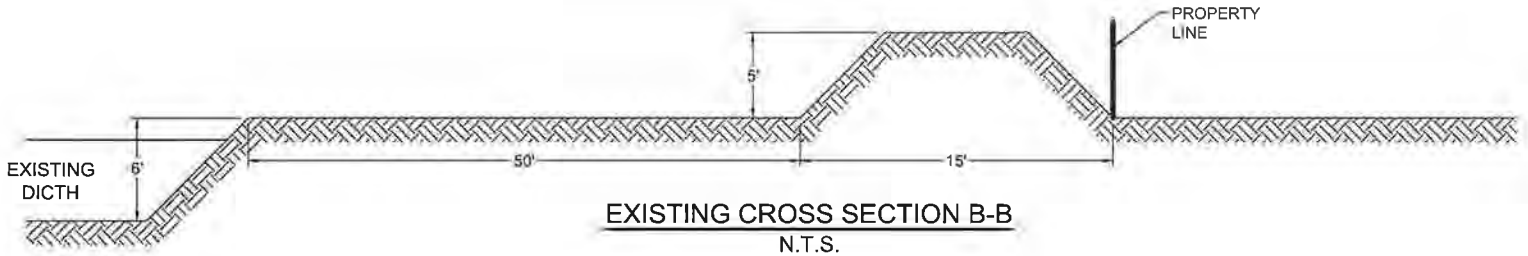
HYDROLOGIC RESTORATION

SCALE IN FEET
200' 100' 0 200'

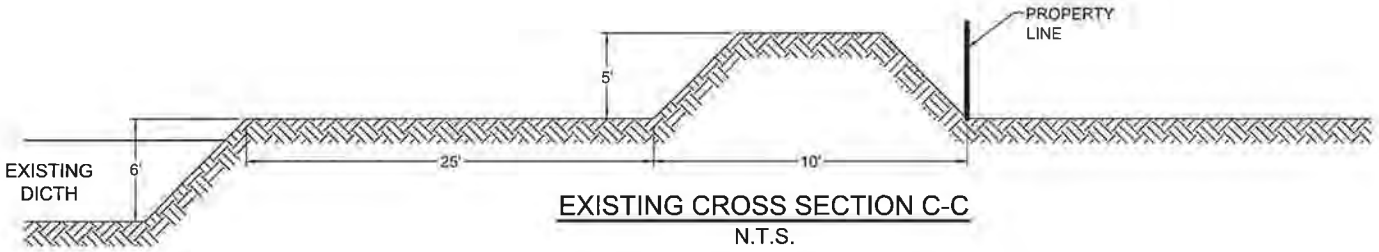
AREA B

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

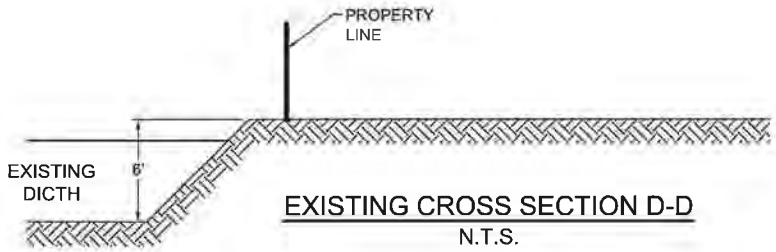
Figure
B9
Hydrologic Restoration
Planting Zone



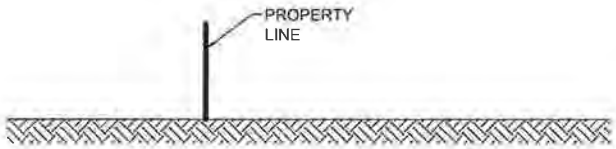
EXISTING CROSS SECTION B-B
N.T.S.



EXISTING CROSS SECTION C-C
N.T.S.



EXISTING CROSS SECTION D-D
N.T.S.



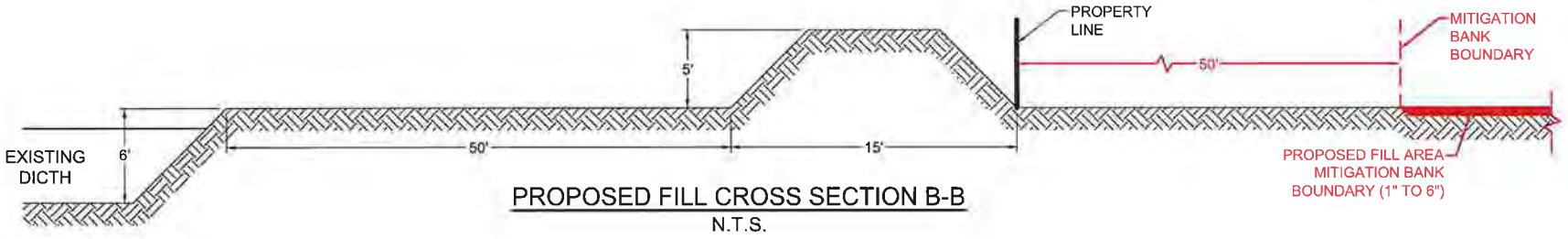
EXISTING CROSS SECTION E-E
N.T.S.

HYDROLOGIC RESTORATION

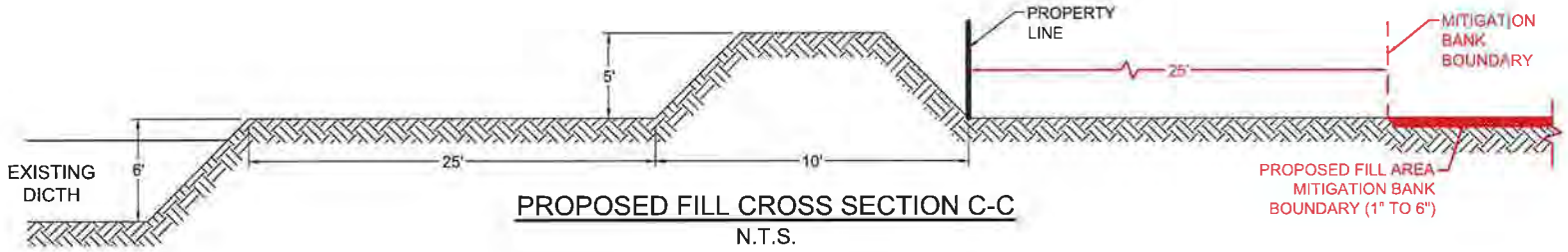
CROSS SECTIONS

ASSUMPTION LAND COMPANY, L.L.C
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

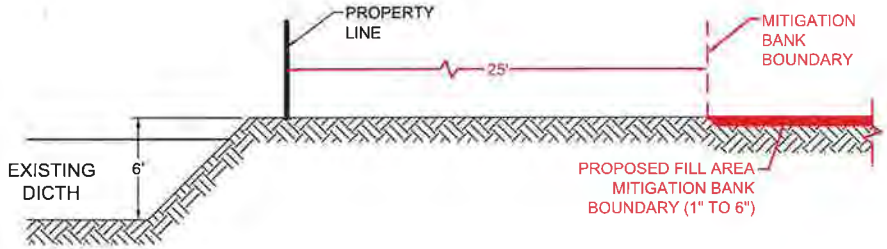
Figure
B9-1
Hydrologic Restoration
Planting Zone



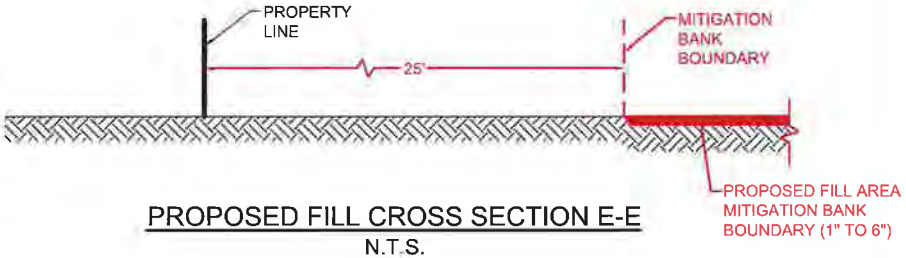
PROPOSED FILL CROSS SECTION B-B
N.T.S.



PROPOSED FILL CROSS SECTION C-C
N.T.S.



PROPOSED FILL CROSS SECTION D-D
N.T.S.



PROPOSED FILL CROSS SECTION E-E
N.T.S.

HYDROLOGIC RESTORATION

CROSS SECTIONS

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

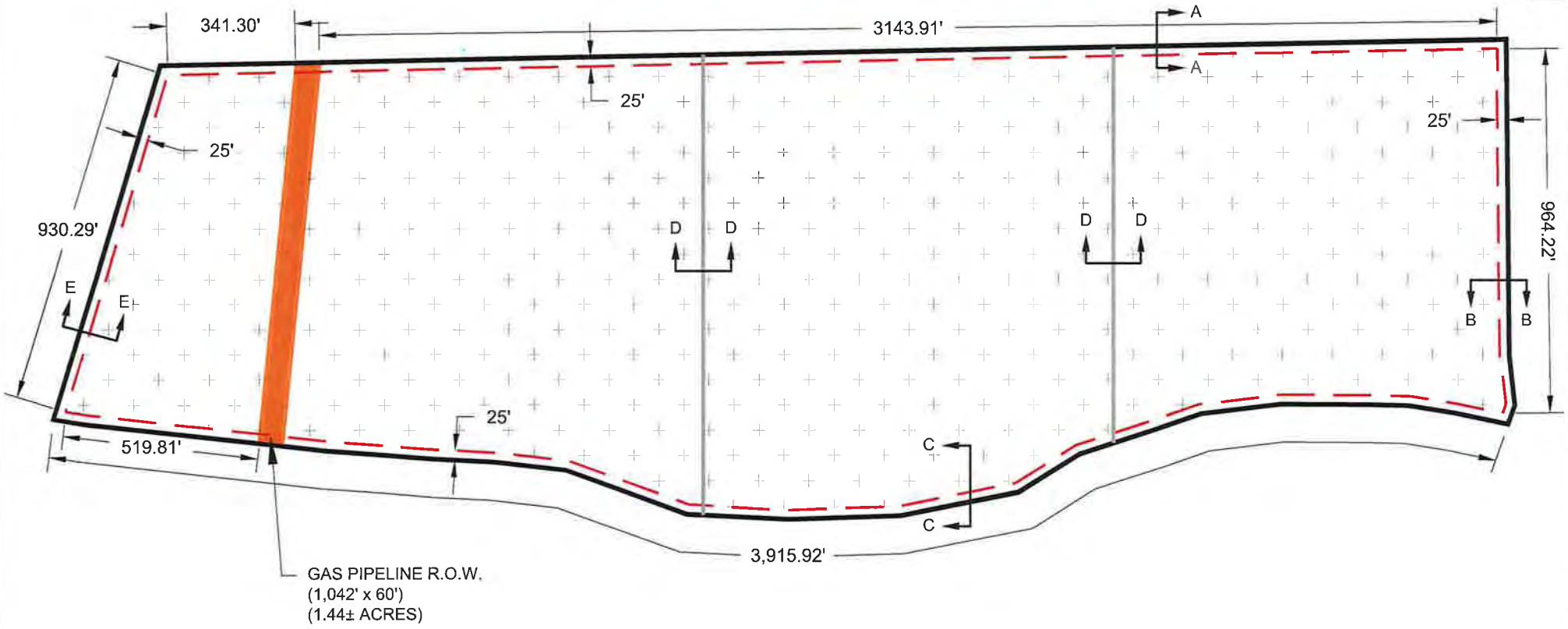
Figure
B9-2
Hydrologic Restoration
Planting Zone

PROPERTY BOUNDARY

MITIGATION BANK BOUNDARY
(85.39± ACRES)

PROPOSED PLANTING BLH TREES 85.39± ACRES
(538 x 85.39± ACRES = 45,940± TREES)

EXISTING DITCH TO BE FILLED IN
(0.52± ACRES OR 837.80± yds³)



NOTE: NATIVE MATERIAL WILL BE USED TO FILL SMALL DITCHES ON EACH AREA A TO I. SEE TYPICAL SECTION ON SHEET A10.

HYDROLOGIC RESTORATION

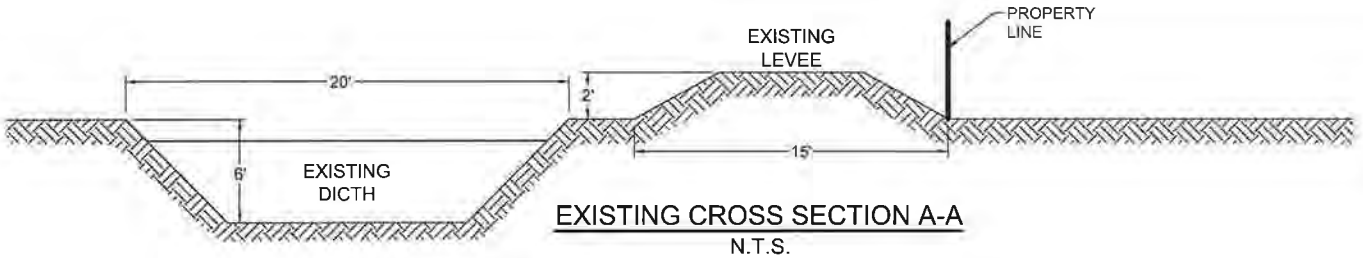
SCALE IN FEET

300' 150' 0 300'

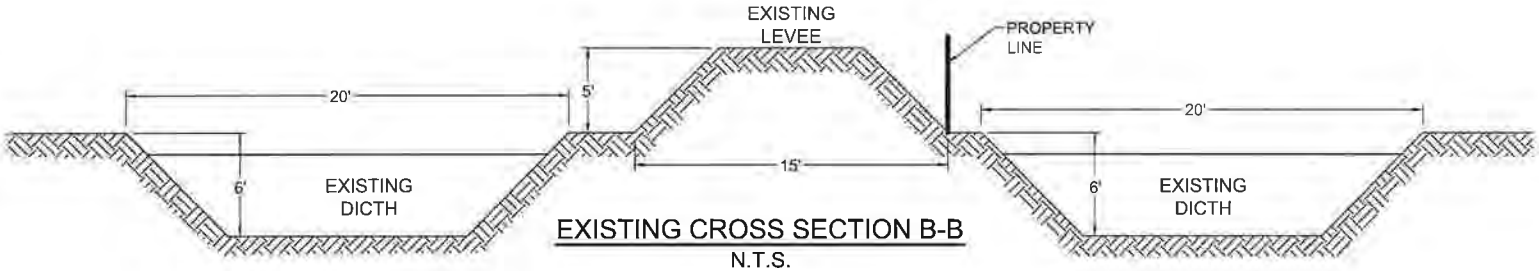
AREA C

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

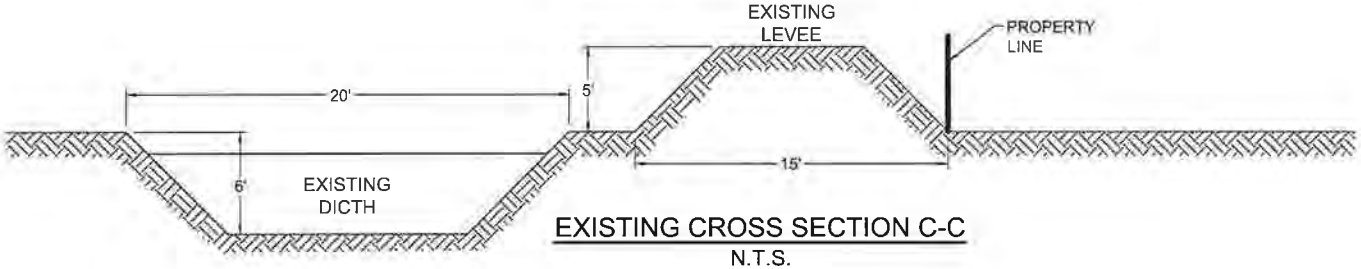
Figure
C9
Hydrologic Restoration
Planting Zone



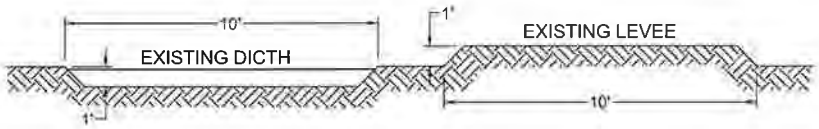
EXISTING CROSS SECTION A-A
N.T.S.



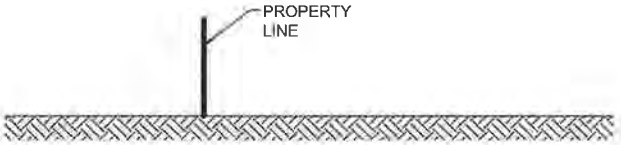
EXISTING CROSS SECTION B-B
N.T.S.



EXISTING CROSS SECTION C-C
N.T.S.



EXISTING CROSS SECTION D-D
N.T.S.



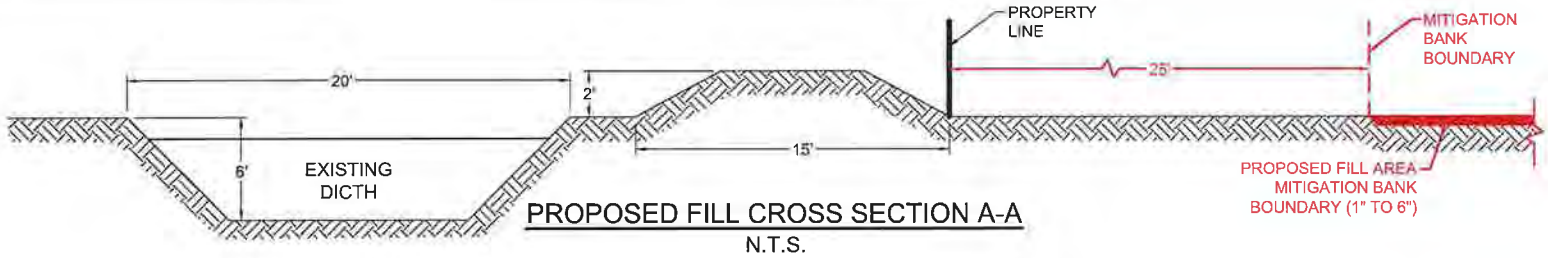
EXISTING CROSS SECTION E-E
N.T.S.

