SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

WYNNEWOOD PARK/TRIBUTE MARINA

LEWISVILLE LAKE, DENTON COUNTY, TEXAS

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U.S. Army Corps of Engineers

Fort Worth District

July 2021

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1.0 INTRODUCTION

The U.S. Army Corps of Engineers requested the City of The Colony prepare a Supplemental Environmental Assessment (SEA) to supplement the Lewisville Lake Programmatic Environmental Assessment (PEA), dated August 1999 (USACE 1999), for the consideration of the future construction plans for the Tribute Marina in Wynnewood Park. This SEA identifies the potential environmental effects of changes to the Lewisville Lake PEA since 1999, which could affect the assessment determination, and to update outdated sections of the original PEA related to this project (USACE 1999). Thus, most of the background information is incorporated by reference only. The original PEA and signed Finding of No Significant Impact (FONSI) can be found at the Fort Worth District office of the U.S. Army Corps of Engineers (USACE) (USACE 1999).

This SEA discloses the environmental impacts associated with the proposed action for the development of recreational facilities in Wynnewood Park. The proposed vessel allocations for the Tribute Marina would be achieved through the construction of up to 840 wet slips. The physical location of the proposed marina is consistent with the location identified in the 1999 PEA. The proposed development includes minor modifications to the recreational facilities associated with the Tribute Marina from the development plans described in the 1999 PEA. Modifications include the construction of a stage and multi-purpose lawn and the exclusion of dry storage area for boats. The City of The Colony leases Wynnewood Park from the USACE and believes the proposed marina is located in the most economically and environmentally viable location (See Appendix A, Sheets 1-3 for location maps).

We have included all aspects of the proposed project, including those approved in the PEA, to provide an overall prospective of the potential environmental effects. Lewisville Lake is located in the Southern Portion of Denton County in North Central Texas and is within the Trinity River Basin along the Elm Fork of the Trinity River (USACE 1999).

1.1. PURPOSE AND NEED

Purpose

The purpose of the Wynnewood Park/Tribute Marina project is to provide additional recreational facilities and more efficient access to Lewisville Lake. Wynnewood Park was leased by USACE to The Colony beginning in 1997, who subsequently subleased the park to Wynnewood Peninsula, L.P. (WPLP). Since that time, the park has been divided into two areas with different uses. The uses include a nature park with trails and golf courses. Approximately 406 acres of the park is being utilized for golf activities and is managed by WPLP. The remaining approximate 194 acres of the park is managed by The City of the Colony. The Colony has intentions to manage the park as a traditional lakeside park with approximately 183 acres of undisturbed, natural habitat for the enjoyment of the surrounding population.

The Dallas Chamber estimates that the Dallas-Fort Worth (DFW) population will grow by 3.7 million people by the 2045 census (Greater Dallas Chamber, 2020). A March 2020 Market and Financial Feasibility study for the proposed action provided a favorable outcome (Haralson, William L & Associates, Inc.). This

population growth in the DFW metropolitan area has increased the need for additional recreational facilities. Furthermore, the proposed project will increase employment opportunities and provide revenues to the local municipalities that would not occur without a development of this kind.

This SEA addresses additional environmental impacts not covered in the original PEA and additional features that have been added to the Tribute Marina project since the original PEA in 1999, which need to be covered in this SEA.

1.2. Project Authorization

In 1994, the Town of Little Elm and the City of The Colony were interested in constructing two new marinas on Lewisville Lake. The USACE Fort Worth District conducted a Marina Demand Study to evaluate the demand for a new marina, which subsequently resulted in a 5-year moratorium on the construction of new marinas beginning in August 1994. Prior to the end of the moratorium, the USACE partnered with the North Central Texas Council of Governments (NCTCOG) to initiate the completion of a Lake Use Study. The Lake Use Study consisted of two phases, a Water-Related Recreational Use Study (WRRUS) and a lake-wide Programmatic Environmental Assessment (PEA (USACE 1998)). The WRRUS provided the USACE the information to allocated facilities and services required for potential water-use related development within zones. The PEA was conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 and pertinent implementing regulations. An Environmental Assessment for the Water-Related Recreation Development for Lewisville Lake was completed in December 2000. This Environmental Assessment supplemented the analysis in the original PEA in regard to the water-related development at Lewisville Lake (USACE 2000). The FONSI for the Environmental Assessment was signed in December 2000 and can be found at the Fort Worth District office of the USACE (USACE 2000).

1.3. Actions Since the Last Environmental Assessment

The FONSI for the development actions around Lewisville Lake was signed in September 1999 (USACE 1999). Since then no impact actions have occurred related to the proposed Tribute Marina. Two other marinas (Cottonwood Marina and Hidden Cove Marina) have been constructed since the FONSI was signed in 1999.

2.0 PROPOSED ACTION AND ALTERNATIVES

There are essentially three alternatives. The No Modification Alternative would leave the configuration and number of wet slips proposed in the 1999 PEA (USACE 1999). The Proposed Action would modify the configuration of but maintain the number of wet slips proposed in the 1999 PEA and result in some differences in the attendant features. The No Action Alternative would result in no marina being constructed.

2.1. No Modification Alternative

This alternative would maintain the originally proposed location of the marina and original activities list of recreational facilities on the western shore at the north end of Wynnewood Park.

The following activities were described in detail in the 1999 PEA and Resources Document for the 1999 PEA (USACE 1999b). In terms of the proposed project, the only activities implemented to date have been the construction of The Tribute golf course and The Old American golf course.

1) Marina
    a) 840 wet slips
    b) 2,000 sf ship store / fuel service
    c) 18,000 sf Restaurant (10,000 sf enclosed, 8,000 sf covered deck)
2) Parking Lot
3) Helipad
4) 600 dry boat storage spaces
5) Playground areas
6) Basketball courts
7) Sand volleyball courts
8) Restrooms
9) Hike/bike trail
10) Gazebo
11) Fishing pier
12) Picnic tables
13) Athletic fields
14) Hotel
    a) 440 guest rooms
    b) meeting rooms, banquet rooms, and one/more restaurants
    c) Conference center
15) Concession areas

2.2. Proposed Action

The proposed action would remain within Zone C, the preferred alternative site listed in the 1999 PEA. The proposed marina would be located on the western shore at the north end of Wynnewood Park (See Appendix A, Sheets 1-3). See Appendix A and Appendix B, as well as Figure 1, below for the proposed layout of the action. In addition to the original activities listed above, several features have been added to the proposed action. The following activities were either not described or modified from the 1999 PEA or the Resources Document for the 1999 PEA, and are additions to the 1999 activities list:

1) Marina
    a) 801 wet slips
    b) 4,480 sf ships store/deli/fuel service
    c) 4,800 sf covered deck
2) 5,000 sf restaurant
3) Parking Lot
    a) Paved parking (360 vehicle spaces, 113 golf cart spaces)
    b) Grass parking (176 spaces)
4) Multi-use concrete pad for educational programs and events (with electrical) [100’-4”x 43’-0” (3107.5 SF)], details provided in Appendix B
5) Multi-purpose lawn 36,000 sf
6) Lawn Game Areas

The proposed action would involve a phased construction sequence. Table 1 shows the key project elements and denotes which phase each element would occur in. Essentially, the first phase (Phase 1) would involve the marina proper, including floating marina structure with 399 wet slips and fuel dispenser dock and park. Future phases would include an additional 402 wet slips and possibly a restaurant. Phase

1 is planned to begin upon approval of the project by the USACE. The subsequent phase(s) is estimated to be completed once the Phase I wet slips have reached approximately 90% occupancy. However, later phases are dependent on economic conditions.

Table 1. Proposed Action Elements and Project Phasing

Project Element	Quantity	Phase
Marina (Boat slips)	399 Wet slips	Phase 1
	402 Wet slips	Later Phases
Paved Vehicle Parking	209 Units	Phase 1
	151 Units	Later Phases
Paved Golf Cart Parking	113 Units	Phase 1
Special Event Parking – Grass	176 Units	Phase 1
Multi-use concrete pad for educational programs and events 100'-4"x 43'-0" (3107.5 SF)	1 Pad	Phase 1
Multi-Purpose Lawn	36,000 SF	Phase 1
Plaza Space	1 Plaza	Phase 1
Sand Volleyball Court	1 Court	Phase 1
Park Restrooms	1 Restroom	Phase 1
Marina Cart Storage	1 Storage Room	Phase 1
Fuel & Dumpster	1 Fuel & Dumpster	Phase 1
Lawn Game Areas	3	Phase 1
Trail to Marina	2 Trails	Phase 1

Elements that are previously approved but no longer being considered for the proposed action include:

1) Helipad
2) 600 dry boat storage spaces
3) Basketball courts
4) Playground areas
5) Gazebo
6) Fishing pier
7) Athletic fields
8) Hotel (Now proposed by Tribute Partners, L.P. on other developer owned property)
    a) 440 guest rooms
    b) meeting rooms, banquet rooms, and one/more restaurants
    c) Conference center

The removal of these elements serves to reduce the overall environmental impact.

Figure 1. Overall Layout.

2.3. No Action Alternative

The "No Action" alternative would involve no additional development within Wynnewood Park. This is not the preferred action because:

- It will discourage socioeconomic development in the area, which would likely occur if the marina and additional recreational facilities were not constructed.
- It will not allow for increased recreational opportunities associated with the construction of the marina and additional recreational facilities for local residents.
- The City of The Colony is known as the 'City by The Lake'. The lack of the marina would not allow another community attribute that is in keeping with what they are known for.
- The Tribute community and surrounding area would not have access to a marina and benefit from having this recreational amenity in close proximity.
- Suntex, the proposed marina operator, would not add to The Colony's economy.

3.0 EXISTING ENVIRONMENT

Wynnewood Park is located on the eastern shore of Lewisville Lake in the City of The Colony, Texas (Appendix A, Sheet 1). Lewisville Lake is located in the southern portion of Denton County in north central

Texas and is within the Trinity River Basin along the Elm Fork of the Trinity River (USACE 1999). Wynnewood park is approximately 600 acres.

Approximately 30,000 acres of land surrounding Lewisville Lake are under the jurisdiction of the USACE (USACE 1999). A description of land use types and the overall land use allocation/classification system is provided in the 1999 PEA. The land within Wynnewood Park is designated for intensive recreation uses and has not changed since 1999. The proposed marina fits within the intensive recreation designation.

The existing Wynnewood Park consists of the following elements:

3.1. Parks – Amenities in Existing Recreational Areas

a) Nature trail (6.3 miles)

b) Golf courses (2)

3.2. Habitable Structures

a) 36,000 sf Clubhouse

3.3. Physical Resources

A description of the topography and soils is included in the 1999 PEA. The topography and soils have not changed significantly since 1999.

3.4. Water Quality

The Clean Water Act, as amended in 1977, established the basic framework for regulating discharges of pollutants into surface waters. Section 303(d) of the Clean water Act authorizes the Environmental Protection Agency (EPA) to assist in listing impaired waters and developing Total Maximum Daily Loads (TMDLs) for waterbodies. A TMDL establishes the maximum amount of a pollutant allowed in a waterbody and serves as the starting point or planning tool for restoring water quality. Based on a review of the 2020 Texas Integrated Report - Texas 303(d) List, dated May 12, 2020, published by the Texas Commission on Environmental Quality (TCEQ), Lewisville Lake is not listed as an impaired water. A stormwater pollution prevention plan (SWPPP) would be required to remain in compliance with National Pollution Discharge Elimination System (NPDES) standards and permits. The Construction General Permit (CGP) TXR150000, issued March 5, 2018, would apply for the proposed project. Given the acreage of the anticipated disturbance (greater than five acres), the proposed project would be considered a large construction activity. Therefore, a notice of intent (NOI) will also be required to be submitted to the TCEQ. A SWPPP will be prepared that will identify and include appropriate best management practices that the contractor will be required to maintain and implement. A SWPPP has not been developed to-date. A NOI will be prepared and submitted to the TCEQ by the contractor for the proposed project.

3.5. Aquatic Resources

A description of the aquatic resources in Lewisville Lake was discussed in the 1999 PEA. The water class condition at the proposed site is listed as medium/open according to the PEA. The littoral zone within the proposed project area is limited due to erosion. Limited aquatic vegetation and nursery habitat were observed at the site that would be conducive to spawning and rearing of aquatic organisms.

Lewisville Lake was the only jurisdictional water observed on-site. The normal pool elevation of the lake is 522 msl and is approximated by the ordinary high-water mark (OHWM) (USACE 1999).

A bathymetric survey for the proposed location of the marina was conducted August 2017 and has recently been updated. The underwater elevations are illustrated on Sheet 2 and Sheet 3 in Appendix A.

3.6. Wetlands

A jurisdictional wetland determination for the project site was not conducted for the 1999 PEA (USACE 1999). A site visit was conducted on April 18, 2020 to evaluate the limits of jurisdictional wetlands on-site. No wetlands, according to the 1987 manual, were observed in the project area. Jurisdictional waters on-site are limited to Lewisville Lake.

3.7. Floodplains

Floodplain management around Lewisville Lake is discussed in the 1999 PEA. The USACE requires that there be no net loss of flood storage at Lewisville Lake. Therefore, any fill placed within the 100-year floodplain as a result of project construction must be mitigated with excavation in another area of the floodplain with disposal above flood pool elevation of 537 msl in an area approved by the USACE.

3.8. Air quality

The Clean Air Act (CAA) is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants. In addition, the EPA is responsible for designating areas as meeting (attaining) or not meeting (non-attainment) the NAAQS. The EPA has set NAAQs for the following six criteria pollutants: ozone (O3), particulate matter (PM2.5, PM10), nitrogen dioxide (NO2), carbon monoxide (CO), sulfur dioxide (SO2), and lead (Pb). The proposed project is located in Denton County. According to the Dallas-Fort Worth area counties attainment status list within the Texas State Implementation Plan (SIP), published by the TCEQ, Denton County is in nonattainment for ozone. The TCEQ has adopted the EPA's NAAQS as criteria pollutants for Texas. The General Conformity Final Rule (40 CFR Part 51) specifies criteria or requirements for conformity determinations for federal projects. The General Conformity Rule ensures that the actions taken by federal agencies in nonattainment and maintenance areas do not interfere with a state's plans to meet national standards for air quality. The SIP is the state's comprehensive plan to clean the air and meet federal air quality standards.

3.9. Noise

Noise sources and existing ambient noise measurements were included in the 1999 PEA.

3.10. Vegetation

A description of the vegetation communities around Lewisville Lake is provided in the 1999 PEA. The current area is undeveloped with the majority of the project area consisting of maintained grasslands bordered by stands of medium to large native tree species.

3.11. Wildlife

A description of wildlife in the Lewisville Lake area is provided in the 1999 PEA. Wildlife anticipated to utilize this area are species commonly associated with 'park-like' habitats or those habitats regularly utilized and impacted by human activities associated with recreation such as picnicking, hiking, etc.

3.12. Threatened and Endangered Species

A discussion of threatened and endangered species in the Lewisville Lake area is included in the 1999 PEA. The Endangered Species Act of 1973 provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. Section 7 of the ESA requires federal agencies, in consultation with the U.S. Fish and Wildlife Service (USFWS), to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. The ESA also prohibits any action that causes a "taking" of any listed species.

The USFWS Information for Planning and Consultation (IPaC) online tool to obtain a list of species listed as threatened or endangered that may be present near the project area. According to the review process, the USFWS receives the report at the same time it is generated by the inquiring party. The list of threatened and endangered species compiled by the USFWS on the IPaC online tool for Denton County, Texas includes three species; however, two of these species should only be considered in an effects analysis for wind energy projects. The USFWS lists the Piping Plover (*Charadrius melodus*), Red Knot (*Calidris canutus rufa*), and Whooping Crane (*Grus americana*) as potentially occurring in Denton County, Texas. The IPaC Official Species List is provided in Appendix C.

3.13. Cultural Resources

The area proposed for construction in the Proposed Action was surveyed for cultural resources in February of 2008 by AR Consultants, Inc. A records search research did not reveal any historic or prehistoric cultural resources in the study area but did indicate that the entire tract had been surveyed for archaeological sites and none were found. No archaeological resources were found on the surface of the 26-acre survey area and shovel-testing failed to locate any buried cultural resources. The absence of historic occupation is attributed to land use as farmland. Likewise, it appears that the immediate area was not occupied prehistorically. A copy of the archaeological survey report is provided in Appendix D.

3.14. Socioeconomic Conditions

Lewisville Lake is located in southeastern Denton County and serves as a water supply, flood control, and recreational resource for the DFW metropolitan are. The socio-economic resources of Lewisville Lake are described in more detail in the 1999 PEA.

3.15. Recreation

Recreational opportunities around Lewisville Lake include numerous water-related activities, nature-focused activities, and team sports. A more detailed analysis of recreational opportunities is included in the 1999 PEA.

3.16. Potential Hazardous, Toxic and Radioactive Waste Concerns

A description of the hazardous, toxic and radioactive waste assessment is provided in 1999 PEA. Additionally, REED Engineering Group, Inc. performed a Phase I Environmental Site Assessment (ESA) for the Wynnewood Peninsula on November 14, 1997 and also performed an updated Phase I ESA as documented in a report dated February 10, 2006 (Appendix E).

3.17. Aesthetics

While there are no federal policies regarding aesthetics, it is USACE policy to establish architectural themes for facilities on project lands so that they blend with the existing views to the extent practicable. Any facilities or structures proposed to be located within the Lewisville Lake project area are required to blend in like manner with existing structures or in compliance with Lake/Park architectural themes. The existing views in the lake vicinity are described in the 1999 PEA.

4.0 IMPACTS

4.1. Physical Resources

No Modification Alternative: According to the 1999 PEA, minor impacts to topography and soils are expected from the No Modification Alternative (USACE 1999). Additionally, the 1999 PEA did not identify any farmlands within the proposed development area; thus, impacts to farmlands are not anticipated.

Proposed Action: The proposed marina and associated features would be situated on approximately 11 of the 194 acres of Wynnewood Park leased by the City of The Colony, and subleased to a developer and marina operator. The site topography will require minimal changes to prepare pad sites needed for the construction of buildings and associated facilities. Equally, soil alteration will be in the form of necessary grading and construction and is anticipated to be minimal. Deep soil disturbance is not expected as a result of the proposed project with the only potential exception being water injection of the site per the geotechnical report. No dredging is proposed at the marina location, therefore it would not involve removal of accumulated sediments resulting in no changes to the topography below the normal pool elevation. Changes in topography would not result in any net decrease in flood storage (i.e., below the 537' elevation).

No Action Alternative: The No Action Alternative would result in no impacts to physical resources (i.e., over the baseline).

4.2. Water Quality

No Modification Alternative: According the 1999 PEA, the proposed development would result in temporary adverse impacts to water quality during construction due to sediment. Soil erosion, sedimentation, siltation, and runoff of pollutants from parking areas were identified as the primary impacts from operation of the proposed marina (USACE 1999).

Proposed Action: The 1999 PEA

The 1999 PEA concluded that there was a potential for temporary adverse impacts on surface water quality associated with construction, and caused by erosion, sedimentation, and siltation. These impacts were considered short-term in nature. The recommended plan includes construction of a marina and

associated facilities similar to the originally proposed plan. The floating marina structure would impact approximately 15-acres.

BMPs will be utilized during construction of the walkways to the proposed marina to prevent discharge of dredge or fill materials into waters of the U.S. These BMPs would likely include a combination of the following: sediment socks, silt fencing, vegetative buffer strips, temporary seeding, or sodding. These BMPs would prevent discharges of dredge or fill material into waters of the U.S. and would reduce the impact of sediments being transported into the lake from disturbed areas during rainfall events.

The proposed fuel dock has the potential to result in impacts to water quality through fuel spills. It is likely that some fuel will drip into the water at the fuel dock. This would result in reduced water quality in the vicinity of the dock. However, the fuel dock would have specific safeguards in place to prevent large spills. These safeguards would include small spill kits, a shut-off valve, and a phone for emergencies. In the event of a fuel spill (i.e. larger than dripping), a spill response plan would be implemented to contain and clean-up the spill using small; absorbent booms. In the event of an actual emergency relating to a fuel spill, the phone would be available to call local fire/emergency responders.

Landscape maintenance at the marina also has the potential to result in localized effects to water quality, in the form of herbicide/pesticide application and runoff into the lake. Groundwater impacts due to herbicide/pesticide application are considered unlikely due to the fact that no deep disturbance is anticipated as part of the proposed project.

No change in impacts to groundwater as detailed in the 1999 PEA is expected as a result of the proposed project.

Section 402 of the Clean Water Act and Chapter 26 of the Texas Water Code require construction projects involving ground disturbing activities greater than one acre to develop and implement a SWPPP. The SWPPP shall include both narrative and exhibits. The SWP3 narrative will describe at minimum the following: description of the project and construction activities, potential pollutants and sources, pollution control measures (structural and non-structural), best management practices, schedule or sequence of major construction activities, temporary and permanent stabilization methods at disturbed areas, requirements for notifications (i.e. NOI, NOT, MS4). The SWPPP exhibits shall include project vicinity map, site including drainage patterns, approximate slopes anticipated at the finished site, limits of clearing and grubbing, areas of soil disturbance, surface water flow direction, locations and type of structural and non-structural storm water control devices, areas to receive stabilization practices, and construction detail drawing of each structural control device.

During the installation of The Tribute Marina, contractors will utilize various equipment to get dock sections into the water and to set the concrete anchor blocks. The equipment that will come into contact with the water will include a barge with an outboard motor to move material and crew around the site to install sections of each dock and to make all bolted connections. A more specialized barge will be used to set the anchor blocks via a winch to lower each anchor block into the location required by the anchor plan. As a general rule, these anchors are lowered vertically from just below the surface of the water to rest on the lake bottom. There will be minimal disruption to the lake bottom in the setting of the anchor blocks, and there will be no other disruption to the lake bottom from the installation of the entire marina. It is possible that we will need to put a reach lift or other piece of equipment on a barge to

position dock sections, but that is not the current plan. There is no plan to have any other equipment on the lake or in contact with the lake that could adversely impact water quality.

Tribute Marina employees will be trained on all containment BMPs (fuel, waste, grey water, cleaning supplies, etc.). Documentation of these BMPs are found in the Tribute Marina Operations Training Manuals.

No Action Alternative: The No Action Alternative would result in no impacts to water quality (i.e., over the baseline condition).

4.3. Aquatic Resources

No Modification Alternative: The No Modification Alternative would result in temporary adverse impacts during the construction phase. However, these adverse impacts are anticipated to be short term and any displaced aquatic organisms would return and their habitats restored after the completion of construction (USACE 1999).

Proposed Action: The 1999 PEA concluded that the construction of water surface and subsurface projects (e.g., wet slips, boat ramps, courtesy docks, floating structures, etc.) would result in temporary adverse impacts during the construction phase of the projects, but these impacts were anticipated to be short-term in nature (USACE 1999). The proposed plan includes construction of a similar sized marina structure to the originally proposed structure and would result in temporary adverse impacts during the construction phase of the project. Temporary impacts would include minor increased turbidity in the vicinity of the disturbance and displacement of aquatic organisms during the construction process. Floating boat slips will provide structure and shade for bait and game fish.

It is anticipated that any displaced aquatic resources would return and reestablish after project construction was complete. Significant long-term impacts to these resources are not anticipated as a result of the proposed project. The area of temporary impacts associated with construction of the marina structure would encompass approximately 29 acres of medium/open water (water class condition according to the PEA).

It is reasonable to expect that increased boat traffic could result in long term turbidity and wave action induced erosion; however, these issues can be mitigated for with the use of best management practices. The project will include the establishment of a no-wake zone in the vicinity of the marina. Figure 2 below shows the no-wake zone (depicted in red).

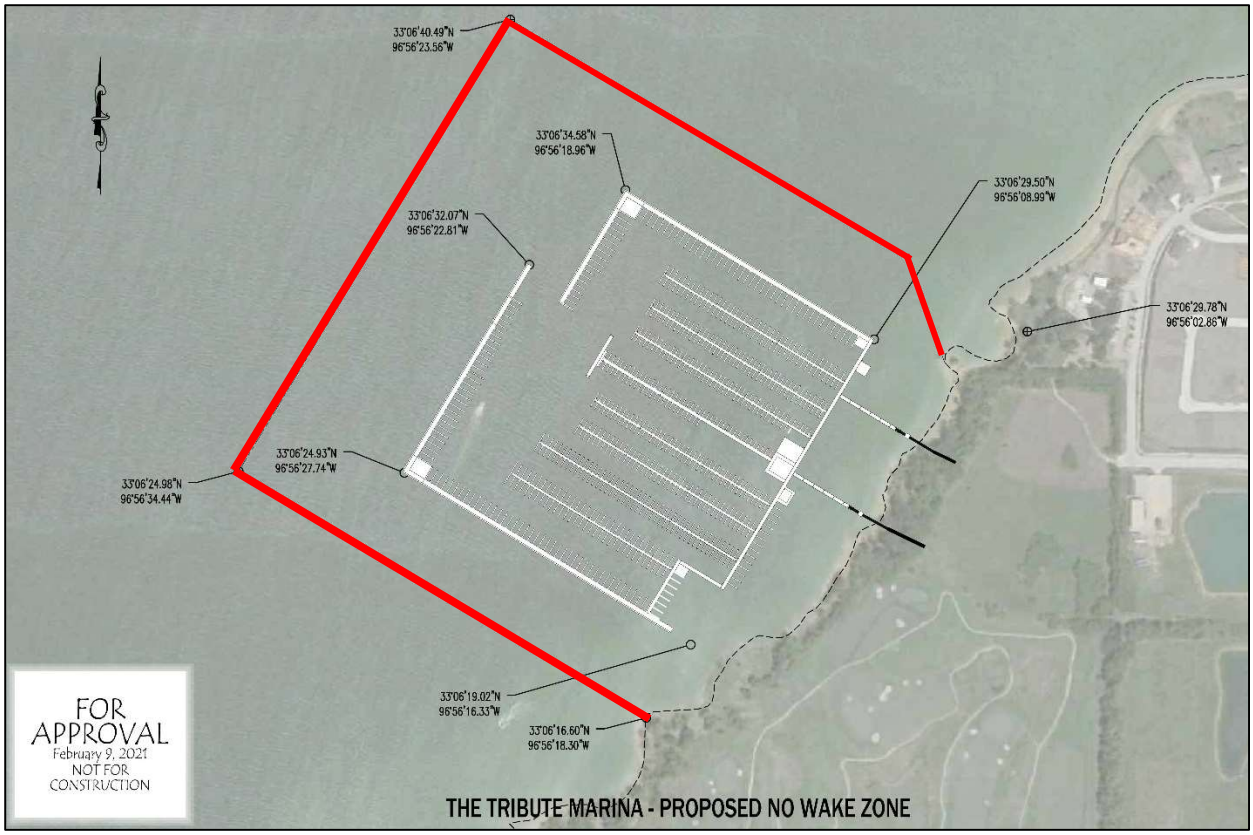


Figure 2. No-Wake Zone.

In addition to establishing a no-wake zone, attenuator docks that will run the full exposed perimeter of the docks (three sides of marina) has been implemented into the design of the marina. Based on a wave study performed at the marina location, wave heights vary from 1.4 feet from the north to 3.4 feet from the west or from the west/southwest. Based on design parameters of the attenuator docks, wave heights will be reduced to a range of 0.02 feet for waves from the north/northwest to a maximum of 0.93 feet for waves from the west. Therefore, the attenuator docks will not only protect the interior docks, but they will also protect the shoreline from wave action to which the shoreline would otherwise be exposed. Wave action that reaches the shore in "the shadow" of the marina will be significantly mitigated by the attenuator dock sections and then further mitigated by the docks inside of the attenuator docks.

A buoy plan will be prepared and submitted as part of the construction permit application documents. This plan will detail the types and locations of buoys.

The establishment of the no-wake zone, the use of attenuator docks, and buoys will prevent shoreline erosion. In addition to the no-wake zone, attenuator docks, and buoys, a rock revetment plan for erosion control in the northern corner of the park site will be included as part of the marina and park plan submission.

No Action Alternative: The No Action Alternative would result in no impacts to aquatic resources (i.e., over the baseline condition).

4.4. Wetlands

No Modification Alternative: Based on the 1999 PEA, the No Modification Alternative would potentially result in impacts to wetlands in the lake and on the shore of Lewisville Lake (USACE 1999). However, the PEA also stated that site-specific surveys (i.e. wetland delineation – jurisdictional determination) would be necessary to determine if wetlands were present at the time/location that impacts would occur.

Proposed Action: No jurisdictional wetlands, according to the USACE 1987 Manual, were observed in the project area (USACE 1987). The only water of the U.S. in the project area is Lewisville Lake. Other than the concrete bulkheads to which the two gangways will be attached, the floating marina has no requirement for equipment to be installed on the shore. The anchor plan includes a total of 318 anchor blocks. Each anchor block has a volume no greater than three cubic yards. These anchor blocks will be set on the lake bottom with stainless steel cable run to a winch for each anchor block that are mounted on the floating dock. An anchor design plan is provided in Appendix B.

No impacts to any waters of the U.S. are expected, other than impacts described above to the lake. Impacts would consist of turbidity, etc., associated with construction. Impacts to waters of the U.S. (the lake) are being reviewed by the USACE Fort Worth District Regulatory Division as part of the USACE permitting process under Section 404 of the Clean Water Act. Preliminary discussions with the USACE Regulatory Division indicate the project can likely be authorized by a regional general permit for modification and/or alteration of Corps of Engineers projects and associated regulated activities (CESWF-20-RGP-12). It is understood that construction of the in-water portion of the project cannot occur until USACE authorization is achieved.

No Action Alternative: The No Action Alternative would not result in any impacts to wetlands as no development or construction would take place.

4.5. Floodplains

No Modification Alternative: Based on the PEA, the No Modification Alternative would not result in any significant adverse impacts to floodplains (i.e. storage or conveyance) since this is strictly regulated by FEMA and the USACE to ensure that any fills in the floodplain are mitigated through excavation (USACE 1999).

Proposed Action: No fill below the 522’ msl will occur with the proposed action. Any fill between 537’ msl and 522’ msl will be balanced on-site with cut and fill activities. No net loss of flood storage at Lewisville Lake would occur under the proposed action.

No Action Alternative: No impacts to floodplains would result from the No Action Alternative as no development or construction would take place.

4.6. Air Quality

No Modification Alternative: The No Modification Alternative would not result in significant or substantial air emission sources increases on a regional basis, since lake users were assumed to visit the lake via other facilities whether the proposed marina was constructed or not. Localized effects at the marina location from concentrated automobiles and boats would be expected (USACE 1999).

Proposed Action: Impacts to air quality would be primarily related to boat motor and automobile emissions associated with the marina facility. Implementation of the proposed action would not likely involve additional air pollution emission sources from those assessed in the PEA, since the proposed project would only allocate slips from another marina in the same zone as the proposed project (USACE 1999). Although increased vehicle and boat traffic in the immediate area would occur, the proposed project will not increase the number of boat-slips on the lake above the numbers already analyzed in the PEA. Since the overall traffic to and on the lake is not expected to increase, no significant cumulative impact to air quality is expected as a result of the proposed project.

During the installation of The Tribute marina, contractors will utilize various equipment on land to unload trucks and prepare dock sections to be placed into the water. For most installations, this equipment is limited to a reach lift to unload trucks and get units into the water. Due to very limited access to the shore at the site of The Tribute, a rail system will be utilized to move the dock units from the higher ground, down the slope and into the water. It is possible that a reach lift or other piece of equipment will be required to be placed on a barge to position dock sections, but this is not currently anticipated. Barges on the lake that are powered by outboard motors will also be utilized. Other than the diesel-powered reach lift and the gasoline-powered outboard motors on the barges, other equipment or activities that are expected to have an adverse impact on air quality will not be part of the project.

There will not be any permanent air emissions associated with the proposed project. Temporary air quality impacts may occur during construction activities associated with heavy construction equipment emissions and dust dispersal. It is anticipated that these will be minor and temporary in nature. Best management practices will be implemented to minimize the temporary minor impacts. Suggested best management practices include watering down construction areas to limit dust, minimize running times for fuel-burning equipment, and properly maintaining engines for construction equipment. Therefore, the proposed project would not result in significant air quality impacts. Air emissions from the project will fall at or below de minimis levels; therefore, further efforts pertaining to the General Conformity Final Rule will not be required.

No Action Alternative: The No Action Alternative would result in no impacts to air quality (over the baseline).

4.7. Noise

No Modification Alternative: Increased levels of noise in the vicinity of the marina would be expected under the No Modification Alternative, although no significant impacts were expected (USACE 1999).

Proposed Action: Noise impacts from the proposed project would be primarily related to automobile and boat motor noise at the marina. It is also anticipated that the outdoor stage may result in increased noise during concert events and other possible outdoor functions (e.g., fireworks displayed around holidays, etc.). The PEA did not anticipate the proposed project would result in significant noise impacts.

No Action Alternative: Under the No Action Alternative, no additional noise impacts (i.e., over the baseline trend) would be expected.

4.8. Vegetation

No Modification Alternative: Based on the 1999 PEA, the No Modification Alternative, would not result in impacts to wooded or wetland habitats. However, minor impacts to vegetation would include temporary and permanent disturbance from construction (USACE 1999). The No Modification would be anticipated to have similar impacts on vegetation as the Proposed Action.

Proposed Action: Due to the nature of the proposed action, some of the actions involve impacts to previously undisturbed vegetation. The recommended plan has minimized impacts to the undisturbed wooded area to the greatest extent possible by locating the majority of the features within the maintained grasslands. Due to periodic maintenance and previous disturbance, impacts to vegetation by the majority of the activities proposed in the 1999 PEA were not considered significant. The increased impact to disturbed areas is considered minimal and impacts to vegetation as result of the recommended plan are not considered significant. Mitigation is focused on tree replacement as that was the most substantial impact. Personal communication with Mr. Marty Underwood, Environmental Stewardship Business Line Manager, indicated that a 1:1 replacement value would be sufficient for mitigation (personal communication by email, July 30, 2019). A tree inventory indicated that 497 trees could be preserved onsite, including 3,612 caliper inches. It was determined that the action would remove 535 trees, including 1,957 caliper inches. It was determined that only 60 of those trees, including 395.5 caliper inches needed to be mitigated. The proposed mitigation includes replacing the required caliper inches with 126 trees. Construction would not occur until a final mitigation plan is agreed to by the Corps. A preliminary plan will be reviewed and approved by The Colony prior to seeking Corps approval of the plan.

Table 2: Indicates the impacts and required mitigation associated with construction of the recommended plan.

SUMMARY		
TREE MITIGATION SUMMARY	TREE QUANTITY	CALIPER INCHES
TOTAL SITE TREE PRESERVED	497	3612"
TOTAL SITE TREE REMOVAL	535	1957"
TOTAL SITE TREES TO BE MITIGATED	60	395.5"
TOTAL NEW SITE TREES	126	612"

The proposed detailed planning specifications are shown below in Figure 3.

TREE SCHEDULE

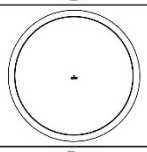
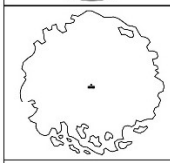
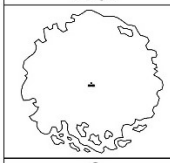
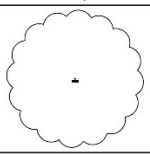
SYMBOL	ABBREVIATION	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	SPREAD	REMARKS/COMMENTS	QUANTITY	INCHES
TREES									
	ILE VOM	ILEX VOMITORIA	YAUPON HOLLY	4"	8'–10'	5'–7'	FULL, MULTI–TRUNK 3 CANES, MATCHING IN FORM AND CHARACTER.	49	196
	ULM AME	ULMUS AMERICANA	AMERICAN ELM	6"	16' MIN.	8'–10'	FULL, MATCHED CHARACTER IN FORM AND CANOPY, SINGLE TRUNK TRUE CENTRAL LEADER, GRADE A MATERIAL.	5	30
	QUE MAC	QUERCUS MACROCARPA	BUR OAK	4"	14'–16'	6'–8'	FULL, MATCHED CHARACTER IN FORM AND CANOPY, SINGLE TRUE CENTRAL LEADER	23	92
	QUE SHU	QUERCUS SHUMARDII	SHUMARD OAK	6"	18'	10'	SPECIMEN, FULL, UNIFORM, AND MATCHING IN FORM AND CHARACTER. SINGLE, STRAIGHT CENTRAL LEADER.	23	138
	ULM CRA	ULMUS CRASSIFOLIA	CEDAR ELM	6"	16'	8'	FULL, MATCHED CHARACTER IN FORM AND CANOPY, SINGLE TRUE CENTRAL LEADER	26	156
TOTAL								126	612

Figure 3. Planting Specifications.

A tree mitigation plan is provided in Appendix B.

No Action Alternative: The No Action Alternative would not result in impacts to vegetation communities.

4.9. Wildlife

No Modification Alternative: The No Modification Alternative would be expected to result in similar impacts to the Proposed Action Alternative described below.

Proposed Action: Although increased activity in the park may result in displacement of wildlife, this effect is expected to be minor given that the project area is already in use as a golf course and nature park with regular use by people with automobiles, golf carts, bikes and boats. Temporary displacement of birds and small mammals would be offset by proposed mitigation and existing nearby habitat.

No Action Alternative: The No Action Alternative would not result in impacts to wildlife (i.e., above the baseline condition).

4.10. Threatened and Endangered Species

No Modification Alternative: Based on the 1999 PEA no adverse impacts to threatened and endangered species were anticipated (USACE 1999). The No Modification Alternative is located within the same limits as the Proposed Action. See following species-specific discussion for the Proposed Action Alternative.

Proposed Action: Kimley-Horn utilized the USFWS IPaC online tool to obtain a list of species listed as threatened or endangered that may be present near the study area to assist in the assessment of the site. According to the review process, the USFWS receives the report at the same time it is generated by the inquiring party. The list of threatened and endangered species compiled by the USFWS on the IPaC online tool for Denton County, Texas includes three species that should be considered in an effects analysis; however, two of these species should only be considered in an effects analysis for wind energy projects, as noted in the USFWS IPaC Official Species List in Appendix C. Table 3 includes the species listed.

Table 3: Federally listed threatened and endangered species for Denton County, Texas.

Scientific Name	Common Name	Listing status	Conditions
Birds			
Charadrius melodus	Piping Plover	Threatened	Wind Energy Projects
Calidris canutus rufa	Red Knot	Threatened	Wind Energy Projects
Grus americana	Whooping Crane	Endangered	N/A

According to the IPaC Official Species List, the Piping Plover and the Red Knot should only be considered in the effects analysis only for wind energy projects; therefore, it is our opinion that the Piping Plover and Red Knot should not be considered in the effects analysis. Suitable habitat for the whooping crane was not identified within or near the site. Thus, no adverse effect to the whooping crane is anticipated. According to the IPaC species list, no critical habitats are located within the study area. If endangered species are observed during construction, activities would immediately cease and the USACE and USFWS would be notified in accordance with the Endangered Species Act. Based on these measures, the proposed project is not anticipated to impact any listed species.

No Action Alternative: The No Action Alternative would result in no impacts to threatened or endangered species.

4.11. Cultural Resources

No Modification Alternative: Although no impacts to cultural resources are expected from the No Modification Alternative, the No Modification location has not had a full archeological survey above the 532' elevation contour. The area proposed for construction in the Preferred Alternative was surveyed for cultural resources in February of 2008 by AR Consultants, Inc., and no cultural resources were identified. Based on the results of that survey, a determination was made that no historic properties were present, and the proposed project would have no effect on historic properties. The Texas State Historic Preservation Officer (SHPO) concurred with that determination. The Proposed Action would not result in impacts to cultural resources. A copy of the archaeological survey report is provided in Appendix D.

Proposed Action: The area proposed for construction in the Preferred Alternative was surveyed for cultural resources in February of 2008 by AR Consultants, Inc., and no cultural resources were identified. Based on the results of that survey, a determination was made that no historic properties were present, and the proposed project would have no effect on historic properties. The Texas SHPO concurred with that determination. The Proposed Action would not result in impacts to cultural resources. A copy of the archaeological survey report is provided in Appendix D.

No Action Alternative: The No Action Alternative would not result in impacts to cultural resources.

4.12. Socioeconomic Conditions

No Modification Alternative: The No Modification Alternative would be anticipated to have overall similar impacts (i.e., beneficial economic impacts and adverse impacts related to increased traffic and wear on infrastructure) to the local socioeconomic conditions than the Proposed Action Alternative. Since the No Modification Alternative would result in a similar footprint to the Proposed Action, the socioeconomic effects would be expected to be slightly less than the Proposed Action Alternative.

Proposed Action: In combination with future recreational development around Lewisville Lake, the 1999 PEA concluded that the proposed project should continue to have positive impacts to the area's socioeconomic resources.

No Action Alternative: The No Action Alternative would not result in socio-economic conditions beyond the baseline.

4.13. Recreation

No Modification Alternative: The No Modification Alternative would have similar types of impacts to the Proposed Action Alternative with regard to recreation on the lake. The overall intensity of the impacts would be expected to be similar to the Proposed Action.

Proposed Action: The 1999 PEA concluded that beneficial impacts on recreation were expected with the implementation of the originally proposed project. No noteworthy change in the type of recreation is foreseen in the proposed action. Enhancement of many on-site recreational amenities will occur with the recommended plan. A list of any on-site amenities that have to be removed due to the proposed action will be submitted with the final construction plans. The marina is not expected to hinder access to the upper end of the cove since the marina structure would not extend to the centerline of the cove, which is the deepest portion of the cove.

No Action Alternative: The No Action Alternative would not be expected to have an effect on the recreation opportunities at Lake Lewisville above the baseline conditions.