HYDROLOGIC RESTORATION

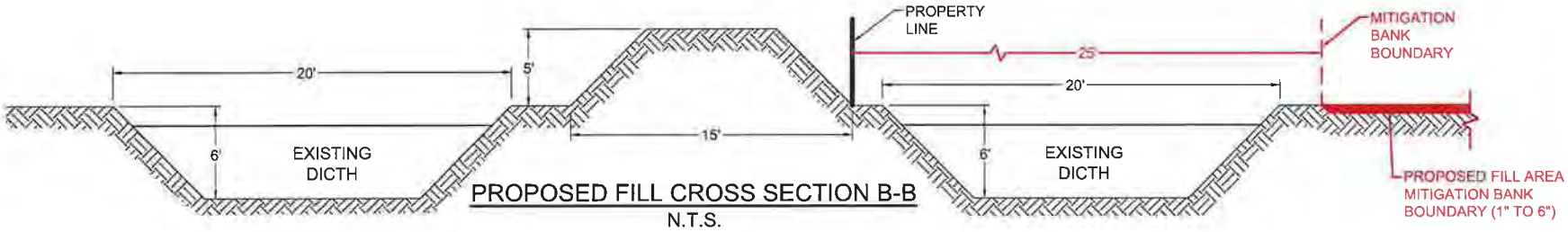
CROSS SECTIONS

ASSUMPTION LAND COMPANY, L.L.C
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

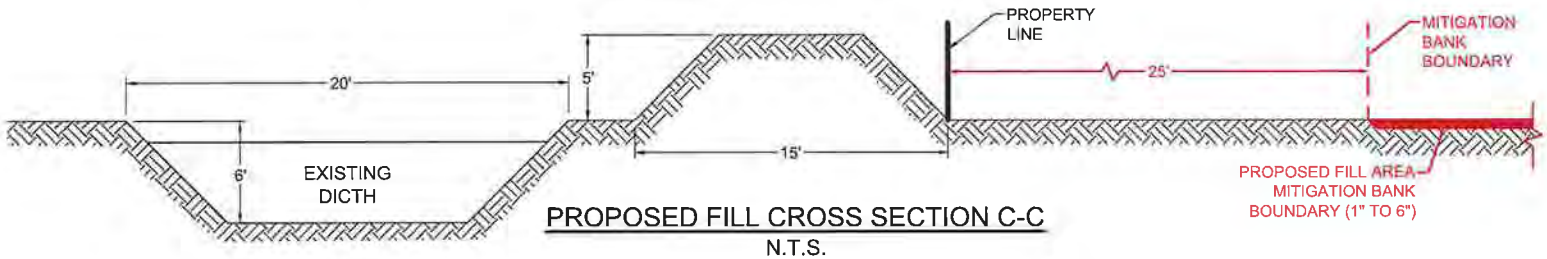
Figure
C9-1
Hydrologic Restoration
Planting Zone



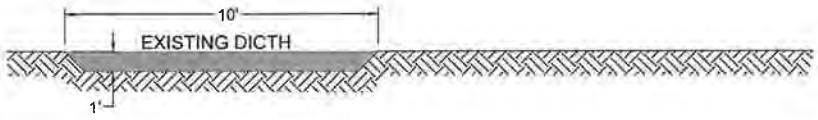
PROPOSED FILL CROSS SECTION A-A
N.T.S.



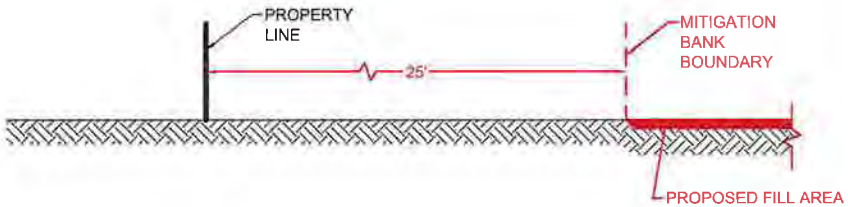
PROPOSED FILL CROSS SECTION B-B
N.T.S.



PROPOSED FILL CROSS SECTION C-C
N.T.S.



PROPOSED FILL CROSS SECTION D-D
N.T.S.



PROPOSED FILL CROSS SECTION E-E
N.T.S.

HYDROLOGIC RESTORATION

CROSS SECTIONS

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

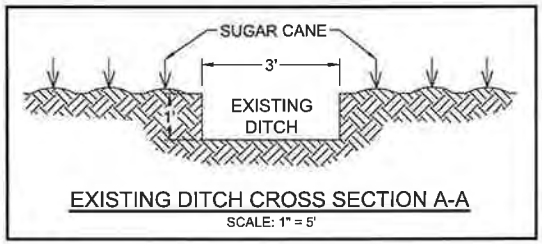
Figure
C9-2
Hydrologic Restoration
Planting Zone

PROPERTY BOUNDARY

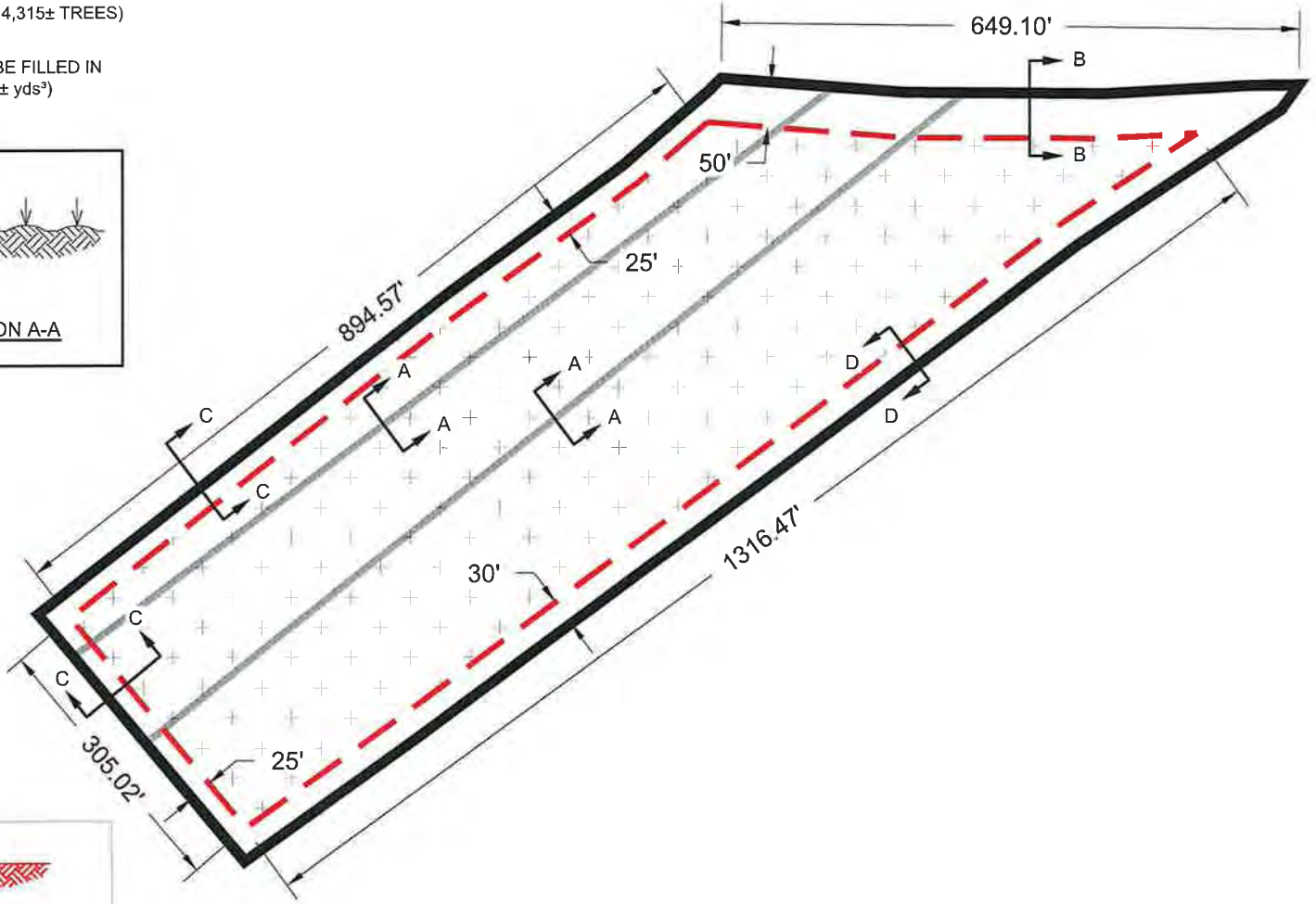
MITIGATION BANK BOUNDARY
(8.02± ACRES)

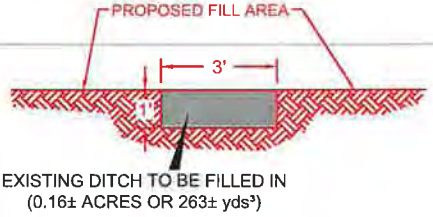
PROPOSED PLANTING BLH TREES 8.34± ACRES
(538 x 8.02± ACRES = 4,315± TREES)

EXISTING DITCH TO BE FILLED IN
(0.16± ACRES OR 263± yds³)



EXISTING DITCH CROSS SECTION A-A
SCALE: 1" = 5'





EXISTING DITCH TO BE FILLED IN
(0.16± ACRES OR 263± yds³)

PROPOSED FILL DITCH CROSS SECTION A-A
SCALE: 1" = 5'

NOTE: NATIVE MATERIAL WILL BE USED TO FILL SMALL DITCHES ON EACH AREA A TO I. SEE TYPICAL ON SHEET A10.

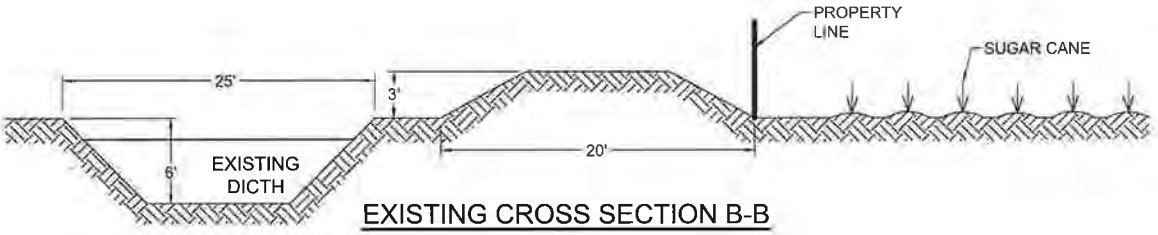
HYDROLOGIC RESTORATION

SCALE IN FEET
200' 100' 0 200'

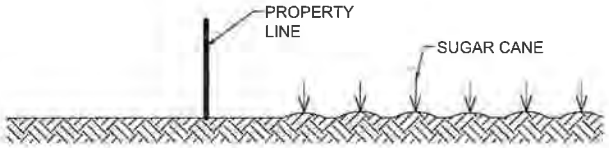
AREA D

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

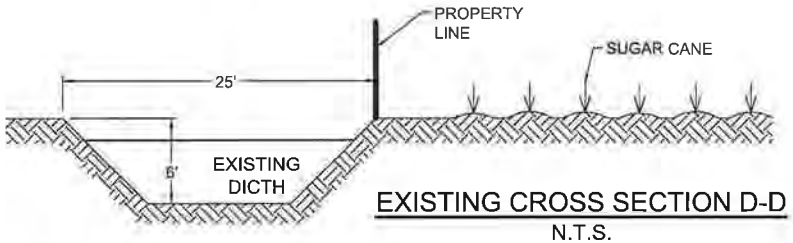
Figure
D9
Hydrologic Restoration Planting Zone



EXISTING CROSS SECTION B-B
N.T.S.



EXISTING CROSS SECTION C-C
N.T.S.



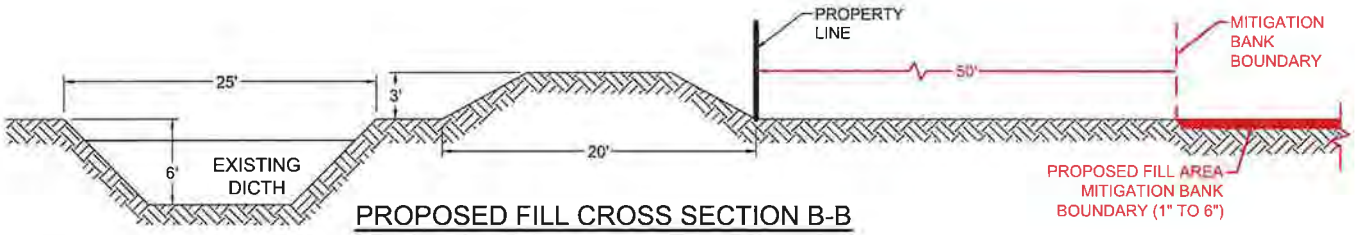
EXISTING CROSS SECTION D-D
N.T.S.

HYDROLOGIC RESTORATION

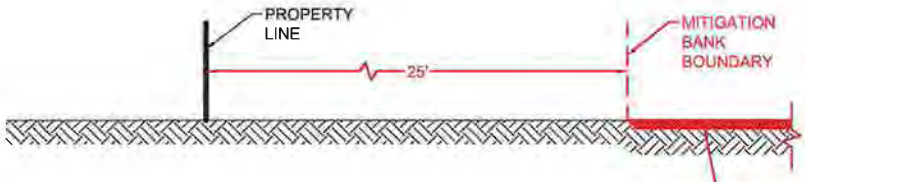
CROSS SECTIONS

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

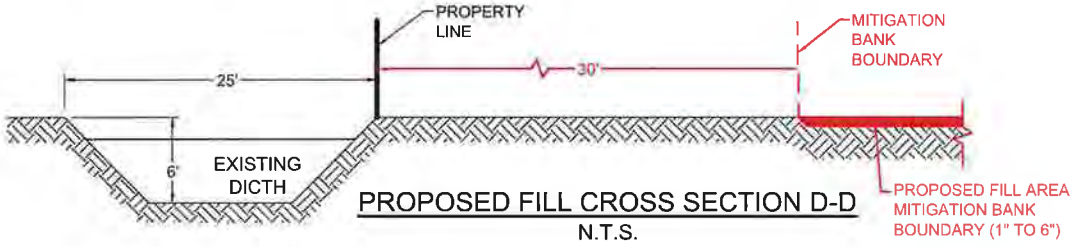
Figure
D9-1
Hydrologic Restoration
Planting Zone



PROPOSED FILL CROSS SECTION B-B
N.T.S.



PROPOSED FILL CROSS SECTION C-C
N.T.S.



PROPOSED FILL CROSS SECTION D-D
N.T.S.

HYDROLOGIC RESTORATION

CROSS SECTIONS

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
D9-2
Hydrologic Restoration
Planting Zone

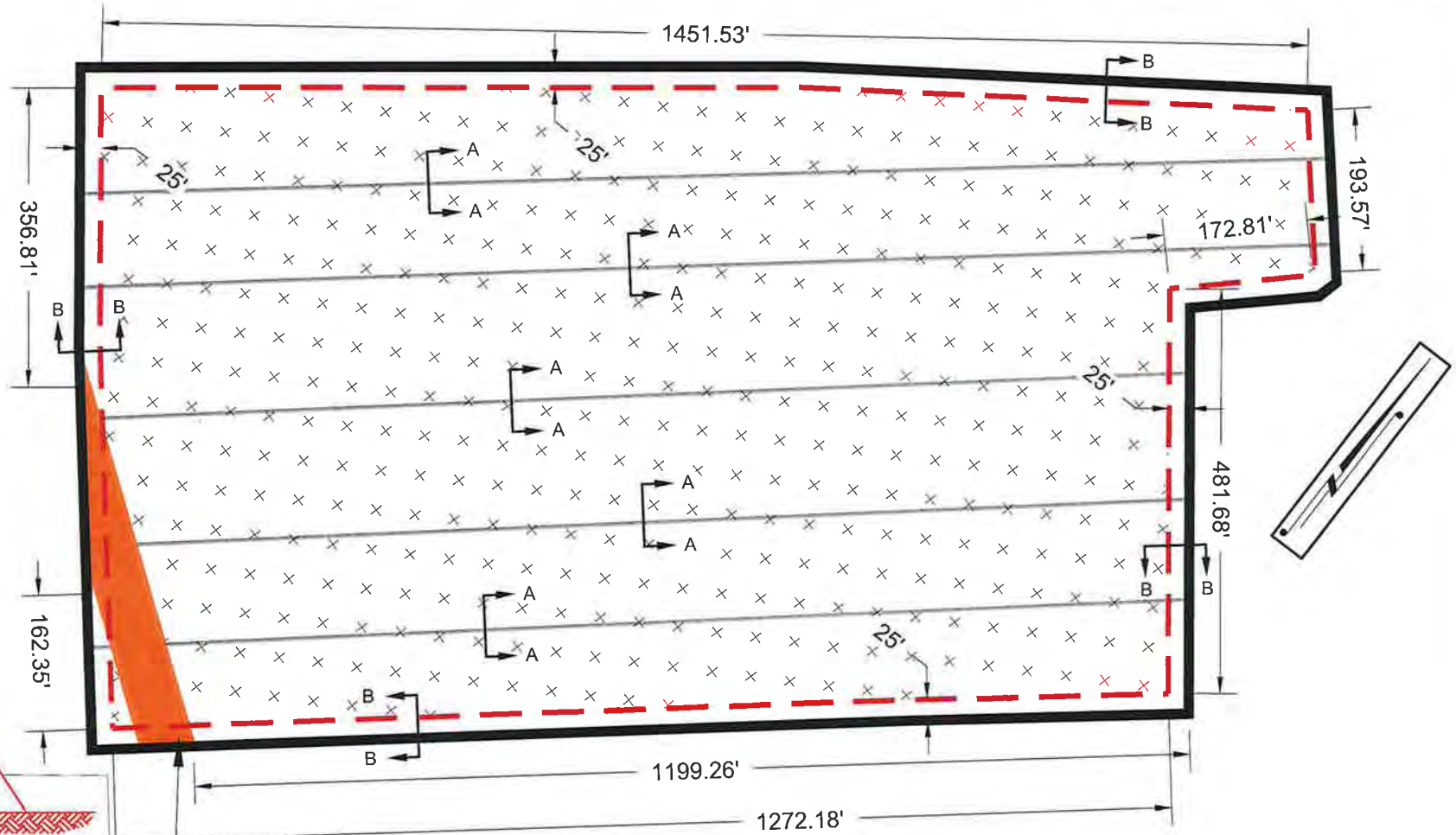
PROPERTY BOUNDARY

MITIGATION BANK BOUNDARY
(22.22± ACRES)

EXISTING DITCH TO BE FILLED IN
(0.48± ACRES OR 778± yds³)

PROPOSED PLANTING BLH TREES 22.04± ACRES
(538 x 22.22± ACRES = 11,954± TREES)

SCALE IN FEET
200' 100' 0 200'



PROPOSED FILL DITCH CROSS SECTION A-A
SCALE: 1" = 5'

PIPELINE R.O.W.
(313' x 60')
(0.43± ACRES)

NOTE: NATIVE MATERIAL WILL BE USED TO FILL SMALL DITCHES ON EACH AREA A TO I. SEE TYPICAL ON SHEET A10.

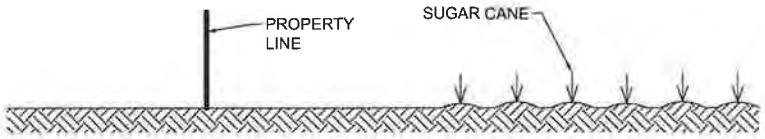
HYDROLOGIC RESTORATION

EXISTING DITCH CROSS SECTION A-A
SCALE: 1" = 5'

AREA E

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
E9
Hydrologic Restoration
Planting Zone



EXISTING CROSS SECTION B-B
N.T.S.

PROPOSED FILL CROSS SECTION B-B
N.T.S.