4.14. Potential Hazardous, Toxic and Radioactive Waste Concerns

No Modification Alternative: The impacts to the No Modification Alternative with regard to hazardous, toxic, and radioactive wastes (HTRW) would be similar to the Proposed Action Alternative (i.e., no impacts are anticipated).

Proposed Action: Based on the studies and evaluations conducted in the 1999 PEA, and past land uses in the project area (e.g., agricultural and parkland), the proposed project is not anticipated to result in any significant impacts to HTRW sites. Since no land use changes have occurred on the property with regard to HRTW, no impacts are anticipated as a result of the proposed project.

No Action Alternative: The No Action Alternative would not be expected to result in any impacts with regard to hazardous, toxic, and radioactive wastes.

4.15. Aesthetic Concerns

No Modification Alternative: The impacts of the No Modification Alternative with regard to aesthetics were not expected to be significant, although it was noted in the PEA that this issue varies as does the general public (USACE 1999).

Proposed Action: The proposed project involves new facilities which would be viewable from parts of the lake and shoreline. Implementation of the proposed project is not anticipated to cause significant adverse aesthetic impact.

No Action Alternative: No impacts to the aesthetic condition are anticipated under the No Action Alternative.

5.0 CUMULATIVE IMPACTS

Cumulative impacts are assessed by adding the likely effects of other past, present, and reasonably foreseeable actions in the immediate area to the impacts related to the recommended plan.

On-going or future projects in the area would include:

- Residential developments (particularly on the east side of the lake)

In discussing cumulative impacts, it is also important to note that no more marinas are planned for Lewisville Lake (i.e., other than those allowed in the 1999 PEA). Additionally, the number of boat slips for marinas was determined in the 1999 PEA, in accordance with the findings of the Water-Related Recreation Use Study. Therefore, the overall number of boats in a given zone of the lake is not expected to increase above levels prescribed and discussed in either the 1999 PEA (USACE 1999) or the Water-Related Recreation Use Study (USACE 1998).

5.1. Physical Resources

Implementation of the Proposed Action is not expected to have any cumulative impacts to topography, geology, or soils since known past, present, and future actions involve shallow, superficial grading.

5.2. Water Quality

Much of the area on the east side of Lewisville Lake has been developed, mostly with residential construction. Although these types of projects are known to have an impact on water quality, primarily through the introduction of the sediment, the entities constructing these developments are governed by the Texas Pollution Discharge Elimination System (TPDES). TPDES requires the use of BMPs, under a maintained stormwater pollution prevention plan, to reduce the potential effect of sediment and other pollutants.

Although implementation of the proposed project would result in minor temporary adverse impacts to water quality during construction phases, these impacts would be short-term in nature and would be minimized by the use of BMPs and the incorporation of an erosion and sediment control plan as well as spill prevention, control and countermeasure plans, also under the direction of TPDES (USACE 1999).

5.3. Aquatic Resources

The lake is controlled by the USACE; thus, it is unlikely that multiple projects with intense effects on aquatic resources would be occurring on the lake at the same time. Additionally, there are adjacent aquatic resources that would not be affected by the proposed project or any foreseeable actions. These habitats are available to aquatic organisms that might be displaced by the proposed project activities. Any displaced aquatic resources are anticipated to return and reestablish after the project construction is complete.

5.4. Wetlands

The only waters of the U.S. known to be within the project area is Lewisville Lake. No wetlands were observed or delineated within the project boundaries. Therefore, no cumulative impacts to wetlands are expected as a result of the proposed project. Additionally, the impacts to Lewisville Lake are expected to be short-term, temporary, and self-mitigating.

5.5. Floodplains

Implementation of the proposed actions must comply with current floodplain regulations and standards, in that there must be no net loss of flood storage (USACE 1999). Since the proposed project, as well as surrounding developments, must meet this standard, no significant cumulative impacts to floodplains are anticipated.

5.6. Air Quality

Implementation of the proposed action would not likely involve additional air pollution emission sources from those assessed in the PEA, since the proposed project would only allocate slips from another marina in the same zone as the proposed project (USACE 1999). Although increased vehicle and boat traffic in the immediate area would likely occur, the proposed project will not increase the number of boat-slips on the lake above the numbers already assessed in the PEA. Since the overall traffic to and from the lake is not expected to increase, no significant cumulative impact to air quality is anticipated as a result of the proposed project. On-going and future residential development in the area will continue to bring additional people and vehicular traffic into the areas east of the proposed project, which would result in increased emissions in the vicinity of the project.

5.7. Noise

Implementation of the proposed action has the potential to increase noise levels (i.e. automobile and boat engine noise) in the immediate project vicinity. However, the increase in noise would primarily be during daylight hours. Existing boat and automobile traffic and noise into the park already results in some boat engine noise and the potential increase in boat and automobile traffic would not raise the noise levels, although it might increase the duration, primarily during daylight hours. Given the recent completion of transportation routes, the ambient noise levels in the project area likely increased. Thus, cumulative impacts resulting from proposed project are not anticipated to be significant.

5.8. Vegetation

The proposed project would result in impacts to a previously disturbed area with limited impacts to the shoreline. Although the surrounding areas are experiencing residential development and construction,

which impacts vegetation communities, the cumulative impacts from the proposed project are expected to be insignificant based on the already disturbed nature of Wynnewood Park.

5.9. Wildlife

The proposed project would disturb approximately 11 acres of undeveloped habitat, much of which is regularly mowed or maintained. Surrounding residential development on the east side of Lewisville Lake is in the thousands of acres. Cumulatively, this project would result in an additional 11 acres of habitat disturbance to the thousands of acres of on-going habitat disturbance. Additionally, there will be approximately 170 acres of undeveloped habitat remaining within Wynnewood Park after the proposed project and these adjacent habitats would be available to displaced wildlife.

5.10. Threatened and Endangered Species

Implementation of the proposed project must comply with the Endangered Species Act. According to the USFWS IPaC Official Species List, the Piping Plover and the Red Knot should only be considered in the effects analysis only for wind energy projects; therefore, the Piping Plover and Red Knot should not be considered in the effects analysis. Suitable habitat for the third federally listed species identified on the IPaC Official Species List, the whooping crane, was not identified within or near the site. Thus, no adverse effect to the whooping crane is anticipated. According to the IPaC species list, no critical habitats are located within the study area. A copy of the USFWS IPaC Official Species List is provided in Appendix C. No impacts to listed species are expected as a result of the proposed project (USACE 1999). Additionally, impacts to currently listed species are considered unlikely from other projects and activities on-going or proposed for the east side of Lewisville Lake, due to the lack of suitable habitat.

5.11. Cultural Resources

Based on the results of an archeological survey at the Proposed Action location performed in February of 2008 by AR Consultants, Inc., a determination was made that no historic properties were present, and the proposed project would have no effect on historic properties. The Texas SHPO concurred with that determination. A copy of the archaeological survey report and SHPO concurrence is provided in Appendix D. The Proposed Action would not result in impacts to cultural resources. Therefore, it is determined that the implementation of the proposed project would have no significant cumulative impact on cultural resources.

5.12. Socioeconomic Conditions

Since no additional marinas are planned for the lake per the 1999 PEA, and the number of vessel allocations is not changing for the overall lake, or even within this zone, cumulative socioeconomic impacts are not expected to be noteworthy. Based on the level of residential and commercial development in the eastern Denton/western Collin County area, the cumulative economic effect of the proposed project is expected to be minor. The proposed project would be phased depending on economic conditions. The USACE “Lewisville Lake Future Water-Related Development Policy”, dated February 5, 1999 states that risk and responsibility for timing development to keep from exceeding demand ultimately rests with the operators, developers, and financiers who have the most exact understanding of changing market conditions. An economic feasibility study has been completed for this project and is under a separate cover.

5.13. Recreation

Implementation of the proposed project would increase the recreation opportunities in the rapidly growing residential area. Vessel allocations, within zones, are not changing with the proposed project. All proposed vessel/boat slips for the marina are consistent with those allocated in the 1999 PEA. Therefore, cumulative impacts related to recreation use of the lake is not expected to be significant.

5.14. Potential Hazardous, Toxic and Radioactive Waste Concerns

The proposed project would involve the introduction of a fueling dock to the project area. Additionally, users of the area would likely have other petroleum, oils, and lubricants in their personal vehicles and boats. However, the marina would have a spill prevention, control and countermeasures plan to reduce the potential impacts from these chemicals. Cumulative impacts would result from increased concentrations of vehicles and runoff from parking areas and traffic on the roads to the lake.

5.15. Aesthetic Concerns

The proposed action would be in a partially developed park with existing structures and disturbed areas. Additionally, the proposed facility would be built with materials specifically designed to reduce aesthetic impacts. Since the USACE controls the land along the shoreline of the lake, and development of these lands is limited, construction of other structures along the lake shore near Wynnewood Park is unlikely. Therefore, cumulative impacts to aesthetics are expected to be minimal.

6.0 MITIGATION

In addition to the measures discussed previously in this document (i.e., BMPs, etc.), the 1999 PEA specifies a mitigation calculation method for impacts to aquatic and terrestrial habitats on USACE property at Lewisville Lake. The total tree mitigation calculated for the proposed project is 126 trees, including 612 caliper inches (see Table 2). The PEA provides for two general mitigation options: on-site mitigation and payment in-lieu-of mitigation. For the proposed project, on-site mitigation would be used. Personal communication with Mr. Marty Underwood, Environmental Stewardship Business Line Manager, indicated that a 1:1 replacement value would be sufficient for mitigation (personal communication by email, July 30, 2019). Impacts to aquatic habitats are largely self-mitigating in the proposed project, given that it would not result in a loss of aquatic habitat. The proposed floating marina structure could provide additional structure for fish and aquatic invertebrates. The on-site mitigation plan would include one key component: native tree plantings in uplands within Wynnewood Park.

Upland plantings would consist of 126 container-grown trees within Wynnewood Park. These 126 trees will comprise 612 caliper inches and a diversity of native species. These plantings are detailed in Figure 3. The proposed mitigation would be implemented on a phased basis over 3 to 5 years depending on construction schedule. Each October, the impacts that have occurred since the previous October would be totaled and the appropriate amount of mitigation (per the 1999 PEA) for that year's impacts would be implemented (i.e., planted) within the next planting season. In addition to the features described above, the mitigation plan would include (at a minimum): Irrigation System for Upland Plantings. An irrigation system would be installed as the upland plantings are implemented to bolster success of the plantings. Success Criteria. Terrestrial plantings would meet an 80% survival criterion after three years. Monitoring. Annual monitoring reports would be submitted each October. These reports would include:

An accounting of the impacts that have occurred over the previous monitoring period. A brief plan detailing the mitigation that will be performed in the coming planting season would be produced.

7.0 AGENCY COORDINATION

The original PEA was sent to the following resource agencies for review and comment in accordance with coordination requirements as set forth by the NEPA: Texas Parks and Wildlife (TPWD); USFWS; Environmental Protection Agency, Region 6: the Texas Historical Commission; the Texas Natural Resources Conservation Commission, and the USACE Fort Worth District (USACE 1999).

8.0 PUBLIC INVOLVEMENT

Presentations were made to Tribute residents where the proposed park and marina were presented at the Tribute Annual Homeowners Association business meetings held on January 23, 2018 (139 members were in attendance), January 29, 2019 (212 members were in attendance), January 28, 2020 (207 members were in attendance), and January 26, 2021 meeting (316 were in attendance). The meeting in 2019 was also attended by representatives from the Lewisville office of USACE. The Tribute community is located adjacent to the Wynnewood Park. The purpose of these meetings included the presentation of the conceptual site plans for the park and marina and obtaining resident feedback. No issues or concerns were raised by the meeting attendees.

The City of The Colony's Planning and Zoning Commission and City Council will be holding public hearings on the park and marina in 1Q21. The City Council will consider and act on (1) the City's request for approval of a Special Use Permit overlay for the park changing the land use designation from Agricultural to Park and (2) the developer's request for approval of the Park and Marina Site Plan applications.

9.0 REFERENCES

Clean Water Act of 1977, 33 U.S.C. § 1251 et seq.

Endangered Species Act of 1973, 16 U.S.C § 1531 et seq.

Haralson, William L & Associates, Inc. March 25,2020. Market and Financial Feasibility Study for a Proposed Marina at the Tribute on Lake Lewisville in The Colony, Texas. 49pp.

National Environmental Policy Act of 1969, 42 U.S.C. § 4321 et seq.

Personal Communication. Marty Underwood, email, July 30, 2019.

President. Proclamation. "Protection of Wetlands." EO 11990. 42 FR 26961. May 25, 1977.

USACE. 1975. Environmental Impact Statement. Operations and Maintenance of Lewisville Dam and Lake. U.S. Army Corps of Engineers, Fort Worth District.

USACE. 1987. Corps of Engineers Wetland Delineation Manual. Wetland Research Program Technical Report, Y-87-1.

USACE. 1998. Water-Related Recreation Use Study on Lewisville Lake, Texas. U.S. Army Corps of Engineers, Fort Worth District.

USACE. 1999. Lewisville Lake Programmatic Environmental Assessment. U.S. Army Corps of Engineers, Fort Worth District.

USACE. 2000. Environmental Assessment for the Water-Related Recreation Development for Lewisville Lake. U.S. Army Corps of Engineers, Fort Worth District.

Appendix A

Location Maps

Legend

- Bathymetery
- Marina and Slips
- No Wake Zone
- Park
- Lake Elevation

0 500 1,000 2,000 Feet

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SHEET	DATE:	DRAWN:	CHECKED:	KHA NO.:
1	10/06/2020	MREA	LDC	064472201

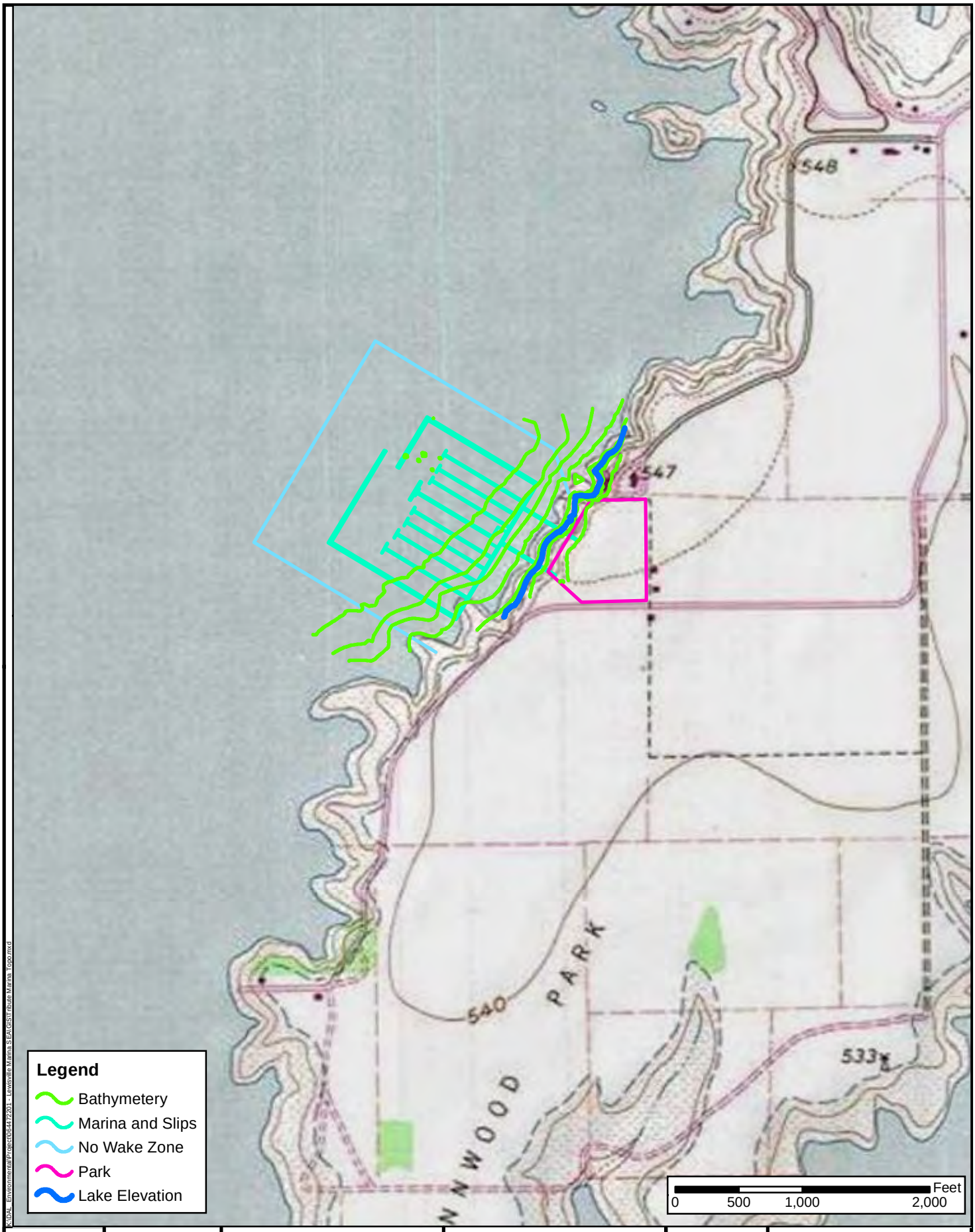
Vicinity Map

Source: Esri Basemap

Tribute Marina SEA

The Colony, Texas

Kimley»Horn



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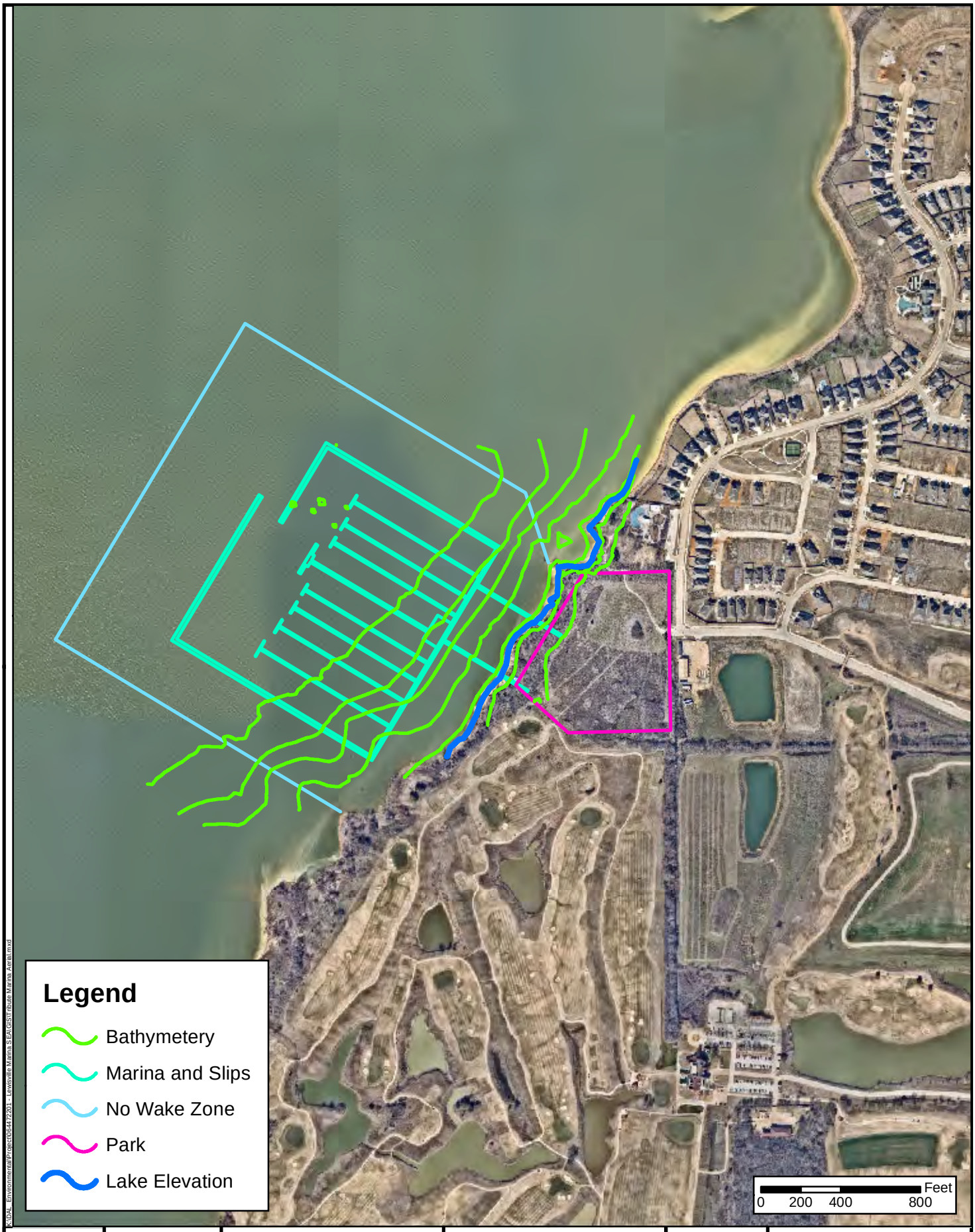
SHEET 2	DATE: 03/31/2020 DRAWN: MREA CHECKED: LDC KHA NO.: 064472201	USGS Topographic Map Quad Name: Lewisville East	Tribute Marina SEA The Colony, Texas	N	Kimley»Horn



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SHEET 3	DATE: 10/06/2020 DRAWN: MREA CHECKED: LDC KHA NO.: 064472201	Recent Aerial Aerial: Nearmaps, February 2020	Tribute Marina SEA The Colony, Texas	N	Kimley»Horn

Appendix B

Marina Park Layout and Plans

EXHIBIT C

LAKESIDE: PUBLIC PARK

01 DROP-OFF

02 GOLF CART PARKING

03 PLAZA SPACE

04 SAND VOLLEYBALL

05 PARK RESTROOMS / EMS EQUIPMENT STORAGE

06 PICNIC AREAS

07 MULTI-PURPOSE LAWN 36,000 SF

08 MULTI-USE EDUCATIONAL PAD FOR SPECIAL EVENTS (WITH ELECTRICAL

09 PARKING

10 MARINA CART STORAGE

11 GAS & DUMPSTER

12 LAWN GAME AREAS

13 FUTURE BUILDING PAD

14 TRAIL TO MARINA

15 PARKING ACCESS GATE

16 GRASS AREA/SPECIAL EVENT LAWN

17 GRASS AREA VEHICULAR ACCESS RAMP WITH GATE.

LANDSCAPE REQUIREMENTS

REQUIREMENT PER CITY OF THE COLONY SECTION 17-A LANDSCAPING	PROVIDED
STREET YARD LANDSCAPING : AT LEAST 20% OF ALL STREET YARDS SHALL BE LANDSCAPED USING THE RECOMMENDED PLANT LIST OF THE CITY.	TOTAL STREET YARD AREA = 331,186 SF REQUIRED PLANTING AREA = 66,237 SF TOTAL PLANTED AREA = 153,477 SF PLANTED AREA = 24,625 SF OPEN LAWN AREA = 128,852 SF
STREET YARD TREES: STREET YARDS GREATER THAN 110,000SF: 50 TREES PLUS 1 TREE PER 5000SF OVER THE INITIAL 110,000SF	TOTAL STREET YARD TREES REQUIRED = 95 TREES. TOTAL STREET YARD TREES PROVIDED = 260 TREES (196 EXISTING PROTECTED TREES TO REMAIN)
STREET TREES: PROVIDE 1 TREE PER 40LF OF FRONTAGE	TOTAL STREET FRONTAGE: 339 LF = 8 TREES TOTAL CANOPY TREES PROVIDED = 1 TREE. PRESERVE ALL EXISTING VEGETATION AT STREET FRONTAGE AS BUFFER SUBSTITUTION
EVERGREEN SHRUBS: PROVIDE 3 EVERGREEN SHRUBS FOR EVERY 10LF OF BUFFER.	TOTAL BUFFER: 324 LF = 101 SHRUBS REQUIRED EVERGREEN SHRUBS PROVIDED: 0 PRESERVE ALL EXISTING VEGETATION AT STREET FRONTAGE AS BUFFER SUBSTITUTION
PARKING: 90SF OF LANDSCAPING IS REQUIRED FOR EVERY 12 SPACES WITHIN A PARKING LOT LOCATED IN THE STREET YARD.	PARKING PROVIDED = 472 TOTAL PAVED PARKING SPACES – 209 PAVED PARKING SPACES – 113 GOLF CAR PARKING SPACES –(1 GOLF CAR SPACES=1 REGULAR CAR SPACE) PH.1 LANDSCAPE AREA REQUIRED = 2,415.00 SF. Prv. = 16005 SF PH.2 LANDSCAPE AREA REQUIRED = 1,125.00 SF. Prv. = 4745 SF

NOTE: LANDSCAPE PARKING REQUIREMENTS ARE SHOWN FOR THE PARKING BEING DEVELOPED ON THIS PARCEL AND DOES NOT INCLUDE THE 19 SPACES THAT ARE ON THE LAKESIDE POOL SITE TO THE NORTH.

swa

EXHIBIT C

PARKING TABULATIONS

PARKING REQUIREMENT	PHASE 1	PHASE 2	PARKING PROVIDED PHASE 1	PARKING PROVIDED PHASE 2
MARINA: 1 SPACE PER 3 SLIPS. NUMBER OF SLIPS 801	NUMBER OF SLIPS 399/3 = 133 SPACES REQUIRED	NUMBER OF SLIPS 402/3 = 134 SPACES REQUIRED	142 PAVED SPACES 25 GOLF CART SPACES	100 PAVED SPACES
PARK: 1 SPACE PER 3000sf PARK AREA 179,965/3000 =	60 SPACES REQUIRED		30 PAVED SPACES 30 GOLF CART SPACES	
LAKESIDE POOL AND DECK: 1 SPACE PER 3.75% OF DWELLING UNITS 3000x.0375 =	113 SPACES REQUIRED		56 PAVED SPACES (INCLUDES 19 EXISTING) 58 GOLF CART SPACES	
RESTAURANT: 1 SPACE PER 100sf AREA 5000/100 =		50 SPACES REQUIRED		50 PAVED SPACES
TOTAL SPACES PER PHASE	306 SPACES PHASE 1	184 SPACES PHASE 2	341 SPACES PHASE 1	150 SPACES PHASE 2
TOTAL SPACES	490 SPACES REQUIRED		491 PAVED SPACES PROVIDED	


01

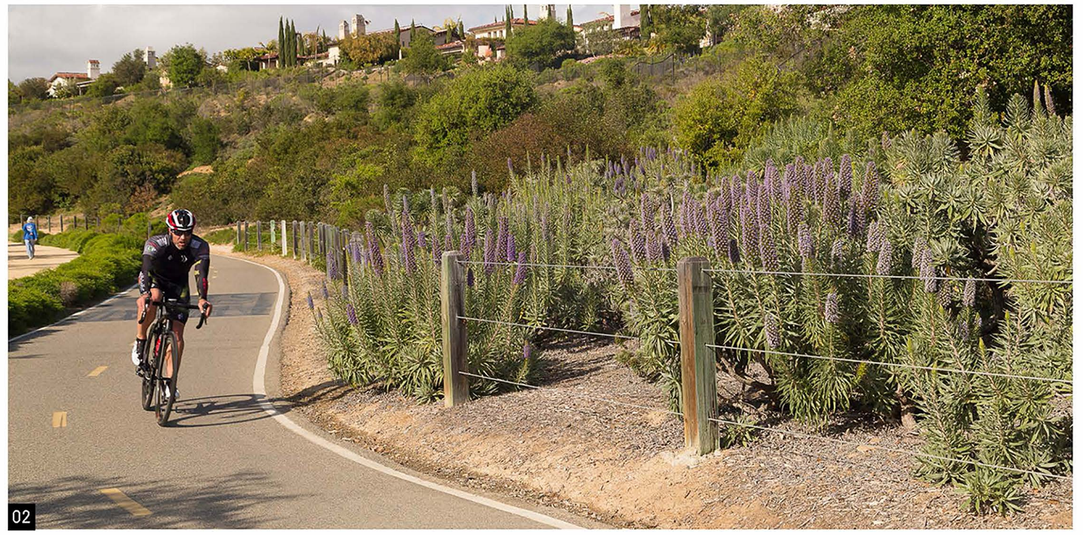
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EXHIBIT C

LAKESIDE: MARINA PARK

01 DROP-OFF
02 GOLF CART PARKING
03 PLAZA SPACE
04 SAND VOLLEYBALL
05 PARK RESTROOMS / EMS EQUIPMENT STORAGE
06 PICNIC AREAS
07 MULTI-PURPOSE LAWN
08 MULTI-USE EDUCATIONAL PAD FOR SPECIAL EVENTS (WITH ELECTRICAL)
09 PHASE 1 PAVED PARKING 209 SPACES & 113 CARTS
10 GRASS AREA/SPECIAL EVENT LAWN
11 GAS & DUMPSTER
12 MARINA PHASE 1 +/-399 SLIPS
13 MARINA PHASE 2 +/-402 SLIPS
14 FUTURE BUILDING PAD
15 FUEL DISPENSER DOCK
16 PARKING ACCESS GATE
17 GRASS AREA VEHICULAR ACCESS RAMP WITH GATE.
18 PHASE 2 PAVED PARKING 150 SPACES

***GENERAL NOTE:**
- *491 PAVED PARKING SPACES PROVIDED.
  - *341 PHASE 1
  - *150 PHASE 2

LAKESIDE PARK AND MARINA AT THE TRIBUTE

MARINA CORP AND PARK

MARINA CORP AND PARK AT TRIBUTE
LOTS 01, BLOCK A

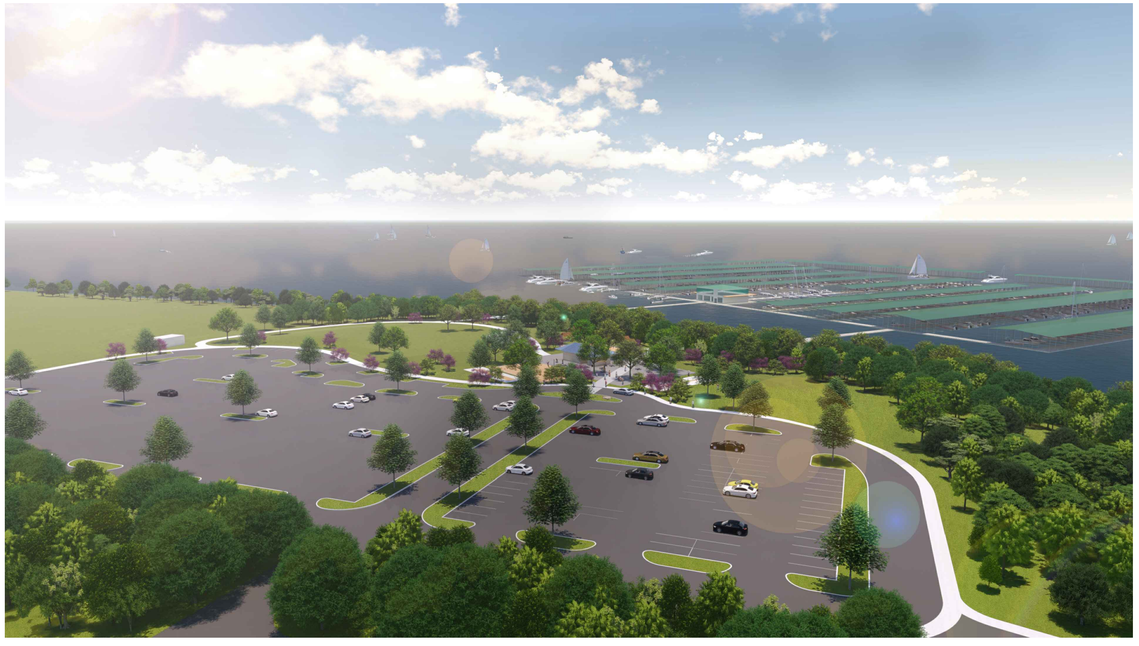
A PROJECT OF
TRIBUTE PARTNERS, L.P.

LEWISVILLE, TEXAS 75056

PROJECT ADDRESS:
7612 CASTLEBRIDGE ROAD
THE COLONY, TEXAS 75056

CITY SUBMITTAL - SPECIFIC USE PERMIT

FEBRUARY 03, 2021



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Revision

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Date
FEBRUARY 03, 2021
Phase
CITY SUBMITTAL - SPECIFIC USE PERMIT
Job Number
MSTS901

LAKESIDE PARK AT THE TRIBUTE

THE COLONY, TEXAS

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REGISTERED LANDSCAPE ARCHITECT
CHARLES S. MEDLIN
2936
STATE OF TEXAS
02/03/2021

Revisions

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Date
02-03-2021
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CITY SUBMITTALS
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MSTS901

Scale **North**

Drawing Title

COVER SHEET

Drawing Number

NOT FOR CONSTRUCTION

L0.0.0

GENERAL NOTES:

1. CONTRACTOR TO VERIFY SITE INFORMATION, INCLUDING PROPERTY LINES, EASEMENTS, BUILDINGS, ROADWAY CURB AND GUTTERS, UTILITIES AND OTHER INFORMATION AFFECTING THE SCOPE OF WORK INCLUDED ON THESE DRAWINGS. MORE SPECIFIC UTILITY INFORMATION IS INDICATED ON THE CIVIL DRAWINGS.
2. CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT FOR DIRECTION ON HOW TO PROCEED IF ACTUAL SITE CONDITIONS VARY FROM WHAT IS SHOWN ON THE DRAWINGS.
3. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES TO REMAIN.
4. EXCAVATION IN THE VICINITY OF UTILITIES SHALL BE UNDERTAKEN WITH CARE. CONTRACTOR BEARS FULL RESPONSIBILITY FOR THIS WORK. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL SITE UTILITIES PRIOR TO BEGINNING EXCAVATION.
5. BASE INFORMATION INCLUDING THE LOCATION OF PROPERTY LINES, EASEMENTS, BUILDINGS, ROADS, CURBS AND UTILITIES HAVE BEEN PROVIDED FROM THE FOLLOWING SURVEYS PROVIDED BY THE OWNER:
   SITE SURVEY DATED _______ BY _______
6. CONTRACTOR SHALL NOTIFY LOCAL UTILITY OR CITY AUTHORITIES FOR PROVISION OF ALL LOCATIONS OF EXISTING UNDERGROUND UTILITIES. POT HOLE EXCAVATE AS NECESSARY TO CONFIRM LOCATIONS PRIOR TO ANY EXCAVATIONS.
7. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND MAINTAINING ALL FEDERAL STATE AND LOCAL PERMITS INCLUDING BUT NOT LIMITED TO STORMWATER POLLUTION PREVENTION, TREE REMOVAL, GRADING AND UTILITY, ETC.
8. CONTRACTOR IS REQUIRED TO REPAIR OR REPLACE WITH APPROVED IN KIND MATERIALS ANY DAMAGE DONE TO BUILDINGS, STRUCTURES, UTILITIES, PAVING, PLANTING OR ANY OTHER SITE IMPROVEMENTS TO REMAIN. ANY DAMAGE BY THE CONTRACTOR DURING THE EXECUTION OF WORK OF UTILITIES OR ELEMENTS TO REMAIN IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED OR REPLACED BY CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

CODE INFORMATION:

ALL ELEMENTS WERE DESIGNED TO AND CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS OF THE FOLLOWING CODES NOTED AND OTHER GOVERNANCES SUBJECT TO THIS PROJECT. THIS MAY NOT BE A FULL OR EXHAUSTIVE LIST AND CONTRACTOR IS REQUIRED TO VERIFY ALL PERTINENT CODES ARE REFERENCED AS NEEDED.

DRAWING SCALE NOTIFICATION:

NOTE: ALL DRAWING SCALES PROVIDED (TEXT AND GRAPHIC) THROUGHOUT THIS DOCUMENT SET ARE ESTABLISHED AND SET PER A DOCUMENT SIZE OF 24" X 36" ONLY. REDUCED PRODUCTION SETS ARE NOT PER NOTED SCALES.

NOTE:
REFER TO CIVIL DOCUMENTS FOR PRIMARY AND SECONDARY BENCHMARKS REFERENCES AND FOR EXISTING PARTIAL TOPOGRAPHIC SURVEY REFERENCES.

LANDSCAPE ARCHITECT INFORMATION:

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ABBREVIATIONS:

ABBREVIATION	EXTENSION
ADA	AMERICANS WITH DISABILITIES ACT
ADJ.	ADJACENT (LAYOUT, MEASUREMENT)
AM	APICAL MERISTEM (PALM TREE REFERENCE)
ARCH	ARCHITECT
BC	BOTTOM OF CURB
BS	BOTTOM OF STEP
BW	BOTTOM OF WALL
CAD	COMPUTER-AIDED DESIGN
CIP OR C.I.P.	CAST-IN-PLACE (CONCRETE APPLICATIONS)
CIVIL	CIVIL ENGINEER
CL	CENTERLINE (LAYOUT, MEASUREMENT)
CLS	CENTER LINE OF SWALE (GRADIENT)
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CONC.	CONCRETE
DIA	DIAMETER (LAYOUT, MEASUREMENT)
EJ	EXPANSION JOINT (CONCRETE APPLICATIONS)
EQ	EQUAL (LAYOUT, MEASUREMENT)
EXT.	EXTERIOR
F.O.B.	FACE OF BUILDING
FG OR F.G.	FINISHED GRADE (TOP OF SOIL GRADIENT)
FS OR F.S.	FINISHED SURFACE (HARD SURFACES)
GALV.	GALVANIZED
GEOTECH	GEOTECHNICAL ENGINEER
GPH	GALLONS PER HOUR (IRRIGATION)
GPM	GALLONS PER MINUTE (IRRIGATION)
HEX.	HEXAGONAL
HP	HIGHT POINT (GRADIENT)
HSS	HOLLOW STRUCTURAL SECTION
IE	INVERT ELEVATION
LA OR L.A.	LANDSCAPE ARCHITECT
LED OR L.E.D.	LIGHT-EMITTING DIODE (ELECTRICAL FIXTURE)
LOW OR L.O.W.	LIMIT OF WORK
LP	LOW POINT (GRADIENT)
MAX.	MAXIMUM
MEP	MECHANICAL ELECTRICAL OR PLUMING ENGINEER
NIC OR N.I.C.	NOT IN CONTRACT
OC OR O.C.	ON-CENTER (LAYOUT, MEASUREMENT)
OD OR O.D.	OUTSIDE DIAMETER (LAYOUT, MEASUREMENT)
PA OR P.A.	PLANTING AREA
PERF.	PERFORATED
POB OR P.O.B.	POINT OF BEGINNING (LAYOUT, MEASUREMENT)
PL	PROPERTY LINE
PSI	POUNDS PER SQUARE INCH (IRRIGATION)
PT	PRESSURE-TREATED
R	RADIUS (LAYOUT, MEASUREMENT)
REF	REFERENCE OR REFER TO
REINF.	REINFORCEMENT
SE	STRUCTURAL ENGINEER
SPECS	CONTRACT SPECIFICATIONS
S/S OR SS	STAINLESS STEEL
SWMP	STORM WATER MANAGEMENT PLAN
TAS	TEXAS ACCESSIBILITY STANDARDS
TC	TOP OF CURB (GRADIENT ELEVATION)
TG	TOP OF GRATE (GRADIENT ELEVATION)
TS	TOP OF STEP (GRADIENT ELEVATION)
TW	TOP OF WALL (GRADIENT ELEVATION)
TYP	TYPICAL
W/	WITH

GENERAL LEGEND

SYMBOL	EXTENSION
⊕	COIN METER
▭	DRAIN COVER
E	ELECTRICAL PEDESTAL
G	GAS METER
◁	POWER POLE
☼	LIGHT POLE
●	MANHOLE
□	NATURAL GAS NGR
PB	PB
○	POWER POLE
SAN	SANITATION LINE
CO	SANITARY SEWER CO
SW	SEWER
⊸	SIGN
ST	STORM WATER MANHOLE
T	TELEPHONE MANHOLE
⊠	TRAFFIC BOX
HH	TRAFFIC HH
⌖	TRAFFIC SIGNAL
■	UNKNOWN VAULT
⊙	WATER HYDRANT
⊙	WATER GV
⧗	WATER PIV

SHEET INDEX

SHEET NUMBER	SHEET NAME	10.19.2020 - CITY SUBMITTALS - SUP	12.16.2020 - CITY SUBMITTALS - SUP	02.03.2021 - CITY SUBMITTALS - SUP
1 - LANDSCAPE				
L0.0.0	COVER SHEET	○	○	○
L0.0.1	SHEET INDEX	○	○	○
L0.1.1	TREE SURVEY FOR MITIGATION	○	○	○
L0.1.2	TREE SCHEDULE FOR MITIGATION	○	○	○
L0.1.3	TREE SCHEDULE FOR MITIGATION	○	○	○
L4.0.1	PLANTING NOTES AND SCHEDULE	○	○	○
L4.1.1	PLANTING PLAN	○	○	○
L4.2.1	PLANTING DETAILS	○	○	○

LEGEND	
	DRAWING NOT ISSUED
○	DRAWING ISSUED FOR COORDINATION
●	DRAWING ISSUED FOR REVIEW
✕	DRAWING DELETED
■	DRAWING ISSUED FOR CONSTRUCTION

LAKESIDE PARK AT THE TRIBUTE

THE COLONY, TEXAS

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Stamp

REGISTERED LANDSCAPE ARCHITECT
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STATE OF TEXAS
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02/03/2021

Revisions

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Date
02-03-2021
Phase
CITY SUBMITTALS
Job Number
MSTS901

Scale **North**

Drawing Title

SHEET INDEX

Drawing Number

NOT FOR CONSTRUCTION

L0.0.1

GENERAL TREE
PROTECTION NOTES:

1. ALL GUIDELINES STATED BELOW SHALL BE STRICTLY ADHERED TO AND MONITORED BY THE CONTRACTOR AND ALL SUB-CONTRACTORS ASSOCIATED WITH SAID CONTRACT AND ALL ENTITIES ASSOCIATED WITH THE OWNER, CLIENT, OR DESIGN CONSULTANTS.
2. ****ANY DAMAGE, REMOVAL OR DESTRUCTION OF ANY TREE NOT SUBJECT TO REMOVAL BY THESE DOCUMENTS OR OTHER WRITTEN PERMISSIONS SHALL BE SUBJECT TO FINES OR CONTRACTUAL PENALTIES ASSESSED TO THE CONTRACTOR, SUB-CONTRACTOR OR OTHER ENTITIES RESPONSIBLE FOR DAMAGE OR REMOVAL. FINES OR PENALTIES SHALL BE THE VALUE OF TREE, MINIMUM, AS PROVIDED BY INDEPENDENT ARBORIST AS SELECTED BY OWNER AND CLIENT.****
3. TREE DRIP LINE IS DEFINED AS THE OUTER LIMIT OF THE TREE CANOPY EDGE AT ALL POINTS (360° AROUND TREE PERIMETER) SET AT FURTHEST OUTREACH OF SUCH NOTED TREE CANOPY.
4. PRIOR TO TREE CLEARING, BRUSH REMOVAL, MASS GRADING OR ANY OTHER TYPE OF CONSTRUCTION OPERATION, THE GENERAL CONTRACTOR SHALL CLEARLY TAG OR MARK ALL TREES TO BE REMOVED (PER SPECIFICATIONS) AND OBTAIN THE LANDSCAPE ARCHITECT'S FINAL APPROVAL PRIOR TO SUCH TREE REMOVAL.
5. THE GENERAL CONTRACTOR SHALL PROVIDE AND SET TREE PROTECTION FENCING AROUND EACH TREE OR GROUP OF TREES TO BE RETAINED AS DEPICTED IN THESE DOCUMENTS TO PREVENT THE REMOVAL OF PROTECTED TREES, STORAGE OF CONSTRUCTION MATERIALS, PLACEMENT OF DEBRIS OR FILL, CONSTRUCTION OPERATIONS AND/OR EQUIPMENT USAGE/STORAGE WITHIN THE DRIP LINE.
6. REFER TO TREE PROTECTION DOCUMENTS FOR FENCING LAYOUT AND TYPE OF FENCE INCLUDING HEIGHT AND INSTALLATION REQUIREMENTS OF SAID FENCING REQUIRED.
7. DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL PROHIBIT CLEANING, PARKING, OR STORAGE OF EQUIPMENT OR MATERIALS UNDER THE CANOPY OF TREES AND PREVENT RUN-OFF FROM SUCH NOTED ITEMS INTO AREAS PROTECTED. THE CONTRACTOR SHALL NOT ALLOW THE DISPOSAL OF ANY WASTE MATERIAL SUCH AS, BUT NOT LIMITED TO, PAINT, OIL, SOLVENTS, ASPHALT, CONCRETE, MORTAR, ETC., OR ALLOW RUN-OFF FROM ANY SUCH ITEMS IN TO THE TREE CANOPY AREA.
8. NO ATTACHMENTS OR WIRES OF ANY KIND, OTHER THAN THOSE OF A PROTECTIVE NATURE, SHALL BE ATTACHED TO ANY TREE.
9. NO FILL OR STORAGE OF FILL MATERIALS OR ANY EXCAVATION OPERATIONS SHALL OCCUR WITHIN THE DRIP LINE OF A TREE TO BE PRESERVED UNLESS THERE IS A SPECIFIC APPROVED PLAN FOR USE OF TREE WELLS OR RETAINING WALLS. CHANGES OF GRADE (FOUR INCHES OR GREATER) WILL REQUIRE ADDITIONAL MEASURES TO MAINTAIN PROPER OXYGEN AND WATER EXCHANGE OF THE ROOTS.
10. ANY ADDITIONAL TREES REQUIRED FOR REMOVAL FOR CONSTRUCTION PROCESSES, UTILITY INSTALLATIONS, ETC. THAT ARE NOT NOTED OR REFERENCED ON PLANS SHALL BE NOTED ON PLAN (8.5 X 11) BY REQUESTING CONTRACTOR WITH REASON FOR REMOVAL AND SUBMITTED TO LANDSCAPE ARCHITECT FOR REVIEW AND PROCESSING WITH THE OWNER AND CLIENT. UPON APPROVAL OF SUBJECT TREE'S REMOVAL AND FORWARDED BY LANDSCAPE ARCHITECT SUCH TREE CAN BE REMOVED IN MANNER DEEMED APPROPRIATE. CONTRACTOR SHALL ALLOW MIN. TEN (10) WORKING DAYS FOR SUCH NOTED APPROVAL.

EXISTING TREE
MAINTENANCE NOTES:

1. TREE MAINTENANCE SHALL OCCUR AS NOTED FOR ALL EXISTING TREES AS REQUIRED PER TECHNICAL SPECIFICATIONS ISSUED. SUCH OPERATIONS MAY INCLUDE TRIMMING, PRUNING, FERTILIZING, WATERING, ROOT PRUNING AND/OR FOLIAGE WASHING AS REQUIRED BY LANDSCAPE ARCHITECT OR ARBORIST DESIGNATED BY LANDSCAPE ARCHITECT OR CLIENT/OWNER.
2. TREE MAINTENANCE OPERATIONS SHALL BE DEEMED HIGH PRIORITY AND SHALL OCCUR WHEN SUCH AFOREMENTIONED OPERATIONS ARE NOTED TO OCCUR AND SHALL OCCUR AS DIRECTED BY LANDSCAPE ARCHITECT.
3. IF STORM DAMAGE OCCURS DURING COURSE OF CONTRACT, IMMEDIATE PROPER PRUNING AND MAINTENANCE OF DAMAGED AREAS SHALL OCCUR UNDER DIRECTION OF LANDSCAPE ARCHITECT OR DESIGNATED ARBORIST. ALL DEBRIS SHALL BE REMOVED OF PROPERLY. COSTS ASSOCIATED WITH THESE OPERATIONS SHALL BE PROVIDED FOR APPROVAL OF CLIENT/OWNER PRIOR TO WORK OCCURRING.

TREE PROTECTION LEGEND:

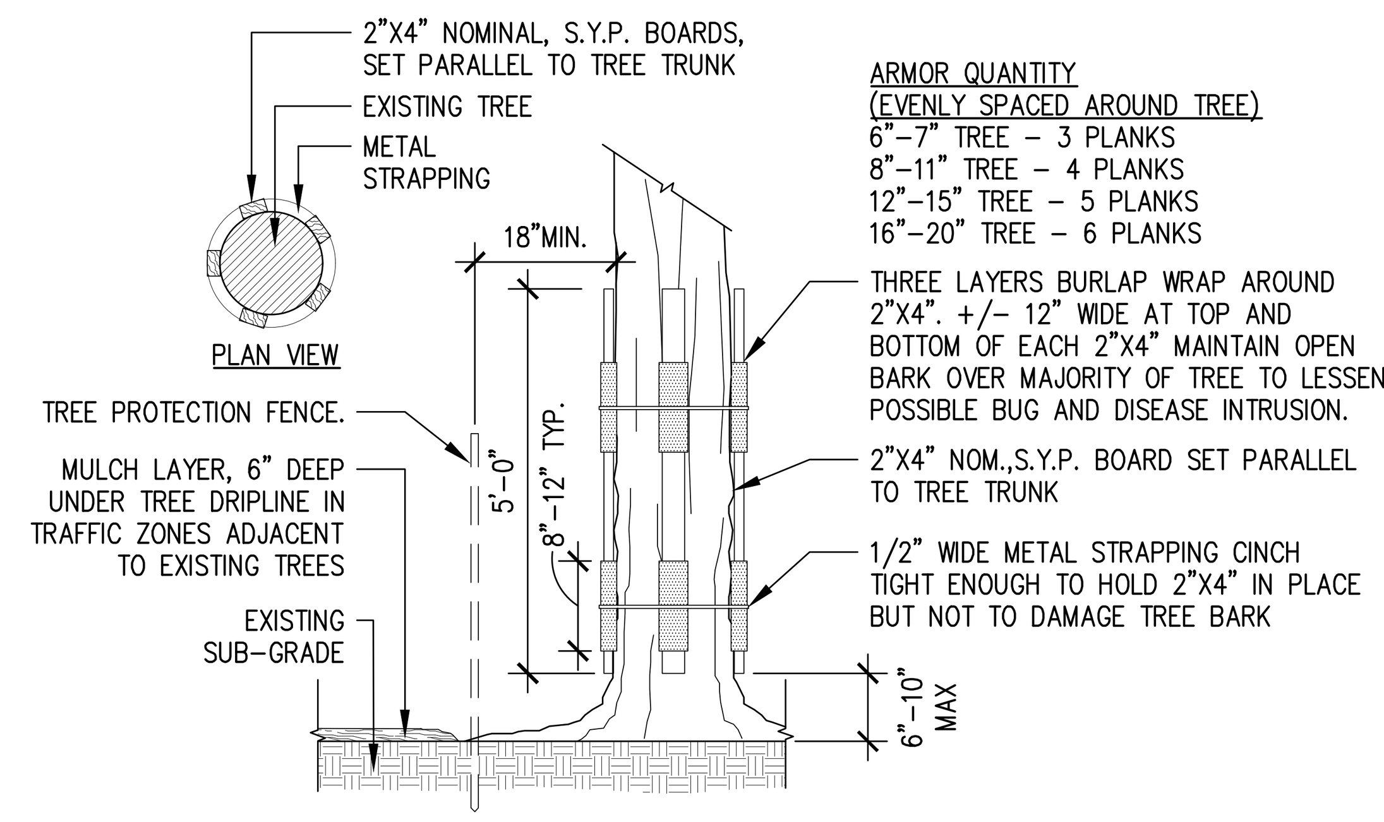
●	EXISTING TREE TO BE REMOVED
1	SHEET NOTE, REFER TO NOTES
/\/\/\	6' CHAINLINK TREE PROTECTION FENCE,

TOTAL MITIGATION AREA:
491,086 SF = 11.27 ACRES

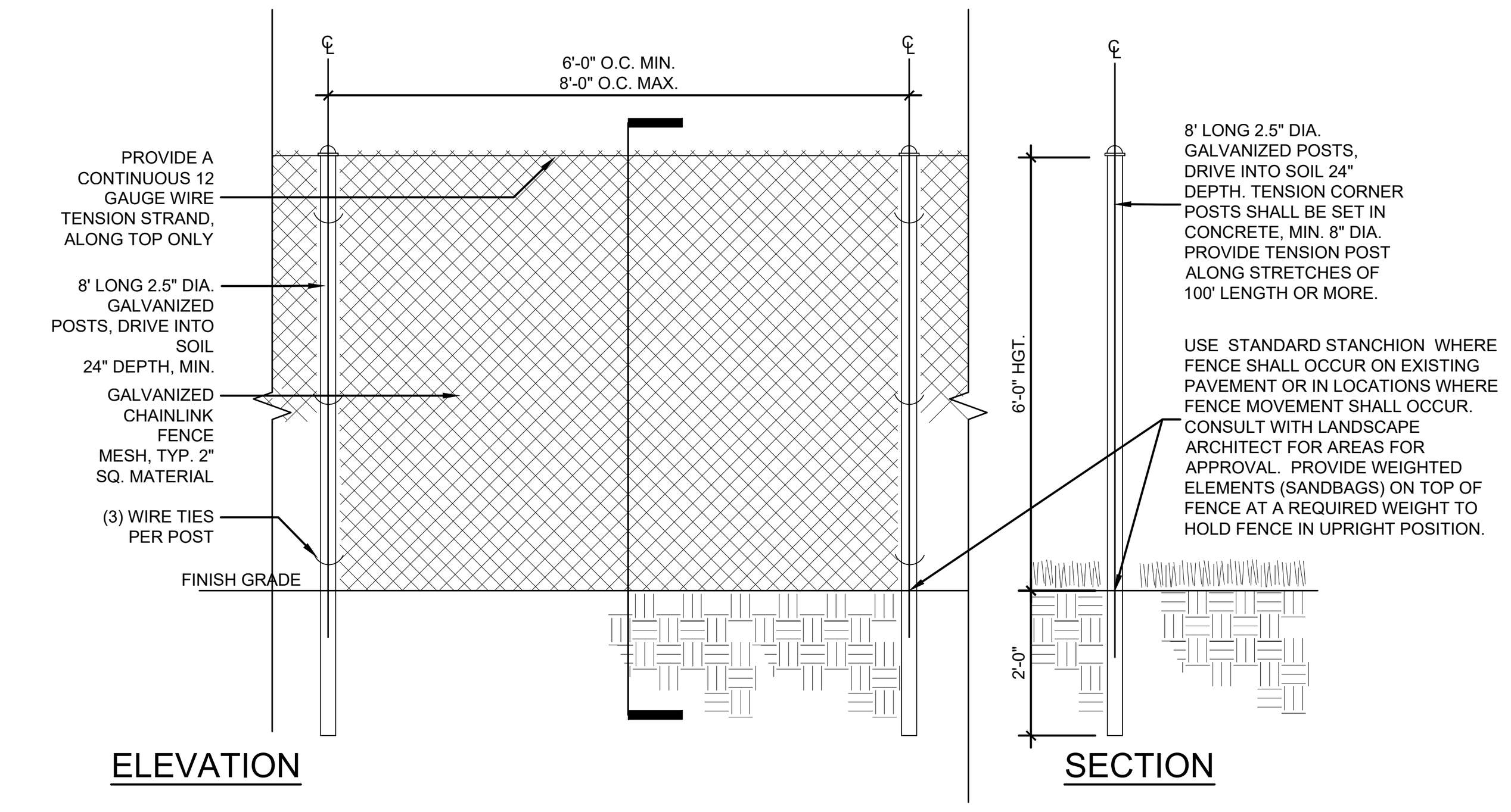
SHEET NOTES:

1. MITIGATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE USACE.
2. TREES SHOULD BE PLANTED NO CLOSER THAN 12FT X 12FT ON CENTER (EXCEPT WHEN PLANTED IN MOTTS).
3. TREES SHOULD BE MONITORED FOR A PERIOD OF 3 YEARS MONITORING PERIOD TO ENSURE TREE SURVIVAL PER THE USACE REQUIREMENTS OF 80% SURVIVAL RATE.
4. ALL TREES SHALL BE STAKED, IRRIGATED AND MULCHED IN EFFORTS TO INCREASE TREE SURVIVAL AND MITIGATION SUCCESS.

SUMMARY		
TREE MITIGATION SUMMARY	TREE QUANTITY	CALIPER INCHES
TOTAL SITE TREE PRESERVED	497	3612"
TOTAL SITE TREE REMOVAL	535	1957"
TOTAL SITE TREES TO BE MITIGATED	60	395.5"
TOTAL NEW SITE TREES	126	612"
TOTAL NEW SITE TREES FOR MITIGATION	86	396"



02 TREE PROTECTION
1/2" = 1'-0"



01 TREE PROTECTION FENCE
1/2" = 1'-0"

LAKESIDE PARK AT THE TRIBUTE

THE COLONY, TEXAS

Client

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REGISTERED LANDSCAPE ARCHITECT
CHARLES S. McDANIEL
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CITY SUBMITTALS
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MSTS901

Scale
0 25 50
1" = 50'

North

Drawing Title

TREE SURVEY FOR MITIGATION

Drawing Number

NOT FOR CONSTRUCTION

L0.1.1

SITE TREE SCHEDULE

TREE NUMBER	CALIPER INCHES	TREE SPECIES	TREE TO BE REMOVED (Y/N)	CALIPER INCHES MITIGATED
742	3.5	CEDAR ELM	N	–
743	3	CEDAR ELM	N	–
744	5	PECAN	N	–
745	8	CEDAR ELM	N	–
746	10	CEDAR ELM	N	–
747	**8.5**	**CEDAR ELM**	**Y**	**8.5**
748	5	MEXICAN PLUM	N	–
749	9	MESQUITE	N	–
750	**10**	**PECAN**	**Y**	**10**
751	8.5	PECAN	N	–
752	4	PECAN	N	–
753	3.5	PECAN	N	–
754	4	PECAN	N	–
755	6	PECAN	N	–
756	9.5	HACKBERRY	N	–
757	11	CEDAR ELM	N	–
758	**3**	**HACKBERRY**	**Y**	**–**
759	**3.5**	**HACKBERRY**	**Y**	**–**
762	4	WILLOW	N	–
763	7	WILLOW	N	–
764	13	WILLOW	N	–
765	6.5	WILLOW	N	–
766	20	WILLOW	N	–
767	4	WILLOW	N	–
768	4	WILLOW	N	–
769	9	CEDAR ELM	N	–
770	10.5	CEDAR ELM	N	–
771	**6**	**CEDAR ELM**	**Y**	**6**
772	**9.5.**	**CEDAR ELM**	**Y**	**9.5**
773	**4.5**	**CEDAR ELM**	**Y**	**–**
774	**3.5**	**CEDAR ELM**	**Y**	**–**
775	11	HACKBERRY	N	–
776	7	WILLOW	N	–
777	6	CEDAR ELM	N	–
778	46	BOIS D'ARC	N	–
779	5.5	HACKBERRY	N	–
780	6	HACKBERRY	N	–
781	13	HACKBERRY	N	–
782	15	HACKBERRY	N	–
783	10	HACKBERRY	N	–
784	**10**	**HACKBERRY**	**Y**	**10**
785	**8**	**HACKBERRY**	**Y**	**8**
786	6	HACKBERRY	N	–
787	**9**	**HACKBERRY**	**Y**	**9**
788	**10**	**HACKBERRY**	**Y**	**10**
789	**3.5**	**HACKBERRY**	**Y**	**–**
791	7	PECAN	N	–
1701	3.5	HACKBERRY	Y	–
1702	4.5	HACKBERRY	Y	–
1703	5	HACKBERRY	Y	–
1704	2	HACKBERRY	Y	–
1705	3.5	HACKBERRY	Y	–
1706	4	HACKBERRY	Y	–
1707	6	HACKBERRY	Y	6
1708	3	HACKBERRY	Y	–
1709	4.5	HACKBERRY	Y	–
1710	2.5	HACKBERRY	Y	–
1711	2	HACKBERRY	Y	–
1712	5	HACKBERRY	Y	–
1713	2.5	HACKBERRY	Y	–
1714	7	HACKBERRY	Y	7
1715	3	HACKBERRY	Y	–
1716	3	HACKBERRY	Y	–
1717	6.5	HACKBERRY	Y	6.5
1718	3	HACKBERRY	Y	–
1719	3	HACKBERRY	Y	–
1720	3.5	HACKBERRY	Y	–
1721	2.5	HACKBERRY	Y	–
1722	3.5	HACKBERRY	Y	–
1723	3.5	HACKBERRY	Y	–
1724	2	HACKBERRY	Y	–
1725	2	HACKBERRY	Y	–
1726	2	HACKBERRY	Y	–
1727	4.5	HACKBERRY	Y	–
1728	4.5	HACKBERRY	Y	–
1729	4.5	HACKBERRY	Y	–
1730	4	HACKBERRY	Y	–
1731	3	HACKBERRY	Y	–
1732	4	HACKBERRY	Y	–
1733	3	HACKBERRY	Y	–

TREE NUMBER	CALIPER INCHES	TREE SPECIES	TREE TO BE REMOVED (Y/N)	CALIPER INCHES MITIGATED
1734	4	HACKBERRY	Y	–
1735	3	HACKBERRY	Y	–
1736	4	HACKBERRY	Y	–
1737	2.5	HACKBERRY	Y	–
1738	2	HACKBERRY	Y	–
1739	4	HACKBERRY	Y	–
1740	3	HACKBERRY	Y	–
1741	2.5	HACKBERRY	Y	–
1742	2	HACKBERRY	Y	–
1743	4	HACKBERRY	Y	–
1744	6	HACKBERRY	Y	6
1745	4	HACKBERRY	Y	–
1746	3	HACKBERRY	Y	–
1747	5	HACKBERRY	Y	–
1748	4	HACKBERRY	Y	–
1749	4	HACKBERRY	Y	–
1750	5.5	HACKBERRY	Y	–
1751	3	HACKBERRY	Y	–
1752	2	HACKBERRY	Y	–
1753	2	HACKBERRY	Y	–
1754	3	HACKBERRY	Y	–
1755	2.5	HACKBERRY	Y	–
1756	2.5	HACKBERRY	Y	–
1757	4.5	HACKBERRY	Y	–
1758	3	HACKBERRY	Y	–
1759	2.5	HACKBERRY	Y	–
1760	3	HACKBERRY	Y	–
1761	3	HACKBERRY	Y	–
1762	4	HACKBERRY	Y	–
1763	3	HACKBERRY	Y	–
1764	3.5	HACKBERRY	Y	–
1765	3	HACKBERRY	Y	–
1766	3	HACKBERRY	Y	–
1767	4.5	HACKBERRY	Y	–
1768	2	HACKBERRY	Y	–
1769	3	HACKBERRY	Y	–
1770	4.5	HACKBERRY	Y	–
1771	2.5	HACKBERRY	Y	–
1772	2.5	HACKBERRY	Y	–
1773	4	HACKBERRY	Y	–
1774	2	HACKBERRY	Y	–
1775	3	HACKBERRY	Y	–
1776	3.5	HACKBERRY	Y	–
1777	3	HACKBERRY	Y	–
1778	7	HACKBERRY	Y	7
1779	3	HACKBERRY	Y	–
1780	3.5	HACKBERRY	Y	–
1781	2	HACKBERRY	Y	–
1782	4	HACKBERRY	Y	–
1783	3	HACKBERRY	Y	–
1784	3.5	HACKBERRY	Y	–
1785	3	HACKBERRY	Y	–
1786	3	HACKBERRY	Y	–
1787	2	HACKBERRY	Y	–
1788	2.5	HACKBERRY	Y	–
1789	2	HACKBERRY	Y	–
1790	3	HACKBERRY	Y	–
1791	3.5	HACKBERRY	Y	–
1792	2	HACKBERRY	Y	–
1793	2	HACKBERRY	Y	–
1794	3	HACKBERRY	Y	–
1795	2	HACKBERRY	Y	–
1796	5.5	HACKBERRY	Y	–
1797	3.5	HACKBERRY	Y	–
1798	3	HACKBERRY	Y	–
1799	3.5	HACKBERRY	Y	–
1800	3	HACKBERRY	Y	–
1801	3	HACKBERRY	Y	–
1802	2.5	HACKBERRY	Y	–
1803	3	HACKBERRY	Y	–
1804	3	HACKBERRY	Y	–
1805	3	HACKBERRY	Y	–
1806	2.5	HACKBERRY	Y	–
1807	3	HACKBERRY	Y	–
1808	3	HACKBERRY	Y	–
1809	4.5	HACKBERRY	Y	–
1810	3	HACKBERRY	Y	–
1811	3	HACKBERRY	Y	–
1812	2	HACKBERRY	Y	–
1813	2.5	HACKBERRY	Y	–

TREE NUMBER	CALIPER INCHES	TREE SPECIES	TREE TO BE REMOVED (Y/N)	CALIPER INCHES MITIGATED
1814	6	HACKBERRY	Y	6
1815	2	HACKBERRY	Y	–
1816	2	HACKBERRY	Y	–
1817	3	HACKBERRY	Y	–
1818	4	HACKBERRY	Y	–
1819	3	HACKBERRY	Y	–
1820	2	HACKBERRY	Y	–
1821	5	HACKBERRY	Y	–
1822	2	HACKBERRY	Y	–
1823	3	HACKBERRY	Y	–
1824	2.5	HACKBERRY	Y	–
1825	3.5	HACKBERRY	Y	–
1826	4	HACKBERRY	Y	–
1827	4	HACKBERRY	Y	–
1828	3	HACKBERRY	Y	–
1829	2	HACKBERRY	Y	–
1830	2	HACKBERRY	Y	–
1831	5	HACKBERRY	Y	–
1832	6	HACKBERRY	Y	6
1833	3	HACKBERRY	Y	–
1834	3.5	HACKBERRY	Y	–
1835	4	HACKBERRY	Y	–
1836	4	HACKBERRY	Y	–
1837	4	HACKBERRY	Y	–
1838	4	HACKBERRY	Y	–
1839	2	HACKBERRY	Y	–
1840	2	HACKBERRY	Y	–
1841	3.5	HACKBERRY	Y	–
1842	2	HACKBERRY	Y	–
1843	3	HACKBERRY	Y	–
1844	4	HACKBERRY	Y	–
1845	2	HACKBERRY	Y	–
1846	3.5	HACKBERRY	Y	–
1847	2	HACKBERRY	Y	–
1848	4	HACKBERRY	Y	–
1849	3.5	HACKBERRY	Y	–
1850	3	HACKBERRY	Y	–
1851	3.5.	HACKBERRY	Y	–
1852	4	HACKBERRY	Y	–
1853	2	HACKBERRY	Y	–
1854	3.5	HACKBERRY	Y	–
1855	2	HACKBERRY	Y	–
1856	2.5	HACKBERRY	Y	–
1857	3.5	HACKBERRY	Y	–
1858	3	HACKBERRY	Y	–
1859	4	MESQUITE	Y	–
1860	3	HACKBERRY	Y	–
1861	3.5	HACKBERRY	Y	–
1862	2.5	HACKBERRY	Y	–
1863	3	HACKBERRY	Y	–
1864	3.5	HACKBERRY	Y	–
1865	2.5	HACKBERRY	Y	–
1866	3	HACKBERRY	Y	–
1867	4	HACKBERRY	Y	–
1868	3	HACKBERRY	Y	–
1869	3	HACKBERRY	Y	–
1870	2.5	HACKBERRY	Y	–
1871	3	HACKBERRY	Y	–
1872	2	HACKBERRY	Y	–
1873	3.5	HACKBERRY	Y	–
1874	3	HACKBERRY	Y	–
1875	3	HACKBERRY	Y	–
1876	3	HACKBERRY	Y	–
1877	3.5	HACKBERRY	Y	–
1878	2.5	HACKBERRY	Y	–
1879	3.5	HACKBERRY	Y	–
1880	3	HACKBERRY	Y	–
1881	3.5	HACKBERRY	Y	–
1882	2	HACKBERRY	Y	–
1883	2.5	HACKBERRY	Y	–
1884	3	HACKBERRY	Y	–
1885	4.5	HACKBERRY	Y	–
1886	3	HACKBERRY	Y	–
1887	4	HACKBERRY	Y	–
1888	3	HACKBERRY	Y	–
1889	5	HACKBERRY	Y	–
1890	4	HACKBERRY	Y	–
1891	3	HACKBERRY	Y	–
1892	3	HACKBERRY	Y	–
1893	4	HACKBERRY	Y	–

TREE NUMBER	CALIPER INCHES	TREE SPECIES	TREE TO BE REMOVED (Y/N)	CALIPER INCHES MITIGATED
1894	33.5	HACKBERRY	N	–
1895	3	HACKBERRY	Y	–
1896	2	HACKBERRY	Y	–
3001	17	HACKBERRY	N	–
3007	12	HACKBERRY	N	–
3008	10	HACKBERRY	N	–
3009	7	HACKBERRY	N	–
3010	6	HACKBERRY	N	–
3011	10	HACKBERRY	N	–
3012	5.5	HACKBERRY	N	–
3013	7.5	HACKBERRY	N	–
3014	10	HACKBERRY	N	–
3019	13	HACKBERRY	N	–
3022	7	HACKBERRY	N	–
3023	5.5	HACKBERRY	N	–
3024	5	HACKBERRY	N	–
3025	10	HACKBERRY	N	–
3026	12	HACKBERRY	N	–
3090	7.5	HACKBERRY	N	–
3091	8	HACKBERRY	N	–
3092	9	HACKBERRY	N	–
3093	13	HACKBERRY	N	–
3094	7	HACKBERRY	N	–
3095	8	HACKBERRY	N	–
3096	13.5	HACKBERRY	N	–
3097	6	HACKBERRY	N	–
3098	9	HACKBERRY	N	–
3100	6.5	HACKBERRY	N	–
3101	11	HACKBERRY	N	–
3102	7	HACKBERRY	N	–
3103	8	HACKBERRY	N	–
3104	8	HACKBERRY	N	–
3105	6	HACKBERRY	N	–
3106	8	HACKBERRY	N	–
3107	9	HACKBERRY	N	–
3108	11.5	HACKBERRY	N	–
3109	10	HACKBERRY	N	–
3110	9.5	HACKBERRY	N	–
3111	6.5	HACKBERRY	N	–
3112	7	HACKBERRY	N	–
3113	14	HACKBERRY	N	–
3114	19.5	HACKBERRY	N	–
3125	7	GUM BUMELIA	N	–
3126	10.5	HACKBERRY	N	–
3127	6.5	HACKBERRY	N	–
3128	6	HACKBERRY	N	–
3129	10.5	HACKBERRY	N	–
3130	13	HACKBERRY	N	–
3131	9	HACKBERRY	N	–
3132	11	HACKBERRY	N	–
3133	10	HACKBERRY	N	–
3134	13	HACKBERRY	N	–
3135	8	HACKBERRY	N	–
3136	19	HACKBERRY	N	–
3137	6	HACKBERRY	N	–
3138	14.5	HACKBERRY	N	–
3139	5	HACKBERRY	N	–
3140	12	HACKBERRY	N	–
3141	5	HACKBERRY	N	–
3142	14	HACKBERRY	N	–
3143	7	HACKBERRY	N	–
3144	11	HACKBERRY	N	–
3145	9.5	HACKBERRY	N	–
3146	10.5	HACKBERRY	N	–
3147	8	HACKBERRY	N	–
3148	7	HACKBERRY	N	–
3149	8	HACKBERRY	N	–
3150	12	BOIS D'ARC	N	–
3151	14	HACKBERRY	N	–
3152	11	HACKBERRY	N	–
3153	9.5	HACKBERRY	N	–
3154	5.5	HACKBERRY	N	–
3155	5	HACKBERRY	N	–
3156	5	HACKBERRY	N	–
3157	5.5	HACKBERRY	N	–
3158	6	HACKBERRY	N	–
3159	6	HACKBERRY	N	–
3160	9	HACKBERRY	N	–
3161	7	HACKBERRY	N	–
3162	6	HACKBERRY	N	–

TREE NUMBER	CALIPER INCHES	TREE SPECIES	TREE TO BE REMOVED (Y/N)	CALIPER INCHES MITIGATED
3163	6	HACKBERRY	N	–
3164	6	HACKBERRY	N	–
3165	8.5	HACKBERRY	N	–
3166	9	HACKBERRY	N	–
3167	6	HACKBERRY	N	–
3168	7	HACKBERRY	N	–
3170	5.5	HACKBERRY	N	–
3171	5.5	HACKBERRY	N	–
3172	11.5	HACKBERRY	Y	
3173	5	HACKBERRY	Y	–
3174	5	HACKBERRY	N	–
3175	8	HACKBERRY	N	–
3176	9	HACKBERRY	N	–
3179	6	HACKBERRY	N	–
3180	5	HACKBERRY	N	–
3181	7	HACKBERRY	Y	117.5
3182	8.5	HACKBERRY	Y	8.5
3183	6	HACKBERRY	Y	6
3184	6	HACKBERRY	Y	6
3185	5	HACKBERRY	Y	–
3186	5	HACKBERRY	N	–
3187	7	HACKBERRY	N	–
3188	6	HACKBERRY	N	–
3190	6	HACKBERRY	N	–
3191	5.5	HACKBERRY	N	–
3192	5.5	HACKBERRY	N	–
3193	7.5	HACKBERRY	N	–
3196	6	HACKBERRY	Y	6
3197	6	HACKBERRY	Y	6
3198	6	HACKBERRY	Y	6
3199	6	HACKBERRY	Y	6
3200	10	HACKBERRY	N	–
3201	14	HACKBERRY	N	–
3202	8	HACKBERRY	N	–
3203	5	HACKBERRY	N	–
3204	9	HACKBERRY	N	–
3205	5.5	HACKBERRY	N	–
3207	7	HACKBERRY	Y	7
3208	6	HACKBERRY	N	–
3209	5	HACKBERRY	N	–
3210	6	HACKBERRY	N	–
3211	6	HACKBERRY	N	–
3212	8	HACKBERRY	N	–
3213	5	HACKBERRY	N	–
3214	5	HACKBERRY	N	–
3215	6.5	HACKBERRY	N	–
3216	7.5	HACKBERRY	N	–
3217	7	HACKBERRY	N	–
3218	5.5	HACKBERRY	N	–
3219	5.5	HACKBERRY	N	–
3220	8.5	HACKBERRY	N	–
3221	6.5	HACKBERRY	N	–
3222	7	HACKBERRY	N	–
3223	5.5	HACKBERRY	N	–
3224	6	HACKBERRY	N	–
3225	5.5	HACKBERRY	N	–
3226	6.5	HACKBERRY	N	–
3227	10.5	HACKBERRY	N	–
3228	7.5	HACKBERRY	N	–
3229	5	HACKBERRY	N	–
3230	6	HACKBERRY	N	–
3231	6	HACKBERRY	N	–
3232	5	HACKBERRY	N	–
3233	7	HACKBERRY	Y	7
3234	7	HACKBERRY	Y	7
3235	7	HACKBERRY	Y	7
3236	7.5	HACKBERRY	N	–
3237	5	HACKBERRY	N	–
3238	5	HACKBERRY	N	–
3239	6	HACKBERRY	N	–
3240	6	HACKBERRY	N	–
3241	8	HACKBERRY	N	–
3242	8	HACKBERRY	N	–
3243	5.5	HACKBERRY	N	–
3244	5	HACKBERRY	N	–
3245	6	HACKBERRY	N	–
3246	5	GUM BUMELIA	N	–
3247	8.5	HACKBERRY	N	–
3248	5	HACKBERRY	N	–
3249	7.5	HACKBERRY	N	–

TREE NUMBER	CALIPER INCHES	TREE SPECIES	TREE TO BE REMOVED (Y/N)	CALIPER INCHES MITIGATED
3250	5	HACKBERRY	N	–
3251	5	HACKBERRY	N	–
3253	7.5	HACKBERRY	N	–
3254	6	HACKBERRY	N	–
3255	5.5	HACKBERRY	N	–
3256	9	HACKBERRY	N	–
3257	5.5	HACKBERRY	N	–
3258	10.5	HACKBERRY	N	–
3259	21	HACKBERRY	N	–
3260	6	HACKBERRY	N	–
3261	10.5	HACKBERRY	N	–
3262	14.5	HACKBERRY	N	–
3263	5.5	HACKBERRY	N	–
3264	12.5	HACKBERRY	N	–
3265	14	HACKBERRY	N	–
3266	7.5	HACKBERRY	N	–
3267	15.5	HACKBERRY	N	–
3268	6.5	HACKBERRY	N	–
3269	8	HACKBERRY	N	–
3270	7	HACKBERRY	N	–
3271	12.5	HACKBERRY	N	–
3272	5	HACKBERRY	N	–
3273	8	HACKBERRY	N	–
3274	12	HACKBERRY	N	–
3275	7.5	HACKBERRY	N	–
3276	10.5	HACKBERRY	N	–
3277	6	HACKBERRY	N	–
3278	6	HACKBERRY	N	–
3279	6.5	HACKBERRY	N	–
3280	7.5	HACKBERRY	N	–
3281	5	HACKBERRY	N	–
3282	9	HACKBERRY	N	–
3283	5.5	HACKBERRY	N	–
3284	12	HACKBERRY	N	–
3285	5.5	HACKBERRY	N	–
3290	7.5	HACKBERRY	N	–
3291	9	HACKBERRY	N	–
3292	9.5	HACKBERRY	N	–
3293	8.5	HACKBERRY	N	–
3298	7	HACKBERRY	N	–
3299	7.5	HACKBERRY	N	–
3300	7	HACKBERRY	N	–
3301	5	CEDAR ELM	N	–
3302	6.5	HACKBERRY	N	–
3304	5	HACKBERRY	N	–
3305	9.5	HACKBERRY	N	–
3306	10.5	HACKBERRY	N	–
3307	7	HACKBERRY	N	–
3308	7	HACKBERRY	N	–
3309	7	HACKBERRY	N	–
3310	7	HACKBERRY	N	–
3311	7	GUM BUMELIA	N	–
4402	4	MESQUITE	N	–
4403	8.5	HACKBERRY	N	–
4404	19	MESQUITE	N	–
4405	5	GUM BUMELIA	N	–
4406	7	HACKBERRY	N	–
4407	4	HACKBERRY	N	–
4408	12	HACKBERRY	N	–
4409	9	GUM BUMELIA	N	–
4410	12	GUM BUMELIA	N	–
4412	5	HACKBERRY	N	–
4413	15	HACKBERRY	N	–
4414	7	HACKBERRY	N	–
4415	19	HACKBERRY	N	–
4416	12	PECAN	N	–
4417	7.5	CEDAR ELM	N	–
4418	5	TEXAS SEPHORA	N	–
4419	15	MESQUITE	N	–
4420	3	TEXAS SEPHORA	N	–
4421	4	TEXAS SEPHORA	N	–
4422	5	TEXAS SEPHORA	N	–
4423	7.5	TEXAS SEPHORA	N	–
4424	7	TEXAS SEPHORA	N	–
4425	13	HACKBERRY	N	–
4426	15	HACKBERRY	N	–
4427	9	PECAN	N	–
4428	9	MESQUITE	N	–
4429	9	HACKBERRY	N	–
4430	9	MESQUITE	N	–

TREE NUMBER	CALIPER INCHES	TREE SPECIES	TREE TO BE REMOVED (Y/N)	CALIPER INCHES MITIGATED
4431	10	MESQUITE	N	–
4433	26	MESQUITE	N	–
4434	16	HACKBERRY	N	–
4435	5	HACKBERRY	N	–
4436	9	HACKBERRY	N	–
4437	5	MESQUITE	N	–
4438	8	HACKBERRY	N	–
4439	8	HACKBERRY	N	–
4440	5	PECAN	N	–
4441	21	HACKBERRY	N	–
4442	9.5	PECAN	N	–
4443	4.5	PECAN	N	–
4444	8	PECAN	N	–
4445	7	HACKBERRY	N	–
4446	4	PECAN	N	–
4447	5.5	PECAN	N	–
4448	9	PECAN	N	–
4449	6	PECAN	N	–
4450	5	HACKBERRY	N	–
4451	4	PECAN	N	–
4452	3.5	HACKBERRY	N	–
4453	5.5	HACKBERRY	N	–
4454	5.5	HACKBERRY	N	–
4455	8.5	PECAN	N	–
4456	7.5	CEDAR ELM	N	–
4457	9	HACKBERRY	N	–
4458	7	HACKBERRY	N	–
4459	7	HACKBERRY	N	–
4460	6	HACKBERRY	N	–
4461	18	MESQUITE	N	–
4462	7	PECAN	N	–
4463	7	HACKBERRY	N	–
4464	5.5	HACKBERRY	N	–
4465	5	PECAN	N	–
4466	7	PECAN	N	–
4467	7	HACKBERRY	N	–
4468	13	HACKBERRY	N	–
4469	8	HACKBERRY	N	–
4470	3	HACKBERRY	N	–
4471	4	HACKBERRY	N	–
4472	4	HACKBERRY	N	–
4473	4	HACKBERRY	N	–
4474	3.5	HACKBERRY	N	–
4475	3	HACKBERRY	N	–
4476	4	HACKBERRY	N	–
4477	6	HACKBERRY	N	–
4478	4.58	HACKBERRY	N	–
4479	7	HACKBERRY	N	–
4480	7.5	HACKBERRY	N	–
4481	5	GUM BUMELIA	N	–
4482	8	GUM BUMELIA	N	–
4483	4	HACKBERRY	N	–
4484	6	HACKBERRY	Y	6
4485	15	MESQUITE	N	–
4486	65	HACKBERRY	N	–
4487	6	OAK	Y	6
4488	8	HACKBERRY	Y	8
4489	7	PECAN	N	–
4490	4	BOIS D ARC	N	–
4491	6.5	PECAN	N	–
4492	9	PECAN	N	–
4493	16	PECAN	N	–
4494	6	CEDAR ELM	N	–
4495	7	CEDAR ELM	N	–
4496	45	HACKBERRY	N	–
4497	6	HACKBERRY	N	–
4498	9	PECAN	N	–
4499	5	CEDAR ELM	N	–
4501	33	HACKBERRY	N	–
4502	10	HACKBERRY	N	–
4503	22	HACKBERRY	N	–
4504	5	HACKBERRY	N	–
4505	2.5	HACKBERRY	Y	–
4506	25	HACKBERRY	N	–
4508	7	HACKBERRY	N	–
4509	18	PECAN	N	–
4510	20	HACKBERRY	N	–
4512	9.5	HACKBERRY	N	–
4513	10	HACKBERRY	N	–
4514	6	HACKBERRY	N	–