HYDROLOGIC RESTORATION

CROSS SECTIONS

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

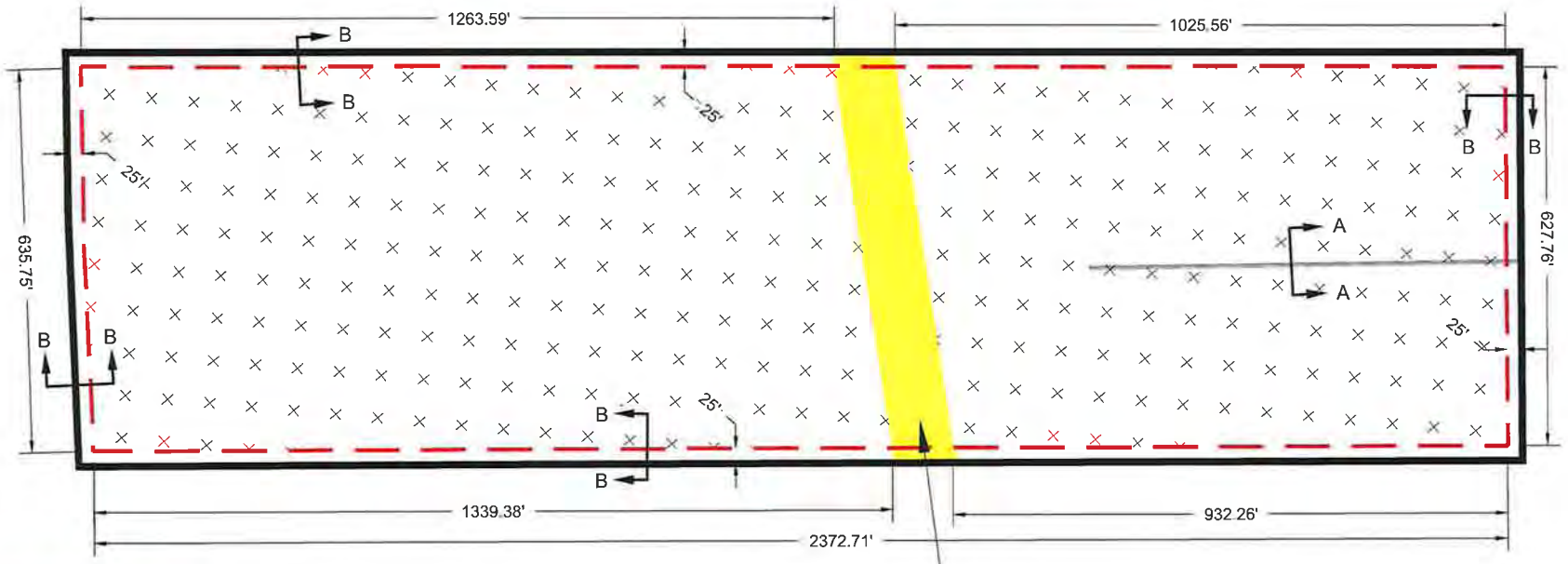
Figure
E9-1
Hydrologic Restoration
Planting Zone

PROPERTY BOUNDARY

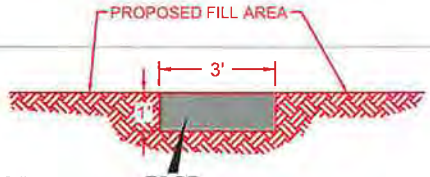
MITIGATION BANK BOUNDARY
(33.13± ACRES)

PROPOSED PLANTING BLH TREES 33.13± ACRES
(538 x 33.13± ACRES = 17,824± TREES)

EXISTING DITCH TO BE FILLED IN
(0.05± ACRES OR 83± yds³)



POWERLINE R.O.W.
(639' x 100')
(1.47± ACRES)



EXISTING DITCH TO BE FILLED IN
(0.05± ACRES OR 83± yds³)

PROPOSED FILL DITCH CROSS SECTION A-A
SCALE: 1" = 5'

NOTE: NATIVE MATERIAL WILL BE USED TO FILL SMALL DITCHES ON EACH AREA A TO I. SEE TYPICAL ON SHEET A10.

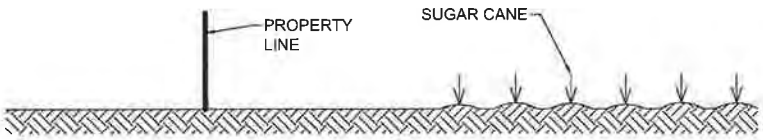
HYDROLOGIC RESTORATION

EXISTING DITCH CROSS SECTION A-A
SCALE: 1" = 5'

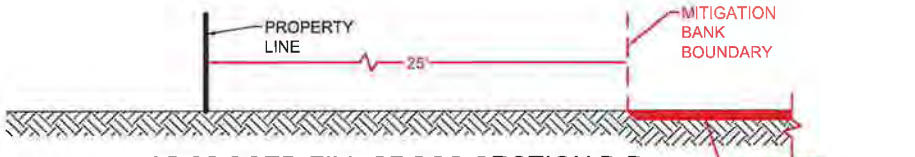
AREA F

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
F9
Hydrologic Restoration
Planting Zone



EXISTING CROSS SECTION B-B
N.T.S.



PROPOSED FILL CROSS SECTION B-B
N.T.S.

HYDROLOGIC RESTORATION

CROSS SECTIONS

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

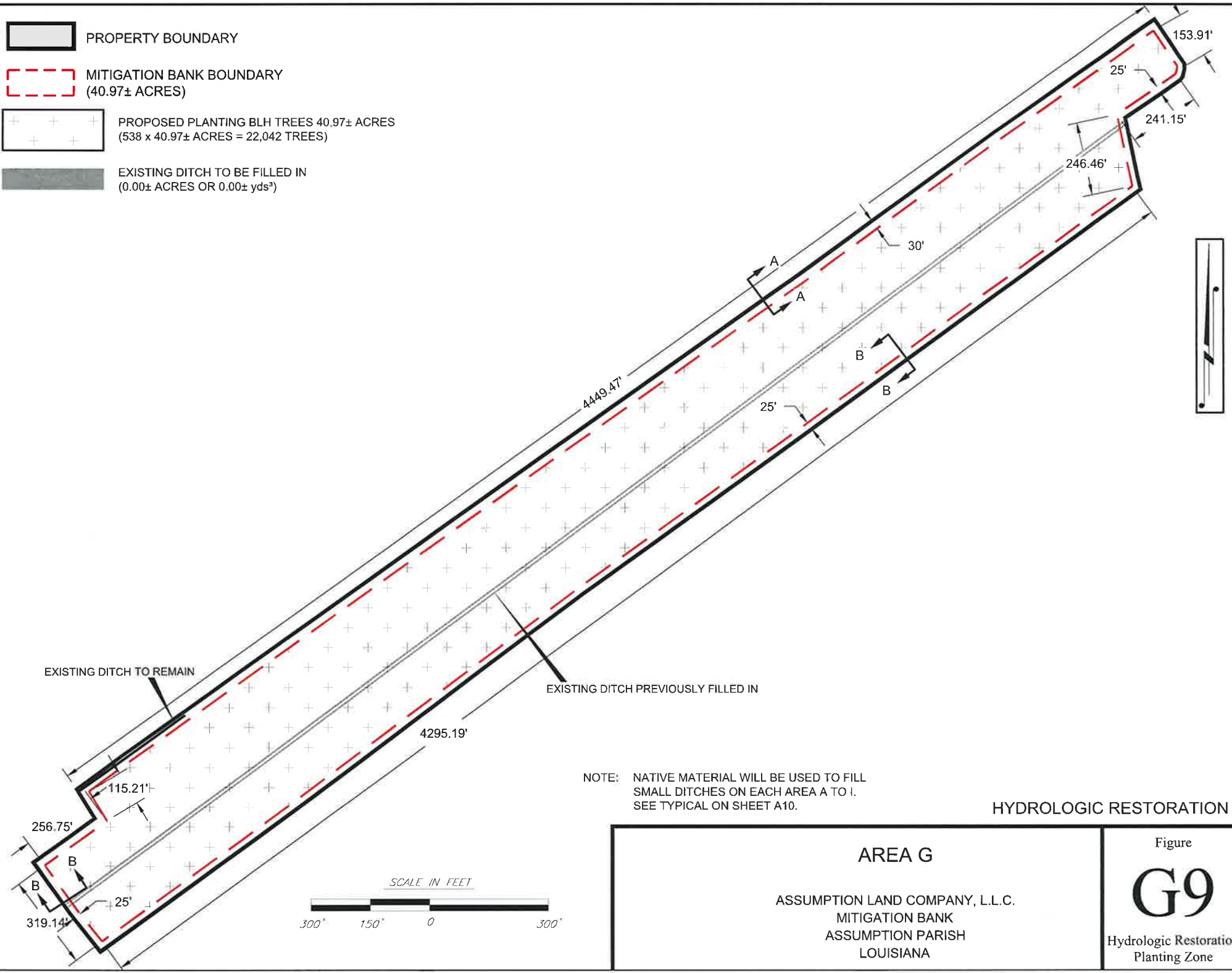
Figure
F9-1
Hydrologic Restoration
Planting Zone

PROPERTY BOUNDARY

MITIGATION BANK BOUNDARY
(40.97± ACRES)

PROPOSED PLANTING BLH TREES 40.97± ACRES
(538 x 40.97± ACRES = 22,042 TREES)

EXISTING DITCH TO BE FILLED IN
(0.00± ACRES OR 0.00± yds³)



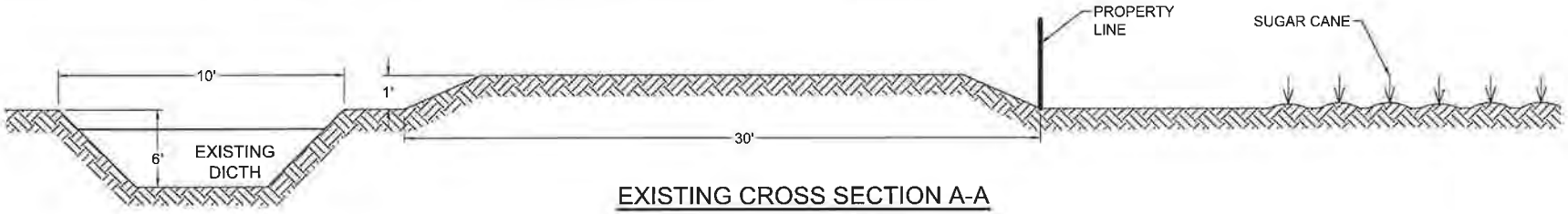
NOTE: NATIVE MATERIAL WILL BE USED TO FILL SMALL DITCHES ON EACH AREA A TO I. SEE TYPICAL ON SHEET A10.

HYDROLOGIC RESTORATION

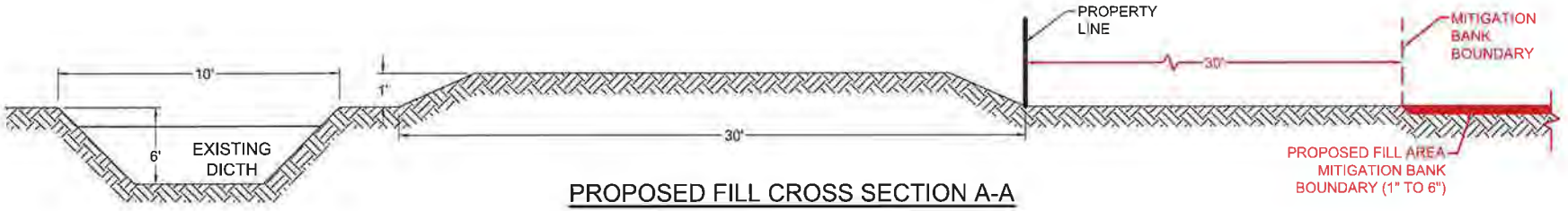
AREA G

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

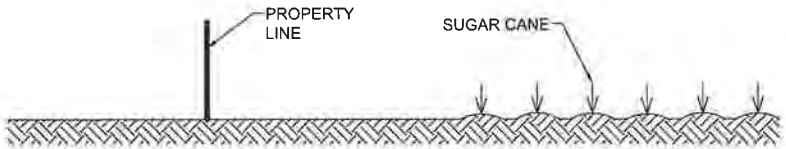
Figure
G9
Hydrologic Restoration
Planting Zone



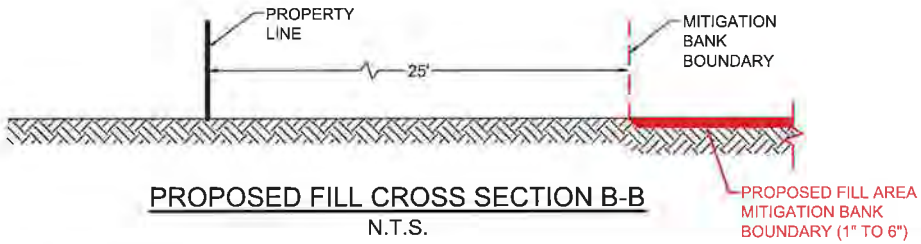
EXISTING CROSS SECTION A-A
N.T.S.



PROPOSED FILL CROSS SECTION A-A
N.T.S.



EXISTING CROSS SECTION B-B
N.T.S.



PROPOSED FILL CROSS SECTION B-B
N.T.S.

HYDROLOGIC RESTORATION

CROSS SECTIONS

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
G9-1
Hydrologic Restoration
Planting Zone

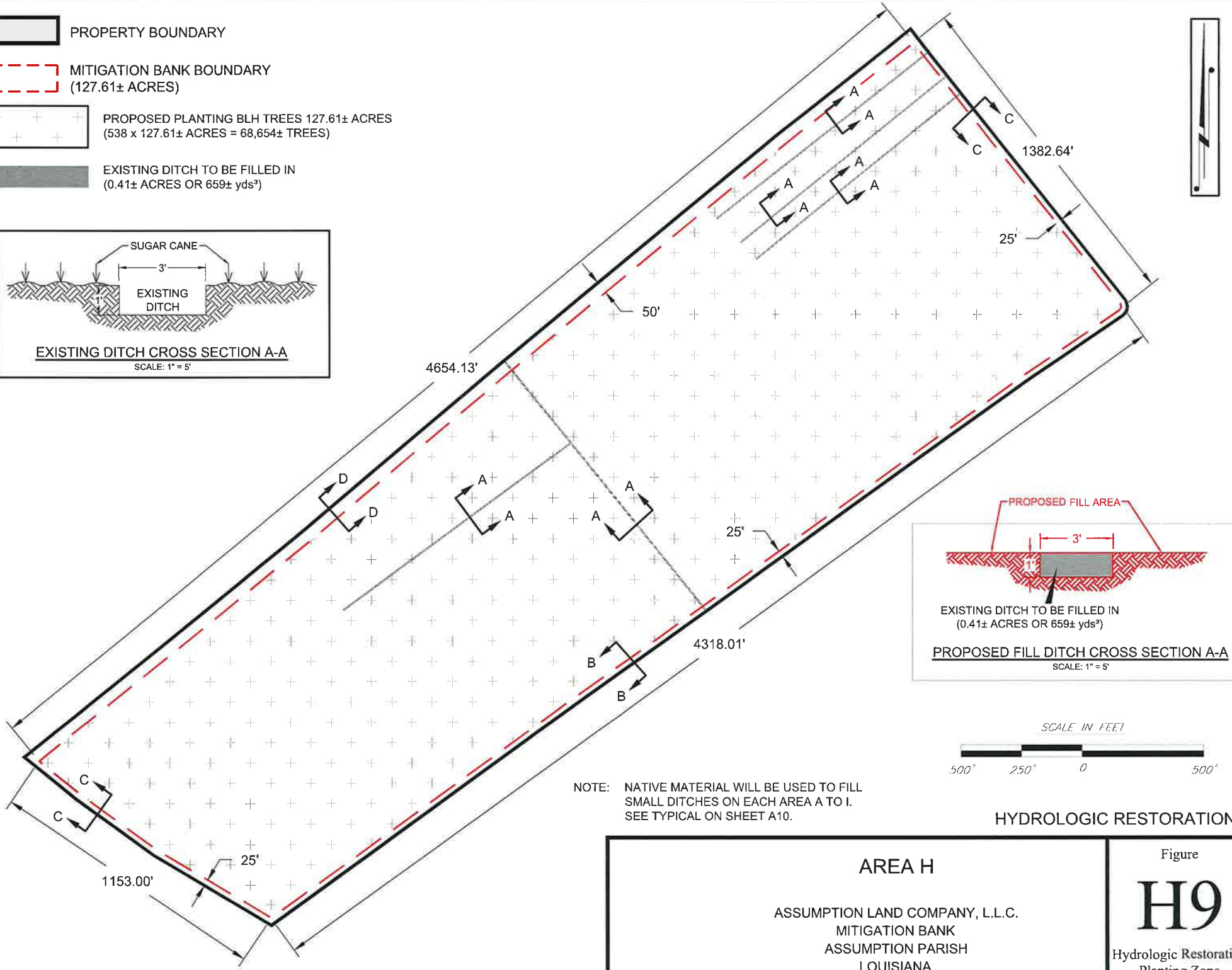
PROPERTY BOUNDARY

MITIGATION BANK BOUNDARY
(127.61± ACRES)

PROPOSED PLANTING BLH TREES 127.61± ACRES
(538 x 127.61± ACRES = 68,654± TREES)

EXISTING DITCH TO BE FILLED IN
(0.41± ACRES OR 659± yds³)

EXISTING DITCH CROSS SECTION A-A
SCALE: 1" = 5'



EXISTING DITCH TO BE FILLED IN
(0.41± ACRES OR 659± yds³)

PROPOSED FILL DITCH CROSS SECTION A-A
SCALE: 1" = 5'

SCALE IN FEET
500' 250' 0 500'

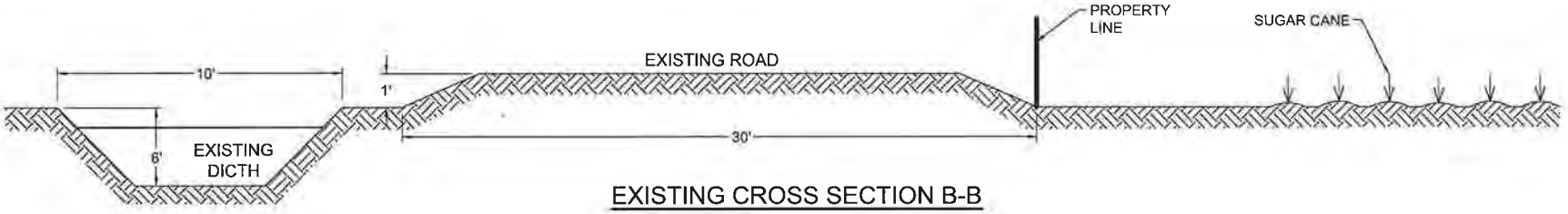
NOTE: NATIVE MATERIAL WILL BE USED TO FILL SMALL DITCHES ON EACH AREA A TO I. SEE TYPICAL ON SHEET A10.

HYDROLOGIC RESTORATION

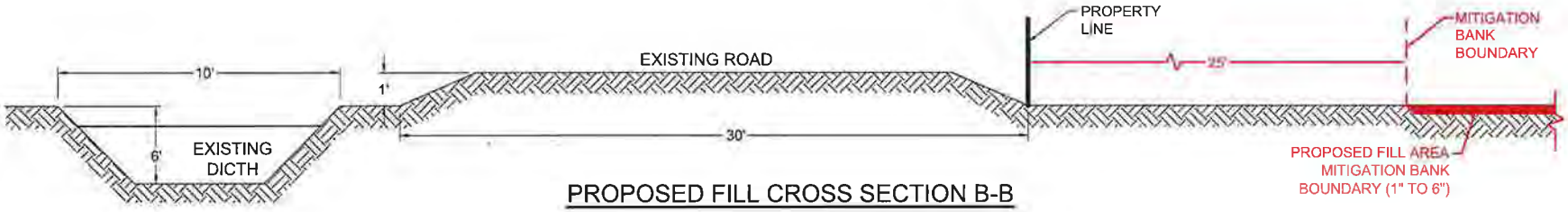
AREA H

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

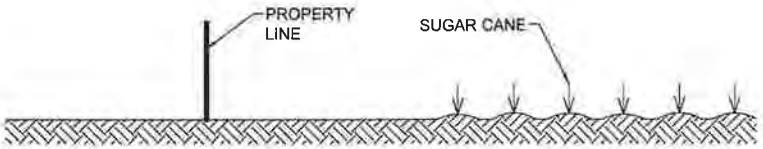
Figure
H9
Hydrologic Restoration Planting Zone



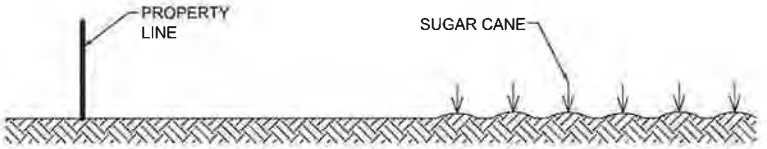
EXISTING CROSS SECTION B-B
N.T.S.