TREE NUMBER	CALIPER INCHES	TREE SPECIES	TREE TO BE REMOVED (Y/N)	CALIPER INCHES MITIGATED
4515	8	HACKBERRY	N	–
4516	14	HACKBERRY	N	–
4517	5	GUM BUMELIA	N	–
4518	8	HACKBERRY	N	–
4519	4	HACKBERRY	N	–
4520	7	HACKBERRY	N	–
4521	2.5	HACKBERRY	N	–
4522	4	HACKBERRY	N	–
4525	18	HACKBERRY	N	–
4526	8.5	HACKBERRY	N	–
4527	6	HACKBERRY	N	–
4528	7.5	HACKBERRY	N	–
4529	5	HACKBERRY	N	–
4530	4	GUM BUMELIA	Y	–
4531	3	GUM BUMELIA	Y	–
4533	9.5	HACKBERRY	N	–
4534	8.5	HACKBERRY	N	–
4535	15.5	HACKBERRY	N	–
4536	13	HACKBERRY	N	–
4537	2	HACKBERRY	N	–
4539	**8**	**HACKBERRY**	**Y**	**8**
4540	24	HACKBERRY	N	–
4541	4	HACKBERRY	N	–
4542	2.5	HACKBERRY	N	–
4543	2.5	HACKBERRY	N	–
4544	2.5	HACKBERRY	N	–
4545	5	MESQUITE	N	–
4546	2	HACKBERRY	N	–
4547	2	HACKBERRY	N	–
4548	2	PECAN	N	–
4549	3	MESQUITE	N	–
4550	3	TEXAS SEPHORA	N	–
4551	2.5	HACKBERRY	N	–
4552	3	HACKBERRY	N	–
4553	2	HACKBERRY	N	–
4554	2.5	HACKBERRY	N	–
4555	2.5	GUM BUMELIA	N	–
4556	2	GUM BUMELIA	N	–
4557	5	MESQUITE	N	–
4558	4	HACKBERRY	N	–
4559	3	HACKBERRY	N	–
4560	4	HACKBERRY	N	–
4561	4	HACKBERRY	N	–
4562	4	GUM BUMELIA	N	–
4563	3	HACKBERRY	N	–
4564	10	MESQUITE	N	–
4565	4	HACKBERRY	N	–
4566	3	HACKBERRY	N	–
4567	2.5	PECAN	N	–
4568	12.5	MESQUITE	N	–
4569	4.5	HACKBERRY	N	–
4570	2.5	HACKBERRY	N	–
4571	5.5	GUM BUMELIA	N	–
4572	3.5	HACKBERRY	N	–
4573	3	HACKBERRY	N	–
4574	4.5	MESQUITE	N	–
4575	4	HACKBERRY	N	–
4576	3	HACKBERRY	N	–
4577	3	GUM BUMELIA	N	–
4578	3	HACKBERRY	N	–
4579	4.5	HACKBERRY	N	–
4580	2.5	HACKBERRY	N	–
4581	2	HACKBERRY	N	–
4582	3	HACKBERRY	N	–
4583	3	HACKBERRY	N	–
4584	3	HACKBERRY	N	–
4585	3	HACKBERRY	N	–
4586	2	HACKBERRY	N	–
4587	2	HACKBERRY	N	–
4588	2.5	HACKBERRY	N	–
4589	3	HACKBERRY	N	–
4590	4.5	HACKBERRY	N	–
4591	3.5	HACKBERRY	N	–
4592	3	HACKBERRY	N	–
4593	3	AMERICAN ELM	N	–
4594	6.5	PECAN	N	–
4595	5	PECAN	N	–
4596	4	HACKBERRY	N	–
4597	4.5	HACKBERRY	N	–
4598	2	GUM BUMELIA	N	–

LAKESIDE PARK AT THE TRIBUTE

THE COLONY, TEXAS

Client

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REGISTERED LANDSCAPE ARCHITECT
CHARLES S. McDANIEL
936
STATE OF TEXAS
02/03/2021

Revisions

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Date
02-03-2021
Phase
CITY SUBMITTALS
Job Number
MSTS901

Scale **North**

Drawing Title

TREE SCHEDULE FOR MITIGATION

Drawing Number

NOT FOR CONSTRUCTION

L0.1.2

SITE TREE SCHEDULE

TREE NUMBER	CALIPER INCHES	TREE SPECIES	TREE TO BE REMOVED (Y/N)	CALIPER INCHES MITIGATED
4599	6	HACKBERRY	N	–
4600	5	HACKBERRY	N	–
4601	5	HACKBERRY	N	–
4602	5	HACKBERRY	N	–
4603	3	HACKBERRY	N	–
4604	4	HACKBERRY	N	–
4605	3.5	HACKBERRY	N	–
4606	3.5	HACKBERRY	N	–
4607	2.5	HACKBERRY	N	–
4608	3.5	HACKBERRY	N	–
4609	2.5	HACKBERRY	N	–
4610	2	HACKBERRY	N	–
4611	2	HACKBERRY	N	–
4612	2.5	HACKBERRY	N	–
4613	4.5	HACKBERRY	N	–
4614	5	HACKBERRY	N	–
4615	3	HACKBERRY	N	–
4616	3	HACKBERRY	Y	–
4617	3	HACKBERRY	Y	–
4618	2.5	HACKBERRY	Y	–
4619	5	HACKBERRY	Y	–
4620	4.35	HACKBERRY	N	–
4621	4	HACKBERRY	N	–
4622	2	HACKBERRY	N	–
4623	8	MESQUITE	N	–
4624	4	HACKBERRY	N	–
4625	3	HACKBERRY	N	–
4626	2.5	HACKBERRY	N	–
4627	2.5	HACKBERRY	Y	–
4628	5	HACKBERRY	Y	–
4629	4.5	HACKBERRY	N	–
4630	12	MESQUITE	N	–
4631	2.5	HACKBERRY	N	–
4632	3	HACKBERRY	N	–
4633	3.5	HACKBERRY	N	–
4634	2.5	HACKBERRY	N	–
4635	2	HACKBERRY	N	–
4636	3	HACKBERRY	N	–
4637	2.5	HACKBERRY	N	–
4638	2.5	HACKBERRY	N	–
4639	2.5	HACKBERRY	N	–
4640	3.5	HACKBERRY	Y	–
4641	3.5	HACKBERRY	N	–
4642	3	HACKBERRY	N	–
4643	3.5	HACKBERRY	Y	–
4644	3.5	HACKBERRY	N	–
4645	3.5	HACKBERRY	Y	–
4646	3	HACKBERRY	Y	–
4647	2.5	HACKBERRY	Y	–
4648	4	HACKBERRY	Y	–
4649	4.5	HACKBERRY	Y	–
4650	3.5	HACKBERRY	Y	–
4651	5	HACKBERRY	Y	–
4652	2.5	HACKBERRY	Y	–
4653	3	HACKBERRY	Y	–
4654	4.5	AMERICAN ELM	Y	–
4655	4	HACKBERRY	Y	–
4656	2.5	HACKBERRY	Y	–
4657	3	HACKBERRY	Y	–
4658	2.5	HACKBERRY	Y	–
4659	3	HACKBERRY	N	–
4660	2.5	HACKBERRY	Y	–
4661	3	HACKBERRY	Y	–
4662	3	HACKBERRY	Y	–
4663	4	HACKBERRY	Y	–
4664	2	HACKBERRY	Y	–
4665	2.5	HACKBERRY	N	–
4666	2	HACKBERRY	N	–
4670	3.5	HACKBERRY	N	–
4671	3	HACKBERRY	N	–
4672	4	HACKBERRY	N	–
4673	5	HACKBERRY	N	–
4674	3.5	HACKBERRY	N	–
4675	2.5	HACKBERRY	Y	–
4676	3	HACKBERRY	Y	–
4677	2	GUM BUMELIA	Y	–
4678	4	HACKBERRY	N	–
4679	2	HACKBERRY	N	–
4680	4	HACKBERRY	N	–
4681	4.5	HACKBERRY	N	–
4683	13	MESQUITE	N	–
4684	2.5	HACKBERRY	N	–
4685	8	MESQUITE	N	–
4686	3.5	HACKBERRY	Y	–
4687	5.5	MESQUITE	Y	–
4688	3	CEDAR ELM	Y	–
4689	10	MESQUITE	N	–
4690	2.5	HACKBERRY	Y	–
4691	2	CEDAR ELM	Y	–
4692	7	MESQUITE	N	–
4693	2	GUM BUMELIA	N	–
4694	6	CEDAR ELM	Y	6
4695	3.5	HACKBERRY	Y	–
4696	4	CEDAR ELM	Y	–
4697	7	MESQUITE	N	–
4698	2.5	HACKBERRY	N	–
4699	4	CEDAR ELM	Y	–
4700	3	HACKBERRY	N	–
4701	6	MESQUITE	N	–
4702	2	HACKBERRY	N	–
4703	2	HACKBERRY	N	–
4704	2	HACKBERRY	N	–
4705	4	CEDAR ELM	Y	–
4706	3	HACKBERRY	Y	–
4707	3.5	MESQUITE	Y	–
4708	4	HACKBERRY	Y	–
4709	4	HACKBERRY	N	–
4710	2.5	HACKBERRY	N	–
4711	5	HACKBERRY	N	–
4713	2.5	HACKBERRY	N	–
4714	6	CEDAR ELM	Y	6
4715	2.5	MESQUITE	Y	–
4716	3	HACKBERRY	N	–
4717	2	HACKBERRY	Y	–
4718	2.5	CEDAR ELM	Y	–
4719	3	GUM BUMELIA	Y	–
4720	4	HACKBERRY	N	–
4721	3	HACKBERRY	Y	–
4723	7	MESQUITE	N	–
4724	3	MESQUITE	N	–
4726	6	MESQUITE	Y	–
4727	2	HACKBERRY	Y	–
4728	2	HACKBERRY	Y	–
4729	3	HACKBERRY	Y	–
4730	5	HACKBERRY	N	–
4731	2.5	HACKBERRY	N	–
4732	5	HACKBERRY	N	–
4733	3	HACKBERRY	N	–
4734	2.5	AMERICAN ELM	N	–
4735	4.5	HACKBERRY	Y	–
4736	3.5	HACKBERRY	Y	–
4737	4	HACKBERRY	Y	–
4738	2	HACKBERRY	Y	–
4739	2.5	HACKBERRY	Y	–
4740	3	HACKBERRY	Y	–
4741	3	HACKBERRY	Y	–
4742	3	HACKBERRY	Y	–
4743	2.5	HACKBERRY	Y	–
4744	2	HACKBERRY	N	–
4745	3	HACKBERRY	N	–
4746	6	HACKBERRY	N	–
4747	2	HACKBERRY	N	–
4748	5	HACKBERRY	N	–
4749	2.5	HACKBERRY	N	–
4750	3	HACKBERRY	N	–
4751	3	HACKBERRY	N	–
4752	4	HACKBERRY	N	–
4753	4	HACKBERRY	Y	–
4754	2	HACKBERRY	Y	–
4755	3	HACKBERRY	Y	–
4756	2	HACKBERRY	Y	–
4757	3	HACKBERRY	Y	–
4758	4.5	HACKBERRY	Y	–
4759	5	HACKBERRY	Y	–
4760	4.5	HACKBERRY	Y	–
4761	4	HACKBERRY	N	–
4762	2.5	HACKBERRY	N	–
4763	6	HACKBERRY	N	–
4764	4	HACKBERRY	Y	–
4765	4	HACKBERRY	Y	–
4766	4	HACKBERRY	N	–
4767	4	HACKBERRY	Y	–
4768	4.5	HACKBERRY	Y	–
4769	4	CEDAR ELM	Y	–
4770	2	HACKBERRY	Y	–
4771	2	HACKBERRY	Y	–
4772	2.5	HACKBERRY	Y	–
4773	6	HACKBERRY	Y	6
4774	4	HACKBERRY	Y	–
4775	3.5	HACKBERRY	Y	–
4776	3	HACKBERRY	Y	–
4777	3	HACKBERRY	Y	–
4778	4	HACKBERRY	Y	–
4779	5	AMERICAN ELM	Y	–
4780	5	HACKBERRY	Y	–
4781	6.5	HACKBERRY	Y	6.5
4782	3	AMERICAN ELM	Y	–
4783	6.5	HACKBERRY	Y	6.5
4784	5	HACKBERRY	Y	–
4785	6	HACKBERRY	Y	6
4786	2.5	HACKBERRY	Y	–
4787	2	HACKBERRY	Y	–
4788	4	HACKBERRY	Y	–
4789	3	HACKBERRY	Y	–
4790	2.5	HACKBERRY	Y	–
4791	3	HACKBERRY	Y	–
4792	3.5	HACKBERRY	Y	–
4793	5	HACKBERRY	Y	–
4794	5	HACKBERRY	Y	–
4795	5	HACKBERRY	Y	–
4796	4	HACKBERRY	Y	–
4797	3	HACKBERRY	Y	–
4798	4	HACKBERRY	Y	–
4799	4.5	HACKBERRY	Y	–
4800	4	HACKBERRY	Y	–
4801	3	CEDAR ELM	Y	–
4802	2	CEDAR ELM	Y	–
4803	2.5	HACKBERRY	Y	–
4804	4	CEDAR ELM	Y	–
4805	4	HACKBERRY	Y	–
4806	2	HACKBERRY	Y	–
4807	2	CEDAR ELM	Y	–
4808	6	HACKBERRY	Y	6
4809	4	HACKBERRY	Y	–
4810	2	HACKBERRY	Y	–
4811	2	HACKBERRY	Y	–
4812	2	HACKBERRY	Y	–
4813	2	HACKBERRY	Y	–
4814	2.5	HACKBERRY	Y	–
4815	3	HACKBERRY	Y	–
4816	2.5	HACKBERRY	Y	–
4817	2.5	HACKBERRY	Y	–
4818	3	HACKBERRY	Y	–
4819	5	HACKBERRY	Y	–
4820	3	CEDAR ELM	Y	–
4821	5	HACKBERRY	Y	–
4822	2	HACKBERRY	Y	–
4823	2	HACKBERRY	Y	–
4824	2.5	HACKBERRY	Y	–
4825	2	HACKBERRY	Y	–
4826	3.5	HACKBERRY	Y	–
4827	2.5	HACKBERRY	Y	–
4828	2	HACKBERRY	Y	–
4829	2	HACKBERRY	Y	–
4830	2	HACKBERRY	Y	–
4831	2	HACKBERRY	Y	–
4832	2	HACKBERRY	Y	–
4833	5	HACKBERRY	Y	–
4834	5	HACKBERRY	Y	–
4835	2.5	HACKBERRY	Y	–
4836	2.5	HACKBERRY	Y	–
4837	3	HACKBERRY	Y	–
4838	3.5	HACKBERRY	Y	–
4839	2	HACKBERRY	Y	–
4840	4	HACKBERRY	Y	–
4841	4	HACKBERRY	Y	–
4842	7	HACKBERRY	Y	7
4843	2.5	HACKBERRY	Y	–
4844	3.5	HACKBERRY	Y	–
4845	3	HACKBERRY	Y	–
4846	3.5	HACKBERRY	Y	–
4847	3.5	HACKBERRY	Y	–
4848	2	HACKBERRY	Y	–
4849	5	HACKBERRY	Y	–
4850	3.5	HACKBERRY	Y	–
4851	5	HACKBERRY	Y	–
4852	4.5	HACKBERRY	Y	–
4853	5.5	HACKBERRY	Y	–
4854	2.5	HACKBERRY	Y	–
4855	2	HACKBERRY	Y	–
4856	2	HACKBERRY	Y	–
4857	3	HACKBERRY	Y	–
4858	4	HACKBERRY	Y	–
4859	3	HACKBERRY	Y	–
4860	4	HACKBERRY	Y	–
4861	3.5	HACKBERRY	Y	–
4862	2	HACKBERRY	Y	–
4863	5	AMERICAN ELM	Y	–
4864	3	HACKBERRY	Y	–
4865	2.5	HACKBERRY	Y	–
4866	5	HACKBERRY	Y	–
4867	4	HACKBERRY	Y	–
4868	6	HACKBERRY	Y	6
4869	2	HACKBERRY	Y	–
4870	3	HACKBERRY	Y	–
4871	4	HACKBERRY	Y	–
4872	4	HACKBERRY	Y	–
4873	2	HACKBERRY	Y	–
4874	3	HACKBERRY	Y	–
4875	4	HACKBERRY	Y	–
4876	6	HACKBERRY	Y	6
4877	2	HACKBERRY	Y	–
4878	3	HACKBERRY	Y	–
4879	3	HACKBERRY	Y	–
4880	6	HACKBERRY	Y	6
4881	2.5	HACKBERRY	Y	–
4882	5	HACKBERRY	Y	–
4883	3	HACKBERRY	Y	–
4884	3	HACKBERRY	Y	–
4885	4	HACKBERRY	Y	–
4886	5	HACKBERRY	Y	–
4887	4	HACKBERRY	Y	–
4888	3	HACKBERRY	Y	–
4889	3	HACKBERRY	Y	–
4890	3	HACKBERRY	Y	–
4891	3.5	HACKBERRY	Y	–
4892	4	HACKBERRY	Y	–
4893	2	HACKBERRY	Y	–
4894	4.5	HACKBERRY	Y	–
4895	4.5	HACKBERRY	Y	–
4896	3	HACKBERRY	Y	–
4897	3	HACKBERRY	Y	–
4898	2.5	HACKBERRY	Y	–
4899	4	HACKBERRY	Y	–
4900	3	HACKBERRY	Y	–
4901	3	HACKBERRY	Y	–
4902	6	HACKBERRY	Y	6
4903	3	HACKBERRY	Y	–
4904	4	HACKBERRY	Y	–
4905	4	HACKBERRY	Y	–
4906	2.5	HACKBERRY	Y	–
4907	3	HACKBERRY	Y	–
4908	2.5	HACKBERRY	Y	–
4909	3	HACKBERRY	Y	–
4910	3	HACKBERRY	Y	–
4911	6	HACKBERRY	Y	6
4912	3	HACKBERRY	Y	–
4913	3	HACKBERRY	Y	–
4915	6	HACKBERRY	Y	6
4916	3.5	HACKBERRY	Y	–
4917	2.5	HACKBERRY	Y	–
4918	6	HACKBERRY	Y	6
4919	4	HACKBERRY	Y	–
4920	2	HACKBERRY	Y	–
4921	5.5	HACKBERRY	Y	–
4922	5	HACKBERRY	Y	–
4923	5	HACKBERRY	Y	–
4924	2	HACKBERRY	Y	–
4925	3	HACKBERRY	Y	–
4926	4	HACKBERRY	Y	–
4927	2	HACKBERRY	Y	–
4928	3.5	HACKBERRY	Y	–
4929	2	HACKBERRY	Y	–
4930	4	HACKBERRY	Y	–
4931	3	HACKBERRY	Y	–
4932	4	HACKBERRY	Y	–
4933	4	HACKBERRY	Y	–
4934	2	HACKBERRY	Y	–
4935	3.5	HACKBERRY	Y	–
4936	6	HACKBERRY	Y	6
4937	7	HACKBERRY	Y	7
4938	7	HACKBERRY	Y	7
4939	3	HACKBERRY	Y	–
4940	3	HACKBERRY	Y	–
4941	3	HACKBERRY	Y	–
4942	3	HACKBERRY	Y	–
4943	3	HACKBERRY	Y	–
4944	3	HACKBERRY	Y	–
4945	3	HACKBERRY	Y	–
4946	3	HACKBERRY	Y	–
4947	3	HACKBERRY	Y	–
4948	3	HACKBERRY	Y	–
4949	3	HACKBERRY	Y	–
4950	4.5	HACKBERRY	Y	–
4951	3	HACKBERRY	Y	–
4952	2.5	HACKBERRY	Y	–
4953	3	HACKBERRY	Y	–
4954	3	HACKBERRY	Y	–
4955	10	HACKBERRY	Y	10
4956	5.5	HACKBERRY	Y	–
4957	5	HACKBERRY	Y	–
4958	3.5	HACKBERRY	Y	–
4959	3	HACKBERRY	Y	–
4960	3	HACKBERRY	Y	–
4961	4	HACKBERRY	Y	–
4962	6.5	HACKBERRY	Y	6.5
4963	4.5	HACKBERRY	Y	–
4965	3.5	HACKBERRY	Y	–
4966	3	HACKBERRY	Y	–
4967	3	HACKBERRY	Y	–
4968	3	HACKBERRY	Y	–
4969	5	HACKBERRY	Y	–
4970	4.5	HACKBERRY	Y	–
4971	3	HACKBERRY	Y	–
4972	4.5	HACKBERRY	Y	–
4973	2.5	HACKBERRY	Y	–
4974	4	HACKBERRY	Y	–
4975	3	HACKBERRY	Y	–
4976	7	HACKBERRY	Y	7
4977	3	HACKBERRY	Y	–
4978	3	HACKBERRY	Y	–
4979	3	HACKBERRY	Y	–
4980	2.5	HACKBERRY	Y	–
4981	3.5	HACKBERRY	Y	–
4982	6	HACKBERRY	Y	6
4983	6.5	HACKBERRY	Y	6.5
4984	7	HACKBERRY	Y	7
4985	6	HACKBERRY	Y	6
4986	4	HACKBERRY	Y	–
4987	3.5	HACKBERRY	Y	–
4989	3	HACKBERRY	Y	–
4990	4	HACKBERRY	Y	–
4991	3	HACKBERRY	Y	–
4992	5.5	HACKBERRY	Y	–
4993	2.5	HACKBERRY	Y	–
4994	3.5	HACKBERRY	Y	–
4995	4.5	HACKBERRY	Y	–
4996	4	HACKBERRY	Y	–
4997	2.5	HACKBERRY	Y	–
4998	4.5	HACKBERRY	Y	–
4999	2	HACKBERRY	Y	–
5000	3	HACKBERRY	Y	–

LAKESIDE PARK AT THE TRIBUTE

THE COLONY, TEXAS

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REGISTERED LANDSCAPE ARCHITECT
CHARLES S. HOWARD
2936
STATE OF TEXAS
02/03/2021

Revisions

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Date
02-03-2021
Phase
CITY SUBMITTALS
Job Number
MSTS901

Scale **North**

Drawing Title

TREE SCHEDULE FOR MITIGATION

Drawing Number

NOT FOR CONSTRUCTION

L0.1.3

GENERAL PLANTING NOTES:

1. VERIFY LOCATIONS OF ALL PERTINENT SITE IMPROVEMENTS INSTALLED UNDER OTHER SCOPES AND UTILITIES. IF ANY PART OF THIS PLAN CANNOT BE FOLLOWED DUE TO SITE CONDITIONS, CONTACT THE LANDSCAPE ARCHITECT FOR INSTRUCTION PRIOR TO COMMENCING WORK.

2. AGRONOMIC SOIL TESTING TO OCCUR ON SITE AT LOCATIONS, PER SPECIFICATION SECTIONS 32 91 13. PROVIDE FOUR (4) TEST SAMPLES BASED ON SOIL TAKEN FROM A MINIMUM OF FOUR AREAS WITHIN SITE AT GENERALLY EQUAL SPACING ON SITE AND IN LOCATIONS APPROVED BY LANDSCAPE ARCHITECT.

3. SAMPLES SHALL THEN BE TESTED AND ANALYZED FOR AGRICULTURAL SUITABILITY AND FERTILITY BY ACCREDITED SOIL TESTING LABORATORY PER SPECIFICATIONS. ANALYSIS SHALL INCLUDE REVIEW AND COORDINATION WITH SPECIFICATIONS AND RECOMMENDATIONS FOR SOIL PREPARATION AND BACKFILL MIX. SUBMIT SOILS ANALYSES TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO SOIL PREPARATION. THIS REQUIREMENT APPLIES TO ALL SOILS AND CONDITIONS WITHIN THIS PROJECT.

4. FINAL GRADING SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT IN THE FIELD PRIOR TO PLANTING.

5. FINISH GRADES OF ALL SHRUB AREAS SHALL BE (2 1/2") BELOW ADJACENT CURB OR PAVEMENT. APPLY MULCH (2" DEPTH) SHALL BE 1/2" BELOW ADJACENT PAVEMENT.

6. FINISH GRADES OF ALL TURF AREAS SHALL BE 1/2" BELOW ADJACENT CURB OR PAVEMENT, (UNLESS OTHERWISE NOTED). TOPSOIL SHALL BE A MINIMUM OF 8 INCHES IN DEPTH OVER ALL NON-HARDSCAPE AREAS PER SPECIFICATIONS AND PLACED SUCH THAT TOP ELEVATION OF TOPSOIL IS ELEVATION OF FINISHED GRADE. TOPSOIL SHALL CONFORM TO SPECIFICATIONS, IMPORT SOIL SHALL BE SIMILAR TO THE AREA'S EXISTING TOPSOIL, REFER TO SPECIFICATIONS. ON SITE TOPSOIL FROM STRIPPING OPERATIONS SHALL BE USED ON SITE PRIOR TO OFF SITE TOPSOIL USE. TESTING OF ON SITE TOPSOIL TO OCCUR PER SPECIFICATIONS ANDAMENDMENTS SHALL BE PROVIDED PER RESULTS OF TESTING. OFF SITE TOPSOILS SHALL BE TESTED PER SPECIFICATION AND AMENDED PER RECOMMENDATIONS FROM TESTING AGENT AND HORTICULTURIST. REFER TO SPECIFICATIONS FOR SOIL AMENDMENTS AND DEPTHS.

7. ALL PLANTING BEDS SHALL RECEIVE REQUIRED BED PREPARATIONS ADDED TO TOPSOIL PER SOIL ANALYSIS RECOMMENDATIONS AND PER SPECIFICATIONS.

8. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FINE GRADING, REMOVAL OF MISCELLANEOUS DEBRIS AND ANY ADDITIONAL FILL REQUIRED TO CREATE A SMOOTH CONDITION PRIOR TO PLANTING IN ALL AREAS.

9. LANDSCAPE AND OPEN AREAS SHALL BE KEPT FREE OF TRASH, LITTER AND WEEDS AT ALL TIMES DURING CONSTRUCTION.

10. PROVIDE MATCHING FORMS AND SIZES FOR ALL PLANT MATERIALS WITHIN EACH SPECIES, PLANT TYPE AND SIZE DESIGNATED.

11. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL PLANT COUNTS AND SQUARE FOOTAGE'S. QUANTITIES, IF PROVIDED ON THESE DOCUMENTS ARE FOR OWNER INFORMATION ONLY. ALL PLANT QUANTITIES WITHIN THIS DOCUMENT SET ARE FOR INFORMATION ONLY. PLANT SPACING IS AS INDICATED ON 'PLANT SCHEDULE' UNLESS OTHERWISE NOTED. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE FULL COVERAGE IN ALL PLANTING AREAS AS SPECIFIED IN THE PLANT SCHEDULE REMARKS.

12 ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY AND GROWING CONDITION, AND MUST BE REPLACED WITH PLANT MATERIAL OF SIMILAR VARIETY AND SIZE IF DAMAGED, DESTROYED, OR REMOVED.

13. TREE LOCATIONS ARE DIAGRAMMATIC. CONTRACTOR SHALL STAKE OUT ALL TREE LOCATIONS IN FIELD USING COLORED STAKES FOR EACH DIFFERENT TREE SPECIES FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATION. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST TREES TO FINAL LOCATION IN FIELD.

14. SHRUB, GROUNDCOVER & SEASONAL COLOR BED LAYOUTS SHALL BE STAKED BY CONTRACTOR FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO EXCAVATION OR EDGE SETTING. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST PLANT BED LAYOUTS TO EXACT LOCATION IN FIELD.

15. ALL TREES TO BE PLANTED A MINIMUM OF (10'-0") FEET FROM FACE OF BUILDING AND (5'-0") FEET FROM CURBS OR PAVEMENT EXCEPT AS APPROVED BY LANDSCAPE ARCHITECT. ALL TREES TO BE PLANTED A MINIMUM (5'-0") FROM ALL UTILITY LINES EXCEPT AS APPROVED BY LANDSCAPE ARCHITECT.

17. ALIGN AND EQUALLY SPACE IN ALL DIRECTIONS ALL TREES, SHRUBS AND VINES AS NOTED IN THE DRAWINGS.

18. TREES PLANTED ON A SLOPE SHALL HAVE THE SOIL STAIN AT THE AVERAGE GRADE OF SLOPE.

19. PRUNE NEWLY PLANTED TREES ONLY AS DIRECTED BY LANDSCAPE ARCHITECT.

20. HARDWOOD MULCH SHALL BE USED IN ALL PLANTED AREAS EXCEPT HYDROSEEDED OR LAWN AREAS. ALL AREAS ARE TO BE MULCHED USING SHREDDED HARDWOOD MULCH AS NOTED IN DETAILS AND SPECIFICATIONS. PROVIDE A (2") LAYER OF MULCH COVER (PER SPECIFICATIONS) AT ALL SHRUB AND GROUND COVER AREAS (UNLESS NOTED OTHERWISE).

21. ANY DISTURBED AREAS OR BARE EARTH TO BE PLANTED OR SEEDED INCLUDING AREAS OUTSIDE OF LIMITS IF CREATED DUE TO CONSTRUCTION ACTIVITIES. IF ANY AREAS OCCUR AS AFOREMENTIONED, AND NO PLANT MATERIAL SPECIFIED, CONTACT LANDSCAPE ARCHITECTS FOR DIRECTION.

22. ALL PLANTS LISTED WITH CONTAINER SIZE SHALL MEET THIS SIZE ALONG WITH SPECIFIED PLANT HEIGHT AND WIDTH REQUIREMENTS AS NOTED. IF DISCREPANCY, HEIGHT AND WIDTH SHALL GOVERN. CONTAINERS SIZE FOR PRICING MINIMUMS AND CITY MINIMUM REQUIREMENTS.

PLANT QUANTITY REFERENCE CHART:

QUANTITY FORMULA BASED ON SPACING TYPE		EXAMPLE (100 SQ FT. AREA @ 24" O.C. SPACING)
SQUARE SPACING:	AREA (IN SQ FT.) / SPACING² (IN FEET)	100 / 2² = 25 QTY
TRIANGULAR SPACING:	AREA (IN SQ FT.)/0.86 / SPACING² (IN FEET)	100/0.86 / 2² = 29 QTY
NOTE: DEDUCT THE OFFSET DIMENSION SHOWN TO THE FIRST SHRUB WHEN CALCULATING SQUARE FOOT OF COVERAGE FOR THE AREA.		

NOTE: PLANTING FOR THE SUBJECT SITE SHALL BE AS REVIEWED AND APPROVED BY THE USACE.

TREE SCHEDULE

SYMBOL	ABBREVIATION	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	SPREAD	REMARKS/COMMENTS	QUANTITY	INCHES
TREES									
	ILE VOM	ILEX VOMITORIA	YAUPON HOLLY	4"	8'-10'	5'-7'	FULL, MULTI-TRUNK 3 CANES, MATCHING IN FORM AND CHARACTER.	49	196
	ULM AME	ULMUS AMERICANA	AMERICAN ELM	6"	16' MIN.	8'-10'	FULL, MATCHED CHARACTER IN FORM AND CANOPY, SINGLE TRUNK TRUE CENTRAL LEADER, GRADE A MATERIAL.	5	30
	QUE MAC	QUERCUS MACROCARPA	BUR OAK	4"	14'-16'	6'-8'	FULL, MATCHED CHARACTER IN FORM AND CANOPY, SINGLE TRUE CENTRAL LEADER	23	92
	QUE SHU	QUERCUS SHUMARDII	SHUMARD OAK	6"	18'	10'	SPECIMEN, FULL, UNIFORM, AND MATCHING IN FORM AND CHARACTER. SINGLE, STRAIGHT CENTRAL LEADER.	23	138
	ULM CRA	ULMUS CRASSIFOLIA	CEDAR ELM	6"	16'	8'	FULL, MATCHED CHARACTER IN FORM AND CANOPY, SINGLE TRUE CENTRAL LEADER	26	156
TOTAL								126	612

PLANTING SCHEDULE

SYMBOL	ABBREVIATION	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	REMARKS/COMMENTS
SHRUBS						
	LAN CAM	LANTANA CAMARA	LANTANA	4" POT 8"-10" HT X 8"-10" SPD	12" O.C.E.W.	TRIANGULAR SPACING, WELL ROOTED, FULL AND MATURE
GRASSES						
	CYN DAC	CYNODON DACTYLON	BERMUDA GRASS	SOD	FULL, TIGHT	SOLID SOD, NO DRY EDGES OF WEEDS
	HYDROSEED	CYNODON DACTYLON	BERMUDA GRASS	HYDRO SEED	SEEDED, FULL COVERAGE	HYDROSEED
	CHA LAT	CHASMANTHIUM LATIFOLIUM	INLAND SEA OATS	3 GAL 24"HT X 18"SPD	24" O.C.E.W.	TRIANGULAR SPACING, WELL ROOTED, FULL AND MATURE
	JUN EFF	JUNCUS EFFUSUS	SOFT RUSH	3 GAL. 24"HT X 18"SPD	24" O.C.E.W.	TRIANGULAR SPACING, WELL ROOTED, FULL AND MATURE
	CAL ACU	CALAMAGROSTIS ACUTIFLORA	KARL FOERSTER FEATHER REED GRASS	3 GAL 24"HT X 18"SPD	24" O.C.E.W.	TRIANGULAR SPACING, WELL ROOTED, FULL AND MATURE
	ERA CUR	ERAGROSTIS CURVULA	WEEPING LOVE GRASS	3 GAL 24"HT X 18"SPD	24" O.C.E.W.	TRIANGULAR SPACING, WELL ROOTED, FULL AND MATURE
PERENNIALS/GROUND COVER						
	RUD HIR	RUDBECKIA HIRTA	BLAC-EYED SUSAN	1 GAL 8"HT X 8"SPD	12" O.C.E.W.	TRIANGULAR SPACING, WELL ROOTED, FULL AND MATURE
	RUE HUM	RUELLIA HUMILIS	WILD PETUNIA	1 GAL 8"HT X 8"SPD	12" O.C.E.W.	TRIANGULAR SPACING, WELL ROOTED, FULL AND MATURE
	HIB MOS	HIBISCUS MOSCHEUTOS	SWAMP ROSE MALLOW	3 GAL 24"HT X 18"SPD	24" O.C.E.W.	TRIANGULAR SPACING, WELL ROOTED, FULL AND MATURE

LAKESIDE PARK AT THE TRIBUTE

THE COLONY, TEXAS

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Stamp

REGISTERED LANDSCAPE ARCHITECT JAMES S. MOORE 935 STATE OF TEXAS
02/03/2021

Revisions

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Date
02-03-2021
Phase
CITY SUBMITTALS
Job Number
MSTS901

Scale **North**

Drawing Title

PLANTING NOTES AND SCHEDULE

Drawing Number

NOT FOR CONSTRUCTION

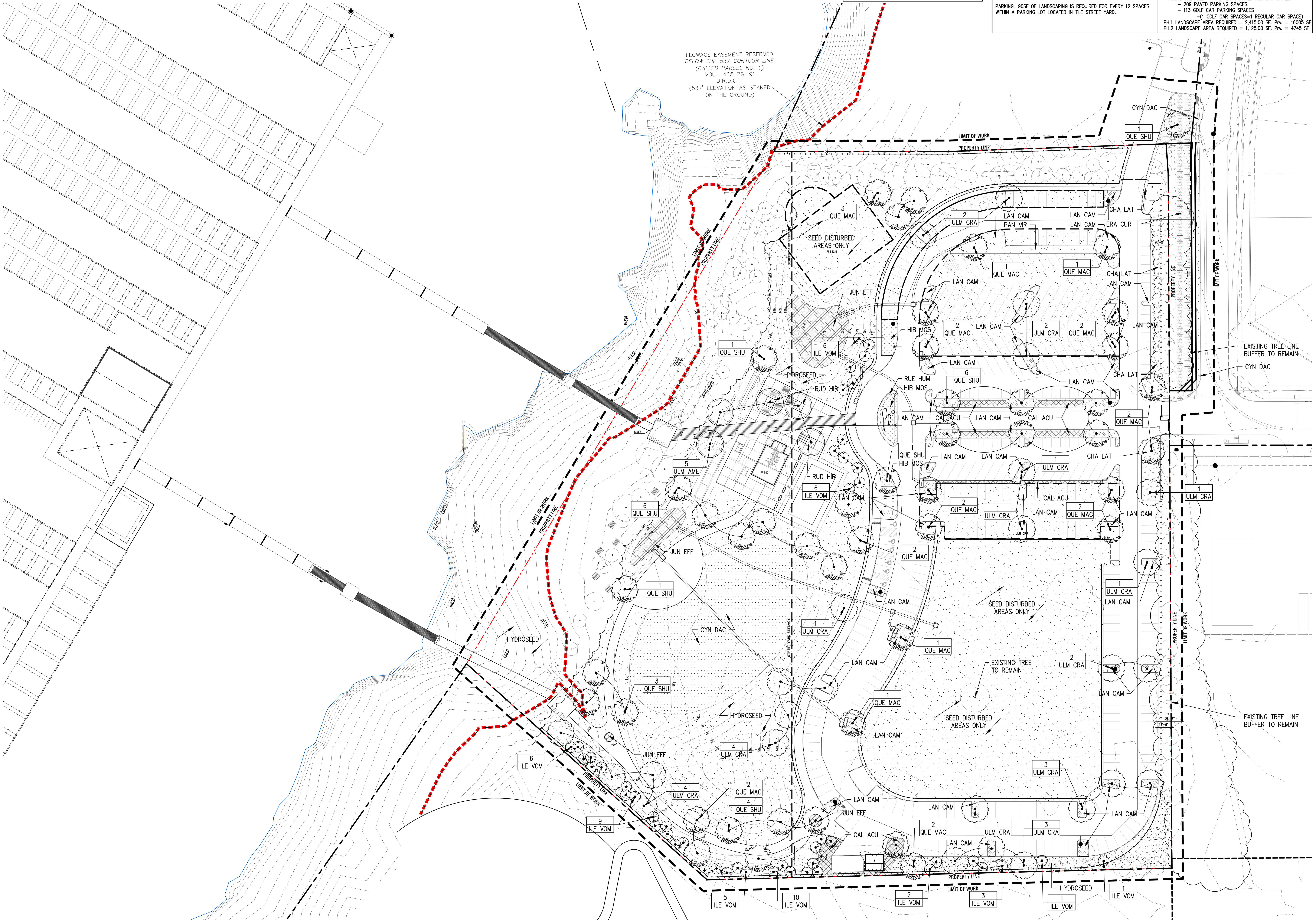
L4.0.1

LAKESIDE PARK AT THE TRIBUTE

THE COLONY, TEXAS

NOTES:
1. ALL AREAS TO BE IRRIGATED WITH AN AUTOMATIC IRRIGATION SYSTEM.
2. PLANTING FOR THE SUBJECT SITE SHALL BE AS REVIEWED AND APPROVED BY THE USACE.
3. LANDSCAPE PARKING REQUIREMENTS ARE SHOWN FOR THE PARKING BEING DEVELOPED ON THIS PARCEL ONLY AND DOES NOT INCLUDE THE 19 SPACES LOCATED ON THE LAKESIDE POOL SITE TO THE NORTH.

REQUIREMENT PER CITY OF THE COLONY SECTION 17-A LANDSCAPING	PROVIDED
STREET YARD LANDSCAPING : AT LEAST 20% OF ALL STREET YARDS SHALL BE LANDSCAPED USING THE RECOMMENDED PLANT LIST OF THE CITY.	TOTAL STREET YARD AREA = 331,186 SF REQUIRED PLANTING AREA = 66,237 SF TOTAL PLANTED AREA = 153,477 SF PLANTED AREA = 24,625 SF OPEN LAWN AREA = 128,852 SF
STREET YARD TREES: STREET YARDS GREATER THAN 110,000SF: 50 TREES PLUS 1 TREE PER 5000SF OVER THE INITIAL 110,000SF	TOTAL STREET YARD TREES REQUIRED = 95 TREES. TOTAL STREET YARD TREES PROVIDED = 260 TREES (196 EXISTING PROTECTED TREES TO REMAIN)
STREET TREES: PROVIDE 1 TREE PER 40LF OF FRONTAGE	TOTAL STREET FRONTAGE: 339 LF = 8 TREES TOTAL CANOPY TREES PROVIDED = 1 TREE. PRESERVE ALL EXISTING VEGETATION AT STREET FRONTAGE AS BUFFER SUBSTITUTION
EVERGREEN SHRUBS: PROVIDE 3 EVERGREEN SHRUBS FOR EVERY 10LF OF BUFFER.	TOTAL BUFFER: 324 LF = 101 SHRUBS REQUIRED EVERGREEN SHRUBS PROVIDED: 0 PRESERVE ALL EXISTING VEGETATION AT STREET FRONTAGE AS BUFFER SUBSTITUTION
PARKING: 90SF OF LANDSCAPING IS REQUIRED FOR EVERY 12 SPACES WITHIN A PARKING LOT LOCATED IN THE STREET YARD.	PARKING PROVIDED = 472 TOTAL PAVED PARKING SPACES - 209 PAVED PARKING SPACES - 113 GOLF CAR PARKING SPACES -(1 GOLF CAR SPACES=1 REGULAR CAR SPACE) PH.1 LANDSCAPE AREA REQUIRED = 2,415.00 SF. Prv. = 16005 SF PH.2 LANDSCAPE AREA REQUIRED = 1,125.00 SF. Prv. = 4745 SF



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REGISTERED LANDSCAPE ARCHITECT
CHARLES S. McDANIEL
936
STATE OF TEXAS
02/03/2021

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Scale
0 25 50
1" = 50'

North

Drawing Title

PLANTING PLAN

Drawing Number

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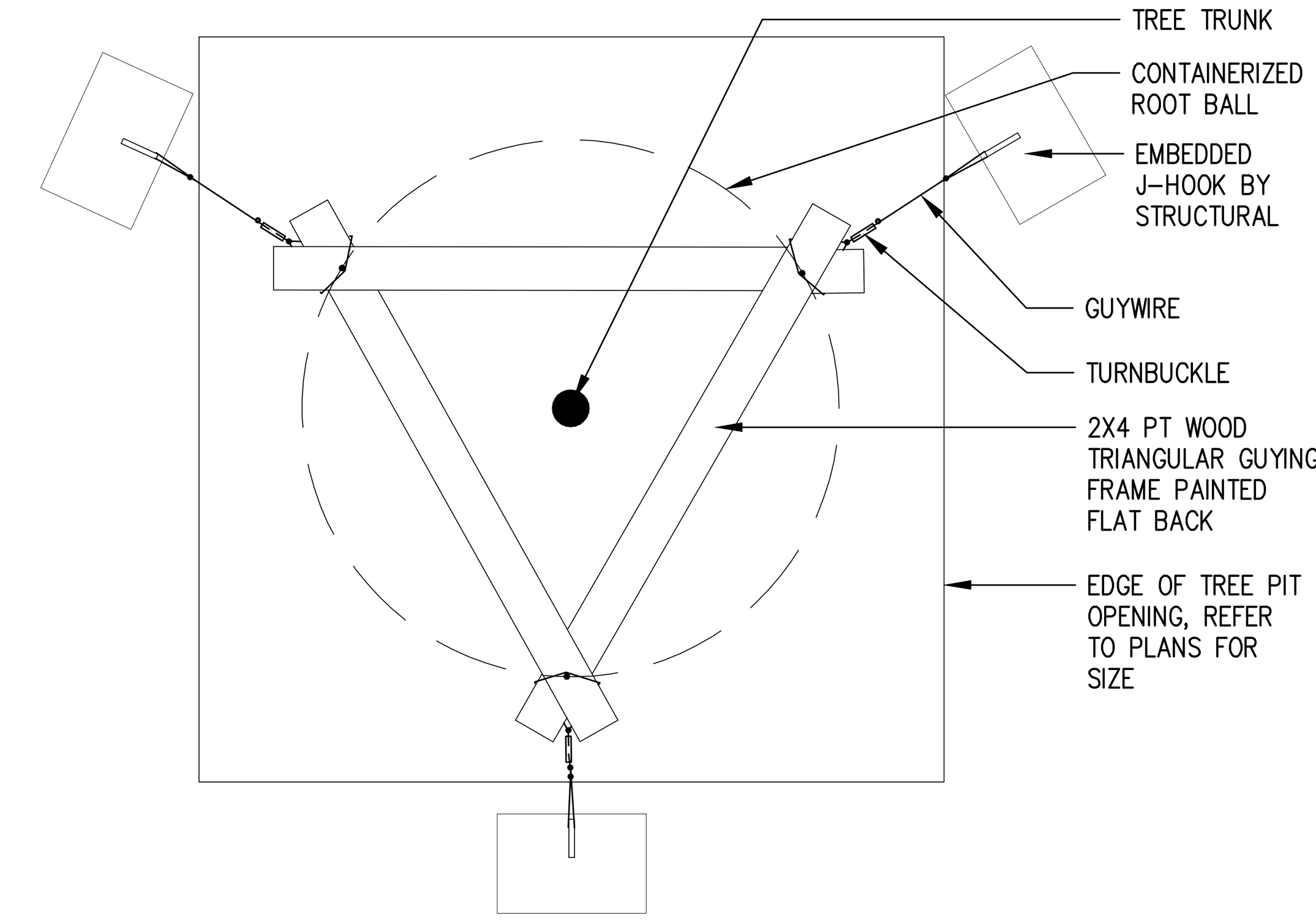
L4.1.1

LAKESIDE PARK AT THE TRIBUTE

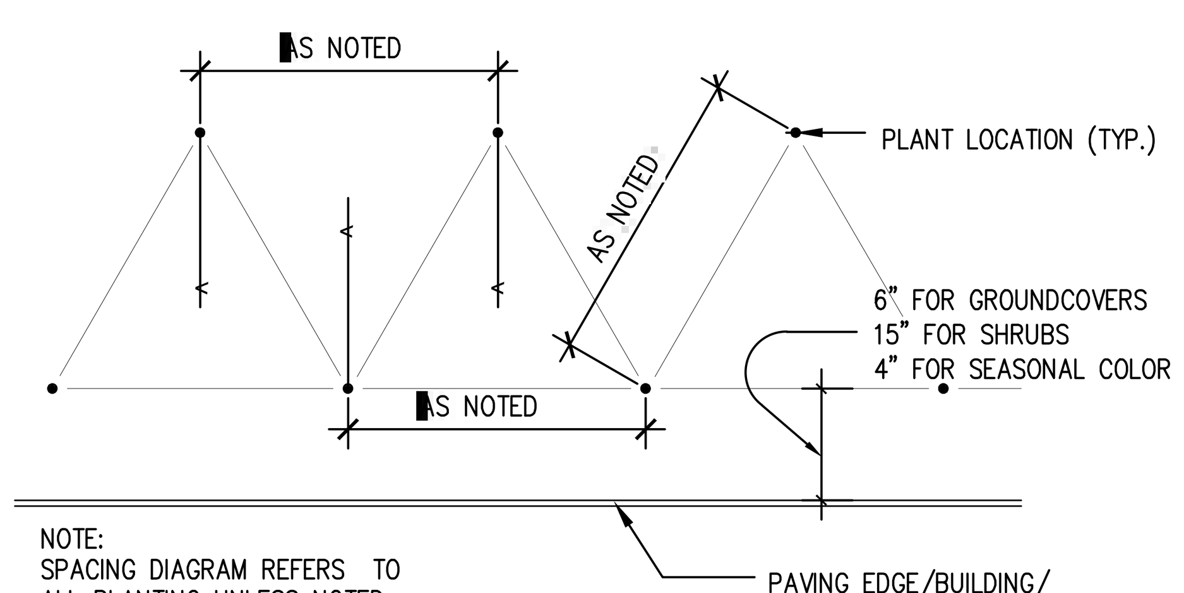
THE COLONY, TEXAS



03 TREE GUYING ON STRUCTURE
1" = 1'-0"

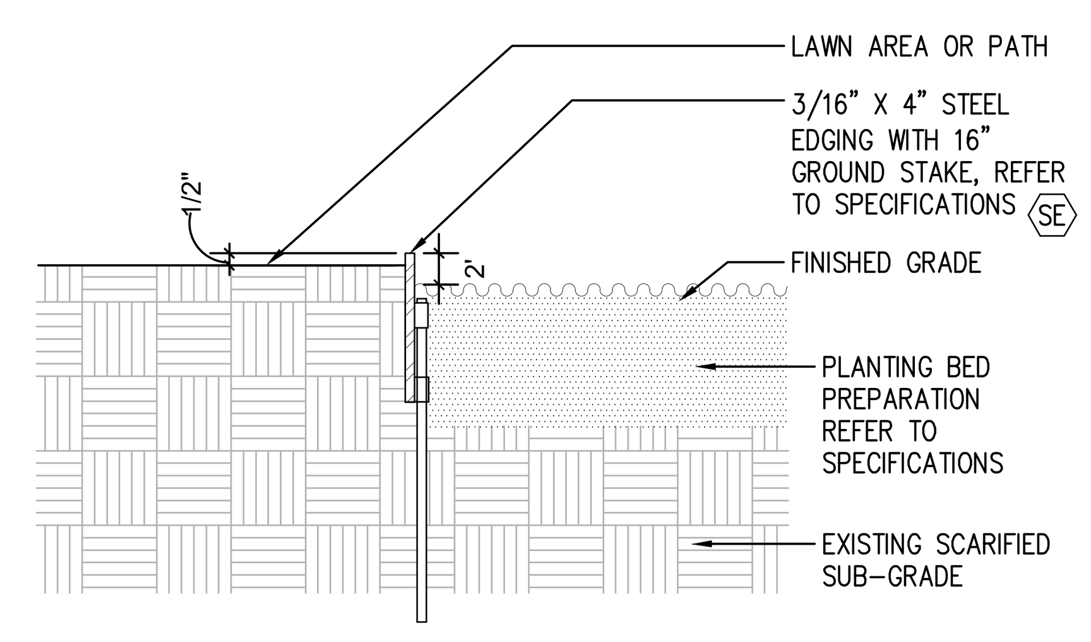
PLANT QUANTITY CALCULATION		EXAMPLE (100 SQ FT. AREA @ 24"' O.C. SPACING)
SQUARE SPACING:	AREA (IN SQ FT.) / SPACING²(IN FEET)	100 / 2² = 25 QTY
TRIANGULAR SPACING:	AREA (IN SQ FT.)/0.86 / SPACING² (IN FEET)	100/0.86 / 2² = 29 QTY

NOTE:
DEDUCT THE OFFSET DIMENSION SHOWN TO THE FIRST SHRUB WHEN CALCULATING SQUARE FOOT OF COVERAGE FOR THE PLANT AREA.

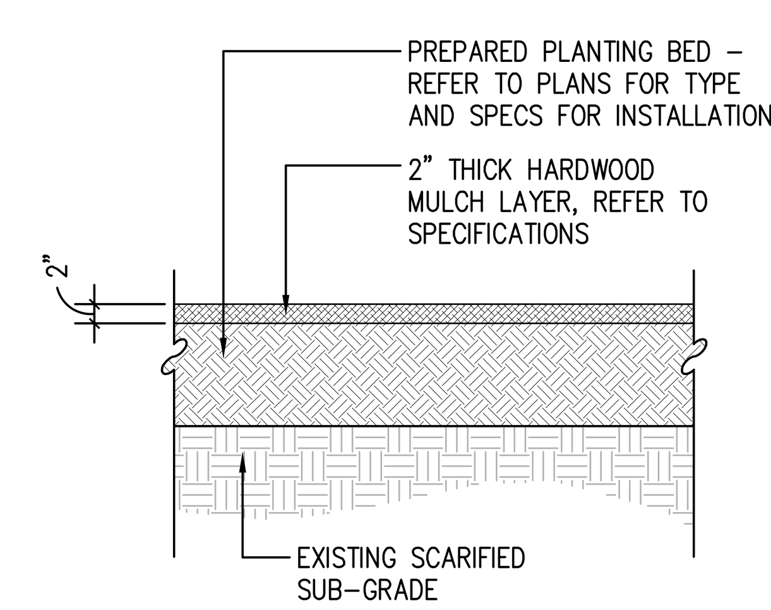


NOTE:
SPACING DIAGRAM REFERS TO ALL PLANTING UNLESS NOTED OTHERWISE.

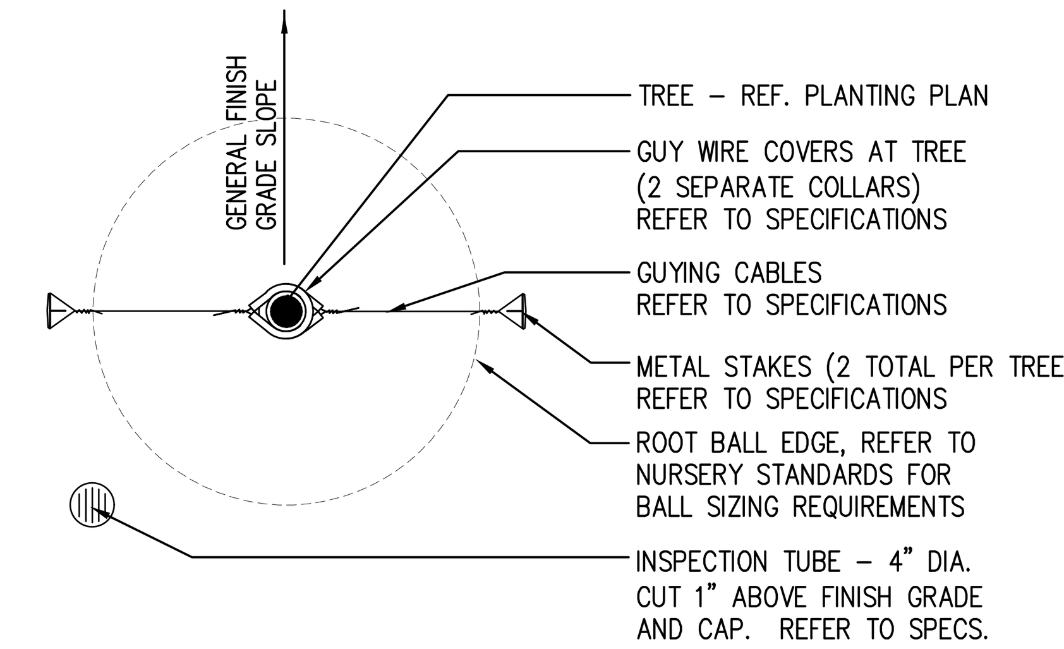
07 TRIANGULAR SPACING PLANTING
1" = 1'-0"



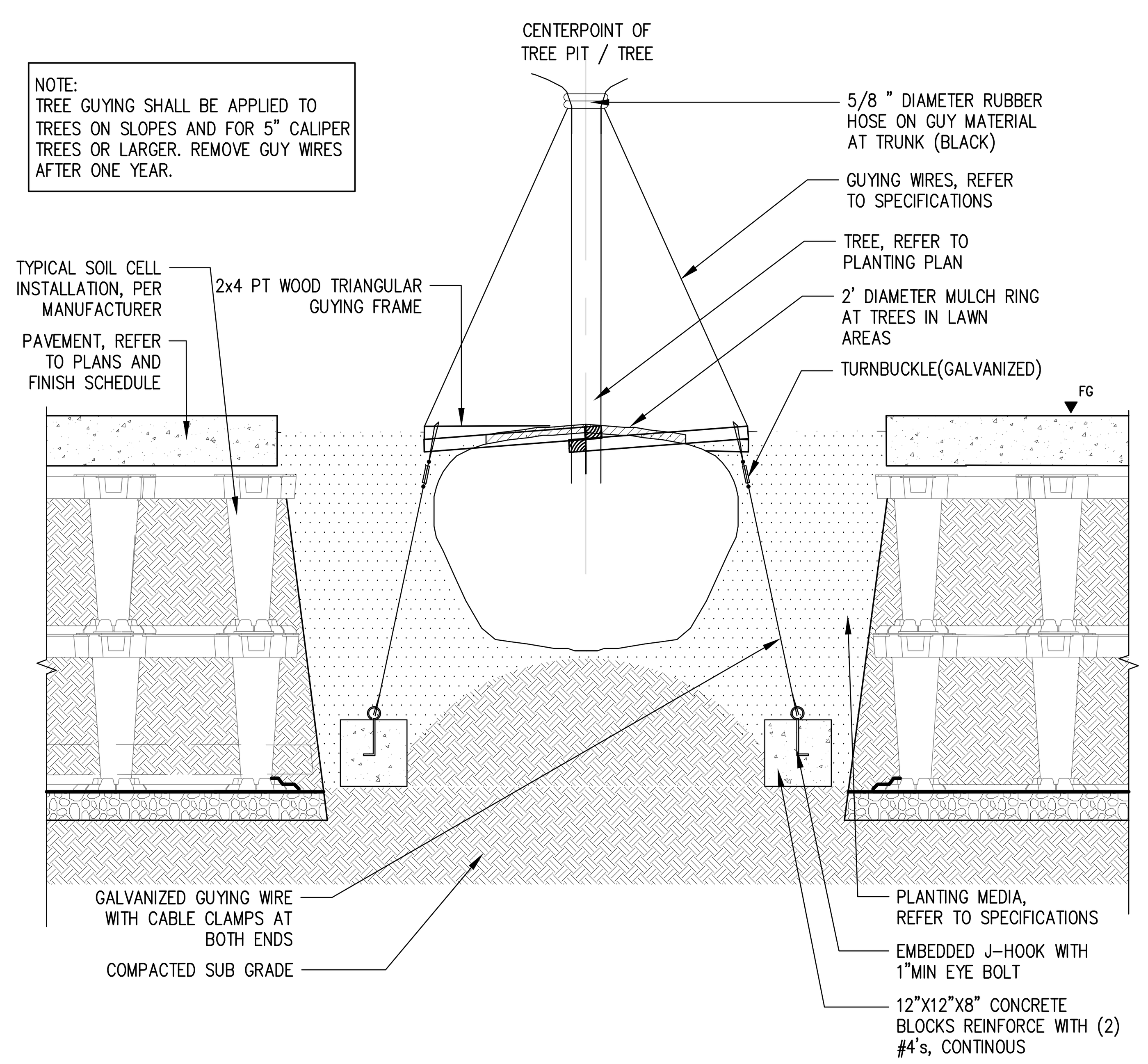
05 TYPICAL STEEL EDGING
1" = 1'-0"



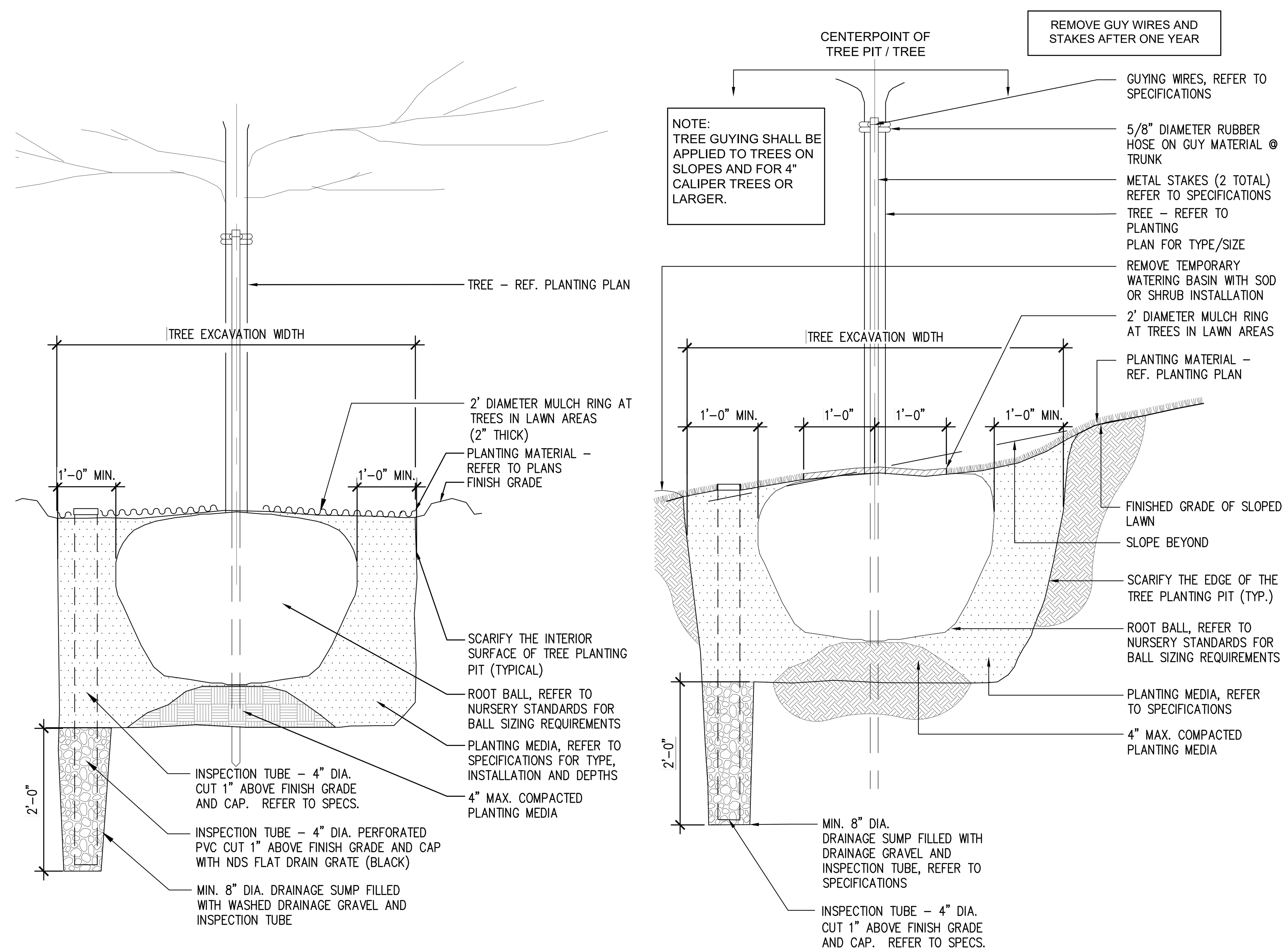
04 HARDWOOD MULCH DETAIL
1" = 1'-0"



02 TYPICAL TREE STAKING
1" = 1'-0"



06 TREE GUYING AT SOIL CELL
1" = 1'-0"



01 TYPICAL TREE PLANTING DETAILS
1" = 1'-0"

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REGISTERED LANDSCAPE ARCHITECT
CHARLES S. McDANIEL
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02/03/2021

Revisions

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CITY SUBMITTALS
Job Number
MSTS901

Scale **North**

Drawing Title

PLANTING DETAILS

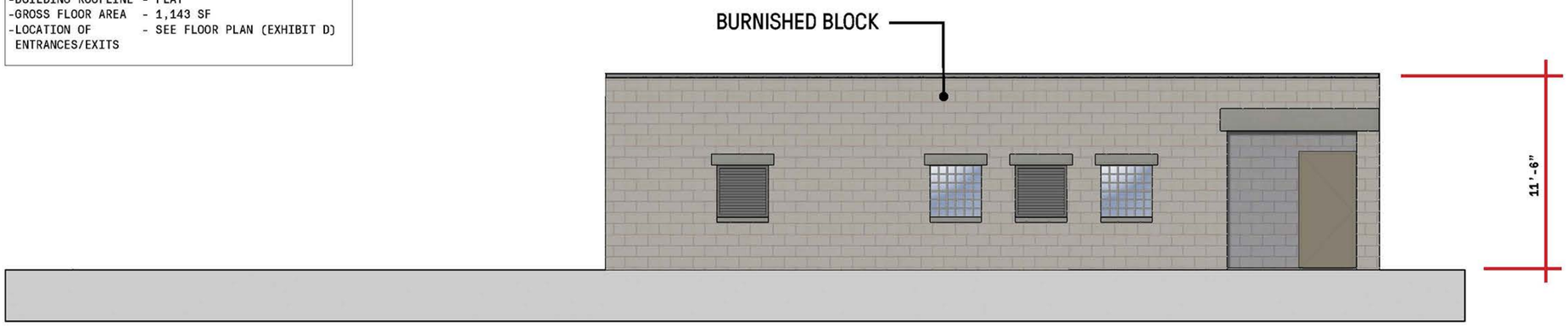
Drawing Number

NOT FOR CONSTRUCTION

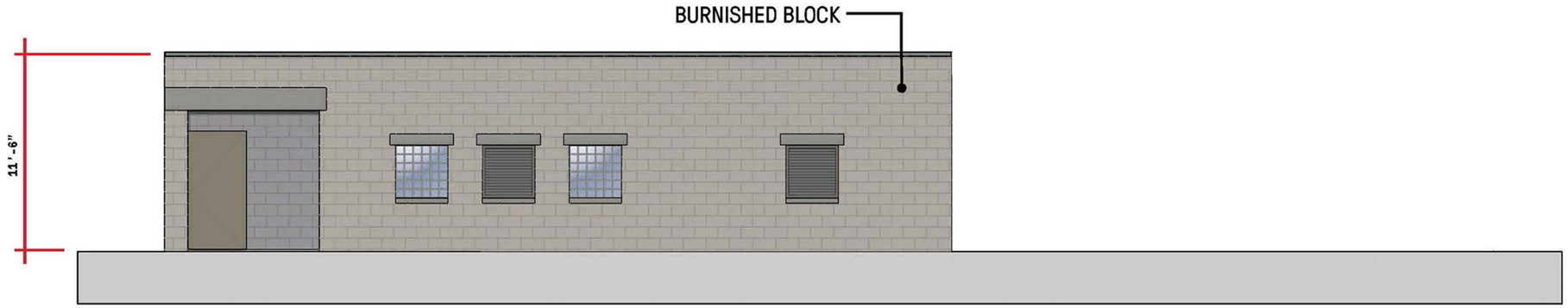
L4.2.1

EXHIBIT E

***GENERAL NOTE:**
-NUMBER OF STORIES - ONE
-BUILDING HEIGHT - 11'-6"
-BUILDING ROOFLINE - FLAT
-GROSS FLOOR AREA - 1,143 SF
-LOCATION OF ENTRANCES/EXITS - SEE FLOOR PLAN (EXHIBIT D)



EXTERIOR ELEVATION
RIGHT SIDE
SCALE:1/8"=1'-0"



EXTERIOR ELEVATION
LEFT SIDE
SCALE:1/8"=1'-0"

EXTERIOR ELEVATION
BACK
SCALE:1/8"=1'-0"

EXTERIOR ELEVATION
FRONT
SCALE:1/8"=1'-0"

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swa

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THE MARINA COMPANY

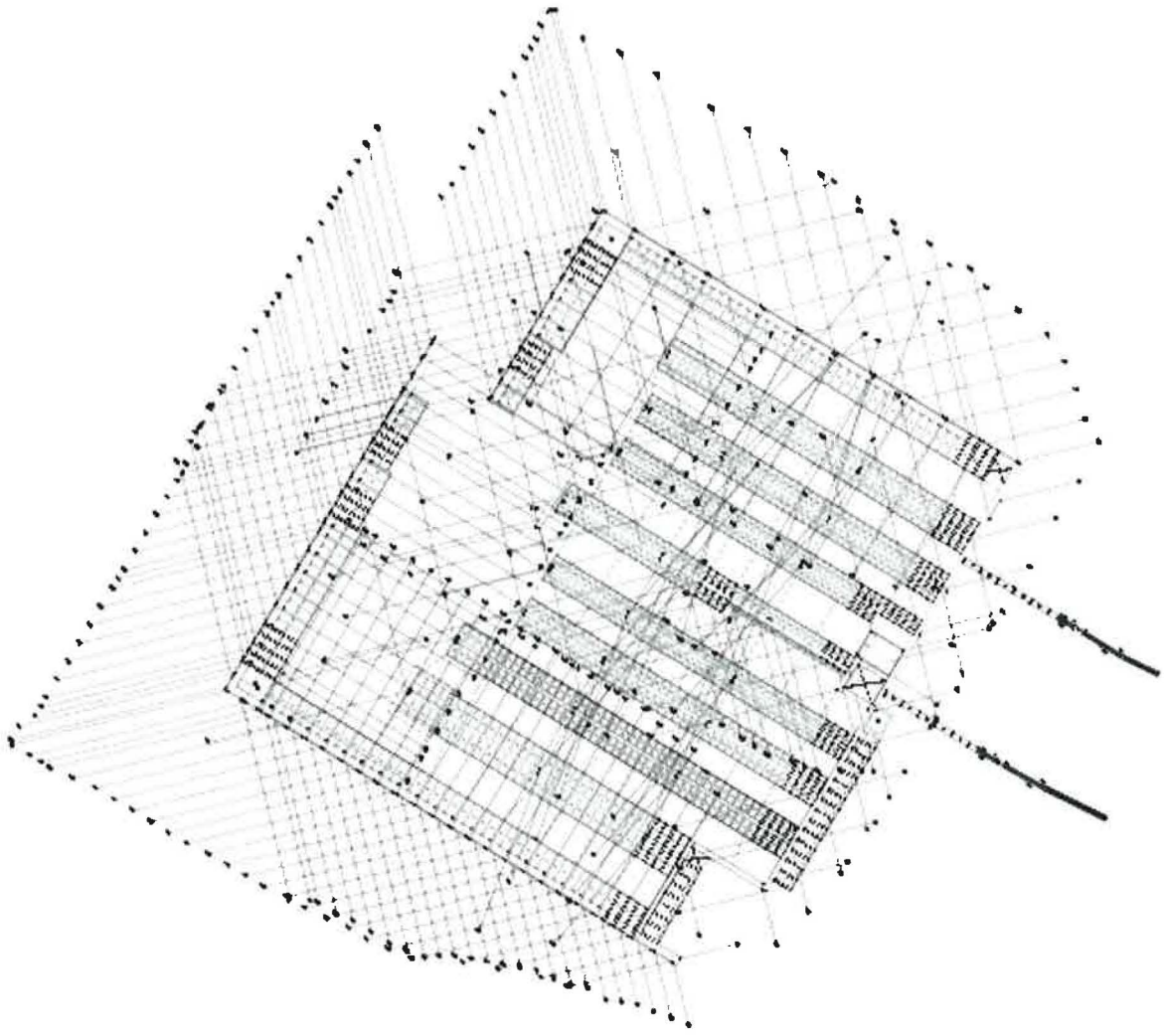
Mr. Ron TenEyck
Via Email

15 October 2020

Subject: **Number of Anchor Blocks for The Tribute Marina**

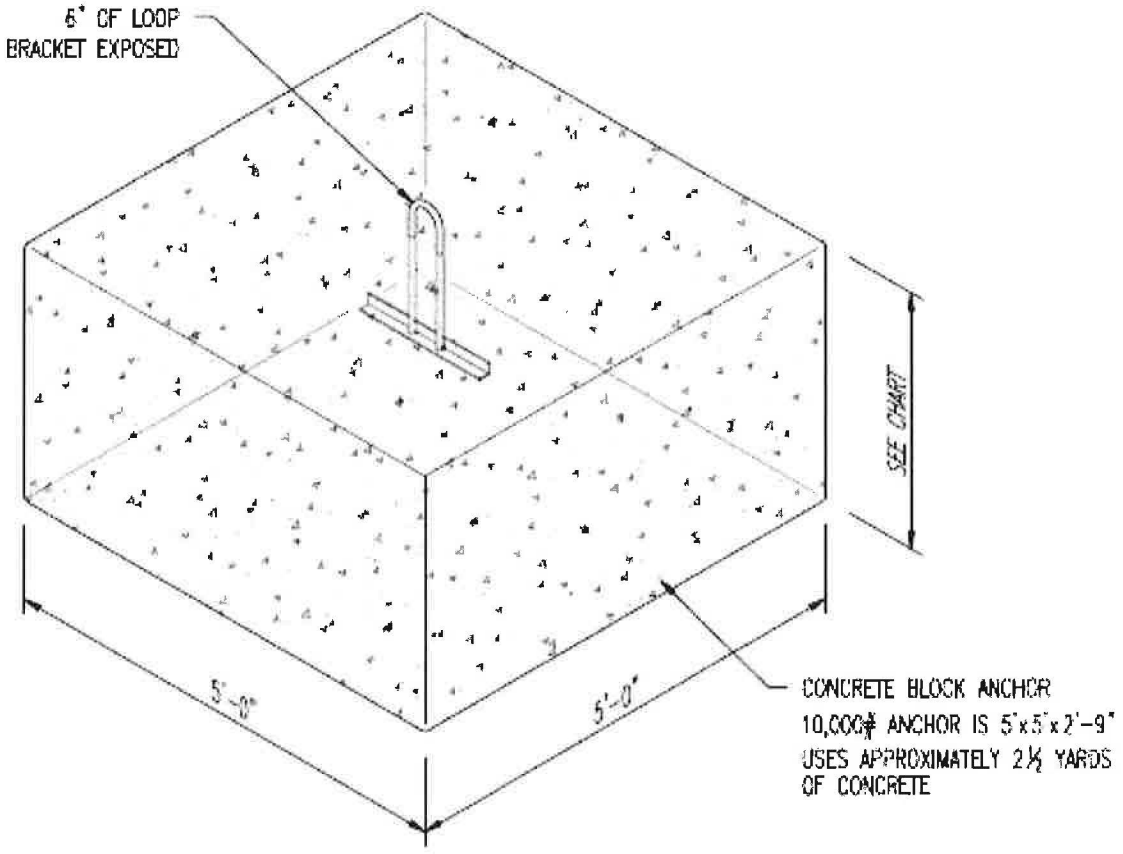
Dear Ron,

The image pasted below is the updated drawing for the anchorage design for The Tribute. As you know, this is an exposed site and will require extensive anchorage, especially for the wave attenuator docks that form the full perimeter of the marina.



We are on our third revision to the anchorage plan, having geolocated each anchor block to facilitate those being dropped in the correct location and correct order. There are 318 anchor blocks required to hold the marina on station.

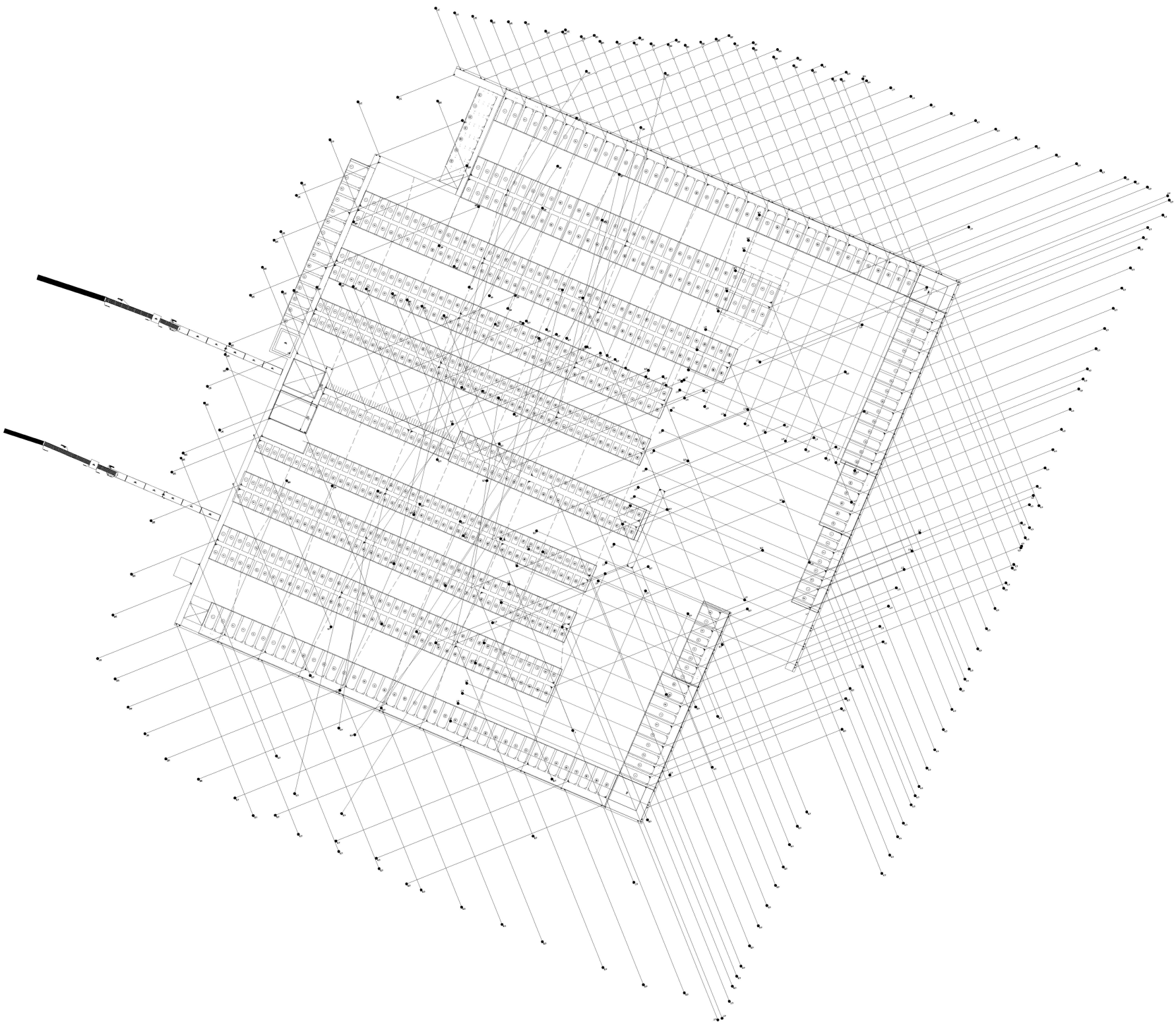
Pasted immediately below is an image of our standard anchor block taken from our Drawings Standards Book. Each anchor block is fabricated using a form and includes rebar for reinforcement. The anchor loop for this project will be stainless steel and the cable will be stainless steel.



At this point in the design, we are incorporating anchor blocks that are no greater in volume than 3.0 cubic yards each. Total volume of the 318 anchor blocks is not expected to exceed 954 cubic yards for the entire marina.

Thank you,

Forrest D. Feiock
Meeco Division Manager
817-690-6407 (cell)



Appendix C

USFWS IPaC Official Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arlington Ecological Services Field Office
2005 Ne Green Oaks Blvd
Suite 140
Arlington, TX 76006-6247
Phone: (817) 277-1100 Fax: (817) 277-1129
http://www.fws.gov/southwest/es/arlingtontexas/
http://www.fws.gov/southwest/es/EndangeredSpecies/lists/

In Reply Refer To: July 19, 2021
Consultation Code: 02ETAR00-2021-SLI-1315
Event Code: 02ETAR00-2021-E-05546
Project Name: Wynnewood Park / Tribute Marina

Subject: Updated list of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, which may occur within the boundary of your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under section 7(a)(1) of the Act, Federal agencies are directed to utilize their authorities to carry out programs for the conservation of threatened and endangered species. Under and 7(a)(2) and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether their actions may affect threatened and endangered species and/or designated critical habitat. A Federal action is an activity or program authorized, funded, or carried out, in whole or in part, by a Federal agency (50 CFR 402.02).

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For Federal actions other than major construction activities, the Service suggests that a biological evaluation (similar to a Biological Assessment) be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

After evaluating the potential effects of a proposed action on federally listed species, one of the following determinations should be made by the Federal agency:

1. *No effect* - the appropriate determination when a project, as proposed, is anticipated to have no effects to listed species or critical habitat. A "no effect" determination does not require section 7 consultation and no coordination or contact with the Service is necessary. However, the action agency should maintain a complete record of their evaluation, including the steps leading to the determination of affect, the qualified personnel conducting the evaluation, habitat conditions, site photographs, and any other related information.
2. *May affect, but is not likely to adversely affect* - the appropriate determination when a proposed action's anticipated effects to listed species or critical habitat are insignificant, discountable, or completely beneficial. Insignificant effects relate to the size of the impact and should never reach the scale where "take" of a listed species occurs. Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not be able to meaningfully measure, detect, or evaluate insignificant effects, or expect discountable effects to occur. This determination requires written concurrence from the Service. A biological evaluation or other supporting information justifying this determination should be submitted with a request for written concurrence.
3. *May affect, is likely to adversely affect* - the appropriate determination if any adverse effect to listed species or critical habitat may occur as a consequence of the proposed action, and the effect is not discountable or insignificant. This determination requires formal section 7 consultation.

The Service has performed up-front analysis for certain project types and species in your project area. These analyses have been compiled into *determination keys*, which allows an action agency, or its designated non-federal representative, to initiate a streamlined process for determining a proposed project's potential effects on federally listed species. The determination keys can be accessed through IPaC.

The Service recommends that candidate species, proposed species, and proposed critical habitat be addressed should consultation be necessary. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (https://www.fws.gov/birds/management/managed-species/eagle-management.php). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds/collisions/communication-towers.php.

For additional information concerning migratory birds and eagle conservation plans, please contact the Service's Migratory Bird Office at 505-248-7882.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arlington Ecological Services Field Office
2005 Ne Green Oaks Blvd
Suite 140
Arlington, TX 76006-6247
(817) 277-1100

Project Summary

Consultation Code: 02ETAR00-2021-SLI-1315
Event Code: 02ETAR00-2021-E-05546
Project Name: Wynnewood Park / Tribute Marina
Project Type: SHORELINE USAGE FACILITIES / DEVELOPMENT
Project Description: The project includes the construction of a proposed marina located on the western shore at the north end of Wynnewood Park on Lake Lewisville in Denton County, Texas. The project will involve the following activities:
1) Marina with 801 wet slips; 4,480 square feet of ships store/deli/fuel service; 4,800 square foot covered deck
2) 5,000 square foot restaurant
3) Parking lot with paved parking (360 vehicle spaces, 113 golf cart spaces); grass parking (176 spaces)
4) Multi-use concrete pad for educational programs and events (with electrical) [100’-4”x 43’-0” (3107.5 SF)]
5) Multi-purpose lawn 36,000 square feet in size
6) Lawn Game Areas

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.10762065,-96.93719703028086,14z

Counties: Denton County, Texas

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Piping Plover *Charadrius melodus*	Threatened
Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/6039	
Red Knot *Calidris canutus rufa*	Threatened
There is **proposed** critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/1864	
Whooping Crane *Grus americana*	Endangered
Population: Wherever found, except where listed as an experimental population There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/758	

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Appendix D

Archaeological Survey Report and SHPO Concurrence

AR Consultants, Inc.

Archaeological and Environmental Consulting
11020 Audelia Road, Suite C105, Dallas, Texas 75243-9085
Phone: (214) 368-0478
Fax: (214) 221-1519
E-mail: arcdigs@aol.com

ARCHAEOLOGICAL SURVEY WITHIN THE

WYNNEWOOD PENINSULA

DEVELOPMENT TRACT,

DENTON COUNTY, TEXAS

Jesse E. Todd, MS, MA

Submitted to:

CARTER & BURGESS, INC.
777 Main Street
Fort Worth, Texas 76102

Prepared by:

AR CONSULTANTS, INC.
11020 Audelia Road, Suite C105
Dallas, Texas 75243-9085

Cultural Resources Report 2008-14
February 21, 2008

ARCHAEOLOGICAL SURVEY WITHIN THE

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Dallas, Texas 75243-9085

Cultural Resources Report 2008-14
February 21, 2008

ABSTRACT

Wynne-Jackson and Matthews Southwest are preparing to construct the Wynnewood Park marina on US Army Corps of Engineers property at Lake Lewisville. The Corps of Engineers requested that an archaeological survey be conducted and AR Consultants, Inc. conducted the survey in February of 2008.

A records research did not reveal any historic or prehistoric cultural resources in the study area but did indicate that the entire tract had been surveyed for archaeological sites and none were found. No archaeological resources were found on the surface of the 26 acre survey area and shovel-testing failed to locate any buried cultural resources. This confirms the results of the previous surveys. The absence of historic occupation is attributed to land use as farmland. Likewise, it appears that the immediate area was not occupied prehistorically.