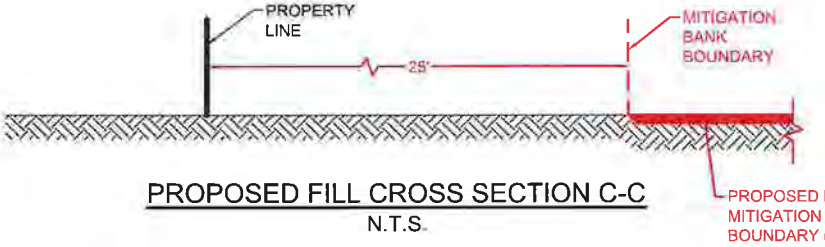
PROPOSED FILL CROSS SECTION B-B
N.T.S.



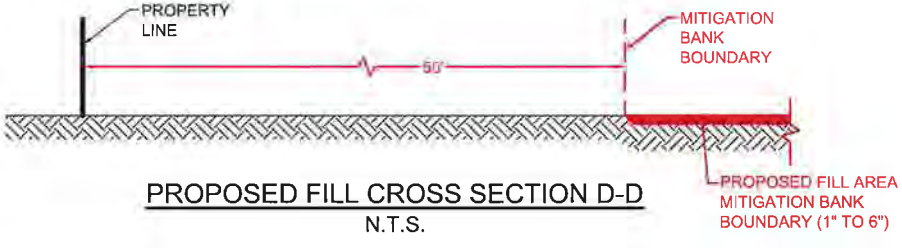
EXISTING CROSS SECTION C-C
N.T.S.



EXISTING CROSS SECTION D-D
N.T.S.



PROPOSED FILL CROSS SECTION C-C
N.T.S.



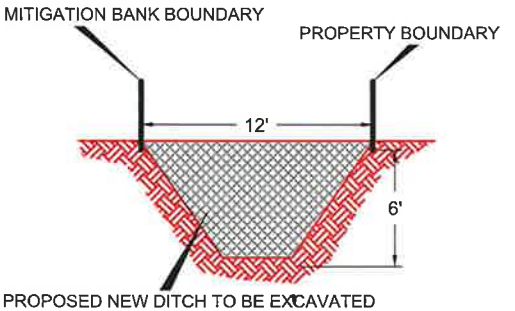
PROPOSED FILL CROSS SECTION D-D
N.T.S.

HYDROLOGIC RESTORATION

CROSS SECTIONS

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
H9-1
Hydrologic Restoration
Planting Zone



DITCH CROSS SECTION C-C
SCALE: 1" = 10'

NOTE:
1. PROPOSED NEW DITCH WILL BE EXCAVATED ON THE OUTSIDE BOUNDARY OF THE BANK AREA
2. EXCAVATION OF NEW DITCH MATERIAL WILL BE PLACED AS FILL INSIDE BANK AREA I10.
3. RELOCATION OF THE DITCH WILL BE CARRY OFF SITE WATER BEING GENERATED TO THE FORTY ARPENT CANAL.

EXISTING DITCH CROSS SECTION A-A
SCALE: 1" = 5'

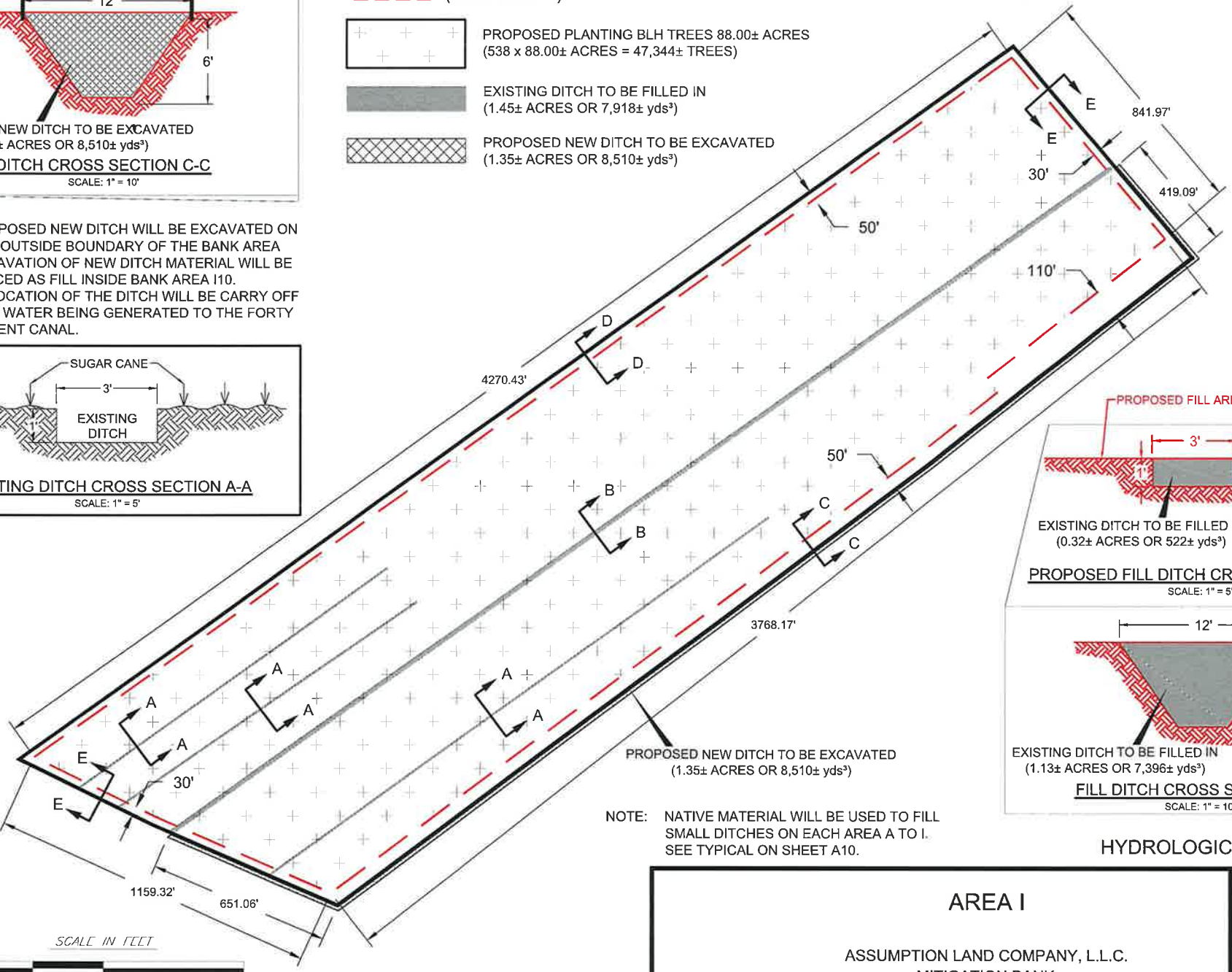
PROPERTY BOUNDARY

MITIGATION BANK BOUNDARY
(88.00± ACRES)

PROPOSED PLANTING BLH TREES 88.00± ACRES
(538 x 88.00± ACRES = 47,344± TREES)

EXISTING DITCH TO BE FILLED IN
(1.45± ACRES OR 7,918± yds³)

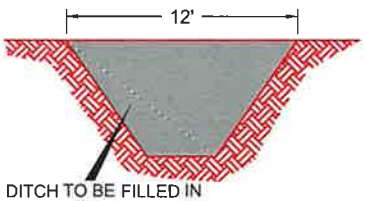
PROPOSED NEW DITCH TO BE EXCAVATED
(1.35± ACRES OR 8,510± yds³)



NOTE: NATIVE MATERIAL WILL BE USED TO FILL SMALL DITCHES ON EACH AREA A TO I. SEE TYPICAL ON SHEET A10.

EXISTING DITCH TO BE FILLED IN
(0.32± ACRES OR 522± yds³)

PROPOSED FILL DITCH CROSS SECTION A-A
SCALE: 1" = 5'



EXISTING DITCH TO BE FILLED IN
(1.13± ACRES OR 7,396± yds³)

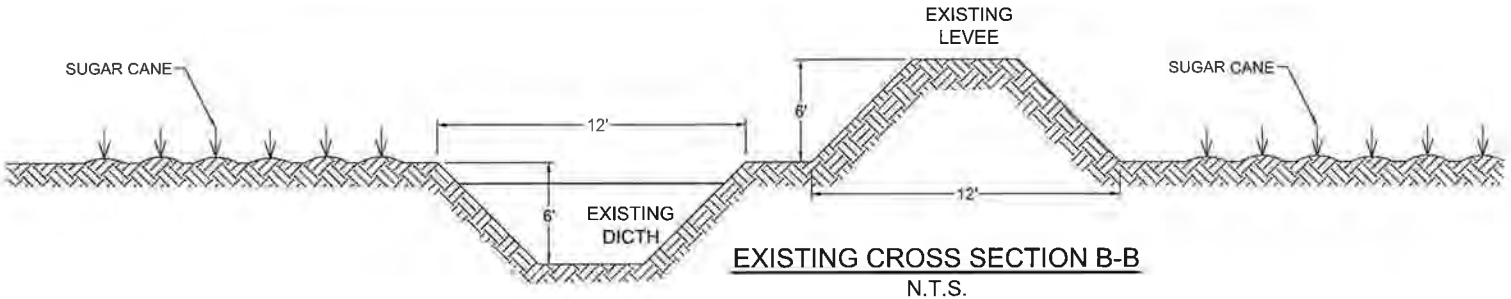
FILL DITCH CROSS SECTION B-B
SCALE: 1" = 10'

HYDROLOGIC RESTORATION

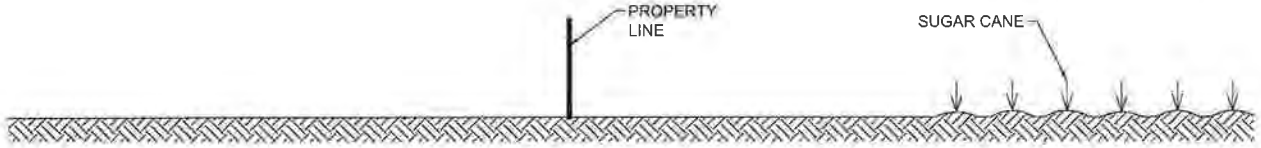
AREA I

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

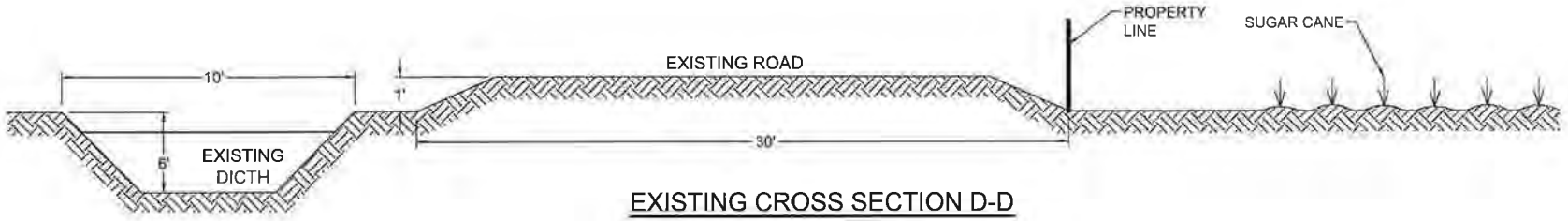
Figure
I9
Hydrologic Restoration
Planting Zone



EXISTING CROSS SECTION B-B
N.T.S.



EXISTING CROSS SECTION C-C
N.T.S.



EXISTING CROSS SECTION D-D
N.T.S.

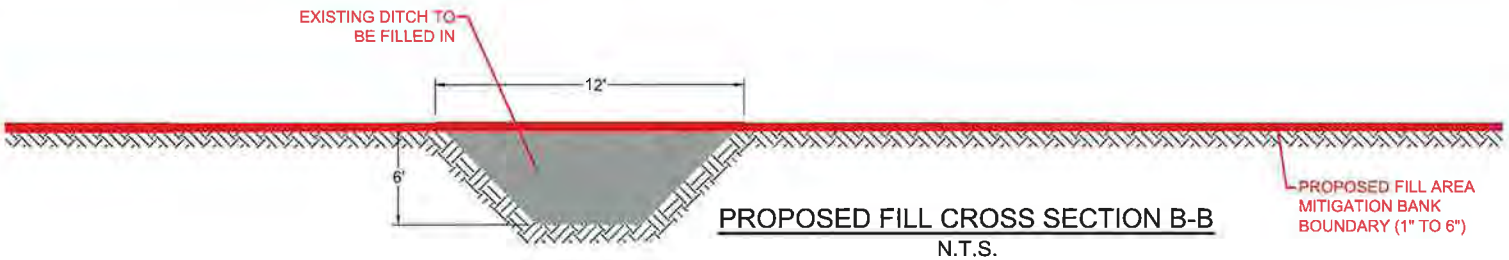
EXISTING CROSS SECTION E-E
N.T.S.

HYDROLOGIC RESTORATION

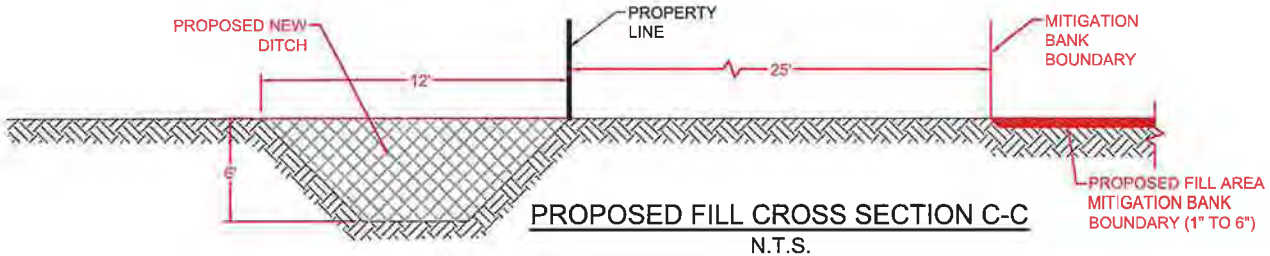
CROSS SECTIONS

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

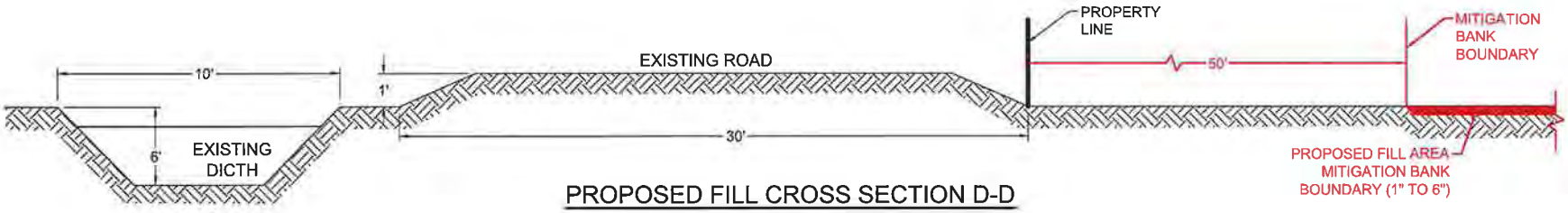
Figure
I9-1
Hydrologic Restoration
Planting Zone



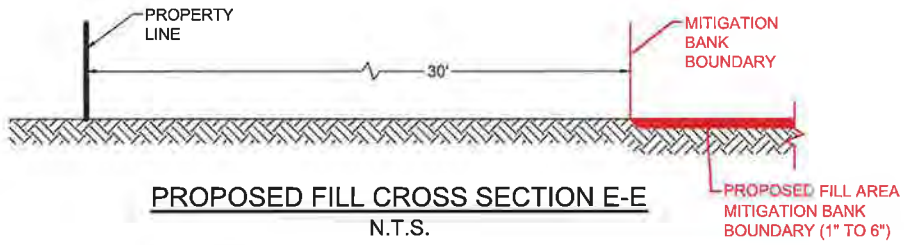
PROPOSED FILL CROSS SECTION B-B
N.T.S.



PROPOSED FILL CROSS SECTION C-C
N.T.S.



PROPOSED FILL CROSS SECTION D-D
N.T.S.



PROPOSED FILL CROSS SECTION E-E
N.T.S.

HYDROLOGIC RESTORATION

CROSS SECTIONS

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
I9-2
Hydrologic Restoration
Planting Zone

PROPERTY BOUNDARY

JD-COE: DATE 01/06/2015
MVN-2014-00980-SE

PROPOSED PLANTING BLH TREES 42.61± ACRES
(538 x 42.61± ACRES = 22,924± TREES)

EXISTING DITCH TO BE FILLED IN
(0.08± ACRES OR 132± yds³)

LEGEND:

NON-WETLANDS (4.88± ACRES)

WETLANDS (37.65± ACRES)

NON-WETLANDS (0.08± ACRES)

TOTAL = 42.61± ACRES

USACEO WETLAND JD

SCALE IN FEET

300' 150' 0 300'

AREA A

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

A10

Hydrologic Restoration
Planting Zone

JD-COE: DATE 01/06/2015
MVN-2014-00980-SE

PROPERTY BOUNDARY

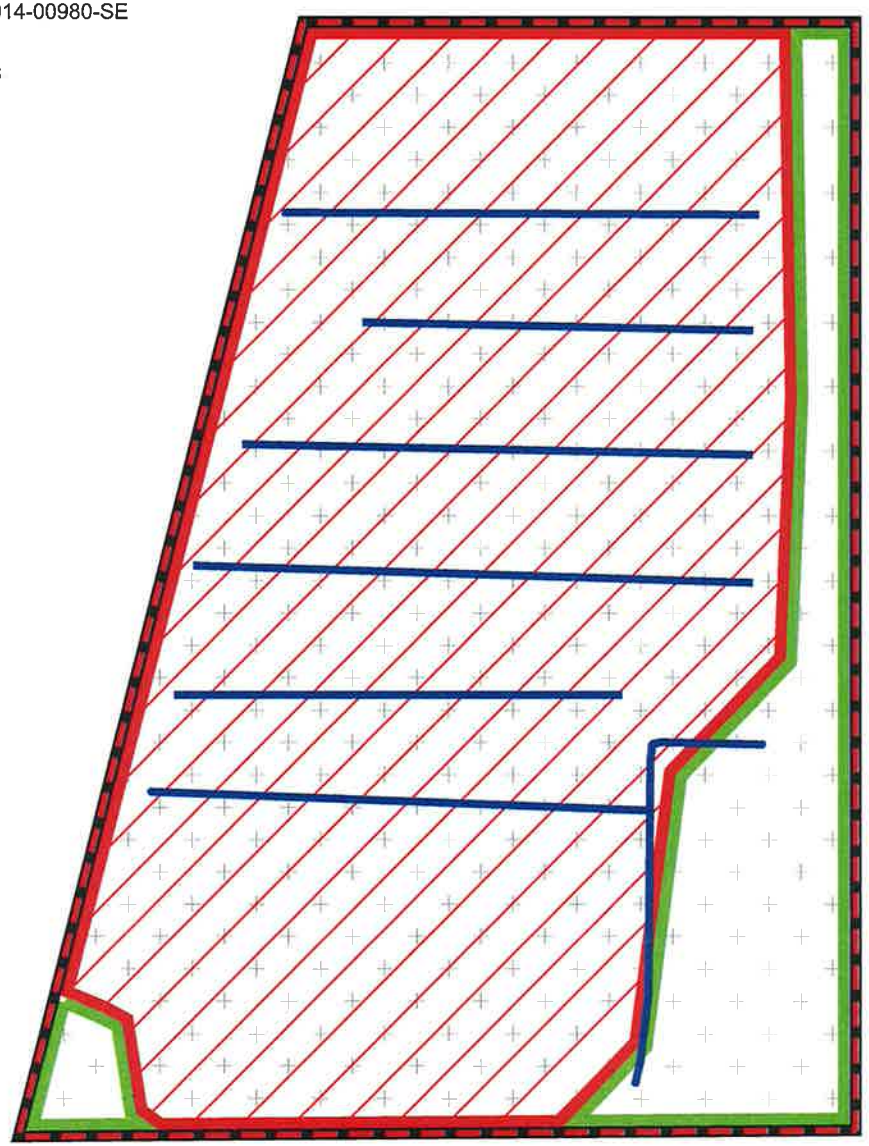
PROPOSED PLANTING BLH TREES 19.01± ACRES
(538 x 19.01± ACRES = 10,227± TREES)