Based on the field investigation, it is AR Consultant's recommendation that no further cultural resource investigations are warranted on this property and that construction of the marina and associated facilities should be allowed to proceed. The Fort Worth District of the US Army Corps of Engineers should be advised if buried cultural resources are uncovered during construction, and, if found, construction should cease immediately in that area until proper investigations can be carried out.

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r-arc Wynnewood Peninsula

INTRODUCTION

Wynne-Jackson and Matthews Southwest intends to construct a marina and associated facilities on approximately 26 acres along Lake Lewisville's shoreline in The Colony which is located in Denton County, Texas. The study area is approximately 2,085 feet west of Boyd Road and south and west of Ragan Road. In the past, the study area was bounded to the south and southeast by Boyd Road (Figure 1). However, the section of the road shown n the 1960 USGS map no longer exists. The southern and southeastern boundaries consist of a golf course. During the middle of February of 2008, AR Consultants, Inc. conducted an intensive pedestrian archaeological survey of the proposed development tract. The archaeological survey was done for Carter & Burgess, Inc. which is doing the environmental permitting for Wynne-Jackson and Matthews Southwest.

The purpose of the archaeological survey was to determine if cultural materials were present, and, if so, make recommendations about their significance and how they might be impacted by construction. This archaeological survey was required by the Fort Worth District of the US Army Corps of Engineers. The Archeology Division of the Texas Historical Commission will act as the Section 106 review agency.

The archaeological survey was conducted as part of the environmental review needed to meet relevant federal legislative requirements. These include legislation such as the National Historic Preservation Act of 1966, as amended (PL-96-515), the National Environmental Policy Act of 1969 (PL-90-190), the Archeological and Historical Preservation Act of 1974, as amended (PL-93-291), Executive Order No. 11593 "Protection and Enhancement of the Cultural Environment" and Procedures for the Protection of Historic and Cultural Properties (36CFR800), Appendix C.

The following report contains a brief description of the natural environment, the culture history and then a review of previous investigations in the area. This is followed by the research design and methodology. The description of the archaeologically surveyed tract constitutes the major part of this report. Recommendations are contained in the final chapter. A list of references cited concludes the report. This report was written in accordance with the guidelines for reports adopted by the Texas Historical Commission, Archeology Division, and developed by the Council of Texas Archeologists (ND).

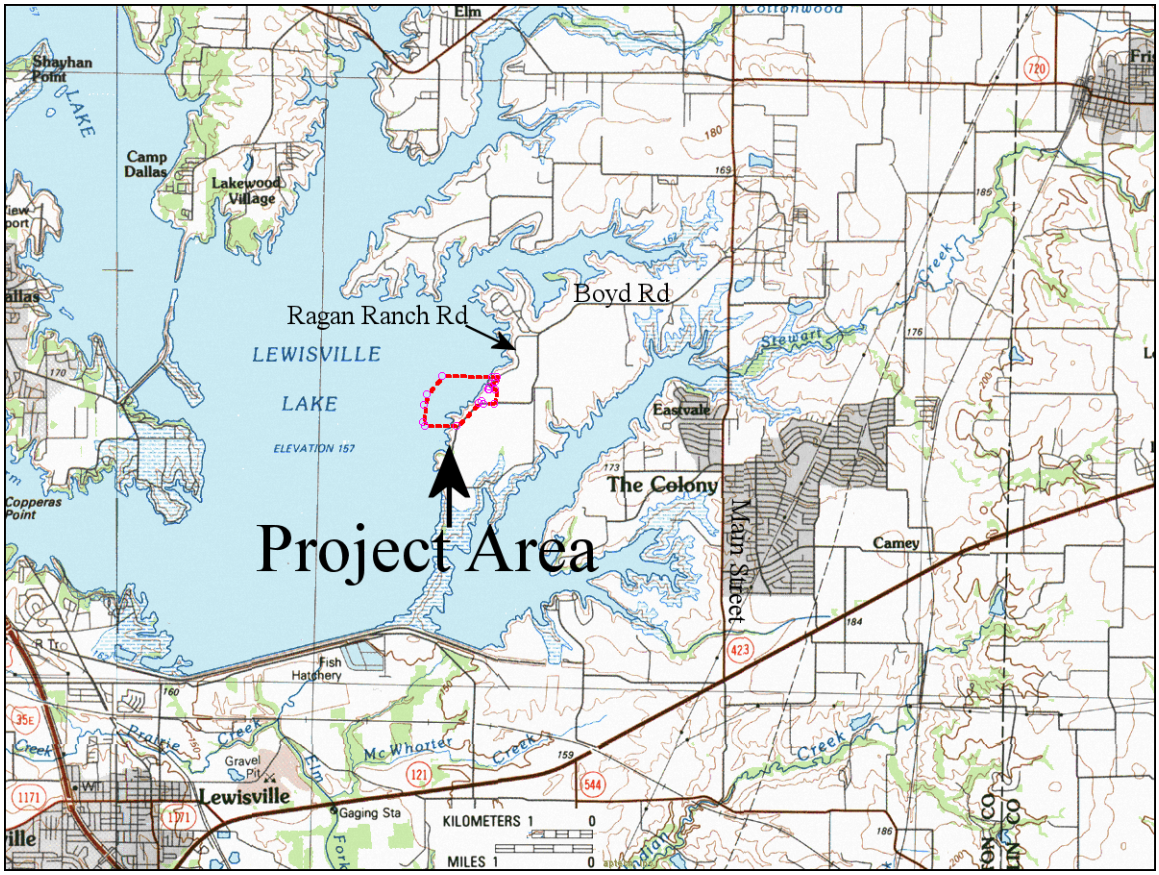

Figure 1. The proposed Wynnewood Peninsula Development Tract plotted on a portion the McKinney 1:100,000 map.

Administrative Information:

Sponsor:	Carter & Burgess, Inc. which is doing the environmental permitting for Wynne-Jackson and Matthews Southwest
Review Agency:	Fort Worth District, US Army Corps of Engineers
Principal Investigator:	Jesse Todd
Field Crew:	Lance K. Trask and Todd
Field Date(s):	February 20, 2008
Project Man-days:	2
Acres Surveyed:	Approximately 26 acres on the edge of the lake
Sites Investigated:	None
Curation:	No artifacts collected

NATURAL SETTING

Denton County is located in North Central Texas. It is bisected by the sandy soil of the Eastern Cross Timbers. The western portion of the county is covered by the black soil of the Fort Worth Prairie and the eastern part consists of the rich, black soil of the Blackland Prairie in which the study area lies. The county is drained by the Elm Fork of the Trinity River and several major creeks.

The underlying geology of the study area is mapped as the Upper Cretaceous-aged Eagle Ford Formation which consists of shale (Bureau of Economic Geology 1967). The soil association in which the study area lies is the Branyon-Burleson-Heiden which consists of nearly level to moderately steep upland savannah clays (Ford and Pauls 1980:General Soils Map). Specific soils within the study area consist of Altoga silty clay with 3 to 5 percent slopes along Lake Lewisville's shoreline and Heiden clay with 1 to 3 percent slopes between the lake shore and the generally level upland soil which consists of Branyon clay with 0 to 1 percent slopes (Ford and Pauls 1980:Sheet 35).

The upland surface has been cleared of most trees and supports Bermuda and other grasses that have been invaded by mesquites. The edge of the upland and the valley support numerous young and old trees including bois d'arc, American elm, cedar elm, hackberry, honey locust along with various weeds and masses of greenbriars. According to various authors, including Lynott (1979), the prairie once supported a cover of tall grasses and was inhabited by now absent herbivores including bison and antelope. Certainly, deer inhabited the floodplain forests, but this environment is not present in the survey area.

A consensus about the paleoenvironmental conditions of North Central Texas over the past 12,000 years has not been reached. Discussions by Prikryl (1993), Ferring and Yates (1997), Humphrey and Ferring (1994), and Brown (1998) offer disparate interpretations based on different analytical approaches. The following discussion relies heavily on Ferring's investigations and focuses upon the past two thousand years. Correlating periods of rapid alluviation with higher precipitation and slow alluviation with drier conditions, Ferring has concluded that the Late Holocene [5000 yr B.P. to the present] was a wet period with moderate alluviation, except for a dry period between 2000 to 1000 yr B.P. [A.D. 1-1000]. It was during this dry period that the West Fork Paleosol was established on the stable surfaces of the river meanders along the Upper Trinity and its tributaries. This interpretation is supported by changing patterns seen in stable isotope analysis. Brown (1998) offers a differing interpretation based on isotopic analyses of mussel shells from a prehistoric site (41DL270) on Denton Creek. He concludes that the period from 1500 to 2500 yr B.P. was cooler and/or wetter and that before and after the environment was warmer and drier, but he points out that this interpretation may only be applicable for the Elm Fork tributary and not the region.

CULTURE HISTORY

The history and prehistory of this part of Denton County are summarized in several reports prepared by the University of North Texas (Lebo and Brown 1990; Ferring and Yates 1998). Prehistoric Native American settlement in Denton County began at least 10,000 years ago as attested to by the presence of distinctively shaped dart points (Crook and Harris 1957) at the Lewisville site and the Aubrey Clovis site (Ferring 2001). Moreover, artifact collectors report the presence of Clovis, Folsom, Scottsbluff and other Paleo-Indian points from the surface of sites in the region. The presence of exotic, i.e., non-local, lithic resources indicates that these early people traveled through a territory where higher quality lithics were available or were involved in a system of raw material trading. These early people hunted now-extinct large game, but probably also foraged off the land.

The subsequent period, the Archaic, lasted from 7,000 or 6,000 B.C. to possibly as late as A.D. 700-800. The Archaic peoples lived throughout the counties but particularly along the major and minor stream valleys where they were able to hunt and gather native foods. Dart points, grinding stones, fire-cracked rock, and scrapers are common artifacts found at Archaic sites. The earliest Archaic peoples continued making and using exotic cherts for dart points, but as time passed, there was a shift toward the use of local lithics for chipped stone tools. These local materials are described as Uvalde Gravels (Menzer and Slaughter 1971; Byrd 1971). Large Archaic sites are generally located on terraces or ridges that overlook the Elm Fork of the Trinity. Smaller lithic scatters have been recorded in upland areas throughout the county. These sites appear to be Archaic in age, but none have been thoroughly studied.

About A.D. 700 to 800, a major change is found in the artifacts and settlement patterning of the prehistoric sites. This is attributed to the drying up of the smaller tributaries. During this period, which is known as the Late Prehistoric, Caddoan pottery from East Texas appears as trade material along with the indigenous Nocona Plain pottery. It has been suggested that farming may have been practiced. Arrowheads appear about this same time and apparently the bow and arrow had been added to the hunting tool kit.

At the end of the Late Prehistoric period, there appears to have been a general abandonment of the north-central Texas area based on an absence of sites with trade goods that might have been obtained from French, Spanish or English traders (Skinner 1988). This simplistic interpretation is tied to a general drying trend and attempts to factor in negative information generated by professional and avocational archaeologists who have conducted numerous site surveys throughout the region (Peter, Cliff and Green 1996:2). There is very little evidence of historic era Native American occupation anywhere in the region although historic accounts indicate that groups were present in the early 1800's.

The history of man's presence in North Central Texas continues with the first written accounts by the French and Spanish explorers. There is tantalizing evidence to the south in Dallas County of possible visits by Spanish explorers. Current research, however,

seems to indicate that Anglo settlers were the first non-Indians to visit the survey area. Established European settlement in Denton County began before the mid-1800's with the establishment of the Peter's Colony after Texas independence. These early settlers were farmers who selected bottomland along the Elm Fork of the Trinity. The town of Little Elm was established with a post office in 1845 (Bridges 1978). Commercial farming was not important until after the Civil War, and the early settlers were essentially self-sufficient. Besides the plants and animals they grew, wild animals and plants were commonly consumed. Denton became the county seat in 1856. By 1875, cotton, corn, and wheat were the main cash crops. Up to half of these crops were grown by tenant farmers who either paid rent to the landowner for their house, tools, and seed or by tenants who gave the landowner a third of the grain and a quarter of the cotton or other cash crops. By the turn of the century, all of the major communities had been established and some had passed away.

Previous Investigations

What is today Lake Lewisville was originally surveyed by Stephenson (1949) as the Garza-Little Elm Reservoir and 27 sites were recorded. It should be noted that this survey focused upon recording prehistoric sites. No historic sites were recorded. During dam construction, what became the Lewisville site (41DN72) was found during a borrow pit excavation on a terrace 70 feet above the Elm Fork of the Trinity River. Between 1951 and 1957, 21 hearths were discovered as well as Late Pleistocene faunal remains and a Clovis point. The site dated to approximately 37,000 years BP, but this date has been questioned. Later testing indicated that lignite contaminated the dated samples. A revised date of circa 12,000 years BP is attributed to the site (Crook and Harris 1957; Crook and Harris 1961; Banks 2008).

Nunley (1973) and students from Richland College surveyed the lake edge and recorded 58 historic and prehistoric sites for the US Army Corps of Engineers. Lebo and Brown (1990) conducted an archaeological survey of approximately 14,000 acres of shoreline and recorded 151 historic and prehistoric sites, many of which had been recorded by Stephenson and Nunley. Sites ranged in age from the Archaic to 1950. Thirty-nine of the sites were recommended for further testing which was done the next year (Brown and Lebo 1991). Of the 39 sites, 5 were then recommended for intense testing which was done in 1997 (Ferring and Yates 1998).

Prior to the current field survey, records were checked with Texas Historical Commission’s Archeological Sites Atlas (2008). Historic maps, including the 1918 Soil Map of Denton County (Carter and Beck 1918) and the R. King Harris’ map (1936) were also reviewed. No archaeological sites or historic residences were shown on the maps. However, according to the Texas Archeological Sites Atlas, the study area has been surveyed twice for the US Army Corps of Engineers. The study area was surveyed by Southern Methodist University (Cliff and Moir 1985) for a golf course. Two historic farmsteads (41DN279 and 280) are recorded approximately a mile south of the study area but no sites were found in the study area. In 1990, the University of North Texas (Lebo

and Brown 1990) surveyed Lake Lewisville's shoreline adjacent to the study area but recorded no archaeological sites within the study area.

AR Consultants, Inc. (Todd and Skinner 2002) conducted an archaeological survey about 4 miles northwest of the study area of a proposed toll road that extended from Lake Lewisville's shore line to IH 35E but failed to discover any archaeological sites. Also, AR Consultants, Inc. (Trask and Skinner 2002) conducted an archaeological survey along Hackberry Branch and Stewart Creek approximately four miles northeast of the study area but failed to discover any archaeological sites. A similar project was investigated by AR Consultants, Inc. (Todd 2007) approximately 1.8 miles northwest of the study area in a similar setting but did not discover any archaeological sites.

RESEARCH DESIGN AND METHODOLOGY

Research Design

The purpose of the research design below is to insure that fieldwork will contribute to better understanding of prehistoric and historic settlement in Denton County. Geographic locations for sites found in Lebo and Brown's (1990) research and Ferring and Yates (1998) excavation of five sites in the Lake Lewisville area suggest that sites are found on benches, their toes, and knolls adjacent to the Elm Fork of the Trinity River or its tributaries. Historic sites also were found close to the Elm Fork and not along ridges or the "uplands" away from the river.

The presence of two historic sites south of the study area indicates that historic sites might be present. However, based on 1918 Soils Map for Denton County, the study area was located close to the Elm Fork; therefore, a prehistoric site might be present.

Methodology

In order to address these questions, the field personnel, with the aid of appropriate project system design maps, USGS maps and Denton County soil information, conducted an intensive pedestrian archaeological survey of the study area. The archaeologists walked parallel transects spaced approximately 30 m apart from the lake edge upslope. Notes on the vegetation, soil and other relevant information were taken as were photographs. As previously stated, only the 26 acres of the study area which was on land was investigated. The rest of the study area is in Lake Lewisville.

The ground surface was carefully inspected even in areas where visibility was less than thirty percent. Shovel tests were placed in locations with less than thirty percent ground visibility and at a rate of one per two acres as recommended by the Council of Texas Archeologists (2002) in the Blackland Prairie upland setting. Shovel tests were not dug in mechanically disturbed areas or where ground visibility was greater than 50 percent. Due to the upland setting, shovel tests were excavated to approximately 30 cm below the ground surface because cultural materials would deflate onto the ground surface. The clay which could not be screened manually was broken and visually inspected for cultural resources.

Deep testing was not done due to the upland setting where no alluvium would have been present in the past to bury and preserve an archaeological site deposit.

RESULTS

This portion of the report presents a description of the survey area, a discussion of the survey and the conclusions based upon the survey and information from the surrounding area. Due to the odd shape of the survey area, it has been broken into two sections, the shoreline and the area away from the shoreline. Shovel test data are presented in Table 1 and shovel test locations are plotted on Figure 4. The soil matrices were moist when tested due to recent rain.

The survey area

The survey area contains generally level terrain that either drops suddenly in elevation or moderately slopes to the lake. The area away from the study area is in unimproved pasture. Understory vegetation includes tickle grass, grama grasses, bermuda grass, hog brush, broom weed, berry vines, grape vines, dandelion and other grass species. Trees include pecan, eastern red cedar, hackberry, mesquite, American elm, winged elm and bois d'arc. The typical vegetation away from the lake is shown in Figure 2. Ground visibility in the area away from the lake ranged from less than 5 to 20 percent. Along the shoreline, the ground visibility ranged from 30 to nearly 100 percent (Figure 3). The area away from the lake was bounded by a golf course to the south as was the southern lake edge. The northern shoreline area runs in front of and from an abandoned house north into pasture land.

Figure 2. Typical vegetation away from the lake. View is to the south.

Figure 3. Ground visibility along Lake Lewisville's shoreline in the study area. View is to the west.

The survey

Lake Lewisville's shoreline

Survey began at the northernmost boundary of the study area and went south. Although the shoreline had been previously surveyed, it was intensely investigated, but no cultural materials older than 50 years were seen on the ground surface despite the excellent ground visibility. Five shovel tests were excavated along the shore. The shovel tests uncovered culturally sterile clay ranging in depths from 30-37 cm bs.

The area away from the shoreline

Survey began in the southwest corner and the fourteen transects were oriented east-west due to the study area's configuration. Most of the tract recently had been mowed and sand and gravel were present on the surface which probably was from sand pits on the adjacent golf course. Ten shovel tests were excavated and uncovered culturally sterile clay from 29 to 34 cm bs. No cultural materials were seen on the ground surface.

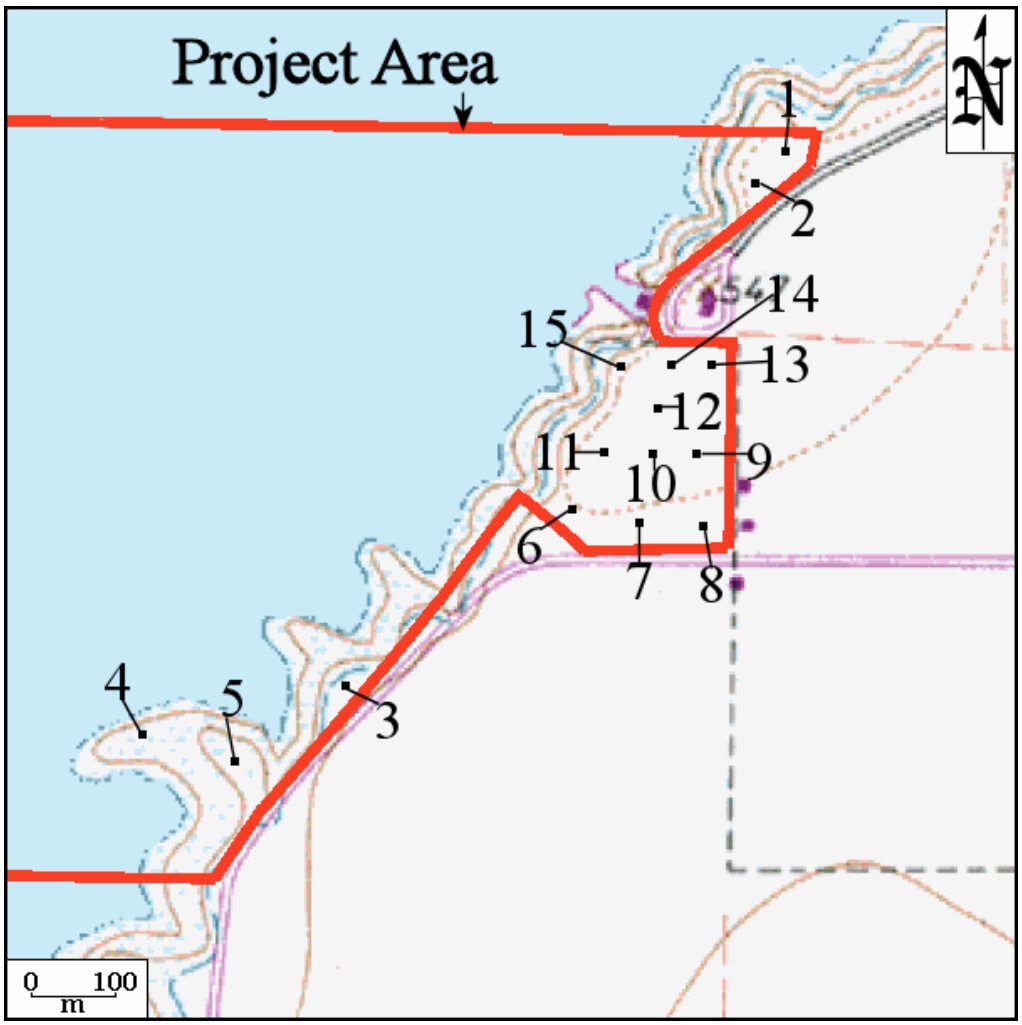

Figure 4. Locations plotted on an enlarged portion of the Lewisville East, Texas 7.5' USGS map.

Conclusions

No archaeological sites were found during the intensive pedestrian archaeological survey of the study area and this confirms the results of previous surveys of this same area. The absence of historic sites may be that this area was more suitable for farming. This area previously had been farmed and since that time, it has been maintained as pasture. Thus the absence of historic structures is to be expected despite the proximity of the Elm Fork channel. While plowing would have destroyed shallow prehistoric site deposits, there should be evidence of occupation in the form of lithic debris, fire-cracked rock, chipped stone tools or pottery if such an occupation was once present. Consequently, it is concluded that this area also was not occupied prehistorically.

Table 1. Shovel test descriptions.

ST No.	Depth (cm)	Description *
1	0-30+	Black (10YR2/1) clay
2	0-32+	Black clay
3	0-37+	Dark grayish-brown (10YR4/2) clay
4	0-33+	Very dark gray (10YR3/1) clay
5	0-30+	Dark grayish-brown clay
6	0-31+	Dark grayish-brown clay
7	0-32+	Dark grayish-brown clay
8	0-30+	Very dark gray clay
9	0-31+	Very dark gray clay
10	0-30+	Very dark gray clay
11	0-29+	Very dark gray clay
12	0-29+	Very dark gray clay
13	0-32+	Very dark gray clay
14	0-34+	Very dark gray clay
15	0-31+	Very dark gray clay

* Note Munsell Color Chart Numbers listed only first time used.

RECOMMENDATIONS

Based on the systematic pedestrian survey and the excavation of 15 shovel tests, it is AR Consultants' conclusion that the surveyed area was not occupied prehistorically or historically and that further archaeological investigations are unwarranted. Thus, Wynne-Jackson and Matthews Southwest should be allowed to proceed with the construction of the marina and associated facilities. However if buried cultural deposits are encountered during construction, work should immediately stop in that area and the Fort Worth District of the US Army Corps of Engineers should be notified.

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DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

March 4, 2008

Operations Division

Mr. Lawerence Oaks
State Historic Preservation Officer
Texas Historical Commission
P.O. Box 12276, Capitol Station
Austin, Texas 78711-2276

Dear Mr. Oaks:

The U.S. Army Corps of Engineers, Fort Worth District, may allow construction of a marina and associated facilities at Lewisville Lake in Denton County, Texas. Enclosed for your review is a draft report of a cultural resources survey of the proposed project area. Based upon the results of this survey, we have determined that no historic properties will be affected by this proposed project. We request your concurrence with this determination.

Sincerely,

Mike McInnis
Chief, Natural Resources and Recreation Section

Enclosure

CONCUR
by _____
for F. Lawerence Oaks
State Historic Preservation Officer
Date 4/4/08
Track# _____

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MAR 10 2008
THC-Purchasing

Appendix E

Phase I Environmental Site Assessments (ESAs)

The reports in Appendix E are scanned copies of the original Phase I Environmental Assessment performed in 1997 and the subsequent Phase I Environmental Site Assessment updated in 2006 at Wynnewood Park. An original copy of the 1997 report no longer exists. Some photographs and figures were no longer legible in this copy of the 1997 report due to multiple scans of the report that resulted in poor quality images over the years. Any images that were not legible have been removed from the 1997 report and a description of them are listed below:

- *Figure 1 -Site Location Map*
- *Figure 4- Geologic Map*
- *Aerial Photo – 1965*
- *Aerial Photo – 1981*
- *Aerial Photo – 1996*
- *46 Site photographs showing existing conditions (in 1997) of Wynnewood Park from various viewpoints including vegetation, the shoreline, and other features including old homesteads, barns, stock tank, roadway, model airplane runway, trash/debris piles, water well, restroom, electric transformer, utility poles, and greenhouses.*

PROJECT NO. 3925
NOVEMBER, 1997

PHASE I ENVIRONMENTAL SITE ASSESSMENT
1,200-ACRE TRACT
WYNNWOOD PENINSULA
THE COLONY, TEXAS

Presented To:
MATTHEWS SOUTHWEST
LEWISVILLE, TEXAS

November 14, 1997
Project No. 3925

Matthews Southwest
1660 Stemmons Freeway, Suite 280
Lewisville, Texas 75067-6315
ATTN: Mr. Tim House

PHASE I ENVIRONMENTAL SITE ASSESSMENT
1200-ACRE TRACT
WYNNWOOD PENNISULA
THE COLONY, TEXAS

Gentlemen:

We have completed our Phase I Site Assessment of the above referenced property. The findings of our work, together with conclusions and recommendations, are presented in the attached report.

Should any questions arise regarding our report, please do not hesitate to call. It has been a pleasure to work with you on this project. We look forward to being of continued service.

Sincerely,

REED ENGINEERING GROUP, INC.

David L. Stelly
Environmental Scientist

Karla M. Smith
Hydrogeologist, CAPM #00135

DLS/KMS/kff

copies submitted: (4)

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ILLUSTRATION

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1.0 EXECUTIVE SUMMARY

Reed Engineering Group, Inc. has performed a Phase I Environmental Site Assessment (ESA) on two separate tracts of land totaling approximately 1,214 acres. The two tracts are situated on Wynnwood Peninsula along Boyd Road, in The Colony, Texas. The site and area reconnaissance were performed by David L. Stelly on October 24 and 27, 1997.

The northern most tract contains approximately 614 acres and consists of six developed areas. Development includes four homesteads, four drinking water wells, six barns, two greenhouses and two metal buildings. The remaining property consists of agricultural and pasture land. Seven wetland areas were identified on the 1992 National Wetlands Inventory Map and observed on the northern portion of the property. One wetland, located between the two homesteads at the northeast corner of the property, appears to have been backfilled.

The southern most tract contains approximately 600 acres of currently unoccupied land. The tract is covered with native grasses, weeds and scattered trees. A locked gate on Boyd Road and a fence restrict access to the property deterring unauthorized dumping. Formerly, Wynnwood Park was situated along the western shore of the peninsula. Remnants of the park remain on the property and consist of a restroom, public drinking well and park benches. The topographic map indicates a water well situated on the southern tract near Lake Lewisville along the southeast property line. The southern tract has been improved with a maintained grass runway for model airplanes located near the northern portion of the southern tract. Three wetland areas were identified on the 1992 National Wetlands Inventory Map and observed on the southern tract.

Adjacent properties consist of residential property and agricultural and pasture land to the northwest, pasture land to the north, residential property to the northeast and Lake Lewisville to the east, south and west. The remaining nearby properties consist of pasture, agricultural and residential properties.

Based on our site reconnaissance and review of available information obtained for this project, the following is offered.

1. An aerial photograph taken in 1965 indicate the property was being utilized for pasture, agricultural, homestead and recreational purposes. In the aerial photo taken in 1981 agriculture, pasture, homestead and recreation appear to remain the primary uses of the subject property. In the 1996 aerial photo the site appears much as it was during the site reconnaissance. The southern portion of the property is not being used due to the extensive growth of the vegetation. The northern portion of the property is still used for agricultural, pasture and homestead purposes.

2. Unauthorized dumping was observed on the property near the locked gate on the north and south side of Boyd Road. The dumped materials included tires, lumber, household trash, empty paint containers and furniture. Three mounds of soil, approximately 20 feet in diameter, were observed roughly 30 feet south of the dumped materials. A half-buried mattress was observed protruding from one of the mounds. One of the homesteads and its' associated barn were filled with trash and debris. Historical use of the property does not indicate that hazardous substances have ever been used, stored, or treated at the site.

3. The subject property and adjacent sites are not identified as CERCLIS sites. No CERCLIS site are located within one mile of the property.

4. No sites within a one mile radius of the subject property are identified on the NPL or State Superfund List.

5. No RCRIS notifiers are located within one-half mile of the subject property.

6. No RST or LPST facilities were identified within a one-half mile radius of the property. Four gasoline aboveground storage tank's (AST's) were observed on the northern tract. The AST's were in moderate to poor condition and sparse vegetation was observed beneath the them. Based on this information there is a moderate potential for hydrocarbon impact from overspillage and/or leakage of the tanks.

7. Six utility-owned, pole-mounted transformers are present throughout the subject property. The transformers appeared to be in good condition and fluids were not observed to be leaking. No staining or stressed vegetation was noted below the transformers. One of the six transformers was observed on the shore of Lake Lewisville at the former Wynnwood Park area. Mr. Jim Maddox of Denton County Electric was notified and responded by meeting a representative of Reed at the location of the transformer. During the on-site visual inspection the transformer was not observed to be leaking. He also indicated the transformer was not leaking when samples were taken from the unit. Laboratory results of the cooling oil taken from the transformer did not indicate the transformer is PCB containing or PCB contaminated. The transformers appears to pose a low potential to have negatively impacted the property.

8. There were no apparent surface impoundments, holding ponds, leachate, seeps, chemical smells, or foul odors noted on the property during the site walkover, nor was there any evidence of stressed vegetation or stained soil. Septic systems are anticipated to be present at each of the homesteads and at the restroom within the Wynnwood Park area.

9. Although the property is being used for agricultural and pasture purposes, there was no evidence of misapplication of pesticides, herbicides, or fertilizers found on the property.

10. Ten wetlands were identified on the 1992 National Wetlands Inventory map. Nine of these wetland areas were observed on the subject property. One of the wetlands on the northern tract appears to have been backfilled. According to Mr. Stan Walker of the Corp of Engineers Regulatory Branch, these wetlands may or may not be considered jurisdictional waters/wetlands of the United States. Mr. Walker stated the wetlands should be further delineated to determine whether they are jurisdictional. He also suggested that after delineation of the wetlands a preapplication meeting with the Corp of Engineers be conducted to properly insure standards of the Corp of Engineers are being followed.

Based upon our site and area reconnaissance, historical review, and database searches, it is our opinion that there is a medium potential for environmental concern from on-site sources. Reed recommends an asbestos survey, limited subsurface investigation, wetland delineation, possible buried materials investigation and abandonment of on-site wells or sampling of on-site wells prior to use.

An asbestos survey should be performed on suspect Asbestos Containing Materials of the finish-out materials present within the homesteads on the property prior to demolition or renovation.

A limited investigation should be performed on the surface and subsurface soils present beneath the AST's located on the property to evaluate the potential for hydrocarbon impact of the soils.

A wetland delineation should be performed on the ten wetlands identified on the property to determine whether they are jurisdictional or non-jurisdictional waters. Reed also recommends a preapplication meeting with the U. S. Army Corps of Engineers Regulatory Branch after the delineation has been performed to insure standards of the Corp of Engineers are being followed.

Reed recommends investigation by excavating the mounds found on the property to insure buried materials are not present on the property. Reed also recommends abandonment of the on-site wells in accordance with TNRCC regulation No. 338.49 for well plugging and abandonment procedures or registering the on-site wells with the State of Texas and testing the wells prior to use. Any septic systems found on the property should also be properly removed and disposed of prior to construction.

2.0 PURPOSE AND SCOPE

The purpose of this Phase I ESA is to demonstrate due diligence on the part of Matthews Southwest.

The objective of the ESA is to identify potential sources of environmental liability associated with the property and to evaluate the potential for contamination from on- and off-site sources. The objective of this assessment was accomplished through the following scope of work:

1. review of deed search documents to identify previous site ownership;
2. review of historical aerial photographs to determine past site usage;
3. review of former site occupancy records;
4. review of regulatory agency information obtained regarding hazardous materials handling, spills, storage, or production at the site or on adjacent properties;
5. review of available information to characterize the general geology and hydrogeology of the site; and
6. site and area reconnaissance by a representative of Reed Engineering Group, Inc.

3.0 SITE OVERVIEW

3.1 Location and Description

The subject property is situated on Wynnwood Peninsula along Boyd Road, in The Colony, Denton County, Texas. The property consist of two tracts of land totaling approximately 1,214 acres of land. The northern 614 acres are currently being used for homestead, agricultural and pasture purposes. The majority of the southern 600 acres are unused. A small maintained grass runway for model airplanes is located near the northern portion of the southern tract.. A **Site Location Map** is included as Figure 1 of the report **Illustrations**.

3.2 Site Characteristics and Improvements

This section of The Colony is characterized by single-family residential developments and pasture and agricultural land. Improvements to the northern most tract consist of four homesteads, several barns and metal structures, and six stock tanks. This tract has been improved with drinking water wells located at each of the homesteads. The southern most tract was formerly improved by Wynnwood Park. The park is currently over-run by weeds and inaccessible to the public. A restroom, public drinking water well and park benches remain in the park area. The topographic map indicates a water well situated on the southern tract near Lake Lewisville along the southeast property line. Due to the dense vegetation, Reed was unable to locate the well. The southern tract has also been improved with a maintained grass runway for model airplanes located near the northern portion of the southern tract. Drainage on both tracts generally flows south toward Lake Lewisville through several small creeks on the property. A **Site Plan** is provided as Figure 2.

3.3 Current Occupants

Four homesteads are currently located on the subject property. One homestead is currently unoccupied.

4.0 SITE BACKGROUND/OPERATING HISTORY

4.1 Current Ownership

The northern portion of the property is currently owned by Wynnwood Peninsula Ltd., and the southern portion of the property is owned by USA/Garza. Ownership for the northern portion of the property dates to December 2, 1994. The southern portion of the property was acquired in 1952.

4.2 Prior Ownership

The property ownership was reviewed from 1937 to the present for indications of land use which may be of environmental concern. The title search was performed for Reed Engineering Group, Inc. by County Record Services, Inc. The northern portion of the property consists of nine tracts of land. The deed listings for the northern portion of the property comprise forty-one separate instruments transferring the property among individuals and the current owner. The southern portion of the property appears to have been combined into one tract. The track was then acquired by USA Garza in 1952. No industrial users or environmental liens were noted during our review of deed search documents. A summary of the ownership history is presented in the **Chain of Ownership** section of the report.

4.3 Review of Aerial Photographs

Aerial photographs of the site and surrounding area were reviewed for indications of industrial use of the property and adjacent properties, the presence of landfills, mass filling, or other areas of concern. Reference photographs were obtained from Landiscor Aerial Photography and Metropolitan Aerial Surveys for the years 1965, 1981 and 1996. The approximate scale of each photograph is one-inch equals 1,600 feet. Photographs are presented in **Aerial Photographs** section.

The 1965 photograph depicts the subject and surrounding properties as agricultural cropland and pasture land. Three of the four homesteads, barns and metal structures are noted on the northern tract. Wynnwood Park and Boyd Road appear to be maintained on the southern tract. Homesteads are noted north-adjacent and approximately 950 feet northwest of the site. None of the wetland areas identified on the National Wetland Inventory map are apparent in the 1965 photo.

In the 1981 photograph, the site remains agricultural in nature. No new developments are visible on the subject property. Nine of the ten wetland areas now appear on the site. Wynnwood Haven residential community is evident approximately 950 feet northwest of the property. The Colony has begun residential developments southeast of the property across Lake Lewisville.

The 1996 photograph depicts the property much as it appeared during the site walkover. It appears Wynnwood Park and the remaining Corp of Engineer land is not being used based on the extensive growth of the vegetation. The northern portion of the property is still being utilized for agricultural, pasture and homestead purposes. The Wynnwood Haven residential community located northwest of the property and Stewart Peninsula located southeast of the property across Lake Lewisville are more developed.

4.4 Historical City Directories/Fire Insurance Maps

Coles historical city directories were reviewed to determine if any previous site occupants were listed. No listings for the subject property were identified.

Sanborn Fire Insurance Maps for The Colony do not exist.

4.5 History of Property Use

Based on our review of aerial photographs and historical city directories, the subject property appears to have been used for recreational, homestead, agricultural and pasture purposes.

5.0 ENVIRONMENTAL SETTING

Reed Engineering Group, Inc. reviewed available sources of information to determine the geology and hydrogeology of the subject property and surrounding area. The purpose of this review was to evaluate the potential of subsurface and groundwater impact from hazardous and/or hydrocarbon sources on or near the property.

5.1 Surface Water Characteristics

Based on review of the Lewisville East Topographic Quadrangle, the property is located within the Elm Fork drainage basin. The elevation of the property ranges from 550 feet above sea level at the northeast property boundary to 520 feet above sea level at the southwest property boundary. Surface run-off from the property flows south toward Lake Lewisville. A portion of the topographic map is provided for reference purposes as Figure 3 of the report **Illustrations**.

5.2 Site Geology

Based on a review of geologic literature and experience in the area, the site is underlain by Quaternary aged alluvium associated with the floodplain of the Elm Fork Trinity River. The alluvials consist of mostly sand, silt and some clay and overlie weathered and unweathered shale of the Eagle Ford Formation. In its unweathered state, the shale of the Eagle Ford Formation is typically dark gray, calcareous and soft with low permeability. Weathering of the formation produces highly plastic clay soils. The Eagle Ford Formation is considered an aquitard, inhibiting vertical migration of groundwater to the underlying Woodbine Formation, classified as

a minor aquifer in the area. A portion of the Geologic Atlas of Texas - Sherman Sheet is provided for reference purposes as Figure 4 of the report **Illustrations**.

The Soil Survey of Denton County identifies the surficial soils at the site as Branyon clay. These soils typically have very slow permeability and are moderately well drained. Run-off for this soil is slow and water capacity is high.

5.3 Site Hydrogeology

A shallow, groundwater system is anticipated to exist at the site. Based on local topography, the groundwater flow direction is anticipated to mimic surface topography and flow south toward Lake Lewisville. Recharge of the shallow groundwater system occurs by infiltration of precipitation in outcrop areas. Discharge of the shallow groundwater system is anticipated to occur into Lake Lewisville.

Water wells in the region are typically completed in either the Trinity Group Aquifer, which is considered a major aquifer, or the Woodbine Aquifer, which is considered a minor aquifer. The principal members of the Trinity Group include the Twin Mountains Formation and the Paluxy Formation. Local water wells which are constructed in the Twin Mountains are typically completed at depths of approximately 2,330 feet below ground surface. Wells in the Paluxy are completed at depths of approximately 1,375 feet below ground surface. Wells which pump from the Woodbine are completed at depths ranging from 335 feet to 650 feet below ground surface.

Nine water wells were identified within a two mile radius of the property during a review of the Texas Department of Water Resources Report 269, Volume 2, dated July, 1982. One was completed in the Twin Mountains, one in the Paluxy, and seven pumped from the Woodbine Formation. The nearest well is situated on-site at Wynnwood Park and owned by the U. S. Army Corps of Engineers. This well was completed in the Woodbine Aquifer at a depth of 404 feet below ground surface for public use. The remaining on-site water wells were not listed.

5.4 Designated Wetlands

Review of the 1992 National Wetlands Inventory Map did identify the presence of ten wetland areas on the subject property (Figure 5). Nine of these wetland areas were observed on the subject property.

Seven wetland areas identified and observed on the northern portion of the property. The seven map identified wetlands were listed as either Palustrine - Open Water with an unknown bottom which has been excavated and is permanently flooded, or Palustrine - Open Water with an unknown bottom which has been diked and/or impounded and is permanently flooded. During the site reconnaissance the wetland areas were identified as stock tanks for cattle which have been diked and/or impounded. One wetland, located between the two homesteads at the northeast corner of the property, appears to have been backfilled.

Three wetland areas were identified and observed on the southern tract. The three identified wetlands included: (1) Palustrine - Forested, Broad-leaved Deciduous which is temporarily flooded; (2) Palustrine - Emergent, Persistent which is seasonally flooded; and (3) Palustrine - Forested, Broad-leaved Deciduous which is temporarily and/or permanently flooded. The wetlands observed exhibited characteristics of true wetlands such as willows, reeds and rushes.

According to Mr. Stan Walker of the Corp of Engineers Regulatory Branch, these wetlands may or may not be considered jurisdictional waters/wetlands of the United States. Mr. Walker stated the wetlands should be further delineated to determine whether they are jurisdictional. He also suggested that after delineation of the wetlands a preapplication meeting with the Corp of Engineers be conducted to properly insure standards of the Corp of Engineers are being followed.

5.5 Radon Potential

The potential for radon at the subject property is considered low. Radon is a radioactive decay product of uranium and can be found in high concentrations in soils and rock containing uranium, granite, shale, phosphate, and pitchblende. These materials are not indigenous to the town of The Colony area; therefore, the potential for radon exposure is low. Review of the "Final Report of the Texas Indoor Radon Survey" indicated Denton, Dallas, Tarrant, and Collin Counties have average radon concentrations ranging from 1.0 to 1.2 pico Curies per liter of air (pCi/l). The federal action level is 4.0 pCi/l.

6.0 RESULTS OF THE SITE RECONNAISSANCE

The site reconnaissance was performed on October 24 and 27, 1997 by David L. Stelly of Reed Engineering Group, Inc. The reconnaissance consisted of visual observations made during a systematic walkover of the property. General photographs were taken during the site walkover and are presented in the **Site Photographs** section.

6.1 Property Reconnaissance

The property consist of two tracts of land totaling approximately 1,214 acres of recreational, homestead, agricultural and pasture land. Vegetation on the site consisted of native grasses, weeds and scattered trees. A **Site Plan** is presented as Figure 2 of the report **Illustrations**.

The northern most tract contains approximately 614 acres. This tract consist of six developed areas. Development includes four homesteads, four drinking water wells, six barns, two greenhouses and two metal buildings. It is anticipated the four homesteads on the property have septic systems. The remaining property consist of agricultural and pasture land. Seven wetland areas identified on the 1992 National Wetlands Inventory Map were observed on this tract. The wetland areas were identified as stock tanks for cattle which have been diked and/or impounded. One wetland, located between the two homesteads at the northeast corner of the property, appears to have been backfilled.

The southern most tract contains approximately 600 acres. This tract is currently unoccupied and covered with native grasses, weeds and scattered trees. A locked gate on Boyd Road and a fence restrict access to the property deterring unauthorized dumping. Formerly, Wynnwood Park was situated along the western shore of the peninsula. The park was operated by the town of The Colony, but owned by the U.S. Army Corps of Engineers. Remnants of the park remain on the property and consist of a restroom and anticipated septic system, public drinking water well and park benches. The topographic map shows a well situated on the southern tract near Lake Lewisville along the southeast property line. The southern tract has also been improved with a maintained grass runway for model airplanes located near the northern portion of the southern tract. Three wetland areas were also identified on the 1992 National Wetlands Inventory Map and observed on the southern tract.

Unauthorized dumping was observed on the property east of the locked gate on the north and south side of Boyd Road. The dumped materials included tires, lumber, household trash, empty paint containers and furniture. Three mounds of soil, approximately 20 feet in diameter, were observed roughly 30 feet south of the dumped materials. A half-buried mattress was observed protruding from one of the mounds. One of the homesteads and its' associated barn was filled with trash and debris. Historical use of the property does not indicate that hazardous substances have ever been used, stored, or treated at the site.

There were no surface impoundments, holding ponds, leachate, seeps, chemical smells, or foul odors noted on the property during the site walkover, nor was there any evidence of stressed vegetation or stained soil. There was also no evidence of misapplication of pesticides, herbicides, or fertilizers found on the property.

6.2 AST/UST Systems and Pipelines

There was no evidence of underground storage tanks or ancillary equipment found on the property. Four gasoline aboveground storage tank's (AST's) were observed on the northern tract. The AST's were observed near one of the homesteads at the northeast corner of the property and appeared to be used for farm equipment refueling purposes. The AST's were in moderate to poor condition and sparse vegetation was observed beneath the them. Based on this information there is a moderate potential for hydrocarbon impact from overspillage and/or leakage of the tanks.

6.3 Transformers and PCB Equipment

Six utility-owned, pole-mounted transformers are present throughout the subject property. The transformers appeared to be in good condition and fluids were not observed to be leaking. No staining or stressed vegetation was noted below the transformers. The transformers appear to pose a low potential to have negatively impacted the property. One of the six transformers was observed on the shore of Lake Lewisville at the former Wynnwood Park area. The pole, the transformer was mounted on, was washed away leaving the transformer on the shore. Mr. Jim Maddox of Denton County Electric was notified and responded by meeting a representative of Reed at the location of the transformer. While on the site the transformer was visually

inspected. During the inspection the transformer was not observed to be leaking. Mr. Maddox transported the transformer to Denton County Electric facility for further inspection. Later, Mr. Maddox took a sample of the cooling oil from the transformer and submitted the sample to Star Analytical laboratory for PCB analyses. The analyses revealed the transformer contained 42ppm of PCB 1260. Mr. Maddox stated that the federal standard for PCB containing transformers is from 50ppm to less than 500ppm. A PCB contaminated transformer has 500ppm PCB or greater. Transformers with less than 50ppm PCBs are not considered PCB containing or PCB contaminated. He also indicated the transformer was not leaking when samples were taken from the unit (**Record of Communication** section). Based on this information, it appears the transformer is neither PCB containing or PCB contaminated and, therefore, poses a low potential to have impacted the subject property.

6.4 Hazardous Substance Identification/Inventory

As mentioned above in section **6.2**, four, gasoline AST's were observed on the property.

6.5 Area Reconnaissance

The area reconnaissance consisted of observations made during a drive-by of the surrounding area within an approximate one-half mile radius of the property. An **Area Map** showing the use of the nearby properties is included as Figure 6 of the report **Illustrations**.

Adjacent properties consist of residential property and agricultural and pasture land to the northwest, pasture land to the north, residential property to the northeast and Lake Lewisville to the east, south and west. The remaining nearby properties consist of pasture, agricultural and residential properties.

Based on the area reconnaissance and surface topography of the area, the neighboring properties appear to present a low potential for environmental concern to the subject property.

7.0 REGULATORY STATUS REVIEW

Reed Engineering Group, Inc. reviewed current federal, state, and local regulatory agency information to determine if there was information in their files regarding the site or nearby facilities. Results of the information obtained from these agencies is as follows.

The EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list, dated June 1, 1997 was reviewed. This list is a compilation of records regarding those facilities which the EPA has identified as having actual or suspected uncontrolled releases of hazardous substances, contaminants, or pollutants as reported by states, municipalities, private companies, and private citizens. The subject property was not listed and no facilities were identified within a one mile radius.

The EPA National Priority List (NPL), dated April 1, 1997 was reviewed. The NPL, or Federal Superfund, is composed of the nation's most hazardous sites which require remediation. The subject property was not listed and no facilities were identified within a one mile radius.

The EPA Resource Conservation and Recovery Information System (RCRIS) list, dated April 1, 1997 was reviewed. This list provides the names and locations of registered hazardous waste generators, transporters, and treatment, storage, and disposal facilities. The subject property was not listed. No facilities were identified within a one-half mile radius of the property.

The EPA Emergency Response Notification System (ERNS) database, dated June 1, 1997 was reviewed. This database provides a listing of accidental releases of oil and hazardous substances. The information in the database is available from 1987. No identifiable incidents are located within a one-half mile radius of the property.

The Facility Index System Database (FINDS) database, dated April 1, 1997, is a national database maintained by EPA which serves as a cross-reference to a variety of state and federal databases. FINDS represents 13 databases including the Hazardous Waste Data Management System (HWDMS), Permit Compliance System (PCS) and the Chemical Update System (CUS). No facilities were identified through the FINDS database.

The TNRCC List of Registered Underground Storage Tanks (RUST's), dated July 1, 1997 was reviewed. This list identifies the location of registered storage tanks in the vicinity of the property as well as provides the status, date of installation, tank capacity, construction, and contents. The subject property was not listed. No facilities was identified within a one-half mile radius of the property.

The TNRCC Leaking UST list, dated June 30, 1997 was reviewed to determine the location of facilities known to have leaking UST's. No facilities were identified within one-half mile of the property.

The TNRCC Final State Superfund Registry, dated December 31, 1996 was reviewed. No facilities were noted within a one mile radius of the subject property.

The TNRCC State Solid Waste Landfill Permit Application database, May 15, 1997 was reviewed. No permitted landfills are present within a one mile radius of the property.

The Town of Flower Mound Fire Marshal's Office was contacted for information regarding incidents of environmental concern at the subject and nearby properties. The Fire Marshal, Mr. Dave Wallace, indicated he had no knowledge or records of UST installations or removals, or hazardous material spills or releases on or near the subject property (**Record of Communication** section).

8.0 CONCLUSIONS

Based upon our site reconnaissance and review of available information obtained for this project, the following is offered.

1. An aerial photograph taken in 1965 indicate the property was being utilized for pasture, agricultural, homestead and recreational purposes. In the aerial photo taken in 1981 agriculture, pasture, homestead and recreation appear to remain the primary uses of the subject property. In the 1996 aerial photo the site appears much as it was during the site reconnaissance. The southern portion of the property is not being used due to the extensive growth of the vegetation. The northern portion of the property is still used for agricultural, pasture and homestead purposes.

2. Unauthorized dumping was observed on the property near the locked gate on the north and south side of Boyd Road. The dumped materials included tires, lumber, household trash, empty paint containers and furniture. Three mounds of soil, approximately 20 feet in diameter, were observed roughly 30 feet south of the dumped materials. A half-buried mattress was observed protruding from one of the mounds. One of the homesteads and its' associated barn were filled with trash and debris. Historical use of the property does not indicate that hazardous substances have ever been used, stored, or treated at the site.

3. The subject property and adjacent sites are not identified as CERCLIS sites. No CERCLIS site are located within one mile of the property.

4. No sites within a one mile radius of the subject property are identified on the NPL or State Superfund List.

5. No RCRIS notifiers are located within one-half mile of the subject property.

6. No RST or LPST facilities were identified within a one-half mile radius of the property. Four gasoline aboveground storage tank's (AST's) were observed on the northern tract. The AST's were in moderate to poor condition and sparse vegetation was observed beneath the them. Based on this information there is a moderate potential for hydrocarbon impact from overspillage and/or leakage of the tanks.

7. Six utility-owned, pole-mounted transformers are present throughout the subject property. The transformers appeared to be in good condition and fluids were not observed to be leaking. No staining or stressed vegetation was noted below the transformers. One of the six transformers was observed on the shore of Lake Lewisville at the former Wynnwood Park area. Mr. Jim Maddox of Denton County Electric was notified and responded by meeting a representative of Reed at the location of the transformer. During the on-site visual inspection the transformer was

not observed to be leaking. He also indicated the transformer was not leaking when samples were taken from the unit. Laboratory results of the cooling oil taken from the transformer did not indicate the transformer is PCB containing or PCB contaminated. The transformers appears to pose a low potential to have negatively impacted the property.

8. There were no apparent surface impoundments, holding ponds, leachate, seeps, chemical smells, or foul odors noted on the property during the site walkover, nor was there any evidence of stressed vegetation or stained soil. Septic systems are anticipated to be present at each of the homesteads and at the restroom within the Wynnwood Park area.

9. Although the property is being used for agricultural and pasture purposes, there was no evidence of misapplication of pesticides, herbicides, or fertilizers found on the property.

10. Ten wetlands were identified on the 1992 National Wetlands Inventory map. Nine of these wetland areas were observed on the subject property. One of the wetlands on the northern tract appears to have been backfilled. According to Mr. Stan Walker of the Corp of Engineers Regulatory Branch, these wetlands may or may not be considered jurisdictional waters/wetlands of the United States. Mr. Walker stated the wetlands should be further delineated to determine whether they are jurisdictional. He also suggested that after delineation of the wetlands a preapplication meeting with the Corp of Engineers be conducted to properly insure standards of the Corp of Engineers are being followed.

9.0 RECOMMENDATIONS

Based upon our site and area reconnaissance, historical review, and database searches, it is our opinion that there is a medium potential for environmental concern from on-site sources. Reed recommends an asbestos survey, limited subsurface investigation, wetland delineation, possible buried materials investigation and abandonment of on-site wells or sampling of on-site wells prior to use.

An asbestos survey should be performed on suspect Asbestos Containing Materials of the finish-out materials present within the homesteads on the property prior to demolition or renovation.

A limited investigation should be performed on the surface and subsurface soils present beneath the AST's located on the property to evaluate the potential for hydrocarbon impact of the soils.

A wetland delineation should be performed on the ten wetlands identified on the property to determine whether they are jurisdictional or non-jurisdictional waters. Reed also recommends a preapplication meeting with the U. S. Army Corps of Engineers Regulatory Branch after the delineation has been performed to insure standards of the Corp of Engineers are being followed.

Reed recommends investigation by excavating the mounds found on the property to insure buried materials are not present on the property. Reed also recommends abandonment of the on-site wells in accordance with TNRCC regulation No. 338.49 for well plugging and abandonment procedures or registering the on-site wells with the State of Texas and testing the wells prior to use. Any septic systems found on the property should also be properly removed and disposed of prior to construction.

10.0 REFERENCES

Geologic Atlas of Texas, Sherman Sheet, Bureau of Economic Geology, University of Texas at Austin.

Lewisville East, Texas Quadrangle, U.S. Geological Survey.

TNRCC UST List.

TNRCC State Landfill Permit Application Database.

TNRCC LUST List.

EPA CERCLIS List.

EPA RCRA List.

EPA RCRA Corrective Action and Violators List.

EPA NPL and TNRCC State Superfund Lists.

EPA ERNS and FINDS List.

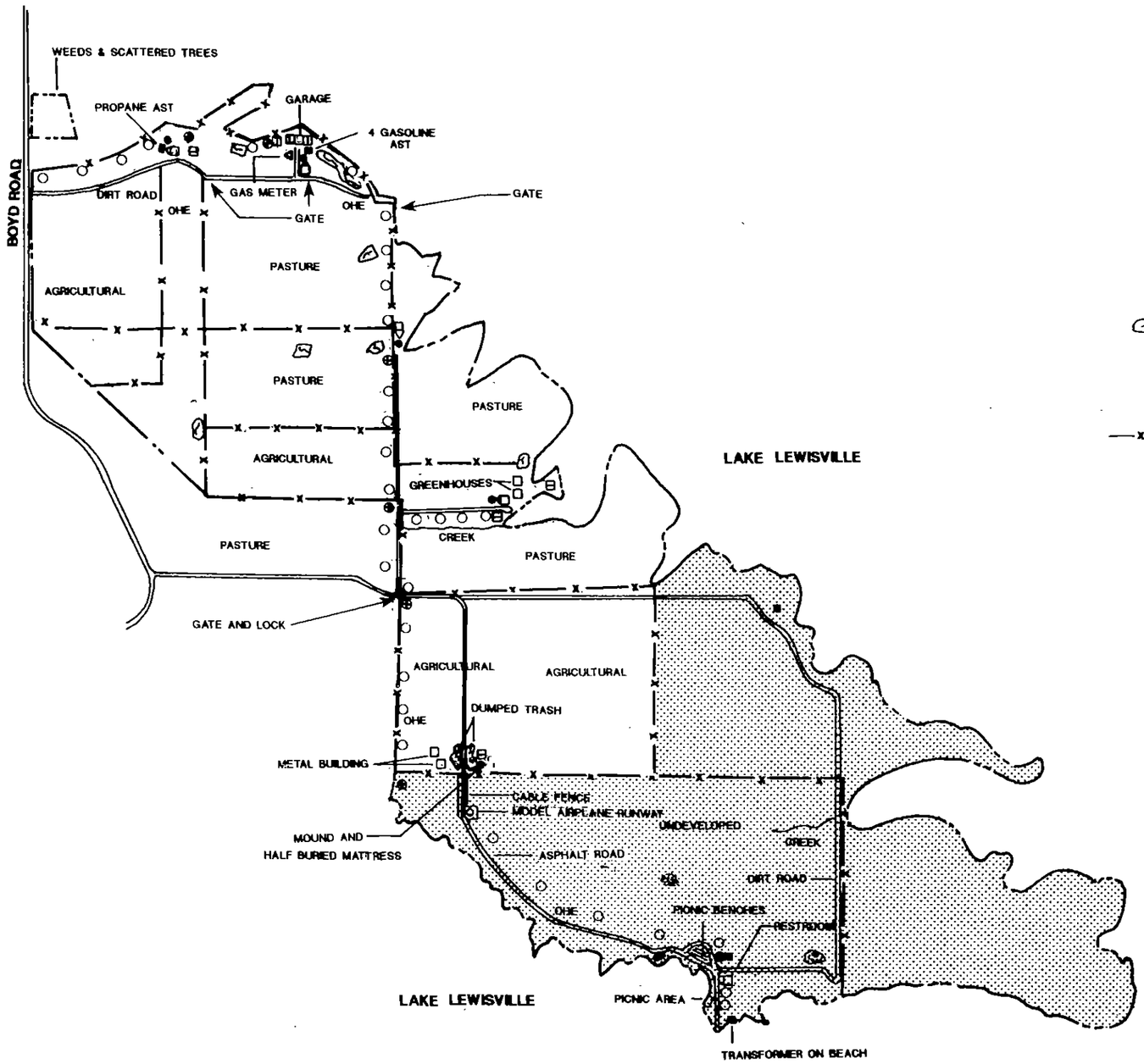
E Data Resources, Inc. ASTM Plus Report.

Final Report of The Texas Indoor Radon Survey, Texas Department of Health, Bureau of Radiation Control, June, 1994.

The Colony Fire Marshal.

Denton County Electric.

The U. S. Army Corps of Engineers.



LEGEND

- ⊕ TELEPHONE POLE W/TRANSFORMER
- ○ TELEPHONE POLE
- STOCK TANK
- HOUSE
- BARN
- ● WELL
- —x— FENCE
- SOIL
- OHE OVERHEAD ELECTRIC
- SOUTHERN TRACT

N

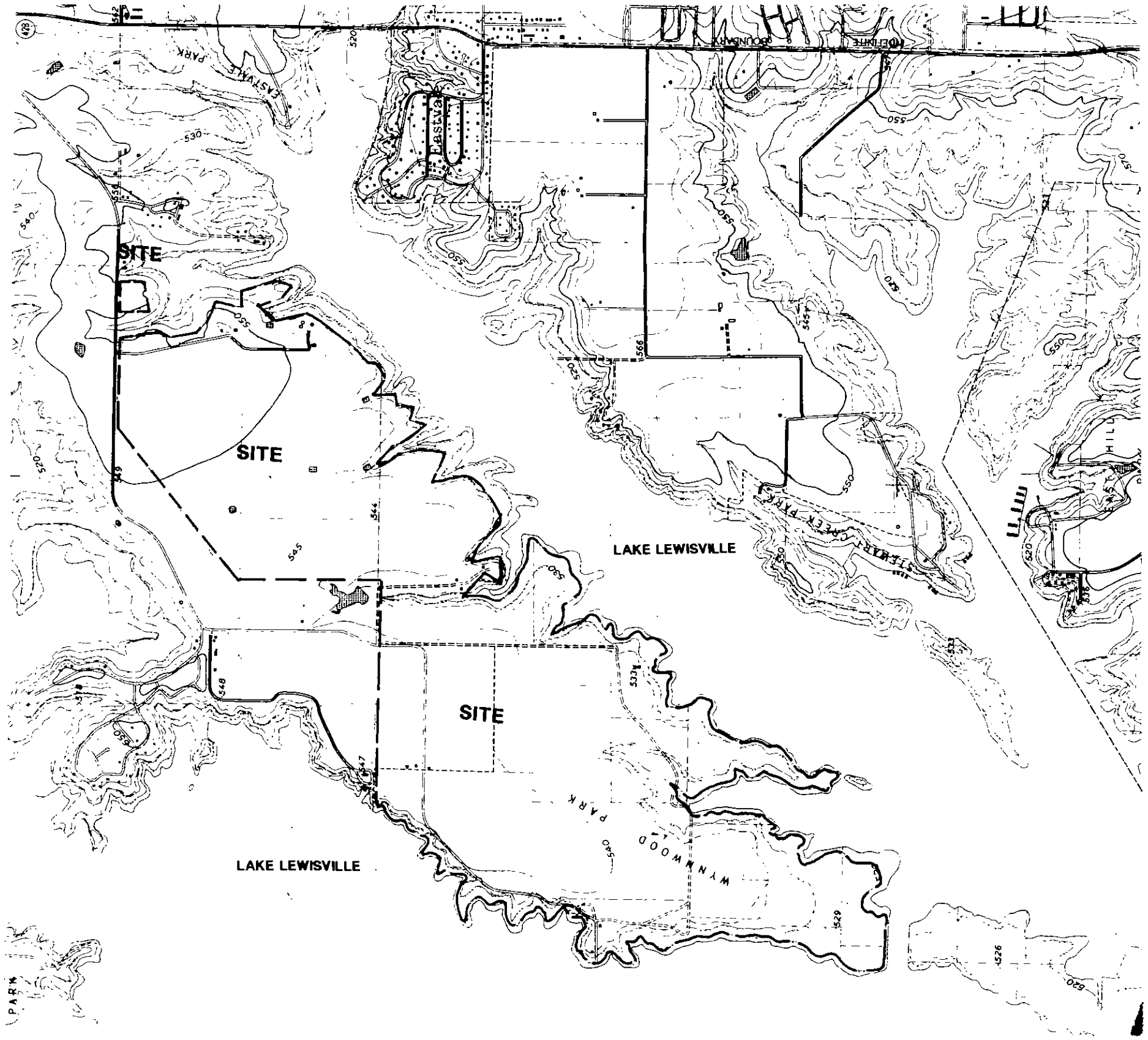
SCALE: 1" = 1,600'

reed engineering GROUP
GEOTECHNICAL CONSULTANTS

SITE PLAN

Environmental Site Assessment
1,200-Acre Tract
Wynnwood Peninsula
The Colony, TX

FIGURE 2



Source: USGS Topographic Map, Lewisville East Quadrangle, Texas, 7.5 Minute Series, 1980, Photo Revised 1981

N

Scale: 1" = 2,000'

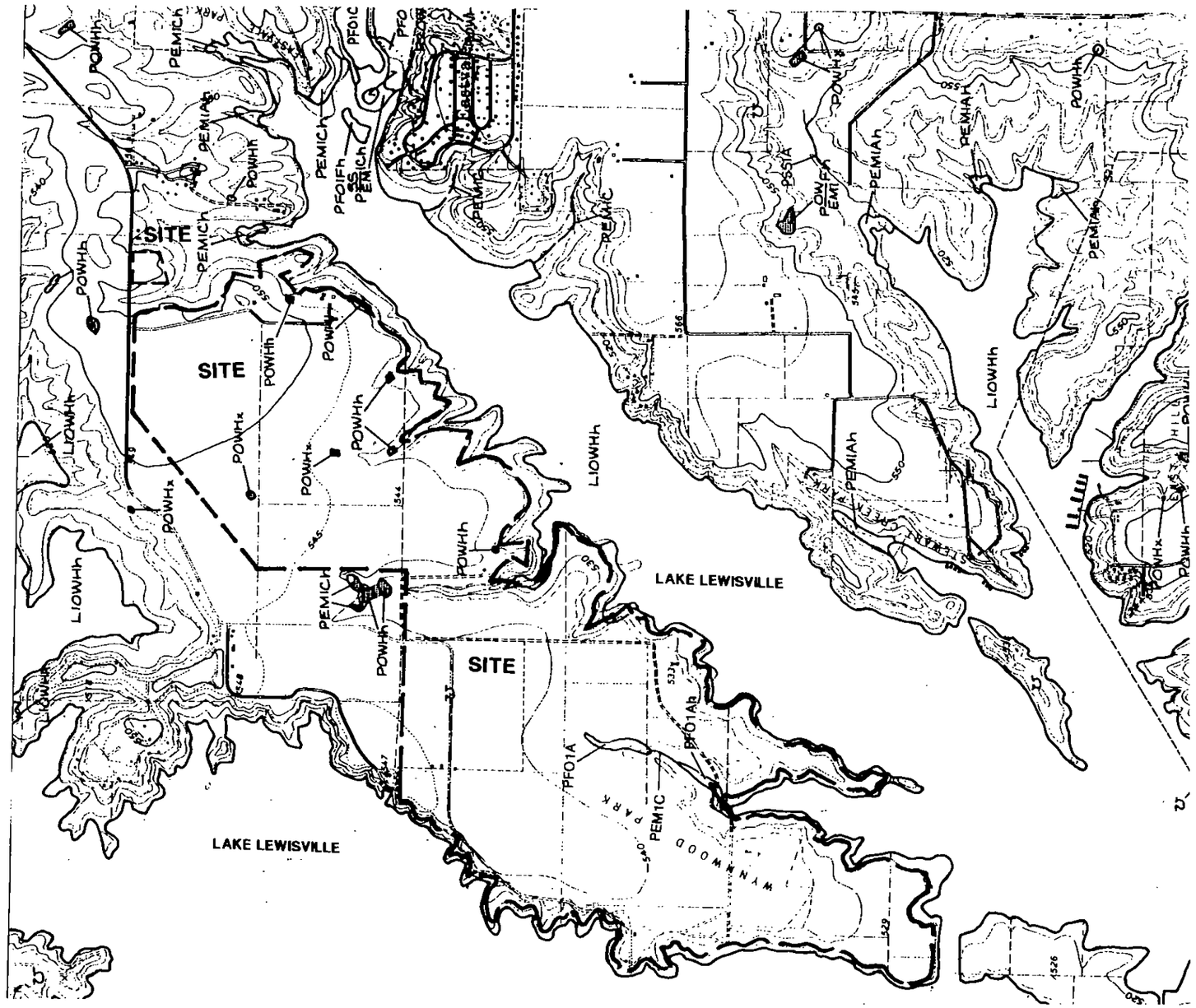
reed engineering GROUP
GEOTECHNICAL CONSULTANTS

USGS TOPOGRAPHIC MAP

Environmental Site Assessment

1,200-Arce Tract
Wynnwood Peninsula
The Colony, Texas

Figure 3



Source: USGS Topographic Map, Lewisville East Quadrangle, Texas, 7.5 Minute Series, 1992

N

Scale: 1" = 2,000'

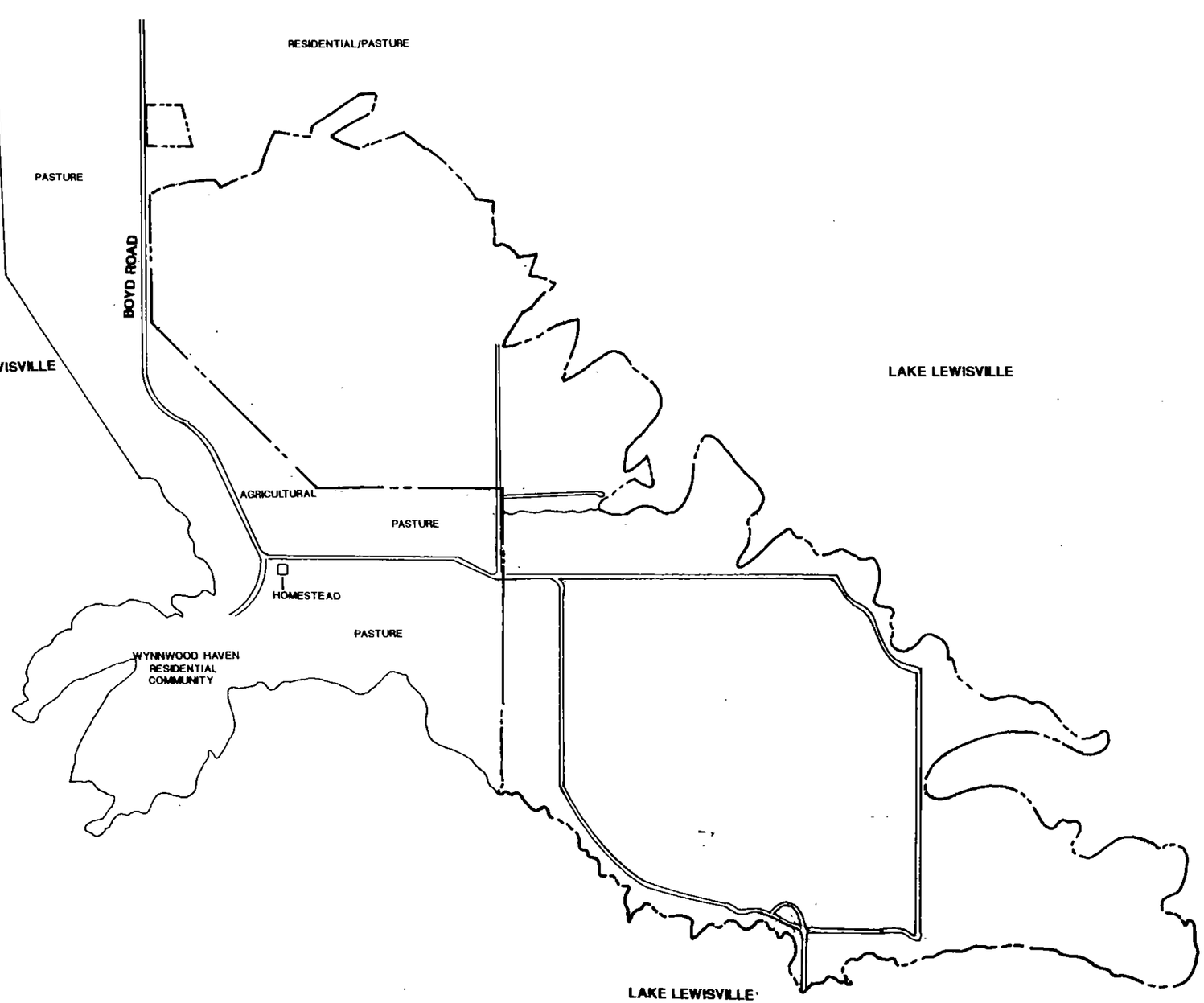
reed engineering GROUP
GEOTECHNICAL CONSULTANTS

NATIONAL WETLAND INVENTORY MAP

Environmental Site Assessment

1,200-Arce Tract
Wynnwood Peninsula
The Colony, Texas

Figure 5



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SCALE: 1" = 1,600'

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GEOTECHNICAL CONSULTANTS

AREA MAP

Environmental Site Assessment

1,200-Acre Tract
Wynnwood Peninsula
The Colony, TX

FIGURE 6

COUNTY RECORD SERVICES, INC.

PROFESSIONAL COURTHOUSE RESEARCH & SERVICES

REED ENGINEERING GROUP
2424 STUTZ DR. STE. 400
DALLAS, TX 75235

TYPE SEARCH: 50 YEAR TITLE

ATTN: DAVID STELLY

PROPERTY SEARCHED: BEING 9 TRACTS OF LAND SITUATED IN THE BBB & CRR SURVEY, A-182, DENTON COUNTY, TEXAS AND ALSO SEVERAL TRACTS THAT COLLECTIVELY MAKE UP A PART OF THE USA/GARZA (FOR THE LAKE) LAND SITUATED TO THE SOUTH OF THE OTHER 9 TRACTS.

CURRENT OWNER OF TRACTS 1-9: WYNNWOOD PENINSULA LTD
CURRENT OWNER OF LAKE TRACTS: USA/GARZA

TRACT 1

INSTRUMENT: DEED
GRANTOR: T. E. NASH
GRANTEE: T. L. NASH
DATED: 3-26-43 V/P: 299/362

INSTRUMENT: CONDEMNATION
GRANTOR: T. L. NASH
GRANTEE: U. S. A. /GARZA
DATED: 11-28-52

INSTRUMENT: DEED
GRANTOR: T. L. NASH
GRANTEE: W. E. & ORA SMITH
DATED: 11-26-56 V/P: 427/195

INSTRTUMENT: DEED
GRANTOR: W. E. & ORA SMTIH
GRANTEE: ROBERT STREIF
DATED: 10-23-68 V/P: 574/604

INSTRUMENT: DEED
GRANTOR: ROBERT STREIF
GRANTEE: WYNNWOOD PENINSULA LTD
DATED: 12-6-95 V/P: 76009

TRACT 2

INSTRUMENT: DEED
GRANTOR: T. E. NASH
GRANTEE: T. L. NASH
DATED: 3-26-43 V/P: 299/358

P O Box 903 McKinney, Texas 75070
Office: 1-800-562-1883 Fax 1-800-438-8379

SEE PAGE 2

COUNTY RECORD SERVICES, INC.

PROFESSIONAL COURTHOUSE RESEARCH & SERVICES

TRACT 2 CONTINUED

INSTRUMENT: CONDEMNATION
GRANTOR: T. L. NASH
GRANTEE: USA/GARZA
DATED: 11-28-52

INSTRUMENT: DEED
GRANTOR: T. L. NASH
GRANTEE: W. E. SMTIH
DATED: 5-20-48 V/P: 344/371

INSTRUMENT: DEED
GRANTOR: W. E. SMITH
GRANTEE: ROBERT STREIF
DATED: 10-27-68 V/P: 574/604

INSTRUMENT: DEED
GRANTOR: ROBERT STREIF
GRANTEE: WYNNWOOD PENINSULA LTD
DATED: 12-6-95 V/P: 76009

TRACT 3

INSTRUMENT: DEED
GRANTOR: T. L. NASH
GRANTEE: W. E. & ORA SMITH
DATED: 3-26-43 V/P: 299/360

INSTRUMENT: CONDEMNATION
GRANTEE: W. E. & ORA SMTIH
GRANTOR: USA/GARZA
DATED: 1-22-53

INSTRUMENT: DEED
GRANTOR: W. E. & ORA SMITH
GRANTEE: ROBERT STREIF
DATED: 10-23-68 V/P: 574/608

INSTRUMENT: DEED
GRANTOR: ROBERT STREIF
GRANTEE: WYNNWOOD PENINSULA
DATED: 12-6-95 V/P: 76009

SEE PAGE 3

P O Box 903 McKinney, Texas 75070
Office: 1-800-562-1883 Fax 1-800-438-8379

COUNTY RECORD SERVICES, INC.

PROFESSIONAL COURTHOUSE RESEARCH & SERVICES

TRACT 4

INSTRUMENT: CONDEMNATION
GRANTOR: NORA GANDY (AQUIRED BEFORE 1947)
GRANTEE: USA/GARZA
DATED: 8-8-52

INSTRUMENT: DEED
GRANTOR: NORA GANDY
GRANTEE: CHARLIE SMITH
DATED: 9-12-52 V/P: 392/397

INSTRUMENT: DEED
GRANTOR: ESTATE OF CHARLIE SMITH
GRANTEE: MODELLE SMITH
DATED: 1-3-62 V/P: 476/383

INSTRUMENT: DEED
GRANTOR: MODELLS SMITH
GRANTEE: W. R. NICHOLS
DATED: 9-2-65 V/P: 527/619

SEE COMMON TITLE FOR TRACT 4,5,6 & 7

TRACT 5

INSTRUMENT: DEED
GRANTOR: W. A. GRAY ET AL
GRANTEE: RUSSELL MAYFIELD
DATED: 5-23-47 V/P: 337/149

INSTRUMENT: CONDEMNATION
GRANTOR: RUSSELL MAYFIELD
GRANTEE: USA/GARZA
DATED: 7-15-52

INSTRUMENT: DEED
GRANTOR: RUSSELL MAYFIELD
GRANTEE: W. R. NICHOLS
DATED: 9-2-65 V/P: 527/514

SEE COMMON TITLE FOR TRACTS 4,5,6 & 7

TRACT 6

INSTRUMENT: DEED
GRANTOR: A. E. GRACY
GRANTEE: LUCY HAYS
DATED: 7-31-37 V/PP 267/430

P O Box 903 McKinney, Texas 75070
Office: 1-800-562-1883 Fax 1-800-438-8379

SEE PAGE 4

COUNTY RECORD SERVICES, INC.

PROFESSIONAL COURTHOUSE RESEARCH & SERVICES

TRACT 6 CONTINUED

INSTRUMENT: CONDEMNATION
GRANTOR: LUCY HAYS
GRANTEE: USA/GARZA
DATED: 9-4-52

INSTRUMENT: DEED
GRANTOR: LUCY HAYS
GRANTEE: W. R. NICHOLS
DATED: 3-12-58 V/P: 397/412

SEE COMMON TITLE FOR TRACTS 4,5,6, & 7

TRACT 7

INSTRUMENT: CONDEMNATION
GRANTOR: J. FEGAN (AQUIRED BEFORE 1947)
GRANTEE: USA/GARZA
DATED: 9-2-52

INSTRUMENT: DEED
GRANTOR: J. FEGAN
GRANTEE: W. R. NICHOLS
DATED: 8-31-61 V/P: 471/488

SEE COMMON TITLE

COMMON TITLE FOR TRACTS 4,5,6, & 7

INSTRUMENT: DEED
GRANTOR: W. R. NICHOLS, ESTATE (REBECCA DARR ET AL)
GRANTEE: W.R. NICHOLS TRUSTS, ET AL
DATED: 6-2-78 V/P: 893/823

INSTRUMENT: DEED
GRANTOR: REBECCA DARR ET AL
GRANTEE: W. R. NICHOLS, III, TRUSTS ET AL
DATED: 5-8-87 V/P: 2163/433

INSTRUMENT: DEED
GRANTOR: W. R. NICHOLS, III, TRUSTS ET AL
GRANTEE: FDIC
DATED: 11-5-91 V/P: 3097/215

SEE PAGE 5

COUNTY RECORD SERVICES, INC.

PROFESSIONAL COURTHOUSE RESEARCH & SERVICES

COMMON TITLE TRACTS 4,5,6, & 7 CONTINUED

INSTRUMENT: DEED
GRANTOR: FDIC
GRANTEE: PHILIP LACERTE
DATED: 6-14-93 V/P: 41117

INSTRUMENT: DEED
GRANTOR: PHILIP LACERTE
GRANTEE: WYNNWOOD PENINSULA LTD

SEE PAGE 6 FOR TRACT 8

P O Box 903 McKinney, Texas 75070
Office: 1-800-562-1883 Fax 1-800-438-8379

COUNTY RECORD SERVICES, INC.

PROFESSIONAL COURTHOUSE RESEARCH & SERVICES

TRACT 8

INSTRUMENT:: DEED
GRANTOR: W. T. STONE (AQUIRED 1900)
GRANTEE: USA/GARZA
DATED: 2-28-51 V/P: 372/17

INSTRUMENT: DEED
GRANTOR: W. T. STONE
GRANTEE: W. R. NICHOLS
DATED: 3-29-61 V/P: 468/130

INSTRUMENT: DEED
GRANTOR: W. R. NICHOLS
GRANTEE: ROBERT STREIF
DATED: 8-7-79 V/P: 967/702

INSTRUMENT: DEED
GRANTOR: ROBERT STREIF
GRANTEE: WYNNWOOD PENINSULA LTD
DATED: 12-3-93 V/P: 87901

TRACT 9

INSTRUMENT: DEED
GRANTOR: HAROLD WEIL
GRANTEE: J.A. CHANCY
DATED: 6-25-45 V/P: 315/399

INSTRUMENT: DEED
GRANTOR: J. A. CHANCY
GRANTEE: USA/GARZA
DATED: 8-11-52

INSTRUMENT: DEED
GRANTOR: ESTATE OF J. A. CHANCY
GRANTEE: LUCY CHANCY
DATED: 9-2-65 V/P: 528/39

INSTRUMENT: DEED
GRANTOR: LUCY CHANCY
GRANTEE: VICTOR CHANCY
DATED: 11-11-69 V/P: 594/339

see PAGE 7

COUNTY RECORD SERVICES, INC.