EXISTING DITCH TO BE FILLED IN
(0.24± ACRES OR 384± yds³)

LEGEND:

- NON-WETLANDS (3.50± ACRES)
- WETLANDS (15.27± ACRES)
- NON-WETLANDS (0.24± ACRES)

TOTAL = 19.01± ACRES



USACEO WETLAND JD

SCALE IN FEET

200' 100' 0 200'

AREA B

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

B10

Hydrologic Restoration
Planting Zone

PROPERTY BOUNDARY

JD-COE: DATE 01/06/2015
MVN-2014-00980-SE

PROPOSED PLANTING BLH TREES 90.71± ACRES
(538 x 90.71± ACRES = 48,802± TREES)

EXISTING DITCH TO BE FILLED IN
(0.00± ACRES OR 0.00± yds³)

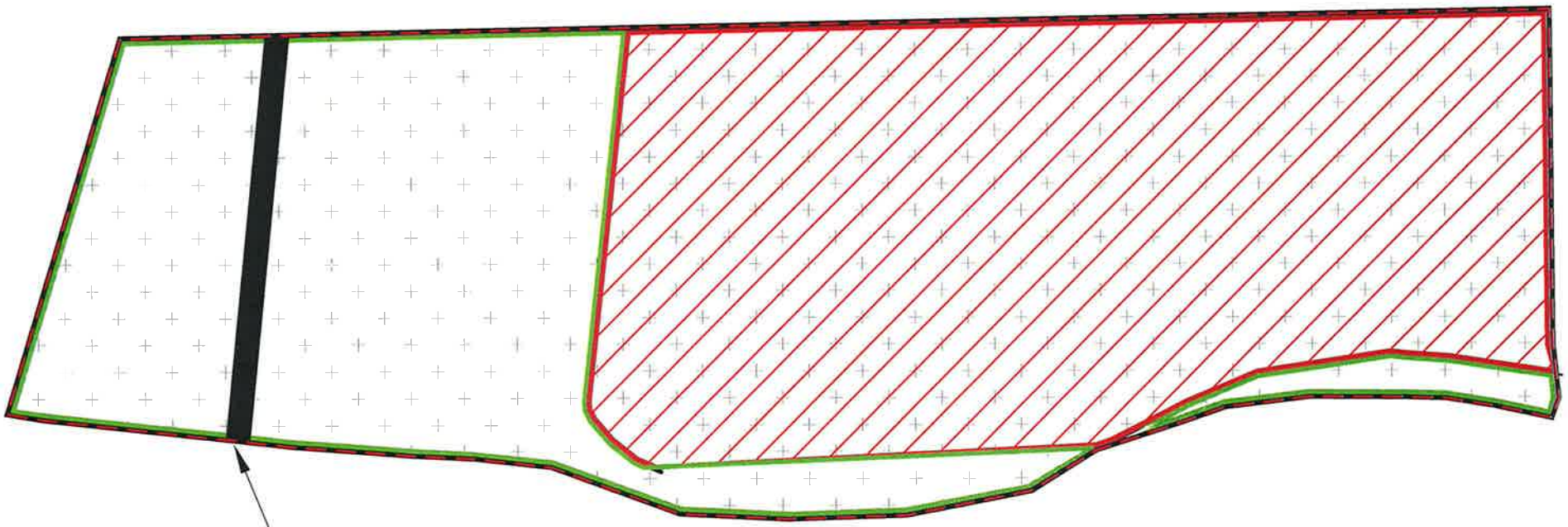
LEGEND:

NON-WETLANDS (35.98± ACRES)

WETLANDS (54.77± ACRES)

NON-WETLANDS (0.00± ACRES)

TOTAL = 90.75± ACRES



USACEO WETLAND JD

SCALE IN FEET

300' 150' 0 300'

AREA C

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
C10
Hydrologic Restoration
Planting Zone

JD-COE: DATE 01/06/2015
MVN-2014-00980-SE

PROPERTY BOUNDARY

PROPOSED PLANTING BLH TREES 9.41± ACRES
(538 x 9.41± ACRES = 5,063± TREES)

EXISTING DITCH TO BE FILLED IN
(0.16± ACRES OR 263± yds³)

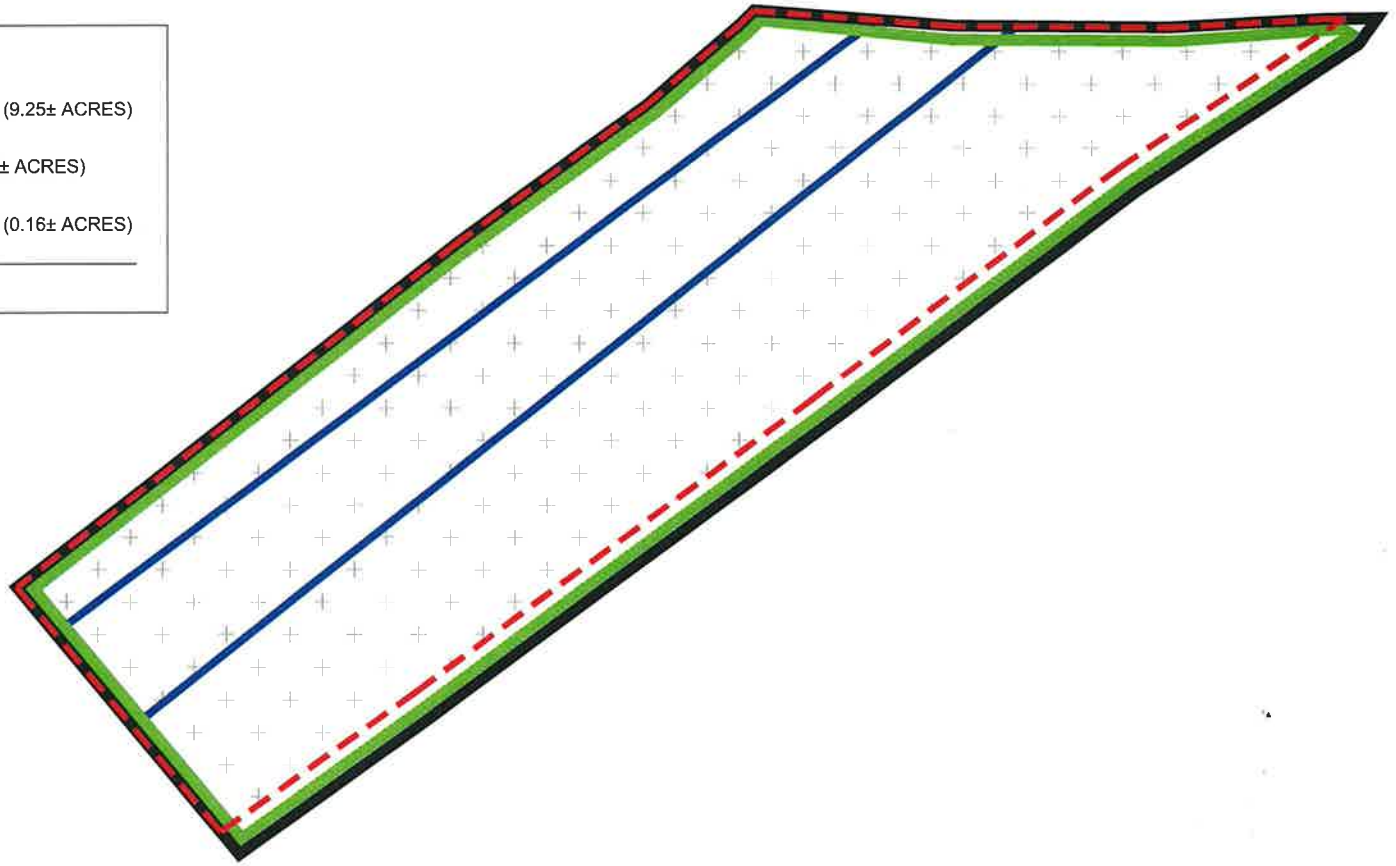
LEGEND:

NON-WETLANDS (9.25± ACRES)

WETLANDS (0.00± ACRES)

NON-WETLANDS (0.16± ACRES)

TOTAL = 9.41± ACRES



USACEO WETLAND JD

SCALE IN FEET

200' 100' 0 200'

AREA D

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
D10
Hydrologic Restoration
Planting Zone

PROPERTY BOUNDARY

EXISTING DITCH TO BE FILLED IN
(0.48± ACRES OR 778± yds³)

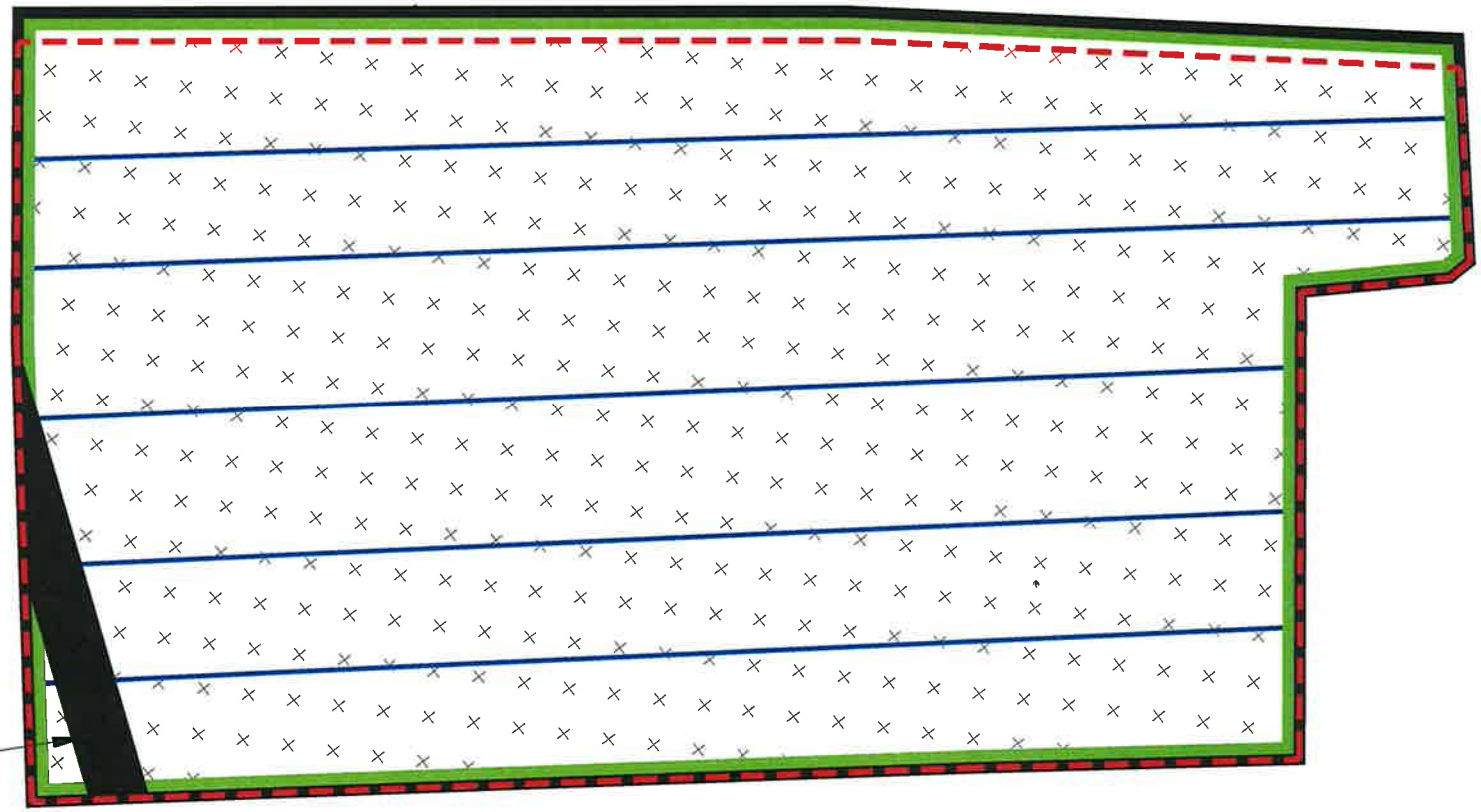
PROPOSED PLANTING BLH TREES 24.05± ACRES
(538 x 24.05± ACRES = 12,939± TREES)

JD-COE: DATE 01/06/2015
MVN-2014-00980-SE

LEGEND:

- NON-WETLANDS (23.57± ACRES)
- WETLANDS (0.00± ACRES)
- NON-WETLANDS (0.48± ACRES)

TOTAL = 24.05± ACRES



PIPELINE R.O.W.
(313' x 60')
(0.43± ACRES)

USACEO WETLAND JD

SCALE IN FEET

200' 100' 0 200'

AREA E

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
E10
Hydrologic Restoration
Planting Zone

PROPERTY BOUNDARY

JD-COE: DATE 01/06/2015
MVN-2014-00980-SE

PROPOSED PLANTING BLH TREES 33.87± ACRES
(538 x 33.87± ACRES = 18,222± TREES)

EXISTING DITCH TO BE FILLED IN
(0.05± ACRES OR 83± yds³)

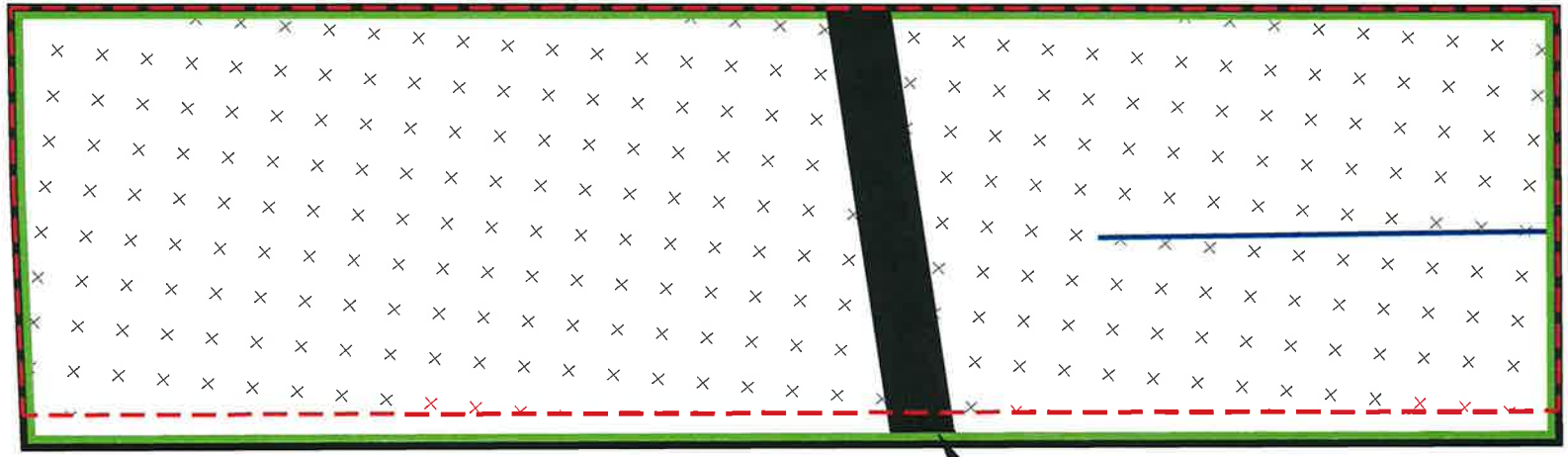
LEGEND:

NON-WETLANDS (33.82± ACRES)

WETLANDS (0.00± ACRES)

NON-WETLANDS (0.05± ACRES)

TOTAL = 33.87± ACRES



POWERLINE R.O.W.
(639' x 100')
(1.47± ACRES)

USACEO WETLAND JD

SCALE IN FEET

300' 150' 0 300'

AREA F

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
F10
Hydrologic Restoration
Planting Zone

JD-COE: DATE 01/06/2015
MVN-2014-00980-SE

PROPERTY BOUNDARY

PROPOSED PLANTING BLH TREES 41.80± ACRES
(538 x 41.80± ACRES = 22,489± TREES)

EXISTING DITCH TO BE FILLED IN
(1.22± ACRES OR 7,722± yds³)

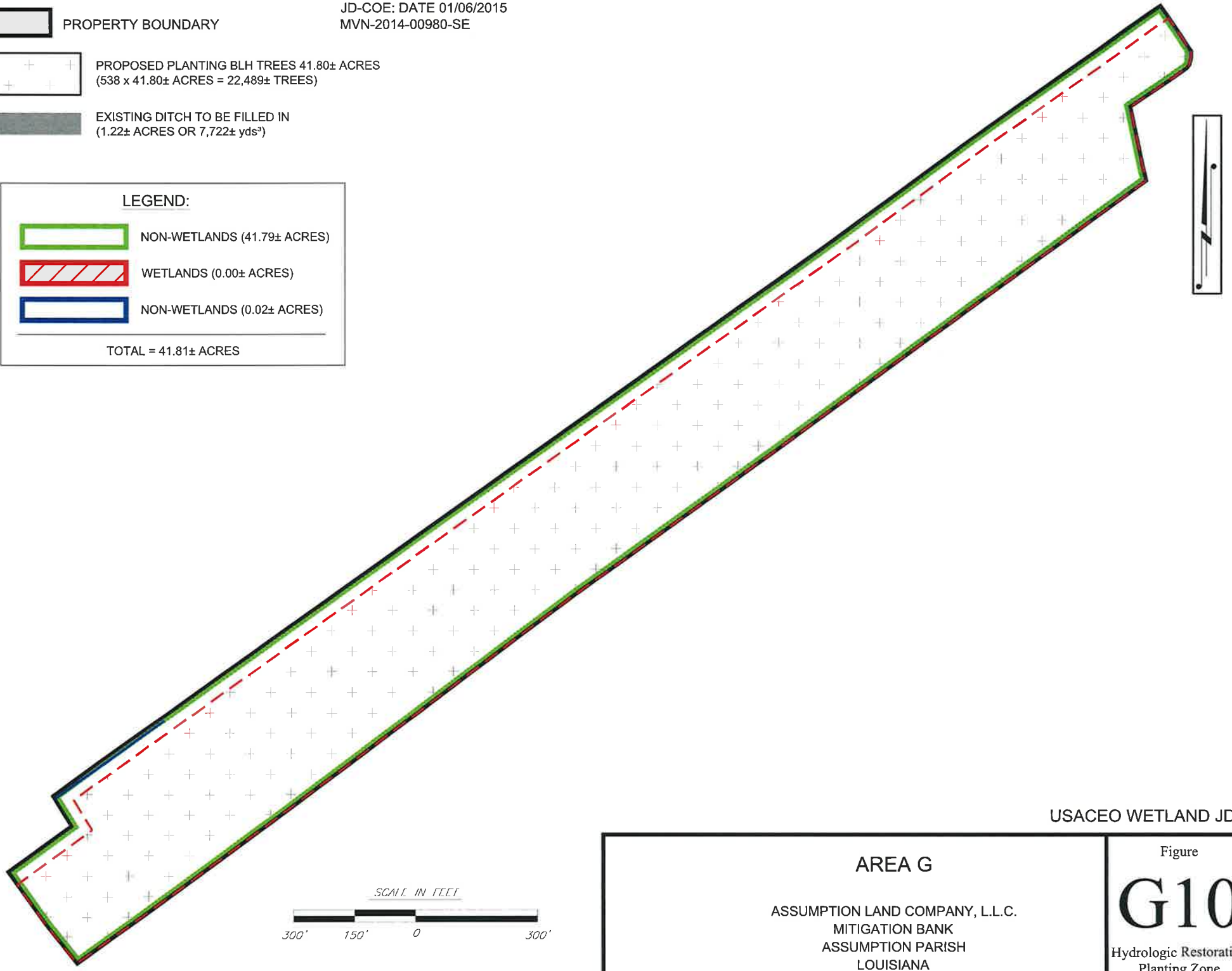
LEGEND:

NON-WETLANDS (41.79± ACRES)

WETLANDS (0.00± ACRES)

NON-WETLANDS (0.02± ACRES)

TOTAL = 41.81± ACRES



USACEO WETLAND JD

AREA G

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure
G10
Hydrologic Restoration
Planting Zone

JD-COE: DATE 01/06/2015
MVN-2014-00980-SE

PROPERTY BOUNDARY

PROPOSED PLANTING BLH TREES 131.57± ACRES
(538 x 131.57± ACRES = 70,785± TREES)

EXISTING DITCH TO BE FILLED IN
(0.41± ACRES OR 659± yds³)

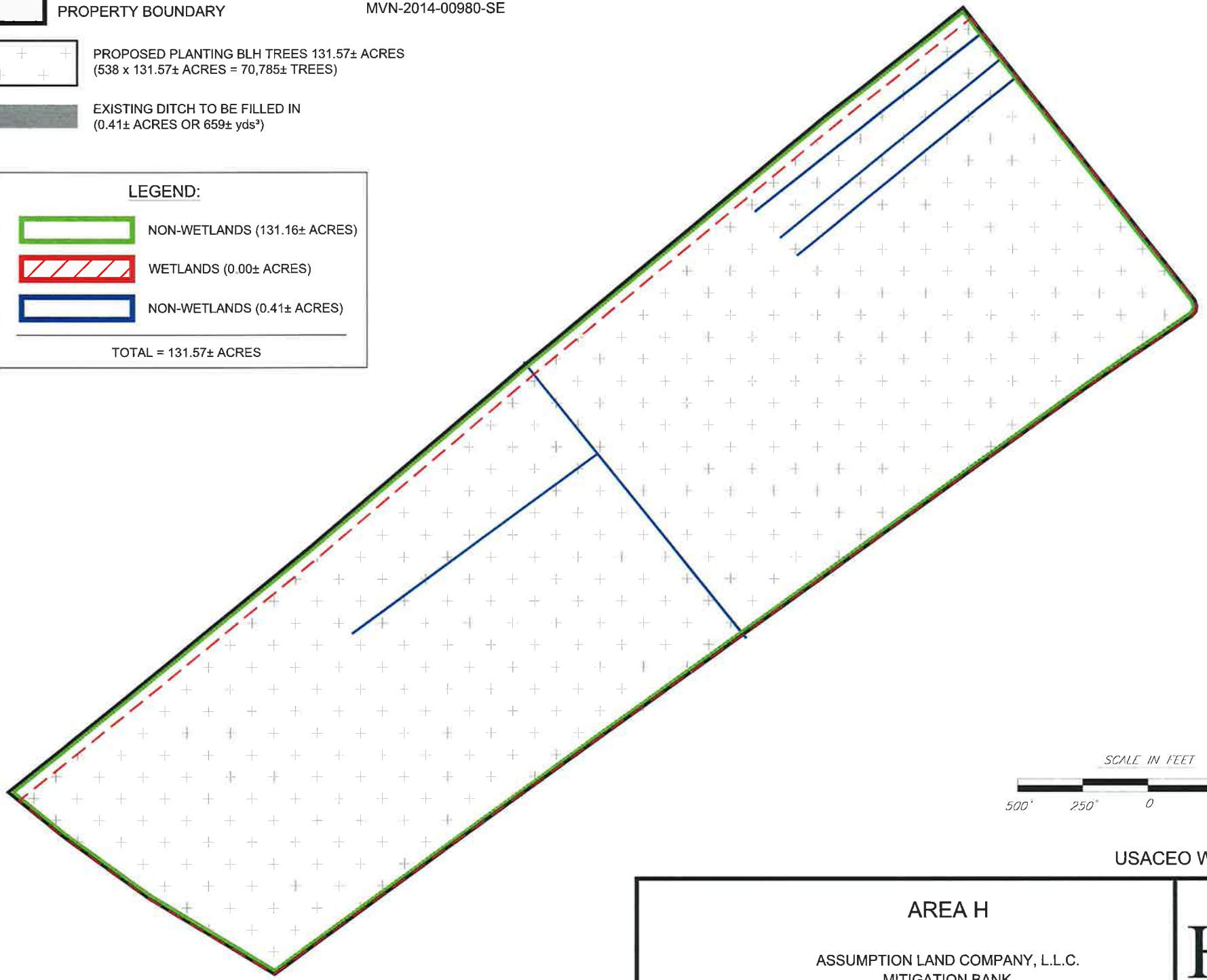
LEGEND:

NON-WETLANDS (131.16± ACRES)

WETLANDS (0.00± ACRES)

NON-WETLANDS (0.41± ACRES)

TOTAL = 131.57± ACRES



SCALE IN FEET

500' 250' 0 500'

USACEO WETLAND JD

AREA H

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

H10

Hydrologic Restoration
Planting Zone

JD-COE: DATE 01/06/2015
MVN-2014-00980-SE

PROPERTY BOUNDARY

PROPOSED PLANTING BLH TREES 86.04± ACRES
(538 x 86.04± ACRES = 46,290± TREES)

EXISTING DITCH TO BE FILLED IN
(1.13± ACRES OR 7,396± yds³)

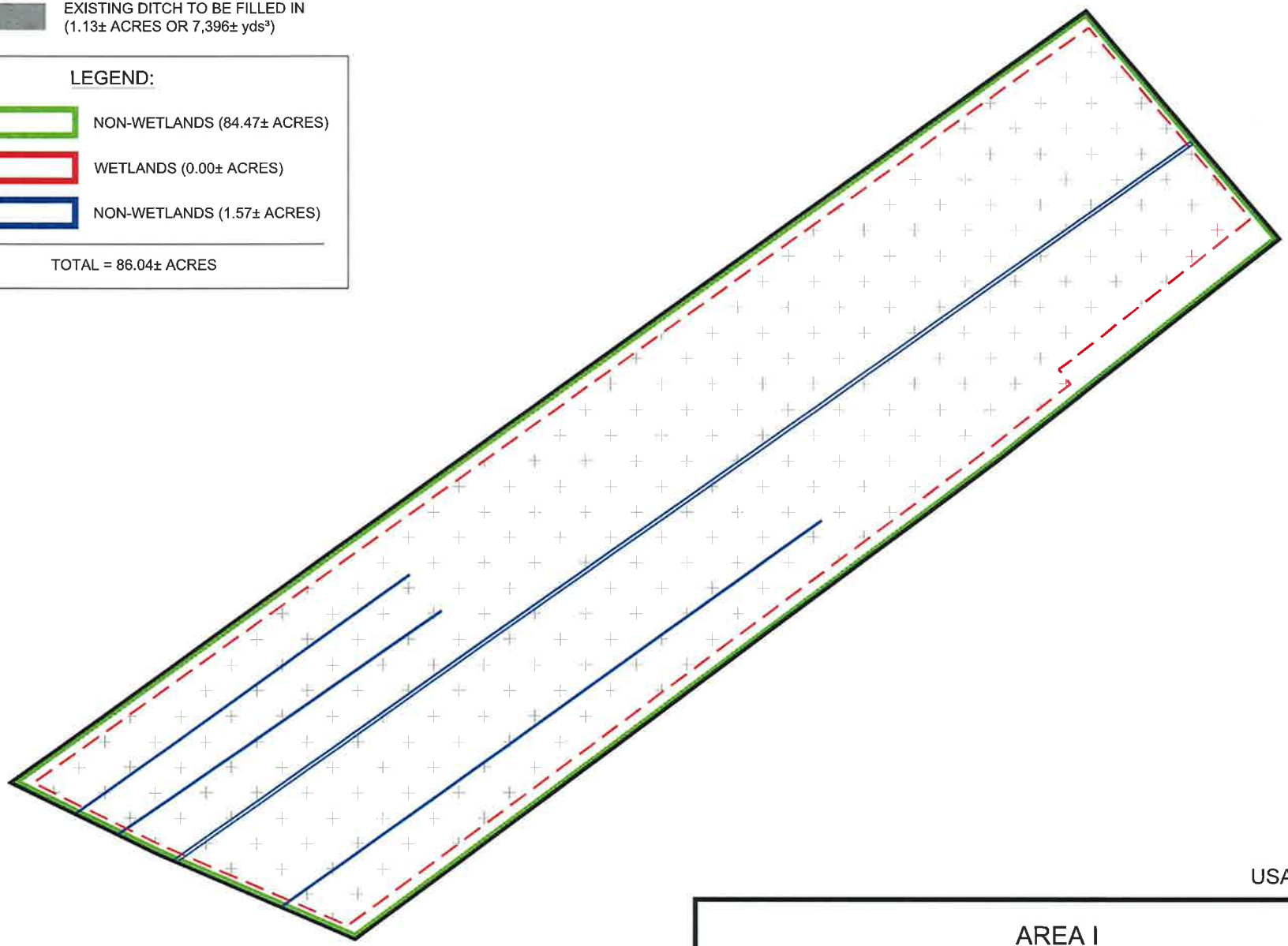
LEGEND:

NON-WETLANDS (84.47± ACRES)

WETLANDS (0.00± ACRES)

NON-WETLANDS (1.57± ACRES)

TOTAL = 86.04± ACRES



USACEO WETLAND JD

SCALE IN FEET

500' 250' 0 500'

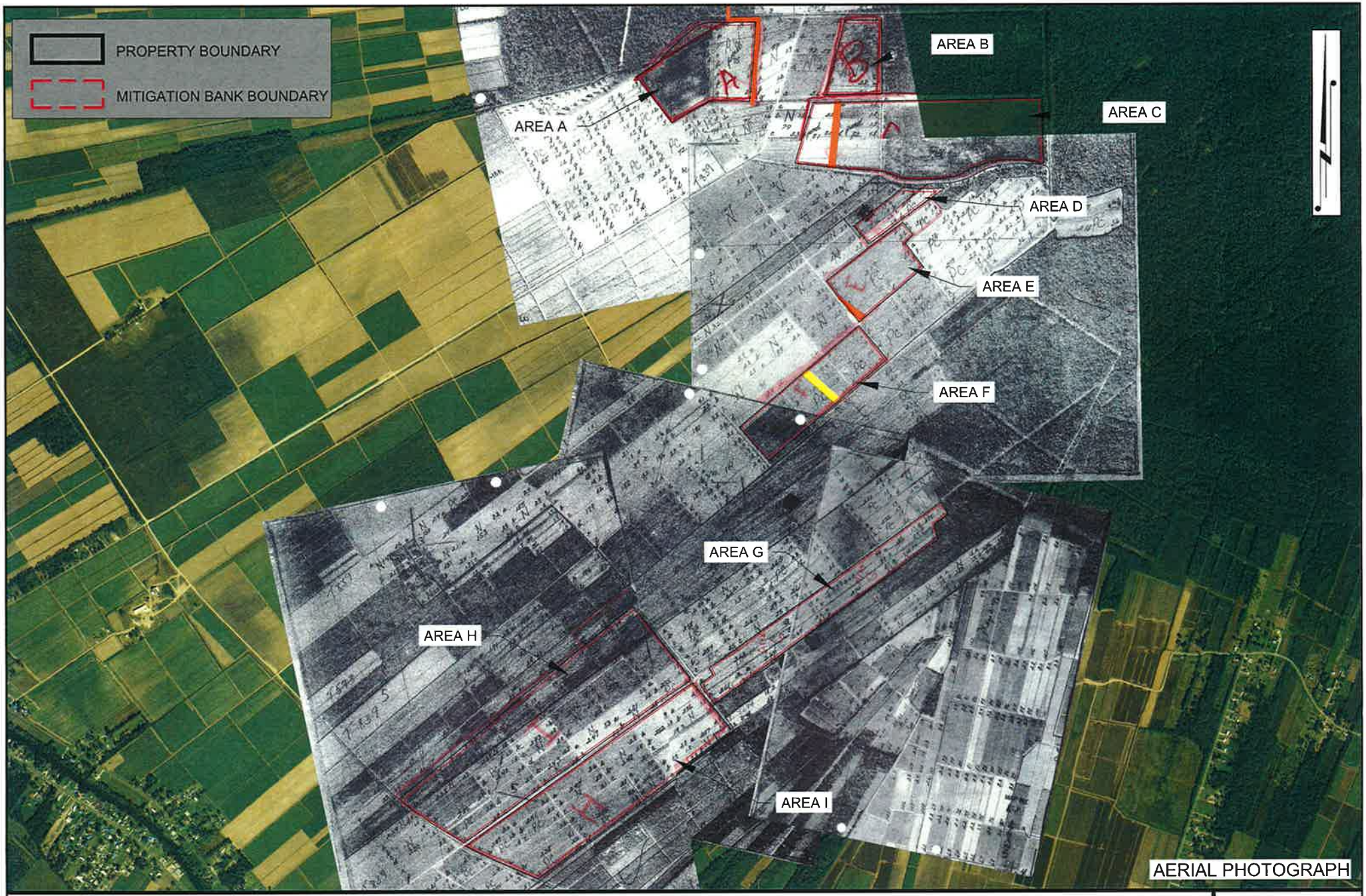
AREA I

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

I10

Hydrologic Restoration
Planting Zone



SCALE IN FEET

2,000' 1,000' 0 2,000'

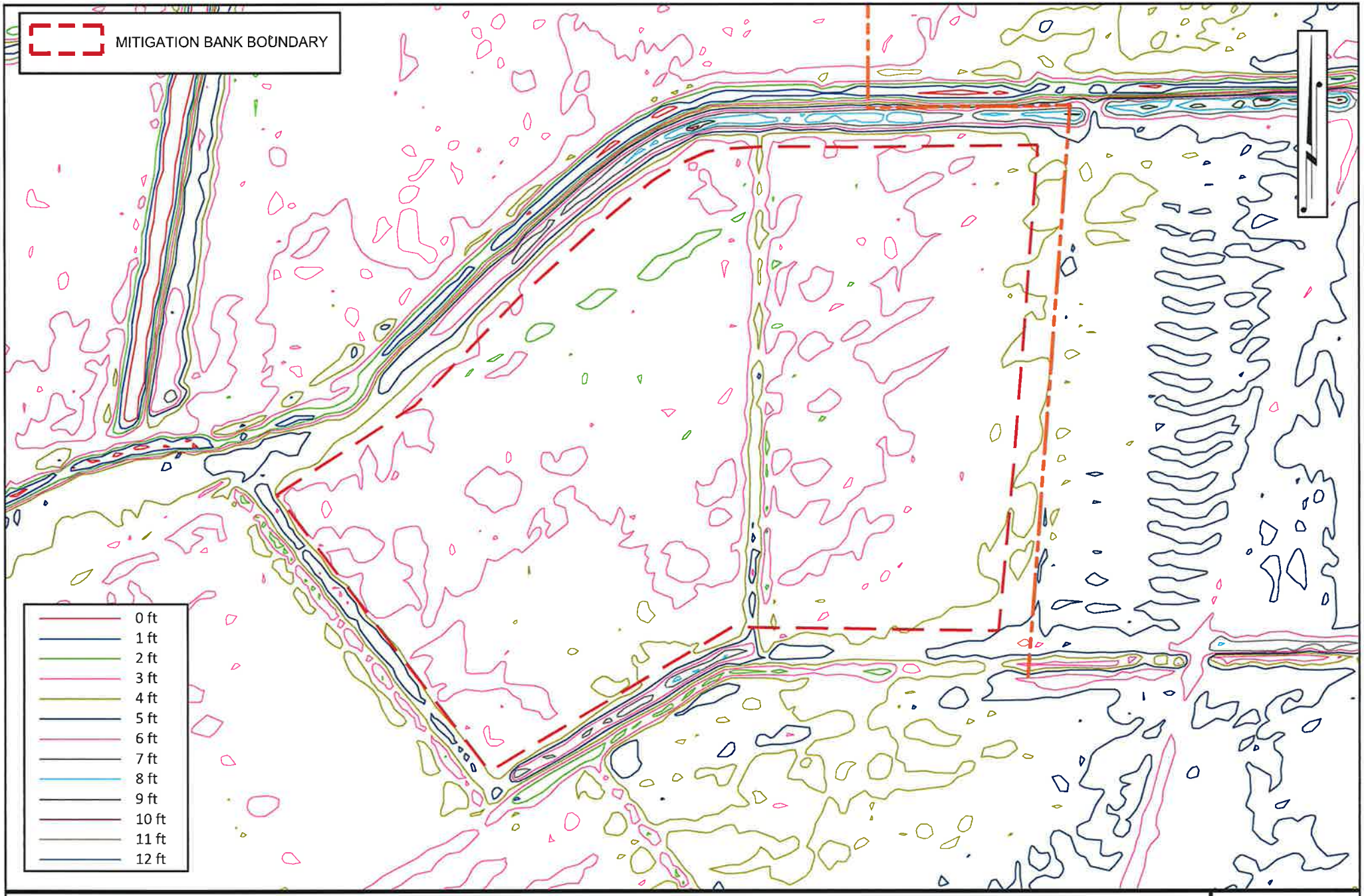
AREAS A-I

ASSUMPTION LAND
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

11

Aerial Photograph



SCALE IN FEET

300' 150' 0 300'

5' AND ABOVE = 0.15± ACRES

BELOW 5' = 37.37± ACRES

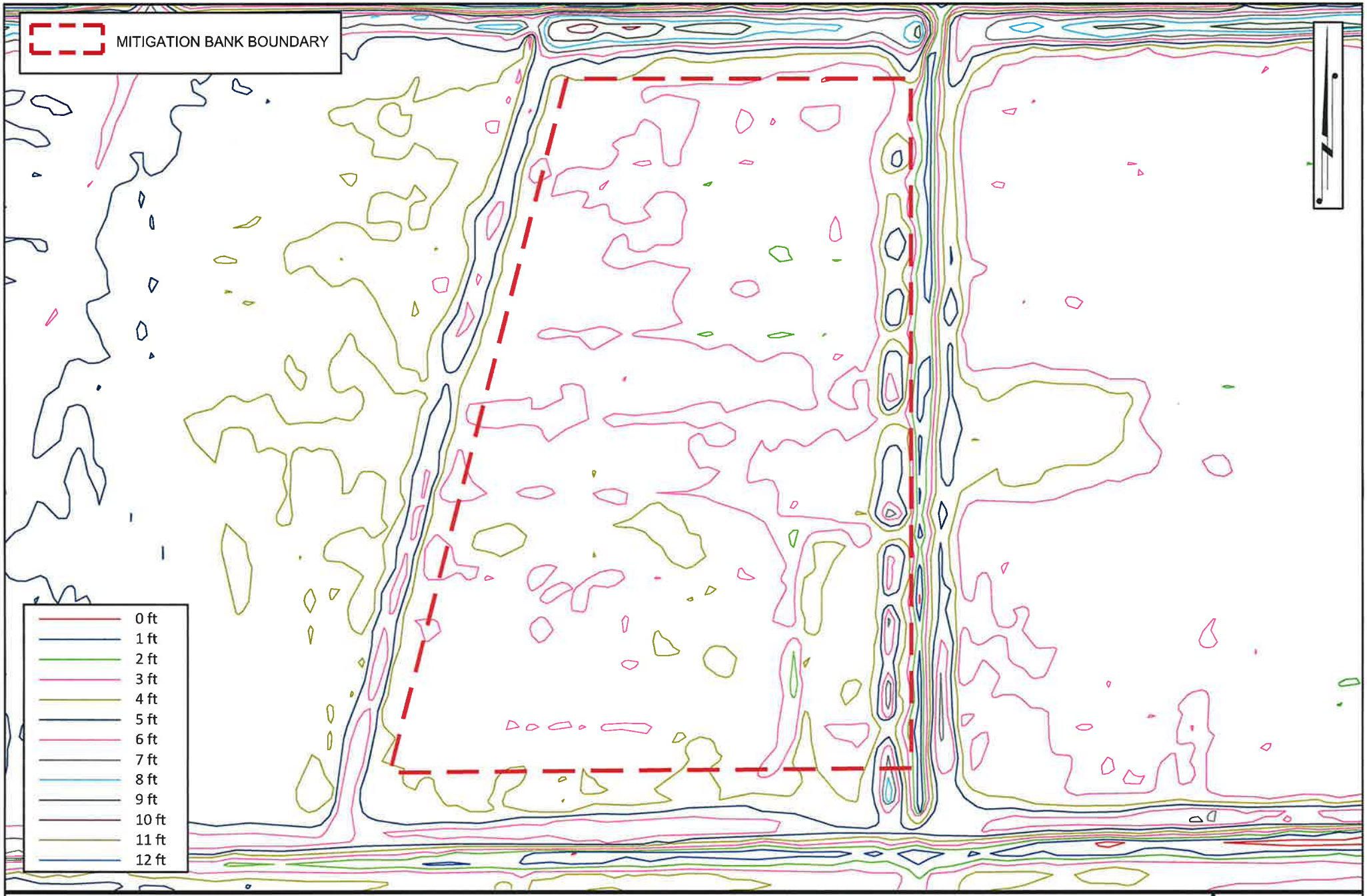
AREA A

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

A12

LIDAR



SCALE IN FEET

200' 100' 0 200'

5' AND ABOVE = 0.59± ACRES

BELOW 5' = 16.00± ACRES

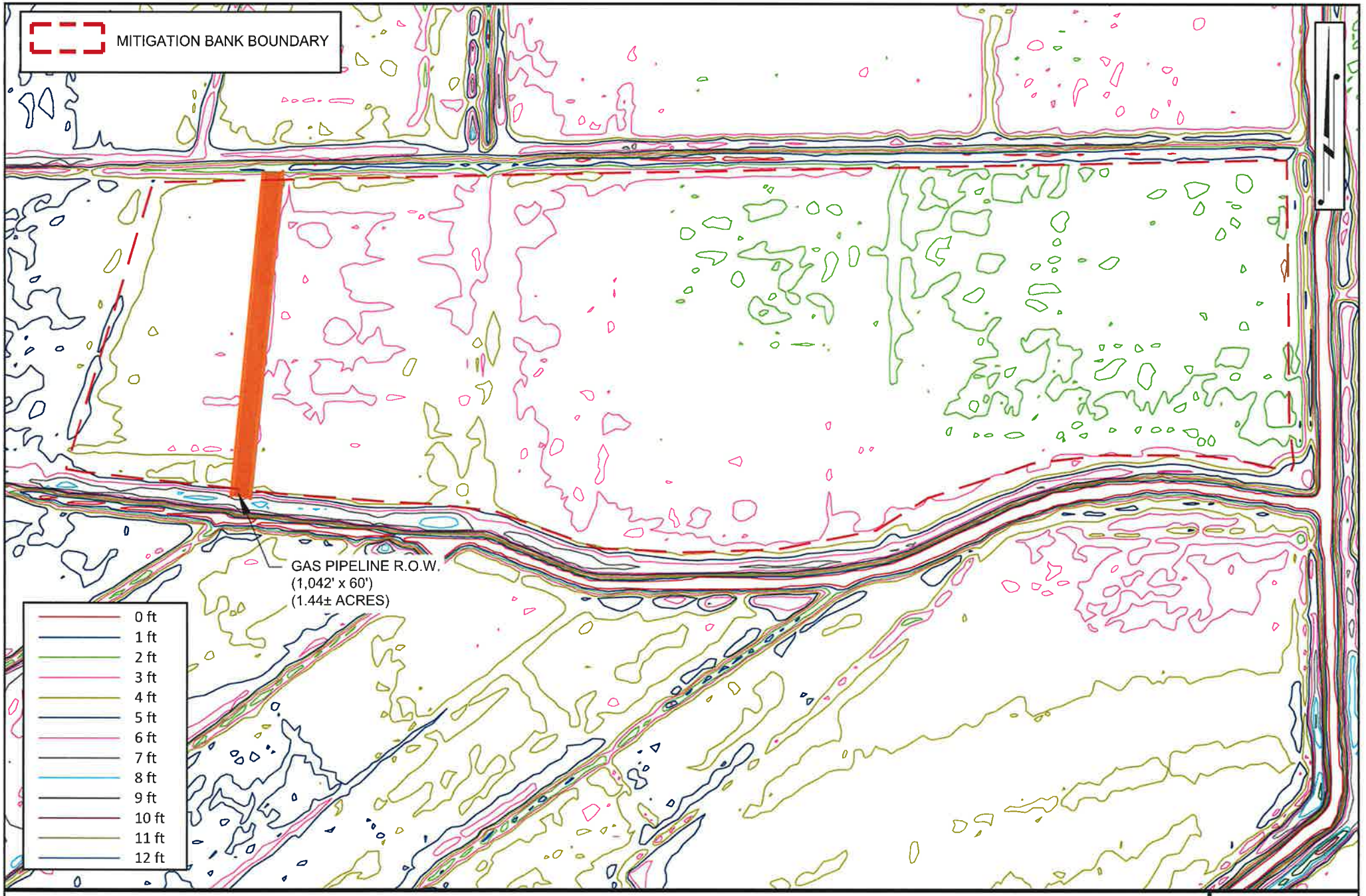
AREA B

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

B12

LIDAR



SCALE IN FEET

300' 150' 0 300'

5' AND ABOVE = 0.42± ACRES

BELOW 5' = 84.97± ACRES

AREA C

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

C12

LIDAR

SCALE IN FEET

200' 100' 0 200'

5' AND ABOVE = 1.09± ACRES

BELOW 5' = 6.93± ACRES

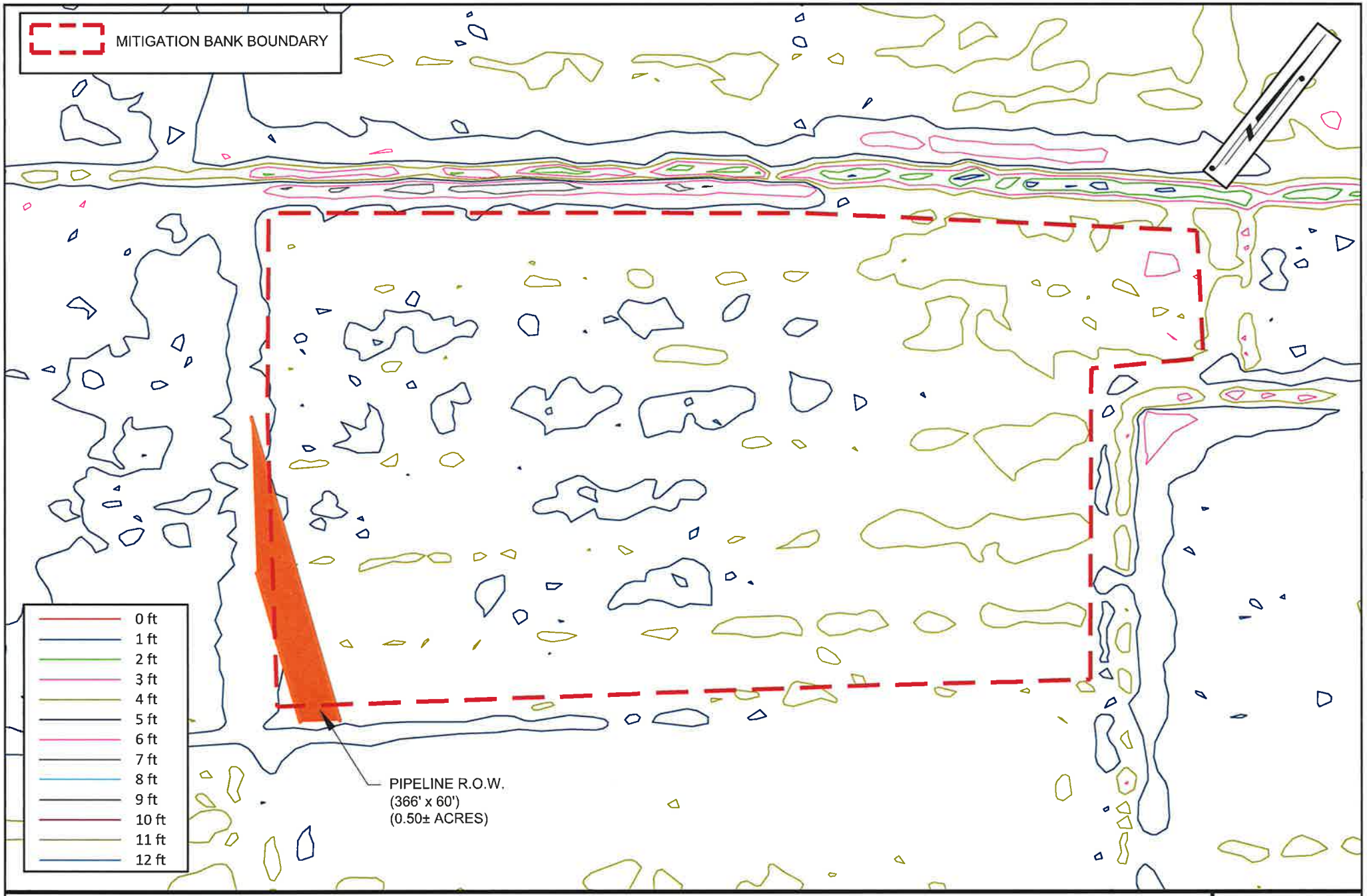
AREA D

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

D12

LIDAR



SCALE IN FEET

200' 100' 0 200'

5' AND ABOVE = 8.50± ACRES

BELOW 5' = 13.72± ACRES

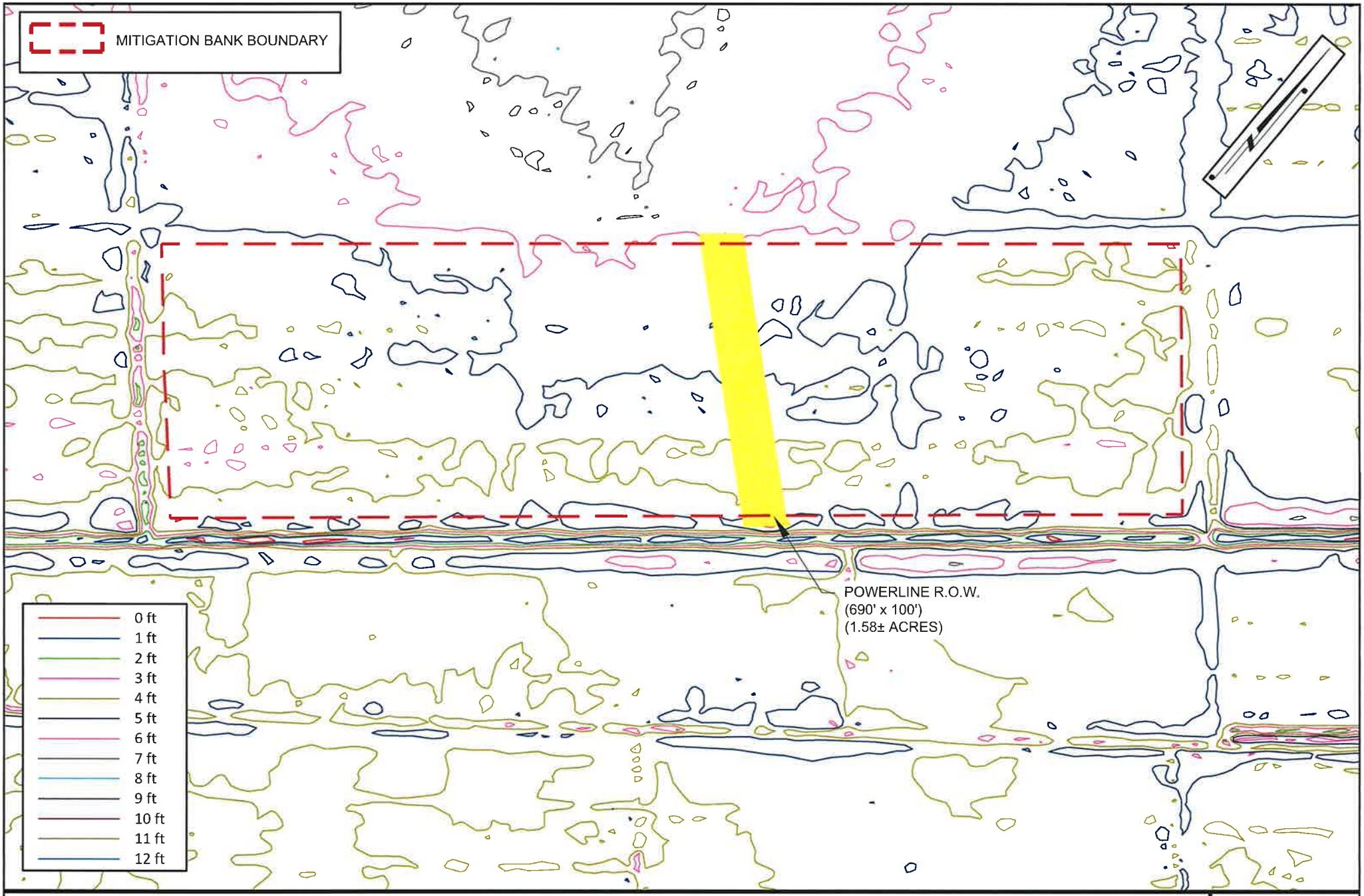
AREA E

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

E12

LIDAR



SCALE IN FEET

300' 150' 0 300'

5' AND ABOVE = 12.92± ACRES

BELOW 5' = 20.21± ACRES

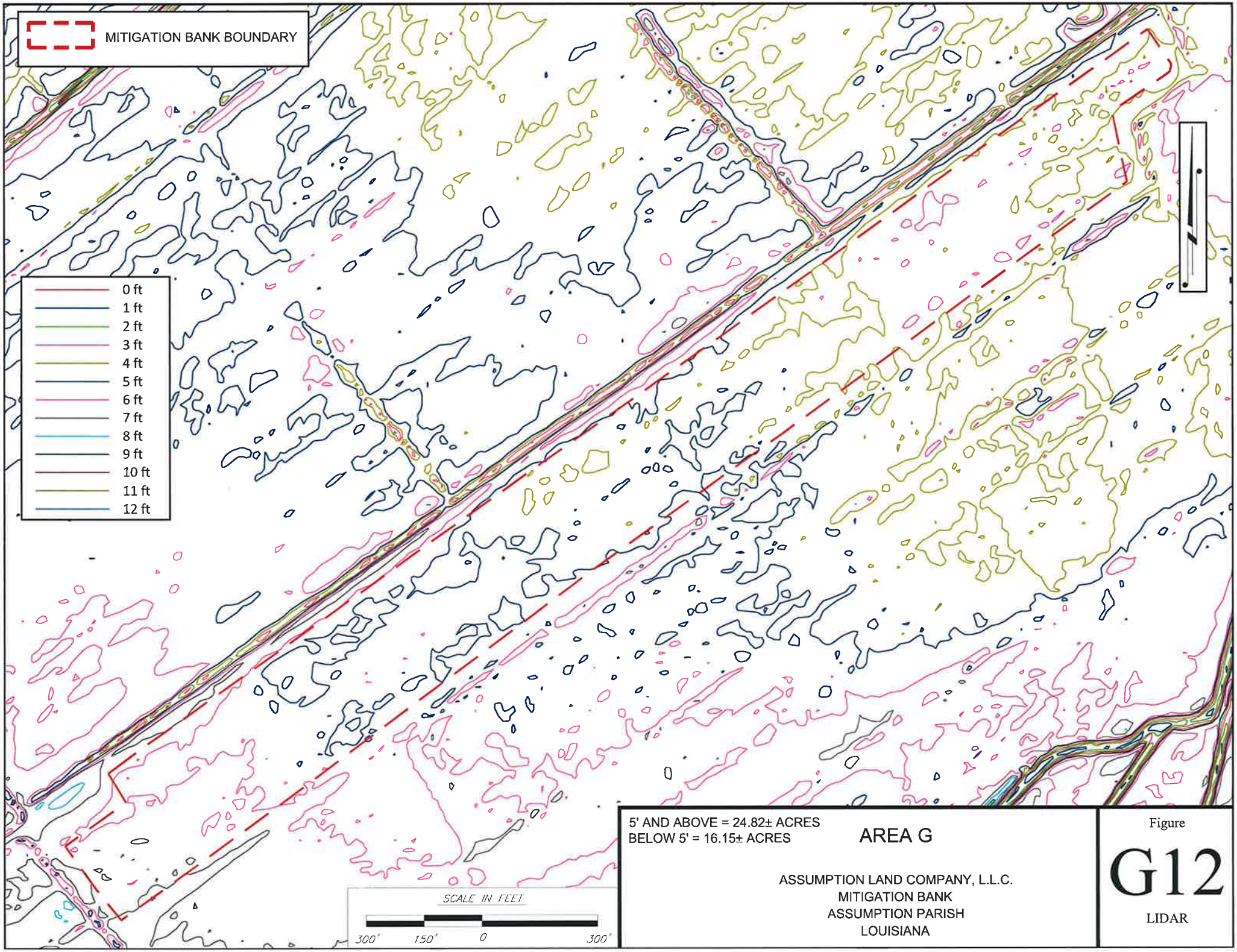
AREA F

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

F12

LIDAR



5' AND ABOVE = 24.82± ACRES
BELOW 5' = 16.15± ACRES

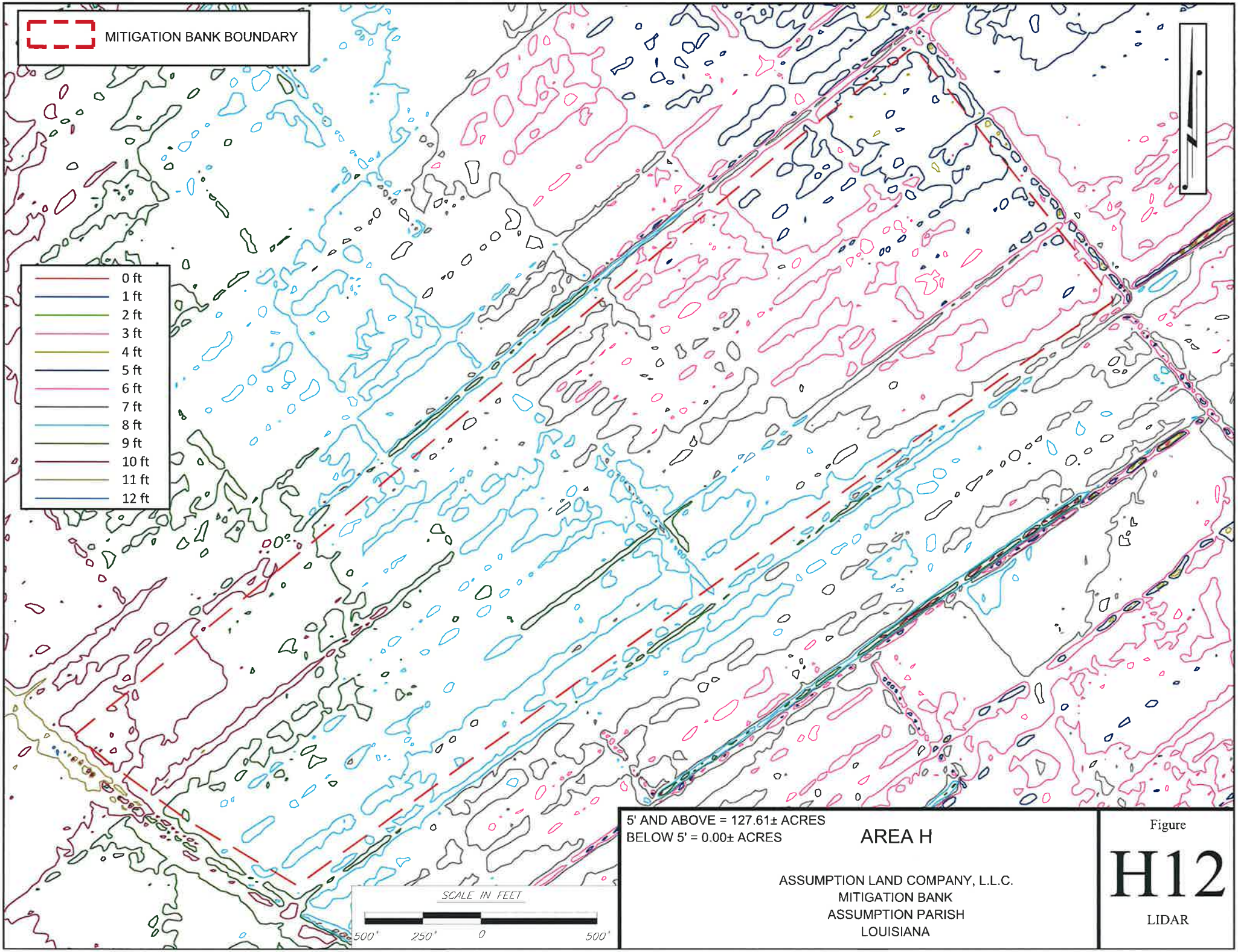
AREA G

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

G12

LIDAR



5' AND ABOVE = 127.61± ACRES
BELOW 5' = 0.00± ACRES

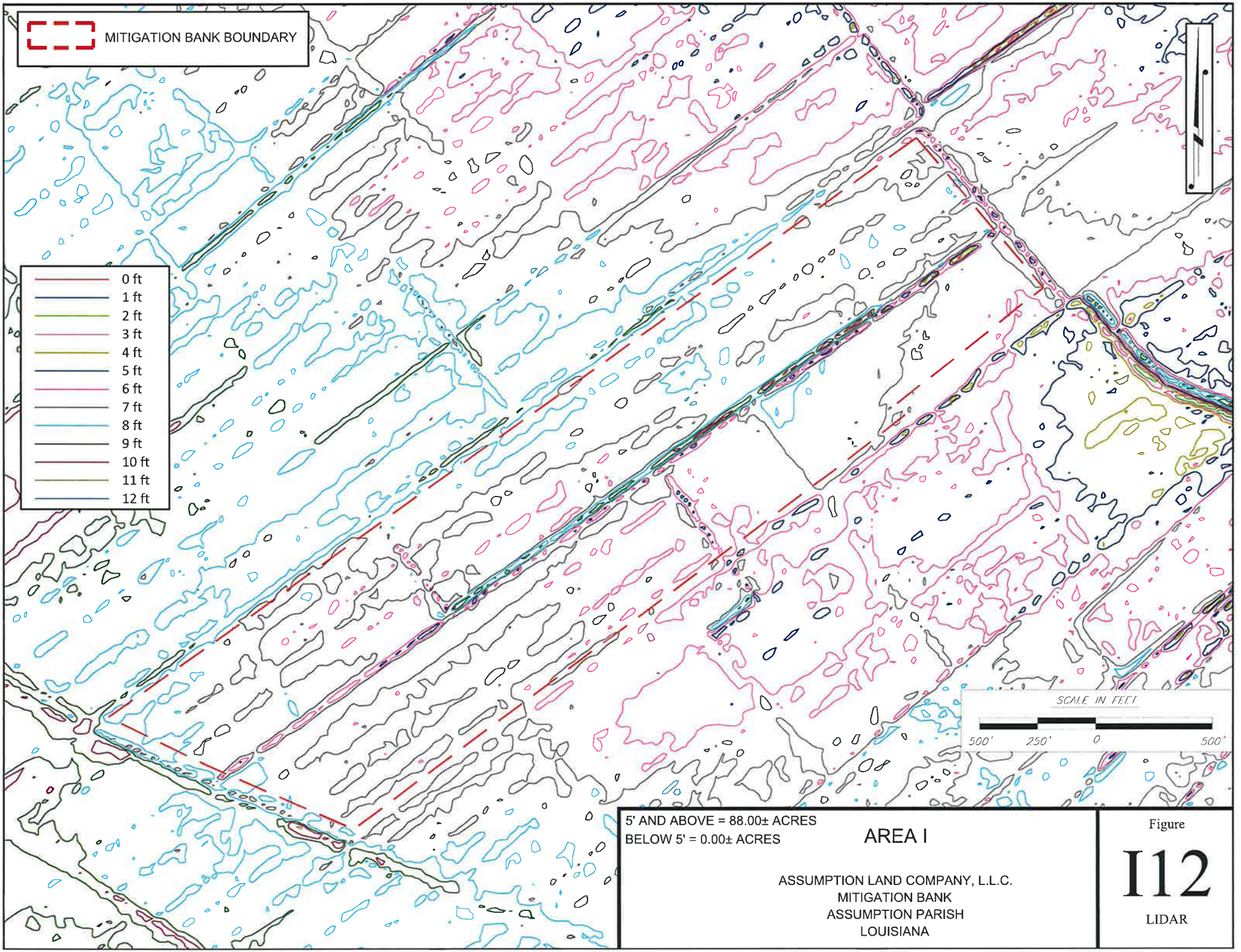
AREA H

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

H12

LIDAR



5' AND ABOVE = 88.00± ACRES
BELOW 5' = 0.00± ACRES

AREA I

ASSUMPTION LAND COMPANY, L.L.C.
MITIGATION BANK
ASSUMPTION PARISH
LOUISIANA

Figure

I12

LIDAR

ATTACHMENT A

SOILS DATA

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Assumption Parish, Louisiana

February 19, 2014

Soil Map


90° 56' 28" W
698830
698920
699010
699100
699190
699280
699370
699460
699550
29° 53' 4" N
3307760
3307670
3307580
3307490
3307400
3307310
3307220
29° 52' 45" N
TbA
CmA
SkA
Map Scale: 1:4,190 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 50 100 200 300
Feet
0 200 400 800 1200
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Assumption Parish, Louisiana
Survey Area Data: Version 7, Dec 4, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 3, 2010—Jan 7, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Assumption Parish, Louisiana (LA007)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CmA	Cancienne silt loam, 0 to 1 percent slopes	11.3	23.4%
SkA	Schriever clay, 0 to 1 percent slopes	28.9	60.0%
TbA	Thibaut clay	8.0	16.6%
Totals for Area of Interest		48.2	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If

Attachment B
HYDROLOGICAL MODIFCATION IMPACT ANALYSIS

ASSUMPTION LAND COMPANY, L.L.C. MITIGATION BANK
HYDROLOGIC MODIFICATION IMPACT ANALYSIS
December 12, 2018

Assumption Land Company, L.L.C Mitigation Bank is proposing the restoration, via re-establishment/re-habitation, of 459 acres of bottomland hardwood (BLH) forest in Assumption Parish. This document is to address the hydrological impacts as required by Louisiana Department of Natural Resources Office of Coastal Management guidelines and regulations for obtaining a Coastal Use Permit. This information will also be used to acquire Section 10 of the Rivers and Harbor Act and Section 404 of the Clean Water Act.

The 459 acres are located in nine areas which are labeled A through I. The pre and post analysis of these areas will be addressed by grouping the areas in either of two groups of similar hydrological settings. All areas are subject to localized rainfall and to a limited amount to the water regime of the adjacent forested wetlands. Small interior ditches were established in these areas to aid in drainage for agriculture crops. The portion of these interior ditches within the bank will be filled resulting in having sheet flow only. All crop rows will be leveled in each area to facilitate sheet flow and reduce runoff rates. A 100 year storm for this geographic area is 11.5 inches to 15 inches of rainfall within 24 hours. Such storms have occurred in this area and resulting in flooding. The magnitude of the flooding is depended on several variables such as but not limited to current water levels in receiving flood storage areas, amount of available flood storage areas, and current levels of soil moisture. All areas will be planted with BLH species while ground cover will be allowed to occur naturally.

The first group contains tracts A-D which has existing similar hydrological characteristics of areas with levees on one or more sides and has natural occurring vegetation cover throughout the area. These areas are not currently in agriculture production but have been in the past. Each of these tracts has limited drainage via interior ditches and/or with sheet flow on the non-levee side(s). All the material removed from the interior levees will be used in filling interior ditches. Pre and post topography is generally level with some slight contour changes and have less than 1 % slope.

Area A is surrounded on three sides by levees created over time from the maintenance dredging of the adjacent drainage canal/ditches. These levees are outside of the area. A small interior levee runs north-south in the middle of the area. Currently drainage

occurs to the east via sheet flow to drainage outside of the area which flows northward to an east-west canal which drains eastward. The proposed removal of the interior levee with its material placed back the borrow ditch will allow an increase sheet flow to occur. During removal process, the temporary increase in sediments may be controlled by the vegetation buffers plus fiber logs and/or hay bales or comparable technologies/systems if needed.

Area B is surrounded by levees on all sides outside of the area with a single outlet in the northeast part of the area. Several interior ditches existing from the former agriculture activities. Each of these interior will be filled in. Water movement will then be sheet flow only to the outlet. From the outlet the flow goes into a ditch with flow going both north and south to other east-west drainage ditches then eastward. Sediments during filling operations may be filtered out by the vegetation buffers plus fiber logs and/or hay bales or comparable technologies/systems if needed.

Area C is surrounded by levees on all sides outside of the area with drainage occurring via a series of interior ditches through a single outlet on the Northside and portable pump on the northeast corner. Drainage from the outlet goes into an east-west ditch then flows eastward. The several interior ditches will be filled in and the pump will be permanently removed from the area. Sediments during filling operations may be controlled by existing vegetation buffers plus fiber logs and/or hay bales or comparable technologies/systems if needed. This area is adjacent to an existing BLH mitigation bank on its southeast side. Although the 60 foot pipeline easement does not allow for encroachment of BLH species in the right-of-way, herbaceous species will be used to control sediments and provide wildlife habitat in the long term.

Area D is surrounded by levees on all sides outside of the area with drainage occurring via a series of interior ditches through a single outlet on the northeast side. Drainage goes into an northeastward ditch then flows north eastward into an east-west ditch (Cedar Grove Ditch) which flows eastward. The interior ditches will be filled in. Sediments during filling operations may be filtered out by the existing vegetation cover, fiber logs and/or hay bales or comparable technologies/systems if needed. This area is adjacent to an existing BLH mitigation bank on its northeast side and Area E on its southeast side.

The second group contains Areas E through I. These areas are similar in having on going agriculture production of crops, no levees on any side, adjoins lands currently under agriculture on at least one side, and having interior ditches. The hydrological

modifications will be the filling of the interior ditches and leveling of crop rows. Pre and post topography is generally level with some slight contour changes and have less than 1 % slope.

Area E is currently in sugarcane production with drainage via several interior ditches having flow to the northeast to multiple outlets. These outlets are outside the Bank boundary and discharge water into a ditch which flows northward to a main ditch which flows north to the Cedar Grove Ditch. With the abandonment of raising crops, removal crop rows and filling of interior ditches, runoff will be depend on sheet flow only to reach the outlets. The sediments occurring during site preparation will be increased but will be controlled using fiber logs and/or hay bales. This area is adjacent to an existing BLH mitigation area on its entire east side and adjacent to Area D on its northwest side. Although the 60 foot pipeline easement does not allow for encroachment of BLH species in the right-of-way, herbaceous species will be used to control sediments and provide wildlife habitat in the long term.

Area F is currently in sugarcane production with drainage via an interior ditch having flow to the northeast and east to outlets. These outlets are outside the Bank boundary and discharge water into a ditch which flows southeastward to the Pellet Ditch or directly into Pellet Ditch which flows north to the Cedar Grove Ditch. With the ceasing of raising crops, removal crop rows and filling of the interior ditch, water flow will be depend on sheet flow only to reach the outlets. The sediments occurring during site preparation will be increased but may be controlled using vegetation buffers, fiber logs and/or hay bales or comparable technologies/systems if needed. This area is adjacent to an existing BLH mitigation area on its entire east, south, and north sides and adjacent to a road on its west side. Although the 100 foot powerline easement does not allow for encroachment of BLH species in the right-of-way, herbaceous species will be used to control sediments and provide wildlife habitat in the long term. Although the 60 foot pipeline easement does not allow for encroachment of BLH species in the right-of-way, herbaceous species will be used to control sediments and provide wildlife habitat in the long term.

Area G is currently in sugarcane production with drainage via small interior ditches having flow to the northeast, west, and east to outlets. These outlets are outside the Bank boundary and discharge water into ditches on the west and east which flows northeastward. With the abandonment of raising crops, removal crop rows and filling of the interior ditches, runoff will be depend on sheet flow only to reach the outlets. The sediments occurring during site preparation will be increased but may be controlled using vegetation buffers, fiber logs and/or hay bales or comparable

technologies/systems if needed. This area is adjacent to an existing BLH mitigation area on its entire west side and adjacent to BLH forest on the northeast side.

Area H is currently in sugarcane production with drainage via small interior ditches having flow to the northeast and east to outlets. These outlets are outside the Bank boundary and discharge water into ditches on the west and which flows northeastward. With the abandonment of raising crops, removal crop rows and filling of the interior ditches, runoff will be depend on sheet flow only to reach the outlets. The sediments occurring during site preparation will be increased but may be controlled using vegetation buffers, fiber logs and/or hay bales or comparable technologies/systems if needed. This area is adjacent to an existing BLH mitigation area on its entire north side. It is adjacent to Area I on its entire east side

Area I is currently in sugarcane production with drainage via small interior ditches having flow to the northeast to an outlet in the northwest corner. This outlet is outside the Bank boundary and discharge water into a ditch on the west and which flows northeastward. The ditch running down the middle of the area will be filled and relocated outside of the Bank. With the abandonment of raising crops, removal crop rows and filling of the interior ditches, runoff will be depend on sheet flow only to reach the outlets. The sediments occurring during site preparation will be increased but may be controlled using vegetation buffers fiber logs and/or hay bales or comparable technologies/systems if needed. This area is adjacent to an existing road and Area H on its west side plus adjacent to Area G on its north side.

With the removal of the above referenced crops, pump, interior levees and crop rows, filling of the interior ditches and planting of BLH species in each area, there will be no changes in the hydrological flow patterns except for the interior ditches will not be available for flow. Water flow patterns will be strictly depended on sheet flow. These changes will result in increasing retention time for sheet flow, flood storage, storm water retention, infiltration rates, availability of plant debris, soil carbon storage, nutrient cycling, water table, soil organic matter, while significantly decreasing the quantity, frequency and duration of storm water runoff plus decreasing pesticides, pollutant loading, and contaminates entering the ecosystem. All of these changes will have a beneficial impact to water quality, soil hydrology, storm water retention, flood storage, fish & and wildlife resources and improvements to adjacent waters not within the bank. A 100 year storm event would have less runoff from the Bank area.

Increase in flood storage will occur from:

- Increase area for flood storage in Area A with the removal of an interior levee and ditch plus duration of flood storage will increase as the BLH vegetation increases in size and canopy.
- The removal of a pump an interior ditches in Area C will increase the duration of flood storage plus duration of flood storage will increase as the BLH vegetation increases in size and canopy.
- The removal of interiors ditches will increase flood storage duration in Areas B & D plus duration of flood storage will increase as the BLH vegetation increases in size and canopy.
- The removal of interior ditches, farming row crops, and crop rows in Areas E through I will increase flood storage duration since the water flow is depended only on sheet flow plus as the BLH vegetation increase in size and canopy in addition duration of flood storage will occur.

Decrease in pesticides and nutrient loading will occur in all areas from:

- The filling in of interior ditches. Without these ditches material leaving these areas will be reduced.
- Additional reduction will occur with the planting of BLH vegetation and will increase in rate as the vegetation increase in size and canopy.
- In Areas E through I additional reduction will occur by:
    - The removal of these areas from agriculture production of row crops.
        - Thus removing the need to apply pesticides and nutrients.
        - The removal of the need to plow and cultivate the soils on a regular basis which cause the increase sediment removal from the area during rain events.
        - Since it is known that pesticides and nutrient bonds with sediments particles, the decrease sediments in the runoff also means a decrease in pesticides and nutrients leaving the area and entering the adjacent ecosystem.
    - Historical pesticides, which are no longer used and have long existence, are still found in the agriculture areas since they are also bonded to the sediments. Therefore they will remain longer in a bonded state that does not allow them to enter the ecosystem.
    - The pesticides and nutrients loads have been known on more than one occasion to cause significantly aquatic organisms kills in adjacent waters. Therefore with the decrease in available pesticides and nutrients, a decrease in such kills will occur.

During the removal of interior levees and leveling crop rows plus the filling of ditches some minor increase in sediment load may occur on the short term and be controlled through the use of fiber logs and/or hay bales or comparable technologies/systems if needed. Sediment loading will significantly decrease once the work is completed and will farther decrease as the areas vegetation matures. Adjacent landowners and waterways will not be negatively impacted by these hydrological modifications, since they will be receiving waters at a lesser rate, improved water quality and retention of adverse chemicals.

Areas A through D will have significant less opportunity to impact offsite areas since they are already have ground cover in the form of natural vegetation. However Areas E through I will have a higher opportunity to impact offsite areas since they have to be change from crops to natural vegetation.

In Areas A through I as the BLH canopy increases the retention of runoff will increase. This retention increase will benefit not only the Bank but adjacent land, forested areas, and waterways with the improvements of numerous factors that affect the quality and quantity of water, forest, habitats and natural resources. Therefore no adverse impacts will occur to the surrounding properties and not anticipated to adversely affect adjacent properties or waterways. The restoration and enhancement of wetland functions and values will occur to the immediate area and to the adjacent wetlands.

LIST OF ATTACHMENTS

Attachment 1	Vicinity Map Figure 1 and Figures 2 + 2-A Overall Drainage Maps
Attachment 2	Figures A8 – I8 Existing Drainage Maps
Attachment 3	Figures A9 - I8 Proposed Drainage Maps
Attachment 4	Figures A10 – I 10 Hydrologic Restoration Maps
Attachment 5	LiDAR Maps of Areas A - I