PROFESSIONAL COURTHOUSE RESEARCH & SERVICES

TRACT 9 CONTINUED

INSTRUMENT: DEED
GRANTEE: VICTOR CHANCY
GRANTEE: ROBERT STREIF
DATED: 5-31-73 V/P: 675/627

INSTRUMENT: DEED
GRANTOR: ROBERT STREIF
GRANTEE: WYNNWOOD PENINSULA LTD
DATED: 12-2-94 V/P: 89415

LAKE TRACT CONDEMNATIONS TO THE SOUTH ALL TO USA GARZA

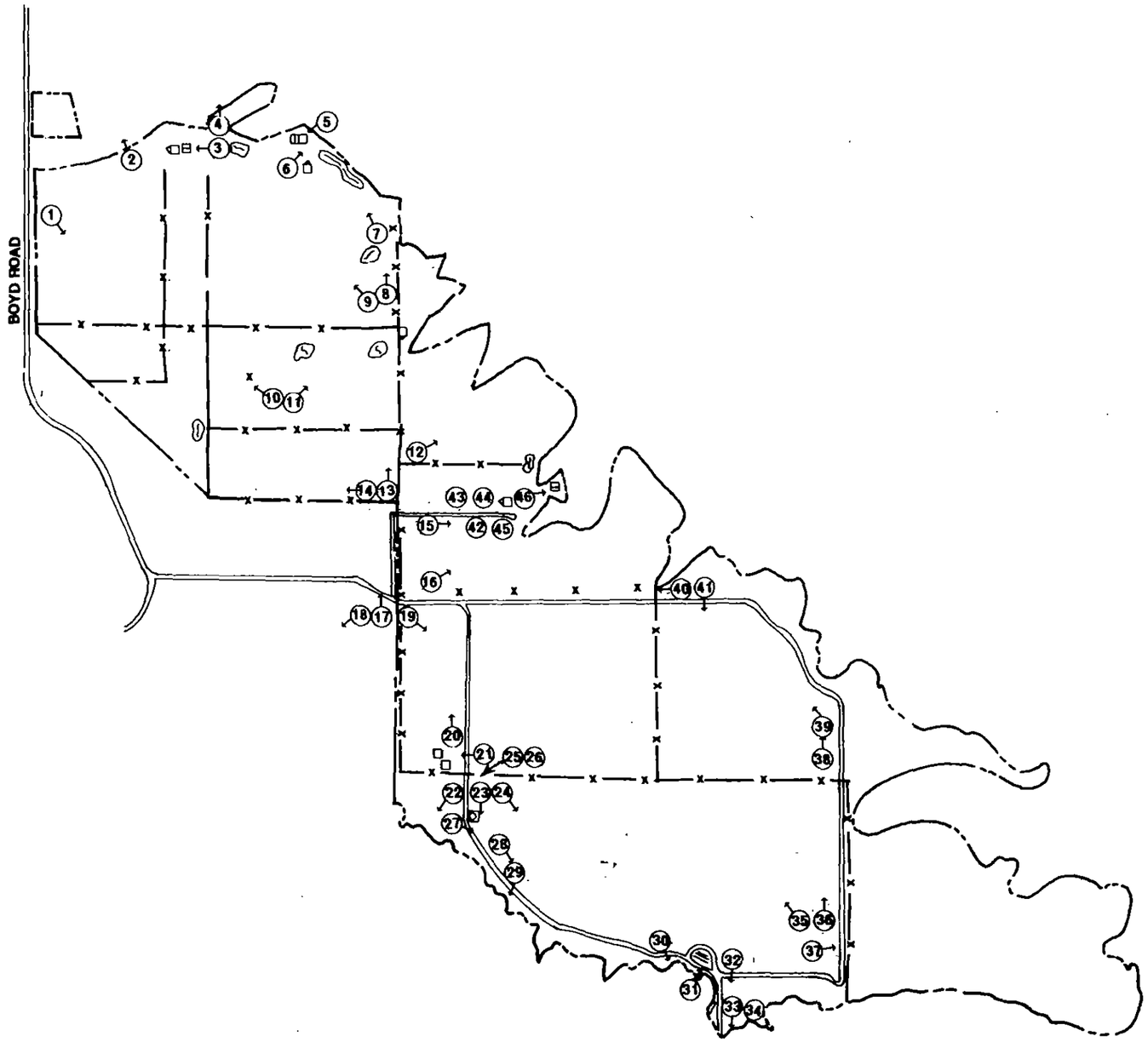
FROM	DATE
BYGENE HOWELL	7-19-52
AUBREY BORCHARDT	9-8-52
O. N. SEAGRAVES	8-11-52
JESSEE GOWEN	7-10-52
J.B. MCENTIRE	9-17-52
CHARLES SMITH	5-18-52

COUNTY RECORD SERVICES, INC. DATED: 11-11-97

FEE: $600.00 SALES TAX: $49.50 TOTAL: $649.50

CRSI INVOICE NO: 97444 REED PO NO.: 2424

P O Box 903 McKinney, Texas 75070
Office: 1-800-562-1883 Fax 1-800-438-8379



N

SCALE: 1" = 1,600'

reed engineering GROUP
GEOTECHNICAL CONSULTANTS

LOCATION & ORIENTATION OF PHOTOGRAPHS

Environmental Site Assessment

1,200-Arce Tract
Wynnwood Peninsula
The Colony, Texas

Record of Communication **Project No.:** 3925

Project Name: 1,200-Acre Tract **Location:** Wynnwood Peninsula

Communications With: Mr. Dave Wallace

of: The City of The Colony

Location: The Colony, Texas **Phone:** (972) 625-3944

Communication Via: (X) Telephone Conversation ( ) Discussions During Site Inspection

( ) Office Visitation/Meeting ( ) Other

Recorded By: David L. Stelly **of** Reed Engineering Group, Inc.

at: (10:00) **on** (10-27-97)

Re: Phase I ESA:

Subject: UST installations or removals and hazardous material spills or releases for the subject and adjacent properties.

Summary of Communication:

Mr. Wallace indicated he had no knowledge or records of UST installations or removals, or hazardous material spills or releases on the subject or adjacent properties.

Conclusions, Actions Taken, Required, or Recommended:

Follow up Required: When, With and By Whom:

Record of Communication **Project No.:** 3925

Project Name: 1,200-Acre Tract **Location:** Wynnwood Peninsula

Communications With: Mr. Jim Maddox

of: Denton County Electric

Location:_____ **Phone:** (940) 391-6692

Communication Via: (X) Telephone Conversation ( ) Discussions During Site Inspection

( ) Office Visitation/Meeting at _____ ( ) Other

Recorded By: David L. Stelly **of** Reed Engineering Group, Inc.

at: (8:00) **on** (11-5-97)

Re: Phase I ESA:

Subject: Electrical Transformer found on beach at Wynwood Park

Summary of Communication: Mr. Maddox indicated the transformer contained 42ppm of PCB 1260. He stated that the federal standard for PCB containing transformers is 500ppm. He also indicated the transformer was not leaking when samples were taken from the unit.

Conclusions, Actions Taken, Required, or Recommended: Based on the information received from Mr. Maddox at Denton County Electric, the transformer found on the subject property appears to pose a low potential to impact the subject property.

Follow up Required: When, With and By Whom:

Record of Communication **Project No.:** 3925

Project Name: 1,200-Acre Tract **Location:** Wynnwood Peninsula

Communications With: Mr. Stan Walker

of: U.S. Army Corps of Engineers Regulatory Branch

Location:_____ **Phone:** (817) 978-3551

Communication Via: (X) Telephone Conversation ( ) Discussions During Site Inspection

( ) Office Visitation/Meeting at _____ ( ) Other

Recorded By: David L. Stelly **of:** Reed Engineering Group, Inc.

at: (4:15) **on** (11-7-97)

Re: Phase I ESA:

Subject: On-site Wetlands

Summary of Communication: Mr. Walker indicated these wetlands may or may not be considered jurisdictional waters/wetlands of the United States.

Conclusions, Actions Taken, Required, or Recommended: Mr. Walker stated the wetlands should be further investigated to determine whether they are jurisdictional.

Follow up Required: When, With and By Whom: Mr. Walker suggested that after delineation of the wetlands a preapplication meeting with the U.S. Army Corp of Engineers be conducted to properly insure standards of the Corp of Engineers are being followed.

PROJECT NO. 13036
FEBRUARY 2006

PHASE I ENVIRONMENTAL SITE ASSESSMENT UPDATE 1,200-ACRE TRACT WYNNWOOD PENINSULA THE COLONY, TEXAS

Presented To:
MATTHEWS SOUTHWEST
LEWISVILLE, TEXAS

February 10, 2006
Project No. 13036

Matthews Southwest
1660 South Stemmons Freeway, Suite 280
Lewisville, Texas 75067-6315
ATTN: Mr. Kristian Teleki

Re: Phase I Environmental Site Assessment Update
1,200-Acre Tract
Wynnwood Peninsula
The Colony, Texas

Gentlemen:

Reed Engineering Group, Ltd. (Reed) has completed the Phase I Environmental Site Assessment (ESA) Update (Update) of the above referenced property. The work was performed in accordance with ASTM E-1527-05, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process". The original Phase I ESA (Reed Project No. 3925) was completed by Reed in November 1997. A Site Location Map is attached as **Figure 1**.

This Update consisted of a site and area reconnaissance, review of current federal and state databases, review of a 2005 aerial photograph, and a request for information on environmental concerns from the Town of The Colony Fire Marshal's office.

Site Reconnaissance

David L. Stelly of Reed conducted the site visit on January 20, 2006. The reconnaissance consisted of visual observations made during a systematic walkover of the property that included walking the perimeter of the site and the interior of the property using a grid pattern with an overlapping field of view. A Site Plan/Location and Orientation of Photographs, and 2005 aerial photograph depicting the subject and surrounding properties are attached as **Figures 2** and **3**, respectively. Current photographs are provided following **Figure 3**.

Since our original assessment, The Tribute golf course has been constructed on the western part of the property. The remainder of the site is undeveloped or utilized for pasture purposes. The on-site farmsteads have been abandoned since the original assessment. A house, two greenhouses, and a barn have been demolished in the south-central part of the site.

The Tribute Golf Course has been improved with an 18-hole golf course with associated driving range, club house, maintenance shed, and outbuildings. A pad-mounted backup diesel fueled generator is located at The Tribute Club House. No leaks or spills were observed in the vicinity of the generator. A pneumatic elevator was observed in the basement of The Tribute Club House.

The Tribute golf course also stores herbicides that are used on the golf course. It appeared that good housekeeping procedures were used in the room that contained the herbicides, and misuse of the herbicides was not observed during the site walkover. The Tribute golf course manager, Mr. Kindred, indicated there are no UST's, hazardous material spills or releases, or any other environmental concerns to his knowledge on the subject property occupied by The Tribute golf course since 2000. He stated that the AST at the maintenance facility has two 500-gallon tanks that contain gasoline and diesel. The AST is refueled by Millen Oil Company upon request. Mr. Kindred stated that the two 55-gallon used oil drums are used at the maintenance facility are periodically pumped out by Millen Oil Company. Mr. Kindred also stated that the majority of the herbicides located within the maintenance facility are Turf Herbicides used for killing weeds on the

fairways of the golf course. A **Record of Communication** with Mr. Jeff Kindred of The Tribute golf course in attached following the site photographs.

Realignment of Boyd Road was under construction during the site visit, and a drinking water pump station was under construction in the northeast part of the property. A hand-dug well and well pump house was observed on the northwestern part of the property. The remainder of the site is undeveloped or utilized for pasture purposes.

Three portable diesel aboveground storage tanks (AST) are located on-site and used for equipment associated with the construction of the Boyd Road realignment and pump station. A fourth AST containing gasoline and diesel is located at The Tribute golf course maintenance facility. The on-site AST's have secondary containment and no leaks were observed. The AST's do not appear to pose a significant potential to have environmentally impacted the subject property.

Seven utility-owned, pole-mounted transformers are present at the subject property. Two pad-mounted transformers are also located on-site. The transformers appeared to be in good condition and fluids were not observed to be leaking. No staining or stressed vegetation was noted below the transformers. The units appear to pose a low potential for site impact.

No suspicious odors, seeps, leachate, or stressed vegetation were observed on the subject property. Septic systems are anticipated to be present at each of the on-site farmsteads.

Based upon observations made during the site walkover, no recognized environmental conditions were noted in connection with the property.

Area Reconnaissance

The area reconnaissance consisted of a driving tour of the surrounding area within a one-half mile radius of the site. The adjacent properties have remained agricultural/pasture land since the original Phase I ESA. Several residential developments are under construction northeast of the subject property. The other surrounding properties are relatively unchanged since the previous assessment and consist of mostly agricultural/pasture land and single-family residential properties. Lake Lewisville bounds the property on the east, south, and portions of the west. Based on area topography, the distances of separation of nearby developed properties, and the absence of regulated facilities near the site, the surrounding properties do not appear to pose a significant potential to have environmentally impacted the subject property.

Environmental Database Review

Current federal and state regulatory agency databases were reviewed to evaluate past and current compliance status of the property and surrounding properties. The Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), Emergency Response Notification System (ERNS),

and Resource Conservation and Recovery Information System (RCRIS) databases were reviewed to determine if the status of hazardous materials handlers and waste sites has changed or if new facilities in the area have been added to the lists. The Texas Commission on Environmental Quality (TCEQ) Registered Petroleum Storage Tank (PST) Database, the Leaking PST Database, TCEQ Solid Waste Landfill Permit Application Database, TCEQ Closed/Abandoned Landfills, Final State Superfund Registry, Voluntary Cleanup Program (VCP), TCEQ Brownfields Site Assessment (BSA), and Innocent Owner/Operator Program (IOP) Databases were reviewed to determine the location of listed facilities, if any, relative to the subject property. A copy of the database is attached.

The subject property was not listed in any of the regulatory agency databases.

No regulated facilities were identified within the ASTM-specified search radii in any of the databases searched.

Local Regulatory Information

The Town of The Colony Fire Marshal's office was contacted for information regarding incidents of environmental concern at the subject and nearby properties. The Town of The Colony's Fire Marshal, Mr. Carl McMurphy, indicated he had no knowledge or records of UST installations or removals, or hazardous material spills or releases on the subject or adjacent properties. He did indicate that there were several portable AST's on the property for construction purposes. A **Record of Communication** with Mr. McMurphy is attached.

Conclusions

Reed acknowledges that this Update was conducted in accordance with the ASTM Standard for Phase I Environmental Site Assessments and that Matthews Southwest, their consultants and lenders are entitled to rely upon this report and the original Phase I ESA. Based on information obtained to date, this Update has revealed no evidence of recognized environmental conditions in connection with the property.

Due to the presence of several farmsteads on the subject property, the possibility of unknown water wells or septic systems exists on the property. If found, the water wells should be plugged and abandoned per TCEQ requirements. Any septic tanks discovered during construction should be removed and the area properly backfilled.

Given the presence of streams on-site that will be considered jurisdictional waters of the United States/other waters by the United States Army Corps of Engineers (USACE), Reed recommends conducting a Routine Wetland Delineation on the property prior to disturbance of any potential wetland areas or jurisdictional waters of the U.S.

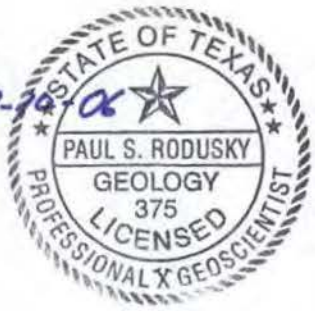
We trust this information will be satisfactory for your needs. If you have any questions concerning our findings, do not hesitate to call.

Sincerely,

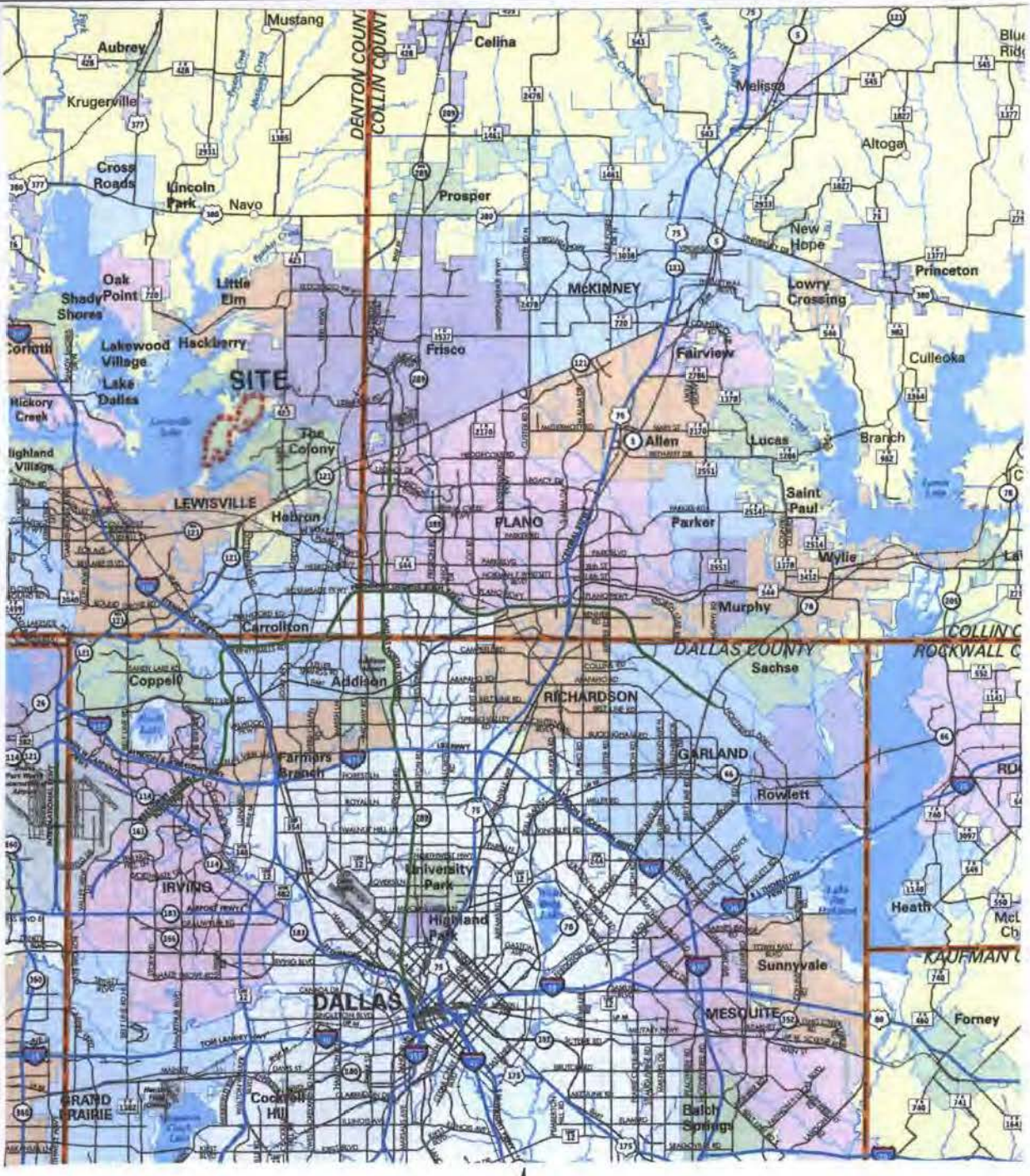
REED ENGINEERING GROUP, LTD.

David L. Stelly
Environmental Scientist

Paul S. Rodusky, P.G.
Senior Hydrogeologist



DLS/PSR/drb
copies submitted: (3) Mr. Kristian Teleki/Matthews Southwest
(1) Mr. Mark Edgren/Wynne Jackson



Source: Dallas Mapsco, 2006

Environmental Site Assessment Update

1,200-Acre Tract
Wynnwood Peninsula
The Colony, Texas

SITE LOCATION MAP

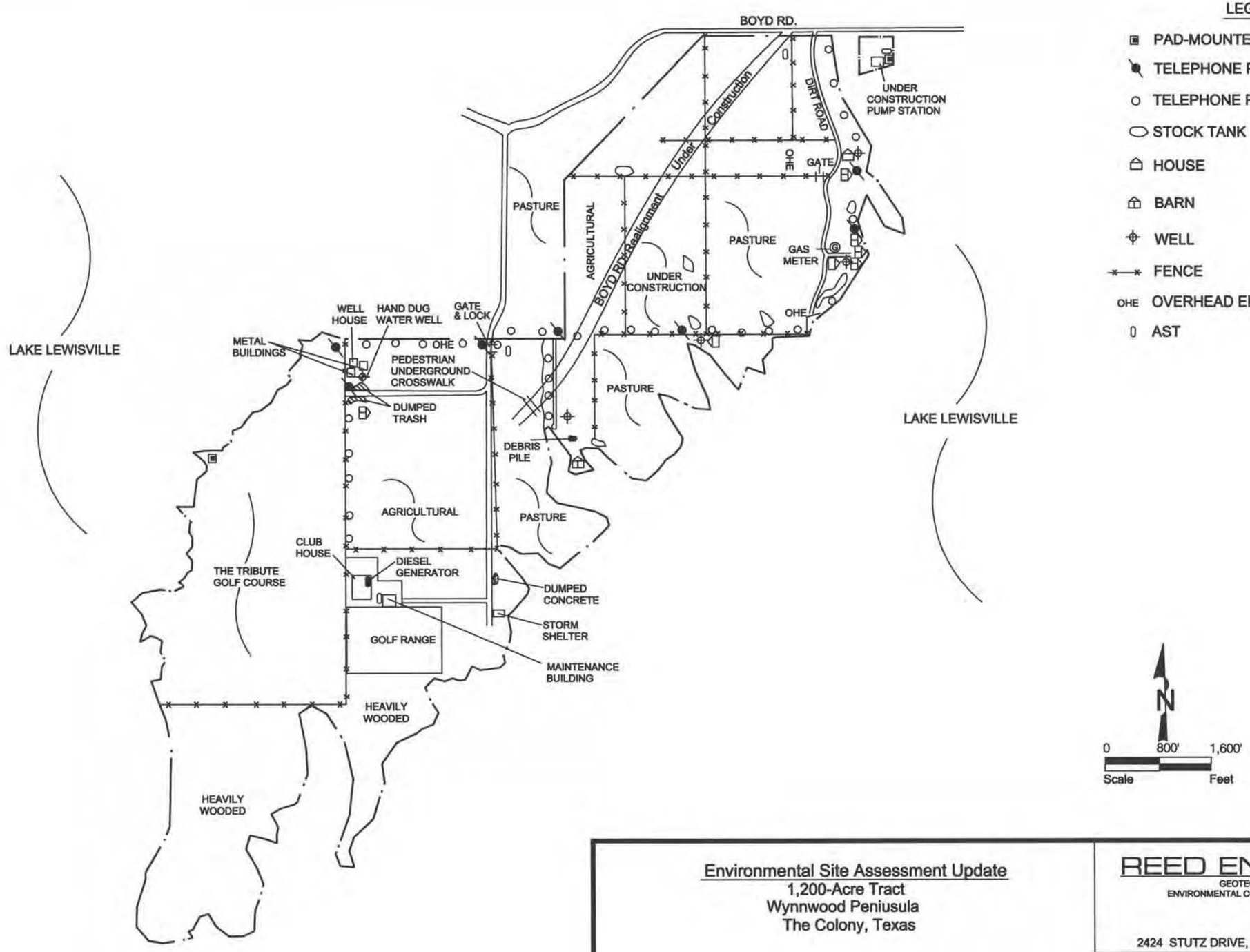
FIGURE 1

REED ENGINEERING GROUP

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

2424 STUTZ DRIVE, SUITE 400 DALLAS, TX 75235

PROJECT NO.	DATE
13036	02/02/06



Environmental Site Assessment Update
1,200-Acre Tract
Wynnwood Peniusula
The Colony, Texas

SITE PLAN

FIGURE 2

REED ENGINEERING GROUP
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

2424 STUTZ DRIVE, SUITE 400 DALLAS, TX 75235

PROJECT NO. 13036

DATE 02/02/06

Source: dfwmaps.com

Environmental Site Assessment Update

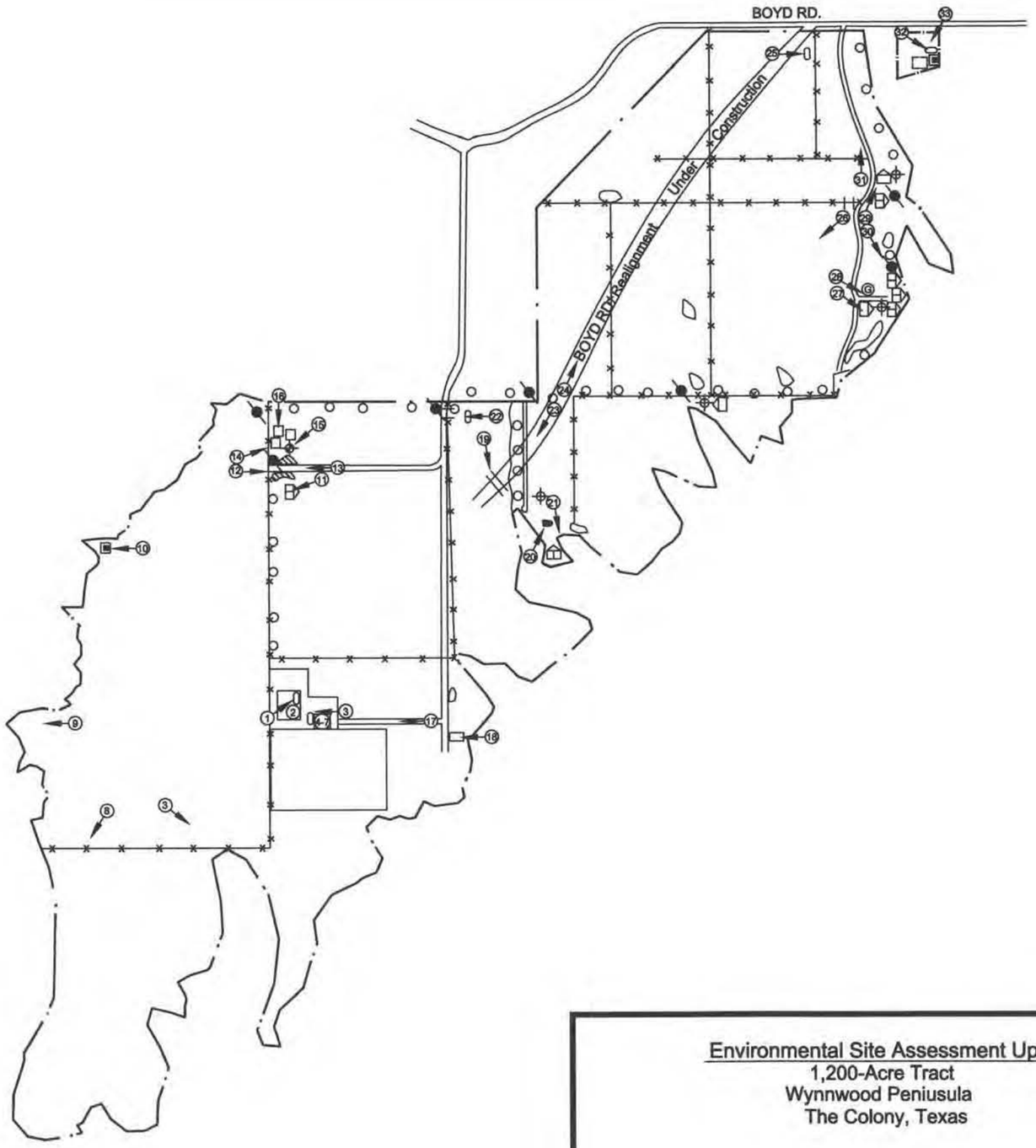
1,200-Acre Tract
Wynnwood Peninsula
The Colony, Texas

AERIAL PHOTOGRAPH: 2005

FIGURE 3

REED ENGINEERING GROUP
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
2424 STUTZ DRIVE, SUITE 400 DALLAS, TX 75235

PROJECT NO.	DATE
13063	02/02/06



Environmental Site Assessment Update
1,200-Acre Tract
Wynnwood Peniusula
The Colony, Texas

LOCATION AND ORIENTATION OF PHOTOGRAPHS

REED ENGINEERING GROUP
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
2424 STUTZ DRIVE, SUITE 400 DALLAS, TX 75235

PROJECT NO. 13036

DATE 02/02/06

1. Photograph of a diesel generator located at The Tribute golf course club house.

2. Photograph of a pneumatic elevator located in the basement of The Tribute golf course club house.

SITE PHOTOGRAPHS

3. Westerly view of an AST located at the maintenance facility of The Tribute golf course. Photograph taken at The Tribute maintenance facility.

4. Southerly view of three new oil 55-gallon drums and containment for two 55-gallon used oil drums.

SITE PHOTOGRAPHS

5. Southerly facing photograph of the herbicide storage room. Photograph taken at The Tribute maintenance facility.

6. Easterly facing photograph of the herbicide storage room. Photograph taken at The Tribute maintenance facility.

SITE PHOTOGRAPHS

7. Southerly view across the interior of The Tribute maintenance facility.

8. Southerly view across the southern part of the property. Photograph taken from The Tribute golf course.

SITE PHOTOGRAPHS

9. Westerly view across the area where the Wynnwood Pennisula park was formerly located. Photograph taken on The Tribute golf course property.

10. Westerly view of a pad-mounted transformer used by the golf course to pump water from Lake Lewisville.

SITE PHOTOGRAPHS

11. Southerly view of a barn used by The Tribute golf course to store pipe. Photograph taken on the northwest part of the property.

12. Easterly view along an abandoned road. Photograph taken on the northwest part of the site.

SITE PHOTOGRAPHS

13. Westerly view along the former location of the abandoned road. Photograph taken on the northwest part of the site.

14. Northerly view of two metal building remaining on the northwest part of the property.

SITE PHOTOGRAPHS

15. Photograph of a filled hand-dug well on the northwestern part of the subject property.

16. Northerly view of a water well pump house on the northwestern part of the property.

SITE PHOTOGRAPHS

17. Westerly view toward The Tribute golf course club house. Photograph taken from the southern part of the site.

18. Westerly view of an abandoned storm shelter. Photograph taken on the southern part of the site.

SITE PHOTOGRAPHS

19. Southeasterly view of an under construction underground pedestrian crosswalk. Photograph taken along the Boyd Road realignment.

20. Northeasterly view of a debris pile of a house and one greenhouse located on the southern part of the site.

SITE PHOTOGRAPHS

21. Southeasterly view of two remaining structures on the southern part of the property. Photograph taken on the southern part of the site.

22. Southwesterly view of an on-site diesel AST. Photograph taken on the northwest part of the property.

SITE PHOTOGRAPHS

23. Southwesterly view along the Boyd Road realignment. Photograph taken on the north-central part of the site.

24. Northeasterly view along the Boyd Road realignment. Photograph taken on the north-central part of the site.

SITE PHOTOGRAPHS

25. Easterly view of an on-site diesel AST. Photograph taken on the northeastern part of the property.

26. Southwesterly view across the eastern part of the property. Photograph taken on the southeast part of the site.

SITE PHOTOGRAPHS

27. Photograph of an abandoned farmstead. Photograph taken on the eastern part of the property.

28. Photograph of an abandoned farmstead. Photograph taken on the eastern part of the property.

SITE PHOTOGRAPHS

29. Photograph of an abandoned farmstead. Photograph taken on the eastern part of the property.

30. Southerly facing photograph of an abandoned farmstead. Photograph taken on the eastern part of the property.

SITE PHOTOGRAPHS

31. Northerly view across the northeastern part of the site. Photograph taken from the east-central part of the property.

32. Southeasterly view of an on-site diesel AST. Photograph taken at an under construction drinking water pump station on the northeast tract of the site.

SITE PHOTOGRAPHS

33. Southeasterly view of an under construction drinking water pump station. Photograph taken on the northeast tract of the subject property.

SITE PHOTOGRAPHS

Record of Communication **Project No.:** 13036

Project Name: 1,200-Acre Tract **Location:** Wynnwood Peninsula

Communications With: Mr. Carl McMurphy, Fire Marshal

of: The Town of The Colony

Location: The Colony, Texas **Phone:** (972) 624-2269

Communication Via: (X) Telephone Conversation ( ) Discussions During Site Inspection

( ) Office Visitation/Meeting ( ) Other

Recorded By: David L. Stelly **of** Reed Engineering Group, Ltd.

at: (10:00) **on** (02-08-06)

Re: Phase I ESA:

Subject: UST installations or removals and hazardous material spills or releases for the subject and adjacent properties.

Summary of Communication:

Mr. McMurphy indicated he had no knowledge or records of UST installations or removals, or hazardous material spills or releases on the subject or adjacent properties. He did indicate that there were several portable AST's on the property for construction purposes.

Conclusions, Actions Taken, Required, or Recommended:

Follow up Required: When, With and By Whom:

Record of Communication **Project No.:** 13036

Project Name: 1,200-Acre Tract **Location:** Wynnwood Peninsula

Communications With: Mr. Jeff Kindred, The Tribute Manager

of: The Tribute Golf Course

Location: The Colony, Texas **Phone:** (972) 370-5465 ext. 2207

Communication Via: ( ) Telephone Conversation (X) Discussions During Site Inspection

( ) Office Visitation/Meeting ( ) Other

Recorded By: David L. Stelly **of** Reed Engineering Group, Ltd.

at: (8:00) **on** (01-20-06)

Re: Phase I ESA:

Subject: UST installations or removals, hazardous material spills or releases, or other environmental concerns for The Tribute golf course.

Summary of Communication:

Mr. Kindred indicated there are no UST's, hazardous material spills or releases, or any other environmental concerns to his knowledge on the subject property occupied by The Tribute golf course since 2000. He stated that the AST at the maintenance facility has two 500-gallon tanks that contain gasoline and diesel. The AST is refueled by Millen Oil Company upon request. The majority of the herbicides located within the maintenance facility are Turf Herbicides used for killing weeds on the fairways of the golf course. Mr. Kindred stated that the two 55-gallon used oil drums are used at the maintenance facility are periodically pumped out by Millen Oil Company.

Conclusions, Actions Taken, Required, or Recommended:

Follow up Required: When, With and By Whom:

Further inquiry is not deemed necessary at this time.

ATLAS E.R. Map Report

(ASTM E1527-05)

Area of Review:

Atlas Job 06-01-926
1200 Acre Tract – Wynnwood Peninsula
The Colony, Texas

Site (Centerpoint) Coordinates:

North 33º 6.270' (33.1045)
West 96º 55.452' (-96.9242)

Prepared For:

David Stelly
Reed Engineering Group, Ltd.
Dallas, Texas

Prepared on January 18, 2006 by
Atlas Environmental Research, Inc.
8705 Shoal Creek Blvd., Suite 207
Austin, Texas 78757
1-800-940-0977

Report Summary

Section	ASTM Database & Date	Radius	# Sites Mapped	# LUs *	MapIDs
1 **	RCRIS (excludes TSDs) – 7/14/2005	¼ mile	0	0	
1.1 **	TSDs & CORRACTS – 7/14/2005	1 mile	0	0	
2	CERCLIS – 8/22/2005	½ mile	0	0	
3	NFRAP – 8/22/2005	½ mile	0	0	
4	NPL – 8/22/2005	1 mile	0	0	
5 ***	ERNS – 5/19/2000	¼ mile	0	0	
5A ***	NRS – 3/15/2002	¼ mile	0	0	
6	State Superfund – 10/26/2005	1 mile	0	0	
7	LPST – 9/1/2005	½ mile	0	0	
8	PST – 6/10/2005	¼ mile	0	2	
9	MSW Landfills – 5/24/2004	½ mile	0	0	
9A	Closed / Abandoned Landfills	½ mile	0	0	
10	VCP – 7/21/2005	½ mile	0	0	
10A	BSA – 7/21/2005	½ mile	0	0	
10B	IOP – 7/21/2005	½ mile	0	0	
			Total Sites Mapped = 0	2 = Total LUs	

Other Standard Environmental Record Sources

Institutional Control (IC) / Engineering Control (EC) Registries – No Federal, State, Tribal, or Local registries are currently reviewed by Atlas E.R., Inc. However, several databases included in this report may contain information concerning institutional or engineering controls. A review of local land records is recommended to help satisfy this requirement of ASTM E1527-05.

Tribal Environmental Records – No Tribal records are currently reviewed by Atlas E.R., Inc.

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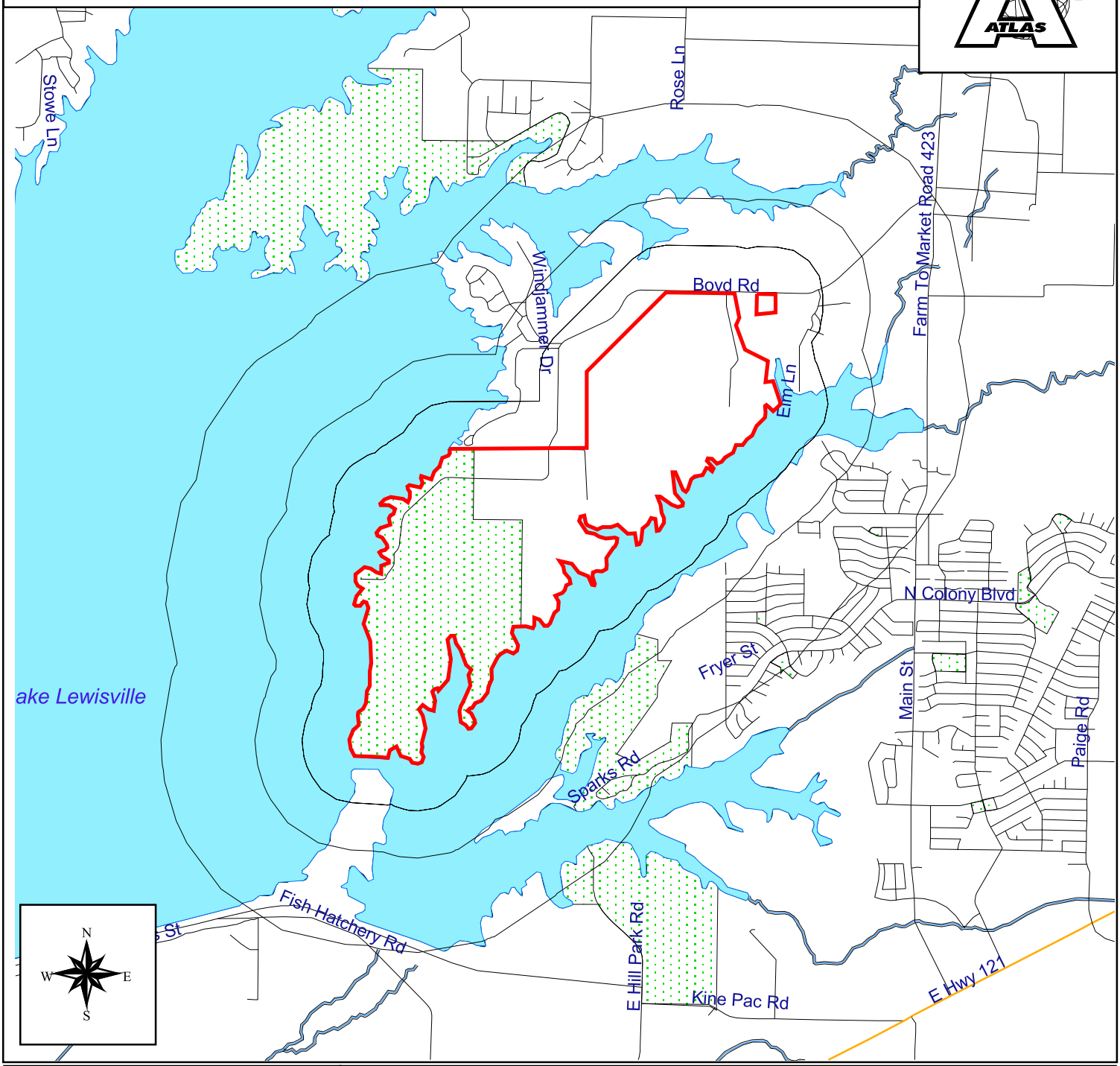
* Location Unknown Sites (LUs) - Extensive effort is made to ensure that as many sites as possible are geocoded or manually pointed for an Atlas E.R. Map & Report. However, due to inaccurate and /or insufficient information within a particular database, some sites cannot be accurately located and may be noted as "LU" in this report. These sites will not appear on the map, but full database information has been included in the report. These sites may or may not be within the area but are submitted for your review.

** All RCRIS Facilities listed within the EPA's CORRACTS (Corrective Action) Database have been included in this report if they are determined to be within the area of review.

*** The NRS (National Response System) replaced the ERNS (Emergency Response Notification System) database in the year 2000. It is the sole federal point of contact for spills information.

Atlas Job #06-01-926, January 18, 2006
1200 Acre Tract - Wynnwood Peninsula
The Colony, Texas



Mapped to 1/4 mile =
RCRIS, ERNS / NRS, PST

Mapped to 1/2 mile =
CERCLIS, NFRAP, LPST, Landfills / CLI,
VCP / BSA / IOP

Mapped to 1 mile =
RCRIS TSDs & CORRACTS, NPL, Superfund

Approximate Locations Only
1/4, 1/2, & 1 Mile Radii Shown

1:48000

1320 0 1320 2640 3960 Feet

Atlas E.R. Map Legend - ASTM E1527-05 Standard

- Section 1 - RCRIS
- Section 1.1 - RCRIS TSD
- Section 2 - CERCLIS
- Section 3 - NFRAP
- Section 4 - NPL
- Section 5/5A - ERNS / NRS
- Section 6 - Superfund Point
- Section 6 - Superfund Boundary
- Section 7 - LPST
- Section 8 - RST
- Section 9/9A - MSW / CLI Landfills
- Section 10/10A/10B - VCP / BSA / IOP

Additional Features

- Airports
- Major Water
- Parks
- Railroads
- Rivers & Bayous
- Subject Property
- Subject Property Boundary

Atlas E.R., Inc. / 1.800.940.0977

Facility Name, Location, & Manager:

COLONY MUN UTIL DIST # 1
ONE HARRIS PLZ
THE COLONY
75056

WILLIAM M. HALL
2142486323

Operator First Name:DON
Operator Last Name:OWENS
Operator Phone: 972-625-6644

Facility Number:30198
Registration Date: 070286
Facility Type: Unidentified
Underground Tanks: 0003
Above-Ground Tanks: 0000

Owner Information:

CITY OF THE COLONY
DON
OWENS
972-625-6644 X826

MAP ID
LU

0
Distance from site (feet)

0
Distance from site (miles)

Direction from site

-X (Decimal Degrees)

Y (Decimal Degrees)

Tank ID	Installed Date	Tank Status	Status Date	Tank Capacity	UST / AST
3	01011975	Removed from ground	09302002	0002000	Underground

Compartment:A
Capacity: 0
Substance: Diesel
Other Substance: No Data

Tank Material:Steel
Other Tank Material:
Pipe Material:Steel
Other Pipe Material:

2	01011979	Removed from ground	09302002	0001000	Underground

Compartment:A
Capacity: 0
Substance: Diesel
Other Substance: No Data

Tank Material:Steel
Other Tank Material:
Pipe Material:Steel
Other Pipe Material:

1	01011979	Removed from ground	09302002	0010000	Underground

Compartment:A
Capacity: 0
Substance: Gasoline
Other Substance: No Data

Tank Material:Steel
Other Tank Material:
Pipe Material:Steel
Other Pipe Material:

Facility Name, Location, & Manager:

Allen Const
Boyd Rd
THE COLONY
75056

Randy
405-834-7217

Operator First Name:
Operator Last Name:
Operator Phone:

Facility Number:70964
Registration Date: 083198
Facility Type: Unidentified
Underground Tanks: 0000
Above-Ground Tanks: 0001

Owner Information:

REEDER DISTRIBUTORS INC
Ginny
Kamper
817-429-5957

MAP ID
LU

0
Distance from site (feet)

0
Distance from site (miles)

Direction from site

-X (Decimal Degrees)

Y (Decimal Degrees)

Tank ID	Installed Date	Tank Status	Status Date	Tank Capacity	UST / AST
1	08281998	Temporarily out of use	05211999	0004000	Above-ground

Compartment:
Capacity:
Substance: No Data
Other Substance: No Data

Tank Material:Steel
Other Tank Material:
Pipe Material:No Data
Other Pipe Material: